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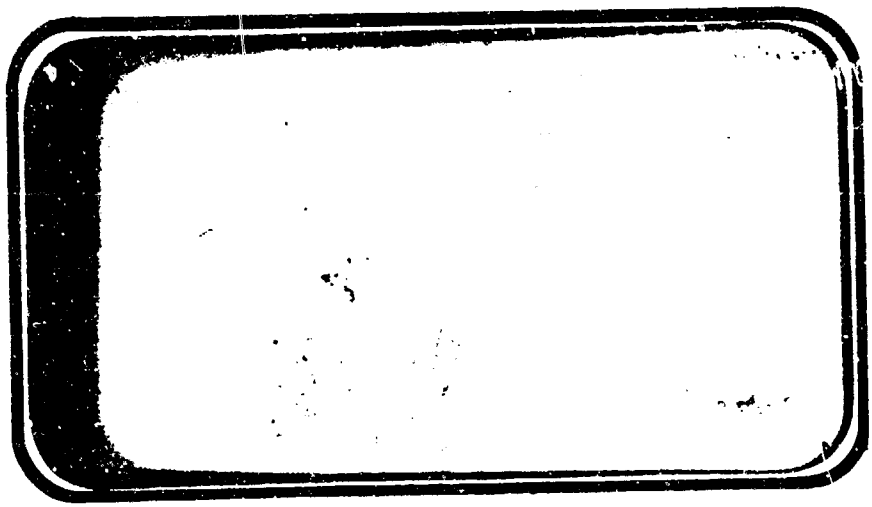

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION CHRYSLER CORPORATION

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SURFACE ROUGHNESS EFFECTS ON THE SUPERSONIC AERODYNAMICS OF THE ROCKWELL INTERNATIONAL 089B-139 ORBITER

By

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Prepared under NASA Contract Number NAS9-13247

by

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New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFIC

Test Numbers: UPWT 1023 & 1034
NASA Series No.: LA-8/LA-8A
Date: April 18-24, May 7-16, 1973 (115 Occ. Hrs.)

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SURFACE ROUGHNESS EFFECTS ON THE SUPERSONIC AERODYNAMICS OF THE ROCKWELL INTERNATIONAL 089B-139 ORBITER

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SUMMARY

An experimental test program has been conducted to determine the effects of vehicle surface roughness on the supersonic aerodynamic characteristics of a 0.01875 scale model of a Rockwell International space shuttle configuration. Surface roughness was simulated by applying a sparse coating of carborundum grit to complete model. Various grit sizes were investigated. The tests were conducted in the Langley Unitary Plan Wind Tunnel at Mach numbers from 1.60 to 4.63. The angle of attack was varied from about -2° to as much as 42° at 0° and ±3° of sideslip. The angle of sideslip was varied from -8° to 8° at angles of attack from 0° to 40°.

These tests were two in a series of several tests to determine the effects of surface roughness on the orbiter aerodynamic characteristics over the complete Mach number range. Data Management System reports covering the other data are:

DMS-DR-2056	Low speed results, M = .25
DMS-DR-2040	Transonic results, M = .35 to 1.20
DMS-DR-2079	Hypersonic results, M = 6

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COEFFICIENT SCHEDULE:

A: CA, CN, CL, CLM, L/D, CD, CPC, CPB, CPB2, CPB1 vs. ALPHA

CN vs. CLM, CL vs. CLM, CD vs. CL

B: CA, CN, CL, CLM, L/D, CD vs. ALPHA

CN vs. CLM, CL vs. CLM, CD vs. CL

C: DCY/DB, DCBLDB, DCYNDB vs. ALPHA

CY, CYN, CBL vs. ALPHA

D: CY, CYN, CBL vs. BETA

E: DCY/DA, DCYNDA, DCBLDA vs. ALPHA

CY, CYN, CBL vs. ALPHA

NOMENCLATURE
General

SYMBOL	SADSAC SYMBOL	DEFINITION
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_l - p_\infty)/q$
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	BREF	wing span or reference span; m, ft
c.g.		center of gravity
ℓ_{REF} $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

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

NOMENCLATURE (Continued)

Body-Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
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; $\frac{\text{pitching moment}}{qSl_{REF}}$
C_n	CYM	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{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; $\frac{\text{pitching moment}}{qSl_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_l	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

SYMBOL	SADSAC SYMBOL	DEFINITION
$\delta_{eL_{I,O}}$		left inboard/outboard elevon surface deflection angle, positive deflection trailing edge down; degrees.
$\delta_{eR_{I,O}}$		right inboard/outboard elevon surface deflection angle, positive deflection trailing edge down; degrees.
δ_e	ELEVTR	elevator, surface deflection angle, positive deflection trailing edge down, degrees, $(\delta_{eL_{I,O}} + \delta_{eR_{I,O}})/2$
δ_a	AILRON	aileron, aileron deflection angle, degrees, $(\delta_{eL_O} - \delta_{eR_O})/2$
	GT-LOC	grit location (refer to Test Conditions).
K	K	roughness height.
K/ℓ	K/L	ratio of roughness to model body length.
	ALPSWP	direction of alpha sweep, 1.0 = negative to positive sweep, 2.0 = positive to negative sweep.
	CPC	cavity pressure coefficient.
	CPB	base pressure coefficient for UPWT 1034.
	CPB1,CPB2	base pressure coefficients for UPWT 1023.
C_{Y_β}	DCY/DB	side force coefficient derivative with respect to beta. Algebraic difference of the side force coefficient of two runs divided by the algebraic difference of the side slip angle of the runs; per degree.
C_{n_β}	DCYNDB	yawing moment coefficient derivative with respect to beta. Algebraic difference of the yawing moment coefficient of two runs divided by the algebraic difference of the side slip angle of the runs; body axis system; per degree.

NOMENCLATURE (Concluded)

SYMBOL	SADSAC SYMBOL	DEFINITION
C_{ℓ_β}	DCBLDB	rolling moment coefficient derivative with respect to beta. Algebraic difference of rolling moment coefficient of two runs divided by algebraic difference of side slip angle of the runs; body axis system; per degree.
$C_{y_{\delta a}}$	DCY/DA	side force coefficient derivative with respect to total aileron deflection. Algebraic difference of the side force coefficients of two runs divided by the algebraic difference of the total aileron deflection angle of the runs; per degree.
$C_{\ell_{\delta a}}$	DCBLDA	rolling moment coefficient derivative with respect to total aileron deflection. Algebraic difference of the rolling moment coefficient of two runs divided by the algegraic difference of the total aileron deflection angle of t runs; body axis system; per degree.
$C_{n_{\delta a}}$	DCYNDA	yawing moment coefficient derivative with respect to total aileron deflection. Algebraic difference of the yawing moment coefficient of two runs divided by the algebraic difference of the total aileron deflection angle of the runs; body axis system; per degree.

TEST FACILITY DESCRIPTION

The NASA LaRC 4 Foot Unitary Plan Wind Tunnel (UPWT) is a closed-circuit, continuous flow, variable density facility. The test section is 4 feet by 4 feet long.

Two tunnel legs are available for supersonic testing in the Mach number ranges 1.47 to 2.86 (Leg No. 1) and 2.29 to 4.63 (Leg No. 2). Both tunnel legs were used for this test. An asymmetric, sliding block nozzle position and total pressure setting provide the test Mach numbers at a specified Reynolds number. Reynolds number can be varied from 0.76 to 7.78 million per foot. Available stagnation pressure variation is 4.0 to 142. psia. Dynamic pressure variation is 95. to 1260. psf with normal operating stagnation temperature about 150°F in Mach modes 2 or 3 and about 175°F in Mach mode 4. The tunnel is equipped with a dry air supply, an evacuating system, and a cooling system. The facility power is approximately 83,000 horsepower.

Model mounting provisions consist of various sting arrangements, including axial (longitudinal), lateral (independent pitch and yaw), and roll movement with side wall support. A Schlieren system and oil flow visualization equipment are available. Data are recorded at the tunnel and reduced off-line at the Langley Computer Center. The tunnel is used for force and moment, pressure, and dynamic stability tests. Hot and cold jet effects and heat transfer have been studied in the UPWT.

TEST CONDITIONS

Tunnel conditions existing during the test are summarized in Table I. The model was sting supported, and the aerodynamic forces and moments were measured by an internally mounted six-component strain gage balance. Model angle of attack was varied from about -2^{o} to as much as 42^{o}. Reynolds number was held constant at 1.5×10^{6} per foot for M = 1.6, 1.9, and2.36 and 2.5×10^{6} for M = 4.63.

Vehicle roughness was simulated by applying a relatively sparse coating of carborundum grit over the complete model. This overall roughness is referred to acreage roughness (grit location no. 1). For comparison purposes, the model was also tested with no fixed transition and with transition fixed in the normal manner by thin strips of no. 46 grit .25 inches aft of the leading edge of the wing, vertical tail, and 1.0 inch aft of the nose (grit location no. 2). As a most extreme case, grit was applied to one-half of the model and the other half was left clean (grit location 3). The grit size and the type of application are indicated in the following table.

GRIT NO.	K, in.	K/ℓ	TYPE	GRIT LOCATION NO.
46	.0165	6.82×10^{-4}	Normal Trans. Strips	2
46	.0165	6.82×10^{-4}	Acreage	1
46	.0165	6.82×10^{-4}	Acreage on 1/2	3

CONFIGURATION INVESTIGATED

The configuration tested was a 0.01875 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 and a photograph of the model are shown in figures 2 and 3, respectively. Most of the supersonic tests were made with the rudder flared to form a 10°/40° wedge vertical tail. Tests were made with 0° and -20° elevon deflections and with 10° of aileron superimposed on -20° elevon deflection.

DATA REDUCTION

A LaRC 832-B six-component strain gage balance was used to measure model forces and moments. All final data were presented along a set of body and stability axes passing through the nominal center of gravity located at F.S. 1076.48 or 65 percent of the body length. Model data were converted to standard NASA Coefficients using the following constants.

Reference Area, S_{ref} = wing planform area = 0.0457 ft.^{2}

Reference Length, $\bar{c}_{ref}$ = wing mean aerodynamic chord = 8.9025 in.

Reference Span, b_{ref} = wing span = 17.5628 in.

Vehicle surface roughness was nondimensionalized by the model body length, ℓ = 24.193 in. The drag data presented herein is gross drag in that base drag is included. Tabulated base pressure coefficients are presented however, if corrections are desired.

TABLE I.

TEST : UPWT 1023 & 1034			DATE :
TEST CONDITIONS			
MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
1.60	1.5×10^6	2.500	
1.90	1.5×10^6	2.500	
2.36	1.5×10^6	2.333	
4.63	2.5×10^6	2.014	

BALANCE UTILIZED: 832-B

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	1000 lb	± 5.00 lb	
SF	250 lb	± 1.25 lb	
AF	85 lb	± 0.43 lb	
PM	2000 in-lb	± 10.00 in-lb	
RM	1000 in-lb	± 5.00 in-lb	
YM	500 in-lb	± 2.50 in-lb	

COMMENTS:

TABLE II.

TEST : UPWT 1023 (LA-8) DATA SET/RUN NUMBER COLLATION SUMMARY DATE :

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	δ_{e_L}	δ_{e_R}	CENT BOD.	K/L ×10⁴	NO. OF RUNS	MACH 2.36	MACH 4.63
RP6 001	QRB 089B W/MOD.	A	0	0/0	0/0	2	6.82		1	12
02	NOSE	B	0			2			4	15
03		A	3			2			3	14
04		B	3			2			2	13
05		A	0			1			47	49
06		A	-3			1			48	50
07		A	0			3			43	45
08		A	-3			3			44	46
09		A				—	—		53	51
10		A	-3			—	—		54	52
11		A	0	-20/-10	-20/-30	—	—		55	57
12		A	-3			—	—		56	58
13		A	0			3	6.82		32	22
14		B	0			3			35	25
15		A	-3			3			34	24
16		B	-3			3			33	23
17		0	A	0/0	0/0	2			9	21
18		10	A	0/0	0/0	2			8	20

TEST RUN NUMBERS

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

ID VAR (1) ID VAR (2) NDS

α OR β SCHEDULES

COEFFICENTS

α sch. A) $-4° \rightarrow 40°$, $\Delta\alpha = 2°$
B) $40° \rightarrow -4°$

β sch A) $-6° \rightarrow 8°$, $\Delta\beta = 2°$
B) $8° \rightarrow -6°$

TABLE II. (Continued)

TEST: UPWT 1023 (LA-8) DATA SET/RUN NUMBER COLLATION SUMMARY DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES	NO. OF RUNS	MACH NUMBERS 2.36	MACH NUMBERS 4.63
RP6019	ORB. 089B w/MOD.	20	A	δ_{e_L} 0/0 δ_{e_R} 0/0 GRIT LDG 2 K/L$_4$ x10^4 6.82		7	19
20	NOSE	30	A			6	17
21		30	B			11	18
22		40	A			5	16
23		0	A	-20/-10 -20/-20 3		42	31
24		10	A			41	30
25		20	A			40	29
26		30	A			39	27
27		30	B			38	28
28		40	A			36	26

TEST RUN NUMBERS

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

COEFFICENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

TABLE II. (Continued)

TEST: UPWT 1034 (LA-8N) DATA SET/RUN NUMBER COLLATION SUMMARY DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_{SCH}	PARAMETERS/VALUES δ_{SCH}	PARAMETERS/VALUES GRIT LOC	PARAMETERS/VALUES K/L x 10^4	NO. OF RUNS	MACH NUMBERS 1.6	MACH NUMBERS 1.9	TEST RUN NUMBERS
RP6101	ORB OPS w/Mod	A	0	0/0	0/0	2	6.82	2	23	25	
102	Nose		3			2			24	26	
103			0			1			1	3	
104			3			1			2	4	
105			0			—	—		19	21	
106			3			—	—		20	22	
107			0	-20/-10	-20/-30	—	—		15	17	
108			3			—	—		16	18	
109			0			1	6.82		5	7	
110			3			1			6	8	
111			0			3			9	12	
112			3			3			10	13	
113			-3			3			11	14	
114			0	0/0	0/0	2			53	59	
115			3	0/0	0/0	2			54	60	
116			0	-10/-10	-10/-10	2		2	27	33	
117			3			2		1	28		
118			3			2		1		34	

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

IDVAR (1) IDVAR (2) ND

α OR β SCHEDULES

COEFFICENTS

α_{SCH} A) $-2° \rightarrow 24°$, $\Delta\alpha = 2°$

β_{SCH} A) $-6° \rightarrow 8°$, $\Delta\beta = 2°$

TABLE II. (Continued)

TEST : UPWT 1034 (LA-8A) DATA SET/RUN NUMBER COLLATION SUMMARY DATE :

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES	NO. OF RUNS	MACH NUMBERS 1.6	MACH NUMBERS 1.9	TEST RUN NUMBERS
RP6119	ORB OMS W/MOD	A	0	I_{SOL} -10/0; I_{SOR} -10/-20; CRIT LOC 2; KL x 10⁴ 6.82	2	40	46	
120	NOSE	A	3		1	41		
121		A	-3		1		47	
123		0	A	0/0	2	55	61	
123		5				56	62	
124		10				57	63	
125		15				58	64	
126		20					65	
127		0		-10/-10	2	29	35	
128		5				30	36	
129		10				31	37	
130		15				32	38	
131		20					39	
132		0		-10/0	2	42	48	
133		5		-10/-20		43	49	
134		10				44	50	
135		15				45	51	
136		20			1		52	

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

COEFFICENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

TABLE III.
MODEL COMPONENT 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

DRAWING NUMBER: VL70-000093

DIMENSIONS:	FULL-SCALE	.01875 MODEL SCALE
Length	1290.3	24.193
Max. Width	265.0	4.969
Max. Depth	248.0	4.650
Fineness Ratio	4.869	4.869
Area		
Max. Cross-Sectional	456.40	0.1605
Planform		
Wetted		
Base		

TABLE III. (CONTINUED)

MODEL COMPONENT: ELEVON

GENERAL DESCRIPTION: CONFIGURATION PER LINES VL70-000093

DATA FOR (1) OF (2) SIDES

MODEL SCALE = 0.01875

DRAWING NUMBER: VL70-000093

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area	205.517	0.0723
Span (equivalent)	353.34	6.625
Inb'd equivalent chord	114.78	2.152
Outb'd equivalent chord	55.00	1.031
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	.208	.208
At Outb'd equiv. chord	.400	.400
Sweep Back Angles, degrees		
Leading Edge	0.00	0.00
Tailing Edge	-10.02	-10.02
Hingeline	0.00	0.00
Area Moment (Normal to hinge line)- Ft^3	1548.07	0.0102

TABLE III. (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 = 0.01875

DRAWING NUMBER: VL70-000093

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area		
Planform	2690.00	0.9437
Wetted	--------	--------
Span (equivalent)	936.68	17.56
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	12.923
Tip, (equivalent)	137.85	2.585
MAC	474.81	8.903
Fus. Sta. of .25 MAC	1136.89	21.317
W.P. of .25 MAC	299.20	5.610
B.L. of .25 MAC	182.13	3.415
Airfoil Section		
Root		
Tip		
EXPOSED DATA		
Area	1752.29	0.6160
Span, (equivalent)	720.68	13.513
Aspect Ratio	2.058	2.058
Taper Ratio	0.2451	0.2451
Chords		
Root	562.40	10.545
Tip	137.85	2.585
MAC	393.03	7.369
Fus. Sta. of .25 MAC	1185.31	22.224
W.P. of .25 MAC	300.20	5.629
B.L. of .25 MAC	143.76	2.700

TABLE III. (CONTINUED)

MODEL COMPONENT: Vertical Tail

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

Scale Model = 0.01875

DRAWING NUMBER: VL70-000095

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area (theo) ft.^{2}	413.25	0.145
Span (equivalent)	315.72	5.920
Inb'd equivalent chord	268.50	5.034
Outb'd equivalent chord	108.47	2.034
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord		
At Outb'd equiv. chord		
Sweep Back Angles, degrees		
Leading Edge	45	45
Tailing Edge	26.249	26.249
Hingeline		
Area Moment (Normal to hinge line)		

TABLE III. (CONCLUDED)

MODEL COMPONENT: RUDDER

GENERAL DESCRIPTION: CONFIGURATION PER LINES VL70-000095

SCALE MODEL = 0.01875

DRAWING NUMBER: VL70-000095

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area	106.38	0.0374
Span (equivalent)	201.0	3.769
Inb'd equivalent chord	91.585	1.717
Outb'd equivalent chord	50.833	0.953
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400.
Sweep Back Angles, degrees		
Leading Edge	34.83	34.83
Tailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line)-Ft^3	526.125	0.0034

Notes:

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

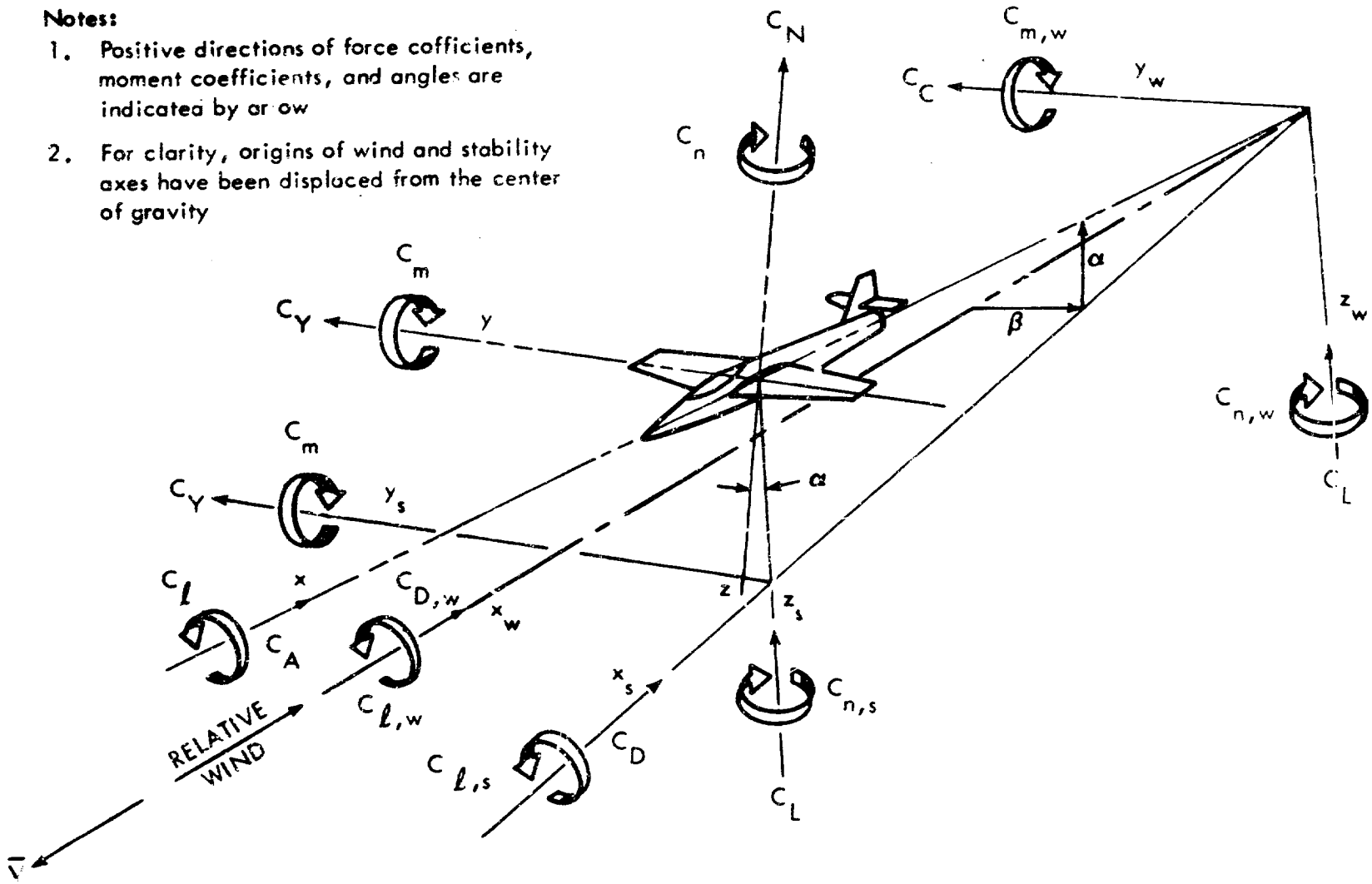
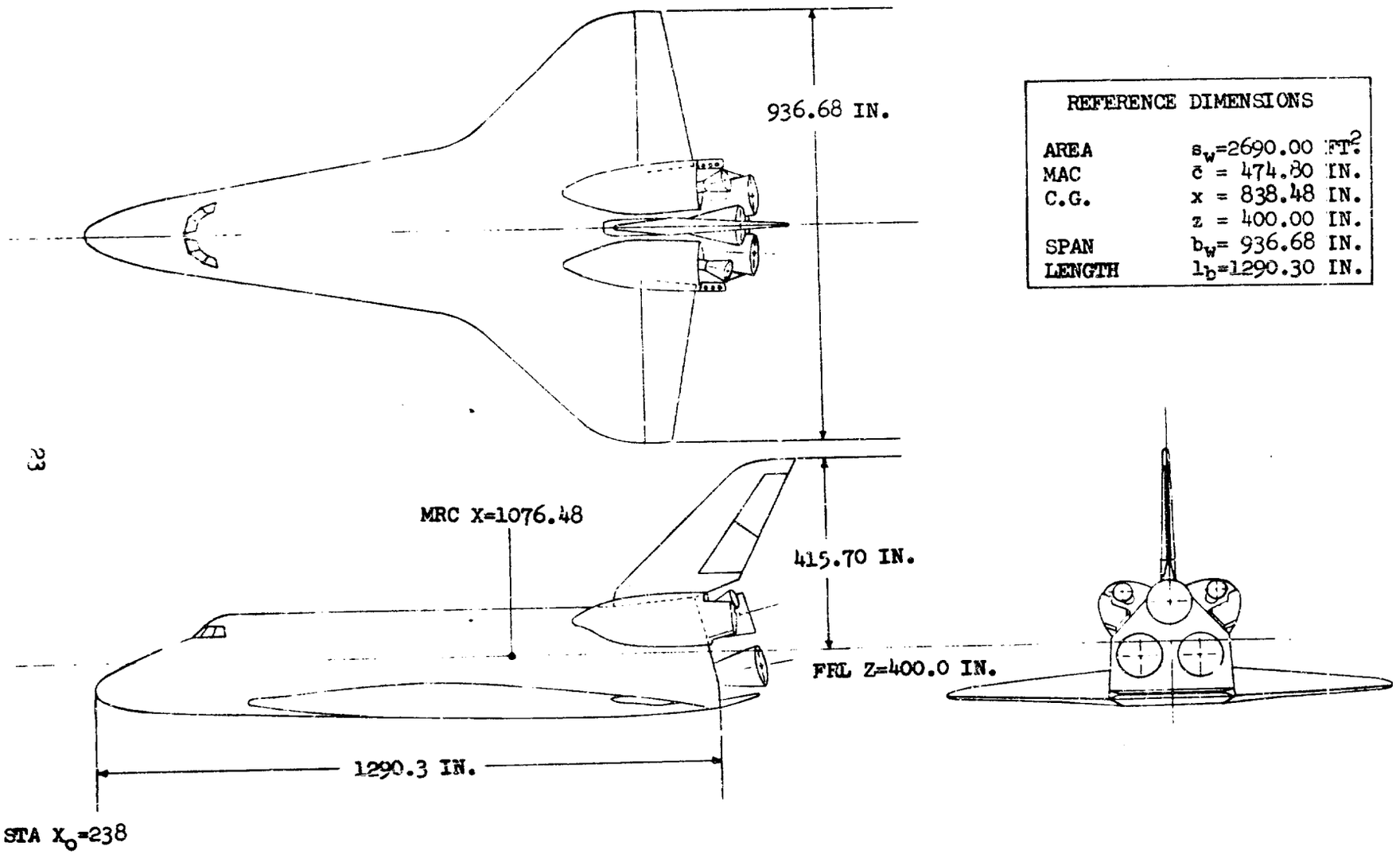


Figure 1. - Axis Systems.



REFERENCE DIMENSIONS	
AREA	s_w=2690.00 FT^2.
MAC	$\bar{c}$ = 474.80 IN.
C.G.	x = 838.48 IN.
	z = 400.00 IN.
SPAN	b_w= 936.68 IN.
LENGTH	l_b=1290.30 IN.

Figure 2. - SSV Orbiter Configuration.

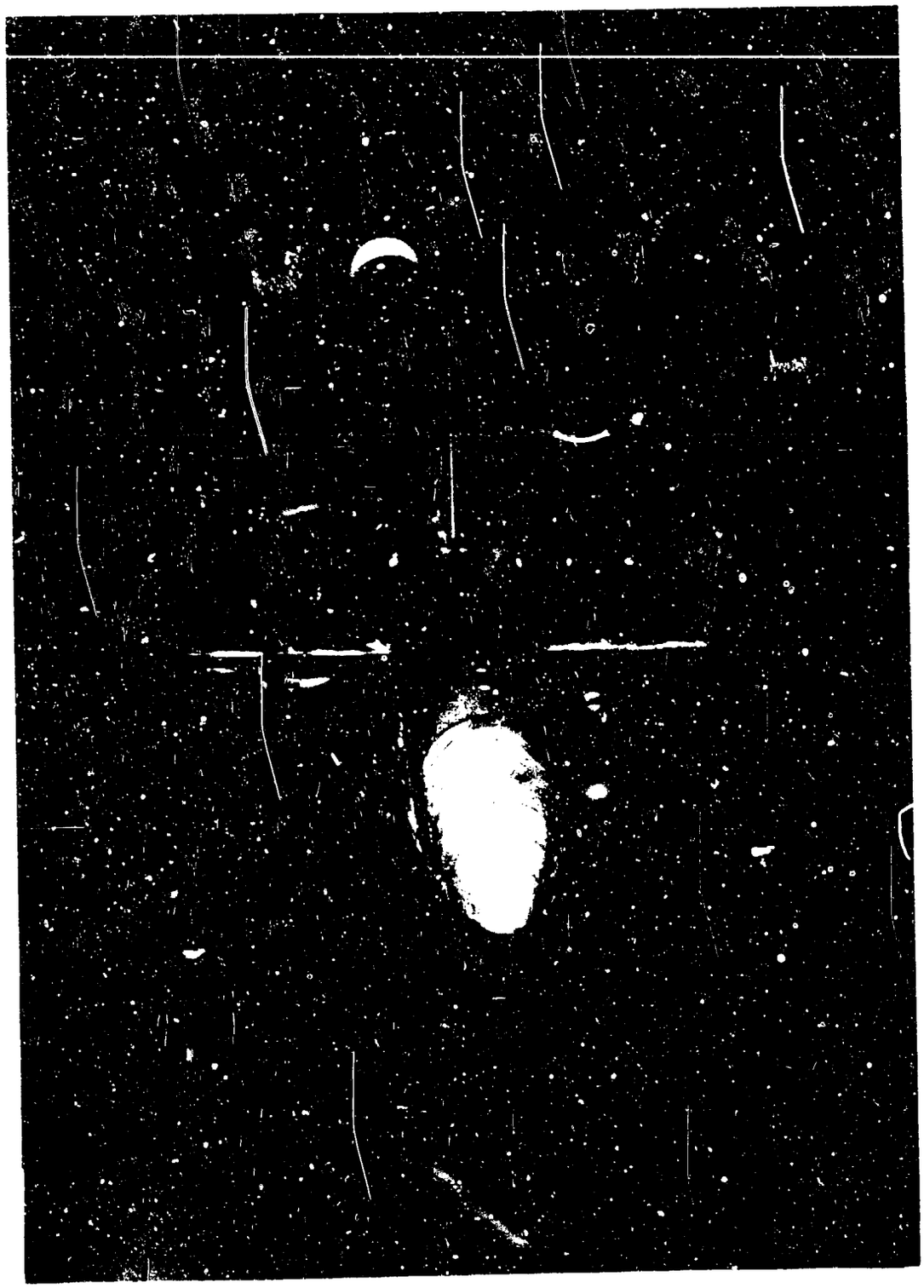


Figure 3. - Photograph of Model.

DATA FIGURES

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6105)	□	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6103)	□	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6101)	◇	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6007)	△	DATA NOT AVAILABLE

AILERON	ELEVTR	GT-LOC	M/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

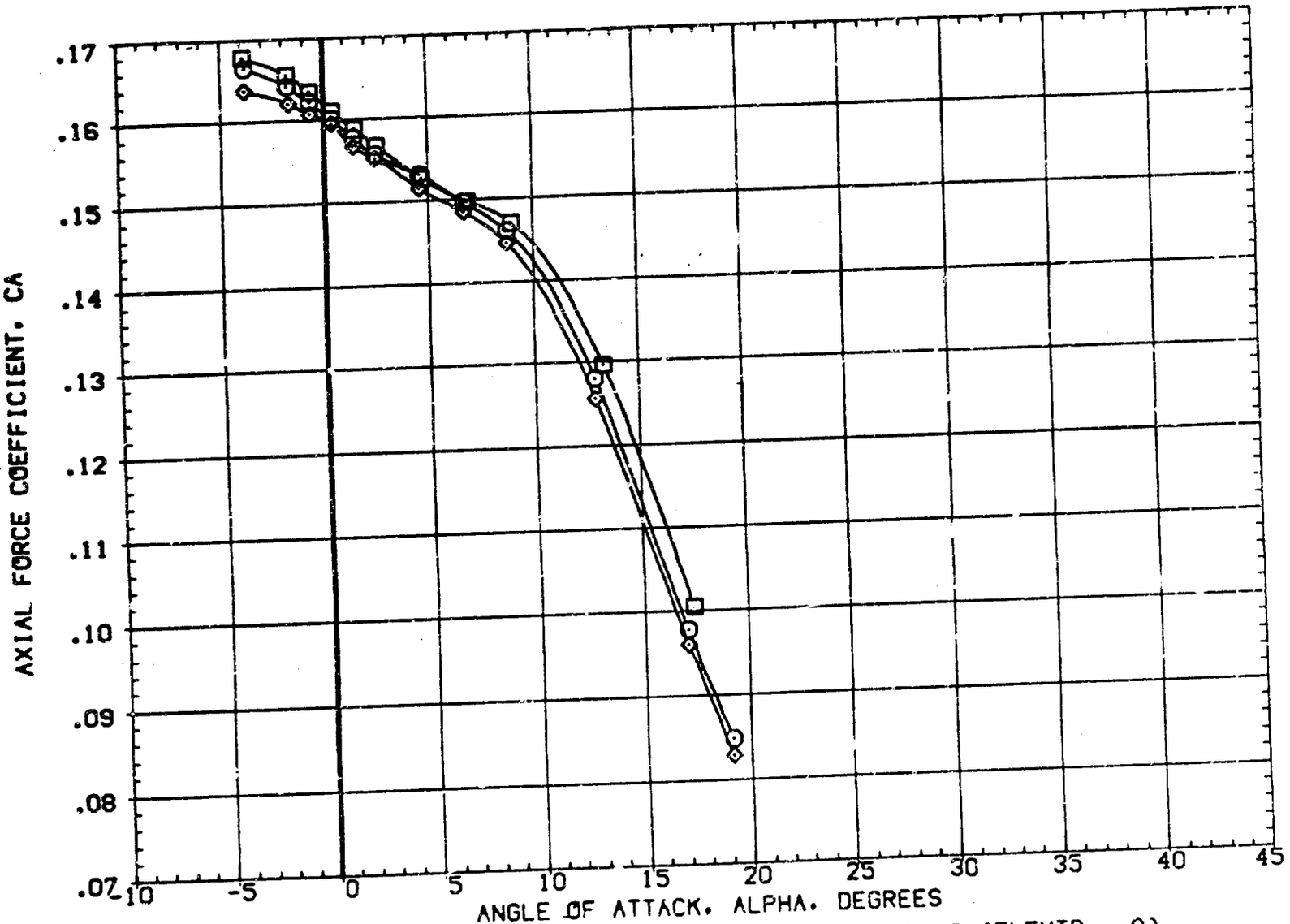


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6105)	□	LA-8/8A NAR 089/-MOD. NOSE ORBITER	.000	.000	1.000	.000
(LP6103)	◇	LA-8/8A NAR 08[illegible]-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(LP6101)	▷	LA-8/8A NAR 089B-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(LP6007)	△	DATA NOT AVAILABLE	.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9838	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

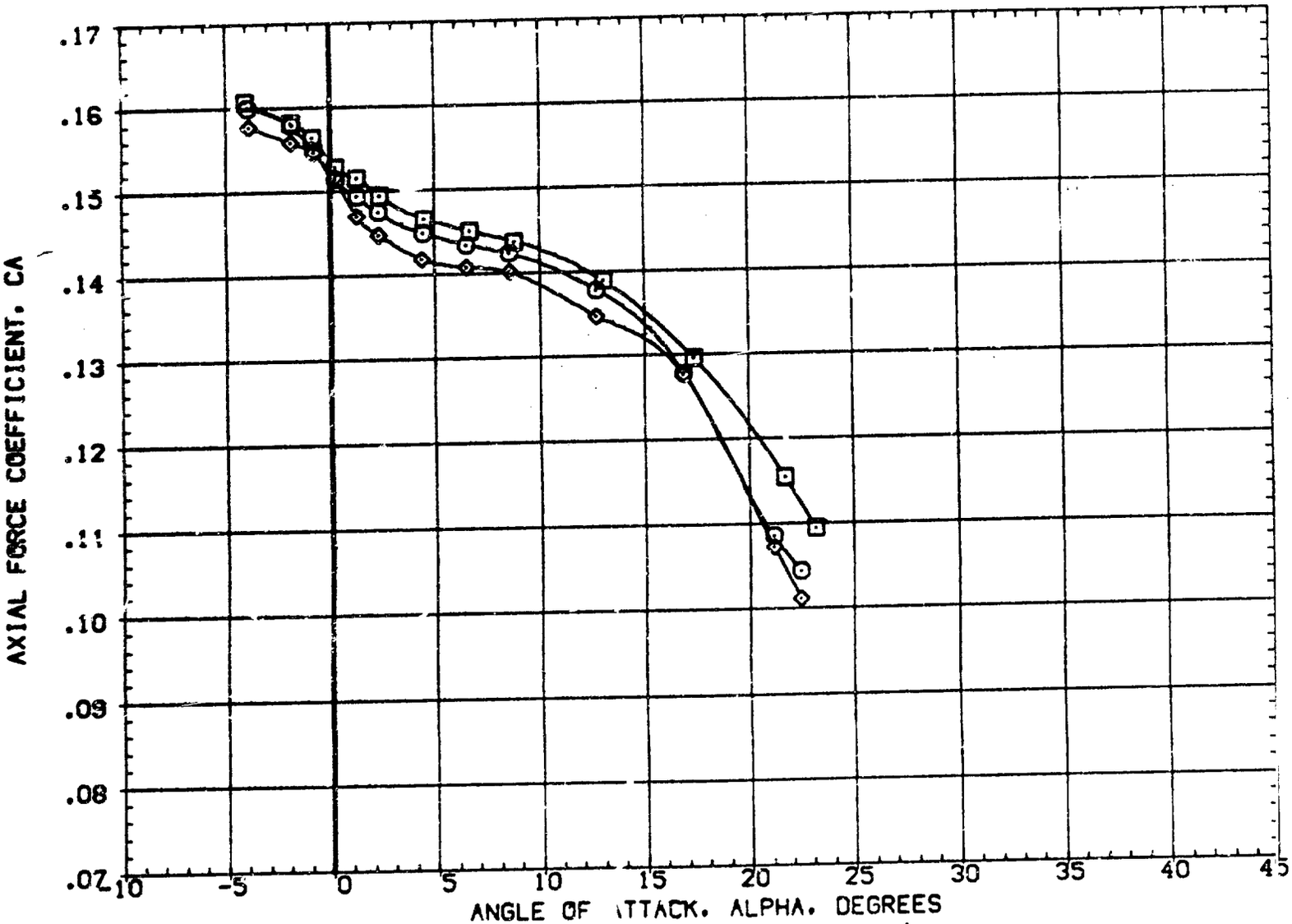


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	M/L
(CP6105) □	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.200	.000
(CP6103) ⊠	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(CP6101) ⊠	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6007) △	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

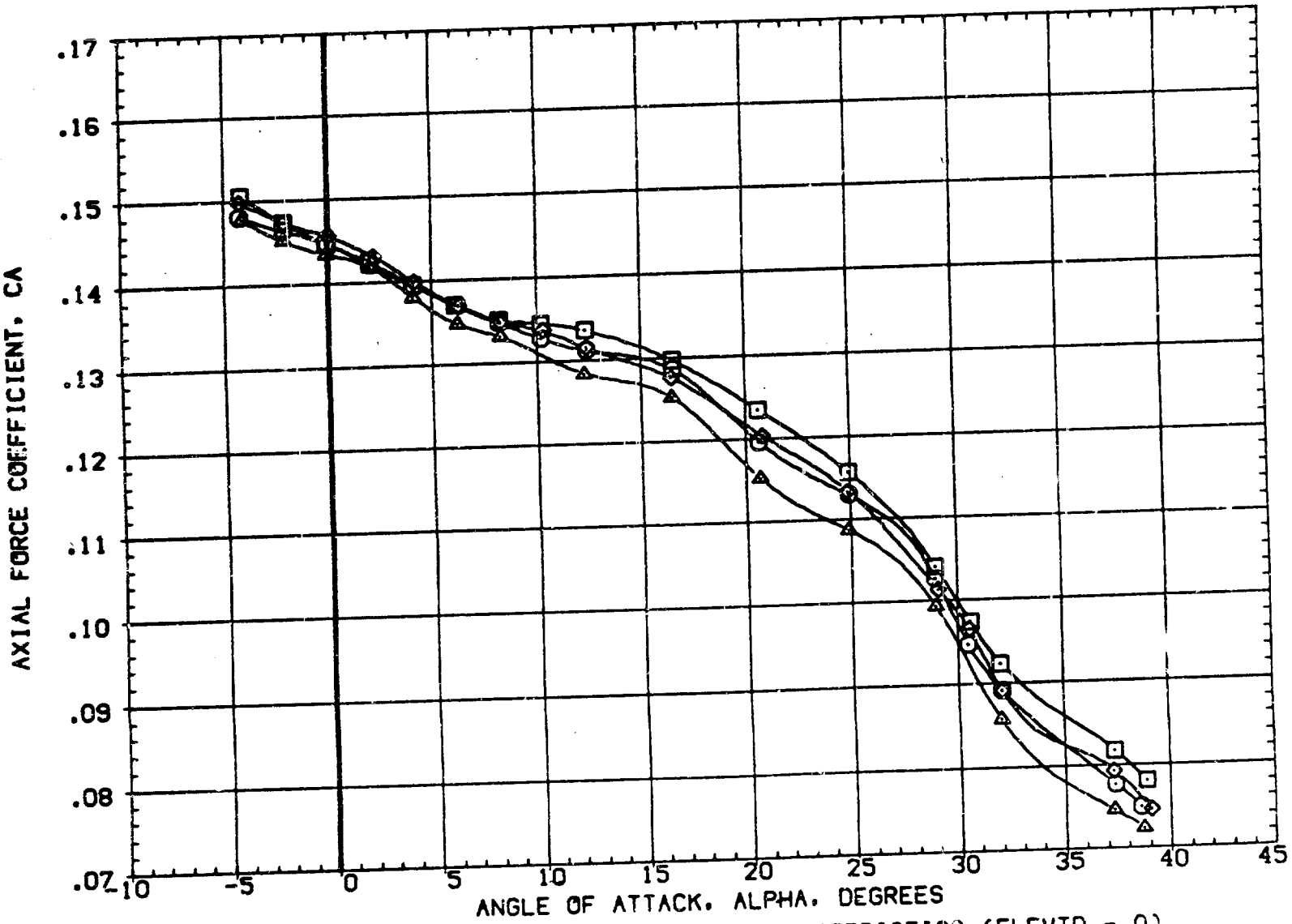


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(C)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6105)	○	LA-8/8A NAR 0898 +CD. NOSE ORBITER	.000	.000	1.000	.000
(LP6103)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(LP6101)	⊠	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(LP6J07)	△	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0186	SCALE

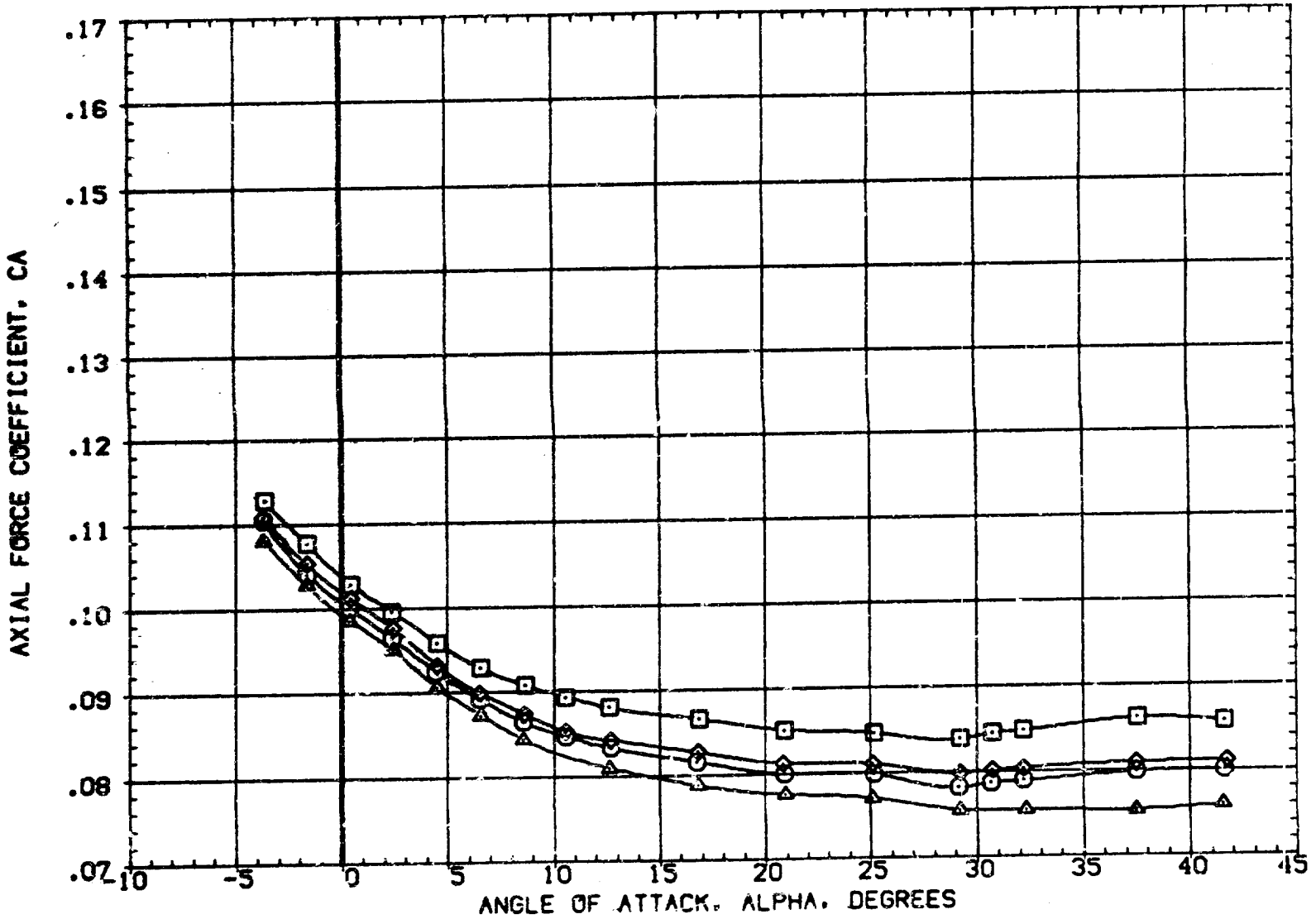


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(D)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6105)	□	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6103)	◇	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6101)	▽	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6007)	△	DATA NOT AVAILABLE

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

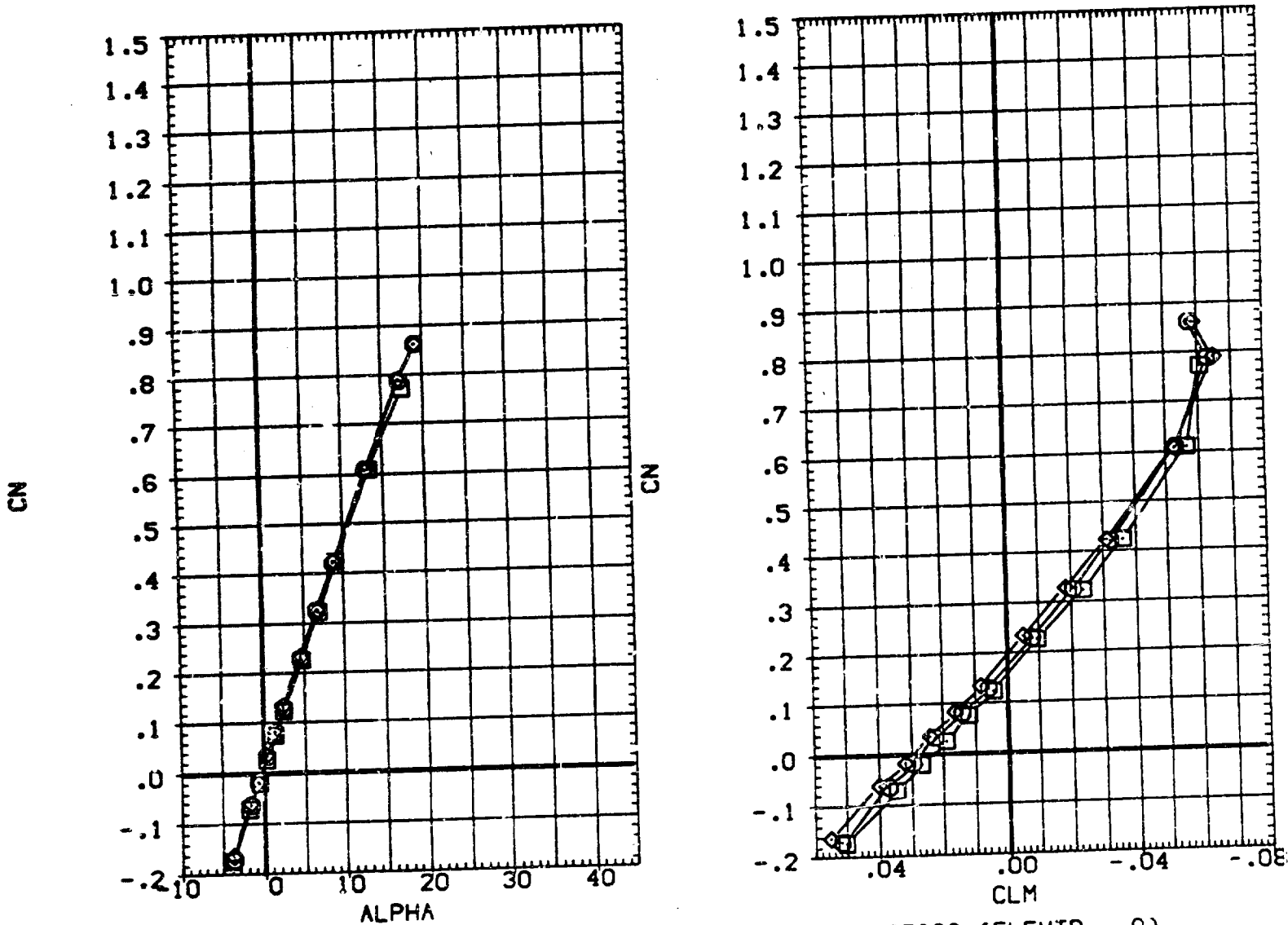


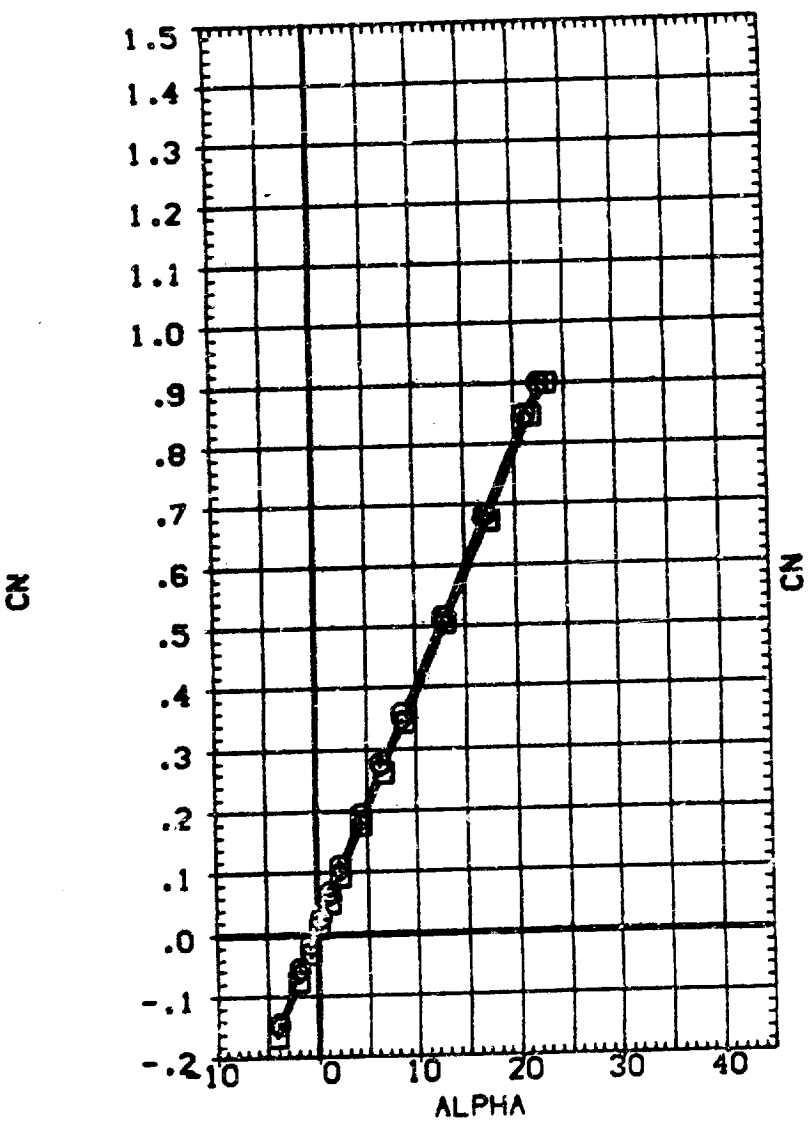
FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LP6105)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6103)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP5101)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6007)	△	DATA NOT AVAILABLE

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.050	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1308	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



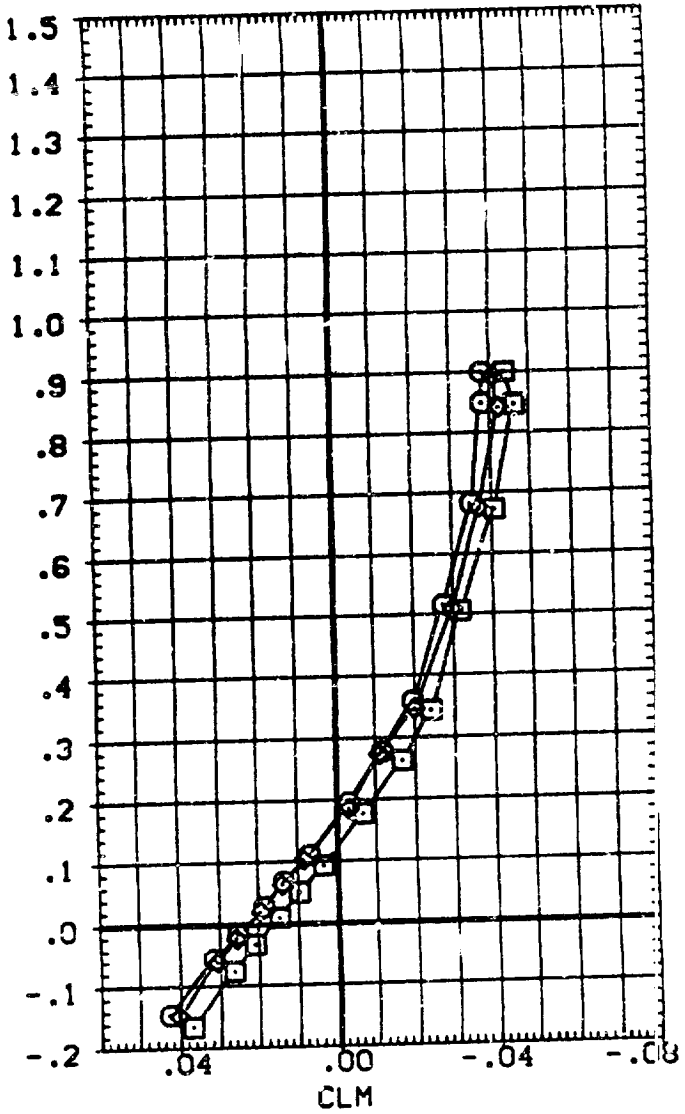


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LP6105)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6103)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6101)	▽	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6007)	△	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

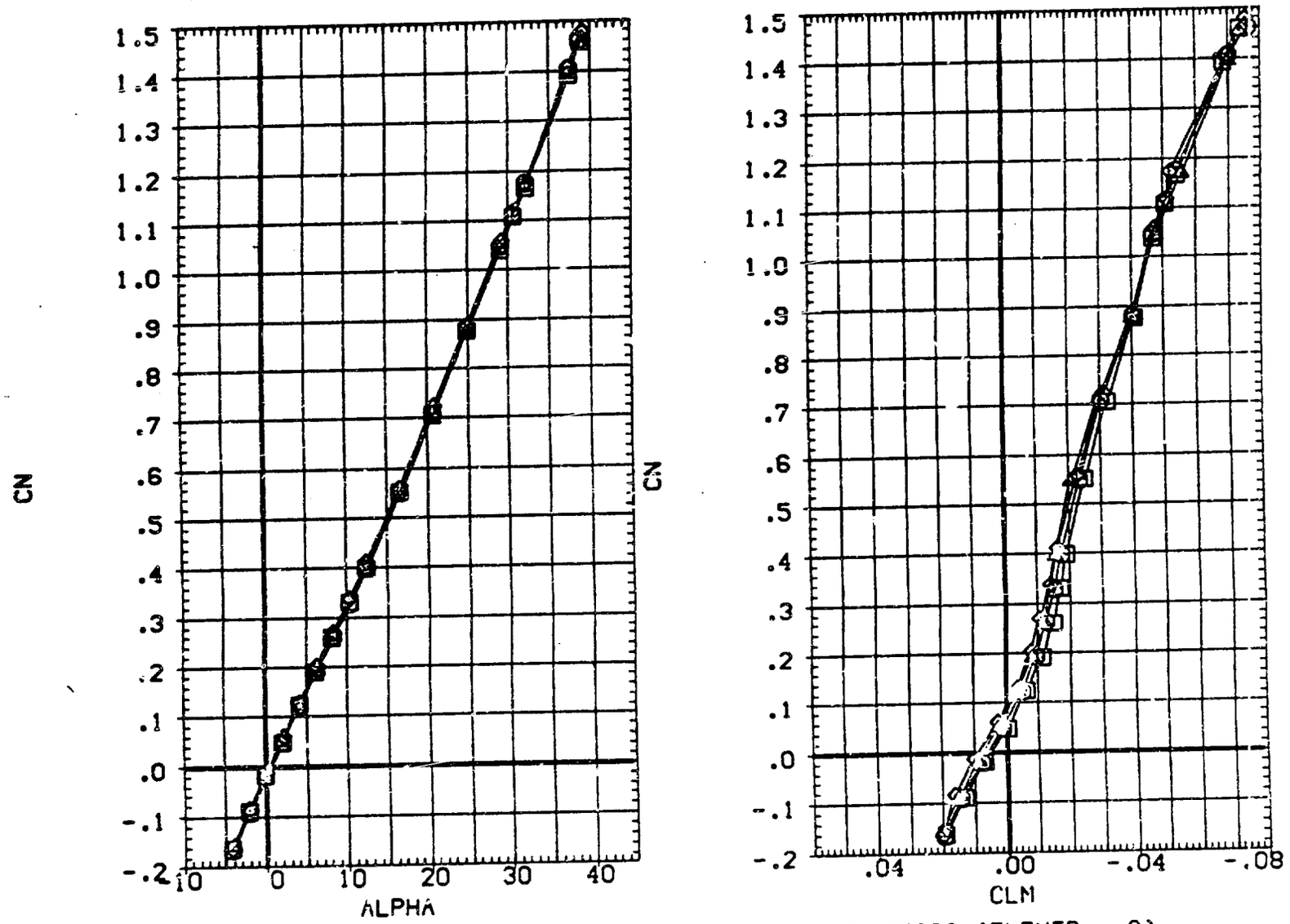


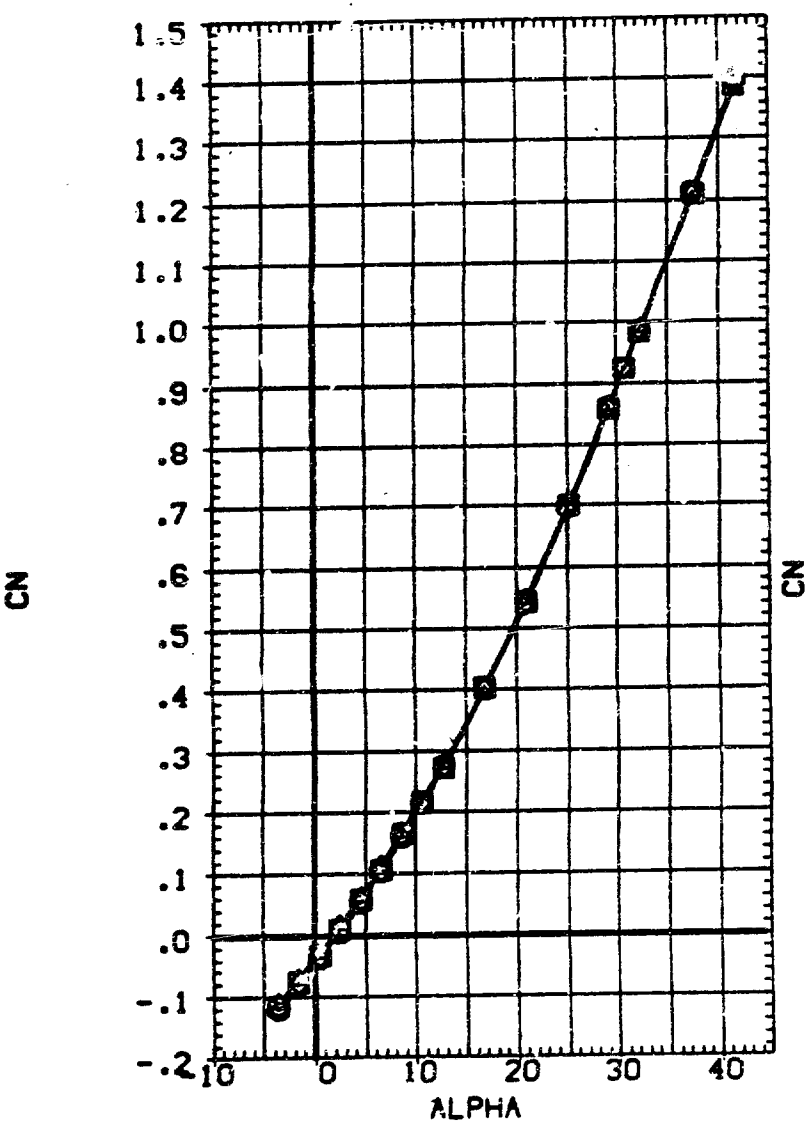
FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(C)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LP6105)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP61C3)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6101)	◇	LA-8/8A NAR 0896-MOD. NOSE ORBITER
(LP60C7)	△	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



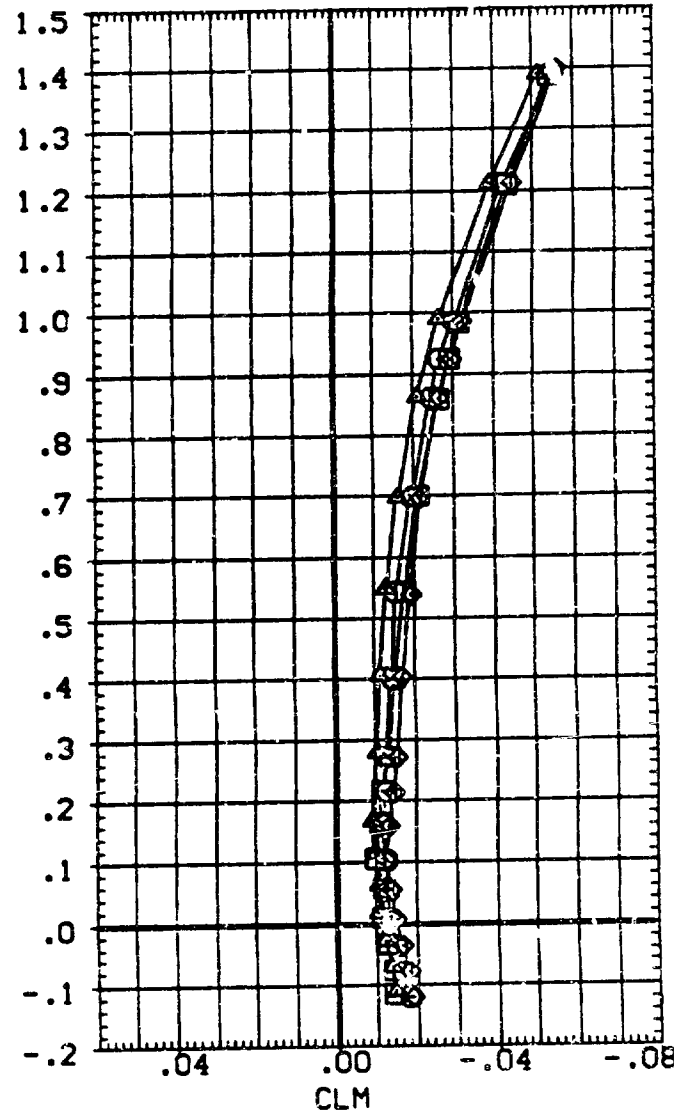


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(D)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6105)	□	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(LP6103)	▢	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(LP6101)	⊠	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(LP6007)	△	DATA NOT AVAILABLE

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
[illegible]	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

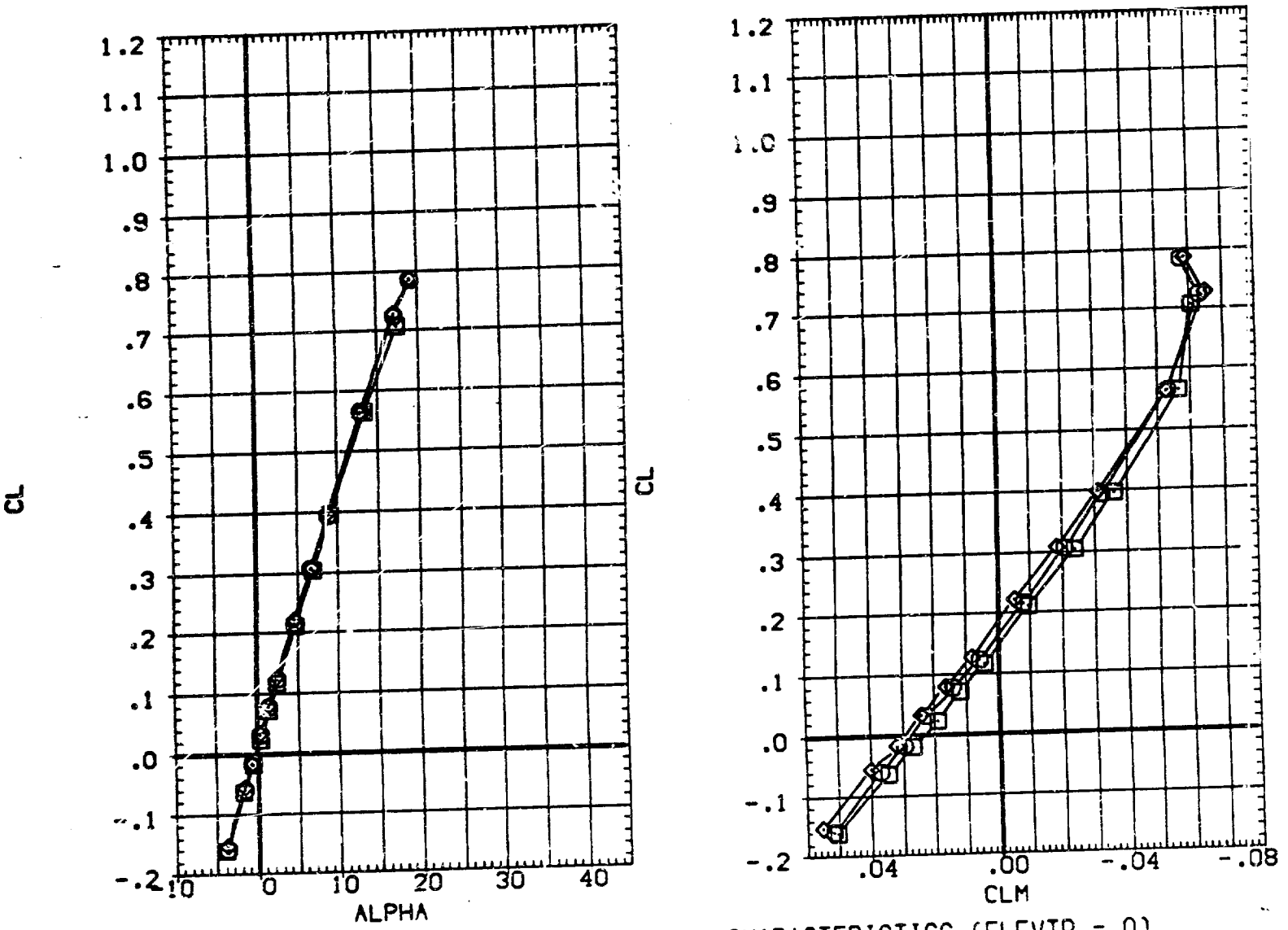


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LPS105)	○	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(LPS103)	□	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(LPS101)	⋈	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(LPS007)	△	DATA NOT AVAILABLE

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1800	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

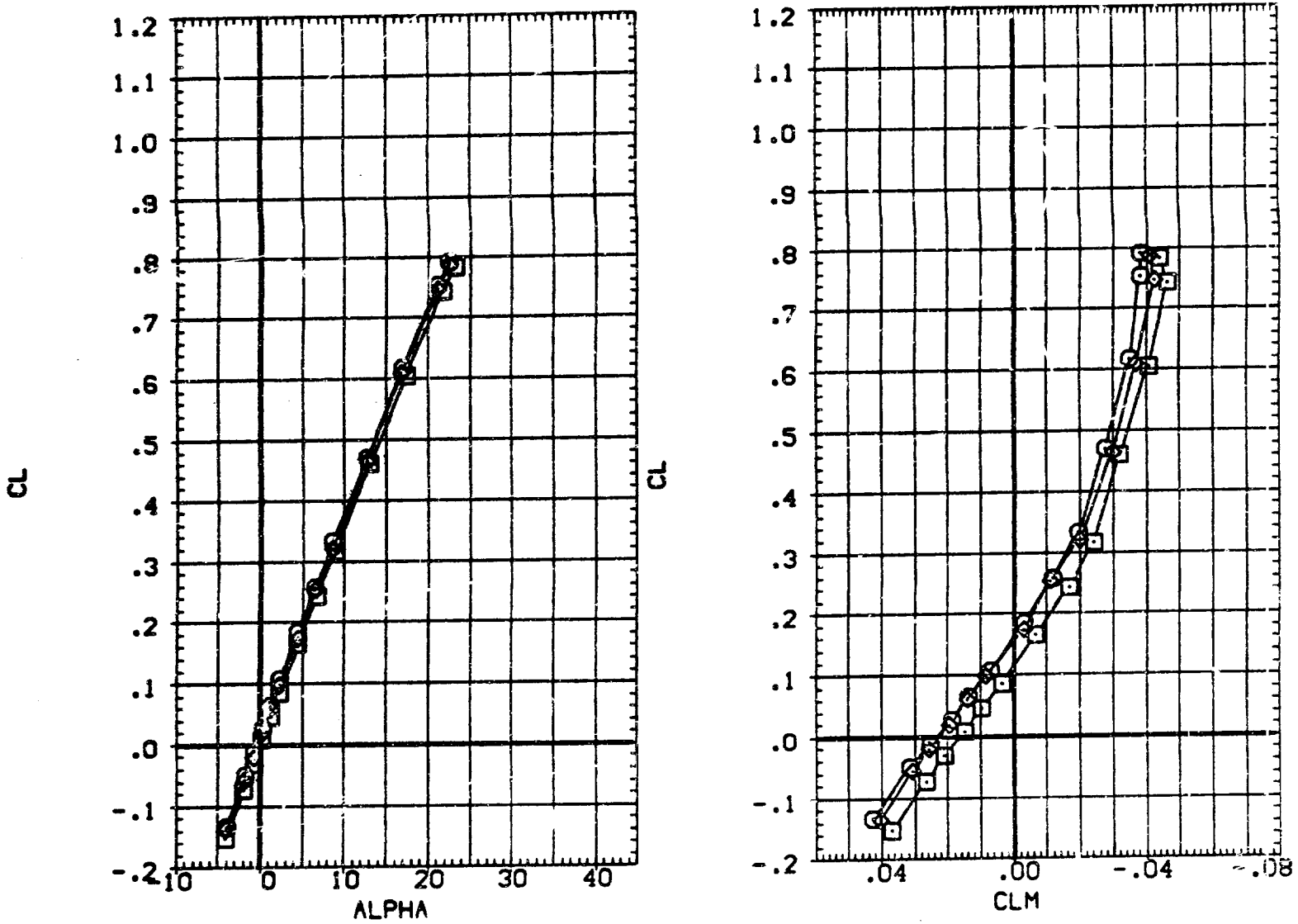


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 1.90

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6105)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6103)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6101)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6007)	△	LA-8/6A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

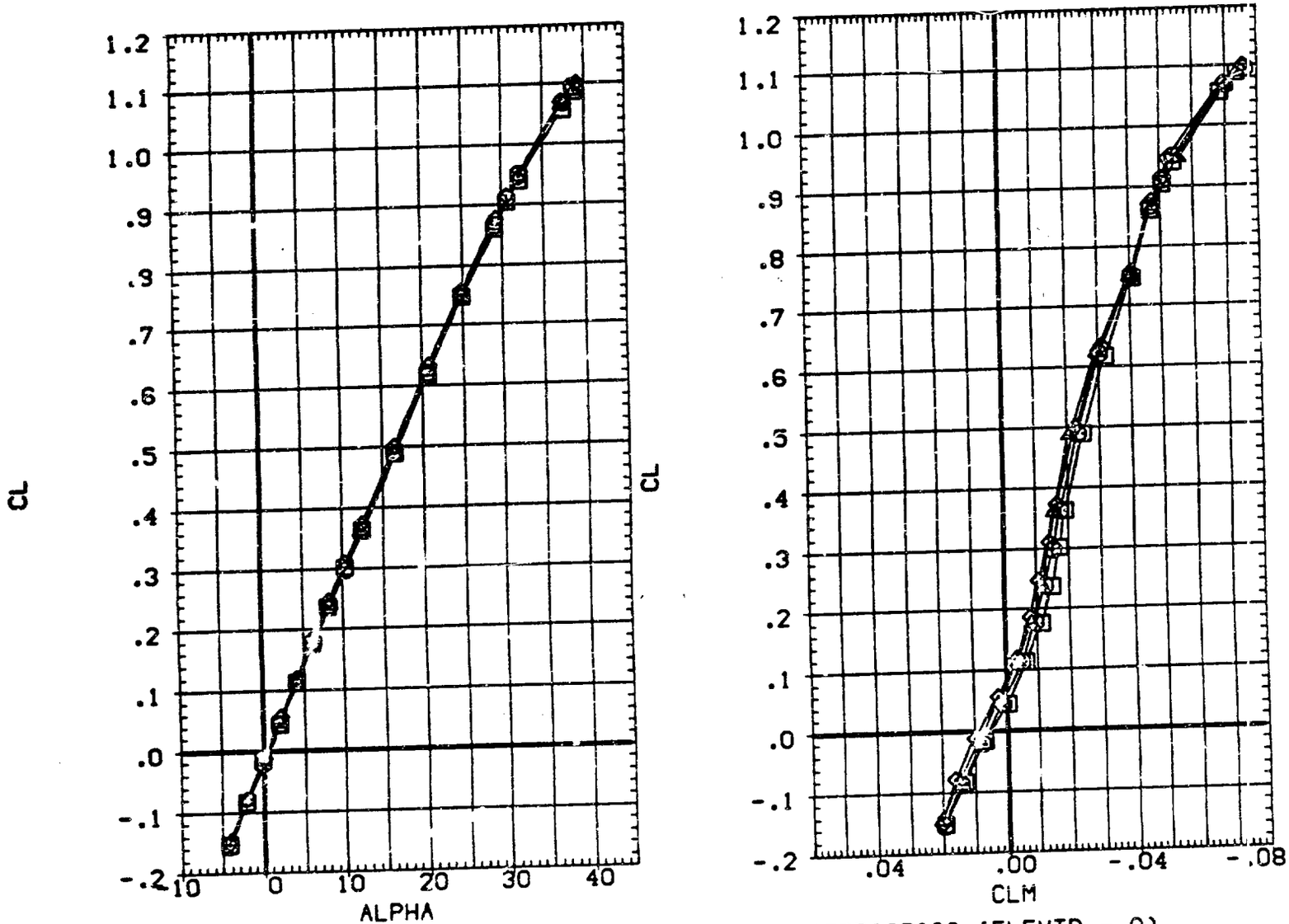


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(C)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6105)	□	LA-8/8A NAR 089B-M00. NOSE ORBITER	.000	.000	1.000	.000
(LP6103)	⊠	LA-8/8A NAR 089B-M00. NOSE ORBITER	.000	.000	1.000	6.820
(LP6101)	⊠	LA-8/8A NAR 089B-M00. NOSE ORBITER	.000	.000	2.000	6.820
(LP6007)	△	LA-8/8A NAR 089B-M00. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

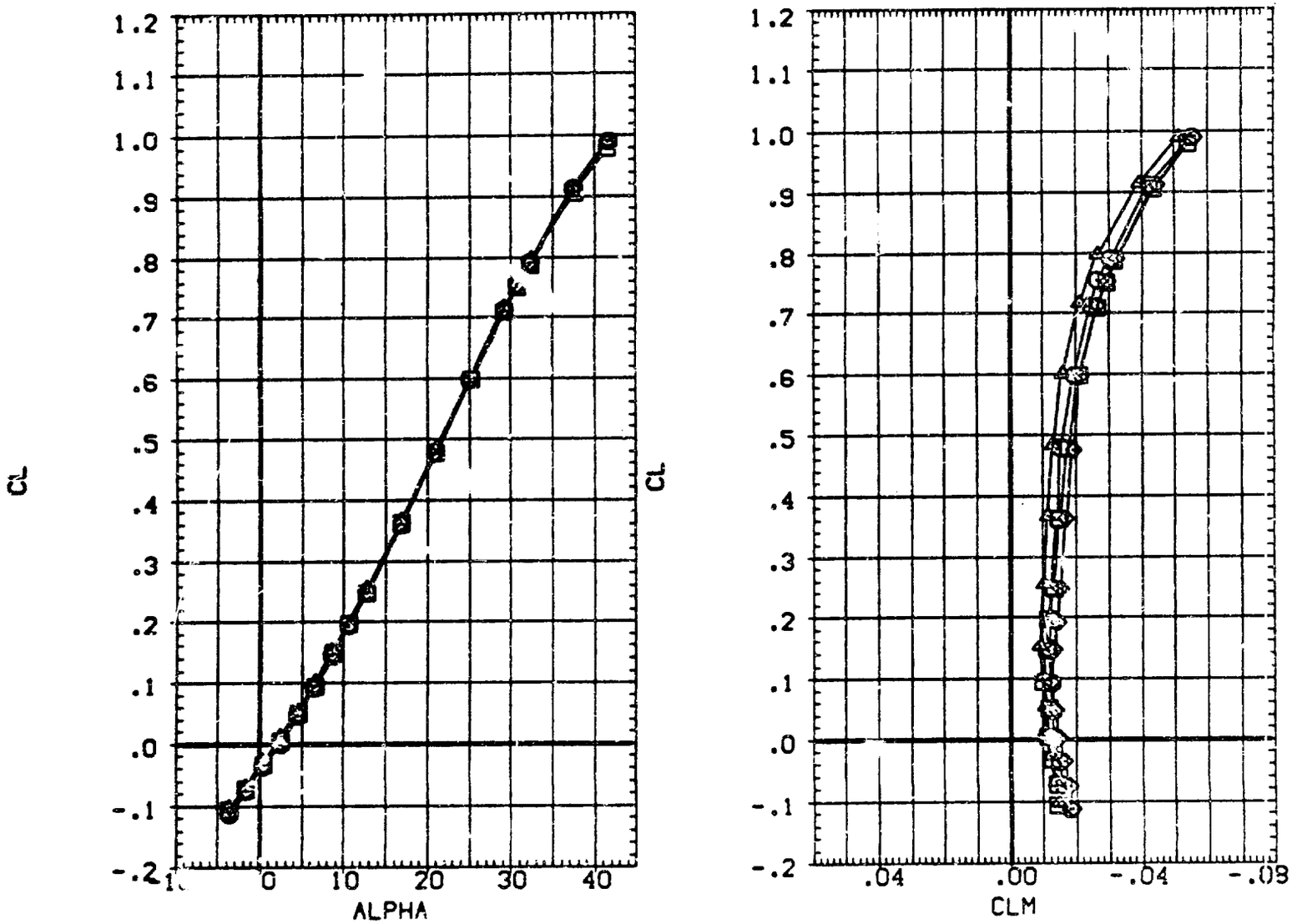


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(D)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6105)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6103)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6101)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6007)	△	DATA NOT AVAILABLE

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

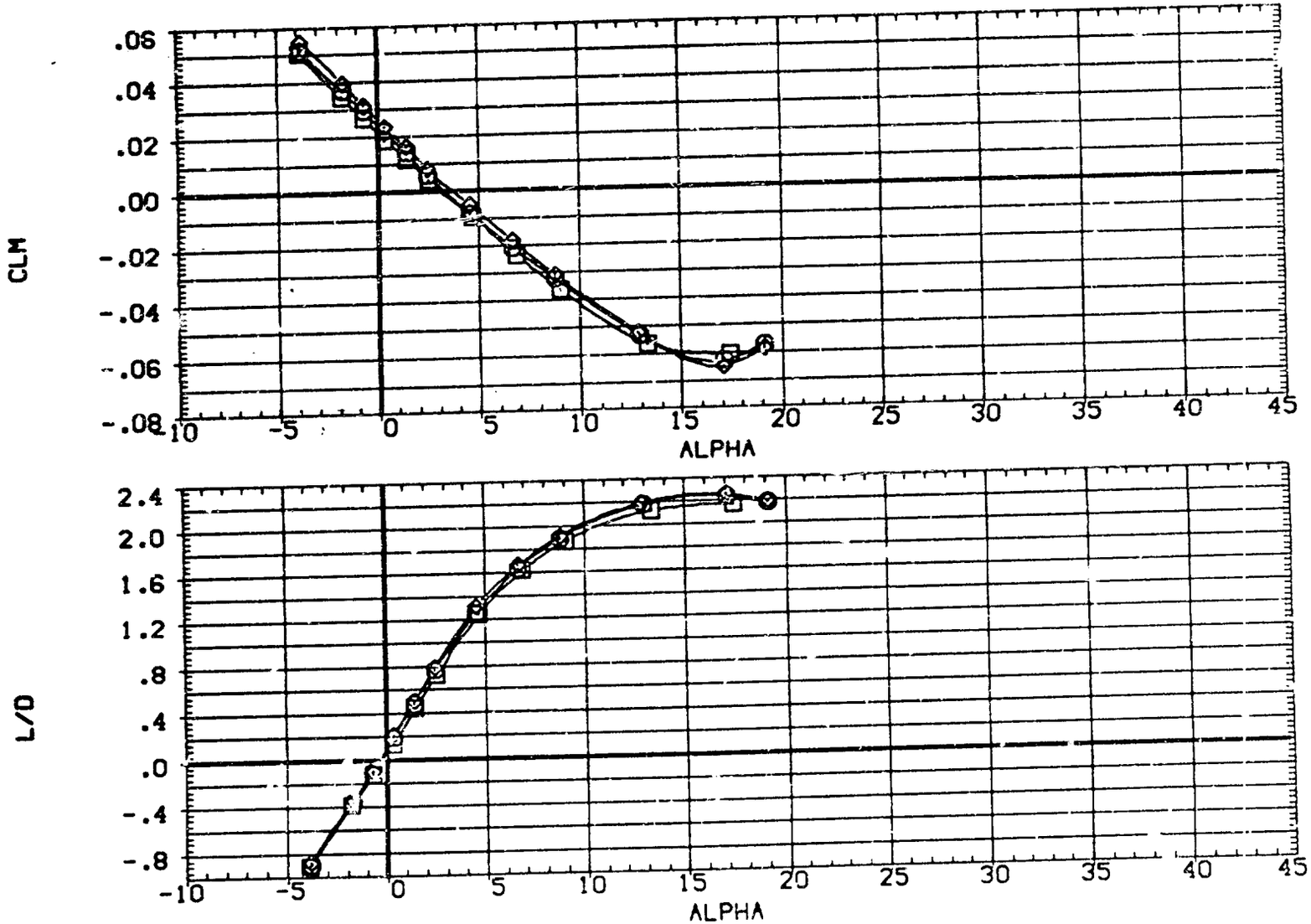


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6105)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(LP6103)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(LP6101)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(LP6007)	DATA NOT AVAILABLE	.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

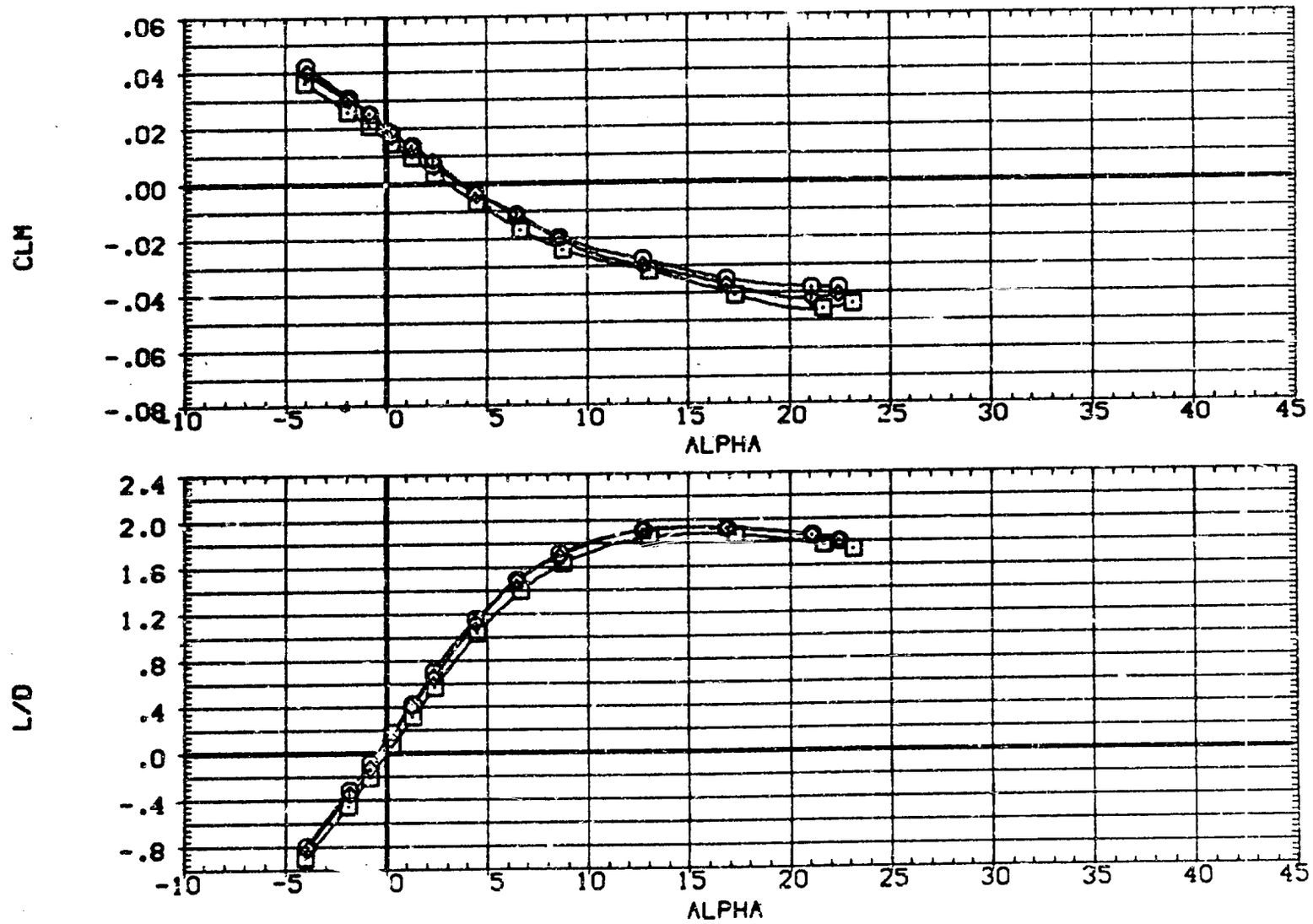


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 1.90

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6105)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(LP6103)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(LP6101)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(LP6007)	△	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

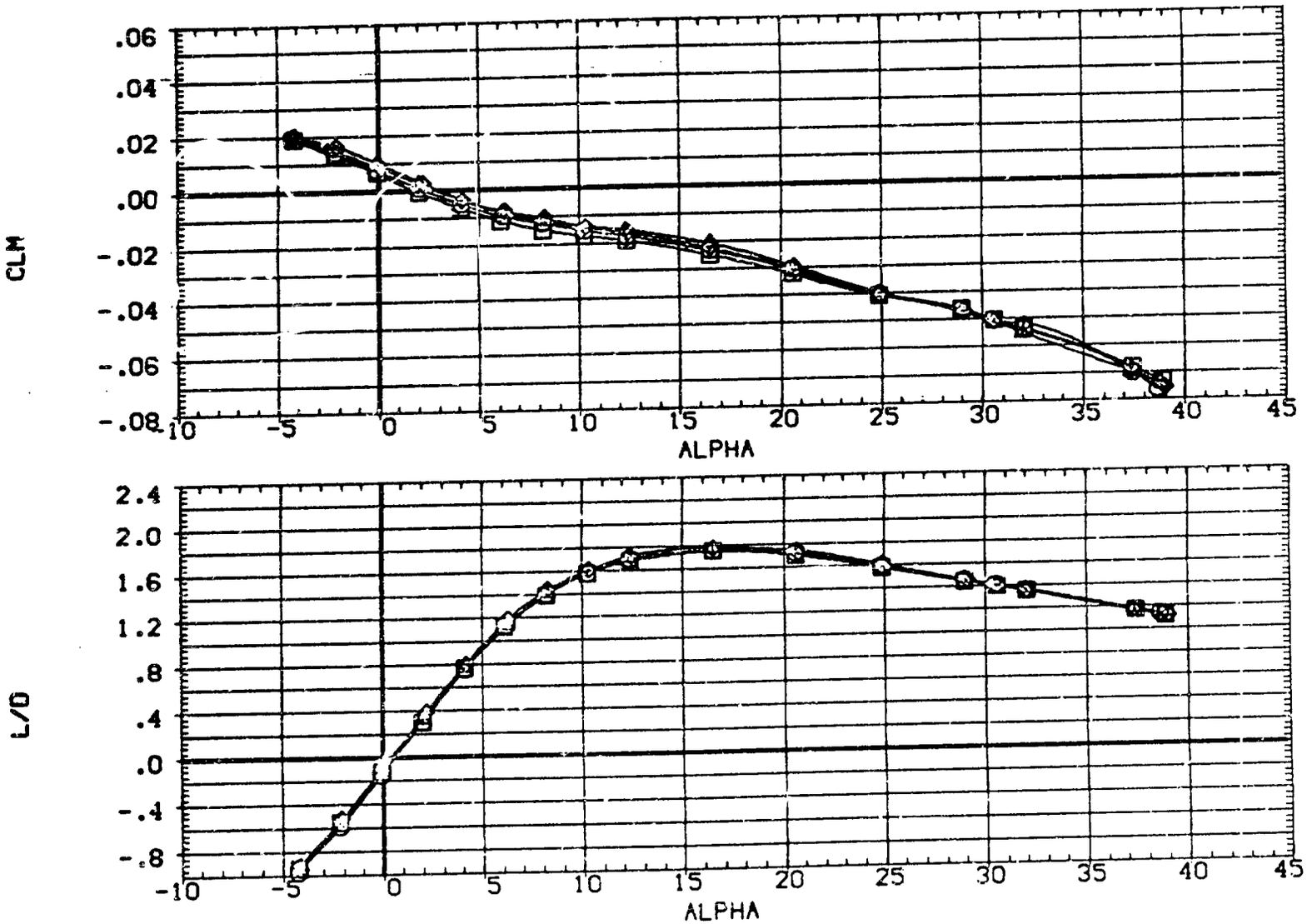


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6105)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(LP6103)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(LP6101)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(LP6007)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0181	SCALE

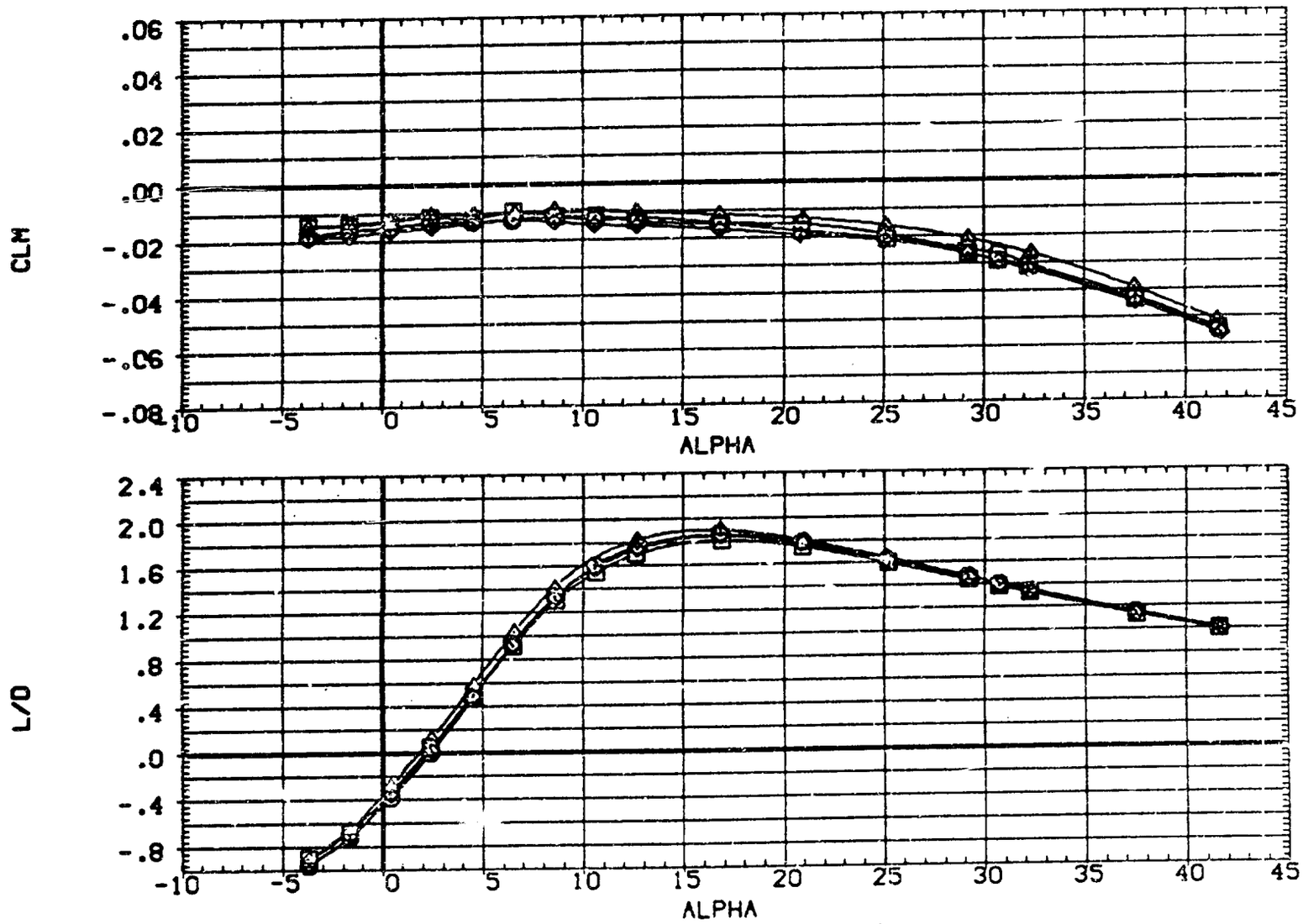


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(D)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6105)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6103)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6101)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6007)	△	DATA NOT AVAILABLE

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

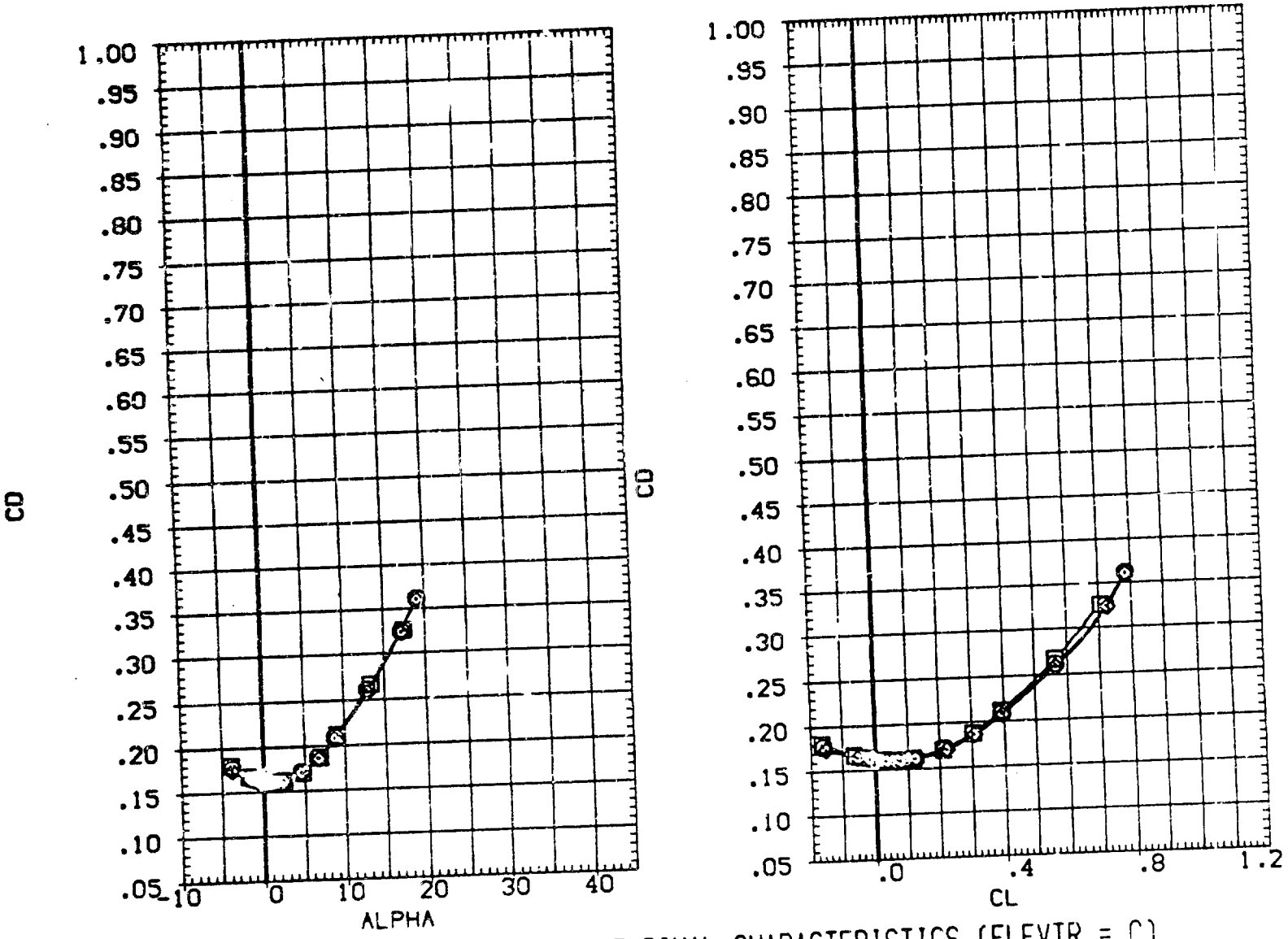


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LP6105)	○	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6103)	□	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6101)	◇	LA-8/8A NAR 0898-H00. NOSE ORBITER
(LP6007)	△	DATA NOT AVAILABLE

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

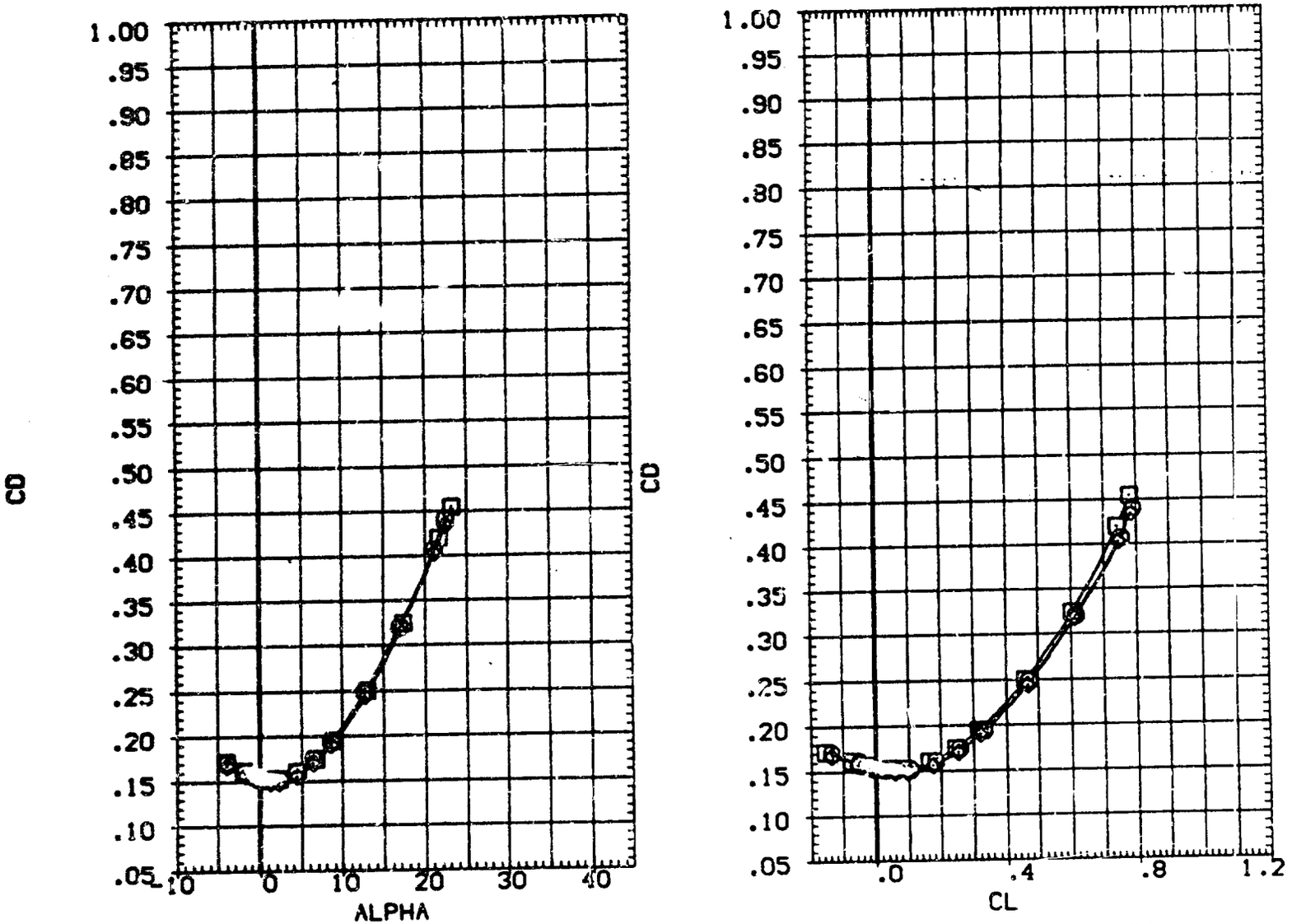


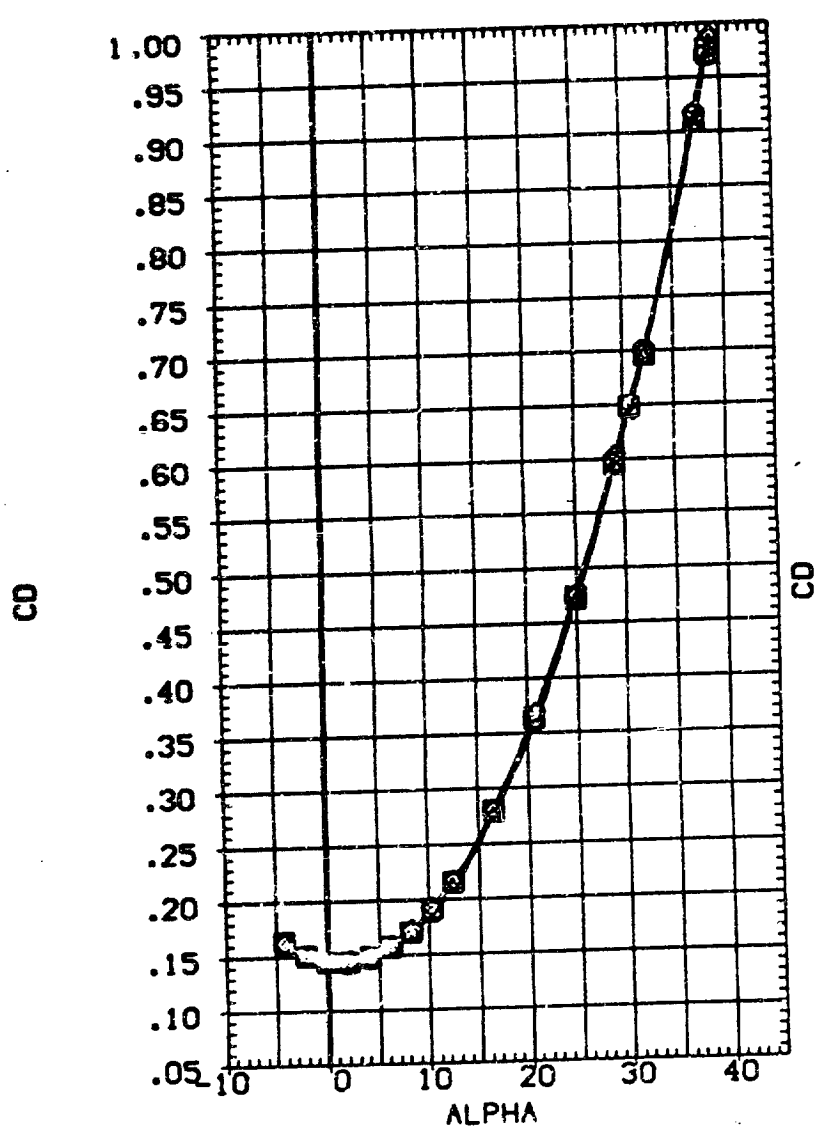
FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 1.90

DATA-SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6105)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6103)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6101)	⊠	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6007)	△	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5629	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



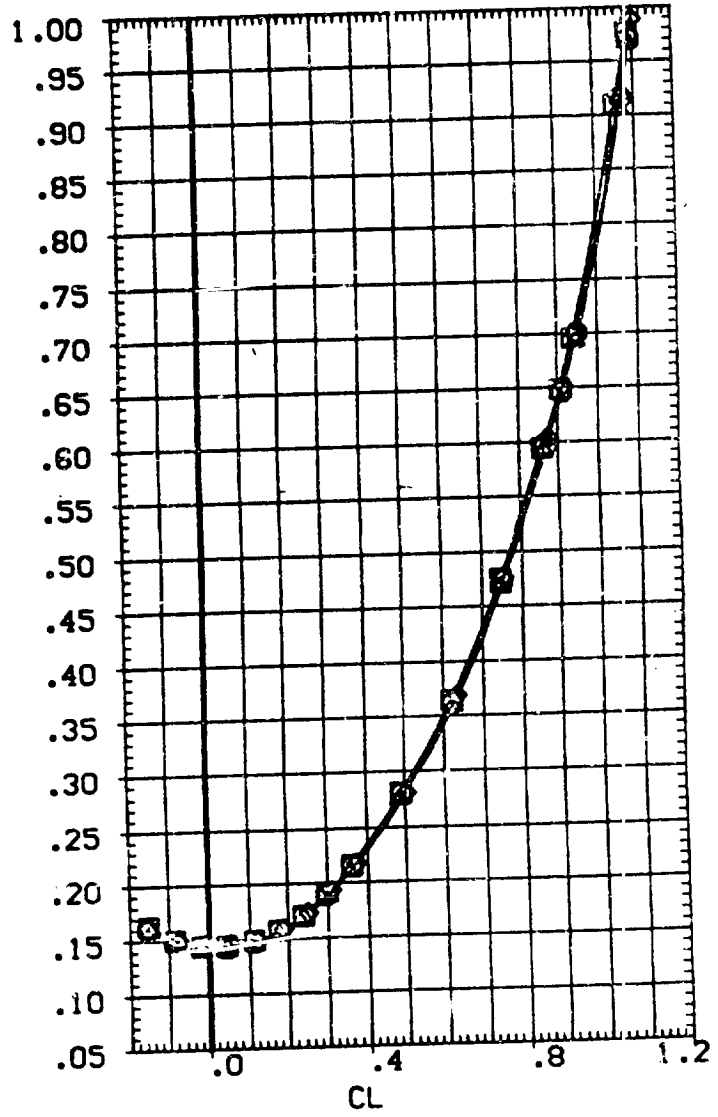


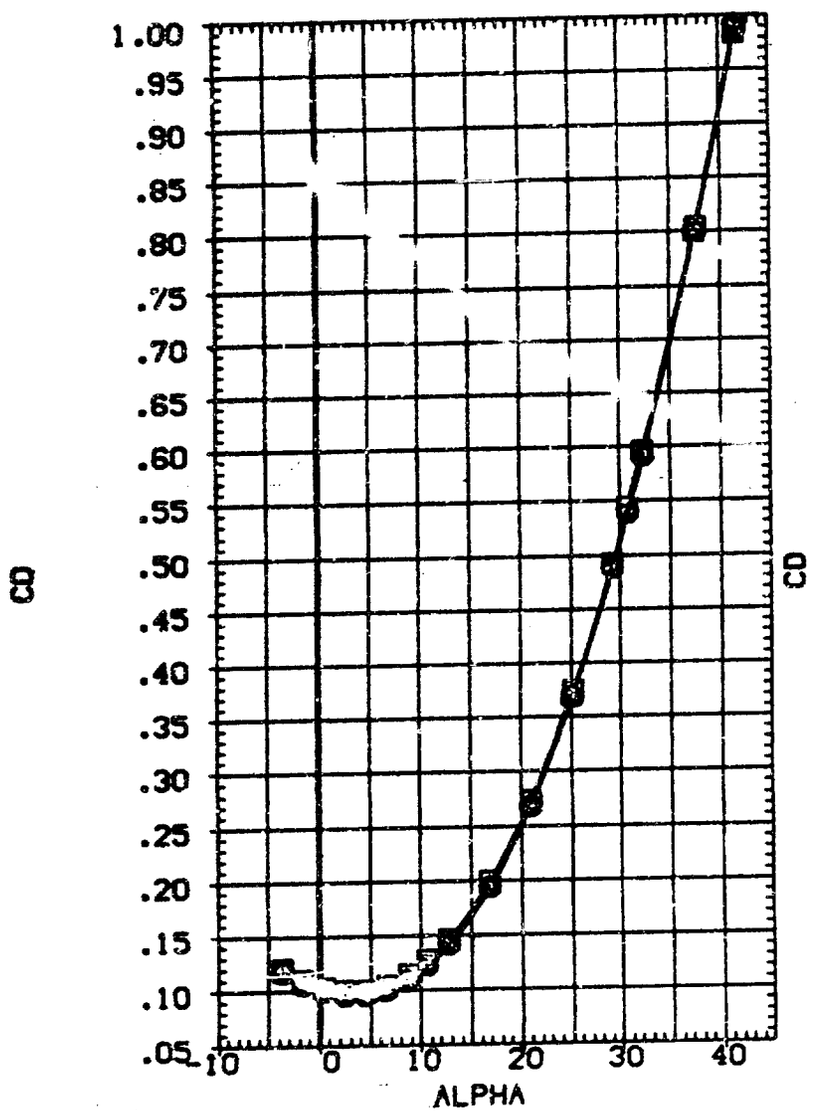
FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(LP6105)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6103)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6101)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6007)	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820
.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5528	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



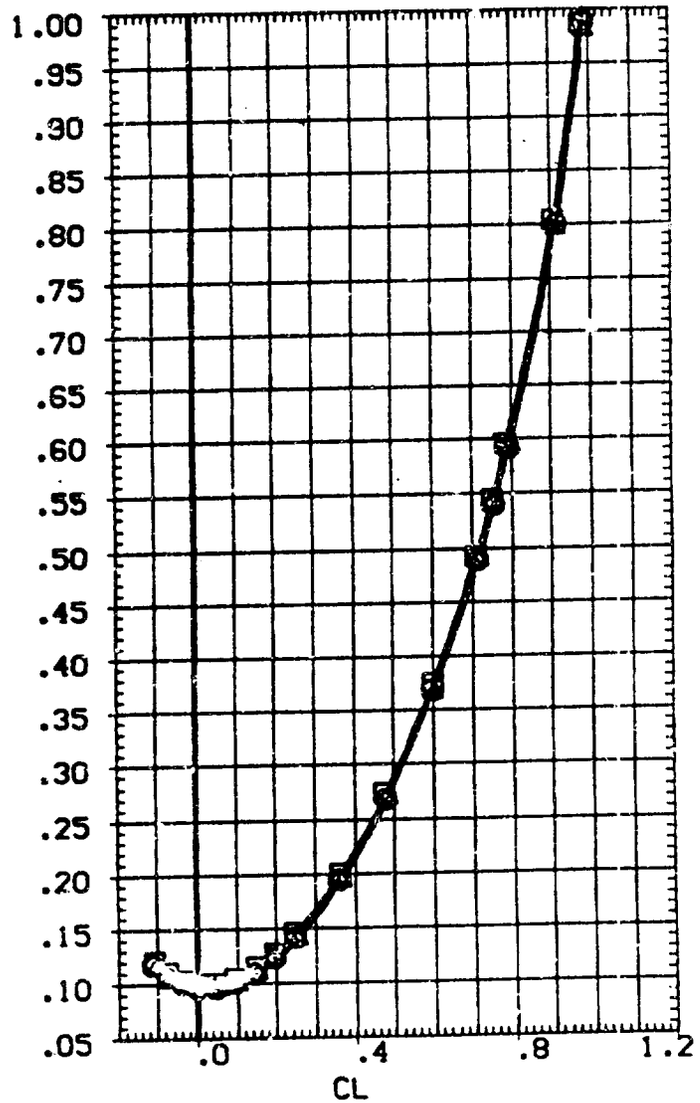


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(D)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(NP6105)	□	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(NP6103)	⬭	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(NP6101)	◇	LA-8/8A NAR 089B-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

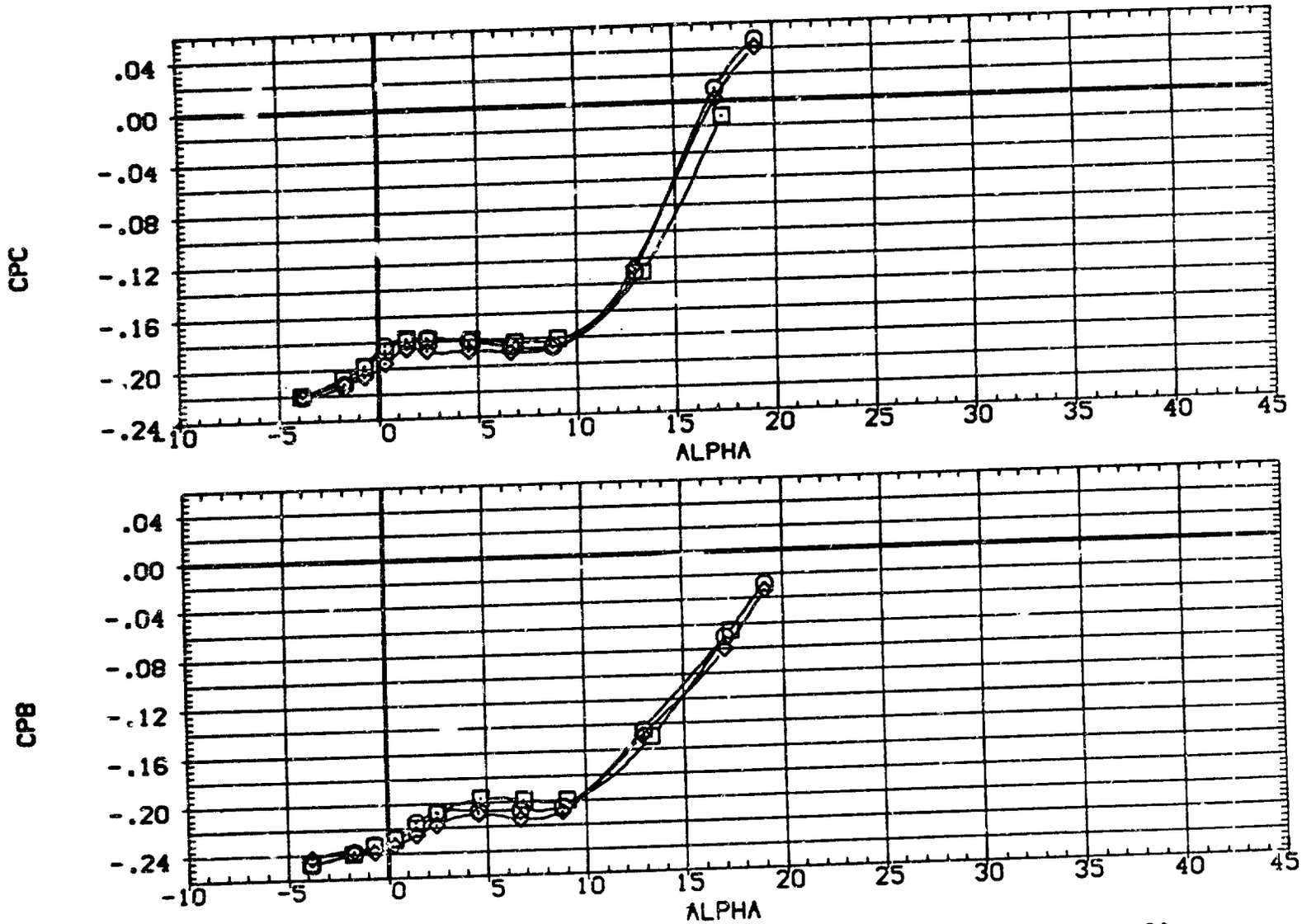


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 1.60

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(NPS105)	○	LA-8/8A NAR 0888-MOD. NOSE ORBITER
(NPS103)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NPS101)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	1.000	.000
.000	.000	1.000	6.820
.000	.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9639	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

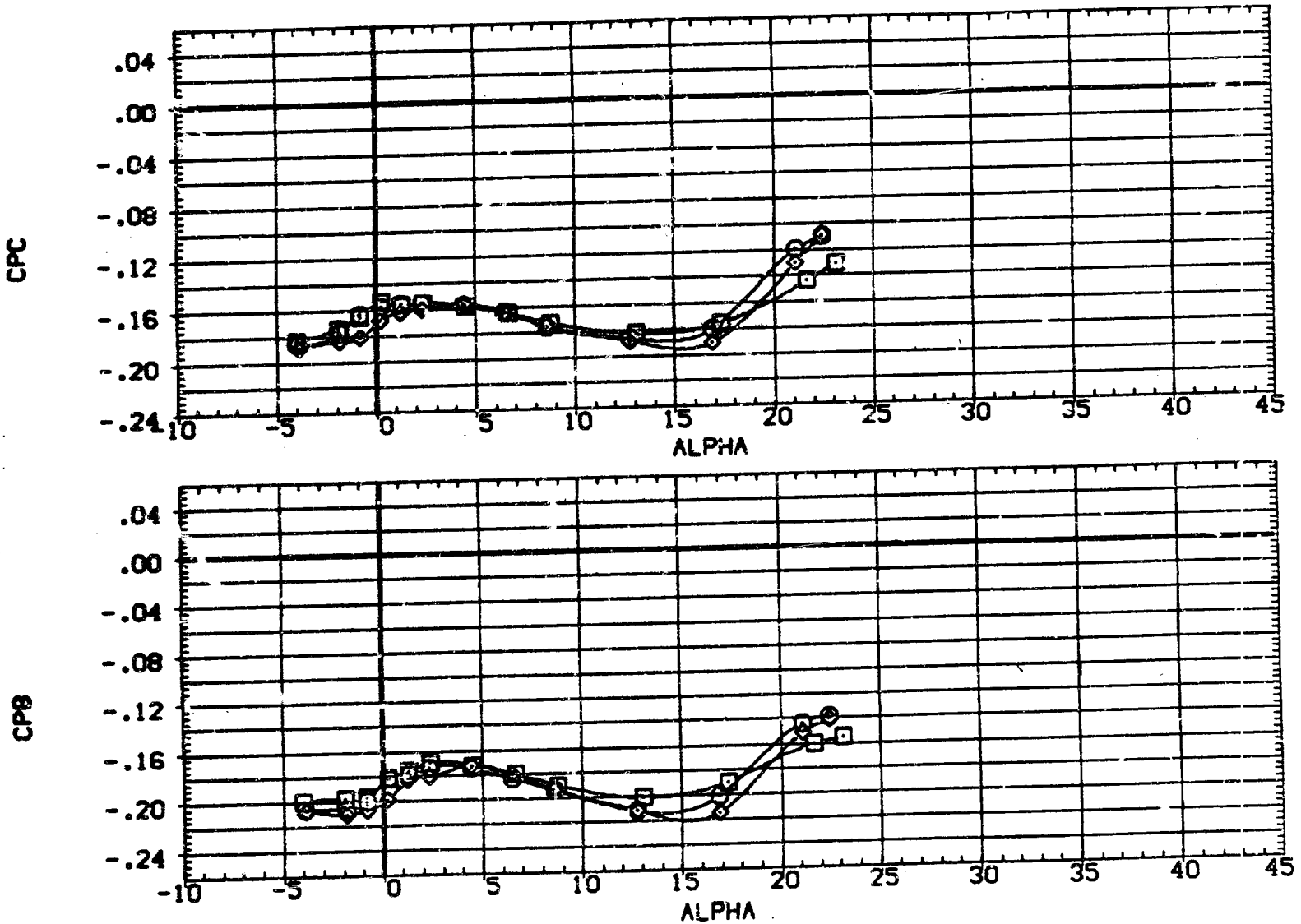


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(NPS009)	□	LA-8/8A NAR 089B-H00. NOSE ORBITER	.000	.000	2.000	6.820
(NPS005)	○	LA-8/8A NAR 089B-H00. NOSE ORBITER	.000	.000	1.000	6.820
(NPS001)	⊠	LA-8/8A NAR 089B-H00. NOSE ORBITER	.000	.000	3.000	6.820
(NPS007)	△	LA-8/8A NAR 089B-H00. NOSE ORBITER	.000	.000	1.000	.000

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9075	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

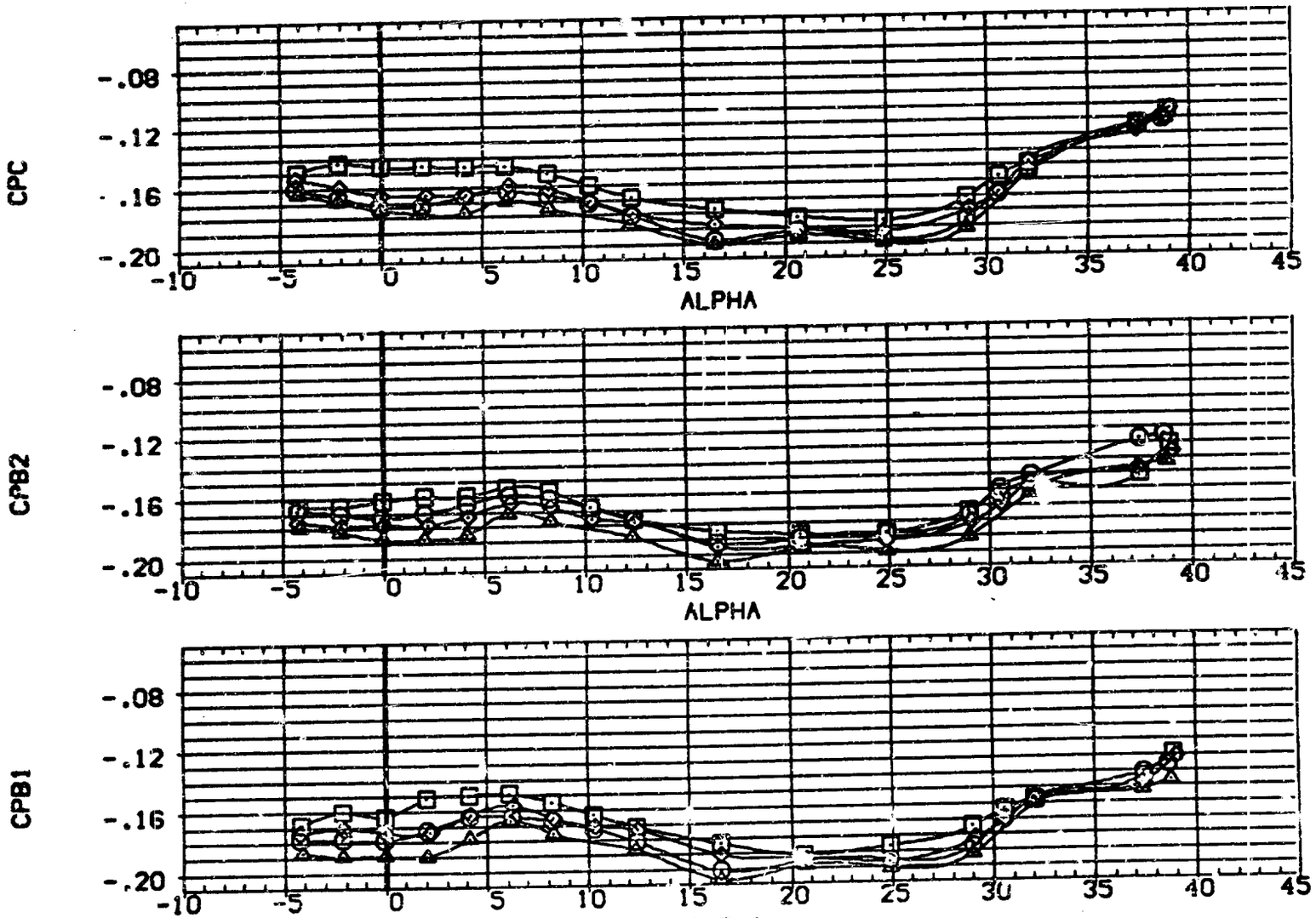


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LGC	K/L
(NF6008)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.020
(NF6005)	LA-8/8A NAR 0893-MOD. NOSE ORBITER	.000	.000	1.000	6.320
(NF6001)	LA-8/8A NAR 0899-MOD. NOSE ORBITER	.000	.000	3.000	6.620
(NF6007)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.3528	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

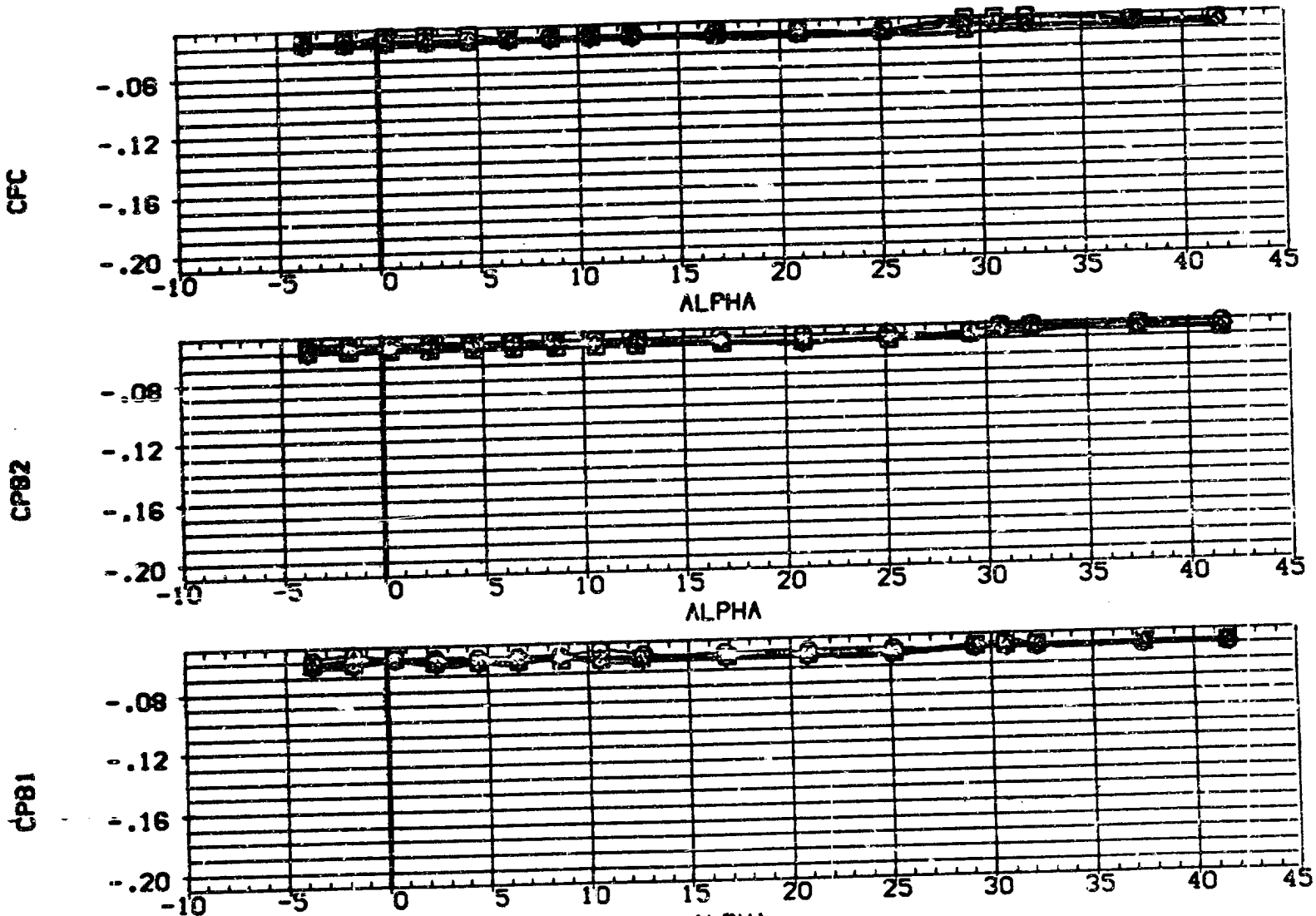


FIG. 1 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6107)	□	LA-8/8A NAR 0098-MOD. NOSE ORBITER
(LP6109)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

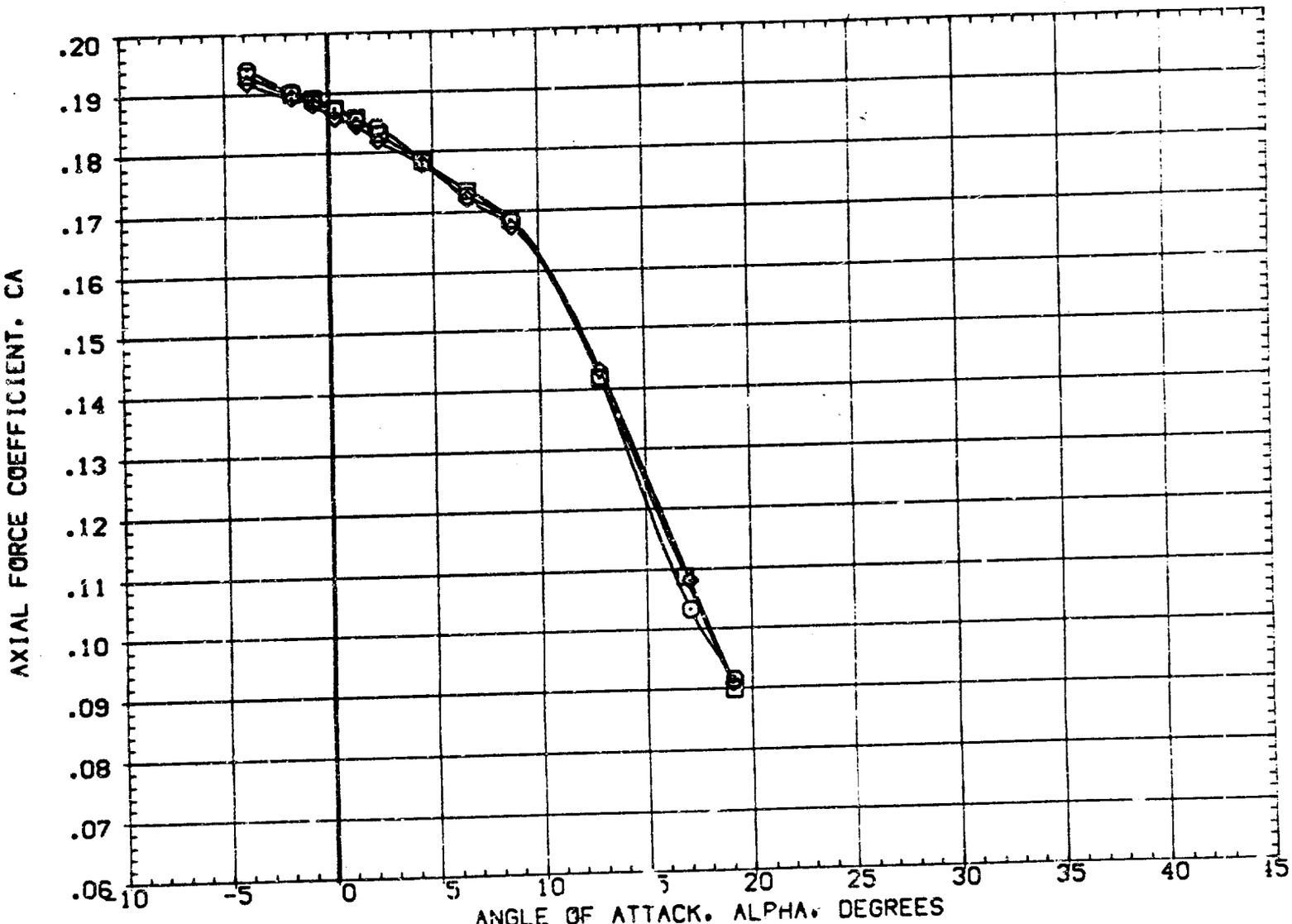


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LP6107)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9658	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

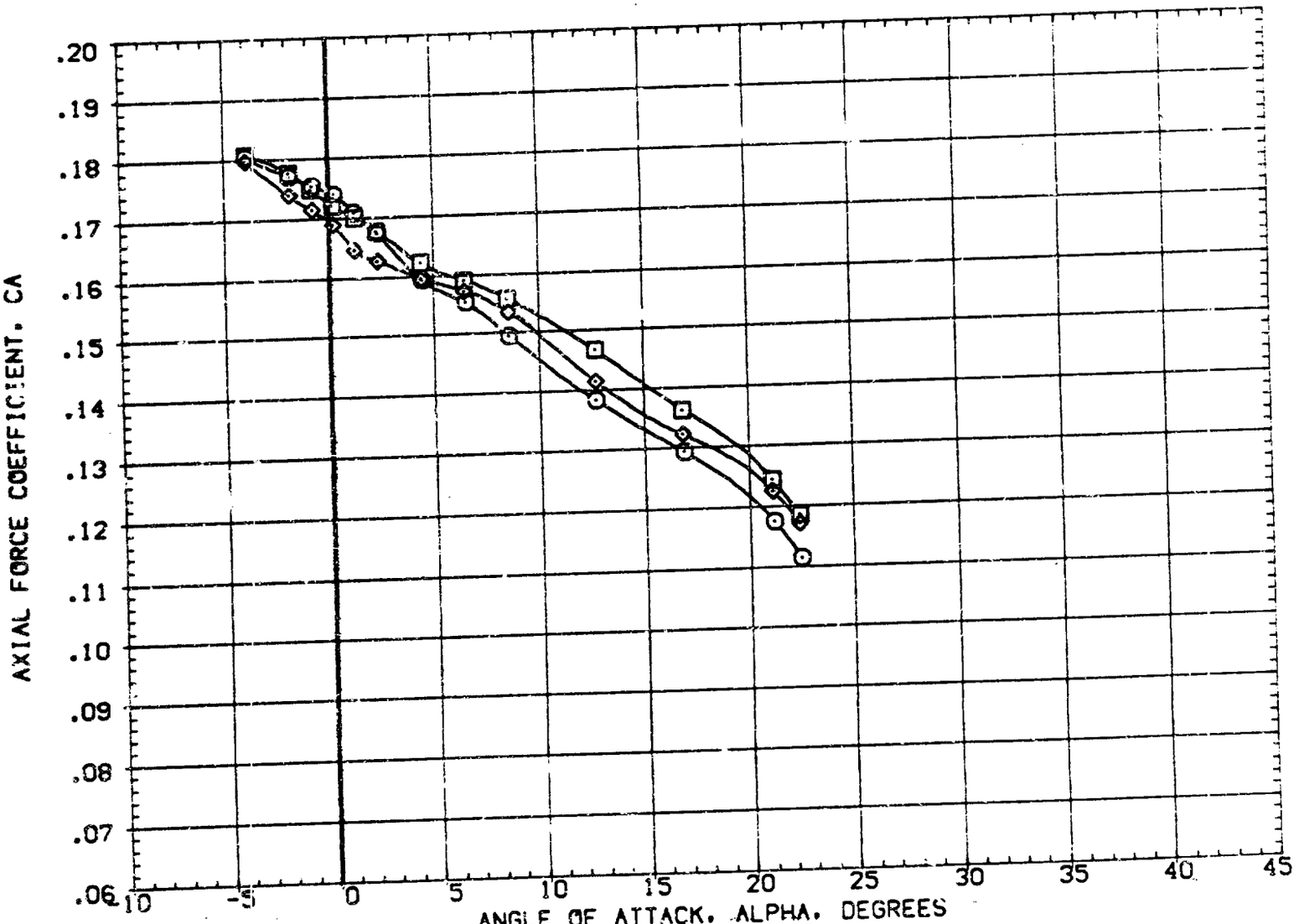


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(LP6107)	A-B/BA NAR OPSB-HOC. NOSE ORBITER
(LP6109)	DATA NOT AVAILABLE
(LP6111)	LA-B/BA NAR OPSD-HOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	KA
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	0.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

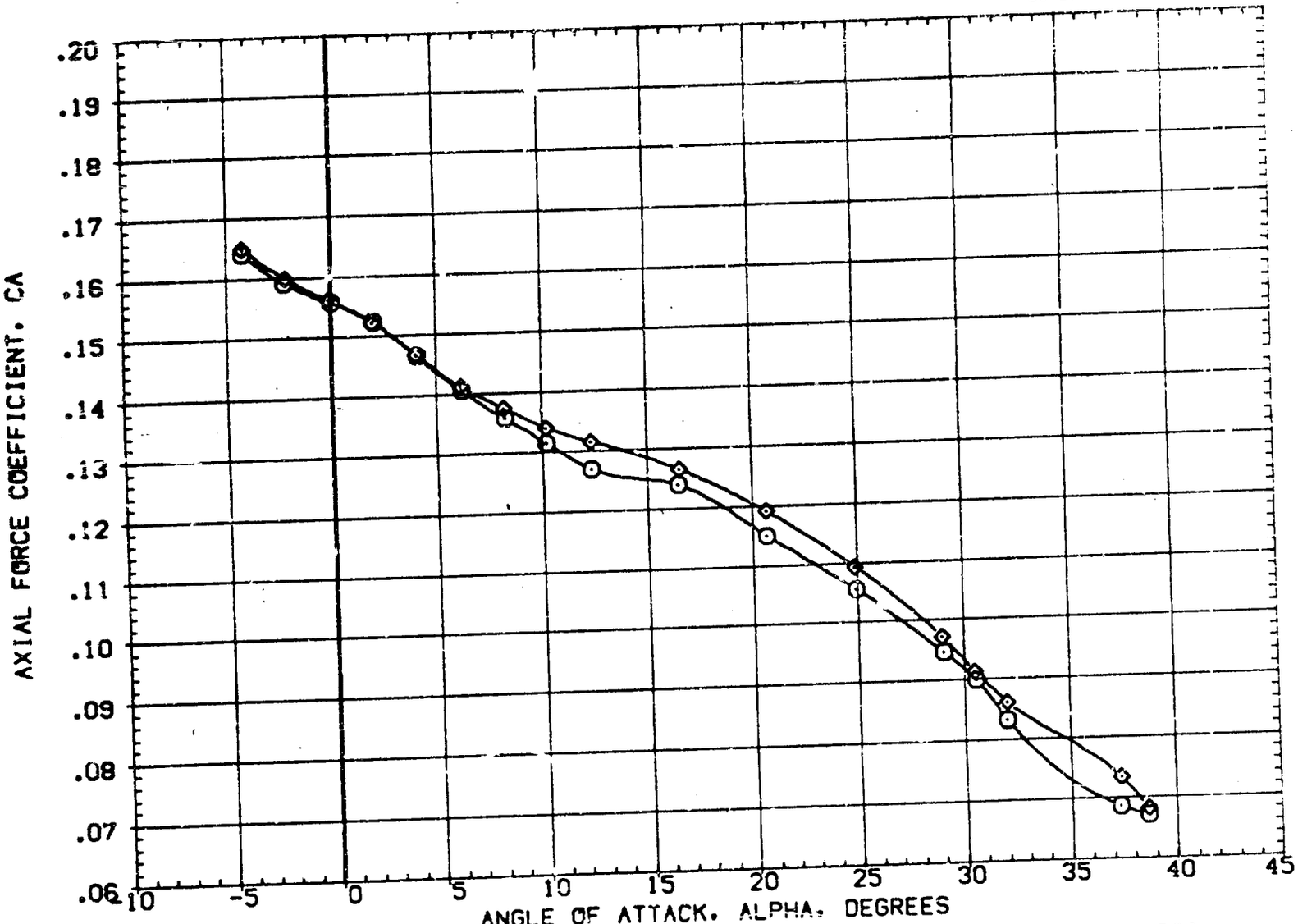


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(LPG107)	LA-8/8A NAR 0888-MOD. NOSE ORBITER
(LPG109)	DATA NOT AVAILABLE
(LPG111)	LA-8/8A NAR 0888-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
+0.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9538	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

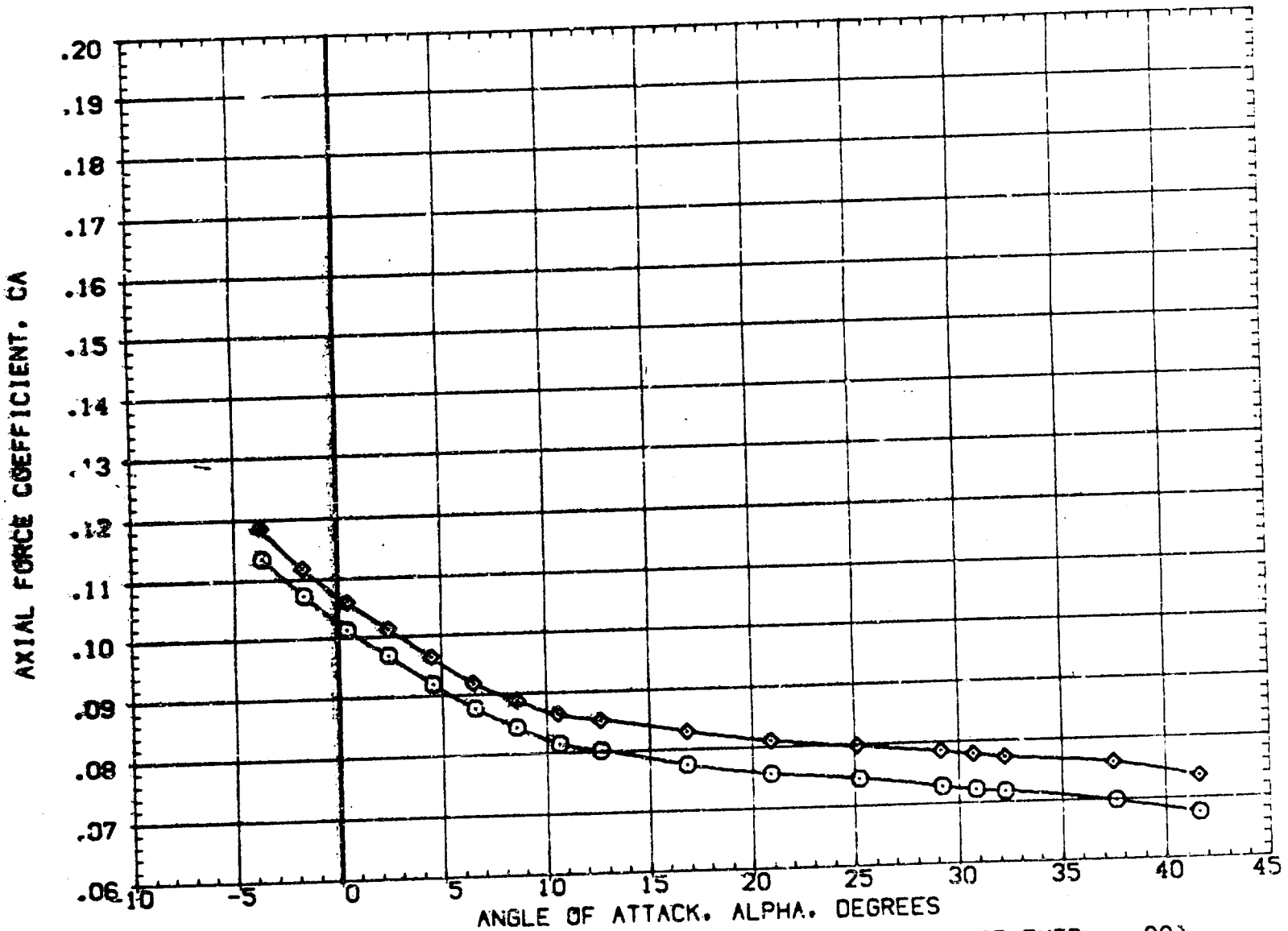


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(D)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6107)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0168	SCALE

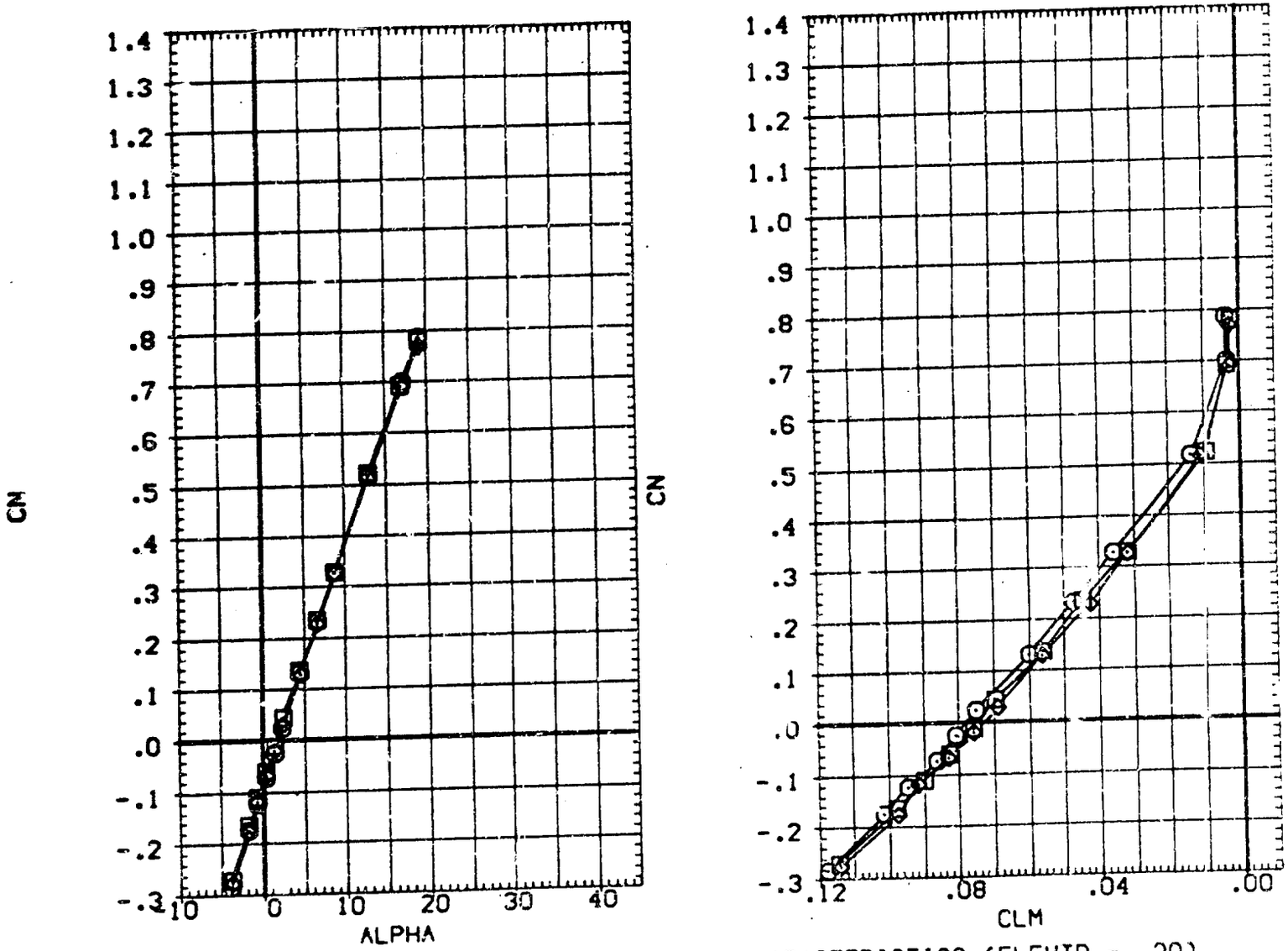


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6107)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6108)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K.L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

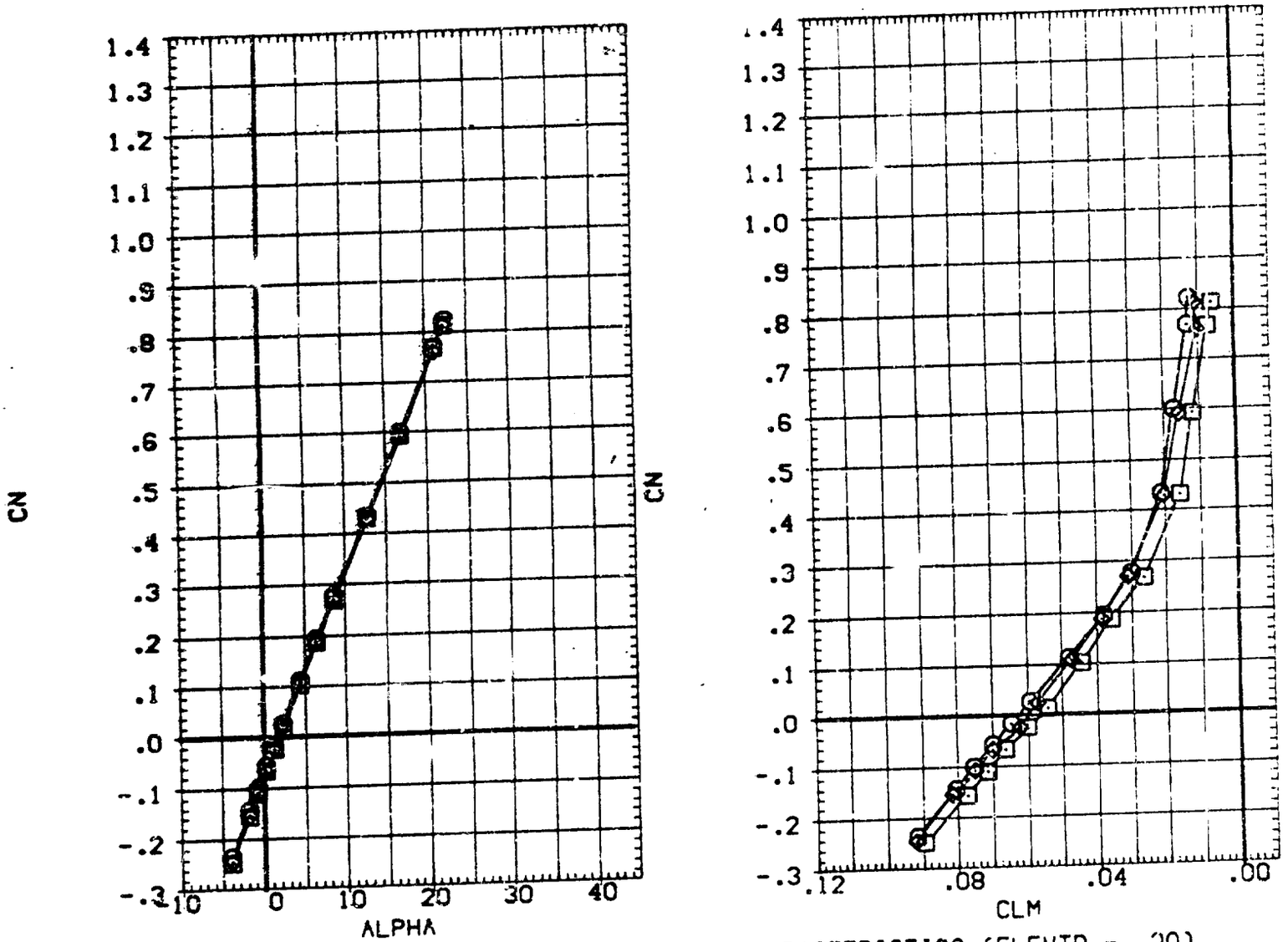


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LP6107)	○	LA-8/8A NAR 0298-MOD. NOSE ORBITER
(LP6109)	□	DATA NOT AVAILABLE
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.920

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

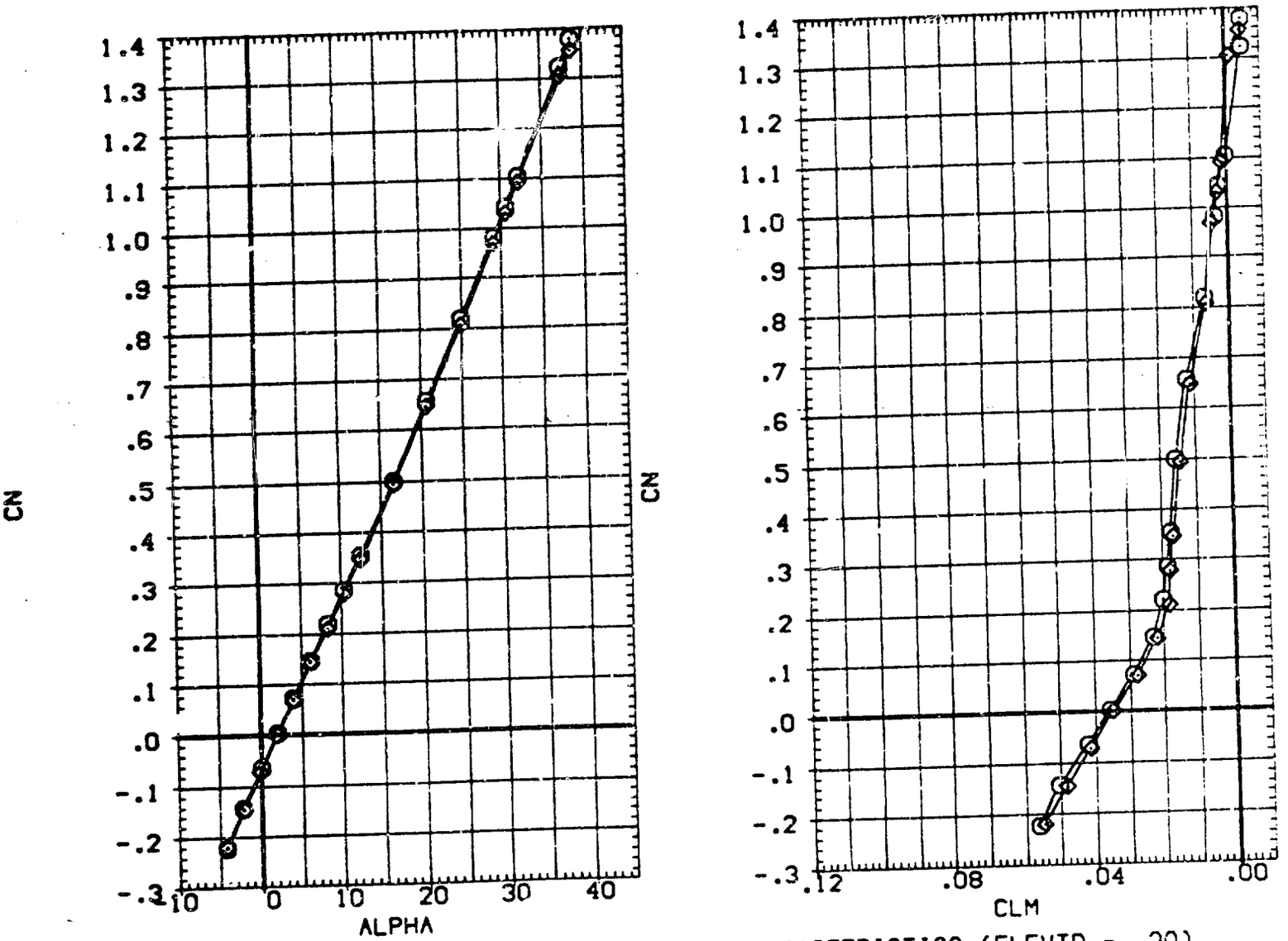


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(C)MACH = 2.36

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6107)	○	LA-8/8A MAR 0899-M[illegible]0. NOSE ORBITER
(LP6108)	□	DATA NOT AVAILABLE
(LP6111)	◇	LA-8/8A MAR 0899-M00. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

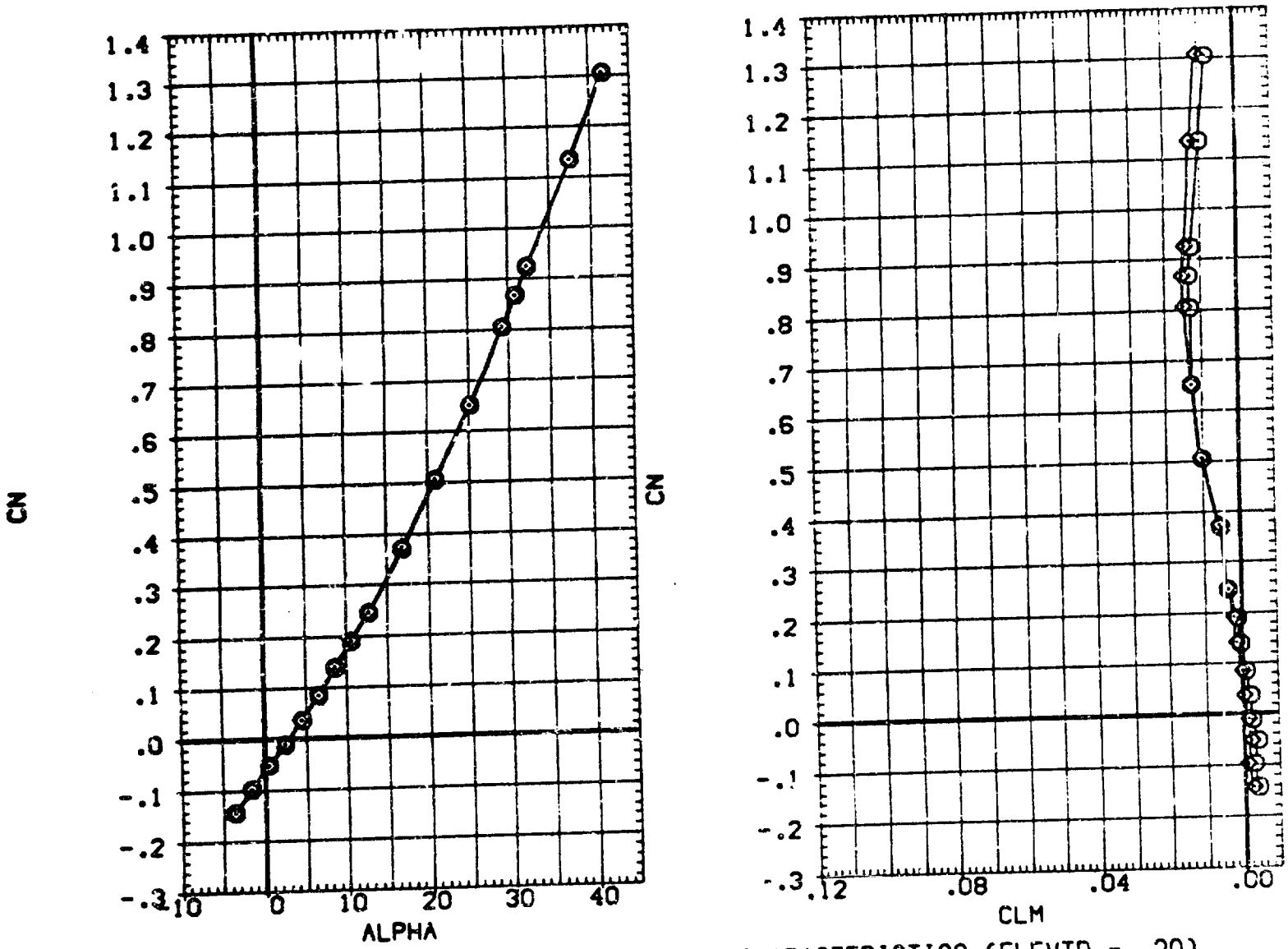


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(D)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP61071	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	◁□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.220

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9630	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

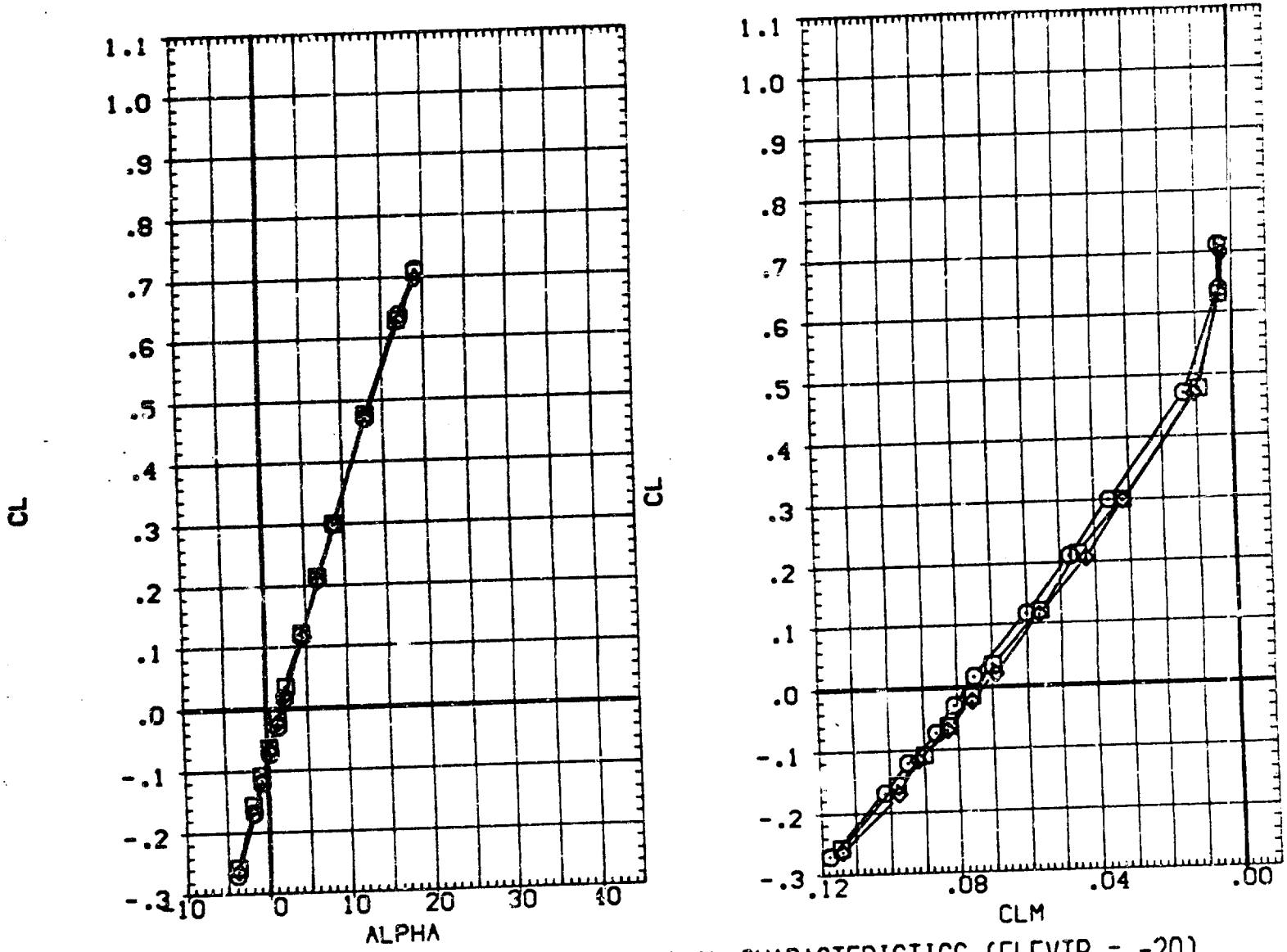


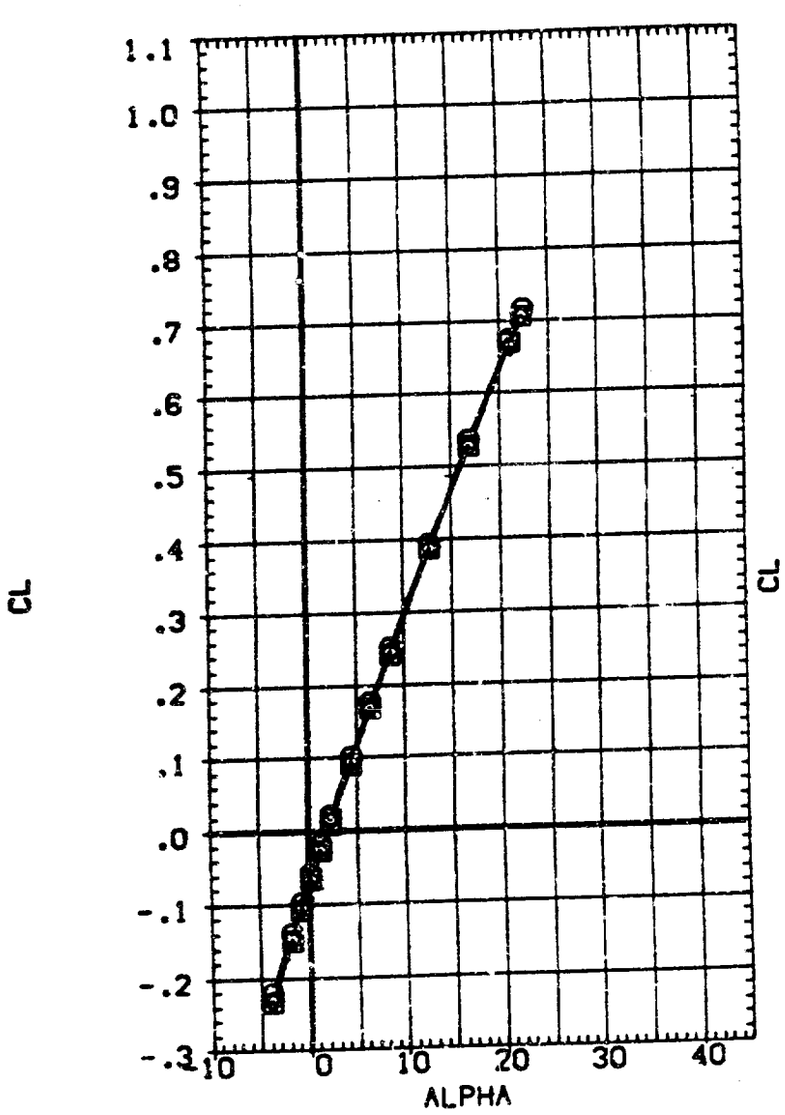
FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6107)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	1361.1808	SQ.IN.
LREF	19.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



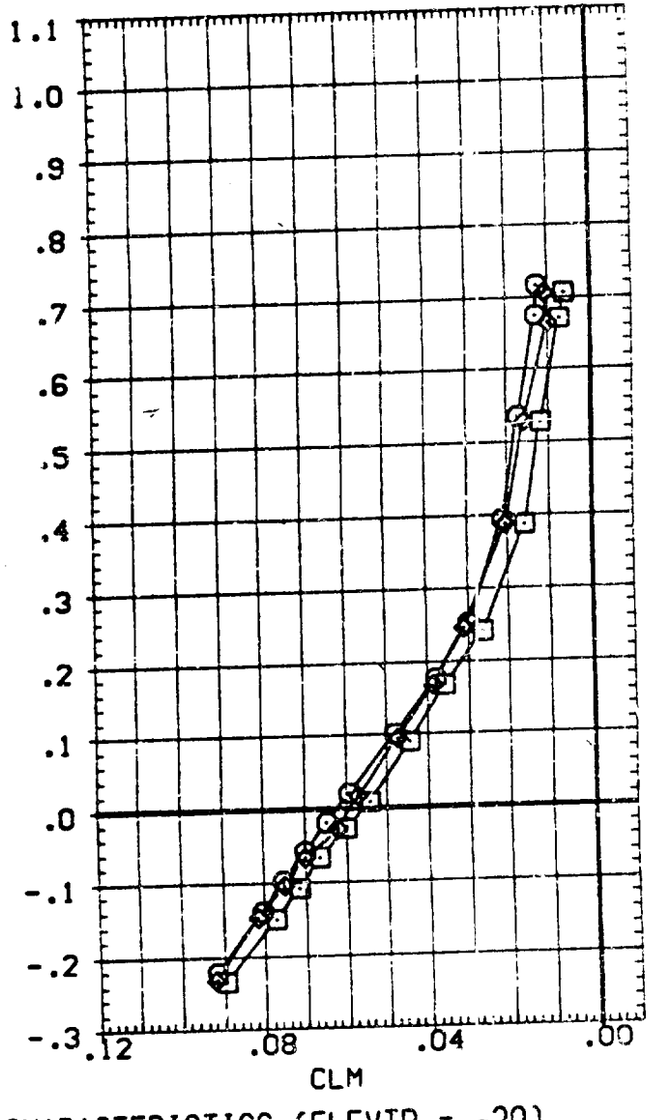


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6107)	○	LA-8/8A NAR 0938-100. NOSE ORBITER
(LP6109)	□	DATA NOT AVAILABLE
(LP6111)	◇	LA-8/8A NAR 0938-100. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.5025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

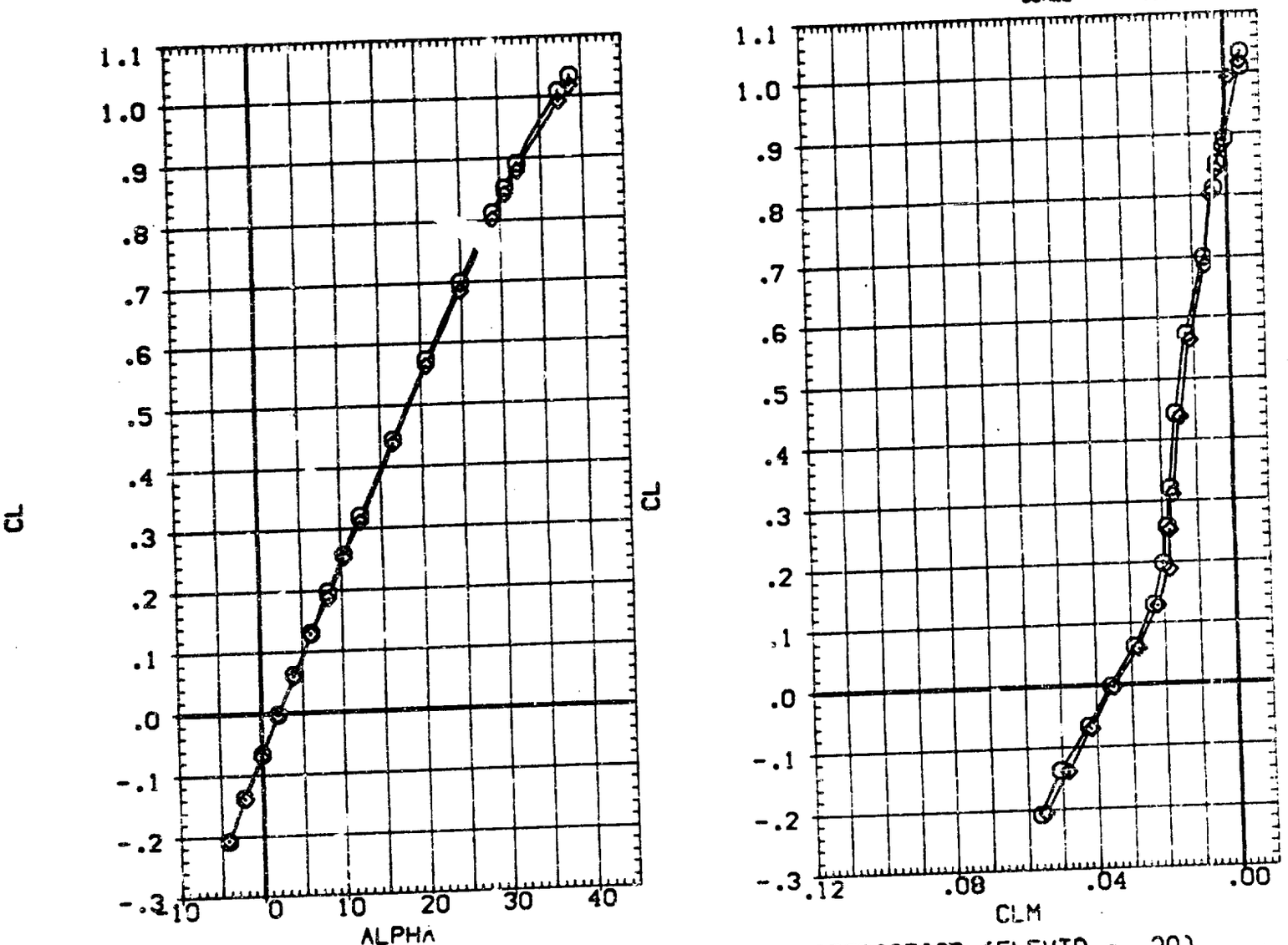


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(LP6107)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	DATA NOT AVAILABLE
(LP6111)	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	ST-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

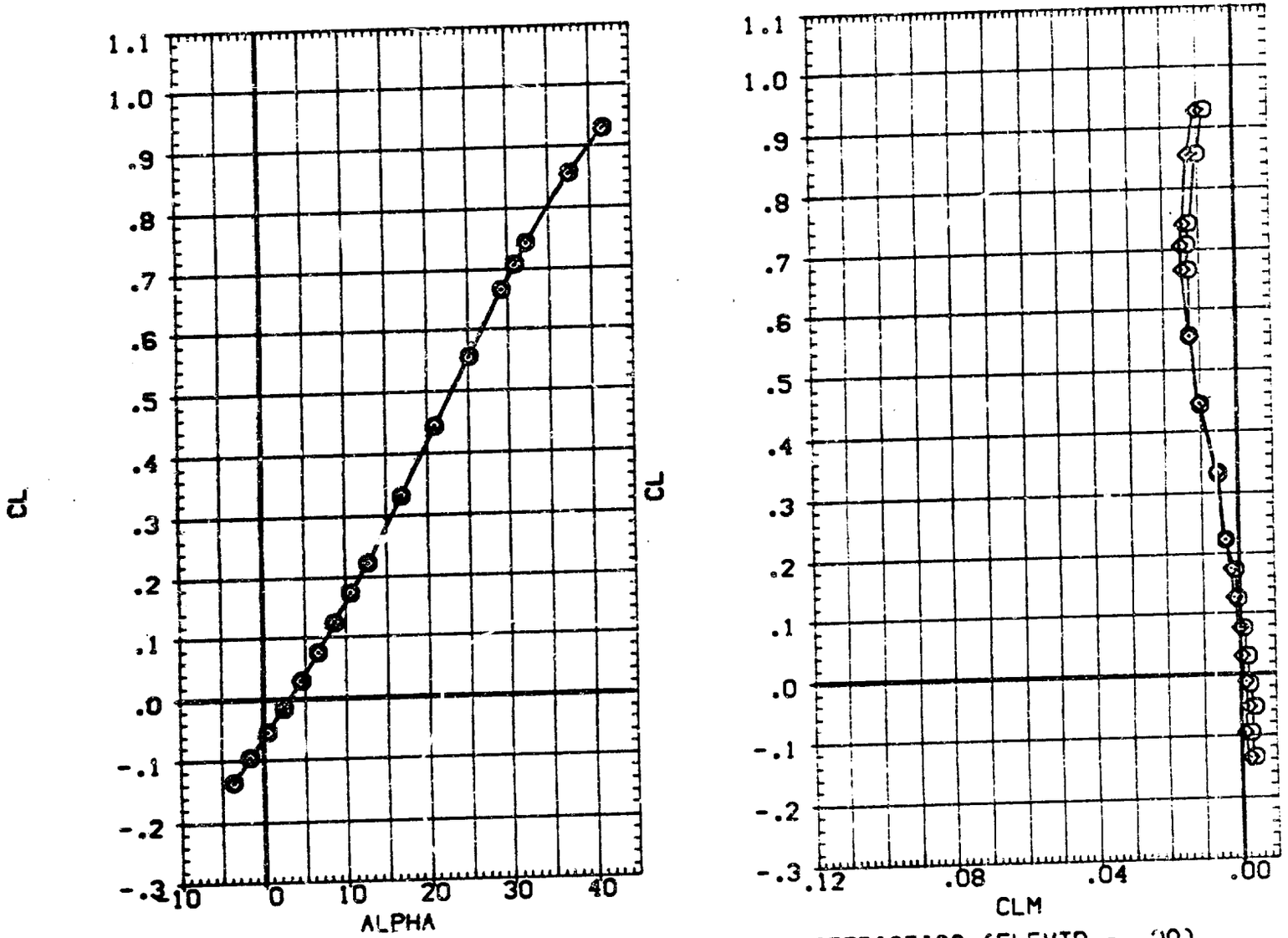


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LP6107)	□	LA-8/8A NAR 0698-MOD. NOSE ORBITER
(LP6109)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	◇	LA-8/8A NAR 0998-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

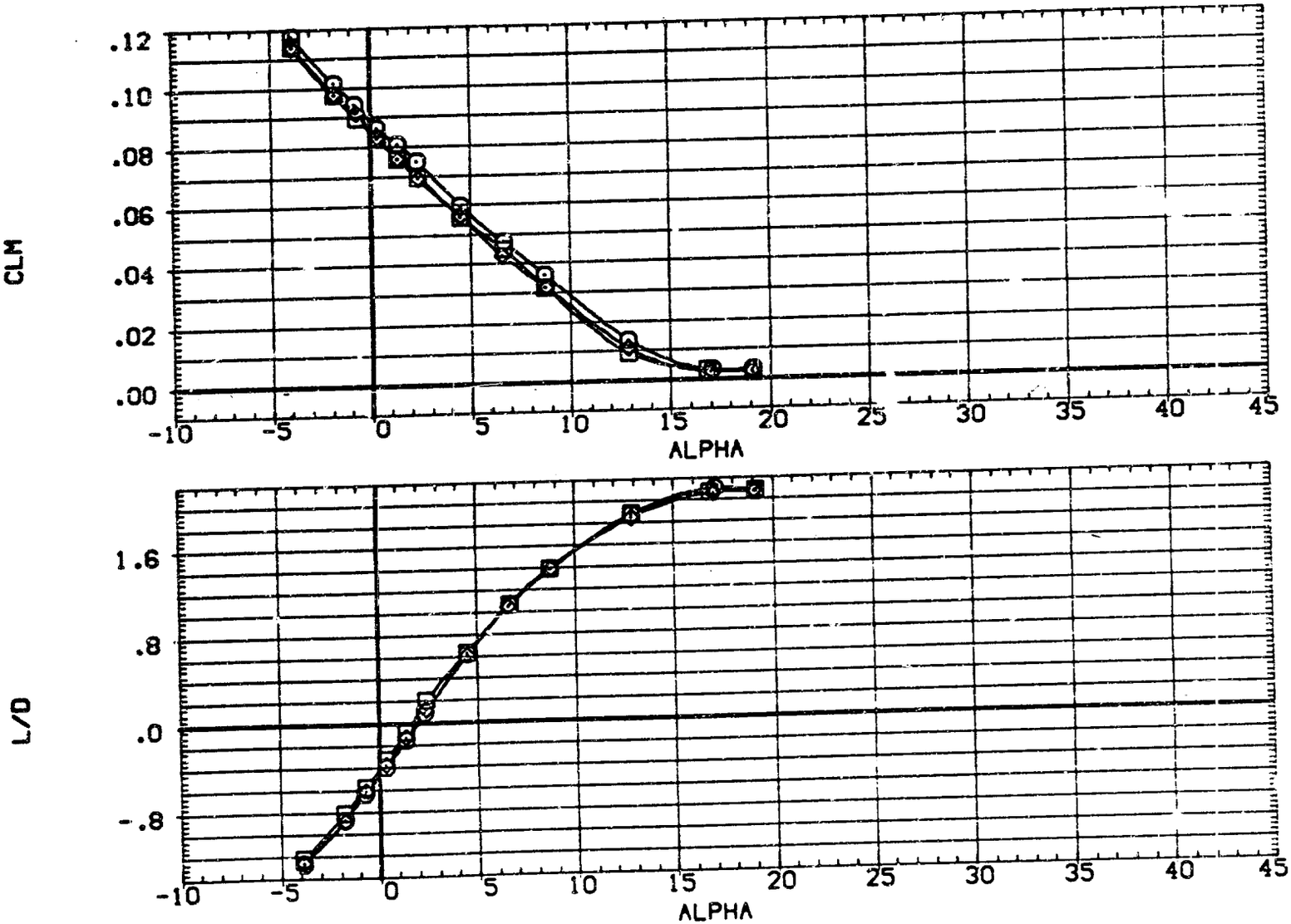


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(LP6107)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

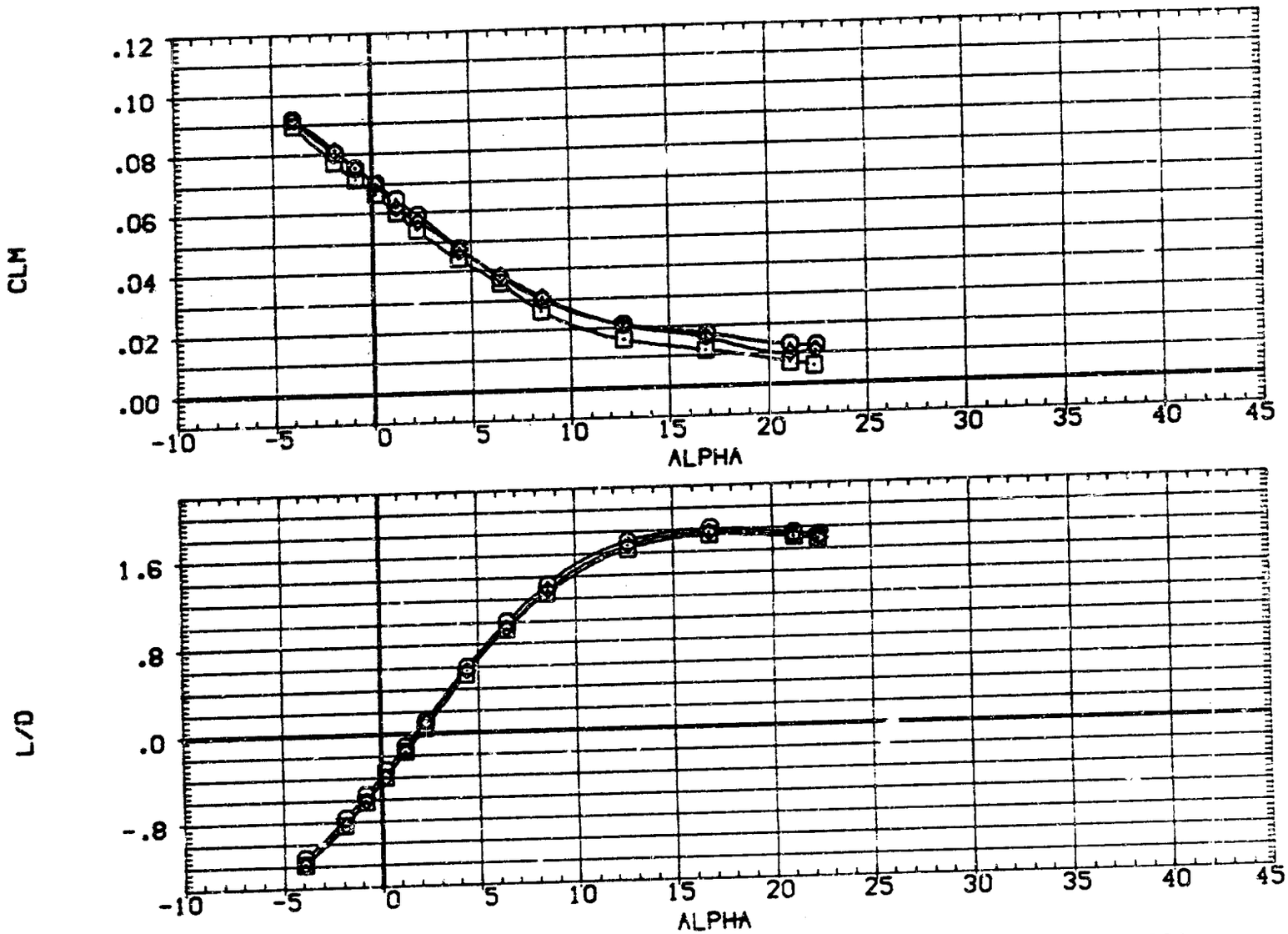


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(8)MACH = 1.90

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6107)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	□	DATA NOT AVAILABLE
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

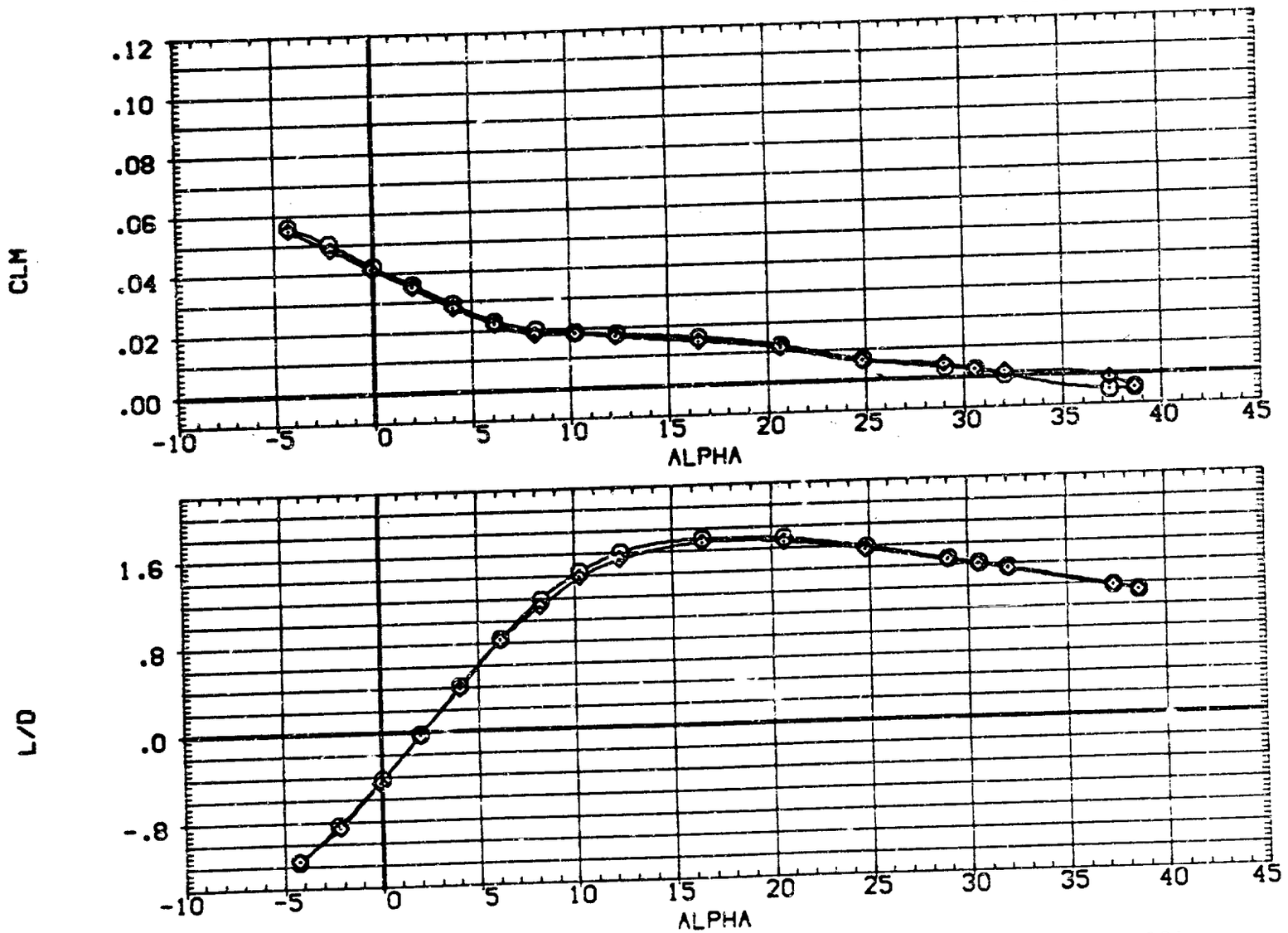


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(LP6107)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	DATA NOT AVAILABLE
(LP6111)	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1803	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5528	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

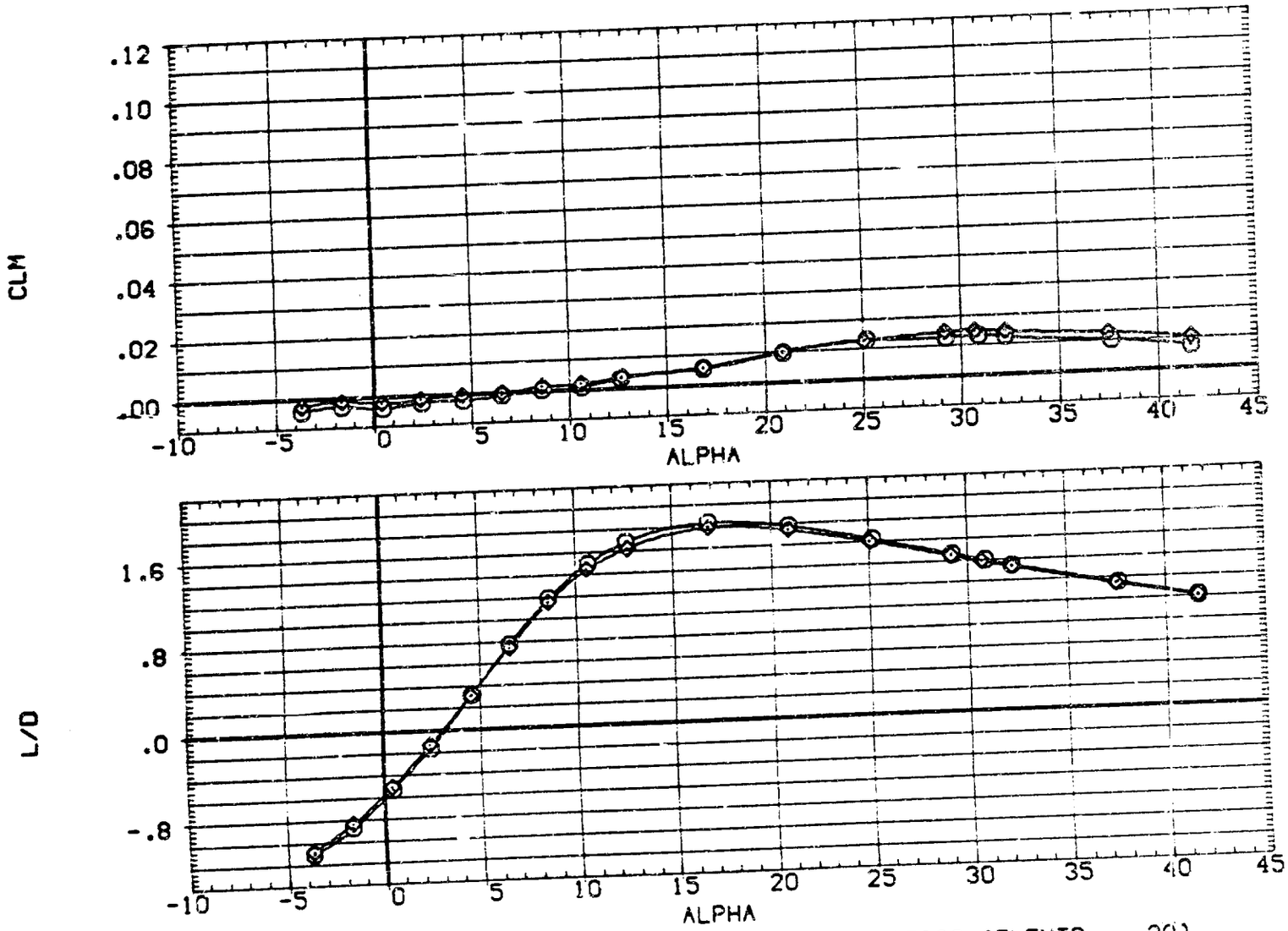


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

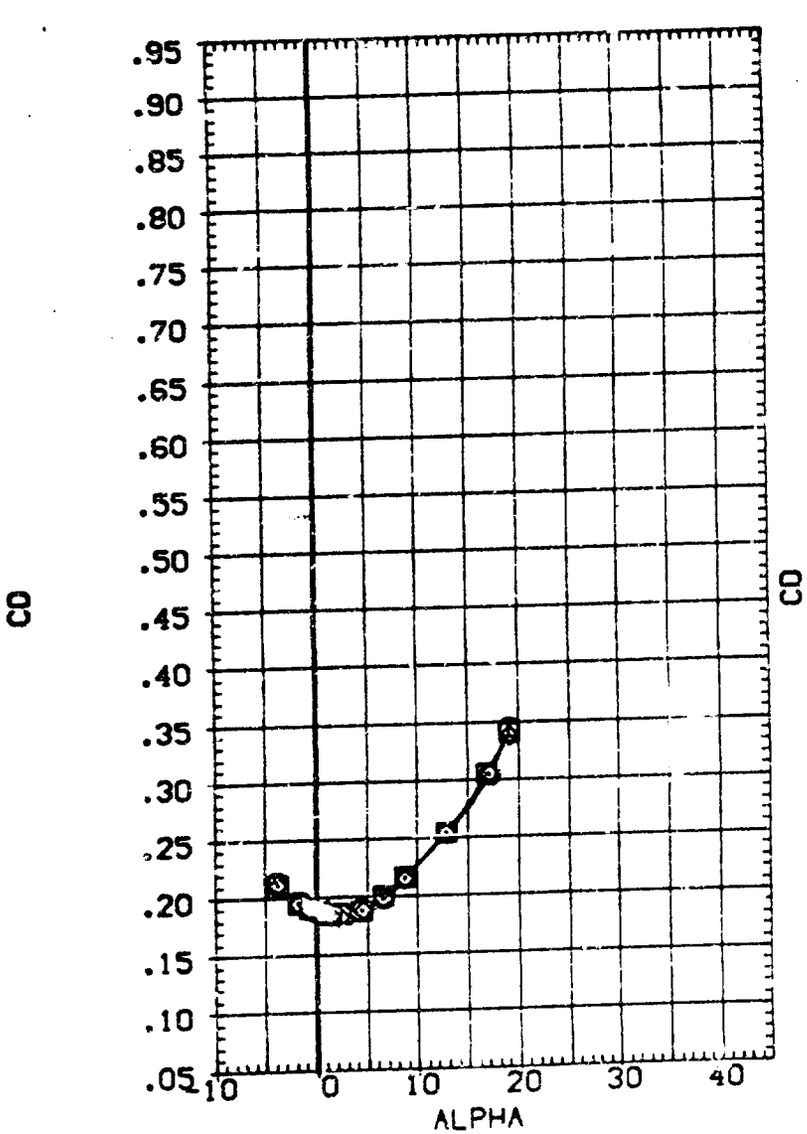
(D)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(LP6107)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6108)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1828	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.3638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



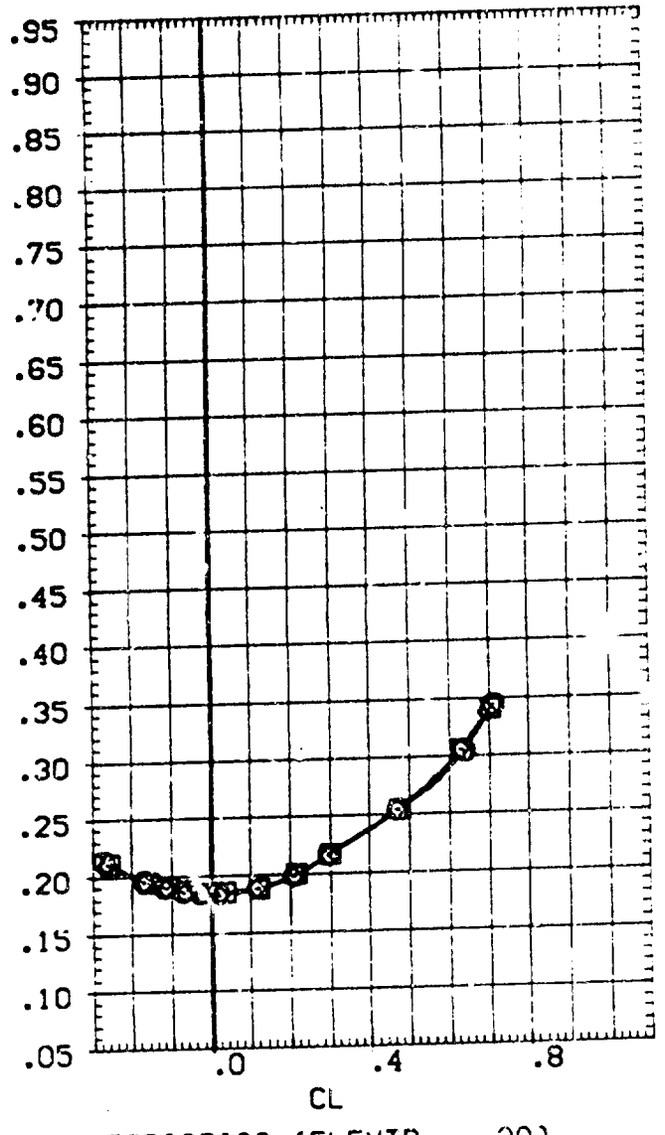


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6107)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6109)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

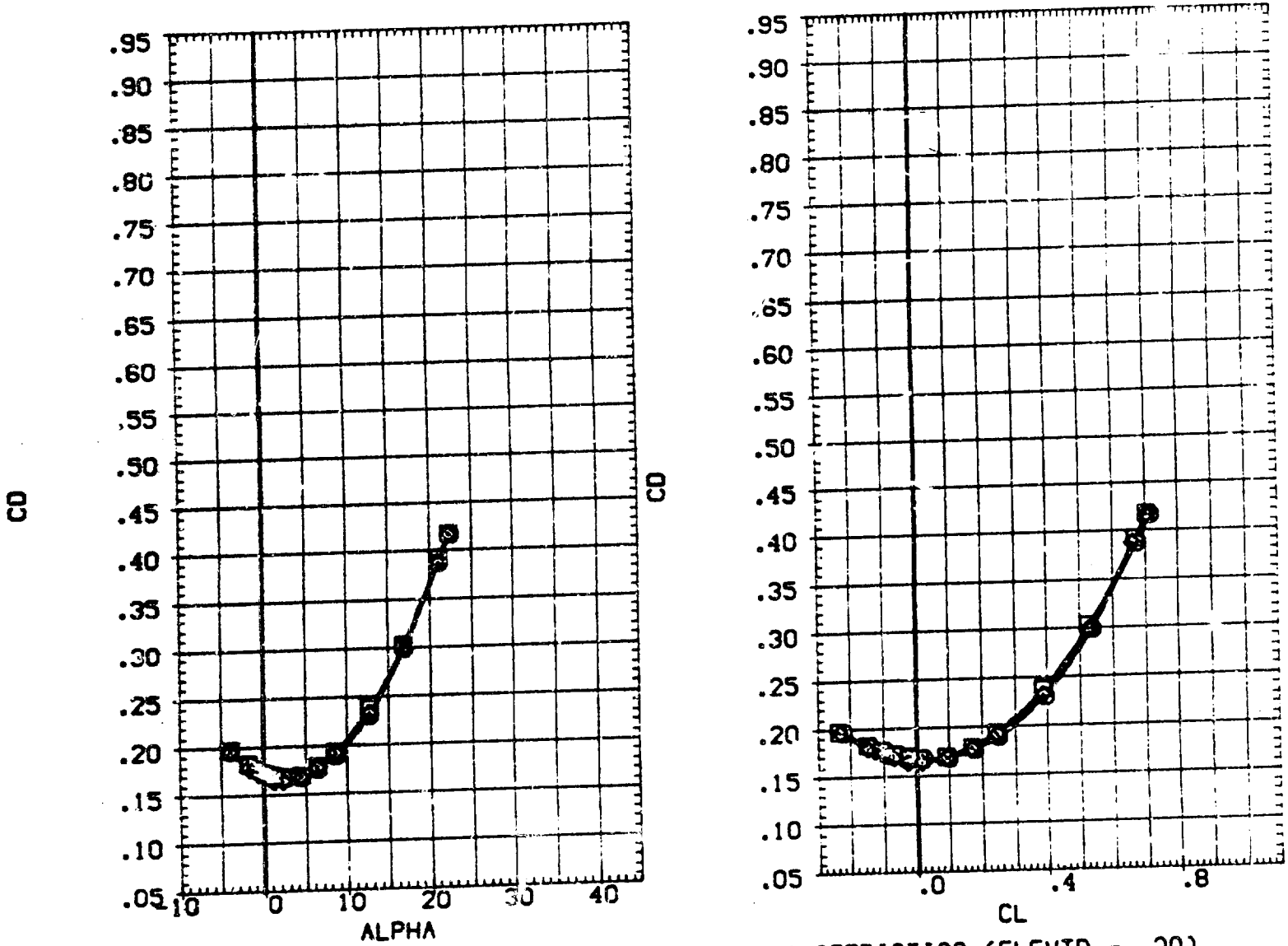


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LPS107)	□	LA-B/BA NAR 0858-MOD. NOSE ORBITER
(LPS108)		DATA NOT AVAILABLE
(LPS111)	◇	LA-B/BA NAR 0858-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.3628	INCHES
XMRP	15.9538	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

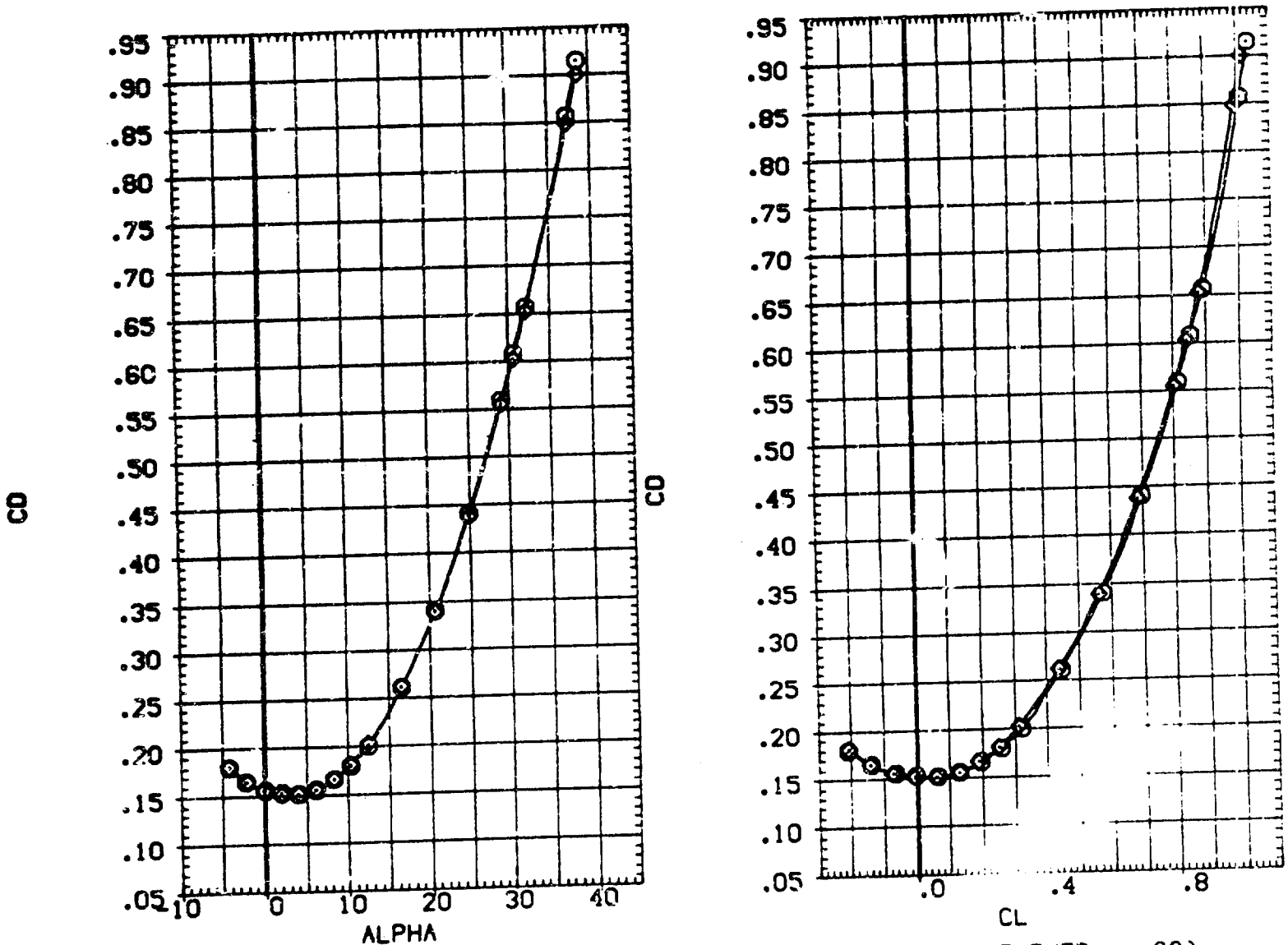


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(C)MACH = 2.36

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LPG107)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LPG109)	◇	DATA NOT AVAILABLE
(LPG111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0:88	SCALE

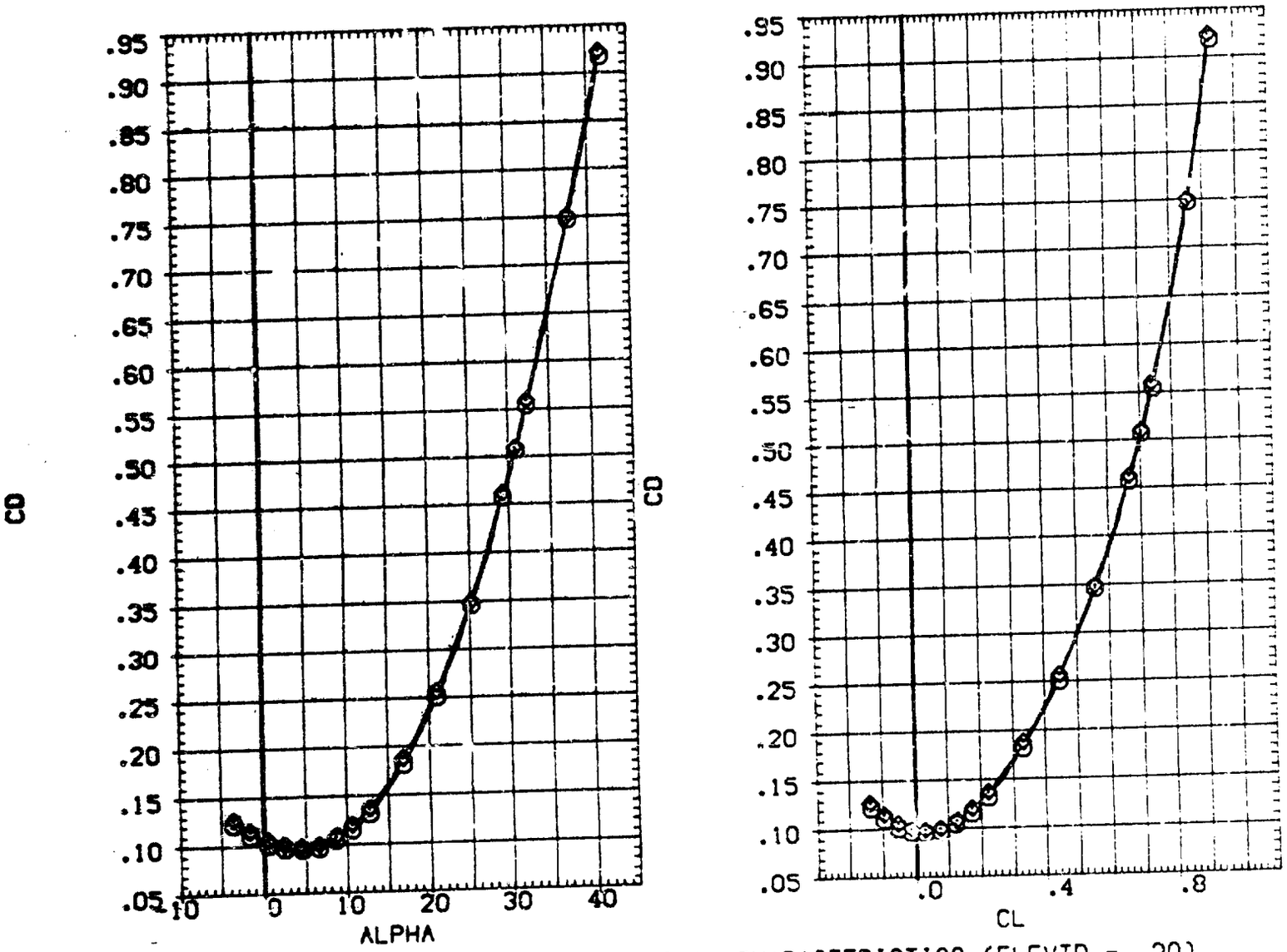


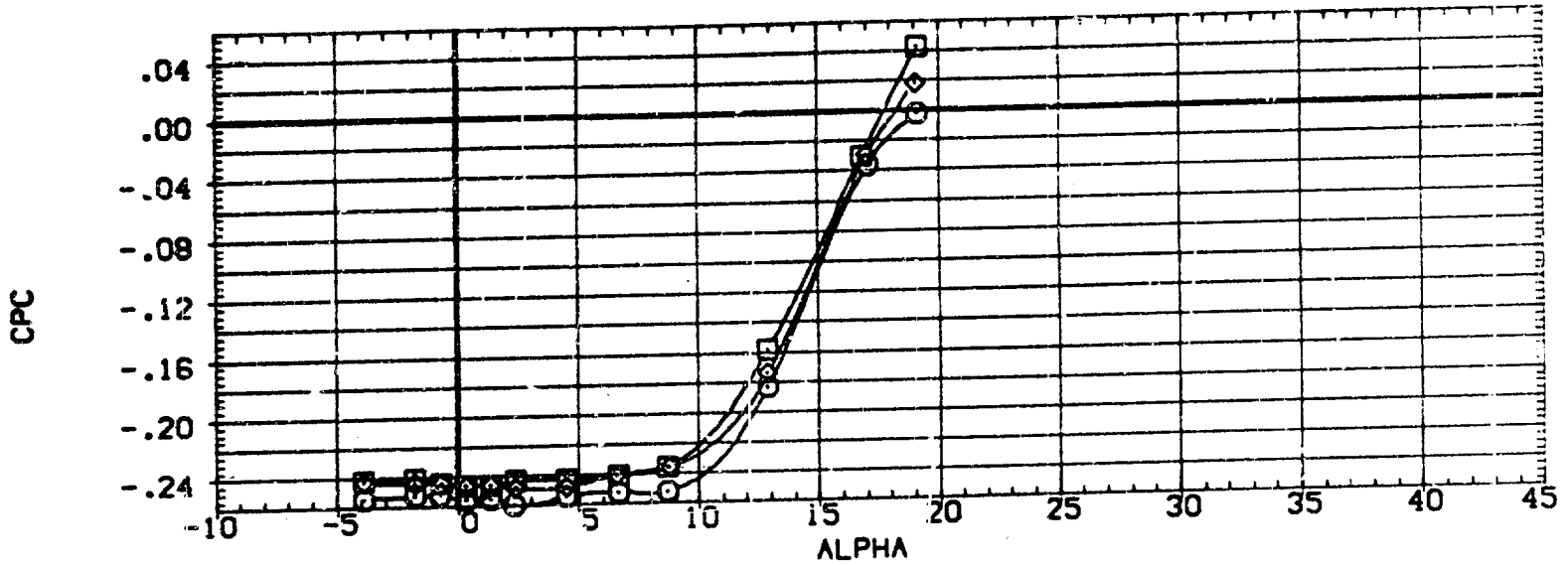
FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(D)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(NPS107)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NPS109)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NPS111)	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



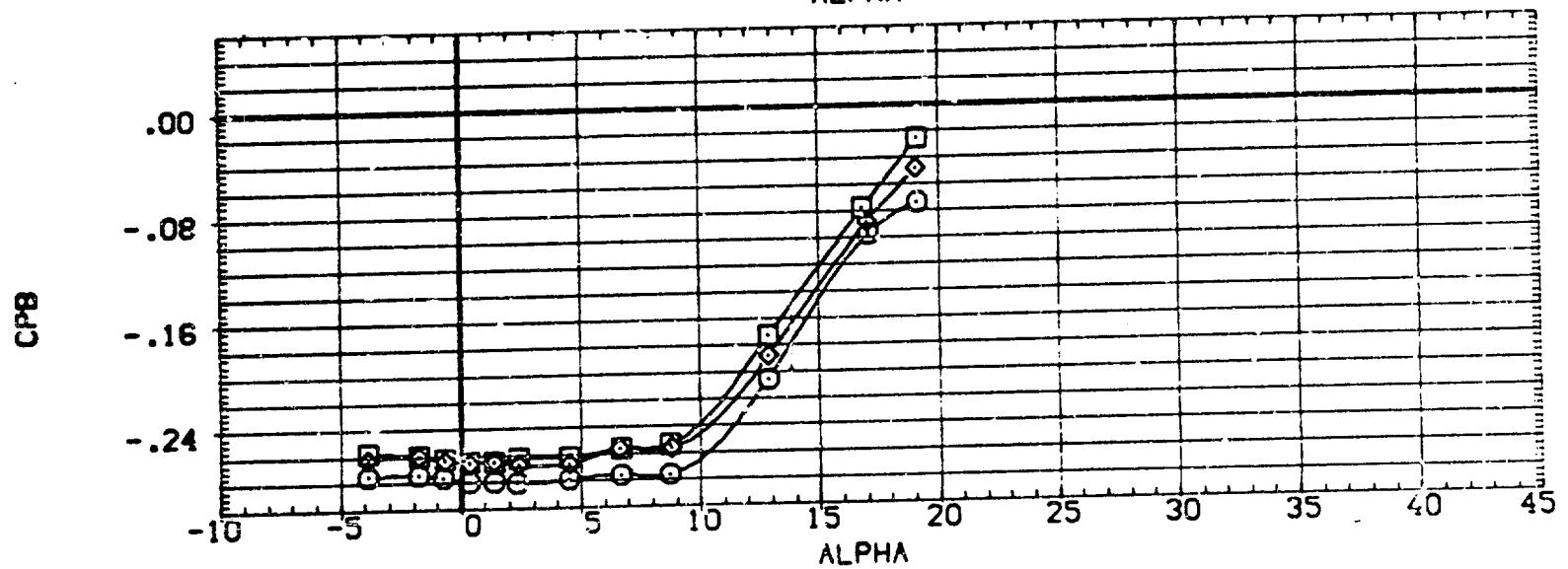


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(NPS107)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NPS109)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NPS111)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	0.9023	INCHES
BREF	17.5628	INCHES
XMRP	15.3638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

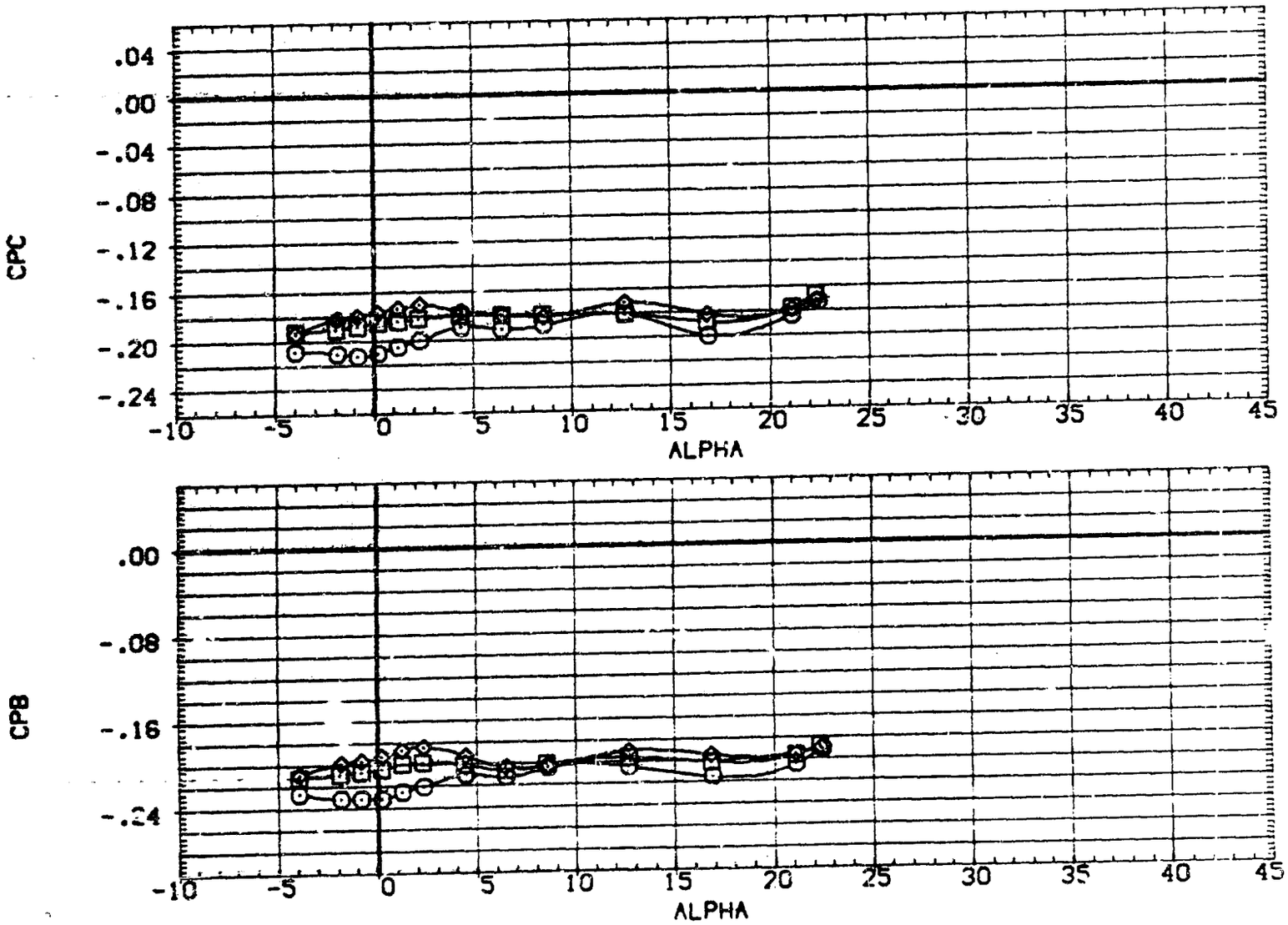


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(NPB011) ○	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(NPB013) □	LA-8/8A NAR 089B-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	
10.000	-20.000	1.000	.000
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

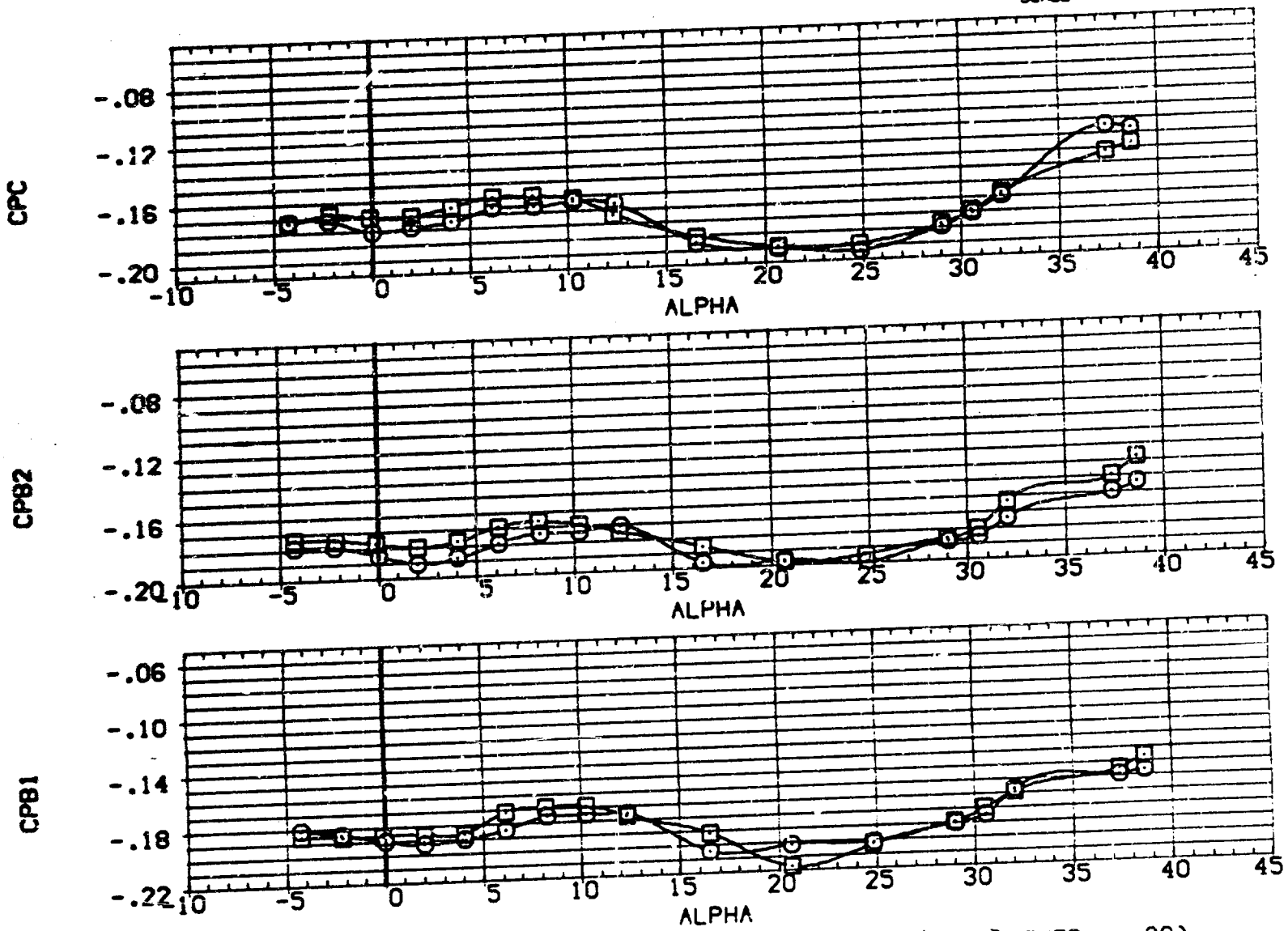


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(NPB011)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NPB013)	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0183	SCALE

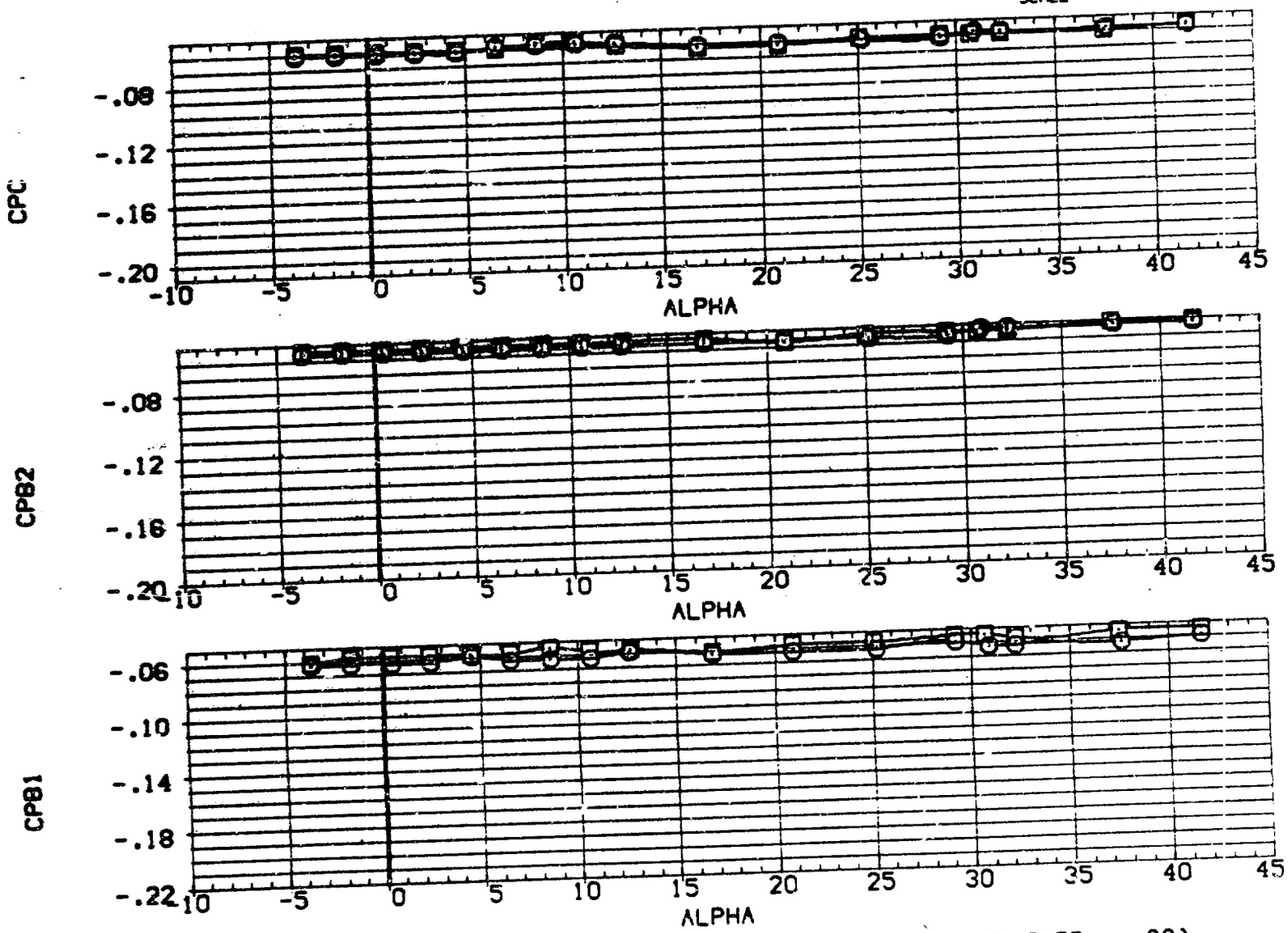


FIG. 2 EFFECT OF ROUGHNESS ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(LPG001)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(LPG002)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LPG003)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LPE004)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

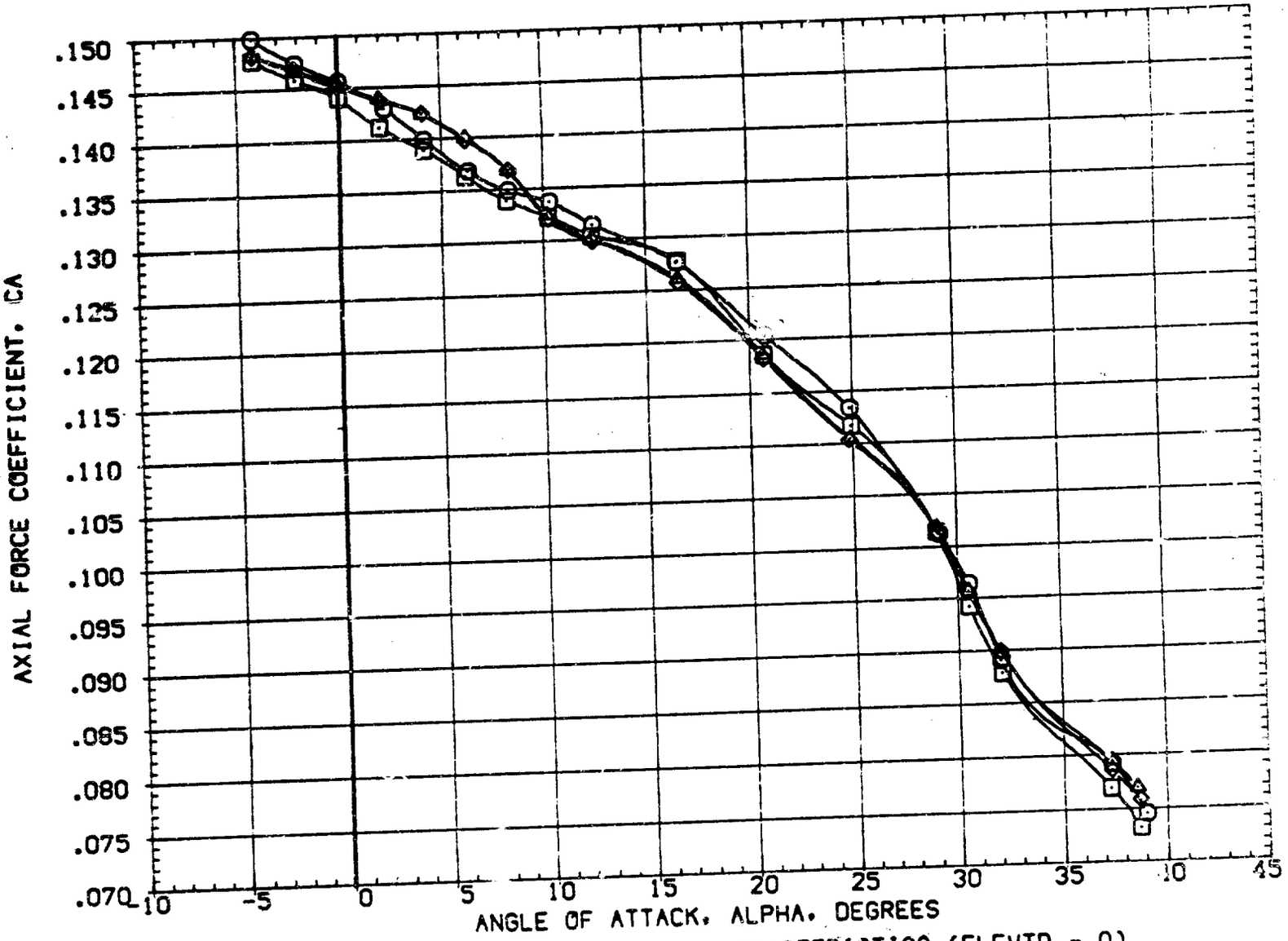


FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(LP6001) □	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(LP6002) ○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003) ⊠	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004) △	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ. I...
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

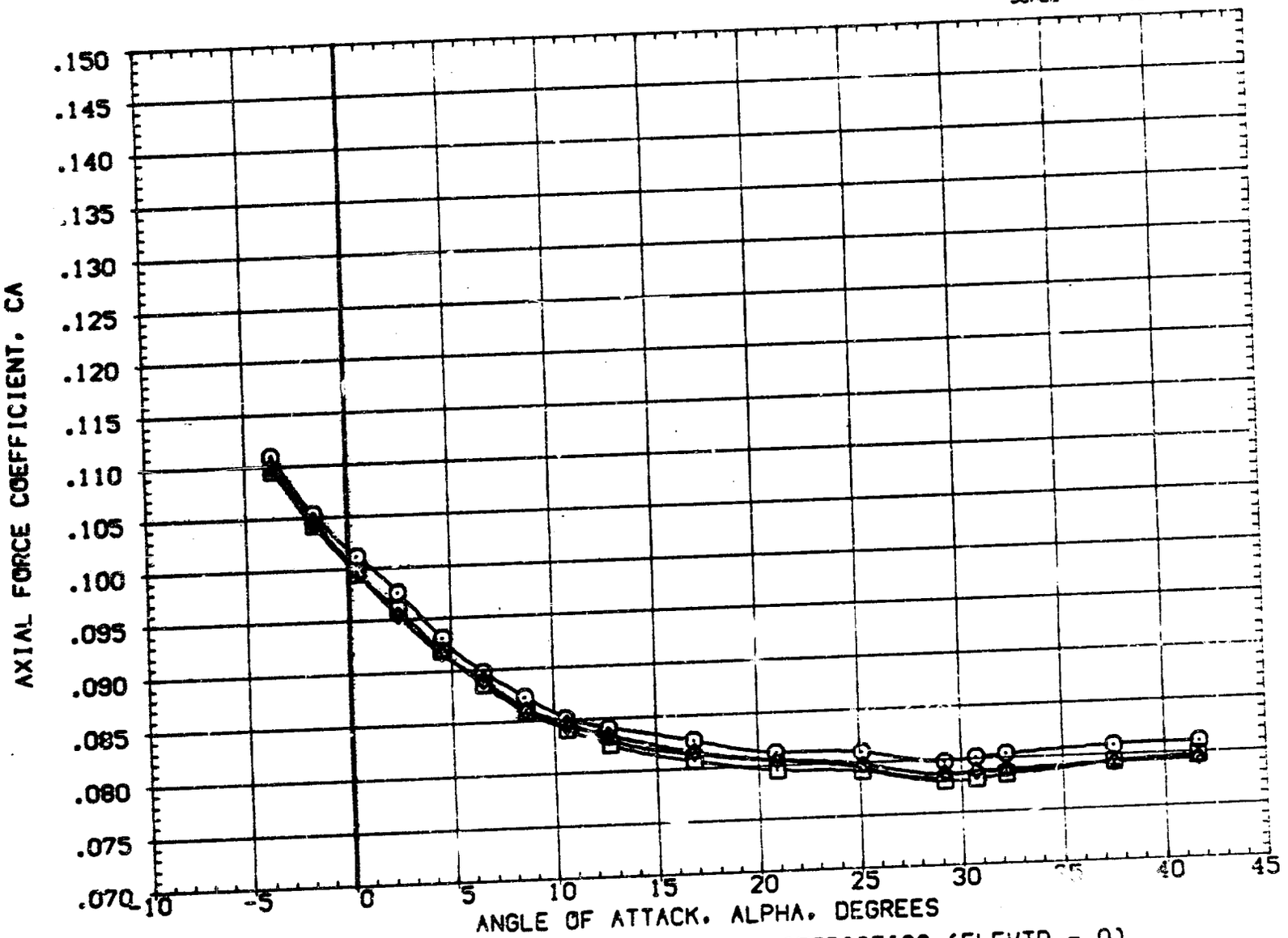
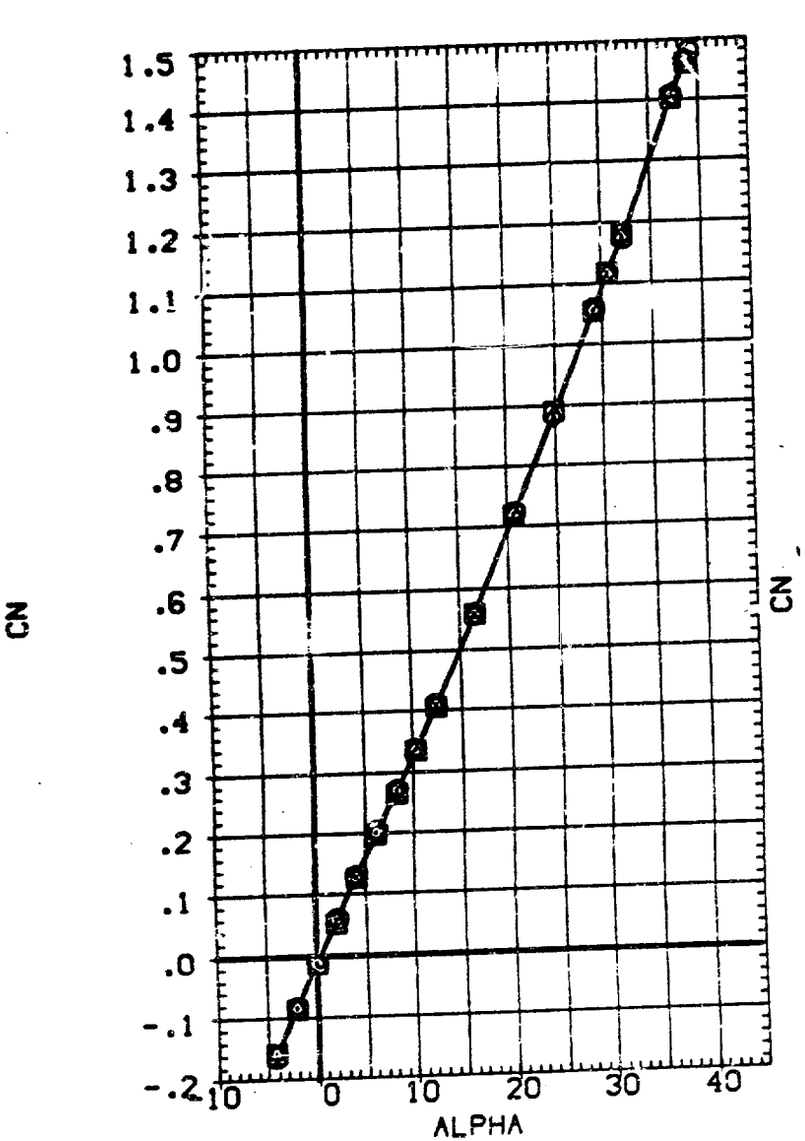


FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(LP6001)	□	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(LP6002)	◇	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003)	⊠	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004)	△	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFEREN	INFORMATION	
SREF	1808	SQ.IN.
LREF	6.3025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



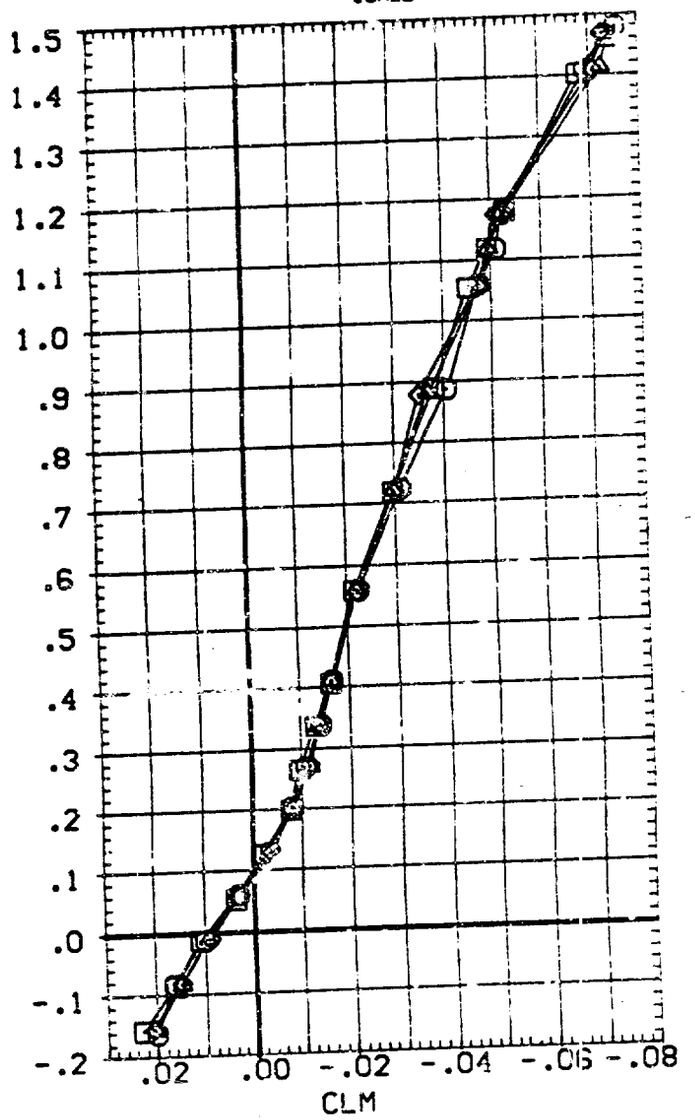


FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSWP	GT-LOC	K/L
(LP6001)	○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(LP6002)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003)	◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004)	△	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

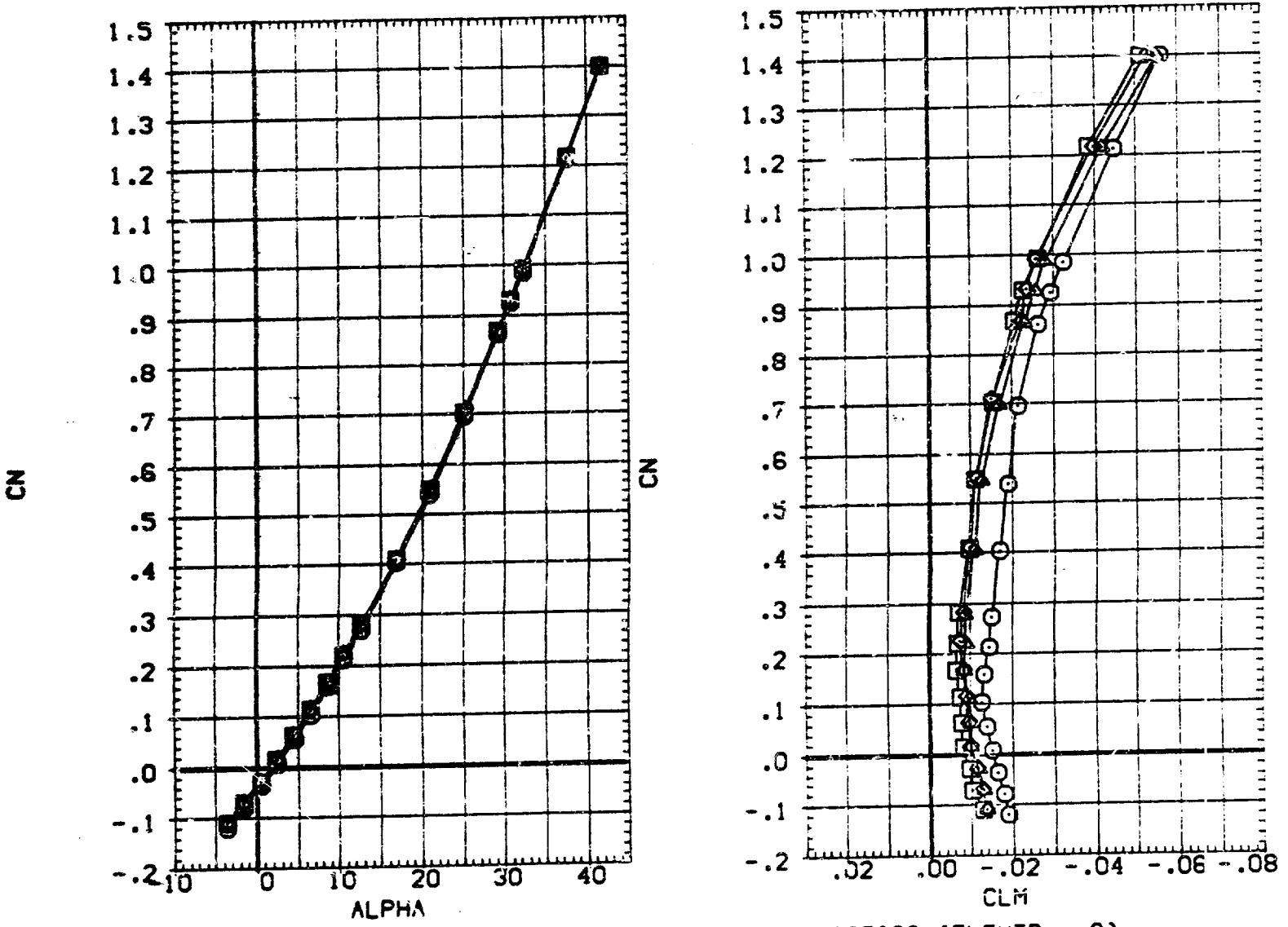


FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	M/.
(LP6001)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	:600	1.000	2.000	6.820
(LP6002)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003)	⊠	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004)	△	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5623	INCHES
XMRP	15.9633	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

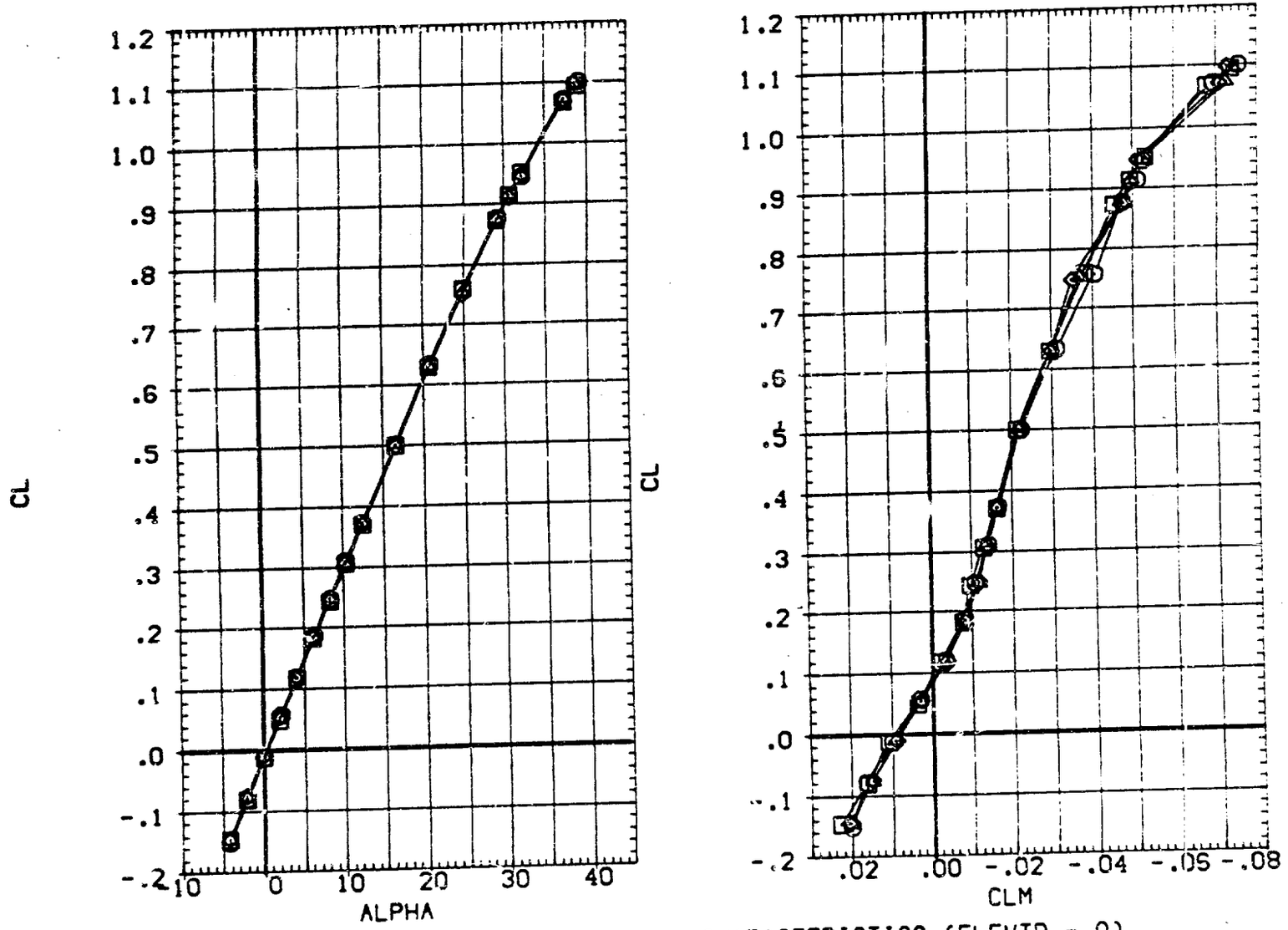


FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(LP6001)	□	LA-8 LARC UPVT 1023 NAR 0898-M00. NOSE ORBITER	.000	1.000	2.000	6.820
(LP6002)	○	LA-8 LARC UPVT 1023 NAR 0898-M00. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003)	◇	LA-8 LARC UPVT 1023 NAR 0898-M00. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004)	△	LA-8 LARC UPVT 023 NAR 0898-M00. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

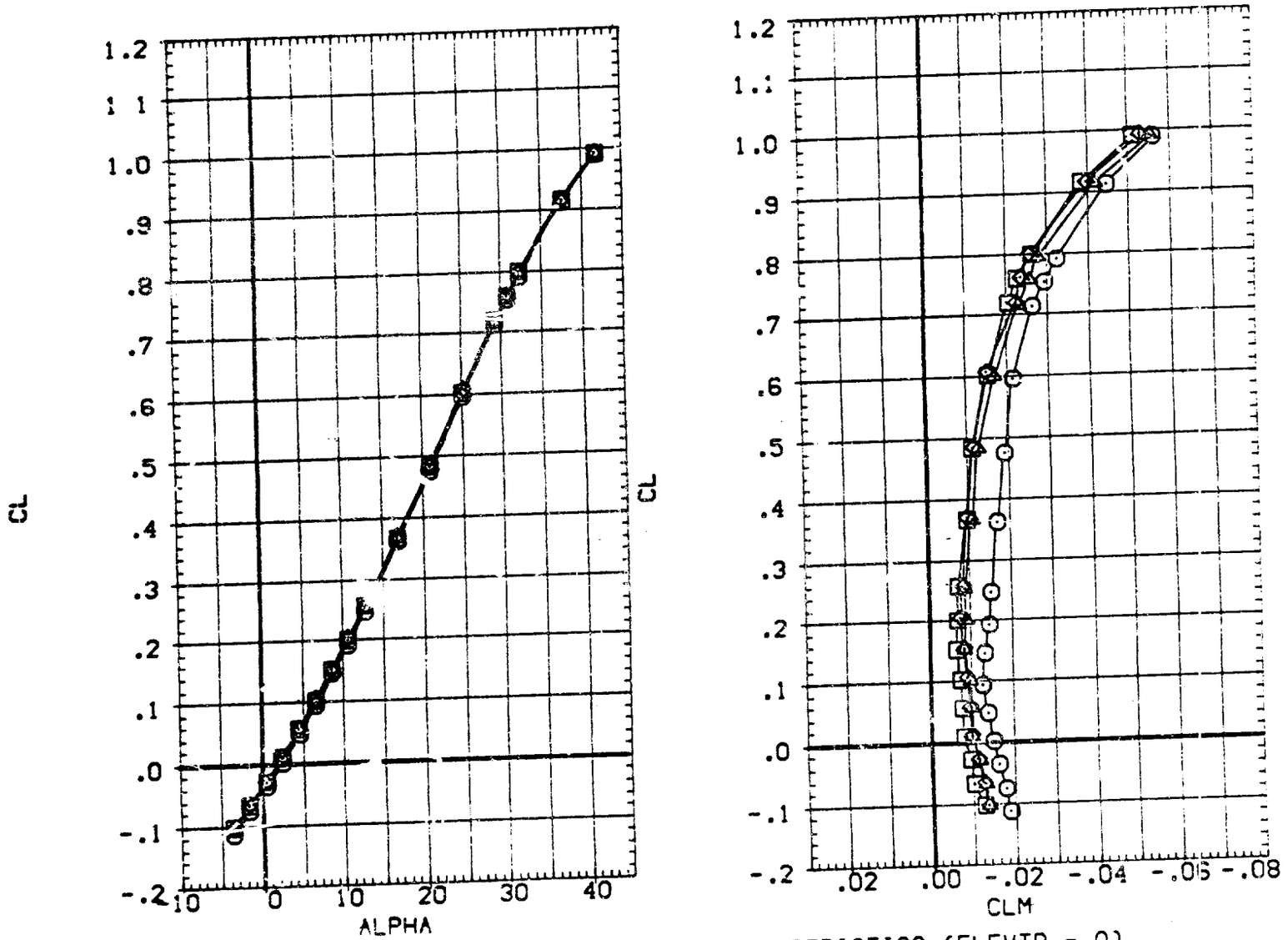


FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSWP	GT-LOC	K/L
(LP6001)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(LP6002)	◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003)	⋈	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004)	△	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1806	SQ.IN.
LREF	8.5025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

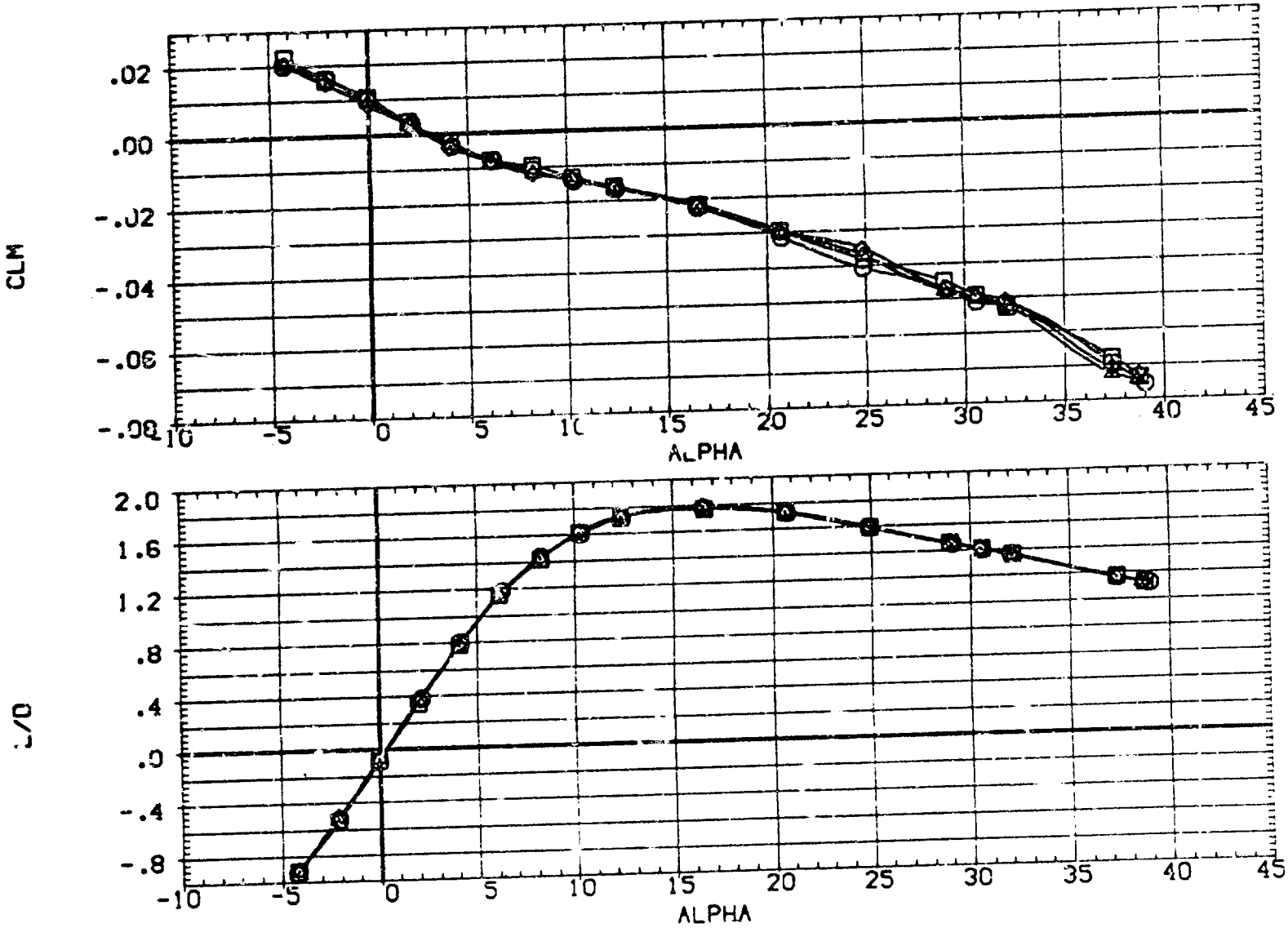


FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(LP6001) ○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(LP6002) □	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003) ◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004) △	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

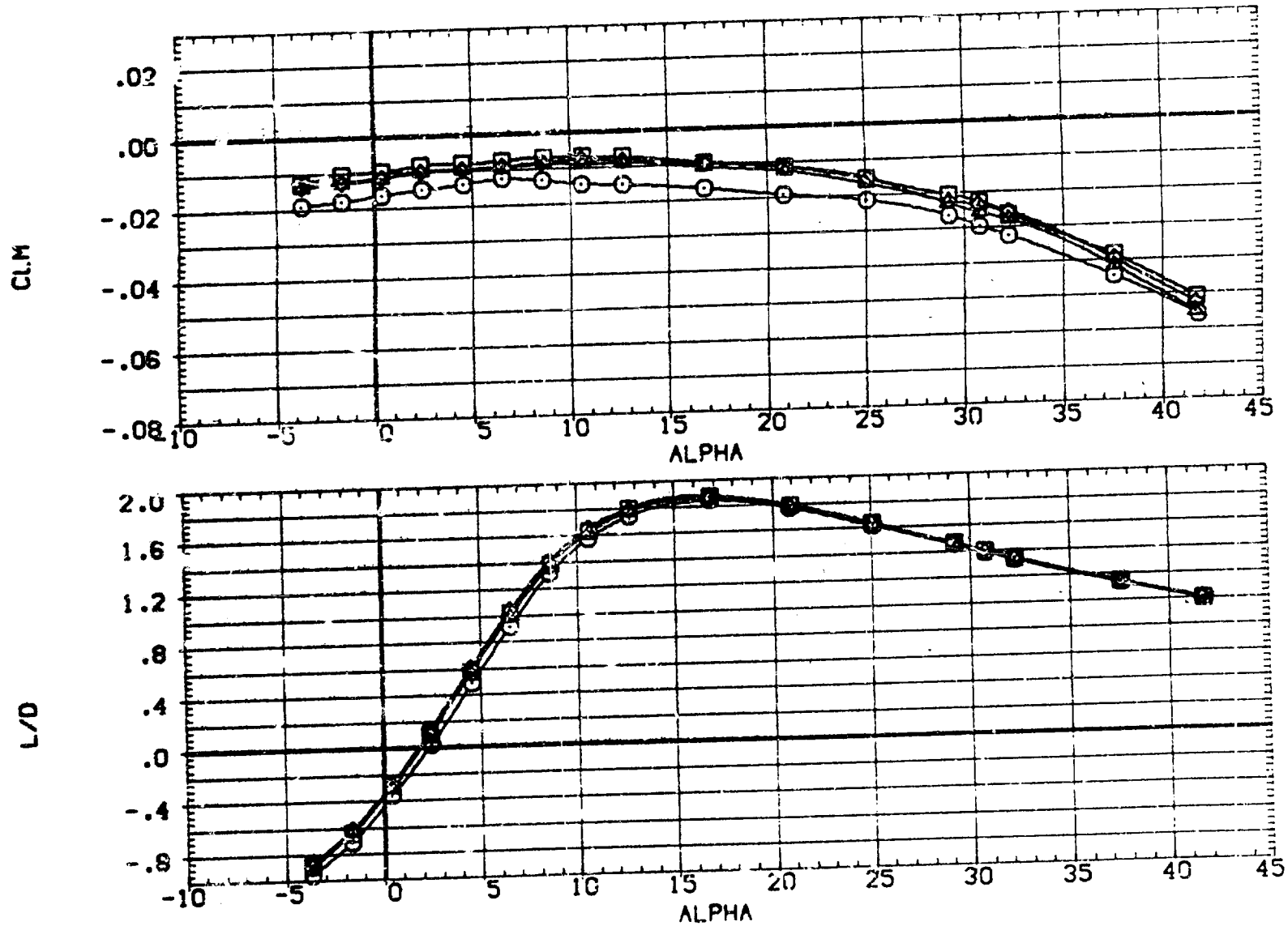


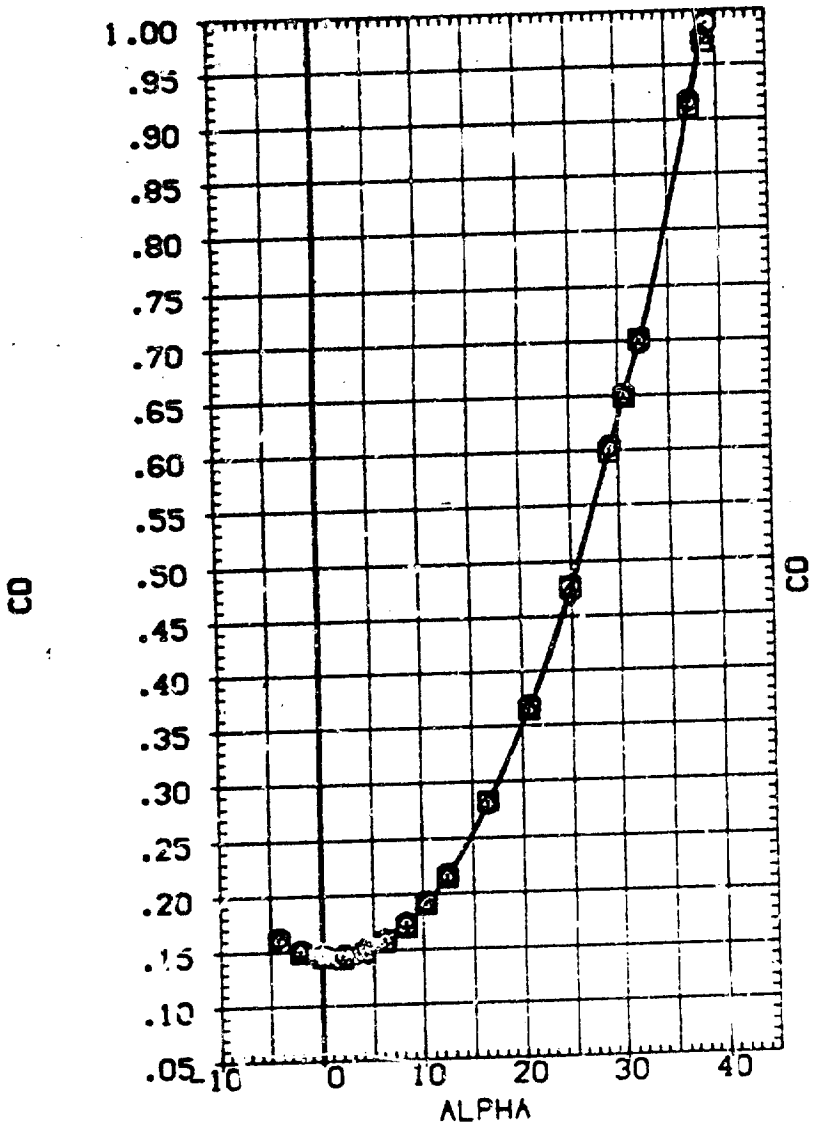
FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(LP6001)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(LP6002)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION

SREF	1736.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



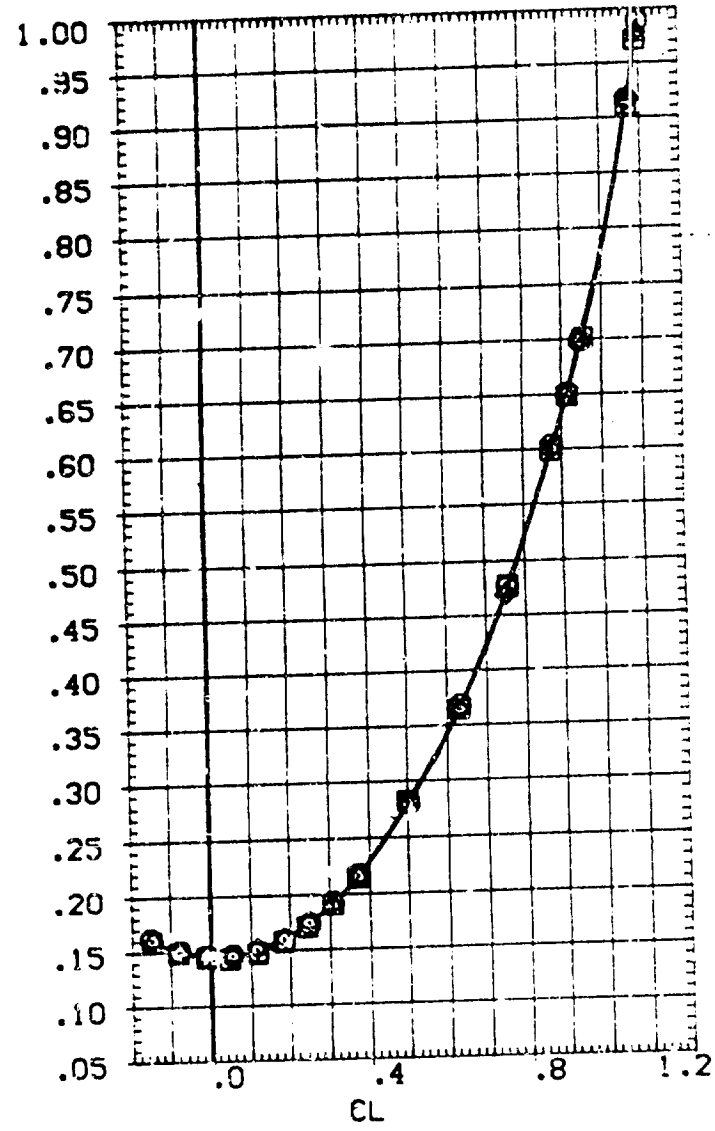


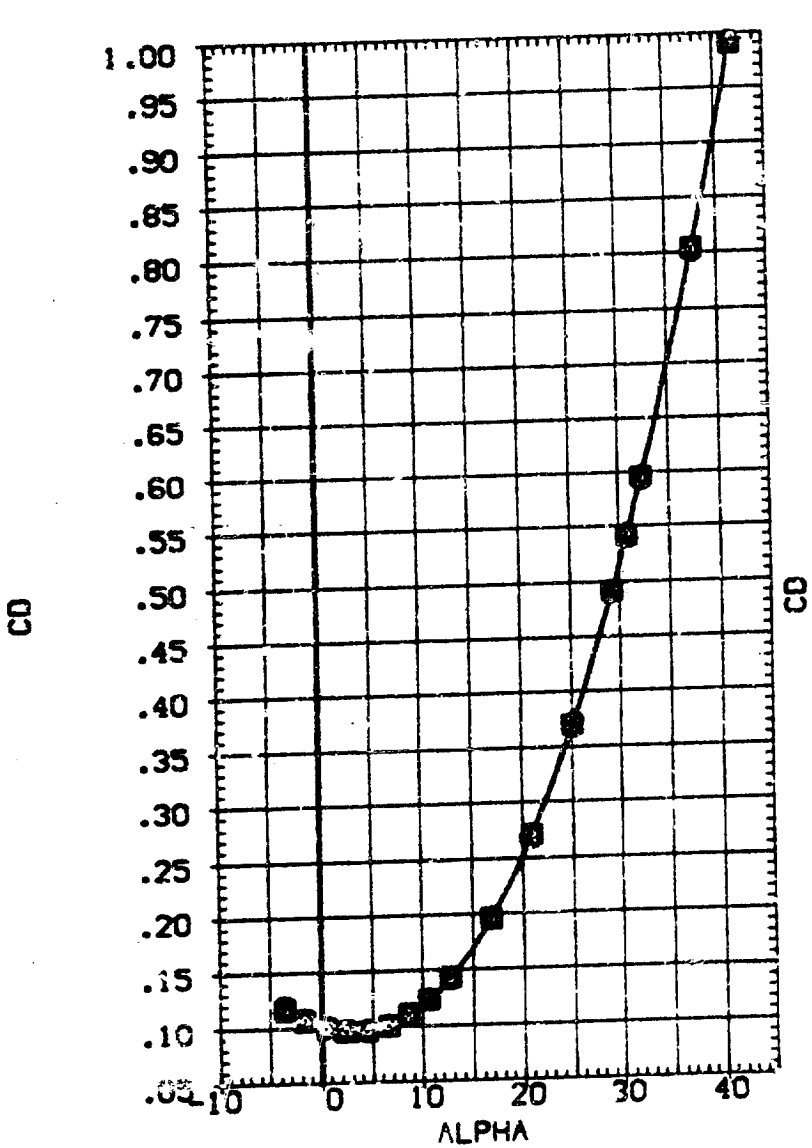
FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSWP	GT-LOC	K/L
(LP6001) ○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(LP6002) □	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820
(LP6003) ⊠	LA-8 LARC UPVT 1023 NAR 0899-MOD. NOSE ORBITER	3.000	1.000	2.000	6.820
(LP6004) △	LA-8 LARC UPVT 1023 NAR 0899 MOD. NOSE ORBITER	3.000	2.000	2.000	6.820

REFERENCE INFORMATION

SREF	1136.1308	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.3638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



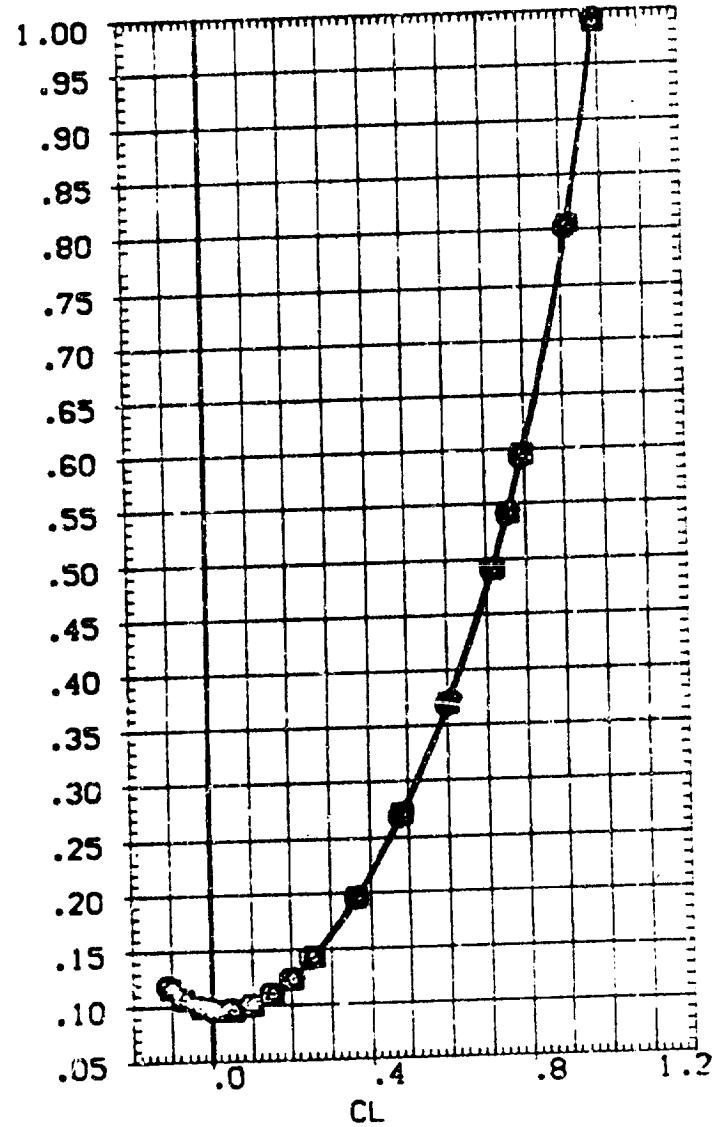


FIG. 3 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(OP6013) □	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(OP6014) ○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(OP6015) ⊠	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(OP6016) ⊠	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

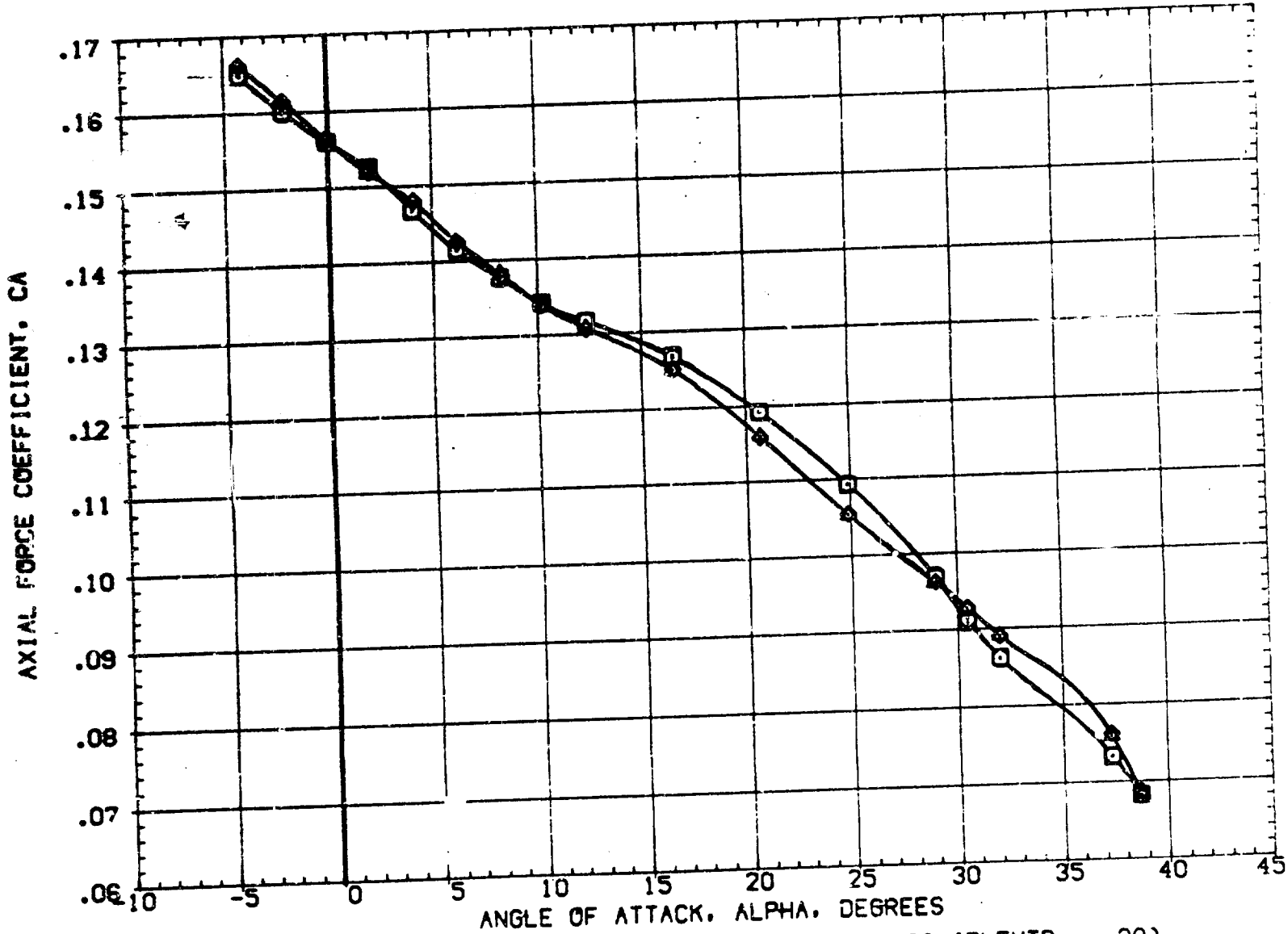


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(CP6013)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(CP6014)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(CP6015)	⊠	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(CP6016)	△	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.8025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

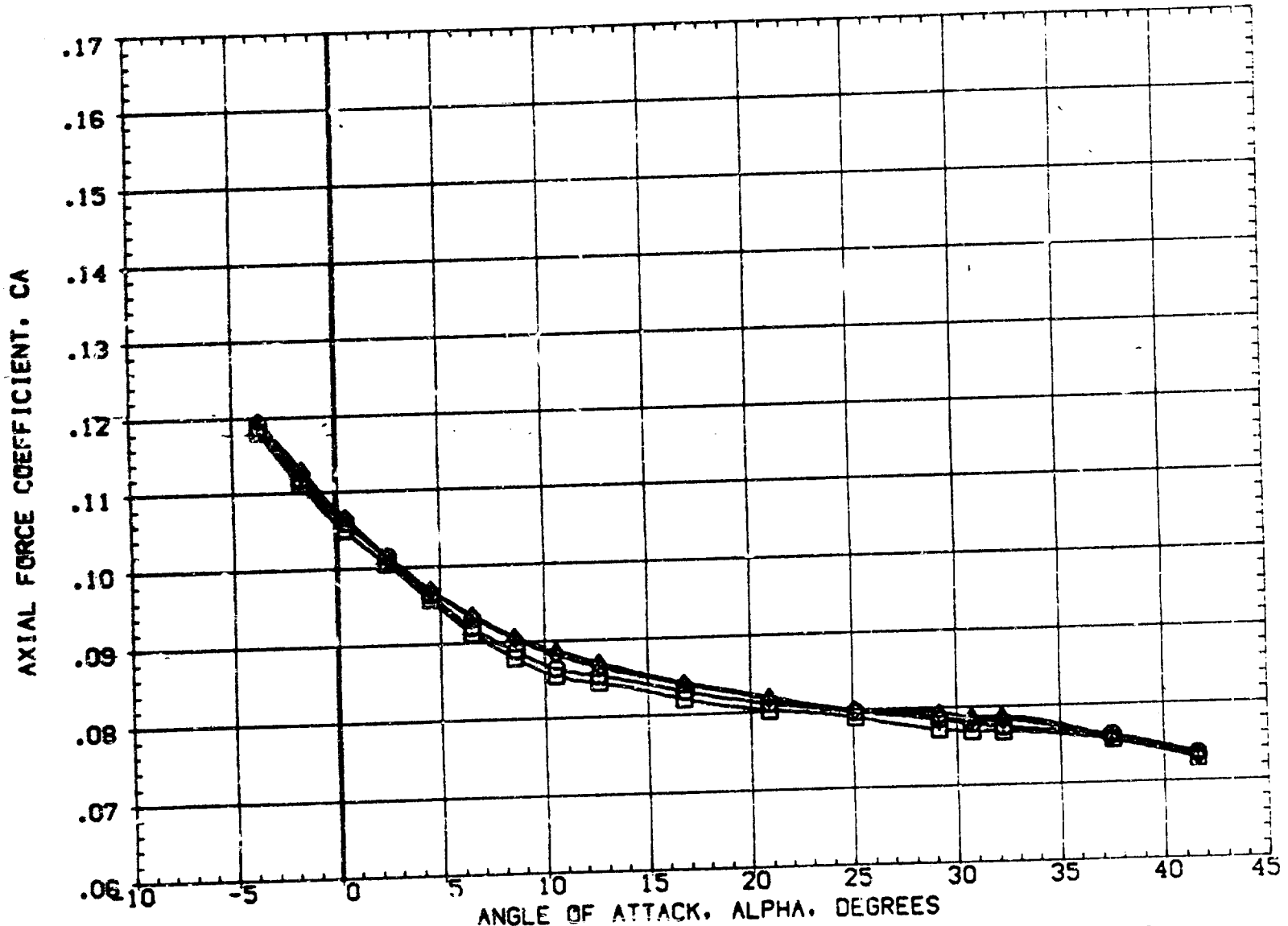


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = .63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(CPS013)	○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(CPS014)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(CPS015)	◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(CPS016)	△	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

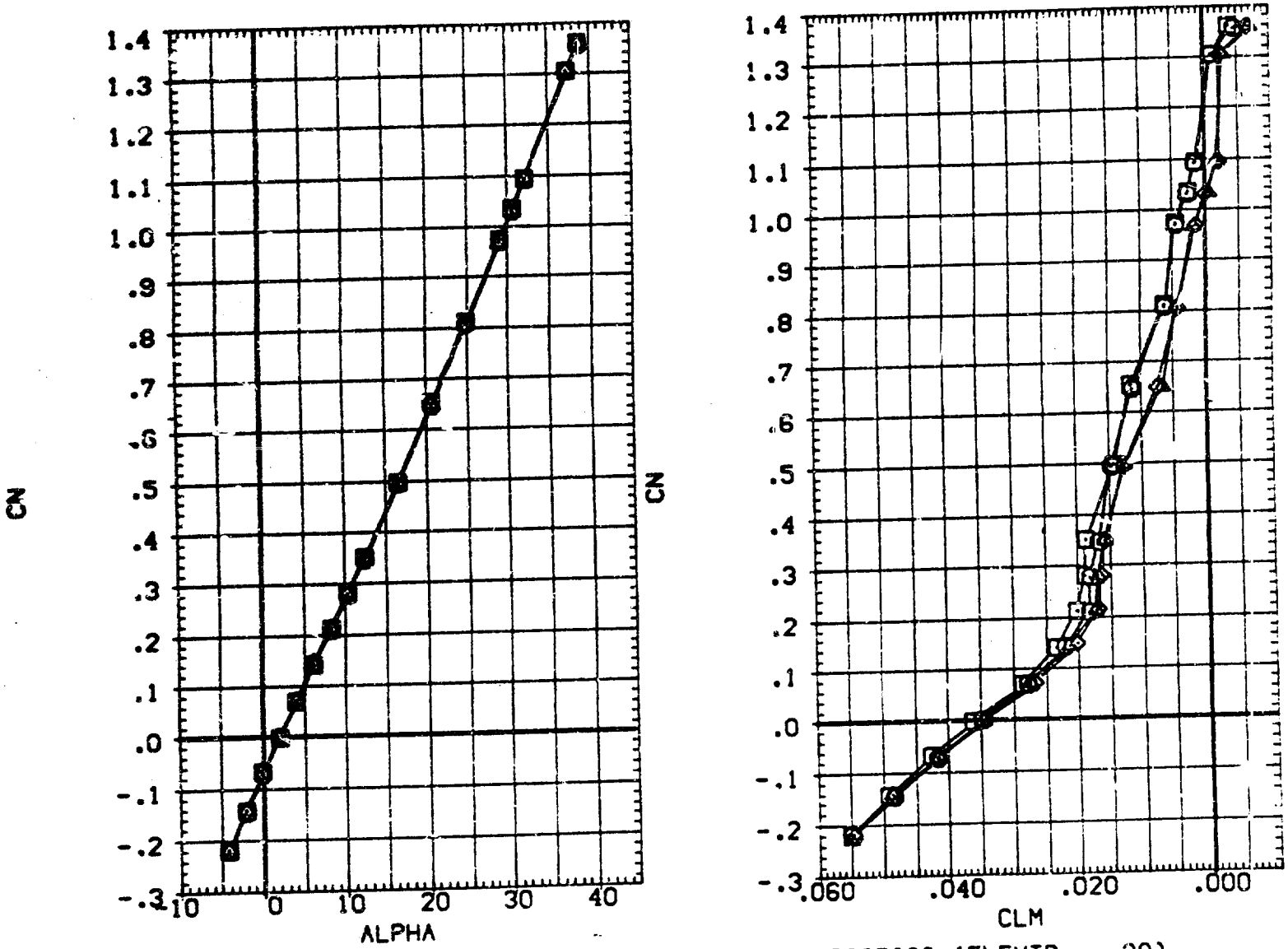


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(CP6013)	○	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(CP6014)	□	LA-8 LARC UPVT 102_ NAR 089B-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(CP6015)	◇	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(CP6016)	△	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

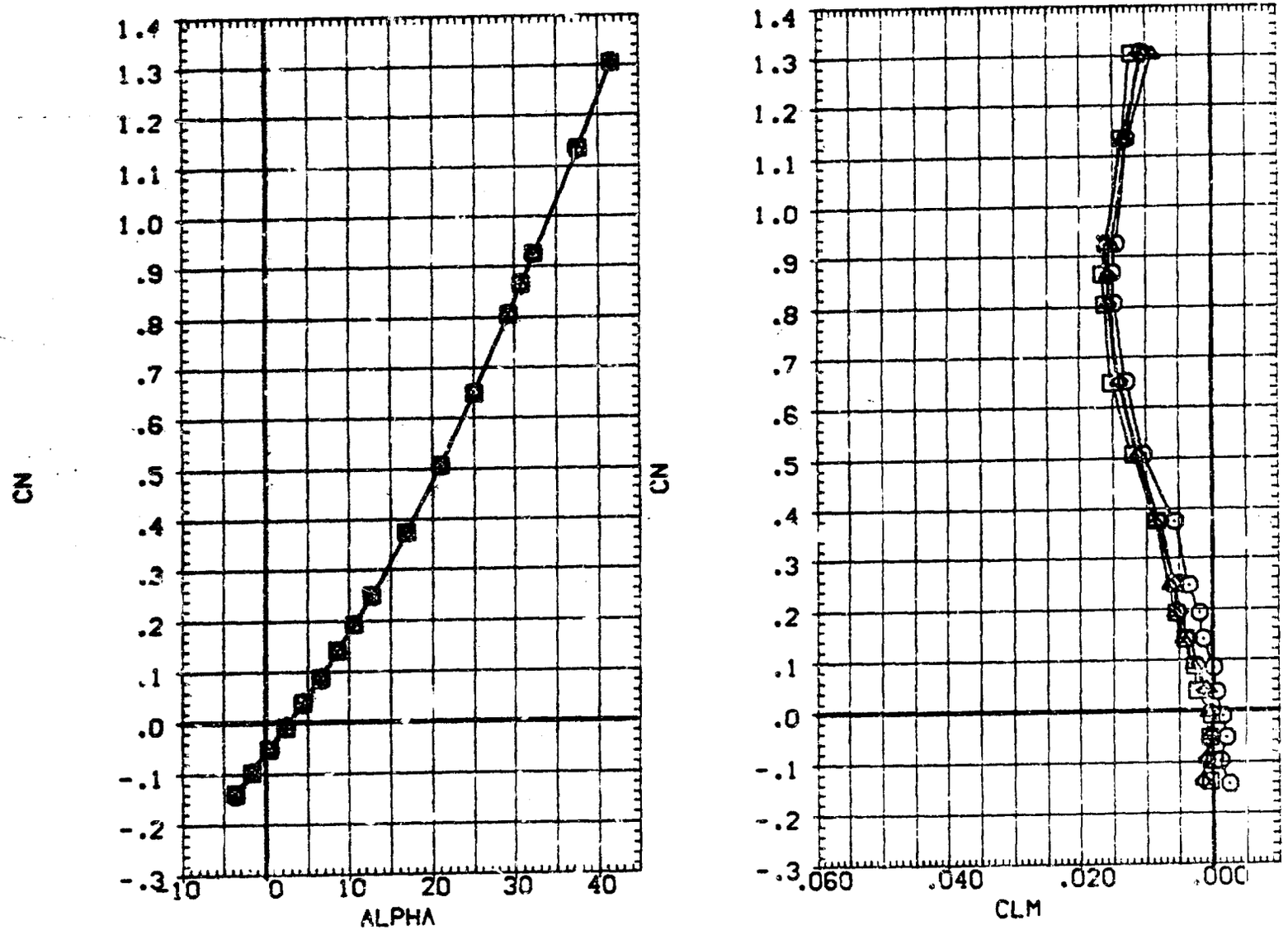


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(CP6013)	□	LA-8 LARC UPVT 1023 NAR 0893-H30, NOSE ORBITER	00	1.000	3.000	6.820
(CP6014)	◇	LA-8 LARC UPVT 1023 NAR 0893-H00, NOSE ORBITER	.000	2.000	3.000	6.820
(CP6015)	⊠	LA-8 LARC UPVT 1023 NAR 0893-H00, NOSE ORBITER	-3.000	1.000	3.000	6.820
(CP6016)	△	LA-8 LARC UPVT 1023 NAR 0893-H00, NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

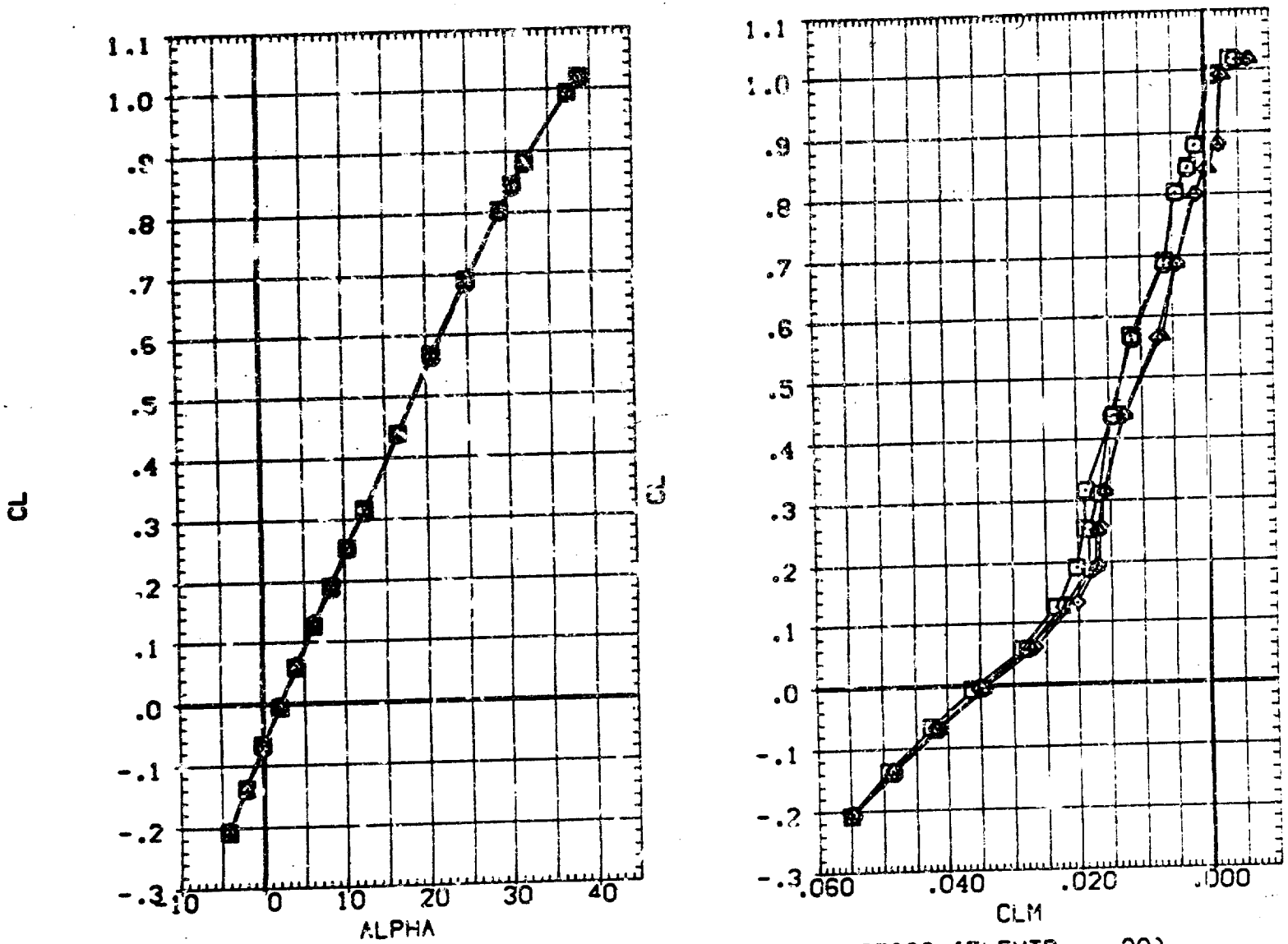


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSMP	ST-LOC	K/L
(CP6013)	○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(CP6014)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(CP6015)	◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(CP6016)	△	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SRE	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5528	INCHES
XMRP	15.9538	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

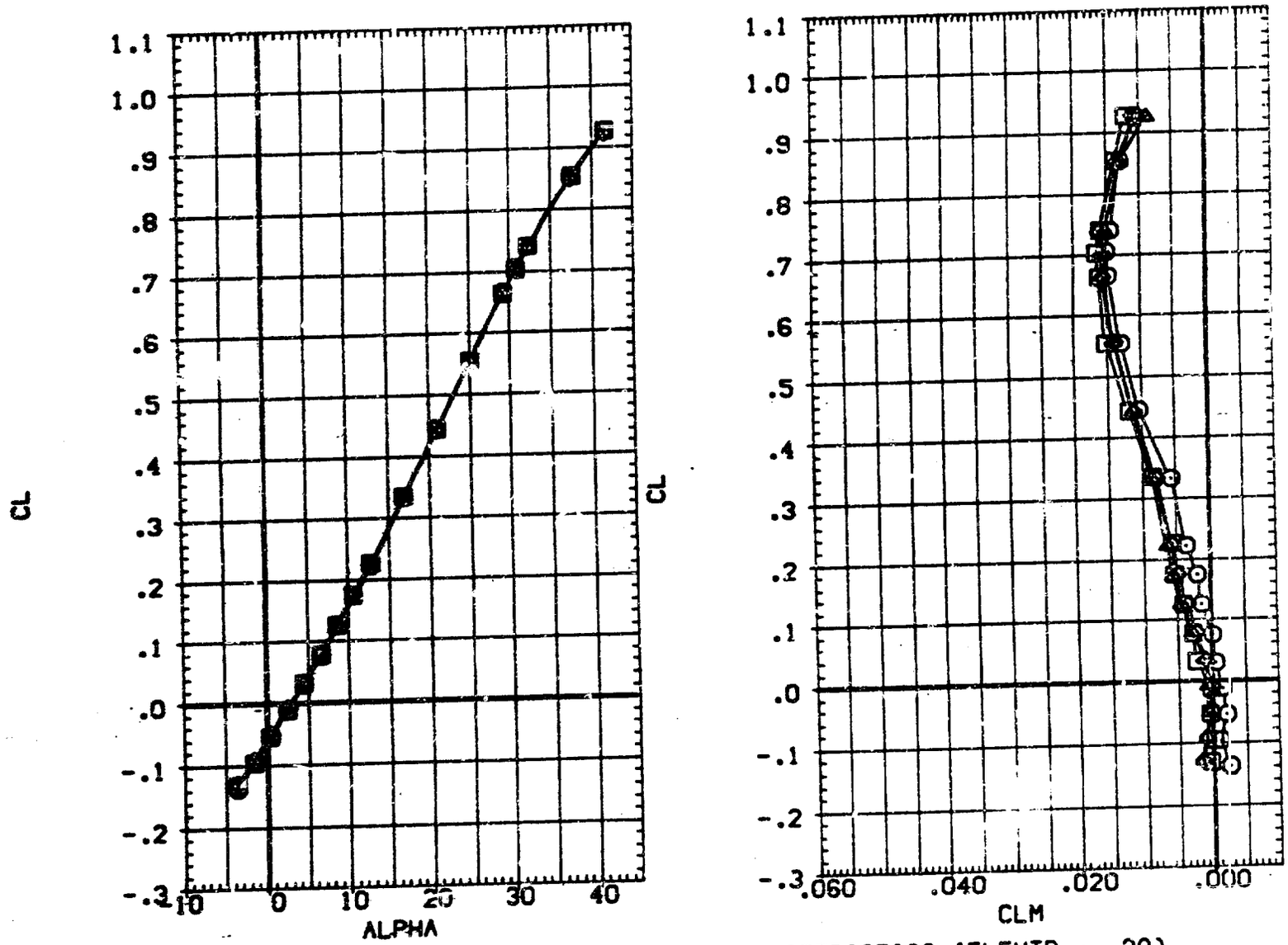


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSLP	GT-LOC	K/L
(OP6013) ○	LA-8 ARC UPVT 1023-NAR 0898-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(OP6014) ⊠	LA-8 ARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(OP6015) ◇	LA-8 ARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(OP6016) △	LA-8 ARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

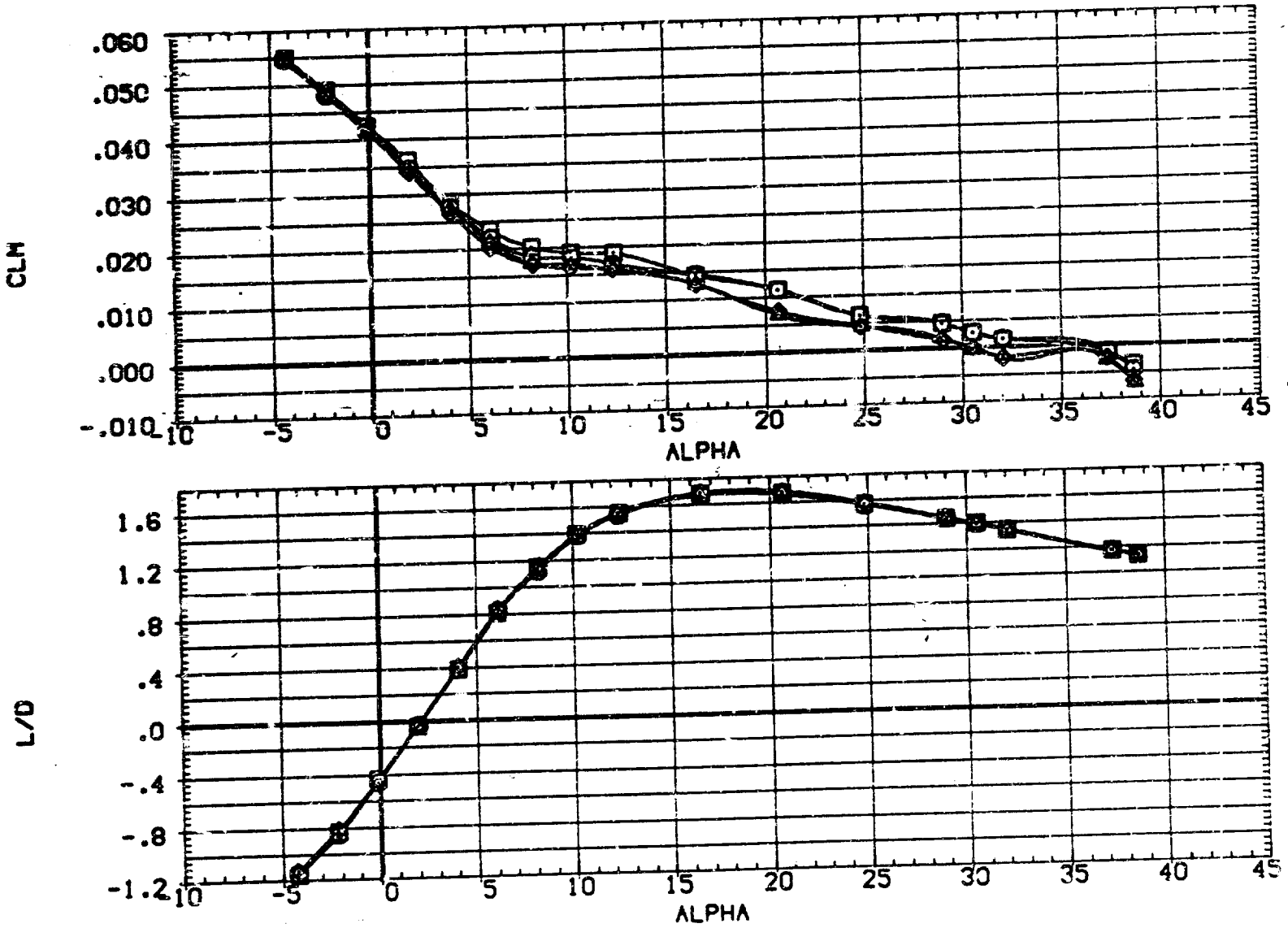


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(CP6013)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(CP6014)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(CP6015)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(CP6016)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0168	SCALE

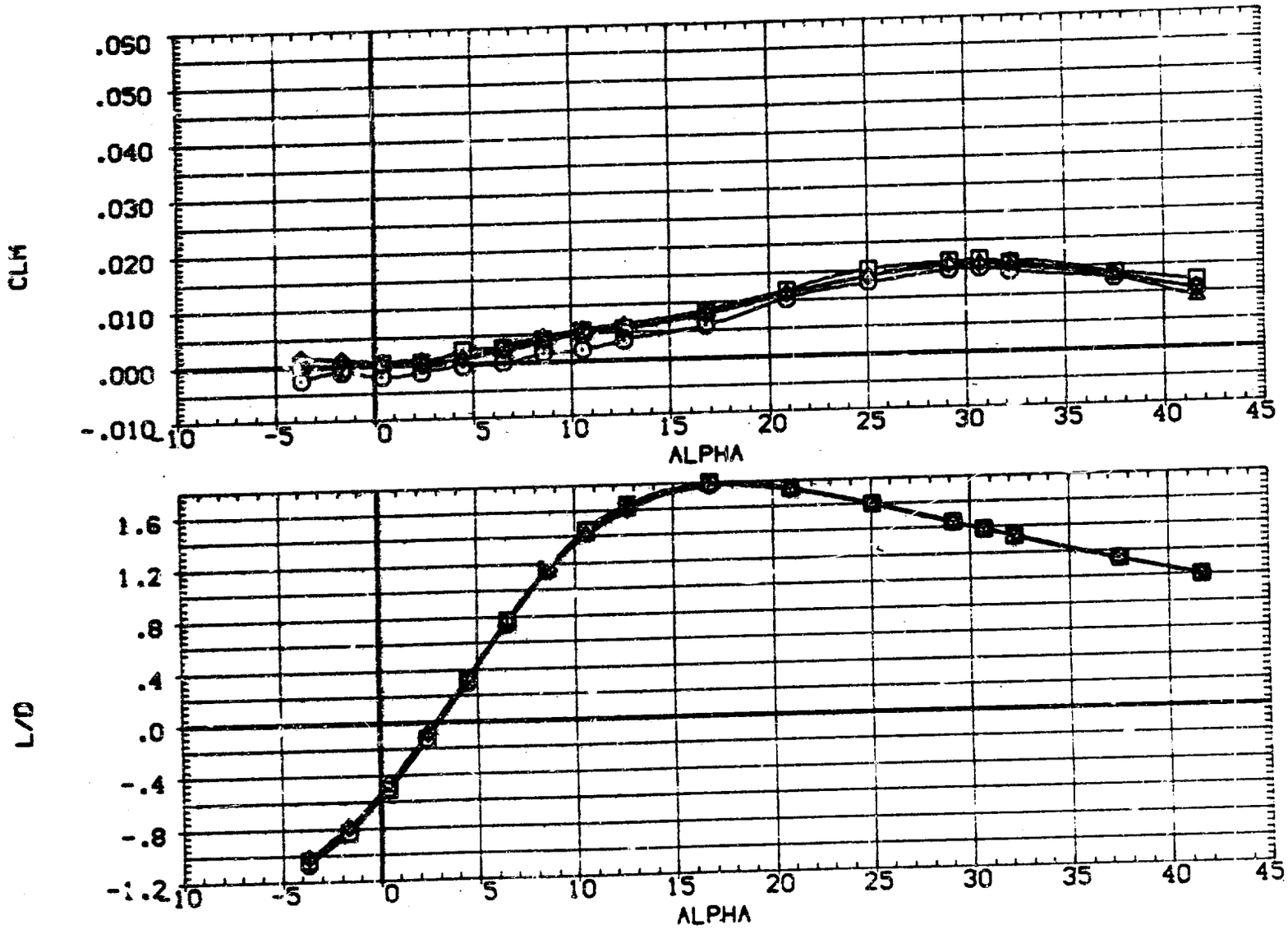


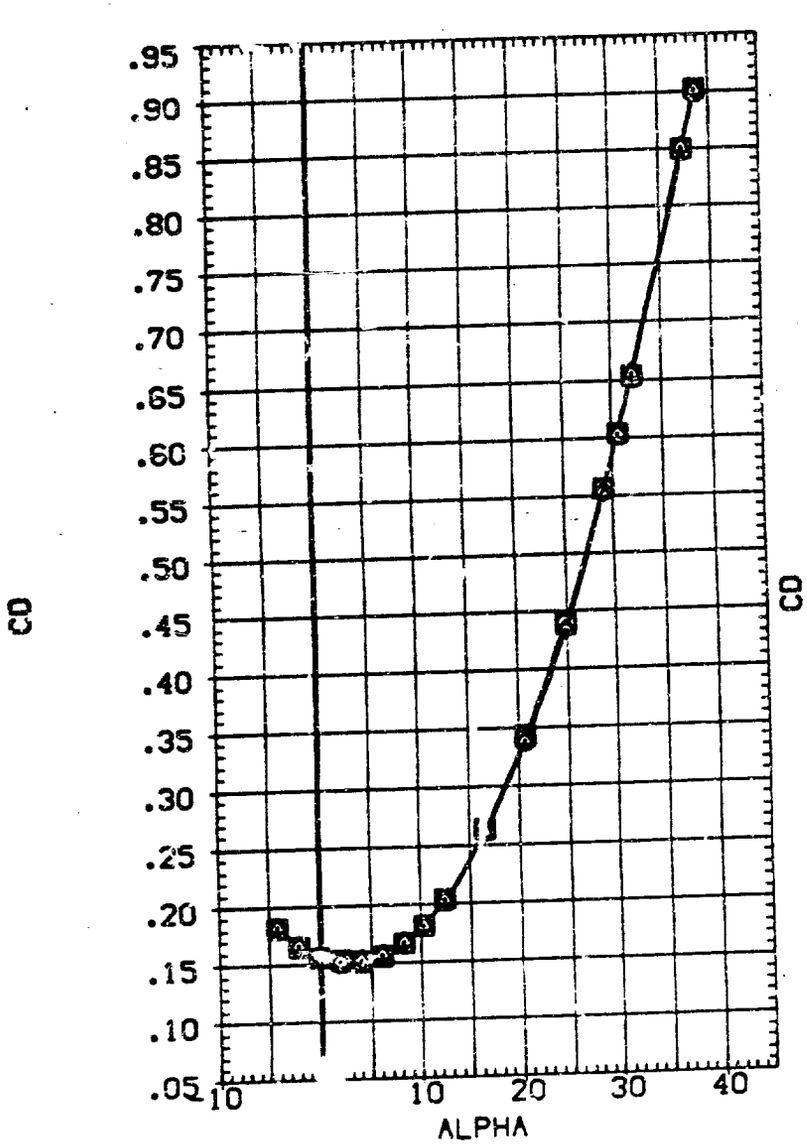
FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LGC	K/L
(CP6013)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(CP6014)	◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(CP6015)	⊠	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(CP6016)	⊠	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



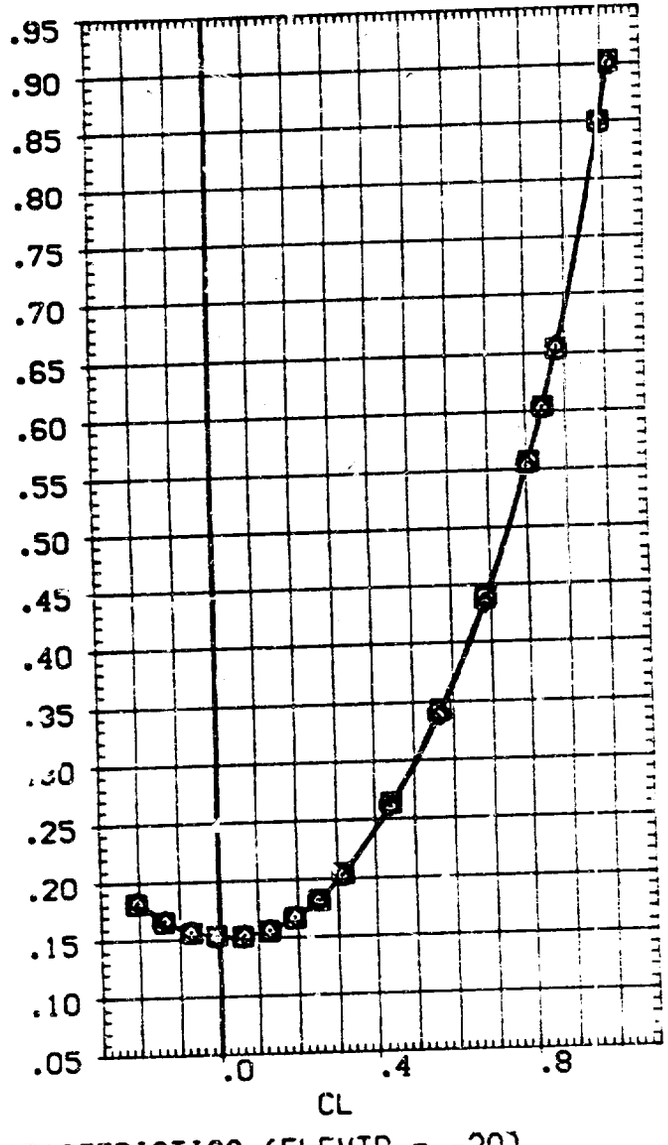


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ALPSVP	GT-LOC	K/L
(CP6013)	□	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	.000	1.000	3.000	6.820
(CP6014)	▢	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	.000	2.000	3.000	6.820
(CP6015)	⊠	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	-3.000	1.000	3.000	6.820
(CP6016)	△	LA-8 LARC UPVT 1023 NAR 089B-MOD. NOSE ORBITER	-3.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

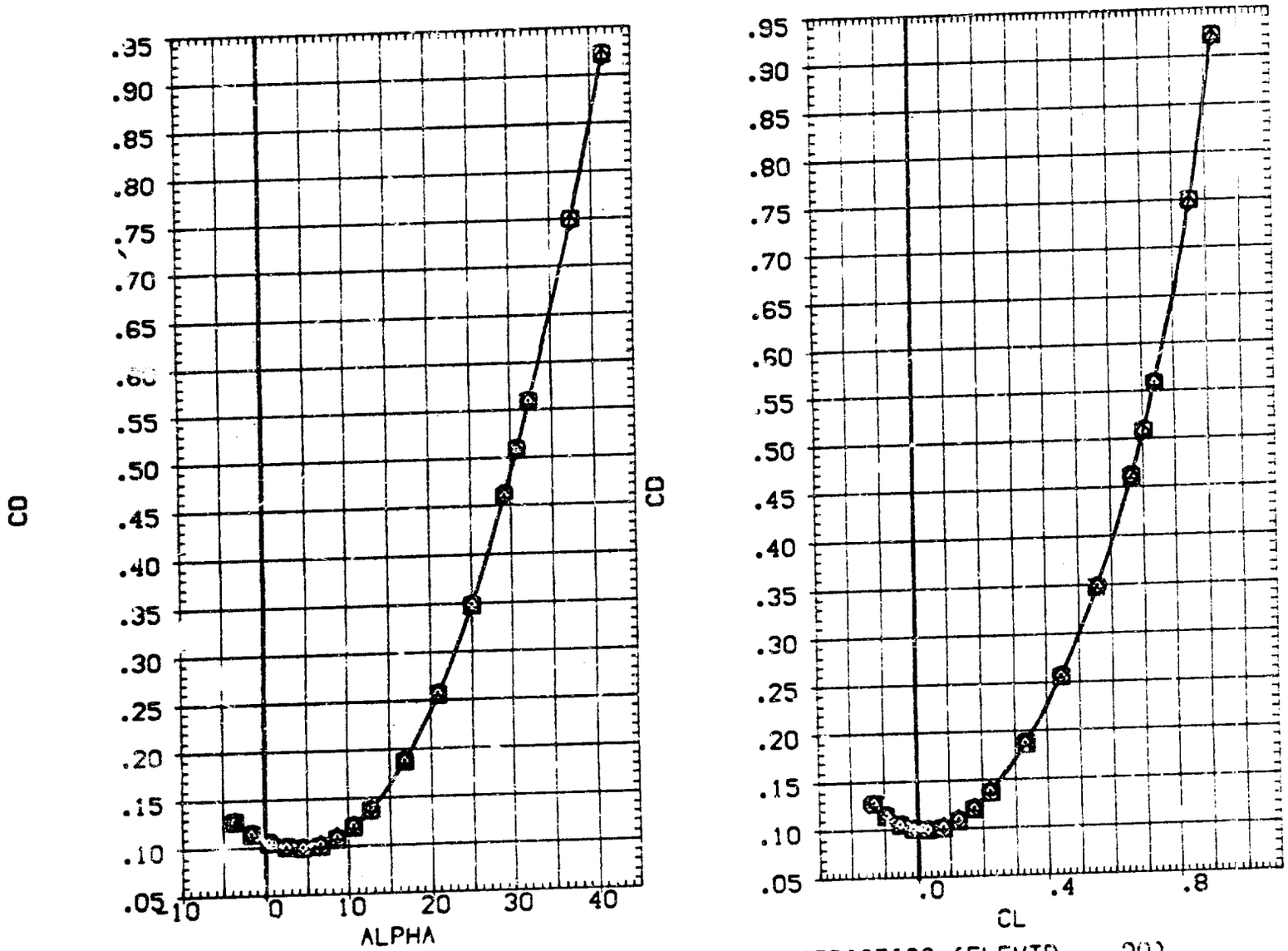


FIG. 4 HYSTERESIS EFFECT ON LONGITUDINAL CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6106)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(LP6104)	⊠	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(LP6102)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(LP6008)	△	DATA NOT AVAILABLE	.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

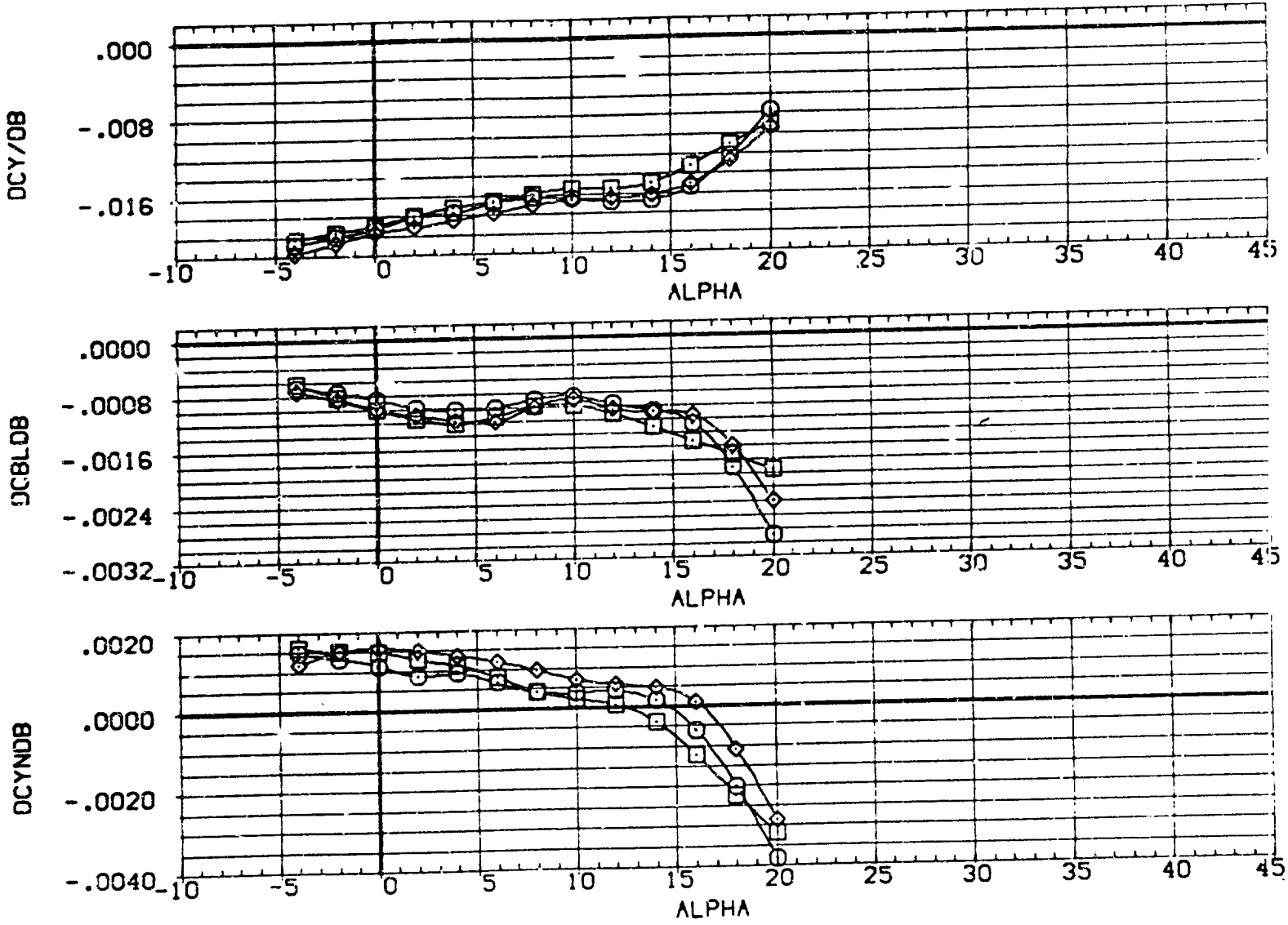


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6106)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	-1.000	.000
(LP6104)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(LP6102)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(LP6008)	DATA NOT AVAILABLE	.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

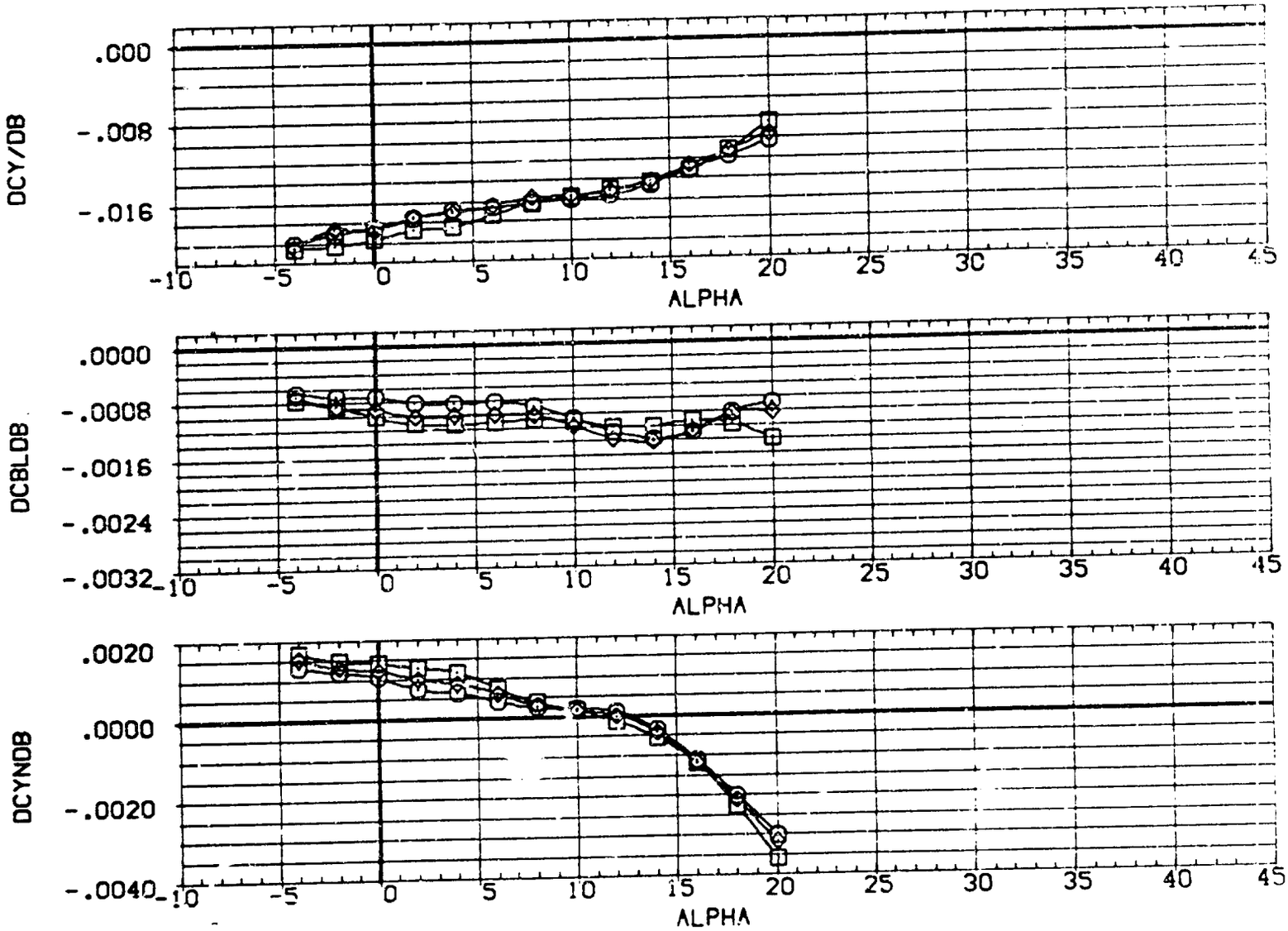


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6106)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(LP6104)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(LP6102)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(LP6008)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

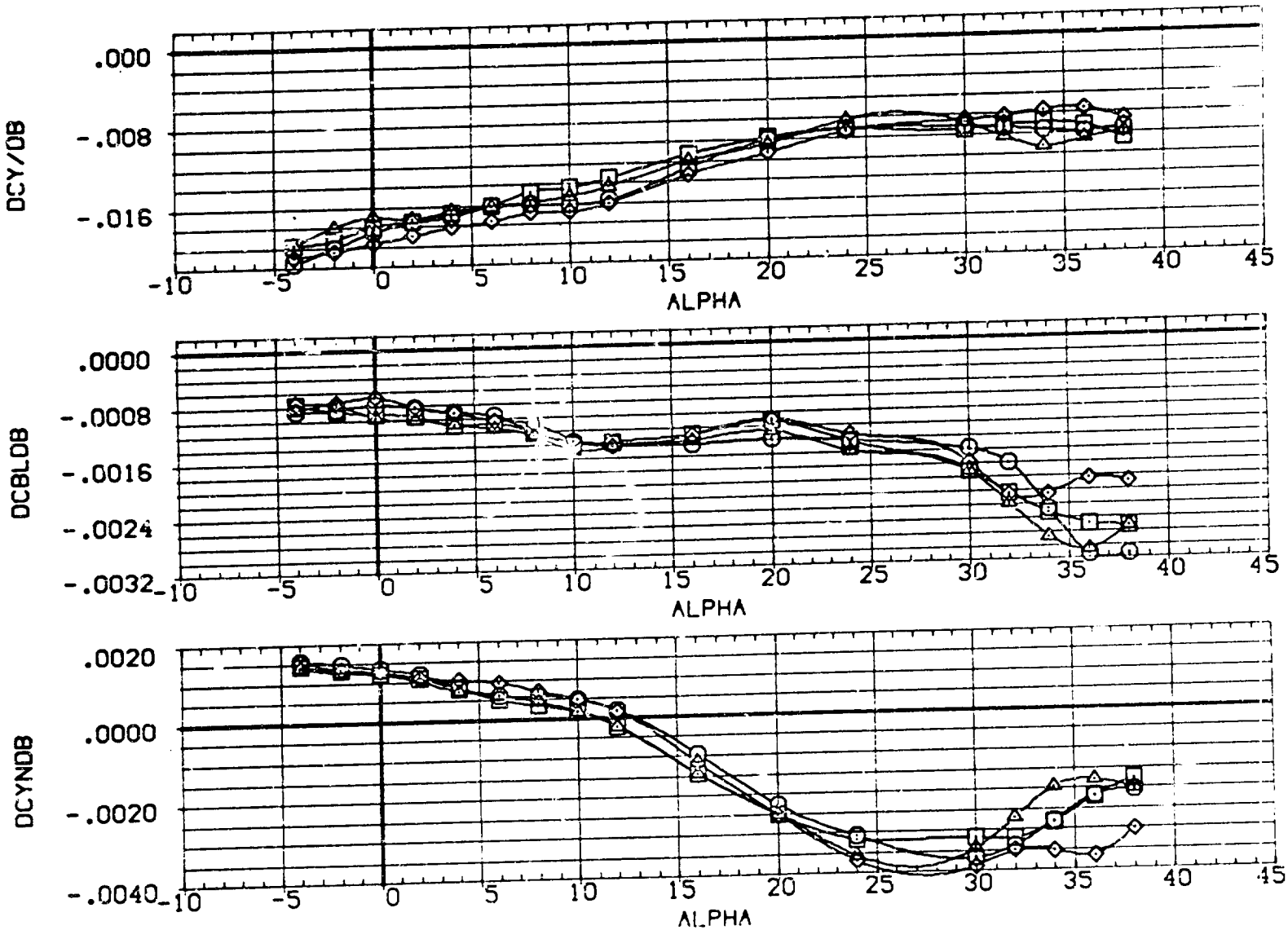


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(C)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(LP6106) ○	LA-8/8A NAR 0898-M00. NOSE ORBITER	.000	.000	1.000	.000
(LP6104) □	LA-8/8A NAR 0898-M00. NOSE ORBITER	.000	.000	1.000	6.820
(LP6102) ◇	LA-8/8A NAR 0898-M00. NOSE ORBITER	.000	.000	2.000	6.820
(LP6008) △	LA-8/8A NAR 0898-M00. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

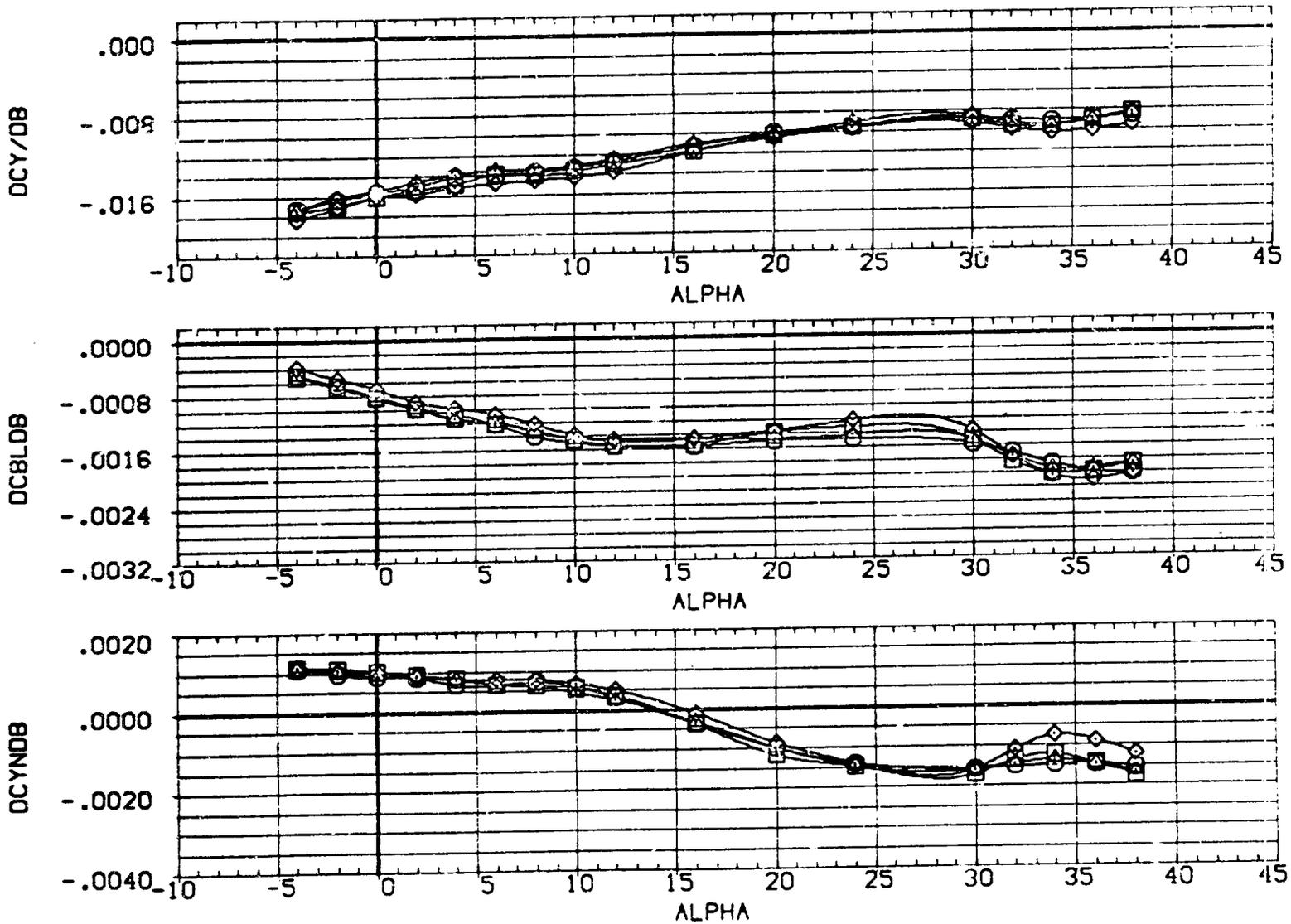
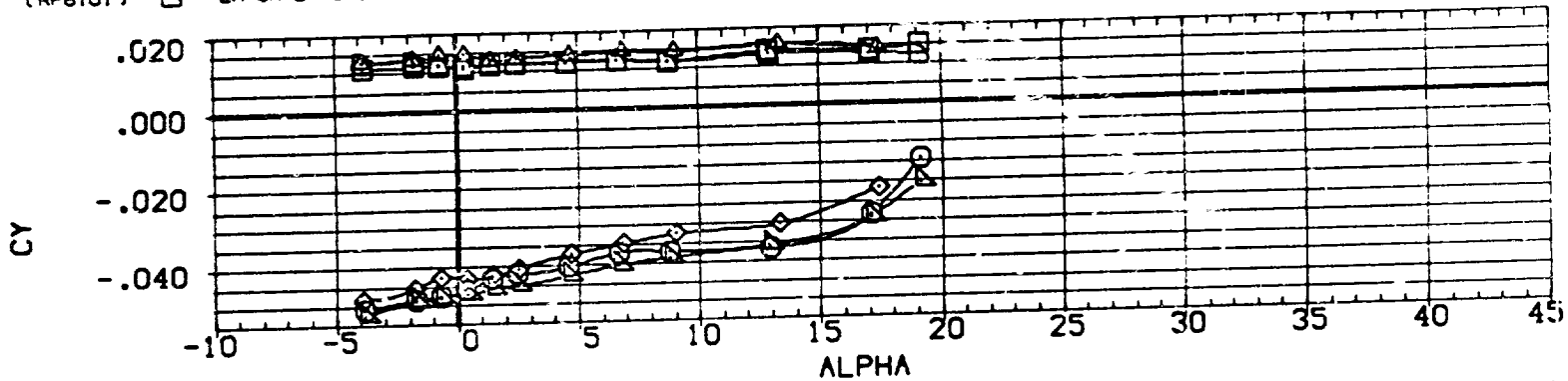


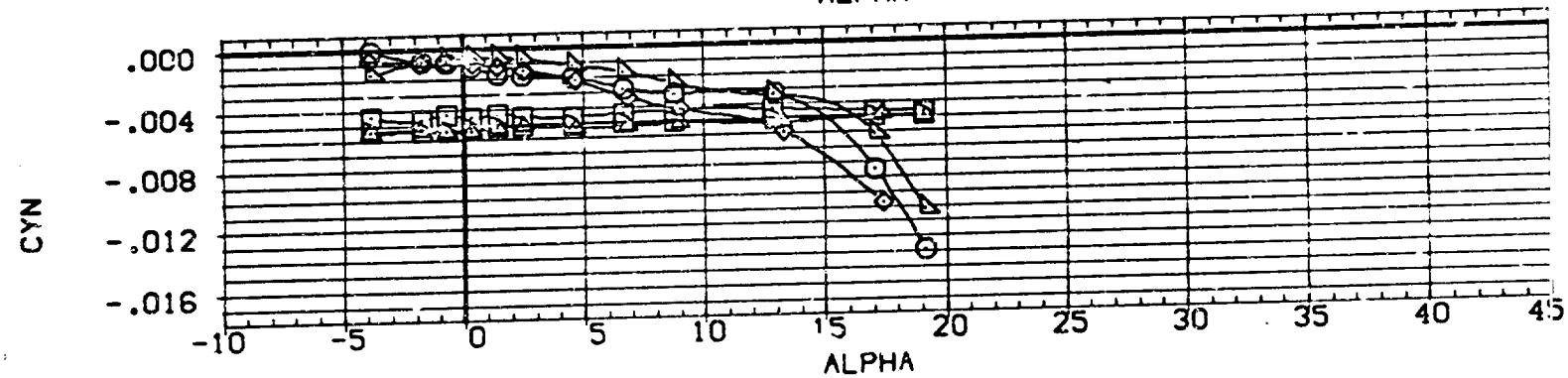
FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6106)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	.000	1.000	.000
(RP6105)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(RP6104)	⊲	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	.000	1.000	6.820
(RP6103)	⊳	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(RP6102)	△	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	.000	2.000	6.820
(RP6101)	▽	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





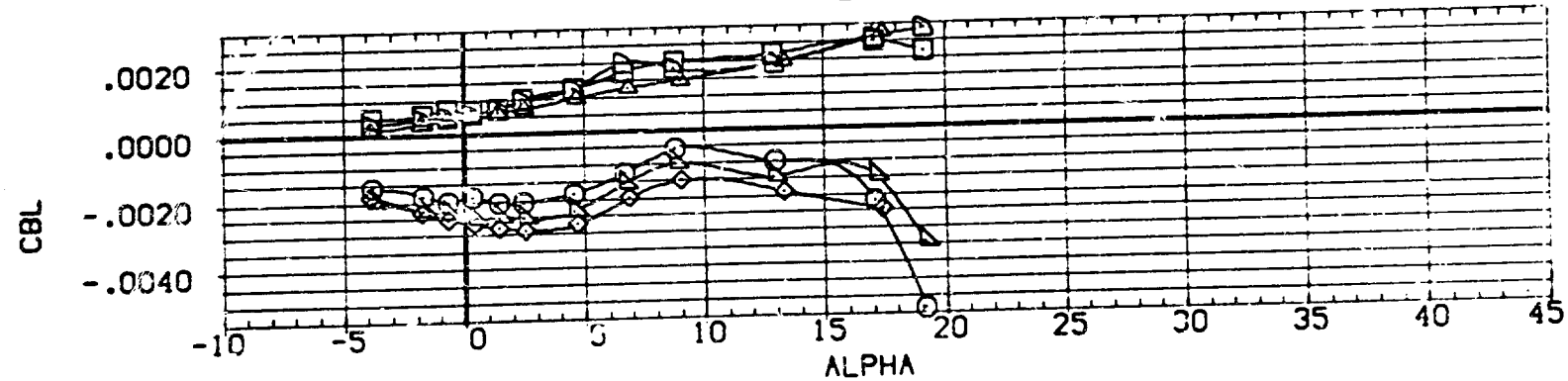


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6108)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	.000	1.000	.000
(RP6105)	△	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(RP6104)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	.000	1.000	6.820
(RP6103)	▽	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820
(RP6102)	⊲	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	.000	2.000	6.820
(RPS101)	▷	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.6638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

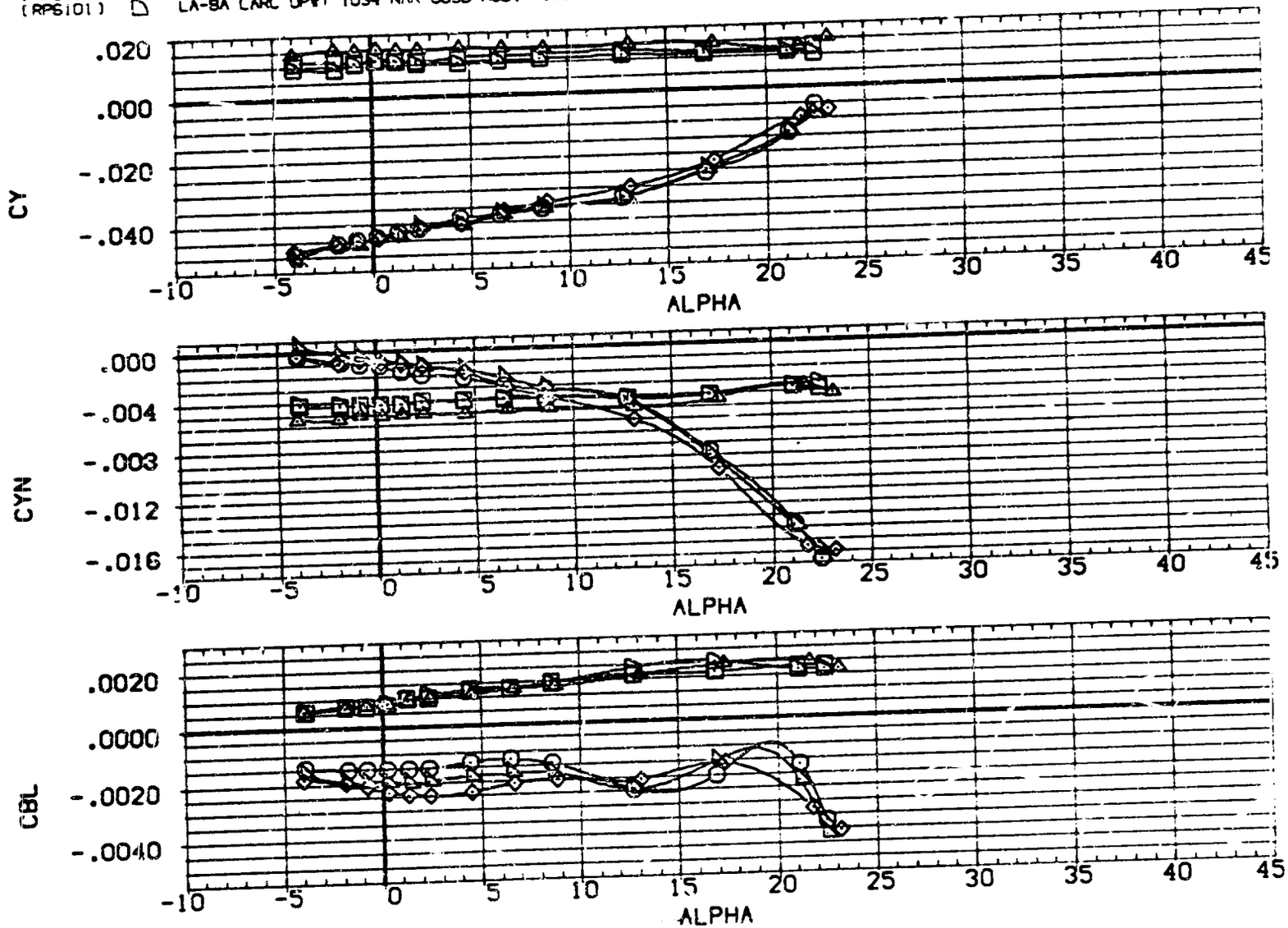


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6010)	○	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	.000	1.000	.000
(RP6009)	□	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(RP6006)	⋈	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	.000	1.000	6.820
(RP6005)	△	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

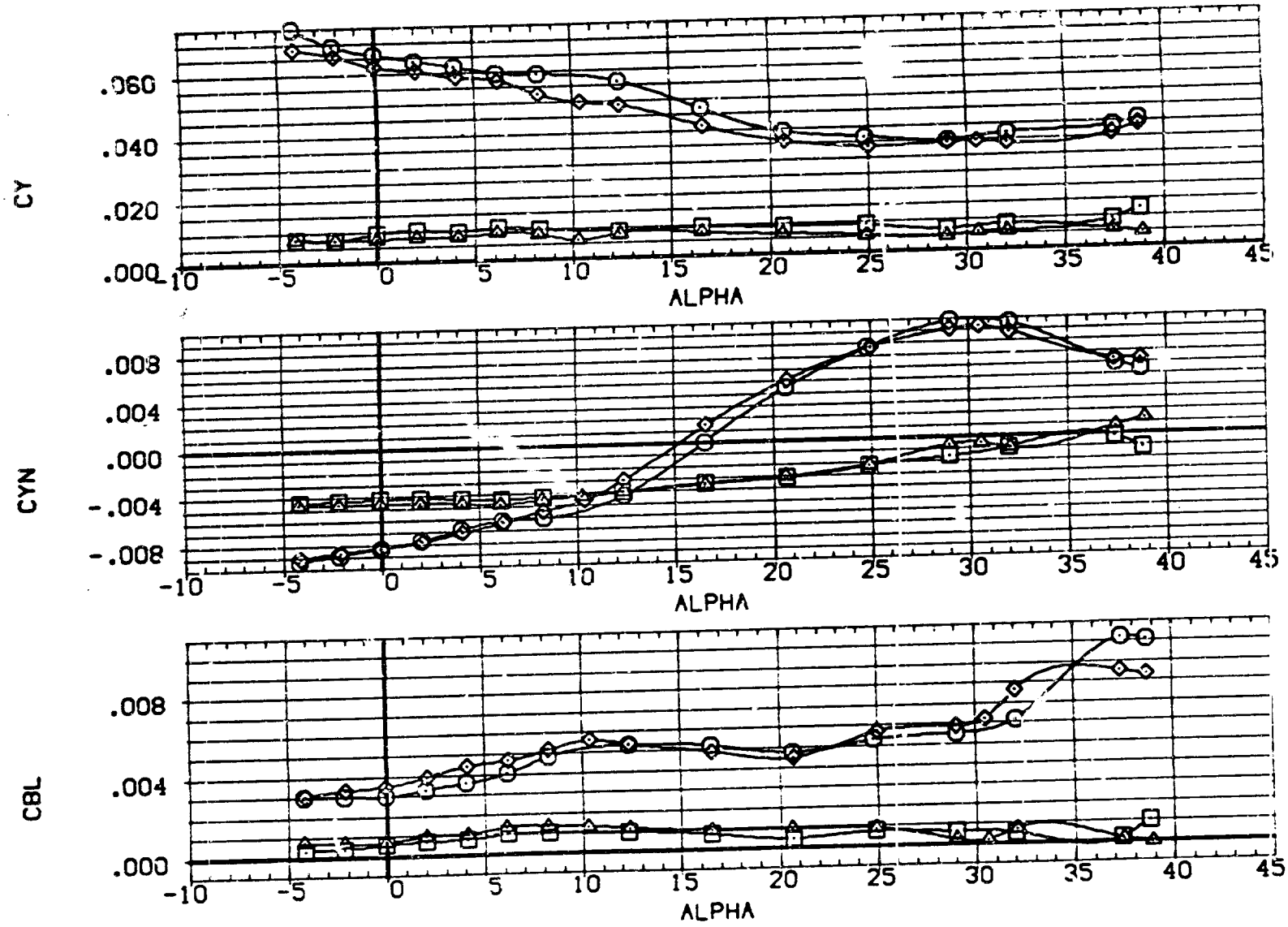


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6010)	○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	.000	1.000	.000
(RP6009)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	.000
(RP6006)	◇	LA-8 LARC UPVT 1023 NAR 0898-MOD NOSE ORBITER	-3.000	.000	1.000	6.820
(RP6005)	△	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	1.000	6.820

REFERENCE INFORMATION		
SREF	136.1809	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

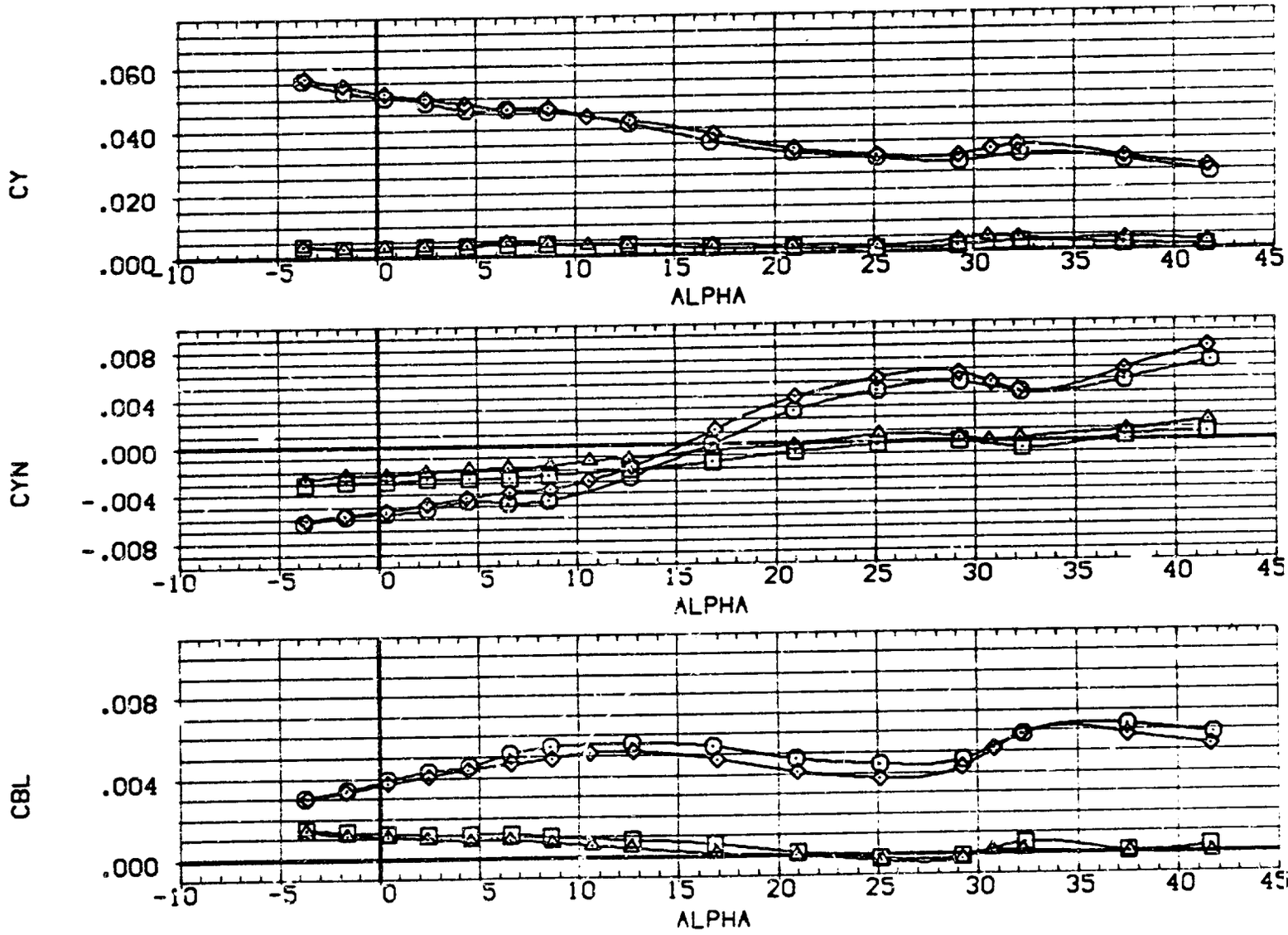


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6003) ○	LA-8 LARC UPVT 1023 NAR 0398-MOD. NOSE ORBITER	3.000	.000	2.000	6.820
(RP6001) □	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(RP6008) ◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	.000	3.000	6.820
(RP6007) △	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ. INCHES
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

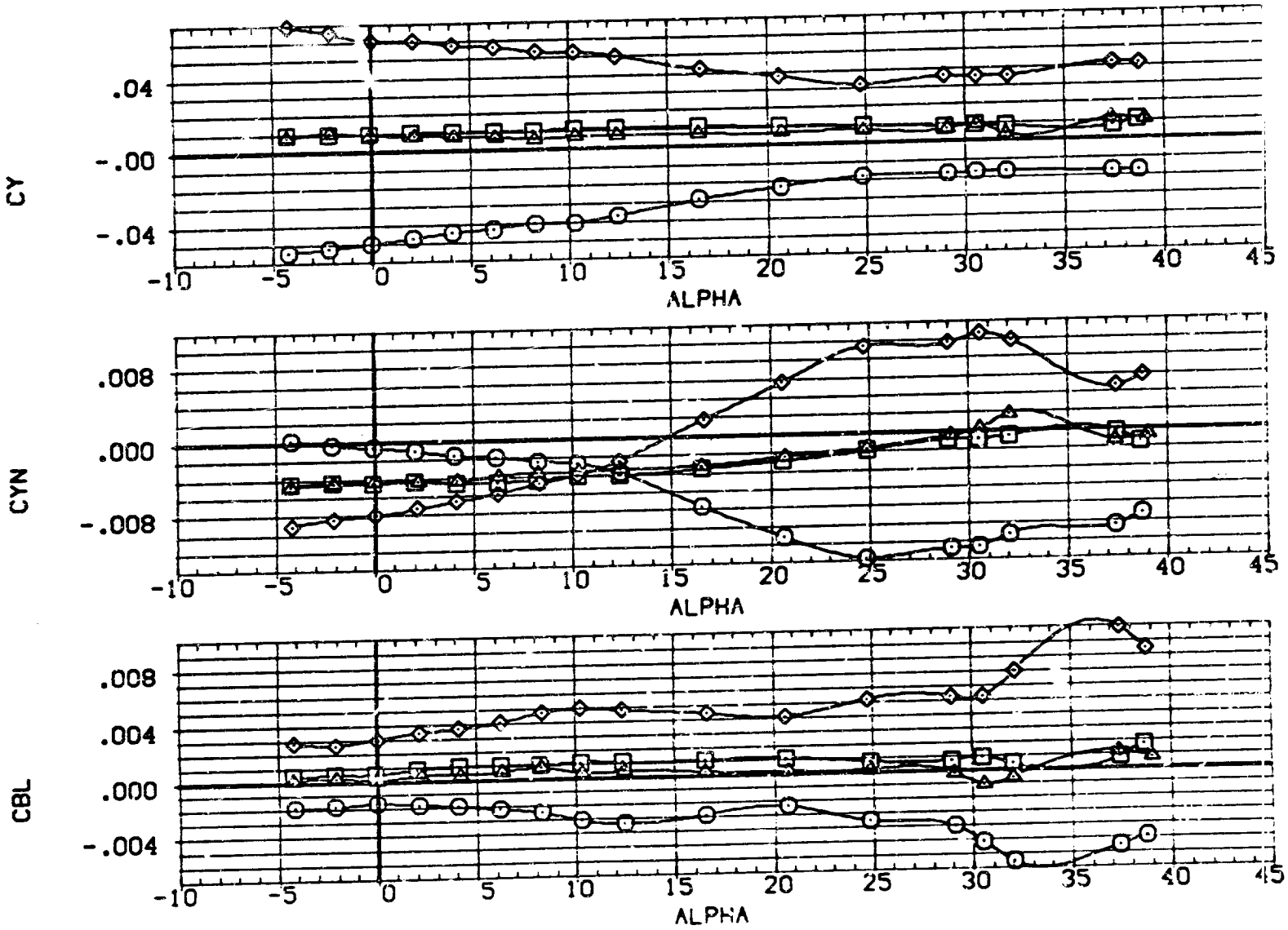


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6003)	○	LA-8 LARC LPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	.000	2.000	6.820
(RP6001)	□	LA-8 LARC LPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(RP6008)	◇	LA-8 LARC LPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	.000	3.000	6.820
(RP6007)	△	LA-8 LARC LPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ. IN.
LREF	8.9078	INCHES
BREF	19.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

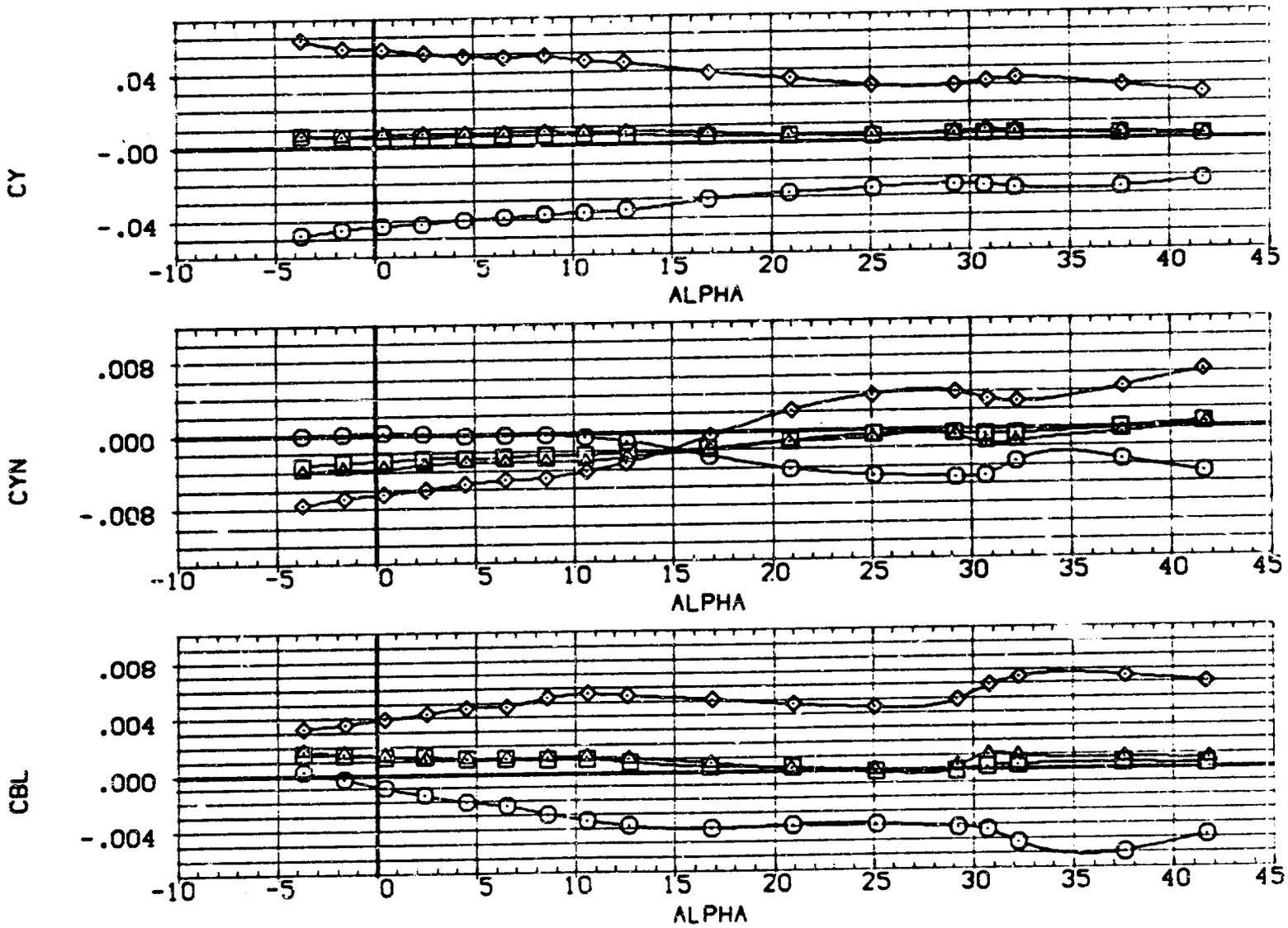


FIG. 5 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(LP6108)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6110)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6112)	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.3638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0168	SCALE

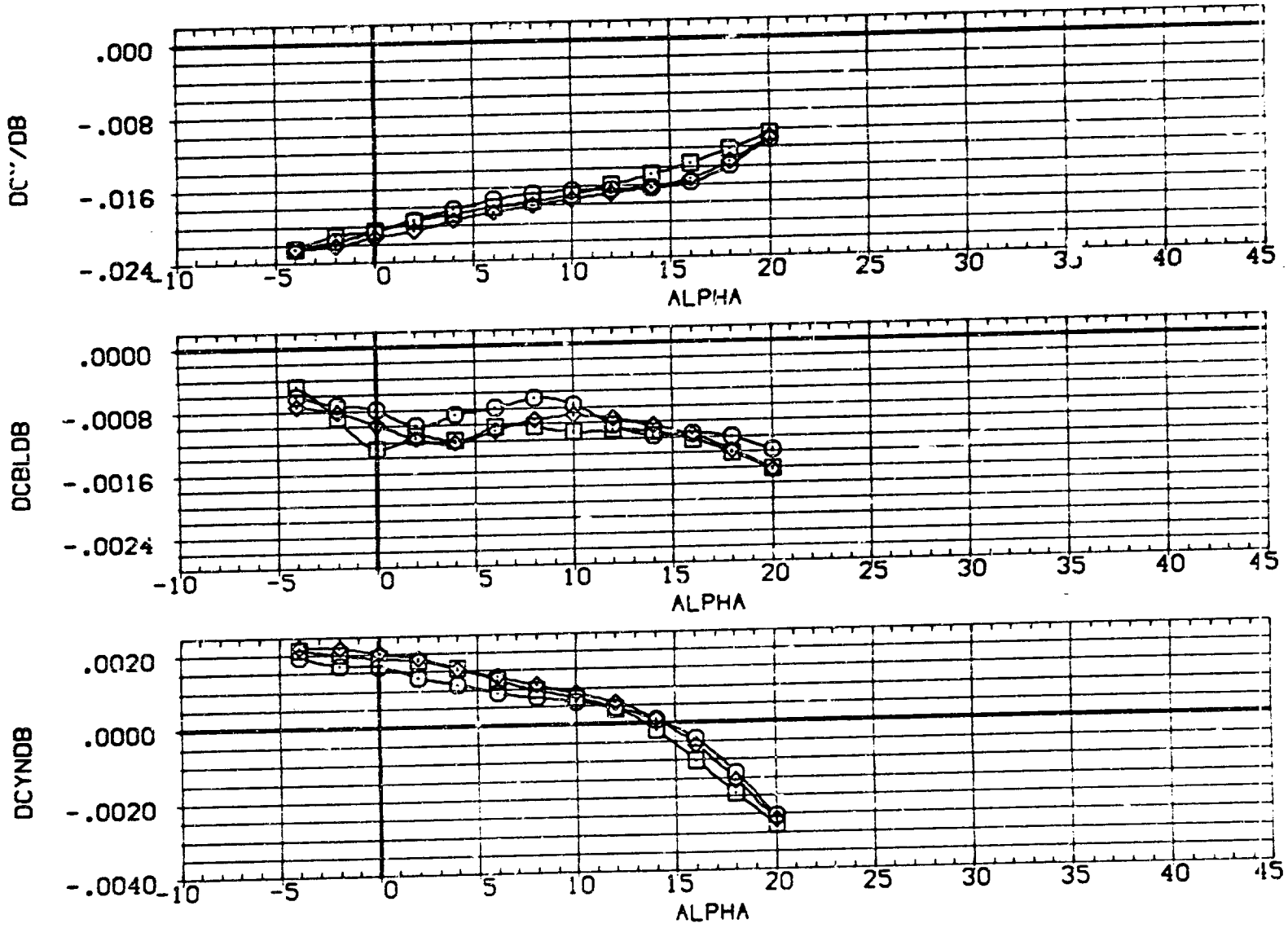


FIG. 6 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(LP6108)	○	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(LP6110)	□	LA-8/8A NAR 089B-MOD. NOSE ORBITER
(LP6112)	◇	LA-8/8A NAR 089B-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	7.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

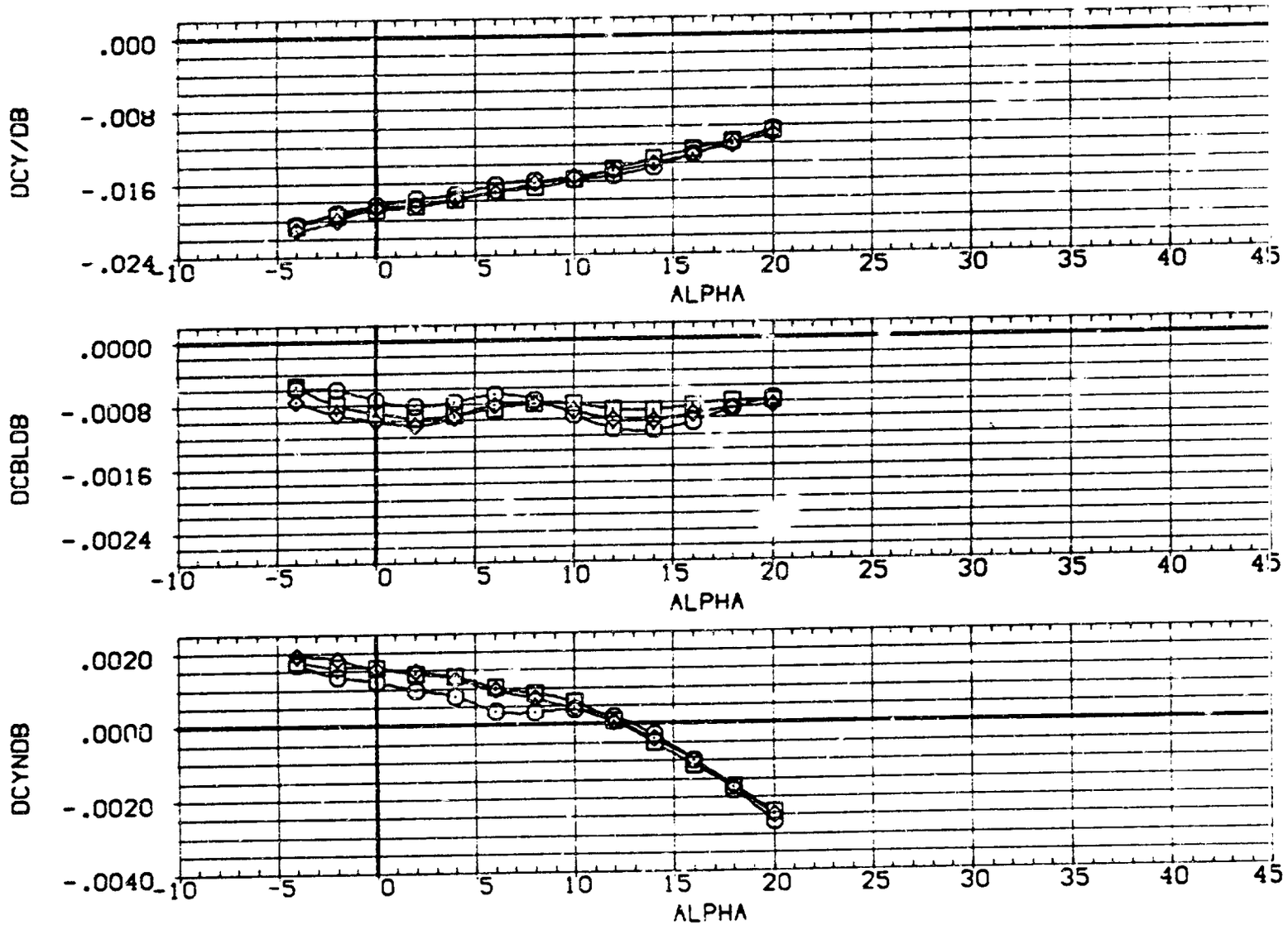


FIG. 6 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6108)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6110)	□	DATA NOT AVAILABLE
(LP6112)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ. IN.
LREF	8.7025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

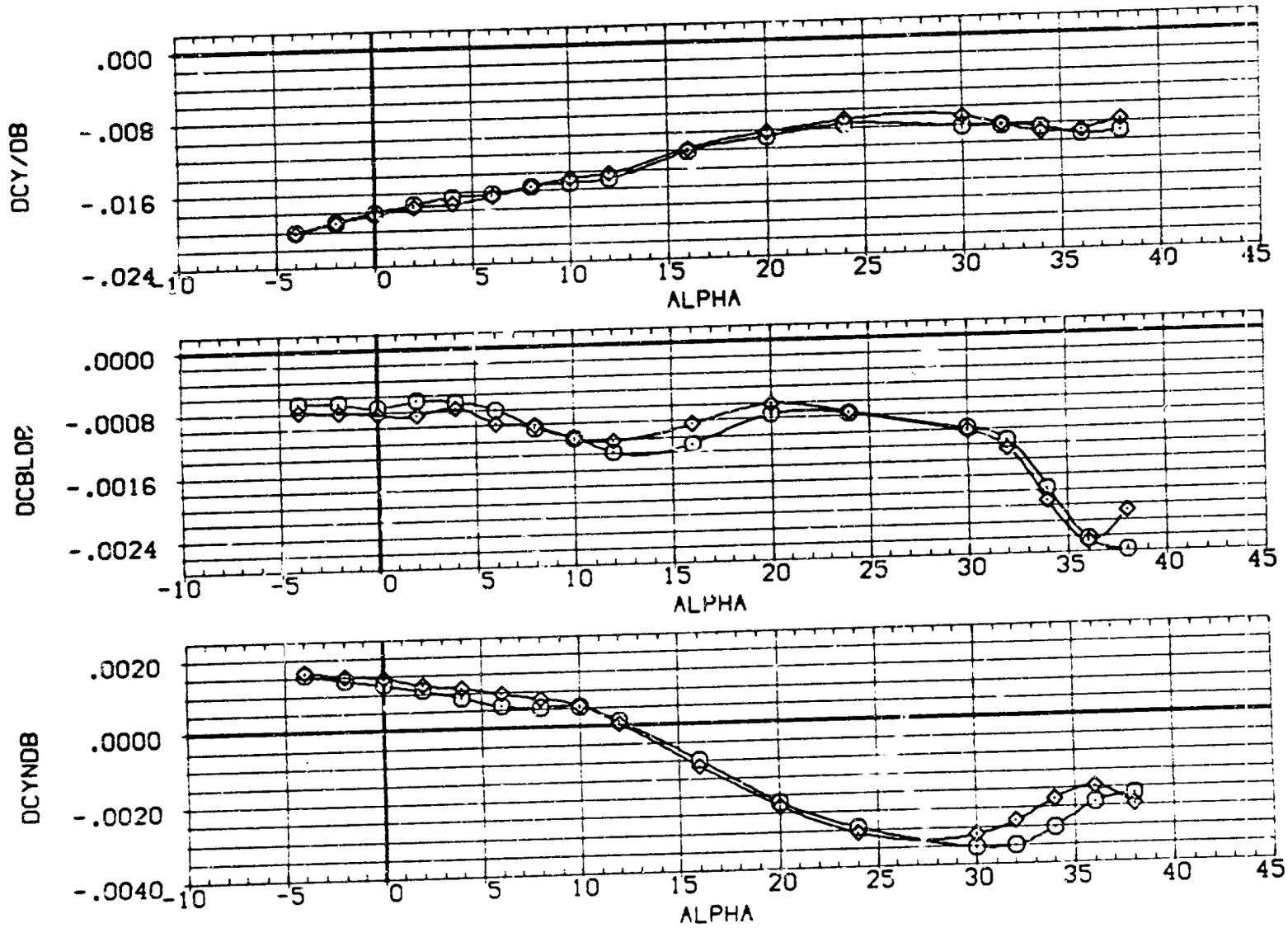


FIG. 6 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(C)MACH = 2.36

DATA SET SYMBOL		CONFIGURATION DESCRIPTION
(LP6108)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(LP6110)		DATA NO AVAILABLE
(LP6112)	◇	LA-8/8A NAR 0899-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
10.000	-20.000	1.000	.000
10.000	-20.000	1.000	6.820
10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5626	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

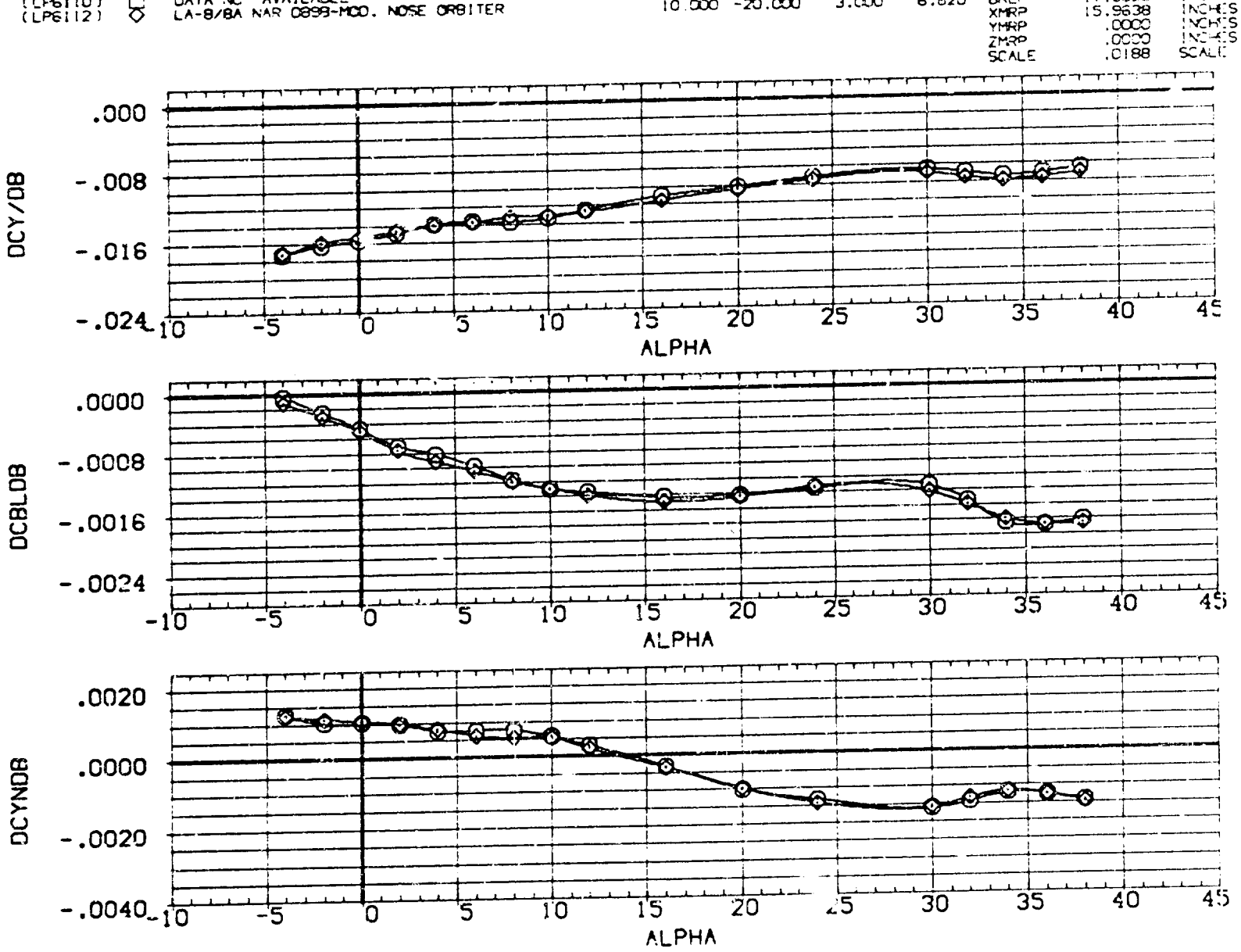


FIG. 6 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6108)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	-20.000	1.000	.000
(RP6110)	○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	-20.000	1.000	6.320
(RP6112)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	3.000	-20.000	3.000	6.820
(RP6107)	△	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-20.000	1.000	.000
(RP6109)	▽	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-20.000	1.000	6.820
(RP6111)	◁	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

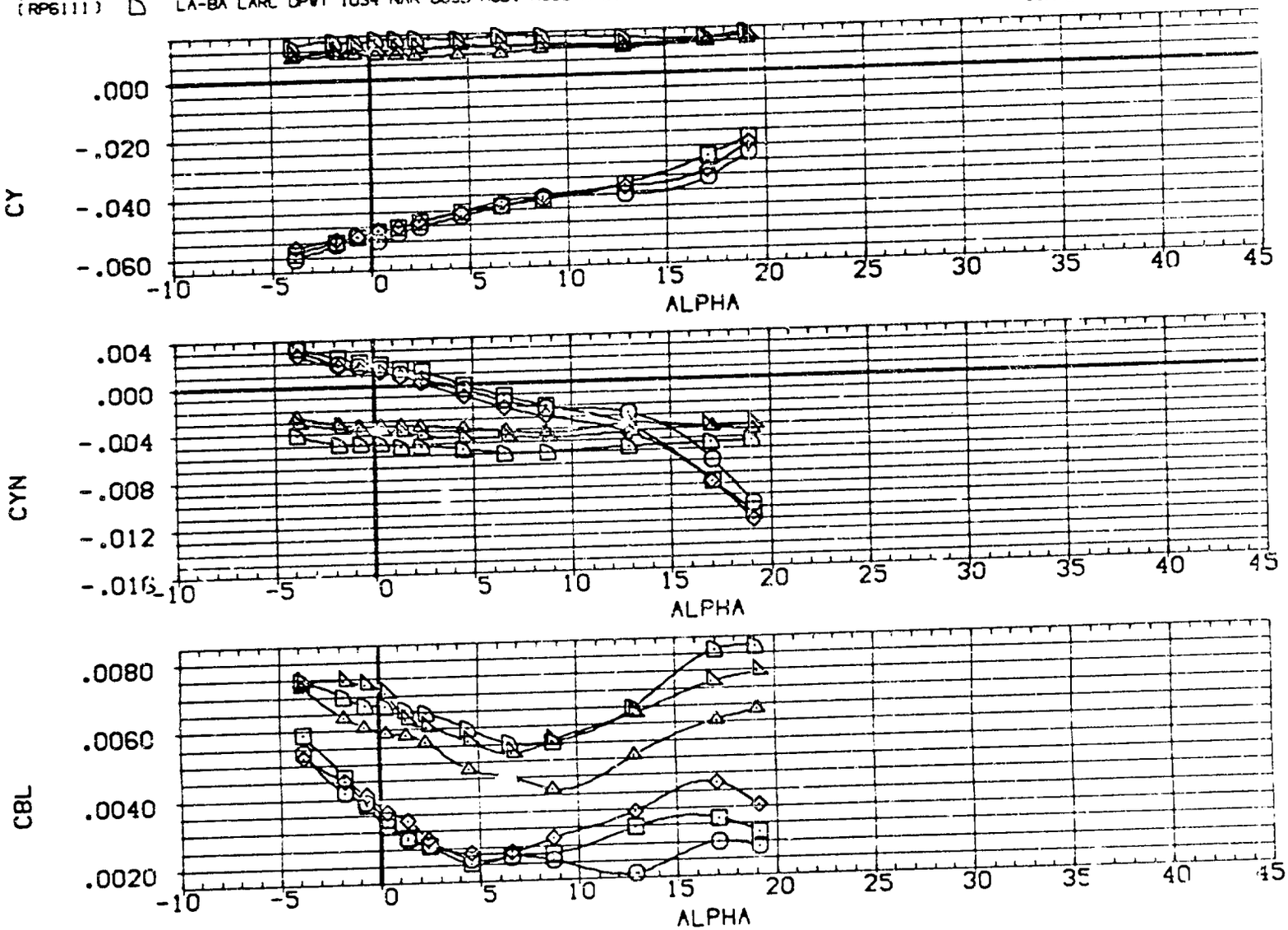


FIG. 6 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6108)	◇	LA-8A LARC UPVT 1034 NAR 0898-M00. NOSE ORBITER	3.000	-20.000	1.000	.000
(RP6110)	□	LA-8A LARC UPVT 1034 NAR 0898-M00. NOSE ORBITER	3.000	-20.000	1.000	6.820
(RP6112)	△	LA-8A LARC UPVT 1034 NAR 0898-M00. NOSE ORBITER	3.000	-20.000	3.000	6.820
(RP6107)	◇	LA-8A LARC UPVT 1034 NAR 0898-M00. NOSE ORBITER	.000	-20.000	1.000	.000
(RP6109)	□	LA-8A LARC UPVT 1034 NAR 0898-M00. NOSE ORBITER	.000	-20.000	1.000	6.820
(RP6111)	△	LA-8A LARC UPVT 1034 NAR 0898-M00. NOSE ORBITER	.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

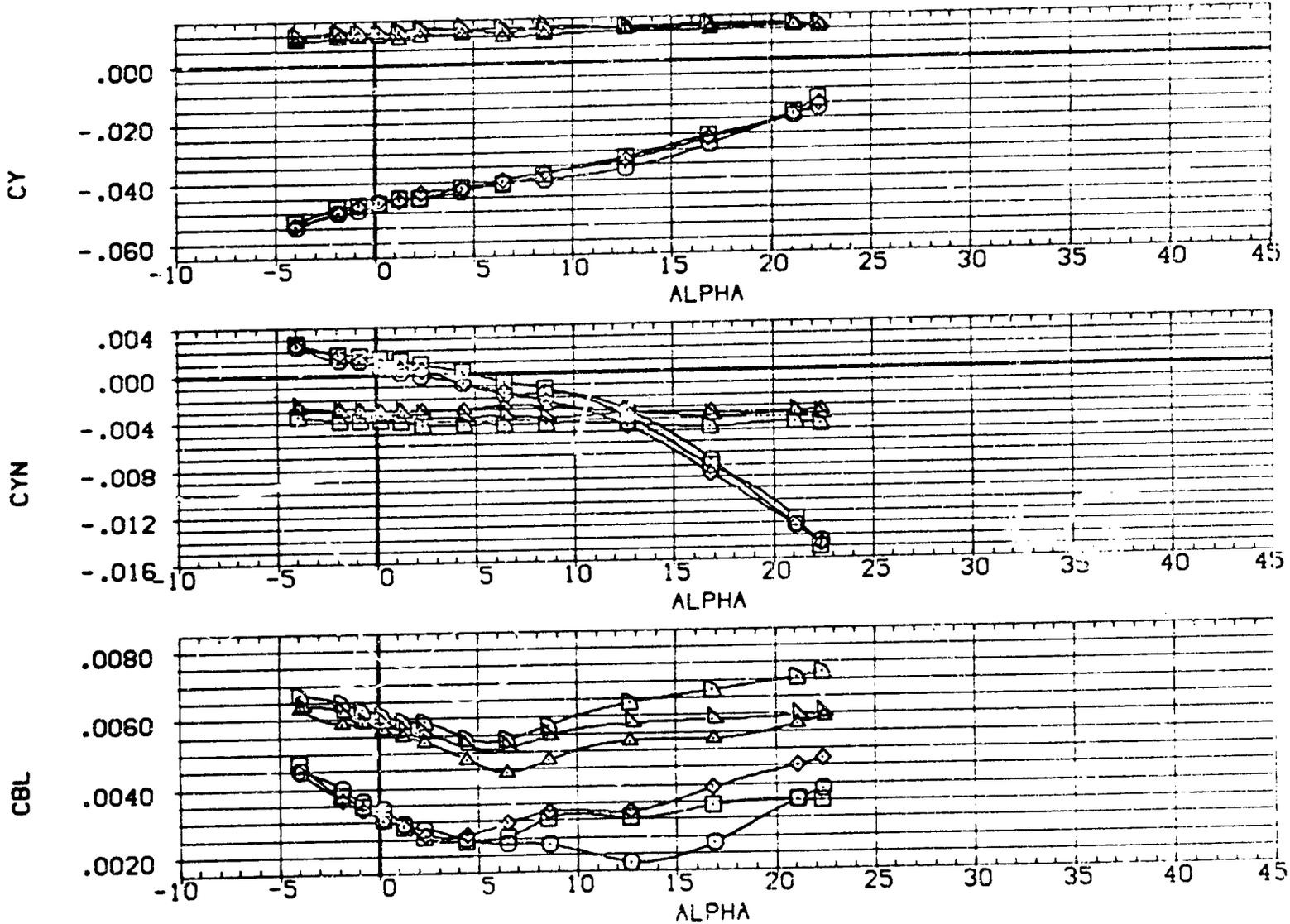


FIG. 6 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6012)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	-20.000	1.000	.000
(RP6015)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	-20.000	3.000	6.820
(RP6011)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	-20.000	1.000	.000
(RP6013)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0189	SCALE

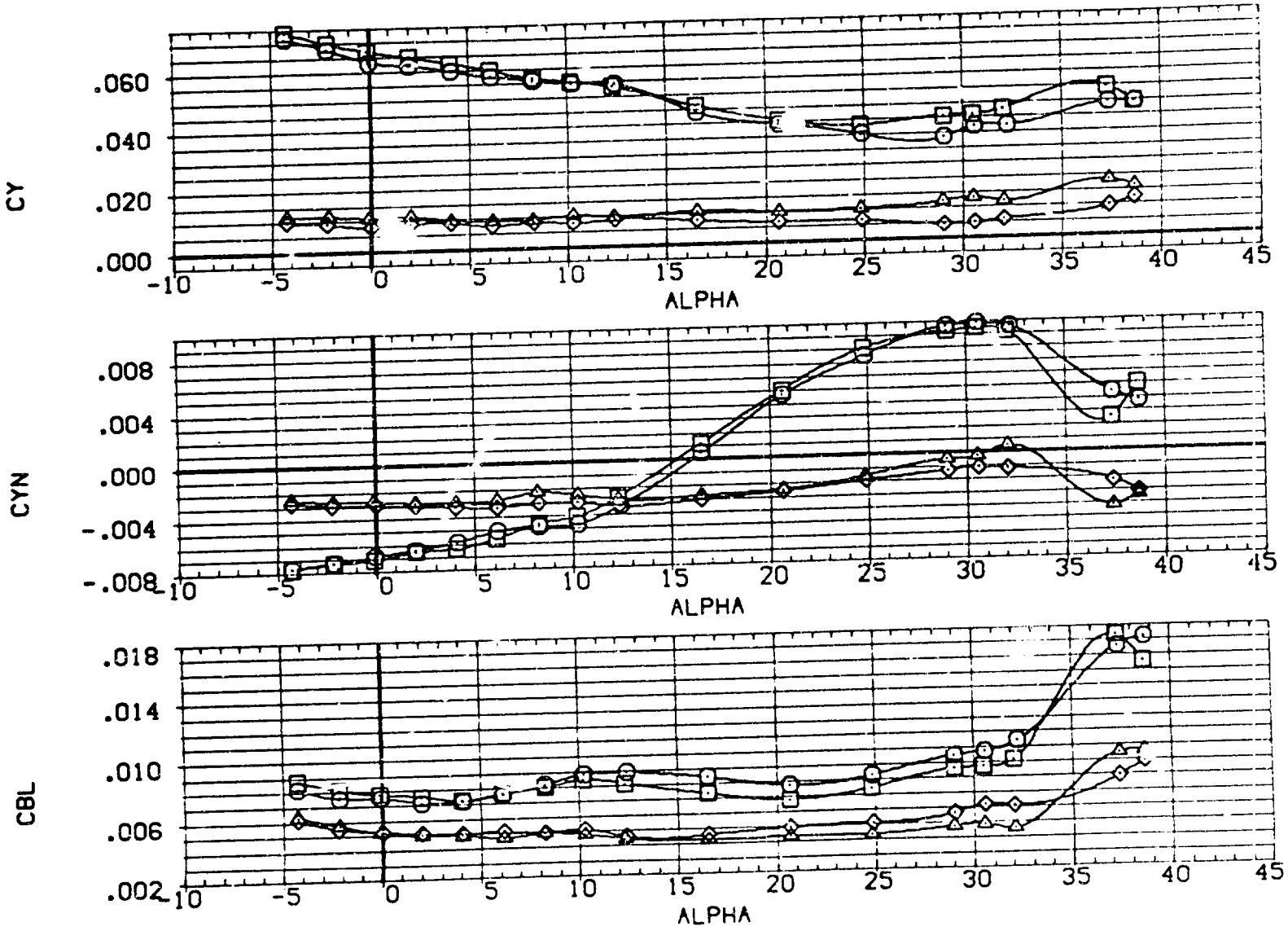


FIG. 6 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	GT-LOC	K/L
(RP6012) ○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	-20.000	1.000	.000
(RP6015) □	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	-20.000	3.000	6.820
(RP6011) ◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	-20.000	1.000	.000
(RP6013) △	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

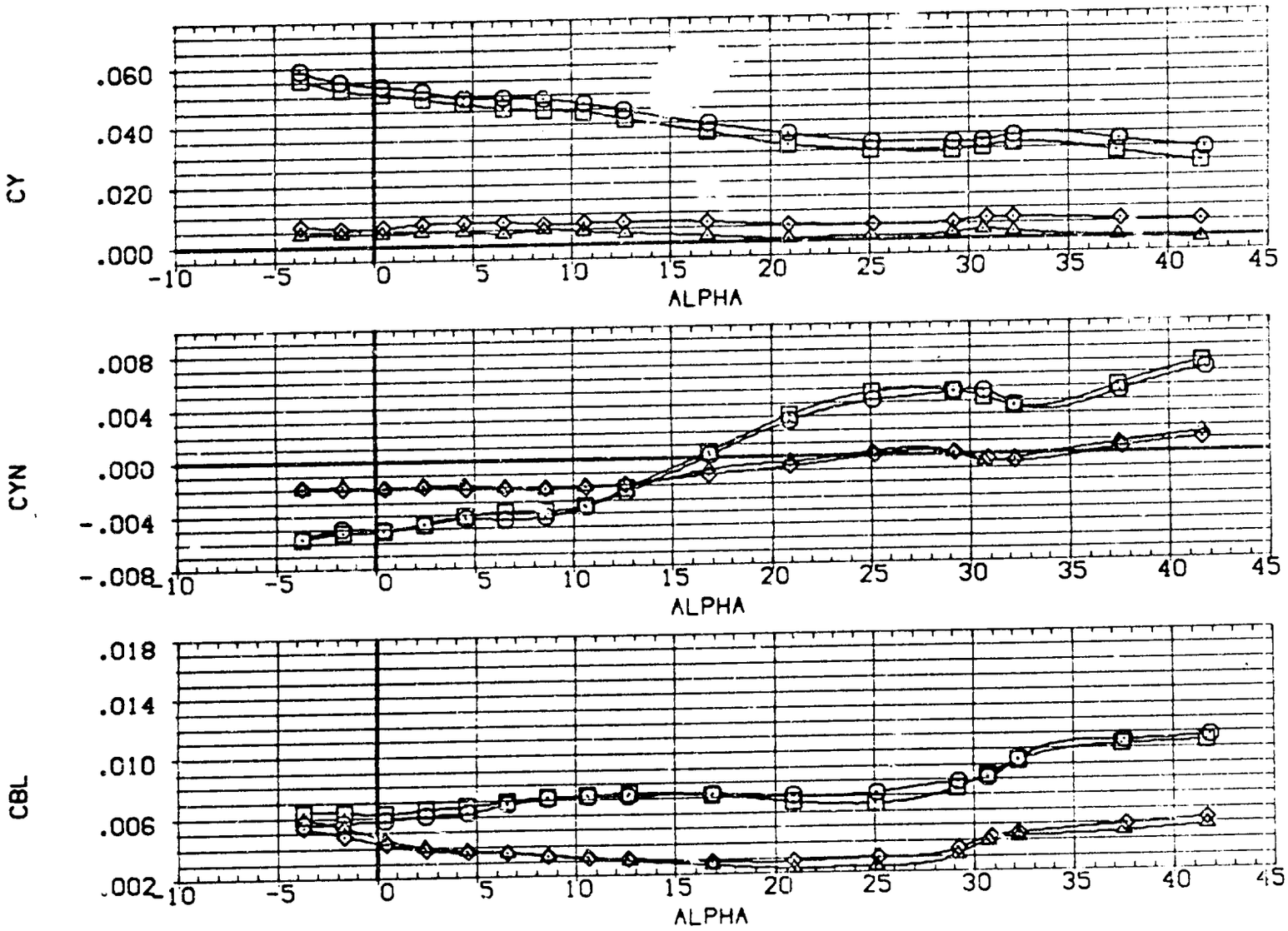


FIG. 8 EFFECT OF ROUGHNESS ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ALPSVP	GT-LOC	K/L
(MP6003)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(MP6004)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

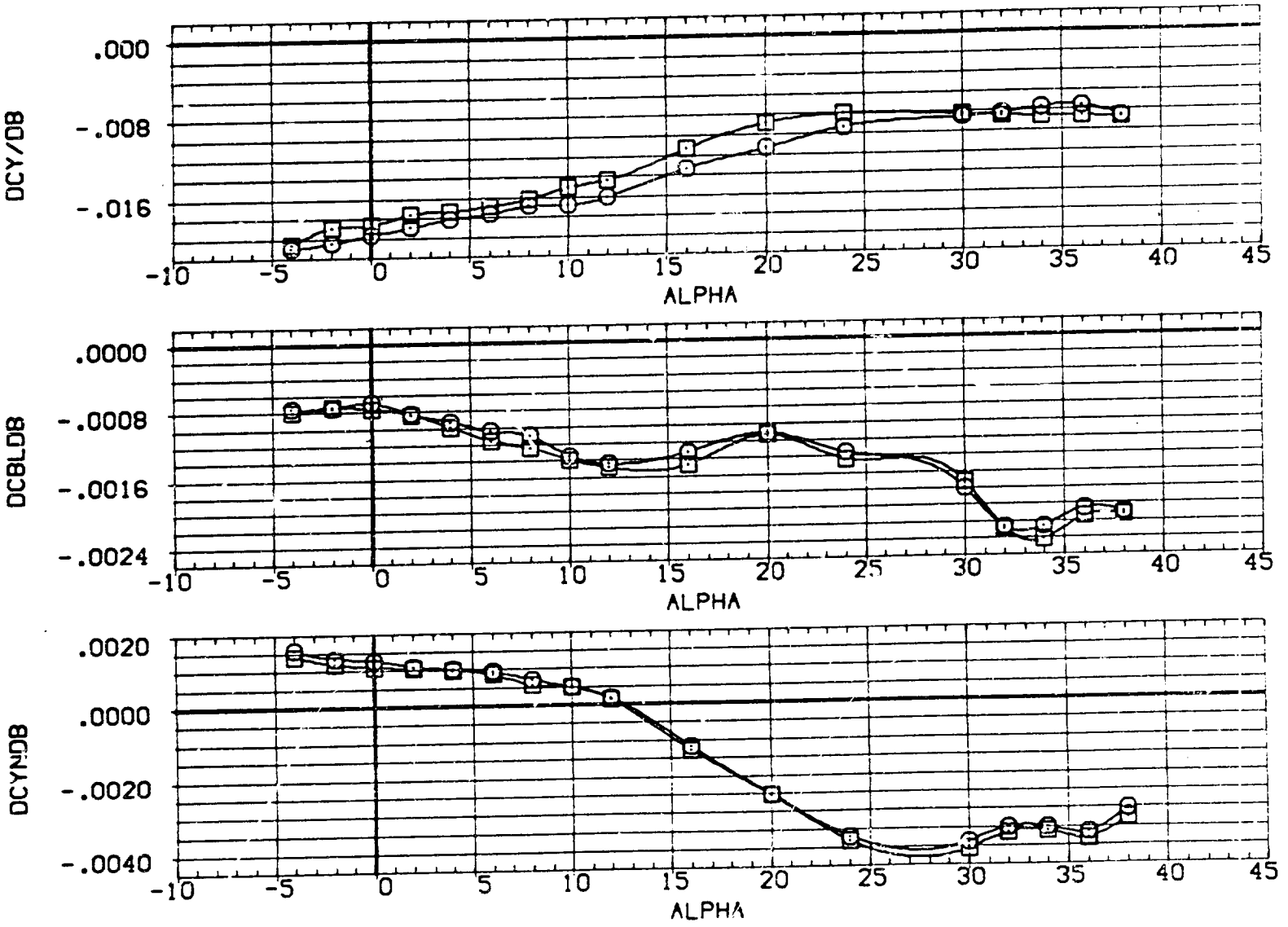


FIG. 7 HYSTERESIS EFFECT ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ALPSVP	GT-LOC	K/L
(MP6003) ○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	1.000	2.000	6.820
(MP6004) □	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	2.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

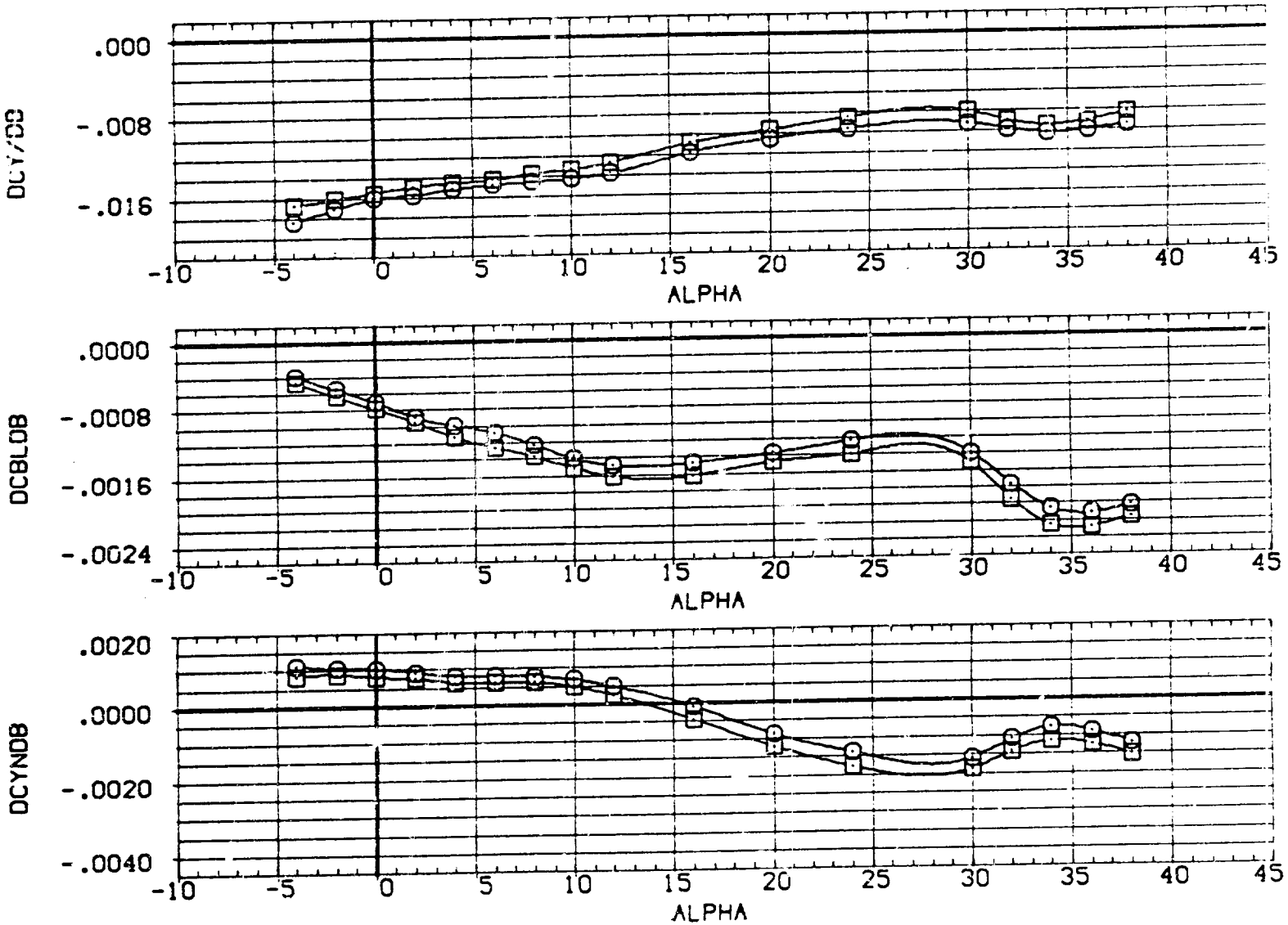


FIG. 7 HYSTERESIS EFFECT ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	GT-LOC	K/L
(RP6003) ○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	.000	2.000	6.820
(RP6004) □	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	.000	2.000	6.820
(RP6001) ◇	LA-8 LARC UPVT 1023 NAR 0899-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(RP6002) △	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

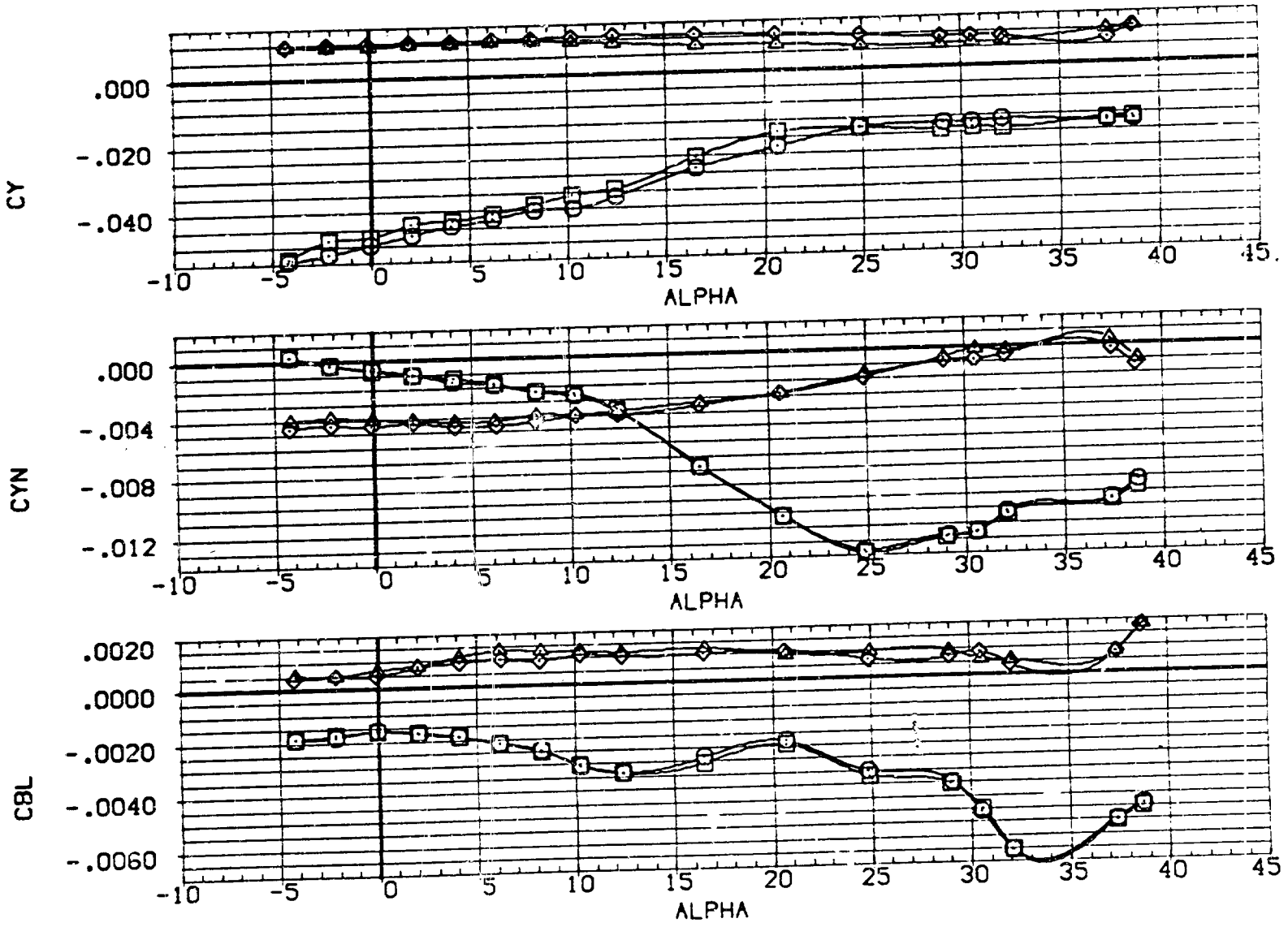


FIG. 7 HYSTERESIS EFFECT ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	GT-LOC	K/L
(RP6003)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	.000	2.000	6.820
(RP6004)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	3.000	.000	2.000	6.820
(RP6001)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(RP6002)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	13.9025	INCHES
BREF	17.5628	INCHES
XMRP	65.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

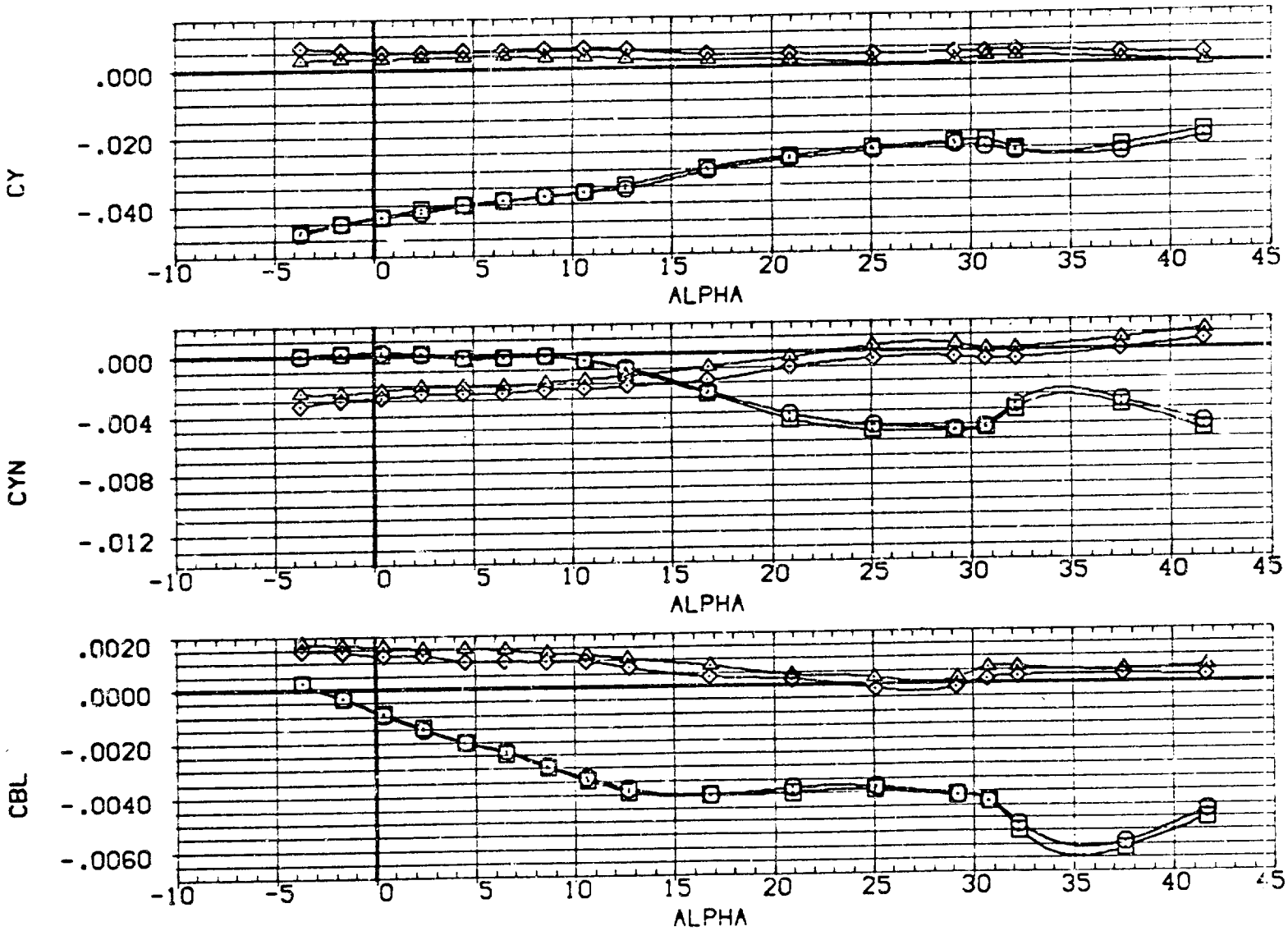


FIG. 7 HYSTERESIS EFFECT ON LAT-DIR CHARACTERISTICS (ELEVTR = 0)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ALPSWP	GT-LOC	K/L
(MP6015)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	10.000	1.000	3.000	6.820
(MP6016)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	10.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

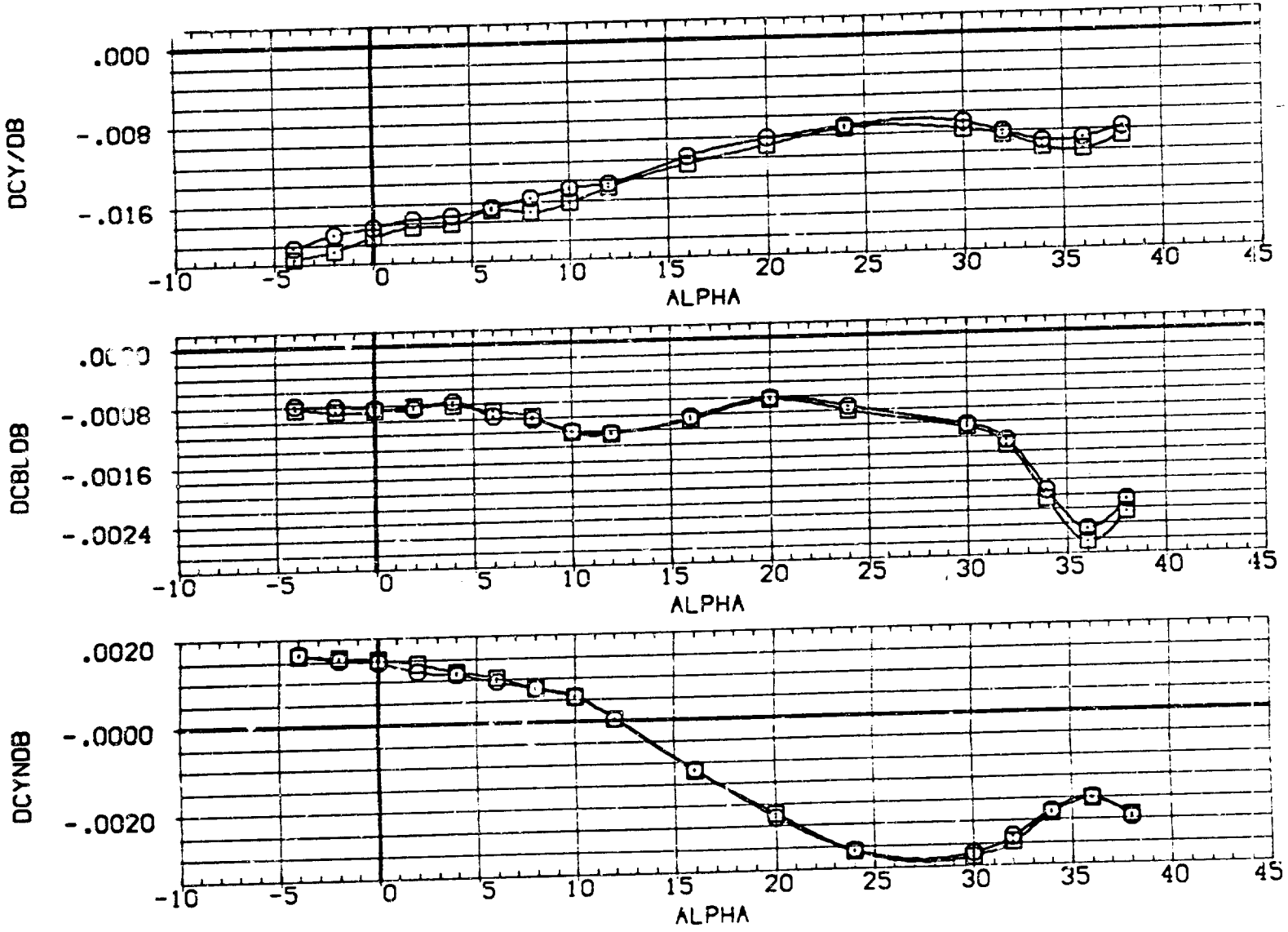


FIG. 8 HYSTERESIS EFFECT ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ALPSWP	GT-LOC	K/L
(MP6015) ○	LA-8 LARC UPVT 1023 NAR 0898-M00. NOSE ORBITER	10.000	1.000	3.000	6.820
(MP6016) □	LA-8 LARC UPVT 1023 NAR 0898-M00. NOSE ORBITER	10.000	2.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1606	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	10.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

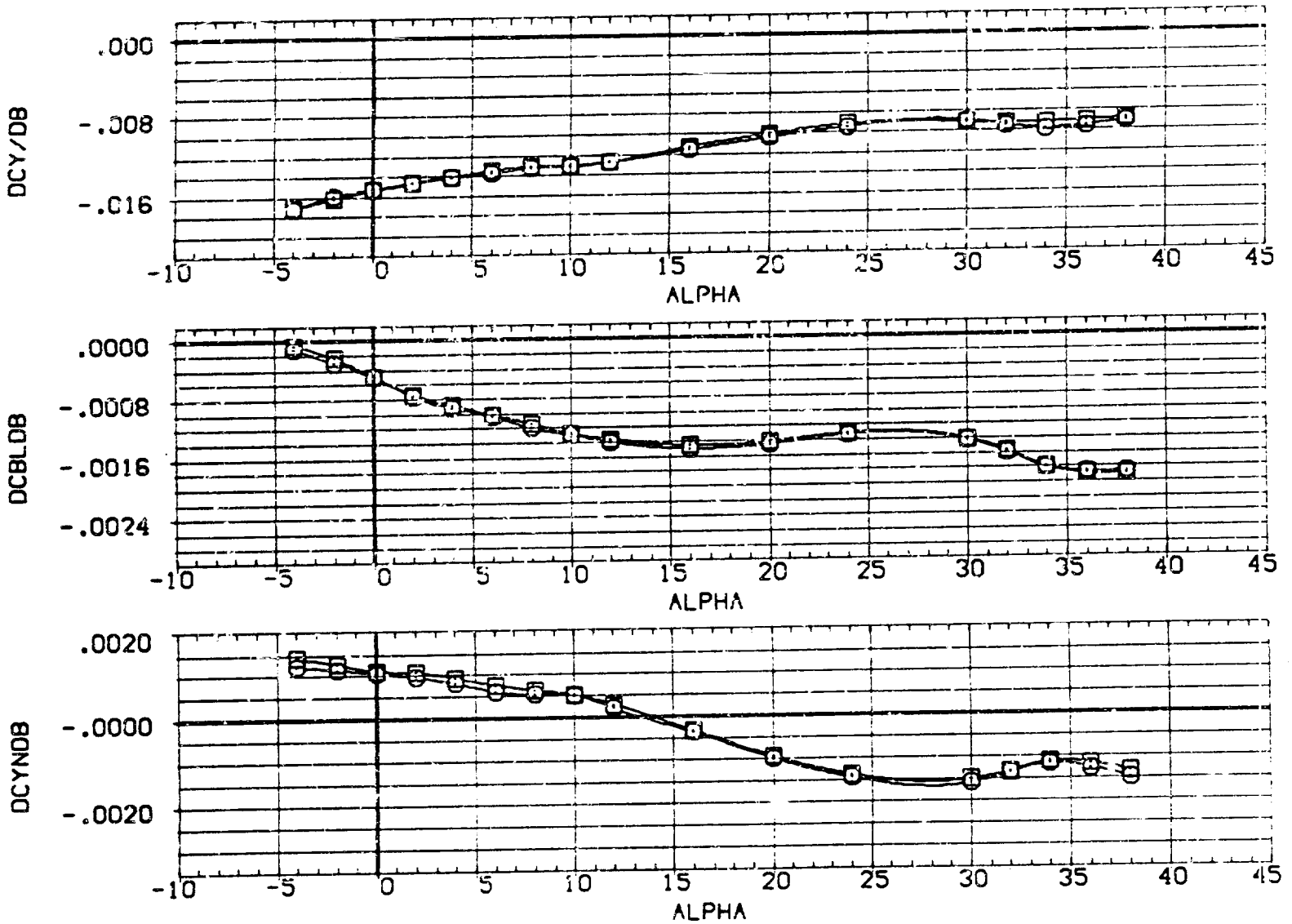


FIG. 8 HYSTERESIS EFFECT ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	GT-LOC	K/L
(RP6015)	LA-8 LARC LPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	10.000	3.000	6.820
(RP6016)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	10.000	3.000	6.820
(RP6013)	LA-8 LARC UPVT 1023 NAR 0893-MOD. NOSE ORBITER	.000	10.000	3.000	6.820
(RP6014)	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	10.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

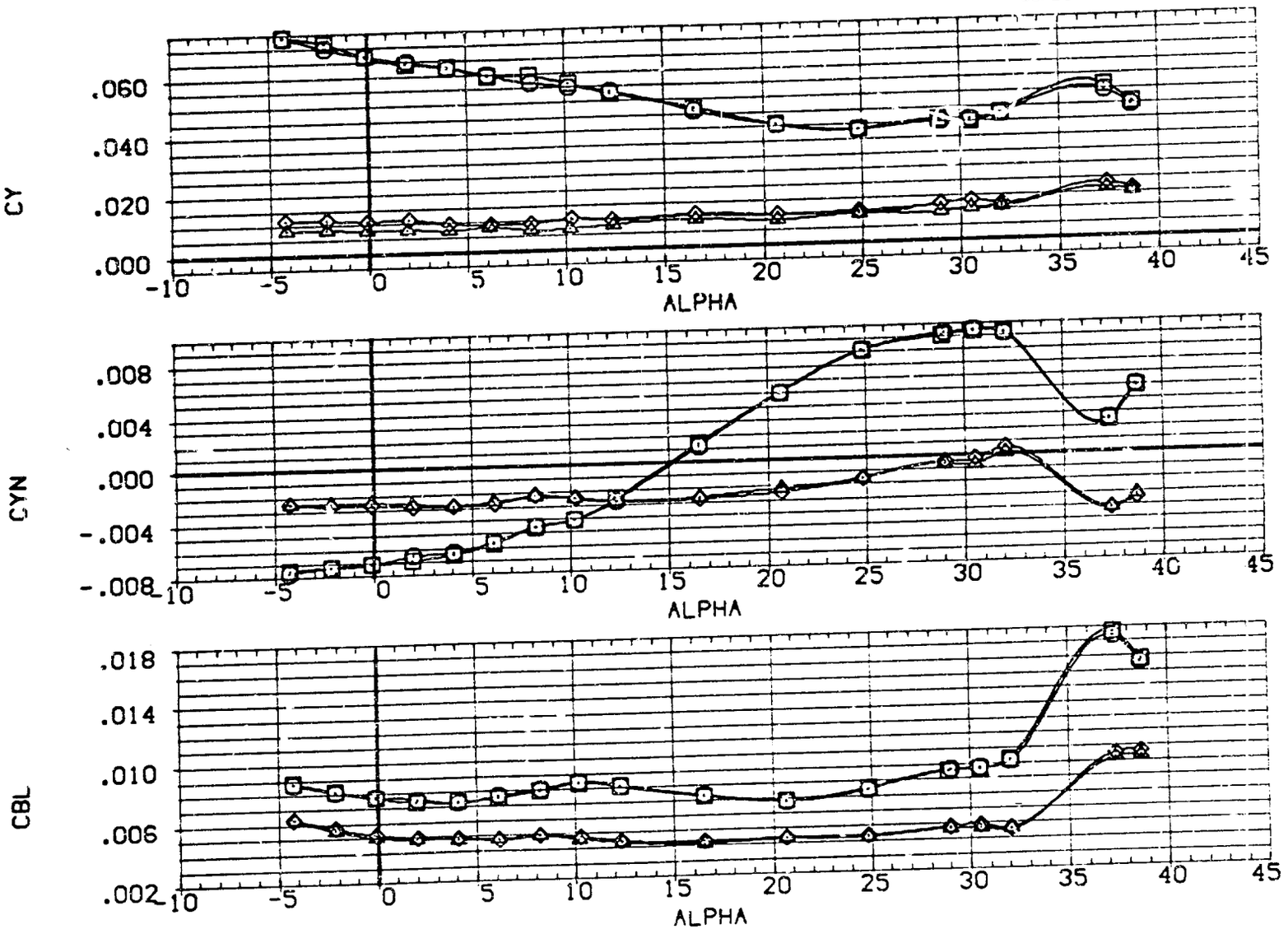


FIG. 8 HYSTERESIS EFFECT ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	GT-LOC	K/L
(RP6015)	○	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	10.000	3.000	6.820
(RP6016)	□	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	-3.000	10.000	3.000	6.820
(RP6013)	◇	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	10.000	3.000	6.820
(RP6014)	△	LA-8 LARC UPVT 1023 NAR 0898-MOD. NOSE ORBITER	.000	10.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	65.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

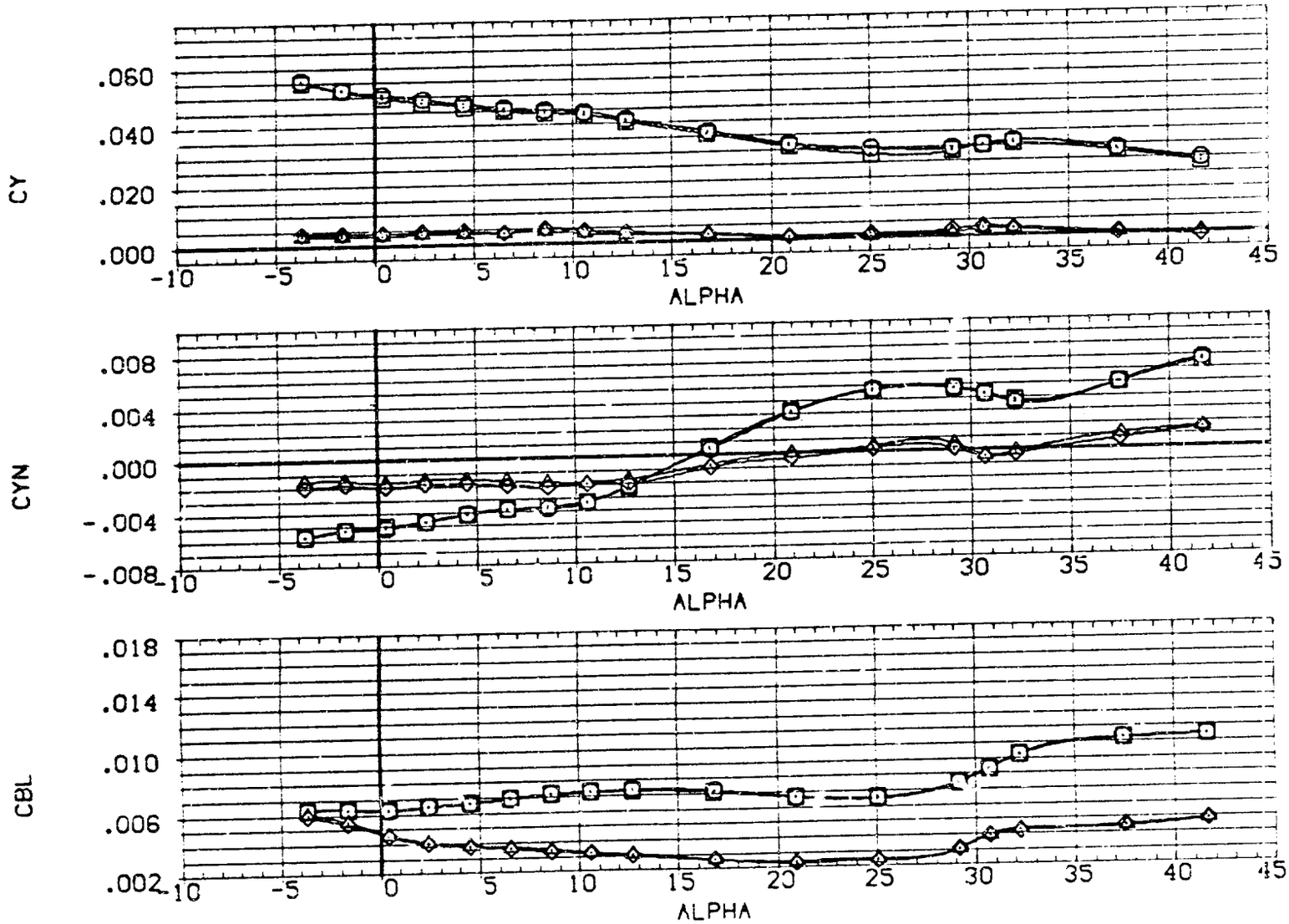


FIG. 8 HYSTERESIS EFFECT ON LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(UP6112)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820
(UP6113)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

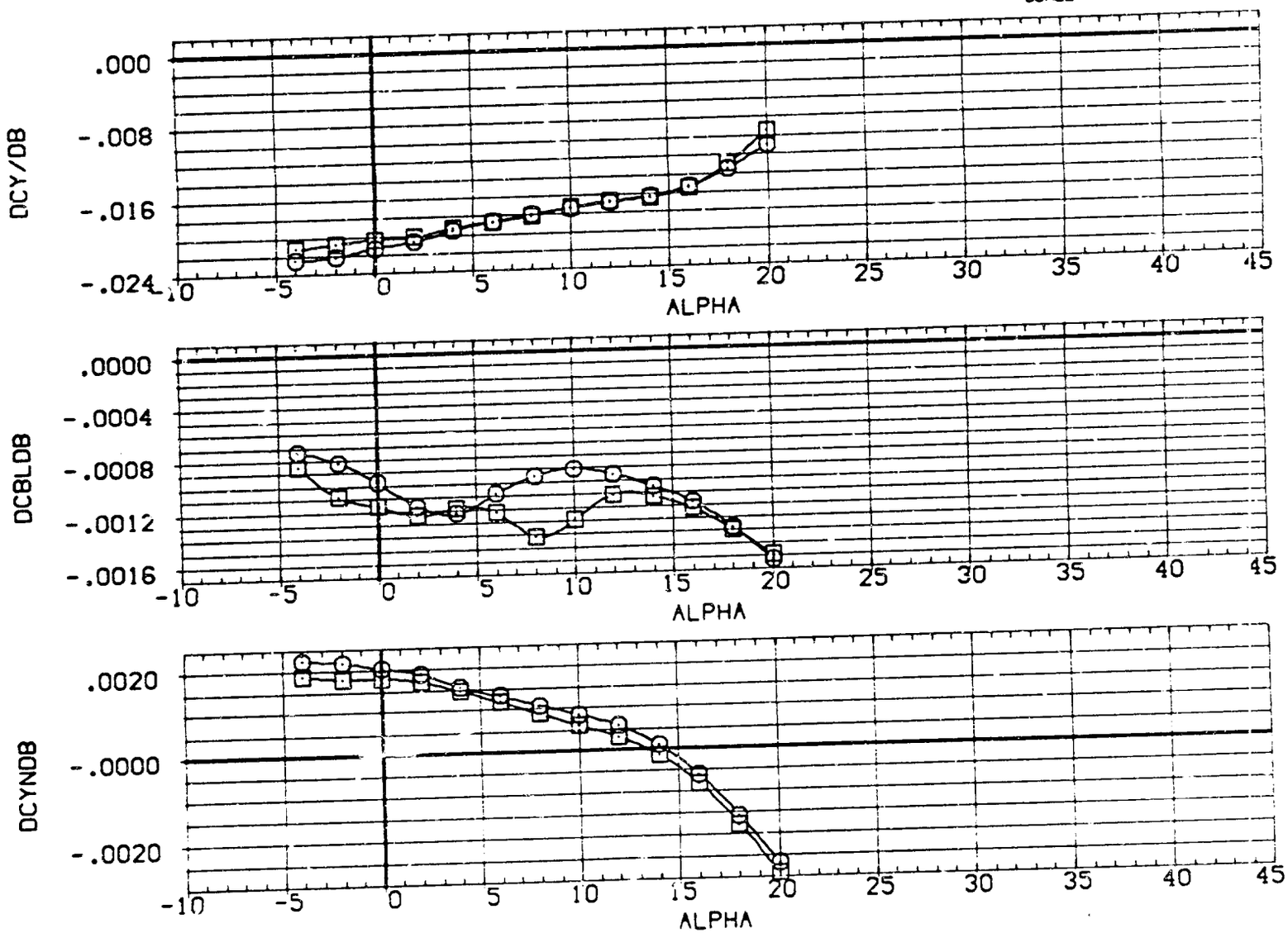


FIG. 9 COMPARISON OF LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(UP6112)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820
(UP6113)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

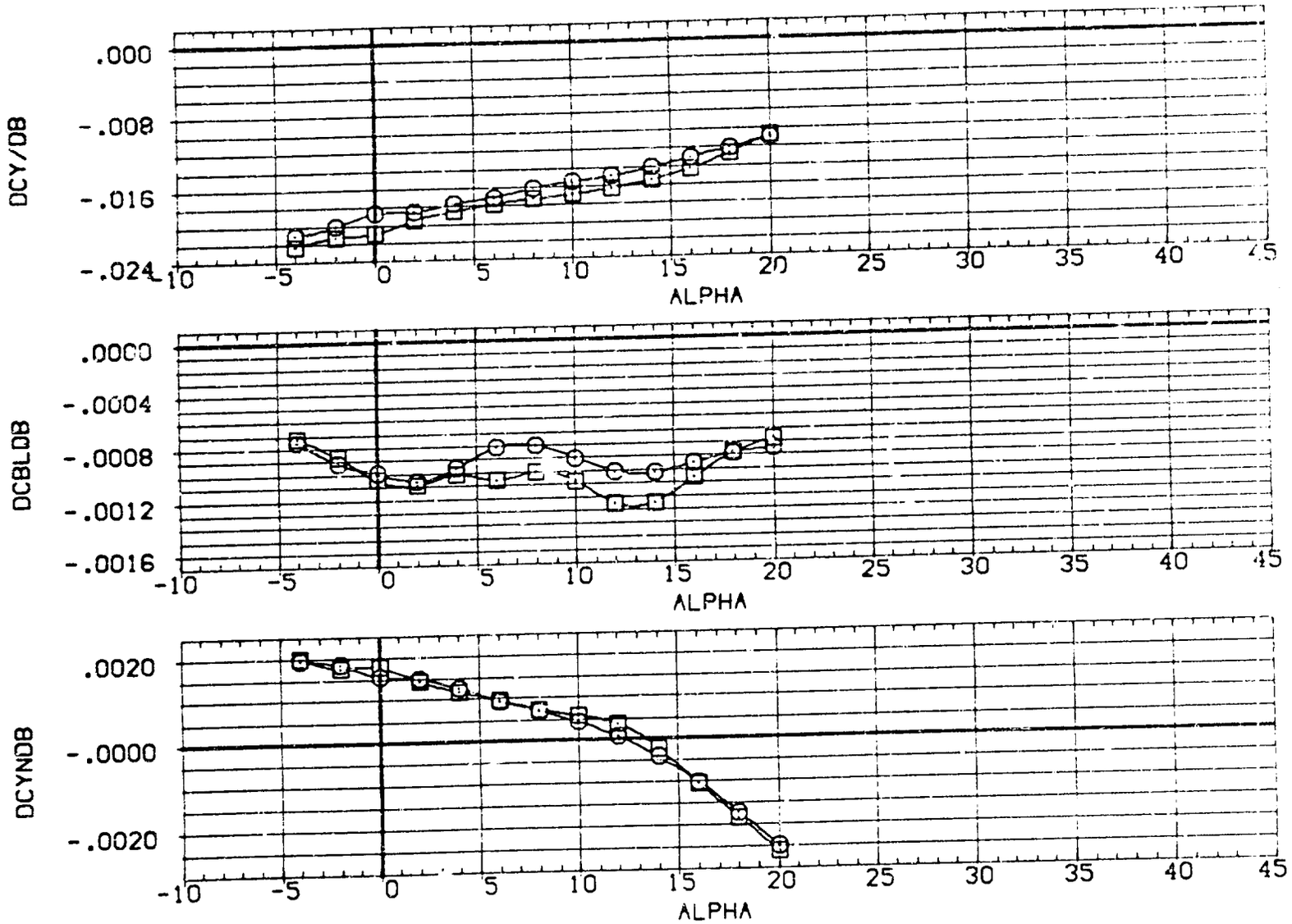


FIG. 9 COMPARISON OF LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRN	ELEVTR	GT-LOC	K/L
(RP6112) ○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.0	-20.000	3.000	6.820
(RP6113) □	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820
(RP6111) ◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.3638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

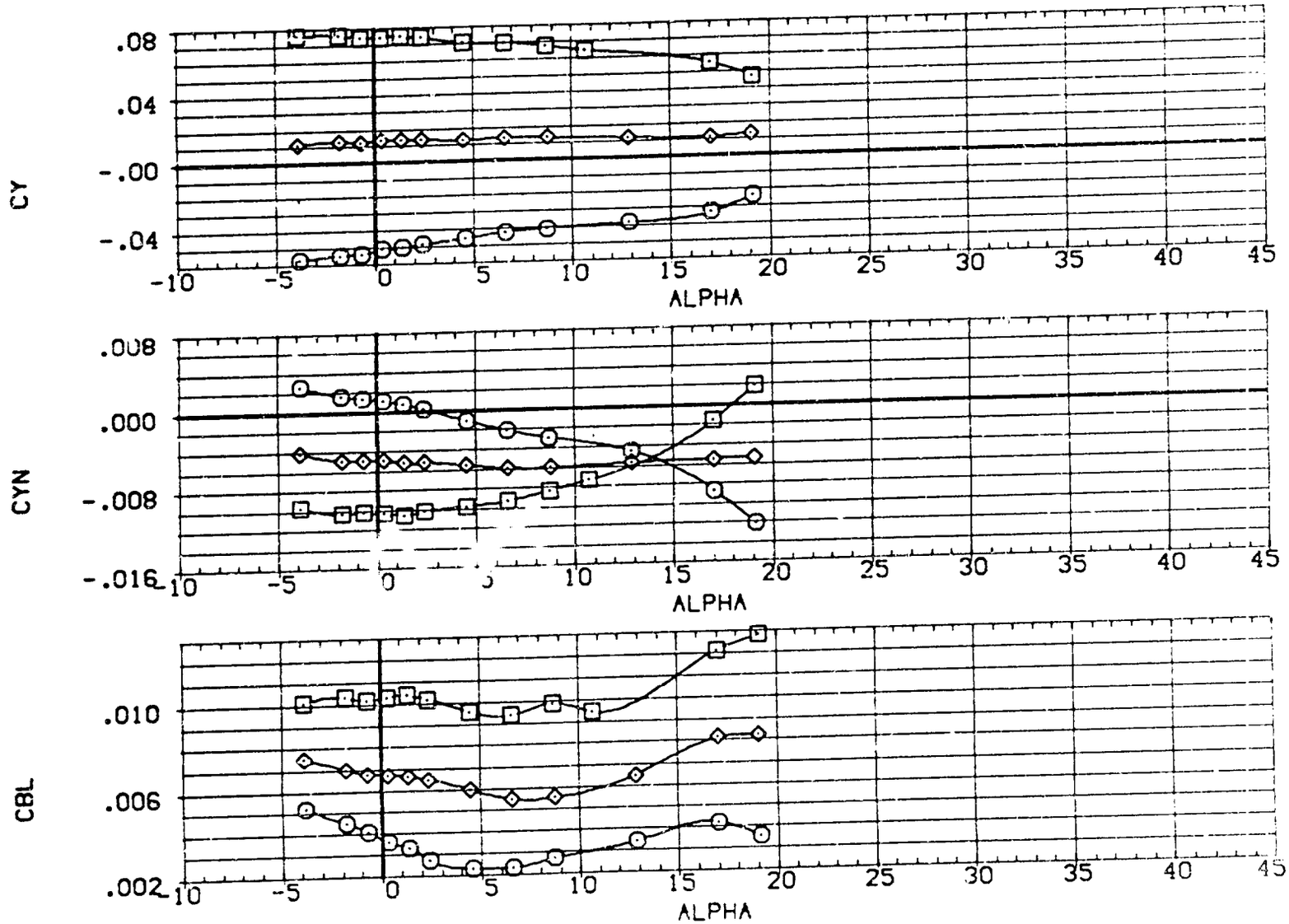


FIG. 9 COMPARISON OF LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(RP6112) □	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820
(RP6113) ◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820
(RP6111) ◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-20.000	3.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

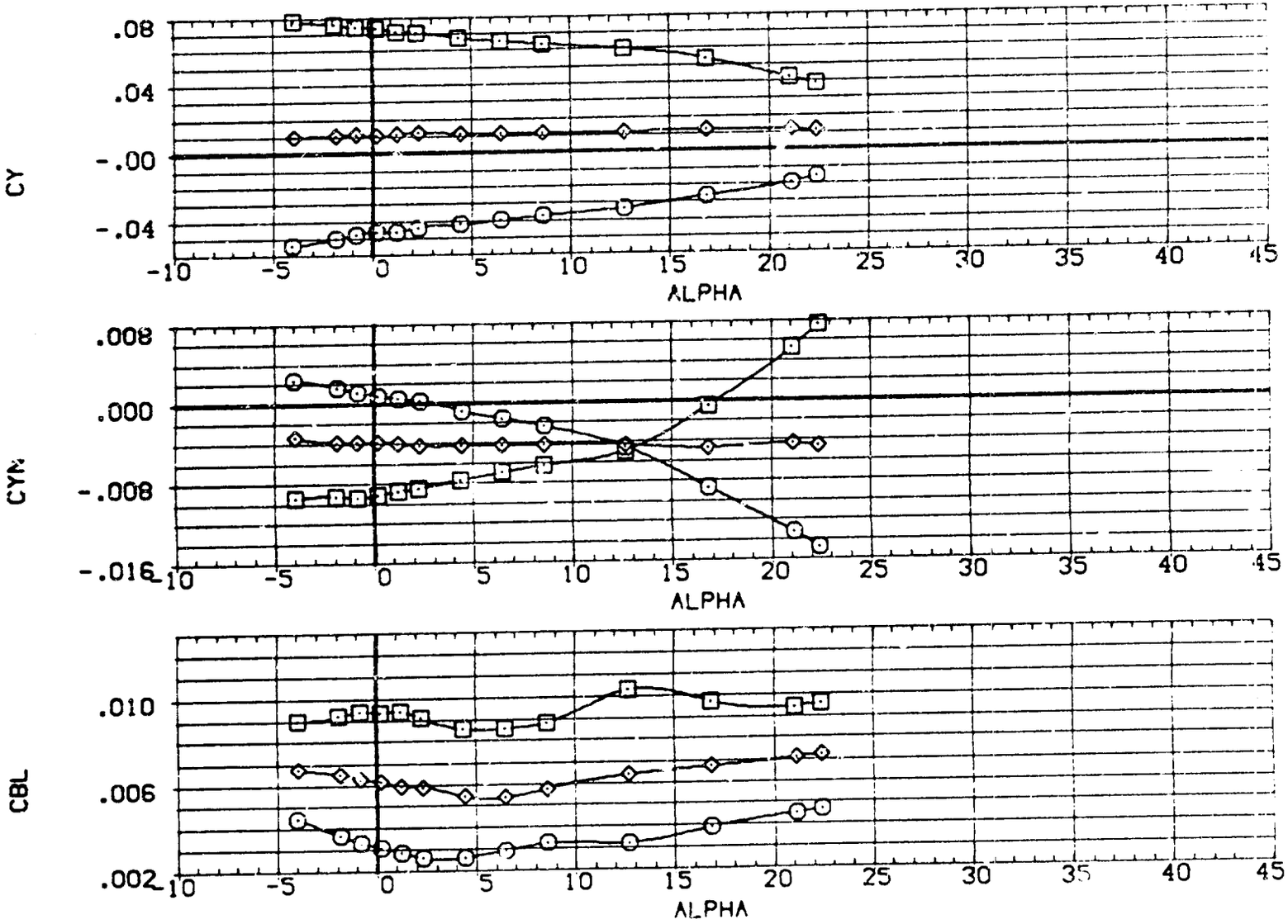


FIG. 9 COMPARISON OF LAT-DIR CHARACTERISTICS (ELEVTR = -20)

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-OC	K/L
(CP6114) ○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116) □	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119) ◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

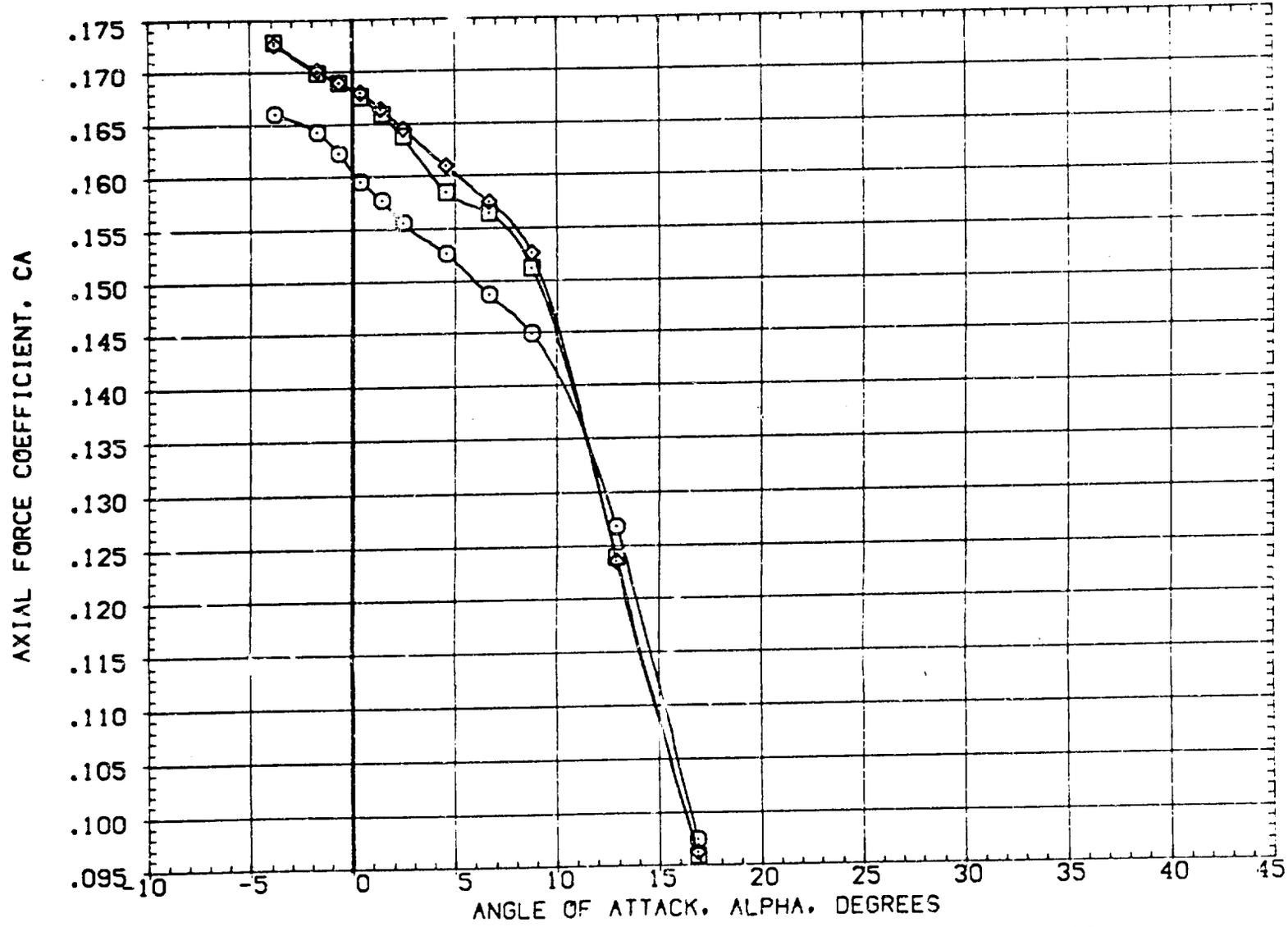


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CP6114) ○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116) □	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119) ◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

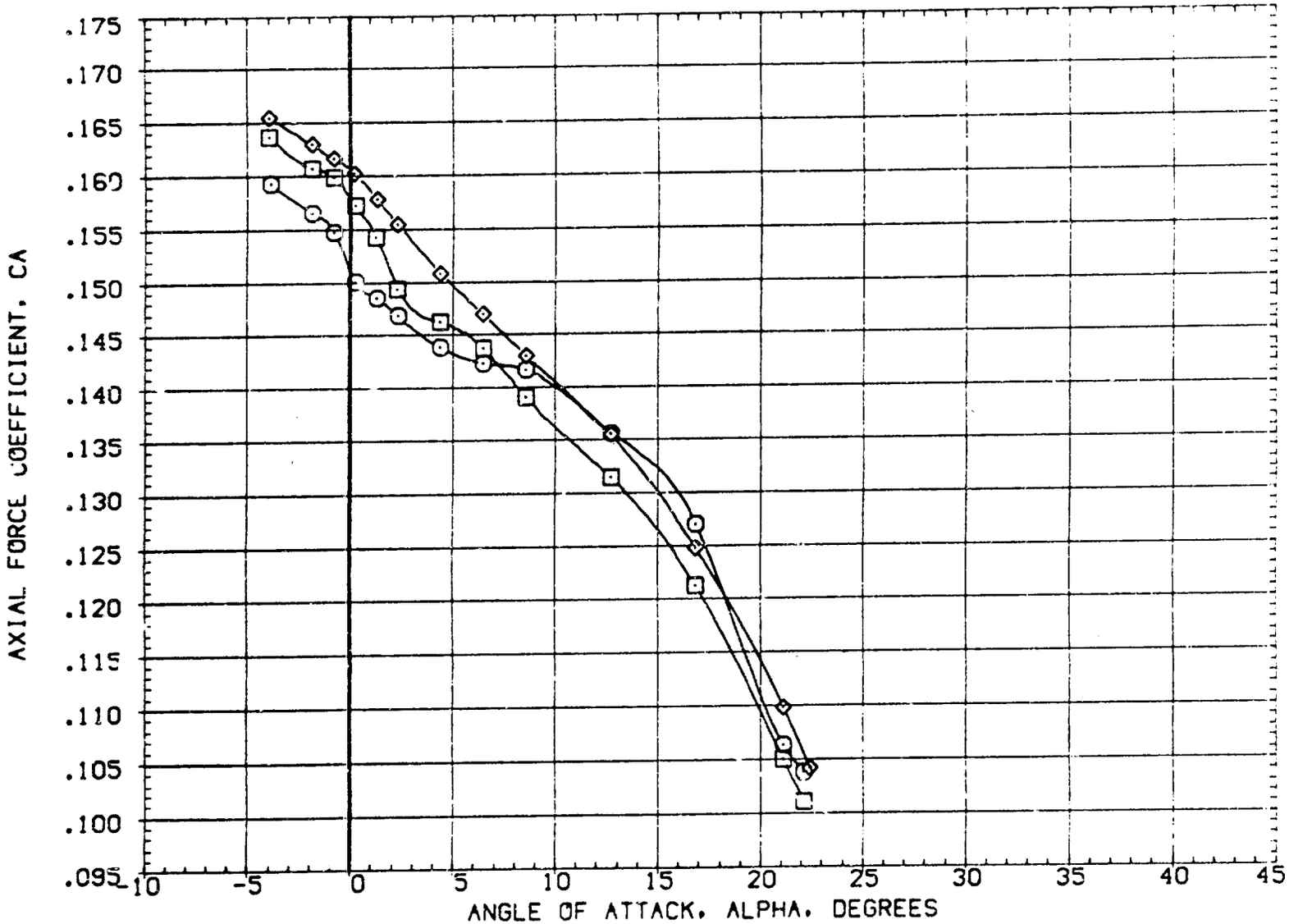


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CP6114) ○	LA-8A LARC UPVT 1034 NAR 0698-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116) □	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119) ◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

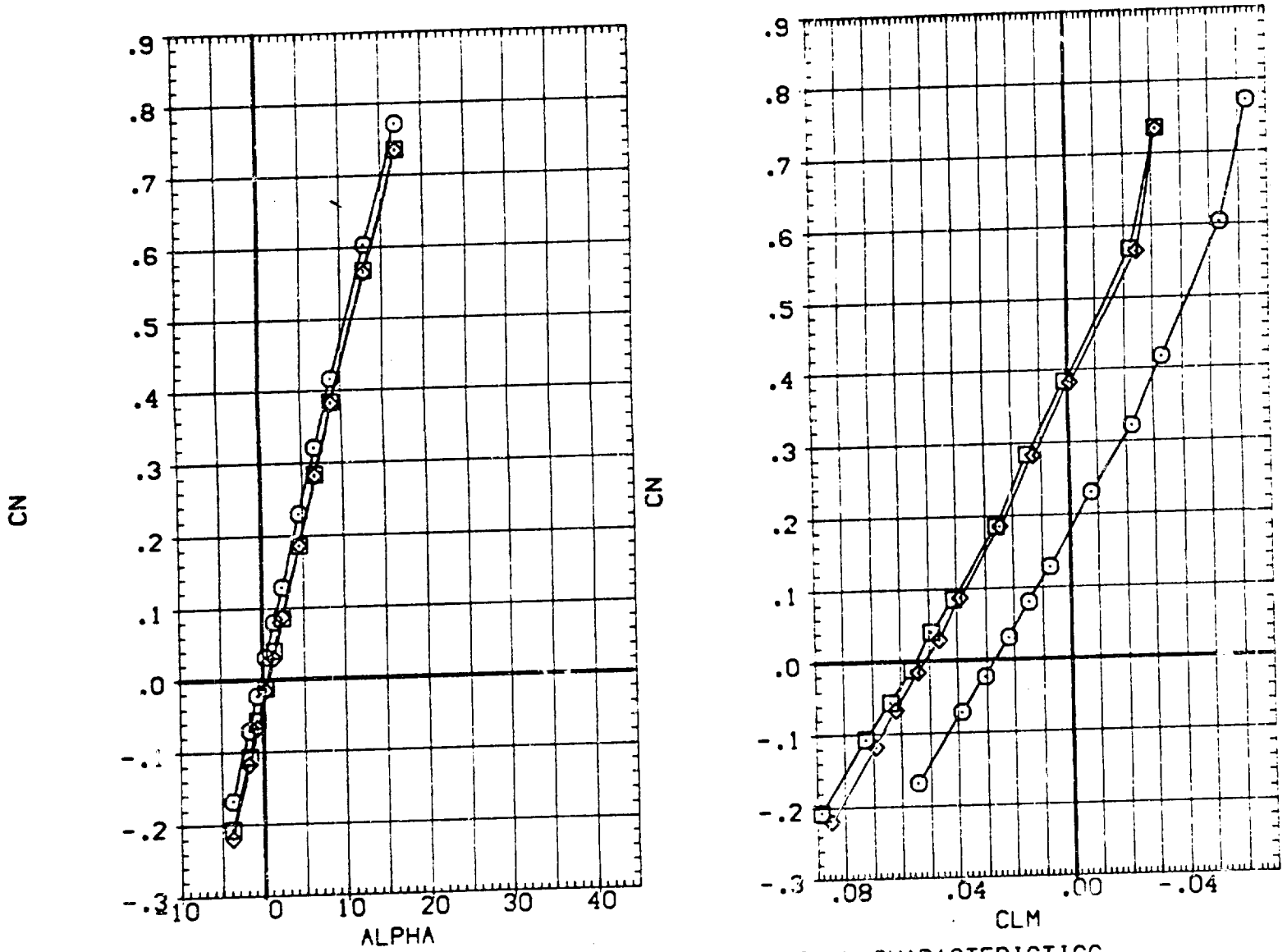


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CP6114)	○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

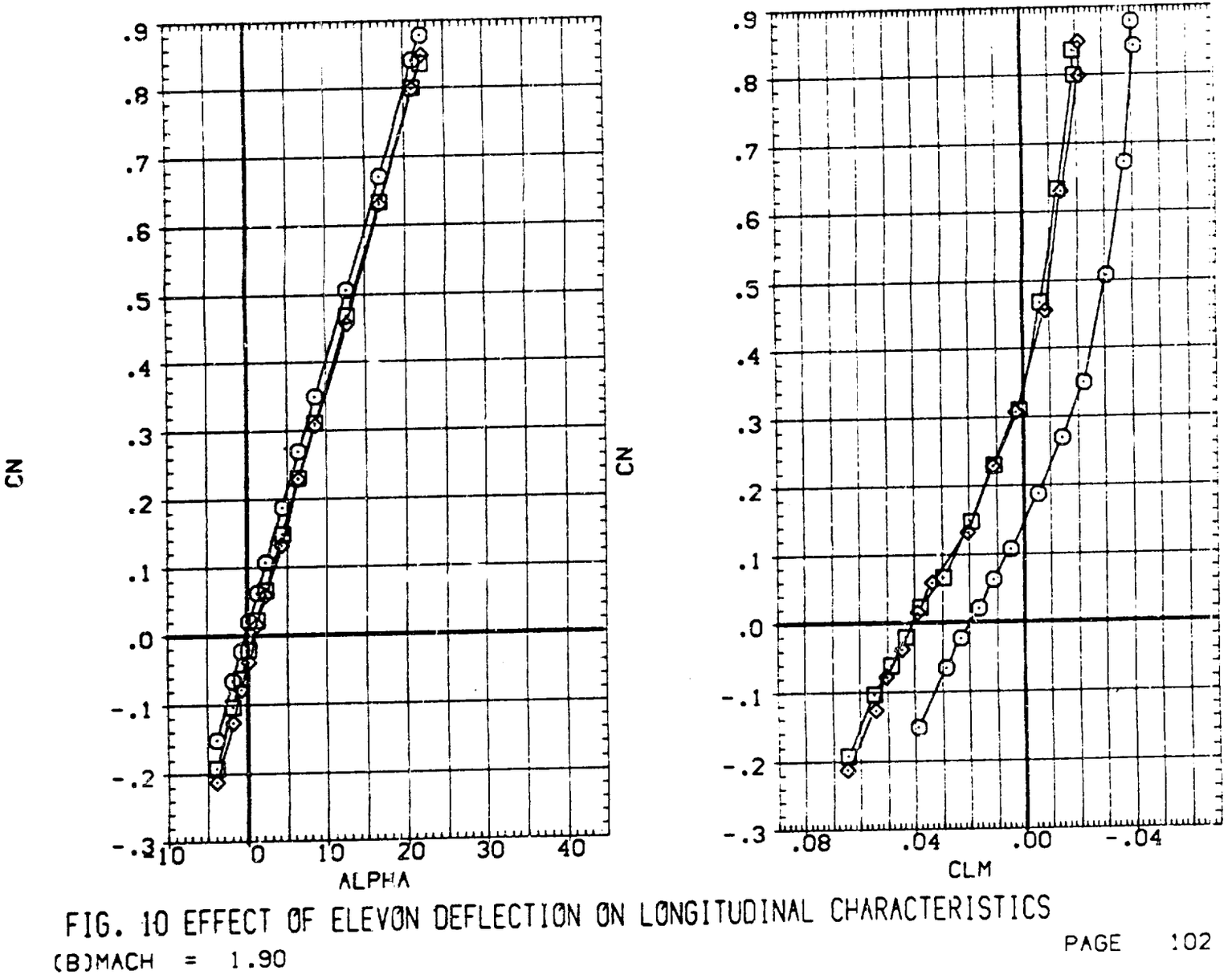


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CP6114)	○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9639	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0186	SCALE

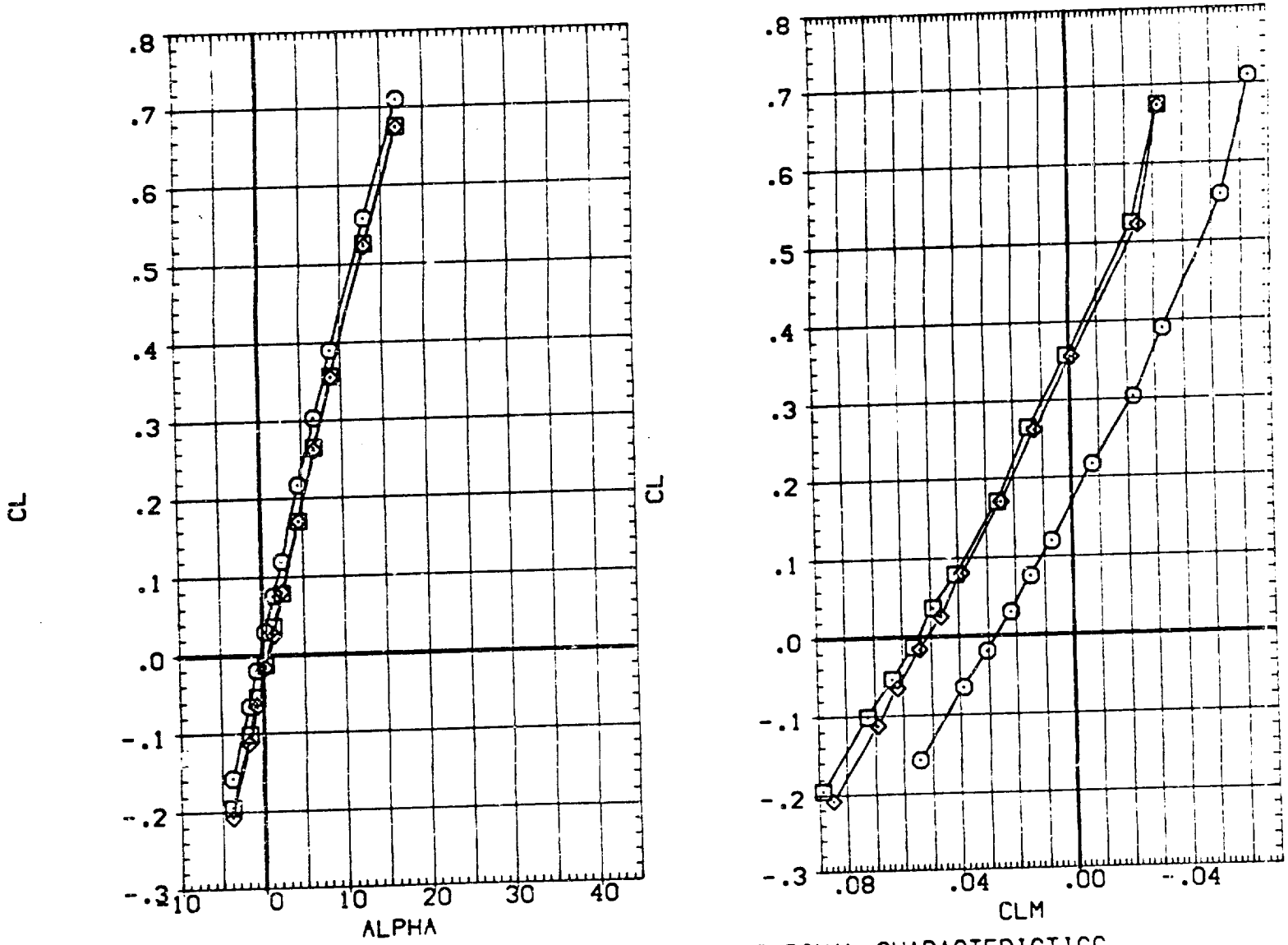


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CPSI14) ○	LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CPSI16) □	LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CPSI19) ◇	LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9538	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

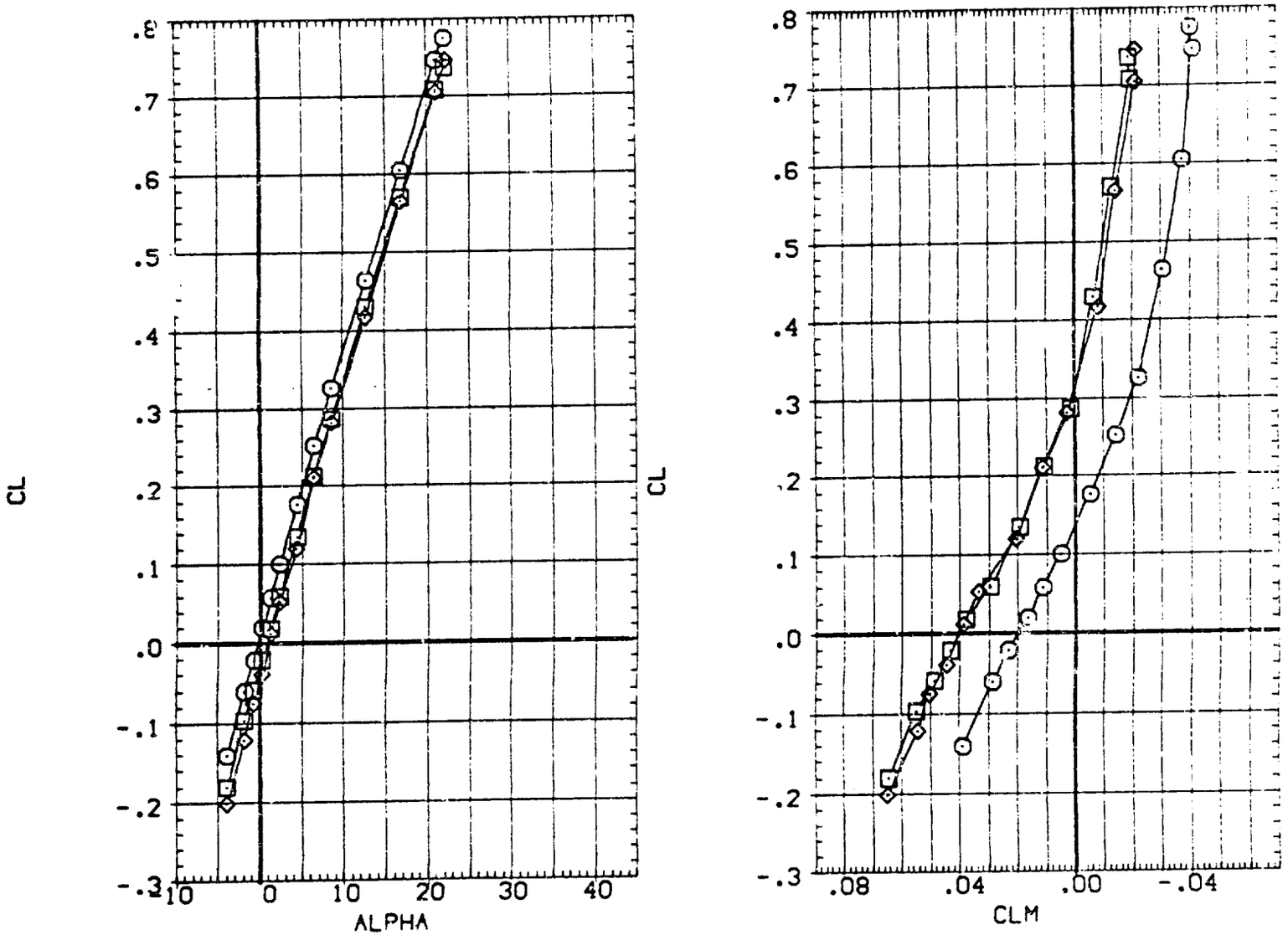


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CP6114)	○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

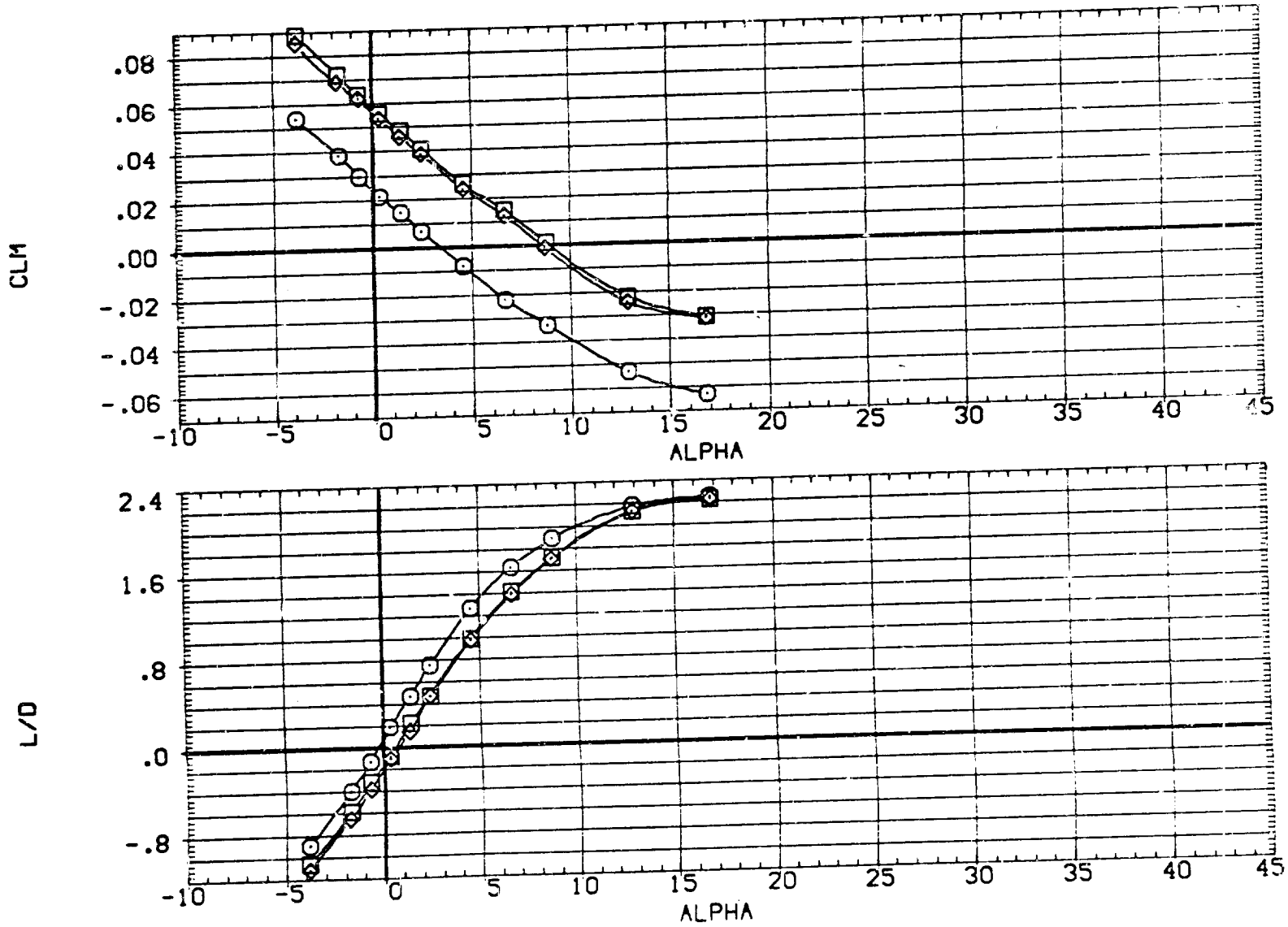


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CP6114)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	6.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

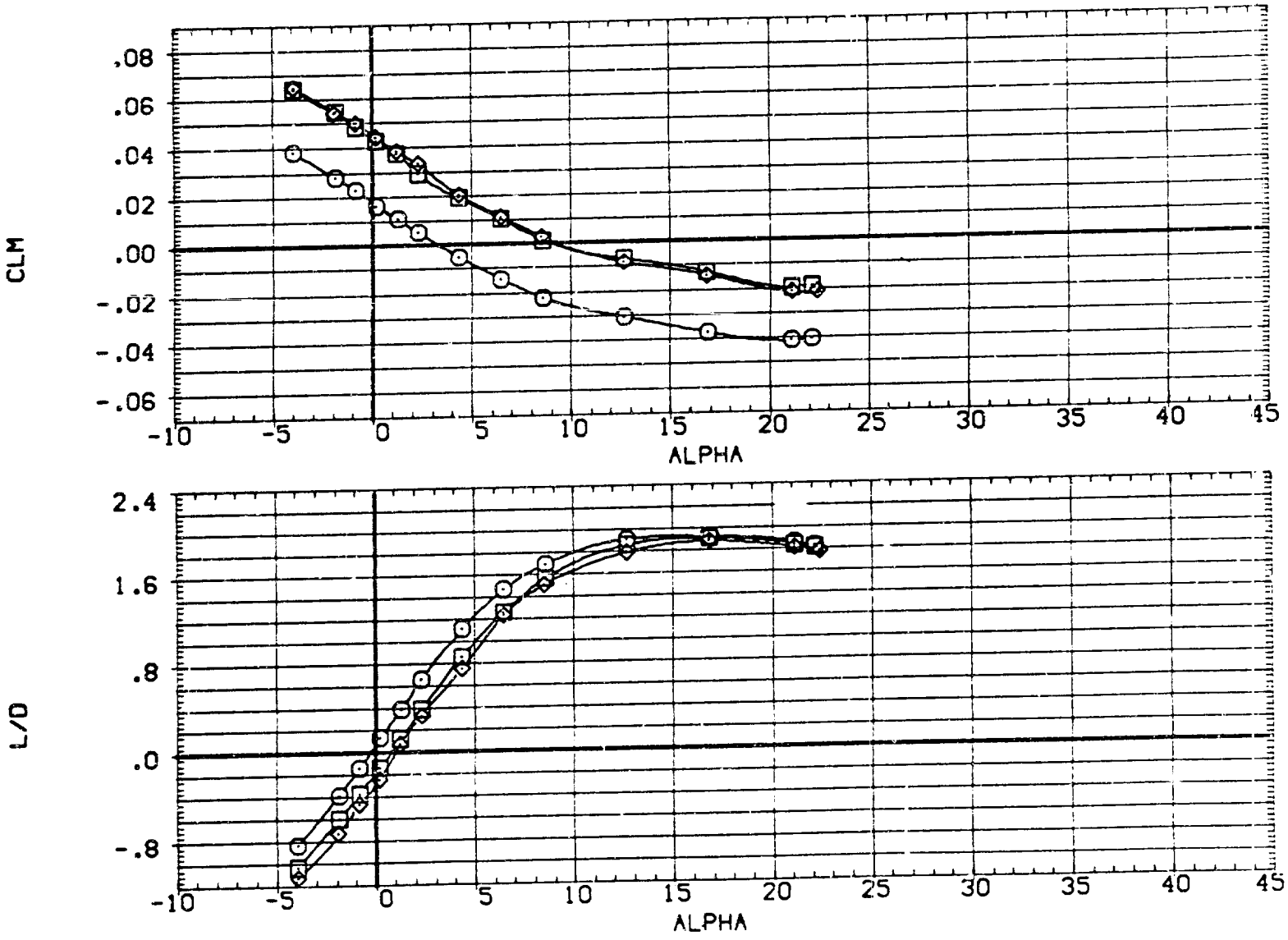


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CP6114)	○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	1808	SQ.IN.
LREF	9.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

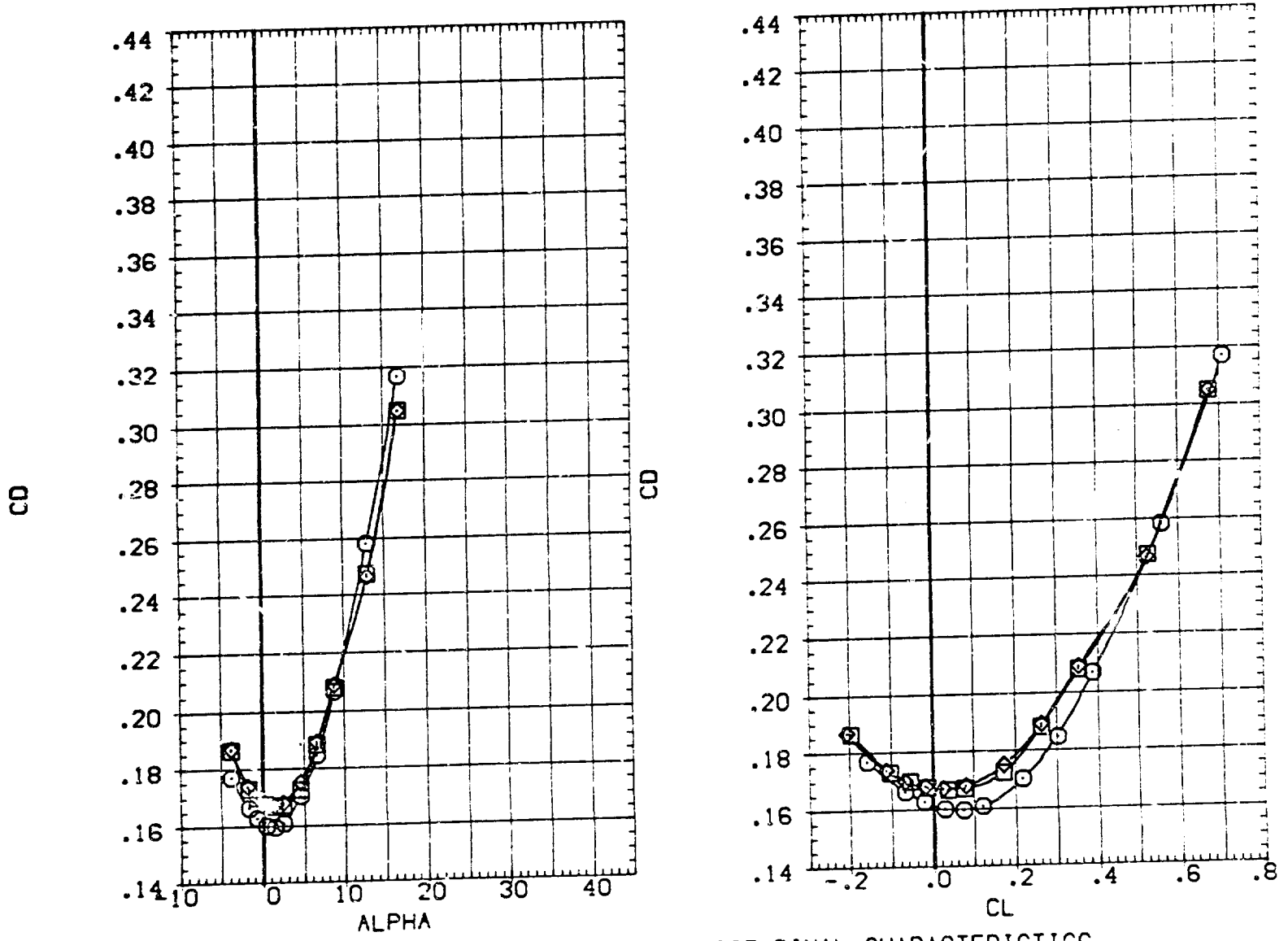
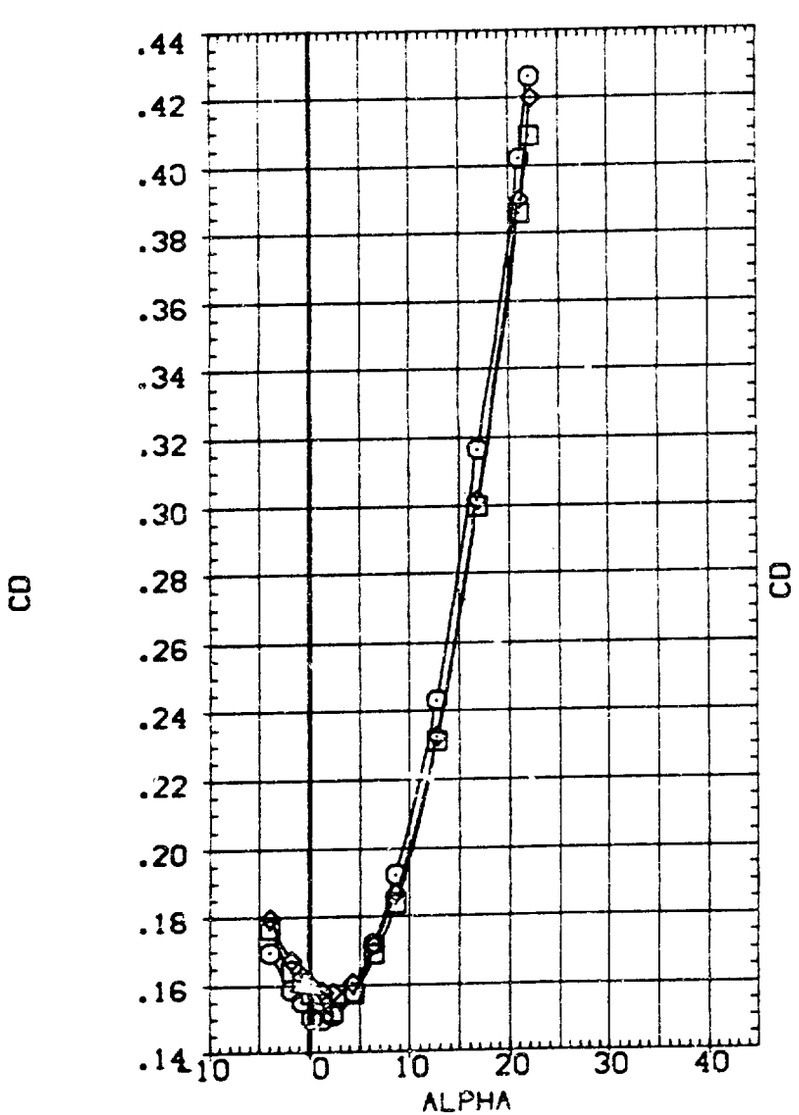


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(CP6114) ○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(CP6116) □	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(CP6119) ◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	13.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



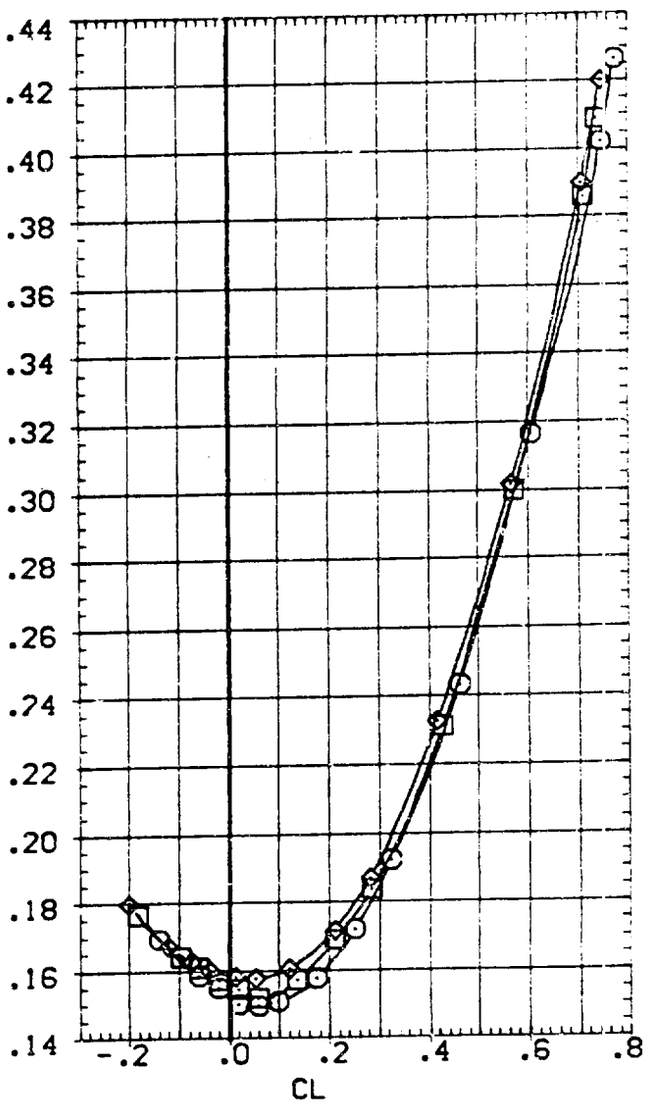


FIG. 10 EFFECT OF ELEVON DEFLECTION ON LONGITUDINAL CHARACTERISTICS

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	GT-LOC	K/L
(GP6113) ○	LA-3A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	2.000	6.820
(GP6120) □	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5528	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

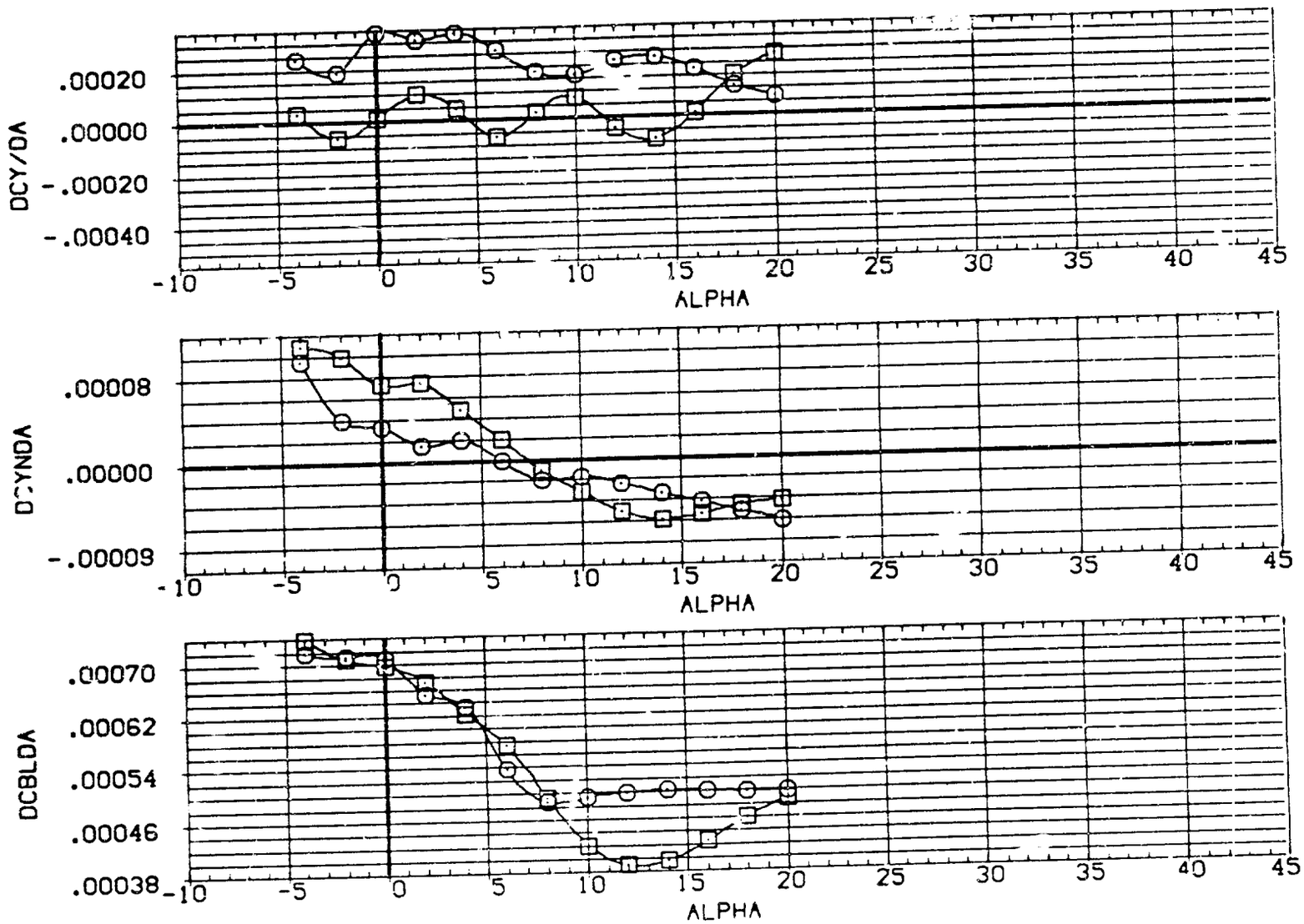


FIG. 11 AILERON CONTROL EFFECTIVENESS

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	GT-LOC	K/L
(GP6119) ○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	2.000	6.820
(GP6120) □	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORDITER	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	6.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

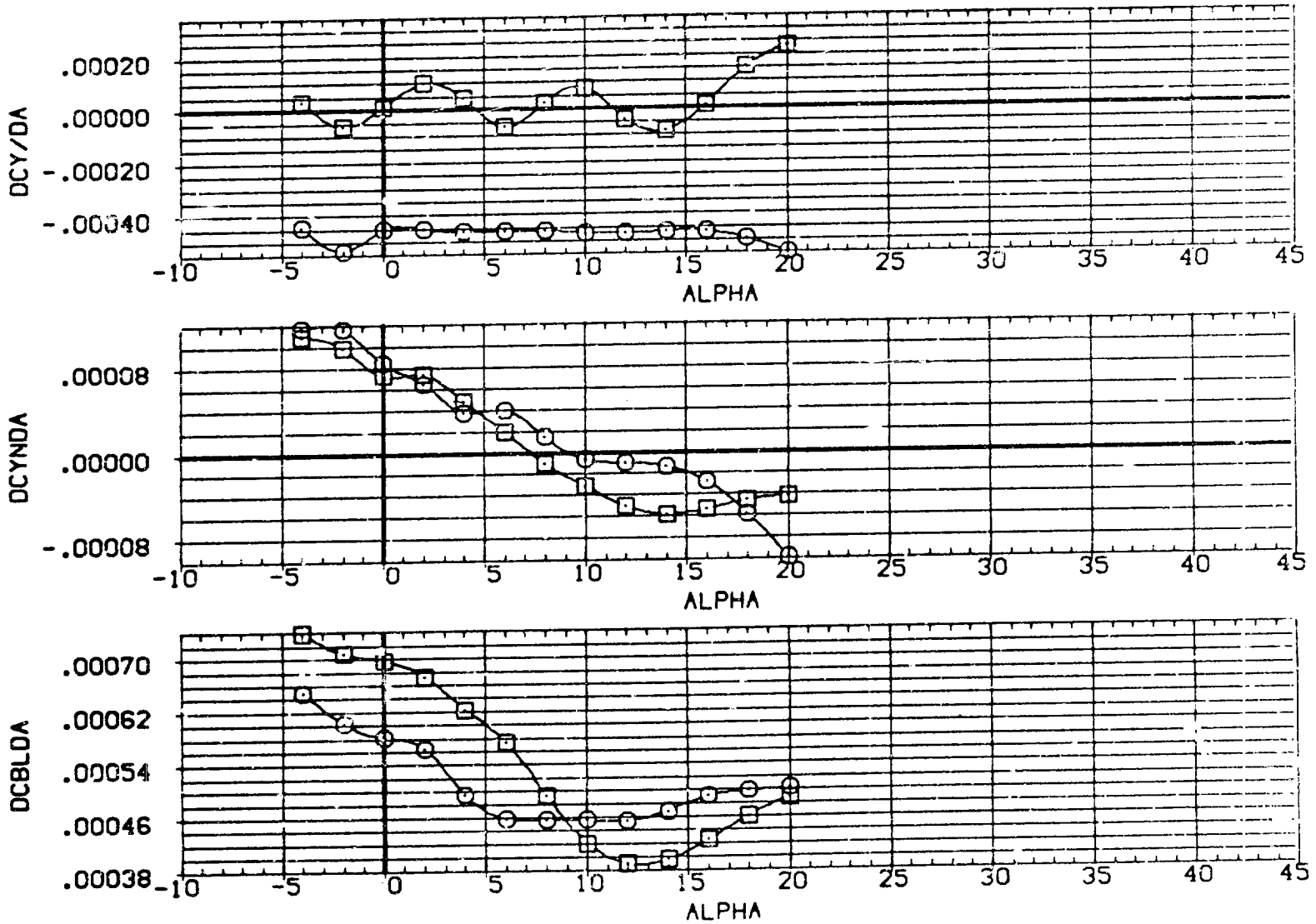


FIG. 11 AILERON CONTROL EFFECTIVENESS

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(RP6119)	□	LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820
(RP6116)	□	LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(RP6120)	◇	LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820
(RP6117)	△	LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

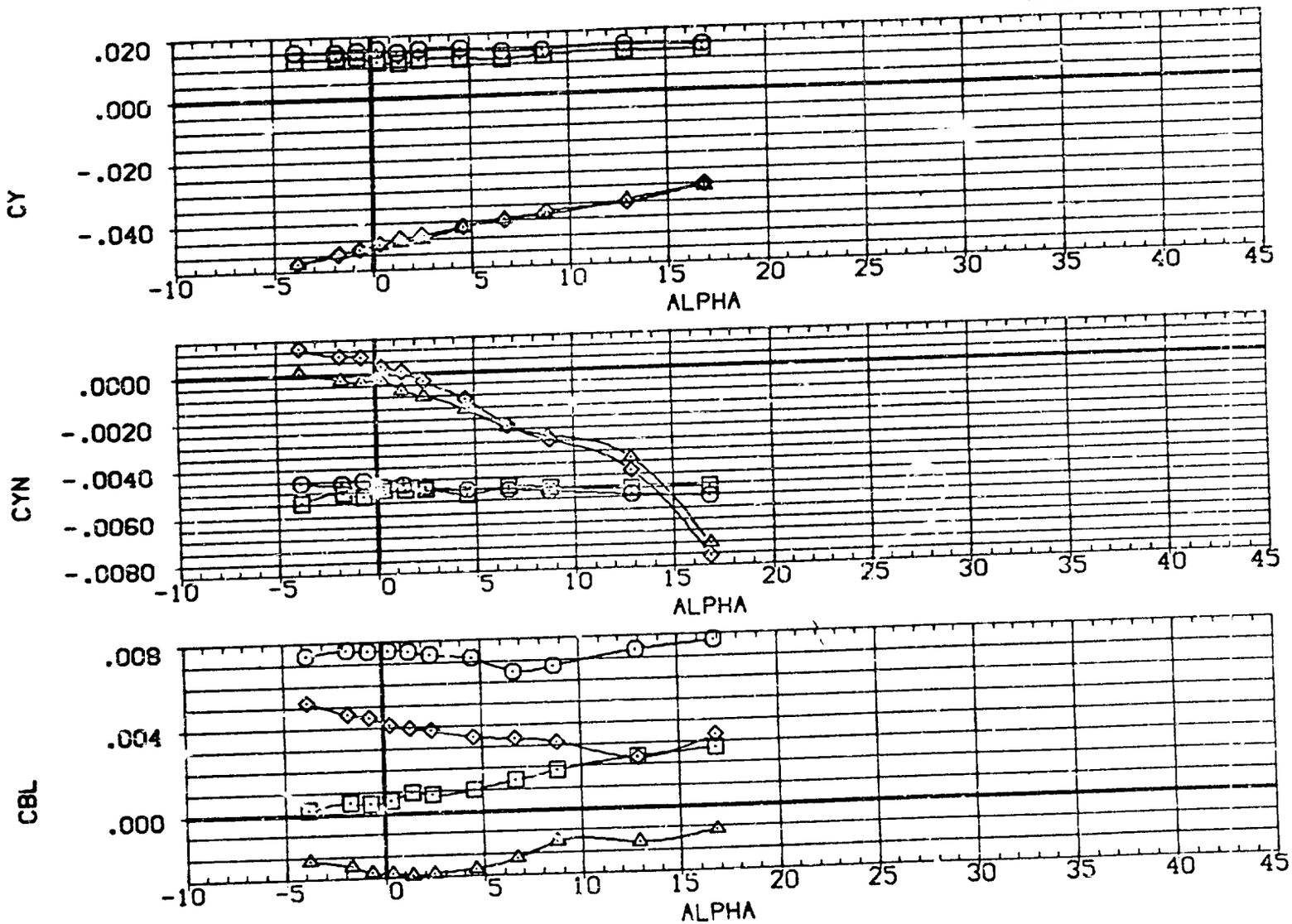


FIG. 11 AILERON CONTROL EFFECTIVENESS

(A)MACH = 1.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(RP6119)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	10.000	-10.000	2.000	6.820
(RP6116)	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	.000	-10.000	2.000	6.820
(RP6120)	DATA NOT AVAILABLE	10.000	-10.000	2.000	6.820
(RP6117)	DATA NOT AVAILABLE	.000	-10.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9533	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

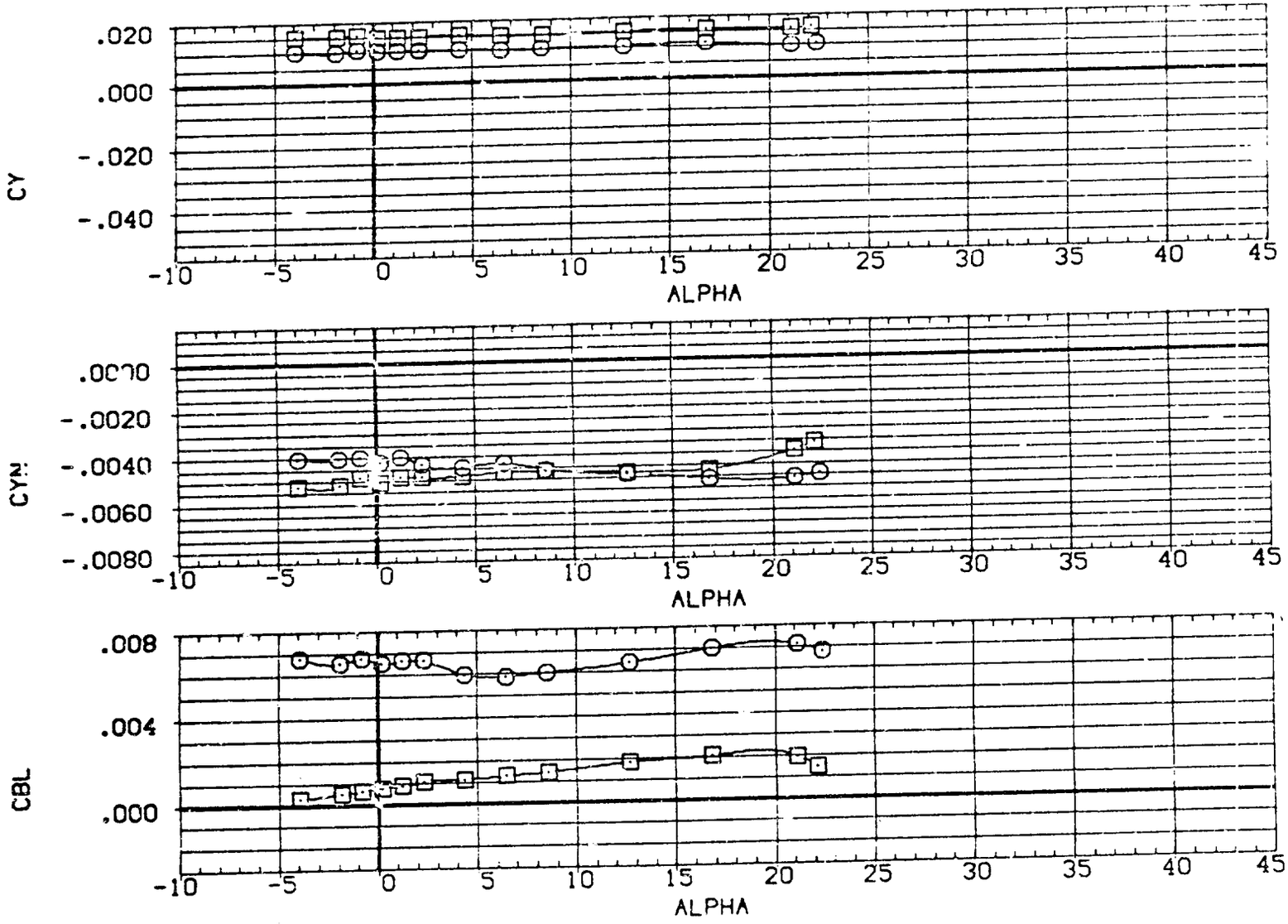


FIG. 11 AILERON CONTROL EFFECTIVENESS

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(NP6122)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(NP6123)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(NP6124)	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(NP6126)	DATA NOT AVAILABLE	.000	.000	2.000	6.820
(NP6020)	DATA NOT AVAILABLE	.000	.000	2.000	6.820
(NP6022)	DATA NOT AVAILABLE	.000	.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

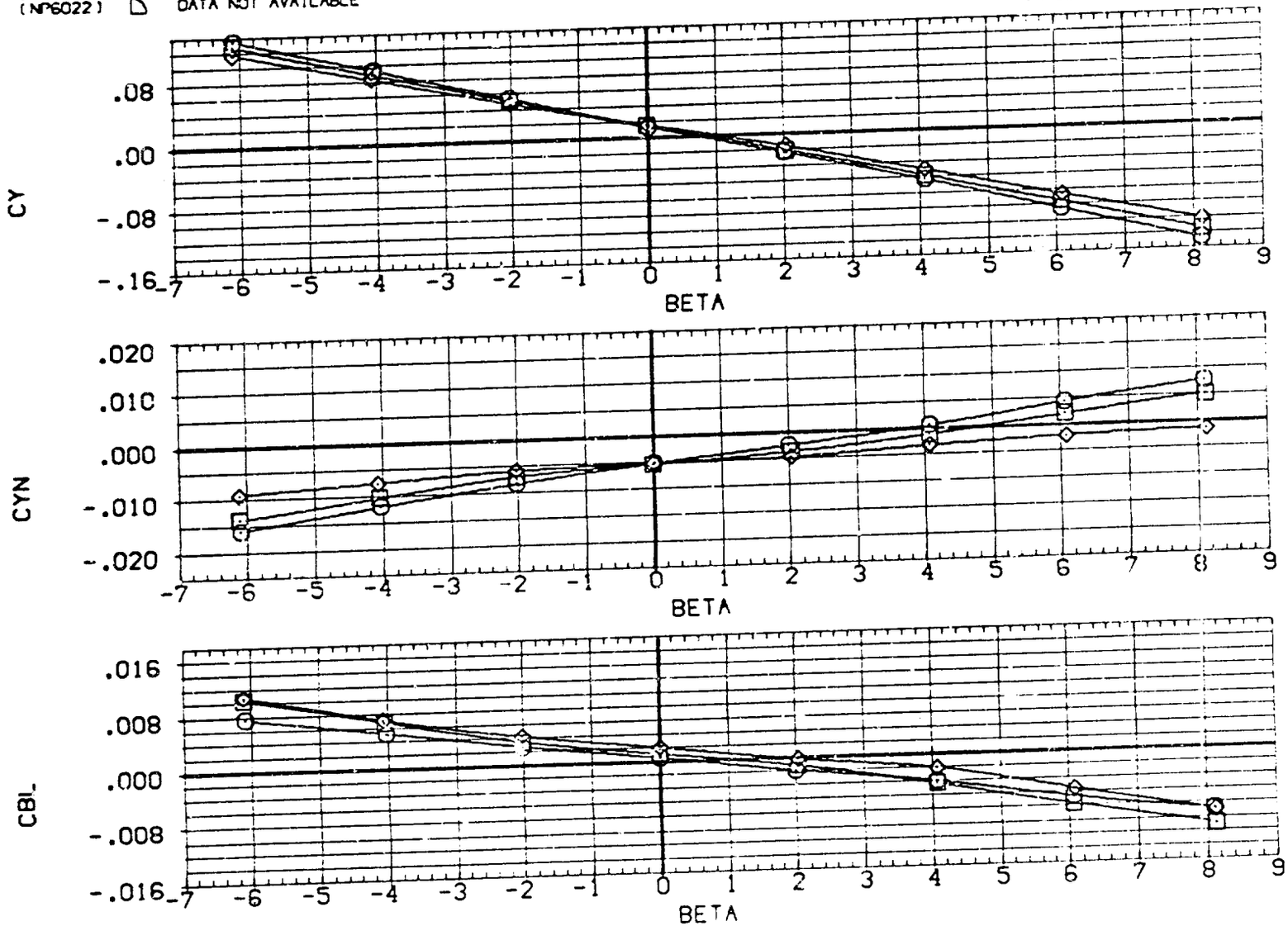


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(NP6122)	□	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NP6123)	⊠	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NP6124)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NP6126)	△	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NP6020)		DATA NOT AVAILABLE
(NP6022)		DATA NOT AVAILABLE

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	2.000	6.820
.000	.000	2.000	6.820
.000	.000	2.000	6.820
.000	.000	2.000	6.820
.000	.000	2.000	6.820
.000	.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.8638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

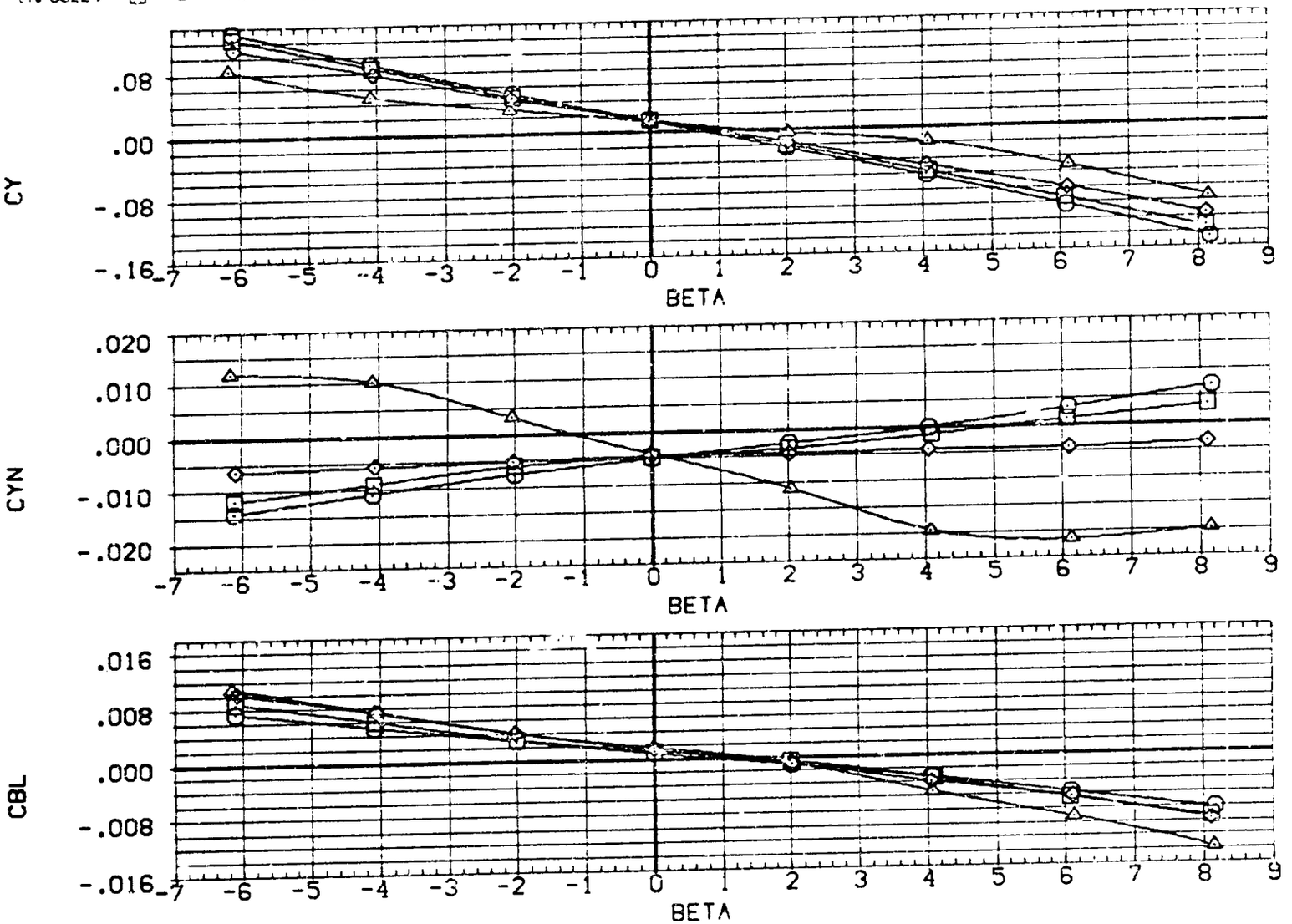


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(B)MACH = 1.90

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(NP6122)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NP6123)	DATA NOT AVAILABLE
(NP6124)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NP6126)	DATA NOT AVAILABLE
(NP6020)	LA-8/8A NAR 0898-MOD. NOSE ORBITER
(NP6022)	LA-8/8A NAR 0850-MOD. NOSE ORBITER

AILRON	ELEVTR	GT-LOC	K/L
.000	.000	2.000	6.820
.000	.000	2.000	6.820
.000	.000	2.000	6.820
.000	.000	2.000	6.820
.000	.000	2.000	6.820
.000	.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.8638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

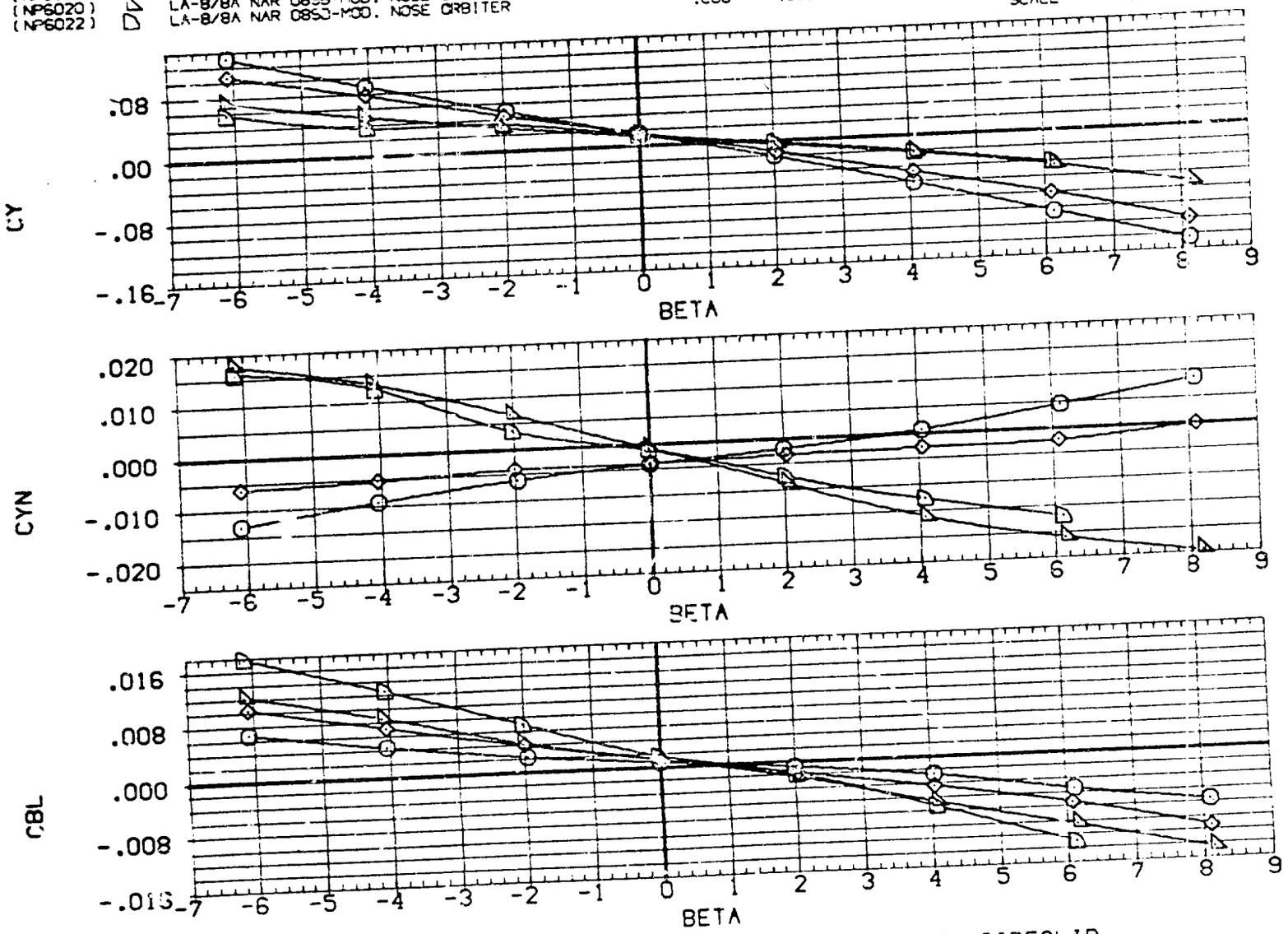


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(C)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	AILRON	ELEVTR	GT-LOC	K/L
(NP6122)	○	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(NP6123)	□	DATA NOT AVAILABLE	.000	.000	2.000	6.820
(NP6124)	◇	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(NP6126)	△	DATA NOT AVAILABLE	.000	.000	2.000	6.820
(NP6020)	▽	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820
(NP6022)	◁	LA-8/8A NAR 0898-MOD. NOSE ORBITER	.000	.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	15.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0189	SCALE

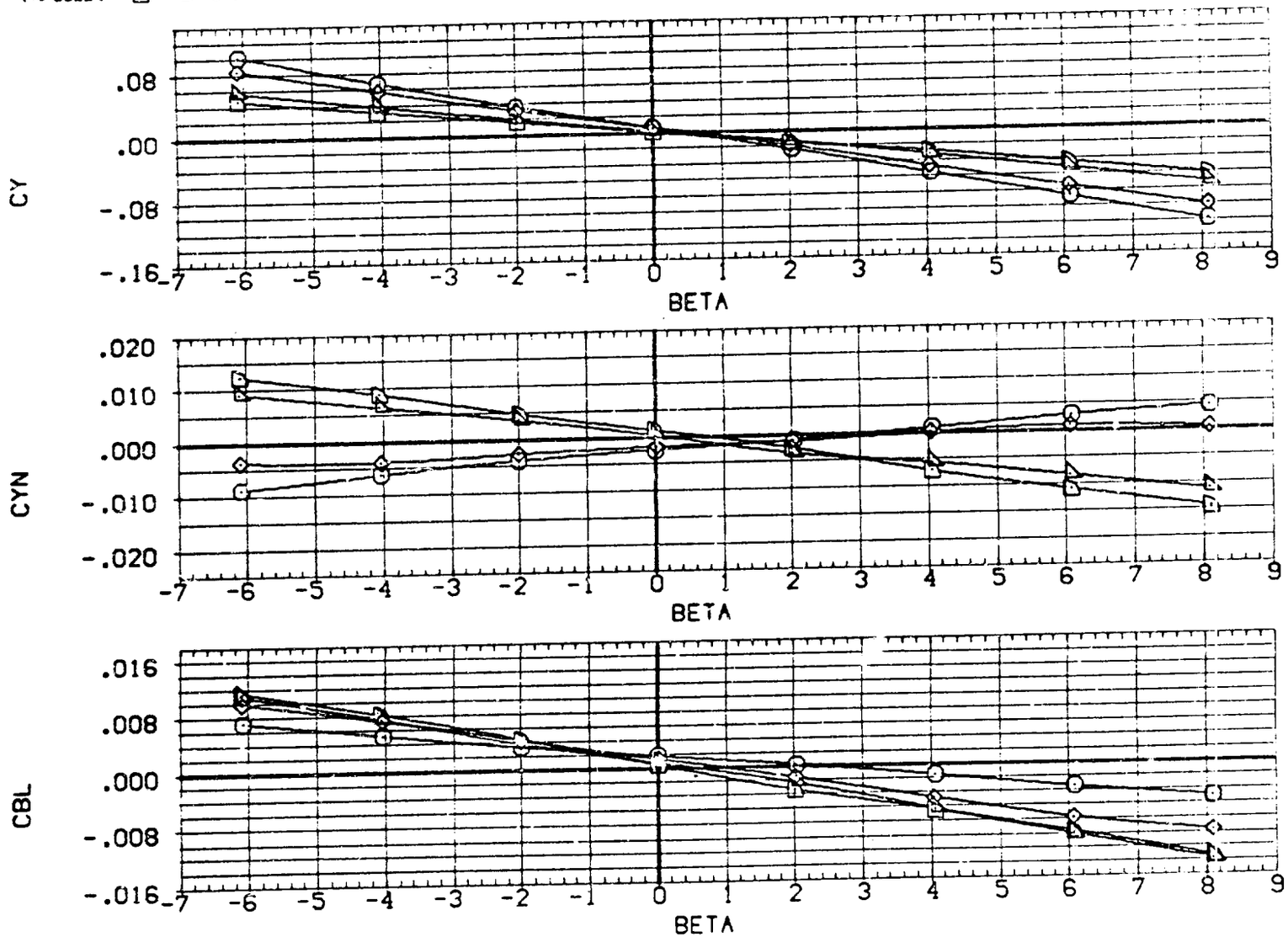


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	ALPHA	GT-LOC	K/L
(HP6127)	○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	.000	2.000	6.820
(HP6128)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	5.000	2.000	6.820
(HP6129)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	10.000	2.000	6.820
(HP6130)	△	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	15.000	2.000	6.820
(HP6131)	▽	DATA NOT AVAILABLE	-10.000	20.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0183	SCALE

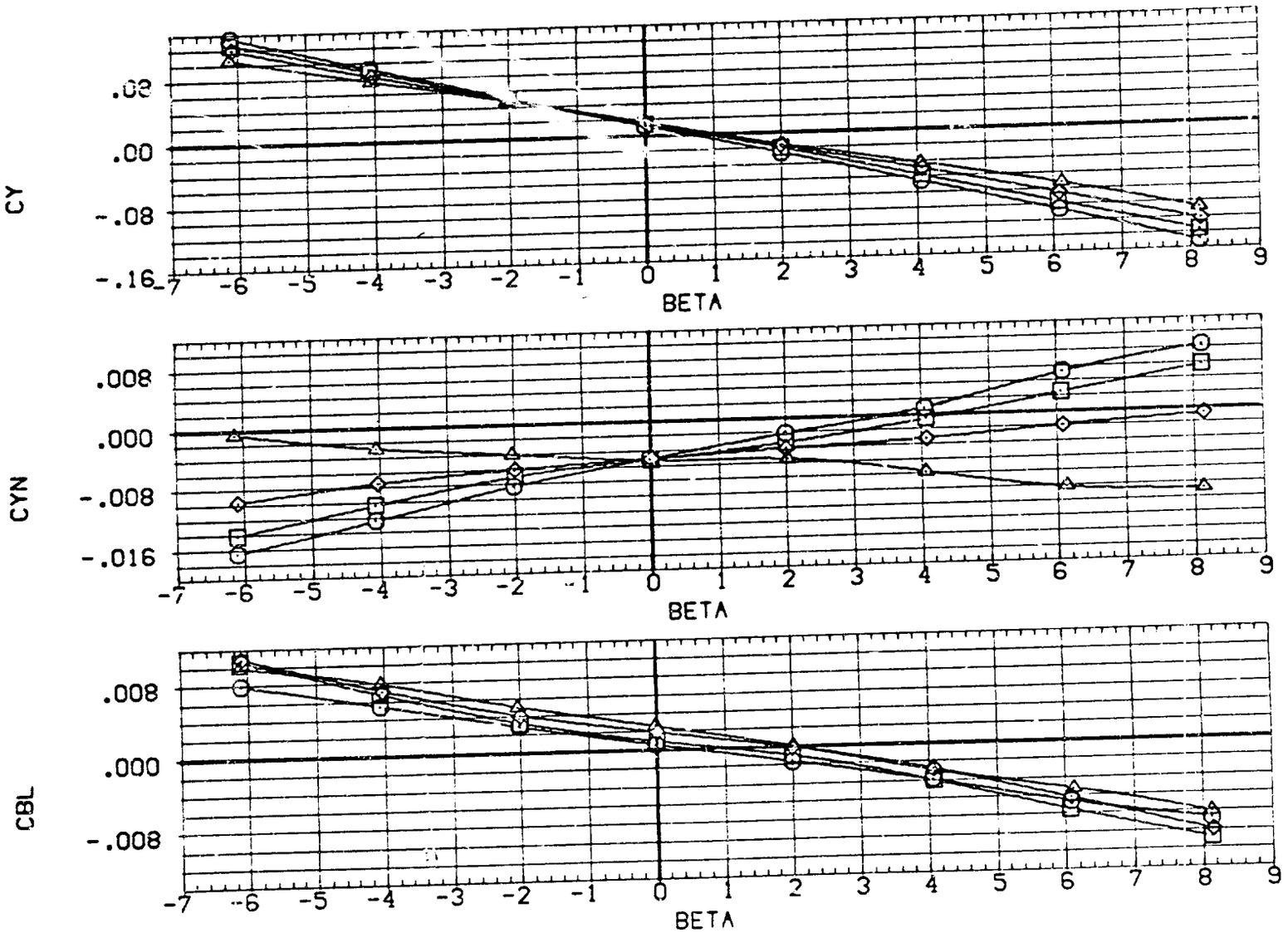


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	ALPHA	GT-LOC	K/L
(HP6127)		LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	-10.000	.000	2.000	6.820
(HP6128)		LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	-10.000	5.000	2.000	6.820
(HP6129)		LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	-10.000	10.000	2.000	6.820
(HP6130)		LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	-10.000	15.000	2.000	6.620
(HP6131)		LA-8A LARC UPVT 1034 NAR 089B-MOD. NOSE ORBITER	-10.000	20.000	2.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ. IN.
LREF	8.9025	INCHES
BREF	17.5528	INCHES
XMRP	15.9538	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

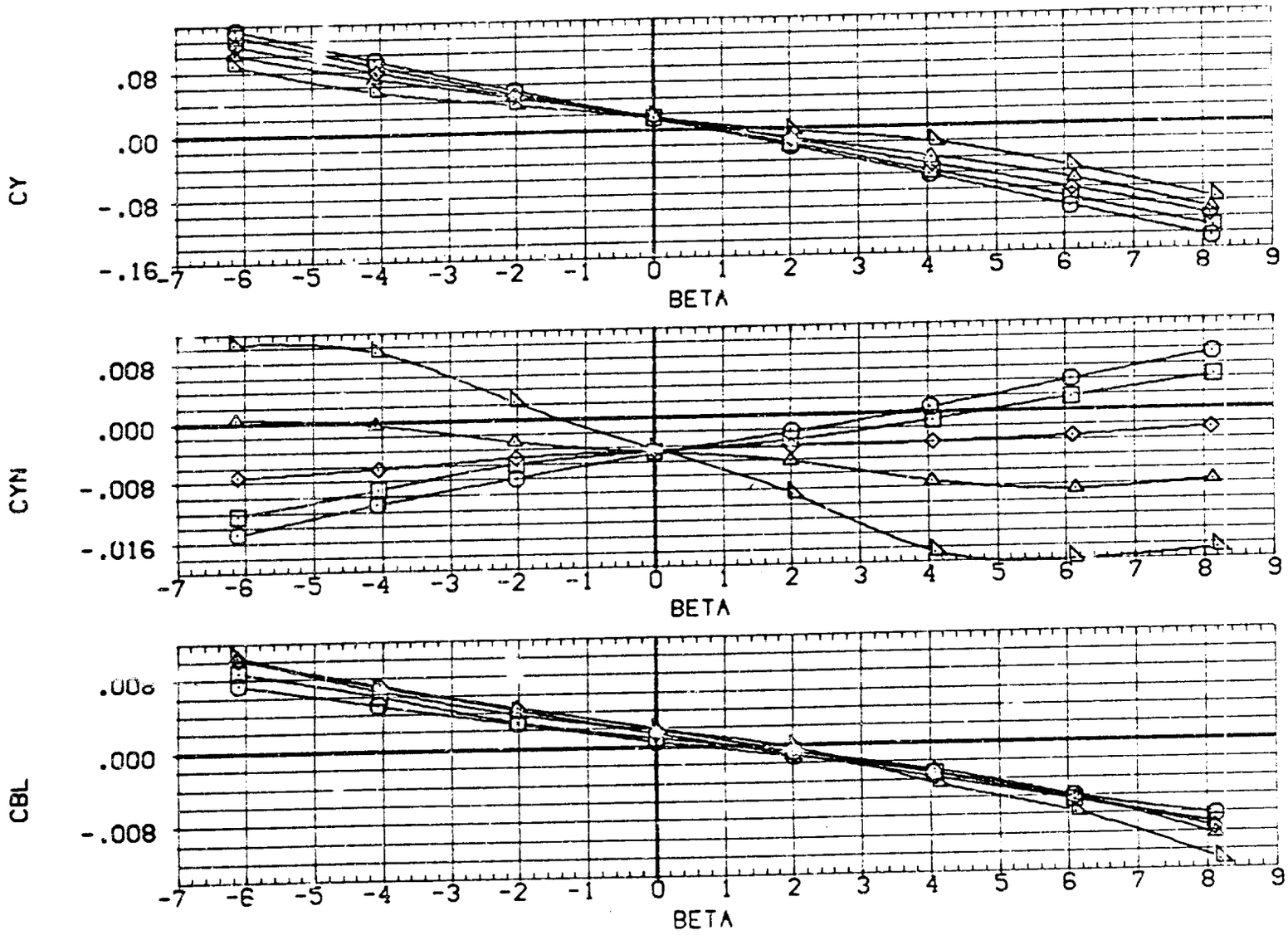


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	ALPHA	GT-LOC	K/L
(HP6132)	○	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	.000	2.000	6.820
(HP6133)	□	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	5.000	2.000	6.820
(HP6134)	◇	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	10.000	2.000	6.820
(HP6135)	△	LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	15.000	2.000	6.820
(HP6136)		DATA NOT AVAILABLE	-10.000	20.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

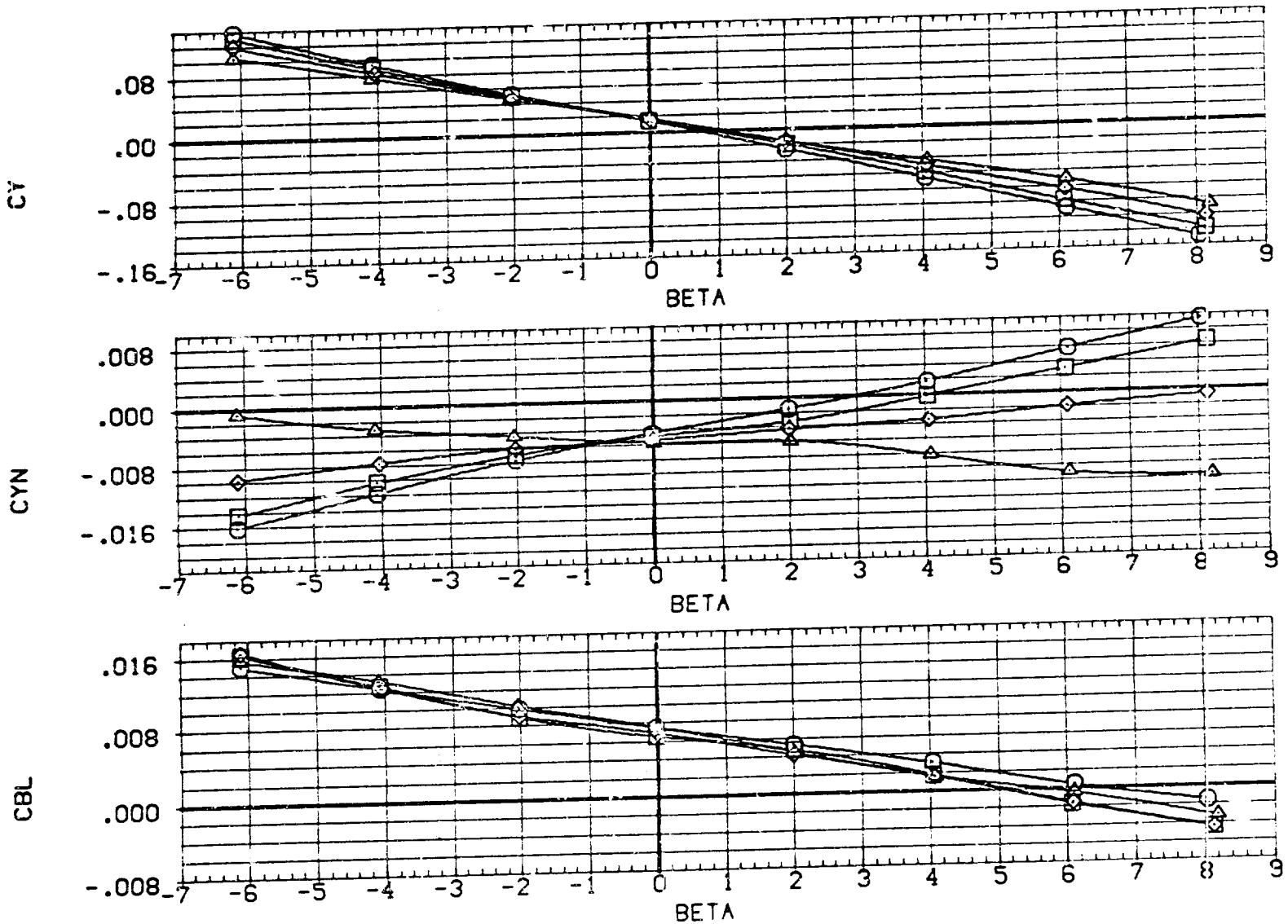


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(A)MACH = 1.60

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	ALPHA	GT-LOC	K/L
(HP6132)		LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	.000	2.000	6.820
(HP6131)		LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	5.000	2.000	6.820
(HP6134)		LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-10.000	10.000	2.000	6.820
(HP6133)		LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-0.000	15.000	2.000	6.820
(HP6136)		LA-8A LARC UPVT 1034 NAR 0898-MOD. NOSE ORBITER	-0.000	20.000	2.000	6.820

REFERENCE INFORMATION		
SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.8638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0189	SCALE

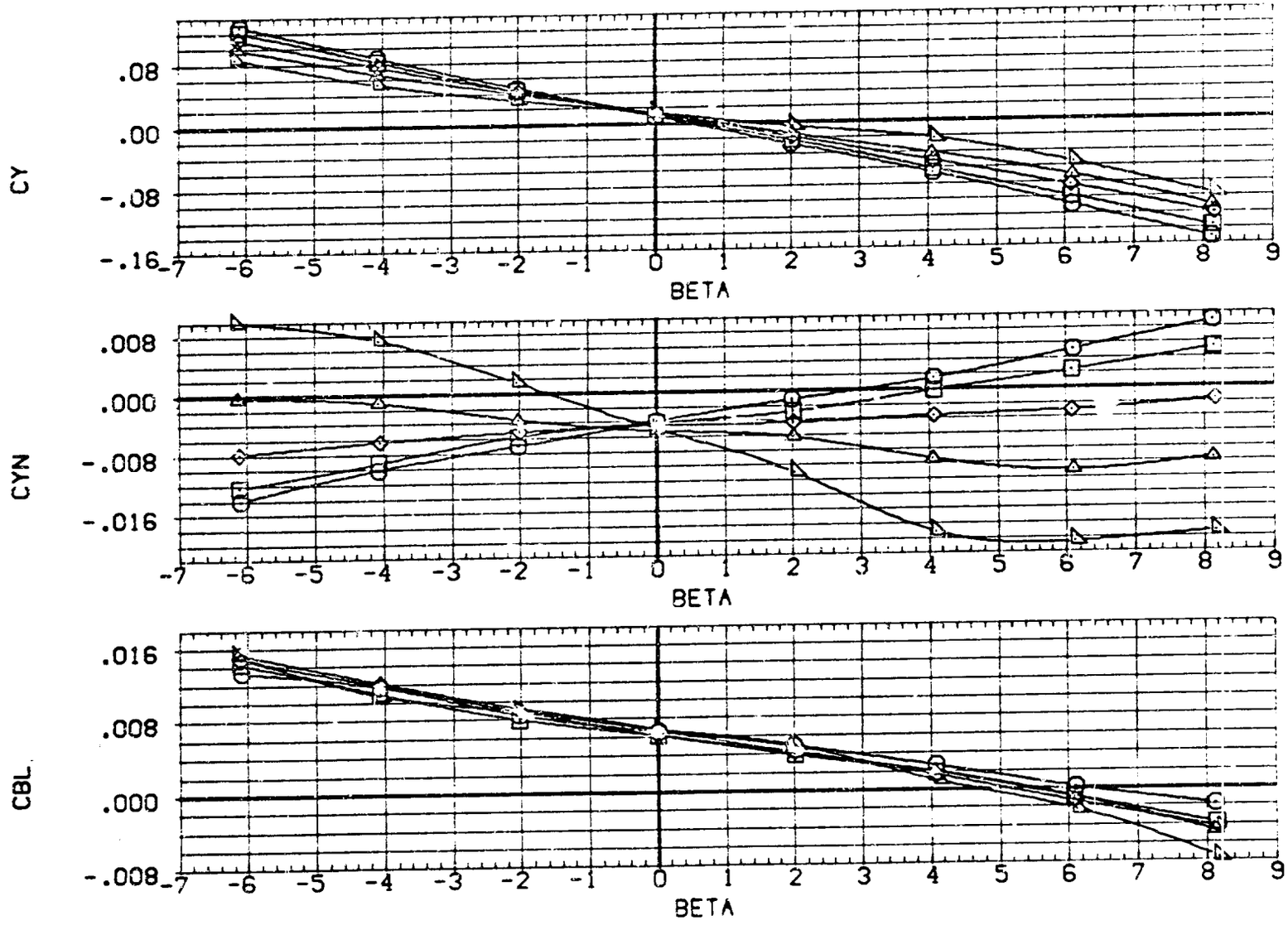


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(B)MACH = 1.90

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	ALPHA	GT-LOC	K/L
(HP6023)	□	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	-20.000	.000	3.000	6.820
(HP6024)	◇	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	-20.000	10.000	3.000	6.820
(HP6025)	○	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	-20.000	20.000	3.000	6.820
(HP6026)	△	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	-20.000	30.000	3.000	6.820
(HP6028)	▽	LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER	-20.000	40.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5628	INCHES
XMRP	15.9638	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

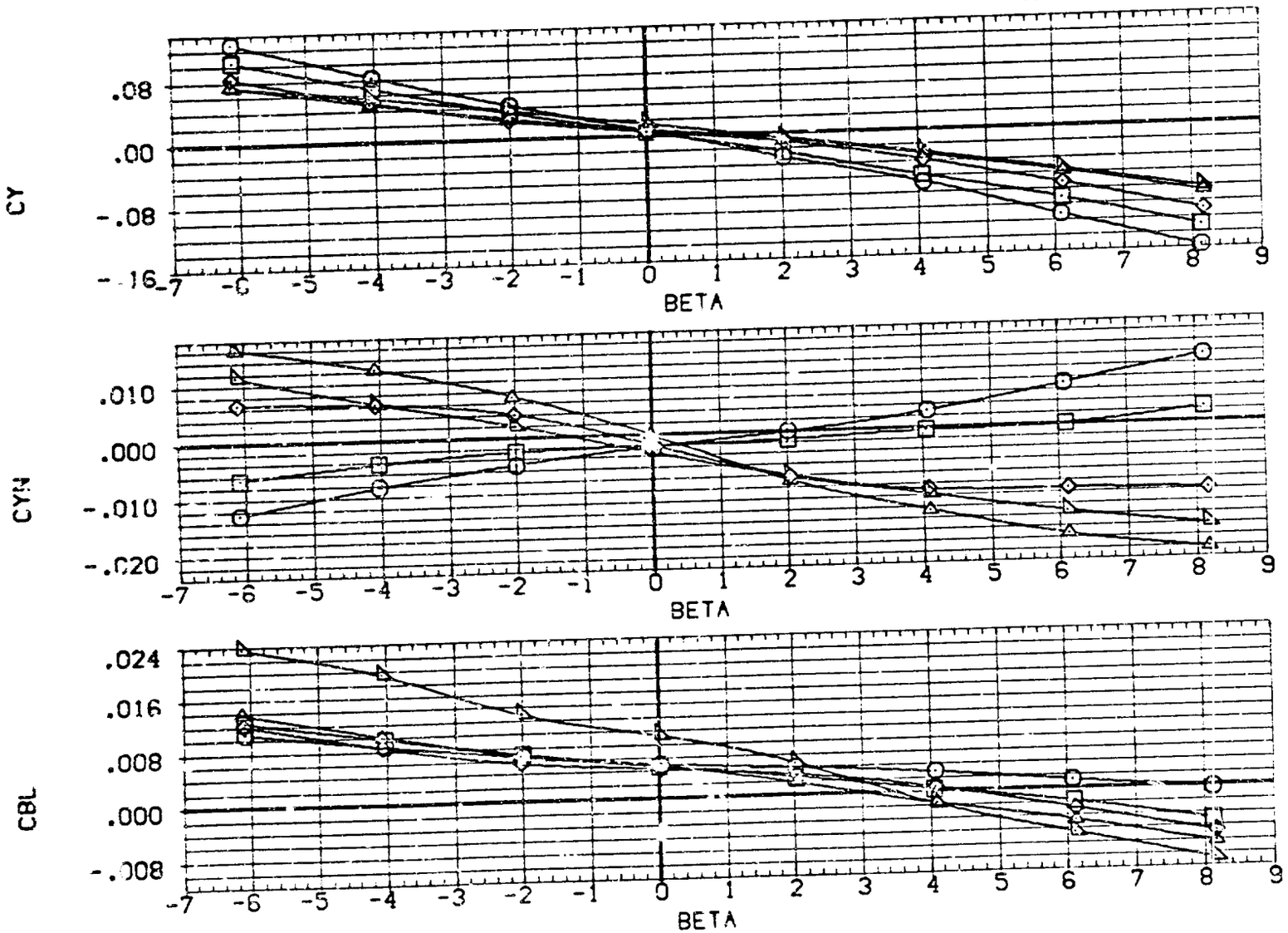


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	ALPHA	GT-LCG	K/L
(HP6023)	LA-8 LARC GPWT 1023 NAR 0898-M00. NOSE ORBITER	-20.000	.000	3.000	6.820
(HP6024)	LA-8 LARC GPWT 1023 NAR 0898-M00. NOSE ORBITER	-20.000	10.000	3.000	6.820
(HP6025)	LA-8 LARC GPWT 1023 NAR 0898-M00. NOSE ORBITER	-20.000	20.000	3.000	6.820
(HP6026)	LA-8 LARC GPWT 1023 NAR 0898-M00. NOSE ORBITER	-20.000	30.000	3.000	6.820
(HP6028)	LA-8 LARC GPWT 1023 NAR 0898-M00. NOSE ORBITER	-20.000	40.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
BREF	8.19225	INCHES
CREF	17.56628	INCHES
XMRP	51.19838	INCHES
YMRP	.00000	INCHES
ZMRP	.00000	INCHES
SCALE	.0188	SCALE

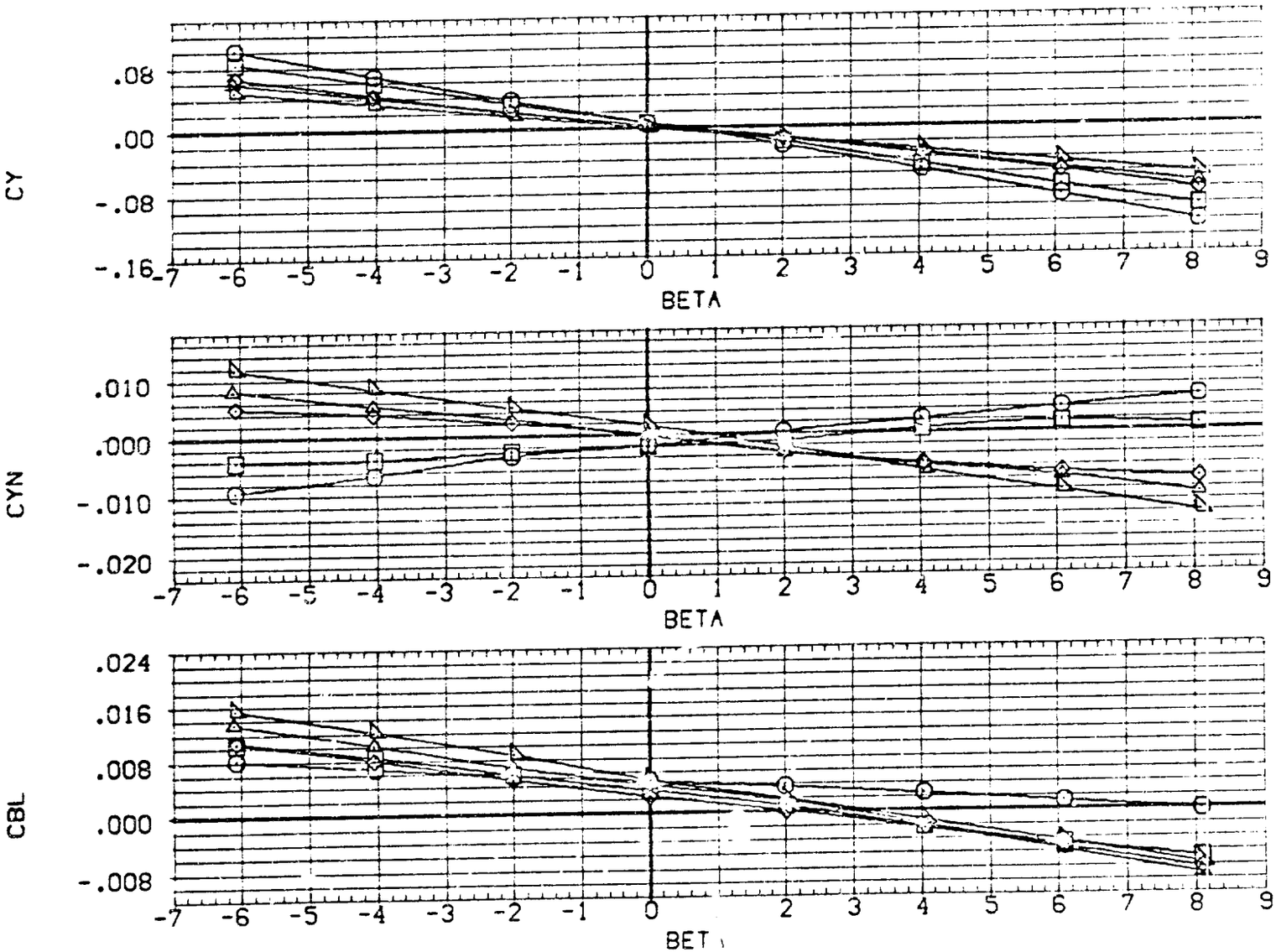


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(B)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(NPS020)	LA-8/8A NAR CSSB-MOD. NOSE ORBITER
(NPS021)	LA-8/8A NAR CSSB-MOD. NOSE ORBITER

ELEVTR	ALPHA	GT-LOC	K/L
.000	30.000	2.000	6.820
.000	30.000	2.000	6.820

REFERENCE INFORMATION

SREF	133.1600	SQ.IN.
LREF	9.6000	INCHES
BREF	17.6500	INCHES
XMRP	15.6000	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0100	SCALE

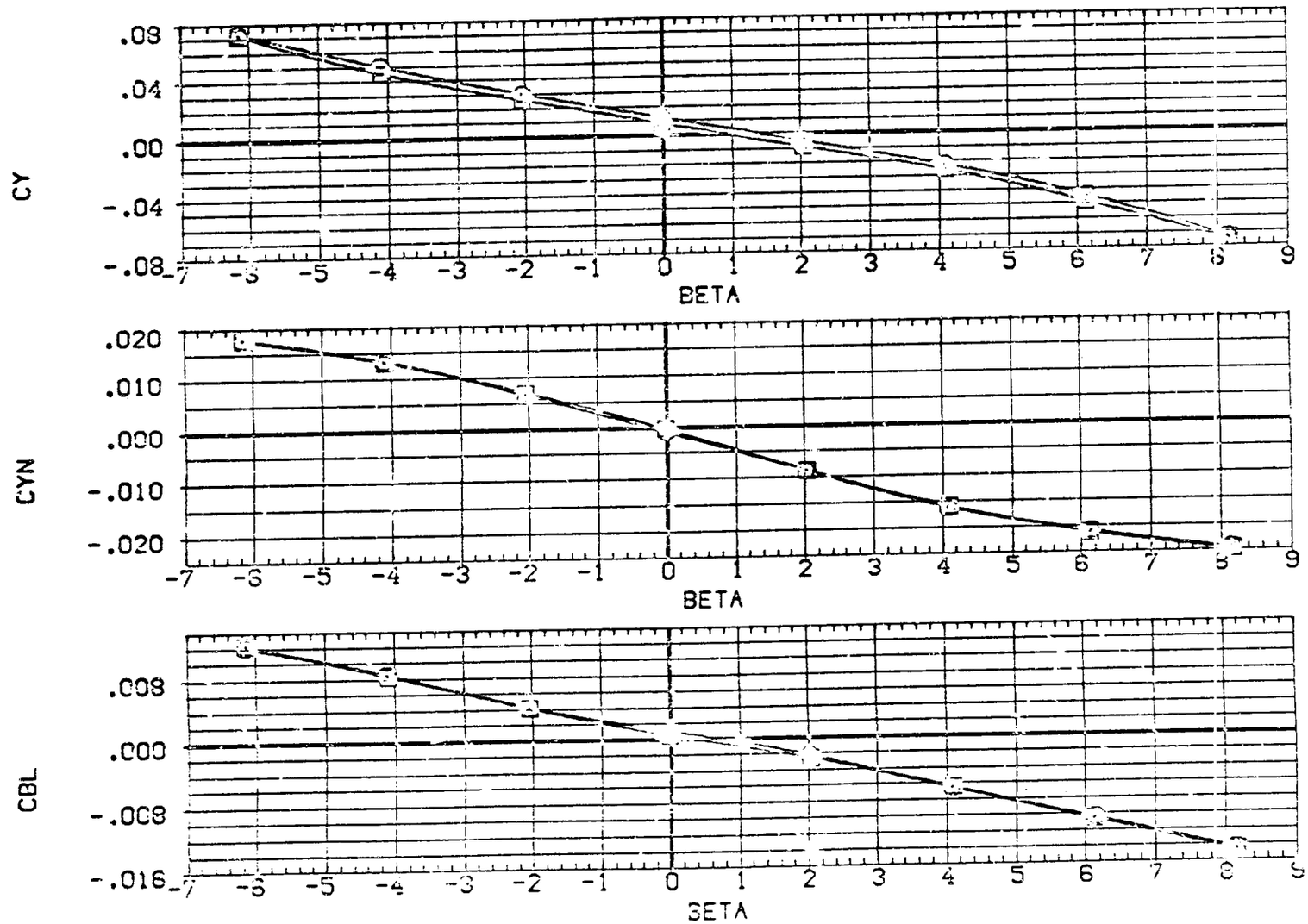


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(NP6020)	○	LA-8/8A NAR OSS3-MOD. NOSE ORBITER
(NP6021)	□	LA-8/8A NAR OSS3-MOD. NOSE ORBITER

ELEVTR	ALPHA	GT-LOC	K/L
.000	30.000	2.000	6.820
.000	30.000	2.000	6.820

REFERENCE INFORMATION

SREF	135.1803	SQ.IN.
LREF	8.5005	INCHES
BREF	[illegible]	INCHES
XMRP	[illegible]	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0133	SCALE

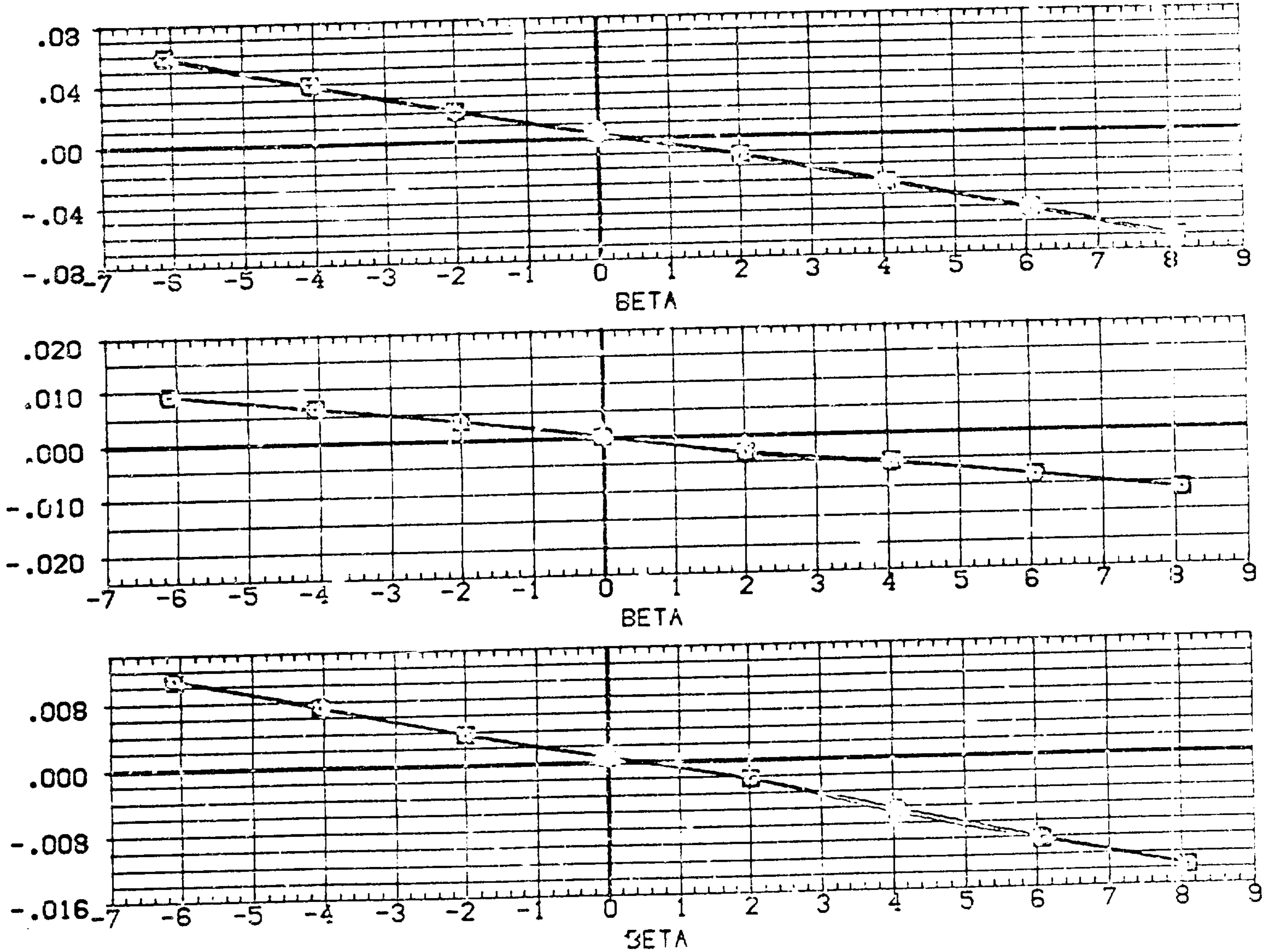


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP
(B)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	ALPHA	GT-LOC	K/L
(HP6025)		LA-2 LARC UPVT 1023 NAR 0399-MOD. NOSE ORBITER	-20.000	30.000	3.000	6.920
(HP6027)		LA-3 LARC UPVT 1023 NAR 0399-MOD. NOSE ORBITER	-20.000	30.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1609	SQ.IN.
LREF	8.9075	INCHES
BREF	17.5626	INCHES
XMRP	15.5333	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0139	SCALE

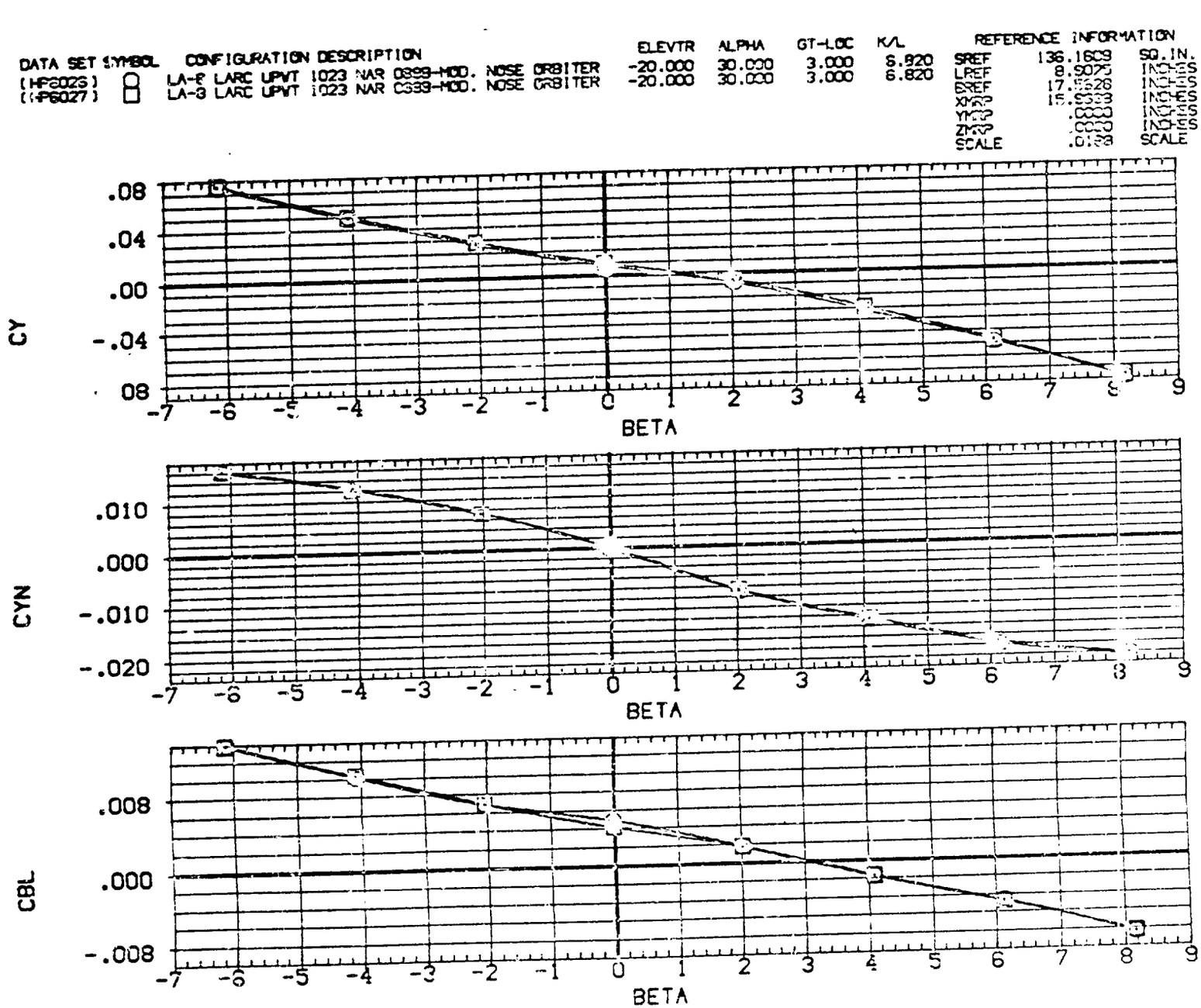


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVTR	ALPHA	GT-LOC	K/L
(HP6026)	LA-8 LARC UPWT 1023 NAR 0693-MOD. NOSE ORBITER	-20.000	30.000	3.000	6.820
(HP6027)	LA-8 LARC UPWT 1023 NAR 0693-MOD. NOSE ORBITER	-20.000	30.000	3.000	6.820

REFERENCE INFORMATION

SREF	136.1808	SQ.IN.
LREF	8.9025	INCHES
BREF	17.5623	INCHES
XMRP	15.9503	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0163	SCALE

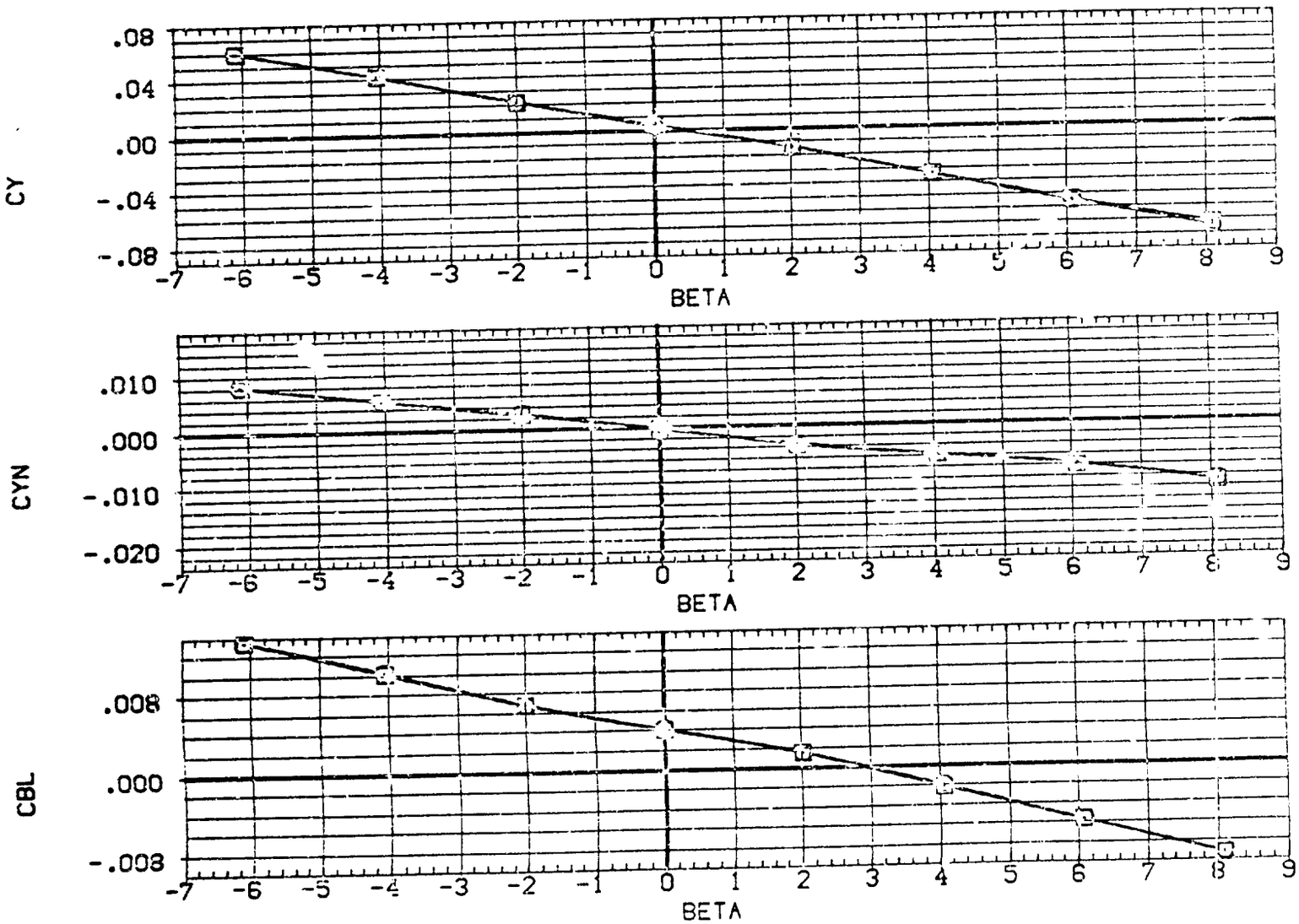


FIG. 12 VARIATION OF LONG AND LAT-DIR CHARACTERISTICS WITH SIDESLIP

(B)MACH = 4.63

APPENDIX

TABULATED SOURCE DATA

Plotted data tabulations are available from the DMS on request.

LA-8 LARC UPWT 1023 NAR 0698-MOD. NOSE ORBITER (RP6001) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.0025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 1/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.257	.00665	-.16620	.14809	.01973	.00039	-.00454	.00938	-.17830	-.16728	-.16031
2.360	-2.159	.00579	-.09305	.14640	.01419	.00047	-.00435	.00983	-.17825	-.17006	-.16595
2.360	-.091	.00614	-.02193	.14484	.00783	.00048	-.00448	.00997	-.17849	-.17315	-.17192
2.360	1.984	.00529	.04902	.14205	.00097	.00077	-.00431	.01022	-.17259	-.17013	-.17172
2.360	4.079	.00620	.12222	.13942	-.00498	.00092	-.00461	.01037	-.16400	-.16446	-.16602
2.360	6.222	.00593	.19320	.13702	-.00959	.00099	-.00459	.01057	-.16410	-.15891	-.16327
2.360	8.220	.00509	.26047	.13480	-.01239	.00093	-.00441	.01081	-.16686	-.16163	-.16502
2.360	10.217	.00364	.32646	.13277	-.01530	.00109	-.00405	.01107	-.17262	-.16733	-.17175
2.360	12.368	.00336	.39693	.13114	-.01768	.00102	-.00403	.01129	-.18118	-.17579	-.18028
2.360	16.528	.00168	.54946	.12862	-.02334	.00105	-.00352	.01100	-.20125	-.19283	-.19743
2.360	20.628	-.00022	.70902	.11958	-.03057	.00108	-.00284	.01077	-.19551	-.18997	-.19171
2.360	24.899	-.00260	.87976	.11290	-.04066	.00069	-.00188	.00977	-.19553	-.18717	-.19742
2.360	29.001	-.00504	1.04762	.10250	-.04660	.00072	-.00090	.00880	-.18693	-.17583	-.18601
2.360	30.524	-.00529	1.11126	.09452	-.05056	.00086	-.00088	.00899	-.16979	-.15888	-.16894
2.360	32.081	-.00981	1.17589	.08906	-.05431	.00039	-.00058	.00840	-.15842	-.15046	-.15476
2.360	37.394	-.00610	1.40528	.07757	-.07003	.00076	-.00025	.00747	-.14124	-.12781	-.12341
2.360	38.606	-.00518	1.46013	.07485	-.07612	.00172	-.00139	.01072	-.13557	-.12503	-.12061
	GRADIENT	-.00007	.03454	-.00104	-.00301	.00007	-.00000	.00009	.00165	.00027	-.00083

RUN NO. 12/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.719	.00459	-.12049	.11036	-.01791	.00146	-.00334	.00660	-.05859	-.05479	-.05725
4.630	-1.659	.00413	-.07899	.10407	-.01602	.00139	-.00298	.00585	-.05529	-.05479	-.05725
4.630	.366	.00428	-.03757	.10003	-.01482	.00124	-.00282	.00507	-.05859	-.05479	-.05725
4.630	2.381	.00352	.00393	.09637	-.01340	.00125	-.00261	.00525	-.05859	-.05479	-.05725
4.630	4.457	.00336	.05256	.09238	-.01308	.00101	-.00260	.00541	-.05859	-.05479	-.05725
4.630	6.495	.00316	.10371	.08910	-.01254	.00102	-.00258	.00559	-.05859	-.05479	-.05725
4.630	8.592	.00236	.15972	.08633	-.01157	.00095	-.00237	.00582	-.05859	-.05479	-.05725
4.630	10.553	.00216	.21440	.08464	-.01255	.00095	-.00235	.00600	-.05529	-.05479	-.05725
4.630	12.712	.00225	.27389	.08316	-.01223	.00072	-.00218	.00527	-.05859	-.05479	-.05725
4.630	16.783	.00240	.40006	.08150	-.01445	.00034	-.00185	.00382	-.05859	-.05479	-.05725
4.630	20.913	.00040	.54344	.07992	-.01514	.00021	-.00157	.00348	-.05859	-.05479	-.05725
4.630	25.131	-.00101	.69804	.07979	-.01938	-.00017	-.00050	.00309	-.05859	-.05479	-.05725
4.630	29.183	-.00158	.86010	.07808	-.02469	-.00015	-.00045	.00360	-.05859	-.05479	-.05396
4.630	30.711	-.00124	.92459	.07858	-.02666	.00017	-.00061	.00377	-.05529	-.05152	-.05396
4.630	32.233	-.00145	.98576	.07883	-.03054	.00026	-.00059	.00395	-.05859	-.05152	-.05067
4.630	37.482	-.00220	1.21202	.07977	-.04261	.00029	-.00003	.00280	-.05859	-.05152	-.05396
4.630	41.644	-.00367	1.39573	.07997	-.05513	.00023	.00055	.00246	-.05859	-.05152	-.052 6
	GRADIENT	-.00015	.02104	-.00214	.00060	-.00015	.00009	-.00015	-.00016	.00000	-.000

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RF6002) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0168 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 4/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.197	.00480	-.15698	.10776	.02267	.00054	-.00402	.00969	-.17853	-.17037	-.16059
2.360	-2.142	.00486	-.08626	.14591	.01620	.00045	-.00387	.00909	-.18419	-.17314	-.16906
2.360	-.047	.00517	-.01318	.17407	.01084	.00070	-.00401	.00927	-.18141	-.17322	-.17483
2.360	1.961	.00553	.05338	.14118	.00359	.00084	-.00416	.00943	-.17278	-.17032	-.17192
2.360	4.096	.00564	.12639	.13897	-.00233	.00113	-.00430	.00961	-.16709	-.16470	-.16909
2.360	6.167	.00557	.19736	.13636	-.00769	.00134	-.00427	.00981	-.16424	-.15905	-.16625
2.360	8.228	.00413	.26437	.13390	-.00971	.00129	-.00392	.01008	-.16707	-.16185	-.16907
2.360	10.256	.00475	.33469	.13228	-.01303	.00123	-.00394	.00947	-.17272	-.17026	-.17470
2.360	12.369	.00477	.40666	.13037	-.01614	.00117	-.00379	.00888	-.18418	-.17878	-.18328
2.360	16.571	.00415	.55963	.12770	-.02163	.00126	-.00331	.00777	-.20416	-.19571	-.20033
2.360	20.691	.00268	.71883	.11864	-.02963	.00094	-.00281	.00750	-.19842	-.18721	-.19177
2.360	24.956	-.00033	.88967	.11168	-.03817	.00097	-.00167	.00655	-.19844	-.19006	-.20032
2.360	29.009	-.00362	1.05290	.10135	-.04523	.00093	-.00067	.00638	-.18986	-.17309	-.18608
2.360	30.554	-.00561	1.11727	.09419	-.04926	.00060	-.00016	.00666	-.16696	-.15608	-.16896
2.360	32.109	-.00526	1.17849	.08784	-.05310	.00053	-.00031	.00681	-.16141	-.14779	-.15491
2.360	37.326	-.01053	1.40161	.07692	-.06786	.00076	.00036	.01004	-.14140	-.12798	-.12644
2.360	38.737	-.00639	1.46088	.07320	-.07359	.00180	-.00106	.01079	-.13854	-.12516	-.12075
	GRADIENT	.00013	.03414	-.00108	-.00303	.00007	-.00004	.00001	.00166	.00069	-.00096

RUN NO. 15/ 0 RN/L = 2.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.685	.00508	-.11028	.10956	-.01270	.00172	-.00253	.00299	-.05859	-.05805	-.05725
4.630	-1.675	.00492	-.07112	.10422	-.01015	.00164	-.00251	.00313	-.05859	-.05805	-.05725
4.630	.403	.00417	-.02729	.09953	-.00959	.00157	-.00231	.00332	-.05859	-.05805	-.06054
4.630	2.373	.00342	.01419	.09596	-.00818	.00150	-.00210	.00350	-.05859	-.05805	-.06054
4.630	4.472	.00324	.06288	.09194	-.00785	.00150	-.00208	.00367	-.05859	-.05805	-.06054
4.630	6.554	.00305	.11001	.08856	-.00730	.00143	-.00207	.00384	-.05859	-.05805	-.05725
4.630	8.613	.00315	.16751	.08586	-.00656	.00128	-.00190	.00310	-.05859	-.05805	-.06054
4.630	10.599	.00237	.21979	.08406	-.00689	.00121	-.00169	.00330	-.05859	-.05805	-.06054
4.630	12.696	.00244	.28171	.08245	-.00723	.00106	-.00152	.00258	-.05859	-.05805	-.06054
4.630	16.825	.00112	.40788	.08069	-.00942	.00076	-.00095	.00212	-.05859	-.05479	-.06054
4.630	20.912	-.00025	.54868	.07951	-.01122	.00038	-.00038	.00171	-.05859	-.05479	-.05725
4.630	25.109	-.00138	.70334	.07913	-.01545	.00025	.00035	.00041	-.05859	-.05152	-.05396
4.630	29.217	-.00196	.86779	.07794	-.02055	.00018	.00040	.00093	-.05859	-.05152	-.05396
4.630	30.764	-.00191	.92985	.07808	-.02272	.00059	.00009	.00202	-.05859	-.05479	-.05725
4.630	32.255	-.00212	.99347	.07841	-.02639	.00059	.00011	.00221	-.05859	-.05479	-.05725
4.630	37.525	-.00286	1.21722	.07929	-.03869	.00046	.00066	.00105	-.05859	-.05479	-.05725
4.630	41.687	-.00345	1.39893	.07969	-.05113	.00057	.00121	-.00025	-.05860	-.05154	-.05727
	GRADIENT	-.00025	.02120	-.00214	.00057	-.00003	.00006	.00008	.00000	-.00000	-.00049

LA-8 LARC UPWT 1023 NAR 0808-MOD. NOSE ORBITER (RP6003) (17 SEP 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0186 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
CT-LOC = 2.000 K/L = 6.820

RUN NO. 3/ 0 RN/L = 1.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.224	3.03700	-.15544	.14631	.02053	-.00188	.00030	-.05403	-.17257	-.17293	-.16885
2.360	-2.153	3.03732	-.08208	.14692	.01496	-.00181	-.00027	-.05220	-.17839	-.17587	-.17181
2.360	-.078	3.03618	-.01106	.14550	.00866	-.00180	-.00064	-.04959	-.18410	-.17869	-.17465
2.360	2.030	3.03506	.05997	.14376	.00253	-.00175	-.00101	-.04702	-.18404	-.18146	-.18028
2.360	4.047	3.03455	.12876	.14239	-.00382	-.00189	-.00155	-.04441	-.18411	-.18455	-.18036
2.360	6.171	3.03371	.20218	.13980	-.00828	-.00217	-.00181	-.04264	-.18403	-.18710	-.18312
2.360	8.242	3.03318	.27125	.13681	-.01163	-.00245	-.00234	-.04004	-.18118	-.19277	-.18313
2.360	10.239	3.03414	.33709	.13207	-.01385	-.00307	-.00266	-.03988	-.17836	-.17584	-.17748
2.360	12.409	3.03505	.40942	.12984	-.01622	-.00336	-.00383	-.03654	-.18409	-.17585	-.18318
2.360	16.527	3.04088	.55655	.12571	-.02223	-.00285	-.00771	-.02848	-.19552	-.18716	-.19457
2.360	20.690	3.04755	.71325	.11820	-.02998	-.00233	-.01121	-.02279	-.19265	-.18714	-.19456
2.360	24.850	3.05110	.87746	.11030	-.03523	-.00353	-.01362	-.01774	-.19263	-.18147	-.19169
2.360	29.077	3.04750	1.05743	.10125	-.04735	-.00399	-.01273	-.01704	-.18701	-.18158	-.18610
2.360	30.517	3.04676	1.11408	.09562	-.04919	-.00510	-.01258	-.01685	-.16979	-.16453	-.17178
2.360	32.049	3.04189	1.17342	.08991	-.05107	-.00653	-.01125	-.01641	-.16136	-.15055	-.15769
2.360	37.339	3.03979	1.40670	.07850	-.07087	-.00546	-.01042	-.01727	-.14989	-.13356	-.12920
2.360	38.731	3.03938	1.46797	.07577	-.07296	-.00489	-.00924	-.01691	-.14119	-.12776	-.12031
	GRADIENT	-.00035	.03428	-.00072	-.00295	.00000	-.00021	.00118	-.00139	-.00137	-.00152

RUN NO. 14/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.711	3.02659	-.10941	.11002	-.01359	.00022	.00003	-.04812	-.05859	-.05479	-.05725
4.630	-1.659	3.02383	-.06802	.10437	-.01259	-.00034	.00015	-.04511	-.05859	-.05479	-.05725
4.630	.387	3.02195	-.02664	.09967	-.01141	-.00098	.00024	-.04305	-.05859	-.05479	-.06054
4.630	2.405	3.02152	.01720	.09538	-.00981	-.00154	.00009	-.04197	-.05859	-.05479	-.05725
4.630	4.473	3.02079	.06583	.09169	-.00951	-.00203	-.00020	-.03995	-.05859	-.05479	-.05725
4.630	6.546	3.01973	.11692	.08893	-.00898	-.00235	-.00015	-.03882	-.05859	-.05479	-.05725
4.630	8.589	3.01884	.17041	.08597	-.00827	-.00291	-.00010	-.03768	-.05859	-.05805	-.06054
4.630	10.[illegible]	3.01879	.22515	.08438	-.00754	-.00339	-.00043	-.03660	-.05859	-.05805	-.06054
4.630	12.[illegible]67	3.01949	.28216	.08337	-.00832	-.00379	-.00095	-.03554	-.05859	-.05805	-.06054
4.630	16.[illegible]36	3.02048	.41101	.08152	-.00942	-.00405	-.00262	-.03062	-.06189	-.05805	-.06054
4.630	20.[illegible]12	3.02259	.55041	.08051	-.01140	-.00382	-.00417	-.02759	-.05858	-.05804	-.06054
4.630	25.[illegible]67	3.02317	.71030	.07977	-.01519	-.00382	-.00499	-.02530	-.06189	-.05804	-.06054
4.630	29.[illegible]15	3.02293	.86866	.07861	-.02245	-.00412	-.00528	-.02387	-.05859	-.05805	-.06054
4.630	30.[illegible]35	3.02300	.93310	.07874	-.02359	-.00436	-.00511	-.02459	-.05859	-.05479	-.05725
4.630	3[illegible].24	3.01990	.99417	.07888	-.02579	-.00522	-.00366	-.02607	-.05859	-.05479	-.05725
4.630	3[illegible].524	3.01949	1.21763	.07918	-.03986	-.00592	-.00346	-.02634	-.05859	-.05479	-.05725
4.630	[illegible].670	3.02060	1.40090	.07938	-.05288	-.00473	-.00495	-.02232	-.05526	-.05475	-.05723
	GRADIENT	-.00068	.02132	-.00223	.00054	-.00028	-.00003	.00095	-.00000	-.00000	-.00000

LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER (RP6004) (17 SEP 73)

REFERENCE DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES		
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES		
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

BETA =	3.000	ELEVTR =	.000
AILRON =	.000	RUDFLR =	40.000
GT-LOC =	2.000	K/L =	6.820

RUN NO. 2/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.220	3.03613	-.15752	.14827	.02034	-.00188	.00033	-.05320	-.17258	-.17295	-.16887
2.360	-2.155	3.03350	-.08415	.14676	.01480	-.00175	-.00026	-.04811	-.17834	-.17582	-.17176
2.360	-.054	3.03411	-.01094	.14517	.00944	-.00161	-.00070	-.04719	-.18400	-.18141	-.17454
2.360	1.981	3.03212	.05797	.14399	.00310	-.00168	-.00104	-.04370	-.18123	-.18433	-.18033
2.360	4.070	3.03220	.12678	.14235	-.00324	-.00189	-.00132	-.04274	-.18409	-.18433	-.18034
2.360	6.169	3.03196	.19997	.13998	-.00846	-.00217	-.00173	-.04096	-.18407	-.18714	-.18316
2.360	8.248	3.03143	.26923	.13684	-.01182	-.00252	-.00228	-.03840	-.18401	-.18992	-.18310
2.360	10.166	3.02972	.33538	.13250	-.01328	-.00301	-.00249	-.03574	-.17546	-.17579	-.17743
2.360	12.352	3.03240	.40992	.13007	-.01624	-.00337	-.00373	-.03408	-.18401	-.17859	-.18310
2.360	16.522	3.03793	.56116	.12608	-.02188	-.00307	-.00775	-.02518	-.19548	-.18711	-.19453
2.360	20.651	3.04373	.72076	.11859	-.02981	-.00247	-.01121	-.01866	-.19548	-.18429	-.19168
2.360	24.884	3.05170	.88210	.11045	-.03716	-.00368	-.01380	-.01778	-.19259	-.17858	-.19164
2.360	29.007	3.04930	1.05558	.10181	-.04784	-.00406	-.01283	-.01876	-.18686	-.17657	-.18534
2.360	30.587	3.04792	1.11825	.09560	-.04957	-.00502	-.01248	-.01848	-.16978	-.16169	-.16892
2.360	32.106	3.04455	1.17537	.08973	-.05244	-.00653	-.01137	-.01892	-.15841	-.14480	-.15475
2.360	37.377	3.03949	1.41222	.07936	-.07253	-.00553	-.01054	-.01645	-.14708	-.13079	-.12641
2.360	38.616	3.03629	1.46497	.07689	-.07433	-.00502	-.00969	-.01614	-.13857	-.12520	-.12078
	GRADIENT	-.00045	.03431	-.00071	-.00284	.00000	-.00020	.00122	-.00125	-.00151	-.00152

RUN NO. 13/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.698	3.02571	-.10939	.10970	-.01359	.00022	.00007	-.04716	-.05859	-.05479	-.05725
4.630	-1.668	3.02384	-.07047	.10468	-.01280	-.00034	.00015	-.04512	-.05859	-.05479	-.05725
4.630	.392	3.02254	-.02908	.09965	-.01162	-.00090	.00005	-.04309	-.05859	-.05479	-.05725
4.630	2.387	3.02064	.01479	.09541	-.01002	-.00146	.00013	-.04102	-.05859	-.05479	-.06054
4.630	4.470	3.02080	.06338	.09169	-.00973	-.00203	-.00020	-.03996	-.05859	-.05479	-.05725
4.630	6.515	3.01976	.11200	.08897	-.00942	-.00243	-.00015	-.03884	-.05859	-.05479	-.05725
4.630	8.630	3.01870	.16790	.08614	-.00849	-.00299	-.00010	-.03769	-.05859	-.05479	-.06054
4.630	10.607	3.01883	.22012	.08465	-.00884	-.00347	-.00044	-.03662	-.05859	-.05479	-.05725
4.630	12.690	3.01922	.27724	.08299	-.00875	-.00388	-.00111	-.03464	-.05859	-.05479	-.05725
4.630	16.792	3.02022	.40606	.08131	-.01072	-.00405	-.00277	-.02972	-.05859	-.05479	-.05725
4.630	20.929	3.02291	.54705	.08038	-.01248	-.00398	-.00451	-.02667	-.05859	-.05152	-.05725
4.630	25.093	3.02353	.69943	.07946	-.01690	-.00390	-.00533	-.02441	-.05859	-.05152	-.05725
4.630	29.199	3.02266	.86378	.07830	-.02287	-.00413	-.00543	-.02296	-.05859	-.05152	-.05725
4.630	30.759	3.02186	.92804	.07874	-.02575	-.00436	-.00522	-.02273	-.05859	-.05152	-.05396
4.630	32.238	3.02025	.98906	.07861	-.02798	-.00546	-.00401	-.02521	-.05859	-.05152	-.05396
4.630	37.531	3.01895	1.21498	.07921	-.04183	-.00616	-.00377	-.02451	-.05529	-.05152	-.05396
4.630	41.656	3.02064	1.39660	.07927	-.05535	-.00505	-.00544	-.02045	-.05529	-.05152	-.05396
	GRADIENT	-.00064	.02113	-.00222	.00051	-.00028	-.00003	.00091	-.00000	-.00000	-.00016

LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER (RP6C05) (20 JUN 73)

REFERENCE DATA

SREF =	136.1073 SQ.IN.	XMRP =	15.9638 INCHES		
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES		
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

BETA =	.000	ELEVTR =	.000
AILRON =	.000	RUDFLR =	40.000
GT-LOC =	1.000	K/L =	6.820

RUN NO. 47/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.222	.00838	-.16435	.15066	.01921	.00074	-.00461	.00794	-.16887	-.16471	-.14842
2.360	-2.141	.00900	-.08902	.14737	.01307	.00068	-.00462	.00732	-.16028	-.16472	-.14272
2.360	-.073	.00876	-.01791	.14468	.00674	.00069	-.00460	.00752	-.16314	-.16188	-.14557
2.360	1.990	.00852	.04869	.14241	-.00053	.00098	-.00457	.00769	-.15181	-.15916	-.14571
2.360	4.060	.00884	.12377	.13957	-.00628	.00105	-.00470	.00785	-.14933	-.15951	-.14610
2.360	6.095	.00828	.19099	.13705	-.01129	.00134	-.00482	.00887	-.14909	-.15364	-.14586
2.360	8.179	.00774	.25844	.13510	-.01483	.00136	-.00451	.00831	-.15460	-.15627	-.15134
2.360	10.228	.00893	.33076	.13457	-.01721	.00130	-.00426	.00609	-.16323	-.16763	-.15994
2.360	12.356	.00631	.39945	.13355	-.01921	.00117	-.00401	.00800	-.17173	-.17605	-.16840
2.360	16.526	.00484	.55019	.12969	-.02490	.00098	-.00350	.00770	-.18327	-.18462	-.17705
2.360	20.601	.00425	.70558	.12350	-.03251	.00094	-.00303	.00659	-.19184	-.18744	-.18273
2.360	24.903	.00241	.87695	.11568	-.04109	.00090	-.00222	.00558	-.18613	-.18745	-.18559
2.360	28.991	-.00231	1.03960	.10402	-.04666	.00024	-.00060	.00469	-.17473	-.17335	-.17139
2.360	30.609	-.00346	1.10862	.09722	-.05079	.00018	-.00054	.00373	-.16338	-.16212	-.15724
2.360	32.023	-.00195	1.16496	.09227	-.05397	.00073	-.00101	.00582	-.15758	-.15638	-.14860
2.360	37.403	-.00777	1.39168	.08156	-.06842	.00015	.00066	.00593	-.14329	-.15073	-.12298
2.360	38.868	-.00859	1.45919	.07802	-.07350	-.00005	.00127	.00457	-.12898	-.13092	-.11442
	GRADIENT	.00002	.03473	-.00131	-.00311	.00004	-.00001	.00001	.00229	.00077	.00008

RUN NO. 49/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.670	.00484	-.11526	.11273	-.01401	.00139	-.00269	.00388	-.06142	-.05886	-.05723
4.630	-1.647	.00442	-.07655	.10767	-.01410	.00116	-.00234	.00311	-.06141	-.05883	-.05722
4.630	.411	.00425	-.03255	.10283	-.01265	.00109	-.00232	.00327	-.05812	-.05886	-.05394
4.630	2.396	.00351	.00889	.09952	-.01125	.00093	-.00212	.00345	-.06142	-.05886	-.05394
4.630	4.520	.00275	.05744	.09579	-.01178	.00086	-.00191	.00364	-.06142	-.05886	-.05394
4.630	6.535	.00167	.10630	.09278	-.00972	.00087	-.00185	.00478	-.06142	-.05886	-.05723
4.630	8.660	.00177	.16440	.09068	-.01115	.00072	-.00169	.00404	-.06142	-.05886	-.05723
4.630	10.601	.00130	.21664	.08927	-.01149	.00057	-.00133	.00331	-.06142	-.05886	-.05723
4.630	12.623	.00053	.27153	.08794	-.01336	.00042	-.00113	.00352	-.06141	-.05885	-.05722
4.630	16.866	-.00083	.40453	.08648	-.01488	.00012	-.00055	.00309	-.06142	-.05886	-.05723
4.630	20.930	-.00161	.54279	.08509	-.01775	-.00002	-.00017	.00263	-.06142	-.05886	-.05723
4.630	25.184	-.00363	.69985	.08458	-.02090	-.00032	.00060	.00231	-.06142	-.05886	-.05723
4.630	29.247	-.00391	.85940	.08377	-.02641	-.00023	.00031	.00370	-.05812	-.05560	-.05065
4.630	30.719	-.00386	.92383	.08441	-.02925	.00010	.00000	.00480	-.05812	-.05233	-.05065
4.630	32.218	-.00377	.98409	.08472	-.03166	.00011	.00017	.00476	-.05811	-.05231	-.05063
4.630	37.535	-.00540	1.21872	.08605	-.04368	-.00002	.00077	.00386	-.05812	-.05233	-.05394
4.630	41.636	-.00657	1.38773	.08559	-.05403	-.00008	.00150	.00259	-.05812	-.05560	-.05394
	GRADIENT	-.00025	.02110	-.00206	.00036	-.00006	.00009	-.00001	.00000	-.00000	.00008

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RP6006) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = -3.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 1.000 K/L = 6.820

RUN NO. 48/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.180	-3.04289	-.15761	.15224	.01983	.00309	-.00905	.06823	-.16061	-.17068	-.14879
2.360	-2.127	-3.04230	-.08457	.14936	.01506	.00332	-.00864	.06610	-.15480	-.16777	-.14869
2.360	-.060	-3.03989	-.01582	.14692	.00855	.00349	-.00830	.06222	-.15481	-.16778	-.14870
2.360	2.041	-3.04017	.05515	.14519	.00244	.00392	-.00784	.06080	-.16060	-.16784	-.15732
2.360	4.085	-3.04075	.12304	.14361	-.00367	.00443	-.00709	.05862	-.16350	-.17071	-.16306
2.360	6.237	-3.04220	.19917	.14074	-.00959	.00466	-.00631	.05734	-.16629	-.17065	-.16584
2.360	8.246	-3.04074	.26791	.13777	-.01290	.00517	-.00549	.05269	-.16352	-.17073	-.16592
2.360	10.363	-3.04105	.33791	.13407	-.01617	.00561	-.00461	.04974	-.16354	-.16510	-.16310
2.360	12.341	-3.04539	.39965	.13256	-.01798	.00536	-.00302	.04854	-.16639	-.16793	-.16878
2.360	16.547	-3.05416	.54994	.12750	-.02520	.00489	.00145	.04149	-.18064	-.17920	-.18014
2.360	20.732	-3.06179	.71274	.12074	-.03433	.00448	.00517	.03598	-.18634	-.16484	-.18297
2.360	25.016	-3.06842	.88109	.11211	-.04219	.00571	.00774	.03358	-.18355	-.18490	-.18303
2.360	29.075	-3.07376	1.04637	.10450	-.04979	.00588	.00911	.03430	-.18067	-.18487	-.18016
2.360	30.506	-3.07460	1.10656	.10116	-.05338	.00624	.00930	.03451	-.17208	-.17637	-.17444
2.360	32.028	-3.07229	1.16922	.09711	-.05641	.00763	.00881	.03377	-.16930	-.16798	-.16883
2.360	37.327	-3.06644	1.38789	.08341	-.06546	.00852	.00636	.03648	-.14936	-.14543	-.11489
2.360	38.675	-3.06871	1.45299	.07824	-.07221	.00831	.00631	.03911	-.14081	-.13980	-.11206
	GRADIENT	.00031	.03416	-.00104	-.00288	.00010	.00023	-.00118	-.00056	-.00001	-.00180

RUN NO. 50/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.657	-3.03810	-.11840	.11473	-.01245	.00304	-.00611	.05672	-.05812	-.05560	-.05723
4.630	-1.688	-3.03739	-.07717	.10977	-.01230	.00330	-.00565	.05416	-.06141	-.05885	-.05722
4.630	.385	-3.03611	-.03566	.10464	-.01191	.00371	-.00536	.05142	-.05812	-.05886	-.05723
4.630	2.442	-3.03631	.00821	.10005	-.01112	.00405	-.00484	.04976	-.05812	-.05886	-.05723
4.630	4.444	-3.03649	.05436	.09687	-.01187	.00439	-.00433	.04809	-.05812	-.05886	-.05723
4.630	6.595	-3.03671	.10573	.09378	-.01044	.00465	-.00382	.04652	-.06480	-.05885	-.05722
4.630	8.622	-3.03752	.16152	.09137	-.01032	.00489	-.00359	.04667	-.05812	-.05886	-.05723
4.630	10.572	-3.03744	.21380	.09027	-.01063	.00515	-.00293	.04410	-.06142	-.05886	-.05723
4.630	12.718	-3.03941	.27067	.08880	-.01225	.00518	-.00185	.04254	-.05812	-.05886	-.05723
4.630	16.935	-3.04455	.40383	.08700	-.01467	.00476	.00119	.03774	-.05812	-.05886	-.05723
4.630	21.016	-3.04853	.54426	.08585	-.01737	.00409	.00384	.03289	-.05812	-.05886	-.06052
4.630	25.147	-3.05109	.69398	.08491	-.02118	.00373	.00529	.03072	-.05812	-.05886	-.05723
4.630	29.235	-3.05199	.85969	.08513	-.02627	.00424	.00570	.03038	-.05811	-.05559	-.05722
4.630	30.840	-3.05109	.92302	.08511	-.02816	.00511	.00486	.03231	-.05812	-.05233	-.05394
4.630	32.191	-3.04985	.97730	.08556	-.03090	.00583	.00416	.03331	-.05812	-.05233	-.05394
4.630	37.510	-3.05206	1.20564	.08553	-.04362	.00580	.00593	.02948	-.05812	-.05560	-.05394
4.630	41.646	-3.05495	1.38444	.08498	-.05401	.00528	.00772	.02647	-.05812	-.05560	-.05394
	GRADIENT	.00021	.02119	-.00223	.00012	.00017	.00021	-.00107	.00016	-.00032	-.00000

DATE 31 OCT 73

TABULATED SOURCE DATA LARC 1023/1034

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER

(RF6007) (20 JUN 73)

REFERENCE DATA

SREF =	136.1806 SQ.IN.	XMRP =	15.9638 INCHES
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES
BREF =	17.5626 INCHES	ZMRP =	.0000 INCHES
SCALE =	.0188 SCALE		

PARAMETRIC DATA

BETA =	.000	ELEVTR =	.000
AILRON =	.000	RUDFLR =	40.000
GT-LOC =	3.000	K/L =	6.820

RUN NO. 43/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.245	.00612	-.16200	.14986	.02007	.00011	-.00474	.00874	-.17362	-.17501	-.15316
2.360	-2.105	.00546	-.08418	.14742	.01638	.00026	-.00447	.01064	-.17093	-.17799	-.15906
2.360	-.033	.00641	-.01340	.14564	.01005	.00007	-.00436	.00920	-.17386	-.17806	-.16483
2.360	2.193	.00702	.06152	.14304	.00283	.00035	-.00436	.00857	-.17390	-.17810	-.16487
2.360	4.139	.00767	.13024	.13993	-.00351	.00036	-.00438	.00794	-.16244	-.17241	-.16482
2.360	6.261	.00650	.20316	.13683	-.00792	.00052	-.00389	.00740	-.15683	-.16403	-.15922
2.360	8.260	.00681	.26962	.13484	-.01067	.00074	-.00360	.00600	-.16549	-.16606	-.16218
2.360	10.305	.00571	.33822	.13368	-.01422	.00033	-.00357	.00704	-.17096	-.17520	-.17047
2.360	12.401	.00482	.41084	.13145	-.01659	.00041	-.00338	.00730	-.17375	-.17795	-.17893
2.360	16.490	.00454	.55967	.12761	-.02247	.00022	-.00321	.00696	-.19087	-.19490	-.18745
2.360	20.759	.00186	.72411	.12036	-.03136	.00011	-.00237	.00675	-.19379	-.19496	-.19037
2.360	24.866	-.00112	.88646	.11333	-.04064	.00044	-.00166	.00734	-.19067	-.19216	-.19323
2.360	29.135	-.00502	1.05978	.10119	-.04753	-.00025	-.00049	.00724	-.18239	-.18086	-.17901
2.360	30.556	-.00931	1.11862	.09640	-.05114	-.00100	.00024	.00917	-.17103	-.16962	-.16769
2.360	32.070	-.00986	1.17236	.08905	-.05225	-.00055	.00184	.00385	-.15670	-.15545	-.14773
2.360	37.342	-.00645	1.40753	.07918	-.06951	.00116	-.00121	.01143	-.14816	-.14700	-.12785
2.360	39.050	-.00755	1.47729	.07454	-.07564	.00069	-.00075	.01088	-.13116	-.13582	-.11378
	GRADIENT	.00003	.03466	-.00115	-.00288	.00003	.00004	-.00017	.00090	.00023	-.00139

RUN NO. 45/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.727	.02623	-.12076	.11095	-.01881	.00170	-.00410	.01648	-.06342	-.06075	-.05919
4.630	-1.668	.02580	-.07930	.10528	-.01779	.00147	-.00375	.01573	-.06342	-.05748	-.05919
4.630	.420	.02475	-.03529	.10112	-.01636	.00131	-.00370	.00684	-.06011	-.05748	-.05919
4.630	2.413	.02343	.00624	.09762	-.01498	.00108	-.00331	.00706	-.06342	-.05746	-.05918
4.630	4.524	.02265	.05511	.09309	-.01374	.00108	-.00309	.00726	-.06342	-.05748	-.05919
4.630	6.513	.02246	.10396	.08985	-.01256	.00101	-.00308	.00743	-.06342	-.05748	-.05919
4.630	8.599	.02225	.16018	.08731	-.01334	.00110	-.00306	.00763	-.06010	-.05746	-.05918
4.630	10.557	.02295	.21226	.08518	-.01452	.00110	-.00308	.00683	-.06342	-.05748	-.05919
4.630	2.678	.02156	.27184	.08411	-.01507	.00096	-.00268	.00709	-.06342	-.05748	-.05919
4.630	6.852	.02052	.40312	.08258	-.01685	.00058	-.00196	.00572	-.06342	-.05748	-.05919
4.630	20.854	.01947	.53930	.08121	-.01909	.00012	-.00124	.00436	-.06342	-.06075	-.05919
4.630	25.106	.01860	.69689	.08098	-.02137	-.00002	-.00084	.00397	-.06342	-.05748	-.05919
4.630	29.225	.01800	.86173	.07979	-.02645	.00024	-.00078	.00450	-.06011	-.05743	-.05589
4.630	30.739	.01980	.92394	.08005	-.02948	.00096	-.00167	.00550	-.06011	-.05420	-.05589
4.630	32.229	.01990	.98528	.08031	-.03251	.00089	-.00159	.00475	-.06011	-.05420	-.05589
4.630	37.523	.01798	1.21189	.08086	-.04462	.00069	-.00056	.00365	-.06011	-.05420	-.05589
4.630	41.746	.01620	1.39840	.08094	-.05609	.00055	.00037	.00243	-.06011	-.05420	-.05589
	GRADIENT	-.00045	.02125	-.00211	.00063	-.00008	.00012	.00014	.00000	.00032	.00000

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RP6008) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = -3.000 ELEVTR = .000
AILRON = .000 RUDFLK = 40.000
GT-LOC = 3.000 K/L = 6.820

RUN NO. 44/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	C_M	CBL	CYN	CY	CFB1	CFB2	CFC
2.360	-4.197	-3.02480	-.15073	.15027	.02256	.00274	-.00900	.06893	-.16827	-.17534	-.15643
2.360	-2.095	-3.02363	-.07542	.14780	.02170	.00263	-.00832	.06518	-.16541	-.17533	-.16210
2.360	-.011	-3.02042	-.00428	.14572	.01992	.00300	-.00801	.06053	-.16824	-.17814	-.16492
2.360	2.117	-3.02301	.06407	.14430	.01065	.00343	-.00732	.06076	-.17118	-.17822	-.16785
2.360	4.079	-3.02268	.13468	.14300	.00377	.00366	-.00862	.05780	-.17685	-.18101	-.17349
2.360	6.187	-3.02417	.20371	.13980	.00274	.00403	-.00583	.05647	-.17405	-.18105	-.17637
2.360	8.342	-3.02501	.27803	.13727	-.00972	.00468	-.00479	.05357	-.17684	-.18100	-.17632
2.360	10.236	-3.02755	.33956	.13326	-.01225	.00491	-.00398	.05304	-.17119	-.17260	-.17070
2.360	12.345	-3.02994	.40984	.13055	-.01558	.00474	-.00246	.05027	-.16823	-.17249	-.17626
2.360	16.616	-3.03727	.56367	.12505	-.02238	.00440	.00181	.04235	-.18538	-.18382	-.18757
2.360	20.610	-3.04634	.71723	.11868	-.03145	.00406	.00571	.03764	-.19597	-.18950	-.19055
2.360	24.788	-3.05410	.87805	.11026	-.03861	.00517	.00946	.03218	-.19109	-.18383	-.19052
2.360	28.984	-3.05827	1.05361	.10216	-.05176	.00525	.00964	.03595	-.18831	-.18672	-.18492
2.360	30.581	-3.06119	1.11964	.09872	-.05180	.00520	.01061	.03550	-.18261	-.18108	-.18208
2.360	32.200	-3.05858	1.18788	.09485	-.06201	.00700	.00985	.03557	-.17399	-.16692	-.17348
2.360	37.426	-3.04673	1.40376	.08164	-.06652	.00993	.00465	.04192	-.15134	-.14734	-.12542
2.360	38.754	-3.05005	1.46221	.07534	-.07271	.00837	.00575	.04149	-.14265	-.14154	-.11672
	GRADIENT	.00024	.03421	-.00087	-.00234	.00013	.00028	-.00129	-.00110	-.00068	-.00192

RUN NO. 46/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	C_M	CBL	CYN	CY	CFB1	CFB2	CFC
4.630	-3.711	-3.01614	-.12140	.11288	-.01617	.00327	-.00758	.05851	-.06342	-.05748	-.05919
4.630	-1.609	-3.01484	-.08090	.10687	-.01600	.00353	-.00680	.05401	-.06011	-.05748	-.05919
4.630	.398	-3.01534	-.03593	.10259	-.01454	.00387	-.00644	.05327	-.06342	-.05748	-.05919
4.630	2.479	-3.01464	.00795	.09798	-.01162	.00420	-.00596	.05064	-.06342	-.05748	-.05919
4.630	4.491	-3.01485	.05449	.09453	-.01364	.00463	-.00545	.04905	-.06342	-.05748	-.05918
4.630	6.529	-3.01533	.10319	.09170	-.01329	.00472	-.00508	.04825	-.06342	-.05748	-.05919
4.630	8.570	-3.01617	.15701	.08907	-.01249	.00529	-.00486	.04847	-.06342	-.05748	-.05919
4.630	10.625	-3.01611	.21460	.08730	-.01238	.00556	-.00419	.04597	-.06342	-.05746	-.05918
4.630	12.627	-3.01746	.26651	.08538	-.01357	.00541	-.00330	.04431	-.06342	-.05748	-.05919
4.630	16.882	-3.02115	.40245	.08343	-.01578	.00507	-.00248	.03850	-.06342	-.05748	-.06248
4.630	20.961	-3.02603	.54341	.08225	-.01760	.00464	.00222	.03461	-.06342	-.06075	-.06248
4.630	25.082	-3.02742	.69449	.08113	-.02144	.00437	.00379	.03069	-.06342	-.05746	-.05918
4.630	29.243	-3.02772	.85824	.08100	-.02735	.00487	.00599	.03013	-.06342	-.05748	-.05919
4.630	30.848	-3.02683	.92299	.08111	-.02927	.00583	.00716	.03211	-.06342	-.05748	-.05919
4.630	32.286	-3.02679	.98473	.08143	-.03051	.00640	.00755	.03320	-.05680	-.05420	-.05919
4.630	37.592	-3.02940	1.21122	.08139	-.04348	.00644	.00443	.02933	-.06011	-.05420	-.05569
4.630	41.657	-3.03040	1.38791	.08098	-.05584	.00600	.00618	.02532	-.06011	-.05420	-.05569
	GRADIENT	.00014	.02146	-.00223	.00031	.00017	.00025	-.00109	-.00016	.00000	.00000

LA-8 LARC UPWT 1023 NAR 0893-MOD. NOSE ORBITER (RF6009) (20 JUN 73)

REFERENCE DATA

SREF = 136.1606 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.[illegible]25 INCHES YMRP = .0000 INCHES
BREF = [illegible].5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 1.000 K/L = .000

RUN NO. 53/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.165	.02709	-.15756	.14778	.02044	.00033	-.00443	.00797	-.18661	-.17915	-.16320
2.360	-2.151	.02712	-.08664	.14519	.01472	.00041	-.00428	.00738	-.18943	-.18193	-.16884
2.360	-.077	.02511	-.01765	.14349	.00897	.00056	-.00419	.00923	-.18944	-.18760	-.17455
2.360	2.005	.02398	.05123	.14182	.00266	.00070	-.00413	.01025	-.18947	-.18763	-.17743
2.360	4.073	.02520	.12212	.13809	-.00348	.00078	-.00431	.00959	-.17808	-.18484	-.17747
2.360	6.177	.02464	.19107	.13482	-.00827	.00099	-.00442	.01059	-.16659	-.17074	-.16897
2.360	8.257	.02467	.25997	.13312	-.01160	.00101	-.00426	.00999	-.17527	-.17640	-.17467
2.360	12.302	.02471	.39592	.12843	-.01558	.00096	-.00396	.00821	-.18674	-.18775	-.18610
2.360	8.477	.02237	.54498	.12527	-.02071	.00077	-.00342	.00936	-.20666	-.20463	-.20026
2.360	20.682	.02147	.70915	.11519	-.02960	.00045	-.00308	.00906	-.19817	-.19624	-.19465
2.360	24.856	.01876	.87509	.10864	-.03997	.00075	-.00224	.00886	-.20106	-.19910	-.20037
2.360	28.997	.01840	1.04432	.09924	-.04751	.00064	-.00164	.00701	-.19236	-.19049	-.19170
2.360	32.016	.01470	1.16826	.08560	-.05555	.00052	-.00091	.00832	-.16103	-.16232	-.15481
2.360	37.339	.01151	1.39564	.07452	-.07000	.00020	-.00019	.00910	-.15241	-.14532	-.12346
2.360	38.739	.01182	1.45379	.07232	-.07371	.00103	-.00117	.01241	-.14664	-.14244	-.12053
	GRADIENT	-.00034	.03379	-.00110	-.00290	.00006	.00002	.00030	.00083	-.00083	-.00180

RUN NO. 51/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
4.630	-3.693	.02530	-.11042	.10807	-.01445	.00147	-.00307	.00383	-.06184	-.05566	-.05752
4.630	-1.663	.02545	-.07150	.10277	-.01364	.00132	-.00290	.00304	-.05854	-.05892	-.06081
4.630	.385	.02528	-.02764	.09854	-.01223	.00124	-.00289	.00320	-.05853	-.05891	-.06081
4.630	2.427	.02452	.01631	.09499	-.01058	.00117	-.00268	.00339	-.05854	-.05566	-.06081
4.630	4.518	.02435	.06261	.09051	-.01048	.00118	-.00267	.00353	-.06183	-.05564	-.06081
4.630	6.586	.02416	.11380	.08717	-.00993	.00118	-.00265	.00373	-.05853	-.05564	-.05751
4.630	8.557	.02338	.16741	.08433	-.00920	.00103	-.00244	.00394	-.05853	-.05564	-.05751
4.630	12.643	.02268	.27925	.08090	-.01008	.00081	-.00207	.00342	-.06183	-.05564	-.05751
4.630	16.810	.02223	.40560	.07872	-.01140	.00059	-.00154	.00201	-.06183	-.05891	-.06081
4.630	20.982	.02026	.54812	.07758	-.01297	.00013	-.00077	.00164	-.06184	-.05892	-.06081
4.630	25.114	.01865	.69900	.07701	-.01592	-.00017	-.00019	.00126	-.06183	-.05891	-.06081
4.630	29.211	.01768	.86362	.07553	-.02072	-.00015	.00005	.00181	-.05853	-.05891	-.06081
4.630	32.354	.01867	.99039	.07545	-.02659	.00050	-.00062	.00304	-.05854	-.05566	-.05752
4.630	37.495	.01679	1.21092	.07536	-.03940	.00005	.00031	.00192	-.05853	-.05564	-.05751
.630	41.596	.01650	1.39012	.07589	-.05148	.00031	.00052	.00151	-.05853	-.05564	-.05751
	GRADIENT	-.00014	.02115	-.00209	.00154	-.00004	.00005	-.00001	-.00000	.00016	-.00030

LA-8 LARC UFWT 1023 NAR 089B-MOD. NOSE ORBITER (RP6010) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = -3.000 ELEVTR = .000
AILRON = .000 RUDFLP = 40.000
GT-LCC = 1.000 K/L = .000

RUN NO. 54/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
2.360	-4.205	-3.04816	-.16170	.14759	.01916	.00301	-.00927	.07476	-.16669	-.18204	-.16329
2.360	-2.161	-3.04460	-.08878	.14484	.01391	.00303	-.00883	.06926	-.16956	-.18205	-.16614
2.360	-.072	-3.04366	-.01997	.14318	.00889	.00298	-.00829	.06618	-.17535	-.18212	-.17191
2.360	2.020	-3.04363	.05083	.14101	.00203	.00329	-.00772	.06409	-.17809	-.18485	-.17749
2.360	4.058	-3.04476	.11547	.14039	-.00314	.00359	-.00680	.06192	-.18098	-.18770	-.18036
2.360	6.134	-3.04478	.19055	.13942	-.00737	.00403	-.00621	.05970	-.18392	-.19060	-.18613
2.360	8.230	-3.04481	.25936	.13459	-.01138	.00480	-.00604	.05808	-.18111	-.18500	-.18334
2.360	12.329	-3.04833	.39557	.12926	-.01608	.00533	-.00432	.05653	-.18392	-.18778	-.18868
2.360	16.494	-3.05448	.54385	.12347	-.02271	.00521	.00005	.04700	-.19530	-.19904	-.20032
2.360	20.664	-3.06239	.70450	.11461	-.03203	.00474	.00449	.03914	-.19528	-.19820	-.20030
2.360	24.845	-3.07128	.86699	.10560	-.04053	.00529	.00770	.03685	-.19529	-.19339	-.19462
2.360	29.026	-3.07696	1.04157	.09788	-.05017	.00554	.00979	.03520	-.19533	-.18496	-.18898
2.360	32.050	-3.07806	1.17102	.09107	-.05859	.00617	.00958	.03719	-.17820	-.17930	-.18044
2.360	37.394	-3.06743	1.39222	.07655	-.07024	.01018	.00600	.03689	-.15255	-.14829	-.12080
2.360	38.698	-3.06702	1.44616	.07226	-.07561	.01010	.00542	.04056	-.14692	-.14554	-.11521
	GRADIENT	.00038	.03351	-.00088	-.00276	.00007	.00029	-.00149	-.00179	-.00068	-.00220

RUN NO. 52/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
4.630	-3.738	-3.01763	-.11631	.11032	-.01400	.00304	-.00635	.05581	-.06183	-.05564	-.06081
4.630	-1.672	-3.01665	-.07474	.10493	-.01208	.00338	-.00573	.05225	-.05853	-.05564	-.06081
4.630	.399	-3.03468	-.03070	.09994	-.01062	.00388	-.00559	.05053	-.05853	-.05564	-.05751
4.630	2.409	-3.03430	.01326	.09604	-.00983	.00429	-.00526	.04883	-.06183	-.05564	-.06081
4.630	4.509	-3.03420	.05961	.09198	-.00883	.00455	-.00460	.04624	-.06183	-.05564	-.06081
4.630	6.518	-3.03382	.10602	.08876	-.00868	.00512	-.00476	.04638	-.05853	-.05564	-.06081
4.630	8.607	-3.03376	.16442	.08581	-.00921	.00545	-.00458	.04565	-.06183	-.05564	-.06081
4.630	12.677	-3.03624	.27397	.08203	-.00855	.00558	-.00264	.04156	-.06183	-.05564	-.06081
4.630	16.759	-3.03933	.40203	.07962	-.01052	.00539	-.00002	.03566	-.06184	-.05892	-.06081
4.630	20.917	-3.04421	.54578	.07809	-.01214	.00473	.00268	.03183	-.06183	-.05891	-.06081
4.630	25.157	-3.04738	.70047	.07700	-.01639	.00445	.00432	.02971	-.06183	-.05891	-.06081
4.630	29.300	-3.04796	.86506	.07636	-.02147	.00463	.00487	.02839	-.06183	-.05891	-.06081
4.630	32.280	-3.04726	.98389	.07655	-.02617	.00584	.00405	.03053	-.06183	-.05564	-.06081
4.630	37.479	-3.04830	1.20557	.07571	-.03866	.00628	.00496	.02845	-.06183	-.05564	-.05751
4.630	41.771	-3.04974	1.39394	.07512	-.05167	.00584	.00652	.02445	-.05853	-.05564	-.05751
	GRADIENT	-.00247	.02138	-.00221	.00761	.00019	.00019	-.00110	-.00016	.00000	.00000

DATE 31 OCT 73 TABULATED SOURCE DATA LARC 1023/1034 (RP6011) (20 JUN 73)

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER

REFERENCE DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES		
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES		
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

BETA =	.000	ELEVTR =	-20.000
AILRON =	10.000	RUDFLR =	40.000
GT-LOC =	1.000	K/L =	.000

RUN NO. 55/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.247	.01945	-.22239	.16412	.05616	.00612	-.00274	.01001	-.18082	-.17908	-.17188
2.360	-2.225	.02069	-.14306	.15909	.05036	.00550	-.00293	.00936	-.18368	-.17907	-.17610
2.360	-.020	.02223	-.06590	.15575	.04225	.00523	-.00298	.00788	-.18952	-.18485	-.18032
2.360	2.016	.02172	.00285	.15236	.03585	.00509	-.00309	.00885	-.19249	-.19062	-.17763
2.360	4.051	.02208	.07353	.14645	.02896	.00502	-.00324	.00901	-.18954	-.18780	-.17479
2.360	6.167	.02359	.14638	.14065	.02302	.00510	-.00329	.00756	-.18395	-.17935	-.16629
2.360	8.243	.02185	.21941	.13585	.02006	.00497	-.00307	.00863	-.17542	-.17373	-.16631
2.360	10.252	.02248	.28542	.13146	.01864	.00512	-.00308	.00801	-.17542	-.17373	-.16347
2.360	12.345	.02251	.35545	.12687	.01756	.00457	-.00336	.00900	-.17542	-.17092	-.16631
2.360	16.493	.02249	.49983	.12392	.01583	.00459	-.00305	.00786	-.20394	-.19631	-.19472
2.360	20.687	.02183	.65649	.11498	.01222	.00496	-.00257	.00678	-.20111	-.19633	-.20042
2.360	24.894	.01970	.81913	.10555	.00670	.00513	-.00130	.00656	-.20111	-.19915	-.20325
2.360	29.049	.01930	.98036	.09463	.00345	.00564	-.00128	.00470	-.18970	-.18786	-.18905
2.360	30.562	.01842	1.04288	.08987	.00233	.00513	-.00108	.00492	-.18410	-.18514	-.18064
2.360	32.051	.01788	1.10445	.08518	.00047	.00507	-.00119	.00591	-.16700	-.17385	-.18928
2.360	37.342	.01806	1.32213	.06855	-.00494	.00795	-.00227	.00969	-.15841	-.15973	-.12385
2.360	38.667	.01864	1.37868	.06697	-.00484	.00891	-.00311	.01218	-.15565	-.15418	-.12679
	GRADIENT	.00030	.03541	-.00202	-.00331	-.00013	-.00006	-.00012	-.00128	-.00140	-.00000

RUN NO. 57/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.678	.00012	-.14273	.11349	-.00413	.00535	-.00191	.00692	-.06183	-.05564	-.06081
4.630	-1.627	.00087	-.09893	.10723	-.00293	.00479	-.00194	.00610	-.06183	-.05564	-.06081
4.630	.440	.00076	-.05289	.10140	-.00392	.00423	-.00194	.00624	-.06183	-.05564	-.06081
4.630	2.409	-.00025	-.01143	.09690	-.00254	.00385	-.00189	.00734	-.06183	-.05564	-.06081
4.630	4.544	.00017	.03727	.09189	-.00220	.00367	-.00207	.00747	-.05853	-.05564	-.06081
4.630	6.552	-.00001	.08608	.08670	-.00102	.00360	-.00205	.00764	-.06183	-.05564	-.05751
4.630	8.583	.00069	.13726	.08438	.00037	.00336	-.00208	.00686	-.06183	-.05564	-.05751
4.630	10.625	.00051	.18961	.08153	.00090	.00313	-.00207	.00704	-.06183	-.05564	-.05751
4.630	12.634	-.00031	.24465	.08020	.00340	.00306	-.00185	.00727	-.05853	-.05564	-.05751
4.630	16.843	-.00165	.36888	.07746	.00535	.00284	-.00128	.00683	-.06183	-.05564	-.06081
4.630	20.931	-.00219	.50318	.07563	.00589	.00278	-.00074	.00548	-.06183	-.05564	-.06081
4.630	25.205	-.00426	.65143	.07441	.01287	.00297	.00005	.00516	-.06183	-.05553	-.06081
4.630	29.235	-.00486	.80453	.07270	.01282	.00347	.00011	.00567	-.05853	-.05564	-.06081
4.630	30.873	-.00426	.86688	.07197	.01327	.00420	-.00039	.00675	-.06183	-.05564	-.05751
4.630	32.263	-.00389	.92369	.07165	.01243	.00444	-.00055	.00690	-.06183	-.05237	-.05751
4.630	37.588	-.00587	1.13409	.06965	.00021	.00496	.00040	.00581	-.06183	-.05237	-.05751
4.630	41.645	-.00738	1.30456	.06751	.00771	.00531	.00100	.00548	-.05853	-.05237	-.05751
	GRADIENT	-.00005	.02185	-.00261	.00321	-.00021	-.00031	.00011	.00032	.00000	.00000

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RF6012) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = -3.000 ELEVTR = -20.000
AILRON = 10.000 RUDFLP = 40.000
GT-LOC = 1.000 K/L = .000

RUN NO. 56/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.260	-3.05109	-.21763	.16531	.05801	.00823	-.00762	.07182	-.18101	-.18490	-.17755
2.360	-2.143	-3.04685	-.13875	.16020	.03071	.00756	-.00730	.06795	-.18671	-.18490	-.17755
2.360	-.070	-3.04595	-.06389	.15570	.04400	.00752	-.00683	.06328	-.18957	-.18773	-.17755
2.360	1.986	-3.04613	.00454	.15120	.03612	.00712	-.00639	.06184	-.18962	-.18778	-.17761
2.360	4.091	-3.04609	.07946	.14704	.02962	.00714	-.00582	.05968	-.18390	-.18776	-.18043
2.360	6.146	-3.04667	.15052	.14277	.02429	.00759	-.00508	.05759	-.17812	-.18487	-.18036
2.360	8.233	-3.04638	.21924	.13601	.02023	.00822	-.00478	.03612	-.16967	-.17086	-.17193
2.360	10.226	-3.04553	.28778	.13283	.01904	.00880	-.00465	.05477	-.17243	-.17077	-.17185
2.360	12.432	-3.04964	.35569	.12850	.01856	.00809	-.00334	.05433	-.17825	-.17366	-.17475
2.360	16.523	-3.05312	.50203	.12234	.01472	.00842	.00049	.04388	-.18960	-.19340	-.19463
2.360	20.674	-3.06339	.65872	.11269	.00954	.00780	.00474	.03928	-.20671	-.19904	-.20031
2.360	24.857	-3.06934	.81658	.10278	.00515	.00827	.00754	.03524	-.19822	-.19347	-.19754
2.360	29.031	-3.07506	.97884	.09345	.00252	.00950	.00967	.03364	-.19244	-.18493	-.19462
2.360	30.583	-3.07887	1.04619	.08959	.00046	.00978	.00982	.03713	-.18680	-.18781	-.18900
2.360	32.246	-3.07800	1.11126	.08553	-.00098	.01040	.00952	.03726	-.18113	-.18502	-.18335
2.360	37.355	-3.06713	1.31908	.07124	-.00497	.01663	.00442	.04447	-.16106	-.15106	-.15199
2.360	38.684	-3.06505	1.37803	.06758	-.00753	.01722	.00378	.04445	-.16409	-.15689	-.14085
	GRADIENT	.00060	.03541	-.00219	-.00343	-.00013	.00022	-.00146	-.00042	-.00041	-.00028

RUN NO. 58/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.718	-3.04124	-.14376	.11488	-.00247	.00554	-.00560	.05882	-.06183	-.05564	-.06081
4.630	-1.695	-3.04022	-.10251	.10816	-.00318	.00564	-.00498	.05524	-.06183	-.05564	-.06081
4.630	.408	-3.03883	-.05626	.10256	-.00326	.00581	-.00504	.05348	-.06183	-.05564	-.06081
4.630	2.440	-3.03823	-.01234	.09770	-.00243	.00606	-.00472	.05177	-.05853	-.05564	-.06081
4.630	4.527	-3.03754	.03636	.09310	-.00214	.00624	-.00425	.04915	-.06183	-.05564	-.06081
4.630	6.514	-3.03717	.08292	.08924	-.00026	.00673	-.00441	.04930	-.05853	-.05564	-.06081
4.630	8.583	-3.03710	.13660	.08563	.00051	.00706	-.00423	.04856	-.06183	-.05564	-.06081
4.630	10.617	-3.03790	.18916	.08363	.00281	.00716	-.00353	.04695	-.06183	-.05564	-.06081
4.630	12.622	-3.03898	.24151	.08146	.00336	.00719	-.00248	.04443	-.06183	-.05564	-.06081
4.630	16.883	-3.04300	.36819	.07828	.00641	.00724	.00019	.03957	-.06183	-.05564	-.06081
4.630	20.909	-3.04732	.50224	.07631	.00919	.00705	.00270	.03565	-.06183	-.05564	-.06081
4.630	25.128	-3.04906	.64806	.07421	.01281	.00718	.00413	.03256	-.06183	-.05564	-.06081
4.630	29.245	-3.05056	.80357	.07266	.01299	.00785	.00472	.03220	-.05853	-.05564	-.06081
4.630	30.690	-3.05077	.85859	.07249	.01276	.00809	.00475	.03238	-.06183	-.05564	-.06081
4.630	32.215	-3.04930	.91819	.07254	.01396	.00929	.00373	.03431	-.06183	-.05237	-.06081
4.630	37.537	-3.05040	1.12857	.06973	.01003	.01054	.00465	.03223	-.05853	-.05237	-.05755
4.630	41.808	-3.05279	1.30824	.06680	.00578	.01075	.00627	.02922	-.05853	-.05237	-.05755
	GRADIENT	.00046	.02184	-.00252	.00007	.00009	.00014	-.00111	.00016	.00020	.00003

LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER (RP6013) (17 SEP 73)

REFERENCE DATA

SREF = 136.1608 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 3.000 K/L = 6.820
ALPSHP = 1.000

RUN NO. 32/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.247	-.00222	-.22026	.16403	.05484	.00833	-.00250	.01170	-.18528	-.17430	-.17301
2.360	-2.183	-.00183	-.14694	.15993	.04837	.00570	-.00265	.01183	-.18546	-.17451	-.16754
2.360	-.105	-.00116	-.07207	.15610	.04181	.00522	-.00268	.01119	-.18551	-.17739	-.17044
2.360	1.965	-.00079	.00068	.15227	.03491	.00495	-.00283	.01130	-.18548	-.18017	-.17340
2.360	4.029	.00076	.06923	.14682	.02784	.00489	-.00288	.00988	-.18548	-.17735	-.16472
2.360	6.126	.00081	.14418	.14129	.02207	.00469	-.00274	.00928	-.17124	-.16891	-.15906
2.360	8.211	-.00121	.20861	.13760	.01837	.00491	-.00222	.00954	-.16850	-.16620	-.15918
2.360	10.224	-.00120	.27906	.13406	.01807	.00478	-.00249	.01055	-.16842	-.16894	-.16194
2.360	12.316	.00061	.34605	.13155	.01681	.00443	-.00284	.00968	-.17700	-.17461	-.17332
2.360	16.504	-.00086	.49355	.12654	.01452	.00424	-.00276	.01117	-.19124	-.18588	-.18035
2.360	20.643	-.00090	.64587	.11914	.01126	.00433	-.00245	.01004	-.21691	-.19720	-.19891
2.360	24.648	-.00449	.80617	.10936	.00629	.00436	-.00157	.01067	-.20269	-.19440	-.19892
2.360	28.982	-.00981	.96940	.09709	.00455	.00481	-.00049	.01219	-.18845	-.18594	-.18757
2.360	30.527	-.01134	1.03087	.09134	.00266	.00488	-.00027	.01323	-.17993	-.18033	-.17908
2.360	32.039	-.01276	1.09205	.08610	.00153	.00462	.00050	.01191	-.16855	-.16344	-.16774
2.360	37.350	-.00277	1.30352	.07324	-.00123	.00951	-.00416	.01836	-.15434	-.14936	-.14225
2.360	38.631	-.00326	1.35638	.06811	-.00458	.00959	-.00343	.01616	-.14580	-.13812	-.13658
	GRADIENT	.00034	.03510	-.00212	-.00326	-.00018	-.00005	-.00020	-.00002	-.00057	.00066

RUN NO. 22/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.719	.00271	-.14489	.11859	-.00258	.00591	-.00201	.00405	-.06035	-.05338	-.05905
4.630	-1.676	.00199	-.09865	.11175	-.00115	.00536	-.00182	.00424	-.05705	-.05338	-.05905
4.630	.403	.00249	-.05266	.10589	-.00217	.00455	-.00201	.00434	-.05705	-.05338	-.05905
4.630	2.405	.00178	-.00891	.10136	-.00145	.00400	-.00182	.00451	-.05705	-.05338	-.05905
4.630	4.472	.00162	.03739	.09644	-.00048	.00376	-.00181	.00466	-.05705	-.05338	-.05905
4.630	6.509	.00292	.08605	.09193	-.00017	.00360	-.00202	.00383	-.05705	-.05338	-.05905
4.630	8.604	.00244	.13970	.08880	.00145	.00336	-.00216	.00495	-.05374	-.05338	-.05576
4.630	10.565	.00254	.19207	.08641	.00198	.00321	-.00199	.00420	-.05705	-.05338	-.05576
4.630	12.646	.00322	.24690	.08528	.00360	.00298	-.00202	.00343	-.05705	-.05338	-.05905
4.630	16.808	.00099	.37350	.08294	.00575	.00261	-.00091	.00213	-.06035	-.05338	-.06234
4.630	20.915	.00047	.50769	.08106	.01027	.00231	-.00037	.00077	-.05705	-.05665	-.06234
4.630	25.089	-.00186	.65104	.07970	.01281	.00241	.00026	.00136	-.05705	-.05338	-.05905
4.630	29.185	-.00191	.80670	.07844	.01473	.00307	.00013	.00187	-.05374	-.05338	-.05905
4.630	30.733	-.00072	.86671	.07786	.01498	.00396	-.00055	.00291	-.05374	-.05338	-.05905
4.630	32.245	-.00066	.92581	.07734	.01437	.00421	-.00037	.00217	-.05705	-.05338	-.05905
4.630	37.500	-.00232	1.13377	.07601	.01276	.00449	.00073	.00014	-.05374	-.05011	-.05576
4.630	41.627	-.00355	1.30652	.07348	.01068	.00484	.00147	-.00110	-.05374	-.05011	-.05576
	GRADIENT	-.00012	.02220	-.00267	.00019	-.00028	.00002	.00007	.00032	-.00090	-.00000

LA-6 LARC UFW: 1023 NAR 089B-MCO. NOSE ORBITER (RP6014) (17 SEP 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 3.000 K/L = 6.820
ALPSWP = 2.000

RUN NO. 35/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.228	.00072	-.22112	.16494	.05518	.00630	-.00246	.00835	-.18568	-.17477	-.17348
2.360	-2.173	.00052	-.14444	.16019	.04914	.00555	-.00246	.00855	-.18567	-.17475	-.16779
2.360	- 091	.00119	-.06767	.15609	.04258	.00500	-.00248	.00792	-.18573	-.17763	-.17070
2.360	1.933	.00157	-.00138	.15260	.03611	.00487	-.00263	.00807	-.18852	-.18038	-.17063
2.360	4.030	.00282	.06913	.14681	.02854	.00482	-.00282	.00741	-.18559	-.17466	-.16486
2.360	6.110	.00110	.14197	.14153	.02334	.00476	-.00260	.00847	-.17423	-.16905	-.16206
2.360	8.191	.00141	.21270	.13768	.02021	.00491	-.00232	.00708	-.16576	-.16631	-.15929
2.360	10.192	.00174	.28088	.13419	.01897	.00464	-.00247	.00727	-.16567	-.16904	-.16204
2.360	12.326	.00175	.35171	.13165	.01877	.00435	-.00273	.00824	-.17738	-.17500	-.17372
2.360	16.511	.00030	.49733	.12676	.01424	.00409	-.00255	.00951	-.19440	-.18903	-.19350
2.360	20.654	-.00036	.65391	.11904	.01139	.00432	-.00218	.00844	-.21706	-.19742	-.19912
2.360	24.847	-.00363	.81167	.10932	.00626	.00428	-.00160	.00983	-.20288	-.19462	-.20195
2.360	28.991	-.00700	.97354	.09675	.00451	.00472	-.00059	.00969	-.18874	-.18624	-.18786
2.360	30.514	-.00754	1.03544	.09085	.00261	.00466	-.00070	.01069	-.17737	-.17780	-.17936
2.360	32.045	-.01072	1.09462	.08615	.00133	.00461	.00014	.01101	-.16601	-.16375	-.16804
2.360	37.333	-.00101	1.30555	.07310	-.00144	.00920	-.00422	.01667	-.15466	-.14972	-.14261
2.360	38.841	-.00299	1.35986	.06817	-.00384	.00935	-.00328	.01534	-.14620	-.13855	-.13701
	GRADIENT	.00025	.03509	-.00213	-.00321	-.00018	-.00004	-.00011	-.00013	-.00026	.00070

RUN NO. 25/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.712	.00178	-.13991	.11806	.00047	.00609	-.00148	.00323	-.06034	-.05664	-.06234
4.630	-1.662	.00168	-.09867	.11099	-.00027	.00553	-.00147	.00335	-.06034	-.05664	-.06234
4.630	.368	.00216	-.05241	.10495	.00044	.00464	-.00167	.00346	-.06035	-.05665	-.06234
4.630	2.391	.00146	-.00875	.10056	.00029	.00409	-.00147	.00363	-.06034	-.05336	-.05904
4.630	4.477	.00129	.04010	.09573	.00235	.00385	-.00146	.00379	-.06035	-.05338	-.05905
4.630	6.514	.00171	.08876	.09122	.00266	.00369	-.00163	.00393	-.06035	-.05338	-.05905
4.630	8.572	.00211	.13999	.08786	.00406	.00353	-.00181	.00407	-.05705	-.05338	-.05905
4.630	10.589	.00281	.19239	.08535	.00546	.00322	-.00184	.00329	-.05705	-.05338	-.05905
4.630	12.660	.00290	.24988	.08440	.00557	.00307	-.00167	.00253	-.06365	-.05664	-.06234
4.630	16.801	.00038	.37377	.08194	.00836	.00261	-.00072	.00218	-.06366	-.05338	-.06234
4.630	20.895	-.00071	.50617	.08022	.01182	.00240	.00001	.00084	-.06034	-.05336	-.06234
4.630	25.068	-.00158	.64835	.07901	.01521	.00250	.00041	.00044	-.06035	-.05338	-.05905
4.630	29.184	-.00221	.80439	.07713	.01625	.00308	.00048	.00097	-.05705	-.05338	-.05905
4.630	30.721	-.00243	.86442	.07687	.01650	.00396	-.00040	.00198	-.05705	-.05011	-.05905
4.630	32.245	-.00126	.92488	.07676	.01592	.00430	-.00018	.00220	-.05703	-.05009	-.05904
4.630	37.535	-.00350	1.13379	.07530	.01363	.00441	.00111	.00121	-.05705	-.05011	-.05905
4.630	41.627	-.00444	1.30426	.07277	.01201	.00484	.00151	-.00014	-.05705	-.05011	-.05576
	GRADIENT	-.00006	.02200	-.00269	.00021	-.00029	.00009	.00007	-.00009	.00268	.00268

LA-6 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RP6015) (17 SEP 73)

REFERENCE DATA

SREF =	136.1838 SQ.IN.	XMRP =	15.9638 INCHES		
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES		
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

BETA =	-3.000	ELEVTR =	-20.000
AILRON =	10.000	RUDFLR =	40.000
GT-LOC =	3.000	K/L =	6.820
ALPSWF =	1.000		

RUN NO. 34/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-4.280	-3.05316	-.21887	.16627	.05461	.00675	-.00764	.07592	-.18007	-.17766	-.17639
2.360	-2.134	-3.05072	-.14431	.16160	.04845	.00814	-.00731	.07003	-.18580	-.17771	-.17362
2.360	-.095	-3.04858	-.06093	.15642	.04179	.00775	-.00712	.06703	-.17723	-.17765	-.17073
2.360	1.964	-3.04849	.00034	.15195	.03414	.00756	-.00655	.06460	-.18296	-.17770	-.17079
2.360	4.057	-3.04723	.07261	.14799	.02669	.00723	-.00631	.06253	-.17732	-.17774	-.17366
2.360	6.113	-3.04693	.14735	.14251	.02025	.00768	-.00560	.05963	-.17157	-.17206	-.17076
2.360	8.236	-3.04781	.21561	.13782	.01696	.00804	-.00456	.05669	-.16879	-.16650	-.16799
2.360	10.209	-3.04811	.28161	.13395	.01631	.00847	-.00411	.05532	-.16314	-.16091	-.16518
2.360	12.310	-3.05101	.34919	.13062	.01580	.00816	-.00272	.05328	-.17168	-.16375	-.17086
2.360	16.500	-3.05800	.49471	.12506	.01272	.00734	.00123	.04618	-.19153	-.18619	-.19064
2.360	20.644	-3.06621	.64865	.11578	.00738	.00679	.00509	.04074	-.20265	-.19178	-.19627
2.360	24.836	-3.07454	.80449	.10541	.00435	.00747	.00812	.03843	-.19436	-.17496	-.19063
2.360	28.014	-3.08057	.96856	.09629	.00135	.00860	.00925	.04073	-.19156	-.18342	-.18785
2.360	30.525	-3.08140	1.02957	.09282	.00003	.00869	.00944	.04100	-.18578	-.18612	-.18774
2.360	32.040	-3.08227	1.09501	.08906	-.00217	.00911	.00921	.04279	-.17726	-.17768	-.18208
2.360	37.287	-3.06570	1.30517	.07300	-.00245	.01732	.00252	.04960	-.15471	-.14697	-.14831
2.360	38.646	-3.05961	1.35773	.06863	-.00666	.01558	.00505	.04446	-.15184	-.14692	-.13132
	GRADIENT	.00068	.03499	-.00222	-.00337	-.00017	.00016	-.00135	.00040	-.00001	.00040

RUN NO. 24/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-3.696	-3.05771	-.13833	.11952	.00149	.00635	-.00570	.05598	-.05705	-.05338	-.05905
4.630	-1.670	-3.05610	-.09465	.11250	.00099	.00536	-.00527	.05237	-.05705	-.05338	-.05905
4.630	.393	-3.05507	-.04865	.10655	.00001	.00622	-.00516	.05070	-.06034	-.05336	-.05904
4.630	2.410	-3.05524	-.00477	.10131	-.00008	.00647	-.00464	.04895	-.05705	-.05338	-.05903
4.630	4.485	-3.05543	.04157	.09699	.00092	.00665	-.00412	.04729	-.05705	-.05338	-.05905
4.630	6.507	-3.05505	.09038	.09340	.00212	.00690	-.00380	.04560	-.05705	-.05338	-.05905
4.630	8.591	-3.05438	.14165	.09031	.00355	.00715	-.00381	.04482	-.05705	-.05338	-.05905
4.630	10.570	-3.05488	.19415	.08816	.00497	.00724	-.00345	.04411	-.05705	-.05338	-.05905
4.630	12.678	-3.05557	.24890	.08641	.00575	.00735	-.00221	.04163	-.06035	-.05338	-.06234
4.630	16.800	-3.06055	.37354	.08395	.00770	.00718	.00045	.03681	-.06034	-.05336	-.06234
4.630	20.913	-3.06455	.50449	.08163	.01110	.00666	.00311	.03190	-.06035	-.05665	-.06234
4.630	25.068	-3.06774	.65109	.07979	.01385	.00647	.00476	.02984	-.06034	-.05664	-.06234
4.630	29.149	-3.06749	.80342	.07874	.01556	.00744	.00479	.02934	-.05705	-.05338	-.05905
4.630	31.684	-3.06687	.86099	.07816	.01559	.00833	.00429	.03040	-.05705	-.05338	-.06234
4.630	32.267	-3.06568	.92277	.07815	.01612	.00921	.00361	.03144	-.05705	-.05338	-.05905
4.630	37.427	-3.06764	1.12843	.07549	.01347	.01022	.00506	.02849	-.05705	-.05011	-.05571
4.630	41.622	-3.06971	1.30090	.07286	.01031	.01043	.00682	.02452	-.05705	-.05011	-.05905
	GRADIENT	.00026	.02209	-.00275	-.00011	.00003	.00019	-.00102	-.00000	.00000	.00000

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RF6016) (17 SEP 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = -3.000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 3.000 K/L = 6.820
ALPSWP = 2.000

RUN NO. 33/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
2.360	-4.246	-3.05375	-.21862	.16632	.05456	.00881	-.00747	.07387	-.18016	-.17774	-.17366
2.360	-2.150	-3.05250	-.14219	.16132	.04865	.00821	-.00724	.07170	-.18578	-.17769	-.17360
2.360	-.119	-3.04856	-.07205	.15644	.04159	.00768	-.00712	.06701	-.17723	-.17766	-.17074
2.360	1.900	-3.04641	-.00176	.15189	.03471	.00736	-.00692	.06397	-.18289	-.17763	-.17071
2.360	4.041	-3.04665	.07285	.14803	.02749	.00731	-.00648	.06264	-.17716	-.17759	-.17066
2.360	6.092	-3.04632	.14322	.14268	.02136	.00753	-.00577	.05958	-.17159	-.17207	-.17077
2.360	8.196	-3.04985	.21208	.13833	.01736	.00798	-.00463	.05922	-.16580	-.16354	-.16784
2.360	10.198	-3.04899	.27991	.13382	.01689	.00841	-.00408	.05620	-.16587	-.16080	-.16508
2.360	12.310	-3.05071	.34968	.13081	.01582	.00810	-.00259	.05256	-.17155	-.16642	-.17074
2.360	16.5[illegible]	-3.05947	.49587	.12482	.01274	.00729	.00143	.04715	-.19138	-.18884	-.19048
2.360	20.643	-3.06621	.64941	.11596	.00665	.00687	.00509	.04079	-.19995	-.19170	-.19619
2.360	24.857	-3.07454	.80591	.10531	.00436	.00756	.00814	.03850	-.19425	-.17200	-.19052
2.360	28.944	-3.07996	.96736	.09610	.00173	.00856	.00911	.04081	-.19137	-.18601	-.18764
2.360	30.527	-3.08052	1.03243	.09268	-.00054	.00863	.00942	.04021	-.18288	-.18325	-.18769
2.360	32.025	-3.08227	1.09310	.08894	-.00178	.00927	.00923	.04287	-.17995	-.17753	-.18193
2.360	37.316	-3.06688	1.30461	.07563	-.00281	.01758	.00243	.05134	-.15442	-.14667	-.14801
2.360	38.675	-3.06989	1.35738	.06822	-.00705	.01569	.00493	.04537	-.14869	-.14380	-.13096
	GRADIENT	.00098	.03508	-.00223	-.00330	-.00019	.00011	-.00146	.00043	.00002	.00043

RUN NO. 23/ 0 N/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
4.630	-3.696	-3.05682	-.13835	.11952	.00149	.00635	-.00574	.05502	-.05705	-.05338	-.06234
4.630	-1.663	-3.05610	-.09465	.11309	.00099	.00636	-.00527	.05237	-.06035	-.05338	-.05905
4.630	.384	-3.05478	-.05095	.10637	.00067	.00630	-.00500	.04969	-.05705	-.05338	-.05905
4.630	2.403	-3.05437	-.00471	.10159	.00079	.00647	-.00468	.04799	-.05705	-.05338	-.05905
4.630	4.469	-3.05455	.04154	.09702	.00091	.00665	-.00416	.04633	-.05705	-.05338	-.05905
4.630	6.516	-3.05417	.09045	.09364	.00299	.00690	-.00384	.04465	-.05705	-.05338	-.05905
4.630	8.582	-3.05409	.14172	.09059	.00442	.00715	-.00366	.04390	-.05705	-.05338	-.06234
4.630	10.559	-3.05458	.19177	.08873	.00562	.00725	-.00330	.04318	-.05705	-.05338	-.06234
4.630	12.648	-3.05567	.24651	.08702	.00639	.00727	-.00226	.04067	-.06035	-.05338	-.06234
4.630	16.791	-3.06026	.37306	.08410	.00855	.00709	.00060	.03583	-.06035	-.05338	-.06234
4.630	20.906	-3.06426	.50693	.08196	.01132	.00666	.00326	.03098	-.06035	-.05338	-.05905
4.630	25.092	-3.06599	.65257	.07935	.01405	.00654	.00468	.02788	-.05705	-.05338	-.05905
4.630	29.174	-3.06661	.80584	.07932	.01577	.00745	.00475	.02839	-.05705	-.05011	-.05905
4.630	30.719	-3.06688	.86342	.07872	.01581	.00833	.00429	.03041	-.05705	-.05011	-.05905
4.630	32.232	-3.06538	.92403	.07865	.01527	.00923	.00376	.03055	-.05703	-.05009	-.05904
4.630	37.474	-3.06676	1.13073	.07573	.01282	.01023	.00502	.02753	-.05374	-.05011	-.05905
4.630	41.611	-3.06824	1.30318	.07328	.00878	.01043	.00659	.02353	-.05374	-.04684	-.05576
	GRADIENT	.00031	.02205	-.00277	-.00107	.00003	.00018	-.00107	.00016	.00000	.00032

LA-8 LARC UFWT 1023 NAR 0698-MOD. NOSE ORBITER (RP6017) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0166 SCALE

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 9/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CDL	CYN	CY	CPB1	CPB2	CPC
2.360	-8.095	-.08498	-.00750	.14562	.00574	.00667	-.01307	.13086	-.18119	-.17863	-.18029
2.360	-4.051	-.08687	-.00651	.14524	.00941	.00427	-.00923	.09010	-.16986	-.17591	-.17470
2.360	-1.975	-.09750	-.00998	.14420	.00974	.00214	-.00604	.05021	-.16984	-.17306	-.17183
2.360	.000	-.09019	-.00895	.14382	.00916	.00062	-.00394	.01506	-.18134	-.17315	-.17476
2.360	1.993	-.08663	-.00612	.14390	.00766	-.00063	-.00201	-.02010	-.18411	-.17587	-.17182
2.360	4.065	-.08336	-.00557	.14431	.00535	-.00268	.00066	-.06093	-.18698	-.18154	-.17752
2.360	6.132	-.04830	-.00337	.14340	.00093	-.00535	.00453	-.10404	-.18700	-.18721	-.18323
2.360	8.119	-.05196	-.00110	.14254	-.00422	-.00752	.00862	-.14535	-.19277	-.19292	-.19183
	GRADIENT	.00184	.00028	-.00011	-.00051	-.00084	.00118	-.01844	-.00240	-.00070	-.00028

RUN NO. 21/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.075	.38931	-.03356	.10259	-.00982	.00705	-.00883	.10245	-.06189	-.05805	-.06054
4.630	-4.036	.37330	-.03484	.10087	-.01005	.00505	-.00617	.06756	-.06189	-.05805	-.06054
4.630	-2.002	.41244	-.03355	.09938	-.01003	.00319	-.00395	.03548	-.05859	-.05805	-.06054
4.630	.002	.39727	-.03221	.09837	-.01087	.00165	-.00238	.00614	-.06189	-.05805	-.06054
4.630	2.027	.38990	-.03084	.09796	-.01170	.00018	-.00099	-.02322	-.05859	-.05805	-.06054
4.630	4.053	.38769	-.03204	.09841	-.01277	-.00152	.00084	-.05539	-.06189	-.05805	-.06054
4.630	6.094	.40350	-.03082	.09854	-.01364	-.00338	.00286	-.08752	-.05859	-.05805	-.06054
4.630	8.097	.39606	-.02952	.09904	-.01448	-.00492	.00431	-.11974	-.06189	-.05805	-.06054
	GRADIENT	.00031	.00041	-.00031	-.00035	-.00080	.00084	-.01507	.00000	.00000	.00000

LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER (RF6018) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5828 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 8/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-6.098	10.24890	.34113	.13248	-.01651	.01027	-.00605	.10749	-.18404	-.17579	-.18313
2.360	-4.054	10.24194	.33982	.13252	-.01378	.00704	-.00522	.07783	-.17550	-.16736	-.17748
2.360	-2.013	10.22205	.33820	.13115	-.01409	.00382	-.00404	.04496	-.17554	-.16739	-.17182
2.360	-.002	10.21142	.33700	.13173	-.01435	.00108	-.00383	.01909	-.17552	-.17021	-.17465
2.360	2.030	10.23167	.33986	.13071	-.01500	-.00165	-.00320	-.01436	-.17267	-.16738	-.17465
2.360	4.064	10.23645	.34455	.13171	-.01545	-.00431	-.00283	-.04728	-.18416	-.17875	-.18041
2.360	6.095	10.21779	.34737	.13172	-.01640	-.00733	-.00232	-.08028	-.19268	-.19848	-.18889
2.360	8.125	10.22263	.34913	.12815	-.02365	-.01128	-.00012	-.11954	-.18986	-.19286	-.18893
	GRADIENT	-.00007	.00055	-.00010	-.00021	-.00139	.00028	-.01526	-.00071	-.00112	-.00043

RUN NO. 20/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.095	10.57489	.21370	.08546	-.00781	.00976	-.00377	.08507	-.06189	-.05805	-.06054
4.630	-4.034	10.55903	.21503	.08522	-.00699	.00714	-.00385	.05737	-.06189	-.05805	-.06054
4.630	-2.001	10.59592	.21617	.08430	-.00705	.00413	-.00275	.03081	-.06189	-.05805	-.06054
4.630	.020	10.56913	.21733	.08295	-.00797	.00120	-.00176	.00614	-.06189	-.05805	-.06054
4.630	2.005	10.57027	.21861	.08302	-.00801	-.00157	-.00116	-.01859	-.06189	-.05805	-.06054
4.630	4.048	10.58915	.21970	.08333	-.00809	-.00474	.00005	-.04705	-.06189	-.05805	-.06054
4.630	6.070	10.60369	.21825	.08253	-.01010	-.00766	.00091	-.07463	-.05859	-.05805	-.06054
4.630	8.093	10.60409	.21963	.08239	-.01096	-.00965	.00034	-.10050	-.06189	-.05805	-.06054
	GRADIENT	.00172	.00058	-.00025	-.00016	-.00146	.00047	-.01280	.00000	.00000	-.00000

LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER (RP6019) (20 JUN 73)

REFERENCE DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES		
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES		
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

ALPHA =	20.000	ELEVTR =	.000
AILRON =	.000	RUDFLR =	40.000
GT-LOC =	2.000	K/L =	6.820

RUN NO. 7/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
2.360	-6.129	20.68875	.72502	.11388	-.03680	.01121	.00746	.09098	-.19835	-.18713	-.19739
2.360	-4.077	20.68130	.72475	.11545	-.03472	.00663	.00666	.05857	-.19842	-.18721	-.19746
2.360	-2.027	20.69283	.72396	.11749	-.03281	.00301	.00365	.03168	-.19839	-.18717	-.19458
2.360	-.004	20.70767	.72586	.11780	-.03059	.00086	-.00283	.01495	-.19837	-.18714	-.19171
2.360	2.020	20.69620	.72546	.11744	-.03079	-.00100	-.00889	-.00339	-.19262	-.18429	-.19168
2.360	4.101	20.68704	.72652	.11617	-.03216	-.00442	-.01256	-.02957	-.19563	-.18446	-.19468
2.360	6.059	20.66295	.72771	.11425	-.03543	-.00906	-.01361	-.06116	-.19840	-.18436	-.19744
2.360	8.133	20.64879	.72623	.11241	-.03734	-.01342	-.01422	-.09684	-.19837	-.18432	-.19741
	GRADIENT	.00072	.00025	.00007	.00035	-.00128	-.00251	-.01036	.00055	.00041	.00041

RUN NO. 19/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
4.630	-6.089	20.94800	.54461	.08011	-.01191	.00955	.00572	.06572	-.06189	-.05805	-.06054
4.630	-4.047	20.93710	.54352	.07987	-.01132	.00642	.00415	.04350	-.06189	-.05805	-.06054
4.630	-2.009	20.94069	.54723	.07965	-.01119	.00312	.00224	.02219	-.06189	-.05805	-.06054
4.630	-.001	20.91913	.54528	.07888	-.01143	.00045	-.00049	.00360	-.06189	-.05805	-.06054
4.630	2.007	20.90162	.54792	.07960	-.01058	-.00213	-.00318	-.01402	-.06189	-.05805	-.06054
4.630	4.055	20.90919	.54663	.07905	-.01174	-.00543	-.00513	-.03632	-.05859	-.05805	-.06054
4.630	6.079	20.92931	.54789	.07850	-.01265	-.00840	-.00666	-.05758	-.06189	-.05805	-.06054
4.630	8.102	20.92788	.54667	.07882	-.01295	-.01176	-.00789	-.08071	-.05859	-.05805	-.06054
	GRADIENT	-.00468	.00034	-.00008	-.00001	-.00143	-.00119	-.00969	.00033	-.00000	-.00000

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RF6020) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 6/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
2.360	-6.147	30.55301	1.12299	.10027	-.05483	.01209	.01762	.07513	-.20123	-.18997	-.20025
2.360	-4.111	30.53127	1.12322	.09804	-.05372	.00852	.01348	.05022	-.19257	-.18140	-.19163
2.360	-2.035	30.52384	1.12273	.09547	-.05159	.00414	.00663	.03006	-.18123	-.17302	-.18033
2.360	-.008	30.55827	1.12183	.09246	-.04961	.00100	-.00090	.01233	-.16980	-.15889	-.16895
2.360	2.021	30.57133	1.12308	.09375	-.04896	-.00228	-.00873	-.00463	-.17266	-.15889	-.16895
2.360	4.086	30.53978	1.12639	.09726	-.05046	-.00660	-.01612	-.02236	-.18121	-.17583	-.18031
2.360	6.145	30.55206	1.12865	.10009	-.05189	-.01053	-.02106	-.04462	-.19553	-.18435	-.19174
2.360	8.146	30.53918	1.12810	.10135	-.05228	-.01452	-.02449	-.07331	-.20407	-.19278	-.20023
	GRADIENT	.00314	.00033	-.00016	.00045	-.00179	-.00365	-.00880	.00153	.00123	.00166

RUN NO. 17/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
4.630	-6.111	30.76858	.92119	.08074	-.02117	.01093	.00908	.05787	-.05859	-.05152	-.05725
4.630	-4.049	30.77114	.92479	.07966	-.02192	.00730	.00630	.03834	-.05859	-.05152	-.05725
4.630	-2.011	30.76374	.92851	.07825	-.02180	.00367	.00355	.01977	-.05859	-.05152	-.05725
4.630	-.003	30.77352	.92751	.07771	-.02206	.00067	.00032	.00101	-.05859	-.05479	-.05725
4.630	2.007	30.76390	.92902	.07752	-.02210	-.00234	-.00344	-.01287	-.05859	-.05479	-.05725
4.630	4.053	30.72950	.92777	.07849	-.02243	-.00629	-.00566	-.03233	-.06189	-.05479	-.06054
4.630	6.079	30.71902	.92674	.07964	-.02101	-.01008	-.00826	-.05184	-.05859	-.05479	-.06054
4.630	8.105	30.68415	.92329	.08081	-.01979	-.01371	-.01128	-.07238	-.05859	-.05479	-.05725
	GRADIENT	-.00412	.00032	-.00015	-.00007	-.00164	-.00153	-.00860	-.00033	-.00048	-.00033

LA-6 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RP6021) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 11/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-6.147	30.57305	1.12115	.10016	-.05624	.01228	.01772	.07221	-.20131	-.19007	-.20034
2.360	-4.087	30.5805	1.12707	.09788	-.05458	.00837	.01325	.04515	-.19270	-.18155	-.19176
2.360	-2.033	30.57661	1.12205	.09568	-.05308	.00414	.00695	.02597	-.18411	-.17305	-.18036
2.360	-.008	30.58299	1.12563	.09406	-.05078	.00052	-.00042	.00828	-.16981	-.15607	-.16895
2.360	2.025	30.56919	1.12250	.09403	-.05048	-.00255	-.00874	-.00877	-.16982	-.15891	-.17182
2.360	4.089	30.56914	1.12315	.09662	-.05136	-.00652	-.01592	-.02562	-.17842	-.17307	-.17753
2.360	6.131	30.59578	1.12754	.09966	-.05187	-.01065	-.02122	-.04874	-.19559	-.18441	-.19463
2.360	8.167	30.57007	1.12560	.10115	-.05369	-.01463	-.02465	-.07403	-.20417	-.19291	-.20319
	GRADIENT	-.00148	-.00036	-.00020	.00044	-.00179	-.00363	-.00864	.00210	.00152	.00181

RUN NO. 10/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.093	30.73509	.91864	.08076	-.02226	.01077	.00912	.05882	-.05859	-.05479	-.05725
4.630	-4.050	30.75768	.92235	.07906	-.02214	.00722	.00633	.03929	-.05859	-.05152	-.05725
4.630	-2.012	30.76127	.92608	.07824	-.02201	.00366	.00359	.02072	-.05859	-.05152	-.05725
4.630	-.023	30.76256	.92753	.07743	-.02206	.00058	.00017	.01394	-.05859	-.05479	-.05396
4.630	2.006	30.77489	.92903	.07720	-.02210	-.00234	-.00321	-.01188	-.05859	-.05479	-.05725
4.630	4.052	30.76477	.93011	.07811	-.02225	-.00677	-.00544	-.03133	-.05859	-.05479	-.06054
4.630	6.078	30.74243	.92905	.07964	-.02168	-.01032	-.00823	-.05087	-.06189	-.05479	-.06054
4.630	8.103	30.70767	.92570	.08053	-.02044	-.01363	-.01120	-.07045	-.05859	-.05479	-.06054
	GRADIENT	.00137	.00091	-.00014	-.00052	-.00168	-.00150	-.00860	.00000	-.00048	-.00033

LA-8 LARC UPWT 1023 NAR 059B-MOD. NOSE ORBITER (RP6022) (20 JUN 73)

REFERENCE DATA

SREF = 136.1408 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 40.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.00 K/L = 6.820

RUN NO. 5/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-6.128	38.71898	1.44618	.07836	-.06794	.01766	.01613	.05800	-.15285	-.15061	-.12081
2.360	-4.057	38.69640	1.44756	.07574	-.06672	.01243	.01249	.03604	-.14424	-.14209	-.12074
2.360	-2.028	38.65945	1.46216	.07283	-.07316	.00683	.00344	.03376	-.13857	-.12802	-.12078
2.360	-.009	38.64690	1.46009	.07297	-.07280	.00158	-.00109	.01408	-.13862	-.12243	-.12084
2.360	2.014	38.66180	1.46428	.07304	-.07278	-.00188	-.00742	-.00258	-.13569	-.12234	-.11506
2.360	4.073	38.65417	1.46263	.07473	-.06866	-.00721	-.01270	-.02070	-.13574	-.11957	-.11512
2.360	6.128	38.64923	1.45562	.07514	-.06594	-.01301	-.01695	-.04117	-.14140	-.12798	-.11222
	GRADIENT	-.00404	.00153	-.00008	-.00017	-.00236	-.00302	-.00738	.00098	.00250	.00084

RUN NO. 16/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.094	41.67306	1.38259	.08074	-.04789	.01127	.01232	.04729	-.05859	-.05479	-.05725
4.630	-4.051	41.70180	1.39108	.07917	-.04992	.00803	.00875	.03147	-.05859	-.05479	-.05725
4.630	-1.993	41.65786	1.39476	.07882	-.05154	.00429	.00464	.01650	-.05859	-.05479	-.05725
4.630	-.004	41.68362	1.39619	.07908	-.04990	.00040	.00125	.00070	-.05859	-.05479	-.05725
4.630	2.005	41.64972	1.39750	.07892	-.05067	-.00333	-.00249	-.01421	-.05529	-.05479	-.05725
4.630	4.054	41.65845	1.39421	.07890	-.05047	-.00642	-.00712	-.02832	-.05859	-.05479	-.05725
4.630	6.081	41.65863	1.39111	.07967	-.04748	-.00967	-.01088	-.04418	-.05859	-.05479	-.05725
4.630	8.124	41.61711	1.38058	.08040	-.04516	-.01332	-.01450	-.06100	-.05859	-.05479	-.05725
	GRADIENT	-.00471	.00044	-.00002	-.00002	-.00181	-.00192	-.00744	.00016	-.00000	-.00000

LA-8 LARC UPWT 1023 NAR 0698-MOD. NOSE ORBITER (RP6023) (20 JUN 73)

REFERENCE DATA

SREF = 134.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 1.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0168 SCALE

PARAMETRIC DATA

ALPHA = .000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 3.000 K/L = 6.820

RUN NO. 42/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-6.094	-.08421	-.06[illegible]6	.15668	.03901	.01077	-.01261	.12763	-.17950	-.17664	-.17565
2.360	-4.030	-.09640	-.07659	.15761	.04253	.00860	-.00827	.08383	-.17946	-.17660	-.17276
2.360	-2.008	-.09625	-.[illegible]6674	.15727	.04373	.00661	-.00492	.04302	-.18816	-.17674	-.16721
2.360	.021	-.09875	-.06809	.15724	.04292	.00503	-.00224	.00636	-.18810	-.17666	-.16998
2.360	2.015	-.10105	-.06924	.15792	.04191	.00408	-.00019	-.03045	-.19666	-.17948	-.17281
2.360	4.082	-.07905	-.06841	.15782	.04043	.00285	.00283	-.06711	-.19093	-.18229	-.17280
2.360	6.093	-.06765	-.06804	.15657	.03659	.00117	.00711	-.11255	-.18814	-.18237	-.17857
2.360	8.137	-.[illegible]9949	-.06997	.15473	.03114	-.00030	.01163	-.15650	-.18809	-.18514	-.18421
	GRADIENT	.00149	-.00040	.00005	-.00030	-.00069	.00133	-.01854	-.00155	-.00070	-.00028

RUN NO. 31/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.073	.37629	-.05711	.10840	-.00147	.00813	-.00927	.10191	-.06032	-.05332	-.06232
4.630	-4.035	.37662	-.05583	.10672	-.00230	.00676	-.00650	.06880	-.06032	-.05332	-.06232
4.630	-2.003	.36915	-.05680	.10531	-.00159	.00556	-.00354	.03574	-.06032	-.05332	-.05902
4.630	.001	.36820	-.05768	.10486	-.00173	.00465	-.00194	.00627	-.06032	-.05681	-.05902
4.630	2.004	.36971	-.05612	.10472	-.00166	.00367	.00023	-.02309	-.06032	-.05661	-.06232
4.630	4.049	.37590	-.05713	.10516	-.00182	.00245	.00209	-.05539	-.06032	-.05661	-.06232
4.630	6.090	.37381	-.05825	.10504	-.00287	.00115	.00413	-.08767	-.06032	-.05661	-.06232
4.630	8.093	.38042	-.05923	.10563	-.00304	-.00023	.00593	-.12077	-.06365	-.05334	-.06233
	GRADIENT	-.00004	-.00010	-.00018	.00004	-.00052	.00104	-.01523	.00000	-.00049	-.00016

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RP6024) (20 JUN 73)

REFERENCE TA

PARAMETRIC DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES	ALPHA =	10.000	ELEVTR =	-20.000
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES	AILRON =	10.000	RUDFLR =	40.000
BREF =	17.5622 INCHES	ZMRP =	.0000 INCHES	GT-LOC =	3.000	K/L =	6.820
SCALE =	.0188 SCALE						

RUN NO. 41/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-6.094	10.20689	.29080	.13548	.01507	.01250	-.00653	.10530	-.17127	-.16851	-.17597
2.360	-4.030	10.20631	.28766	.13566	.01761	.00967	-.00420	.06873	-.17121	-.16281	-.16740
2.360	-2.007	10.21536	.28655	.13435	.01885	.00697	-.00262	.03362	-.16546	-.15712	-.15883
2.360	.003	10.21424	.28356	.13484	.02068	.00466	-.00208	.00489	-.16829	-.16555	-.16184
2.360	2.015	10.21430	.28429	.13459	.01989	.00262	-.00156	-.02466	-.17974	-.16843	-.16171
2.360	4.067	10.19818	.28618	.13587	.02065	.00032	-.00057	-.05843	-.18520	-.17945	-.17278
2.360	6.098	10.21216	.28689	.13564	.01684	-.00193	-.00003	-.09147	-.19515	-.19072	-.18128
2.360	8.126	10.21028	.28902	.13339	.01313	-.00497	.00239	-.12985	-.20306	-.18511	-.18133
	GRADIENT	-.00086	-.00026	.00003	.00035	-.00114	.00041	-.01546	-.00209	-.00221	-.00068

RUN NO. 30/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.075	10.56924	.18892	.08897	.00118	.01052	-.00415	.08539	-.06032	-.05661	-.06232
4.630	-4.036	10.56102	.18804	.08841	.00272	.00846	-.00295	.05953	-.06032	-.05661	-.06232
4.630	-2.002	10.56307	.18935	.08753	.00355	.00576	-.00288	.03189	-.06032	-.05661	-.05902
4.630	.001	10.57227	.19058	.08552	.00266	.00330	-.00211	.00611	-.06032	-.05661	-.05902
4.630	2.005	10.55152	.18708	.08529	.00307	.00076	-.00130	-.01871	-.06032	-.05332	-.06232
4.630	4.048	10.56143	.18817	.08472	.00300	-.00233	.00044	-.04817	-.06364	-.05661	-.06232
4.630	6.068	10.54173	.18920	.08435	.00035	-.00486	.00151	-.07584	-.06032	-.05661	-.06232
4.630	8.092	10.54062	.18823	.08417	.00014	-.00686	.00079	-.10091	-.06364	-.05661	-.06232
	GRADIENT	-.00053	-.00010	-.00043	.00000	-.00132	.00051	-.01319	-.00033	.00016	-.00016

DATE 31 OCT 75 TABULATED SOURCE DATA LARC 1023/1054

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RP6025) (20 JUN 73)

REFERENCE DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES		
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES		
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0118 SCALE				

PARAMETRIC DATA

ALPHA =	20.000	ELEVTR =	-20.000
AILRON =	10.000	RUDFLR =	40.000
GT-LOC =	3.000	K/L =	6.820

RUN NO. 40/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-6.121	20.63683	.66253	.11482	.00264	.01208	.00674	.08494	-.19960	-.18523	-.19568
2.360	-4.068	20.64156	.66086	.11613	.00605	.00843	.00622	.05104	-.19964	-.19092	-.19288
2.360	-2.020	20.64324	.65808	.11807	.01010	00559	.00403	.02351	-.21389	-.18809	-.19287
2.360	.021	20.64535	.65783	.11999	.01220	.00436	-.00200	.00523	-.21389	-.19372	-.19570
2.360	2.025	20.64704	.65943	.11937	.01220	.00208	-.00813	-.01143	-.20817	-.18807	-.19569
2.360	4.084	20.65856	.66180	.11701	.01084	.00055	-.01096	-.03905	-.19967	-.18814	-.19575
2.360	6.119	20.64273	.66033	.11507	.00752	-.00296	-.01132	-.07292	-.19964	-.18528	-.19572
2.360	8.174	20.65304	.66046	.11570	.00735	-.00667	-.01177	-.10918	-.20252	-.19096	-.19859
	GRADIENT	.00186	.00016	.00015	.00058	-.00090	-.00228	-.01057	.00028	.00027	-.00042

RUN NO. 29/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.087	20.89766	.50099	.08229	.01089	.01087	.00505	.06687	-.06032	-.05332	-.06232
4.630	-4.046	20.91125	.50475	.08147	.01106	.00798	.00383	.04366	-.06032	-.05332	-.06232
4.630	-2.008	20.91243	.50309	.08065	.01101	.00507	.00207	.02131	-.06364	-.05661	-.06232
4.630	-.002	20.91225	.50519	.08011	.01164	.00240	-.00010	.00273	-.06364	-.05661	-.06232
4.630	2.006	20.91127	.50437	.08024	.01143	.00012	-.00333	-.01411	-.06364	-.05661	-.06232
4.630	4.055	20.91159	.50571	.07946	.01052	-.00255	- 00543	-.03555	-.06364	-.05661	-.06232
4.630	6.080	20.92233	.50700	.07864	.00961	-.00537	-.00700	-.05788	-.06354	-.05661	-.06232
4.630	8.103	20.91048	.50583	.07901	.00933	-.00842	-.00808	-.08204	-.06032	-.05661	-.06232
	GRADIENT	-.00002	.00001	-.00022	-.00003	-.00129	-.00118	-.0095	-.00033	-.00033	-.00000

LA-8 LARC UPWT 1023 NAR 0898-MOD. NOSE ORBITER (RP6026) (20 JUN 73)

REFERENCE DAT

SREF = 136.1808 SQ.IN. XMRP = 5.9638 INCHES
LREF = 8.[illegible]025 INCHES YMRP = .0000 INCHES
BREF = 17.5626 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 30.000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 3.000 K/L = 6.620

RUN NO. 39/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
2.360	-6.144	30.51793	1.04201	.09758	-.00214	.01381	.01641	.07456	-.19667	-.19080	-.19275
2.360	-4.068	30.54643	1.04776	.09529	-.00117	.01011	.01246	.04840	-.18805	-.18509	-.18701
2.360	-2.034	30.52734	1.04863	.09373	.00021	.00686	.00720	.02609	-.18807	-.18228	-.18133
2.360	-.008	30.53614	1.04402	.09236	.00264	.00485	-.00018	.00756	-.17948	-.17379	-.17563
2.350	2.024	30.53873	1.04297	.09118	.00537	.00169	-.00876	-.00784	-.17094	-.16535	-.16427
2.360	4.090	30.54416	1.04934	.09310	.00354	-.00176	-.01458	-.03186	-.16528	-.17388	-.17572
2.360	6.[illegible]3	30.54513	1.05037	.09604	.00346	-.00472	-.01948	-.05742	-.19668	-.18798	-.19276
2.360	8.[illegible]1	30.54478	1.05153	.09705	.00257	-.00834	-.02229	-.08757	-.20525	-.19646	-.19560
	GRADIENT	.00034	-.00012	-.00034	.00071	-.00142	-.00344	-.00955	.00111	.00193	.00194

RUN NO. 27/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CFB1	CFB2	CFC
4.630	-6.110	30.72256	.85782	.01981	.01544	.01345	.00830	.05983	-.06033	-.05334	-.05903
4.630	-4.049	30.73719	.861[illegible]2	.07870	.01558	.01021	.00536	.04118	-.06033	-.05334	-.05903
4.630	2.010	30.75273	.86545	.07764	.01659	.00681	.00276	.02164	-.06033	-.05334	-.05903
4.630	-.001	30.73118	.86687	.07713	.01569	.00[illegible]13	-.00036	.00294	-.05702	-.05334	-.05903
4.630	[illegible]	30.71915	.86598	.07634	.01546	.00133	-.00340	-.01383	-.05702	-.05334	-.05903
4.630	4.055	30.74312	.86730	.07662	.01624	-.00203	-.00565	-.03428	-.05702	-.05334	-.05903
4.630	6.080	30.74262	.86615	.07689	.01680	-.00574	-.00713	-.05472	-.06033	-.05334	-.05903
4.630	8.105	30.73224	.86395	.07825	.01822	-.00922	-.01088	-.07427	-.06034	-.05336	-.05904
	GRADIENT	-.00106	.00059	-.00028	.00001	-.00147	-.00139	-.00922	.00049	-.00001	-.00000

DATE 31 OCT 73 TABULATED SOURCE DATA LARC 1023/1034

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RF6027) (20 JUN 73)

REFERENCE DATA

SREF =	136.1606 SQ.IN.	XMRP =	15.9638 INCHES		
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES		
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

ALPHA =	30.000	ELEVTR =	-20.000
AILRON =	10.000	RUDFLR =	40.000
CT-LOC =	3.000	K/L =	6.820

RUN NO. 38/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-6.145	30.56338	1.04310	.09722	-.00269	.01386	.01630	.07612	-.19673	-.19086	-.19281
2.360	-4.088	30.53460	1.04610	.09521	-.00191	.01050	.01235	.04995	-.19816	-.18521	-.18712
2.360	-2.033	30.51297	1.04465	.09334	-.00072	.00692	.00709	.02766	-.18819	-.17959	-.18147
2.360	-.009	30.53555	1.04438	.09311	.00053	.00414	.00004	.00923	-.18244	-.17390	-.17574
2.360	2.022	30.53184	1.03739	.09165	.00349	.00169	-.00868	-.00620	-.17104	-.16263	-.16438
2.360	4.069	30.53828	1.04430	.09331	.00243	-.00170	-.01479	-.02942	-.18533	-.17395	-.17578
2.360	6.133	30.53473	1.04350	.09603	.00064	-.00479	-.01977	-.05664	-.19672	-.18803	-.18996
2.360	8.171	30.52693	1.04577	.09751	.00070	-.00826	-.02256	-.08671	-.20246	-.19371	-.19569
	GRADIENT	.00128	-.00053	-.00027	.00063	-.00143	-.00343	-.00944	.00111	.00193	.00194

RUN NO. 28/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.091	30.72350	.85779	.07979	.01543	.01337	.00830	.05983	-.06033	-.05334	-.06233
4.630	-4.049	30.72618	.86159	.07841	.01557	.01005	.00536	.04118	-.05702	-.05334	-.05903
4.630	-2.010	30.72829	.86299	.07786	.01637	.00673	.00257	.02159	-.06033	-.05334	-.05903
4.630	-.002	30.70773	.86452	.07681	.01634	.00405	-.00032	.00390	-.06033	-.05334	-.05903
4.630	2.008	30.73009	.86595	.07632	.01545	.00145	-.00359	-.01386	-.05702	-.05334	-.05903
4.630	4.055	30.72961	.86481	.07631	.01601	-.00219	-.00566	-.03429	-.06033	-.05334	-.05903
4.630	6.079	30.71822	.86373	.07692	.01659	-.00574	-.00788	-.05380	-.06033	-.05334	-.05903
4.630	8.104	30.72730	.86031	.07804	.01782	-.00923	-.01101	-.07250	-.06033	-.05334	-.05903
	GRADIENT	.00043	.00046	-.00028	-.00000	-.00147	-.00139	-.00922	-.00017	-.00000	-.00000

LA-8 LARC UPWT 1023 NAR 089B-MOD. NOSE ORBITER (RP6028) (20 JUN 73)

REFERENCE DATA

SREF = 136.1806 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 40.000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 3.000 K/L = 6.620

RUN NO. 36/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
2.360	-6.127	38.04908	1.34772	.07692	.00058	.02367	.01150	.07354	-.15708	-.14645	-.14780
2.360	-4.074	38.62286	1.36078	.07165	-.00452	.01940	.00645	.05635	-.15423	-.14644	-.13645
2.360	-2.025	38.65334	1.35925	.06791	-.00579	.01291	.00204	.03596	-.14849	-.13795	-.13073
2.360	-.003	38.63587	1.36222	.06820	-.00424	.00926	-.00330	.01540	-.14566	-.13797	-.13644
2.780	2.020	38.64345	1.37068	.06884	-.00594	.00472	-.00791	-.00667	-.15140	-.14646	-.13979
2.360	4.076	38.63135	1.37031	.07076	-.00497	-.00193	-.01177	-.02947	-.15699	-.15481	-.13350
2.360	6.116	38.63414	1.36780	.07566	-.00159	-.00650	-.01535	-.05464	-.17418	-.16055	-.15349
2.360	8.152	38.63986	1.36197	.07727	.00049	-.01082	-.01808	-.08230	-.17978	-.17171	-.16472
	GRADIENT	.00035	.00150	-.00004	-.00005	-.00250	-.00228	-.01053	-.00041	-.00124	.00029

RUN NO. 22/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB1	CPB2	CPC
4.630	-6.093	41.62334	1.28990	.07424	.01208	.01548	.01176	.04918	-.05372	-.05009	-.05904
4.630	-4.051	41.57869	1.29355	.07306	.00961	.01215	.00837	.03330	-.05703	-.05009	-.05574
4.630	-1.993	41.62143	1.30223	.07225	.01017	.00865	.00476	.01658	-.05703	-.05009	-.05574
4.630	-.004	41.62445	1.30368	.07256	.01181	.00484	.00152	-.00015	-.05703	-.05009	-.05574
4.630	2.006	41.63523	1.30501	.07182	.01033	.00183	-.00240	-.01511	-.05372	-.05009	-.05574
4.630	4.054	41.61131	1.30405	.07131	.00975	-.00143	-.00651	-.03009	-.05372	-.04681	-.05574
4.630	6.080	41.59670	1.29844	.07154	.01157	-.00452	-.01027	-.04598	-.05372	-.04681	-.05574
4.630	8.106	41.59187	1.29039	.07197	.01424	-.00777	-.01407	-.06283	-.05372	-.04681	-.05574
	GRADIENT	.00391	.00118	-.00019	.00001	-.00168	-.00183	-.00785	.00049	.00033	.00000

LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER (RP6101) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 6.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0136 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 23/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.600	-3.829	.00726	-.17039	.16649	.05159	.00028	-.00532	.01283	-.24752	-.22092
1.600	-1.743	.00692	-.06528	.16418	.03675	.00042	-.00537	.01311	-.23864	-.21194
1.600	-.697	.00766	-.01827	.16226	.02961	.00049	-.00540	.01237	-.23257	-.19809
1.600	.346	.00779	.03225	.16025	.02231	.00057	-.00529	.01172	-.22758	-.18257
1.600	1.387	.00706	.08101	.15778	.01407	.00071	-.00514	.01190	-.21583	-.17857
1.600	2.432	.00690	.12989	.15573	.00577	.00091	-.00514	.01203	-.20735	-.17794
1.600	4.546	.00657	.22753	.15317	-.00803	.00125	-.00511	.01227	-.20735	-.18059
1.600	6.652	.00619	.32425	.14981	-.02084	.00198	-.00507	.01251	-.20755	-.18611
1.600	8.742	.00677	.42074	.14611	-.03230	.00179	-.00508	.01196	-.20524	-.18646
1.600	12.897	.00522	.60960	.12799	-.05314	.00188	-.00500	.01324	-.14457	-.13091
1.600	17.069	.00531	.78783	.09767	-.06294	.00255	-.00497	.01304	-.07043	.00963
1.600	19.133	.00577	.86071	.08467	-.05748	.00283	-.00497	.01256	-.02783	.04711
	GRADIENT	-.00008	.04737	-.00170	-.00719	.00012	.00004	-.00011	.00546	.00566

RUN NO. 25/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.900	-3.928	.00544	-.14546	.16011	.04255	.00056	-.00405	.00996	-.20672	-.18578
1.900	-1.844	.00603	-.05586	.15791	.03123	.00071	-.00413	.00943	-.20624	-.17730
1.900	-.804	.00751	-.01488	.15504	.02522	.00071	-.00441	.01105	-.20047	-.16348
1.900	.238	.00370	.02796	.15133	.01846	.00084	-.00421	.01186	-.18103	-.15744
1.900	1.275	.00445	.06735	.14939	.01262	.00098	-.00426	.01127	-.17947	-.15571
1.900	2.305	.00459	.11250	.14744	.00705	.00112	-.00413	.01064	-.17385	-.15536
1.900	4.413	.00430	.19542	.14499	-.00306	.00119	-.00408	.01077	-.17545	-.15709
1.900	6.484	.00343	.27538	.14354	-.01159	.00126	-.00389	.01097	-.18714	-.16324
1.900	8.577	.00312	.35683	.14236	.01949	.00140	-.00387	.01121	-.19428	-.17601
1.900	12.710	.00363	.51432	.13786	-.02783	.00188	-.00414	.01166	-.21204	-.18584
1.900	16.905	.00380	.68324	.12782	-.03502	.00203	-.00412	.01142	-.20118	-.18020
1.900	21.141	.00162	.84905	.10845	-.03815	.00167	-.00349	.01127	-.14336	-.11958
1.900	22.448	.00168	.89877	.10433	-.03624	.00167	-.00334	.01068	-.13828	-.10922
	GRADIENT	-.00019	.04075	-.00199	-.00554	.00008	.00000	.00013	.00482	.00380

LA-8A LARC UFWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6102) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0168 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 24/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.830	3.02736	-.16418	.16445	.05480	-.00198	-.00164	-.03229	-.22894	-.20758
1.600	-1.736	3.02062	-.06307	.16268	.03737	-.00223	-.00079	-.04384	-.22627	-.19166
1.600	-.688	3.01901	-.01437	.16099	.02989	-.00235	-.00063	-.04793	-.22099	-.18637
1.600	.761	3.01799	.03630	.16077	.02256	-.00254	-.00062	-.04704	-.22103	-.18906
1.600	1.392	3.01695	.08511	.16039	.01565	-.00247	-.00058	-.04615	-.22363	-.19451
1.600	2.431	3.01653	.13184	.16001	.00785	-.00254	-.00069	-.04530	-.22623	-.19956
1.600	4.553	3.01591	.23133	.15872	-.00647	-.00234	-.00119	-.04283	-.23411	-.21275
1.600	6.641	3.01524	.32815	.15430	-.01997	-.00156	-.00167	-.04035	-.23938	-.21539
1.600	8.743	3.01664	.42307	.14728	-.03156	-.00098	-.00250	-.03868	-.21839	-.19700
1.600	12.893	3.01750	.60645	.12953	-.05017	-.00143	-.00345	-.03606	-.17072	-.13860
1.600	17.080	3.02061	.78056	.09810	-.06033	-.00146	-.00621	-.02902	-.09143	-.00612
1.600	19.120	3.03035	.85734	.08201	-.05650	-.00341	-.01123	-.02024	-.03930	.04869
	GRADIENT	-.00127	.04713	-.00063	-.00724	-.00005	.00005	.00106	-.00053	-.00101

RUN NO. 26/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.929	3.01625	-.14016	.15507	.03882	-.00163	.00055	-.05123	-.19040	-.16671
1.900	-1.838	3.01625	-.05606	.15300	.02753	-.00196	-.00023	-.04649	-.18791	-.15894
1.900	-.803	3.01670	-.01497	.15168	.02288	-.00196	-.00041	-.04643	-.19048	-.16151
1.900	.231	3.01511	.02405	.15060	.01663	-.00196	-.00064	-.04405	-.19052	-.16685
1.900	1.272	3.01614	.07097	.15009	.01094	-.00203	-.00094	-.04398	-.19316	-.16950
1.900	2.299	3.01425	.10816	.15002	.00581	-.00197	-.00127	-.04085	-.19842	-.17477
1.900	4.395	3.01516	.19022	.14946	-.00517	-.00183	-.00156	-.04072	-.21154	-.18527
1.900	6.493	3.01484	.27755	.14737	-.01396	-.00177	-.00233	-.03752	-.22209	-.19319
1.900	8.588	3.01632	.35717	.14345	-.02136	-.00178	-.00318	-.03591	-.21415	-.18788
1.900	12.707	3.01838	.51177	.13316	-.02849	-.00244	-.00444	-.03332	-.19570	-.17733
1.900	16.888	3.02672	.68032	.12150	-.03629	-.00151	-.00896	-.02503	-.17724	-.16146
1.900	21.116	3.03721	.84337	.10761	-.03982	-.00229	-.01494	-.01387	-.14288	-.12701
1.900	22.449	3.04005	.88778	.10582	-.03563	-.00421	-.01704	-.00862	-.14560	-.12709
	GRADIENT	-.00039	.03977	-.00069	-.00530	-.00002	-.00025	.00128	-.00248	-.00261

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6103) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.3628 INCHES ZMRP = .0000 INCHES
SCALE = .0166 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 1.000 K/L = 6.820

RUN NO. 1/ 0 RN/L = 2.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.915	.01188	-.17369	.16783	.05065	.00011	-.00549	.01316	-.24725	-.22008
1.600	-1.771	.01078	-.07068	.16563	.03462	.00029	-.00540	.01345	-.23956	-.20750
1.600	-.667	.00994	-.02157	.16353	.02673	.00041	-.00550	.01439	-.23339	-.19833
1.600	.360	.00915	.02371	.16116	.01881	.00046	-.00543	.01458	-.22825	-.18663
1.600	1.442	.01063	.07499	.15879	.01199	.00062	-.00521	.01285	-.21958	-.17803
1.600	2.509	.00950	.12397	.15680	.00417	.00071	-.00518	.01343	-.20832	-.17937
1.600	4.697	.00923	.22544	.15271	-.00946	.00099	-.00532	.01411	-.19736	-.17945
1.600	6.862	.00783	.32283	.14981	-.02367	.00124	-.00527	.01479	-.19893	-.18261
1.600	9.022	.00756	.42274	.14705	-.03644	.00145	-.00517	.01458	-.20056	-.18108
1.600	13.309	.00581	.61059	.12951	-.05647	.00193	-.00526	.01597	-.15019	-.13057
1.600	17.386	.00597	.77243	.10049	-.06059	.00270	-.00483	.01427	-.06516	-.01211
	GRADIENT	-.00028	.04616	-.00184	-.00700	.00010	.00003	.00005	.00611	.00629

RUN NO. 3/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-4.049	.00905	-.16526	.16077	.03669	.00055	-.00530	.01413	-.20022	-.18275
1.900	-1.912	.00738	-.07768	.15827	.02623	.00068	-.00535	.01532	-.19793	-.17403
1.900	-.826	.00625	-.03413	.15650	.02086	.00077	-.00507	.01498	-.19664	-.16482
1.900	.233	.00574	.00920	.15289	.01467	.00081	-.00513	.01554	-.18230	-.15361
1.900	1.291	.00580	.05027	.15148	.00945	.00090	-.00505	.01518	-.17594	-.15676
1.900	2.368	.00646	.09245	.14947	.00349	.00098	-.00506	.01481	-.16964	-.15522
1.900	4.500	.00570	.17693	.14667	-.00671	.00107	-.00511	.01547	-.17279	-.15838
1.900	6.672	.00521	.26207	.14514	-.01665	.00124	-.00485	.01479	-.18072	-.16473
1.900	8.798	.00561	.34286	.14384	-.02408	.00129	-.00485	.01454	-.19018	-.17264
1.900	13.065	.00568	.50439	.13891	-.03194	.00162	-.00497	.01498	-.20128	-.18217
1.900	17.362	.00275	.67369	.12955	-.04096	.00192	-.00440	.01463	-.19020	-.17583
1.900	21.712	.00007	.84588	.11535	-.04621	.00191	-.00351	.01298	-.16010	-.14406
1.900	23.155	.00054	.89878	.10934	-.04416	.00164	-.00423	.01537	-.15540	-.13140
	GRADIENT	-.00035	.03997	-.00176	-.00514	.00006	.00003	.00010	.00417	.00319

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6104) (20 JUN 73)

REFERENCE DA

PARAMETRIC DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES	BETA =	3.000	ELEVTR =	.000
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES	AILRON =	.000	RUDFLR =	40.000
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES	GT-LOC =	1.000	R/L =	6.820
SCALE =	.0188 SCALE						

RUN NO. 2/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.911	3.05328	-.17012	.16404	.04801	-.00182	-.00069	-.04933	-.22632	-.20064
1.600	-1.757	3.04935	-.06933	.16220	.03210	-.00229	-.00084	-.04554	-.22353	-.18824
1.600	-.694	3.04505	-.02157	.16149	.02379	-.00232	-.00091	-.04266	-.21898	-.18370
1.600	.386	3.04631	.02854	.16042	.01612	-.00268	-.00101	-.04304	-.21898	-.18528
1.600	1.439	3.04638	.07533	.15945	.01017	-.00279	-.00117	-.04251	-.21884	-.18829
1.600	2.518	3.04496	.12555	.15898	.00326	-.00287	-.00145	-.04057	-.21903	-.19325
1.600	4.697	3.04417	.22487	.15666	-.01144	-.00272	-.00222	-.03727	-.22198	-.20253
1.600	6.870	3.04742	.32241	.15266	-.02563	-.00199	-.00338	-.03491	-.22217	-.20589
1.600	9.024	3.04869	.41916	.14633	-.03743	-.00149	-.00427	-.03250	-.20640	-.19167
1.600	13.305	3.05490	.60561	.13088	-.05444	-.00189	-.00582	-.03044	-.16507	-.14704
1.600	17.391	3.07024	.77327	.10278	-.06148	-.00245	-.01076	-.02145	-.08156	-.02846
	GRADIENT	-.00097	.04581	-.00084	-.00685	-.00011	-.00017	.00120	.00058	-.00050

RUN NO. 4/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-4.050	3.04968	-.16668	.15836	.03446	-.00182	-.00022	-.04814	-.19337	-.17265
1.900	-1.910	3.05041	-.07742	.15593	.02396	-.00198	-.00087	-.04622	-.19181	-.16314
1.900	-.825	3.04727	-.03406	.15417	.01819	-.00213	-.00064	-.04516	-.18544	-.15994
1.900	.242	3.04709	.00811	.15324	.01230	-.00233	-.00088	-.04418	-.18385	-.16310
1.900	1.288	3.04628	.04926	.15221	.00792	-.00241	-.00101	-.04317	-.18386	-.16788
1.900	2.352	3.04519	.09151	.15111	.00237	-.00249	-.00123	-.04172	-.18701	-.17105
1.900	4.508	3.04620	.17711	.14933	-.00856	-.00237	-.00180	-.04022	-.19339	-.17903
1.900	6.660	3.04805	.26249	.14740	-.01807	-.00212	-.00310	-.03652	-.19969	-.18535
1.900	8.806	3.04962	.34331	.14505	-.02549	-.00201	-.00400	-.03414	-.20286	-.18694
1.900	13.066	3.05472	.50375	.13516	-.03263	-.00210	-.00600	-.02982	-.19018	-.17423
1.900	17.333	3.06737	.67200	.12273	-.04258	-.00159	-.01016	-.02212	-.16329	-.14884
1.900	21.750	3.08478	.83673	.11127	-.04146	-.00323	-.01553	-.00913	-.15217	-.13610
1.900	23.132	3.08385	.88842	.10949	-.04083	-.00405	-.01693	-.00715	-.14898	-.13291
	GRADIENT	-.00056	.04004	-.00106	-.00503	-.00008	-.00017	.00095	.00025	-.00109

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6105) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.7638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.3628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 1.000 K/L = .000

RUN NO. 19/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.818	.00540	-.16414	.16373	.05495	.00049	-.00444	.01148	-.24250	-.22113
1.600	-1.720	.00568	-.06077	.16220	.03978	.00058	-.00484	.01167	-.23752	-.21087
1.600	-.684	.00437	-.01803	.16088	.03172	.00070	-.00434	.01176	-.23827	-.20641
1.600	.350	.00570	.03435	.15961	.02388	.00064	-.00454	.01109	-.23332	-.19620
1.600	1.402	.00407	.08286	.15678	.01629	.00071	-.00435	.01200	-.22544	-.18567
1.600	2.440	.00449	.13337	.15529	.00820	.00098	-.00449	.01210	-.21744	-.18817
1.600	4.545	.00473	.23441	.15155	-.00518	.00125	-.00461	.01232	-.20960	-.16822
1.600	6.653	.00381	.32697	.14860	-.01831	.00172	-.00443	.01259	-.21461	-.19059
1.600	8.750	.00377	.42340	.14463	-.03112	.00199	-.00429	.01208	-.20935	-.18796
1.600	12.883	.00195	.60561	.12558	-.05241	.00214	-.00433	.01408	-.14894	-.12737
1.600	17.083	.00324	.79020	.09592	-.06496	.00248	-.00461	.01381	-.08065	.00173
1.600	19.125	.00257	.86145	.08283	-.05878	.00216	-.00470	.01464	-.03377	.04078
	GRADIENT	-.00012	.04750	-.00152	-.00720	.00009	-.00001	.00010	.00421	.00451

RUN NO. 21/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.921	.00489	-.14726	.15784	.04017	.00056	-.00428	.01142	-.20748	-.18918
1.900	-1.861	.00458	-.06148	.15588	.03055	.00070	-.00432	.01183	-.21014	-.18395
1.900	-.900	.00475	-.02260	.15463	.02577	.00070	-.00423	.01098	-.20732	-.18110
1.900	.220	.00374	.02017	.15174	.01920	.00077	-.00422	.01186	-.19939	-.16786
1.900	1.247	.00357	.06309	.14710	.01390	.00098	-.00420	.01197	-.18358	-.16256
1.900	2.304	.00374	.10395	.14481	.00841	.00098	-.00407	.01132	-.18095	-.15992
1.900	4.403	.00257	.18600	.14183	-.00322	.00126	-.00403	.01252	-.17262	-.15681
1.900	6.490	.00226	.27161	.14084	-.01079	.00127	-.00401	.01257	-.18021	-.16440
1.900	8.558	.00201	.34494	.14013	-.02011	.00141	-.00399	.01276	-.19345	-.17504
1.900	12.727	.00253	.50729	.13469	-.03001	.00162	-.00425	.01318	-.21193	-.18827
1.900	16.883	.00301	.67527	.12762	-.03717	.00164	-.00411	.01216	-.21461	-.19096
1.900	21.132	.00051	.84149	.10717	-.04239	.00179	-.00358	.01276	-.15135	-.13018
1.900	22.441	.00143	.89198	.10108	-.04110	.00180	-.00387	.01289	-.14082	-.10904
	GRADIENT	-.00028	.04006	-.00215	-.00526	.00008	.00004	.00009	.00507	.00449

LA-8A LARC UPWT 103 NAR 0898-MOD. NOSE ORBITER (RP6105) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 6.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 1.000 K/L = .000

RUN NO. 20/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.600	-3.835	3.02059	-.16918	.16135	.05258	-.00156	-.00006	-.05097	-.23122	-.20954
1.600	-1.738	3.02058	-.06259	.15904	.03717	-.00182	-.00078	-.04854	-.22598	-.19416
1.600	-.677	3.02016	-.01611	.15816	.03023	-.00201	-.00093	-.04765	-.22359	-.19179
1.600	.355	3.01942	.03418	.15761	.02158	-.00189	-.00119	-.04606	-.22351	-.19170
1.600	1.395	3.01813	.07877	.15755	.01437	-.00209	-.00167	-.04301	-.22582	-.19663
1.600	2.440	3.01768	.12924	.15638	.00696	-.00209	-.00173	-.04216	-.22833	-.20439
1.600	4.546	3.01675	.23228	.15542	-.00763	-.00182	-.00200	-.04045	-.23853	-.21723
1.600	6.643	3.01658	.32868	.15267	-.02038	-.00125	-.00276	-.03726	-.24378	-.22251
1.600	8.740	3.01780	.42123	.14649	-.03280	-.00019	-.00319	-.03710	-.23065	-.20670
1.600	12.899	3.01776	.60712	.12752	-.05164	-.00097	-.00330	-.03661	-.18092	-.14894
1.600	17.063	3.02861	.78374	.09619	-.06146	-.00219	-.00846	-.02845	-.10751	-.00952
1.600	19.117	3.03460	.86150	.07998	-.05711	-.00532	-.01389	-.01443	-.05215	.04078
	GRADIENT	-.00053	.04743	-.00065	-.00721	-.00004	-.00024	.00135	-.00082	-.00124

RUN NO. 22/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.900	-3.928	3.03908	-.14993	.15244	.03721	-.00144	-.00028	-.04903	-.19094	-.16988
1.900	-1.772	3.03662	-.06382	.15035	.02757	-.00151	-.00081	-.04581	-.19092	-.16192
1.900	-.810	3.03619	-.02088	.14872	.02167	-.00151	-.00096	-.04497	-.18824	-.16188
1.900	.220	3.03574	.02222	.14761	.01719	-.00151	-.00110	-.04410	-.18562	-.16455
1.900	1.263	3.03619	.06331	.14699	.01239	-.00152	-.00164	-.04253	-.18830	-.16036
1.900	2.296	3.03639	.10030	.14675	.00584	-.00132	-.00191	-.04174	-.19349	-.17244
1.900	4.412	3.03431	.18638	.14609	-.00406	-.00132	-.00222	-.03847	-.20407	-.18304
1.900	6.483	3.03608	.26941	.14562	-.01319	-.00126	-.00294	-.03758	-.21737	-.19176
1.900	8.574	3.03581	.34692	.14196	-.02078	-.00145	-.00333	-.03591	-.21732	-.19105
1.900	12.698	3.03674	.50500	.13107	-.03039	-.00243	-.00428	-.03329	-.19360	-.17520
1.900	16.881	3.04541	.67334	.12206	-.00751	-.00202	-.00869	-.02576	-.18833	-.16991
1.900	21.117	3.05581	.84014	.10413	-.04201	-.00170	-.01475	-.01384	-.14351	-.12233
1.900	22.454	3.05834	.88675	.10462	-.03766	-.00370	-.01756	-.00563	-.14801	-.12765
	GRADIENT	-.00036	.04034	-.00079	-.00500	.00001	-.00024	.00121	-.00133	-.00187

DATE 31 OCT 73 TABULATED SC ICE DATA LARC 1023/1034

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6107) (17 SEP 73)

REFERENCE DATA

SREF = 136. 808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.1029 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 1.000 K/L = .000

RUN NO. 15/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.600	-3.897	-.01739	-.28295	.19406	.11750	.00727	-.00256	.00797	-.27506	-.25386
1.600	-1.785	-.01647	-.17519	.19026	.10153	.00640	-.00325	.00960	-.27362	-.25252
1.600	-.730	-.01514	-.12297	.18858	.09451	.00609	-.00344	.00893	-.27595	-.25220
1.600	.325	-.01439	-.07248	.18742	.08637	.00590	-.00346	.00825	-.27900	-.25530
1.600	1.356	-.01454	-.02383	.18552	.08082	.00583	-.00345	.00837	-.27923	-.25554
1.600	2.332	-.01380	.02475	.18424	.07497	.00551	-.00349	.00775	-.28059	-.25945
1.600	4.505	-.01288	.13135	.17830	.05977	.00476	-.00378	.00793	-.27848	-.25473
1.600	6.650	-.01201	.23165	.17239	.04732	.00452	-.00408	.00813	-.27572	-.25195
1.600	8.736	-.01201	.32820	.16839	.03586	.00413	-.00434	.00909	-.27569	-.25191
1.600	12.867	-.01420	.51600	.14194	.01371	.00507	-.00369	.00890	-.20503	-.18372
1.600	17.055	-.01354	.69869	.10330	.00325	.00606	-.00420	.01013	-.09750	-.03638
1.600	19.141	-.01278	.78694	.09157	.00538	.00633	-.00447	.01038	-.07375	-.00200
	GRADIENT	.00055	.04909	-.00178	-.00678	-.00927	-.00012	-.00010	-.00070	-.00046

RUN NO. 17/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.900	-3.967	-.01670	-.23426	.18037	.09164	.00630	-.00274	.00793	-.22619	-.20790
1.900	-1.863	-.01725	-.14478	.17704	.08029	.00586	-.00286	.00891	-.23127	-.21041
1.900	-.810	-.01740	-.09986	.17544	.07536	.00588	-.00285	.00904	-.23110	-.21286
1.900	.221	-.01693	-.05683	.17386	.07013	.00568	-.00300	.00911	-.23115	-.21027
1.900	1.238	-.01616	-.01585	.17090	.06454	.00549	-.00302	.00842	-.22603	-.20516
1.900	2.286	-.01717	.02711	.16732	.05920	.00530	-.00298	.00931	-.22077	-.19989
1.900	4.404	-.01740	.11294	.15931	.04785	.00479	-.00298	.00951	-.21014	-.18922
1.900	6.483	-.01793	.19385	.15527	.03780	.00441	-.00269	.00899	-.21276	-.19184
1.900	8.567	-.01767	.27744	.14955	.03008	.00475	-.00282	.00919	-.20478	-.18911
1.900	12.696	-.01686	.43389	.13829	.02108	.00528	-.00335	.01032	-.20484	-.18126
1.900	16.862	-.01609	.59995	.12937	.01737	.00530	-.00348	.01003	-.21551	-.19991
1.900	21.133	-.01713	.76865	.11738	.01291	.00571	-.00354	.01131	-.20492	-.18399
1.900	22.438	-.01708	.82163	.11139	.01245	.00591	-.00340	.01073	-.19167	-.17334
	GRADIENT	.00003	.04144	-.00247	-.00521	-.00017	-.00003	.00015	.00206	.00237

LA-8A LARC UPWT 1034 NAR D99B-MOD. NOSE ORBITER (RP6108) (17 SEP 73)

REFERENCE DATA

SREF = 138.1808 SQ.IN. XMRP = 18.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 1.000 K/L = .000

RUN NO. 16/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.854	3.03602	-.27166	.19160	.11913	.00537	.00326	-.06033	-.27369	-.24733
1.600	-1.776	3.03639	-.16905	.18763	.10326	.00418	.00191	-.05570	-.27113	-.24740
1.600	-.739	3.03479	-.11685	.18570	.09479	.00386	.00171	-.05333	-.26837	-.24726
1.600	.319	3.03705	-.06664	.18416	.08682	.00335	.00149	-.05483	-.26824	-.24974
1.600	1.366	3.03666	-.02015	.18263	.07971	.00276	.00097	-.05249	-.27090	-.25241
1.600	2.416	3.03623	.03026	.18192	.07157	.00262	.00046	-.05015	-.27621	-.25512
1.600	4.535	3.03653	.12925	.17737	.05935	.00216	-.00048	-.04696	-.27900	-.25793
1.600	6.624	3.03739	.22918	.17230	.04481	.00221	-.00136	-.04382	-.27904	-.25533
1.600	8.734	3.03738	.32547	.16580	.03339	.00208	-.00221	-.04138	-.26861	-.23962
1.600	12.876	3.03913	.51331	.13780	.01192	.00164	-.00279	-.04102	-.18973	-.16840
1.600	17.073	3.04920	.69601	.10622	.00289	.00211	-.00695	-.03574	-.13482	-.05546
1.600	19.105	3.05499	.77892	.08740	.00245	.00233	-.01072	-.02760	-.07995	.01267
	GRADIENT	.00008	.04765	-.00162	-.00721	-.00039	-.00042	.00148	-.00077	-.00143

RUN NO. 18/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.964	3.05216	-.23483	.17920	.08954	.00453	.00242	-.05467	-.23125	-.20510
1.900	-1.861	3.05193	-.14684	.17447	.07720	.00399	.00124	-.05002	-.22861	-.19980
1.900	-.831	3.05151	-.10179	.17138	.07284	.00360	.00112	-.04913	-.22605	-.19460
1.900	.217	3.05111	-.05892	.16769	.06623	.00340	.00060	-.04680	-.21288	-.18668
1.900	1.234	3.05102	-.01807	.16491	.05999	.00294	.00020	-.04523	-.21024	-.18404
1.900	2.271	3.05206	.02310	.16203	.05661	.00281	-.00010	-.04518	-.21020	-.18399
1.900	4.377	3.05212	.10876	.15745	.04084	.00248	-.00077	-.04277	-.20756	-.18399
1.900	6.454	3.05332	.19004	.15233	.03592	.00234	-.00173	-.04030	-.20496	-.18933
1.900	8.560	3.05215	.27317	.14627	.02675	.00229	-.00168	-.03939	-.20237	-.18144
1.900	12.692	3.05449	.42955	.13489	.01981	.00176	-.00321	-.03608	-.19450	-.17619
1.900	16.872	3.06316	.59435	.12273	.01529	.00230	-.00762	-.02858	-.18914	-.17081
1.900	21.107	3.07380	.76353	.11107	.01159	.00354	-.01315	-.01890	-.17857	-.16285
1.900	22.420	3.07678	.81579	.10846	.01114	.00385	-.01457	-.01664	-.18127	-.16557
	GRADIENT	-.00001	.04113	-.00271	-.00542	-.00026	-.00037	.00140	.00337	.00290

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6109) (17 SEP 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALL = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 30.000
GT-LOC = 1.000 K/L = 3.820

RUN NO. 5/ 9 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.600	-3.866	-.01396	-.26982	.19319	.11442	.00742	-.00313	.00862	-.25712	-.24124
1.600	-1.769	-.01451	-.16355	.19007	.09773	.00744	-.00357	.00879	-.25939	-.24087
1.600	-.724	-.01524	-.11118	.18925	.08993	.00732	-.00381	.01042	-.25198	- 24347
1.600	.330	-.01440	-.06088	.18764	.08275	.00707	-.00384	.00977	-.26420	-.24566
1.600	1.355	-.01400	-.01045	.18578	.07592	.00629	-.00400	.00985	-.25444	-.24592
1.600	2.403	-.01298	.04402	.18312	.06953	.00604	-.00430	.00993	-.26181	-.24328
1.600	4.511	-.01293	.13509	.17845	.05593	.00559	-.00456	.01087	-.26178	-.24325
1.600	6.641	-.01236	.23535	.17341	.04486	.00522	-.00458	.01035	-.25648	-.24058
1.600	8.717	-.01209	.32979	.16852	.03188	.00555	-.00471	.01055	-.25386	-.23531
1.600	12.872	-.01222	.52184	.14178	.00940	.00630	-.00441	.00955	-.17235	-.15883
1.600	16.845	-.014[illegible]	.69115	.10872	.00327	.00716	-.00415	.01088	-.07806	-.03005
1.600	19.119	-.01578	.77948	.08984	.00223	.00743	-.00408	.01195	-.02591	.04328
	GRADIENT	.00067	.04861	-.00174	-.00693	-.00025	-.00017	.00024	-.00059	-.00035

RUN NO. 7/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.900	-3.976	-.01849	-.24730	.18089	.08955	.00639	-.00269	.[illegible]8	-.21117	-.19283
1.900	-1.901	-.01778	-.15718	.17780	.07732	.00620	-.00311	.01039	-.20864	-.19031
1.900	-.839	-.01731	-.11195	.17485	.07140	.00586	-.00325	.01044	-.20645	-.18816
1.900	.196	-.01687	-.06682	.17201	.06625	.00585	-.00339	.01051	-.20422	-.18595
1.900	1.230	-.01758	-.02391	.17005	.05990	.00564	-.00321	.01058	-.19998	-.18442
1.900	2.271	-.01740	.01474	.16771	.05403	.00555	-.00347	.01134	-.19822	-.18272
1.900	4.362	-.01706	.10288	.16214	.04425	.00517	-.00366	.01169	-.20085	-.17986
1.900	6.447	-.01617	.18598	.15910	.03575	.00512	-.00355	.01036	-.20633	-.18009
1.900	8.534	-.01706	.26683	.15574	.02638	.00544	-.00376	.01205	-.20144	-.18052
1.900	12.676	-.01713	.43009	.14665	.01595	.00578	-.00345	.01100	-.19649	-.18085
1.900	16.850	-.01605	.59210	.13637	.01192	.00586	-.00386	.01142	-.20173	-.18875
1.900	21.100	-.01650	.766	.12429	.00727	.00595	-.00369	.01122	-.19638	-.17810
1.900	22.344	-.01610	.811	.11839	.00608	.00602	-.00383	.01134	-.18836	-.16740
	GRADIENT	.00013	.0418	-.00228	-.00547	-.00015	-.00010	.00025	.00157	.00162

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (AP6110) (17 SEP 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 1.000 K/L = 6.820

RUN NO. 6/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.859	3.01531	-.25999	.19082	.11379	.00588	.00333	-.05871	-.25449	-.23598
1.600	-1.739	3.01484	-.16351	.18830	.09670	.00464	.00241	-.05480	-.25722	-.23609
1.600	-.720	3.01475	-.10950	.18628	.08837	.00380	.00201	-.05323	-.25449	-.23598
1.600	.313	3.01405	-.05914	.18439	.08176	.00315	.00177	-.05162	-.25449	-.23598
1.600	1.330	3.01396	-.01290	.18257	.07260	.00282	.00137	-.05007	-.25442	-.23591
1.600	2.407	3.01323	.03755	.18109	.06588	.00256	.00113	-.04845	-.25705	-.23854
1.600	4.529	3.01471	.14036	.17580	.05266	.00203	-.00011	-.04535	-.25435	-.23846
1.600	6.624	3.01675	.23624	.17099	.03915	.00222	-.00110	-.04371	-.25201	-.23350
1.600	8.712	3.01879	.32860	.16474	.02811	.00228	-.00209	-.04211	-.24419	-.22566
1.600	12.872	3.02041	.51478	.13942	.01148	.00298	-.00383	-.03727	-.17089	-.15741
1.600	17.057	3.02965	.69534	.10648	.00154	.00318	-.00876	-.02831	-.09496	-.03134
1.600	19.100	3.03341	.77663	.09012	.00179	.00276	-.01140	-.02232	-.04506	.02923
	GRADIENT	-.00014	.04772	-.00178	-.00731	-.00047	-.00039	.00157	.00002	-.00034

RUN NO 8/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.992	3.01208	-.24993	.17897	.08649	.00471	.00263	-.05299	-.20695	-.18870
1.900	-1.898	3.01068	-.15849	.17643	.07450	.00379	.00175	-.04829	-.20697	-.18872
1.900	-.846	3.01028	-.11564	.17459	.06930	.00347	.00163	-.04743	-.20964	-.18877
1.900	.182	3.01047	-.07291	.17140	.06340	.00308	.00136	-.04661	-.20438	-.18349
1.900	1.219	3.00975	-.02806	.16882	.05825	.00268	.00112	-.04499	-.20440	-.18088
1.900	2.265	3.01083	.01457	.16646	.05148	.00255	.00081	-.04492	-.20187	-.17572
1.900	4.366	3.00994	.10232	.16176	.04246	.00242	.00019	-.04171	-.19663	-.17310
1.900	6.455	3.01233	.18299	.15754	.03107	.00254	-.00068	-.04090	-.19665	-.18103
1.900	8.540	3.01138	.27834	.15351	.02428	.00306	-.00129	-.03769	-.19661	-.18099
1.900	12.674	3.01516	.42613	.14145	.01564	.00304	-.00379	-.03226	-.18601	-.17035
1.900	16.840	3.02419	.58840	.12868	.00865	.00338	-.00807	-.02555	-.17284	-.15714
1.900	21.085	3.03342	.75860	.11610	.00646	.00353	-.01262	-.01804	-.16239	-.14667
1.900	22.349	3.03787	.81084	.11660	.00879	.00350	-.01501	-.01361	-.17828	-.16261
	GRADIENT	-.00020	.04205	-.00216	-.00035	-.00028	-.00028	.00124	.00129	.00220

LA-8A LARC UPWT 1034 NAR 0838-MOD. NO. ORBITER (RP6111) (17 SEP 73)

REFERENCE DATA

SREF = 136.1800 SQ.IN. XMRP = 15.9838 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.3628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 3.000 K/L = 6.820

RUN NO. 9/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.865	-.01535	-.27600	.19195	.11404	.00748	-.00406	.01153	-.26147	-.24293
1.600	-1.790	-.01383	-.17669	.18934	.09756	.00700	-.00491	.01310	-.25985	-.24399
1.600	-.723	-.01312	-.11857	.18822	.09159	.00674	-.00493	.01246	-.26278	-.24452
1.600	.324	-.01415	-.06739	.18580	.08310	.00670	-.00490	.01337	-.26488	-.24640
1.600	1.347	-.01311	-.01615	.18463	.07589	.00659	-.00521	.01347	-.26413	-.24560
1.600	2.359	-.01324	.02839	.18195	.06889	.00647	-.00521	.01359	-.26645	-.24791
1.600	4.515	-.01146	.12934	.17793	.05614	.00596	-.00554	.01300	-.26648	-.24794
1.600	6.621	-.01086	.22707	.17199	.04272	.00551	-.00595	.01391	-.25643	-.24052
1.600	8.777	-.01032	.32756	.16730	.03169	.00553	-.00596	.01340	-.25622	-.23503
1.600	12.894	-.01044	.51385	.14324	.01082	.00647	-.00566	.01240	-.18783	-.17454
1.600	17.045	-.01011	.68911	.10799	.00252	.00812	-.00548	.01142	-.08808	-.02954
1.600	19.575	-.01225	.76840	.09085	.00263	.00819	-.00539	.01324	-.04869	.01787
	GRADIENT	.00038	.04857	-.00170	-.00694	-.00017	-.00015	.00018	-.00079	-.00066

RUN NO. 12/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.976	-.01640	-.24564	.17987	.09193	.00674	-.00341	.01010	-.20893	-.19330
1.900	-1.876	-.01580	-.15396	.17389	.08139	.00648	-.00382	.01103	-.19840	-.18274
1.900	-.815	-.01593	-.10724	.17139	.07513	.00629	-.00382	.01113	-.19581	-.18014
1.900	.203	-.01516	-.06656	.16887	.06995	.00612	-.00385	.01048	-.19265	-.17693
1.900	1.235	-.01555	-.02392	.16459	.06192	.00594	-.00398	.01135	-.18691	-.17380
1.900	2.291	-.01541	.02317	.16269	.05691	.00588	-.00425	.01220	-.18434	-.17121
1.900	4.395	-.01477	.10706	.15958	.04737	.00542	-.00426	.01160	-.19265	-.17693
1.900	6.443	-.01504	.18607	.15729	.03853	.00536	-.00424	.01179	-.20345	-.17985
1.900	8.566	-.01450	.27146	.15345	.03099	.00576	-.00424	.01125	-.20341	-.18245
1.900	12.672	-.01455	.42793	.14146	.02062	.00637	-.00434	.01168	-.19012	-.17176
1.900	16.856	-.01349	.59060	.13221	.01590	.00672	-.00475	.01211	-.19529	-.18222
1.900	21.095	-.01450	.75890	.12240	.01001	.00707	-.00442	.01189	-.19533	-.17962
1.900	22.387	-.01328	.81078	.11705	.01094	.00720	-.00458	.01125	-.19023	-.17187
	GRADIENT	.00018	.04214	-.00251	-.00543	-.00016	-.00010	.00020	.00233	.00216

LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER (RP6112) (17 SEP 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9838 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = -20.000
AILERON = 10.000 RUDFLR = 40.000
GT-LOC = 3.000 K/L = 6.920

RUN NO. 10/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-5.839	3.03458	-.26816	.19087	.11458	.00522	.00265	-.05660	-.26151	-.24297
1.600	-1.786	3.03582	-.16562	.18825	.09733	.00450	.00167	-.05423	-.26157	-.24304
1.600	-.718	3.03597	-.11122	.18625	.09034	.00411	.00140	-.05334	-.26175	-.24322
1.600	.324	3.03439	-.06096	.18518	.08256	.00359	.00119	-.05097	-.26166	-.24315
1.600	1.367	3.03515	-.01257	.18415	.07473	.00333	.00077	-.05015	-.26440	-.24589
1.600	2.382	3.03567	.03178	.18245	.06675	.00274	.00021	-.04860	-.26709	-.24859
1.600	4.523	3.03713	.13465	.17734	.05424	.00234	-.00103	-.04550	-.26178	-.24326
1.600	6.594	3.03800	.22865	.17092	.04199	.00233	-.00211	-.04237	-.25919	-.23804
1.600	8.730	3.03941	.32723	.16477	.03010	.00272	-.00294	-.04074	-.24865	-.22744
1.600	12.674	3.04254	.51132	.13733	.01117	.00343	-.00447	-.03819	-.16479	-.15388
1.600	17.049	3.05322	.69024	.10580	.00178	.00423	-.00879	-.03297	-.10447	-.09027
1.600	19.099	3.05638	.77111	.09049	.00412	.00354	-.01206	-.02397	-.04975	.02980
	GRADIENT	.00021	.04798	-.00155	-.00725	-.00036	-.00042	.00134	-.00033	-.00034

RUN NO. 13/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-5.991	3.03242	-.24067	.17874	.08829	.00446	.00245	-.05391	-.21114	-.19548
1.900	-1.867	3.03130	-.15070	.17449	.07746	.00367	.00169	-.04991	-.20868	-.19300
1.900	-.844	3.03089	-.10764	.17240	.07294	.00334	.00117	-.04755	-.20606	-.19042
1.900	.231	3.03077	-.06286	.16920	.06652	.00307	.00078	-.04598	-.20343	-.18511
1.900	1.224	3.03185	-.02202	.16625	.06031	.00288	.00047	-.04594	-.19550	-.17716
1.900	2.303	3.03025	.02286	.16320	.05445	.00262	.00027	-.04356	-.19018	-.17183
1.900	4.402	3.03234	.10679	.15837	.04368	.00261	-.00073	-.04200	-.19274	-.16909
1.900	6.450	3.03292	.18807	.15341	.03438	.00293	-.00154	-.03960	-.18746	-.17438
1.900	8.557	3.03347	.26943	.14060	.02787	.00325	-.00234	-.03716	-.18766	-.17194
1.900	12.676	3.03784	.42592	.13663	.02027	.00323	-.00460	-.03521	-.17709	-.16135
1.900	16.854	3.04624	.58842	.12328	.01416	.00391	-.00873	-.02645	-.16650	-.14808
1.900	21.107	3.05547	.75745	.11502	.01043	.00451	-.01328	-.01895	-.16116	-.14800
1.900	22.413	3.05727	.81004	.11316	.01008	.00463	-.01480	-.01516	-.17170	-.15594
	GRADIENT	-.00003	.04144	-.00251	-.00539	-.00023	-.00037	.00141	.00275	.00366

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6113) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0168 SCALE

PARAMETRIC DATA

BETA = -3.000 ELEVTR = -20.000
AILRON = 10.000 RUDFLR = 40.000
CT-LOC = 3.000 K/L = 6.820

RUN NO. 11/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.884	-3.05044	-.27298	.19321	.11473	.01011	-.00970	.07580	-.27284	-.24651
1.600	-1.798	-3.04840	-.17045	.19244	.09900	.01032	-.01029	.07592	-.26075	-.25706
1.600	-.720	-3.04737	-.11831	.19159	.09195	.01014	-.01020	.07456	-.26324	-.25694
1.600	.311	-3.04693	-.07005	.18944	.08588	.01029	-.01035	.07469	-.28308	-.25413
1.600	1.356	-3.04649	-.01983	.18685	.07508	.01036	-.01049	.07476	-.28312	-.25417
1.600	2.389	-3.04692	.02660	.18507	.06871	.01017	-.01021	.07413	-.28318	-.25161
1.600	4.517	-3.04512	.12695	.17920	.05458	.00955	-.00974	.07059	-.28124	-.25431
1.600	6.611	-3.04632	.22475	.17296	.04267	.00938	-.00929	.07011	-.27025	-.23867
1.600	8.730	-3.04728	.32276	.16794	.03149	.00987	-.00851	.06744	-.25724	-.23612
1.600	10.717	-3.04814	.40943	.16066	.02260	.00944	-.00735	.06474	-.25207	-.23095
1.600	17.047	-3.05970	.68313	.10705	.00347	.01211	-.00159	.05534	-.09197	-.03856
1.600	19.101	-3.06420	.76395	.09022	.00291	.01278	.00193	.04699	-.04354	.01541
	GRADIENT	.00057	.04749	-.00171	-.00722	-.00005	-.00001	-.00055	-.00105	-.00040

RUN NO. 14/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.950	-3.07222	-.23836	.18164	.08796	.00896	-.00943	.07790	-.22979	-.20362
1.900	-1.888	-3.07104	-.15258	.17919	.07693	.00918	-.00920	.07586	-.23235	-.20353
1.900	-.832	-3.06834	-.10570	.17645	.07068	.00938	-.00940	.07437	-.22977	-.20360
1.900	.218	-3.05029	-.06262	.17409	.06689	.00933	-.00912	.07375	-.22715	-.20097
1.900	1.227	-3.04954	-.01978	.17278	.06085	.00941	-.00874	.07158	-.22719	-.19837
1.900	2.265	-3.04994	.02107	.17010	.05531	.00909	-.00845	.07092	-.22727	-.19847
1.900	4.368	-3.04928	.10466	.16534	.04517	.00853	-.00768	.06737	-.22994	-.20116
1.900	6.455	-3.04987	.19150	.15751	.03499	.00856	-.00699	.06541	-.20882	-.18789
1.900	8.567	-3.05047	.27268	.15122	.02638	.00879	-.00629	.06343	-.19826	-.18522
1.900	12.668	-3.05208	.42722	.14176	.01870	.01026	-.00499	.06023	-.19826	-.18522
1.900	16.851	-3.06213	.59083	.12890	.01408	.00970	-.00048	.05372	-.18777	-.17734
1.900	21.079	-3.07132	.75832	.11369	.00814	.00941	.00518	.04201	-.17201	-.15626
1.900	22.413	-3.07655	.81061	.11204	.00769	.00958	.00751	.03869	-.18515	-.16416
	GRADIENT	.00351	.04137	-.00200	-.00514	-.00004	.00021	-.00126	.00028	.00058

LA-8A LARC LPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6114) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.5638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 93/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.833	-.01283	-.16905	.16805	.05405	-.00006	-.00577	.01576	-.24407	-.22035
1.600	-1.741	-.01293	-.07063	.16425	.03879	.00002	-.00559	.01455	-.24038	-.21130
1.600	-.697	-.01326	-.02227	.16227	.03005	.00016	-.00548	.01471	-.23393	-.20210
1.600	.345	-.01402	.03041	.15957	.02156	.00037	-.00535	.01488	-.22797	-.18543
1.600	1.384	-.01359	.07911	.15776	.01459	.00044	-.00548	.01493	-.21300	-.17846
1.600	2.427	-.01345	.12713	.15554	.00894	.00064	-.00532	.01422	-.20439	-.17791
1.600	4.547	-.01497	.22948	.15236	-.00763	.00184	-.00537	.01596	-.20505	-.18124
1.600	6.637	-.01349	.32144	.14867	-.02213	.00105	-.00542	.01463	-.20751	-.18369
1.600	8.742	-.01354	.41598	.14493	-.03300	.00126	-.00527	.01414	-.20468	-.18610
1.600	12.884	-.01484	.60307	.12670	-.05326	.00186	-.00547	.01617	-.14095	-.13005
1.600	16.847	-.01527	.77236	.09740	-.06304	.00214	-.00529	.01595	-.07786	.00434
	GRADIENT	-.00024	.04759	-.00173	-.00742	.00012	.00005	.00001	.00566	.00561

RUN NO. 59/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.940	.00494	-.15220	.15929	.03863	.00035	-.00511	.01442	-.20596	-.18770
1.900	-1.849	.00406	-.06601	.15656	.02825	.00049	-.00500	.01465	-.20600	-.17980
1.900	-.806	.00509	-.02291	.15469	.02301	.00056	-.00492	.01320	-.20372	-.16698
1.900	.228	.00496	.01996	.15009	.01643	.00064	-.00494	.01330	-.18254	-.16159
1.900	1.260	.00483	.06085	.14854	.01090	.00064	-.00493	.01336	-.19028	-.15937
1.900	2.304	.00378	.10557	.14684	.00506	.00077	-.00487	.01425	-.17536	-.15170
1.900	4.389	.00380	.18704	.14382	-.00517	.00092	-.00472	.01368	-.17566	-.15743
1.900	6.461	.00290	.26961	.14232	-.01424	.00112	-.00454	.01392	-.18371	-.16552
1.900	8.558	.00251	.35066	.14167	-.02212	.00120	-.00452	.01414	-.19677	-.17861
1.900	12.699	.00490	.50595	.13564	-.03085	.00154	-.00486	.01304	-.20931	-.18849
1.900	16.676	.00272	.67164	.12693	-.03752	.00176	-.00463	.01439	-.20352	-.18527
1.900	21.115	.00229	.84100	.10630	-.04125	.00153	-.00406	.01271	-.14521	-.11883
1.900	22.108	.00093	.87788	.10374	-.04054	.00154	-.00373	.01289	-.14259	-.11091
	GRADIENT	-.00012	.04083	-.00200	-.00535	.00007	.00004	-.00008	.00471	.00398

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6115) (20 JUN 73)

REFERENCE DATA

SREF = 136.1806 SQ.IN. XMRP = 15.9636 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.620

RUN NO. 54/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.822	3.03865	-.16770	.16267	.05755	-.00235	-.00044	-.04885	-.22727	-.20807
1.600	-1.730	3.03661	-.06483	.16131	.03704	-.00255	-.00062	-.04560	-.22209	-.19033
1.600	-.690	3.03706	-.01434	.16028	.02973	-.00274	-.00100	-.04543	-.21966	-.18528
1.600	.353	3.03695	.03206	.15980	.02139	-.00286	-.00102	-.04538	-.21978	-.18804
1.600	1.395	3.03531	.08461	.15938	.01484	-.00293	-.00122	-.04297	-.22244	-.19335
1.600	2.435	3.03519	.12917	.15901	.00691	-.00293	-.00161	-.04141	-.22499	-.19853
1.600	4.549	3.03605	.23004	.15799	-.00787	-.00280	-.00230	-.03974	-.23291	-.21438
1.600	6.646	3.03687	.33215	.15312	-.02152	-.00248	-.00297	-.03607	-.23816	-.21701
1.600	8.739	3.03591	.42291	.14621	-.03340	-.00171	-.00350	-.03486	-.21449	-.19590
1.600	12.897	3.03679	.60717	.12758	-.05315	-.00222	-.00453	-.03224	-.16712	-.13786
1.600	16.861	3.04637	.77671	.09914	-.06085	-.00239	-.00856	-.02697	-.10144	-.01403
	GRADIENT	-.00034	.04733	-.00055	-.00731	-.00006	-.00021	.00108	-.00071	-.00132

RUN NO. 60/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.943	3.01836	-.15226	.15361	.03634	-.00190	-.00126	-.04833	-.18762	-.16402
1.900	-1.870	3.01663	-.06819	.15123	.02509	-.00204	-.00092	-.04437	-.18493	-.16132
1.900	-.810	3.01620	-.02317	.15035	.02006	-.00224	-.00107	-.04351	-.18757	-.16132
1.900	.226	3.01636	.01990	.14997	.01487	-.00224	-.00136	-.04267	-.18762	-.16667
1.900	1.248	3.01565	.05895	.14961	.00918	-.00224	-.00160	-.04105	-.19298	-.17206
1.900	2.288	3.01696	.10399	.14934	.00403	-.00210	-.00177	-.04174	-.19824	-.17733
1.900	4.400	2.95711	.18595	.14841	-.00547	-.00191	.01309	-.03596	-.21148	-.18532
1.900	6.477	3.01728	.26721	.14648	-.01554	-.00198	-.00296	-.03764	-.22209	-.19332
1.900	8.559	3.01638	.34887	.14288	-.02277	-.00199	-.00386	-.03371	-.21965	-.19061
1.900	12.705	3.01757	.50745	.13270	-.03097	-.00271	-.00481	-.03109	-.19822	-.17731
1.900	16.870	3.02739	.67212	.12081	-.03912	-.00171	-.00953	-.02362	-.17444	-.16140
1.900	21.119	3.03729	.83724	.10530	-.04037	-.00276	-.01547	-.01166	-.14011	-.12168
1.900	22.128	3.03902	.86787	.10654	-.03677	-.00481	-.01755	-.00568	-.14813	-.12973
	GRADIENT	-.00562	.04067	-.00058	-.00503	-.00020	.00117	.00131	-.00292	-.00292

LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER (R76116) (20 JUN 73)

REFERENCE DATA

SREF = 136.1908 SQ.IN. XMRP = 15.9638 INCHES
LREF = 9.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5826 INCHES ZMRP = .0000 INCHES
SCALE = .0100 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = -10.000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.620

RUN NO. 27/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.826	.00704	-.20622	.17290	.06886	.00020	-.00542	.01293	-.25442	-.22803
1.600	-1.736	.00555	-.10679	.16891	.07225	.00048	-.00507	.01319	-.24735	-.21605
1.600	-.696	.00601	-.05639	.16883	.06343	.00042	-.00522	.01328	-.24427	-.21525
1.600	.346	.00648	-.01167	.16787	.05607	.00056	-.00496	.01106	-.24753	-.21359
1.600	1.389	.00715	.04078	.16592	.04872	.00069	-.00496	.01118	-.24828	-.21151
1.600	2.432	.00615	.08531	.16376	.04084	.00077	-.00493	.01207	-.24526	-.21106
1.600	4.545	.00702	.18433	.15848	.02596	.00098	-.00522	.01228	-.23446	-.21074
1.600	6.648	.00635	.28449	.15639	.01459	.00136	-.00491	.01179	-.23735	-.21892
1.600	8.780	.00571	.38397	.15112	.00103	.00176	-.00499	.01278	-.22750	-.20906
1.600	12.869	.00563	.56797	.12586	-.02212	.00232	-.00510	.01322	-.14855	-.12463
1.600	16.843	.00579	.73596	.09587	-.03140	.00267	-.00508	.01298	-.07974	-.01347
	GRADIENT	.00005	.04672	-.00166	-.00748	.00009	.00003	-.00016	.00181	.00196

RUN NO. 33/ 0 RN/L = 1.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.954	.00399	-.19310	.16370	.06427	.00027	-.00519	.01520	-.21051	-.19237
1.900	-1.888	.00365	-.10299	.16071	.05470	.00048	-.00517	.01545	-.21039	-.19224
1.900	-.815	.00234	-.06197	.15992	.04849	.00062	-.00485	.01580	-.21039	-.18959
1.900	.211	.00367	-.02080	.15723	.04299	.00076	-.00503	.01490	-.21035	-.18424
1.900	1.245	.00294	.02219	.15425	.03766	.00083	-.00486	.01904	-.20507	-.17364
1.900	2.294	.00201	.06502	.14938	.02951	.00103	-.00485	.01513	-.18659	-.16306
1.900	4.381	.00253	.14714	.14823	.01926	.00111	-.00483	.01533	-.18132	-.16044
1.900	6.463	.00253	.23052	.14375	.01047	.00125	-.00468	.01480	-.18656	-.16369
1.900	8.562	.00225	.31007	.13908	.00126	.00139	-.00466	.01501	-.19179	-.16296
1.900	12.694	.00216	.46902	.13138	-.00688	.00160	-.00476	.01547	-.19441	-.17090
1.900	16.860	.00145	.63354	.12120	-.01298	.00202	-.00471	.01598	-.18652	-.17094
1.900	21.102	-.00131	.80010	.10496	-.01966	.00193	-.00391	.01584	-.15479	-.13117
1.900	22.110	-.00263	.83697	.10105	-.01897	.00147	-.00360	.01602	-.14686	-.12057
	GRADIENT	-.00016	.04073	-.00225	-.00552	.00011	.00005	-.00002	.00388	.00462

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6117) (20 JUN 73)

REFERENCE DATA

SREF = 136.1806 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = -10.000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 28/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.641	3.02104	-.21156	.16910	.08716	-.00215	.00007	-.05290	-.23450	-.21809
1.600	-1.742	3.01897	-.10461	.16645	.07203	-.00247	-.00024	-.04918	-.22692	-.20847
1.600	-.721	3.01861	-.06606	.16559	.06349	-.00273	-.00037	-.04831	-.22731	-.20625
1.600	.327	3.01671	-.01586	.16474	.05396	-.00279	-.00029	-.04664	-.22742	-.20374
1.600	1.374	3.01744	.03840	.16395	.04621	-.00292	-.00072	-.04583	-.23255	-.20625
1.600	2.424	3.01761	.08293	.16388	.03832	-.00285	-.00098	-.04504	-.23757	-.21390
1.600	4.526	3.01670	.18008	.16281	.0253	-.00266	-.00160	-.04185	-.24796	-.22694
1.600	6.645	3.01720	.28607	.15756	.01175	-.00221	-.00239	-.03941	-.25062	-.22961
1.600	8.734	3.01773	.37464	.15151	-.00072	-.00150	-.00279	-.03649	-.24537	-.22171
1.600	12.875	3.01741	.56047	.12541	-.02164	-.00163	-.00382	-.03432	-.16673	-.14022
1.600	16.844	3.02753	.73349	.09851	-.03034	-.00114	-.00759	-.03055	-.10633	-.03514
	GRADIENT	-.00048	.04662	-.00073	-.00756	-.00007	-.00019	.00122	-.00184	-.00101

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6118) (20 JUN 73)

REFERENCE DATA

SREF = 136.1806 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = -10.000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 34/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.954	3.03750	-.19565	.15740	.06121	-.00204	-.00025	-.04915	-.18381	-.17087
1.900	-1.865	3.03457	-.10940	.15305	.05052	-.00217	-.00054	-.04510	-.17325	-.16029
1.900	-.830	3.03384	-.06627	.15148	.04516	-.00224	-.00077	-.04347	-.17597	-.15506
1.900	.210	3.03339	-.02112	.15018	.04070	-.00230	-.00088	-.04260	-.17859	-.14973
1.900	1.238	3.03357	.01983	.14866	.03377	-.00230	-.00115	-.04147	-.17866	-.14981
1.900	2.278	3.03284	.06101	.14783	.02897	-.00230	-.00139	-.04015	-.1812	-.15243
1.900	4.377	3.03313	.14720	.14600	.01838	-.00204	-.00192	-.03848	-.191	-.16564
1.900	6.480	3.03314	.23049	.14400	.00819	-.00192	-.00258	-.03606	-.20503	-.17625
1.900	8.555	3.03345	.30816	.14054	-.00050	-.00166	-.00351	-.03292	-.21028	-.18150
1.900	12.692	3.03668	.46694	.12757	-.00801	-.00251	-.00468	-.03187	-.17854	-.16029
1.900	16.855	3.04443	.62984	.11624	-.01492	-.00138	-.00615	-.02354	-.16601	-.15503
1.900	21.103	3.05307	.79712	.09987	-.01804	-.00133	-.01427	-.01299	-.13364	-.11526
1.900	22.152	3.05717	.82639	.10255	-.01994	-.00371	-.01739	-.00563	-.15211	-.13177
	GRADIENT	-.00049	.04117	-.00135	-.00517	-.00021	-.00027	.00124	-.00116	-.00096

LA-8A LARC UPWT 1034 NAR 0898-#3D. NOSE ORBITER (RP6119) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 ELEVTR = -10.000
AILRON = 10.000 RUDFLR = 40.000
CT-LOC = 2.000 K/L = 6.820

RUN NO. 40/ 0 RN/L = 1.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.853	-.01737	-.22010	.17265	.06486	.00736	-.00455	.01533	-.24638	-.22260
1.600	-1.770	-.01680	-.11874	.17012	.06892	.00760	-.00462	.01497	-.23969	-.21589
1.600	-.713	-.01753	-.06824	.16896	.06194	.00754	-.00449	.01525	-.23709	-.21287
1.600	.328	-.01683	-.01616	.16800	.05368	.00757	-.00481	.01574	-.23687	-.20991
1.600	1.361	-.01576	.02842	.16649	.04617	.00749	-.00474	.01439	-.23986	-.21076
1.600	2.426	-.01623	.08712	.16459	.03874	.00731	-.00486	.01550	-.24217	-.20774
1.600	4.544	-.01592	.18448	.16094	.02423	.00712	-.00499	.01549	-.23440	-.21320
1.600	6.636	-.01442	.28236	.15750	.01253	.00646	-.00504	.01414	-.24053	-.21941
1.600	8.731	-.01417	.38236	.15257	-.00108	.00666	-.00516	.01434	-.22779	-.21193
1.600	12.880	-.01454	.58450	.12357	-.02446	.00733	-.00538	.01553	-.13582	-.11707
1.600	16.846	-.01292	.75437	.09629	-.03145	.00767	-.00554	.01449	-.07260	-.00618
	GRADIENT	.00020	.04828	-.00137	-.00723	-.00004	-.00006	.00001	.00092	.00127

RUN NO. 46/ 0 RN/L = 1.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.972	.00409	-.21333	.16548	.06485	.00675	-.00402	.01075	-.20179	-.18356
1.900	-1.879	.00472	-.12749	.16295	.05421	.00651	-.00404	.01018	-.19903	-.18343
1.900	-.822	.00384	-.07835	.16166	.05012	.00671	-.00399	.01110	-.19801	-.18076
1.900	.150	.00501	-.03935	.16029	.04439	.00652	-.00417	.01038	-.19913	-.17825
1.900	1.253	.00422	.01550	.15784	.03870	.00659	-.00400	.01055	-.19915	-.17296
1.900	2.281	.00526	.05845	.15548	.03335	.00659	-.00430	.01060	-.19402	-.16765
1.900	4.361	.00570	.13200	.15084	.02024	.00594	-.00445	.01072	-.18686	-.16268
1.900	6.451	.00567	.22884	.14696	.01128	.00562	-.00431	.01022	-.18361	-.16271
1.900	8.542	.00657	.30834	.14307	.00262	.00596	-.00480	.01038	-.18609	-.16254
1.900	12.688	.00715	.45668	.13542	-.00831	.00657	-.00486	.01076	-.19398	-.16780
1.900	16.858	.00757	.62924	.12472	-.01438	.00698	-.00510	.01124	-.18332	-.16239
1.900	21.089	.00863	.79928	.10982	-.02139	.00706	-.00512	.01019	-.15434	-.13334
1.900	22.385	.00784	.84957	.10419	-.02153	.00674	-.00495	.01038	-.14362	-.11749
	GRADIENT	.00018	.04224	-.00177	-.00530	-.00007	-.00005	.00000	.00141	.00280

LA-6A LARC UPWT 1034 NAR 0698-MOD. NOSE ORBITER (RP6120) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVTR = -10.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 41/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-3.836	3.01692	-.21412	.17152	.08520	.00521	.00114	-.05229	-.23339	-.22020
1.600	-1.762	3.01578	-.11312	.16851	.06951	.00462	.00078	-.04973	-.22605	-.20760
1.600	-.697	3.01446	-.06269	.16725	.06205	.00442	.00070	-.04807	-.22362	-.20517
1.600	.338	3.01435	-.01250	.16625	.05525	.00410	.00031	-.04651	-.22613	-.20505
1.600	1.374	3.01365	.03203	.16569	.04605	.00391	.00007	-.04495	-.23111	-.20739
1.600	2.415	3.01437	.08451	.16551	.03950	.00377	-.00035	-.04411	-.23640	-.21533
1.600	4.533	3.01496	.18717	.16366	.02490	.00344	-.00116	-.04169	-.24438	-.22568
1.600	6.640	3.01764	.27922	.15948	.01143	.00331	-.00231	-.04013	-.24442	-.22865
1.600	8.744	3.01764	.37745	.15351	-.00162	.00311	-.00297	-.03770	-.24172	-.22567
1.600	12.862	3.02031	.56113	.12732	-.02136	.00226	-.00438	-.03514	-.16576	-.13925
1.600	16.836	3.02864	.73245	.09882	-.03091	.00326	-.00808	-.02994	-.10018	-.02877
	GRADIENT	-.00026	.04773	-.00089	-.00723	-.00021	-.00028	.00129	-.00165	-.00093

LA-8A LARC UPWT 1034 NAR 0698-MOD. NOSE ORBITER (RP6121) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = -3.000 ELEVTR = -10.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 47/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-3.970	-3.05082	-.21285	.16761	.06638	.00943	-.00965	.07631	-.21250	-.18638
1.900	-1.872	-3.04818	-.12303	.16522	.05535	.00965	-.00820	.07195	-.21256	-.18361
1.900	-.831	-3.04775	-.07998	.16360	.05072	.00979	-.00894	.07053	-.21264	-.18125
1.900	.218	-3.04707	-.02722	.16221	.04488	.01007	-.00856	.06843	-.20733	-.18121
1.900	1.237	-3.04625	.02370	.16089	.03850	.00988	-.00859	.06772	-.20994	-.18383
1.900	2.275	-3.04579	.05237	.15988	.03226	.00957	-.00834	.06632	-.21262	-.18387
1.900	4.366	-3.04517	.13797	.15637	.02027	.00959	-.00796	.06427	-.21262	-.18387
1.900	6.460	-3.04634	.22287	.15166	.01097	.00955	-.00711	.06230	-.21090	-.18389
1.900	8.542	-3.04662	.30407	.14832	.00125	.00972	-.00629	.05958	-.20727	-.18378
1.900	12.685	-3.04859	.47057	.13659	-.00690	.01125	-.00511	.05717	-.19145	-.17585
1.900	16.842	-3.05739	.62810	.12324	-.01559	.01062	-.00092	.05058	-.17827	-.16528
1.900	21.102	-3.06804	.8[illegible]54	.10583	-.02300	.00995	.00494	.03968	-.14664	-.12298
1.900	22.394	-3.07306	.84639	.10473	-.02004	.01124	.00821	.03264	-.14927	-.12627
	GRADIENT	.00066	.04205	-.00134	-.00556	.00021	.00120	-.00142	.00005	.00017

LA-8A LARC UPWT 1054 NAR 0698-MOD. NOSE ORBITER (RP6122) (20 JUN 73)

REFERENCE DATA

SREF = 136.1608 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0168 SCALE

PARAMETRIC DATA

ALPHA = .000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 55/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.094	.33578	.03023	.16708	.01761	.00790	-.01803	.13453	-.20053	-.24638
1.600	-4.030	.34055	.02904	.16391	.02065	.00909	-.01198	.09366	-.24647	-.21749
1.600	-2.026	.34395	.03347	.15976	.02110	.00254	-.00837	.05350	-.22263	-.19641
1.600	.006	.34947	.03021	.15981	.02209	.00043	-.00522	.01324	-.22870	-.18588
1.600	2.000	.35106	.03092	.15949	.02272	-.00188	-.00252	-.02528	-.21739	-.18567
1.600	4.071	.34276	.03133	.15963	.02055	-.00392	.00051	-.06281	-.22528	-.19619
1.600	6.084	.33616	.03151	.15940	.01832	-.00686	.00420	-.10451	-.23657	-.20936
1.600	8.113	.34257	.03352	.15795	.01350	-.00888	.00770	-.14704	-.25696	-.22801
	GRADIENT	.00056	.00010	-.00044	.00005	-.00111	.00152	-.01926	.00235	.00262

RUN NO. 61/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.117	.22025	.01586	.15779	.01226	.00728	-.01427	.13257	-.23518	-.211[illegible]
1.900	-4.089	.22512	.01667	.15567	.01518	.00908	-.01081	.09134	-.21670	-.195[illegible]
1.900	-2.008	.22707	.01734	.15408	.01633	.00283	-.00748	.05084	-.20068	-.1799[illegible]
1.900	.005	.23128	.01993	.15044	.01574	.00077	-.00494	.01331	-.18242	-.16147
1.900	2.019	.22305	.02057	.14951	.01498	-.00117	-.00253	-.02347	-.17983	-.16152
1.900	4.053	.21473	.01724	.15068	.01456	-.00317	-.00004	-.06176	-.19313	-.17487
1.900	6.083	.21628	.01754	.15084	.01235	-.00567	.00328	-.10229	-.20626	-.18274
1.900	8.170	.21586	.01790	.15383	.00731	-.00817	.00693	-.14592	-.23522	-.21971
	GRADIENT	-.00122	.00002	-.00072	-.00113	-.00101	.00130	-.01874	.00336	.00298

LA-8A LARC UPWT 1034 NAR 0098-MOD. NOSE ORBITER (RP6123) (20 JUN 73)

REFERENCE DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES
SCALE =	.0188 SCALE		

PARAMETRIC DATA

ALPHA =	5.000	ELEVTR =	.000
AILRON =	.000	RUDFLR =	40.000
GT-LOC =	2.000	K/L =	6.820

RUN NO. 56/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.114	5.58040	.27241	.16450	-.01575	.01024	-.01393	.12772	-.27807	-.25445
1.600	-4.050	5.59387	.27475	.16121	-.01502	.00672	-.01031	.08835	-.25441	-.23334
1.600	-2.029	5.60148	.27694	.15443	-.01429	.00324	-.00705	.05118	-.22315	-.20200
1.600	-.014	5.60465	.27951	.14979	-.01418	.00098	-.00539	.01532	-.21489	-.17844
1.600	2.040	5.60283	.27817	.15367	-.01442	-.00122	-.00374	-.02054	-.22064	-.19949
1.600	4.073	5.59969	.27652	.15680	-.01543	-.00431	-.00125	-.05781	-.24687	-.22318
1.600	6.063	5.59743	.27475	.15779	-.01716	-.00771	.00196	-.09574	-.28521	-.23631
1.600	8.129	5.59126	.27312	.15936	-.01888	-.01093	.00500	-.13452	-.28606	-.26247
	GRADIENT	.00064	.00023	-.00047	-.00005	-.00131	.00105	-.01792	.00085	.00110

RUN NO. 62/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.117	5.42823	.22655	.15317	-.01238	.00870	-.01194	.12411	-.23268	-.22247
1.900	-4.072	5.44745	.22712	.15194	-.01037	.00592	-.00895	.08665	-.21956	-.20932
1.900	-2.010	5.44723	.22558	.14945	-.01067	.00302	-.00592	.04692	-.20898	-.19341
1.900	.004	5.44554	.22455	.14284	-.00948	.00105	-.00473	.01384	-.17730	-.16164
1.900	2.000	5.44160	.22534	.14601	-.01163	-.00064	-.00355	-.01927	-.21148	-.18992
1.900	4.091	5.44207	.22585	.14844	-.01173	-.00337	-.00134	-.05686	-.22469	-.19593
1.900	6.064	5.44103	.22821	.14900	-.01310	-.00642	.00104	-.09366	-.23732	-.20649
1.900	8.113	5.44292	.23050	.14948	-.01375	-.00940	.00348	-.13272	-.24585	-.22509
	GRADIENT	-.00080	-.00014	-.00051	-.00018	-.00109	.00087	-.01737	-.00063	.00197

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6124) (2 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
CT-LOC = 2.000 K/L = 6.820

RUN NO. 57/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.600	-6.121	10.81405	.51095	.15424	-.04409	.01062	-.00912	.11754	-.26510	-.24671
1.600	-4.073	10.81929	.51100	.14894	-.04425	.00705	-.00746	.08245	-.23909	-.22063
1.600	-2.029	10.81970	.51119	.14102	-.04432	.00408	-.00594	.04728	-.20002	-.18408
1.600	.004	10.82098	.51404	.13914	-.04422	.00185	-.00520	.01516	-.18685	-.17087
1.600	2.038	10.81182	.51096	.13756	-.04499	-.00031	-.00471	-.01550	-.18934	-.16811
1.600	4.073	10.80454	.50812	.13771	-.04292	-.00206	-.00332	-.05062	-.20767	-.17599
1.600	6.048	10.81358	.50678	.14136	-.04327	-.00550	-.00215	-.08661	-.24156	-.19945
1.600	8.140	10.81977	.51101	.14572	-.04376	-.00894	-.00142	-.12183	-.27044	-.23105
	GRADIENT	-.00184	-.00010	-.00127	.00010	-.00111	.00047	-.01615	.00362	.00517

RUN NO. 83/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CFB	CFC
1.900	-6.105	10.62779	.42671	.14298	-.02834	.01013	-.00644	.11089	-.22213	-.21188
1.900	-4.056	10.63129	.42740	.14122	-.02775	.00718	-.00571	.07851	-.21156	-.19864
1.900	-2.029	10.63320	.42558	.14032	-.02804	.00397	-.00505	.04450	-.19851	-.19085
1.900	.002	10.63564	.42661	.13934	-.02673	.00128	-.00452	.01443	-.20106	-.18547
1.900	2.018	10.63224	.42533	.13678	-.02838	-.00103	-.00446	-.01577	-.19842	-.17487
1.900	4.055	10.64435	.42824	.13769	-.02691	-.00386	-.00422	-.04902	-.21418	-.18803
1.900	6.107	10.62960	.42669	.13992	-.02856	-.00636	-.00419	-.07998	-.23535	-.20134
1.900	8.123	10.63605	.43079	.14092	-.03047	-.00975	-.00348	-.11622	-.25122	-.21991
	GRADIENT	.00124	.00007	-.00053	.00007	-.00134	.00018	-.01556	-.00026	.00183

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6123) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 15.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 58/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.142	16.09280	.73609	.10771	-.06192	.00978	.00011	.10475	-.10880	-.08725
1.600	-4.065	16.09003	.73494	.11001	-.05860	.00783	-.00240	.07497	-.11432	-.06644
1.600	-2.035	16.09896	.74299	.10506	-.06221	.00485	-.00398	.04616	-.09865	-.03756
1.600	.003	16.09737	.74167	.10268	-.06386	.00240	-.00542	.01660	-.08[illegible]3	-.01384
1.600	2.023	16.09475	.73893	.10379	-.06156	-.00083	-.00630	-.01364	-.11644	-.02941
1.600	4.064	16.09482	.73815	.10464	-.05905	-.00395	-.00687	-.04030	-.09833	-.05302
1.600	6.124	16.09490	.73904	.10545	-.05979	-.00590	-.01138	-.07005	-.11674	-.06885
1.600	8.144	16.09867	.74291	.10605	-.06376	-.00892	-.01218	-.10567	-.13793	-.09274
	GRADIENT	.00026	.00012	-.00059	-.00001	-.00144	-.00775	-.01429	.00068	.00172

RUN NO. 64/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.122	15.89057	.63186	.12728	-.03996	.01047	.00115	.10038	-.21418	-.20126
1.900	-4.088	15.89226	.63007	.12823	-.03745	.00690	.00048	.06769	-.21433	-.19349
1.900	-1.997	15.89019	.63511	.13152	-.03719	.00429	-.00254	.04091	-.21427	-.19607
1.900	-.016	15.89559	.62986	.12944	-.03635	.00195	-.00475	.01499	-.20646	-.18560
1.900	2.022	15.89435	.63059	.12723	-.03644	-.00078	-.00645	-.01314	-.19594	-.18004
1.900	4.085	15.90053	.63170	.12413	-.03721	-.00314	-.01002	-.03849	-.19324	-.17234
1.900	6.104	15.89928	.63267	.12719	-.03875	-.00612	-.01164	-.06022	-.21158	-.19866
1.900	8.141	15.89477	.63452	.12575	-.04234	-.01050	-.01054	-.10912	-.21420	-.20657
	GRADIENT	.00053	-.00006	-.00061	.00006	-.00123	-.00122	-.01308	.00297	.00284

LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSF ORBITER (RP6126) (20 JUN 73)

REFERENCE DATA

SREF = 136.1608 SQ.IN. XMRP = 15.8638 INCHE
LREF = 6.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = .000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 65/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.184	21.10125	.84139	.10924	-.05083	.01090	.01188	.08411	-.18799	-.17765
1.900	-4.066	21.10585	.84025	.11045	-.04766	.00726	.01021	.04981	-.17478	-.16441
1.900	-2.048	21.11726	.83959	.10632	-.04303	.00394	.00321	.03086	-.14581	-.12742
1.900	-.017	21.11302	.83911	.10664	-.04257	.00159	-.00405	.01267	-.14573	-.11941
1.900	2.031	21.11487	.83855	.10618	-.04211	-.00095	-.01110	-.00396	-.14304	-.11670
1.900	4.061	21.11871	.83191	.10902	-.03805	-.00534	-.01948	-.01851	-.15359	-.13786
1.900	6.125	21.11433	.83154	.10534	-.04314	-.00918	-.02158	-.03215	-.15633	-.15119
1.900	8.160	21.10681	.83153	.10149	-.04408	-.01373	-.01976	-.09442	-.14578	-.14326
	GRADIENT	.00153	-.00087	-.00024	.00099	-.00147	-.00361	-.00840	.00221	.00312

LA-8A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RP6127) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = .000 ELEVTR = -10.000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.620

RUN NO. 29/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.111	.32586	-.01577	.17144	.04834	.00793	-.01647	.13446	-.28759	-.25092
1.800	-4.065	.32758	-.01302	.16953	.05192	.00546	-.01245	.09287	-.26133	-.22984
1.600	-2.024	.32782	-.01637	.16618	.05357	.00285	-.00829	.05124	-.24563	-.20621
1.600	-.013	.34528	-.01155	.16691	.05661	.00056	-.00507	.01257	-.24843	-.21430
1.600	2.001	.33592	-.01902	.16452	.05443	-.00168	-.00213	-.02542	-.22750	-.20383
1.600	4.054	.33403	-.01669	.16387	.05241	-.00397	.00086	-.06566	-.23020	-.20391
1.600	6.081	.32350	-.01661	.16132	.04877	-.00669	.00519	-.10643	-.23297	-.20670
1.600	8.132	.31170	-.01846	.16063	.04433	-.00872	.00836	-.14975	-.25126	-.22767
	GRADIENT	.00103	-.00049	-.00064	.00009	-.00115	.00162	-.01943	.00197	.00268

RUN NO. 35/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.115	.20246	-.02719	.16028	.03722	.00731	-.01486	.13343	-.23411	-.20806
1.900	-4.070	.20029	-.02842	.15865	.03979	.00494	-.01107	.09299	-.21556	-.18946
1.900	-2.027	.20171	-.02766	.15751	.04182	.00269	-.00788	.05240	-.20767	-.17625
1.900	.004	.21337	-.02303	.15502	.04209	.00056	-.00491	.01413	-.19452	-.17101
1.900	2.017	.20121	-.02643	.15103	.04031	-.00124	-.00234	-.02269	-.17328	-.15501
1.900	4.050	.20540	-.02386	.15233	.03972	-.00330	.00060	-.06177	-.18912	-.16559
1.900	6.082	.20587	-.02371	.15098	.03677	-.00600	.00401	-.10390	-.19443	-.17357
1.900	8.130	.20458	-.02357	.15319	.03245	-.00824	.00745	-.14527	-.22085	-.20272
	GRADIENT	.00048	.00051	-.00094	-.00208	-.00101	.00142	-.01896	.00430	.00340

LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER (RP6128) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5626 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 5.000 ELEVTR = -10.000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 30/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.112	5.57791	.22806	.16193	.01327	.01055	-.01409	.12688	-.26668	-.25120
1.600	-4.069	5.57160	.22446	.16393	.01623	.00676	-.01040	.08899	-.27235	-.24883
1.600	-2.006	5.56579	.22688	.15880	.01713	.00324	-.00697	.04890	-.25119	-.22497
1.600	.005	5.56781	.22450	.15723	.01869	.00091	-.00515	.01389	-.23971	-.21865
1.600	2.000	5.56924	.23135	.16016	.01849	-.00103	-.00339	-.01973	-.25257	-.22868
1.600	4.071	5.59305	.22971	.15897	.01678	-.00406	-.00064	-.05866	-.25253	-.23148
1.600	6.062	5.60072	.22783	.15721	.01504	-.00754	.00243	-.09674	-.25790	-.23687
1.600	8.128	5.57374	.22971	.15570	.01083	-.01086	.00575	-.13[illegible]	-.27112	-.24749
	GRADIENT	.00227	.00064	-.00042	.00012	-.00128	.00114	-.01794	.00189	.00153

RUN NO. 36/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.117	5.42339	.18395	.15346	.01205	.00870	-.01236	.12589	-.23143	-.[illegible]1067
1.900	-4.051	5.41919	.18249	.15233	.01317	.00592	-.00915	.08607	-.22087	-.19478
1.900	-2.030	5.42595	.18507	.14928	.01464	.00288	-.00601	.04660	-.20763	-.17685
1.900	.002	5.43079	.18583	.14315	.01459	.00092	-.00467	.01546	-.17859	-.15.69
1.900	1.999	5.42462	.18642	.14425	.01244	-.00078	-.00339	-.01924	-.18921	-.16304
1.900	4.071	5.42827	.18296	.14641	.01199	-.00337	-.00102	-.05686	-.21037	-.18162
1.900	6.080	5.43022	.18542	.14770	.01134	-.00636	.00168	-.09367	-.22393	-.19748
1.900	8.147	5.41977	.18571	.14709	.00910	-.00921	.00432	-.13204	-.22884	-.21073
	GRADIENT	.00084	.00011	-.00083	-.00122	-.00110	.00093	-.01745	.00193	.00207

LA-8A LARC UPWT 1034 NAR 0898-MOD NOSE ORBITER (RP6129) (20 JUN 73)

REFERENCE DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES
SCALE =	.0186 SCALE		

PARAMETRIC DATA

ALPHA =	10.000	ELEVTR =	-10.000
AILRON =	.000	RUDFLR =	40.000
GT-LOC =	2.000	K/L =	6.620

RUN NO. 36/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.102	10.79152	.46456	.15391	-.01293	.01083	-.00969	.11958	-.28170	-.25547
1.600	-4.035	10.79010	.46672	.14890	-.01292	.00713	-.00747	.08272	-.24760	-.22392
1.600	-2.011	10.79158	.46689	.14147	-.01374	.00407	-.00603	.04901	-.21101	-.18987
1.600	.003	10.80497	.46939	.13976	-.01432	.00192	-.00501	.01604	-.20850	-.17947
1.600	2.000	10.80630	.46838	.14052	-.01384	-.00011	-.00414	-.01694	-.21893	-.18201
1.600	4.072	10.78832	.46306	.13709	-.01447	-.00284	-.00329	-.04996	-.21368	-.17938
1.600	6.086	10.79813	.46560	.14094	-.01374	-.00629	-.00193	-.08519	-.24515	-.20567
1.600	8.157	10.80287	.46396	.14477	-.01409	-.01006	-.00080	-.12201	-.27142	-.23728
	GRADIENT	.00054	-.00029	-.00122	-.00016	-.00119	.00051	-.01638	.00296	.00479

RUN NO. 37/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.125	10.61159	.39052	.14187	-.00365	.01013	-.00728	.11333	-.22618	-.20276
1.900	-4.054	10.60296	.38302	.14124	-.00376	.00711	-.00633	.07854	-.21300	-.19220
1.900	-2.031	10.60455	.38358	.13684	-.00407	.00423	-.00513	.04617	-.18654	-.17362
1.900	.001	10.61121	.38435	.13513	-.00467	.00141	-.00449	.01525	-.18914	-.16296
1.900	2.017	10.61303	.38503	.13370	-.00546	-.00110	-.00427	-.01498	-.18914	-.16296
1.900	4.073	10.60862	.38580	.13492	-.00485	-.00380	-.00403	-.04830	-.20499	-.17620
1.900	6.106	10.61931	.38652	.13757	-.00423	-.00643	-.00348	-.08157	-.23145	-.19213
1.900	8.120	10.62032	.38887	.14153	-.00560	-.00957	-.00257	-.11711	-.24204	-.22662
	GRADIENT	.00097	.00035	-.00078	-.00015	-.00134	.00027	-.01551	.00065	.00209

LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER (RH6130) (20 JUN 73)

REFERENCE DATA

SREF = 136.1806 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5828 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 15.000 ELEVTR = -10.000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 32/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.142	16.06871	.68874	.10678	-.03178	.00988	-.00055	.10678	-.12444	-.10306
1.600	-4.046	16.07044	.68997	.10841	-.02833	.00787	-.00278	.07639	-.12969	-.07936
1.600	-2.037	16.07849	.69393	.10342	-.03227	.00503	-.00401	.04843	-.10364	-.05326
1.600	-.015	16.08272	.69649	.09971	-.03147	.00259	-.00524	.01666	-.09331	-.02713
1.600	2.022	16.07628	.69352	.10162	-.03051	-.00004	-.00555	-.01496	-.11157	-.05069
1.600	4.063	16.07292	.68686	.10393	-.02851	-.00295	-.00771	-.04307	-.10354	-.07157
1.600	6.123	16.06330	.68178	.10103	-.02980	-.00528	-.01023	-.07279	-.11136	-.07152
1.600	8.141	16.07110	.68985	.10117	-.03272	-.00810	-.01083	-.10753	-.11934	-.09795
	GRADIENT	.00013	-.00033	-.00053	.00007	-.00132	-.00056	-.01491	.00218	.00087

RUN NO. 38/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.140	15.87120	.58821	.12621	-.01388	.01034	.00045	.10201	-.21558	-.20274
1.900	-4.087	15.87409	.58679	.12383	-.01207	.00703	-.00046	.07081	-.19185	-.18159
1.900	-2.036	15.87197	.58764	.12466	-.01286	.00448	-.00303	.04403	-.18654	-.17692
1.900	.002	15.86068	.58667	.12315	-.01153	.00195	-.00472	.01584	-.18652	-.16829
1.900	2.003	15.86178	.58946	.12103	-.01303	-.00071	-.00627	-.01235	-.17590	-.16294
1.900	4.065	15.86810	.58844	.11935	-.01326	-.00301	-.00926	-.03845	-.17590	-.16029
1.900	6.139	15.87331	.59082	.12156	-.01462	-.00619	-.01064	-.06971	-.19974	-.18155
1.900	8.136	15.87251	.59074	.12308	-.01836	-.01037	-.00961	-.10916	-.22087	-.20539
	GRADIENT	-.00011	.00025	-.00062	-.00013	-.00124	-.00103	-.01352	.00209	.00288

LA-6A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER (RP6131) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 20.000 ELEVTR = -10.000
AILRON = .000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 39/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.165	21.08068	.79308	.10432	-.02556	.01051	.01059	.08955	-.18383	-.17355
1.900	-4.087	21.08622	.79544	.10394	-.02325	.00661	.00931	.05366	-.16537	-.14708
1.900	-2.046	21.08966	.79484	.10113	-.01999	.00380	.00230	.03469	-.13893	-.11792
1.900	.001	21.08986	.79612	.10589	-.01932	.00172	-.00426	.01500	-.15744	-.13117
1.900	2.010	21.08817	.79342	.10119	-.01828	-.00030	-.01064	-.00388	-.13631	-.10999
1.900	4.099	21.07946	.78063	.10164	-.01686	-.00450	-.01867	-.02075	-.14157	-.12587
1.900	6.102	21.08568	.78691	.09801	-.01930	-.00781	-.01999	-.05431	-.14157	-.13117
1.900	8.196	21.08064	.78486	.09776	-.01976	-.01304	-.01877	-.09601	-.14951	-.13913
	GRADIENT	-.00074	.00152	-.00022	.00071	-.00129	-.00337	-.00917	.00245	.00245

LA-8A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER (RP6132) (20 JUN 73)

REFERENCE DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES		
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES		
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

ALPHA =	.000	ELEVTR =	-10.000
AILRON =	10.000	RUDFLR =	40.000
GT-LOC =	2.000	K/L =	6.820

RUN NO. 42/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.115	.31691	-.02004	.17333	.04832	.01501	-.01607	.13689	-.28645	-.25239
1.600	-4.068	.32744	-.01742	.17093	.05283	.01234	-.01176	.09348	-.26143	-.22979
1.600	-2.027	.33629	-.01484	.16732	.05429	.00984	-.00769	.05241	-.24313	-.20352
1.600	-.017	.33225	-.01615	.16835	.05541	.00747	-.00442	.01431	-.24068	-.21429
1.600	1.998	.32729	-.01754	.16642	.05517	.00529	-.00153	-.02537	-.22489	-.20373
1.600	4.050	.33493	-.01729	.16553	.05226	.00299	.00178	-.06575	-.22760	-.20381
1.600	6.096	.33348	-.01728	.16406	.04794	.00058	.00579	-.10761	-.23278	-.21165
1.600	8.033	.31122	-.01701	.16521	.04434	-.00153	.00938	-.14865	-.26192	-.24088
	GRADIENT	-.00104	-.00012	-.00058	-.00201	-.00115	.00184	-.01956	.00424	.00256

RUN NO. 48/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.095	.19774	-.03539	.16363	.04088	.01330	-.01397	.12863	-.22850	-.20223
1.900	-4.069	.19678	-.03641	.16323	.04420	.01166	-.01004	.08755	-.21772	-.19425
1.900	-2.025	.19941	-.03394	.16065	.04565	.00850	-.00701	.04784	-.20717	-.17638
1.900	.005	.20609	-.03327	.16032	.04557	.00651	-.00389	.00967	-.20200	-.17650
1.900	1.999	.20697	-.03267	.15555	.04413	.00485	-.00120	-.02778	-.17827	-.15735
1.900	4.071	.20609	-.03413	.15416	.04318	.00260	.00148	-.06603	-.17825	-.15468
1.900	6.102	.20666	-.03409	.15531	.03885	.00017	.00513	-.10875	-.19409	-.17057
1.900	8.131	.19986	-.03590	.15658	.03509	-.00186	.00882	-.15155	-.21510	-.19956
	GRADIENT	.00129	.0002	-.00114	-.00018	-.00107	.00142	-.01685	.00530	.00493

LA-8A LARC UPWT 1034 NAR 039B-MOD. NOSE ORBITER (RP6133) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 9.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 5.000 ELEVTR = -10.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 43/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.114	5.58140	.22848	.16698	.01495	.01624	-.01440	.12970	-.28040	-.26733
1.600	-4.069	5.57775	.22697	.16471	.01812	.01258	-.01036	.08870	-.26991	-.24362
1.600	-2.028	5.57329	.22512	.16040	.01776	.00890	-.00701	.04988	-.24898	-.22264
1.600	-.016	5.59228	.22787	.15934	.01927	.00651	-.00485	.01478	-.24109	-.21737
1.600	2.018	5.58677	.23058	.16227	.01731	.00470	-.00327	-.01968	-.24880	-.22772
1.600	4.050	5.57316	.22698	.16108	.01613	.00107	-.00019	-.05779	-.24613	-.23032
1.600	6.081	5.58230	.22717	.15957	.01527	-.00161	.00311	-.09814	-.25672	-.23831
1.600	8.127	5.57935	.22914	.16025	.01111	-.00444	.00644	-.13772	-.27783	-.25948
	GRADIENT	.00021	.00027	-.00027	-.00022	-.00128	.00119	-.01787	.00235	.00106

RUN NO. 49/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.113	5.42418	.18066	.15461	.01344	.01428	-.01236	.12161	-.22579	-.20237
1.900	-4.067	5.41922	.17728	.15416	.01576	.01093	-.00915	.08274	-.21521	-.18911
1.900	-2.026	5.42049	.17782	.15120	.01635	.00797	-.00578	.04389	-.20459	-.17316
1.900	.005	5.44484	.19254	.14808	.01754	.00608	-.00415	.01018	-.18352	-.15997
1.900	2.020	5.43609	.18324	.14810	.01590	.00387	-.00283	-.02291	-.19143	-.16261
1.900	4.072	5.42731	.18608	.14911	.01742	.00187	-.00017	-.06113	-.20457	-.18107
1.900	6.083	5.42681	.18619	.15029	.01518	-.00097	.00234	-.09855	-.21529	-.19144
1.900	8.149	5.42130	.18639	.14947	.01224	-.00388	.00524	-.13754	-.22581	-.21032
	GRADIENT	.00156	.00113	-.00065	.00014	-.00109	.00103	-.01745	.00169	.00131

LA[illegible]A LARC UPWT 1034 NAR 0898-MOD. NOSE ORBITER (RP6134) (20 JUN 73)

REFERENCE DATA

SREF = 136.1808 SQ.IN. XMRP = 15.9638 INCHES
LREF = 8.9025 INCHES YMRP = .0000 INCHES
BREF = 17.5628 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

ALPHA = 10.000 ELEVTR = -10.000
AILRON = 10.000 RUDFLR = 40.000
GT-LOC = 2.000 K/L = 6.820

RUN NO. 44/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.121	10.79354	.46616	.15432	-.01254	.01656	-.00973	.11949	-.27517	-.24890
1.600	-4.035	10.78891	.46019	.14966	-.01256	.01233	-.00767	.08274	-.24113	-.21741
1.600	-2.029	10.80192	.47041	.14174	-.01464	.00908	-.00612	.04832	-.20161	-.18305
1.600	.004	10.81171	.47108	.14167	-.01329	.00686	-.00537	.01605	-.20966	-.18322
1.600	1.998	10.79831	.46770	.14239	-.01443	.00418	-.00430	-.01541	-.22018	-.18327
1.600	4.053	10.79483	.46454	.13618	-.01347	.00157	-.00336	-.04997	-.21225	-.17527
1.600	6.084	10.80388	.45894	.14063	-.01412	-.00155	-.00193	-.08566	-.23332	-.19377
1.600	8.137	10.79725	.46356	.14455	-.01459	-.00447	-.00069	-.12206	-.25490	-.22004
	GRADIENT	.00045	.00029	-.00110	-.00008	-.00131	.00052	-.01629	.00194	.00416

RUN NO. 50/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.119	10.62827	.39429	.14436	-.00297	.01479	-.00784	.11137	-.22050	-.19706
1.900	-4.052	10.62559	.39084	.14249	-.00293	.01179	-.00631	.07604	-.20737	-.18654
1.900	-2.009	10.62706	.39147	.13950	-.00144	.00885	-.00515	.04300	-.18892	-.16804
1.900	.004	10.62771	.39218	.13829	-.00153	.00610	-.00450	.01218	-.19417	-.16009
1.900	2.021	10.63120	.39114	.13665	-.00174	.00419	-.00430	-.01871	-.19413	-.16004
1.900	4.074	10.62985	.39186	.13790	-.00183	.00157	-.00357	-.05108	-.21256	-.17588
1.900	6.089	10.63539	.39252	.13937	-.00124	-.00144	-.00302	-.08424	-.22574	-.18645
1.900	8.177	10.63786	.39288	.14489	-.00136	-.00437	-.00172	-.12110	-.23635	-.22089
	GRADIENT	.00062	.00008	-.00059	.00000	-.00124	.00031	-.01558	-.00077	.00144

DATE 31 OCT 73

TABULATED SOURCE DATA LARC 1023/1034

LA-3A LARC UPWT 1034 NAR 089B-MOD. NOSE ORBITER (RF6135) (20 JUN 73)

REFERENCE DATA

SREF =	136.1808 SQ.IN.	XMRP =	15.9638 INCHES
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES
SCALE =	.0188 SCALE		

PARAMETRIC DATA

ALPHA =	15.000	ELEVTR =	-10.000
AILRON =	10.000	RUDFLR =	40.000
GT-LOC =	2.000	K/L =	6.820

RUN NO. 45/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.600	-6.121	16.07376	.69078	.10739	-.03071	.01567	-.00077	.10611	-.12030	-.10152
1.600	-4.084	16.06674	.68986	.10924	-.02745	.01321	-.00310	.07720	-.12561	-.07785
1.600	-2.033	16.06707	.69189	.10455	-.03231	.01017	-.00447	.04612	-.09938	-.04892
1.600	.005	16.07847	.69434	.10211	-.03222	.00752	-.00576	.01661	-.09418	-.03317
1.600	2.005	16.08449	.69734	.10332	-.03147	.00444	-.00596	-.01579	-.10984	-.04886
1.600	4.085	16.07905	.69424	.10492	-.02981	.00152	-.00827	-.04393	-.10201	-.07000
1.600	6.105	16.08518	.69538	.10299	-.02916	-.00049	-.01100	-.07136	-.11247	-.06731
1.600	8.182	16.08144	.69716	.10291	-.03399	-.00325	-.01166	-.10769	-.11793	-.09388
	GRADIENT	.00206	.00070	-.00048	-.00019	-.00143	-.00058	-.01493	.00181	.00077

RUN NO. 51/ 0 RN/L = 1.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-5.136	15.89151	.59769	.12827	-.01121	.01539	-.00029	.10010	-.21254	-.19965
1.900	-4.062	15.89695	.59789	.12594	-.01064	.01209	-.00110	.06745	-.18895	-.17599
1.900	-2.030	15.89663	.59878	.12644	-.01004	.00923	-.00354	.04001	-.18629	-.17333
1.900	.006	15.89344	.59957	.12550	-.01011	.00676	-.00520	.01268	-.18631	-.16542
1.900	2.005	15.89183	.59811	.12309	-.01178	.00405	-.00624	-.01455	-.17582	-.15755
1.900	4.067	15.88777	.59536	.12113	-.01077	.00189	-.00941	-.04136	-.17577	-.15750
1.900	6.105	15.88655	.59633	.12421	-.01229	-.00095	-.01102	-.07105	-.20200	-.18378
1.900	8.140	15.88523	.59061	.12654	-.01513	-.00480	-.00956	-.11111	-.22563	-.20483
	GRADIENT	-.00114	-.00028	-.00064	-.00010	-.00126	-.00095	-.01341	.00181	.00260

LA-8A LARC UPWT 1034 MAR 0898-MOD. NOSE ORBITER (RP6136) (20 JUN 73)

REFERENCE DATA

SREF =	138.1808 SQ.IN.	XMRP =	15.9636 INCHES
LREF =	8.9025 INCHES	YMRP =	.0000 INCHES
BREF =	17.5628 INCHES	ZMRP =	.0000 INCHES
SCALE =	.0188 SCALE		

PARAMETRIC DATA

ALPHA =	20.000	ELEVTR =	-10.000
AILRON =	10.000	RUDFLR =	40.000
GT-LOC =	2.000	K/L =	6.820

RUN NO. 52/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CPB	CPC
1.900	-6.180	21.08475	.80540	.10652	-.02442	.01530	.00997	.08736	-.16359	-.16797
1.900	-4.081	21.08805	.80574	.10559	-.02201	.01074	.00739	.05999	-.16255	-.14159
1.900	-2.040	21.09671	.80592	.10415	-.01941	.00687	.00150	.03141	-.13609	-.11769
1.900	.005	21.10160	.80504	.10914	-.01622	.00673	-.00498	.01333	-.15715	-.13350
1.900	2.032	21.10566	.80245	.10579	-.01771	.00485	-.01103	-.00544	-.13601	-.11232
1.900	4.103	21.10748	.79593	.10399	-.01364	.00098	-.01919	-.02225	-.14390	-.12551
1.900	6.124	21.09736	.79778	.10291	-.01853	-.00231	-.02062	-.05499	-.14925	-.14146
1.900	8.180	21.09149	.79128	.10062	-.01933	-.00759	-.01927	-.09728	-.15201	-.14159
	GRADIENT	.00148	-.00082	-.00017	.00090	-.00116	-.00322	-.00928	.00182	.00183