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Lyndon B. Johnson Space Center
Houston, Texas 77058

SPACE SHUTTLE AEROTHERMODYNAMIC DATA REPORT

(NASA-CR-151393) EFFECT OF SILTS POD ON THE LOW SUPERSONIC AERODYNAMIC CHARACTERISTICS OF A 0.015-SCALE SHUTTLE ORBITER MODEL (44-0) TESTED IN THE NASA/LaRC 4-FOOT UPWT (LEG 1) (LA110) (Chrysler Corp.) 153 p

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EFFECT OF SILTS POD ON THE LOW SUPERSONIC AERODYNAMIC CHARACTERISTICS OF A 0.015-SCALE SHUTTLE ORBITER MODEL (44-0) TESTED IN THE NASA/LaRC 4-FOOT UPWT (LEG 1) (LA110)

Prepared under NASA Contract Number NAS9-13247

by

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for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number:	LaRC UPWT 1212 (Leg 1)
NASA Series Number:	LA110
Model Number:	44-0
Test Dates:	August 8 through 10, 1977
Occupancy Hours:	30

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Chrysler Corporation Michoud Defense-Space Division assumes no responsibility for the data presented other than display characteristics.

EFFECT OF SILTS POD ON THE LOW SUPERSONIC AERODYNAMIC CHARACTERISTICS OF A 0.015-SCALE SHUTTLE ORBITER MODEL (44-O) TESTED IN THE NASA/LaRC 4-FOOT UPWT (LEG 1)

(LA110)

ABSTRACT

A study has been made to determine the effect on the aerodynamic characteristics of the Shuttle Orbiter resulting from the addition of the Shuttle Infrared Leeside Temperature Sensing (SILTS) pod to the tip of the vertical tail. The pod is a recent addition to the Shuttle and will contain a camera system to take infrared photographs of the upper surface of the Shuttle during re-entry. These photographs will be used to determine leeside heating. There was concern that the pod might have an effect on the aerodynamics of the Shuttle, particularly the lateral-directional characteristics and rudder effectiveness. Wind tunnel tests were therefore made with an 0.015-Scale Orbiter Model with and without SILTS pod over a Mach number range from 0.6 to 4.63 in the Langley 8-Foot Transonic Pressure Tunnel and the Unitary Plan Wind Tunnels.

The low supersonic results are presented herein, and the transonic and high supersonic results in References 1 and 2.

The model was tested in the low supersonic leg of the Langley UPWT at Mach numbers of 1.5, 2.0, and 2.5 over an angle of attack range from -4° to 20° at 0° and 3° of sideslip. Tests were also made over an angle of sideslip from -6° to 6° at 10° angle of attack.

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TABLE OF CONTENTS

	Page
ABSTRACT	iii
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	4
CONFIGURATIONS INVESTIGATED	8
TEST CONDITIONS	9
TEST FACILITY DESCRIPTION	10
DATA REDUCTION	11
REFERENCES	12
TABLES	
I. TEST CONDITIONS	13
II. DATA SET/RUN NUMBER COLLATION SUMMARY	14
III. MODEL DIMENSIONAL DATA	16
FIGURES	
MODEL	26
DATA	33
APPENDIX	
TABULATED SOURCE DATA	

INDEX OF MODEL FIGURES

Figure		Title	Page
1.		Axis System	26
2.		Model Sketches	
	a.	SSV Orbiter Configuration	27
	b.	SILTS Pod	28
	c.	Position of Transition Grit Used in Investigation	29
3.		Model Photographs	
	a.	Orbiter Configuration, Front 3/4 View	30
	b.	SILTS Pod Installation on Vertical Tail	31

INDEX OF DATA FIGURES

FIGURE		PLOT SCHEDULE	CONDITIONS VARYING	PAGE
4	EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES	A	CONFIG., MACH	1-18
5	EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES	A	CONFIG., MACH	19-36
6	EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES	B	CONFIG., MACH	37-39
7	EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES	B	CONFIG., MACH	40-42
8	EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES	C	CONFIG., MACH	43-45
9	EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES	C	CONFIG., MACH	46-48
10	EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES	D		49-51

PLOT SCHEDULE:

(A) C_L, C_D, C_A, L/D, C_m vs. α; C_m vs. C_N; C_Y, C_n, C_ℓ vs. α

(B) C_{Y_β}, C_{n_β}, and C_{ℓ_β} vs. α

(C) C_Y, C_n, and C_ℓ vs. α

(D) $C_{Y_{\delta_r}}$, $C_{n_{\delta_r}}$, and $C_{\ell_{\delta_r}}$ vs. α

NOMENCLATURE
General

SYMBOL	MNEMONIC	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	MNEMONIC	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; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CYN	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; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
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}

NOMENCLATURE (Continued)
Additions to Nomenclature

SYMBOL	MNEMONIC	DEFINITION
δ_a	AILRON	aileron, total aileron deflection angle, degrees, (left aileron-right aileron)/2
δ_e	ELEVON	elevon, surface deflection angle, positive deflection trailing edge down, (left aileron + right aileron)/2
C_A	CA	axial-force coefficient unadjusted for base or sting cavity pressures
δ_{SB}	SPDBRK	speed brake deflection angle, degrees
δ_r	RUDDER	rudder deflection angle, degrees
δ_{BF}	BDFLAP	bodyflap deflection angle, degrees
δ_{e_L}	ELVN-L	left elevon surface deflection angle, positive deflection trailing edge down, degrees
δ_{e_R}	ELVN-R	right elevon surface deflection angle, positive deflection trailing edge down, degrees
A_{sc}		sting cavity area, m^2, ft^2
ℓ_B		body length, m, ft.
$\Delta\beta$	DBETA	incremental angle of sideslip, difference between two or more test runs, degrees
	GRIT	parameter to denote testing with grit GRIT = 1 (grit on), GRIT = 0 (grit off)
C_{Y_β}	DCY/DB	side-force coefficient derivative with respect to beta, per degree
C_{n_β} (BODY)	DCYNDB	yawing-moment coefficient derivative with respect to beta, per degree
C_{ℓ_β} (BODY)	DCBLDB	rolling-moment coefficient derivative with respect to beta, per degree
$C_{Y_{\delta_r}}$	DCY/DR	side-force coefficient derivative with respect to rudder deflection, per degree

NOMENCLATURE (Concluded)

SYMBOL	MNEMONIC	DEFINITION
$C_{n_{\delta_r}}$ (BODY)	DCYNDR	yawing-moment coefficient derivative with respect to rudder deflection, per degree
$C_{\ell_{\delta_r}}$ (BODY)	DCBLDR	rolling-moment coefficient derivative with respect to rudder deflection, per degree
$\Delta\delta_r$	DELRUD	differential rudder deflection, degrees
$C_{p_{b_{1,2}}}$	CPB1, 2	base pressure coefficients
$C_{p_{c_{1,2}}}$	CPC1, 2	sting cavity pressure coefficients

CONFIGURATIONS INVESTIGATED

The test model was a 0.015-scale model of the Space Shuttle Orbiter (figures 2 and 3). The model was constructed at the Langley Research Center using the nose section forward of full-scale fuselage station 672.8, the vertical tail, and OMS pods from an existing Rockwell model 49-0. The remainder of the model, the wings, elevons, body and SILTS pod were constructed from Rockwell-furnished line details. A sketch and photograph of SILTS pod are presented in figures 2b and 3b, respectively.

The model configuration is summarized as follows:

$$\text{Orbiter-140A/B/C} = B_{26}\ C_9\ E_{43}\ F_8\ M_{16}\ N_{28}\ R_5\ S\ V_8\ W$$

Component	Definition
B_{26}	Fuselage per Rockwell Lines VL70-000140A and VL70-000140B (Model SS-A00147)
C_9	Canopy per Rockwell Lines VL70-000140A and VL70-000143B (Model drawing SS-A00147)
E_{43}	Slotted version (6-inch) of E_{26} elevons per Rockwell VL70-000145 (Model drawing SS-A00147)
F_8	Body flap per Rockwell Lines VL70-000145 (Model drawing SS-A00147)
M_{16}	OMS/RCS pods per Rockwell Lines VL70-0084010 (Model drawing SS-A00147)
N_{28}	OMS engine nozzle per Rockwell Lines VL70-000145 (Model drawing SS-A00147
R_5	Rudder per Rockwell Lines VL70-000146 (Model drawing SS-A00148)
S	SILTS pod per Rockwell Lines VL70-900-015 (Basic control drawing)
V_8	Vertical tail per Rockwell Lines VL70-000146A (Model drawing SS-A00148)
W	Wing per Rockwell V70-30-906-01 (Basic control drawing)

A complete description of model dimensional data is given in table III.

TEST CONDITIONS

The tunnel conditions existing during the test are summarized in table I and the configurations tested are shown in table II. The model was sting supported, and the aerodynamic forces and moments were measured by an internally mounted six-component strain gage balance. In an attempt to insure turbulent flow over the model, strips of carborundum grit were applied to the wing, vertical tail, and nose as shown in figure 2. Model angle of attack was varied from about -4° to 20° for angles of sideslip of 0° and 3°. Sideslip angles were varied from -6° to 6° at an angle of attack of 10°. Angles of attack and sideslip have been corrected for the effects of sting deflection under load.

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 by 7 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). Leg No. 1 was 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.

DATA REDUCTION

LaRC UT-27-100 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 (figure 1) through the nominal center of gravity located at F.S. 1076.7 and FRL 375.0. Drag data presented represent gross drag in that no corrections to free-stream conditions in the base regions have been made. Model data were converted to standard NASA coefficients using the following constants:

Reference Area	$S_{ref} = 0.605$ ft.^{2}
Reference Length	$\ell_{ref} = 7.122$ in.
Reference Span	$b_{ref} = 14.05$ in.
Total base area excluding sting cavity	$A_b = 0.0615$ ft.^{2}
Sting cavity area	$A_{sc} = 0.03409$ ft.^{2}

REFERENCES

1. Chrysler Corporation Michoud Defense-Space Division, Data Management Services, DMS-DR-2395. "Effect of SILTS Pod on the Transonic Aerodynamic Characteristics of a 0.015-Scale Shuttle Orbiter Model (44-0) in the LaRC 8-Foot TPT. (LA111)."

2. Chrysler Corporation Michoud Defense-Space Division, Data Management Services, DMS-DR-2399. "Effect of SILTS Pod on the High Supersonic Aerodynamic Characteristics of a 0.015-Scale Shuttle Orbiter Model (44-0) in the LaRC UPWT. (LA114)."

TABLE I

TEST : UPWT 1212 (LA 110)

DATE : 9/23/77

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per foot)	DYNAMIC PRESSURE (pounds/sq. foot)	STAGNATION TEMPERATURE (degrees Fahrenheit)
1.5	2.0×10^6	476	150
2.0	2.0×10^6	474	150
2.5	2.0×10^6	434	150

BALANCE UTILIZED: LaRC UT-27-100

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	600 lb.	±3.0 lb.	
SF	300 lb.	±1.5 lb.	
AF	100 lb.	±0.5 lb.	
PM	800 in-lb.	±4.0 in-lb.	
RM	400 in-lb.	±2.0 in-lb.	
YM	600 in-lb.	±3.0 in-lb.	

COMMENTS:

TABLE II

TEST: LARC UPWT 1212 (LA110)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 8-11-77

DATA SET IDENTIFIER	CONFIGURATION	α	β			δe	SR	SSB	SBF	GRIT					MACH NUMBERS 1.5	2.0	2.5	
RK1001	ORb, SILTS Pod OFF	A	0			0	0	55	0	ON					20	23	26	
02	ON						↓								29	34	37	
03							-5								2	5	8	
04	OFF						↓	↓							14	17	11	
05							0	25							50	53	56	
06	ON									↓					44	47	41	
07	OFF		↓					↓		OFF						59		
08			3					55		ON					21	24	27	
09	ON						↓								30	35	38	
10							-5								3	6	9	
11	OFF						↓	↓							15	18	12	
12							0	25							51	54	57	
13	ON									↓					45	48	42	
14	OFF	↓	↓			↓	↓	↓	↓	OFF						60		

TEST RUN NUMBERS

(R)	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	MACH	ALPHA
(S)	Q(PSF)	CPB1	CPB2	CPC1	CPC2						MACH	ALPHA

COEFFICIENTS

IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

A) α = -4° to 20°

TABLE II (Concluded)

TEST: LARC UPWT 1212 (LA110) — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 8-11-77

DATA SET IDENTIFIER	CONFIGURATION	α	β			δ_e	δ_R	δ_{SB}	δ_{BF}	GRIT					MACH NUMBERS 1.5	2.0	2.5	
RK1015	ORb, SILTS POD OFF	10	B			0	0	55	0	ON					22	25	28	
16	ON	↓	↓			↓	↓	↓	↓	↓					31	36	39	
17	↓	↓	C			↓	-5	↓	↓	↓					4	7	10	
18	OFF	↓	↓			↓	↓	↓	↓	↓					16	19	13	
19	↓	↓	↓			↓	0	25	↓	↓					52	55	58	
20	ON	↓	↓			↓	↓	↓	↓	↓					46	49	43	

TEST RUN NUMBERS

(R)	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	MACH	BETA
(S)	Q(PSF)	CPB1	CPB2	CPC1	CPC2						MACH	BETA

α OR β SCHEDULES: B) $\beta = -6°$ to $8°$; C) $\beta = -6°$ to $6°$

COEFFICIENTS

IDVAR (1) IDVAR (2) NDV

TABLE III.

MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY B_{26}

GENERAL DESCRIPTION : Configuration 140A/B Orbiter Fuselage

NOTE: B_{26} is identical to B_{24} except underside of fuselage has been refaired to accept W

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER : VL70-000143B, -000200, 000205, -006089, -000145, -000140A, 000140B

DIMENSIONS :	FULL SCALE	MODEL SCALE
* Length (OML: Fwd Sta. X_o=235)-In.	1293.3	19.400
* Length(IML: Fwd Sta. X_o=238)-In.	1290.3	19.355
* Max Width (@ X = 1528.3) - In.	264.0	3.960
Max Depth (@ X_o= 1464) - In.	250.0	3.750
Fineness Ratio		
Area - Ft^2		
Max. Cross-Sectional	340.88	0.077
Planform		
Wetted		
Base		

TABLE III—Continued

MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C_9

GENERAL DESCRIPTION : Configuration 3A, Canopy used with Fuselage B_{26}.

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147 , RELEASE 12

DRAWING NUMBER : VL70-000143A/B

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (X_o = 434.643 to 587)	143.357	2.150
Max Width (@ X_o = 513.127)	152.412	2.286
Max Depth (@ X_o = 485.0)	25.000	0.375
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III—Continued

MODEL DIMENSIONAL DATA

MODEL COMPONENT: SLOTTED ELEVON (6-inch GAP) - E_{43}

GENERAL DESCRIPTION Configuration 140A/B Orbiter elevon.

NOTE: E_{43} is a slotted version of E_{26}. Data are for one side.

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147

DRAWING NUMBER VL70-000-000145

DIMENSIONS	FULL SCALE	MODEL SCALE
Area - Ft^2	210.0	0.0473
Span (equivalent) - In.	349.2	5.238
Inb'd equivalent chord - In.	118.004	1.770
Outb'd equivalent chord/ total surface chord	55.192	0.828
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.2096	0.2096
At Outb'd equiv. chord	0.4004	0.4004
Sweep Back Angles, degrees		
Leading Edge	0.00	0.00
Trailing Edge	-10.056	-10.056
Hingeline	0.00	0.00
Area Moment (Normal to hinge line)	1587.25	0.00536
Mean Aerodynamic Chord ($\bar{c}$), in.	90.7	1.3605

TABLE III-Continued
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY FLAP -F8

GENERAL DESCRIPTION : Configuration 140A/B Orbiter Body Flap.
Hingeline located at X_o = 1528.3, Z_o = 284.3

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER : VL-000140A, VL70-000145

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (X_0 = 1520 To X_o = 1613)	93.000	1.395
Max Width (In.)	262.00	3.930
Max Depth (X_o = 1520) - In.	23.000	0.345
Fineness Ratio		
Area - Ft^2		
Max. Cross-Sectional		
Planform	150.525	0.0339
Wetted		
Base	41.84722	0.00941

TABLE III–Continued

MODEL DIMENSIONAL DATA

MODEL COMPONENT : OMS Pod (M_{16})

GENERAL DESCRIPTION : Configuration 140D Orbiter OMS Pod

MODEL SCALE: 0.015 MODEL DRAWING NO: SS-A00147

DRAWING NUMBER : VL70-000140D
VL70-0084010

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta X_o=1310.5) - In.	258.5	3.878
Max Width (@ X_o = 1511) - In.	136.8	2.052
Max Depth (@ X_o = 1511) - In.	74.7	1.121
Fineness Ratio	2.484	2.484
Area - Ft.^{2}		
Max. Cross-Sectional	58.864	0.0132
Planform		
Wetted		
Base		

TABLE III - MODEL DIMENSIONAL DATA-Continued

MODEL COMPONENT: OMS NOZZLES - N28

GENERAL DESCRIPTION: Configuration 140A/B Orbiter OMS Nozzles

MODEL SCALE: 0.015 MODEL DRAWING: SS-000147 RELEASE 5 (Contour)

DRAWING NUMBER: VL70-000145, (location)

DIMENSIONS:	FULL SCALE	MODEL SCALE
MACH NUMBER		
Length- In.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter - In.		
Exit		
Throat		
Inlet		
Area - ft^2		
Exit		
Throat		
Gimbal Point (Station) - In.		
Left Nozzle		
X_o	1518.0	22.770
Y_o	-88.0	-1.320
Z_o	490.2	7.380
Right Nozzle		
X	1518.0	22.770
Y	+88.0	+1.320
Z	492.0	7.380
Null Position - Deg.		
Left Nozzle		
Pitch	15°49'	15°49'
Yaw	12°17'	12°17'
Right Nozzle		
Pitch	15°49'	15°49'
Yaw	12°17'	12°17'

TABLE III–Continued

MODEL DIMENSIONAL DATA

MODEL COMPONENT RUDDER - R_5

GENERAL DESCRIPTION 2A, 3, 3A, and 140A/B Configurations

MODEL SCALE: 0.015 MODEL DRAWING: SS-A00148

DRAWING NUMBER VL70-000146A, VL70-000095, V170-000139

DIMENSIONS	FULL SCALE	MODEL SCALE
* Area Ft^2	100.15	0.0225
Span (equivalent) - In.	201.0	3.015
Inb'd equivalent chord - In.	91.585	1.3738
Outb'd equivalent chord - In.	50.833	0.7625
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
Trailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line)	610.92	0.002
Mean Aerodynamic Chord, - In.	73.2	1.098

TABLE III-Continued

MODEL DIMENSIONAL DATA

MODEL COMPONENT : SILTS POD - S

GENERAL DESCRIPTION :

MODEL SCALE: 0.015

DRAWING NUMBER : BCD V70-900-015

DIMENSIONS :	FULL SCALE	MODEL SCALE
Max. Width-In.	21.333	0.320
Max. Depth-In.	20.200	0.303
Length (Overall)-In.	133.600	2.004
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III (Continued)

MODEL DIMENSIONAL DATA - Continued

MODEL COMPONENT: VERTICAL - V8

GENERAL DESCRIPTION: Configuration 140A/B Orbiter Vertical Tail

MODEL SCALE: 0.015 DRAWING NUMBER: SS-A00148, RELEASE 6

DRAWING NUMBER VL70-000146A

DIMENSIONS:	FULL SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo) - Ft^2 Planform	413.253	0.093
Span (Theo) - In.	315.720	4.736
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep-Back Angles, Degrees.		
Leading Edge	45.000	45.000
*Trailing Edge	26.2	26.2
0.25 Element Line	41.130	41.130
Chords:		
Root (Theo) WP	268.500	4.028
Tip (Theo) WP	108.470	1.627
MAC	199.808	2.997
Fus. Sta. of .25 MAC	1463.50	21.953
W.P. of .25 MAC	635.522	9.533
B.L. of .25 MAC	0.00	0.00
Airfoil Section		
Leading Wedge Angle - Deg.	10.00	10.00
Trailing Wedge Angle - Deg.	14.920	14.920
Leading Edge Radius	2.00	0.030
Void Area	13.17	0.030
Blanketed Area	0.00	0.00

TABLE III (Concluded)

MODEL COMPONENT: WING-W

GENERAL DESCRIPTION: Configuration 4

NOTE: Identical to W_{114} except airfoil thickness.

Dihedral angle is along trailing edge of wing.

MODEL SCALE: 0.015 MODEL DRAWING: SS-AC0148

DRAWING NUMBER: V70-30-906-01 (BCD)

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo) Ft^2		
Planform	2690.00	0.605
Wetted		
Span (equivalent) (Theo) In.	936.68	14.050
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	+3.000	+3.000
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	-10.056	-10.056
0.25 Element Line	35.209	35.209
Chords:		
Root (Wing Sta. 0.0) (Theo) B.P.0.0.	689.24	10.339
Tip, (equivalent) (Theo) B.P.	137.85	2.068
MAC	474.81	7.122
Fus. Sta. of .25 MAC	1136.83	17.052
W.P. of .25 MAC	290.58	4.359
B.L. of .25 MAC	182.13	2.732
Airfoil Section		
Root		
Tip		
EXPOSED DATA		
Area Ft^2	1751.50	0.394
Span, (equivalent) (Theo) In. BP103	720.68	10.810
Aspect Ratio	2.059	2.059
Taper Ratio	0.245	0.245
Chords		
Root BP108	562.09	8.431
Tip 1.00 $\frac{b}{2}$	137.85	2.068
MAC	392.83	5.892
Fus. Sta. of .25 MAC	1185.98	17.790
W.P. of .25 MAC	294.30	4.415
B.L. of .25 MAC	251.77	3.777

Notes:

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

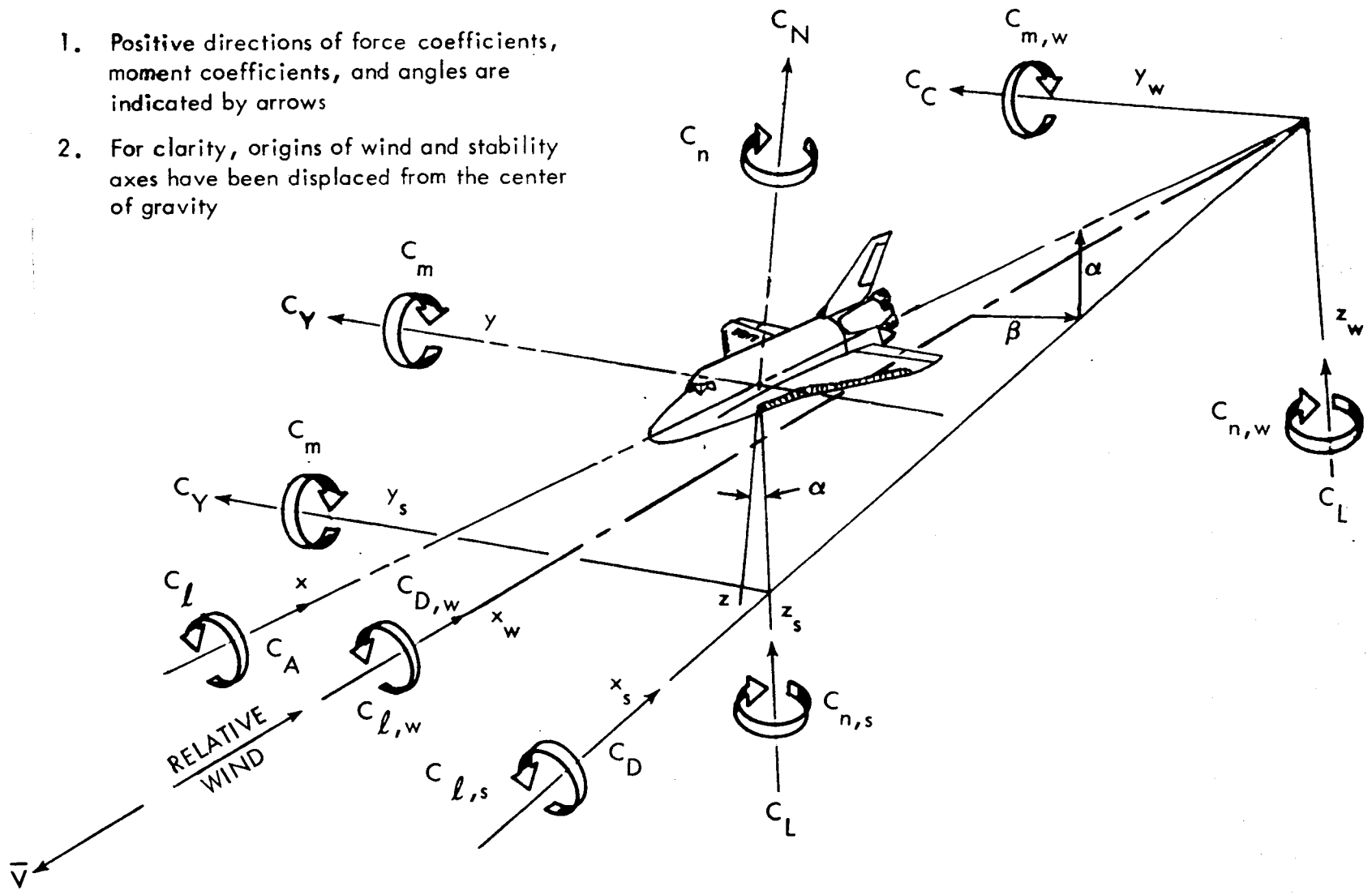
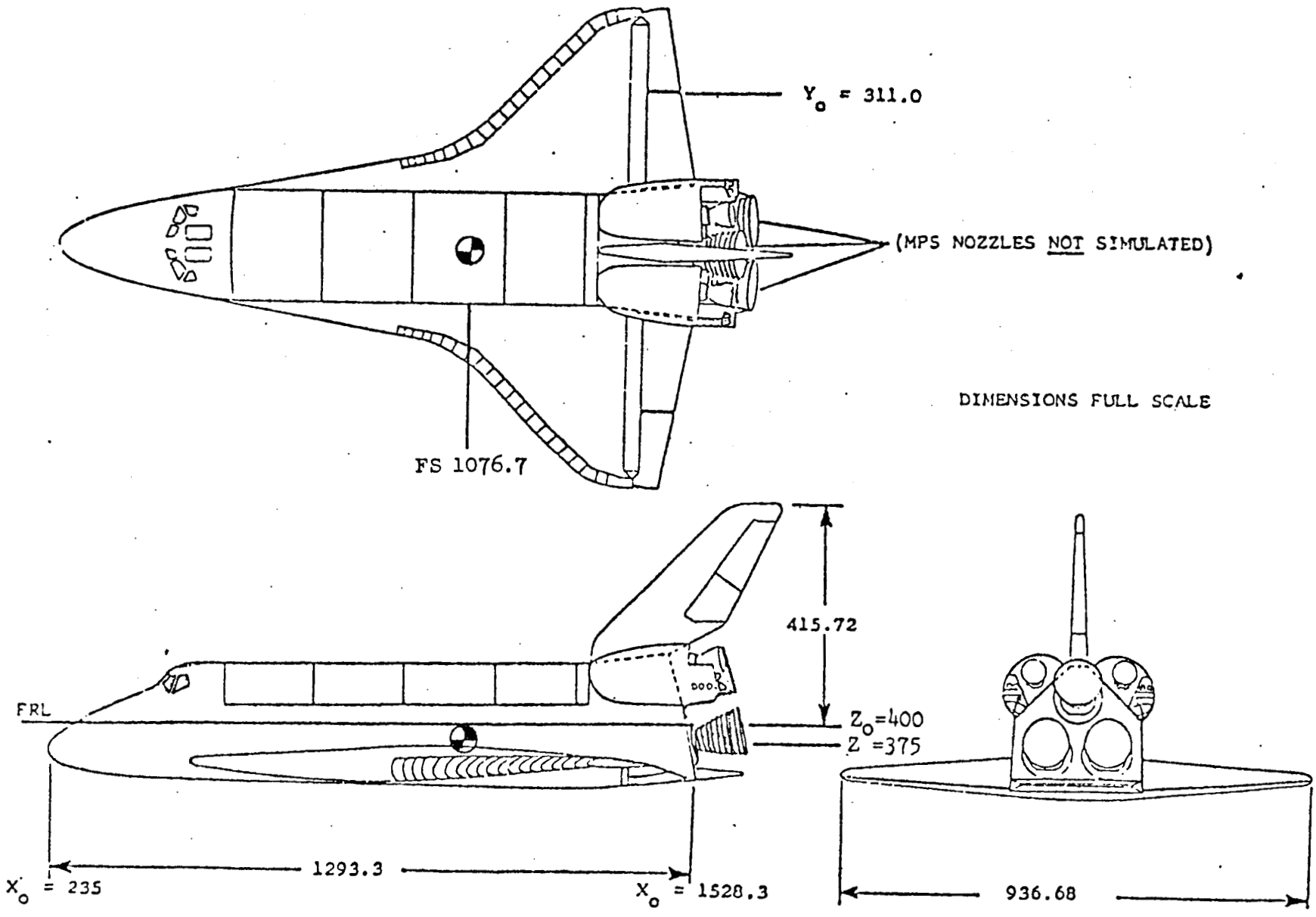
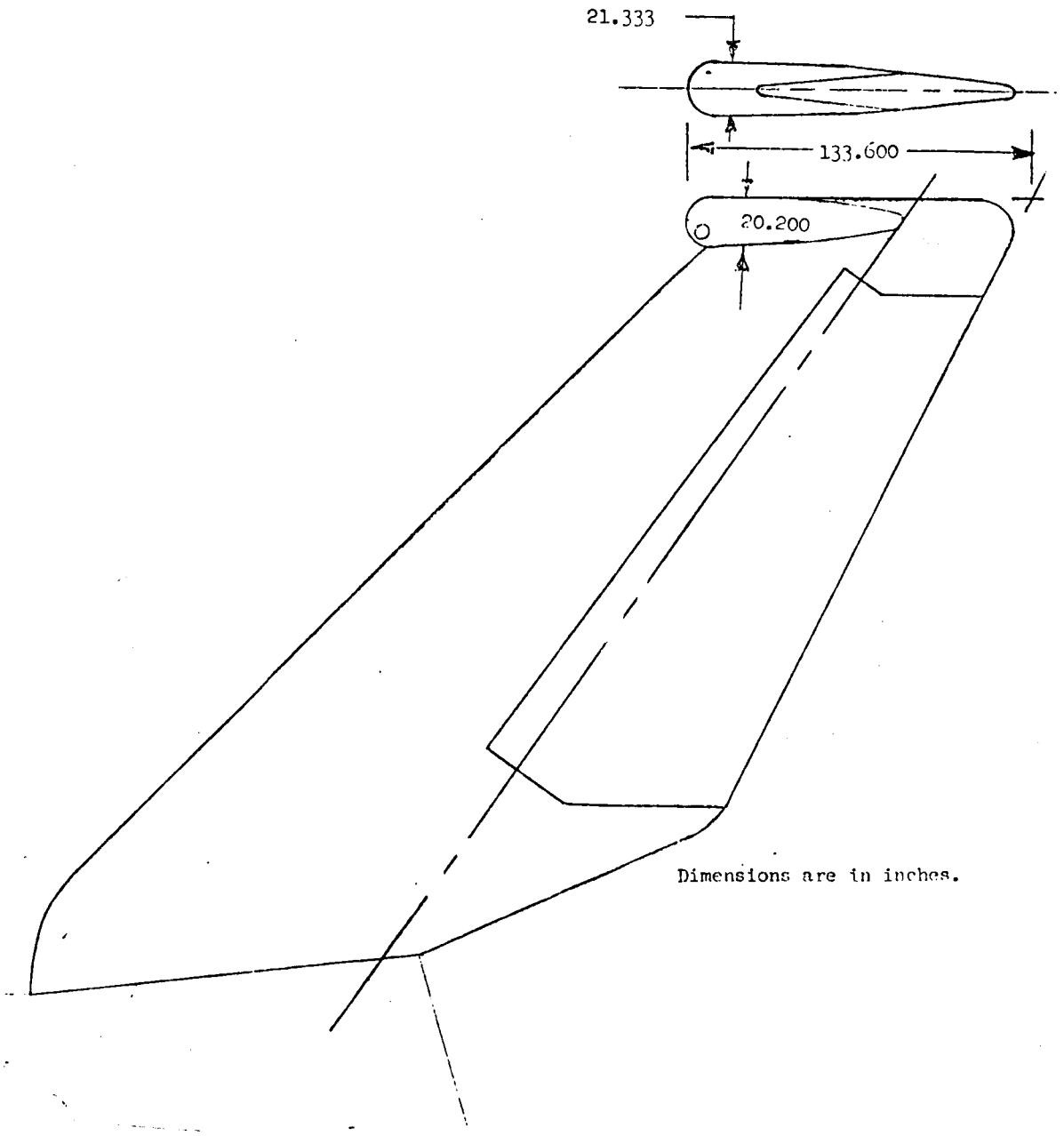


Figure 1. Axis Systems



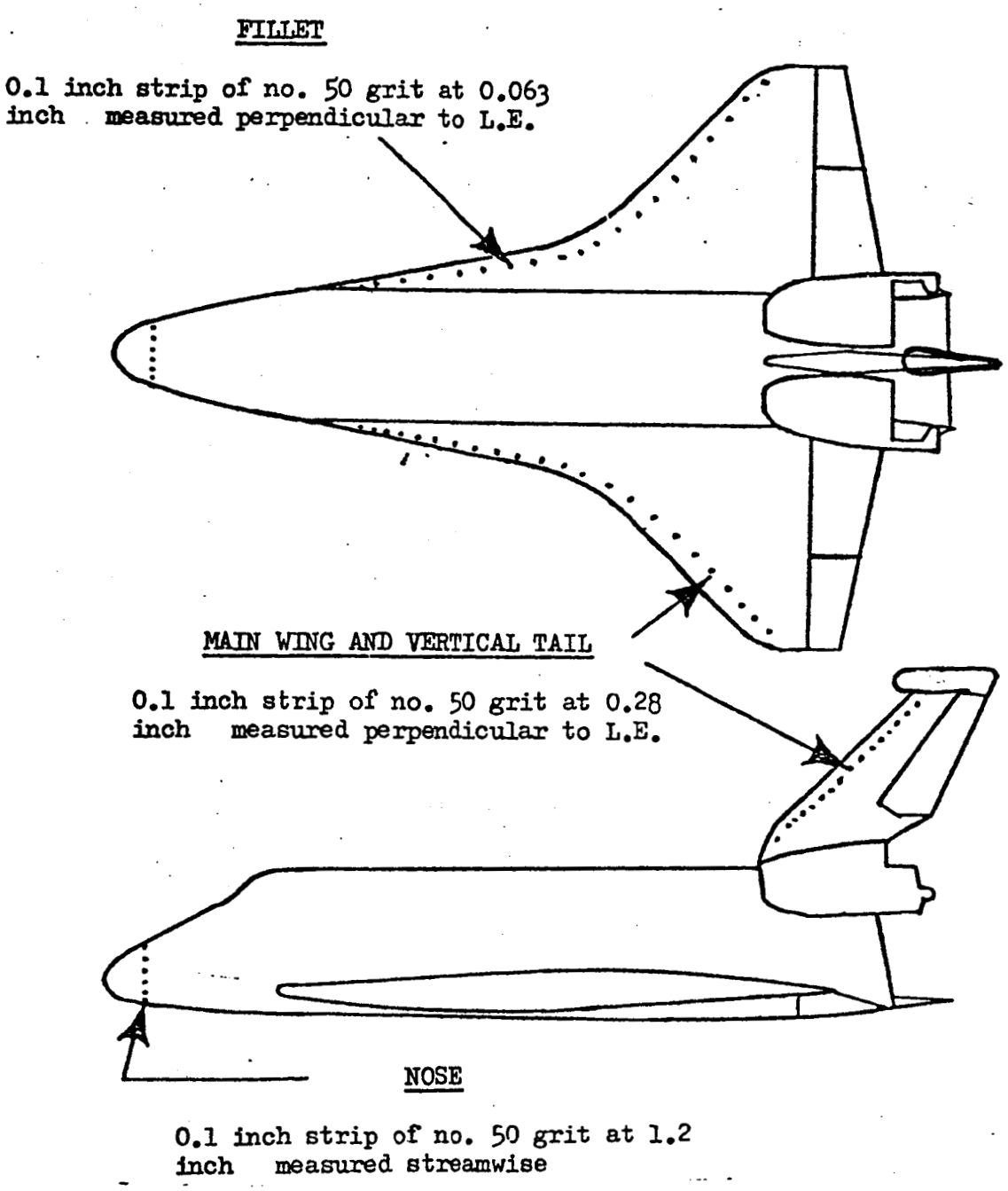
a. SSV Orbiter Configuration

Figure 2. Model Sketches



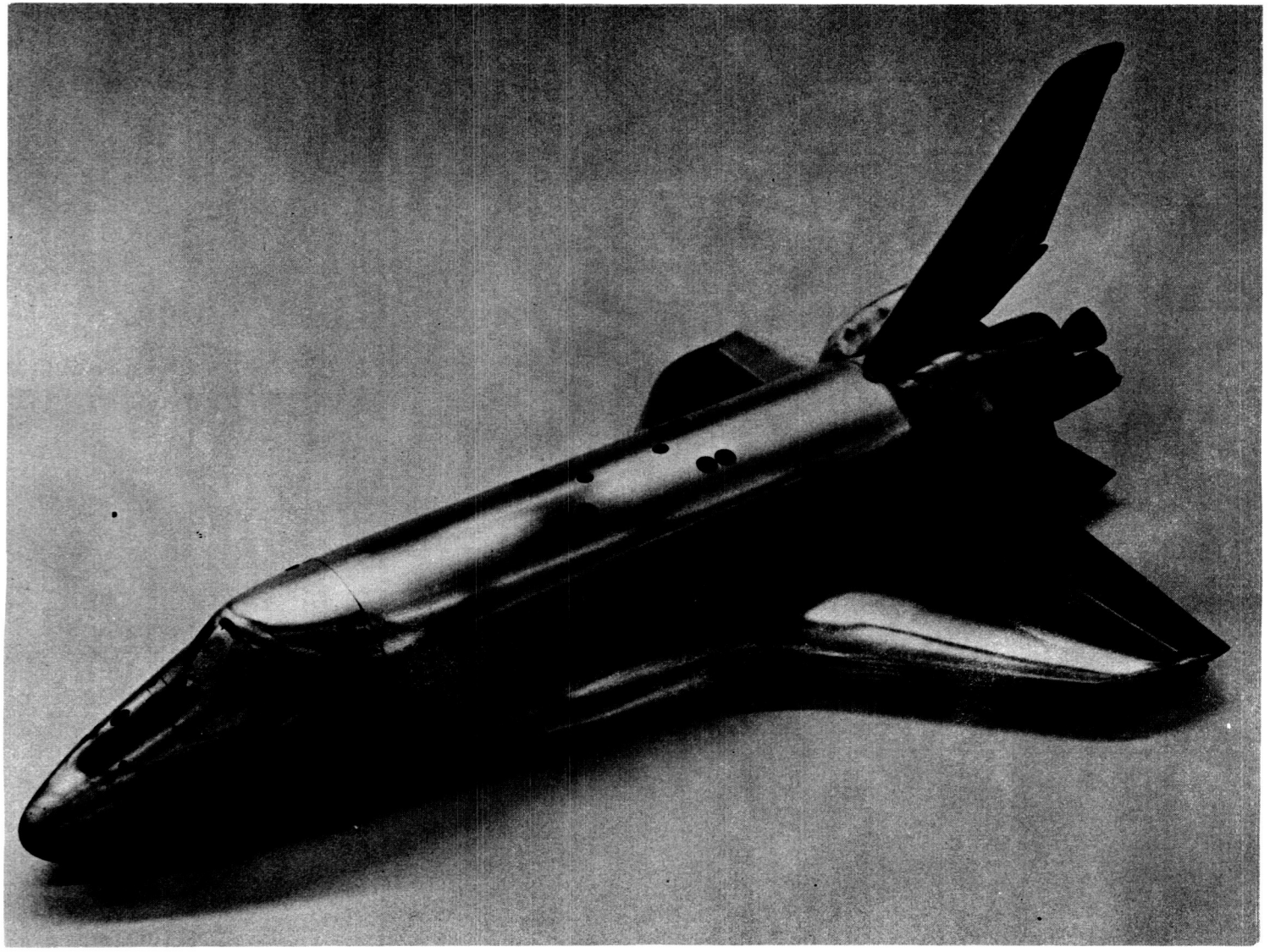
b. SILTS Pod

Figure 2. Model Sketches



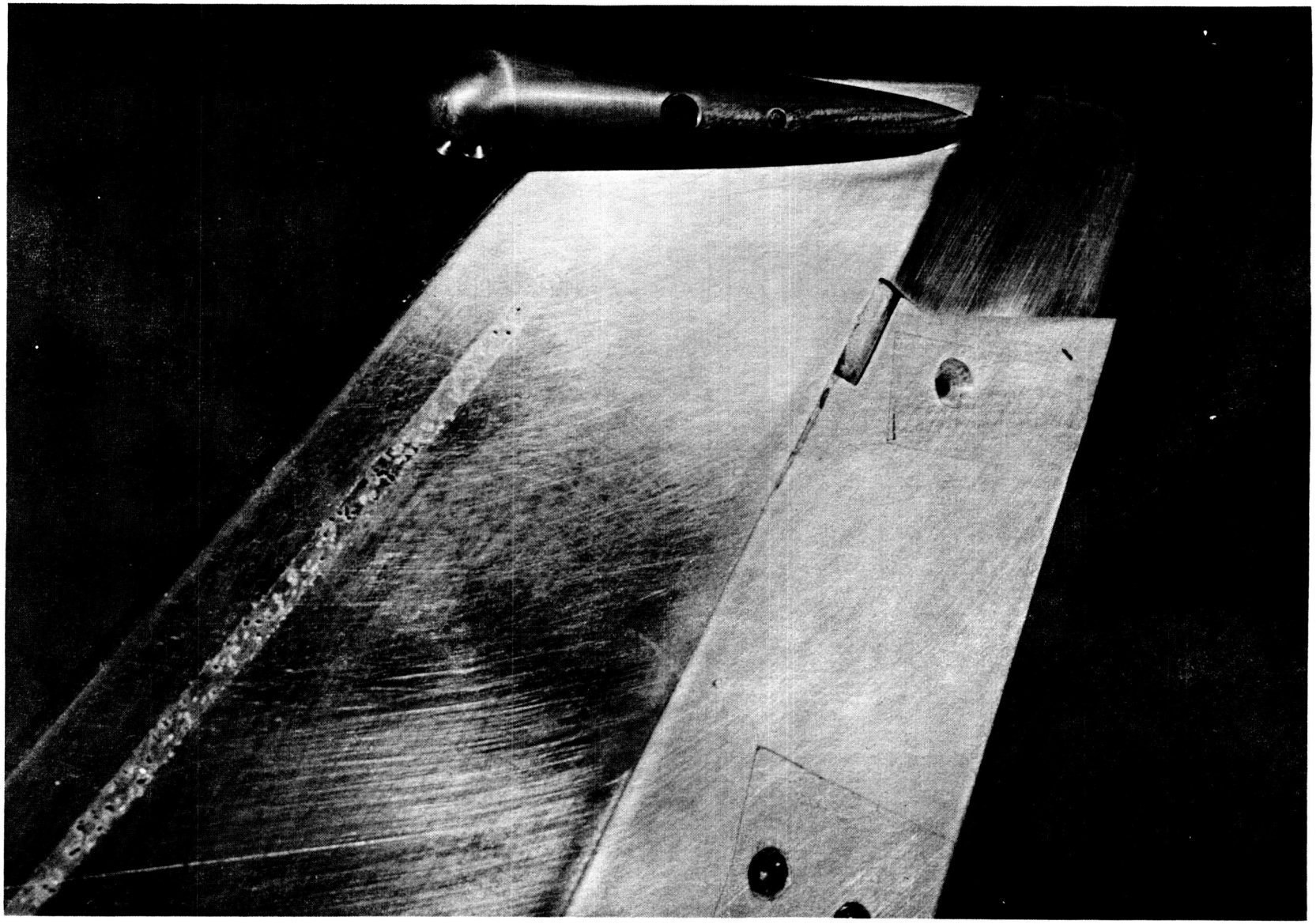
c. Position of Transition Grit Used in Investigation

Figure 2. Concluded



a. Orbiter Configuration, Front, 3/4 View

Figure 3. Model Photographs



b. SILTS Pod Installation on Vertical Tail

Figure 3. Concluded

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DATA FIGURES

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

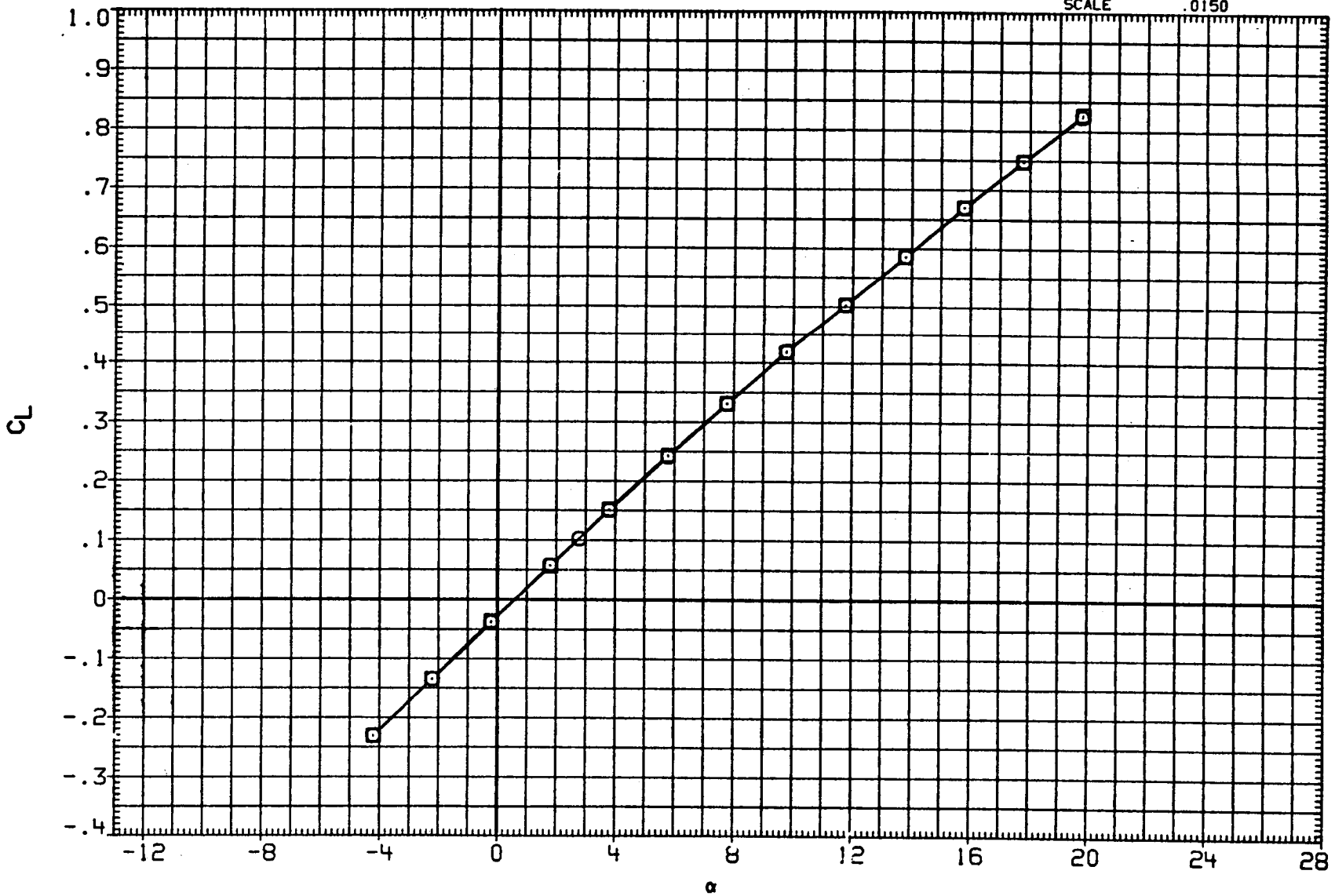

FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
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BREF	936.6800	INCHES
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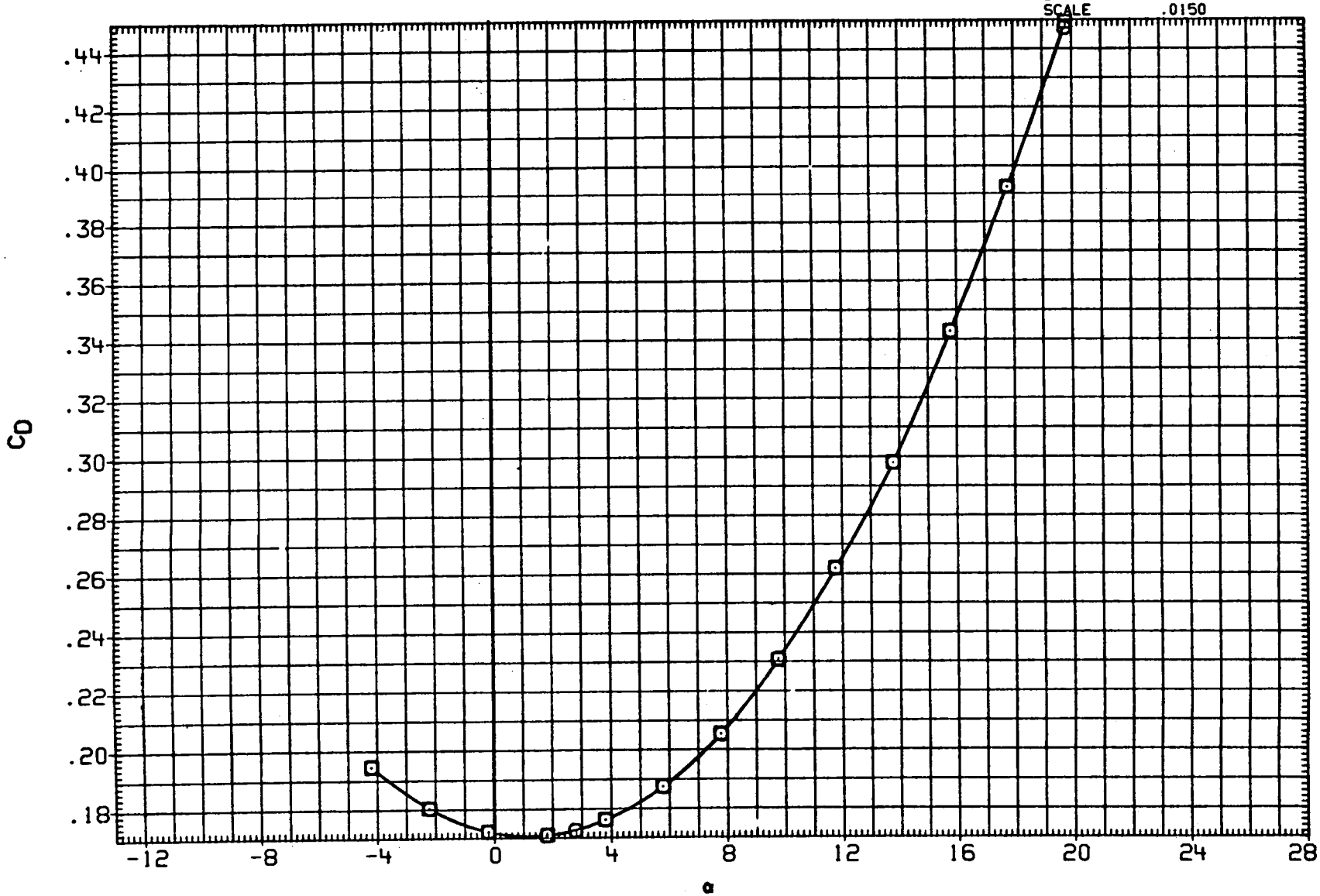
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION

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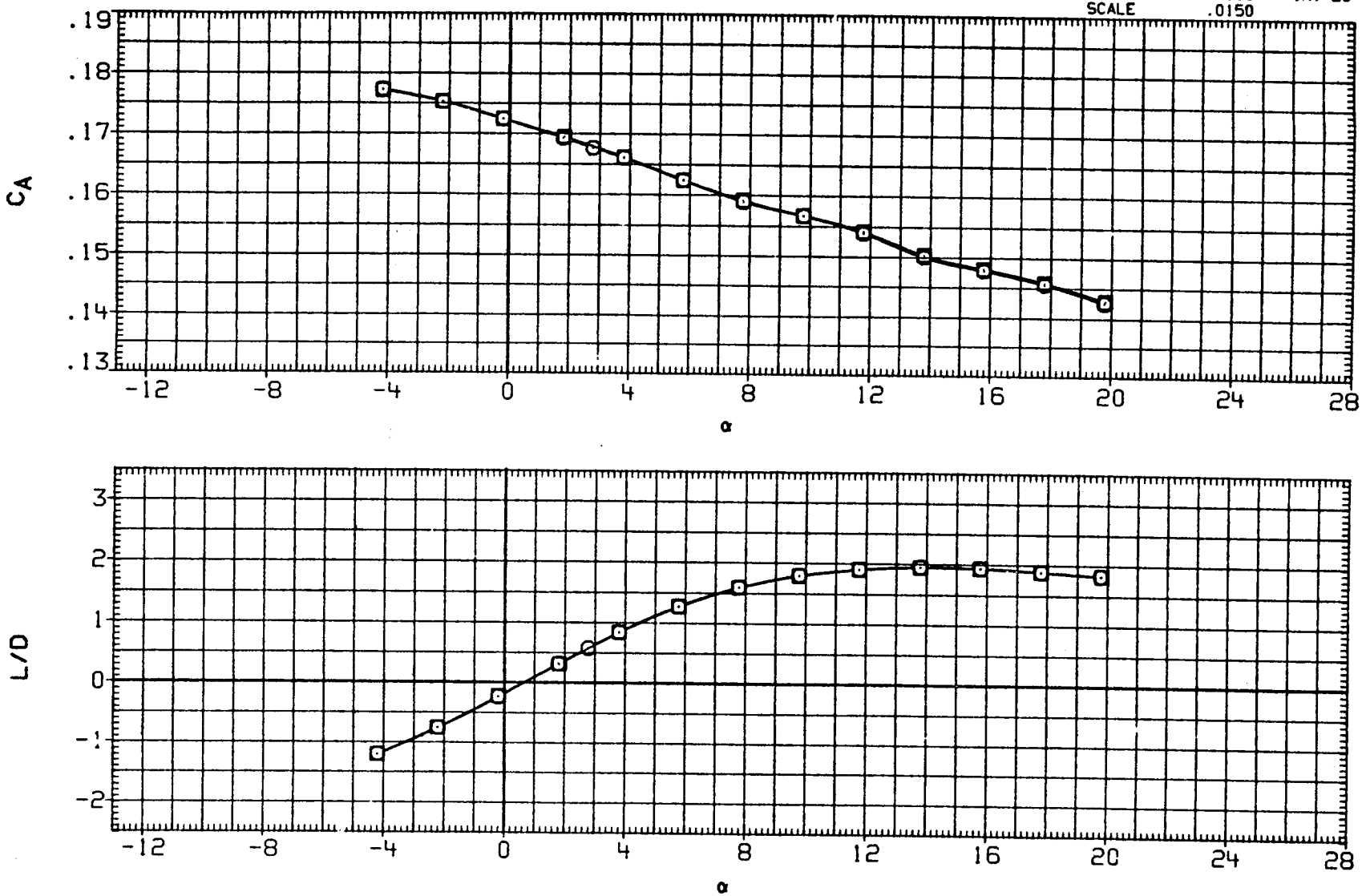
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
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BREF	936.6800	INCHES
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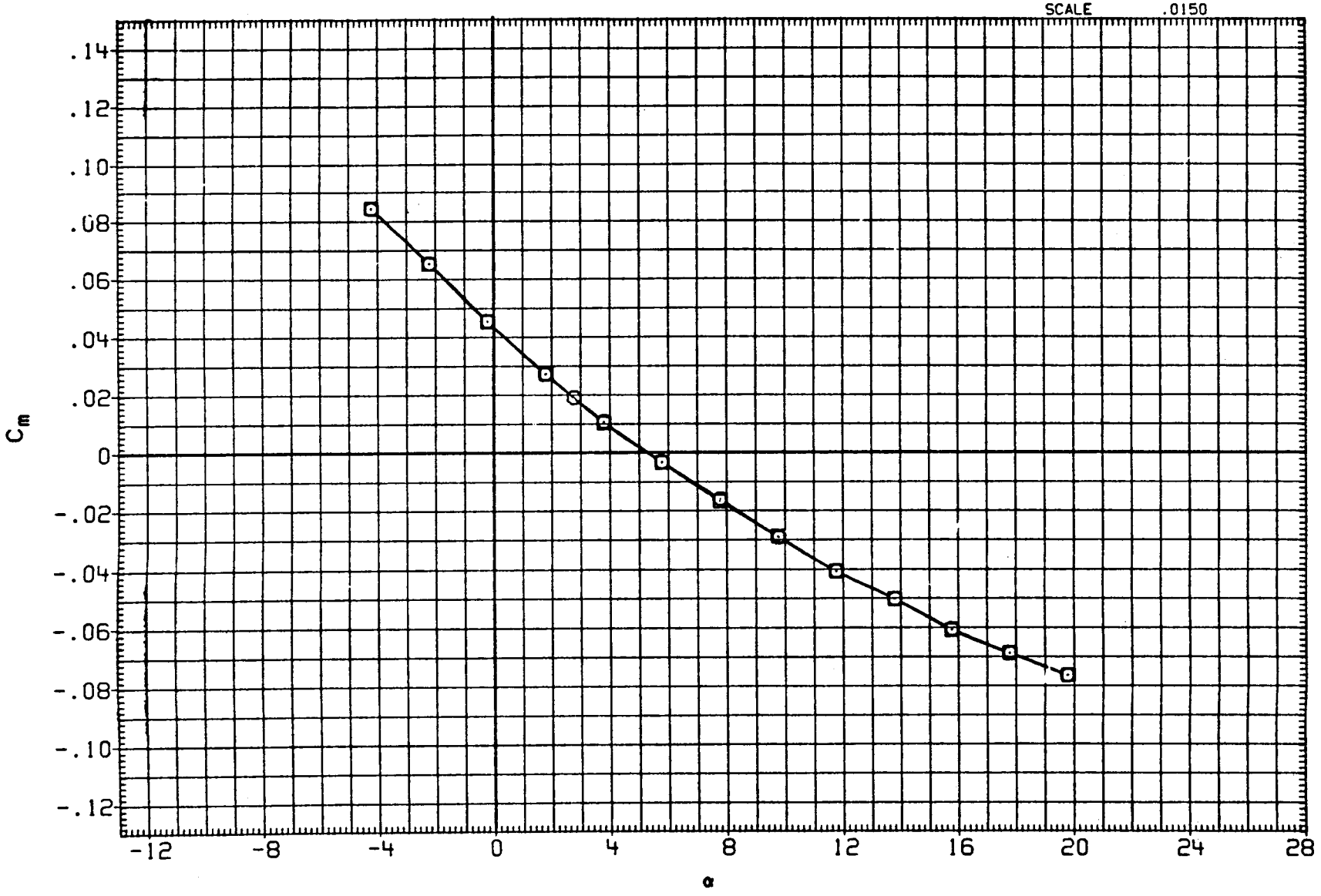
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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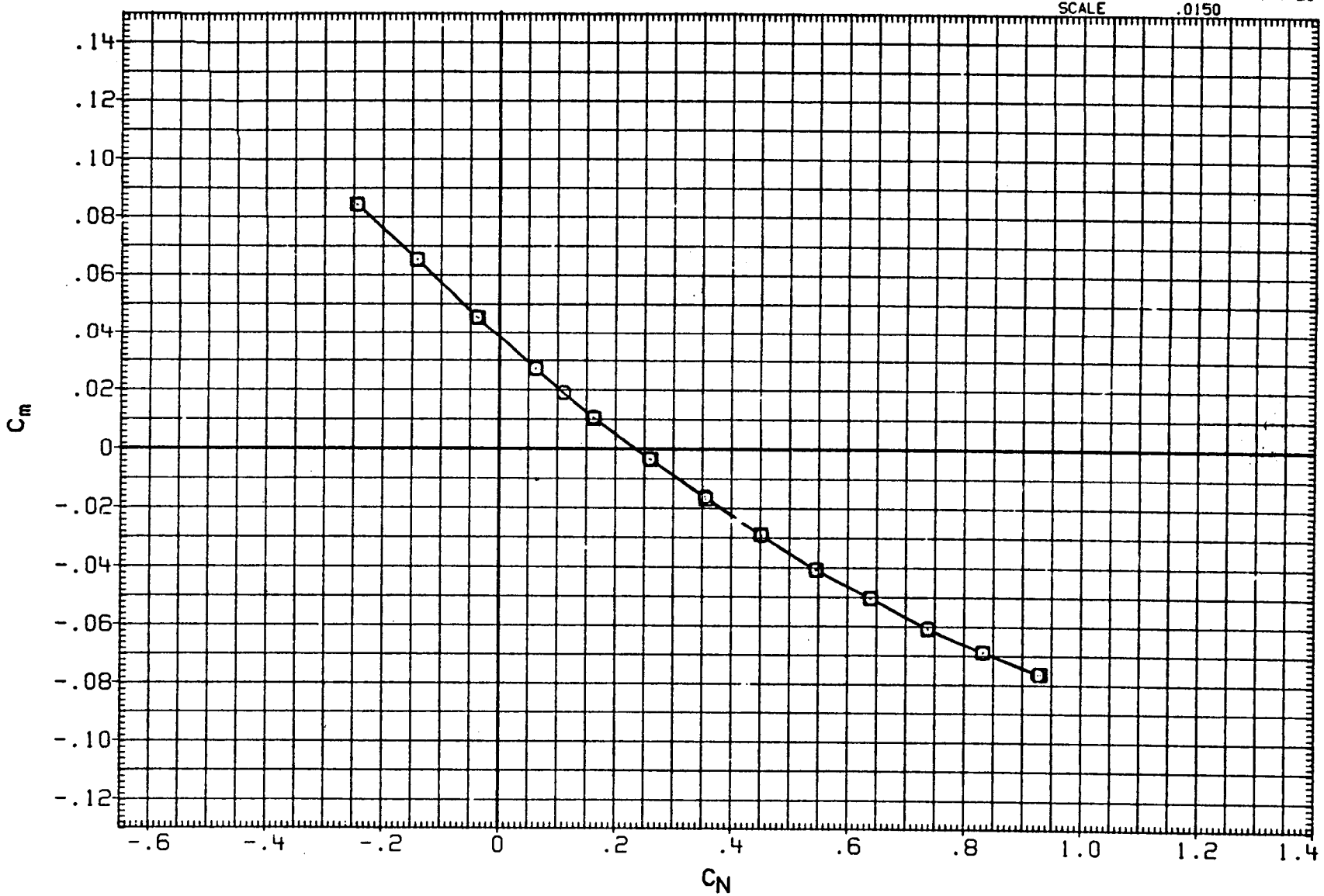
(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RKI001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RKI002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

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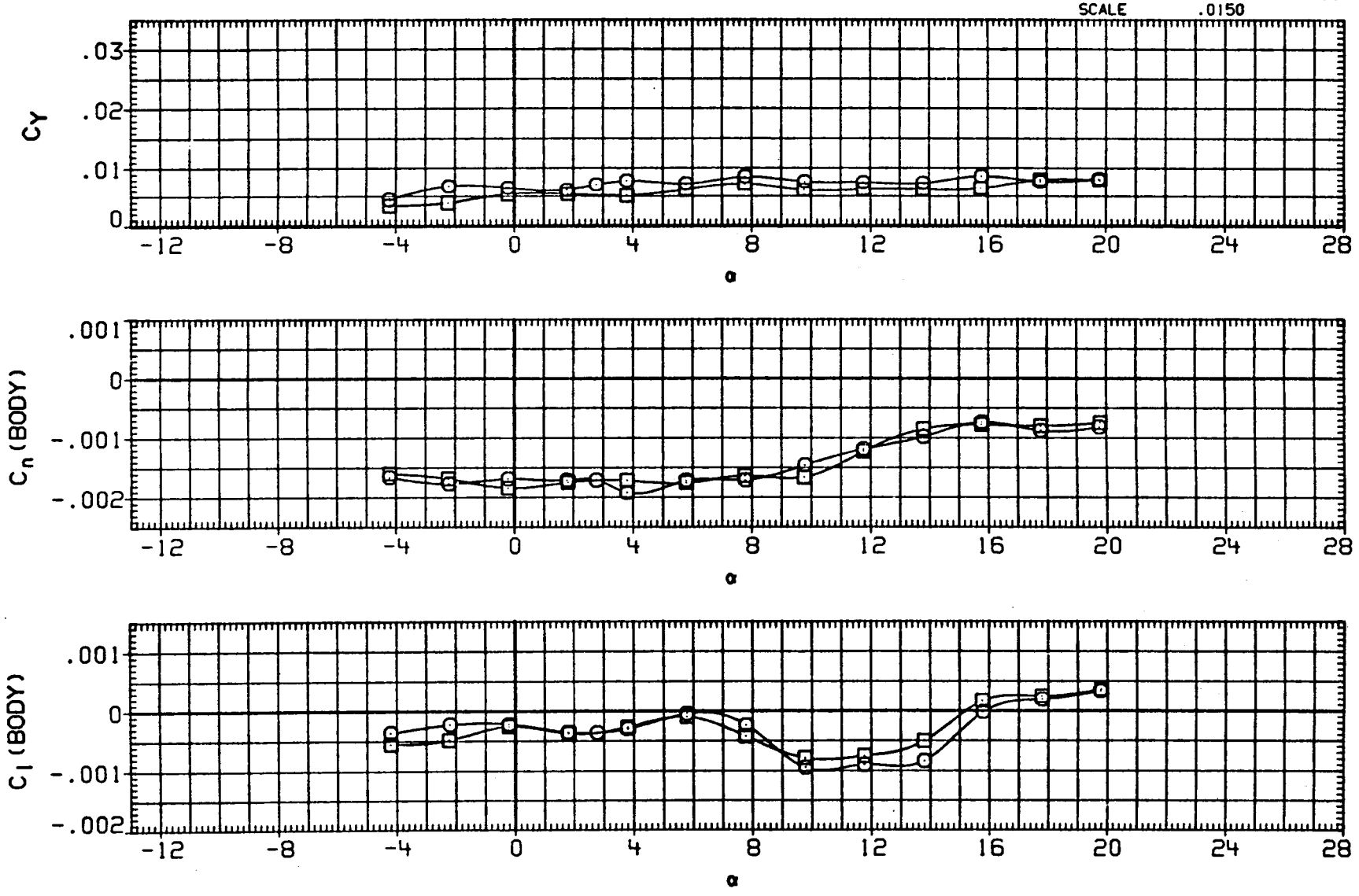
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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(A) MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

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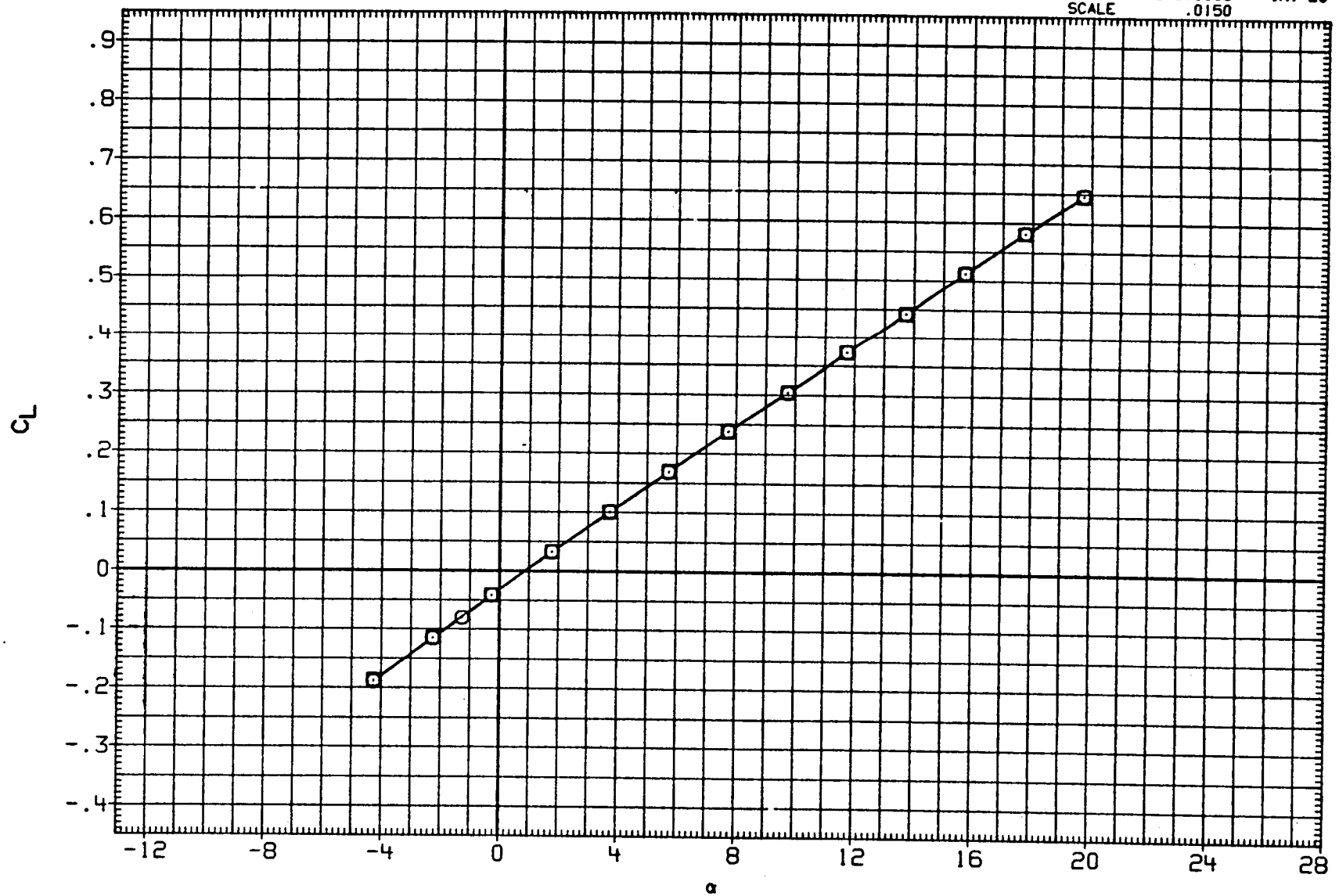

FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

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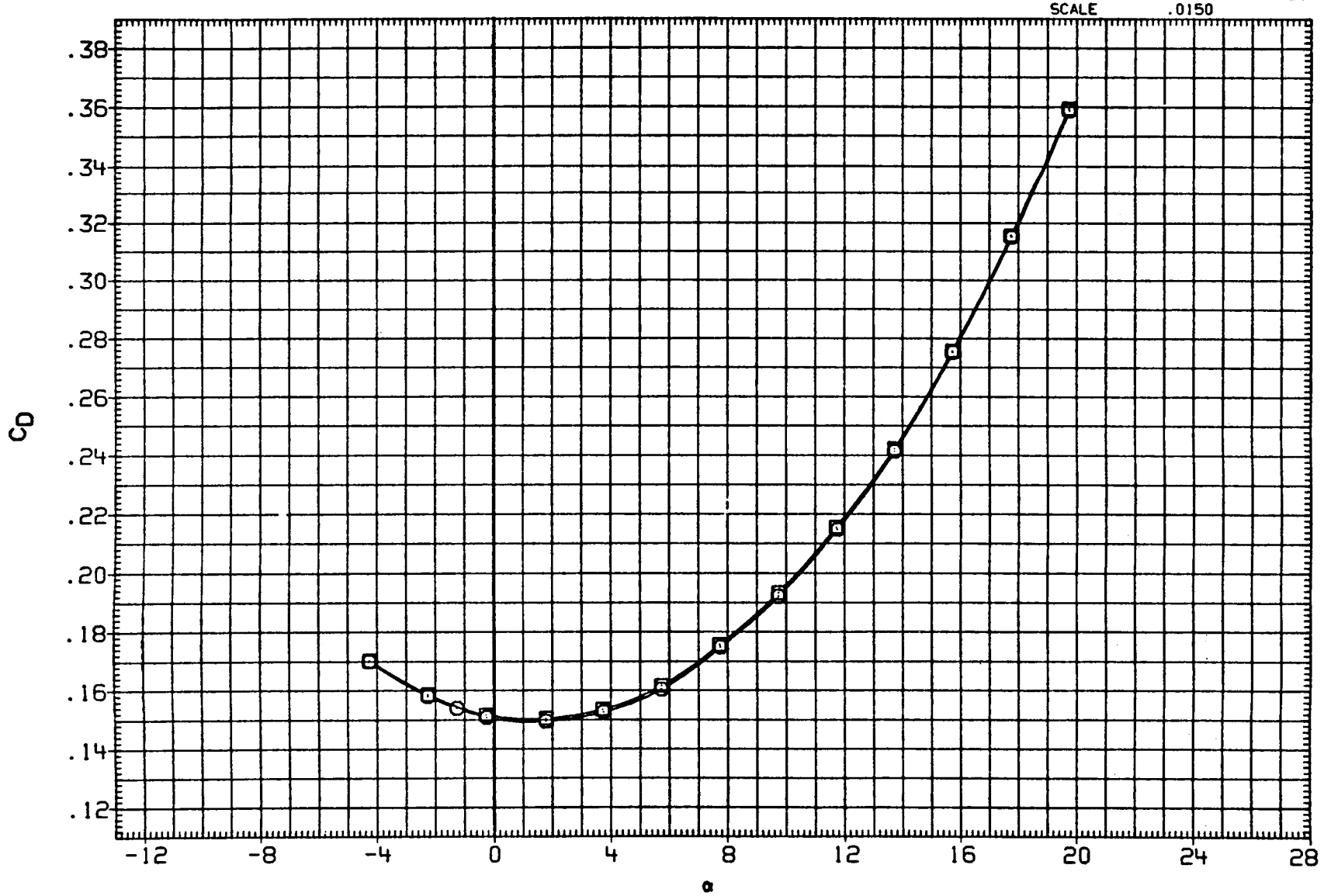
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RKI001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RKI002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

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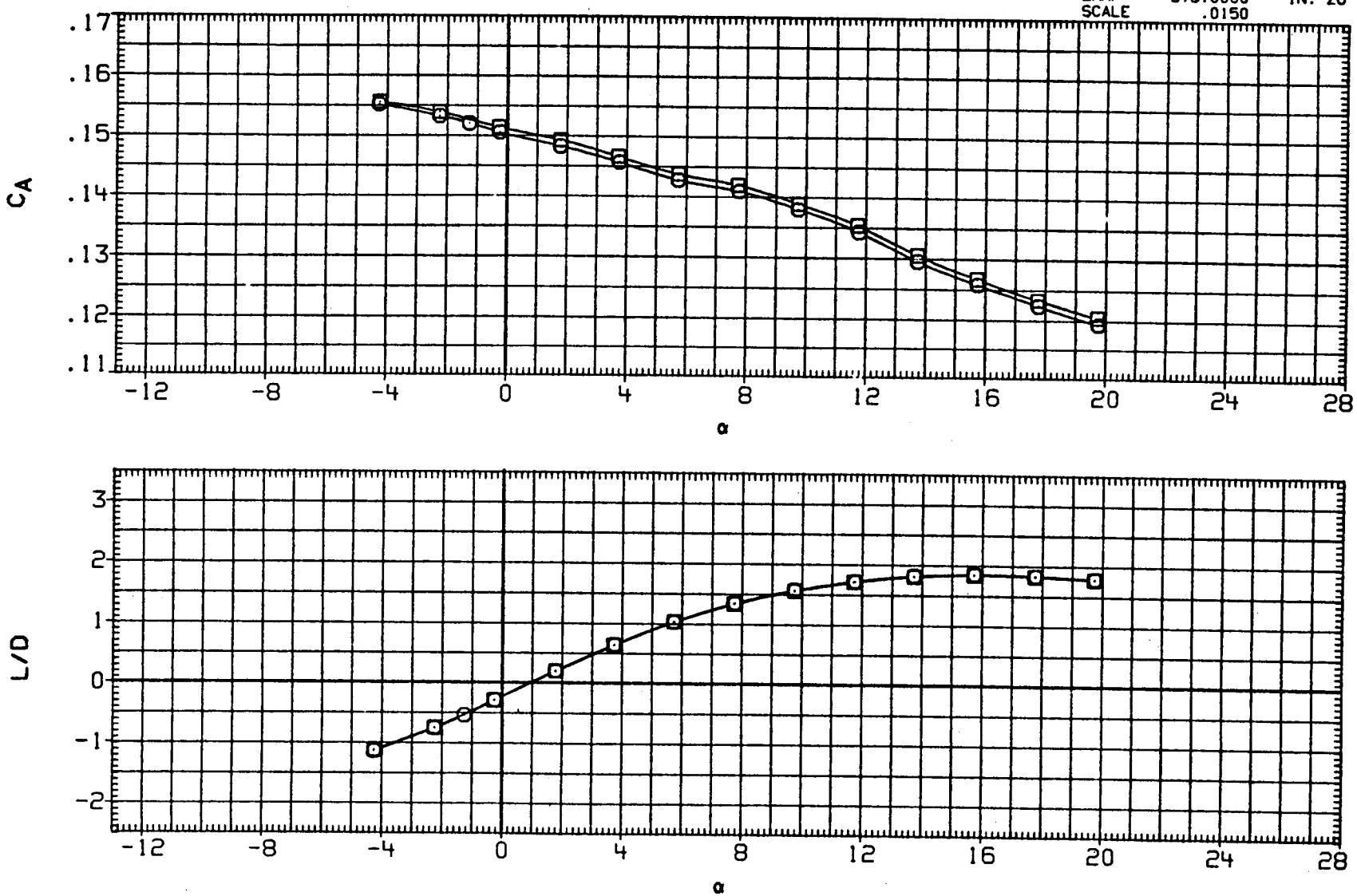

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(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
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ZMRP	375.0000	IN. ZO
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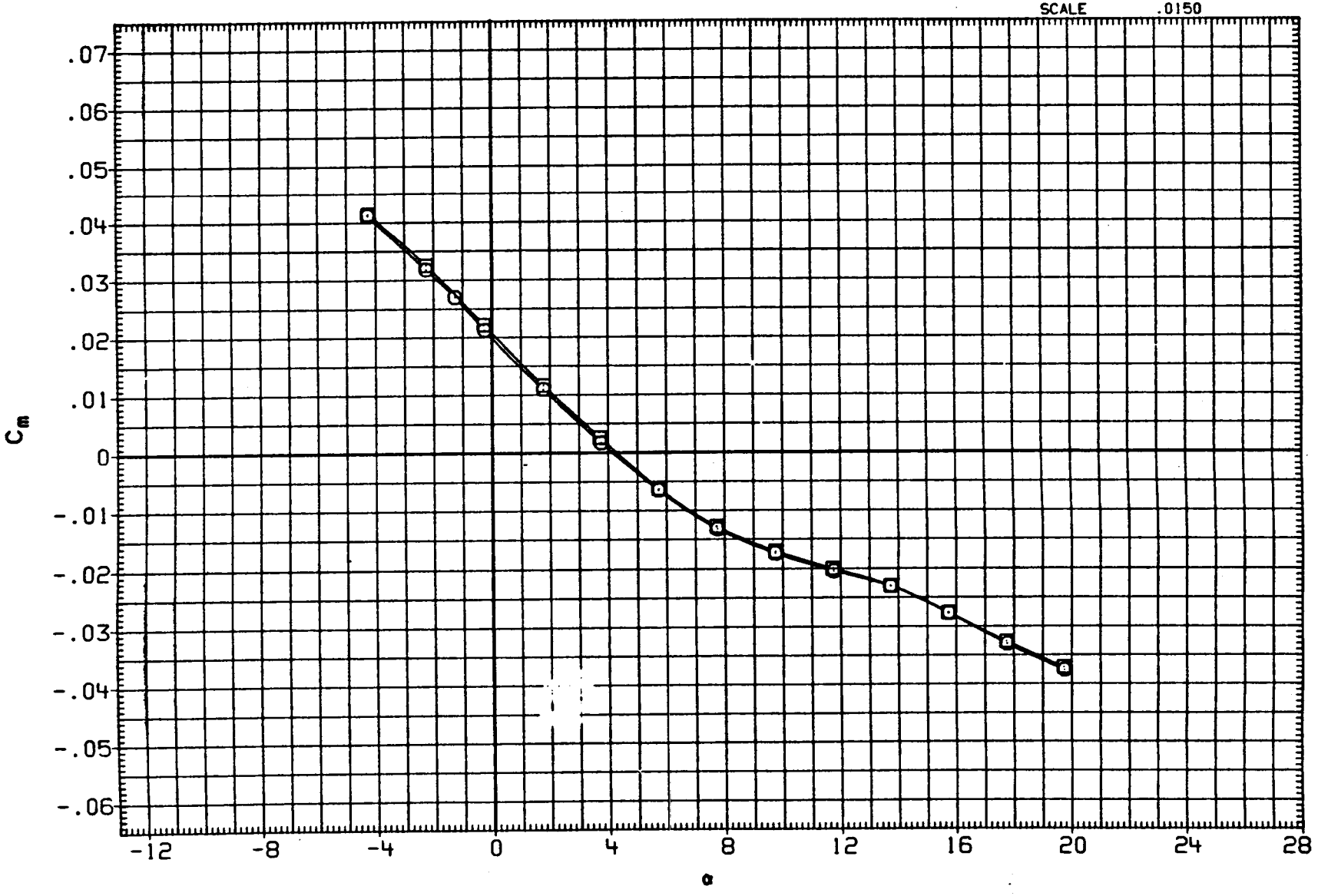

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(B)MACH = 2.00

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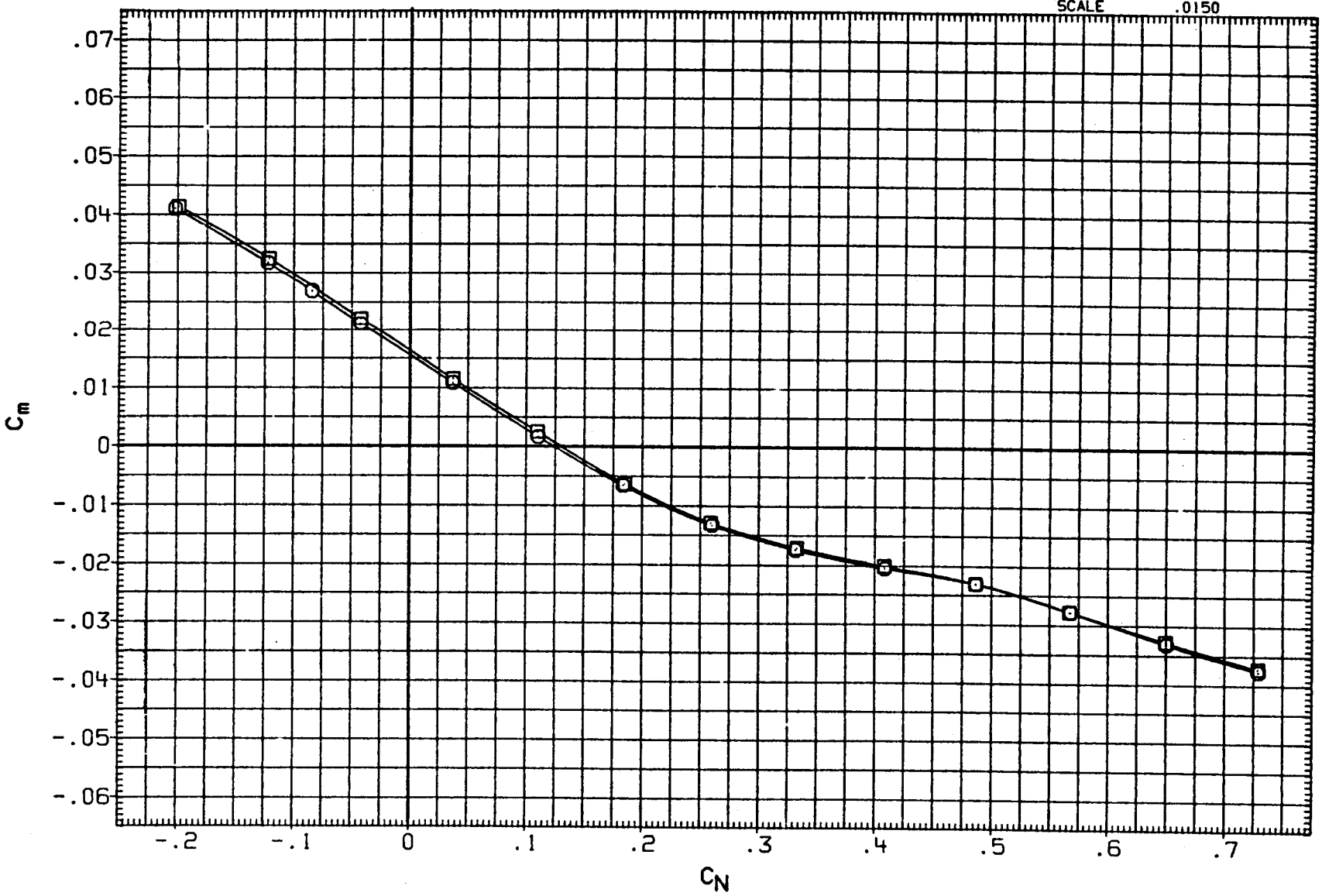
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
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RKI002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

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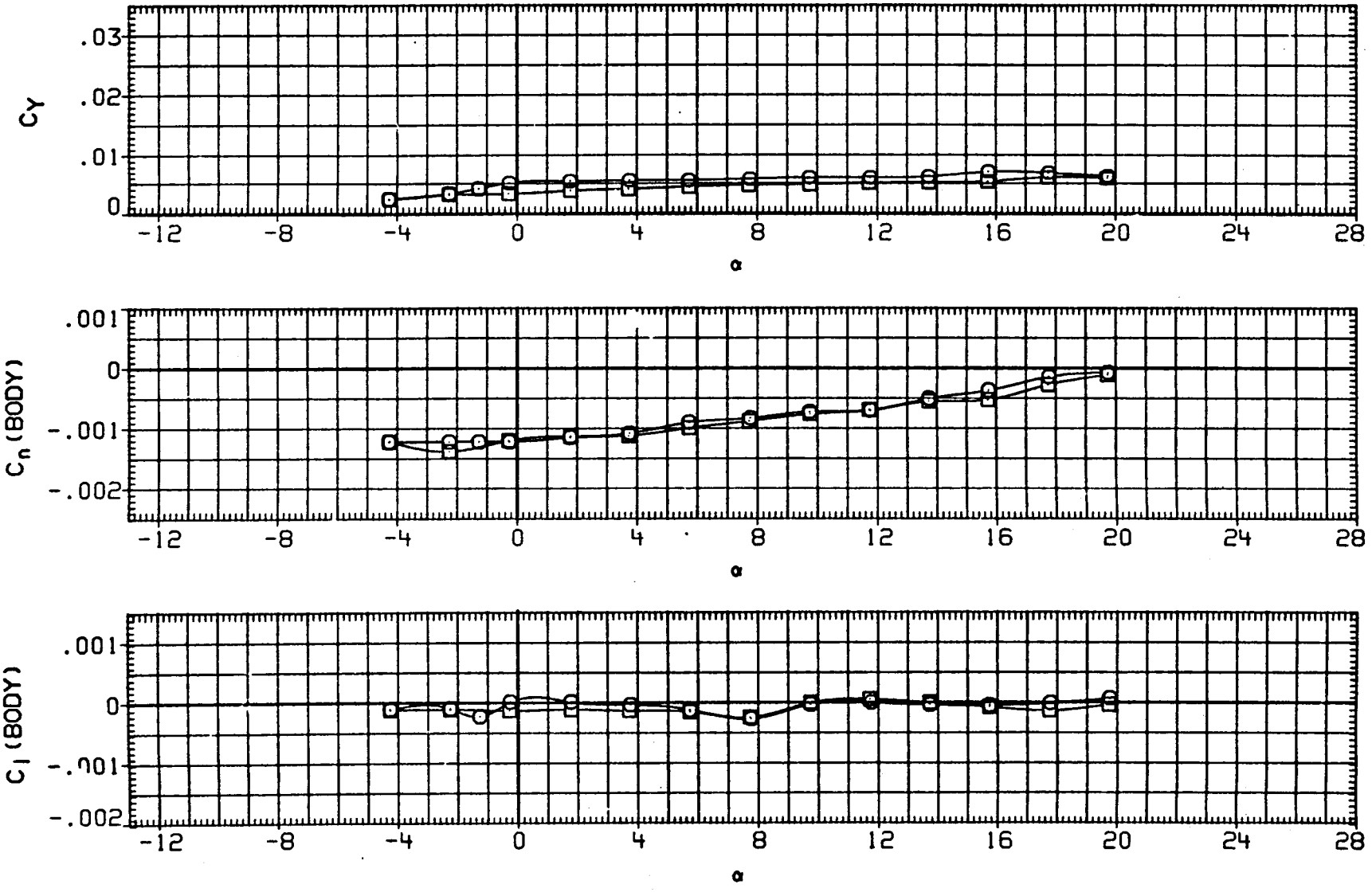
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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(B)MACH = 2.00

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RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

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YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

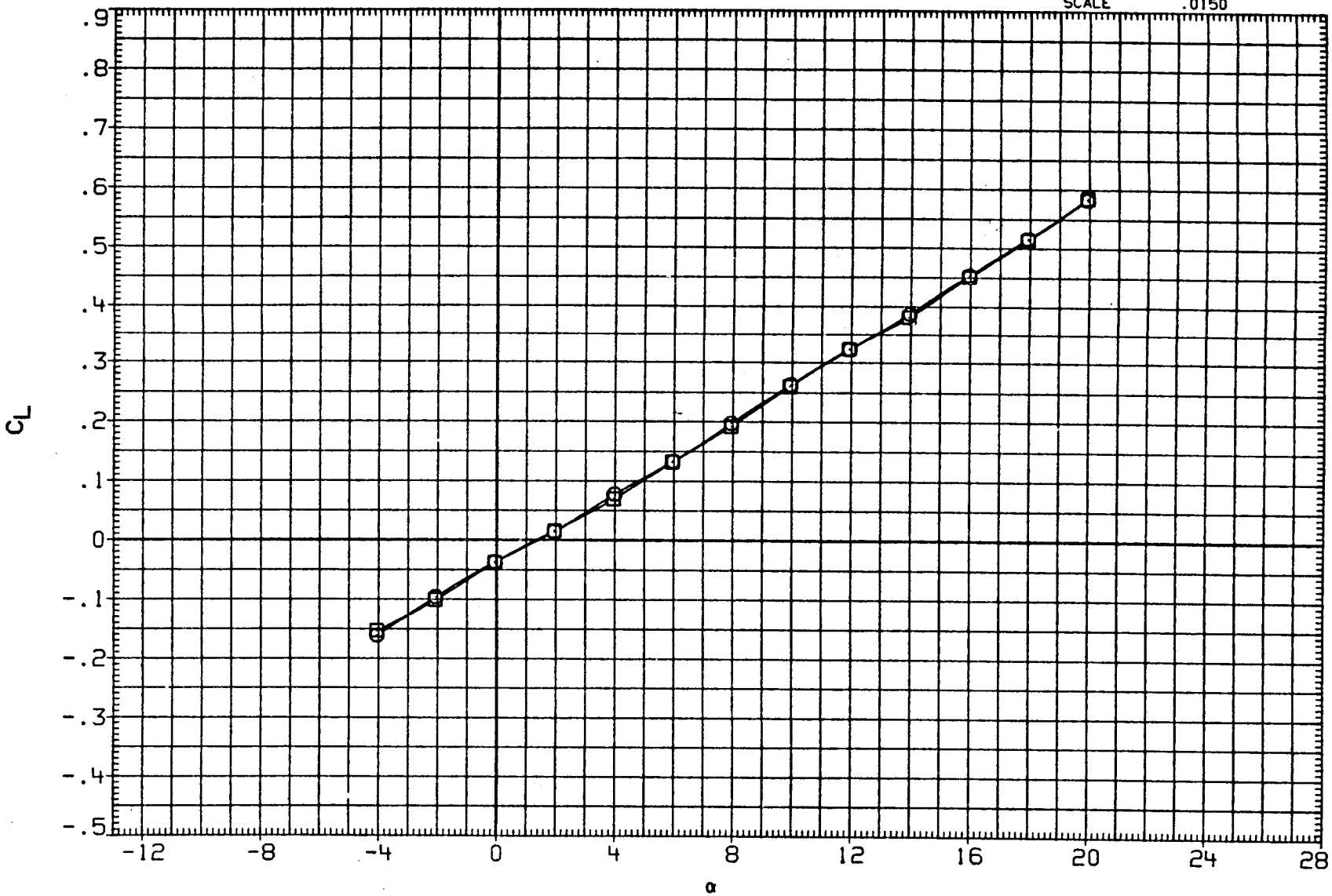
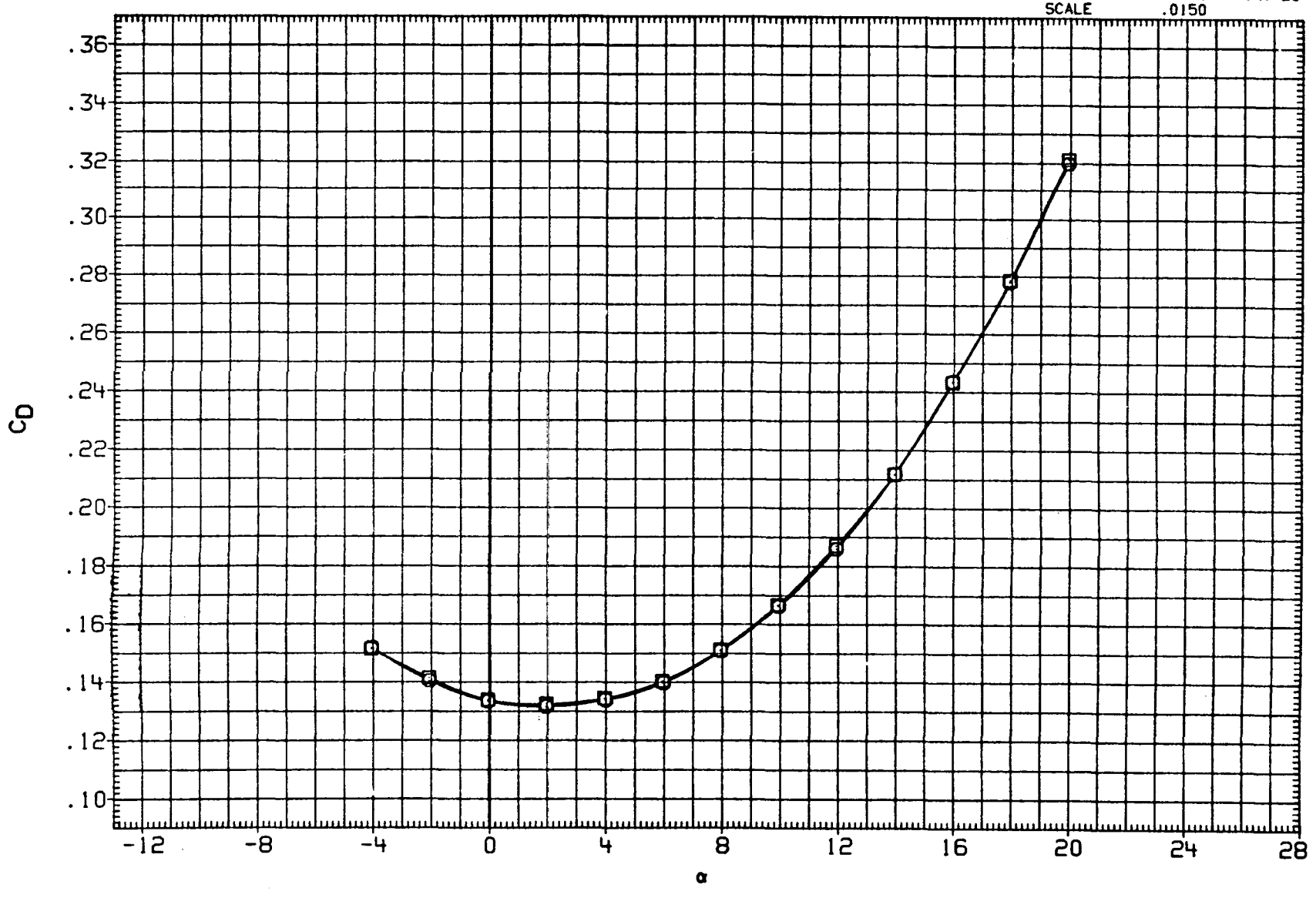


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RKI001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RKI002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



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(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION

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BREF	936.6800	INCHES
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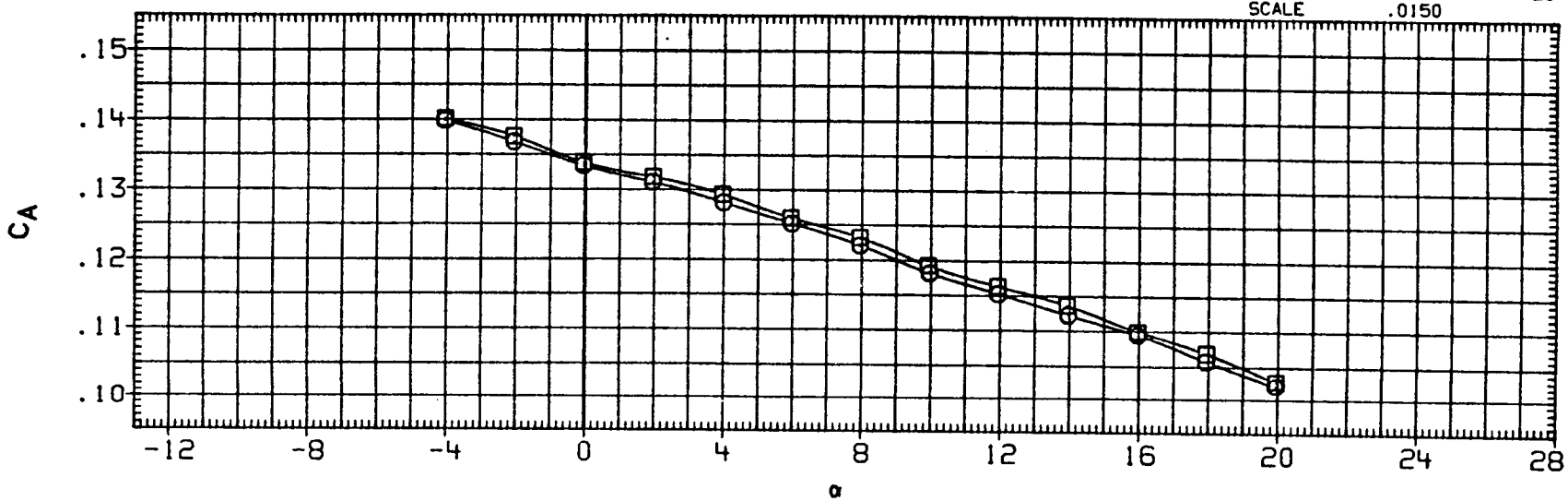
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	



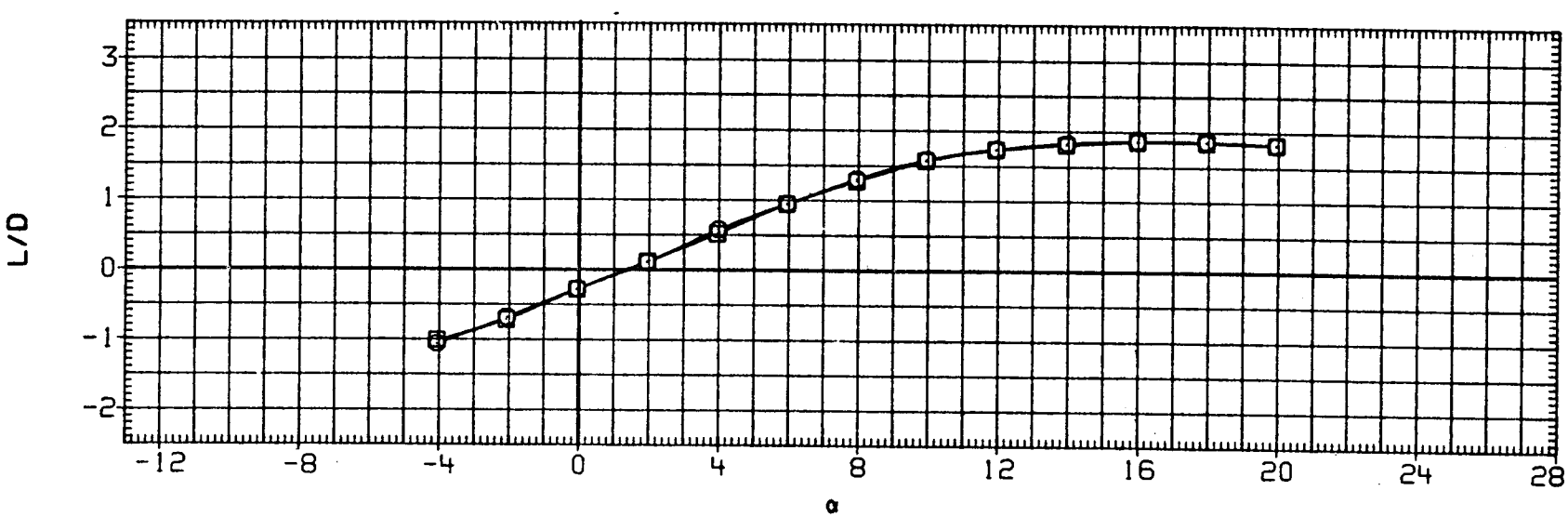


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

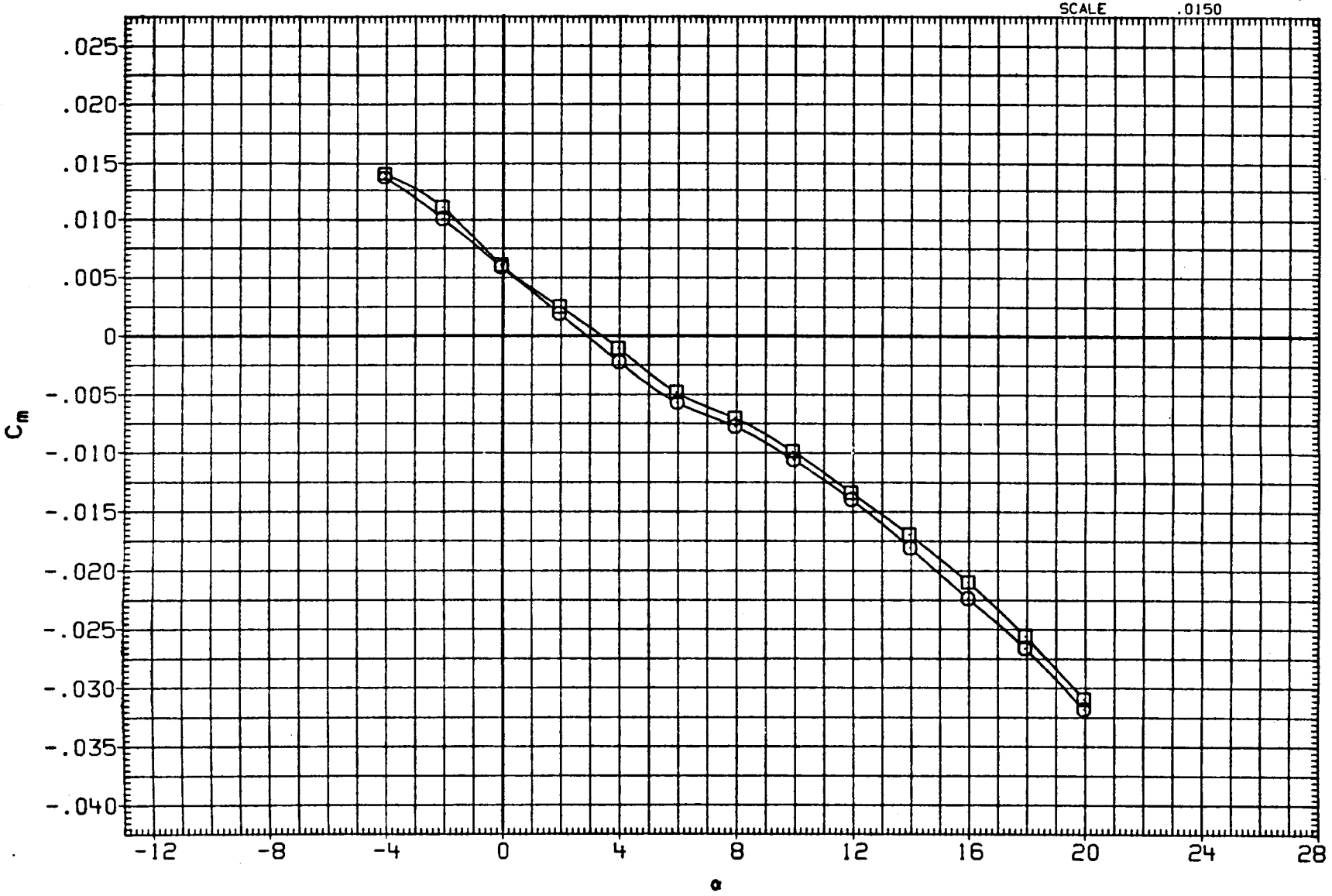


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

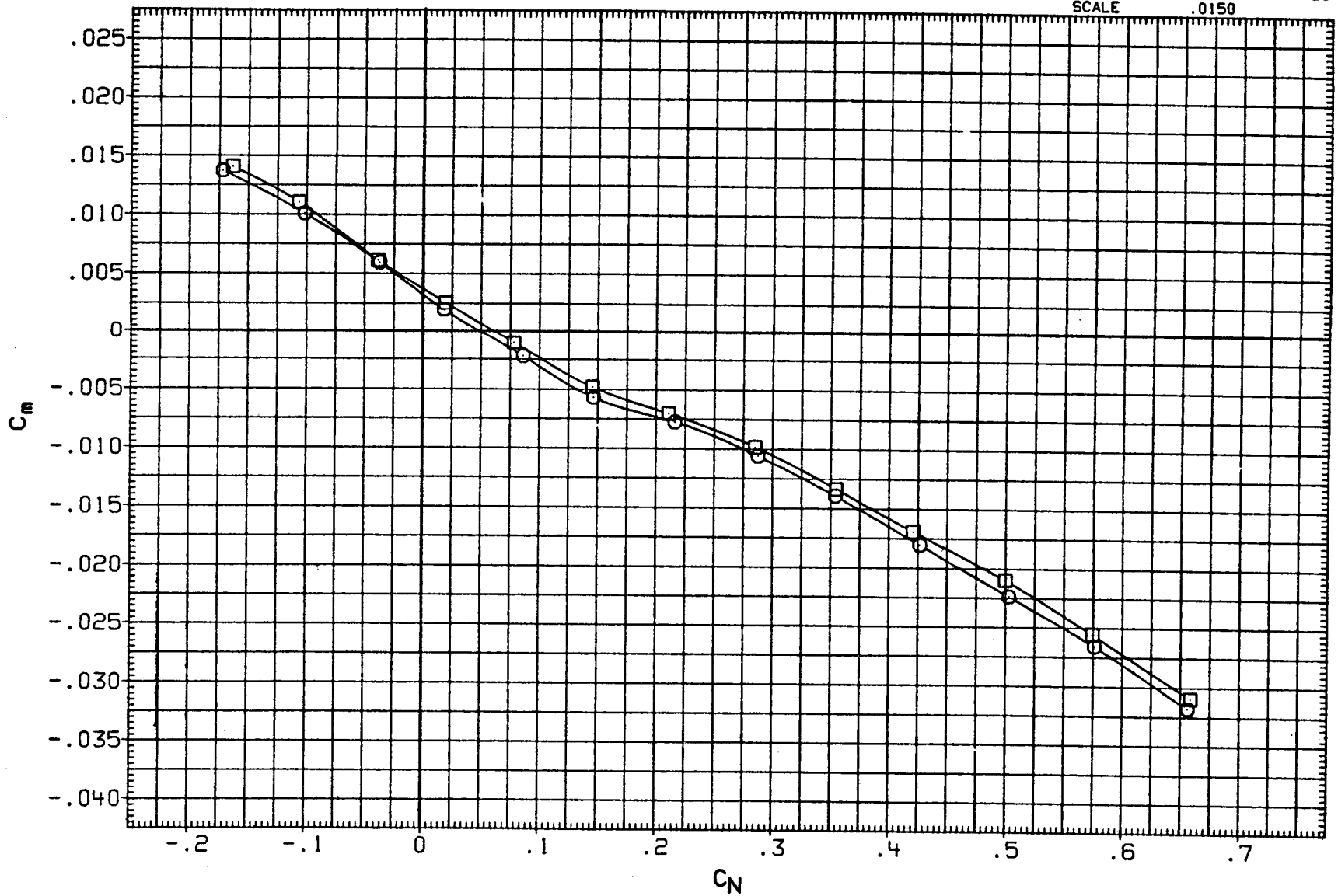


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1001	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	55.000	.000
RK1002	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

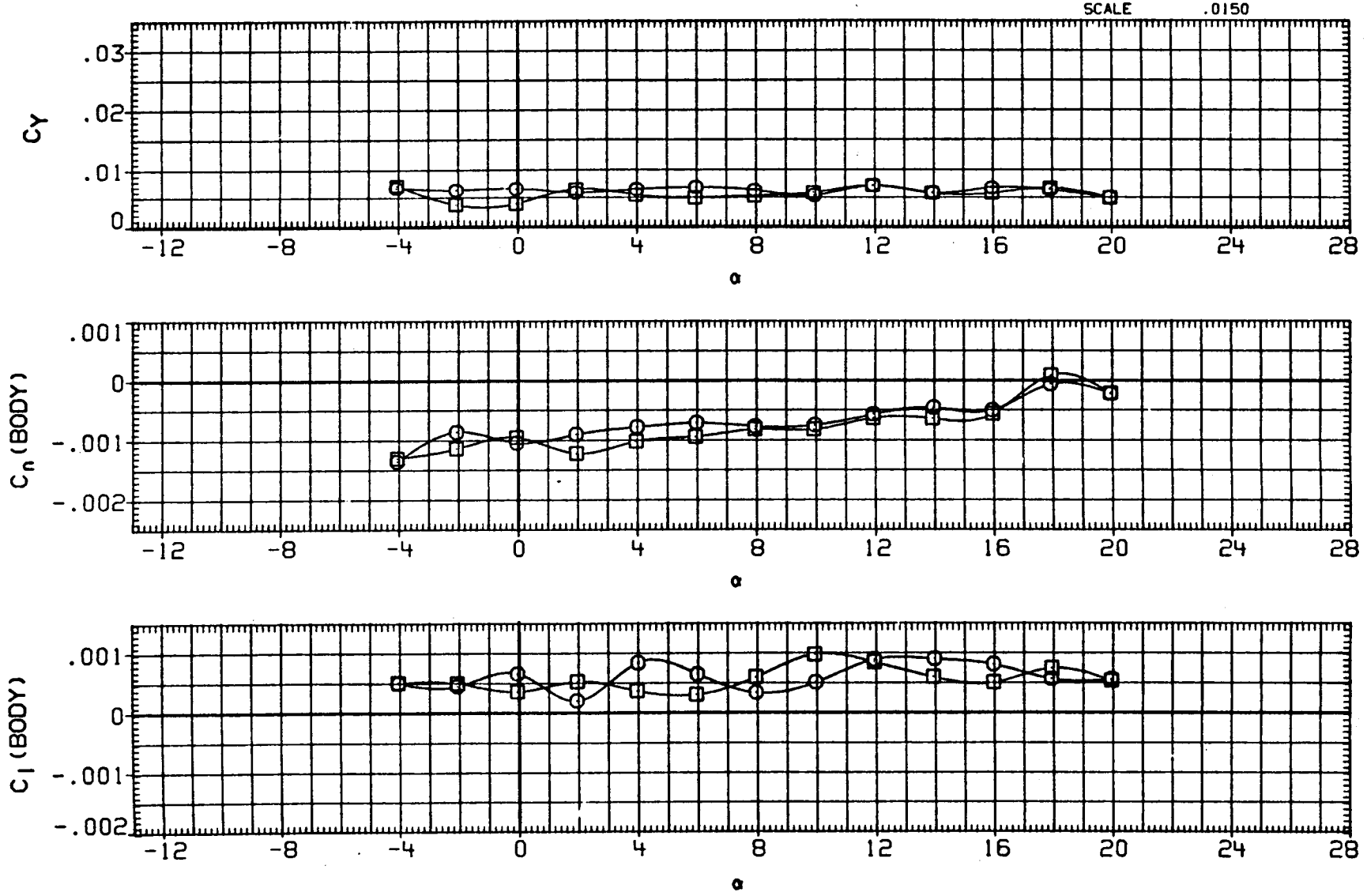


FIGURE 4. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

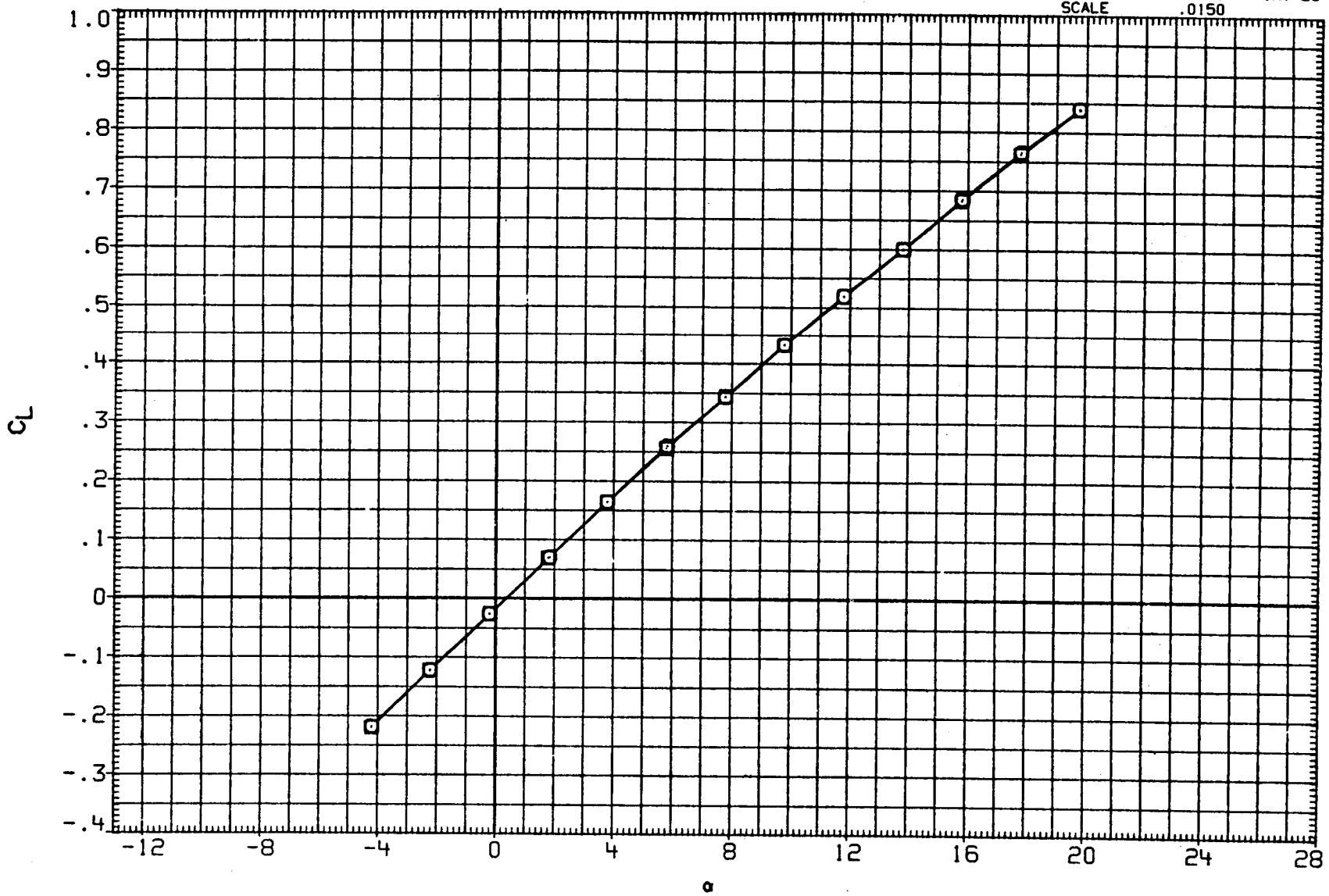


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

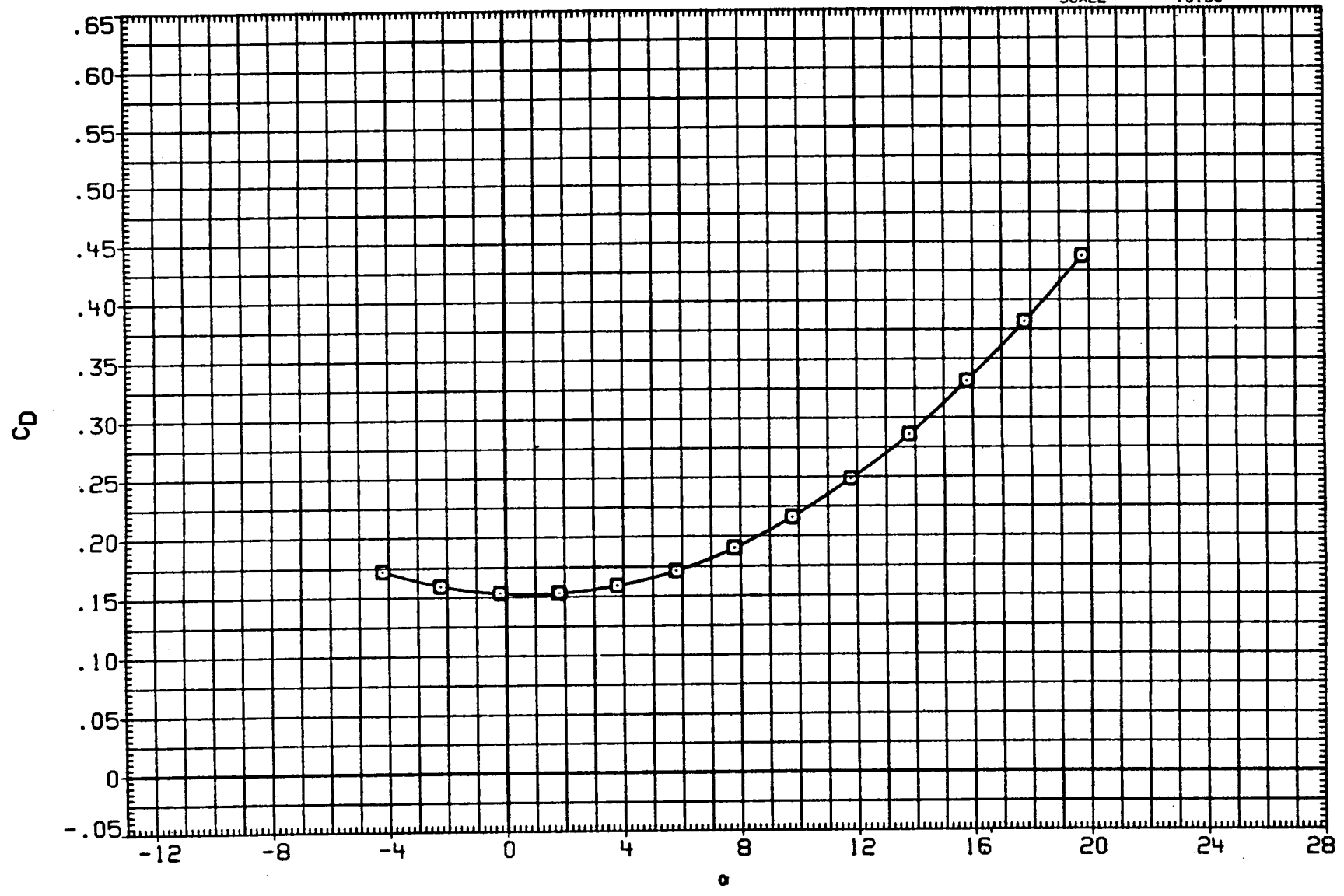


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

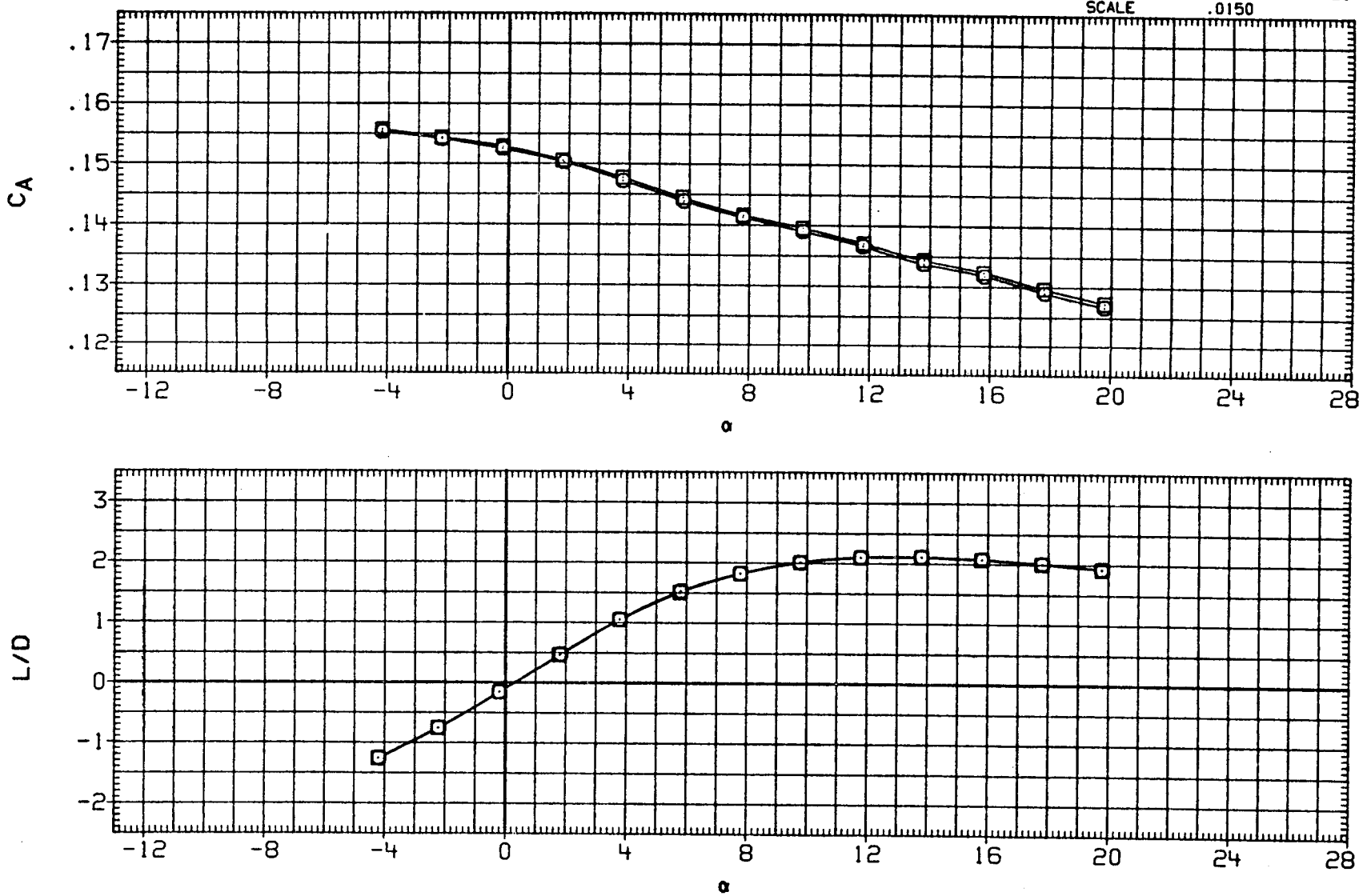


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

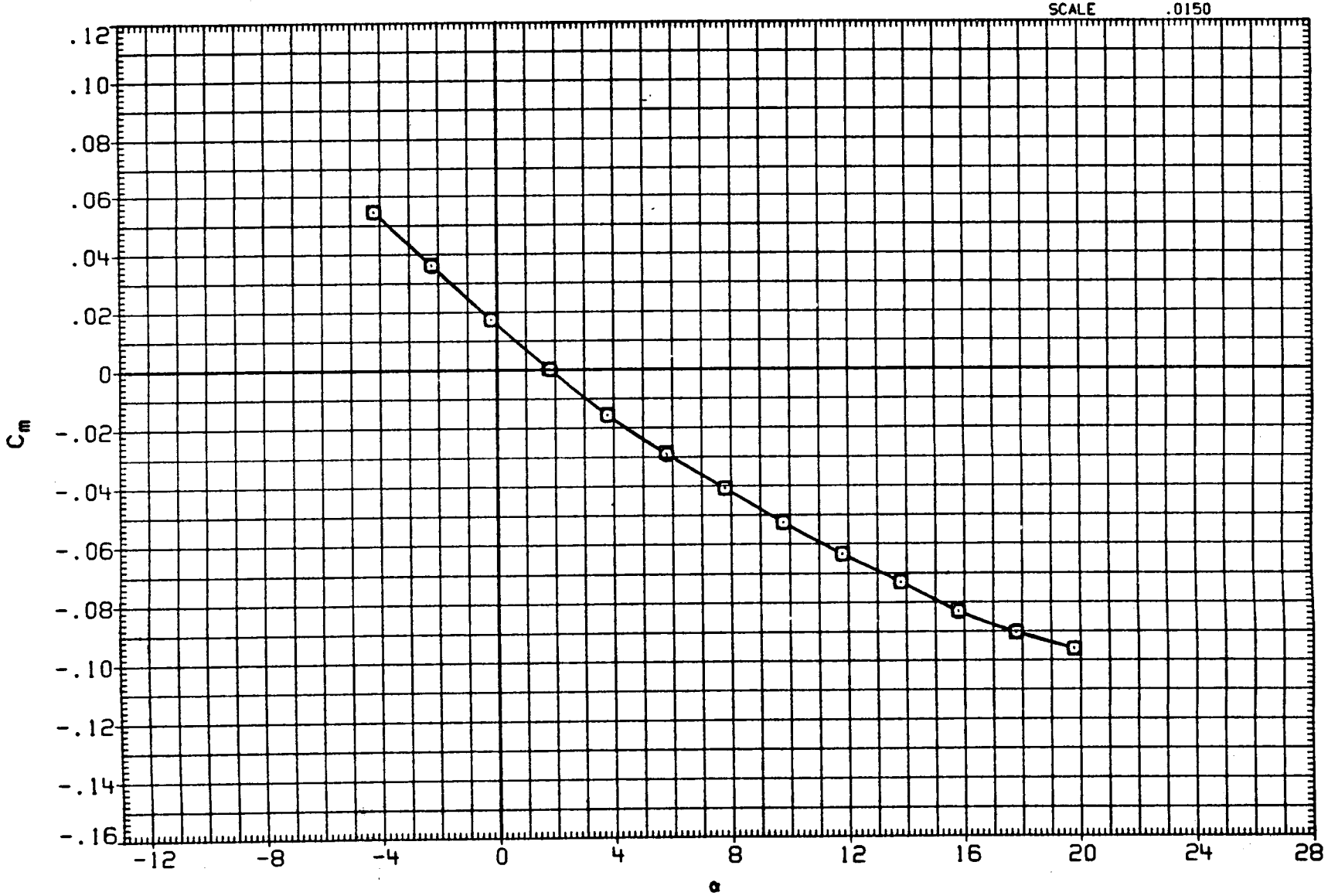


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

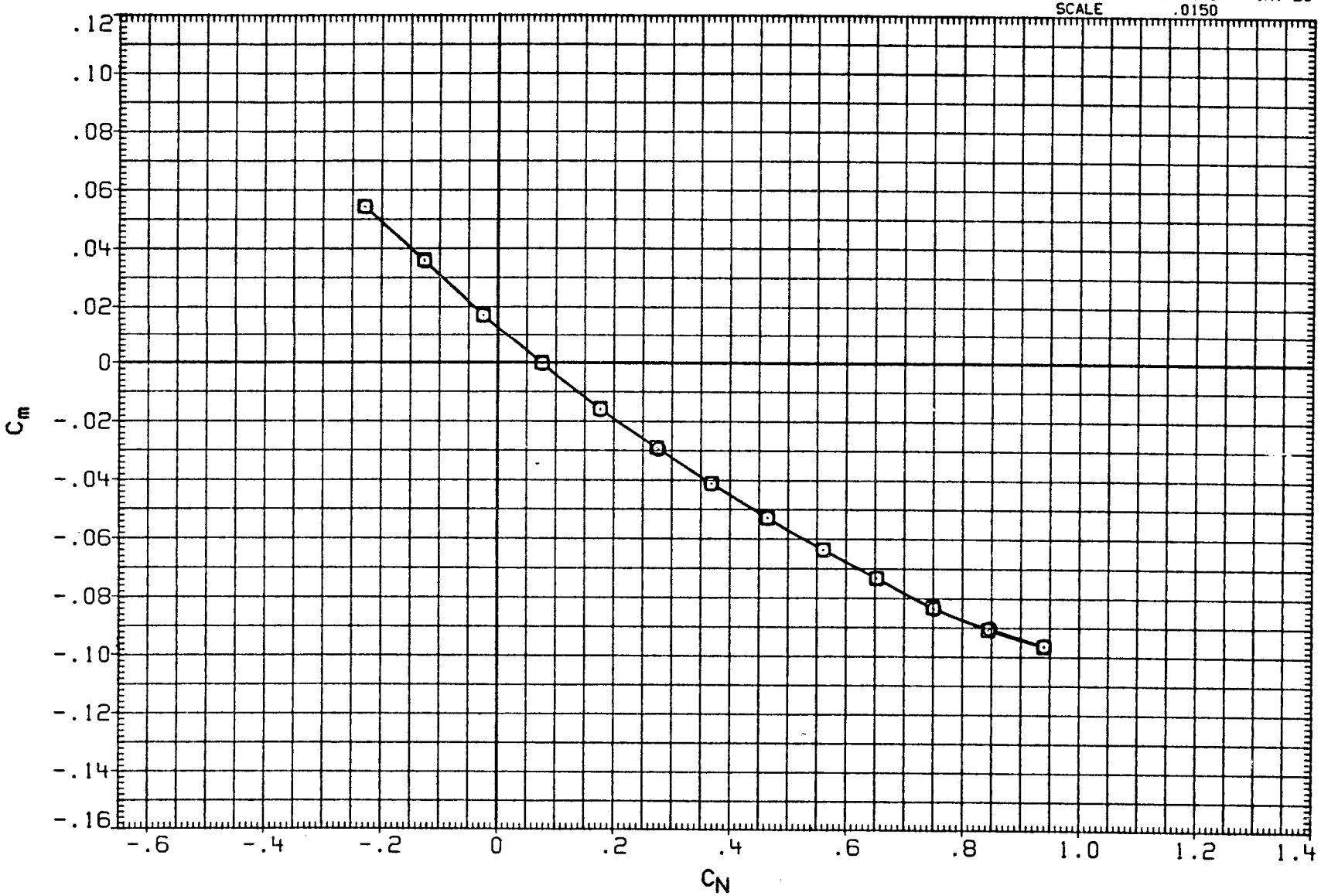


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

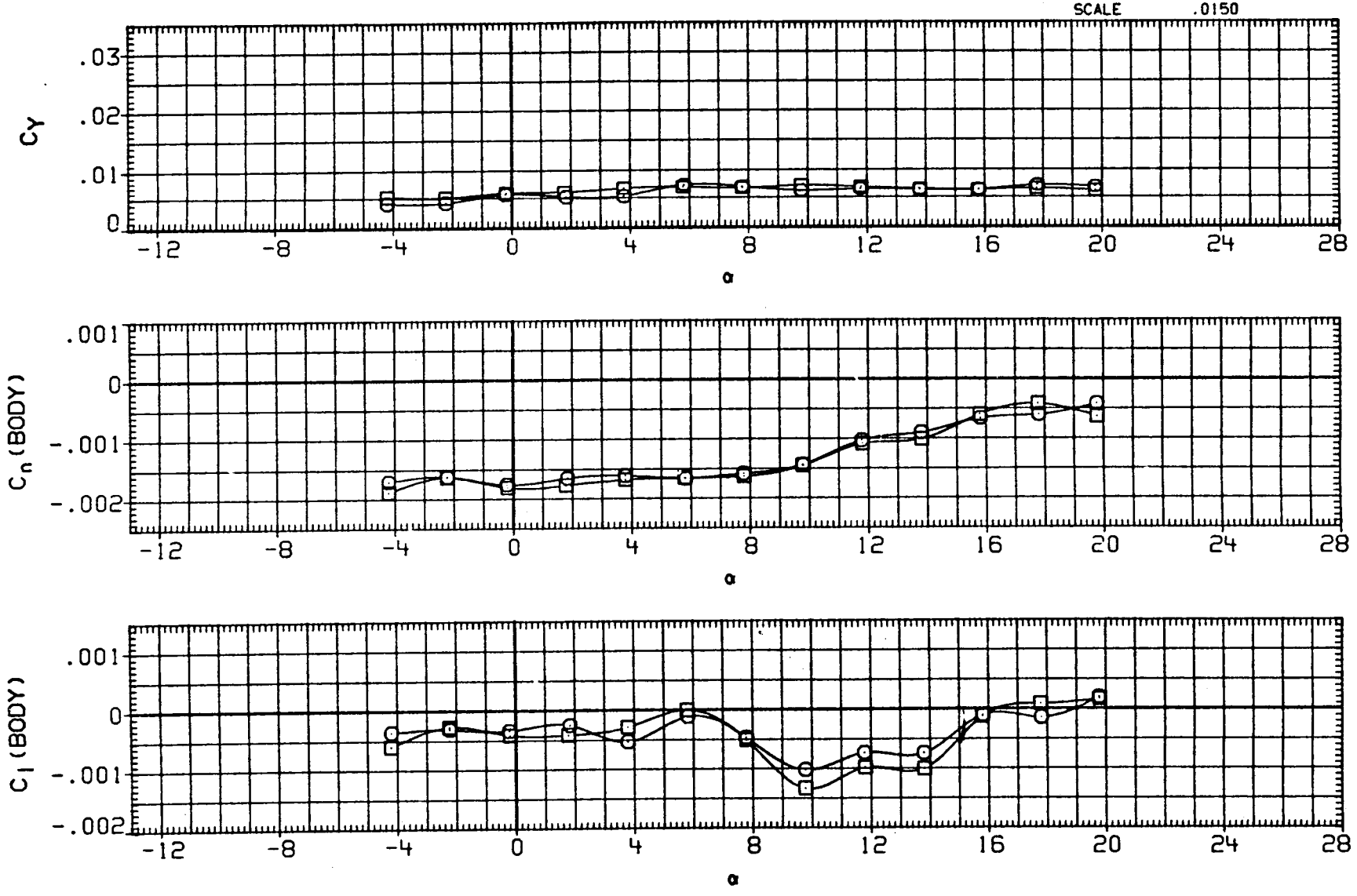


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

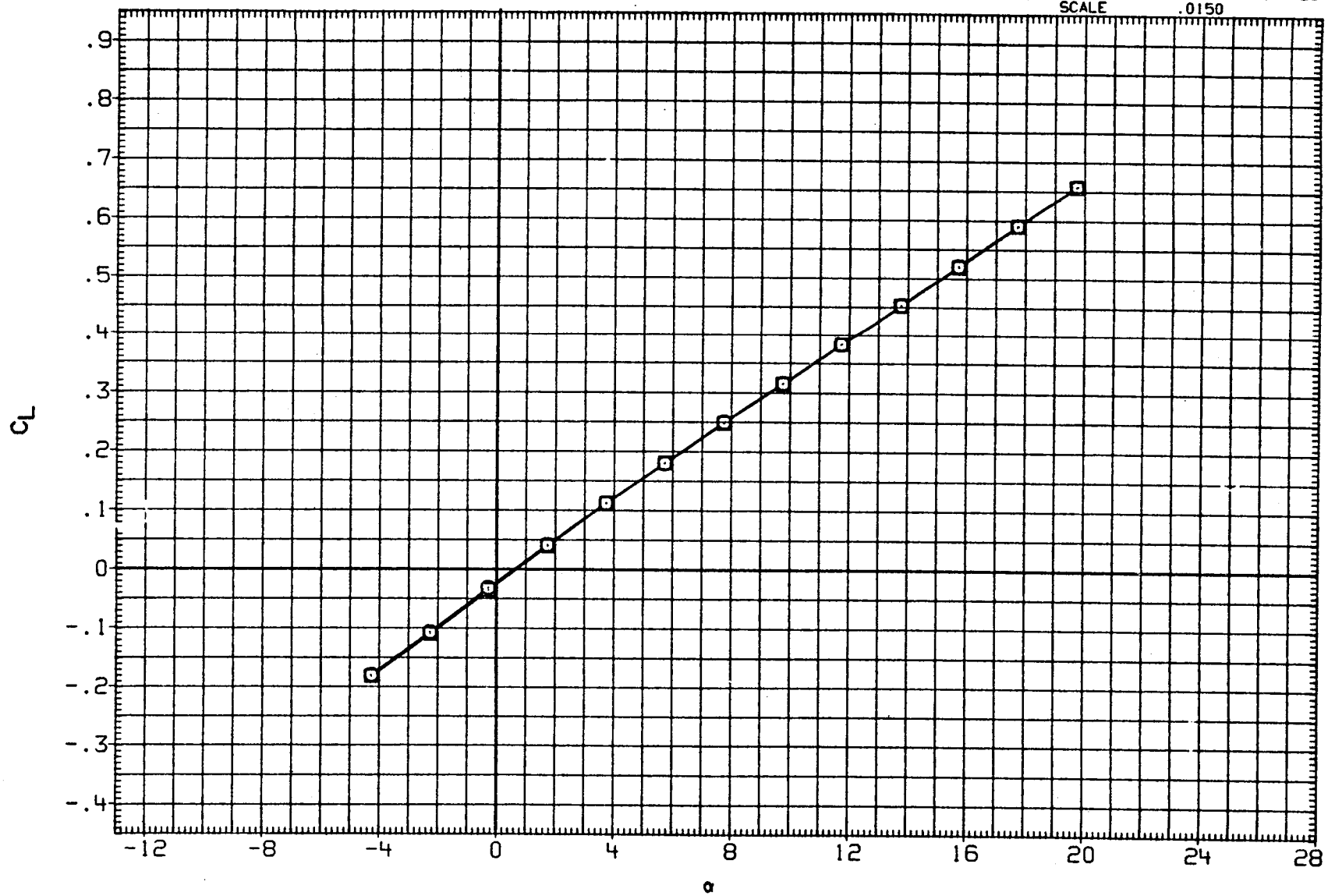


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

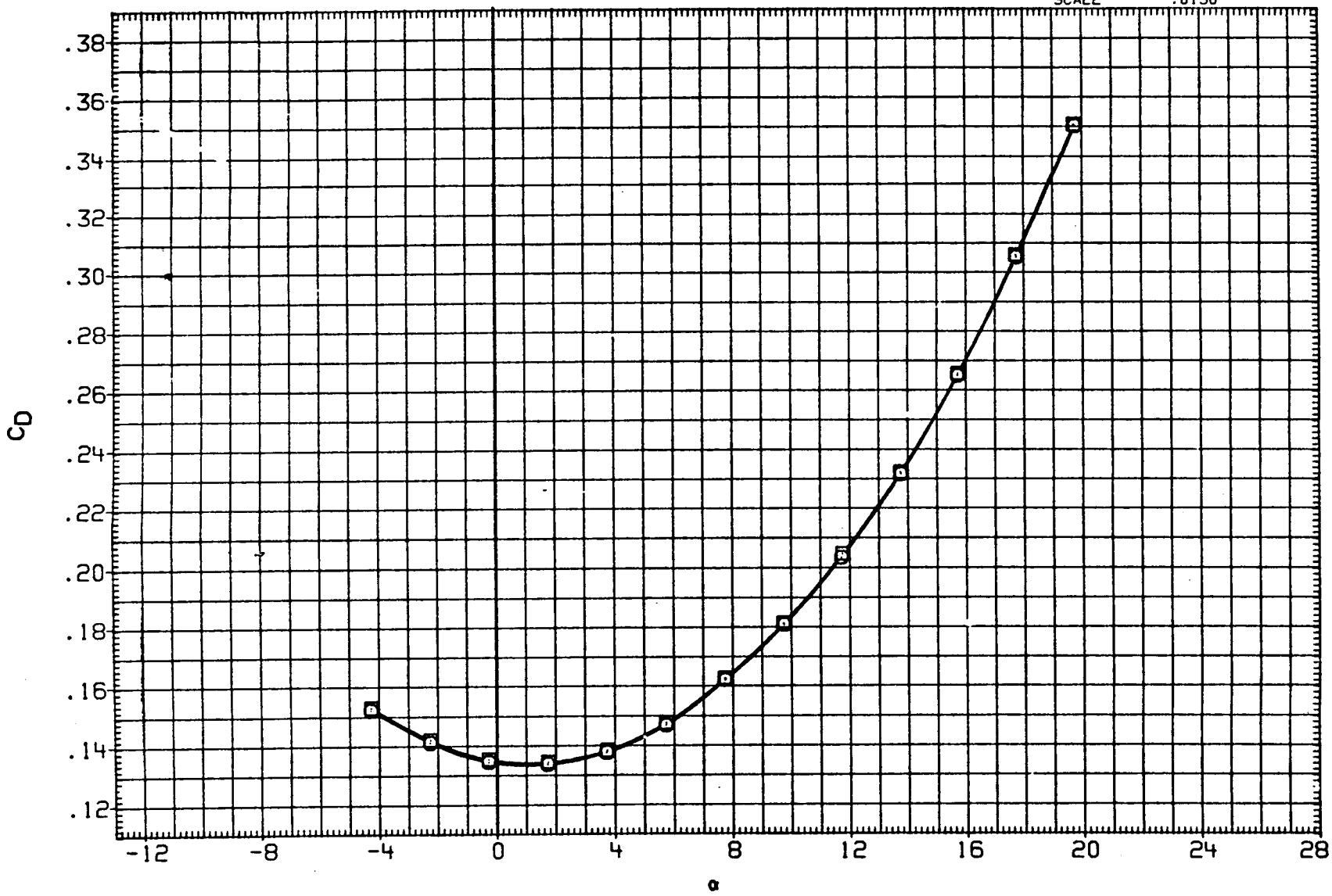


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

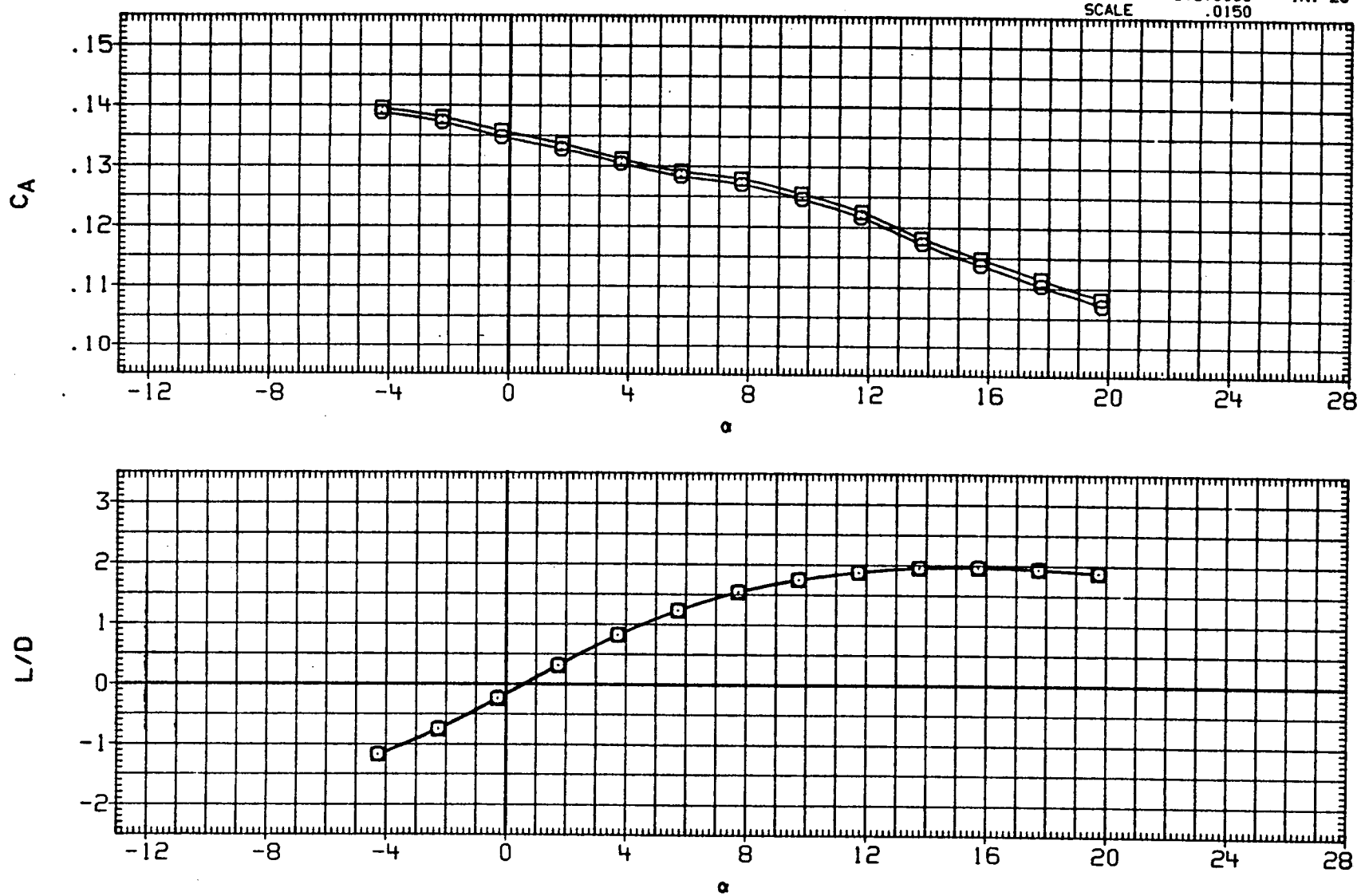


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

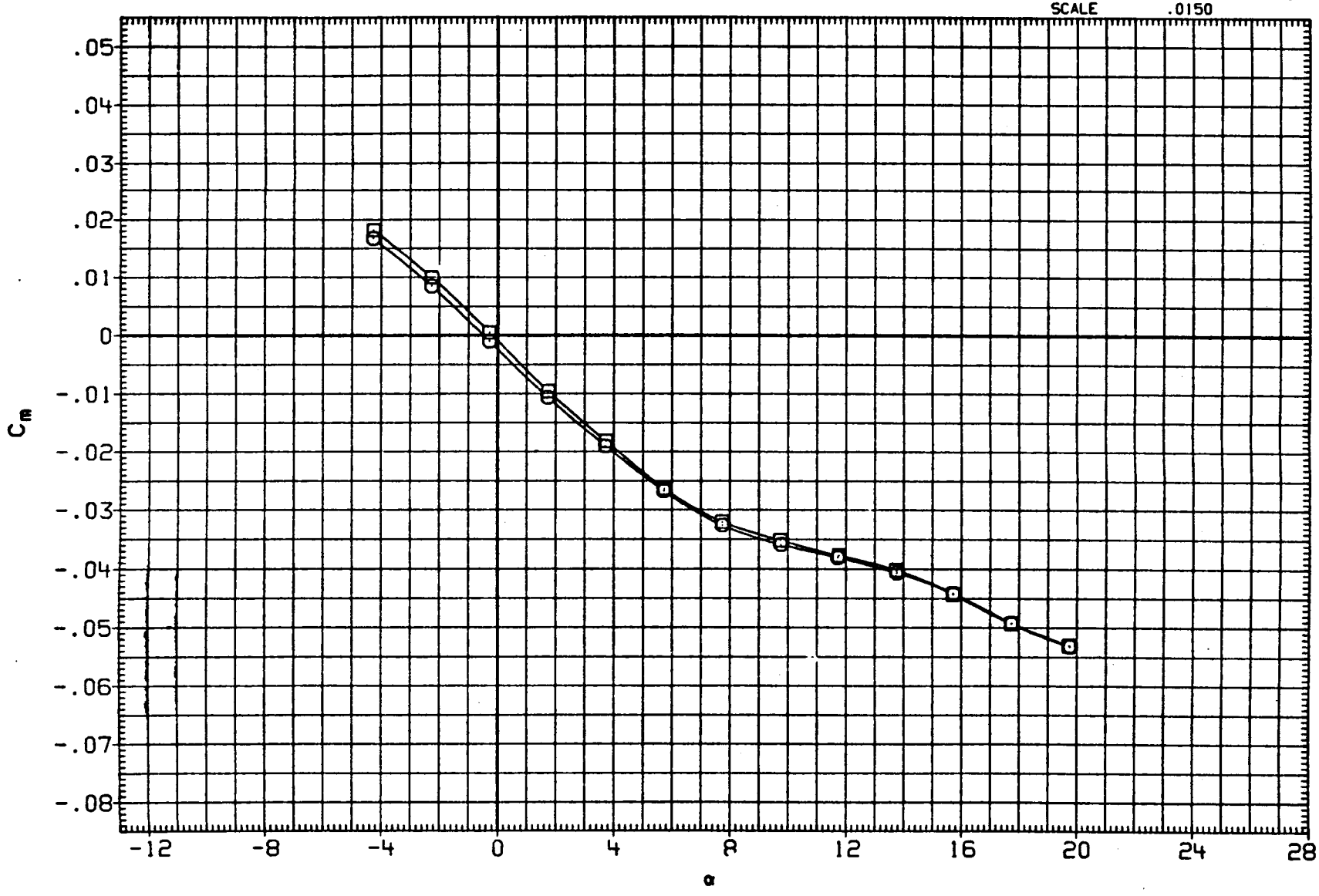


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

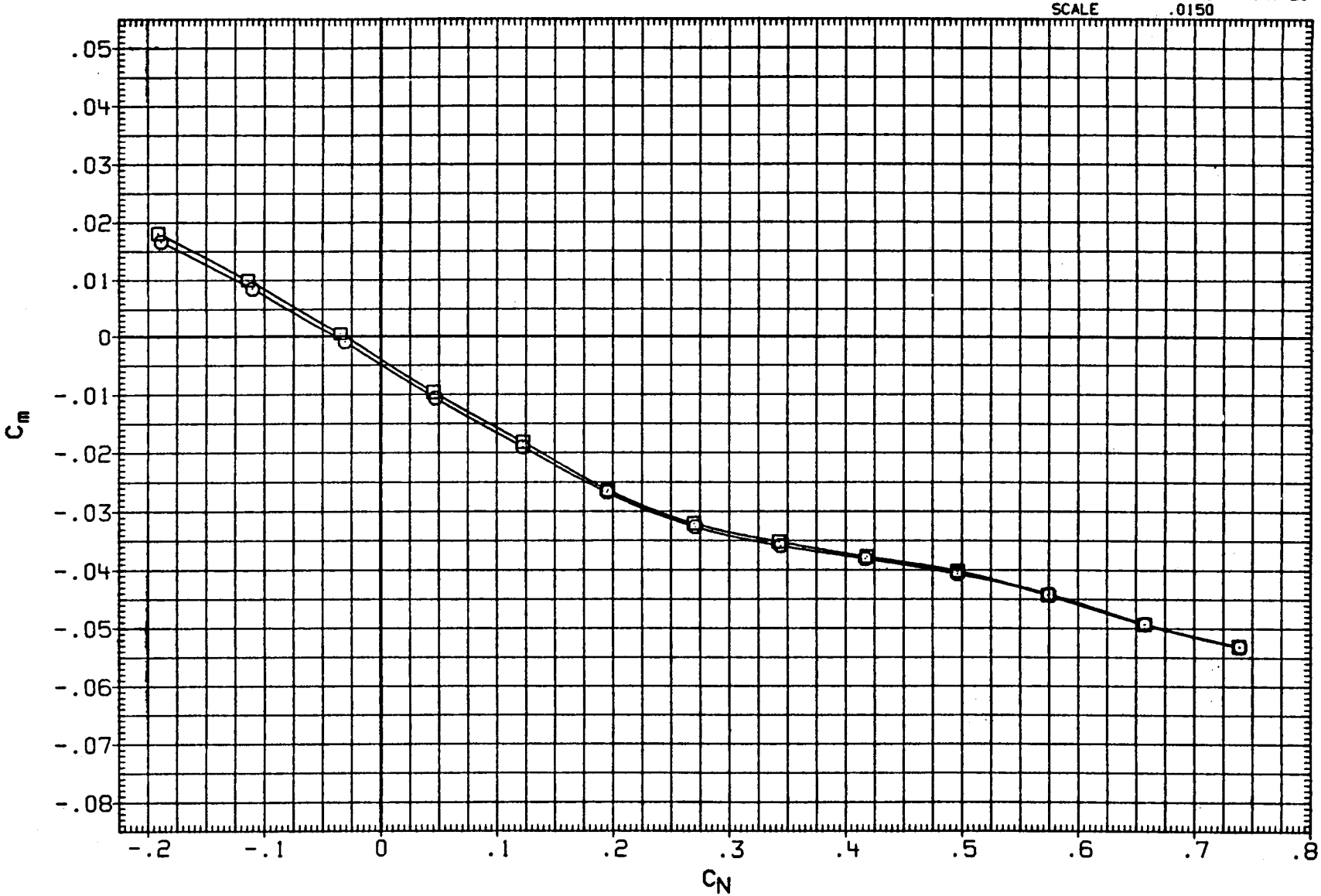


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPOBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

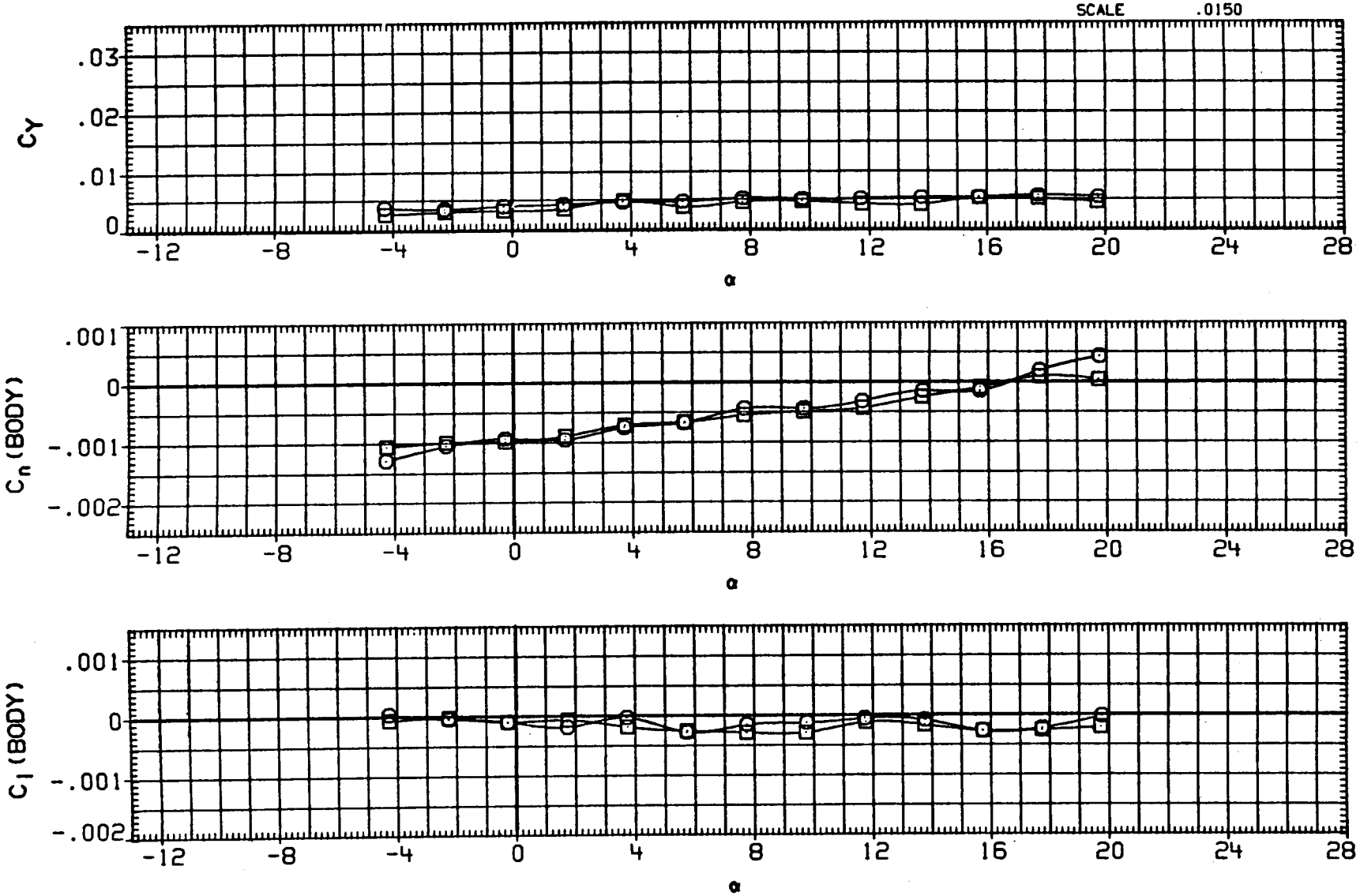


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

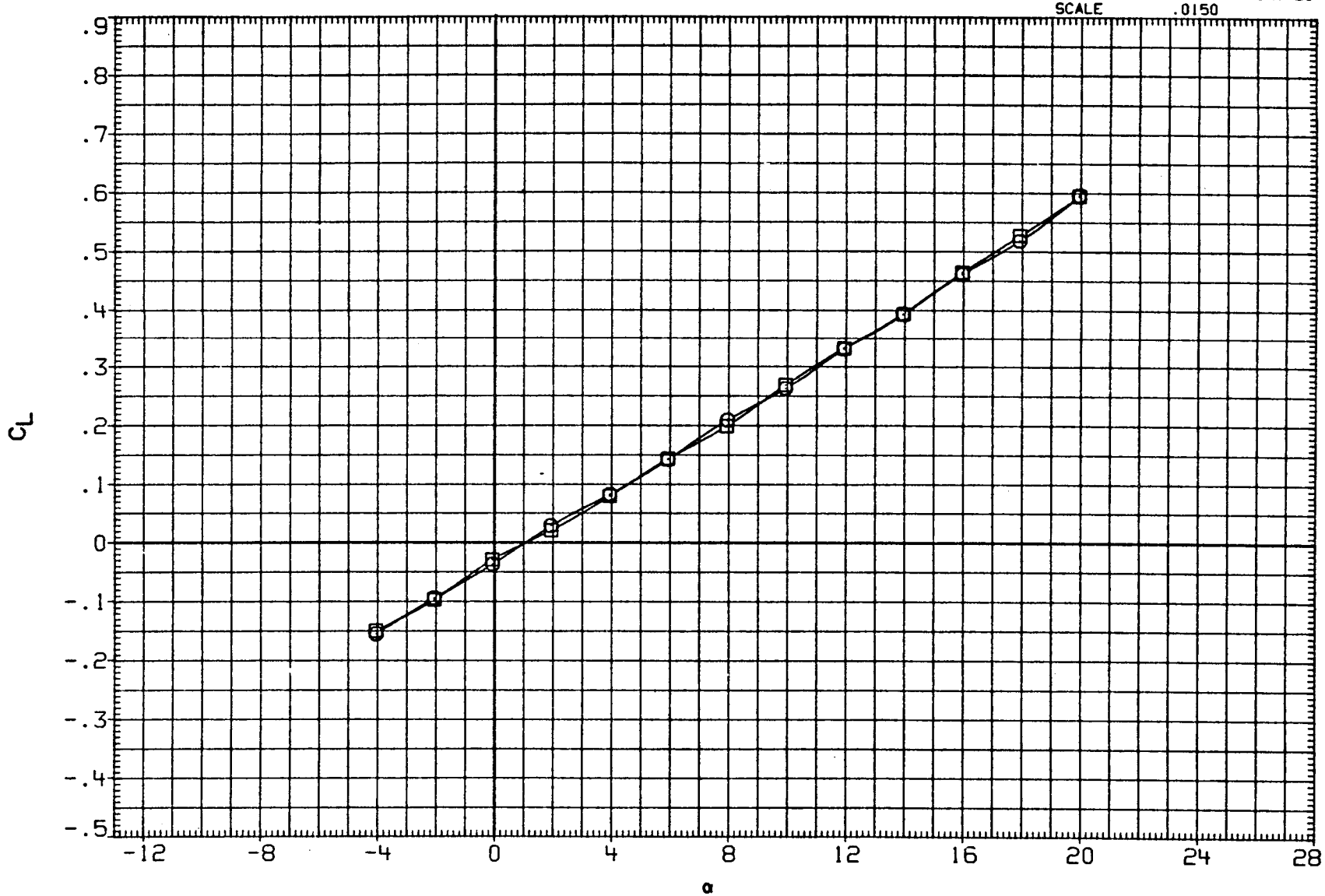


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RKI005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RKI006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

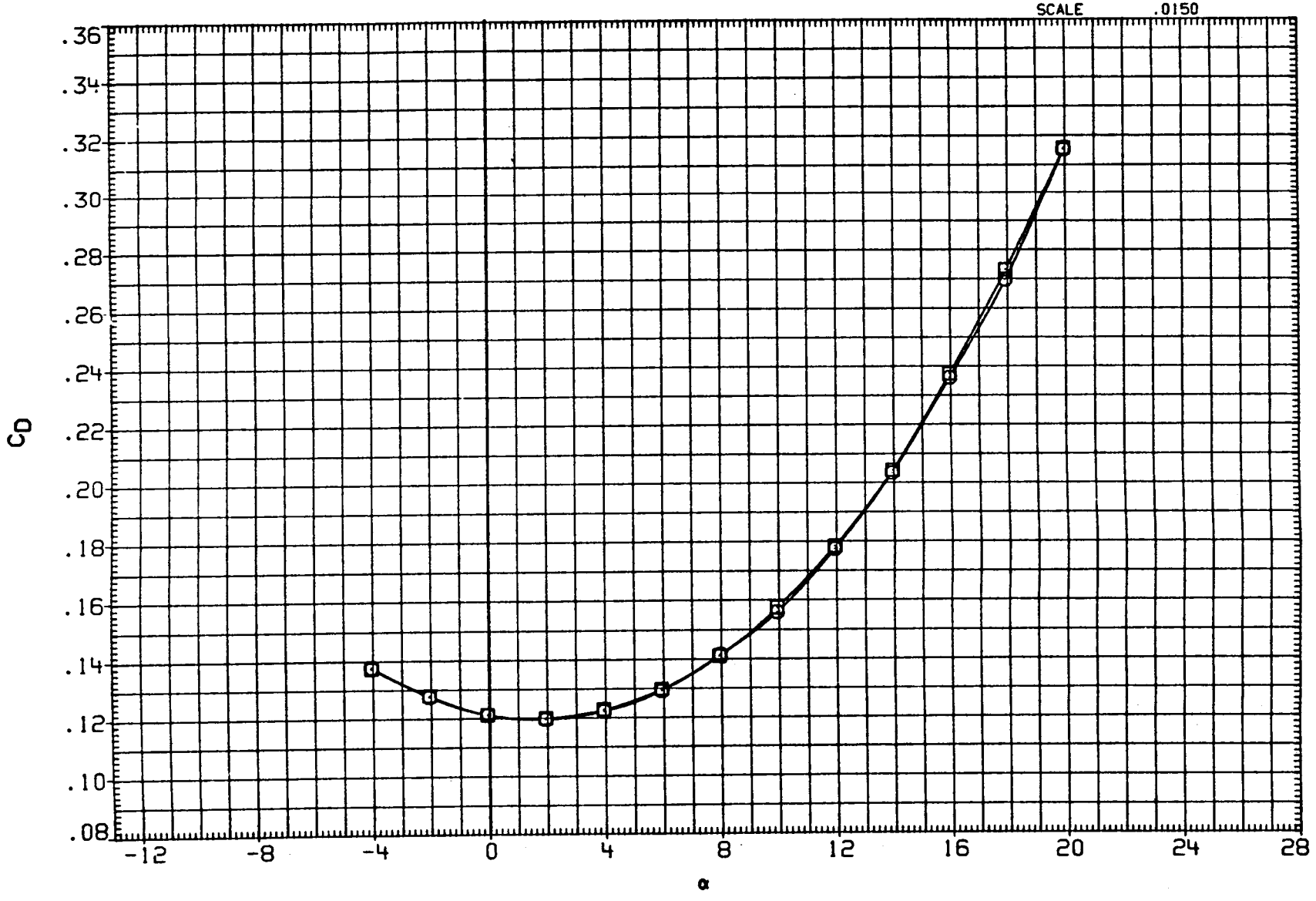


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RKI005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RKI006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

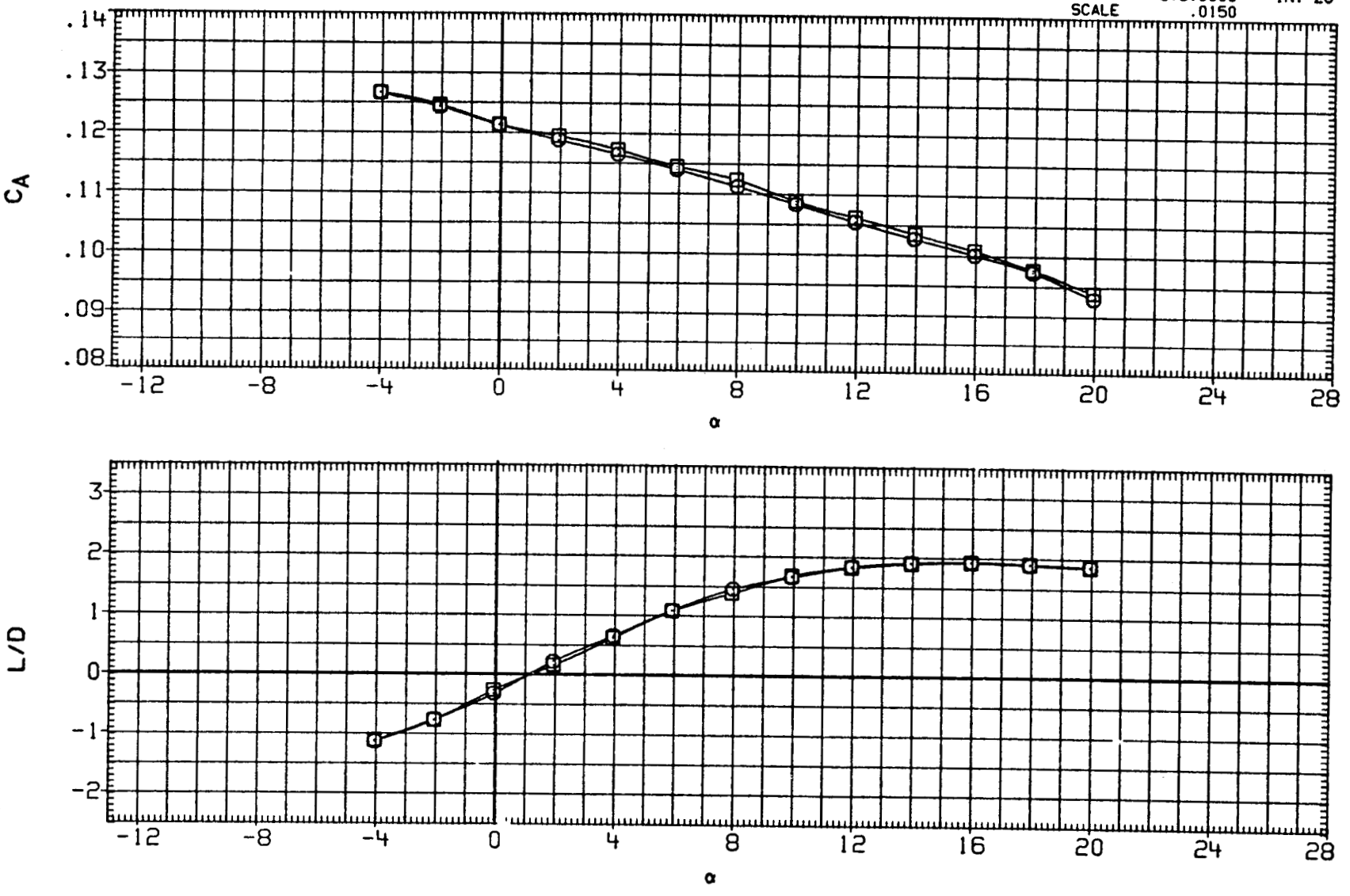


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

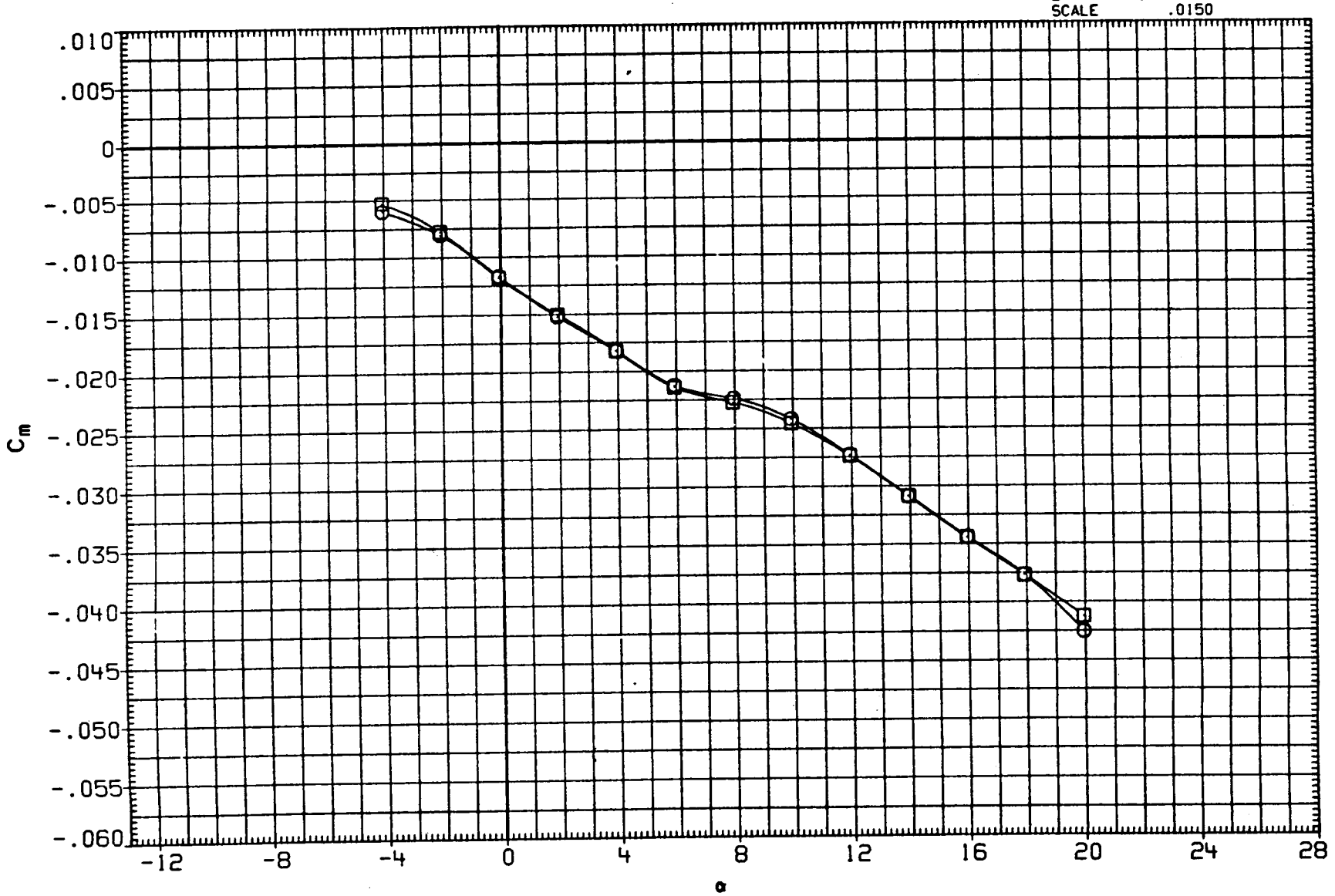


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

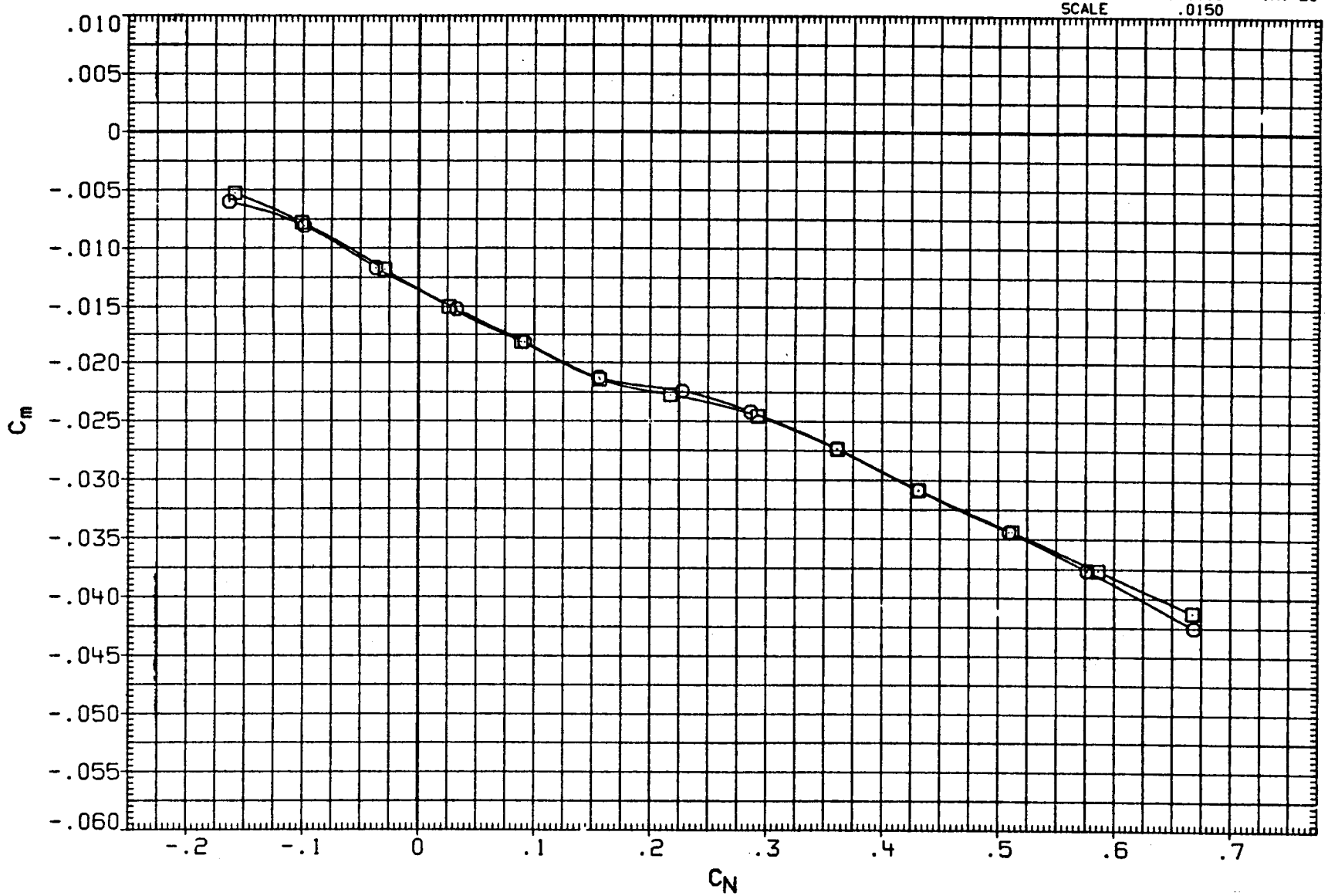


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1005	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	.000	25.000	.000
RK1006	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	.000	25.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

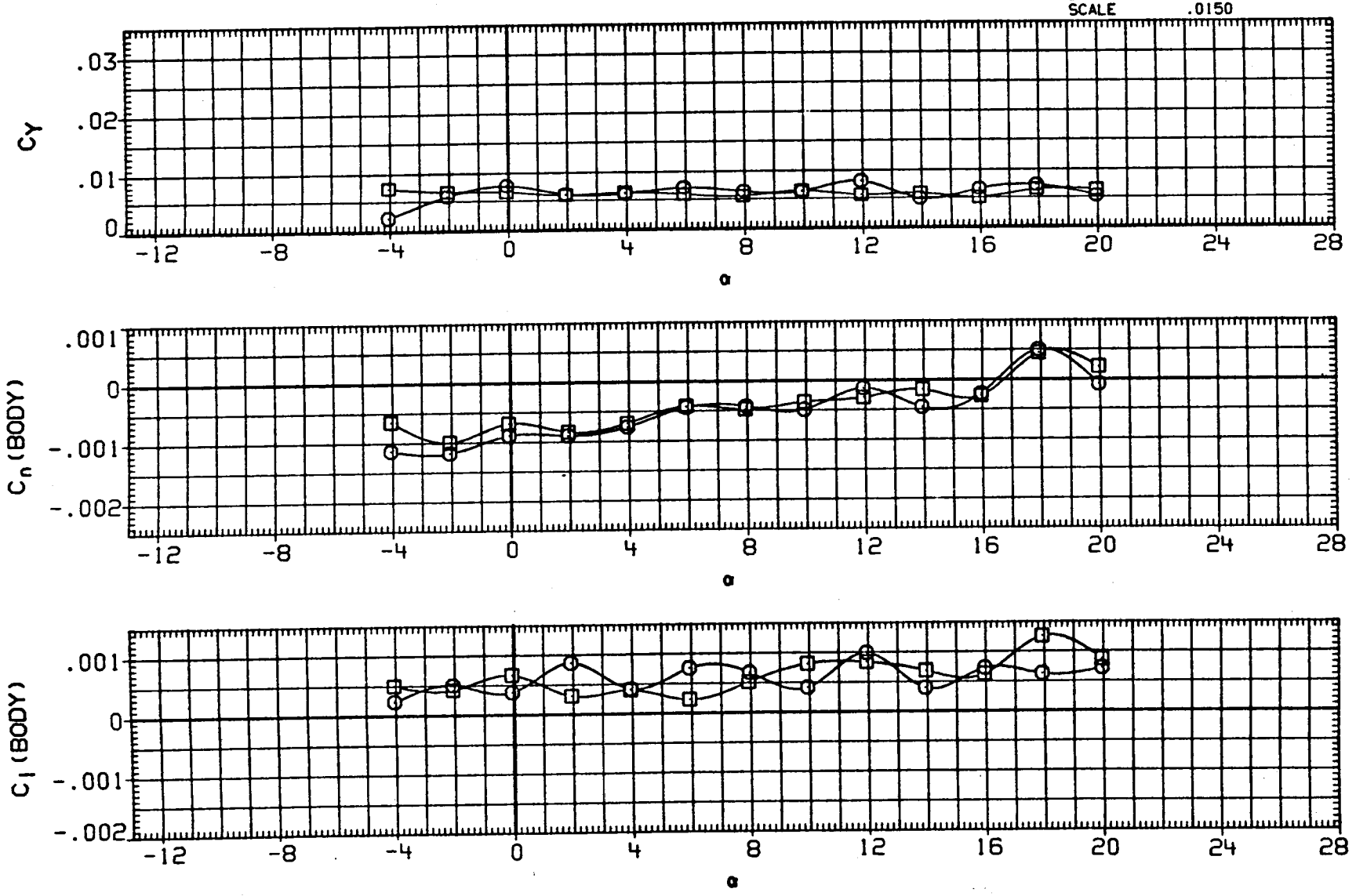


FIGURE 5. EFFECT OF SILTS POD ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	DBETA	ELEVON	RUDDER	SPDBRK	BDFLAP
CKI008	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	3.000	.000	.000	55.000	.000
CKI009	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	3.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

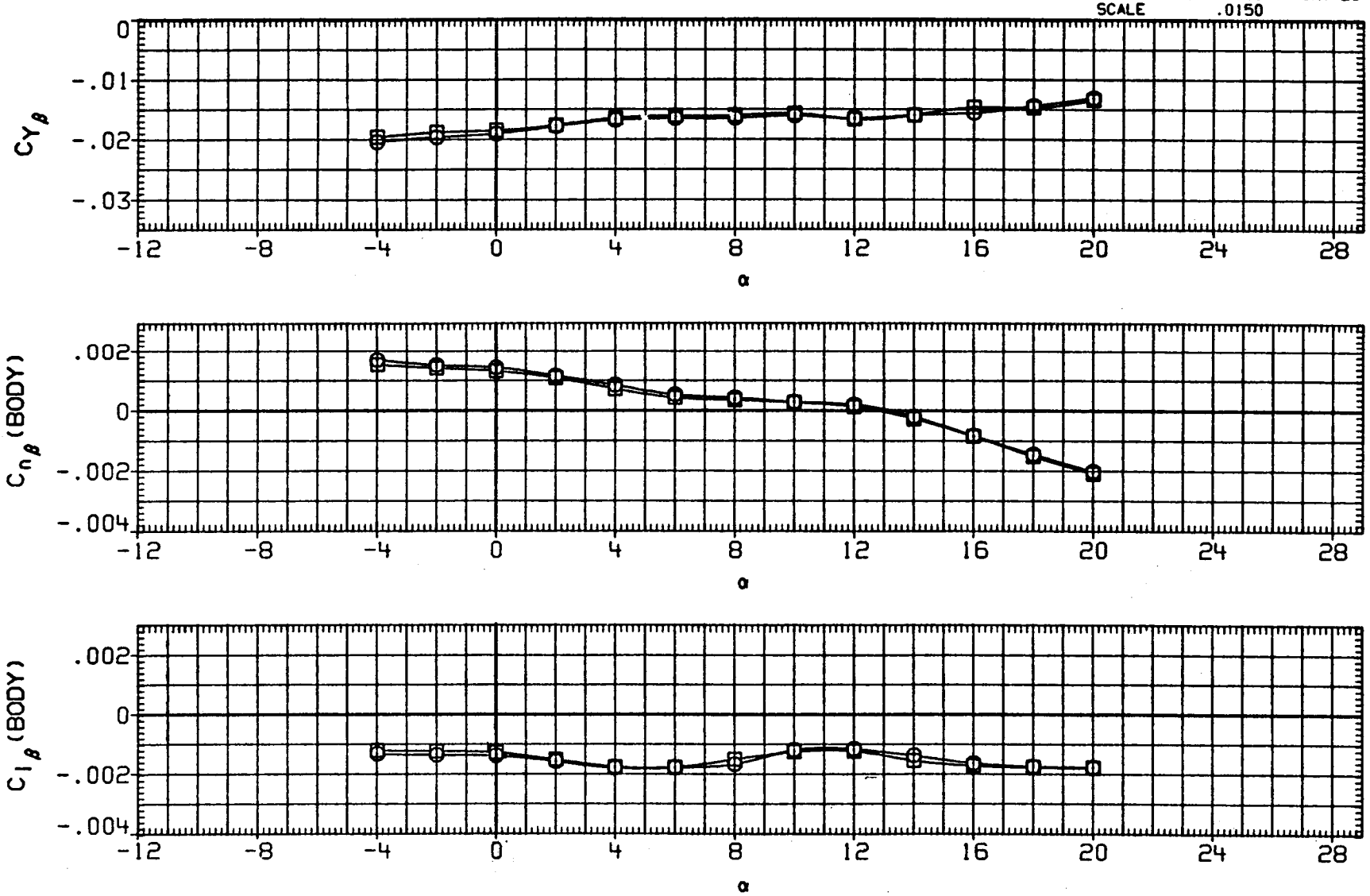


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	DBETA	ELEVON	RUDDER	SPDBRK	BDFLAP
CKI008	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	3.000	.000	.000	55.000	.000
CKI009	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	3.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

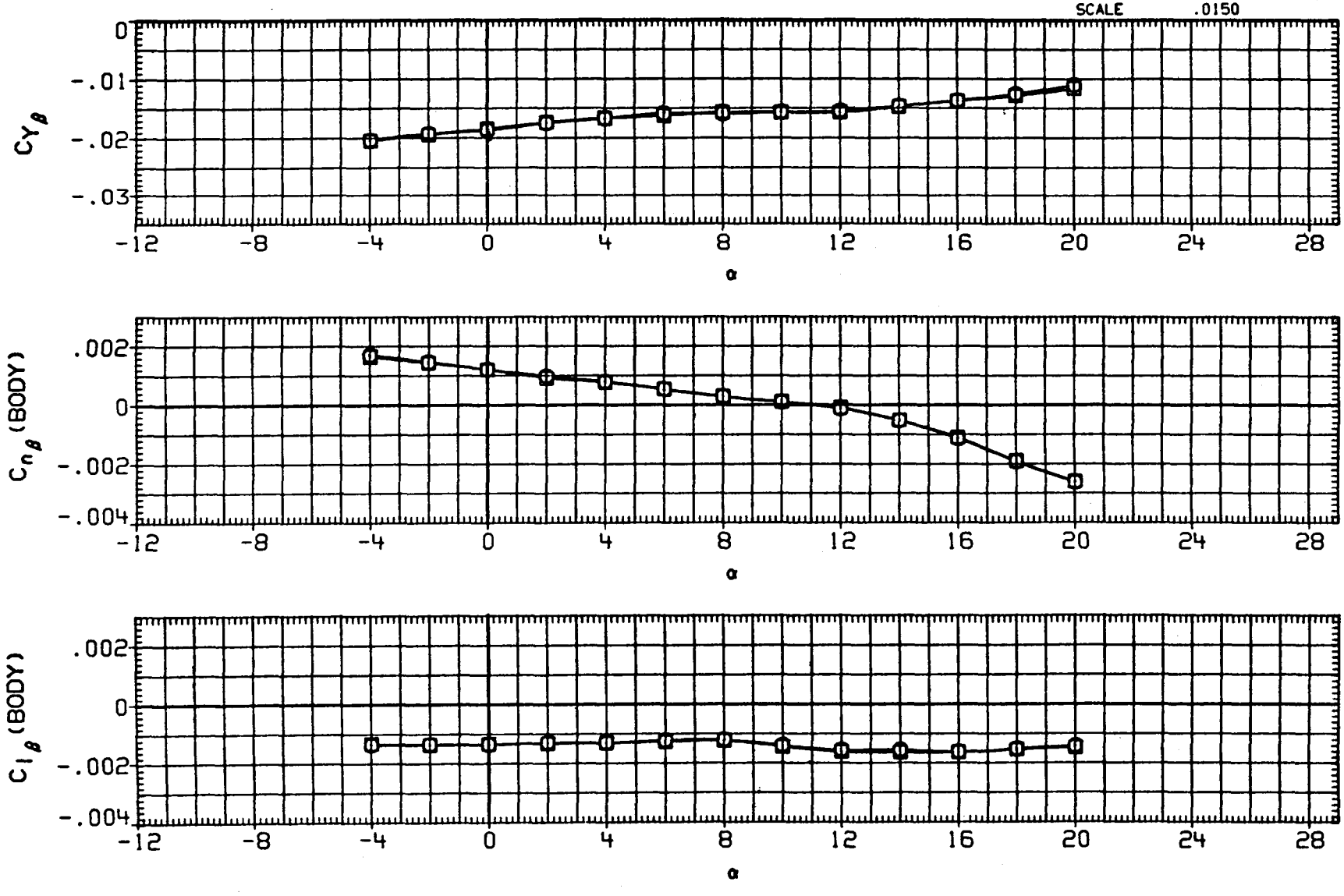


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	DBETA	ELEVON	RUDDER	SPDBRK	BDFLAP
CKI008	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	3.000	.000	.000	55.000	.000
CKI009	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	3.000	.000	.000	55.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

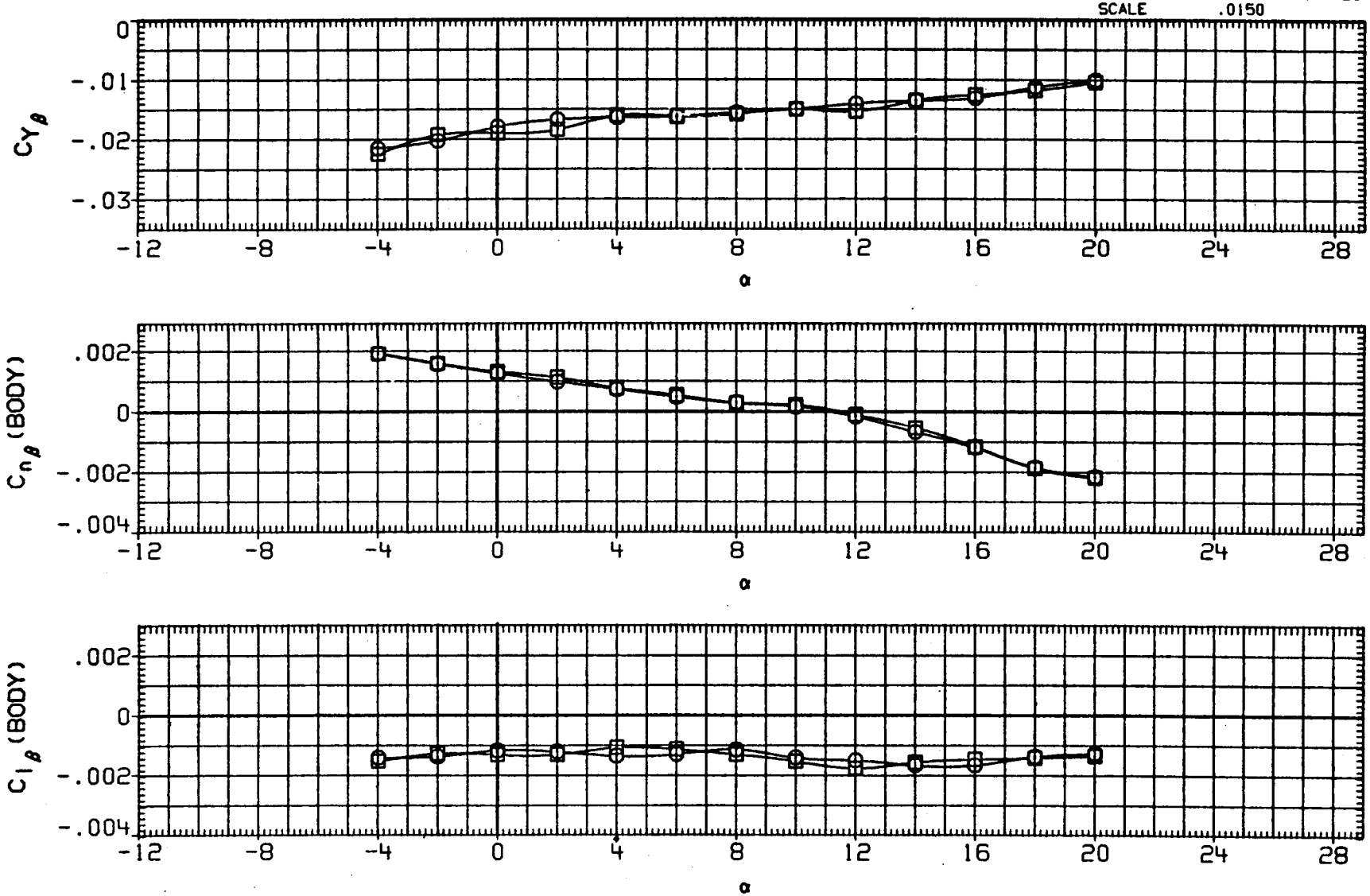


FIGURE 6. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	DBETA	ELEVON	RUDDER	SPDBRK	BDFLAP
CK1012	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	3.000	.000	.000	25.000	.000
CK1013	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	3.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

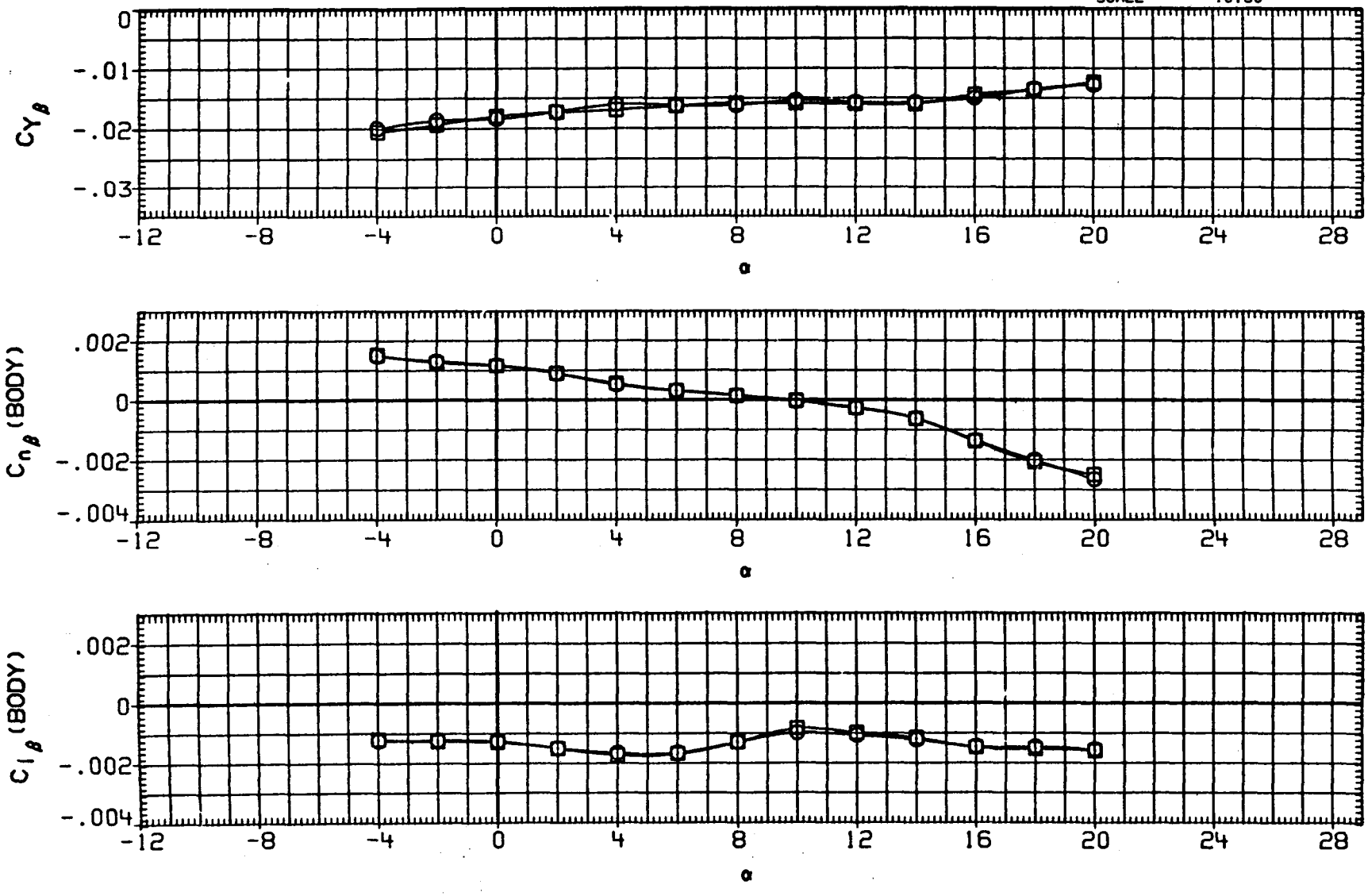


FIGURE 7. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	DBETA	ELEVON	RUDDER	SPDBRK	BDFLAP
CK1012	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	3.000	.000	.000	25.000	.000
CK1013	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	3.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

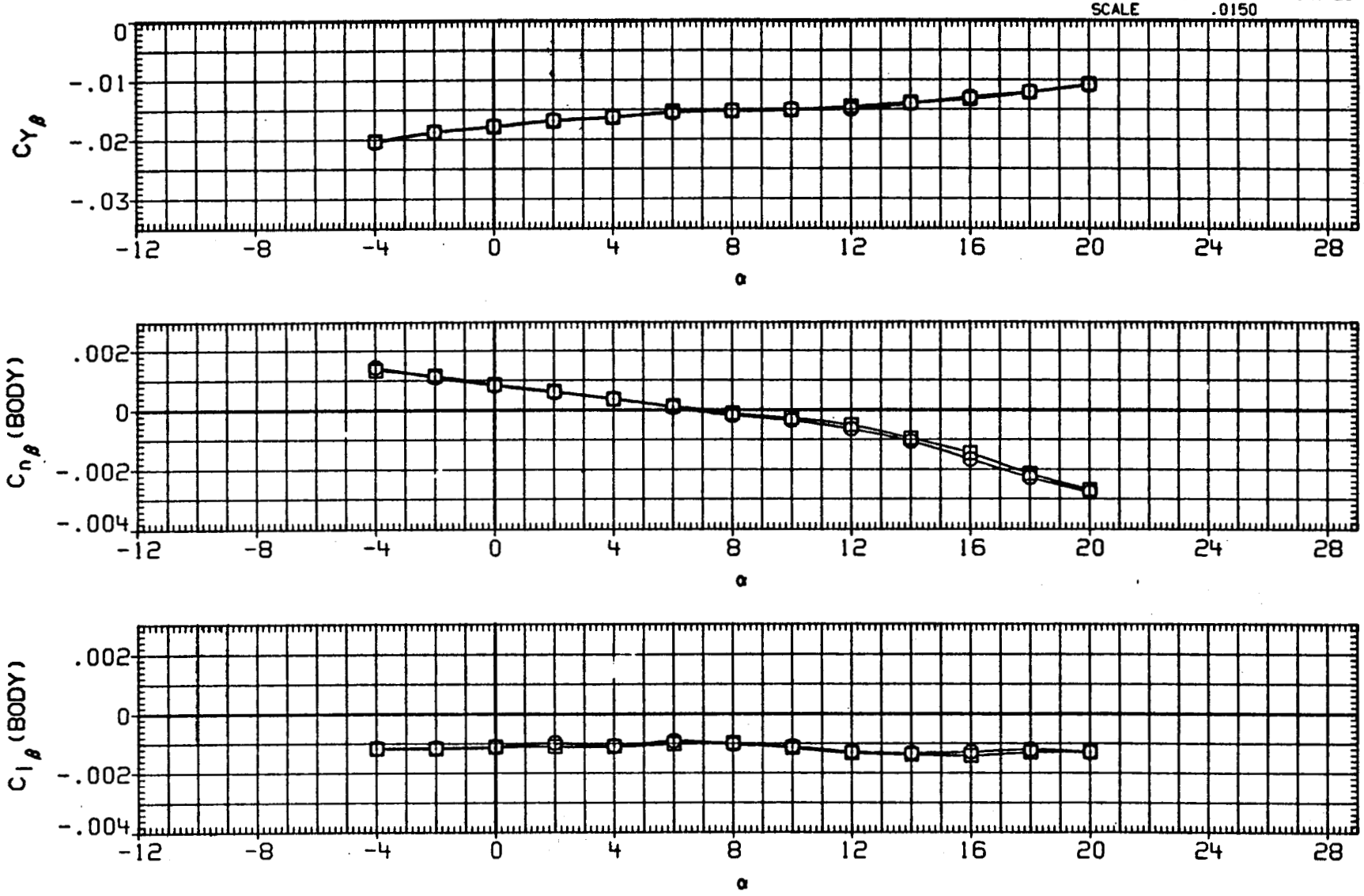


FIGURE 7. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	DBETA	ELEVON	RUDDER	SPDBRK	BDFLAP
CK1012	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	3.000	.000	.000	25.000	.000
CK1013	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	3.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

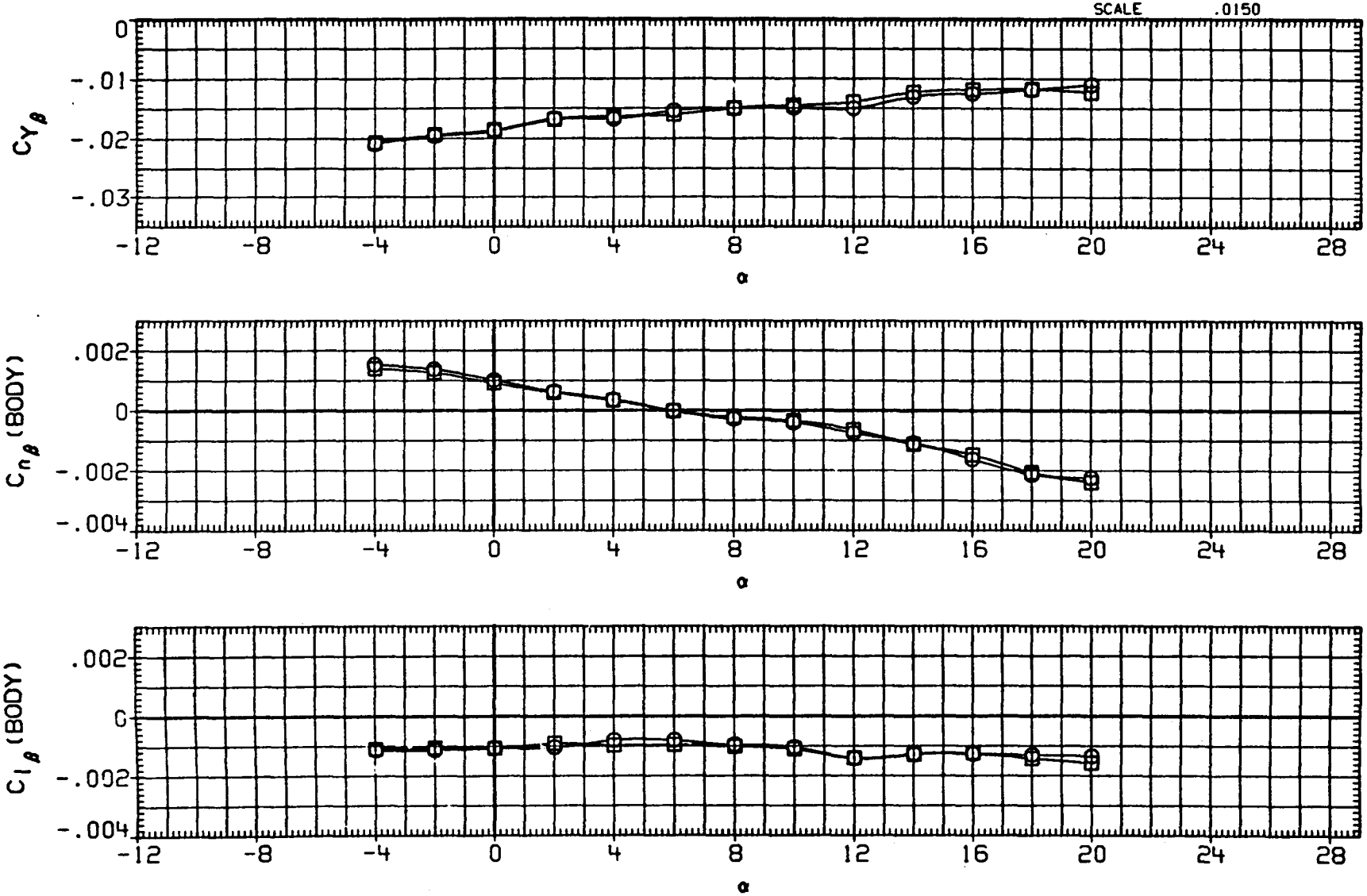


FIGURE 7. EFFECT OF SILTS POD ON THE LATERAL STABILITY CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	ALPHA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1015	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	10.000	.000	.000	55.000	.000
RK1016	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	10.000	.000	.000	55.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

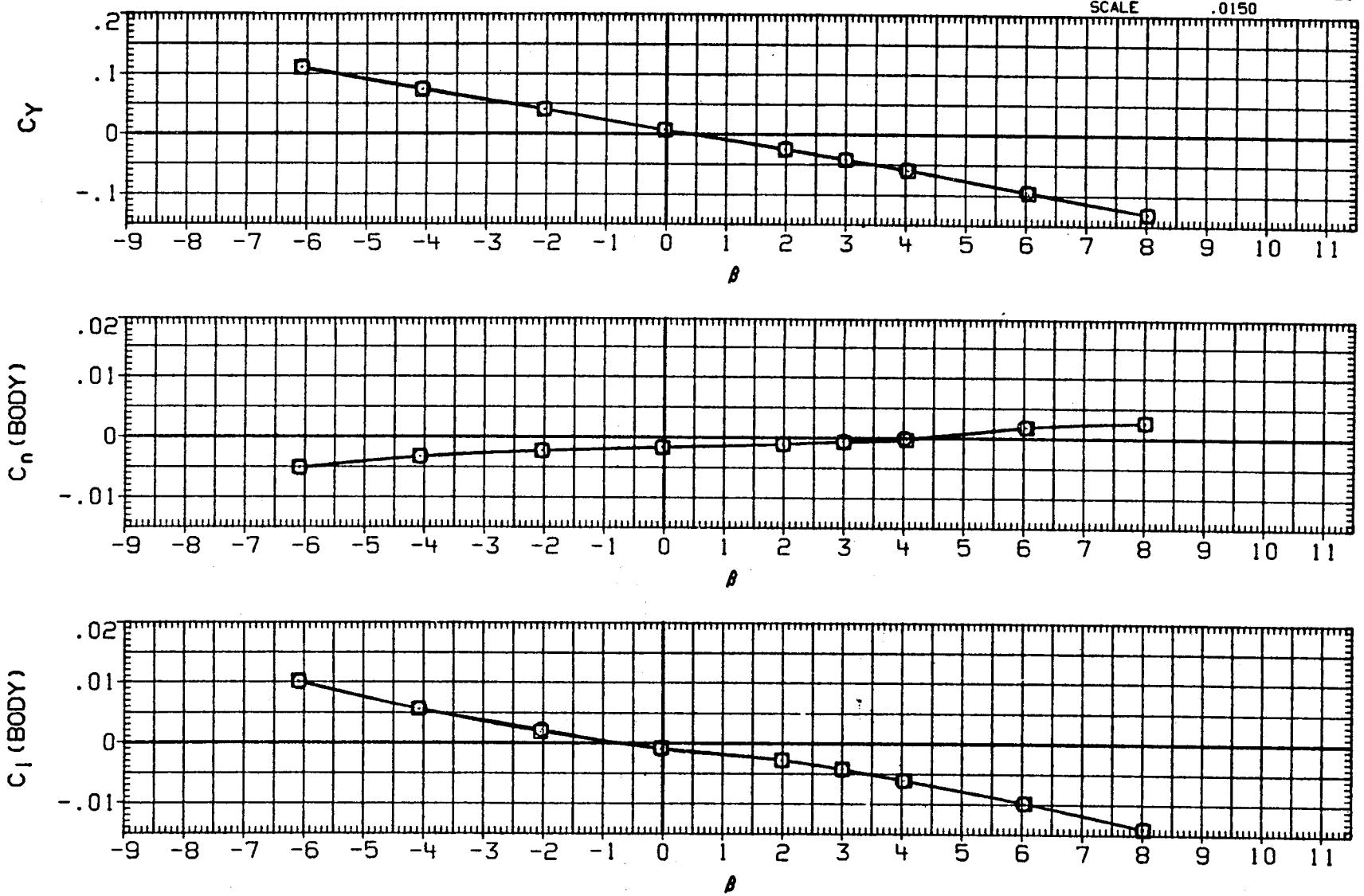


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	ALPHA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1015	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	10.000	.000	.000	55.000	.000
RK1016	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	10.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

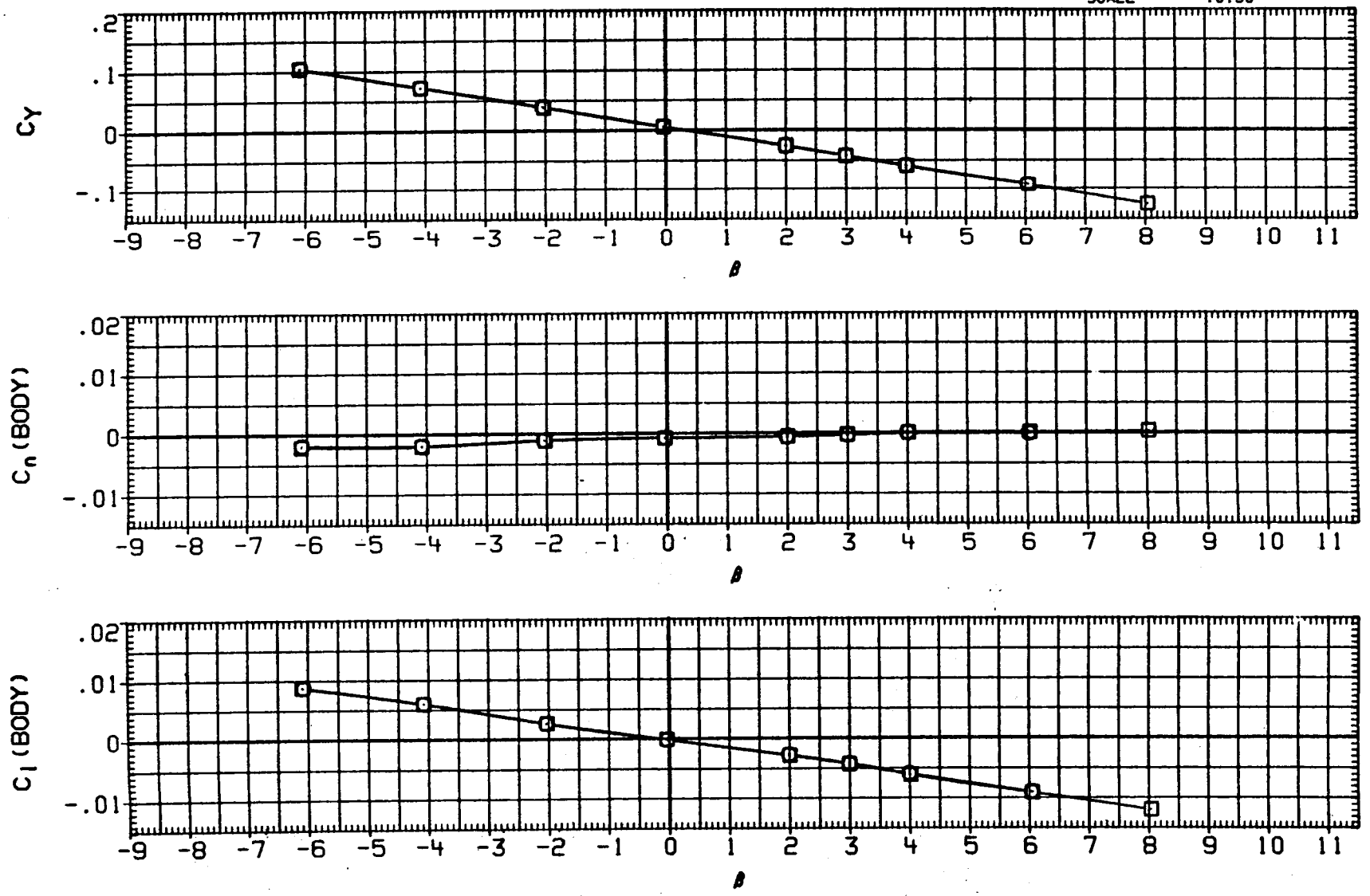


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	ALPHA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1015	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	10.000	.000	.000	55.000	.000
RK1016	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	10.000	.000	.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

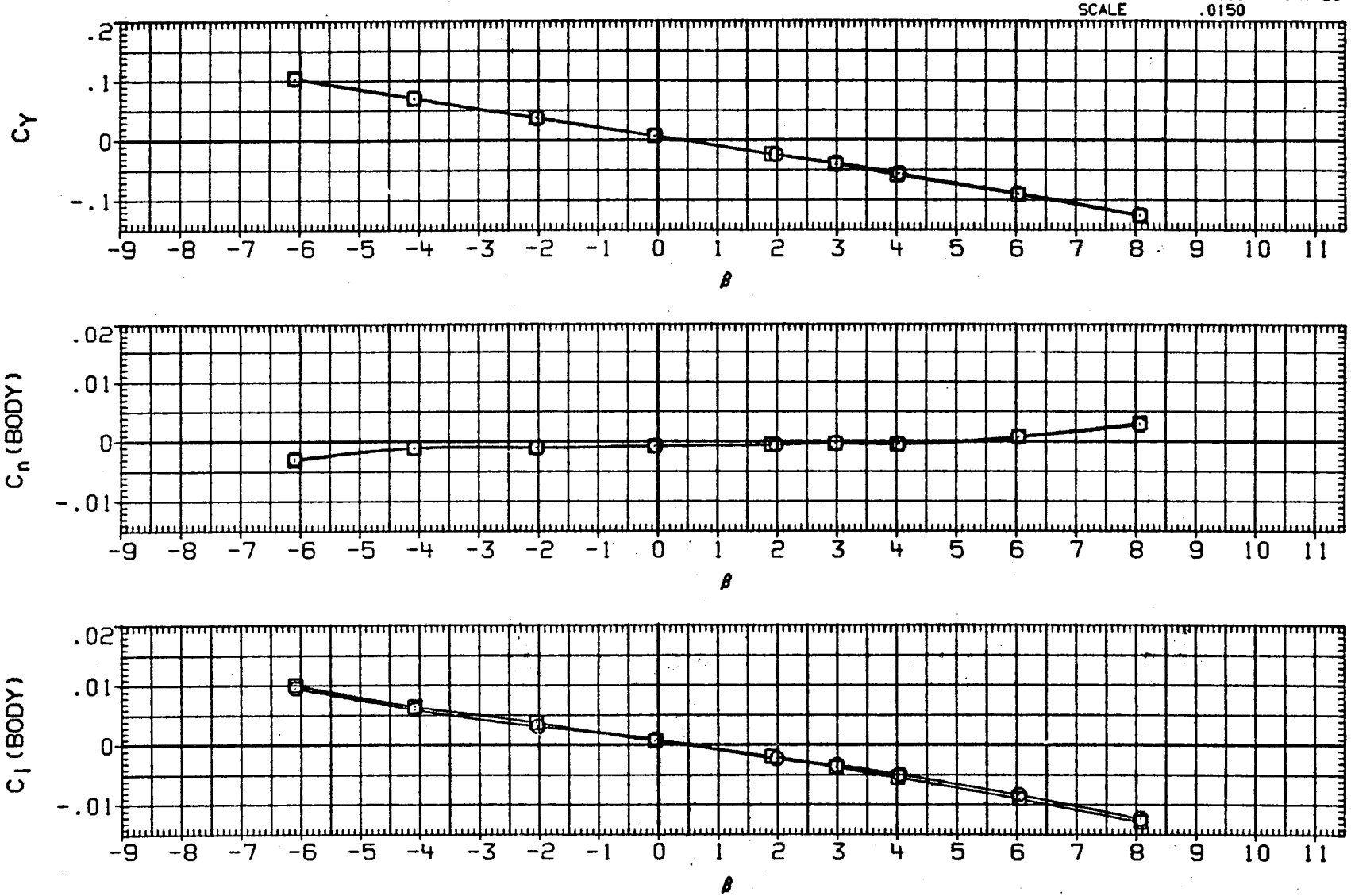


FIGURE 8. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	ALPHA	ELEVON	RUDDER	SPOBRK	BDFLAP
RK1019	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	10.000	.000	.000	25.000	.000
RK1020	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	10.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

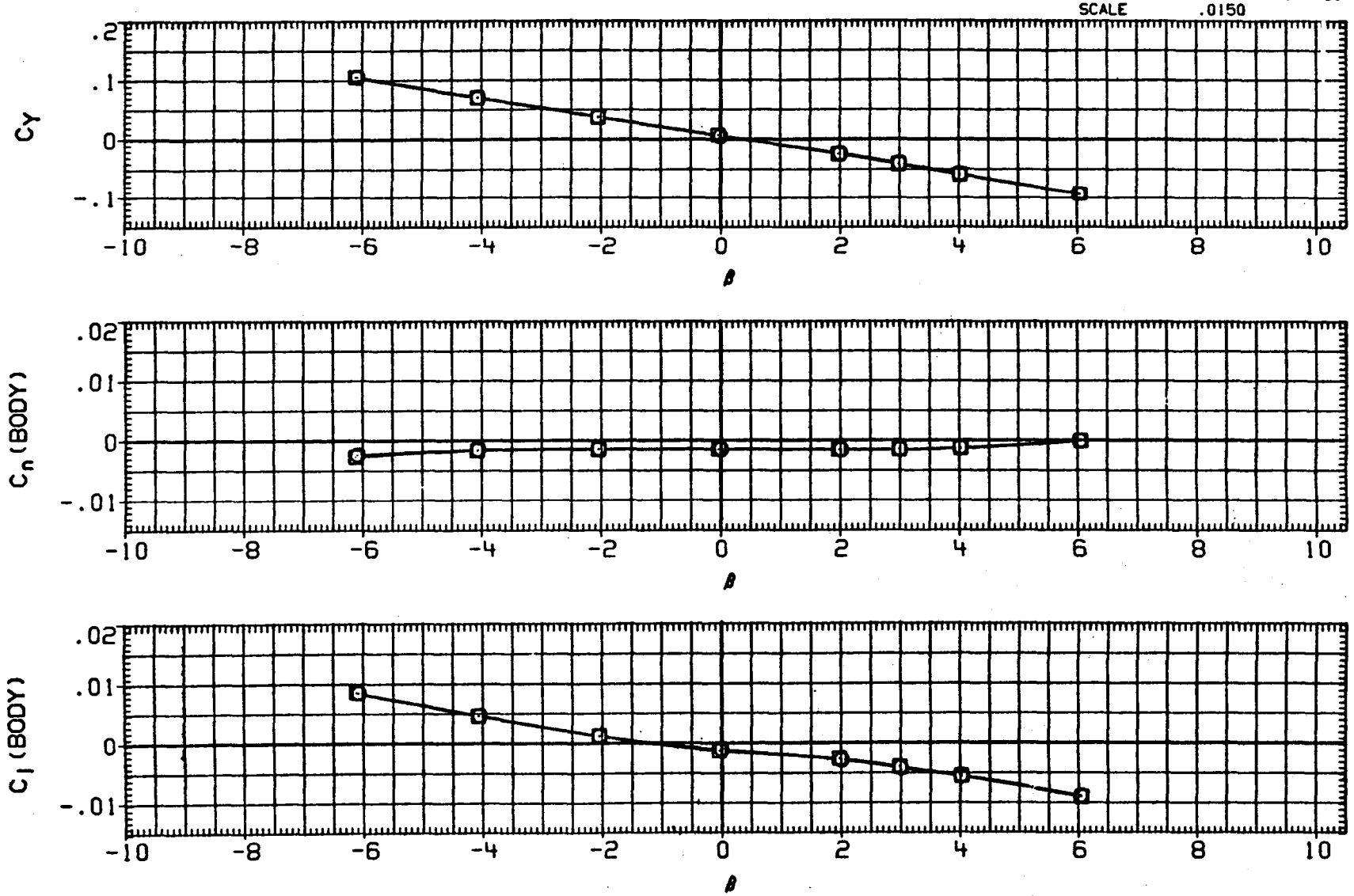


FIGURE 9. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(A) MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	ALPHA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1019	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	10.000	.000	.000	25.000	.000
RK1020	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	10.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

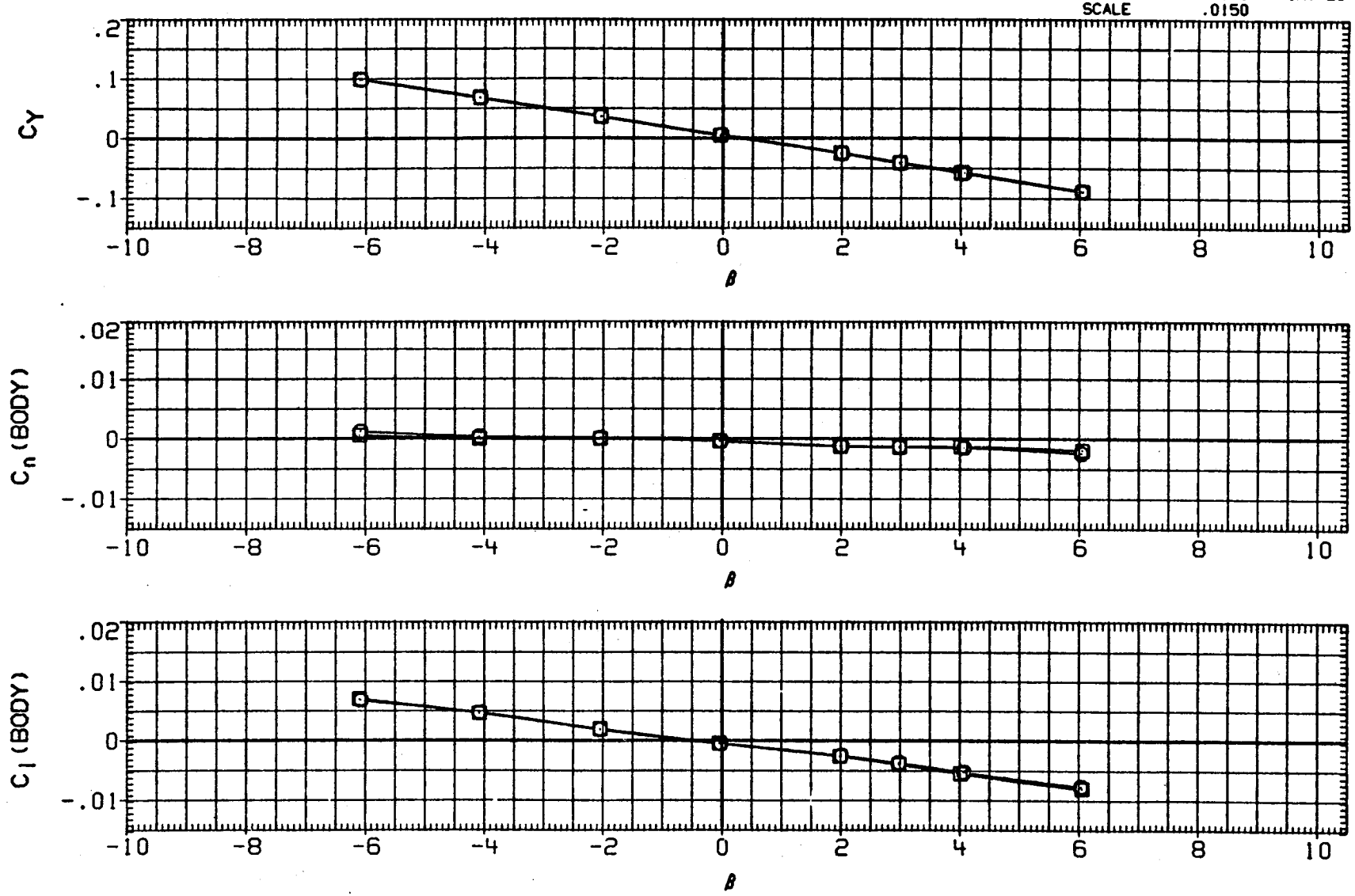


FIGURE 9. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	ALPHA	ELEVON	RUDDER	SPDBRK	BDFLAP
RK1019	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	10.000	.000	.000	25.000	.000
RK1020	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	10.000	.000	.000	25.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

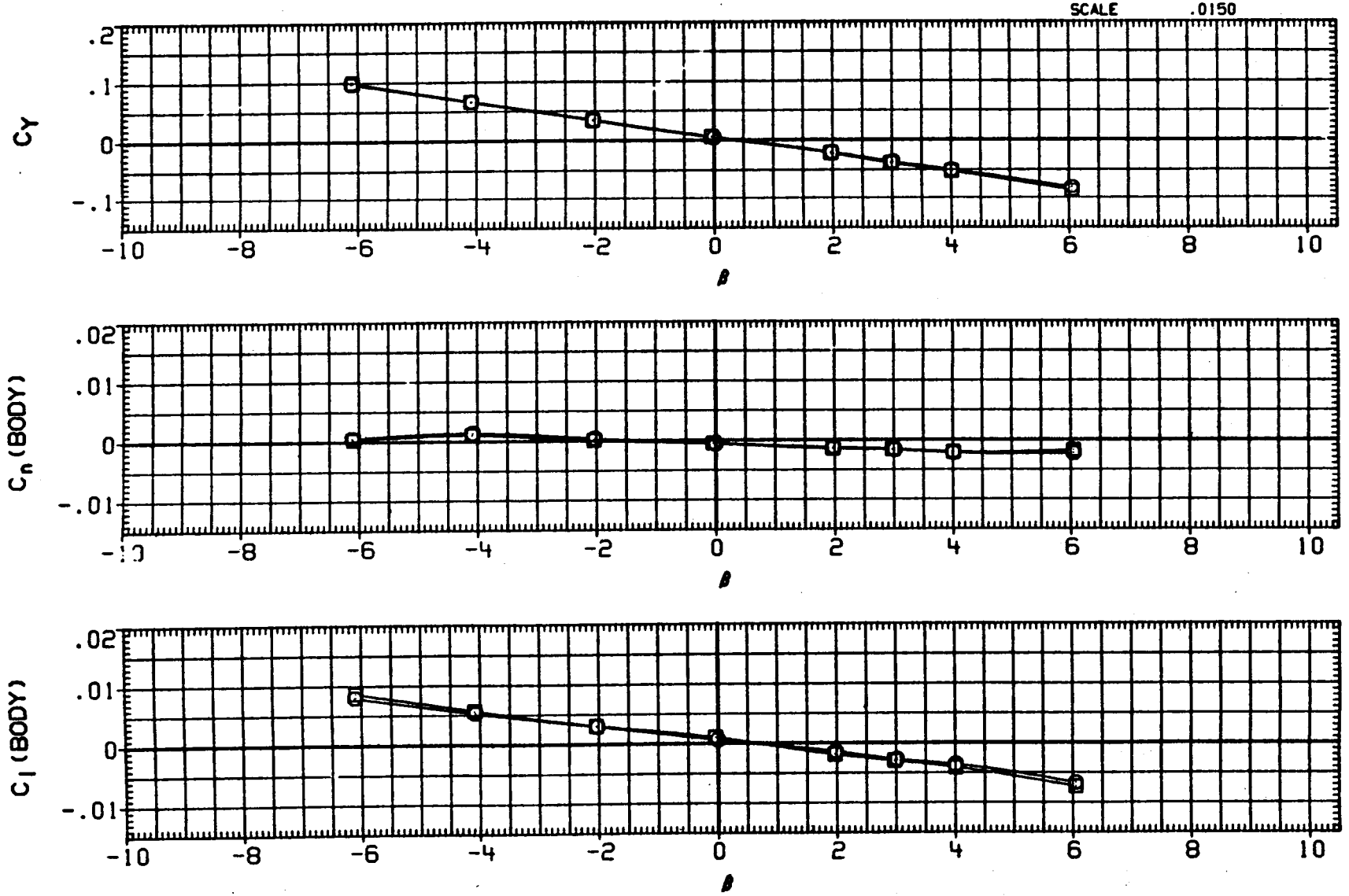


FIGURE 9. EFFECT OF SILTS POD ON THE LATERAL AERODYNAMIC CHARACTERISTICS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 25 DEGREES

(C)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	DELRUD	SPDBRK	BDFLAP
CK1004	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	-5.000	55.000	.000
CK1003	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	-5.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

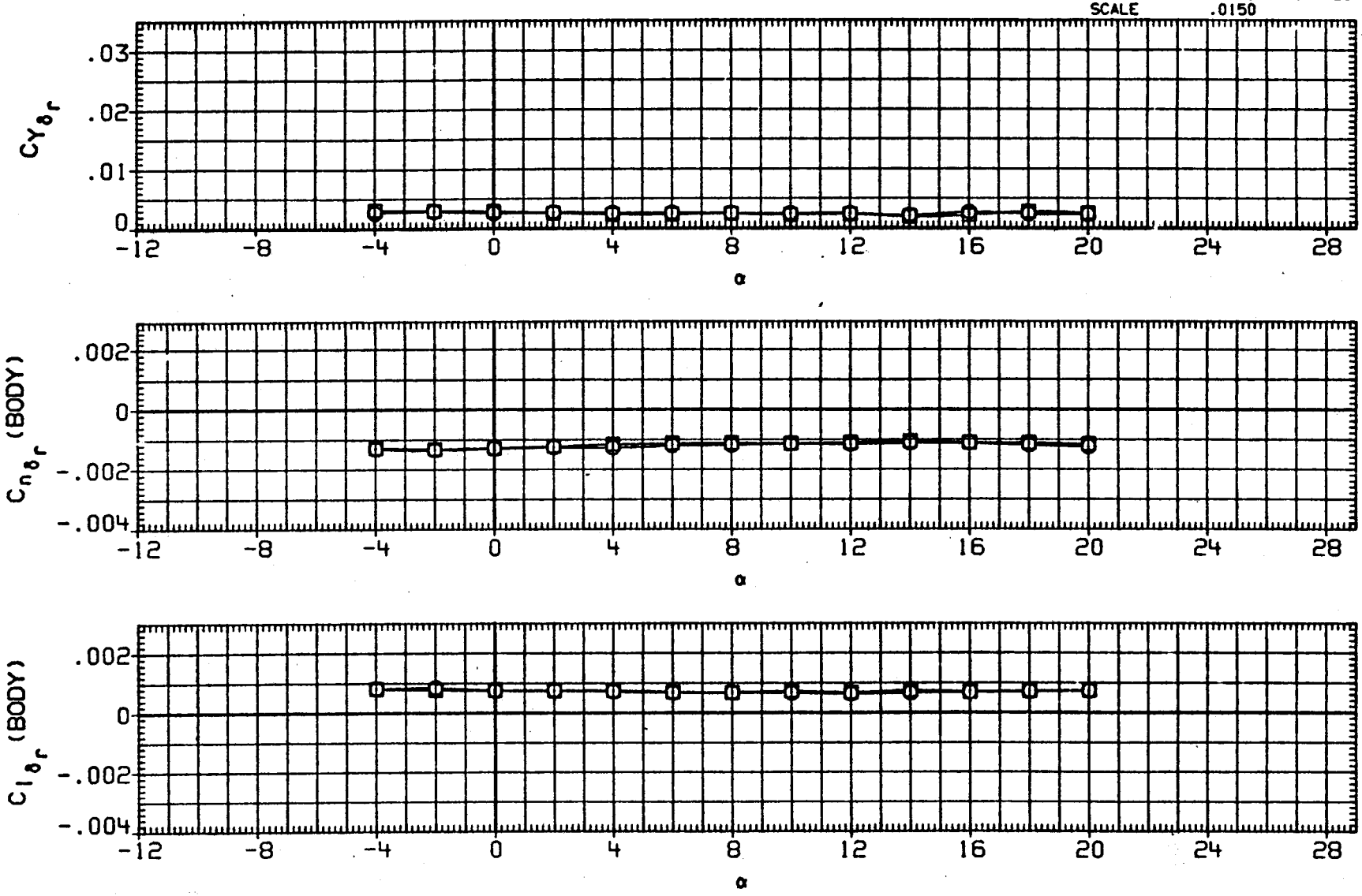


FIGURE 10. EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(A)MACH = 1.50

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	DELRUD	SPDBRK	BDFLAP
CK1004	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	-5.000	55.000	.000
CK1003	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	-5.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

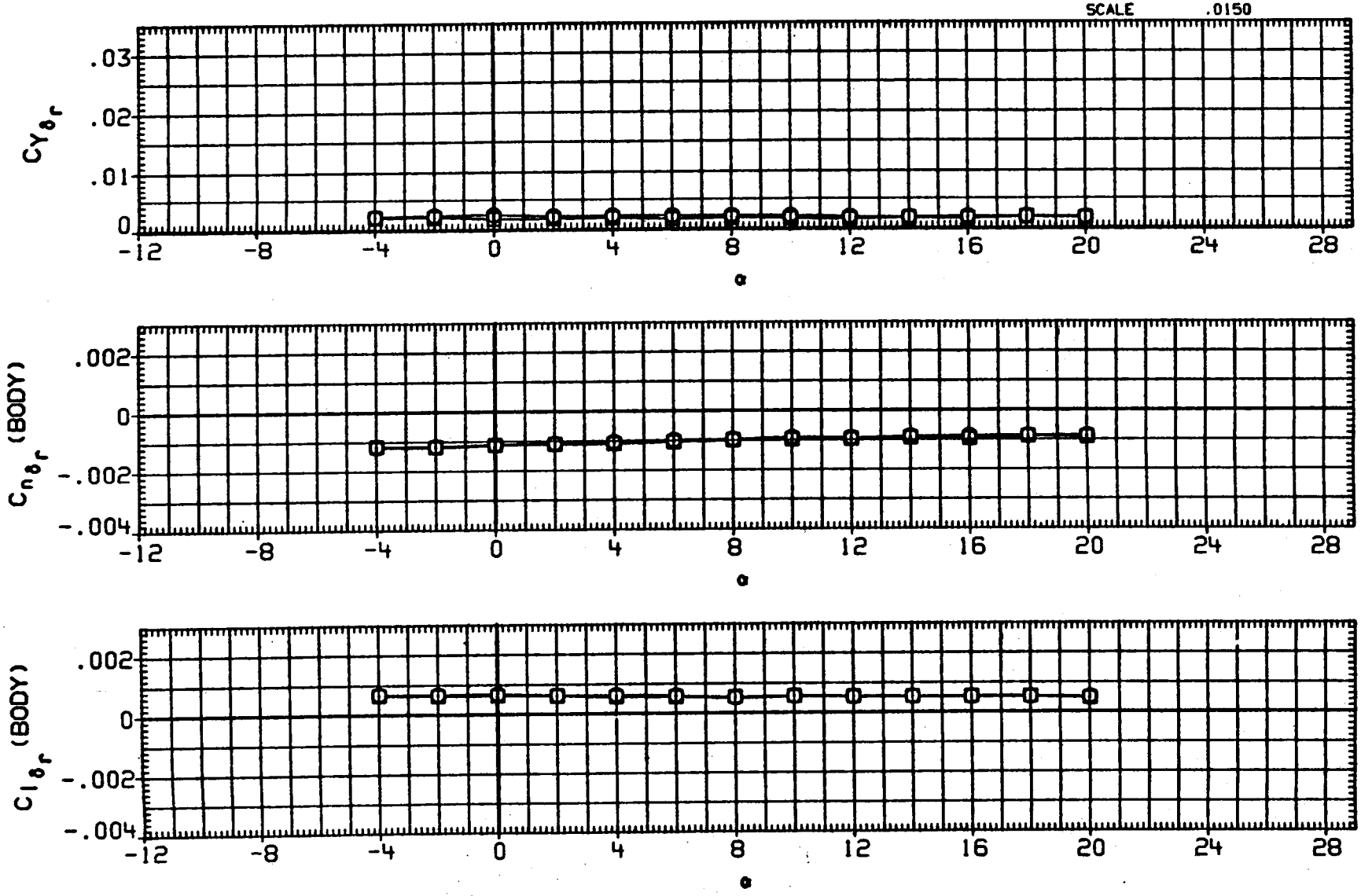


FIGURE 10. EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(B)MACH = 2.00

DATA SET	SYMBOL	CONFIGURATION	BETA	ELEVON	DELRUD	SPDBRK	BDFLAP
CK1004	○	LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF	.000	.000	-5.000	55.000	.000
CK1003	□	LARC UPWT 1212(LA110) ORBITER,SILTS POD ON	.000	.000	-5.000	55.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	INCHES
BREF	936.6800	INCHES
XMRP	1076.7000	IN. XO
YMRP	.0000	IN. YO
ZMRP	375.0000	IN. ZO
SCALE	.0150	

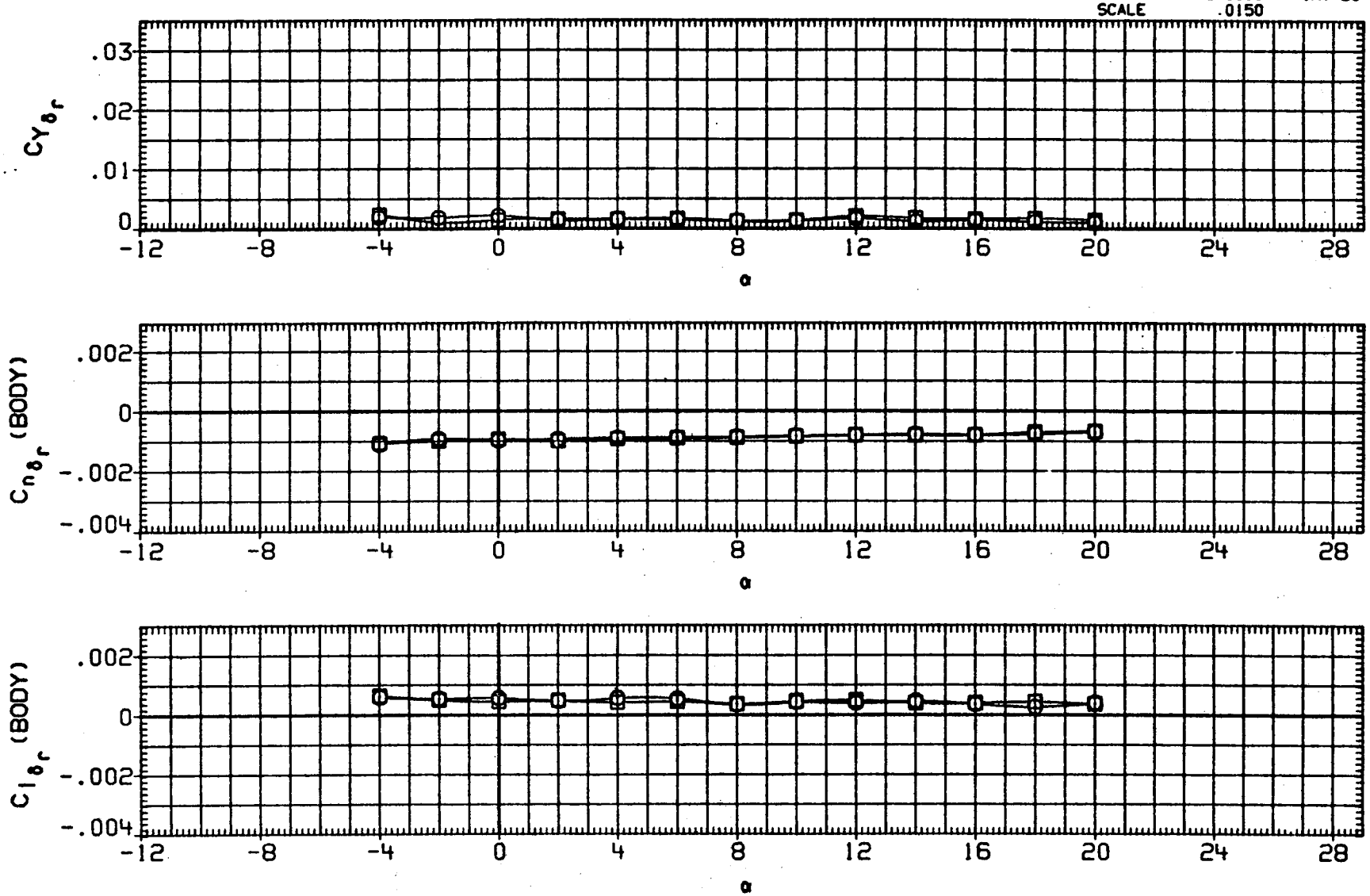


FIGURE 10. EFFECT OF SILTS POD ON THE RUDDER EFFECTIVENESS OF THE 0.015 SCALE ORBITER, SPEEDBRAKE AT 55 DEGREES

(C)MACH = 2.50

TABULATED SOURCE DATA

Tabulations of plotted data are available
from DMS upon request.

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1001) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 20/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.222	-.01912	-.24481	.17735	.08444	-.00037	-.00166	.00443	-.23109	.19489	-1.18573
1.500	-2.203	-.02043	-.14183	.17528	.06558	-.00023	-.00177	.00681	-.13499	.18060	-.74743
1.500	-.211	-.02031	-.03987	.17244	.04586	-.00022	-.00169	.00652	-.03923	.17258	-.22733
1.500	1.783	-.01999	.06250	.16928	.02745	-.00036	-.00171	.00616	.05721	.17115	.33426
1.500	2.768	-.02055	.11063	.16766	.01928	-.00037	-.00171	.00707	.10241	.17281	.59259
1.500	3.801	-.02065	.16154	.16605	.01108	-.00030	-.00192	.00776	.15017	.17639	.85137
1.500	5.780	-.02064	.25828	.16245	-.00284	-.00005	-.00172	.00726	.24061	.18763	1.28232
1.500	7.785	-.02152	.35490	.15890	-.01574	-.00024	-.00171	.00848	.33011	.20551	1.60631
1.500	9.782	-.02146	.45233	.15668	-.02894	-.00095	-.00146	.00764	.41914	.23125	1.81247
1.500	11.770	-.02161	.54520	.15389	-.04041	-.00090	-.00119	.00750	.50235	.26187	1.91834
1.500	13.791	-.02169	.64014	.14997	-.05000	-.00084	-.00098	.00737	.58594	.29825	1.96458
1.500	15.791	-.02278	.73748	.14777	-.06018	-.00002	-.00074	.00863	.66944	.34288	1.95241
1.500	17.784	-.02196	.83182	.14553	-.06855	.00019	-.00088	.00766	.74763	.39264	1.90412
1.500	19.762	-.02239	.92609	.14254	-.07608	.00033	-.00082	.00813	.82335	.44728	1.84082
	GRADIENT	-.00013	.05077	-.00144	-.00923	-.00000	-.00002	.00029	.04766	-.00229	.25846

RUN NO. 23/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.273	-.03744	-.20232	.15519	.04119	-.00008	-.00122	.00243	-.19019	.16984	-1.11983
2.000	-2.259	-.03796	-.12250	.15324	.03181	-.00007	-.00122	.00333	-.11637	.15795	-.73677
2.000	-1.272	-.03848	-.08438	.15206	.02698	-.00020	-.00122	.00419	-.08098	.15390	-.52620
2.000	-.255	-.03906	-.04252	.15059	.02127	.00004	-.00122	.00514	-.04185	.15078	-.27757
2.000	1.769	-.03930	.03680	.14830	.01099	.00004	-.00115	.00544	.03220	.14936	.21559
2.000	3.754	-.03942	.11037	.14566	.00179	-.00001	-.00108	.00556	.10060	.15258	.65933
2.000	5.725	-.03968	.18329	.14276	-.00648	-.00009	-.00090	.00559	.16813	.16033	1.04864
2.000	7.757	-.04001	.26006	.14096	-.01316	-.00024	-.00083	.00581	.23865	.17477	1.36551
2.000	9.739	-.04044	.33135	.13800	-.01732	.00000	-.00072	.00606	.30324	.19206	1.57886
2.000	11.763	-.04042	.40847	.13431	-.02034	.00003	-.00070	.00609	.37251	.21476	1.73451
2.000	13.727	-.04065	.48647	.12953	-.02300	-.00001	-.00050	.00624	.44184	.24127	1.83130
2.000	15.738	-.04127	.56774	.12584	-.02760	-.00002	-.00037	.00712	.51233	.27512	1.86220
2.000	17.772	-.04153	.64997	.12231	-.03301	.00002	-.00014	.00692	.58162	.31487	1.84720
2.000	19.748	-.04130	.72906	.11937	-.03753	.00010	-.00007	.00635	.64585	.35869	1.80059
	GRADIENT	-.00026	.03909	-.00120	-.00497	.00002	.00002	.00041	.03638	-.00206	.22555

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1001) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 26/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.073	-.02092	-.17236	.13985	.01377	.00052	-.00136	.00676	-.16199	.'5174	-1.06760
2.500	-2.073	-.02132	-.10155	.13678	.01012	.00047	-.00086	.00638	-.09654	.14036	-.68778
2.500	-.051	-.02115	-.03730	.13336	.00593	.00068	-.00104	.00660	-.03718	.13339	-.27871
2.500	1.941	-.02089	.01793	.13106	.00196	.00022	-.00090	.00593	.01348	.13159	.10243
2.500	3.985	-.02133	.08600	.12816	-.00220	.00086	-.00078	.00649	.07688	.13383	.57447
2.500	5.969	-.02160	.14614	.12516	-.00567	.00067	-.00071	.00687	.13234	.13968	.94744
2.500	7.949	-.02128	.21594	.12210	-.00770	.00036	-.00077	.00630	.19698	.15079	1.30633
2.500	9.956	-.02087	.28747	.11813	-.01056	.00053	-.00075	.00541	.26272	.16606	1.58211
2.500	11.938	-.02211	.35388	.11523	-.01390	.00091	-.00057	.00721	.32239	.18594	1.73387
2.500	13.958	-.02127	.42647	.11226	-.01800	.00092	-.00046	.00580	.38680	.21182	1.82606
2.500	15.967	-.02164	.50273	.10941	-.02233	.00083	-.00050	.00678	.45324	.24348	1.86149
2.500	17.926	-.02204	.57601	.10577	-.02655	.00059	-.00006	.00639	.51549	.27792	1.85480
2.500	19.936	-.02103	.65599	.10219	-.03176	.00058	-.00022	.00499	.58183	.31974	1.81971
	GRADIENT	-.00002	.03161	-.00145	-.00199	.00002	.00006	-.00005	.02920	-.00221	.20243

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1002) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 29/ 0 RN/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.223	-.03781	-.24558	.17717	.08484	-.00056	-.00160	.00339	-.23186	.19477	-1.19043
1.500	-2.234	-.03801	-.14165	.17533	.06556	-.00049	-.00169	.00391	-.13471	.18071	-.74544
1.500	-.213	-.03872	-.03673	.17244	.04550	-.00026	-.00184	.00536	-.03609	.17257	-.20912
1.500	1.815	-.03887	.06154	.16950	.02762	-.00038	-.00175	.00538	.05614	.17136	.32762
1.500	3.791	-.03877	.16323	.16611	.01065	-.00027	-.00172	.00514	.15189	.17654	.86038
1.500	5.778	-.03941	.26117	.16240	-.00314	-.00010	-.00176	.00621	.24350	.18787	1.29613
1.500	7.769	-.04025	.35607	.15919	-.01647	-.00043	-.00164	.00721	.33128	.20586	1.60928
1.500	9.768	-.03953	.45022	.15674	-.02850	-.00079	-.00166	.00611	.41710	.23085	1.80681
1.500	11.763	-.04018	.54594	.15419	-.04033	-.00076	-.00123	.00623	.50304	.26225	1.91817
1.500	13.784	-.04065	.63926	.15035	-.04997	-.00051	-.00085	.00622	.58502	.29833	1.96098
1.500	15.768	-.04083	.73796	.14812	-.06052	.00016	-.00078	.00640	.66994	.34308	1.95271
1.500	17.778	-.04181	.83208	.14589	-.06837	.00024	-.00080	.00797	.74780	.39298	1.90290
1.500	19.788	-.04180	.93048	.14287	-.07599	.00036	-.00075	.00786	.82717	.44944	1.84046
	GRADIENT	-.00014	.05084	-.00139	-.00928	.00003	-.00001	.00025	.04773	-.00228	.25775

RUN NO. 34/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.260	-.01883	-.19942	.15563	.04153	-.00009	-.00122	.00236	-.18731	.17001	-1.10171
2.000	-2.261	-.01908	-.12135	.15388	.03257	-.00008	-.00138	.00314	-.11518	.15855	-.72645
2.000	-.274	-.01947	-.04235	.15142	.02218	-.00010	-.00120	.00331	-.04163	.15162	-.27456
2.000	1.778	-.01991	.03697	.14930	.01165	-.00008	-.00113	.00382	.03232	.15038	.21492
2.000	3.717	-.02013	.10971	.14663	.00266	-.00010	-.00112	.00412	.09998	.15343	.65159
2.000	5.738	-.02055	.18506	.14377	-.00619	-.00012	-.00099	.00447	.16975	.16155	1.05079
2.000	7.720	-.02090	.25895	.14195	-.01271	-.00021	-.00088	.00472	.23753	.17549	1.35355
2.000	9.751	-.02119	.33281	.1388[illegible]	-.01696	.00003	-.00076	.00486	.30448	.19325	1.57556
2.000	11.727	-.02140	.40810	.13536	-.01990	.00009	-.00069	.00510	.37207	.21548	1.72669
2.000	13.721	-.02156	.48637	.13053	-.02293	.00003	-.00055	.00516	.44153	.24217	1.82323
2.000	15.719	-.02163	.56695	.12673	-.02755	-.00004	-.00052	.00534	.51141	.27559	1.85568
2.000	17.750	-.02252	.64946	.12327	-.03260	-.00010	-.00027	.00615	.58096	.31540	1.84197
2.000	19.729	-.02262	.72856	.12045	-.03704	.00000	-.00011	.00596	.64513	.35932	1.79542
	GRADIENT	-.00017	.03884	-.00113	-.00494	-.00000	.00002	.00021	.03612	-.00207	.22249

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1002) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 37/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.072	-.04046	-.16394	.14008	.01413	.00053	-.00130	.00716	-.15358	.15137	-1.01458
2.500	-2.077	-.03869	-.10676	.13757	.01108	.00052	-.00114	.00376	-.10171	.14135	-.71952
2.500	-.070	-.03907	-.03877	.13383	.00617	.00038	-.00095	.00396	-.03860	.13387	-.28835
2.500	1.950	-.04021	.01958	.13181	.00255	.00055	-.00122	.00655	.01508	.13240	.11391
2.500	3.951	-.03987	.07797	.12931	-.00100	.00039	-.00102	.00546	.06888	.13437	.51257
2.500	5.932	-.03969	.14530	.12595	-.00476	.00033	-.00094	.00496	.13151	.14029	.93739
2.500	7.937	-.04008	.21085	.12322	-.00699	.00062	-.00082	.00531	.19181	.15116	1.26893
2.500	9.917	-.04045	.28498	.11924	-.00979	.00100	-.00082	.00590	.26019	.16654	1.56229
2.500	11.928	-.04140	.35450	.11625	-.01330	.00087	-.00063	.00715	.32282	.18701	1.72625
2.500	13.927	-.04052	.42065	.11364	-.01688	.00062	-.00064	.00583	.38093	.21155	1.80067
2.500	15.970	-.04052	.49976	.10993	-.02094	.00053	-.00056	.00578	.45023	.24319	1.85134
2.500	17.934	-.04195	.57426	.10684	-.02554	.00077	.00009	.00675	.51346	.27848	1.84378
2.500	19.941	-.04046	.65854	.10280	-.03090	.00056	-.00021	.00495	.58400	.32123	1.81802
	GRADIENT	-.00002	.03040	-.00136	-.00193	-.00001	.00002	-.00003	.02798	-.00214	.19370

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RKI003) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 2/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.243	-.01896	-.25150	.17853	.08598	-.00455	.00478	-.01192	-.23761	.19665	-1.20828
1.500	-2.212	-.01991	-.14482	.17672	.06626	-.00429	.00492	-.01076	-.13789	.18218	-.75689
1.500	-.209	-.02059	-.04399	.17430	04684	-.00402	.00466	-.00901	-.04336	.17446	-.24851
1.500	1.804	-.02118	.05880	.17072	.02869	-.00407	.00445	-.00741	.05340	.17249	.30957
1.500	3.789	-.02118	.15980	.16728	.01176	-.00399	.00413	-.00650	.14840	.17747	.83620
1.500	5.778	-.02174	.25655	.16348	-.00197	-.00357	.00392	-.00514	.23879	.18848	1.26694
1.500	7.791	-.02209	.35374	.16038	-.01533	-.00376	.00395	-.00490	.32873	.20685	1.58924
1.500	9.795	-.02233	.45018	.15798	-.02843	-.00438	.00403	-.00496	.41674	.23226	1.79427
1.500	11.778	-.02240	.54485	.15517	-.03967	-.00412	.00433	-.00551	.50171	.26312	1.90679
1.500	13.785	-.02397	.63796	.15138	-.04981	-.00417	.00450	-.00336	.58352	.29903	1.95136
1.500	15.799	-.02391	.73381	.14895	-.05975	-.00331	.00475	-.00401	.66553	.34311	1.93970
1.500	17.809	-.02297	.82879	.14667	-.06755	-.00334	.00478	-.00559	.74422	.39312	1.89311
1.500	19.842	-.02388	.92690	.14369	-.07564	-.00331	.00502	-.00475	.82310	.44977	1.83004
	GRADIENT	-.00028	.05111	-.00142	-.00926	.00007	-.00009	.00071	.04797	-.00240	.25671

RUN NO. 5/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.275	-.02138	-.20196	.15657	.04031	-.00331	.00458	-.00767	-.18973	.17119	-1.10829
2.000	-2.282	-.02167	-.12376	.15466	.03145	-.00318	.00459	-.00724	-.11750	.15946	-.73686
2.000	-.261	-.02245	-.04335	.15202	.02104	-.00316	.00448	-.00576	-.04265	.15221	-.28022
2.000	1.755	-.02261	.03459	.14982	.01076	-.00312	.00439	-.00508	.02998	.15081	.19882
2.000	3.710	-.02248	.10977	.14720	.00200	-.00288	.00440	-.00514	.10001	.15400	.64943
2.000	5.726	-.02294	.18466	.14409	-.00661	-.00289	.00429	-.00402	.16937	.16179	1.04681
2.000	7.717	-.02272	.25933	.14244	-.01312	-.00288	.00414	-.00425	.23785	.17597	1.35167
2.000	9.739	-.02323	.33421	.13909	-.01693	-.00274	.00414	-.00371	.30586	.19362	1.57971
2.000	11.722	-.02389	.40788	.13569	-.01975	-.00261	.00413	-.00271	.37181	.21573	1.72348
2.000	13.717	-.02332	.48533	.13139	-.02291	-.00262	.00415	-.00356	.44033	.24272	1.81417
2.000	15.738	-.02404	.56897	.12681	-.02686	-.00268	.00431	-.00275	.51325	.27638	1.85705
2.000	17.751	-.02358	.64793	.12346	-.03198	-.00275	.00422	-.00328	.57945	.31512	1.83883
2.000	19.730	-.02432	.72950	.12010	-.03596	-.00235	.00444	-.00269	.64613	.35932	1.79823
	GRADIENT	-.00016	.03908	-.00118	-.00486	.00005	-.00003	.00036	.03634	-.00216	.22247

LARC UFWT 1212(LA110) ORBITER,SILTS POD ON (RK1003) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 8/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.044	-.02203	-.17585	.14145	.01464	-.00282	.00401	-.00493	-.16543	.15350	-1.07773
2.500	-2.075	-.02386	-.10536	.13844	.01128	-.00216	.00386	-.00145	-.10028	.14216	-.70540
2.500	-.054	-.02268	-.04601	.13515	.00699	-.00201	.00370	-.00307	-.04588	.13519	-.33941
2.500	1.961	-.02343	.02065	.13245	.00317	-.00206	.00375	-.00172	.01610	.13308	.12099
2.500	3.924	-.02272	.08125	.12981	-.00110	-.00187	.00365	-.00247	.07217	.13506	.53437
2.500	5.914	-.02190	.14099	.12689	-.00468	-.00209	.00361	-.00361	.12717	.14074	.90357
2.500	7.935	-.02353	.21333	.12381	-.00701	-.00140	.00358	-.00107	.19419	.15207	1.27697
2.500	9.928	-.02353	.27744	.12031	-.00949	-.00142	.00340	-.00092	.25254	.16634	1.51826
2.500	11.928	-.02222	.35482	.11679	-.01298	-.00176	.00337	-.00312	.32302	.18760	1.72180
2.500	13.966	-.02236	.42275	.11402	-.01720	-.00158	.00338	-.00281	.38273	.21268	1.79958
2.500	15.895	-.02251	.49334	.11155	-.02063	-.00165	.00338	-.00248	.44393	.24240	1.83136
2.500	17.933	-.02324	.56723	.10811	-.02481	-.00157	.00362	-.00184	.50638	.27751	1.82473
2.500	19.924	-.02226	.65191	.10394	-.03007	-.00143	.00315	-.00243	.57747	.31987	1.80532
	GRADIENT	-.00005	.03205	-.00147	-.00198	.00010	-.00004	.00023	.02962	-.00230	.20281

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1004) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 14/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.219	-.03978	-.24642	.17793	.08531	-.00432	.00493	-.00840	-.23266	.19558	-1.18959
1.500	-2.243	-.04054	-.14644	.17635	.06654	-.00443	.00501	-.00731	-.13942	.18195	-.76628
1.500	-.204	-.04081	-.04091	.17366	.04658	-.00399	.00480	-.00633	-.04029	.17380	-.23183
1.500	1.804	-.04013	.05897	.17020	.02836	-.00412	.00467	-.00700	.05358	.17197	.31158
1.500	3.780	-.04101	.16005	.16672	.01176	-.00386	.00446	-.00503	.14871	.17691	.84060
1.500	5.781	-.04063	.25865	.16278	-.00210	-.00343	.00438	-.00543	.24094	.18801	1.28152
1.500	7.779	-.04148	.35445	.15964	-.01535	-.00360	.00422	-.00388	.32958	.20615	1.59874
1.500	9.799	-.04127	.45062	.15733	-.02842	-.00424	.00424	-.00440	.41727	.23172	1.80074
1.500	11.783	-.04138	.54638	.15436	-.04025	-.00404	.00457	-.00476	.50334	.26269	1.91612
1.500	13.779	-.04242	.63960	.15047	-.04983	-.00412	.00464	-.00308	.58536	.29848	1.96114
1.500	15.767	-.04177	.73697	.14816	-.05999	-.00350	.00486	-.00446	.66898	.34284	1.95130
1.500	17.796	-.04224	.83390	.14585	-.06816	-.00334	.00503	-.00419	.74942	.39374	1.90335
1.500	19.786	-.04345	.92744	.14281	-.07600	-.00331	.00537	-.00314	.82435	.44832	1.83874
	GRADIENT	-.00010	.05080	-.00143	-.00924	.00006	-.00006	.00035	.04768	-.00236	.25635

RUN NO. 17/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.285	-.03967	-.20663	.15606	.04250	-.00337	.00471	-.00807	-.19439	.17106	-1.13640
2.000	-2.278	-.03935	-.12748	.15426	.03322	-.00342	.00466	-.00837	-.12125	.15920	-.76159
2.000	-.265	-.03975	-.04894	.15171	.02263	-.00332	.00444	-.00713	-.04824	.15194	-.31749
2.000	1.739	-.04051	.03099	.14936	.01217	-.00307	.00433	-.00560	.02644	.15023	.17603
2.000	3.728	-.04026	.10710	.14665	.00257	-.00309	.00423	-.00568	.09734	.15331	.63493
2.000	5.732	-.04008	.18146	.14349	-.00618	-.00305	.00408	-.00554	.16623	.16089	1.03315
2.000	7.728	-.04047	.25666	.14183	-.01299	-.00276	.00409	-.00509	.23526	.17505	1.34392
2.000	9.736	-.04046	.32956	.13891	-.01724	-.00272	.00387	-.00471	.30132	.19264	1.56417
2.000	11.747	-.04134	.40612	.13542	-.02033	-.00263	.00398	-.00351	.37005	.21527	1.71902
2.000	13.748	-.04173	.48475	.13090	-.02341	-.00261	.00400	-.00270	.43975	.24236	1.81447
2.000	15.724	-.04178	.56496	.12678	-.02765	-.00256	.00403	-.00245	.50946	.27513	1.85169
2.000	17.730	-.04196	.64773	.12325	-.03319	-.00250	.00421	-.00263	.57943	.31465	1.84152
2.000	19.765	-.04196	.73047	.11995	-.03765	-.00239	.00427	-.00282	.64687	.35989	1.79741
	GRADIENT	-.00012	.03921	-.00118	-.00502	.00005	-.00006	.00038	.03648	-.00222	.22352

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1004) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 11/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.048	-.04200	-.16769	.14010	.01438	-.00258	.00422	-.00270	-.15738	.15159	-1.03820
2.500	-2.078	-.04131	-.11084	.13766	.01131	-.00236	.00374	-.00264	-.10577	.14158	-.74705
2.500	-.068	-.04053	-.03898	.13377	.00700	-.00229	.00389	-.00422	-.03882	.13382	-.29012
2.500	1.941	-.04218	.01591	.13171	.00284	-.00221	.00374	-.00096	.01144	.13218	.08653
2.500	3.969	-.04192	.08845	.12849	-.00126	-.00208	.00369	-.00118	.07934	.13431	.59077
2.500	5.928	-.04232	.14979	.12529	-.00446	-.00222	.00368	-.00042	.13605	.14009	.97109
2.500	7.967	-.04244	.21915	.12234	-.00673	-.00155	.00355	-.00009	.20008	.15154	1.32030
2.500	9.928	-.04180	.27753	.11928	-.00912	-.00174	.00338	-.00091	.25281	.16534	1.52904
2.500	11.961	-.04178	.35737	.11558	-.01268	-.00122	.00347	-.00103	.32565	.18714	1.74021
2.500	13.938	-.04203	.42985	.11251	-.01655	-.00151	.00337	-.00010	.39010	.21273	1.83373
2.500	15.938	-.04200	.50831	.10963	-.02056	-.00115	.00346	-.00011	.45866	.24500	1.87208
2.500	17.945	-.04300	.58229	.10608	-.02488	-.00091	.00376	.00082	.52127	.28033	1.85952
2.500	19.943	-.04177	.65294	.10270	-.02936	-.00154	.00323	-.00005	.57875	.31925	1.81287
	GRADIENT	-.00004	.03187	-.00145	-.00198	.00006	-.00005	.00024	.02946	-.00219	.20411

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1005) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 50/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.207	-.03791	-.22866	.15530	.05440	-.00035	-.00170	.00408	-.21665	.17166	-1.26209
1.500	-2.227	-.03813	-.12617	.15417	.03566	-.00030	-.00162	.00421	-.12008	.15895	-.75544
1.500	-.211	-.03877	-.02522	.15247	.01721	-.00033	-.00176	.00560	-.02466	.15256	-.16163
1.500	1.833	-.03857	.07651	.15024	-.00027	-.00024	-.00165	.00518	.07167	.15261	.46960
1.500	3.784	-.03863	.17656	.14722	-.01584	-.00052	-.00161	.00529	.16646	.15855	1.04990
1.500	5.811	-.03984	.27715	.14388	-.02935	-.00010	-.00166	.00734	.26116	.17120	1.52549
1.500	7.787	-.03975	.36735	.14122	-.04098	-.00046	-.00158	.00699	.34483	.18969	1.81781
1.500	9.773	-.03947	.46426	.13898	-.05271	-.00101	-.00144	.00621	.43393	.21577	2.01103
1.500	11.774	-.04028	.56083	.13653	-.06361	-.00072	-.00103	.00647	.52118	.24810	2.10070
1.500	13.795	-.04041	.65265	.13375	-.07307	-.00073	-.00090	.00635	.60193	.28551	2.10824
1.500	15.804	-.04079	.75163	.13180	-.08347	-.00009	-.00066	.00634	.68732	.33152	2.07325
1.500	17.806	-.04140	.84734	.12896	-.09014	-.00013	-.00060	.00713	.76732	.38190	2.00923
1.500	19.770	-.04151	.93932	.12669	-.09609	.00021	-.00042	.00685	.84110	.43695	1.92493
	GRADIENT	-.00009	.05055	-.00100	-.00880	-.00001	.00001	.00017	.04780	-.00163	.29186

RUN NO. 53/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.286	-.01939	-.18896	.13877	.01661	.00005	-.00129	.00370	-.17806	.15250	-1.16762
2.000	-2.269	-.01961	-.11018	.13719	.00841	-.00003	-.00105	.00348	-.10467	.14144	-.74000
2.000	-.279	-.02010	-.03086	.13476	-.00109	-.00008	-.00093	.00394	-.03020	.13490	-.22389
2.000	1.730	-.02015	.04708	.13279	-.01071	-.00017	-.00095	.00420	.04305	.13416	.32089
2.000	3.721	-.02061	.12226	.13048	-.01907	-.00002	-.00075	.00460	.11353	.13814	.82189
2.000	5.726	-.02071	.19485	.12838	-.02682	-.00026	-.00067	.00466	.18107	.14718	1.23024
2.000	7.749	-.02142	.27093	.12704	-.03267	-.00014	-.00044	.00520	.25133	.16241	1.54751
2.000	9.764	-.02134	.34417	.12459	-.03592	-.00011	-.00044	.00504	.31805	.18115	1.75571
2.000	11.722	-.02157	.41693	.12163	-.03810	-.00004	-.00032	.00510	.38352	.20380	1.88180
2.000	13.765	-.02200	.49636	.11724	-.04071	-.00007	-.00015	.00534	.45421	.23197	1.95803
2.000	15.718	-.02202	.57509	.11371	-.04416	-.00025	-.00015	.00534	.52279	.26525	1.97095
2.000	17.744	-.02279	.65765	.11034	-.04931	-.00021	.00019	.00570	.59274	.30552	1.94008
2.000	19.763	-.02297	.73907	.10700	-.05322	-.00001	.00043	.00540	.65935	.35061	1.88060
	GRADIENT	-.00015	.03896	-.00105	-.00452	-.00001	.00006	.00013	.03652	-.00180	.25182

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1005) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.5800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 56/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.058	-.01869	-.16361	.12669	-.00605	.00022	-.00114	.00220	-.15424	.13796	-1.11801
2.500	-2.066	-.02077	-.09857	.12429	-.00810	.00050	-.00118	.00584	-.09403	.12776	-.73599
2.500	-.066	-.02231	-.03677	.12135	-.01169	.00037	-.00089	.00779	-.03664	.12139	-.30179
2.500	1.926	-.02122	.03297	.11884	-.01524	.00086	-.00090	.00612	.02896	.11988	.24154
2.500	3.937	-.02136	.09139	.11653	-.01826	.00041	-.00076	.00615	.08317	.12253	.67875
2.500	5.922	-.02235	.15570	.11403	-.02128	.00075	-.00044	.00720	.14310	.12948	1.10519
2.500	7.957	-.02192	.22766	.11131	-.02242	.00067	-.00043	.00642	.21006	.14175	1.48184
2.500	9.933	-.02182	.28672	.10836	-.02422	.00041	-.00049	.00635	.26373	.15619	1.68854
2.500	11.934	-.02340	.36066	.10547	-.02733	.00098	-.00013	.00818	.33105	.17777	1.86223
2.500	13.932	-.02108	.43140	.10281	-.03089	.00039	-.00046	.00496	.39395	.20365	1.93445
2.500	15.961	-.02241	.50940	.10017	-.03445	.00072	-.00023	.00662	.46221	.23638	1.95536
2.500	17.918	-.02385	.57671	.09734	-.03767	.00062	.00050	.00732	.51879	.27005	1.92111
2.500	19.952	-.02189	.66865	.09294	-.04254	.00071	-.00008	.00531	.59680	.31553	1.89139
	GRADIENT	-.00029	.03210	-.00129	-.00158	.00004	.00005	.00041	.02992	-.00194	.22876

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1006) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 44/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.214	-.03839	-.23047	.15569	.05464	-.00059	-.00188	.00523	-.21841	.17221	-1.26826
1.500	-2.242	-.03865	-.12713	.15433	.03632	-.00026	-.00163	.00504	-.12100	.15919	-.76009
1.500	-.186	-.03888	-.02459	.15287	.01724	-.00040	-.00181	.00590	-.02410	.15295	-.15754
1.500	1.784	-.03897	.07538	.15053	.00019	-.00040	-.00177	.00604	.07065	.15280	.46238
1.500	3.790	-.03946	.17617	.14768	-.01559	-.00027	-.00168	.00675	.16603	.15900	1.04417
1.500	5.781	-.03959	.27345	.14441	-.02876	.00001	-.00165	.00693	.25752	.17122	1.50402
1.500	7.797	-.03952	.36866	.14161	-.04092	-.00050	-.00163	.00674	.34604	.19032	1.81824
1.500	9.778	-.04009	.46471	.13950	-.05261	-.00132	-.00145	.00718	.43427	.21639	2.00684
1.500	11.804	-.04043	.56057	.13698	-.06344	-.00097	-.00109	.00684	.52069	.24876	2.09314
1.500	13.803	-.04031	.65235	.13434	-.07310	-.00099	-.00101	.00644	.60145	.28611	2.10218
1.500	15.784	-.04089	.74927	.13235	-.08288	-.00011	-.00060	.00633	.68502	.33117	2.06846
1.500	17.783	-.04129	.84407	.12962	-.09062	.00010	-.00042	.00650	.76415	.38121	2.00452
1.500	19.783	-.04075	.93939	.12728	-.09624	.00018	-.00063	.00612	.84087	.43771	1.92109
	GRADIENT	-.00012	.05070	-.00099	-.00882	.00002	.00001	.00020	.04794	-.00164	.29187

RUN NO. 47/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.280	-.03797	-.19140	.13951	.01809	-.00005	-.00106	.00264	-.18045	.15340	-1.17633
2.000	-2.265	-.03831	-.11402	.13800	.00992	-.00001	-.00099	.00302	-.10848	.14240	-.76175
2.000	-.276	-.03845	-.03484	.13575	.00043	-.00008	-.00098	.00321	-.03419	.13592	-.25152
2.000	1.745	-.03869	.04530	.13362	-.00969	-.00005	-.00089	.00351	.04121	.13494	.30541
2.000	3.736	-.03977	.12261	.13116	-.01825	-.00017	-.00071	.00489	.11381	.13887	.81952
2.000	5.729	-.03904	.19577	.12914	-.02642	-.00024	-.00066	.00376	.18190	.14804	1.22876
2.000	7.739	-.03975	.26963	.12795	-.03207	-.00027	-.00055	.00458	.24994	.16309	1.53252
2.000	9.744	-.03993	.34272	.12550	-.03524	-.00027	-.00049	.00469	.31653	.18169	1.74219
2.000	11.753	-.03975	.41833	.12247	-.03778	-.00010	-.00043	.00424	.38462	.20511	1.87516
2.000	13.749	-.03997	.49624	.11821	-.04024	-.00015	-.00025	.00414	.45392	.23276	1.95017
2.000	15.729	-.04098	.57388	.11474	-.04436	-.00025	-.00009	.00530	.52128	.26601	1.95961
2.000	17.729	-.04115	.65734	.11146	-.04938	-.00024	.00009	.00512	.59218	.30634	1.93311
2.000	19.728	-.04075	.73824	.10818	-.05308	-.00019	.00004	.00457	.65839	.35102	1.87564
	GRADIENT	-.00020	.03928	-.00105	-.00460	-.00001	.00004	.00025	.03683	-.00182	.25241

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1006) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 41/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.069	-.04132	-.15887	.12671	-.00531	.00049	-.00065	.00740	-.14948	.13767	-1.08579
2.500	-2.068	-.04043	-.10071	.12463	-.00781	.00042	-.00100	.00672	-.09615	.12818	-.75012
2.500	-.072	-.04080	-.02917	.12137	-.01185	.00066	-.00069	.00660	-.02902	.12141	-.23905
2.500	1.944	-.04012	.02597	.11949	-.01505	.00030	-.00084	.00596	.02190	.12030	.18205
2.500	3.931	-.04049	.08859	.11728	-.01822	.00039	-.00070	.00639	.08034	.12307	.65278
2.500	5.925	-.04055	.15666	.11457	-.02143	.00022	-.00042	.00596	.14400	.13013	1.10662
2.500	7.933	-.04024	.21746	.11244	-.02275	.00051	-.00048	.00555	.19986	.14138	1.41360
2.500	9.933	-.04095	.29292	.10885	-.02458	.00081	-.00036	.00646	.26975	.15775	1.71001
2.500	11.932	-.04058	.36162	.10623	-.02741	.00083	-.00029	.00503	.33184	.17870	1.85693
2.500	13.947	-.04090	.43166	.10359	-.03089	.00068	-.00016	.00584	.39396	.20458	1.92572
2.500	15.952	-.04032	.51219	.10086	-.03443	.00062	-.00027	.00506	.46475	.23774	1.95490
2.500	17.927	-.04219	.58623	.09772	-.03770	.00125	.00045	.00650	.52769	.27342	1.92993
2.500	19.955	-.04184	.66736	.09390	-.04125	.00086	.00021	.00644	.59524	.31602	1.88356
	GRADIENT	.00010	.03106	-.00120	-.00165	-.00002	.00000	-.00014	.02887	-.00185	.22033

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RKI007) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = .000

RUN NO. 59/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.272	-.00069	-.18942	.13621	.01507	-.00004	-.00089	.00306	-.17874	.14994	-1.19206
2.000	-2.395	-.00068	-.11589	.13429	.00796	.00000	-.00088	.00302	-.11018	.13902	-.79255
2.000	-.323	-.00159	-.03628	.13161	-.00052	.00001	-.00071	.00404	-.03554	.13181	-.26961
2.000	1.671	-.00178	.04074	.12899	-.00996	-.00023	-.00062	.00426	.03696	.13013	.28401
2.000	3.639	-.00172	.11440	.12674	-.01804	-.00020	-.00064	.00435	.10612	.13375	.79344
2.000	5.650	-.00224	.18871	.12406	-.02528	-.00010	-.00039	.00467	.17558	.14204	1.23614
2.000	7.647	-.00284	.26281	.12244	-.03095	-.00017	-.00022	.00519	.24418	.15633	1.56197
2.000	9.675	-.00271	.33774	.12052	-.03450	-.00007	-.00027	.00508	.31268	.17557	1.78100
2.000	11.665	-.00279	.41141	.11833	-.03706	.00013	-.00015	.00488	.37898	.19907	1.90376
2.000	13.688	-.00343	.49107	.11419	-.03993	.00003	.00001	.00545	.45010	.22714	1.98157
2.000	15.671	-.00324	.57229	.11090	-.04428	-.00018	-.00003	.00525	.52106	.26136	1.99364
2.000	17.640	-.00311	.65135	.10787	-.04872	-.00019	-.00014	.00527	.58804	.30018	1.95895
2.000	19.662	-.00368	.73499	.10409	-.05317	-.00020	.00021	.00532	.65711	.34532	1.90291
	GRADIENT	-.00016	.03843	-.00122	-.00423	-.00003	.00004	.00019	.03604	-.00207	.25390

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1008) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 21/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.236	2.98205	-.24553	.17717	.08385	-.00426	.00349	-.05708	-.23178	.19482	-1.18970
1.500	-2.216	2.98003	-.14339	.17568	.06431	-.00422	.00280	-.05222	-.13649	.18109	-.75370
1.500	-.220	2.97951	-.03910	.17405	.04481	-.00425	.00265	-.05097	-.03844	.17419	-.22066
1.500	1.793	2.97860	.06104	.17087	.02666	-.00496	.00186	-.04756	.05566	.17269	.32231
1.500	2.774	2.97791	.10865	.16924	.01830	-.00520	.00140	-.04537	.10033	.17430	.57562
1.500	3.800	2.97741	.16287	.16718	.00958	-.00554	.00072	-.04293	.15143	.17761	.85259
1.500	5.810	2.97821	.25900	.16343	-.00388	-.00531	-.00005	-.04238	.24112	.18880	1.27711
1.500	7.784	2.97784	.35338	.15993	-.01666	-.00525	-.00037	-.04114	.32846	.20632	1.59200
1.500	9.776	2.97769	.45049	.15678	-.02916	-.00454	-.00058	-.04055	.41733	.23099	1.80669
1.500	11.771	2.97880	.54495	.15411	-.03944	-.00425	-.00052	-.04220	.50205	.26204	1.91596
1.500	13.776	2.97930	.63661	.15035	-.04872	-.00480	-.00139	-.04067	.58249	.29763	1.95713
1.500	15.770	2.98040	.73286	.14727	-.05799	-.00477	-.00301	-.03845	.66524	.34090	1.95142
1.500	17.777	2.98187	.82853	.14401	-.06639	-.00494	-.00503	-.03602	.74500	.39009	1.90983
1.500	19.796	2.98141	.92114	.14051	-.07242	-.00492	-.00669	-.03143	.81912	.44417	1.84414
	GRADIENT	-.00053	.05072	-.00124	-.00926	-.00017	-.00032	.00164	.04761	-.00210	.25725

RUN NO. 24/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.250	3.00199	-.19727	.15430	.03794	-.00423	.00406	-.06004	-.18529	.16849	-1.09969
2.000	-2.266	3.00003	-.12068	.15268	.02882	-.00408	.00336	-.05535	-.11455	.15734	-.72807
2.000	-1.270	2.99967	-.08176	.15178	.02403	-.00420	.00296	-.05385	-.07837	.15356	-.51037
2.000	-.248	2.99915	-.04343	.15066	.01920	-.00404	.00256	-.05213	-.04278	.15084	-.28357
2.000	1.747	2.99763	.03564	.14841	.00917	-.00382	.00192	-.04820	.03110	.14943	.20815
2.000	3.761	2.99677	.11103	.14584	.00012	-.00391	.00140	-.04556	.10122	.15281	.66240
2.000	5.745	2.99586	.18569	.14320	-.00731	-.00375	.00082	-.04268	.17043	.16107	1.05810
2.000	7.729	2.99688	.25960	.14065	-.01337	-.00379	.00010	-.04269	.23832	.17428	1.36744
2.000	9.746	2.99679	.33428	.13719	-.01749	-.00406	-.00035	-.04160	.30624	.19180	1.59668
2.000	11.730	2.99749	.40932	.13414	-.02048	-.00458	-.00096	-.04116	.37350	.21455	1.74084
2.000	13.728	2.99752	.48703	.12996	-.02360	-.00461	-.00191	-.03869	.44228	.24182	1.82892
2.000	15.746	2.99767	.56743	.12551	-.02753	-.00487	-.00355	-.03482	.51208	.27478	1.86358
2.000	17.762	2.99887	.64986	.12130	-.03260	-.00455	-.00570	-.03164	.58188	.31376	1.85454
2.000	19.756	2.99947	.72991	.11805	-.03772	-.00415	-.00781	-.02763	.64705	.35782	1.80832
	GRADIENT	-.00064	.03857	-.00106	-.00476	.00005	-.00034	.00180	.03587	-.00187	.22338

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1008) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 27/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.074	2.99771	-.17134	.13931	.01184	-.00361	.00448	-.05820	-.16101	.15113	-1.06534
2.500	-2.078	2.99672	-.11049	.13715	.00834	-.00353	.00390	-.05501	-.10544	.14106	-.74750
2.500	-.064	2.99391	-.04078	.13458	.00510	-.00273	.00274	-.04765	-.04063	.13463	-.30182
2.500	1.980	2.99308	.02945	.13133	.00032	-.00329	.00205	-.04457	.02489	.13226	.18819
2.500	3.947	2.99303	.08381	.12864	-.00279	-.00307	.00143	-.04293	.07476	.13411	.55746
2.500	5.951	2.99345	.14943	.12525	-.00609	-.00308	.00075	-.04200	.13564	.14006	.96839
2.500	7.930	2.99343	.21427	.12240	-.00884	-.00292	.00013	-.04067	.19534	.15079	1.29541
2.500	9.952	2 99335	.28528	.11874	-.01127	-.00354	-.00024	-.03979	.26047	.16626	1.56666
2.500	11.939	2.99179	.36453	.11542	-.01398	-.00343	-.00101	-.03521	.33277	.18834	1.76691
2.500	13.933	2.99393	.42942	.11302	-.01786	-.00391	-.00244	-.03517	.38957	.21310	1.82812
2.500	15.937	2.99489	.49619	.10979	-.02275	-.00401	-.00403	-.03283	.44697	.24181	1.84840
2.500	17.944	2.99406	.58071	.10549	-.02716	-.00341	-.00560	-.02773	.51997	.27926	1.86194
2.500	19.931	2.99418	.65836	.10155	-.03247	-.00312	-.00666	-.02554	.58431	.31989	1.82658
	GRADIENT	-.00065	.03236	-.00135	-.00186	.00007	-.00040	.00204	.02995	-.00213	.20807

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1009) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 30/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.212	3.00082	-.24269	.17725	.08323	-.00413	.00309	-.05637	-.22901	.19459	-1.17689
1.500	-2.228	2.99963	-.14142	.17584	.06388	-.00411	.00264	-.05344	-.13448	.18121	-.74213
1.500	-.201	2.99875	-.03709	.17414	.04425	-.00400	.00220	-.05104	-.03648	.17427	-.20932
1.500	1.761	2.99813	.06094	.17097	.02680	-.00478	.00164	-.04876	.05565	.17276	.32213
1.500	3.766	2.99736	.16157	.16754	.00982	-.00544	.00063	-.04520	.15021	.17779	.84489
1.500	5.783	2.99730	.25879	.16366	-.00391	-.00543	-.00038	-.04275	.24098	.18891	1.27562
1.500	7.768	2.99683	.35761	.16004	-.01699	-.00498	-.00053	-.04166	.33270	.20691	1.60792
1.500	9.792	2.99711	.45387	.15724	-.02976	-.00456	-.00079	-.04149	.42052	.23214	1.81148
1.500	11.753	2.99873	.54240	.15474	-.03964	-.00433	-.00073	-.04427	.49951	.26198	1.90668
1.500	13.787	2.99901	.63912	.15076	-.04892	-.00500	-.00149	-.04284	.58478	.29873	1.95757
1.500	15.774	2.99855	.73552	.14770	-.05853	-.00492	-.00309	-.03828	.66767	.34209	1.95174
1.500	17.766	3.00089	.83069	.14457	-.06584	-.00502	-.00519	-.03695	.74697	.39114	1.90972
1.500	19.798	3.00123	.92473	.14084	-.07186	-.00496	-.00692	-.03335	.82236	.44574	1.84495
	GRADIENT	-.00042	.05068	-.00122	-.00922	-.00016	-.00030	.00135	.04756	-.00211	.25609

RUN NO. 35/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.265	2.98302	-.19839	.15516	.03880	-.00395	.00382	-.05960	-.18630	.16949	-1.09921
2.000	-2.269	2.98172	-.11933	.15360	.02928	-.00413	.00301	-.05562	-.11316	.15821	-.71525
2.000	-.288	2.98039	-.04337	.15161	.02007	-.00405	.00254	-.05249	-.04261	.15182	-.28067
2.000	1.746	2.97329	.03814	.14924	.00947	-.00399	.00168	-.04872	.03357	.15033	.22333
2.000	3.723	2.97838	.11118	.14676	.00075	-.00392	.00123	-.04619	.10142	.15368	.65995
2.000	5.734	2.97812	.18494	.14419	-.00678	-.00388	.00072	-.04458	.16961	.16194	1.04731
2.000	7.724	2.97781	.26073	.14165	-.01304	-.00382	.00010	-.04258	.23932	.17541	1.36434
2.000	9.734	2.97836	.33367	.13777	-.01706	-.00411	-.00039	-.04223	.30558	.19221	1.58984
2.000	11.713	2.97885	.40949	.13500	-.01990	-.00461	-.00082	-.04224	.37356	.21532	1.73494
2.000	13.718	2.97867	.48837	.13086	-.02322	-.00480	-.00189	-.03951	.44341	.24294	1.82514
2.000	15.737	2.97902	.56889	.12640	-.02721	-.00486	-.00353	-.03614	.51329	.27596	1.85999
2.000	17.722	2.98021	.64705	.12233	-.03212	-.00467	-.00565	-.03302	.57910	.31348	1.84731
2.000	19.747	2.98093	.73186	.11893	-.03757	-.00436	-.00765	-.02931	.64864	.35922	1.80569
	GRADIENT	-.00059	.03885	-.00106	-.00480	.00001	-.00033	.00169	.03613	-.00197	.22297

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1009) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 38/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.079	2.97994	-.16599	.13951	.01232	-.00396	.00454	-.06119	-.15565	.15096	-1.03105
2.500	-2.084	2.97719	-.10120	.13736	.00882	-.00316	.00368	-.05451	-.09614	.14095	-.68209
2.500	-.082	2.97746	-.03973	.13513	.00495	-.00340	.00300	-.05330	-.03954	.13518	-.29248
2.500	1.964	2.97612	.02766	.13224	.00060	-.00323	.00216	-.04910	.02311	.13311	.17359
2.500	3.955	2.97373	.09405	.12874	-.00221	-.00270	.00131	-.04301	.08495	.13492	.62965
2.500	5.939	2.97510	.15177	.12595	-.00561	-.00290	.00071	-.04396	.13792	.14098	.97832
2.500	7.944	2.97515	.21593	.12320	-.00823	-.00310	.00002	-.04240	.19683	.15186	1.29615
2.500	9.904	2.97354	.28160	.11983	-.01053	-.00339	-.00013	-.03927	.25680	.16648	1.54253
2.500	10.950	2.97360	.32362	.11795	-.01225	-.00387	-.00056	-.03833	.29532	.17728	1.66585
2.500	11.964	2.97470	.35304	.11686	-.01405	-.00426	-.00090	-.03925	.32115	.18751	1.71272
2.500	13.937	2.97428	.2649	.11414	-.01722	-.00393	-.00219	-.03525	.38644	.21350	1.81003
2.500	15.961	2.97499	.50949	.11011	-.02258	-.00370	-.00403	-.03214	.45957	.24596	1.86844
2.500	17.928	2.97513	.58078	.10644	-.02687	-.00333	-.00550	-.02896	.51981	.28005	1.85617
2.500	19.924	2.97547	.65745	.10247	-.03227	-.00334	-.00676	-.02655	.58318	.32038	1.82028
	GRADIENT	-.00067	.03226	-.00133	-.00185	.00012	-.00040	.00208	.02985	-.00198	.20768

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1010) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 3/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.207	2.99918	-.24615	.17842	.08391	-.00785	.00951	-.06958	-.23239	.19600	-1.18567
1.500	-2.238	2.99832	-.14711	.17721	.06498	-.00799	.00913	-.06734	-.14008	.18282	-.76620
1.500	-.214	2.99748	-.04321	.17594	.04576	-.00823	.00880	-.06517	-.04255	.17610	-.24161
1.500	1.806	2.99594	.05846	.17322	.02753	-.00862	.00776	-.06008	.05297	.17498	.30273
1.500	3.776	2.99511	.15880	.16949	.01098	-.00920	.00679	-.05629	.14729	.17958	.82021
1.500	5.777	2.99562	.25332	.16526	-.00202	-.00895	.00584	-.05483	.23540	.18992	1.23944
1.500	7.795	2.99552	.35293	.16159	-.01545	-.00834	.00540	-.05382	.32775	.20796	1.57598
1.500	9.790	2.99639	.44688	.15872	-.02750	-.00791	.00503	-.05452	.41338	.23239	1.77883
1.500	11.773	2.99602	.54232	.15630	-.03837	-.00777	.00498	-.05372	.49902	.26366	1.89263
1.500	13.773	2.99736	.63419	.15244	-.04694	-.00835	.00416	-.05376	.57967	.29904	1.93843
1.500	15.779	2.99883	.73245	.14921	-.05716	-.00865	.00249	-.05207	.66428	.34276	1.93805
1.500	17.771	2.99873	.82519	.14599	-.06488	-.00848	.00096	-.04831	.74126	.39088	1.89638
1.500	19.796	2.99999	.92187	.14164	-.07101	-.00860	-.00130	-.04497	.81942	.44548	1.83941
	GRADIENT	-.00053	.05075	-.00109	-.00916	-.00017	-.00034	.00169	.04760	-.00203	.25393

RUN NO. 6/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.293	2.99984	-.20178	.15669	.03869	-.00758	.01000	-.07160	-.18949	.17135	-1.10582
2.000	-2.266	2.99805	-.12088	.15496	.02925	-.00739	.00912	-.06673	-.11466	.15962	-.71834
2.000	-.258	2.99700	-.04491	.15306	.01984	-.00732	.00831	-.06318	-.04422	.15326	-.28855
2.000	1.729	2.99578	.03474	.15085	.00991	-.00718	.00744	-.05904	.03017	.15183	.19869
2.000	3.718	2.99470	.11086	.14824	.00126	-.00694	.00681	-.05569	.10101	.15512	.65119
2.000	5.734	2.99477	.18466	.14553	-.00615	-.00687	.00607	-.05390	.16919	.16325	1.03644
2.000	7.711	2.99514	.25860	.14291	-.01195	-.00661	.00529	-.05286	.23708	.17632	1.34465
2.000	9.728	2.99517	.33210	.13948	-.01602	-.00705	.00461	-.05154	.30376	.19359	1.56907
2.000	11.720	2.99552	.40696	.13639	-.01893	-.00746	.00410	-.05092	.37077	.21621	1.71483
2.000	13.726	2.99550	.48570	.13234	-.02168	-.00759	.00302	-.04825	.44043	.24381	1.80644
2.000	15.752	2.99636	.56599	.12749	-.02584	-.00775	.00126	-.04538	.51012	.27635	1.84593
2.000	17.724	2.99717	.64416	.12321	-.03085	-.00739	-.00083	-.04173	.57607	.31347	1.83773
2.000	19.762	2.99822	.72853	.11927	-.03634	-.00675	-.00343	-.03724	.64529	.35858	1.79957
	GRADIENT	-.00063	.03901	-.00105	-.00471	.00007	-.00040	.00197	.03626	-.00202	.22132

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1010) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 9/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.085	2.97775	-.16961	.14126	.01399	-.00695	.00963	-.06978	-.15912	.15299	-1.04009
2.500	-2.078	2.97647	-.10373	.13906	.01042	-.00663	.00923	-.06663	-.09862	.14273	-.69096
2.500	-.074	2.97460	-.04199	.13689	.00661	-.00592	.00800	-.06044	-.04181	.13694	-.30532
2.500	1.948	2.97389	.02323	.13388	.00267	-.00546	.00686	-.05635	.01866	.13459	.13867
2.500	3.931	2.97348	.07933	.13129	-.00070	-.00577	.00617	-.05386	.07014	.13642	.51420
2.500	5.916	2.97290	.14360	.12797	-.00346	-.00534	.00541	-.05091	.12964	.14209	.91238
2.500	7.922	2.97221	.21413	.12479	-.00579	-.00532	.00465	-.04821	.19489	.15311	1.27282
2.500	9.958	2.97193	.28915	.12106	-.00828	-.00598	.00409	-.04673	.26386	.16924	1.55913
2.500	11.931	2.97387	.35379	.11845	-.01142	-.00656	.00326	-.04817	.32165	.18904	1.70156
2.500	13.952	2.97399	.41971	.11589	-.01543	-.00685	.00158	-.04431	.37938	.21366	1.77563
2.500	15.953	2.97301	.50036	.11187	-.01993	-.00594	-.00013	-.03851	.45034	.24509	1.83744
2.500	17.940	2.97529	.57739	.10742	-.02576	-.00577	-.00214	-.03766	.51623	.28005	1.84336
2.500	19.937	2.97529	.65496	.10285	-.03123	-.00561	-.00357	-.03434	.58064	.32002	1.81440
	GRADIENT	-.00055	.03115	-.00125	-.00185	.00018	-.00046	.00210	.02871	-.00206	.19635

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1011) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = -5.000 SPOBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 15/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.235	2.98107	-.24739	.17789	.08417	-.00815	.01007	-.07084	-.23358	.19567	-1.19373
1.500	-2.220	2.97895	-.14378	.17670	.06460	-.00821	.00954	-.06622	-.13682	.18214	-.75121
1.500	-.216	2.97773	-.04396	.17533	.04597	-.00819	.00926	-.06355	-.04330	.17550	-.24672
1.500	1.810	2.97708	.06070	.17247	.02677	-.00869	.00808	-.05967	.05522	.17430	.31683
1.500	3.783	2.97699	.16252	.16884	.01054	-.00939	.00725	-.05750	.15103	.17920	.84278
1.500	5.780	2.97708	.25895	.16438	-.00291	-.00914	.00602	-.05473	.24108	.18963	1.27136
1.500	7.772	2.97728	.35229	.16080	-.01585	-.00843	.00559	-.05411	.32731	.20696	1.58150
1.500	9.782	2.97742	.44986	.15773	-.02828	-.00779	.00516	-.05345	.41652	.23187	1.79641
1.500	11.770	2.97818	.54392	.15522	-.03862	-.00757	.00504	-.05411	.50082	.26290	1.90496
1.500	13.770	2.97958	.63611	.15139	-.04767	-.00819	.00419	-.05401	.58180	.29844	1.94943
1.500	15.776	2.97958	.73334	.14809	-.05710	-.00844	.00240	-.04974	.66545	.34189	1.94641
1.500	17.790	2.98100	.82731	.14464	-.06513	-.00829	.00062	-.04790	.74356	.39049	1.90417
1.500	19.778	2.98105	.92040	.14073	-.07186	-.00837	-.00114	-.04388	.81849	.44387	1.84399
	GRADIENT	-.00050	.05105	-.00111	-.00922	-.00015	-.00035	.00166	.04790	-.00204	.25619

RUN NO. 18/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.269	2.98281	-.20418	.15612	.04010	-.00776	.01013	-.07395	-.19199	.17088	-1.12355
2.000	-2.275	2.98003	-.12598	.15440	.03092	-.00749	.00917	-.06725	-.11975	.15928	-.75183
2.000	-.271	2.97858	-.04736	.15245	.02137	-.00746	.00847	-.06327	-.04664	.15268	-.30546
2.000	1.722	2.97778	.03028	.15034	.01080	-.00714	.00733	-.05922	.02575	.15118	.17030
2.000	3.732	2.97703	.10631	.14776	.00178	-.00698	.00658	-.05621	.09646	.15436	.62492
2.000	5.731	2.97753	.18174	.14490	-.00583	-.00678	.00580	-.05507	.16636	.16233	1.02485
2.000	7.740	2.97724	.25566	.14238	-.01204	-.00657	.00506	-.05301	.23416	.17552	1.33413
2.000	9.745	2.97785	.33039	.13904	-.01631	-.00683	.00451	-.05278	.30208	.19295	1.56557
2.000	11.725	2.97754	.40540	.13594	-.01922	-.00720	.00395	-.05085	.36932	.21549	1.71386
2.000	13.722	2.97771	.48424	.13192	-.02257	-.00746	.00300	-.04863	.43912	.24303	1.80688
2.000	15.747	2.97844	.56604	.12721	-.02665	-.00758	.00121	-.04532	.51028	.27605	1.84851
2.000	17.737	2.97849	.64595	.12268	-.03178	-.00726	-.00078	-.04073	.57787	.31364	1.84248
2.000	19.725	2.98007	.72813	.11907	-.03784	-.00667	-.00361	-.03658	.64522	.35783	1.80316
	GRADIENT	-.00069	.03886	-.00104	-.00484	.00010	-.00045	.00218	.03612	-.00206	.22097

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1011) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 12/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.061	2.97751	-.16456	.14024	.01351	-.00670	.00995	-.06897	-.15422	.15155	-1.01762
2.500	-2.075	2.97577	-.10293	.13815	.01007	-.00634	.00936	-.06455	-.09786	.14179	-.69016
2.500	-.065	2.97506	-.03748	.13563	.00655	-.00600	.00822	-.06057	-.03733	.13568	-.27516
2.500	1.932	2.97498	.02142	.13291	.00204	-.00506	.00698	-.05741	.01693	.13356	.12676
2.500	3.924	2.97363	.08157	.13007	-.00110	-.00590	.00620	-.05317	.07248	.13534	.53549
2.500	5.925	2.97219	.15369	.12632	-.00334	-.00495	.00531	-.04858	.13932	.14151	.98806
2.500	7.938	2.97462	.21415	.12373	-.00658	-.00575	.00443	-.05075	.19501	.15212	1.28194
2.500	9.933	2.97410	.29126	.11979	-.00893	-.00625	.00374	-.04841	.26622	.16824	1.58242
2.500	11.919	2.97308	.35308	.11740	-.01148	-.00625	.00305	-.04504	.32122	.18779	1.71054
2.500	13.939	2.97376	.42975	.11400	-.01609	-.00638	.00128	-.04177	.38963	.21416	1.81935
2.500	15.937	2.97419	.50237	.11044	-.02010	-.00564	-.00050	-.03806	.45274	.24414	1.85444
2.500	17.951	2.97457	.58319	.10593	-.02586	-.00559	-.00242	-.03420	.52215	.28052	1.86138
2.500	19.926	2.97544	.65995	.10140	-.03136	-.00506	-.00389	-.03223	.58589	.32025	1.82950
	GRADIENT	-.00043	.03087	-.00128	-.00186	.00014	-.00049	.00194	.02844	-.00203	.19639

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1012) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 51/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.238	3.00163	-.22849	.15528	.05290	-.00403	.00290	-.05715	-.21639	.17174	-1.25999
1.500	-2.225	2.99949	-.12510	.15422	.03412	-.00391	.00243	-.05270	-.11901	.15896	-.74868
1.500	-.203	2.99891	-.02720	.15287	.01612	-.00397	.00188	-.05045	-.02666	.15297	-.17426
1.500	1.806	2.99820	.07582	.15032	-.00148	-.00457	.00123	-.04766	.07104	.15264	.46541
1.500	3.761	2.99755	.17331	.14715	-.01708	-.00536	.00005	-.04365	.16323	.15826	1.03143
1.500	5.797	2.99747	.27404	.14305	-.02947	-.00503	-.00066	-.04172	.25819	.17000	1.51876
1.500	7.779	2.99858	.37000	.14114	-.04197	-.00439	-.00108	-.04244	.34749	.18992	1.82966
1.500	9.772	2.99796	.46481	.13976	-.05360	-.00389	-.00147	-.04054	.43434	.21662	2.00509
1.500	11.788	2.99879	.55790	.13711	-.06349	-.00378	-.00177	-.04110	.51812	.24819	2.08756
1.500	13.781	3.00033	.65009	.13359	-.07158	-.00423	-.00259	-.04153	.59955	.28460	2.10661
1.500	15.784	3.00210	.74435	.13156	-.08046	-.00432	-.00453	-.03967	.68050	.32907	2.06792
1.500	17.786	3.00162	.84260	.12923	-.08759	-.00441	-.00652	-.03427	.76285	.38044	2.00516
1.500	19.812	3.00289	.93670	.12617	-.09304	-.00433	-.00831	-.03204	.83849	.43619	1.92232
	GRADIENT	-.00047	.05005	-.00100	-.00875	-.00017	-.00034	.00160	.04730	-.00166	.28883

RUN NO. 54/ 0 RN/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.283	3.00259	-.18633	.13828	.01434	-.00355	.00316	-.05912	-.17548	.15181	-1.15594
2.000	-2.285	3.00036	-.10983	.13695	.00589	-.00354	.00239	-.05384	-.10428	.14122	-.73847
2.000	-.269	2.99918	-.02981	.13521	-.00317	-.00356	.00164	-.05021	-.02918	.13535	-.21557
2.000	1.736	2.99823	.04787	.13323	-.01230	-.00315	.00091	-.04688	.04381	.13462	.32543
2.000	3.733	2.99768	.12230	.13104	-.02065	-.00336	.00047	-.04483	.11351	.13873	.81825
2.000	5.725	2.99751	.19457	.12883	-.02722	-.00308	-.00030	-.04260	.18075	.14760	1.22458
2.000	7.736	2.99740	.27163	.12665	-.03250	-.00325	-.00093	-.04093	.25211	.16206	1.55566
2.000	9.733	2.99779	.34450	.12393	-.03578	-.00345	-.00143	-.04032	.31859	.18039	1.76613
2.000	11.748	2.99881	.42062	.12152	-.03886	-.00389	-.00215	-.04018	.38707	.20462	1.89166
2.000	13.718	2.99873	.49658	.11782	-.04174	-.00408	-.00317	-.03763	.45448	.23222	1.95709
2.000	15.709	2.99920	.57821	.11351	-.04492	-.00420	-.00491	-.03420	.52588	.26582	1.97833
2.000	17.735	2.99965	.65727	.10993	-.04917	-.00389	-.00647	-.03114	.59255	.30491	1.94333
2.000	19.726	2.99966	.73334	.10703	-.05366	-.00391	-.00776	-.02809	.65889	.34996	1.88278
	GRADIENT	-.00060	.03865	-.00091	-.00440	.00004	-.00034	.00177	.03621	-.00163	.24996

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1012) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 57/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.100	2.98134	-.16409	.12627	-.00707	-.00322	.00349	-.06079	-.15464	.13768	-1.12318
2.500	-2.072	2.97742	-.08969	.12396	-.00973	-.00293	.00297	-.05287	-.08515	.12712	-.66983
2.500	-.089	2.97616	-.03140	.12211	-.01266	-.00286	.00220	-.04886	-.03121	.12216	-.25550
2.500	1.954	2.97513	.03680	.11949	-.01639	-.00231	.00101	-.04413	.03271	.12068	.27102
2.500	3.911	2.97612	.09012	.11716	-.01904	-.00204	.00036	-.04417	.08192	.12303	.66583
2.500	5.942	2.97429	.15622	.11403	-.02123	-.00168	-.00047	-.03902	.14357	.12959	1.10788
2.500	7.940	2.97513	.22905	.11144	-.02339	-.00221	-.00126	-.03855	.21146	.14201	1.48901
2.500	9.959	2.97555	.29795	.10819	-.02520	-.00271	-.00169	-.03827	.27476	.15809	1.73799
2.500	11.928	2.97578	.36136	.10590	-.02798	-.00328	-.00237	-.03708	.33167	.17830	1.86015
2.500	13.921	2.97594	.43127	.10330	-.03156	-.00346	-.00368	-.03430	.39375	.20402	1.92955
2.500	15.936	2.97589	.51037	.10008	-.03514	-.00312	-.00504	-.03095	.46328	.23636	1.96007
2.500	17.930	2.97541	.58095	.09717	-.03905	-.00331	-.00586	-.02824	.52282	.27130	1.92706
2.500	19.959	2.97638	.67064	.09322	-.04315	-.00334	-.00682	-.02758	.59854	.31653	1.89091
	GRADIENT	-.00064	.03168	-.00113	-.00153	.00015	-.00041	.00210	.02949	-.00179	.22544

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1013) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 45/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-4.229	2.98304	-.22866	.15566	.05311	-.00402	.00283	-.05710	-.21656	.17210	-1.25831
1.500	-2.231	2.98183	-.12778	.15462	.03466	-.00394	.00226	-.05390	-.12166	.15947	-.76288
1.500	-.201	2.97934	-.02289	.15311	.01584	-.00413	.00174	-.04874	-.02235	.15319	-.14589
1.500	1.770	2.97902	.07278	.15084	-.00068	-.00470	.00104	-.04647	.06809	.15302	.44498
1.500	3.781	2.97928	.17503	.14760	-.01701	-.00530	.00012	-.04457	.16491	.15882	1.03840
1.500	5.778	2.97918	.27079	.14360	-.02916	-.00500	-.00065	-.04252	.25495	.17014	1.49851
1.500	7.774	2.97904	.36746	.14164	-.04159	-.00443	-.00114	-.04118	.34493	.19004	1.81498
1.500	9.781	2.97924	.46479	.14028	-.05346	-.00374	-.00146	-.04076	.43420	.21720	1.99907
1.500	11.776	2.98008	.55715	.13766	-.06318	-.00370	-.00177	-.04136	.51733	.24846	2.08210
1.500	13.775	2.98197	.64972	.13415	-.07163	-.00422	-.00269	-.04213	.59908	.28500	2.10204
1.500	15.782	2.98182	.74470	.13205	-.08031	-.00436	-.00450	-.03764	.68072	.32961	2.06521
1.500	17.779	2.98315	.84025	.12992	-.08724	-.00438	-.00652	-.03499	.76045	.38028	1.99974
1.500	19.779	2.98331	.93209	.12693	-.09236	-.00443	-.00805	-.03165	.83415	.43486	1.91821
	GRADIENT	-.00052	.05035	-.00099	-.00877	-.00017	-.00033	.00162	.04759	-.00165	.28975

RUN NO. 48/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.263	2.98403	-.19078	.13906	.01596	-.00363	.00300	-.05927	-.17991	.15286	-1.17701
2.000	-2.262	2.98127	-.11104	.13782	.00739	-.00359	.00256	-.05394	-.10551	.14210	-.74255
2.000	-.263	2.98087	-.03422	.13624	-.00146	-.00352	.00170	-.05127	-.03360	.13639	-.24633
2.000	1.728	2.97972	.04450	.13425	-.01109	-.00343	.00109	-.04787	.04043	.13553	.29830
2.000	3.726	2.97882	.12065	.13200	-.01947	-.00357	.00047	-.04486	.11181	.13956	.80117
2.000	5.722	2.97865	.19386	.12981	-.02638	-.00339	-.00019	-.04291	.17995	.14849	1.21182
2.000	7.745	2.97877	.26889	.12768	-.03193	-.00326	-.00081	-.04161	.24923	.16275	1.53135
2.000	9.731	2.9789[illegible]	.34245	.12509	-.03560	-.00368	-.00127	-.04108	.31638	.18117	1.74631
2.000	11.717	2.97900	.41701	.12269	-.03838	-.00408	-.00184	-.03989	.38341	.20482	1.87195
2.000	13.728	2.97958	.49625	.11902	-.04144	-.00430	-.00297	-.03807	.45383	.23338	1.94458
2.000	15.727	2.97967	.57471	.11469	-.04502	-.00456	-.00428	-.03515	.52211	.26617	1.96155
2.000	17.740	2.98052	.65603	.11104	-.04945	-.00424	-.00615	-.03208	.59101	.30565	1.93364
2.000	19.739	2.98072	.73857	.10814	-.05399	-.00411	-.00786	-.02840	.65865	.35124	1.87523
	GRADIENT	-.00060	.03898	-.00089	-.00447	.00001	-.00033	.00175	.03653	-.00166	.25025

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1013) (31 AUG 77 -)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 42/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-4.090	2.97817	-.15307	.12624	-.00727	-.00288	.00359	-.05536	-.14368	.13684	-1.04997
2.500	-2.054	2.97724	-.09177	.12446	-.01003	-.00278	.00283	-.05201	-.08725	.12767	-.68339
2.500	-.064	2.97693	-.03440	.12268	-.01269	-.00261	.00208	-.04972	-.03426	.12271	-.27919
2.500	1.925	2.97590	.02707	.12027	-.01639	-.00246	.00096	-.04515	.02301	.12111	.19003
2.500	3.923	2.97562	.08866	.11778	-.01907	-.00256	.00029	-.04297	.08040	.12357	.65061
2.500	5.928	2.97655	.15587	.11477	-.02198	-.00267	-.00048	-.04259	.14318	.13026	1.09926
2.500	7.917	2.97580	.22055	.11247	-.02352	-.00257	-.00112	-.03986	.20296	.14178	1.43152
2.500	9.934	2.97469	.30439	.10853	-.02518	-.00252	-.00139	-.03741	.28110	.15942	1.76333
2.500	11.927	2.97529	.36399	.10658	-.02780	-.00343	-.00219	-.03653	.33411	.17951	1.86126
2.500	13.929	2.97405	.44213	.10366	-.03127	-.00325	-.00352	-.03134	.40417	.20704	1.95217
2.500	15.931	2.97521	.51117	.10091	-.03492	-.00317	-.00468	-.03060	.46384	.23734	1.95432
2.500	17.933	2.97558	.58605	.09781	-.03831	-.00307	-.00573	-.02882	.52746	.27351	1.92851
2.500	19.932	2.97838	.66413	.09423	-.04320	-.00388	-.00698	-.03066	.59222	.31499	1.88010
	GRADIENT	-.00032	.03011	-.00105	-.00150	.00005	-.00042	.00158	.02791	-.00166	.21363

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1014) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = .000

RUN NO. 60/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-4.308	2.98330	-.18713	.13600	.01273	-.00351	.00316	-.05846	-.17639	.14967	-1.17848
2.000	-2.293	2.98127	-.11092	.13441	.00498	-.00355	.00239	-.05344	-.10546	.13874	-.76012
2.000	-.283	2.98009	-.03239	.13236	-.00296	-.00346	.00181	-.05018	-.03174	.13252	-.23951
2.000	1.702	2.97893	.04300	.12961	-.01123	-.00321	.00113	-.04664	.03914	.13083	.29914
2.000	3.701	2.97907	.11788	.12716	-.01952	-.00319	.00048	-.04514	.10943	.13450	.81359
2.000	5.722	2.97868	.19278	.12476	-.02624	-.00288	-.00059	-.04185	.17938	.14336	1.25130
2.000	7.700	2.97891	.26559	.12284	-.03127	-.00275	-.00126	-.04057	.24673	.15732	1.56832
2.000	9.704	2.97921	.33961	.12021	-.03494	-.00333	-.00171	-.04021	.31449	.17573	1.78961
2.000	11.725	2.97897	.41502	.11783	-.03743	-.00383	-.00206	-.03913	.38242	.19971	1.91485
2.000	13.708	2.97896	.49263	.11366	-.03994	-.00403	-.00286	-.03727	.45166	.22716	1.98834
2.000	15.724	2.97984	.57472	.11028	-.04434	-.00414	-.00478	-.03414	.52332	.26191	1.99814
2.000	17.701	2.98025	.65623	.10728	-.04915	-.00392	-.00649	-.03080	.59254	.30173	1.96379
2.000	19.704	2.98119	.73778	.10452	-.05452	-.00378	-.00818	-.02830	.65934	.34715	1.89929
	GRADIENT	-.00054	.03817	-.00112	-.00403	.00005	-.00033	.00167	.03579	-.00191	.25198

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1015) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 22/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-6.083	9.77598	.44371	.15570	-.02760	.00988	-.00523	.11134	.41083	.22878	1.79575
1.500	-4.062	9.77381	.44684	.15623	-.02778	.00559	-.00338	.07534	.41384	.22981	1.80076
1.500	-2.027	9.77562	.45029	.15735	-.02875	.00218	-.00233	.04092	.41703	.23152	1.80128
1.500	-.040	9.77668	.45044	.15690	-.02844	-.00103	-.00162	.00732	.41726	.23111	1.80547
1.500	1.985	9.77773	.45026	.15692	-.02907	-.00280	-.00111	-.02338	.41707	.23111	1.80464
1.500	2.997	9.78500	.45091	.15685	-.02913	-.00435	-.00057	-.04123	.41769	.23120	1.80661
1.500	4.010	9.78453	.44922	.15604	-.02853	-.00615	-.00005	-.05824	.41616	.23011	1.80853
1.500	6.015	9.78454	.44581	.15418	-.02822	-.00986	.00186	-.09417	.41313	.22770	1.81435
1.500	8.019	9.78299	.44314	.15394	-.02737	-.01397	.00265	-.13019	.41054	.22699	1.80859
	GRADIENT	.00137	.00028	-.00003	-.00011	-.00139	.00039	-.01644	.00027	.00003	.00092

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RKI015) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 25/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-6.084	9.72097	.33362	.13641	-.01858	.00881	-.00181	.10463	.30579	.19078	1.60284
2.000	-4.082	9.72482	.33247	.13777	-.01762	.00615	-.00190	.07246	.30442	.19195	1.58595
2.000	-2.047	9.72820	.33296	.13747	-.01739	.00275	-.00103	.03957	.30494	.19176	1.59026
2.000	-.040	9.73043	.33204	.13784	-.01738	-.00008	-.00071	.00580	.30397	.19198	1.58337
2.000	1.985	9.72780	.33317	.13713	-.01741	-.00263	-.00058	-.02583	.30521	.19146	1.59414
2.000	2.997	9.73588	.33521	.13724	-.01748	-.00407	-.00034	-.04207	.30718	.19195	1.60032
2.000	3.991	9.73814	.33432	.13714	-.01752	-.00576	.00006	-.05839	.30631	.19172	1.59773
2.000	6.035	9.74073	.33620	.13620	-.01858	-.00887	-.00007	-.09138	.30831	.19112	1.61322
	GRADIENT	.00141	.00028	-.00008	.00001	-.00143	.00021	-.01619	.00028	-.00002	.00167

RUN NO. 28/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-6.095	9.93679	.28316	.11870	-.01597	.00959	-.00280	.10314	.25843	.16578	1.55882
2.500	-4.078	9.93326	.27877	.12002	-.01218	.00602	-.00111	.07071	.25389	.16631	1.52662
2.500	-2.023	9.93399	.27967	.11908	-.01129	.00324	-.00103	.03572	.25493	.16554	1.53998
2.500	-.041	9.94219	.28888	.11825	-.00995	.00107	-.00071	.00733	.26412	.16635	1.58772
2.500	1.983	9.92624	.27711	.11885	-.01042	-.00224	-.00054	-.02436	.25247	.16484	1.53166
2.500	2.992	9.94192	.29059	.11850	-.01086	-.00330	-.00026	-.03798	.26576	.16689	1.59248
2.500	4.045	9.93865	.28367	.11944	-.01172	-.00480	-.00042	-.05629	.25880	.16661	1.55331
2.500	6.027	9.94310	.29375	.11831	-.01498	-.00826	.00068	-.08851	.26891	.16725	1.60783
2.500	8.065	9.93943	.29238	.11701	-.01858	-.01224	.00280	-.12535	.26780	.16572	1.61599
	GRADIENT	.00049	.00076	-.00009	.00009	-.00134	.00010	-.01540	.00077	.00005	.00418

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1016) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 31/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-6.102	9.78902	.44744	.15618	-.02889	.01015	-.00510	.10984	.41437	.22998	1.80175
1.500	-4.081	9.78871	.45113	.15673	-.02871	.00559	-.00324	.07299	.41791	.23114	1.80803
1.500	-2.045	9.78639	.44869	.15782	-.02879	.00179	-.00231	.03939	.41533	.23179	1.79186
1.500	-.021	9.78884	.44978	.15722	-.02829	-.00083	-.00178	.00671	.41650	.23140	1.79990
1.500	1.985	9.79021	.45170	.15752	-.02950	-.00278	-.00108	-.02537	.41834	.23203	1.80292
1.500	2.998	9.79818	.45226	.15734	-.02940	-.00425	-.00078	-.04257	.41889	.23201	1.80550
1.500	4.050	9.79829	.45075	.15638	-.02882	-.00612	-.00030	-.06017	.41756	.23081	1.80909
1.500	6.054	9.80005	.44954	.15459	-.02940	-.00988	.00178	-.09659	.41667	.22885	1.82074
1.500	8.019	9.79673	.44387	.15438	-.02841	-.01413	.00266	-.13143	.41113	.22765	1.80593
	GRADIENT	.00135	.00019	-.00003	-.00007	-.00136	.00035	-.01632	.00019	.00001	.00071

RUN NO. 36/ 0 RN/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-6.103	9.74349	.33578	.13731	-.01889	.00895	-.00209	.10423	.30769	.19216	1.60128
2.000	-4.082	9.74380	.33486	.13869	-.01720	.00610	-.00206	.07192	.30655	.19337	1.58535
2.000	-2.027	9.74368	.33412	.13844	-.01695	.00283	-.00113	.03806	.30587	.19299	1.58494
2.000	-.041	9.73947	.33458	.13866	-.01711	.00009	-.00077	.00611	.30630	.19326	1.58491
2.000	2.004	9.73660	.33439	.13805	-.01718	-.00269	-.00052	-.02579	.30623	.19262	1.58983
2.000	2.997	9.74525	.33441	.13828	-.01720	-.00412	-.00028	-.04261	.30617	.19289	1.58729
2.000	4.011	9.74595	.33467	.13814	-.01740	-.00598	.00002	-.05966	.30646	.19280	1.58956
2.000	6.054	9.74615	.33600	.13702	-.01853	-.00898	.00006	-.09274	.30795	.19192	1.60454
2.000	8.039	9.74327	.33770	.13528	-.02140	-.01179	.00028	-.12605	.30994	.19048	1.62711
	GRADIENT	.00006	-.00001	-.00007	-.00003	-.00146	.00023	-.01617	.00000	-.00007	.00057

RUN NO. 39/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-6.096	9.95654	.28870	.11941	-.01658	.01013	-.00313	.10441	.26370	.16753	1.57406
2.500	-4.078	9.95940	.28752	.12044	-.01287	.00653	-.00104	.06930	.26236	.16836	1.55834
2.500	-2.044	9.96011	.28898	.11958	-.01102	.00388	-.00099	.03783	.26394	.16776	1.57330
2.500	-.060	9.95868	.28522	.11925	-.00989	.00077	-.00077	.00690	.26030	.16678	1.56072
2.500	1.905	9.95498	.28892	.11905	-.01018	-.00183	-.00049	-.02323	.26399	.16721	1.57884
2.500	2.975	9.96205	.29134	.11942	-.01047	-.00361	-.00036	-.04061	.26629	.16803	1.58483
2.500	4.007	9.95761	.28571	.12029	-.01179	-.00529	-.00046	-.05816	.26061	.16788	1.55235
2.500	6.047	9.96320	.29643	.11898	-.01578	-.00894	.00088	-.09086	.27138	.16847	1.61085
2.500	8.066	9.96287	.29921	.11746	-.01939	-.01277	.00312	-.12694	.27437	.16746	1.63845
	GRADIENT	-.00016	.00006	-.00005	.00016	-.00146	.00009	-.01568	.00007	-.00004	.00077

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1017) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 4/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-6.122	9.79595	.44494	.15565	-.02945	.00665	.00037	.09884	.41197	.22908	1.79836
1.500	-4.101	9.79434	.44763	.15686	-.02814	.00207	.00257	.06105	.41443	.23072	1.79624
1.500	-2.065	9.79656	.44956	.15833	-.02816	-.00160	.00338	.02765	.41607	.23251	1.78946
1.500	-.041	9.79736	.45065	.15843	-.02812	-.00421	.00392	-.00524	.41712	.23281	1.79170
1.500	1.985	9.79925	.45047	.15869	-.02785	-.00615	.00461	-.03795	.41689	.23304	1.78888
1.500	2.995	9.80567	.44845	.15877	-.02748	-.00796	.00483	-.05248	.41485	.23282	1.78186
1.500	3.991	9.80743	.44737	.15827	-.02673	-.00945	.00560	-.07189	.41387	.23216	1.78266
1.500	5.995	9.80518	.44255	.15731	-.02579	-.01328	.00738	-.10657	.40930	.23038	1.77659
	GRADIENT	.00155	-.00002	.00017	.00015	-.00136	.00035	-.01625	-.00005	.00017	-.00157

RUN NO. 7/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-6.104	9.73414	.33410	.13626	-.02083	.00634	.00259	.09497	.30625	.19079	1.60520
2.000	-4.064	9.73928	.33327	.13826	-.01828	.00328	.00295	.06193	.30508	.19265	1.58362
2.000	-2.029	9.74129	.33344	.13862	-.01753	-.00003	.00371	.02866	.30518	.19304	1.58093
2.000	-.022	9.74283	.33157	.13924	-.01697	-.00273	.00402	-.00461	.30322	.19334	1.56833
2.000	1.984	9.74043	.33203	.13910	-.01616	-.00533	.00431	-.03545	.30371	.19327	1.57146
2.000	2.995	9.74569	.33196	.13952	-.01598	-.00701	.00471	-.05146	.30355	.19370	1.56710
2.000	4.009	9.74828	.33230	.13969	-.01591	-.00879	.00519	-.06985	.30385	.19394	1.56671
2.000	6.052	9.74913	.33241	.13938	-.01630	-.01173	.00511	-.10177	.30400	.19366	1.56981
	GRADIENT	.00089	-.00017	.00017	.00031	-.00145	.00025	-.01618	-.00020	.00014	-.00218

RUN NO. 10/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-6.117	9.94932	.28524	.11838	-.01816	.00801	.00059	.09908	.26050	.16588	1.57036
2.500	-5.003	9.95970	.28812	.11948	-.01535	.00573	.00230	.07605	.26311	.16751	1.57069
2.500	-4.078	9.96169	.28558	.12029	-.01302	.00395	.00302	.06033	.26047	.16788	1.55153
2.500	-2.044	9.96248	.28162	.12030	-.01071	.00115	.00288	.02877	.25656	.16721	1.53437
2.500	-.042	9.96663	.28577	.12008	-.00875	-.00123	.00346	-.00141	.26068	.16773	1.55414
2.500	1.010	9.96740	.28880	.12012	-.00846	-.00301	.00348	-.01914	.26364	.16830	1.56654
2.500	1.982	9.96130	.28316	.12090	-.00844	-.00457	.00370	-.03351	.25798	.16806	1.53508
2.500	3.031	9.96731	.28077	.12181	-.00836	-.00644	.00419	-.05076	.25545	.16857	1.51542
2.500	4.004	9.97299	.28508	.12234	-.00838	-.00731	.00410	-.06339	.25959	.16986	1.52824
2.500	6.026	9.97669	.28771	.12212	-.01131	-.01149	.00529	-.09867	.26220	.17012	1.54124
	GRADIENT	.00102	-.00011	.00024	.00057	-.00143	.00016	-.01545	-.00015	.00022	-.00294

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1018) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 16/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-6.103	9.78424	.44634	.15486	-.02945	.00665	.00064	.09972	.41353	.22846	1.81007
1.500	-4.083	9.78424	.44839	.15594	-.02826	.00221	.00254	.06378	.41536	.22987	1.80696
1.500	-2.027	9.78611	.44909	.15749	-.02860	-.00150	.00366	.02789	.41578	.23153	1.79577
1.500	-.041	9.79049	.45037	.15750	-.02853	-.00438	.00401	-.00404	.41703	.23179	1.79916
1.500	1.985	9.79313	.45186	.15778	-.02857	-.00609	.00489	-.03766	.41843	.23234	1.80094
1.500	2.978	9.79142	.45165	.15788	-.02844	-.00758	.00530	-.05487	.41822	.23239	1.79965
1.500	4.030	9.78963	.44945	.15707	-.02767	-.00934	.00578	-.07303	.41620	.23121	1.80011
1.500	6.053	9.78631	.44376	.15631	-.02668	-.01335	.00763	-.10861	.41073	.22947	1.78993
	GRADIENT	.00088	.00030	.00014	.00004	-.00135	.00038	-.01675	.00027	.00020	-.00041

RUN NO. 19/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-6.104	9.73370	.33160	.13565	-.02068	.00634	.00246	.09640	.30389	.18976	1.60143
2.000	-4.083	9.73527	.33169	.13761	-.01825	.00333	.00289	.06249	.30365	.19171	1.58388
2.000	-2.047	9.73745	.33179	.13806	-.01769	-.00004	.00370	.02951	.30366	.19219	1.57999
2.000	-.042	9.73897	.33079	.13879	-.01713	-.00269	.00401	-.00319	.30255	.19274	1.56970
2.000	1.983	9.73327	.32998	.13852	-.01650	-.00522	.00430	-.03353	.30181	.19231	1.56939
2.000	2.977	9.74002	.33056	.13905	-.01641	-.00676	.00461	-.05133	.30227	.19297	1.56644
2.000	4.009	9.73949	.33010	.13916	-.01607	-.00854	.00501	-.06797	.30180	.19300	1.56373
2.000	6.053	9.74230	.33108	.13872	-.01676	-.01145	.00483	-.10142	.30283	.19275	1.57112
	GRADIENT	.00034	-.00022	.00018	.00027	-.00142	.00023	-.01605	-.00025	.00014	-.00248

RUN NO. 13/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-6.096	9.93396	.28316	.11734	-.01793	.00751	.00080	.09705	.25867	.16443	1.57311
2.500	-4.078	9.93575	.28126	.11919	-.01339	.00385	.00297	.06030	.25647	.16593	1.54564
2.500	-2.045	9.94250	.28825	.11865	-.01109	.00133	.00306	.02987	.26343	.16664	1.58089
2.500	-.043	9.94511	.28596	.11898	-.00918	-.00099	.00345	.00050	.26112	.16658	1.56755
2.500	1.982	9.94306	.28405	.11949	-.00880	-.00449	.00356	-.03192	.25915	.16674	1.55423
2.500	2.974	9.95253	.28569	.12028	-.00888	-.00610	.00381	-.04873	.26060	.16784	1.55266
2.500	4.006	9.94849	.28061	.12126	-.00928	-.00745	.00376	-.06539	.25544	.16792	1.52122
2.500	6.045	9.93720	.29179	.12058	-.01156	-.01087	.00472	-.09663	.26661	.16913	1.57638
	GRADIENT	.00158	-.00014	.00025	.00052	-.00142	.00011	-.01555	-.00019	.00023	-.00322

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (RK1019) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 52/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-6.084	9.78965	.46070	.13709	-.05195	.00868	-.00232	.10560	.43069	.21343	2.01796
1.500	-4.062	9.78761	.46452	.13861	-.05288	.00489	-.00154	.07059	.43420	.21556	2.01431
1.500	-2.045	9.79002	.46534	.13948	-.05321	.00148	-.00140	.03790	.43485	.21658	2.00780
1.500	-.001	9.79225	.46584	.13919	-.05305	-.00084	-.00142	.00539	.43538	.21639	2.01197
1.500	2.005	9.79738	.46661	.13938	-.05357	-.00261	-.00154	-.02385	.43609	.21675	2.01196
1.500	2.998	9.80349	.46570	.13970	-.05322	-.00396	-.00152	-.04011	.43511	.21696	2.00551
1.500	4.012	9.79572	.46158	.13872	-.05279	-.00525	-.00121	-.05796	.43125	.21523	2.00367
1.500	6.036	9.80218	.45864	.13677	-.05213	-.00863	-.00005	-.09237	.42866	.21286	2.01385
	GRADIENT	.00155	-.00014	.00004	-.00001	-.00120	.00002	-.01573	-.00015	.00002	-.00094

RUN NO. 55/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-6.084	9.73148	.34487	.12350	-.03725	.00706	.00121	.09810	.31903	.18001	1.77229
2.000	-4.082	9.73287	.34433	.12389	-.03657	.00496	.00038	.06727	.31842	.18032	1.76587
2.000	-2.046	9.73409	.34331	.12429	-.03582	.00213	.00016	.03609	.31736	.18054	1.75778
2.000	-.022	9.73515	.34292	.12465	-.03565	-.00020	-.00039	.00559	.31691	.18084	1.75245
2.000	2.005	9.73443	.34365	.12407	-.03578	-.00221	-.00116	-.02487	.31772	.18039	1.76132
2.000	2.979	9.74119	.34383	.12407	-.03595	-.00343	-.00132	-.04058	.31788	.18046	1.76152
2.000	4.069	9.74282	.34441	.12361	-.03594	-.00497	-.00147	-.05713	.31852	.18011	1.76849
2.000	6.036	9.74256	.34404	.12312	-.03664	-.00734	-.00241	-.08783	.31824	.17956	1.77231
	GRADIENT	.00112	.00003	-.00003	.00005	-.00118	-.00025	-.01524	.00003	-.00002	.00039

RUN NO. 58/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-6.115	9.94364	.29405	.10867	-.03081	.00795	.00052	.09735	.27087	.15782	1.71634
2.500	-4.079	9.94163	.29508	.10930	-.02776	.00523	.00135	.06601	.27178	.15860	1.71362
2.500	-2.025	9.94060	.29425	.10840	-.02572	.00294	.00036	.03463	.27112	.15757	1.72068
2.500	-.002	9.94097	.29470	.10806	-.02436	.00062	-.00059	.00459	.27162	.15731	1.72665
2.500	1.982	9.93075	.28813	.10832	-.02532	-.00144	-.00127	-.02132	.26513	.15639	1.69530
2.500	3.013	9.94125	.29391	.10834	-.02514	-.00279	-.00164	-.03694	.27080	.15745	1.71984
2.500	4.006	9.94612	.29949	.10864	-.02601	-.00365	-.00216	-.05028	.27623	.15874	1.74011
2.500	6.045	9.94633	.30192	.10834	-.02890	-.00672	-.00230	-.08077	.27867	.15886	1.75417
	GRADIENT	.00003	.00009	-.00007	.00020	-.00111	-.00042	-.01431	.00010	-.00005	.00119

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (RK1020) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 46/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
1.500	-6.121	9.77563	.45846	.13776	-.05158	.00878	-.00265	.10538	.42842	.21360	2.00569
1.500	-4.081	9.77268	.46010	.13921	-.05203	.00481	-.00164	.06993	.42980	.21528	1.99642
1.500	-2.045	9.77385	.46246	.14015	-.05238	.00155	-.00150	.03723	.43195	.21662	1.99403
1.500	-.040	9.77794	.46329	.13964	-.05230	-.00107	-.00144	.00681	.43284	.21630	2.00115
1.500	1.967	9.78253	.46566	.14000	-.05338	-.00234	-.00147	-.02482	.43510	.21709	2.00427
1.500	2.980	9.78779	.46590	.14032	-.05334	-.00370	-.00145	-.04167	.43526	.21748	2.00138
1.500	4.013	9.78574	.46223	.13940	-.05247	-.00526	-.00126	-.05864	.43181	.21594	1.99971
1.500	6.054	9.78704	45917	.13729	-.05166	-.00883	-.00005	-.09254	.42915	.21334	2.01156
	GRADIENT	.00193	.00047	.00004	-.00012	-.00117	.00003	-.01581	.00045	.00014	.00082

RUN NO. 49/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.000	-6.103	9.73268	.34306	.12454	-.03658	.00736	.00058	.09924	.31707	.18075	1.75423
2.000	-4.082	9.73510	.34296	.12502	-.03585	.00493	.00003	.06809	.31688	.18121	1.74869
2.000	-2.046	9.73574	.34173	.12551	-.03562	.00227	.00000	.03602	.31558	.18149	1.73888
2.000	-.040	9.73930	.34041	.12583	-.03547	-.00010	-.00038	.00523	.31422	.18160	1.73029
2.000	1.986	9.73791	.34217	.12520	-.03546	-.00230	-.00122	-.02444	.31606	.18127	1.74358
2.000	2.979	9.71762	.34132	.12522	-.03553	-.00366	-.00131	-.04090	.31529	.18104	1.74159
2.000	4.012	9.71966	.34162	.12492	-.03565	-.00517	-.00129	-.05732	.31563	.18080	1.74574
2.000	6.055	9.71823	.34059	.12348	-.03631	-.00770	-.00188	-.08861	.31486	.17920	1.75701
	GRADIENT	-.00202	-.00012	-.00003	.00003	-.00122	-.00020	-.01540	-.00010	-.00006	-.00004

RUN NO. 43/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D
2.500	-6.097	9.94795	.30149	.10910	-.03081	.00863	.00032	.09917	.27811	.15955	1.74313
2.500	-4.097	9.94666	.29291	.11027	-.02758	.00566	.00099	.06599	.26946	.15921	1.69248
2.500	-2.043	9.94642	.29329	.10942	-.02543	.00303	.00006	.03432	.26998	.15844	1.70404
2.500	-.040	9.94707	.29548	.10882	-.02409	.00101	-.00048	.00585	.27224	.15823	1.72058
2.500	1.964	9.93775	.29311	.10888	-.02470	-.00190	-.00145	-.02155	.26993	.15783	1.71018
2.500	2.976	9.94566	.29559	.10915	-.02534	-.00295	-.00163	-.03862	.27230	.15857	1.71724
2.500	4.007	9.94125	.28899	.11006	-.02582	-.00412	-.00208	-.05265	.26565	.15830	1.67812
2.500	6.048	9.93116	.29865	.10927	-.02914	-.00737	-.00175	-.08636	.27533	.15914	1.73009
	GRADIENT	-.00072	-.00019	-.00006	.00019	-.00121	-.00037	-.01457	-.00017	-.00009	-.00010

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1001) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA .

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 20/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.222	476.52899	-.31856	-.30340	-.26761	-.26672
1.500	-2.203	475.97124	-.28633	-.28537	-.28199	-.28054
1.500	-.211	473.09671	-.28453	-.28698	-.28295	-.28151
1.500	1.783	472.96800	-.28474	-.29094	-.28130	-.27954
1.500	2.768	472.96800	-.28817	-.29312	-.28161	-.27985
1.500	3.801	474.98446	-.29243	-.29519	-.28280	-.28105
1.500	5.780	474.89865	-.30508	-.30381	-.28831	-.28657
1.500	7.785	474.98446	-.31103	-.30046	-.29301	-.29098
1.500	9.782	474.89865	-.31190	-.31125	-.29975	-.29806
1.500	11.770	474.72704	-.31736	-.31858	-.30427	-.30322
1.500	13.791	474.72704	-.32791	-.31920	-.31015	-.30882
1.500	15.791	474.72704	-.34745	-.34122	-.31881	-.31783
1.500	17.784	474.68414	-.36665	-.35608	-.33209	-.33085
1.500	19.762	474.76994	-.38034	-.37071	-.34730	-.34612
	GRADIENT	-.34730	.00254	.00042	-.00137	-.00127

RUN NO. 23/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.273	475.15678	-.20843	-.19634	-.19155	-.18932
2.000	-2.259	474.51264	-.20264	-.20294	-.19968	-.19810
2.000	-1.272	474.40529	-.20260	-.20539	-.20274	-.20087
2.000	-.255	474.47686	-.20325	-.20635	-.20524	-.20307
2.000	1.769	474.29793	-.20971	-.21032	-.20983	-.20767
2.000	3.754	474.58421	-.21476	-.21134	-.21208	-.20932
2.000	5.725	475.19256	-.21308	-.21556	-.21536	-.21292
2.000	7.757	475.44306	-.21935	-.22554	-.22254	-.22013
2.000	9.739	475.65777	-.22963	-.23334	-.22476	-.22236
2.000	11.763	476.12298	-.23934	-.23563	-.22921	-.22714
2.000	13.727	476.40926	-.24126	-.23570	-.23021	-.22877
2.000	15.738	476.69554	-.25307	-.25091	-.23245	-.23101
2.000	17.772	477.05340	-.25654	-.25130	-.23531	-.23358
2.000	19.748	477.66175	-.25236	-.24434	-.24069	-.23898
	GRADIENT	-.06230	-.00107	-.00182	-.00252	-.00243

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1001) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 26/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.073	434.63374	-.15744	-.15034	-.14453	-.14113
2.500	-2.073	434.58253	-.15303	-.14931	-.14756	-.14451
2.500	-.051	434.42890	-.14962	-.14928	-.14820	-.14380
2.500	1.941	435.04344	-.15210	-.15143	-.15136	-.14765
2.500	3.985	434.86420	-.15680	-.15478	-.15504	-.15271
2.500	5.969	435.29950	-.16094	-.15756	-.15950	-.15651
2.500	7.949	435.24829	-.16431	-.16364	-.16287	-.15921
2.500	9.956	434.96662	-.17002	-.16800	-.16485	-.16188
2.500	11.938	434.86420	-.17306	-.17002	-.16720	-.16424
2.500	13.958	434.76177	-.17778	-.17339	-.17023	-.16795
2.500	15.967	434.50572	-.18622	-.17980	-.17526	-.17301
2.500	17.926	434.45450	-.18622	-.17844	-.17559	-.17368
2.500	19.936	434.86420	-.18457	-.17747	-.17598	-.17543
	GRADIENT	.04568	.00011	-.00055	-.00123	-.00131

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1002) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPOBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 29/ 0 RN/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.223	475.28478	-.31729	-.30208	-.26682	-.26376
1.500	-2.234	475.19898	-.28408	-.28343	-.28097	-.27704
1.500	-.213	475.11317	-.28185	-.28554	-.28183	-.27760
1.500	1.815	475.11317	-.28278	-.28926	-.28090	-.27667
1.500	3.791	475.07027	-.28988	-.29356	-.28180	-.27757
1.500	5.778	475.02736	-.30317	-.30190	-.28733	-.28312
1.500	7.769	474.89865	-.30866	-.29995	-.29219	-.28831
1.500	9.768	476.01414	-.30912	-.30878	-.29793	-.29408
1.500	11.763	476.40027	-.31525	-.31584	-.30283	-.29992
1.500	13.784	477.08673	-.32590	-.31785	-.30915	-.30597
1.500	15.768	477.90190	-.34491	-.33965	-.31770	-.31486
1.500	17.778	479.40352	-.36394	-.35439	-.33095	-.32786
1.500	19.788	480.81933	-.37912	-.37053	-.34651	-.34349
	GRADIENT	-.02564	.00279	.00056	-.00149	-.00136

RUN NO. 34/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.260	476.33769	-.20681	-.19629	-.19182	-.18744
2.000	-2.261	476.01562	-.20052	-.20175	-.19911	-.19476
2.000	-.274	476.01562	-.20052	-.20546	-.20436	-.19940
2.000	1.778	476.05141	-.20702	-.20918	-.20900	-.20406
2.000	3.717	476.19455	-.21202	-.21016	-.21059	-.20566
2.000	5.738	476.12298	-.20983	-.21415	-.21427	-.20873
2.000	7.720	476.19455	-.21665	-.22407	-.22138	-.21588
2.000	9.751	476.08719	-.22837	-.23177	-.22413	-.21863
2.000	11.727	476.08719	-.23672	-.23487	-.22845	-.22359
2.000	13.721	476.26612	-.23862	-.23398	-.22942	-.22488
2.000	15.719	476.15876	-.25034	-.24942	-.23124	-.22764
2.000	17.750	476.01562	-.25433	-.25031	-.23429	-.23008
2.000	19.729	476.05141	-.24970	-.24321	-.23954	-.23504
	GRADIENT	-.01260	-.00085	-.00176	-.00237	-.00229

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1002) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 37/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.072	434.60814	-.15560	-.14985	-.14505	-.14030
2.500	-2.077	434.17284	-.15180	-.14875	-.14834	-.14191
2.500	-.070	433.30224	-.14790	-.14859	-.14852	-.14037
2.500	1.950	432.89255	-.15055	-.15090	-.15184	-.14506
2.500	3.951	433.45588	-.15439	-.15405	-.15499	-.15027
2.500	5.932	433.83996	-.15852	-.15718	-.15946	-.15374
2.500	7.937	433.94239	-.16295	-.16330	-.16353	-.15682
2.500	9.917	434.81299	-.16884	-.16783	-.16569	-.15934
2.500	11.928	435.45313	-.17197	-.17029	-.16848	-.16215
2.500	13.927	437.32236	-.17625	-.17323	-.17109	-.16547
2.500	15.970	436.78464	-.18495	-.18024	-.17539	-.17012
2.500	17.934	434.45450	-.18505	-.17863	-.17578	-.17116
2.500	19.941	433.55830	-.18327	-.17785	-.17669	-.17274
	GRADIENT	-.17858	.00018	-.00053	-.00116	-.00115

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1003) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 2/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.243	477.73028	-.31176	-.29724	-.26127	-.25879
1.500	-2.212	477.64448	-.28180	-.27530	-.27658	-.27323
1.500	-.209	477.25834	-.28337	-.27161	-.27937	-.27572
1.500	1.804	477.25834	-.28460	-.27716	-.27598	-.27232
1.500	3.789	477.08673	-.28787	-.28352	-.27708	-.27374
1.500	5.778	476.87221	-.29605	-.27935	-.28185	-.27852
1.500	7.791	476.74350	-.30492	-.29129	-.28792	-.28461
1.500	9.795	476.35737	-.30496	-.30091	-.29380	-.29083
1.500	11.778	476.01414	-.30967	-.30716	-.29788	-.29554
1.500	13.785	475.84253	-.32038	-.30766	-.30362	-.30100
1.500	15.799	475.67092	-.33667	-.32983	-.31153	-.30956
1.500	17.809	475.24188	-.35685	-.34567	-.32545	-.32292
1.500	19.842	474.68414	-.37265	-.36115	-.34087	-.33840
	GRADIENT	-.08332	.00225	.00128	-.00155	-.00145

RUN NO. 5/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.275	474.76314	-.20439	-.18948	-.18936	-.18555
2.000	-2.282	474.76314	-.19817	-.19538	-.19648	-.19300
2.000	-.261	474.69157	-.19877	-.19876	-.20141	-.19702
2.000	1.755	474.33372	-.20548	-.20206	-.20593	-.20125
2.000	3.710	474.54843	-.20989	-.20368	-.20817	-.20318
2.000	5.726	474.47686	-.20925	-.20645	-.21124	-.20627
2.000	7.717	474.51264	-.21640	-.21763	-.21899	-.21374
2.000	9.739	474.33372	-.22721	-.22348	-.22080	-.21586
2.000	11.722	474.29793	-.23340	-.22937	-.22574	-.22083
2.000	13.717	474.26215	-.24178	-.23712	-.22821	-.22393
2.000	15.738	474.26215	-.24767	-.24146	-.22852	-.22486
2.000	17.751	474.44107	-.25020	-.24058	-.23073	-.22709
2.000	19.730	474.51264	-.24556	-.23346	-.23540	-.23146
	GRADIENT	-.04310	-.00091	-.00175	-.00235	-.00218

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1003) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 8/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.044	434.63374	-.14977	-.14266	-.13857	-.13343
2.500	-2.075	434.73617	-.14674	-.14065	-.14197	-.13650
2.500	-.054	434.50572	-.14263	-.13992	-.14193	-.13442
2.500	1.961	434.55693	-.14501	-.14197	-.14464	-.13884
2.500	3.924	434.42890	-.14905	-.14533	-.14833	-.14391
2.500	5.914	434.65935	-.15350	-.14775	-.15277	-.14701
2.500	7.935	434.48011	-.15753	-.15381	-.15646	-.15003
2.500	9.928	434.91541	-.16268	-.15795	-.15856	-.15214
2.500	11.928	434.55693	-.16568	-.15993	-.16086	-.15445
2.500	13.966	434.55693	-.17008	-.16331	-.16323	-.15819
2.500	15.895	433.68633	-.17811	-.16963	-.16750	-.16315
2.500	17.933	434.19845	-.17987	-.16801	-.16893	-.16560
2.500	19.924	434.35208	-.17751	-.16600	-.16929	-.16596
	GRADIENT	-.02952	.00016	-.00033	-.00111	-.00116

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1004) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 14/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.219	476.52899	-.31727	-.30705	-.27032	-.26791
1.500	-2.243	475.88543	-.28900	-.28680	-.28556	-.28259
1.500	-.204	476.14285	-.29104	-.28420	-.28791	-.28433
1.500	1.804	476.35737	-.29150	-.28776	-.28406	-.28047
1.500	3.780	476.40027	-.29555	-.29614	-.28563	-.28205
1.500	5.781	476.14285	-.30372	-.29194	-.29069	-.28712
1.500	7.779	476.35737	-.31252	-.30198	-.29639	-.29316
1.500	9.799	476.31447	-.31280	-.31246	-.30253	-.29932
1.500	11.783	476.35737	-.31716	-.31898	-.30657	-.30369
1.500	13.779	476.52899	-.32839	-.31879	-.31223	-.30938
1.500	15.767	476.57189	-.34572	-.34291	-.32089	-.31807
1.500	17.796	476.65770	-.36554	-.35810	-.33512	-.33236
1.500	19.786	476.74350	-.38010	-.37298	-.34935	-.34634
	GRADIENT	.01091	.00204	.00104	-.00145	-.00130

RUN NO. 17/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.285	473.94008	-.20985	-.19773	-.19323	-.19008
2.000	-2.278	475.04942	-.20213	-.20244	-.20103	-.19792
2.000	-.265	475.22835	-.20281	-.20622	-.20603	-.20201
2.000	1.739	475.22835	-.20932	-.20993	-.21098	-.20667
2.000	3.728	475.12099	-.21393	-.21145	-.21311	-.20881
2.000	5.732	474.83471	-.21354	-.21353	-.21550	-.21089
2.000	7.728	474.33372	-.22021	-.22518	-.22340	-.21882
2.000	9.736	474.51264	-.22802	-.23298	-.22593	-.22136
2.000	11.747	474.83471	-.23772	-.23803	-.23096	-.22704
2.000	13.748	475.08521	-.24615	-.24336	-.23350	-.22991
2.000	15.724	474.94207	-.25263	-.25170	-.23378	-.23080
2.000	17.730	475.12099	-.25731	-.25267	-.23722	-.23395
2.000	19.765	475.26413	-.25146	-.24495	-.24220	-.23833
	GRADIENT	.12693	-.00076	-.00174	-.00248	-.00231

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1004) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 11/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.048	435.81161	-.15757	-.15150	-.14637	-.14266
2.500	-2.078	435.73480	-.15418	-.14946	-.14905	-.14501
2.500	-.068	435.63237	-.15045	-.14978	-.14970	-.14330
2.500	1.941	435.32510	-.15276	-.15141	-.15235	-.14765
2.500	3.969	435.60677	-.15720	-.15518	-.15644	-.15312
2.500	5.928	436.50297	-.16140	-.15803	-.16097	-.15631
2.500	7.967	436.63100	-.16546	-.16345	-.16469	-.15903
2.500	9.928	436.63100	-.17153	-.16851	-.16704	-.16174
2.500	11.961	436.57979	-.17422	-.17052	-.16939	-.16443
2.500	13.938	436.60540	-.17861	-.17424	-.17175	-.16781
2.500	15.938	436.42615	-.18770	-.18029	-.17677	-.17353
2.500	17.945	436.45176	-.18804	-.17894	-.17778	-.17523
2.500	19.943	436.37494	-.18567	-.17691	-.17777	-.17522
	GRADIENT	-.04077	.00010	-.00047	-.00117	-.00118

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1005) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 50/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.207	475.79963	-.30670	-.29739	-.26774	-.26653
1.500	-2.227	476.09995	-.28093	-.28244	-.27970	-.27853
1.500	-.211	475.71382	-.28126	-.28742	-.28157	-.28010
1.500	1.833	475.45640	-.28231	-.29002	-.28138	-.27991
1.500	3.784	474.94156	-.28720	-.29182	-.28099	-.27984
1.500	5.811	475.02736	-.29966	-.29715	-.28477	-.28363
1.500	7.787	474.94156	-.30146	-.29492	-.28903	-.28791
1.500	9.773	474.89865	-.30143	-.30295	-.29302	-.29192
1.500	11.774	474.72704	-.31092	-.31120	-.29816	-.29770
1.500	13.795	474.64123	-.32420	-.31704	-.30831	-.30727
1.500	15.804	474.46962	-.34612	-.34020	-.31624	-.31585
1.500	17.806	474.21220	-.35465	-.34532	-.32350	-.32283
1.500	19.770	474.21220	-.36304	-.35494	-.33434	-.33341
	GRADIENT	-.11774	.00187	.00017	-.00140	-.00140

RUN NO. 53/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.286	473.29594	-.20729	-.19764	-.19222	-.19090
2.000	-2.269	474.04743	-.19976	-.20162	-.19868	-.19801
2.000	-.279	474.76314	-.19938	-.20340	-.20201	-.20105
2.000	1.730	475.29992	-.20296	-.20544	-.20527	-.20433
2.000	3.721	475.33570	-.20855	-.20669	-.20714	-.20589
2.000	5.726	475.55041	-.20676	-.21326	-.21122	-.21061
2.000	7.749	475.94405	-.21493	-.22266	-.21813	-.21724
2.000	9.764	475.97984	-.22638	-.22978	-.22123	-.22066
2.000	11.722	475.72934	-.23405	-.23343	-.22610	-.22586
2.000	13.765	475.33570	-.24200	-.23457	-.22784	-.22761
2.000	15.718	475.29992	-.24664	-.24664	-.22907	-.22884
2.000	17.744	475.12099	-.24815	-.24567	-.23026	-.22972
2.000	19.763	475.08521	-.24225	-.23729	-.23118	-.23095
	GRADIENT	.26652	-.00028	-.00110	-.00182	-.00181

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1005) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 56/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.058	434.04481	-.15573	-.14997	-.14517	-.14312
2.500	-2.066	433.94239	-.15198	-.15029	-.14786	-.14650
2.500	-.066	433.58390	-.14784	-.14853	-.14780	-.14609
2.500	1.926	433.32785	-.15017	-.15086	-.15012	-.14876
2.500	3.937	433.04618	-.15488	-.15421	-.15380	-.15280
2.500	5.922	433.99360	-.15911	-.15708	-.15836	-.15738
2.500	7.957	434.55693	-.16361	-.16361	-.16150	-.16053
2.500	9.933	434.83859	-.16771	-.16670	-.16323	-.16261
2.500	11.934	435.29950	-.17014	-.16914	-.16532	-.16505
2.500	13.932	436.11888	-.17464	-.17195	-.16847	-.16787
2.500	15.961	436.34934	-.18243	-.17805	-.17254	-.17230
2.500	17.918	436.73342	-.18180	-.17608	-.17192	-.17167
2.500	19.952	437.24554	-.17714	-.17243	-.16963	-.16938
	GRADIENT	-.13072	.00017	-.00045	-.00098	-.00108

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SKI006) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 44/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.214	477.12963	-.30792	-.29771	-.26874	-.26696
1.500	-2.242	477.30125	-.28152	-.28272	-.28026	-.27852
1.500	-.186	478.20222	-.28157	-.28800	-.28277	-.28043
1.500	1.784	477.94480	-.28322	-.29089	-.28288	-.28085
1.500	3.790	475.71382	-.28838	-.29299	-.28278	-.28105
1.500	5.781	475.97124	-.30032	-.29844	-.28636	-.28434
1.500	7.797	476.09995	-.30227	-.29574	-.29047	-.28847
1.500	9.778	476.48608	-.30192	-.30375	-.29383	-.29215
1.500	11.804	476.57189	-.31187	-.31153	-.29944	-.29840
1.500	13.803	476.57189	-.32484	-.31802	-.30899	-.30769
1.500	15.784	476.82931	-.34539	-.33980	-.31718	-.31559
1.500	17.783	476.70060	-.35643	-.34683	-.32510	-.32355
1.500	19.783	477.04383	-.36434	-.35599	-.33579	-.33429
	GRADIENT	-.10859	.00186	.00006	-.00153	-.00152

RUN NO. 47/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.280	474.69157	-.20835	-.19873	-.19330	-.19079
2.000	-2.265	474.54843	-.19993	-.20148	-.19975	-.19758
2.000	-.276	474.54843	-.19993	-.20396	-.20377	-.20131
2.000	1.745	474.76314	-.20310	-.20589	-.20693	-.20479
2.000	3.736	474.51264	-.20922	-.20767	-.20871	-.20689
2.000	5.729	474.29793	-.20729	-.21412	-.21329	-.21118
2.000	7.739	474.47686	-.21511	-.22317	-.21984	-.21776
2.000	9.744	474.47686	-.22659	-.23062	-.22325	-.22118
2.000	11.753	474.62000	-.23438	-.23500	-.22824	-.22650
2.000	13.749	474.62000	-.24183	-.23469	-.22979	-.22836
2.000	15.729	474.83471	-.24684	-.24746	-.23046	-.22935
2.000	17.729	475.01364	-.24905	-.24688	-.23237	-.23096
2.000	19.728	475.08521	-.24349	-.23884	-.23362	-.23191
	GRADIENT	-.00710	-.00024	-.00111	-.00190	-.00197

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1006) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 41/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.069	434.73617	-.15754	-.15213	-.14663	-.14395
2.500	-2.068	434.63374	-.15379	-.15143	-.14965	-.14699
2.500	-.072	434.60814	-.14871	-.15007	-.14897	-.14664
2.500	1.944	434.78738	-.15179	-.15248	-.15171	-.14973
2.500	3.931	434.96662	-.15588	-.15555	-.15478	-.15349
2.500	5.925	434.76177	-.16025	-.15857	-.15947	-.15821
2.500	7.933	434.76177	-.16398	-.16500	-.16285	-.16194
2.500	9.933	434.58253	-.16937	-.16836	-.16485	-.16395
2.500	11.932	434.68496	-.17175	-.17075	-.16723	-.16668
2.500	13.947	434.27526	-.17611	-.17375	-.16988	-.16933
2.500	15.952	435.19707	-.18400	-.18029	-.17473	-.17387
2.500	17.927	435.76040	-.18304	-.17799	-.17412	-.17326
2.500	19.955	435.91404	-.17833	-.17361	-.17111	-.17057
	GRADIENT	.03071	.00027	-.00039	-.00092	-.00109

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SKI007) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = .000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = .000

RUN NO. 59/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.272	473.18859	-.20731	-.19766	-.19130	-.19030
2.000	-2.395	472.61602	-.20245	-.19996	-.19700	-.19665
2.000	-.323	473.22437	-.19954	-.20296	-.20031	-.19997
2.000	1.671	473.51065	-.20243	-.20585	-.20537	-.20505
2.000	3.639	473.83272	-.20906	-.20782	-.20826	-.20765
2.000	5.650	474.44107	-.20894	-.20863	-.20876	-.20815
2.000	7.647	474.97785	-.21221	-.21810	-.21511	-.21453
2.000	9.675	475.22835	-.22468	-.22778	-.22106	-.22081
2.000	11.665	475.97984	-.23355	-.23169	-.22745	-.22722
2.000	13.688	476.23033	-.23300	-.23547	-.22906	-.22884
2.000	15.671	475.80091	-.23876	-.24093	-.22832	-.22872
2.000	17.640	474.90628	-.24226	-.24164	-.22839	-.22817
2.000	19.662	474.40529	-.23841	-.23065	-.22609	-.22617
	GRADIENT	.11087	-.00018	-.00132	-.00212	-.00216

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SKI008) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 21/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.236	475.11317	-.31142	-.30334	-.27270	-.27152
1.500	-2.216	474.89865	-.29671	-.29016	-.28521	-.28378
1.500	-.220	474.94156	-.29798	-.29237	-.28896	-.28723
1.500	1.793	475.28478	-.29667	-.28735	-.29013	-.28872
1.500	2.774	475.19898	-.29661	-.28512	-.29069	-.28897
1.500	3.800	475.32769	-.29794	-.28459	-.29109	-.28937
1.500	5.810	475.32769	-.30445	-.28831	-.29634	-.29465
1.500	7.784	475.67092	-.31397	-.29599	-.30091	-.29954
1.500	9.776	475.79963	-.30818	-.31062	-.30193	-.30025
1.500	11.771	475.45640	-.32033	-.31906	-.30601	-.30466
1.500	13.776	475.41349	-.33021	-.32306	-.31154	-.31053
1.500	15.770	475.41349	-.34445	-.32213	-.32174	-.32045
1.500	17.777	475.37059	-.35991	-.33170	-.33407	-.33315
1.500	19.796	475.37059	-.36765	-.34750	-.34519	-.34432
	GRADIENT	.03872	.00132	.00203	-.00202	-.00196

RUN NO. 24/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.250	475.44306	-.20790	-.20944	-.19536	-.19314
2.000	-2.266	474.47686	-.20542	-.20697	-.20091	-.19965
2.000	-1.270	473.97586	-.20681	-.20774	-.20198	-.20072
2.000	-.248	473.11702	-.20872	-.20871	-.20480	-.20325
2.000	1.747	472.50867	-.21600	-.21257	-.21207	-.21023
2.000	3.761	472.25817	-.21780	-.21686	-.21510	-.21265
2.000	5.745	472.43710	-.22315	-.21598	-.22044	-.21770
2.000	7.729	472.83073	-.22824	-.22326	-.22428	-.22156
2.000	9.746	472.97388	-.23202	-.23108	-.22370	-.22128
2.000	11.730	473.11702	-.24668	-.23454	-.22933	-.22725
2.000	13.728	473.22437	-.24826	-.23768	-.23091	-.22977
2.000	15.746	473.29594	-.24423	-.23957	-.23310	-.23166
2.000	17.762	473.40330	-.24426	-.23711	-.23406	-.23231
2.000	19.756	473.58223	-.24057	-.24306	-.23783	-.23485
	GRADIENT	-.41592	-.00158	-.00107	-.00255	-.00249

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1008) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 27/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.074	437.16872	-.15483	-.14911	-.14468	-.14197
2.500	-2.078	437.60402	-.15019	-.15121	-.14745	-.14543
2.500	-.064	435.37631	-.15148	-.15081	-.14973	-.14771
2.500	1.980	434.58253	-.15506	-.15372	-.15364	-.15130
2.500	3.947	434.50572	-.15742	-.15675	-.15633	-.15400
2.500	5.951	434.17284	-.16110	-.15806	-.16034	-.15768
2.500	7.930	434.07042	-.16617	-.16109	-.16370	-.16106
2.500	9.952	434.22405	-.17094	-.16688	-.16711	-.16516
2.500	11.939	434.17284	-.17907	-.16992	-.17082	-.16855
2.500	13.933	434.37769	-.18384	-.17334	-.17356	-.17095
2.500	15.937	434.32647	-.18248	-.17673	-.17524	-.17265
2.500	17.944	434.48011	-.17944	-.17708	-.17627	-.17402
2.500	19.931	433.78875	-.17869	-.17530	-.17517	-.17360
	GRADIENT	-.41590	-.00050	-.00088	-.00147	-.00149

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1009) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BOFLAP = .000 GRIT = 1.000

RUN NO. 30/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.212	476.14285	-.30797	-.30021	-.27118	-.26815
1.500	-2.228	476.31447	-.29418	-.28889	-.28303	-.27974
1.500	-.201	476.35737	-.29514	-.28985	-.28676	-.28287
1.500	1.761	476.44318	-.29396	-.28466	-.28837	-.28448
1.500	3.766	476.31447	-.29542	-.28271	-.28951	-.28562
1.500	5.783	476.40027	-.30135	-.28679	-.29450	-.29095
1.500	7.768	476.44318	-.31158	-.29455	-.29946	-.29593
1.500	9.792	476.78641	-.30625	-.30962	-.30155	-.29803
1.500	11.753	474.29800	-.31756	-.31847	-.30507	-.30186
1.500	13.787	473.48284	-.32852	-.32259	-.31164	-.30814
1.500	15.774	473.09671	-.34290	-.32171	-.32224	-.31878
1.500	17.766	473.22542	-.35698	-.33019	-.33381	-.33009
1.500	19.798	473.48284	-.36366	-.34560	-.34421	-.34084
	GRADIENT	.02365	.00127	.00197	-.00211	-.00199

RUN NO. 35/ C RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.265	477.98381	-.20609	-.20763	-.19485	-.19018
2.000	-2.269	478.55638	-.20320	-.20534	-.20026	-.19654
2.000	-.288	478.41324	-.20623	-.20684	-.20390	-.19999
2.000	1.746	478.98580	-.21378	-.21132	-.21144	-.20716
2.000	3.723	479.62994	-.21551	-.21551	-.21409	-.20920
2.000	5.734	479.98779	-.22083	-.21439	-.21970	-.21392
2.000	7.724	480.91820	-.22599	-.22201	-.22333	-.21757
2.000	9.734	481.49077	-.22982	-.22951	-.22257	-.2[illegible]
2.000	11.713	477.66175	-.24482	-.23342	-.22887	-.2237[illegible]
2.000	13.718	475.29992	-.24551	-.23652	-.23040	-.22647
2.000	15.737	474.58421	-.24223	-.23820	-.23206	-.22845
2.000	17.722	474.04743	-.24210	-.23527	-.23316	-.22893
2.000	19.747	474.69157	-.23947	-.24195	-.23766	-.23128
	GRADIENT	.18624	-.00147	-.00109	-.00249	-.00244

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1009) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 38/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.079	433.99360	-.15312	-.14872	-.14493	-.13984
2.500	-2.084	433.63512	-.14831	-.15035	-.14791	-.14350
2.500	-.082	434.22405	-.15011	-.15046	-.15038	-.14566
2.500	1.964	433.83996	-.15411	-.15344	-.15438	-.14966
2.500	3.955	433.68633	-.15612	-.15647	-.15706	-.15168
2.500	5.939	433.76315	-.15953	-.15784	-.16046	-.15509
2.500	7.944	434.24966	-.16503	-.16063	-.16459	-.15891
2.500	9.904	434.76177	-.16951	-.16647	-.16737	-.16238
2.500	10.950	435.04344	-.17395	-.16786	-.16977	-.16446
2.500	11.964	435.78601	-.17809	-.16966	-.17190	-.16626
2.500	13.937	436.73342	-.18292	-.17316	-.17471	-.16876
2.500	15.961	434.73617	-.18034	-.17697	-.17649	-.17052
2.500	17.928	434.19845	-.17723	-.17656	-.17676	-.17147
2.500	19.924	433.83996	-.17719	-.17516	-.17571	-.17108
	GRADIENT	-.02044	-.00059	-.00092	-.00153	-.00148

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1010) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 3/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.207	473.43993	-.30075	-.29916	-.26533	-.26286
1.500	-2.238	473.31122	-.29195	-.29005	-.27609	-.27335
1.500	-.214	473.26832	-.29285	-.29126	-.28164	-.27830
1.500	1.806	473.65445	-.29220	-.28253	-.28472	-.28171
1.500	3.776	473.91187	-.29145	-.27557	-.28553	-.28221
1.500	5.777	474.21220	-.29508	-.27611	-.28792	-.28461
1.500	7.795	475.02736	-.30558	-.28385	-.29254	-.28956
1.500	9.790	475.49930	-.30065	-.29938	-.29442	-.29145
1.500	11.773	475.88543	-.31267	-.30924	-.29933	-.29669
1.500	13.773	476.14285	-.32212	-.31127	-.30414	-.30152
1.500	15.779	476.18576	-.33575	-.31037	-.31465	-.31239
1.500	17.771	476.44318	-.35106	-.31889	-.32592	-.32371
1.500	19.796	476.48608	-.35912	-.33344	-.33674	-.33426
	GRADIENT	.06437	.00091	.00273	-.00245	-.00235

RUN NO. 6/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.293	474.83471	-.20347	-.20253	-.19063	-.18682
2.000	-2.266	474.94207	-.20040	-.19885	-.19654	-.19306
2.000	-.258	474.90628	-.20380	-.20070	-.20055	-.19740
2.000	1.729	474.87049	-.21123	-.20440	-.20796	-.20391
2.000	3.718	474.76314	-.21337	-.20871	-.21102	-.20636
2.000	5.734	475.01364	-.21809	-.20848	-.21574	-.21079
2.000	7.711	475.15678	-.22309	-.21472	-.21918	-.21424
2.000	9.728	475.33570	-.22686	-.22066	-.21768	-.21337
2.000	11.720	475.58620	-.24179	-.22507	-.22363	-.21903
2.000	13.726	475.47884	-.23650	-.22814	-.22638	-.22272
2.000	15.752	475.44306	-.23587	-.22905	-.22698	-.22364
2.000	17.724	475.51463	-.23589	-.22691	-.22700	-.22335
2.000	19.762	475.65777	-.23531	-.23407	-.23167	-.22587
	GRADIENT	-.01065	-.00153	-.00089	-.00261	-.00250

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1010) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 9/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.085	434.40329	-.14735	-.14126	-.13819	-.13304
2.500	-2.078	434.63374	-.14333	-.14300	-.14128	-.13716
2.500	-.074	435.35071	-.14483	-.14246	-.14412	-.14002
2.500	1.948	435.27389	-.14887	-.14482	-.14748	-.14306
2.500	3.931	435.06904	-.15019	-.14782	-.14980	-.14539
2.500	5.916	435.09465	-.15391	-.14952	-.15420	-.14912
2.500	7.922	435.19707	-.15934	-.15191	-.15793	-.15287
2.500	9.958	434.88980	-.16403	-.15727	-.16058	-.15587
2.500	11.931	434.30087	-.17242	-.16056	-.16421	-.15916
2.500	13.952	434.19845	-.17749	-.16360	-.16757	-.16186
2.500	15.953	434.55693	-.17516	-.16704	-.16931	-.16396
2.500	17.940	434.86420	-.17182	-.16708	-.16969	-.16502
2.500	19.937	434.86420	-.17080	-.16471	-.16800	-.16400
	GRADIENT	.09839	-.00056	-.00074	-.00147	-.00153

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SKI011) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 15/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.235	477.34415	-.30949	-.31223	-.27463	-.27255
1.500	-2.220	477.51577	-.29943	-.29909	-.28614	-.28318
1.500	-.216	477.77319	-.30084	-.30143	-.29125	-.28769
1.500	1.810	477.77319	-.30053	-.29434	-.29463	-.29109
1.500	3.783	477.68738	-.30017	-.28873	-.29549	-.29257
1.500	5.780	477.94480	-.30312	-.28768	-.29721	-.29430
1.500	7.772	478.37384	-.31296	-.29538	-.30181	-.29892
1.500	9.782	478.37384	-.30834	-.31046	-.30335	-.30015
1.500	11.770	478.37384	-.32034	-.31970	-.30826	-.30570
1.500	13.770	478.50255	-.32966	-.32317	-.31326	-.31010
1.500	15.776	477.60157	-.34357	-.32227	-.32342	-.32092
1.500	17.790	476.40027	-.35890	-.33014	-.33496	-.33220
1.500	19.778	476.05705	-.36675	-.34445	-.34524	-.34251
	GRADIENT	.04712	.00088	.00258	-.00250	-.00239

RUN NO. 18/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.269	475.19256	-.20776	-.21023	-.19520	-.19176
2.000	-2.275	475.29992	-.20500	-.20686	-.20173	-.19894
2.000	-.271	475.26413	-.20840	-.20902	-.20635	-.20296
2.000	1.722	475.33570	-.21586	-.21245	-.21317	-.20981
2.000	3.732	475.33570	-.21802	-.21709	-.21657	-.21260
2.000	5.731	475.40727	-.22207	-.21618	-.22123	-.21634
2.000	7.740	475.55041	-.22799	-.22149	-.22529	-.22073
2.000	9.745	475.58620	-.23141	-.22893	-.22375	-.21950
2.000	11.725	475.76513	-.24631	-.23424	-.22967	-.22575
2.000	13.722	475.76513	-.24414	-.23826	-.23245	-.22947
2.000	15.747	475.65777	-.23978	-.23886	-.23396	-.23130
2.000	17.737	475.76513	-.24198	-.23734	-.23399	-.23040
2.000	19.725	475.58620	-.23977	-.24317	-.23919	-.23407
	GRADIENT	.01609	-.00157	-.00097	-.00271	-.00263

LARC UPWT 1212(LA110) ORBITER,SILTS PCS OFF (SKI011) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 12/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.061	436.47737	-.15498	-.14993	-.14582	-.14245
2.500	-2.075	436.32373	-.15125	-.15193	-.14949	-.14648
2.500	-.065	436.32373	-.15293	-.15193	-.15218	-.14885
2.500	1.932	436.24691	-.15663	-.15360	-.15554	-.15187
2.500	3.924	436.60540	-.15838	-.15704	-.15795	-.15430
2.500	5.925	436.17010	-.16168	-.15865	-.16192	-.15795
2.500	7.938	436.37494	-.16677	-.16037	-.16599	-.16170
2.500	9.933	436.14449	-.17248	-.16709	-.16866	-.16538
2.500	11.919	435.22268	-.18014	-.17034	-.17224	-.16830
2.500	13.939	434.88980	-.18552	-.17402	-.17591	-.17096
2.500	15.937	434.73617	-.18246	-.17705	-.17826	-.17366
2.500	17.951	434.86420	-.17976	-.17707	-.17861	-.17435
2.500	19.926	434.88980	-.17841	-.17436	-.17591	-.17334
	GRADIENT	.00896	-.00061	-.00080	-.00152	-.00146

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SKI012) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 51/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.238	473.82607	-.30192	-.29443	-.27365	-.27247
1.500	-2.225	473.95478	-.28989	-.28551	-.28181	-.28097
1.500	-.203	473.82607	-.28887	-.28293	-.28326	-.28180
1.500	1.806	473.86897	-.28828	-.27892	-.28329	-.28184
1.500	3.781	474.89865	-.28965	-.28899	-.28127	-.28012
1.500	5.797	475.58511	-.28767	-.29383	-.28209	-.28063
1.500	7.779	476.05705	-.30595	-.30375	-.29170	-.29089
1.500	9.772	476.40027	-.30433	-.30708	-.29903	-.29795
1.500	11.788	476.70060	-.31226	-.31161	-.30109	-.30064
1.500	13.781	477.51577	-.32052	-.31864	-.30659	-.30584
1.500	15.784	477.94480	-.33682	-.31708	-.31856	-.31786
1.500	17.786	477.81609	-.35400	-.32993	-.33108	-.33043
1.500	19.812	477.73028	-.36042	-.34344	-.34086	-.34026
	GRADIENT	.10217	.00131	.00088	-.00084	-.00081

RUN NO. 54/ 0 RN/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.283	475.26413	-.20791	-.20759	-.19537	-.19407
2.000	-2.285	475.04942	-.20350	-.20567	-.19994	-.19928
2.000	-.269	475.12099	-.20632	-.20724	-.20367	-.20272
2.000	1.736	475.22835	-.21162	-.21099	-.20896	-.20834
2.000	3.733	475.58620	-.21327	-.21389	-.21123	-.21062
2.000	5.725	475.80091	-.21767	-.21055	-.21562	-.21472
2.000	7.736	476.23033	-.22212	-.22088	-.21883	-.21825
2.000	9.733	476.87447	-.22292	-.22755	-.21994	-.21906
2.000	11.748	477.33968	-.23940	-.22953	-.22869	-.22784
2.000	13.718	477.98381	-.25342	-.23771	-.23040	-.23049
2.000	15.709	478.73530	-.24374	-.23697	-.23029	-.23038
2.000	17.735	479.84465	-.24002	-.23357	-.23089	-.23067
2.000	19.726	480.41721	-.23648	-.23801	-.23318	-.23205
	GRADIENT	.04103	-.00094	-.00089	-.00203	-.00210

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1012) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6900 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 57/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.100	433.96799	-.15402	-.14962	-.14516	-.14344
2.500	-2.072	434.12163	-.14896	-.15032	-.14756	-.14619
2.500	-.089	434.40329	-.15003	-.15071	-.14930	-.14794
2.500	1.954	434.65935	-.15312	-.15381	-.15306	-.15172
2.500	3.911	434.50572	-.15581	-.15683	-.15574	-.15441
2.500	5.942	434.04481	-.15912	-.15777	-.15837	-.15739
2.500	7.940	434.27526	-.16424	-.16188	-.16213	-.16150
2.500	9.959	434.50572	-.16902	-.16666	-.16588	-.16527
2.500	11.928	434.48011	-.17579	-.16869	-.16926	-.16900
2.500	13.921	434.68496	-.18056	-.17312	-.17165	-.17140
2.500	15.936	435.32510	-.17860	-.17557	-.17275	-.17217
2.500	17.930	435.47874	-.17558	-.17525	-.17344	-.17286
2.500	19.959	436.17010	-.17532	-.17364	-.17185	-.17194
	GRADIENT	.08063	-.00038	-.00089	-.00133	-.00137

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1013) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 45/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-4.229	477.12963	-.30268	-.29493	-.27397	-.27252
1.500	-2.231	477.25834	-.29043	-.28608	-.28299	-.28127
1.500	-.201	477.34415	-.28926	-.28337	-.28460	-.28257
1.500	1.770	477.25834	-.28889	-.27991	-.28453	-.28282
1.500	3.781	477.25834	-.29043	-.29009	-.28269	-.28065
1.500	5.778	477.34415	-.28772	-.29385	-.28306	-.28103
1.500	7.774	477.17254	-.30579	-.30422	-.29278	-.29110
1.500	9.781	477.21544	-.30521	-.30826	-.30081	-.29916
1.500	11.776	477.30125	-.31236	-.31326	-.30272	-.30108
1.500	13.775	477.42996	-.32170	-.31951	-.30865	-.30704
1.500	15.782	477.51577	-.33779	-.31803	-.32040	-.31883
1.500	17.779	477.38706	-.35498	-.33151	-.33293	-.33172
1.500	19.779	477.47286	-.36058	-.34390	-.34191	-.34074
	GRADIENT	.01291	.00130	.00079	-.00095	-.00089

RUN NO. 48/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.263	474.97785	-.20875	-.20751	-.19587	-.19338
2.000	-2.262	475.08521	-.20413	-.20599	-.20147	-.19931
2.000	-.263	475.19256	-.20603	-.20726	-.20460	-.20245
2.000	1.728	475.58620	-.21173	-.21079	-.21028	-.20785
2.000	3.726	475.83670	-.21335	-.21366	-.21283	-.21010
2.000	5.722	475.94405	-.21709	-.20998	-.21625	-.21416
2.000	7.745	476.40926	-.22279	-.21939	-.22009	-.21801
2.000	9.731	473.18859	-.22312	-.22779	-.22133	-.21956
2.000	11.717	473.15280	-.23805	-.22871	-.22939	-.22765
2.000	13.728	474.22636	-.25415	-.23832	-.23185	-.23012
2.000	15.727	474.19057	-.24452	-.23769	-.23184	-.23043
2.000	17.740	474.19057	-.23986	-.23396	-.23246	-.23105
2.000	19.739	474.08322	-.23642	-.23828	-.23491	-.23257
	GRADIENT	.11109	-.00084	-.00086	-.00214	-.00210

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1013) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 42/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-4.090	436.34934	-.15510	-.15072	-.14626	-.14427
2.500	-2.054	436.17010	-.15035	-.15204	-.14926	-.14761
2.500	-.064	436.04207	-.15100	-.15236	-.15092	-.14894
2.500	1.925	436.32373	-.15442	-.15544	-.15501	-.15305
2.500	3.923	436.29813	-.15712	-.15848	-.15702	-.15575
2.500	5.928	436.24691	-.16082	-.15982	-.16072	-.15912
2.500	7.917	436.14449	-.16587	-.16385	-.16474	-.16350
2.500	9.934	435.60677	-.17120	-.16851	-.16837	-.16748
2.500	11.927	436.11888	-.17802	-.17060	-.17147	-.17094
2.500	13.929	435.88843	-.18238	-.17496	-.17414	-.17361
2.500	15.931	435.96525	-.18036	-.17734	-.17550	-.17464
2.500	17.933	435.52995	-.17727	-.17728	-.17578	-.17492
2.500	19.932	435.52995	-.17693	-.17526	-.17410	-.17391
	GRADIENT	.00243	-.00040	-.00095	-.00136	-.00142

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1014) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = .000

RUN NO. 60/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-4.308	475.62199	-.20993	-.21086	-.19400	-.19270
2.000	-2.293	476.05141	-.20419	-.20728	-.20001	-.19936
2.000	-.283	476.48083	-.20587	-.20710	-.20323	-.20229
2.000	1.702	476.62397	-.21117	-.20900	-.20852	-.20759
2.000	3.701	477.12497	-.21379	-.21409	-.21144	-.21053
2.000	5.722	477.84067	-.21709	-.21215	-.21412	-.21322
2.000	7.700	478.66373	-.22102	-.21332	-.21805	.21717
2.000	9.704	476.26612	-.22157	-.22620	-.22043	-.21987
2.000	11.725	475.29992	-.23461	-.22687	-.22726	-.22704
2.000	13.708	475.12099	-.23580	-.22899	-.22628	-.22606
2.000	15.724	475.08521	-.24571	-.23239	-.22844	-.22853
2.000	17.701	474.90628	-.23296	-.23668	-.23272	-.23252
2.000	19.704	475.01364	-.23795	-.23888	-.23429	-.23348
	GRADIENT	.17886	-.00073	-.00041	-.00217	-.00219

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1015) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 22/ 0 RN/L = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-6.083	474.89865	-.30942	-.31900	-.30872	-.30707
1.500	-4.062	474.94156	-.31472	-.30787	-.30194	-.30027
1.500	-2.027	474.94156	-.31441	-.31097	-.30225	-.30089
1.500	-.040	475.07027	-.31139	-.31044	-.29925	-.29757
1.500	1.985	475.11317	-.30833	-.31294	-.30052	-.29884
1.500	2.997	475.19898	-.30838	-.31114	-.30274	-.30107
1.500	4.010	475.19898	-.30962	-.30959	-.30027	-.29890
1.500	6.015	475.28478	-.31650	-.31182	-.29940	-.29803
1.500	8.019	475.19898	-.31768	-.30897	-.30738	-.30635
	GRADIENT	.03628	.00085	-.00027	.00011	.00011

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1015) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 25/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-6.084	477.08918	-.22970	-.23495	-.23070	-.22771
2.000	-4.082	476.69554	-.23176	-.23577	-.22937	-.22668
2.000	-2.047	476.62397	-.23174	-.23081	-.22442	-.22202
2.000	-.040	476.62397	-.22989	-.23359	-.22534	-.22263
2.000	1.985	476.69554	-.23052	-.22898	-.22166	-.21925
2.000	2.997	476.65976	-.23206	-.23082	-.22350	-.22141
2.000	3.991	476.65976	-.23360	-.23206	-.22504	-.22295
2.000	6.035	476.62397	-.23390	-.23328	-.22873	-.22728
	GRADIENT	-.00001	-.00013	.00046	.00056	.00050

RUN NO. 28/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-6.095	436.91267	-.16995	-.17231	-.17119	-.16623
2.500	-4.078	435.19707	-.17107	-.17175	-.17062	-.16598
2.500	-2.023	435.06904	-.17207	-.16937	-.16824	-.16427
2.500	-.041	434.68496	-.17066	-.16796	-.16616	-.16217
2.500	1.983	434.65935	-.16964	-.16660	-.16616	-.16319
2.500	2.992	434.88980	-.17137	-.16697	-.16754	-.16492
2.500	4.045	434.58253	-.17234	-.16727	-.16885	-.16657
2.500	6.027	434.50572	-.17369	-.16692	-.17053	-.16792
2.500	8.065	434.58253	-.17437	-.16862	-.17155	-.16962
	GRADIENT	-.06553	-.00002	.00057	.00026	-.00003

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1016) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 31/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-6.102	475.32769	-.30803	-.31791	-.30795	-.30351
1.500	-4.081	475.41349	-.31242	-.30589	-.30090	-.29675
1.500	-2.045	475.41349	-.31211	-.30899	-.30121	-.29706
1.500	-.021	475.58511	-.30913	-.30818	-.29855	-.29408
1.500	1.985	475.79963	-.30650	-.31142	-.30025	-.29609
1.500	2.998	475.92834	-.30659	-.30934	-.30157	-.29773
1.500	4.050	475.75672	-.30740	-.30737	-.29929	-.29575
1.500	6.054	475.84253	-.31333	-.30959	-.29781	-.29426
1.500	8.019	475.84253	-.31488	-.30711	-.30614	-.30294
	GRADIENT	.06182	.00080	-.00027	.00010	.00003

RUN NO. 36/ 0 RN/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-6.103	476.37348	-.22567	-.23308	-.22945	-.22398
2.000	-4.082	476.51662	-.22972	-.23436	-.22825	-.22309
2.000	-2.027	476.76711	-.22886	-.22948	-.22370	-.21821
2.000	-.041	477.33968	-.22871	-.23210	-.22448	-.21900
2.000	2.004	477.62596	-.22817	-.22755	-.22087	-.21568
2.000	2.997	477.91224	-.22917	-.22948	-.22279	-.21793
2.000	4.011	478.23431	-.23111	-.23018	-.22411	-.21956
2.000	6.054	478.91423	-.23128	-.23190	-.22798	-.22469
2.000	8.039	479.41522	-.23295	-.22650	-.23057	-.22667
	GRADIENT	.21091	-.00008	.00050	.00054	.00046

RUN NO. 39/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-6.096	434.65935	-.16882	-.17221	-.17209	-.16338
2.500	-4.078	434.58253	-.16982	-.17187	-.17140	-.16303
2.500	-2.044	434.48011	-.17116	-.16982	-.16902	-.16166
2.500	-.060	433.96799	-.16940	-.16805	-.16624	-.15988
2.500	1.905	434.09602	-.16806	-.16604	-.16626	-.16058
2.500	2.975	434.68496	-.16950	-.16612	-.16736	-.16237
2.500	4.007	434.83859	-.17087	-.16682	-.16941	-.16443
2.500	6.047	435.37631	-.17264	-.16622	-.17151	-.16586
2.500	8.066	436.37494	-.17310	-.16805	-.17231	-.16803
	GRADIENT	.02143	.00006	.00070	.00034	-.00010

LAPC UPWT 1212(LA110) ORBITER,SILTS POD ON (SKI017) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 4/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-6.122	476.31447	-.30987	-.31046	-.30364	-.30009
1.500	-4.101	476.57189	-.30881	-.29673	-.29673	-.29346
1.500	-2.065	476.52899	-.30971	-.30134	-.29732	-.29436
1.500	-.041	476.65770	-.30486	-.30081	-.29432	-.29074
1.500	1.985	476.78641	-.30062	-.30275	-.29318	-.28990
1.500	2.995	476.74350	-.30059	-.30025	-.29469	-.29173
1.500	3.991	476.74350	-.30183	-.29778	-.29285	-.28987
1.500	5.995	476.61479	-.30915	-.29553	-.29368	-.29133
	GRADIENT	.02946	.00120	-.00017	.00050	.00048

RUN NO. 7/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-6.104	475.55041	-.22166	-.22475	-.22547	-.22026
2.000	-4.064	475.80091	-.22884	-.22606	-.22369	-.21847
2.000	-2.029	476.08719	-.22645	-.22211	-.22037	-.21514
2.000	-.022	476.12298	-.22584	-.22305	-.21977	-.21453
2.000	1.984	476.05141	-.22427	-.21901	-.21573	-.21111
2.000	2.995	476.15876	-.22585	-.21997	-.21700	-.21269
2.000	4.009	476.26612	-.22742	-.22402	-.21919	-.21489
2.000	6.052	476.19455	-.22833	-.22400	-.22349	-.22013
	GRADIENT	.04230	.00025	.00045	.00071	.00058

RUN NO. 10/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-6.117	434.78738	-.16470	-.16369	-.16563	-.15653
2.500	-5.003	435.24829	-.16442	-.16274	-.16536	-.15694
2.500	-4.078	434.94102	-.16472	-.16202	-.16430	-.15655
2.500	-2.044	435.14586	-.16542	-.16002	-.16231	-.15557
2.500	-.042	435.27389	-.16341	-.15869	-.15929	-.15288
2.500	1.010	434.94102	-.16167	-.15829	-.15890	-.15282
2.500	1.982	435.32510	-.16173	-.15633	-.15896	-.15357
2.500	3.031	435.35071	-.16343	-.15701	-.15997	-.15527
2.500	4.004	434.65935	-.16502	-.15689	-.16189	-.15786
2.500	6.026	434.68496	-.16671	-.15757	-.16392	-.15990
	GRADIENT	-.00280	.00018	.00067	.00043	-.00000

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1018) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = -5.000 SPDBRK = 55.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 16/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-6.103	476.31447	-.31836	-.32421	-.31301	-.30923
1.500	-4.083	476.27156	-.31679	-.30903	-.30589	-.30239
1.500	-2.027	476.52899	-.31789	-.31322	-.30545	-.30226
1.500	-.041	476.65770	-.31272	-.31239	-.30246	-.29895
1.500	1.985	476.70060	-.30874	-.31458	-.30249	-.29929
1.500	2.978	476.74350	-.30877	-.31090	-.30375	-.30086
1.500	4.030	476.74350	-.31093	-.30935	-.30160	-.29870
1.500	6.053	476.70060	-.31831	-.30655	-.30434	-.30145
	GRADIENT	.05499	.00111	-.00004	.00047	.00040

RUN NO. 19/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-6.104	475.40727	-.22765	-.23477	-.23266	-.22782
2.000	-4.083	475.51463	-.23263	-.23572	-.23022	-.22537
2.000	-2.047	475.33570	-.22979	-.23258	-.22708	-.22222
2.000	-.042	475.37149	-.22856	-.23352	-.22678	-.22223
2.000	1.983	475.19256	-.23007	-.22820	-.22210	-.21814
2.000	2.977	475.37149	-.23166	-.22949	-.22369	-.21975
2.000	4.009	475.47884	-.23324	-.23293	-.22588	-.22226
2.000	6.053	475.26413	-.23442	-.23318	-.23015	-.22716
	GRADIENT	-.00934	-.00010	.00058	.00071	.00055

RUN NO. 13/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-6.096	434.68496	-.17263	-.17332	-.17386	-.16551
2.500	-4.078	434.24966	-.17291	-.17258	-.17347	-.16579
2.500	-2.045	434.53132	-.17430	-.17059	-.17147	-.16515
2.500	-.043	434.86420	-.17198	-.16860	-.16814	-.16214
2.500	1.982	434.71056	-.17060	-.16655	-.16812	-.16314
2.500	2.974	434.91541	-.17232	-.16759	-.16950	-.16520
2.500	4.006	434.76177	-.17399	-.16689	-.17184	-.16789
2.500	6.045	434.53132	-.17464	-.16686	-.17316	-.16922
	GRADIENT	.06541	.00009	.00072	.00033	-.00011

LARC UPWT 1212(LA110) ORBITER,SILTS POD OFF (SK1019) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 52/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-6.084	477.38706	-.31088	-.30005	-.29665	-.29556
1.500	-4.062	477.17254	-.30518	-.30329	-.29681	-.29602
1.500	-2.045	477.12963	-.30453	-.30542	-.29647	-.29568
1.500	-.001	477.17254	-.30178	-.30329	-.29311	-.29201
1.500	2.005	477.12963	-.30083	-.30635	-.29493	-.29383
1.500	2.998	477.34415	-.30468	-.30773	-.29939	-.29831
1.500	4.012	477.64448	-.30643	-.30670	-.29622	-.29543
1.500	6.036	477.94480	-.30540	-.31061	-.29305	-.29225
	GRADIENT	.04422	.00000	-.00046	-.00009	-.00007

RUN NO. 55/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-6.084	474.40529	-.22564	-.23153	-.22790	-.22704
2.000	-4.082	474.47686	-.23279	-.23062	-.22327	-.22209
2.000	-2.046	474.69157	-.22727	-.22913	-.22179	-.22060
2.000	-.022	474.79892	-.22544	-.22978	-.22151	-.22032
2.000	2.005	474.87049	-.22484	-.22762	-.21906	-.21847
2.000	2.979	474.72735	-.22325	-.22790	-.22025	-.21936
2.000	4.069	474.90628	-.22454	-.22856	-.22154	-.22066
2.000	6.036	474.90628	-.22764	-.22918	-.22432	-.22408
	GRADIENT	.04207	.00098	.00030	.00032	.00026

RUN NO. 58/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-6.115	434.55693	-.17140	-.17310	-.17062	-.16901
2.500	-4.079	434.65935	-.17107	-.17244	-.16996	-.16869
2.500	-2.025	434.58253	-.17005	-.16938	-.16758	-.16596
2.500	-.002	434.83859	-.16771	-.16704	-.16390	-.16261
2.500	1.982	435.42753	-.16712	-.16544	-.16467	-.16371
2.500	3.013	435.65798	-.16918	-.16648	-.16605	-.16544
2.500	4.006	435.78601	-.17122	-.16819	-.16775	-.16715
2.500	6.045	435.83722	-.17258	-.16887	-.17012	-.16953
	GRADIENT	.16023	.00012	.00063	.00035	.00023

LARC UPWT 1212(LA110) ORBITER,SILTS POD ON (SK1020) (31 AUG 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO
LREF = 474.8000 INCHES YMRP = .0000 IN. YO
BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO
SCALE = .0150

PARAMETRIC DATA

ALPHA = 10.000 ELEVON = .000
RUDDER = .000 SPDBRK = 25.000
BDFLAP = .000 GRIT = 1.000

RUN NO. 46/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
1.500	-6.121	476.87221	-.31114	-.30000	-.29749	-.29583
1.500	-4.081	476.78641	-.30491	-.30395	-.29805	-.29639
1.500	-2.045	476.87221	-.30497	-.30587	-.29780	-.29614
1.500	-.040	476.87221	-.30188	-.30278	-.29349	-.29181
1.500	1.967	477.00092	-.30228	-.30781	-.29666	-.29469
1.500	2.980	476.91512	-.30531	-.30837	-.30060	-.29895
1.500	4.013	476.95802	-.30781	-.30747	-.29848	-.29682
1.500	6.054	477.08673	-.30450	-.31095	-.29426	-.29258
	GRADIENT	.02058	-.00018	-.00052	-.00018	-.00017

RUN NO. 49/ 0 RN/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.000	-6.103	474.79892	-.22513	-.23071	-.22860	-.22655
2.000	-4.082	475.19256	-.23267	-.23019	-.22407	-.22200
2.000	-2.046	475.51463	-.22656	-.22904	-.22231	-.22054
2.000	-.040	476.33769	-.22401	-.23019	-.22254	-.22047
2.000	1.986	477.01761	-.22451	-.22697	-.21996	-.21788
2.000	2.979	477.80489	-.22288	-.22750	-.22111	-.21935
2.000	4.012	478.37745	-.22427	-.22796	-.22188	-.22074
2.000	6.055	477.62596	-.22714	-.22961	-.22567	-.22423
	GRADIENT	.39679	.00097	.00034	.00033	.00027

RUN NO. 43/ 0 RN/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	Q(PSF)	CPB1	CPB2	CPC1	CPC2
2.500	-6.097	434.42890	-.17375	-.17512	-.17328	-.17105
2.500	-4.097	434.55693	-.17309	-.17446	-.17228	-.17039
2.500	-2.043	434.42890	-.17172	-.17105	-.16922	-.16766
2.500	-.040	434.14723	-.16965	-.16932	-.16614	-.16490
2.500	1.964	434.17284	-.16897	-.16763	-.16682	-.16558
2.500	2.976	434.63374	-.17073	-.16837	-.16824	-.16735
2.500	4.007	434.50572	-.17241	-.17005	-.16991	-.16869
2.500	6.048	434.63374	-.17480	-.17108	-.17331	-.17210
	GRADIENT	-.00082	.00019	.00062	.00033	.00023