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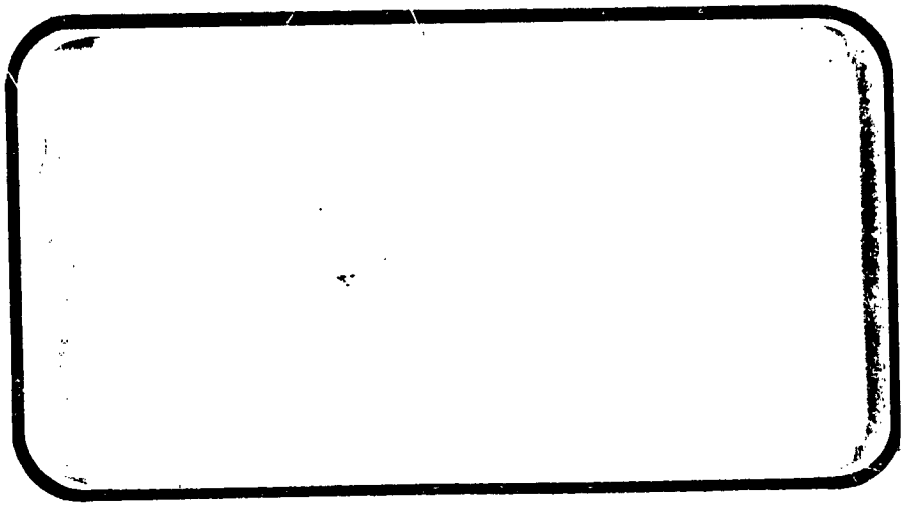

(NASA-CR-128791) SUPERSONIC AERODYNAMIC CHARACTERISTICS ASSOCIATED WITH VARIATIONS IN THE GEOMETRY OF THE FORWARD PORTION OF IRREGULAR PLANFORM WINGS (Chrysler Corp.) 167 p HC $10.50 CSCL 22B

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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION CHRYSLER CORPORATION

October, 1973

DMS-DR-2052
NASA CR-128,791

SUPERSONIC AERODYNAMIC CHARACTERISTICS ASSOCIATED WITH VARIATIONS IN THE GEOMETRY OF THE FORWARD PORTION OF IRREGULAR PLANFORM WINGS

By

Bernard Spencer, Jr. and David R. Stone

Prepared under NASA Contract Number NAS9-13247

by

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New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

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SUPERSONIC AERODYNAMIC CHARACTERISTICS ASSOCIATED WITH VARIATIONS IN THE GEOMETRY OF THE FORWARD PORTION OF IRREGULAR PLANFORM WINGS

By

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ABSTRACT

The experimental longitudinal and lateral-directional stability characteristics of a Langley conceptual space shuttle orbiter design have been obtained for a series of inboard planform fillets in the NASA/LaRC Unitary Plan Wind Tunnel. Fillet sweep angles up to 78° were investigated while holding the spanwise intersection of the fillet and wing constant. The data were obtained at Mach numbers of 2.36 to 4.63 and at Reynolds numbers (depending on Mach number) of 1.5×10^6 to 2.5×10^6 per foot. The angle of attack was varied from about -2° to 44° at 0° and 3° of sideslip.

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TABLE OF CONTENTS

	PAGE
ABSTRACT	iii
INDEX OF MODEL FIGURES	2
INDEX OF DATA FIGURES	3
NOMENCLATURE	5
INTRODUCTION	8
CONFIGURATIONS INVESTIGATED	11
TEST FACILITY DESCRIPTION	13
TEST CONDITIONS	14
DATA REDUCTION	14
REFERENCES	15
TABLES	
I TEST CONDITIONS	16
II DATA SET/RUN NUMBER COLLATION SUMMARY	17
III MODEL COMPONENT DIMENSIONAL DATA	18
IV PLANFORM AREA OF FILLETS	24
FIGURES	
MODEL	25
DATA	28
APPENDIX - TABULATED SOURCE DATA	

INDEX OF MODEL FIGURES

FIGURE	TITLE	PAGE
1	AXIS SYSTEM	25
2	SKETCH OF MODELS USED IN INVESTIGATION	26

INDEX OF DATA FIGURES

TITLE	COEFFICIENTS SCHEDULE	VARYING PARAMETERS	PAGE NO.
Effect of Fillet on Wing (BW2VFB)	A	MACH, LAMDAF	1-20
Effect of Mach No. on W-33 Wing (Fillet Angle = 46.8 Deg.)	A	MACH	21-25
Effect of Mach No. on W-33 Wing (Fillet Angle = 55 Deg.)	A	MACH	26-30
Effect of Mach No. on W-33 Wing (Fillet Angle = 60 Deg.)	A	MACH	31-35
Effect of Mach No. on W-33 Wing (Fillet Angle = 65 Deg.)	A	MACH	36-40
Effect of Mach No. on W-33 Wing (Fillet Angle = 70 Deg.)	A	MACH	41-45
Effect of Mach No. on W-33 Wing (Fillet Angle = 75 Deg.)	A	MACH	46-50
Effect of Mach No. on W-33 Wing (Fillet Angle = 78 Deg.)	A	MACH	51-55
Effect of Rudder Flare (Angle of Fillet = 75 Deg.)	A	MACH, RUDFLR,	56-75
Effect of Fillet on Lat.-Dir. Char. (BW2VFB)	B, C	LAMDAF, MACH	76-87
Effect of Mach No. on Lat.-Dir. Char. (BW2VFB)	B	MACH, LAMDAF	88-91
Lat.-Dir. Char. With Rudder Flare (Fillet Angle = 75 Deg.)	B, C	MACH, RUDFLR,	92-103

INDEX OF DATA FIGURES (Concluded)

TITLE	COEFFICIENTS SCHEDULE	VARYING PARAMETERS	PAGE NO.
Delta CL for W-33 Wing (BW2VFB)	D		104
Delta Alpha Trim for W-33 Wing (BW2VFB)	E		105

COEFFICIENTS SCHEDULE:

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

CN, CL vs. CLM, CD vs. CL

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

C:
CY, CBL, CYN vs. ALPHA

D:
DCL vs. LAMDAF

E:
DALFTM vs. LAMDAF

NOMENCLATURE
General

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

Reference & C.G. Definitions

Ab		base area; m^2, ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
ℓ_{REF} $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

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

NOMENCLATURE (Continued)

Body-Axis System

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

ADDITIONS TO STANDARD LIST

SYMBOL	SADSAC SYMBOL	DEFINITION
S_f		wing fillet planform area, in^2
Λ_f	LAMDAF	wing fillet leading edge sweep angle, degrees
ΔC_L	DCL	differential lift coefficient
δ_{r_f}	RUDFLR	rudder flare, split rudder deflection angle, left split rudder trailing edge left and right split rudder trailing edge right, $\delta_{r_f} = (\delta_{r_L} + \delta_{r_R})/2$, positive deflection; degrees
δ_{BF}	BDFLAP	flap, surface deflection angle, positive deflection trailing edge down; degrees
δ_e	ELEVTR	elevator, surface deflection angle, positive deflection trailing edge down; degrees
C_{Y_β}	DCY/DB	side force coefficient derivative with beta, $\partial C_Y/\partial\beta$, per degree
C_{n_β}	DCYNDB	yawing moment coefficient derivative with beta, $\partial C_n/\partial\beta$, per degree
C_{l_β}	DCBLDB	rolling moment coefficient derivative with beta, $\partial C_l/\partial\beta$, per degree
	WINGNO	configuration wing number
	DALFTM	incremental trim angle of attack due to increasing fillet leading edge sweep angle
	CPC	cavity pressure coefficient
	CPB	base pressure coefficient

INTRODUCTION

The NASA Langley Research Center has recently initiated both an experimental and analytical program to study the aerodynamic characteristics of irregular planform wings having application to space shuttle orbiter design. The benefits to be derived from the use of an irregular planform wing (also referred to as a cranked leading-edge wing (ref. 1) or a double delta wing (ref. 2)) for shuttle application are primarily directed to: (1) the subsonic landing configuration in that linearization of the lift-curve slope to high angles of attack beyond that specified for landing greatly reduces landing speed or minimizes wing area for specified weight and landing velocity; and (2) the desired hypersonic trim angle and stability (lift-to-drag ratio, cross-range or heating constraints) can be achieved by slight alteration in the forward portion of the irregular planform wing without greatly altering the desired subsonic characteristics. This forward portion is herein referred to as a fillet, according to the connotations given in reference 3. Because subsonic and hypersonic conditions are the two prime areas of concern in the present application of wing-fillet combinations, this study has been designated the Subsonic/Hypersonic Irregular Planforms Study (SHIPS).

The presently initiated experimental program addresses itself to the determination of the aerodynamic characteristics of a systematic series of wing-fillet combinations which will include subsonic, transonic, low to high supersonic, and hypersonic Mach numbers; since

it is the purpose of the overall study not only to provide experimental aerodynamic information at the desired design points but to indicate any off-design penalities which may negate the selection of a near optimum wing-fillet combination from purely subsonic/hypersonic considerations. For example, excessive transonic pitch-up or adverse effects on directional stability in Mach number areas where inherent vehicle aerodynamics are expected to suffice (i.e. no reaction jet controls required) would certainly warrant a reconsideration of the selected combination.

The second portion of the study involves the development of simplified analytical tools or boundaries which may be employed by the engineer both during pre-design iterations for a specific mission or during development of a vehicle, in that these empirical and simplified analytical tools may be used to perturbate small vehicular changes with confidence and without resorting to wind tunnel vertification until a near-optimum configuration is conceived. It is the intent of the present study to provide information boundaries (based on experimental results) regarding the attainment of linearized subsonic lift (ref. 2) with the avoidance of pitch instabilities at high lift (ref. 4) as well as determine the effects of wing-fillet combinations on lateral-directional stability. The hypersonic aerodynamics regarding trim and stability have been presented in the initial experimental portion of the overall SHIPS investigation in reference 5.

It is the purpose of the present paper to present the supersonic aerodynamic characteristics at Mach numbers of 2.36, 2.86, 3.96, and 4.63 on a series of fillets with sweep angles up to 78 on one of the three wing designs presented in reference 5. The initial study included three basic wing designs: the LO-100, a 53.2 cropped delta wing (refs. 6, 7 and 8); an optimal design from an analytical program (ODIN) having a 46.8° sweep, designated W-33 (ref. 9); and the MSC-049, a 35° trapezoidal wing (ref. 10). However, only data for the W-33 wing has been obtained for this report. The data were obtained at a Reynolds number (depending on Mach number) of 1.5×10^6 to 2.5×10^6 per foot over an angle-of-attack range of -2° to 44 at 0° and 3° of sideslips. The effect of body base flap and rudder flare angle was investigated for the configuration with the 75° fillet.

CONFIGURATIONS INVESTIGATED

The fusleage for the present investigation was a 0.01875 scale version of the LO-100 Orbiter Concept (ref. 6). The fuselage had a maximum cross-sectional area somewhat in excess of the minimum required to house the 15 foot diameter payload bay. This was done to allow for some body base boattailing to reduce subsonic base drag and improve aerodynamic performance. The fuselage forebody incorporated an unswept nose (positive camber) to produce near zero or positive pitching moment at zero angle of attack at hypersonic speeds. A body base flap was also included to shield the main engines during entry and also as a hypersonic control device. The overall body length, excluding the base flap, was 1350 inches.

The LO-100 wing (fig. 2(a)) had a 53.2° leading-edge sweep, unswept trailing edge, taper ratio of 0.15, aspect ratio of 2.212, NACA 0006 airfoil section at the theoretical root with 1° of incidence, and NACA 0012 airfoil section at the tip with -4 incidence. The W-33 wing (fig. 2(b)) had a 46.8° leading edge sweep, -11.2° trailing edge sweep, taper ratio of 0.135, aspect ratio of 2.415, NACA 0008 airfoil section at the theoretical root, NACA 0012 airfoil section at the tip, and a 1.5° incidence. The MSC 049 wing (fig. 2(c)) had a 35° leading-edge sweep, -19.6° trailing edge sweep, taper ratio of 0.2, aspect ratio of 2.525, NACA 0008 airfoil section, and a 1.5° incidence. A more detailed description of the model components is listed in Table III.

The longitudinal location of each wing on the fuselage was selected to produce a wing-fillet intersection at 0.62 of the body reference length with a spanwise intersection at 0.176 of the body reference length. Fillet sweeps to 78° (Table IV) were investigated on the W-33 wing only while holding the spanwise intersection of the fillet and wing constant.

TEST FACILITY DESCRIPTION

The NASA LRC 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). Both tunnel legs were used for this test. An asymmetric, sliding block nozzle position and total pressure setting provide the test Mach numbers at a specified Reynolds number. Reynolds number can be varied from 0.76 to 7.78 million per foot. Available stagnation pressure variation is 4.0 to 142. psia. Dynamic pressure variation is 95. to 1260. psf with normal operating stagnation temperature about 150°F in Mach modes 2 or 3 and about 175°F in Mach mode 4. The tunnel is equipped with a dry air supply, an evacuating system, and a cooling system. The facility power is approximately 83,000 horsepower.

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

TEST CONDITIONS

Tunnel conditions existing during the tests are summarized in Table I (Test Conditions). The model was sting supported and the aerodynamci forces and moments were measured by an internally mounted six-component strain-gage balance. Model angle of attack was varied from about -2° to 44° at sideslip angles of 0° and 3°.

DATA REDUCTION

The aerodynamic forces and moments have been reduced to coefficient form based on the following reference values:

WING NO. 2 (W-33)

S_{ref} = total or theoretical wing projected area = 171.4720 sq. in.

ℓ_{ref} = body length = 25.510 in.

b_{ref} = total wing span = 20.3597 in.

The moments have been reduced about a center of gravity located at 66 percent of the fuselage length. This point is:

Fus. Sta. = 16.8366 inches

Water line = 0.0 (centerline of payload bay)

Body line = 0.0

All data are presented as uncorrected for model base pressure effects; however, base pressure coefficients are presented for both the base and cavity regions. Transition strips 1/16 inch wide composed of No. 120 sand grit were located 1.0 inch aft of the apex of the nose and 0.5 inch (measured in the streamwise direction) on the wing, fillet, and vertical tail.

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TABLE I.

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER per unit length	DYNAMIC PRESSURE (pounds/sq. foot)	STAGNATION TEMPERATURE (degrees Fahrenheit)
2.36	1.5×10^6	336	150
2.86	1.5×10^6	297	150
3.96	2.5×10^6	368	175
4.63	2.5×10^6	290	175

BALANCE UTILIZED: LaRC 832-C

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	1000 lb.	± 5.000 lb.	
SF	250 lb.	± 1.250 lb.	
AF	85 lb.	± .425 lb.	
PM	2000 in-lb.	± 10.000 in.-lb.	
YM	1000 in-lb.	± 5.000 in.-lb.	
RM	500 in-lb.	± 2.500 in.-lb.	

COMMENTS:

TABLE II.

TEST: UPWT 1015 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 9/26/73

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES WING	Λ_LE	δe	δ_RF	NO. OF RUNS	MACH NUMBERS 2.36	2.86	3.96	4.63
RP8001	BW2VFB	A	0	2	46.8	0	0		34	36	38	40
02			3		46.8				35	37	39	41
03			0		55				44	45	42	43
04			0		60				30	31	32	33
05			0		65				26	28	22	24
06			3		65				27	29	23	25
07			0		70				18	19	20	21
08			0		75				13	15	16	17
09			3		75				14			
10			0		78				5	7	9	11
11			3		78				6	8	10	12
12			0		75		40		46	48	50	52
13			3		75		40		47	49	51	53
14			0		75	-10	40		58	60	54	56
15			3		75	-10	40		59	61	55	57
16			0		75	-10	0		62	64	66	68
17			3		75	-10	0		63	65	67	69

TEST RUN NUMBERS

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

IDVAR (1) IDVAR (2) NDV

COEFFICENTS

α OR β SCHEDULES: A) -2° → 44°

TABLE III.-MODEL COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: BODY - B

GENERAL DESCRIPTION: .01875 scale of LO-100 orbiter concept (DMS-DR-2023)

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE In. or In^2	MODEL SCALE In.
Length	1350	25.510
Max. Width	252.0	4.725
Max. Depth	231.0	4.331
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III.-(CONTINUED)

MODEL COMPONENT: WING - W1 (LO-100 WING)

GENERAL DESCRIPTION:

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE in. or in.^{2}	MODEL SCALE
TOTAL DATA		
Area	499,824	175.7376
Planform	- - - -	- - - -
Wetted	1051.512	19.7156
Span (equivalent)	2.212	2.212
Aspect Ratio	- - - -	- - - -
Rate of Taper	.15	.15
Taper Ratio	7.0°	7.0°
Dihedral Angle, degrees	+ 1°root,-4°tip	+1°root,-4°tip
Incidence Angle, degrees	" "	" "
Aerodynamic Twist, degrees	- - - -	- - - -
Toe-In Angle	- - - -	- - - -
Cant Angle		
Sweep Back Angles, degrees	53.2°	53.2°
Leading Edge	0.0°	0.0°
Trailing Edge	- - - -	- - - -
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	326.8	15.502
Tip, (equivalent)	124.02	2.325
MAC	561.984	10.537
Fus. Sta. of .25 MAC	928.508	17.410
W.P. of .25 MAC	- - - -	- - - -
B.L. of .25 MAC	- - - -	- - - -
Airfoil Section		
Root	NACA 0006-64	
Tip	NACA 0012-64	
EXPOSED DATA		
Area		
Span, (equivalent)		
Aspect Ratio		
Taper Ratio		
Chords		
Root		
Tip		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE III.-(CONTINUED)

MODEL COMPONENT: WING - W2 (WING - 33)

GENERAL DESCRIPTION:

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE in. or in.^{2}	MODEL SCALE in. or in.^{2}
TOTAL DATA		
Area	487,742.7	171.472
Planform	- - - -	- - - -
Wetted	1085.85	20.3597
Span (equivalent)	2.4154	2.4154
Aspect Ratio	- - - -	- - - -
Rate of Taper	.13465	.13465
Taper Ratio	7.0°	7.0°
Dihedral Angle, degrees	1.5°	1.5°
Incidence Angle, degrees	None	None
Aerodynamic Twist, degrees	- - - -	- - - -
Toe-In Angle	- - - -	- - - -
Cant Angle		
Sweep Back Angles, degrees	46.825°	46.825°
Leading Edge	-11.154	-11.154°
Trailing Edge	- - - -	- - - -
0.25 Element Line		
Chords:	792.091	14.8517
Root (Wing Sta. 0.0)	106.667	2.0000
Tip, (equivalent)	536.520	10.0600
MAC	- - - -	- - - -
Fus. Sta. of .25 MAC	- - - -	- - - -
W.P. of .25 MAC	- - - -	- - - -
B.L. of .25 MAC		
Airfoil Section		
Root	NACA 0008-64	NACA 0008-64
Tip	NACA 0012-64	NACA 0012-64
EXPOSED DATA		
Area		
Span, (equivalent)		
Aspect Ratio		
Taper Ratio		
Chords		
Root		
Tip		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE III.-(CONTINUED)

MODEL COMPONENT: WING - W3 (MSC 049 WING)

GENERAL DESCRIPTION: _____

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE In. or In.^{2}	MODEL SCALE In. or In.^{2}
TOTAL DATA		
Area	492,462.1	173.1312
Planform	- - - -	- - - -
Wetted	1115.2	20.9096
Span (equivalent)	2.525	2.525
Aspect Ratio	- - - -	- - - -
Rate of Taper	.200	.200
Taper Ratio	7°	7°
Dichedral Angle, degrees	1.5°	1.5°
Incidence Angle, degrees	None	None
Aerodynamic Twist, degrees	- - - -	- - - -
Toe-In Angle	- - - -	- - - -
Cant Angle		
Sweep Back Angles, degrees	35°	35°
Leading Edge	-19.6°	-19.6°
Trailing Edge	- - - -	- - - -
0.25 Element Line		
Chords:	736.084	13.8016
Root (Wing Sta. 0.0)	147.114	2.7584
Tip, (equivalent)	- - - -	- - - -
MAC	- - - -	- - - -
Fus. Sta. of .25 MAC	- - - -	- - - -
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section	NACA 0008-64	NACA 0008-64
Root	"	"
Tip		
EXPOSED DATA		
Area		
Span, (equivalent)		
Aspect Ratio		
Taper Ratio		
Chords		
Root		
Tip		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE III.-(CONTINUED)

MODEL COMPONENT: Vertical Tail-V

GENERAL DESCRIPTION: _____

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE In. or In.^{2}	MODEL SCALE In. or In.^{2}
TOTAL DATA		
Area	69,836	24.552
Planform	-----	-----
Wetted	396.168	6.922
Span	1.414	1.414
Aspect Ratio	-----	-----
Rate of Taper	.412	.412
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	45°	45°
Trailing Edge	25°	25°
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	288.0	5.400
Tip, (equivalent)	90.347	1.694
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root	NACA 0012-64	NACA 0012-64
Tip	"	"
EXPOSED DATA		
Area		
Span, (equivalent)		
Aspect Ratio		
Taper Ratio		
Chords		
Root		
Tip		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE III -(CONCLUDED)

MODEL COMPONENT: BODY FLAP - FB

GENERAL DESCRIPTION: _____

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE in. or in.^{2}	MODEL SCALE in. or in.^{2}
Area	9160.0	3.220
Span (equivalent)	[illegible]	4.725
Inb'd equivalent chord	79.65	1.493
Outb'd equivalent chord	79.65	1.493
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	- - -	
At Outb'd equiv. chord	- - -	
Sweep Back Angles, degrees		
Leading Edge	- - -	
Tailing Edge	- - -	
Hingeline	- - -	
Area Moment (Normal to hinge line)	- - -	

TABLE IV. - PLANFORM AREA OF FILLETS

WING NUMBER	Λ_f (degrees)	S_f/S_{REF}	S_{REF} (inches^2)
1 (LO-100)	78	.382	175.7376
	75	.272	
	70	.161	
	65	.093	
	60	.046	
	55	.012	
2 (W-33)	78	.421	171.4720
	75	.309	
	70	.195	
	65	.125	
	60	.078	
	55	.043	
	50	.015	
3 (MSC-049)	78	.459	173.1312
	75	.348	
	70	.235	
	65	.166	
	60	.119	
	55	.084	
	50	.057	
	45	.035	

Notes:

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

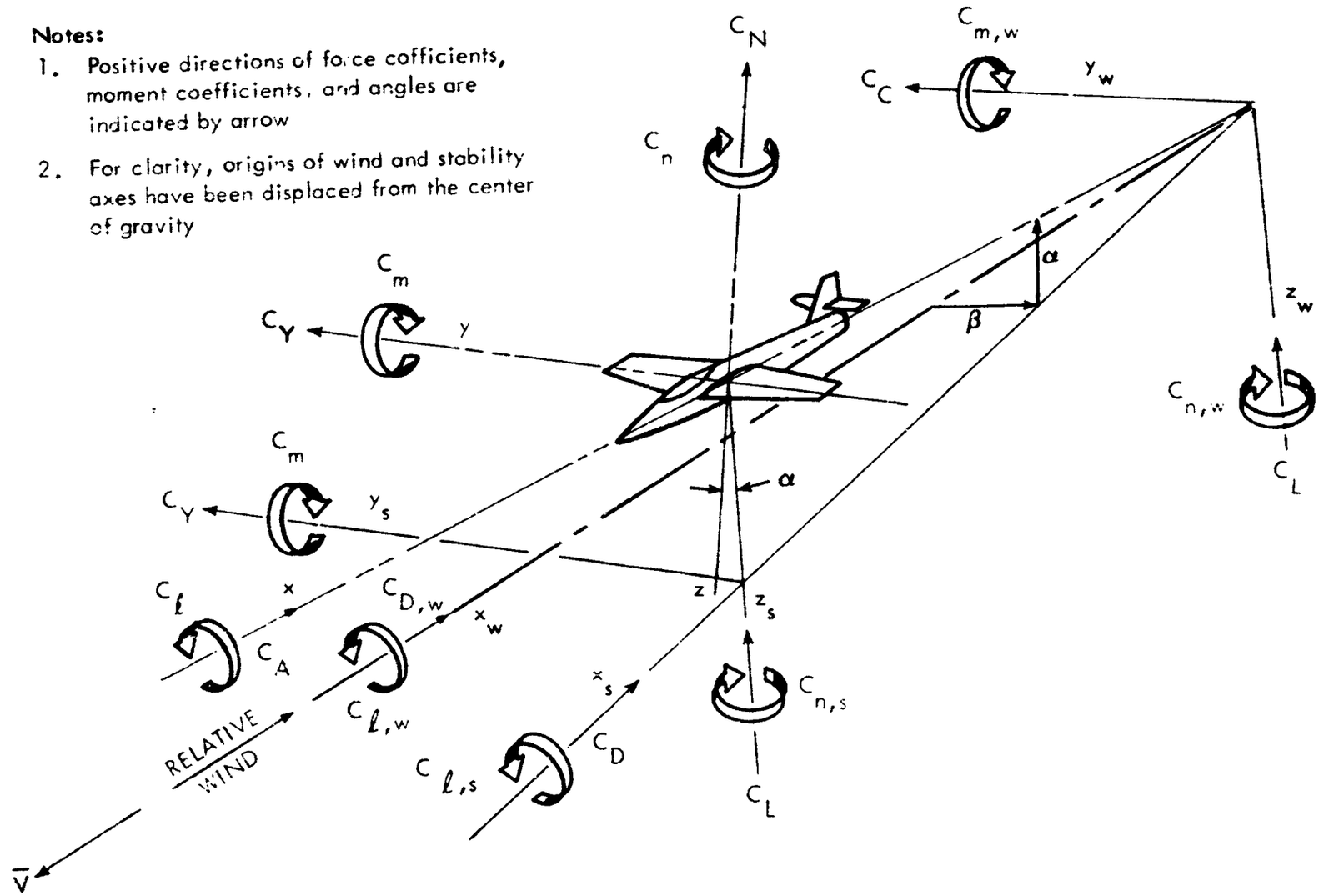
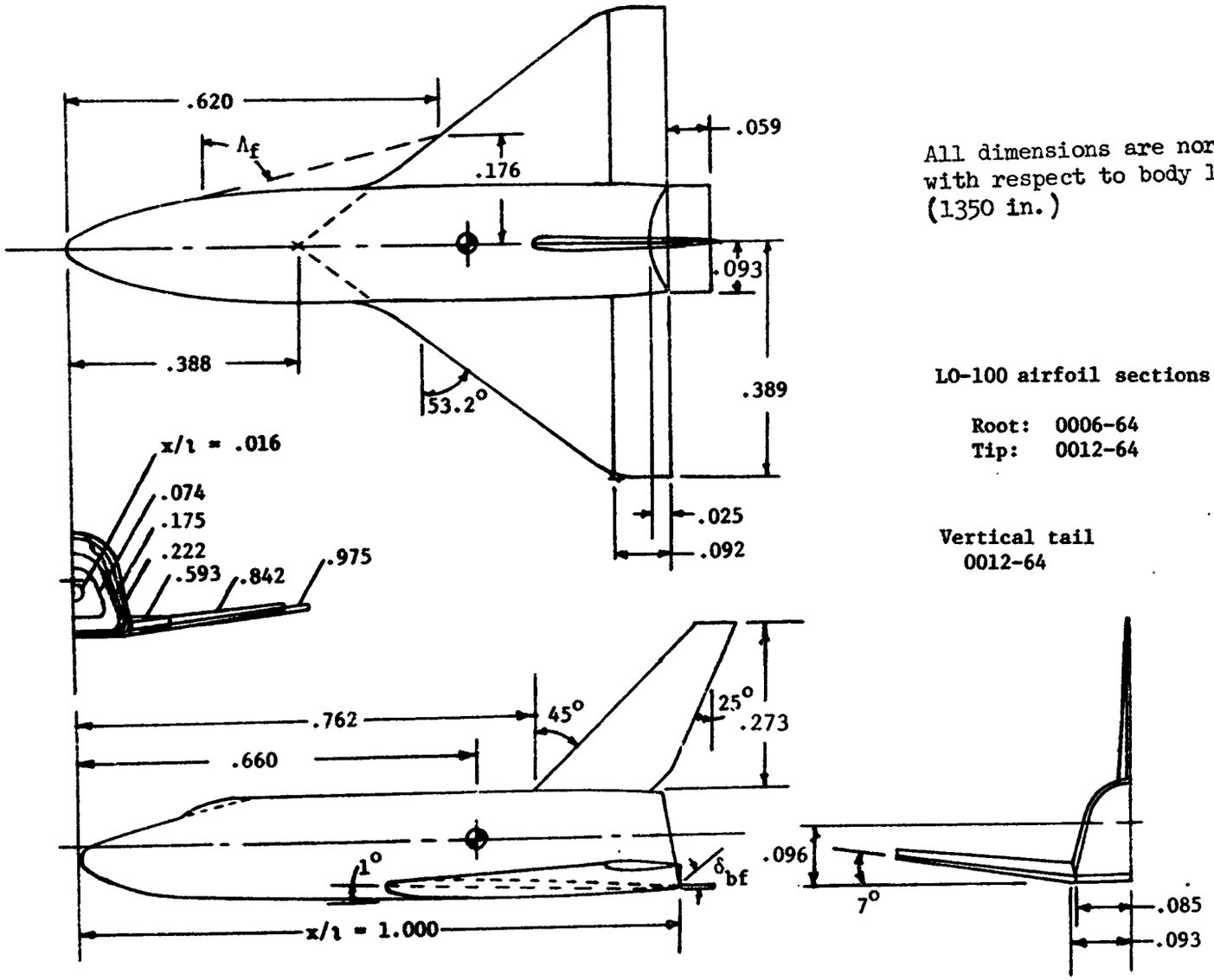


Figure 1. - Axis Systems.



All dimensions are normalized with respect to body length (1350 in.)

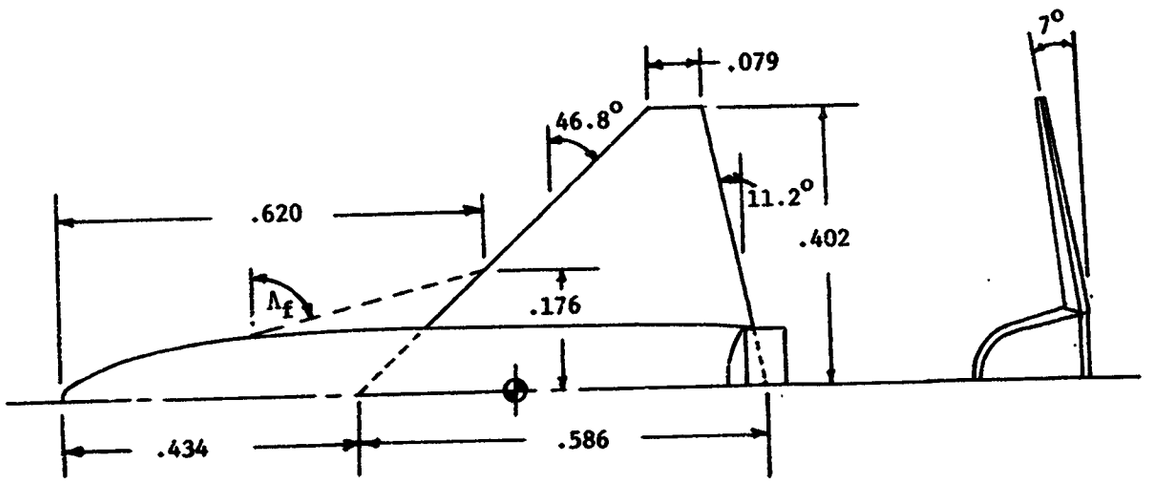
LO-100 airfoil sections

Root: 0006-64
Tip: 0012-64

Vertical tail
0012-64

(a) Wing Number 1 (LO-100)

Figure 2. - Sketch of Models Used in Investigation.

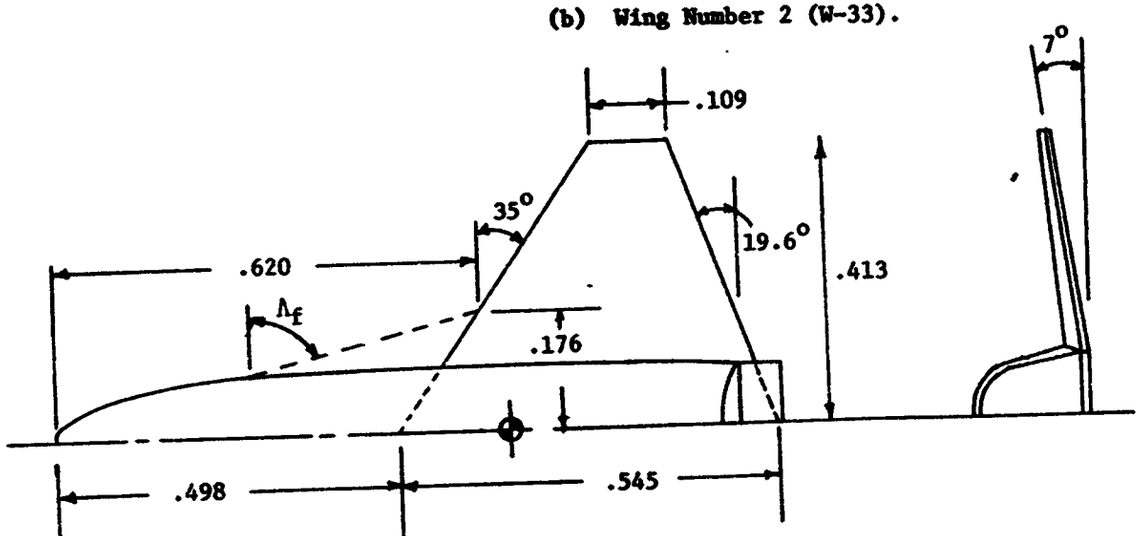


W-33 airfoil sections

Root: 0008-64
Tip : 0012-64

Incidence: 1.5°

(b) Wing Number 2 (W-33).



MSC 049 airfoil sections

Root: 0008-64
Tip : 0008-64

Incidence: 1.5°

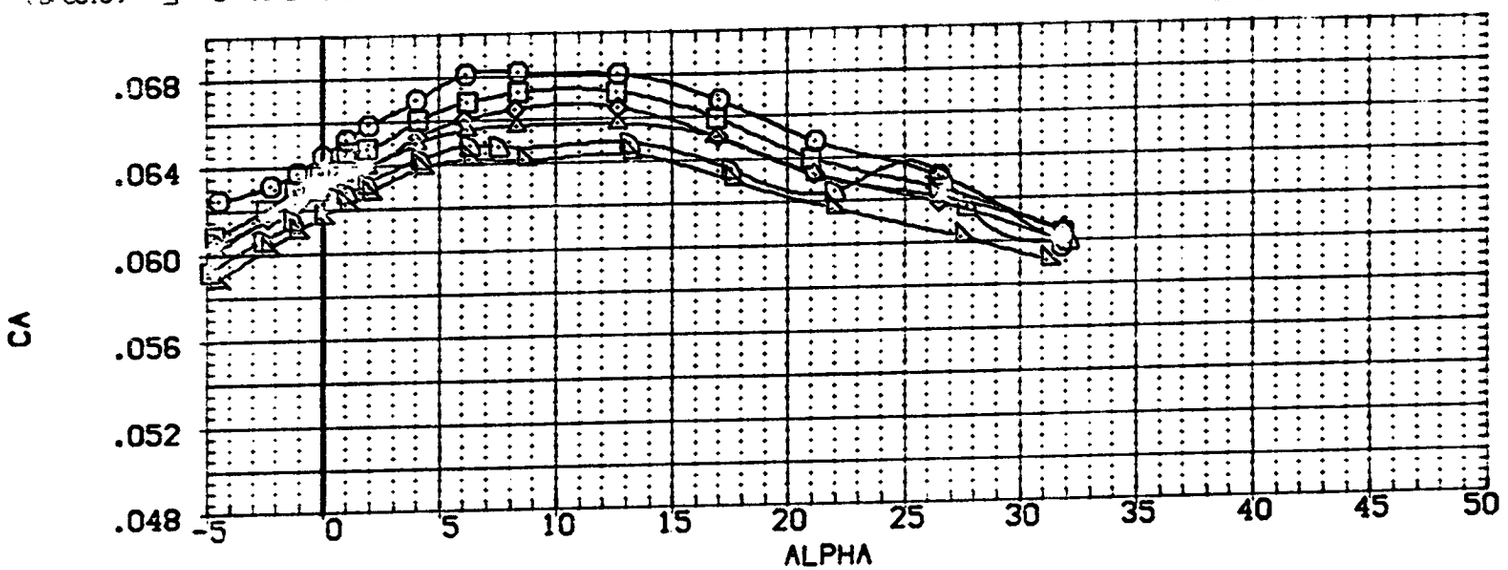
(c) Wing Number 3 (MSC-049).

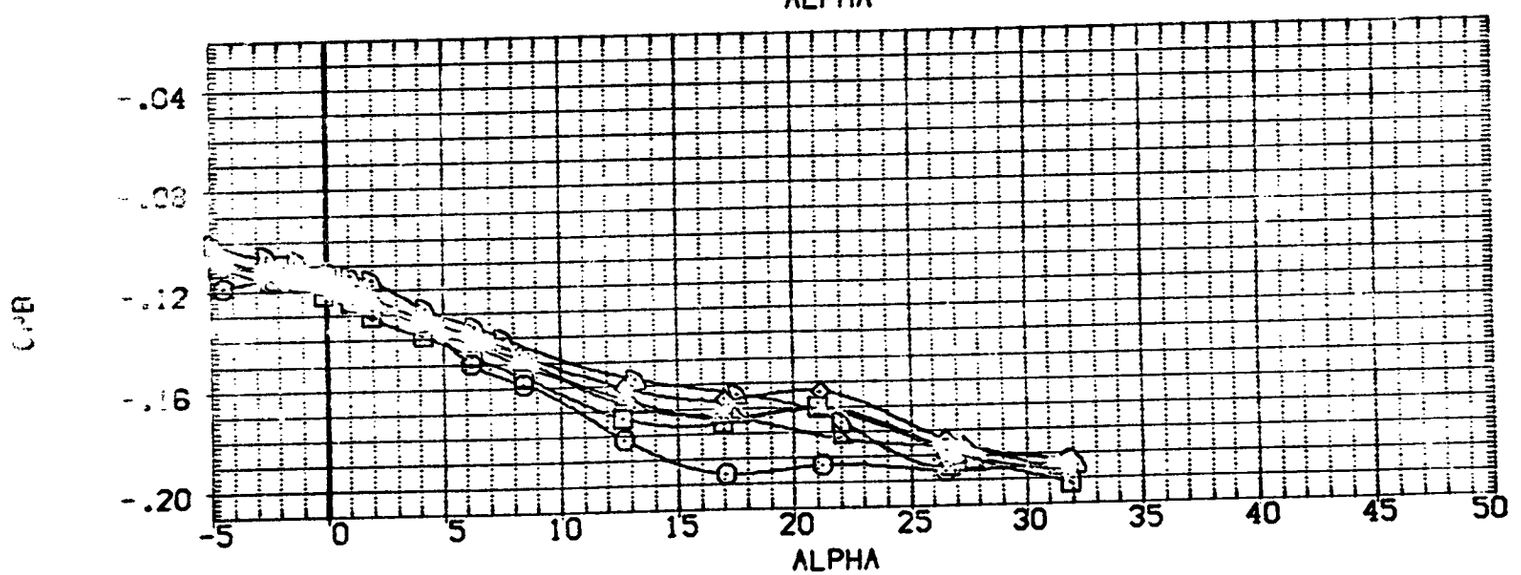
Figure 2. - Concluded.

DATA FIGURES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
(BP8001)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



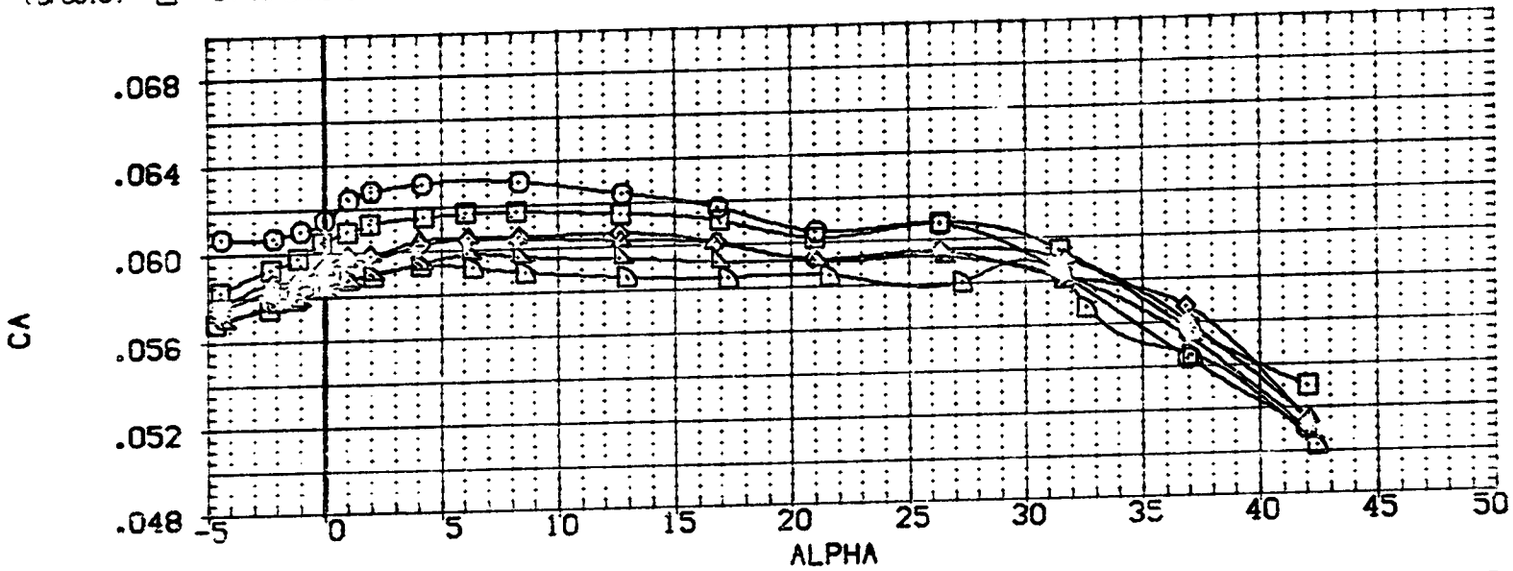


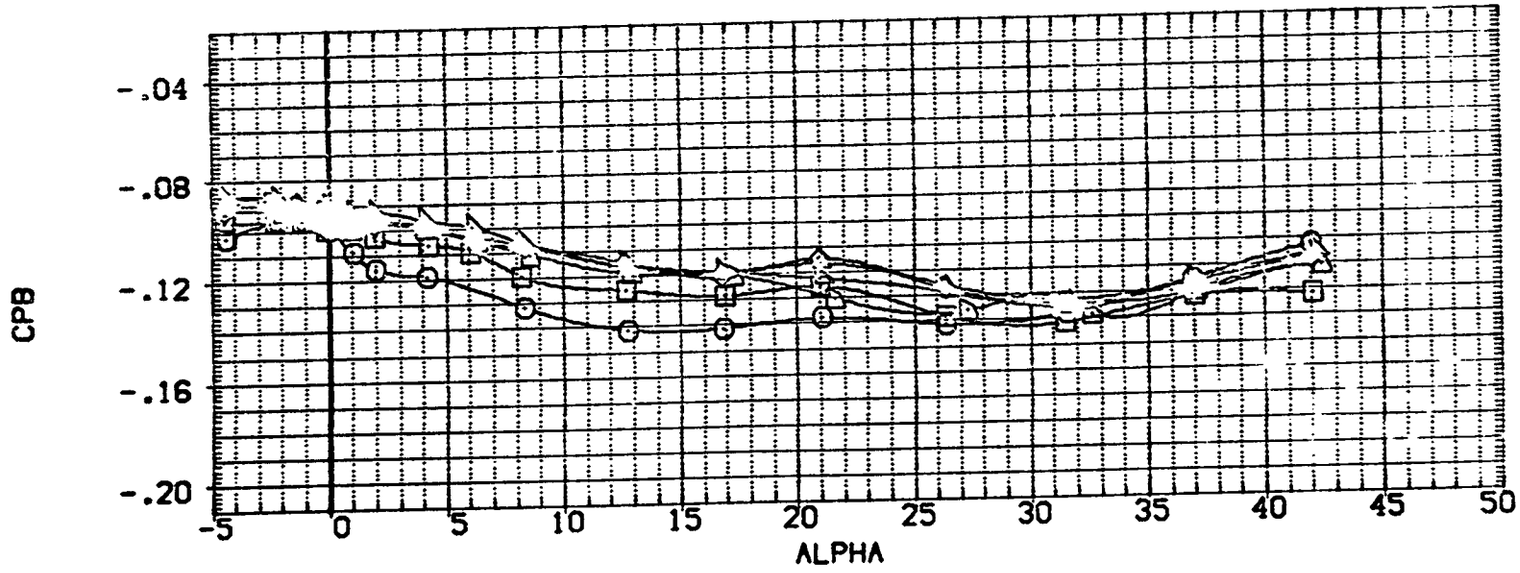
EFFECT OF FILLET ON WING (BW2VFB)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)	◁	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)	▷	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8365	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



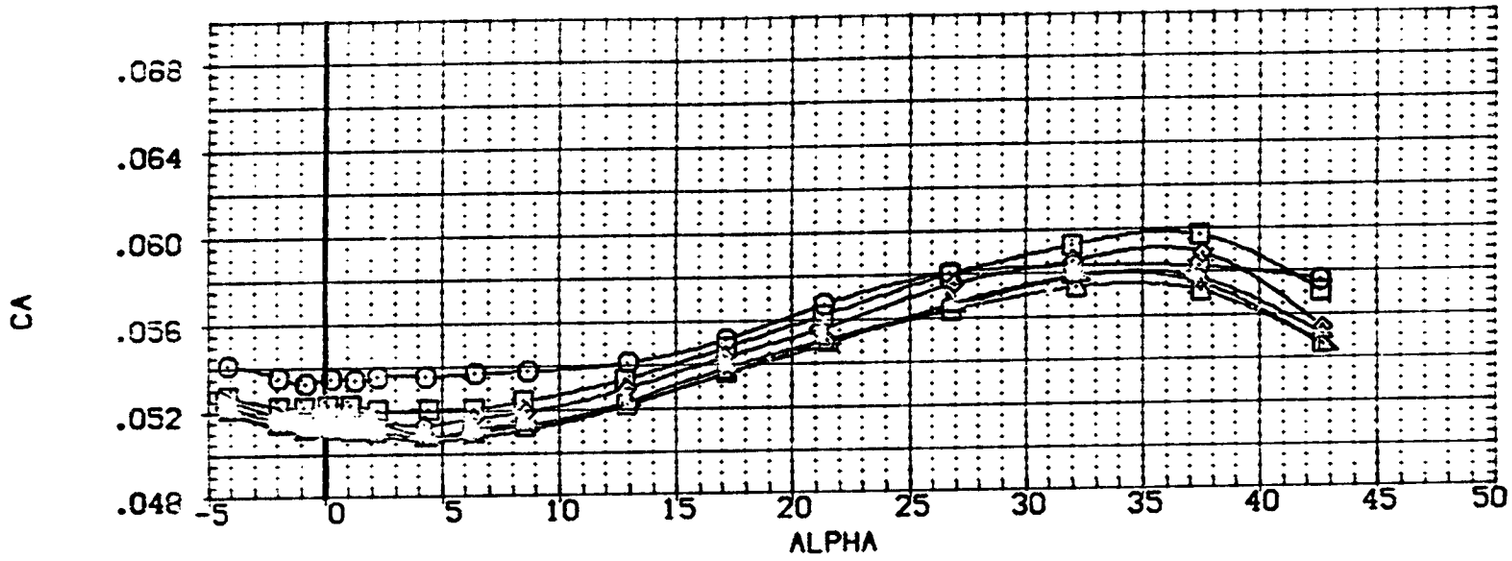


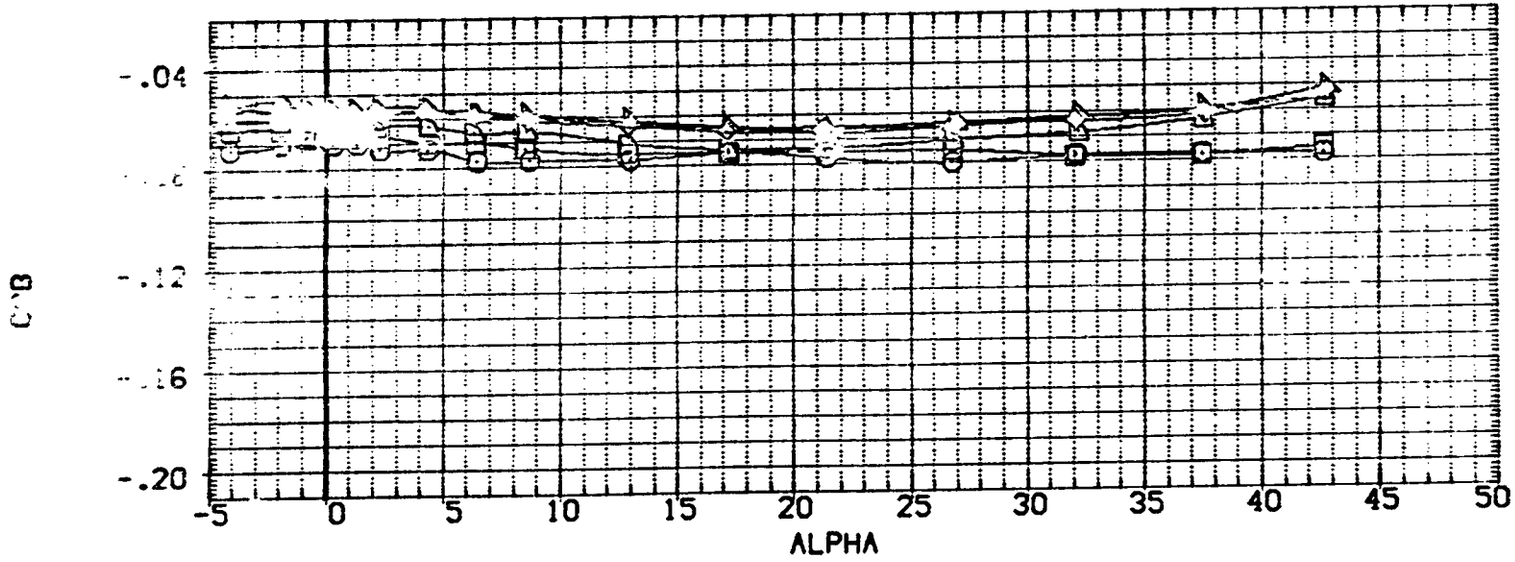
EFFECT OF FILLET ON WING (BW2VFB)

(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
BP8001		LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
BP8004		LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
BP8005		LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
BP8007		LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
BP8008		LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
BP8010		LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



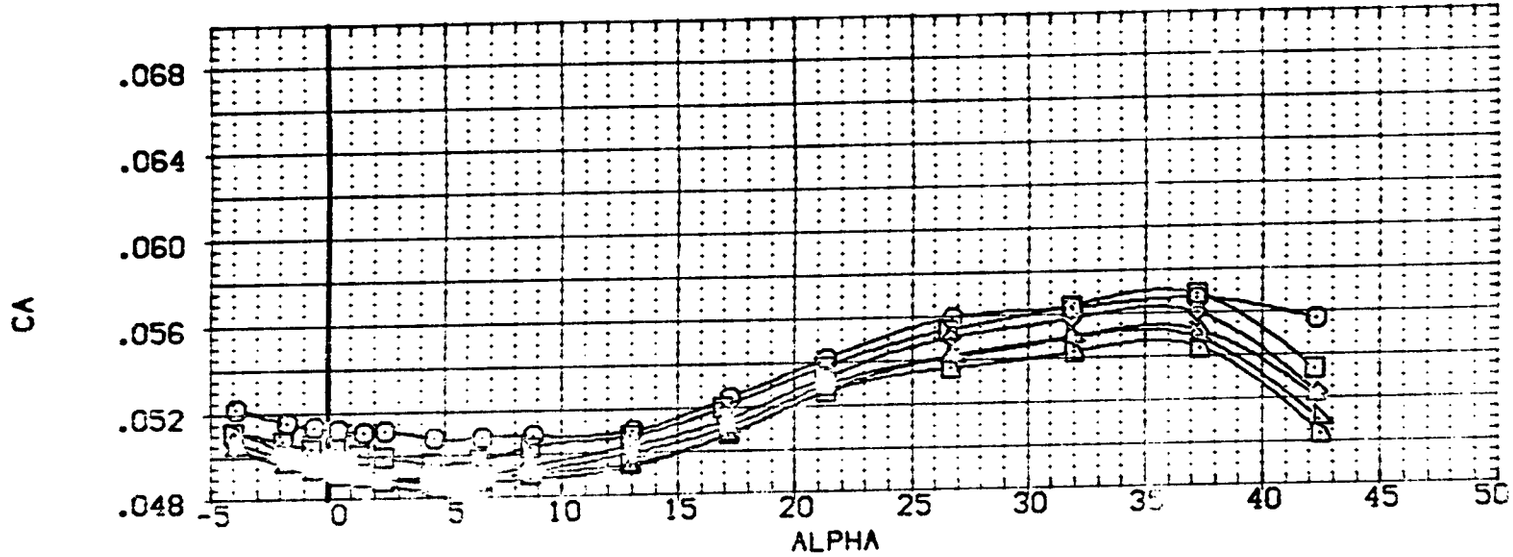


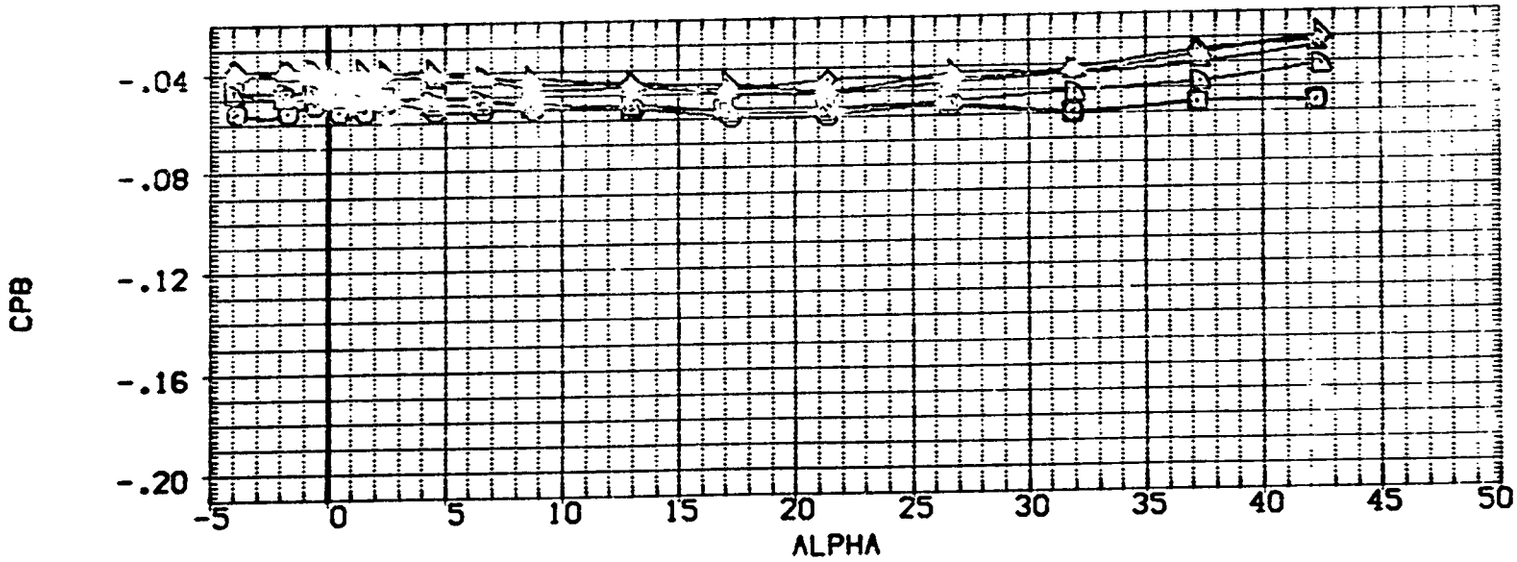
EFFECT OF FILLET ON WING (BW2VFB)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGND	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)	⋈	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)	▷	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





EFFECT OF FILLET ON WING (BW2VFB)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	.000	2.000	.000
(BP8004)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	60.000	.000	2.000	.000
(BP8005)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	.000	2.000	.000
(BP8007)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	70.000	.000	2.000	.000
(BP8008)	◁	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	75.000	.000	2.000	.000
(BP8010)	▷	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
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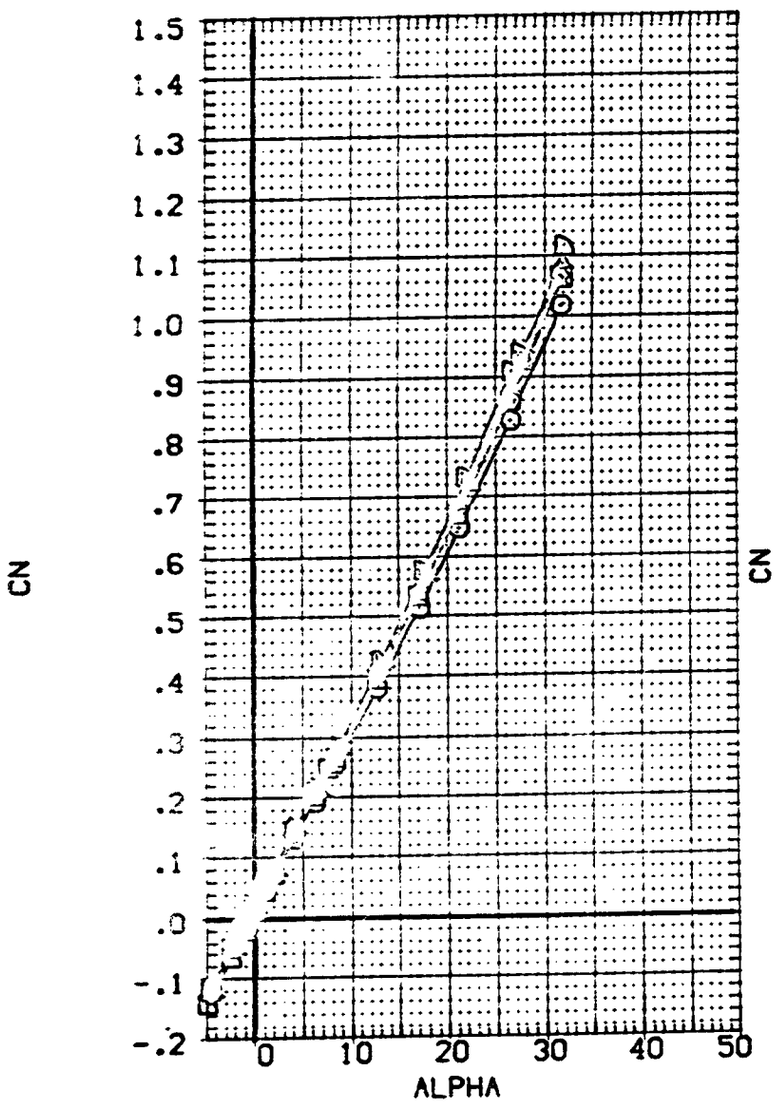
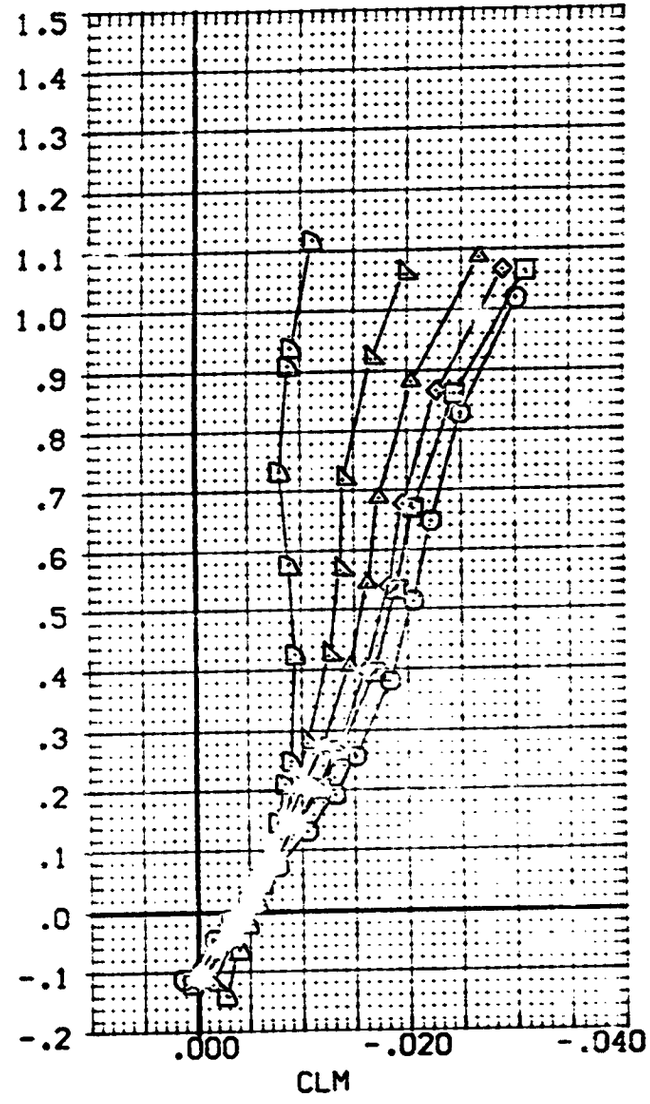




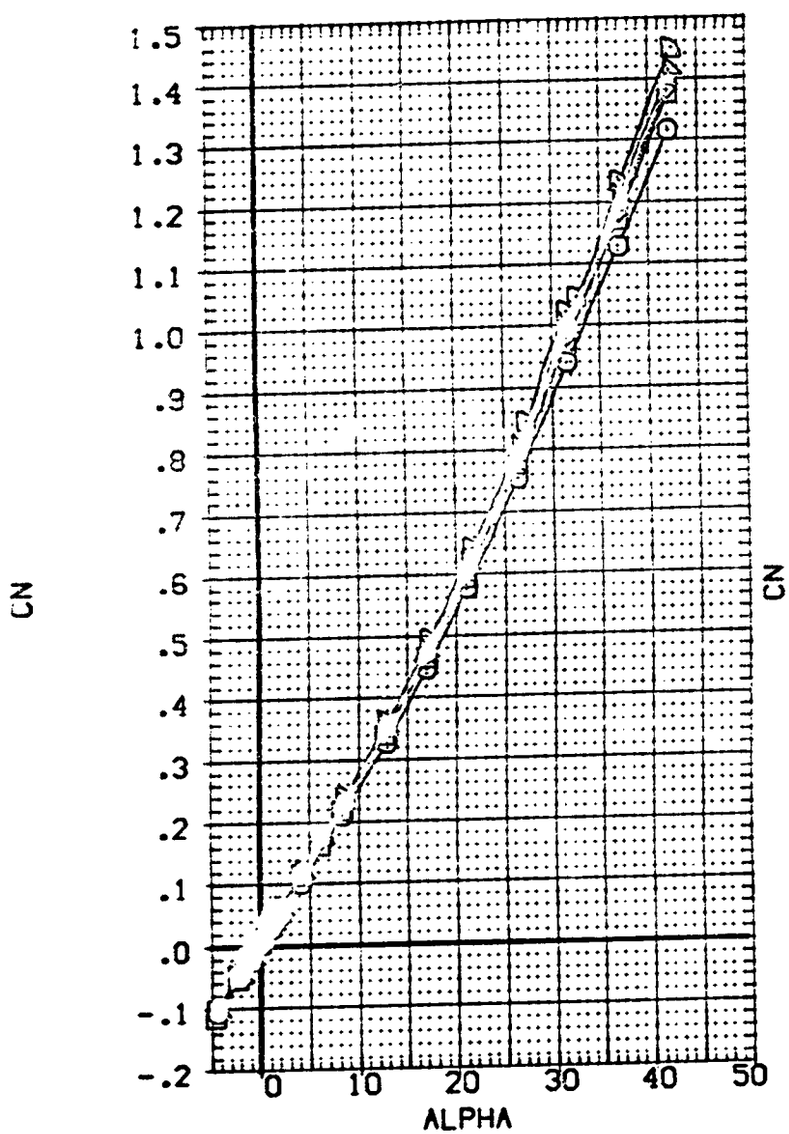
EFFECT OF FILLET ON WING (BW2VFB)

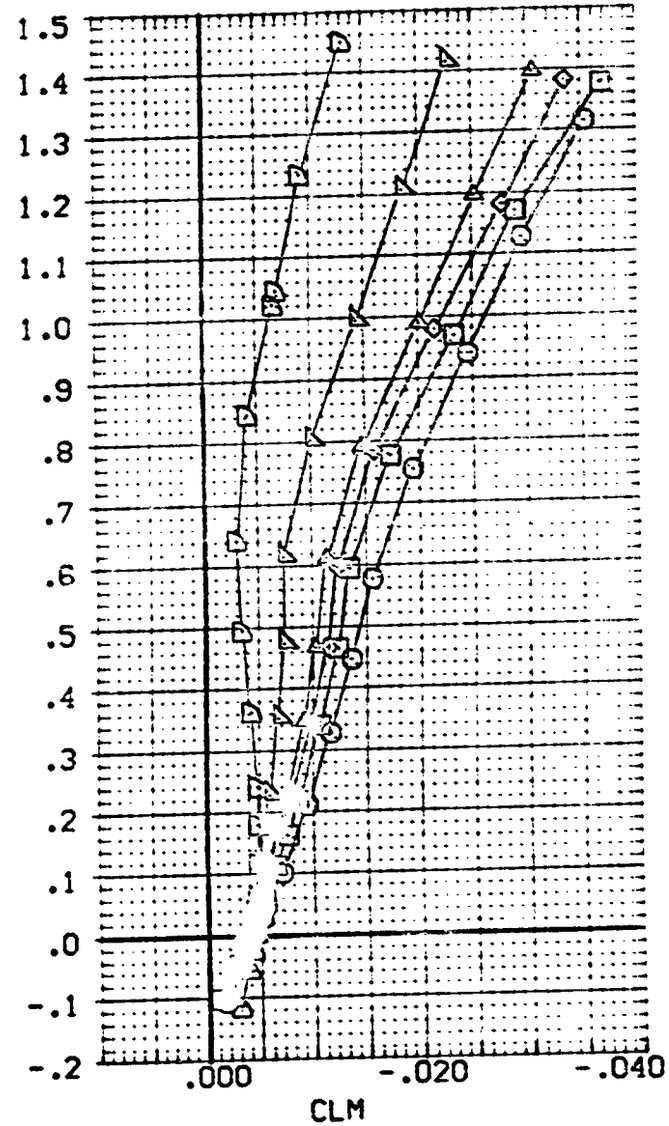
(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(BP8001)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION

SREF	17.4720	SC...
LREF	25.5100	
BREF	20.3597	
XMRP	16.8366	
YMRP	.0000	
ZMRP	.0000	
SCALE	.0100	SCALE





EFFECT OF FILLET ON WING (BW2VFB)

(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
[illegible]	[illegible]	LA-10 LARC UPWT 10:5 LG-100 [illegible] (SHIPS) (BW2VFB)	46.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPWT 10:5 LG-100 [illegible] (SHIPS) (BW2VFB)	60.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPWT 10:5 LG-100 [illegible] (SHIPS) (BW2VFB)	65.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPWT 10:5 LG-100 [illegible] (SHIPS) (BW2VFB)	70.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPWT 10:5 LG-100 [illegible] (SHIPS) (BW2VFB)	75.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPWT 10:5 LG-100 [illegible] (SHIPS) (BW2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3590	INCHES
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YMRP	.0000	INCHES
ZMRP	.0000	INCHES
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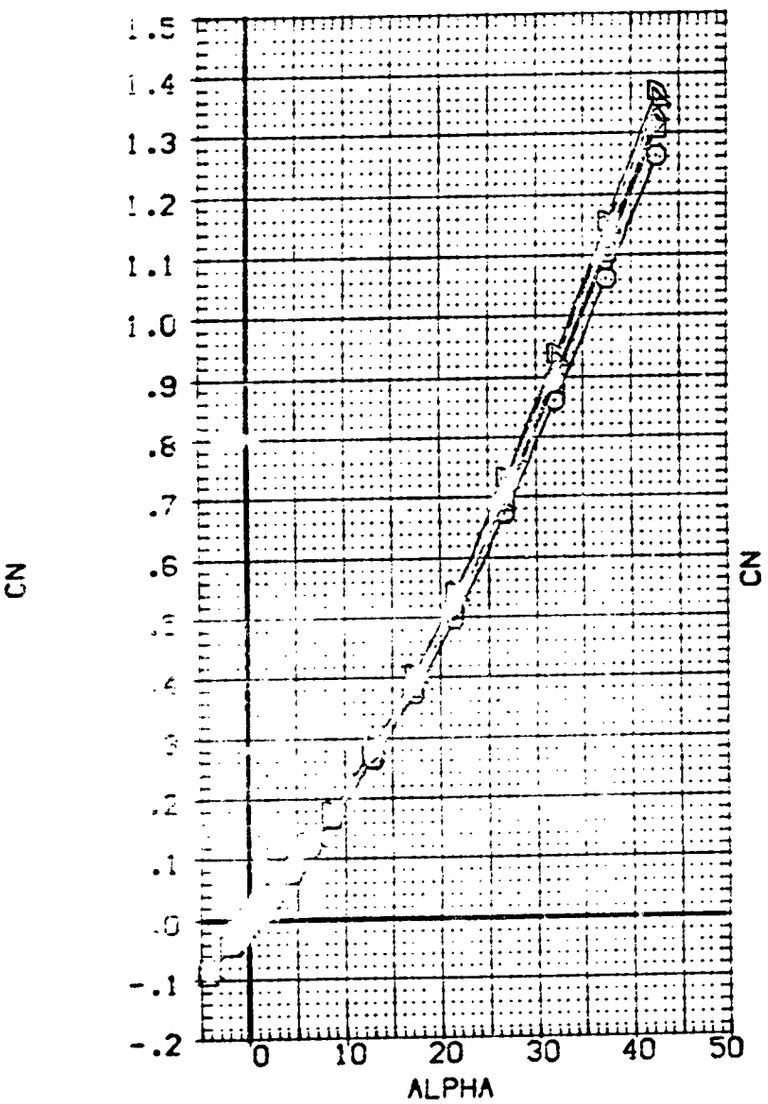
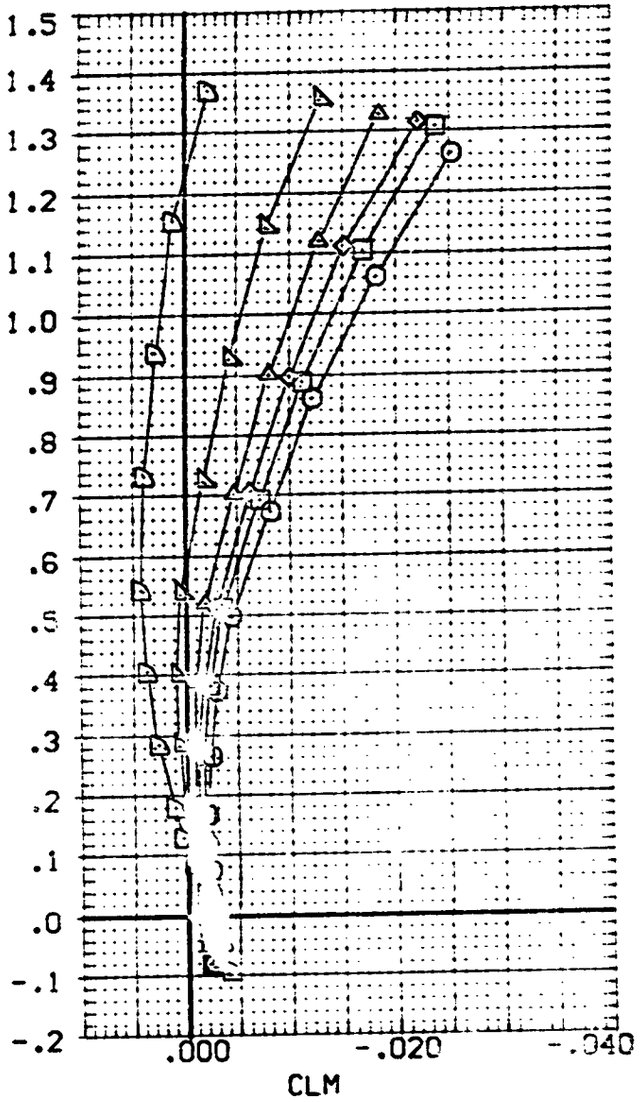




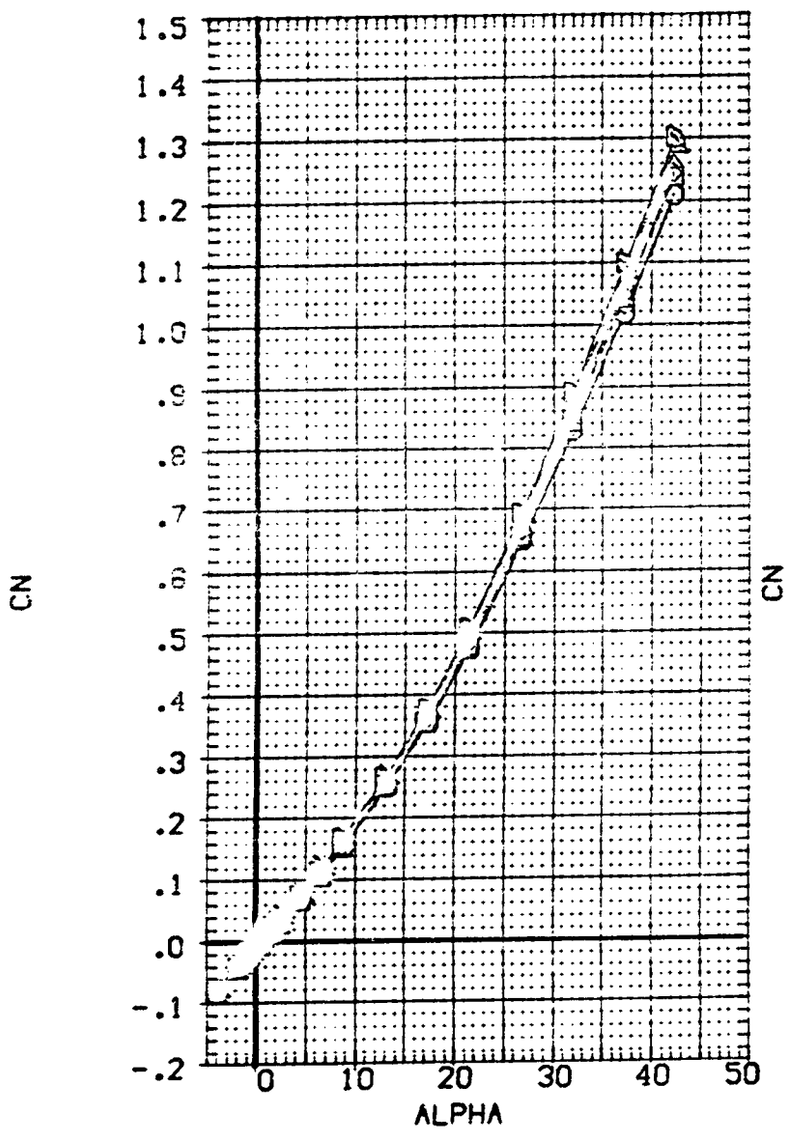
EFFECT OF FILLET ON WING (BW2VFB)

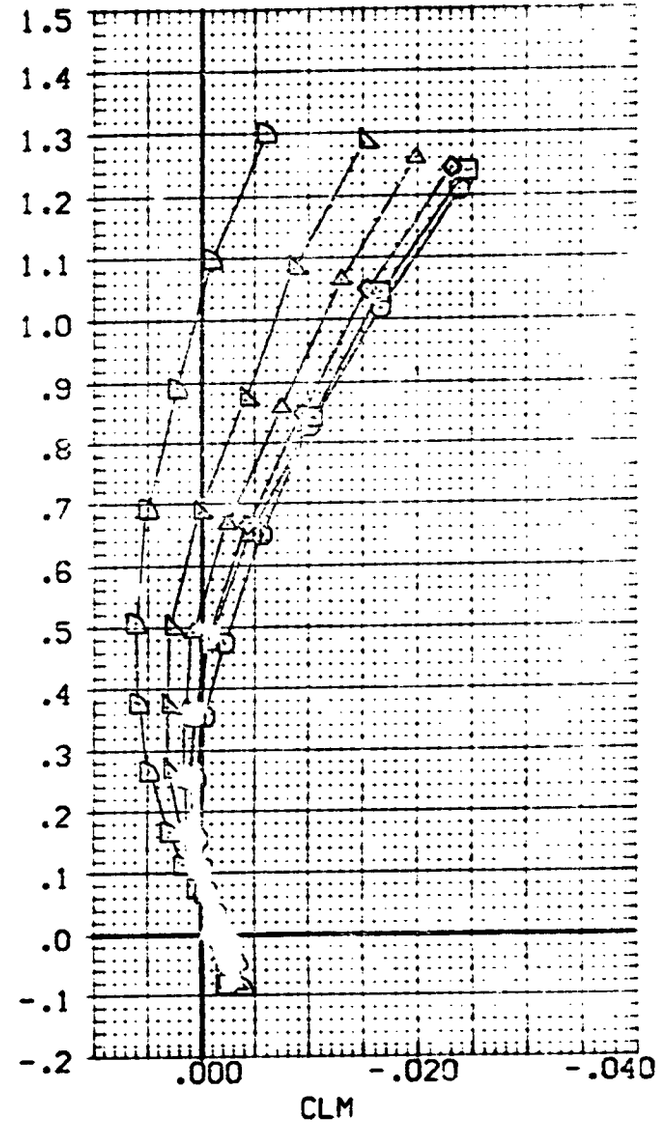
(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(BP8001)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	.000	2.000	.000
(BP8004)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	60.000	.000	2.000	.000
(BP8005)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	.000	2.000	.000
(BP8007)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	70.000	.000	2.000	.000
(BP8008)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	75.000	.000	2.000	.000
(BP8010)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION

SREF	[illegible]	SQ. IN.
LREF	[illegible]	
BREF	[illegible]	
XMRP	[illegible]	
YMRP	[illegible]	
ZMRP	[illegible]	
SCALE	.0.69	





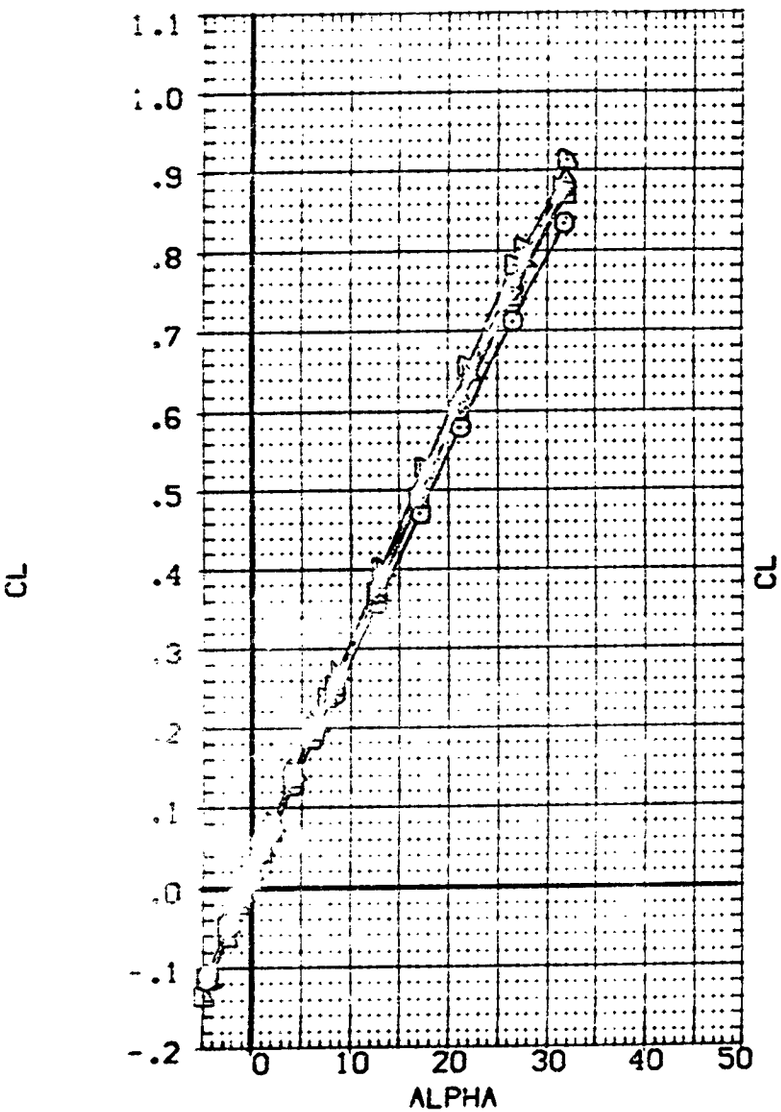
EFFECT OF FILLET ON WING (BW2VFB)

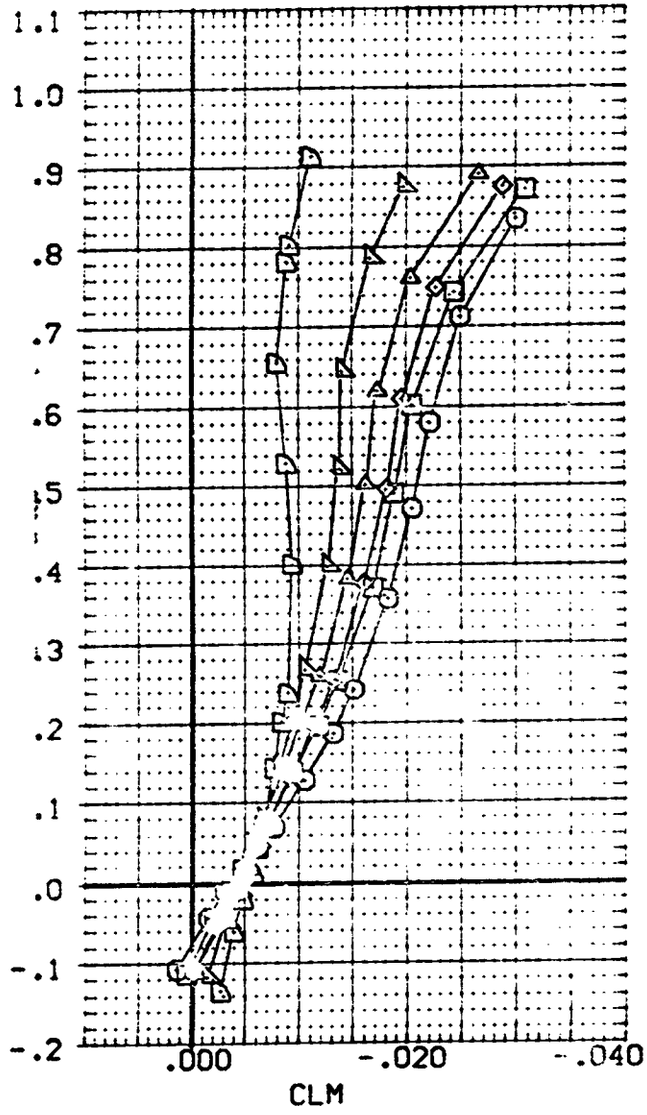
(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
BP800		LA-10 LARC LPVT 1015 LO-100 DRG.(SHIPS) (BW2VFB)
BP8004		LA-10 LARC UPVT 1015 LO-100 DRG.(SHIPS) (BW2VFB)
BP8005		LA-10 LARC LPVT 1015 LO-100 DRG.(SHIPS) (BW2VFB)

LAMDAF	BETA	WINGNC	ELEVTR
46.800	.000	2.000	.000
60.000	.000	2.000	.000
65.000	.000	2.000	.000
70.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	71.472	SQ.IN.
LREF	25.510	INCHES
BREF	20.359	INCHES
XMRP	16.838	INCHES
YMRP	.000	INCHES
ZMRP	.000	INCHES
SCALE	.0188	SCALE



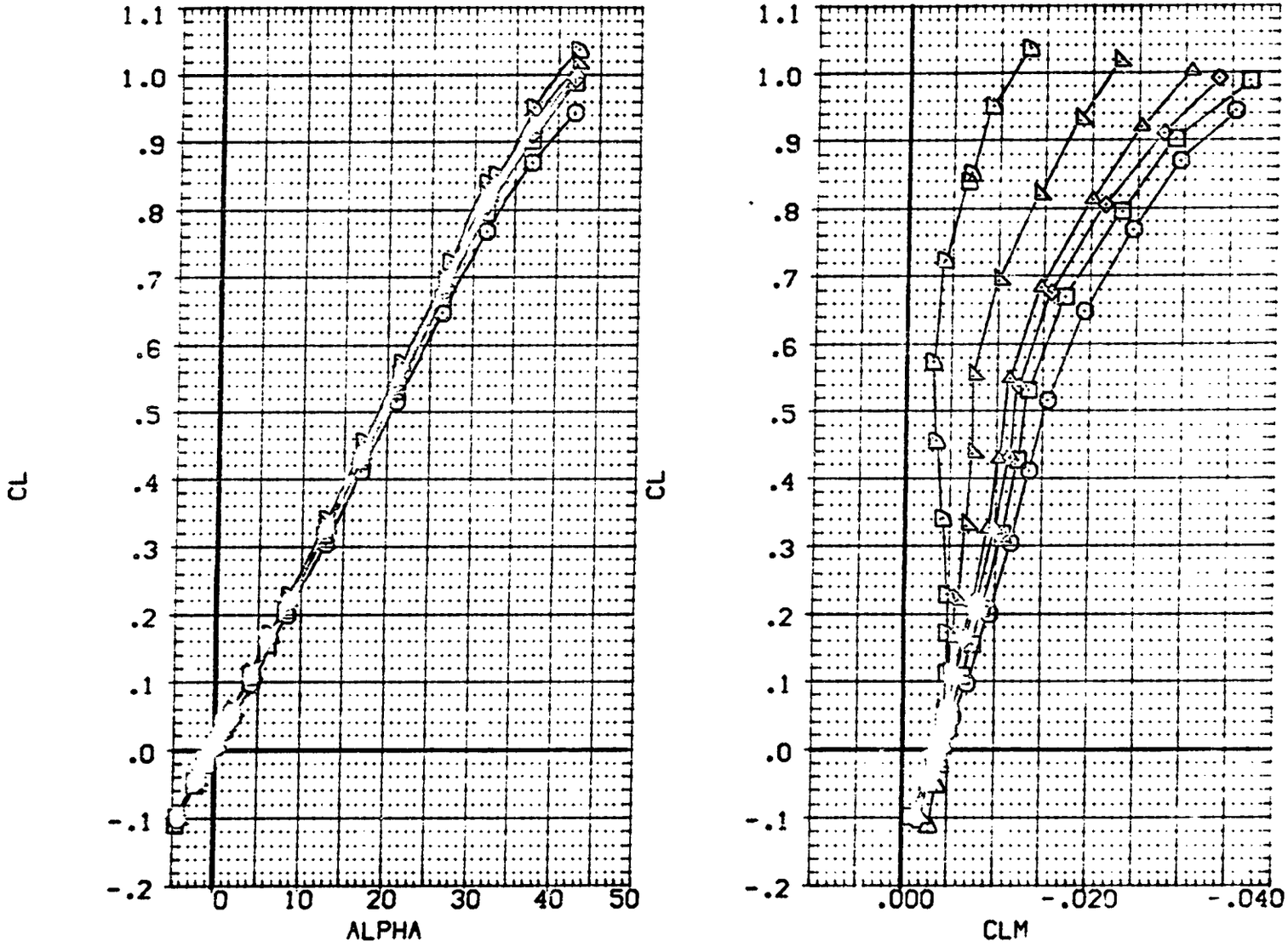


EFFECT OF FILLET ON WING (BW2VFB)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)	⊲	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)	⊳	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8386	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0189	SCALE

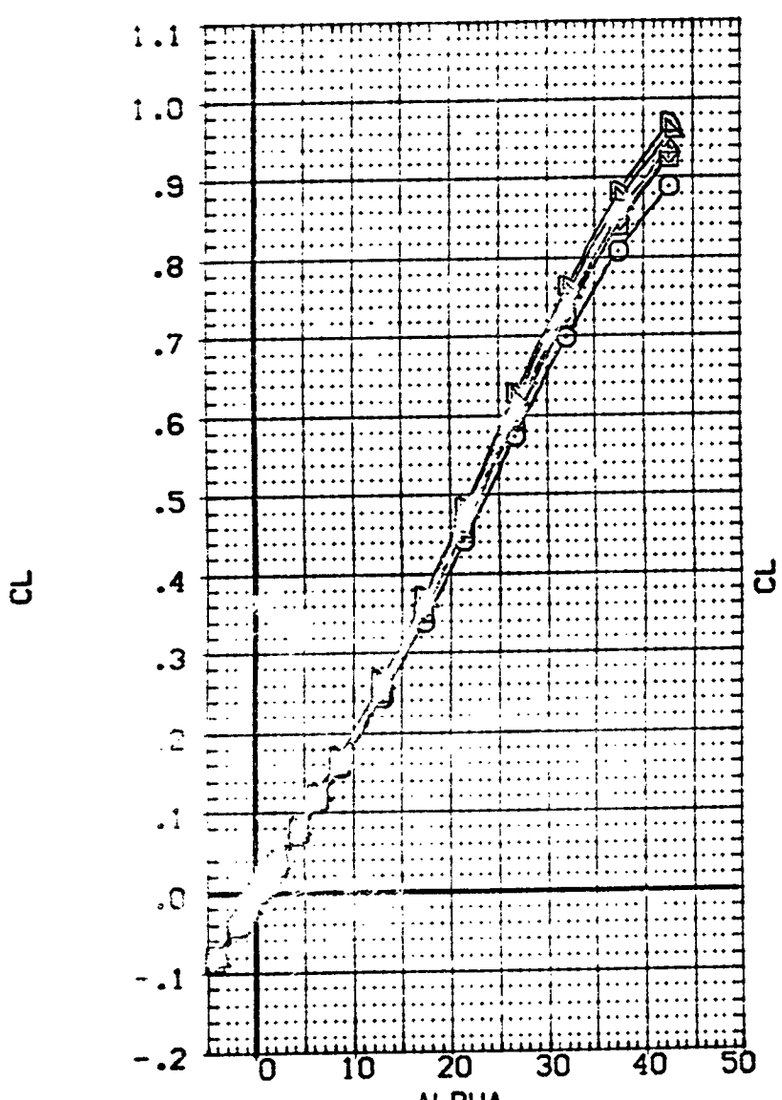


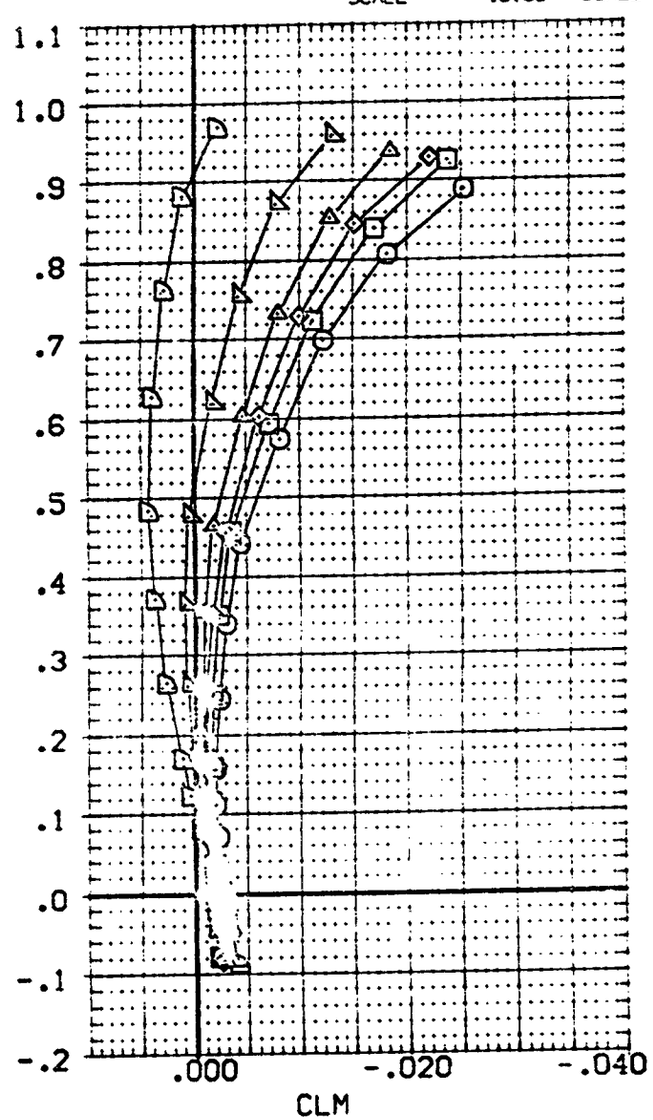
EFFECT OF FILLET ON WING (BW2VFB)

(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
[illegible]	[illegible]	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BW2VFB)	46.800	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BW2VFB)	60.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BW2VFB)	65.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BW2VFB)	70.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BW2VFB)	75.000	.000	2.000	.000
[illegible]	[illegible]	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BW2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0198	SCALE



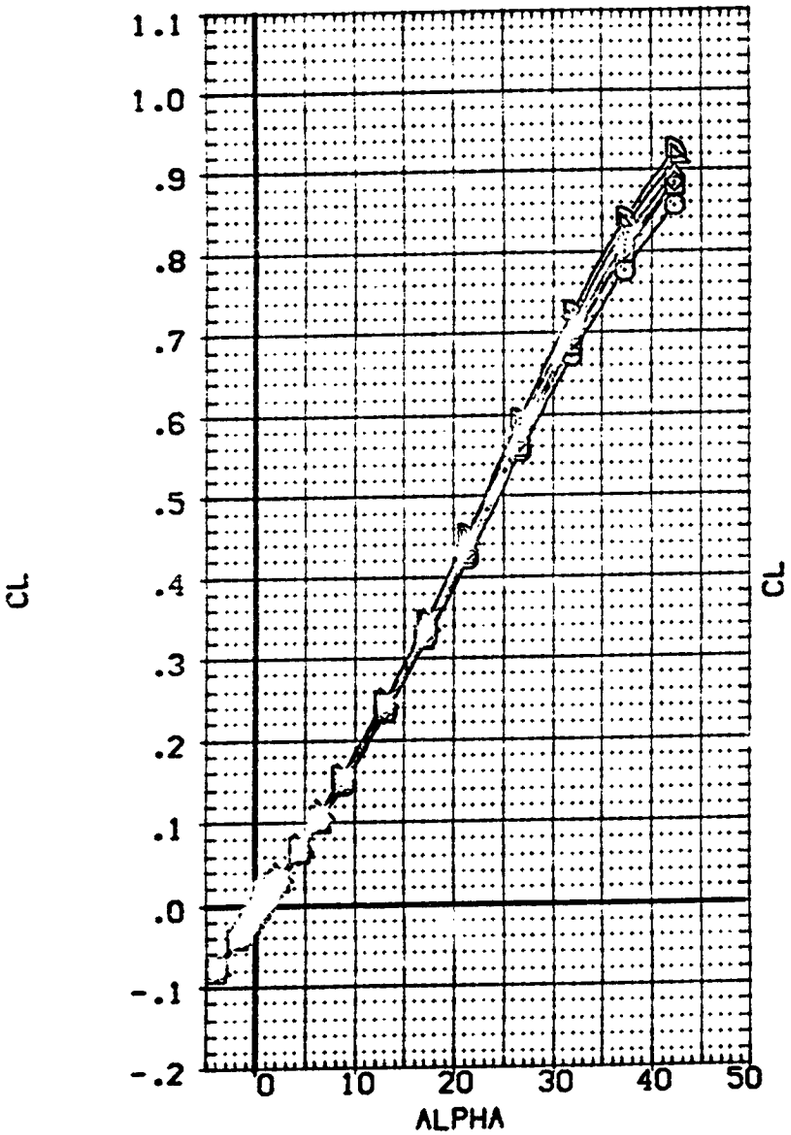


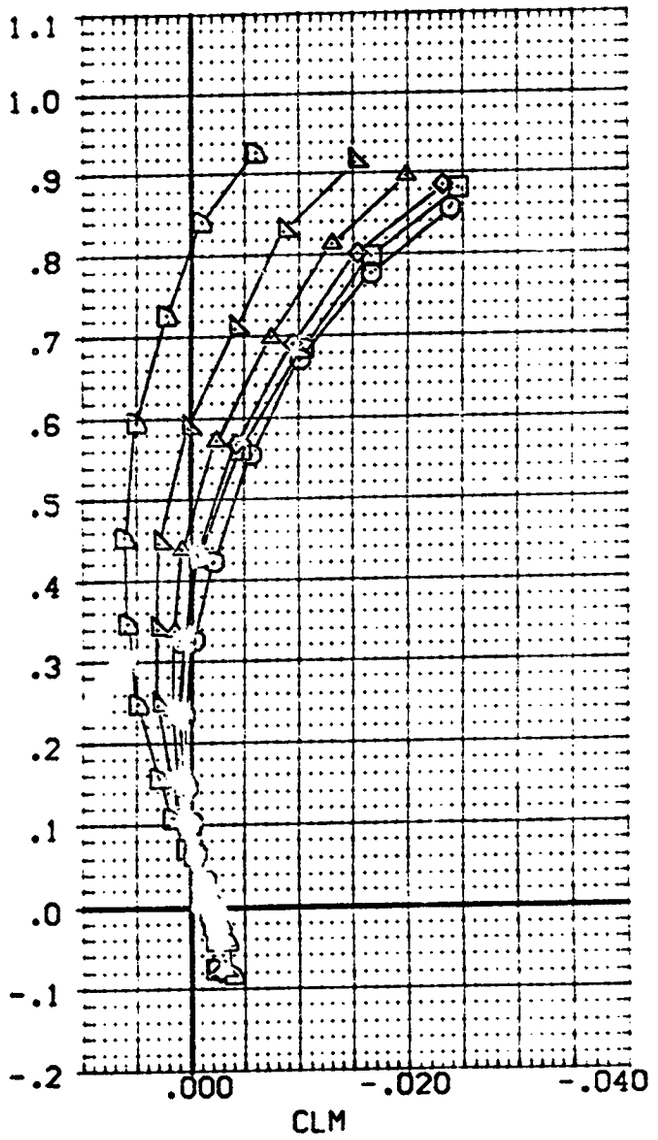
EFFECT OF FILLET ON WING (BW2VFB)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)	◁	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)	▷	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8365	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



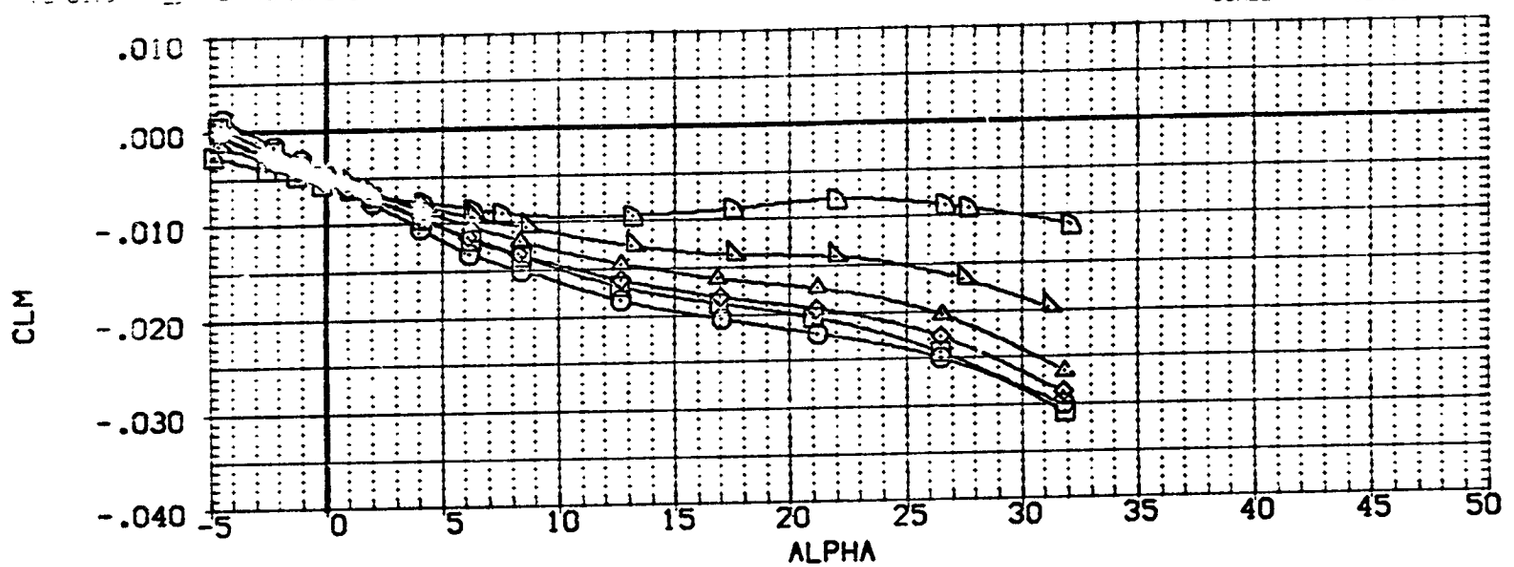


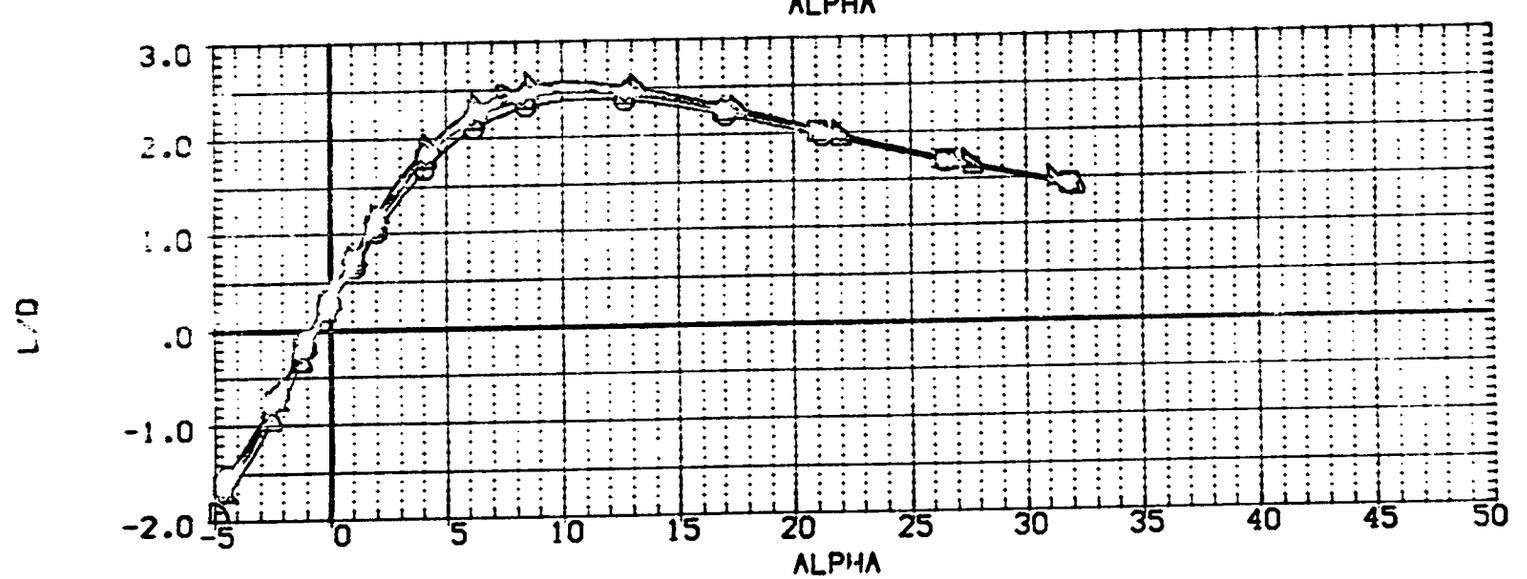
EFFECT OF FILLET ON WING (BW2VFB)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
8P8001		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	.000	2.000	.000
8P8004		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	60.000	.000	2.000	.000
8P8005		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	.000	2.000	.000
8P8007		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	70.000	.000	2.000	.000
8P8008		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	75.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



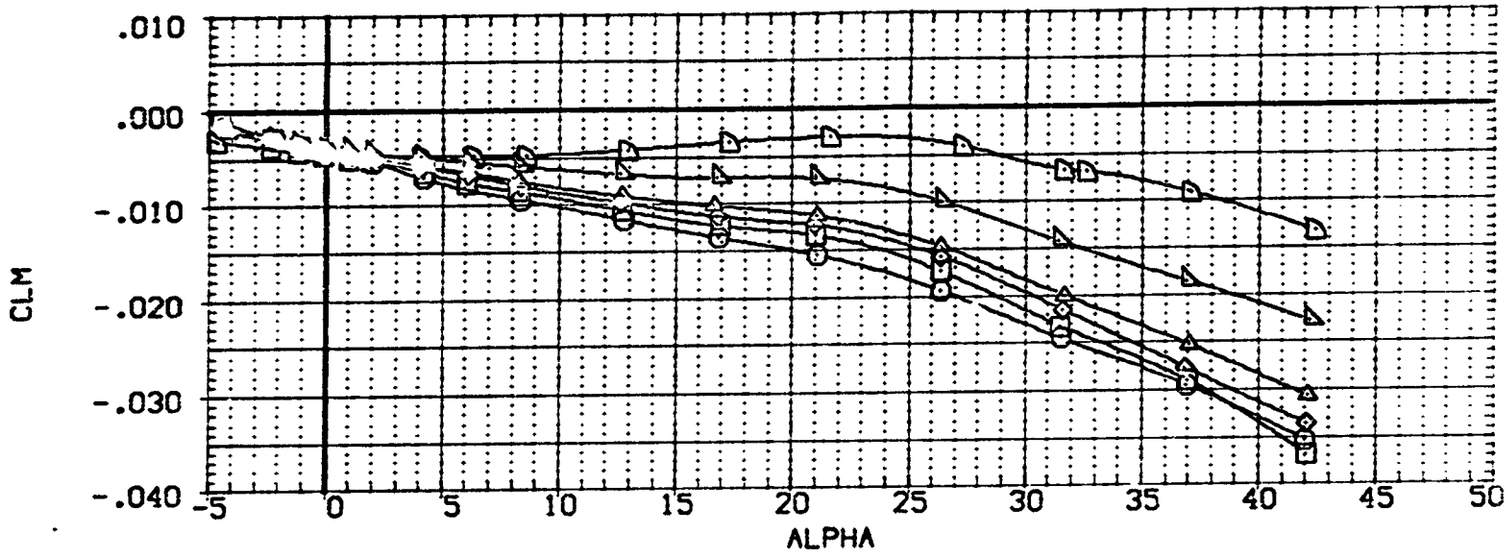


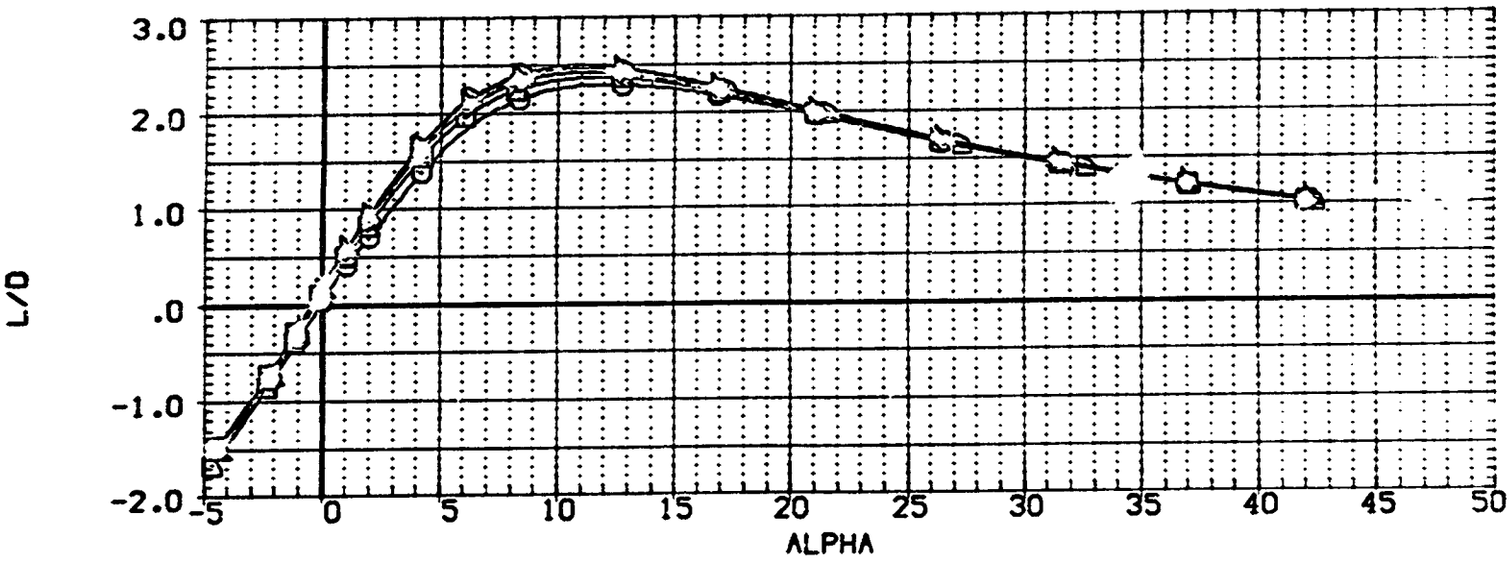
EFFECT OF FILLET ON WING (BW2VFB)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGND	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)	▷	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



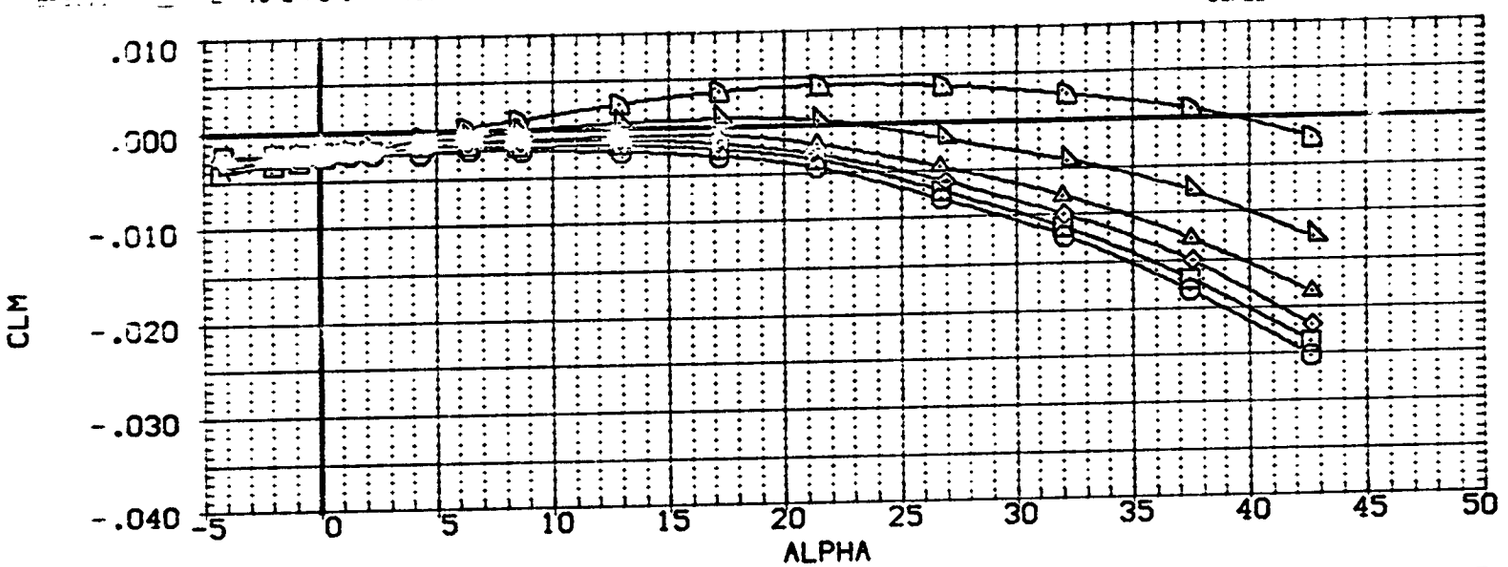


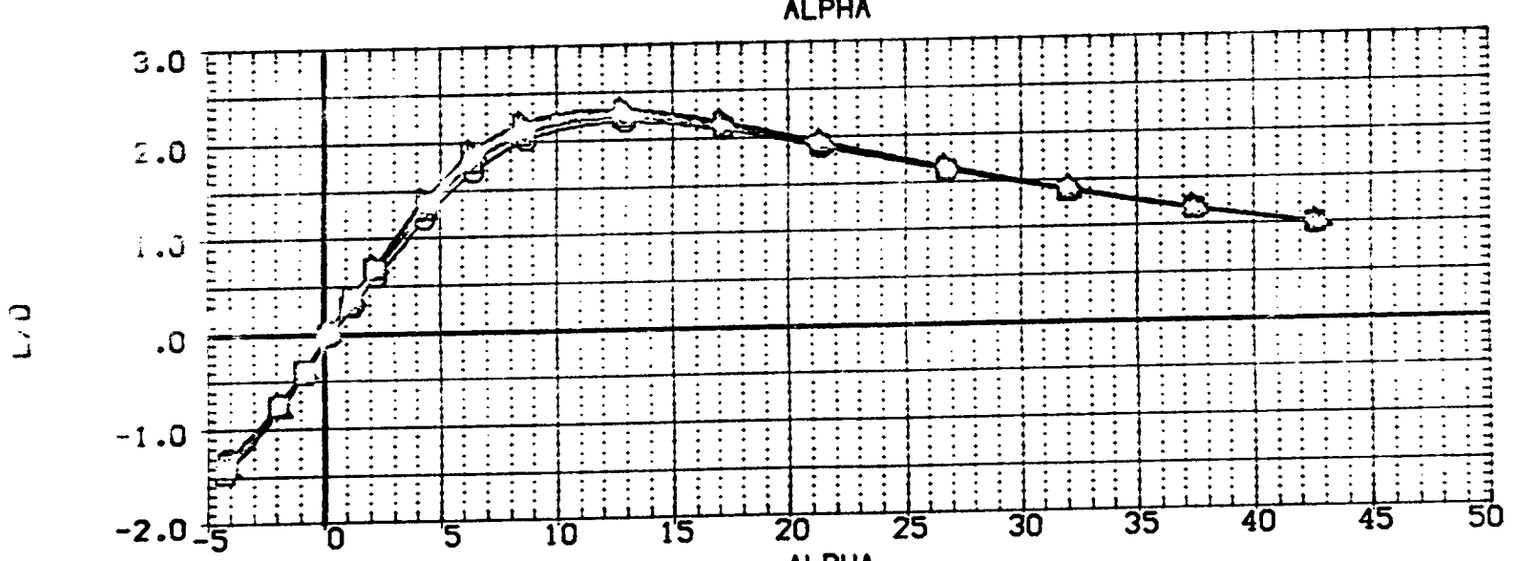
EFFECT OF FILLET ON WING (BW2VFB)

(B)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
(BP8001)	LA-10 LARC UPWT 1015 LO-100 CRB.(SHIPS) (BW2VFB)	46.800	.000	2.000	.000
BP8004	LA-10 LARC UPWT 1015 LO-100 CRB.(SHIPS) (BW2VFB)	60.000	.000	2.000	.000
BP8005	LA-10 LARC UPWT 1015 LO-100 CRB.(SHIPS) (BW2VFB)	65.000	.000	2.000	.000
BP8007	LA-10 LARC UPWT 1015 LO-100 CRB.(SHIPS) (BW2VFB)	70.000	.000	2.000	.000
BP8008	LA-10 LARC UPWT 1015 LO-100 CRB.(SHIPS) (BW2VFB)	75.000	.000	2.000	.000
BP8009	LA-10 LARC UPWT 1015 LO-100 CRB.(SHIPS) (BW2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



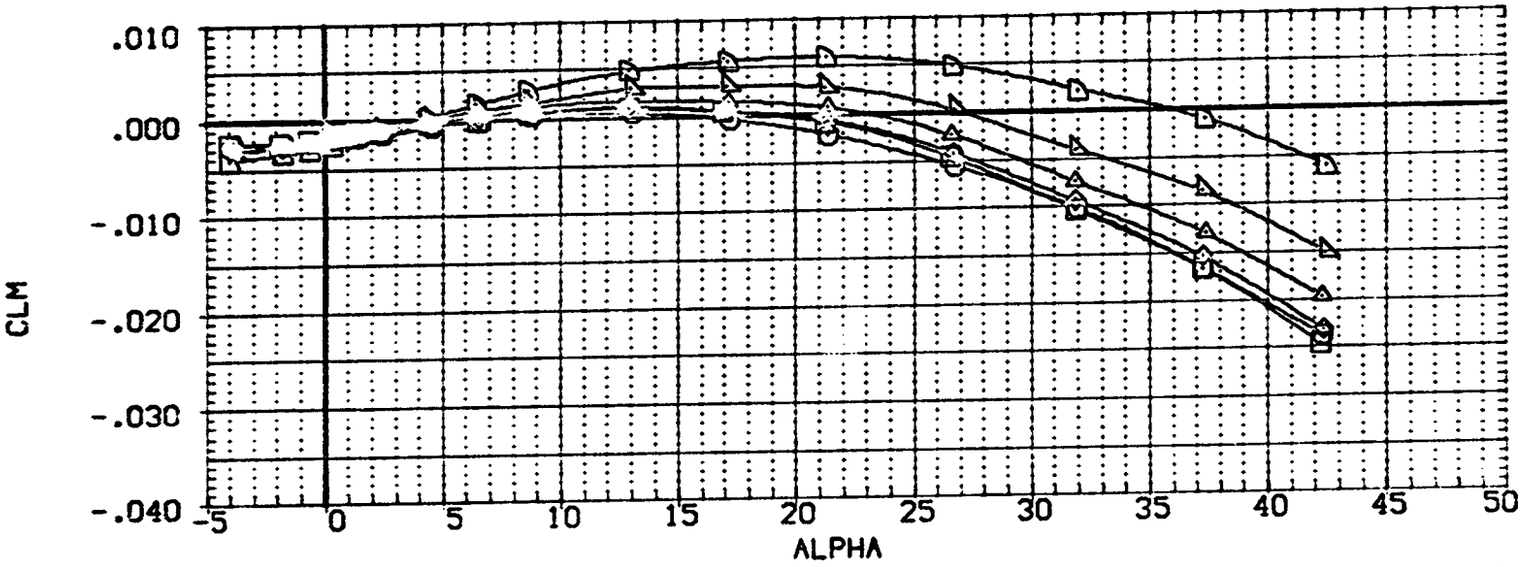


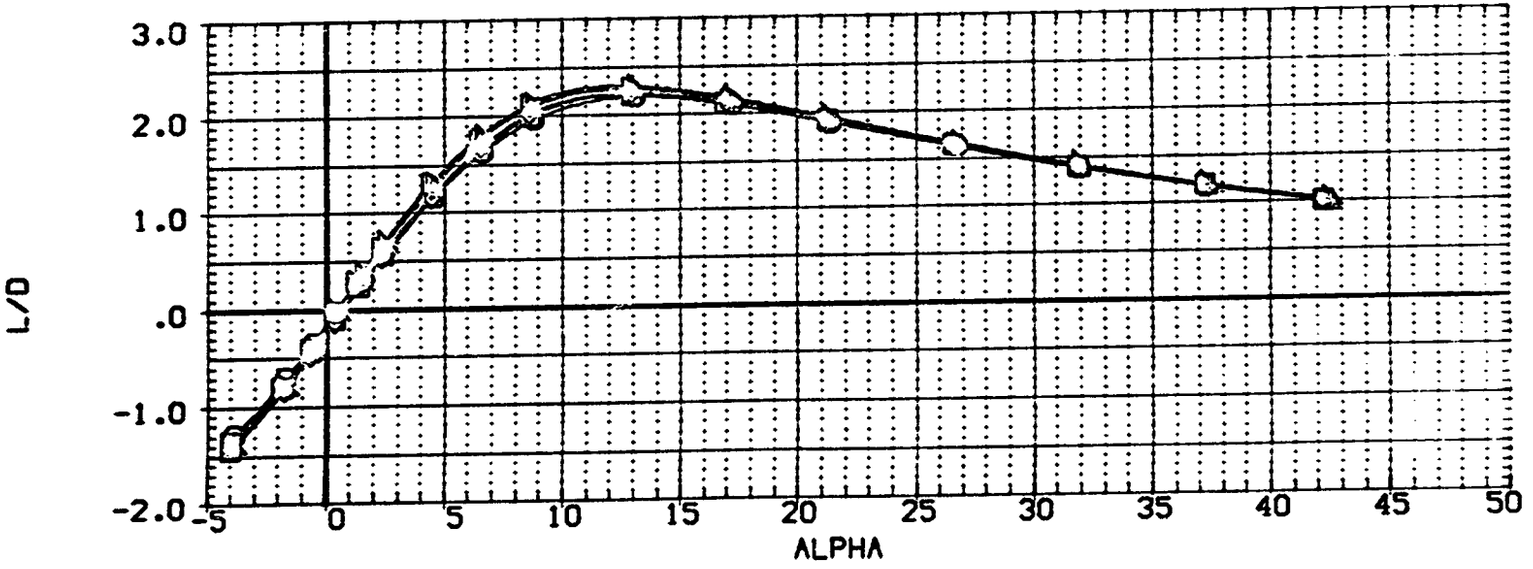
EFFECT OF FILLET ON WING (BW2VFB)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)	⊲	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)	⊳	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





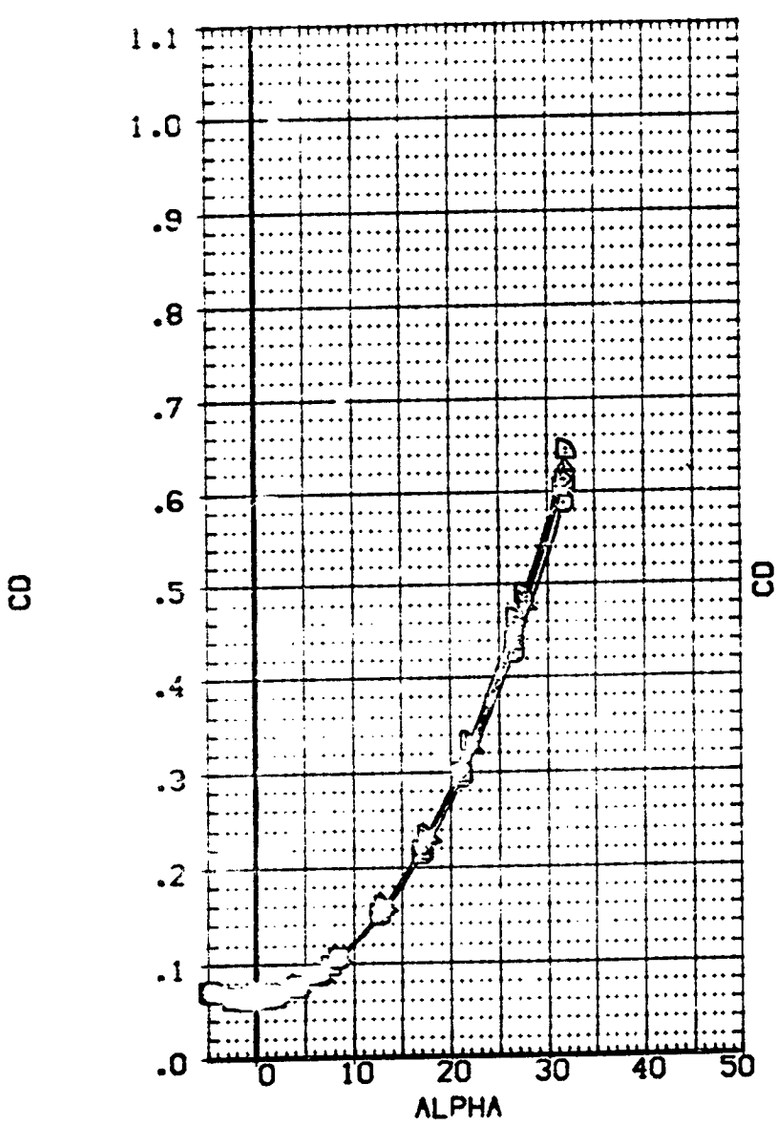
EFFECT OF FILLET ON WING (BW2VFB)

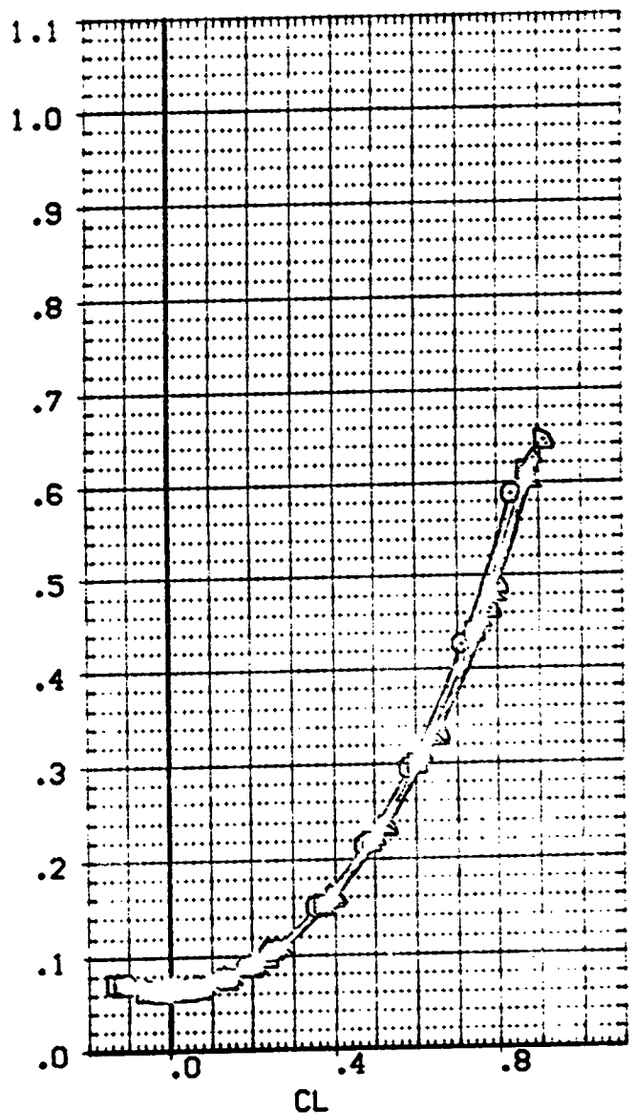
(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BP8001		LA-10 LARC GOVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)
(BP8004		LA-10 LARC GOVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)
(BP8005		LA-10 LARC GOVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)
(BP8007		LA-10 LARC GOVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)
(BP8008		LA-10 LARC GOVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)
(BP8011		LA-10 LARC GOVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)

LAMDAF	BETA	VINGNO	ELEVTR
46.800	.000	2.000	.000
60.000	.000	2.000	.000
65.000	.000	2.000	.000
70.000	.000	2.000	.000
75.000	.000	2.000	.000
78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



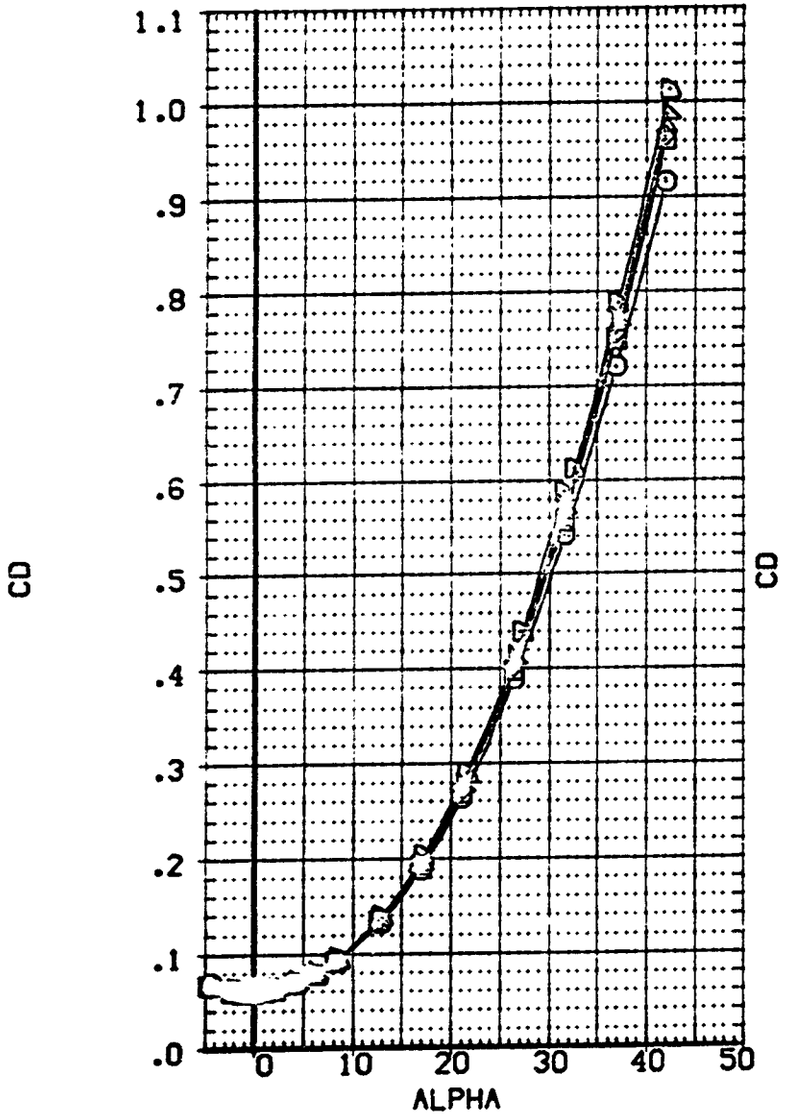


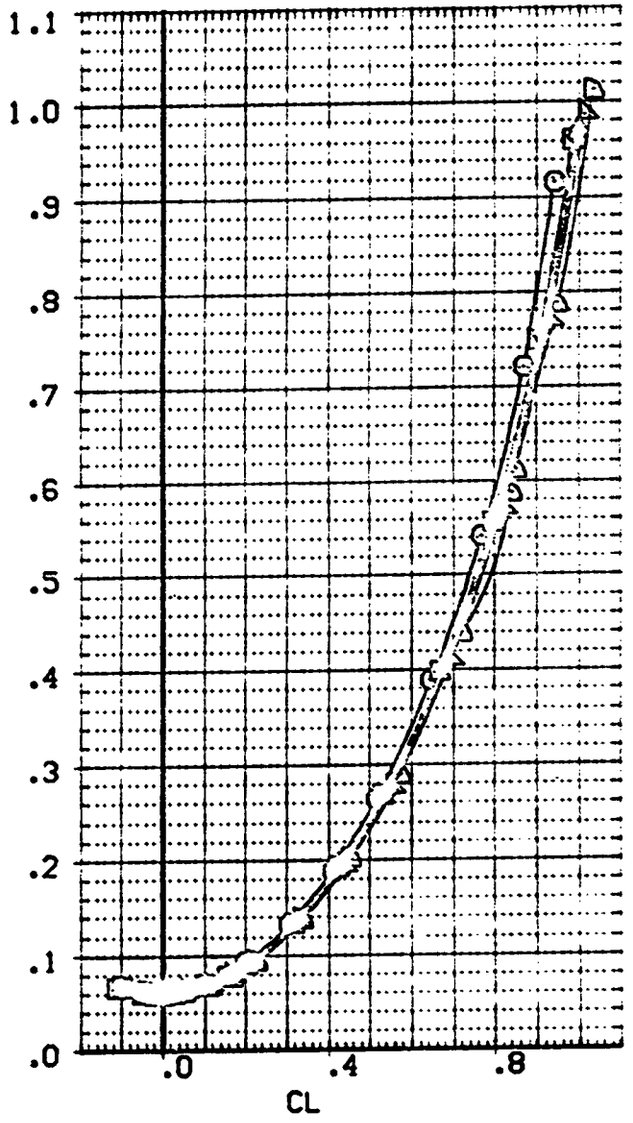
EFFECT OF FILLET ON WING (BW2VFB)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(BP8004)	◇	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	60.000	.000	2.000	.000
(BP8005)	△	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000
(BP8007)	▽	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	70.000	.000	2.000	.000
(BP8008)	▷	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(BP8010)	◁	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



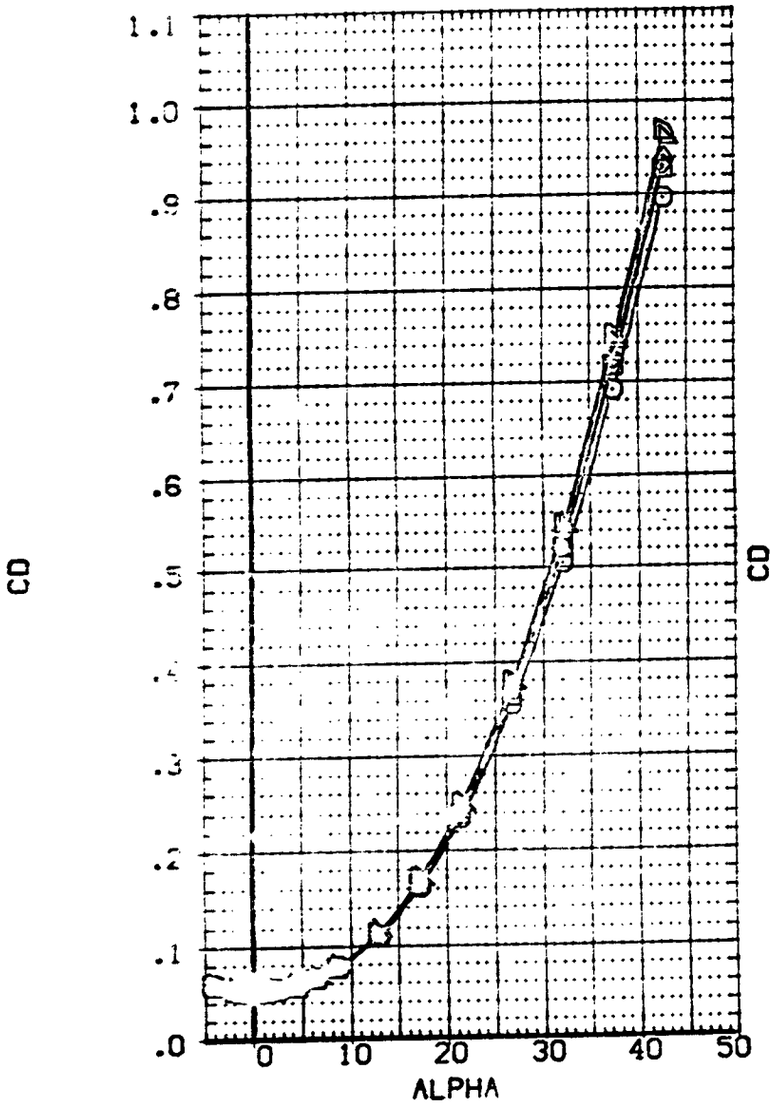


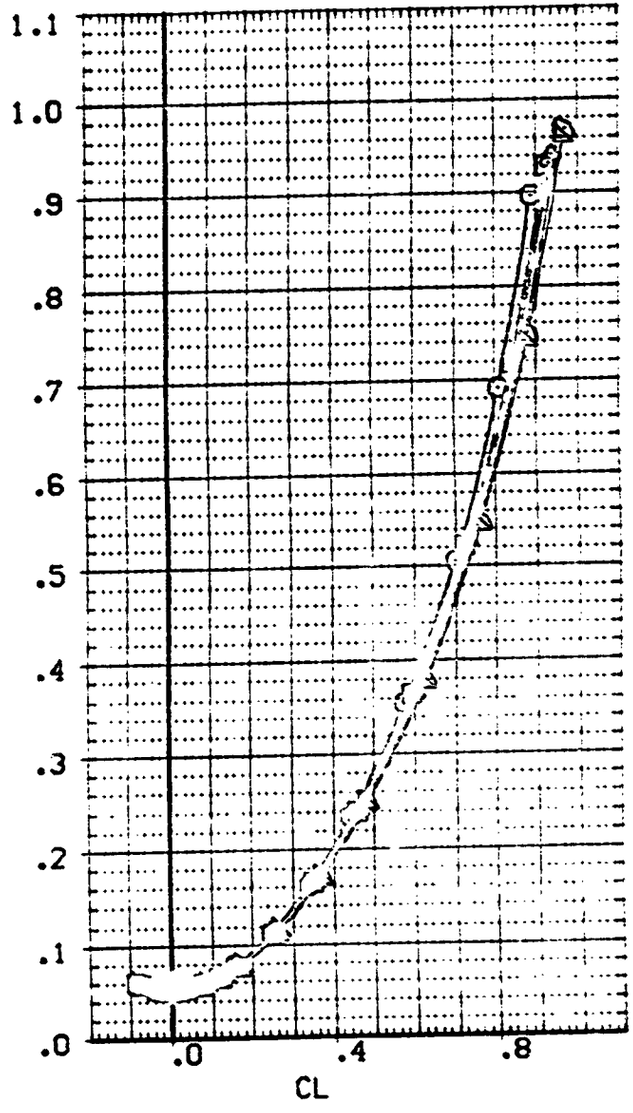
EFFECT OF FILLET ON WING (BW2VFB)

(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
[illegible]	[illegible]	[illegible]	46.800	.000	2.000	.000
[illegible]	[illegible]	[illegible]	60.000	.000	2.000	.000
[illegible]	[illegible]	[illegible]	65.000	.000	2.000	.000
[illegible]	[illegible]	[illegible]	70.000	.000	2.000	.000
[illegible]	[illegible]	[illegible]	75.000	.000	2.000	.000
[illegible]	[illegible]	[illegible]	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8365	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



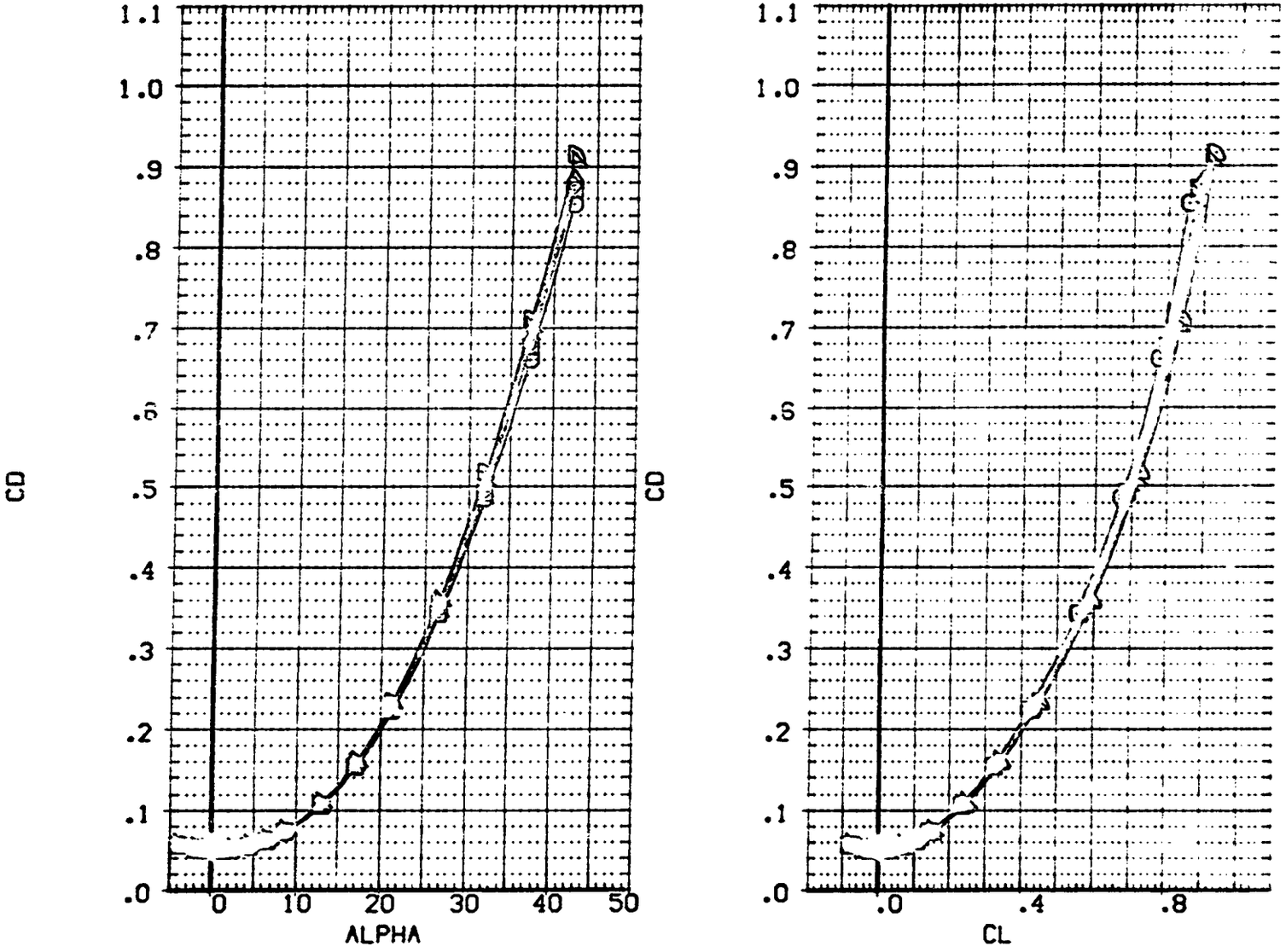


EFFECT OF FILLET ON WING (BW2VFB)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
(BP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	.000	2.000	.000
(BP8004)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	60.000	.000	2.000	.000
(BP8005)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	.000	2.000	.000
(BP8007)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	70.000	.000	2.000	.000
(BP8008)	◁	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	75.000	.000	2.000	.000
(BP8010)	▷	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.9366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0138	SCALE



EFFECT OF FILLET ON WING (BW2VFB)

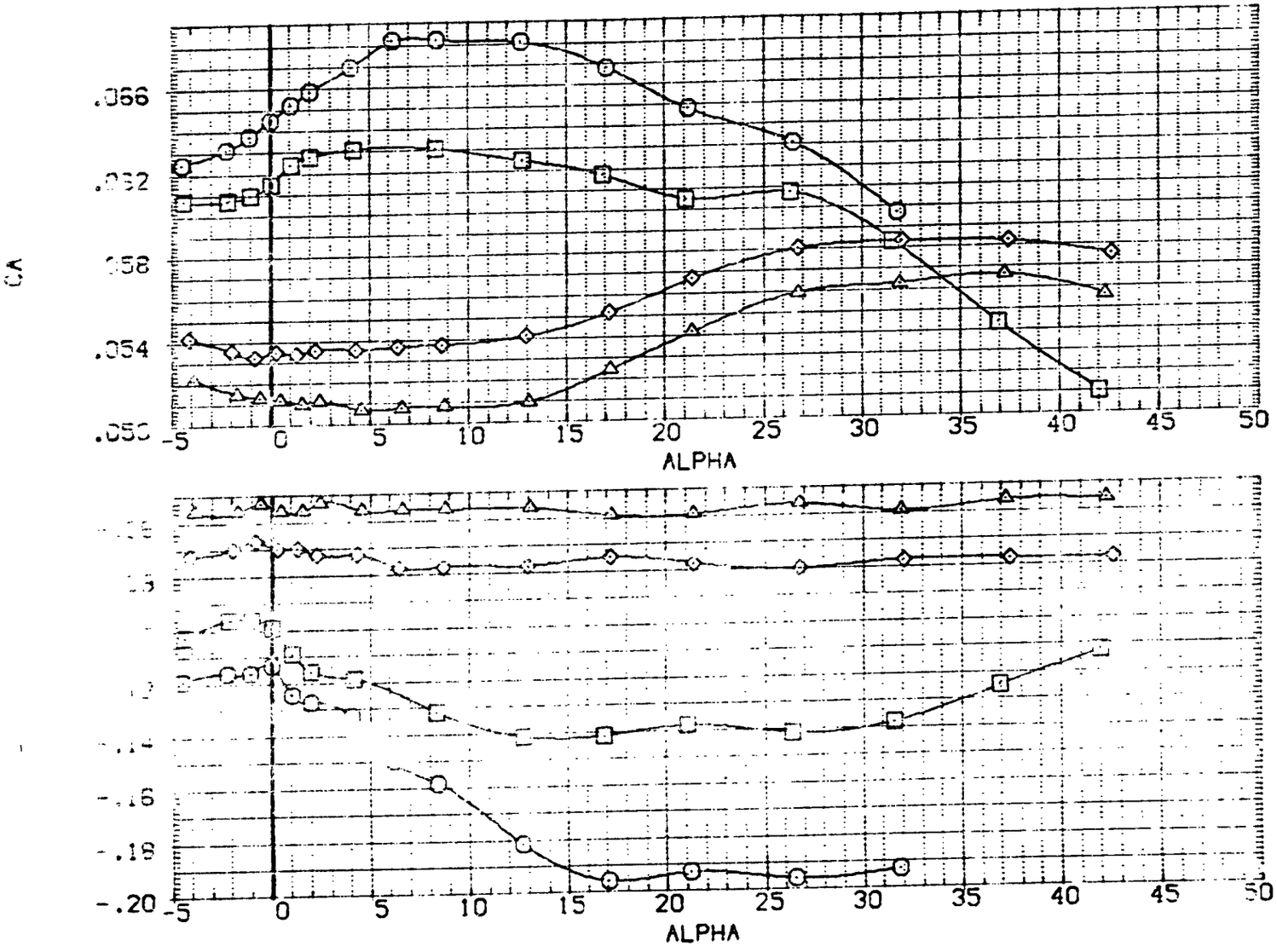
(D)MACH = 4.63

A-10 LARC LPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8001)

SYMBOL	MACH		PARAMETRIC VALUES		
	2.360	BETA	.000	WINGNO	2.000
	2.860	LAMDAF	46.800	ELEVTR	.000
	3.360	BOFLAP	.000	RUDFLP	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	.9366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

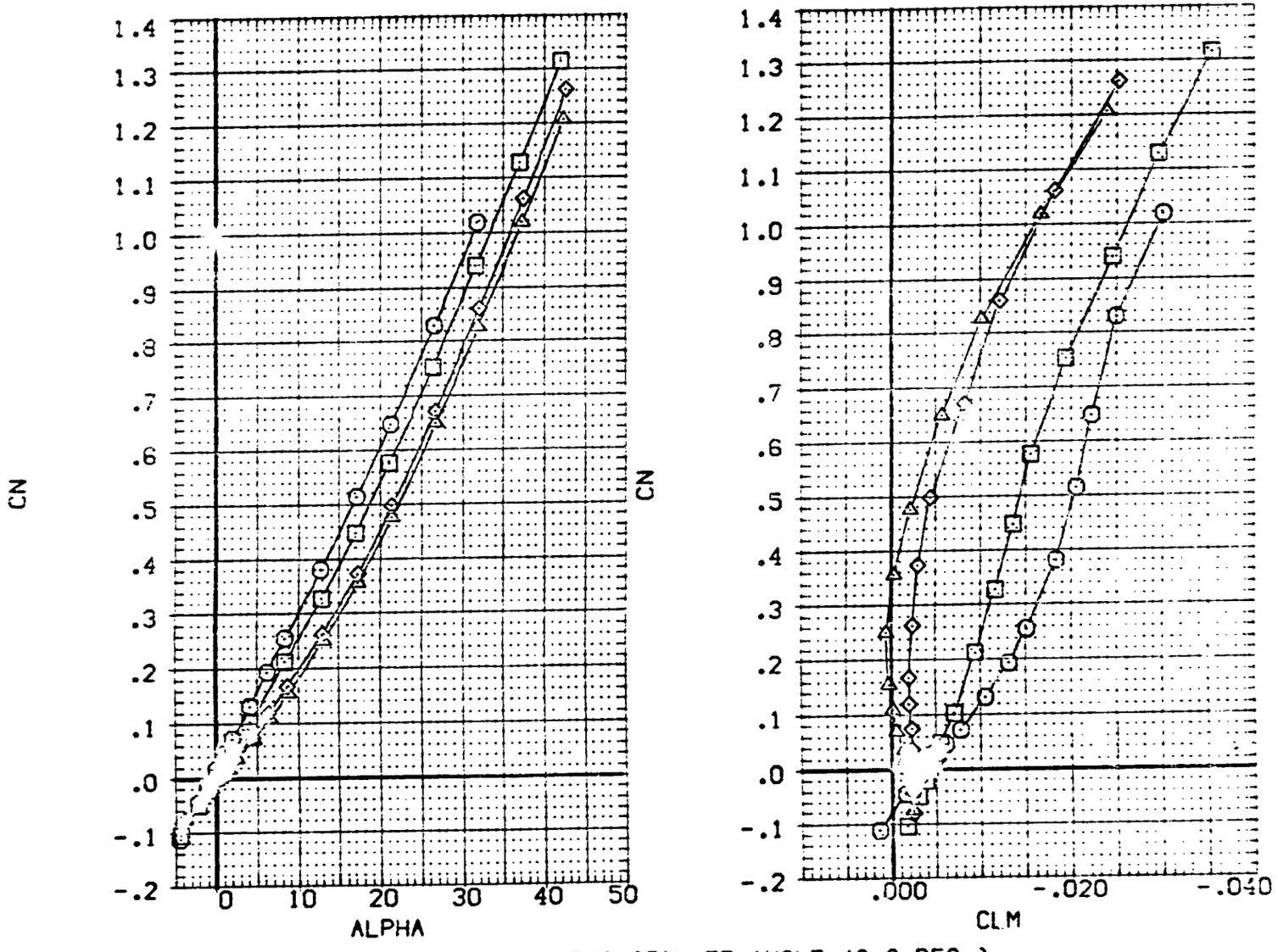


EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=46.8 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8001)

SYMBOL	MACH	PARAMETRIC VALUES			
○	2.360	BETA	.000	WINGNC	2.000
□	2.860	LAMCAF	46.800	ELEVTR	.000
◇	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALES



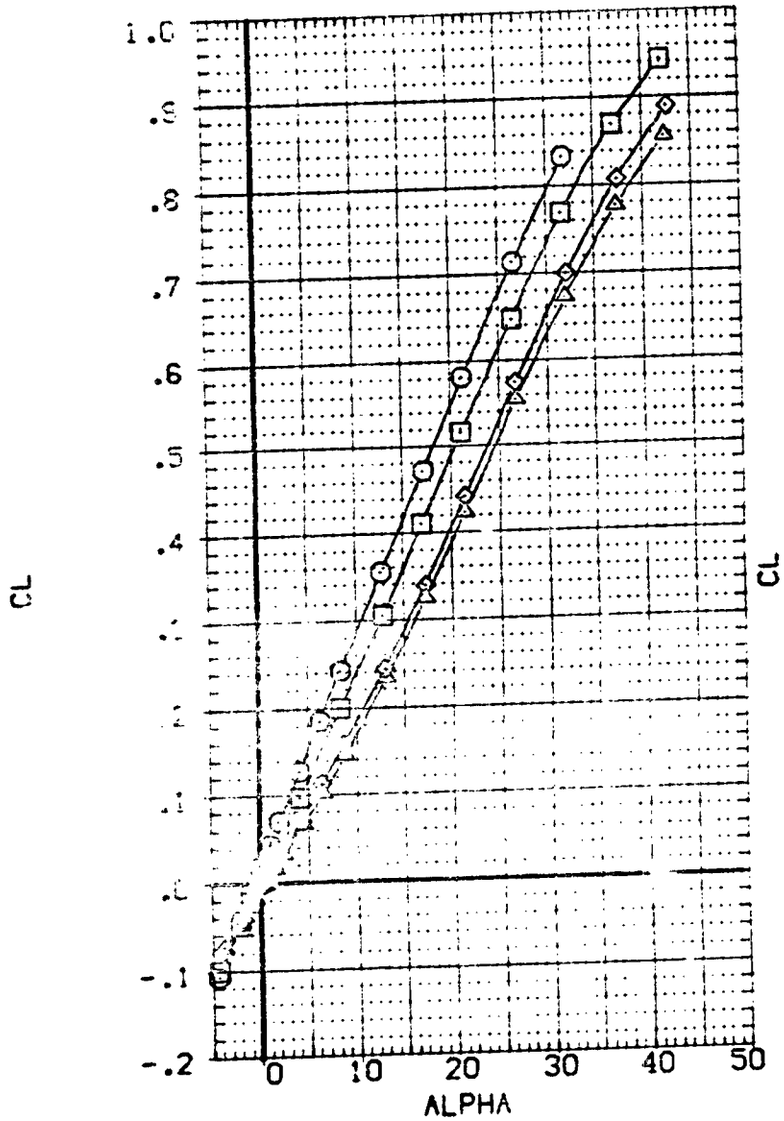
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=46.8 DEG.)

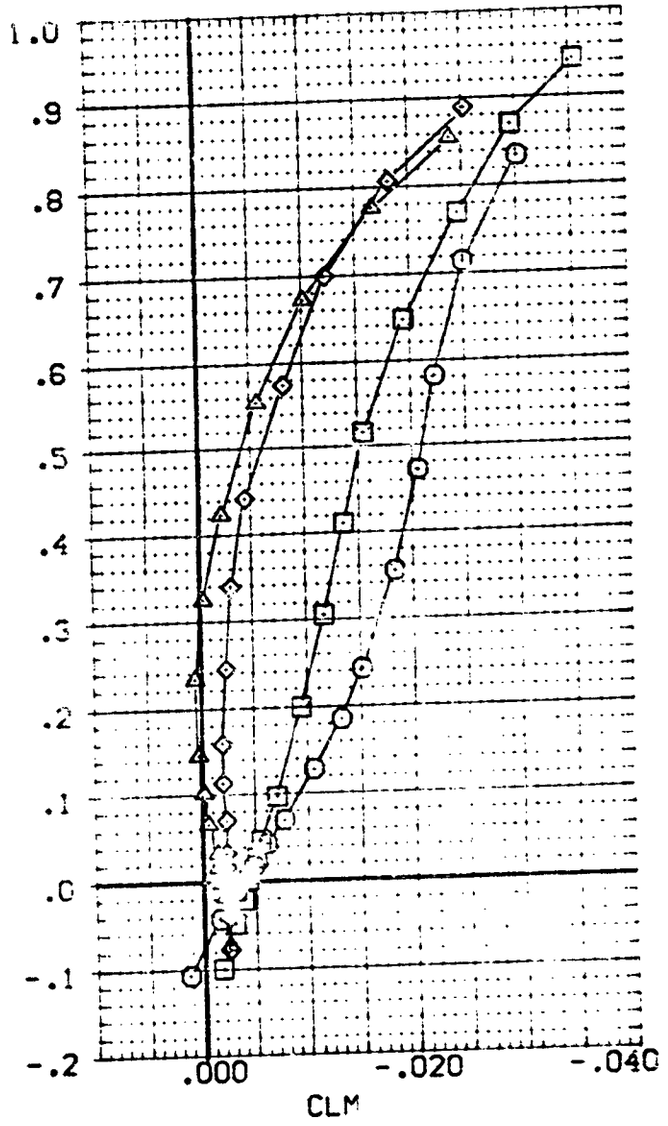
LA-10 LARC UPWT 1015 LC-100 ORB.(SHIPS: [illegible] (3P8001)

SYMBOL	MACH	PARAMETRIC VALUES			
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	46.800	ELEVTR	.000
◇	3.960	BOFLAP	.000	ROOFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=46.8 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8001)

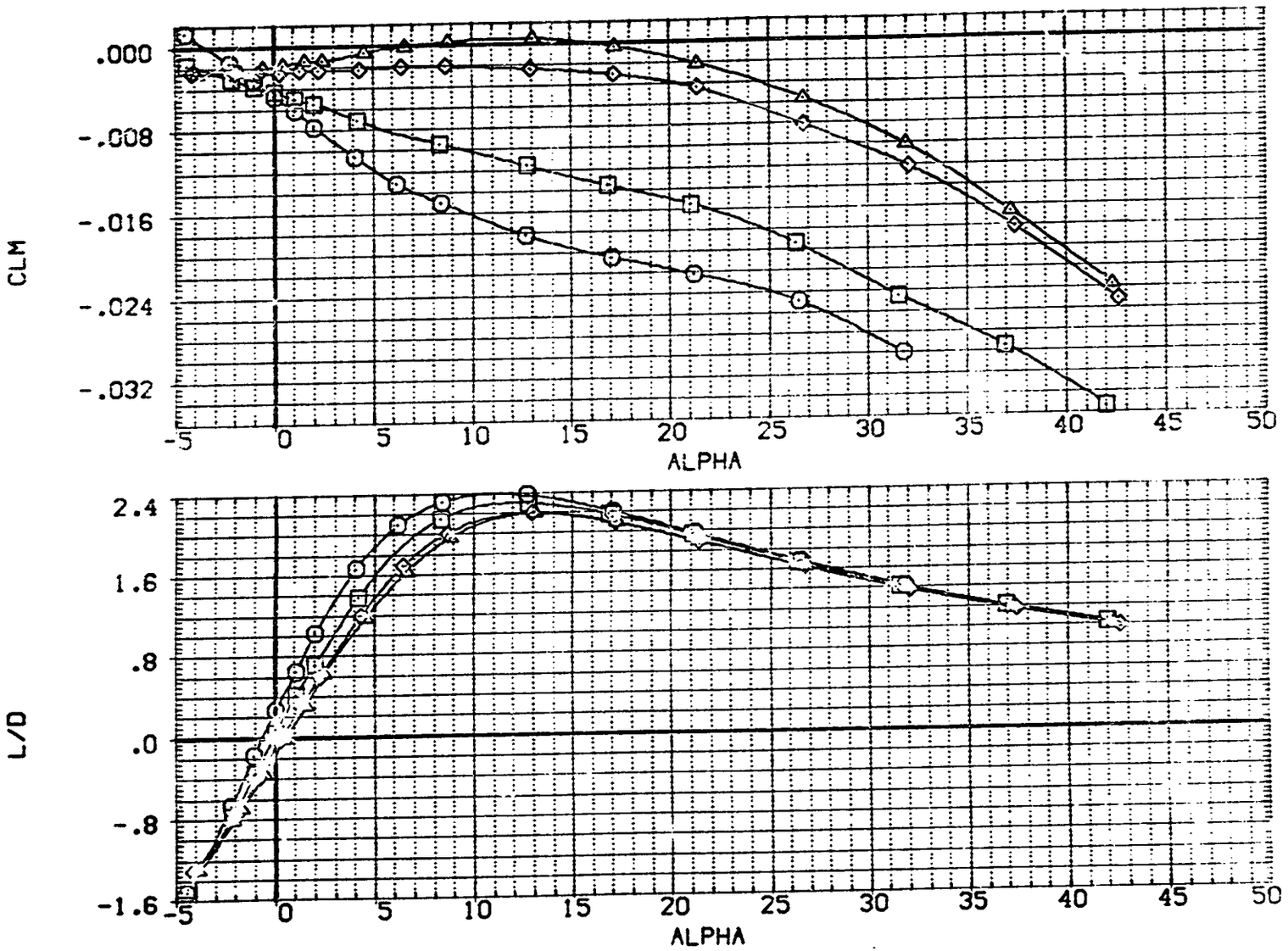
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	46.800	ELEVTR	.000
BOFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



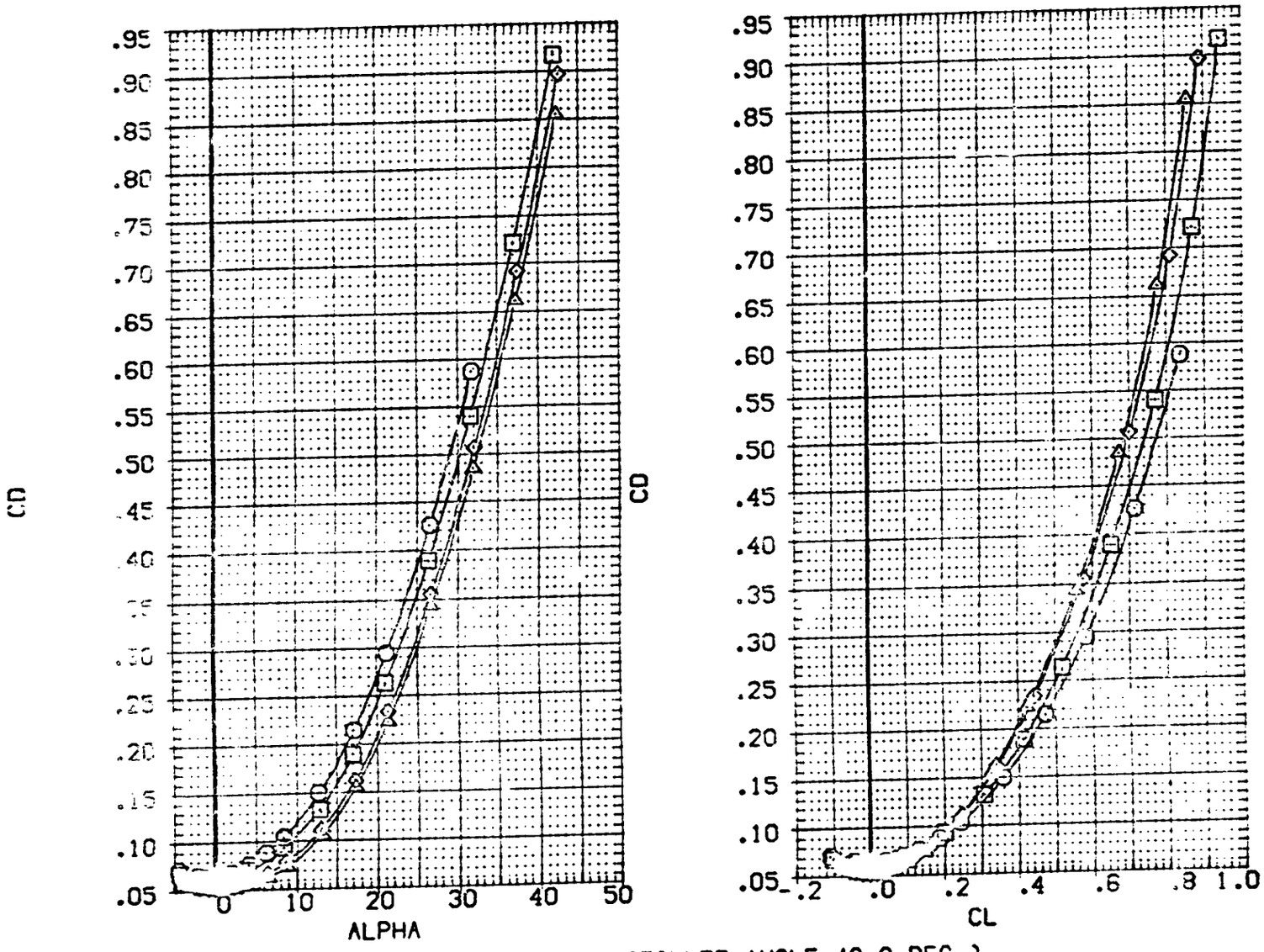
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=46.8 DEG.)

LA-10 LARC UPWT 10:5 L0-100 ORB.(SHIPS) (BW2VFB)(BP8001)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.360	LAMDAF	46.800	ELEVTR	.000
◇	3.960	BDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8365	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



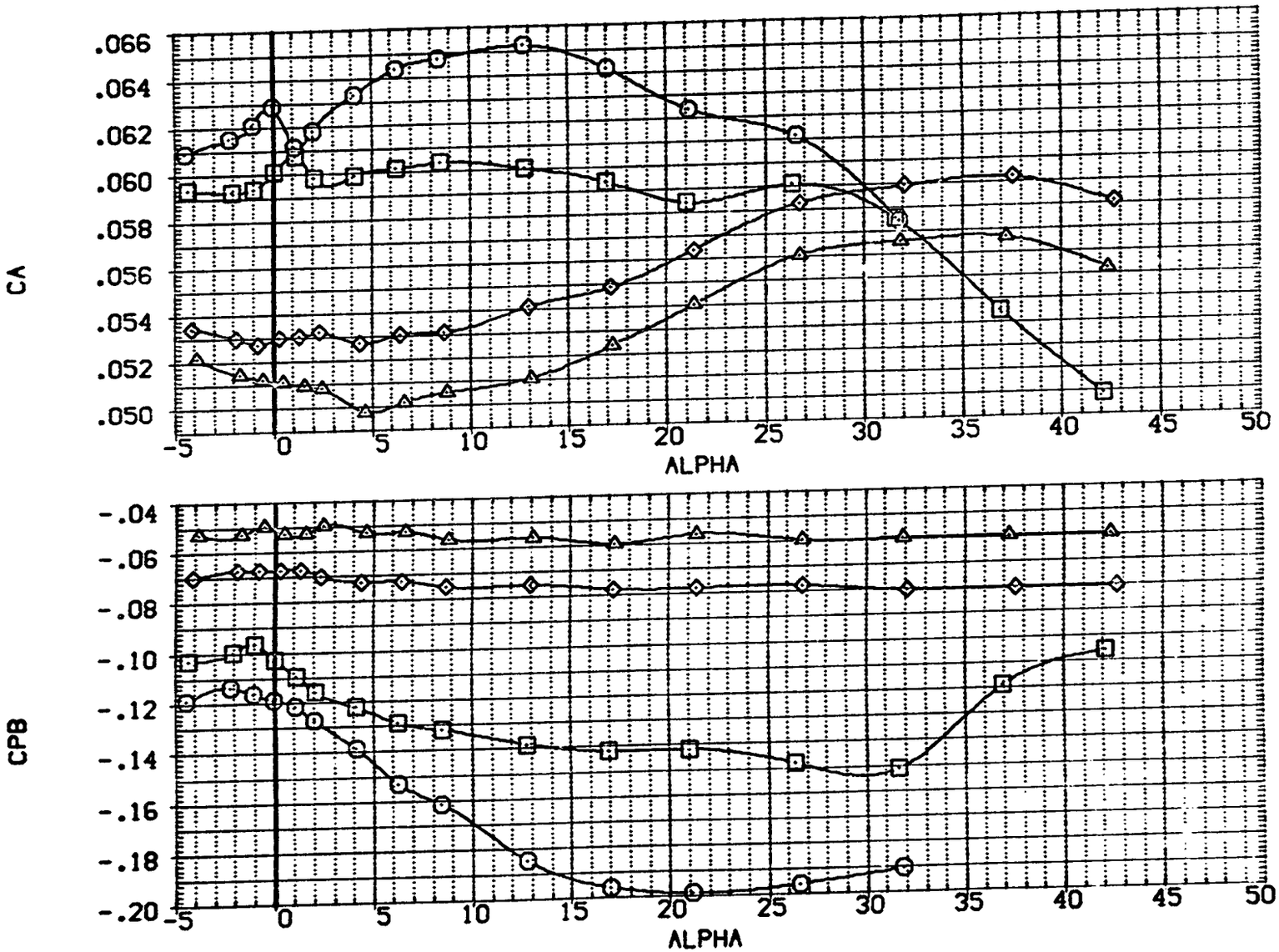
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=46.8 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8003)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMOAF	55.000	ELEVTR	.000
◇	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	1°1.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



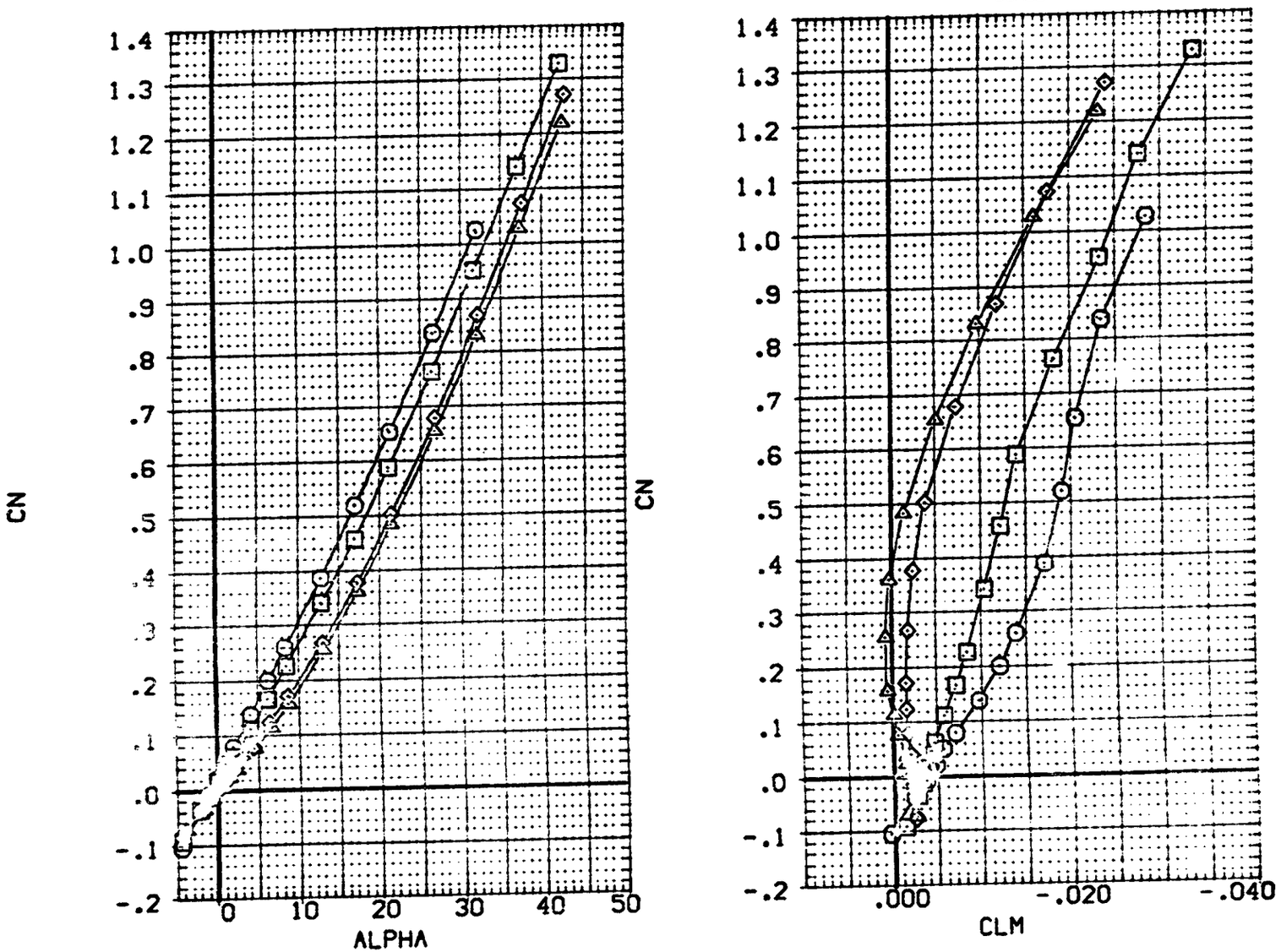
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=55 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8003)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	55.000	ELEVTR	.000
◇	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=55 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8003)

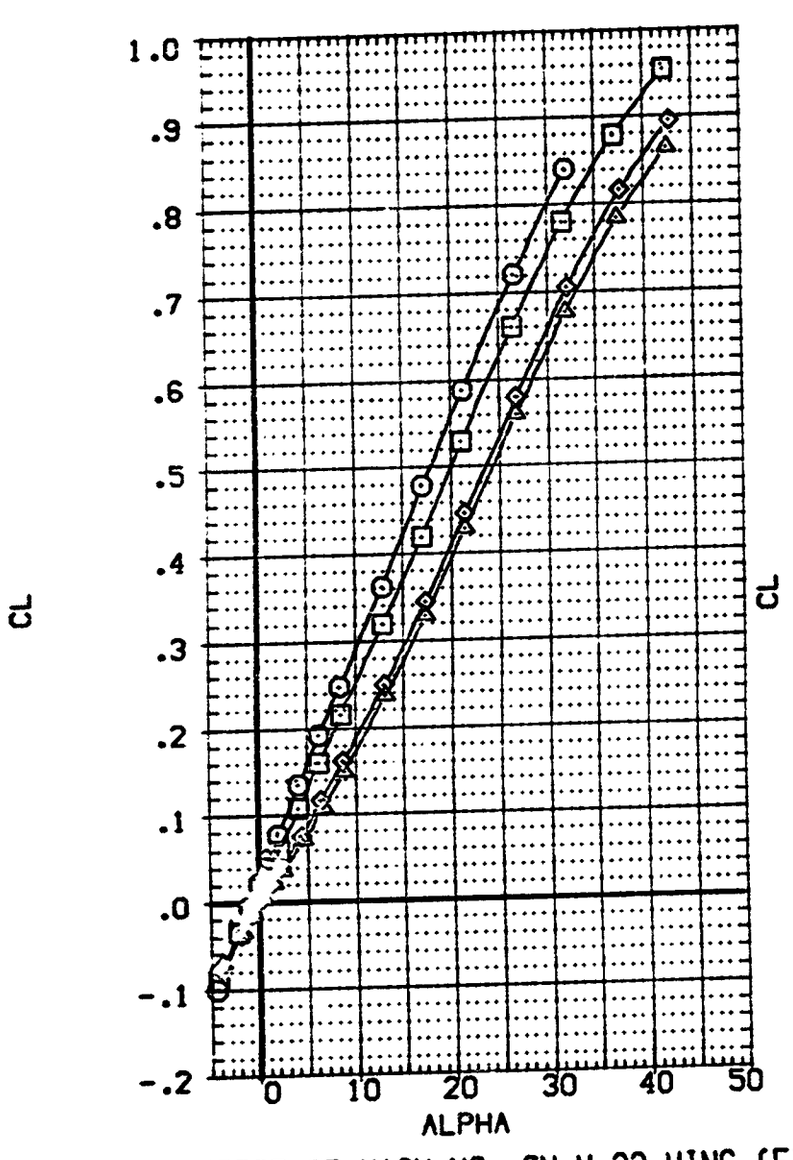
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

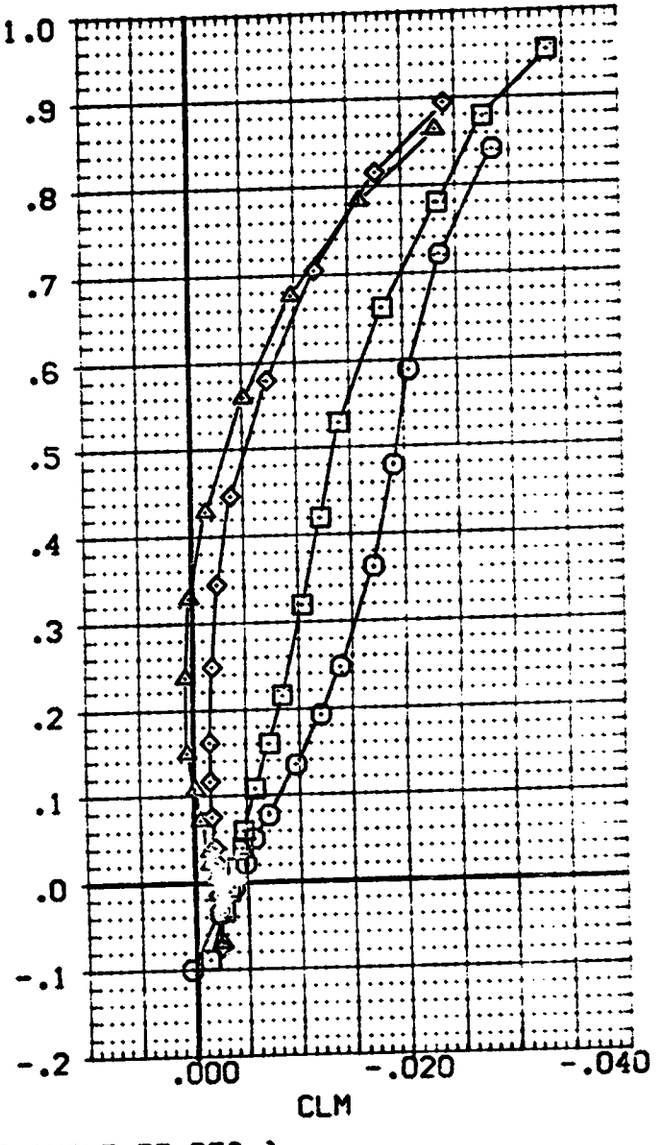
PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	55.000	ELEVTR	.000
BOFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3697	INCHES
XMRP	16.8356	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





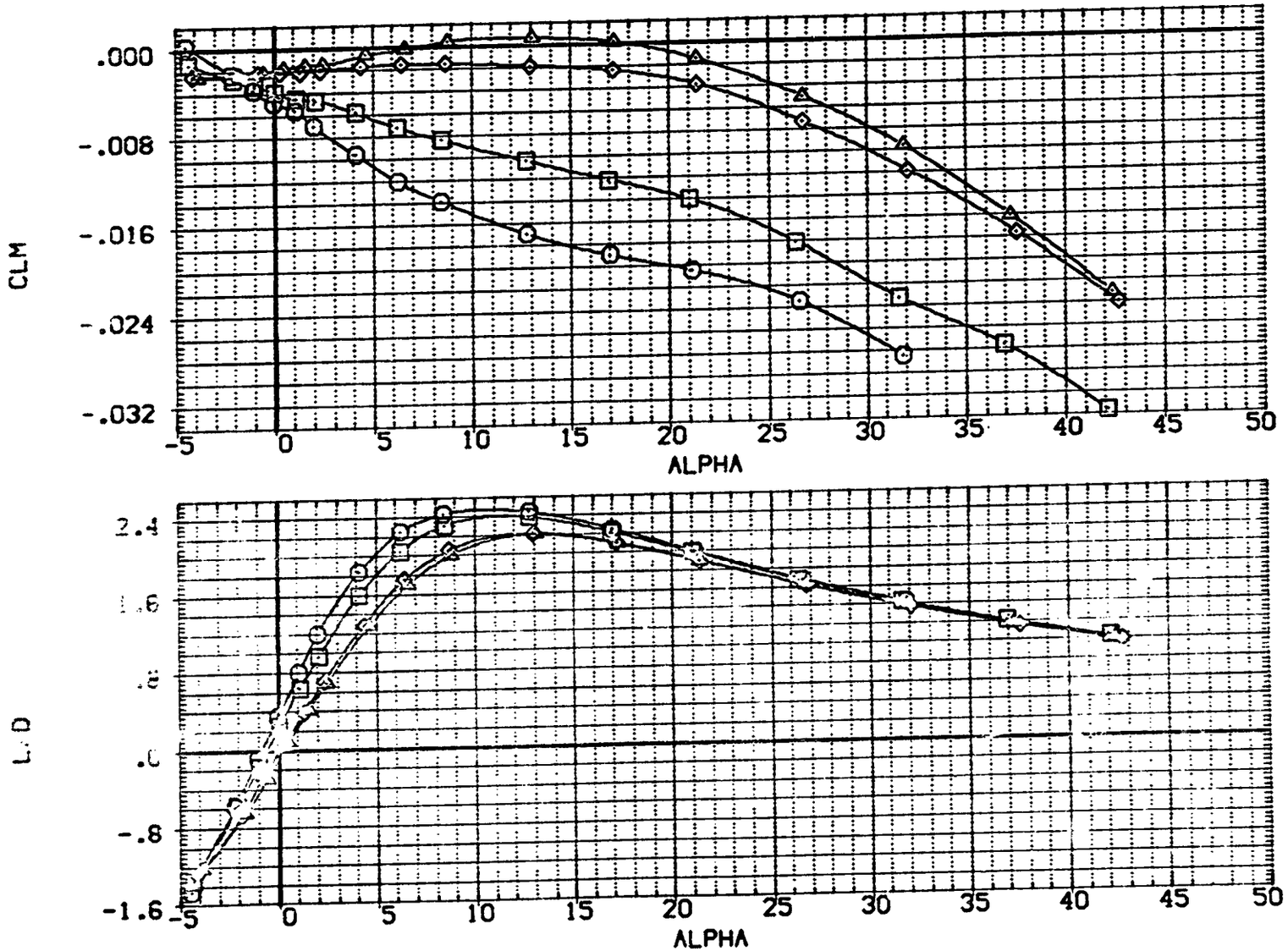
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=55 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8003)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	55.000	ELEVTR	.000
◇	3.960	BDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=55 DEG.)

LA-10 LARC UPWT 1015 L0-100 0RB.(SHIPS) (BW2VFB)(BP8003)

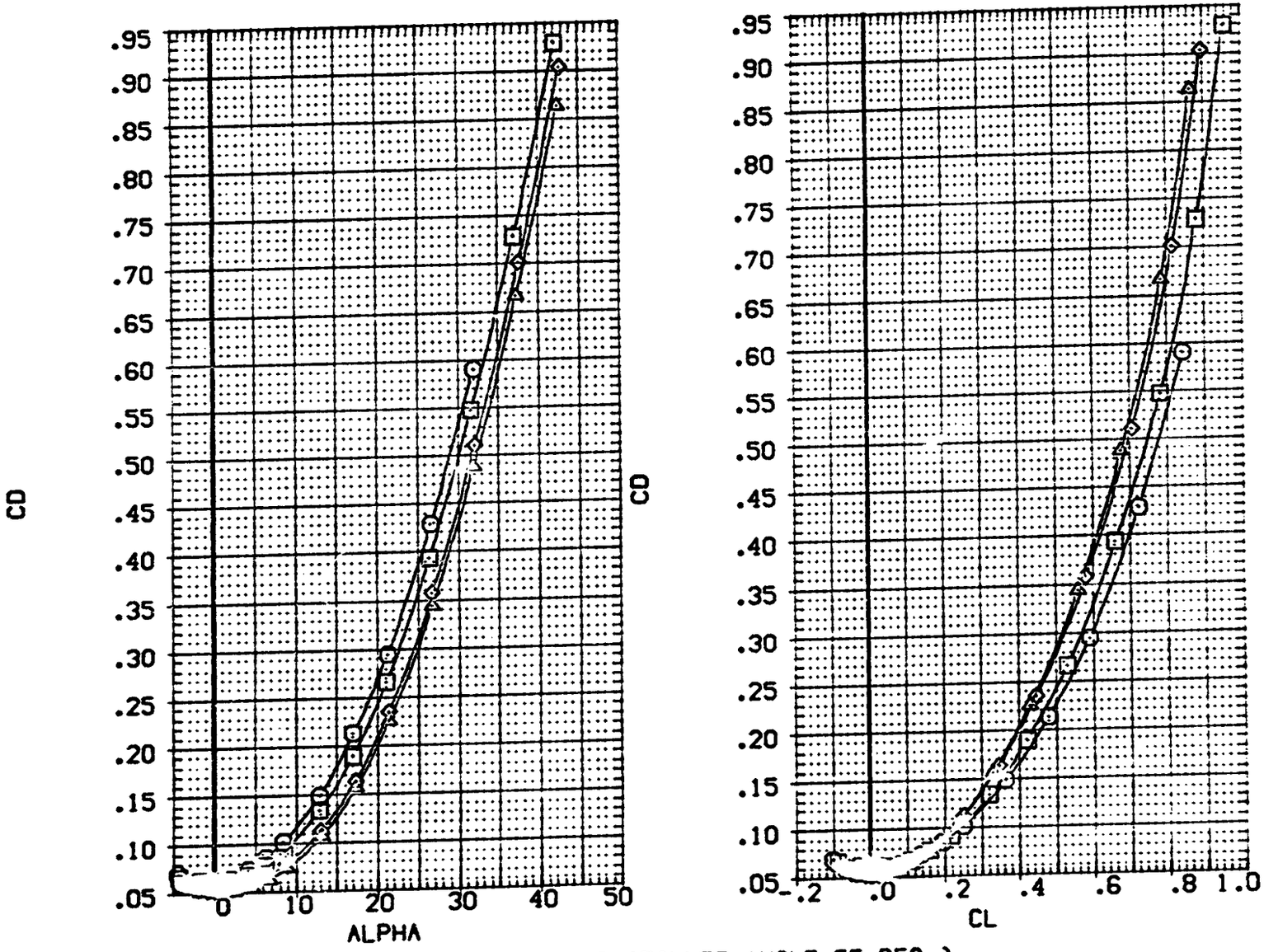
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	55.000	ELEVTR	.000
BDFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



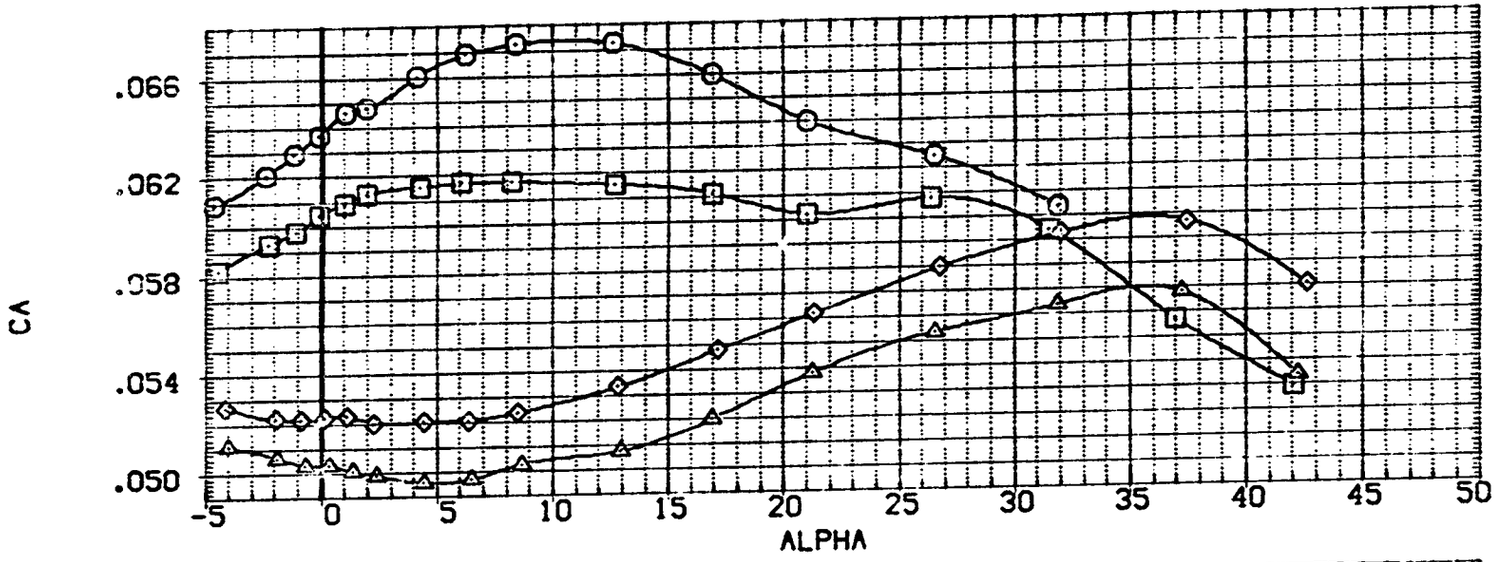
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=55 DEG.)

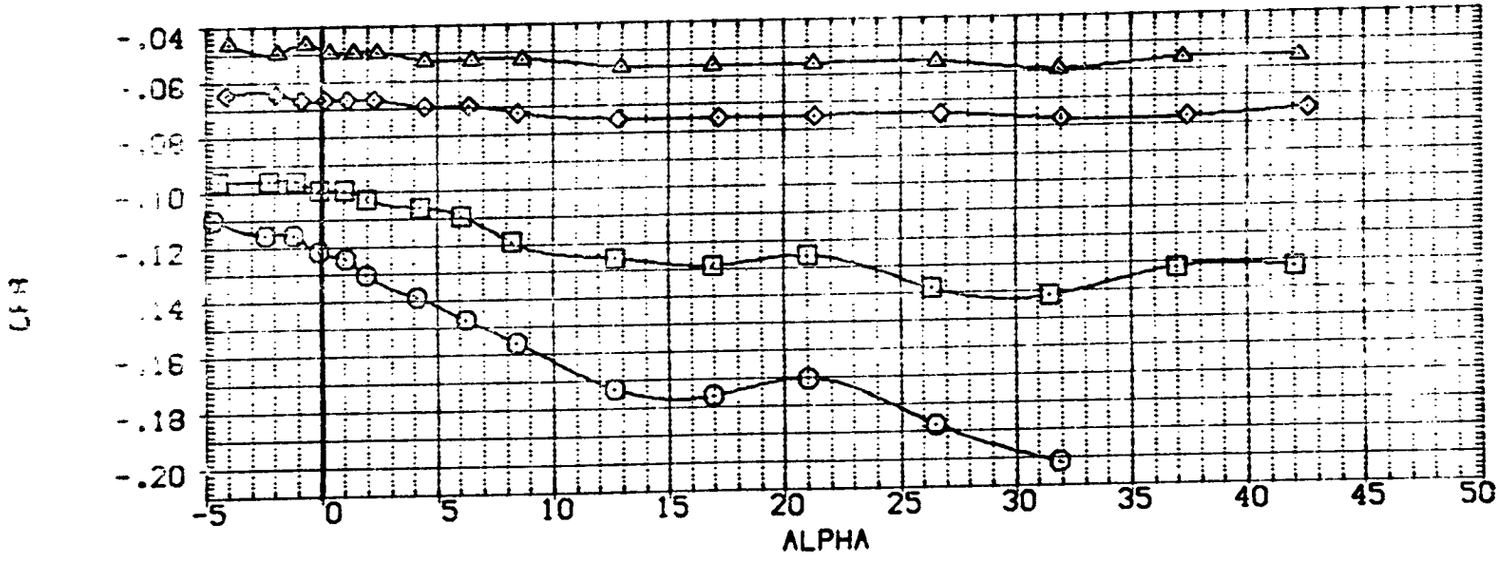
LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8004)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	60.000	ELEVTR	.000
◇	3.960	BDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=60 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8004)

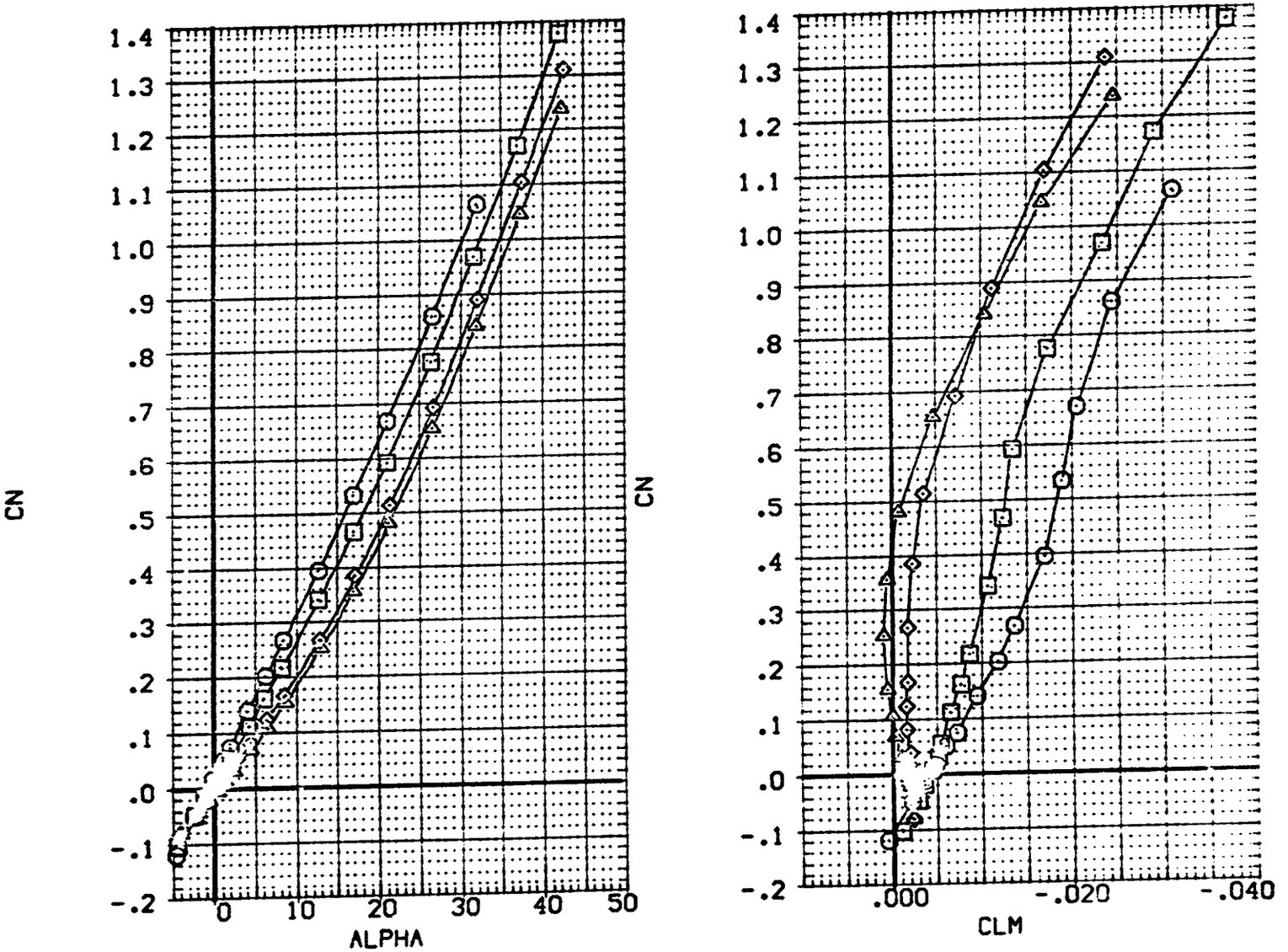
SYMBOL	MACH
○	2.360
□	2.860
◇	3.950
△	4.630

PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	60.000	ELEVTR	.000
BDFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=60 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8004)

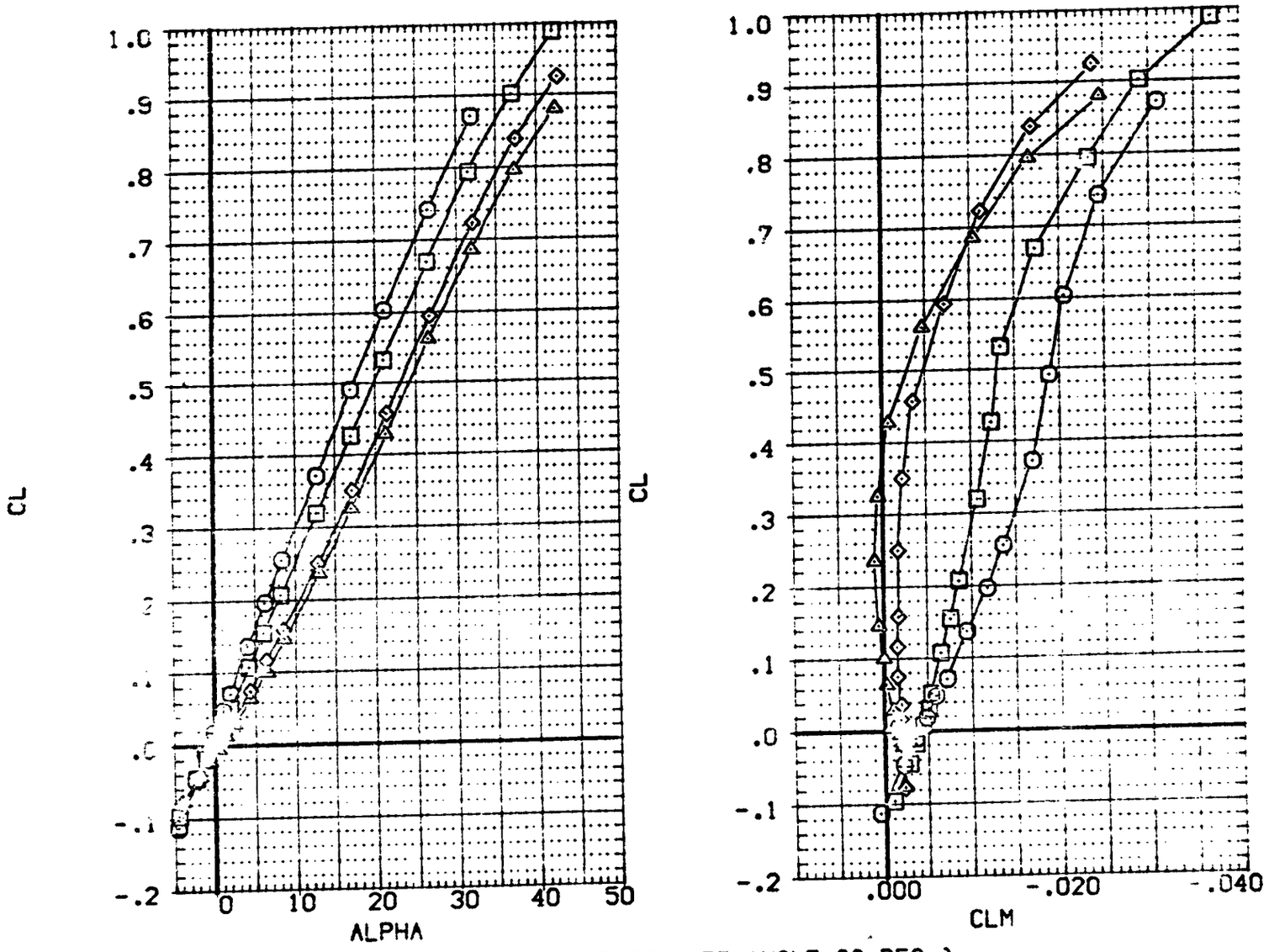
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	60.000	ELEVTR	.000
BDFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

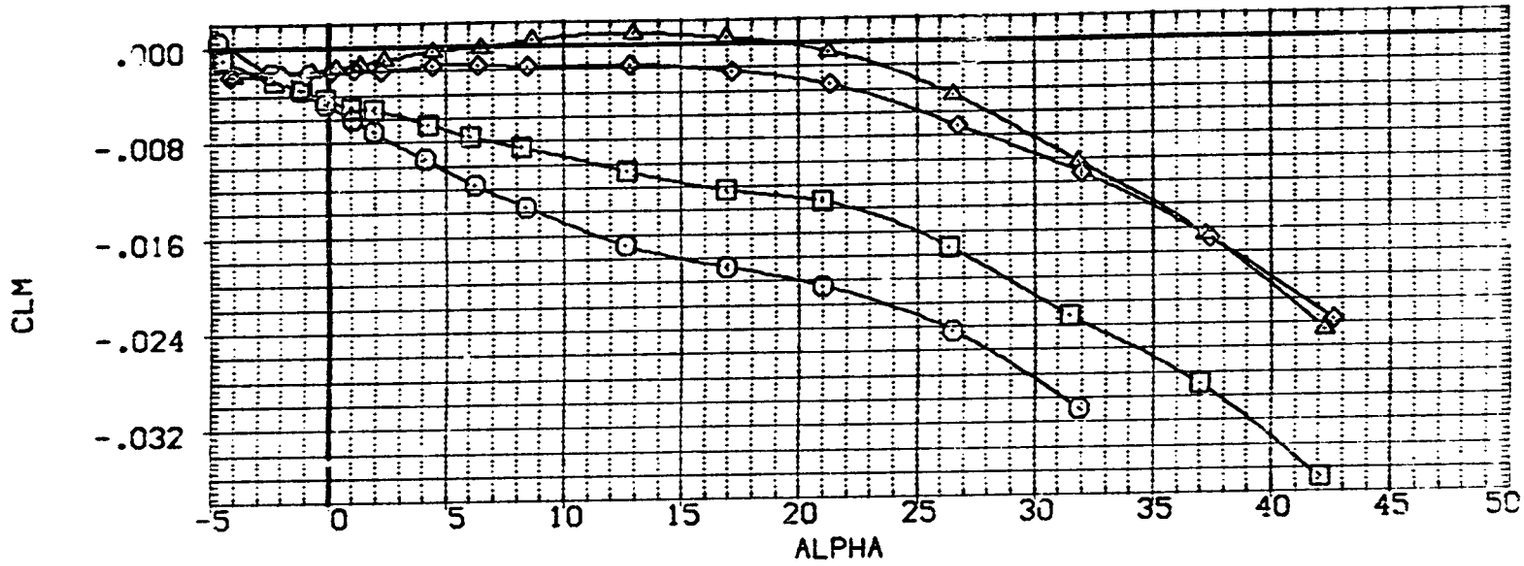


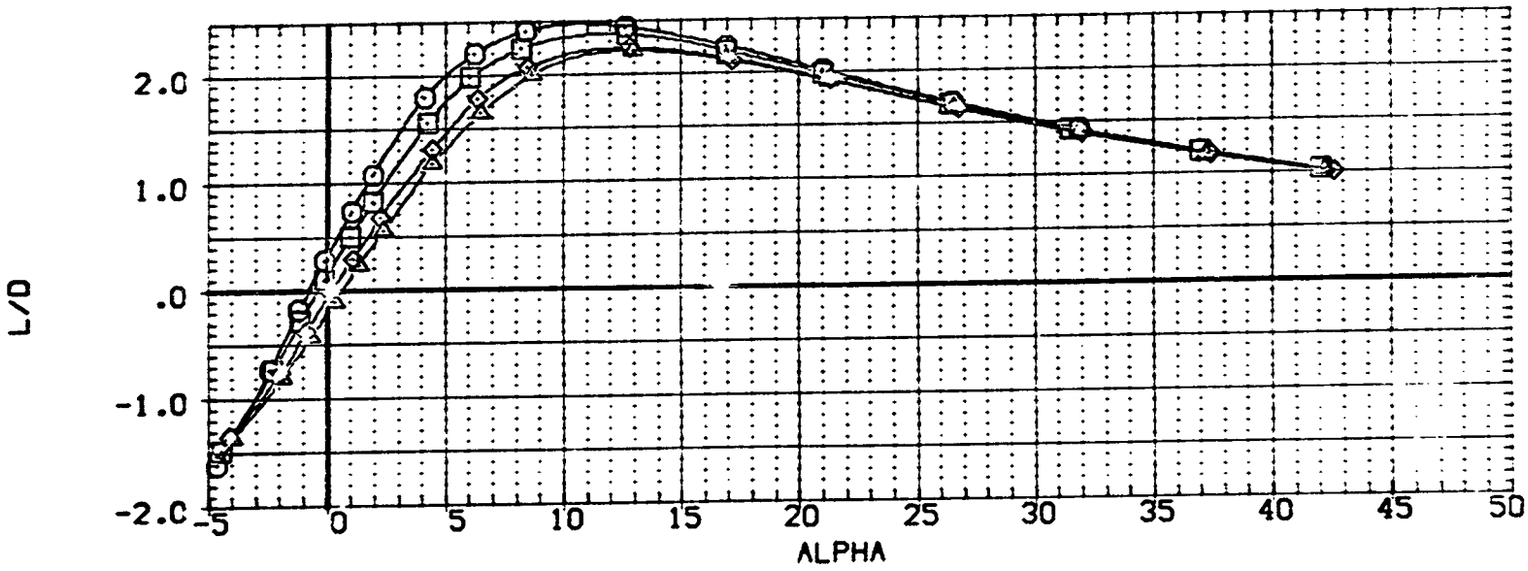
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=60 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8004)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	60.000	ELEVTR	.000
◇	3.960	BDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0169	SCALE



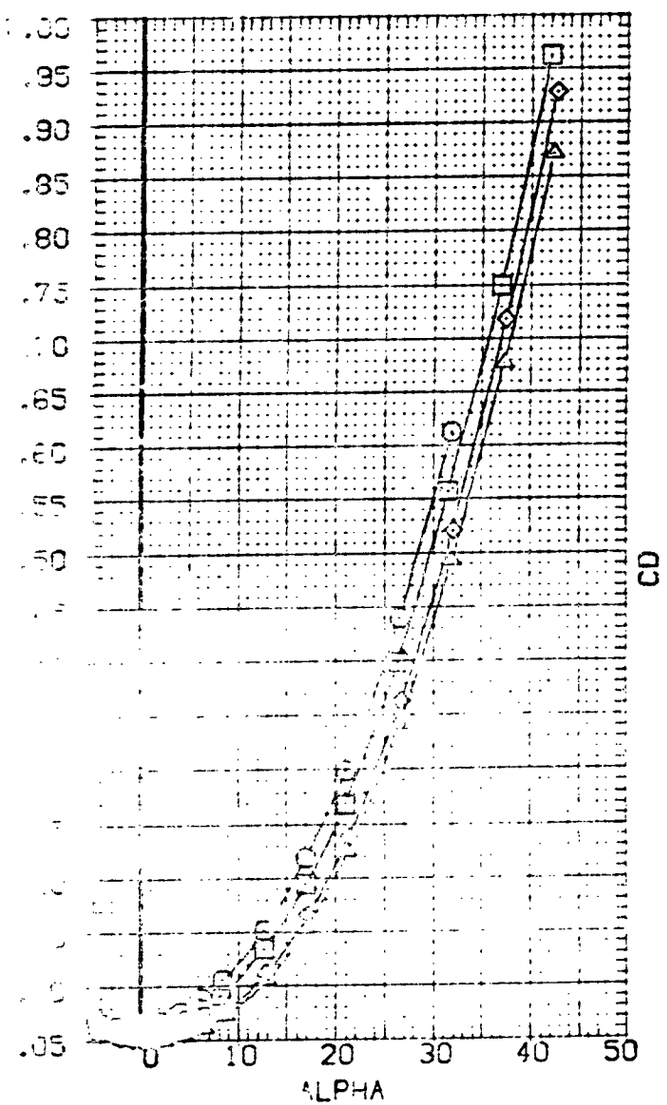


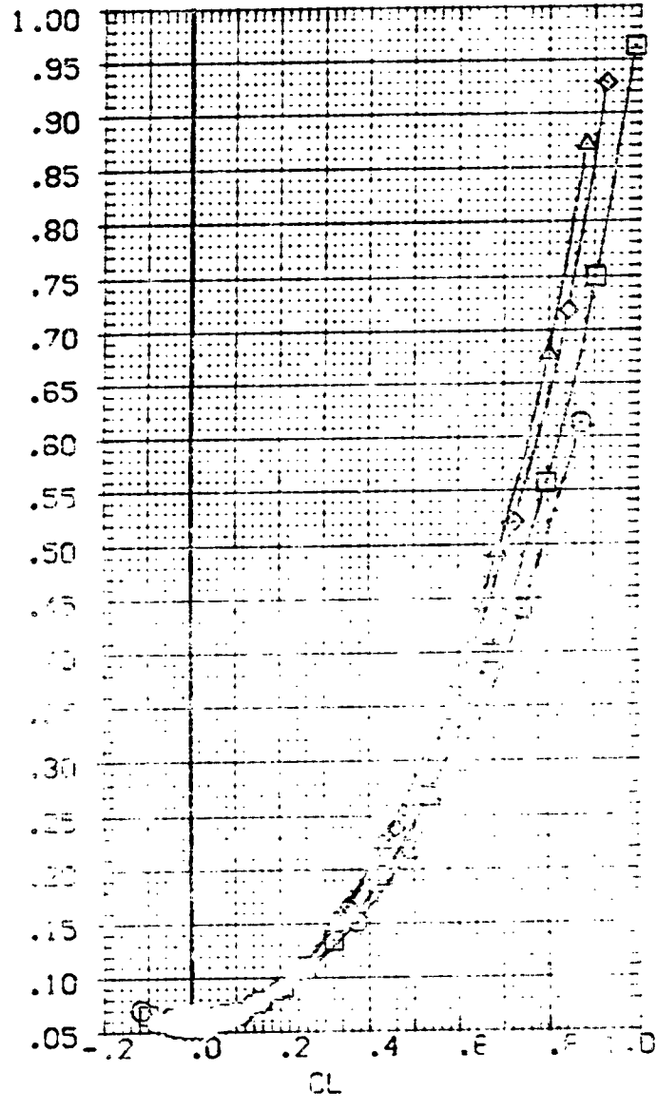
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=60 DEG.)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNC	2.000
◇	2.860	LAMDAF	60.000	ELEVTR	.000
△	3.960	BDFLAP	.000	RUDFLR	.000
	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	51.8365	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	0.28	SCALE





EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=60 DEG.)

LA-10 LARC UPWT 10:5 L0-100 ORB.(SHIPS) (BW2VFB)(BP8005)

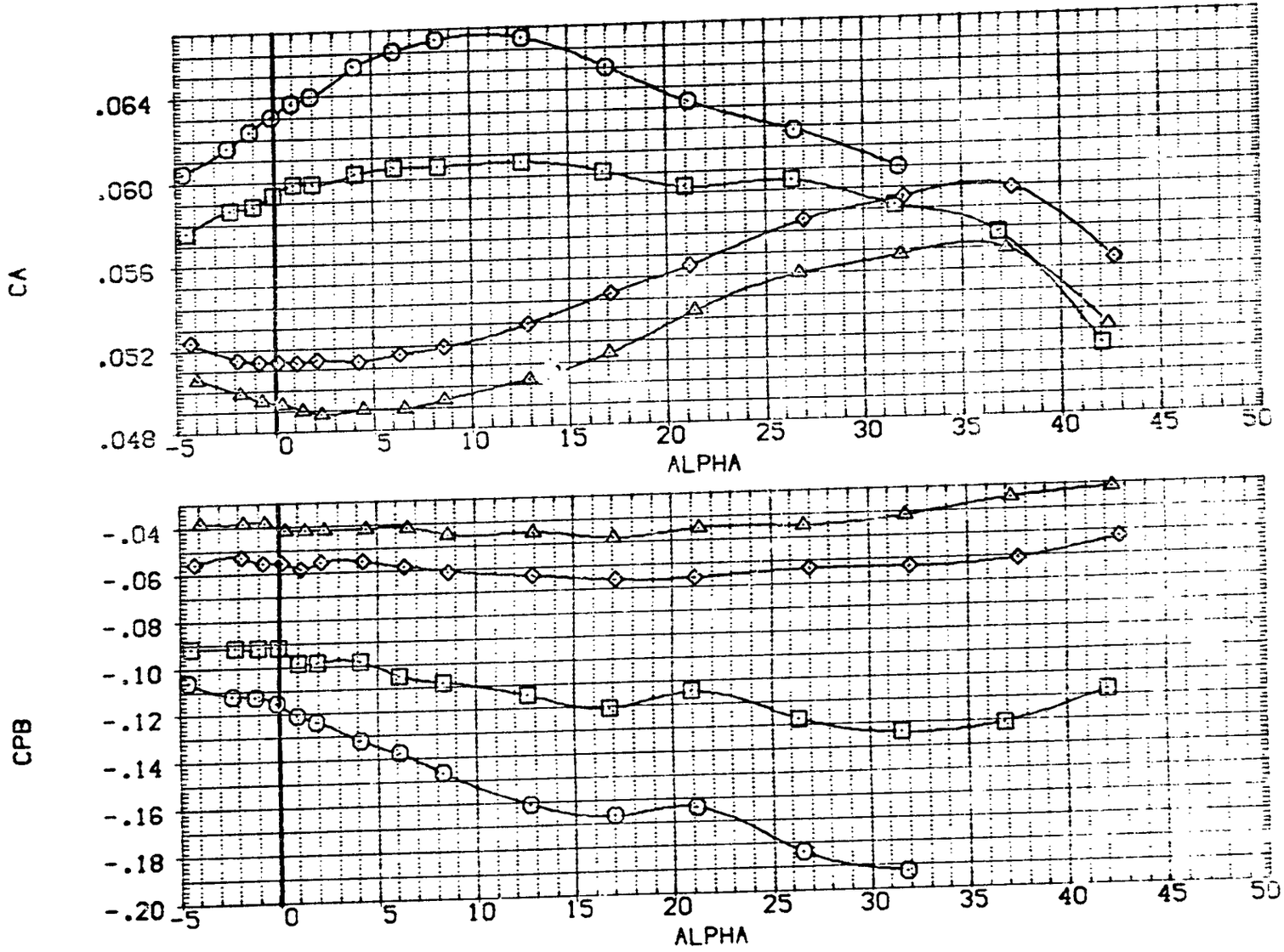
SYMBOL	MACH
○	2.360
□◇	2.860
◇	3.960
△	4.630

PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	65.000	ELEVTR	.000
BOFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



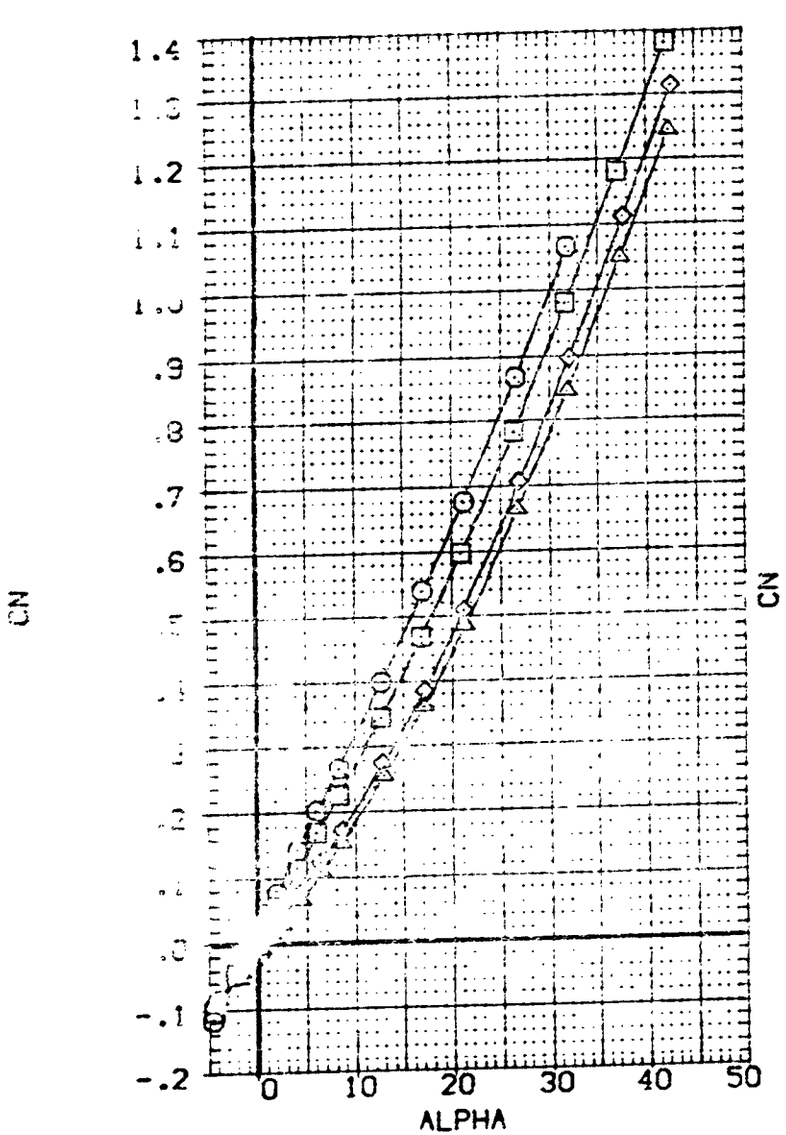
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=65 DEG.)

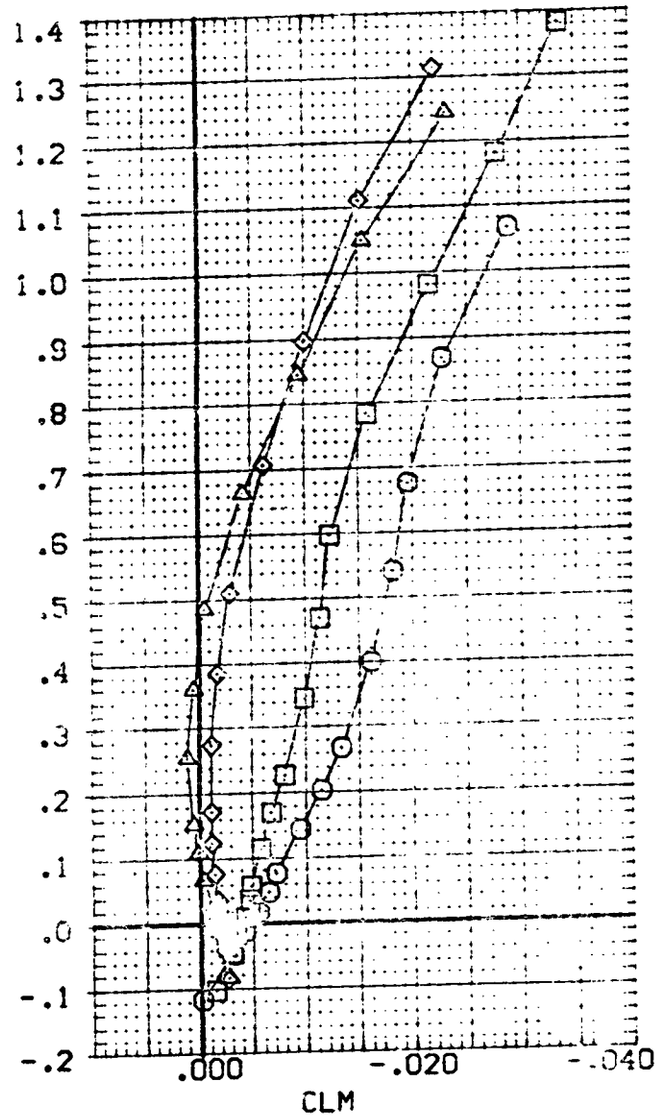
LA-10 LARC UPWT 10:5 LO-100 ORB.(SHIPS) (BW2VFB)(BP8005)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
◇	2.630	LAMDAF	65.000	ELEVTR	.030
□	3.160	BOFLAP	.000	RUDDLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	15.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



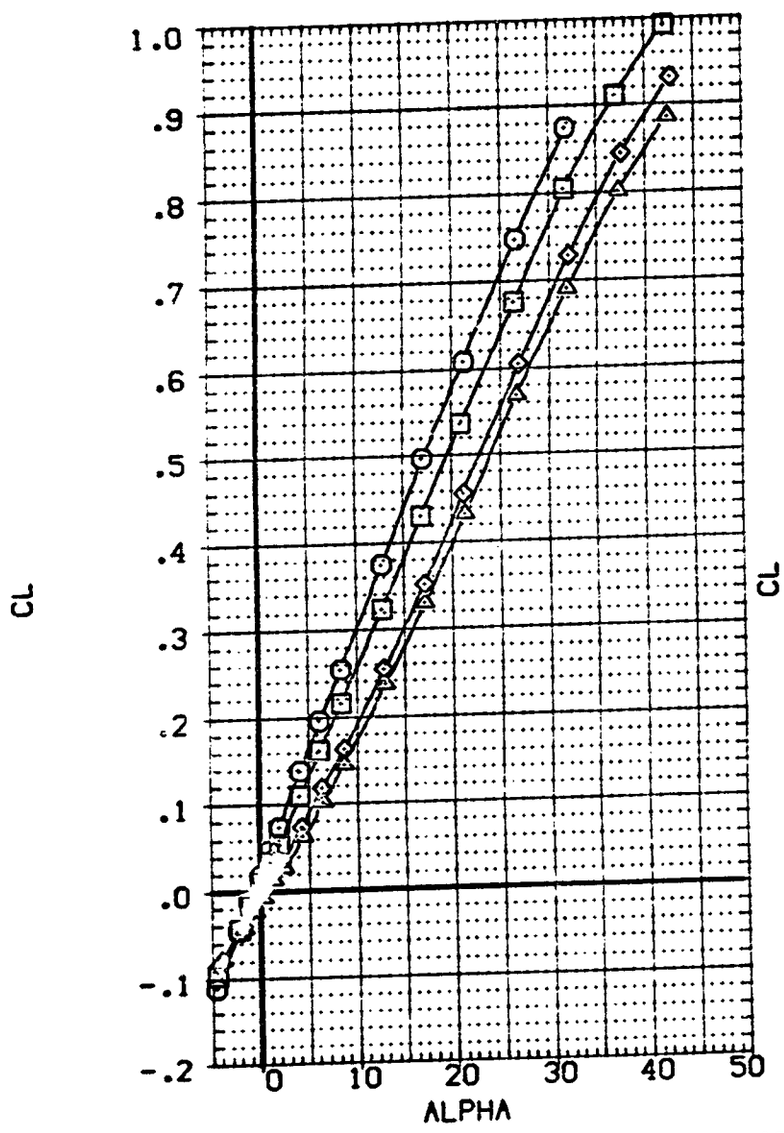


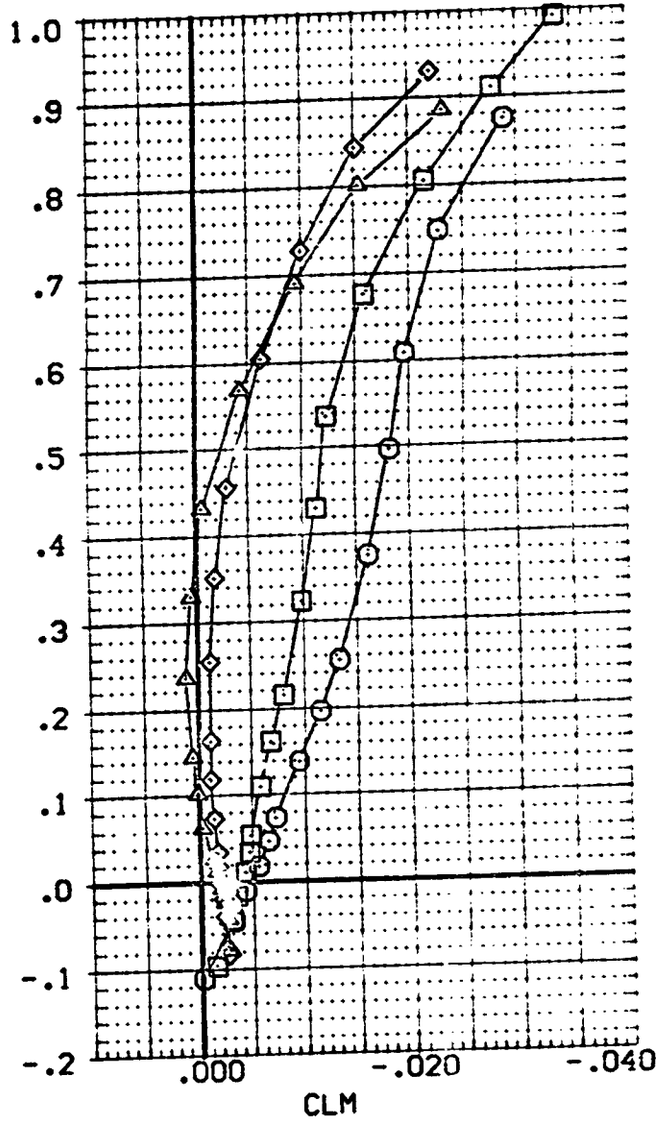
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=65 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8005)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	65.000	ELEVTR	.000
◇	3.960	BDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





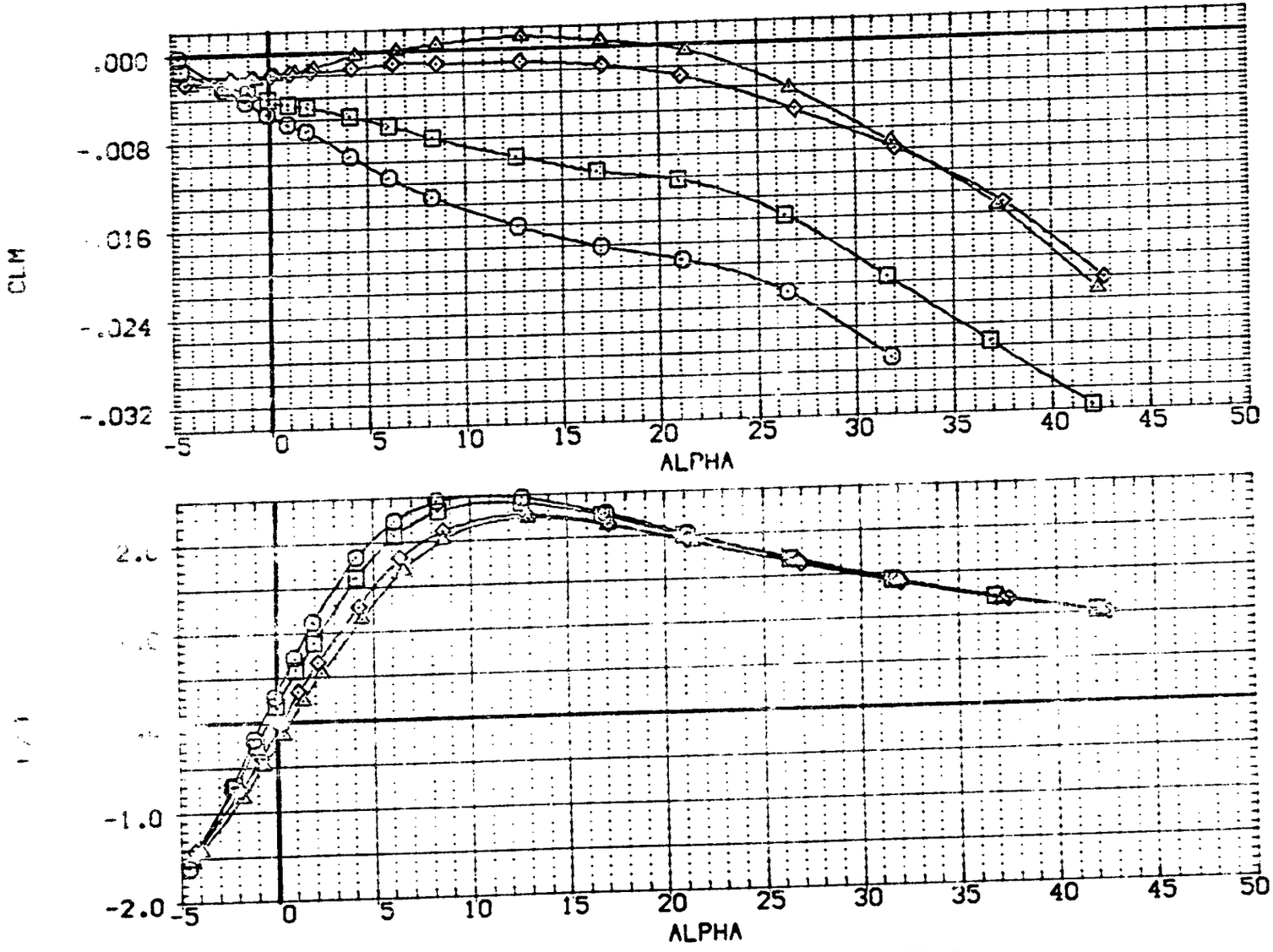
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=65 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8005)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	65.000	ELEVTR	.000
◇	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	5.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=65 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8005)

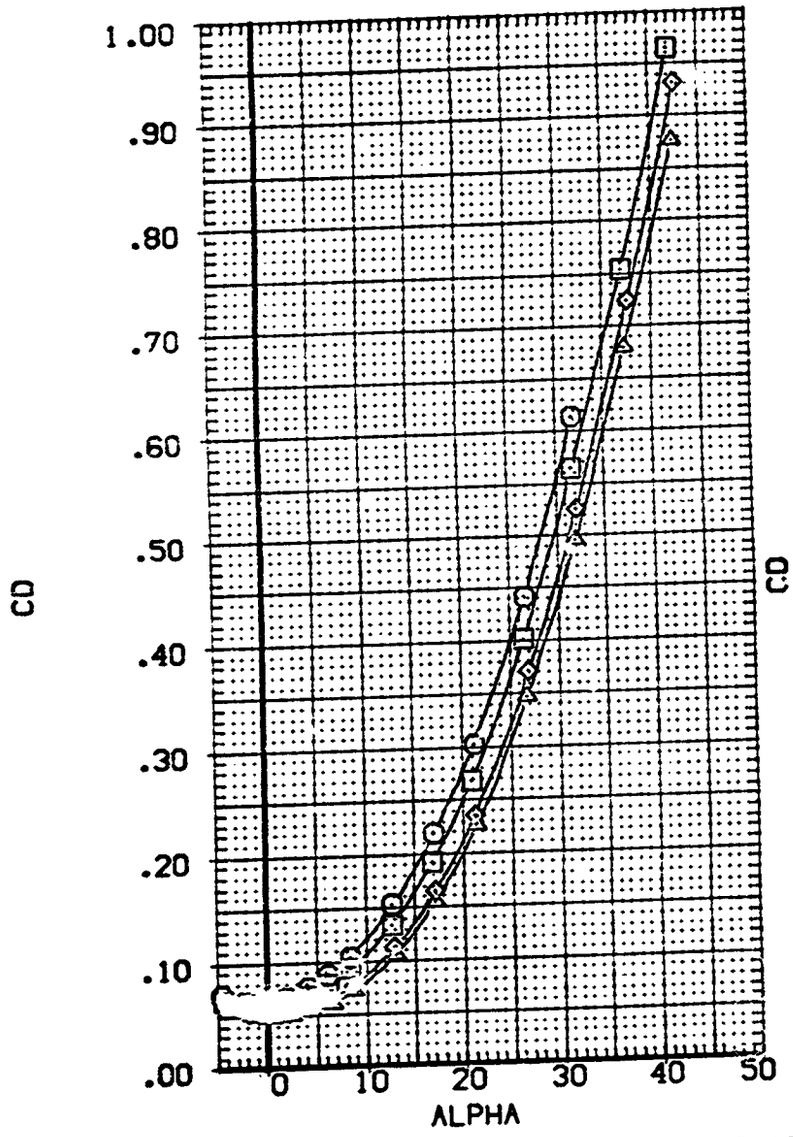
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

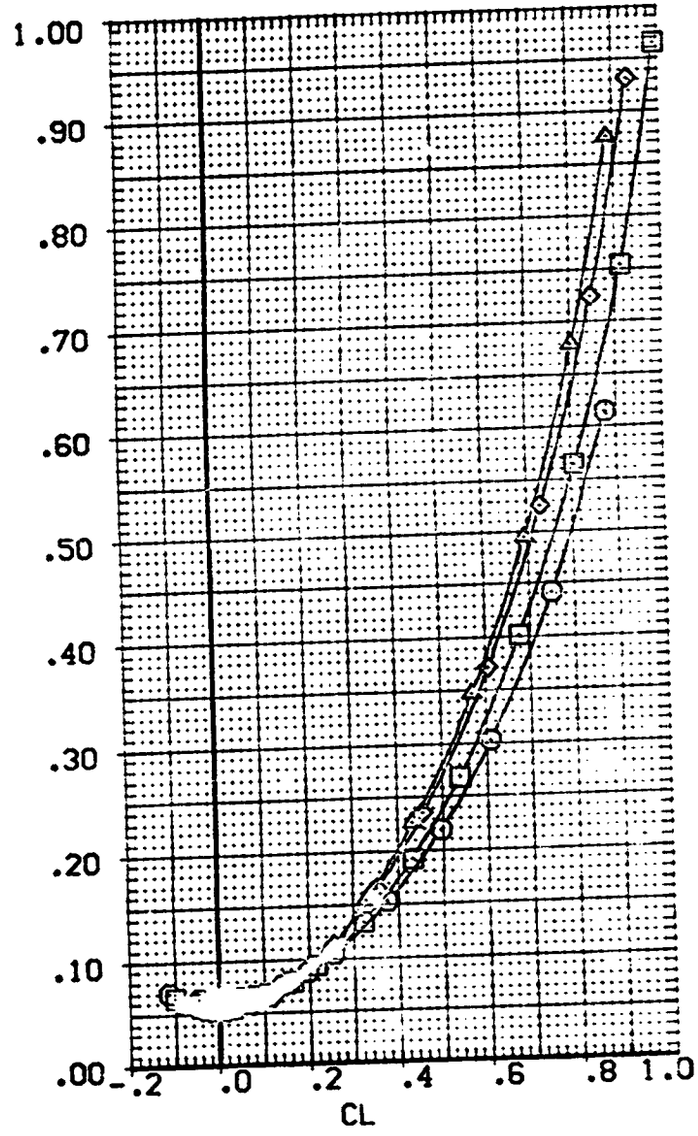
PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	65.000	ELEVTR	.000
BOFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





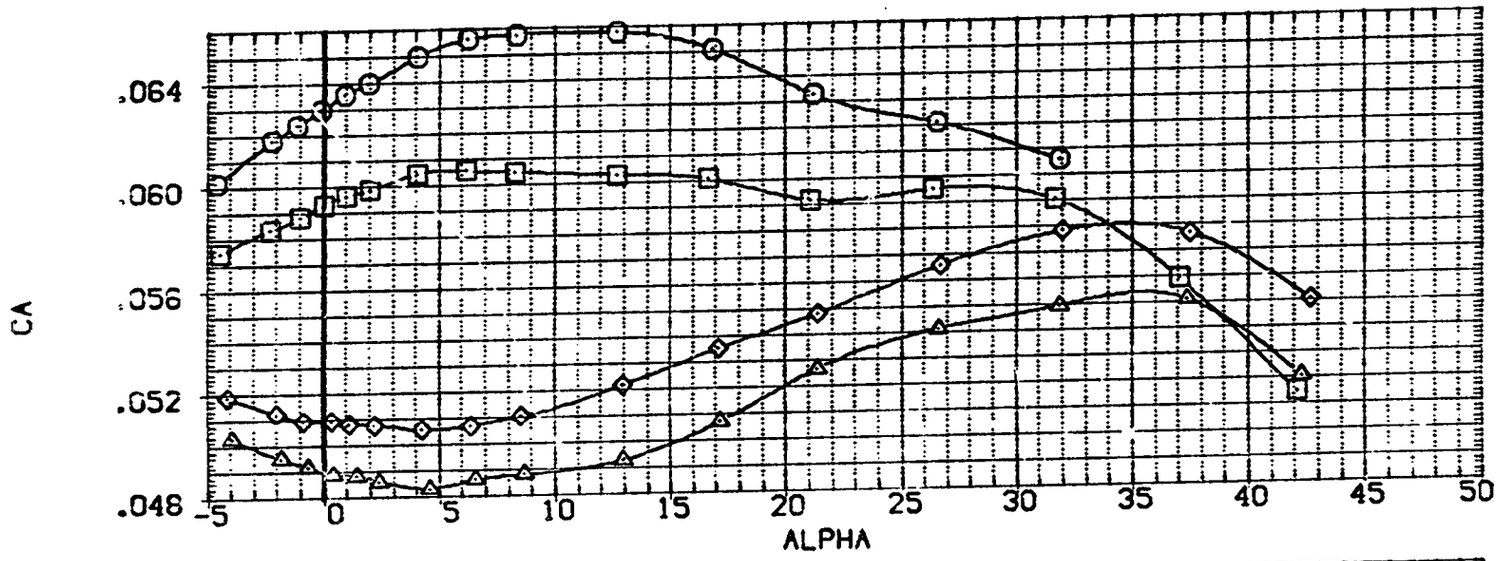
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=65 DEG.)

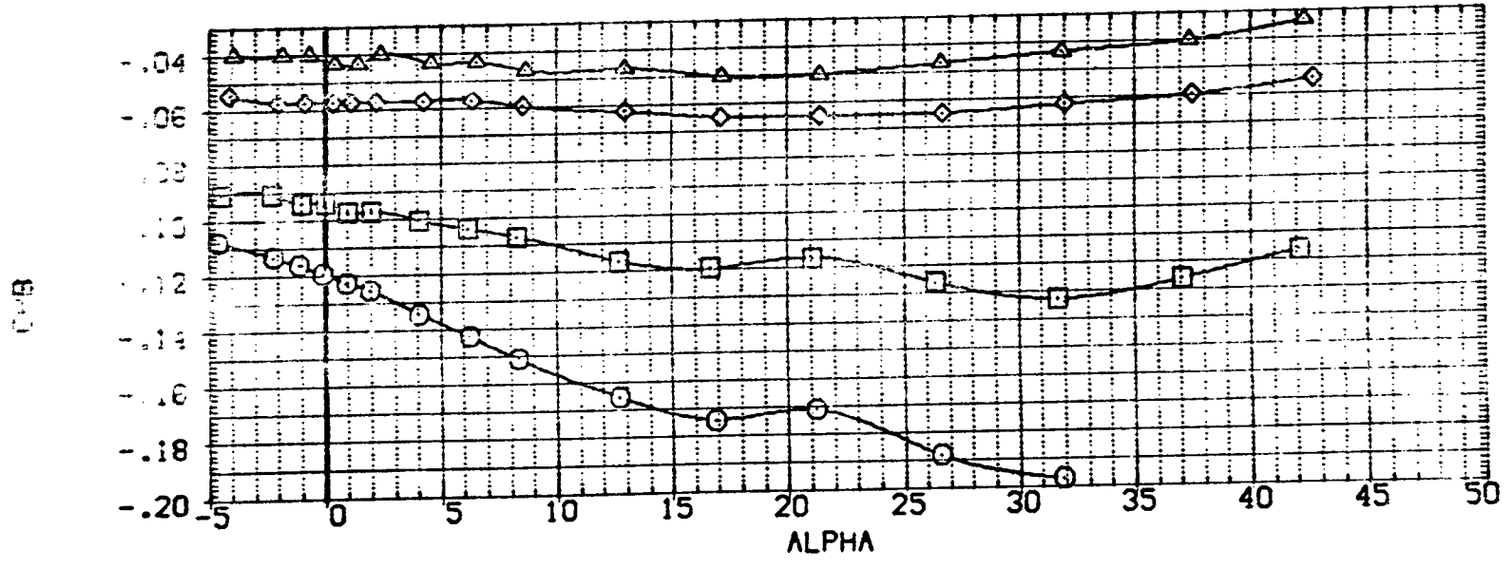
LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB;(BP8007)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.660	LAMDAF	70.000	ELEVTR	.000
◇	3.960	BDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=70 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8007)

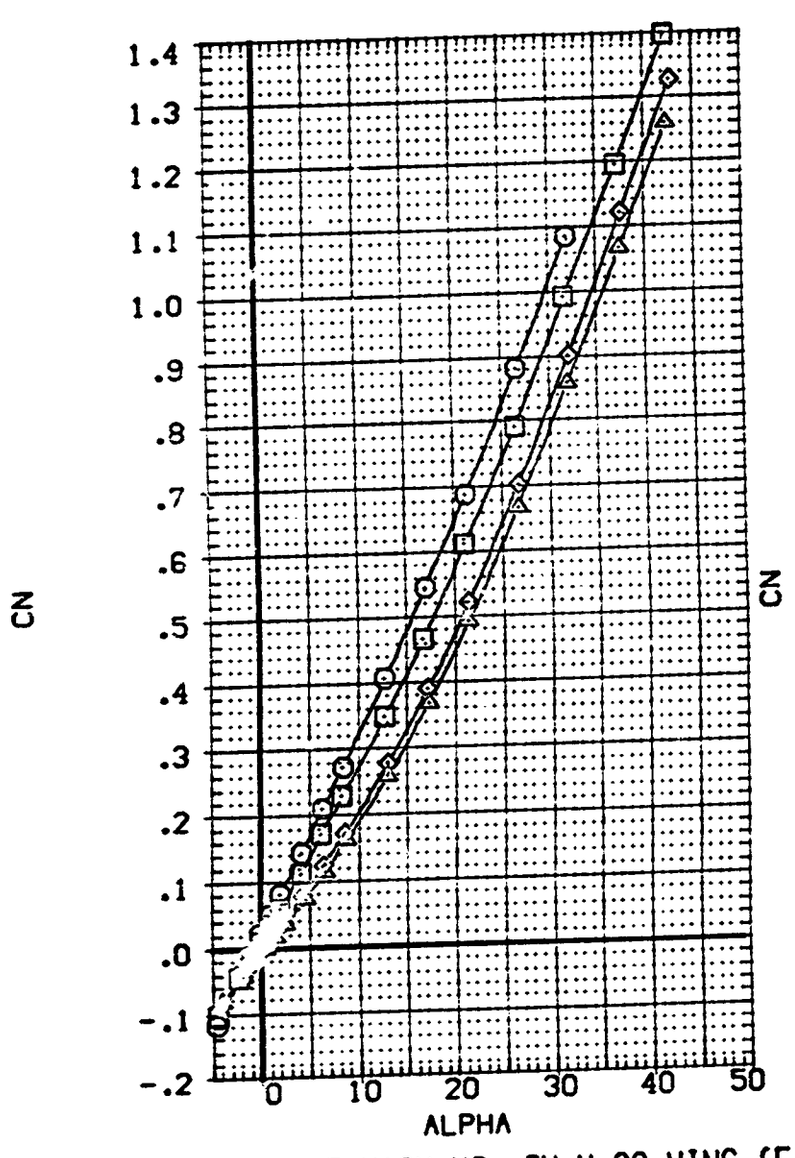
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

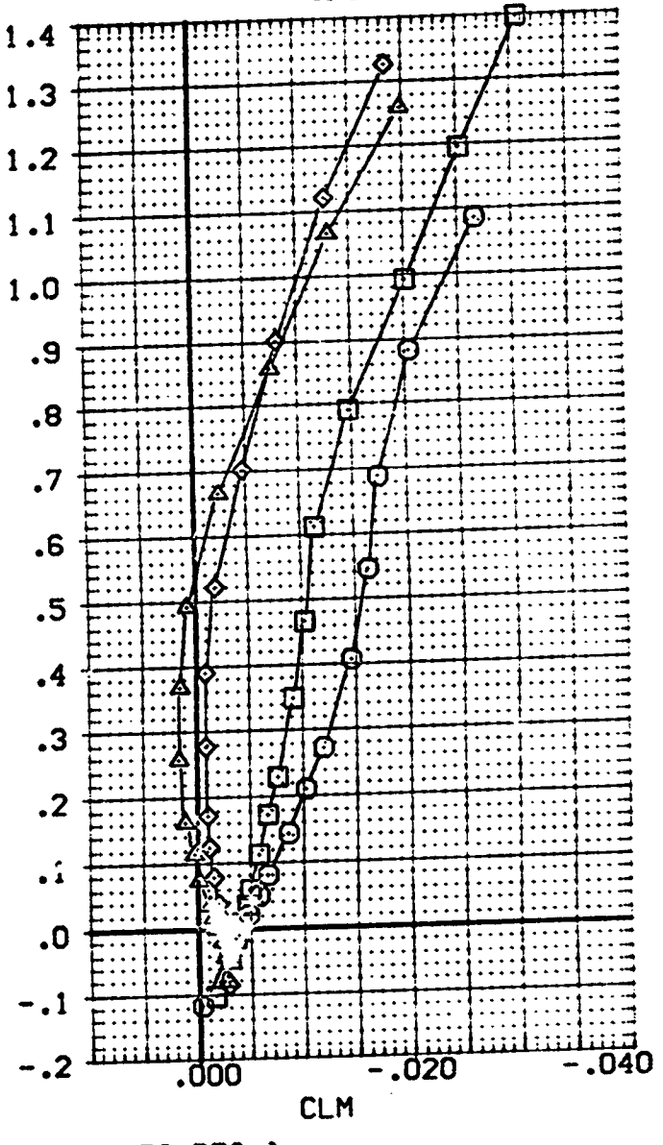
PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	70.000	ELEVTR	.000
BOFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





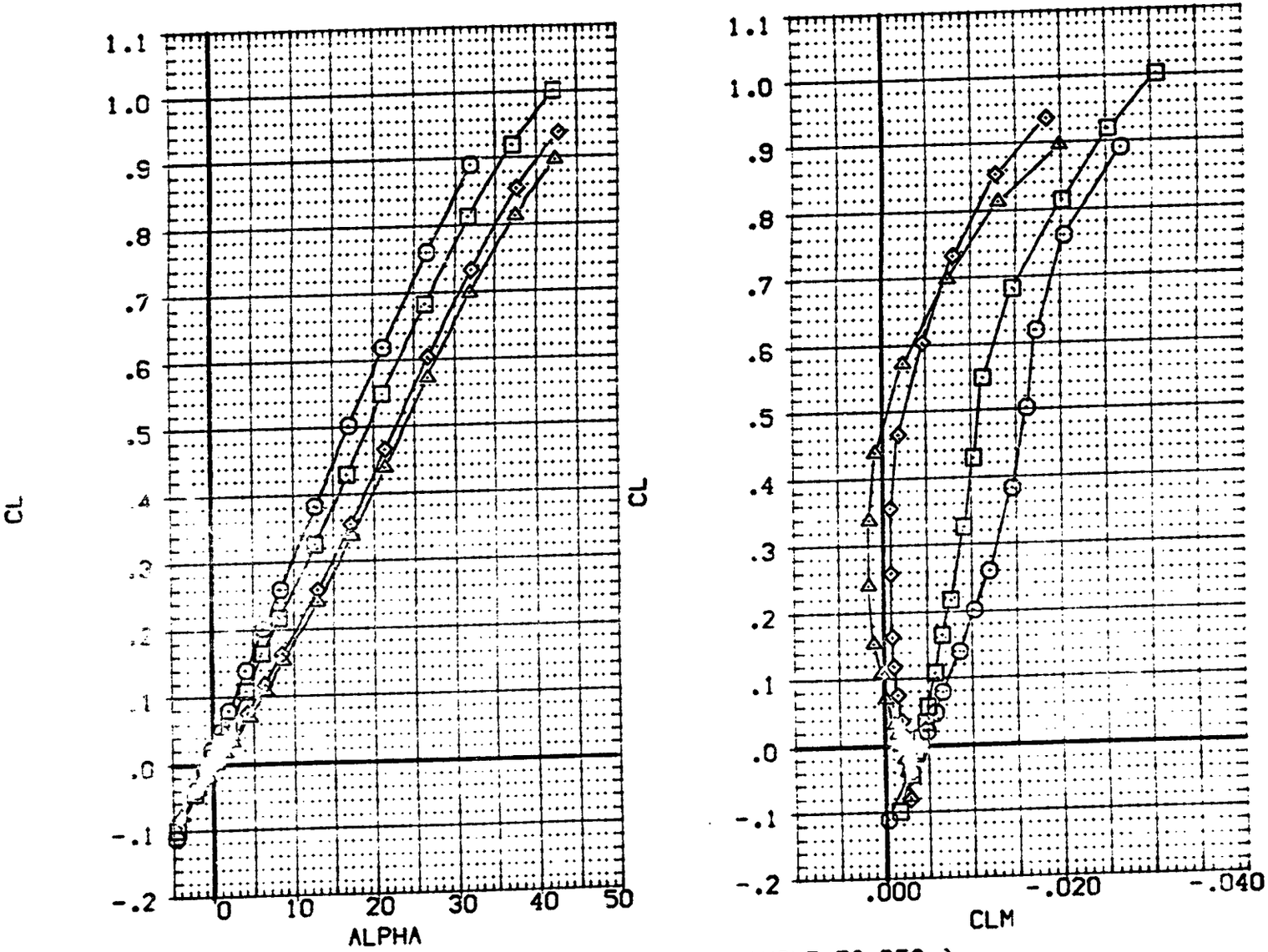
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=70 DEG.)

LA-10 LARC UPWT 1015 L0-100 0RB.(SHIPS) (BW2VFB)(BP8007)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	70.000	ELEVTR	.000
◇	3.960	BDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



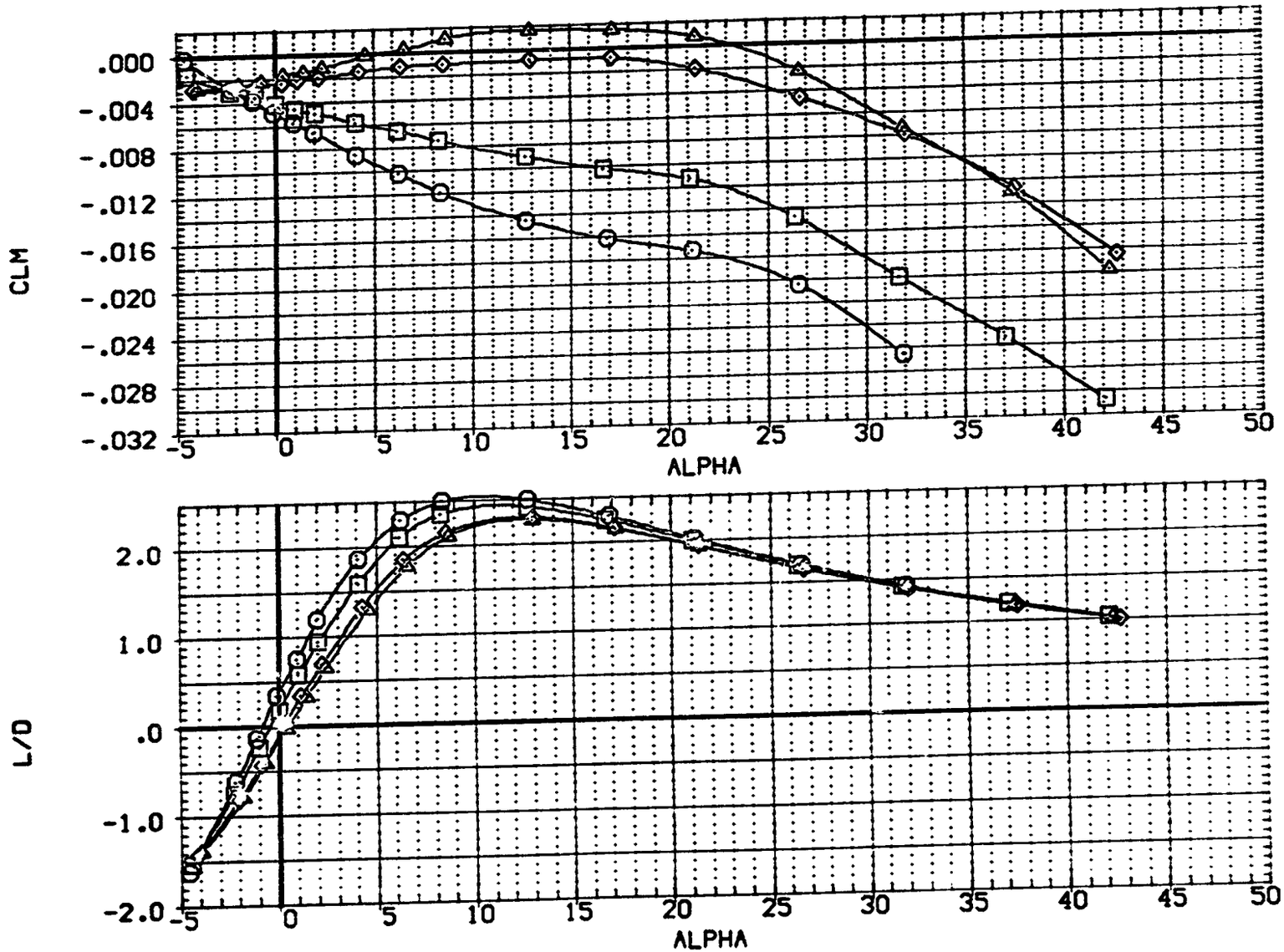
EFFECT 0F MACH N0. 0N W-33 WING (FILLET ANGLE=70 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8007)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	VINGNO	2.000
□	2.860	LAMDAF	70.000	ELEVTR	.000
◇	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=70 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8007)

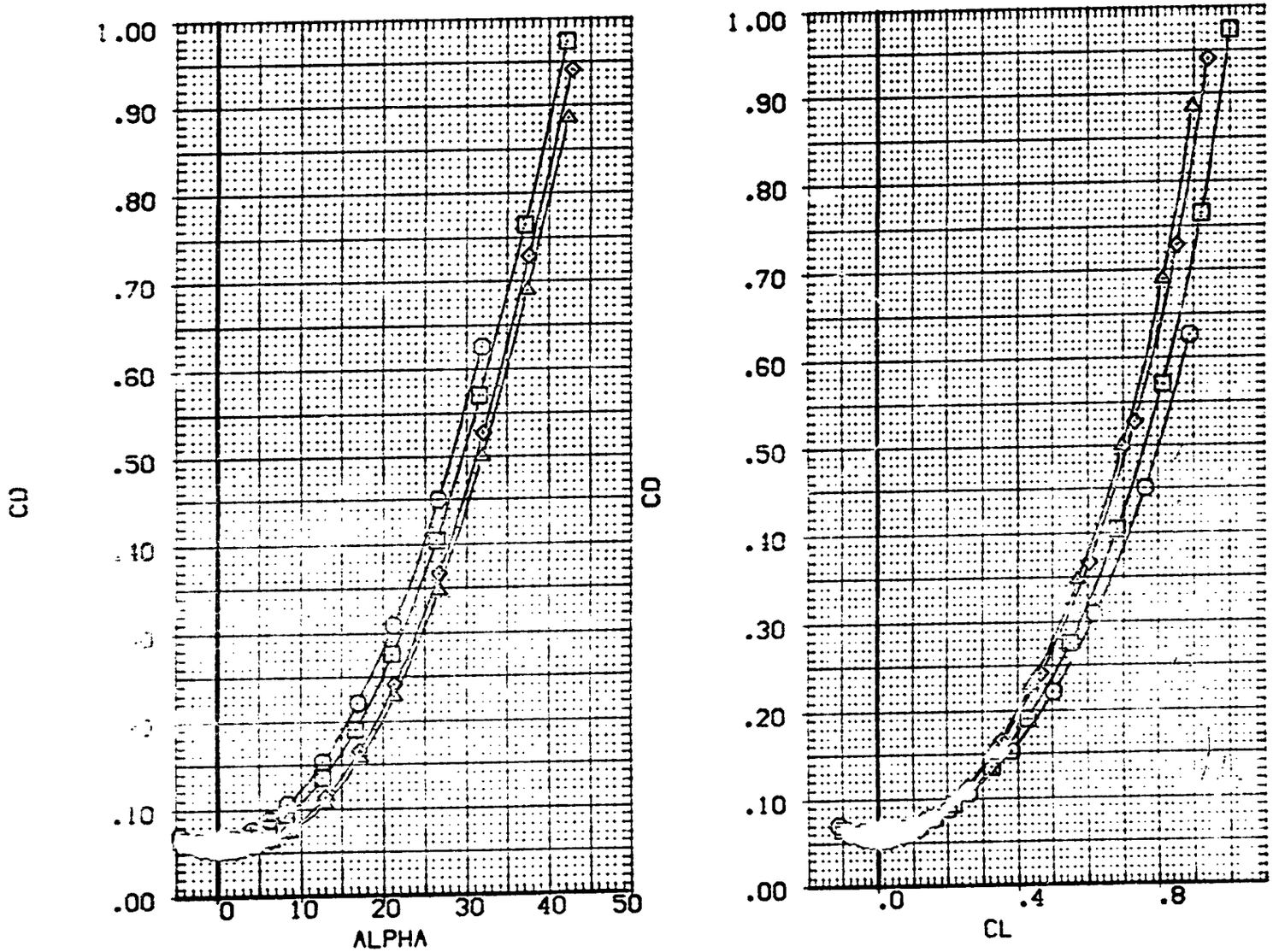
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	70.000	ELEVTR	.000
BDFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	15.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=70 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8008)

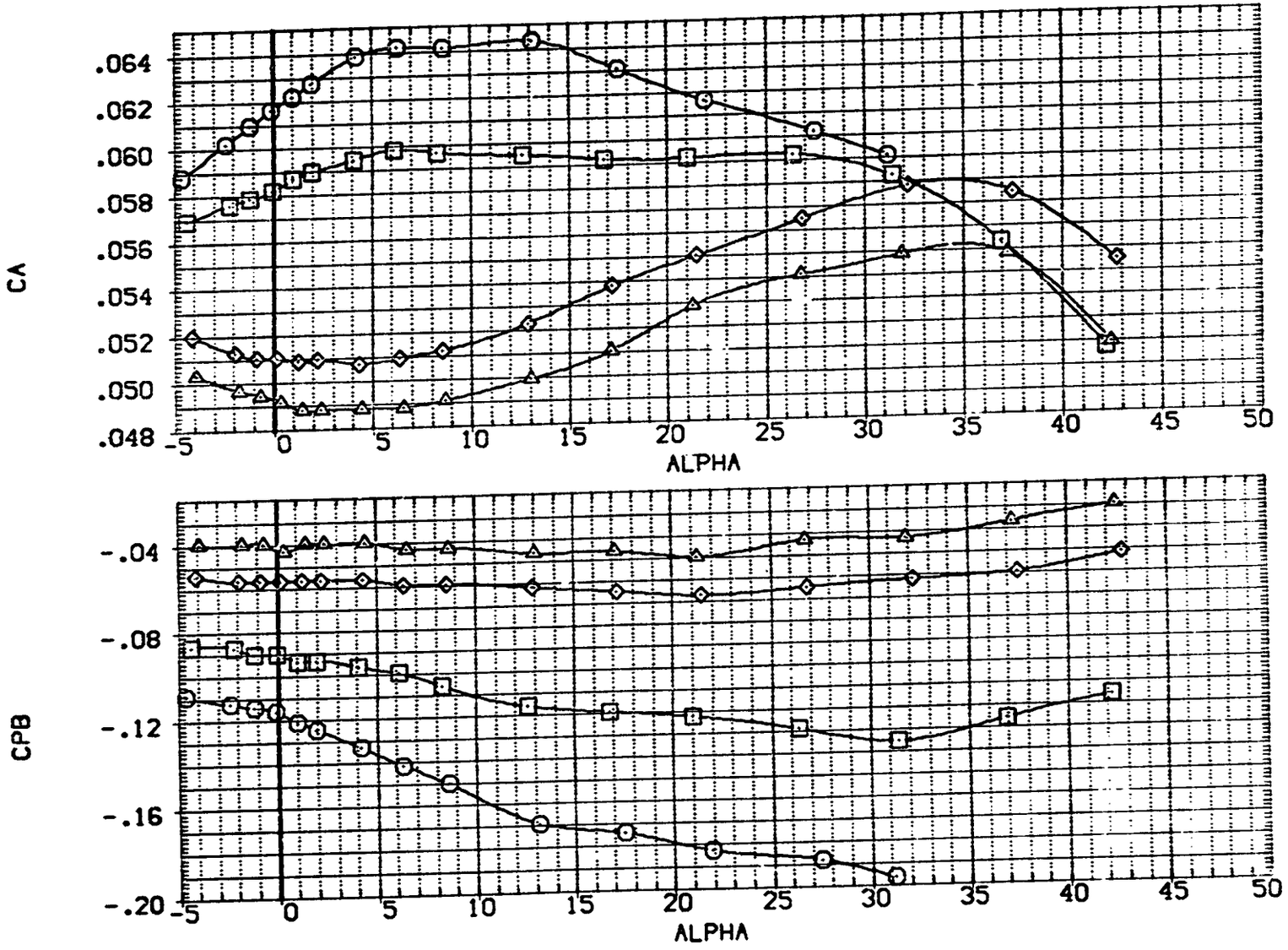
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

PARAMETRIC VALUES

BETA	.000	VINGNO	2.000
LAMDAF	75.000	ELEVTR	.000
BOFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



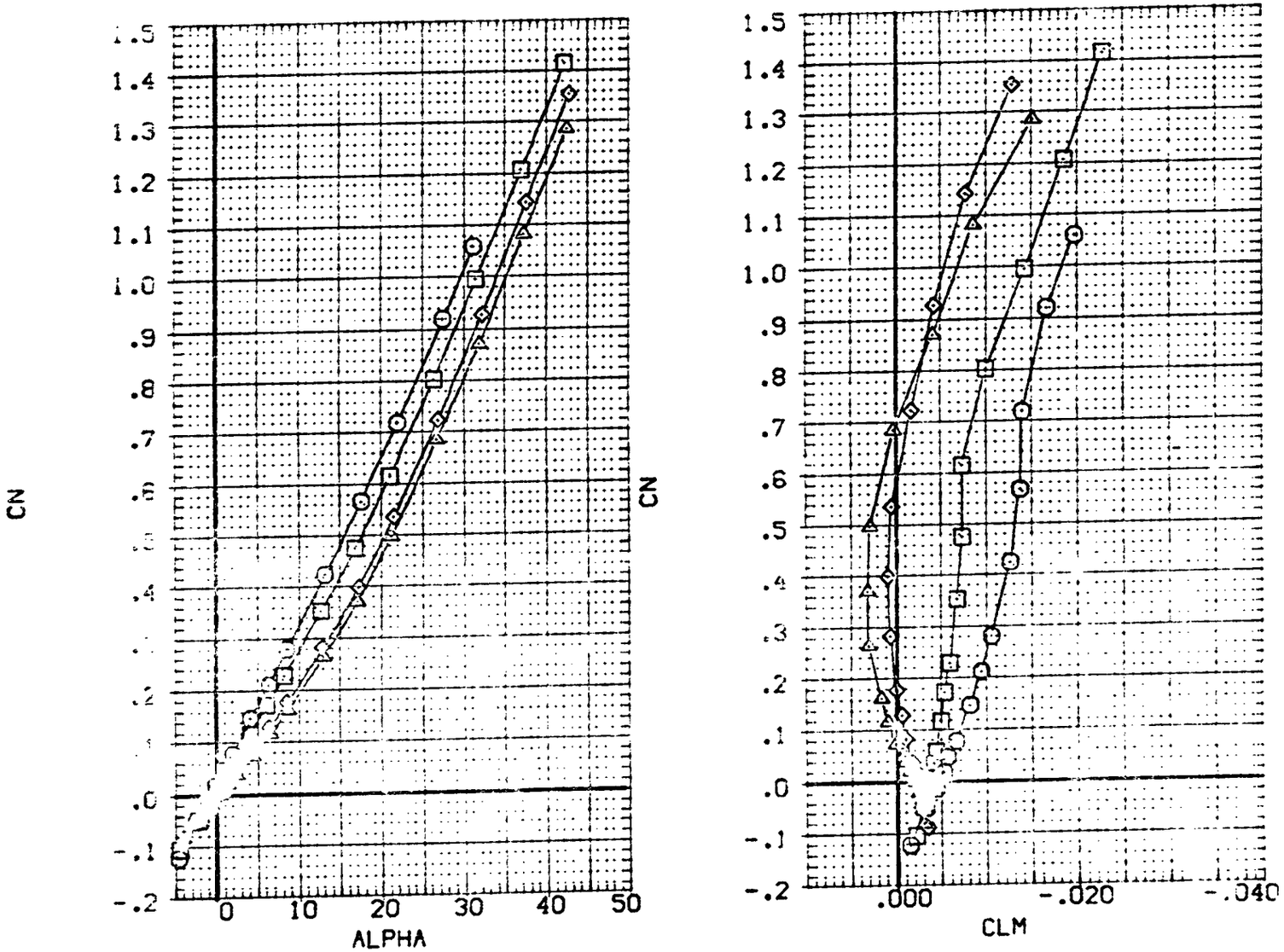
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=75 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8008)

SYMBOL	MACH	PARAMETRIC VALUES			
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	75.000	ELEVTR	.000
◇	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0189	SCALE



EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=75 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8008)

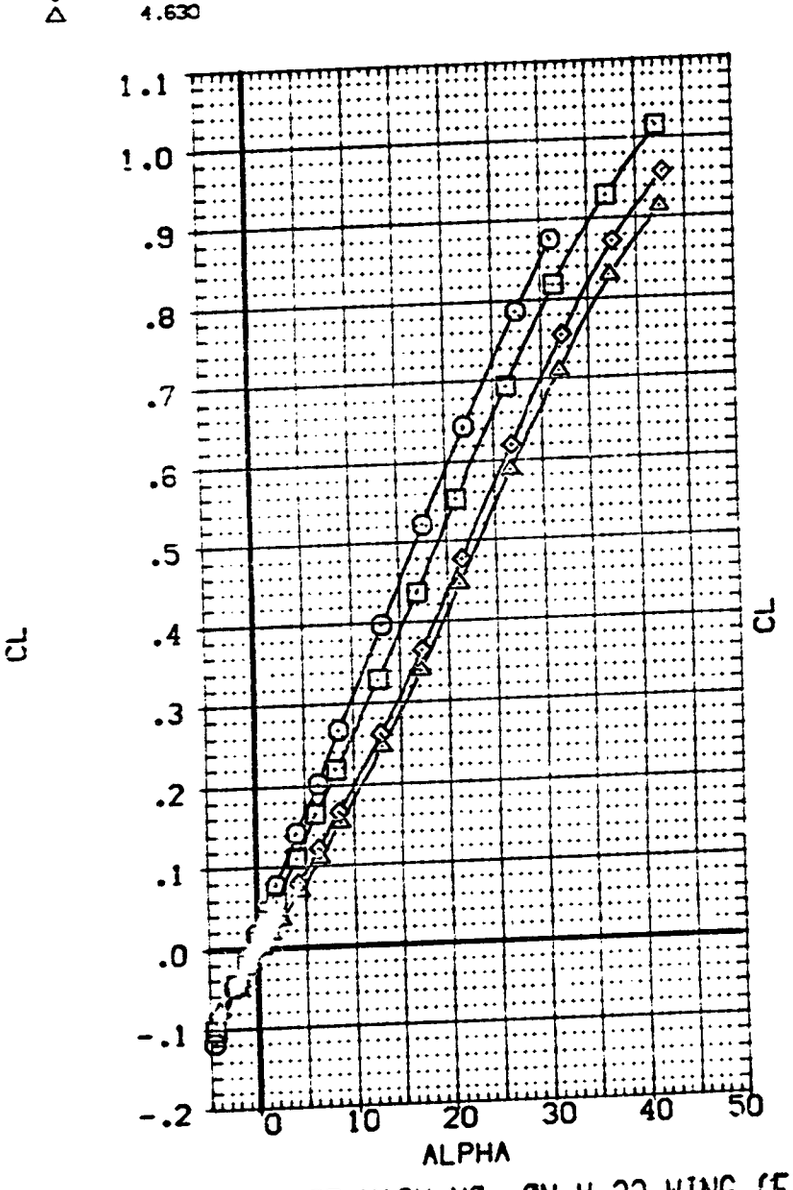
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

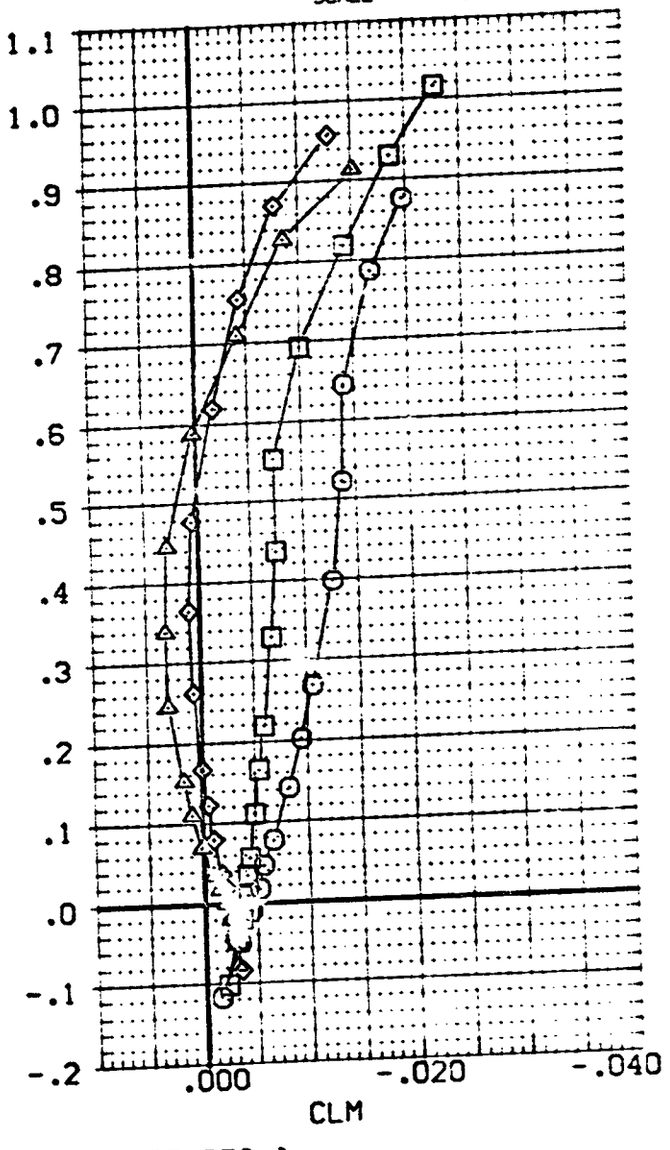
PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	75.000	ELEVTR	.000
BOFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0168	SCALE





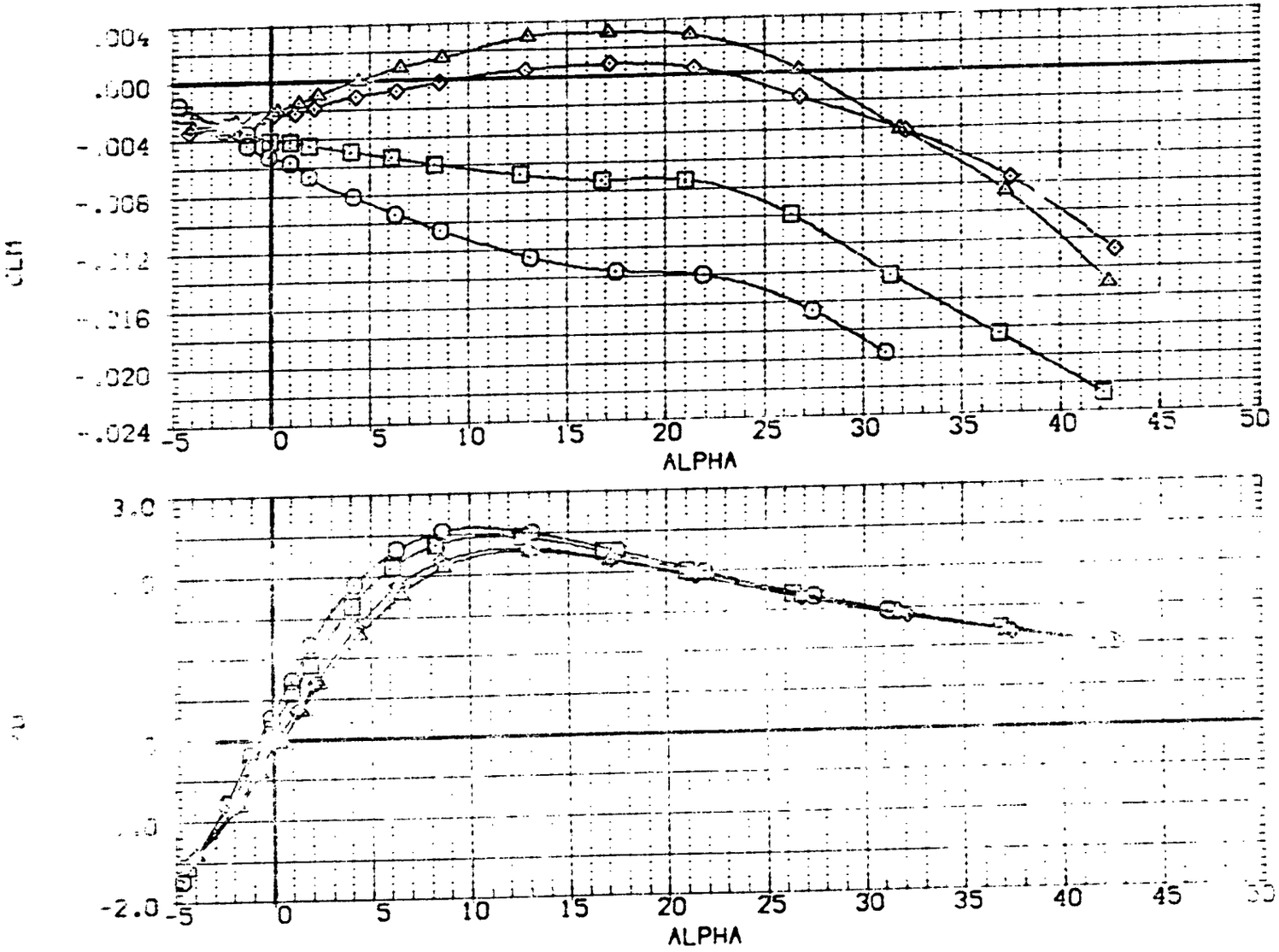
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=75 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8008)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNC	2.000
◇	2.860	LAMDAF	75.000	ELEVTR	.000
△	3.960	BOFLAP	.000	RUDFLR	.000
	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3600	INCHES
XMRP	16.8360	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	1.00	



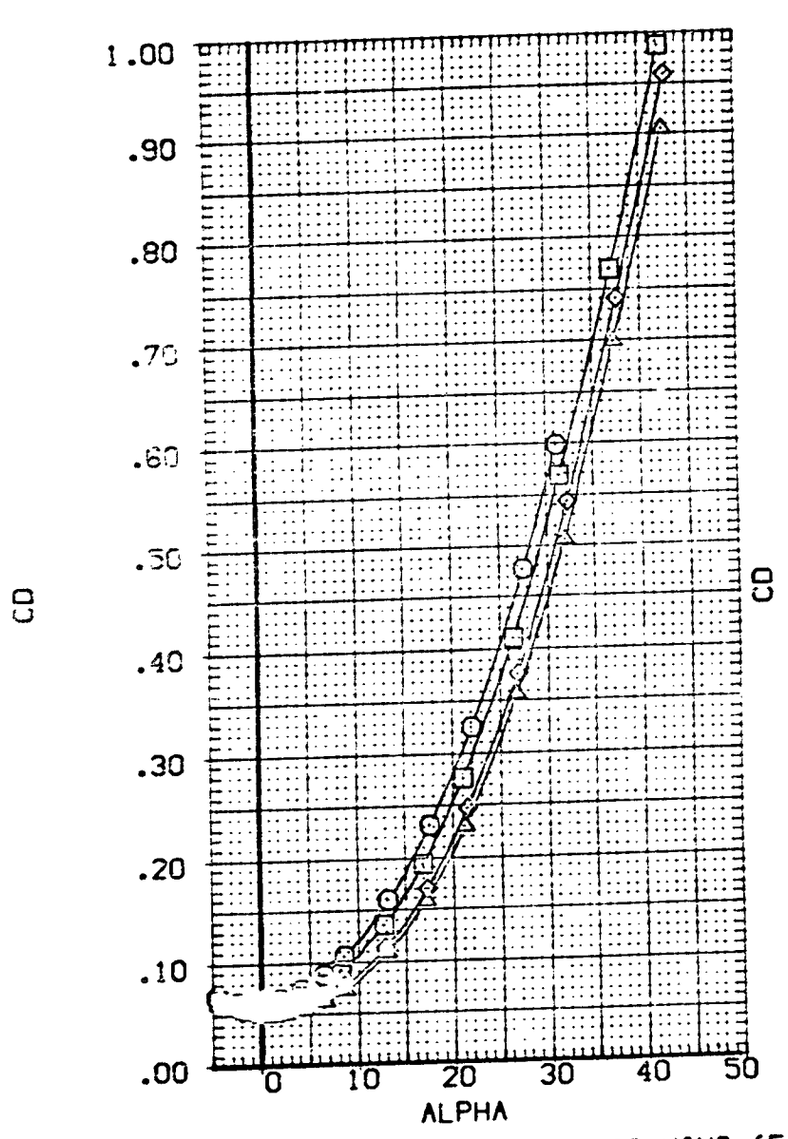
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=75 DEG.)

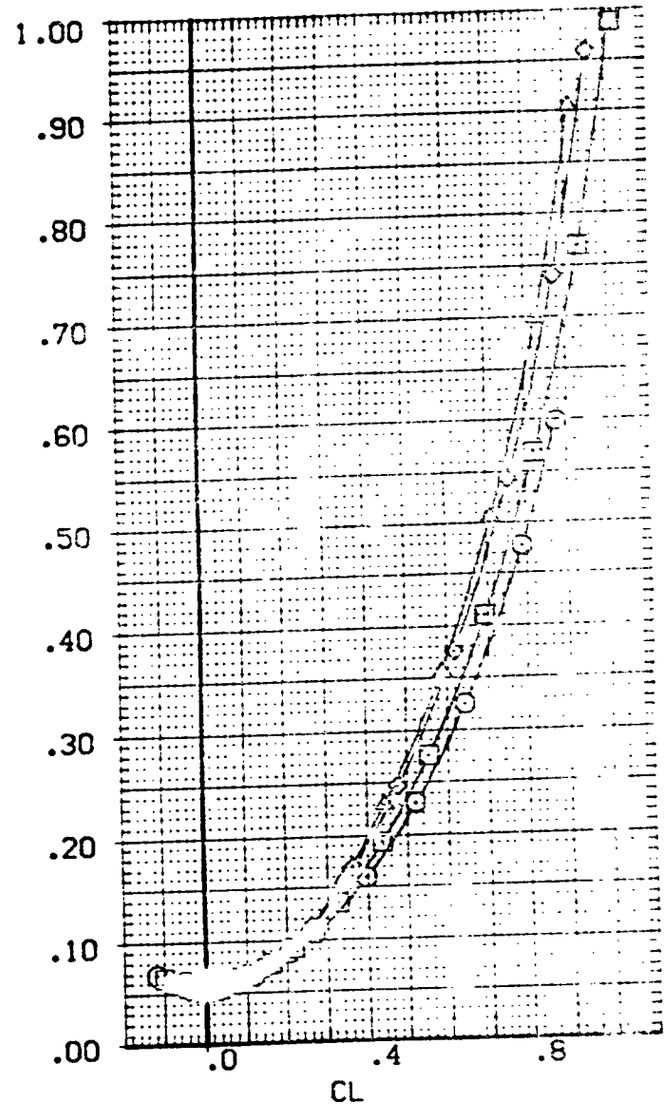
LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8008)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
◇	2.860	LAMDAF	75.000	ELEVTR	.000
□	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ. IN.
LREF	26.5100	IN.
BREF	20.3600	IN.
XMRP	16.8360	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0166	





EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=75 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8010)

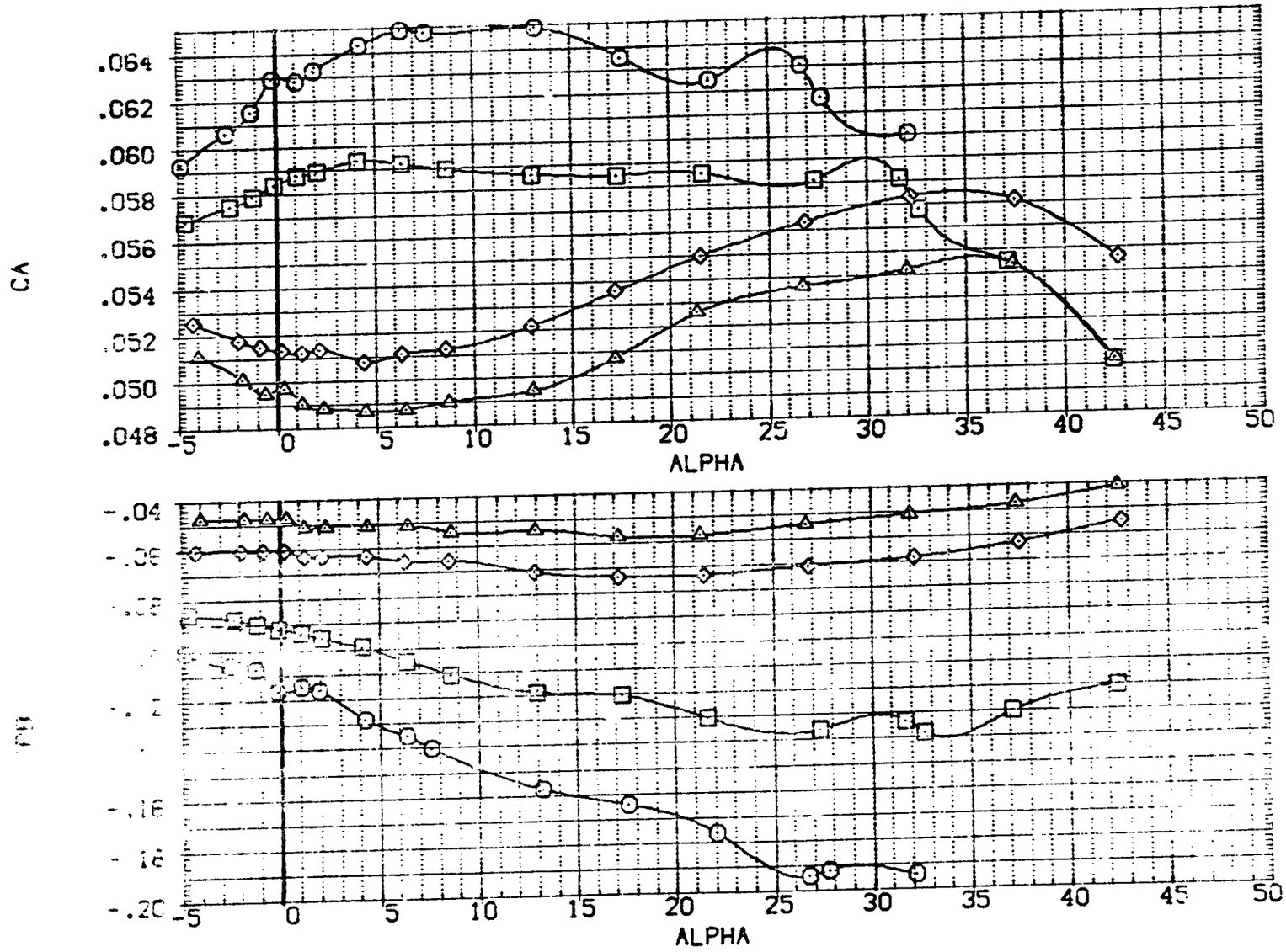
SYMBOL	MACH
○□◇	2.360
	2.950
	3.930
△	4.630

PARAMETRIC VALUES

BETA	.000	WINGNO	2.000
LAMDAF	78.000	ELEVTR	.000
BCFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0198	SCALE



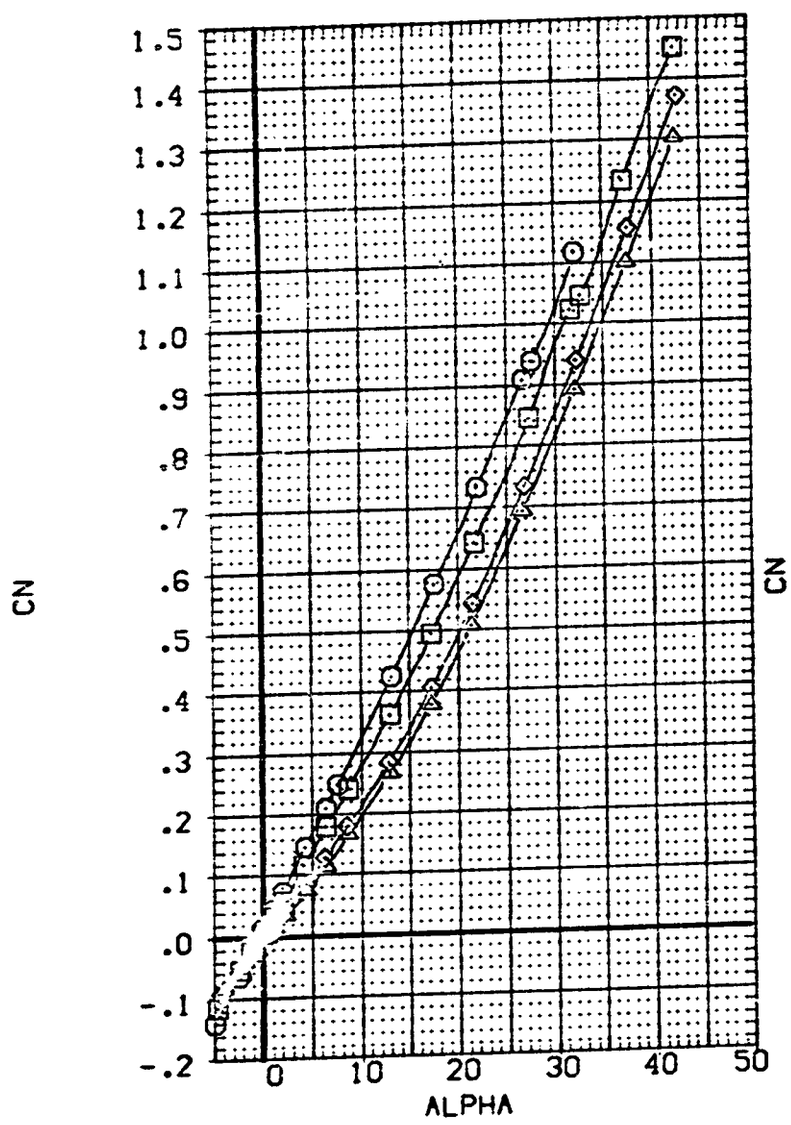
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=78 DEG.)

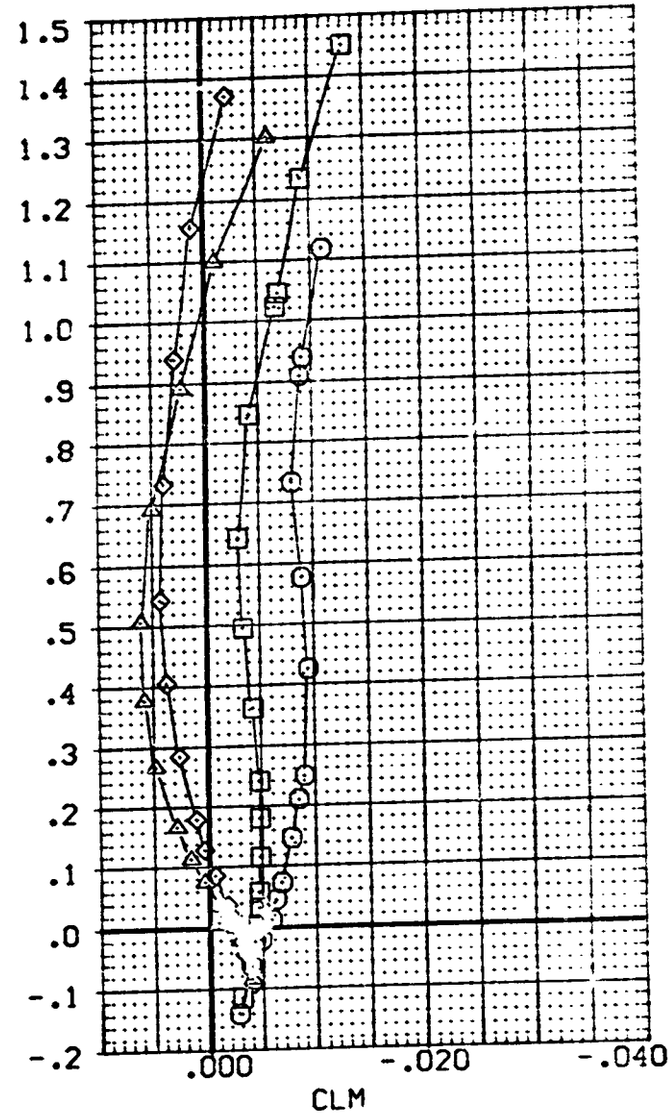
LA-10 LARC UPWT :015 LC-100 ORB.(SHIPS) (BW2VFB)(BP8010)

SYMBOL	MACH		PARAMETRIC VALUES		
△	2.360	BETA	.000	WINGD	2.000
◇	2.860	LAMCAF	78.000	ELEVTR	.000
□	3.950	BOFLAP	.000	RUDFLR	.000
○	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





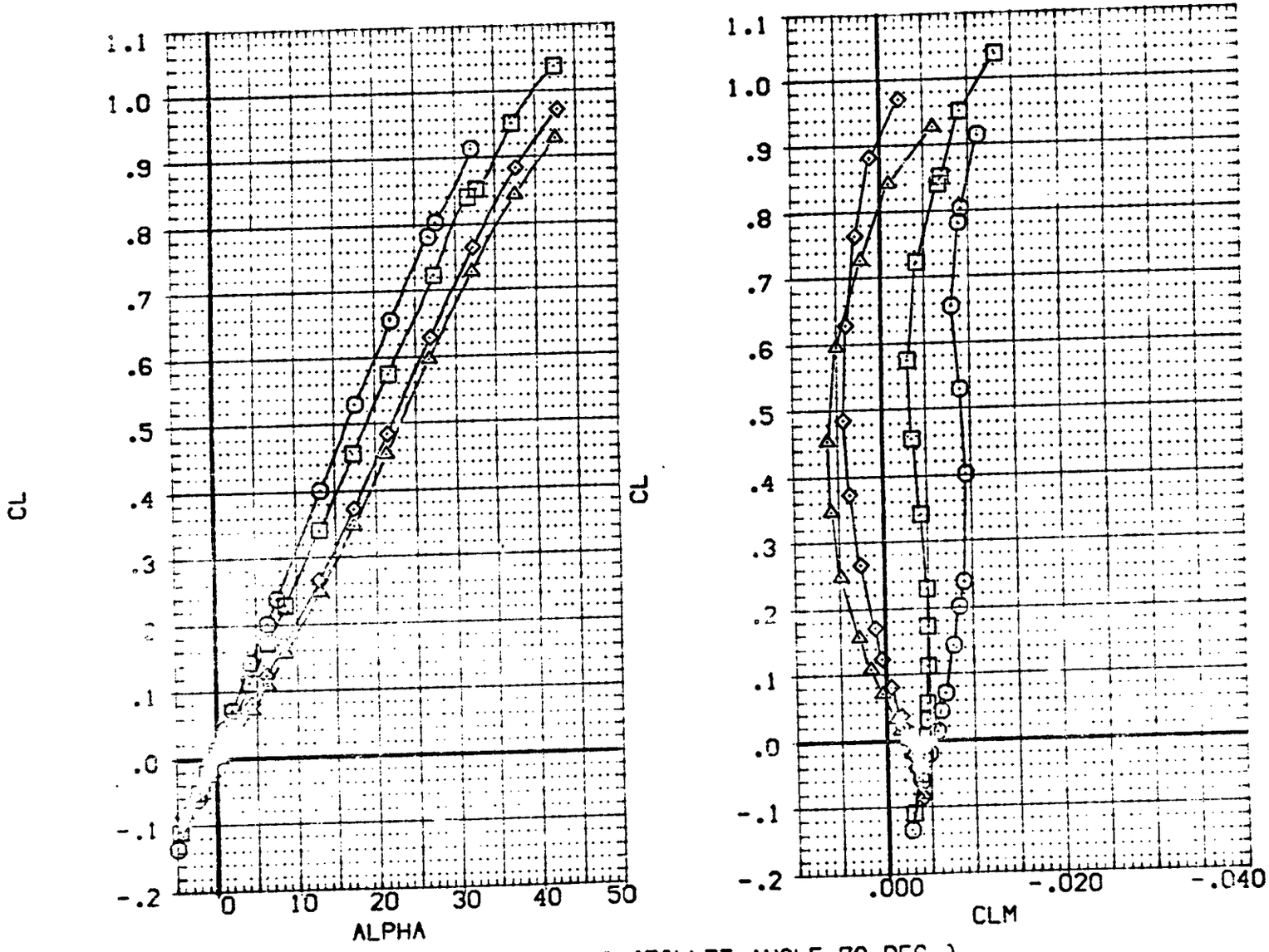
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=78 DEG.)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(BP8010)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	78.000	ELEVTR	.000
◇	3.960	BDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.2188	SCALE



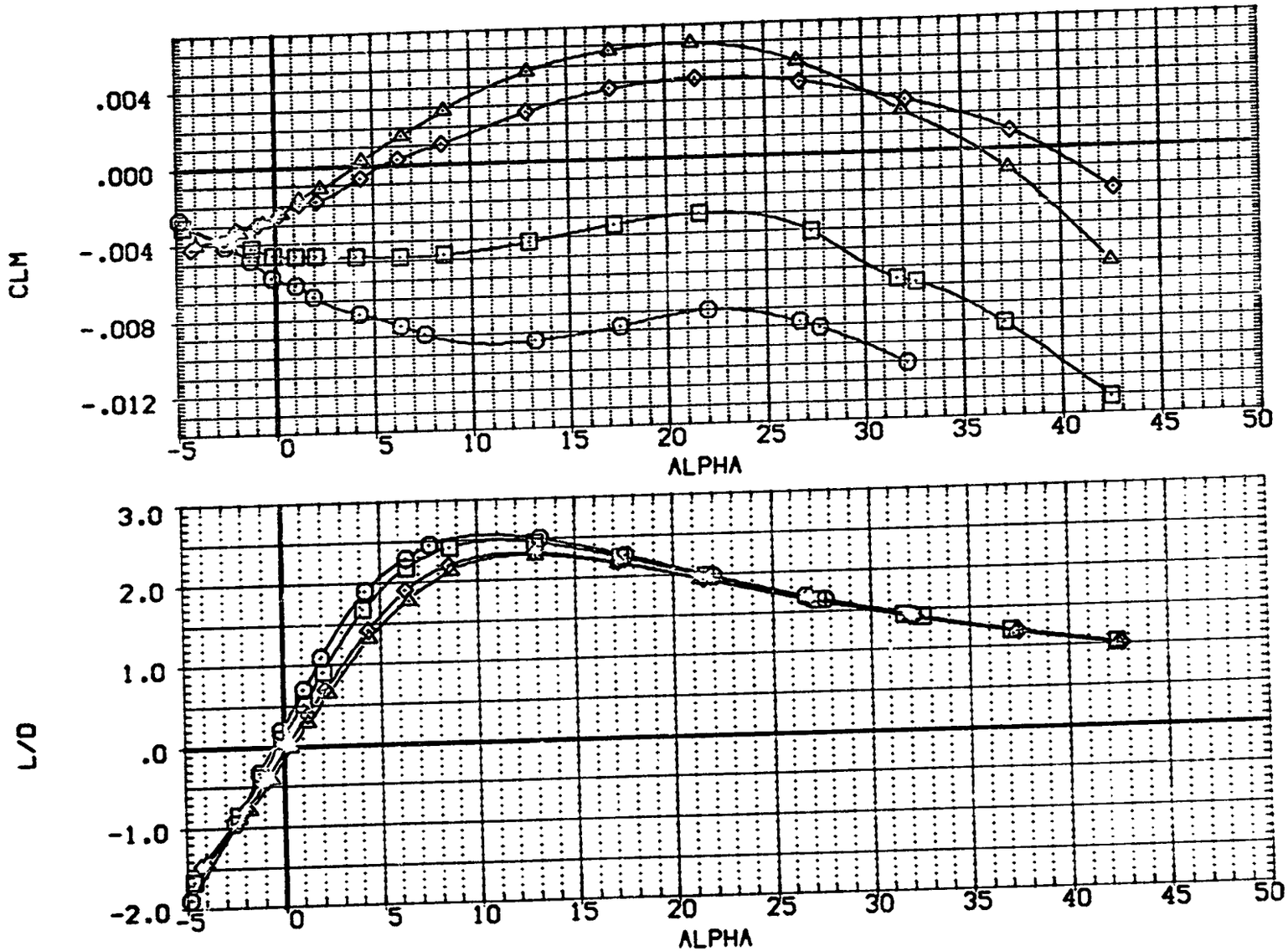
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=78 DEG.)

LA-10 LARC UPWT 1015 L0-100 ORB.(SHIPS) (BW2VFB)(BP8010)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	78.000	ELEVTR	.000
◇	3.960	RDFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



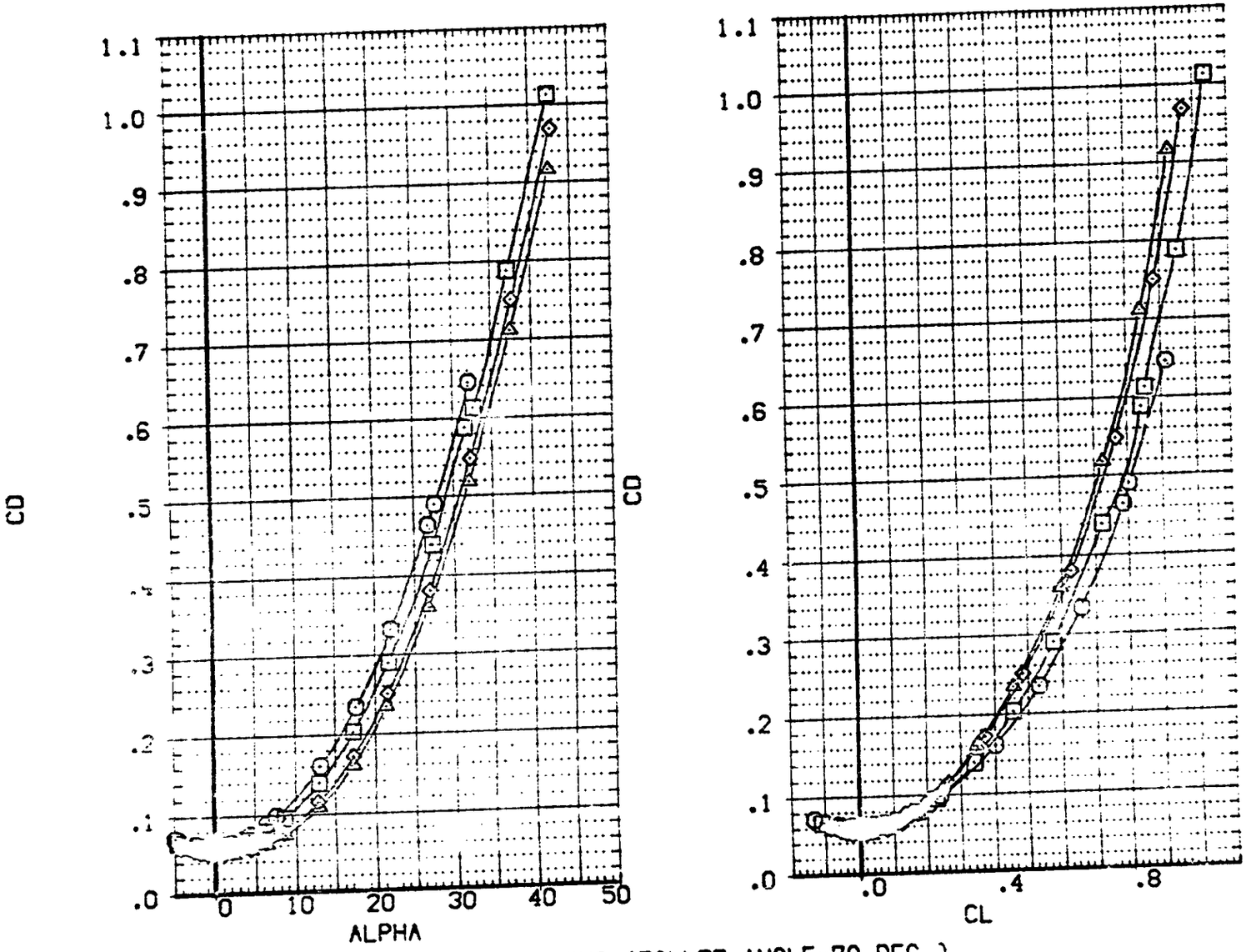
EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=78 DEG.)

_A-10 LARC UPWT 1015 LC-100 ORB.(SHIPS) (BW2VFB)(BP8010)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.360	BETA	.000	WINGNO	2.000
□	2.860	LAMDAF	78.000	ELEVTR	.000
◇	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

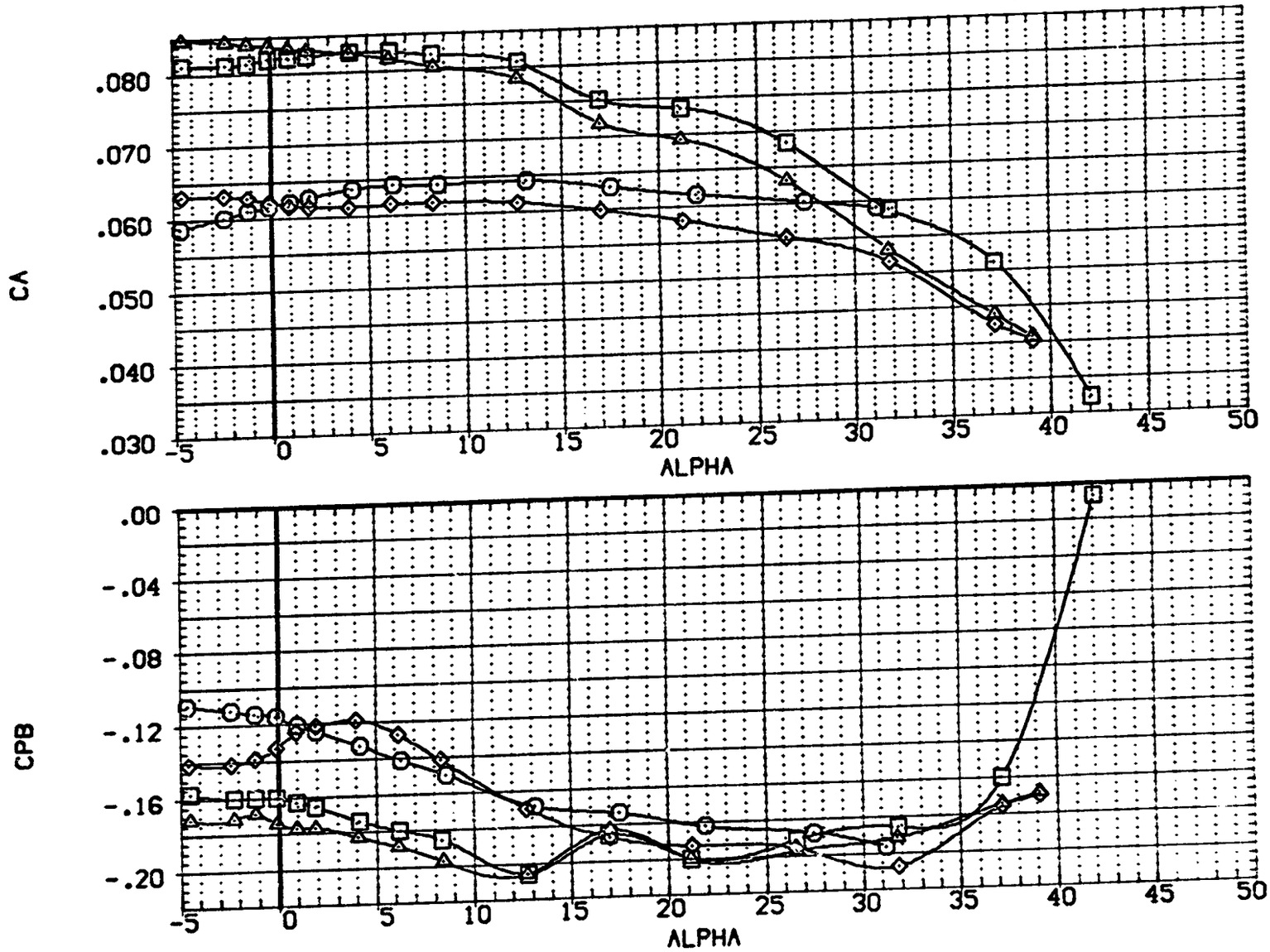


EFFECT OF MACH NO. ON W-33 WING (FILLET ANGLE=78 DEG.)

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

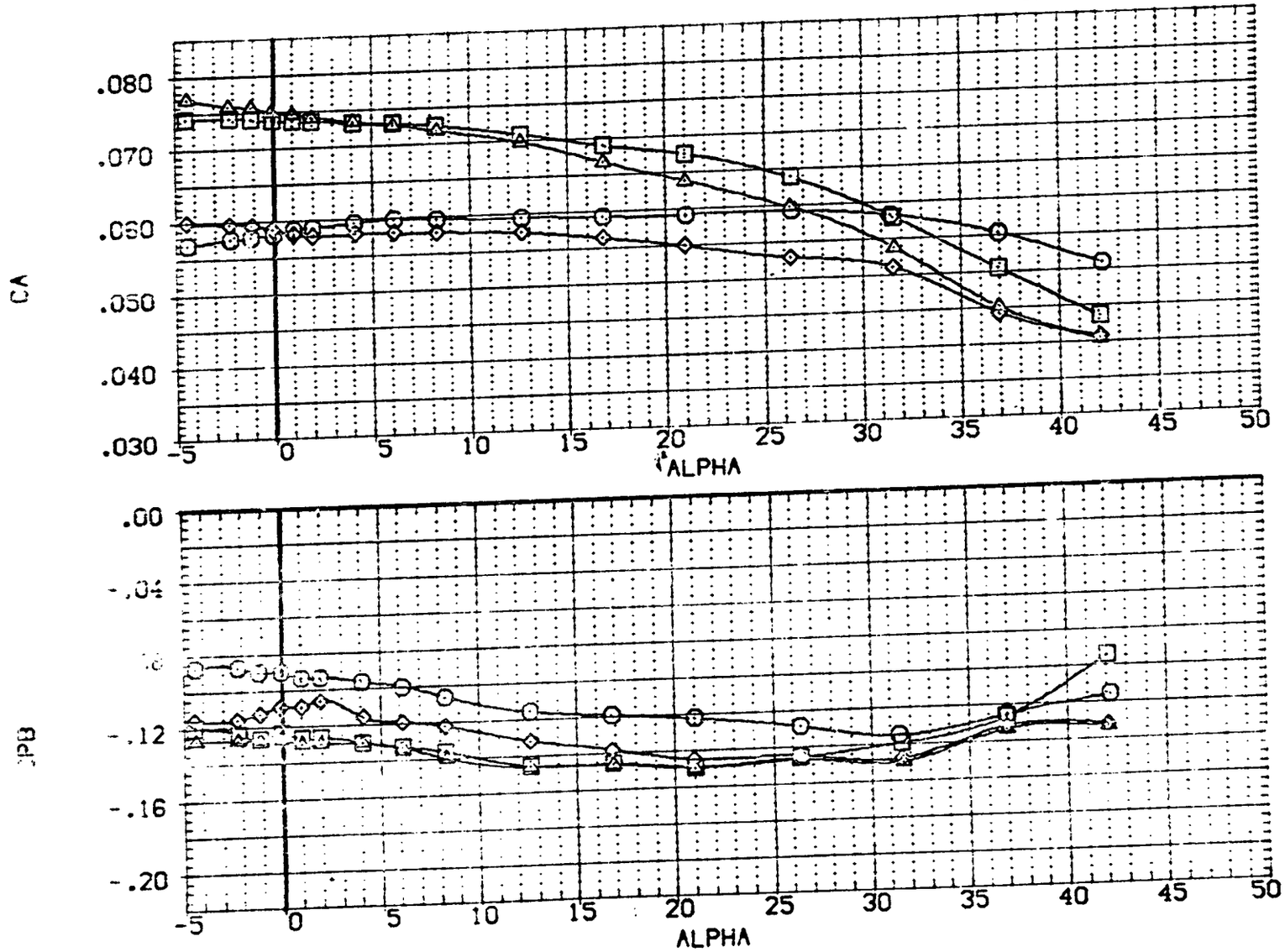


EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8356	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



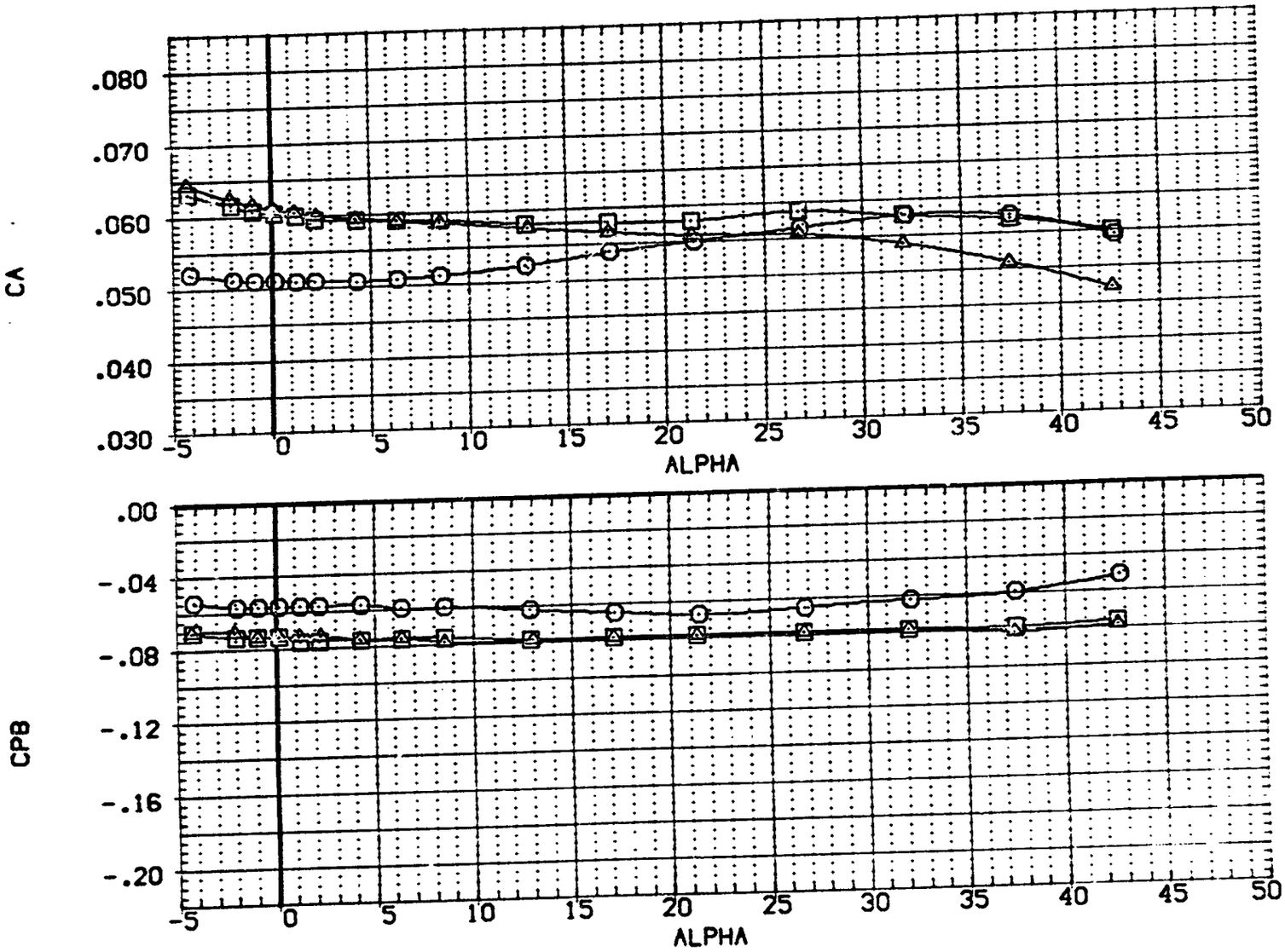
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(B)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	LA-10 LARC UPVT 1015 L0-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	LA-10 LARC UPVT 1015 L0-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)	LA-10 LARC UPVT 1015 L0-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

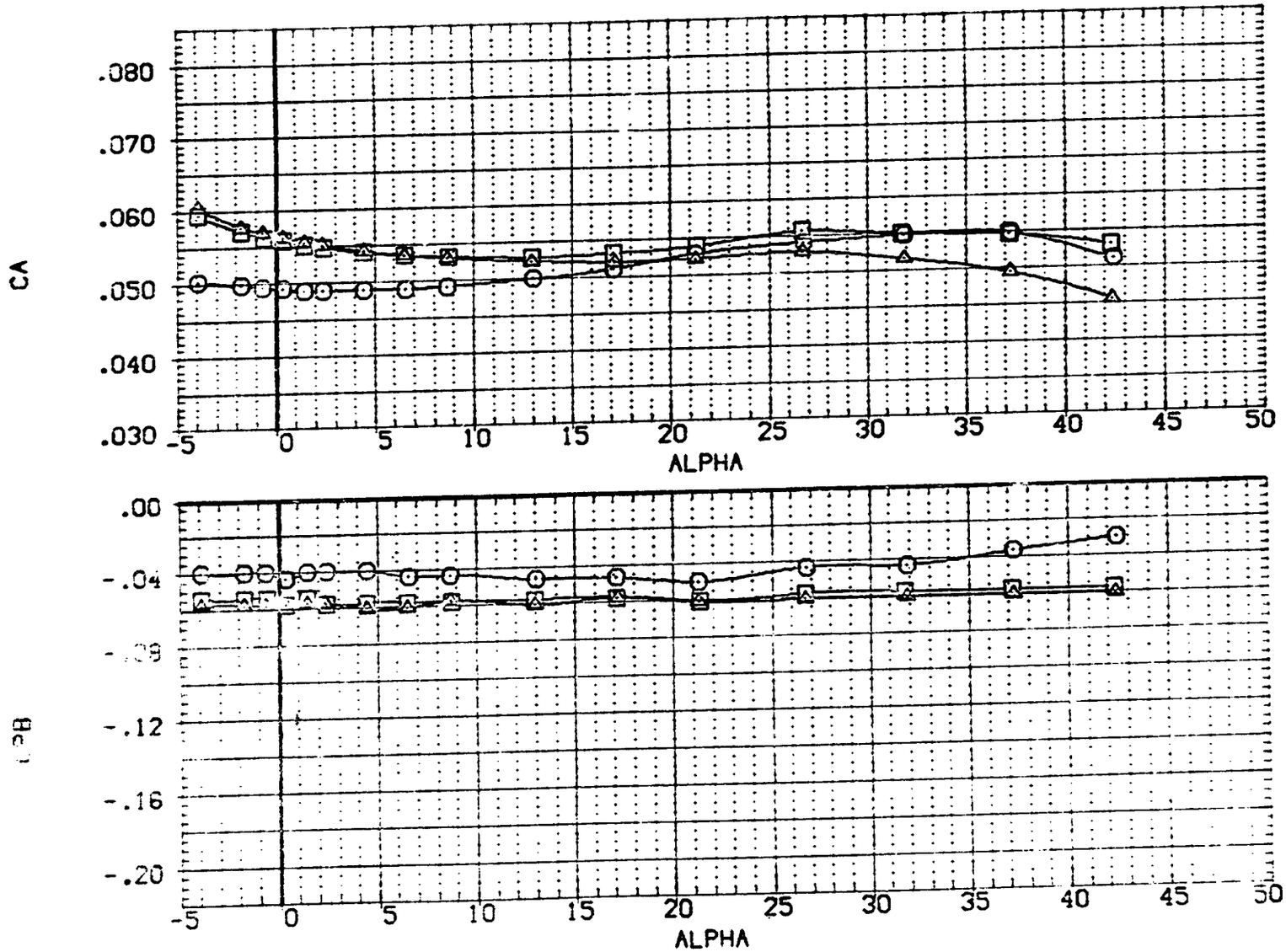


EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	□	LA-10 LARC UPVT 1015 LO-100 OPB (SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	⊠	DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8386	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



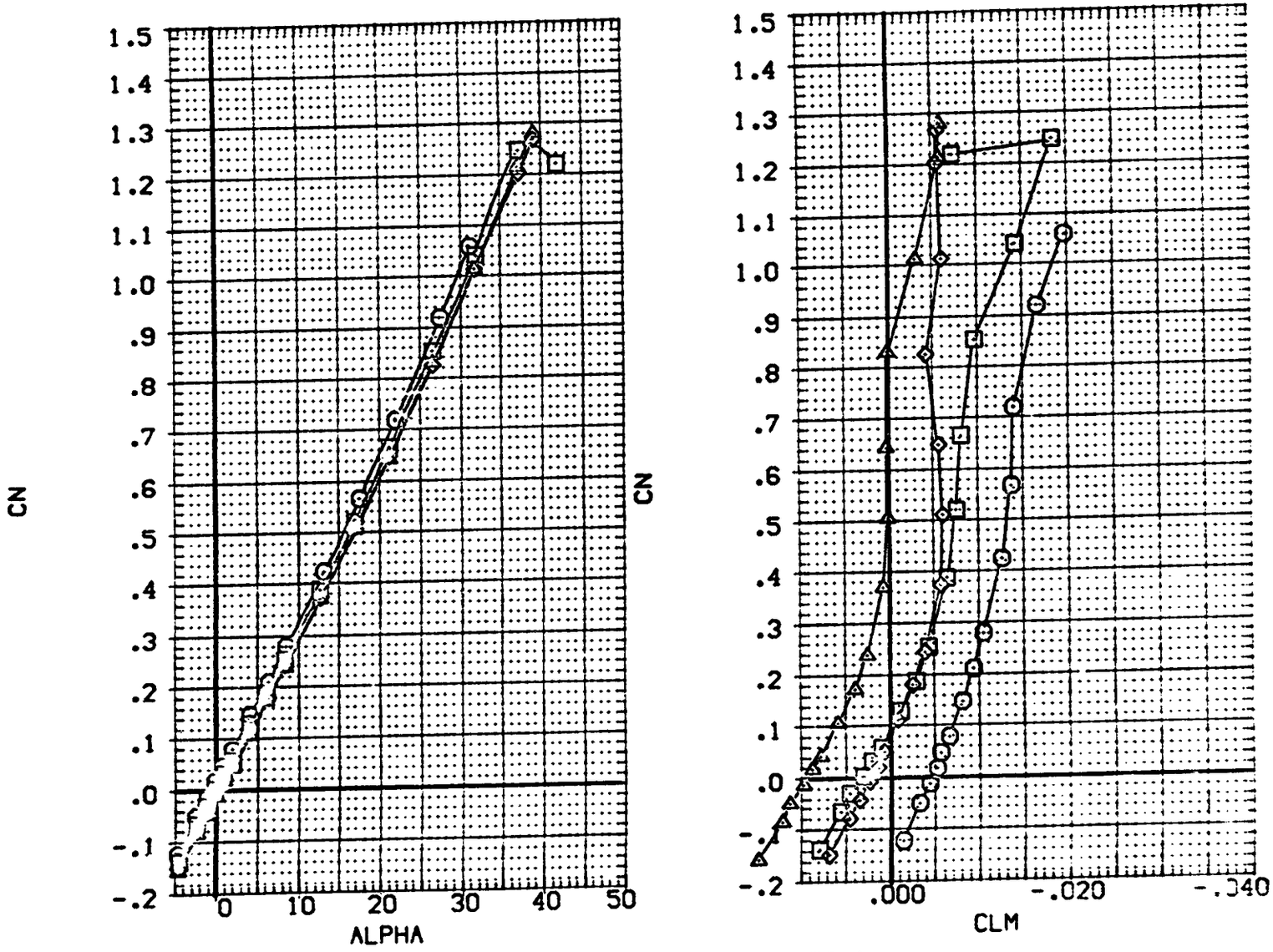
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	□	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	◇	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	+10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



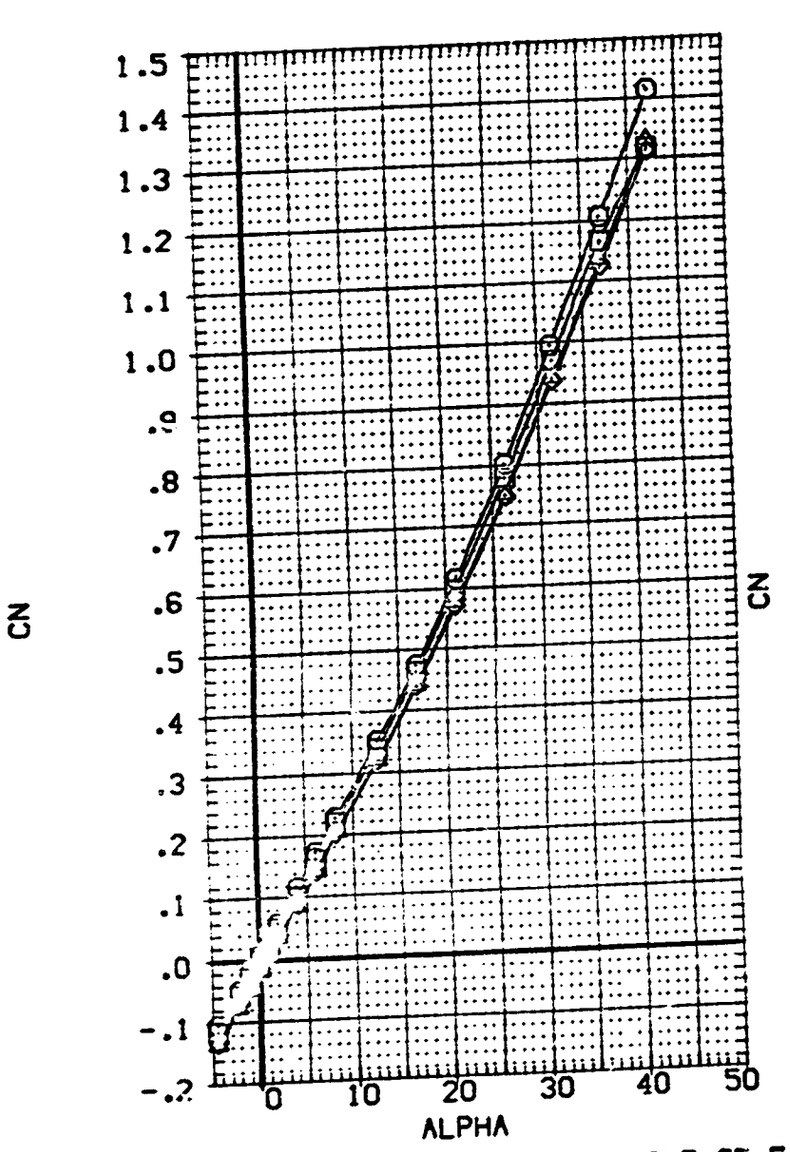
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

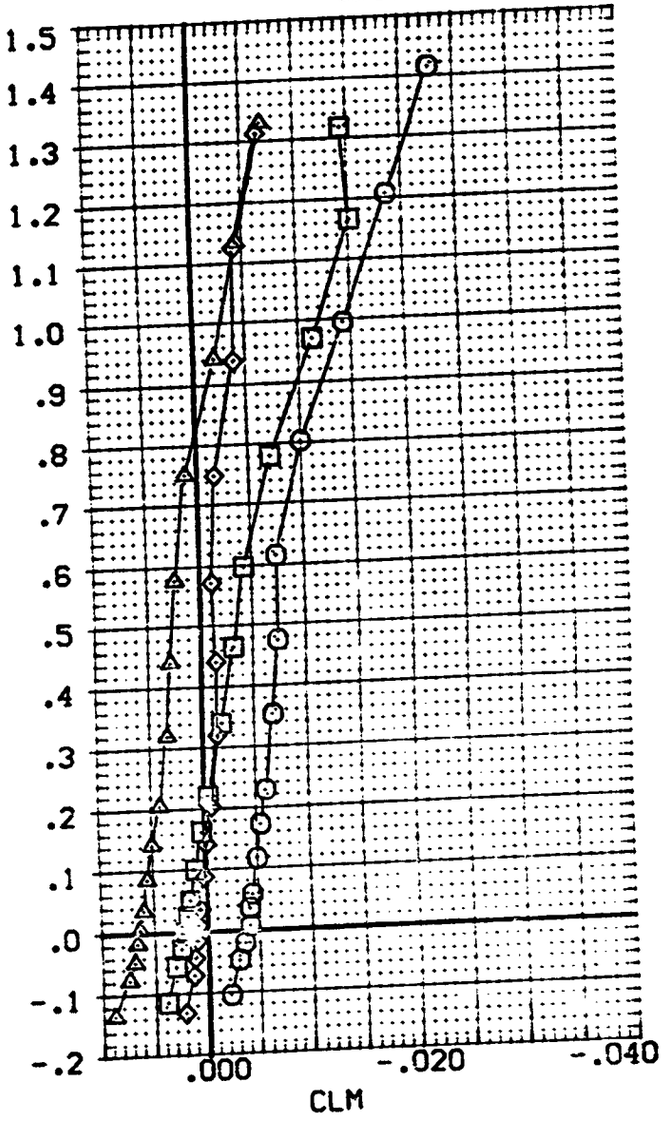
(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	○	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	◇	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





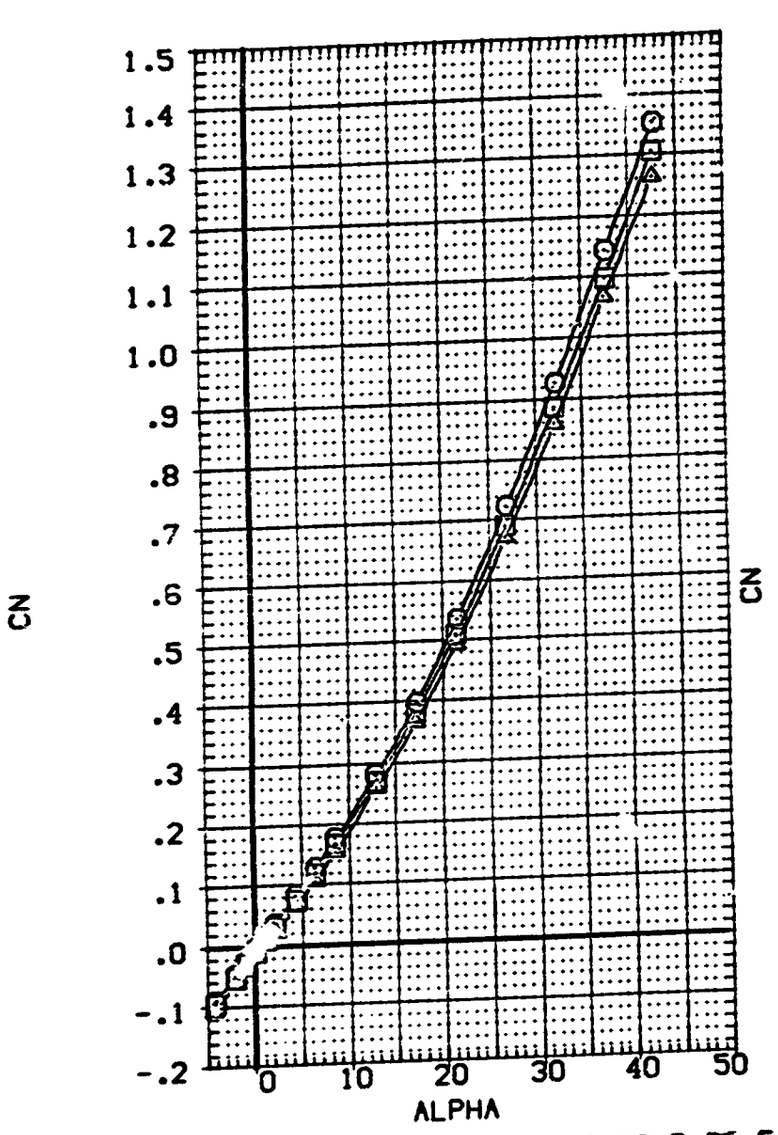
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

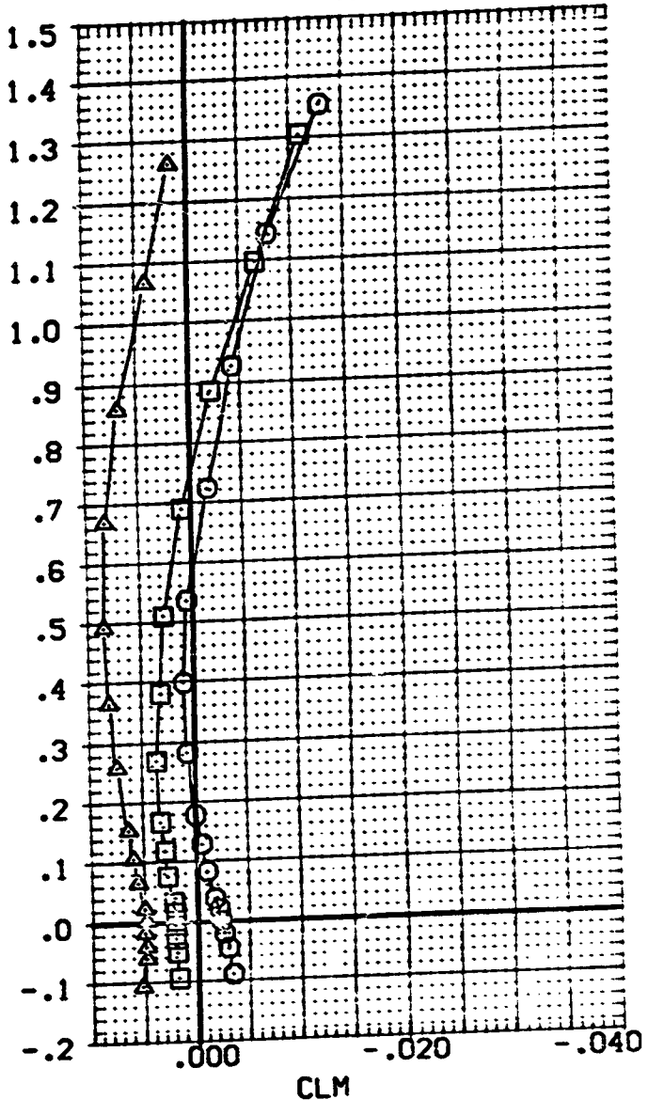
(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	⊠	DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



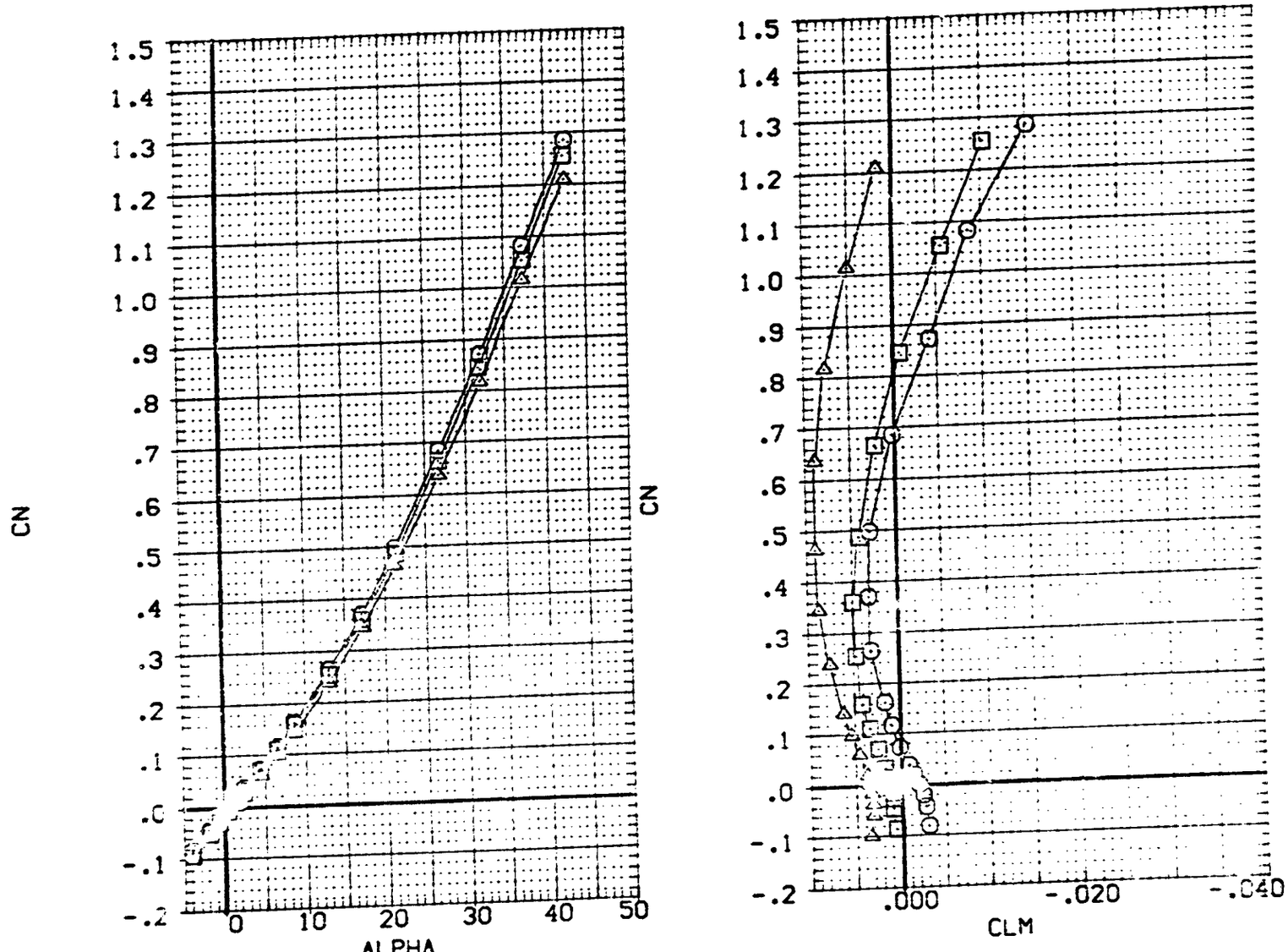


EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(C)MACH = 3.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP80C9)	LA-10 LARC UPVT 1015 L0-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP80I2)	LA-10 LARC UPVT 1015 L0-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP80I6)	DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP80I4)	LA-10 LARC UPVT 1015 L0-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8368	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0183	SCALE



EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8009)	□	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	◇	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	▷◁	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	⋈	LA-10 LARC UPVT 1015 LG-100 ORB..SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	17.4720	SQ.IN.
LREF	25.5100	
BREF	20.3690	
XMRP	16.8336	
YMRP	.0000	
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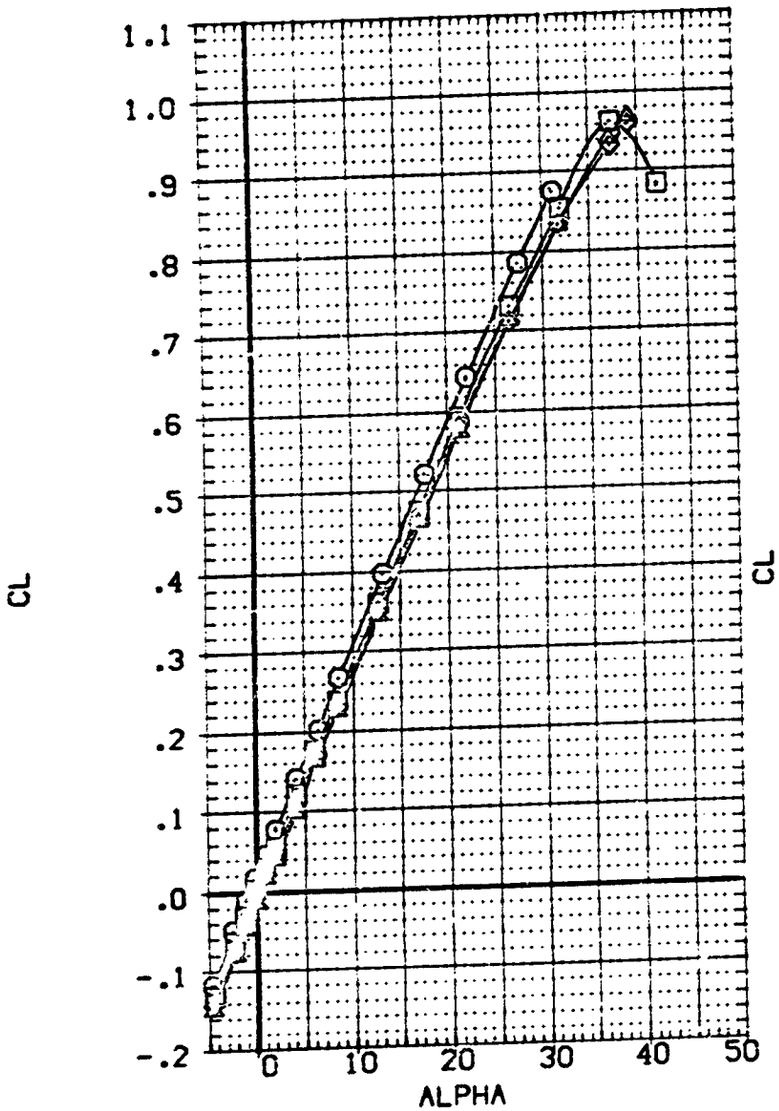
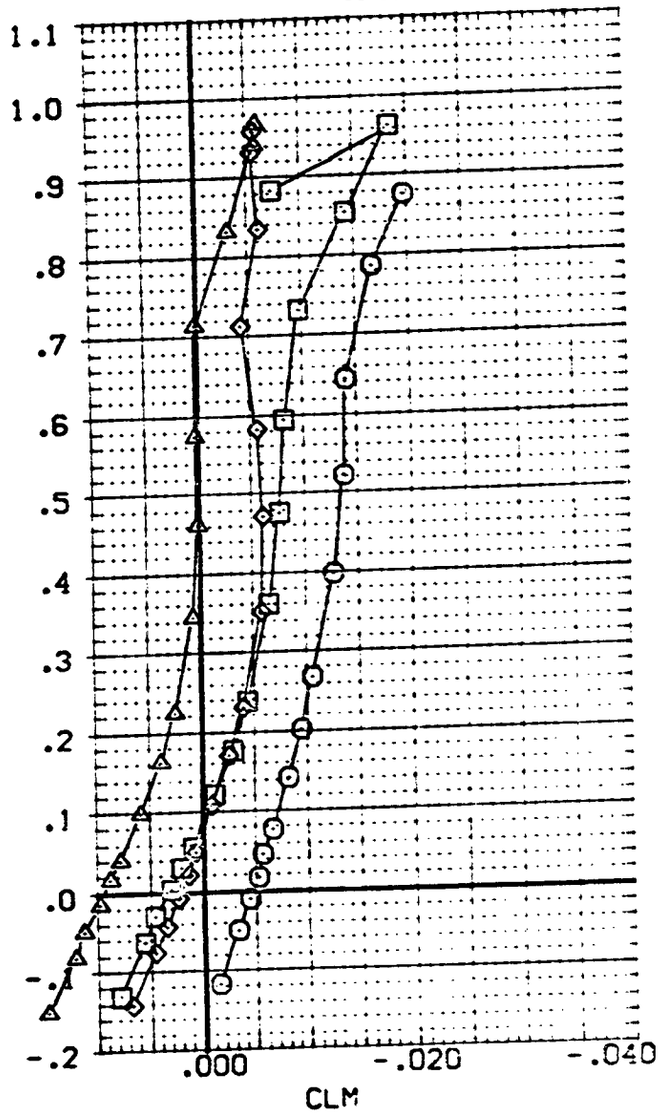


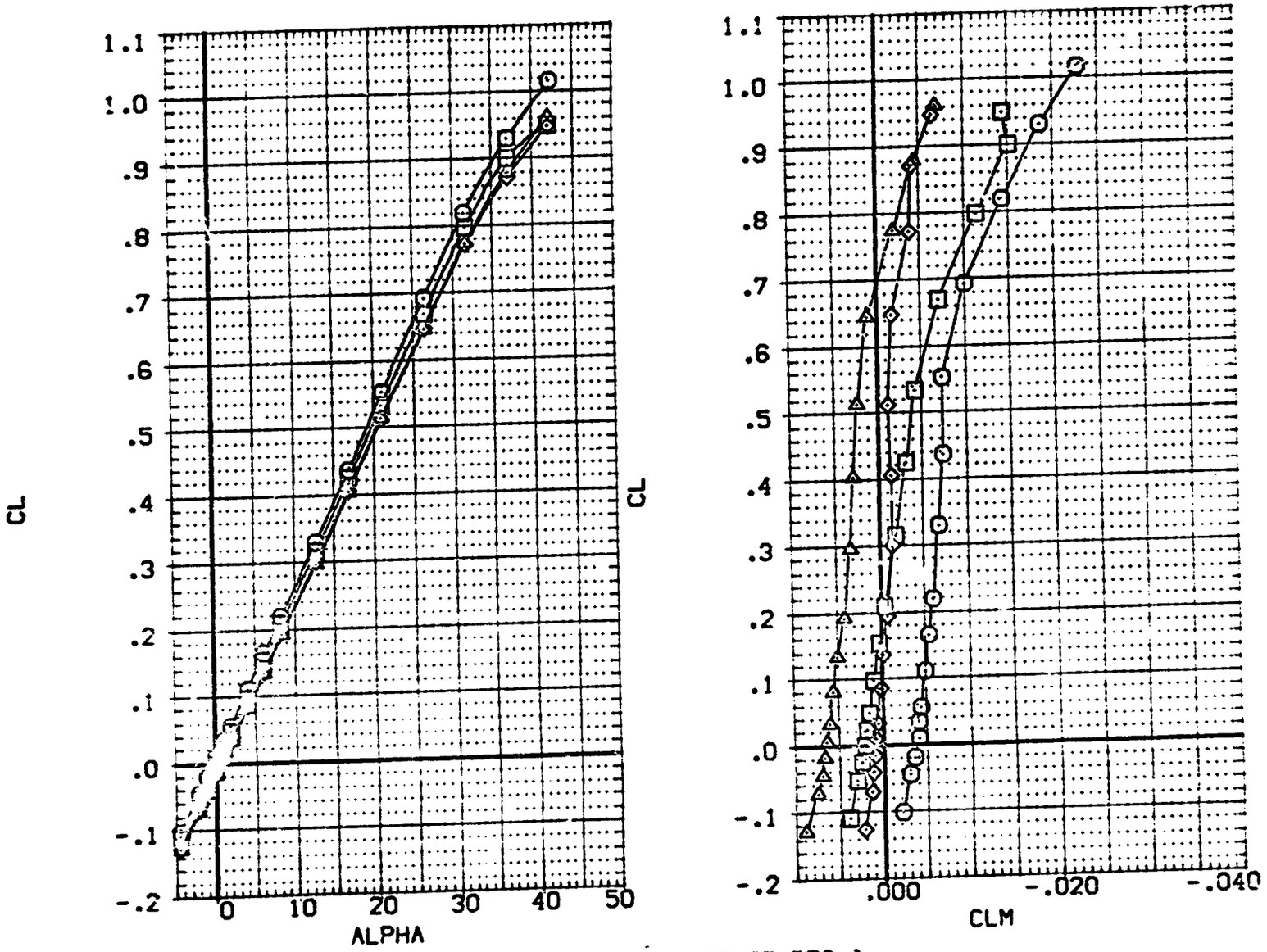


EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BPF208)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2V[illegible])	75.000	.000	.000	.000
(BP[illegible])	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2V[illegible])	75.000	.000	40.000	.000
(BF[illegible])	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP[illegible])	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LOFF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



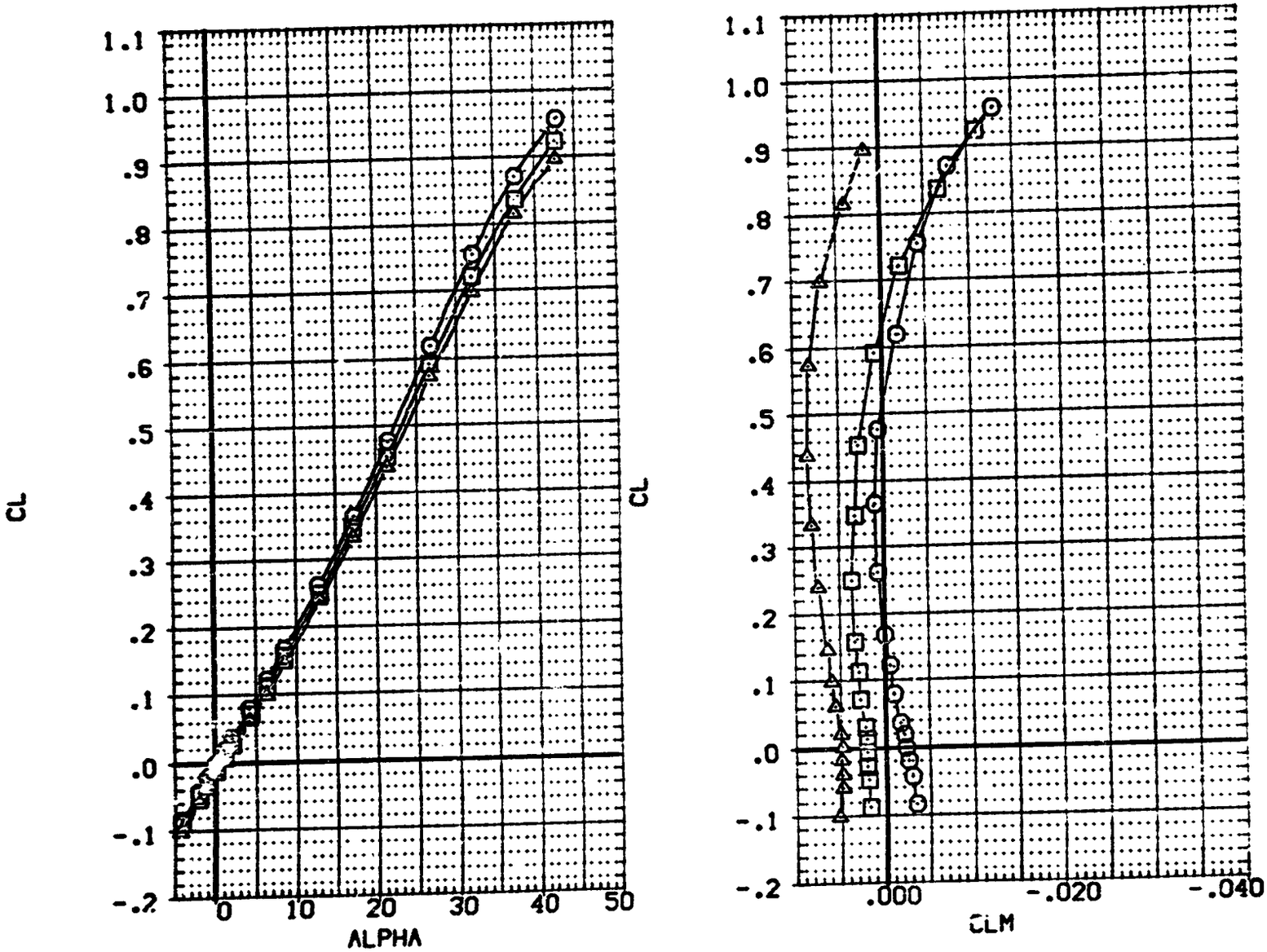
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(B)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8QUB)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	15.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



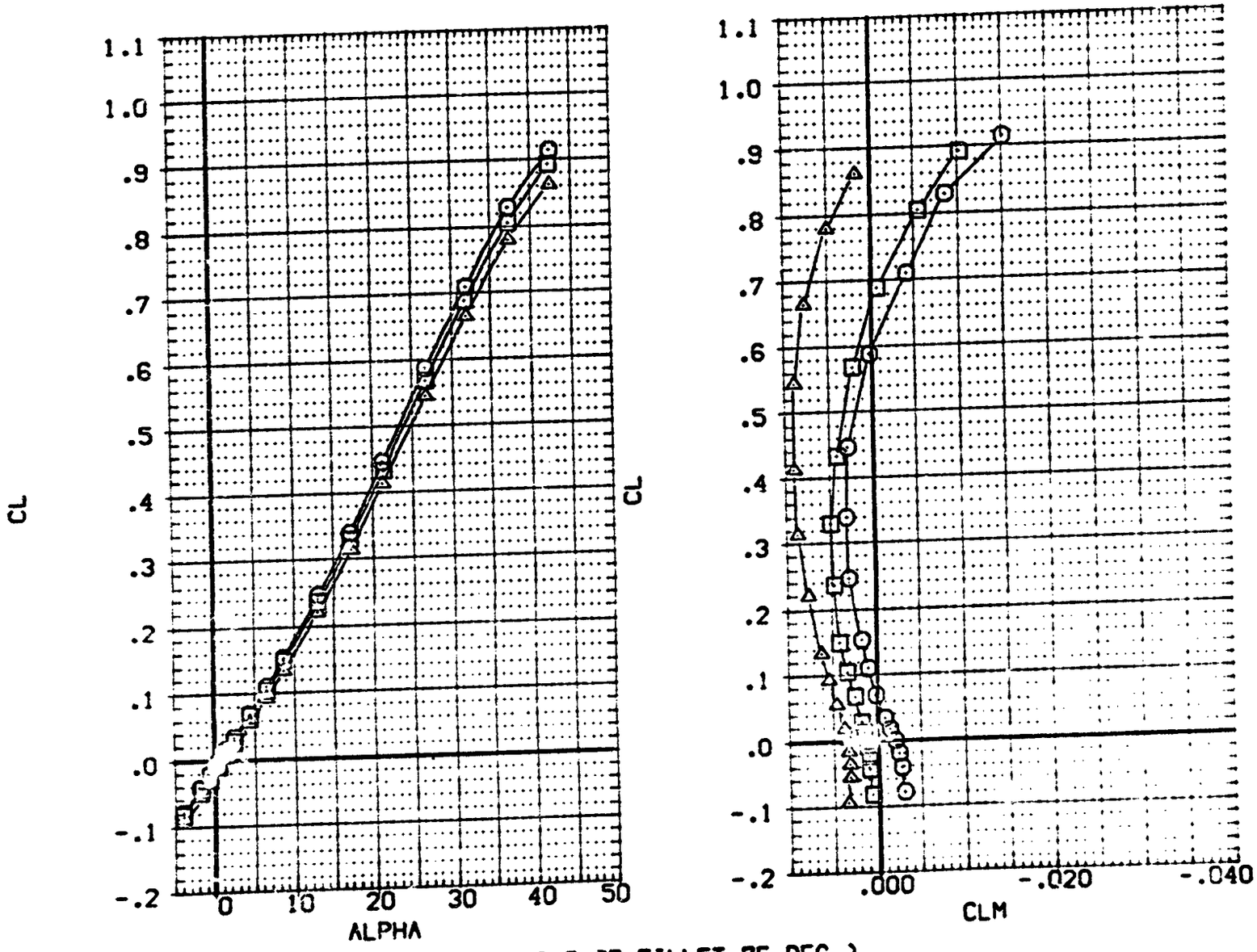
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP80C8)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	⊠	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)		DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



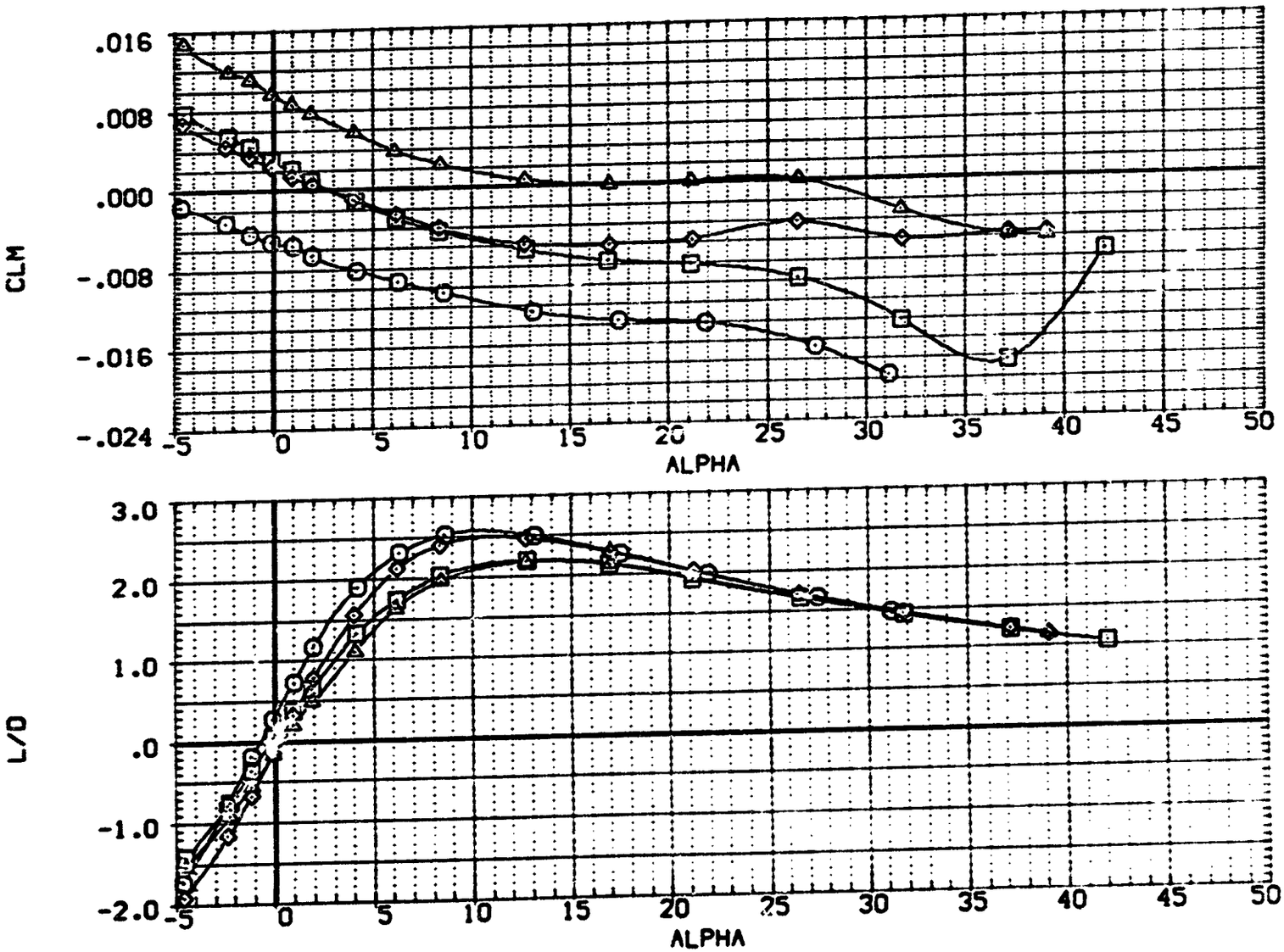
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8003)	□	LA-10 LARC UPVT 1015 LO-100 OR8.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	◇	LA-10 LARC UPVT 1015 LO-100 OR3.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	△	LA-10 LARC UPVT 1015 LO-100 OR8.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	⊠	LA-10 LARC UPVT 1015 LO-100 OR8.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.9366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0089	SCALE



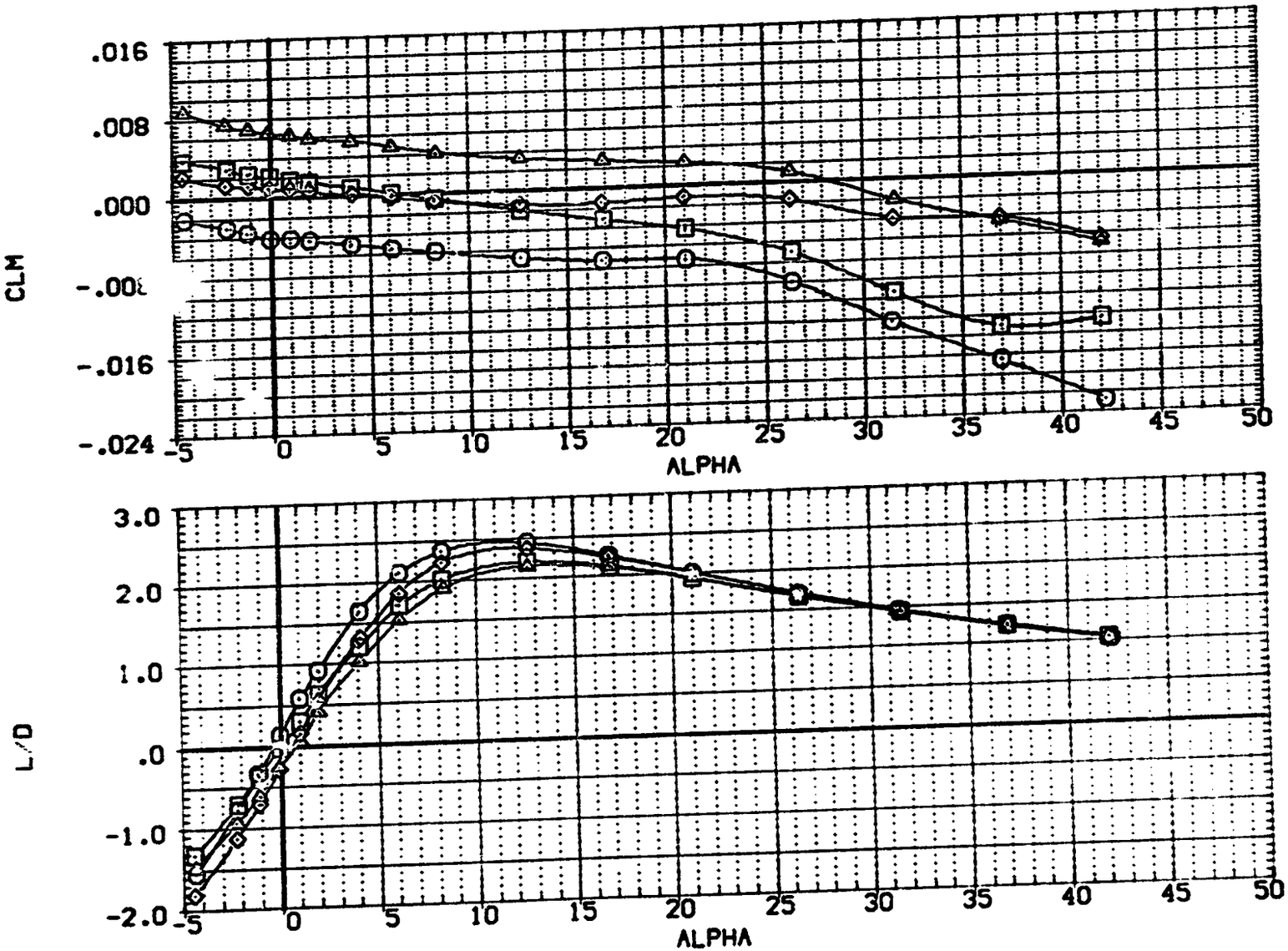
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



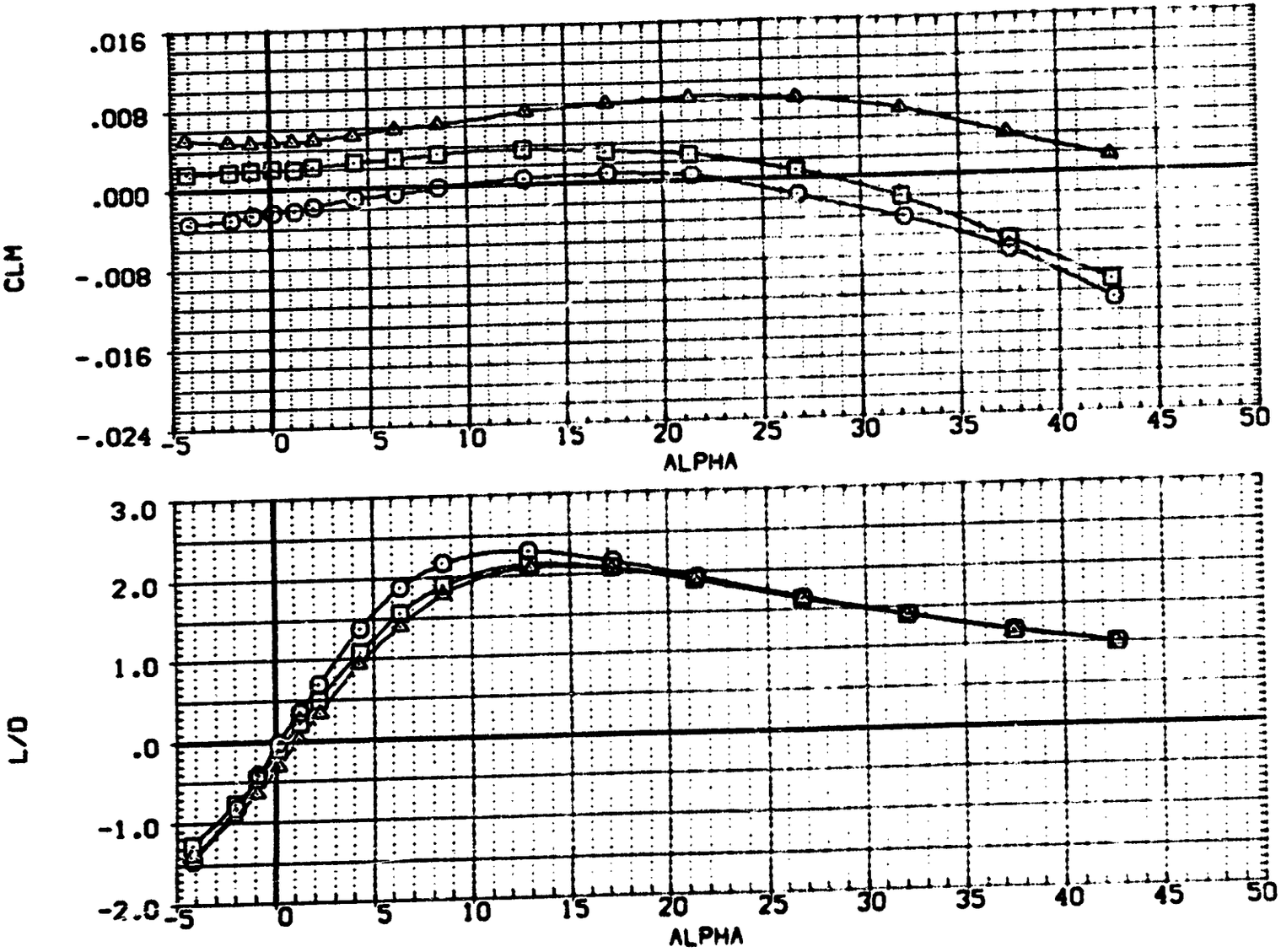
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	⊠	DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0166	SCALE



EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDA	BETA	RUDFLR	ELEVTR
(BP8008)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	◇	DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
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YMRP	.0000	INCHES
ZMRP	.0000	INCHES
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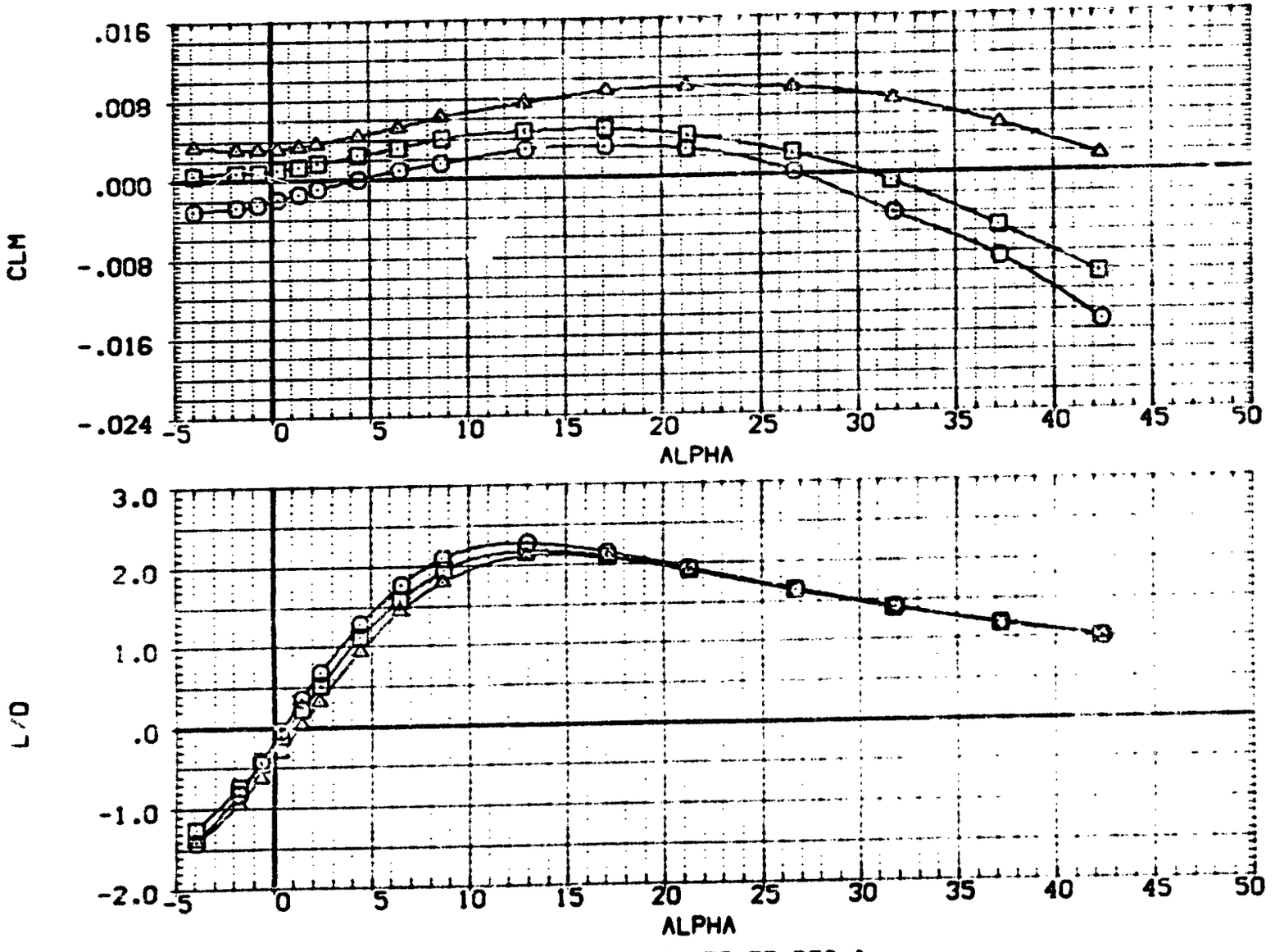


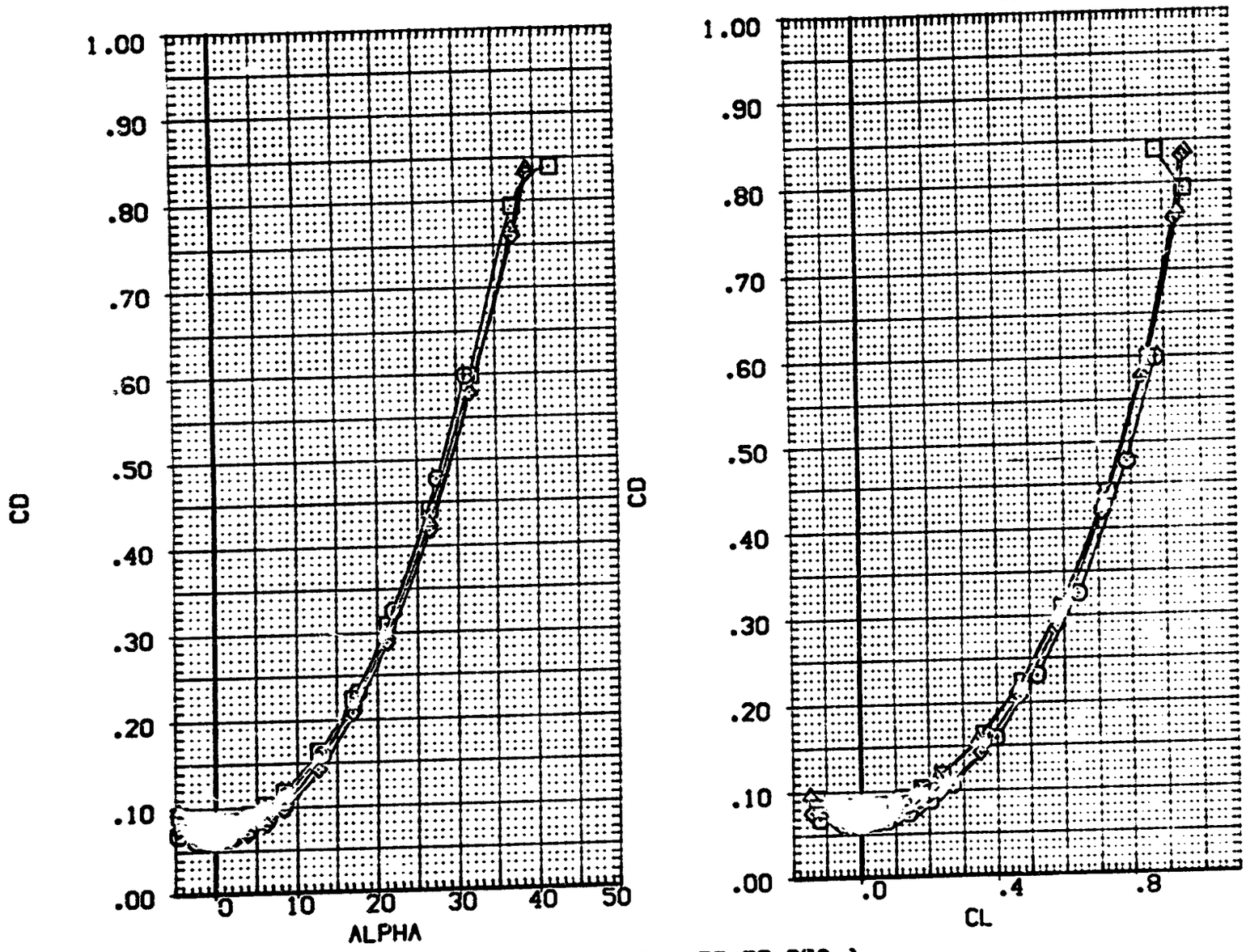
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000
(BP8014)	◁	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
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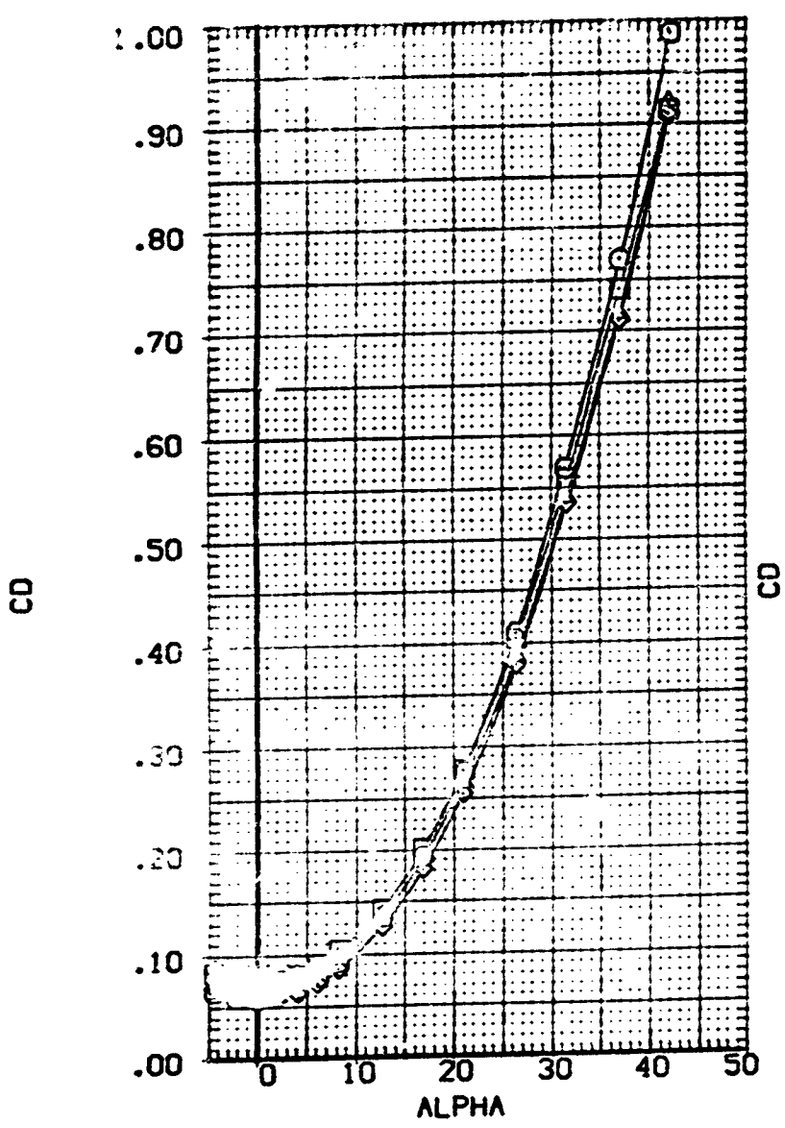
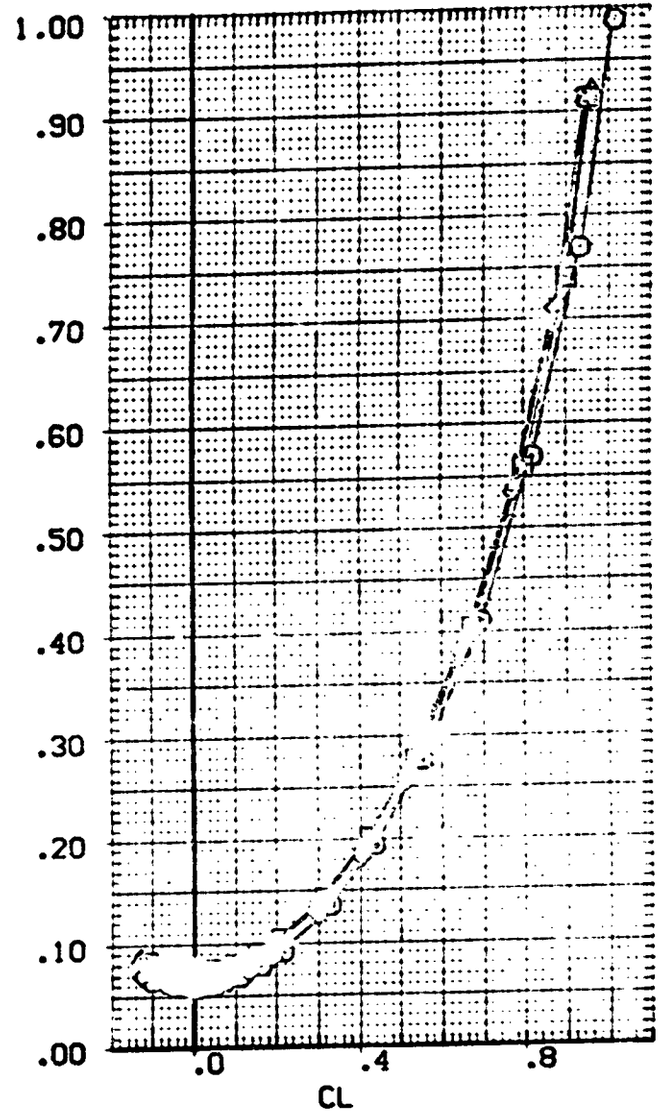
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



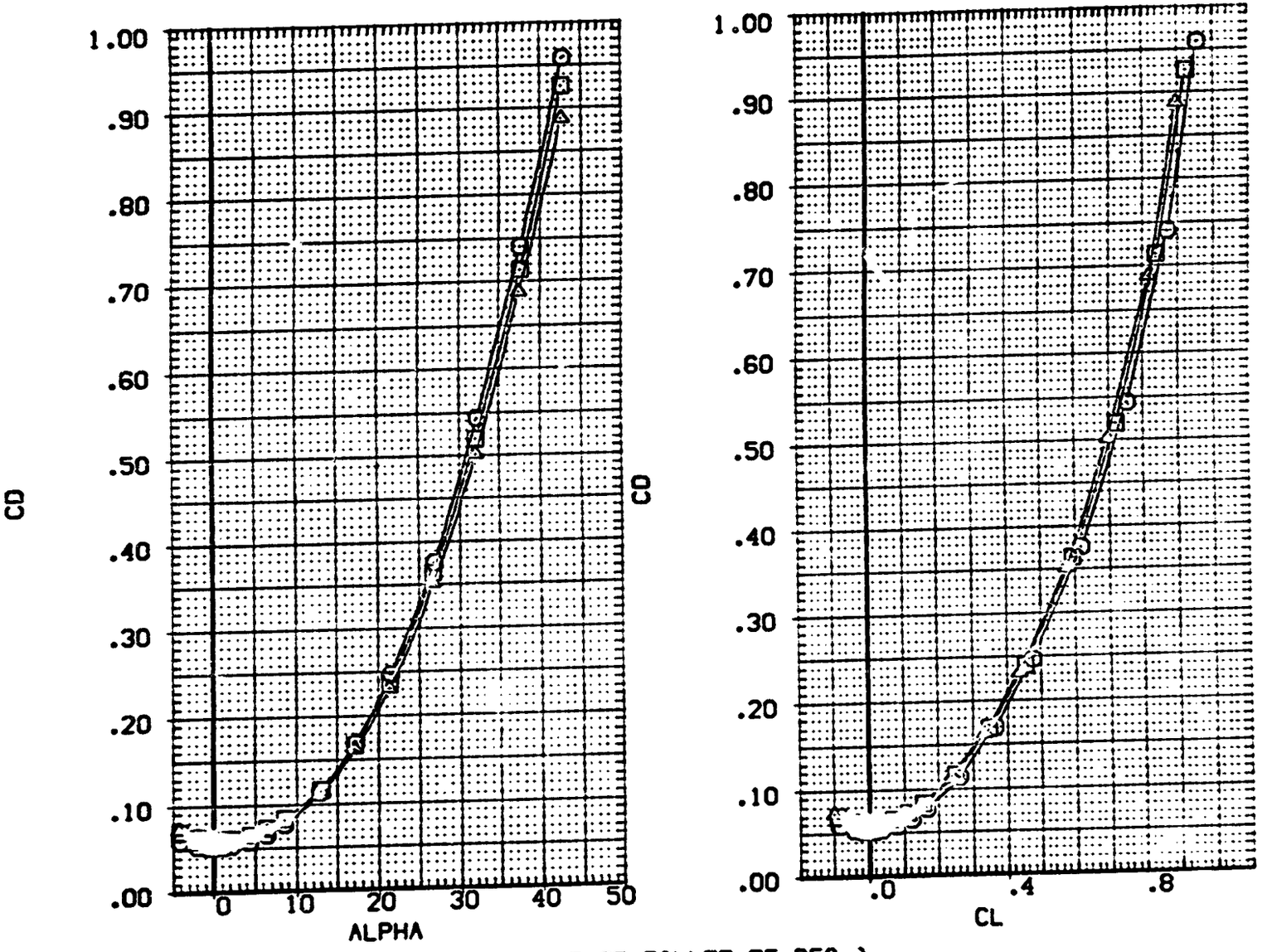


EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)	⊠	DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



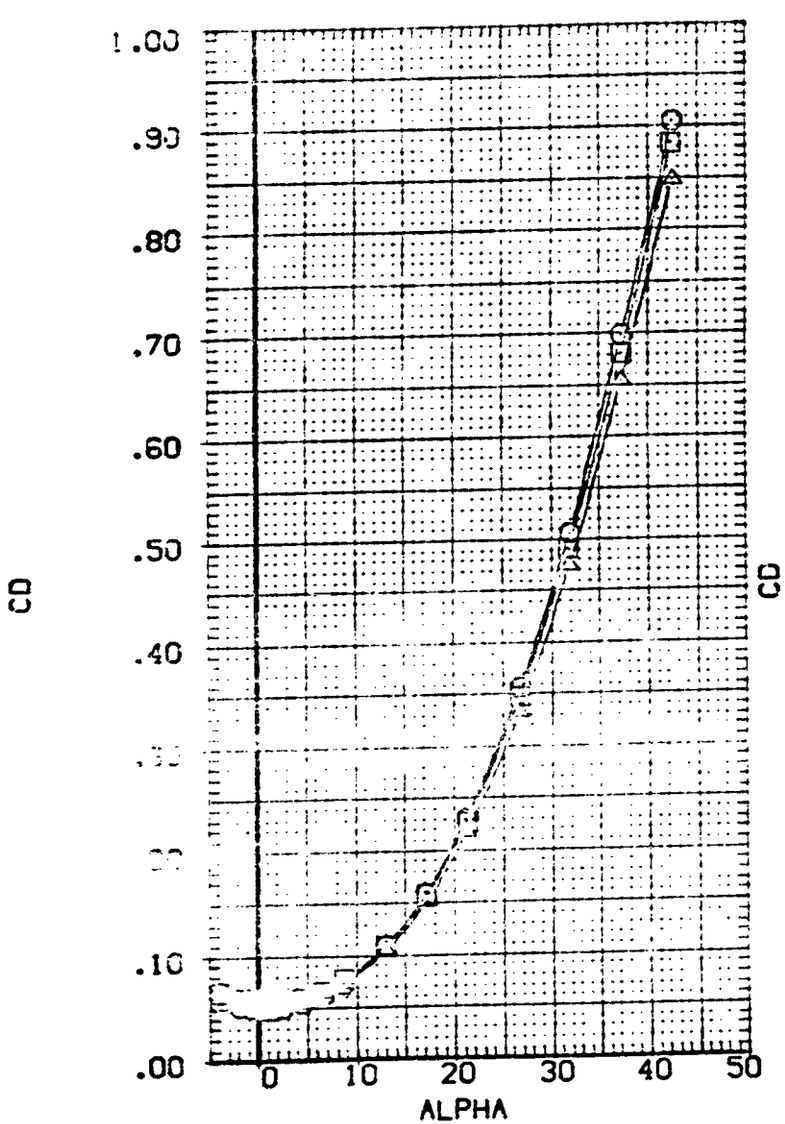
EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

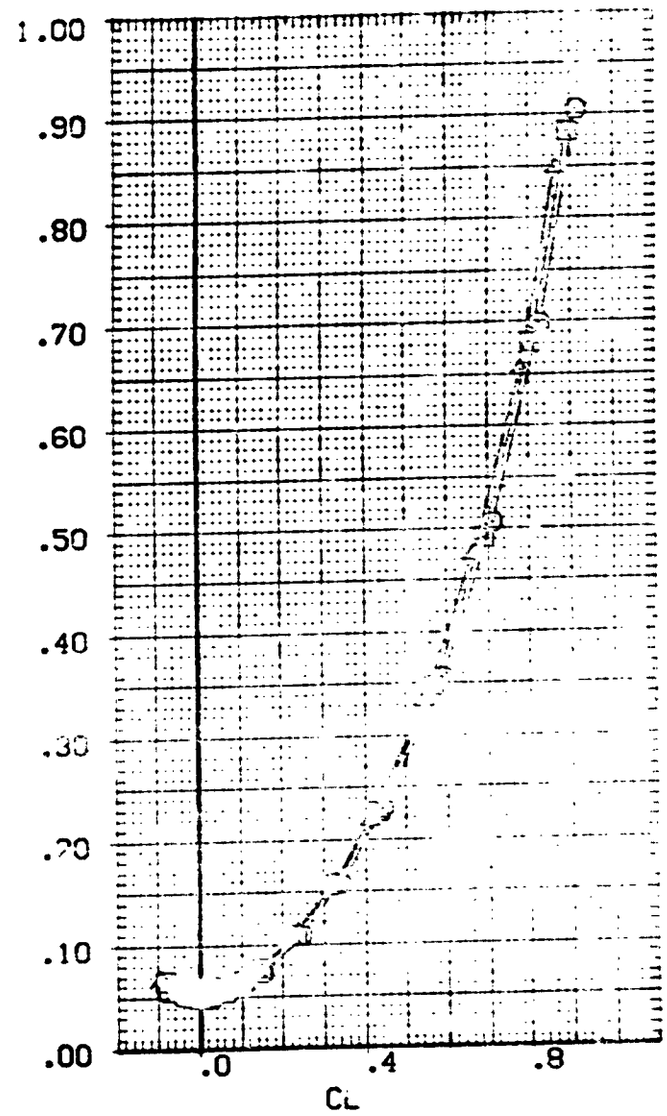
(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(BP8008)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(BP8012)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000
(BP8016)		DATA NOT AVAILABLE	75.000	.000	.000	-10.000
(BP8014)		LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	26.5100	INCHES
BREF	20.0000	INCHES
XMRP	16.8000	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0179	SCALE



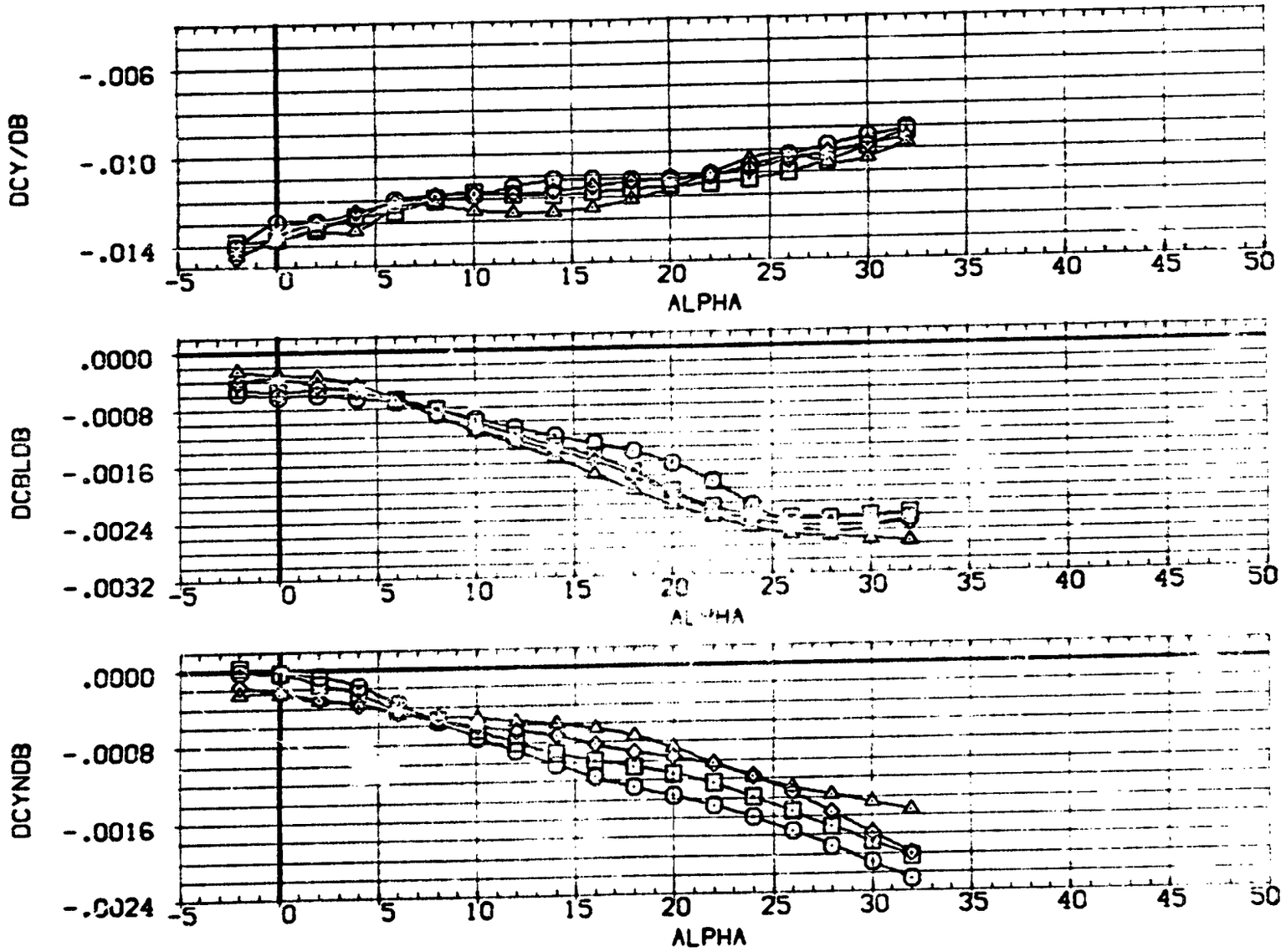


EFFECT OF RUDDER FLARE (ANGLE OF FILLET=75 DEG.)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	DBETA	RUDFLR	ELEVTR
(EP8002)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	3.000	.000	.000
(EP8006)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	3.000	.000	.000
(EP8009)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	75.000	3.000	.000	.000
(EP8011)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	78.000	3.000	.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	DBETA	RJOFLR	ELEVTR
(EPB022)	□	LA-10 LARC UPVT 1015 LC-100 OPB.(SHIPS) (BV2VFB)	46.800	3.000	.000	.000
(EPB026)	◇	LA-10 LARC UPVT 1015 LC-100 OPB.(SHIPS) (BV2VFB)	65.000	3.000	.000	.000
(EPB029)		DATA NOT AVAILABLE	75.000	3.000	.000	.000
(EPB011)	▽	LA-10 LARC UPVT 1015 LC-100 OPB.(SHIPS) (BV2VFB)	78.000	3.000	.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.9466	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
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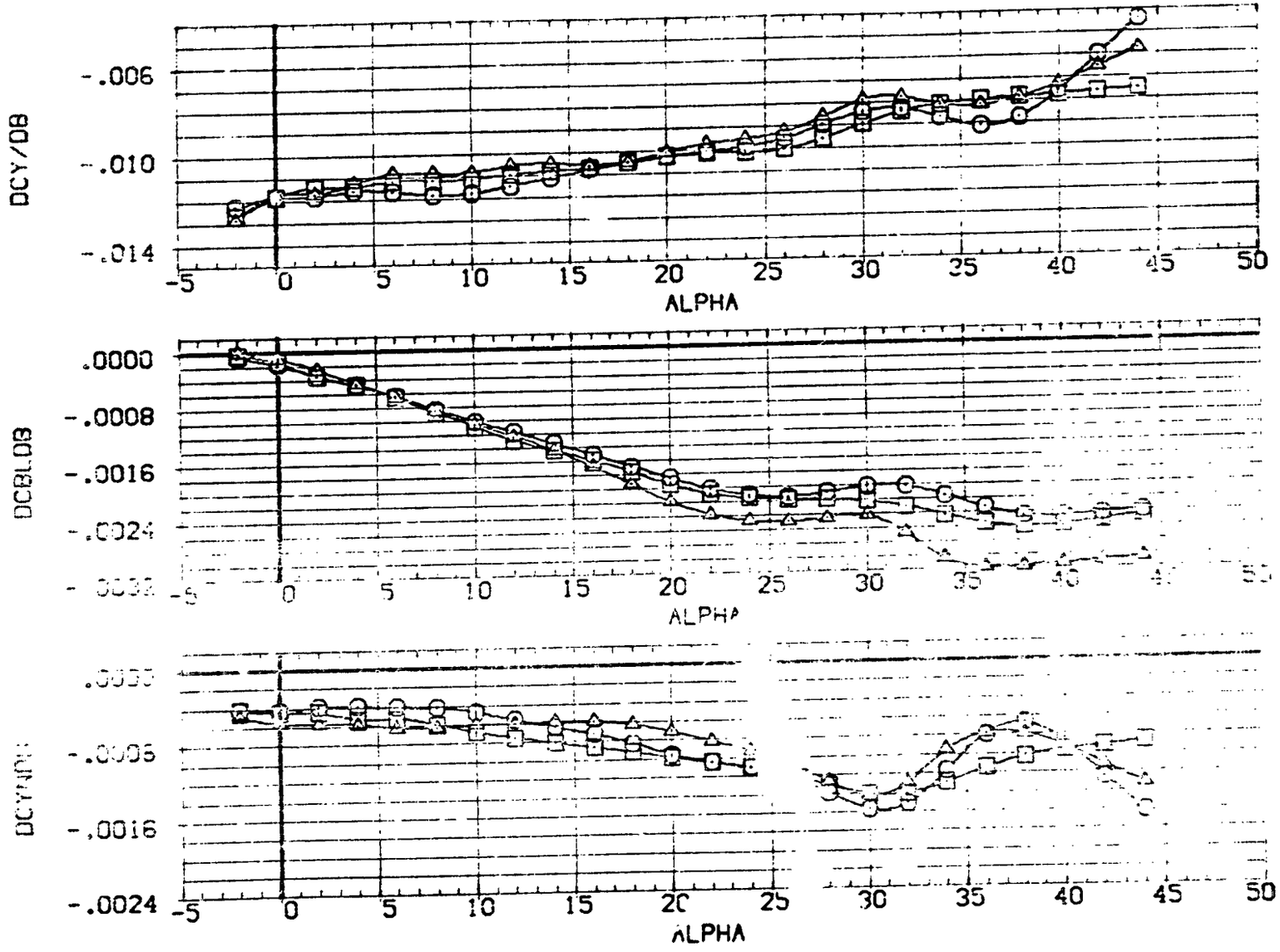
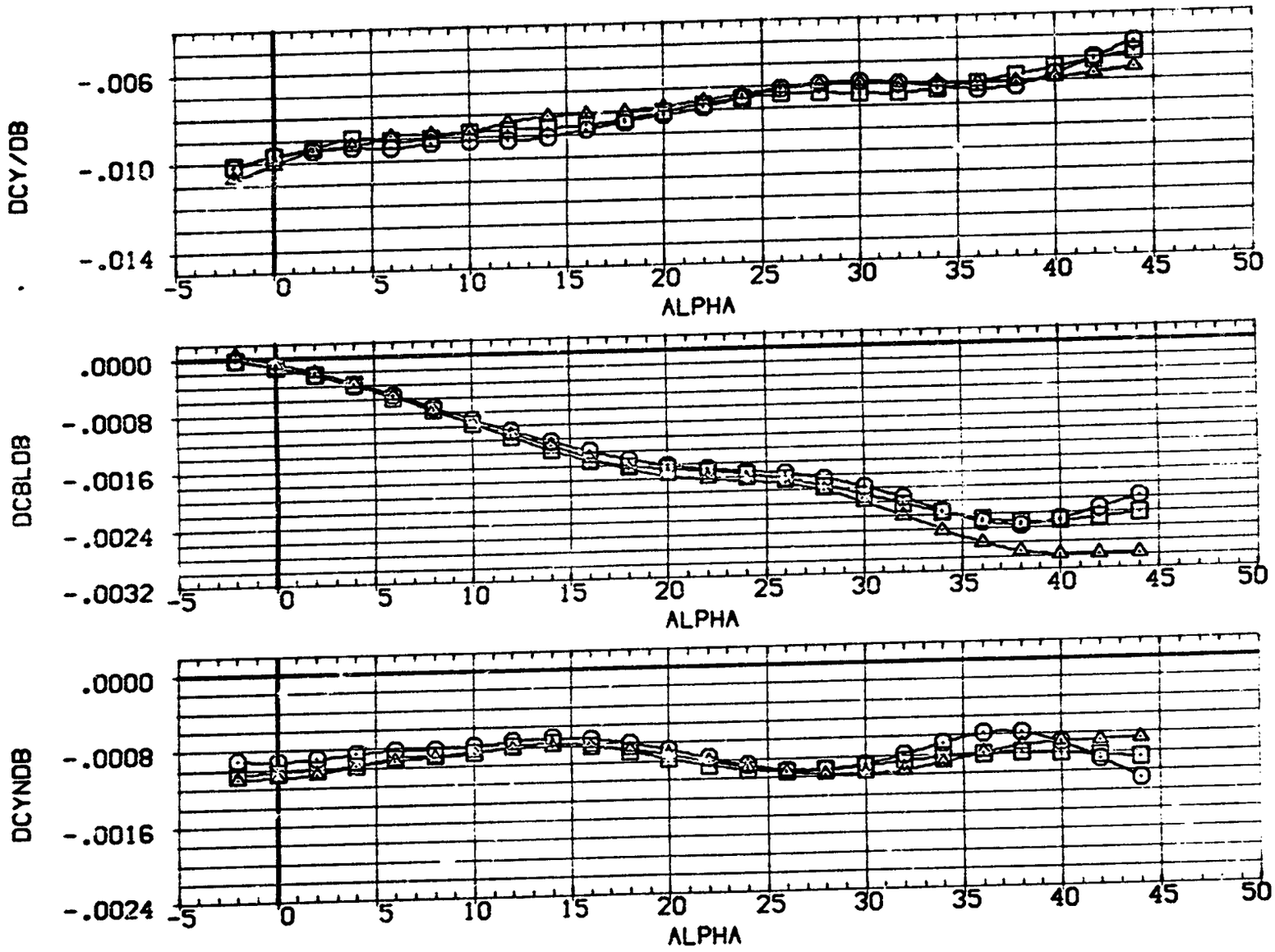


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BV2VFB)

(B)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	DBETA	RUDFLR	ELEVTR
(EP8002)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	3.000	.000	.000
(EP8006)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	3.000	.000	.000
(EP8009)	DATA NOT AVAILABLE	75.000	3.000	.000	.000
(EP8011)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	78.000	3.000	.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8356	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

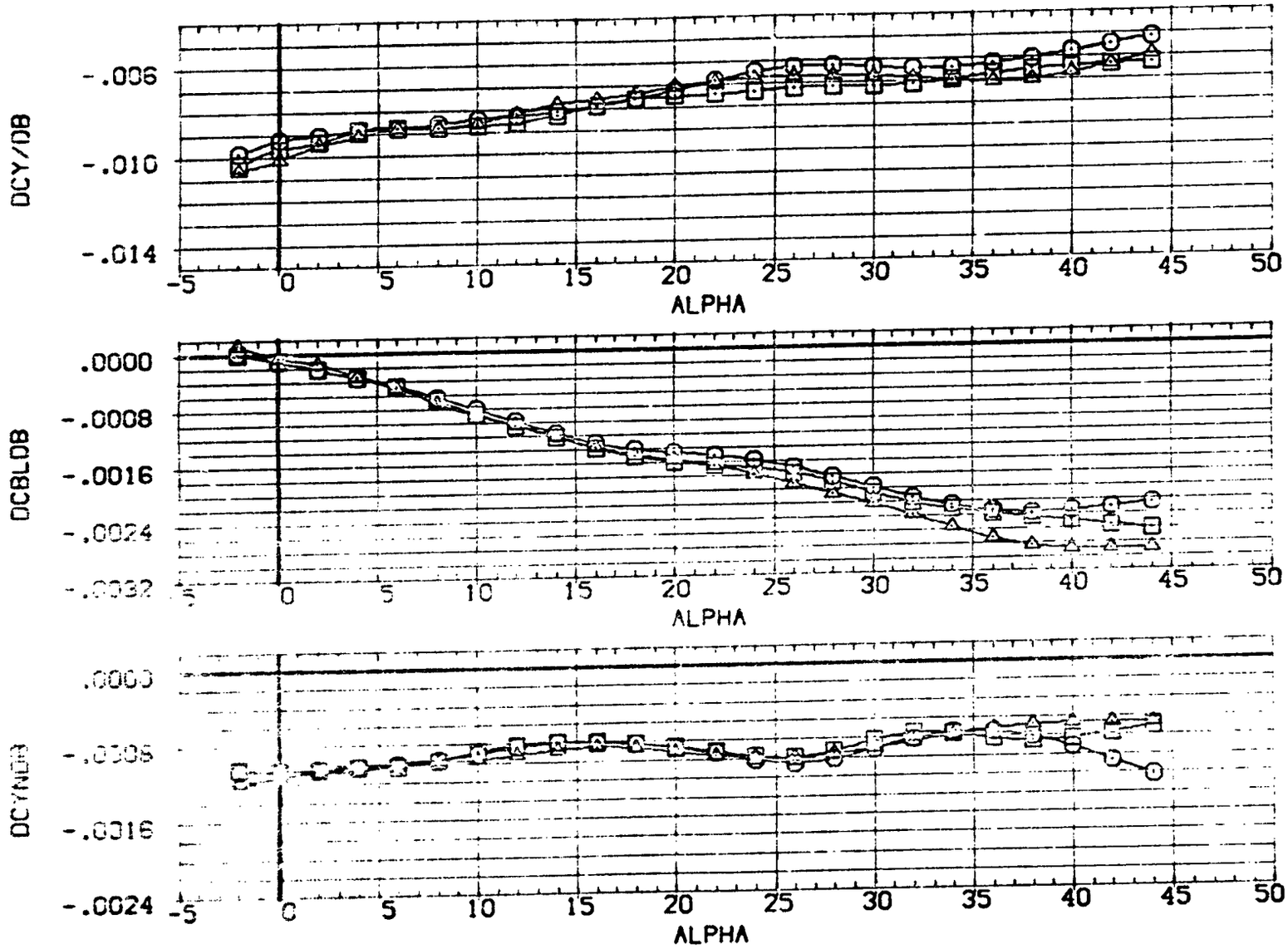


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	DBETA	RUDFLR	ELEVTR
(EP8002)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	3.000	.000	.000
(EP8006)	▽	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	3.000	.000	.000
(EP8009)	◇	DATA NOT AVAILABLE	75.000	3.000	.000	.000
(EP8011)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	78.000	3.000	.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0183	SCALE

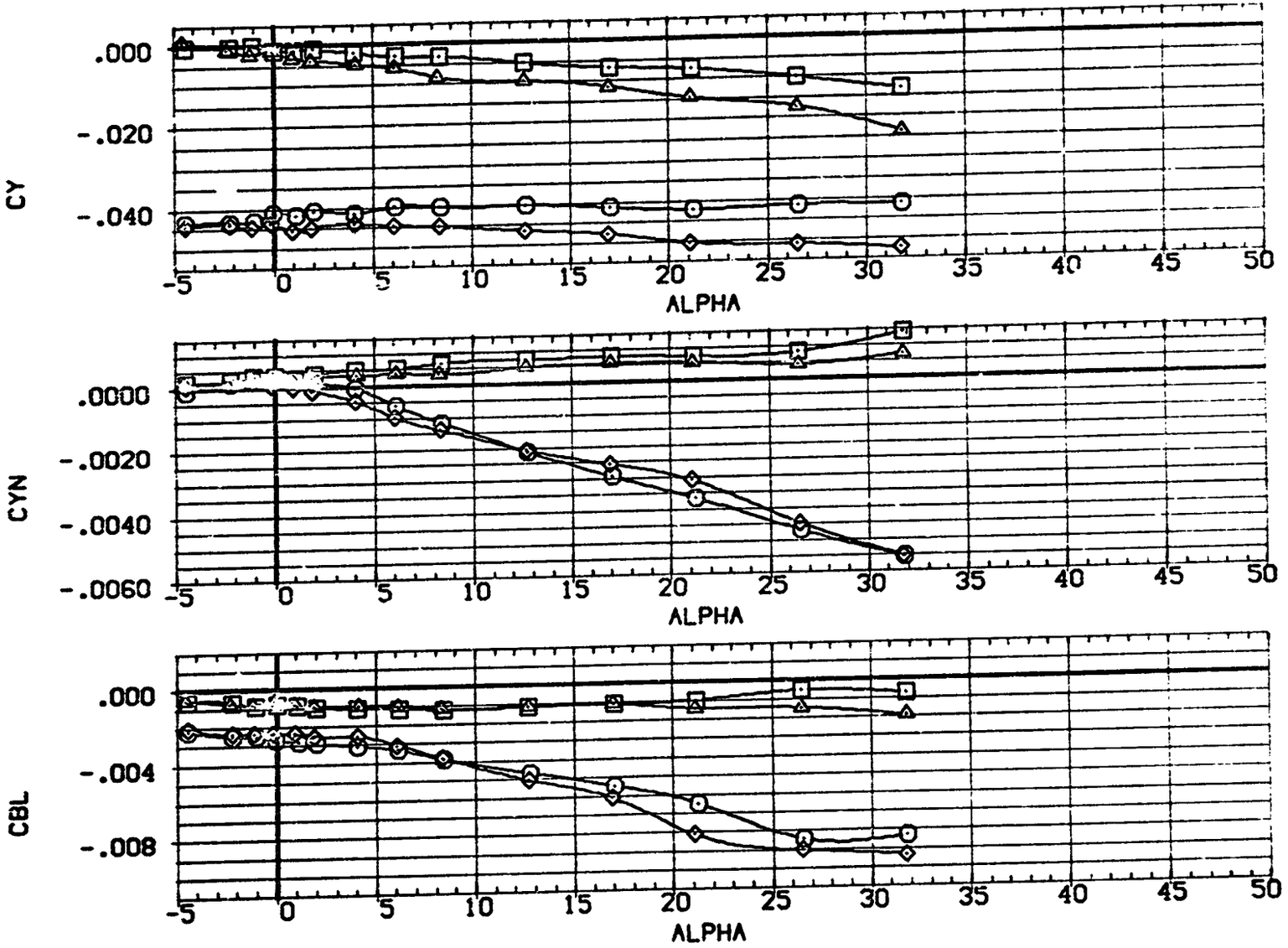


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	WINGNO	ELEVTR
(RP8002)	○	LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	3.000	2.000	.000
(RP8001)	□	LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	.000	2.000	.000
(RP8006)	◇	LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	3.000	2.000	.000
(RP8005)	△	LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

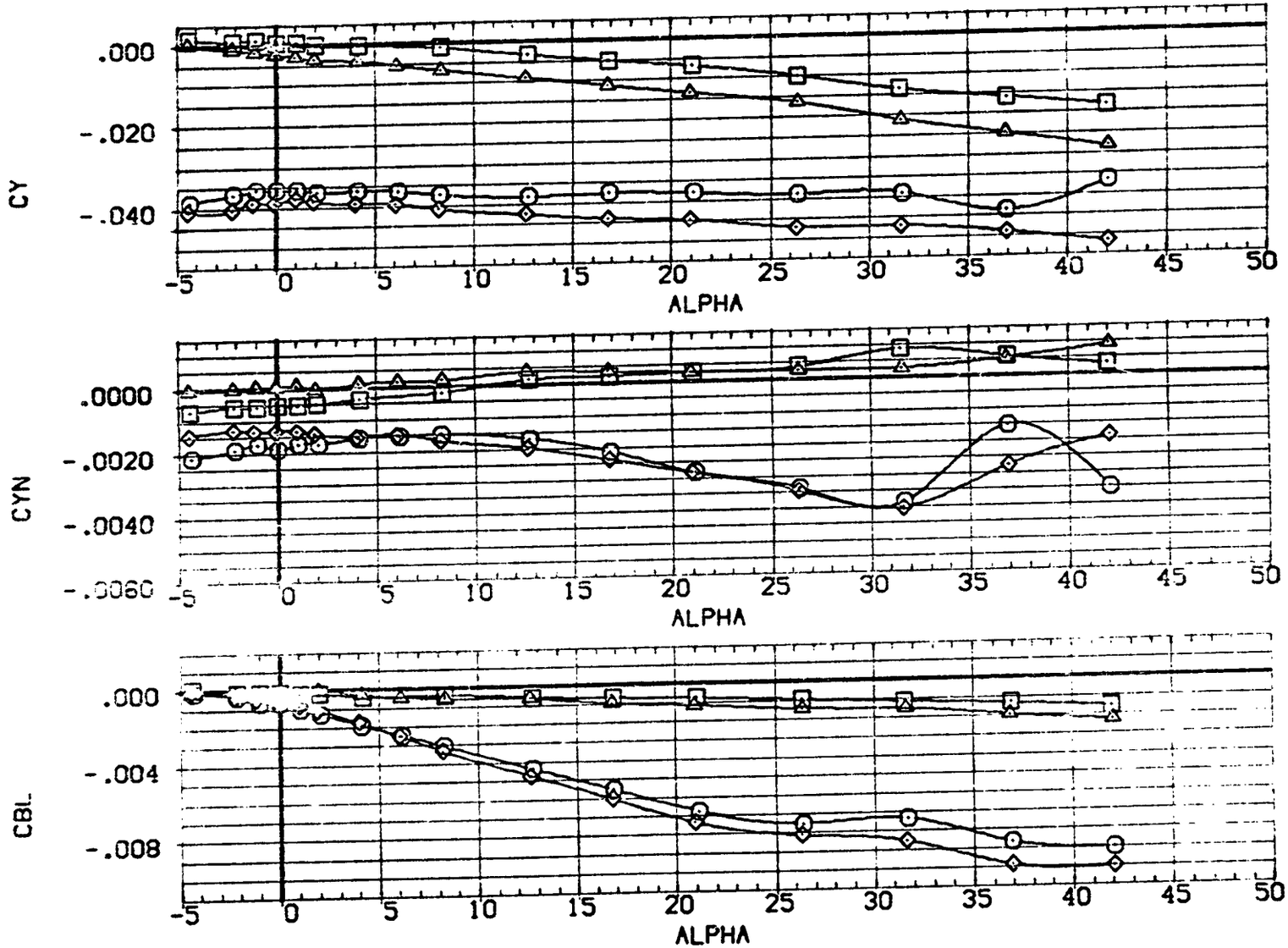


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	V:NGND	ELEVTR
(RP8002)	□	LA-1D LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	3.000	2.000	.000
(RP8001)	◇	LA-1D LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	46.800	.000	2.000	.000
(RP8006)	⊠	LA-1D LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	3.000	2.000	.000
(RP8005)	△	LA-1D LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	65.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

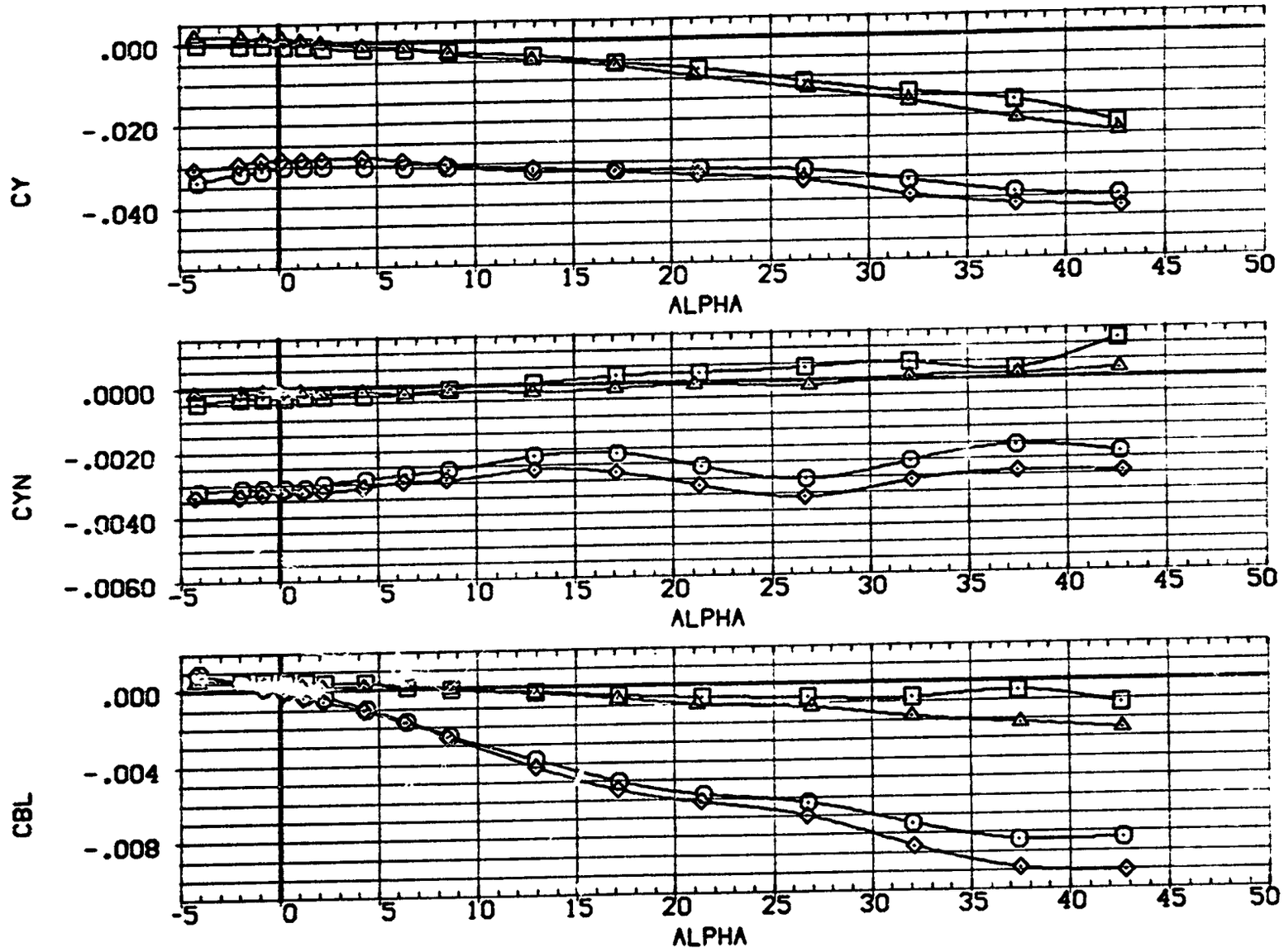


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(B)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(RP8002) ○	LA-1C LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	46.800	3.000	2.000	.000
(RP8001) □	LA-1C LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(RP8006) ◇	LA-1C LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	65.000	3.000	2.000	.000
(RP8005) △	LA-1C LARC UPVT 1015 LC-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

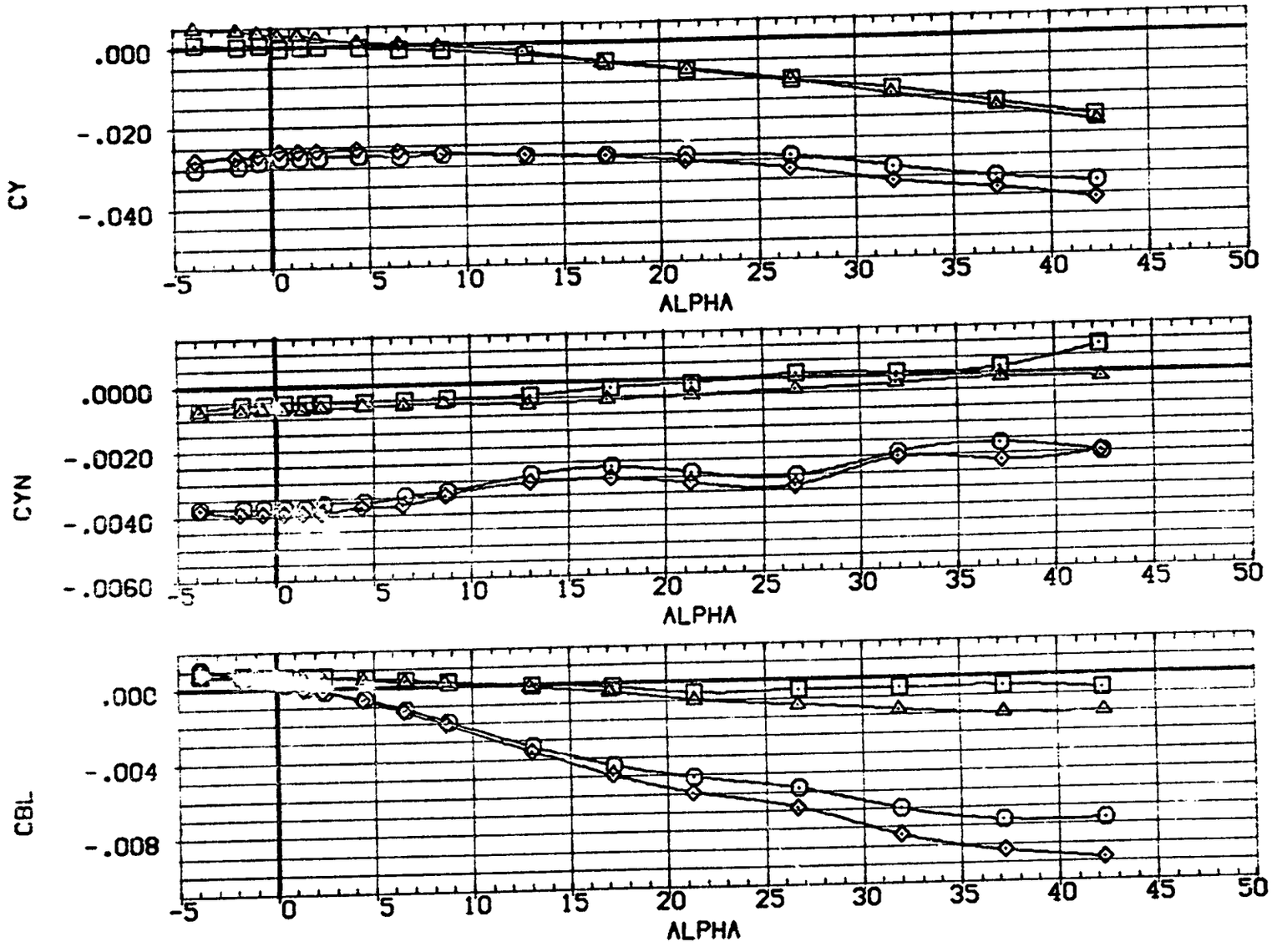


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(RP8002)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	3.000	2.000	.000
(RP8001)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	46.800	.000	2.000	.000
(RP8006)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	3.000	2.000	.000
(RP8005)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	65.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

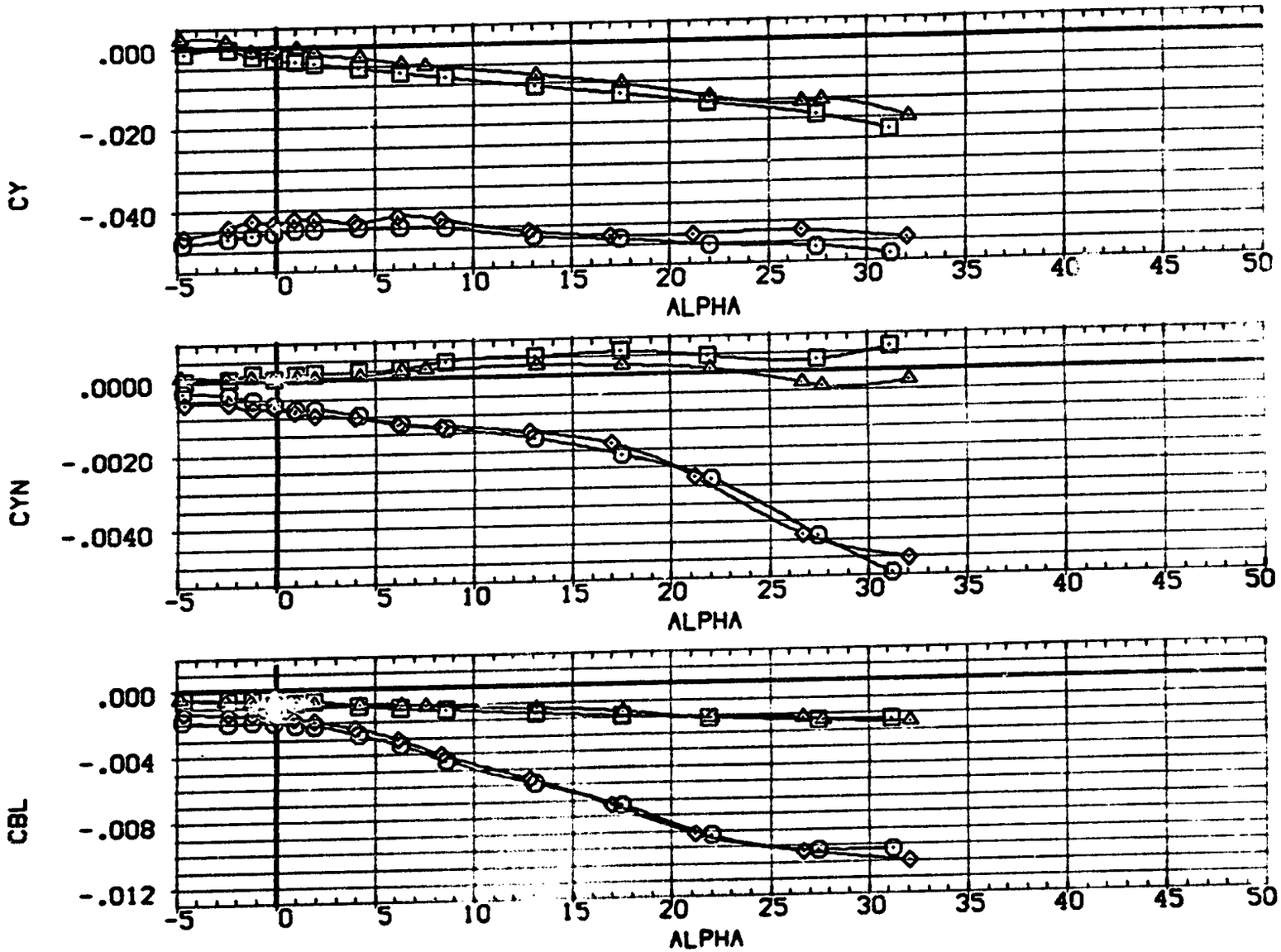


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(D)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(RP8009) ○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	2.000	.000
(RP8008) □	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(RP8011) ◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	3.000	2.000	.000
(RP8010) △	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

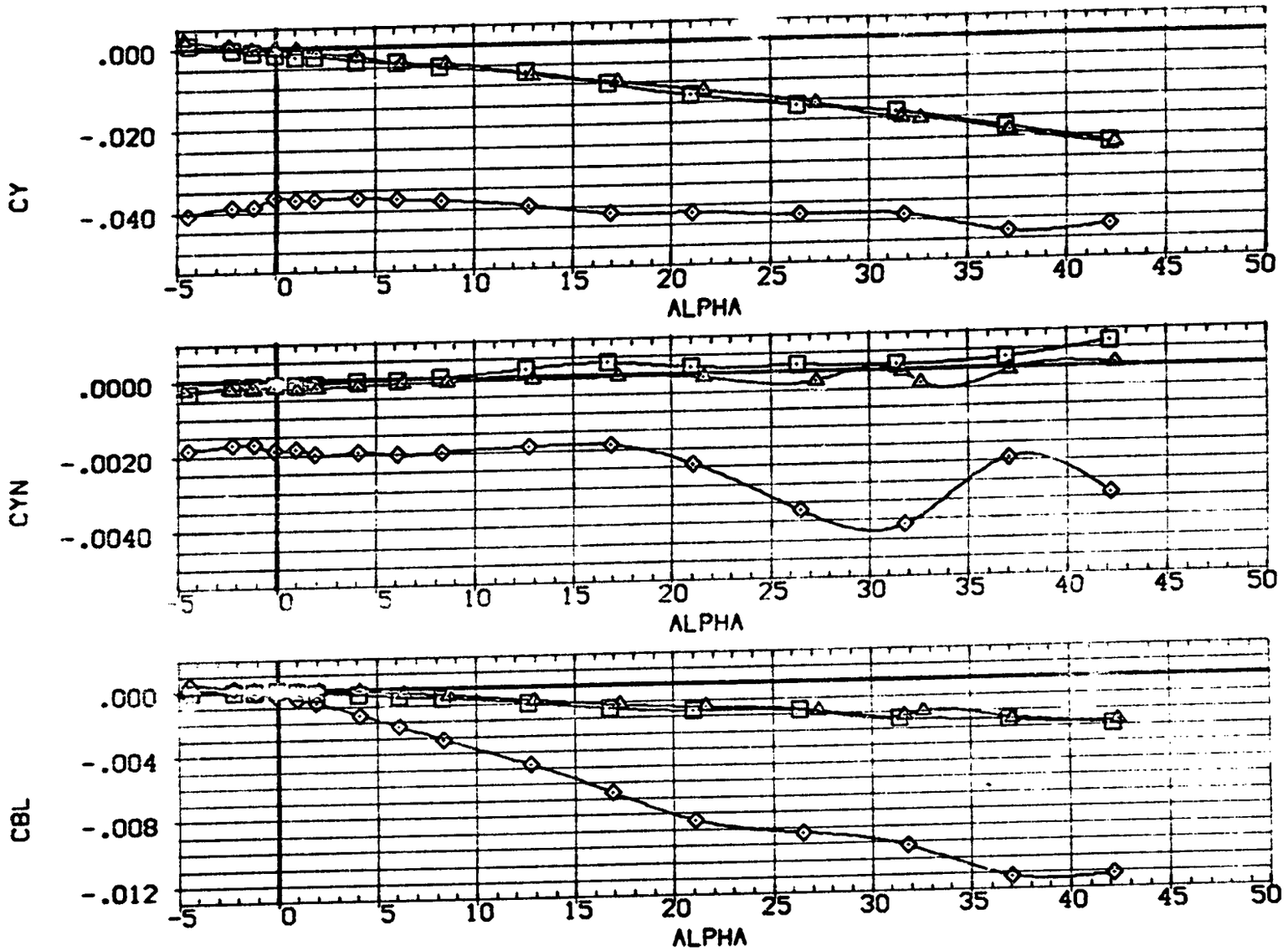


EFFECT OF FILLET ON LAT. DIR. CHAR.(BW2VFB)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGND	ELEVTR
(RP8009)	○	DATA NOT AVAILABLE	75.000	3.000	2.000	.000
(RP8008)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	75.000	.000	2.000	.000
(RP8011)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	78.000	3.000	2.000	.000
(RP8010)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BW2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
X-MRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

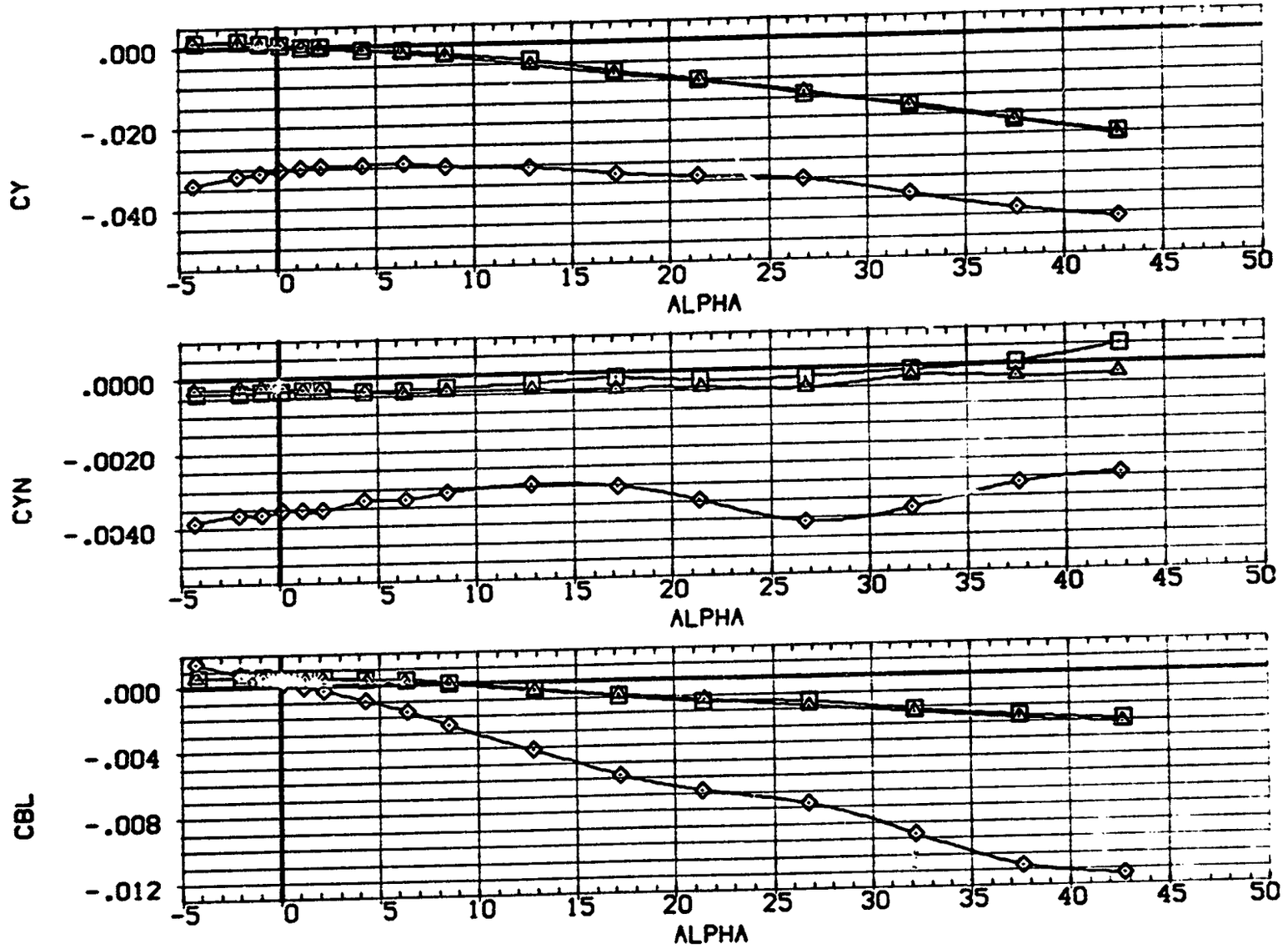


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(RP8009)	○	DATA NOT AVAILABLE	75.000	3.000	2.000	.000
(RP8008)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(RP8011)	⊠	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	3.000	2.000	.000
(RP8010)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8360	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

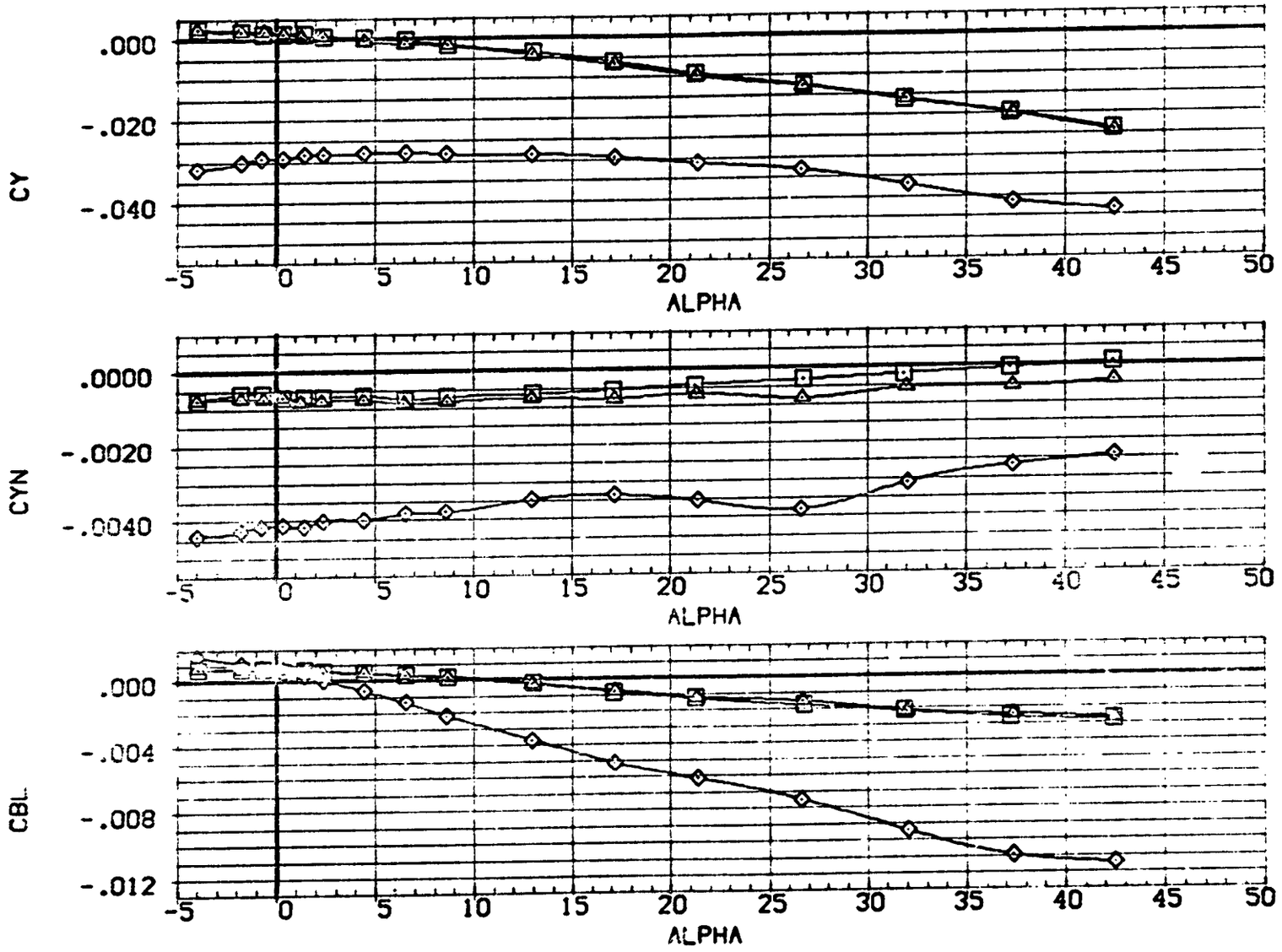


EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	VINGNO	ELEVTR
(RP8009)	○	DATA NOT AVAILABLE	75.000	3.000	2.000	.000
(RP8008)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	2.000	.000
(RP8011)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	3.000	2.000	.000
(RP8010)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	78.000	.000	2.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF FILLET ON LAT.-DIR. CHAR.(BW2VFB)

(D)MACH = 4.63

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(EP8002)

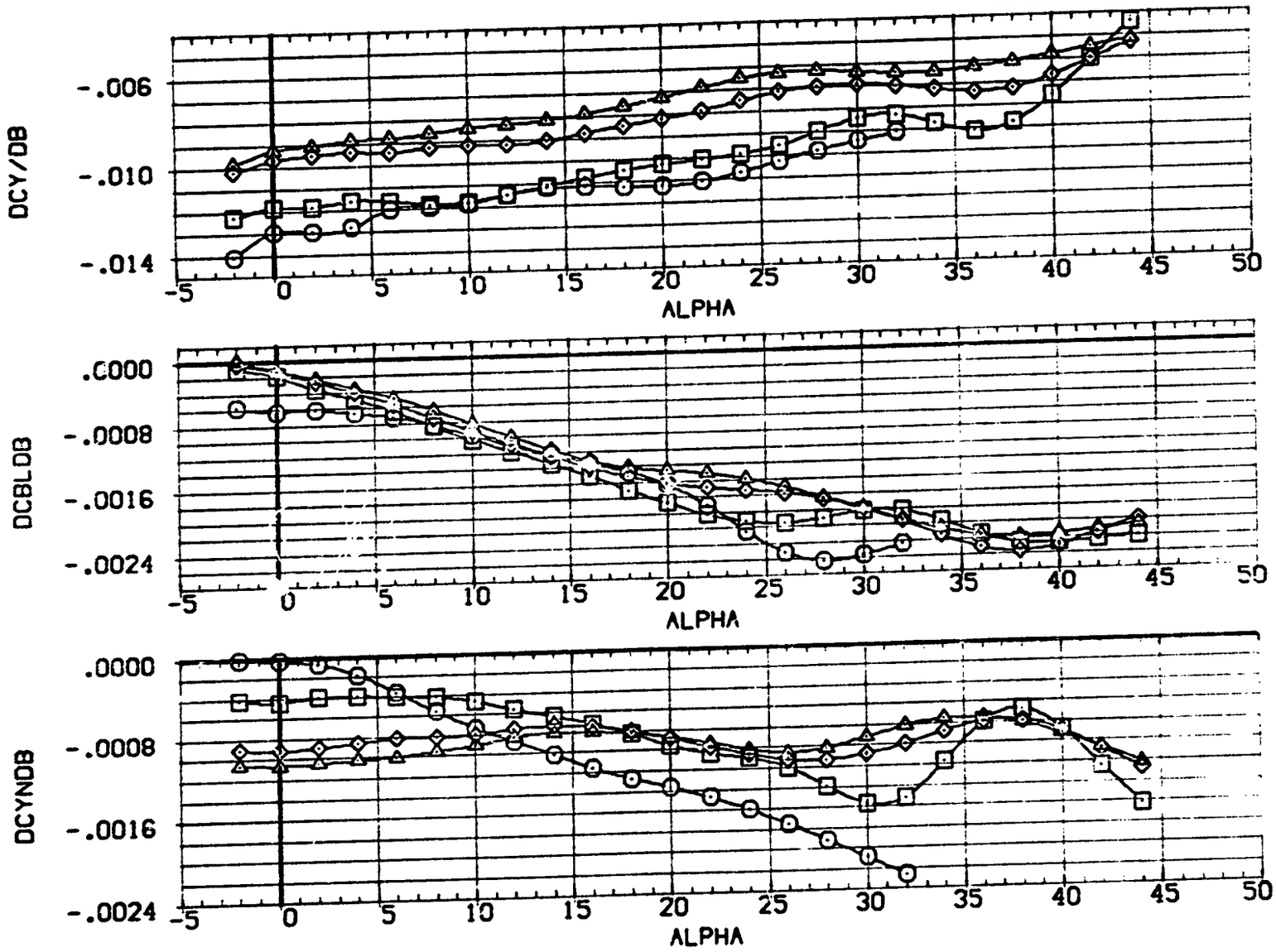
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

PARAMETRIC VALUES

BETA	3.000	VINGNO	2.000
LAMDAF	46.800	ELEV'R	.000
BDFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	17.720	SQ.IN.
LREF	2[illegible].100	INCHES
BREF	20.3397	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



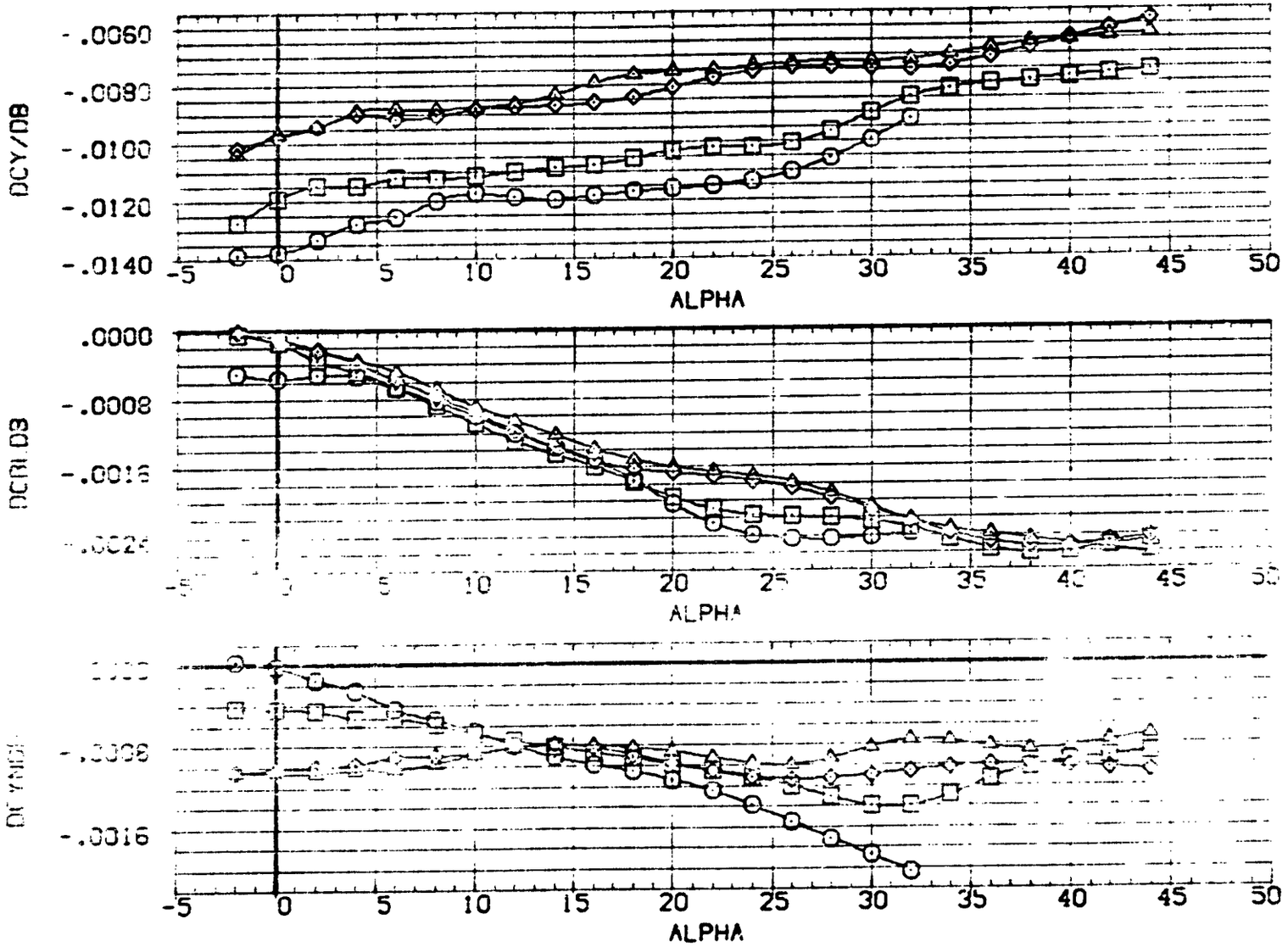
EFFECT OF MACH NO. ON LAT.-DIR. CHAR. (BW2VFB)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(EP8006)

SYMBOL	MACH		PARAMETRIC VALUES		
○	2.350	DBETA	3.000	WINGNO	2.000
□	2.860	LAMDAF	65.000	ELEVTR	.000
◇	3.960	BOFLAP	.000	RUDFLR	.000
△	4.630				

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	15.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0189	SCALE



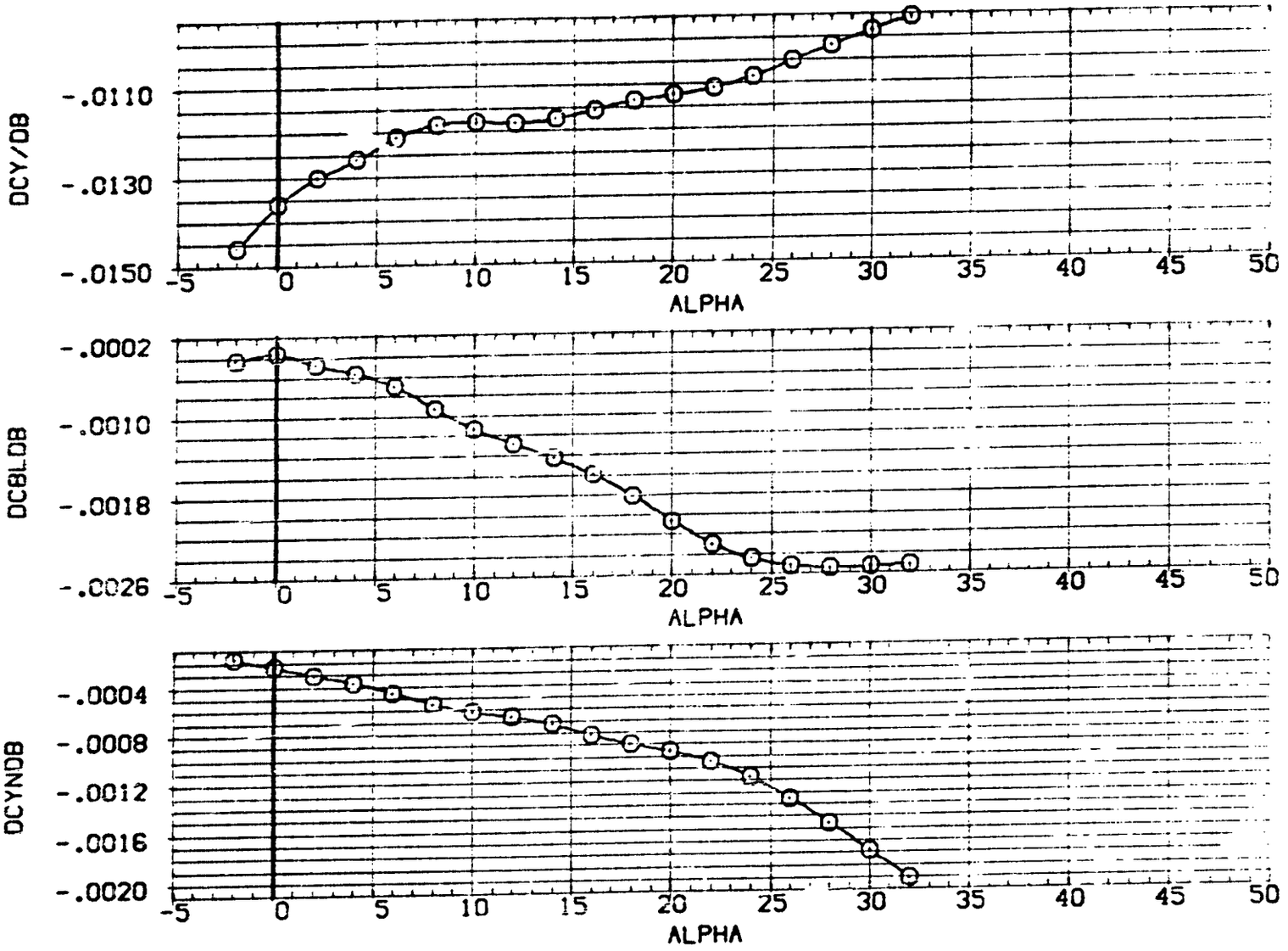
EFFECT OF MACH NO. ON LAT.-DIR. CHAR. (BW2VFB)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(EP8009)

SYMBOL	MACH	PARAMETRIC VALUES			
○	2.360	DBETA	3.000	WINGNO	2.000
		LAMDAF	75.000	ELEVTR	.000
		BDFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0189	SCALE



EFFECT OF MACH NO. ON LAT.-DIR. CHAR. (BW2VFB)

LA-10 LARC UPWT 10'5 LO-100 ORB.(SHIPS) (BW2VFB)(EP8011)

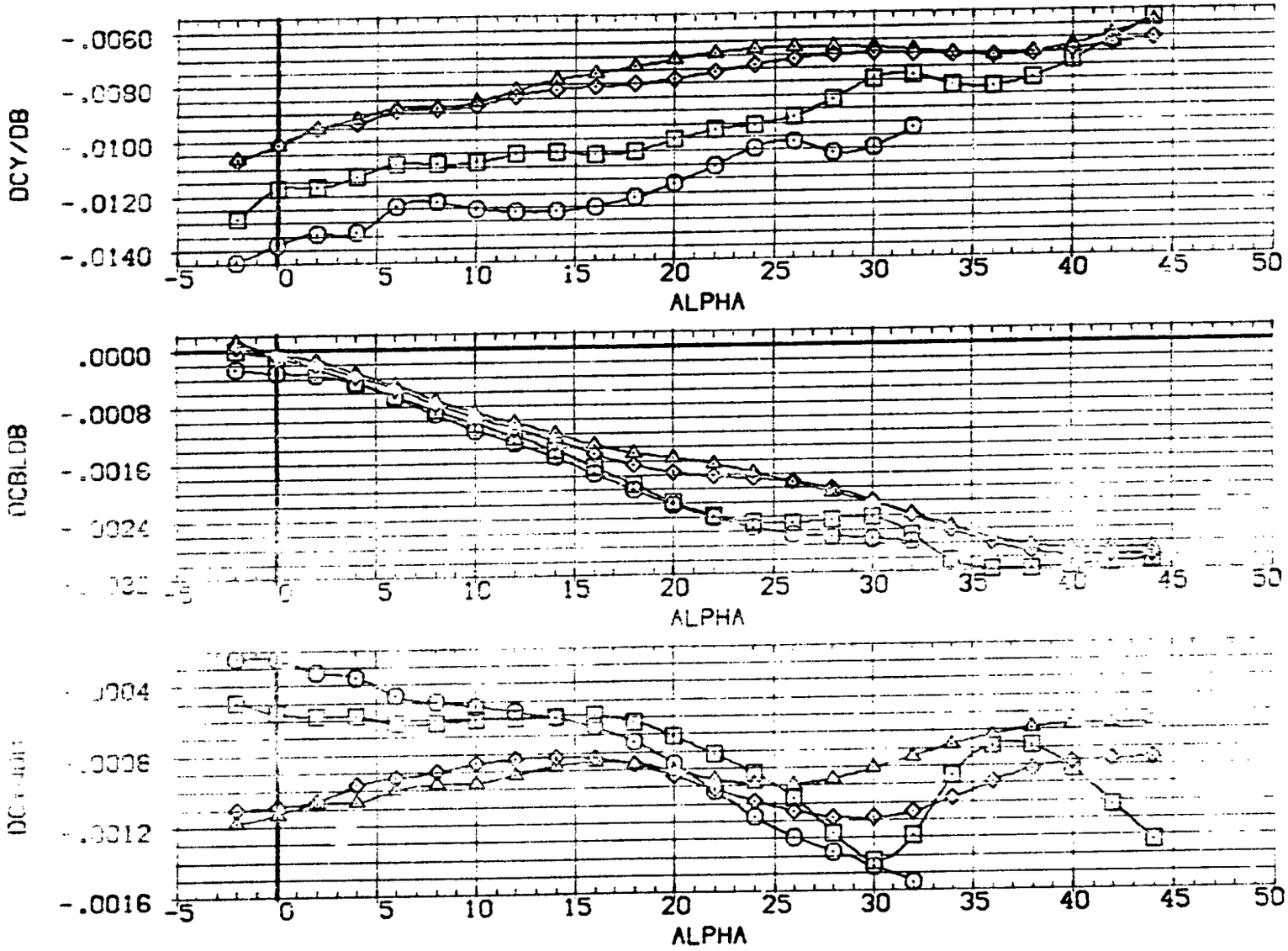
SYMBOL	MACH
○	2.360
□	2.860
◇	3.960
△	4.630

PARAMETRIC VALUES

DBETA	3.000	WINGNO	2.000
LAMDAF	78.000	ELEVTR	.000
BDFLAP	.000	RUDFLR	.000

REFERENCE INFORMATION

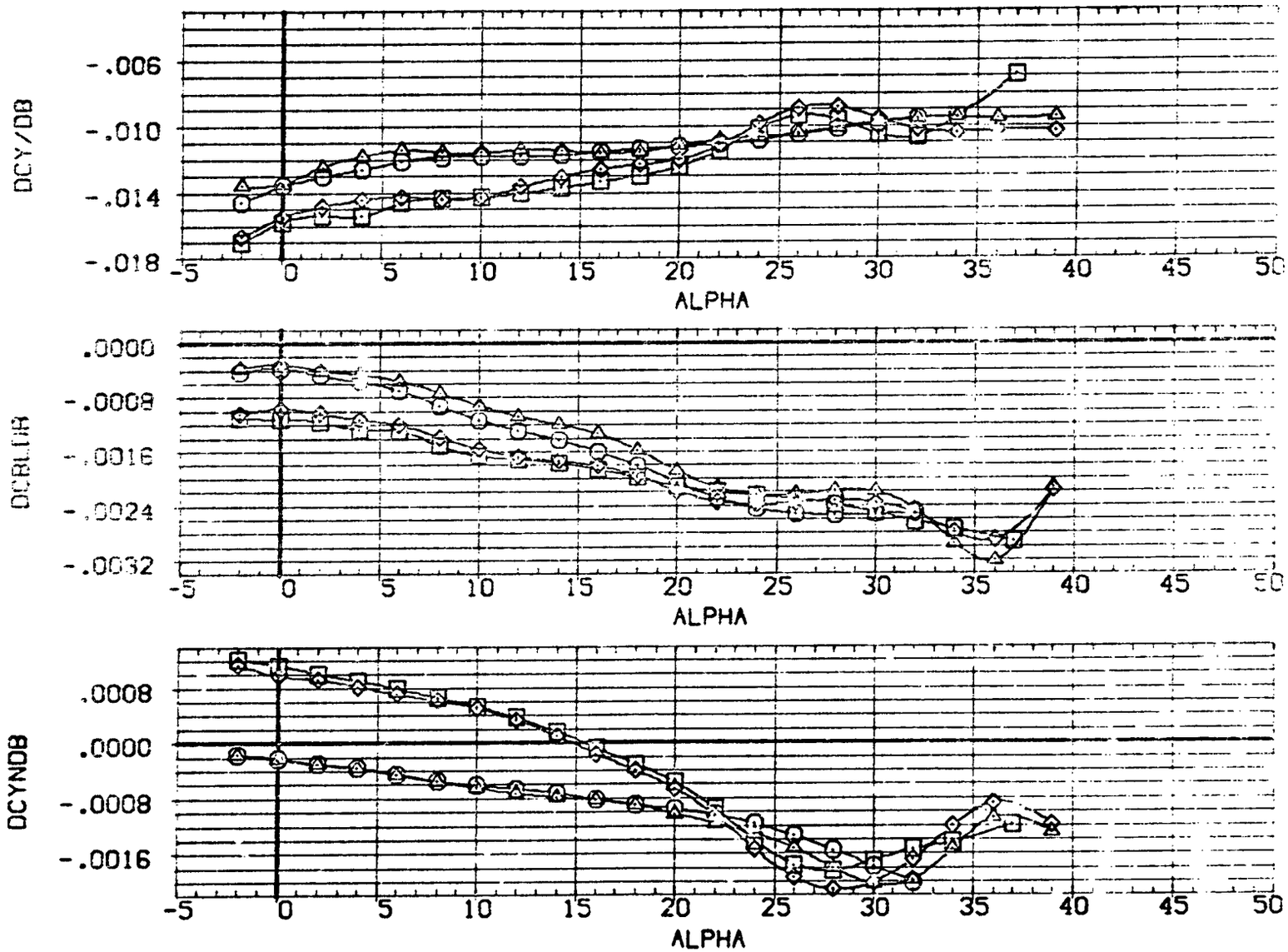
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



EFFECT OF MACH NO. ON LAT.-DIR. CHAR. (BW2VFB)

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	DBETA	RUDFLR	ELEVTR
(EP8009)	○	LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	.000	.000
(EP8013)	□	LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	.000
(EP8015)	⊠	LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	-10.000
(EP8017)	△	LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ. IN.
LREF	25.5100	INCHES
BREF	20.3500	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0198	SCALE

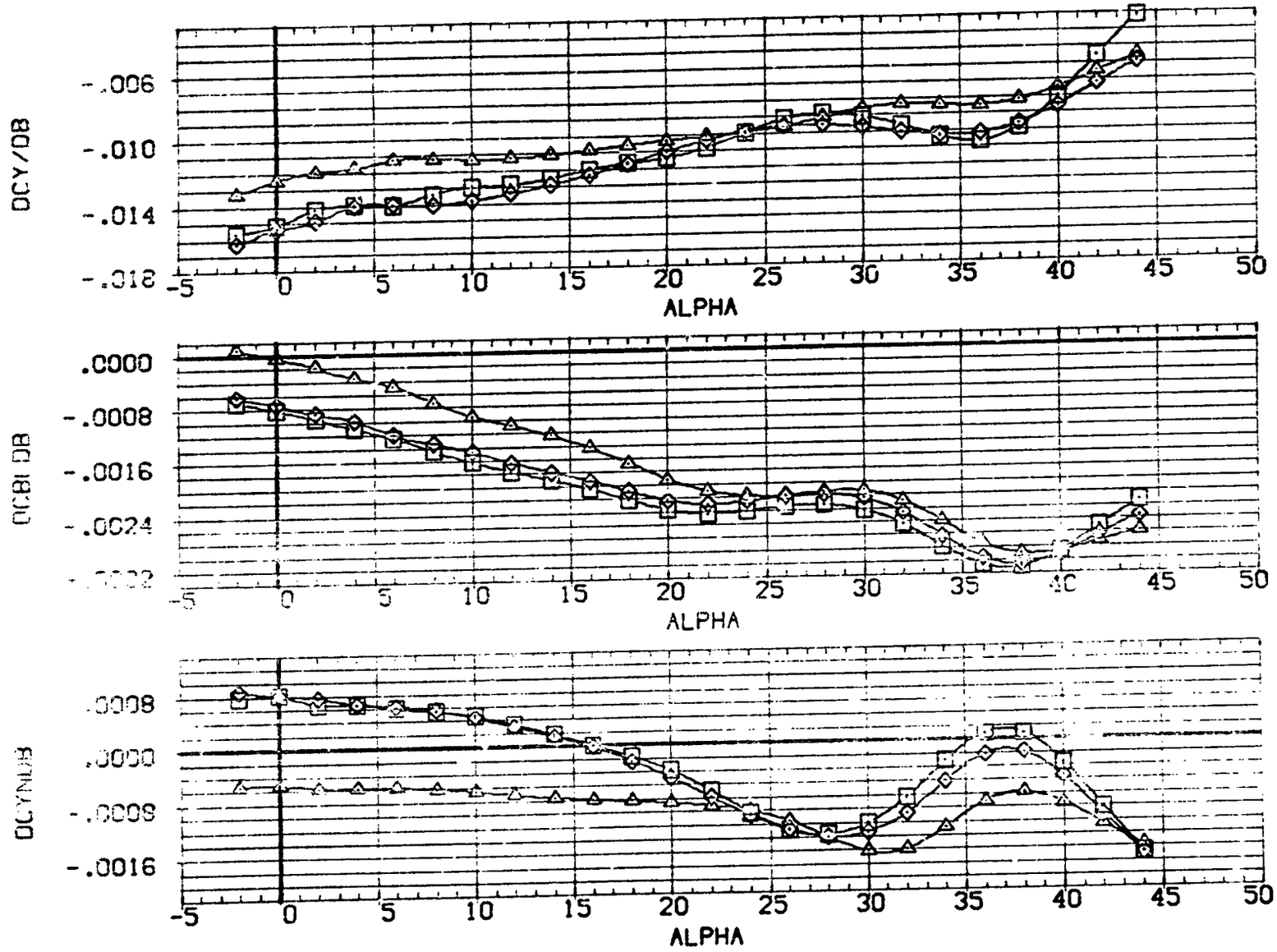


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	DBETA	RUDFLR	ELEVTR
(EP8009)	□	DATA NOT AVAILABLE	75.000	3.000	.000	.000
(EP8013)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BVZVFB)	75.000	3.000	40.000	.000
(EP8015)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BVZVFB)	75.000	3.000	40.000	-10.000
(EP8017)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BVZVFB)	75.000	3.000	.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0183	SCALE

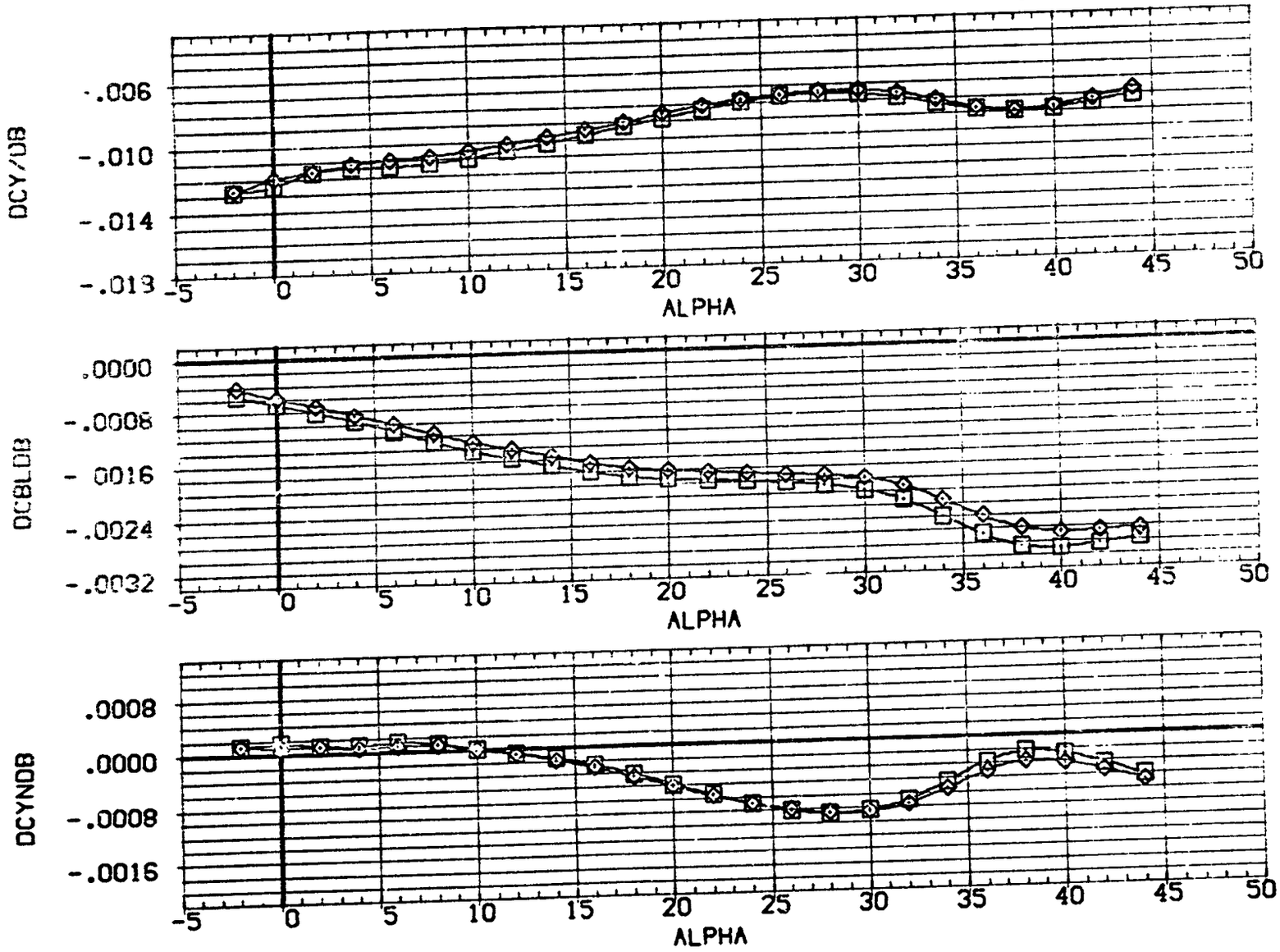


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(B)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	DBETA	RUDFLR	ELEVTR
(EP8009) ○	DATA NOT AVAILABLE	75.000	3.000	.000	.000
(EP8013) □	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	.000
(EP8015) ◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	-10.000
(EP8017) △	DATA NOT AVAILABLE	75.000	3.000	.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE



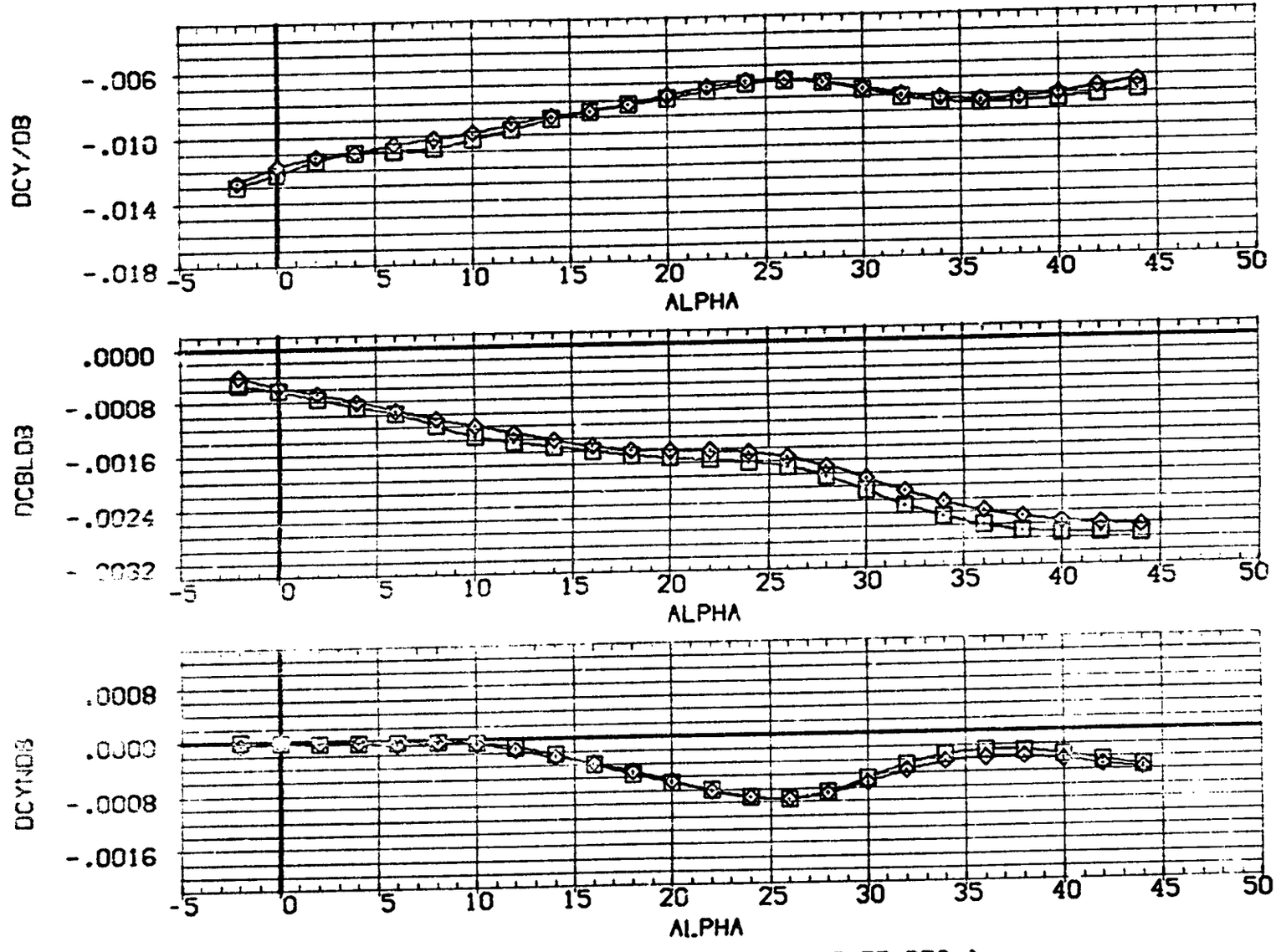
LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	DBETA	RUDFLR	ELEVTR
(EP8009)	□	DATA NOT AVAILABLE	75.000	3.000	.000	.000
(EP8013)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	.000
(EP8015)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	-10.000
(EP8017)	△	DATA NOT AVAILABLE	75.000	3.000	.000	-10.000

REFERENCE INFORMATION

SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

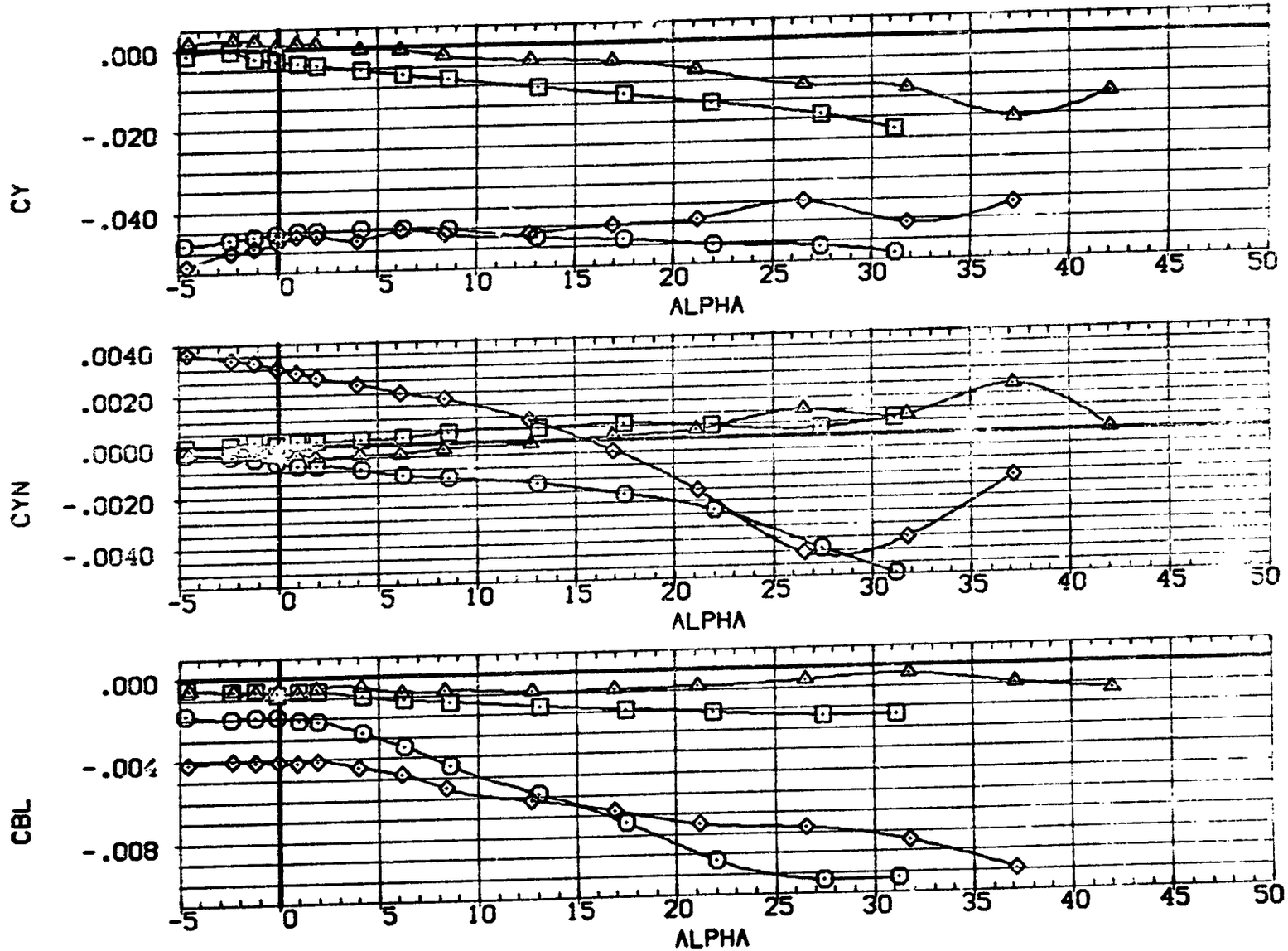


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(D)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(RP8009)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	.000	.000
(RP8008)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(RP8013)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	.000
(RP8012)	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

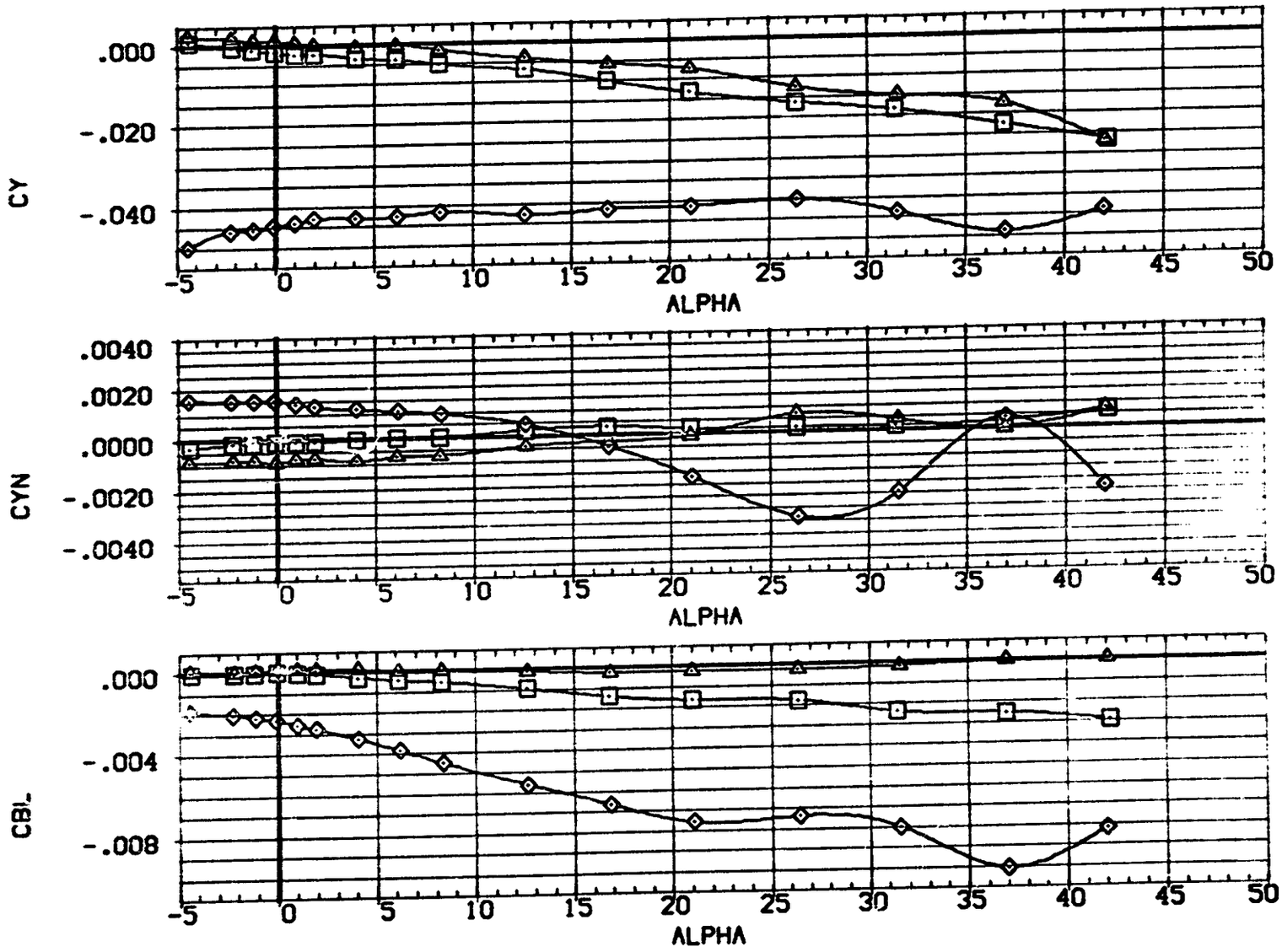


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(A)MACH = 2.36

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(RP8009) ○	DATA NOT AVAILABLE	75.000	3.000	.000	.000
(RP8008) □	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(RP8013) ◇	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	.000
(RP8012) △	LA-10 LARC UPVT 1015 LG-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

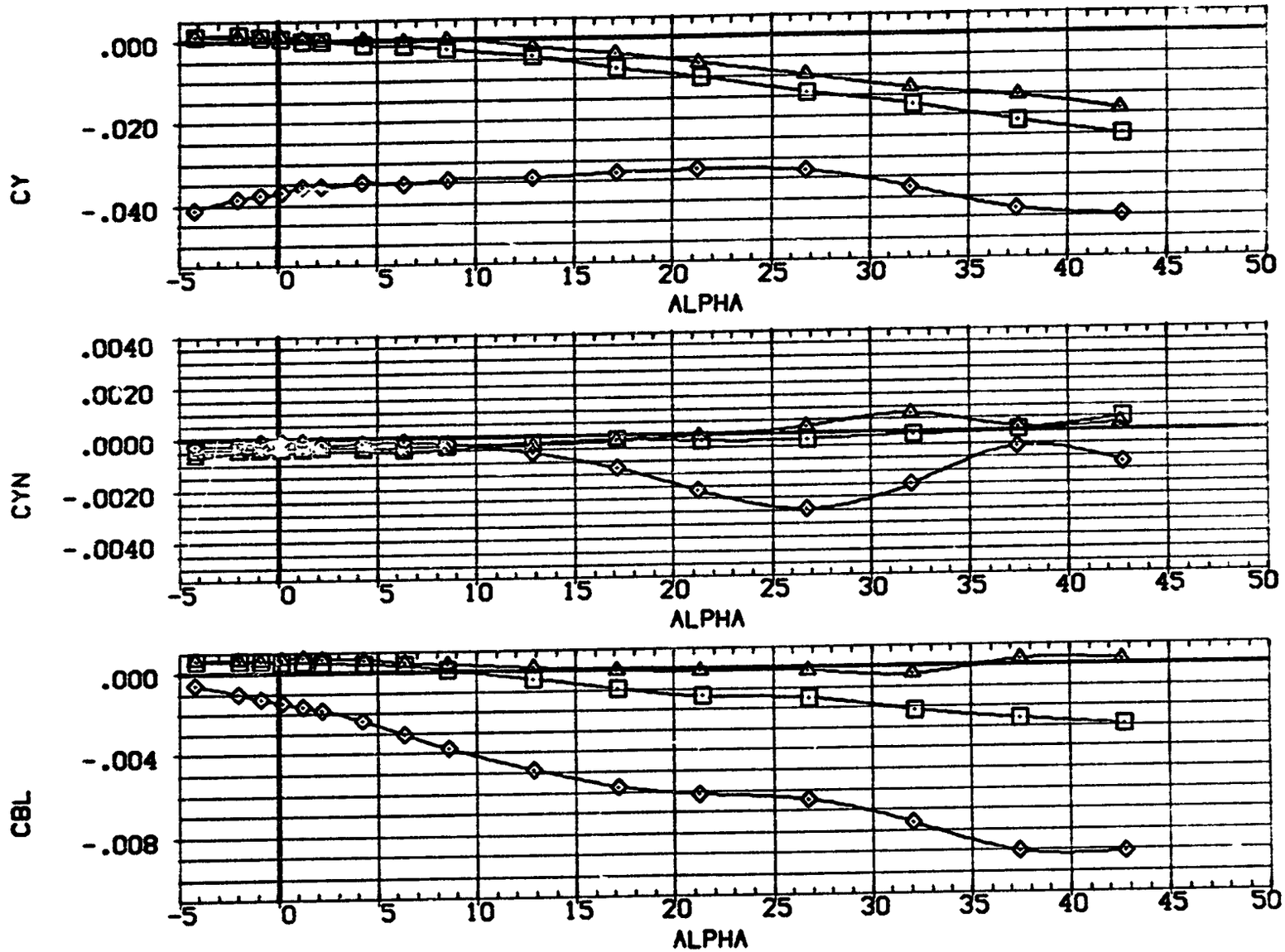


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(B)MACH = 2.86

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(RP8009)	○	DATA NOT AVAILABLE				
(RP8008)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	.000	.000
(RP8013)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	.000
(RP8012)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	.000
			75.000	.000	40.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0189	SCALE

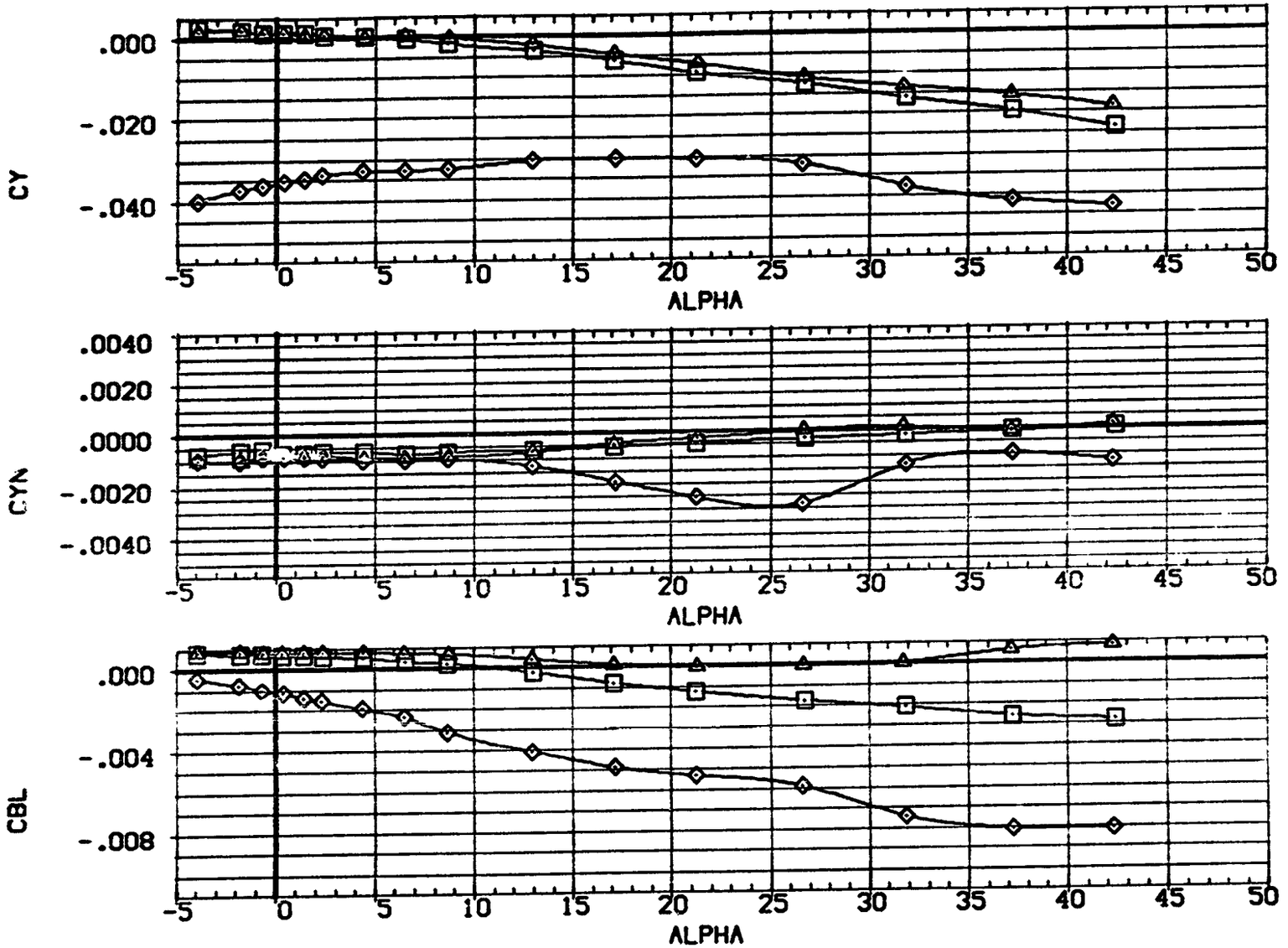


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(RP8009)	○	DATA NOT AVAILABLE	75.000	3.000	.000	.000
(RP8008)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BVZVFB)	75.000	.000	.000	.000
(RP8013)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BVZVFB)	75.000	3.000	40.000	.000
(RP8012)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BVZVFB)	75.000	.000	40.000	.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

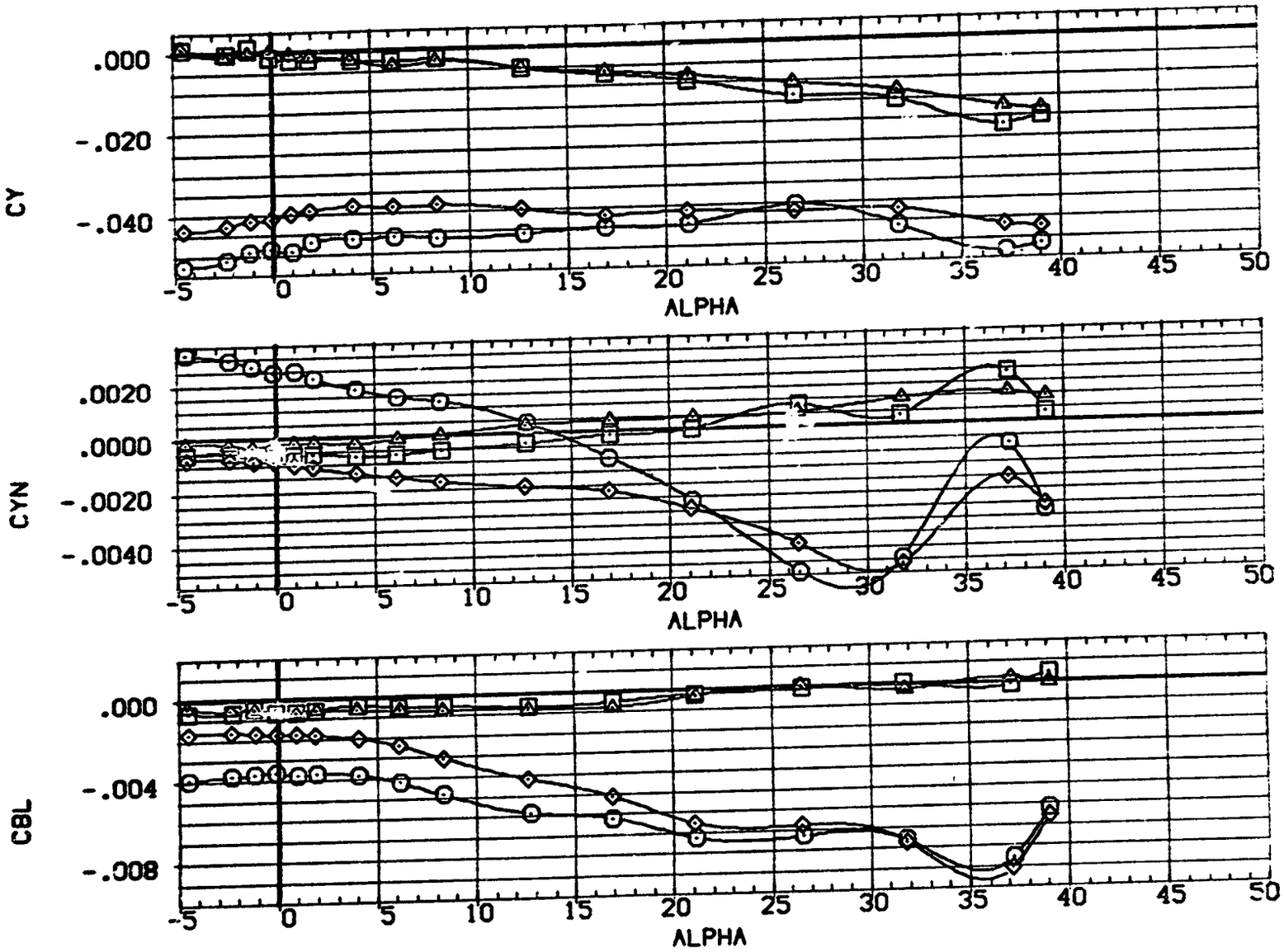


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(D)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(RP8015)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	-10.000
(RP8014)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000
(RP8017)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	.000	-10.000
(RP8016)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

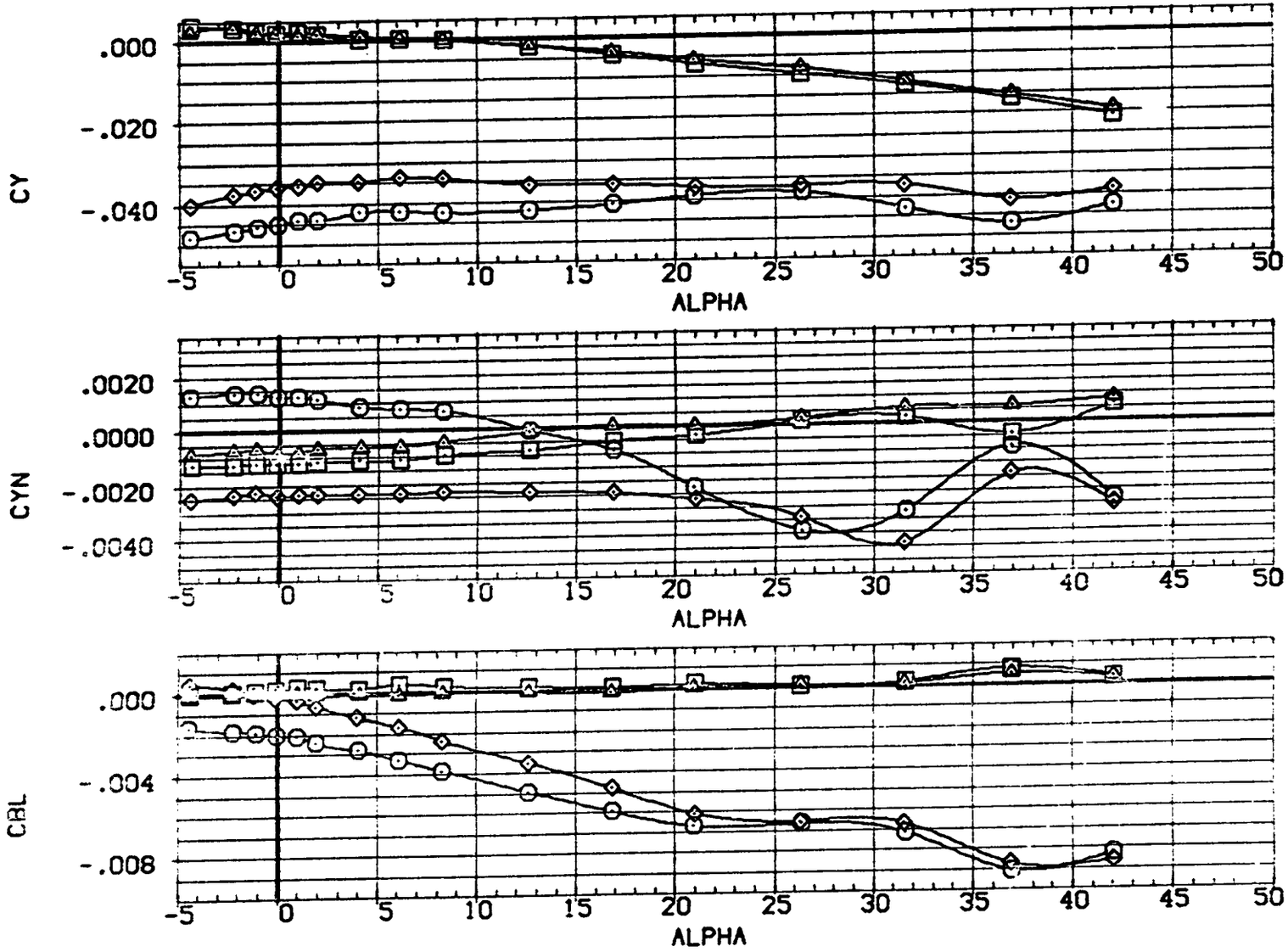


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(A)MACH = 2.36

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(RP8015)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	-10.000
(RP8014)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000
(RP8017)	◇	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	.000	-10.000
(RP8016)	△	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

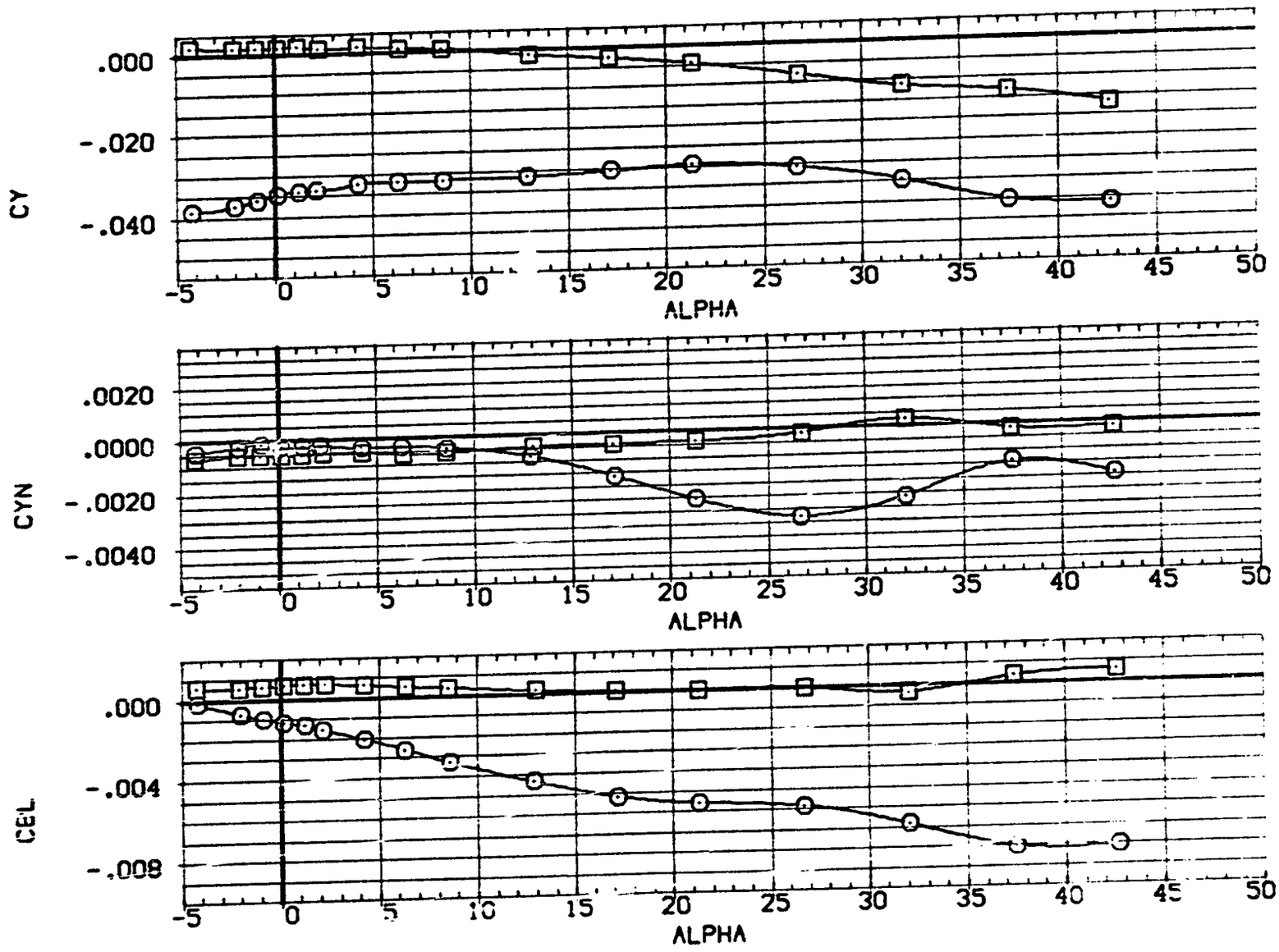


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(B)MACH = 2.86

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(RP8015) ○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	-10.000
(RP8014) □	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000
(RP8017) ⧖	DATA NOT AVAILABLE	75.000	3.000	.000	-10.000
(RP8016) ⧗	DATA NOT AVAILABLE	75.000	.000	.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE

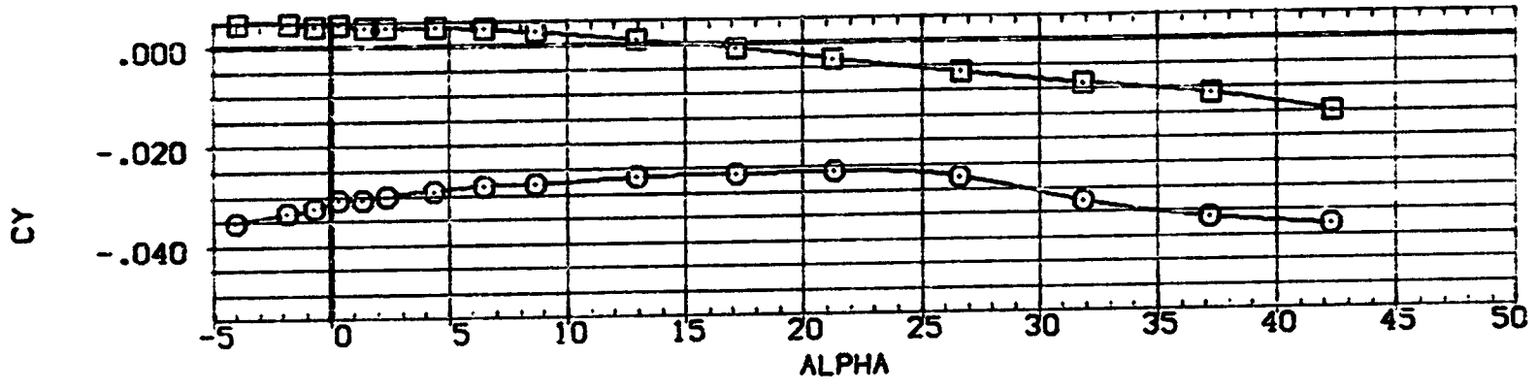


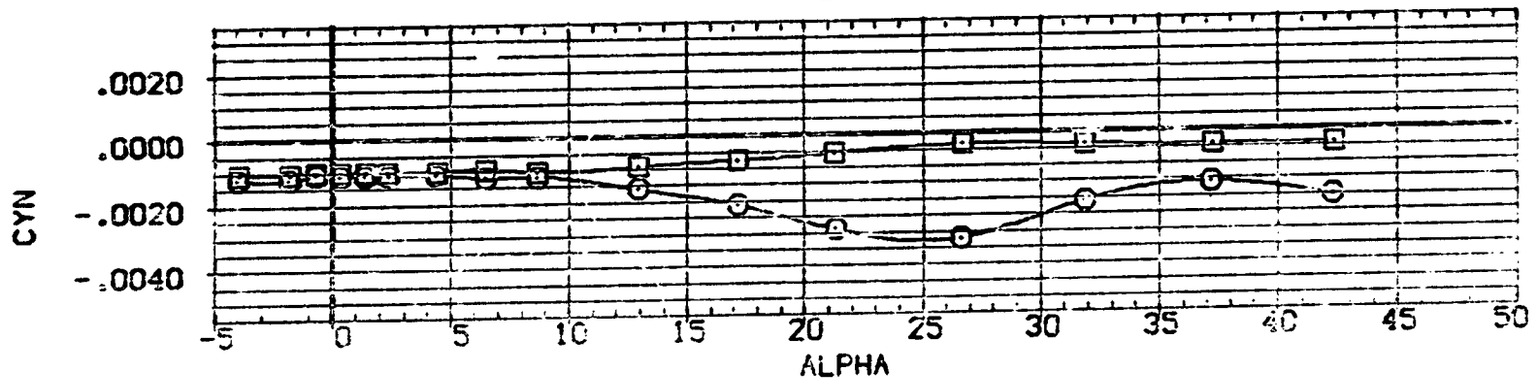
LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

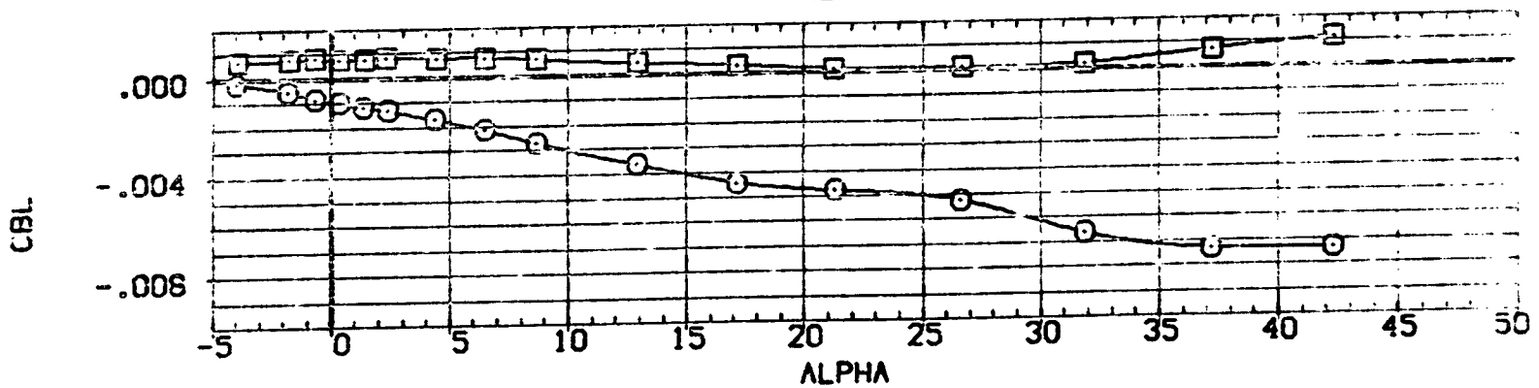
(C)MACH = 3.96

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	LAMDAF	BETA	RUDFLR	ELEVTR
(RP8015)	○	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	3.000	40.000	-10.000
(RP8014)	□	LA-10 LARC UPVT 1015 LO-100 ORB.(SHIPS) (BV2VFB)	75.000	.000	40.000	-10.000
(RP8017)	◇	DATA NOT AVAILABLE	75.000	3.000	.000	-10.000
(RP8016)	△	DATA NOT AVAILABLE	75.000	.000	.000	-10.000

REFERENCE INFORMATION		
SREF	171.4720	SQ.IN.
LREF	25.5100	INCHES
BREF	20.3597	INCHES
XMRP	16.8366	INCHES
YMRP	.0000	INCHES
ZMRP	.0000	INCHES
SCALE	.0188	SCALE





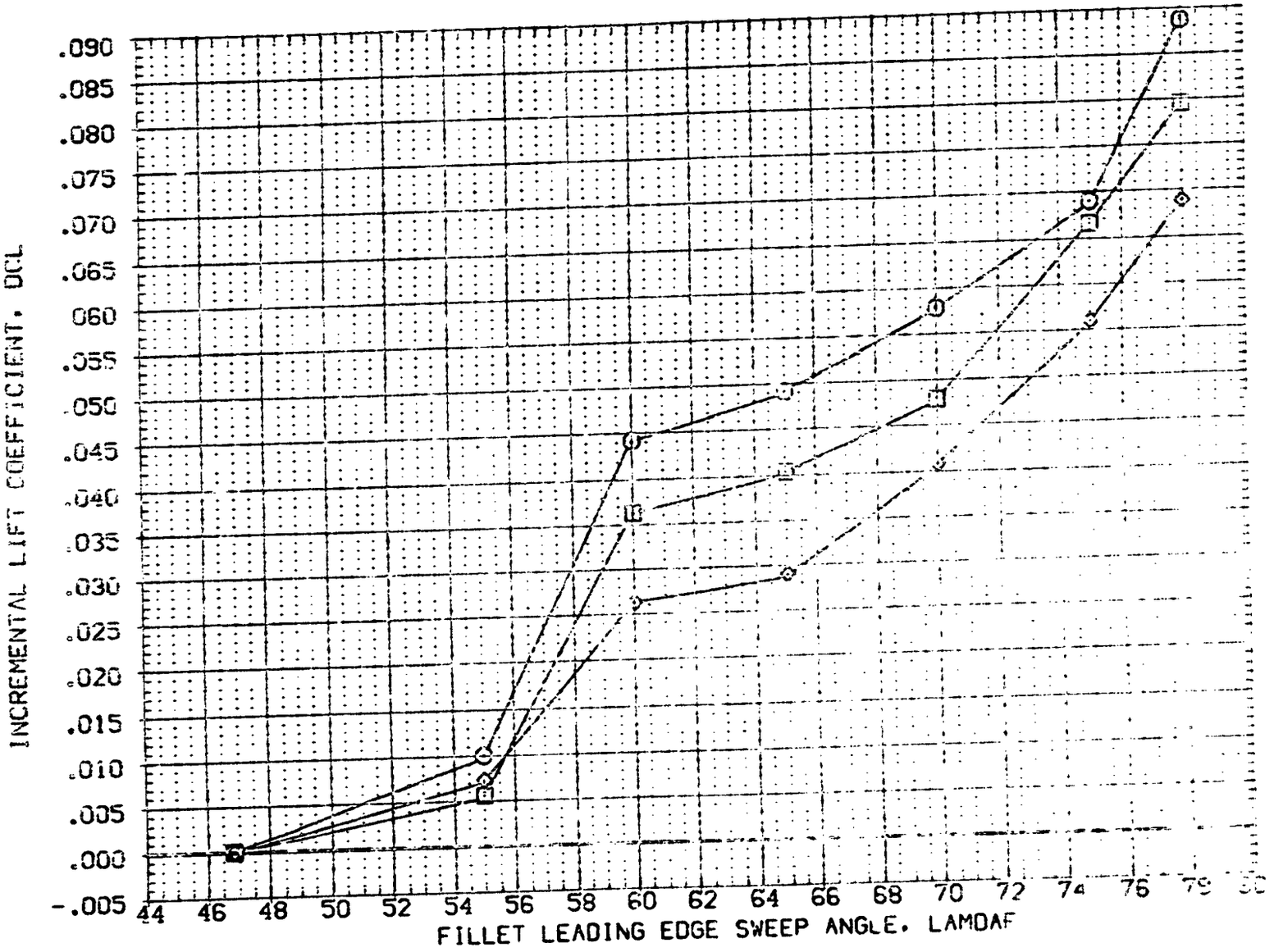


LAT.-DIR. CHAR WITH RUDDER FLARE (FILLET ANGLE=75 DEG.)

(D)MACH = 4.63

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(OP8001)

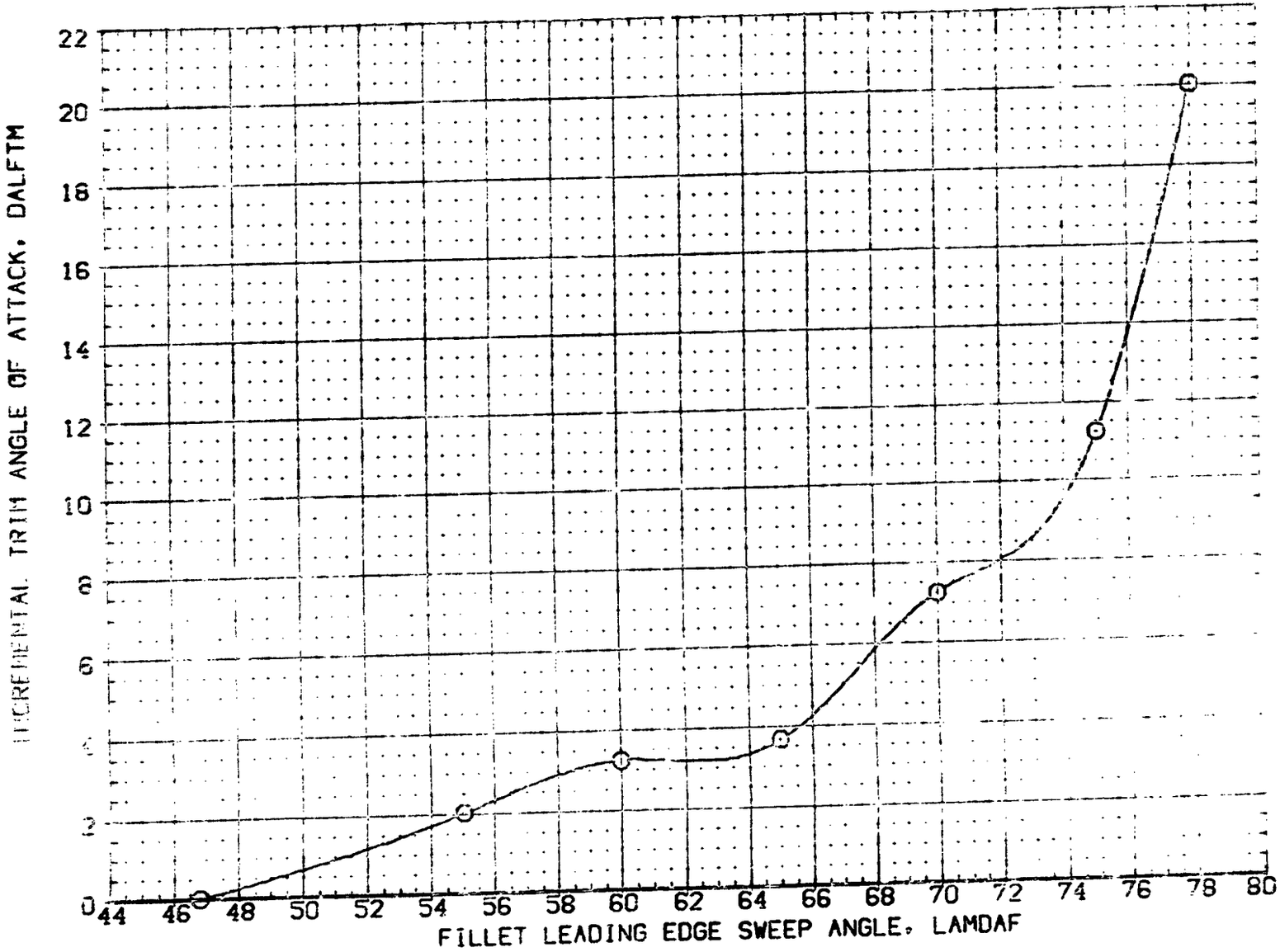
SYMBOL	MACH		PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
○	2.860	ALPHA	42.000	BETA	.000	DATASET	LAMDAF	DATASET	LAMDAF	SREF	171.4720	SQ. IN.
□	3.960	WINGND	2.000	ELEVTR	.000	OP8001	46.800	OP8003	55.000	LREF	25.5100	INCHES
◇	4.630	BDFLAP	.000	RUDFLR	.000	OP8004	60.000	OP8005	65.000	BREF	20.3597	INCHES
						OP8007	70.000	OP8008	75.000	XMRP	16.8366	INCHES
						OP8010	78.000			YMRP	.0000	INCHES
										ZMRP	.0000	INCHES
										SCALE	.0188	SCALE



DELTA CL FOR W-33 WING (BW2VFB)

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB)(HP8001)

SYMBOL	MACH	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	4.630	BETA	.000	WINGNO	2.000	DATASET	LAMDAF	DATASET	LAMDAF	SREF	171.4720	SQ.IN.
		ELEVTR	.000	BDFLAP	.000	HP8001	46.800	HP8003	55.000	LREF	25.5100	INCHES
		LAMDAF	46.800			HP8004	60.000	HP8005	65.000	BREF	20.3597	INCHES
						HP8007	70.000	HP8008	75.000	XMRP	16.8365	INCHES
						HP8010	78.000			YMRP	.0000	INCHES
										ZMRP	.0000	INCHES
										SCALE	.0188	SCALE



DELTA ALPHA TRIM FOR W-33 WING (BW2VFB)

APPENDIX

TABULATED SOURCE DATA

Plotted data available on request
from Data Management System.

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP0001) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 46.800 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.436	-.01941	-.11264	.06248	.00127	-.00061	.00021	-.00040	-1.51360	-.11901	.00000
2.360	-2.211	-.01978	-.04586	.06317	-.00157	-.00066	.00022	-.00017	-.66860	-.11621	.00000
2.360	-1.087	-.02058	-.01250	.06374	-.00319	-.00091	.00034	-.00003	-.17655	-.11606	.00000
2.360	.020	-.01896	.01741	.06452	-.00477	-.00082	.00037	-.00125	.26956	-.11322	.00000
2.360	1.043	-.01852	.04410	.06526	-.00610	-.00091	.00026	-.00118	.64963	-.12461	.00000
2.360	2.022	-.01926	.07247	.06589	-.00767	-.00102	.00038	-.00107	1.02473	-.12736	.00000
2.360	4.076	-.01842	.13234	.06700	-.01052	-.00107	.00052	-.00203	1.66900	-.13293	.00000
2.360	6.173	-.01700	.19386	.06820	-.01318	-.00113	.00055	-.00300	2.09140	-.15008	.00000
2.360	8.401	-.01710	.25557	.06824	-.01500	-.00123	.00069	-.00326	2.31634	-.15867	.00000
2.360	12.673	-.01434	.38024	.06808	-.01828	-.00115	.00075	-.00517	2.37606	-.18159	.00000
2.360	17.054	-.01259	.51405	.06680	-.02043	-.00112	.00081	-.00662	2.19863	-.19582	.00000
2.360	21.188	-.01114	.64786	.06481	-.02215	-.00099	.00075	-.00743	1.97106	-.19298	.00000
2.360	26.527	-.00786	.82845	.06309	-.02495	-.00054	.00083	-.01002	1.67210	-.19584	.00000
2.360	31.788	-.00615	1.01878	.05970	-.03002	-.00075	.00139	-.01318	1.42064	-.19294	.00000
	GRADIENT	.00016	.02853	.00056	-.00139	-.00006	.00003	-.00021	.37996	-.00190	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.365	.00100	-.10610	.06072	-.00167	.00007	-.00070	.00164	-1.47445	-.10255	.00000
2.860	-2.161	.00097	-.05075	.06072	-.00298	-.00010	-.00055	.00113	-.77368	-.09602	.00000
2.860	-1.023	.00082	-.02214	.06098	-.00376	-.00010	-.00055	.00124	-.34303	-.09927	.00000
2.860	.015	.00156	.01269	.06148	-.00426	-.00011	-.00053	.00059	.04349	-.09904	.00000
2.860	1.018	.00142	.02747	.06243	-.00570	-.00021	-.00052	.00069	.41896	-.10904	.00000
2.860	2.017	.00219	.04847	.06280	-.00545	-.00022	-.00050	.00002	.71708	-.11550	.00000
2.860	4.153	.00219	.09144	.06312	-.00706	-.00039	-.00036	-.00035	1.37416	-.11874	.00000
2.860	8.339	.00274	.21137	.06310	-.00940	-.00040	-.00019	-.00169	2.14934	-.13171	.00000
2.860	12.730	.00442	.32568	.06247	-.01159	-.00058	.00014	-.00329	2.29371	-.14145	.00000
2.860	16.857	.00633	.44788	.06173	-.01359	-.00070	.00021	-.00505	2.17380	-.14145	.00000
2.860	21.059	.00820	.57707	.06052	-.01548	-.00077	.00027	-.00678	1.95874	-.13820	.00000
2.860	26.399	.01158	.75344	.06073	-.01941	-.00096	.00038	-.00984	1.66377	-.14143	.00000
2.860	31.567	.01406	.93852	.05935	-.02449	-.00115	.00088	-.01356	1.42158	-.13819	.00000
2.860	36.922	.01824	1.12841	.05436	-.02945	-.00133	.00059	-.01590	1.20536	-.12523	.00000
2.860	41.996	.02247	1.31459	.05103	-.03528	-.00157	.00080	-.01827	1.02763	-.11228	.00000
	GRADIENT	.00617	.02426	.00034	-.00462	-.00005	.00003	-.00024	.34046	-.00258	.00000

LA-1D LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB) (RP8001) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 46.800 ELEVTR = .000
BOFLAP = .000 RUDFLR = .000

RUN NO. 38/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.137	.00224	-.08275	.05416	-.00257	.00062	-.00045	.00014	-1.31072	-.07218	.00000
3.960	-1.937	.00222	-.04255	.05355	-.00242	.00053	-.00033	-.00028	-.74072	-.06956	.00000
3.960	-.807	.00205	-.02086	.05326	-.00246	.00049	-.00032	-.00018	-.37561	-.06696	.00000
3.960	.249	.00276	-.00076	.05351	-.00249	.00044	-.00031	-.00070	-.01850	-.06956	.00000
3.960	1.306	.00263	.01787	.05338	-.00231	.00044	-.00030	-.00062	.30961	-.06956	.00000
3.960	2.253	.00338	.03487	.05356	-.00230	.00039	-.00029	-.00115	.59653	-.07218	.00000
3.960	4.326	.00394	.07486	.05357	-.00224	.00034	-.00027	-.00146	1.19558	-.07217	.00000
3.960	6.415	.00444	.11951	.05367	-.00205	.00012	-.00025	-.00174	1.69096	-.07739	.00000
3.960	8.645	.00522	.16721	.05375	-.00208	-.00006	-.00011	-.00259	2.00877	-.07739	.00000
3.960	12.918	.00651	.26361	.05411	-.00239	-.00025	.00004	-.00374	2.19243	-.07740	.00000
3.960	17.164	.00857	.37263	.05514	-.00303	-.00052	.00022	-.00567	2.09896	-.07478	.00000
3.960	21.360	.01114	.49638	.05689	-.00443	-.00067	.00029	-.00757	1.89066	-.07740	.00000
3.960	26.742	.01605	.67284	.05905	-.00807	-.00078	.00040	-.01112	1.62084	-.08000	.00000
3.960	32.032	.02000	.86141	.05833	-.01215	-.00085	.00050	-.01400	1.38114	-.07739	.00000
3.960	37.447	.02489	1.06234	.05825	-.01814	-.00052	.00028	-.01638	1.16732	-.07739	.00000
3.960	42.640	.02897	1.26208	.05759	-.02522	-.00126	.00117	-.02209	.99122	-.07739	.00000
	GRADIENT	.00022	.01958	-.00005	.00002	-.00003	.00002	-.00019	.30175	-.00016	.00000

RUN NO. 40/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.861	.00179	-.07769	.05222	-.00246	.00079	-.00071	.00102	-1.29054	-.05586	.00000
4.630	-1.681	.00183	-.03830	.05152	-.00236	.00068	-.00056	.00045	-.69888	-.05586	.00000
4.630	-.587	.00171	-.01855	.05131	-.00208	.00067	-.00056	.00054	-.34989	-.05254	.00000
4.630	.452	.00247	-.00075	.05121	-.00177	.00062	-.00054	-.00014	-.02255	-.05586	.00000
4.630	1.525	.00235	.01705	.05105	-.00145	.00062	-.00053	-.00006	.30454	-.05586	.00000
4.630	2.457	.00224	.03477	.05112	-.00139	.00061	-.00053	.00002	.61897	-.05254	.00000
4.630	4.531	.00287	.07002	.05073	-.00062	.00050	-.00051	-.00043	1.17284	-.05586	.00000
4.630	6.591	.00349	.10913	.05078	-.00014	.00038	-.00048	-.00086	1.62890	-.05586	.00000
4.630	8.776	.00407	.15419	.05081	.00026	.00021	-.00046	-.00126	1.96060	-.05586	.00000
4.630	13.046	.00549	.25154	.05099	.00046	-.00002	-.00040	-.00284	2.19383	-.05586	.00000
4.630	17.219	.00749	.35636	.05244	-.00037	-.00020	-.00020	-.00468	2.08802	-.05918	.00000
4.630	21.313	.01028	.47486	.05415	-.00210	-.00061	-.00011	-.00726	1.89203	-.05918	.00000
4.630	26.762	.01313	.64953	.05594	-.00557	-.00052	.00012	-.01039	1.62012	-.05586	.00000
4.630	31.962	.01628	.82731	.05630	-.01013	-.00054	.00007	-.01281	1.38373	-.05918	.00000
4.630	37.228	.02057	1.01769	.05666	-.01659	-.00051	.00019	-.01673	1.17438	-.05586	.00000
4.630	42.320	.02248	1.20812	.05562	-.02376	-.00076	.00083	-.02054	1.00153	-.05586	.00000
	GRADIENT	.00013	.01757	-.00016	.00023	-.00003	.00002	-.00017	.29884	.00008	.00000

DATE 21 SEP 73 TABULATED SOURCE DATA UFWT-1015

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP8002) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5150 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .018 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGNO = 2.000
LAMDAF = 46.800 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

RUN NO. 35/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.475	3.05107	-.11859	.06355	.00033	-.00220	-.00007	-.04343	-1.55993	-.11600	.00000
2.360	-2.198	3.04949	-.05176	.06372	-.00271	-.00245	.00017	-.04315	-.75046	-.11028	.00000
2.360	-1.134	3.04871	-.01833	.06443	-.00413	-.00251	.00029	-.04303	-.26514	-.11307	.00000
2.360	-.037	3.04588	.01184	.06531	-.00551	-.00271	.00026	-.04102	.18191	-.11854	.00000
2.360	1.111	3.04657	.04531	.06605	-.00715	-.00281	.00028	-.04160	.65794	-.12702	.00000
2.360	2.068	3.04612	.07049	.06663	-.00826	-.00290	.00016	-.04088	.98622	-.13271	.00000
2.360	4.080	3.04782	.13058	.06749	-.01091	-.00310	-.00005	-.04126	1.63747	-.14695	.00000
2.360	6.126	3.04862	.19238	.06835	-.01357	-.00334	-.00062	-.03970	2.07928	-.15555	.00000
2.360	8.392	3.05199	.25748	.06841	-.01563	-.00386	-.00115	-.04003	2.32518	-.16709	.00000
2.360	12.722	3.05726	.38304	.06777	-.01871	-.00468	-.00212	-.04013	2.38408	-.18426	.00000
2.360	17.039	3.06272	.51378	.06587	-.02101	-.00545	-.00235	-.04107	2.21015	-.18139	.00000
2.360	21.262	3.06748	.65169	.06406	-.02298	-.00651	-.00756	-.04194	1.97317	-.18138	.00000
2.360	26.535	3.07177	.82919	.06202	-.02545	-.00846	-.00470	-.04128	1.67667	-.19863	.00000
2.360	31.832	3.07611	1.02109	.06020	-.03077	-.00933	-.00555	-.04139	1.41726	-.20431	.00000
	GRADIENT	-.00050	.02914	.00052	-.00132	-.00011	.00000	.00033	.38410	-.00401	.00000

RUN NO. 37/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.314	3.06595	-.10802	.06069	-.00172	-.00009	-.00211	-.03837	-1.4378	-.10255	.00000
2.860	-2.180	3.06179	-.04950	.06055	-.00300	-.00032	-.00187	-.03661	-.75	-.09609	.00000
2.860	-.991	3.06013	-.02075	.06072	-.00354	-.00065	-.00174	-.03572	-.32645	-.09285	.00000
2.860	.082	3.06059	.00401	.06119	-.00428	-.00065	-.00187	-.03564	.06497	-.10259	.00000
2.860	1.043	3.06083	.02887	.06172	-.00501	-.00103	-.00173	-.03554	.44581	-.10903	.00000
2.860	2.052	3.06057	.05176	.06193	-.00572	-.00130	-.00171	-.03619	.77608	-.11729	.00000
2.860	4.140	3.05963	.10306	.06242	-.00682	-.00191	-.00156	-.03581	1.41013	-.11877	.00000
2.860	6.149	3.06015	.15815	.06276	-.00822	-.00246	-.00153	-.03620	1.89709	-.12847	.00000
2.860	8.294	3.06154	.21316	.06282	-.00938	-.00306	-.00149	-.03730	2.17232	-.13173	.00000
2.860	12.739	3.06363	.33295	.06208	-.01162	-.00437	-.00167	-.03807	2.32232	-.13819	.00000
2.860	16.870	3.06512	.45056	.06100	-.01355	-.00557	-.00213	-.03765	2.18621	-.13820	.00000
2.860	21.110	3.06855	.58363	.06030	-.01546	-.00676	-.00283	-.03795	1.96185	-.13821	.00000
2.860	26.392	3.07211	.75451	.05924	-.01884	-.00753	-.00339	-.03884	1.67212	-.14468	.00000
2.860	31.677	3.07428	.94484	.05848	-.02447	-.00733	-.00385	-.03896	1.41661	-.14468	.00000
2.860	36.916	3.06996	1.13101	.05343	-.02934	-.00868	-.00152	-.04369	1.20793	-.12527	.00000
2.860	42.011	3.06971	1.31621	.05057	-.03493	-.00900	-.00351	-.03663	1.02792	-.11228	.00000
	GRADIENT	-.00056	.02430	.00024	-.00462	-.00022	.00006	.00026	.34361	-.00252	.00000

LA-10 LARC 4PWT 1015 LO-100 CRB.(SHIPS) (BW2VFB) (RP0002) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0162 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGNO = 2.000
LAMDAF = 46.800 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

RUN NO. 39/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.104	3.07754	-.08210	.05424	-.00259	.00095	-.00321	-.03365	-1.30055	-.06954	.00000
3.960	-1.915	3.07394	-.04162	.05374	-.00263	.00042	-.00312	-.03163	-.72237	-.06695	.00000
3.960	-.806	3.07287	-.01995	.05352	-.00267	.00016	-.00313	-.03096	-.35586	-.06955	.00000
3.960	.257	3.07182	.00028	.05354	-.00270	.00002	-.00313	-.03026	.00069	-.06955	.00000
3.960	1.356	3.07164	.01893	.05337	-.00270	-.00024	-.00312	-.03018	.32913	-.06955	.00000
3.960	2.264	3.07093	.03761	.05340	-.00252	-.00042	-.00301	-.03008	.64677	-.07216	.00000
3.960	4.354	3.07079	.07771	.05329	-.00245	-.00099	-.00288	-.03035	1.24387	-.07216	.00000
3.960	6.424	3.07065	.12097	.05341	-.00242	-.00170	-.00275	-.03063	1.71492	-.07477	.00000
3.960	8.619	3.07046	.16879	.05347	-.00245	-.00249	-.00261	-.03085	2.03256	-.07739	.00000
3.960	12.940	3.07035	.26569	.05374	-.00255	-.00381	-.00222	-.03191	2.20718	-.07739	.00000
3.960	17.176	3.07017	.37467	.05482	-.00335	-.00505	-.00216	-.03200	2.09658	-.08000	.00000
3.960	21.461	3.07286	.50208	.05643	-.00480	-.00580	-.00262	-.03214	1.89073	-.08000	.00000
3.960	26.746	3.07617	.67539	.05789	-.00820	-.00629	-.00307	-.03273	1.62265	-.08000	.00000
3.960	32.057	3.07745	.86450	.05842	-.01264	-.00746	-.00253	-.03544	1.38027	-.08000	.00000
3.960	37.438	3.08017	1.06334	.05828	-.01820	-.00836	-.00208	-.03874	1.16775	-.07739	.00000
3.960	42.655	3.08317	1.26348	.05712	-.02511	-.00829	-.00232	-.03984	.99154	-.07740	.00000
	GRADIENT	-.00078	.01888	-.00011	.00002	-.00022	.00003	.00039	.30691	-.00047	.00000

RUN NO. 41/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.891	3.04201	-.08033	.05238	-.00245	.00109	-.00378	-.03029	-1.32703	-.05586	.00000
4.630	-1.664	3.04085	-.04082	.05156	-.00234	.00065	-.00378	-.02936	-.74545	-.05254	.00000
4.630	-.599	3.03983	-.02105	.05112	-.00229	.00042	-.00379	-.02850	-.39969	-.05254	.00000
4.630	.455	3.03881	-.00318	.05098	-.00198	.00020	-.00379	-.02766	-.07041	-.05586	.00000
4.630	1.498	3.03868	.01466	.05087	-.00167	.00003	-.00378	-.02757	.26003	-.05586	.00000
4.630	2.433	3.03797	.03048	.05066	-.00157	-.00019	-.00365	-.02748	.54478	-.05586	.00000
4.630	4.502	3.03768	.06774	.05000	-.00106	-.00064	-.00363	-.02715	1.15301	-.05586	.00000
4.630	6.597	3.03765	.10891	.04995	-.00060	-.00120	-.00347	-.02754	1.64888	-.05918	.00000
4.630	8.756	3.03669	.15405	.05023	-.00019	-.00193	-.00332	-.02714	1.97836	-.05918	.00000
4.630	13.090	3.03593	.24981	.05069	.00006	-.00333	-.00286	-.02785	2.18811	-.05918	.00000
4.630	17.214	3.03543	.35305	.05197	-.00049	-.00440	-.00267	-.02812	2.08823	-.05918	.00000
4.630	21.336	3.03669	.47163	.05364	-.00246	-.00513	-.00288	-.02843	1.89465	-.05918	.00000
4.630	26.678	3.03852	.64471	.05553	-.00565	-.00581	-.00306	-.02929	1.62541	-.05918	.00000
4.630	31.913	3.03936	.82474	.05597	-.01021	-.00701	-.00241	-.03226	1.38677	-.05586	.00000
4.630	37.203	3.04201	1.01719	.05621	-.01693	-.00770	-.00216	-.03531	1.17649	-.05586	.00000
4.630	42.341	3.04538	1.20756	.05511	-.02419	-.00772	-.00248	-.03698	1.00160	-.05918	.00000
	GRADIENT	-.00055	.01755	-.00026	.00017	-.00020	.00002	.00040	.29961	-.00022	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP8003) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
STEF = 25.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0100 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 55.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

RUN NO. 44/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.426	-.01852	-.10636	.06093	.00034	-.00051	-.00014	.00020	-1.46971	-.11896	.00000
2.360	-2.193	-.01626	-.03874	.06153	-.00229	-.00062	-.00009	-.00153	-.57738	-.11353	.00000
2.360	-1.069	-.01645	-.00670	.06209	-.00369	-.00076	-.00008	-.00142	-.08906	-.11633	.00000
2.360	-.016	-.01573	.02200	.06288	-.00485	-.00077	-.00006	-.00198	.35017	-.11900	.00000
2.360	1.051	-.01444	.05093	.06118	-.00559	-.00086	-.00052	-.00130	.80188	-.12174	.00000
2.360	2.023	-.01431	.07958	.06183	-.00696	-.00096	-.00039	-.00184	1.19720	-.12738	.00000
2.360	4.110	-.01376	.13921	.06332	-.00960	-.00092	-.00037	-.00229	1.83636	-.13877	.00000
2.360	6.192	-.01383	.20057	.06438	-.01204	-.00107	-.00024	-.00271	2.24713	-.15310	.00000
2.360	8.392	-.01301	.26040	.06477	-.01386	-.00094	-.00009	-.00380	2.43100	-.16165	.00000
2.360	12.723	-.01086	.38670	.06523	-.01695	-.00096	.00009	-.00593	2.43859	-.16458	.00000
2.360	16.973	-.00880	.51967	.06421	-.01896	-.00088	.00027	-.00802	2.24427	-.19605	.00000
2.360	21.156	-.00646	.65480	.06235	-.02044	-.00075	.00022	-.00942	1.99738	-.19887	.00000
2.360	26.540	-.00298	.83648	.06114	-.02335	-.00077	.00044	-.01229	1.68287	-.19603	.00000
2.360	31.826	-.00121	1.02653	.05743	-.02846	-.00057	.00098	-.01520	1.42668	-.19037	.00000
	GRADIENT	.00056	.02857	.00021	-.00114	-.00005	-.00004	-.00024	.39555	-.00249	.00000

RUN NO. 45/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.437	-.01829	-.09436	.05936	-.00137	-.00004	-.00043	.00100	-1.35095	-.10292	.00000
2.860	-2.116	-.01919	-.03645	.05927	-.00270	-.00005	-.00029	.00125	-.56521	-.09971	.00000
2.860	-1.010	-.01845	-.01130	.05940	-.00320	-.00016	-.00027	.00060	-.17203	-.09645	.00000
2.860	.037	-.01771	.01566	.06008	-.00396	-.00016	-.00026	-.00004	.25994	-.10292	.00000
2.860	1.103	-.01696	.04078	.06078	-.00447	-.00011	-.00024	-.00069	.64338	-.10938	.00000
2.860	2.149	-.01680	.06209	.05983	-.00470	-.00016	-.00050	.00009	.96611	-.11586	.00000
2.860	4.129	-.01533	.11288	.05989	-.00581	-.00028	-.00046	-.00121	1.59545	-.12234	.00000
2.860	6.217	-.01474	.16739	.06014	-.00721	-.00023	-.00044	-.00175	2.05247	-.12883	.00000
2.860	8.449	-.01331	.22574	.06036	-.00842	-.00029	-.00040	-.00302	2.30960	-.13207	.00000
2.860	12.741	-.01252	.34072	.06003	-.01037	-.00042	-.00038	-.00476	2.38670	-.13855	.00000
2.860	16.899	-.01115	.45725	.05939	-.01219	-.00043	.00011	-.00651	2.21573	-.14179	.00000
2.860	21.012	-.00930	.58877	.05842	-.01402	-.00056	.00017	-.00817	1.99013	-.14180	.00000
2.860	26.385	-.00590	.76642	.05908	-.01809	-.00063	.00027	-.01084	1.67789	-.14826	.00000
2.860	31.587	-.00286	.95208	.05754	-.02324	-.00088	.00064	-.01428	1.42573	-.15152	.00000
2.860	36.942	-.00018	1.14090	.05352	-.02759	-.00123	.00087	-.01727	1.20758	-.11910	.00000
2.860	42.079	.00282	1.33022	.04993	-.03357	-.00168	.00084	-.01955	1.02733	-.10618	.00000
	GRADIENT	.00040	.02434	.00011	-.00052	-.00003	-.00001	-.00028	.35373	-.00273	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP8003) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 55.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

RUN NO. 42/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.121	-.01934	-.07957	.05347	-.00242	.00045	-.00048	.00196	-1.27890	-.06985	.00000
3.960	-1.905	-.02025	-.03872	.05300	-.00228	.00056	-.00037	.00215	-.68067	-.06724	.00000
3.960	-.785	-.02043	-.01521	.05276	-.00216	.00040	-.00037	.00225	-.27354	-.06724	.00000
3.960	.275	-.01970	.00361	.05299	-.00217	.00035	-.00035	.00173	.06325	-.06724	.00000
3.960	1.318	-.01983	.02242	.05306	-.00218	.00040	-.00035	.00181	.39564	-.06724	.00000
3.960	2.315	-.01910	.04121	.05321	-.00200	.00035	-.00033	.00129	.71180	-.06985	.00000
3.960	4.340	-.01892	.07937	.05273	-.00173	.00039	-.00043	.00144	1.28281	-.07246	.00000
3.960	6.438	-.01832	.12375	.05306	-.00154	.00017	-.00040	.00103	1.75712	-.07245	.00000
3.960	8.677	-.01694	.17105	.05313	-.00157	.00003	-.00037	.00003	2.05647	-.07507	.00000
3.960	12.964	-.01478	.26873	.05413	-.00188	-.00015	-.00020	-.00195	2.20935	-.07507	.00000
3.960	17.179	-.01269	.37680	.05488	-.00241	-.00035	-.00012	-.00388	2.09978	-.07768	.00000
3.960	21.375	-.00922	.50148	.05642	-.00376	-.00045	.00006	-.00634	1.89714	-.07768	.00000
3.960	26.773	-.00522	.67829	.05829	-.00732	-.00060	.00015	-.00895	1.62010	-.07768	.00000
3.960	32.064	-.00245	.86819	.05892	-.01184	-.00072	.00046	-.01158	1.37909	-.08029	.00000
3.960	37.547	.00440	1.07468	.05919	-.01761	-.00061	.00037	-.01569	1.16265	-.08029	.00000
3.960	42.667	.00711	1.27099	.05809	-.02398	-.00099	.00102	-.01968	.99012	-.08029	.00000
	GRADIENT	.00011	.01878	-.00005	.00007	-.00001	.00001	-.00009	.30870	-.00034	.00000

RUN NO. 43/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.885	-.02008	-.07332	.05216	-.00252	.00074	-.00090	.00406	-1.22115	-.05296	.00000
4.630	-1.702	-.01944	-.03537	.05144	-.00240	.00057	-.00087	.00347	-.64465	-.05296	.00000
4.630	-.580	-.02015	-.01537	.05125	-.00211	.00057	-.00074	.00359	-.28900	-.04963	.00000
4.630	.462	-.02028	.00466	.05113	-.00183	.00051	-.00073	.00368	.08301	-.05294	.00000
4.630	1.536	-.01952	.02272	.05097	-.00152	.00051	-.00072	.00300	.41398	-.05294	.00000
4.630	2.459	-.01961	.03866	.05083	-.00144	.00056	-.00071	.00307	.69492	-.04963	.00000
4.630	4.615	-.01869	.07539	.04981	-.00069	.00045	-.00096	.00319	1.27681	-.05294	.00000
4.630	6.619	-.01866	.11386	.05018	-.00021	.00039	-.00081	.00262	1.70436	-.05296	.00000
4.630	8.806	-.01721	.15853	.05057	.00044	.00022	-.00077	.00130	2.00578	-.05625	.00000
4.630	13.050	-.01518	.25508	.05110	.00065	.00004	-.00070	-.00057	2.20682	-.05625	.00000
4.630	17.254	-.01379	.36080	.05241	.00017	-.00014	-.00050	-.00240	2.09486	-.05956	.00000
4.630	21.370	-.01158	.48173	.05405	-.00150	-.00044	-.00029	-.00489	1.89892	-.05625	.00000
4.630	26.736	-.00817	.65411	.05608	-.00507	-.00057	-.00019	-.00762	1.62319	-.05957	.00000
4.630	31.899	-.00561	.83174	.05657	-.00967	-.00059	-.00011	-.00972	1.38748	-.05956	.00000
4.630	37.254	-.00135	1.02760	.05667	-.01608	-.00056	.00000	-.01361	1.17457	-.05956	.00000
4.630	42.372	.00114	1.21967	.05525	-.02314	-.00081	.00051	-.01743	1.00120	-.05956	.00000
	GRADIENT	.00013	.01758	-.00025	.00022	-.00003	.00000	-.00011	.30091	.00008	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BLKVFB) (RP8004) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 60.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

RUN NO. 30/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.643	-.02081	-.11871	.06089	.00055	-.00071	.00020	.00022	-1.61300	-.10984	.00000
2.360	-2.404	-.02148	-.04982	.06209	-.00214	-.00052	.00008	.00111	-.73565	-.11543	.00000
2.360	-1.197	-.02171	-.01270	.06296	-.00360	-.00072	.00009	.00124	-.18012	-.11571	.00000
2.360	-.126	-.01836	.01749	.06370	-.00477	-.00086	.00015	-.00130	.27691	-.12173	.00000
2.360	1.015	-.01942	.04936	.06465	-.00597	-.00087	.00014	-.00052	.73585	-.12462	.00000
2.360	1.912	-.01868	.07444	.06483	-.00709	-.00087	.00016	-.00110	1.07369	-.13031	.00000
2.360	4.102	-.01878	.14144	.06606	-.00942	-.00087	.00029	-.00150	1.79397	-.13869	.00000
2.360	6.228	-.01737	.20324	.06689	-.01167	-.00092	.00032	-.00260	2.19982	-.14728	.00000
2.360	8.383	-.01747	.26676	.06730	-.01352	-.00091	.00046	-.00300	2.40919	-.15590	.00000
2.360	12.645	-.01355	.39539	.06727	-.01686	-.00092	.00067	-.00645	2.43819	-.17309	.00000
2.360	16.926	-.01330	.53402	.06595	-.01875	-.00084	.00083	-.00721	2.24952	-.17591	.00000
2.360	20.988	-.01181	.66972	.06408	-.02043	-.00047	.00076	-.00801	2.01020	-.17028	.00000
2.360	26.499	-.00743	.86129	.06253	-.02433	-.00035	.00099	-.01189	1.68740	-.18735	.00000
2.360	31.889	-.00812	1.06333	.06038	-.03085	-.00058	.00163	-.01369	1.42080	-.20165	.00000
	GRADIENT	.00035	.02950	.00061	-.00114	-.00003	.00001	-.00028	.39680	-.00334	.00000

RUN NO. 31/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.439	-.02238	-.11224	.05828	-.00098	-.00020	-.00049	.00398	-1.47575	-.09616	.00000
2.860	-2.284	-.02090	-.04698	.05932	-.00278	-.00015	-.00045	.00269	-.72915	-.09606	.00000
2.860	-1.118	-.02017	-.01828	.05979	-.00357	-.00021	-.00043	.00205	-.28450	-.09600	.00000
2.860	-.102	-.02029	.00659	.06048	-.00431	-.00016	-.00043	.00214	.11073	-.09932	.00000
2.860	.970	-.02102	.03139	.06093	-.00504	-.00022	-.00030	.00225	.49369	-.09954	.00000
2.860	1.934	-.01968	.05425	.06126	-.00528	-.00022	-.00040	.00157	.82706	-.10290	.00000
2.860	4.229	-.01973	.11292	.06156	-.00649	-.00032	-.00025	.00107	1.55014	-.10619	.00000
2.860	6.452	-.01972	.16225	.06170	-.00760	-.00037	-.00010	.00054	1.97354	-.10938	.00000
2.860	8.192	-.01926	.21731	.06172	-.00854	-.00031	-.00007	-.00074	2.24108	-.11906	.00000
2.860	12.658	-.01693	.34051	.06154	-.01059	-.00047	.00013	-.00247	2.36706	-.12554	.00000
2.860	16.950	-.01560	.46498	.06112	-.01229	-.00049	.00032	-.00419	2.20547	-.12875	.00000
2.860	20.974	-.01284	.59295	.06024	-.01337	-.00045	.00040	-.00667	1.98176	-.12550	.00000
2.860	26.340	-.01033	.77629	.05880	-.01730	-.00020	.00048	-.00897	1.67633	-.13847	.00000
2.860	31.517	-.00730	.96930	.05942	-.02324	-.00056	.00086	-.01269	1.42680	-.14170	.00000
2.860	36.976	-.00254	1.17214	.05572	-.02897	-.00059	.00126	-.01789	1.20458	-.13198	.00000
2.860	42.035	.00286	1.37748	.05296	-.03681	-.00023	.00110	-.02098	1.02701	-.13200	.00000
	GRADIENT	.00027	.02463	.00040	-.00063	-.00001	.00003	-.00030	.35381	-.00126	.00000

DATE 21 SEP 73 TABULATED SOURCE DATA UPWT-1015 (RP8004) (06 SEP 73)

LA-10 LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB)

REFERENCE DATA

SREF =	171.4725 SQ.IN.	XMRP =	16.8366 INCHES
LREF =	25.5150 INCHES	YMRP =	.0000 INCHES
BREF =	20.3597 INCHES	ZMRP =	.0000 INCHES
SCALE =	.0188 SCALE		

PARAMETRIC DATA

BETA =	.000	WINGNO =	2.000
LANDAF =	60.000	ELEVTR =	.000
BDFLAP =	.000	RUDFLR =	.000

RUN NO. 32/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.107	-.02050	-.08280	.05270	-.00233	.00036	-.00038	.00197	-1.34747	-.06451	.00000
3.960	-1.975	-.02081	-.04249	.05222	-.00221	.00040	-.00037	.00214	-.75788	-.06449	.00000
3.960	-.861	-.02011	-.02072	.05217	-.00207	.00031	-.00036	.00164	-.37976	-.06711	.00000
3.960	.167	-.02086	-.00049	.05227	-.00191	.00027	-.00025	.00175	-.01237	-.06711	.00000
3.960	1.121	-.02011	.01656	.05229	-.00190	.00026	-.00023	.00121	.29530	-.06710	.00000
3.960	2.240	-.01967	.03821	.05203	-.00196	.00035	-.00033	.00129	.67577	-.06711	.00000
3.960	4.435	-.01913	.07984	.05207	-.00154	.00036	-.00031	.00087	1.30114	-.06973	.00000
3.960	6.369	-.01858	.12298	.05208	-.00153	.00032	-.00029	.00045	1.78046	-.06972	.00000
3.960	8.453	-.01717	.16752	.05238	-.00172	.00019	-.00026	-.00057	2.06723	-.07234	.00000
3.960	12.805	-.01532	.26755	.05334	-.00168	.00002	-.00020	-.00196	2.23752	-.07495	.00000
3.960	17.151	-.01388	.38366	.05477	-.00231	-.00017	-.00008	-.00385	2.11795	-.07495	.00000
3.960	21.318	-.01045	.51278	.05620	-.00354	-.00032	.00016	-.00634	1.91509	-.07496	.00000
3.960	26.725	-.00494	.69338	.05799	-.00716	-.00026	.00017	-.00990	1.63149	-.07496	.00000
3.960	31.974	-.00165	.88974	.05929	-.01120	-.00041	.00038	-.01275	1.38721	-.07756	.00000
3.960	37.423	.00396	1.10363	.05970	-.01688	-.00044	.00050	-.01679	1.17006	-.07757	.00000
3.960	42.591	.00694	1.30941	.05710	-.02375	-.00074	.00126	-.02134	.99694	-.07496	.00000
	GRADIENT	.00017	.01905	-.00006	.00009	-.00000	.00001	-.00015	.31699	-.00059	.00000

RUN NO. 33/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-4.015	-.02064	-.08114	.05113	-.00236	.00052	-.00089	.00404	-1.36467	-.04623	.00000
4.630	-1.915	-.01998	-.04396	.05066	-.00225	.00052	-.00087	.00344	-.81075	-.04951	.00000
4.630	-.678	-.02011	-.02227	.05033	-.00199	.00057	-.00087	.00353	-.42845	-.04623	.00000
4.630	.362	-.01935	-.00456	.05030	-.00169	.00051	-.00085	.00285	-.09695	-.04951	.00000
4.630	1.351	-.02005	.01318	.05006	-.00139	.00056	-.00072	.00296	.23816	-.04951	.00000
4.630	2.403	-.01929	.03085	.04987	-.00109	.00050	-.00070	.00227	.56209	-.04953	.00000
4.630	4.431	-.01866	.07791	.04959	-.00085	.00046	-.00067	.00168	1.16786	-.05283	.00000
4.630	6.466	-.01803	.10678	.04972	-.00011	.00041	-.00065	.00109	1.63603	-.05283	.00000
4.630	8.657	-.01747	.15552	.05029	.00047	.00036	-.00062	.00055	1.99905	-.05283	.00000
4.630	12.967	-.01545	.25270	.05075	.00091	.00015	-.00056	-.00132	2.21239	-.05513	.00000
4.630	16.929	-.01344	.35498	.05201	.00049	-.00009	-.00049	-.00318	2.11896	-.05612	.00000
4.630	21.254	-.01128	.48096	.05379	-.00079	-.00038	-.00027	-.00568	1.90996	-.05613	.00000
4.630	26.578	-.00758	.65483	.05537	-.00460	-.00057	-.00012	-.00957	1.63755	-.05613	.00000
4.630	31.855	-.00414	.84186	.05638	-.01030	-.00048	.00008	-.01271	1.39237	-.05944	.00000
4.630	37.239	-.00137	1.04436	.05682	-.01655	-.00035	.00030	-.01578	1.17693	-.05613	.00000
4.630	42.239	.00119	1.23871	.05335	-.02458	-.00043	.00081	-.01964	1.01033	-.05612	.00000
	GRADIENT	.00021	.01758	-.00018	.00025	-.00001	.00003	-.00028	.30457	-.00066	.00000

LA-19 LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB) (RP8005) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 65.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.564	-.02158	-.11723	.06047	-.00026	-.00052	.00019	.00087	-1.60976	-.10610	.00000
2.360	-2.336	-.01824	-.04818	.06162	-.00308	-.00076	.00012	-.00089	-.71819	-.11219	.00000
2.360	-1.214	-.01668	-.01288	.06239	-.00428	-.00081	.00015	-.00208	-.18450	-.11268	.00000
2.360	-.105	-.01772	.01720	.06310	-.00544	-.00062	.00014	-.00131	.27458	-.11532	.00000
2.360	.925	-.01527	.04743	.06369	-.00639	-.00082	.00019	-.00318	.71996	-.12096	.00000
2.360	1.892	-.01516	.07604	.06398	-.00711	-.00092	.00032	-.00371	1.11173	-.12379	.00000
2.360	4.121	-.01378	.14281	.06534	-.00942	-.00093	.00035	-.00479	1.82608	-.13223	.00000
2.360	6.098	-.01238	.20285	.06646	-.01143	-.00099	.00039	-.00589	2.23178	-.13796	.00000
2.360	8.297	-.00867	.26755	.06653	-.01328	-.00118	.00034	-.00829	2.44311	-.14671	.00000
2.360	12.657	-.00745	.39961	.06656	-.01611	-.00115	.00051	-.00962	2.46101	-.16086	.00000
2.360	16.970	-.00486	.53904	.06597	-.01810	-.00112	.00058	-.01137	2.26167	-.16667	.00000
2.360	21.132	.00003	.67732	.06330	-.01948	-.00143	.00057	-.01457	2.00922	-.16377	.00000
2.360	26.497	.00435	.86710	.06185	-.02270	-.00149	.00044	-.01717	1.69250	-.18370	.00000
2.360	31.784	.01215	1.06703	.06000	-.02875	-.00196	.00073	-.02364	1.42804	-.19228	.00000
	GRADIENT	.00081	.02976	.00036	-.00103	-.00004	.00002	-.00065	.40392	-.00299	.00000

RUN NO. 28/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.454	-.00022	-.11251	.05763	-.00141	-.00010	-.00004	.00029	-1.49395	-.09183	.00000
2.860	-2.234	.00123	-.04508	.05865	-.00292	-.00016	.00000	-.00099	-.70848	-.09192	.00000
2.860	-1.071	.00196	-.01636	.05886	-.00344	-.00016	.00002	-.00162	-.25790	-.09195	.00000
2.860	-.058	.00270	.01036	.05938	-.00418	-.00017	.00004	-.00227	.17554	-.09192	.00000
2.860	.985	.00345	.03524	.05982	-.00466	-.00017	.00006	-.00293	.56573	-.09845	.00000
2.860	1.915	.00481	.05526	.05984	-.00486	-.00006	-.00005	-.00361	.87905	-.09848	.00000
2.860	4.087	.00475	.11331	.06026	-.00581	-.00029	.00010	-.00411	1.59430	-.10845	.00000
2.860	6.111	.00619	.16852	.06053	-.00674	-.00046	.00014	-.00539	2.06214	-.10489	.00000
2.860	8.333	.00761	.22726	.06055	-.00795	-.00057	.00018	-.00666	2.32724	-.10817	.00000
2.860	12.611	.01096	.34473	.06065	-.00976	-.00064	.00039	-.00902	2.40377	-.11465	.00000
2.860	16.768	.01321	.46772	.06013	-.01131	-.00098	.00034	-.01120	2.23634	-.12111	.00000
2.860	20.912	.01651	.59752	.05927	-.01226	-.00116	.00029	-.01340	1.99903	-.11468	.00000
2.860	26.377	.02039	.78445	.05947	-.01575	-.00145	.00027	-.01644	1.68320	-.12763	.00000
2.860	31.628	.02606	.98134	.05818	-.02152	-.00153	.00028	-.02099	1.42702	-.13410	.00000
2.860	36.880	.02961	1.18196	.05673	-.02766	-.00194	.00053	-.02471	1.20759	-.13084	.00000
2.860	42.043	.03254	1.38289	.05131	-.03359	-.00230	.00091	-.02836	1.02947	-.11793	.00000
	GRADIENT	.00064	.02510	.00031	-.00051	-.00001	.00001	-.00054	.36722	-.00102	.00000

LA-10 LARC UPWT 1015 LO-100 ORB. (SHIPS) (BWEVFB) (RP8005) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 65.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.242	-.00215	-.08753	.05234	-.00262	.00041	-.00018	.00190	-1.42190	-.05583	.00000
3.960	-1.889	-.00163	-.04098	.05152	-.00232	.00044	-.00016	.00158	-.74308	-.05320	.00000
3.960	-.810	-.00091	-.02076	.05135	-.00214	.00035	-.00014	.00107	-.38794	-.05581	.00000
3.960	.141	-.00106	-.00209	.05138	-.00194	.00035	-.00014	.00115	-.04319	-.05581	.00000
3.960	1.132	-.00035	.01813	.05134	-.00177	.00026	-.00012	.00064	.33107	-.05842	.00000
3.960	2.160	.00097	.03675	.05141	-.00175	.00017	-.00020	.00010	.65936	-.05581	.00000
3.960	4.210	.00242	.07678	.05132	-.00150	.00017	-.00017	-.00094	1.28137	-.05580	.00000
3.960	6.383	.00351	.12462	.05162	-.00116	.00016	-.00025	-.00135	1.81290	-.05840	.00000
3.960	8.616	.00576	.17226	.05191	-.00119	-.00006	-.00021	-.00296	2.10744	-.06103	.00000
3.960	12.855	.00906	.27364	.05292	-.00122	-.00033	-.00024	-.00484	2.26711	-.06364	.00000
3.960	17.068	.01168	.38522	.05431	-.00169	-.00065	-.00017	-.00650	2.13542	-.06626	.00000
3.960	21.128	.01599	.51011	.05553	-.00292	-.00102	-.00007	-.00939	1.93411	-.06626	.00000
3.960	26.917	.02187	.70668	.05755	-.00619	-.00126	-.00016	-.01288	1.62723	-.06364	.00000
3.960	32.060	.02598	.89703	.05856	-.00993	-.00181	.00000	-.01633	1.38677	-.06364	.00000
3.960	37.549	.03292	1.11193	.05888	-.01505	-.00219	.00012	-.02094	1.16752	-.06104	.00000
3.960	42.646	.03765	1.31588	.05538	-.02208	-.00256	.00024	-.02440	.99805	-.05320	.00000
	GRADIENT	.00054	.01942	-.00010	.00014	-.00004	-.00000	-.00034	.32656	-.00017	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.953	-.00259	-.08333	.05059	-.00276	.00068	-.00078	.00481	-1.41672	-.03853	.00000
4.630	-1.785	-.00195	-.04405	.04990	-.00262	.00062	-.00076	.00422	-.82890	-.03853	.00000
4.630	-.682	-.00120	-.02440	.04950	-.00230	.00062	-.00074	.00355	-.47817	-.03848	.00000
4.630	.343	-.00043	-.00661	.04935	-.00197	.00056	-.00072	.00286	-.14009	-.04183	.00000
4.630	1.366	-.00056	.01349	.04904	-.00166	.00056	-.00072	.00295	.24157	-.04183	.00000
4.630	2.337	.00022	.02887	.04884	-.00131	.00056	-.00070	.00226	.53737	-.04183	.00000
4.630	4.413	.00172	.06597	.04901	-.00032	.00044	-.00066	.00091	1.14953	-.04183	.00000
4.630	6.556	.00231	.11896	.04904	.00012	.00027	-.00063	.00034	1.67842	-.04179	.00000
4.630	8.619	.00290	.15380	.04939	.00052	.00021	-.00061	-.00022	2.01258	-.04515	.00000
4.630	12.970	.00546	.25447	.05028	.00119	-.00013	-.00067	-.00195	2.23066	-.04513	.00000
4.630	17.057	.00920	.36040	.05142	.00050	-.00047	-.00058	-.00498	2.12740	-.04844	.00000
4.630	21.366	.01192	.48529	.05333	-.00060	-.00099	-.00049	-.00723	1.90983	-.04513	.00000
4.630	26.679	.01528	.66458	.05550	-.00423	-.00134	-.00038	-.01036	1.63765	-.04510	.00000
4.630	31.876	.01952	.84730	.05578	-.00937	-.00170	-.00026	-.01423	1.39458	-.04183	.00000
4.630	37.217	.02368	1.04932	.05598	-.01536	-.00200	-.00013	-.01806	1.18040	-.03522	.00000
4.630	42.337	.02857	1.24508	.05219	-.02317	-.00202	-.00015	-.02198	1.00920	-.03192	.00000
	GRADIENT	.00051	.01784	-.00020	.00030	-.00003	.00001	-.00046	.31333	-.00053	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP8006) (06 SEP 73)

REFERENCE DATA

SREF = 171.1720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3397 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGNO = 2.000
LAMDAF = 65.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.465	3.07046	-.11599	.06079	-.00067	-.00207	.00006	-.04429	-1.59277	-.10920	.00000
2.360	-2.232	3.06944	-.04694	.06215	-.00327	-.00236	.00018	-.04390	-.69582	-.11244	.00000
2.360	-1.150	3.07012	-.01346	.06271	-.00448	-.00237	.00020	-.04453	-.19371	-.11786	.00000
2.360	-.154	3.06966	.01511	.06324	-.00540	-.00237	.00008	-.04372	.24180	-.12091	.00000
2.360	.900	3.07272	.04695	.06359	-.00658	-.00233	.00001	-.04564	.71438	-.12365	.00000
2.360	1.869	3.07226	.07224	.06409	-.00747	-.00252	-.00011	-.04494	1.05573	-.12642	.00000
2.360	4.029	3.07274	.13566	.06507	-.00931	-.00257	-.00045	-.04405	1.75640	-.13799	.00000
2.360	6.061	3.07611	.20087	.06585	-.01139	-.00309	-.00097	-.04456	2.22383	-.14371	.00000
2.360	8.351	3.07884	.26762	.06598	-.01304	-.00381	-.00138	-.04499	2.45022	-.14954	.00000
2.360	12.701	3.08456	.40322	.06590	-.01589	-.00506	-.00208	-.04644	2.47708	-.16090	.00000
2.360	16.932	3.08904	.54062	.06419	-.01785	-.00612	-.00257	-.04766	2.27769	-.17509	.00000
2.360	21.069	3.09569	.67801	.06253	-.01939	-.00814	-.00311	-.05025	2.01999	-.17504	.00000
2.360	26.494	3.10363	.86796	.06145	-.02322	-.00905	-.00449	-.05104	1.69470	-.18645	.00000
2.360	31.748	3.11076	1.06476	.05914	-.02799	-.00934	-.00552	-.05238	1.43199	-.18651	.00000
	GRADIENT	.06039	.02953	.00050	-.00192	-.00005	-.00006	-.00005	.40272	-.00336	.00000

RUN NO. 29/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.472	3.06491	-.10516	.05789	-.00162	-.00005	-.00143	-.04061	-1.52214	-.09197	.00000
2.860	-2.238	3.06399	-.04779	.05891	-.00313	-.00027	-.00129	-.04036	-.74842	-.08875	.00000
2.860	-1.194	3.06206	-.02092	.05910	-.00363	-.00044	-.00131	-.03873	-.33065	-.09203	.00000
2.860	-.078	3.06189	.00776	.05944	-.00439	-.00060	-.00131	-.03865	.13187	-.09196	.00000
2.860	.957	3.06484	.03270	.05967	-.00486	-.00082	-.00131	-.03780	.52656	-.09522	.00000
2.860	1.854	3.06217	.05387	.05949	-.00606	-.00109	-.00142	-.03848	.84793	-.09846	.00000
2.860	3.964	3.06325	.11911	.06044	-.00597	-.00175	-.00151	-.03902	1.55348	-.10495	.00000
2.860	6.017	3.06373	.18616	.06030	-.00691	-.00251	-.00147	-.03950	2.05354	-.11148	.00000
2.860	8.225	3.06624	.22728	.06040	-.00815	-.00333	-.00167	-.04084	2.34374	-.11455	.00000
2.860	12.591	3.06979	.34464	.06038	-.00992	-.00475	-.00196	-.04245	2.41087	-.11797	.00000
2.860	16.782	3.07285	.46945	.05994	-.01124	-.00605	-.00238	-.04387	2.23992	-.12446	.00000
2.860	20.967	3.07694	.60204	.05932	-.01244	-.00737	-.00281	-.04462	2.00263	-.13090	.00000
2.860	26.299	3.08278	.78310	.05919	-.01585	-.00814	-.00346	-.04701	1.68949	-.13412	.00000
2.860	31.593	3.08938	.97872	.05834	-.02088	-.00854	-.00404	-.04719	1.42846	-.13097	.00000
2.860	36.922	3.08217	1.18573	.05655	-.02755	-.00987	-.00277	-.04897	1.20654	-.13090	.00000
2.860	42.011	3.08182	1.38099	.05201	-.03289	-.01301	-.00190	-.05172	1.02948	-.11800	.00000
	GRADIENT	-.00027	.02527	.00023	-.00051	-.00020	-.00001	.00026	.37091	-.00166	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP8006) (06 SEP 79)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGNO = 2.000
LAMDAF = 65.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.242	3.05556	-.09008	.05280	-.00318	.00095	-.00338	-.03078	-1.44845	-.05580	.00000
3.960	-2.035	3.05289	-.04790	.05196	-.00282	.00038	-.00338	-.02938	-.85831	-.05320	.00000
3.960	-.900	3.05121	-.02458	.05167	-.00286	.00012	-.00328	-.02867	-.45657	-.05579	.00000
3.960	.149	3.05103	-.00430	.05152	-.00268	-.00010	-.00327	-.02857	-.08601	-.05580	.00000
3.960	1.202	3.05084	.01593	.05134	-.00268	-.00037	-.00326	-.02848	.28751	-.05320	.00000
3.960	2.224	3.05066	.03471	.05129	-.00229	-.00059	-.00325	-.02839	.62168	-.05580	.00000
3.960	4.272	3.04967	.07644	.05134	-.00205	-.00108	-.00313	-.02818	1.27261	-.05841	.00000
3.960	6.271	3.05041	.12126	.05163	-.00185	-.00169	-.00298	-.02916	1.77937	-.05842	.00000
3.960	8.496	3.05170	.16604	.05175	-.00183	-.00253	-.00294	-.03016	2.06885	-.06103	.00000
3.960	12.927	3.05207	.27233	.05310	-.00190	-.00421	-.00264	-.03131	2.25033	-.06103	.00000
3.960	17.164	3.05477	.38430	.05437	-.00216	-.00548	-.00277	-.03235	2.13312	-.06365	.00000
3.960	21.311	3.05922	.51402	.05586	-.00346	-.00619	-.00321	-.03347	1.91818	-.06625	.00000
3.960	26.699	3.06413	.69546	.05768	-.00649	-.00699	-.00362	-.03520	1.63569	-.06364	.00000
3.960	32.102	3.06752	.89675	.05842	-.01037	-.00864	-.00314	-.03905	1.38503	-.05841	.00000
3.960	37.498	3.07031	1.10907	.05881	-.01524	-.00985	-.00290	-.04169	1.16948	-.05581	.00000
3.960	42.799	3.07199	1.31911	.05559	-.02256	-.01005	-.00293	-.04269	.99261	-.05058	.00000
	GRADIENT	-.00460	.01951	-.00417	.00413	-.00024	.00003	.00028	.32638	-.00029	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.858	3.03951	-.08211	.05074	-.00280	.00109	-.00381	-.02796	-1.39801	-.03853	.00000
4.630	-1.862	3.03895	-.04477	.04992	-.00287	.00059	-.00395	-.02710	-.83989	-.03848	.00000
4.630	-.666	3.03879	-.02350	.04942	-.00257	.00042	-.00393	-.02696	-.45138	-.03853	.00000
4.630	.393	3.03776	-.00322	.04926	-.00226	.00021	-.00394	-.02611	-.07231	-.03853	.00000
4.630	1.389	3.03763	.01270	.04902	-.00166	-.00002	-.00393	-.02603	.23338	-.04183	.00000
4.630	2.313	3.03750	.02854	.04866	-.00130	-.00019	-.00392	-.02595	.53346	-.04183	.00000
4.630	4.399	3.03661	.06760	.04850	-.00081	-.00069	-.00378	-.02574	1.18978	-.04183	.00000
4.630	6.459	3.03716	.10851	.04859	-.00034	-.00130	-.00374	-.02631	1.69405	-.04183	.00000
4.630	8.664	3.03548	.15572	.04915	.00005	-.00209	-.00345	-.02684	2.03393	-.04510	.00000
4.630	13.014	3.03626	.25279	.04974	.00069	-.00359	-.00310	-.02767	2.23082	-.04513	.00000
4.630	17.168	3.03717	.36291	.05114	.00067	-.00493	-.00303	-.02835	2.12615	-.04513	.00000
4.630	21.236	3.04012	.48415	.05296	-.00121	-.00594	-.00321	-.02987	1.92270	-.04513	.00000
4.630	26.630	3.04364	.66469	.05464	-.00456	-.00684	-.00336	-.03222	1.64099	-.04183	.00000
4.630	31.933	3.04467	.84848	.05547	-.00975	-.00842	-.00255	-.03588	1.39305	-.03853	.00000
4.630	37.217	3.04807	1.05077	.05570	-.01572	-.00933	-.00270	-.03815	1.18118	-.03522	.00000
4.630	42.314	3.05076	1.24480	.05218	-.02326	-.00980	-.00246	-.04120	1.01003	-.02531	.00000
	GRADIENT	-.00036	.01801	-.00027	.00028	-.00021	.00000	.00028	.31765	-.00053	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP0007) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 70.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

RUN NO. 18/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.564	-.00150	-.11715	.06019	-.00029	-.00057	.00034	-.00110	-1.61557	-.10782	.00000
2.360	-2.257	.00119	-.04151	.06179	-.00286	-.00072	.00039	-.00281	-.61736	-.11330	.00000
2.360	-1.141	.00101	-.00949	.06240	-.00385	-.00063	.00039	-.00268	-.13173	-.11635	.00000
2.360	-.128	.00257	.02080	.06257	-.00481	-.00092	.00042	-.00388	.33281	-.11964	.00000
2.360	.931	.00153	.04921	.06357	-.00575	-.00077	.00041	-.00311	.74843	-.12274	.00000
2.360	1.950	.00312	.08103	.06398	-.00655	-.00064	.00044	-.00431	1.18162	-.12556	.00000
2.360	4.055	.00536	.14426	.06499	-.00860	-.00093	.00049	-.00604	1.85662	-.13421	.00000
2.360	6.245	.00731	.20942	.06562	-.01027	-.00099	.00041	-.00714	2.28431	-.14268	.00000
2.360	8.348	.00778	.27296	.06576	-.01192	-.00109	.00044	-.00756	2.48841	-.15118	.00000
2.360	12.713	.01071	.40617	.06579	-.01447	-.00134	.00064	-.01024	2.48587	-.16552	.00000
2.360	16.858	.01414	.54423	.06508	-.01615	-.00165	.00073	-.01262	2.28054	-.17405	.00000
2.360	21.213	.01635	.68925	.06325	-.01735	-.00176	.00068	-.01376	2.00955	-.17112	.00000
2.360	26.577	.02353	.88212	.06203	-.02140	-.00246	.00036	-.01765	1.69066	-.18830	.00000
2.360	31.871	.02897	1.08613	.06055	-.02653	-.00238	.00038	-.02154	1.42488	-.19678	.00000
	GRADIENT	.00466	.03010	.00055	-.00695	-.00003	.00002	-.00052	.40974	-.00303	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.471	-.00137	-.10418	.05744	-.00165	.00001	-.00018	.00100	-1.52001	-.09062	.00000
2.860	-2.213	-.00169	-.04693	.05835	-.00300	-.00005	-.00017	.00122	-.74089	-.09058	.00000
2.860	-1.111	.00179	-.01449	.05879	-.00360	.00000	-.00012	-.00089	-.22767	-.09386	.00000
2.860	-.093	.00264	.01136	.05931	-.00411	-.00005	-.00012	-.00080	.17475	-.09387	.00000
2.860	1.042	.00227	.03516	.05962	-.00462	-.00006	-.00009	-.00220	.56542	-.09709	.00000
2.860	2.048	.00125	.05997	.05985	-.00489	-.00011	-.00009	-.00134	.93410	-.09721	.00000
2.860	4.061	.00267	.11312	.06048	-.00580	-.00039	-.00005	-.00263	1.59848	-.10042	.00000
2.860	6.139	.00409	.17186	.06055	-.00655	-.00040	-.00001	-.00388	2.09197	-.10369	.00000
2.860	8.275	.00552	.22952	.06048	-.00750	-.00051	.00003	-.00514	2.34447	-.10693	.00000
2.860	12.705	.00744	.34238	.06031	-.00905	-.00075	.00009	-.00686	2.41107	-.11657	.00000
2.860	16.671	.01124	.46617	.06009	-.01019	-.00098	.00017	-.00972	2.24434	-.11968	.00000
2.860	21.092	.01456	.61134	.05918	-.01127	-.00143	.00001	-.01112	1.99514	-.11645	.00000
2.860	26.359	.01793	.79173	.05951	-.01468	-.00156	-.00002	-.01418	1.68705	-.12617	.00000
2.860	31.662	.02233	.99144	.05903	-.02001	-.00196	.00025	-.01861	1.42448	-.13269	.00000
2.860	37.027	.02672	1.19598	.05593	-.02525	-.00220	.00011	-.02159	1.20431	-.12627	.00000
2.860	42.085	.03052	1.39647	.05146	-.03067	-.00267	.00050	-.02604	1.02848	-.11648	.00000
	GRADIENT	.00653	.02534	.00036	-.00648	-.00004	.00002	-.00047	.37105	-.00124	.00000

LA-10 LARC UPWT 1015 LO-100 [illegible]. (SHIPS) (BW2VFB) (RP8007) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 70.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.128	-.00096	-.08606	.05191	-.00285	.00058	-.00037	.00134	-1.41618	-.05466	.00000
3.960	-2.014	.00048	-.04424	.05124	-.00275	.00053	-.00034	.00031	-.80384	-.05724	.00000
3.960	-.872	.00120	-.02246	.05097	-.00243	.00057	-.00033	-.00019	-.42260	-.05725	.00000
3.960	.350	.00129	.00238	.05094	-.00232	.00048	-.00021	-.00067	.04059	-.05724	.00000
3.960	1.108	.00263	.01794	.05087	-.00212	.00044	-.00029	-.00122	.33102	-.05725	.00000
3.960	2.216	.00247	.03810	.05081	-.00196	.00044	-.00029	-.00113	.69111	-.05726	.00000
3.960	4.230	.00301	.07826	.05059	-.00153	.00034	-.00027	-.00155	1.32165	-.05725	.00000
3.960	6.332	.00439	.12453	.05074	-.00117	.00016	-.00023	-.00256	1.84177	-.05725	.00000
3.960	8.555	.00576	.17221	.05105	-.00102	.00003	-.00020	-.00355	2.13811	-.05988	.00000
3.960	12.921	.00901	.27684	.05217	-.00086	-.00038	-.00022	-.00549	2.28959	-.06249	.00000
3.960	17.107	.01248	.38865	.05353	-.00086	-.00079	-.00014	-.00771	2.14949	-.06507	.00000
3.960	21.351	.01733	.52076	.05483	-.00194	-.00102	-.00015	-.01054	1.93236	-.06509	.00000
3.960	26.700	.02329	.70329	.05659	-.00463	-.00134	-.00023	-.01407	1.64468	-.06509	.00000
3.960	32.000	.02732	.90104	.05781	-.00792	-.00185	.00000	-.01747	1.39314	-.06248	.00000
3.960	37.520	.03270	1.12073	.05766	-.01272	-.00236	.00014	-.02142	1.17230	-.05988	.00000
3.960	42.695	.03854	1.32758	.05507	-.01846	-.00270	.00039	-.02605	.99756	-.05463	.00000
	GRADIENT	.00048	.01966	-.00014	.00016	-.00003	.00001	-.00035	.33486	-.00024	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.944	.00036	-.08151	.04932	-.00283	.00090	-.00059	.00102	-1.39495	-.04033	.00000
4.630	-1.850	.00100	-.04219	.04953	-.00252	.00084	-.00056	.00043	-.79767	-.04033	.00000
4.630	-.712	.00025	-.02050	.04919	-.00226	.00067	-.00043	.00056	-.40234	-.04033	.00000
4.630	.414	.00102	-.00079	.04893	-.00174	.00078	-.00041	-.00011	-.02333	-.04363	.00000
4.630	1.435	.00090	.01695	.04884	-.00144	.00078	-.00040	-.00003	.31920	-.04363	.00000
4.630	2.393	.00225	.03467	.04864	-.00114	.00072	-.00051	-.00074	.65159	-.04033	.00000
4.630	4.563	.00285	.07379	.04835	-.00019	.00050	-.00049	-.00132	1.28949	-.04363	.00000
4.630	6.548	.00345	.11490	.04865	.00026	.00038	-.00046	-.00190	1.76769	-.04360	.00000
4.630	8.669	.00450	.16168	.04883	.00111	.00015	-.00043	-.00244	2.09911	-.04693	.00000
4.630	12.966	.00749	.25697	.04932	.00158	-.00013	-.00048	-.00506	2.26407	-.04693	.00000
4.630	17.191	.01027	.36868	.05072	.00150	-.00064	-.00040	-.00723	2.14218	-.05024	.00000
4.630	21.369	.01301	.49159	.05267	.00075	-.00105	-.00031	-.00944	1.92230	-.05024	.00000
4.630	26.637	.01634	.66788	.05415	-.00237	-.00151	-.00020	-.01255	1.64651	-.04693	.00000
4.630	31.886	.01994	.85719	.05496	-.00737	-.00198	.00006	-.01637	1.39911	-.04363	.00000
4.630	37.338	.02463	1.06521	.05514	-.01296	-.00228	.00006	-.02019	1.17909	-.04033	.00000
4.630	42.310	.02914	1.25965	.05206	-.01977	-.00264	.00033	-.02479	1.01169	-.03372	.00000
	GRADIENT	.00029	.01819	-.00022	.00032	-.00004	.00001	-.00027	.32149	-.00038	.00000

LA-15 LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB) (RP8008) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 75.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.627	-.01569	-.12339	.05880	-.00148	-.00048	.00000	-.00134	-1.72455	-.10893	.00000
2.360	-2.422	-.01882	-.05122	.06022	-.00325	-.00063	.00006	-.00026	-.78015	-.11237	.00000
2.360	-1.179	-.01537	-.01272	.06101	-.00436	-.00063	.00017	-.00208	-.18705	-.11397	.00000
2.360	-.117	-.01275	.01675	.06165	-.00521	-.00081	.00006	-.00279	.27388	-.11585	.00000
2.360	.954	-.01183	.04730	.06221	-.00560	-.00073	.00015	-.00345	.73443	-.12096	.00000
2.360	1.929	-.01043	.07854	.06275	-.00662	-.00070	.00017	-.00413	1.16875	-.12443	.00000
2.360	4.164	-.00765	.14634	.06389	-.00813	-.00097	.00021	-.00544	1.90745	-.13306	.00000
2.360	6.317	-.00496	.21141	.06422	-.00935	-.00118	.00026	-.00679	2.32300	-.14150	.00000
2.360	8.377	-.00355	.27079	.06415	-.01051	-.00133	.00044	-.00806	2.53987	-.15012	.00000
2.360	13.126	.00211	.39769	.06436	-.01254	-.00164	.00053	-.01065	2.50220	-.16900	.00000
2.360	17.482	.00644	.50223	.06308	-.01363	-.00189	.00062	-.01283	2.26286	-.17410	.00000
2.360	21.916	.01148	.60333	.06167	-.01402	-.00211	.00045	-.01537	1.97871	-.18273	.00000
2.360	27.462	.01395	.71454	.05922	-.01661	-.00235	.00031	-.01897	1.65031	-.18783	.00000
2.360	31.174	.01815	1.05342	.05909	-.01970	-.00235	.00062	-.02268	1.46229	-.19644	.00000
	GRADIENT	.00114	.03145	.00058	-.00075	-.00005	.00002	-.00055	.42083	-.00276	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.413	.00611	-.10592	.05692	-.00209	-.00004	-.00031	.00096	-1.55972	-.08682	.00000
2.860	-2.236	.00696	-.04791	.05763	-.00297	-.00005	-.00014	-.00028	-.76733	-.08694	.00000
2.860	-1.178	.00715	-.02491	.05788	-.00351	-.00005	-.00012	-.00092	-.33873	-.09010	.00000
2.860	-.075	.00748	.00796	.05821	-.00407	.00000	-.00010	-.00155	.13818	-.09016	.00000
2.860	.980	.00814	.03511	.05872	-.00413	-.00006	-.00008	-.00218	.57484	-.09337	.00000
2.860	1.928	.00866	.05818	.05899	-.00440	-.00011	-.00008	-.00209	.92204	-.09332	.00000
2.860	4.051	.00941	.11519	.05944	-.00490	-.00029	-.00004	-.00336	1.64189	-.09637	.00000
2.860	6.118	.00993	.17207	.05984	-.00539	-.00045	-.00001	-.00387	2.11624	-.09962	.00000
2.860	8.247	.00634	.22897	.05968	-.00588	-.00057	.00003	-.00514	2.37251	-.10609	.00000
2.860	12.634	.00761	.35179	.05948	-.00676	-.00097	.00023	-.00684	2.44667	-.11590	.00000
2.860	16.776	.01125	.47411	.05924	-.00724	-.00141	.00034	-.01004	2.25683	-.11920	.00000
2.860	21.008	.01587	.61520	.05920	-.00733	-.00165	.00019	-.01325	2.00530	-.12233	.00000
2.860	26.362	.01973	.80358	.05924	-.00993	-.00176	.00017	-.01625	1.69243	-.12886	.00000
2.860	31.431	.02265	.99619	.05827	-.01426	-.00239	.00014	-.01839	1.43996	-.13533	.00000
2.860	36.927	.02757	1.20600	.05533	-.01852	-.00253	.00028	-.02244	1.21077	-.12563	.00000
2.860	42.175	.03126	1.41511	.05482	-.02274	-.00294	.00067	-.02646	1.02720	-.11590	.00000
	GRADIENT	.00051	.02600	.00031	-.00033	-.00003	.00003	-.00050	.38571	-.00122	.00000

DATE 21 SEP 73 TABULATED SOURCE DATA UPWT-1015

LA-10 LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB) (RP8008) (06 SEP 73)

REFERENCE DATA

SREF =	171.4720 SQ.IN.	XMRP =	16.8366 INCHES
LREF =	25.5100 INCHES	YMRP =	.0000 INCHES
BREF =	20.3397 INCHES	ZMRP =	.0000 INCHES
SCALE =	.0188 SCALE		

PARAMETRIC DATA

BETA =	.000	WINGNO =	2.000
LAMDAF =	75.000	ELEVTR =	.000
BOFLAP =	.000	RUDFLR =	.000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.159	-.00004	-.08914	.05204	-.00339	.00058	-.00038	.00132	-1.45857	-.05418	.00000
3.960	-1.988	-.00039	-.04509	.05128	-.00292	.00058	-.00037	.00151	-.81950	-.05681	.00000
3.960	-.849	.00031	-.02152	.05105	-.00262	.00057	-.00035	.00102	-.40431	-.05681	.00000
3.960	.135	.00192	-.00106	.05107	-.00228	.00053	-.00033	.00051	-.02321	-.05679	.00000
3.960	1.219	.00174	.01937	.05091	-.00212	.00053	-.00032	-.00001	.35623	-.05678	.00000
3.960	2.163	.00158	.03813	.05095	-.00177	.00048	-.00031	.00008	.69095	-.05680	.00000
3.960	4.305	.00355	.08269	.05076	-.00102	.00039	-.00038	-.00094	1.38414	-.05680	.00000
3.960	6.368	.00405	.12865	.05096	-.00066	.00030	-.00036	-.00134	1.88241	-.05942	.00000
3.960	8.531	.00540	.17629	.05126	-.00013	.00007	-.00032	-.00233	2.16978	-.05941	.00000
3.960	12.870	.00802	.28062	.05231	.00061	-.00042	-.00024	-.00428	2.30771	-.06203	.00000
3.960	17.184	.01230	.39855	.05383	.00090	-.00096	-.00014	-.00738	2.15669	-.06463	.00000
3.960	21.450	.01676	.53448	.05504	.00052	-.00137	-.00025	-.00985	1.93506	-.06724	.00000
3.960	26.823	.02299	.72250	.05650	-.00169	-.00151	-.00022	-.01394	1.64501	-.06463	.00000
3.960	32.165	.02748	.92811	.05782	-.00419	-.00216	-.00009	-.01717	1.39015	-.06204	.00000
3.960	37.513	.03373	1.14252	.05746	-.00766	-.00262	.00006	-.02143	1.17535	-.05943	.00000
3.960	42.732	.03743	1.35442	.05449	-.01279	-.00290	.00050	-.02511	.99875	-.05157	.00000
	GRADIENT	.00044	.02023	-.00014	.00028	-.00002	.00000	-.00029	.34247	-.00024	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.971	.00007	-.08303	.05038	-.00304	.00079	-.00074	.00251	-1.41651	-.03981	.00000
4.630	-1.796	.00011	-.04318	.04971	-.00273	.00073	-.00059	.00195	-.81512	-.03981	.00000
4.630	-.662	.00086	-.02130	.04948	-.00248	.00073	-.00057	.00129	-.41690	-.03977	.00000
4.630	.367	.00130	-.00123	.04918	-.00196	.00062	-.00069	.00136	-.03150	-.04307	.00000
4.630	1.414	.00117	.01880	.04885	-.00145	.00067	-.00069	.00145	.35670	-.03977	.00000
4.630	2.389	.00195	.03661	.04884	-.00092	.00061	-.00067	.00078	.68629	-.03981	.00000
4.630	4.417	.00254	.07336	.04885	.00006	.00050	-.00064	.00019	1.27651	-.03981	.00000
4.630	6.545	.00371	.11594	.04887	.00096	.00033	-.00075	-.00040	1.77468	-.04311	.00000
4.630	8.646	.00516	.16233	.04914	.00157	.00021	-.00070	-.00171	2.09761	-.04311	.00000
4.630	12.991	.00709	.26333	.04995	.00293	-.00024	-.00063	-.00354	2.27451	-.04638	.00000
4.630	17.123	.00988	.37123	.05108	.00314	-.00081	-.00054	-.00612	2.14872	-.04638	.00000
4.630	21.262	.01346	.49830	.05290	.00282	-.00127	-.00043	-.00939	1.93567	-.04968	.00000
4.630	26.759	.01670	.68522	.05411	.00024	-.00177	-.00031	-.01244	1.64638	-.04307	.00000
4.630	31.849	.02090	.87031	.05489	-.00403	-.00214	-.00019	-.01616	1.40459	-.04311	.00000
4.630	37.264	.02492	1.08226	.05482	-.00856	-.00261	-.00006	-.01957	1.18486	-.03647	.00000
4.630	42.433	.02998	1.28467	.05097	-.01511	-.00280	.00007	-.02382	1.01037	-.02986	.00000
	GRADIENT	.00031	.01876	-.00019	.00039	-.00003	.00000	-.00026	.33060	-.00005	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (B-2VFB) (RP8009) (06 SEP 73)

REFERENCE DATA

SREF =	171.4720 SQ.IN.	XMRP =	16.8366 INCHES		
LREF =	25.5100 INCHES	YMRP =	.0000 INCHES		
BREF =	20.3597 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

BETA =	3.000	WINGNO =	2.000
LAMDAF =	75.000	ELEVTR =	.000
BDFLAP =	.000	RUDFLR =	.000

RUN NO. 14/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.714	3.12451	-.12815	.05905	-.00166	-.00182	-.00051	-.04802	-1.77088	-.10891	.00000
2.360	-2.402	3.12253	-.05296	.06066	-.00371	-.00197	-.00038	-.04692	-.80166	-.11241	.00000
2.360	-1.218	3.12158	-.01844	.06125	-.00464	-.00191	-.00052	-.04603	-.27806	-.11410	.00000
2.360	-.127	3.12150	.01614	.06193	-.00532	-.00194	-.00066	-.04550	.26305	-.11931	.00000
2.360	1.004	3.12140	.04971	.06229	-.00598	-.00211	-.00079	-.04496	.76976	-.12455	.00000
2.360	1.566	3.12109	.07802	.06279	-.00671	-.00218	-.00079	-.04486	1.15868	-.12965	.00000
2.360	4.152	3.12201	.14561	.06353	-.00822	-.00276	-.00097	-.04468	1.90288	-.13810	.00000
2.360	6.297	3.12352	.20911	.06390	-.00942	-.00345	-.00121	-.04445	2.32322	-.14671	.00000
2.360	8.585	3.12603	.27986	.06390	-.01059	-.00443	-.00136	-.04497	2.54566	-.15183	.00000
2.360	13.084	3.13459	.42103	.06383	-.01257	-.00591	-.00165	-.04756	2.51241	-.16729	.00000
2.360	17.498	3.14114	.56824	.06232	-.01381	-.00738	-.00215	-.04852	2.27196	-.17760	.00000
2.360	22.002	3.15082	.72511	.06126	-.01485	-.00931	-.00283	-.05019	1.97695	-.18107	.00000
2.360	27.475	3.16619	.92045	.05957	-.01752	-.01033	-.00441	-.05115	1.65264	-.18620	.00000
2.360	31.254	3.17917	1.05856	.05731	-.01955	-.01029	-.00542	-.05312	1.46575	-.19126	.00000
	GRADIENT	-.00029	.03071	.00050	-.00072	-.00009	-.00008	.00040	.42394	-.00346	.00000

LA-1D LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB) (RP8010) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 28.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.867	-.00623	-.14017	.05925	-.00265	-.00045	.00012	.00218	-1.89822	-.10077	.00000
2.360	-2.543	-.00473	-.06309	.06068	-.00402	-.00060	.00009	.00168	-.95139	-.10594	.00000
2.360	-1.236	.00160	-.02161	.06155	-.00482	-.00066	.00008	-.00095	-.32709	-.10753	.00000
2.360	-.142	.00274	.01172	.06293	-.00574	-.00063	.00003	-.00124	.18882	-.11647	.00000
2.360	1.053	.00000	.04520	.06283	-.00618	-.00067	.00008	-.00030	.69187	-.11469	.00000
2.360	1.954	.00291	.07351	.06324	-.00679	-.00087	.00005	-.00139	1.08536	-.11641	.00000
2.360	4.249	.00562	.14736	.06430	-.00774	-.00091	.00009	-.00268	1.89498	-.12830	.00000
2.360	6.330	.00872	.20985	.06491	-.00841	-.00100	.00021	-.00439	2.29802	-.13528	.00000
2.360	7.592	.01005	.24849	.06481	-.00892	-.00107	.00024	-.00503	2.44924	-.14029	.00000
2.360	13.167	.01640	.42748	.06490	-.00939	-.00134	.00028	-.00784	2.50015	-.15751	.00000
2.360	17.541	.02273	.57658	.06356	-.00877	-.00162	.00025	-.01038	2.26392	-.16428	.00000
2.360	22.027	.03265	.73319	.06246	-.00801	-.00215	.00011	-.01397	1.97146	-.17640	.00000
2.360	26.678	.02469	.90820	.06303	-.00878	-.00221	-.00031	-.01583	1.68768	-.19416	.00000
2.360	27.689	.04072	.93950	.06165	-.00911	-.00234	-.00041	-.01538	1.63550	-.19177	.00000
2.360	32.110	.03081	1.11760	.06103	-.01107	-.00257	-.00028	-.02000	1.41840	-.19425	.00000
	GRADIENT	.00129	.03122	.00056	-.00057	-.00005	-.00000	-.00053	.42479	-.00289	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.629	-.02167	-.11507	.05688	-.00303	.00015	-.00023	.00213	-1.66867	-.08574	.00000
2.860	-2.340	-.01873	-.05305	.05752	-.00383	.00014	-.00019	.00058	-.84937	-.08764	.00000
2.860	-1.194	-.01725	-.02315	.05789	-.00421	.00013	-.00017	-.00020	-.37602	-.08961	.00000
2.860	-.095	-.01666	.00560	.05841	-.00458	.00003	-.00015	-.00053	.09758	-.09163	.00000
2.860	1.030	-.01634	.03211	.05875	-.00464	.00006	-.00022	-.00044	.52341	-.09353	.00000
2.860	2.037	-.01484	.05746	.05895	-.00468	.00000	-.00020	-.00123	.90783	-.09546	.00000
2.860	4.116	-.01282	.11714	.05937	-.00473	-.00008	-.00016	-.00232	1.66478	-.09938	.00000
2.860	6.357	-.00907	.17912	.05920	-.00481	-.00025	-.00010	-.00430	2.17945	-.10521	.00000
2.860	8.604	-.00885	.24409	.05893	-.00473	-.00042	-.00008	-.00449	2.42676	-.11102	.00000
2.860	12.926	-.00259	.36295	.05863	-.00420	-.00082	-.00005	-.00755	2.46249	-.11880	.00000
2.860	17.276	.00175	.49609	.05851	-.00342	-.00119	-.00004	-.00967	2.24568	-.12070	.00000
2.860	21.612	.00746	.64182	.05852	-.00297	-.00144	-.00010	-.01213	1.97780	-.13046	.00000
2.860	27.313	.01729	.84495	.05809	-.00407	-.00185	-.00026	-.01599	1.64818	-.13629	.00000
2.860	31.664	.00716	1.02455	.05812	-.00663	-.00223	-.00006	-.01976	1.43287	-.13337	.00000
2.860	32.626	.02671	1.04761	.05680	-.00688	-.00197	-.00036	-.02003	1.39013	-.13822	.00000
2.860	37.122	.01171	1.23328	.05451	-.00914	-.00253	-.00006	-.02342	1.20652	-.13012	.00000
2.860	42.394	.01569	1.44959	.05023	-.01315	-.00272	.00007	-.02705	1.02194	-.12039	.00000
	GRADIENT	.00096	.02622	.00030	-.00020	-.00003	.00000	-.00047	.38625	-.00161	.00000

LA-10 LARC UPWT 1015 LO-100 CRB.(SHIPS) (BW2VFB) (RP8010) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 78.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

RUN NO. 9/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.275	-.00056	-.09119	.05256	-.00415	.00062	-.00028	.00131	-1.46963	-.06040	.00000
3.960	-1.935	-.00008	-.04288	.05181	-.00324	.00062	-.00025	.00093	-.77214	-.06039	.00000
3.960	-.897	.00063	-.02262	.05151	-.00292	.00057	-.00024	.00042	-.42050	-.06039	.00000
3.960	.190	.00042	.00082	.05133	-.00245	.00048	-.00023	.00053	.01260	-.06039	.00000
3.960	1.207	.00171	.02112	.05125	-.00194	.00044	-.00032	.00000	.38763	-.06302	.00000
3.960	2.124	.00246	.03823	.05137	-.00178	.00044	-.00050	-.00052	.68821	-.06300	.00000
3.960	4.050	.00351	.08475	.05082	-.00062	.00030	-.00038	-.00093	1.41234	-.06302	.00000
3.960	6.279	.00547	.12969	.05111	.00035	.00017	-.00044	-.00194	1.89766	-.06563	.00000
3.960	9.513	.00680	.17924	.05129	.00108	-.00001	-.00041	-.00292	2.19621	-.06563	.00000
3.960	12.873	.01006	.28440	.05216	.00263	-.00051	-.00042	-.00547	2.32573	-.07085	.00000
3.960	17.187	.01481	.40553	.05360	.00372	-.00087	-.00043	-.00796	2.17259	-.07346	.00000
3.960	21.900	.01863	.54324	.05500	.00418	-.00128	-.00044	-.01032	1.93899	-.07346	.00000
3.960	26.832	.02439	.73363	.05636	.00385	-.00178	-.00052	-.01344	1.64953	-.07085	.00000
3.960	32.166	.03005	.93382	.05733	.00272	-.00229	-.00026	-.01774	1.39369	-.06824	.00000
3.960	37.515	.03645	1.15688	.05711	.00098	-.00279	-.00032	-.02167	1.17743	-.06301	.00000
3.960	42.702	.04239	1.37109	.05464	-.00223	-.00317	-.00028	-.02562	1.00054	-.05518	.00000
	GRADIENT	.00055	.02034	-.00018	.00040	-.00004	-.00001	-.00027	.34079	-.00040	.00000

RUN NO. 11/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-4.001	.00013	-.08562	.05112	-.00401	.00085	-.00075	.00248	-1.43678	-.04766	.00000
4.630	-1.799	.00073	-.04233	.05014	-.00334	.00079	-.00072	.00192	-.79184	-.04766	.00000
4.630	-.628	.00058	-.02365	.04953	-.00288	.00078	-.00072	.00202	-.40414	-.04766	.00000
4.630	.372	.00122	-.00094	.04975	-.00240	.00078	-.00070	.00135	-.02544	-.04766	.00000
4.630	1.229	.00268	.01495	.04909	-.00163	.00073	-.00081	.00064	.28127	-.05096	.00000
4.630	2.331	.00254	.03479	.04885	-.00114	.00061	-.00080	.00074	.65071	-.05096	.00000
4.630	4.453	.00400	.07584	.04870	.00031	.00050	-.00076	-.00058	1.31955	-.05096	.00000
4.630	6.449	.00518	.11502	.04875	.00154	.00033	-.00086	-.00118	1.77348	-.05096	.00000
4.630	8.680	.00569	.16593	.04905	.00287	.00016	-.00083	-.00170	2.13017	-.05426	.00000
4.630	12.960	.00851	.26550	.04944	.00479	-.00030	-.00074	-.00428	2.29883	-.05426	.00000
4.630	17.181	.01183	.37929	.05076	.00575	-.00075	-.00078	-.00684	2.16388	-.05756	.00000
4.630	21.348	.01537	.50833	.05263	.00601	-.00121	-.00067	-.01002	1.94112	-.05756	.00000
4.630	26.690	.01978	.69378	.05362	.00491	-.00150	-.00082	-.01270	1.65662	-.05426	.00000
4.630	32.012	.02321	.89212	.05425	.00217	-.00219	-.00056	-.01612	1.40238	-.05096	.00000
4.630	37.360	.02782	1.11053	.05437	-.00103	-.00244	-.00056	-.01988	1.18381	-.04766	.00000
4.630	42.455	.03282	1.30277	.05032	-.00605	-.00268	-.00042	-.02443	1.01171	-.04107	.00000
	GRADIENT	.00048	.01902	-.00029	.00052	-.00004	-.00001	-.00036	.33192	-.00051	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP8011) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGNO = 2.000
LAMDAF = 78.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLN	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.647	3.05804	-.13210	.06114	-.00323	-.00129	-.00060	-.04647	-1.76880	-.10868	.00000
2.360	-2.400	3.05490	-.05775	.06241	-.00479	-.00144	-.00062	-.04412	-.85037	-.11465	.00000
2.360	-1.194	3.05347	-.02067	.06291	-.00547	-.00149	-.00075	-.04270	-.30563	-.11743	.00000
2.360	-.138	3.05412	.01303	.06344	-.00610	-.00159	-.00073	-.04322	.20791	-.12027	.00000
2.360	.903	3.05362	.04340	.06381	-.00669	-.00169	-.00085	-.04247	.65725	-.12595	.00000
2.360	1.936	3.05398	.07371	.06411	-.00706	-.00193	-.00095	-.04230	1.07408	-.13185	.00000
2.360	4.017	3.05584	.13934	.06480	-.00787	-.00237	-.00102	-.04341	1.80710	-.14027	.00000
2.360	6.134	3.05469	.20679	.06516	-.00848	-.00309	-.00124	-.04185	2.28633	-.14595	.00000
2.360	8.323	3.05646	.27263	.06480	-.00886	-.00405	-.00130	-.04290	2.51366	-.14879	.00000
2.380	12.827	3.06225	.41771	.06440	-.00923	-.00564	-.00149	-.04626	2.52685	-.16302	.00000
2.360	16.958	3.06590	.55877	.06322	-.00896	-.00732	-.00184	-.04763	2.30939	-.16872	.00000
2.360	21.172	3.07058	.70781	.06258	-.00860	-.00918	-.00276	-.04763	2.03005	-.18016	.00000
2.360	26.659	3.07851	.90758	.06122	-.00926	-.01038	-.00436	-.04728	1.69645	-.19157	.00000
2.360	30.965	3.08531	1.11436	.05837	-.01109	-.01106	-.00502	-.04951	1.42480	-.19443	.00000
	GRADIENT	-.00024	.03111	.00042	-.00054	-.00012	-.00005	.00036	.42116	-.00371	.00000

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

MACH	ALPHA	BETA	CN	CA	CLN	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.482	3.04793	-.11155	.05784	-.00350	.00045	-.00183	-.04073	-1.60723	-.09123	.00000
2.860	-2.211	3.04518	-.05008	.05835	-.00426	.00017	-.00171	-.03893	-.79339	-.09451	.00000
2.860	-1.143	3.04500	-.02319	.05852	-.00458	-.00011	-.00170	-.03882	-.37340	-.09776	.00000
2.860	-.090	3.04275	.00563	.05892	-.00494	-.00027	-.00186	-.03646	.09709	-.10103	.00000
2.860	.970	3.04346	.03067	.05900	-.00501	-.00049	-.00184	-.03715	.49844	-.10093	.00000
2.860	1.907	3.04387	.05570	.05921	-.00508	-.00076	-.00196	-.03705	.87978	-.10419	.00000
2.860	4.142	3.04341	.11693	.05923	-.00549	-.00153	-.00193	-.03676	1.66379	-.11072	.00000
2.860	6.090	3.04446	.17050	.05937	-.00501	-.00229	-.00202	-.03727	2.11658	-.11398	.00000
2.860	8.348	3.04482	.23595	.05948	-.00485	-.00316	-.00197	-.03776	2.41472	-.11714	.00000
2.860	12.755	3.04646	.36001	.05902	-.00448	-.00480	-.00187	-.03937	2.46688	-.12368	.00000
2.860	16.935	3.04946	.48961	.05911	-.00399	-.00666	-.00187	-.04178	2.26529	-.12687	.00000
2.860	21.082	3.05205	.62812	.05858	-.00317	-.00845	-.00242	-.04185	2.01358	-.13337	.00000
2.860	26.311	3.05976	.81772	.05829	-.00388	-.00932	-.00372	-.04306	1.69168	-.13985	.00000
2.860	31.806	3.06238	1.02585	.05723	-.00621	-.01026	-.00414	-.04347	1.42736	-.13659	.00000
2.860	37.057	3.06064	1.22704	.05462	-.00934	-.01220	-.00241	-.04811	1.20856	-.12691	.00000
2.860	42.188	3.06313	1.43268	.04995	-.01273	-.01216	-.00340	-.04670	1.02888	-.11716	.00000
	GRADIENT	-.00050	.02630	.00017	-.00019	-.00023	-.00002	.00048	.38565	-.00224	.00000

LA-1D LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP0011) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5150 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGNO = 2.000
LAMDAF = 78.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = .000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.239	3.08145	-.09217	.05277	-.00455	.00144	-.00384	-.03392	-1.48087	-.05779	.00000
3.960	-1.996	3.07717	-.04678	.05190	-.00377	.00078	-.00365	-.03187	-.84005	-.05779	.00000
3.960	-.894	3.07607	-.02335	.05149	-.00349	.00051	-.00365	-.03117	-.43489	-.06040	.00000
3.960	.176	3.07437	-.00140	.05132	-.00300	.00020	-.00355	-.03043	-.03039	-.06040	.00000
3.960	1.200	3.07329	.01892	.05104	-.00268	-.00002	-.00355	-.02973	.34710	-.06040	.00000
3.960	2.225	3.07308	.03927	.05096	-.00217	-.00028	-.00354	-.02963	.71051	-.06302	.00000
3.960	4.320	3.07144	.08284	.05079	-.00116	-.00094	-.00331	-.02938	1.38477	-.06563	.00000
3.960	6.385	3.07096	.12797	.05085	-.00017	-.00165	-.00329	-.02915	1.87643	-.06563	.00000
3.960	8.545	3.07157	.17778	.05092	.00076	-.00257	-.00313	-.03009	2.19152	-.06824	.00000
3.960	12.790	3.07161	.28168	.05186	.00216	-.00416	-.00295	-.03075	2.33067	-.07085	.00000
3.960	17.193	3.07498	.40468	.05345	.00325	-.00579	-.00304	-.03258	2.17249	-.07085	.00000
3.960	21.387	3.07921	.53962	.05461	.00377	-.00684	-.00347	-.03376	1.94864	-.07346	.00000
3.960	26.767	3.08506	.72865	.05626	.00346	-.00777	-.00408	-.03509	1.65237	-.07085	.00000
3.960	32.197	3.09019	.93868	.05733	.00229	-.00972	-.00378	-.03920	1.39204	-.06563	.00000
3.960	37.610	3.09336	1.15991	.05726	.00053	-.01172	-.00317	-.04338	1.17349	-.06041	.00000
3.960	42.770	3.09611	1.37141	.05390	-.00264	-.01232	-.00293	-.04599	.99926	-.04996	.00000
	GRADIENT		-.00114	.00042	-.00023	.00039	-.00027	.00005	.00054	.34256	-.00093	.00000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-4.033	3.04697	-.08452	.05106	-.00406	.00159	-.00439	-.03189	-1.41927	-.04766	.00000
4.630	-1.770	3.04429	-.04107	.04993	-.00337	.00109	-.00428	-.03015	-.77194	-.04766	.00000
4.630	-.720	3.04268	-.02327	.04953	-.00310	.00081	-.00415	-.02928	-.45464	-.05096	.00000
4.630	.341	3.04259	-.00145	.04915	-.00240	.00053	-.00414	-.02917	-.03546	-.05096	.00000
4.630	1.401	3.04147	.01639	.04876	-.00189	.00037	-.00415	-.02832	.30909	-.05096	.00000
4.630	2.402	3.04072	.03618	.04847	-.00140	.00003	-.00401	-.02820	.68304	-.05096	.00000
4.630	4.452	3.04036	.07556	.04818	.00008	-.00063	-.00398	-.02799	1.32829	-.05096	.00000
4.630	6.513	3.03940	.11879	.04806	.00128	-.00136	-.00383	-.02775	1.83884	-.05426	.00000
4.630	8.612	3.03988	.16391	.04853	.00221	-.00219	-.00379	-.02828	2.13429	-.05426	.00000
4.630	12.959	3.03870	.26581	.04898	.00437	-.00370	-.00346	-.02848	2.31088	-.05426	.00000
4.630	17.158	3.03952	.37796	.05027	.00537	-.00514	-.00337	-.02945	2.17072	-.05426	.00000
4.630	21.389	3.04233	.50909	.05195	.00561	-.00615	-.00354	-.03110	1.94441	-.05756	.00000
4.630	26.645	3.04628	.68900	.05329	.00437	-.00749	-.00381	-.03299	1.65981	-.05426	.00000
4.630	32.044	3.04850	.89155	.05417	.00184	-.00945	-.00311	-.03696	1.40088	-.05096	.00000
4.630	37.360	3.05189	1.10408	.05427	-.00111	-.01097	-.00267	-.04125	1.18404	-.04436	.00000
4.630	42.509	3.05353	1.30246	.04957	-.00484	-.01144	-.00243	-.04343	1.01093	-.03447	.00000
	GRADIENT		-.00079	.01879	-.00034	.00049	-.00026	.00005	.00046	.32998	-.00045	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP8012) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 75.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = 40.000

RUN NO. 46/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.525	-.01977	-.13756	.08129	.00780	-.00055	-.00026	.00151	-1.42259	-.15747	-.15943
2.360	-2.312	-.00049	-.06728	.08130	.00551	-.00065	-.00038	.00240	-.76165	-.16037	-.15949
2.360	-1.217	-.01982	-.03220	.08156	.00447	-.00070	-.00036	.00188	-.37046	-.16028	-.15939
2.360	-.112	-.01766	.00279	.08204	.00301	-.00071	-.00044	.00066	.03599	-.16037	-.15949
2.360	.916	-.01931	.03129	.08220	.00206	-.00076	-.00034	.00145	.36246	-.16296	-.16206
2.360	1.894	-.01796	.05790	.08237	.00091	-.00057	-.00044	.00086	.65468	-.16569	-.16498
2.360	4.120	-.01661	.12827	.08279	-.00119	-.00053	-.00040	-.00020	1.32892	-.17440	-.17062
2.360	6.128	-.01611	.18682	.08271	-.00292	-.00082	-.00037	-.00064	1.73155	-.18017	-.17637
2.360	8.332	-.01447	.25362	.08218	-.00437	-.00079	-.00022	-.00234	2.02461	-.18591	-.17925
2.360	12.720	-.01332	.38798	.08075	-.00640	-.00092	-.00008	-.00376	2.19656	-.20584	-.18775
2.360	16.908	-.01364	.52030	.07517	-.00759	-.00090	.00015	-.00450	2.13198	-.18597	-.17364
2.360	21.141	-.01082	.66446	.07368	-.00816	-.00084	.00032	-.00717	1.92354	-.20020	-.18499
2.360	26.564	-.00799	.85205	.06838	-.00971	-.00063	.00101	-.01157	1.65428	-.19162	-.19345
2.360	31.621	-.00475	1.04109	.05878	-.01420	-.00041	.00074	-.01289	1.42537	-.18597	-.15380
2.360	37.192	.00053	1.24657	.05112	-.01855	-.00095	.00184	-.02041	1.21138	-.16045	-.14540
2.360	42.047	.00109	1.21818	.03231	-.00735	-.00132	.00008	-.01470	1.05136	-.00674	.01340
	GRADIENT	.00040	.03053	.00019	-.00105	.00000	-.00001	-.00023	.32294	-.00180	-.00129

RUN NO. 48/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.455	.00058	-.11600	.07438	.00388	.00008	-.00064	.00244	-1.32110	-.12025	-.12226
2.860	-2.231	.00112	-.05675	.07433	.00296	.00002	-.00081	.00193	-.70357	-.12345	-.12546
2.860	-1.149	.00185	-.02809	.07419	.00239	.00007	-.00079	.00129	-.35583	-.12671	-.12547
2.860	-.055	.00229	-.00128	.07393	.00218	.00012	-.00092	.00137	-.01630	-.12343	-.12544
2.860	.981	.00244	.02363	.07373	.00179	.00012	-.00077	.00075	.30164	-.12669	-.12545
2.860	1.927	.00317	.05042	.07368	.00147	.00011	-.00075	.00011	.63602	-.12671	-.12547
2.860	4.032	.00434	.11211	.07322	.00088	.00011	-.00086	-.00046	1.20559	-.12997	-.12872
2.860	6.115	.00339	.16151	.07303	.00018	-.00001	-.00072	-.00019	1.70140	-.13321	-.13194
2.860	8.280	.00481	.22084	.07259	-.00053	-.00002	-.00068	-.00145	2.00970	-.13643	-.13516
2.860	12.605	.00646	.33962	.07097	-.00191	-.00011	-.00039	-.00393	2.20378	-.14615	-.14161
2.860	16.833	.00776	.46388	.06908	-.00314	-.00025	-.00024	-.00566	2.11523	-.14617	-.14163
2.860	20.972	.00901	.59786	.06753	-.00430	-.00023	-.00008	-.00735	1.92784	-.14941	-.14485
2.860	26.381	.01204	.77989	.06387	-.00704	-.00026	.00070	-.01250	1.66016	-.14617	-.14486
2.860	31.573	.01627	.97128	.05792	-.01133	-.00016	.00041	-.01485	1.42889	-.13969	-.12224
2.860	36.936	.02197	1.16495	.05045	-.01506	.00001	-.00002	-.01721	1.21672	-.12671	-.08345
2.860	42.033	.03007	1.31722	.04344	-.01444	.00000	.00072	-.02693	1.03835	-.09429	-.07055
	GRADIENT	.00044	.02565	-.00014	-.00035	.00001	.00000	-.00035	.30271	-.00192	-.00058

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BWRVFB) (RP8012) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5150 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 75.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = 40.000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.208	-.01733	-.09396	.06324	.00177	.00063	-.00068	.00134	-1.27308	-.07078	-.07231
3.960	-2.028	-.01736	-.05060	.06162	.00184	.00062	-.00055	.00094	-.76346	-.07339	-.07492
3.960	-.911	-.01754	-.02886	.06077	.00197	.00058	-.00055	.00103	-.45564	-.07340	-.07492
3.960	.165	-.01771	-.00564	.06043	.00207	.00066	-.00055	.00113	-.09626	-.07339	-.07492
3.960	1.233	-.01697	.01445	.06007	.00203	.00070	-.00053	.00061	.21794	-.07600	-.07492
3.960	2.168	-.01624	.03358	.05956	.00219	.00066	-.00051	.00009	.50690	-.07600	-.07492
3.960	4.334	-.01659	.07503	.05922	.00266	.00061	-.00050	.00028	1.08681	-.07600	-.07492
3.960	6.360	-.01549	.12005	.05906	.00289	.00043	-.00058	-.00015	1.56625	-.07600	-.07752
3.960	8.531	-.01647	.16805	.05888	.00326	.00034	-.00047	.00008	1.89355	-.07600	-.07752
3.960	12.681	-.01435	.26873	.05811	.00359	.00013	-.00033	-.00188	2.13651	-.07861	-.07752
3.960	17.094	-.01230	.38129	.05795	.00319	-.00003	-.00020	-.00381	2.07455	-.07862	-.08013
3.960	21.313	-.00948	.51069	.05787	.00271	-.00014	-.00004	-.00627	1.89847	-.07862	-.07752
3.960	26.737	-.00583	.69149	.05881	.00080	-.00017	.00028	-.00973	1.62558	-.07862	-.08013
3.960	32.036	-.00290	.88758	.05781	-.00210	-.00041	.00071	-.01311	1.38844	-.07862	-.07752
3.960	37.496	.00373	1.09850	.05693	-.00663	-.00025	.00017	-.01550	1.17239	-.07862	-.07752
3.960	42.645	.00944	1.30629	.05502	-.01089	.00020	.00029	-.01893	.99800	-.07601	-.07753
	GRADIENT	.00013	.01984	-.00047	.00010	.00000	.00002	-.00014	.28290	-.00064	-.00024

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.967	.00204	-.08633	.05939	.00056	.00085	-.00098	.00176	-1.25743	-.05415	-.05604
4.630	-1.776	.00179	-.04508	.05717	.00084	.00085	-.00098	.00194	-.73954	-.05415	-.05604
4.630	-.646	.00196	-.02547	.05633	.00087	.00079	-.00083	.00128	-.43870	-.05415	-.05604
4.630	.366	.00163	-.00580	.05580	.00113	.00079	-.00082	.00137	-.11034	-.05746	-.05604
4.630	1.412	.00259	.01387	.05520	.00140	.00078	-.00080	.00070	.22514	-.05415	-.05604
4.630	2.386	.00247	.03159	.05475	.00169	.00076	-.00080	.00078	.52276	-.05746	-.05604
4.630	4.432	.00369	.07100	.05415	.00245	.00078	-.00091	.00017	1.11983	-.05746	-.05604
4.630	6.493	.00342	.11044	.05352	.00322	.00072	-.00090	.00035	1.57897	-.05746	-.05934
4.630	8.749	.00398	.15956	.05323	.00409	.00066	-.00087	-.00019	1.94602	-.05746	-.05934
4.630	12.955	.00541	.25375	.05287	.00472	.00040	-.00072	-.00205	2.17178	-.05746	-.05934
4.630	17.114	.00706	.36155	.05323	.00493	.00009	-.00042	-.00459	2.09758	-.05746	-.05934
4.630	21.310	.00923	.49630	.05393	.00416	-.00005	-.00024	-.00712	1.90971	-.06076	-.05934
4.630	26.659	.01288	.66458	.05563	.00219	-.00008	.00001	-.01096	1.63550	-.05746	-.05934
4.630	31.746	.01539	.84478	.05504	-.00078	.00002	.00010	-.01332	1.40333	-.05746	-.05604
4.630	37.199	.01904	1.05351	.05468	-.00546	.00058	-.00008	-.01568	1.18460	-.05746	-.05604
4.630	42.312	.02180	1.25472	.05302	-.01024	.00080	.00014	-.01874	1.00939	-.05746	-.05934
	GRADIENT	.00019	.01869	-.00062	.00022	-.00001	.00002	-.00021	.28837	-.00045	.00000

LA-10 LARC UPWT 1915 LO-100 ORB.(SHIPS) (BWPVFB) (RP8013) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGND = 2.000
LANDAF = 75.000 ELEVTR = .000
BDFLAP = .000 RUDFLR = 40.000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.565	3.04674	-.13962	.08150	.00706	-.00415	.00364	-.05316	-1.43670	-.15755	-.15668
2.360	-2.333	3.04305	-.06647	.08170	.00496	-.00403	.00338	-.04997	-.74808	-.15974	-.15600
2.360	-1.175	3.04254	-.03116	.08174	.00371	-.00408	.00326	-.04920	-.35794	-.15687	-.15600
2.360	-.058	3.04173	.00415	.08178	.00245	-.00413	.00302	-.04773	.05181	-.15699	-.15612
2.360	.931	3.04037	.03272	.08195	.00148	-.00417	.00288	-.04629	.38053	-.15704	-.15617
2.360	1.939	3.04136	.06297	.08195	.00070	-.00408	.00266	-.04622	.71586	-.15705	-.15617
2.360	4.011	3.04447	.12687	.08242	-.00131	-.00442	.00237	-.04737	1.32607	-.16846	-.16469
2.360	6.155	3.04311	.19413	.08227	-.00316	-.00480	.00201	-.04515	1.79501	-.17424	-.17045
2.360	8.375	3.04612	.25994	.08156	-.00458	-.00553	.00172	-.04643	2.06902	-.17704	-.17609
2.360	12.654	3.05070	.38969	.07981	-.00654	-.00621	.00084	-.0365.	2.22225	-.18852	-.18753
2.360	16.916	3.05432	.52993	.07695	-.00824	-.00680	-.00042	-.04486	2.12721	-.19423	-.19606
2.360	21.164	3.06110	.66981	.07413	-.00973	-.00752	-.00209	-.04387	1.92266	-.19425	-.19893
2.360	26.580	3.06818	.86072	.06824	-.01073	-.00778	-.00457	-.04018	1.65686	-.20285	-.19611
2.360	31.793	3.07374	1.06050	.06242	-.01597	-.00847	-.00405	-.04584	1.41959	-.20289	-.20184
2.360	37.152	3.05524	1.22836	.04676	-.01629	-.00994	-.00169	-.04123	1.22037	-.14854	-.12776
	GRADIENT	-.00034	.03091	.00010	-.00098	-.00003	-.00015	.00076	.32747	-.00083	-.00071

RUN NO. 49/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.463	3.04422	-.11666	.07468	.00392	-.00188	.00159	-.04973	-1.32288	-.12023	-.12224
2.860	-2.253	3.03944	-.05731	.07411	.00276	-.00204	.00153	-.04577	-.71232	-.12020	-.12222
2.860	-1.135	3.03926	-.02850	.07410	.00243	-.00215	.00154	-.04560	-.36207	-.11701	-.12227
2.860	-.085	3.03823	-.00163	.07403	.00211	-.00232	.00153	-.04470	-.02057	-.11706	-.12232
2.860	.976	3.03772	.02527	.07342	.00181	-.00254	.00140	-.04393	.32518	-.12022	-.11900
2.860	1.942	3.03725	.05023	.07356	.00152	-.00276	.00127	-.04309	.63427	-.12672	-.12225
2.860	4.043	3.03746	.10405	.07311	.00114	-.00325	.00116	-.04287	1.22897	-.12673	-.12872
2.860	6.151	3.03764	.16341	.07275	-.00002	-.00385	.00106	-.04264	1.72160	-.12998	-.13196
2.860	8.321	3.03690	.22473	.07212	-.00074	-.00450	.00094	-.04164	2.04001	-.13322	-.13519
2.860	12.645	3.04016	.34167	.07049	-.00208	-.00561	.00046	-.04273	2.21451	-.13970	-.13842
2.860	16.840	3.04245	.46817	.06909	-.00308	-.00666	-.00044	-.04157	2.12172	-.13972	-.14489
2.860	21.054	3.04734	.60412	.06685	-.00449	-.00759	-.00170	-.04122	1.93179	-.13970	-.14488
2.860	26.404	3.05297	.78780	.06377	-.00702	-.00737	-.00333	-.03999	1.66219	-.14297	-.14490
2.860	31.959	3.05348	.97831	.05927	-.01176	-.00800	-.00244	-.04359	1.42678	-.13969	-.14164
2.860	36.985	3.04743	1.17758	.05053	-.01598	-.01004	.00044	-.04885	1.21561	-.13322	-.08026
2.860	41.981	3.05310	1.28559	.04207	-.01409	-.00819	-.00234	-.04366	1.04077	-.06842	-.06418
	GRADIENT	-.00075	.02587	-.00018	-.00032	-.00016	-.00005	.00078	.30509	-.00093	-.00059

DATE 21 SEP 73 TABULATED SOURCE DATA UPWT-1015

LA-10 LARC UPWT 1015 LO-100 CRR.(SHIPS) (BWBVFB) (RP0013) (06 SEP 73)

REFERENCE DATA

SREF =	171.4725 SQ.IN.	XMRP =	16.8366 INCHES
LREF =	25.5100 INCHES	YMRP =	.0000 INCHES
BREF =	20.3597 INCHES	ZMRP =	.0000 INCHES
SCALE =	.0188 SCALE		

PARAMETRIC DATA

BETA =	3.000	WINGNO =	2.000
LAMDAF =	75.000	ELEVTR =	.000
BDFLAP =	.000	RUDFLR =	40.000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.214	3.07299	-.09306	.06364	.00158	-.00058	-.00026	-.04098	-1.25347	-.07078	-.07491
3.960	-2.020	3.06847	-.04951	.06178	.00165	-.00102	-.00019	-.03836	-.74504	-.07078	-.07491
3.960	-.871	3.06678	-.02616	.06105	.00177	-.00128	-.00009	-.03762	-.41070	-.07078	-.07232
3.960	.204	3.06571	-.00445	.06045	.00171	-.00146	-.00009	-.03691	-.07712	-.07340	-.07232
3.960	1.242	3.06374	.01581	.05996	.00186	-.00168	-.00011	-.03562	.24056	-.07078	-.07231
3.960	2.190	3.06417	.03294	.05943	.00205	-.00185	-.00020	-.03557	.50535	-.07077	-.07491
3.960	4.261	3.06286	.07499	.05898	.00251	-.00238	-.00019	-.03474	1.09338	-.07601	-.07493
3.960	6.345	3.06327	.12163	.05905	.00273	-.00308	-.00016	-.03512	1.58542	-.07601	-.07753
3.960	8.562	3.06247	.17133	.05856	.00291	-.00379	-.00025	-.03431	1.92649	-.07601	-.07752
3.960	12.884	3.06381	.27211	.05829	.00306	-.00485	-.00065	-.03391	2.14699	-.07862	-.08013
3.960	17.160	3.06537	.38514	.05823	.00305	-.00574	-.00127	-.03289	2.07246	-.07863	-.08013
3.960	21.284	3.06955	.51328	.05809	.00241	-.00615	-.00218	-.03250	1.90146	-.07601	-.08013
3.960	26.743	3.07449	.69571	.05876	.00048	-.00647	-.00293	-.03306	1.62736	-.07862	-.08013
3.960	32.064	3.07650	.89204	.05859	-.00260	-.0076[illegible]	-.00204	-.03746	1.38545	-.08123	-.08013
3.960	37.442	3.07715	1.10029	.05713	-.00666	-.00905	-.00061	-.04287	1.17449	-.07862	-.07753
3.960	42.728	3.08318	1.30852	.05506	-.01113	-.00909	-.00124	-.04456	.99521	-.07601	-.07752
	GRADIENT		-.00118	.01979	-.00055	.00010	-.00021	.00001	.00074	.28201	-.00047	.00001

RUN NO. 53/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.957	3.04159	-.08476	.05993	.00103	-.00044	-.00095	-.03963	-1.22522	-.05084	-.05604
4.630	-1.824	3.03967	-.04540	.05777	.00110	-.00078	-.00098	-.03716	-.73564	-.05084	-.05604
4.630	-.679	3.03794	-.02376	.05688	.00111	-.00100	-.00086	-.03628	-.40389	-.05084	-.05604
4.630	.416	3.03681	-.00402	.05617	.00138	-.00117	-.00087	-.03542	-.07893	-.05415	-.05604
4.630	1.439	3.03438	.01566	.05535	.00141	-.00139	-.00087	-.03457	.25615	-.05746	-.05604
4.630	2.347	3.03397	.03149	.05510	.00172	-.00156	-.00088	-.03373	.51937	-.05746	-.05604
4.630	4.384	3.03337	.07104	.05415	.00249	-.00195	-.00101	-.03279	1.12228	-.05746	-.05934
4.63[illegible]	6.487	3.03314	.11213	.05364	.00324	-.00239	-.00099	-.03259	1.60202	-.05746	-.05934
4.63[illegible]	8.667	3.03253	.15293	.05321	.00415	-.00312	-.00097	-.03235	1.95660	-.05746	-.05934
4.63[illegible]	12.968	3.03129	.23691	.05310	.00477	-.00408	-.00126	-.03042	2.17724	-.05746	-.05934
4.63[illegible]	17.169	3.03342	.32617	.05329	.00472	-.00488	-.00191	-.03005	2.19136	-.05746	-.05934
4.63[illegible]	21.270	3.03442	.43730	.05419	.00424	-.00534	-.00255	-.03040	1.91171	-.06076	-.05934
4.63[illegible]	26.627	3.03963	.66477	.05554	.00228	-.00591	-.00284	-.03199	1.63832	-.05746	-.05934
4.63[illegible]	[illegible]	[illegible]	[illegible]	.05527	-.00075	-.00744	-.00135	-.03777	1.39612	-.05746	-.05604
4.63[illegible]	37.281	3.04[illegible]	1.[illegible]	.05475	-.00535	-.00805	-.00095	-.04144	1.18226	-.05746	-.05604
4.63[illegible]	42.289	3.04693	1.[illegible]	.05276	-.01105	-.00809	-.00126	-.04302	1.01057	-.06076	-.05934
	GRADIENT		[illegible]	.00863	-.00069	.00017	-.00018	-.00001	.00082	.28637	-.00106	-.00029

LA-10 LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB) (RP8014) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5150 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 75.000 ELEVTR = -10.000
BDFLAP = .000 RUDFLR = 40.000

RUN NO. 58/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.551	.00165	-.15658	.08496	.01471	-.00064	-.00058	.00085	-1.53785	-.17169	-.16792
2.360	-2.310	.00301	-.08429	.08451	.01195	-.00065	-.00054	-.00022	-.92001	-.17189	-.17098
2.360	-1.186	.00163	-.04910	.08416	.01112	-.00046	-.00068	.00121	-.55595	-.16891	-.17085
2.360	-.086	.00436	-.01394	.08380	.00965	-.00066	-.00051	-.00128	-.16479	-.17471	-.16809
2.360	.939	.00565	.01793	.08341	.00865	-.00066	-.00060	-.00185	.19788	-.17748	-.16800
2.360	1.884	.00551	.04300	.08320	.00772	-.00057	-.00060	-.00175	.47581	-.17758	-.16526
2.360	4.024	.00664	.10506	.08260	.00574	-.00038	-.00070	-.00222	1.10287	-.18322	-.16802
2.360	6.150	.00710	.17210	.08173	.00388	-.00053	-.00067	-.00262	1.63176	-.18951	-.17096
2.360	8.374	.00609	.23918	.08049	.00243	-.00054	-.00055	-.00234	1.96496	-.19758	-.17665
2.360	12.684	.00903	.37079	.07843	.00064	-.00067	-.00039	-.00510	2.18145	-.20610	-.18227
2.360	16.985	.01046	.50553	.07192	.00004	-.00052	-.00013	-.00715	2.13661	-.19328	-.17378
2.360	21.141	.01245	.64303	.06932	.00017	-.00026	.00002	-.00919	1.93796	-.20047	-.19092
2.360	26.577	.01467	.82918	.06315	.00011	-.00011	.00083	-.01358	1.66873	-.19750	-.19078
2.360	31.754	.01906	1.01350	.05327	-.00049	.00003	.00033	-.01493	1.44083	-.19188	-.16814
2.360	37.157	.02115	1.21520	.04383	-.00577	-.00018	.00187	-.02173	1.22512	-.17481	-.13978
2.360	39.088	.02585	1.27997	.04060	-.00596	.00041	.00037	-.01983	1.15425	-.16906	-.13688
	GRADIENT	.00064	.03055	-.00029	-.00105	.00002	-.00001	-.00041	.31474	-.00146	.00030

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.424	.00053	-.13555	.07708	.00883	-.00002	-.00124	.00387	-1.47991	-.12723	-.12600
2.860	-2.261	.00110	-.07639	.07602	.00743	.00003	-.00122	.00335	-.92849	-.12726	-.12604
2.860	-1.130	.00184	-.04789	.07570	.00688	.00013	-.00120	.00272	-.60542	-.12719	-.12596
2.860	-.085	.00256	-.01921	.07507	.00654	.00018	-.00118	.00208	-.25428	-.12715	-.12592
2.860	.958	.00242	.00569	.07462	.00626	.00029	-.00118	.00218	.05939	-.13040	-.12593
2.860	1.961	.00314	.03443	.07425	.00592	.00023	-.00116	.00155	.42281	-.13040	-.12593
2.860	4.036	.00459	.08621	.07339	.00555	.00017	-.00112	.00026	1.01954	-.13041	-.12271
2.860	6.106	.00429	.14168	.07276	.00490	.00038	-.00112	.00048	1.52298	-.13367	-.12918
2.860	8.339	.00421	.20476	.07181	.00414	.00025	-.00096	.00001	1.90760	-.14015	-.13241
2.860	12.607	.00556	.31954	.06990	.00328	.00017	-.00082	-.00175	2.14983	-.14666	-.13566
2.860	16.827	.00715	.44254	.06680	.00278	.00008	-.00052	-.00420	2.10507	-.14653	-.14219
2.860	20.968	.00929	.57592	.06382	.00232	.00021	-.00035	-.00662	1.93816	-.14990	-.14536
2.860	26.329	.01083	.75131	.05974	.00119	.00002	.00014	-.00957	1.67254	-.14664	-.14534
2.860	31.615	.01414	.94317	.05375	-.00205	.00017	.00024	-.01258	1.43473	-.14989	-.13888
2.860	36.902	.02193	1.13468	.04511	-.00434	.00078	-.00042	-.01649	1.22704	-.13368	-.13013
2.860	42.022	.02273	1.33116	.04025	-.00690	.00033	.00062	-.02076	1.04446	-.13367	-.11980
	GRADIENT	.00047	.02620	-.00044	-.00038	.00003	.00001	-.00042	.30110	-.00050	.00030

LA-10 LARC UPWT 1015 LO-100 ORB. (SHIPS) (Bw2VFB) (RP8D141 (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 75.000 ELEVTR = -10.000
BDFLAP = .000 RUDFLR = 40.000

RUN NO. 54/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.241	.00065	-.10686	.06450	.00515	.00059	-.00068	.00195	-1.41341	-.07068	-.07221
3.960	-2.061	.00062	-.06207	.06244	.00483	.00058	-.00056	.00155	-.96433	-.07068	-.07221
3.960	-.919	.00046	-.04043	.06154	.00477	.00062	-.00046	.00164	-.63453	-.07329	-.07221
3.960	.127	.00030	-.01874	.06089	.00489	.00066	-.00055	.00173	-.31032	-.07329	-.07220
3.960	1.195	.00013	.00292	.06049	.00483	.00066	-.00055	.00182	.02730	-.07329	-.07220
3.960	2.234	.00036	.02307	.06000	.00498	.00066	-.00053	.00131	.34036	-.07329	-.07220
3.960	4.250	.00052	.06501	.05951	.00543	.00061	-.00052	.00149	.94164	-.07595	-.07221
3.960	6.342	.00165	.11545	.05892	.00592	.00048	-.00060	.00105	1.49003	-.07595	-.07480
3.960	8.541	.00212	.15499	.05850	.00627	.00038	-.00058	.00067	1.78787	-.07851	-.07480
3.960	12.977	.00418	.25887	.05746	.00732	.00014	-.00044	-.00127	2.09742	-.07851	-.07480
3.960	17.089	.00596	.36573	.05664	.00794	.00002	-.00042	-.00262	2.05996	-.07852	-.07741
3.960	21.319	.00847	.49227	.05583	.00844	-.00005	-.00037	-.00450	1.89702	-.07852	-.07741
3.960	26.769	.01268	.67147	.05562	.00807	-.00003	-.00016	-.00796	1.63118	-.07852	-.07741
3.960	32.050	.01559	.85812	.05395	.00680	-.00035	.00027	-.01134	1.39469	-.07851	-.07741
3.960	37.446	.02071	1.06625	.05191	.00462	.00035	-.00017	-.01309	1.18421	-.08113	-.07741
3.960	42.618	.02610	1.26234	.04707	.00161	.00057	-.00016	-.01657	1.04866	-.07852	-.07741
	GRADIENT	-.00401	.02017	-.00058	.00003	.00001	.00002	-.00005	.28170	-.00058	.00000

RUN NO. 56/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-3.957	-.00151	-.08911	.06148	.00337	.00069	-.00104	.00481	-1.40924	-.05733	-.05590
4.630	-1.799	-.00175	-.05852	.05776	.00317	.00074	-.00103	.00498	-.94350	-.05733	-.05590
4.630	-.713	-.00190	-.03650	.05659	.00317	.00079	-.00101	.00431	-.62323	-.05733	-.05590
4.630	.393	-.00211	-.01647	.05633	.00350	.00074	-.00101	.00439	-.30623	-.05733	-.05590
4.630	1.394	-.00234	.00379	.05558	.00347	.00073	-.00099	.00372	.02576	-.05731	-.05589
4.630	2.348	-.00247	.02162	.05517	.00375	.00079	-.00099	.00380	.32599	-.05731	-.05589
4.630	4.449	-.00273	.06640	.05422	.00452	.00078	-.00098	.00399	.94718	-.06063	-.05589
5.[illegible]	6.4[illegible]	-.00[illegible]	.[illegible]0931	.05359	.00528	.00078	-.00095	.00340	1.43769	-.06063	-.05590
4.630	8.679	-.00307	.14283	.05306	.00624	.00066	-.00106	.00282	1.80121	-.05731	-.05589
4.630	12.955	-.00347	.23026	.05234	.00757	.00047	-.00091	.00097	2.11595	-.06063	-.05589
4.630	17.196	-.00395	.34498	.05109	.00874	.00032	-.00075	-.00083	2.07603	-.05733	-.05590
4.630	21.267	-.00460	.46421	.05020	.00960	.00012	-.00057	-.00335	1.90607	-.06063	-.05590
4.630	26.668	-.00575	.63715	.05279	.00978	.00010	-.00034	-.00642	1.63793	-.06063	-.05319
4.630	31.884	-.01180	.81682	.05151	.00751	.00020	-.00038	-.00880	1.40236	-.06063	-.05589
4.630	37.220	-.01485	1.01674	.04838	.00497	.00070	-.00042	-.01113	1.19173	-.06063	-.05589
4.630	42.388	-.01971	1.21895	.04557	.00161	.00115	-.00044	-.01550	1.01595	-.06063	-.05320
	GRADIENT	.00014	-.01890	-.00172	.00014	.00001	.00001	-.00014	.28598	-.00029	.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP6015) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3597 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGNO = 2.000
LAMDAF = 75.000 ELEVTR = -10.000
BDFLAP = .000 RUDFLR = 40.000

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

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.330	3.04805	-.15473	.08529	.01428	-.00391	.00319	-.05260	-1.51693	-.16917	-.16827
2.360	-2.326	3.04706	-.08460	.08452	.01158	-.00377	.00295	-.05108	-.92286	-.17199	-.16539
2.360	-1.183	3.04539	-.04958	.08416	.01035	-.00368	.00270	-.04914	-.56166	-.17179	-.16517
2.360	-.128	3.04549	-.01603	.08391	.00933	-.00359	.00247	-.04844	-.18872	-.16599	-.16224
2.360	.956	3.04618	.01581	.08353	.00792	-.00374	.00249	-.04903	.17200	-.16878	-.15931
2.360	1.933	3.04451	.04613	.08313	.00713	-.00369	.00223	-.04695	.51163	-.17453	-.15935
2.360	4.035	3.04559	.10835	.08268	.00534	-.00379	.00178	-.04611	1.13502	-.18316	-.16224
2.360	6.135	3.04689	.17399	.08181	.00351	-.00422	.00146	-.04590	1.64352	-.18604	-.16797
2.360	8.314	3.04845	.23639	.08033	.00235	-.00485	.00127	-.04634	1.95564	-.18889	-.17366
2.360	12.724	3.05206	.37343	.07776	.00029	-.00587	.00038	-.04596	2.19564	-.19171	-.18216
2.360	16.933	3.05720	.50723	.07385	-.00049	-.00622	-.00098	-.04497	2.12341	-.18884	-.19071
2.360	21.148	3.06482	.64543	.06957	-.00096	-.00727	-.00263	-.04461	1.93741	-.19175	-.19646
2.360	26.562	3.07222	.83082	.06287	-.00123	-.00730	-.00536	-.04634	1.67159	-.20032	-.19644
2.360	31.780	3.07844	1.02281	.05576	-.00493	-.00761	-.00496	-.04605	1.43344	-.21465	-.19933
2.360	37.224	3.08756	1.20938	.04333	-.00573	-.00857	-.00681	-.05292	1.22282	-.17748	-.15375
2.360	99.046	3.07747	1.23873	.03762	-.00257	-.00619	-.00325	-.05137	1.15908	-.14603	-.13666
	GRADIENT	-.00032	.03071	-.00031	-.00105	.00001	-.00016	.00077	.31621	-.00127	.00094

RUN NO. 61/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.464	3.04361	-.13637	.07703	.00887	-.00165	.00131	-.04826	-1.48687	-.12394	-.12596
2.860	-2.246	3.04089	-.07523	.07592	.00746	-.00182	.00142	-.04652	-.91608	-.12717	-.12594
2.860	-1.097	3.03983	-.04643	.07542	.00712	-.00188	.00141	-.04563	-.58954	-.12719	-.12273
2.860	-.067	3.03935	-.01764	.07495	.00678	-.00204	.00128	-.04476	-.23407	-.12396	-.11952
2.860	.977	3.03831	.00729	.07455	.00650	-.00210	.00127	-.04392	.08124	-.12070	-.11950
2.860	1.946	3.03870	.03417	.07369	.00619	-.00242	.00116	-.04381	.42310	-.12073	-.11953
2.860	4.037	3.03775	.08607	.07280	.00583	-.00281	.00089	-.04214	1.02604	-.12397	-.11952
2.860	6.100	3.03795	.14357	.07212	.00493	-.00330	.00078	-.04192	1.55335	-.13369	-.12598
2.860	8.296	3.03898	.20489	.07147	.00444	-.00385	.00069	-.04242	1.91892	-.13369	-.12921
2.860	12.641	3.04163	.32399	.06937	.00331	-.00495	-.00007	-.04207	2.17152	-.14345	-.13888
2.860	16.823	3.04335	.44678	.06664	.00282	-.00595	-.00084	-.04088	2.11492	-.14666	-.14536
2.860	20.927	3.04709	.57531	.06377	.00269	-.00671	-.00226	-.03906	1.94150	-.14666	-.14536
2.860	26.347	3.05357	.75564	.05903	.00114	-.00665	-.00387	-.03859	1.67661	-.14991	-.14214
2.860	31.623	3.05609	.94703	.05394	-.00175	-.00716	-.00322	-.04288	1.43436	-.14992	-.14538
2.860	36.941	3.05066	1.13825	.04418	-.00444	-.00904	-.00088	-.04680	1.22770	-.13369	-.09691
2.860	42.054	3.05395	1.33767	.04051	-.00731	-.00824	-.00283	-.04262	1.04329	-.14018	-.11639
	GRADIENT	-.00467	.02615	-.00051	-.00035	-.00014	-.00005	.00071	.30108	.00043	.00095

LA-10 LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB) (RP8015) (06 SEP 73)

REFERENCE DATA

SREF =	171.4720 SQ.IN.	XMRP =	16.8366 INCHES		
LREF =	25.5100 INCHES	YMRP =	.0000 INCHES		
BREF =	20.3597 INCHES	ZMRP =	.0000 INCHES		
SCALE =	.0188 SCALE				

PARAMETRIC DATA

BETA =	3.000	WINGNO =	2.000
LAMDAF =	75.000	ELEVTR =	-10.000
BDFLAP =	.000	RUDFLR =	40.000

RUN NO. 55/ 0 RN/L = 2.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
3.960	-4.211	3.05117	-.10763	.06505	.00479	-.00018	-.00041	-.03858	-1.40938	-.07068	-.07220
3.960	-2.057	3.04782	-.06262	.06295	.00466	-.00071	-.00021	-.03714	-.92734	-.07329	-.07220
3.960	-.904	3.04526	-.04085	.06188	.00461	-.00097	-.00013	-.03581	-.63776	-.07329	-.07221
3.960	.164	3.04388	-.01759	.06110	.00453	-.00115	-.00024	-.03452	-.29090	-.07329	-.06960
3.960	1.210	3.04281	.00264	.06050	.00467	-.00132	-.00025	-.03383	.02240	-.07329	-.06960
3.960	2.152	3.04263	.02132	.06005	.00484	-.00154	-.00024	-.03374	.31323	-.07329	-.06960
3.960	4.264	3.04158	.05499	.05935	.00510	-.00207	-.00034	-.03235	.94211	-.07591	-.07221
3.960	6.305	3.04062	.10539	.05877	.00540	-.00264	-.00032	-.03216	1.40440	-.07591	-.07481
3.960	8.567	3.04069	.15516	.05825	.00595	-.00330	-.00040	-.03194	1.79344	-.07852	-.07481
3.960	12.656	3.04201	.25620	.05754	.00686	-.00433	-.00080	-.03153	2.09527	-.08113	-.07481
3.960	17.165	3.04471	.369[illegible]	.05675	.00760	-.00521	-.00162	-.03053	2.05969	-.08113	-.07741
3.960	21.318	3.04851	.49311	.05608	.00796	-.00558	-.00255	-.02953	1.89619	-.07852	-.07741
3.960	26.720	3.05383	.66866	.05571	.00783	-.00585	-.00329	-.03071	1.63294	-.08113	-.07741
3.960	32.086	3.05614	.86056	.05391	.00631	-.00683	-.00262	-.03453	1.39316	-.08113	-.07741
3.960	37.490	3.05798	1.06609	.05104	.00370	-.00802	-.00140	-.03997	1.18202	-.08113	-.08001
3.960	42.670	3.06251	1.26735	.04699	.00113	-.00807	-.00193	-.04104	1.00726	-.07852	-.07741
	GRADIENT	-.00121	.02034	-.00068	.00004	-.00022	.00000	.00076	.28265	-.00047	.00018

RUN NO. 57/ 0 RN/L = 2.49 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
4.630	-4.001	3.03691	-.09884	.06116	.00339	-.00022	-.00118	-.03513	-1.40239	-.05731	-.05589
4.630	-1.820	3.03487	-.05857	.05862	.00319	-.00055	-.00119	-.03343	-.93754	-.05731	-.05589
4.630	-.704	3.03324	-.03689	.05730	.00320	-.00083	-.00107	-.03254	-.62648	-.05731	-.05589
4.630	.370	3.03131	-.01513	.05654	.00344	-.00100	-.00109	-.03186	-.27450	-.05733	-.05590
4.630	1.390	3.03116	.00257	.05590	.00350	-.00117	-.00108	-.03083	.02182	-.05731	-.05589
4.630	2.355	3.03017	.02081	.05532	.00355	-.00133	-.00109	-.02998	.32119	-.06063	-.05589
4.630	4.401	3.02997	.05997	.05424	.00456	-.00172	-.00108	-.02902	.94816	-.05731	-.05589
4.630	6.502	3.02836	.09958	.05349	.00534	-.00217	-.00121	-.02809	1.44182	-.06063	-.05589
4.630	8.667	3.02797	.14679	.05303	.00623	-.00272	-.00119	-.02781	1.83982	-.06063	-.05590
4.630	12.937	3.02811	.23944	.05234	.00762	-.00365	-.00160	-.02667	2.11874	-.06063	-.05590
4.630	17.149	3.02963	.34812	.05222	.00856	-.00443	-.00212	-.02630	2.07366	-.06063	-.05919
4.630	21.292	3.03233	.46768	.05243	.00906	-.00478	-.00290	-.02591	1.90566	-.06063	-.05919
4.630	26.648	3.03554	.63812	.05275	.00886	-.00529	-.00320	-.02746	1.63996	-.06063	-.05920
4.630	31.851	3.03711	.81914	.05137	.00738	-.00665	-.00211	-.03261	1.40486	-.06063	-.05919
4.630	37.188	3.03926	1.01832	.04915	.00477	-.00732	-.00159	-.03623	1.19381	-.06063	-.05589
4.630	42.296	3.04307	1.21463	.04526	.00178	-.00731	-.00201	-.03782	1.01984	-.06063	-.05589
	GRADIENT	-.00498	.01899	-.00082	.00013	-.00418	.00001	.00075	.28488	-.00015	-.00000

LA-10 LARC UPWT 1015 LO-100 ORB.(SHIPS) (BW2VFB) (RP8016) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.3100 INCHES YMRP = .0000 INCHES
BREF = 20.3997 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = .000 WINGNO = 2.000
LAMDAF = 75.000 ELEVTR = -10.000
BDFLAP = .000 RUDFLR = .000

RUN NO. 62/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.600	-.00131	-.14884	.06320	.00675	-.00041	-.00016	.00146	-1.91227	-.14147	-.13783
2.360	-2.392	.00240	-.07989	.06317	.00446	-.00056	-.00021	-.00095	-1.16162	-.14158	-.13794
2.360	-1.220	.00190	-.04460	.06288	.00341	-.00052	-.00033	-.00017	-.67779	-.13872	-.13224
2.360	-.118	.00196	-.00924	.06221	.00236	-.00081	-.00021	-.00002	-.14642	-.13300	-.12084
2.360	.912	.00178	.02092	.06168	.00138	-.00072	-.00019	-.00057	.32160	-.12451	-.10955
2.360	1.935	.00268	.05121	.06151	.00060	-.00062	-.00018	-.00112	.77684	-.12149	-.10652
2.360	4.013	.00447	.11172	.06135	-.00096	-.00063	-.00025	-.00223	1.55255	-.11868	-.11228
2.360	6.159	.00611	.17868	.06159	-.00261	-.00069	-.00009	-.00392	2.12729	-.12749	-.12676
2.360	8.305	.00422	.24270	.06165	-.00402	-.00074	.00002	-.00300	2.40719	-.14164	-.14085
2.360	12.689	.00569	.37412	.06133	-.00581	-.00076	.00032	-.00507	2.47516	-.17021	-.16362
2.360	16.995	.00736	.51103	.05988	-.00602	-.00078	.00038	-.00647	2.28043	-.18737	-.18356
2.360	21.160	.00909	.64621	.05807	-.00565	-.00032	.00044	-.00788	2.02378	-.19308	-.18925
2.360	26.518	.01222	.82460	.05537	-.00418	.00004	.00053	-.01040	1.70721	-.19602	-.19218
2.360	31.795	.01350	1.01461	.05156	-.00602	-.00027	.00097	-.01285	1.44394	-.20744	-.19502
2.360	37.205	.01925	1.20178	.04251	-.00553	.00018	.00110	-.01732	1.22476	-.17614	-.13261
2.360	39.117	.02165	1.26874	.04013	-.00556	-.00011	.00092	-.01840	1.15328	-.17035	-.12396
	GRADIENT	.00051	.03029	-.00026	-.00090	-.00003	-.00000	-.00034	.41399	.00321	.00416

RUN NO. 64/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.464	.00073	-.13167	.05998	.00222	-.00008	-.00084	.00233	-1.80726	-.11577	-.11137
2.860	-2.273	-.00108	-.07249	.05969	.00130	-.00009	-.00072	.00335	-1.12088	-.11571	-.11131
2.860	-1.124	.00051	-.04370	.05954	.00120	-.00009	-.00068	.00197	-.70426	-.11251	-.10813
2.860	-.111	.00094	-.01692	.05892	.00089	-.00009	-.00081	.00206	-.28503	-.10924	-.10164
2.860	.950	.00167	.00992	.05819	.00081	-.00004	-.00079	.00142	.15343	-.10927	-.09199
2.860	1.917	.00093	.03479	.05785	.00052	-.00010	-.00065	.00155	.55674	-.10606	-.09203
2.860	4.091	.00149	.08838	.05795	.00013	-.00011	-.00063	.00102	1.31073	-.11578	-.10171
2.860	6.069	.00205	.14203	.05797	-.00026	-.00017	-.00060	.00050	1.85923	-.11901	-.10815
2.860	8.273	.00199	.20326	.05783	-.00076	-.00007	-.00045	.00002	2.22984	-.12221	-.11456
2.860	12.627	.00274	.31978	.05745	-.00141	-.00009	-.00014	-.00169	2.37749	-.13197	-.12751
2.860	16.798	.00402	.44056	.05635	-.00142	-.00016	.00006	-.00339	2.23685	-.13844	-.13719
2.860	20.948	.00734	.57042	.05493	-.00113	.00005	.00001	-.00586	2.01021	-.14494	-.13721
2.860	26.336	.00917	.74885	.05285	-.00170	.00008	.00023	-.00809	1.70631	-.14491	-.13718
2.860	31.565	.01216	.93696	.05106	-.00388	.00010	.00060	-.01178	1.44504	-.14817	-.14365
2.860	36.935	.01691	1.12449	.04425	-.00413	.00051	.00059	-.01553	1.22661	-.13197	-.10170
2.860	42.027	.02044	1.31331	.04068	-.00647	.00027	.00084	-.01922	1.04276	-.13198	-.11140
	GRADIENT	.00018	.02571	-.00029	-.00023	-.00000	.00002	-.00021	.37317	.00050	.00208

LA-15 LARC UPWT 1015 LO-100 ORB. (SHIPS) (BW2VFB) (RP8017) (06 SEP 73)

REFERENCE DATA

SREF = 171.4720 SQ.IN. XMRP = 16.8366 INCHES
LREF = 25.5100 INCHES YMRP = .0000 INCHES
BREF = 20.3397 INCHES ZMRP = .0000 INCHES
SCALE = .0188 SCALE

PARAMETRIC DATA

BETA = 3.000 WINGNO = 2.000
LAMDAF = 75.000 ELEVTR = -10.000
BDFLAP = .000 RUDFLR = .000

RUN NO. 63/ 0 RN/L = 1.51 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.360	-4.541	3.05480	-.15098	.06371	.00595	-.00167	-.00074	-.04368	-1.92750	-.14176	-.13813
2.360	-2.367	3.05348	-.08034	.06354	.00405	-.00162	-.00074	-.04269	-1.16222	-.13623	-.13546
2.360	-1.148	3.05207	-.04359	.06337	.00278	-.00172	-.00087	-.04128	-.65739	-.13331	-.12971
2.360	-.124	3.05166	-.01160	.06287	.00198	-.00177	-.00087	-.04114	-.18226	-.12767	-.12125
2.360	.933	3.05149	.02024	.06252	.00098	-.00177	-.00100	-.03972	.30589	-.12767	-.11841
2.360	1.897	3.05062	.04711	.06261	.00024	-.00182	-.00112	-.03900	.70185	-.12761	-.12119
2.360	4.050	3.04990	.11075	.06221	-.00156	-.00202	-.00134	-.03809	1.51803	-.12491	-.12703
2.360	6.080	3.05152	.17304	.06241	-.00292	-.00240	-.00153	-.03857	2.05817	-.13907	-.13830
2.360	8.334	3.05215	.24360	.06218	-.00420	-.00307	-.00173	-.03831	2.39611	-.15050	-.14968
2.360	12.620	3.05552	.37154	.06152	-.00592	-.00418	-.00198	-.03979	2.47244	-.17617	-.16673
2.360	16.911	3.05956	.50653	.05940	-.00610	-.00514	-.00222	-.04185	2.28893	-.18474	-.18095
2.360	21.087	3.06248	.64544	.05784	-.00594	-.00658	-.00294	-.04134	2.03155	-.19325	-.18943
2.360	26.477	3.07041	.82857	.05534	-.00516	-.00678	-.00432	-.04213	1.71150	-.20175	-.19789
2.360	31.924	3.07438	1.01804	.05099	-.00636	-.00769	-.00514	-.04204	1.44467	-.21320	-.19794
2.360	37.154	3.06518	1.19940	.04352	-.00636	-.00908	-.00204	-.04639	1.22474	-.18189	-.16392
2.360	39.017	3.07151	1.23125	.03984	-.00289	-.00659	-.00308	-.04712	1.15753	-.14773	-.14408
	GRADIENT	-.00063	.03038	-.00019	-.00088	-.00004	-.00007	.00070	.41059	.00202	.00190

RUN NO. 65/ 0 RN/L = 1.50 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	L/D	CPB	CPC
2.860	-4.466	3.04990	-.13258	.06009	.00221	.00051	-.00247	-.04400	-1.81537	-.11258	-.11142
2.860	-2.281	3.04629	-.07333	.05977	.00128	.00023	-.00237	-.03752	-1.13170	-.11252	-.10814
2.860	-1.163	3.04463	-.04454	.05941	.00095	.00001	-.00225	-.03661	-.71849	-.11255	-.10817
2.860	-.080	3.04414	-.01571	.05887	.00086	-.00020	-.00238	-.03576	-.26542	-.10608	-.09851
2.860	.982	3.04397	.01119	.05836	.00055	-.00037	-.00237	-.03566	.17246	-.10607	-.09527
2.860	1.926	3.04290	.03648	.05229	.00050	-.00064	-.00237	-.03477	.57345	-.10615	-.09856
2.860	3.974	3.04254	.08672	.05818	.00017	-.00119	-.00235	-.03457	1.27776	-.11257	-.10819
2.860	6.110	3.04126	.14556	.05808	-.00052	-.00168	-.00235	-.03361	1.89107	-.11575	-.11458
2.860	8.159	3.04169	.20675	.05786	-.00101	-.00239	-.00231	-.03407	2.25353	-.12550	-.12430
2.860	12.439	3.04406	.32168	.05722	-.00162	-.00354	-.00235	-.03581	2.38769	-.13523	-.13077
2.860	16.821	3.04457	.44291	.05580	-.00161	-.00480	-.00241	-.03602	2.24585	-.14169	-.13720
2.860	21.086	3.04703	.57479	.05442	-.00132	-.00577	-.00270	-.03691	2.01321	-.14172	-.14046
2.860	26.326	3.05019	.75134	.05242	-.00186	-.00654	-.00340	-.03703	1.70998	-.14493	-.14366
2.860	31.877	3.05455	.93636	.04997	-.00352	-.00671	-.00436	-.03718	1.44786	-.14817	-.14366
2.860	36.889	3.04846	1.12352	.04390	-.00441	-.00671	-.00189	-.04098	1.22935	-.13524	-.10499
2.860	42.046	3.05072	1.32092	.04048	-.00711	-.00861	-.00302	-.03890	1.04274	-.13845	-.11462
	GRADIENT	-.00084	.02593	-.00026	-.00023	-.00020	.00001	.00064	.37599	.00045	.00105