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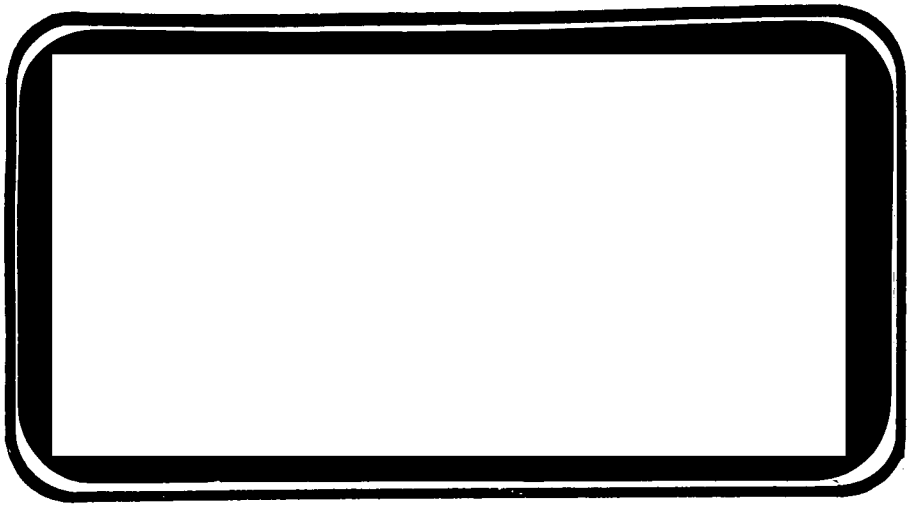

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

MANNED SPACECRAFT CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION CHRYSLER CORPORATION

March, 1973

DMS-DR-2017
NASA CR-123,851

RESULTS OF INVESTIGATIONS ON A 0.0405 SCALE MODEL PRR VERSION OF THE NR-SSV ORBITER IN THE NORTH AMERICAN AERONAUTICAL LABORATORY LOW SPEED WIND TUNNEL

By

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Prepared under NASA Contract Number NAS9-13247

By

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for

Aerodynamics Section
Flight Technology Branch
Engineering Analysis Division

Manned Spacecraft Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS

Test Number: NAAL 690

NASA Series No.: OA5

Date: October 12-17, 1972

FACILITY COORDINATOR:

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RESULTS OF INVESTIGATIONS ON A 0.0405 SCALE MODEL PRR VERSION OF THE NR-SSV ORBITER IN THE NORTH AMERICAN AERONAUTICAL LABORATORY LOW SPEED WING TUNNEL

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ABSTRACT

Experimental aerodynamic investigations were conducted in the NAAL Low Speed Wind Tunnel from October 12 through October 17, 1972 on a 0.0405 scale model Space Shuttle Vehicle (SSV) orbiter. The purpose of the test was to investigate the longitudinal and lateral-directional aerodynamic characteristics of the NR proposed PRR Space Shuttle Orbiter. Emphasis was placed on model component, wing-glove, and wing-body fairing effects, as well as elevon, aileron, and rudder control effectiveness.

Angles of attack from -5° to 30° and angles of sideslip of -5°, 0°, and 5° were tested. Static pressures were recorded on base, fuselage, and wing surfaces. Tufts and talc-kerosene flow visualization techniques were also utilized.

The aerodynamic force balance results are presented in plotted and tabular form.

TABLE OF CONTENTS

INDEX OF MODEL FIGURES

INDEX OF DATA FIGURES

INDEX OF DATA FIGURES (Continued)

INDEX OF DATA FIGURES (Concluded)

SCHEDULE OF COEFFICIENTS PLOTTED

I - CL, L/DF, CAF, CN, XCP/L, & CLM vs. Alpha

CL vs. CDF & CL vs. CLM

II - Alpha vs. CY, CYN, & CBL

NOMENCLATURE
General

SYMBOL	SADSAC SYMBOL	DEFINITION
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_l - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m^2, psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m^2, psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m^3, $slugs/ft^3$
		Reference & C.G. Definitions
A_b		base area; m^2, ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
ℓ_{REF} $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

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

NOMENCLATURE (Continued)

Body-Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
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	PLOT SYMBOL	DEFINITION
δ_{BF}	BDFLAP	body flap deflection angle, degrees; positive when deflected down.
δ_e	ELEVTR	elevator deflection angle, degrees; elevon deflection for pitch control, positive deflection trailing edge down.
$\delta_{e_{IB}}$	ELV-IB	inboard elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
$\delta_{e_{OB}}$	ELV-OB	outboard elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_R	RUDDER	rudder deflection angle, degrees; rudder deflection for directional control, positive deflection trailing edge left.
δ_{RF}	RUDFLR	rudder flare included angle, degrees; split rudder flare deflection for pitch and/or speed control.
XCP/ℓ	XCP/L	center of pressure location in percent of body length.

CONFIGURATIONS INVESTIGATED

The model for this test was an 0.0405 scale representation of the North American Rockwell PRR Space Shuttle Orbiter. The model was constructed around an aluminum balance block with a 3.25 inch diameter balance cavity. All model components, i.e., body mold lines, wings, etc., were constructed either of aluminum and/or wood and attached directly to the model balance block.

The available model configuration variables were: vertical tail with main engine cooling inlet; vertical tail rudder and/or rudder flare capability; full span split elevons with unswept hingeline; removable canopy, manipulator arm housing and orbital maneuvering system; and various wing-glove combinations.

The balance support system utilized for this test period was the 2.5 inch MK IX internal balance and NAAL sting support system.

The various model components tested are listed below. Table II delineates the configurations these components were tested in while Table III lists the pertinent dimensions of each component.

COMPONENT SYMBOL	DESCRIPTION
B2	Baseline delta wing fuselage
B3	Same as B2 with chine area modification
C2	Baseline canopy configuration
D2, D4, D5	Manipulator arm housings
E2, E3, E5	Full span constant chord elevons
F1	Baseline body flap
G1 thru G8	Gear doors
K2	Cooling inlet (configured to vertical tail V3)
M1	Orbital maneuvering system
M2	Orbital maneuvering system, high shoulder mounting
V3	Centerline vertical tail used on body B2
W2	Baseline delta wing
W5	Wing with 9% CR exp. to 12% CT (linear variation)
W8	Wing with small glove η = .40 b/2
W9	Wing with large glove η = .65 b/2
W11	Wing with -5° twist and rounded tips
W14	Wing - W11 with L.E. cuff mod.
W15	Wing - W14 with additional droop
W16	Wing - W11 with L.E. cuff removed, W15 L.E. extension
W17	Wing - W11 with modified knuckle
W18	Wing - W11 with increased tip area
X	Grit strips

TEST FACILITY DESCRIPTION

The North American Aeronautical Laboratory (NAAL) 7.75 x 11-Foot Wind Tunnel is a continuous flow, closed circuit, single return type tunnel capable of speeds up to 200 miles per hour. The test section is vented to atmospheric pressure and is 7.75 x 11 feet wide by 12 feet in length. Power is supplied by a 1250 horsepower nacelle mounted synchronous motor driving a 19 foot, seven blade, laminated birch propeller. The airspeed is controlled by varying the degree of coupling between the motor and propeller by means of a magnetic clutch. A damping screen and honeycomb section in the settling chamber upstream from the contraction cone (ratio 7.53 to 1) minimize turbulence in the test section. The NAAL Wind Tunnel has been in operation since June 1943 and calibrations are available over a wide range of test conditions.

Tests may be conducted using a variety of mounting systems, e.g.; a single strut, double strut, sting strut, reflection plane, cable suspension, and two dimensional wall. Aerodynamic data may be measured by a planar type external balance system or sting mounted internal balances. An Astrodata Automatic Data Acquisition System is used to collect, multiplex, digitize, and record 50 channels of force and/or pressure data on magnetic tape. These data are then rapidly reduced and plotted using automatic data processing equipment and an automatic digital plotter.

DATA REDUCTION

The aerodynamic force and moment data presented were measured by the Task Corporation 2.5 inch MK IX strain gage balance. The data have been corrected for model base and balance chamber pressure effects, model blockage influence on tunnel dynamic pressure, wall interference effects, sting and balance deflections, and model weight tare.

The pressure corrections to the base area were accomplished in the following manner:

$$CA_F = CA - CA_{BC} - CA_B - CA_T$$

where

$$CA_{BC} = -\left(\frac{P_{BC} - P_\infty}{q}\right)\left(\frac{A_{BC}}{S_{REF}}\right)$$

and

$$CA_B = -\left(\frac{P_B - P_\infty}{2}\right)\left(\frac{A_B}{S_{REF}}\right)$$

$$P_B = 1/5\ (P_{B1} + P_{B2} + P_{B3} + P_{B4} + P_{B5})$$

and

CA_T = Model axial force weight tare

B

DATA REDUCTION (Concluded)

The following reference dimensions were used for reducing the data to coefficient form:

A_B	=	Area of base (without OMS) ft^2	0.40002
A_B	=	Area of base (with OMS) ft^2	0.51939
A_{BC}	=	Area of balance cavity, ft^2	0.13635
S_{REF}	=	Area of wing, ft^2	5.2816
XMRP	=	Center of gravity, fus. sta.	43.0596
ZMRP	=	Center of gravity, waterplane	16.2000
L	=	Length of body, in.	53.7840
$\bar{c}$	=	Wing MAC, in.	21.2828
b	=	Wing span, in.	40.8119

TABLE I.

TEST : NAAL 690 DATE : OCT 12-17, '72

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq.)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.165	1.15 X 10^6/FT.	40 PSF	90-120° F
0.260	1.85 X 10^6/FT.	100 PSF	90-120° F

BALANCE UTILIZED: TASK 2.5" MK IX

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	1500 LBS	7.50 LBS	
SF	750 LBS	3.75 LBS	
AF	200 LBS	1.00 LBS	
PM			
RM			
YM	4000 IN.-LBS	20.00 IN.-LBS	

COMMENTS: ONLY ACCURACY QUOTED IS ½ OF ONE PERCENT OF THE RATED LOAD.

TABLE II.

TEST: NAAL - 690 | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE: POST TEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δe_I	CONTROL DEFLECTION δe_ϕ	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .165	.26	TEST RUN NUMBERS
RDG 001	B2C2D2MIFIW2E2V3K2G1	A	0	0	0	1	1		
002	↓	A	5			1	2		
003	B2C2D2MIFIW2E2V3K2G2	A	0			1	3		
004	↓	A	5			1	4		
005	B2C2D2MIFIW2E2V3K2G3	A	0			1	5		
006	↓	A	5			1	6		
007	B2C2D2MIFIW2E2V3K2G4	A	0			1	7		
008	↓	A	5			1	8		
009	B2C2D2MIFIW2E2V3K2G5	A	0			1	9		
010	↓	A	5			1	10		
011	B2C2D2MIFIW2E2V3K2G6	A	0			1	11		
012	↓	A	5			1	12		
013	B2C2D2MIFIW2E2V3K2G7	A	0			1	13		
014	↓	A	5			1	14		
015	B2C2D2MIFIW2E2V3K2G8	A	0			1	15		
RDG 016	↓	A	5	↓	↓	1	16		

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

C,L, | C,D,F, | C,L,M, | C,N, | C,A,F, | C,L,N, | C,S,L, | C,Y, | IX,C,P/L, | IL/DF, | IM,A,C,H, | IA,L,P,H,A,

COEFFICENTS | IDVAR (1) | IDVAR (2) | NDV

α OR β SCHEDULES

αA = -5, -3, -1, 0, 1, 3, 5, 6, 8, 10, 12, 14, 16, 17, 19, 21, 23, 25, 28

αD = -5, -3, -1, 0, 1, 3, 5, 6, 8, 10, 12, 14, 16, 17, 19, 21

TABLE II (CONTINUED)

TEST : NAAL-690 | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE :

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δeI	CONTROL DEFLECTION δeφ	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .165	.26	TEST RUN NUMBERS
RDG 017	B2C2D2M1F1W2E2V3K2	A	0	0	0	1	17		
018	↓	A	5	↓	↓	1	18		
020	↓	A	0	↓	↓	1		20	
021	↓	A	5	↓	↓	1		21	
022	B2C2D4M1F1W2E2V3K2	D	0	↓	↓	1		22	
RDG 023	↓	D	5	↓	↓	1		23	

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

COEFFICENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

TABLE II (CONTINUED)

TEST: NAAL-690 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δe_I	CONTROL DEFLECTION δe_ϕ	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .165	.26	TEST RUN NUMBERS
RDG 024	B2C2D2MIF1W2E2V3K2	A	0	-5	-5	1		24	
025	↓		0	-30	-30			25	
026	B2C2D2MIF1W2E2		0	0	0			26	
027	↓		5					27	
028	B3C2D2MIF1W2E2V3K2		0				28		
029	B2C2D2MIF1W2E2XV3K2		0					29	
030	B2C2D2MIF1W8E2V3K2		0	↓	↓			30	
031	↓		5	0	0			31	
032	B2C2D2MIF1W8E2V3K2		0	-5	-5			32	
033	↓		0	-30	-30			33	
035	B2C2D2MIF1W5E3V3K2		0	0	0			35	
036	↓		5	0	0			36	
037	B2C2D2MIF1W5E3V3K2		0	-5	-5			37	
038	↓	↓	0	-30	-30			38	
043	B2C2D2MIF1W11E3V3K2	D	0	0	0			43	
044	↓	D	5	0	0			44	
045	↓	D	-5	0	0	↓		45	
RDG 051	B2C2D2MIF1W11E3V3K2	A	0	-5	-5	1		51	

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

COEFFICENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

TABLE II (CONTINUED)

TEST : NAAL - 690 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE :

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δe_I	CONTROL DEFLECTION δe_ϕ	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .165	.26	TEST RUN NUMBERS
RDG 052	B2C2D2M1F1W11E3V3K2	A	0	-30	-30	1		52	
053	B2C2D2M2F1W11E3V3K2	A	0	-30	-30			53	
054	↓		0	-5	-5			54	
055	B2C2D2M2F1W11E3V3K2		0	0	0			55	
056	↓		5					56	
057	↓		-5					57	
058	B2C2D5M2F1W11E3V3K2		0					58	
059	↓		5					59	
060	↓		-5					60	
061	B2C2D5M2F1W11E3V3		0					61	
062	↓		5					62	
063	↓		-5					63	
064	B2C2D2M1F1W14E3V3K2	D	0				64		
065	↓		5				65		
066	↓		-5				66		
067	B2C2D2M1F1W14E3V3K2		0	-5	-5		67		
068	B2C2D2M1F1W15E3V3K2		0	-5	-5		68		
RDG 069	↓		5	-5	-5		69		

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

COEFFICENTS — IDVAR (1) — IDVAR (2) — NDV

α OR β SCHEDULES

TABLE II (CONTINUED)

TEST: NAAL-690 | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δe_I	CONTROL DEFLECTION δe_ϕ	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .165	.26	TEST RUN NUMBERS
RDG 070	B2C2D2M1F1W15E3V3K2	D	-5	-5	-5	1	70		
073		D	0	0	0		73		
074		D	5				74		
075		D	-5				75		
077	B2C2D2M1F1W16E3V3K2	A	0					77	
078			5					78	
079			-5					79	
080	B2C2D2M1F1W17E3V3K2		0				80		
081			0					81	
082			5					82	
083			-5					83	
084	B2C2D2M1F1W18E4V3K2		0	0	0		84		
085		A	0	-5	-5		85		
086	B2C2D2M1F1W17E5V3K2	D	0	0	0		86		
087			0	-10	-10		87		
088			0	0	-10		88		
089	B2C2D2M1F1W09E2V3K2		0	0	0			89	
RDG 090			5	0	0			90	

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

COEFFICENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

TABLE II (CONCLUDED)

TEST: NAAL-690 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_{e_I}	CONTROL DEFLECTION δ_{e_ϕ}	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) .165	.26	TEST RUN NUMBERS
RDG 091	B2C202MIFIW09E2V3K2	D	-5	0	0	1		91	
RDG 092	↓	↓	0	-5	-5	1		92	
RDG 093	↓	↓	0	-30	-30	1		93	

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

α OR β SCHEDULES — COEFFICENTS — IDVAR (1) — IDVAR (2) — NDV

TABLE III. MODEL COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: BODY - B2

GENERAL DESCRIPTION: Delta Wing Fuselage per NAR Lines VL70-000003A.

Model Scale = 0.0405

DRAWING NUMBER: VL70-000003A

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length , in.	1328.33	53.797
Max. Width	237.96	9.637
Max. Depth	238.00	9.639
Fineness Ratio	5.527	5.527
Area		
Max. Cross-Sectional	315.07	0.517
Planform		
Wetted		
Base		

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY - B3

GENERAL DESCRIPTION: Delta wing fuselage with modification to chine area (in tunnel)

scale model =.0405

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	1328.3	53.797
Max. Width	237.96	9.637
Max. Depth	238.00	9.639
Fineness Ratio	5.527	5.527
Area		
Max. Cross-Sectional	315.07	.517
Planform	-	-
Wetted	-	-
Base	-	-

DSM 291-10 Exp Date 2/2/73

TABLE III. (CONTINUED)

MODEL COMPONENT: Canopy C2

GENERAL DESCRIPTION: ATP baseline configuration.

Model Scale = 0.0405

DRAWING NUMBER: VL70-000003A

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	344.00	13.932
Max. Width	477.33	19.332
Max. Depth	328.67	13.311
Fineness Ratio	-	-
Area		
Max. Cross-Sectional	-	-
Planform	-	-
Wetted	-	-
Base	-	-

TABLE III. (CONTINUED)

MODEL COMPONENT: Manipulator Housing - D2

GENERAL DESCRIPTION:

Scale Model = 0.0405

DRAWING NUMBER: VL70-000003A

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	967.0	39.164
Max. Width	53.317	2.159
Max. Depth	20.00	0.810
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. (CONTINUED)

MODEL COMPONENT: Manipulator Housing - D4

GENERAL DESCRIPTION: Molded D4 - Smooth with Canopy C2.
Fabricated in tunnel.

Scale Model = 0.0405

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length , in.	1010.96	40.944
Max. Width , in.	53.317	2.159
Max. Depth , in.	7.407	0.299
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY - Manipulator Housing D 5

GENERAL DESCRIPTION: Remove D2 & Replace with two manipulator housing mounted on side of fuselage longitudinal from fuselage station _____ from WP457.0 infs to aft portion of oms pod. in tunnel mod. scale model = .0405

DRAWING NUMBER: DATA FOR 1 of 2 sides

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	817.06	33.090
Max. Width	24.691	.999
Max. Depth	12.346	.500
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

C

TABLE III. (CONTINUED)

MODEL COMPONENT: Elevon - E2 (data for 1 of 2 sides)

GENERAL DESCRIPTION: Full span constant chord elevon

Utilized with Wings W2, W8, W9, W3, W4

Scale Model = .0405

TEST

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area , ft^2	347.87	.5706
Span (equivalent) , in	384.0	15.552
Inb'd equivalent chord ,in	134.38	5.442
Outb'd equivalent chord , in	134.38	5.442
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.209	0.209
At Outb'd equiv. chord	0.805	0.805
Sweep Back Angles, degrees		
Leading Edge	-0.183	-0.183
Tailing Edge	-0.183	-0.183
Hingeline	-0.183	-0.183
Area Moment (Normal to hinge line) Product of Area and Mean Chord	3880.58	0.258

TABLE III. (CONTINUED)

MODEL COMPONENT: Elevon - E3 (Data for side 1 of 2)

GENERAL DESCRIPTION: Full span constant chord elevon used with Wing W5, W11, W14, W15 and W16.

Scale Model = 0.0405

TEST

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area true, ft^2	354.59	0.58162
Span (equivalent), in	384.00	15.552
Inb'd equivalent chord , in	134.38	5.442
Outb'd equivalent chord , in	134.38	5.442
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.212	0.212
At Outb'd equiv. chord	0.759	0.759
Sweep Back Angles, degrees		
Leading Edge	-0.183	-0.183
Tailing Edge	-0.183	-0.183
Hingeline	-0.183	-0.183
Area Moment (Normal to hinge line), ft^3 Product of Area and Mean Chord	3964.59	0.26333

TABLE III. (CONTINUED)

MODEL COMPONENT: ELEVON - E4 (Data for 1 of 2 sides)

GENERAL DESCRIPTION: Full span constant chord elevon used with Wing W18.

Scale Model = 0.0405

TEST

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area, ft^2	400.38	0.656
Span (equivalent), in	436.63	17.683
Inb'd equivalent chord, in	134.38	5.442
Outb'd equivalent chord, in	134.38	5.442
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.212	0.212
At Outb'd equiv. chord	1.0921	1.0921
Sweep Back Angles, degrees		
Leading Edge	-0.183	-0.183
Tailing Edge	-0.183	-0.183
Hingeline	-0.183	-0.183
Area Moment (Normal to hinge line)ft^3 Product of Area and Mean Chord	4473.95	0.297

TABLE III. (CONTINUED)

MODEL COMPONENT: Elevon E5 Data for 1 of 2 sides

GENERAL DESCRIPTION: Full span constant chord elevon used with wing W-10

Scale Model = .0405

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area - ft^2	177.295	0.291
Span (equivalent)	384.00	15.552
Inb'd equivalent chord	67.190	2.721
Outb'd equivalent chord	67.190	2.721
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.106	0.106
At Outb'd equiv. chord	0.380	0.380
Sweep Back Angles, degrees		
Leading Edge	-0.183	-0.183
Tailing Edge	-0.183	-0.183
Hingeline	-0.183	-0.183
Area Moment (Normal to hinge line)	1982.30	.13168

TABLE III. (CONTINUED)

MODEL COMPONENT: Elevon E5 (Data for 1 of 2 sides)

GENERAL DESCRIPTION: Full span constant chord elevon used with wing W-17

Scale Model = 0.0405

Test
DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area , ft^2	354.59	.582
Span (equivalent)	384.00	15.552
Inb'd equivalent chord , in	134.38	5.442
Outb'd equivalent chord, in	134.38	5.442
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.212	0.212
At Outb'd equiv. chord	0.759	0.759
Sweep Back Angles, degrees		
Leading Edge	-0.183	-0.183
Tailing Edge	-0.183	-0.183
Hingeline	-0.183	-0.183
Area Moment (Normal to hinge line) ft^3 Product of area & mean chord	3964.59	.26333

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY - Flap F1 ATP baseline

GENERAL DESCRIPTION: Flap located on aft portion of fuselage trailing edge.

Model Scale = .0405

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length- in	236.543	9.58
Fus L.E. - in.	1528.3	61.896
Trailing Edge - in.	1650.56	66.848
Span - in.	236.543	9.580
Area - ft^2		
Max. Cross-Sectional	199.752	.32764
Planform	-	-
Wetted	-	-
Base	-	-

TABLE III. (CONTINUED)

MODEL COMPONENT: G-1 Gear Doors

GENERAL DESCRIPTION: Configuration consist of two (2) nose gear doors and one (1) main gear door. Gear fully extended. Ref. sketch 1 and 2.

Scale Model = 0.0405 Doors in full open position.

TEST

DRAWING NUMBER: SSA-00007

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

Ref. Point: Top right hand corner

Nose Door (A) WP = 4.595 in MS: 11.605 in.FS
MS = 13.786: 300.39506 in.FS

Door (B) WP = 4.56 in.MS: 11.64 in.FS
MS = 11.836 in.MS: 292.24691 in.FS

Main Door WP = 5.546 in.MS: 10.654 in. FS
MS = 48.177 in. MS

Frontal Area $\Delta\epsilon B$ = .16 x .72 = .1152 in^2 MS
70.2431 in^2 MS

Frontal Area of Main = .16 x 2.31 = 0.3696 in. MS
225.36585 in^2 MS

TABLE III. (CONTINUED)

MODEL COMPONENT: G-2 Gear Doors

GENERAL DESCRIPTION: Same as G-1: Partially gear door same dimensional data as G-1.

Scale Model = 0.0405

DRAWING NUMBER: SSA-00007

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. (CONTINUED)

MODEL COMPONENT: G-3 - Gear Doors

GENERAL DESCRIPTION: Variation of main door full open and nose flap. Ref. Sketches 2 and 3.

Scale Model = 0.0405

DRAWING NUMBER: SSA-00007

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

NOSE BODY FLAP LOCATION
WP = 4.375 in. MS: 11.825 in. FS
MS = 13.77 in. MS: 340.00 in. FS

Mounted near vert. position
Frontal Area = 2.651 in^2 MS
11.221 ft^2 FS

1. Main door in full open position.
2. Gear in full extended position

TABLE III. (CONTINUED)

MODEL COMPONENT: G-4 Gear Doors

GENERAL DESCRIPTION: Return to ATP baseline + body flap located behind nose gear. Ref. Sketch (3).

Scale Model = 0.0405

DRAWING NUMBER: SSA-00007

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

Body Flap Location

WP = 4.375 in. MS: 11.825 in. FS
MS = 13.77 in. MS: 340.00 in. FS

Frontal Area = 2.65 $in.^2$ MS
11.22121 ft^2 FS

TABLE III. (CONTINUED)

MODEL COMPONENT: G-5 Gear Doors

GENERAL DESCRIPTION: Same as G-4 nose flap mounted at 60 deg.

Scale Model = 0.0405

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. (CONTINUED)

MODEL COMPONENT: G-6 Gear Doors

GENERAL DESCRIPTION: Return to ATP baseline G-1 install body flap at 45 deg. ahead of main gear.

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

Body Flap 15.0 x 1.5 = 22.5 in^2 MS
95.27439 ft^2 FS

Location MS = 42.6465 in. MS: 1053.0 in. FS
WP = 5.486 in. MS: 10.714 in.FS

TABLE III. (CONTINUED)

MODEL COMPONENT: G-7 Gear Door

GENERAL DESCRIPTION: Same as G-6 except body flap decreased to 30 deg.

Model Scale = 0.0405

DRAWING NUMBER: SSA-00007

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. (CONTINUED)

MODEL COMPONENT: G-8 Gear Door

GENERAL DESCRIPTION: Same as G-6 body flap increased to 60 deg.

Model Scale = 0.0405

DRAWING NUMBER: SSA-00007

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY - K2 Coolant Inlet

GENERAL DESCRIPTION: Coolant Inlet configured to vertical V3 tunnel modification

Scale Model = .0405

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	213.790	
Max. Width		
Max. Depth (Dia) - in.	38.0	
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

Location

BP = 0.00
WP = 21.829INMS
= 538.987INFS

Fuselage Location FS = 1236.21INFS
50.0665INMS

TABLE III. (CONTINUED)

MODEL COMPONENT: Orbital Maneuvering System M1

GENERAL DESCRIPTION: Data for one of two sides.

Scale Model = 0.0405

DRAWING NUMBER: VL70-000012

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length , in	276.67	11.205
Max. Width , in	100.67	4.077
Max. Depth	106.00	4.290
Fineness Ratio	-	-
Area		
Max. Cross-Sectional	-	-
Planform	-	-
Wetted	-	-
Base	-	-

TABLE III. (CONTINUED)

MODEL COMPONENT: BODY - Orbital maneuvering system M2

GENERAL DESCRIPTION: Orbital maneuvering sys located on fuselage B2 high sholder mounting located at WP = 457.00 in FS

Model Scale = .0405

DRAWING NUMBER: Data for 1 of 2 sides

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	284.938	11.54
Max. Width	100.246	4.06
Max. Depth	104.197	4.22
Fineness Ratio	-	-
Area		
Max. Cross-Sectional	-	-
Planform	-	-
Wetted	-	-
Base	-	-

DSM 291-10 Exp Date 2/2/73

TABLE III. (CONTINUED)

MODEL COMPONENT: Vertical V3

GENERAL DESCRIPTION: Centerline vertical used on body B2 double wedge airfoil with rudder/speed brake

Scale Model .0405

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area - ft^2	404.95	0.664
Planform		
Blanketed (inc above)	32.05	.052
Span (equivalent)	289.88	11.740
Aspect Ratio	1.565	1.565
Rate of Taper	0.504	0.504
Taper Ratio	.434	.434
Diehedral Angle, degrees	-	-
Incidence Angle, degrees	-	-
Aerodynamic Twist, degrees	-	-
Toe-In Angle - deg.	0.0	0.0
Cant Angle - deg.	0.0	0.0
Sweep Back Angles, degrees		
Leading Edge	45.00	45.00
Trailing Edge	26.361	26.361
0.25 Element Line	41.150	41.150
Chords:		
Root WP 520.00	258.350	10.463
Tip, (equivalent)WP 809.885	112.123	4.541
MAC WP 645.875	194.855	7.892
Fus. Sta. of .25 MAC	1492.279	60.437
W.P. of .25 MAC	645.875	26.157
B.L. of .25 MAC	0.0	0.0
Airfoil Section 5° Half Angle Double wedge with rounded Root L.E. = 1.6% local chord.		
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: WING W-2

GENERAL DESCRIPTION: Delta wing with -5° twist and rounded wing tips. Wing blends to body. Equiv. span is 78.926% of theoretical delta wing.

Scale Model = .0405

TEST
DRAWING NUMBER: VL70-000003A

DIMENSIONS:	**FULL-SCALE**	**MODEL SCALE**
TOTAL DATA		
Area (in W.R.P.) - Ft^2		
Planform	3221.92	5.284
Wetted	-	-
Span (equivalent) - in	997.46	40.397
Aspect Ratio	2.144	2.144
Rate of Taper	1.191	1.191
Taper Ratio	0.219	0.219
Diehedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	3.000	3.000
Aerodynamic Twist, degrees about T.E.	-5.000	-5.000
Incidence Root	3.000	3.000
Incidence Tip	-2.000	-2.000
Sweep Back Angles, degrees (in W.R.P.)		
Leading Edge	49.910	49.910
Trailing Edge	-0.183	-0.183
0.25 Element Line	41.675	41.675
Chords:		
Root (Wing Sta. 0.0)	761.86	30.855
Tip, (equivalent)	166.68	6.751
MAC	527.86	21.378
Fus. Sta. of .25 MAC	1132.98	45.886
W.P. of .25 MAC	304.55	12.334
B.L. of .25 MAC	196.09	7.942
Airfoil Section		
Root		
Tip		
EXPOSED DATA		
Area (in W.R.P.) - ft^2	2237.69	3.670
Span, (equivalent) - in	795.86	32.232
Aspect Ratio	1.966	1.966
Taper Ratio	0.260	0.260
Chords		
Root (Equiv.)	641.57	25.984
Tip (Equiv.)	166.68	6.758
MAC	450.63	18.251
Fus. Sta. of .25 MAC	1190.82	48.228
W.P. of .25 MAC	305.47	12.371
B.L. of .25 MAC	260.80	10.562
Leading Edge Cuff Plan Form Area - $ft.^2$	201.27	.3301
L.E. intersects Fus. ML at Sta.	513.33	20.789
L.E. intersects Wing at Sta.	1146.67	46.440

TABLE III. (CONTINUED)

MODEL COMPONENT: Wing W-5

GENERAL DESCRIPTION: 9% CR EXP to 12% CT Linear VAR.

Scale Model = .0405

Test

DRAWING NUMBER: VL70-006001A

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area - ft^2	3219.54	5.280
Planform		
Wetted		
Span (equivalent)	82.93	3.358
Aspect Ratio	2.136	2.136
Rate of Taper	1.191	1.191
Taper Ratio	0.2206	0.2206
Diehedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	3.000	3.000
Aerodynamic Twist, degrees (about TE)	-5.000	-5.000
Incidence Root (BP=100.77)	3.000	3.000
Incidence Tip (503.85=BP)	-2.000	-2.000
Sweep Back Angles, degrees		
Leading Edge	49.910	49.910
Trailing Edge	-0.183	-0.183
0.25 Element Line	41.675	41.675
Chords:		
Root (Wing Sta. 0.0)	761.91	30.857
Tip, (equivalent)	168.10	6.808
MAC	528.19	21.392
Fus. Sta. of .25 MAC	1132.69	45.874
W.P. of .25 MAC	291.61	11.810
B.L. of .25 MAC	195.84	7.931
Airfoil Section		
Root		
Tip		
EXPOSED DATA		
Area - ft^2	2235.55	3.667
Span, (equivalent)	66.14	2.678
Aspect Ratio	1.956	1.956
Taper Ratio	0.262	0.262
Chords		
Root (BP = 100.95)	641.65	25.987
Tip (BP = 498.504)	168.10	6.808
MAC	451.03	18.267
Fus. Sta. of .25 MAC	1190.98	48.235
W.P. of .25 MAC	292.54	11.848
B.L. of .25 MAC	260.49	10.550
Leading Edge Cuff	290.305	.476
Plan Form Area	480.00	19.440
L.E. Intersects Fus ML ΔT	1157.74	46.888
L.E. Intersects Wing ΔT		

TABLE III. (CONTINUED)

MODEL COMPONENT: Wing W-8 (Small Glove) $\eta = .40^{b/2}$

GENERAL DESCRIPTION: See wing W11 for Basic Data

(Alt. "B")

Scale Model = 0.0405

TEST
DRAWING NUMBER: VL70-006002

DIMENSIONS:	**FULL-SCALE**	**MODEL SCALE**
TOTAL DATA		
Area		
Planform		
Wetted		
Span (equivalent)		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge		
Trailing Edge		
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
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		
Leading Edge Cuff		
Total Data	127.82	.210

TABLE III. (CONTINUED)

MODEL COMPONENT: Wing W-9 (Large Glove) $\eta = .65^{b}/2$

GENERAL DESCRIPTION: See wing W11 for basic data (Alt. "C")

Scale Model = 0.0405

DRAWING NUMBER: VL70-006003

DIMENSIONS:	**FULL-SCALE**	**MODEL SCALE**
TOTAL DATA		
Area		
Planform		
Wetted		
Span (equivalent)		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge		
Trailing Edge		
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
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		
Leading Edge Cuff Total Data =	338.44	.555

TABLE III. (CONTINUED).

MODEL COMPONENT: Wing W11 (W-5 basic)

GENERAL DESCRIPTION: Delta wing with -5° twist and rounded wing tips. Wing blends into body at BP = 108.0. Rotate L.E. down 18° ⊥ to 10% element line between BP 10.203 to BP 18.373 scale model =.0405

DRAWING NUMBER: VL70-006001

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (in W.R.P.) - ft^2		
Planform	3198.54	
Wetted		
Span (equivalent) - in	81.66	
Aspect Ratio	2.08	
Rate of Taper	1.19117	
Taper Ratio	.23215	
Diehedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	3.000	3.000
Aerodynamic Twist, degrees (about TE)	-5.000	-5.000
Incidence Root (108) BP	3.000	
Incidence Tip (503.86) BP	-2.000	
Sweep Back Angles, degrees		
Leading Edge	49.910	
Trailing Edge	-0.183	
0.25 Element Line	41.674	
Chords:	761.507	
Root (Wing Sta. 0.0)		
Tip, (equivalent)	176.782	
MAC	529.876	
Fus. Sta. of .25 MAC	1395.894	
W.P. of .25 MAC	291.591	
B.L. of .25 MAC	194.095	
Airfoil Section		
Root		
Tip		
EXPOSED DATA		
Area	2152.85	
Span, (equivalent)	63.697	
Aspect Ratio	1.885	
Taper Ratio	.0279	
Chords		
Root	632.813	
Tip	176.782	
MAC	447.648	
Fus. Sta. of .25 MAC	1193.025	
W.P. of .25 MAC	292.518	
B.L. of .25 MAC	292.998	
Leading Edge Cuff	290.305	.476
Plan form area (WRP)-ft^2	480.00	19.440
L.E. Intersects Fusml at stat.	1157.736	46.888
L.E. intersects wing at sta. at.		

TABLE III. (CONTINUED)

MODEL COMPONENT: Wing W-14 (Basic Wing W-11) Ref W-11

GENERAL DESCRIPTION: Dimensional data is the same as W-11; except modification of leading edge cuff

Scale Model = .0405

Test
DRAWING NUMBER:

DIMENSIONS:	**FULL-SCALE**	**MODEL SCALE**
TOTAL DATA		
Area (in W.R.P.) - ft^2		
Planform		
Wetted		
Span (equivalent) in		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees (about TE)		
Incidence Angle (Root)		
Incidence Angle (Tip)		
Sweep Back Angles, degrees		
Leading Edge		
Trailing Edge		
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
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		
Leading Edge Cuff		
Plan form area in (W.R.P.) ft^2	345.888	.568
L.E. intersects fus ml at stat.	440.00	17.82
L.E. intersects wing at stat.	815.11	33.012

TABLE III. (CONTINUED)

MODEL COMPONENT: Wing W15 (Basic Wing W-11) Ref W-11

GENERAL DESCRIPTION: Dimensional data is the same as W-11: Leading edge cuff from W14 adding more droop from b/2 = .75 (leading edge extension) to MS 54.46238 Scale Model = 0.0405

Test
DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area		
Planform		
Wetted		
Span (equivalent)		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge		
Trailing Edge		
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
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		
Leading edge extension		
Total area	22.670	.0372
MS 48.462 to 48.965 (B.P. 15.30)		
MS 54.463 (BP = 19.539)		

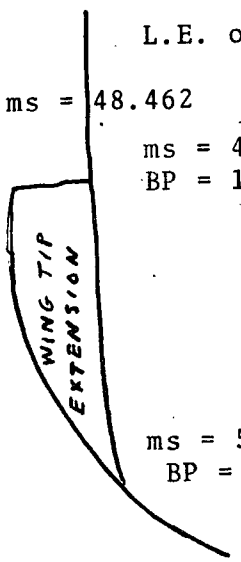


TABLE III. (CONTINUED)

MODEL COMPONENT: Wing W16 (Basic W11) Ref dimensional data W11,

GENERAL DESCRIPTION: Remove L.E. cuff which made W14; Leading edge extension is same as W15 b/2 = .75 to MS = 54.46238

Scale Model = 0.0405

Test

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area		
Planform		
Wetted		
Span (equivalent)		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Dihedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge		
Trailing Edge		
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
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		

Leading edge cuff see W-11

Leading edge wing extension see W-15

TABLE III. (CONTINUED)

MODEL COMPONENT: Wing W17 dimensional data same as W-11;

GENERAL DESCRIPTION: W11, Was modified to make W17 by filing knuckle at 10% element line

Scale Model = 0.0405

Test

DRAWING NUMBER:

DIMENSIONS:	**FULL-SCALE**	**MODEL SCALE**
TOTAL DATA		
Area		
Planform		
Wetted		
Span (equivalent)		
Aspect Ratio		
Rate of Taper		
Taper Ratio		
Diehedral Angle, degrees		
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge		
Trailing Edge		
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)		
Tip, (equivalent)		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
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. (CONCLUDED)

MODEL COMPONENT: Wing W18 (W-11 modification) by increasing wing

GENERAL DESCRIPTION: tip area theoretical tip chord = 4 inches MS

Scale Model = .0405

Test

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (in W.R.P.) - ft^2		
Planform	3291.82	5.400
Wetted		
Span (equivalent) - in	89.18	3.612
Aspect Ratio	2.416	2.416
Rate of Taper	1.191	1.191
Taper Ratio	0.161	0.161
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	3.000	3.000
Aerodynamic Twist, degrees about TE	-5.000	-5.000
Incidence, Root (BP = 108)	3.000	3.000
Incidence Tip (BP = 503.86)	-2.000	-2.000
Sweep Back Angles, degrees (in WRP)		
Leading Edge	49.910	49.910
Trailing Edge	-0.183	-0.183
0.25 Element Line	41.675	41.675
Chords: in.		
Root (Wing Sta. 0.0)	761.405	30.837
Tip, (equivalent)	122.85	4.975
MAC	518.98	21.019
Fus. Sta. of .25 MAC	1139.60	46.154
W.P. of .25 MAC	308.19	12.482
B.L. of .25 MAC	203.14	8.227
Airfoil Section		
Root		
Tip		
EXPOSED DATA		
Area (in W.R.P.) - ft^2	2244.49	3.682
Span, (equivalent) in	71.18	2.883
Aspect Ratio	2.257	2.257
Taper Ratio	0.194	0.194
Chords in.		
Root	632.52	25.617
Tip	122.85	4.975
MAC	434.999	17.617
Fus. Sta. of .25 MAC	1202.50	48.701
W.P. of .25 MAC	309.20	12.523
B.L. of .25 MAC	273.51	11.077
Leading edge cuff		
Planform area in WRP - ft^2	*See leading edge cuff	
L.E. intersects fus ml at sta. - in.	(W-5)	
L.E. intersects wing at sta. - in.		

E

NOTES:

1. POSITIVE DIRECTIONS OF FORCE COFFICIENTS MOMENT COEFFICIENTS, AND ANGLES ARE INDICATED BY ARROWS.

2. FOR CLARITY, ORIGINS OF WIND AND STABILITY AXES HAVE BEEN DISPLACED FROM THE CENTER OF GRAVITY.

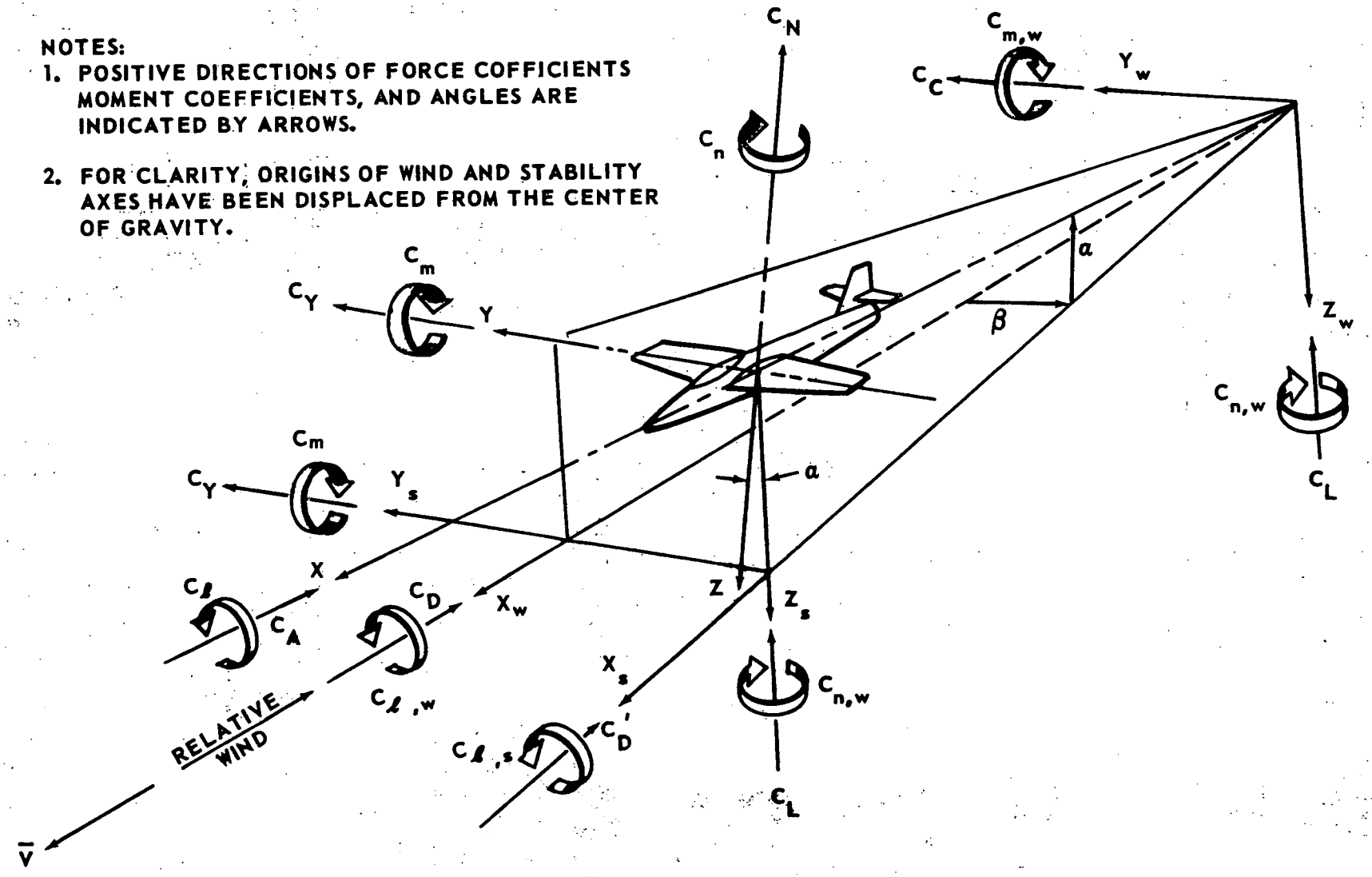
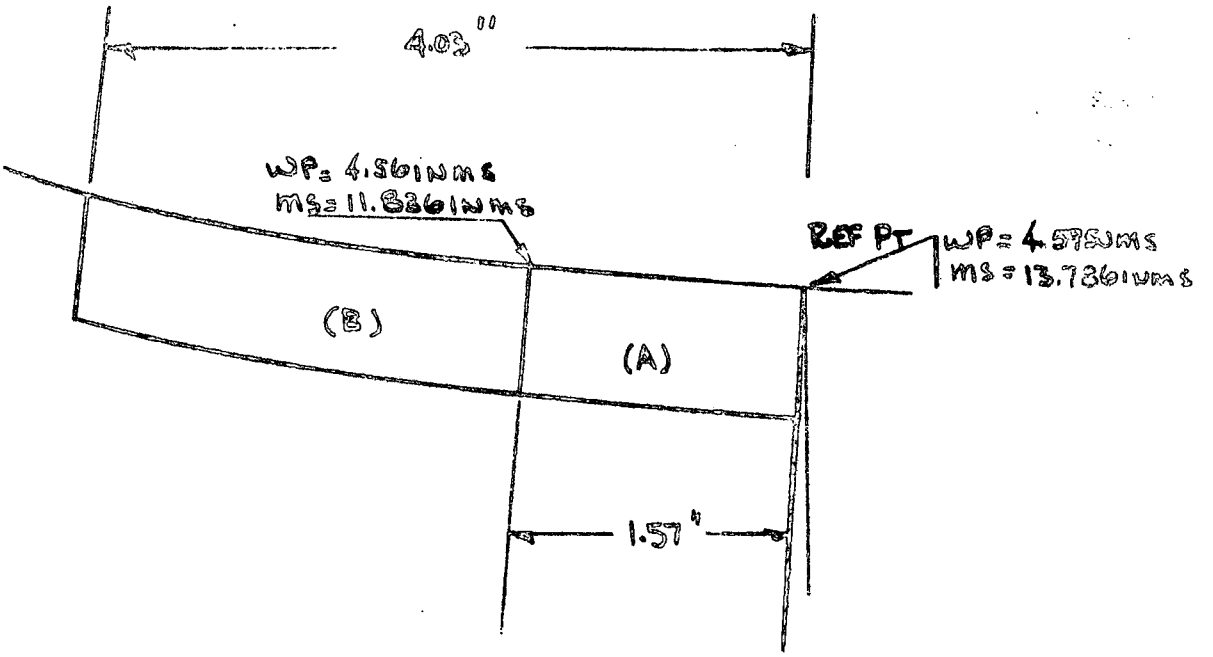
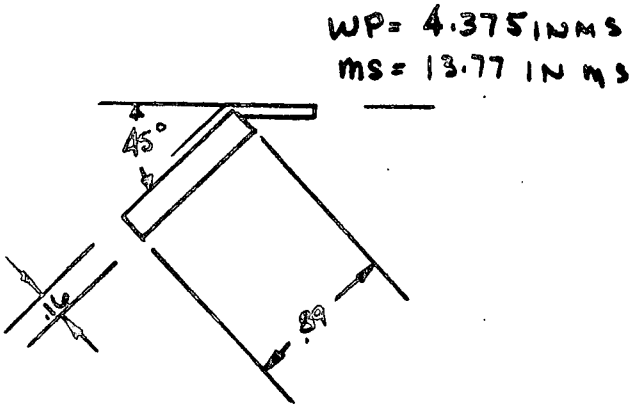


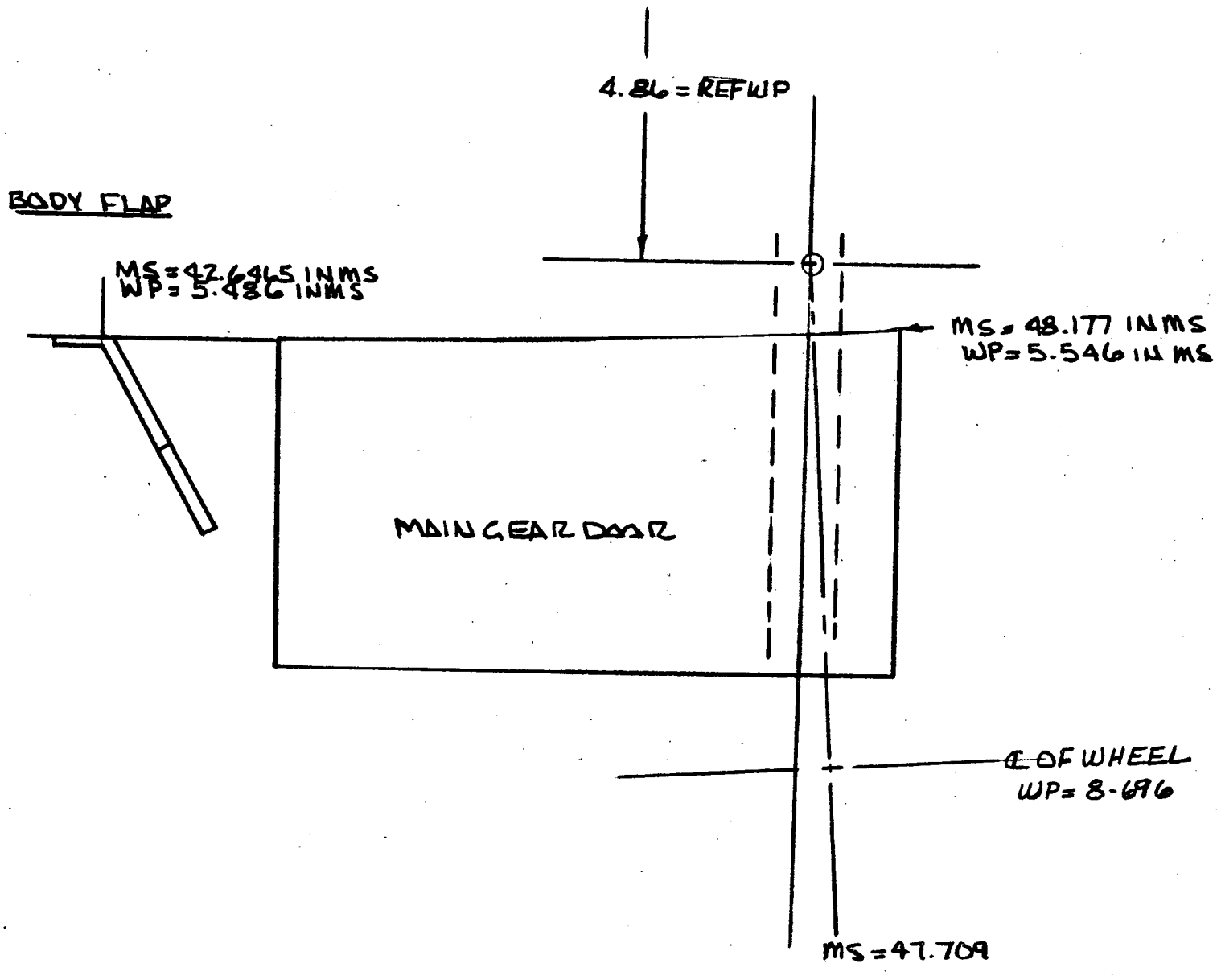
Figure 1. - Axis systems.





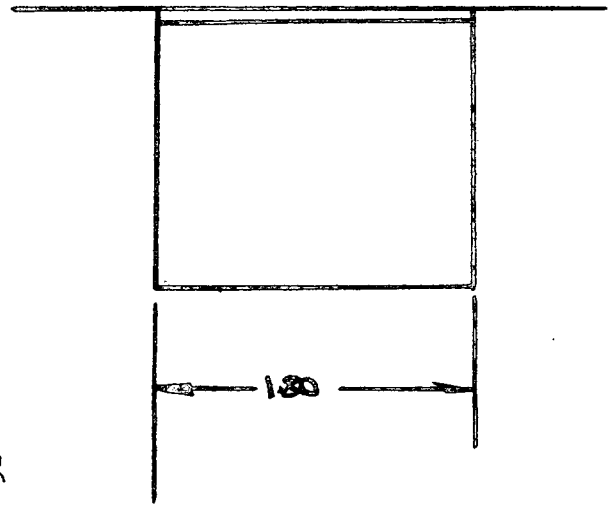
(a) Nose gear doors

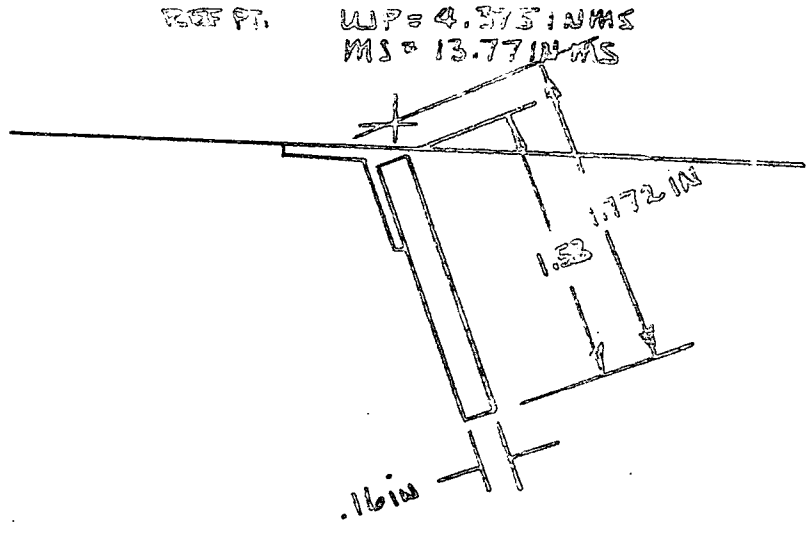
Figure 2. - Model component details.



(b) Main gear door with gear fully extended

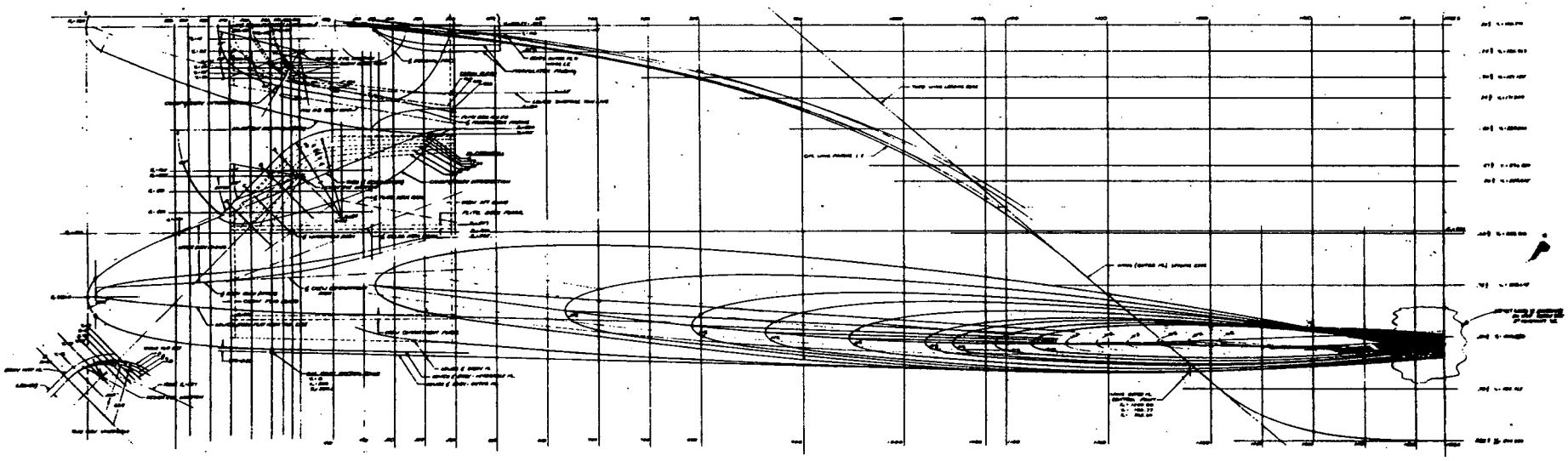
Figure 2. - Continued.





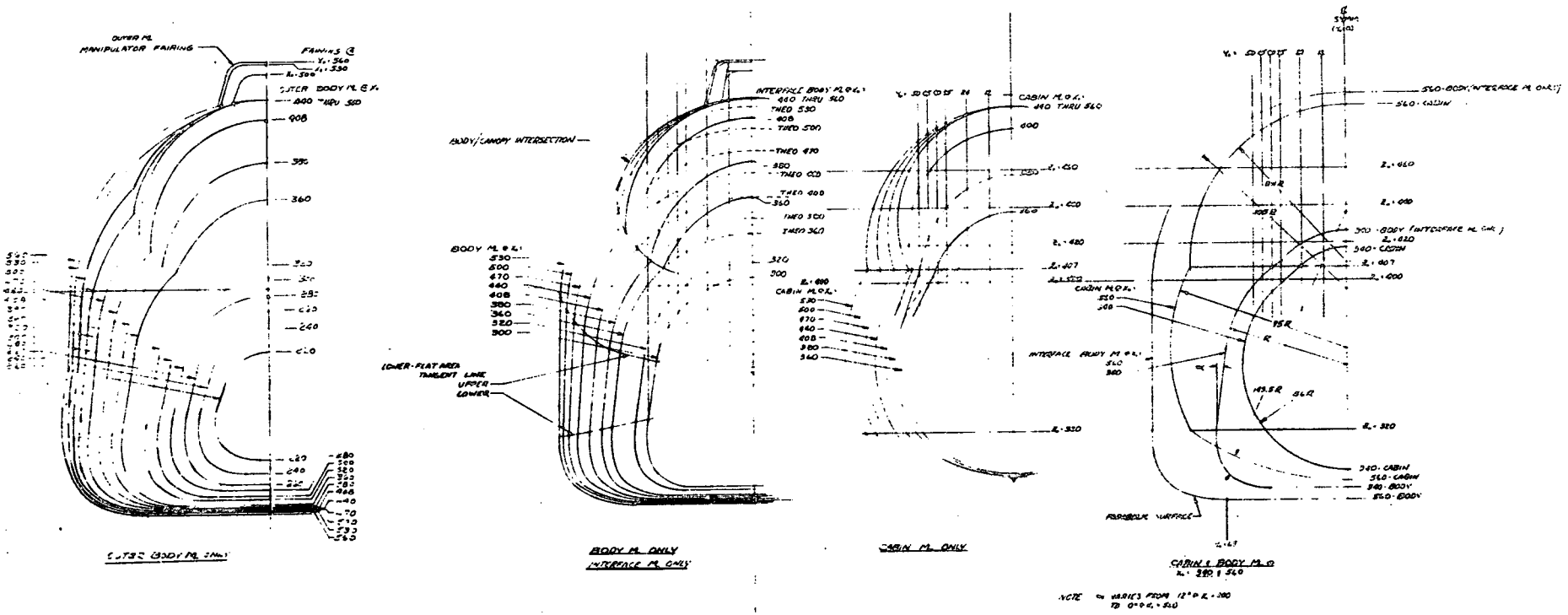
(c) Nose gear body flap

Figure 2. - Continued.



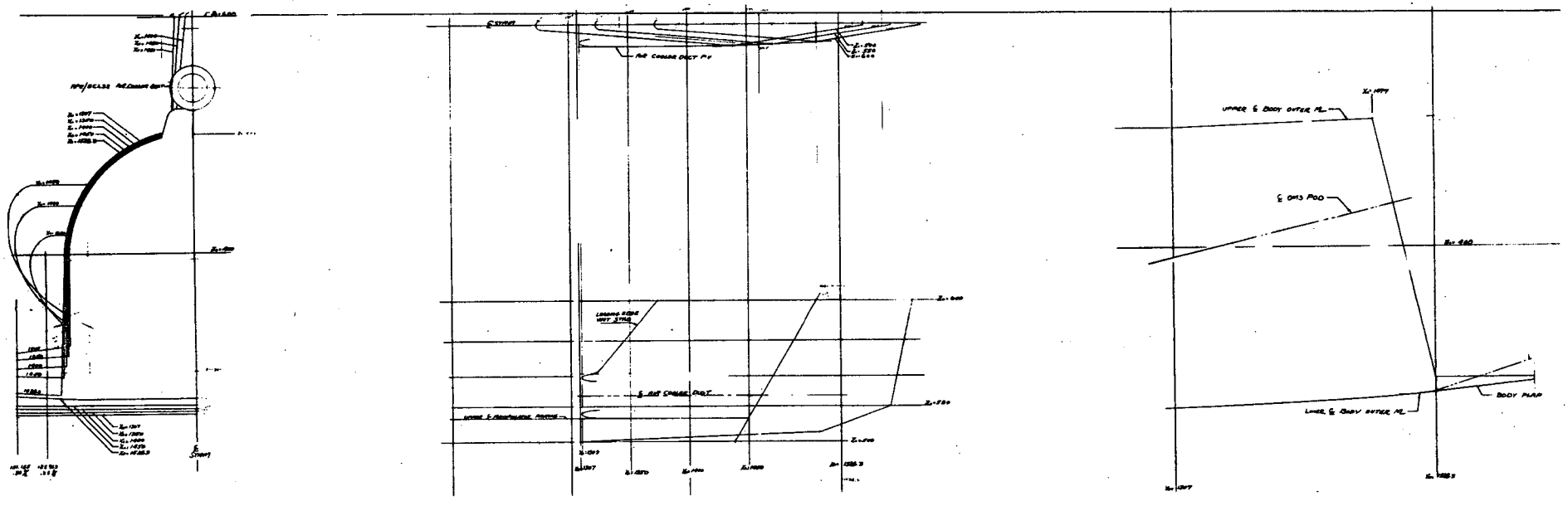
(d) Fuselage B2 - VL70-000003A

Figure 2. - Continued.



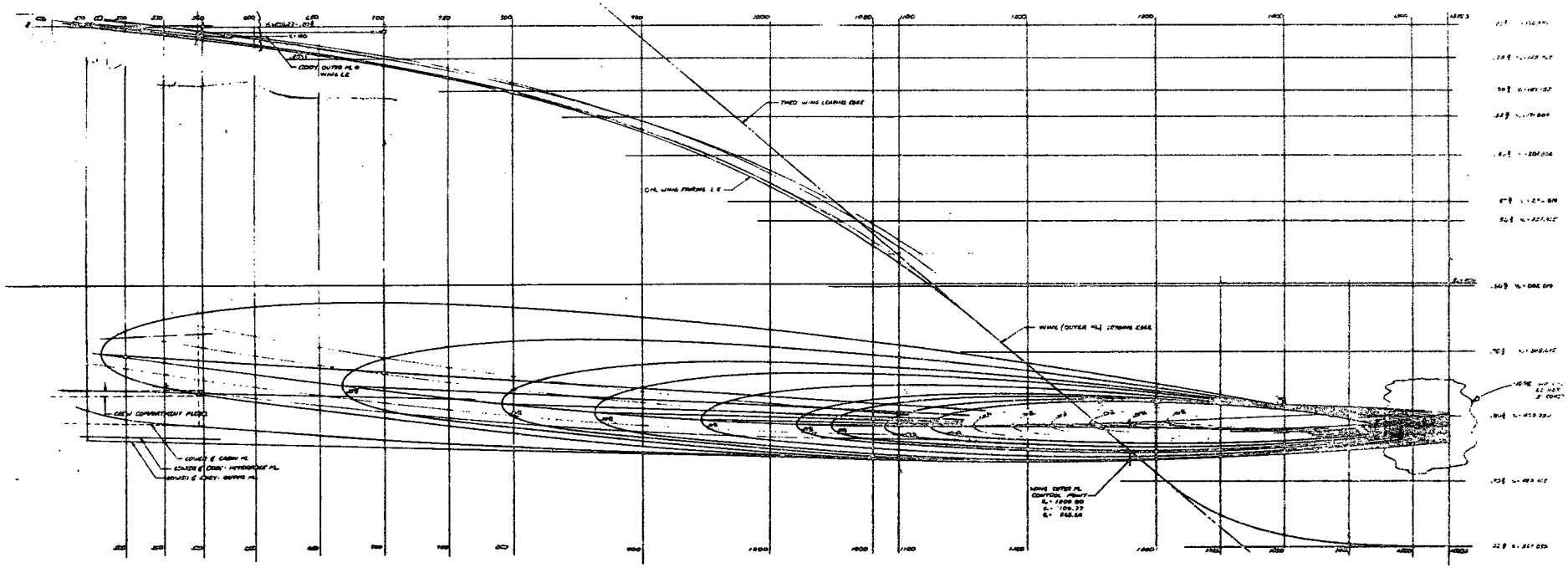
(e) Fuselage B2 (Cont'd) - Forward fuselage sections

Figure 2. - Continued.



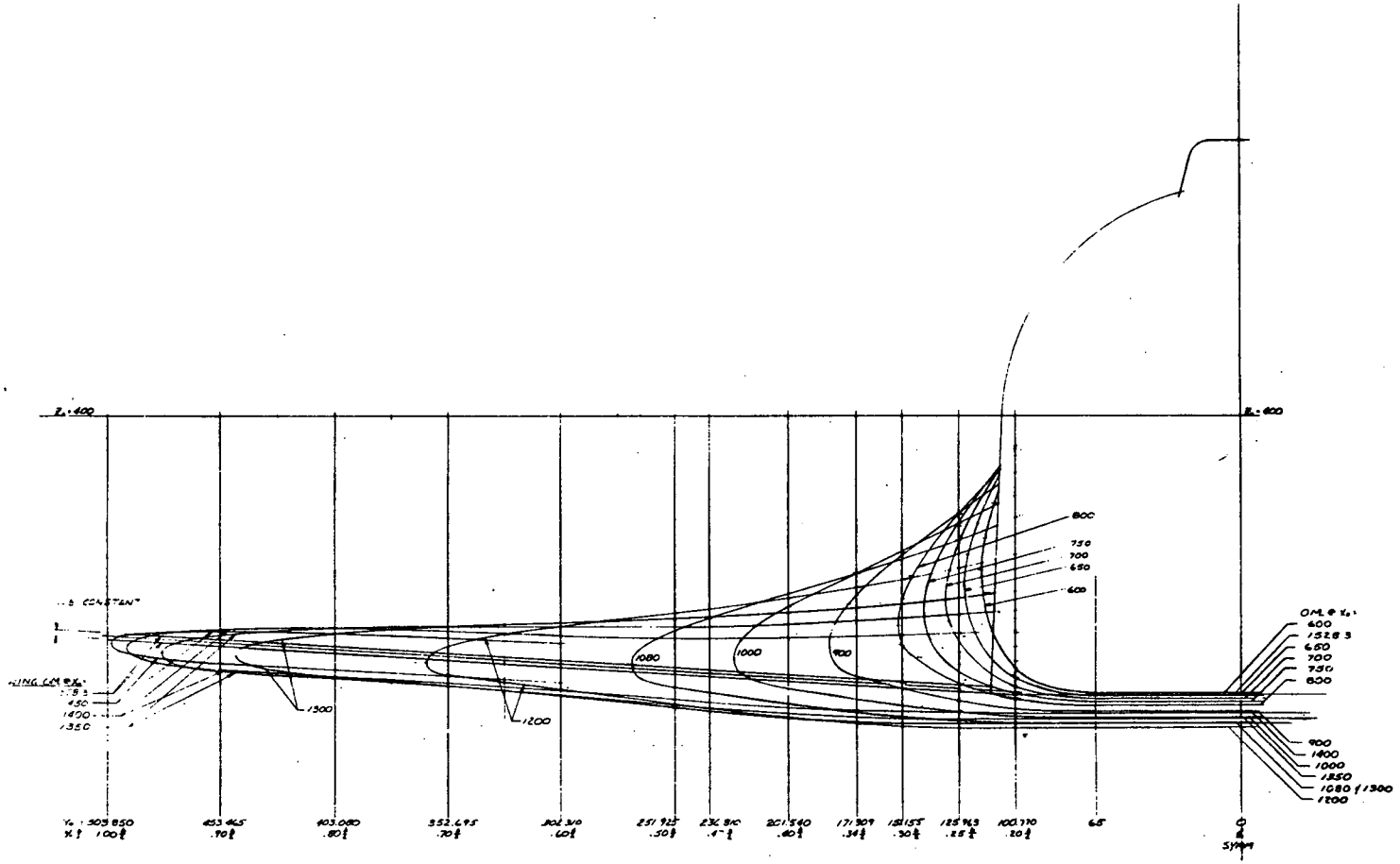
(f) Fuselage B2 (Cont'd) - Aft fuselage sections

Figure 2. - Continued.



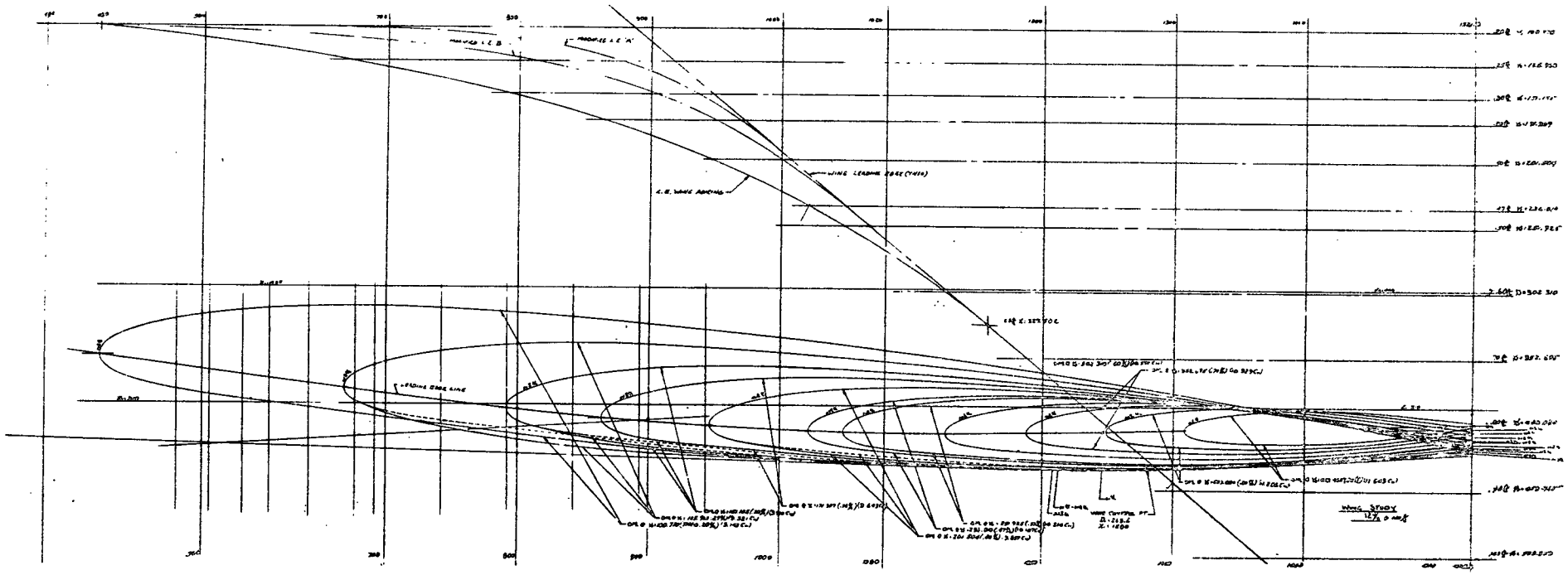
(g) Wing, W2 - Side view

Figure 2. - Continued.



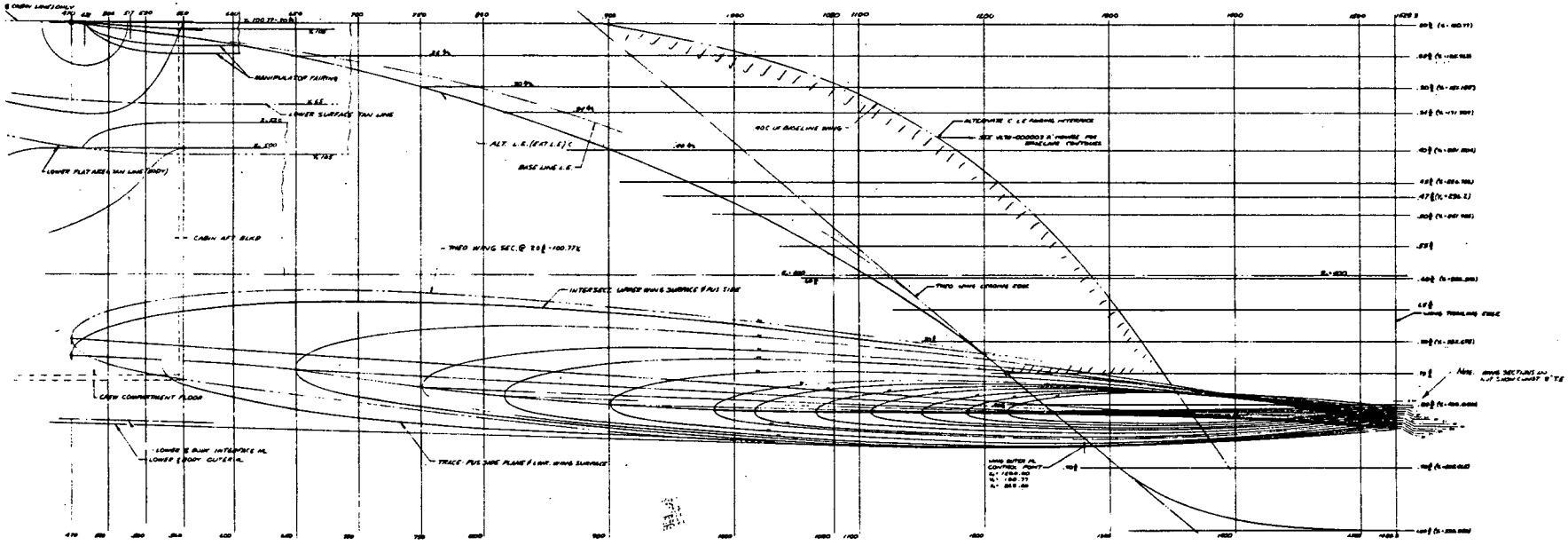
(h) Wing, W2 - Front view

Figure 2. - Continued.



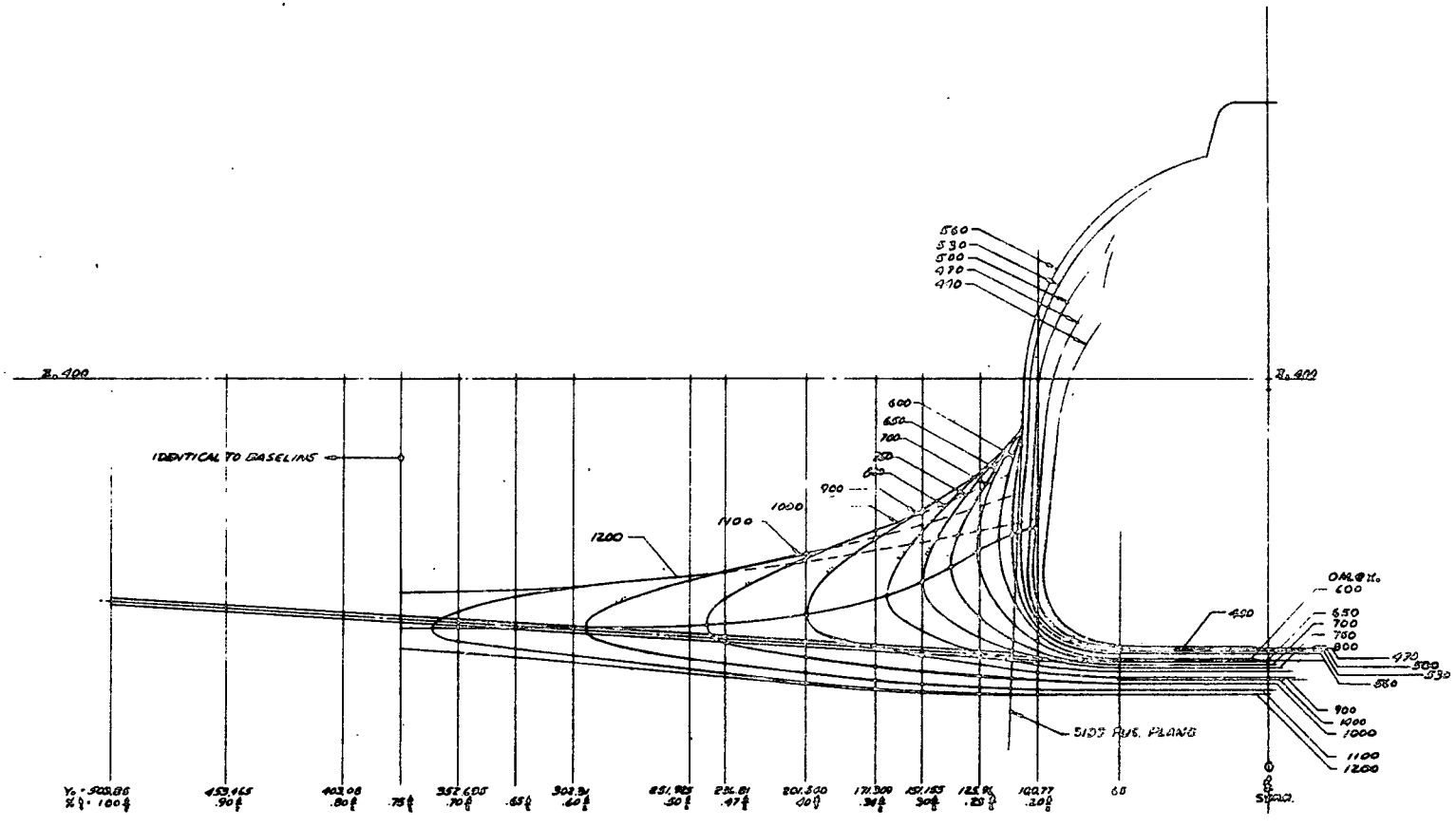
(i) Wing, W5 - Side view

Figure 2. - Continued.



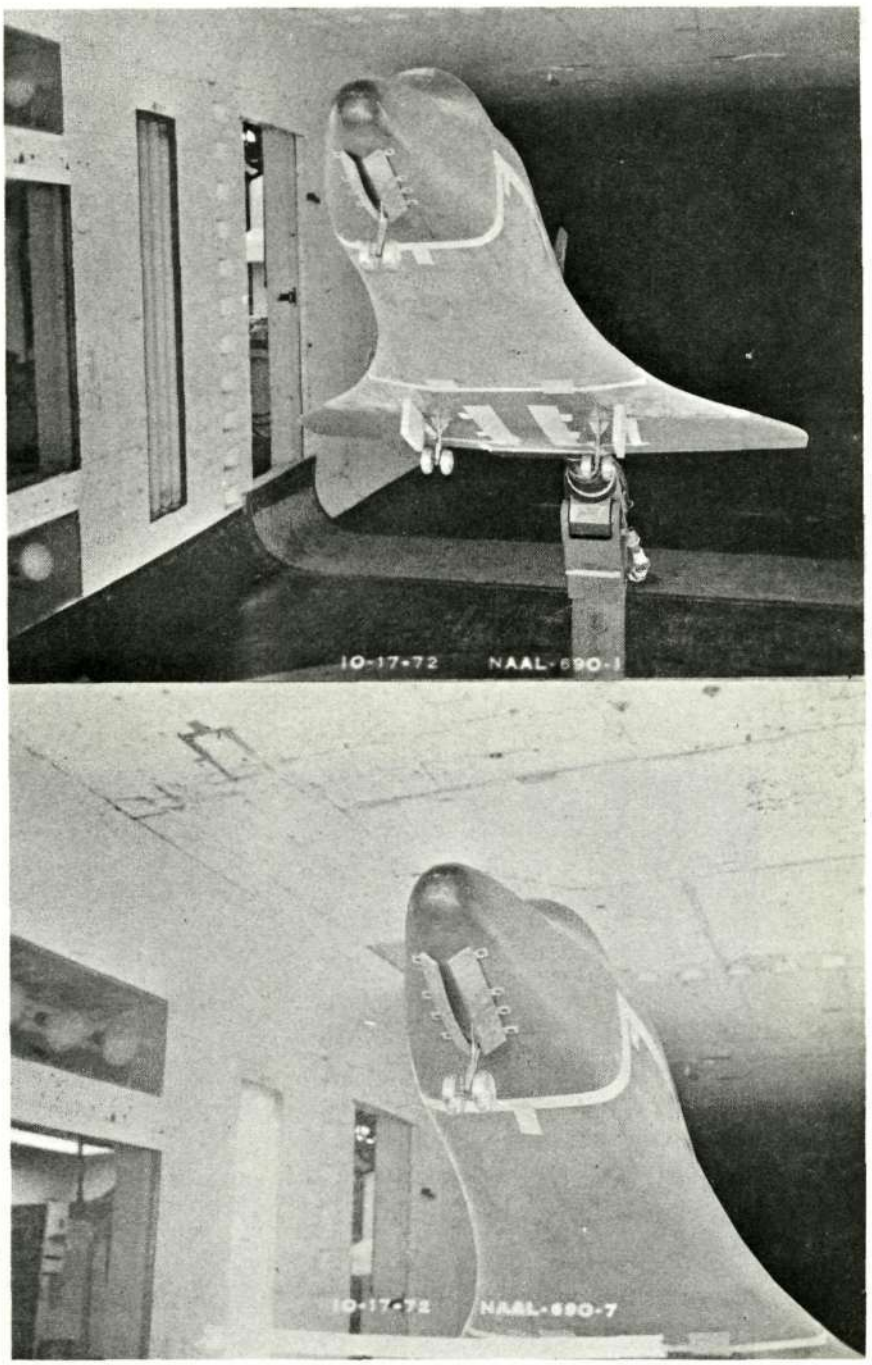
(j) Wing, W9 - Side view

Figure 2. - Continued.



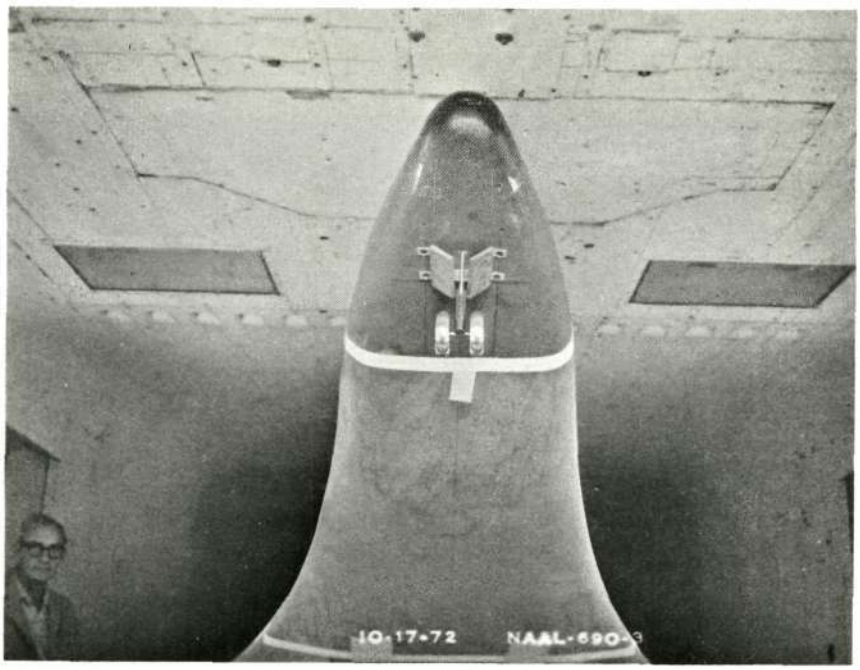
(k) Wing, W9 - Front view

Figure 2. - Concluded.

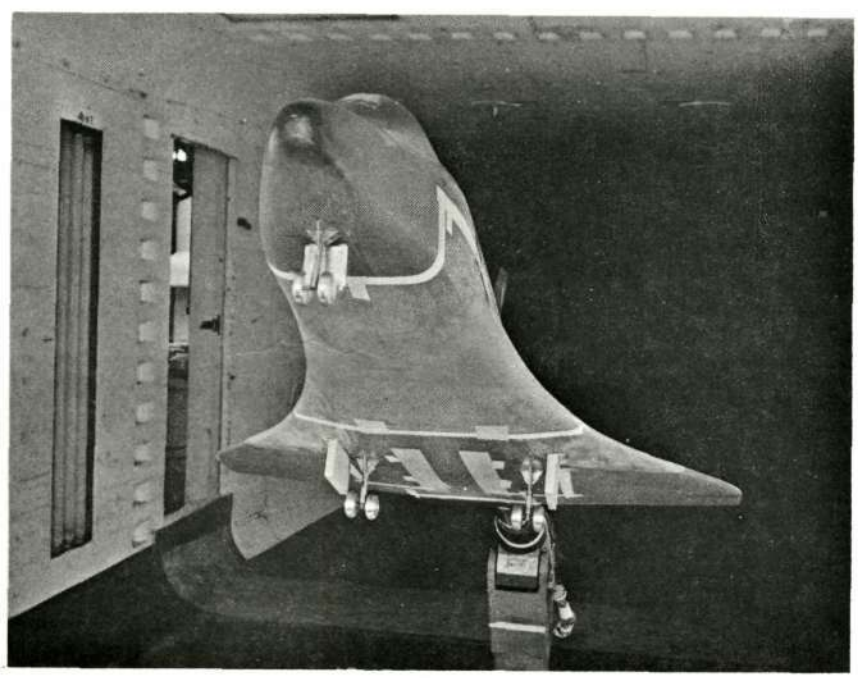


(a) CONFIGURATION: B2 C2 D2 M1 F1 W02 E2 V3 K2 G1

Figure 3. - Model installation photographs.



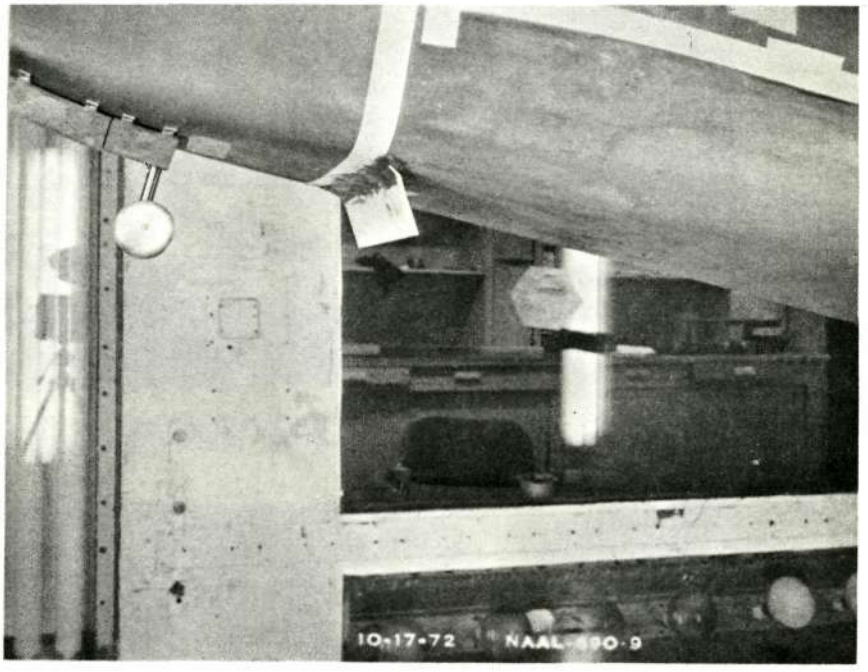
CONFIGURATION: B2 C2 D2 M1 F1 W02 E2 V3 K2 G1



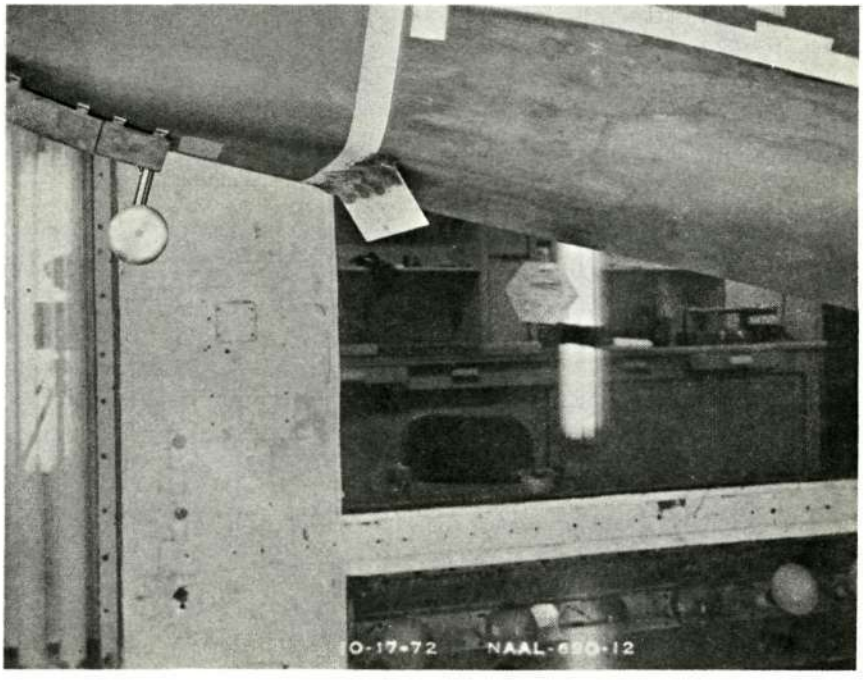
(b) CONFIGURATION: B2 C2 D2 M1 F1 W02 E2 V3 K2 G3

Figure 3. - Continued.

F

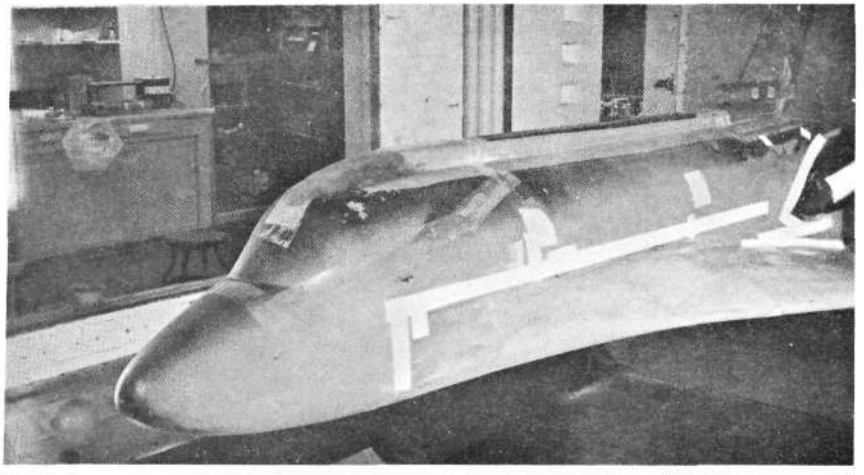


CONFIGURATION: B2 C2 D2 M1 F1 W02 E2 V3 K2 G4

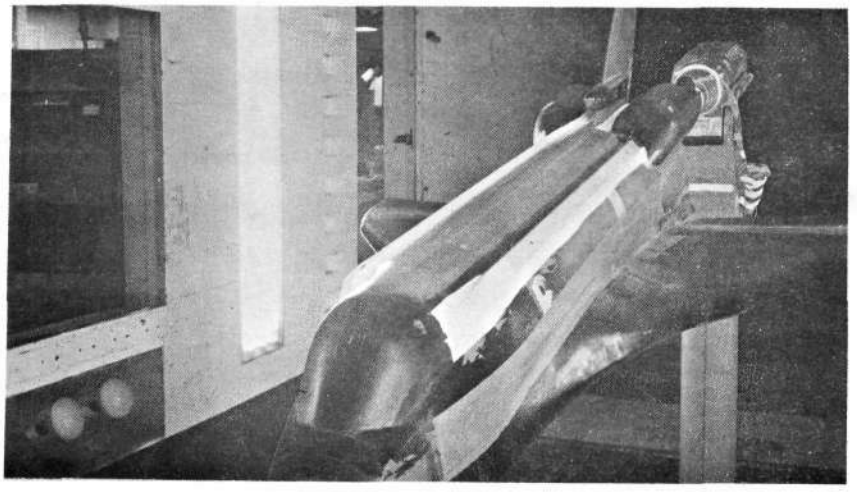


(c) CONFIGURATION: B2 C2 D2 M1 F1 W02 E2 V3 K2 G5

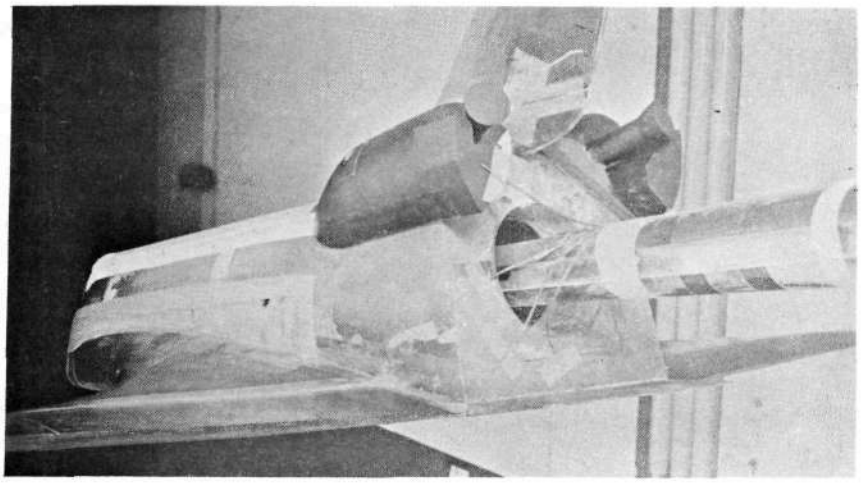
Figure 3. - Continued.



CONFIGURATION: B2 C2 D4 M1 F1 W02 E2 V3 K2

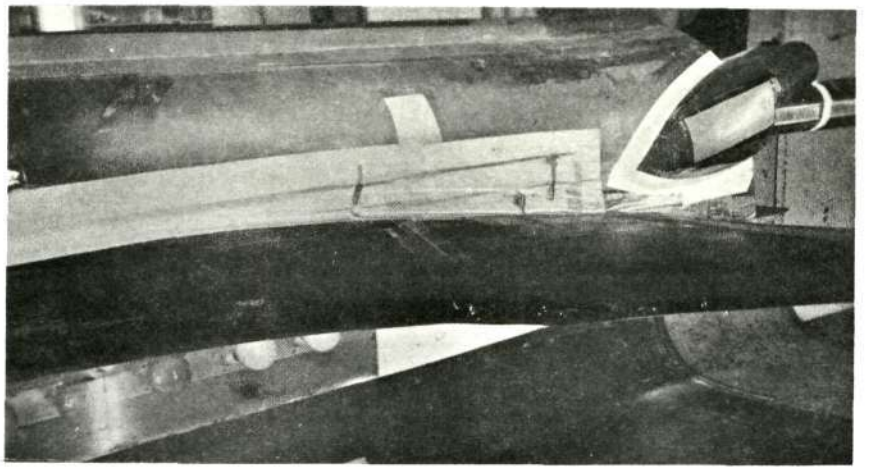


CONFIGURATION: B2 C2 D5 M2 F1 W11 E3 V3 K2

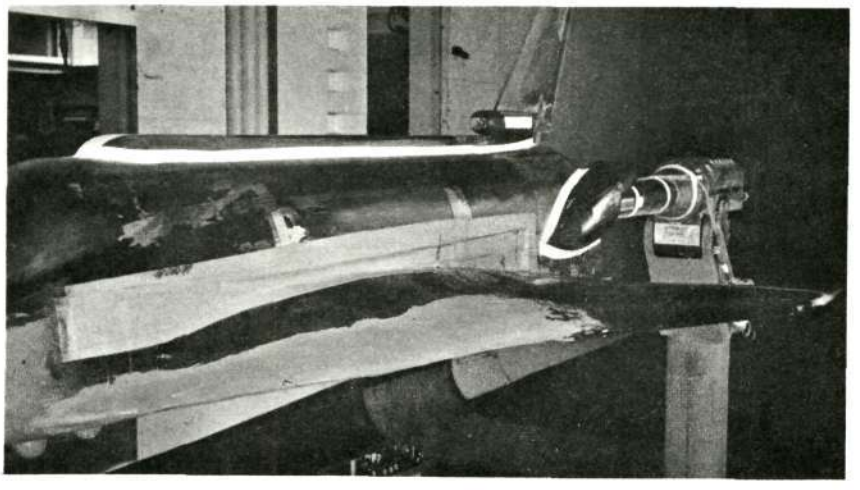


(d) CONFIGURATION: B2 C2 D5 M2 F1 W11 E3 V3 K2

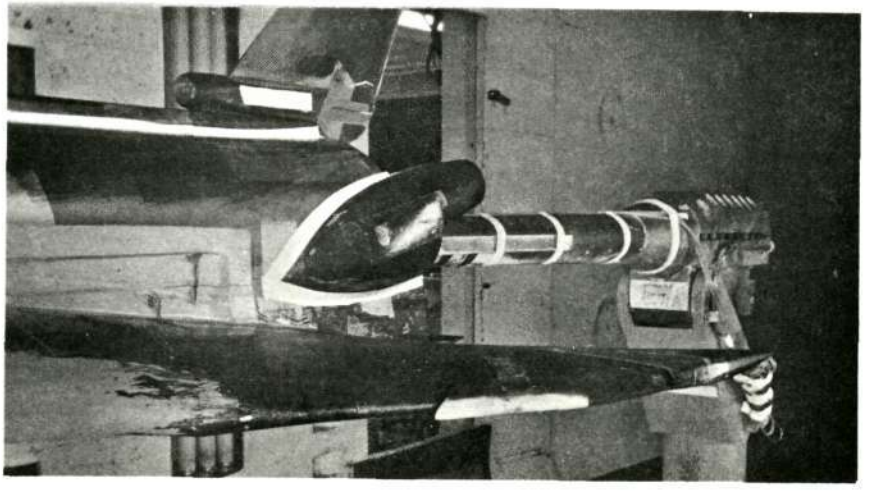
Figure 3. - Continued.



CONFIGURATION: B2 C2 D2 M1 F1 W11 E3 V3 K2

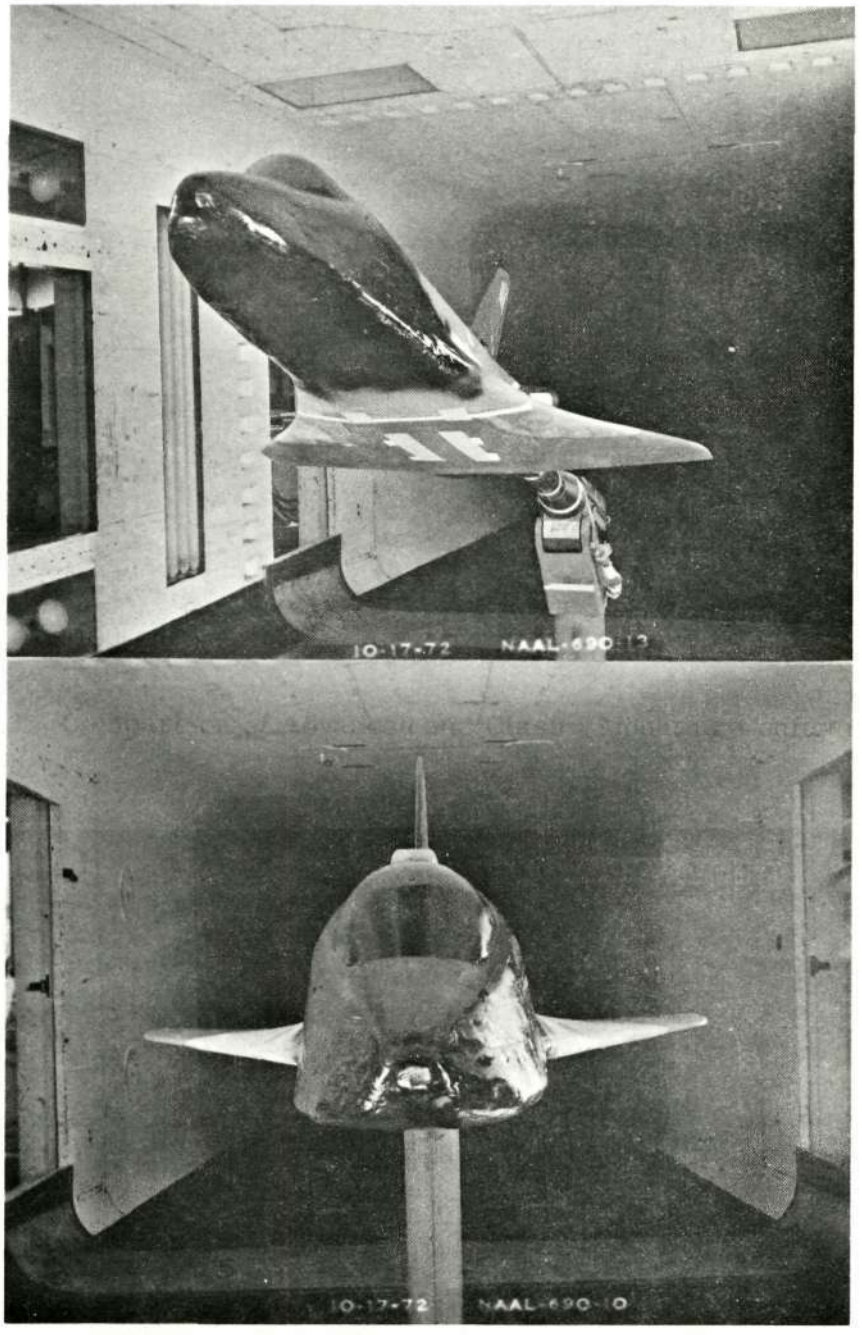


CONFIGURATION: B2 C2 D2 M1 F1 W14 E3 V3 K2



(e) CONFIGURATION: B2 C2 D2 M1 F1 W15 E3 V3 K2

Figure 3. - Continued.



(f) CONFIGURATION: B3 C2 D2 M1 F1 W02 E2 V3 K2

Figure 3. - Concluded.

DATA FIGURES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6017)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(AD6001)	⋈	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(AD6003)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2	0.000	0.000	0.000
(AD6005)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

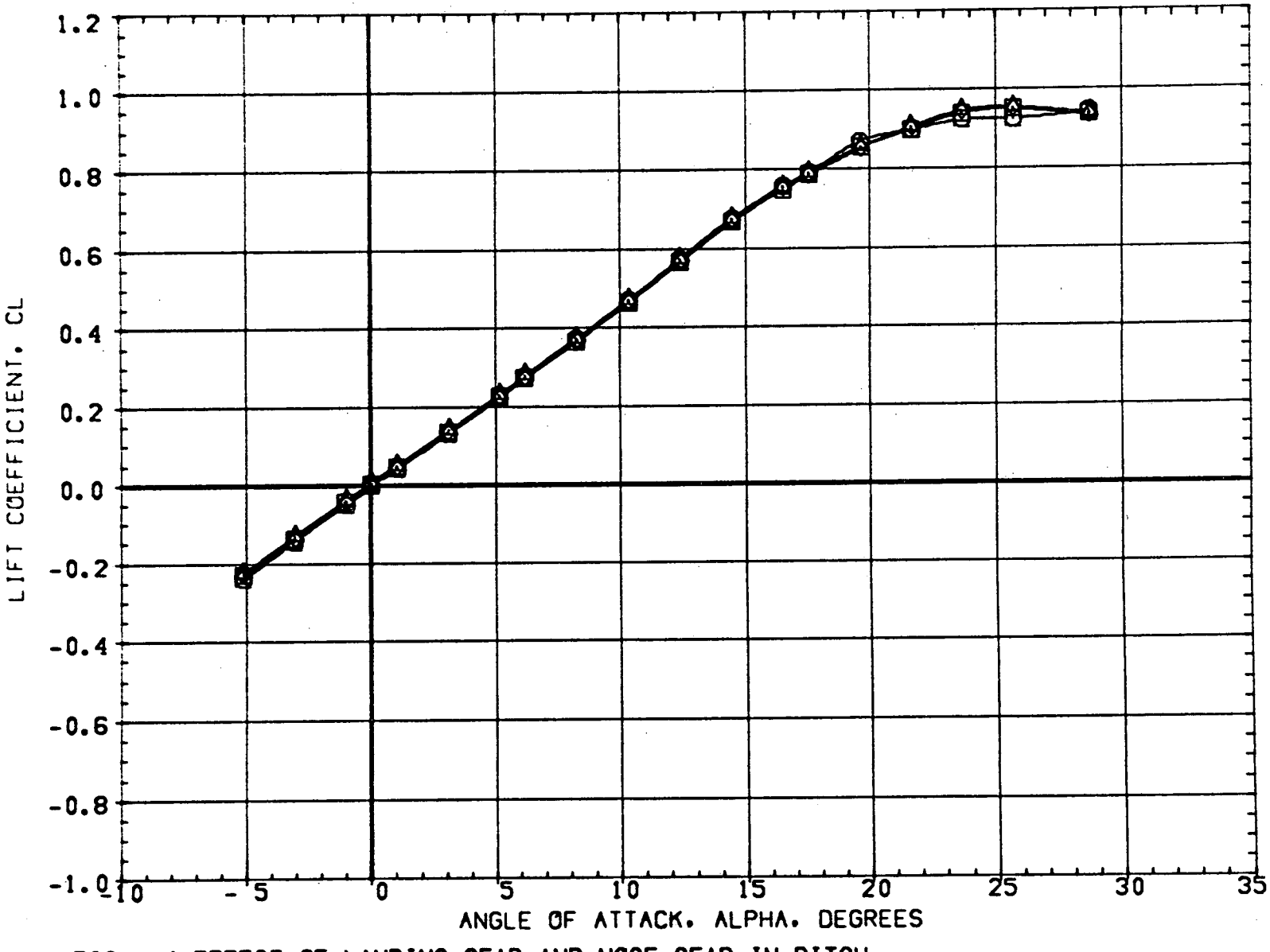


FIG. 4 EFFECT OF LANDING GEAR AND NOSE GEAR IN PITCH

(A)MACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6019)	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(AD6021)	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2 G1	0.000	0.000	0.000
(AD6023)	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2 G2	0.000	0.000	0.000
(AD6025)	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2 G3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

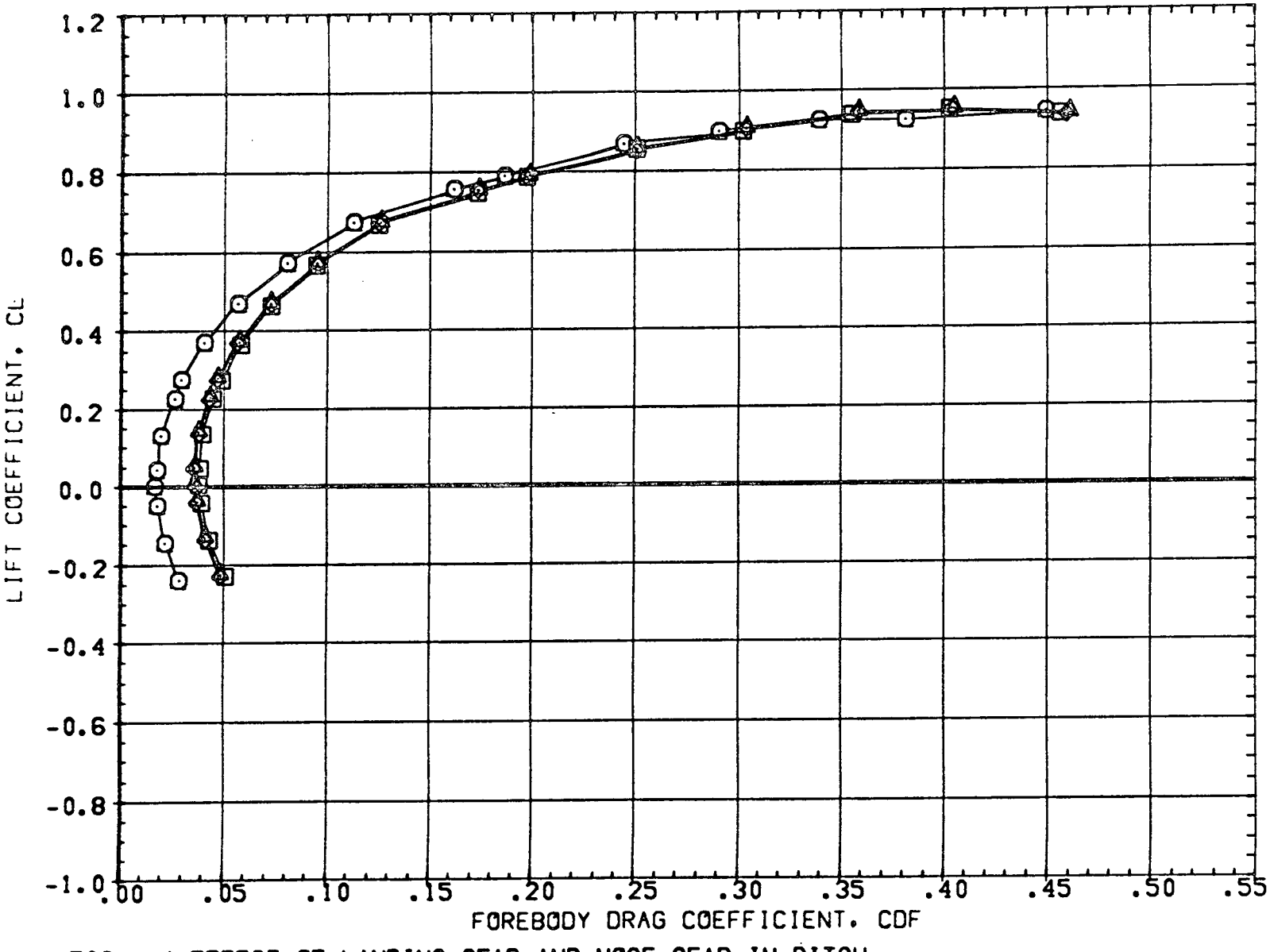


FIG. 4 EFFECT OF LANDING GEAR AND NOSE GEAR IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG017)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG003)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2	0.000	0.000	0.000
(ADG005)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

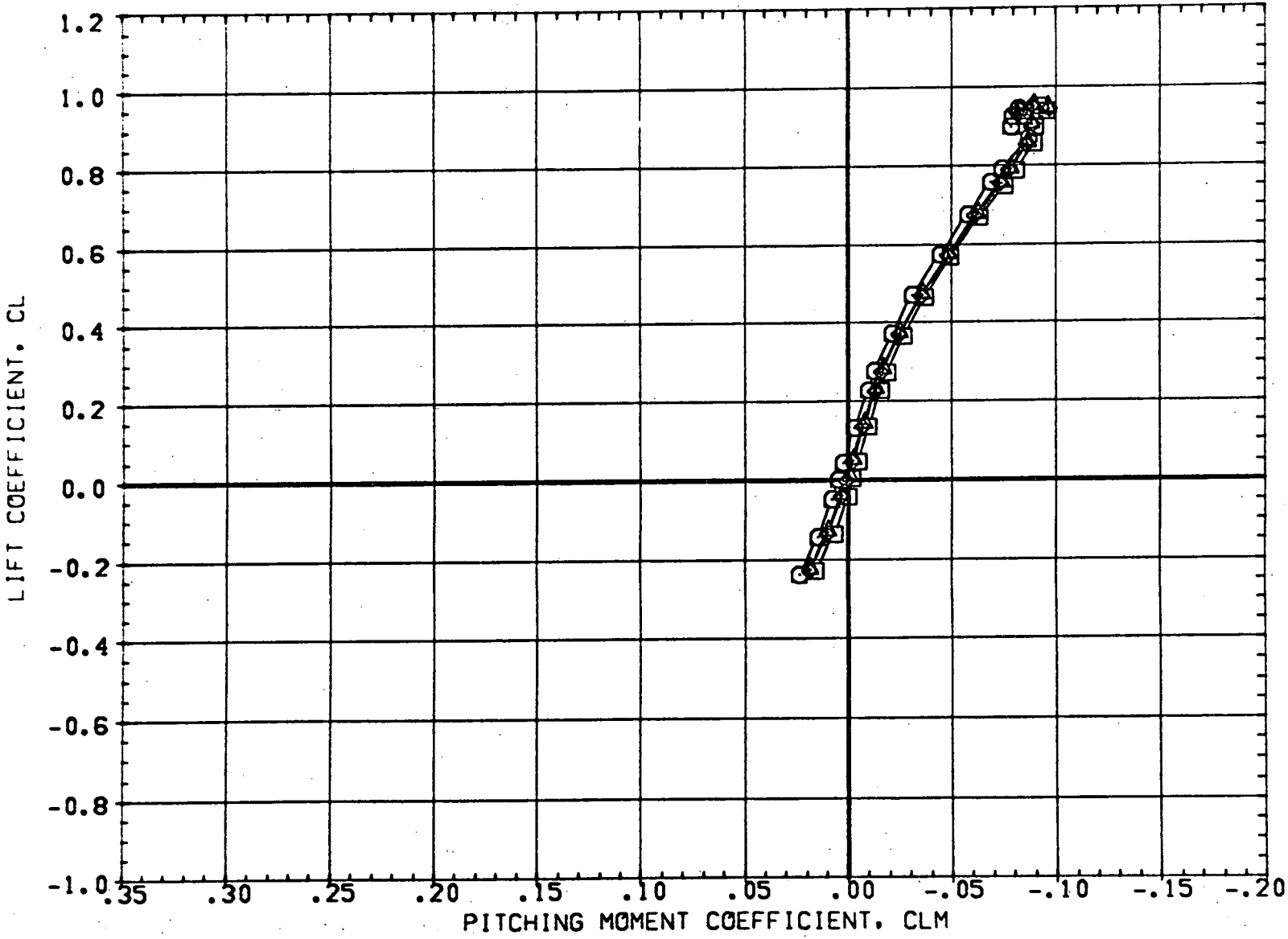


FIG. 4 EFFECT OF LANDING GEAR AND NOSE GEAR IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6017)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(AD6001)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2 G1	0.000	0.000	0.000
(AD6009)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2 G2	0.000	0.000	0.000
(AD6005)	□	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2 G3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
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YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

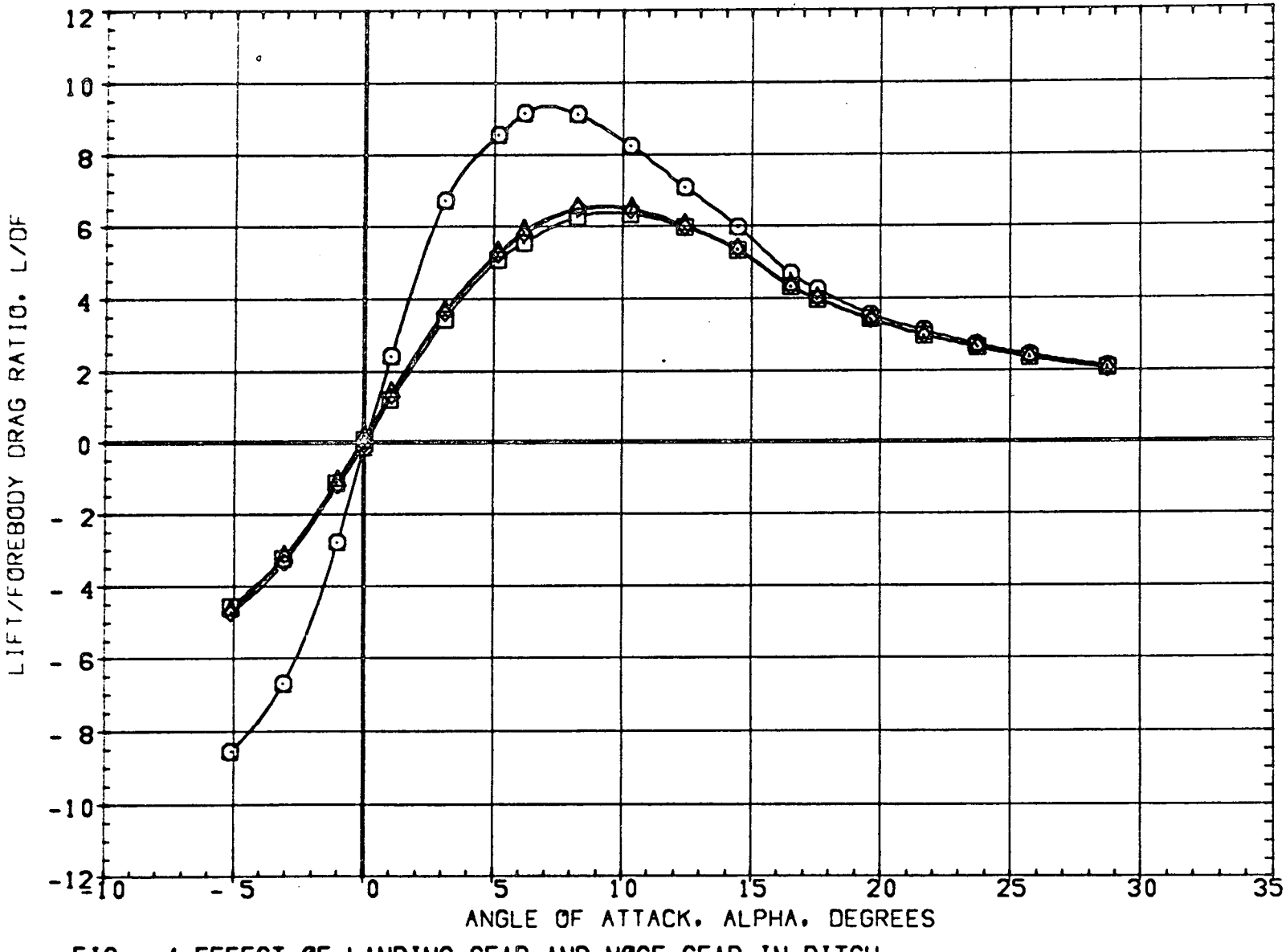

FIG. 4 EFFECT OF LANDING GEAR AND NOSE GEAR IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-0B
(ADG017)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG001)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG003)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2	0.000	0.000	0.000
(ADG005)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.6119	INCHES
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YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

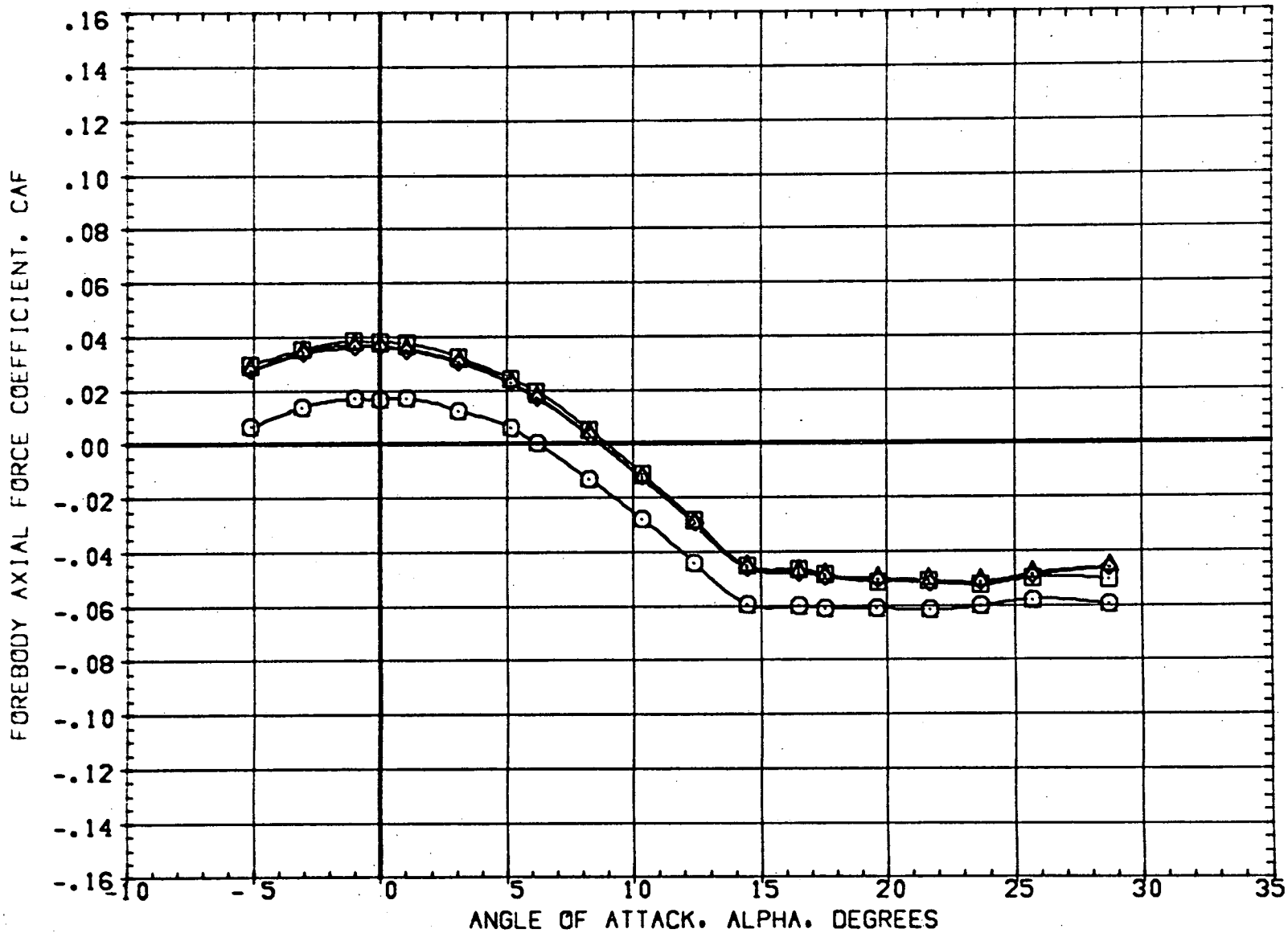

FIG. 4 EFFECT OF LANDING GEAR AND NOSE GEAR IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-03
(ADG019)		SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2	0.000	0.000	0.000
(ADG001)		SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2 G1	0.000	0.000	0.000
(ADG003)		SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2 G2	0.000	0.000	0.000
(ADG005)		SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2 G3	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

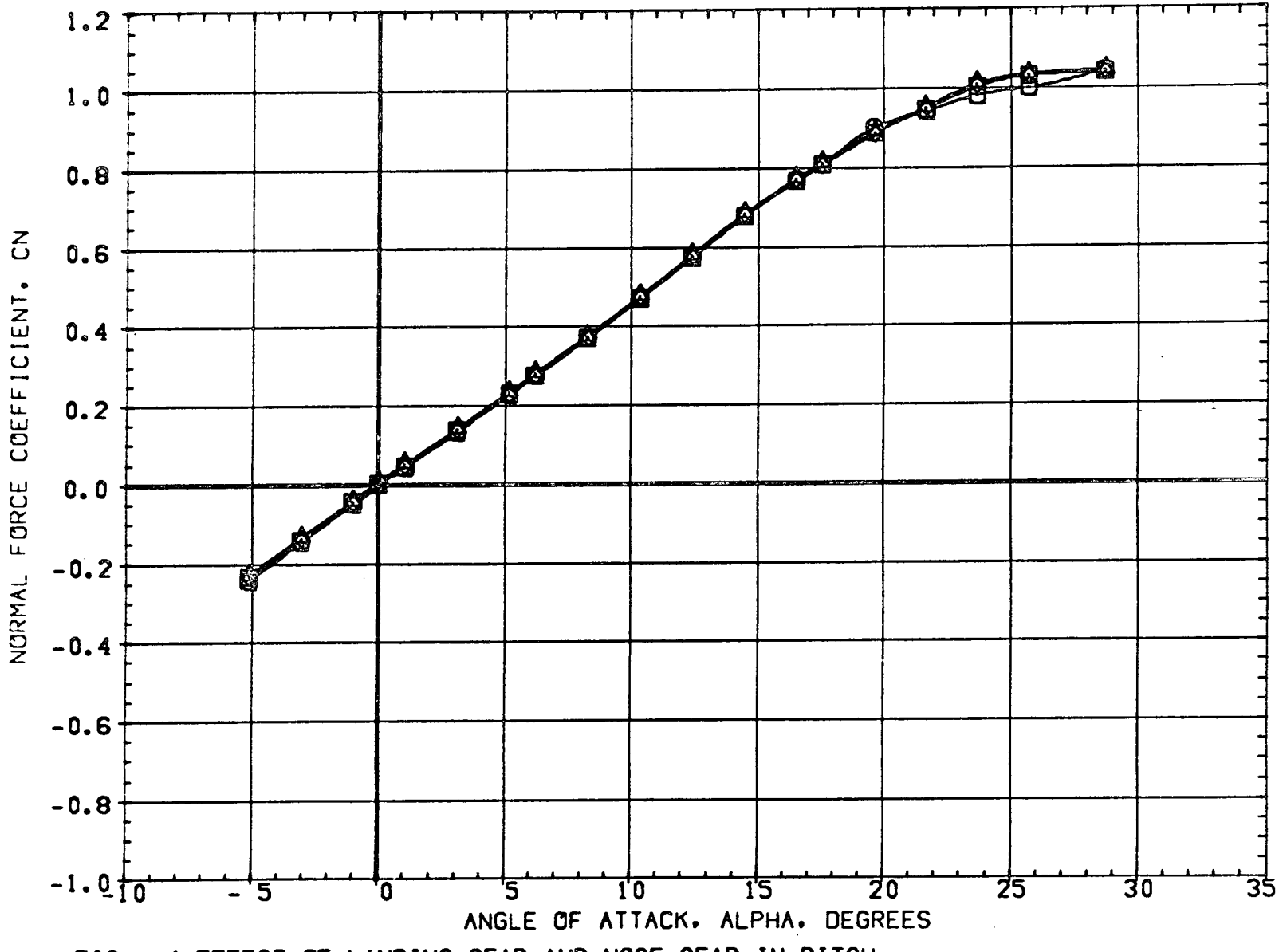

FIG. 4 EFFECT OF LANDING GEAR AND NOSE GEAR IN PITCH

(A)MACH = .16

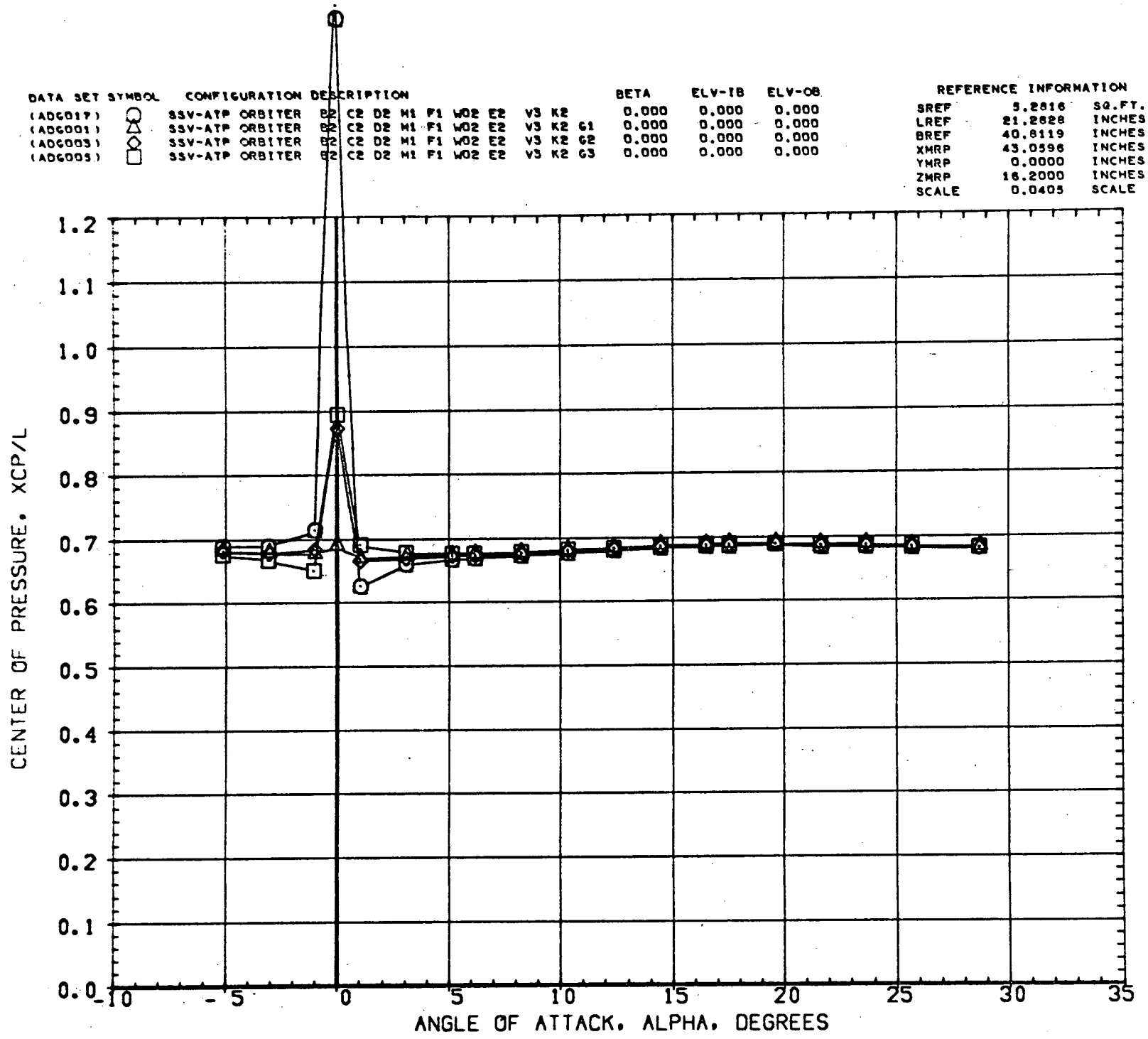

FIG. 4 EFFECT OF LANDING GEAR AND NOSE GEAR IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	DETA	ELV-IB	ELV-OB
(ADG019)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG001)	⋈	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG003)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2	0.000	0.000	0.000
(ADG005)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3.2616	SQ.FT.
LREF	21.2028	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

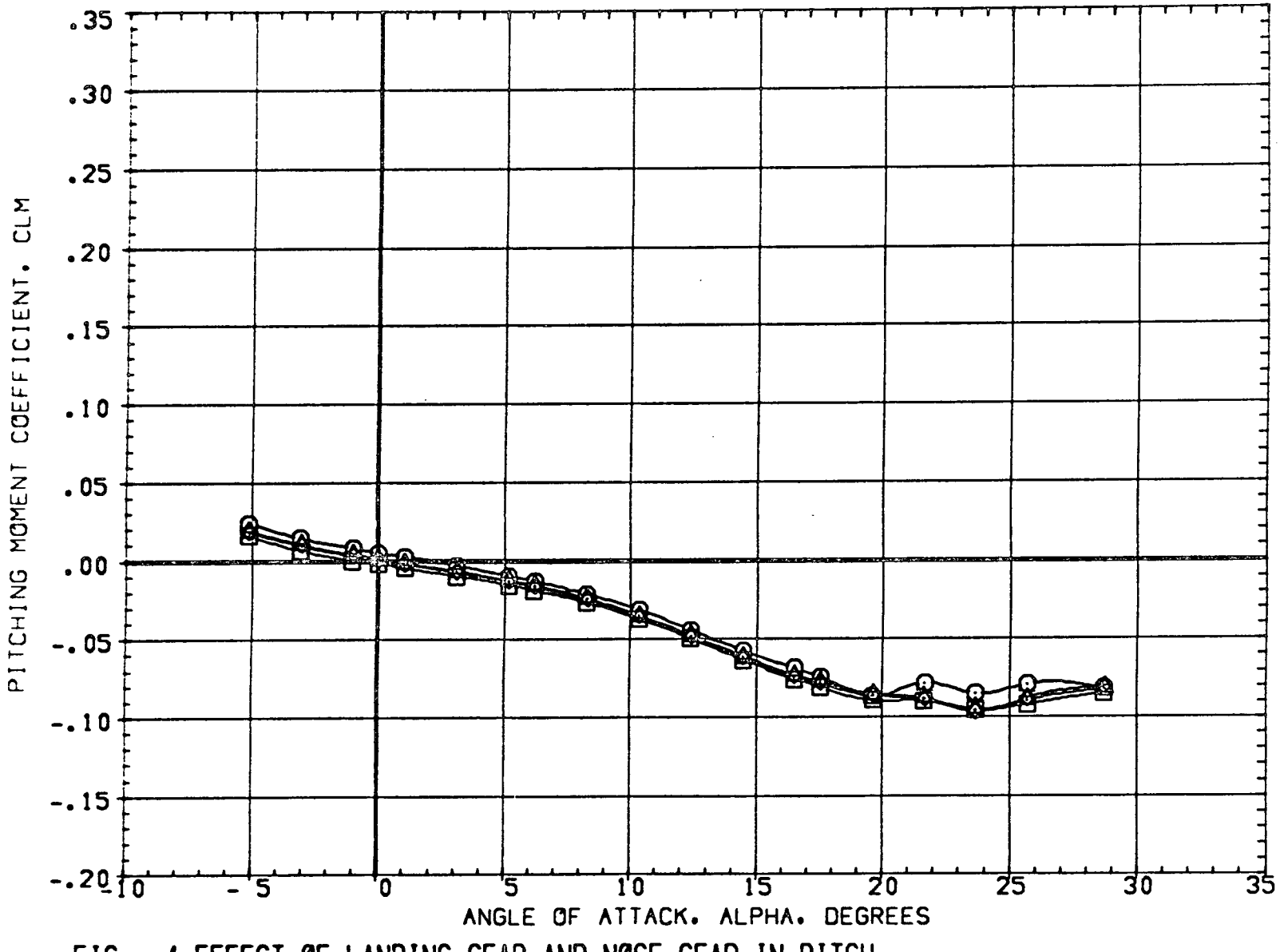

FIG. 4 EFFECT OF LANDING GEAR AND NOSE GEAR IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC001)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(BDC002)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	5.000	0.000	0.000
(BDC003)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2	0.000	0.000	0.000
(BDC004)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2	5.000	0.000	0.000
(BDC005)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3	0.000	0.000	0.000
(BDC006)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2628	INCHES
BREF	40.6119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

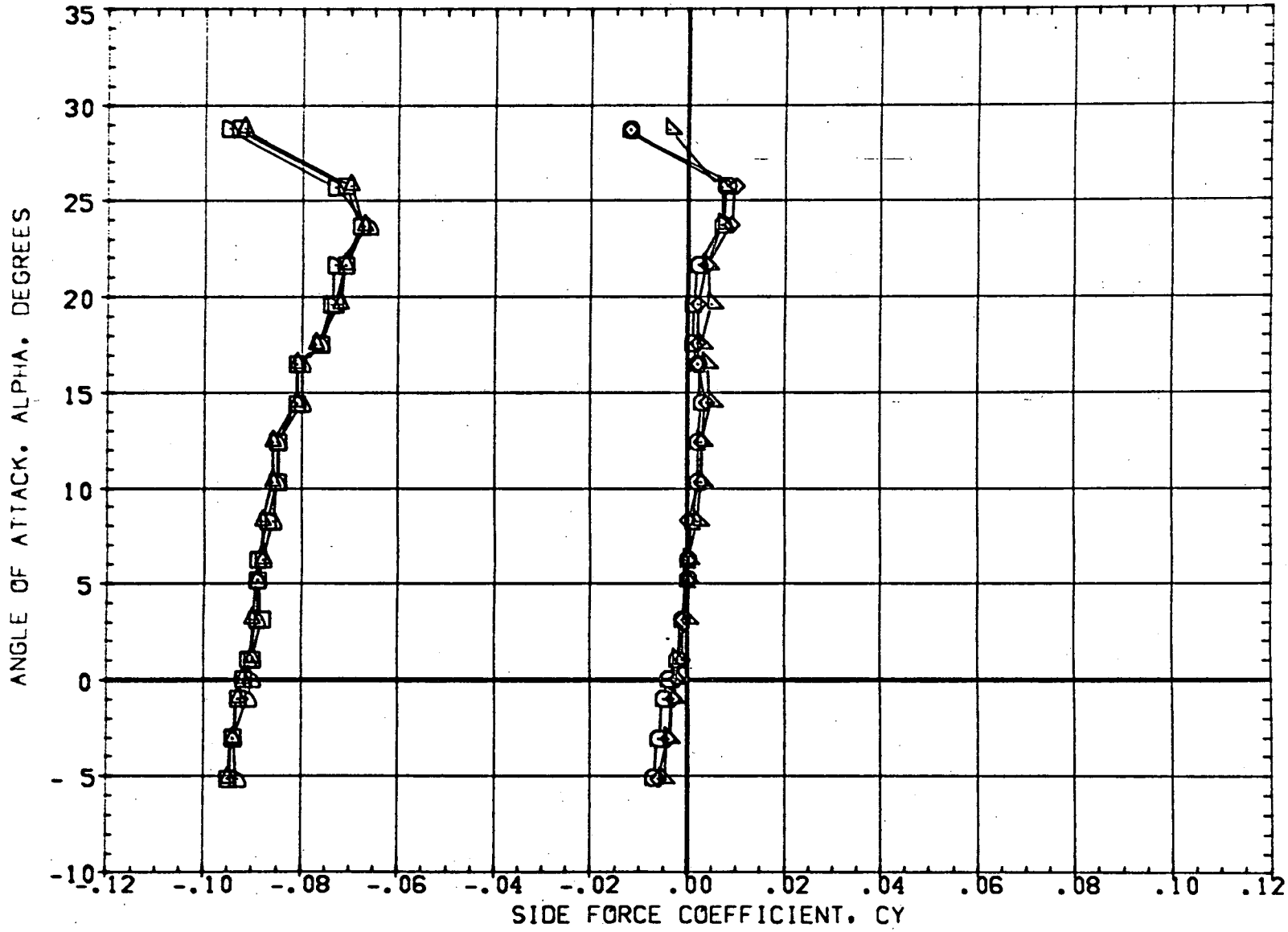

FIG. 5 EFFECT OF LANDING GEAR AND NOSE GEAR MODIFICATIONS IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-03
(BDC001)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(BDC002)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G1	5.000	0.000	0.000
(BDC003)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G2	0.000	0.000	0.000
(BDC004)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G2	5.000	0.000	0.000
(BDC005)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G3	0.000	0.000	0.000
(BDC006)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G3	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

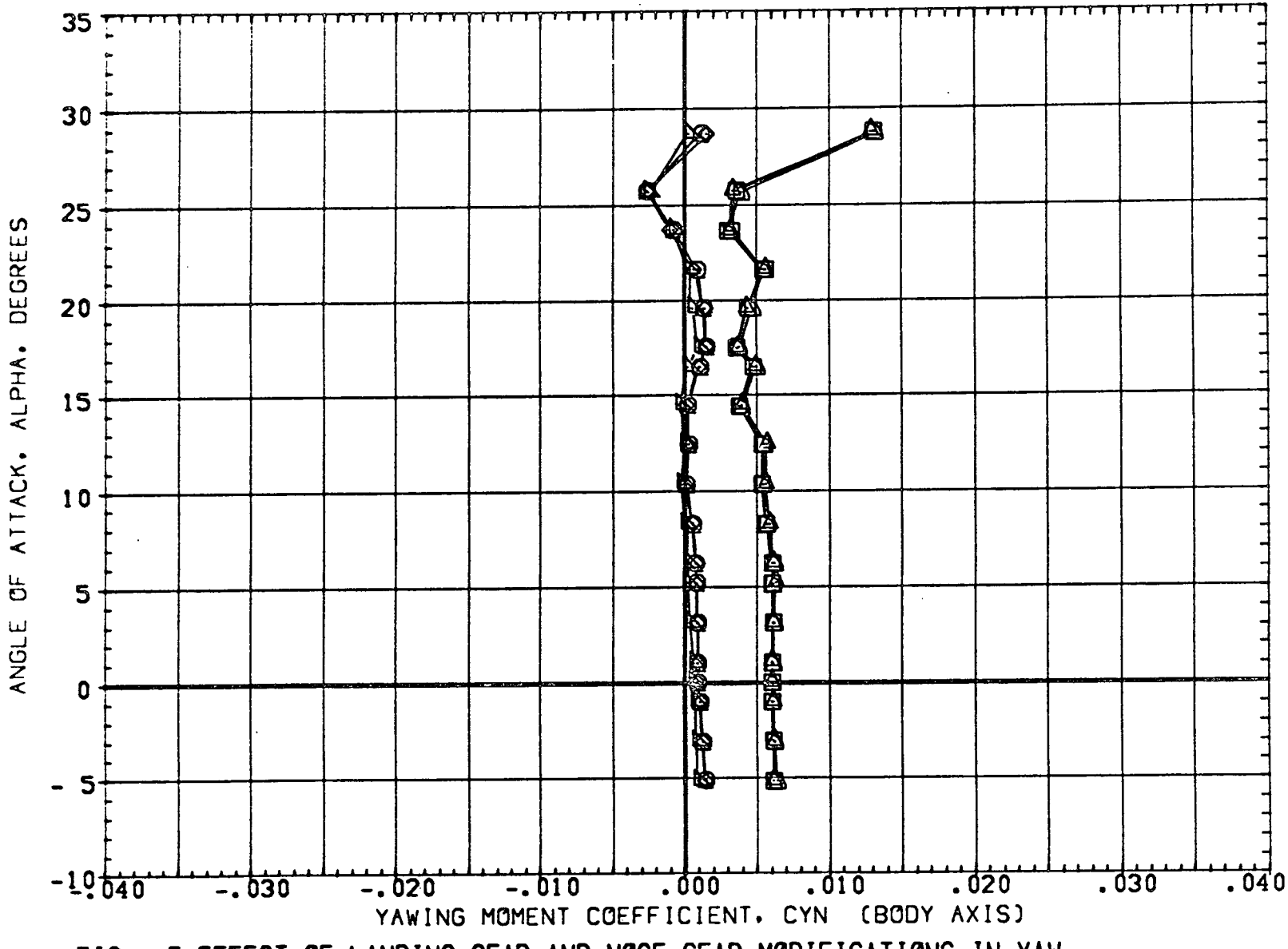

FIG. 5 EFFECT OF LANDING GEAR AND NOSE GEAR MODIFICATIONS IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(BDC002)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	5.000	0.000	0.000
(BDC003)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2	0.000	0.000	0.000
(BDC004)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2	5.000	0.000	0.000
(BDC005)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3	0.000	0.000	0.000
(BDC006)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

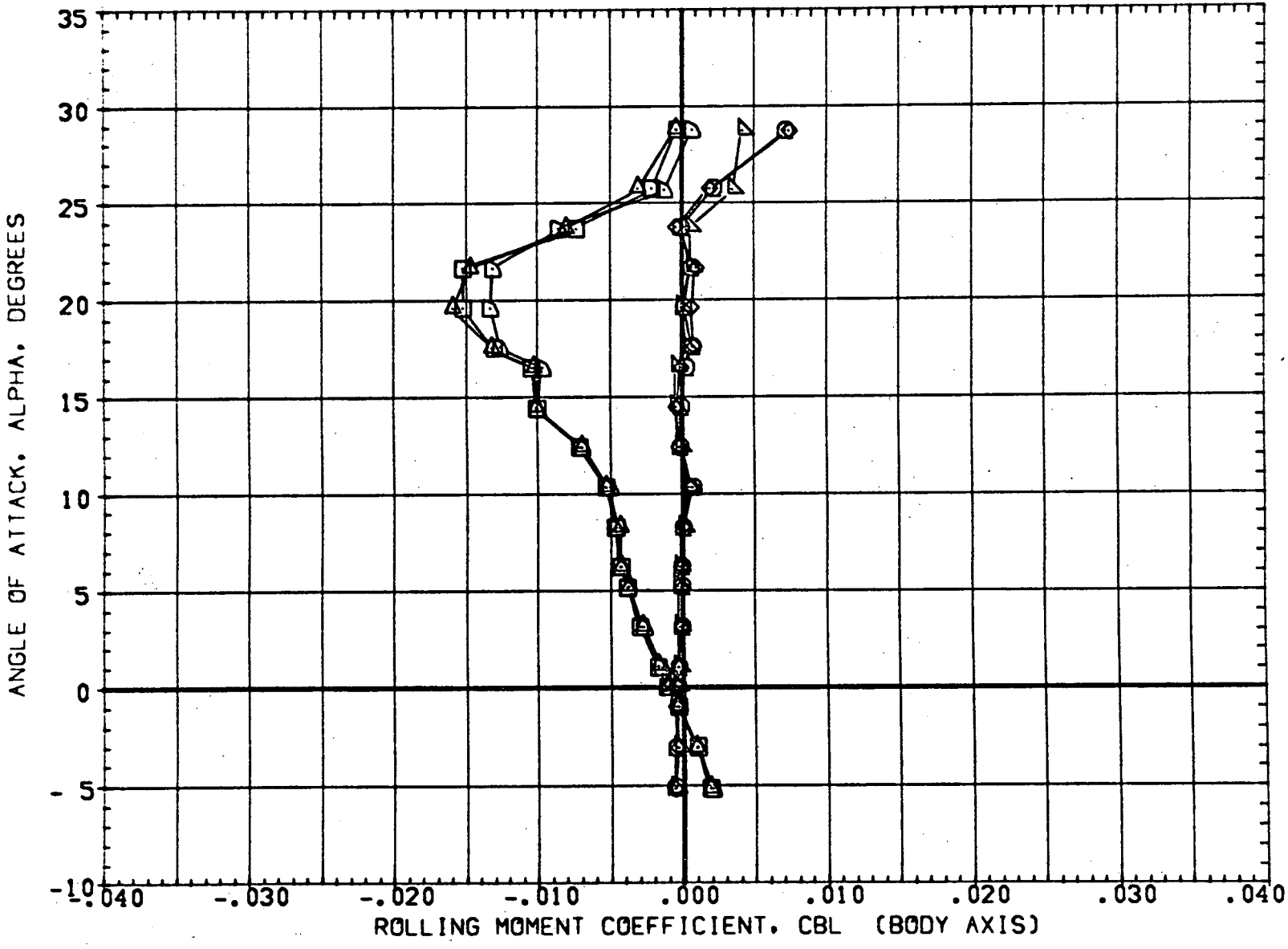

FIG. 5 EFFECT OF LANDING GEAR AND NOSE GEAR MODIFICATIONS IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-03
(AD6001)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 61	0.000	0.000	0.000
(AD6007)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 64	0.000	0.000	0.000
(AD6009)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 69	0.000	0.000	0.000
(AD6017)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2016	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

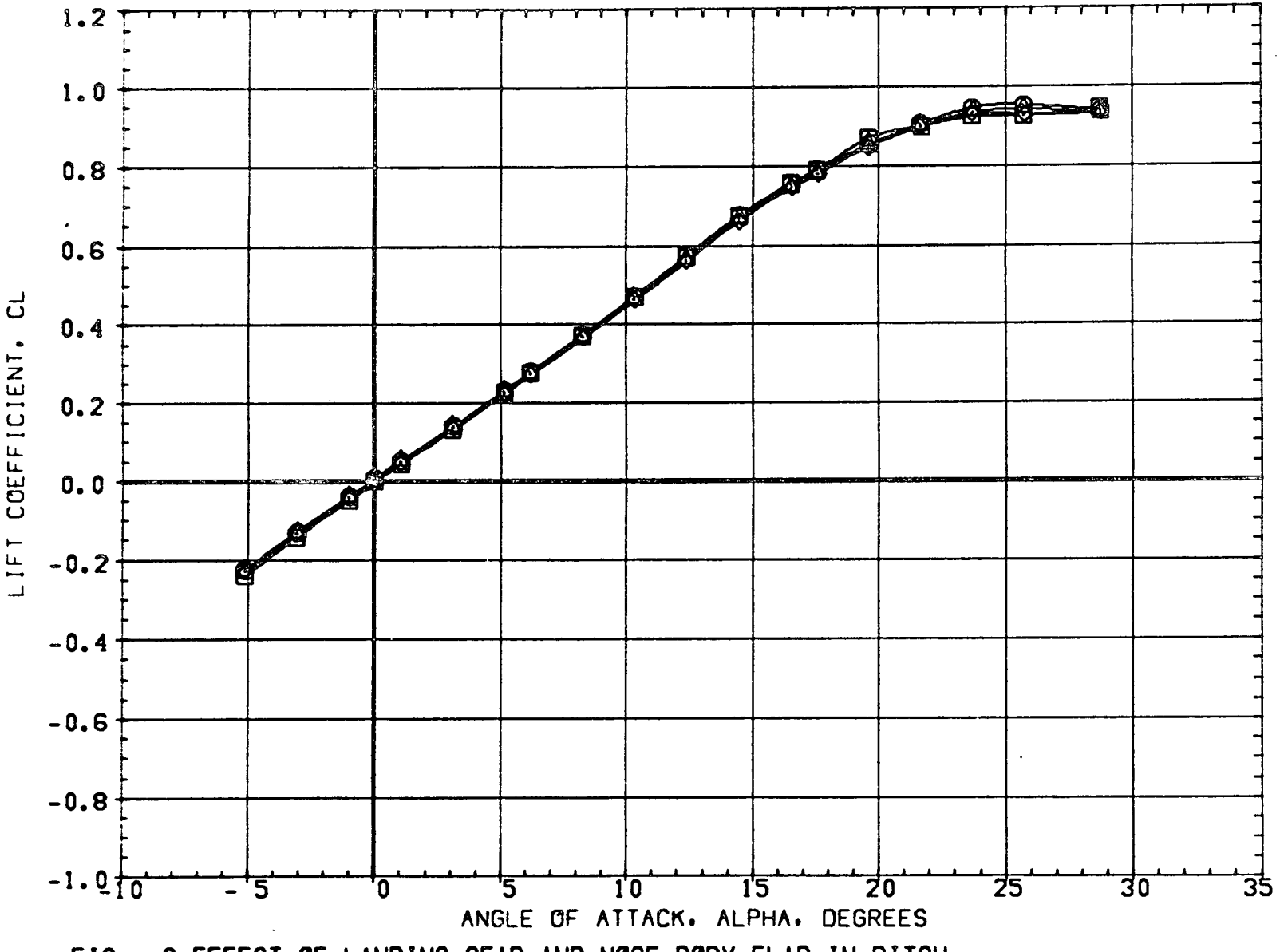

FIG. 6 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADC007)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4	0.000	0.000	0.000
(ADC009)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5	0.000	0.000	0.000
(ADC017)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

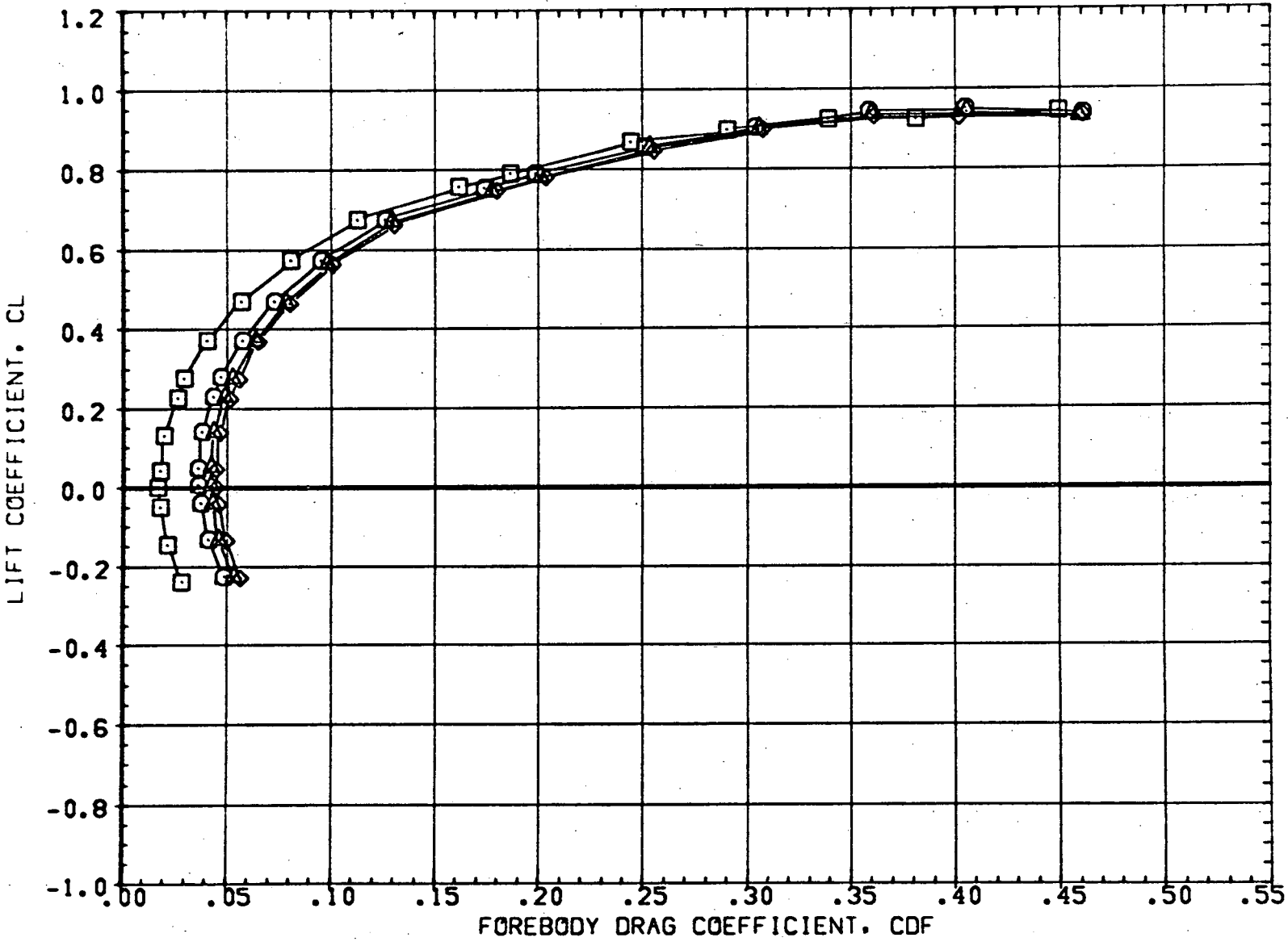

FIG. 6 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-0B
(ADG001)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG007)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G4	0.000	0.000	0.000
(ADG009)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G5	0.000	0.000	0.000
(ADG017)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

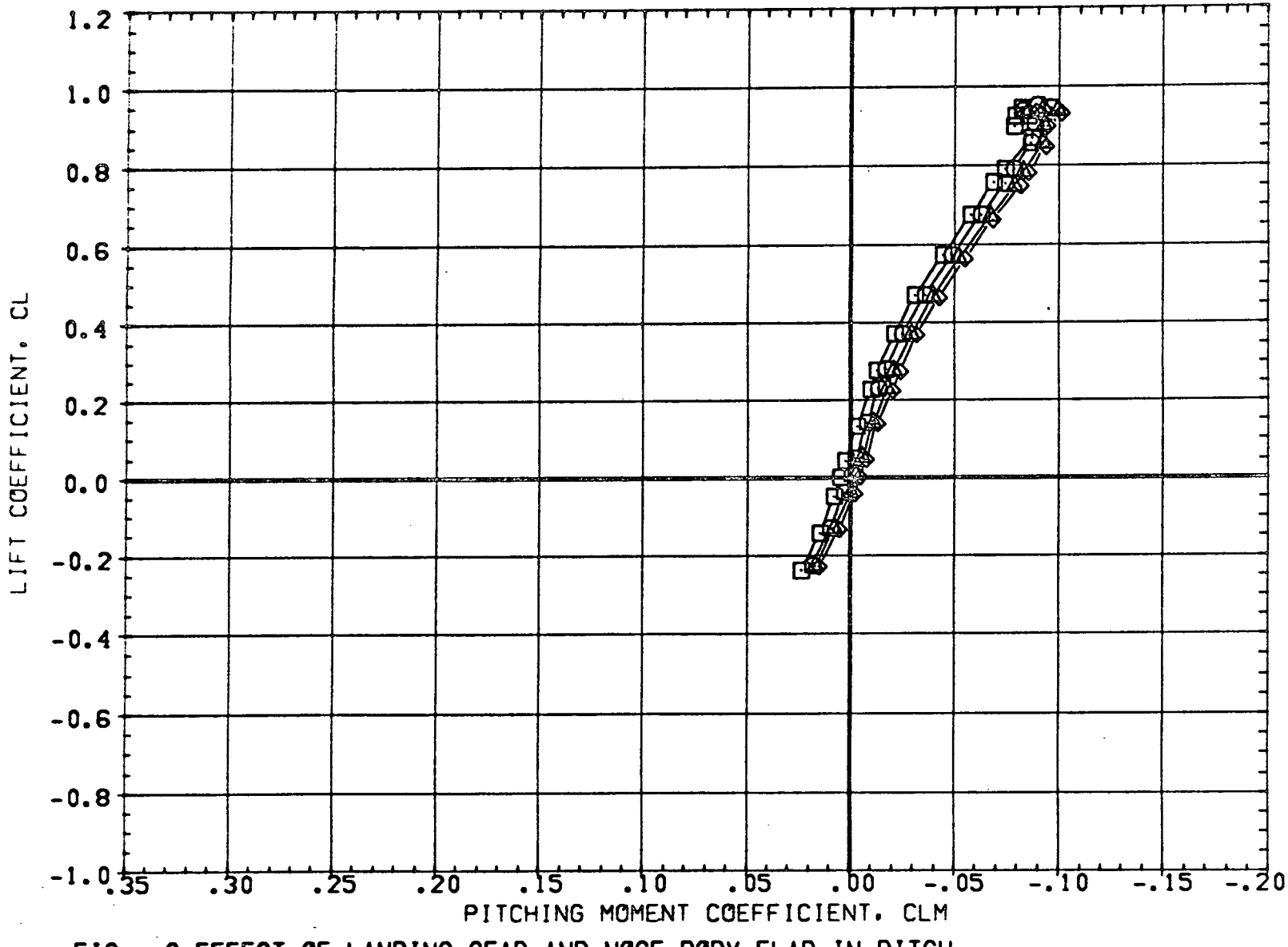

FIG. 6 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG001)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG007)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4	0.000	0.000	0.000
(ADG009)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5	0.000	0.000	0.000
(ADG017)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

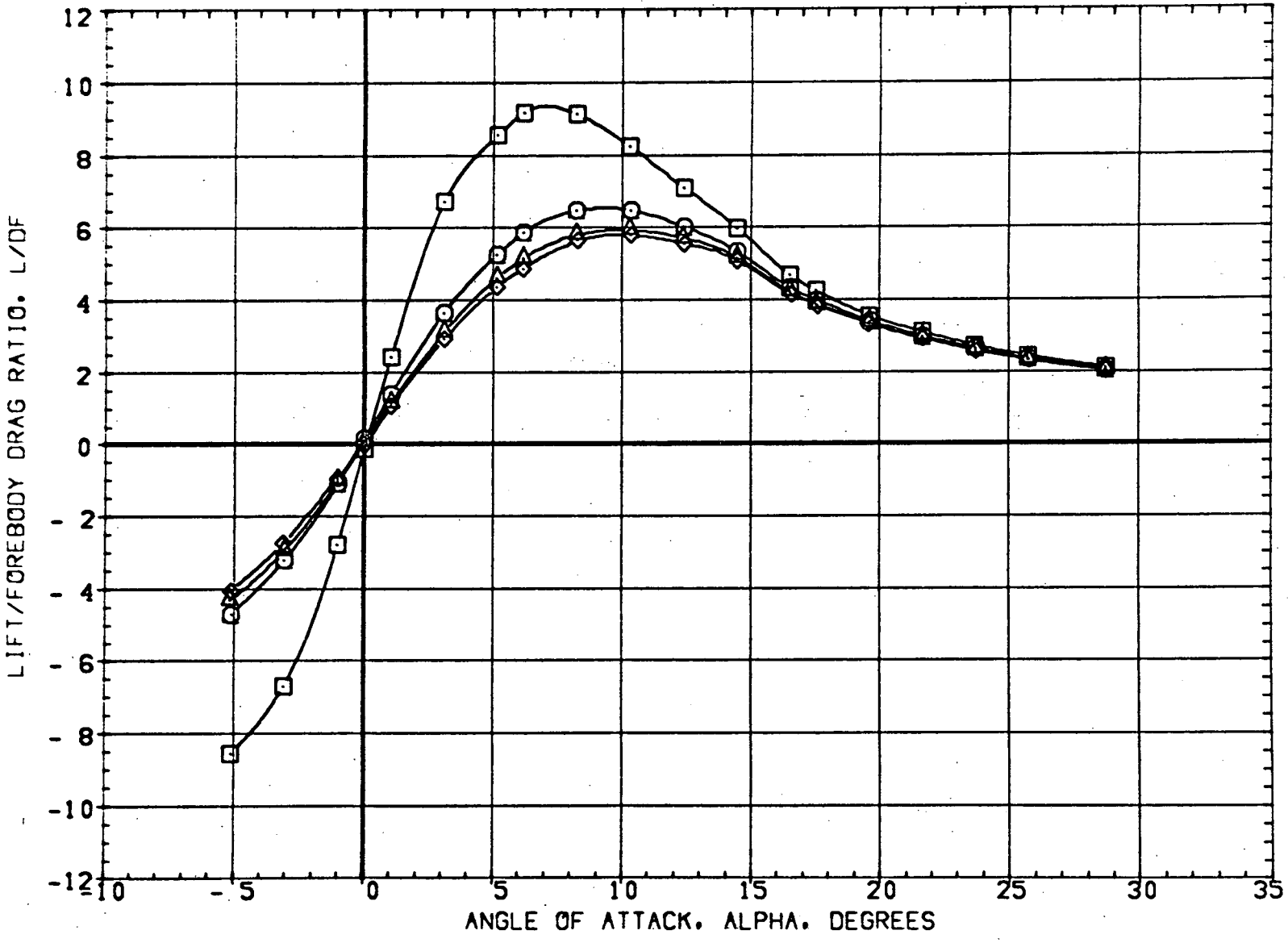

FIG. 6 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6001)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 61	0.000	0.000	0.000
(AD6007)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 64	0.000	0.000	0.000
(AD6009)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 69	0.000	0.000	0.000
(AD6017)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2626	INCHES
BREF	40.8119	INCHES
XMRP	49.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

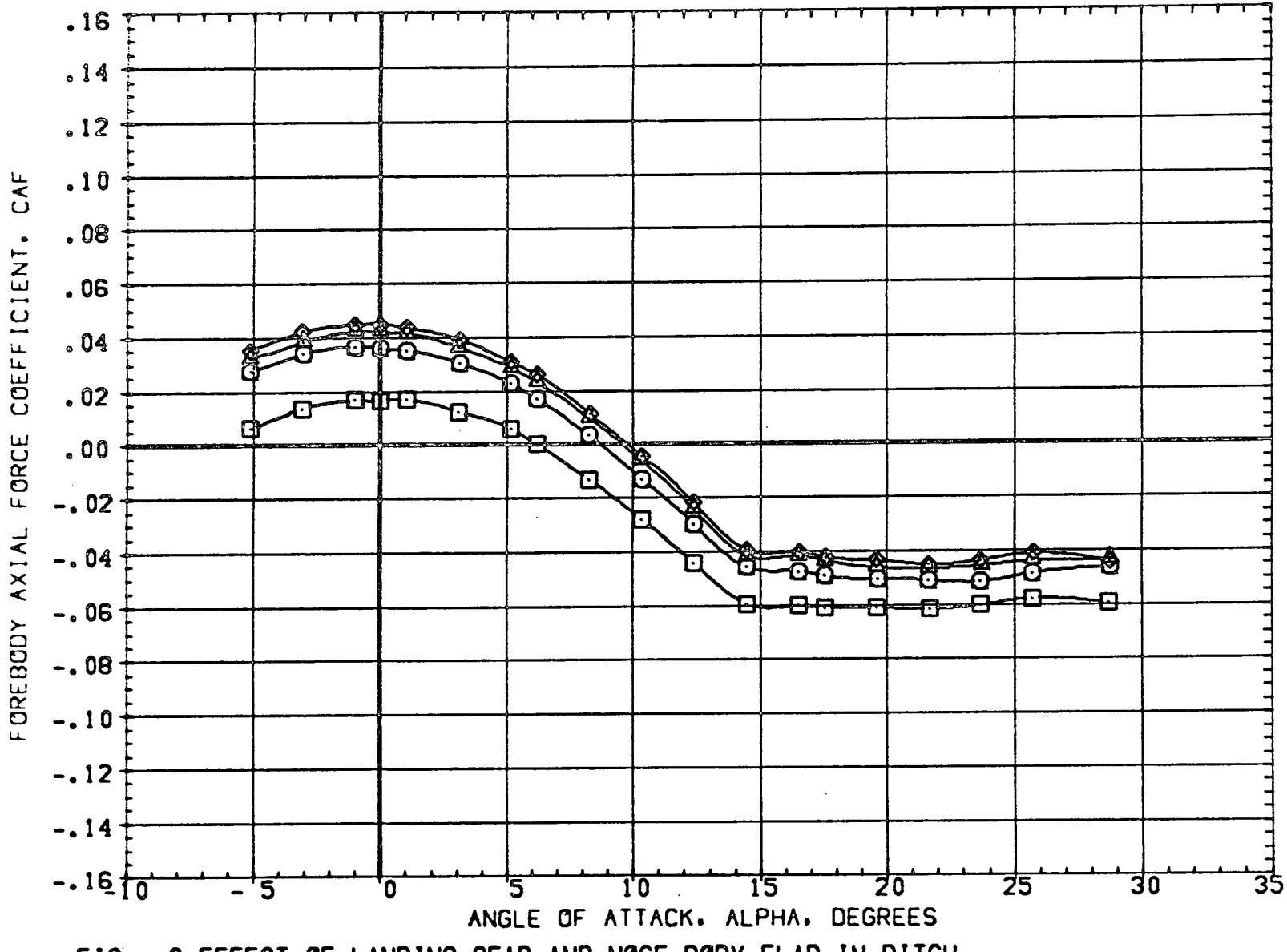

FIG. 6 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG001)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG007)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4	0.000	0.000	0.000
(ADG009)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5	0.000	0.000	0.000
(ADG017)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2616	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

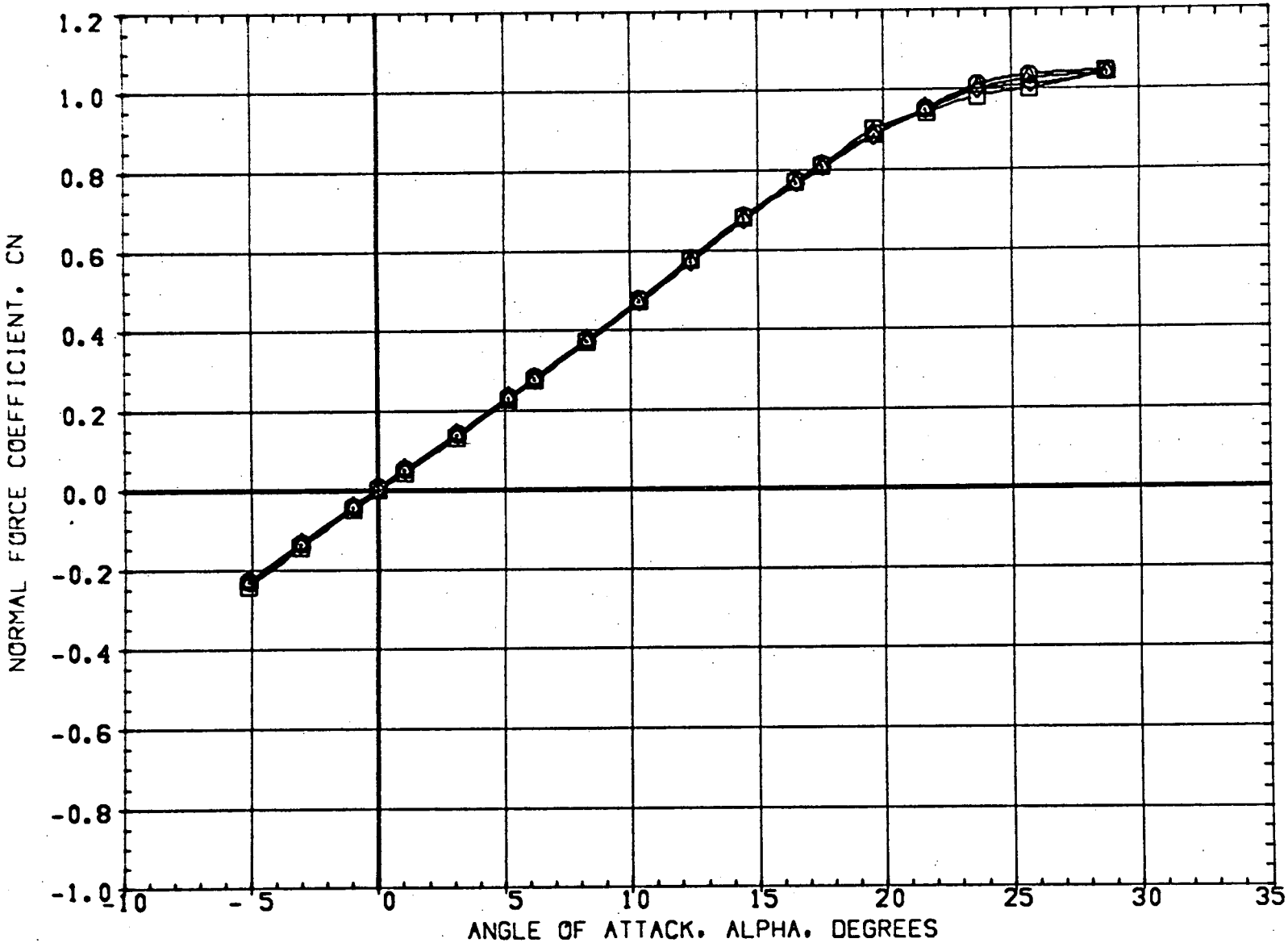

FIG. 6 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN PITCH

(A)MACH = .16

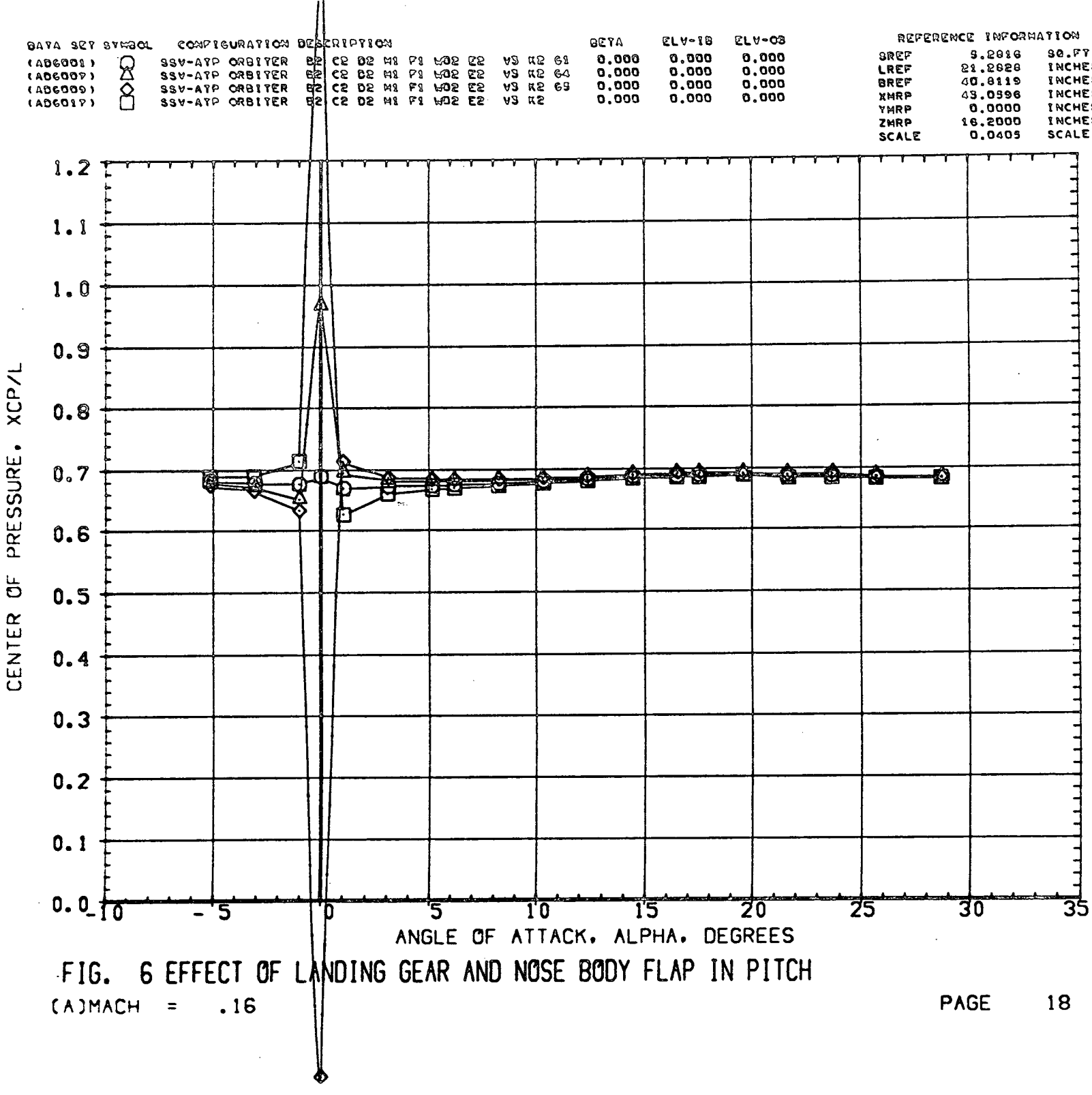

FIG. 6 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG001)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG007)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4	0.000	0.000	0.000
(ADG009)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5	0.000	0.000	0.000
(ADG017)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

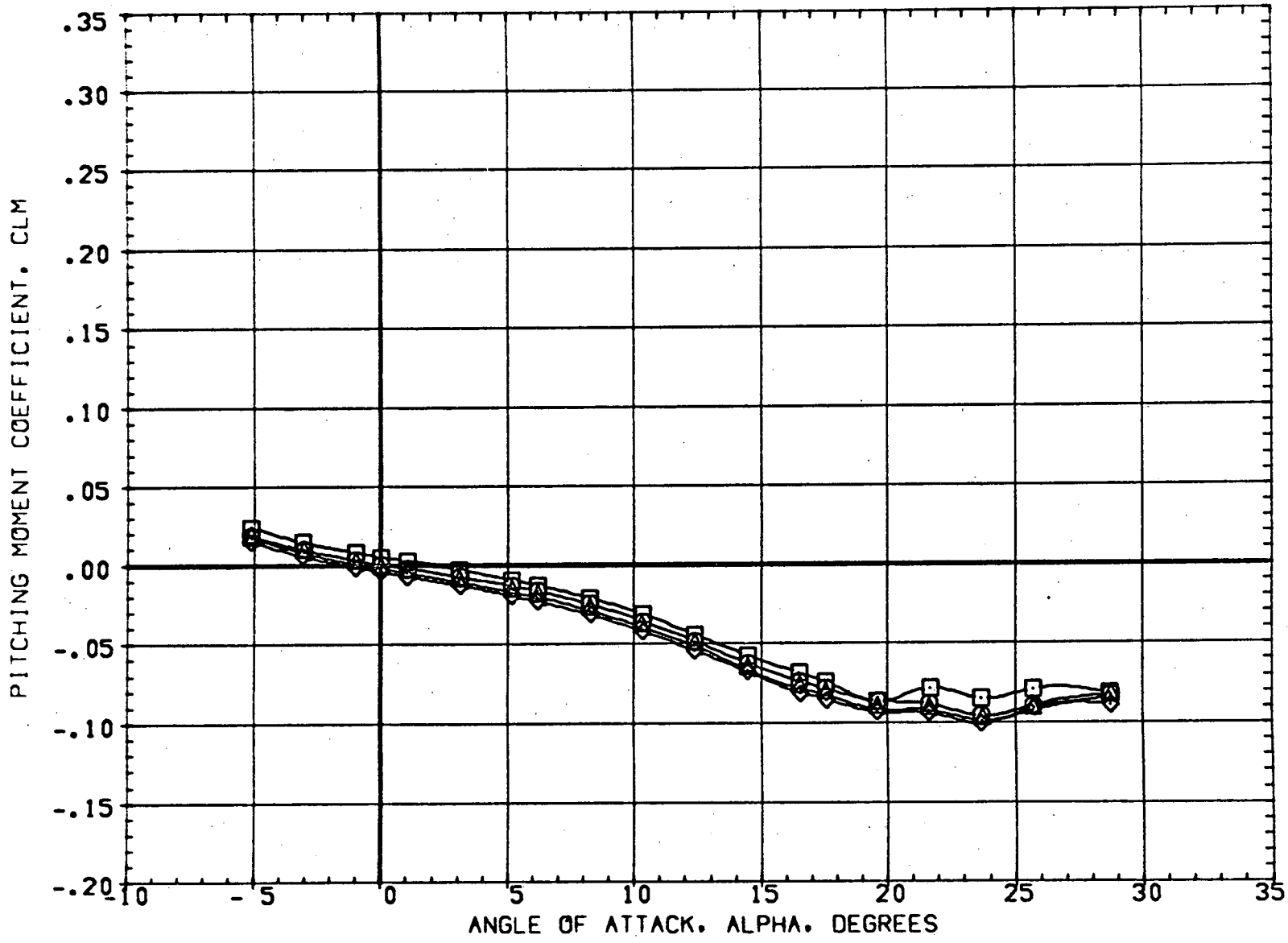

FIG. 6 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BD6001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G1	0.000	0.000	0.000
(BD6002)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G1	5.000	0.000	0.000
(BD6007)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G4	0.000	0.000	0.000
(BD6009)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G4	5.000	0.000	0.000
(BD6009)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G5	0.000	0.000	0.000
(BD6010)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G5	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0996	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

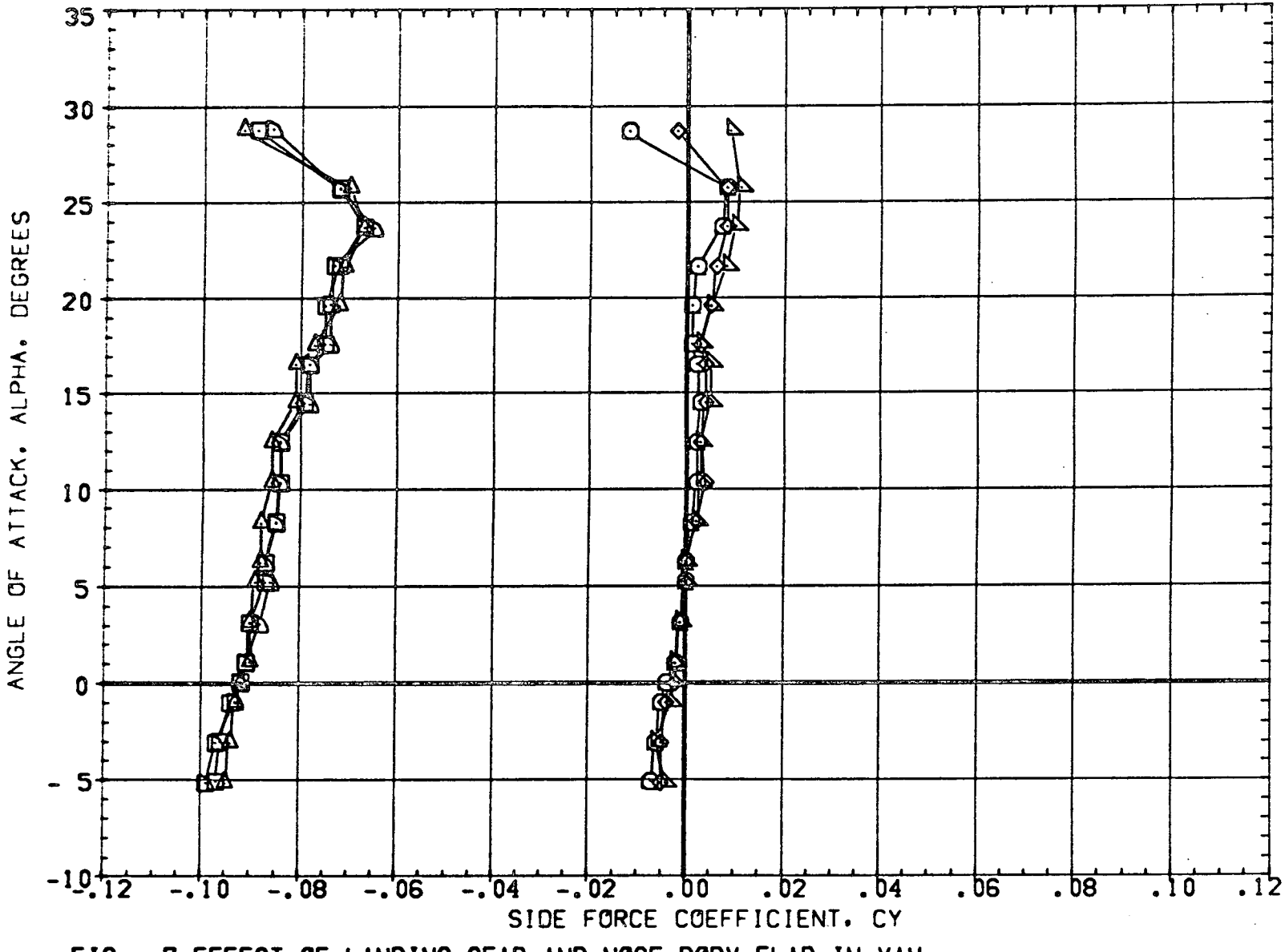

FIG. 7 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDG001)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(BDG002)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	5.000	0.000	0.000
(BDG007)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4	0.000	0.000	0.000
(BDG008)	▷	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4	5.000	0.000	0.000
(BDG009)	⊠	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5	0.000	0.000	0.000
(BDG010)	⊠	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

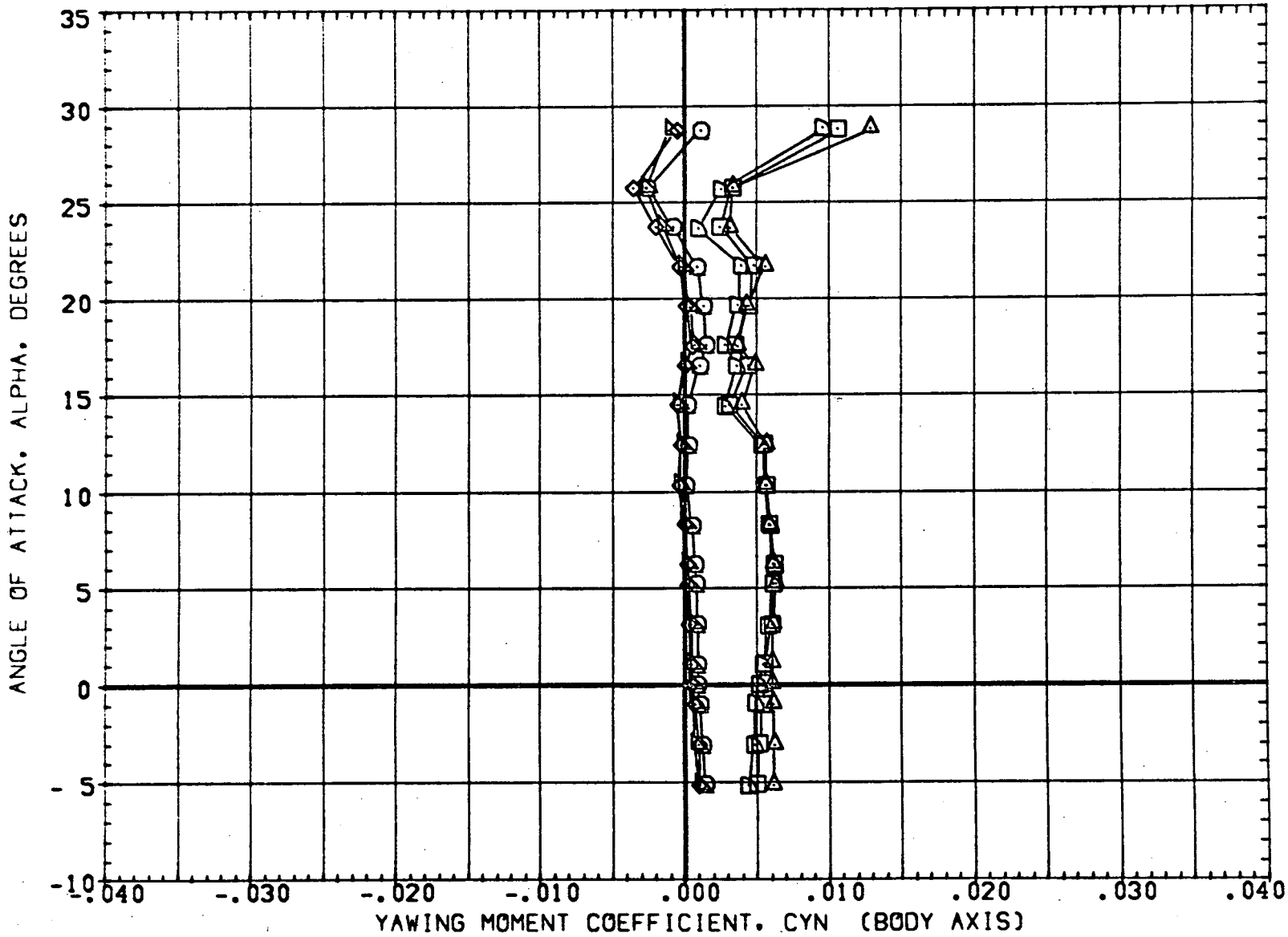

FIG. 7 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-03
(BD6001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(BD6002)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	5.000	0.000	0.000
(BD6007)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4	0.000	0.000	0.000
(BD6008)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4	5.000	0.000	0.000
(BD6009)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5	0.000	0.000	0.000
(BD6010)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2028	INCHES
BREF	40.8119	INCHES
XMRP	49.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

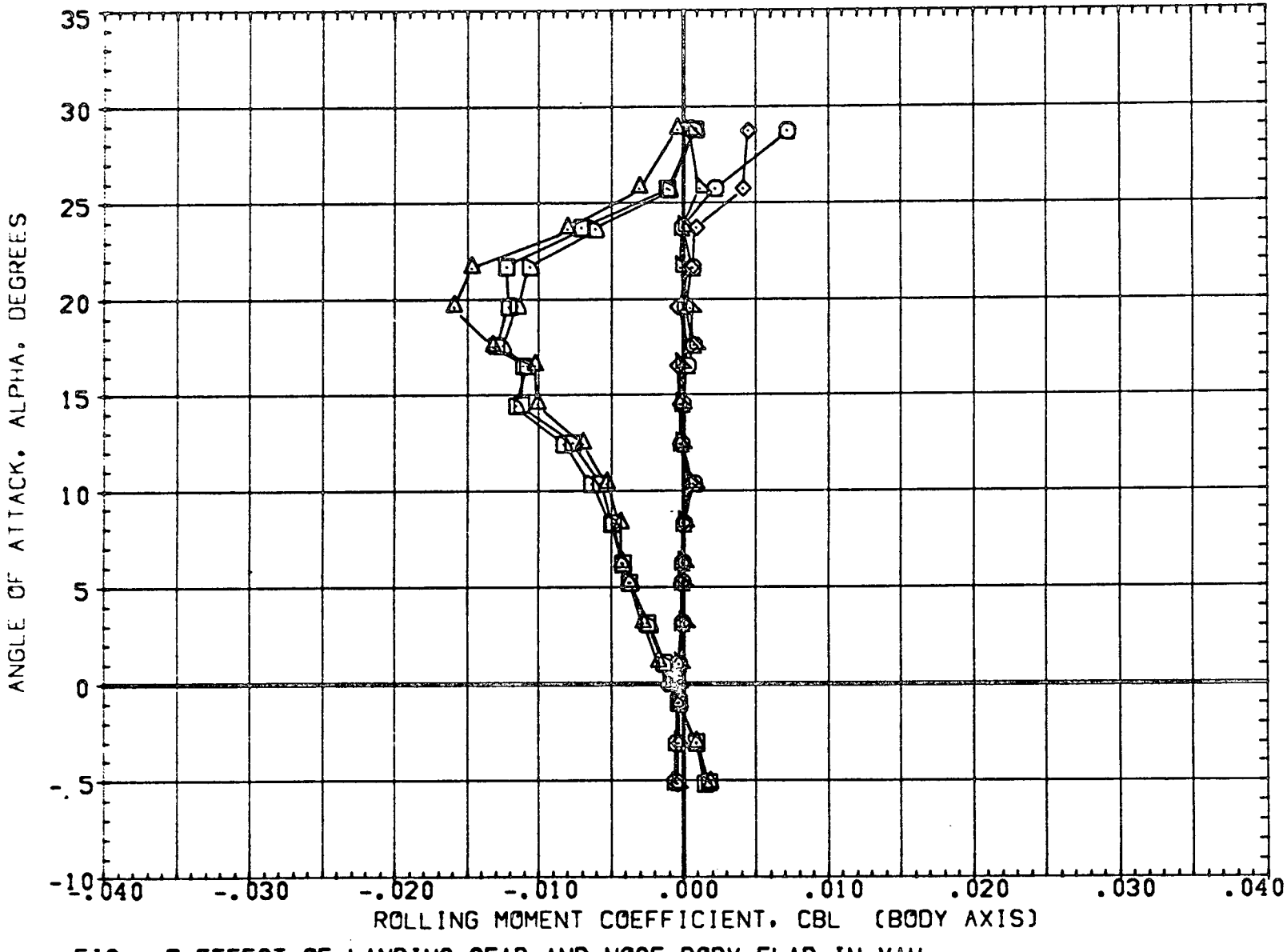

FIG. 7 EFFECT OF LANDING GEAR AND NOSE BODY FLAP IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC001)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADC011)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G6	0.000	0.000	0.000
(ADC013)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G7	0.000	0.000	0.000
(ADC015)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2 G8	0.000	0.000	0.000
(ADC017)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

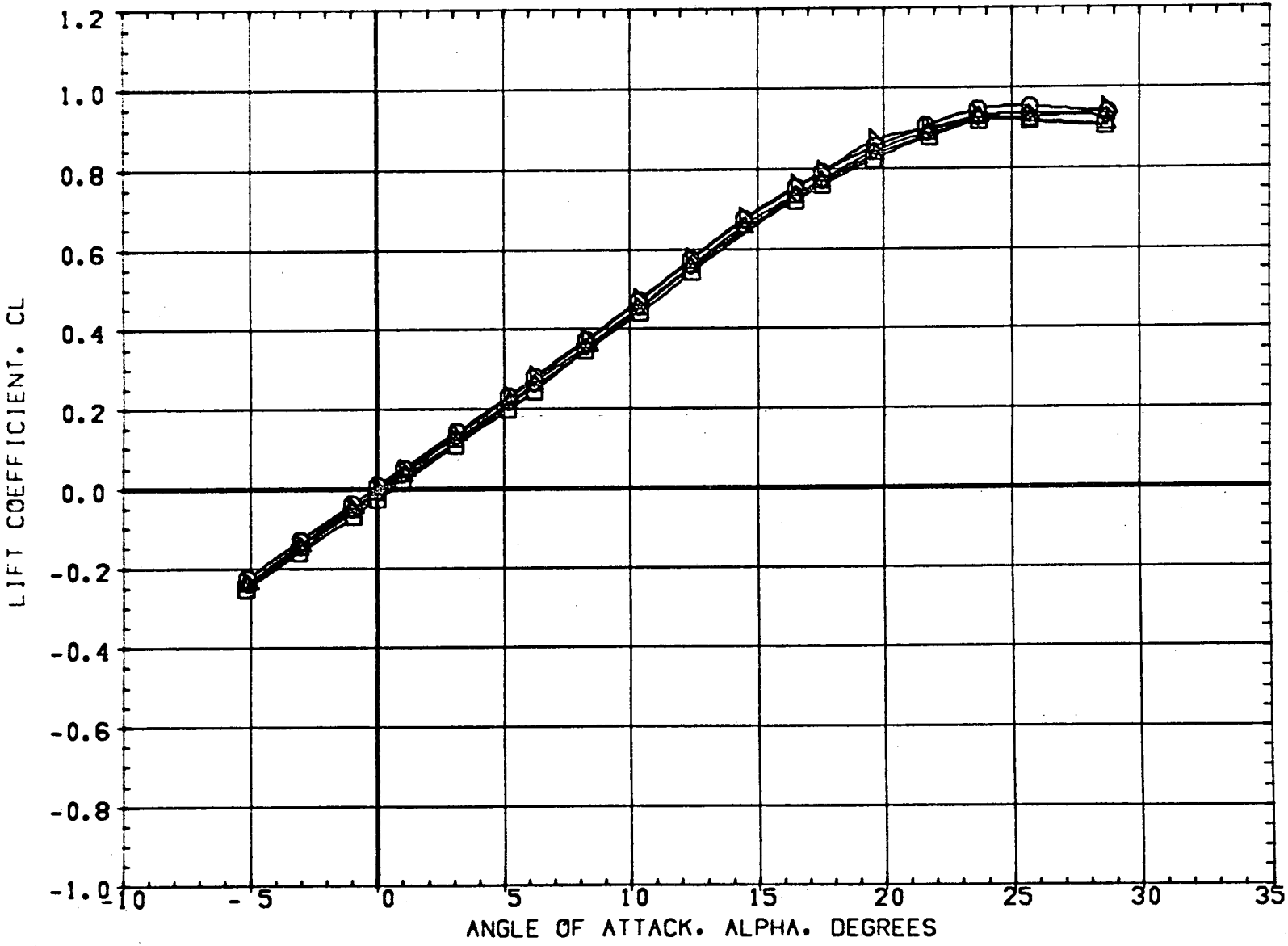

FIG. 8 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN PITCH

(A)MACH = .16

C2

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC001)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G1	0.000	0.000	0.000
(ADC011)	⊠	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G0	0.000	0.000	0.000
(ADC013)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G7	0.000	0.000	0.000
(ADC015)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G0	0.000	0.000	0.000
(ADC019)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3.2818	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	49.0996	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

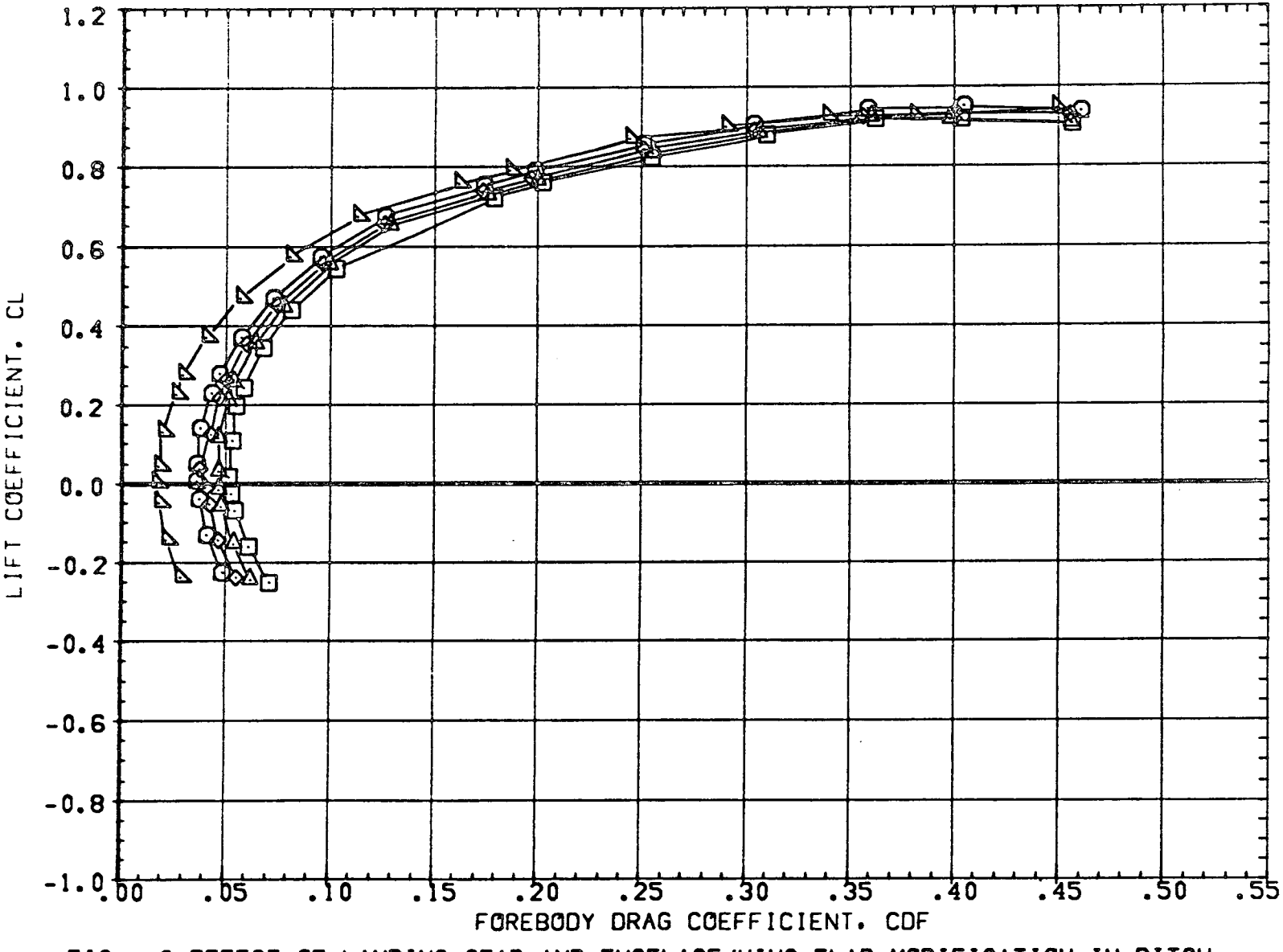

FIG. 8 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG011)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G6	0.000	0.000	0.000
(ADG013)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G7	0.000	0.000	0.000
(ADG015)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8	0.000	0.000	0.000
(ADG017)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

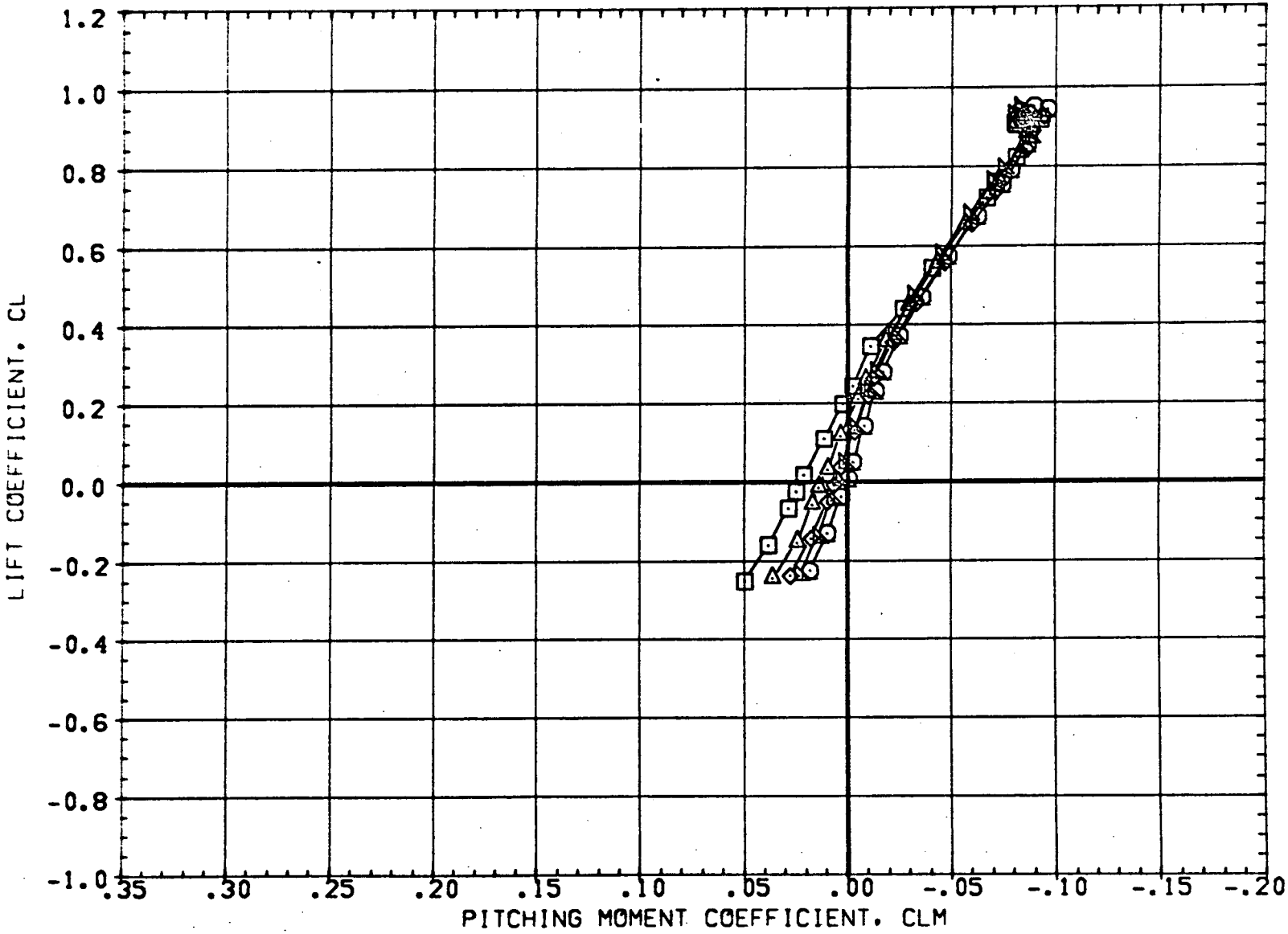

FIG. 8 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G1	0.000	0.000	0.000
(AD6011)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G8	0.000	0.000	0.000
(AD6013)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G7	0.000	0.000	0.000
(AD6015)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G8	0.000	0.000	0.000
(AD6017)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

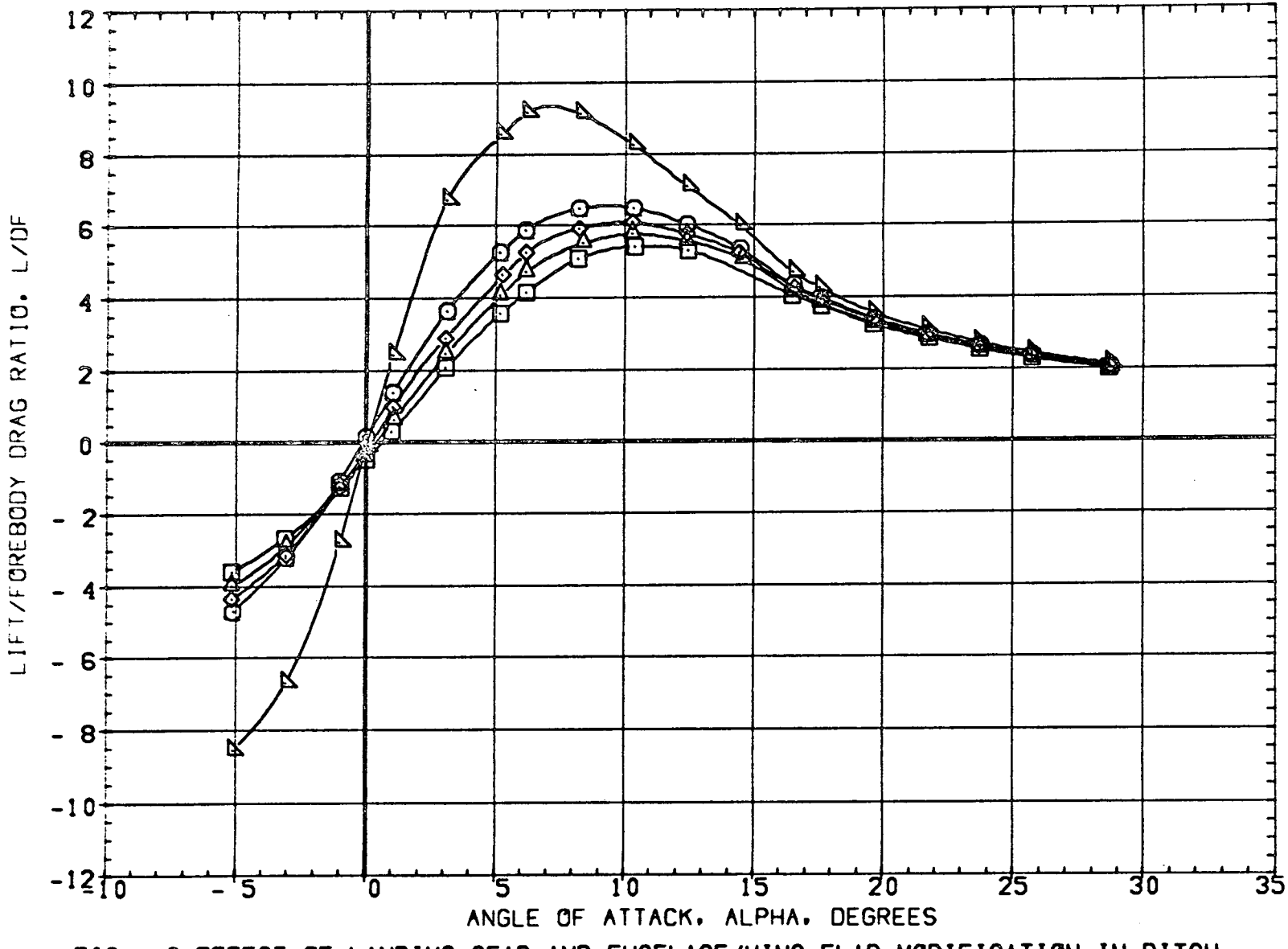

FIG. 8 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1	0.000	0.000	0.000
(ADG011)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G6	0.000	0.000	0.000
(ADG013)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G7	0.000	0.000	0.000
(ADG015)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8	0.000	0.000	0.000
(ADG017)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

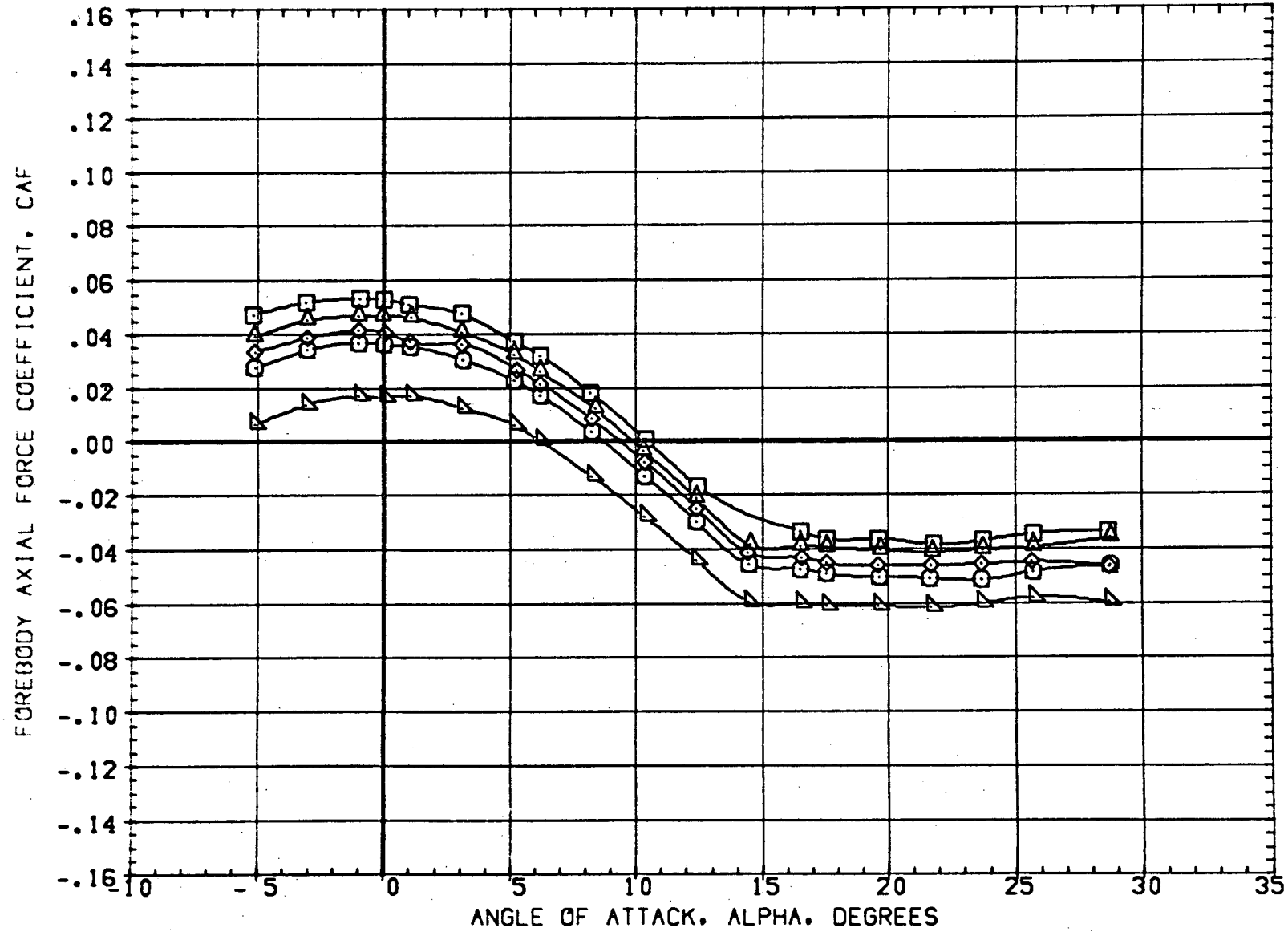

FIG. 8 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G1	0.000	0.000	0.000
(ADG011)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G6	0.000	0.000	0.000
(ADG013)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G7	0.000	0.000	0.000
(ADG015)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G8	0.000	0.000	0.000
(ADG017)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2020	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

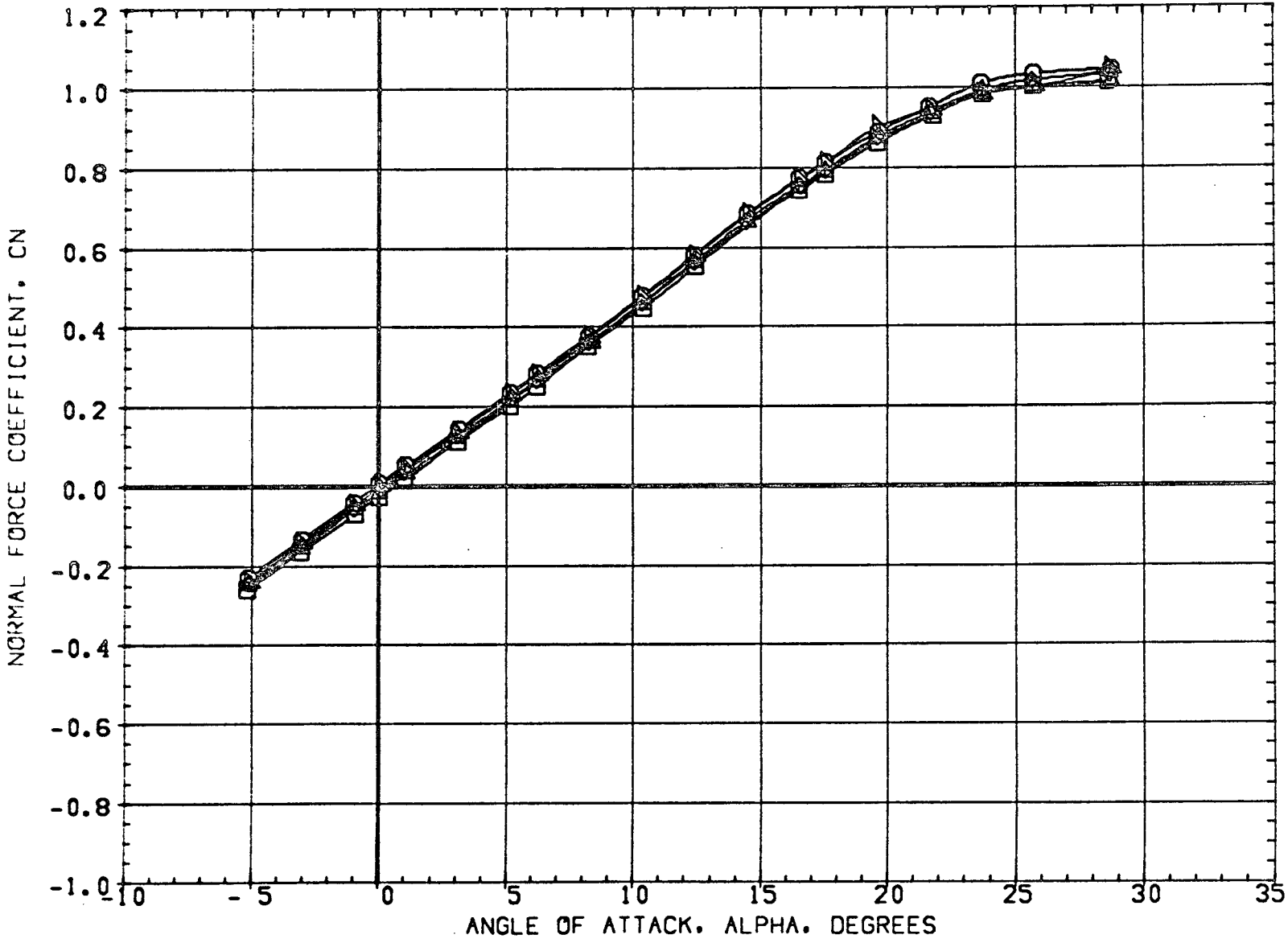

FIG. 8 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN PITCH

(A)MACH = .16

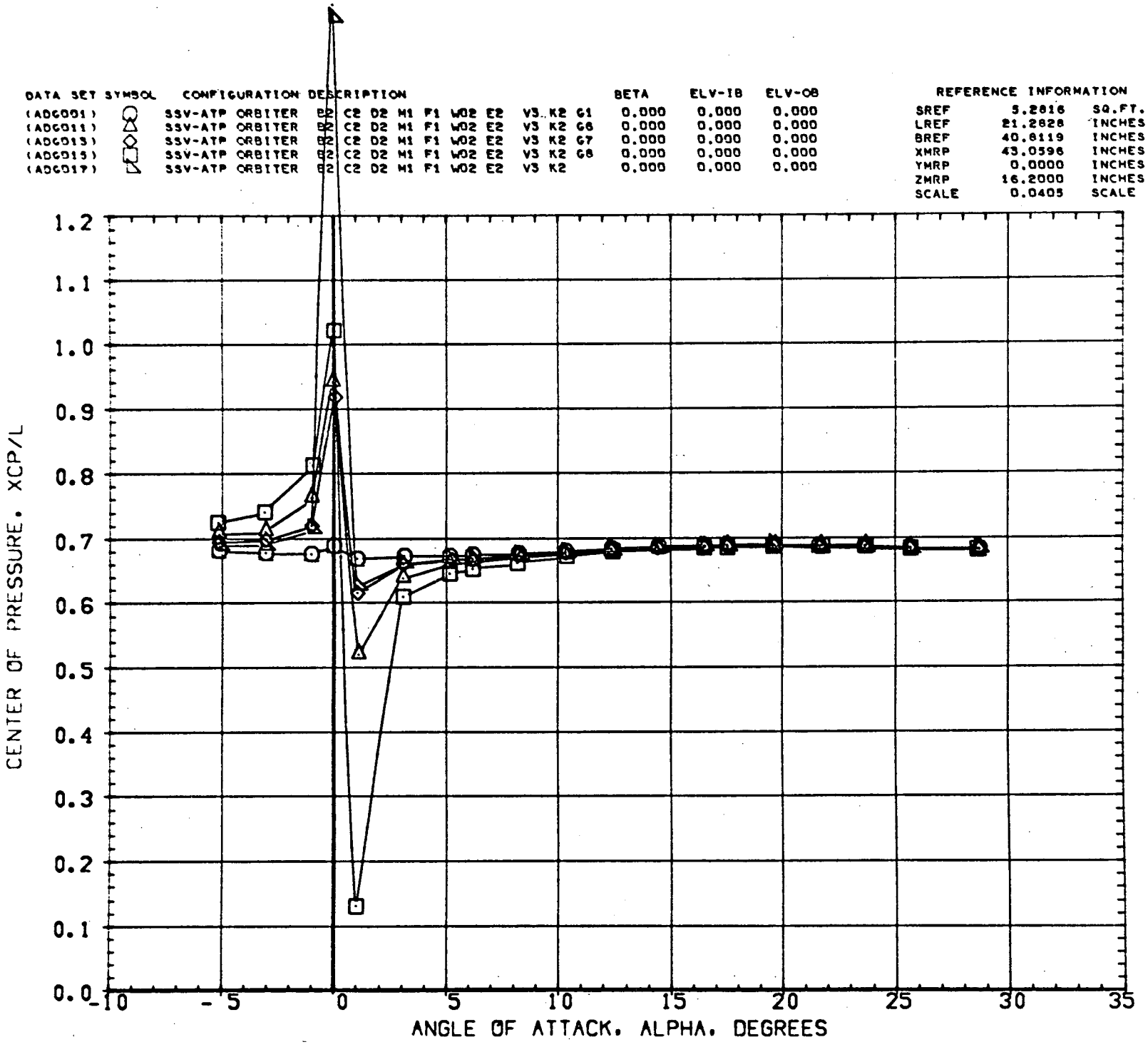

FIG. 8 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG001)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G1	0.000	0.000	0.000
(ADG011)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G8	0.000	0.000	0.000
(ADG013)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G7	0.000	0.000	0.000
(ADG019)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G8	0.000	0.000	0.000
(ADG017)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

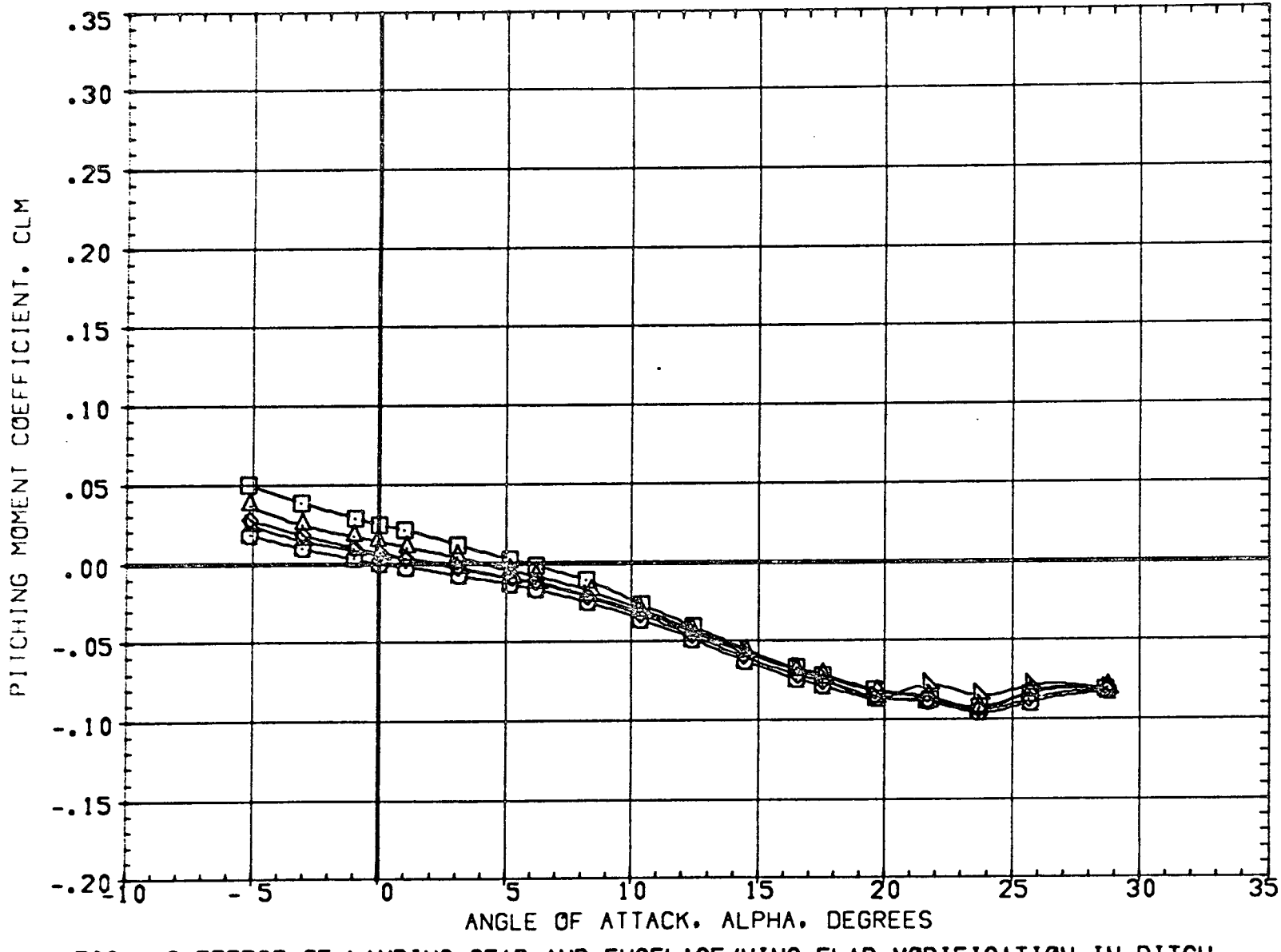

FIG. 8 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(EDG011)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G6	0.000	0.000	0.000
(EDG012)	▽	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G6	5.000	0.000	0.000
(EDG013)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G7	0.000	0.000	0.000
(EDG014)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G7	5.000	0.000	0.000
(EDG015)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8	0.000	0.000	0.000
(EDG016)	⊗	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

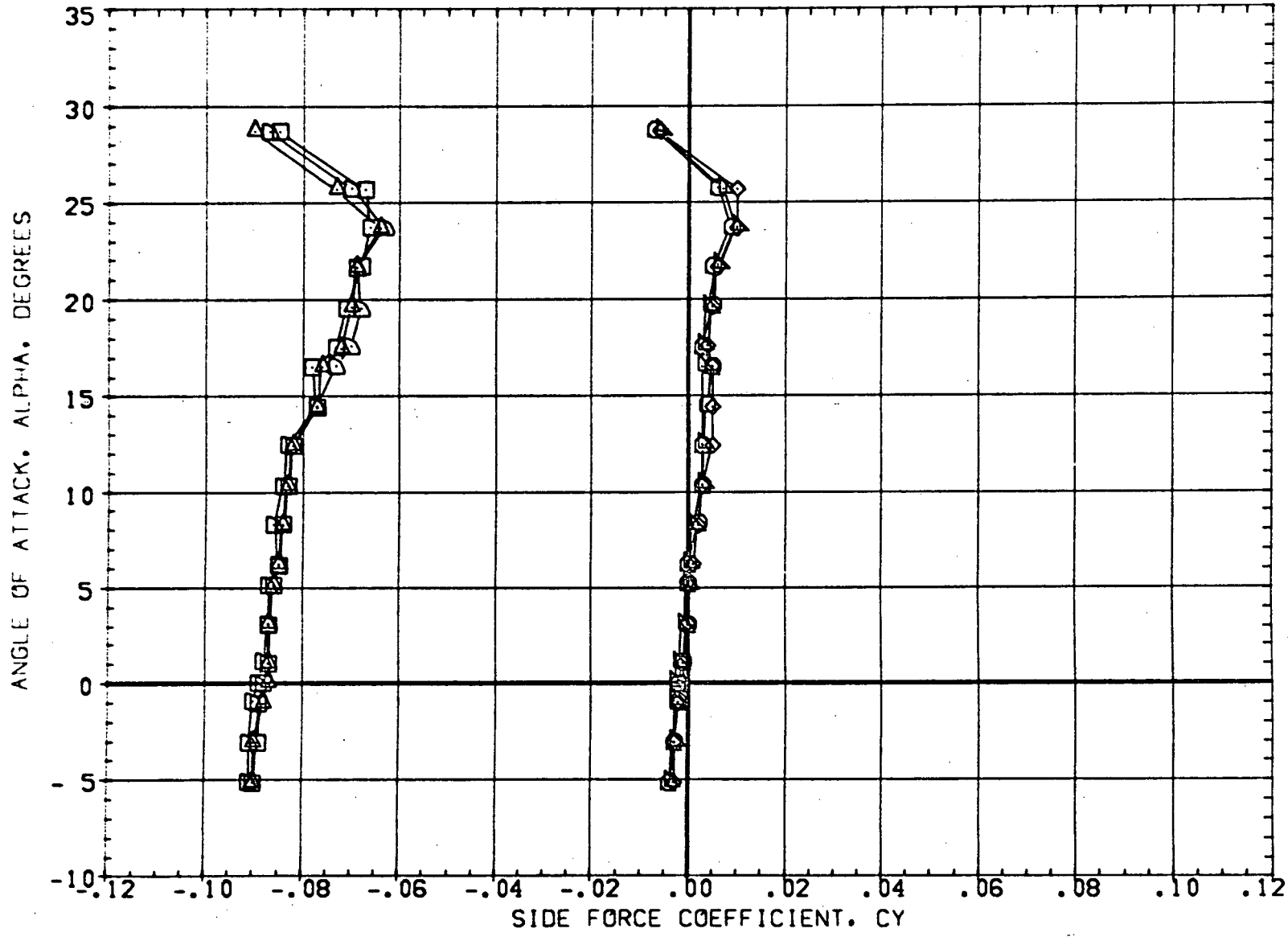

FIG. 9 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDG011)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G6	0.000	0.000	0.000
(BDG012)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G6	5.000	0.000	0.000
(BDG013)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G7	0.000	0.000	0.000
(BDG014)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2 G7	5.000	0.000	0.000
(BDG015)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8	0.000	0.000	0.000
(BDG016)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

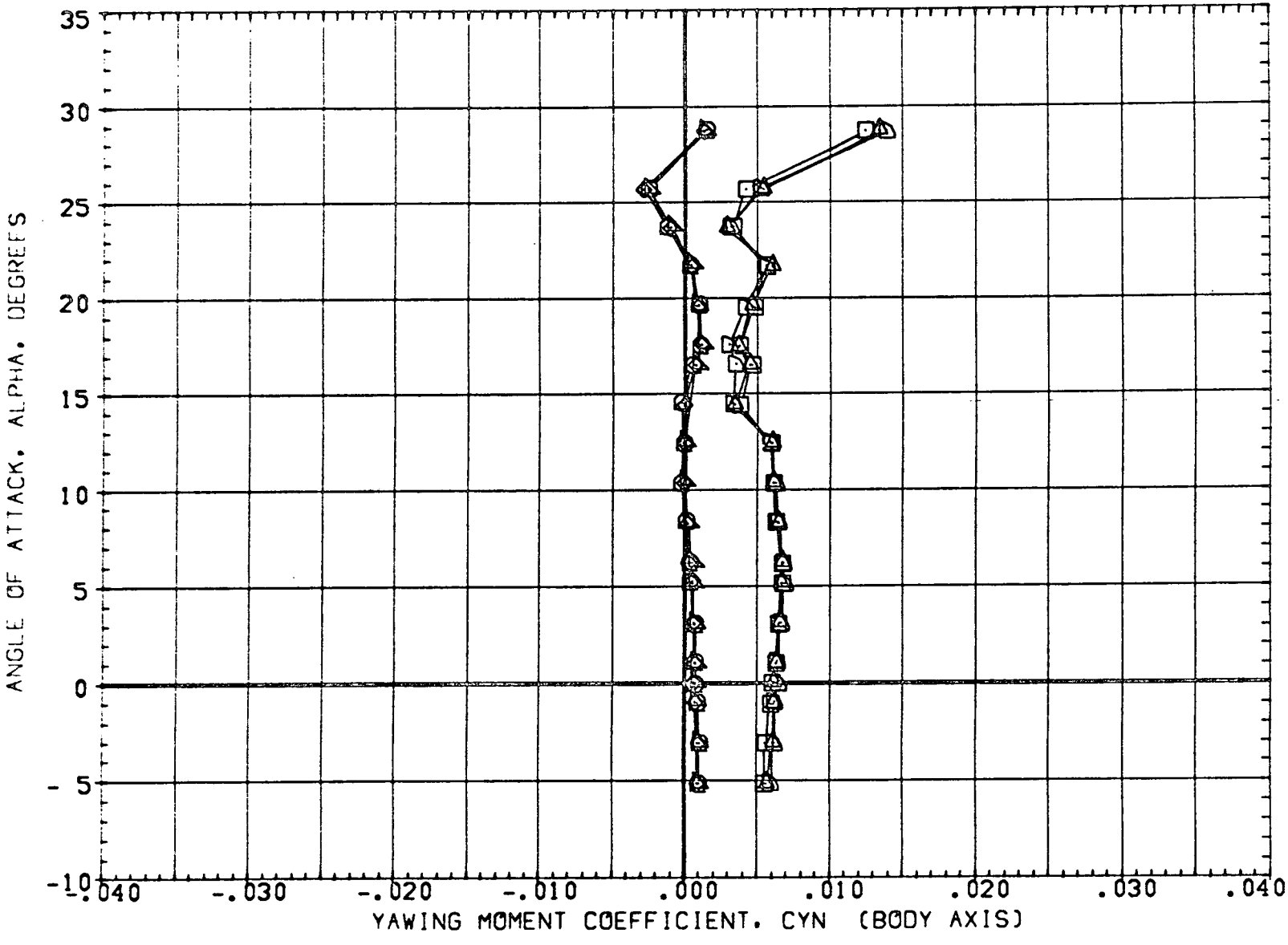

FIG. 9 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN YAW

(A) MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDG011)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G6	0.000	0.000	0.000
(BDG012)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G6	5.000	0.000	0.000
(BDG013)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G7	0.000	0.000	0.000
(BDG014)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G7	5.000	0.000	0.000
(BDG015)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8	0.000	0.000	0.000
(BDG016)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

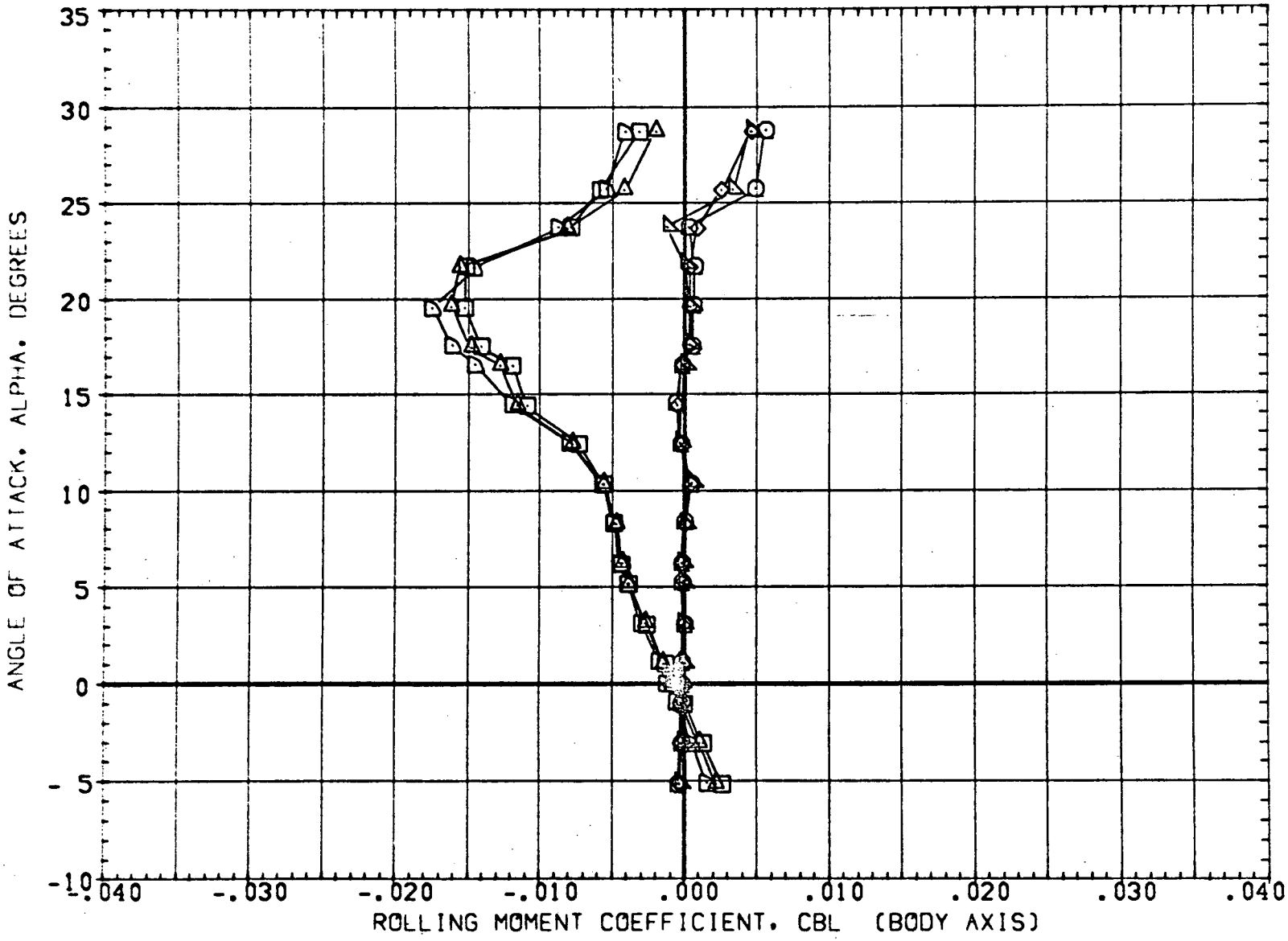

FIG. 9 EFFECT OF LANDING GEAR AND FUSELAGE/WING FLAP MODIFICATION IN YAW

(A)MACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-1B
(ADG019)	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2	40.000	0.163	0.000	0.000
(ADG020)	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2	100.000	0.260	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

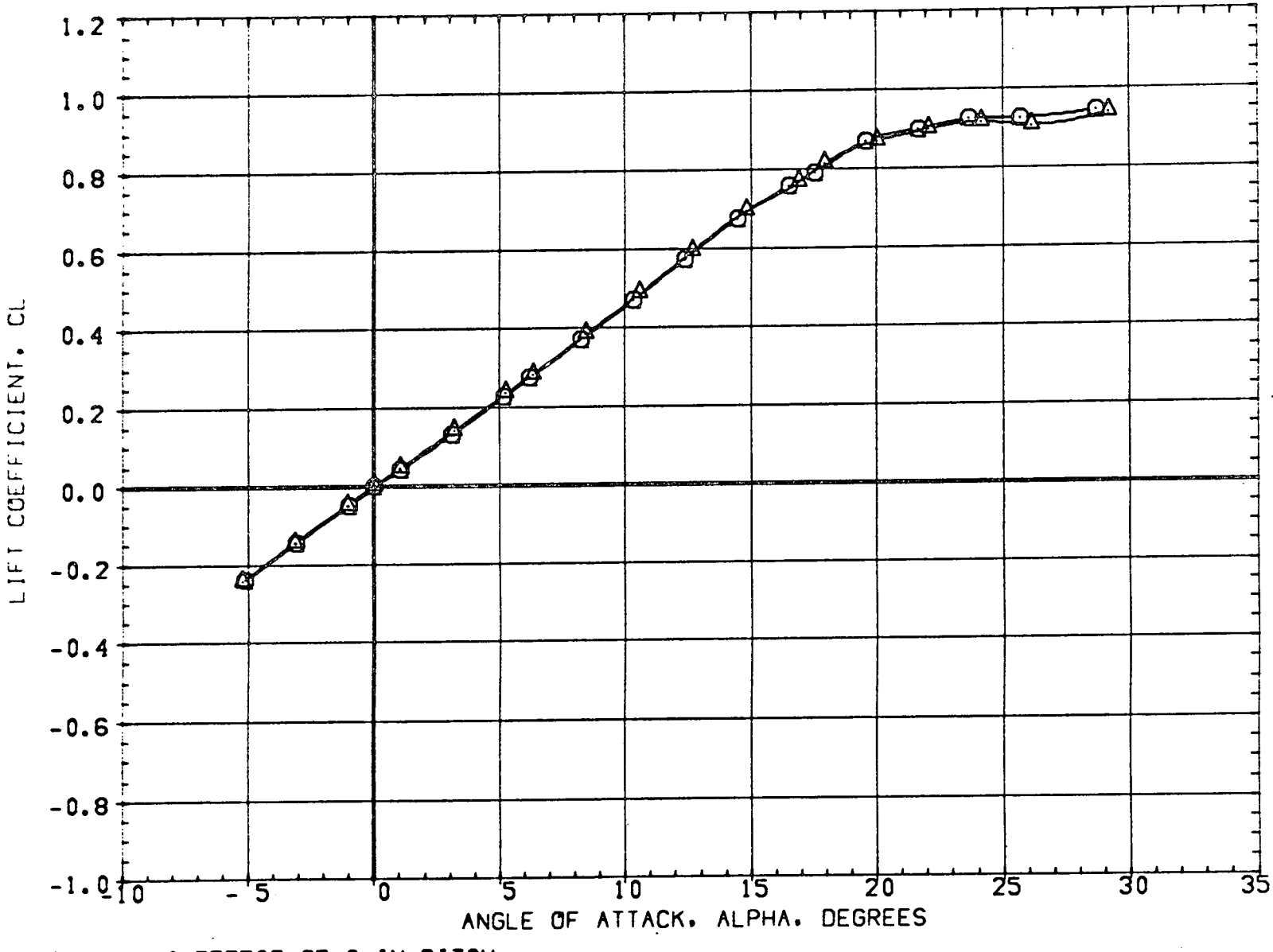

FIG. 10 EFFECT OF Q IN PITCH

(A) MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-1B
(ADC017)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	40.000	0.165	0.000	0.000
(ADC020)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	100.000	0.260	0.000	-0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

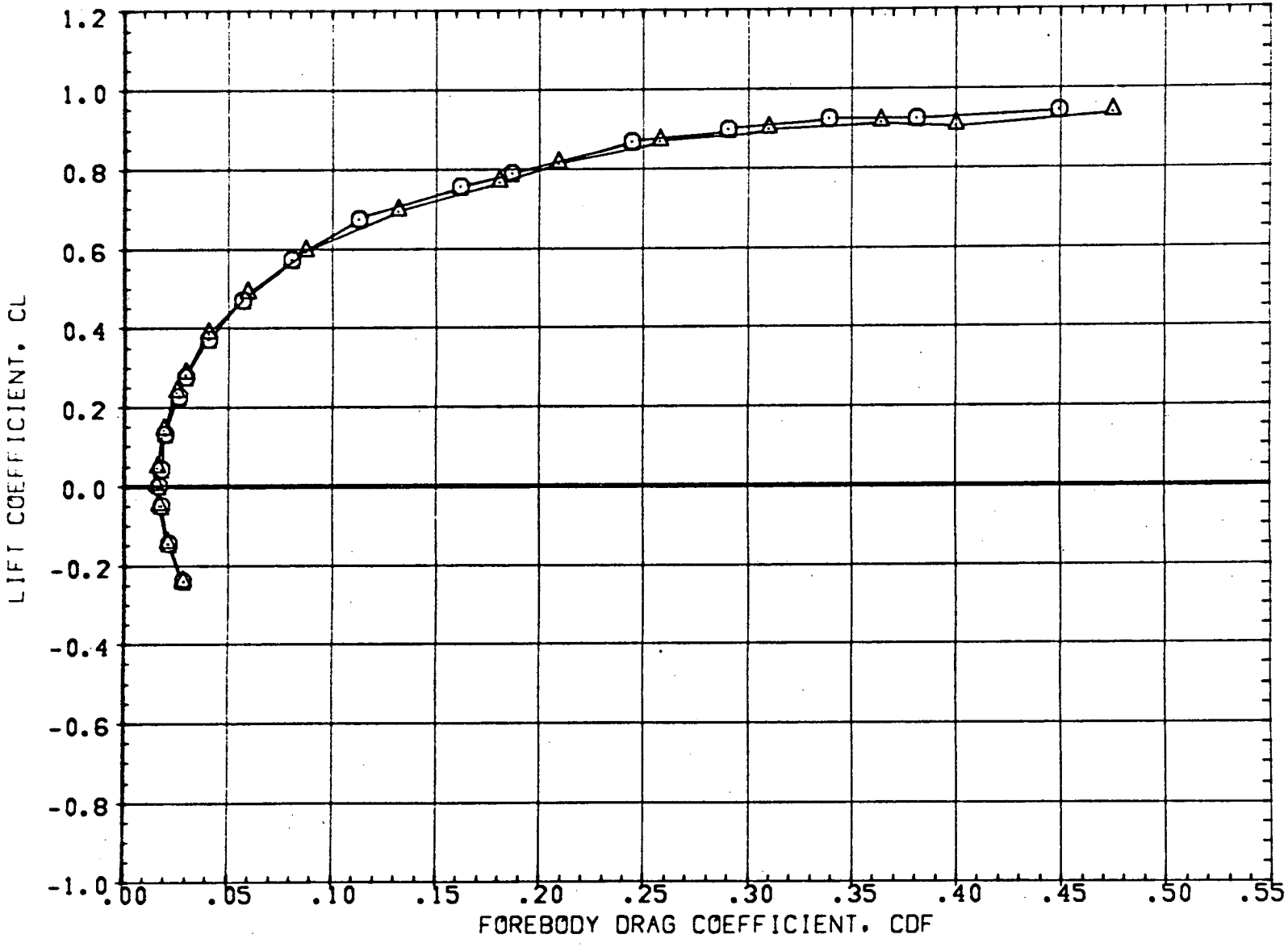

FIG. 10 EFFECT OF Q IN PITCH

(A)MACH = .16

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-1B
(AD6019)	SSV-ATP ORBITER. B2 C2 D2 M1 P1 W02 E2 V3 R2	40.000	0.160	0.000	0.000
(AD6020)	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2	100.000	0.260	0.000	0.000

REFERENCE INFORMATION		
SREF	3.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

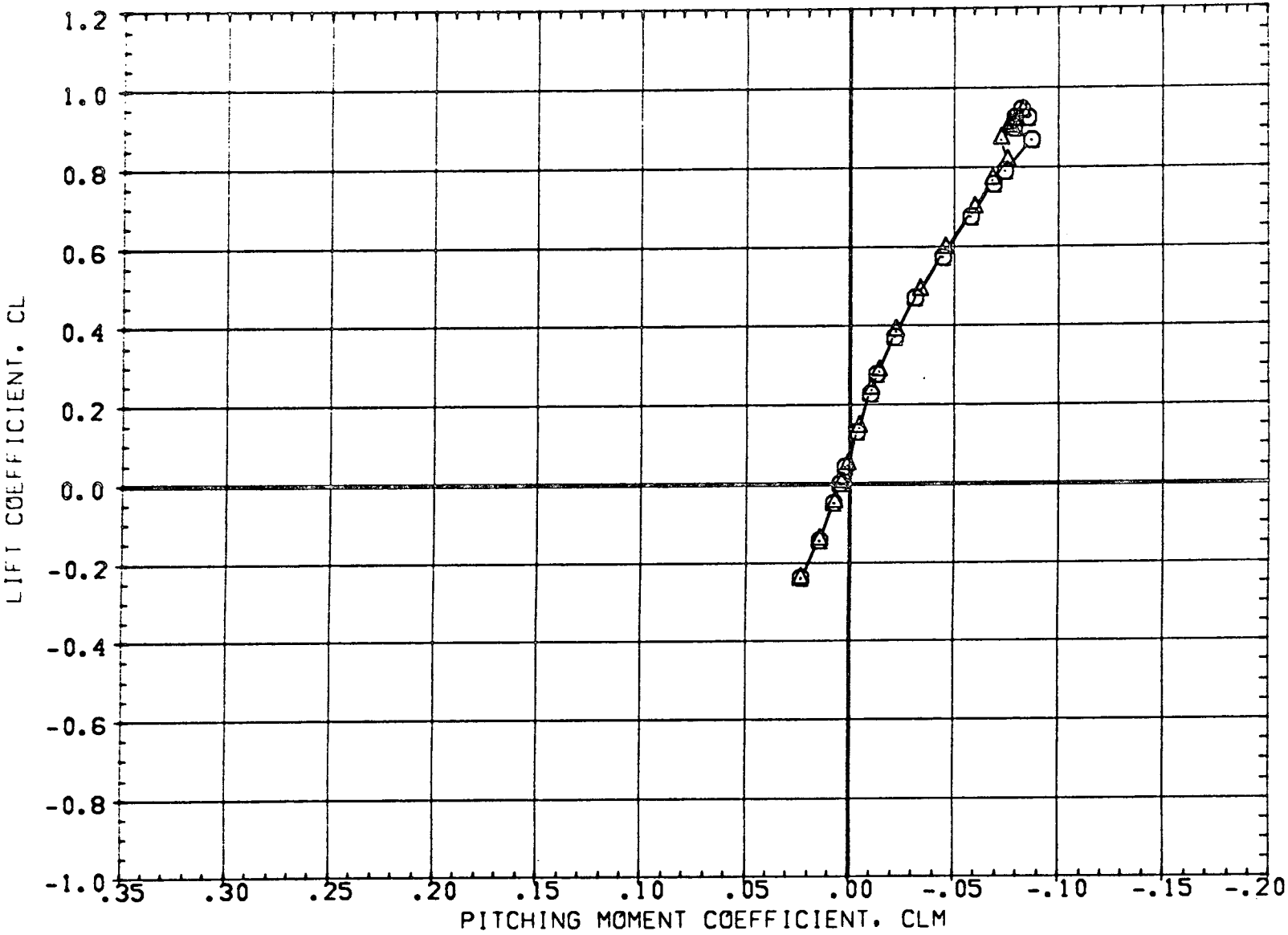

FIG. 10 EFFECT OF Q IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-IB
(ADC017)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	40.000	0.165	0.000	0.000
(ADC020)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	100.000	0.260	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.6119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

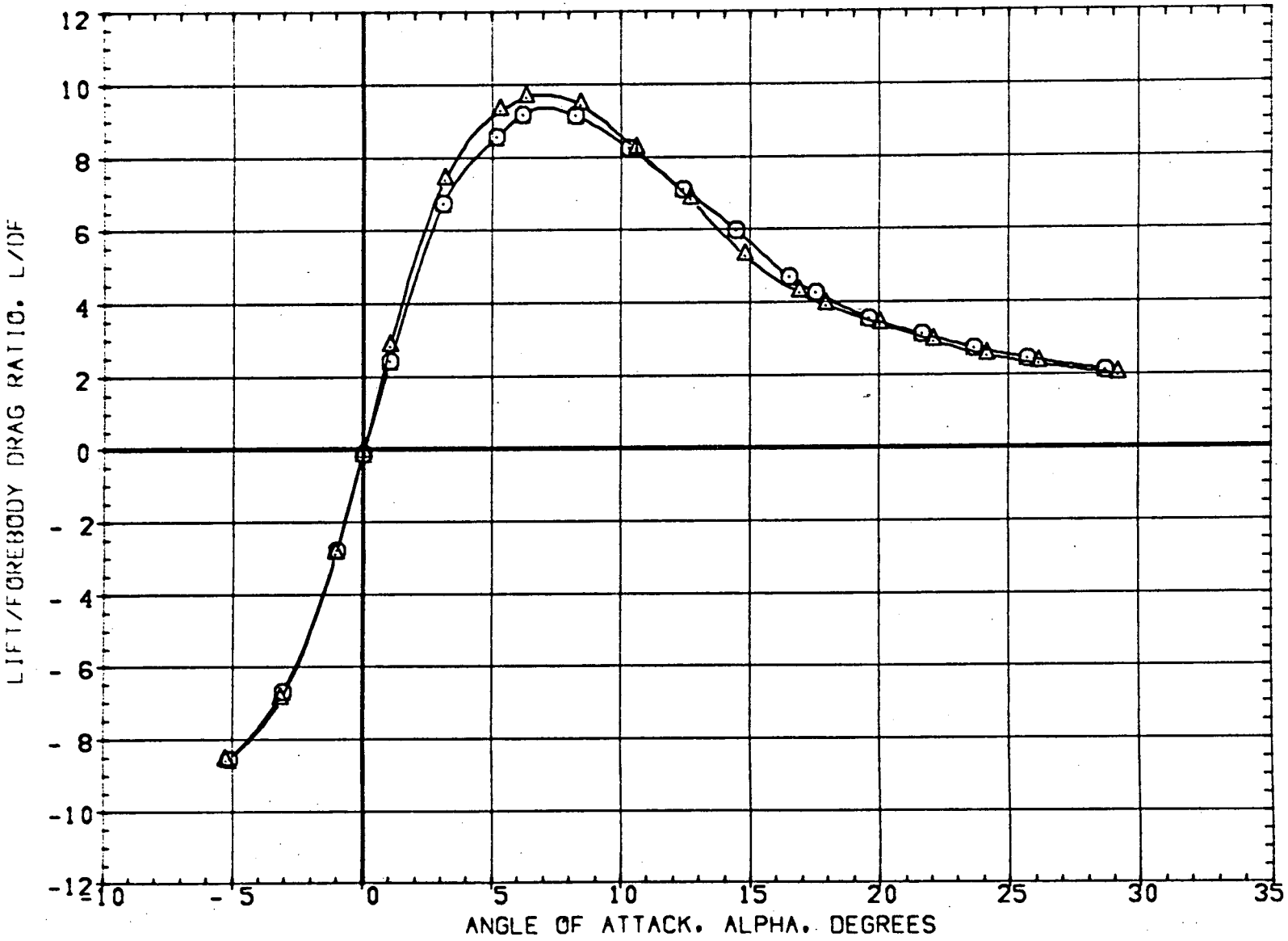

FIG. 10 EFFECT OF Q IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-IB
(AD6017)	○	SSV-ATP ORBITER B2 C2 D2 H1 P1 W02 E2 V3 R2	40.000	0.160	0.000	0.000
(AD6020)	△	SSV-ATP ORBITER B2 C2 D2 H1 P1 W02 E2 V3 R2	100.000	0.260	0.000	0.000

REFERENCE INFORMATION		
SREF	3.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

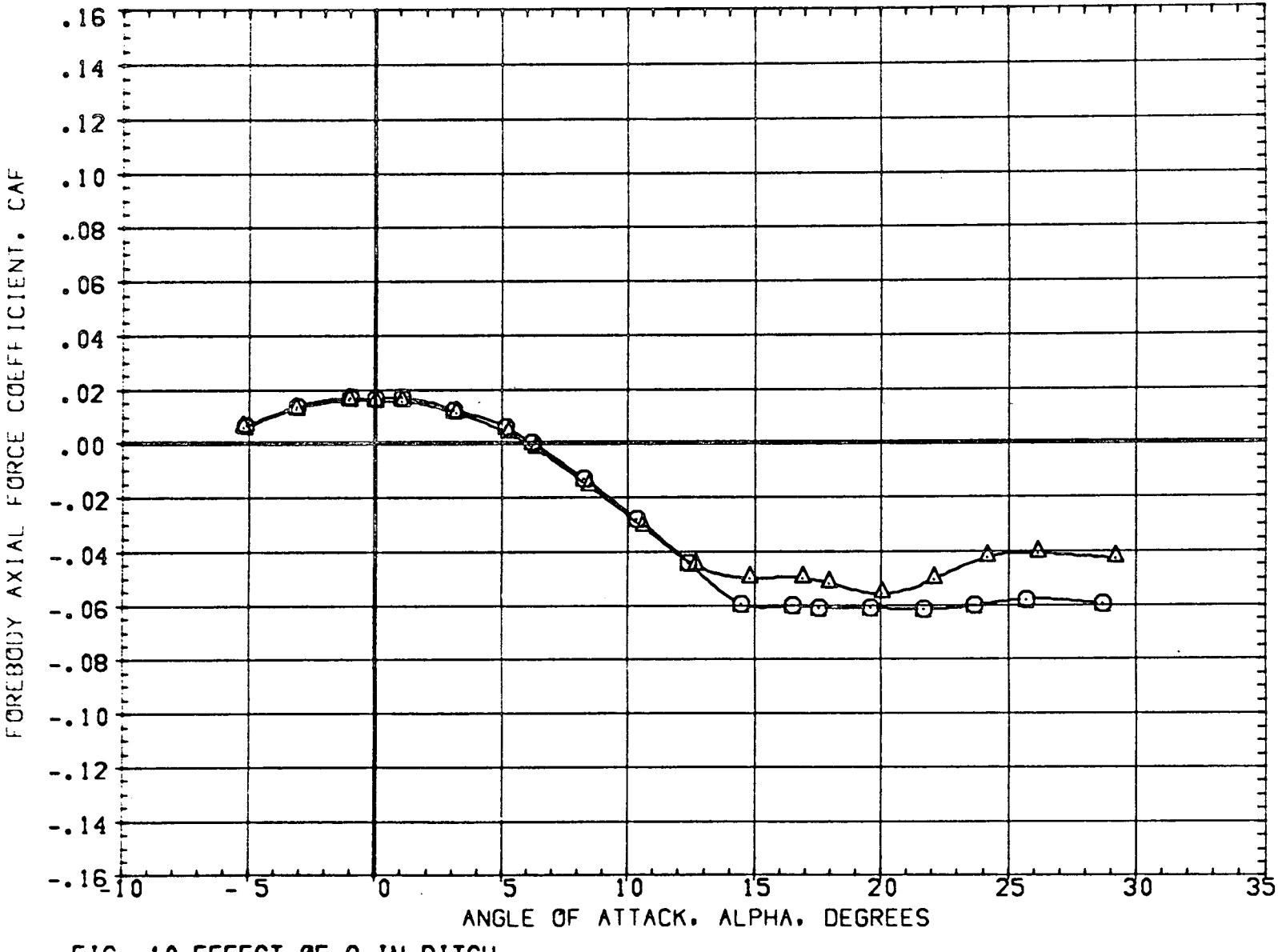

FIG. 10 EFFECT OF Q IN PITCH

(A) MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-IB
(ADG017)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	40.000	0.165	0.000	0.000
(ADG020)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	100.000	0.260	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

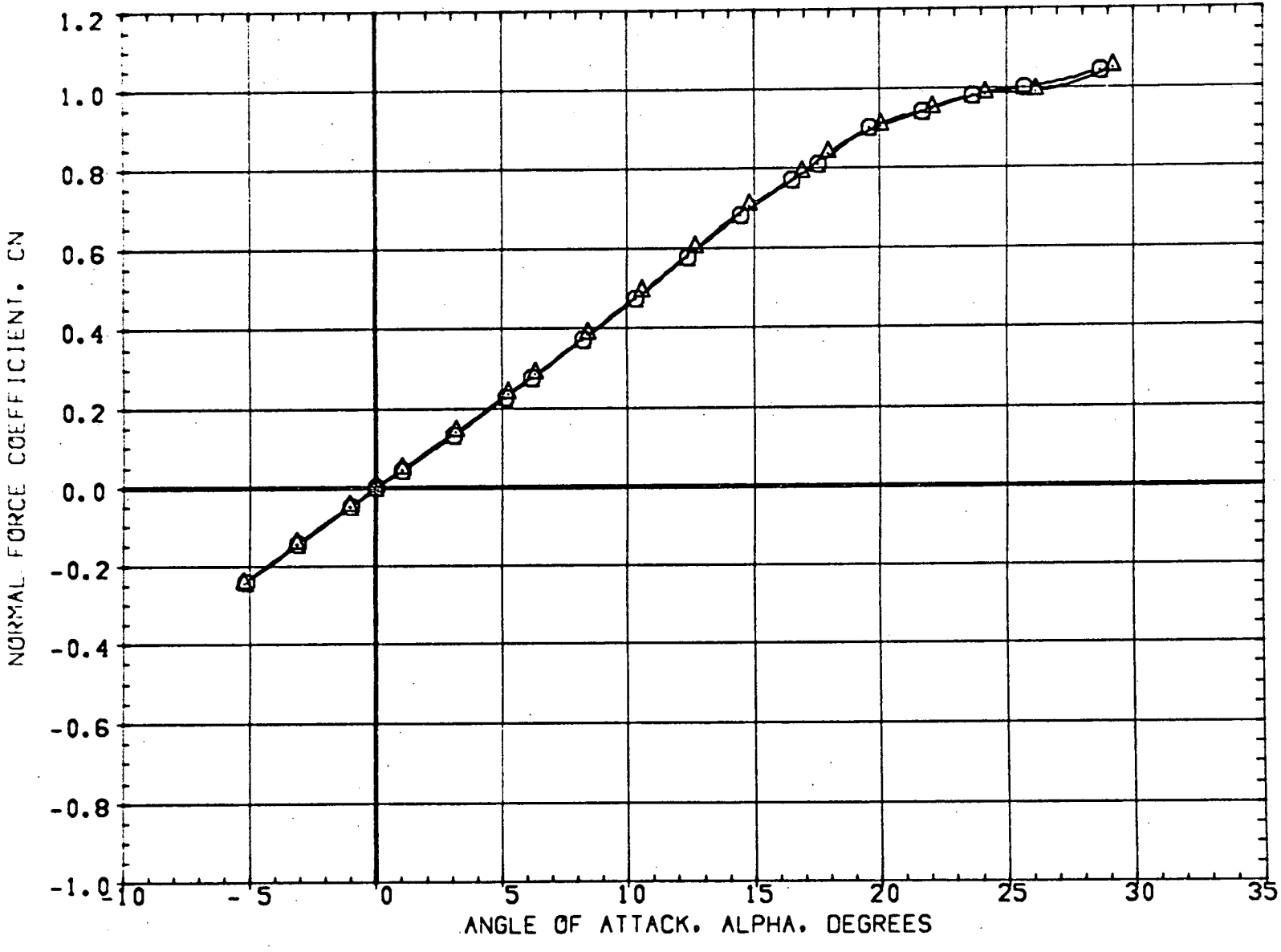

FIG. 10 EFFECT OF Q IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-IB
(ADG019)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	40.000	0.165	0.000	0.000
(ADG020)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	100.000	0.260	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2918	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

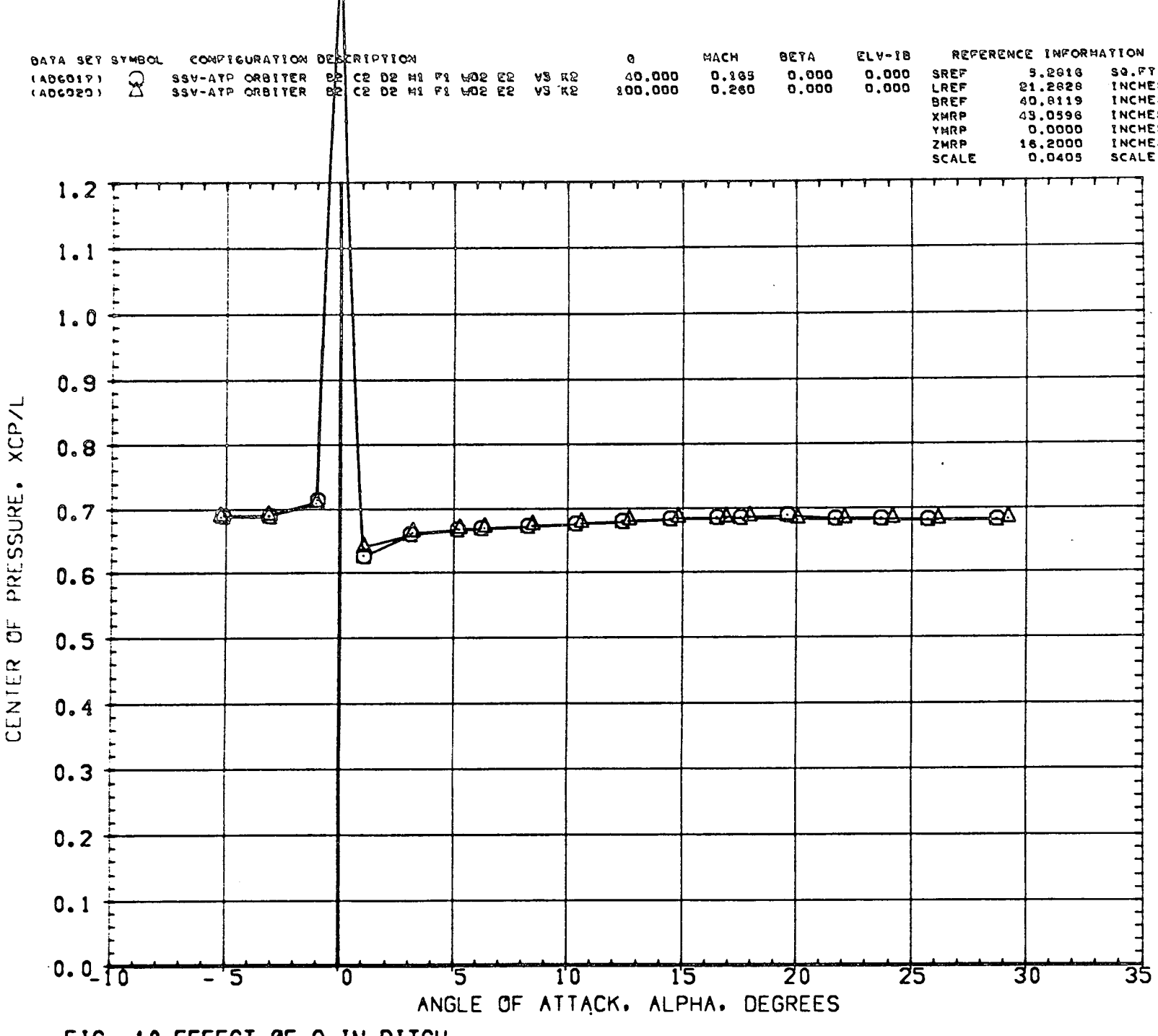

FIG. 10 EFFECT OF Q IN PITCH

(A) MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-IB
(AD6017)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	40.000	0.165	0.000	0.000
(AD6020)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	100.000	0.260	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

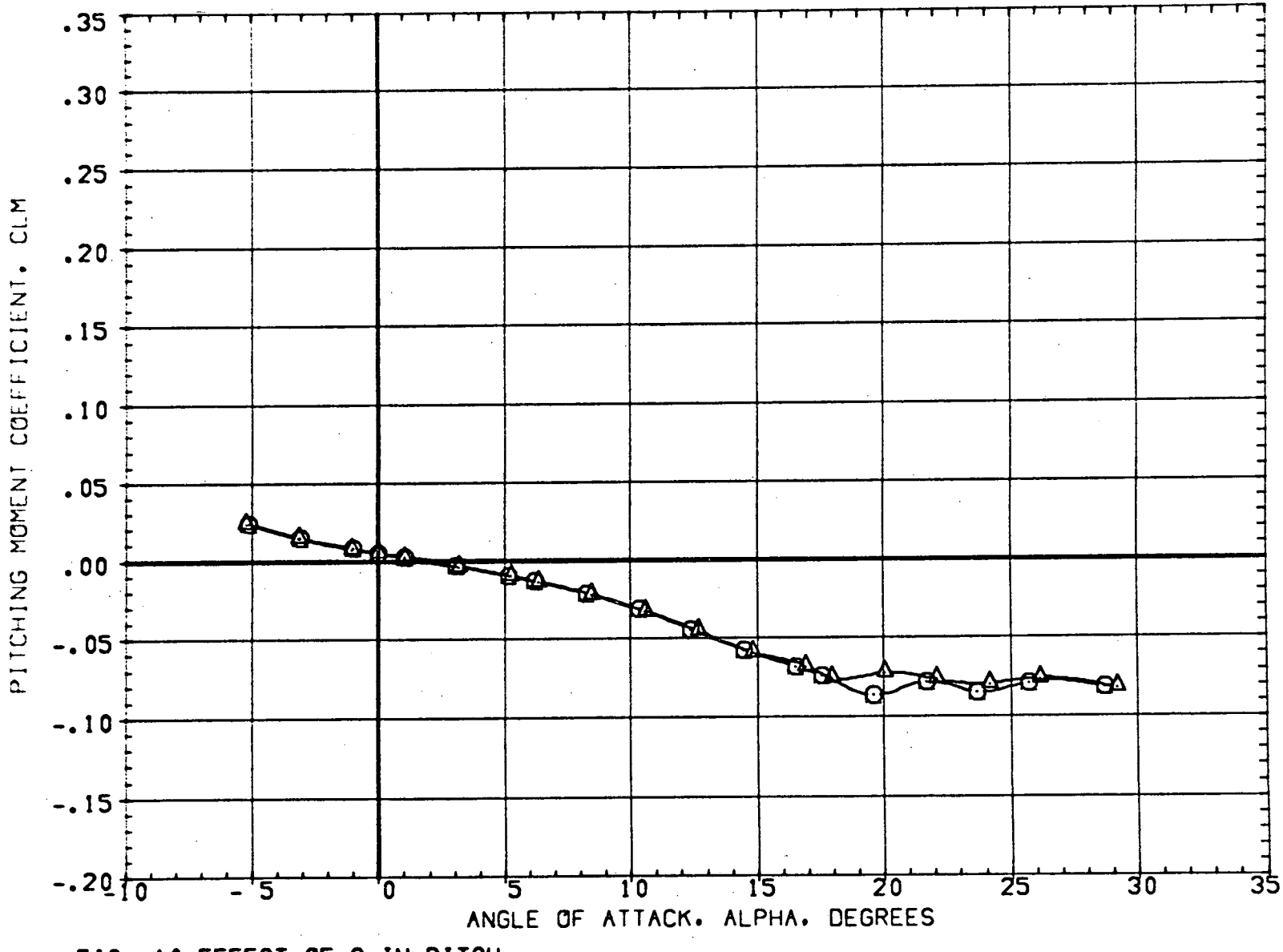

FIG. 10 EFFECT OF Q IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-1B
(BDC017)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	40.000	0.165	0.000	0.000
(BDC020)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	100.000	0.260	0.000	0.000
(BDC019)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	40.000	0.165	5.000	0.000
(BDC021)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	100.000	0.260	5.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

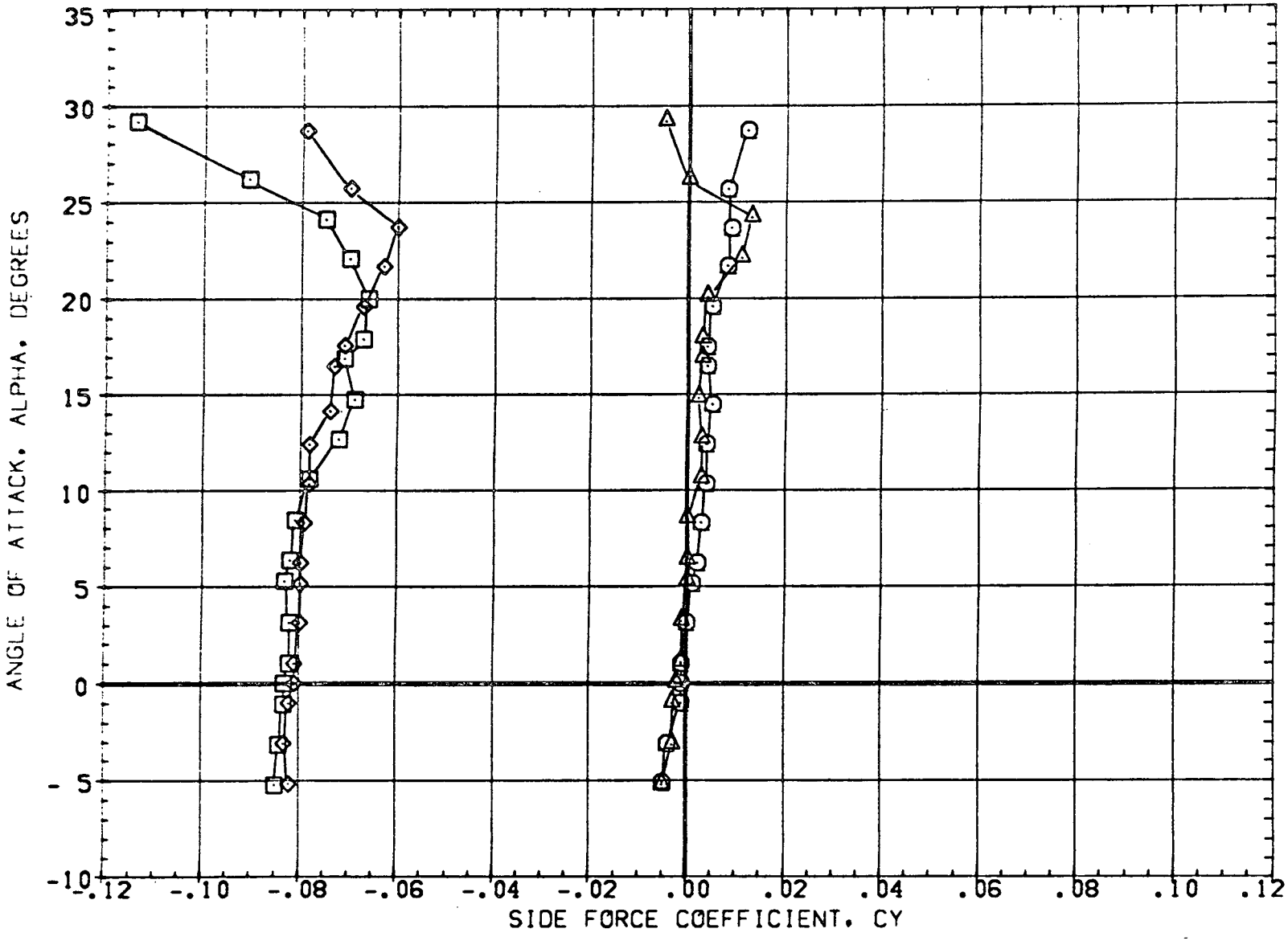

FIG. 11 EFFECT OF Q IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-1B
(BDC019)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	40.000	0.165	0.000	0.000
(BDC020)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	100.000	0.260	0.000	0.000
(BDC018)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	40.000	0.165	5.000	0.000
(BDC021)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	100.000	0.260	5.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

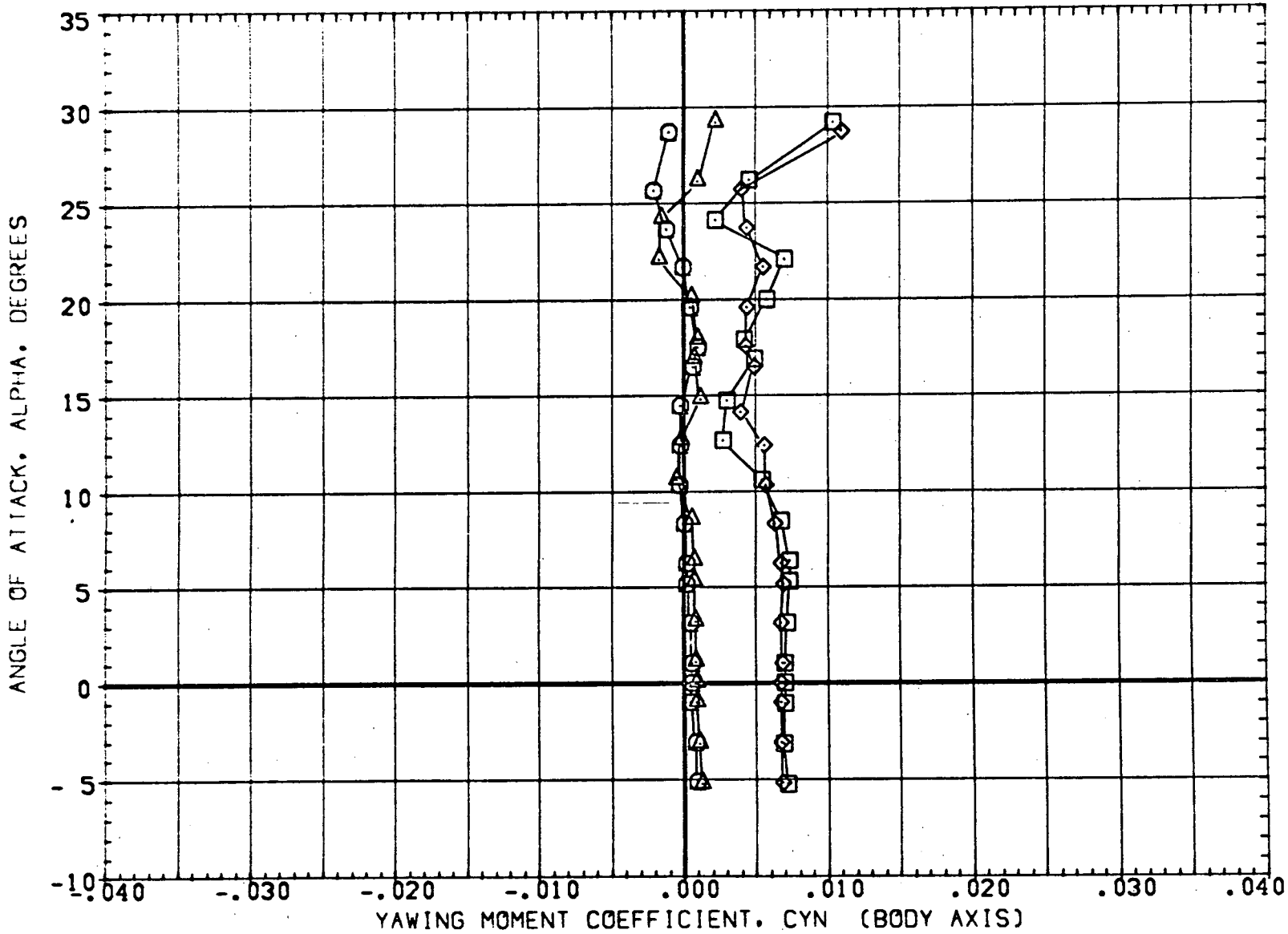

FIG. 11 EFFECT OF Q IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	Q	MACH	BETA	ELV-IB
(BDC017)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	40.000	0.160	0.000	0.000
(BDC020)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	100.000	0.260	0.000	0.000
(BDC018)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	40.000	0.165	5.000	0.000
(BDC021)	□	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	100.000	0.260	5.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

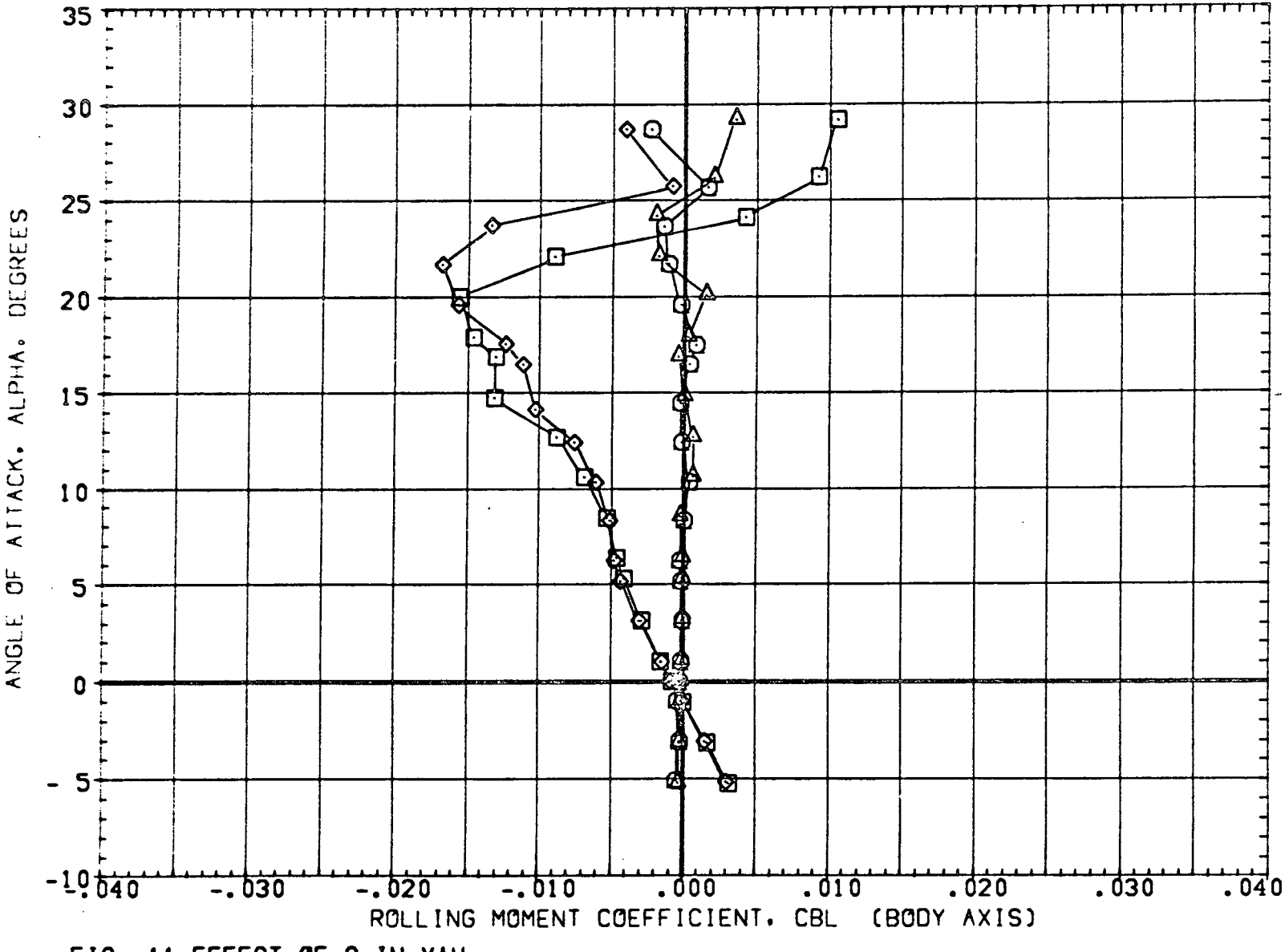

FIG. 11 EFFECT OF Q IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADC024)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	-5.000	-5.000
(ADC025)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

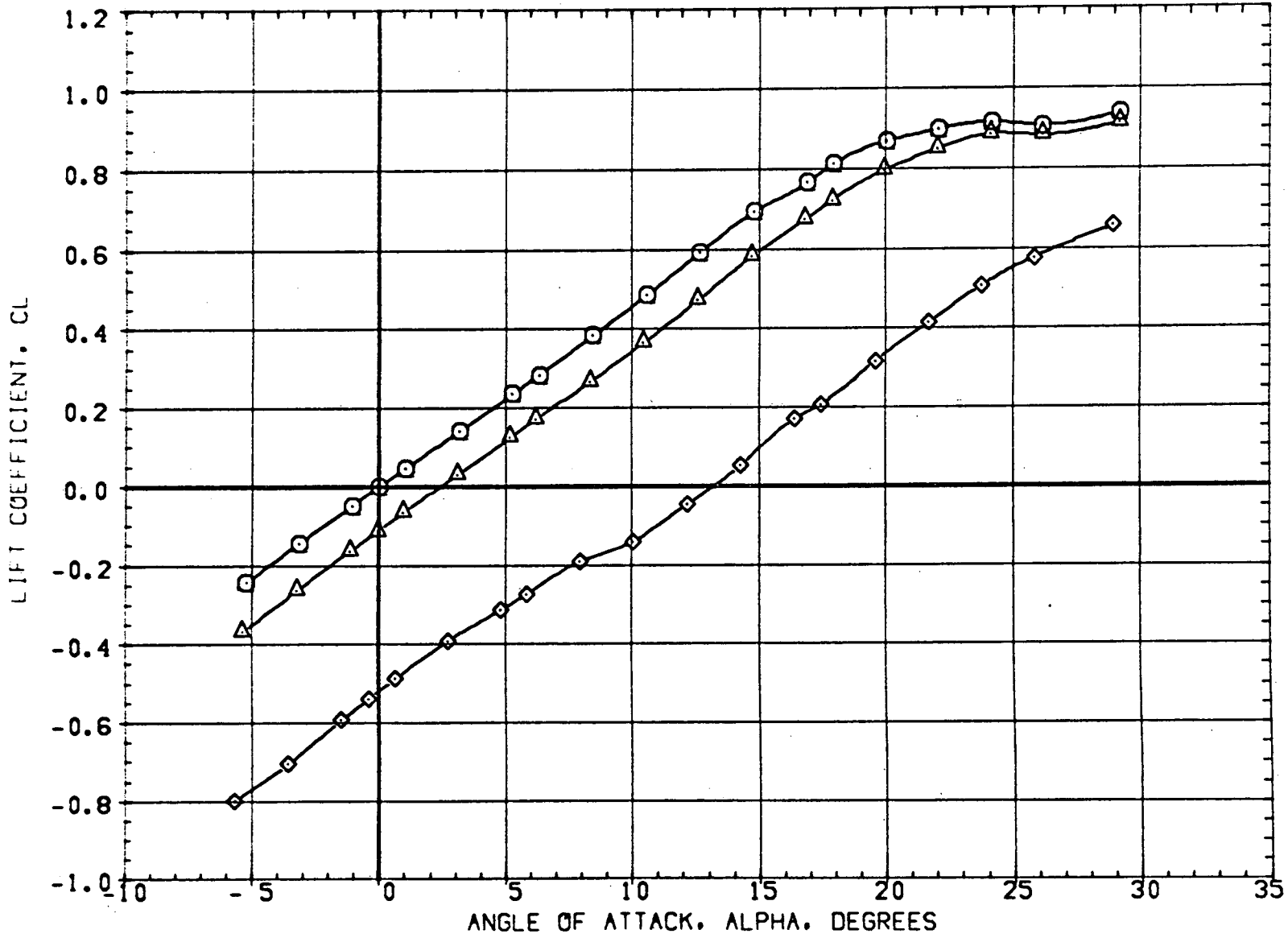

FIG. 12 ELEVON EFFECTIVENESS FOR ATP BASELINE CONFIGURATION

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(ADC024)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	-5.000	-5.000
(ADC025)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

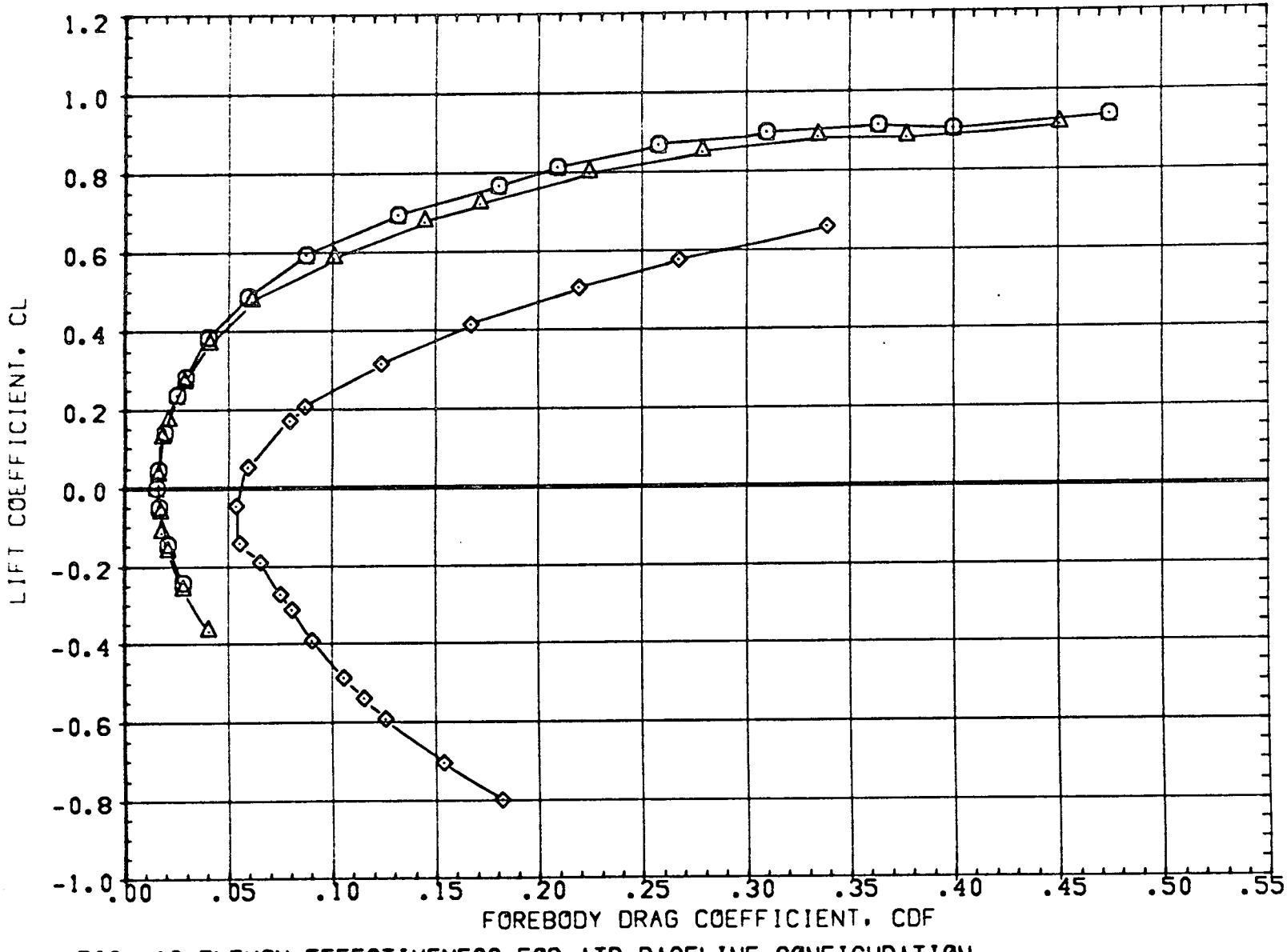

FIG. 12 ELEVON EFFECTIVENESS FOR ATP BASELINE CONFIGURATION

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG024)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	-5.000	-5.000
(ADG025)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

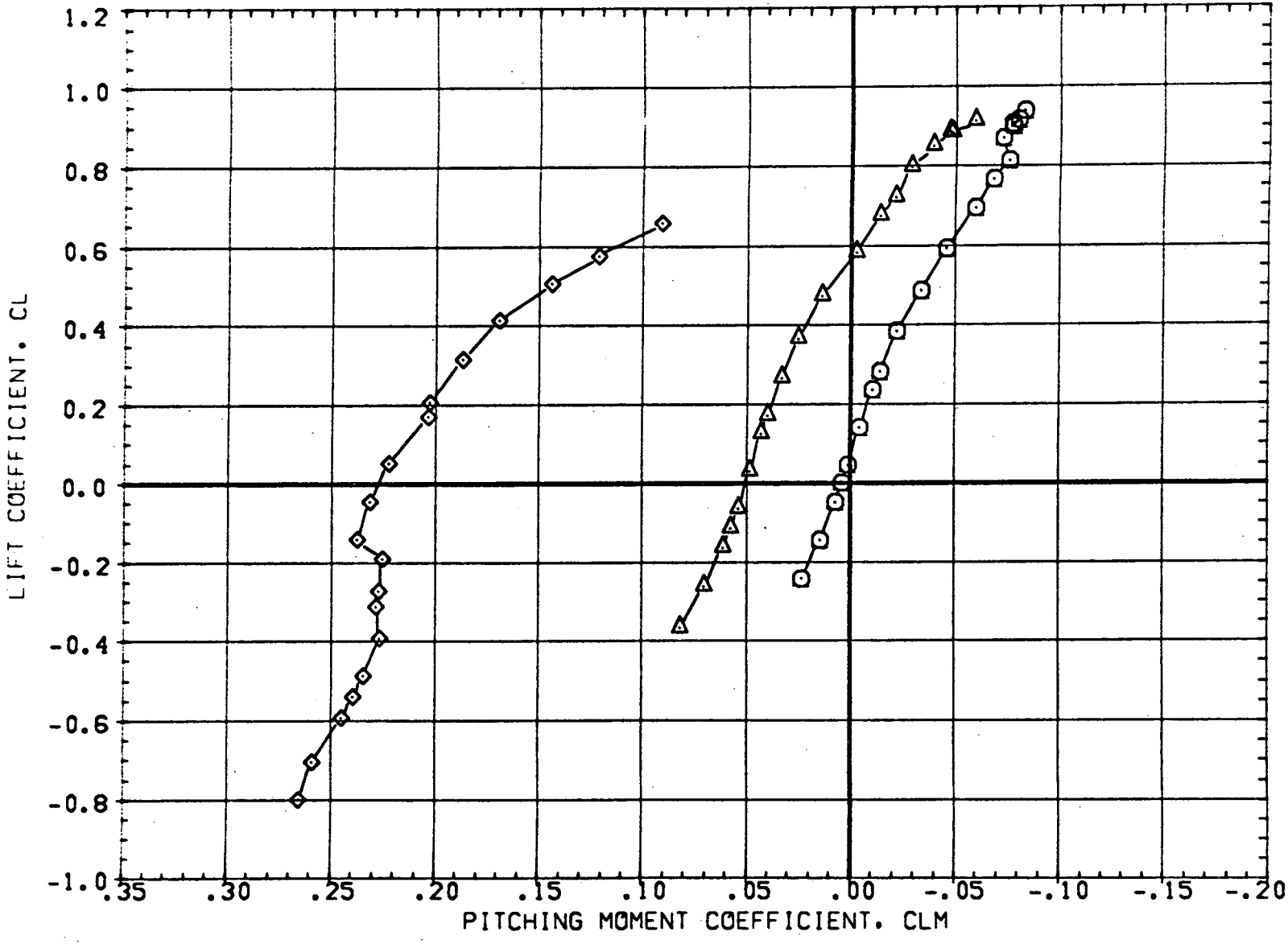

FIG. 12 ELEVON EFFECTIVENESS FOR ATP BASELINE CONFIGURATION

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(AD6024)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	-5.000	-5.000
(AD6025)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	9.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

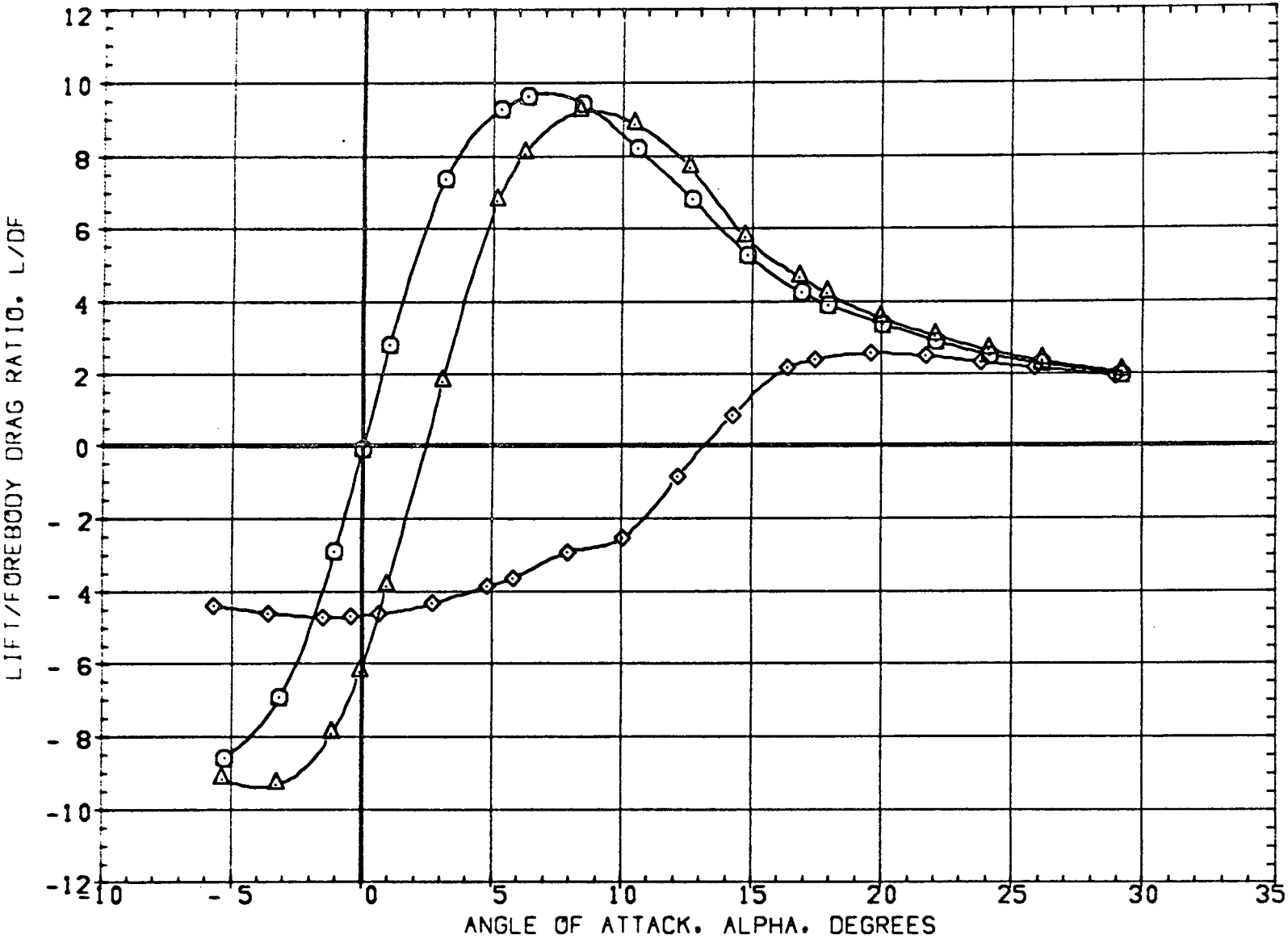

FIG. 12 ELEVON EFFECTIVENESS FOR ATP BASELINE CONFIGURATION

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG024)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	-5.000	-5.000
(ADG025)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

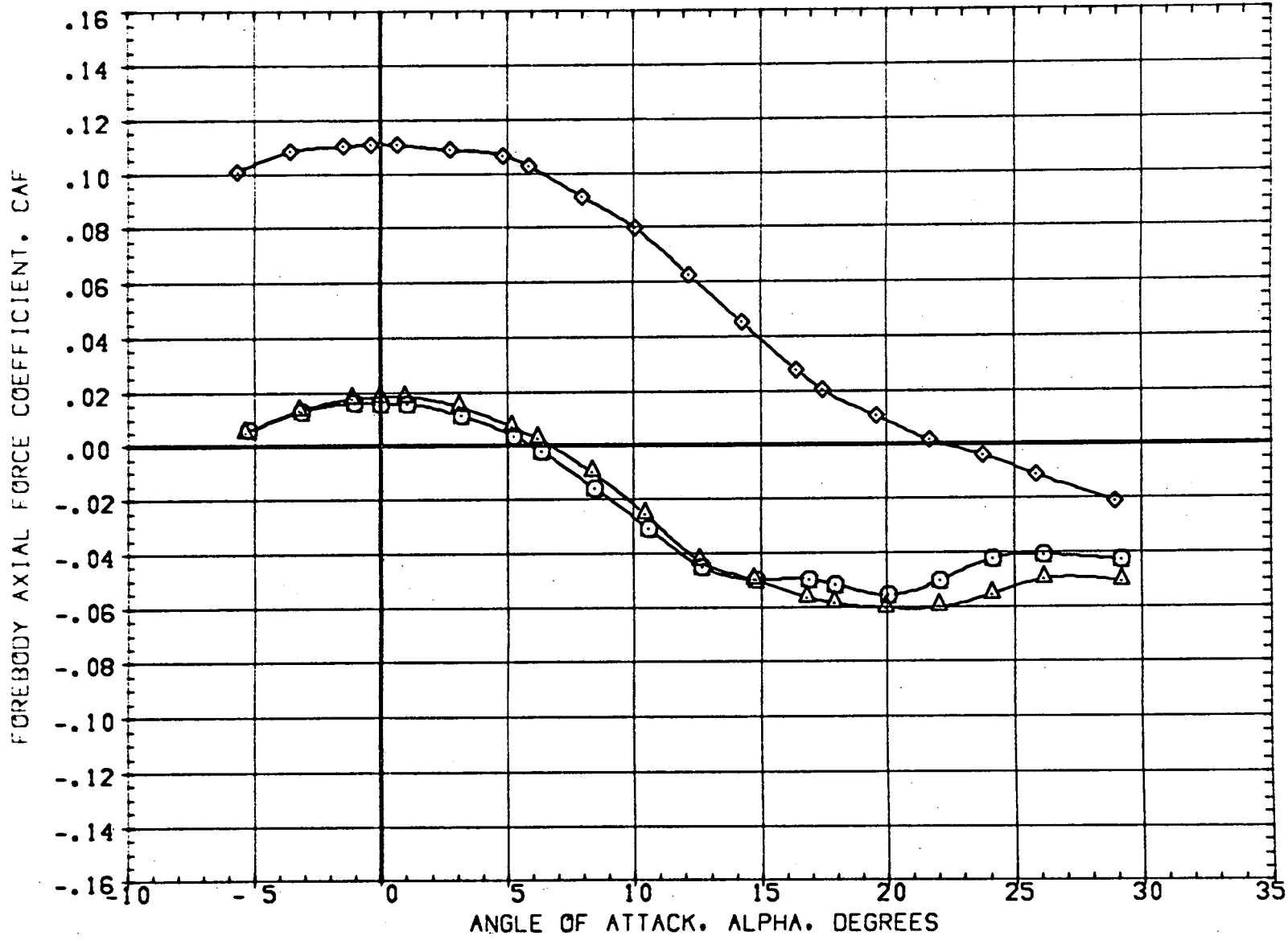

FIG. 12 ELEVON EFFECTIVENESS FOR ATP BASELINE CONFIGURATION

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG029)	○	SSV-ATP ORBITER B2 C2 D2 H1 P1 W02 E2 V3 R2	0.000	0.000	0.000
(ADG024)	△	SSV-ATP ORBITER B2 C2 D2 H1 P1 W02 E2 V3 R2	0.000	-5.000	-5.000
(ADG025)	◇	SSV-ATP ORBITER B2 C2 D2 H1 P1 W02 E2 V3 R2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2818	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

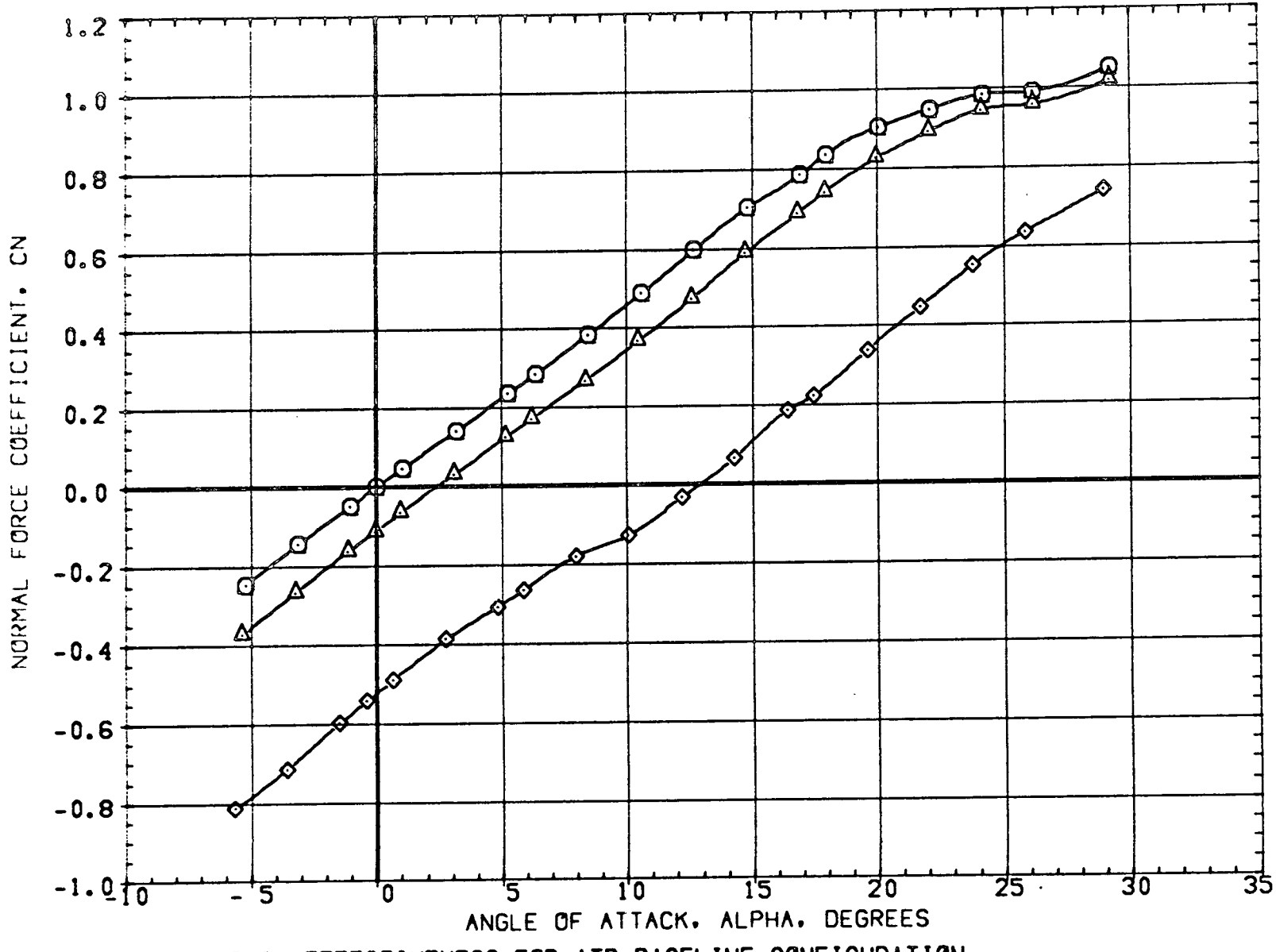

FIG. 12 ELEVON EFFECTIVENESS FOR ATP BASELINE CONFIGURATION

(A)MACH = .26

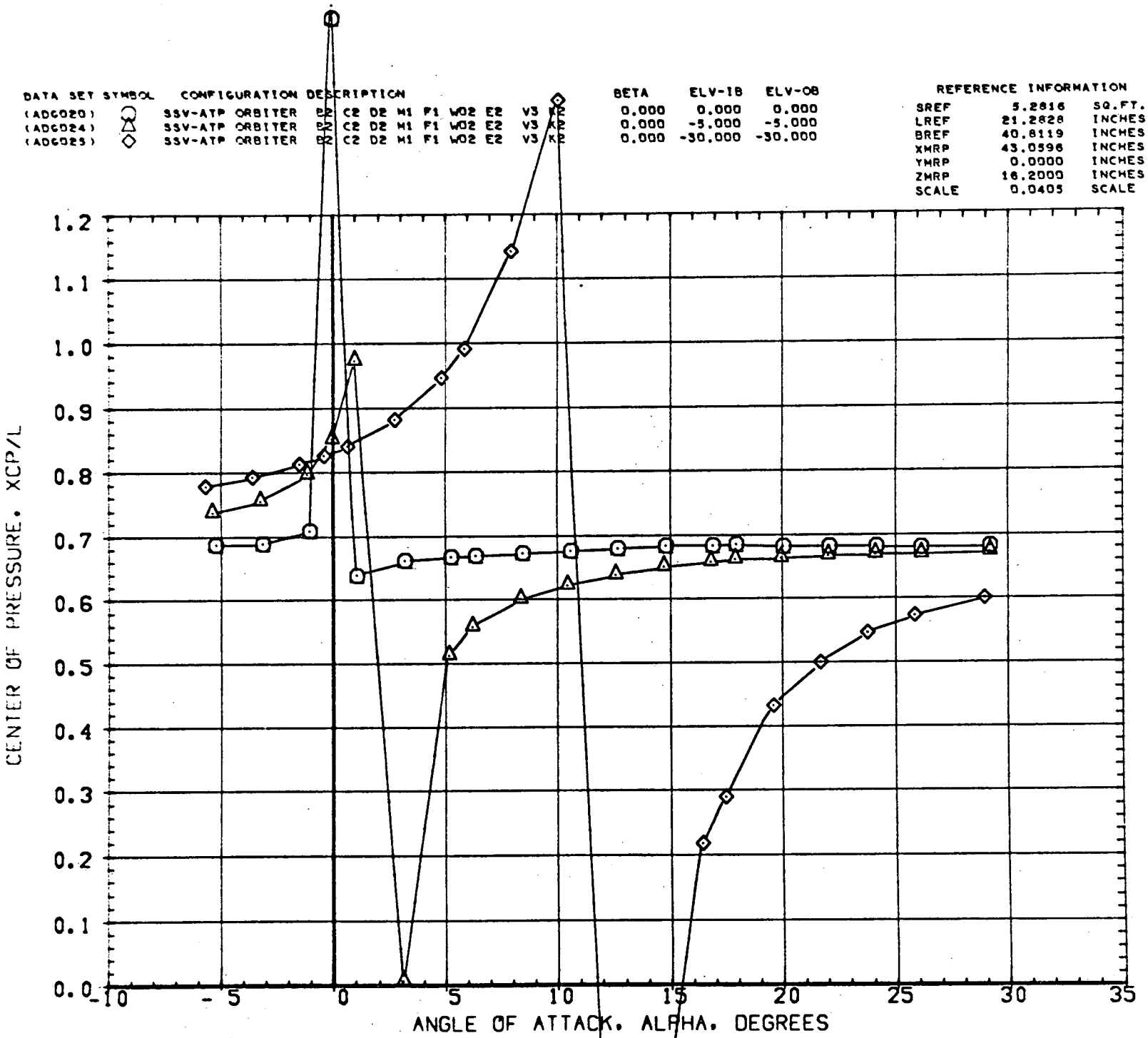

FIG. 12 ELEVON EFFECTIVENESS FOR ATP BASELINE CONFIGURATION

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-03
(AD6020)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(AD6024)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	0.000	-5.000	-5.000
(AD6029)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	9.2916	SQ.FT.
LREF	21.2820	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

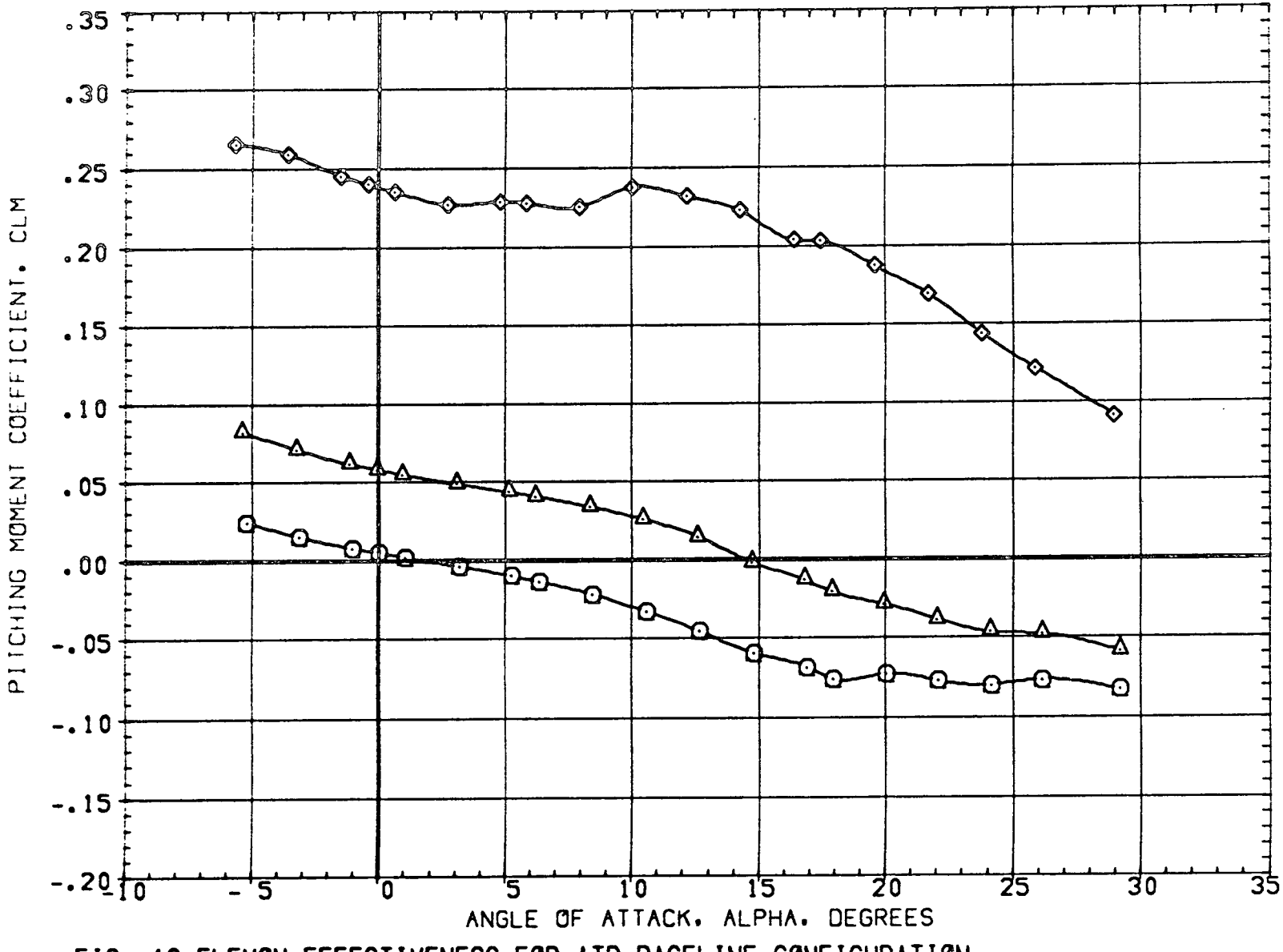

FIG. 12 ELEVON EFFECTIVENESS FOR ATP BASELINE CONFIGURATION

(A)MACH = .26

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC020)	⊗	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADC026)	⊠	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

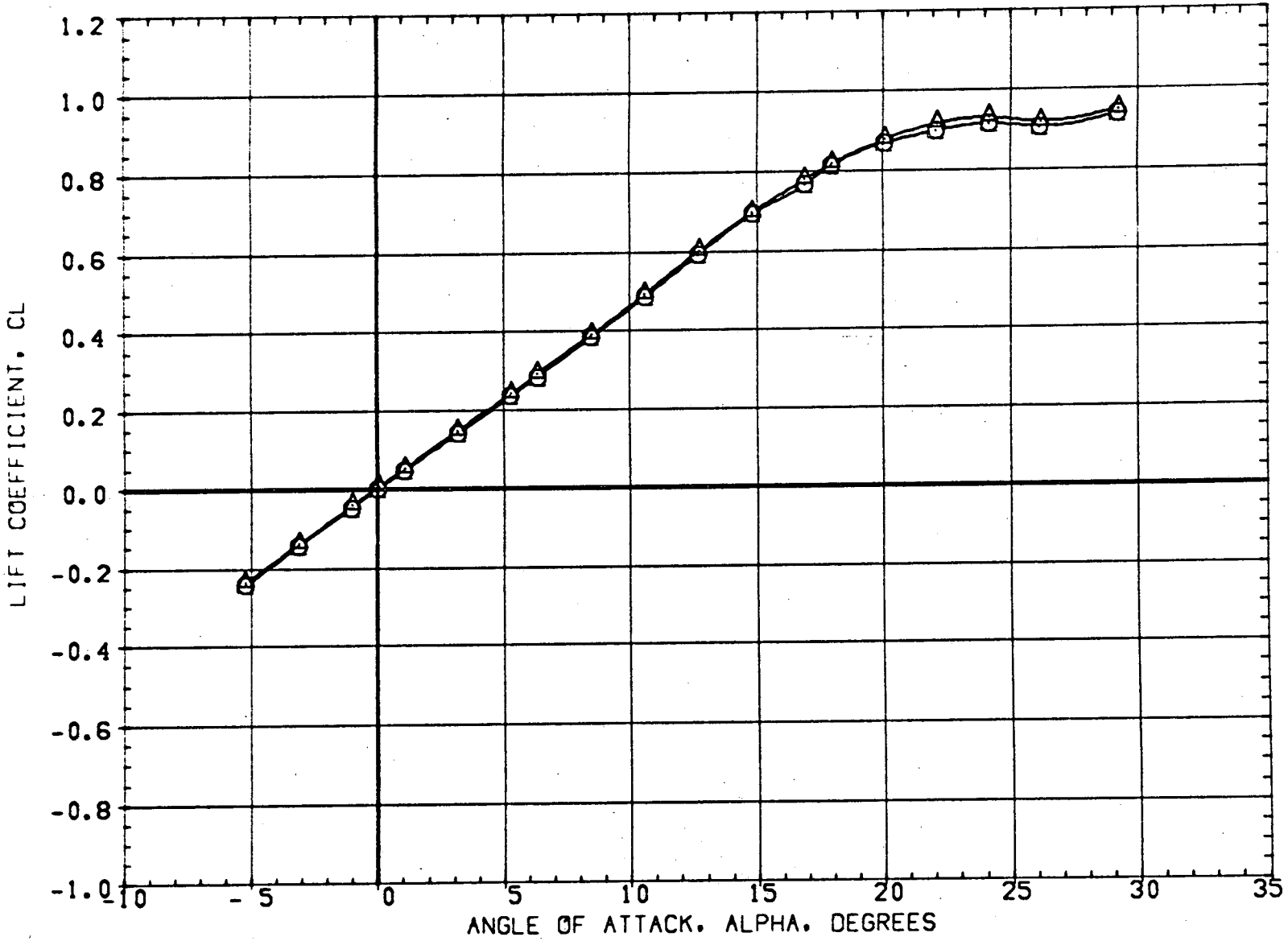

FIG. 13 EFFECT OF VERTICAL TAIL IN PITCH

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6028)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(AD6029)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

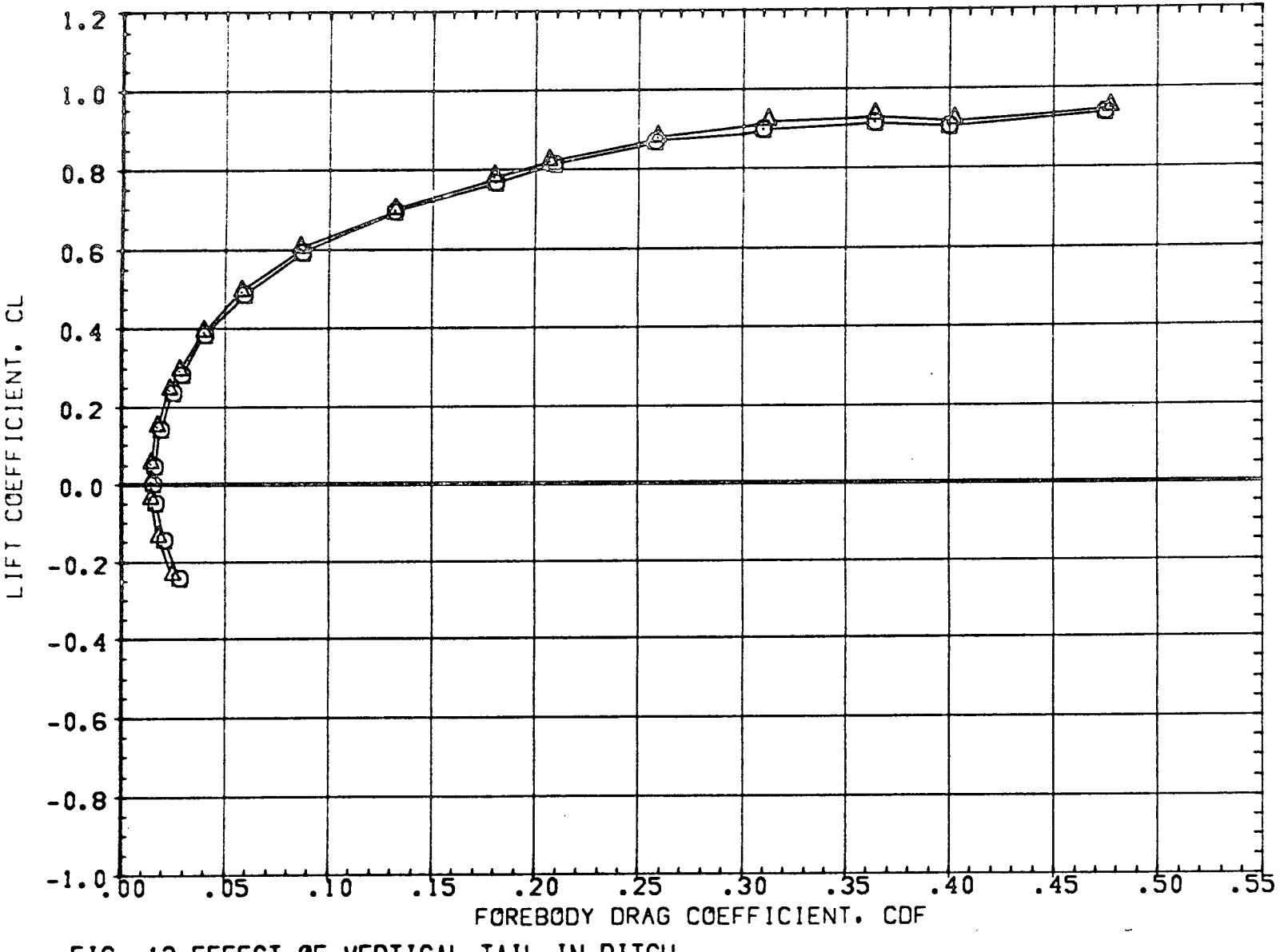

FIG. 13 EFFECT OF VERTICAL TAIL IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC020)	◯	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADC026)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

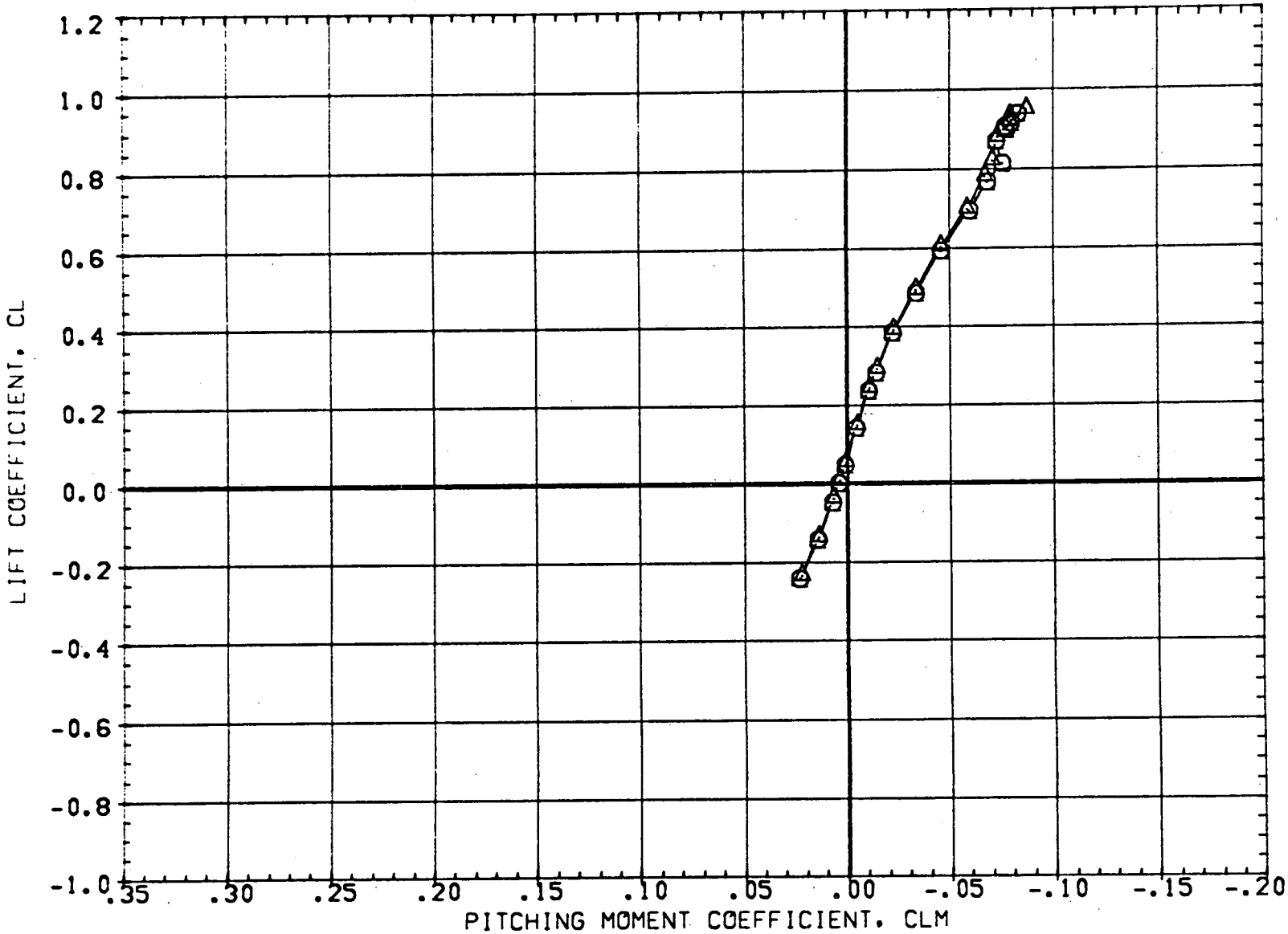

FIG. 13 EFFECT OF VERTICAL TAIL IN PITCH

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6029)	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(AD6026)	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

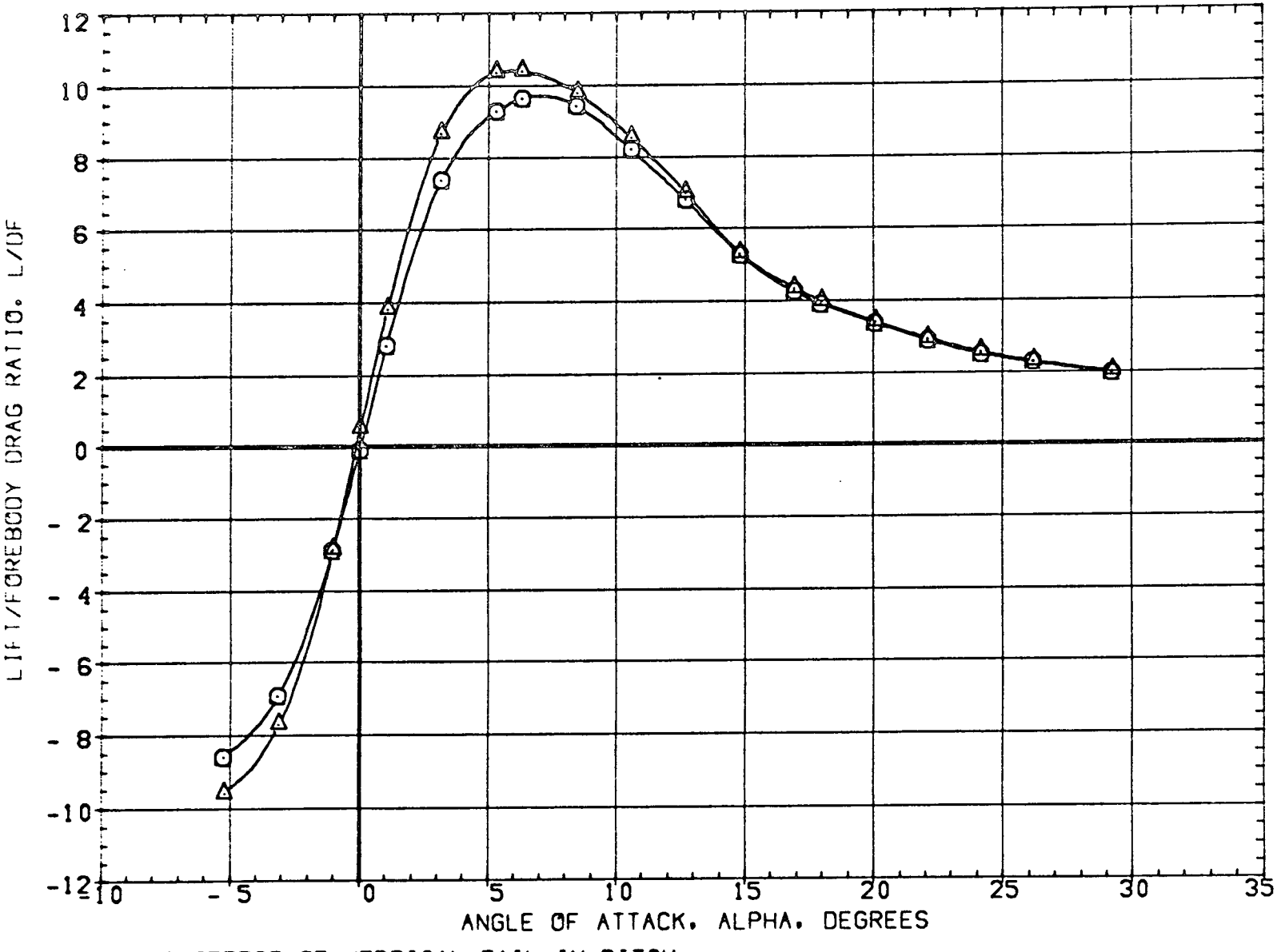

FIG. 13 EFFECT OF VERTICAL TAIL IN PITCH

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG029)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG026)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

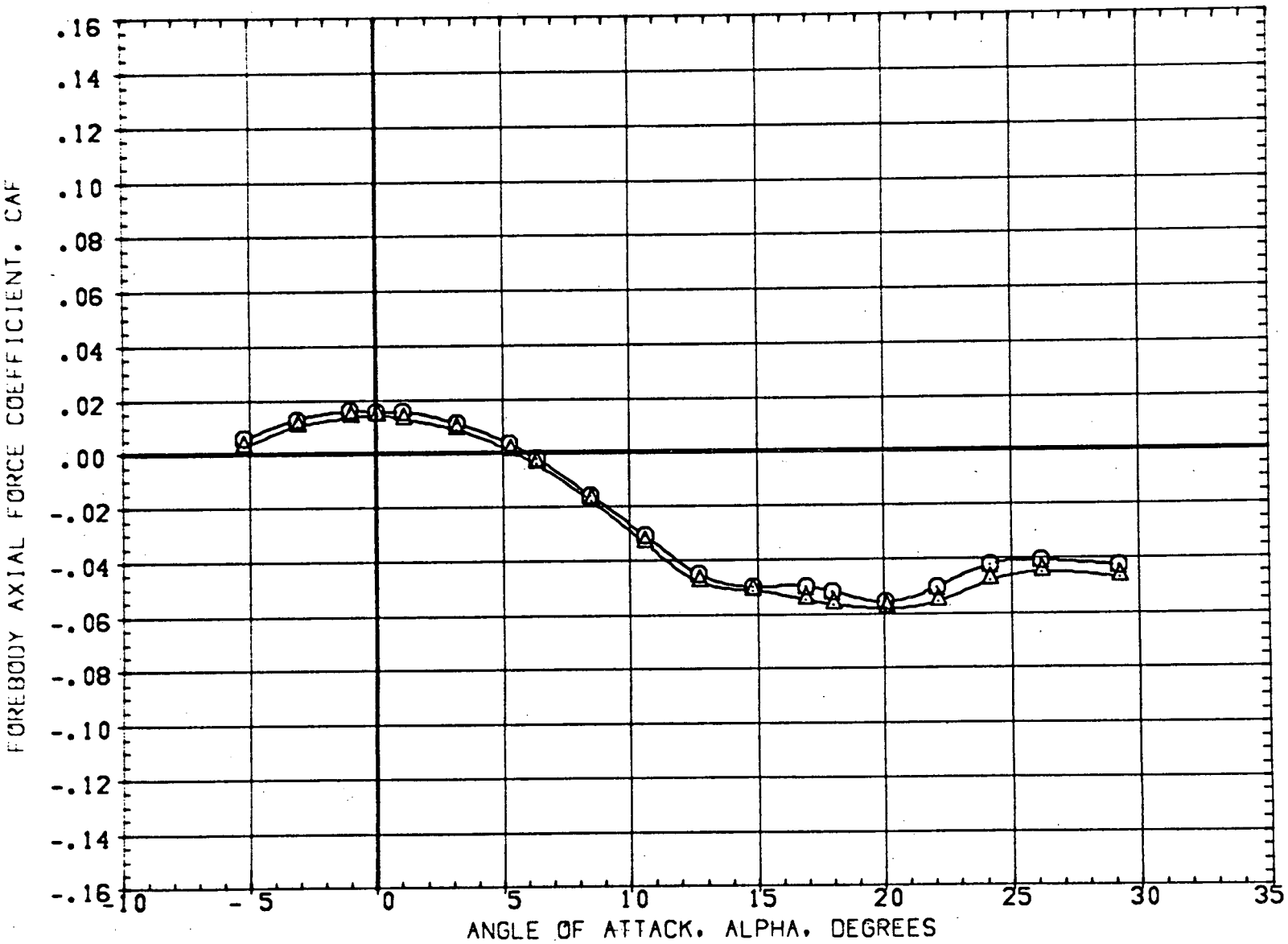

FIG. 13 EFFECT OF VERTICAL TAIL IN PITCH

(A)MACH = 26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2	0.000	0.000	0.000
(ADG026)	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3.2818	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

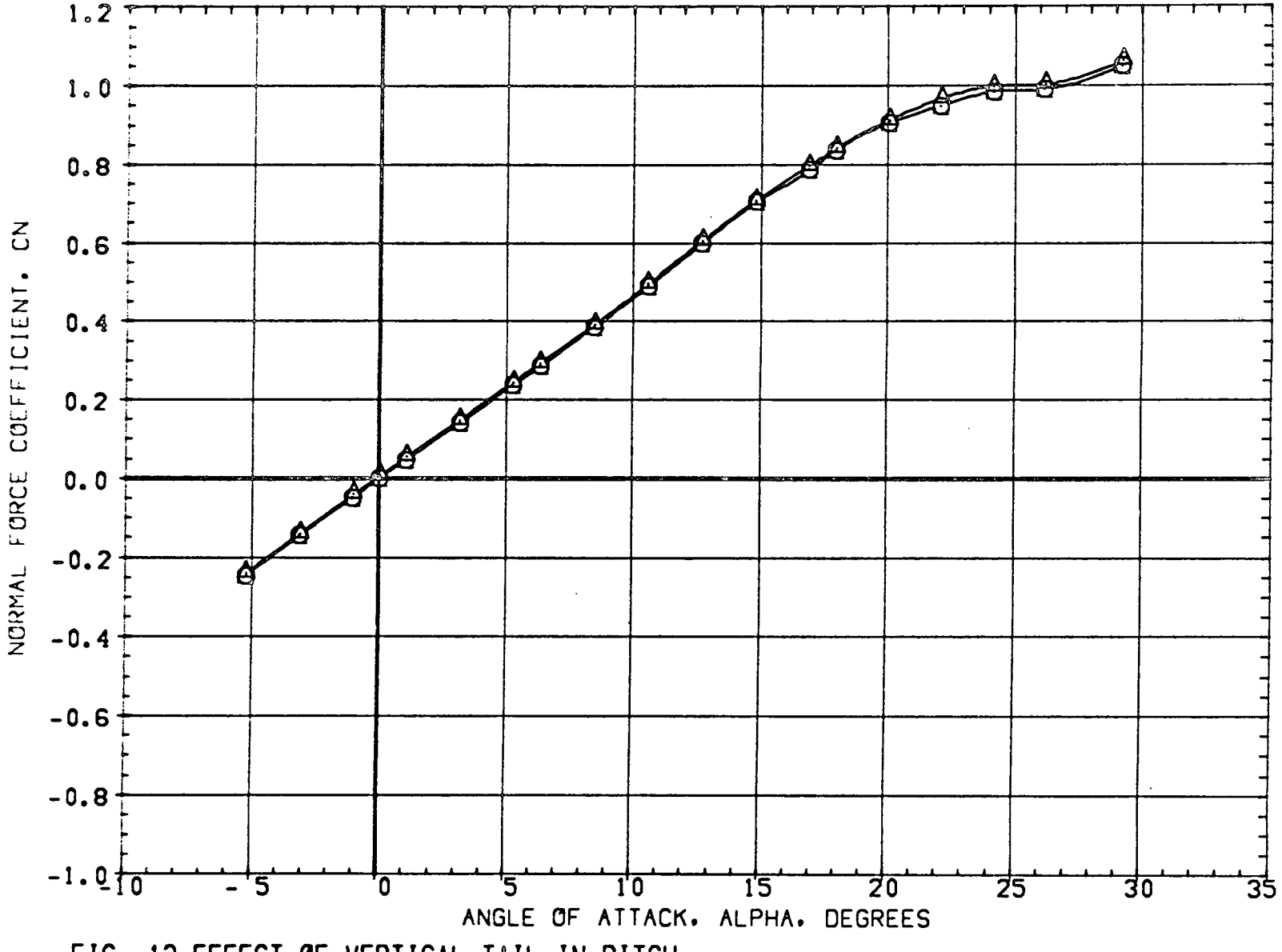

FIG. 13 EFFECT OF VERTICAL TAIL IN PITCH

(A)MACH = .26

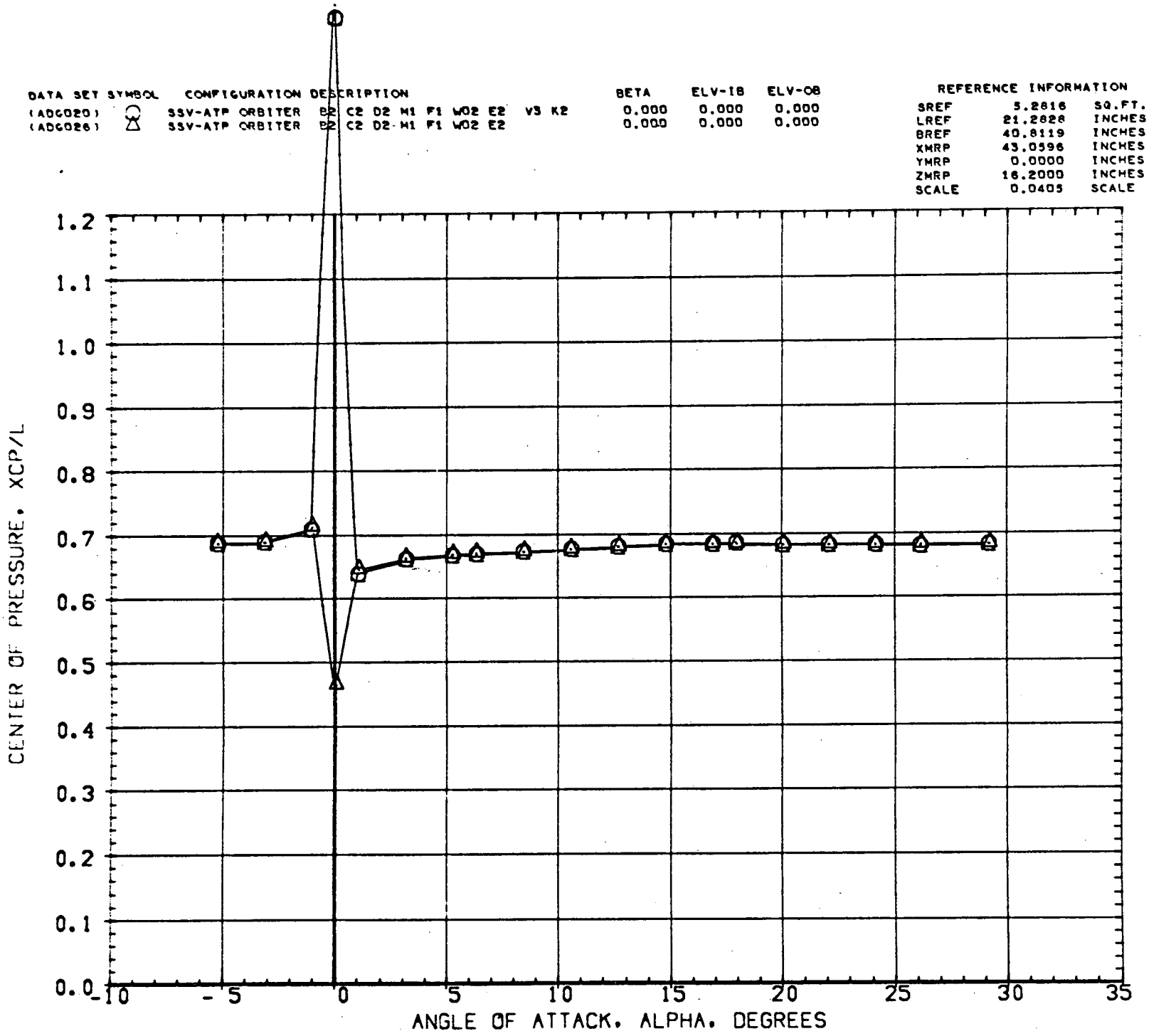

FIG. 13 EFFECT OF VERTICAL TAIL IN PITCH

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-2B
(AD6020)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(AD6026)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2916	SQ.FT.
LREF	21.2928	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

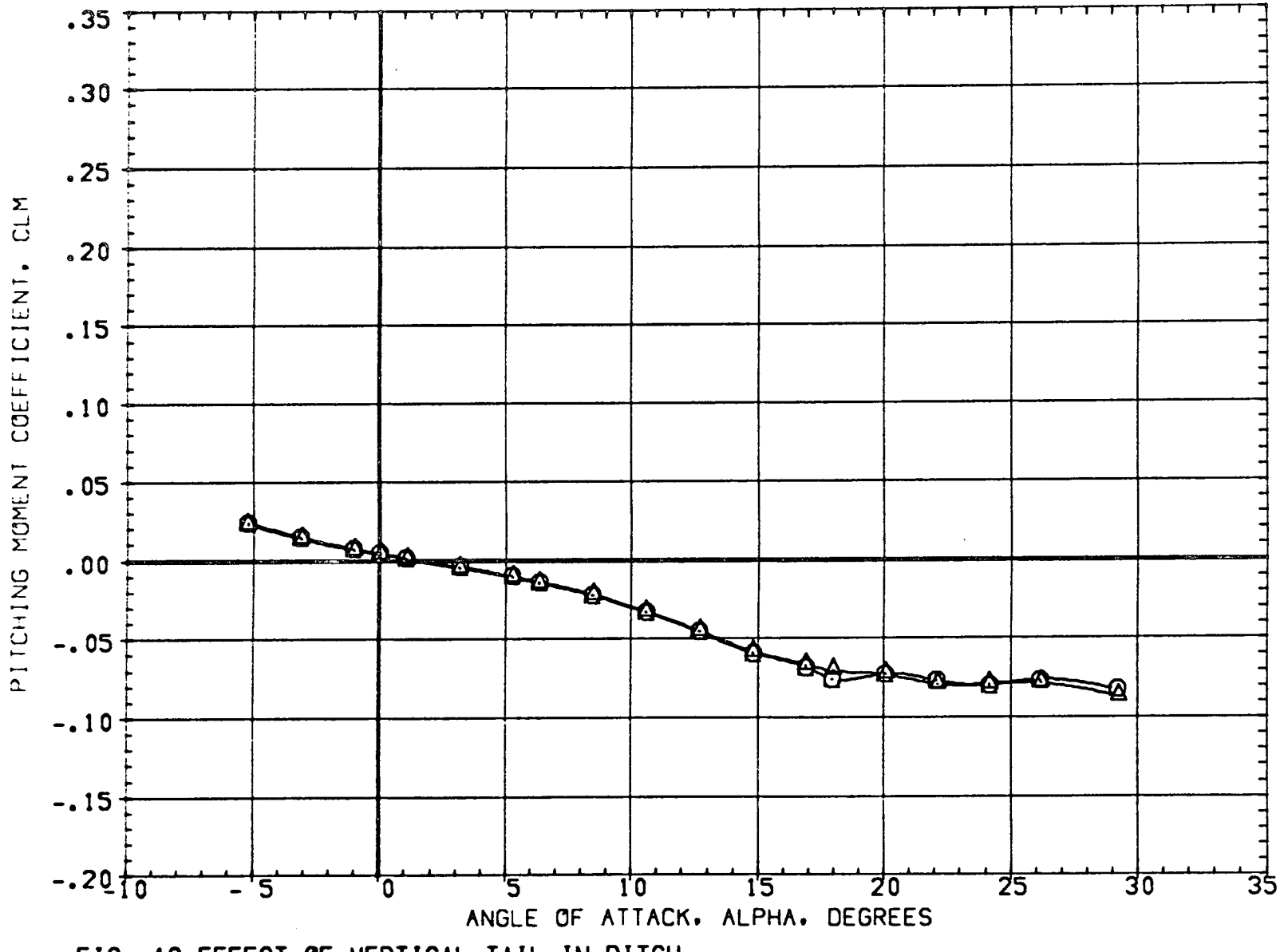

FIG. 13 EFFECT OF VERTICAL TAIL IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(EDG029)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(EDG021)	⧖	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(EDG026)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2	0.000	0.000	0.000
(EDG027)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2	5.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

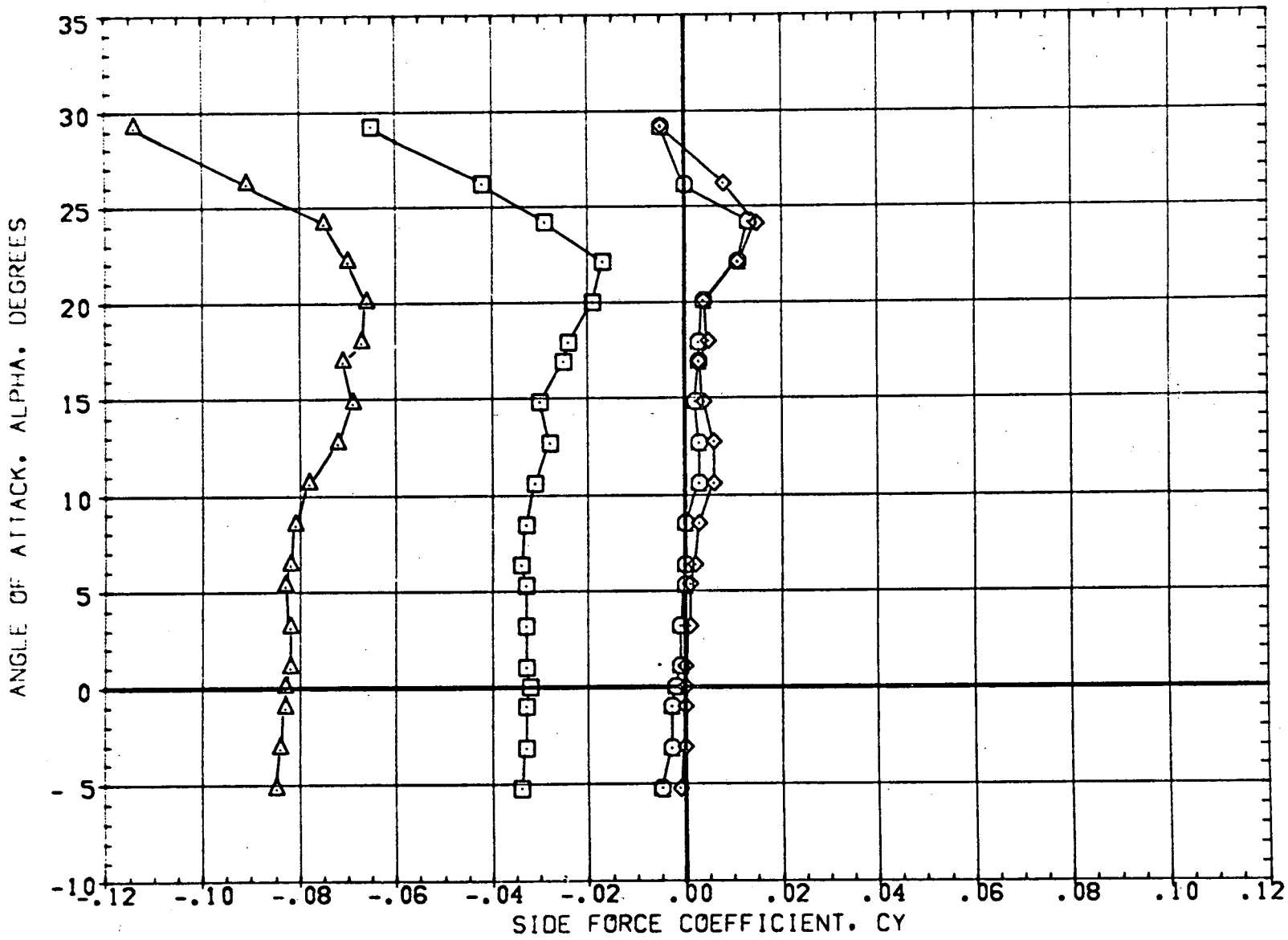

FIG. 14 EFFECT OF VERTICAL TAIL IN YAW

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-2B
(BDC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.000	0.000	0.000
(BDC021)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	5.000	0.000	0.000
(BDC026)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2	0.000	0.000	C.000
(BDC027)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2	5.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

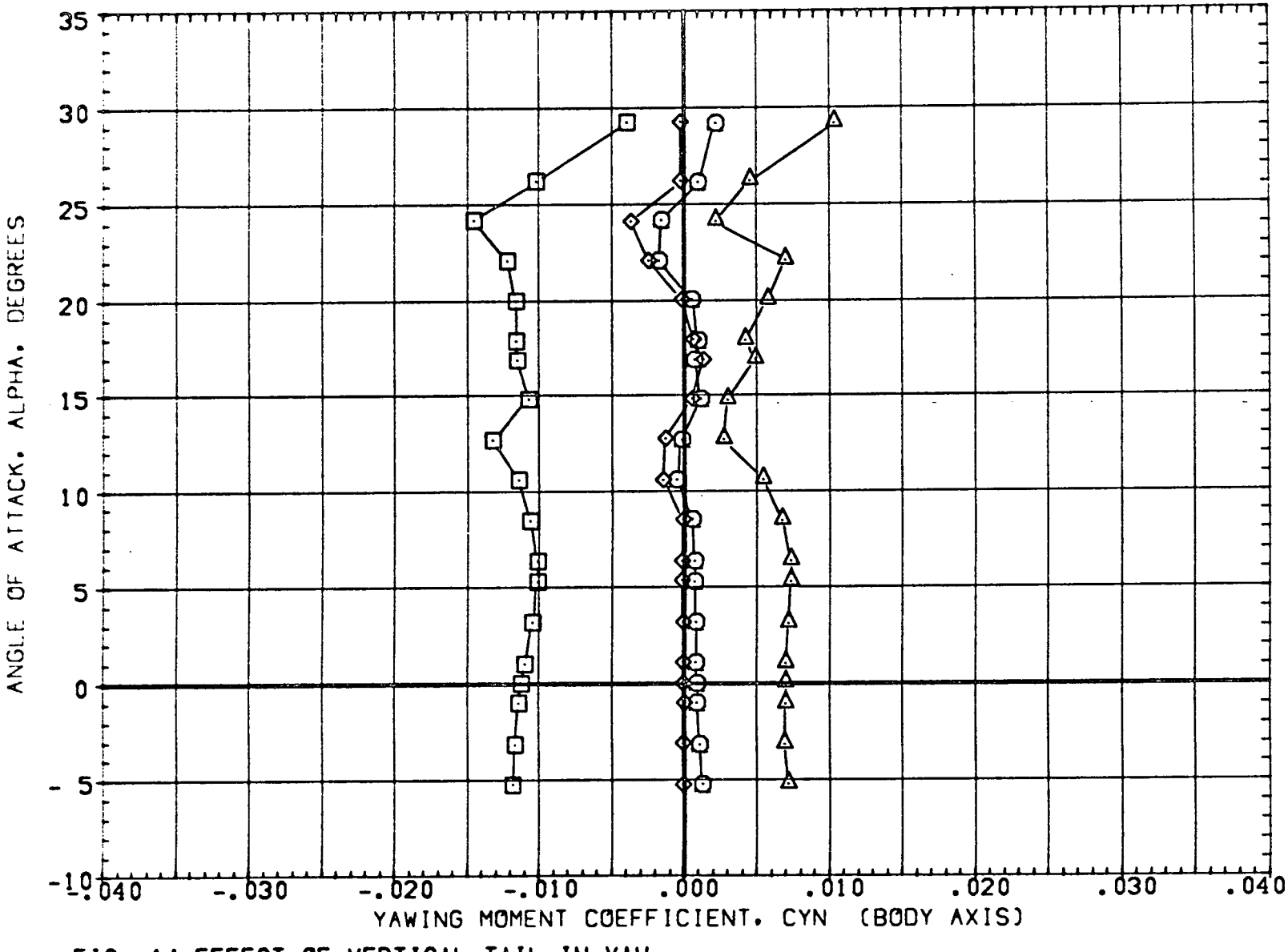

FIG. 14 EFFECT OF VERTICAL TAIL IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC020)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDC021)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDC026)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2	0.000	0.000	0.000
(BDC027)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

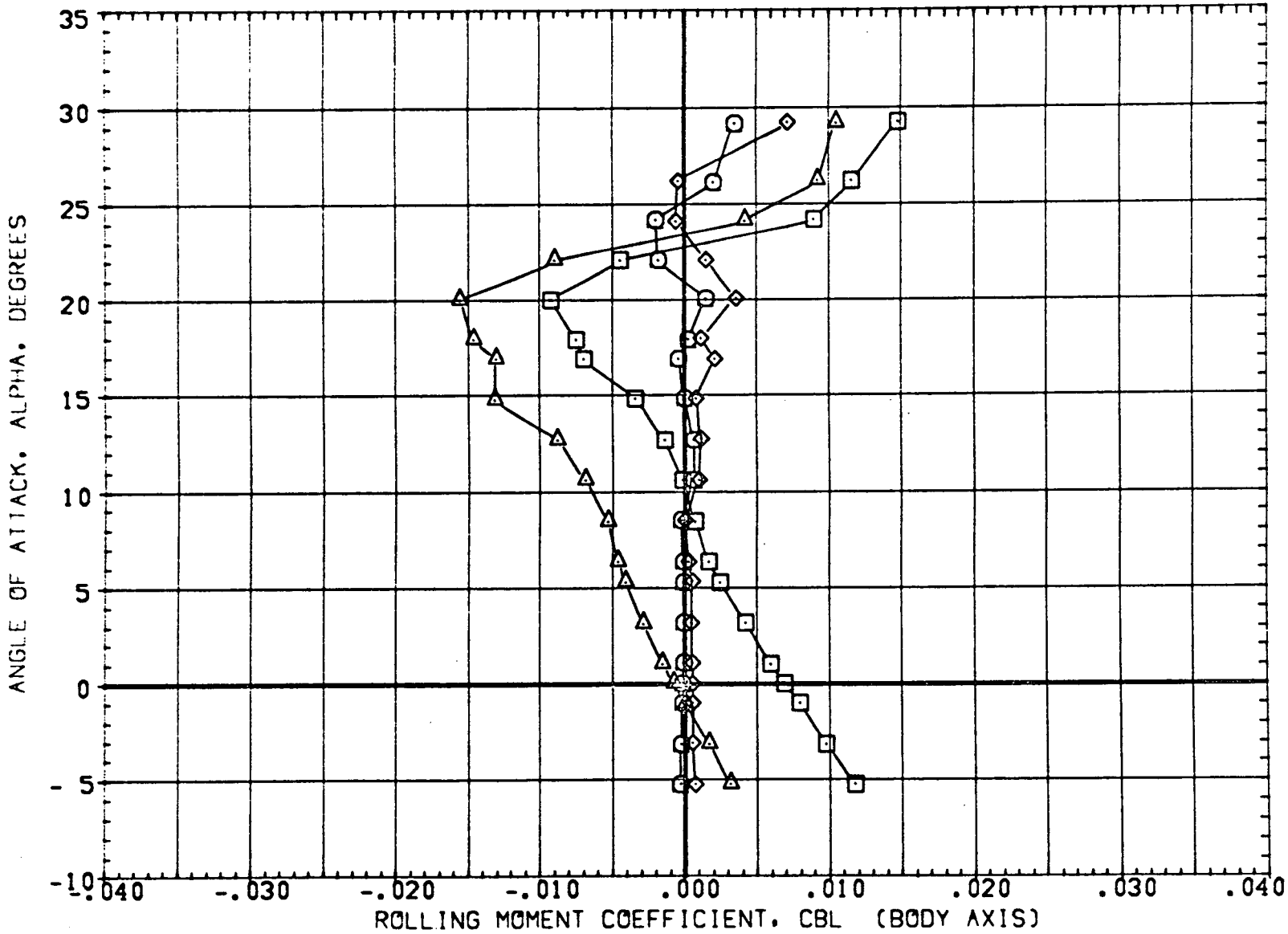

FIG. 14 EFFECT OF VERTICAL TAIL IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 R2	0.260	0.000	0.000	0.000
(ADC028)	△	SSV-ATP ORBITER B3 C2 D2 M1 F1 W02 E2 V3 R2	0.165	0.000	0.000	0.000
(ADC029)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 X V3 R2	0.260	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

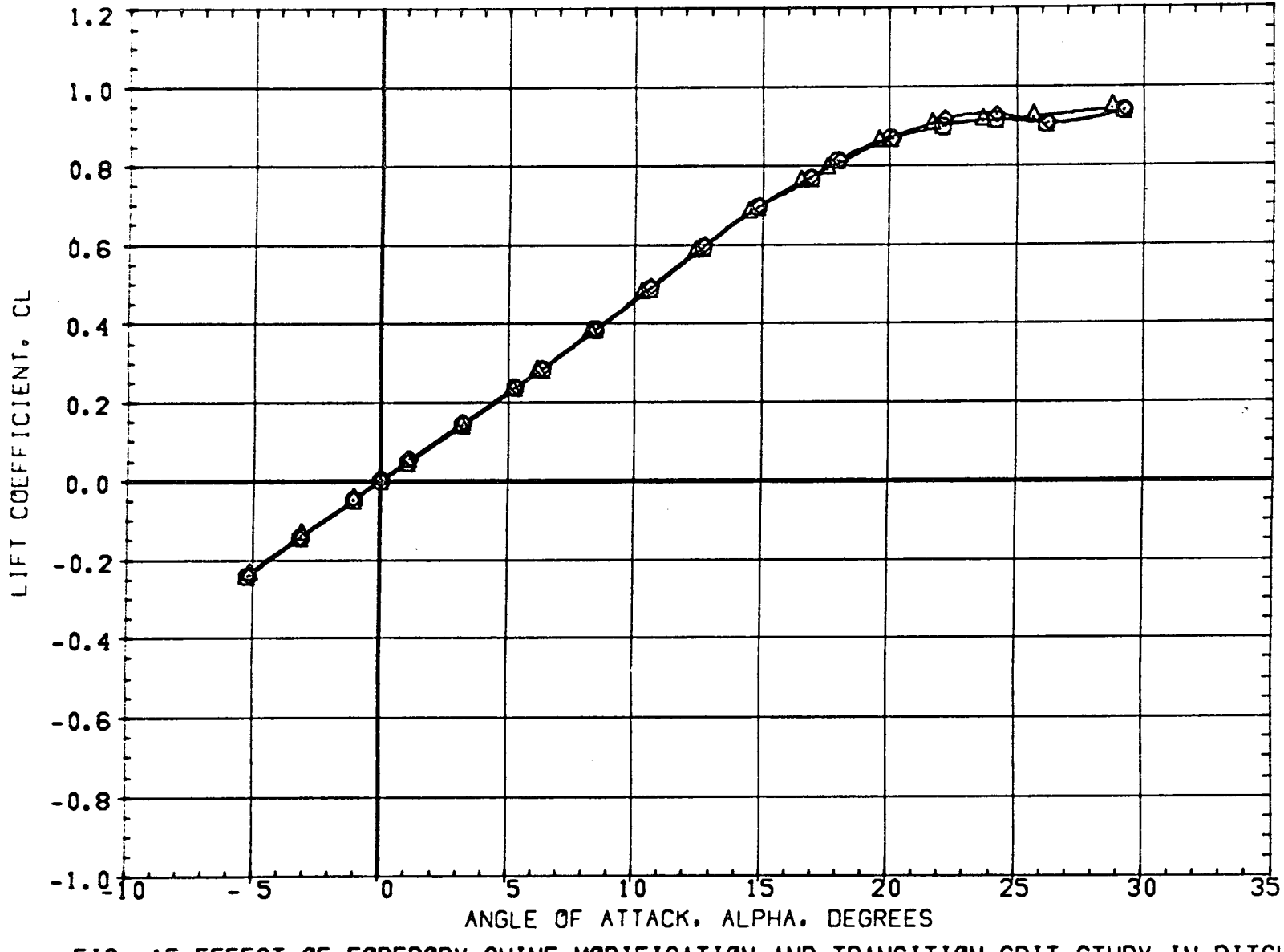

FIG. 15 EFFECT OF FOREBODY CHINE MODIFICATION AND TRANSITION GRIT STUDY IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.260	0.000	0.000	0.000
(ADC028)	▽	SSV-ATP ORBITER B3 C2 D2 M1 F1 W02 E2 V3 K2	0.165	0.000	0.000	0.000
(ADC029)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 X V3 K2	0.260	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

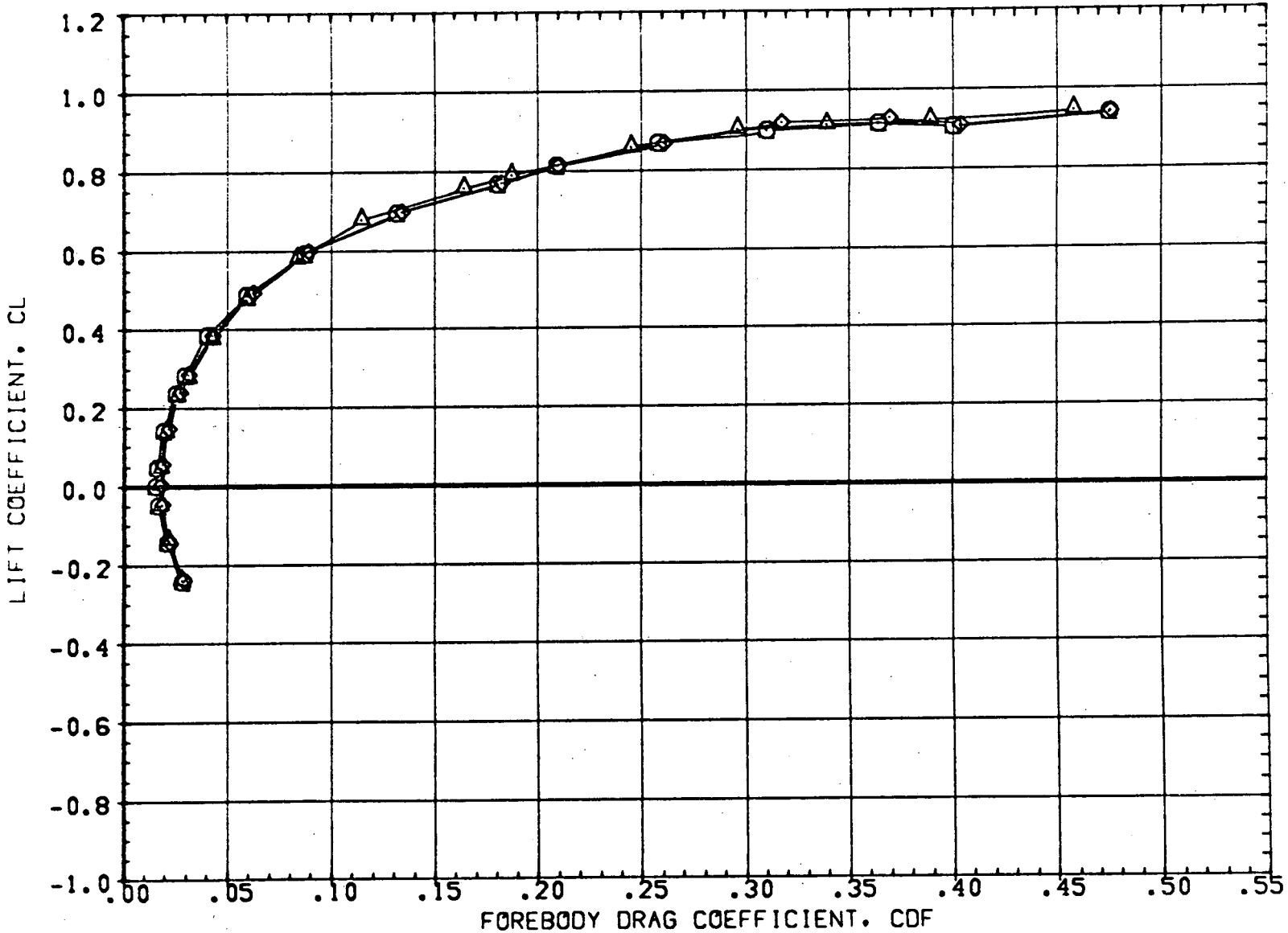

FIG. 15 EFFECT OF FOREBODY CHINE MODIFICATION AND TRANSITION GRIT STUDY IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 K2	0.260	0.000	0.000	0.000
(ADC028)	△	SSV-ATP ORBITER B3 C2 D2 M1 P1 W02 E2 V3 K2	0.165	0.000	0.000	0.000
(ADC029)	◇	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 X V3 K2	0.260	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

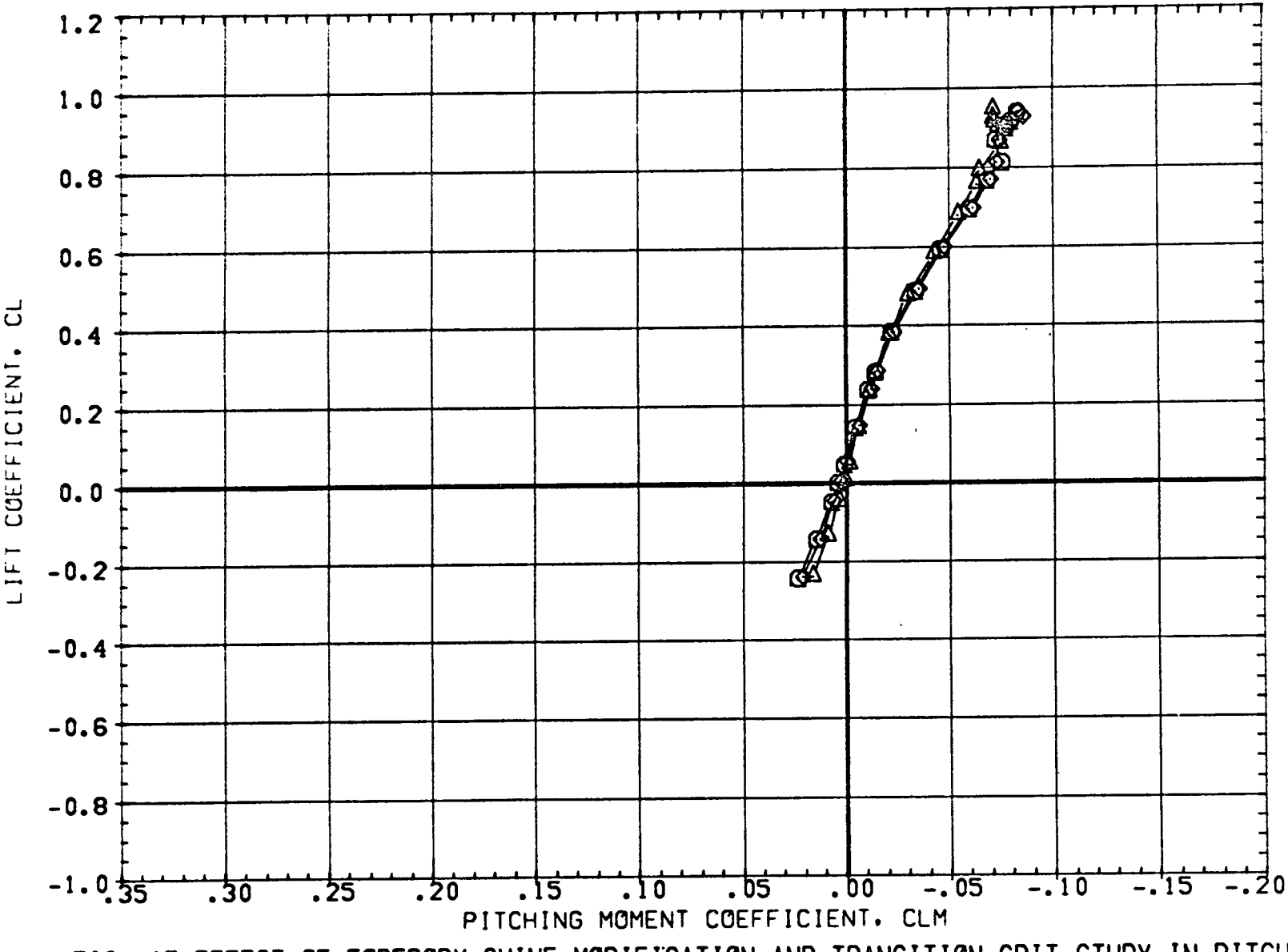

FIG. 15 EFFECT OF FOREBODY CHINE MODIFICATION AND TRANSITION GRIT STUDY IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.260	0.000	0.000	0.000
(ADG028)	⧖	SSV-ATP ORBITER B3 C2 D2 M1 F1 W02 E2 V3 K2	0.165	0.000	0.000	0.000
(ADG029)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 X V3 K2	0.260	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

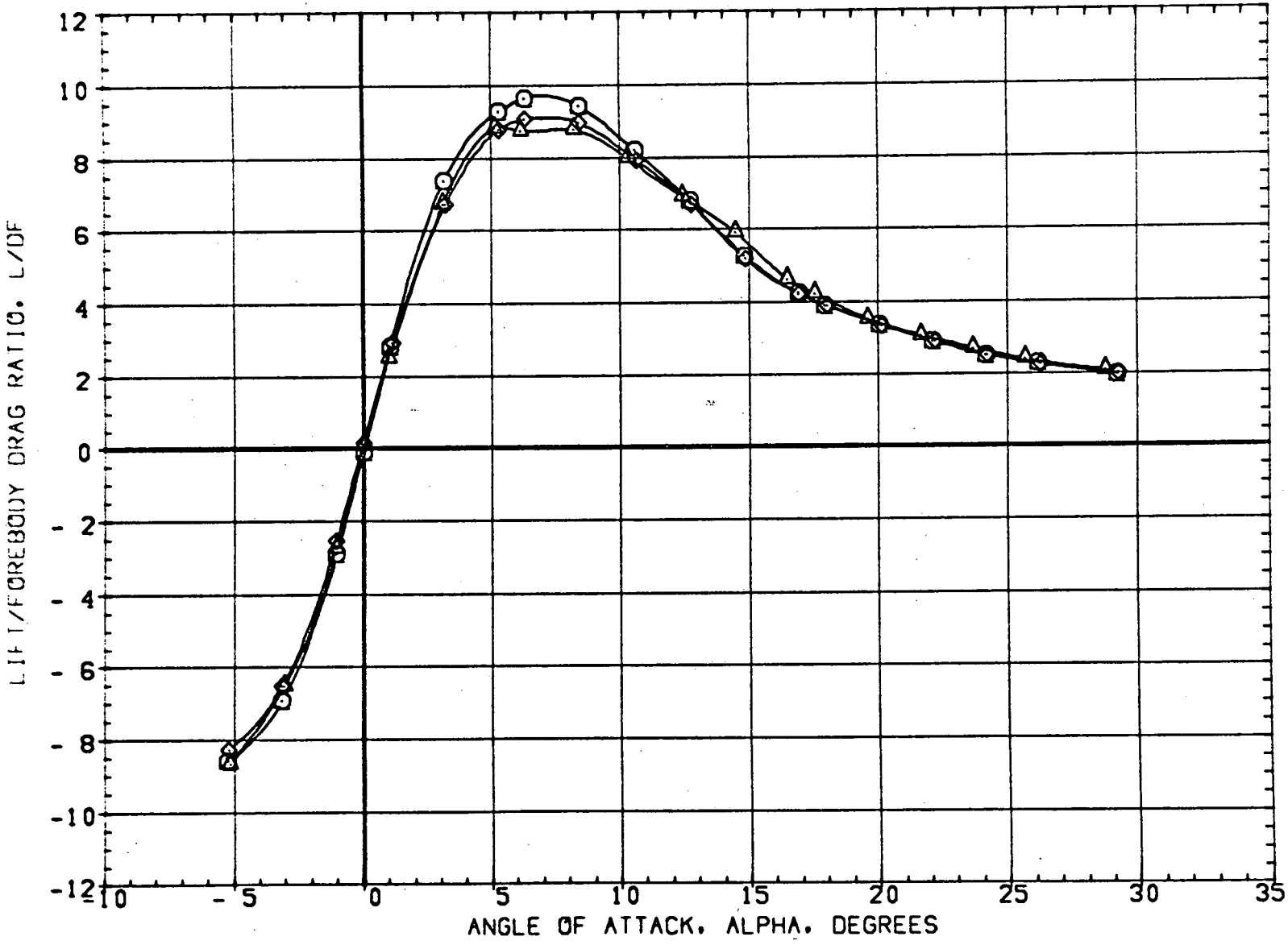

FIG. 15 EFFECT OF FOREBODY CHINE MODIFICATION AND TRANSITION GRIT STUDY IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.260	0.000	0.000	0.000
(ADC028)	△	SSV-ATP ORBITER B3 C2 D2 M1 F1 W02 E2 V3 K2	0.165	0.000	0.000	0.000
(ADC029)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 X V3 K2	0.260	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

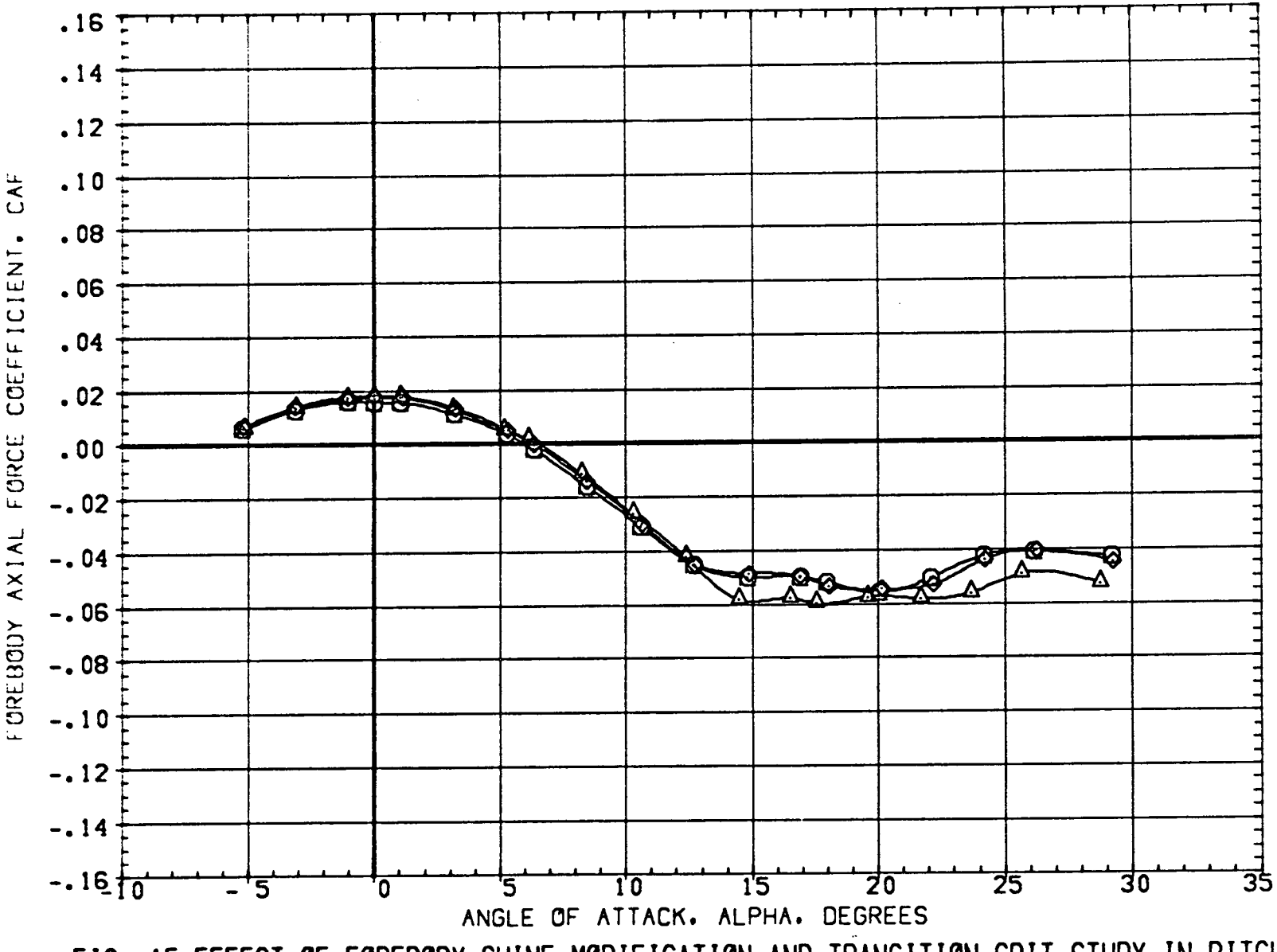

FIG. 15 EFFECT OF FOREBODY CHINE MODIFICATION AND TRANSITION GRIT STUDY IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(AD6020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.260	0.000	0.000	0.000
(AD6026)	△	SSV-ATP ORBITER B3 C2 D2 M1 F1 W02 E2 V3 K2	0.165	0.000	0.000	0.000
(AD6029)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 x V3 K2	0.260	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

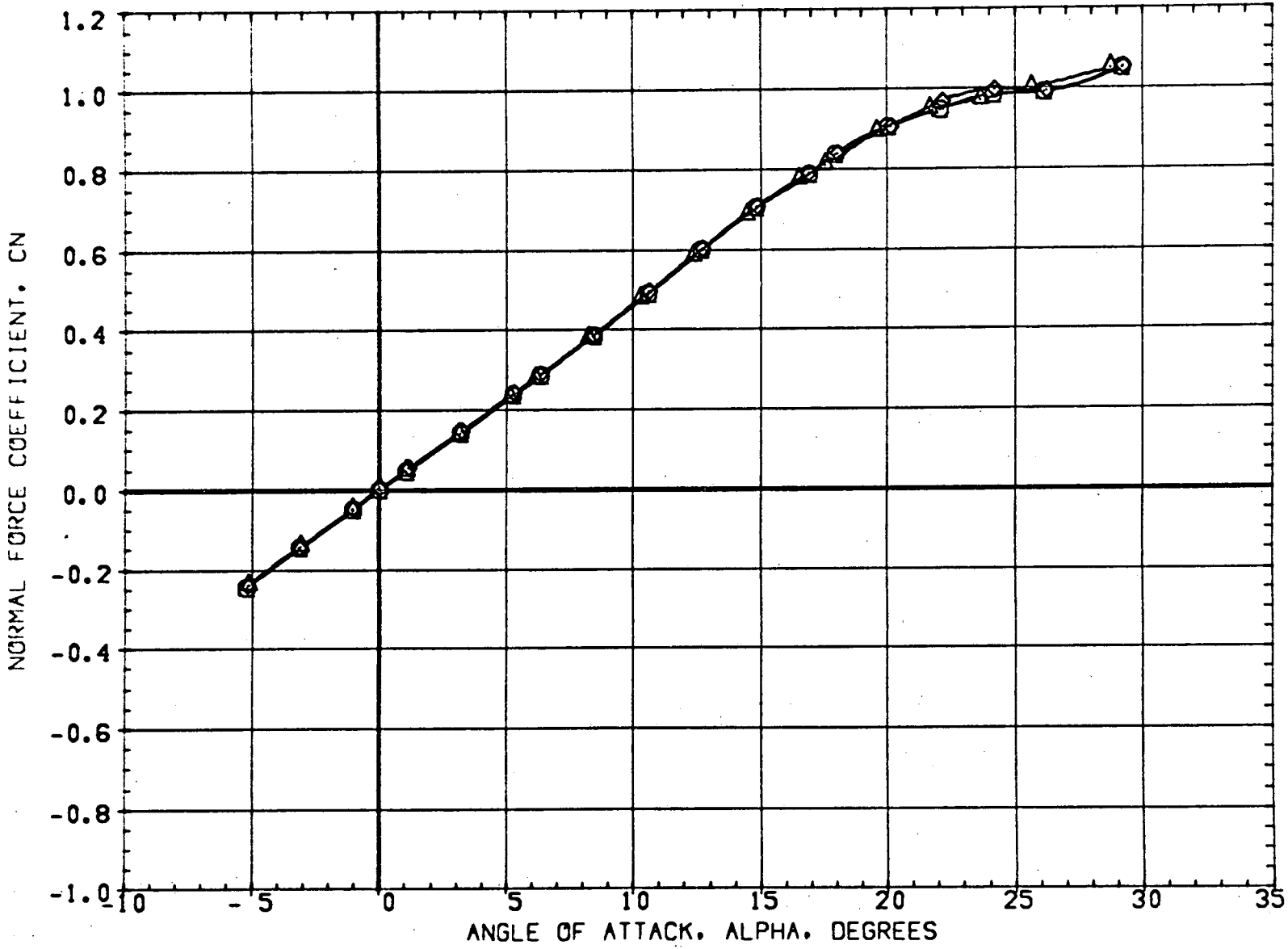

FIG. 15 EFFECT OF FOREBODY CHINE MODIFICATION AND TRANSITION GRIT STUDY IN PITCH

(A)MACH = .26

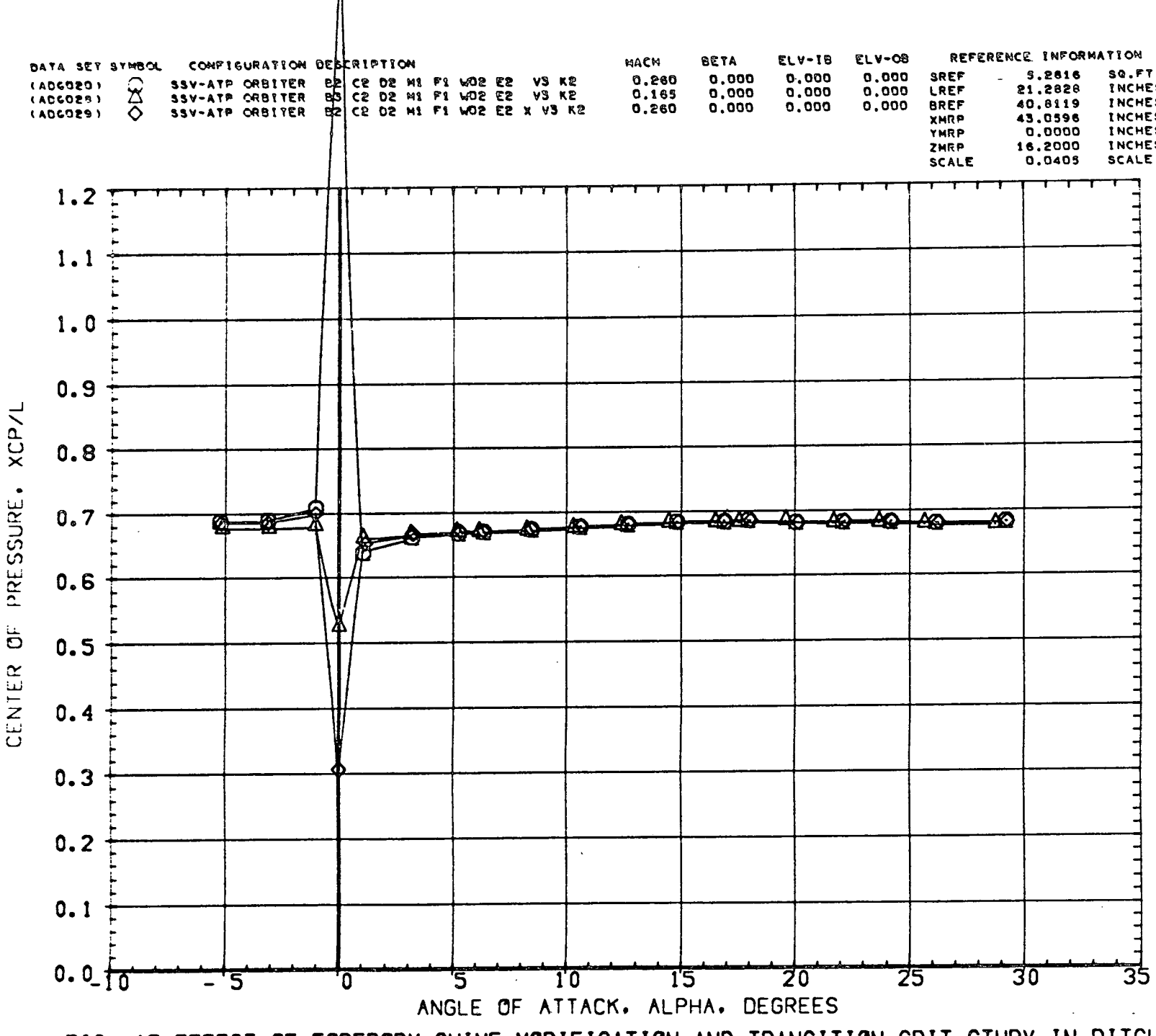

FIG. 15 EFFECT OF FOREBODY CHINE MODIFICATION AND TRANSITION GRIT STUDY IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.260	0.000	0.000	0.000
(ADG028)	⧖	SSV-ATP ORBITER B3 C2 D2 H1 F1 W02 E2 V3 K2	0.165	0.000	0.000	0.000
(ADG029)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 X V3 K2	0.260	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

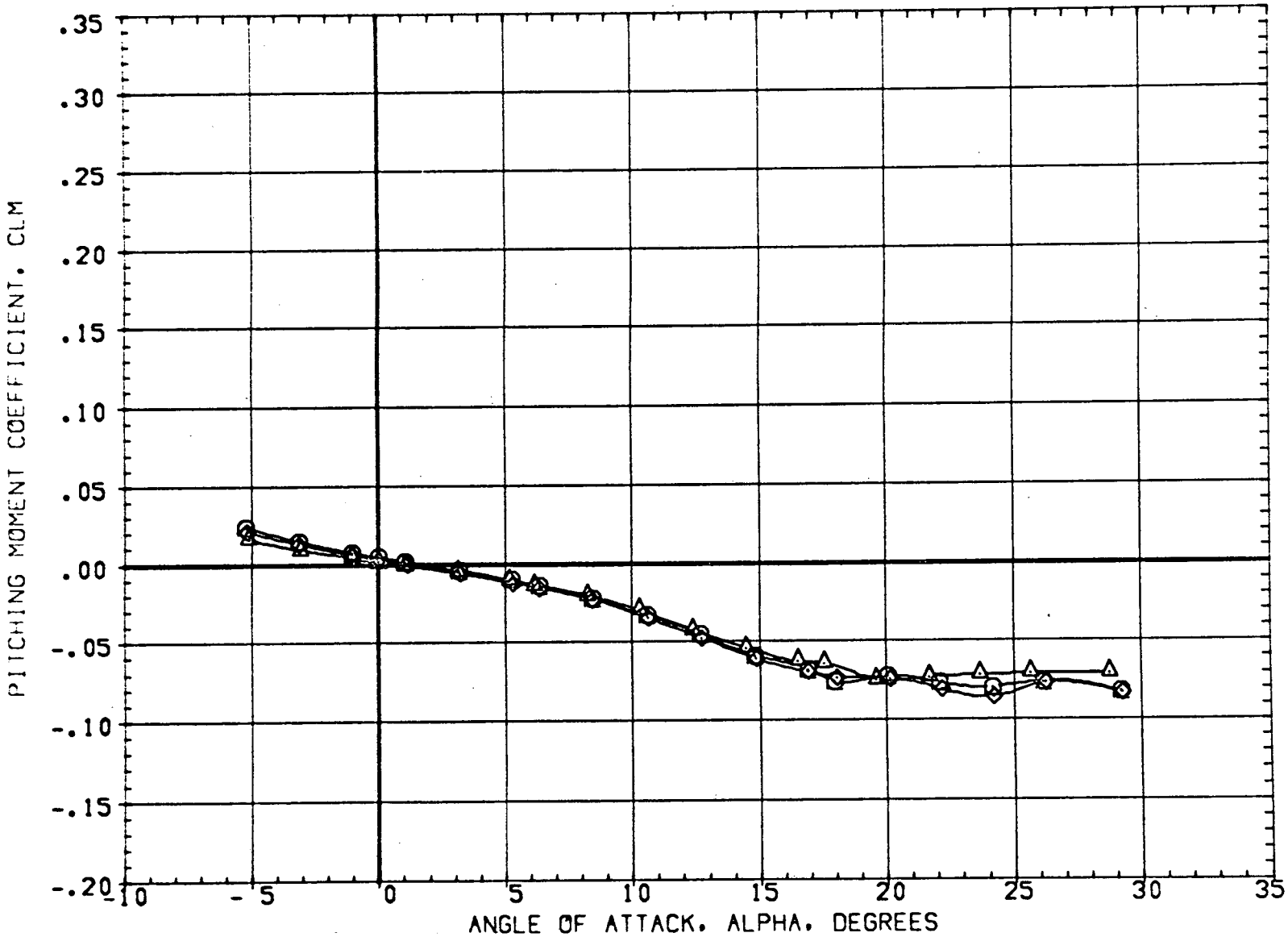

FIG. 15 EFFECT OF FOREBODY CHINE MODIFICATION AND TRANSITION GRIT STUDY IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2	0.000	0.000	0.000
(BDC021)	△	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 R2	5.000	0.000	0.000
(BDC022)	◇	SSV-ATP ORBITER B2 C2 D4 M1 P1 W02 E2 V3 R2	0.000	0.000	0.000
(BDC023)	□	SSV-ATP ORBITER B2 C2 D4 M1 P1 W02 E2 V3 R2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

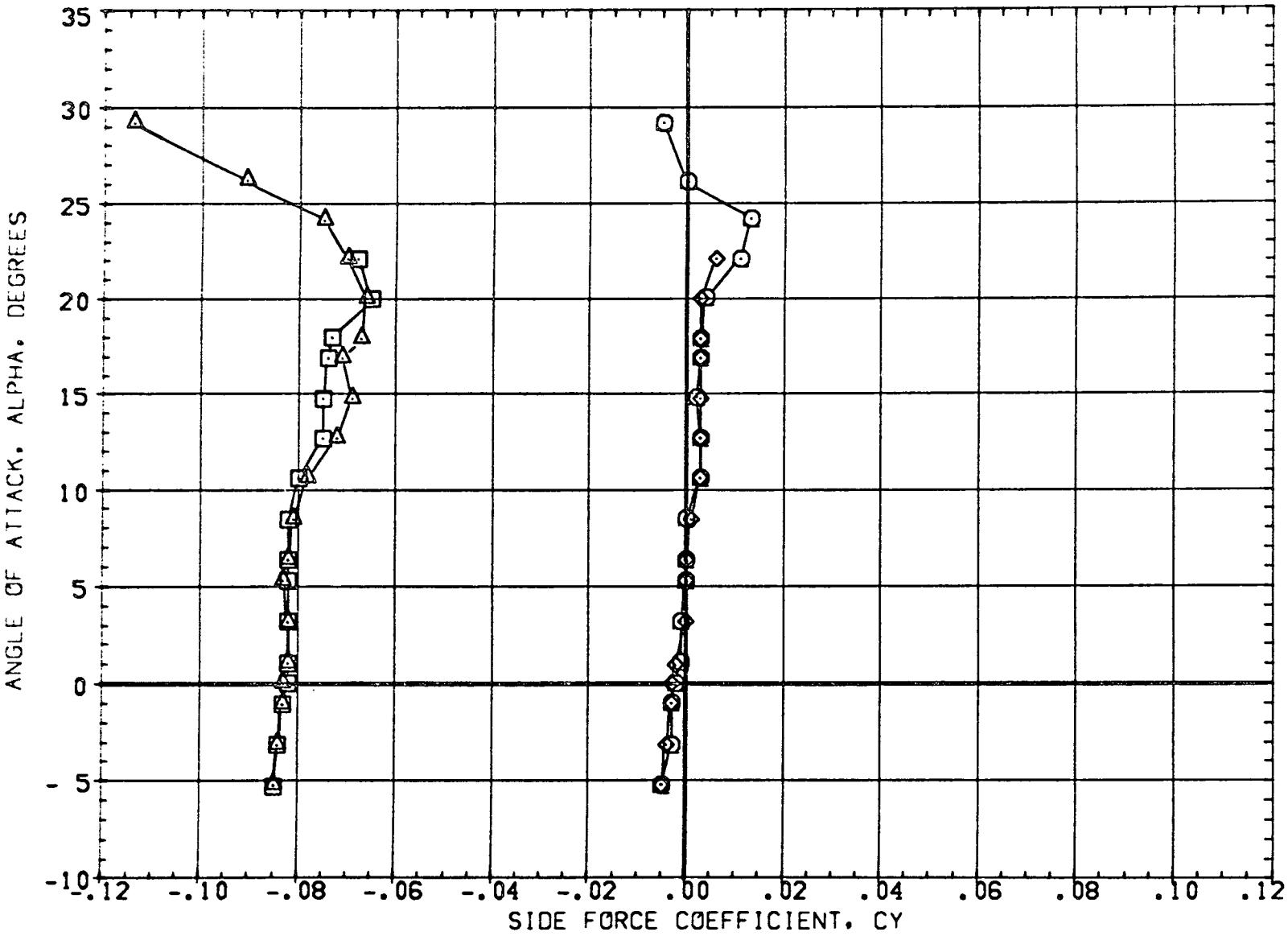

FIG. 16 YAW EFFECT OF FAIRING DORSAL MANIPULATOR HOUSING INTO CANOPY

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDG020)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDG021)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDG022)		SSV-ATP ORBITER B2 C2 D4 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDG023)		SSV-ATP ORBITER B2 C2 D4 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

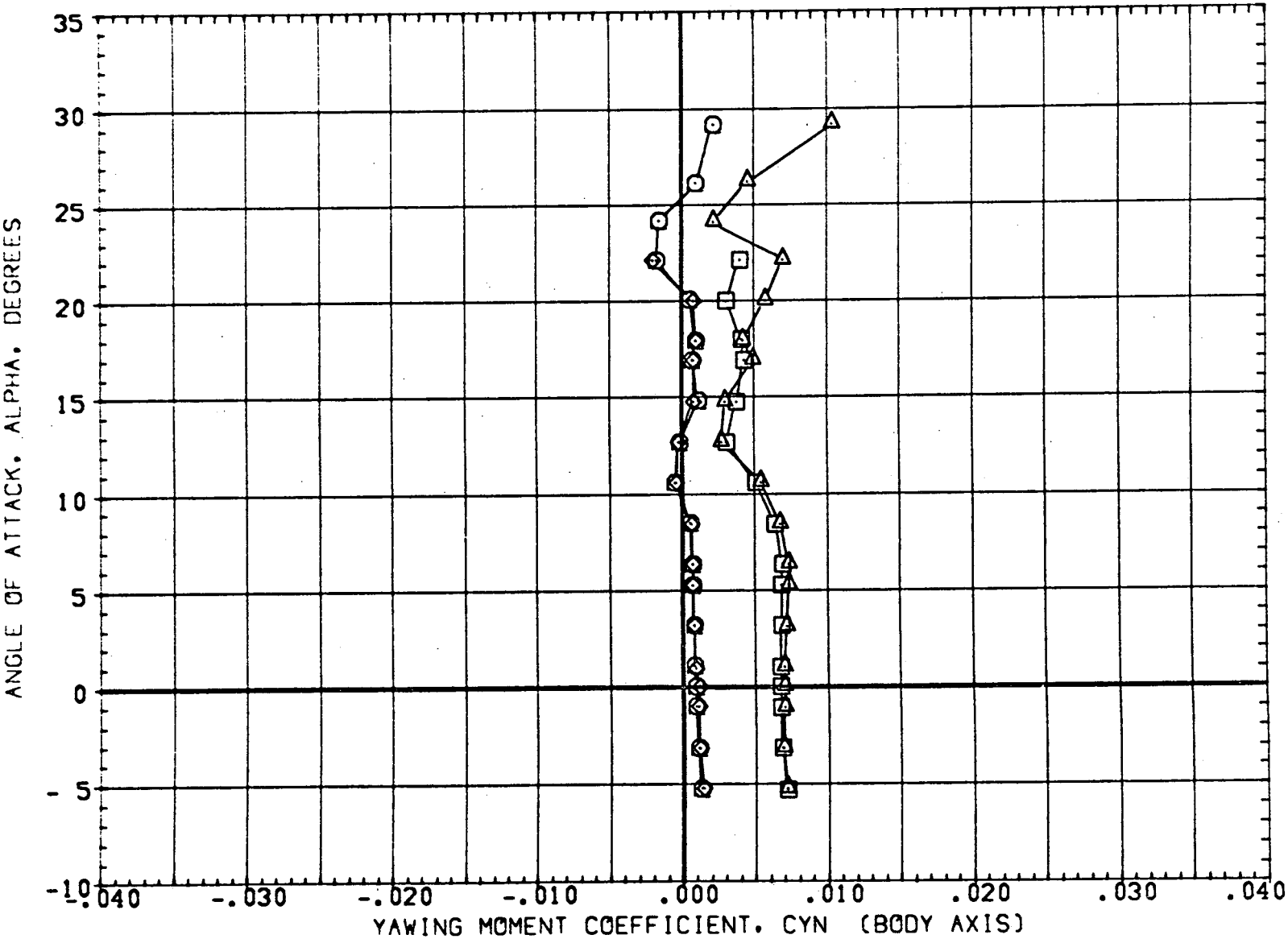

FIG. 16 YAW EFFECT OF FAIRING DORSAL MANIPULATOR HOUSING INTO CANOPY

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDC021)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDC022)	◇	SSV-ATP ORBITER B2 C2 D4 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDC023)	□	SSV-ATP ORBITER B2 C2 D4 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2818	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

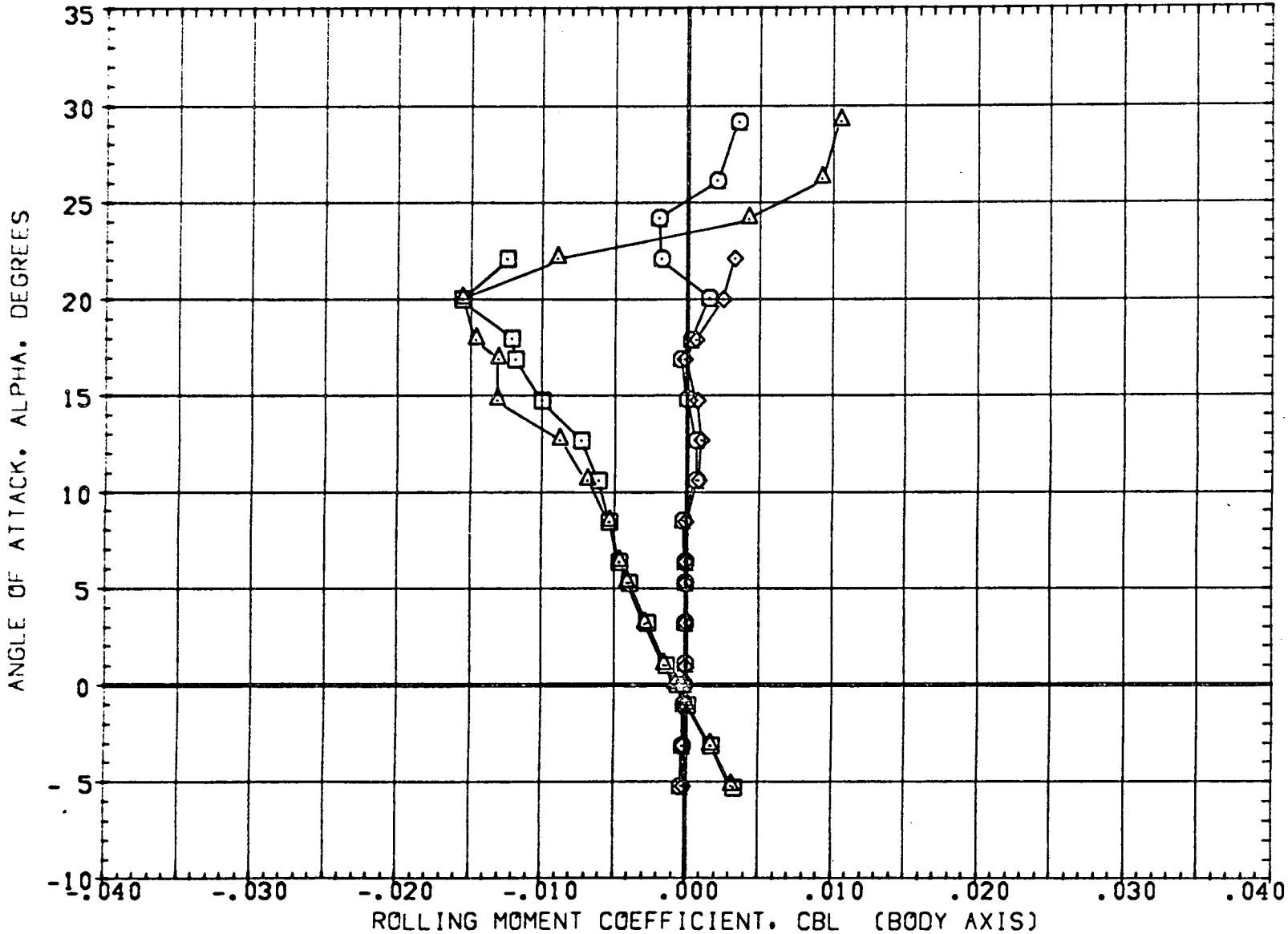

FIG. 16 YAW EFFECT OF FAIRING DORSAL MANIPULATOR HOUSING INTO CANOPY

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC030)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADC032)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-5.000	-5.000
(ADC033)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	3.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

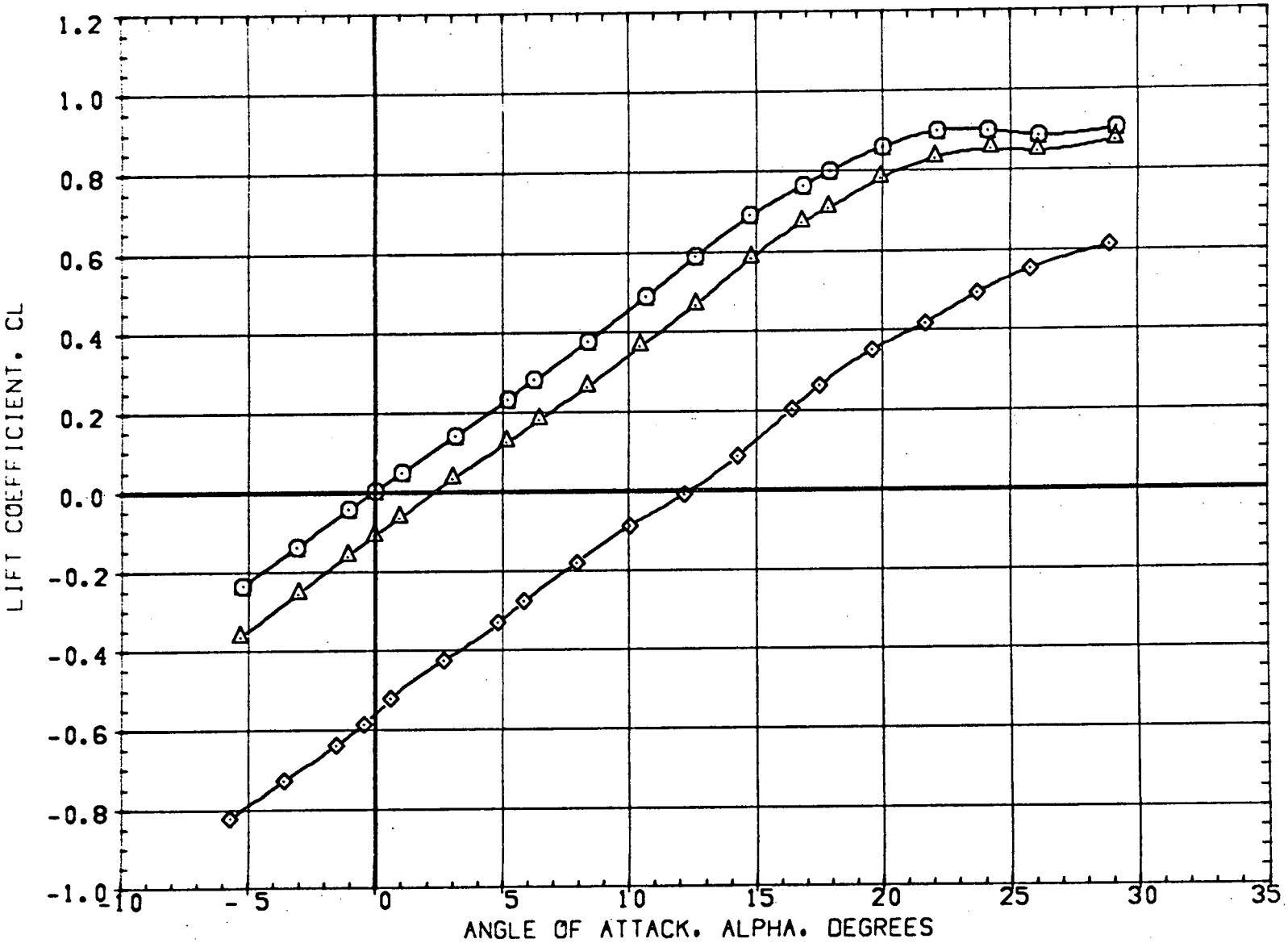

FIG. 17 ELEVON EFFECTIVENESS W8

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC030)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADC032)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W08 E2 V3 K2	0.000	-5.000	-5.000
(ADC033)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W08 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	3.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

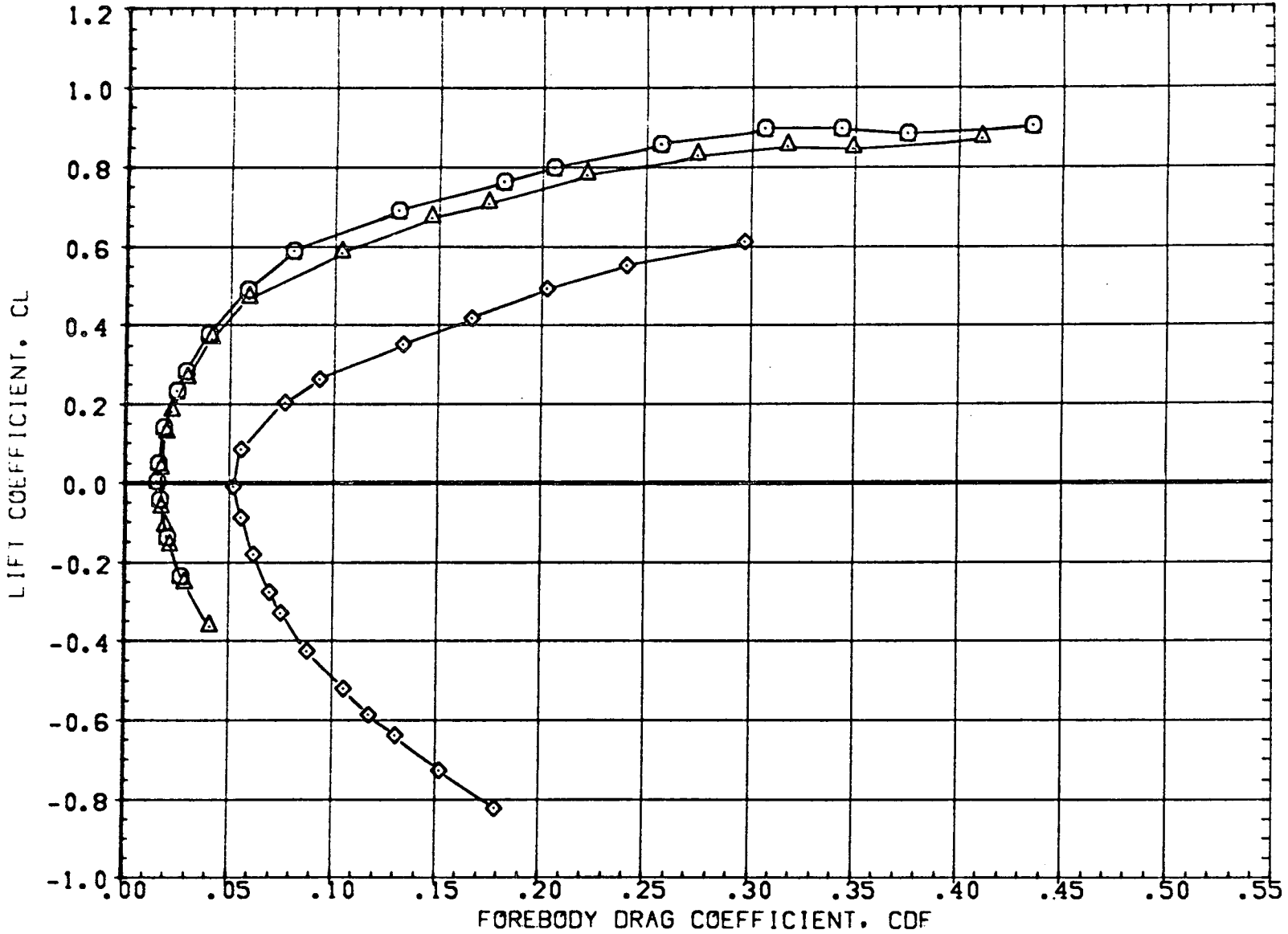

FIG. 17 ELEVON EFFECTIVENESS W8

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG030)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADG032)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-5.000	-5.000
(ADG033)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

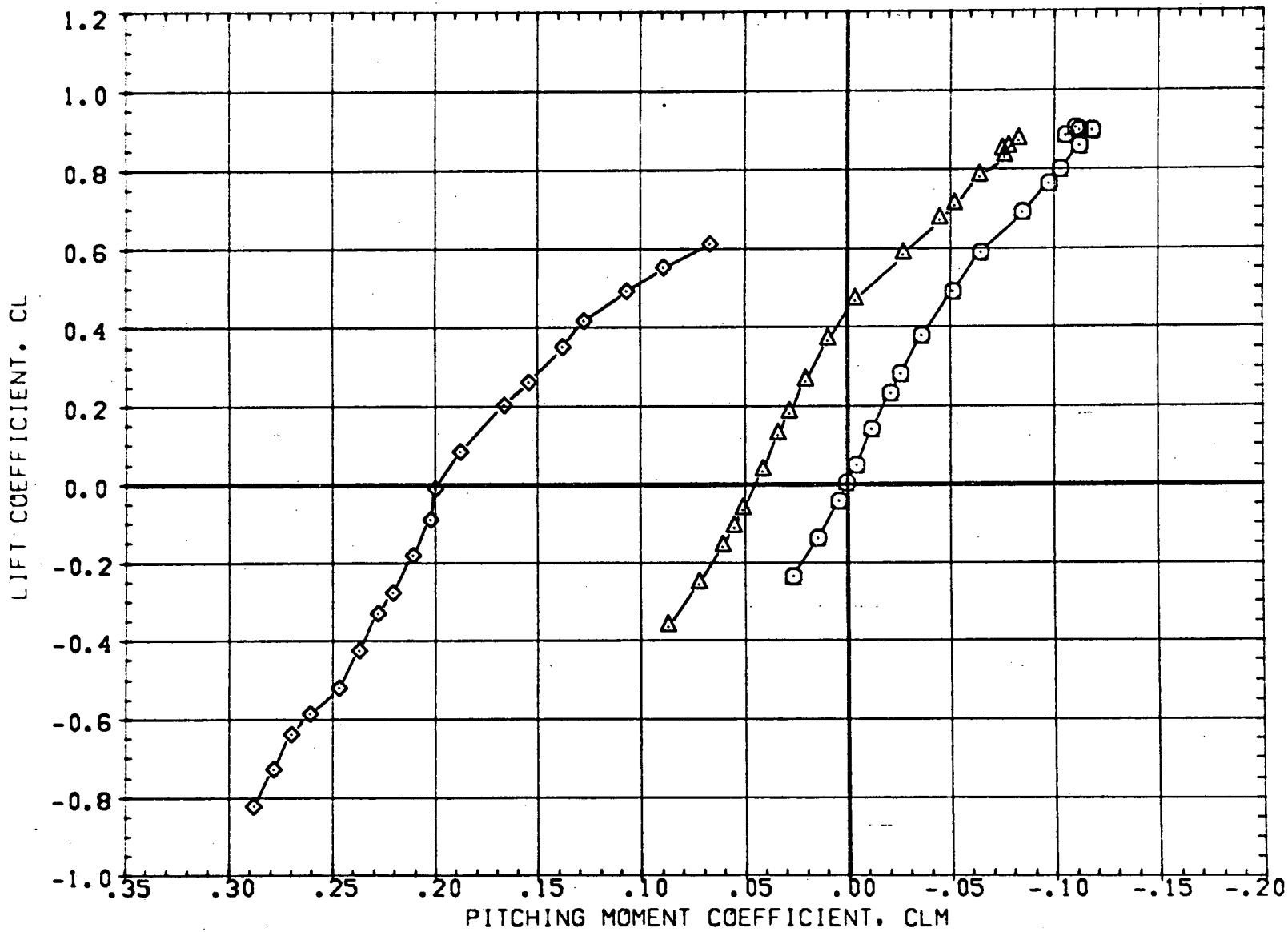

FIG. 17 ELEVON EFFECTIVENESS W8

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC030)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADC032)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-5.000	-5.000
(ADC033)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

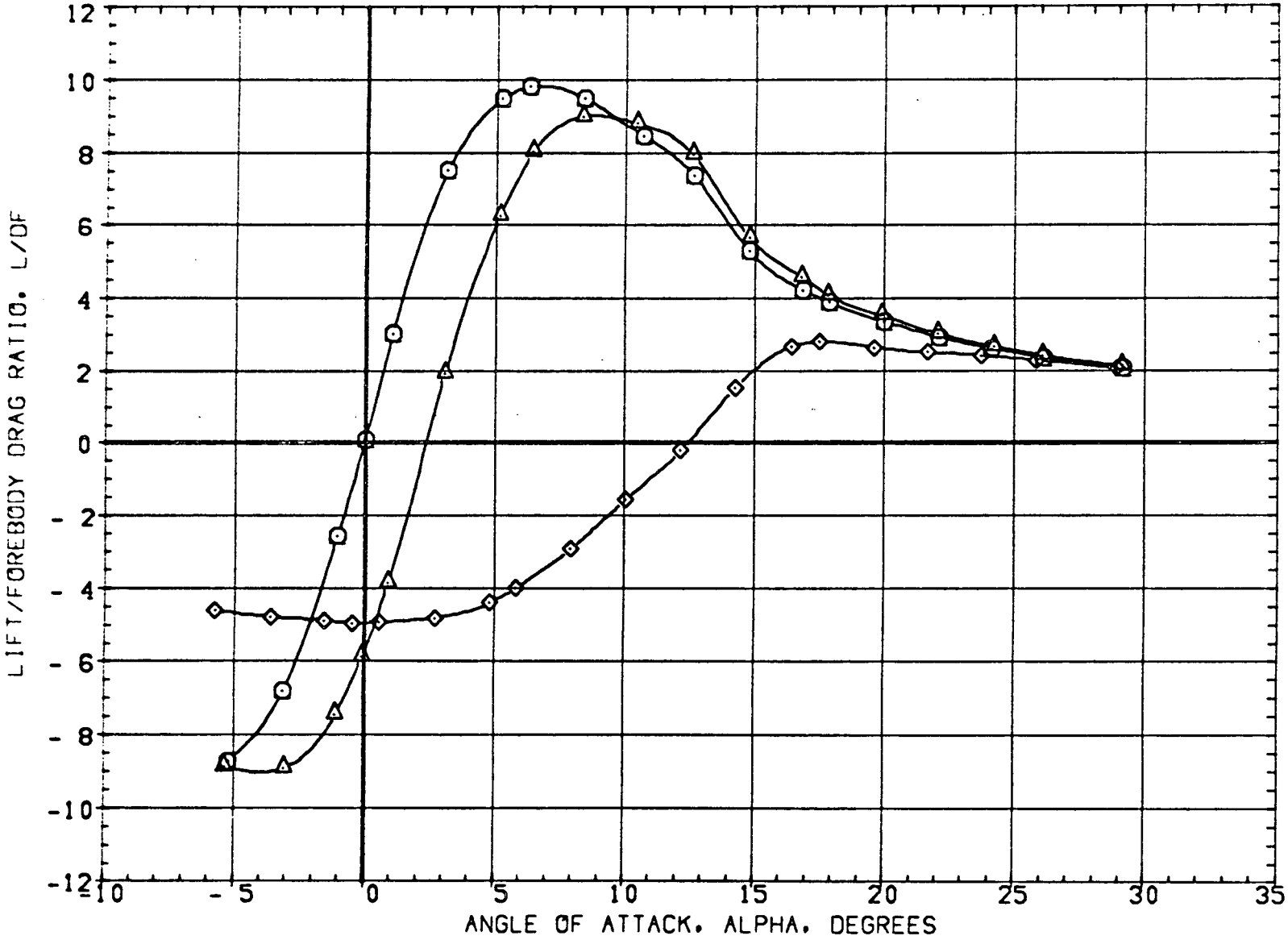

FIG. 17 ELEVON EFFECTIVENESS W8

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG030)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADG032)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-5.000	-5.000
(ADG033)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

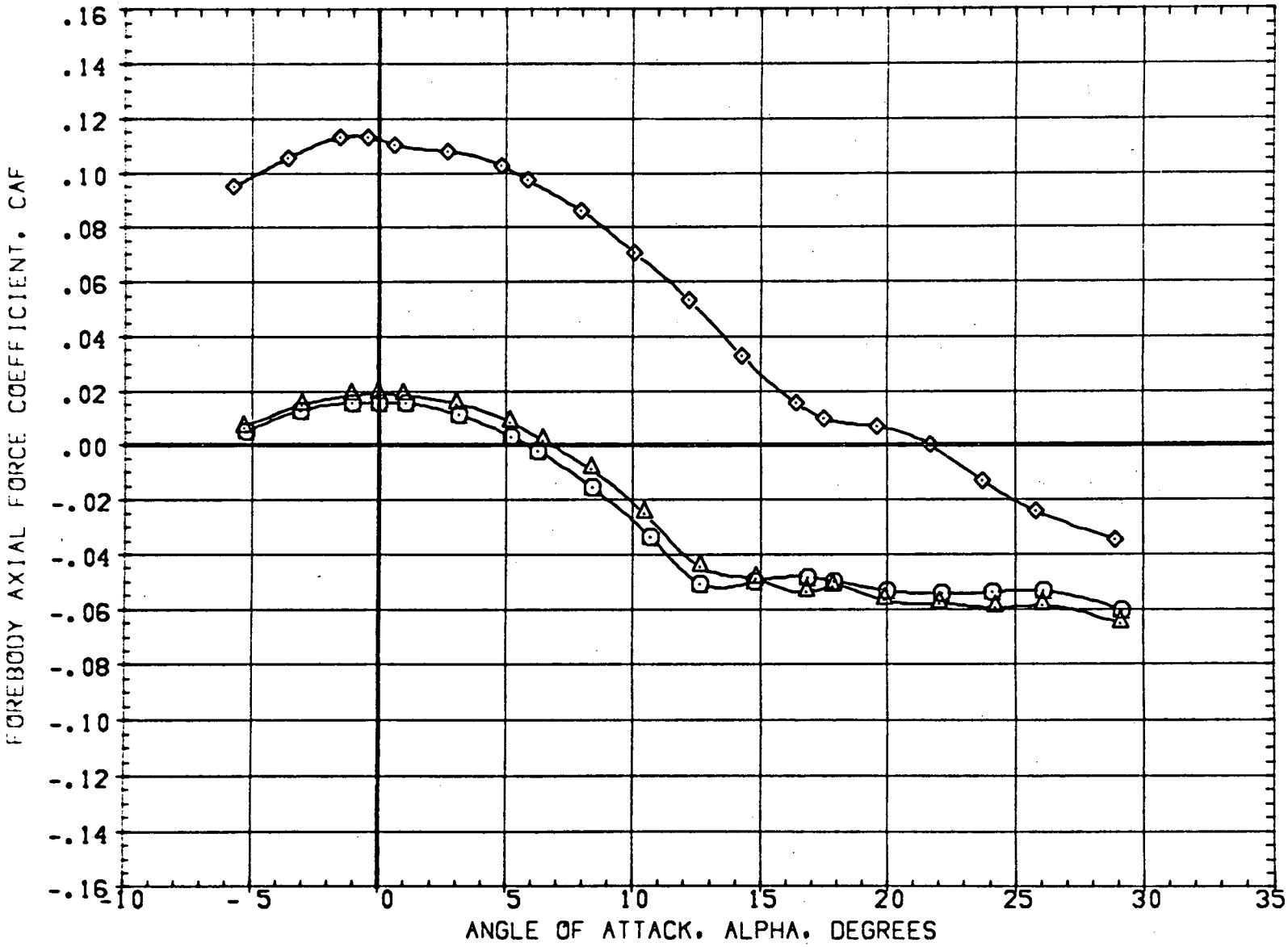

FIG. 17 ELEVON EFFECTIVENESS W8

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC030)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADC032)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-5.000	-5.000
(ADC033)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

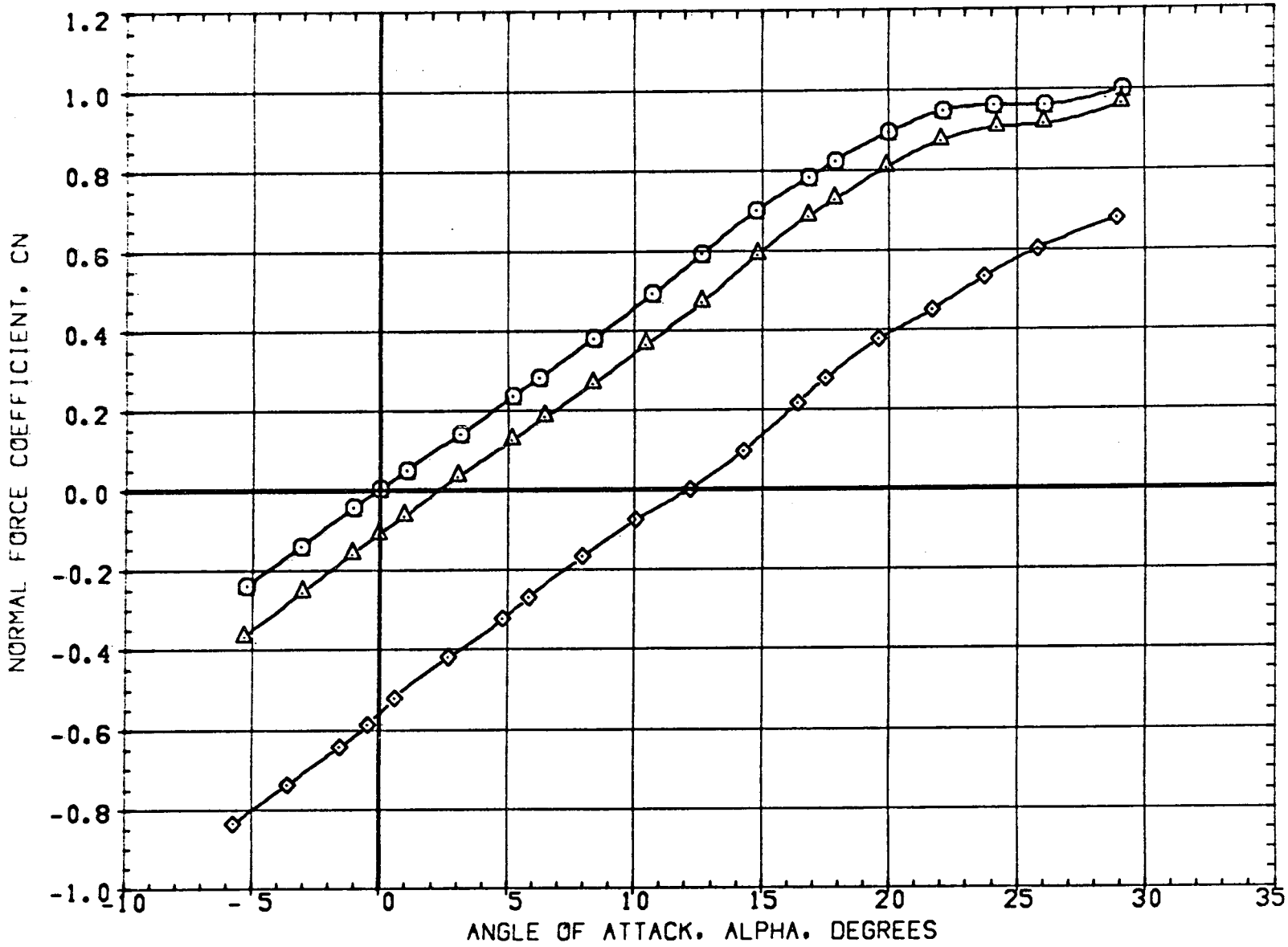

FIG. 17 ELEVON EFFECTIVENESS W8

(A)MACH = .26

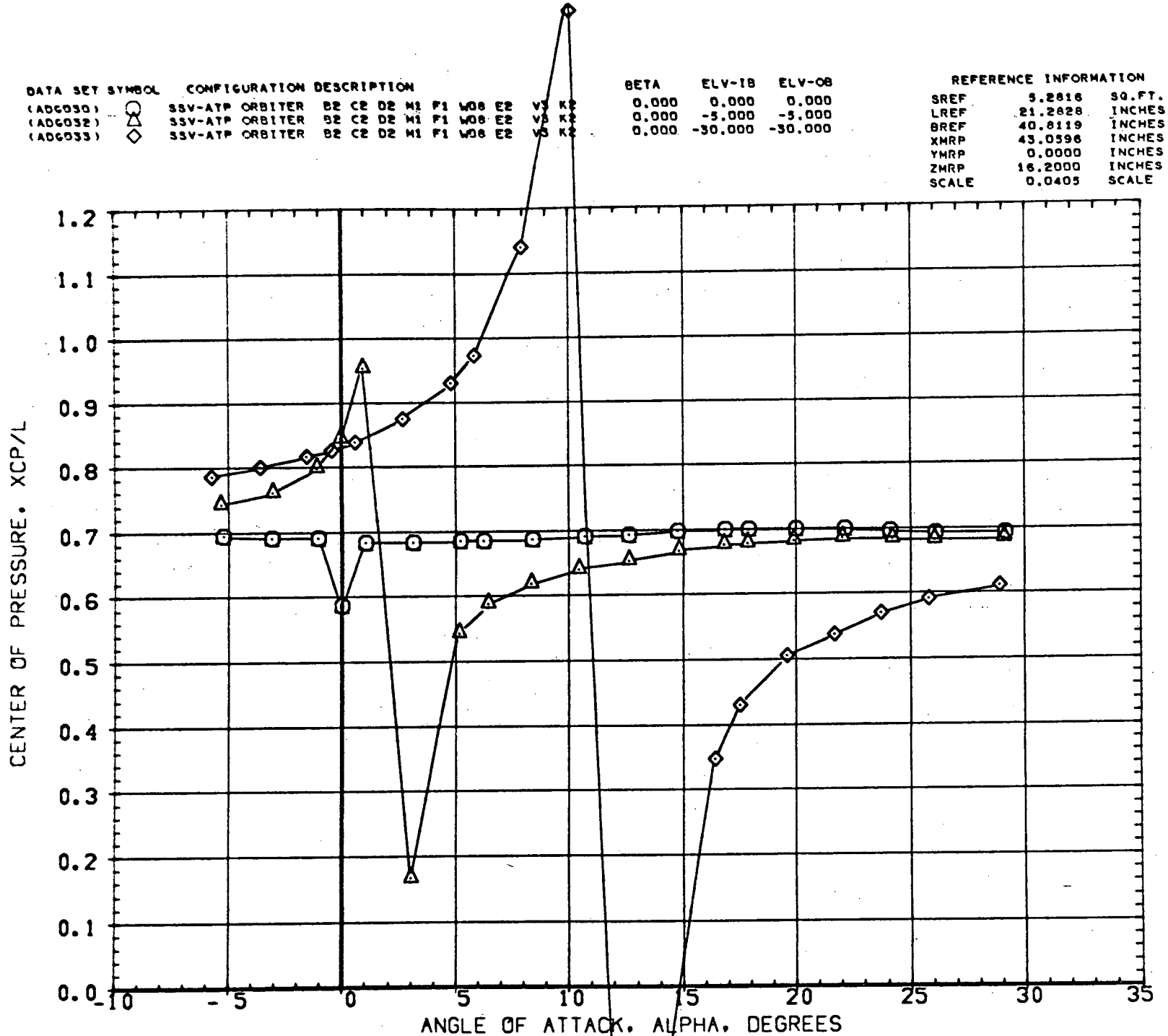

FIG. 17 ELEVON EFFECTIVENESS W8

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-2B
(ADC030)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADC032)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-5.000	-5.000
(ADC033)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2826	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

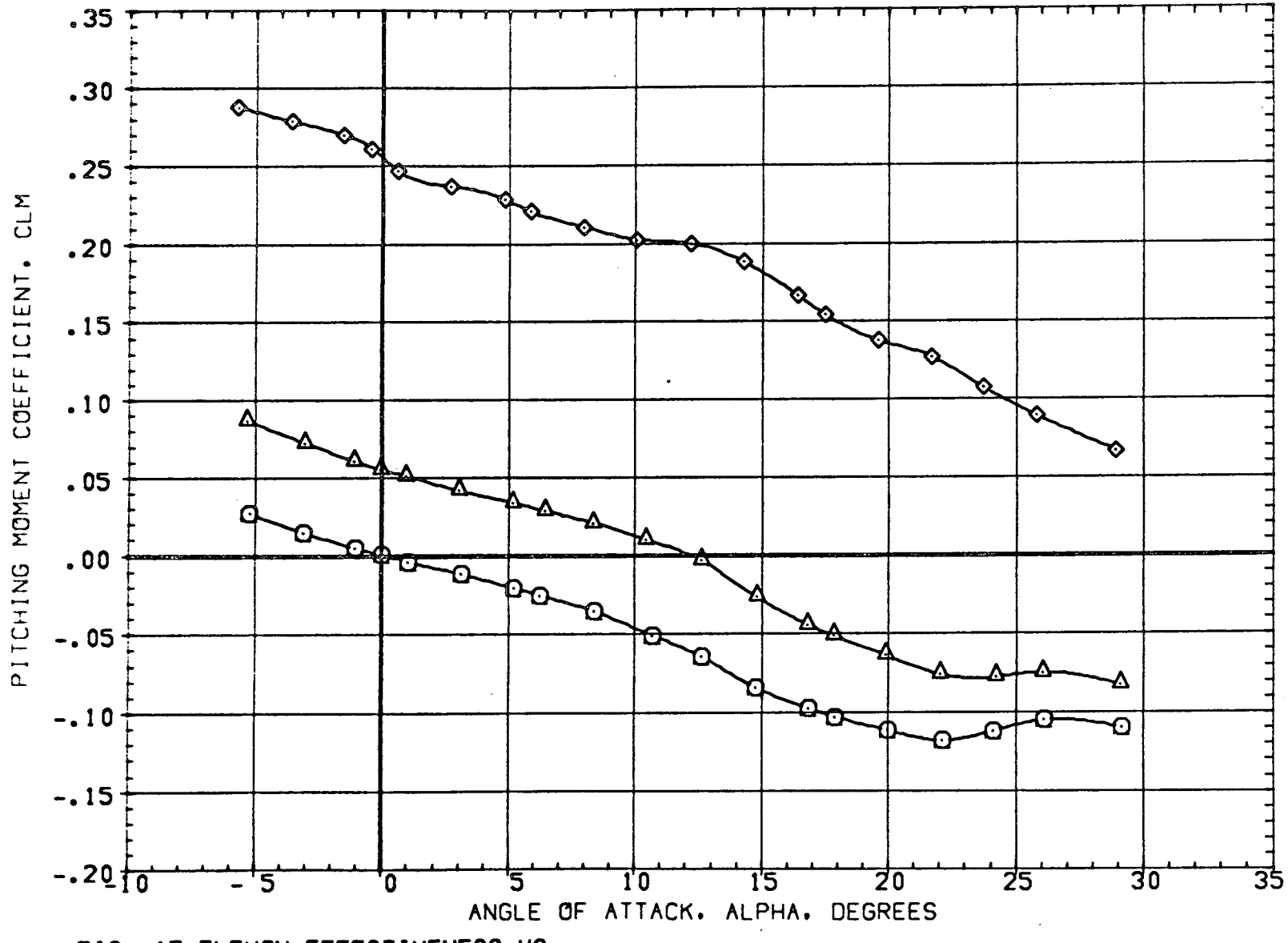

FIG. 17 ELEVON EFFECTIVENESS W8

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDG020)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDG021)	▽	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDG030)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(BDG031)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	5.000	0.000	0.000
(BDG089)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(BDG090)	⊙	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ,FT.
LREF	21.2028	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

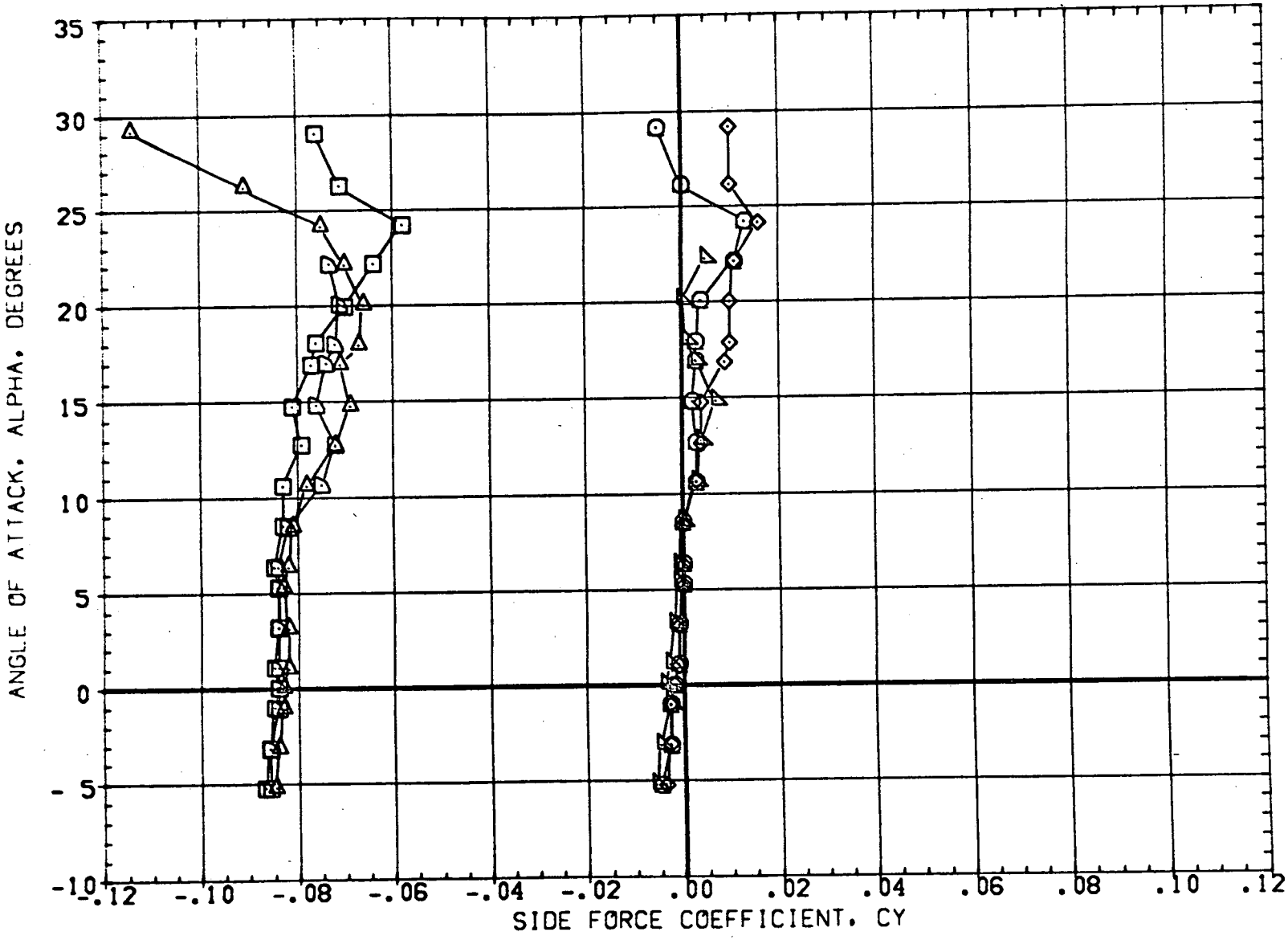

FIG. 18 EFFECT OF GLOVES IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC020)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDC021)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDC030)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(BDC031)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	5.000	0.000	0.000
(BDC089)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(BDC090)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

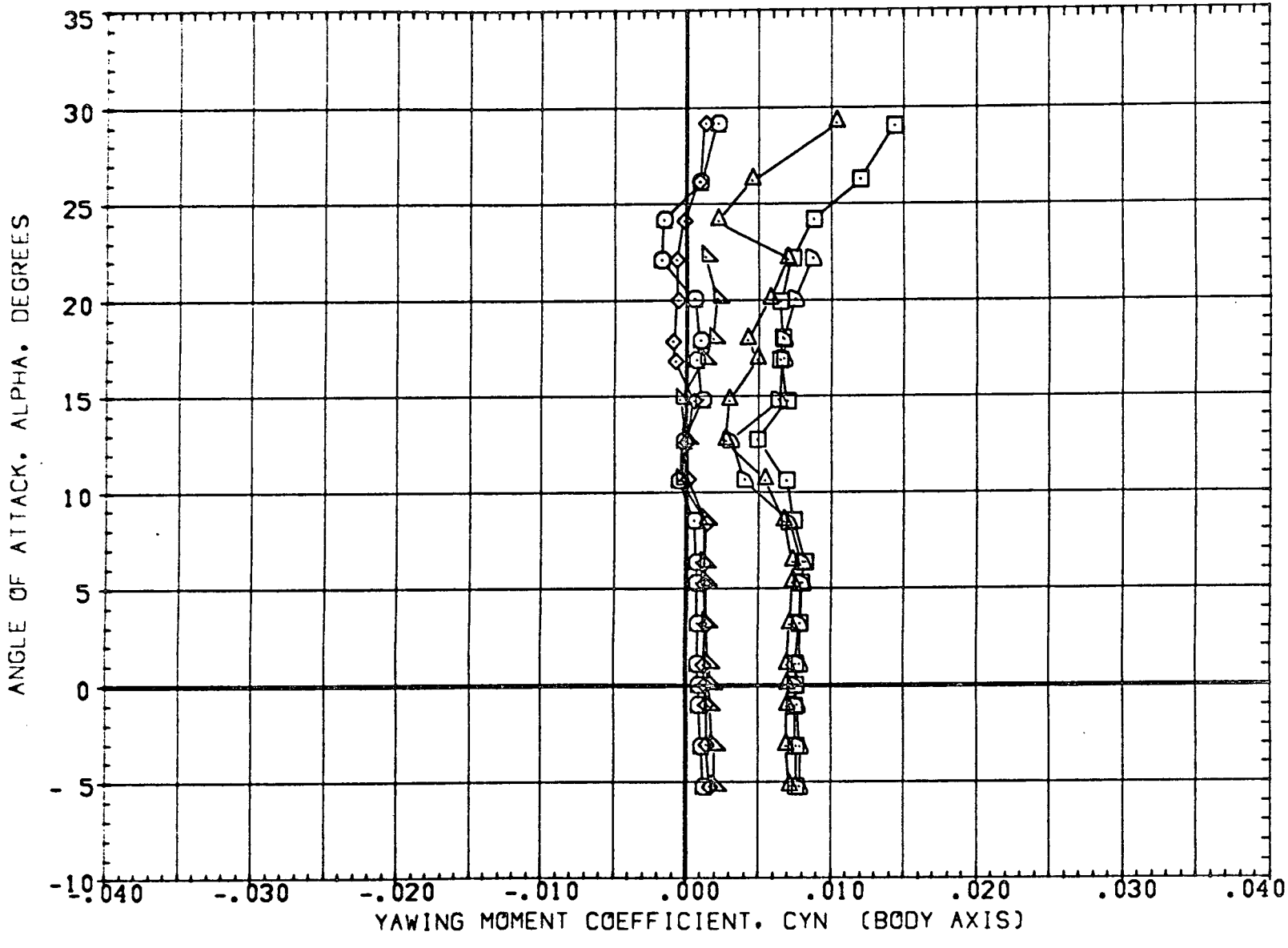

FIG. 18 EFFECT OF GLOVES IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC020)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDC021)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDC030)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(BDC031)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	5.000	0.000	0.000
(BDC089)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(BDC090)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

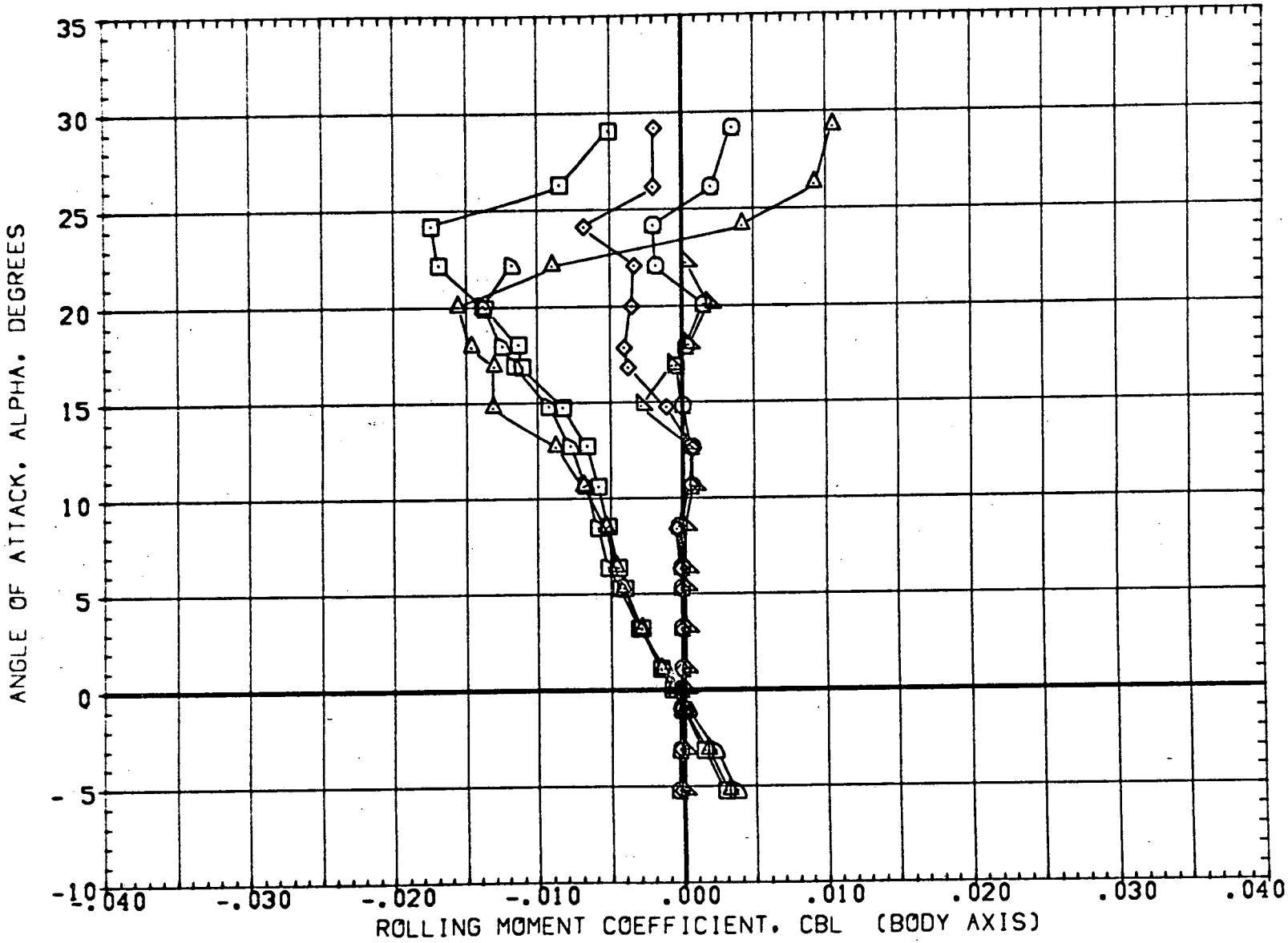

FIG. 18 EFFECT OF GLOVES IN YAW

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC089)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 R2	0.000	0.000	0.000
(BDC090)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 R2	5.000	0.000	0.000
(BDC091)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 R2	-5.000	0.000	0.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

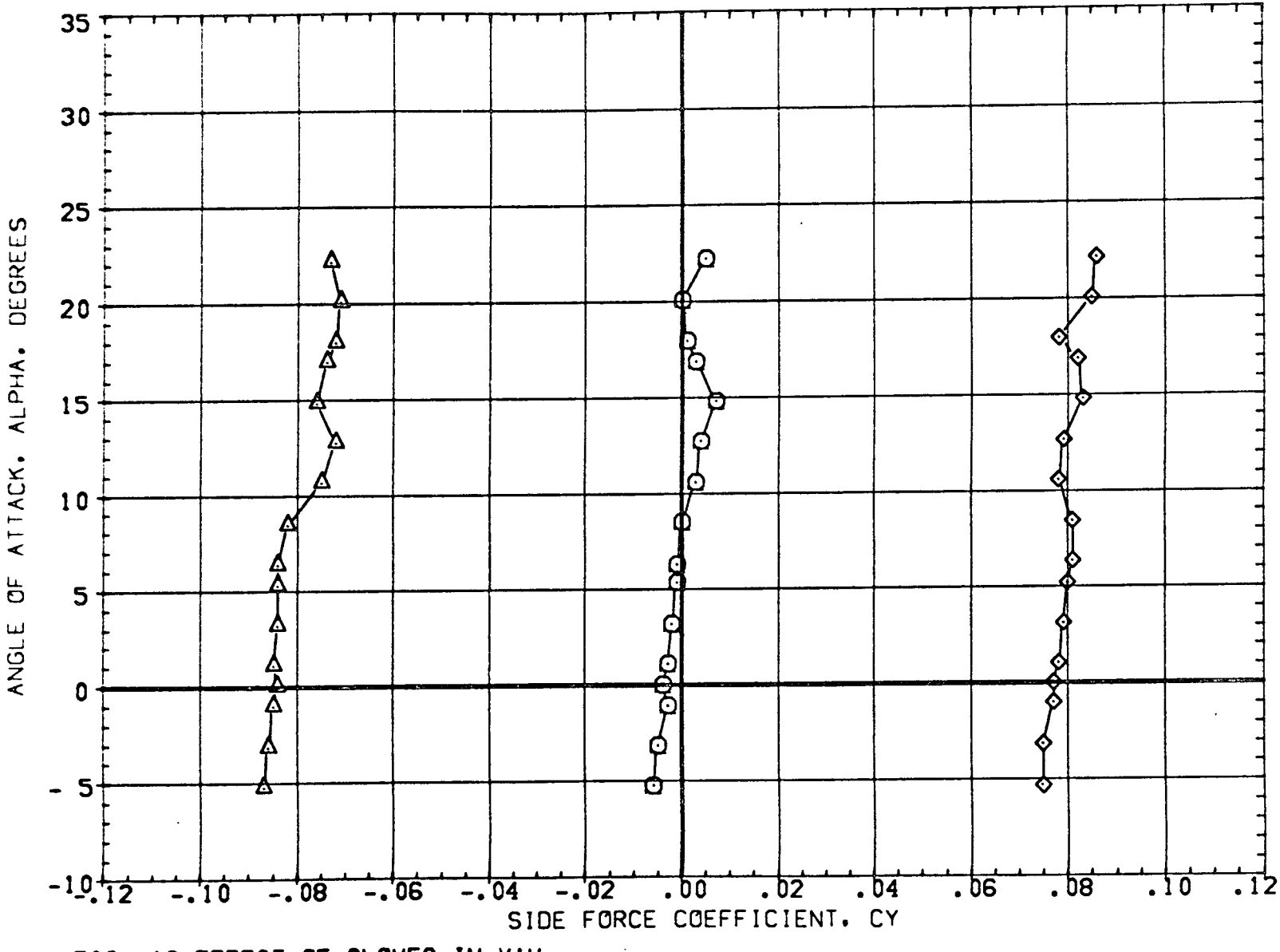

FIG. 18 EFFECT OF GLOVES IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC089)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(BDC090)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	5.000	0.000	0.000
(BDC091)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

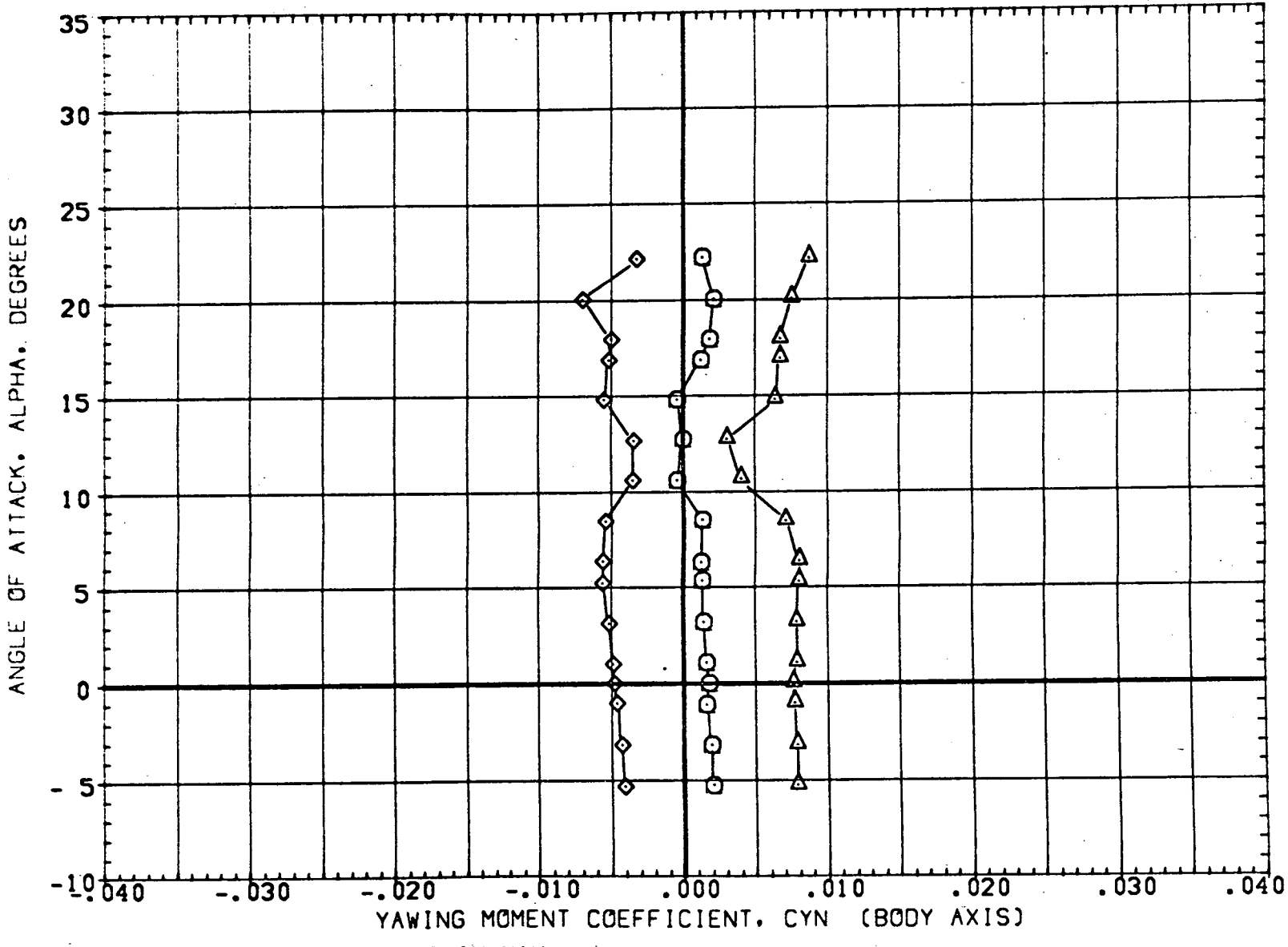

FIG. 18 EFFECT OF GLOVES IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC089)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 R2	0.000	0.000	-0.000
(BDC090)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 R2	5.000	0.000	0.000
(BDC091)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 R2	-5.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

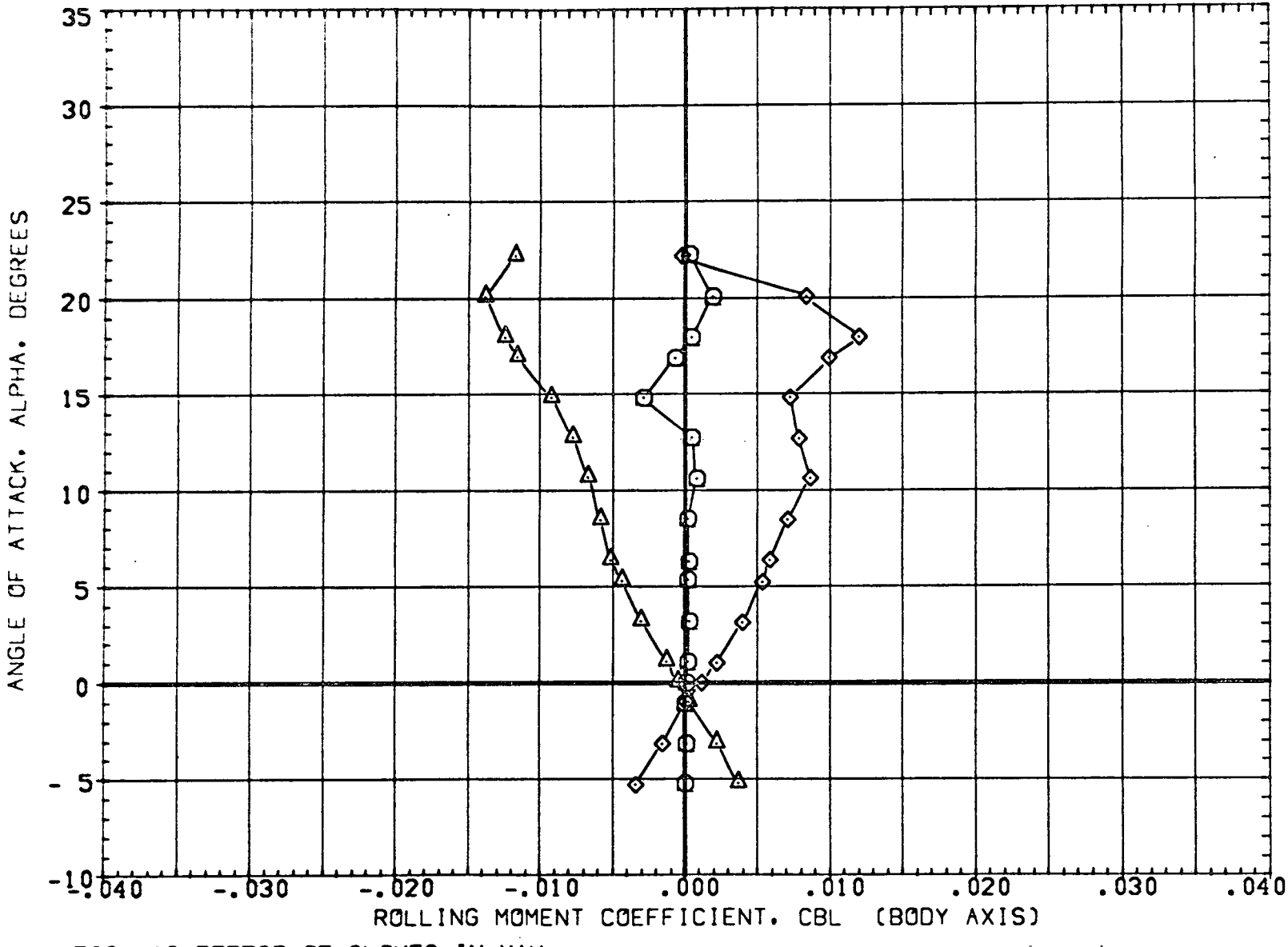

FIG. 18 EFFECT OF GLOVES IN YAW

(A)MACH = .26

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG030)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADG069)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

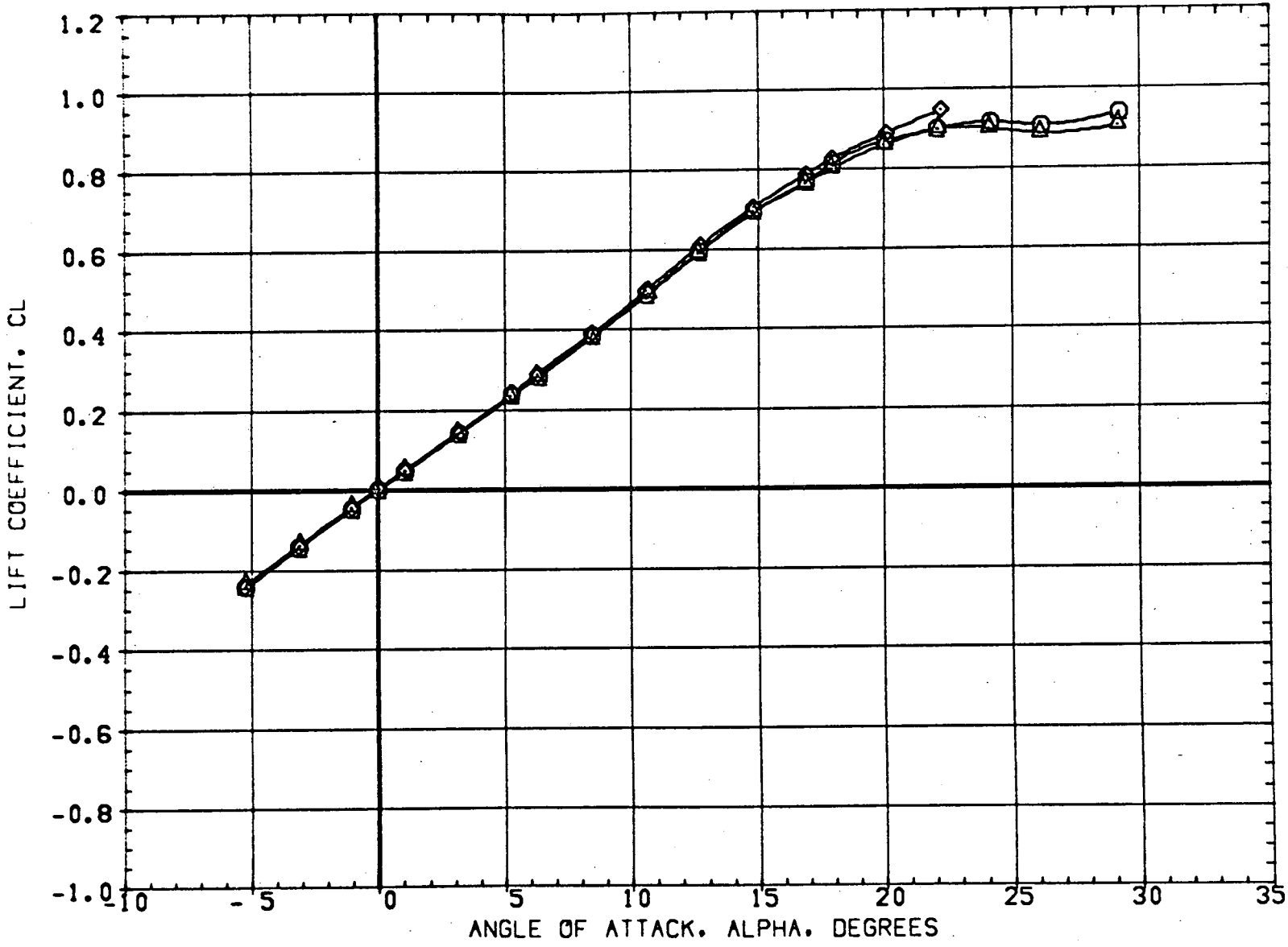

FIG. 19 EFFECT OF GLOVES IN PITCH FOR 8 PERCENT THICK WING

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG030)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADG089)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W09 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

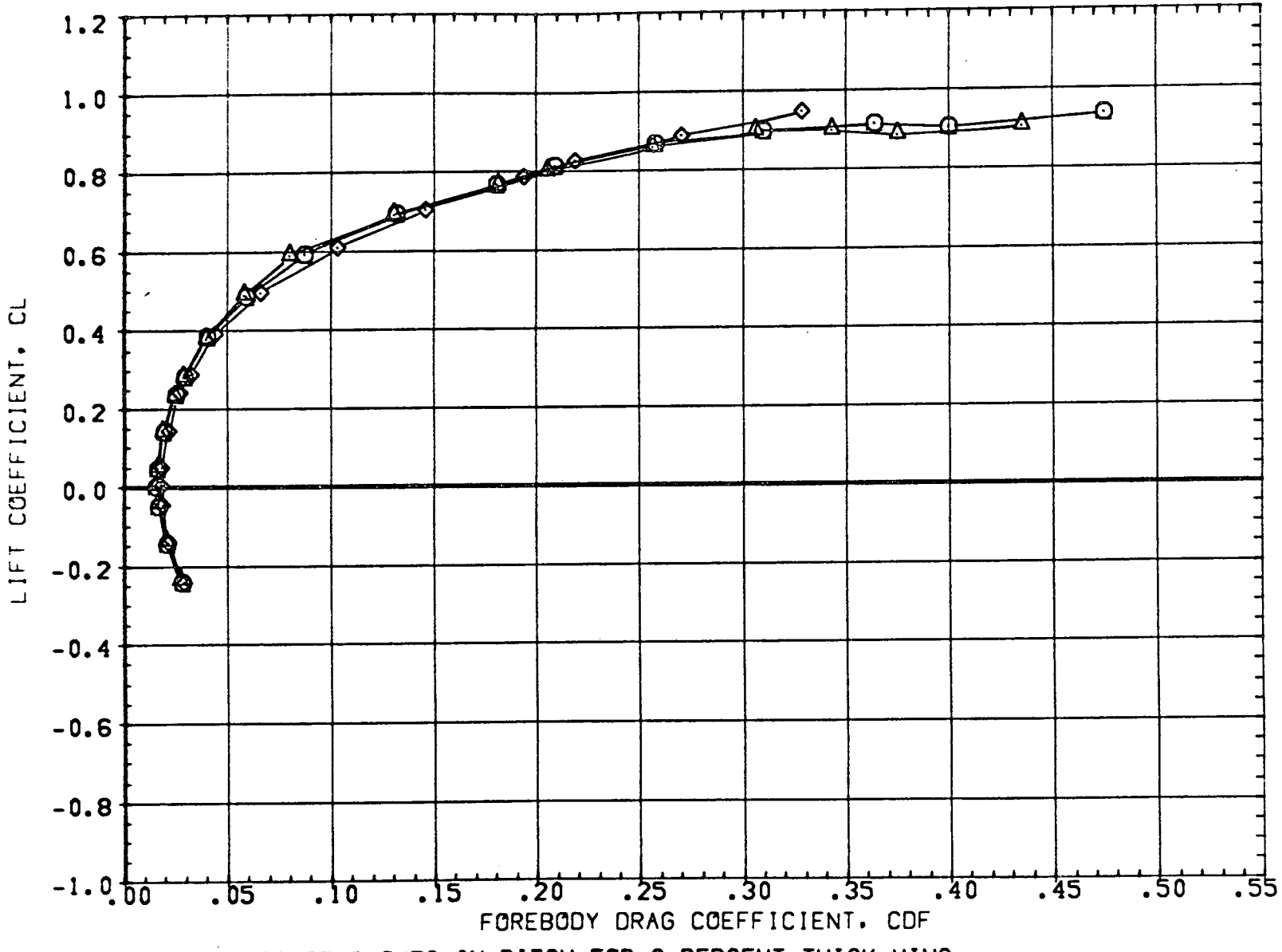

FIG. 19 EFFECT OF GLOVES IN PITCH FOR 8 PERCENT THICK WING

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(AD6030)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(AD6089)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

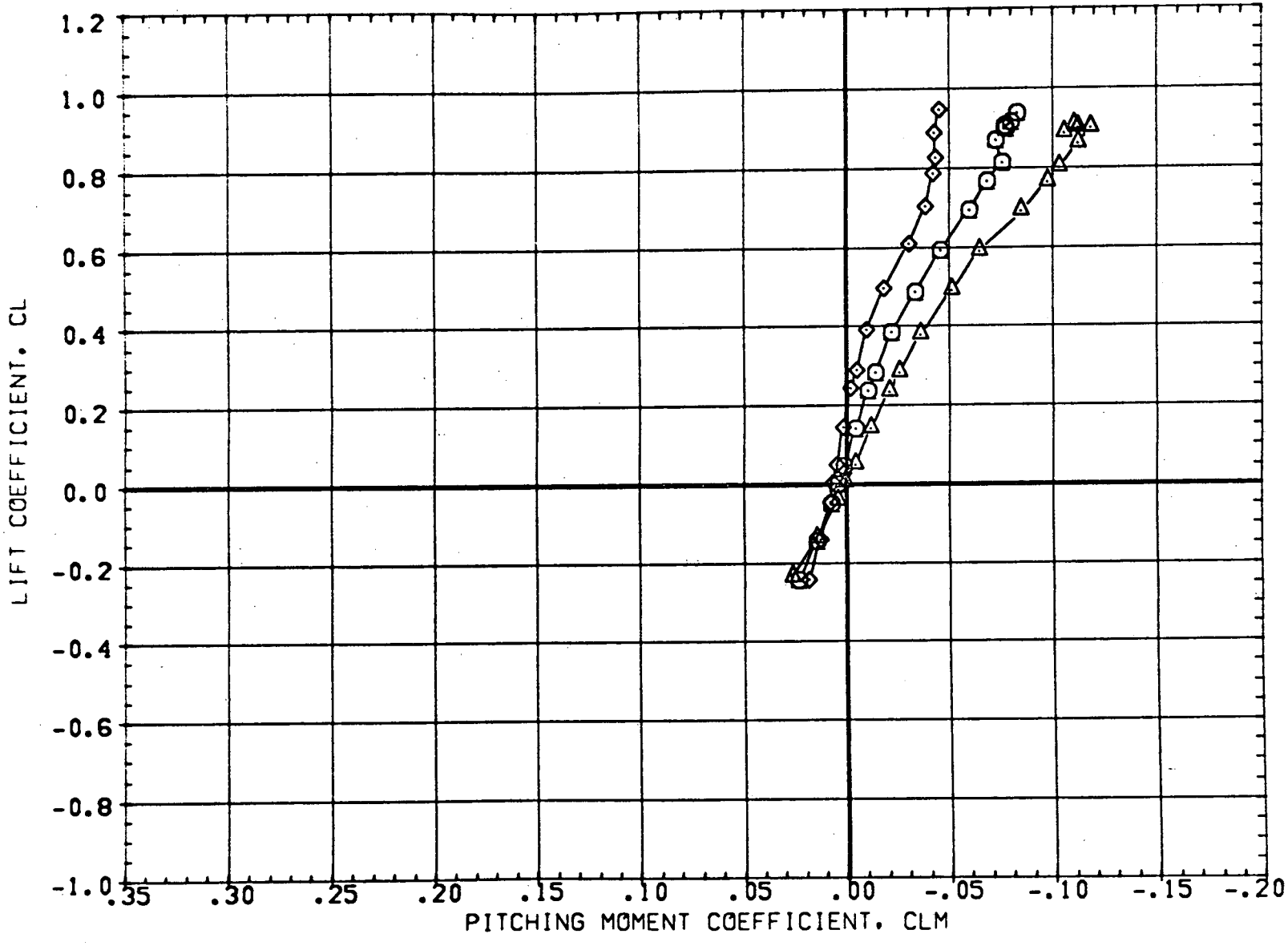

FIG. 19 EFFECT OF GLOVES IN PITCH FOR 8 PERCENT THICK WING

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020) ○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG030) △	SSV-ATP ORBITER B2 C2 D2 H1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADG089) ◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W09 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

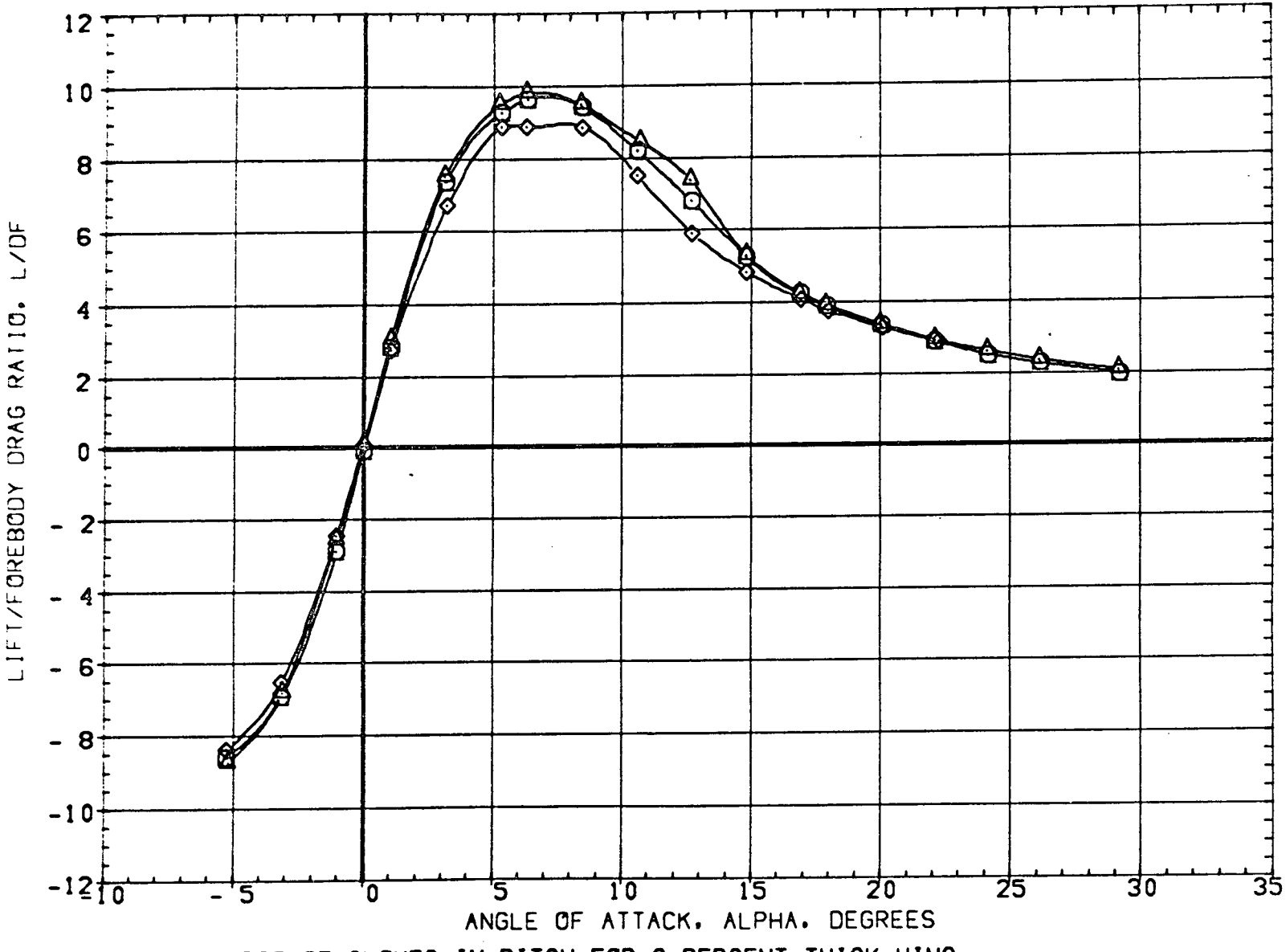

FIG. 19 EFFECT OF GLOVES IN PITCH FOR 8 PERCENT THICK WING

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADG030)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADG089)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W09 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2826	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

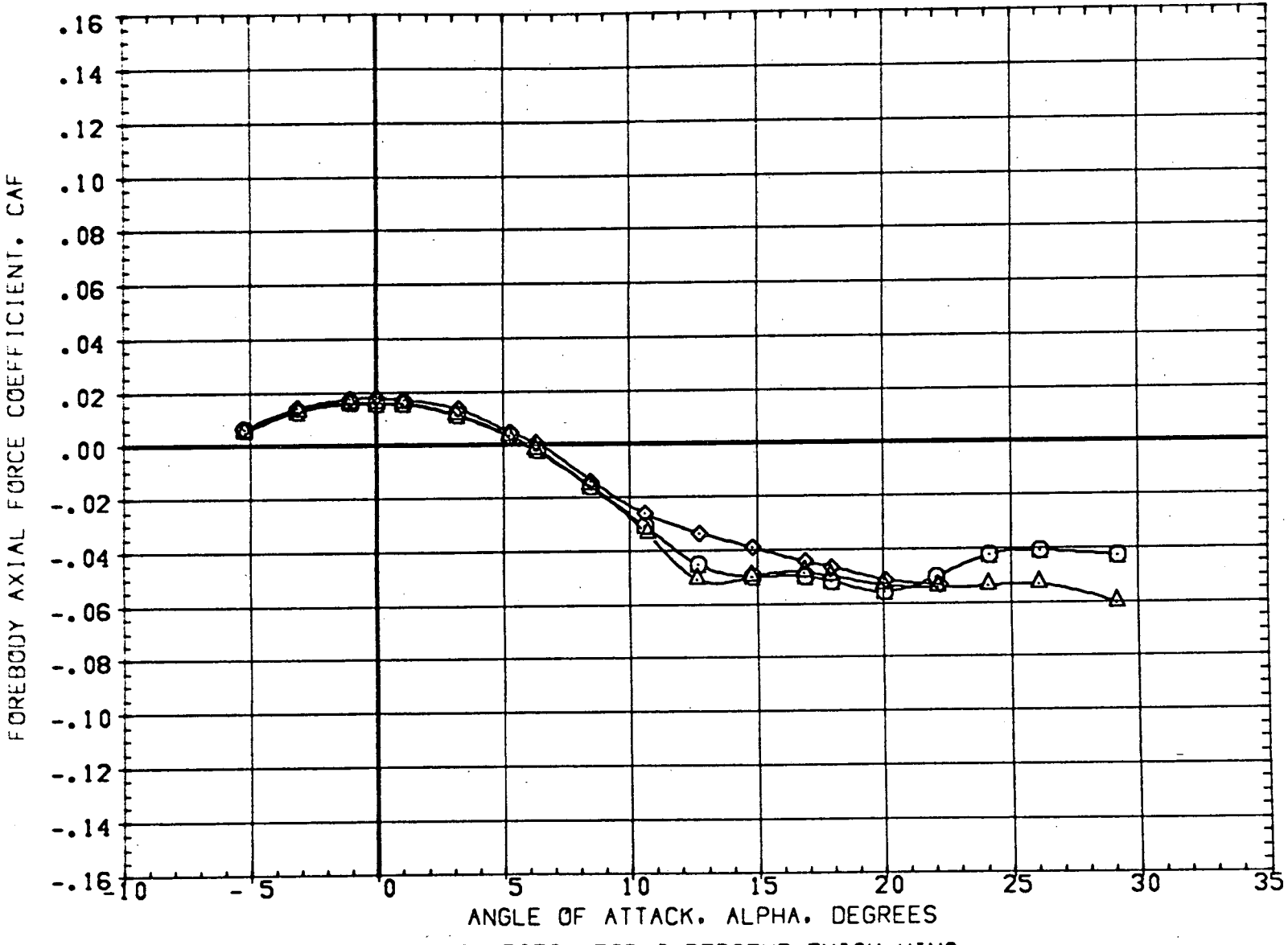

FIG. 19 EFFECT OF GLOVES IN PITCH FOR 8 PERCENT THICK WING

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 P1 W02 E2 V3 K2	0.000	0.000	0.000
(ADC030)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2	0.000	0.000	0.000
(ADC089)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

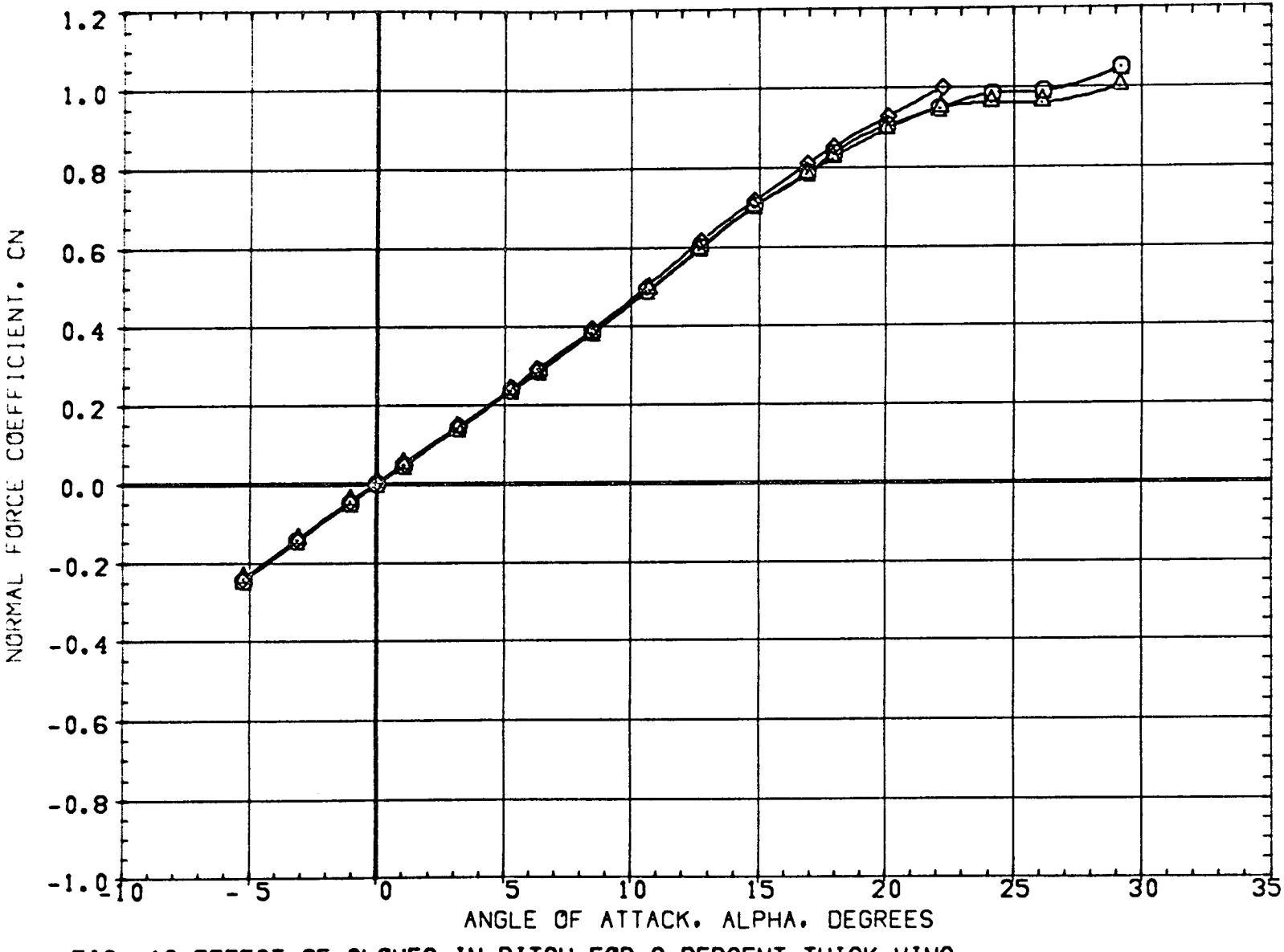

FIG. 19 EFFECT OF GLOVES IN PITCH FOR 8 PERCENT THICK WING

(A)MACH = .26

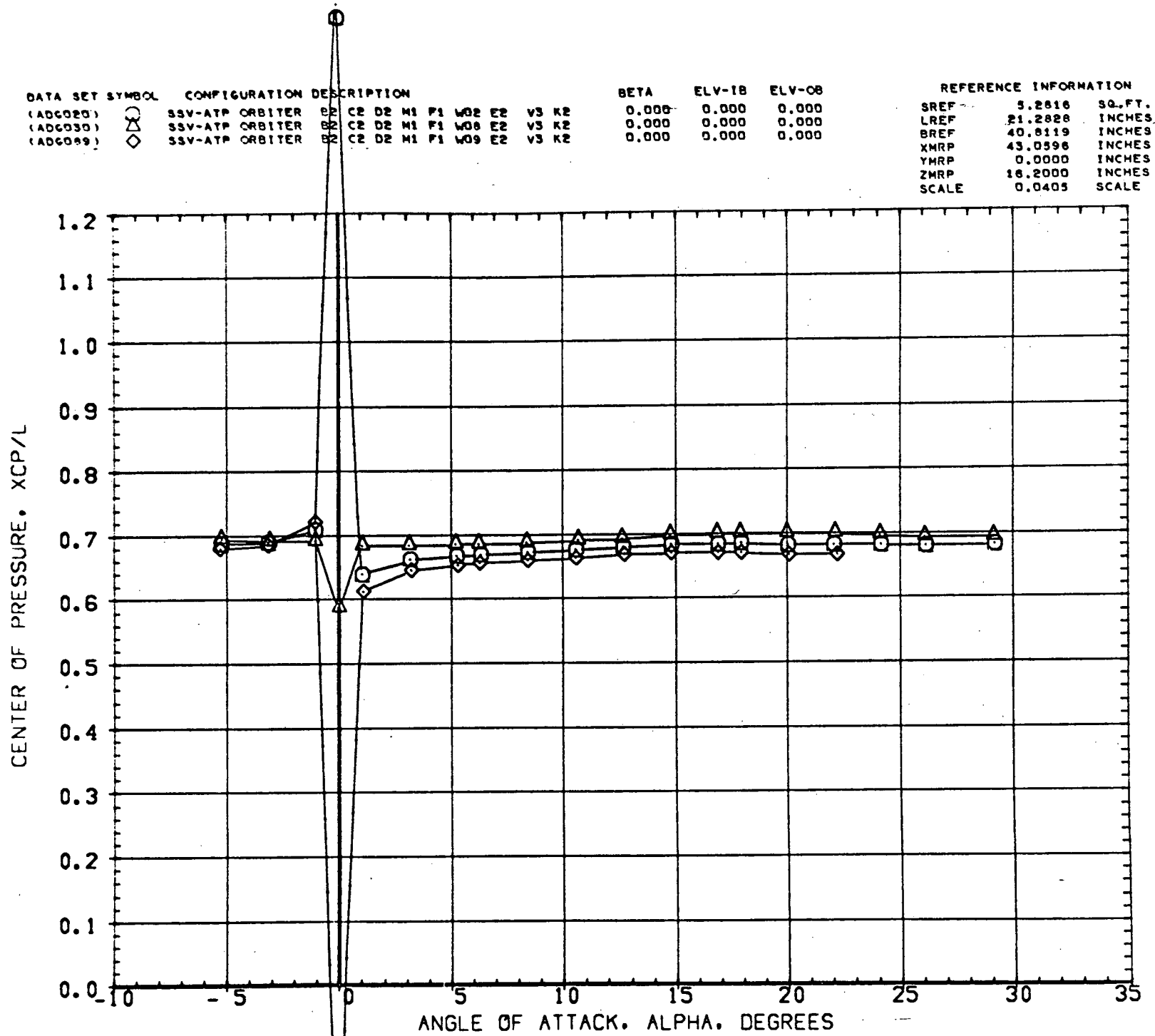

FIG. 19 EFFECT OF GLOVES IN PITCH FOR 8 PERCENT THICK WING

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(AD6030)	⊠	SSV-ATP ORBITER B2 C2 D2 M1 F1 W06 E2 V3 K2	0.000	0.000	0.000
(AD6089)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

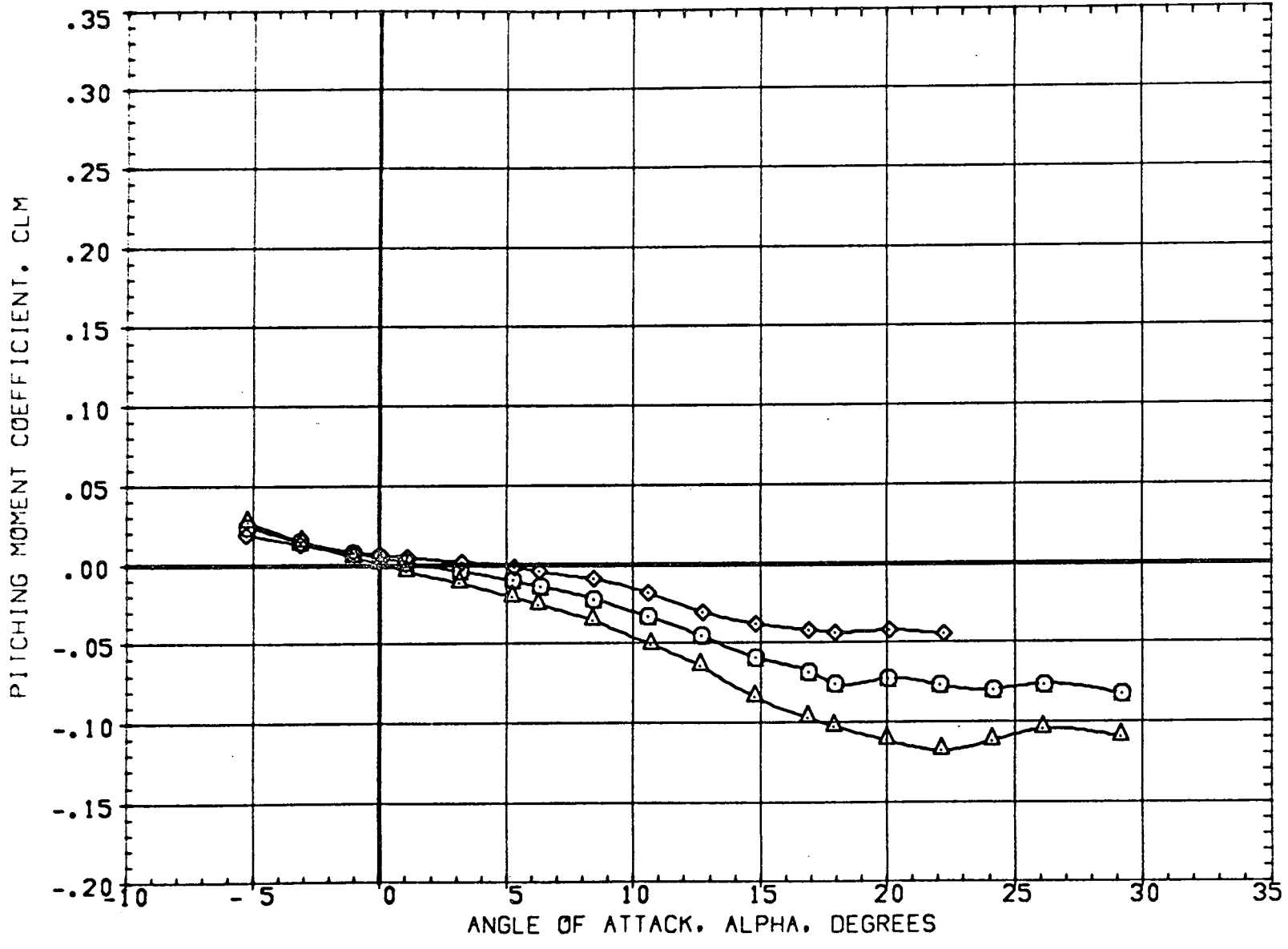

FIG. 19 EFFECT OF GLOVES IN PITCH FOR 8 PERCENT THICK WING

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-0B
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG035)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG043)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG081)	□	SSV-ATP ORBITER B2 C2 D2 H1 F1 W17 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

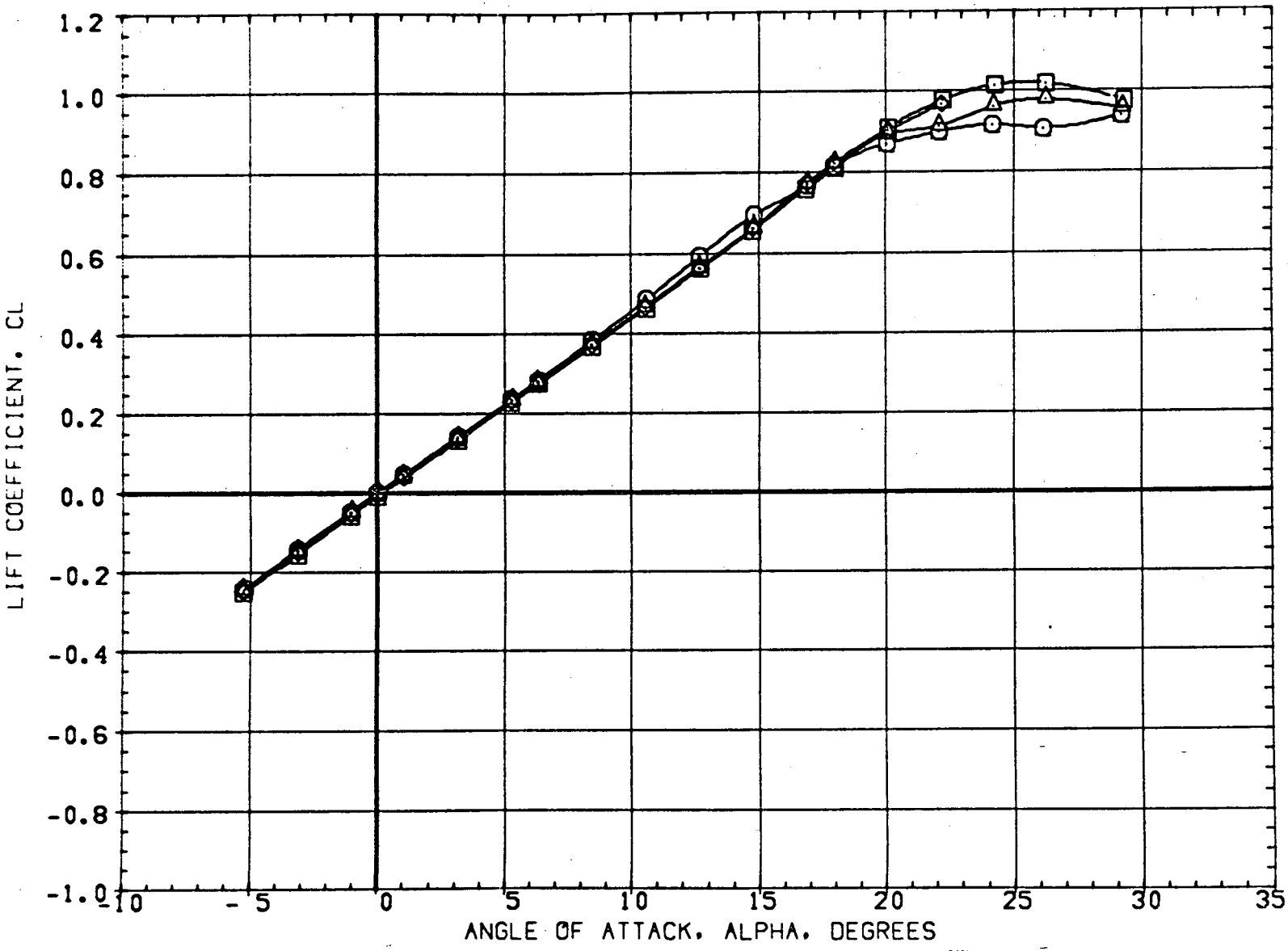

FIG. 20 EFFECT OF AIRFOIL SECTION IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(AD6035)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E3 V3 K2	0.000	0.000	0.000
(AD6043)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6061)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

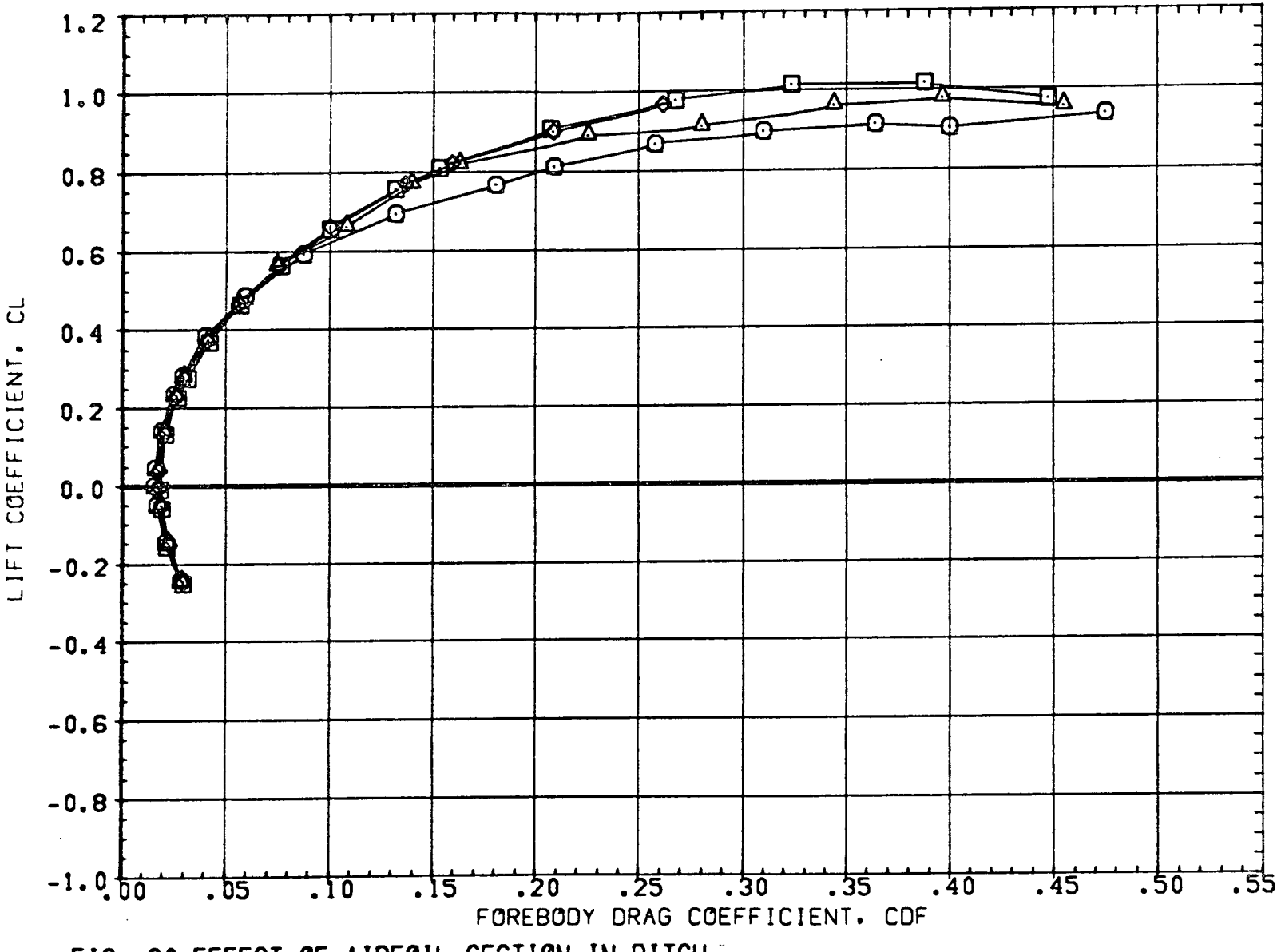

FIG. 20 EFFECT OF AIRFOIL SECTION IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG035)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG061)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

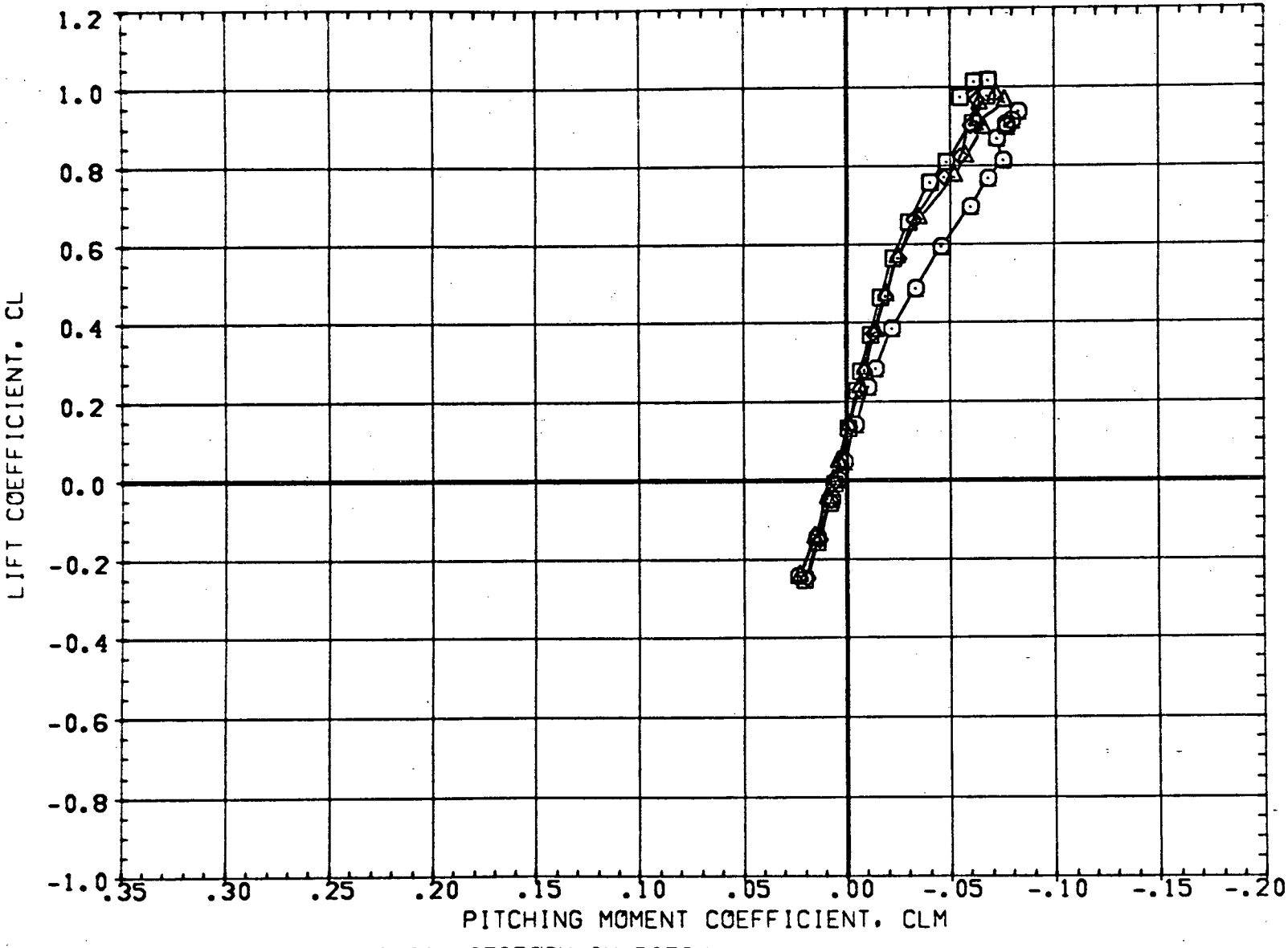

FIG. 20 EFFECT OF AIRFOIL SECTION IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG035)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG043)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG061)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

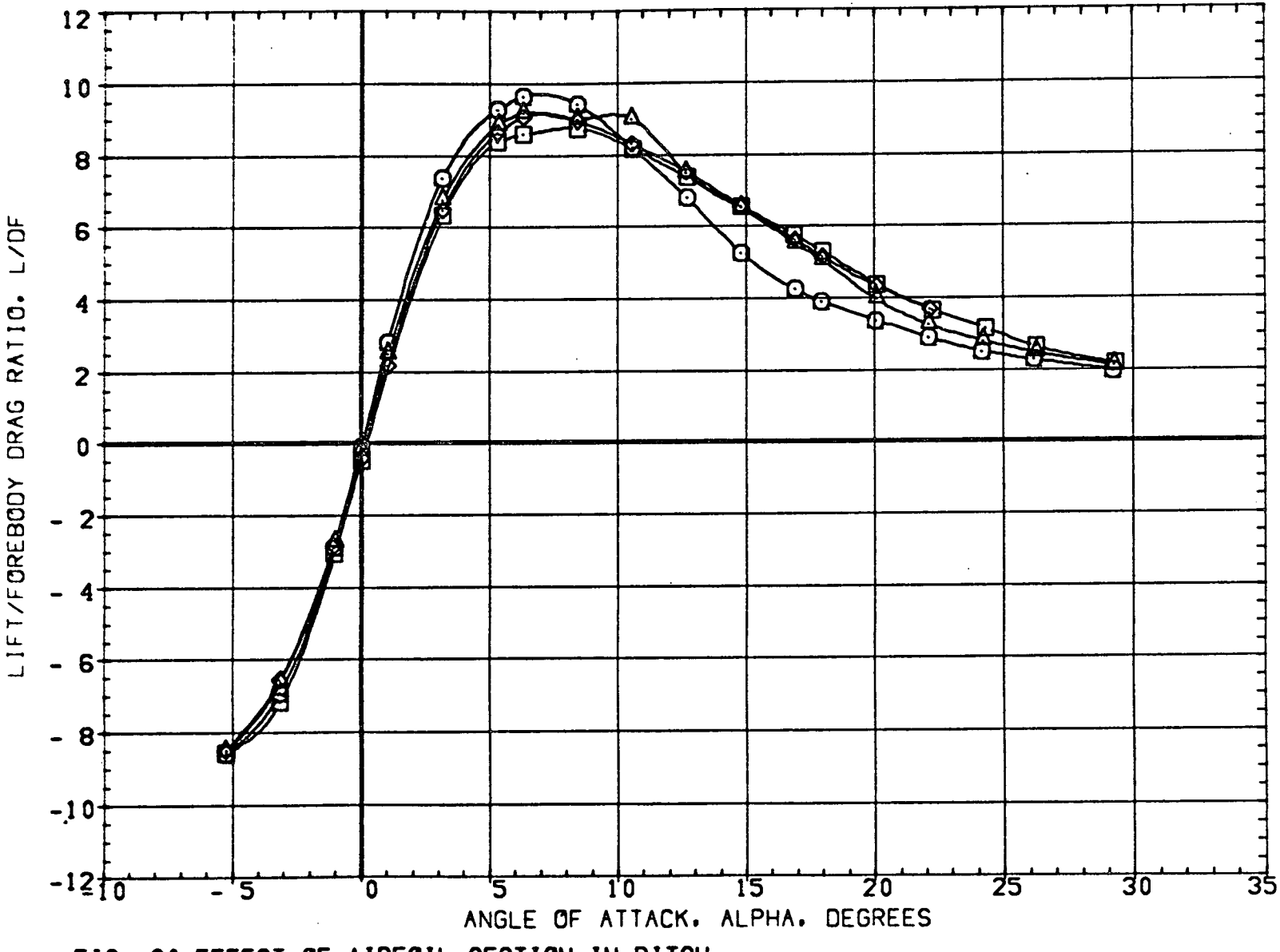

FIG. 20 EFFECT OF AIRFOIL SECTION IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG035)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG043)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG061)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

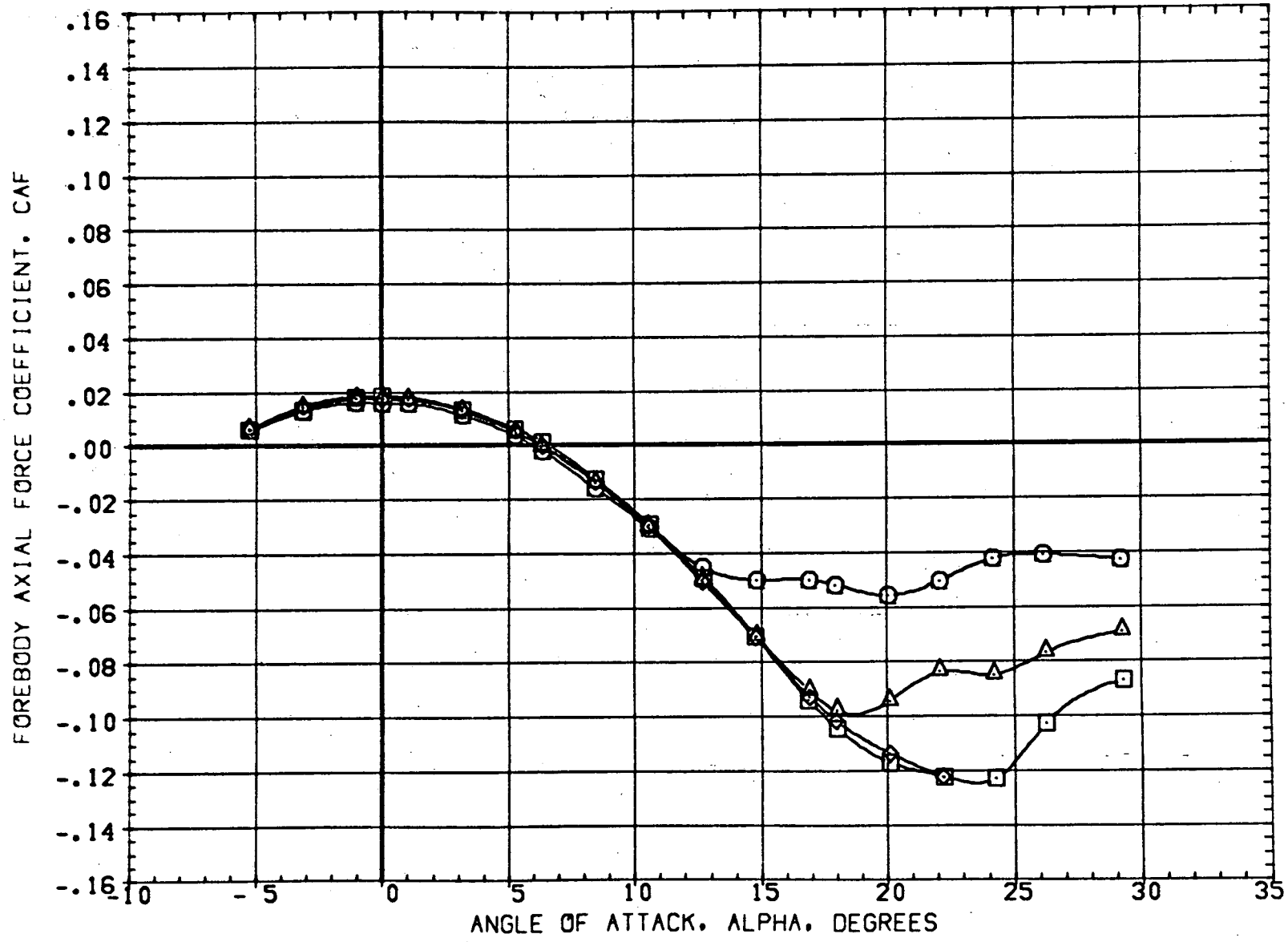

FIG. 20 EFFECT OF AIRFOIL SECTION IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC020)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADC035)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADC043)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC081)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

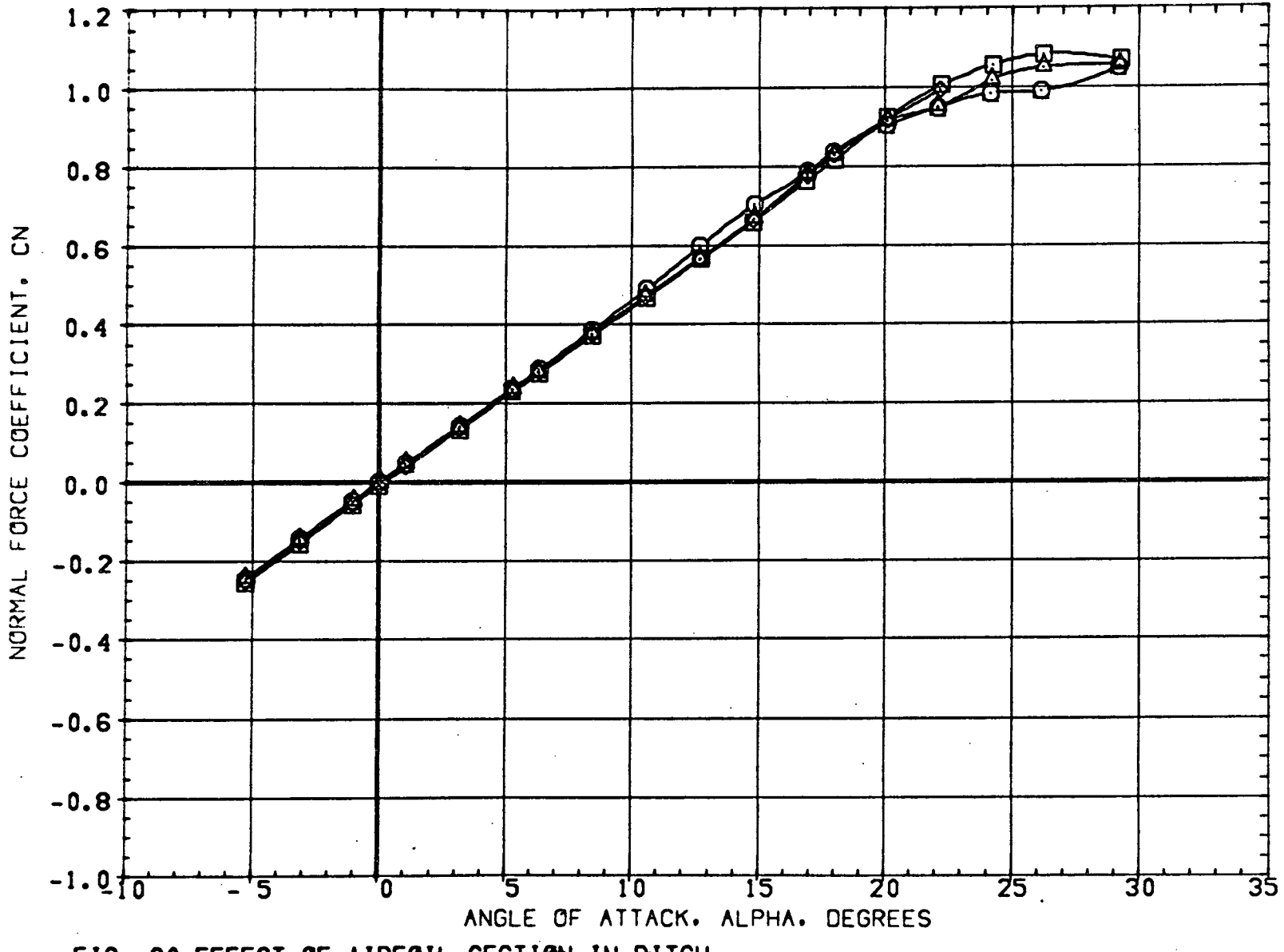

FIG. 20 EFFECT OF AIRFOIL SECTION IN PITCH

(A)MACH = .26

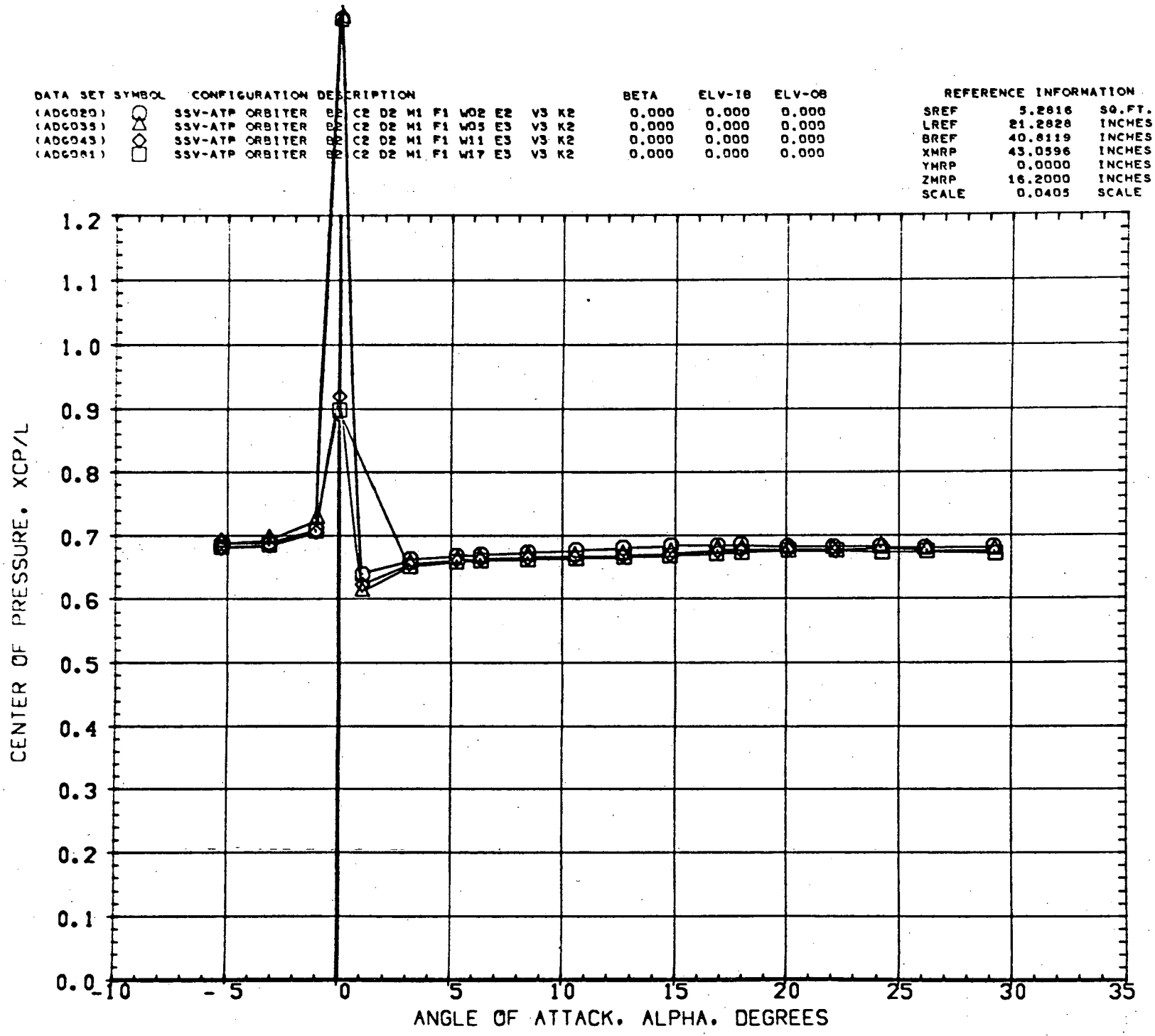

FIG. 20 EFFECT OF AIRFOIL SECTION IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG020)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(ADG035)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG081)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

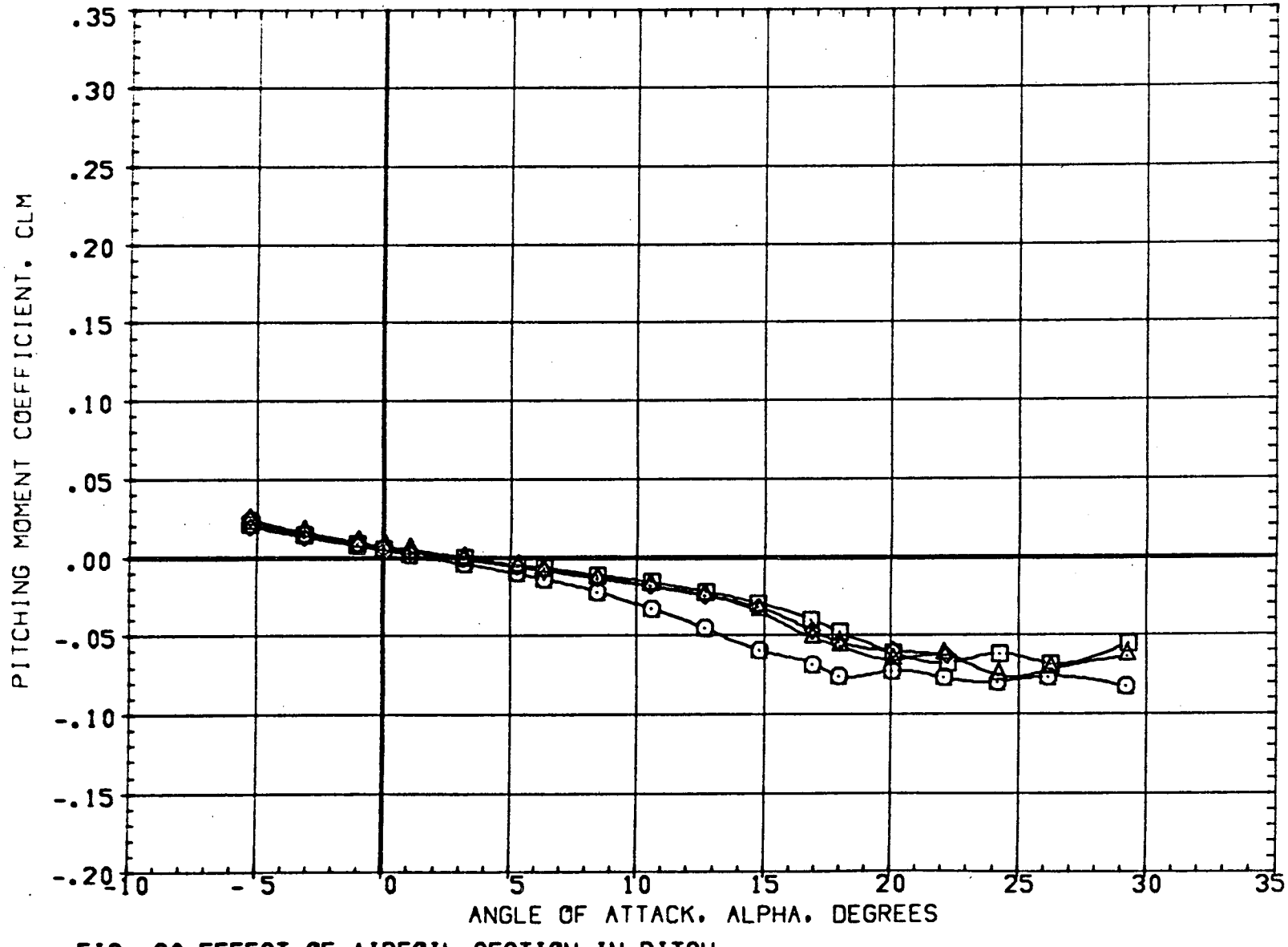

FIG. 20 EFFECT OF AIRFOIL SECTION IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDG043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDG044)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDG045)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BDG081)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000
(BDG082)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	5.000	0.000	0.000
(BDG083)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

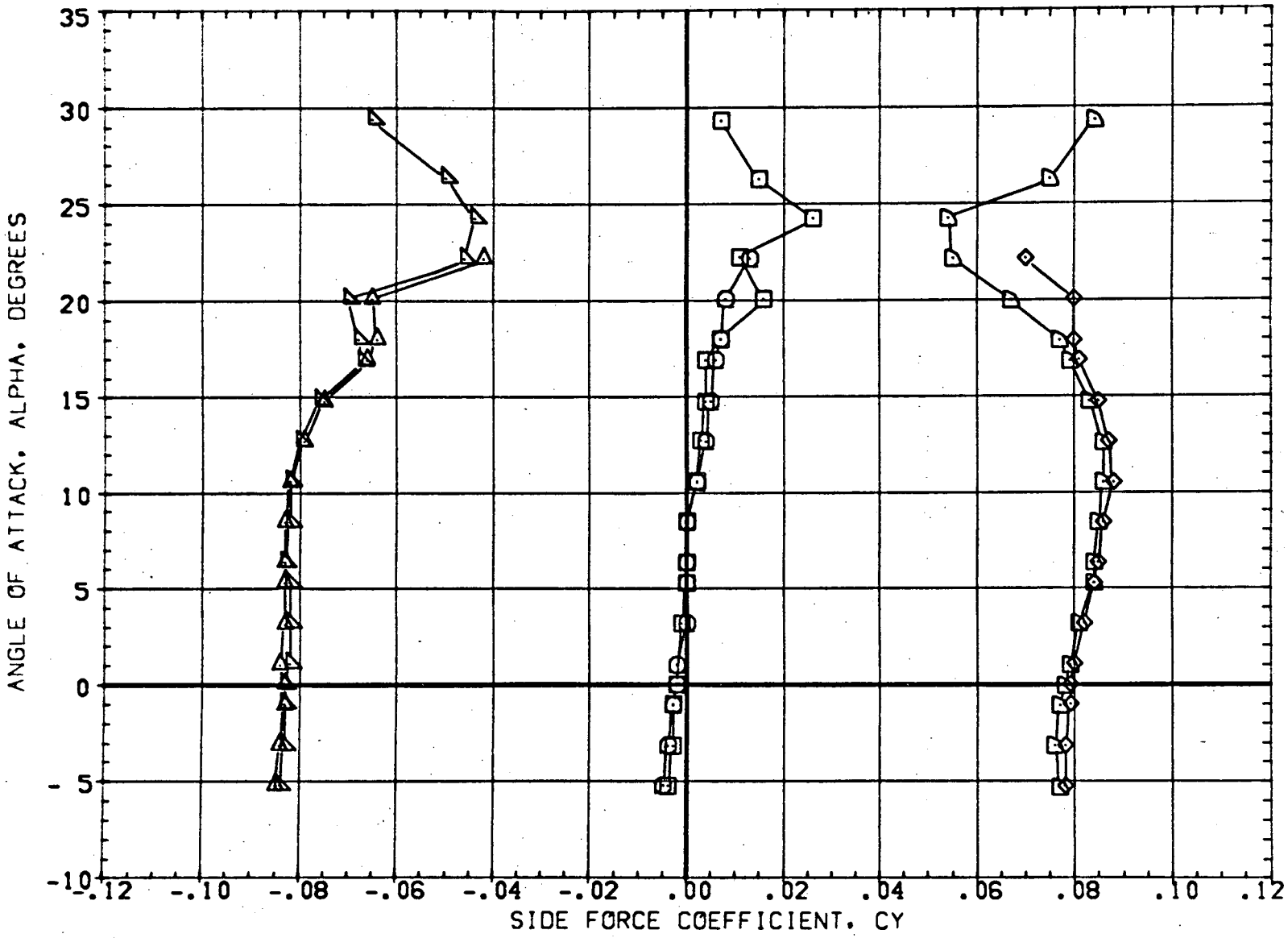

FIG. 21 EFFECT OF AIRFOIL SECTION IN YAW, DROOPED L.E.

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC043)	◯	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC044)	⊠	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC045)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BDC081)	□	SSV-ATP ORBITER B2 C2 D2 H1 F1 W17 E3 V3 K2	0.000	0.000	0.000
(BDC082)	⊠	SSV-ATP ORBITER B2 C2 D2 H1 F1 W17 E3 V3 K2	5.000	0.000	0.000
(BDC083)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W17 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

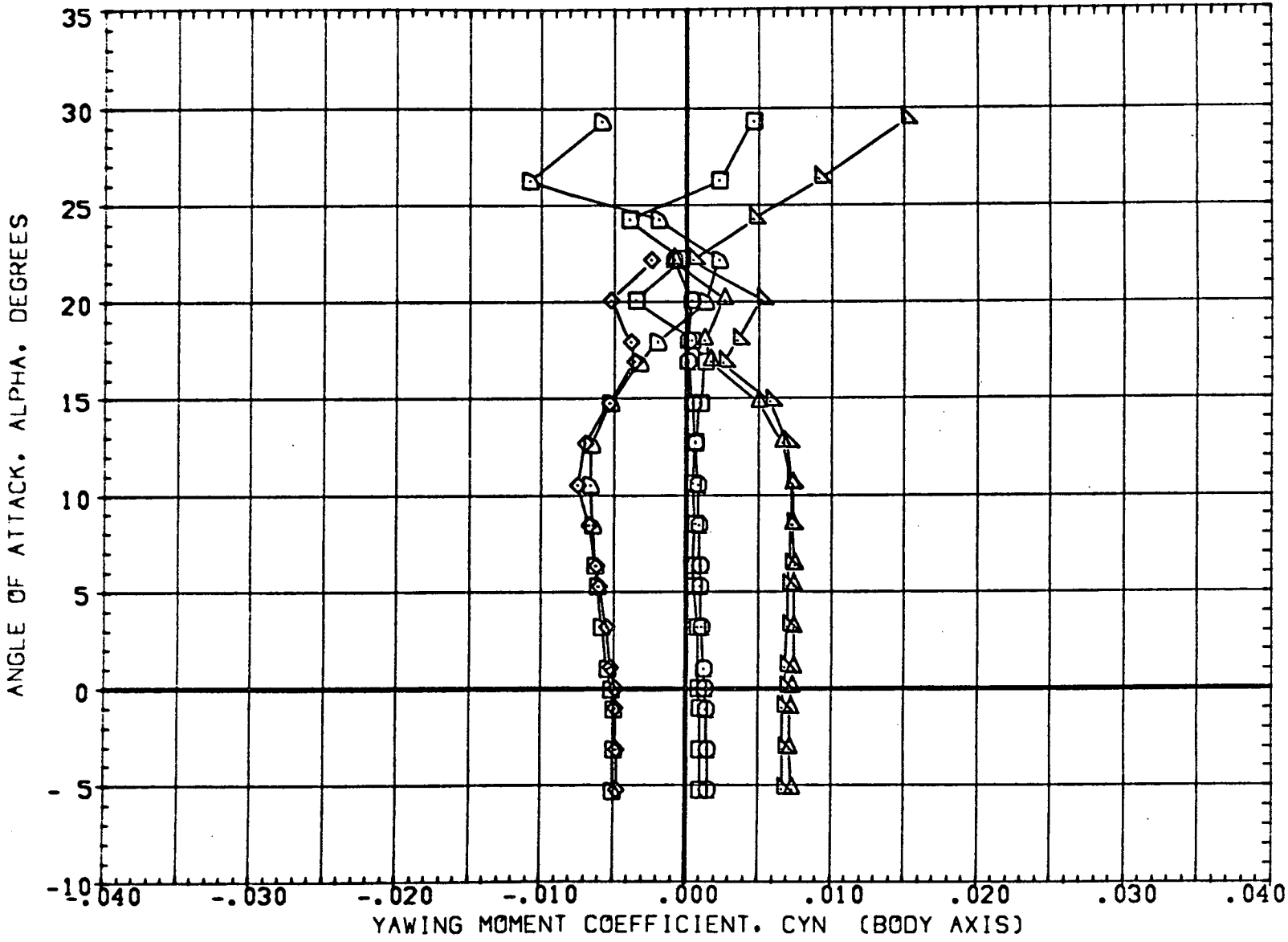

FIG. 21 EFFECT OF AIRFOIL SECTION IN YAW, DROOPED L.E.

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC044)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC045)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BDC081)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000
(BDC082)	▽	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	5.000	0.000	0.000
(BDC083)	▷	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.6119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

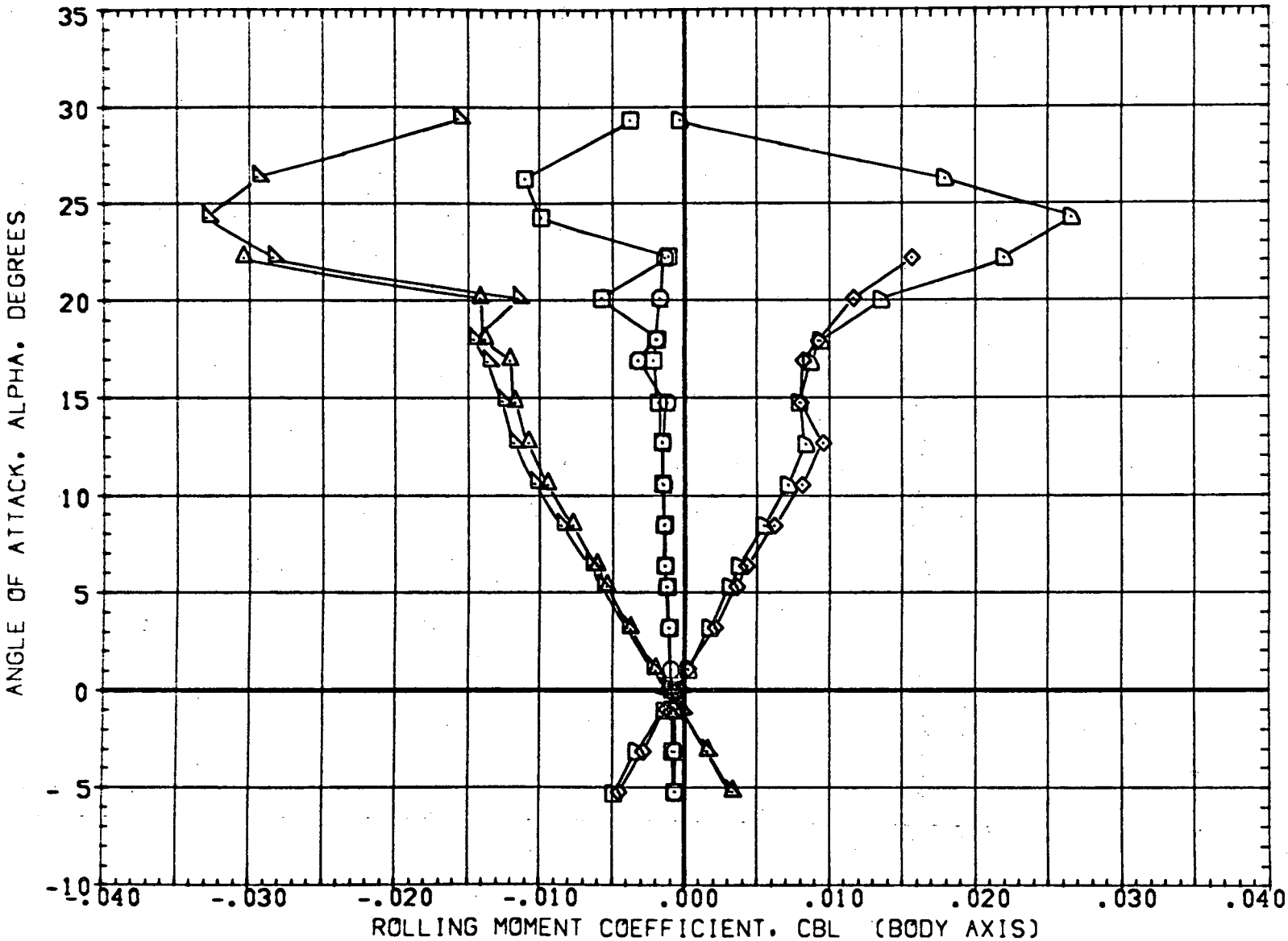

FIG. 21 EFFECT OF AIRFOIL SECTION IN YAW, DROOPED L.E.

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG035)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG037)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-5.000	-5.000
(ADG036)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0403	SCALE

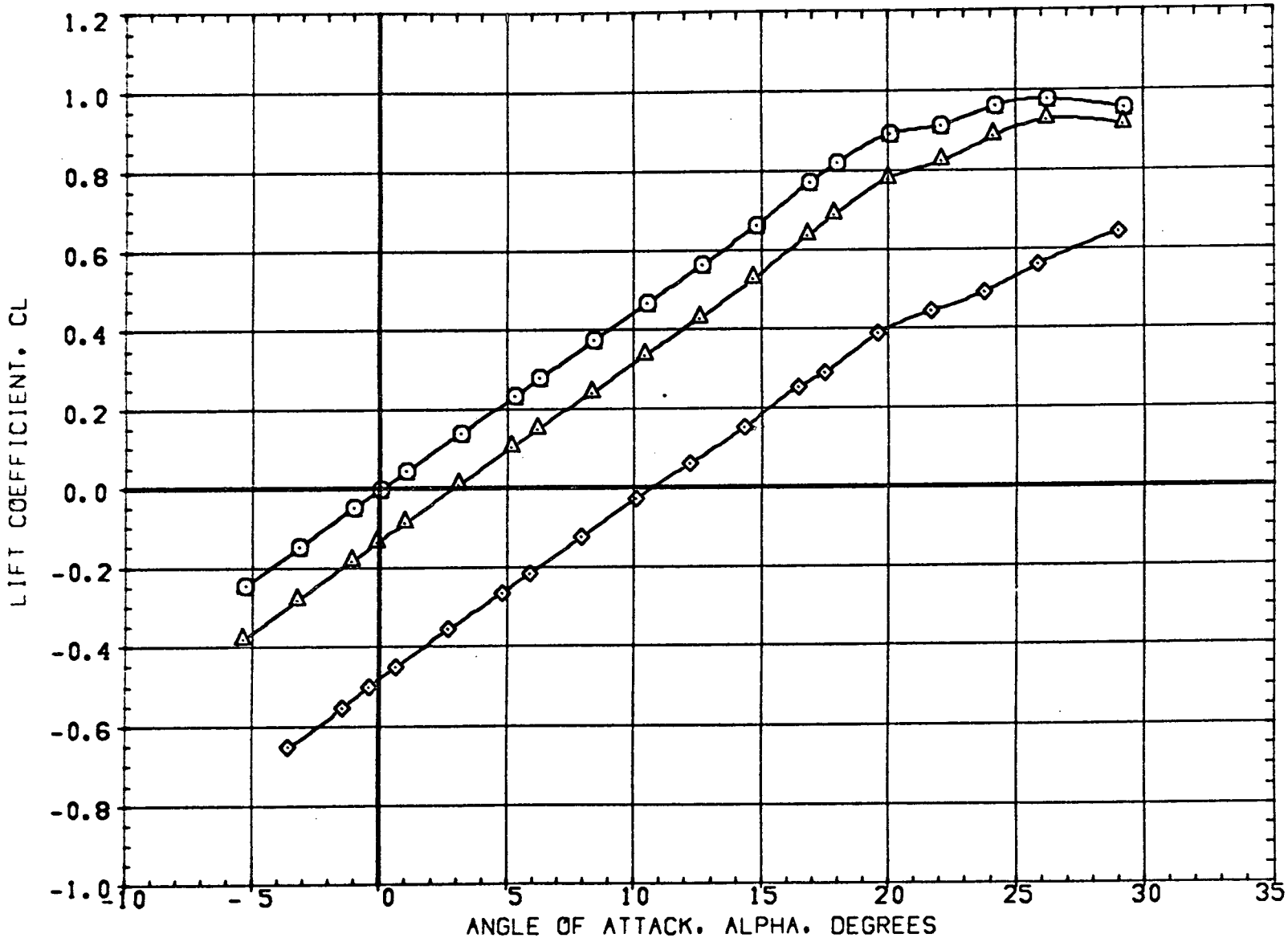

FIG. 22 ELEVON EFFECTIVENESS ON W5 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG033)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG037)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W05 E3 V3 K2	0.000	-5.000	-5.000
(ADG038)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W05 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

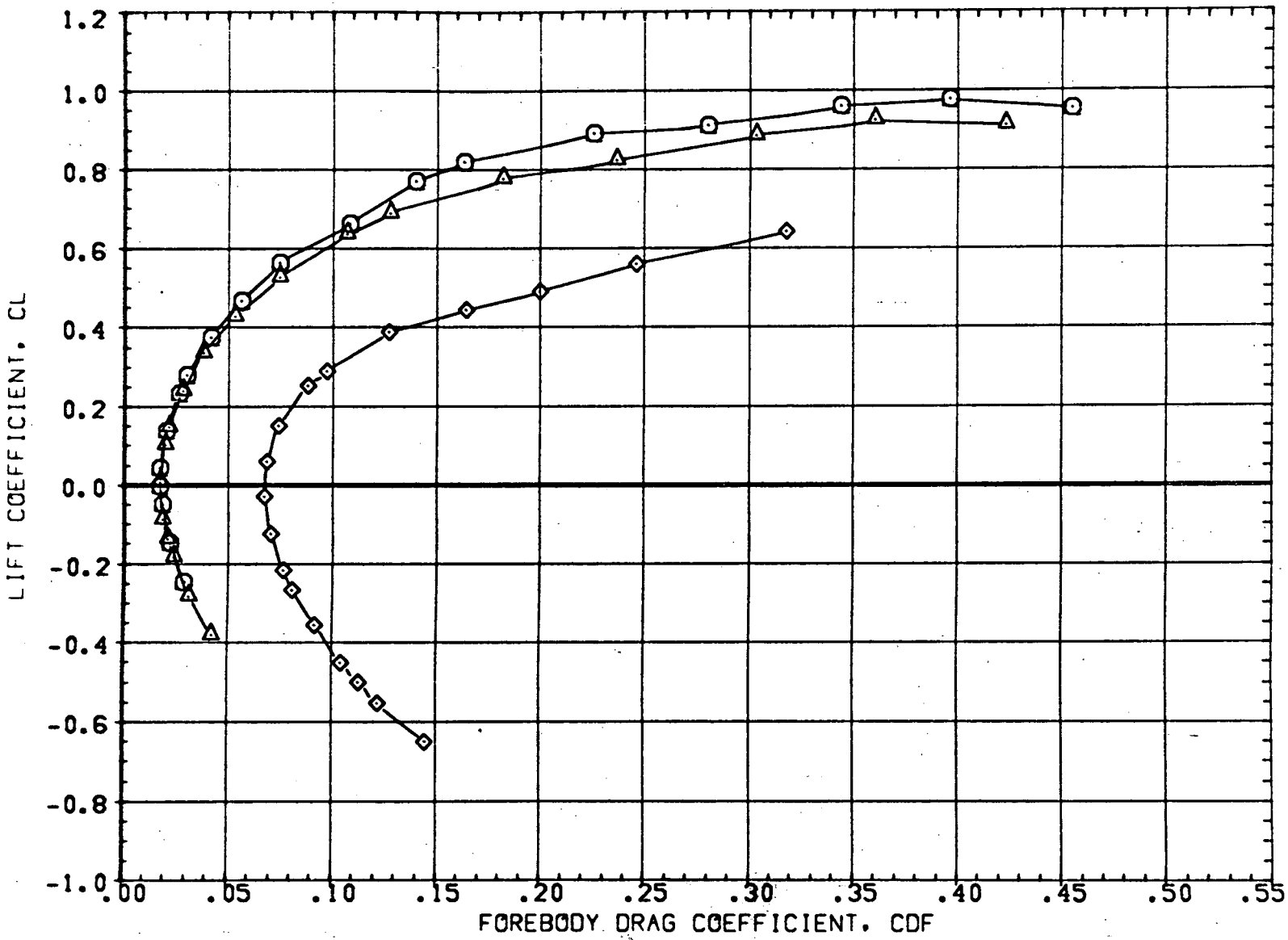

FIG. 22 ELEVON EFFECTIVENESS ON W5 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6035)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(AD6037)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-5.000	-5.000
(AD6038)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

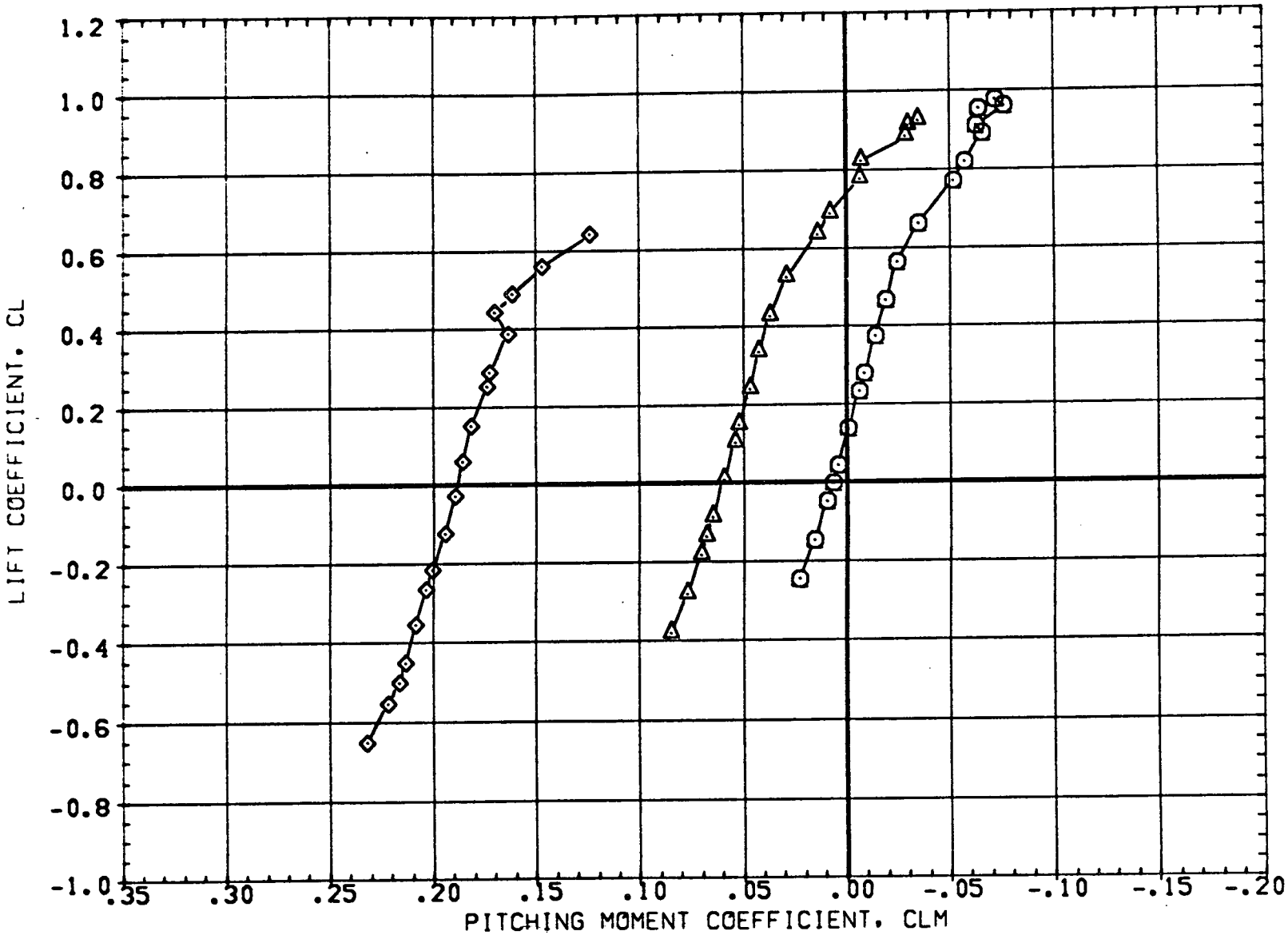

FIG. 22 ELEVON EFFECTIVENESS ON W5 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC033)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADC037)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-5.000	-5.000
(ADC038)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

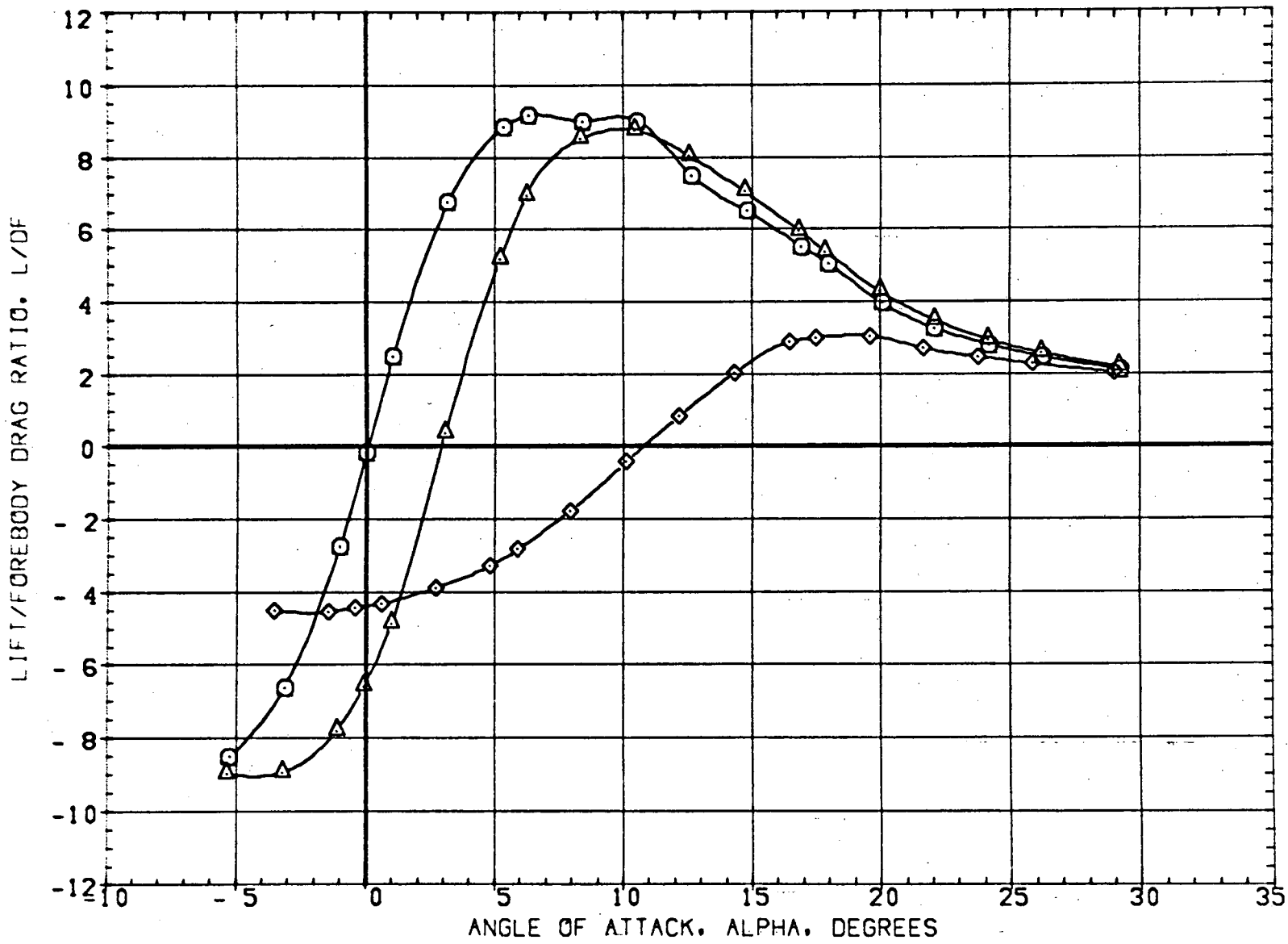

FIG. 22 ELEVON EFFECTIVENESS ON W5 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG035)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG037)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-5.000	-5.000
(ADG038)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

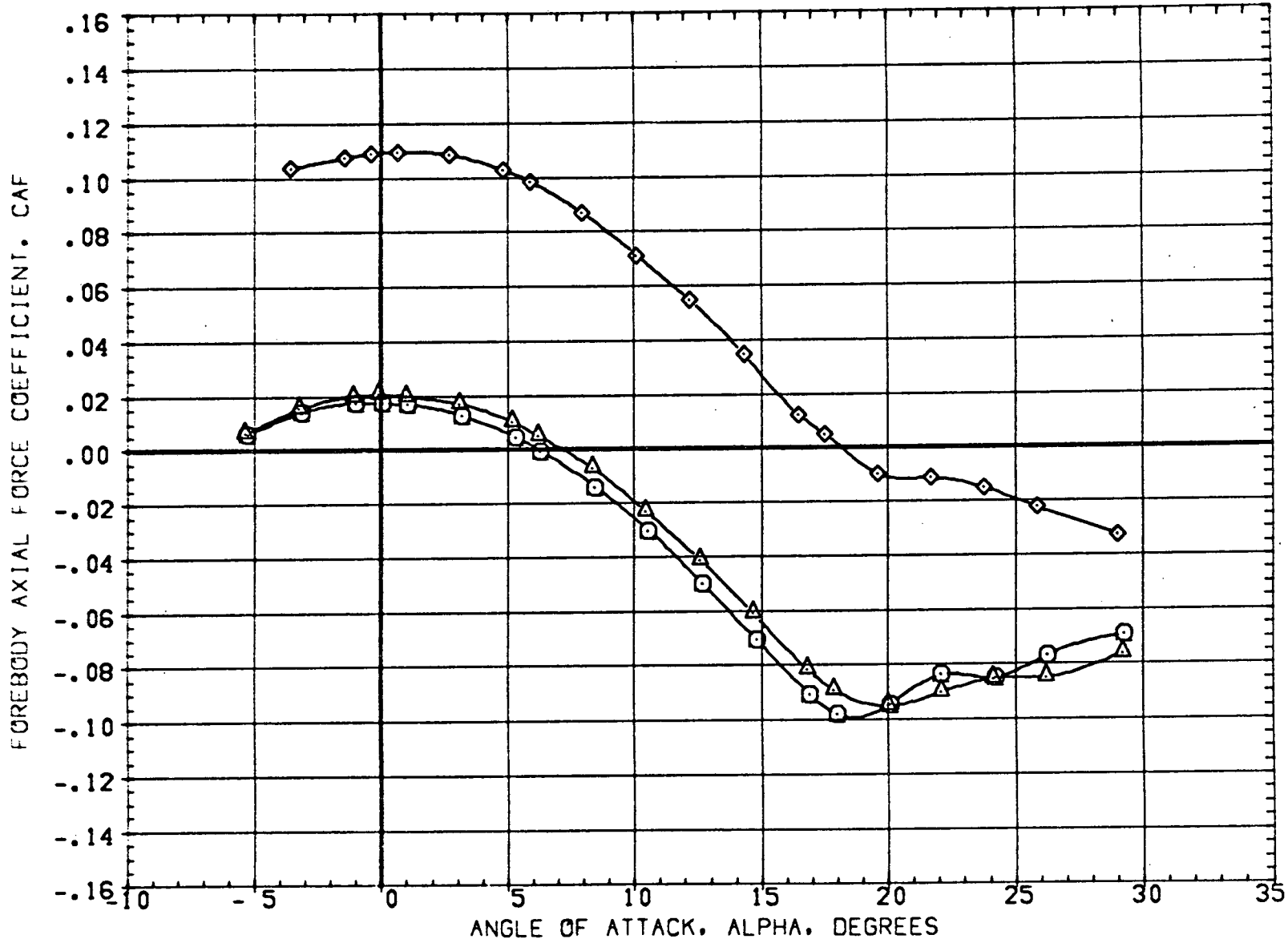

FIG. 22 ELEVON EFFECTIVENESS ON W5 IN PITCH

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG035)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADG037)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-5.000	-5.000
(ADG039)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

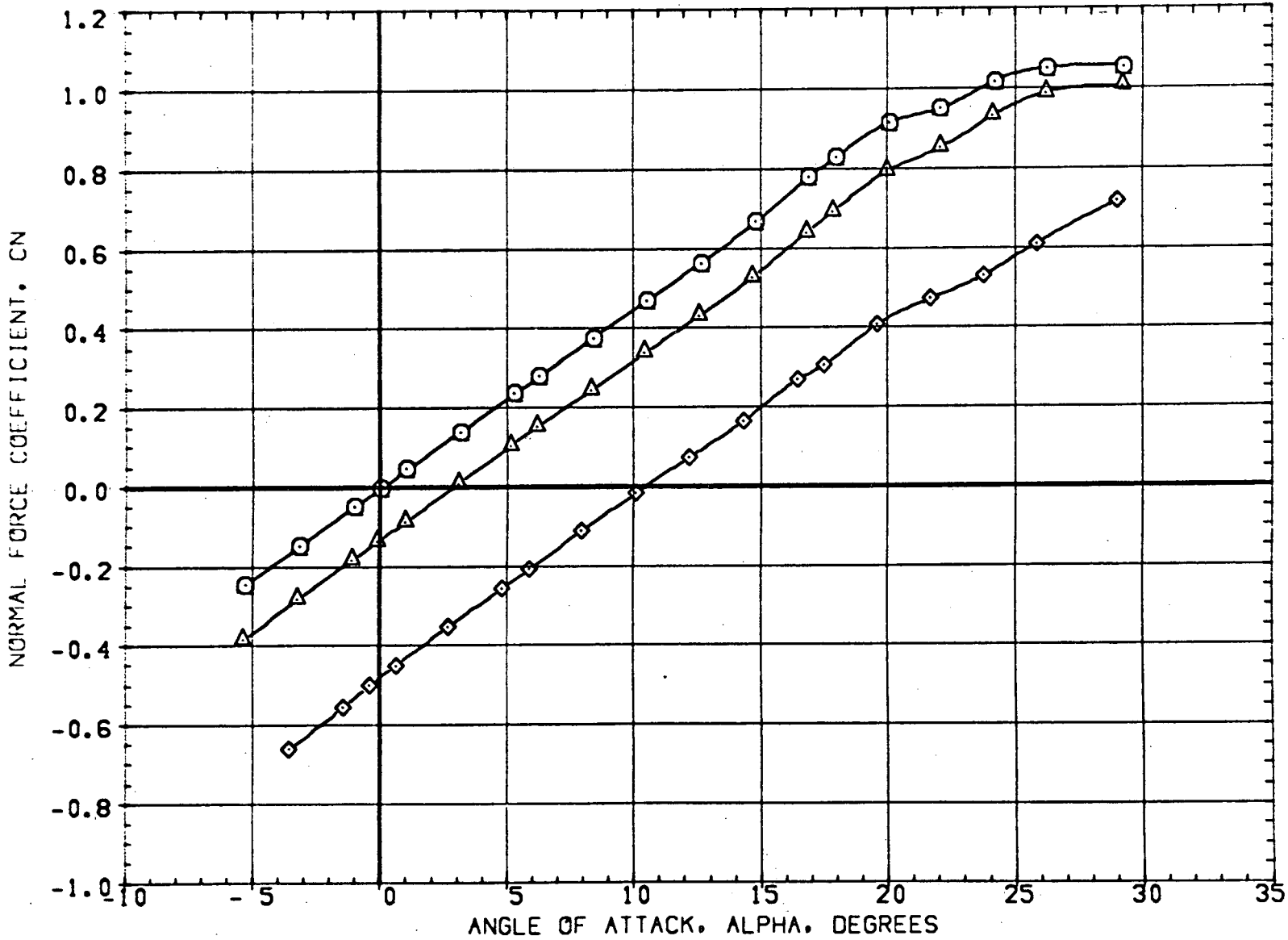

FIG. 22 ELEVON EFFECTIVENESS ON W5 IN PITCH

(A)MACH = .26

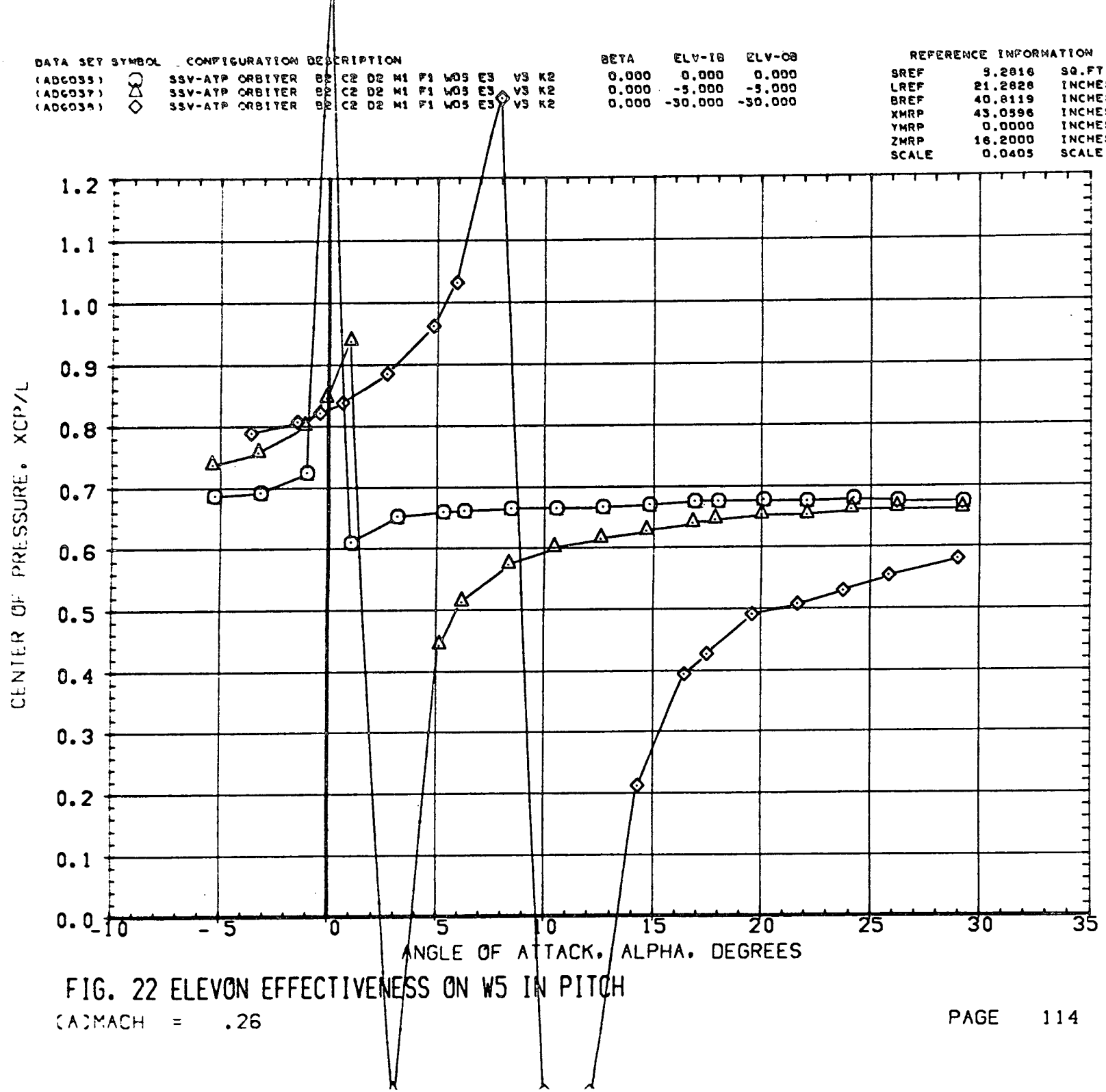

FIG. 22 ELEVON EFFECTIVENESS ON W5 IN PITCH

(ADMACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC035) ○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(ADC037) △	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-5.000	-5.000
(ADC038) ◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2825	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

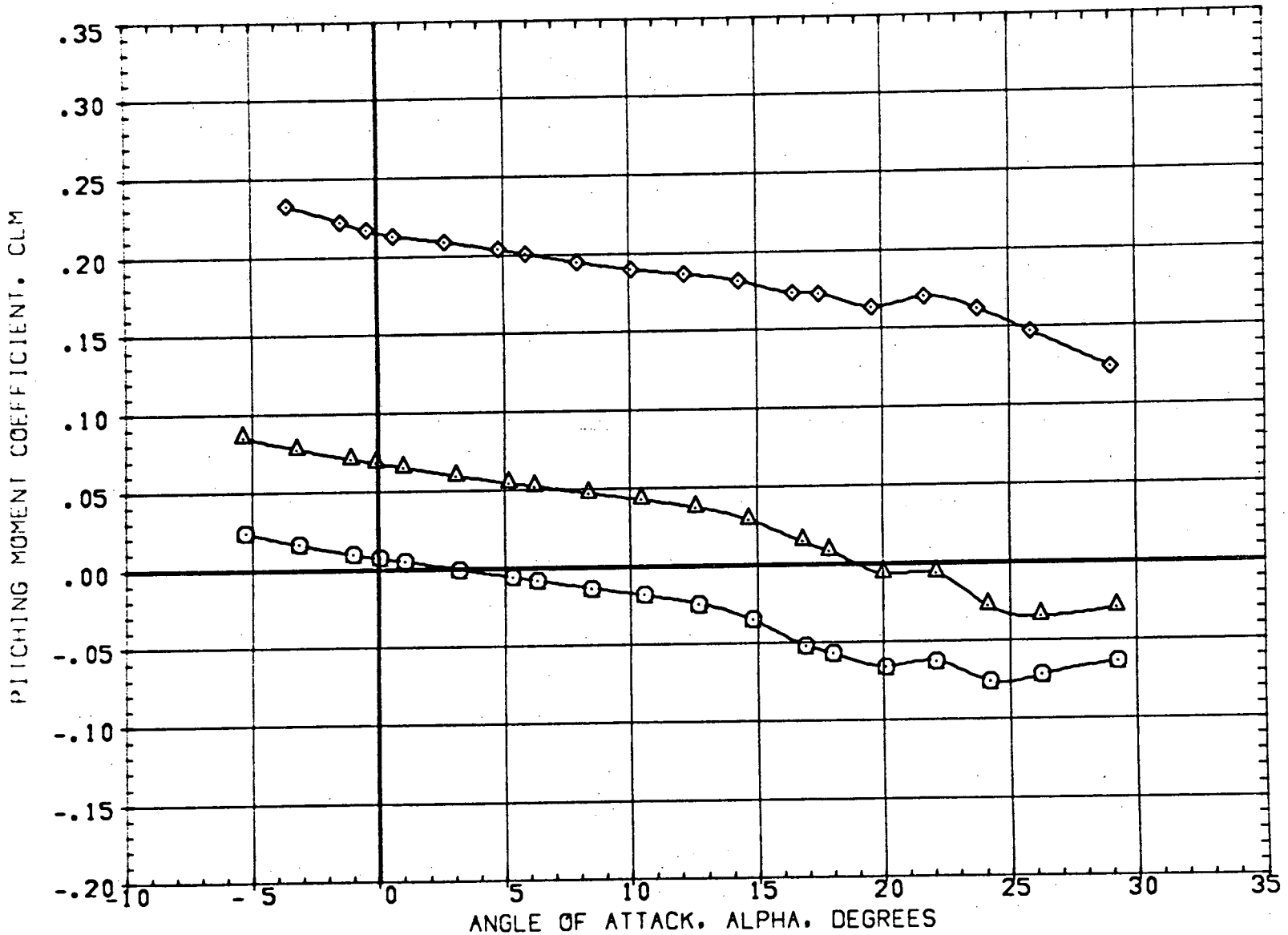

FIG. 22 ELEVON EFFECTIVENESS ON W5 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6043)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 R2	0.000	0.000	0.000
(AD6031)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 R2	0.000	-5.000	-5.000
(AD6052)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 R2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2826	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

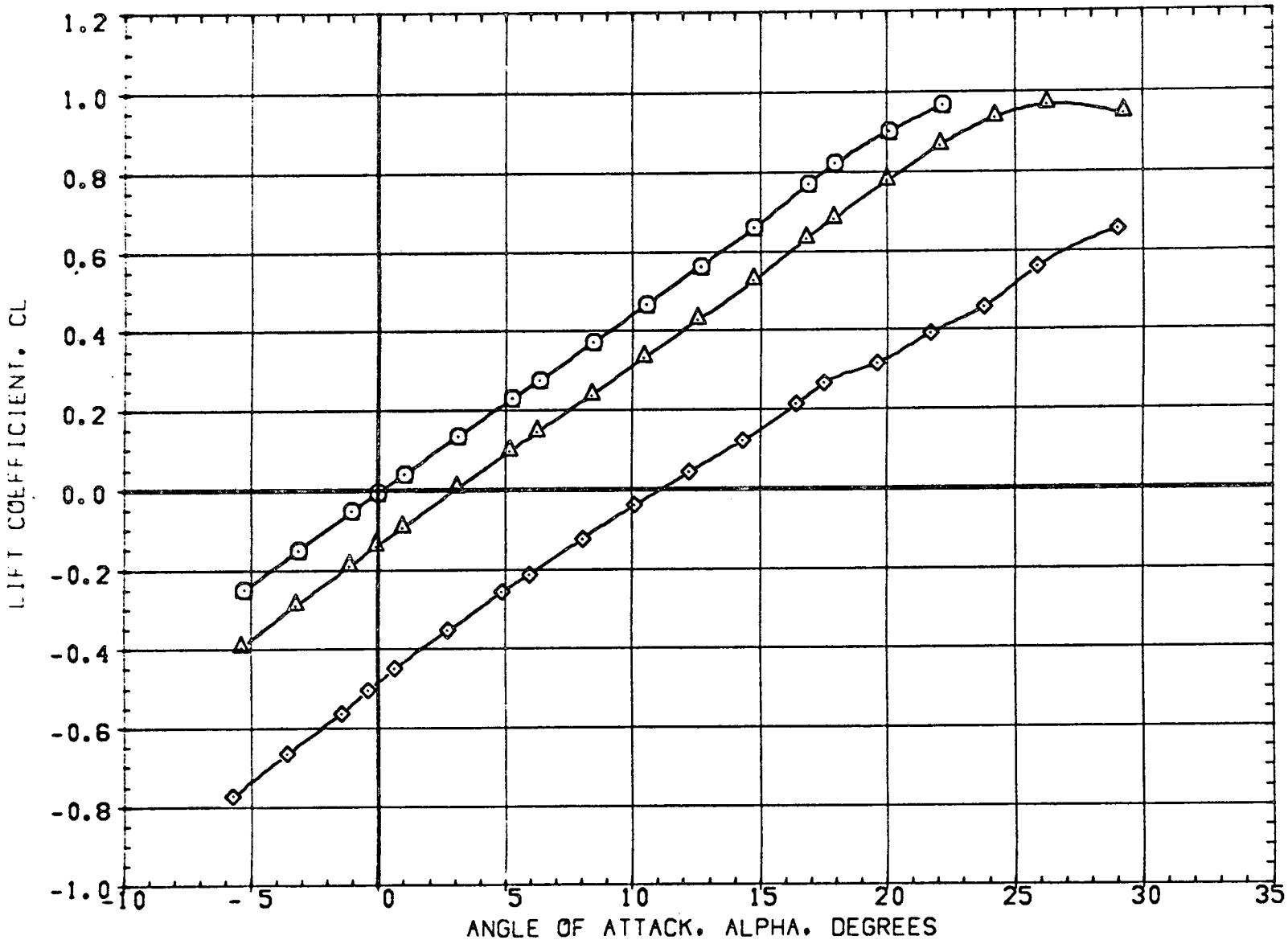

FIG. 23 ELEVON EFFECTIVENESS ON W11 IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG051)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADG052)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

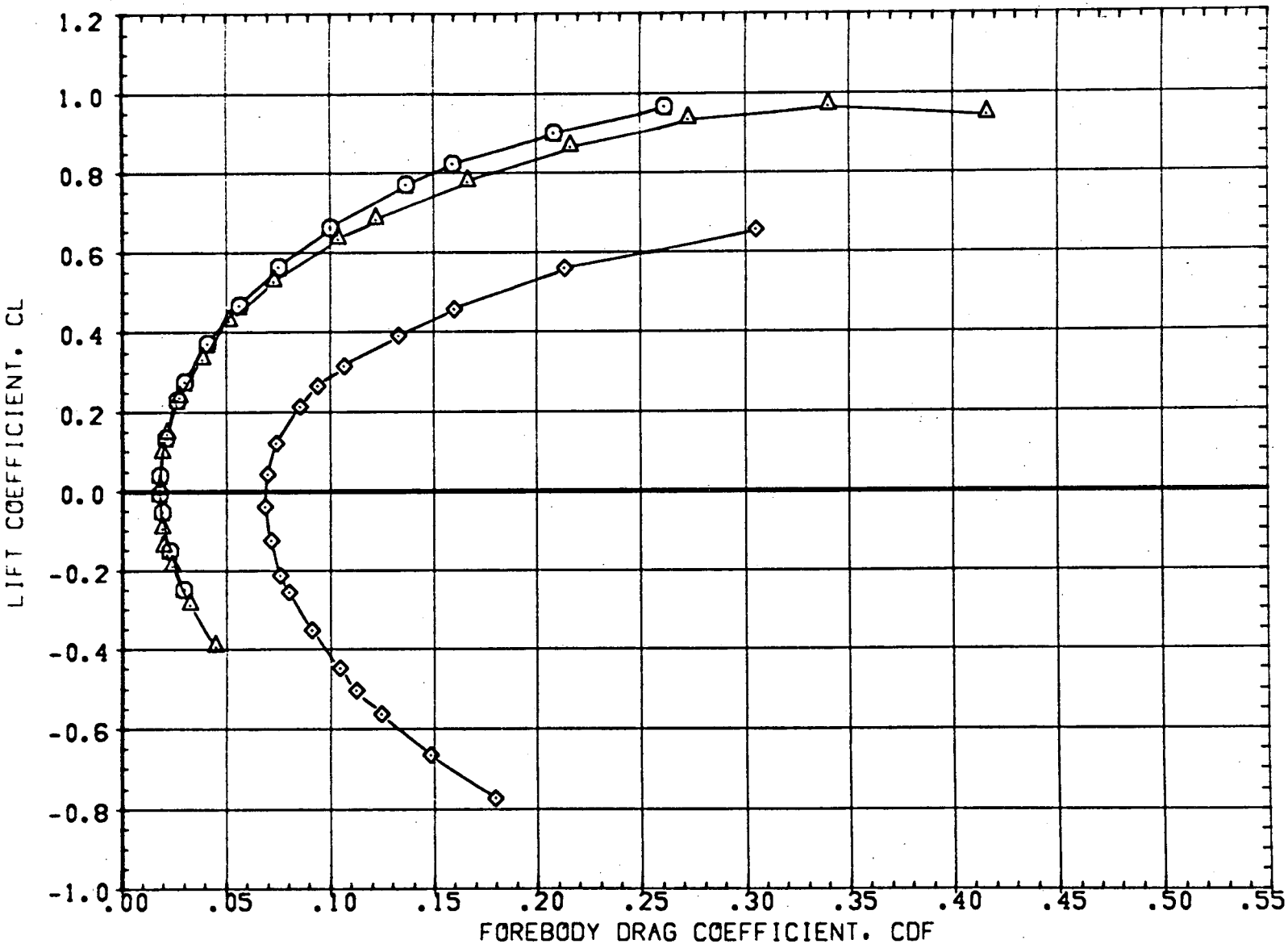

FIG. 23 ELEVON EFFECTIVENESS ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6049)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 R2	0.000	0.000	0.000
(AD6051)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 R2	0.000	-5.000	-5.000
(AD6052)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 R2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	9.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

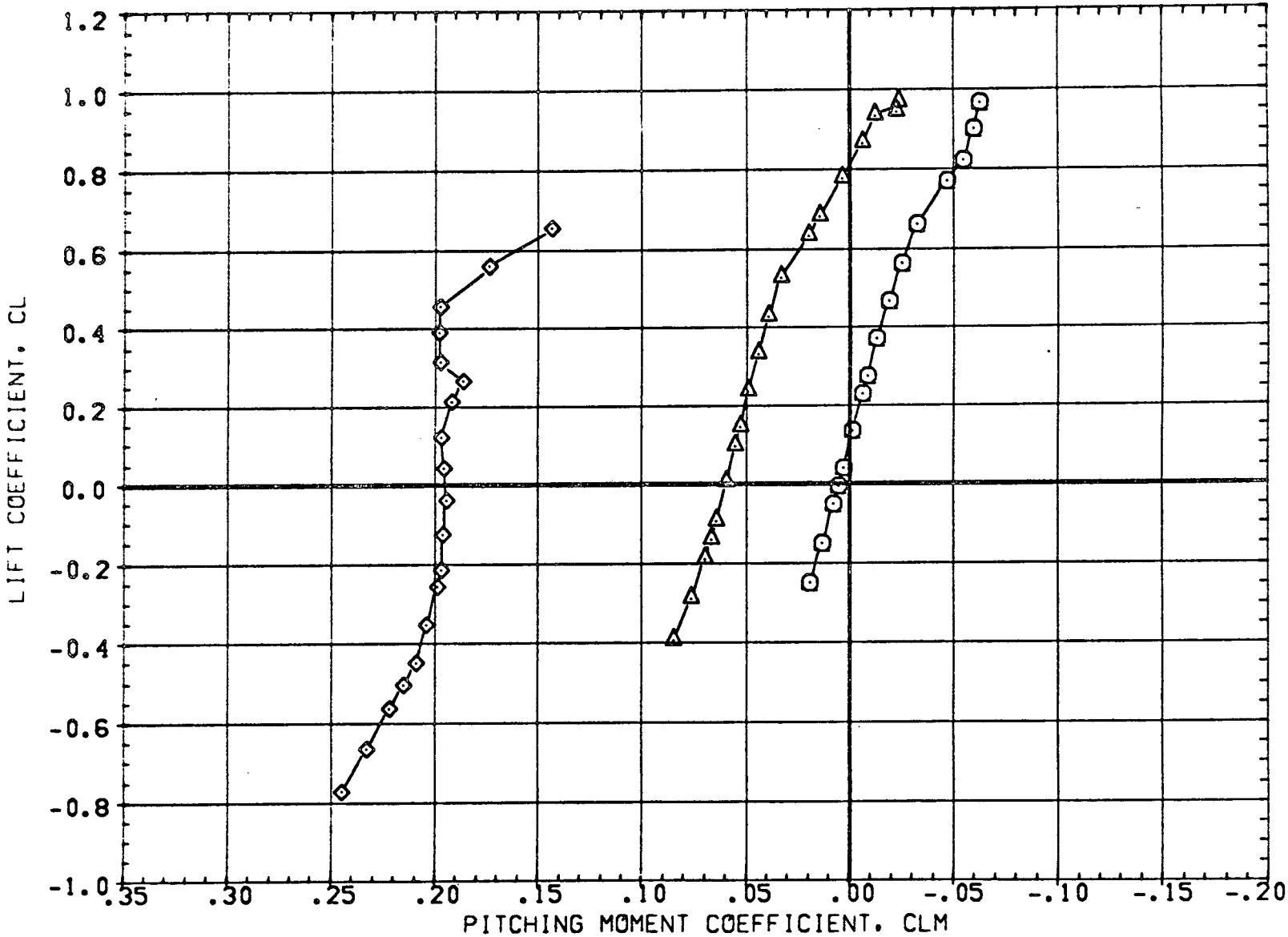

FIG. 23 ELEVON EFFECTIVENESS ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC051)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADC052)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

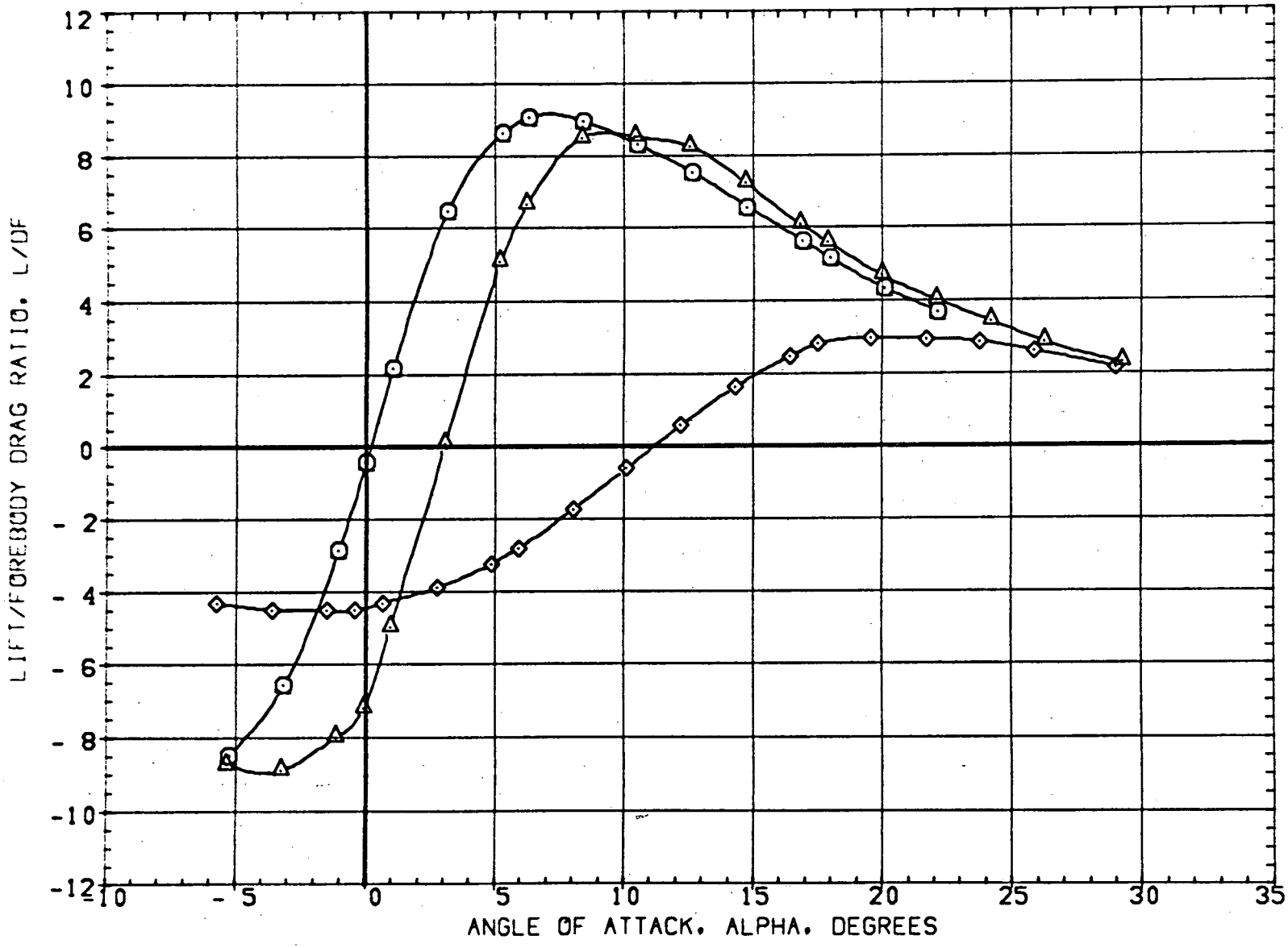

FIG. 23 ELEVON EFFECTIVENESS ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6043)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 R2	0.000	0.000	0.000
(AD6091)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 R2	0.000	-5.000	-5.000
(AD6092)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 R2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	9.2916	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0996	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

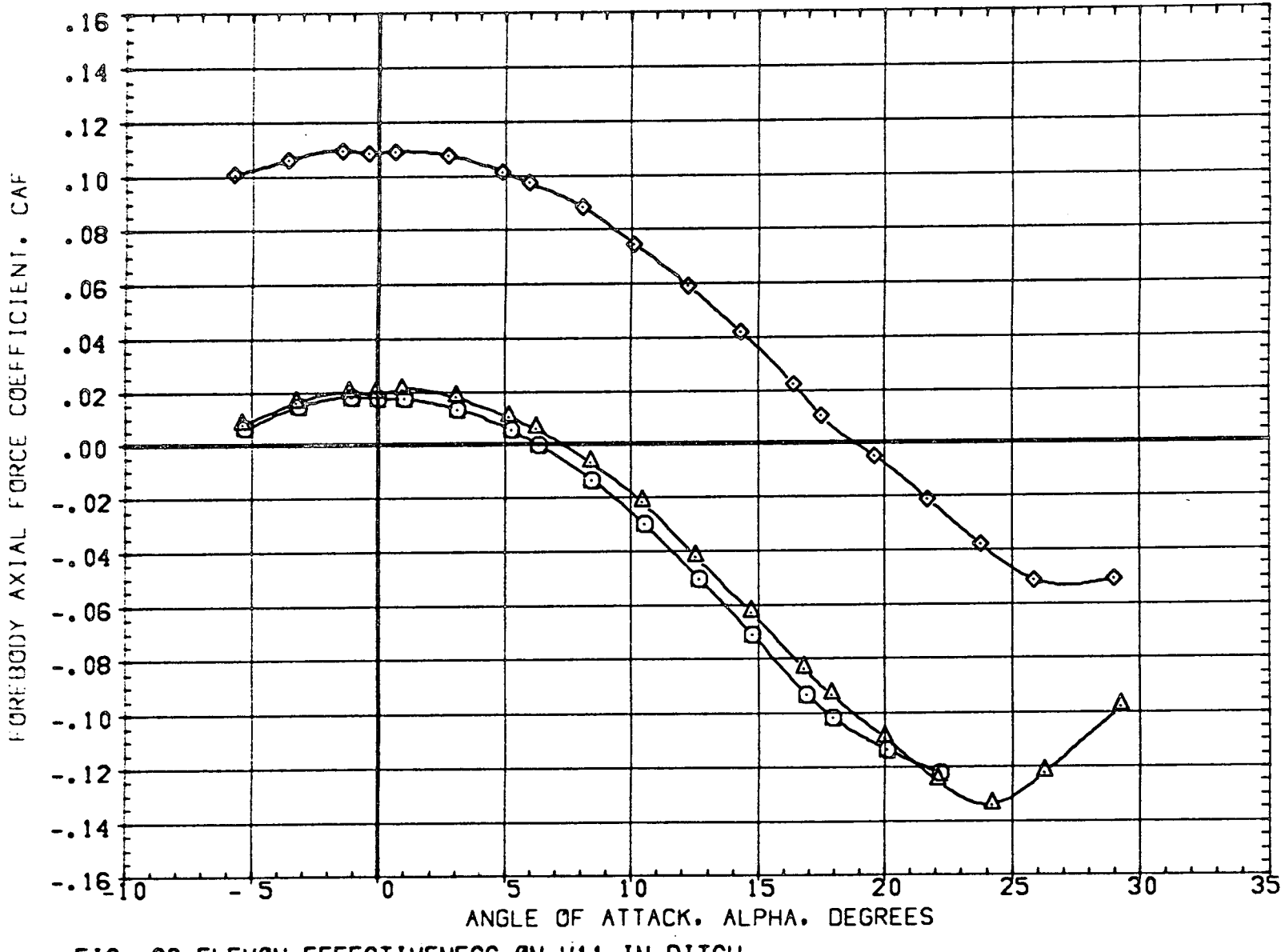

FIG. 23 ELEVON EFFECTIVENESS ON W11 IN PITCH

(A) MACH = .26

C3

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG051)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADG052)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

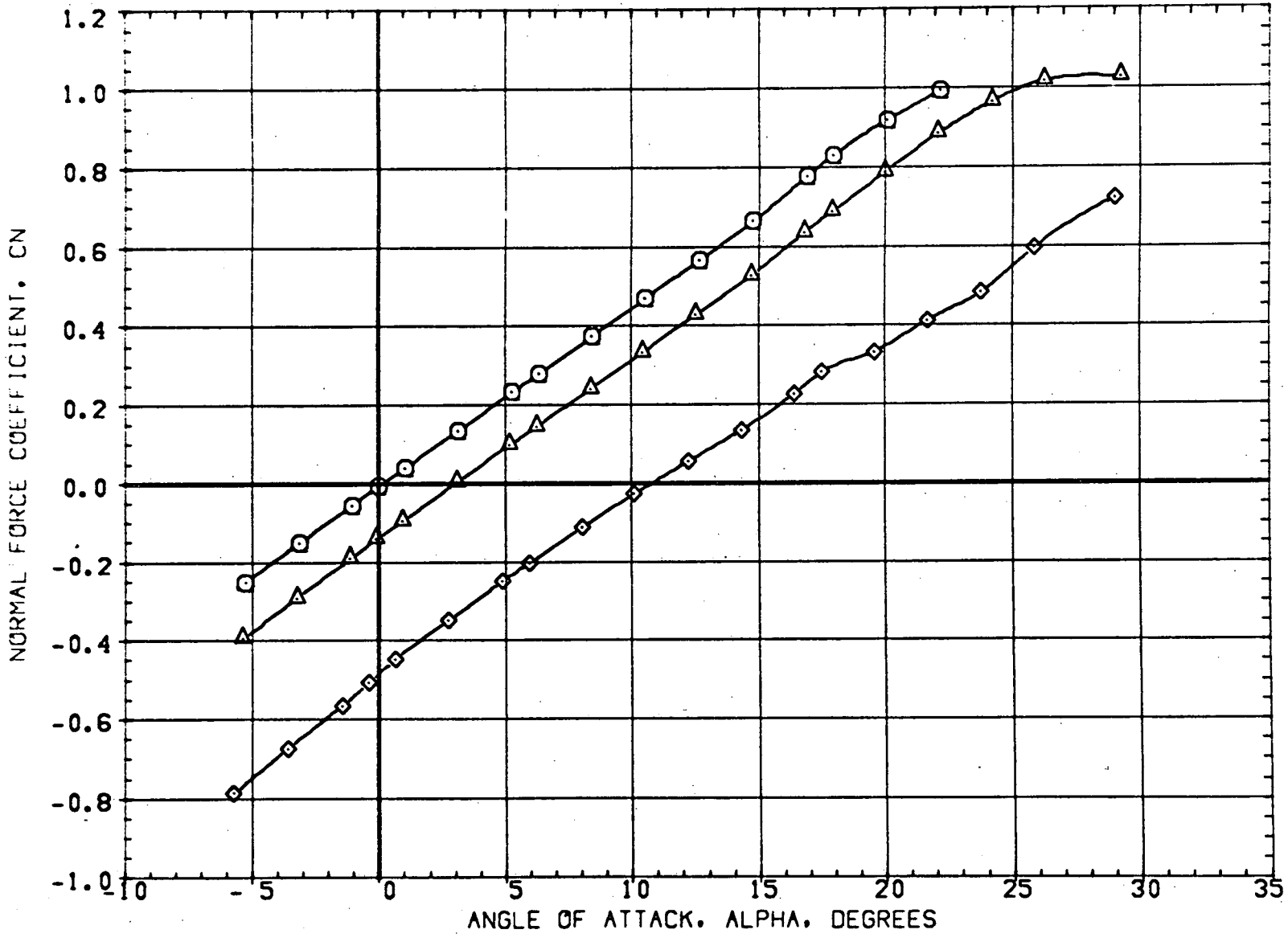

FIG. 23 ELEVON EFFECTIVENESS ON W11 IN PITCH

(A)MACH = .26

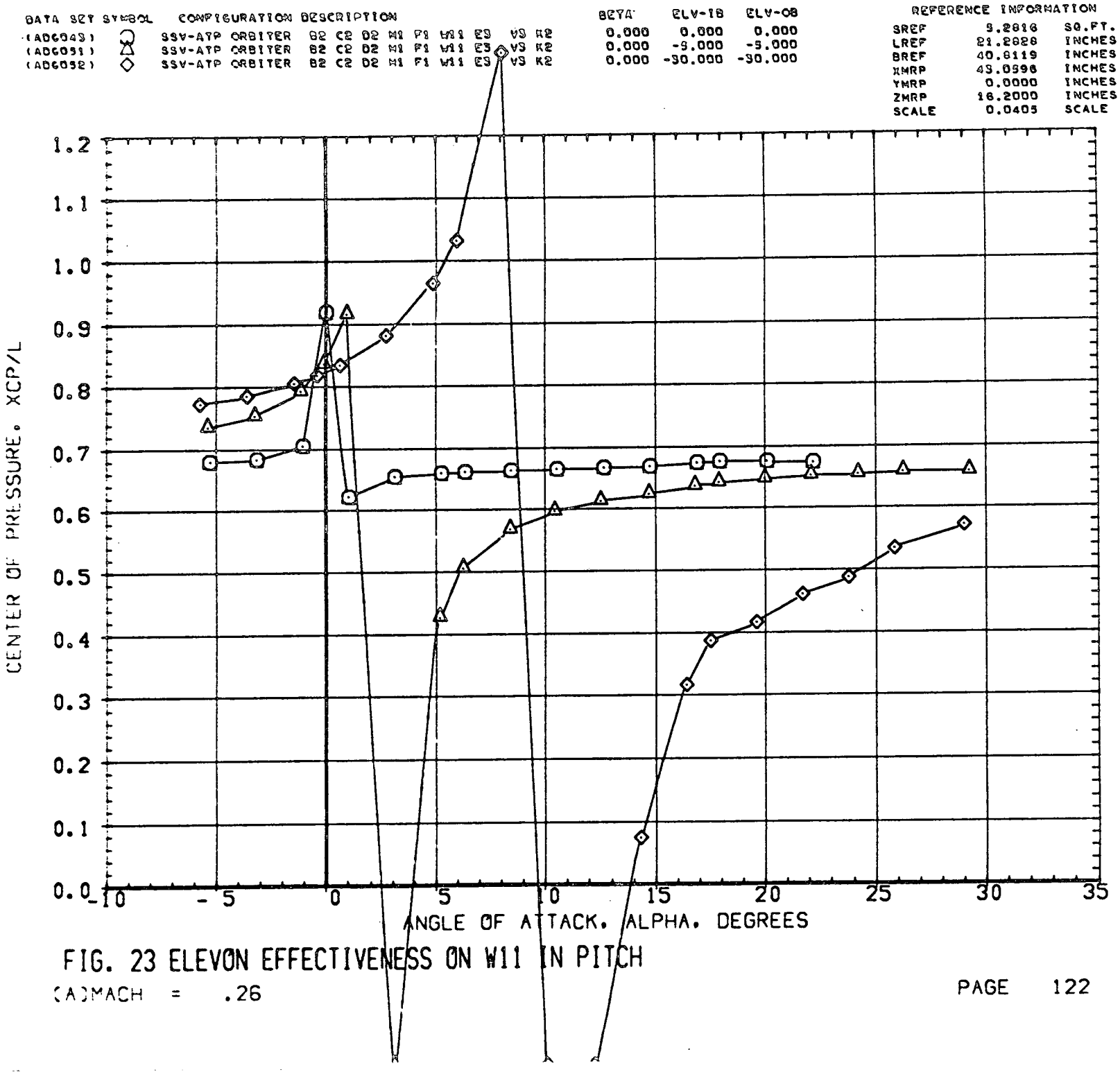

FIG. 23 ELEVON EFFECTIVENESS ON W11 IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG051)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADG052)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

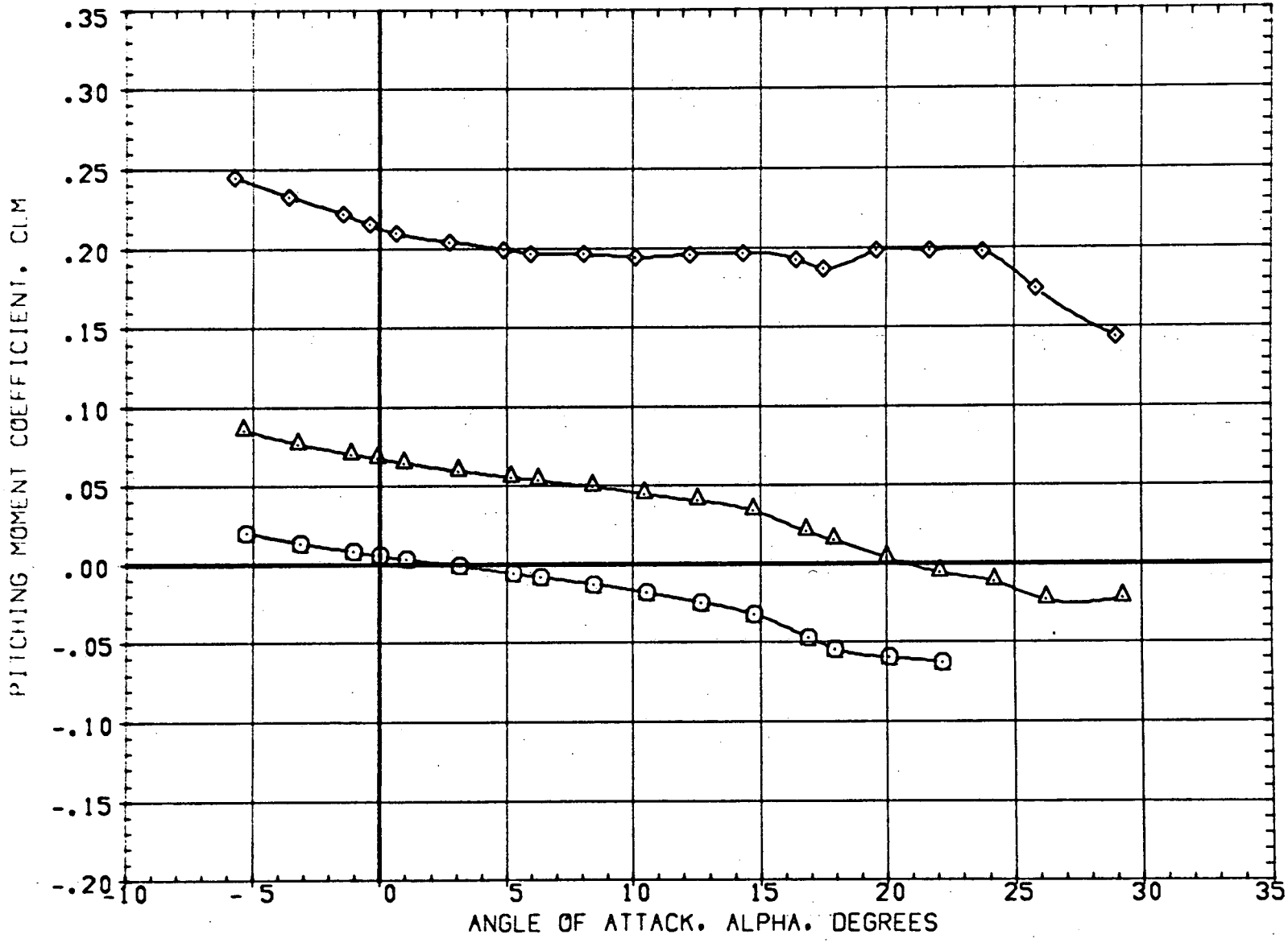

FIG. 23 ELEVON EFFECTIVENESS ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-0B
(AD6033)	○	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6034)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(AD6035)	◇	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-30.000	-30.000
(AD6043)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

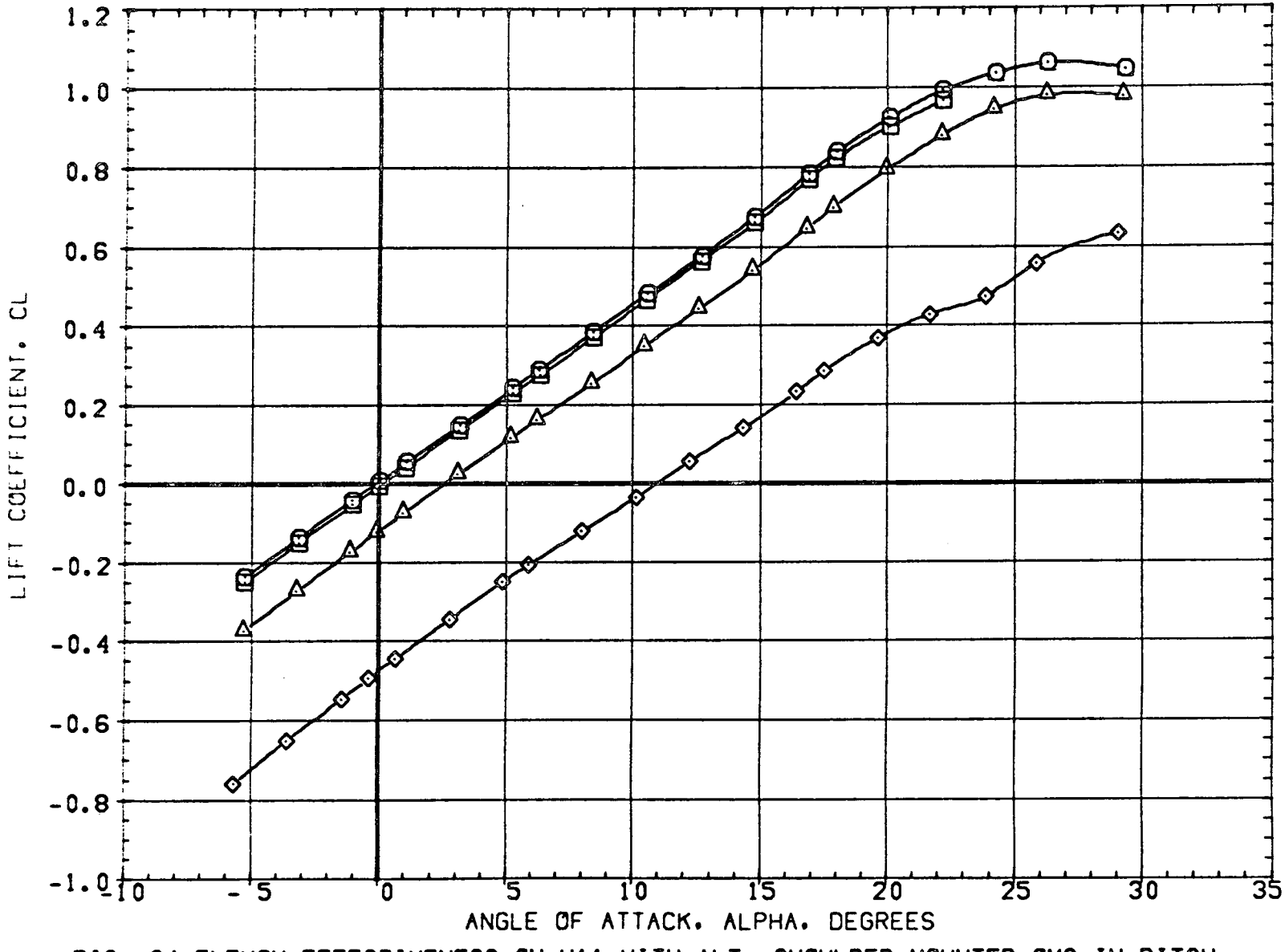

FIG. 24 ELEVON EFFECTIVENESS ON W11 WITH ALT. SHOULDER MOUNTED OMS IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG055)	○	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG054)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADG053)	◇	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-30.000	-30.000
(ADG043)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

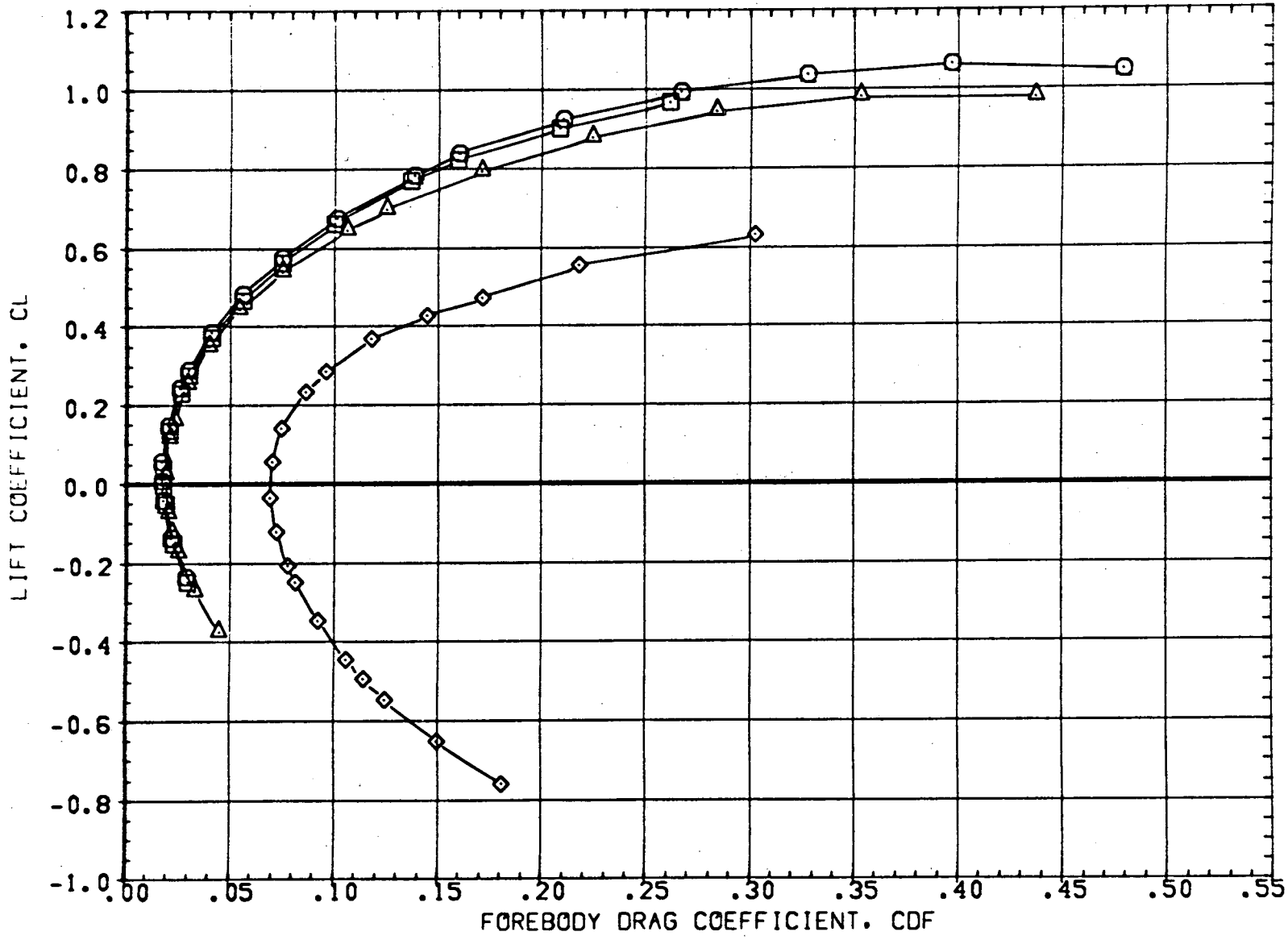

FIG. 24 ELEVON EFFECTIVENESS ON W11 WITH ALT. SHOULDER MOUNTED OMS IN PITCH

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC033)	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC034)	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADC035)	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-30.000	-30.000
(ADC043)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

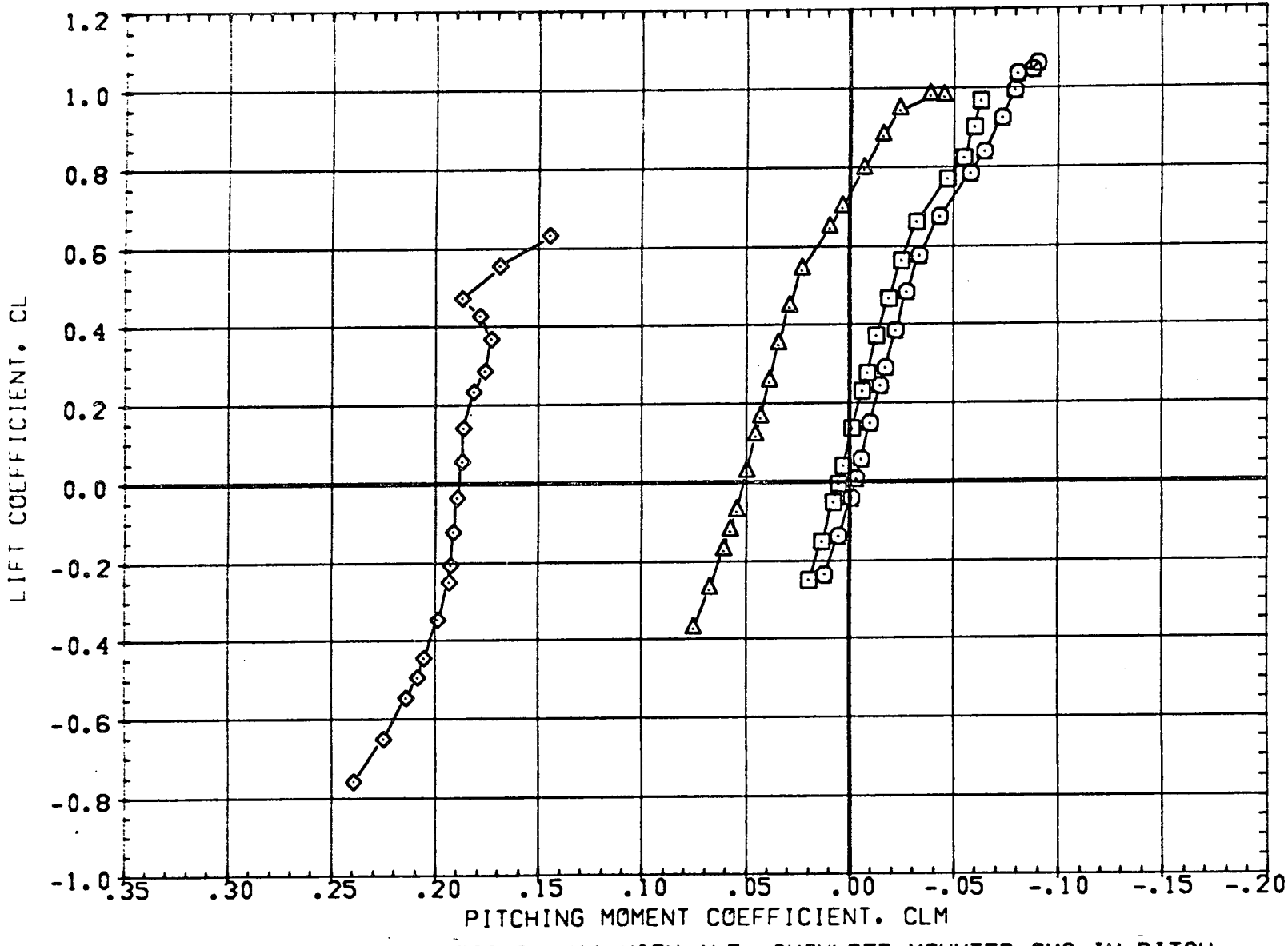

FIG. 24 ELEVON EFFECTIVENESS ON W11 WITH ALT. SHOULDER MOUNTED OMS IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC033)	○	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC034)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADC035)	◇	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-30.000	-30.000
(ADC043)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

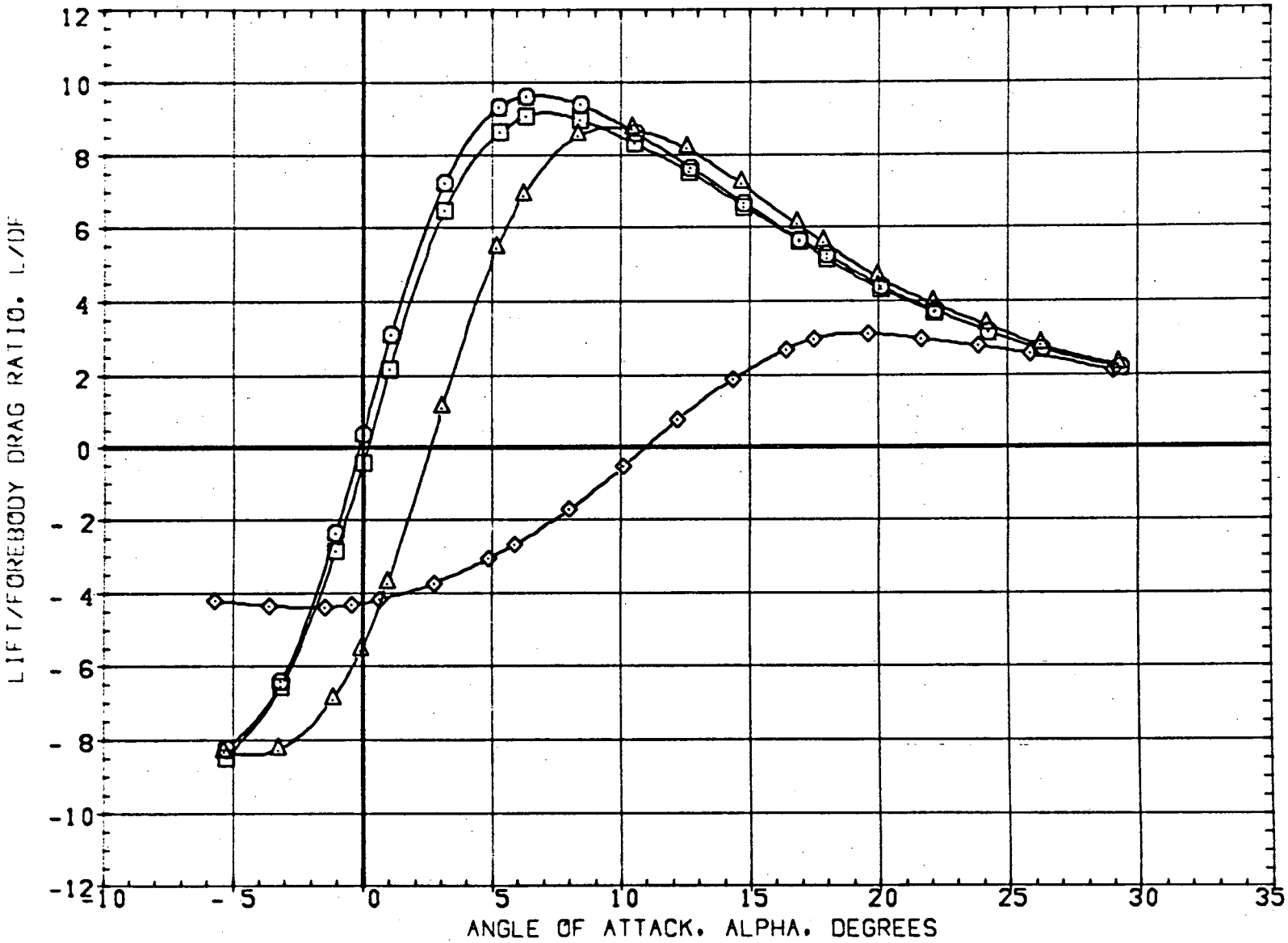

FIG. 24 ELEVON EFFECTIVENESS ON W11 WITH ALT. SHOULDER MOUNTED OMS IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC055)	○	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC054)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADC053)	◇	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-30.000	-30.000
(ADC045)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

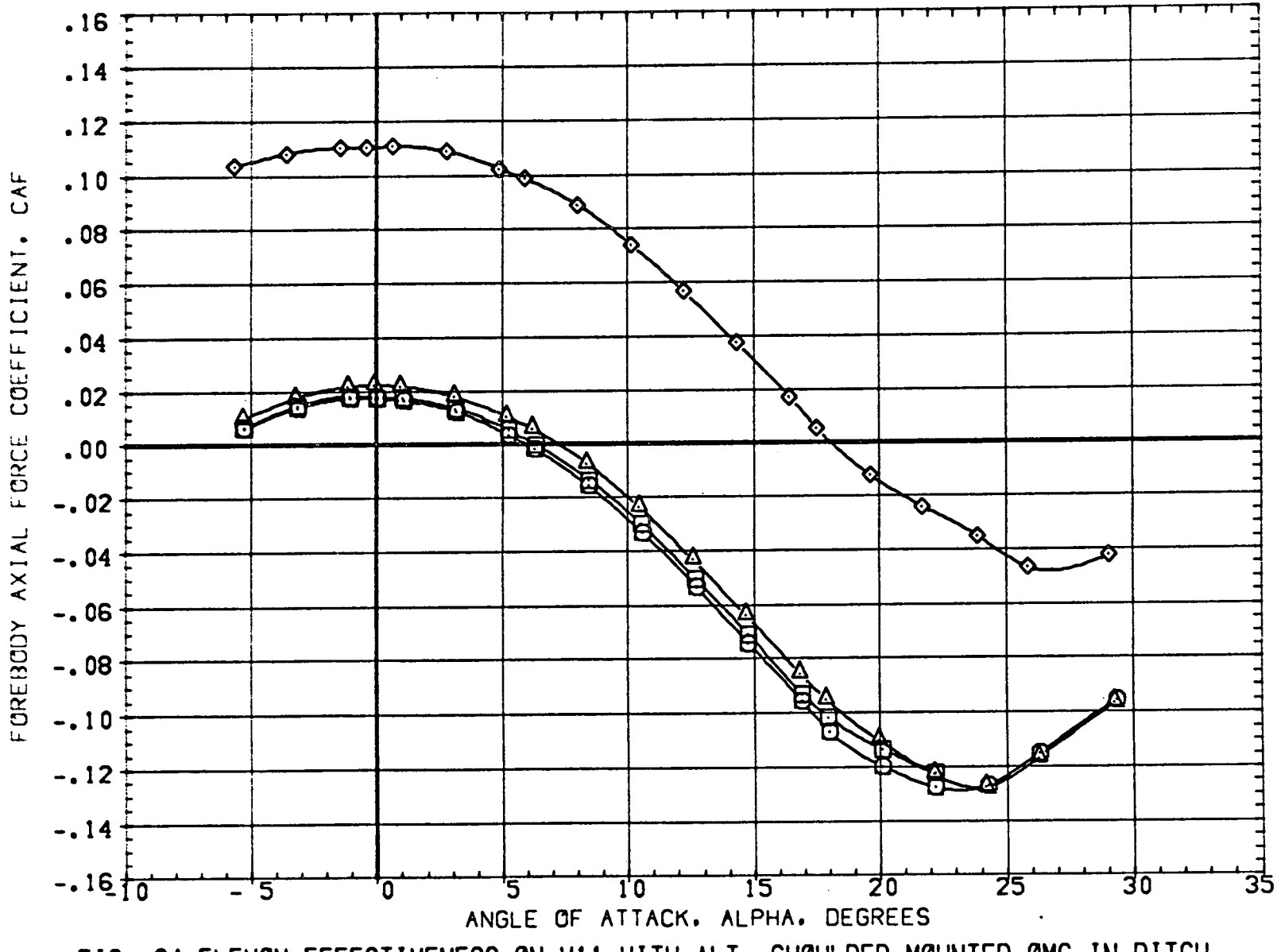

FIG. 24 ELEVON EFFECTIVENESS ON W11 WITH ALT. SHOULDER MOUNTED OMS IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG055)	○	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG054)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADG053)	◇	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-30.000	-30.000
(ADG043)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

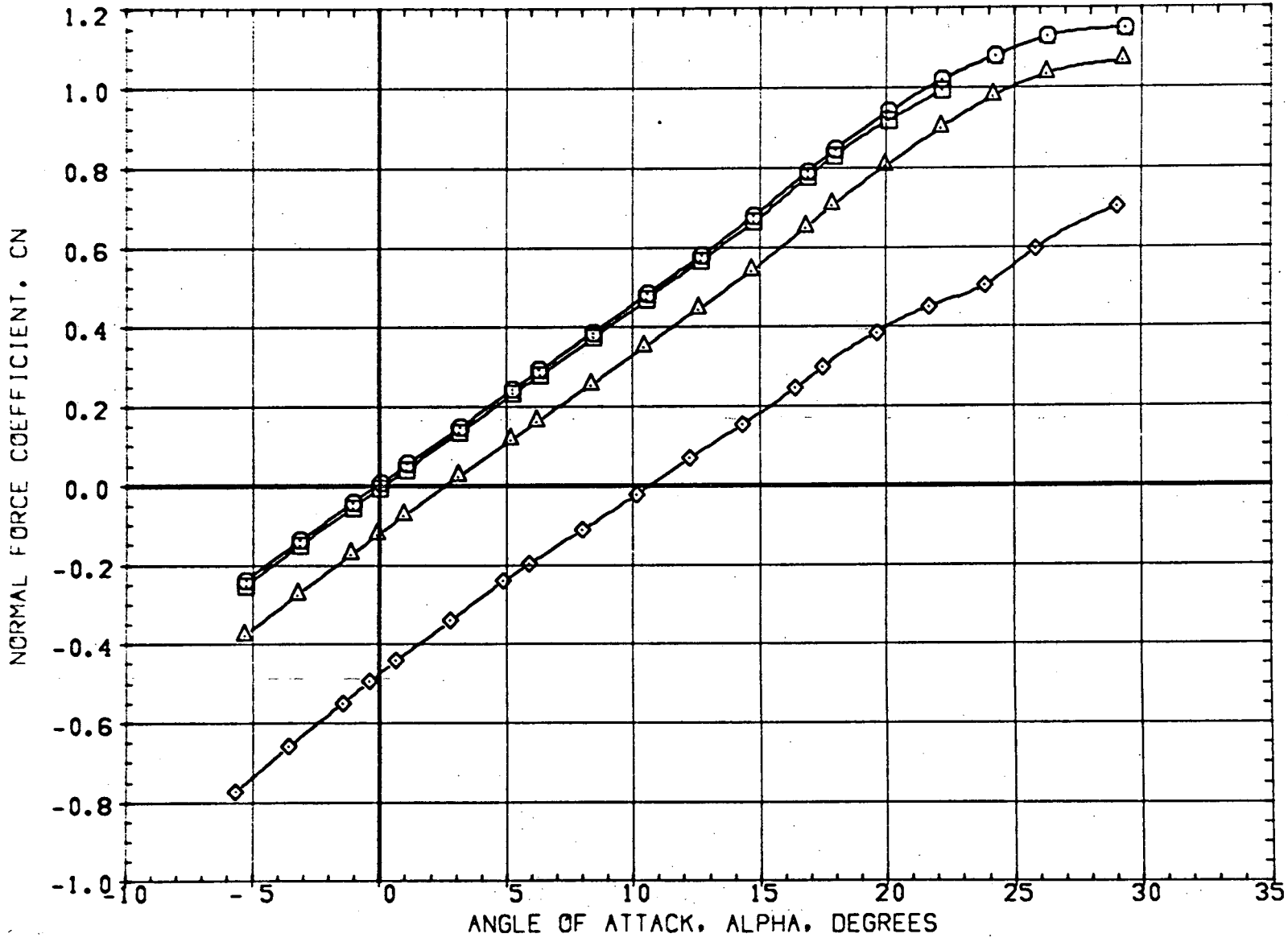

FIG. 24 ELEVON EFFECTIVENESS ON W11 WITH ALT. SHOULDER MOUNTED OMS IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG053)	○	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG054)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADG055)	◇	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-30.000	-30.000
(ADG043)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

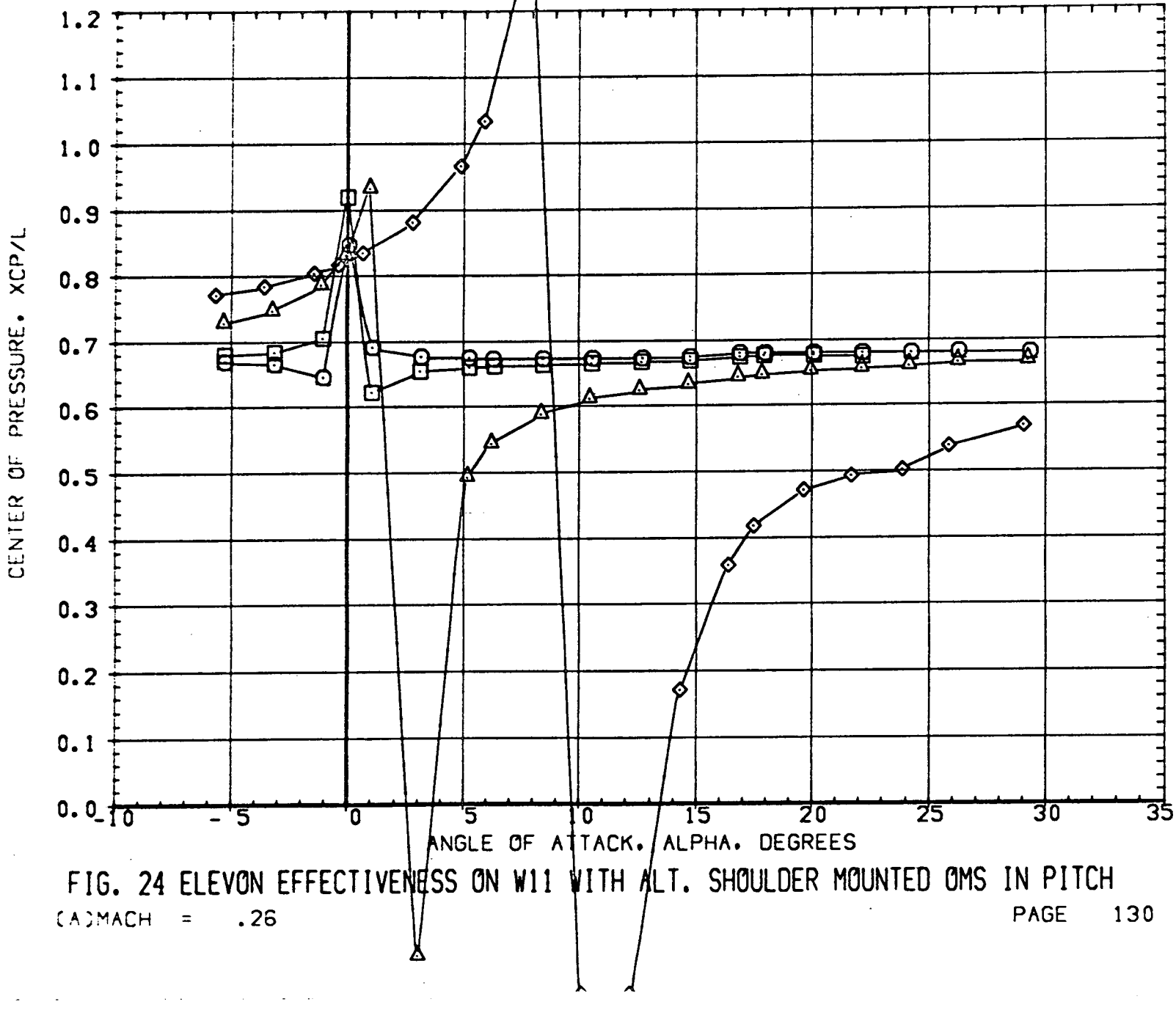

FIG. 24 ELEVON EFFECTIVENESS ON W11 WITH ALT. SHOULDER MOUNTED OMS IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC055)	○	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC054)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-5.000	-5.000
(ADC053)	◇	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	-30.000	-30.000
(ADC043)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

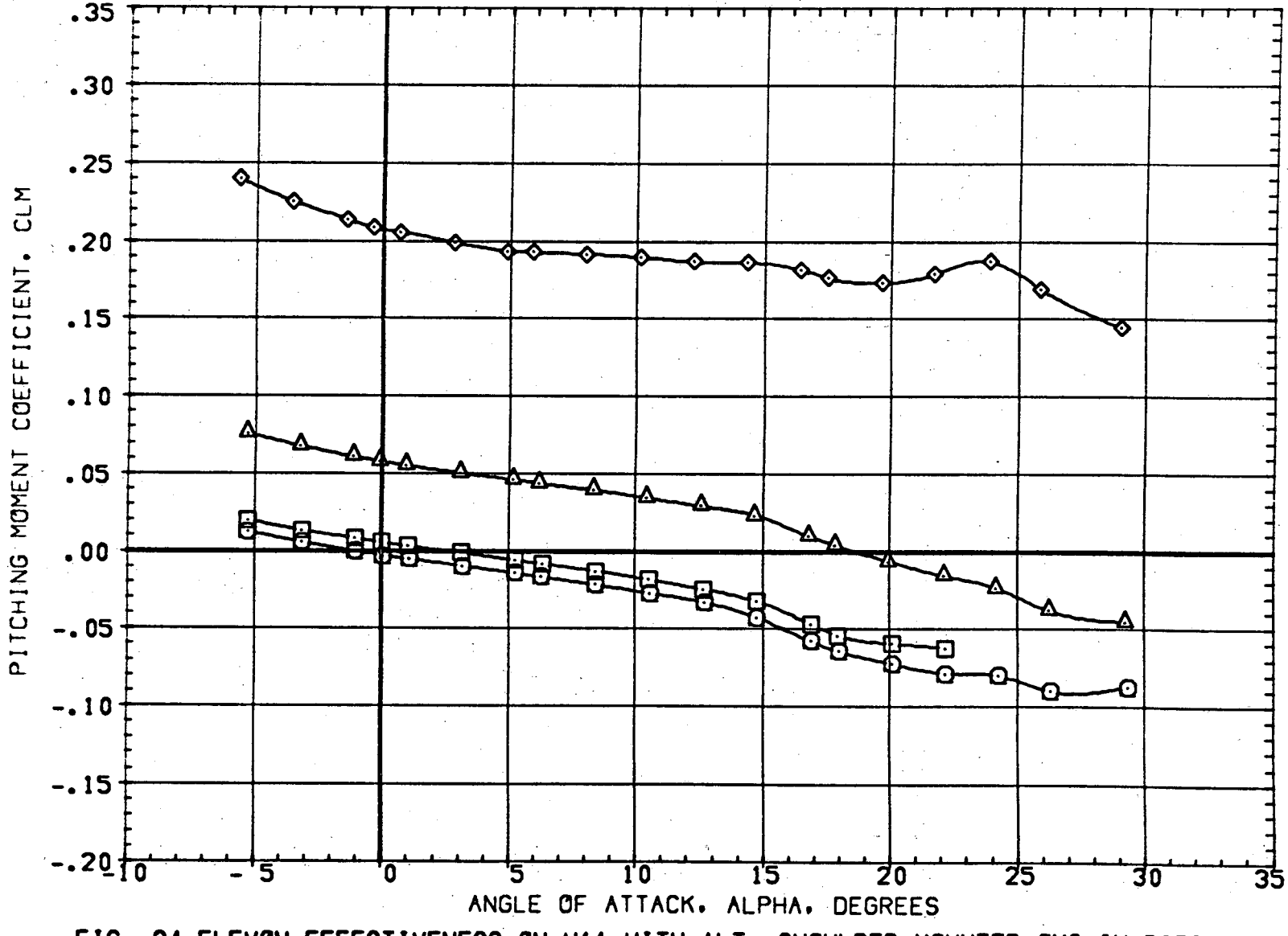

FIG. 24 ELEVON EFFECTIVENESS ON W11 WITH ALT. SHOULDER MOUNTED OMS IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6055)	⊠	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6058)	◇	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6061)	□	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

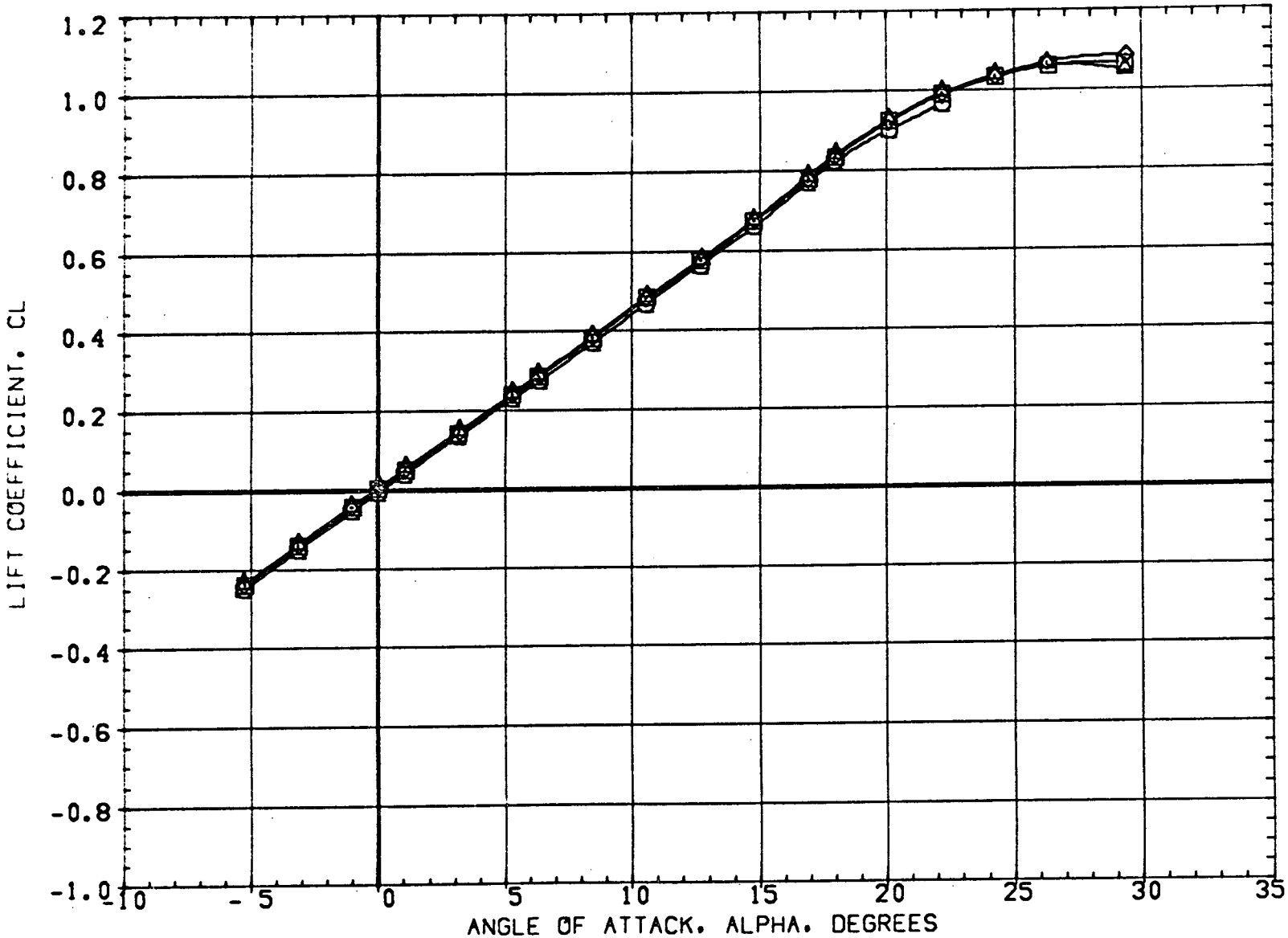

FIG. 25 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC055)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC058)	◇	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC061)	□	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

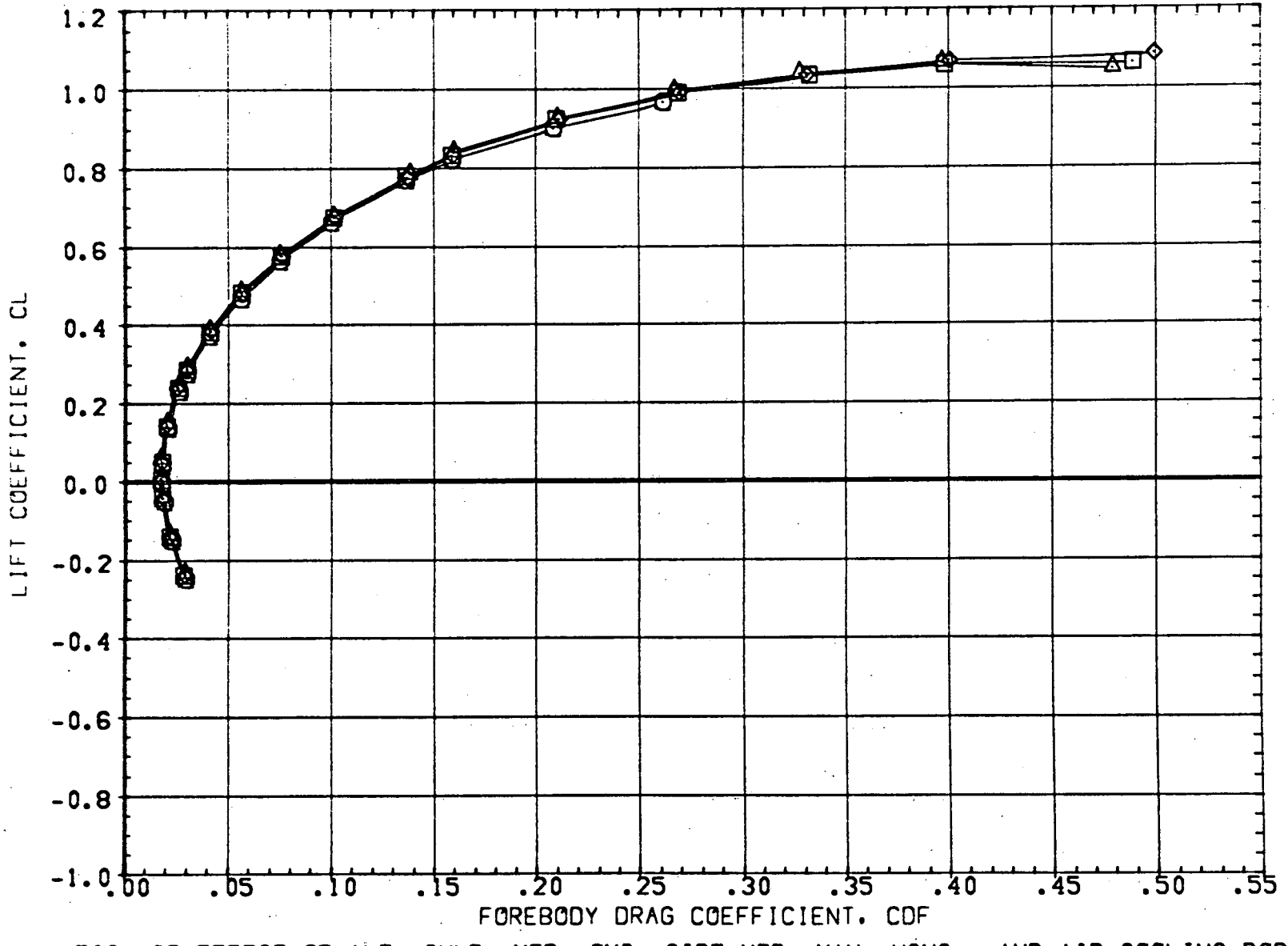

FIG. 25 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC033)	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC038)	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC061)	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

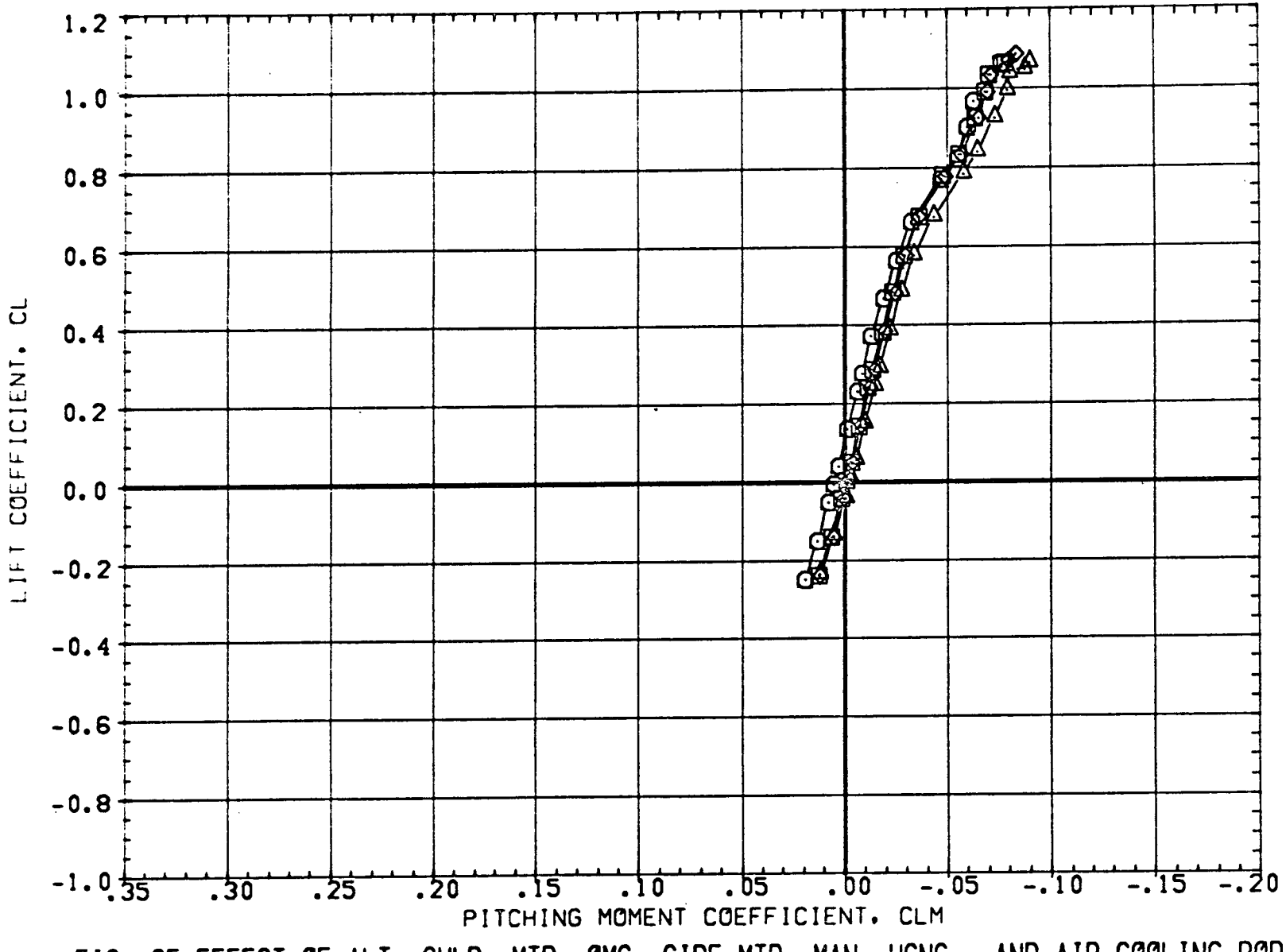

FIG. 25 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG055)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG059)	◇	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG061)	□	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

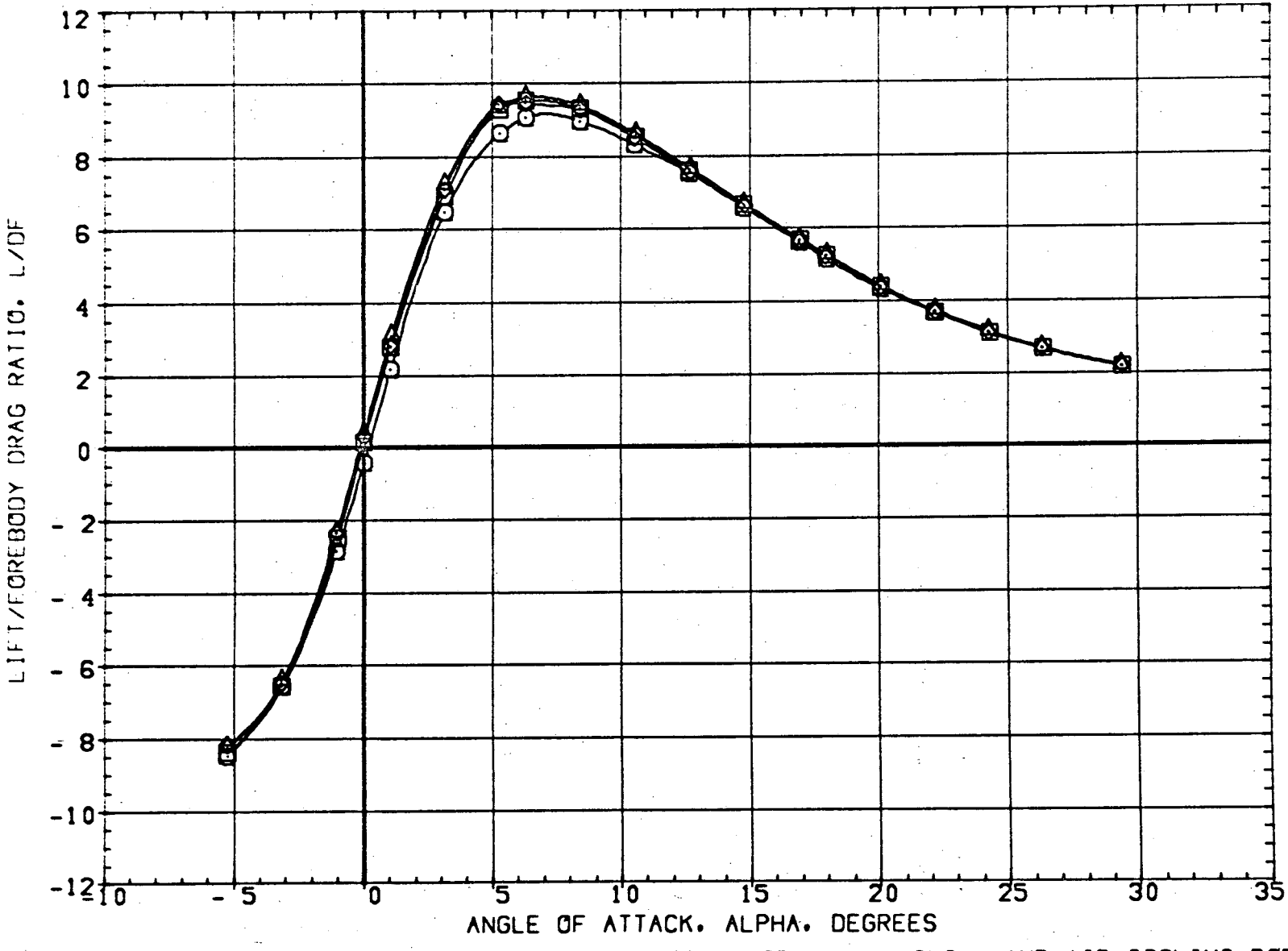

FIG. 25 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6049)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6055)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6058)	◇	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6061)	□	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

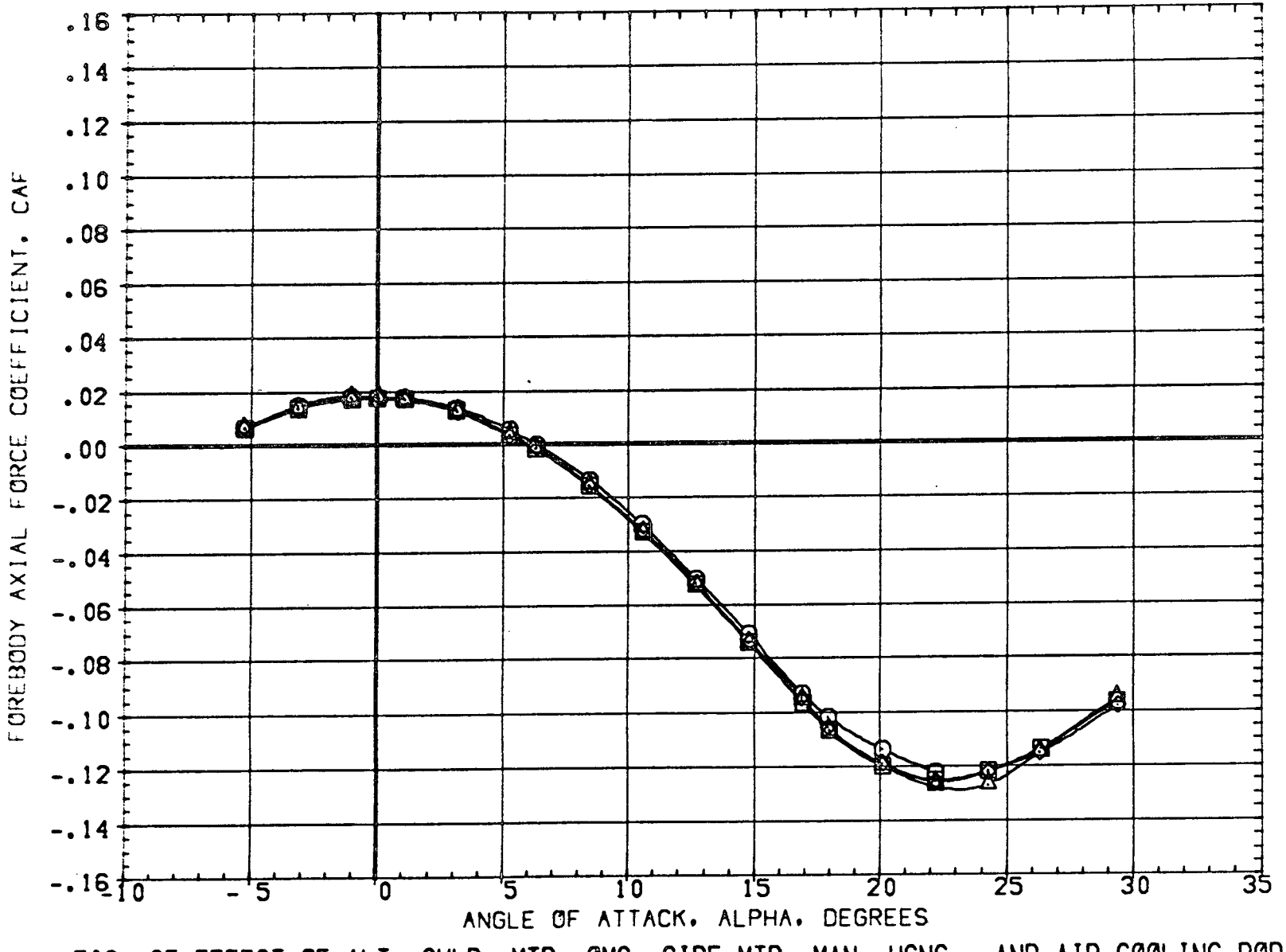

FIG. 25 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC055)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC059)	◇	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC061)	□	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

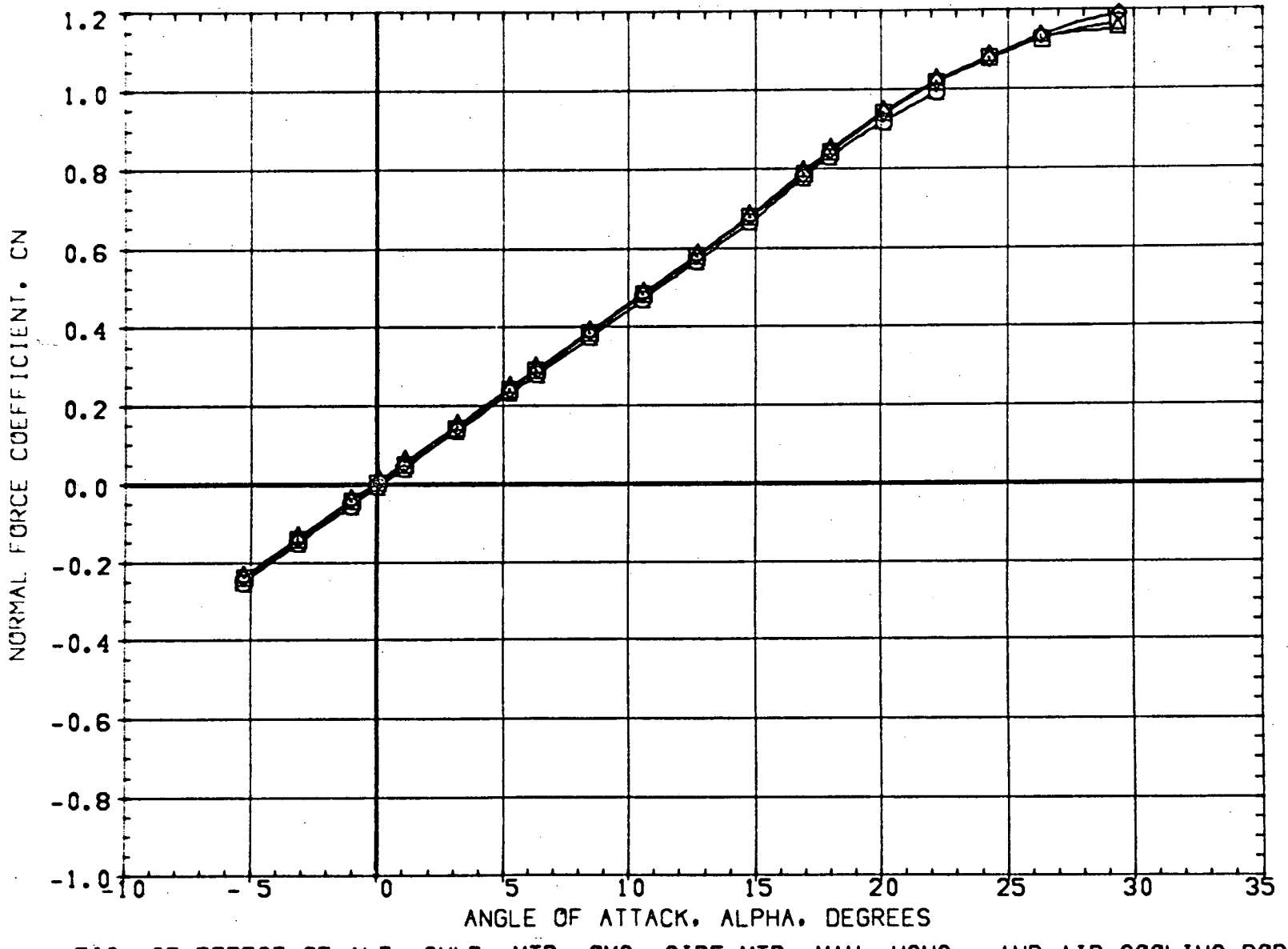

FIG. 25 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC059)	△	SSV-ATP ORBITER B2 C2 D2 H2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC058)	◇	SSV-ATP ORBITER B2 C2 D3 H2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC061)	□	SSV-ATP ORBITER B2 C2 D3 H2 F1 W11 E3 V3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

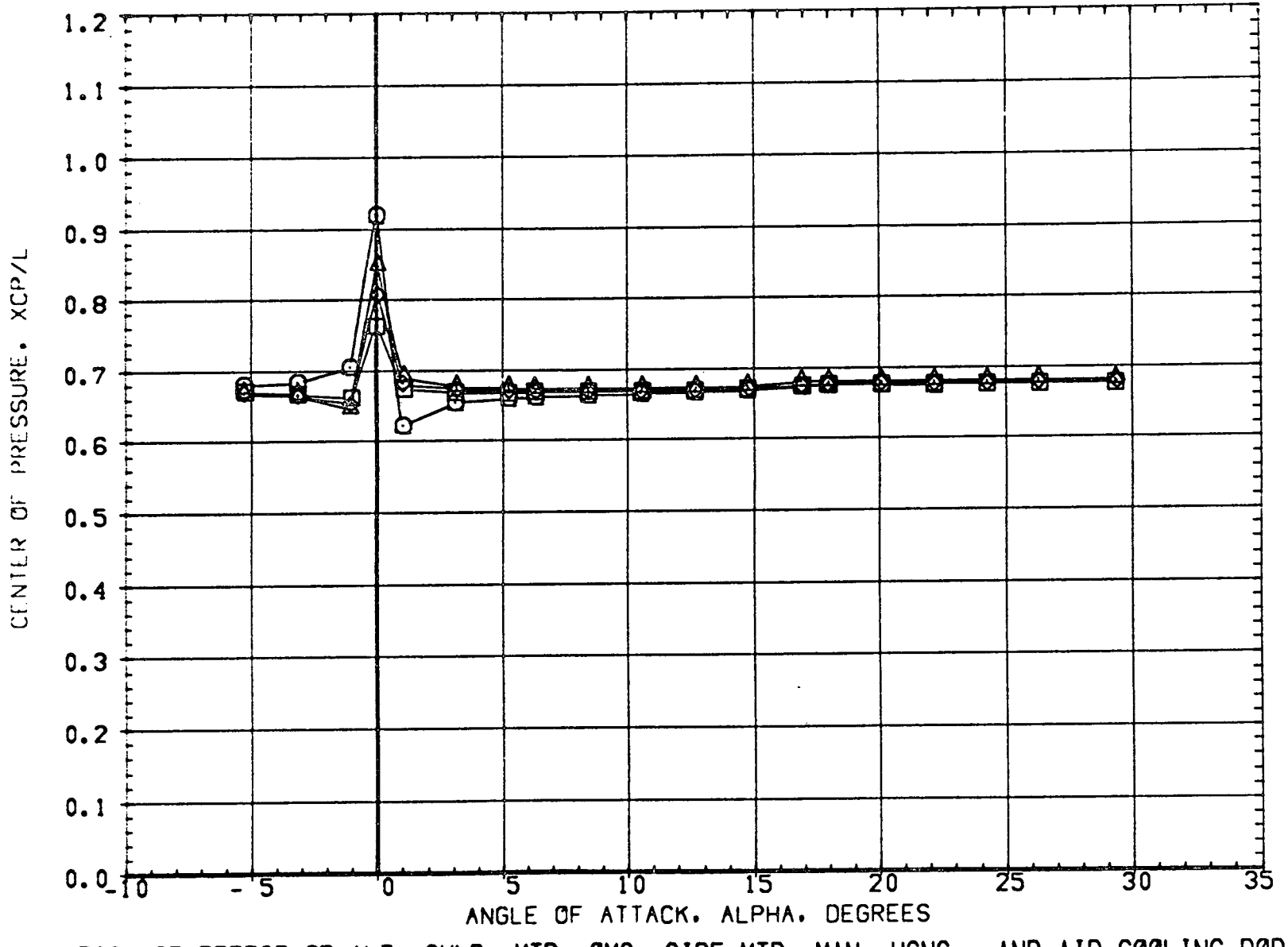

FIG. 25 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC053)	△	SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC055)	◇	SSV-ATP ORBITER B2 C2 D3 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC061)	□	SSV-ATP ORBITER B2 C2 D3 M2 F1 W11 E3 V3	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

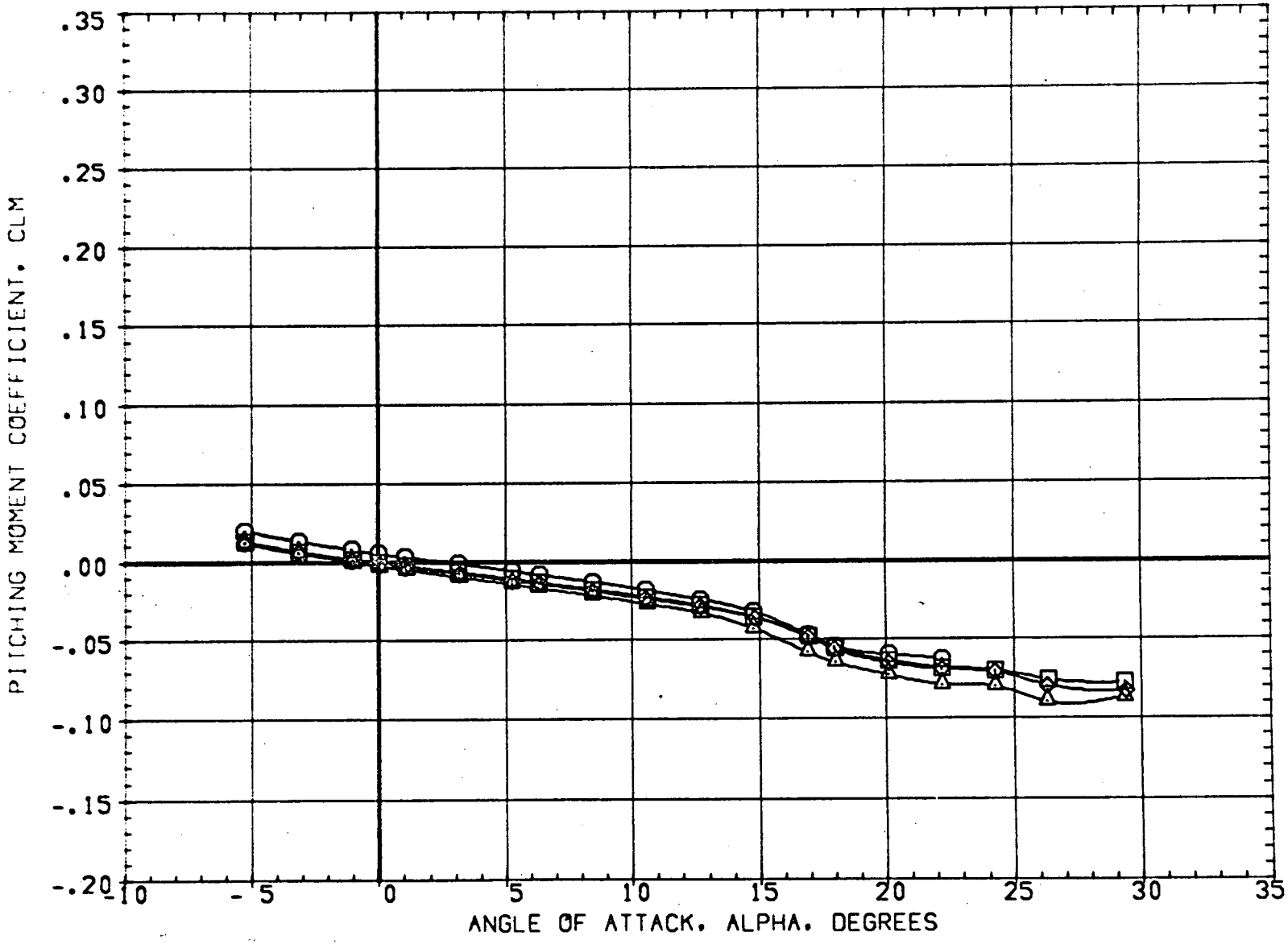

FIG. 25 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC059)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC058)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC057)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BDC054)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC059)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC060)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

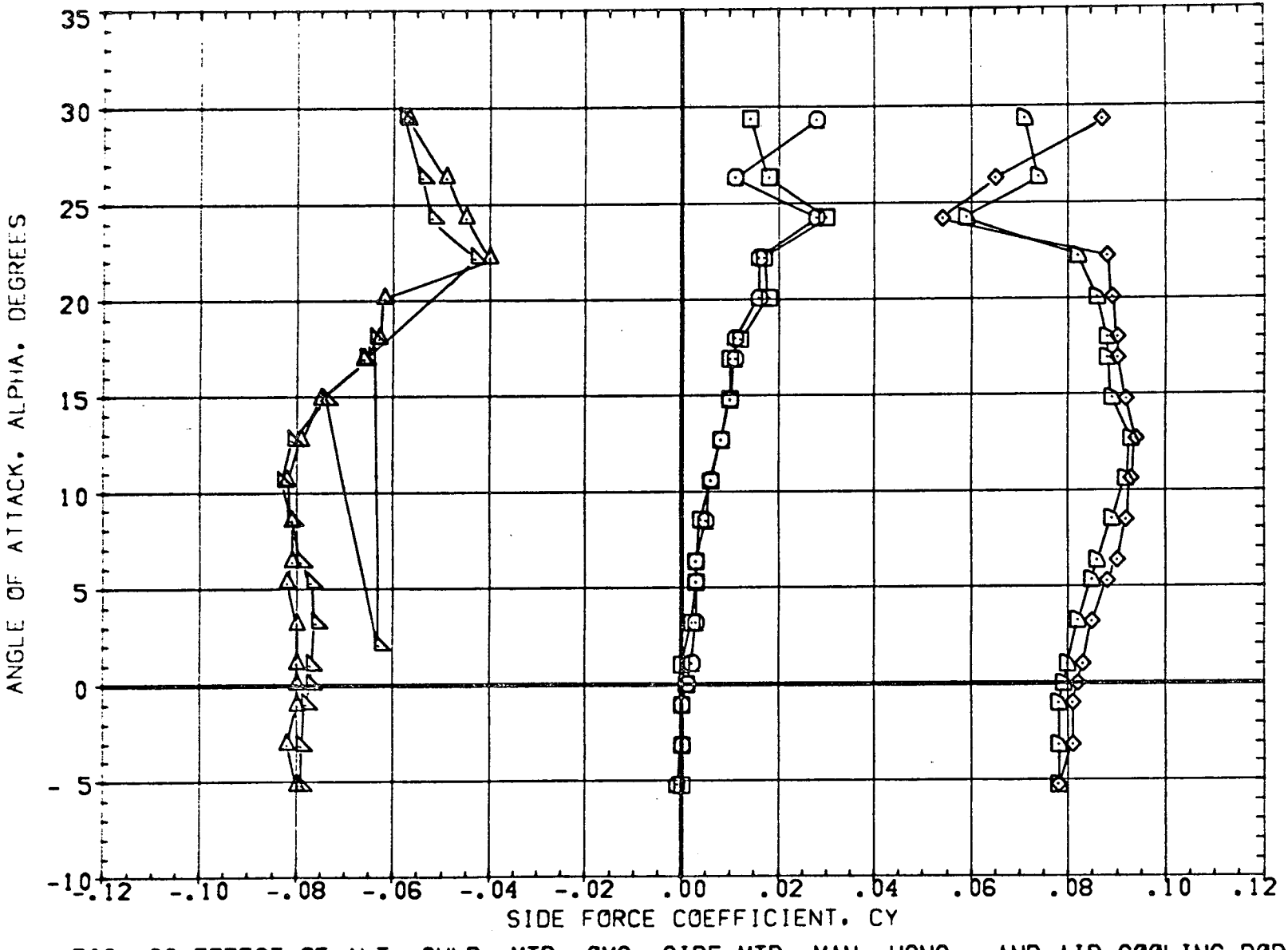

FIG. 26 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC055)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC056)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC057)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BDC058)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC059)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC060)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

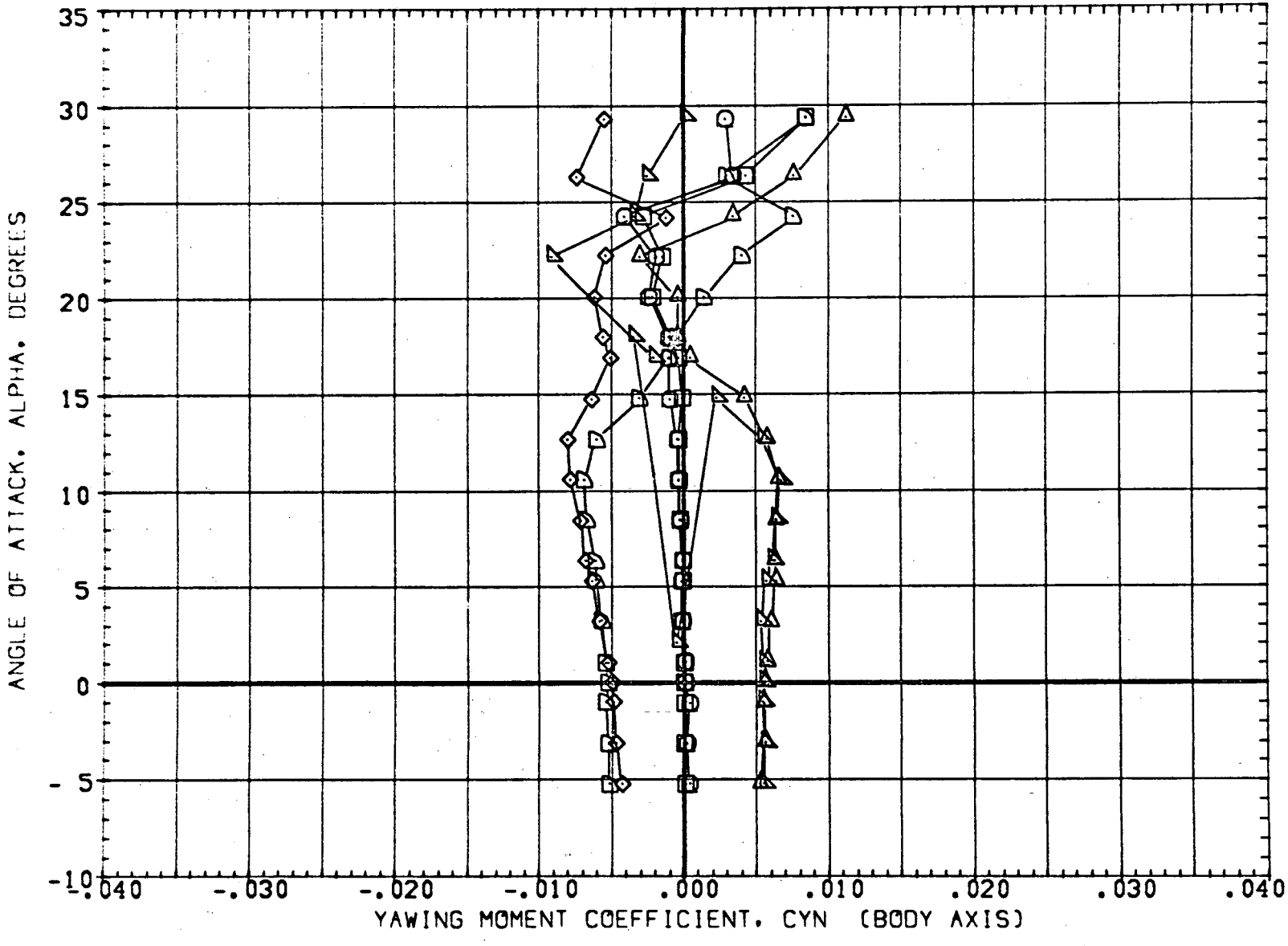

FIG. 26 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC055)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC056)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC057)		SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BDC058)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC059)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC060)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

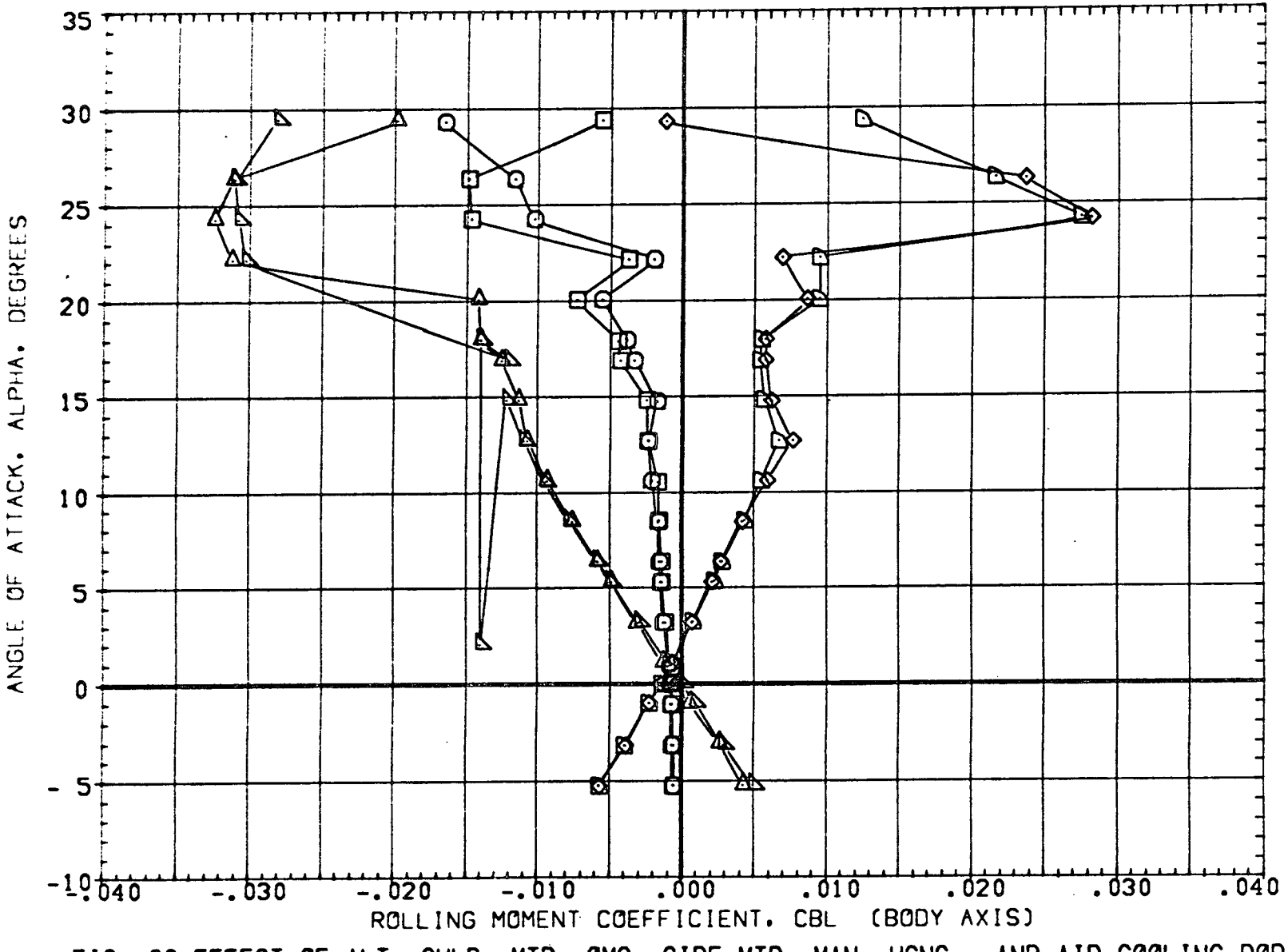

FIG. 26 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC058)	△	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC059)	□	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC060)	○	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BDC061)	◇	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000
(BDC062)	▷	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	5.000	0.000	0.000
(BDC063)	⬡	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

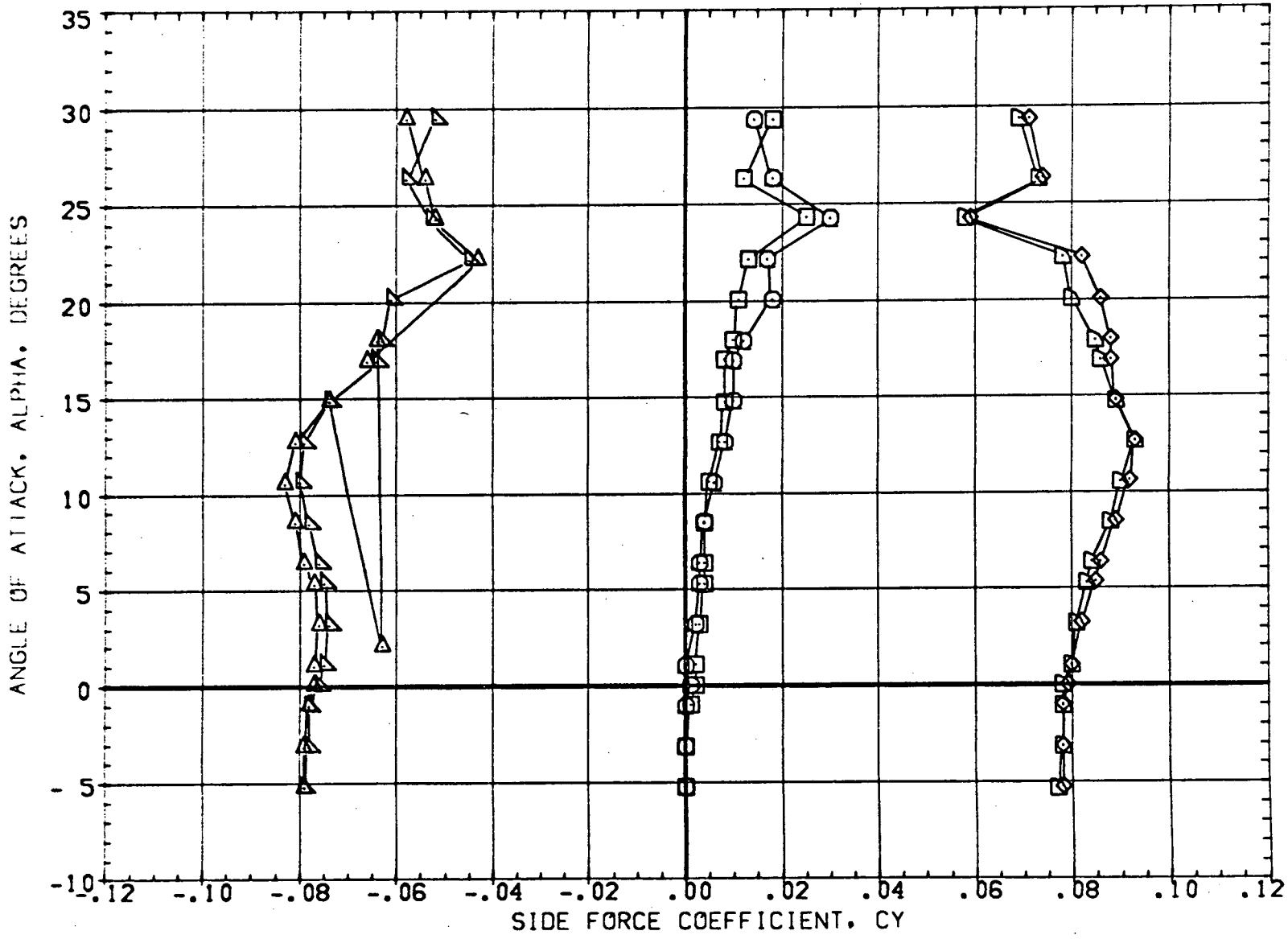

FIG. 26 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BD6058)	○	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BD6059)	□	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BD6060)	◇	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BD6061)	△	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000
(BD6062)	▽	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	5.000	0.000	0.000
(BD6063)	⊠	SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

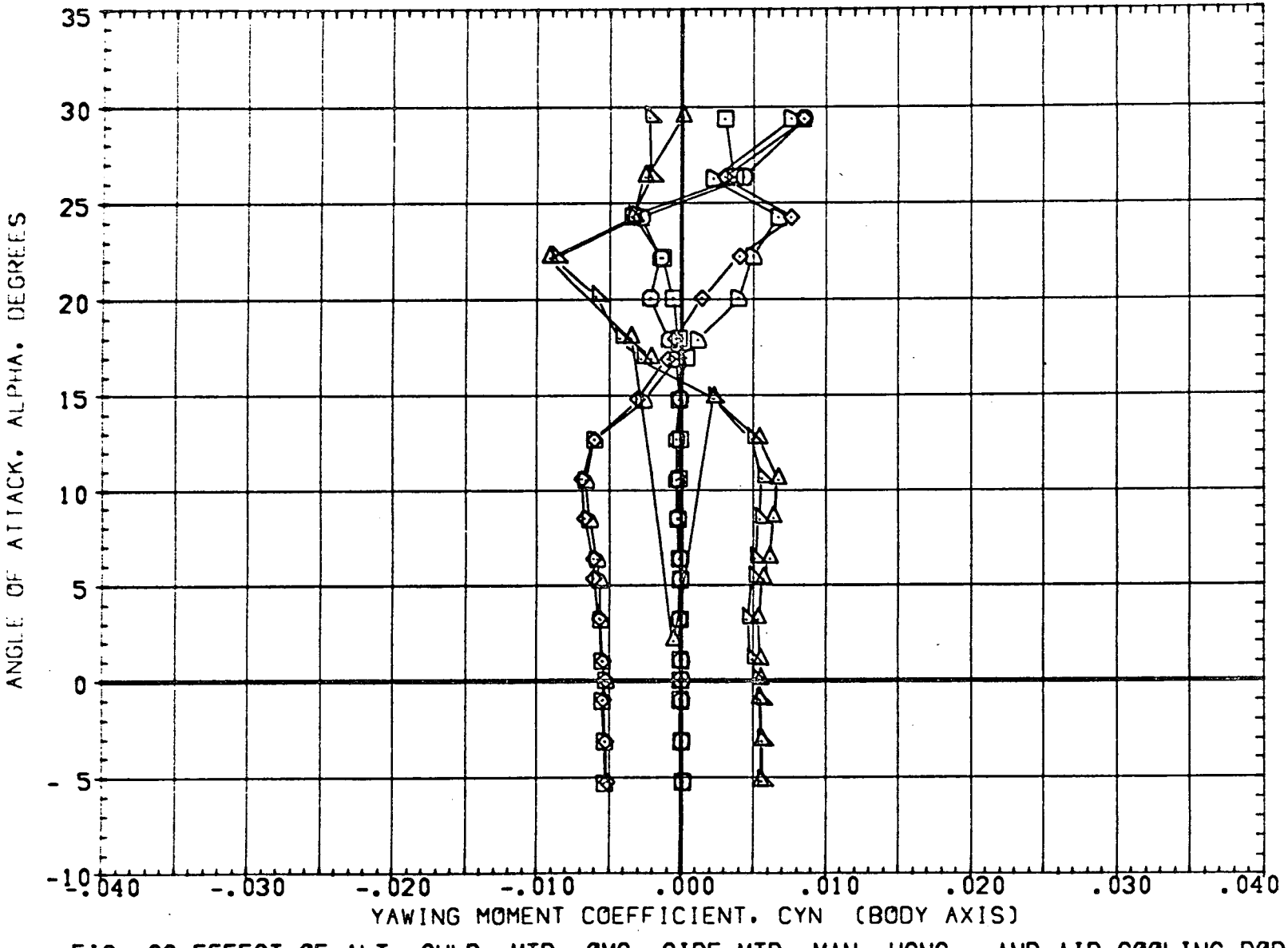

FIG. 26 EFFECT OF ALT. SHLD. MTD. OMS. SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(EDG058)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	0.000	0.000	0.000
(EDG059)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	5.000	0.000	0.000
(EDG060)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(EDG061)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	0.000	0.000	0.000
(EDG062)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	5.000	0.000	0.000
(EDG063)		SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

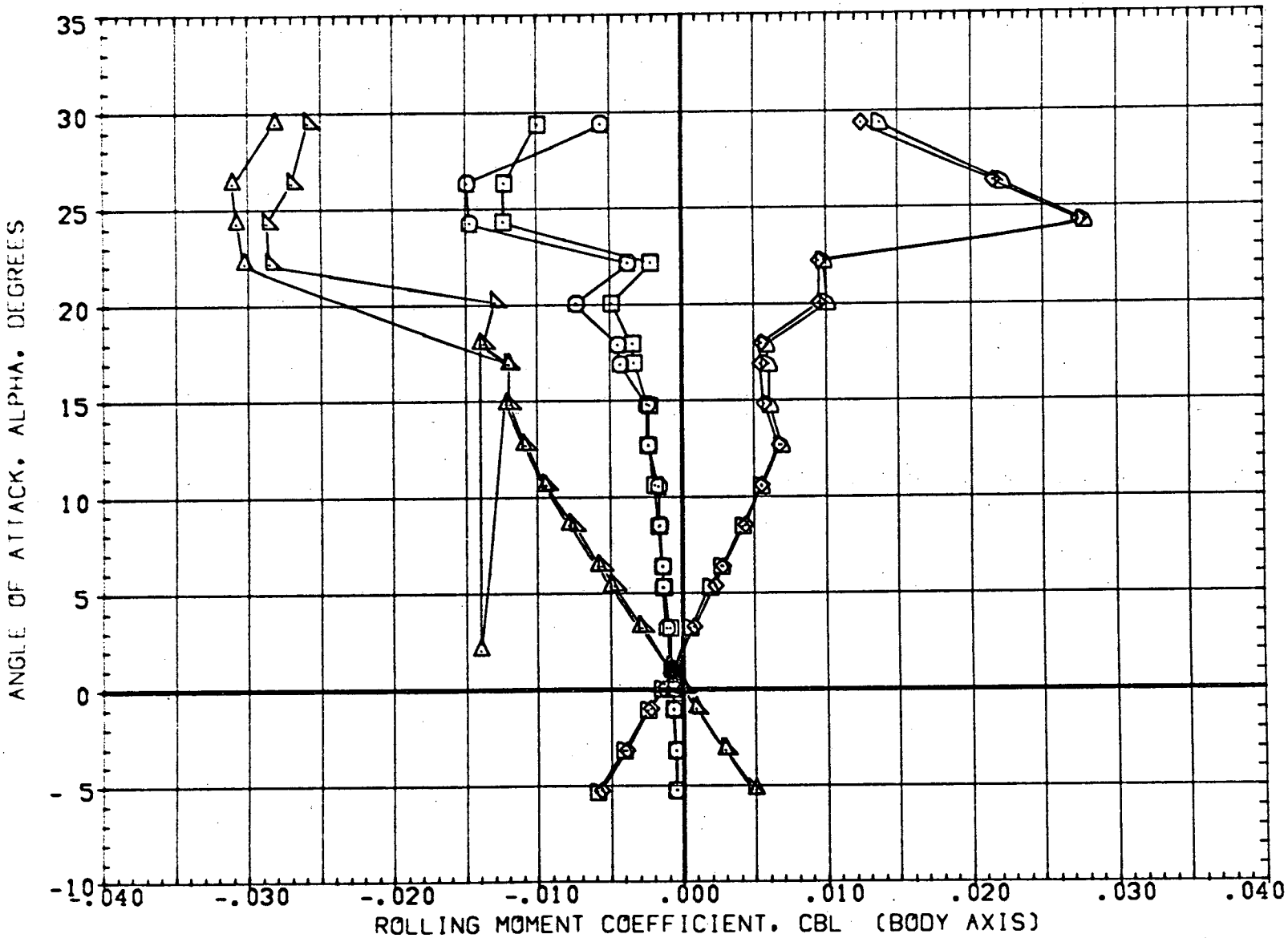

FIG. 26 EFFECT OF ALT. SHLD. MTD. OMS, SIDE MTD. MAN. HSNG., AND AIR COOLING POD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 H1 P1 W11 E3 V3 R2	0.260	0.000	0.000	0.000
(ADC064)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 R2	0.169	0.000	0.000	0.000
(ADC075)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W19 E3 V3 R2	0.169	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

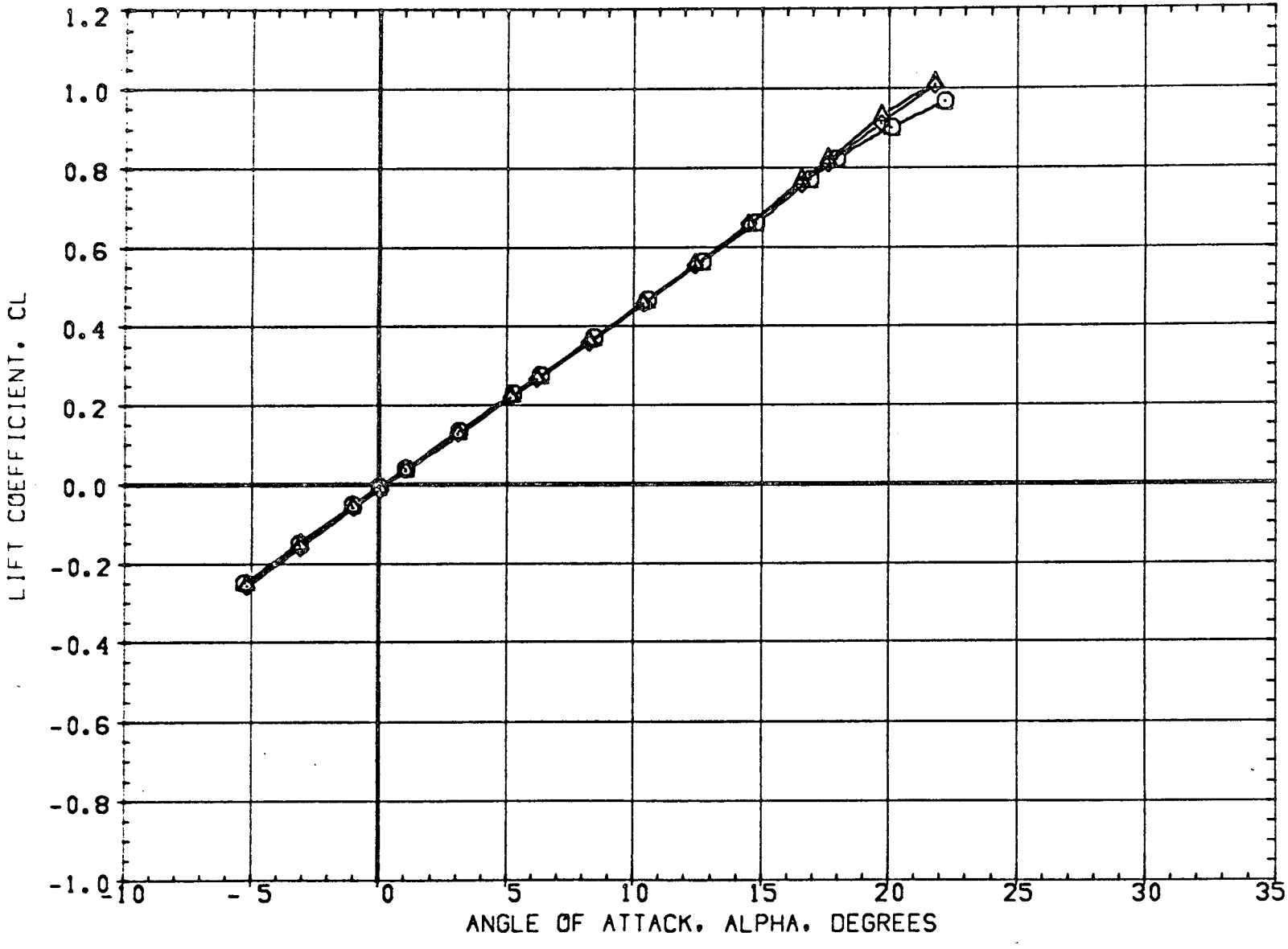

FIG. 27 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADC064)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.165	0.000	0.000	0.000
(ADC073)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.165	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

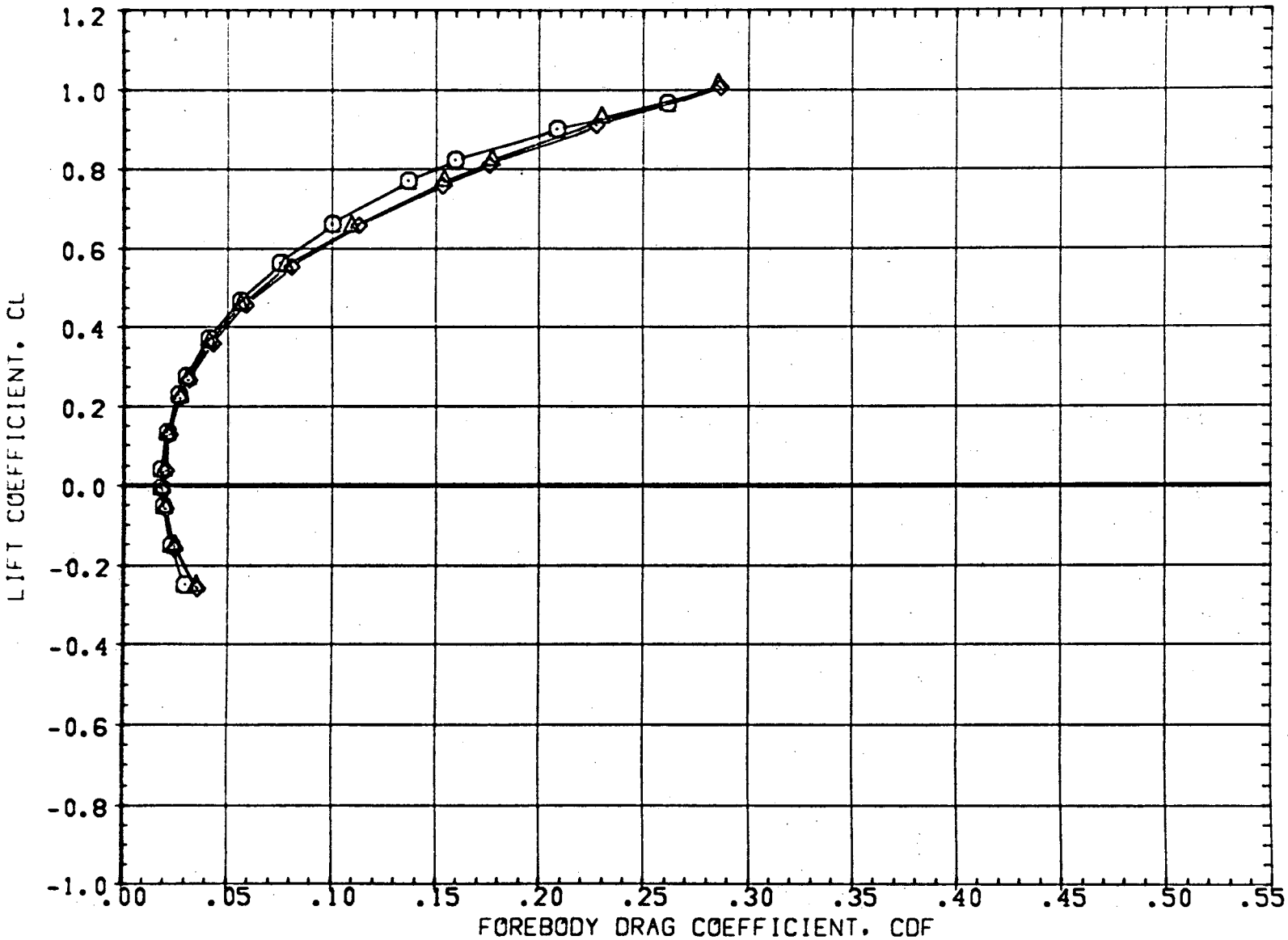

FIG. 27 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-1B	ELV-0B
(ADG043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADG064)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.165	0.000	0.000	0.000
(ADG073)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.165	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3.2818	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

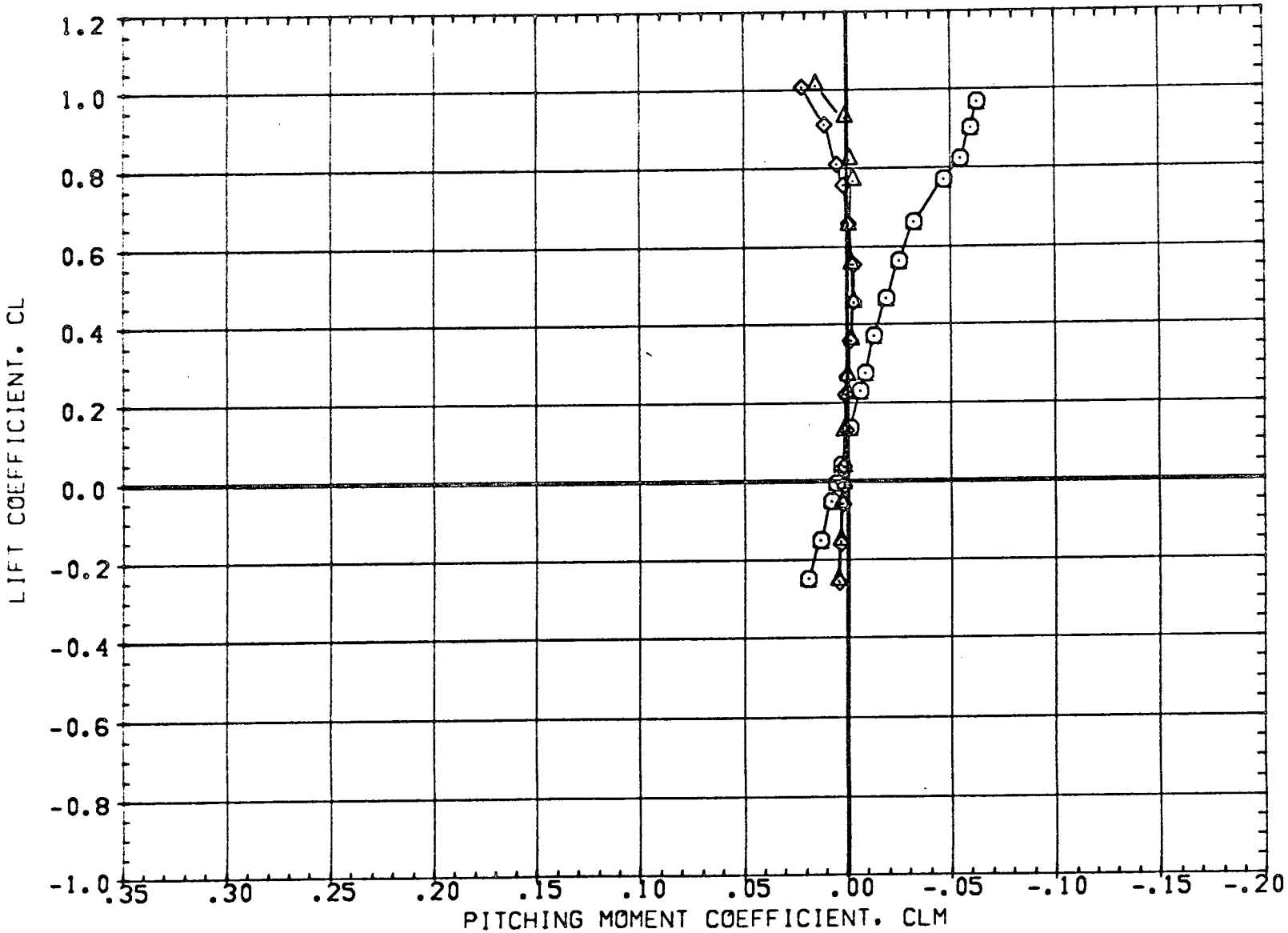

FIG. 27 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADC064)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.165	0.000	0.000	0.000
(ADC075)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.165	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

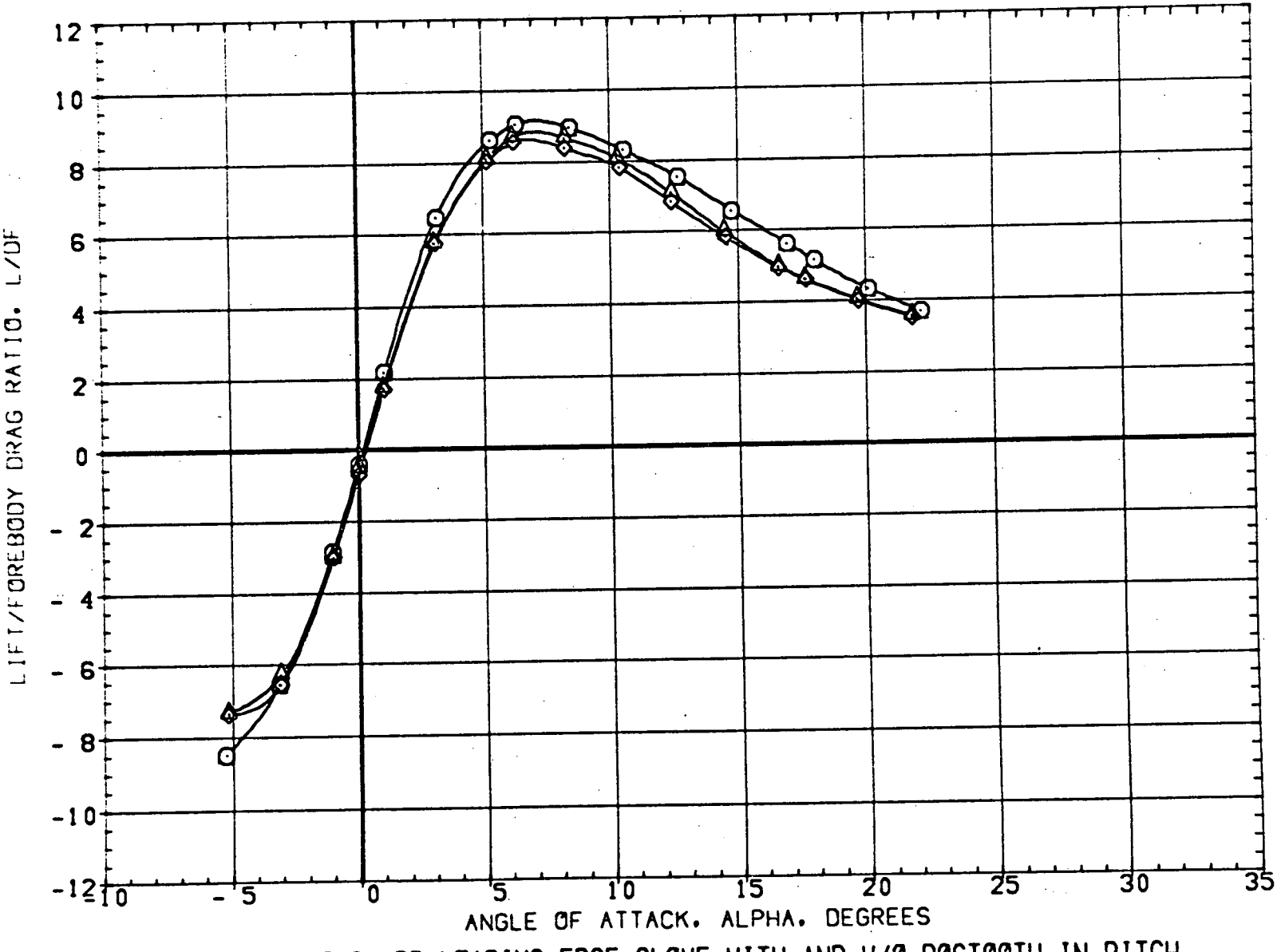

FIG. 27 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADC064)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2	0.165	0.000	0.000	0.000
(ADC073)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.165	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

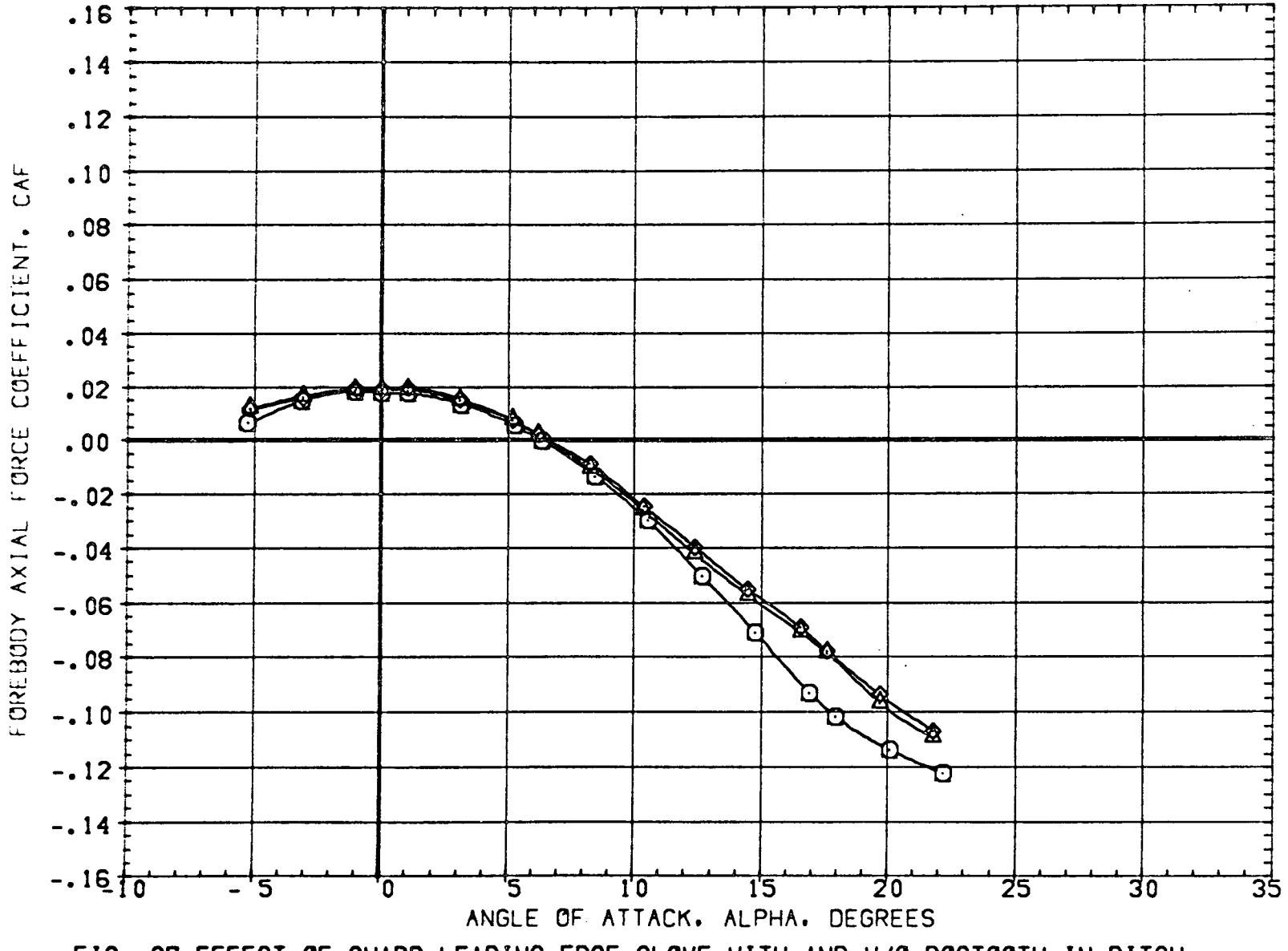

FIG. 27 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADC064)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.165	0.000	0.000	0.000
(ADC073)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.165	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

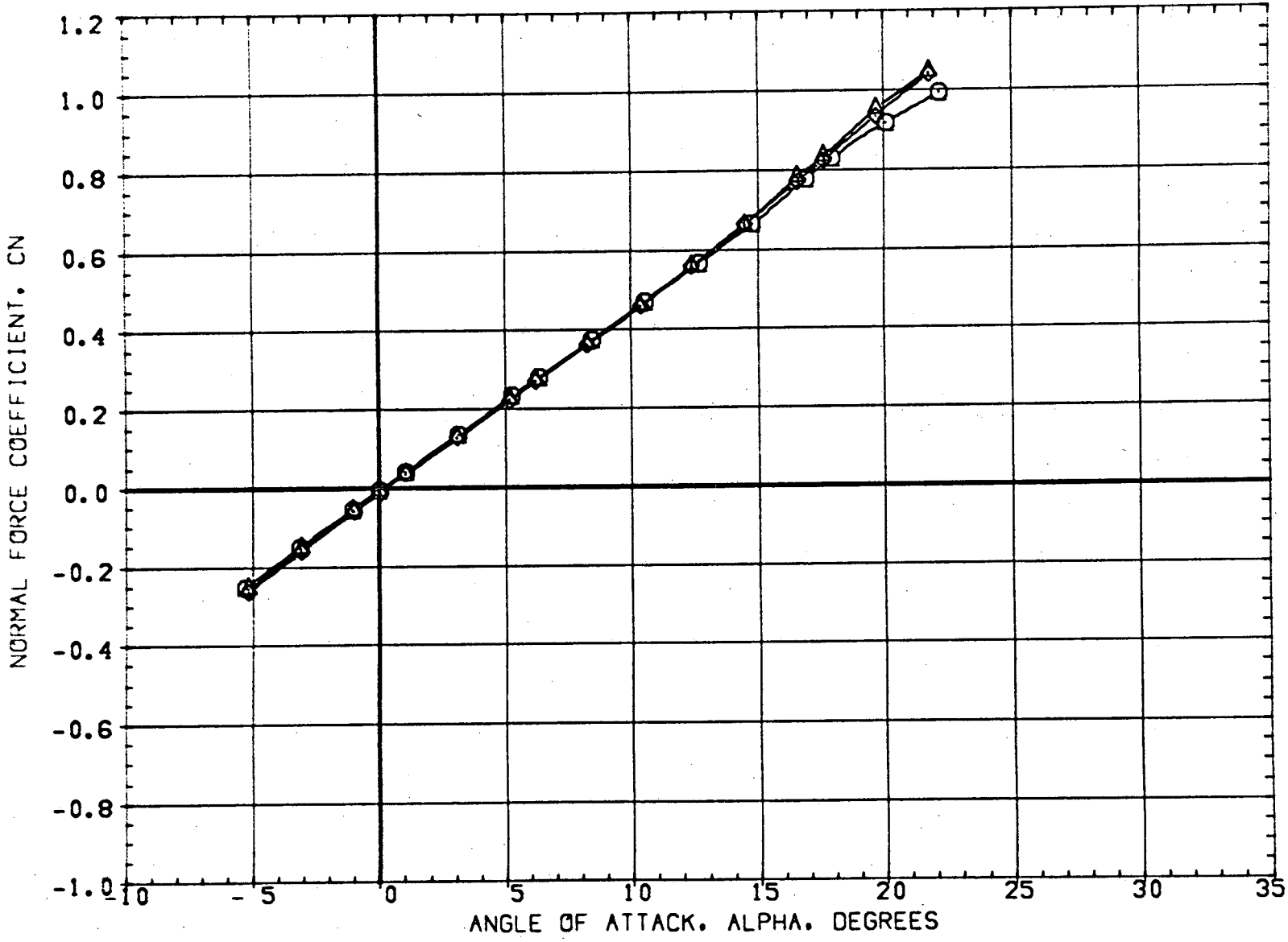

FIG. 27 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(AD6043)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W11 E3 V3 R2	0.260	0.000	0.000	0.000
(AD6064)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 R2	0.165	0.000	0.000	0.000
(AD6073)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 R2	0.165	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

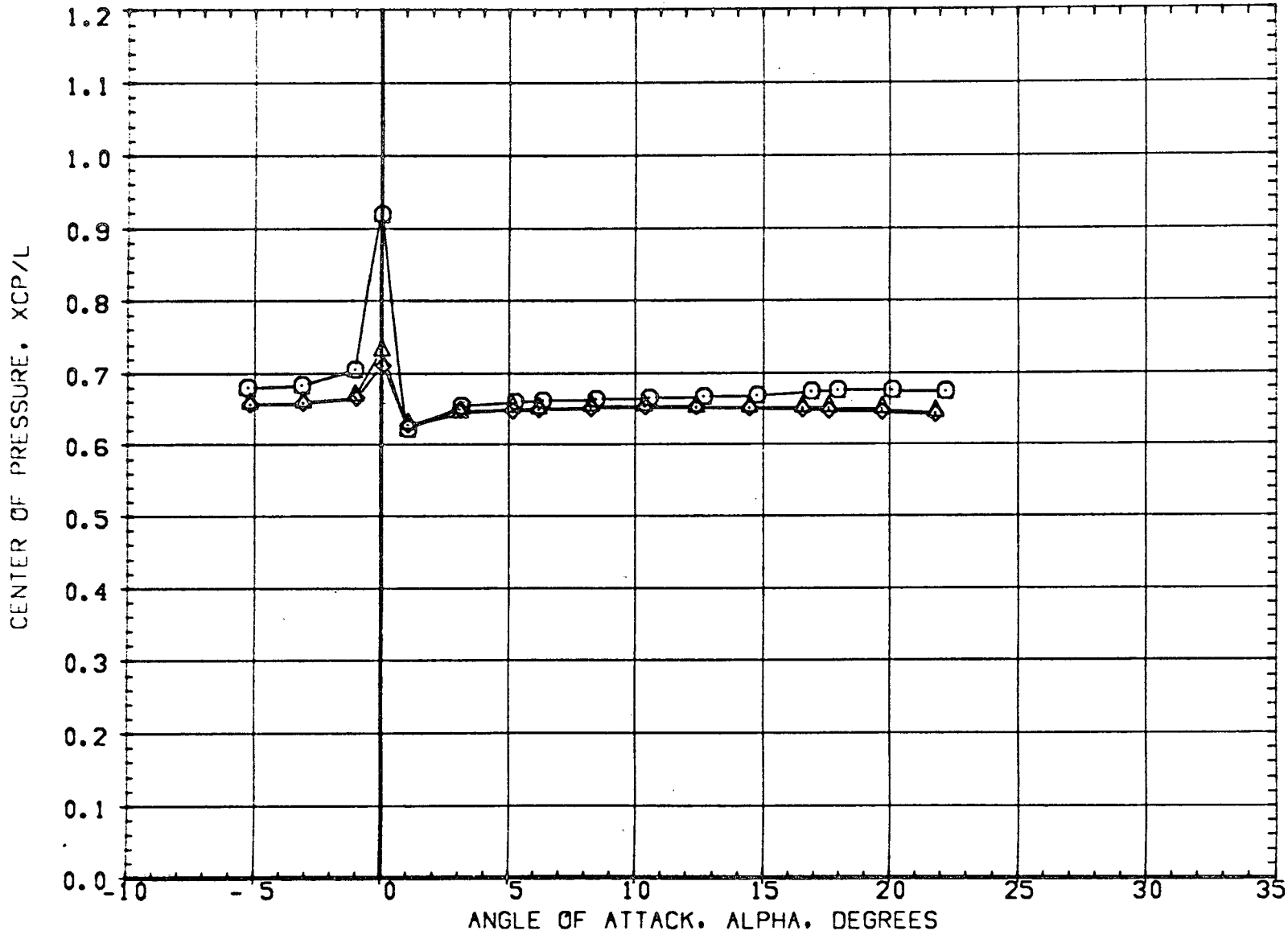

FIG. 27 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADC064)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.165	0.000	0.000	0.000
(ADC073)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.165	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

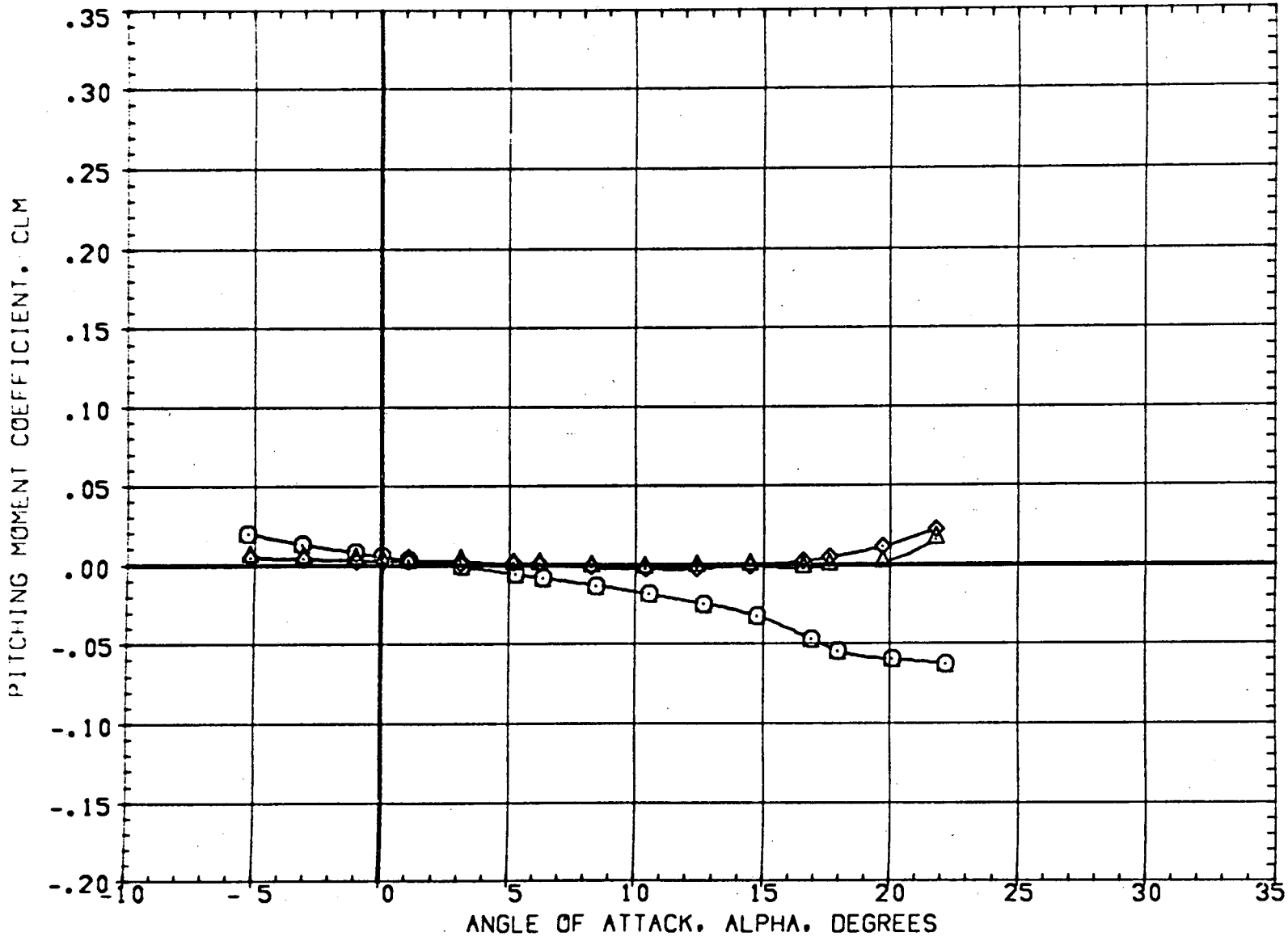

FIG. 27 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN PITCH

(A) MACH = .26

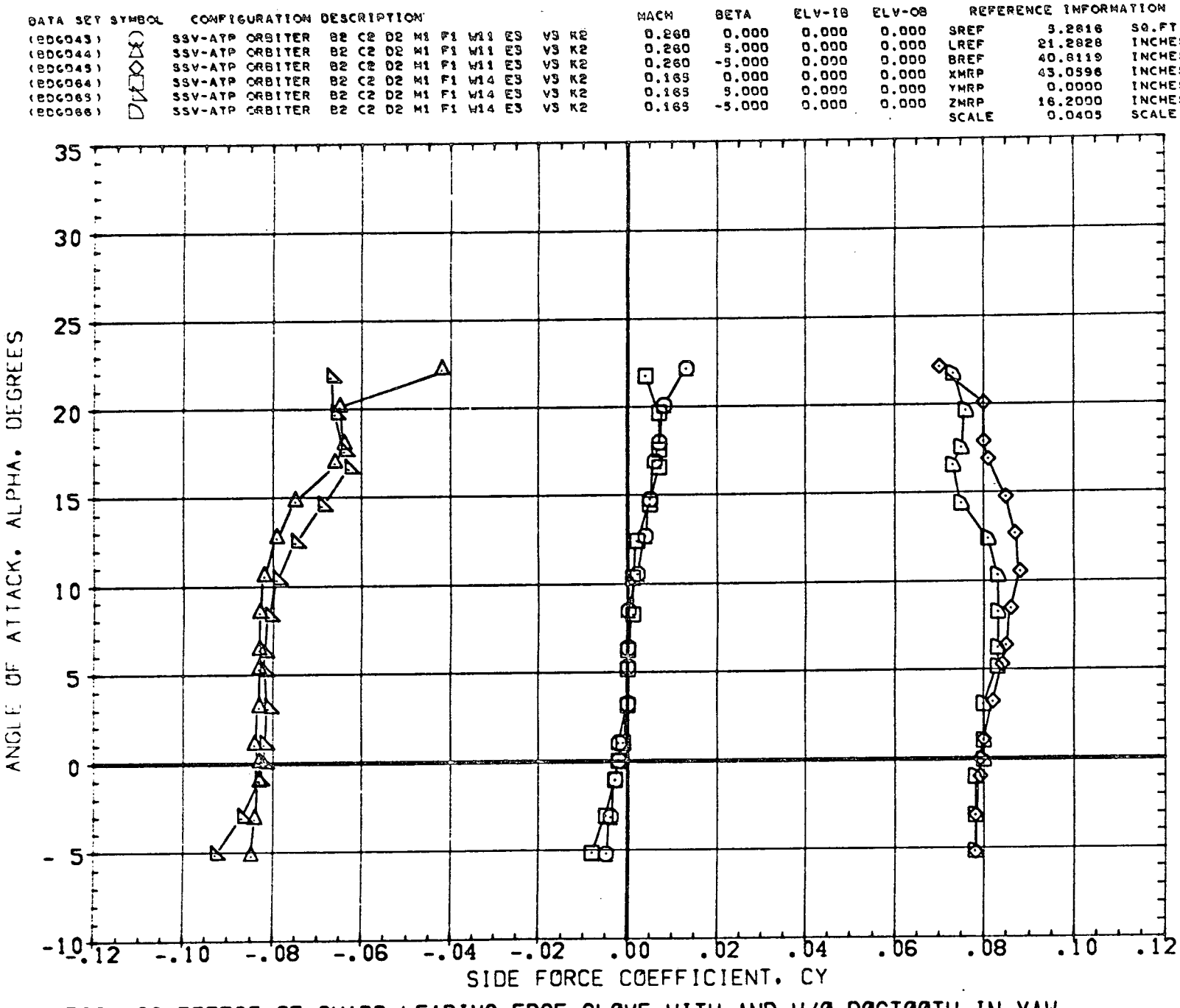

FIG. 28 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN YAW

(A)MACH = .26

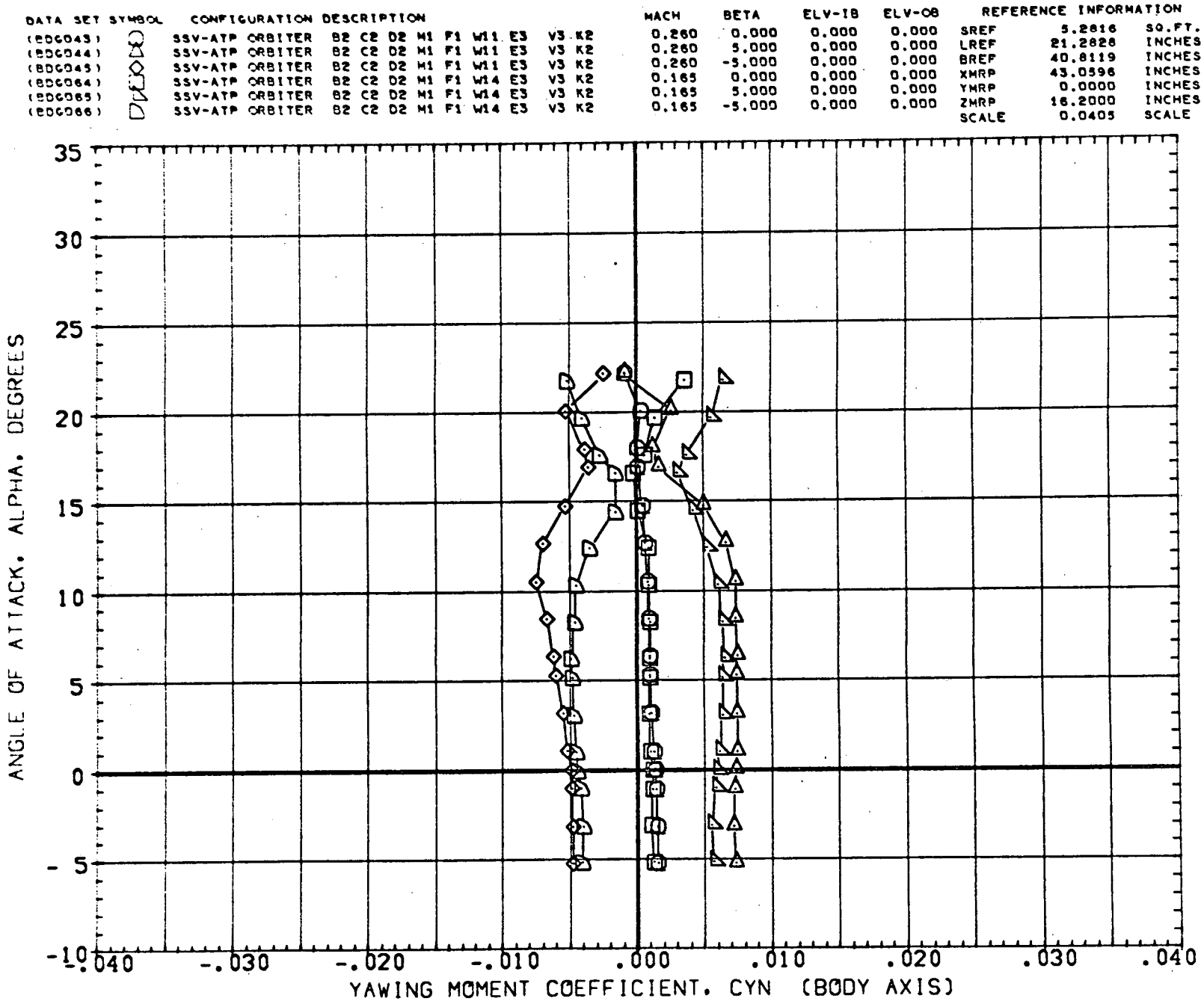

FIG. 28 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(BDC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(BDC044)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	5.000	0.000	0.000
(BDC045)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	-5.000	0.000	0.000
(BDC064)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.165	0.000	0.000	0.000
(BDC065)	▽	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.165	5.000	0.000	0.000
(BDC066)	⬠	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.165	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

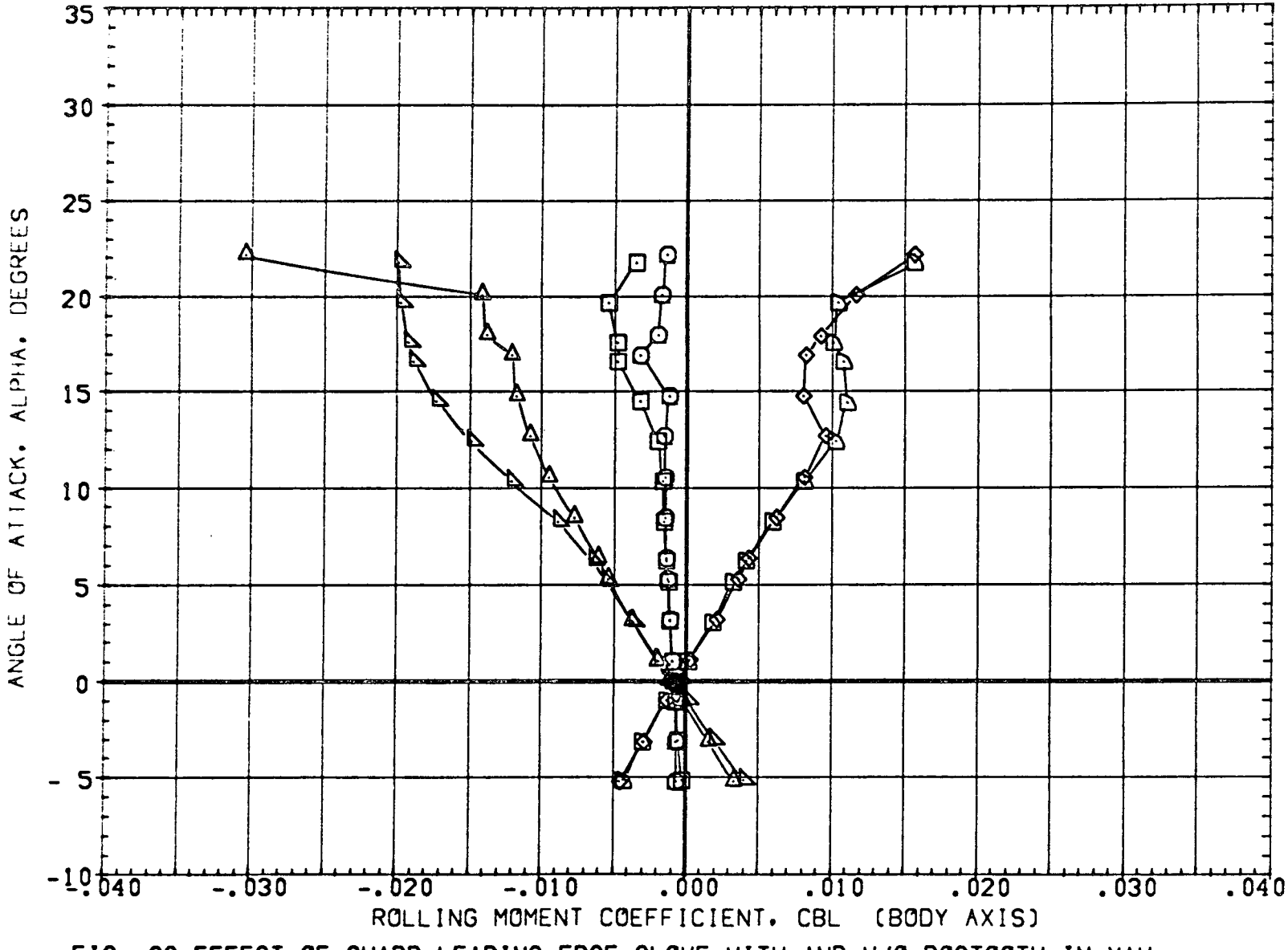

FIG. 28 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC064)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(BDC065)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	5.000	0.000	0.000
(BDC066)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	-5.000	0.000	0.000
(BDC073)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(BDC074)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	5.000	0.000	0.000
(BDC075)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

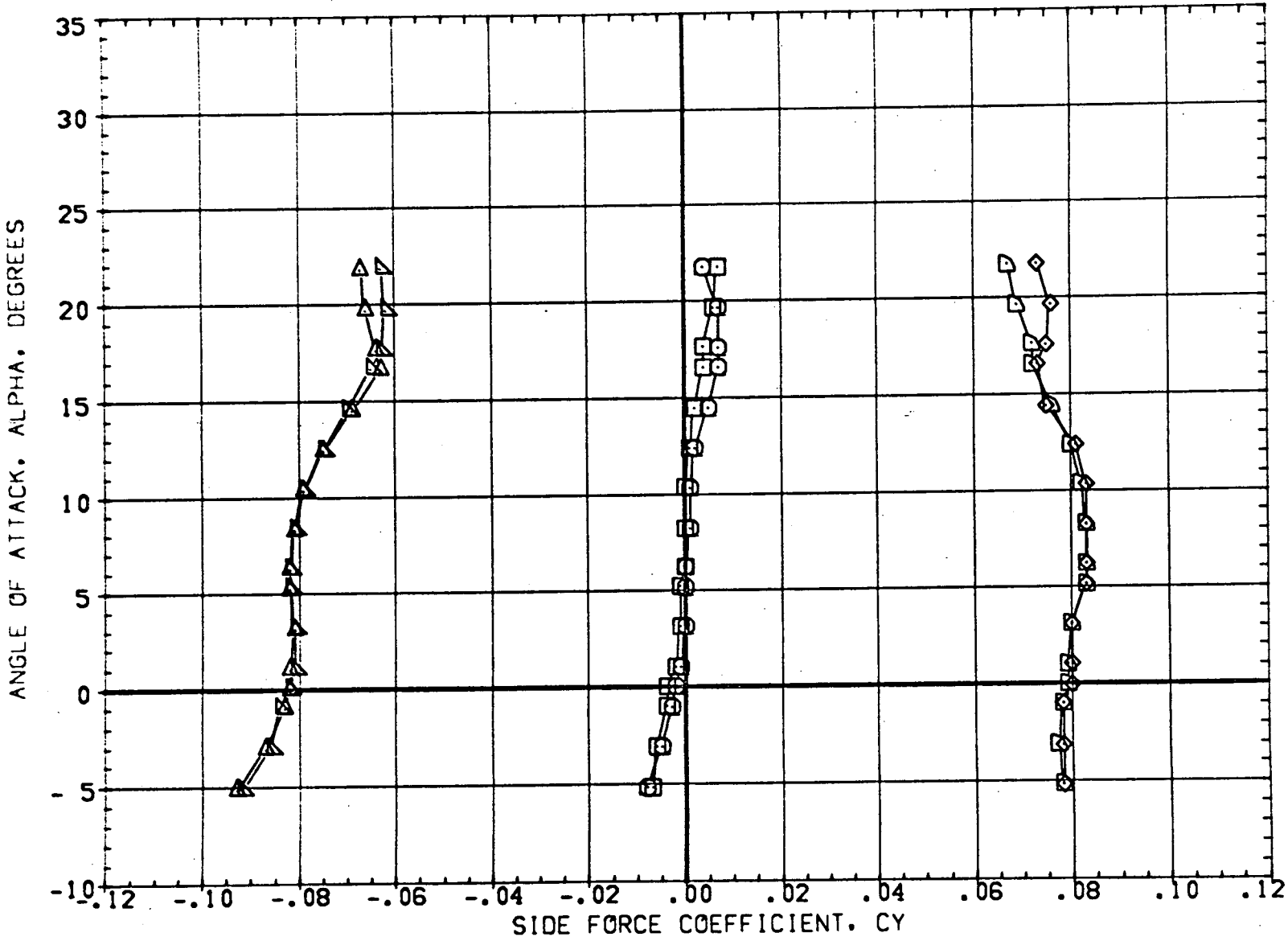

FIG. 28 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC064)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(BDC065)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	5.000	0.000	0.000
(BDC066)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	-5.000	0.000	0.000
(BDC073)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(BDC074)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	5.000	0.000	0.000
(BDC075)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

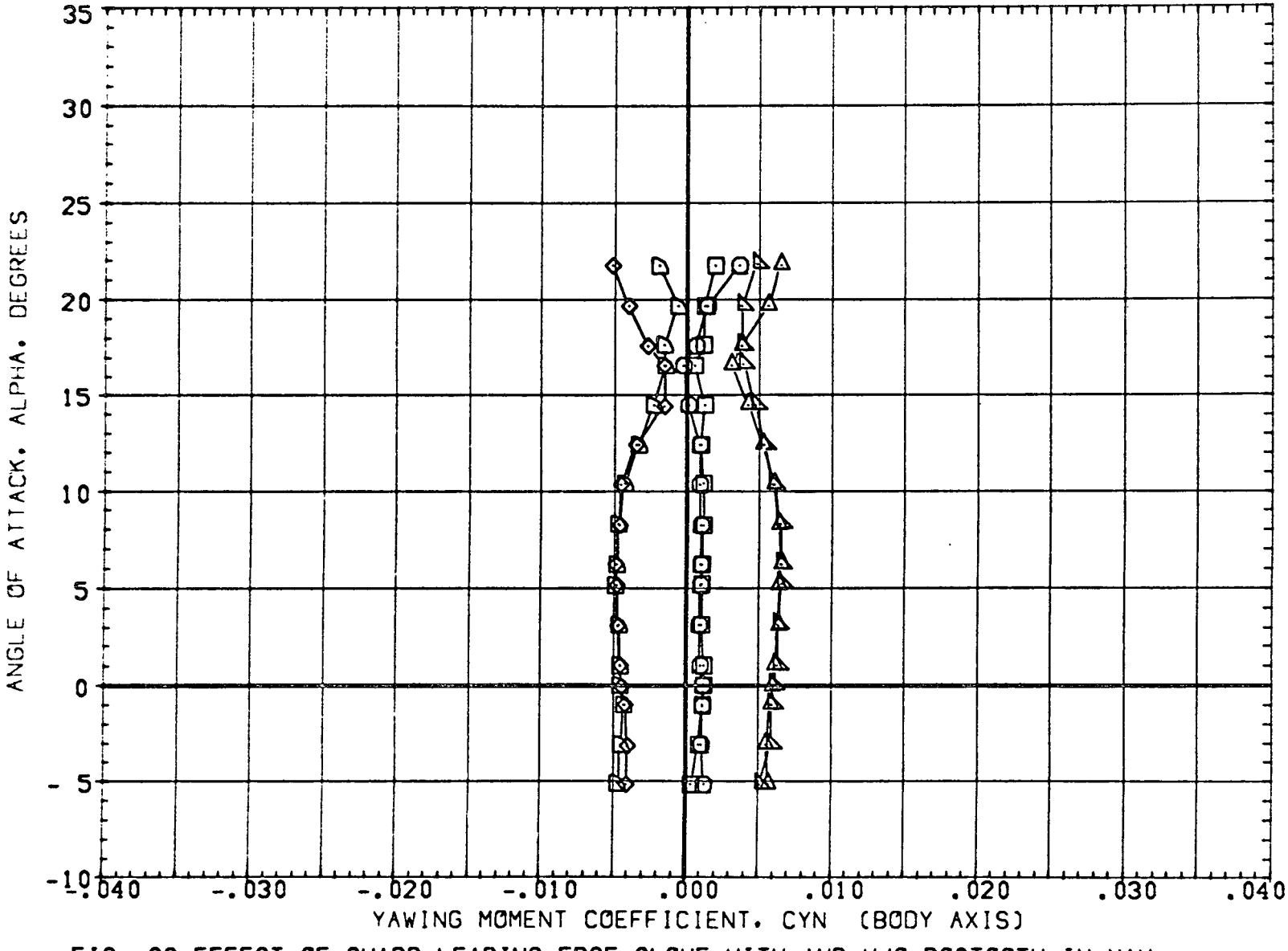

FIG. 28 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC064)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(BDC065)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	5.000	0.000	0.000
(BDC066)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	-5.000	0.000	0.000
(BDC073)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(BDC074)	▽	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	5.000	0.000	0.000
(BDC075)	◁	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

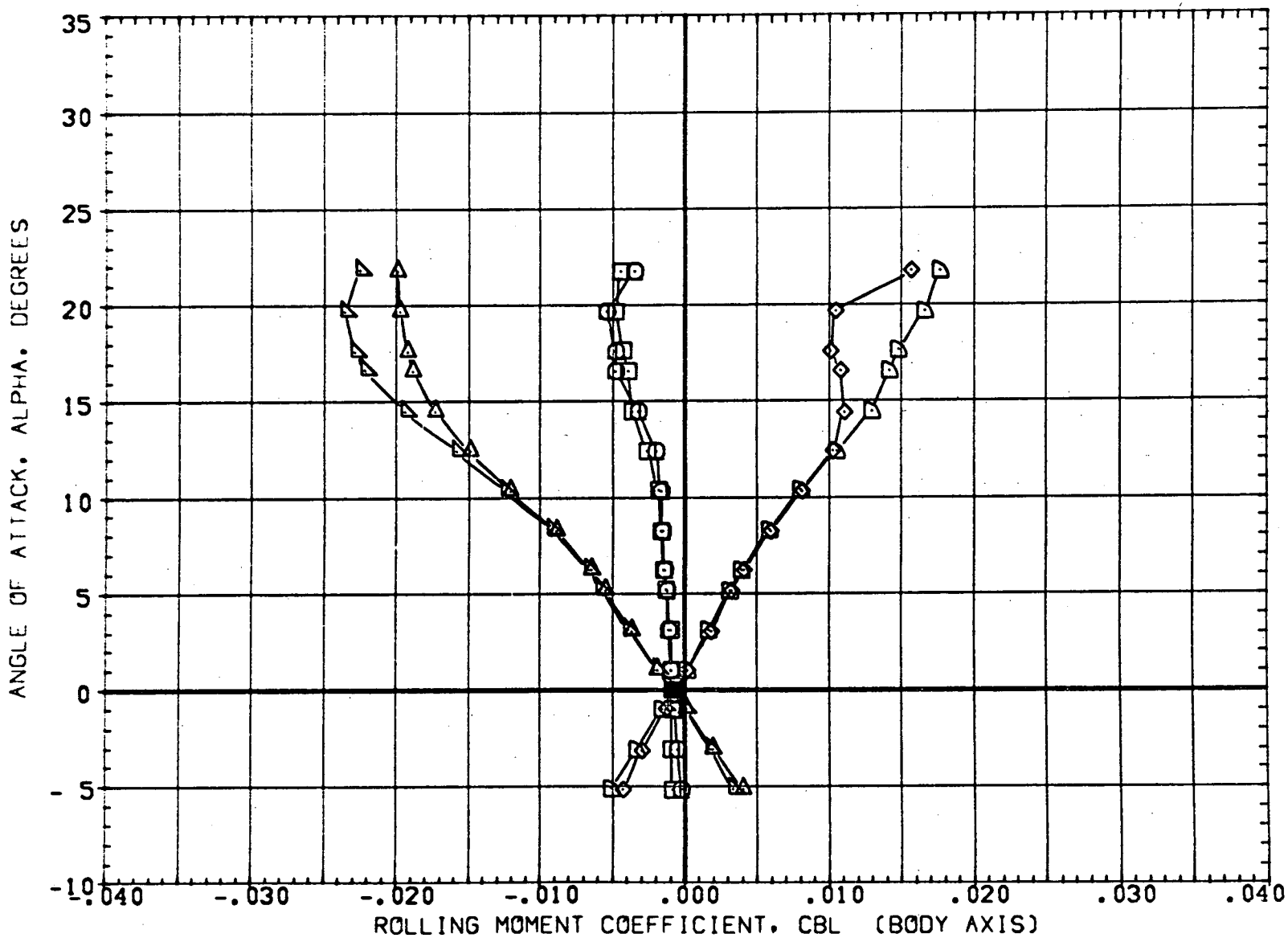

FIG. 28 EFFECT OF SHARP LEADING EDGE GLOVE WITH AND W/O DOGTOOTH IN YAW

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6079)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

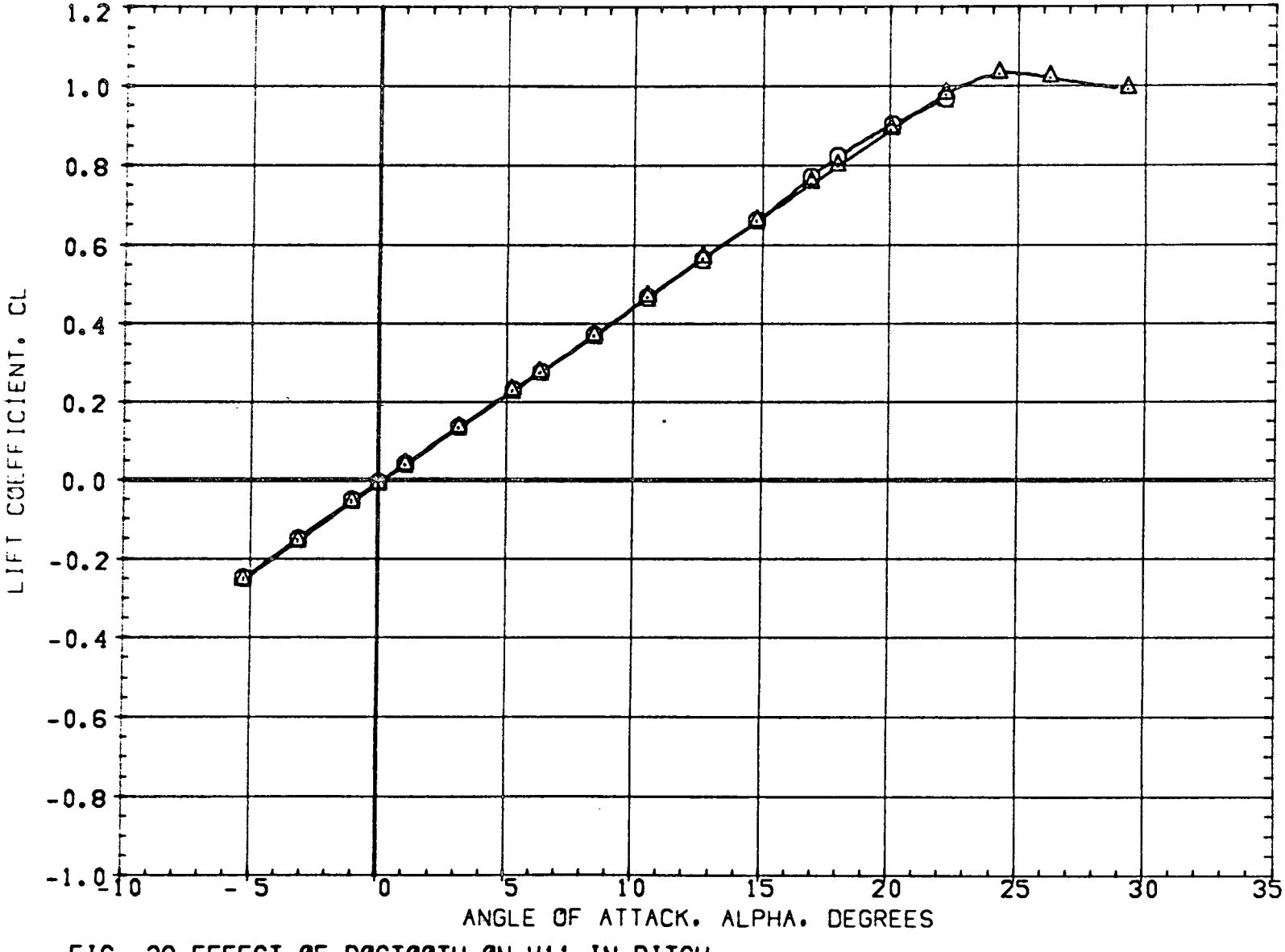

FIG. 29 EFFECT OF DOGTOOTH ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC077)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

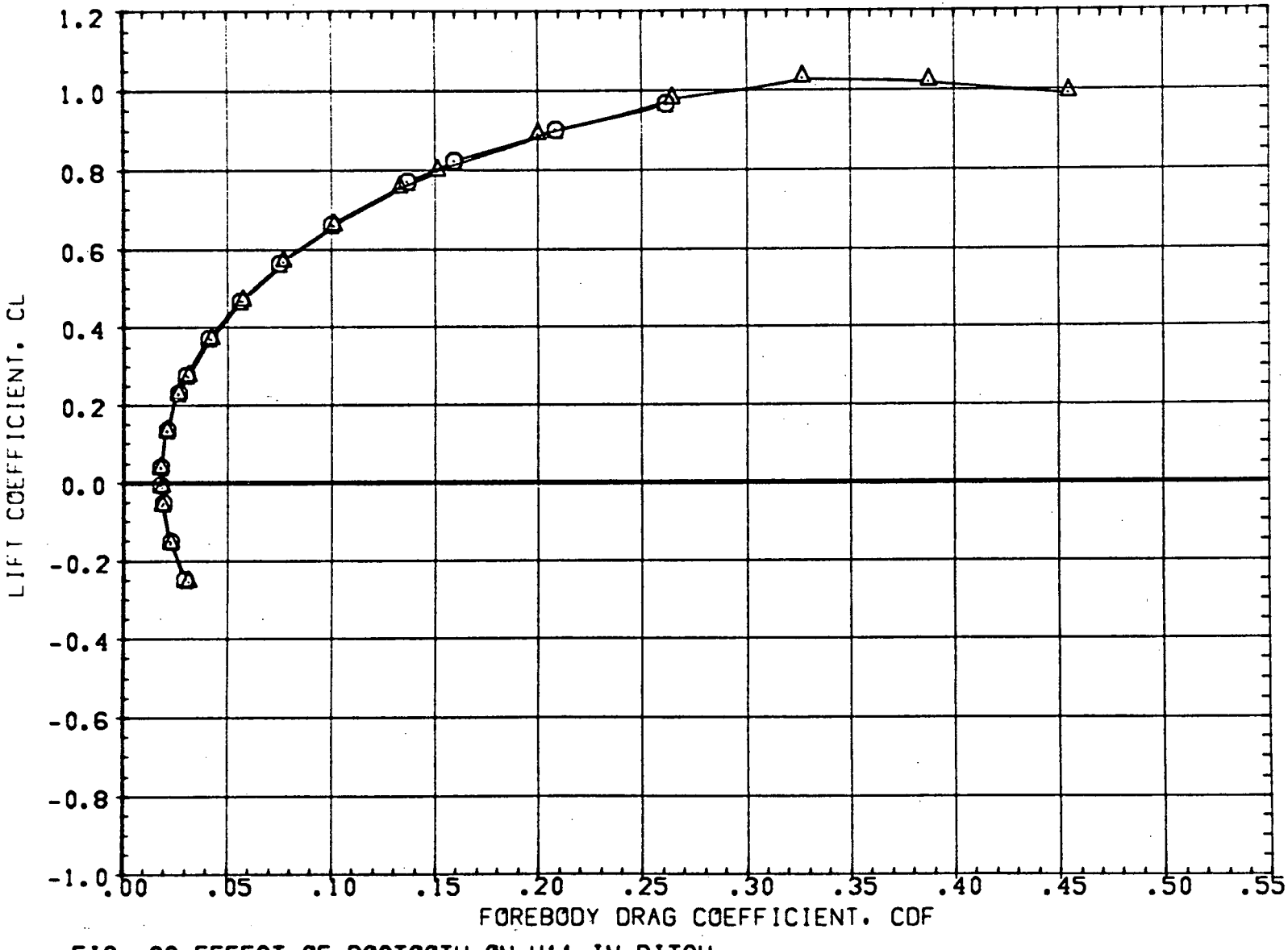

FIG. 29 EFFECT OF DOGTOOTH ON W11 IN PITCH

(A)MACH = .26

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC077)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

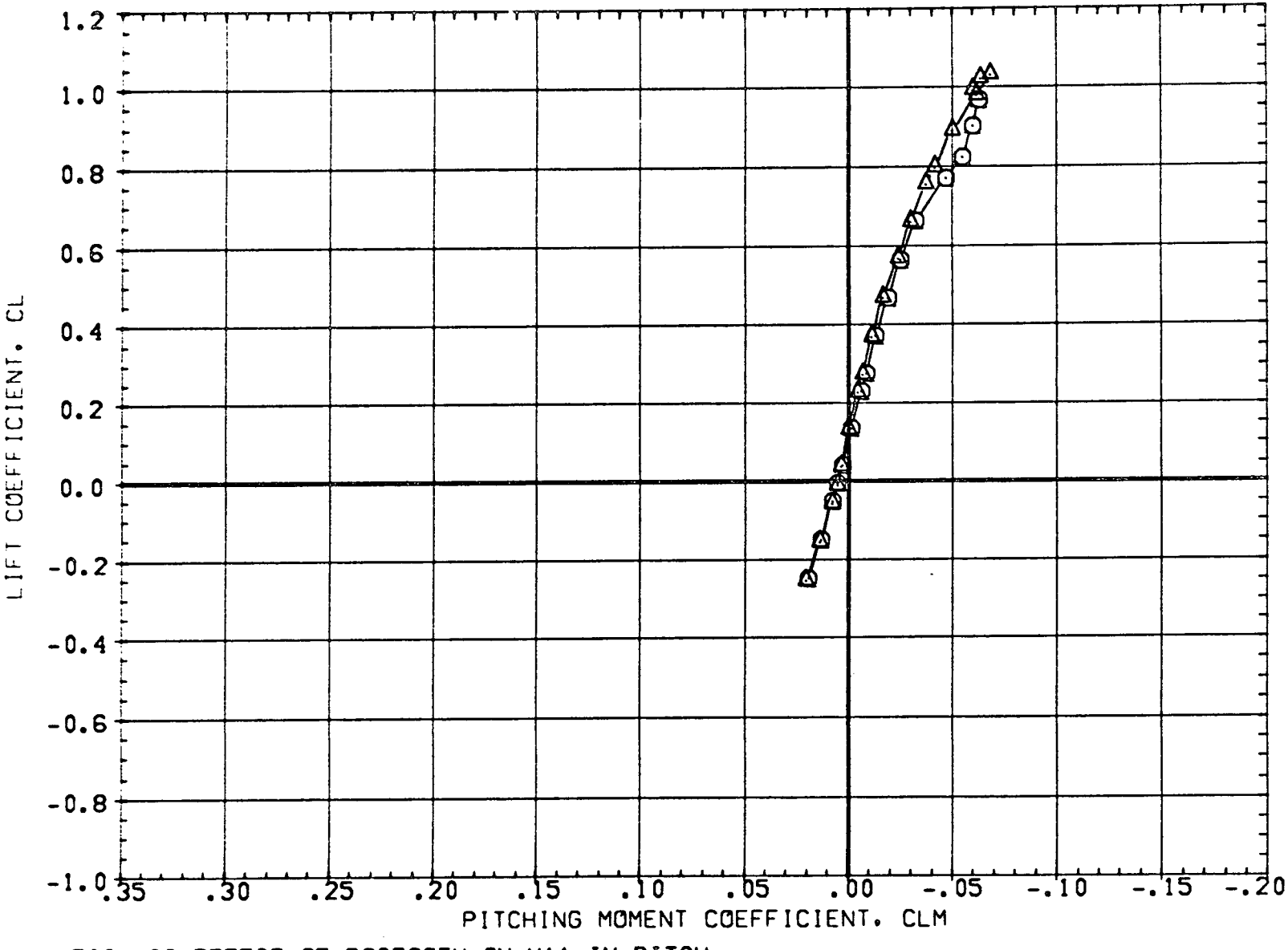

FIG. 29 EFFECT OF DOGTOOTH ON W11 IN PITCH

(A) MACH = .26

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG077)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

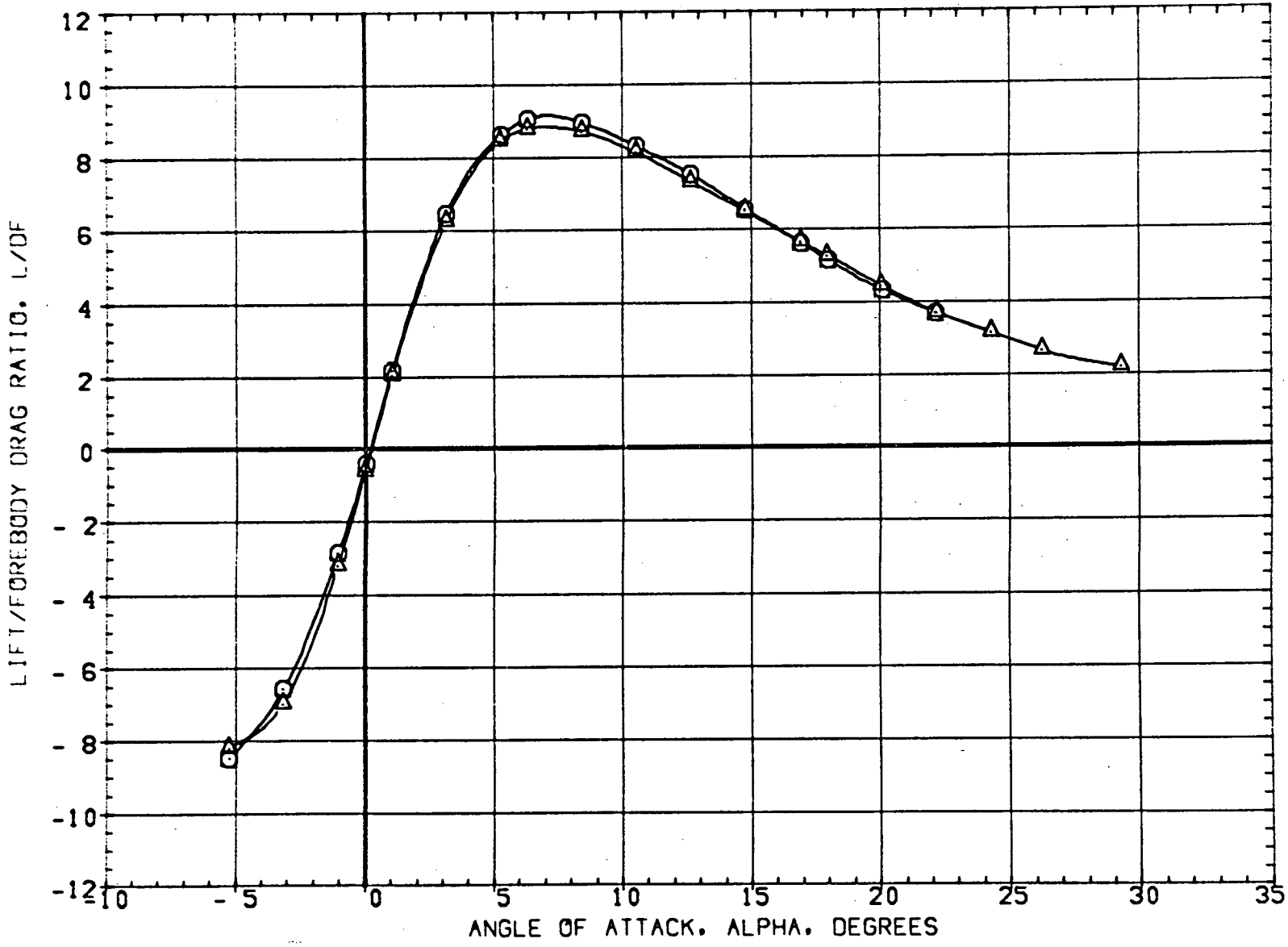

FIG. 29 EFFECT OF DOGTOOTH ON W11 IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	◯	SSV-ATP ORBITER B2 C2 D2 H1 P1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC077)	△	SSV-ATP ORBITER B2 C2 D2 H1 P1 W16 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

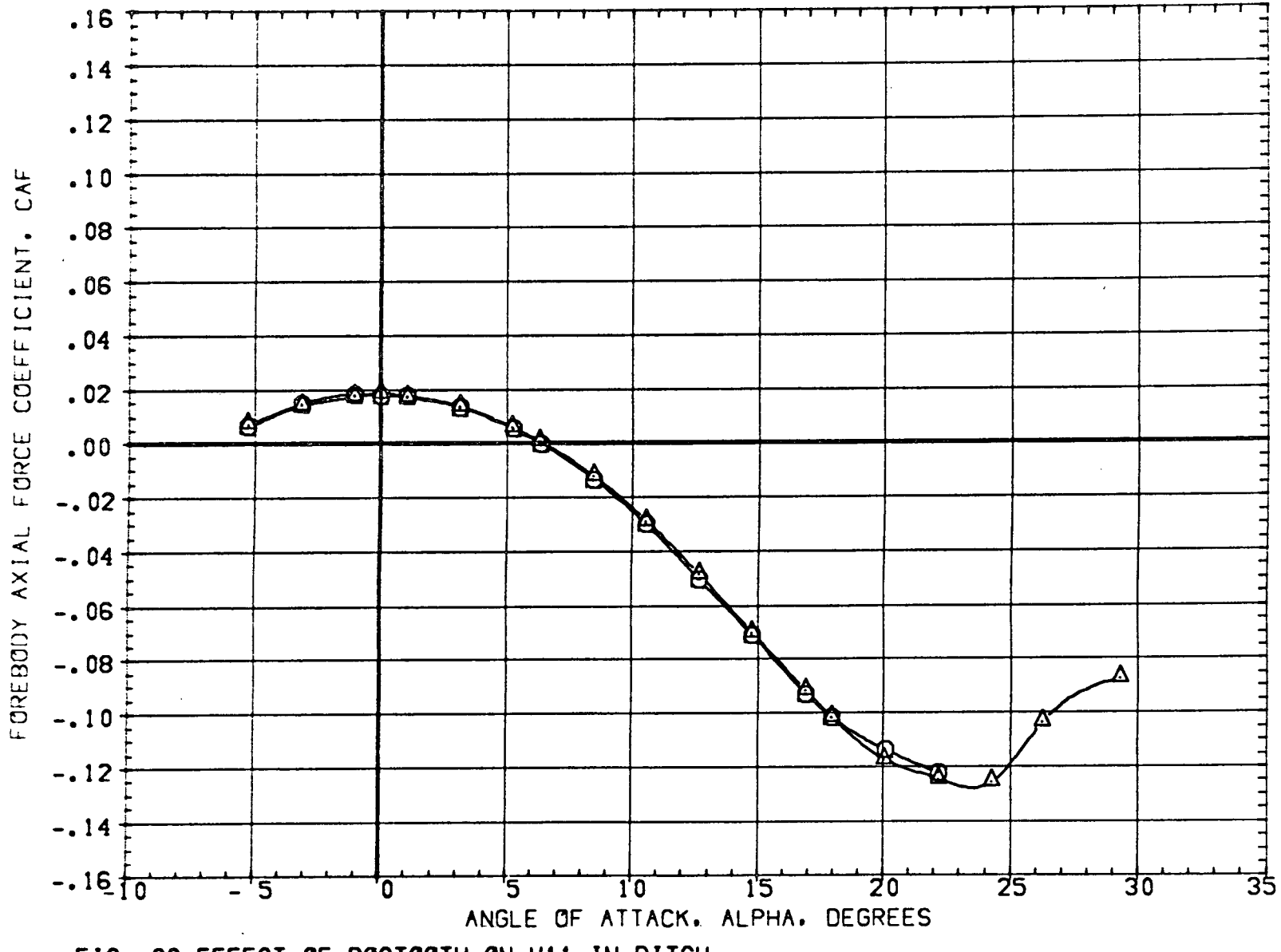

FIG. 29 EFFECT OF DOGTOOTH ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC043)	☒	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADC077)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

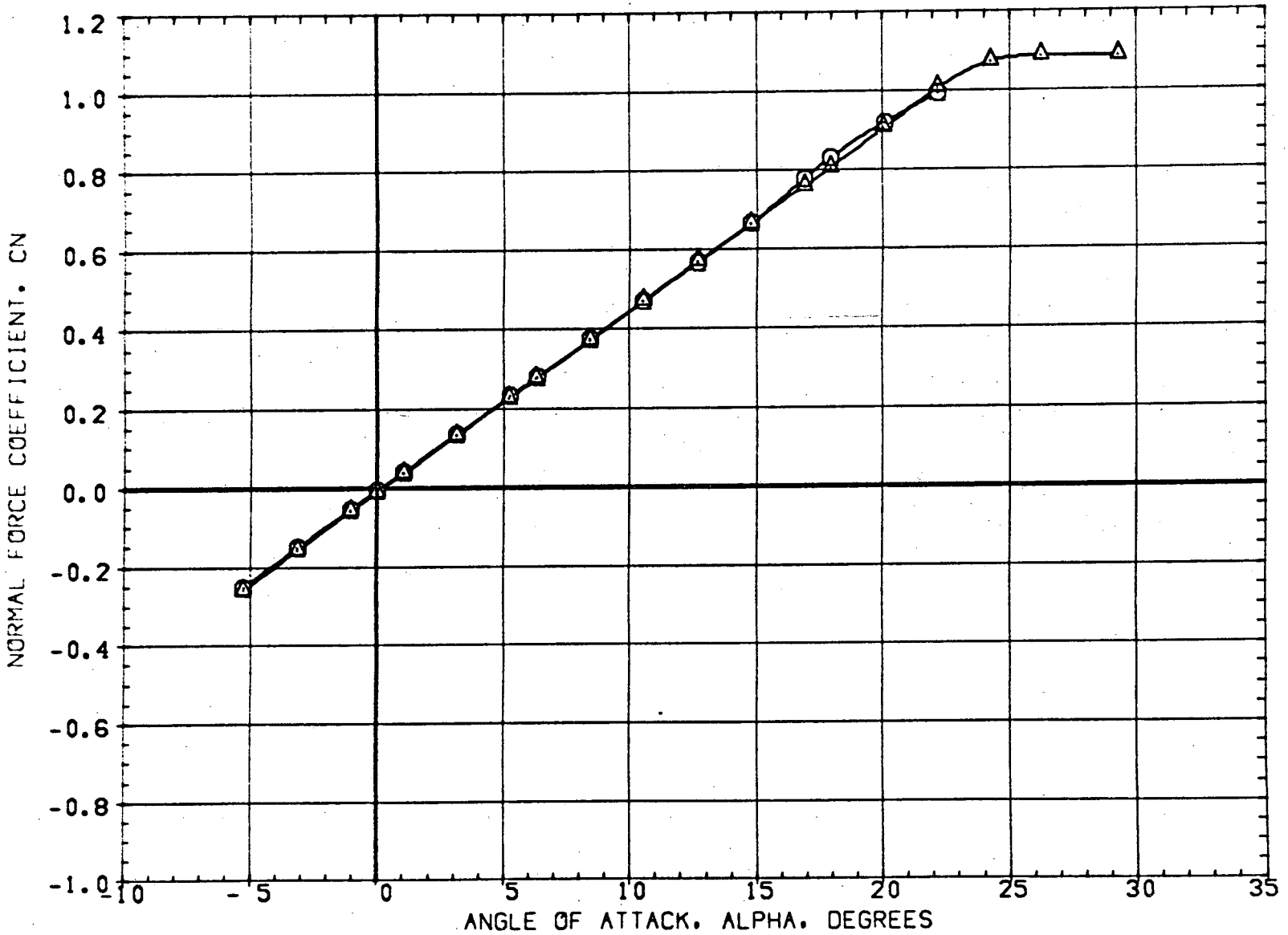

FIG. 29 EFFECT OF DOGTOOTH ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(AD6077)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

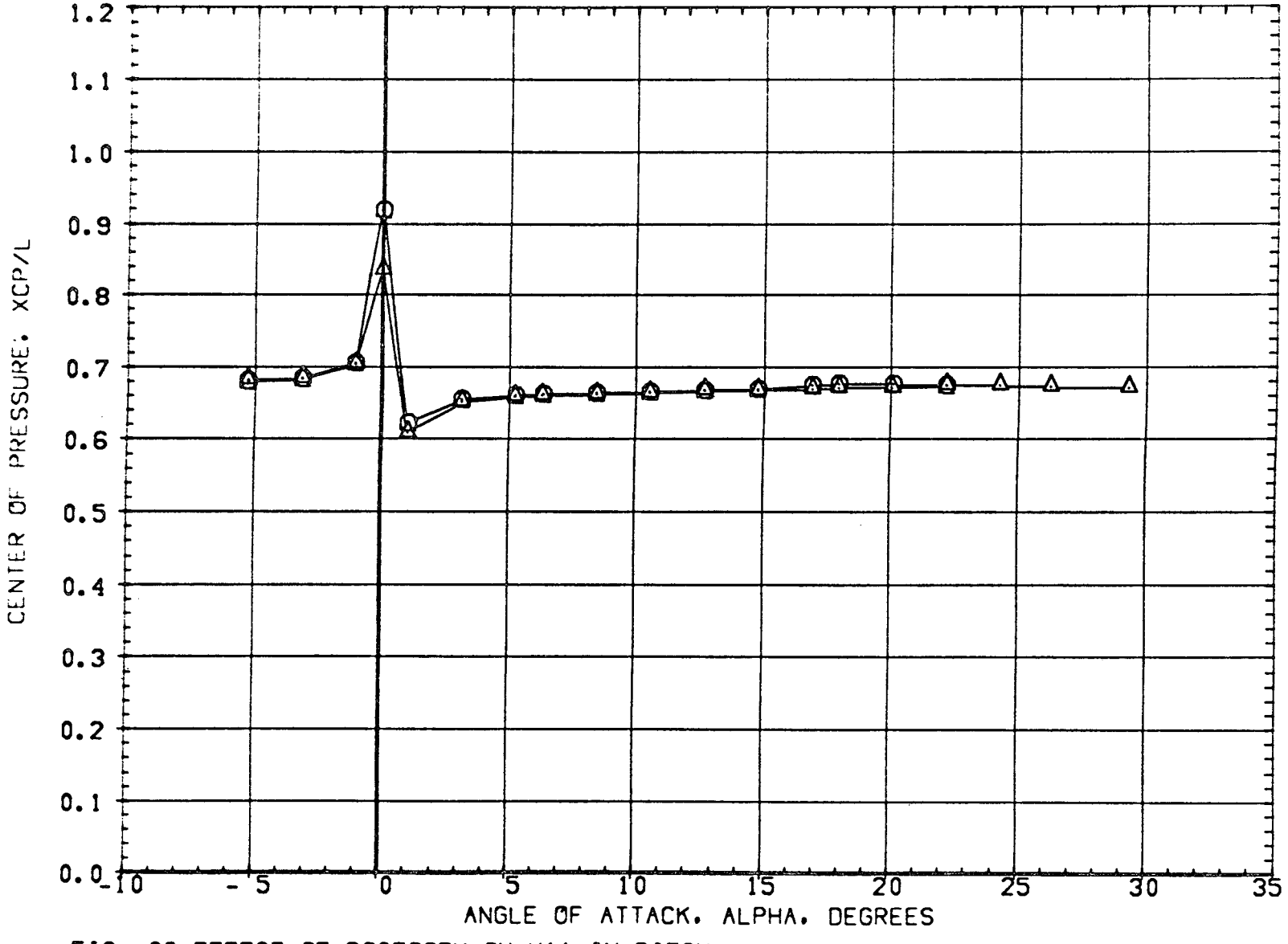

FIG. 29 EFFECT OF DOGTOOTH ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG043)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(ADG077)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2616	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

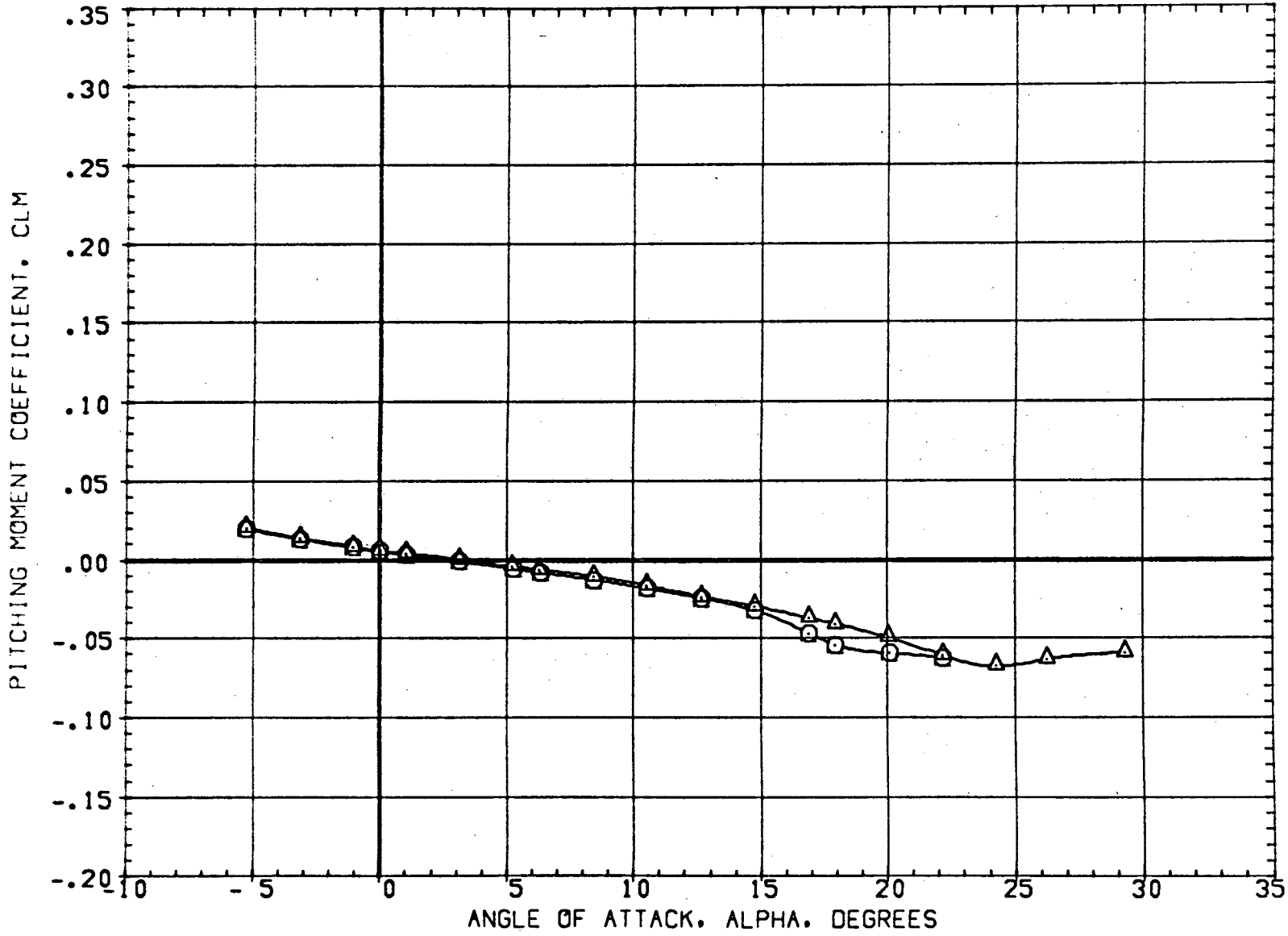

FIG. 29 EFFECT OF DOGTOOTH ON W11 IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(BDC044)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	5.000	0.000	0.000
(BDC045)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(BDC077)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000
(BDC078)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	5.000	0.000	0.000
(BDC079)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	-5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0598	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

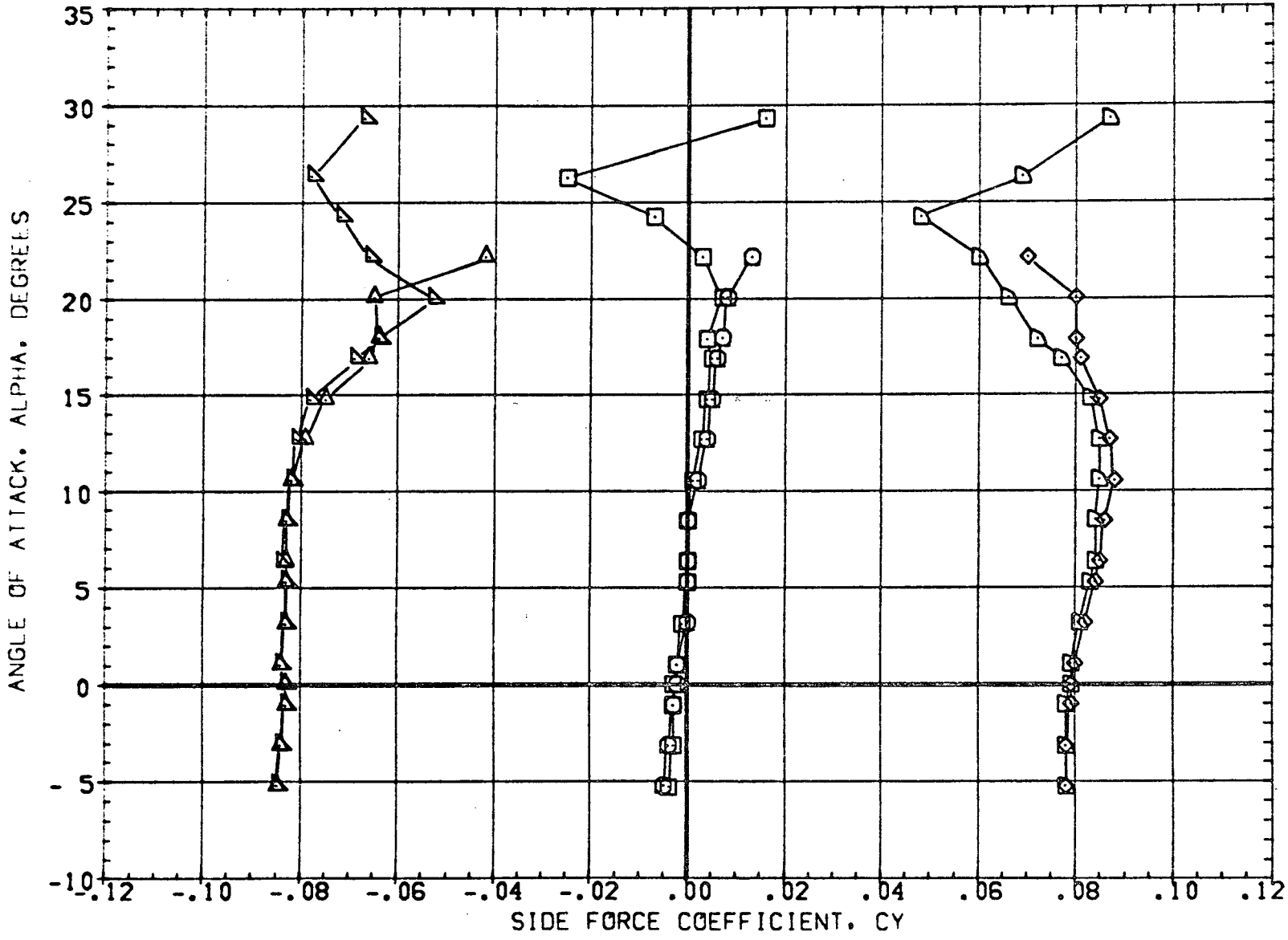

FIG. 30 EFFECT OF DOGTOOTH ON W11 IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(EDG043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.000	0.000	0.000
(EDG044)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	5.000	0.000	0.000
(EDG045)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	-5.000	0.000	0.000
(EDG077)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	0.000	0.000	0.000
(EDG078)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	5.000	0.000	0.000
(EDG079)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2	-5.000	0.000	0.000

DOGTOOTH

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

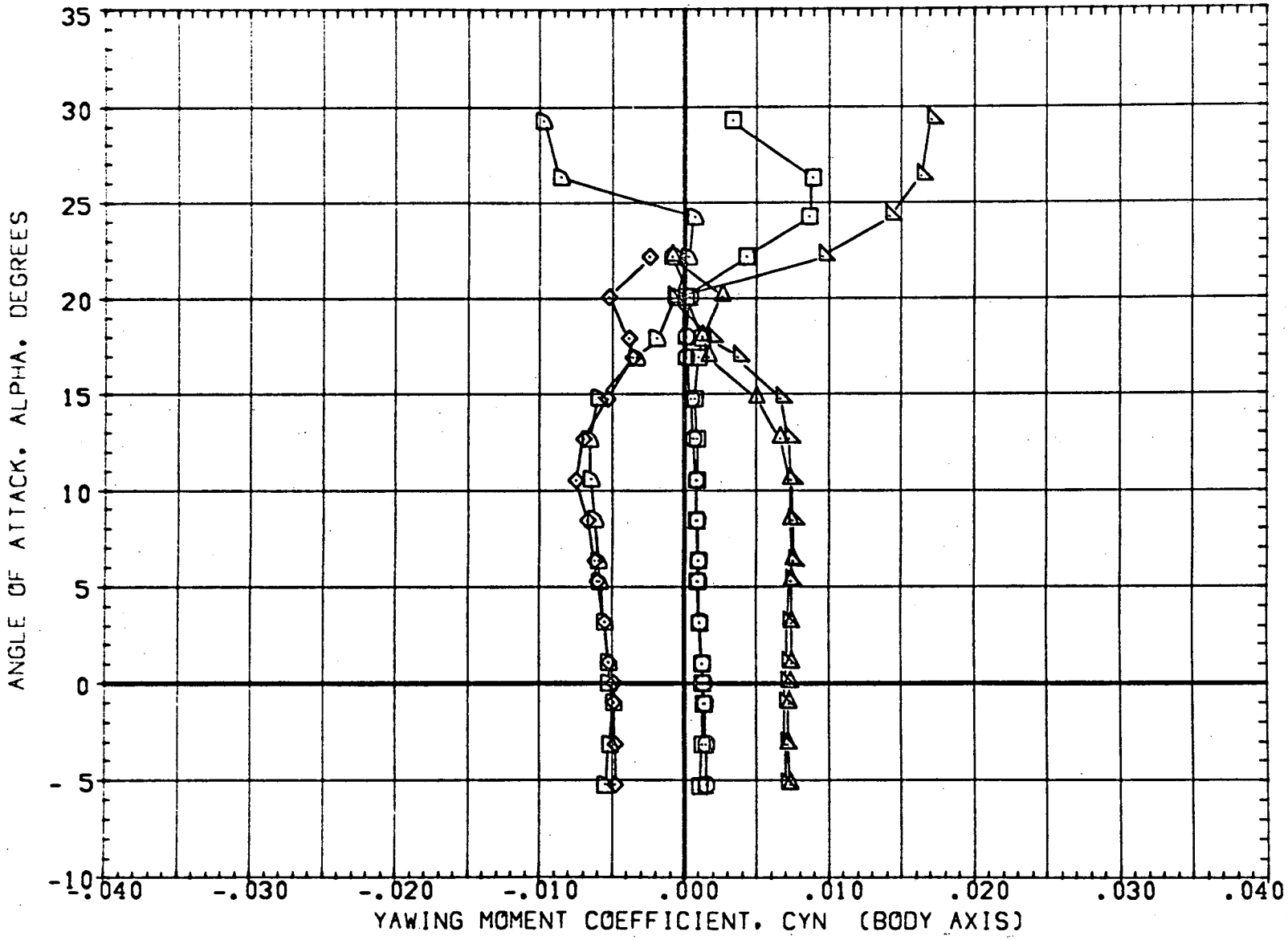

FIG. 30 EFFECT OF DOGTOOTH ON W11 IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 R2	0.000	0.000	0.000
(BDC044)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 R2	5.000	0.000	0.000
(BDC045)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 R2	-5.000	0.000	0.000
(BDC077)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 R2	0.000	0.000	0.000
(BDC078)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 R2	5.000	0.000	0.000
(BDC079)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 R2	-5.000	0.000	0.000

REFERENCE INFORMATION

SREF	3.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0996	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0409	SCALE

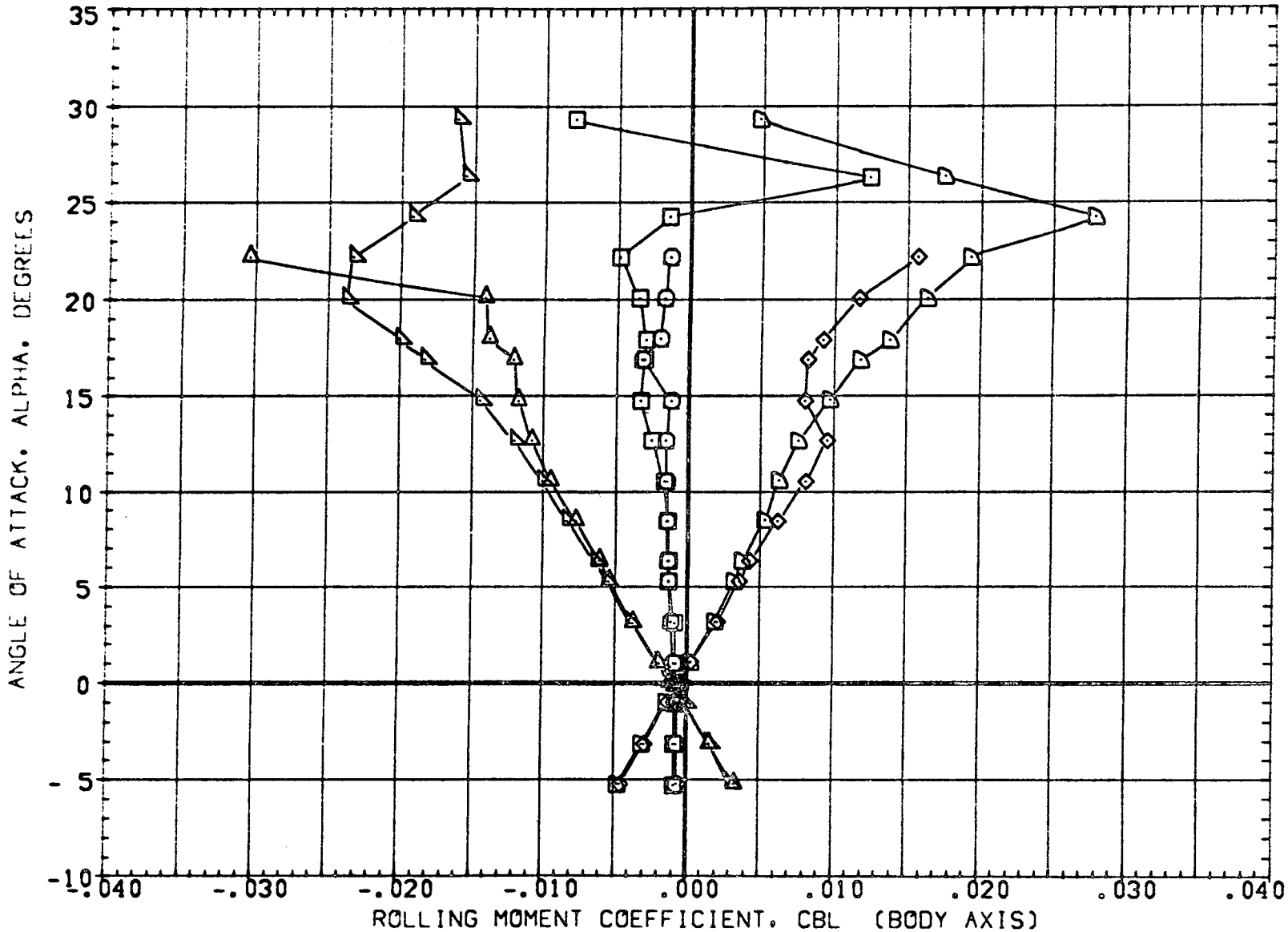

FIG. 30 EFFECT OF DOGTOOTH ON W11 IN YAW

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADG043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADG051)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	-5.000	-5.000
(ADG080)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.165	0.000	0.000	0.000
(ADG084)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	0.000	0.000
(ADG085)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

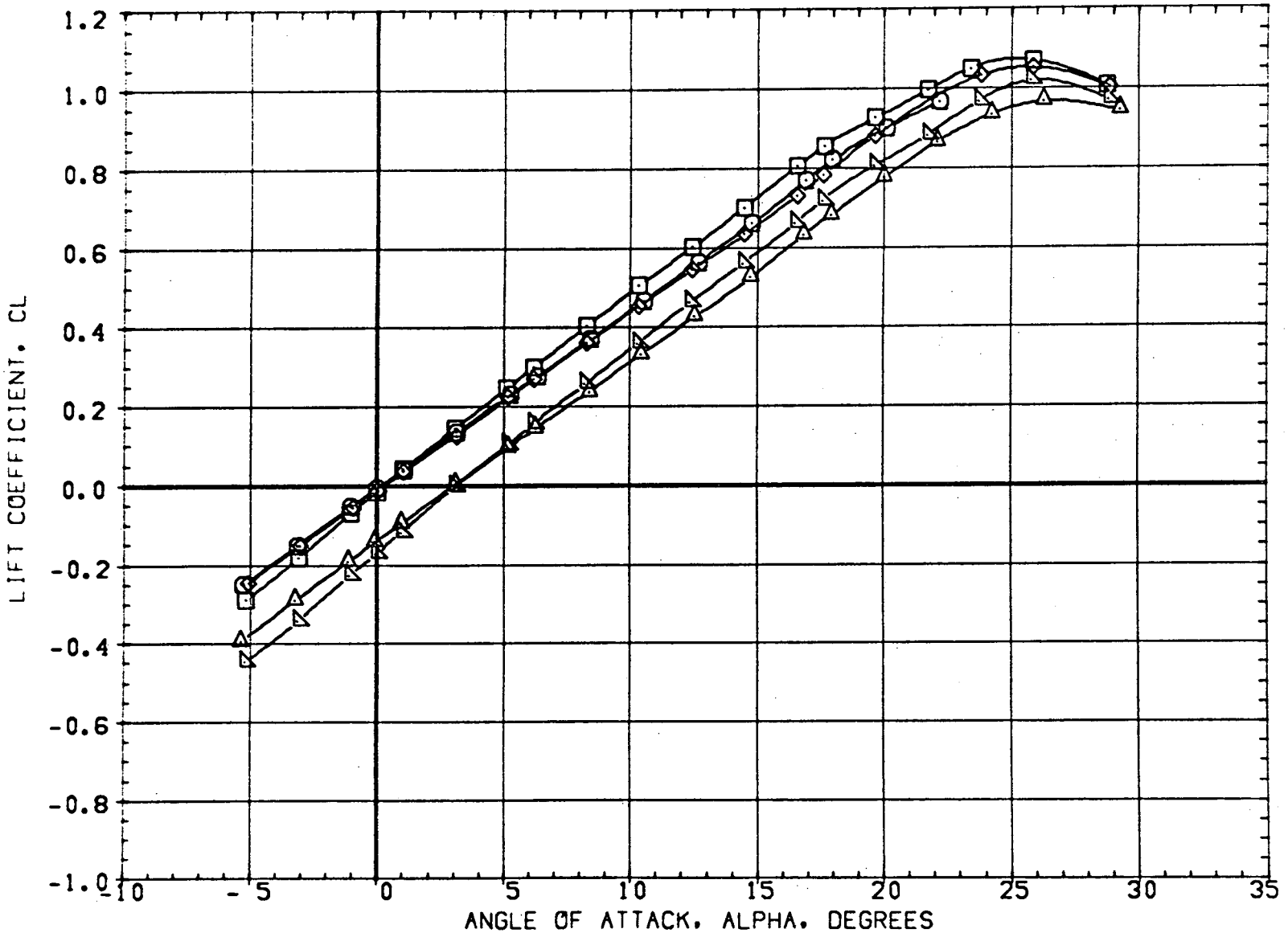

FIG. 31 EFFECT OF WING ASPECT RATIO IN PITCH, ELEVON EFFECTIVENESS

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADC051)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	-5.000	-5.000
(ADC080)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.165	0.000	0.000	0.000
(ADC084)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	0.000	0.000
(ADC085)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	3.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	49.0998	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

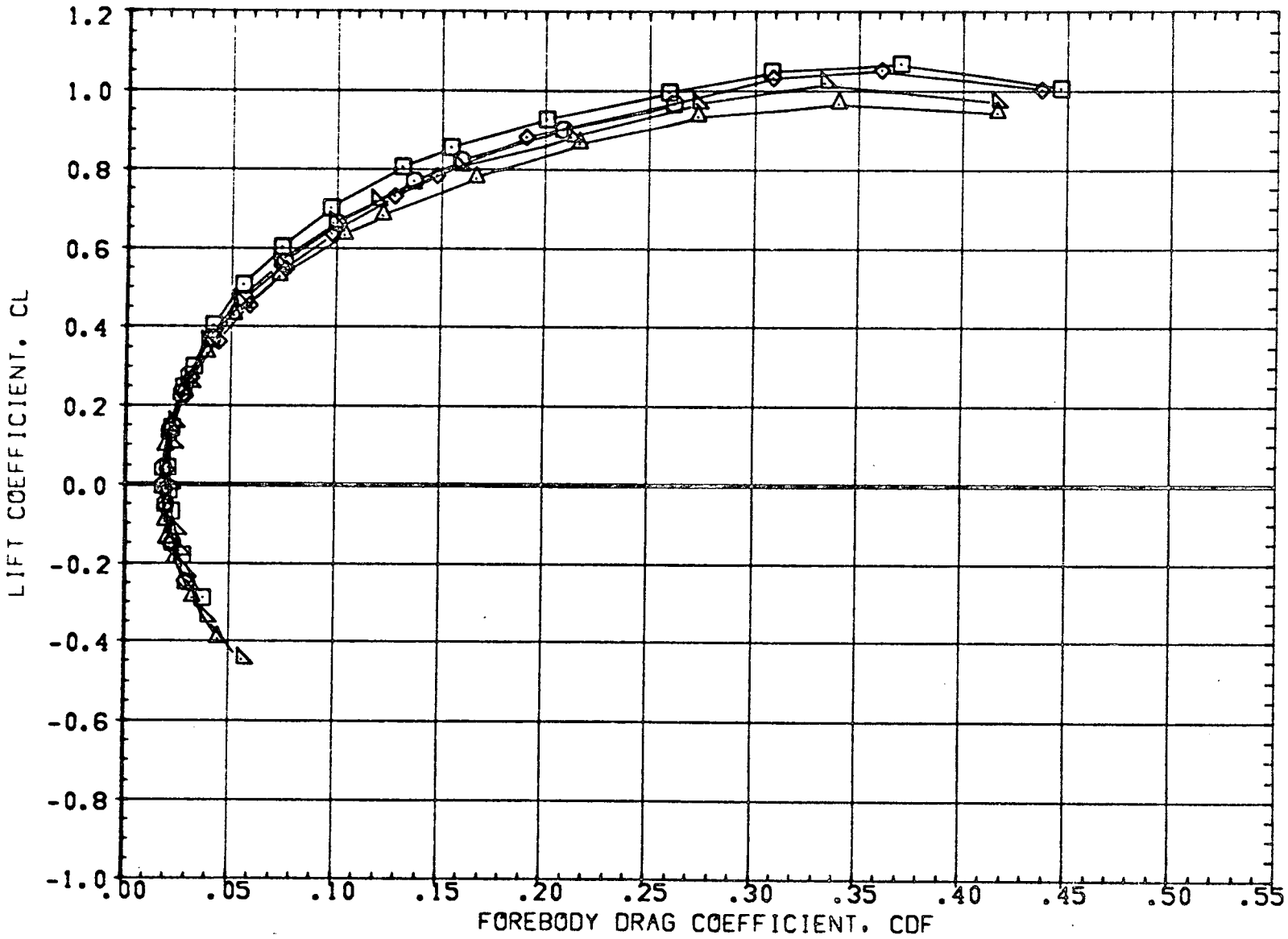

FIG. 31 EFFECT OF WING ASPECT RATIO IN PITCH, ELEVON EFFECTIVENESS

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADG043)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADG031)	▽	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	-5.000	-5.000
(ADG080)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.165	0.000	0.000	0.000
(ADG084)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	0.000	0.000
(ADG085)	⊠	SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

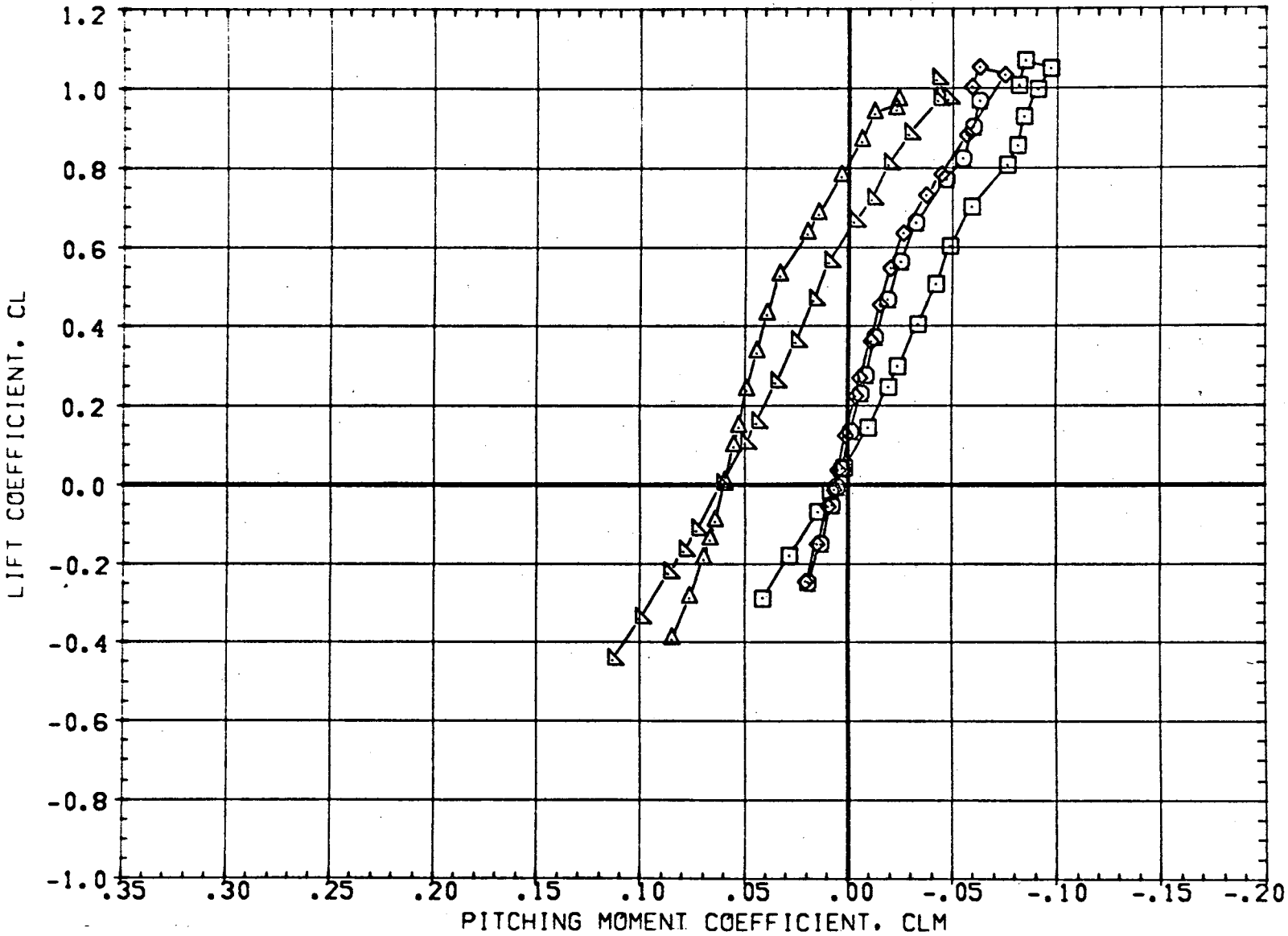

FIG. 31 EFFECT OF WING ASPECT RATIO IN PITCH, ELEVON EFFECTIVENESS

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB	REFERENCE INFORMATION		
(ADC043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000	SREF	9.2816	SQ.FT.
(ADC051)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	-5.000	-5.000	LREF	21.2628	INCHES
(ADC080)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.165	0.000	0.000	0.000	BREF	40.8119	INCHES
(ADC084)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	0.000	0.000	XMRP	43.0596	INCHES
(ADC085)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	-5.000	-5.000	YMRP	0.0000	INCHES
							ZMRP	16.2000	INCHES
							SCALE	0.0405	SCALE

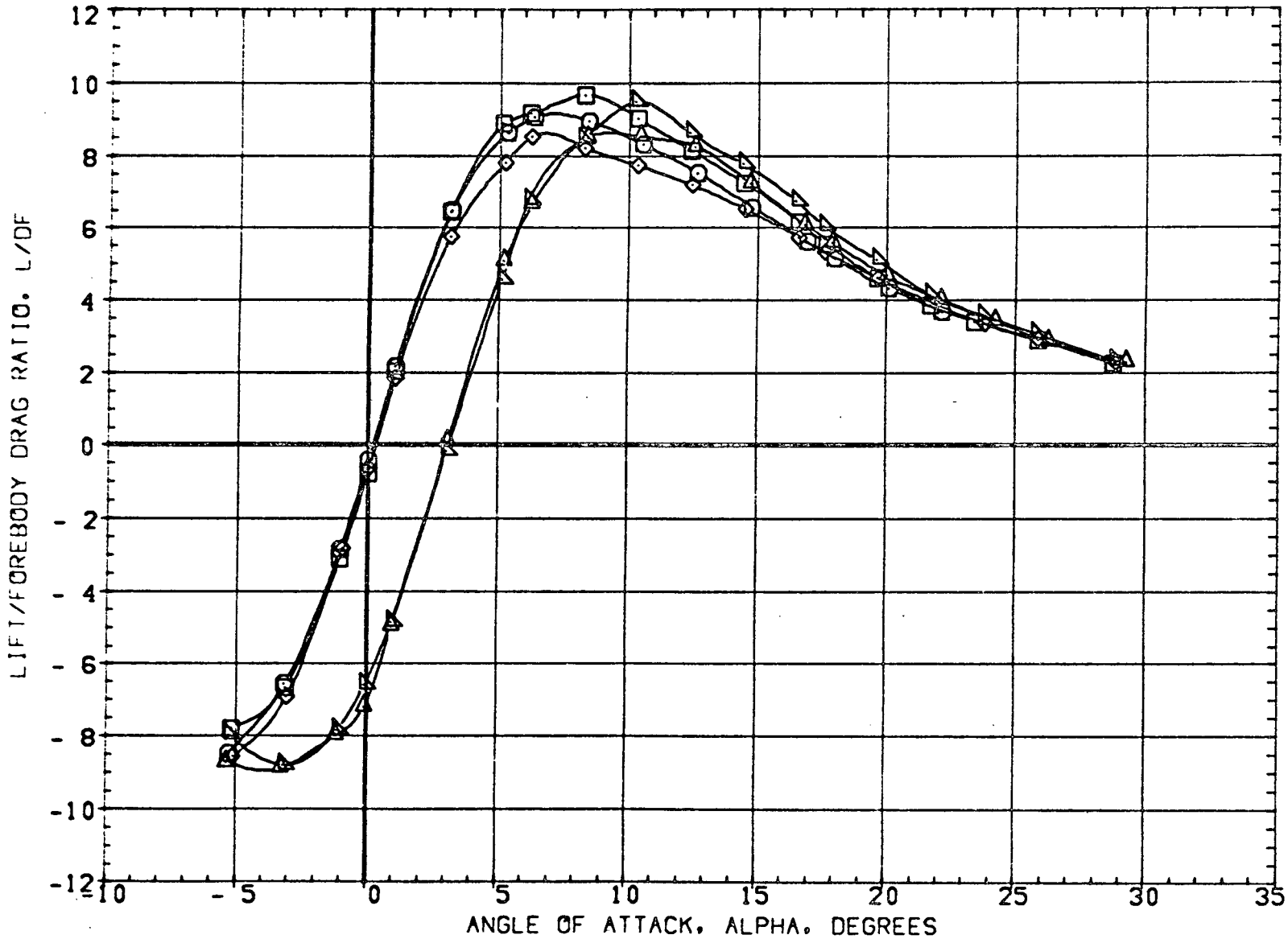

FIG. 31 EFFECT OF WING ASPECT RATIO IN PITCH, ELEVON EFFECTIVENESS

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADC051)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	-5.000	-5.000
(ADC080)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.165	0.000	0.000	0.000
(ADC084)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	0.000	0.000
(ADC085)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

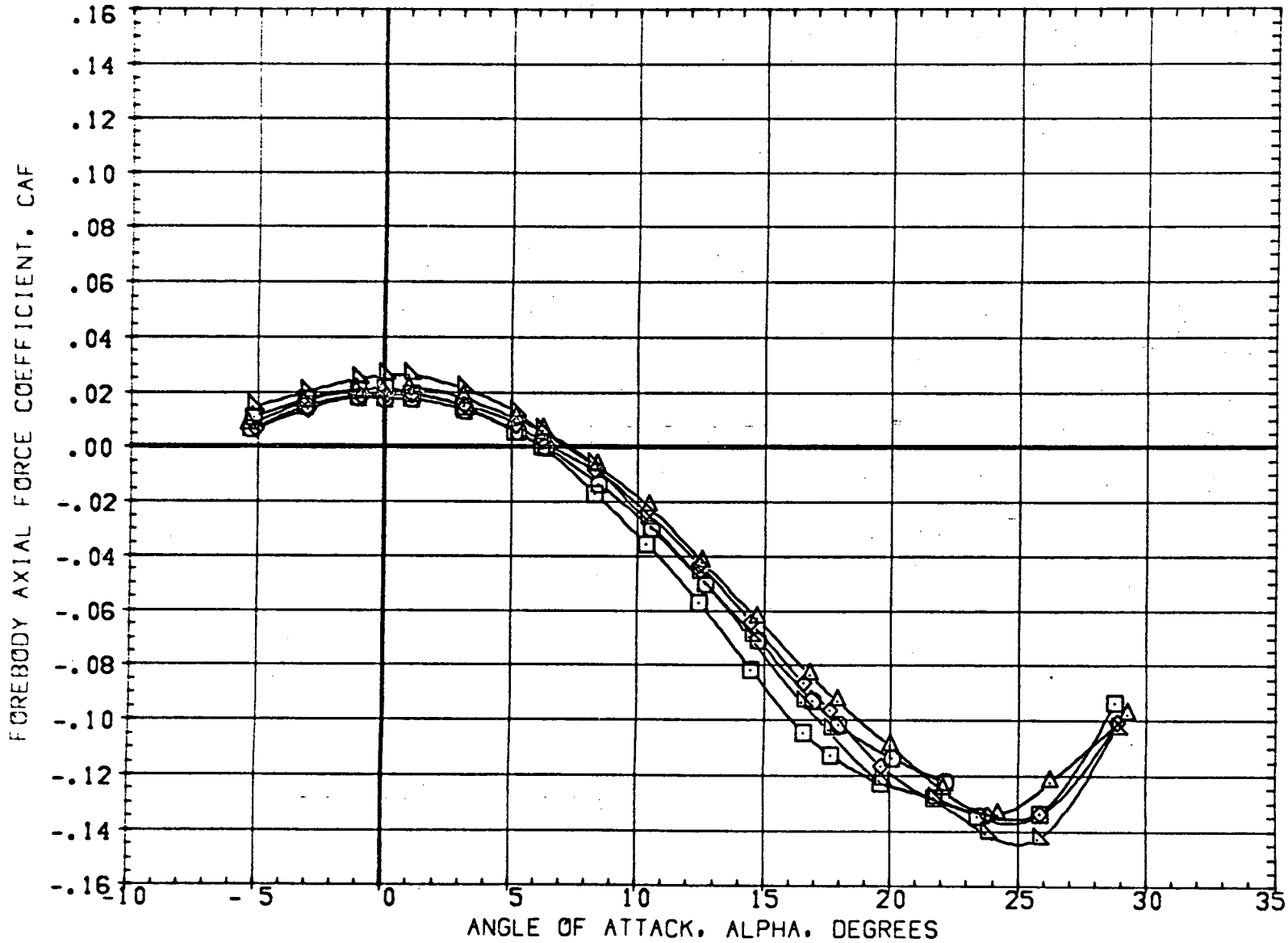

FIG. 31 EFFECT OF WING ASPECT RATIO IN PITCH, ELEVON EFFECTIVENESS

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADG043)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADG051)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	-5.000	-5.000
(ADG080)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.165	0.000	0.000	0.000
(ADG084)	▽	SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	0.000	0.000
(ADG085)	▽	SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

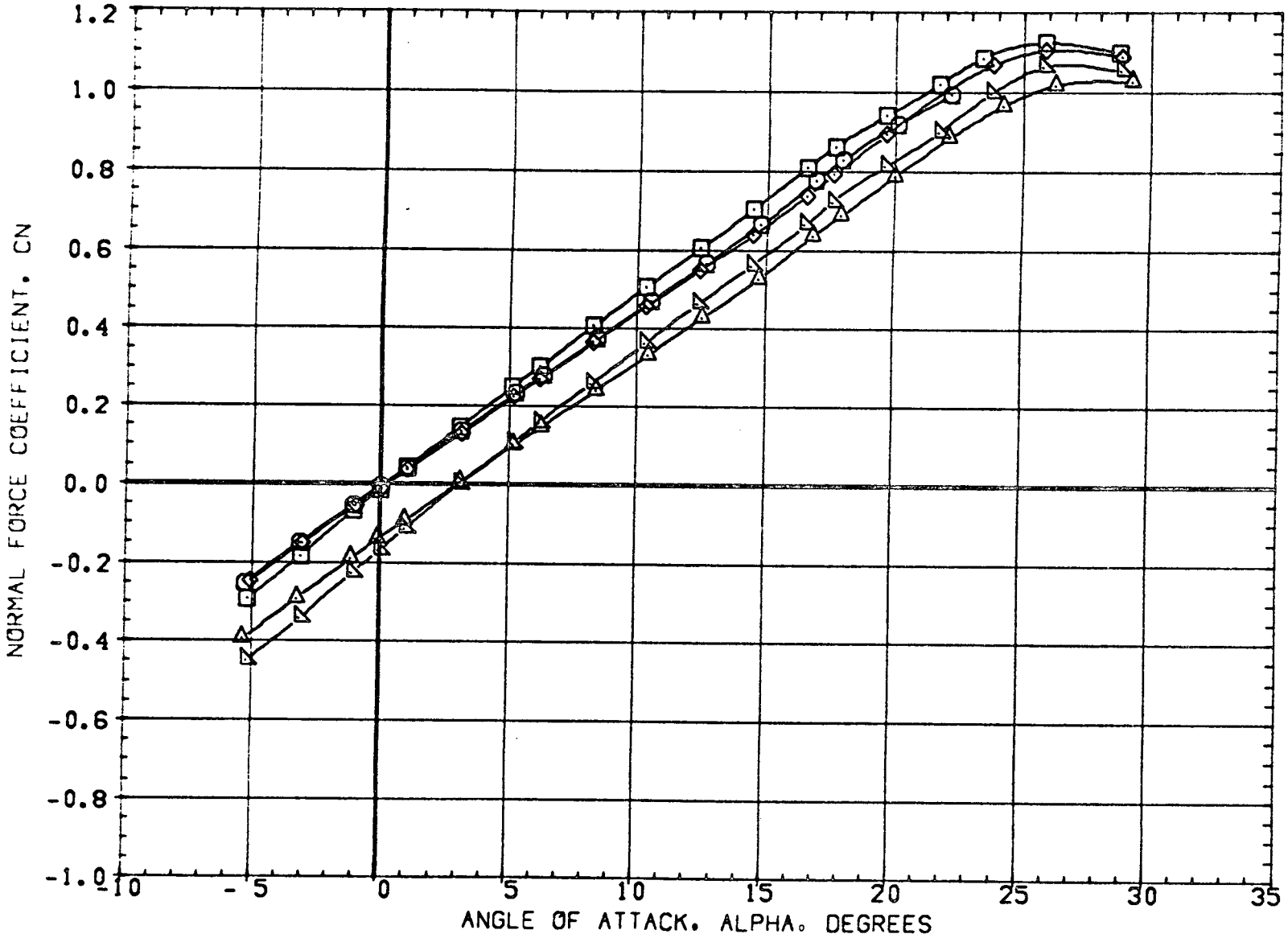

FIG. 31 EFFECT OF WING ASPECT RATIO IN PITCH, ELEVON EFFECTIVENESS

(A)MACH = .26

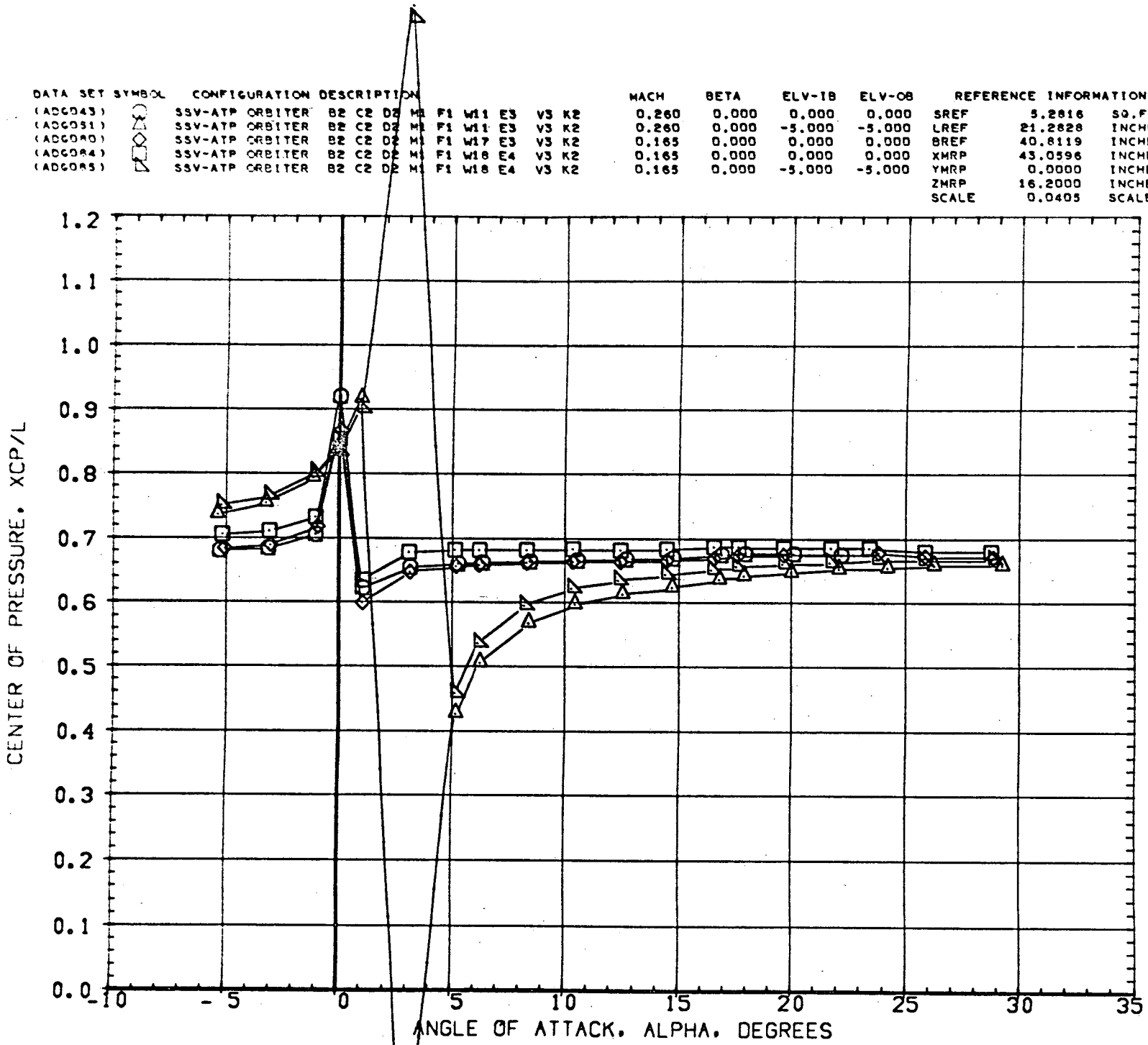

FIG. 31 EFFECT OF WING ASPECT RATIO IN PITCH, ELEVON EFFECTIVENESS

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH	BETA	ELV-IB	ELV-OB
(ADC043)	◁	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	0.000	0.000
(ADC051)	▷	SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2	0.260	0.000	-5.000	-5.000
(ADC080)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.165	0.000	0.000	0.000
(ADC084)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	0.000	0.000
(ADC085)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2	0.165	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	45.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

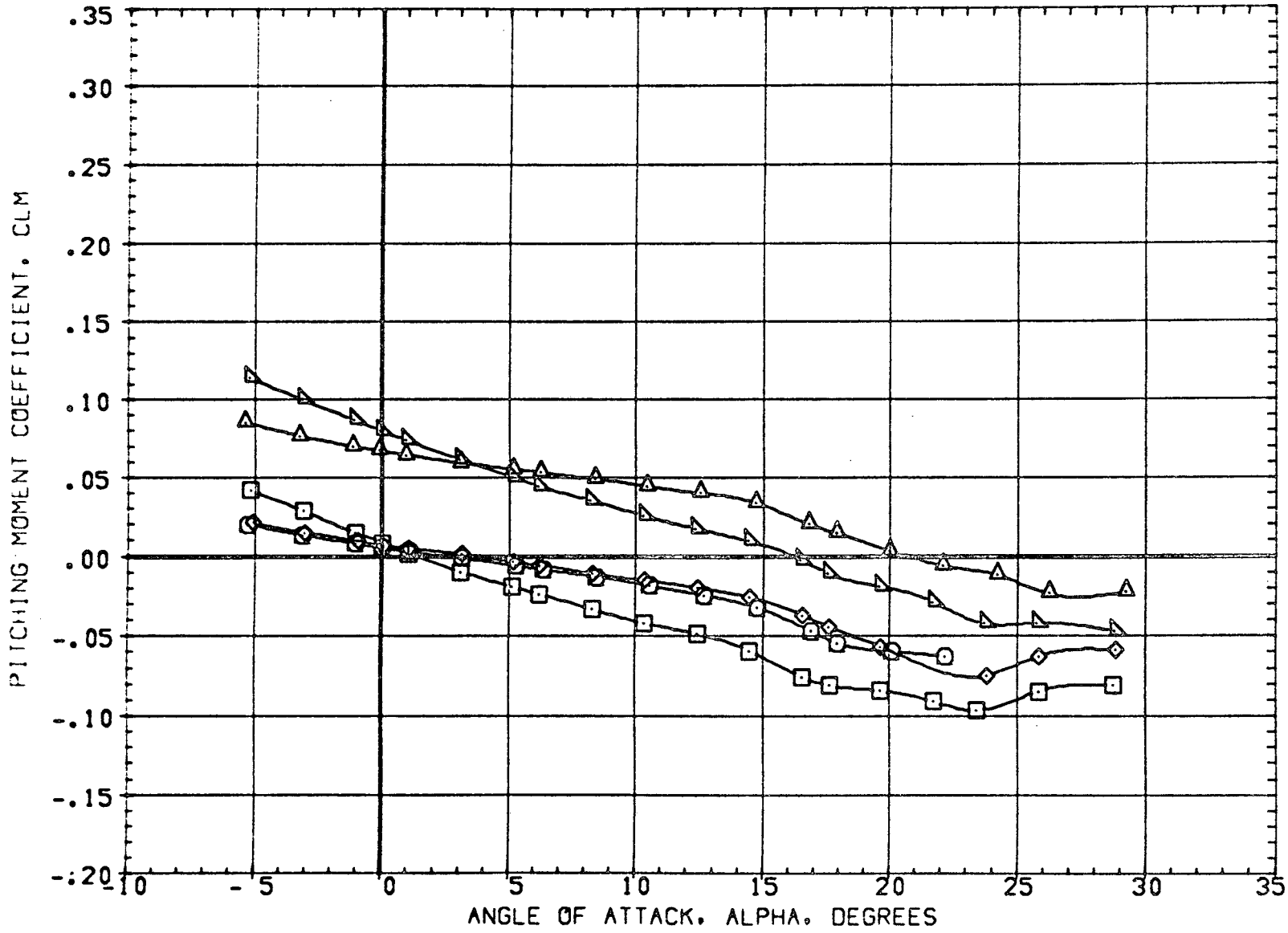

FIG. 31 EFFECT OF WING ASPECT RATIO IN PITCH, ELEVON EFFECTIVENESS

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC0R0)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADC0R6)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADC0R7)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	-10.000	-10.000
(ADC0R8)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	-10.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

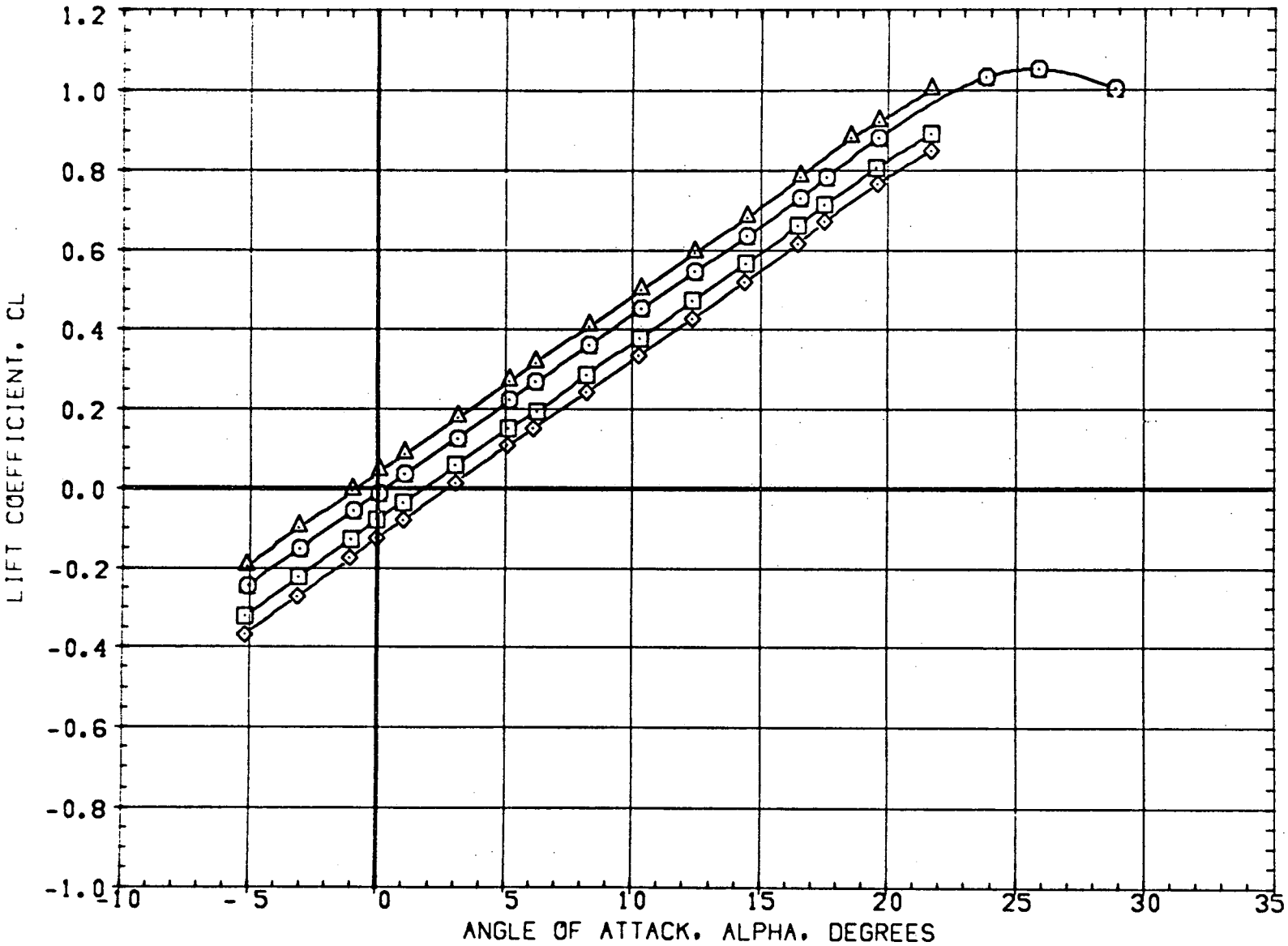

FIG. 32 EFFECT OF SPLIT, HALF-CHORD ELEVON

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC090)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADC096)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADC097)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	-10.000	-10.000
(ADC098)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	-10.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

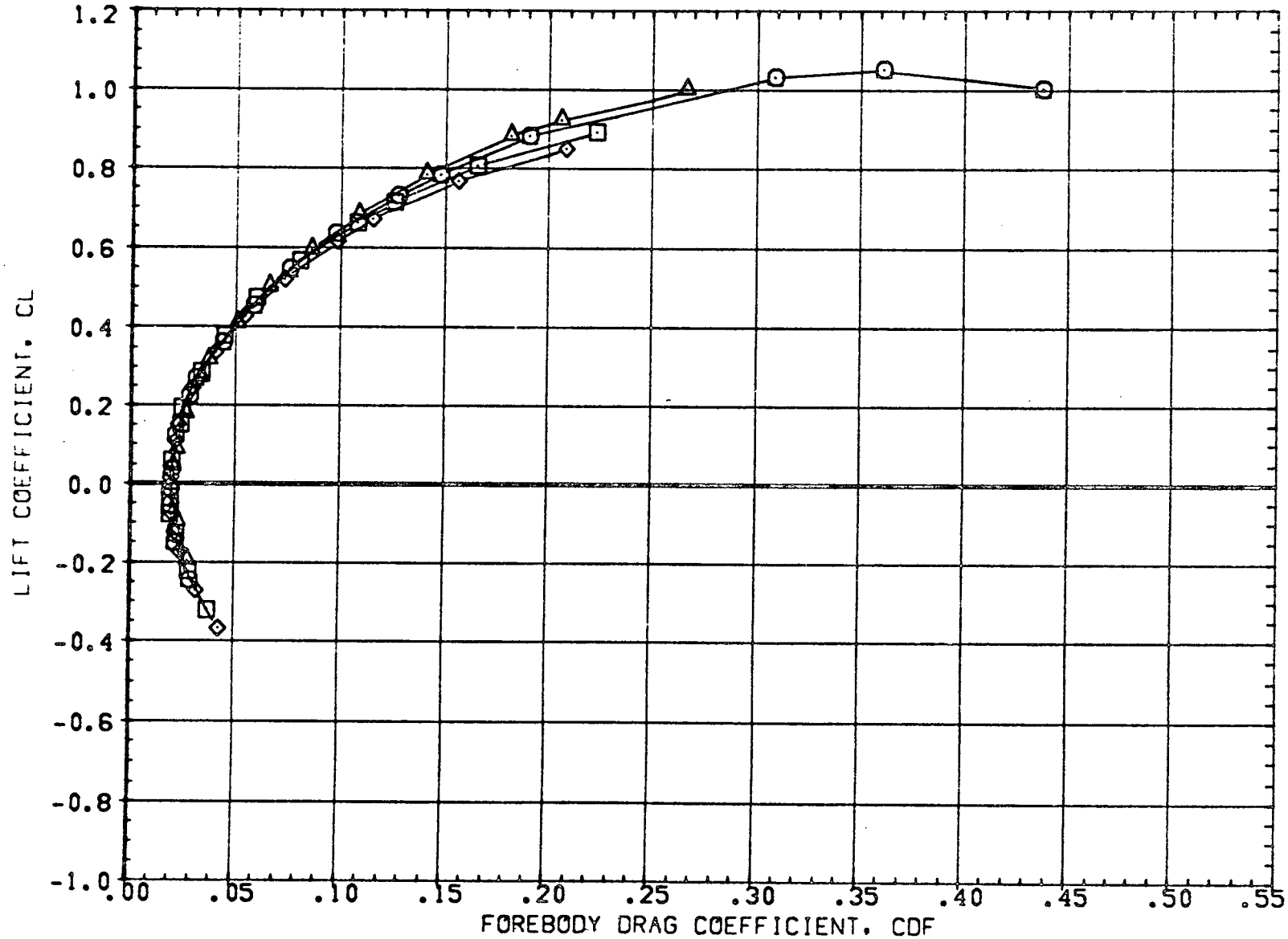

FIG. 32 EFFECT OF SPLIT, HALF-CHORD ELEVON

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC080)	◇(LR)	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000
(ADC086)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADC087)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	-10.000	-10.000
(ADC088)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	-10.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

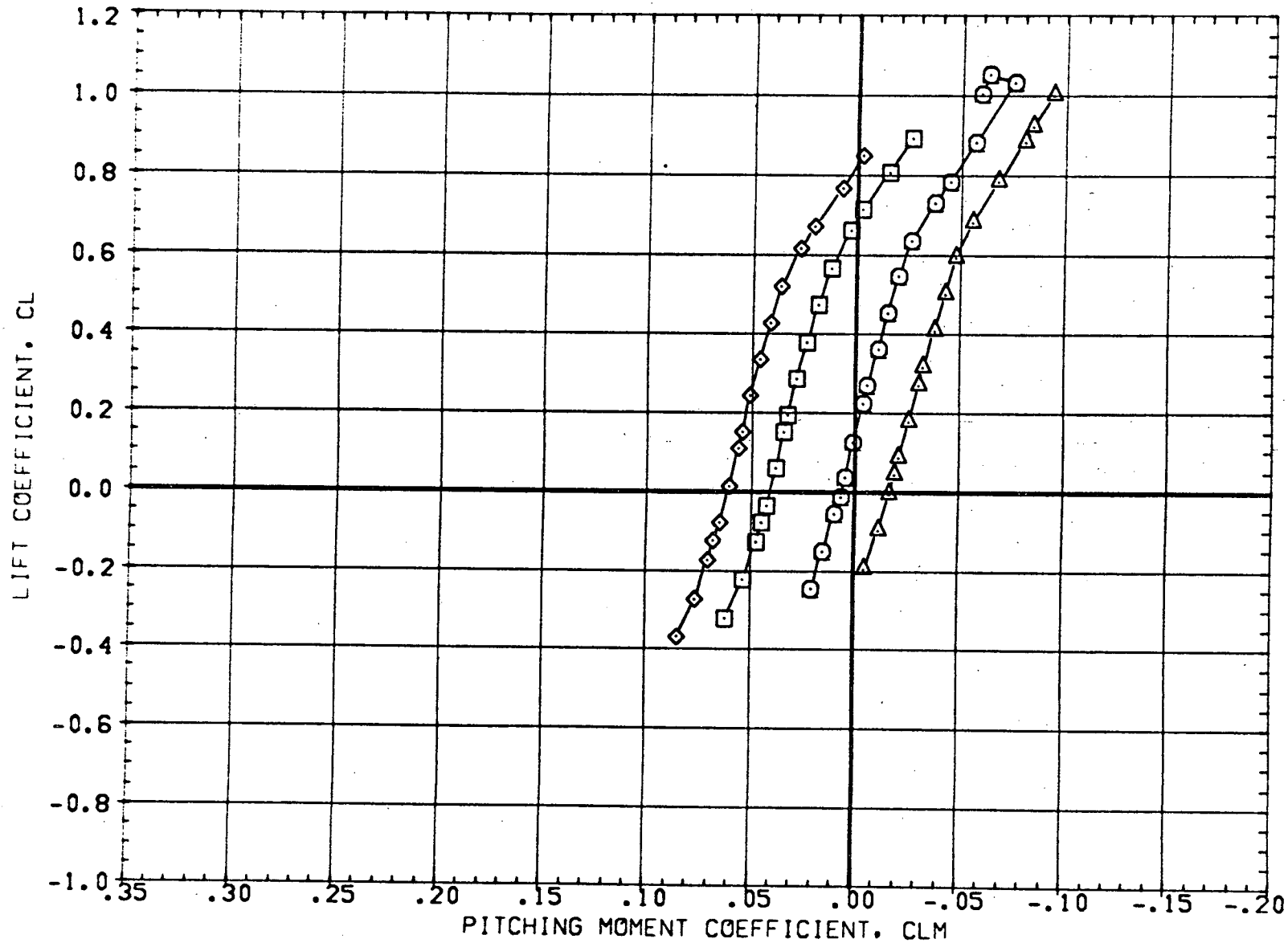

FIG. 32 EFFECT OF SPLIT, HALF-CHORD ELEVON

(A) MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG080)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000
(ADG086)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADG087)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	-10.000	-10.000
(ADG088)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	-10.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

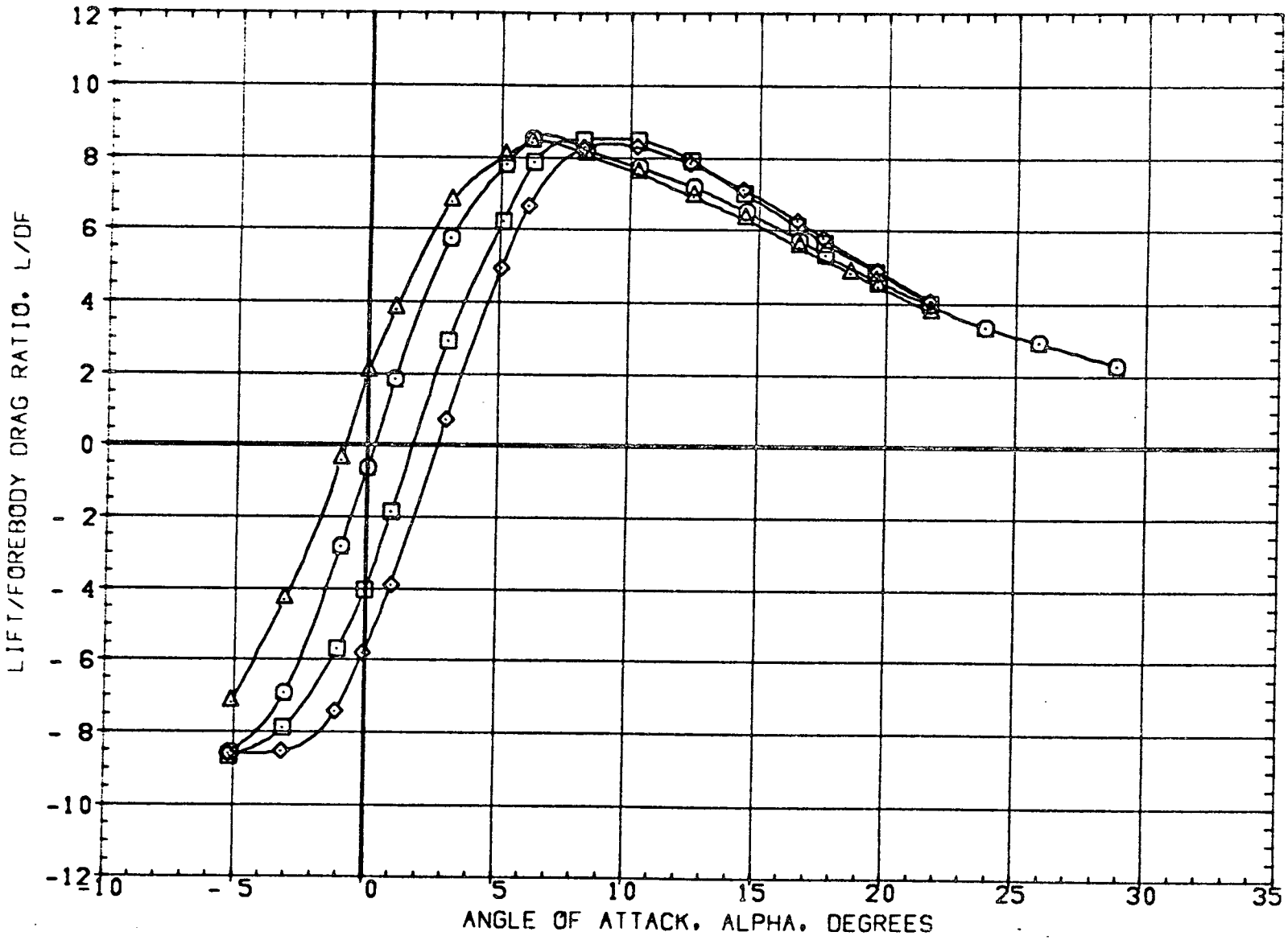

FIG. 32 EFFECT OF SPLIT, HALF-CHORD ELEVON

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC080)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADC086)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADC087)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	-10.000	-10.000
(ADC088)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	-10.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

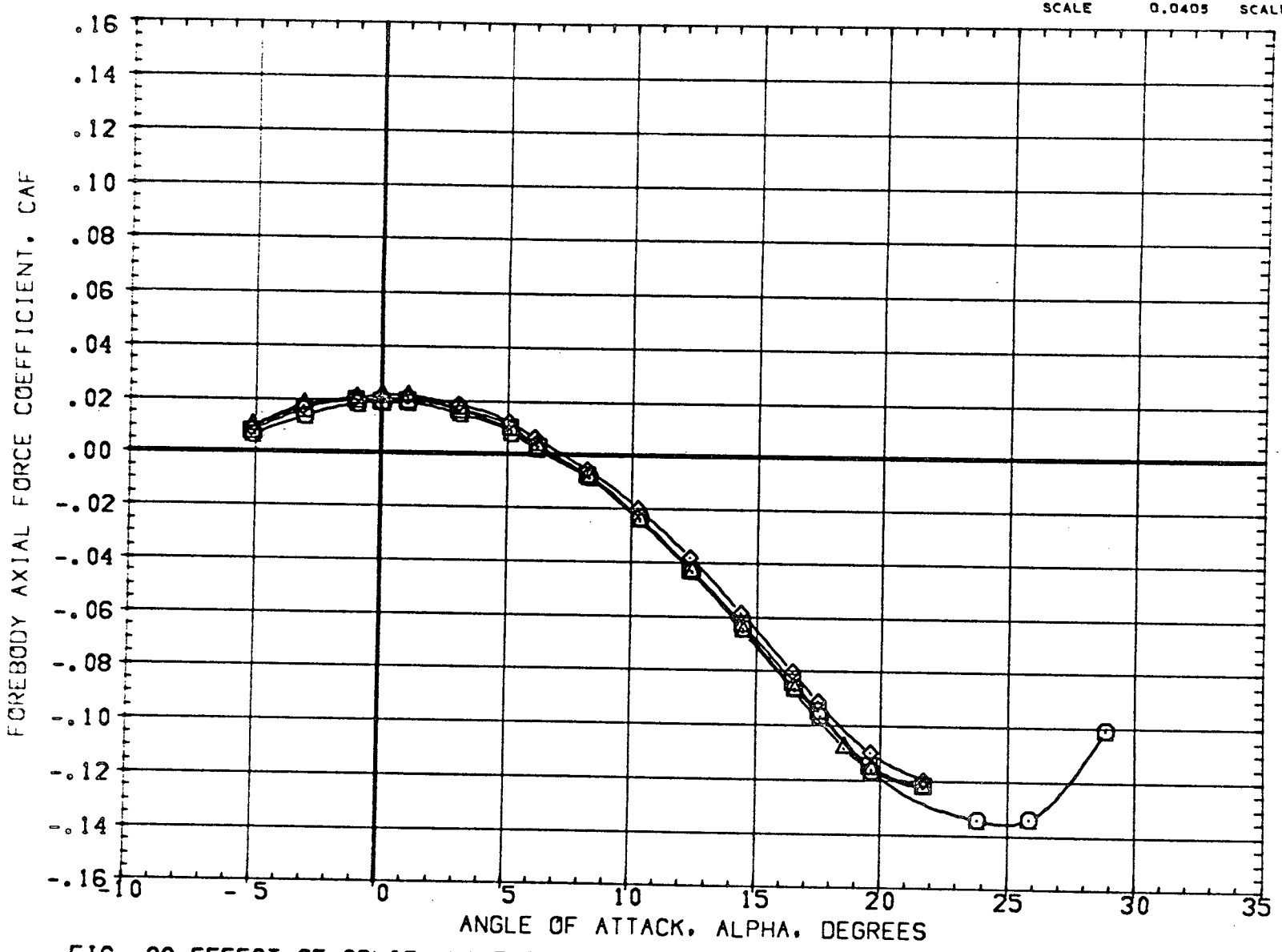

FIG. 32 EFFECT OF SPLIT, HALF-CHORD ELEVON

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6080)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000
(AD6086)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000
(AD6087)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	-10.000	-10.000
(AD6088)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	-10.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

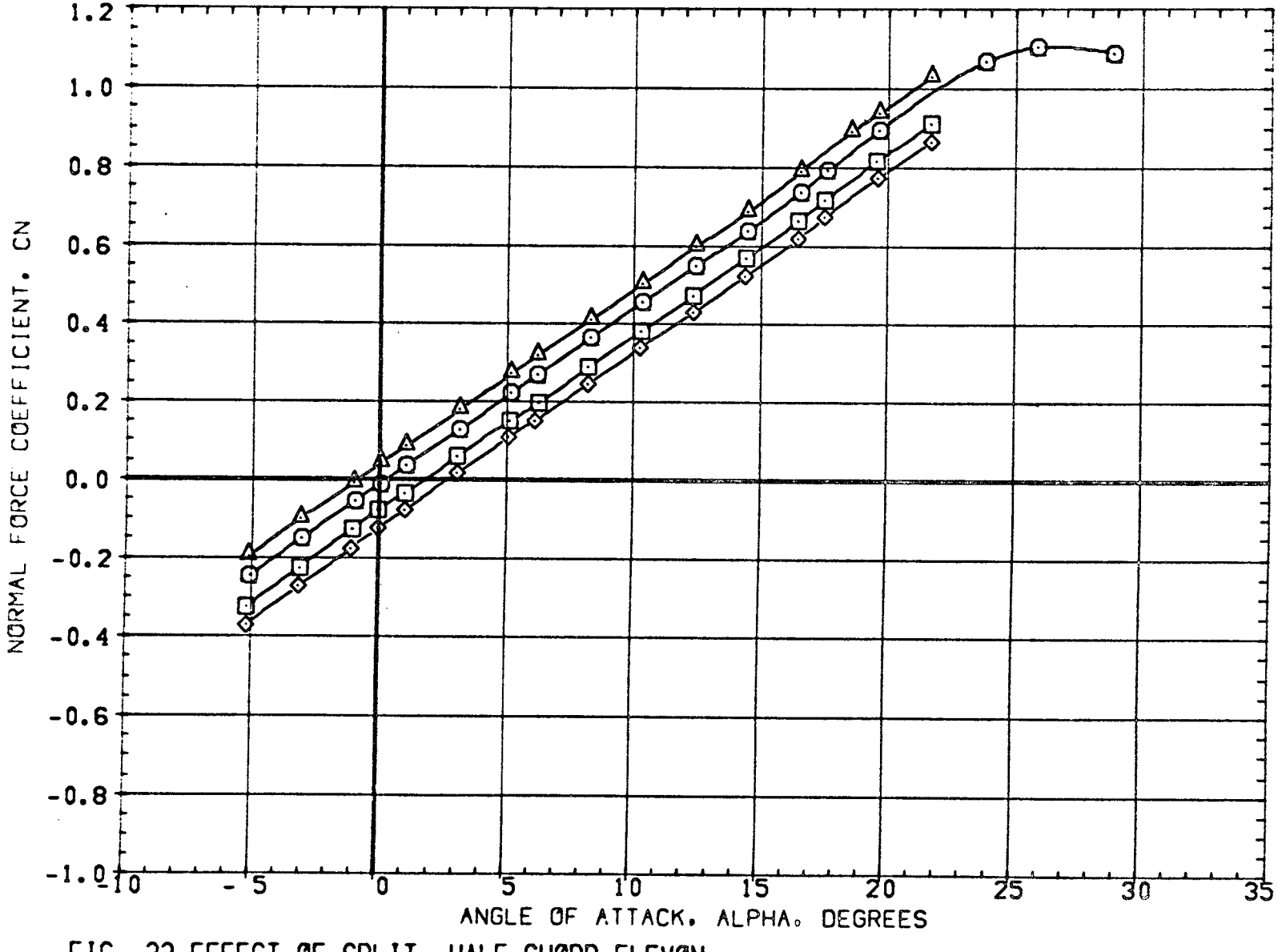

FIG. 32 EFFECT OF SPLIT, HALF-CHORD ELEVON

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG080)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2	0.000	0.000	0.000
(ADG086)	⋈	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	0.000
(ADG087)	◇⋈	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	-10.000	-10.000
(ADG088)	□⋈	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2	0.000	0.000	-10.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

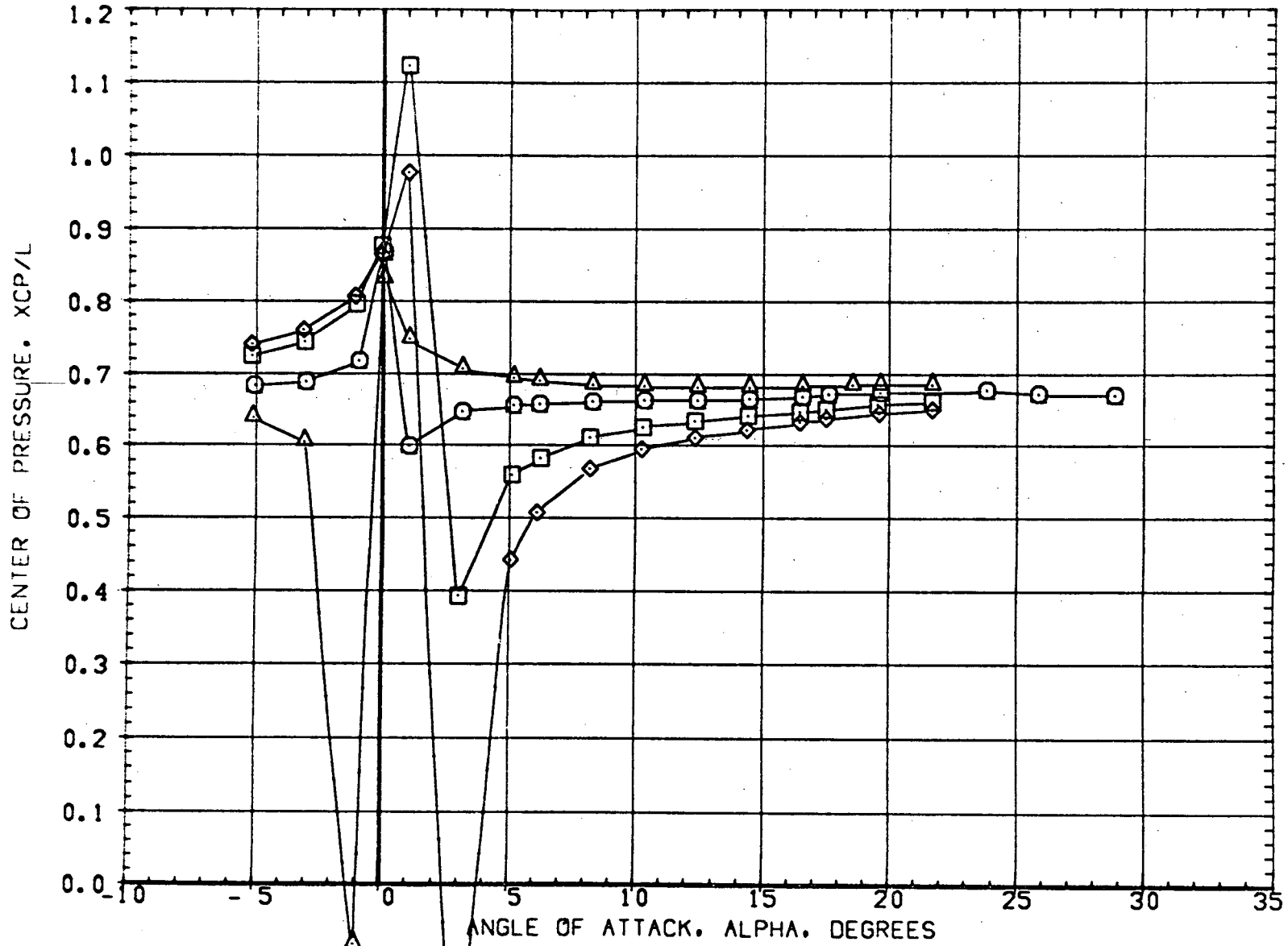

FIG. 32 EFFECT OF SPLIT, HALF-CHORD ELEVON

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC090)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 R2	0.000	0.000	0.000
(ADC096)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 R2	0.000	0.000	0.000
(ADC097)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 R2	0.000	-10.000	-10.000
(ADC098)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 R2	0.000	0.000	-10.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0598	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0409	SCALE

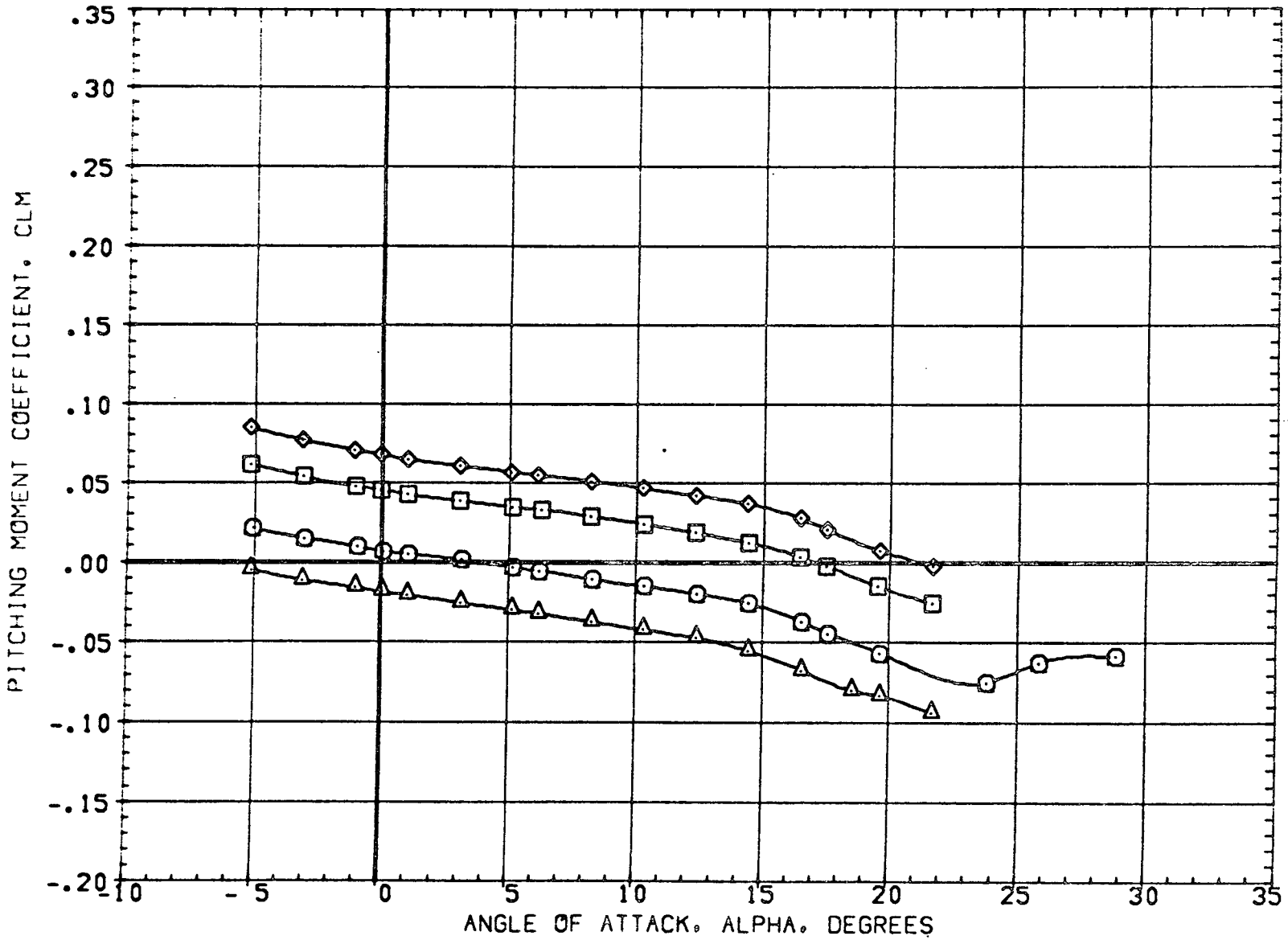

FIG. 32 EFFECT OF SPLIT, HALF-CHORD ELEVON

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC089)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(ADC092)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-5.000	-5.000
(ADC093)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

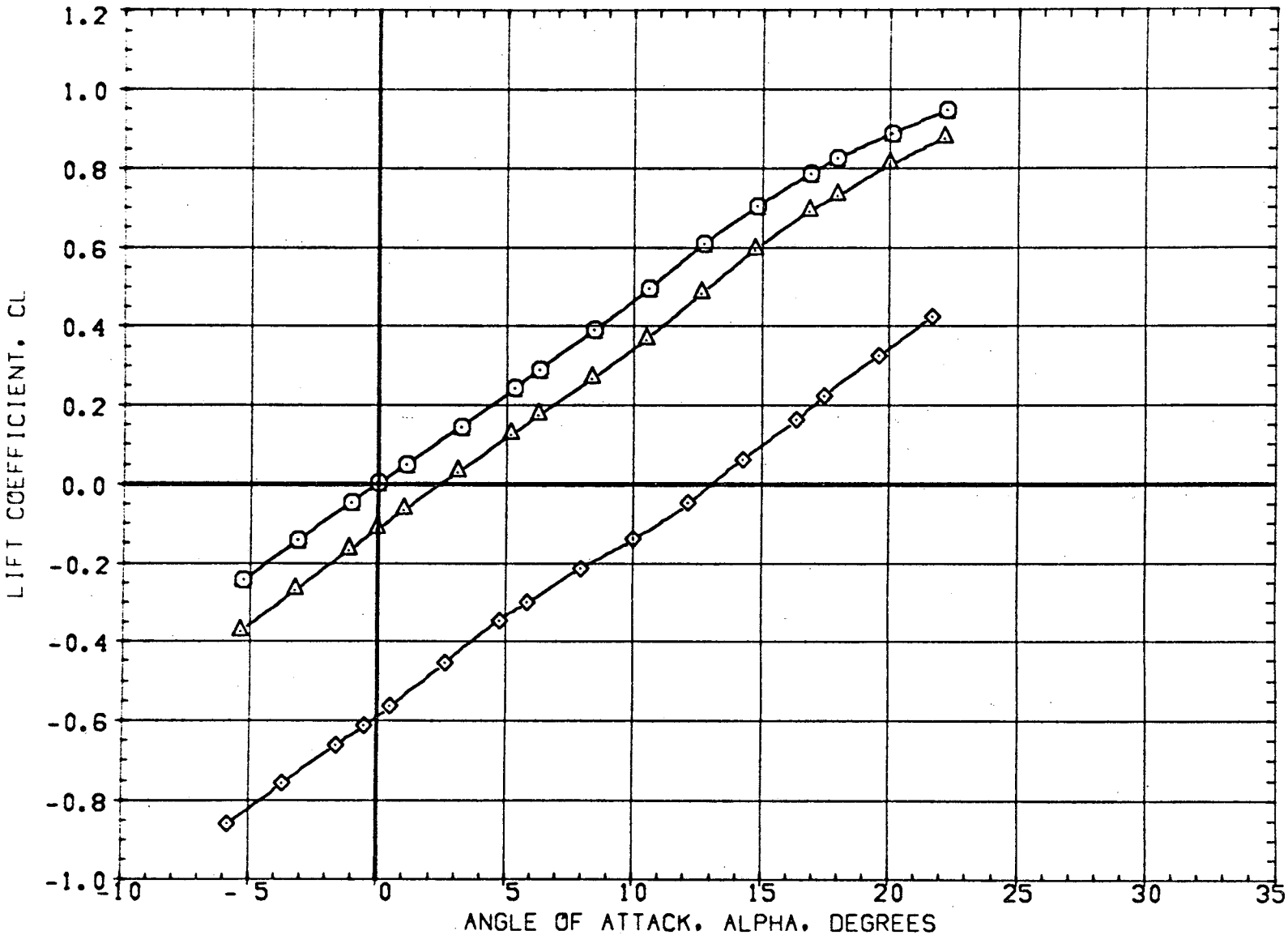

FIG. 33 ELEVON EFFECTIVENESS OF W9 (LARGE GLOVE) IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC049)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(ADC092)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-5.000	-5.000
(ADC093)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

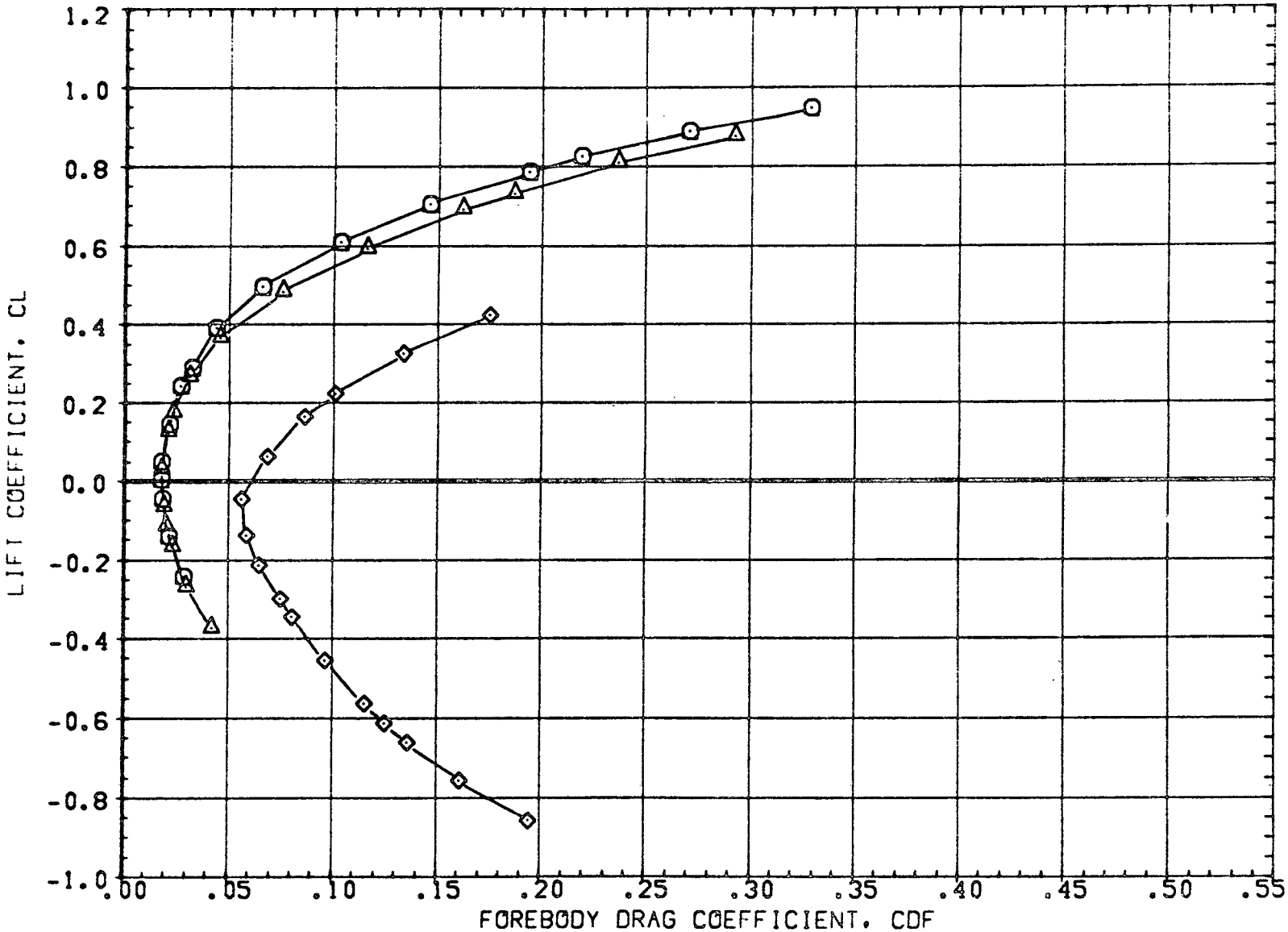

FIG. 33 ELEVON EFFECTIVENESS OF W9 (LARGE GLOVE) IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG098)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(ADG092)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-5.000	-5.000
(ADG093)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

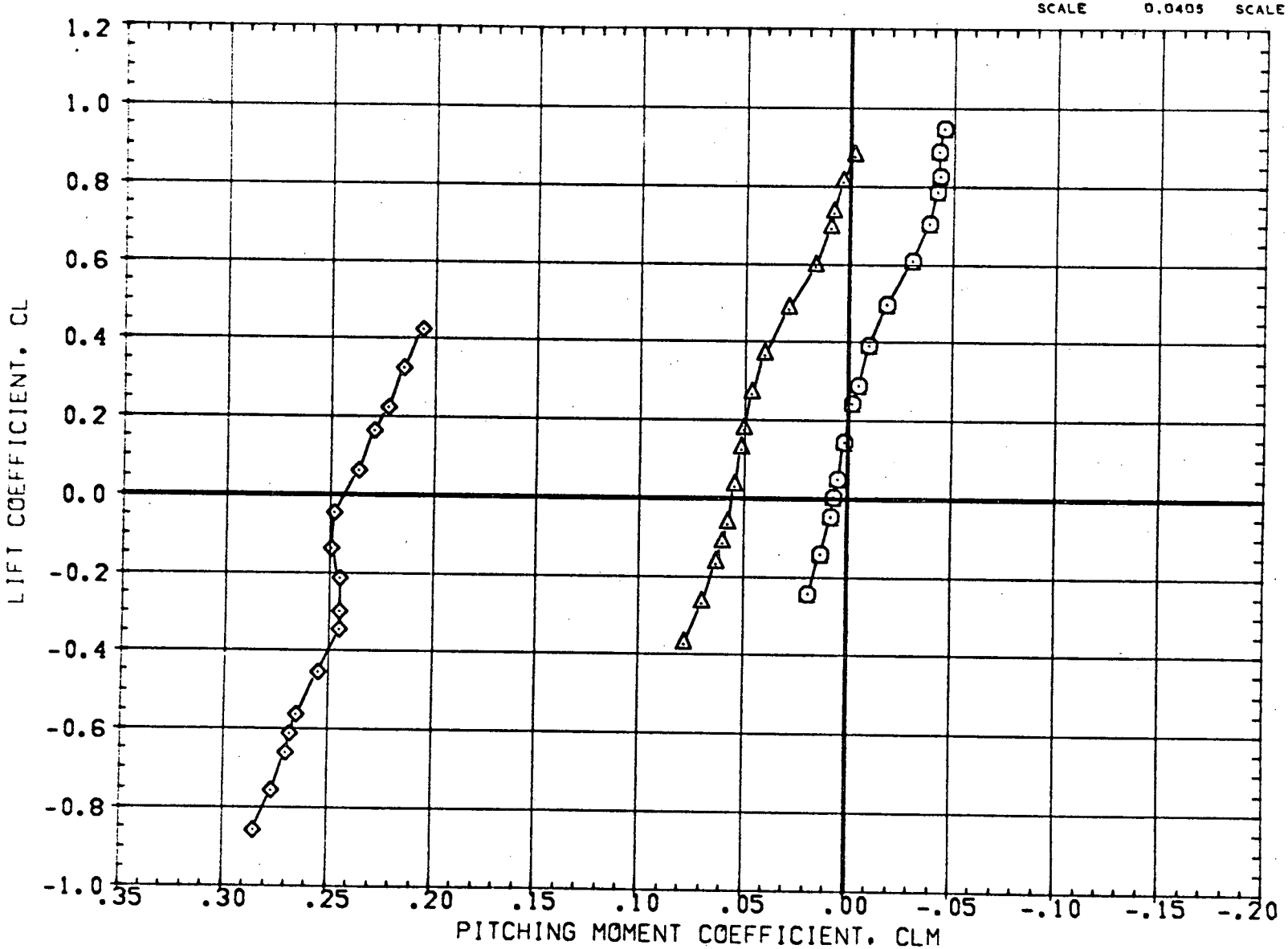

FIG. 33 ELEVON EFFECTIVENESS OF W9 (LARGE GLOVE) IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC089)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 R2	0.000	0.000	0.000
(ADC092)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 R2	0.000	-5.000	-5.000
(ADC093)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

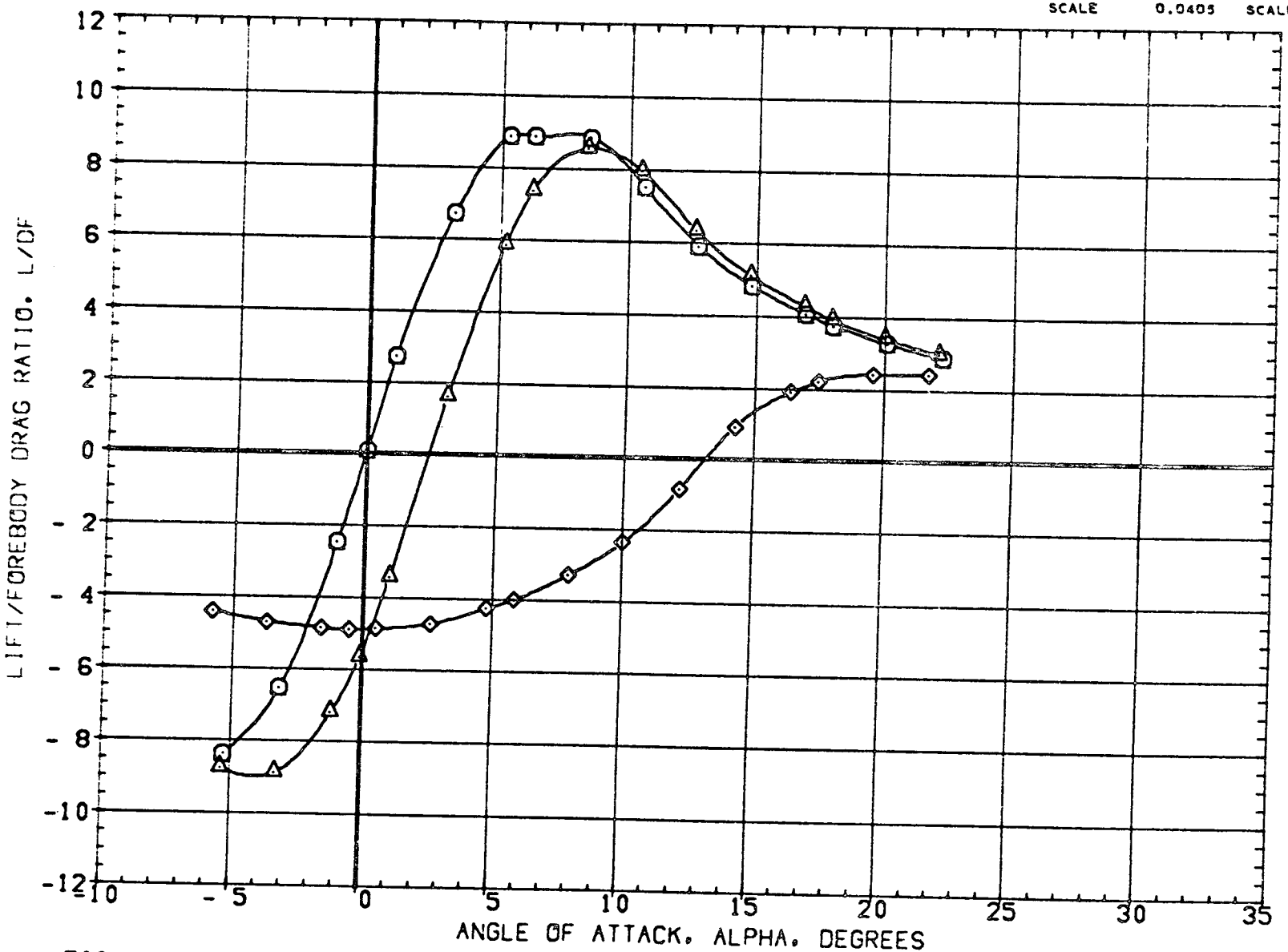

FIG. 33 ELEVON EFFECTIVENESS OF W9 (LARGE GLOVE) IN PITCH

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC089)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(ADC092)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-5.000	-5.000
(ADC093)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

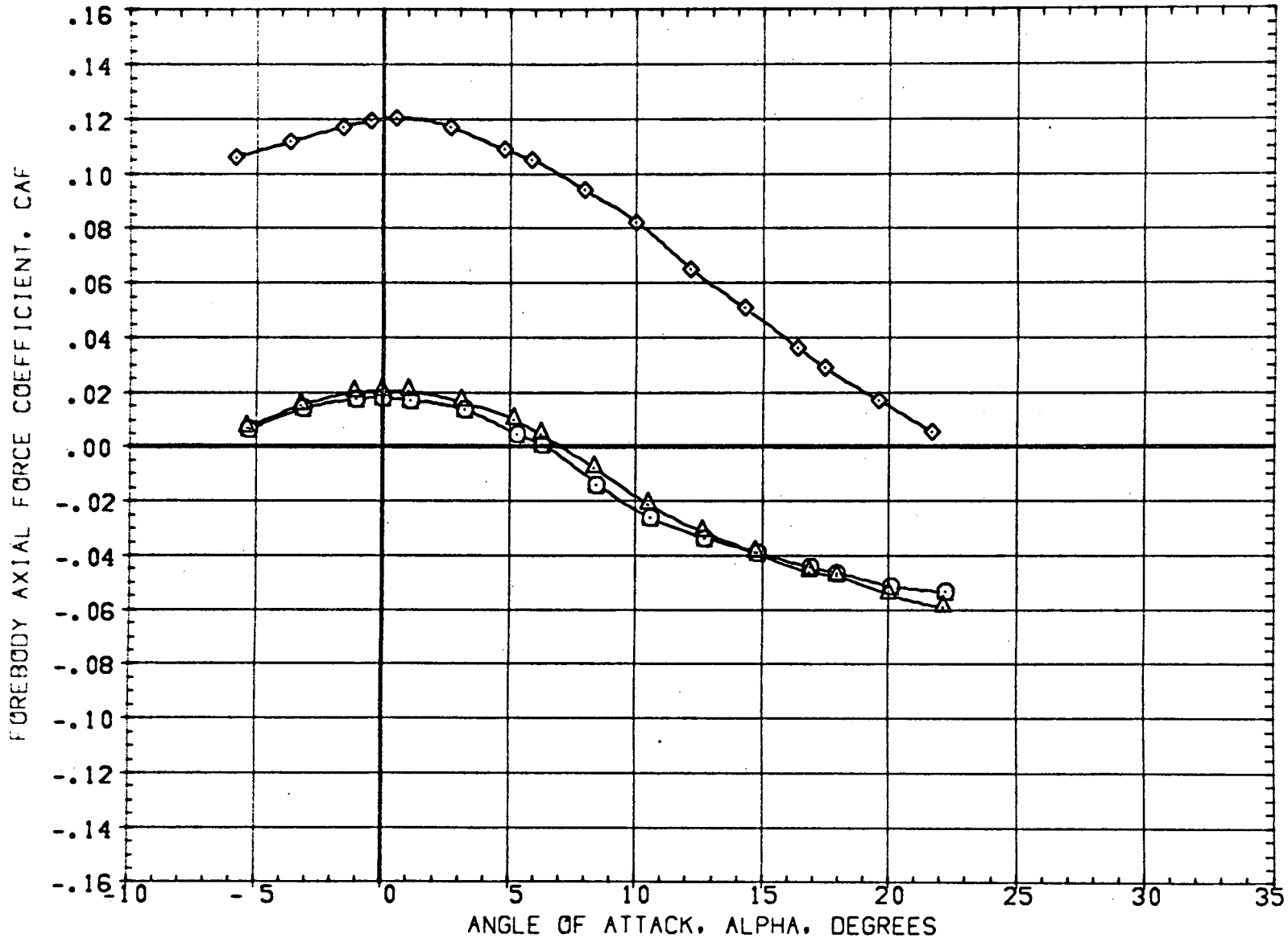

FIG. 33 ELEVON EFFECTIVENESS OF W9 (LARGE GLOVE) IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B...	ELV-OB
(AD6089)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(AD6092)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-5.000	-5.000
(AD6093)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0998	INCHES
YMRP	0.0000	INCHES
ZMRP	18.2000	INCHES
SCALE	0.0405	SCALE

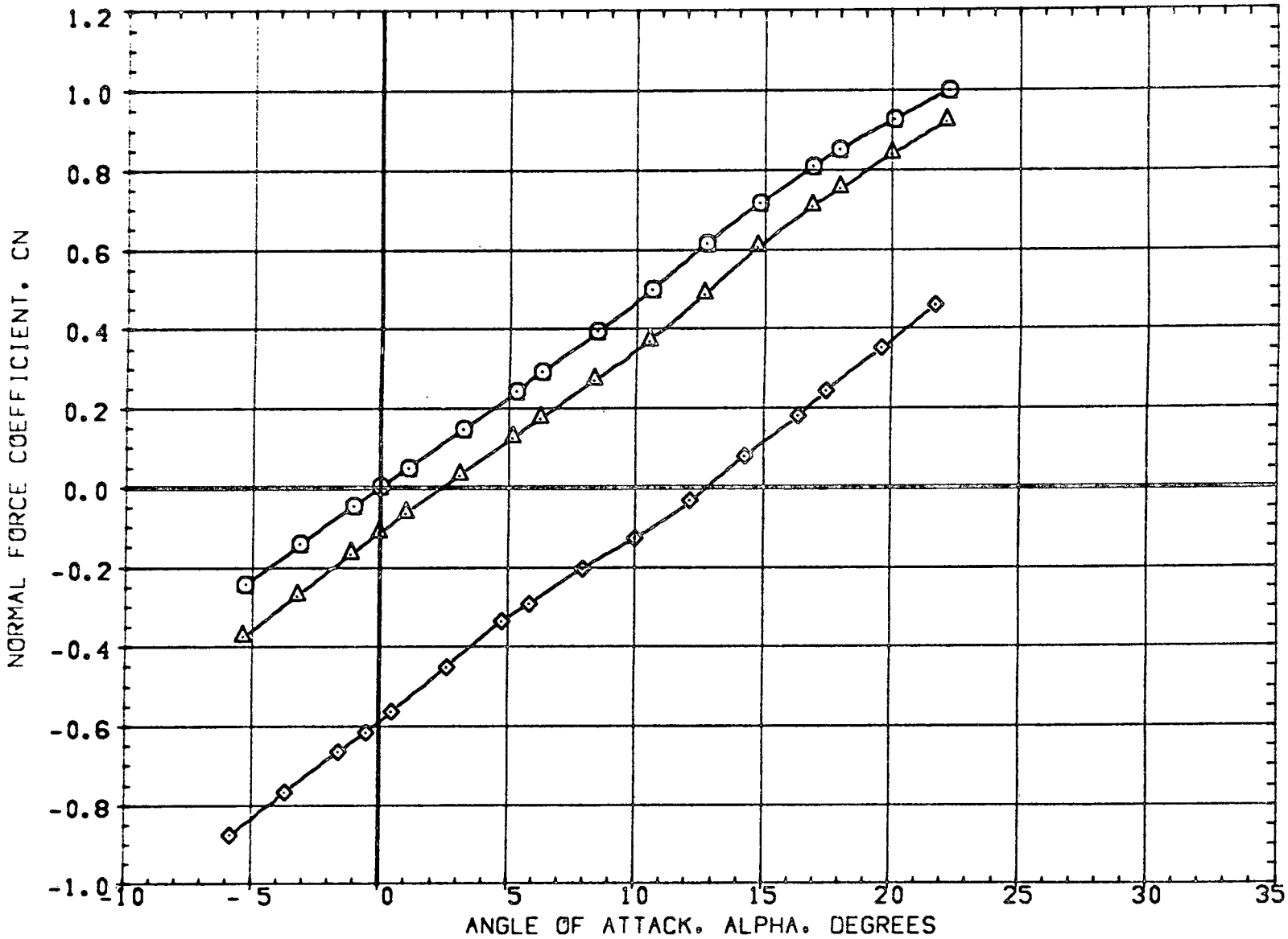

FIG. 33 ELEVON EFFECTIVENESS OF W9 (LARGE GLOVE) IN PITCH

(A)MACH = .26

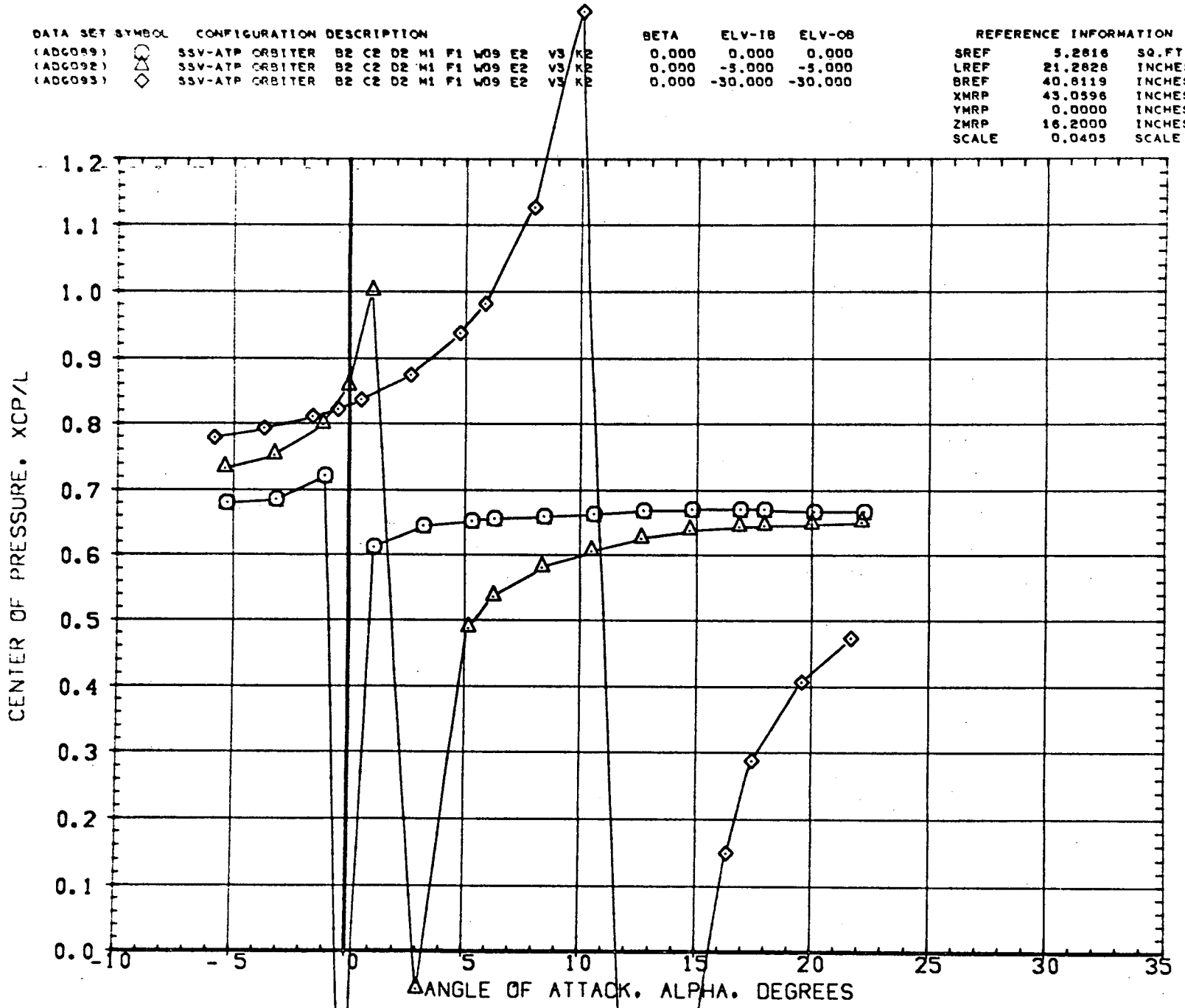

FIG. 33 ELEVON EFFECTIVENESS OF W9 (LARGE GLOVE) IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADGO89)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	0.000	0.000
(ADGO92)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-5.000	-5.000
(ADGO93)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2	0.000	-30.000	-30.000

REFERENCE INFORMATION

SREF	9.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

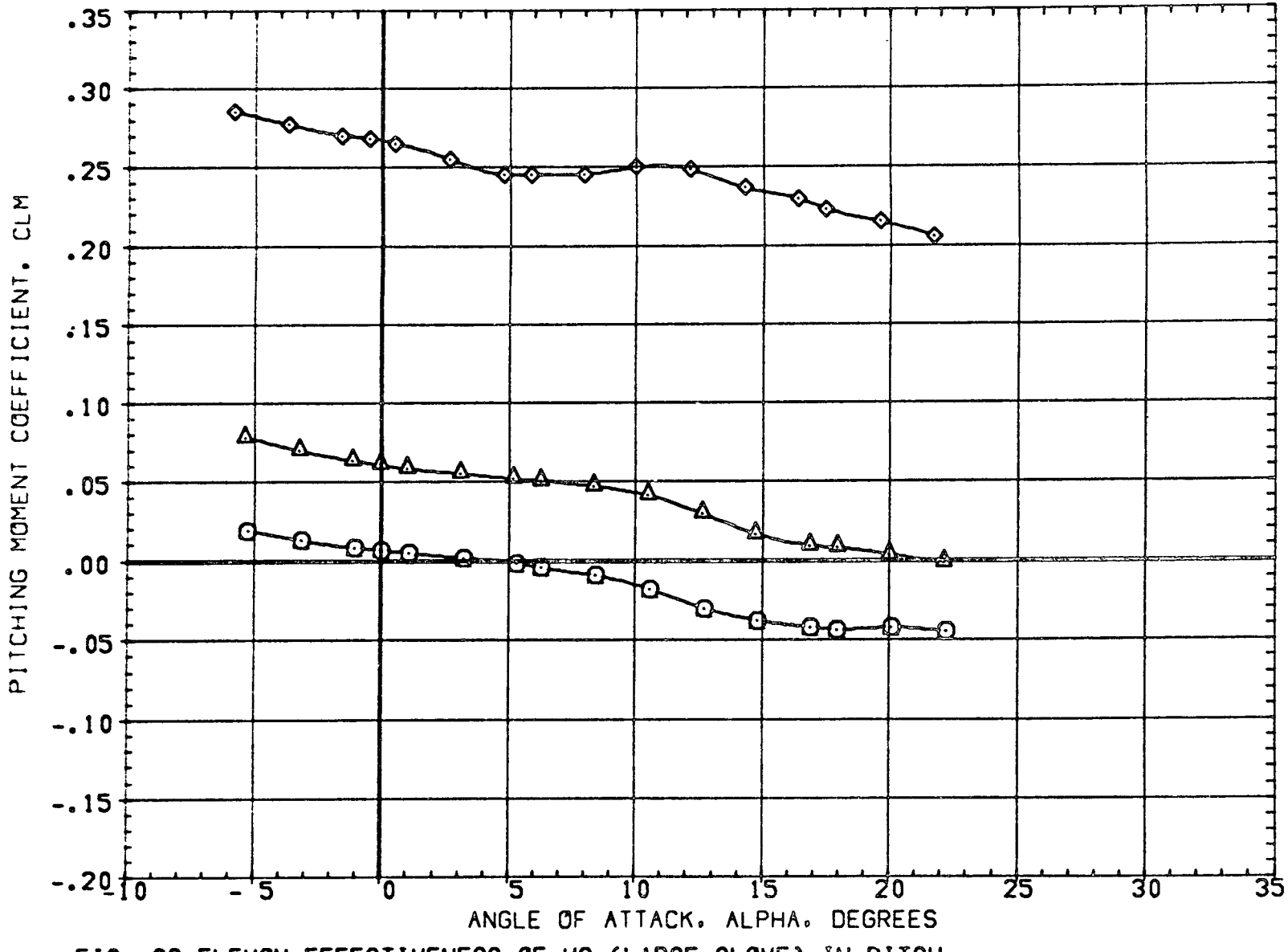

FIG. 33 ELEVON EFFECTIVENESS OF W9 (LARGE GLOVE) IN PITCH

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC020)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDC021)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDC035)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(BDC036)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

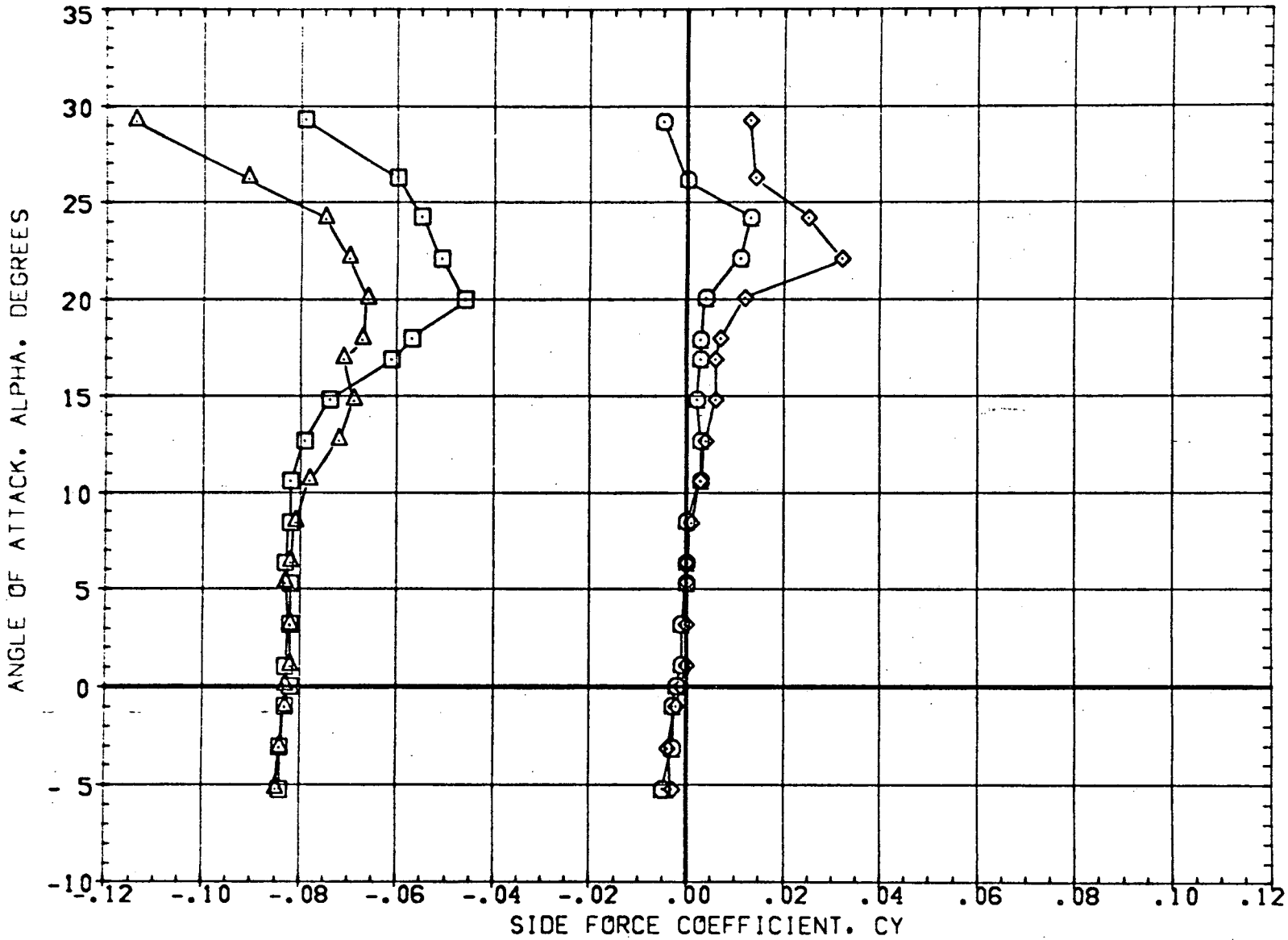

FIG. 34 EFFECT OF AIRFOIL SECTION IN YAW, 8 PCNT. VS. 12 PCNT. TIP CHORD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDG020)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDG021)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDG035)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(BDG036)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3.2818	SQ.FT.
LREF	21.2028	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

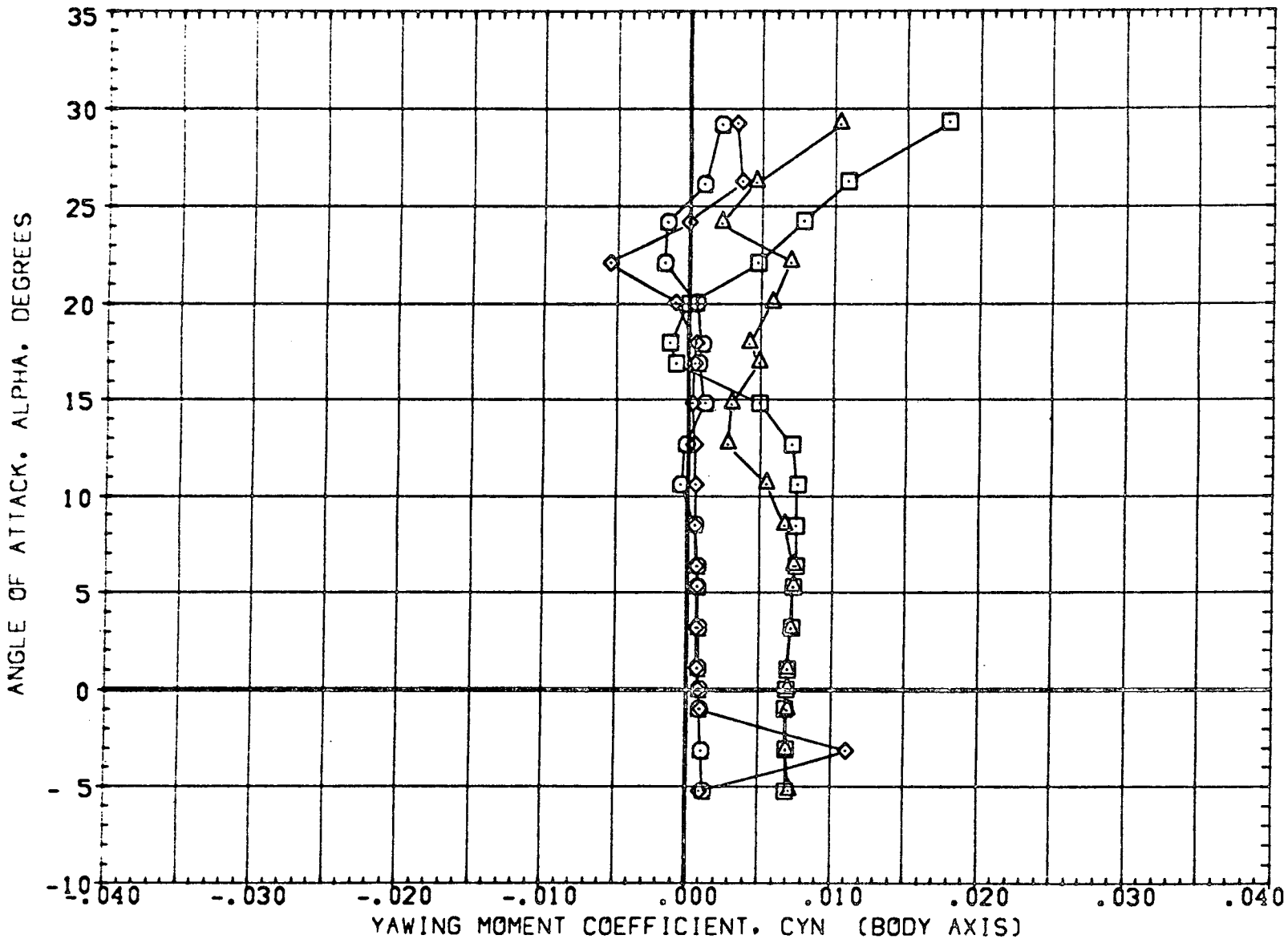

FIG. 34 EFFECT OF AIRFOIL SECTION IN YAW, 8 PCNT. VS. 12 PCNT. TIP CHORD

(A)MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC020)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	0.000	0.000	0.000
(BDC021)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2	5.000	0.000	0.000
(BDC035)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	0.000	0.000	0.000
(BDC036)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

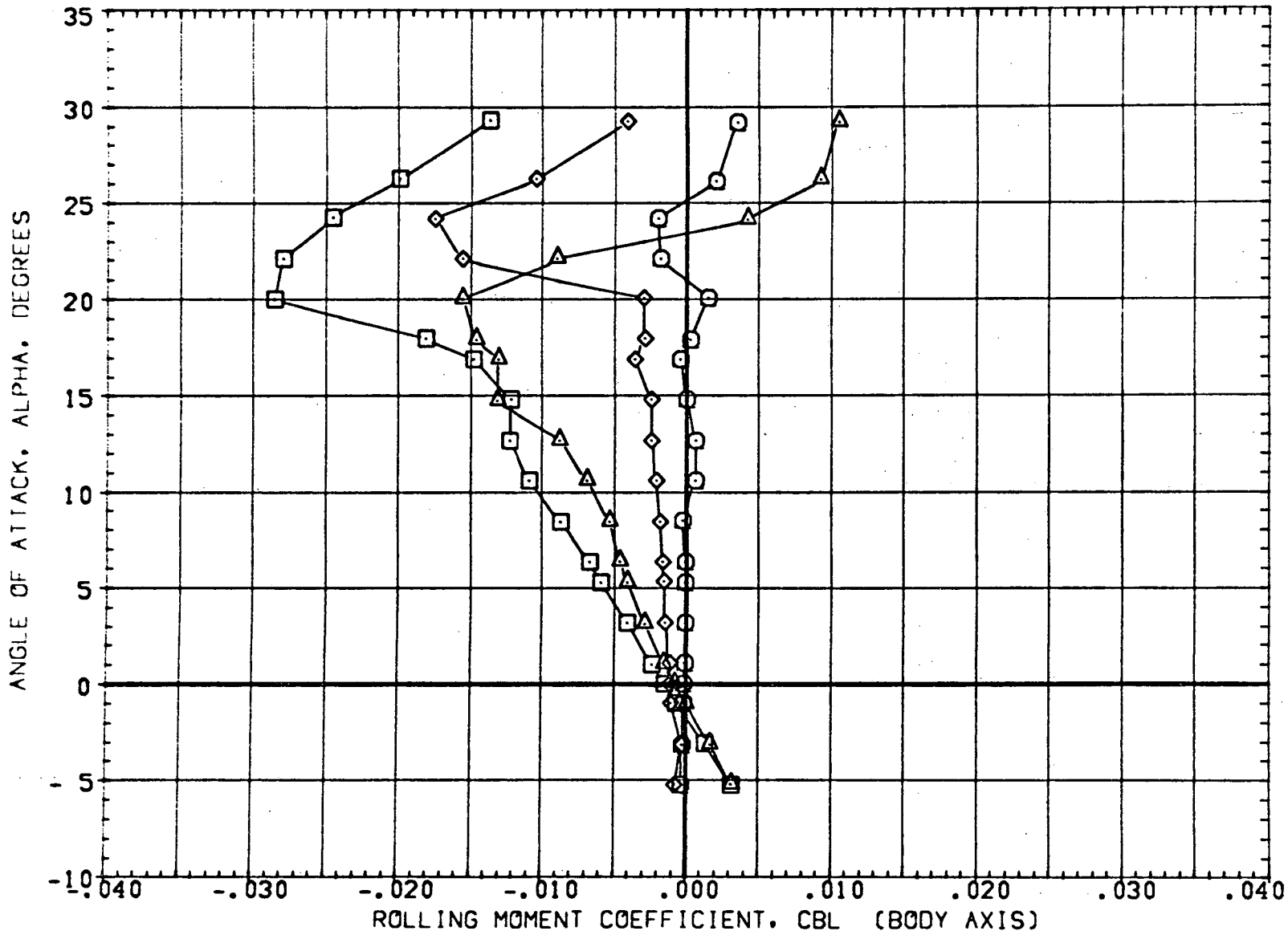

FIG. 34 EFFECT OF AIRFOIL SECTION IN YAW, 8 PCNT. VS. 12 PCNT. TIP CHORD

(A) MACH = .26

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6064)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(AD6067)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION

SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0409	SCALE

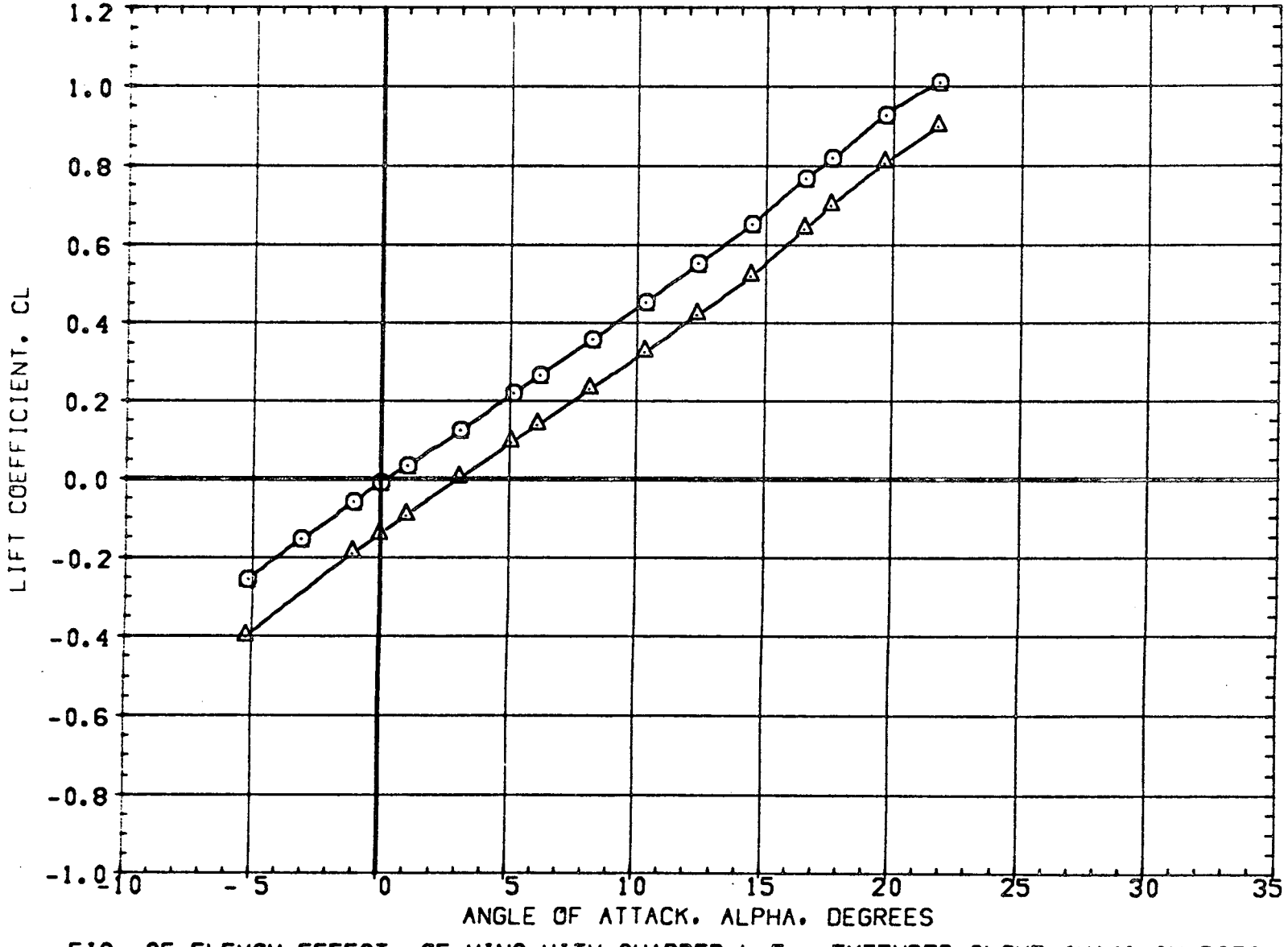

FIG. 35 ELEVON EFFECT. OF WING WITH SHARPER L.E., EXTENDED GLOVE (W14) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC064)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(ADC067)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

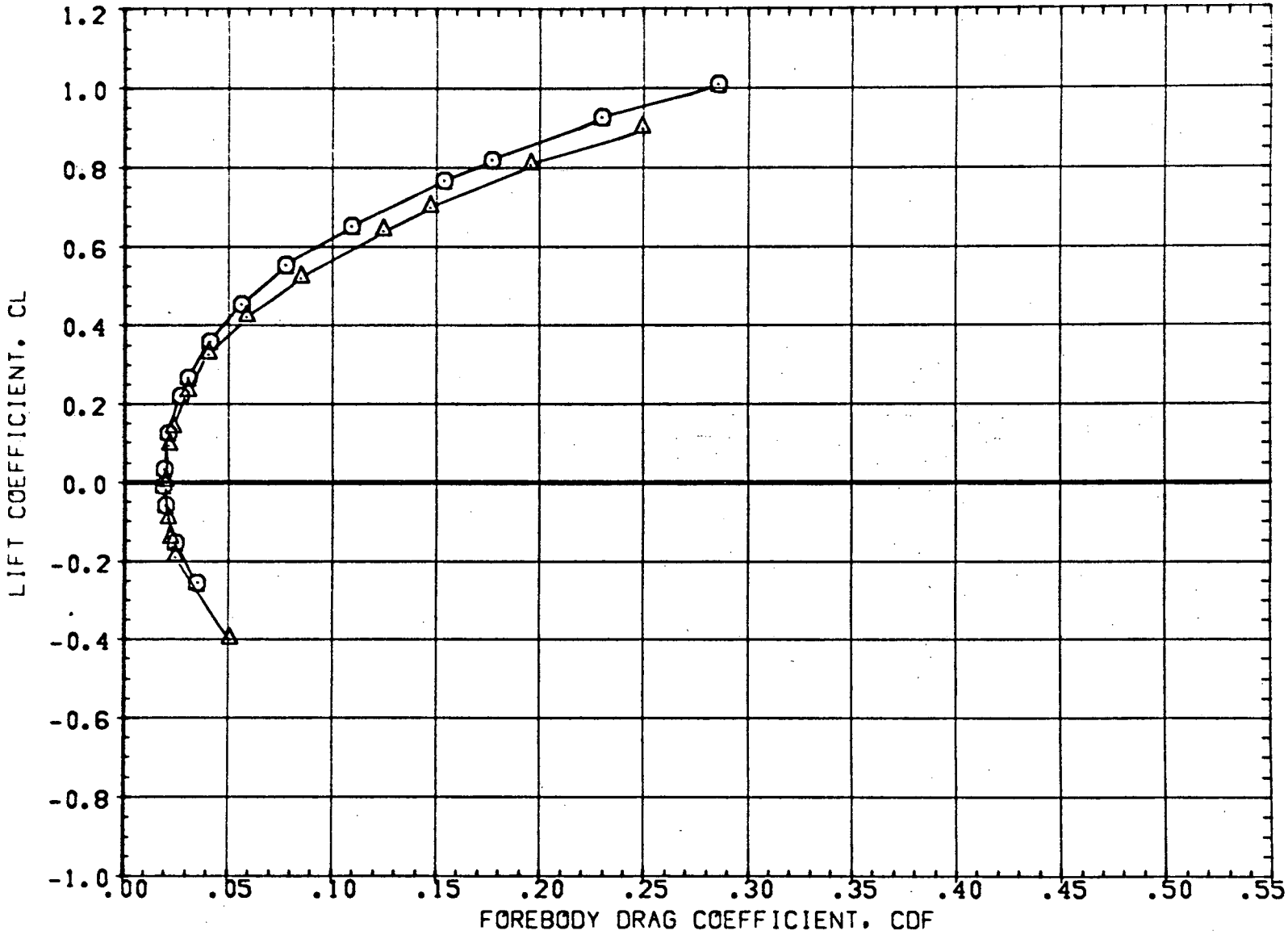

FIG. 35 ELEVON EFFECT. OF WING WITH SHARPER L.E., EXTENDED GLOVE (W14) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC064)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(ADC067)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION

SREF	5.2818	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

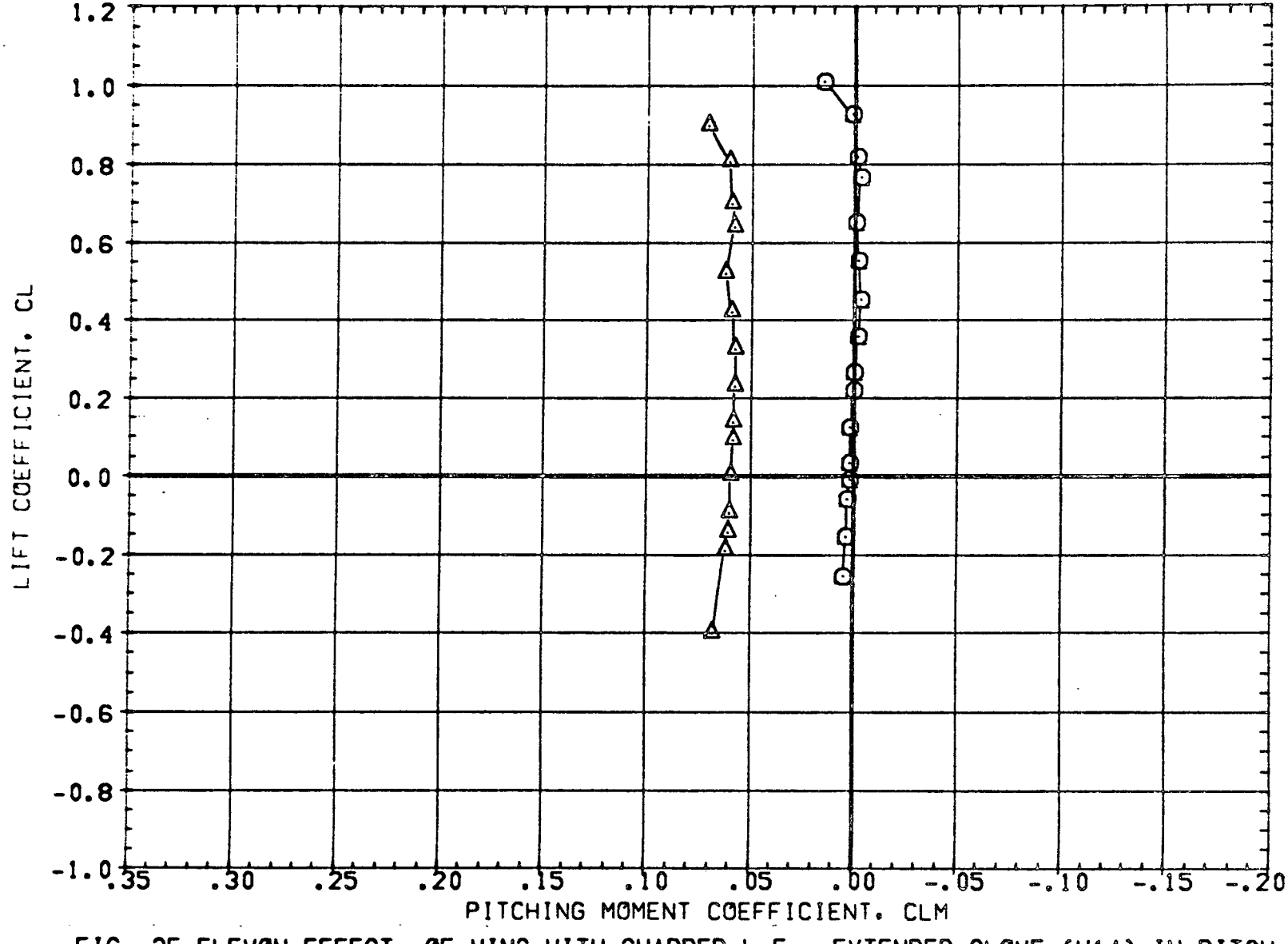

FIG. 35 ELEVON EFFECT. OF WING WITH SHARPER L.E., EXTENDED GLOVE (W14) IN PITCH

(A)MACH = .16

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-0B
(ADG064)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(ADG067)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

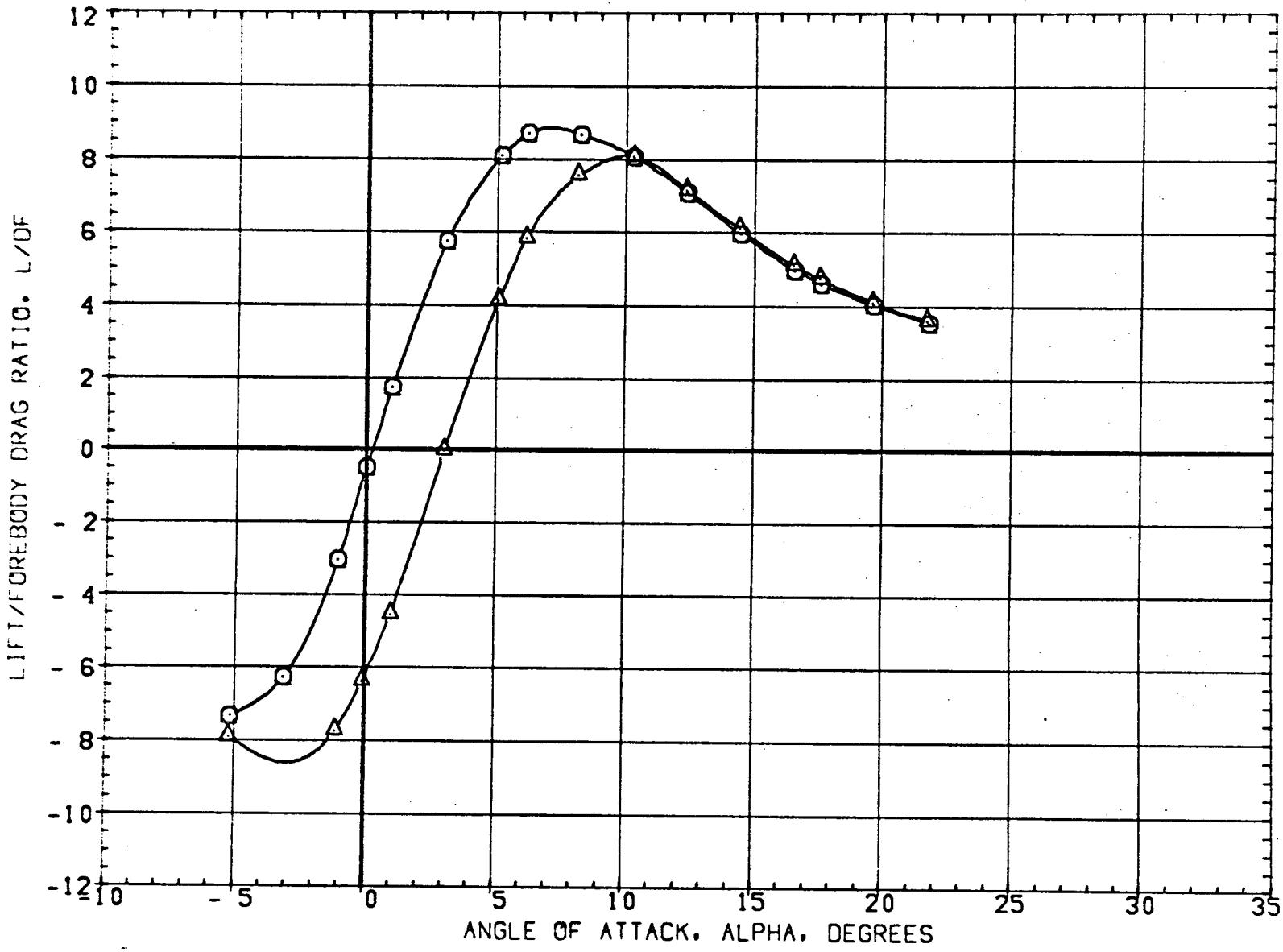

FIG. 35 ELEVON EFFECT. OF WING WITH SHARPER L.E., EXTENDED GLOVE (W14) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC064)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 R2	0.000	0.000	0.000
(ADC067)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 R2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2626	INCHES
BREF	40.8119	INCHES
XMRP	43.0598	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

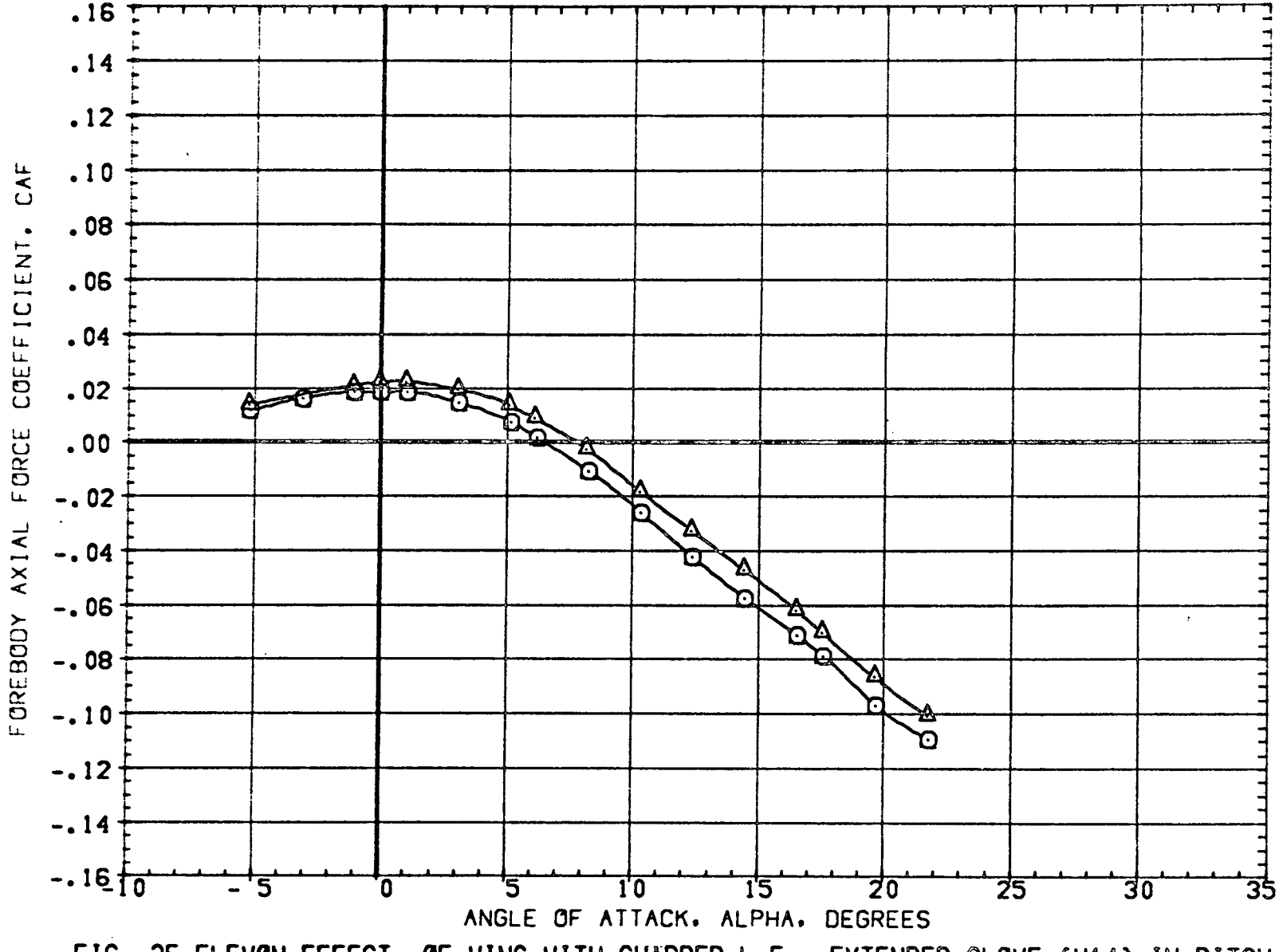

FIG. 35 ELEVON EFFECT. OF WING WITH SHARPER L.E., EXTENDED GLOVE (W14) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC064)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(ADC067)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

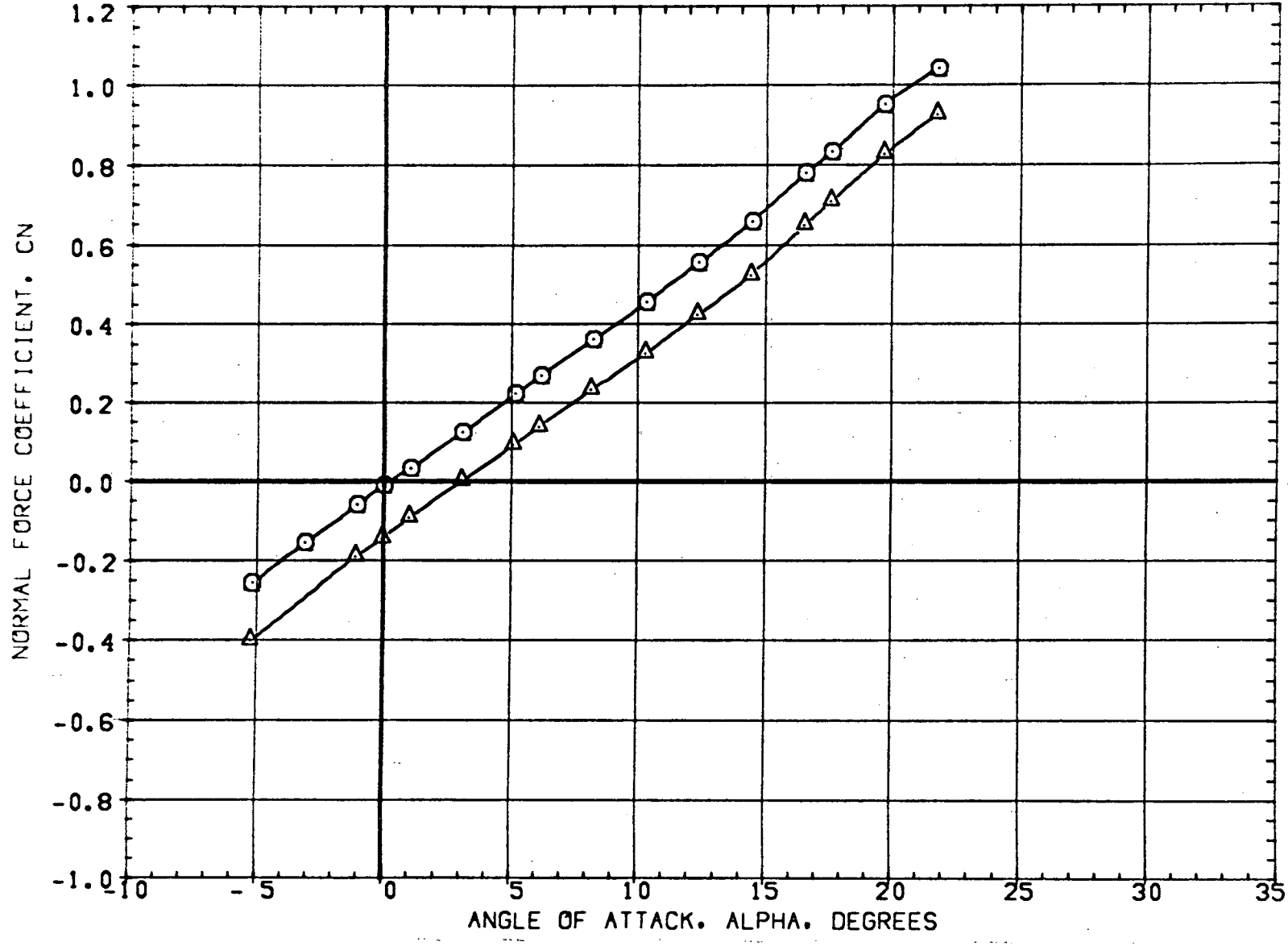

FIG. 35 ELEVON EFFECT. OF WING WITH SHARPER L.E., EXTENDED GLOVE (W14) IN PITCH

(A)MACH = .16

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG064)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(ADG067)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0598	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

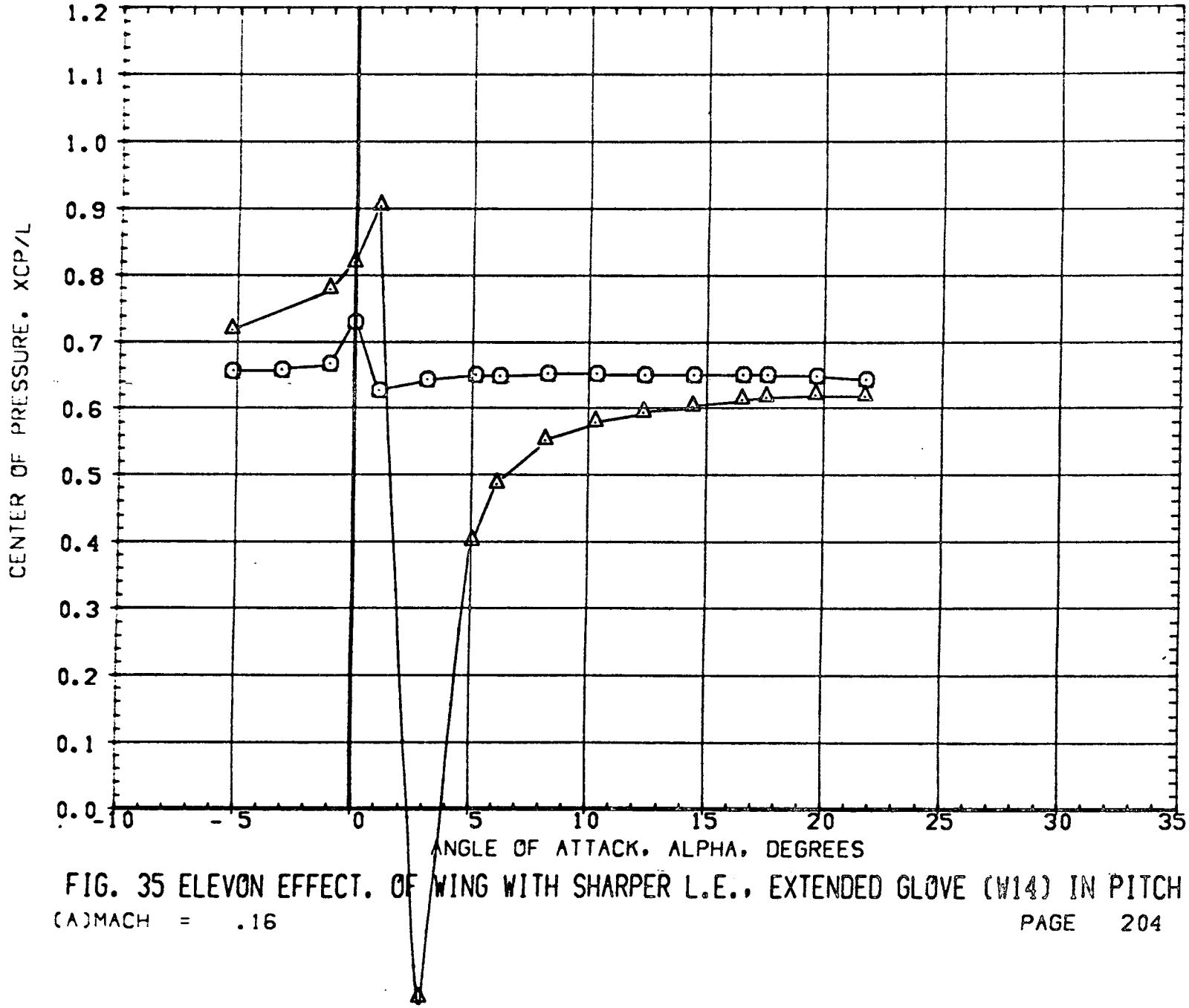

FIG. 35 ELEVON EFFECT. OF WING WITH SHARPER L.E., EXTENDED GLOVE (W14) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6064)	◇	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2	0.000	0.000	0.000
(AD6067)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

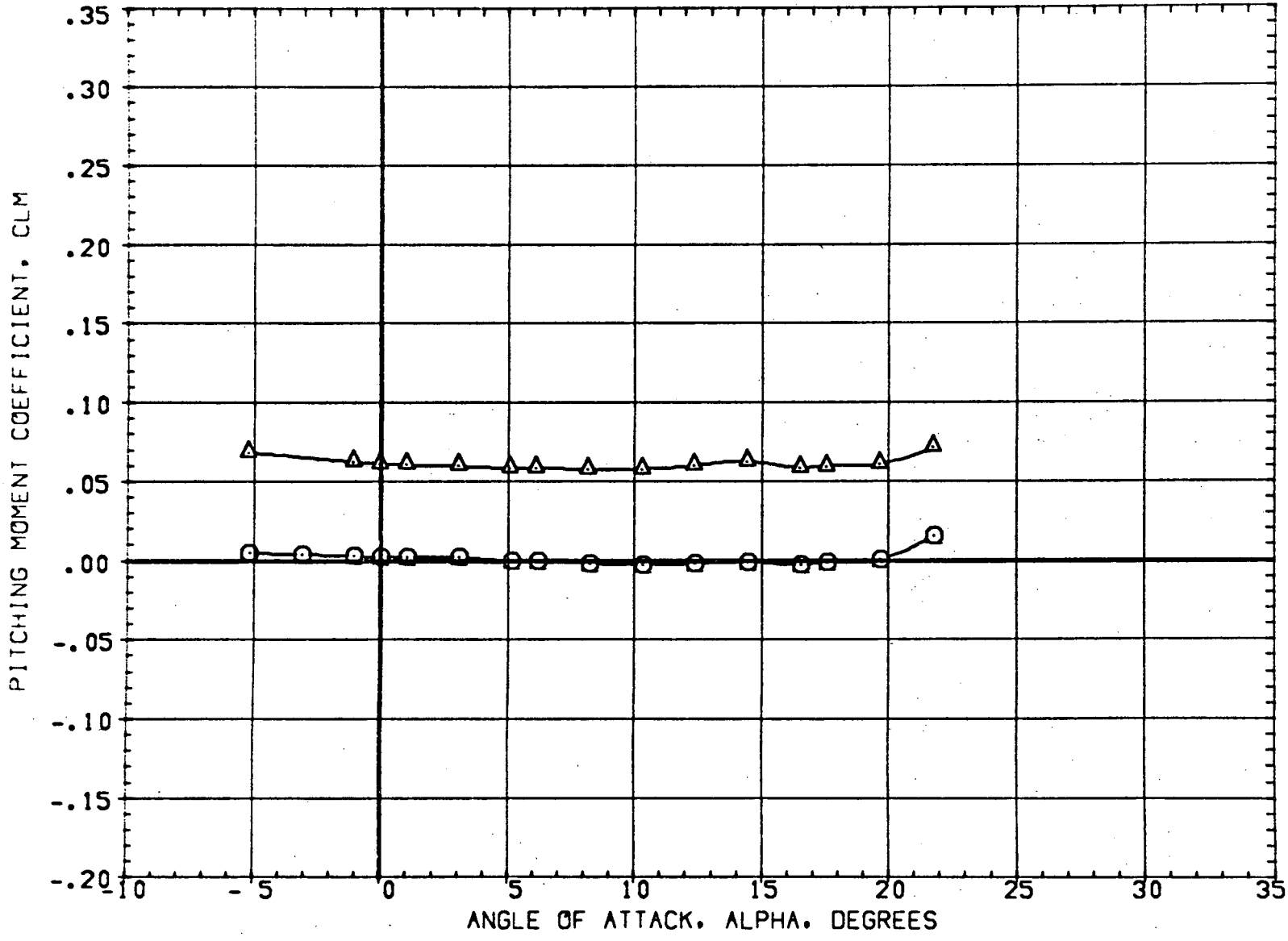

FIG. 35 ELEVON EFFECT. OF WING WITH SHARPER L.E., EXTENDED GLOVE (W14) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG093)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(ADG068)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2818	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0403	SCALE

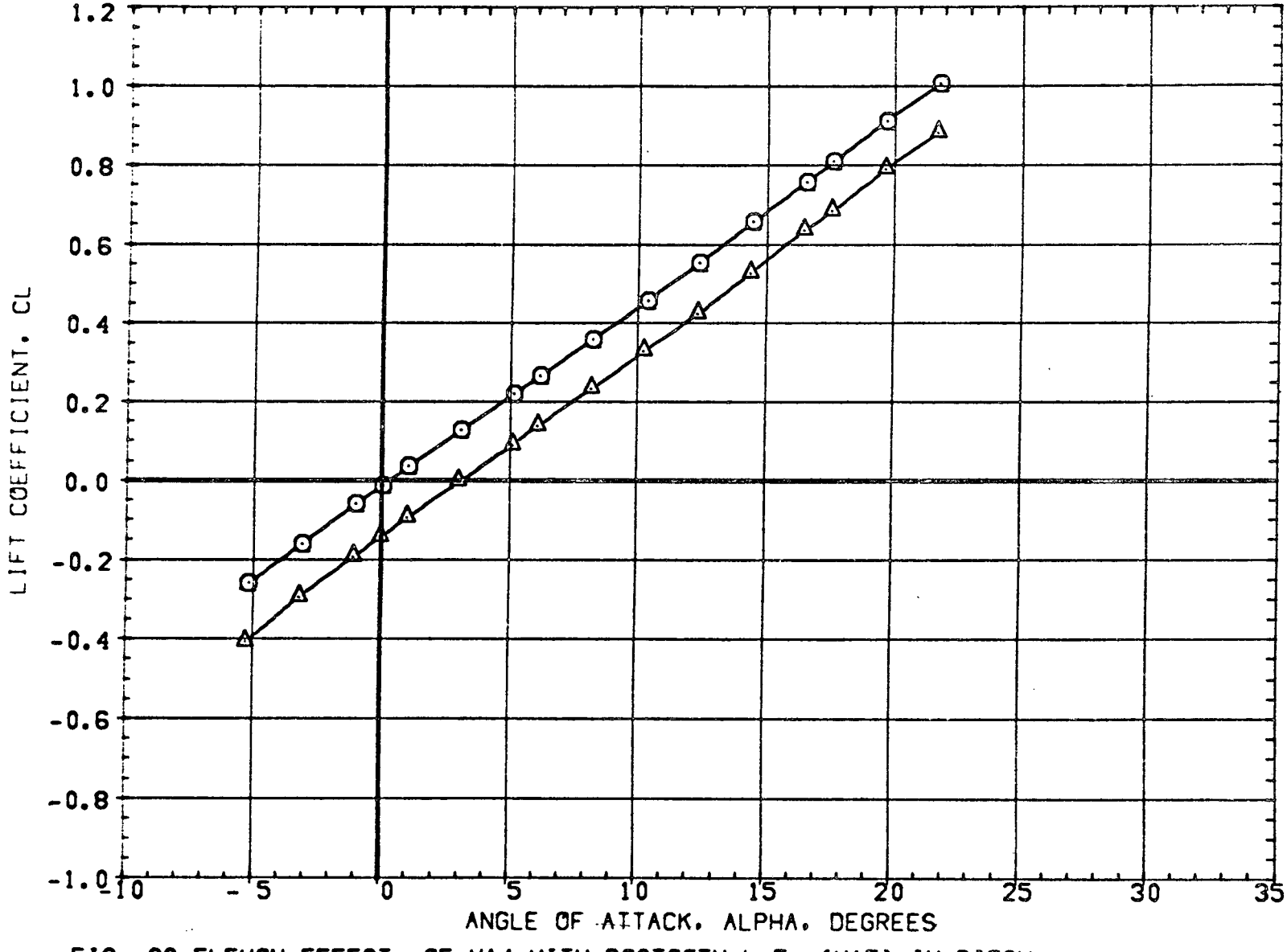

FIG. 36 ELEVON EFFECT. OF W14 WITH DOGTOOTH L.E. (W15) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADGQT3)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(ADGQ68)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

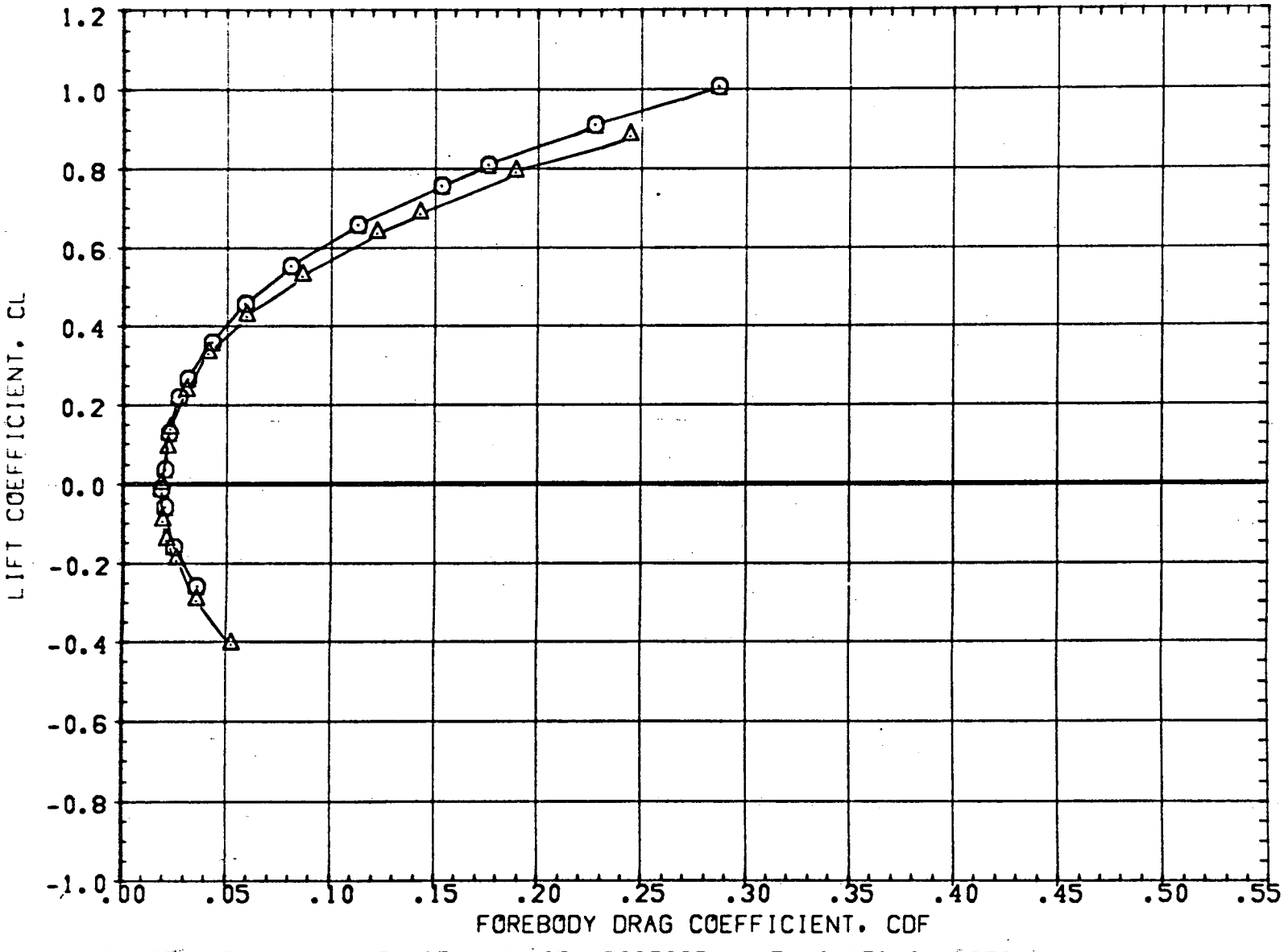

FIG. 36 ELEVON EFFECT. OF W14 WITH DOGTOOTH L.E. (W15) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG073)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(ADG068)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0598	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

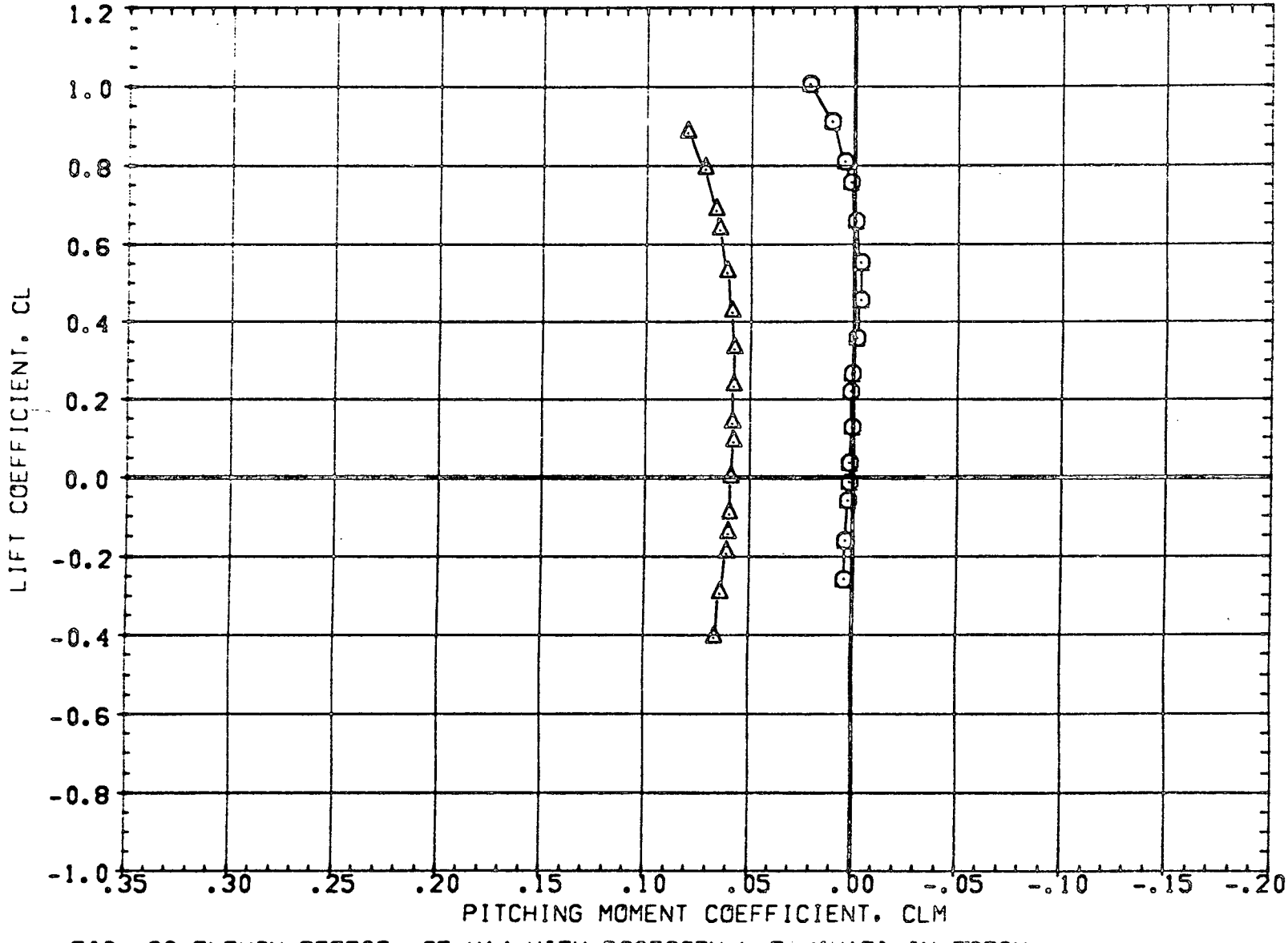

FIG. 36 ELEVON EFFECT. OF W14 WITH DOGTOOTH L.E. (W15) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-1B	ELV-0B
(ADG073)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(ADG068)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

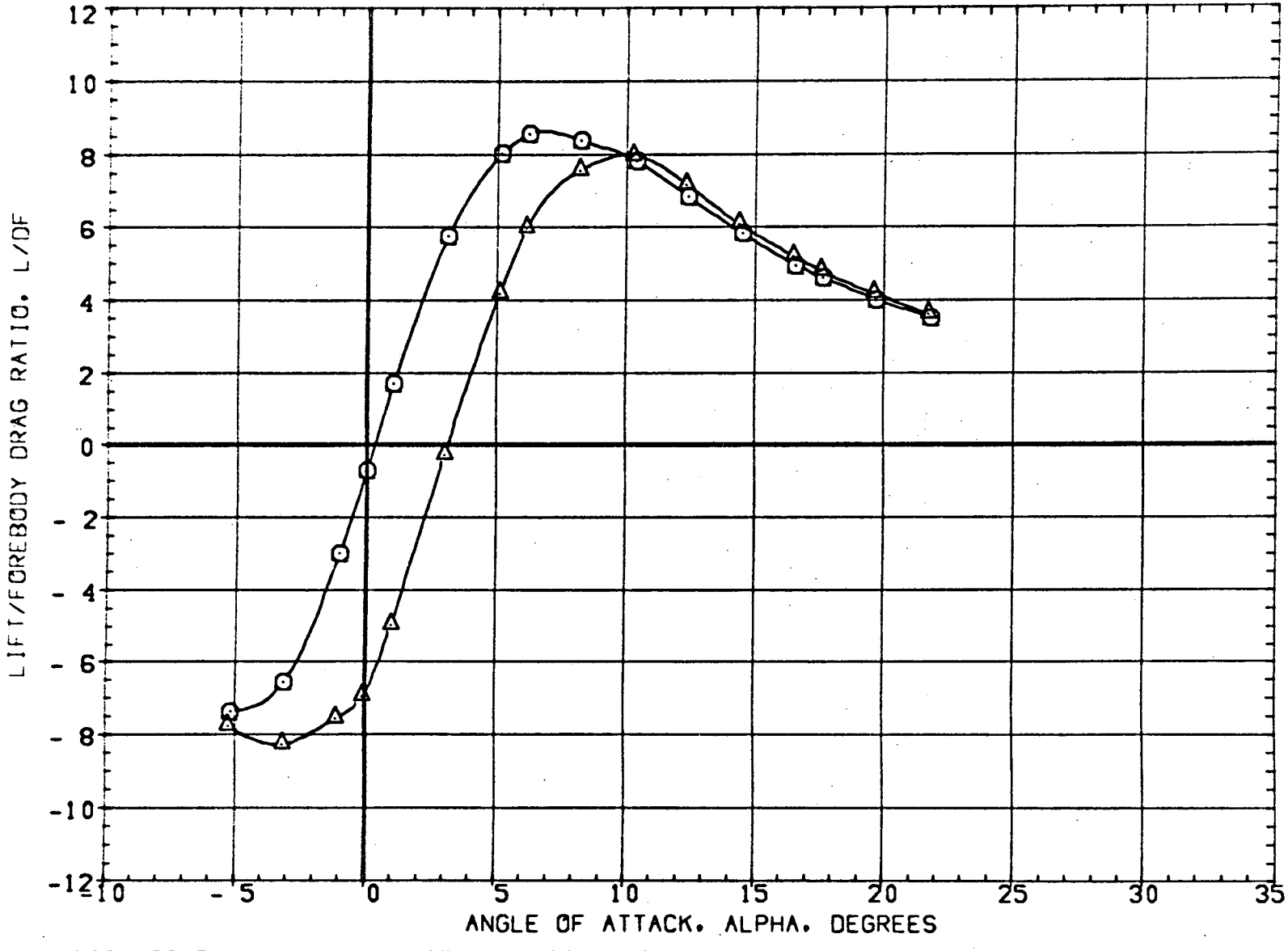

FIG. 36 ELEVON EFFECT. OF W14 WITH DOGTOOTH L.E. (W15) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADC073)	○	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(ADC068)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION

SREF	5.2010	SQ.FT.
LREF	21.2020	INCHES
BREF	40.0119	INCHES
XMRP	49.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

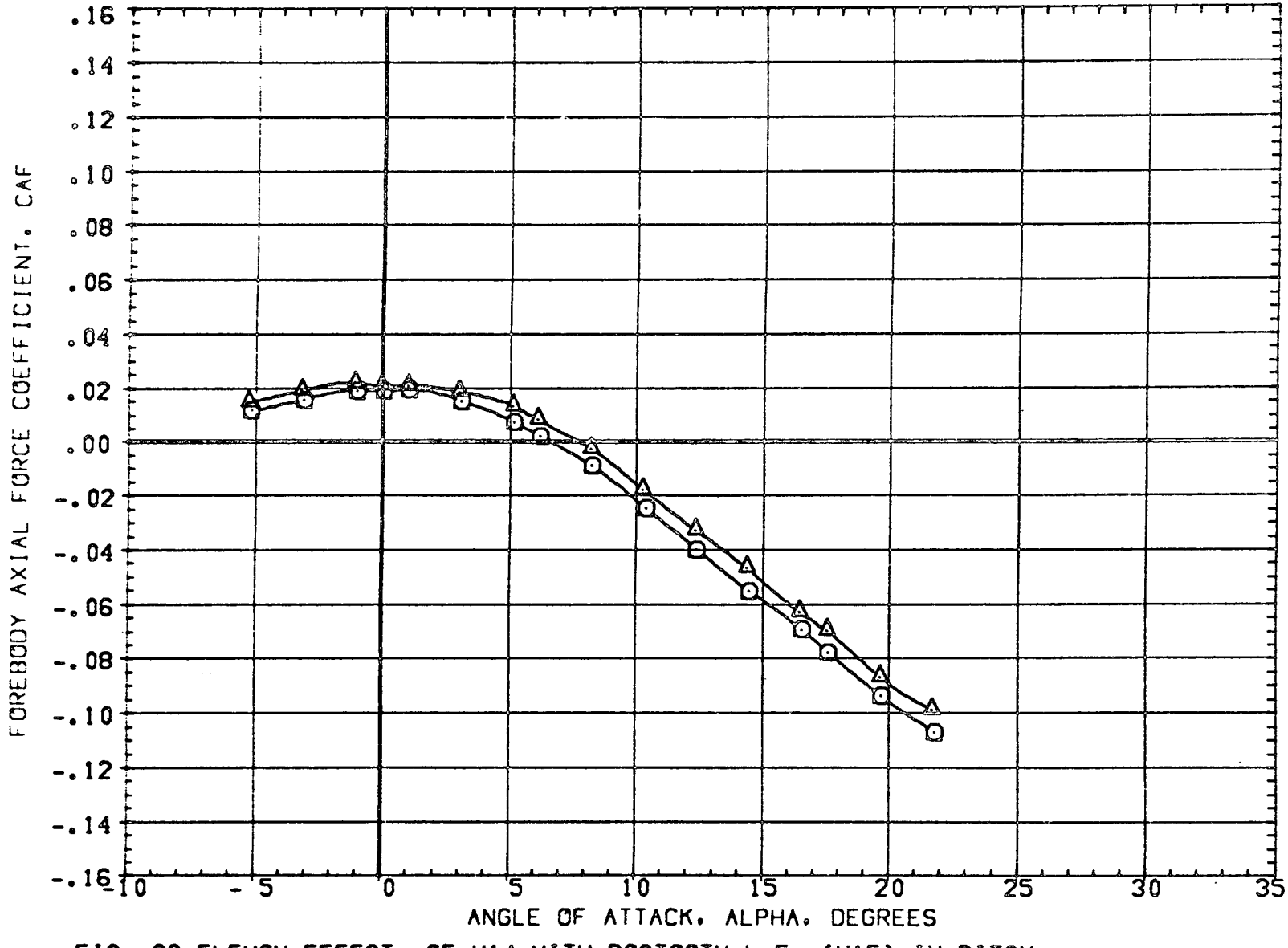

FIG. 36 ELEVON EFFECT. OF W14 WITH DOGTOOTH L.E. (W15) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(AD6073)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(AD6068)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2828	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

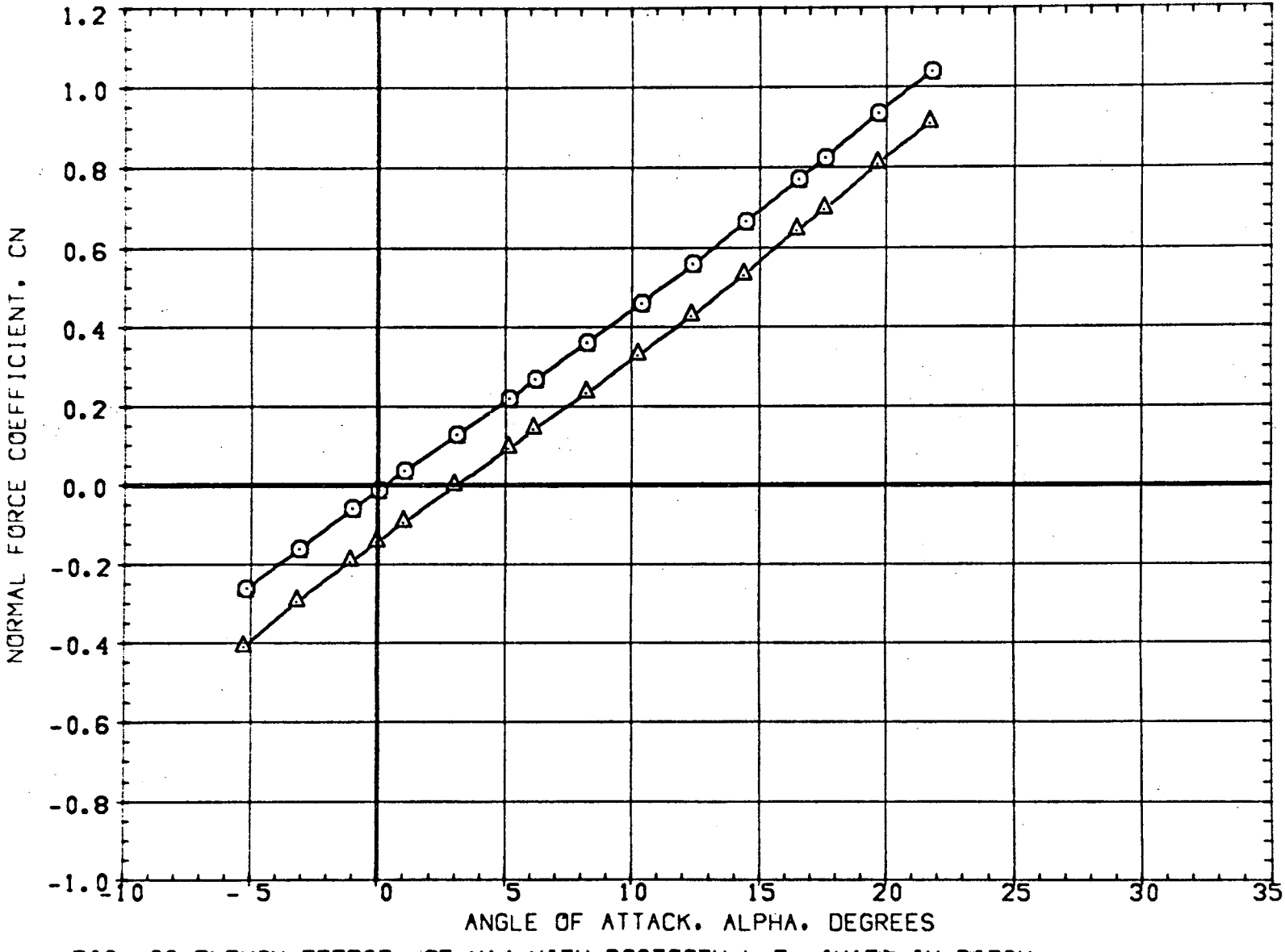

FIG. 36 ELEVON EFFECT. OF W14 WITH DOGTOOTH L.E. (W15) IN PITCH

(A)MACH = .16

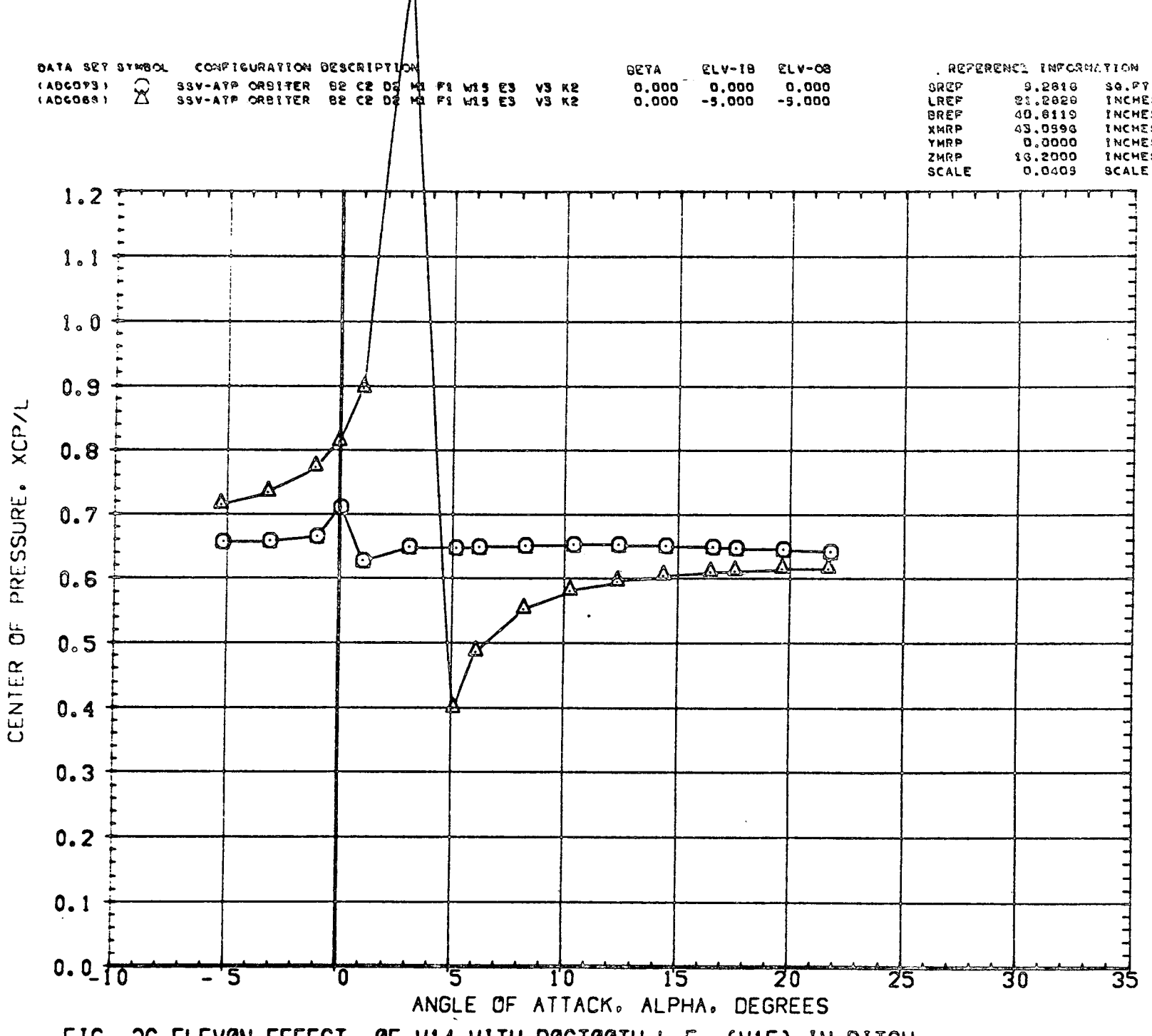

FIG. 36 ELEVON EFFECT. OF W14 WITH DOGTOOTH L.E. (W15) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(ADG073)	○	SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.000	0.000	0.000
(ADG068)	△	SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

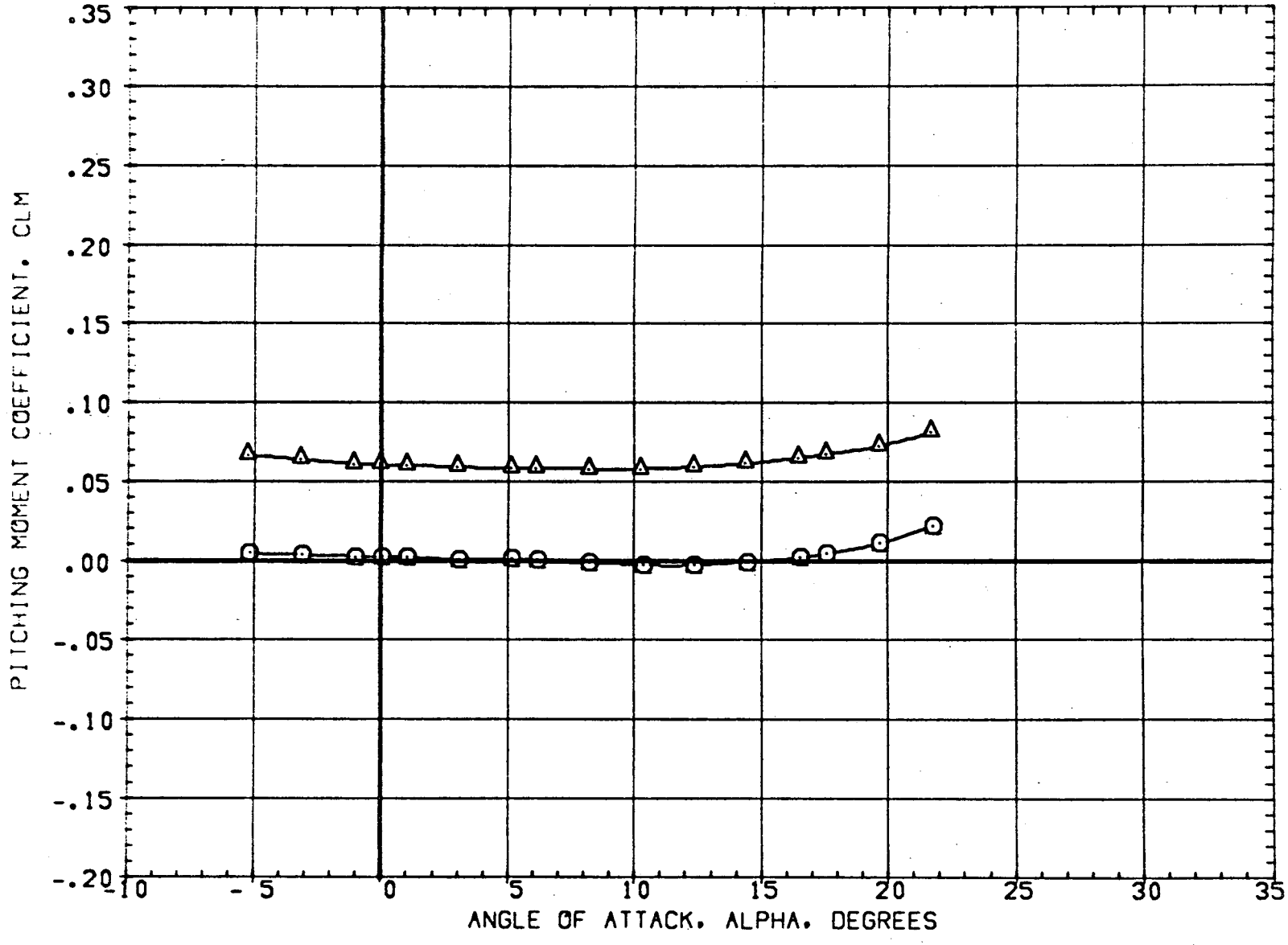

FIG. 36 ELEVON EFFECT. OF W14 WITH DOGTOOTH L.E. (W15) IN PITCH

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC070)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	-5.000	-5.000	-5.000
(BDC068)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000
(BDC069)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	5.000	-5.000	-5.000
(BDC074)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	5.000	0.000	0.000
(BDC075)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	-5.000	0.000	0.000
(BDC073)		SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2818	SQ.FT.
LREF	81.2829	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

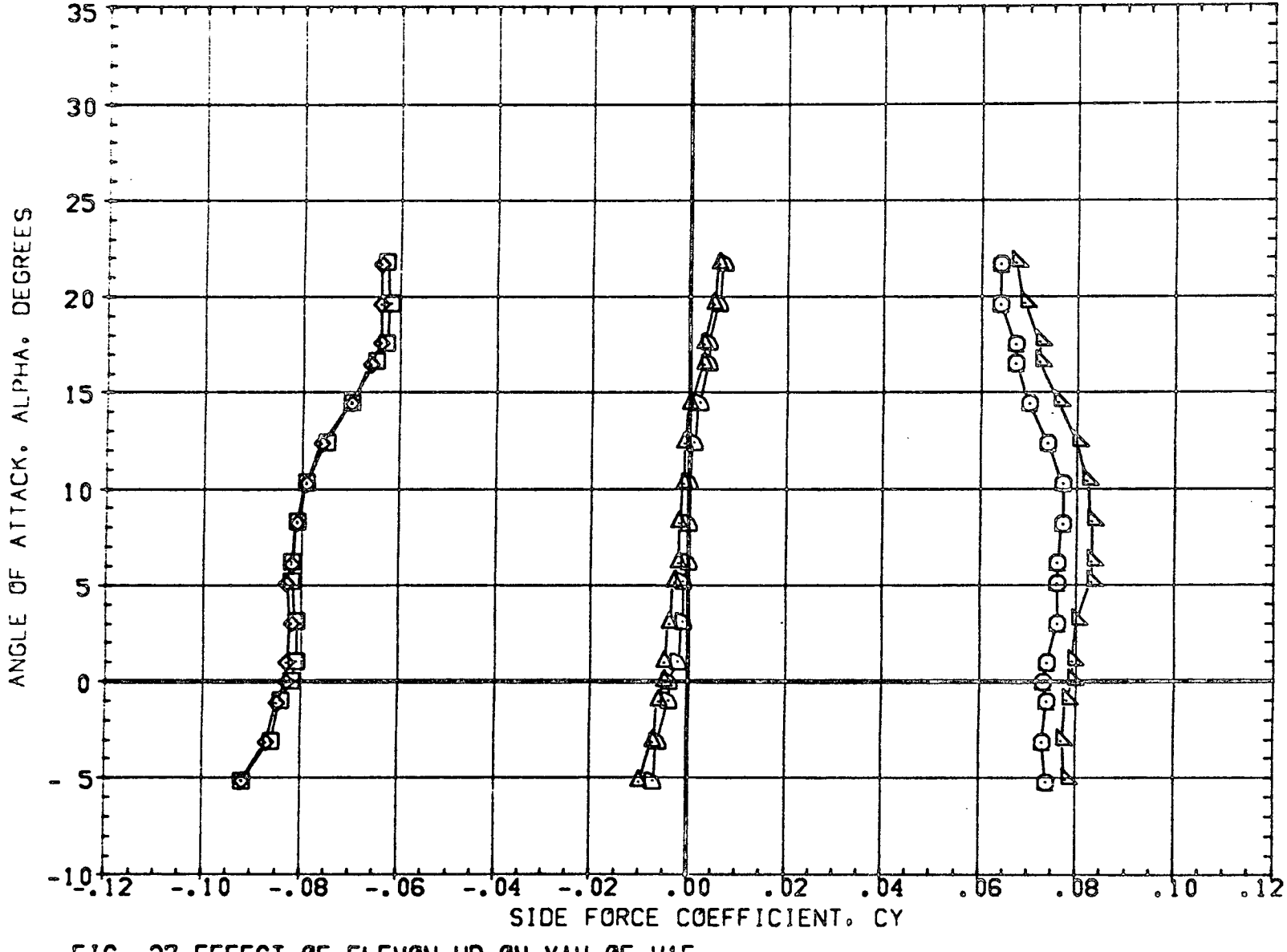

FIG. 37 EFFECT OF ELEVON UP ON YAW OF W15

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC070)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	-5.000	-5.000	-5.000
(BDC068)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000
(BDC069)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	5.000	-5.000	-5.000
(BDC074)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	5.000	0.000	0.000
(BDC075)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	-5.000	0.000	0.000
(BDC073)		SSV-ATP ORBITER B2 C2 D2 H1 F1 W15 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	5.2816	SQ.FT.
LREF	21.2628	INCHES
BREF	40.8119	INCHES
XMRP	43.0396	INCHES
YMRP	0.0000	INCHES
ZMRP	16.2000	INCHES
SCALE	0.0405	SCALE

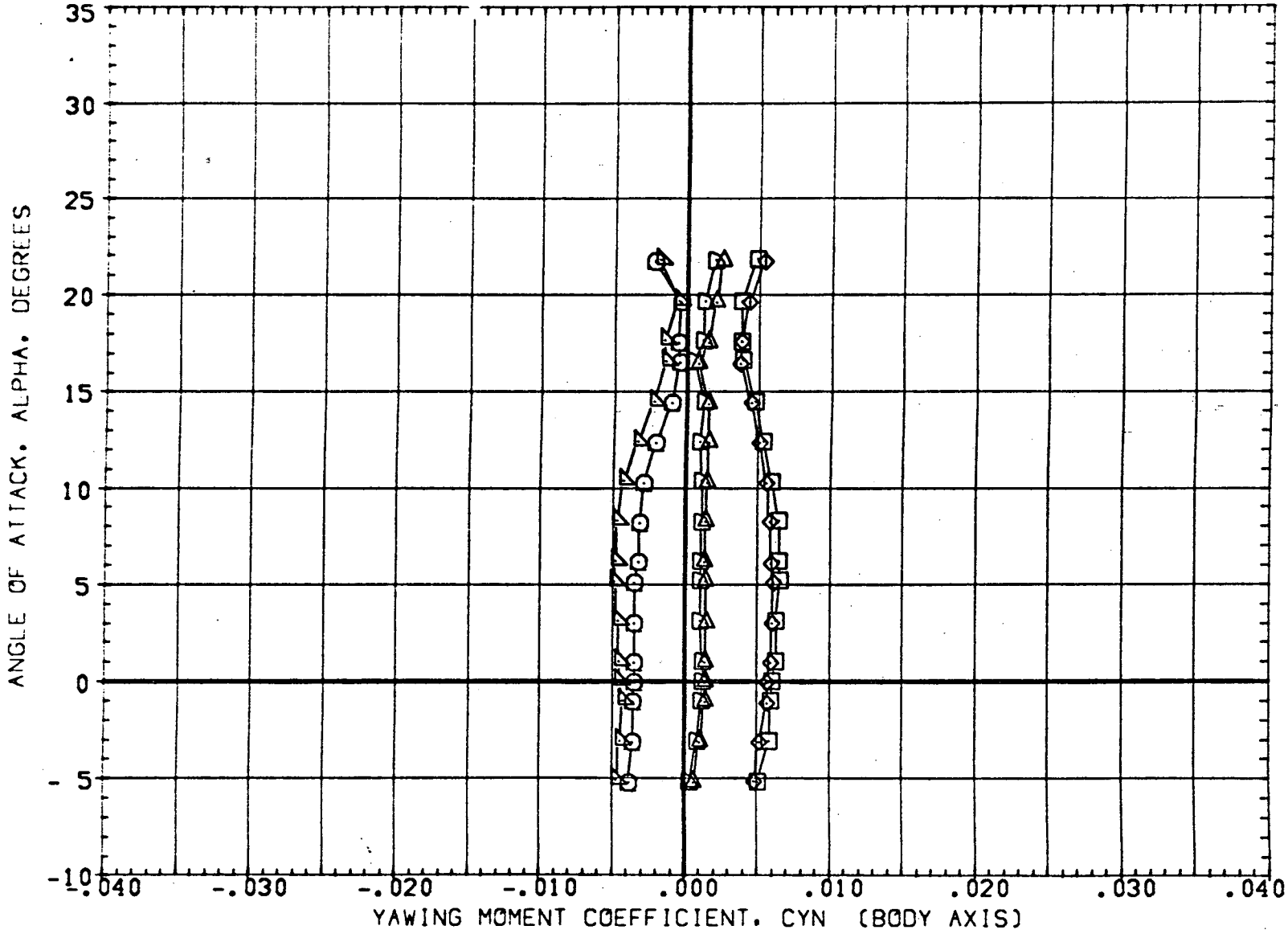

FIG. 37 EFFECT OF ELEVON UP ON YAW OF W15

(A)MACH = .16

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELV-IB	ELV-OB
(BDC070)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	-5.000	-5.000	-5.000
(BDC068)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	-5.000	-5.000
(BDC069)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	5.000	-5.000	-5.000
(BDC074)	◇	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	5.000	0.000	0.000
(BDC075)	△	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	-5.000	0.000	0.000
(BDC073)	□	SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	9.2816	SQ.FT.
LREF	21.2820	INCHES
BREF	40.8119	INCHES
XMRP	43.0596	INCHES
YMRP	0.0000	INCHES
ZMRP	10.2000	INCHES
SCALE	0.0405	SCALE

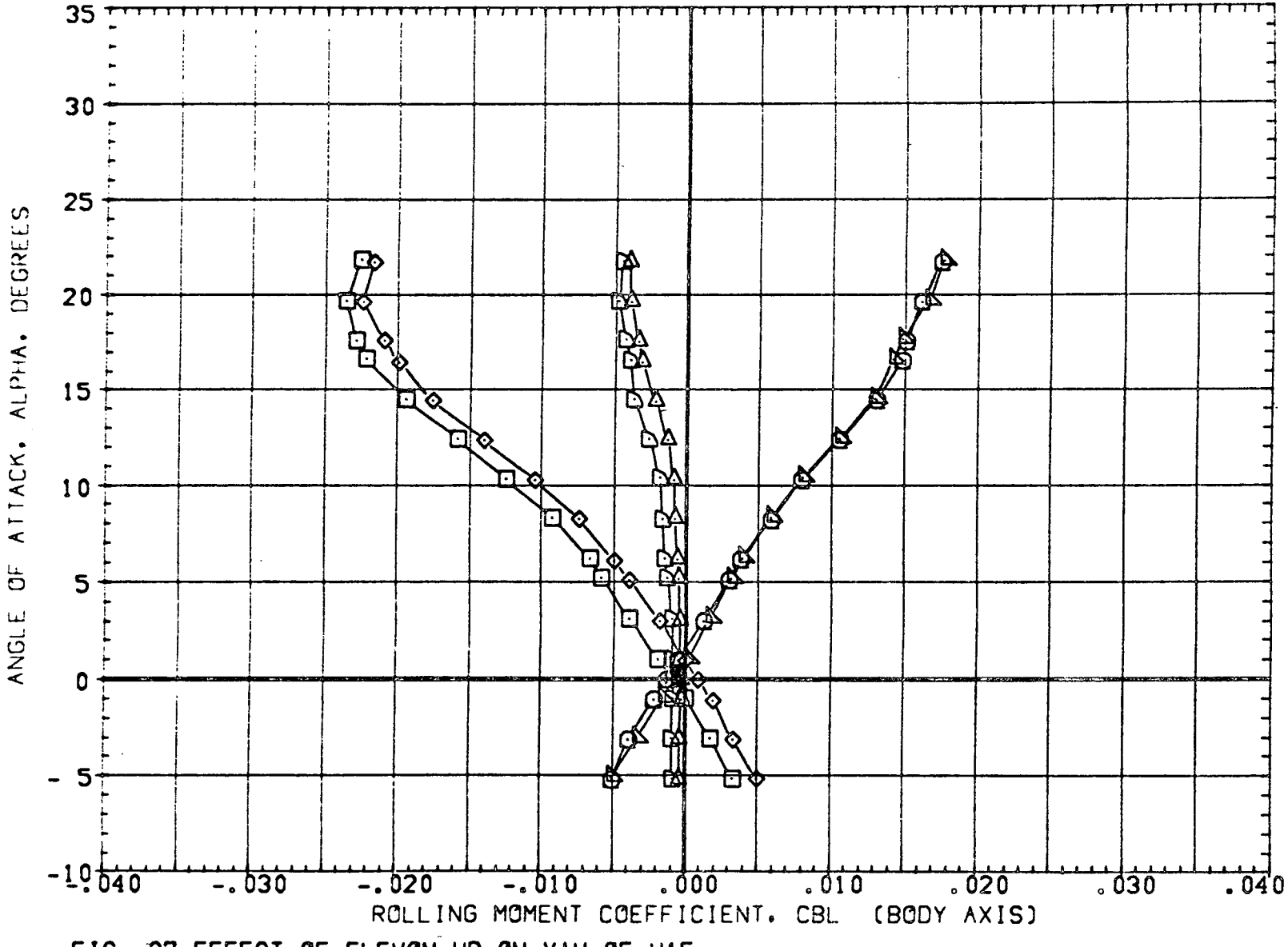

FIG. 37 EFFECT OF ELEVON UP ON YAW OF W15

(A)MACH = .16

APPENDIX

TABULATED SOURCE DATA

Tabulations of the plotted data are available on request from the Data Management System.

C4

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1 (ADG001) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 1/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.140	-.22700	.04620	.01800	-.23040	.02760	.00130	-.00070	-.00700	.68100	-4.70900
.163	-3.080	-.13300	.04130	.00940	-.13510	.03410	.00120	-.00060	-.00600	.67770	-3.21700
.163	-1.010	-.04110	.03740	.00270	-.04180	.03670	.00100	-.00040	-.00500	.67580	-1.09800
.163	.000	.00520	.03610	-.00050	.00520	.03610	.00090	-.00040	-.00400	.68850	.14600
.163	1.040	.05020	.03620	-.00250	.05090	.03530	.00090	-.00030	-.00200	.66970	1.38700
.163	3.100	.13960	.03810	-.00790	.14150	.03050	.00090	.00000	-.00100	.67220	3.66100
.163	5.160	.23020	.04370	-.01350	.23320	.02270	.00080	.00000	.00000	.67290	5.26700
.163	6.190	.27790	.04720	-.01710	.28130	.01700	.00070	.00000	.00000	.67410	5.87700
.163	8.250	.37050	.05720	-.02510	.37490	.00340	.00050	.00010	.00100	.67650	6.47700
.163	10.340	.47130	.07260	-.03620	.47660	-.01320	.00000	.00070	.00200	.68000	6.48900
.163	12.400	.57320	.09520	-.04880	.58020	-.03010	.00030	-.00010	.00200	.68330	6.01900
.163	14.470	.67310	.12620	-.06270	.68330	-.04590	.00020	.00000	.00300	.68630	5.33200
.163	16.520	.75370	.17400	-.07420	.77210	-.04750	.00090	.00050	.00200	.68800	4.32900
.163	17.560	.79050	.19850	-.07890	.81350	-.04930	.00120	.00110	.00100	.68840	3.98200
.163	19.630	.85430	.25100	-.08670	.88890	-.05050	.00120	.00050	.00100	.68860	3.40300
.163	21.650	.90360	.30360	-.08850	.95220	-.05100	.00060	.00090	.00200	.68670	2.97400
.163	23.690	.94370	.35860	-.09610	1.01010	-.05160	-.00070	-.00040	.00700	.68760	2.63600
.163	25.730	.95260	.40510	-.08970	1.03400	-.04860	-.00330	.00080	.00800	.68430	2.35100
.163	28.730	.93750	.46090	-.08270	1.04370	-.04640	-.00240	.00680	-.01200	.68130	2.03300
	GRADIENT	.04415	-.00052	-.00277	.04480	-.00059	-.00005	.00009	.00087	-.00110	1.12277

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G1 (ADG002) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2626 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 3.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 2/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.130	-.22510	.04360	.01690	-.22820	.02320	.00620	.00130	-.09500	.67930	-5.15400
.163	-3.080	-.13250	.03730	.00780	-.13430	.03010	.00620	.00050	-.09400	.67320	-3.55000
.163	-1.020	-.04050	.03260	.00060	-.04110	.03190	.00610	-.00050	-.09300	.65640	-1.24100
.163	.020	.00490	.03150	-.00160	.00490	.03150	.00600	-.00100	-.09200	.78280	.15600
.163	1.050	.05050	.03190	-.00450	.05110	.03090	.00600	-.00160	-.09000	.68520	1.58400
.163	3.070	.13560	.03300	-.00950	.13710	.02570	.00620	-.00250	-.09000	.67750	4.10000
.163	5.170	.22760	.03770	-.01620	.23000	.01700	.00660	-.00320	-.08900	.67790	6.02400
.163	6.190	.27560	.04250	-.02010	.27850	.01260	.00650	-.00360	-.08800	.67860	6.47200
.163	8.240	.36940	.05330	-.02820	.37330	-.00010	.00640	-.00350	-.08800	.67990	6.92300
.163	10.320	.46560	.06790	-.03800	.47040	-.01660	.00640	-.00420	-.08600	.68200	6.85600
.163	12.400	.56950	.09070	-.05130	.57570	-.03360	.00700	-.00560	-.08600	.68520	6.27500
.163	14.470	.67060	.12470	-.06530	.68050	-.04680	.00630	-.00880	-.08100	.68800	5.37400
.163	16.500	.75110	.17110	-.07420	.76880	-.04930	.00760	-.00850	-.08100	.68820	4.38700
.163	17.550	.78150	.19620	-.07750	.80420	-.04860	.00750	-.01150	-.07700	.68810	3.98300
.163	19.590	.84270	.24660	-.08300	.87660	-.05020	.00940	-.01360	-.07200	.68740	3.41600
.163	21.650	.88920	.29740	-.08330	.93620	-.05170	.01060	-.01160	-.07100	.68520	2.98900
.163	23.680	.90840	.34930	-.08780	.97060	-.04870	.00610	-.00610	-.06700	.68580	2.63000
.163	25.710	.94370	.39790	-.09220	1.02290	-.05090	.00430	-.00130	-.07000	.68560	2.37100
.163	26.740	.96020	.46580	-.09500	1.06590	-.05330	.01150	.00580	-.09200	.68520	2.06100
	GRADIENT	.04363	-.00067	-.00278	.04418	-.00069	-.00001	-.00049	.00073	.00210	1.25603

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2 (ADG003) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 3/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.150	-.23070	.04840	.01890	-.23410	.02740	.00130	-.00070	-.00600	.68200	-4.76400
.163	-3.080	-.13800	.04110	.01010	-.14000	.03360	.00120	-.00050	-.00400	.67860	-3.35200
.163	-1.030	-.04430	.03690	.00370	-.04500	.03610	.00100	-.00050	-.00300	.68310	-1.20000
.163	.000	-.00210	.03660	.00120	-.00210	.03660	.00090	-.00040	-.00200	.87250	-.05800
.163	1.040	.04660	.03580	-.00180	.04730	.03490	.00090	-.00030	-.00100	.66510	1.30100
.163	3.090	.13590	.03780	-.00690	.13780	.03040	.00090	.00000	-.00100	.67000	3.59300
.163	5.150	.22460	.04290	-.01290	.22760	.02260	.00080	.00000	.00000	.67250	5.22900
.163	6.190	.27200	.04680	-.01600	.27540	.01720	.00080	.00000	.00000	.67300	5.80500
.163	8.260	.36770	.05650	-.02440	.37200	.00290	.00050	.00010	.00000	.67600	6.50400
.163	10.320	.46630	.07260	-.03520	.47370	-.01240	-.00010	.00060	.00300	.67940	6.44900
.163	12.410	.56990	.09530	-.04820	.57710	-.02930	.00020	-.00020	.00300	.68300	5.97800
.163	14.460	.67000	.12500	-.06110	.68000	-.04620	.00020	-.00040	.00400	.68550	5.35800
.163	16.530	.75220	.17300	-.07340	.77040	-.04810	.00090	.00020	.00200	.68770	4.34700
.163	17.560	.78530	.19670	-.07760	.80800	-.04940	.00120	.00120	.00200	.68800	3.99100
.163	19.620	.85190	.25030	-.08580	.88650	-.05030	.00110	.00100	.00200	.68830	3.40300
.163	21.660	.90440	.30340	-.08870	.95260	-.05190	.00020	.00110	.00400	.68680	2.98000
.163	23.690	.94410	.35800	-.09670	1.00840	-.05160	-.00080	-.00080	.00900	.68790	2.63600
.163	25.740	.94990	.40340	-.08820	1.03080	-.04910	-.00320	.00060	.01000	.68380	2.35400
.163	28.720	.93340	.45880	-.08100	1.03900	-.04610	-.00230	.00720	-.01200	.68080	2.03400
	GRADIENT	.04434	-.00053	-.00275	.04498	-.00053	-.00005	.00008	.00053	-.00217	1.13399

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G2 (ADG004) (28 FEB 73)

REFERENCE DATA

SREF = 3.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 4/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.150	-.23000	.04380	.01710	-.23300	.02290	.00620	.00130	-.09500	.67910	-5.25000
.163	-3.060	-.13340	.03840	.00760	-.13520	.02920	.00610	.00060	-.09400	.67240	-3.65800
.163	-1.040	-.04340	.03290	.00110	-.04400	.03210	.00600	-.00050	-.09300	.66020	-1.32100
.163	.030	.00260	.03290	-.00190	.00260	.03290	.00600	-.00110	-.09200	.94010	.08000
.163	1.020	.04800	.03240	-.00410	.04850	.03160	.00600	-.00160	-.09000	.68350	1.47800
.163	3.090	.13600	.03400	-.01050	.13960	.02650	.00620	-.00260	-.08800	.67990	4.05000
.163	5.150	.22720	.03930	-.01670	.22990	.01870	.00630	-.00330	-.08900	.67880	5.77400
.163	6.200	.27260	.04280	-.02020	.27560	.01300	.00640	-.00360	-.08900	.67910	6.37000
.163	8.250	.36770	.05330	-.02850	.37150	.00000	.00620	-.00380	-.08700	.68030	6.89200
.163	10.290	.46220	.06800	-.03800	.46690	-.01560	.00620	-.00430	-.08500	.68220	6.79700
.163	12.400	.56700	.09130	-.05130	.57330	-.03250	.00670	-.00580	-.08500	.68540	6.20400
.163	14.440	.66710	.12380	-.06490	.67690	-.04640	.00610	-.00880	-.08100	.68790	5.38500
.163	16.540	.74760	.17180	-.07410	.76560	-.04810	.00750	-.00870	-.08100	.68830	4.34900
.163	17.930	.77670	.19450	-.07710	.79920	-.04840	.00730	-.01140	-.07600	.68810	3.99200
.163	19.620	.84090	.24720	-.08270	.87480	-.04930	.00920	-.01290	-.07300	.68740	3.39900
.163	21.620	.88660	.29650	-.08400	.93340	-.05100	.01080	-.01210	-.07100	.68560	2.99000
.163	23.660	.90730	.34510	-.08780	.96950	-.04840	.00590	-.00540	-.06800	.68580	2.62900
.163	25.720	.94130	.39540	-.09170	1.01970	-.05240	.00410	-.00030	-.07100	.68560	2.38000
.163	28.770	.95130	.46420	-.09390	1.05730	-.05090	.01160	.00600	-.09300	.68510	2.04800
	GRADIENT	.04415	-.00037	-.00290	.04470	-.00042	.00001	-.00052	.00102	.00252	1.26397

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3 (ADG005) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 5/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.150	-.23160	.05050	.01580	-.23520	.02950	.00080	-.00070	-.00500	.67650	-4.57900
.163	-3.100	-.13910	.04270	.00630	-.14120	.03510	.00080	-.00040	-.00400	.66780	-3.25200
.163	-1.040	-.04400	.03920	.00000	-.04470	.03840	.00070	-.00050	-.00300	.65070	-1.12000
.163	.000	.00320	.03800	-.00200	.00320	.03800	.00050	-.00040	-.00200	.89450	.08600
.163	1.010	.04600	.03840	-.00480	.04670	.03750	.00060	-.00030	-.00200	.69060	1.19900
.163	3.090	.13580	.03960	-.00990	.13780	.03220	.00040	-.00020	.00000	.67870	3.42600
.163	5.160	.22760	.04490	-.01570	.23070	.02420	.00020	-.00030	.00000	.67690	5.06700
.163	6.170	.27350	.04920	-.01900	.27720	.01950	.00030	-.00020	.00000	.67710	5.55600
.163	8.240	.36600	.05830	-.02680	.37060	.00520	.00000	.00000	.00200	.67870	6.27300
.163	10.310	.46370	.07300	-.03730	.46920	-.01110	-.00030	.00040	.00300	.68140	6.34700
.163	12.360	.56520	.09460	-.04970	.57230	-.02870	.00000	-.00020	.00300	.68440	5.97300
.163	14.460	.66720	.12500	-.06370	.67730	-.04550	-.00020	-.00060	.00500	.68720	5.33500
.163	16.510	.74780	.17280	-.07570	.76610	-.04680	.00030	-.00040	.00400	.68910	4.32600
.163	17.540	.78550	.19720	-.08130	.80840	-.04870	.00080	.00060	.00300	.68980	3.98200
.163	19.620	.85550	.25040	-.08960	.88990	-.05130	.00050	.00010	.00500	.68980	3.41500
.163	21.650	.89980	.30230	-.09000	.94780	-.05100	.00000	.00070	.00400	.68750	2.97600
.163	23.700	.93970	.35510	-.09580	1.00320	-.05250	-.00090	.00020	.00700	.68780	2.64500
.163	25.700	.95150	.40250	-.09240	1.03190	-.05000	-.00360	.00200	.00700	.68540	2.36300
.163	28.720	.93780	.45620	-.08480	1.04160	-.05060	-.00180	.00380	-.00400	.68220	2.05500
	GRADIENT	.04436	-.00049	-.00259	.04502	-.00047	-.00006	.00004	.00063	.00360	1.08404

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3 (ADG006) (28 FEB 73)

REFERENCE DATA

SREF = 3.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.6119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 6/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.160	-.22800	.04640	.01370	-.23130	.02570	.00650	.00140	-.09300	.67350	-4.90800
.163	-3.080	-.13290	.03830	.00520	-.13480	.03110	.00620	.00060	-.09400	.66530	-3.46700
.163	-1.040	-.04180	.03520	-.00180	-.04240	.03440	.00600	-.00050	-.09100	.63240	-1.18700
.163	.000	.00000	.03410	-.00410	.00000	.03410	.00600	-.00100	-.09000	3.27670	.00200
.163	1.010	.04720	.03360	-.00720	.04780	.03270	.00610	-.00140	-.09100	.71000	1.40400
.163	3.080	.13910	.03620	-.01290	.14090	.02870	.00630	-.00240	-.08900	.68620	3.83700
.163	5.140	.22580	.04070	-.01880	.22850	.02030	.00640	-.00330	-.08900	.68220	5.54100
.163	6.170	.27200	.04660	-.02230	.27550	.01700	.00660	-.00370	-.08800	.68200	5.83300
.163	8.250	.37090	.05560	-.03060	.37510	.00180	.00630	-.00380	-.08600	.68230	6.66100
.163	10.280	.46400	.07050	-.04040	.46920	-.01340	.00620	-.00400	-.08500	.68410	6.57700
.163	12.380	.56550	.09330	-.05320	.57230	-.03000	.00680	-.00560	-.08500	.68680	6.05600
.163	14.450	.66590	.12540	-.06650	.67620	-.04470	.00630	-.00880	-.08000	.68690	5.30700
.163	16.500	.74580	.17270	-.07680	.76420	-.04630	.00750	-.00790	-.08000	.68970	4.31700
.163	17.560	.77800	.19640	-.07990	.80100	-.04740	.00740	-.01090	-.07600	.68950	3.95900
.163	19.610	.84230	.24800	-.08650	.87670	-.04920	.00890	-.01100	-.07400	.68900	3.39600
.163	21.650	.88380	.29810	-.08740	.93140	-.04910	.00990	-.01020	-.07300	.68710	2.96400
.163	23.670	.91100	.34890	-.09260	.97440	-.04620	.00610	-.00660	-.06600	.68760	2.61000
.163	25.700	.94280	.39910	-.09640	1.02260	-.04920	.00410	.00060	-.07300	.68730	2.36100
.163	28.760	.95860	.46740	-.09900	1.06520	-.05140	.01120	.00690	-.09500	.68680	2.05000
	GRADIENT	.04406	-.00038	-.00291	.04468	-.00044	.00002	-.00048	.00073	.00757	1.19331

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4 (ADC007) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 7/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.160	-.23040	.05310	.01690	-.23420	.03210	.00090	-.00050	-.00500	.67860	-4.33700
.163	-3.080	-.13620	.04590	.00750	-.13850	.03850	.00090	-.00040	-.00500	.67150	-2.96600
.163	-1.020	-.04440	.04310	.00010	-.04520	.04230	.00070	-.00040	-.00400	.65120	-1.03100
.163	.000	.00350	.04220	-.00280	.00350	.04220	.00040	-.00050	-.00200	.96480	.08400
.163	1.030	.04880	.04250	-.00550	.04960	.04160	.00040	-.00030	-.00200	.69390	1.14700
.163	3.080	.13630	.04380	-.01130	.13850	.03640	.00030	-.00010	-.00100	.68230	3.11100
.163	5.140	.22610	.04890	-.01750	.22960	.02840	.00020	-.00020	.00000	.68020	4.61900
.163	6.190	.27280	.05270	-.02080	.27690	.02300	.00020	-.00010	.00000	.67970	5.16900
.163	8.260	.36760	.06330	-.02940	.37290	.00980	.00000	.00000	.00200	.68120	5.80300
.163	10.290	.46370	.07800	-.03990	.47020	-.00600	-.00040	.00040	.00400	.68350	5.94000
.163	12.370	.56260	.09850	-.05160	.57060	-.02430	-.00020	-.00030	.00300	.68580	5.71000
.163	14.460	.66820	.12910	-.06700	.67920	-.04180	-.00040	-.00040	.00400	.68900	5.17200
.163	16.500	.74460	.17710	-.07860	.76420	-.04170	.00010	-.00040	.00400	.69070	4.20400
.163	17.550	.78100	.20120	-.08300	.80530	-.04360	.00040	.00060	.00300	.69080	3.88000
.163	19.590	.85110	.25370	-.09190	.88690	-.04630	.00020	-.00040	.00500	.69100	3.35300
.163	21.650	.89780	.30600	-.09250	.94740	-.04670	-.00050	.00040	.00600	.68860	2.93300
.163	23.720	.93330	.36010	-.09910	.99930	-.04570	-.00220	.00000	.00800	.68920	2.59100
.163	25.720	.94240	.40520	-.09280	1.02490	-.04400	-.00500	.00210	.00800	.68580	2.32500
.163	28.730	.92680	.45900	-.08470	1.03510	-.04400	-.00260	.00360	-.00200	.68240	2.02300
	GRADIENT	.04436	-.00034	-.00302	.04510	-.00034	-.00010	.00005	.00068	.00363	.99409

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G4 (ADG008) (28 FEB 73)

REFERENCE DATA

SREF =	5.2816 SQ.FT.	XMRP =	43.0596 INCHES		
LREF =	21.2828 INCHES	YMRP =	.0000 INCHES		
BREF =	40.8119 INCHES	ZMRP =	16.2000 INCHES		
SCALE =	.0405 SCALE				

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 6/ D RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.110	-.22530	.04740	.01450	-.22860	.02710	.00510	.00130	-.09700	.67520	-4.74600
.163	-3.030	-.13010	.04160	.00540	-.13210	.03470	.00520	.00060	-.09600	.66630	-3.12400
.163	-.980	-.04010	.03760	-.00180	-.04080	.03690	.00540	-.00040	-.09400	.63250	-1.06600
.163	.050	.00660	.03650	-.00500	.00660	.03640	.00550	-.00090	-.09200	.94960	.18100
.163	1.070	.04800	.03670	-.00750	.04870	.03580	.00550	-.00130	-.09100	.71130	1.30800
.163	3.130	.13600	.03790	-.01360	.13790	.03040	.00610	-.00220	-.09000	.68910	3.58300
.163	5.210	.22690	.04290	-.02000	.22980	.02210	.00640	-.00320	-.08700	.68450	5.28100
.163	6.220	.27200	.04740	-.02390	.27550	.01760	.00660	-.00350	-.08700	.68440	5.72900
.163	8.280	.36400	.05820	-.03250	.36860	.00510	.00650	-.00400	-.08500	.68490	6.25300
.163	10.340	.45720	.07360	-.04200	.46310	-.00940	.00660	-.00460	-.08400	.68580	6.19200
.163	12.440	.56220	.09800	-.05440	.57020	-.02540	.00700	-.00630	-.08400	.68780	5.73600
.163	14.510	.66220	.13140	-.06850	.67400	-.03860	.00580	-.01010	-.07900	.69020	5.03700
.163	16.540	.74300	.17850	-.07850	.76310	-.04030	.00730	-.00940	-.07800	.69070	4.16100
.163	17.590	.77620	.20160	-.08160	.80090	-.04230	.00720	-.01130	-.07500	.69030	3.84900
.163	19.630	.84050	.25270	-.08860	.87660	-.04440	.00820	-.00990	-.07500	.69010	3.32600
.163	21.700	.88890	.30450	-.09040	.93850	-.04580	.00900	-.00960	-.07200	.68810	2.91900
.163	23.710	.90930	.35210	-.09470	.97410	-.04320	.00510	-.00550	-.06700	.68840	2.58100
.163	25.740	.93660	.39930	-.09660	1.01710	-.04710	.00350	.00040	-.07200	.68760	2.34300
.163	28.790	.95090	.46810	-.09860	1.05880	-.04770	.00890	.00560	-.08900	.68680	2.03100
	GRADIENT	.04318	-.00058	-.00305	.04381	-.00068	.00014	-.00045	.00102	.00719	1.09573

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G5 (ADG009) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 9/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.150	-.23060	.05640	.01480	-.23480	.03540	.00090	-.00060	-.00400	.67500	-4.08600
.163	-3.110	-.13620	.04970	.00530	-.13870	.04230	.00070	-.00040	-.00600	.66510	-2.73700
.163	-1.030	-.04290	.04570	-.00180	-.04370	.04490	.00060	-.00050	-.00300	.63290	-.93600
.163	.000	-.00070	.04500	-.00460	-.00070	.04500	.00050	-.00050	-.00200	-1.69590	-.01700
.163	1.020	.04660	.04460	-.00750	.04740	.04380	.00040	-.00030	-.00200	.71320	1.04300
.163	3.110	.13660	.04670	-.01320	.13900	.03920	.00050	.00000	-.00100	.68780	2.92300
.163	5.160	.22480	.05140	-.02000	.22850	.03090	.00020	-.00010	.00000	.68470	4.37200
.163	6.180	.27180	.05560	-.02360	.27620	.02600	.00010	-.00010	.00000	.68380	4.88200
.163	8.300	.36680	.06500	-.03200	.37230	.01130	.00000	-.00010	.00200	.68400	5.64100
.163	10.330	.46250	.07980	-.04250	.46930	-.00440	-.00050	.00050	.00300	.68580	5.79500
.163	12.390	.56200	.10090	-.05460	.57050	-.02200	-.00020	-.00030	.00300	.68790	5.56600
.163	14.470	.66270	.13020	-.06810	.67430	-.03950	-.00040	-.00040	.00500	.69000	5.08600
.163	16.560	.74640	.17990	-.08150	.76670	-.04030	.00010	-.00020	.00500	.69200	4.14600
.163	17.580	.78170	.20340	-.08560	.80660	-.04230	.00040	.00090	.00300	.69190	3.84300
.163	19.570	.84670	.25500	-.09360	.86320	-.04340	.00020	.00050	.00500	.69190	3.32000
.163	21.650	.89750	.30750	-.09430	.94770	-.04550	-.00010	-.00030	.00800	.68940	2.91600
.163	23.690	.93090	.36080	-.10090	.99740	-.04360	-.00140	-.00070	.01000	.69000	2.58000
.163	25.750	.92770	.40180	-.09120	1.01010	-.04110	-.00290	-.00010	.01100	.68570	2.30800
.163	26.730	.93330	.46110	-.08900	1.04000	-.04430	-.00110	-.00020	.00900	.68380	2.02300
	GRADIENT	.04384	-.00049	-.00296	.04463	-.00050	-.00004	.00007	.00077	.00691	.91549

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G3 (ADC010) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 10/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.200	-.22730	.05260	.01300	-.23120	.03180	.00450	.00110	-.09900	.67230	-4.31400
.163	-3.100	-.13310	.04430	.00370	-.13530	.03700	.00480	.00060	-.09700	.66080	-3.00400
.163	-.960	-.03610	.04030	-.00400	-.03670	.03970	.00490	-.00040	-.09300	.60660	-.89500
.163	.000	.00320	.03940	-.00670	.00320	.03940	.00510	-.00080	-.09200	1.45730	.08300
.163	1.040	.04620	.03870	-.00920	.04890	.03790	.00540	-.00110	-.09100	.72460	1.24400
.163	3.050	.13520	.04100	-.01570	.13720	.03370	.00590	-.00200	-.08800	.69540	3.29700
.163	5.170	.22570	.04620	-.02230	.22890	.02560	.00640	-.00310	-.08600	.68860	4.88300
.163	6.160	.26810	.04940	-.02550	.27180	.02040	.00660	-.00350	-.08700	.68710	5.41700
.163	8.250	.36300	.06080	-.03360	.36800	.00800	.00660	-.00410	-.08500	.68630	5.96800
.163	10.290	.45710	.07750	-.04330	.46370	-.00530	.00670	-.00520	-.08400	.68690	5.89200
.163	12.410	.56070	.10060	-.05620	.56920	-.02210	.00700	-.00690	-.08400	.68900	5.56900
.163	14.430	.66250	.13450	-.07080	.67510	-.03480	.00560	-.01050	-.07800	.69140	4.92300
.163	16.550	.74460	.18330	-.08010	.76600	-.03610	.00650	-.00930	-.07800	.69140	4.06100
.163	17.560	.77760	.20630	-.08360	.80360	-.03790	.00640	-.01110	-.07400	.69110	3.76900
.163	19.700	.84420	.25890	-.08950	.88210	-.04070	.00730	-.00960	-.07400	.69010	3.25900
.163	21.690	.88770	.30820	-.09220	.93880	-.04180	.00760	-.00840	-.07300	.68880	2.87900
.163	23.670	.91770	.35760	-.09750	.98400	-.04090	.00330	-.00520	-.06500	.68920	2.56500
.163	25.670	.94280	.40510	-.09810	1.02530	-.04330	.00270	.00020	-.07200	.68780	2.32700
.163	26.640	.94400	.47020	-.09640	1.03380	-.04350	.00800	.00540	-.08600	.68620	2.00700
	GRADIENT	.04349	-.00057	-.00310	.04417	-.00056	.00019	-.00042	.00142	.01046	1.02875

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G6 (ADG011) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 11/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.160	-.24740	.06150	.03650	-.25190	.03900	.00090	-.00050	-.00400	.70740	-4.01900
.163	-3.070	-.15500	.05360	.02420	-.15770	.04520	.00100	-.00020	-.00300	.71070	-2.89000
.163	-1.010	-.05940	.04780	.01700	-.06030	.04670	.00090	-.00020	-.00200	.76170	-1.24400
.163	-.060	-.01850	.04680	.01370	-.01860	.04680	.00070	-.00020	-.00200	.94060	-.39600
.163	1.080	.02950	.04660	.00990	.03040	.04600	.00070	-.00020	-.00100	.52080	.63300
.163	3.060	.11460	.04660	.00350	.11690	.04040	.00070	.00000	.00000	.63600	2.45400
.163	5.160	.20880	.05130	-.00500	.21260	.03230	.00040	-.00010	.00000	.65940	4.06600
.163	6.160	.25480	.05390	-.00850	.25910	.02610	.00040	-.00010	.00000	.66310	4.72500
.163	8.370	.35380	.06420	-.01840	.35940	.01200	.00010	.00000	.00200	.67030	5.50400
.163	10.300	.44750	.07770	-.02930	.45420	-.00360	-.00030	.00040	.00300	.67560	5.75700
.163	12.400	.55130	.09930	-.04310	.55980	-.02140	.00000	-.00030	.00300	.68050	5.54700
.163	14.540	.65160	.12890	-.05690	.66310	-.03880	-.00010	-.00070	.00400	.68400	5.05400
.163	16.530	.72790	.17530	-.06830	.74770	-.03910	.00050	.00000	.00500	.68610	4.15100
.163	17.530	.76320	.19970	-.07230	.78790	-.03950	.00080	.00080	.00300	.68630	3.82000
.163	19.680	.83420	.25520	-.08260	.87140	-.04070	.00070	.00090	.00500	.68750	3.26800
.163	21.710	.88080	.30610	-.08600	.93160	-.04130	.00010	.00080	.00500	.68650	2.87600
.163	23.730	.92090	.36060	-.09350	.98810	-.04050	-.00120	-.00020	.00900	.68740	2.55300
.163	25.730	.91660	.39790	-.08360	.99840	-.03950	-.00440	.00330	.00600	.68310	2.30300
.163	28.770	.90560	.45600	-.08050	1.01330	-.03620	-.00140	.00560	-.00700	.68140	1.98600
	GRADIENT	.04383	-.00108	-.00338	.04465	-.00074	-.00005	.00003	.00049	-.02349	.67448

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G6 (ADG012) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 12/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.150	-.24120	.05640	.03480	-.24530	.03450	.00580	.00170	-.09000	.70620	-4.27500
.163	-3.120	-.15270	.04810	.02410	-.15510	.03970	.00610	.00070	-.09000	.71140	-3.17000
.163	-1.050	-.05760	.04340	.01500	-.05840	.04230	.00610	-.00040	-.08800	.75160	-1.32600
.163	-.010	-.01120	.04290	.01060	-.01120	.04290	.00610	-.00090	-.08700	1.02260	-.26200
.163	1.000	.03290	.04170	.00690	.03360	.04110	.00630	-.00140	-.08700	.36800	.78700
.163	3.100	.12200	.04260	-.00010	.12410	.03590	.00670	-.00230	-.08700	.65060	2.86100
.163	5.120	.21130	.04740	-.00610	.21470	.02840	.00690	-.00320	-.08600	.66490	4.44900
.163	6.170	.25750	.05050	-.01180	.26140	.02250	.00710	-.00350	-.08500	.66790	5.09600
.163	8.190	.34970	.06030	-.02070	.35470	.00980	.00700	-.00370	-.08400	.67310	5.79800
.163	10.310	.44580	.07360	-.03090	.45180	-.00730	.00700	-.00440	-.08300	.67710	6.05000
.163	12.380	.54770	.09580	-.04430	.55550	-.02390	.00750	-.00630	-.08200	.68150	5.71700
.163	14.450	.64670	.13150	-.05900	.65900	-.03390	.00620	-.01040	-.07700	.68540	4.91400
.163	16.490	.72330	.17510	-.06730	.74350	-.03730	.00790	-.01100	-.07600	.68580	4.13000
.163	17.480	.75410	.19700	-.07090	.77850	-.03850	.00790	-.01300	-.07200	.68600	3.82600
.163	19.600	.82070	.25020	-.07900	.85710	-.03970	.00980	-.01370	-.07000	.68650	3.27900
.163	21.630	.86460	.29830	-.08030	.91390	-.04150	.01130	-.01230	-.06900	.68480	2.89800
.163	23.650	.89300	.35070	-.08890	.95880	-.03690	.00590	-.00630	-.06400	.68670	2.54500
.163	25.690	.90750	.39290	-.08790	.98790	-.03930	.00670	-.00140	-.07300	.68520	2.30800
.163	28.730	.92320	.45980	-.09170	1.03060	-.04060	.01270	.00470	-.09000	.68520	2.00700
	GRADIENT	.04416	-.00068	-.00390	.04468	-.00061	.00010	-.00048	.00048	-.01748	.97575

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G7 (ADG013) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 13/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.160	-.24090	.05520	.02780	-.24490	.03330	.00080	-.00040	-.00300	.69490	-4.35900
.163	-3.080	-.14570	.04650	.01780	-.14800	.03860	.00090	-.00030	-.00300	.69760	-3.12800
.163	-1.000	-.05450	.04220	.00980	-.05530	.04130	.00070	-.00030	-.00200	.72030	-1.29100
.163	.010	-.00960	.04050	.00640	-.00950	.04050	.00060	-.00030	-.00100	.91770	-.23600
.163	1.020	.03710	.03760	.00330	.03780	.03700	.00070	-.00010	-.00100	.61510	.98600
.163	3.070	.12500	.04290	-.00300	.12710	.03620	.00060	.00000	.00000	.65950	2.90900
.163	5.260	.21820	.04700	-.00980	.22160	.02680	.00050	.00000	.00000	.66740	4.63700
.163	6.190	.26400	.05020	-.01220	.26790	.02140	.00030	-.00010	.00100	.66810	5.25600
.163	8.250	.35560	.06000	-.02190	.36050	.00830	.00020	.00000	.00200	.67400	5.91700
.163	10.310	.45320	.07460	-.03300	.45920	-.00770	-.00020	.00040	.00300	.67840	6.07500
.163	12.400	.55610	.09670	-.04670	.56390	-.02500	.00000	-.00030	.00500	.68280	5.75000
.163	14.410	.65510	.12540	-.05980	.66570	-.04160	.00000	-.00050	.00500	.68550	5.22300
.163	16.540	.73570	.17320	-.07160	.75460	-.04330	.00070	.00000	.00500	.68750	4.24600
.163	17.570	.77150	.19670	-.07580	.79490	-.04540	.00100	.00070	.00400	.68770	3.92000
.163	19.600	.84150	.25070	-.08600	.87680	-.04610	.00080	.00070	.00500	.68880	3.35500
.163	21.660	.88970	.30380	-.08920	.93900	-.04610	.00030	.00050	.00600	.68760	2.92800
.163	23.680	.92640	.35640	-.09460	.99160	-.04580	-.00130	.00040	.01000	.68770	2.59900
.163	25.690	.93620	.40050	-.08780	1.01730	-.04500	-.00370	.00100	.01000	.68410	2.33700
.163	28.720	.92600	.45540	-.08130	1.03270	-.04660	-.00110	.00470	-.00600	.68110	2.03700
	GRADIENT	.04415	-.00075	-.00337	.04486	-.00056	-.00004	.00005	.00049	-.01060	.99573

B

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G7 (ADG014) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2626 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0409 SCALE

PARAMETRIC DATA

BETA = 9.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 14/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.170	-.23740	.04940	.02550	-.24090	.02780	.00570	.00210	-.09000	.69190	-4.80300
.163	-3.090	-.14140	.04240	.01560	-.14350	.03470	.00560	.00100	-.08900	.69320	-3.33500
.163	-1.050	-.05270	.03690	.00800	-.05330	.03590	.00590	-.00010	-.08900	.70950	-1.42500
.163	.000	-.00630	.03600	.00430	-.00630	.03600	.00600	-.00080	-.08800	.92030	-.17600
.163	1.000	.03920	.03580	.00110	.03980	.03510	.00630	-.00120	-.08700	.63830	1.09600
.163	3.060	.12440	.03670	-.00500	.12620	.03000	.00660	-.00230	-.08700	.66580	3.38200
.163	5.140	.21350	.04220	-.01200	.21650	.02270	.00700	-.00320	-.08600	.67180	5.10200
.163	6.160	.26250	.04610	-.01630	.26590	.01760	.00710	-.00360	-.08500	.67430	5.68600
.163	8.310	.35860	.05650	-.02500	.36300	.00400	.00690	-.00390	-.08400	.67730	6.34600
.163	10.300	.45160	.07040	-.03500	.45690	-.01140	.00700	-.00440	-.08300	.68030	6.40800
.163	12.400	.55390	.09300	-.04870	.56100	-.02810	.00740	-.00590	-.08200	.68430	5.95400
.163	14.430	.65280	.12650	-.06310	.66380	-.04020	.00630	-.00960	-.07700	.68760	5.16000
.163	16.500	.73300	.17300	-.07220	.75200	-.04230	.00780	-.01010	-.07800	.68800	4.23600
.163	17.550	.78850	.19770	-.07620	.79240	-.04350	.00780	-.01230	-.07300	.68800	3.88700
.163	19.570	.82640	.24760	-.08200	.86350	-.04420	.00960	-.01280	-.07100	.68760	3.34500
.163	21.690	.87570	.29800	-.08410	.92390	-.04680	.01080	-.01200	-.06800	.68600	2.93800
.163	23.690	.89740	.34970	-.09070	.96230	-.04040	.00620	-.00580	-.06600	.68730	2.56600
.163	25.690	.92350	.39310	-.08910	1.00260	-.04620	.00630	-.00340	-.06700	.68510	2.34900
.163	26.710	.94090	.46260	-.09300	1.04740	-.04620	.01240	.00320	-.08500	.68510	2.03500
	GRADIENT	.04336	-.00089	-.00335	.04401	-.00073	.00017	-.00054	.00039	-.00729	1.10565

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8 (ADG015) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 15/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.180	-.25550	.07060	.04950	-.26080	.04730	.00080	-.00040	-.00400	.72520	-3.61400
.163	-3.120	-.16340	.06090	.03840	-.16650	.05190	.00090	-.00020	-.00300	.74120	-2.68300
.163	-.950	-.06880	.05460	.02870	-.06970	.05340	.00070	-.00030	-.00300	.81290	-1.26000
.163	.000	-.02630	.05290	.02470	-.02630	.05290	.00070	-.00030	-.00300	1.02210	-.49800
.163	1.000	.01500	.05140	.02090	.01590	.05120	.00070	-.00010	-.00200	.13050	.29200
.163	3.060	.10960	.05350	.01160	.11230	.04750	.00060	-.00010	-.00100	.60900	2.04900
.163	5.140	.19630	.05500	.00210	.20040	.03710	.00050	.00000	.00000	.64560	3.56800
.163	6.180	.24350	.05850	-.00230	.24840	.03200	.00050	-.00010	.00000	.65370	4.15800
.163	8.200	.34510	.06780	-.01120	.35130	.01790	.00020	.00000	.00100	.66260	5.08400
.163	10.390	.44160	.08150	-.02680	.44910	.00050	-.00020	.00050	.00300	.67360	5.41400
.163	12.440	.54340	.10250	-.04090	.55280	-.01690	.00000	-.00040	.00300	.67930	5.29800
.163	16.490	.72180	.17860	-.06730	.74280	-.03370	.00080	.00020	.00300	.68580	4.04000
.163	17.370	.75920	.20220	-.07160	.78480	-.03650	.00100	.00070	.00300	.68610	3.75400
.163	19.600	.82400	.25470	-.08120	.86170	-.03650	.00060	.00070	.00400	.68730	3.23400
.163	21.760	.87930	.30970	-.08740	.93150	-.03850	.00040	.00020	.00600	.68710	2.83900
.163	23.710	.91710	.36210	-.09260	.98530	-.03720	-.00040	-.00150	.01000	.68720	2.53200
.163	25.700	.91860	.40380	-.08420	1.00290	-.03460	-.00370	.00190	.00700	.68320	2.27400
.163	28.670	.90580	.45660	-.08110	1.01390	-.03390	-.00100	.00460	-.00600	.68160	1.98300
	GRADIENT	.04406	-.00125	-.00431	.04500	-.00074	-.00004	.00002	.00034	-.05162	.76787

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 G8 (ADG016) (28 FEB 73)

REFERENCE DATA

SREF =	5.2616 SQ.FT.	XMRP =	43.0596 INCHES		
LREF =	21.2826 INCHES	YMRP =	.0000 INCHES		
BREF =	40.8119 INCHES	ZMRP =	16.2000 INCHES		
SCALE =	.0405 SCALE				

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 16/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.130	-.25490	.06390	.05010	-.25960	.04080	.00600	.00100	-.09100	.72650	-3.98900
.163	-3.070	-.16530	.05340	.03790	-.16800	.04450	.00620	.00020	-.09100	.73930	-3.09300
.163	-.960	-.07060	.04700	.02640	-.07130	.04580	.00620	-.00060	-.09000	.79640	-1.50200
.163	.000	-.02750	.04580	.02120	-.02750	.04580	.00640	-.00120	-.08900	.95490	-.60000
.163	1.120	.02030	.04390	.01630	.02110	.04350	.00640	-.00160	-.08800	.34490	.46100
.163	3.090	.10650	.04490	.00810	.10880	.03910	.00680	-.00260	-.08700	.62010	2.36900
.163	5.150	.19640	.04820	-.00160	.19990	.03030	.00720	-.00330	-.08700	.65320	4.07300
.163	6.210	.24130	.05160	-.00600	.24550	.02520	.00720	-.00370	-.08500	.65970	4.67500
.163	8.290	.33460	.06020	-.01590	.33970	.01130	.00710	-.00390	-.08600	.66850	5.55200
.163	10.300	.42960	.07400	-.02660	.43590	-.00390	.00720	-.00440	-.08400	.67410	5.79800
.163	12.450	.53470	.09590	-.04080	.54280	-.02160	.00740	-.00650	-.08300	.67980	5.57400
.163	14.470	.63490	.12960	-.05570	.64720	-.03310	.00620	-.01070	-.07700	.68400	4.89800
.163	16.600	.71120	.17580	-.06370	.73180	-.03470	.00750	-.01290	-.07300	.68440	4.04300
.163	17.590	.74390	.19860	-.06910	.76910	-.03550	.00780	-.01440	-.07000	.68550	3.74500
.163	19.560	.80410	.24580	-.07520	.84000	-.03770	.00980	-.01510	-.06800	.68540	3.27100
.163	21.620	.85010	.29620	-.07920	.89940	-.03790	.01060	-.01150	-.06900	.68480	2.87000
.163	23.730	.88430	.34580	-.08630	.94870	-.03930	.00640	-.00670	-.06300	.68600	2.55700
.163	25.740	.90410	.39470	-.08630	.98590	-.03710	.00710	-.00260	-.07000	.68460	2.29000
.163	28.720	.91650	.45810	-.08950	1.02560	-.03970	.01420	.00310	-.08700	.68450	2.00400
	GRADIENT	.04408	-.00140	-.00484	.04488	-.00089	.00010	-.00048	.00068	-.04050	.09200

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 (ADG017) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000 Q = 40.000
MACH = .165

RUN NO. 17/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.165	-5.140	-.24110	.02810	.02380	-.24270	.00630	.00080	-.00060	-.00500	.68880	-8.57200
.165	-3.090	-.14480	.02160	.01440	-.14580	.01380	.00080	-.00030	-.00400	.68930	-6.68400
.165	-1.010	-.04920	.01770	.00790	-.04950	.01680	.00040	-.00040	-.00100	.71320	-2.78200
.165	.000	-.00200	.01670	.00480	-.00200	.01670	.00050	-.00030	-.00100	1.59810	-.12100
.165	1.030	.04300	.01770	.00250	.04330	.01700	.00050	-.00020	-.00100	.62660	2.42000
.165	3.080	.13130	.01950	-.00330	.13220	.01240	.00040	-.00010	.00000	.66000	6.73000
.165	5.140	.22640	.02640	-.00990	.22780	.00600	.00020	-.00020	.00100	.66720	8.55800
.165	6.190	.27470	.02980	-.01320	.27630	.00000	.00020	-.00020	.00200	.66890	9.19700
.165	8.260	.37100	.04060	-.02140	.37300	-.01310	.00000	.00000	.00300	.67270	9.13700
.165	10.320	.47020	.05700	-.03140	.47280	-.02810	-.00040	.00030	.00400	.67630	8.24300
.165	12.390	.57340	.08080	-.04460	.57740	-.04410	-.00020	-.00020	.00400	.68060	7.09600
.165	14.470	.67510	.11260	-.05770	.68190	-.05960	-.00020	-.00030	.00500	.68350	5.99100
.165	16.520	.75600	.16140	-.06870	.77070	-.06020	.00050	.00050	.00400	.68520	4.68300
.165	17.550	.79110	.18630	-.07430	.81050	-.06090	.00070	.00100	.00400	.68620	4.24500
.165	19.600	.86890	.24450	-.08720	.90050	-.06110	.00050	-.00010	.00500	.68830	3.55300
.165	21.670	.89870	.29080	-.07840	.94260	-.06170	.00030	-.00110	.00800	.68290	3.09000
.165	23.680	.92380	.33940	-.08530	.98240	-.06020	-.00050	-.00180	.00900	.68430	2.72100
.165	25.700	.92590	.38120	-.07920	.99970	-.05800	-.00260	.00050	.00800	.68130	2.42800
.165	28.720	.94380	.44910	-.08200	1.04350	-.05980	.00020	-.00260	.01200	.68100	2.10100
	GRADIENT	.04479	-.00031	-.00285	.04510	-.00019	-.00005	.00004	.00059	-.00856	2.21095

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 (ADG018) (28 FEB 73)

REFERENCE DATA

SREF =	5.2818 SQ.FT.	XMRP =	43.0596 INCHES		
LREF =	21.2828 INCHES	YMRP =	.0000 INCHES		
BREF =	40.6119 INCHES	ZMRP =	16.2000 INCHES		
SCALE =	.0403 SCALE				

PARAMETRIC DATA

BETA =	5.000	ELV-IB =	.000
ELV-OB =	.000	Q =	40.000
MACH =	.163		

RUN NO. 18/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-3.170	-.23800	.02340	.02110	-.23910	.00190	.00700	.00230	-.08200	.68500	-10.14200
.163	-3.110	-.14170	.01670	.01200	-.14240	.00890	.00680	.00110	-.08300	.68350	-8.48200
.163	-1.020	-.04860	.01270	.00490	-.04880	.01180	.00670	-.00020	-.08200	.68980	-3.81900
.163	.000	-.00210	.01230	.00210	-.00210	.01230	.00670	-.00090	-.08100	1.03940	-.17400
.163	1.030	.04430	.01280	-.00050	.04450	.01200	.00680	-.00140	-.08100	.65470	3.44600
.163	3.090	.13590	.01560	-.00680	.13650	.00820	.00690	-.00270	-.08000	.66970	8.70400
.163	5.140	.22800	.02150	-.01290	.22900	.00100	.00720	-.00370	-.08000	.67220	10.57600
.163	6.180	.27390	.02630	-.01640	.27520	-.00330	.00720	-.00400	-.08000	.67370	10.40200
.163	8.260	.36990	.03730	-.02490	.37150	-.01610	.00690	-.00420	-.07900	.67650	9.89500
.163	10.300	.46950	.05380	-.03500	.47160	-.03100	.00670	-.00500	-.07800	.67940	8.72500
.163	12.400	.57400	.07740	-.04850	.57730	-.04760	.00710	-.00620	-.07800	.68320	7.41200
.163	14.130	.67400	.11410	-.06220	.68150	-.05360	.00630	-.00900	-.07400	.68610	5.90300
.163	16.330	.75320	.16120	-.07150	.76790	-.05970	.00780	-.00930	-.07300	.68680	4.67000
.163	17.360	.79160	.18620	-.07730	.81080	-.06130	.00780	-.01050	-.07100	.68770	4.25000
.163	19.640	.84680	.23650	-.07960	.87890	-.06250	.00940	-.01330	-.06700	.68580	3.58600
.163	21.680	.88980	.29050	-.08310	.93420	-.05890	.01130	-.01360	-.06300	.68520	3.06200
.163	23.690	.94190	.34570	-.09490	1.00140	-.06200	.00940	-.01050	-.06000	.68750	2.72400
.163	25.720	.96000	.39270	-.09420	1.03530	-.06280	.00400	.00100	-.07000	.68600	2.44400
.163	28.730	.96620	.45680	-.09300	1.06680	-.06380	.01160	.00170	-.07900	.68450	2.11400
	GRADIENT	.04483	-.00016	-.00299	.04504	-.00009	.00002	-.00061	.00048	-.00366	2.84797

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 (ADG020) (28 FEB 73)

REFERENCE DATA

SREF =	5.2816 SQ.FT.	XMRP =	43.0396 INCHES		
LREF =	21.2628 INCHES	YMRP =	.0000 INCHES		
BREF =	40.8119 INCHES	ZMRP =	16.2000 INCHES		
SCALE =	.0405 SCALE				

PARAMETRIC DATA

BETA =	.000	ELV-IB =	.000
ELV-OB =	.000	Q =	100.000
MACH =	.260		

RUN NO. 20/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.24530	.02850	.02370	-.24680	.00590	.00120	-.00050	-.00500	.68800	-8.59400
.259	-3.150	-.14490	.02090	.01460	-.14590	.01290	.00100	-.00030	-.00300	.68960	-6.90900
.259	-1.040	-.04830	.01670	.00750	-.04860	.01590	.00090	-.00020	-.00300	.70940	-2.88200
.259	.000	-.00150	.01570	.00440	-.00150	.01570	.00090	-.00020	-.00200	1.79200	-.09800
.259	1.050	.04650	.01640	.00120	.04680	.01550	.00080	-.00010	-.00100	.63940	2.83400
.259	3.150	.14050	.01890	-.00440	.14140	.01120	.00080	.00000	-.00100	.66230	7.40000
.259	5.280	.23530	.02530	-.01060	.23670	.00350	.00070	.00000	.00000	.66780	9.27800
.259	6.330	.28370	.02930	-.01420	.28520	-.00200	.00070	.00000	.00000	.66970	9.65600
.259	8.460	.38340	.04070	-.02220	.38530	-.01610	.00060	-.00020	.00000	.67280	9.41800
.259	10.570	.48630	.05930	-.03350	.48900	-.03090	-.00060	.00050	.00300	.67710	8.19700
.259	12.690	.59300	.08720	-.04570	.59770	-.04520	-.00030	.00060	.00300	.68030	6.79700
.259	14.810	.69360	.13160	-.05980	.70420	-.05000	.00110	.00030	.00200	.68360	5.26700
.259	16.900	.78570	.18050	-.06830	.78510	-.05000	.00080	-.00020	.00300	.68440	4.24200
.259	17.950	.81270	.20880	-.07580	.83750	-.05190	.00080	.00050	.00300	.68580	3.89100
.259	20.060	.86920	.25780	-.07250	.90490	-.05590	.00000	.00160	.00400	.68170	3.37100
.259	22.090	.89850	.31020	-.07730	.94920	-.05040	-.00090	-.00230	.01100	.68220	2.89500
.259	24.160	.91550	.36440	-.07980	.98450	-.04230	-.00060	-.00250	.01300	.68200	2.51200
.259	26.160	.90680	.39990	-.07650	.99020	-.04090	.00000	.00220	.00000	.68060	2.26700
.259	29.200	.93750	.47470	-.08300	1.04960	-.04300	.00020	.00410	-.00500	.68120	1.97400
	GRADIENT	.04531	-.00030	-.00501	.04561	-.00026	-.00003	.00005	.00038	-.00733	2.31719

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 (ADS021) (28 FEB 73)

REFERENCE DATA

SREF =	9.2816 SQ.FT.	XMRP =	43.0596 INCHES		
LREF =	21.2826 INCHES	YMRP =	.0000 INCHES		
BREF =	40.8119 INCHES	ZMRP =	16.2000 INCHES		
SCALE =	.0405 SCALE				

PARAMETRIC DATA

BETA =	0.000	ELV-IB =	.000
ELV-OB =	.000	Q =	100.000
MACH =	.200		

RUN NO. 21/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.299	-5.270	-.24120	.02360	.02160	-.24240	.00140	.00740	.00250	-.08300	.68920	-10.18700
.299	-3.150	-.14210	.01660	.01210	-.14280	.00860	.00700	.00130	-.08400	.68370	-8.53700
.299	-1.050	-.04720	.01330	.00490	-.04740	.01250	.00700	-.00010	-.08300	.69160	-3.53000
.299	.000	.00060	.01290	.00160	.00060	.01290	.00700	-.00080	-.08300	-.29630	.05200
.299	1.030	.04620	.01260	-.00100	.04640	.01180	.00700	-.00140	-.08200	.69900	3.64500
.299	3.120	.14060	.01500	-.00720	.14120	.00730	.00730	-.00250	-.08200	.67030	9.39700
.299	5.270	.23600	.02110	-.01330	.23700	-.00060	.00770	-.00340	-.08300	.67230	11.14500
.299	6.330	.28540	.02590	-.01710	.28650	-.00560	.00780	-.00380	-.08200	.67370	10.99000
.299	8.440	.38580	.03890	-.02630	.38730	-.01810	.00740	-.00430	-.09100	.67690	9.90700
.299	10.550	.48670	.05740	-.03590	.48830	-.03260	.00660	-.00580	-.07800	.67910	8.47000
.299	12.660	.59460	.08590	-.04850	.59890	-.04670	.00460	-.00800	-.07200	.68210	6.91600
.299	14.790	.69390	.13330	-.06050	.70900	-.04830	.00620	-.01200	-.06900	.68400	5.20500
.299	16.890	.77260	.17960	-.06910	.79160	-.05260	.00850	-.01110	-.07100	.68450	4.30200
.299	17.930	.80430	.20470	-.06930	.82830	-.05290	.00850	-.01260	-.06700	.68310	3.92800
.299	20.020	.86330	.25630	-.07340	.88890	-.05480	.01070	-.01270	-.06600	.68230	3.36700
.299	22.110	.92140	.31410	-.08530	.97190	-.05570	.00980	-.00570	-.07000	.68470	2.93300
.299	24.120	.94320	.36190	-.08540	1.00880	-.05510	.00030	.00470	-.07300	.68350	2.60500
.299	26.180	.96400	.41150	-.08740	1.04670	-.05600	.00000	.01030	-.09100	.68300	2.34200
.299	29.200	.94240	.46670	-.08930	1.05040	-.05240	.00390	.01420	-.11400	.68360	2.01900
	GRADIENT	.04507	-.00026	-.00905	.04528	-.00025	.00004	-.00061	.00034	-.00395	2.91277

SSV-ATP ORBITER B2 C2 D4 M1 F1 W02 E2 V3 K2 (ADG022) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 22/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.250	-.24520	.02740	.02440	-.24670	.00490	.00140	-.00030	-.00500	.68910	-8.92300
.259	-3.170	-.14730	.02000	.01510	-.14820	.01180	.00110	-.00030	-.00400	.69040	-7.34800
.259	-1.040	-.04840	.01630	.00780	-.04870	.01550	.00100	-.00020	-.00300	.71390	-2.95700
.259	.000	-.00020	.01590	.00490	-.00020	.01590	.00110	-.00010	-.00300	3.27670	-.01300
.259	.980	.04690	.01670	.00160	.04720	.01590	.00090	-.00010	-.00200	.63620	2.79400
.259	3.140	.14030	.01830	-.00410	.14110	.01060	.00080	.00000	.00000	.66170	7.63200
.259	5.260	.23660	.02470	-.01090	.23790	.00290	.00070	.00000	.00000	.66810	9.55800
.259	6.320	.28440	.02960	-.01420	.28590	-.00190	.00070	.00000	.00000	.66970	9.60400
.259	8.440	.38210	.04100	-.02190	.38400	-.01550	.00060	.00000	.00100	.67260	9.31000
.259	10.560	.48810	.05940	-.03340	.49080	-.03100	-.00060	.00070	.00300	.67690	8.21400
.259	12.680	.59370	.08660	-.04590	.59830	-.04580	-.00050	.00090	.00300	.68030	6.85200
.259	14.770	.69040	.12700	-.05760	.70000	-.05310	.00060	.00090	.00300	.68250	5.43200
.259	16.890	.76630	.17940	-.06830	.78540	-.05100	.00080	.00010	.00300	.68440	4.27100
.259	17.950	.81510	.20840	-.07650	.83970	-.05300	.00070	.00090	.00300	.68600	3.91000
.259	20.020	.87110	.25720	-.07380	.90650	-.05660	-.00010	.00260	.00300	.68220	3.38600
.259	22.110	.91100	.31120	-.07920	.96120	-.05460	-.00310	.00220	.00600	.68260	2.92700
	GRADIENT	.04573	-.00023	-.00304	.04600	-.00016	-.00005	.00005	.00062	-.00537	2.41803

SSV-ATP ORBITER B2 C2 D4 M1 F1 W02 E2 V3 K2 (ADG023) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2826 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 23/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-3.290	-.24230	.02440	.02160	-.24350	.00190	.00740	.00260	-.08500	.68510	-9.92100
.259	-3.170	-.14410	.01710	.01220	-.14480	.00910	.00690	.00140	-.08400	.68350	-8.40100
.259	-1.050	-.04820	.01260	.00480	-.04850	.01170	.00670	.00000	-.08300	.68950	-3.82500
.259	.000	-.00070	.01270	.00160	-.00070	.01270	.00670	-.00060	-.08200	1.50180	-.06000
.259	1.040	.04630	.01230	-.00120	.04650	.01150	.00670	-.00130	-.08200	.66070	3.75400
.259	3.140	.13990	.01500	-.00700	.14050	.00730	.00690	-.00230	-.08200	.66990	9.31000
.259	5.270	.23540	.02150	-.01330	.23630	-.00010	.00710	-.00330	-.08200	.67230	10.93000
.259	6.310	.28410	.02560	-.01710	.28520	-.00570	.00730	-.00380	-.08200	.67370	11.07300
.259	8.430	.38590	.03810	-.02660	.38730	-.01890	.00710	-.00430	-.08200	.67720	10.12900
.259	10.570	.48950	.05630	-.03740	.49150	-.03440	.00610	-.00510	-.08000	.68010	8.69500
.259	12.690	.59420	.08310	-.04950	.59790	-.04940	.00460	-.00650	-.07500	.68270	7.14600
.259	14.790	.69420	.12930	-.06280	.70420	-.05210	.00620	-.00870	-.07500	.68530	5.36600
.259	16.900	.77060	.17780	-.07040	.78900	-.05390	.00750	-.01010	-.07400	.68530	4.33300
.259	17.960	.80620	.20270	-.07260	.82940	-.05570	.00760	-.01030	-.07300	.68460	3.97600
.259	20.040	.85480	.25250	-.07250	.88960	-.05570	.00820	-.01360	-.06500	.68220	3.38500
.259	22.100	.91160	.30980	-.08370	.96110	-.05590	.00840	-.01000	-.06800	.68440	2.94200
	GRADIENT	.04503	-.00032	-.00303	.04524	-.00026	-.00000	-.00059	.00033	-.00301	2.88749

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 (ADG024) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000

RUN NO. 24/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.390	-.37030	.04020	.08210	-.37250	.00520	.00140	-.00160	-.00600	.73720	-9.19100
.259	-3.250	-.26470	.02830	.07070	-.26580	.01320	.00130	-.00140	-.00500	.75530	-9.33400
.259	-1.140	-.16440	.02070	.06130	-.16480	.01740	.00090	-.00150	-.00300	.79730	-7.91100
.259	-.060	-.11420	.01820	.05770	-.11420	.01810	.00100	-.00140	-.00400	.84990	-6.24700
.259	.950	-.06660	.01710	.05420	-.06630	.01820	.00080	-.00130	-.00200	.97350	-3.88000
.259	3.060	.02880	.01620	.04830	.02970	.01460	.00080	-.00120	-.00200	.00540	1.77700
.259	5.170	.12350	.01620	.04290	.12460	.00700	.00060	-.00130	.00000	.51370	6.77000
.259	6.210	.17080	.02120	.04000	.17210	.00250	.00060	-.00130	.00000	.55790	8.05700
.259	8.340	.26640	.02890	.03360	.26780	-.01000	.00070	-.00150	.00100	.60020	9.21100
.259	10.450	.36540	.04120	.02520	.36680	-.02570	.00010	-.00140	.00300	.62270	8.86400
.259	12.580	.47230	.06140	.01400	.47430	-.04290	-.00060	-.00100	.00500	.63820	7.68800
.259	14.710	.58170	.10090	-.00240	.58820	-.05010	.00120	-.00120	.00300	.65160	5.75900
.259	16.810	.67420	.14460	-.01390	.68720	-.05660	.00170	-.00040	.00300	.65800	4.66200
.259	17.880	.72190	.17110	-.02130	.73950	-.05870	.00150	-.00010	.00400	.66140	4.21700
.259	19.940	.79610	.22440	-.02900	.82490	-.06060	.00070	-.00030	.00600	.66390	3.54700
.259	22.050	.84970	.27900	-.03680	.89230	-.06030	-.00230	.00000	.01000	.66720	3.04500
.259	24.100	.88600	.33520	-.04680	.94560	-.05570	-.00200	-.00370	.01700	.66960	2.64200
.259	26.150	.88280	.37770	-.04810	.95890	-.05010	-.00120	-.00050	.00800	.66980	2.33700
.259	29.180	.91200	.45110	-.05890	1.01620	-.05090	-.00110	.00810	-.01600	.67290	2.02100
	GRADIENT	.04654	-.00190	-.00354	.04686	.00024	-.00008	.00004	.00048	-.09864	1.77667

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 V3 K2 (ADG025) (28 FEB 73)

REFERENCE DATA

SREF = 9.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
DREF = 40.8119 INCHES ZMRP = 10.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -30.000
ELV-OB = -30.000

RUN NO. 25/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.710	-.60050	.18150	.26600	-.61460	.10090	-.00130	-.00390	-.00200	.77920	-4.40800
.259	-3.620	-.70590	.15340	.25920	-.71420	.10840	-.00130	-.00530	-.00200	.79360	-4.60100
.259	-1.490	-.59430	.12580	.24520	-.59740	.11030	.00010	-.00160	-.00300	.81240	-4.72000
.259	-.420	-.54040	.11510	.23980	-.54120	.11110	.00070	.00000	-.00200	.82530	-4.69300
.259	.630	-.48870	.10550	.23500	-.48750	.11090	.00130	.00110	-.00400	.84070	-4.63300
.259	2.710	-.39210	.09030	.22710	-.38740	.10880	.00170	.00110	-.00400	.88200	-4.34000
.259	4.820	-.31340	.08070	.22870	-.30550	.10680	.00120	-.00120	-.00300	.94620	-3.87900
.259	5.860	-.27330	.07520	.22770	-.26420	.10270	.00110	-.00090	-.00300	.99100	-3.63200
.259	7.960	-.19150	.06550	.22540	-.18060	.09140	.00040	.00210	.00000	1.14370	-2.92100
.259	10.040	-.14110	.05580	.23780	-.12920	.07960	.00020	-.00710	.00400	1.37790	-2.52700
.259	12.170	-.04630	.05410	.23150	-.03380	.06270	.00030	-.00660	.00700	-3.19780	-.85500
.259	14.260	.05150	.05960	.22260	.06460	.04510	.00160	-.00770	.00600	-.71340	.86200
.259	16.390	.17100	.07920	.20360	.18650	.02770	.00240	-.00520	.00600	.21790	2.15800
.259	17.450	.20730	.08640	.20310	.22370	.02030	.00180	-.00150	.00400	.29060	2.39700
.259	19.580	.31670	.12390	.18700	.34000	.01060	.00110	-.00240	.00600	.43220	2.55500
.259	21.690	.41490	.16680	.16940	.44720	.00160	.00000	-.00230	.00700	.50000	2.48600
.259	23.790	.50720	.21910	.14400	.55250	-.00410	-.00170	-.00320	.01200	.54680	2.31400
.259	25.890	.57720	.26740	.12170	.63600	-.01140	.00010	-.00220	.00800	.57420	2.15800
.259	28.930	.65710	.33900	.09130	.73910	-.02110	-.00200	-.00030	.00500	.60110	1.93800
	GRADIENT	.04671	-.00649	-.00370	.04861	-.00026	.00031	.00049	-.00016	.01798	.08956

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 (ADG026) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 26/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.240	-.23900	.02480	.02250	-.24020	.00280	.00000	.00070	-.00100	.68700	-9.61500
.259	-3.120	-.14010	.01610	.01370	-.14090	.01040	-.00010	.00050	.00000	.68850	-7.71900
.259	-1.010	-.04120	.01430	.00650	-.04150	.01360	.00000	.00050	.00000	.71200	-2.86900
.259	.030	.00720	.01430	.00340	.00720	.01430	-.00010	.00050	.00000	.46520	.50800
.259	1.060	.05360	.01400	.00050	.05390	.01290	-.00010	.00050	.00000	.64610	3.83300
.259	3.170	.14850	.01710	-.00530	.14930	.00880	-.00010	.00040	.00100	.66420	8.68400
.259	5.300	.24330	.02340	-.01130	.24450	.00080	-.00020	.00050	.00100	.66830	10.36600
.259	6.340	.29150	.02800	-.01490	.29280	-.00430	-.00020	.00020	.00200	.67010	10.39700
.259	8.470	.39090	.03980	-.02250	.39250	-.01810	-.00010	.00000	.00300	.67270	9.80400
.259	10.590	.49470	.05800	-.03330	.49690	-.03390	-.00160	.00070	.00600	.67650	8.52900
.259	12.710	.60210	.08630	-.04560	.60640	-.04830	-.00150	.00080	.00600	.67970	6.97100
.259	14.820	.69780	.13150	-.05860	.70820	-.05130	.00030	.00090	.00400	.68270	5.30500
.259	16.930	.77920	.17970	-.06690	.79780	-.05500	.00060	.00240	.00300	.68320	4.33600
.259	17.980	.81930	.20630	-.07070	.84300	-.05670	.00020	.00130	.00500	.68320	3.97000
.259	20.070	.87770	.25860	-.07320	.91320	-.05820	-.00140	.00330	.00400	.68170	3.39100
.259	22.120	.91780	.31270	-.07950	.96800	-.05590	-.00280	.00050	.01100	.68250	2.93400
.259	24.150	.93050	.36440	-.07910	.99820	-.04830	-.00310	-.00210	.01500	.68130	2.55300
.259	26.200	.92000	.40230	-.07890	1.00310	-.04520	.00000	-.00050	.00800	.68110	2.28600
.259	29.250	.84940	.47740	-.08730	1.06170	-.04730	-.00370	.00610	-.00500	.68250	1.98800
	GRADIENT	.04583	-.00016	-.00301	.04609	-.00026	-.00000	-.00001	.00014	-.00661	2.66733

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 (ADG027) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 27/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.23750	.02310	.02290	-.23860	.00120	-.01070	.01280	-.03400	.68790	-10.27800
.259	-3.130	-.13540	.01590	.01330	-.13610	.00850	-.01110	.01040	-.03300	.68870	-8.48300
.259	-1.020	-.03860	.01210	.00610	-.03880	.01140	-.01130	.00810	-.03300	.71250	-3.18100
.259	.020	.00700	.01160	.00320	.00700	.01150	-.01120	.00690	-.03200	.46640	.60900
.259	1.030	.05410	.01180	.00000	.05430	.01080	-.01110	.00570	-.03300	.64980	4.57700
.259	3.180	.14780	.01420	-.00570	.14840	.00600	-.01070	.00360	-.03300	.66520	10.38200
.259	5.260	.24150	.02090	-.01180	.24240	-.00120	-.01030	.00150	-.03300	.66920	11.52600
.259	6.330	.29060	.02560	-.01520	.29160	-.00650	-.01020	.00050	-.03400	.67060	11.30800
.259	8.450	.39110	.03800	-.02370	.39250	-.01980	-.01060	-.00090	-.03300	.67390	10.27900
.259	10.550	.49370	.05710	-.03370	.49580	-.03420	-.01120	-.00230	-.03100	.67690	8.63800
.259	12.700	.60000	.08400	-.04600	.60380	-.04990	-.01260	-.00430	-.02800	.68010	7.13700
.259	14.800	.70000	.12940	-.05930	.70980	-.05370	-.00950	-.00600	-.03000	.68300	5.40700
.259	16.920	.77310	.17920	-.06440	.79180	-.05350	-.00800	-.01000	-.02500	.68210	4.31400
.259	17.950	.80800	.20450	-.06660	.83170	-.05450	-.00870	-.01070	-.02400	.68160	3.95100
.259	20.010	.85360	.25340	-.06710	.88880	-.05410	-.00770	-.01260	-.01900	.67980	3.36800
.259	22.110	.90620	.30980	-.07840	.95620	-.05400	-.00960	-.00870	-.01700	.68240	2.92400
.259	24.160	.93780	.36140	-.08230	1.00360	-.05420	-.01690	.00220	-.02900	.68240	2.59500
.259	26.200	.95340	.40830	-.08480	1.03580	-.05460	-.01430	.00590	-.04200	.68240	2.33500
.259	28.230	.96100	.47490	-.09200	1.07060	-.05480	-.01060	.01100	-.06500	.68400	2.02300
	GRADIENT	.04491	-.00026	-.00301	.04512	-.00039	.00007	-.00109	.00000	-.00633	3.06370

SSV-ATP ORBITER B3 C2 D2 M1 F1 W02 E2 V3 K2 (ADG028) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000 MACH = .165

RUN NO. 28/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.165	-5.170	-.23980	.02760	.01630	-.24130	.00590	.00140	-.00040	-.00600	.67680	-8.66500
.165	-3.090	-.13960	.02140	.00910	-.14050	.01380	.00130	-.00020	-.00500	.67570	-6.52400
.165	-1.040	-.04910	.01770	.00380	-.04940	.01680	.00120	-.00040	-.00300	.68040	-2.76300
.165	.000	.00130	.01740	.00040	.00130	.01740	.00100	-.00040	-.00200	.52430	.07700
.165	1.010	.04570	.01820	-.00120	.04600	.01740	.00100	-.00030	-.00100	.66050	2.49800
.165	3.110	.13810	.02050	-.00550	.13900	.01290	.00090	-.00020	.00000	.66570	6.73300
.165	5.150	.22960	.02600	-.01090	.23100	.00520	.00080	-.00020	.00000	.66870	8.82300
.165	6.170	.27560	.03140	-.01400	.27740	.00160	.00080	-.00020	.00000	.67000	8.75200
.165	8.240	.37580	.04280	-.02070	.37800	-.01140	.00060	-.00050	.00000	.67160	8.77500
.165	10.300	.47300	.05920	-.03020	.47590	-.02630	.00000	.00040	.00300	.67510	7.98400
.165	12.390	.57850	.08360	-.04280	.58300	-.04250	.00030	-.00030	.00300	.67900	6.91700
.165	14.470	.67860	.11480	-.05430	.68580	-.05840	.00040	-.00030	.00300	.68130	5.91000
.165	16.490	.75790	.16400	-.06320	.77320	-.05790	.00120	.00120	.00200	.68230	4.61900
.165	17.540	.79100	.18750	-.06470	.81060	-.05980	.00150	.00290	.00000	.68150	4.22200
.165	19.610	.85850	.24470	-.07500	.89090	-.05750	.00060	.00340	.00100	.68330	3.50700
.165	21.660	.90190	.29590	-.07360	.94740	-.05830	-.00080	.00020	.00700	.68070	3.04700
.165	23.660	.91240	.33690	-.07210	.97180	-.05610	.00000	-.00170	.00900	.67930	2.69100
.165	25.670	.92240	.38680	-.07120	.99980	-.04920	.00190	-.00270	.00900	.67820	2.37200
.165	28.750	.94490	.45800	-.07130	1.04880	-.05290	.00260	-.00220	.00900	.67690	2.06200
	GRADIENT	.04493	-.00010	-.00236	.04522	-.00011	-.00007	.00000	.00082	-.00242	2.18064

SSV-ATP ORBITER B2 C2 D2 M1 F1 W02 E2 X V3 K2 (ADC029) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000 MACH = .260

RUN NO. 29/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.220	-.24030	.02890	.02140	-.24190	.00690	.00170	-.00050	-.00500	.68500	-8.29700
.259	-3.150	-.14360	.02200	.01280	-.14480	.01400	.00150	-.00030	-.00400	.68500	-6.52700
.259	-1.060	-.04740	.01860	.00590	-.04770	.01770	.00130	-.00030	-.00200	.69890	-2.54700
.259	-.010	.00300	.01810	.00260	.00300	.01810	.00120	-.00020	-.00200	.30570	.16900
.259	1.140	.05410	.01850	-.00030	.05440	.01740	.00120	-.00010	-.00200	.65280	2.92100
.259	3.220	.14720	.02170	-.00630	.14820	.01340	.00100	.00000	.00000	.66690	6.75200
.259	5.290	.24060	.02730	-.01240	.24210	.00500	.00100	-.00010	.00000	.67030	8.78400
.259	6.340	.28720	.03160	-.01560	.28890	-.00020	.00100	.00000	.00000	.67140	9.06200
.259	8.440	.38440	.04280	-.02320	.38650	-.01400	.00110	.00000	.00000	.67370	8.96700
.259	10.640	.49460	.06240	-.03520	.49760	-.03000	-.00020	.00060	.00300	.67800	7.92300
.259	12.740	.59690	.08920	-.04780	.60380	-.04510	.00010	.00080	.00300	.68130	6.71400
.259	14.840	.69650	.13440	-.06140	.70770	-.04840	.00170	.00090	.00100	.68430	5.18000
.259	16.900	.77100	.18220	-.06990	.79070	-.04980	.00140	.00050	.00300	.68490	4.23000
.259	18.050	.81430	.20930	-.07330	.83910	-.05330	.00150	.00090	.00200	.68450	3.88900
.259	20.140	.86890	.26050	-.07420	.90550	-.05460	.00060	.00000	.00300	.68240	3.33500
.259	22.200	.91740	.31720	-.08130	.96930	-.05290	-.00010	-.00090	.00900	.68320	2.89100
.259	24.220	.92900	.36990	-.08590	.99900	-.04380	-.00260	.00040	.00900	.68400	2.51100
.259	26.250	.90960	.40340	-.07720	.99420	-.04040	-.00010	-.00070	.00900	.68070	2.25400
.259	29.250	.94040	.47560	-.08370	1.05290	-.04460	.00010	.00000	.00800	.68140	1.97700
	GRADIENT	.04373	-.00004	-.00298	.04604	-.00010	-.00007	.00005	.00056	-.00415	2.12714

SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2 (ADG030) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 30/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.250	-.23870	.02720	.02660	-.24020	.00520	.00160	-.00030	-.00400	.69390	-8.76100
.259	-3.120	-.13980	.02050	.01470	-.14080	.01280	.00140	-.00030	-.00300	.69140	-6.81100
.259	-1.040	-.04240	.01650	.00440	-.04260	.01570	.00140	-.00030	-.00300	.69080	-2.56300
.259	.000	.00160	.01580	.00020	.00160	.01580	.00130	-.00020	-.00200	.58710	.10100
.259	1.020	.04960	.01630	-.00420	.04990	.01550	.00120	-.00010	-.00100	.68390	3.03100
.259	3.110	.14140	.01880	-.01200	.14220	.01110	.00140	.00000	-.00100	.68330	7.51200
.259	5.210	.23480	.02470	-.02090	.23600	.00320	.00120	.00000	.00000	.68500	9.49800
.259	6.260	.28150	.02860	-.02560	.28290	-.00220	.00120	.00000	.00000	.68590	9.81500
.259	8.380	.37840	.03980	-.03590	.38010	-.01570	.00140	-.00020	.00000	.68730	9.49500
.259	10.680	.49000	.05790	-.05110	.49220	-.03390	.00000	.00050	.00300	.69110	8.45800
.259	12.630	.58900	.07990	-.06480	.59230	-.05080	-.00020	.00070	.00400	.69330	7.37000
.259	14.780	.69100	.13070	-.08460	.70140	-.05000	.00080	-.00100	.00400	.69770	5.28600
.259	16.850	.78420	.16080	-.09720	.78380	-.04850	.00050	-.00380	.00900	.69900	4.22600
.259	17.880	.79990	.20560	-.10290	.82440	-.04990	.00030	-.00410	.01000	.69940	3.89000
.259	20.010	.86000	.25630	-.11180	.89580	-.05340	.00060	-.00350	.01000	.69940	3.35400
.259	22.110	.89860	.30630	-.11810	.94780	-.05460	.00060	-.00330	.01100	.69930	2.93300
.259	24.110	.89970	.34360	-.11220	.96150	-.05390	.00260	-.00630	.01600	.69610	2.61800
.259	26.120	.88640	.37490	-.10510	.96090	-.05360	.00170	-.00140	.01000	.69330	2.36400
.259	29.160	.90400	.43530	-.11000	1.00160	-.06040	.00210	-.00100	.01000	.69340	2.07600
	GRADIENT	.04509	-.00026	-.00427	.04537	-.00026	-.00001	.00005	.00039	-.00153	2.34005

SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2 (ADG031) (28 FEB 93)

REFERENCE DATA

SREF = 5.2818 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 9.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 31/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.23630	.02320	.02410	-.23740	.00140	.00780	.00220	-.08600	.69010	-10.18600
.259	-3.150	-.13970	.01600	.01220	-.14040	.00830	.00760	.00100	-.08600	.68430	-8.71200
.259	-1.060	-.04730	.01260	.00240	-.04750	.01170	.00750	-.00020	-.08400	.67050	-3.73600
.259	.000	.00310	.01150	-.00220	.00310	.01150	.00760	-.00080	-.08400	.93490	.27400
.259	1.060	.04960	.01240	-.00650	.04980	.01140	.00760	-.00140	-.08400	.70190	4.00100
.259	3.160	.14210	.01450	-.01500	.14270	.00660	.00800	-.00240	-.08400	.69180	9.76300
.259	5.260	.23510	.02080	-.02390	.23600	-.00080	.00830	-.00330	-.08400	.69010	11.29500
.259	6.310	.28150	.02480	-.02850	.28250	-.00620	.00860	-.00350	-.08300	.69000	11.33600
.259	8.510	.38680	.03720	-.04110	.38810	-.02040	.00810	-.00400	-.08300	.69190	10.38800
.259	10.590	.48780	.05390	-.05390	.48940	-.03660	.00780	-.00450	-.08300	.69360	9.04100
.259	12.750	.59780	.07850	-.06970	.60040	-.05530	.00620	-.00540	-.07900	.69590	7.60900
.259	14.780	.69190	.12530	-.08830	.70100	-.05540	.00880	-.00620	-.08100	.69980	5.52100
.259	16.930	.78590	.17770	-.10040	.78440	-.05300	.00940	-.00870	-.07700	.70060	4.30900
.259	18.030	.83630	.20610	-.10900	.83240	-.05410	.00980	-.00870	-.07600	.70180	3.92000
.259	19.960	.88350	.25100	-.11640	.89730	-.05890	.01070	-.01070	-.07000	.70130	3.44000
.259	22.160	.90360	.30480	-.12330	.95180	-.05890	.01320	-.01290	-.06400	.70120	2.96400
.259	24.180	.92080	.34780	-.12580	.98250	-.05990	.01520	-.01230	-.05800	.69980	2.64700
.259	26.260	.90930	.38090	-.11580	.98400	-.06070	.01450	-.00230	-.07100	.69650	2.38600
.259	29.070	.90760	.42990	-.11580	1.00210	-.06520	.01500	.00260	-.07600	.69570	2.11000
	GRADIENT	.04472	-.00022	-.00429	.04493	-.00026	.00006	-.00054	.00028	.00260	2.99904

SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2 (ADG032) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2626 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000

RUN NO. 32/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.370	-.36650	.04120	.08730	-.36880	.00660	.00110	-.00280	-.00400	.74370	-8.89100
.259	-3.070	-.25580	.02860	.07230	-.25700	.01480	.00100	-.00260	-.00300	.76130	-8.92800
.259	-1.090	-.16030	.02150	.06060	-.16070	.01840	.00110	-.00240	-.00300	.79920	-7.45000
.259	-.090	-.11300	.01920	.05520	-.11310	.01900	.00110	-.00230	-.00300	.84330	-5.87200
.259	.910	-.06670	.01730	.05080	-.06640	.01840	.00110	-.00220	-.00200	.95280	-3.84500
.259	3.040	.03300	.01710	.04140	.03390	.01530	.00090	-.00220	-.00100	.16650	1.93200
.259	5.160	.12340	.01960	.03370	.12470	.00840	.00080	-.00220	.00000	.54280	6.28500
.259	6.450	.18100	.02250	.02850	.18240	.00190	.00090	-.00230	.00000	.58800	8.04300
.259	8.320	.26380	.02930	.02050	.26520	-.00910	.00090	-.00250	.00200	.61930	9.00000
.259	10.440	.36400	.04130	.00950	.36550	-.02530	.00050	-.00230	.00300	.63960	8.81000
.259	12.610	.46850	.05900	-.00370	.47010	-.04470	-.00030	-.00240	.00600	.65310	7.94100
.259	14.620	.56320	.10330	-.02700	.59030	-.04930	.00060	-.00310	.00700	.66810	5.64100
.259	16.600	.67170	.14620	-.04450	.68530	-.05410	.00140	-.00220	.00600	.67570	4.59200
.259	17.650	.70840	.17340	-.05160	.72750	-.05200	.00060	-.00450	.01000	.67810	4.08400
.259	19.690	.77880	.22110	-.06400	.80750	-.05700	.00090	-.00550	.01200	.68130	3.52100
.259	22.040	.85090	.27380	-.07630	.87500	-.05800	.00140	-.00520	.01300	.68460	3.03400
.259	24.200	.85110	.31710	-.07780	.90630	-.05960	.00330	-.00630	.01400	.68390	2.68300
.259	26.070	.84680	.34890	-.07490	.91400	-.05890	.00300	-.00490	.01500	.68240	2.42700
.259	29.060	.87370	.41100	-.08260	.96330	-.06550	.00260	-.00140	.00900	.68390	2.12500
	GRADIENT	.04721	-.00189	-.00503	.04756	.00006	-.00002	.00007	.00035	-.08222	1.78894

SSV-ATP ORBITER B2 C2 D2 M1 F1 W08 E2 V3 K2 (ADG033) (28 FEB 75)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -30.000
ELV-OB = -30.000

RUN NO. 33/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.740	-.62300	.17830	.28820	-.83670	.09500	.00360	.00120	-.00800	.78620	-4.61500
.259	-3.620	-.72930	.15210	.27860	-.73750	.10570	.00440	.00490	-.01100	.79950	-4.79200
.259	-1.540	-.63860	.13030	.26980	-.64180	.11310	.00490	.00870	-.01400	.81630	-4.89800
.259	-.460	-.58600	.11800	.26100	-.58690	.11320	.00420	.00580	-.01100	.82590	-4.96500
.259	.560	-.52130	.10540	.24680	-.52020	.11050	.00330	.00640	-.00900	.83770	-4.94400
.259	2.690	-.42420	.08800	.23700	-.41960	.10790	.00170	.00830	-.00400	.87350	-4.81500
.259	4.830	-.33100	.07500	.22830	-.32350	.10260	.00150	.00900	-.00500	.92930	-4.41000
.259	5.830	-.27870	.06940	.22100	-.27020	.09740	.00160	.00850	-.00500	.97360	-4.01300
.259	7.960	-.18010	.06150	.21070	-.16980	.08590	.00190	.00970	-.00700	1.14090	-2.92300
.259	10.060	-.08810	.05590	.20250	-.07690	.07050	.00200	.01080	-.00800	1.69080	-1.57300
.259	12.170	-.01040	.05230	.19990	.00070	.05340	.00140	.01420	-.01000	-3.27670	-.20000
.259	14.260	.08540	.05570	.18800	.09650	.03290	.00040	.01420	-.00900	-.12090	1.53200
.259	16.410	.20450	.07630	.16670	.21770	.01540	-.00160	.01460	-.00700	.34690	2.67900
.259	17.480	.26230	.09300	.15440	.27810	.00990	-.00080	.01290	-.00700	.43020	2.81800
.259	19.560	.35270	.13290	.13780	.37680	.00690	-.00120	.00680	-.00200	.50520	2.65300
.259	21.660	.41760	.16590	.12740	.44930	.00000	.00000	.00160	.00000	.53770	2.51600
.259	23.730	.49290	.20200	.10720	.53250	-.01340	.00270	-.00030	.00200	.57030	2.43900
.259	25.830	.55300	.24070	.08900	.60270	-.02430	.00550	-.00170	.00400	.59150	2.29700
.259	28.880	.61080	.29740	.06850	.67840	-.03470	.00220	-.00150	.01000	.61110	2.05300
	GRADIENT	.04798	-.00926	-.00635	.04982	-.00063	-.00044	.00039	.00107	.01520	.04325

SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2 (ADG035) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 35/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.24730	.02690	.02320	-.24890	.00600	.00090	-.00090	-.00300	.68690	-8.53800
.259	-3.140	-.14720	.02220	.01580	-.14820	.01410	.01100	-.00090	-.00400	.69210	-6.61100
.259	-1.030	-.05050	.01840	.00950	-.05080	.01750	.00090	-.00110	-.00200	.72430	-2.74400
.259	.020	-.00260	.01740	.00670	-.00260	.01740	.00080	-.00110	-.00100	1.67530	-.15000
.259	1.050	.04400	.01760	.00440	.04430	.01680	.00070	-.00110	.00000	.61000	2.48800
.259	3.160	.13860	.02050	-.00080	.13950	.01280	.00070	-.00140	.00000	.65250	6.76200
.259	5.330	.23410	.02640	-.00620	.23560	.00450	.00080	-.00150	.00000	.66040	8.84800
.259	6.320	.27870	.03030	-.00860	.28040	-.00050	.00080	-.00160	.00000	.66210	9.18500
.259	8.450	.37450	.04150	-.01400	.37650	-.01390	.00080	-.00170	.00100	.66470	9.01500
.259	10.550	.46810	.05640	-.01880	.47050	-.03020	.00090	-.00200	.00300	.66580	9.01500
.259	12.650	.56130	.07480	-.02470	.56400	-.04990	.00100	-.00230	.00400	.66730	7.49800
.259	14.600	.66260	.10600	-.03510	.66670	-.07080	.00090	-.00230	.00600	.67080	6.50400
.259	16.910	.77140	.13960	-.05200	.77870	-.09070	.00150	-.00330	.00600	.67640	5.52300
.259	17.980	.81960	.16270	-.05720	.82980	-.09820	.00140	-.00260	.00700	.67720	5.03700
.259	20.070	.89250	.22540	-.06590	.91570	-.09450	.00010	-.00310	.01200	.67840	3.95800
.259	22.100	.91240	.28010	-.06270	.95080	-.08580	.00080	-.01650	.03200	.67610	3.25700
.259	24.200	.96170	.34390	-.07610	1.01820	-.08500	.00710	-.01600	.02500	.67950	2.79600
.259	26.270	.97690	.39630	-.07220	1.05140	-.07700	.00780	-.00780	.01400	.67710	2.46400
.259	29.250	.95400	.45500	-.06380	1.05470	-.06920	.00480	-.00200	.01300	.67390	2.09600
	GRADIENT	.04537	-.00028	-.00262	.04567	-.00022	-.00148	-.00007	.00067	-.01070	2.16124

SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2 (ADG036) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 36/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.280	-.24100	.02500	.01980	-.24230	.00260	.00710	.00250	-.08400	.68240	-9.63500
.259	-3.100	-.14420	.01770	.01280	-.14500	.00980	.00690	.00090	-.08400	.68490	-8.15100
.259	-1.030	-.05150	.01390	.00660	-.05180	.01290	.00680	-.00080	-.08300	.70100	-3.70700
.259	.000	-.00340	.01390	.00370	-.00340	.01390	.00690	-.00150	-.08200	1.07920	-.24900
.259	1.020	.04380	.01330	.00130	.04400	.01250	.00700	-.00220	-.08300	.63770	3.28600
.259	3.160	.13640	.01600	-.00370	.13710	.00850	.00740	-.00370	-.08200	.66080	8.49300
.259	5.260	.23130	.02280	-.00930	.23240	.00140	.00780	-.00520	-.08200	.66580	10.14300
.259	6.340	.27910	.02600	-.01180	.28030	-.00490	.00820	-.00580	-.08300	.66670	10.70600
.259	8.440	.37320	.03770	-.01710	.37470	-.01740	.00870	-.00750	-.08200	.66810	9.87700
.259	10.560	.46920	.05210	-.02270	.47080	-.03480	.00940	-.00930	-.08200	.66910	9.00300
.259	12.660	.56350	.07240	-.02980	.56570	-.05290	.00970	-.01040	-.07900	.67090	7.77400
.259	14.800	.66460	.10030	-.04150	.66840	-.07270	.00780	-.01050	-.07400	.67450	6.62100
.259	16.920	.77460	.14470	-.05660	.78320	-.08700	.00350	-.01440	-.06100	.67860	5.35000
.259	18.000	.82060	.17270	-.06190	.83380	-.08930	.00430	-.01760	-.05700	.67930	4.75000
.259	20.040	.91100	.22870	-.06060	.87780	-.07660	.00980	-.02680	-.04600	.67730	3.72000
.259	22.130	.92220	.29030	-.07770	.96360	-.07860	.01490	-.02410	-.05100	.68190	3.17600
.259	24.230	.98600	.35300	-.08850	1.04400	-.08270	.01720	-.01920	-.05500	.68350	2.79200
.259	26.290	1.01660	.41200	-.08680	1.09570	-.08170	.01860	-.01300	-.06000	.68200	2.47100
.259	28.260	.98590	.46510	-.07830	1.08740	-.07660	.02230	-.00320	-.07900	.67850	2.11900
	GRADIENT	.04498	-.00027	-.00263	.04522	-.00021	.00008	-.00073	.00029	-.00665	2.73231

SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2 (ADG037) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000

RUN NO. 37/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.380	-.38350	.04250	.08530	-.38580	.00630	.00130	.00000	-.00500	.73750	-9.01300
.259	-3.240	-.26290	.03150	.07740	-.26430	.01540	.00120	-.00010	-.00300	.75770	-8.95900
.259	-1.130	-.16570	.02380	.07050	-.16620	.02010	.00120	-.00040	-.00300	.79990	-7.80100
.259	-.100	-.13790	.02080	.06780	-.13790	.02060	.00120	-.00050	-.00300	.84470	-6.60700
.259	.970	-.09000	.01640	.06490	-.08960	.01990	.00110	-.00050	-.00200	.93670	-4.87300
.259	3.050	.00650	.01750	.05930	.00740	.01710	.00110	-.00050	-.00200	-2.49200	.37400
.259	5.160	.10170	.01960	.05400	.10310	.01030	.00110	-.00050	.00000	.44250	5.17800
.259	6.210	.14900	.02140	.05190	.15040	.00510	.00100	-.00060	.00000	.51330	6.95800
.259	8.330	.24090	.02820	.04690	.24250	-.00690	.00110	-.00090	.00000	.57340	8.51600
.259	10.450	.33560	.03830	.04230	.33720	-.02320	.00120	-.00110	.00100	.60020	8.76200
.259	12.560	.42870	.05330	.03700	.43000	-.04120	.00120	-.00120	.00300	.61590	8.04200
.259	14.680	.52610	.07450	.02880	.52780	-.06130	.00120	-.00100	.00300	.62830	7.06100
.259	16.800	.63510	.10650	.01410	.63880	-.08150	.00160	-.00210	.00600	.64120	5.95900
.259	17.860	.68650	.12740	.00600	.69250	-.08920	.00170	-.00130	.00500	.64540	5.38500
.259	19.960	.77830	.18160	-.00660	.79360	-.09510	.00060	-.00190	.00800	.65340	4.28000
.259	22.090	.82260	.23650	-.00730	.85130	-.09040	-.00010	-.01280	.02800	.65340	3.47900
.259	24.140	.88540	.30310	-.02850	.93190	-.08550	.00600	-.01190	.02000	.66210	2.92100
.259	26.200	.92480	.36030	-.03510	.98890	-.08500	.00800	-.00650	.01000	.66400	2.56600
.259	29.220	.91310	.42330	-.03000	1.00360	-.07630	.00440	-.00430	.02000	.66180	2.15700
	GRADIENT	.04597	-.00226	-.00266	.04634	.00024	-.00002	-.00006	.00019	-.45749	1.47398

SSV-ATP ORBITER B2 C2 D2 M1 F1 W05 E3 V3 K2 (ADG038) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -30.000
ELV-OB = -30.000

RUN NO. 38/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-3.560	-.65360	.14470	.23230	-.66160	.10360	.00170	-.00030	-.00700	.78690	-4.51600
.259	-1.460	-.55390	.12170	.22220	-.55680	.10750	.00230	.00080	-.00700	.80790	-4.54900
.259	-.440	-.50070	.11290	.21670	-.50160	.10900	.00150	.00040	-.00400	.82100	-4.43400
.259	.610	-.45170	.10460	.21320	-.45060	.10940	.00150	.00030	-.00400	.83720	-4.31800
.259	2.690	-.35730	.09180	.20860	-.35260	.10850	.00170	.00280	-.00200	.86410	-3.89000
.259	4.810	-.26590	.08070	.20350	-.25820	.10270	.00180	.00330	-.00200	.96180	-3.29500
.259	5.910	-.21680	.07640	.20050	-.20780	.09840	.00170	.00260	-.00300	1.03170	-2.83600
.259	7.960	-.12430	.07030	.19470	-.11340	.08680	.00120	.00210	.00000	1.32930	-1.76800
.259	10.110	-.02890	.06730	.18990	-.01660	.07130	.00120	.00080	.00000	-1.38620	-.42900
.259	12.160	.05890	.06870	.18630	.07200	.05470	.00130	.00030	.00100	-.37280	.85600
.259	14.320	.15110	.07420	.18180	.16480	.03450	.00140	.00050	.00100	.21350	2.03400
.259	16.460	.25360	.08770	.17360	.26800	.01220	.00160	.00010	.00100	.39370	2.89000
.259	17.480	.29070	.09710	.17260	.30640	.00520	.00150	.00190	.00200	.42700	2.99300
.259	19.560	.38690	.12700	.16380	.40710	-.00990	.00240	.00240	.00100	.49070	3.04500
.259	21.660	.44310	.16360	.17010	.47230	-.01140	-.00050	.00000	.00900	.50740	2.70400
.259	23.760	.49140	.19960	.16190	.53020	-.01530	.00110	.00100	.00700	.52910	2.46100
.259	25.850	.53900	.24580	.14710	.61020	-.02250	.00540	-.00330	.00600	.55460	2.27300
	26.960	.64220	.31800	.12390	.71590	-.03290	.00720	-.00340	.01200	.58150	2.01900
	GRADIENT	.04636	-.00747	-.00335	.04820	-.00009	-.00001	.00045	.00069	.02044	.15139

SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2 (ADG043) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000 MACH = .260

RUN NO. 43/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.25100	.02950	.01960	-.25270	.00630	.00140	-.00080	-.00500	.68070	-8.49300
.259	-3.160	-.15090	.02300	.01300	-.15190	.01460	.00140	-.00080	-.00400	.68380	-6.56200
.259	-1.050	-.05460	.01910	.00770	-.05490	.01810	.00140	-.00070	-.00300	.70560	-2.84600
.259	.000	-.00750	.01770	.00510	-.00750	.01770	.00130	-.00090	-.00200	.91860	-.42600
.259	1.040	.03930	.01800	.00270	.03970	.01730	.00120	-.00090	-.00200	.62220	2.17600
.259	3.140	.13500	.02080	-.00150	.13600	.01330	.00110	-.00110	.00000	.65440	6.48800
.259	5.280	.23070	.02670	-.00630	.23220	.00530	.00110	-.00120	.00000	.66080	8.62400
.259	6.330	.27660	.03040	-.00870	.27830	-.00020	.00110	-.00130	.00000	.66240	9.07600
.259	8.420	.37130	.04130	-.01310	.37340	-.01350	.00110	-.00130	.00000	.66390	8.98200
.259	10.530	.46700	.05610	-.01870	.46940	-.03010	.00100	-.00130	.00200	.66570	8.31400
.259	12.660	.56410	.07490	-.02480	.56680	-.05050	.00090	-.00140	.00400	.66730	7.52200
.259	14.770	.66000	.10030	-.03260	.66370	-.07120	.00070	-.00110	.00500	.66940	6.57400
.259	16.900	.77000	.13660	-.04710	.77650	-.09310	.00100	-.00310	.00600	.67400	5.63600
.259	17.960	.82160	.15930	-.05460	.83090	-.10160	.00070	-.00190	.00700	.67600	5.15600
.259	20.070	.90230	.20840	-.05980	.91900	-.11380	.00090	-.00150	.00800	.67570	4.32800
.259	22.160	.96630	.26120	-.06280	.99350	-.12260	-.00030	-.00160	.01300	.67500	3.69800
	GRADIENT	.04534	-.00037	-.00231	.04566	-.00022	-.00005	-.00005	.00062	-.00809	2.10415

SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 R2 (ADG044) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000 MACH = .260

RUN NO. 44/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.240	-.24740	.02540	.01660	-.24870	.00270	.00760	.00260	-.08500	.67640	-9.73200
.259	-3.170	-.14990	.01850	.00970	-.15070	.01020	.00720	.00120	-.08400	.67550	-8.08500
.259	-1.060	-.05290	.01450	.00440	-.05320	.01350	.00720	-.00030	-.08300	.68270	-3.64500
.259	.000	-.00410	.01410	.00170	-.00410	.01410	.00730	-.00120	-.08300	.81490	-.29400
.259	1.020	.04160	.01350	-.00050	.04180	.01280	.00740	-.00190	-.08400	.65510	3.06800
.259	3.130	.13630	.01680	-.00550	.13700	.00930	.00760	-.00330	-.08300	.66590	8.10200
.259	5.260	.23280	.02260	-.01060	.23390	.00110	.00790	-.00470	-.08300	.66800	10.29200
.259	6.350	.27970	.02650	-.01310	.28090	-.00450	.00810	-.00520	-.08300	.66850	10.51900
.259	8.430	.37570	.03770	-.01820	.37720	-.01770	.00840	-.00660	-.08300	.66910	9.94900
.259	10.540	.47390	.05320	-.02440	.47560	-.03430	.00890	-.00800	-.08200	.67030	8.89500
.259	12.660	.57250	.07330	-.03120	.57460	-.05410	.00880	-.00910	-.07900	.67150	7.80800
.259	14.770	.67010	.10080	-.04080	.67360	-.07330	.00780	-.01010	-.07500	.67400	6.64500
.259	16.920	.77820	.13940	-.05460	.78510	-.09310	.00510	-.01110	-.06600	.67750	5.57900
.259	17.970	.82960	.16040	-.06150	.83860	-.10340	.00540	-.01280	-.06400	.67900	5.17100
.259	20.100	.93220	.21720	-.07620	.95010	-.11640	.00730	-.01240	-.06500	.68170	4.29000
.259	22.140	.94170	.26760	-.08490	.97310	-.10700	.01070	-.02850	-.04200	.67640	3.51800
	GRADIENT	.04543	-.00029	-.00241	.04567	-.00016	.00007	-.00072	.00010	-.00257	2.63389

SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2 (ADG045) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = .000
ELV-OB = .000 MACH = .260

RUN NO. 45/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.270	-.24500	.02710	.01620	-.24640	.00440	-.00520	-.00410	.07800	.67600	-9.03400
.259	-3.140	-.14460	.01910	.00950	-.14540	.01110	-.00490	-.00260	.07800	.67580	-7.57300
.259	-1.030	-.05080	.01530	.00380	-.05110	.01430	-.00490	-.00120	.07900	.67990	-3.32300
.259	.000	-.00120	.01460	.00120	-.00120	.01460	-.00490	-.00030	.07900	1.02440	-.08800
.259	1.060	.04750	.01470	-.00090	.04770	.01380	-.00520	.00020	.08000	.65810	3.23000
.259	3.160	.14050	.01750	-.00370	.14120	.00970	-.00560	.00180	.08200	.66620	8.01800
.259	5.270	.23630	.02360	-.01090	.23750	.00180	-.00630	.00300	.08400	.66810	10.00900
.259	6.330	.28370	.02760	-.01370	.28510	-.00380	-.00660	.00360	.08500	.66900	10.27000
.259	8.430	.37830	.03820	-.01870	.37980	-.01760	-.00750	.00510	.08600	.66950	9.88600
.259	10.540	.47400	.05340	-.02490	.47580	-.03410	-.00880	.00660	.08800	.67070	8.86700
.259	12.660	.56840	.07330	-.03080	.57070	-.05310	-.00890	.00780	.08700	.67140	7.75400
.259	14.790	.67370	.10140	-.04310	.67730	-.07390	-.00720	.00640	.08500	.67510	6.64000
.259	16.910	.77710	.13820	-.05620	.78370	-.09390	-.00580	.00680	.08100	.67830	5.62200
.259	17.950	.82200	.15750	-.06020	.83050	-.10340	-.00650	.00760	.08000	.67870	5.21800
.259	20.060	.90020	.20440	-.06530	.91560	-.11710	-.00890	.00920	.08000	.67820	4.40300
.259	22.170	.96400	.25690	-.06600	.98970	-.12590	-.00820	.01360	.07000	.67640	3.75100
	GRADIENT	.04543	-.00026	-.00240	.04567	-.00022	-.00011	.00070	.00062	-.00257	2.54026

SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2 (ADG051) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000 MACH = .260

RUN NO. 51/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.360	-.39420	.04500	.08510	-.39670	.00780	.00180	-.00030	-.00600	.73490	-8.74900
.259	-3.260	-.29080	.03260	.07650	-.29220	.01600	.00170	-.00030	-.00500	.75350	-8.90300
.259	-1.150	-.19200	.02400	.06990	-.19240	.02010	.00170	-.00040	-.00400	.79380	-7.99500
.259	-.100	-.14240	.01970	.06690	-.14240	.01940	.00160	-.00060	-.00400	.83600	-7.21200
.259	.940	-.09600	.01930	.06420	-.09570	.02090	.00170	-.00040	-.00400	.91550	-4.96900
.259	3.060	.00140	.01790	.05920	.00240	.01780	.00170	-.00040	-.00300	-3.27670	.08100
.259	5.170	.09630	.01900	.05510	.09760	.01020	.00160	-.00060	-.00200	.42630	5.06800
.259	6.250	.14410	.02160	.05260	.14560	.00580	.00170	-.00060	-.00100	.50630	6.65700
.259	8.370	.23770	.02790	.04900	.23930	-.00690	.00180	-.00070	-.00100	.56880	8.50500
.259	10.440	.33180	.03690	.04420	.33330	-.02180	.00180	-.00080	.00000	.59740	8.92600
.259	12.540	.42660	.05160	.03970	.42760	-.04220	.00180	-.00090	.00000	.61320	8.25300
.259	14.700	.52510	.07250	.03350	.52630	-.06300	.00170	-.00090	.00100	.62470	7.23600
.259	16.800	.63180	.10360	.01990	.63480	-.08350	.00220	-.00200	.00300	.63750	6.09700
.259	17.860	.68240	.12220	.01430	.68700	-.09320	.00220	-.00120	.00300	.64170	5.58300
.259	19.960	.77720	.16610	.00330	.78720	-.10950	.00120	-.00200	.00600	.64820	4.67700
.259	22.090	.86660	.21620	-.00640	.88430	-.12550	-.00070	-.00390	.01400	.65280	4.00700
.259	24.200	.93470	.27300	-.01220	.96450	-.13420	-.00040	-.00530	.01800	.65500	3.42300
.259	26.260	.96670	.34040	-.02380	1.01750	-.12250	.00840	-.01020	.01300	.65920	2.83900
.259	29.270	.94330	.41620	-.02270	1.02630	-.09820	.00830	-.00660	.01900	.65870	2.26600
	GRADIENT	.04620	-.00232	-.00274	.04658	.00029	-.00000	-.00001	.00029	-.56947	1.42442

SSV-ATP ORBITER B2 C2 D2 M1 F1 W11 E3 V3 K2 (ADG052) (26 FEB 73)

REFERENCE DATA

SREF = 3.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -30.000
ELV-OB = -30.000

RUN NO. 52/ 0 RN/L = 1.63 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.740	-.77520	.17920	.24530	-.78920	.10070	.00130	.00110	-.00400	.77290	-4.32400
.259	-3.610	-.66690	.14840	.23280	-.67490	.10610	.00320	.00190	-.00700	.78650	-4.49300
.259	-1.480	-.56260	.12430	.22200	-.56570	.10970	.00230	.00190	-.00400	.80530	-4.52600
.259	-.410	-.50580	.11230	.21500	-.50660	.10860	.00120	.00130	-.00100	.81790	-4.50200
.259	.630	-.44980	.10420	.20930	-.44870	.10910	.00260	.00120	-.00500	.83460	-4.31600
.259	2.740	-.35430	.09080	.20420	-.34950	.10760	.00230	.00040	-.00400	.88110	-3.90200
.259	4.850	-.25880	.07980	.19910	-.25110	.10150	.00200	.00030	-.00300	.96370	-3.24000
.259	5.930	-.21290	.07570	.19680	-.20390	.09730	.00210	.00020	-.00300	1.03190	-2.81000
.259	8.020	-.12500	.07170	.19630	-.11380	.08850	.00190	-.00060	-.00100	1.33240	-1.74300
.259	10.110	-.04050	.06840	.19430	-.02780	.07450	.00190	-.00050	-.00100	-3.14350	-.59100
.259	12.230	.04120	.06940	.19580	.05500	.05910	.00150	-.00170	.00100	-.75890	.59300
.259	14.300	.12070	.07410	.19670	.13530	.04200	.00120	-.00260	.00300	.07470	1.62800
.259	16.430	.21260	.08570	.19230	.22820	.02210	.00100	-.00410	.00600	.31640	2.47900
.259	17.500	.26540	.09430	.18660	.28150	.01010	.00150	-.00540	.00600	.38760	2.81200
.259	19.570	.31600	.10680	.19780	.33350	-.00510	.00340	-.01020	.00800	.41530	2.95600
.259	21.690	.39120	.13270	.19800	.41260	-.02120	.00230	-.00660	.01100	.46000	2.94600
.259	23.760	.45740	.15960	.19750	.48300	-.03820	.00110	-.00190	.00900	.48810	2.86500
.259	25.880	.55790	.21350	.17390	.59520	-.05140	.00750	-.00550	.00600	.53430	2.61200
.259	29.020	.65580	.30540	.14340	.72160	-.05110	.00780	-.00050	.00100	.57130	2.14700
	GRADIENT	.04841	-.00797	-.00398	.05026	-.00056	-.00009	-.00022	.00030	.02063	.15276

D

SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2 (ADG033) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.0119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -30.000
ELV-OB = -30.000

RUN NO. 53/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/D
.250	-5.700	-.76130	.18020	.23980	-.77540	.10350	-.00170	-.00440	-.00300	.77230	-4.22400
.250	-3.590	-.65160	.14940	.22520	-.65970	.10820	.00100	-.00040	-.00400	.78500	-4.36000
.250	-1.470	-.54700	.12440	.21380	-.55000	.11030	.00080	.00080	-.00100	.80380	-4.39400
.250	-.420	-.49480	.11400	.20850	-.49570	.11030	.00100	.00110	-.00100	.81650	-4.33900
.250	.640	-.44390	.10580	.20550	-.44270	.11080	.00190	-.00140	-.00700	.83370	-4.19300
.250	2.750	-.34600	.09240	.19900	-.34120	.10890	.00100	-.00220	-.00400	.88080	-3.74200
.250	4.860	-.24980	.08150	.19350	-.24200	.10250	.00060	-.00230	.00000	.96840	-3.06400
.250	5.910	-.20790	.07770	.19280	-.19880	.09880	.00040	-.00230	.00000	1.03370	-2.67900
.250	8.010	-.12340	.07240	.19150	-.11210	.08890	.00040	-.00230	.00200	1.32560	-1.70400
.250	10.120	-.03580	.06900	.18970	-.02310	.07420	.00020	-.00210	.00500	-2.66550	-.91900
.250	12.230	.05530	.07000	.18700	.06880	.05670	.00000	-.00240	.00700	-.42450	.78900
.250	14.340	.14040	.07460	.18650	.15450	.03740	.00010	-.00210	.00700	.17220	1.88100
.250	16.430	.23200	.08630	.18160	.24700	.01710	.00030	-.00250	.00800	.35900	2.68800
.250	17.500	.28490	.09580	.17650	.30050	.00560	.00090	-.00350	.00800	.41760	2.97300
.250	19.620	.36740	.11780	.17310	.38570	-.01230	.00080	-.00010	.00700	.47230	3.11600
.250	21.670	.42840	.14440	.17890	.45140	-.02400	-.00090	.00050	.01100	.49310	2.96800
.250	23.860	.47400	.17110	.18710	.50270	-.03520	-.00240	.00040	.01300	.50270	2.76900
.250	25.860	.55760	.21830	.16930	.59690	-.04690	.00300	-.00330	.01300	.53770	2.55400
.250	29.040	.63330	.30290	.14450	.70080	-.04260	.00740	-.00330	.00300	.56830	2.09000
	GRADIENT	.04741	-.00785	-.00364	.04927	-.00064	-.00003	-.00036	.00019	.02109	.15773

SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2 (ADG054) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.6119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000

RUN NO. 54/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.360	-.37510	.04500	.07520	-.37770	.00970	-.00080	.00010	.00000	.72880	-8.33700
.259	-3.260	-.27500	.03320	.06730	-.27640	.01750	-.00050	-.00010	.00000	.74640	-8.26400
.259	-1.170	-.17510	.02530	.06040	-.17560	.02170	-.00020	-.00010	.00000	.78630	-6.89900
.259	-.100	-.12580	.02240	.05750	-.12580	.02220	-.00030	-.00020	.00000	.83080	-5.59500
.259	.930	-.07720	.02060	.05480	-.07690	.02180	.00000	-.00030	.00000	.93230	-3.74700
.259	3.070	.02140	.01920	.04990	.02240	.01800	.00000	-.00030	.00000	-.22930	1.11300
.259	5.170	.11340	.02080	.04550	.11480	.01050	.00000	-.00060	.00100	.49290	5.43300
.259	6.220	.16030	.02330	.04330	.16190	.00580	-.00010	-.00070	.00100	.54400	6.87500
.259	8.320	.25280	.02960	.03910	.25440	-.00720	.00000	-.00100	.00300	.58910	8.51500
.259	10.430	.34860	.04000	.03430	.35010	-.02380	.00000	-.00130	.00400	.61110	8.71100
.259	12.570	.44410	.05440	.02900	.44530	-.04350	.00000	-.00150	.00500	.62410	8.15900
.259	14.670	.53920	.07500	.02310	.54060	-.06400	.00000	-.00210	.00600	.63300	7.18800
.259	16.800	.64610	.10390	.00970	.64910	-.08530	.00050	-.00330	.00800	.64400	6.10000
.259	17.840	.69830	.12490	.00350	.70300	-.09510	.00090	-.00300	.00700	.64800	5.59000
.259	19.960	.79300	.17040	-.00660	.80350	-.11060	.00000	-.00460	.01100	.65320	4.65300
.259	22.110	.87860	.22410	-.01610	.89840	-.12310	-.00170	-.00610	.01800	.65710	3.92000
.259	24.170	.94450	.28360	-.02390	.97780	-.12790	-.00050	-.00880	.02200	.65970	3.32900
.259	26.260	.97970	.35320	-.03850	1.03480	-.11700	.00880	-.01210	.01200	.66470	2.77300
.259	29.260	.97760	.43700	-.04540	1.06650	-.09670	.01110	-.01170	.02100	.66680	2.23600
	GRADIENT	.04660	-.00221	-.00274	.04718	.00007	.00008	-.00004	.00000	-.13256	1.46491

SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2 (ADG055) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2626 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-18 = .000
ELV-OB = .000

RUN NO. 55/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.23780	.02880	.01200	-.23940	.00670	.00030	-.00060	-.00100	.66980	-8.25400
.259	-3.150	-.13600	.02140	.00520	-.13690	.01380	.00010	-.00070	.00000	.66480	-6.42100
.259	-1.060	-.04260	.01810	-.00050	-.04290	.01730	.00030	-.00080	.00000	.64510	-2.34900
.259	.010	.00670	.01730	-.00330	.00670	.01730	.00010	-.00080	.00100	.64640	.38600
.259	1.070	.05420	.01750	-.00550	.05450	.01640	.00010	-.00090	.00200	.68990	3.09600
.259	3.150	.14790	.02040	-.01010	.14880	.01220	.00000	-.00130	.00300	.67690	7.24500
.259	5.260	.24180	.02590	-.01470	.24320	.00360	.00000	-.00150	.00300	.67390	9.33300
.259	6.320	.28960	.03010	-.01710	.29110	-.00190	.00010	-.00160	.00300	.67330	9.61900
.259	8.430	.38430	.04090	-.02210	.38620	-.01580	.00000	-.00170	.00500	.67260	9.38600
.259	10.570	.48260	.05600	-.02740	.48470	-.03340	.00000	-.00210	.00600	.67240	8.60700
.259	12.700	.57690	.07540	-.03330	.57940	-.05320	.00010	-.00240	.00800	.67270	7.64300
.259	14.770	.67550	.10110	-.04310	.67900	-.07440	-.00050	-.00190	.01000	.67510	6.67600
.259	16.900	.78450	.13820	-.05820	.79080	-.09580	.00000	-.00350	.01100	.67910	5.67400
.259	18.000	.83860	.15980	-.06480	.84710	-.10720	.00020	-.00400	.01100	.68020	5.24800
.259	20.090	.92440	.21020	-.07310	.94040	-.12010	-.00040	-.00610	.01600	.68070	4.39700
.259	22.190	.99350	.26700	-.07910	1.02060	-.12790	-.00100	-.00260	.01600	.68060	3.71900
.259	24.260	1.03700	.32790	-.08060	1.06020	-.12710	.00050	-.01100	.02800	.67950	3.16100
.259	26.320	1.06220	.39690	-.09040	1.12800	-.11510	.00820	-.00900	.01100	.68170	2.67500
.259	29.330	1.04620	.47930	-.08750	1.14860	-.09560	.01060	-.01300	.02800	.68010	2.18600
	GRADIENT	.04539	-.00017	-.00242	.04567	-.00027	-.00002	-.00009	.00052	.00393	2.20900

SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2 (ADG056) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 56/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.270	-.23240	.02400	.00870	-.23360	.00260	.00560	.00380	-.08000	.66480	-9.64900
.259	-3.120	-.13430	.01660	.00150	-.13500	.00920	.00570	.00230	-.08200	.65460	-8.07600
.259	-1.060	-.03800	.01400	-.00440	-.03820	.01320	.00550	.00040	-.08000	.60360	-2.71300
.259	.000	.00820	.01350	-.00680	.00820	.01350	.00560	-.00040	-.08000	.97500	.61200
.259	1.050	.05640	.01390	-.00930	.05670	.01290	.00580	-.00120	-.08000	.71530	4.04400
.259	3.130	.14920	.01660	-.01400	.14980	.00840	.00620	-.00280	-.08000	.68710	8.97800
.259	5.270	.24340	.02250	-.01900	.24450	.00000	.00680	-.00430	-.08200	.68080	10.80700
.259	6.320	.29320	.02700	-.02190	.29440	-.00530	.00690	-.00510	-.08100	.67940	10.82700
.259	8.440	.38920	.03810	-.02710	.39060	-.01940	.00740	-.00660	-.08100	.67740	10.19800
.259	10.550	.48590	.05320	-.03310	.48750	-.03660	.00810	-.00800	-.08200	.67680	9.11900
.259	12.670	.58350	.07410	-.03980	.58550	-.05570	.00800	-.00920	-.07900	.67690	7.87400
.259	14.800	.68390	.10070	-.04980	.68690	-.07720	.00690	-.00990	-.07500	.67870	6.78600
.259	16.930	.78830	.13910	-.06200	.79460	-.09650	.00410	-.01190	-.06600	.68090	5.66700
.259	18.000	.83870	.16110	-.06820	.84740	-.10600	.00390	-.01350	-.06300	.68180	5.20400
.259	20.110	.94600	.21660	-.08420	.96280	-.12190	.00450	-.01350	-.06200	.68460	4.36600
.259	22.160	.95670	.27100	-.07630	.98820	-.10990	.00900	-.03010	-.04000	.68050	3.52900
.259	24.250	1.02710	.34510	-.09700	1.07820	-.10750	.01640	-.02820	-.04500	.68560	2.97600
.259	26.310	1.07550	.40770	-.10210	1.14480	-.11130	.02060	-.02460	-.04900	.68530	2.63700
.259	29.380	1.09890	.50000	-.10470	1.20290	-.10340	.01950	-.01180	-.05700	.68440	2.19700
	GRADIENT	.04330	-.00000	-.00246	.04551	-.00013	.00009	-.00081	.00029	.01009	2.77700

SSV-ATP ORBITER B2 C2 D2 M2 F1 W11 E3 V3 K2 (ADG057) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 57/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.23170	.02410	.00820	-.23290	.00280	-.00480	-.00520	.07800	.66400	-9.58500
.259	-3.140	-.13150	.01770	.00090	-.13230	.01050	-.00490	-.00360	.08100	.65270	-7.40000
.259	-1.030	-.03570	.01450	-.00490	-.03600	.01390	-.00490	-.00220	.08100	.59520	-2.45600
.259	.000	.01110	.01390	-.00730	.01110	.01390	-.00500	-.00150	.08200	.91060	.80100
.259	1.040	.05770	.01400	-.00970	.05800	.01300	-.00520	-.00080	.08300	.71640	4.10300
.259	3.150	.15290	.01710	-.01440	.15360	.00870	-.00590	.00040	.08500	.68710	8.91300
.259	5.270	.24600	.02270	-.01930	.24710	.00000	-.00650	.00150	.08800	.68100	10.81000
.259	6.330	.29490	.02700	-.02200	.29610	-.00560	-.00700	.00190	.09000	.67940	10.89400
.259	8.440	.38980	.03780	-.02740	.39120	-.01980	-.00770	.00310	.09200	.67770	10.29800
.259	10.550	.48550	.05360	-.03380	.48710	-.03610	-.00880	.00440	.09300	.67740	9.04200
.259	12.670	.58220	.07390	-.04070	.58430	-.05560	-.00950	.00570	.09400	.67750	7.87700
.259	14.780	.68250	.10130	-.05080	.68570	-.07620	-.00770	.00440	.09200	.67930	6.73600
.259	16.900	.78300	.13530	-.06250	.78860	-.09810	-.00650	.00400	.09000	.68130	5.78600
.259	17.960	.83290	.15470	-.06820	.84000	-.10980	-.00710	.00370	.09000	.68210	5.38400
.259	20.100	.91950	.20370	-.07610	.93350	-.12470	-.00880	.00600	.08900	.68220	4.51300
.259	22.210	.99960	.26600	-.08540	1.02600	-.13170	-.00760	.00430	.08800	.68290	3.75700
.259	24.200	.99780	.32340	-.07770	1.04270	-.11410	-.01270	.02520	.05400	.67940	3.08400
.259	26.290	1.05120	.38600	-.08350	1.11350	-.11960	-.01710	.01600	.06500	.67960	2.72200
.259	29.330	1.03110	.46690	-.08790	1.12770	-.09800	-.00420	-.00360	.08700	.68060	2.20800
	GRADIENT	.04521	-.00011	-.00242	.04545	-.00030	-.00016	.00064	.00067	.01081	2.04998

SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2 (ADG058) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2826 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 58/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.280	-.23940	.02920	.01190	-.24110	.00710	.00000	-.00050	.00000	.66960	-8.17400
.259	-3.150	-.14060	.02160	.00560	-.14160	.01380	.00000	-.00050	.00000	.66570	-6.49500
.259	-1.050	-.04350	.01840	.00030	-.04380	.01760	.00000	-.00070	.00000	.65290	-2.35500
.259	.020	.00500	.01740	-.00200	.00500	.01740	.00000	-.00070	.00100	.80660	.29100
.259	1.040	.04990	.01770	-.00390	.05020	.01680	.00000	-.00080	.00000	.68090	2.81300
.259	3.170	.14520	.02040	-.00810	.14610	.01230	-.00010	-.00110	.00200	.67210	7.10200
.259	5.250	.23960	.02540	-.01240	.24090	.00330	.00000	-.00140	.00300	.67030	9.41900
.259	6.330	.28740	.03030	-.01460	.28900	-.00140	.00010	-.00140	.00300	.67000	9.45900
.259	8.460	.38580	.04150	-.01940	.38770	-.01560	.00000	-.00160	.00400	.66980	9.27800
.259	10.540	.48110	.05660	-.02430	.48330	-.03240	.00000	-.00170	.00600	.66990	8.49900
.259	12.680	.57580	.07610	-.02920	.57850	-.05220	.00020	-.00240	.00800	.66990	7.56500
.259	14.800	.67570	.10190	-.03620	.67930	-.07410	.00050	-.00240	.01000	.67110	6.63000
.259	16.900	.77760	.13750	-.04880	.78400	-.09450	.00090	-.00420	.01000	.67460	5.65200
.259	17.950	.83350	.15900	-.05650	.84200	-.10560	.00050	-.00450	.01200	.67650	5.24000
.259	20.080	.92570	.21160	-.06500	.94200	-.11910	.00050	-.00760	.01800	.67730	4.37300
.259	22.200	.99210	.26910	-.06940	1.02020	-.12570	.00000	-.00400	.01700	.67690	3.68500
.259	24.260	1.03240	.33130	-.07110	1.07730	-.12230	.00350	-.01460	.03000	.67610	3.11600
.259	26.320	1.06960	.40080	-.08000	1.13660	-.11520	.01040	-.01150	.01800	.67780	2.66800
.259	29.300	1.08640	.49950	-.08350	1.19170	-.09790	.01010	-.00070	.01400	.67770	2.17400
	GRADIENT	.04517	-.00020	-.00215	.04547	-.00025	-.00001	-.00009	.00029	.00232	2.18312

SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2 (ADG059) (28 FEB 73)

REFERENCE DATA

SREF = 5.2818 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 59/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.23440	.02450	.00880	-.23560	.00290	.00590	.00440	-.07900	.66480	-9.52900
.259	-3.140	-.13590	.01770	.00190	-.13660	.01020	.00570	.00260	-.07900	.65560	-7.66300
.259	-1.040	-.03900	.01470	-.00320	-.03930	.01400	.00540	.00080	-.07800	.61740	-2.65300
.259	.000	.00790	.01410	-.00530	.00790	.01410	.00550	.00000	-.07700	.91420	.56200
.259	1.040	.05200	.01420	-.00740	.05230	.01330	.00550	-.00080	-.07700	.70630	3.69300
.259	3.160	.14790	.01700	-.01170	.14870	.00880	.00550	-.00270	-.07600	.68120	8.69300
.259	5.270	.24310	.02350	-.01640	.24420	.00100	.00610	-.00440	-.07700	.67660	10.34200
.259	6.310	.29030	.02750	-.01840	.29150	-.00450	.00670	-.00510	-.07900	.67500	10.54100
.259	8.480	.38750	.03680	-.02280	.38900	-.01870	.00740	-.00680	-.08100	.67310	9.96400
.259	10.540	.48040	.05280	-.02710	.48200	-.03600	.00830	-.00810	-.08300	.67250	9.09600
.259	12.670	.58030	.07420	-.03320	.58250	-.05490	.00770	-.00950	-.08100	.67260	7.81200
.259	14.810	.68410	.10170	-.04200	.68740	-.07650	.00530	-.01120	-.07400	.67410	6.72300
.259	2.000	.94670	.21660	-.07630	.96420	-.11990	.00000	-.01400	-.06300	.68130	4.32900
.259	18.010	.84030	.16320	-.06140	.84960	-.10460	.00100	-.01440	-.06400	.67860	5.14600
.259	16.920	.78920	.14130	-.05560	.79620	-.09450	.00150	-.01210	-.06600	.67760	5.58500
.259	22.160	.95930	.27480	-.06870	.99210	-.10740	.00300	-.03150	-.04300	.67740	3.49000
.259	24.230	1.02250	.34700	-.08610	1.07490	-.10330	.00960	-.02950	-.05200	.68170	2.94600
.259	26.340	1.08160	.41040	-.09040	1.15140	-.11210	.01150	-.02900	-.05400	.68100	2.63400
.259	29.420	1.11600	.50440	-.09360	1.21990	-.10680	.01390	-.02440	-.05800	.68030	2.21200
	GRADIENT	.03818	.00277	-.00172	.03823	-.00390	.00015	-.00066	-.00020	-.00252	.72093

SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 K2 (ADG060) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 60/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.280	-.23500	.02490	.00810	-.23630	.00310	-.00560	-.00520	.07800	.66360	-9.43500
.259	-3.160	-.13660	.01790	.00180	-.13740	.01030	-.00540	-.00360	.07800	.65520	-7.60500
.259	-1.030	-.03930	.01430	-.00360	-.03950	.01360	-.00540	-.00220	.07800	.61330	-2.73200
.259	.030	.00890	.01410	-.00570	.00890	.01410	-.00520	-.00140	.07900	.90720	.63000
.259	1.040	.05660	.01420	-.00820	.05690	.01320	-.00540	-.00070	.08000	.70750	3.96500
.259	3.210	.15160	.01710	-.01230	.15230	.00860	-.00570	.00050	.08200	.68190	8.83500
.259	5.300	.24810	.02300	-.01640	.24920	.00000	-.00630	.00170	.08500	.67610	10.75300
.259	6.330	.29280	.02750	-.01860	.29400	-.00490	-.00640	.00210	.08600	.67500	10.62700
.259	8.460	.38800	.03850	-.02300	.38940	-.01690	-.00730	.00330	.08900	.67330	10.05400
.259	10.560	.48300	.05350	-.02820	.48460	-.03590	-.00780	.00410	.09200	.67300	9.02300
.259	12.650	.57710	.07340	-.03340	.57920	-.05470	-.00730	.00520	.09300	.67280	7.85700
.259	14.800	.68270	.10130	-.04390	.68590	-.07640	-.00440	.00470	.08900	.67530	6.73400
.259	16.920	.78420	.13540	-.05470	.78970	-.09870	-.00250	.00490	.08800	.67740	5.78800
.259	17.960	.83240	.15510	-.06000	.83970	-.10920	-.00210	.00510	.08800	.67820	5.36400
.259	20.090	.92790	.20460	-.06870	.94170	-.12660	-.00200	.00940	.08600	.67890	4.53300
.259	22.210	1.01040	.26790	-.07670	1.03670	-.13390	.00010	.01030	.08200	.67920	3.77000
.259	24.240	1.00620	.32660	-.06740	1.05160	-.11520	-.00440	.02820	.05900	.67530	3.08000
.259	26.310	1.05590	.39220	-.07290	1.12030	-.11650	-.00690	.02070	.07400	.67570	2.69200
.259	29.360	1.08160	.49110	-.06790	1.18350	-.10230	.00130	.01500	.07100	.67940	2.20200
	GRADIENT	.04535	-.00012	-.00221	.04558	-.00026	-.00004	.00065	.00066	.00827	2.64329

SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 (ADG061) (28 FEB 79)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0409 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 61/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.260	-.23960	.02650	.01270	-.24120	.00640	.00000	-.00050	.00000	.67090	-8.40600
.259	-3.160	-.14200	.02160	.00660	-.14290	.01370	.00000	-.00050	.00000	.66820	-6.55900
.259	-1.030	-.04440	.01780	.00140	-.04480	.01700	-.00010	-.00070	.00100	.66260	-2.49000
.259	.000	.00270	.01750	-.00070	.00270	.01750	-.00010	-.00070	.00200	.76240	.15500
.259	1.060	.04910	.01770	-.00290	.04950	.01680	-.00010	-.00080	.00200	.67370	2.77300
.259	3.140	.14150	.02040	-.00700	.14250	.01270	.00000	-.00090	.00300	.66940	6.80700
.259	5.260	.24030	.02580	-.01110	.24160	.00360	.00000	-.00130	.00400	.66820	9.28700
.259	6.320	.28720	.03010	-.01360	.28860	-.00160	.00000	-.00140	.00400	.66660	9.53300
.259	8.420	.36270	.04100	-.01810	.36460	-.01540	.00000	-.00170	.00400	.66660	8.81400
.259	10.590	.46240	.05650	-.02330	.46460	-.03300	.00020	-.00190	.00500	.66900	8.18700
.259	12.670	.57640	.07570	-.02860	.57890	-.05250	.00040	-.00230	.00700	.66950	7.60800
.259	14.750	.67390	.10100	-.03610	.67750	-.07390	.00040	-.00220	.00800	.67110	6.66600
.259	16.950	.78030	.13680	-.04780	.78630	-.09660	.00130	-.00310	.00800	.67400	5.70000
.259	17.960	.83310	.15850	-.05550	.84130	-.10640	.00090	-.00330	.01000	.67610	5.25600
.259	20.090	.92410	.20990	-.06360	.94000	-.12020	.00110	-.00480	.01100	.67680	4.40200
.259	22.190	.98990	.26850	-.06840	1.01800	-.12530	-.00040	-.00250	.01300	.67860	3.68600
.259	24.290	1.03300	.33220	-.07010	1.07820	-.12210	.00200	-.01270	.02500	.67570	3.10800
.259	26.340	1.06040	.39820	-.07620	1.12700	-.11370	.00870	-.00940	.01200	.67670	2.66200
.259	29.370	1.06480	.48660	-.07800	1.16750	-.09650	.00740	-.00720	.01800	.67640	2.17900
	GRADIENT	.04498	-.00018	-.00215	.04528	-.00015	-.00000	-.00006	.00048	.00069	2.17511

SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 (ADG062) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 62/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.240	-.23470	.02480	.00960	-.23600	.00320	.00600	.00420	-.07900	.66610	-9.43800
.259	-3.160	-.13720	.01810	.00300	-.13800	.01050	.00570	.00260	-.07800	.65880	-7.55900
.259	-1.060	-.04180	.01440	-.00210	-.04210	.01360	.00550	.00080	-.07800	.63020	-2.90000
.259	.020	.00580	.01390	-.00420	.00580	.01390	.00520	.00000	-.07600	.93880	.42100
.259	1.060	.05130	.01430	-.00630	.05150	.01340	.00490	-.00080	-.07500	.69870	3.57400
.259	3.150	.14450	.01680	-.01010	.14520	.00880	.00470	-.00250	-.07400	.67750	8.58400
.259	5.300	.24070	.02280	-.01440	.24180	.00050	.00540	-.00420	-.07500	.67350	10.51500
.259	6.340	.28640	.02770	-.01670	.28970	-.00430	.00560	-.00500	-.07600	.67280	10.40000
.259	8.410	.38170	.03760	-.02080	.38310	-.01860	.00640	-.00660	-.07800	.67140	10.12900
.259	10.570	.48130	.05320	-.02580	.48290	-.03590	.00720	-.00820	-.08000	.67110	9.03900
.259	12.680	.57680	.07360	-.03150	.58080	-.05520	.00710	-.00950	-.07900	.67140	7.86400
.259	14.800	.67960	.10080	-.03990	.68280	-.07610	.00520	-.01100	-.07400	.67310	6.74100
.259	16.920	.78600	.14040	-.05400	.79290	-.09440	.00080	-.01230	-.06400	.67690	5.59800
.259	17.960	.83730	.16210	-.05930	.84650	-.10400	.00020	-.01440	-.06300	.67770	5.16300
.259	20.140	.94210	.21860	-.07390	.95980	-.11910	-.00110	-.01420	-.06100	.68040	4.30800
.259	22.160	.84850	.27660	-.06560	.98280	-.10150	.00270	-.02970	-.04500	.67640	3.42800
.259	24.230	1.01510	.34750	-.08170	1.06830	-.09980	.00870	-.02760	-.05300	.68020	2.92000
.259	26.330	1.06460	.40610	-.08420	1.13430	-.10820	.01010	-.02510	-.05800	.67930	2.62100
.259	29.430	1.09130	.50530	-.09290	1.19880	-.09610	.01070	-.02360	-.05200	.68060	2.15900
	GRADIENT	.04457	-.00019	-.00207	.04481	-.00025	-.00017	-.00080	.00071	.00616	2.60848

SSV-ATP ORBITER B2 C2 D5 M2 F1 W11 E3 V3 (ADG063) (20 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2626 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0403 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 63/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.250	-5.300	-.23710	.02470	.00980	-.23840	.00270	-.00580	-.00540	.07700	.66640	-9.58200
.250	-3.180	-.13790	.01770	.00340	-.13870	.01000	-.00550	-.00380	.07800	.65980	-7.78500
.250	-1.060	-.04000	.01420	-.00220	-.04030	.01350	-.00550	-.00230	.07800	.62790	-2.80700
.250	-.020	.00650	.01420	-.00430	.00650	.01420	-.00520	-.00150	.07800	.91440	.46000
.250	1.040	.05550	.01390	-.00650	.05580	.01290	-.00550	-.00080	.08000	.69640	3.97700
.250	3.140	.14880	.01630	-.01030	.14940	.00810	-.00560	.00020	.08100	.67730	9.08700
.250	5.240	.24410	.02260	-.01490	.24520	.00020	-.00580	.00140	.08300	.67410	10.79300
.250	6.320	.28940	.02660	-.01680	.29060	-.00530	-.00610	.00200	.08400	.67290	10.88400
.250	8.410	.38540	.03740	-.02090	.38670	-.01930	-.00690	.00320	.08800	.67140	10.28400
.250	10.530	.48070	.05300	-.02610	.48250	-.03570	-.00750	.00420	.09000	.67140	9.06900
.250	12.650	.57660	.07330	-.03220	.57870	-.05470	-.00740	.00540	.09300	.67200	7.89700
.250	14.780	.68240	.10140	-.04270	.68570	-.07600	-.00410	.00520	.08900	.67460	6.72300
.250	16.910	.78420	.13730	-.05400	.79020	-.09670	-.00200	.00570	.08600	.67700	5.70700
.250	17.950	.83340	.15720	-.05880	.84130	-.10730	-.00070	.00590	.08500	.67760	5.29900
.250	20.070	.92330	.20640	-.06540	.93810	-.12300	.00020	.01080	.08000	.67760	4.47200
.250	22.210	1.00620	.26870	-.07400	1.03310	-.13160	.00090	.01100	.07800	.67830	3.74400
.250	24.230	1.00910	.32960	-.06790	1.05550	-.11350	-.00530	.02820	.05800	.67540	3.06000
.250	26.260	1.04950	.38930	-.07100	1.11340	-.11570	-.00790	.02100	.07300	.67520	2.69500
.250	29.350	1.07360	.48690	-.08360	1.17450	-.10190	-.00010	.01570	.06900	.67820	2.20400
	GRADIENT	.04550	-.00021	-.00216	.04573	-.00030	-.00001	.00064	.00052	.00567	2.73330

SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2 (ADG064) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000 MACH = .165

RUN NO. 64/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.165	-5.180	-.25630	.03490	.00470	-.25840	.01160	.00120	-.00040	-.00800	.65720	-7.34000
.165	-3.110	-.15500	.02470	.00360	-.15620	.01620	.00100	-.00060	-.00500	.65920	-6.27100
.165	-1.050	-.05980	.01960	.00270	-.06010	.01850	.00110	-.00070	-.00300	.66810	-3.04800
.165	.000	-.00930	.01860	.00190	-.00930	.01860	.00110	-.00090	-.00200	.73080	-.50000
.165	1.010	.03350	.01910	.00190	.03380	.01860	.00100	-.00090	-.00100	.62720	1.74800
.165	3.070	.12310	.02120	.00190	.12410	.01460	.00090	-.00110	.00000	.64370	5.78200
.165	5.150	.22110	.02730	-.00030	.22270	.00730	.00110	-.00110	.00000	.65050	8.08600
.165	6.160	.26630	.03050	.00000	.26810	.00170	.00110	-.00130	.00000	.65000	8.70900
.165	8.250	.35980	.04130	-.00200	.36200	-.01060	.00120	-.00140	.00100	.65220	8.69200
.165	10.310	.45390	.05620	-.00310	.45660	-.02590	.00120	-.00150	.00100	.65270	8.07400
.165	12.390	.55220	.07780	-.00210	.55600	-.04240	.00130	-.00180	.00200	.65150	7.09300
.165	14.480	.65300	.10920	-.00090	.65960	-.05750	.00090	-.00310	.00500	.65050	5.97700
.165	16.550	.76770	.15370	-.00290	.77970	-.07130	.00110	-.00470	.00700	.65140	4.99300
.165	17.590	.81840	.17700	-.00120	.83360	-.07860	.00200	-.00440	.00700	.65060	4.62300
.165	19.670	.92960	.22950	.00080	.95260	-.09690	.00310	-.00460	.00700	.64960	4.05000
.165	21.760	1.01080	.28590	.01500	1.04470	-.10950	.00460	-.00190	.00400	.64420	3.53400
	GRADIENT	.04503	-.00054	-.00029	.04538	-.00023	-.00002	-.00008	.00083	-.00418	1.98804

SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2 (ADG063) (28 FEB 79)

REFERENCE DATA

SREF = 5.2818 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0403 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000 MACH = .1163

RUN NO. 65/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.1163	-5.180	-.24560	.02970	-.00130	-.24730	.00730	.00600	.00350	-.09300	.64770	-8.26200
.1163	-3.070	-.14600	.01930	-.00120	-.14680	.01140	.00560	.00160	-.08700	.64650	-7.63200
.1163	-1.040	-.05530	.01670	-.00090	-.05560	.01570	.00580	.00000	-.08300	.64300	-3.29400
.1163	-.040	-.01020	.01570	-.00070	-.01020	.01570	.00590	-.00090	-.08200	.62200	-.64900
.1163	1.010	.03670	.01500	-.00110	.03700	.01440	.00610	-.00180	-.08200	.36260	2.44100
.1163	3.060	.12670	.01570	-.00110	.12740	.00890	.00350	-.00330	-.08100	.65330	8.06600
.1163	5.140	.21680	.02260	-.00260	.22000	.00290	.00680	-.00490	-.08200	.65460	9.64700
.1163	6.170	.26850	.02700	-.00350	.26990	-.00190	.00720	-.00570	-.08200	.65510	9.92200
.1163	8.250	.36070	.03720	-.00320	.36230	-.01490	.00760	-.00790	-.08100	.65350	9.69300
.1163	10.340	.45950	.05450	-.00210	.46180	-.02880	.00810	-.01080	-.07900	.65180	8.42000
.1163	12.410	.55750	.07720	-.00150	.56110	-.04430	.00830	-.01340	-.07500	.65100	7.21700
.1163	14.460	.65670	.10570	-.00070	.66220	-.06190	.00840	-.01570	-.06900	.65040	6.21200
.1163	16.550	.75720	.14360	-.00020	.76670	-.07810	.00830	-.01720	-.06300	.65010	5.27200
.1163	17.560	.81430	.16850	-.00150	.82710	-.08550	.00940	-.01720	-.06400	.65070	4.83000
.1163	19.670	.92310	.22320	-.00070	.94440	-.10060	.01190	-.01670	-.06600	.65030	4.13500
.1163	21.760	1.01870	.28480	.00580	1.03170	-.11320	.01340	-.01610	-.06700	.64770	3.57600
	GRADIENT	.04482	-.00061	.00000	.04507	-.00044	.00015	-.00081	.00093	.00202	2.90549

SSV-ATP ORBITER B2 C2 D2 M1 F1 W14 E3 V3 K2 (ADG066) (28 FEB 73)

REFERENCE DATA

SREF =	5.2816 SQ.FT.	XMRP =	43.0596 INCHES		
LREF =	21.2828 INCHES	YMRP =	.0000 INCHES		
BREF =	40.8119 INCHES	ZMRP =	16.2000 INCHES		
SCALE =	.0405 SCALE				

PARAMETRIC DATA

BETA =	-5.000	ELV-IB =	.000
ELV-OB =	.000	MACH =	.165

RUN NO. 66/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.165	-5.190	-.24640	.02980	.00070	-.24810	.00740	-.00450	-.00390	.07800	.65120	-8.24600
.165	-3.130	-.14980	.02080	.00000	-.15070	.01260	-.00420	-.00270	.07800	.64980	-7.16900
.165	-1.040	-.05230	.01650	-.00010	-.05260	.01550	-.00420	-.00120	.07800	.64900	-3.16400
.165	-.030	-.00760	.01600	-.00090	-.00770	.01600	-.00440	-.00060	.08000	.60220	-.47900
.165	1.000	.03880	.01550	-.00120	.03910	.01490	-.00450	.00010	.08000	.66210	2.49300
.165	3.060	.13050	.01860	-.00210	.13130	.01160	-.00480	.00160	.08000	.65630	6.99500
.165	5.140	.22150	.02340	-.00270	.22270	.00350	-.00510	.00280	.08300	.65480	9.44200
.165	6.190	.26790	.02680	-.00310	.26930	-.00220	-.00530	.00350	.08300	.65460	9.97200
.165	8.230	.36420	.03860	-.00280	.36600	-.01390	-.00540	.00520	.08300	.65300	9.42200
.165	10.300	.45970	.05550	-.00280	.46220	-.02750	-.00590	.00720	.08300	.65240	8.27200
.165	12.410	.55450	.07580	-.00270	.55790	-.04500	-.00560	.00930	.08100	.65190	7.30800
.165	14.450	.66030	.10630	-.00490	.66590	-.06190	-.00430	.01030	.07500	.65290	6.21100
.165	16.600	.76470	.14580	-.00580	.77450	-.07880	-.00460	.00990	.07300	.65300	5.24500
.165	17.570	.82150	.17160	-.00740	.83500	-.08430	-.00560	.00880	.07500	.65350	4.78400
.165	19.680	.93080	.22890	-.00880	.95350	-.09800	-.00730	.00850	.07600	.65360	4.06600
.165	21.780	1.04170	.29870	-.00630	1.07820	-.10920	-.01060	.01260	.07300	.65230	3.48700
	GRADIENT	.04522	-.00037	-.00036	.04550	-.00017	-.00010	.00069	.00039	.00158	2.33553

E

SSV-ATP ORBITER B2 C2 D2 H1 F1 W14 E3 V3 K2 (ADG067) (28 FEB 73)

REFERENCE DATA

SREF = 5.2618 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2623 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000

RUN NO. 67/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/D
.163	-5.250	-.40070	.05060	.06820	-.40370	.01370	.00080	-.00020	-.00900	.71690	-7.91400
.163	-1.100	-.19150	.02470	.06220	-.19190	.02100	.00140	-.00020	-.00600	.77840	-7.73200
.163	-.090	-.14400	.02250	.06100	-.14400	.02230	.00150	-.00020	-.00600	.81770	-6.38000
.163	.970	-.09470	.02080	.06030	-.09430	.02240	.00150	-.00030	-.00500	.90310	-4.54600
.163	3.010	-.00060	.01950	.05940	.00030	.01950	.00150	-.00040	-.00300	-3.27670	-.03400
.163	5.060	.09050	.02180	.05820	.09210	.01370	.00140	-.00030	-.00300	.89980	4.19200
.163	8.120	.13780	.02360	.05810	.13950	.00870	.00150	-.00040	-.00300	.48510	5.83600
.163	8.160	.23120	.03060	.05740	.23330	-.00250	.00140	-.00060	-.00200	.55250	7.54900
.163	10.280	.32440	.04020	.05770	.32640	-.01830	.00140	-.00060	-.00100	.58000	8.03900
.163	12.330	.42130	.05860	.05970	.42410	-.03260	.00150	-.00080	-.00100	.59420	7.18400
.163	14.400	.52000	.06480	.06250	.52480	-.04710	.00140	-.00160	.00000	.60260	8.12700
.163	16.500	.63690	.12470	.05840	.64800	-.06190	.00110	-.00260	.00400	.61430	5.12500
.163	17.560	.69700	.14690	.05920	.70880	-.07030	.00170	-.00230	.00400	.61690	4.74400
.163	19.620	.80620	.19540	.06060	.82500	-.08670	.00230	-.00270	.00600	.62090	4.12500
.163	21.710	.89760	.24890	.07100	.92600	-.10060	.00350	-.00110	.00500	.61960	3.60500
	GRADIENT	.04642	-.00122	-.00065	.04673	-.00044	.00002	-.00005	.00078	-1.01095	1.99652

SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2 (ADG068) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000

RUN NO. 68/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.280	-.40940	.05250	.06630	-.41250	.01460	.00060	-.00050	-.01000	.71360	-7.78500
.163	-3.190	-.29600	.03570	.06360	-.29750	.01910	.00100	-.00050	-.00700	.73450	-8.27900
.163	-1.100	-.19440	.02570	.06100	-.19490	.02190	.00140	-.00030	-.00600	.77400	-7.56500
.163	-.080	-.14580	.02090	.06020	-.14580	.02070	.00140	-.00030	-.00500	.81340	-6.95100
.163	.960	-.09610	.01930	.05960	-.09570	.02100	.00140	-.00040	-.00500	.89630	-4.96400
.163	2.990	-.00470	.01840	.05900	-.00370	.01860	.00150	-.00040	-.00400	3.27670	-.25700
.163	5.090	.08960	.02130	.05780	.09110	.01330	.00140	-.00040	-.00300	.39880	4.19000
.163	6.120	.13860	.02310	.05840	.14030	.00820	.00140	-.00050	-.00200	.46510	5.97700
.163	8.190	.23250	.03080	.05770	.23450	-.00270	.00150	-.00060	-.00200	.55250	7.57500
.163	10.240	.32730	.04100	.05760	.32940	-.01780	.00160	-.00060	-.00100	.58070	7.97400
.163	12.320	.42500	.05910	.05900	.42780	-.03280	.00180	-.00090	-.00100	.59530	7.18500
.163	14.360	.52630	.08630	.06120	.53130	-.04690	.00200	-.00170	.00000	.60440	6.09600
.163	16.470	.63460	.12200	.06470	.64340	-.06300	.00160	-.00280	.00300	.61010	5.20300
.163	17.530	.68360	.14250	.06700	.69480	-.06990	.00240	-.00280	.00300	.61170	4.79500
.163	19.620	.78840	.18880	.07220	.80600	-.08690	.00320	-.00300	.00500	.61450	4.17500
.163	21.700	.88130	.24420	.08080	.90910	-.09890	.00370	-.00280	.00600	.61480	3.60800
	GRADIENT	.04715	-.00284	-.00074	.04756	-.00011	.00007	.00001	.00048	.37325	1.28936

SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2 (AD6069) (20 FEB 73

REFERENCE DATA

SREF = 3.2016 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2020 INCHES YMRP = .0000 INCHES
ZREF = 40.0119 INCHES ZMRP = 18.2000 INCHES
SCALE = .0409 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = [illegible]
ELV-OB = -3.000

RUN NO. 69/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.103	-9.200	-.39400	.04390	.06130	-.39650	.00990	.00520	.00450	-.09200	.71110	-8.[illegible]
.103	-5.100	-.28710	.03140	.05070	-.28840	.01540	.00530	.00300	-.08700	.73060	-9.[illegible]
.103	-1.110	-.18680	.02190	.03640	-.18920	.01820	.00570	.00180	-.08500	.76800	-8.[illegible]
.103	-.030	-.14140	.01920	.03610	-.14140	.01900	.00570	.00090	-.08300	.00720	-7.[illegible]
.103	.040	-.09180	.01740	.03560	-.09160	.01890	.00590	.00010	-.08300	.89030	-5.[illegible]
.103	2.080	-.00170	.01570	.03430	-.00090	.01570	.00610	-.00150	-.08200	3.27670	-.[illegible]
.103	3.030	.09400	.01730	.03450	.09520	.00910	.00640	-.00340	-.08300	.42340	2.[illegible]
.103	4.030	.14040	.02070	.03440	.14180	.00570	.00640	-.00430	-.08200	.49800	3.[illegible]
.103	5.200	.23680	.02760	.03490	.23630	-.00640	.00680	-.00650	-.08100	.55870	3.[illegible]
.103	10.240	.33310	.04130	.03560	.33510	-.01850	.00730	-.00930	-.07900	.58420	3.[illegible]
.103	12.320	.43330	.05910	.03840	.43590	-.03470	.00790	-.01260	-.07800	.59590	3.[illegible]
.103	14.440	.53260	.08360	.04080	.53870	-.05180	.00870	-.01590	-.07000	.60510	3.[illegible]
.103	16.490	.63420	.11680	.04310	.64120	-.06780	.00920	-.01810	-.06600	.61100	3.[illegible]
.103	17.560	.68610	.13680	.04440	.69530	-.07660	.00990	-.01890	-.06400	.61330	3.[illegible]
.103	18.600	.79250	.18690	.04660	.80920	-.08980	.01150	-.01970	-.06400	.61730	3.[illegible]
.103	21.720	.89480	.24540	.07130	.92120	-.10500	.01300	-.01820	-.06400	.61930	3.[illegible]
	GRADIENT	.04836	-.00291	-.00068	.04670	.00008	.00013	-.00074	.00083	.37677	1.[illegible]

SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2 (ADG070) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.6119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = -5.000
ELV-OB = -5.000

RUN NO. 70/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.240	-.39160	.04740	.06390	-.39430	.01140	-.00430	-.00470	.07400	.71410	-8.25600
.163	-3.180	-.28930	.03090	.06080	-.29060	.01470	-.00380	-.00370	.07300	.73280	-9.35800
.163	-1.100	-.18380	.02180	.05780	-.18420	.01820	-.00360	-.00210	.07400	.77420	-8.41900
.163	-.070	-.14040	.01970	.05720	-.14050	.01950	-.00350	-.00130	.07300	.81120	-7.12700
.163	.940	-.08920	.01830	.05580	-.08890	.01980	-.00350	-.00060	.07400	.89820	-4.86900
.163	3.000	.00210	.01590	.05540	.00300	.01580	-.00350	.00100	.07600	-3.27670	.13500
.163	5.070	.09750	.01860	.05490	.09880	.00990	-.00370	.00260	.07600	.43010	5.22700
.163	6.130	.14600	.02070	.05540	.14730	.00500	-.00360	.00340	.07600	.50110	7.02200
.163	8.180	.23680	.02850	.05630	.23840	-.00550	-.00390	.00530	.07700	.55650	8.30800
.163	10.270	.33400	.04090	.05740	.33590	-.01930	-.00420	.00730	.07700	.58220	8.15700
.163	12.340	.43190	.05890	.05820	.43450	-.03470	-.00430	.00980	.07400	.59690	7.33200
.163	14.420	.52860	.08260	.05980	.53250	-.05160	-.00430	.01240	.07000	.60550	6.39900
.163	16.490	.63570	.11740	.06090	.64280	-.06790	-.00470	.01400	.06700	.61240	5.41100
.163	17.530	.68580	.13690	.06200	.69510	-.07600	-.00510	.01420	.06700	.61470	5.00800
.163	19.620	.79030	.18520	.06450	.80670	-.09100	-.00580	.01500	.06400	.61830	4.26600
.163	21.710	.89700	.24670	.06530	.92470	-.10260	-.00860	.01540	.06400	.62200	3.63400
	GRADIENT	.04708	-.00236	-.00089	.04743	.00024	.00005	.00076	.00044	-.57748	1.55431

SSV-TAP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2 (ADG073) (20 FEB 73)

REFERENCE DATA

[illegible]	5.2016 SQ.FT.	XMRP	=	43.0596 INCHES
[illegible]	21.2020 INCHES	YMRP	=	.0000 INCHES
[illegible]	40.0119 INCHES	ZMRP	=	16.2000 INCHES
[illegible]	.0409 SCALE			

PARAMETRIC DATA

BETA = .000 ELV-IB = [illegible]
ELV-OB = .000 MACH = [illegible]

RUN NO. 73/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
[illegible]	-5.160	-.26190	.03540	.00430	-.26400	.01160	.00030	-.00090	-.00700	.65650	-7.39[illegible]
[illegible]	-3.100	-.16100	.02460	.00350	-.16210	.01580	.00080	-.00100	-.00600	.65860	-6.54[illegible]
[illegible]	-1.030	-.06050	.02020	.00230	-.06090	.01910	.00110	-.00090	-.00400	.66530	-2.99[illegible]
[illegible]	.010	-.01280	.01870	.00190	-.01280	.01870	.00120	-.00090	-.00400	.71030	[illegible]
[illegible]	1.040	.03440	.02010	.00190	.03480	.01940	.00120	-.00090	-.00200	.62770	1.71[illegible]
[illegible]	3.080	.12690	.02200	.00030	.12790	.01510	.00110	-.00090	-.00100	.64070	5.[illegible]
[illegible]	5.170	.21970	.02730	.00030	.22130	.00740	.00120	-.00120	-.00100	.64820	[illegible]
[illegible]	6.210	.26670	.03110	.00030	.26850	.00200	.00120	-.00140	.00000	.64940	[illegible]
[illegible]	8.290	.35930	.04280	-.00140	.36170	-.00900	.00140	-.00150	.00000	.65150	[illegible]
[illegible]	10.370	.45870	.05660	-.00300	.46180	-.02490	.00140	-.00160	.00000	.65260	7.02[illegible]
[illegible]	12.390	.55360	.06090	-.00300	.55810	-.03980	.00150	-.00230	.00100	.65210	6.07[illegible]
[illegible]	14.490	.65760	.11270	-.00090	.66490	-.05550	.00210	-.00320	.00200	.65050	5.05[illegible]
[illegible]	16.360	.75770	.15310	.00160	.77010	-.06930	.00160	-.00360	.00400	.64900	4.95[illegible]
[illegible]	17.020	.80930	.17530	.00460	.82440	-.07790	.00240	-.00370	.00400	.64770	4.62[illegible]
[illegible]	19.690	.91330	.22730	.01090	.93640	-.09380	.00280	-.00410	.00600	.64530	4.01[illegible]
[illegible]	21.760	1.00300	.26660	.02170	1.04050	-.10710	.00340	-.00340	.00700	.64170	3.81[illegible]
	GRADIENT	.04649	-.00099	-.00046	.04679	-.00008	.00005	.00001	.00062	-.00325	2.0156[illegible]

SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2 (ADG074) (28 FEB 73)

REFERENCE DATA

SREF =	5.2816 SQ.FT.	XMRP =	43.0596 INCHES		
LREF =	21.2628 INCHES	YMRP =	.0000 INCHES		
BREF =	40.8119 INCHES	ZMRP =	16.2000 INCHES		
SCALE =	.0405 SCALE				

PARAMETRIC DATA

BETA =	5.000	ELV-IB =	.000
ELV-OB =	.000	MACH =	.165

RUN NO. 74/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.165	-5.160	-.25270	.03130	-.00110	-.25450	.00850	.00530	.00280	-.09200	.64820	-8.05100
.165	-3.100	-.15360	.02190	-.00150	-.15460	.01360	.00590	.00140	-.08600	.64590	-6.99700
.165	-1.020	-.05770	.01720	-.00140	-.05800	.01620	.00590	-.00010	-.08400	.64000	-3.34700
.165	.000	-.01080	.01540	-.00090	-.01070	.01540	.00600	-.00080	-.08200	.61370	-.69800
.165	1.030	.03470	.01580	-.00150	.03500	.01520	.00630	-.00180	-.08100	.66750	2.18700
.165	3.080	.12750	.01770	-.00180	.12830	.01080	.00650	-.00360	-.08100	.65560	7.20000
.165	5.170	.22180	.02430	-.00280	.22310	.00420	.00700	-.00520	-.08200	.65500	9.09300
.165	6.210	.26730	.02750	-.00310	.26870	-.00150	.00710	-.00590	-.08200	.65460	9.71500
.165	8.260	.36370	.04080	-.00330	.36580	-.01190	.00770	-.00820	-.08100	.65350	8.89900
.165	10.340	.46290	.05760	-.00240	.46570	-.02640	.00810	-.01120	-.07900	.65200	8.02400
.165	12.410	.55840	.08060	-.00080	.56270	-.04130	.00860	-.01430	-.07500	.65050	6.92300
.165	14.480	.65910	.10940	.00040	.66550	-.05890	.00940	-.01760	-.07000	.64970	6.02200
.165	16.620	.75800	.14620	.00260	.76820	-.07670	.01000	-.02020	-.06500	.64860	5.18300
.165	17.590	.81060	.16950	.00290	.82390	-.08330	.01050	-.02070	-.06300	.64850	4.78100
.165	19.690	.91290	.22340	.00730	.93480	-.09720	.01150	-.02090	-.06200	.64690	4.08500
.165	21.800	1.01270	.28500	.01160	1.04620	-.11150	.01280	-.01920	-.06300	.64560	3.55300
	GRADIENT	.04545	-.00068	-.00005	.04574	-.00045	.00011	-.00081	.00087	.00274	2.33657

SSV-ATP ORBITER B2 C2 D2 M1 F1 W15 E3 V3 K2 (ADG075) (28 FEB 73)

REFERENCE DATA

SREF = 9.2018 SQ.FT. XMRP = 45.0396 INCHES
LREF = 21.2820 INCHES YMRP = .0000 INCHES
BREF = 40.6119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0909 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = .000
ELV-OB = .000 MACH = .165

RUN NO. 79/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.165	-5.140	-.24850	.03110	.00220	-.25030	.00870	-.00510	-.00460	.07800	.65350	-7.97600
.165	-3.060	-.19170	.02140	.00020	-.19270	.01320	-.00460	-.00310	.07700	.65070	-7.07800
.165	-1.000	-.09420	.01660	-.00080	-.09450	.01560	-.00430	-.00150	.07800	.64410	-5.26400
.165	.010	-.00760	.01670	-.00190	-.00780	.01670	-.00450	-.00070	.07900	.58280	-.46800
.165	1.010	.09770	.01660	-.00170	.09790	.01600	-.00450	.00010	.07900	.66790	2.25900
.165	3.120	.19050	.01800	-.00170	.19120	.01080	-.00470	.00140	.08000	.65520	7.24500
.165	5.190	.22240	.02460	-.00280	.22370	.00450	-.00510	.00270	.08300	.65500	9.01700
.165	6.200	.26860	.02660	-.00270	.27040	-.00050	-.00520	.00340	.08300	.65400	9.37300
.165	8.270	.36340	.04100	-.00300	.36750	-.01190	-.00550	.00510	.08300	.65320	8.89700
.165	10.370	.46940	.03940	-.00400	.47230	-.02700	-.00560	.00710	.08200	.65330	8.02800
.165	12.400	.99760	.07960	-.00220	.93190	-.04200	-.00550	.00960	.08000	.65160	7.00300
.165	14.470	.69800	.10920	-.00110	.66340	-.05890	-.00540	.01200	.07600	.65060	6.03200
.165	16.960	.79810	.14730	.00100	.76860	-.07520	-.00550	.01320	.07200	.64940	5.14600
.165	17.620	.81040	.17080	.00150	.82410	-.08270	-.00600	.01360	.07200	.64920	4.75000
.165	19.620	.91710	.22580	.00240	.93960	-.09650	-.00620	.01540	.06900	.64890	4.03100
.165	21.760	1.02040	.29150	.00210	1.09570	-.10800	-.00830	.01570	.06700	.64910	3.50000
	GRADIENT	.04995	-.00049	-.00092	.04581	-.00033	-.00002	.00073	.00049	.00179	2.35219

SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2 (ADG077) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 77/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.290	-.25750	.03140	.02030	-.25930	.00750	.00100	-.00100	-.00400	.68100	-8.19700
.259	-3.180	-.15690	.02270	.01360	-.15990	.01390	.00120	-.00090	-.00300	.68380	-6.97800
.259	-1.060	-.05940	.01840	.00800	-.05970	.01730	.00130	-.00080	-.00300	.70320	-3.21300
.259	-.020	-.01200	.01860	.00550	-.01200	.01860	.00120	-.00080	-.00300	.83370	-.64600
.259	1.030	.03600	.01780	.00380	.03630	.01720	.00120	-.00080	-.00200	.60810	2.01400
.259	3.130	.13080	.02080	-.00010	.13180	.01360	.00110	-.00080	-.00100	.65050	6.27100
.259	5.230	.22600	.02670	-.00460	.22750	.00590	.00100	-.00120	.00000	.65800	8.45200
.259	6.310	.27410	.03110	-.00660	.27590	.00080	.00110	-.00120	.00000	.65940	8.79200
.259	8.420	.36840	.04220	-.01090	.37070	-.01210	.00100	-.00130	.00000	.66160	8.72200
.259	10.540	.46780	.05750	-.01660	.47050	-.02690	.00120	-.00150	.00100	.66420	8.12800
.259	12.670	.56480	.07700	-.02390	.56790	-.04870	.00140	-.00230	.00300	.66660	7.32700
.259	14.770	.65780	.10100	-.02970	.66160	-.07000	.00150	-.00300	.00400	.66770	6.50900
.259	16.890	.75230	.13270	-.03740	.75840	-.09160	.00160	-.00260	.00500	.66950	5.66800
.259	17.940	.79670	.15120	-.04130	.80450	-.10160	.00210	-.00240	.00400	.67030	5.26700
.259	20.060	.88960	.19980	-.04980	.90420	-.11740	.00130	-.00320	.00700	.67180	4.45100
.259	22.190	.97860	.26450	-.06150	1.00600	-.12470	.00580	-.00290	.00300	.67420	3.69900
.259	24.260	1.03070	.32680	-.06820	1.07590	-.12590	.00850	.00220	-.00700	.67510	3.15300
.259	26.280	1.01980	.38800	-.06370	1.08620	-.10370	.00250	.01500	-.02500	.67320	2.62800
.259	29.280	.99010	.45480	-.05960	1.08610	-.08750	.00680	-.00540	.01600	.67170	2.17600
	GRADIENT	.04589	-.00030	-.00216	.04620	-.00005	-.00002	.00001	.00033	-.00926	2.13923

SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2 (ADG078) (20 FEB 78)

REFERENCE DATA

SREF = 9.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2020 INCHES YMRP = .0000 INCHES
BREF = 40.0119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 78/ 0 RN/L = 1.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.290	-5.280	-.25500	.02720	.01760	-.25630	.00360	.00720	.00240	-.08500	.67720	-9.55000
.290	-3.180	-.13500	.01940	.01060	-.15380	.01090	.00700	.00120	-.08400	.67740	-7.06100
.290	-1.050	-.05760	.01490	.00520	-.05790	.01390	.00690	-.00020	-.08300	.68610	-3.84700
.290	.010	-.01100	.01460	.00300	-.01100	.01460	.00700	-.00090	-.08300	.75800	-.75800
.290	1.040	.03750	.01470	.00060	.03770	.01400	.00710	-.00180	-.08400	.84280	2.55800
.290	3.130	.13250	.01750	-.00330	.13330	.01020	.00730	-.00350	-.03300	.89990	7.56200
.290	5.240	.22930	.02340	-.00790	.22650	.00270	.00780	-.00490	-.08300	.89310	9.82300
.290	6.300	.27320	.02720	-.00980	.27460	-.00220	.00810	-.00550	-.08400	.90410	9.77700
.290	8.410	.36950	.03870	-.01420	.37100	-.01570	.00860	-.00720	-.08500	.88510	9.52300
.290	10.540	.46800	.05410	-.02090	.47060	-.03250	.00910	-.00860	-.08200	.86760	8.64000
.290	12.670	.56740	.07360	-.02790	.56980	-.05240	.00970	-.01010	-.08100	.86000	7.69100
.290	14.760	.66140	.09690	-.03390	.66470	-.07340	.01010	-.01250	-.07800	.87020	6.71000
.290	16.860	.75960	.13260	-.04260	.76540	-.09340	.00880	-.01640	-.08900	.87200	5.71700
.290	17.940	.80450	.15230	-.04660	.81210	-.10290	.00790	-.01850	-.06400	.87270	5.27700
.290	20.040	.88490	.20190	-.05390	.90010	-.11350	.00730	-.02260	-.05300	.87570	4.38000
.290	22.170	.96150	.27040	-.07260	.99220	-.11250	.01770	-.01800	-.06600	.87900	3.55400
.290	24.260	1.03160	.33850	-.08720	1.07960	-.11520	.02080	-.01170	-.07200	.88190	3.04700
.290	26.320	1.08770	.39990	-.08350	1.15230	-.12400	.02160	-.00670	-.07800	.87930	2.71800
.290	28.260	1.08500	.45730	-.07150	1.10400	-.09420	.02280	-.00580	-.06700	.87560	2.20300
	GRADIENT	.04940	-.00028	-.00221	.04585	-.00009	.00005	-.00075	.00010	-.00450	2.91141

SSV-ATP ORBITER B2 C2 D2 M1 F1 W16 E3 V3 K2 (ADG079) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 79/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.280	-.25470	.02910	.01650	-.25630	.00550	-.00590	-.00420	.07800	.67550	-8.74600
.259	-3.150	-.15310	.02050	.00960	-.15400	.01210	-.00530	-.00280	.07800	.67470	-7.44000
.259	-1.040	-.05670	.01670	.00450	-.05700	.01570	-.00490	-.00130	.07800	.68140	-3.38300
.259	.010	-.00600	.01600	.00180	-.00600	.01600	-.00520	-.00040	.07900	.76980	-.37800
.259	1.050	.04160	.01660	-.00040	.04190	.01590	-.00520	.00020	.07900	.65450	2.49600
.259	3.170	.13590	.01910	-.00460	.13670	.01160	-.00560	.00160	.08100	.66330	7.08900
.259	5.280	.22820	.02480	-.00800	.22950	.00370	-.00610	.00270	.08300	.66370	9.16700
.259	6.340	.27630	.02940	-.01040	.27790	-.00120	-.00630	.00310	.08400	.66460	9.39000
.259	8.470	.37340	.04050	-.01510	.37530	-.01490	-.00690	.00430	.08400	.66590	9.21300
.259	10.550	.46790	.05560	-.02070	.47020	-.03100	-.00750	.00500	.08500	.66740	8.41500
.259	12.690	.56270	.07490	-.02670	.56540	-.05050	-.00800	.00600	.08500	.66870	7.50400
.259	14.800	.65660	.10010	-.03370	.66040	-.07090	-.00820	.00790	.08300	.67020	6.55600
.259	16.910	.75160	.13410	-.04130	.75810	-.09030	-.00660	.01040	.07700	.67160	5.60500
.259	17.950	.79770	.15280	-.04580	.80600	-.10050	-.00610	.01260	.07200	.67240	5.21700
.259	20.090	.88750	.19920	-.05330	.90190	-.11770	-.00610	.01520	.06600	.67340	4.45400
.259	22.200	.97210	.26040	-.06440	.99840	-.12620	-.00710	.01800	.06000	.67550	3.73200
.259	24.250	1.01440	.32310	-.06520	1.05760	-.12210	-.01080	.02570	.04800	.67440	3.13900
.259	26.350	1.03170	.38160	-.06520	1.09390	-.11600	-.01540	.01190	.06900	.67350	2.70300
.259	29.290	1.00440	.45080	-.06520	1.09660	-.09830	-.01080	-.00070	.08700	.67350	2.22700
	GRADIENT	.04586	-.00020	-.00226	.04613	-.00006	-.00006	.00070	.00048	-.00289	2.34962

SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2 (ADC080) (28 FEB 73)

REFERENCE DATA

SREF = 9.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2826 INCHES YMRP = .0000 INCHES
DREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0409 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000 MACH = .163

RUN NO. 80/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.110	-.24620	.02870	.02070	-.24780	.00660	.00120	-.00070	-.00400	.68310	-8.56700
.163	-3.060	-.15140	.02190	.01480	-.15230	.01370	.00120	-.00080	-.00400	.68860	-6.90900
.163	-.980	-.05510	.01940	.00940	-.05540	.01850	.00110	-.00090	-.00300	.71720	-2.83100
.163	.010	-.01210	.01900	.00660	-.01210	.01900	.00110	-.00080	-.00300	.86660	-.63900
.163	1.050	.03630	.01970	.00470	.03670	.01900	.00100	-.00110	-.00200	.59840	1.84300
.163	3.120	.12630	.02190	.00090	.12730	.01500	.00090	-.00120	-.00100	.64700	5.76400
.163	5.180	.22260	.02840	-.00400	.22430	.00810	.00080	-.00130	.00000	.65710	7.83200
.163	6.220	.26800	.03140	-.00580	.26980	.00210	.00090	-.00130	.00000	.65850	8.53200
.163	8.280	.36140	.04390	-.01120	.36390	-.00850	.00090	-.00150	.00000	.66220	8.22500
.163	10.350	.45440	.05870	-.01540	.45750	-.02390	.00100	-.00120	.00100	.66330	7.74000
.163	12.430	.54600	.07560	-.02010	.54950	-.04340	.00120	-.00120	.00100	.66440	7.19400
.163	14.490	.63450	.09740	-.02620	.63870	-.06440	.00140	-.00150	.00100	.66620	6.51300
.163	16.560	.73230	.12750	-.03710	.73830	-.08650	.00090	-.00150	.00300	.66990	5.74200
.163	17.600	.78420	.14740	-.04450	.79200	-.09660	.00050	-.00190	.00500	.67220	5.31900
.163	19.640	.88210	.19100	-.05680	.89500	-.11670	.00030	-.00190	.00600	.67510	4.61800
.163	23.810	1.03260	.30880	-.07500	1.03940	-.13440	.00230	-.00070	.00400	.67770	3.34300
.163	25.890	1.05310	.36130	-.08260	1.10530	-.13400	.00220	-.00570	.01100	.67240	2.91400
.163	28.840	1.00440	.43770	-.09900	1.09090	-.10100	.00630	.00040	-.00200	.67140	2.29400
	GRADIENT	.04494	.00002	-.00226	.04526	.00021	-.00005	-.00007	.00049	-.01195	2.07524

SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2 (ADG081) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 81/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.280	-.25530	.02970	.02080	-.25700	.00610	.00090	-.00080	-.00400	.68200	-8.57000
.259	-3.150	-.15700	.02180	.01440	-.15800	.01310	.00090	-.00090	-.00300	.68620	-7.17800
.259	-1.040	-.05820	.01690	.00850	-.05850	.01790	.00090	-.00090	-.00300	.70760	-3.06600
.259	.000	-.00910	.01650	.00570	-.00910	.01650	.00090	-.00090	-.00200	.89810	-.49200
.259	3.170	.13200	.02080	-.00050	.13290	.01340	.00080	-.00100	-.00100	.65150	6.34600
.259	5.280	.22830	.02720	-.00520	.22990	.00600	.00060	-.00120	.00000	.65900	8.38200
.259	6.350	.27500	.03190	-.00700	.27690	.00130	.00060	-.00130	.00000	.66010	8.59700
.259	8.460	.36970	.04210	-.01170	.37180	-.01270	.00080	-.00130	.00000	.66250	8.76300
.259	10.570	.46440	.05660	-.01630	.46690	-.02940	.00070	-.00150	.00200	.66380	8.19100
.259	12.710	.56140	.07620	-.02250	.56440	-.04920	.00090	-.00140	.00300	.66580	7.36700
.259	14.760	.65520	.10000	-.02970	.65900	-.07050	.00140	-.00150	.00400	.66780	6.54900
.259	16.880	.75820	.13170	-.04030	.76370	-.09420	.00190	-.00170	.00400	.67090	5.75700
.259	17.990	.80970	.15300	-.04800	.81740	-.10450	.00090	-.00170	.00700	.67320	5.29000
.259	20.090	.90810	.20730	-.06120	.92400	-.11730	-.00130	-.00660	.01600	.67620	4.38000
.259	22.230	.97740	.26720	-.06790	1.00590	-.12240	.00000	-.00120	.01100	.67670	3.65700
.259	24.280	1.01500	.32310	-.06170	1.05810	-.12290	.00050	-.01070	.02600	.67310	3.14100
.259	26.260	1.01750	.38780	-.06840	1.08410	-.10270	.00690	-.00890	.01500	.67490	2.62300
.259	29.290	.97590	.44770	-.05510	1.07020	-.08690	.00590	-.00100	.00700	.67030	2.17900
	GRADIENT	.04569	-.00010	-.00234	.04599	-.00007	-.00002	-.00002	.00034	-.00392	2.15442

SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2 (ADG082) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.6119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-CB = .000

RUN NO. 82/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.250	-5.250	-.24790	.02530	.01770	-.24920	.00250	.00690	.00250	-.08400	.67810	-9.77000
.250	-3.130	-.15020	.01820	.01080	-.15100	.01000	.00680	.00110	-.08300	.67840	-8.22400
.250	-1.020	-.05460	.01500	.00530	-.05490	.01410	.00660	-.00040	-.08300	.68830	-3.62700
.250	.000	-.00850	.01450	.00290	-.00850	.01450	.00680	-.00120	-.08300	.78780	-.58300
.250	1.050	.03990	.01440	.00060	.04010	.01360	.00680	-.00210	-.08200	.64310	2.76800
.250	3.160	.13420	.01720	-.00390	.13500	.00980	.00720	-.00360	-.08200	.66160	7.76200
.250	5.270	.22860	.02340	-.00840	.22980	.00230	.00750	-.00510	-.08200	.66440	9.74700
.250	6.360	.27600	.02730	-.01080	.27730	-.00340	.00780	-.00570	-.08300	.66540	10.10100
.250	8.450	.37270	.03930	-.01590	.37450	-.01590	.00840	-.00740	-.08200	.66680	9.47600
.250	10.570	.46840	.05370	-.02110	.47030	-.03310	.00900	-.00890	-.08200	.66780	8.72000
.250	12.660	.56460	.07390	-.02750	.56700	-.05180	.00940	-.01000	-.08000	.66920	7.63700
.250	14.800	.66360	.09950	-.03630	.66710	-.07320	.00880	-.01070	-.07600	.67150	6.66400
.250	16.870	.76850	.13750	-.05010	.77530	-.09150	.00640	-.01230	-.06700	.67550	5.58700
.250	17.960	.81740	.16080	-.05580	.82720	-.09910	.00780	-.01280	-.06800	.67670	5.08300
.250	20.090	.92300	.21950	-.07280	.94230	-.11090	.00880	-.00910	-.07000	.68050	4.20300
.250	22.170	.94660	.27230	-.06840	.97940	-.10490	.01110	-.02620	-.04600	.67680	3.47500
.250	24.270	1.01230	.34020	-.07980	1.06260	-.10590	.01780	-.02820	-.04400	.67970	2.97500
.250	26.320	1.05550	.39900	-.08120	1.12300	-.11050	.02130	-.02240	-.05000	.67860	2.64500
.250	29.350	1.01350	.46390	-.07090	1.11080	-.09240	.02080	-.00630	-.06500	.67520	2.18400
	GRADIENT	.04526	-.00017	-.00233	.04551	-.00005	.00007	-.00075	.00019	-.00461	2.59515

SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E3 V3 K2 (ADG083) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2626 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 83/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.290	-.24750	.02700	.01600	-.24890	.00400	-.00550	-.00440	.07700	.67550	-9.14800
.259	-3.180	-.14970	.02040	.00940	-.15060	.01210	-.00510	-.00300	.07600	.67490	-7.31500
.259	-1.070	-.05430	.01660	.00420	-.05460	.01560	-.00500	-.00130	.07700	.68060	-3.26800
.259	-.040	-.00580	.01640	.00170	-.00590	.01640	-.00510	-.00060	.07800	.76860	-.35700
.259	1.020	.04310	.01610	-.00090	.04330	.01540	-.00540	.00020	.07900	.65850	2.66100
.259	3.150	.13900	.01840	-.00530	.13980	.01080	-.00590	.00140	.08100	.66500	7.51900
.259	5.250	.23250	.02440	-.00980	.23380	.00300	-.00640	.00260	.08400	.66670	9.51900
.259	6.310	.27900	.02920	-.01230	.28050	-.00160	-.00660	.00300	.08400	.66730	9.55100
.259	8.450	.37410	.03950	-.01690	.37580	-.01590	-.00720	.00450	.08500	.66780	9.46700
.259	10.510	.46800	.05420	-.02240	.47000	-.03200	-.00780	.00580	.08600	.66880	8.62200
.259	12.620	.56160	.07390	-.02810	.56420	-.05060	-.00820	.00670	.08600	.66970	7.59700
.259	14.750	.65740	.09960	-.03700	.66110	-.07100	-.00710	.00630	.08500	.67210	6.60000
.259	16.670	.76320	.13460	-.04890	.76940	-.09260	-.00560	.00740	.07900	.67510	5.66600
.259	17.900	.81660	.15720	-.05680	.82560	-.10140	-.00480	.00830	.07700	.67720	5.19400
.259	20.040	.91410	.20910	-.06820	.93040	-.11680	-.00340	.01320	.06700	.67900	4.37000
.259	22.160	.96730	.26470	-.06640	.99570	-.11970	-.00620	.02130	.05500	.67630	3.65300
.259	24.240	1.01220	.32800	-.07170	1.05770	-.11650	-.01270	.02350	.05400	.67680	3.08500
.259	26.300	1.04800	.38600	-.07330	1.11060	-.11830	-.01760	.01130	.07500	.67610	2.71400
.259	29.290	1.02070	.46020	-.07110	1.11540	-.09800	-.00490	-.00310	.08400	.67520	2.21700
	GRADIENT	.04571	-.00031	-.00233	.04597	-.00020	-.00013	.00070	.00081	-.00252	2.39227

F

SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2 (ADG084) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000 MACH = .165

RUN NO. 84/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.165	-5.190	-.29080	.03720	.04140	-.29300	.01070	.00110	-.00070	-.00500	.70590	-7.80400
.165	-3.120	-.18250	.02740	.02830	-.18370	.01740	.00110	-.00080	-.00400	.71090	-6.65800
.165	-1.040	-.06830	.02200	.01420	-.06870	.02070	.00100	-.00070	-.00300	.73170	-3.10800
.165	.000	-.01640	.02110	.00830	-.01640	.02110	.00100	-.00080	-.00200	.85230	-.77600
.165	1.040	.04140	.02040	.00150	.04180	.01960	.00080	-.00070	-.00100	.63490	2.02900
.165	3.060	.14490	.02250	-.01000	.14590	.01460	.00090	-.00070	-.00100	.67730	6.43600
.165	5.130	.24820	.02780	-.01960	.24970	.00550	.00070	-.00080	.00000	.68100	8.90100
.165	6.190	.29940	.03260	-.02410	.30120	.00010	.00060	-.00100	.00000	.68170	9.18000
.165	8.280	.40520	.04180	-.03350	.40690	-.01700	.00060	-.00100	.00100	.68260	9.69200
.165	10.350	.50510	.05590	-.04220	.50690	-.03570	.00070	-.00110	.00200	.68290	9.03100
.165	12.420	.60250	.07390	-.04900	.60430	-.05730	.00080	-.00110	.00200	.68200	8.14400
.165	14.480	.70140	.09690	-.05930	.70330	-.08150	.00120	-.00160	.00300	.68330	7.23700
.165	16.580	.80730	.13090	-.07600	.81110	-.10480	.00170	-.00180	.00300	.68710	6.16200
.165	17.640	.85740	.15450	-.08120	.86390	-.11260	.00220	-.00130	.00200	.68720	5.54800
.165	19.650	.92710	.20060	-.08440	.94050	-.12290	.00320	.00210	.00000	.68550	4.62100
.165	21.710	.99700	.25890	-.09100	1.02210	-.12830	.00220	.00620	-.00100	.68520	3.84900
.165	23.410	1.03130	.30640	-.09680	1.06720	-.13470	.00240	.00350	.00000	.68520	3.40800
.165	25.670	1.07060	.37030	-.08480	1.12490	-.13380	.00080	-.00300	.00900	.67980	2.89000
.165	28.760	1.00640	.44660	-.08140	1.09890	-.09380	.00610	-.00060	.00200	.67930	2.25700
	GRADIENT	.05280	-.00079	-.00617	.05316	-.00045	-.00004	.00001	.00053	-.00953	2.14751

SSV-ATP ORBITER B2 C2 D2 M1 F1 W18 E4 V3 K2 (ADG085) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2626 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000 MACH = .165

RUN NO. 65/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.270	-.44940	.05610	.11390	-.45270	.01450	.00100	.00020	-.00600	.74950	-8.00900
.163	-3.170	-.34280	.03690	.10000	-.34440	.01980	.00140	.00000	-.00700	.76480	-8.80500
.163	-1.130	-.22860	.02910	.08680	-.22910	.02450	.00150	-.00010	-.00500	.80000	-7.85500
.163	-.080	-.17250	.02610	.07970	-.17260	.02590	.00140	-.00020	-.00500	.83280	-6.59200
.163	.930	-.11760	.02410	.07350	-.11720	.02610	.00130	.00000	-.00400	.89830	-4.86200
.163	3.010	-.00370	.02100	.06160	-.00260	.02120	.00120	.00000	-.00300	3.27670	-.17900
.163	5.100	.10110	.02200	.04980	.10260	.01290	.00120	.00010	-.00300	.45790	4.58900
.163	6.130	.15360	.02260	.04450	.15520	.00610	.00110	.00000	-.00100	.53630	6.77400
.163	8.210	.25620	.03020	.03500	.25790	-.00660	.00110	.00010	-.00100	.59620	8.47100
.163	10.270	.36010	.03790	.02540	.36110	-.02680	.00100	.00020	.00000	.62210	9.48800
.163	12.340	.46250	.05350	.01710	.46330	-.04650	.00110	.00030	.00000	.63530	8.63700
.163	14.420	.56050	.07210	.00930	.56080	-.06970	.00140	.00020	.00100	.64330	7.76400
.163	16.480	.66260	.09840	-.00250	.66350	-.09370	.00170	.00000	.00100	.65140	6.73200
.163	17.530	.71690	.11840	-.01090	.72120	-.10360	.00130	-.00030	.00100	.65600	6.06700
.163	19.600	.80600	.15780	-.01910	.81230	-.12170	.00170	.00070	.00100	.65930	5.10600
.163	21.660	.88320	.21230	-.02880	.89920	-.12880	.00130	.00320	.00000	.66270	4.16000
.163	23.730	.96890	.27210	-.04260	.99650	-.14090	.00070	.00000	.00400	.66690	3.56000
.163	25.770	1.01950	.33360	-.04220	1.06310	-.14290	.00040	.00120	.00400	.66570	3.05500
.163	28.790	.97150	.41600	-.04750	1.05180	-.10330	.00630	-.00250	.00500	.66780	2.33500
	GRADIENT	.05477	-.00285	-.00624	.05521	.00028	-.00004	.00000	.00063	.37145	1.40279

SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2 (ADG086) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-CB = .000

RUN NO. 86/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.140	-.19780	.02740	-.00530	-.19950	.00950	.00180	.00240	-.00400	.63930	-7.21800
.163	-3.110	-.09980	.02310	-.01160	-.10090	.01760	.00170	.00260	-.00400	.60450	-4.32100
.163	-1.010	-.00840	.02000	-.01630	-.00880	.01990	.00160	.00250	-.00200	-.08160	-.42100
.163	.020	.04130	.02030	-.01880	.04130	.02030	.00160	.00240	-.00200	.83030	2.03200
.163	1.020	.08390	.02210	-.02110	.08430	.02060	.00150	.00250	-.00200	.74910	3.79100
.163	3.110	.17800	.02620	-.02580	.17920	.01650	.00140	.00220	-.00100	.70690	6.77800
.163	5.160	.26940	.03350	-.03030	.27140	.00910	.00130	.00200	.00000	.69420	8.04000
.163	6.200	.31730	.03760	-.03250	.31950	.00310	.00130	.00210	.00000	.69030	8.42200
.163	8.300	.40920	.05060	-.03760	.41230	-.00890	.00140	.00220	.00000	.68610	8.08100
.163	10.320	.49940	.06600	-.04250	.50310	-.02460	.00140	.00230	.00000	.68350	7.56600
.163	12.430	.59360	.08560	-.04760	.59820	-.04390	.00170	.00200	.00100	.68150	6.91500
.163	14.460	.68240	.10840	-.05550	.68780	-.06570	.00180	.00200	.00000	.68190	6.29500
.163	16.540	.78230	.14100	-.06760	.79010	-.08760	.00150	.00150	.00100	.68360	5.54600
.163	18.570	.88140	.18180	-.08030	.89340	-.10840	.00070	.00240	.00300	.68550	4.84700
.163	19.630	.92280	.20580	-.08380	.93630	-.11630	.00050	.00100	.00500	.68530	4.48300
.163	21.700	1.00150	.26620	-.09380	1.02890	-.12300	.00240	.00420	.00100	.68610	3.76100
	GRADIENT	.04474	.00055	-.00229	.04511	-.00012	-.00005	-.00006	.00044	.05441	1.81283

SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2 (ADG087) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -10.000
ELV-OB = -10.000

RUN NO. 87/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.220	-.37040	.04290	.08500	-.37280	.00900	.00070	-.00120	-.00400	.74020	-8.62200
.163	-3.150	-.27350	.03200	.07680	-.27480	.01690	.00120	-.00060	-.00500	.76050	-8.53400
.163	-1.090	-.17660	.02380	.07070	-.17700	.02040	.00120	-.00070	-.00400	.80790	-7.41600
.163	-.060	-.12600	.02170	.06770	-.12610	.02150	.00130	-.00050	-.00400	.86260	-5.80600
.163	.970	-.07900	.02020	.06470	-.07860	.02150	.00100	-.00050	-.00200	.97580	-3.90300
.163	3.000	.01410	.01910	.06060	.01510	.01840	.00120	-.00030	-.00300	-.93930	.73500
.163	5.080	.10660	.02160	.05670	.10810	.01200	.00120	-.00020	-.00200	.44230	4.93200
.163	6.100	.15090	.02260	.05490	.15240	.00640	.00110	-.00030	.00000	.50720	6.66100
.163	8.210	.24390	.02940	.05090	.24560	-.00560	.00120	-.00010	.00000	.56790	8.27900
.163	10.250	.33600	.04040	.04620	.33790	-.02000	.00130	-.00020	.00000	.59580	8.30400
.163	12.320	.42660	.05460	.04150	.43060	-.03810	.00150	-.00020	.00000	.61180	7.84300
.163	14.360	.52100	.07310	.03650	.52280	-.05860	.00170	-.00040	.00000	.62230	7.12300
.163	16.460	.61590	.09810	.02730	.61850	-.08040	.00120	-.00090	.00200	.63250	6.27300
.163	17.490	.67000	.11550	.02030	.67370	-.09130	.00130	-.00110	.00200	.63800	5.80000
.163	19.590	.76700	.15600	.00720	.77490	-.11010	.00120	-.00050	.00200	.64630	4.91600
.163	21.680	.84970	.20860	-.00280	.86670	-.11980	.00250	.00050	.00100	.65130	4.07200
	GRADIENT	.04663	-.00207	-.00266	.04720	.00028	-.00001	.00005	.00039	-.23945	1.52558

SSV-ATP ORBITER B2 C2 D2 M1 F1 W17 E5 V3 K2 (ADC088) (28 FEB 73)

REFERENCE DATA

SREF = 9.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = -10.000

RUN NO. 88/ 0 RN/L = 1.19 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.163	-5.160	-.32410	.03730	.06170	-.32620	.00790	.00080	-.00060	-.00300	.72480	-8.67700
.163	-3.130	-.22520	.02850	.05370	-.22640	.01610	.00130	-.00020	-.00400	.74380	-7.89300
.163	-1.080	-.12750	.02230	.04730	-.12790	.01990	.00120	-.00020	-.00200	.79630	-5.69500
.163	-.050	-.07890	.01940	.04500	-.07890	.01930	.00130	-.00020	-.00300	.87600	-4.05400
.163	.960	-.03560	.01910	.04230	-.03530	.01970	.00130	-.00010	-.00300	1.12370	-1.86500
.163	3.040	.05760	.01970	.03800	.05860	.01670	.00120	.00000	-.00200	.39270	2.91200
.163	5.100	.14950	.02390	.03440	.15100	.01050	.00130	.00010	-.00100	.55970	6.24900
.163	6.260	.19450	.02470	.03280	.19600	.00330	.00130	.00010	-.00100	.58360	7.87400
.163	8.200	.28680	.03370	.02860	.28870	-.00750	.00140	.00010	.00000	.61080	8.51000
.163	10.290	.37930	.04450	.02370	.38110	-.02390	.00150	.00020	.00000	.62330	8.50900
.163	12.350	.47350	.05970	.01820	.47530	-.04290	.00170	.00010	.00000	.63480	7.92300
.163	14.400	.56680	.08070	.01200	.56910	-.06270	.00190	.00000	.00000	.64160	7.01900
.163	16.480	.66130	.10800	.00310	.66480	-.08400	.00140	-.00040	.00200	.64810	6.12000
.163	17.520	.71290	.12560	-.00280	.71760	-.09480	.00170	-.00060	.00100	.65150	5.67200
.163	19.550	.80660	.16500	-.01550	.81530	-.11450	.00150	-.00040	.00100	.65750	4.88600
.163	21.670	.89120	.22280	-.02600	.91050	-.12200	.00280	.00140	.00000	.66130	3.99900
	GRADIENT	.04576	-.00144	-.00253	.04611	.00008	-.00001	.00003	.00024	-.03575	1.76476

SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2 (ADG089) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = .000
ELV-OB = .000

RUN NO. 89/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.280	-.24310	.02690	.01880	-.24470	.00640	.00200	-.00020	-.00600	.68040	-8.39400
.259	-3.150	-.14260	.02180	.01260	-.14360	.01390	.00190	.00000	-.00500	.68470	-6.52600
.259	-1.050	-.04500	.01830	.00800	-.04540	.01740	.00160	.00000	-.00300	.72040	-2.46000
.259	.000	.00140	.01790	.00640	.00140	.01790	.00170	.00010	-.00400	-1.07420	.08100
.259	1.060	.04990	.01800	.00460	.05020	.01710	.00160	.00020	-.00300	.61310	2.76100
.259	3.200	.14610	.02170	.00150	.14710	.01350	.00140	.00030	-.00200	.64570	6.72000
.259	5.300	.24180	.02720	-.00190	.24330	.00470	.00130	.00030	-.00100	.65320	8.87500
.259	6.300	.29100	.03270	-.00480	.29280	.00050	.00120	.00040	-.00100	.65640	8.89200
.259	8.460	.39110	.04400	-.00970	.39330	-.01390	.00130	.00040	.00000	.65980	8.87400
.259	10.570	.49600	.06580	-.01840	.49960	-.02620	-.00060	.00070	.00300	.66450	7.53100
.259	12.720	.60890	.10300	-.03040	.61670	-.03360	-.00010	.00040	.00400	.66950	5.90700
.259	14.820	.70380	.14570	-.03820	.71770	-.03920	.00030	-.00290	.00700	.67100	4.83000
.259	16.930	.78810	.19350	-.04210	.81030	-.04440	.00140	-.00030	.00300	.67050	4.07100
.259	17.970	.82560	.21880	-.04360	.85290	-.04660	.00160	.00100	.00100	.67020	3.77200
.259	20.070	.88900	.27030	-.04250	.92770	-.05130	.00130	.00250	.00000	.66810	3.28800
.259	22.220	.94680	.32890	-.04510	1.00090	-.05350	.00110	.00070	.00500	.66780	2.87800
	GRADIENT	.04541	-.00002	-.00175	.04573	-.00008	-.00007	.00005	.00043	-.00966	2.12453

SSV-ATP ORBITER 82 C2 D2 M1 F1 W09 E2 V3 K2 (ADG090) (28 FEB 73)

REFERENCE DATA

SREF = 9.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2628 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = 5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 90/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.240	-.23800	.02370	.01630	-.23920	.00190	.00810	.00290	-.08700	.67700	-10.00900
.259	-3.160	-.14170	.01730	.00990	-.14240	.00950	.00790	.00170	-.08600	.67760	-8.13400
.259	-1.010	-.04390	.01350	.00570	-.04420	.01270	.00770	.00010	-.08500	.70140	-3.24600
.259	.000	.00370	.01390	.00360	.00370	.01390	.00760	-.00050	-.08400	.26100	.26700
.259	1.050	.05100	.01410	.00200	.05130	.01320	.00790	-.00120	-.08500	.63440	3.60500
.259	3.160	.14430	.01680	-.00130	.14500	.00890	.00800	-.00260	-.08400	.65330	8.54100
.259	5.260	.24090	.02310	-.00500	.24200	.00090	.00840	-.00360	-.08400	.65820	10.41200
.259	6.330	.28880	.02630	-.00740	.29010	-.00370	.00850	-.00420	-.08400	.66010	10.18500
.259	8.450	.38740	.04110	-.01380	.38920	-.01620	.00780	-.00470	-.08200	.66410	9.41300
.259	10.630	.50340	.06560	-.02450	.50690	-.02840	.00520	-.00580	-.07500	.66910	7.67000
.259	12.730	.60770	.09690	-.03290	.61420	-.03930	.00470	-.00690	-.07200	.67120	6.26700
.259	14.830	.71050	.14390	-.04400	.72360	-.04270	.00850	-.00750	-.07600	.67400	4.93300
.259	16.950	.79620	.19160	-.04760	.81750	-.04880	.00980	-.00910	-.07400	.67300	4.15400
.259	18.010	.83990	.21830	-.05000	.86620	-.05210	.01020	-.00980	-.07200	.67280	3.84600
.259	20.060	.89200	.26840	-.04730	.92990	-.05390	.01160	-.01040	-.07100	.67010	3.32300
.259	22.200	.94790	.32400	-.05040	1.00010	-.05820	.01250	-.00760	-.07300	.66990	2.92500
	GRADIENT	.04533	-.00005	-.00177	.04556	-.00006	.00002	-.00068	.00029	-.00642	2.70731

SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2 (ADG091) (28 FEB 73)

REFERENCE DATA

SREF = 5.2616 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2626 INCHES YMRP = .0000 INCHES
BREF = 40.6119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = -5.000 ELV-IB = .000
ELV-OB = .000

RUN NO. 91/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.290	-.23650	.02560	.01500	-.23990	.00350	-.00440	-.00300	.07500	.67480	-9.28600
.259	-3.140	-.14150	.01780	.00910	-.14220	.01000	-.00430	-.00130	.07500	.67550	-7.94300
.259	-1.040	-.04200	.01470	.00470	-.04230	.01390	-.00460	.00020	.07700	.69470	-2.85600
.259	.000	.00580	.01440	.00280	.00580	.01440	-.00480	.00110	.07700	.45330	.40200
.259	1.040	.05360	.01510	.00080	.05380	.01410	-.00490	.00210	.07800	.64350	3.53800
.259	3.100	.14660	.01800	-.00220	.14740	.01000	-.00530	.00360	.07900	.65610	8.11600
.259	5.210	.24320	.02380	-.00620	.24430	.00160	-.00600	.00480	.08000	.66000	10.19800
.259	6.330	.29360	.02850	-.00850	.29520	-.00400	-.00620	.00520	.08100	.66140	10.29700
.259	8.420	.39320	.04160	-.01390	.39500	-.01640	-.00640	.00620	.08100	.66400	9.44300
.259	10.560	.50190	.06620	-.02420	.50550	-.02690	-.00500	.00780	.07800	.66890	7.58100
.259	12.700	.61270	.10120	-.03710	.61990	-.03590	-.00500	.00690	.07900	.67360	6.04800
.259	14.830	.70690	.14670	-.04290	.72090	-.03910	-.00720	.00560	.08300	.67350	4.81700
.259	16.940	.78690	.19300	-.04590	.80900	-.04460	-.00780	.00800	.08200	.67240	4.07600
.259	17.960	.81980	.21790	-.04740	.84700	-.04540	-.00840	.00990	.07800	.67210	3.76100
.259	20.090	.91260	.28060	-.05910	.95360	-.05000	-.00940	.00550	.08500	.67450	3.25200
.259	22.160	.96460	.34210	-.06350	1.02260	-.04750	-.00290	-.00150	.08600	.67450	2.81900
	GRADIENT	.04615	.00004	-.00162	.04639	.00001	-.00016	.00080	.00063	-.00534	2.62385

SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2 (ADG092) (28 FEB 73)

REFERENCE DATA

SREF = 8.2816 SQ.FT. XMRP = 43.0596 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -5.000
ELV-OB = -5.000

RUN NO. 92/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-3.380	-.37440	.04250	.07820	-.37670	.00710	.00200	-.00200	-.00800	.73210	-8.80200
.259	-3.270	-.27130	.03040	.06970	-.27260	.01490	.00180	-.00170	-.00700	.75120	-8.89700
.259	-1.190	-.16760	.02320	.06300	-.16800	.01980	.00170	-.00170	-.00600	.79830	-7.20400
.259	-.090	-.11630	.02040	.06030	-.11630	.02030	.00170	-.00160	-.00500	.85530	-5.67400
.259	.970	-.06570	.01900	.05790	-.06540	.02020	.00160	-.00160	-.00400	1.00010	-3.44400
.259	3.060	.02960	.01790	.05460	.03050	.01630	.00140	-.00130	-.00300	-.05750	1.65100
.259	5.160	.12460	.02110	.05140	.12600	.00980	.00130	-.00130	-.00100	.48850	5.88900
.259	6.230	.17260	.02330	.05020	.17410	.00440	.00130	-.00130	.00000	.53580	7.39700
.259	8.360	.26790	.03120	.04860	.26960	-.00800	.00130	-.00130	.00000	.58150	8.58400
.259	10.460	.36640	.04610	.04090	.36870	-.02110	.00080	-.00150	.00200	.60600	7.94500
.259	12.610	.46300	.07590	.02930	.46800	-.03130	.00110	-.00120	.00300	.62620	6.89600
.259	14.730	.59400	.11560	.01630	.60390	-.03920	.00120	-.00190	.00400	.63920	5.13600
.259	16.860	.69160	.16130	.00910	.70860	-.04630	.00190	-.00190	.00400	.64480	4.28700
.259	17.930	.73110	.18620	.00760	.75290	-.04790	.00190	-.00090	.00300	.64590	3.92400
.259	20.010	.80810	.23630	.00330	.84020	-.05450	.00180	.00090	.00100	.64840	3.41900
	22.110	.87700	.29210	-.00220	.92240	-.05940	.00110	-.00010	.00400	.65090	3.00200
	GRADIENT	.04759	-.00198	-.00239	.04794	.00022	-.00006	.00006	.00066	-.10484	1.67568

SSV-ATP ORBITER B2 C2 D2 M1 F1 W09 E2 V3 K2 (ADG093) (28 FEB 73)

REFERENCE DATA

SREF = 5.2816 SQ.FT. XMRP = 43.0396 INCHES
LREF = 21.2828 INCHES YMRP = .0000 INCHES
BREF = 40.8119 INCHES ZMRP = 16.2000 INCHES
SCALE = .0405 SCALE

PARAMETRIC DATA

BETA = .000 ELV-IB = -30.000
ELV-OB = -30.000

RUN NO. 93/ 0 RN/L = 1.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CL	CDF	CLM	CN	CAF	CLN	CSL	CY	XCP/L	L/DF
.259	-5.820	-.66150	.19460	.28550	-.67680	.10610	.00190	.00290	-.00600	.77880	-4.42700
.259	-3.700	-.75900	.16120	.27680	-.76780	.11180	.00230	.00170	-.00600	.79260	-4.70800
.259	-1.600	-.66120	.13590	.27010	-.66480	.11730	.00270	.00250	-.00700	.81070	-4.86500
.259	-.520	-.61380	.12510	.26810	-.61490	.11950	.00190	.00240	-.00500	.82250	-4.90500
.259	.500	-.56380	.11550	.26510	-.56280	.12050	.00180	.00180	-.00500	.83640	-4.87700
.259	2.600	-.45580	.09650	.25500	-.45090	.11710	.00150	.00080	-.00400	.87370	-4.72200
.259	4.750	-.34470	.08070	.24500	-.33690	.10900	.00240	.00010	-.00600	.93770	-4.26900
.259	5.840	-.30150	.07500	.24530	-.29230	.10530	.00250	.00020	-.00600	.98200	-4.01700
.259	7.930	-.21400	.06500	.24520	-.20300	.09390	.00180	.00290	-.00500	1.12810	-3.29200
.259	10.010	-.13970	.05890	.24960	-.12730	.08230	.00180	.00400	-.00600	1.42560	-2.36900
.259	12.150	-.04740	.05620	.24820	-.03450	.06490	.00140	.00400	-.00500	-3.05970	-.84300
.259	14.250	.06340	.06850	.23640	.07830	.05080	.00060	.00440	-.00200	-.54360	.92500
.259	16.360	.16370	.08580	.22930	.18130	.03620	.00130	.00060	.00000	.14940	1.90700
.259	17.460	.22360	.10070	.22280	.24370	.02890	.00190	-.00020	.00000	.28820	2.22100
.259	19.570	.32460	.13350	.21500	.35050	.01700	.00270	-.00010	-.00100	.40720	2.43100
.259	21.690	.42560	.17520	.20590	.46020	.00540	.00220	-.00020	.00000	.47290	2.42800
	GRADIENT	.04913	-.00944	-.00377	.05109	-.00036	-.00004	-.00025	.00013	.01696	.05178