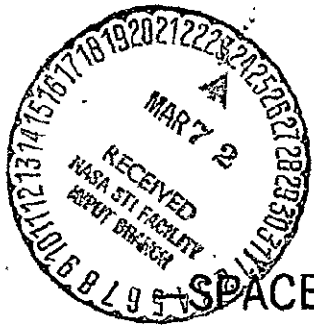
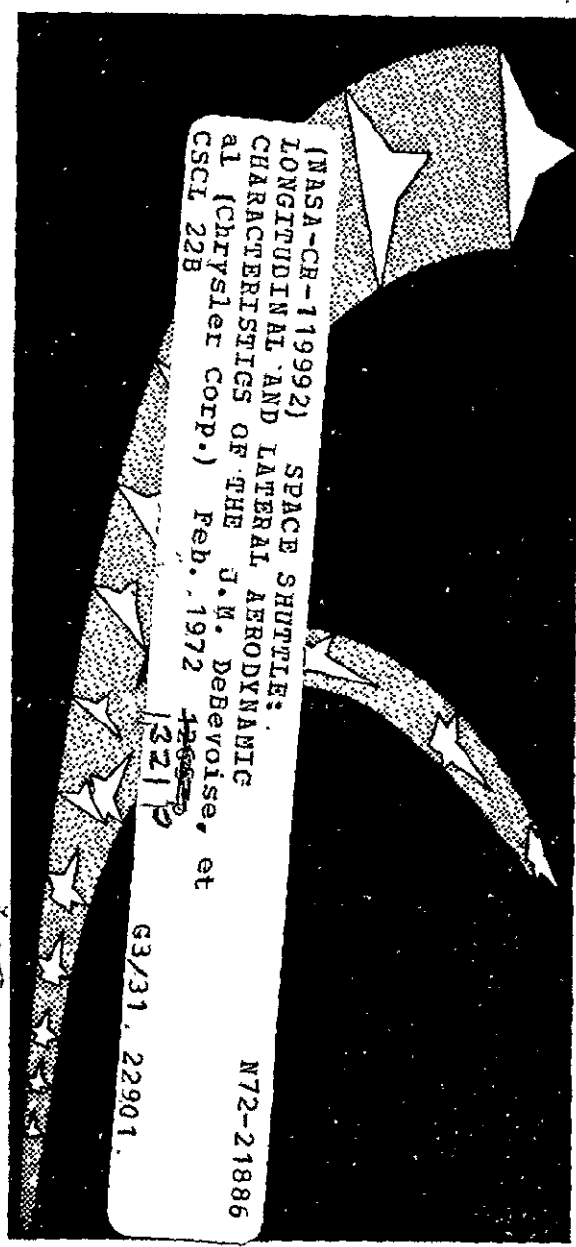


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(NASA-CR-119992) SPACE SHUTTLE:
LONGITUDINAL AND LATERAL AERODYNAMIC
CHARACTERISTICS OF THE J.M. DeBevoise, et
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SPACE SHUTTLE—
LONGITUDINAL AND LATERAL
AERODYNAMIC CHARACTERISTICS OF
THE 0.0035-SCALE GD/C AEROSPACE
BOOSTER (B-15B-1)

by

J. M. DeBevoise, GD/C
R. F. McGinnis, GD/C

MSFC 14-INCH
TRISONIC WIND TUNNEL

MARSHALL
SPACE FLIGHT CENTER

N A S A

SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM

CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER



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SADSAC/SPACE SHUTTLE
WIND TUNNEL TEST DATA REPORT.

CONFIGURATION: GD/Convair Aerospace Booster B-15B-1; 0.0035 Scale

TEST PURPOSE: Longitudinal and Lateral Aerodynamic Characteristics at
Angles of Attack from -10 to 60 Degrees at Mach Numbers
of 0.6 to 5.0

TEST FACILITY: MSFC 14 x 14 Inch Trisonic Tunnel

TESTING AGENCY: GD/Convair Aerospace

TEST NO. & DATE: MSFC TWT 481; February 1971

FACILITY COORDINATOR: J. Weaver - MSFC

PROJECT ENGINEER(S): J. M. DeBevoise - GDC
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LONGITUDINAL AND LATERAL AERODYNAMIC CHARACTERISTICS
OF THE 0.0035-SCALE GD/C AEROSPACE BOOSTER (B-15B-1)

by J. M. DeBevoise, R. F. McGinnis

SUMMARY

Force tests on a 0.0035-scale model of the General Dynamics/Convair Space Shuttle B-15B-1 Booster were conducted in the MSFC Trisonic Wind Tunnel during February and March 1971. Longitudinal and lateral characteristics were obtained at Mach numbers from 0.6 to 4.96. The configuration tested had a low delta wing, all-movable canard controls of delta planform, and a single vertical tail. Most of the test was devoted to obtaining data relevant to the transition from atmospheric reentry to subsonic cruise. In that portion of the test the angles of attack ranged from 6 degrees to 60 degrees, and yaw runs were made at angles of attack of 15 and 35 degrees. The rest of the test was devoted to obtaining booster-alone buildup data relevant to the launch phase. For the launch phase, the Mach number range was from 0.6 to 2.0, the angles of attack were from -10 to +10 degrees, and yaw runs were made at zero angle of attack.

NOMENCLATURE

(General)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
α	ALPHA	angle of attack, angle between the projection of the wind X_w -axis on the body X, Z-plane and the body X-axis; degrees
β	BETA	sideslip angle, angle between the wind X_w -axis and the projection of this axis on the body X-Z-plane; degrees
ψ	PSI	yaw angle, angle of rotation about the body Z-axis, positive when the positive X-axis is rotated toward the positive Y-axis; degrees
ϕ	PHI	roll angle, angle of rotation about the body X-axis, positive when the positive Y-axis is rotated toward the positive Z-axis; degrees
ρ		air density; K_g/m^3 , slugs/ft ³
a		speed of sound; m/sec, ft/sec
V		speed of vehicle relative to surrounding atmosphere; m/sec, ft/sec
q	Q(PSI) Q(PSF)	dynamic pressure; $1/2\rho V^2$, psi, psf
M	MACH	Mach number; V/a
RN/L	RN/L	Reynolds number per unit length; million/ft
p		static pressure; psi
P		total pressure; psi
C_p	CP	pressure coefficient; $(p-p_\infty)/q$

NOMENCLATURE (Continued)

Reference & D. G. Definitions

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
S		wing area; m^2 , ft^2
S	SREF	reference area; m^2 , ft^2
\bar{c}		wing mean aerodynamic chord or reference chord; m, ft, in (see l_{ref} or LREF)
l_{ref}	LREF	reference length; m, ft, in.; (see \bar{c})
b_{ref}	BREF	wing span or reference span; m, ft, in
A_b		base area; m^2 , ft^2 , in^2
c. g.		center of gravity
MRP	MRP	abbreviation for moment reference point
	XMRP	abbreviation for moment reference point on X-axis
	YMRP	abbreviation for moment reference point on Y-axis
	ZMRP	abbreviation for moment reference point on Z-axis

NOMENCLATURE (Continued)

Axis System General

<u>SYMBOL</u>	<u>DEFINITION</u>
F	force; F, lbs
M	moment; M, in-lb

<u>Subscript</u>	<u>Definition</u>
N	normal force
A	axial force
L	lift force
D	drag force
Y	force or moment about the Y axis
Z	moment about the Z axis
X	moment about the X axis
s	stability axis system
w	wind axis system
ref	reference conditions
∞	free stream conditions
t	total conditions
b	base

NOMENCLATURE (Continued.)
Body & Stability Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
<u>Body Axis System</u>		
C_N	CN	normal force coefficient; F_N/qS
C_A	CA	axial force coefficient; F_A/qS
C_{A_b}	CAB	base axial force coefficient; $[-1] \left[(P_b - P_\infty)/q \right] (A_b/S)$
C_{A_f}	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
C_n	CYN	yawing moment coefficient; $M_Z/qS b_{ref}$
C_l	CBL	rolling moment coefficient; $M_X/qS b_{ref}$
<u>Common to Both Axis Systems</u>		
C_m	CIM	pitching moment coefficient; $M_Y/qS l_{ref}$
C_y	CY	side force coefficient; F_Y/qS
<u>Stability Axis System</u>		
C_L	CL	lift force coefficient; F_L/qS
C_D	CD	drag force coefficient; F_D/qS
C_{D_b}	CDB	base drag coefficient
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_n	CLN	yawing moment coefficient; $M_{Z,s}/qS b_{ref}$
C_l	CSL	rolling moment coefficient; $M_{X,s}/qS b_{ref}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D _f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)

Surface Definitions

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
i_t	HORIZT	horizontal tail incidence; positive when trailing edge down; degrees
δ		symmetrical surface deflection angle; degrees; positive deflections are:
	AILERON	aileron - total aileron deflection; (left aileron - right aileron)/2
	CANARD	canard - trailing edge down
	ELEVON	elevon - trailing edge down
	ELEVTR	elevator - trailing edge down
	FLAP	flap - trailing edge down
	RUDDER	rudder - trailing edge to the left
	SPOILER	spoiler - trailing edge down
	TAB	tab - trailing edge down with respect to control surface
δ		antisymmetrical surface deflection angle, degrees; positive trailing edge down:
	AIL-L	left aileron - trailing edge down
	AIL-R	right aileron - trailing edge down
	ELVN-L	left elevon - trailing edge down
	ELVN-R	right elevon - trailing edge down
	SPLR-L	left spoiler - trailing edge down
	SPLR-R	right spoiler - trailing edge down

<u>SURFACE SUBSCRIPTS</u>	<u>DEFINITION</u>
a	aileron
b	base
c	canard
e	elevator or elevon
f	flap
r	rudder or ruddervator
s	spoiler
t	tail

ADDITIONS TO NOMENCLATURE

In addition to the standard SADSAC terms, the following terms are used:

- A_{CAVB} = axial projection of area upon which the measured balance cavity pressure is assumed to act
- A_{CAVS} = normal projection of the area (equal to cutout) upon which the balance cavity pressure is assumed to act
- A_{b1} = area of base annular above fuselage center line
- A_{b2} = area of base annulus below fuselage center line
- DEL = deflection of left elevon, trailing edge down is positive, degrees
- DER = deflection of right elevon, trailing edge down is positive, degrees
- ELEVON = $(DEL + DER)/2.0$, degrees
- DCL = deflection of left canard, trailing edge down is positive, degrees
- DCR = deflection of right canard, trailing edge down is positive, degrees
- CANARD = $(DCL + DCR)/2.0$, degrees
- P_c = balance cavity pressure
- P_{b1} = measured upper half base pressure
- P_{b2} = measured lower half base pressure

COEFFICIENT	COEFFICIENT NAME	SADSAC NOMENCLATURE		
		BODY AXIS	STABILITY AXIS	WIND AXIS
C_A	Total Axial Force	C_A	-	-
C_{AB}	Base Axial Force	C_{AB}	--	-
C_{AF}	Forebody Axial Force	C_{AF}	-	-
C_D	Total Drag Force	-	C_D	C_{DTOTL}
C_{DB}	Base Drag Force	-	C_{DB}	C_{DBASE}
C_{DF}	Forebody Drag Force	-	C_{DF}	C_{DFORE}
C_L	Lift Force	-	C_L	C_L
C_N	Normal Force	C_N	-	-
C_Y	Side Force	C_Y	C_Y	C_C
C_l	Rolling Moment	C_{BL}	C_{SL}	C_{WL}
C_m	Pitching Moment	C_{LM}	C_{LM}	C_{PM}
C_n	Yawing Moment	C_{YN}	C_{LN}	C_{LN}
L/D	Lift-To-Drag Force Ratio	-	L/D	C_L/C_D
L/D	Lift-To-Forebody Drag Force Ratio	-	L/DF	C_L/C_{DF}
N/A	Normal-To-Axial Force Ratio	N/A	-	-
N/A	Normal-To-Forebody Axial Force Ratio	C_N/C_{AF}	-	-

SUMMARY OF SADSAC NOMENCLATURE - AERODYNAMIC FORCE AND MOMENT COEFFICIENTS

CONFIGURATIONS INVESTIGATED

NOMENCLATURE

B19	= body for B-15B delta wing configuration
B20	= extended B19
W14	= delta wing
C4	= canard
C4A	= C4 on B19 (see Figure 2)
C4B	= C4 on B20 (see Figure 2)
C4S	= C4 with split trailing edge (see Figure 16)
V7	= vertical tail
F4	= nose flap (see Figure 13)
F5	= body flap (see Figure 14)
F6	= ventral fin (see Figure 15)

Refer to the components sheets and figures in this text for detailed information on the above components.

COMBINATIONS TESTED

B19	B19W14C4S
B19V7	B19W14C4AV7
B19W14	B19W14C4AF4
B19C4A	B19W14C4AF5
B19C4AV7	B19W14C4AF6
B19W14V7	B20W14C4B
B19W14C4A	B20W14C4BV7

B19W14C4AV7 is the complete B-15B-1 configuration as it would be during re-entry and transition (engines and landing gear retracted), less minor protrusions such as external plumbing and orbiter attachment links. B20W14C4BV7 is the long-body version of the B-15B-1 configuration. F4, F5, F6 and S are yaw control devices.

TEST FACILITY DESCRIPTION

The NASA-MSFC 14 x 14 inch trisonic wind tunnel is an intermittent blowdown type that exhausts into a vacuum system or into the atmosphere. The important operating characteristics of this facility are discussed below.

The trisonic tunnel is capable of covering the Mach number range of 0.2 to 5.0 by utilizing a transonic section for the 0.2 to 2.50 range and a supersonic section for the 2.74 to 4.96 range. Mach number variations between 0.2 and 0.9 are obtained by using a controllable diffuser. Mach numbers between 0.95 and 1.30 are achieved by the use of plenum suction and the perforated walls in the test section. Mach numbers of 1.44, 1.93, and 2.50 are obtained with interchangeable sets of contoured nozzle blocks. The Mach numbers in the 2.74 to 4.96 range are obtained in the supersonic test section by utilizing contoured blocks which are automatically set by a hydraulic system. The flow has been calibrated at 0.25 Mach number increments.

The required recharge time for the tunnel is nominally 5-10 minutes with the transonic section and 15-20 minutes for the supersonic section. Changeover from the transonic section to the supersonic section requires approximately 30 minutes.

Actual run times are dependent upon the actual tunnel conditions, i. e. Mach number and stagnation pressure. Nominal run times are approximately 1.5 to 2.0 minutes in the transonic section and 45 to 50 seconds in the supersonic section.

The models are being supported from a support sector which has a pitch range of $\pm 10^\circ$.

The data acquisition system is a solid state analog to digital converter which has 10 data channels, 8 of which are available to the customer.

TEST CONDITIONS

The test was a conventional force test, extended to high angles of attack. The tunnel operating conditions are tabulated in the following table. The model, with a span of 6.099 inches and a length of 9.734 inches, was relatively large compared with the test section. Thus the attainable angle of attack was limited by blockage considerations at the lower Mach numbers and by interactions with the tunnel boundary layer at high Mach numbers.

A double-knuckle sting was used for angles of attack above 25 degrees. This sting had a narrow blade section designed to minimize its effect on the pressures on the base and on the rear upper body. The blade required a small slot in the upper rear body and required removal of the vertical tail. Thus all test data at angles of attack above 25 degrees correspond to the vertical-tail-off condition.

The angle of attack range was covered as follows:

- 10 to +10 degrees, straight sting with no offset
- +5 to +25 degrees, straight sting with 15° offset (See Figures 3 and 6)
- 25 to 45 degrees, double knuckle sting at 35° (See Figure 4)
- 30 to 50 degrees, double knuckle sting at 40° (See Figures 5 and 7)
- 45 to 65 degrees, double knuckle sting at 55° (See Figure 4)

Some pitch runs at 6° yaw were made over the angle of attack range from -10° to +10°, using the straight sting with a 6° offset adapter. Yaw runs at angles of attack of 15° and 35° were made by rotating the corresponding stings 90° about the longitudinal axis, then rotating about the tunnel pitch axis.

DATA REDUCTION FOR SADSAC

The reference dimensions are the following:

$$\left. \begin{aligned}
 S_{\text{ref}} &= 15.656 \text{ sq. in. (theor. wing area)} \\
 l_{\text{ref}} &= 3.0948 \text{ in. (}\bar{c}, \text{ or MAC)} \\
 b_{\text{ref}} &= 6.099 \text{ in. (span)}
 \end{aligned} \right\} \begin{array}{l} \text{as-built} \\ \text{wing} \\ \text{dimensions} \end{array}$$

The moment reference point is at:

MS 10.210, or 6.710 inches aft of the nose of the B19 body.

Vertical location on body center line.

Dimensions for base pressure corrections:

A conventional straight sting was used for angles of attack less than 24 degrees. A blade-type sting was used for angles of attack greater than 24 degrees. With the blade sting the vertical tail was removed and a cutout was made in the upper rear body. The cutout created an unsymmetrical balance cavity with a net area in planview, so that when the cavity pressure was not equal to external pressure on the upper rear body, a normal force increment (and pitching moment) was produced. The cutout also affected the axial projections of the areas upon which the base pressure and the balance cavity pressure were assumed to act. With the cutout, the front surface of the cutout is assumed to be acted upon by cavity pressure, not base pressure. Therefore, the base and cavity areas used in the data reduction were as follows:

Sting config.	Sq. In.			A_{CAVS}	In. X_2
	A_{b1}	A_{b2}	A_{CAVB}		
Straight	0.418	0.634	0.785	0	-
Blade ($\alpha > 24^\circ$)	0.364	0.634	0.839	0.1717	2.134

Equations:

$$C_N = C_N = \left[F_N + (p_c - p_\infty) A_{CAVS} \right] \cdot 1/qS_{ref}$$

$$C_{LM} = C_m = \left[M_Y - (p_c - p_\infty) A_{CAVS} X_2 \right] \cdot 1/qS_{ref} \bar{c}$$

$$C_A = C_A = \left[F_A + (p_c - p_b) \right] \cdot 1/qS_{ref}, \text{ when } p_b = \frac{p_{b1} + p_{b2}}{2}$$

$$C_{AB} = C_{A_b} = - \left[(p_{b1} - p_\infty) A_{b1} + (p_{b2} - p_\infty) A_{b2} + (p_b - p_\infty) A_{CAVB} \right] \cdot 1/qS_{ref}$$

$$C_Y = C_y = F_Y/qS_{ref}$$

$$C_{BL} = C_{\ell} = M_x/qS_{ref} b$$

$$C_{YN} = C_n = M_z/qS_{ref} b$$

$$C_{P1} = C_{p1} = (p_{b1} - p_\infty) / q, \text{ upper half of base pressure coefficient}$$

$$C_{P2} = C_{p2} = (p_{b2} - p_\infty) / q, \text{ lower half of base pressure coefficient}$$

$$C_{PC} = C_{p_c} = (p_c - p_\infty) / q, \text{ balance cavity pressure coefficient}$$

DATA REDUCTION BY SADSAC

The SADSAC names of the data input for this test are CLM, CN, CYN, CY, CBL, CA, CAB, CPI, CP2, and CPC; this body axis data were converted to stability axis data by the module FCAXIS. The module FVARBL was used to create values of CLM/CN, CAF, and L/D; L/D data are based on total drag force data (CD). The module FSTACK was used to combine various data sets with different alpha sweeps into single data sets. The module FPNTRP was used to obtain normalized data for parametric conditions not actually tested but within the limits of the test data. The module FDERIV was used to calculate longitudinal partial derivatives with respect to alpha and lateral partial derivatives with respect to beta.

Wing longitudinal characteristics referenced to the exposed wing dimensions were calculated by using the modules FINTRP, FCOMBN, and FSCALE. Initially the data for the body and wing plus body were normalized using FINTRP. The module FCOMBN was used to subtract the normalized body data from the wing plus body data. The module FSCALE was then used to reference the normalized wing data to the exposed wing dimensions and to locate the moment reference point (MRP) at the exposed wing mean aerodynamic quarter chord. Listed below are the dimensional data used in the above calculations:

<u>Dimensional Symbols</u>	<u>Initial SADSAC Input Dimensional Data</u>	<u>Exposed Wing Dimensional Data</u>
S_{ref}	15.656 in ²	10.03 in ²
l_{ref}	3.095 in.	2.504 in.
b	6.099 in.	4.743 in.
XMRP	6.710 in.	7.857 in.
YMRP	0.0 in.	0.0 in.
ZMRP	0.0 in.	0.624 in.

The body longitudinal characteristics referenced to the body dimensions were calculated by using the module FSCALE; the applicable dimensional data used for these calculations are listed below:

<u>Dimensional Symbols</u>	<u>Initial SADSAC Input Dimensional Data</u>	<u>Dimensional Data for Body</u>
S_{ref}	15.656 in. ²	12.501 in. ²
l_{ref}	3.095 in.	9.734 in.
b	6.099 in.	1.356 in.
XMRP	6.710 in.	6.710 in.
YMRP	0.0 in.	0.0 in.
ZMRP	0.0 in.	0.0 in.

The module FPARAM was used to calculate derivatives with respect to elevon, canard, and aileron deflections.

Listed below are the data sets created by SADSAC:

<u>Newly Created Data Set Number</u>	<u>Data Set Utilized to Create the New Data Set</u>	<u>SADSAC Module Used to Create New Data Set</u>
C28001	R28B31, R28B31, R28B33	FSTACK
C28008	R28A01, R28A02	
C28002	R28E71, R28E72	
C28003	R28E74, R28E75	
C28012	R28E77, R28E78	
C28009	R28C41, R28C42	
C28010	R28C47, R28C48	
C28011	R28C44, R28C45	
C28005	R28B21, R28B22	
C28004	R28B11, R28B12, R28B13	
C28013	R28W11, R28W12, R28W13	
C28021	R28L91, R28L92	
A28101	R28A01-R28B31	FCOMBN
A28102	R28E71-R28B31	
A28103	R28E74-R28B31	
A28104	R28E77-R28B31	
A28112	R28B21-R28B11	
A28113	R28B16-R28B14	
N28014	R28W11-R28B11	
N28015	R28B21-R28B11	
N28016	R28B31-R28B21-R28W11 + R28B11	
N28017	R28B15-R28B14	
N28018	R28B16-R28B14	
N28019	R28B17-R28B16 + R28B21	
N28020	R28B19-R28B17	
N28105	R28E74, R28E71, R28A01, R28B31, R28E77	FPNTRP
N28106		
N28107		
N28108		
N28109		
N28110	R28C41, R28B31, R28C44	
N28111		

DISCUSSION OF HIGH α TESTS

The allowable angle of attack can be limited by any one of several considerations, including the following:

- a. Load capacity of the balance
- b. Tunnel starting, or establishment of the flow
- c. Interaction between model-generated shocks and tunnel boundary layer
- d. Sting interference.

High angle of attack runs were not attempted at Mach numbers below 2 because of the expectation of overloading the balance and causing unstarts, or flow breakdown. At Mach 2 the balance capacity limited the permissible angle of attack even at minimum dynamic pressure, to about 30 degrees. Therefore, high angles of attack were obtained only at nominal Mach numbers of 3 or more where exhausting into the vacuum field made lower dynamic pressures available. The limiting consideration was then interaction between model-generated shocks and the tunnel boundary layer.

Figures 8 and 9 present Schlieren photographs of interference that developed to the point of affecting the pressures on the model. In both cases the complete B₁₉W₁₄C_{4A} configuration is mounted on the double-knuckle sting at the 35 degree setting. The high pressure field of the wing separated the boundary layer on the tunnel floor sufficiently far upstream that the flow on the model was affected. The data obtained under the conditions shown were obviously invalid and were not included in the SADSAC tape or in the data plots in this report. The data appeared valid at angles of attack up to 39 degrees at Mach 3 and 35 degrees at Mach 5.

The 55 degree setting of the double knuckle sting located the model higher in the tunnel than the 35 degree setting. Therefore, to investigate the relationship between allowable angle of attack and gap between wing and tunnel floor, the 55 degree sting setting was tried at Mach 3. Figure 10 presents a Schlieren photo from run 146 at an angle of attack of about 59 degrees. Interference has developed, but the angle of attack is much greater than those attained with the 35 degree sting setting. The data showed that interference actually started to develop at an angle of attack of about 52 degrees.

Since the results of runs 141, 143, and 146 showed that there was little chance of obtaining valid wing-on data at angles of attack substantially

above 52 degrees at Mach 3 and somewhat less at Mach 5, the double-knuckle sting was modified to a 40 degree setting to locate the model further from the tunnel floor, while permitting the angles of attack to be from 30 to 50 degrees. In this modification the knuckle nearer to the model was not changed, the only change being a 5 degree change in the rear knuckle. Thus the model-sting geometry in the vicinity of the model was the same with the 40 degree setting as with the 35 degree setting.

The 40 degree setting was used for the remainder of the pitch runs at high angle of attack. Figures 11 and 12 present Schlieren photos at Mach numbers of 3 and 5, with the 40 degree sting setting. The allowable angle of attack, wing-on, is about 50 degrees at Mach 3 and about 45 degrees at Mach 5. The allowable angle of attack was affected somewhat by the deflection of the elevons and even by deflection of the canards. In all cases, where the data indicated that interference had developed, the affected data points were deleted from the SADSAC tape.

Although the sting geometry close to the base of the model was the same with both the 35 degree setting and the 40 degree setting, the data at the same angle of attack did not agree as well as would be expected. The greatest disagreement was in the pitching moment, at Mach 3. The difference can be seen by comparing run 141 (part of data set R28B32) and run 173 (part of data set R28C51). A similar, though smaller, disagreement is shown in the Mach 5 data, run 143 (data set R28B32) and run 172 (data set R28C51). At both Mach numbers, going from the 35 degree sting setting to the 40 degree sting setting caused a positive C_m increment and a negative C_N increment. The increments remain approximately constant over the entire angle of attack range where a comparison is possible (30 to 40 degrees angle of attack). The reason for the differences is not known.

TABLE I.

TEST CONDITIONS
TEST MSFC TWT 481

MACH NUMBER	REYNOLDS NUMBER per unit length Foot	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.60	6.6×10^6	5.73	92 - 100
0.90	7.0×10^6	8.08	
0.95	6.9×10^6	8.18	
1.00	6.9×10^6	8.51	
1.05	6.8×10^6	8.60	
1.10	6.8×10^6	8.85	
1.20	6.7×10^6	9.04	
1.44	6.6×10^6	9.60	
1.93	7.3×10^6	10.55	
3.00	4.4×10^6	4.94	
4.00	4.6×10^6	3.60	
5.00	6.1×10^6	3.40	

BALANCE UTILIZED: MSFC, TWT MODEL 200 MOMENT BALANCE

CAPACITY:

NF 175 LB
 SF 150 LB
 AF 100 LB
 PM 185 IN LB
 YM 160 IN LB
 RM 50 IN LB

ACCURACY:

COEFFICIENT
TOLERANCE:

COMMENTS:

TABLE II. TEST MSFC TWT 48] DATA SET COLLATION SHEET

PRETEST
 POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)											
		a	B	δ_{CL}	δ_{CF}	δ_{CL}	δ_{CF}		0.60	0.90	0.95	1.00	1.05	1.10	1.20	1.50	2.00	3.00	4.00	5.00
R28B11	B19V7	A	0°	-	-	-	-		28	27	26	25	24	23	22	87	88	124	123	122
R28B12	B19	B		-	-	-	-											153		151
R28B13	B19	C		-	-	-	-											156		154
R28B21	B19W14V7	A		0	0	-	-		15	16	17	18	19	20	21	86	89	119	120	121
R28B22	B19W14	B'		0	0	-	-											171		170
R28B31	B19W14C4AV7	A		0	0	0	0		14	13	12	11	10	9	8	83	91	118	117	116
R28B32	B19W14CA	B		0	0	0	0										136	141	142	143
R28B33	B19W14CA	C		0	0	0	0										146			
R28C41	B19W14C4AV7	A		0	0	-30	-30			29	30		31		32	84	92	113	114	115
R28C42	B19W14CA	B'		0	0	-30	-30											175		174
R28C44	B19W14C4AV7	A		0	0	+15	+15			36	35		34		33	85	90	112	111	110
R28C45	B19W14CA	B'		0	0	+15	+15											177		176
R28C47	B19W14C4AV7	A		0	0	-60	-60			37			38							
R28C48	B19W14CA	B'		0	0	-60	-60													
R28E71	B19W14C4AV7	A		-20	-20	0	0			39		40			41		93	106		178
R28E72	B19W14CA	B'		-20	-20	0	0											181		180
R28E74	B19W14C4AV7	A		-60	-60	0	0			42		43			44		94	105		
R28E75	B19W14CA	B'		-60	-60	0	0											183		182
R28L91	B20W14C4BV7	A		0	0	0	0			45		46			47		95			
R28L92	B20W14C4B	B'		0	0	0	0											186		

1	7	13	19	25	31	37	43	49	55	61	67	75	76
CLM	CM	CYN	CY	CBL	CA	CAB	CPI	CPZ	CPC				

COEFFICIENTS:

α or β
 SCHEDULES

$\alpha A = +6, 8, 10, 12, 14, 16, 18, 20, 22$ DEG.

$\alpha B = +25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45$ DEG.

$\alpha C = +45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65$ DEG.

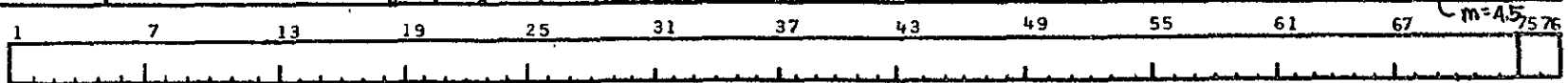
$\alpha B' = +30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50$ DEG.

DPVAR(1) | DVAR(2) | NDV
 MACH NO. | α or β

TABLE II. (CONTINUED)
 TEST MSFC TWT 481 DATA SET COLLATION SHEET

PRETEST
 POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)												
		α	β	δ_{cl}	δ_{cr}	δ_{cl}	δ_{cr}		0.60	0.90	0.95	1.00	1.05	1.10	1.20	1.50	2.00	3.00	4.00	5.00	
R28A01	B19W14C4AV7	A	0	0	-20	0	0		48		49			50		96					
R28A02	B19W14C4A	B'		↓	↓												185			189	
R28W11	B19C4AV7	A		-	-				51		52			53		97					
R28W12	B19C4A	B		-	-												148			147	
R28W13	B19C4A	C	↓	-	-												149			150	
R28Y21	B19W14C4AV7	15	D	0	0				59	58	57	56	55	54	82	98	104				
R28Y22	B19W14C4AV7 ($\delta_{cr} = 10^\circ$)			↓	↓	↓	↓		77			60		61	80		101				
R28Y23	BAW14C4AV7				↓	-30	-30		69			63		62	81		102				
R28Y24	B19W14C4AV7				-20	0	0		65			66		67	78		103				
R28Y31	B19W14C4A	↓		↓	0	0	0		73	72	71	70	69	68	79	99	100				
R28Y41	B19W14C4A	35		0	0	0	0										188			187	
R28Y42	B19W14C4A	↓	↓	0	-20	0	0										155			153	
R28E77	B19W14C4AV7	A	0	+10	+10	0	0		74		75			76			125				
R28E78	B19W14C4A	B'	0	+10	+10	0	0										187				
R28C51	B19W14C4A	B'	0	0	0	0	0										173			172	
R28F01	B19W14C4AF6	B'	0	-90	-90	+15	+15										188				
R28Y43	B19W14C4A	35	D	+10	-10	0	0										190				
R28Y44	B19W14C4A	↓	↓	0	0	-30	0										166			165	144
R28G01	B19W14C4AV7	A	0	0	0	0	0		1	2	3	4	5	6	7						



COEFFICIENTS: _____ IDPVAR (1) | IDPVAR (2) | NDV

α or β SCHEDULES: $\beta D = -10, -8, -6, -4, -2, 0, 2, 4, 6, 8, 10$ DEG.

TABLE III
MODEL COMPONENT DESCRIPTIONS

TABLE III
MODEL COMPONENT DESCRIPTIONS

MODEL COMPONENT: BODY - B₁₉

GENERAL DESCRIPTION: Body for B-15B Delta Wing Configuration, with circular cross section at nose, fairing to flat bottom at wing. Flats on sides to closegap at canard root forward of hinge line. Fairings over rocket engines.

DRAWING NUMBER: WT-70-105222

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u> AS BUILT
Length (nose to wing T. E.)	<u>2757</u>	<u>9734</u>
Max. Width	<u>387</u>	<u>1.356</u>
Max. Depth	<u>453</u>	<u>1.587</u>
Fineness Ratio	<u>6.08</u>	<u>6.13</u>
Area		
Max. Cross-Sectional	<u>183837</u>	<u>2.252</u>
Planform	<u>1010.12</u>	<u>12.501</u>
Wetted	<u> </u>	<u> </u>
Base	<u>150028</u>	<u>1.840</u>

TABLE III
(Continued)

MODEL COMPONENT DESCRIPTIONS

MODEL COMPONENT: BODY - B₂₀

GENERAL DESCRIPTION: Body for B-15B Delta Wing Configuration, extended
10% over basic (B₁₉) body

DRAWING NUMBER: WT-70-105222

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
		AS BUILT
Length (nose to wing T. E.)	<u>3033</u>	<u>10.689</u>
Max. Width	<u>387</u>	<u>1.356</u>
Max. Depth	<u>453</u>	<u>1.587</u>
Fineness Ratio	<u>6.69</u>	<u>6.73</u>
Area		
Max. Cross-Sectional	<u>183837</u>	<u>2.252</u>
Planform	<u>1117388</u>	<u>13.809</u>
Wetted	<u> </u>	<u> </u>
Base	<u>150.028</u>	<u>1.840</u>

TABLE III
(Continued)
MODEL COMPONENT DESCRIPTIONS.

MODEL COMPONENT: Wing W14

GENERAL DESCRIPTION: W₁₀ modified to unswept trailing edge and with twist outboard of B. L. 340 linearly increasing to -4 degrees at tip and with leading edge faired into fuselage (W₁₀ is the basic B-15B wing)

DRAWING NUMBER: WT-7-105222

DIMENSIONS:

FULL-SCALE

MODEL SCALE
AS BUILT

TOTAL DATA

Area

Planform

1241959

15.655

Wetted

Span (equivalent)

1739

5.099

Aspect Ratio

2.430

2.38

Rate of Taper

Taper Ratio

0.105

0.1192

Dihedral Angle, degrees

3 at T.E.

3 at T. E.

Incidence Angle, degrees at root

2

2

Aerodynamic Twist, degrees

-4

-4

Toe-In Angle

Cant Angle

Sweep Back Angles, degrees

Leading Edge

53

53

Trailing Edge

0

0

0.25 Element Line

44.85

44.85

Chords:

Root (Wing Sta. 0.0)

1291

4.587

Tip, (equivalent)

137

0.547

MAC

869.4

3.095

Fus. Sta. of .25 MAC

3104.9

10.913*

W.P. of .25 MAC

219

0.756

B.L. of .25 MAC

135.9

1.126

Airfoil Section

Root

NACA -0010-64(mod)

Tip

NACA -0010-34(mod)

EXPOSED DATA

Area

812980

10.03

Span, (equivalent)

1373

4.743

Aspect Ratio

2.25

2.24

Taper Ratio

0.130

0.1435

Chords

Root

1048

3.684

Tip

137

0.547

MAC

709.1

2.504

Fus. Sta. of .25 MAC*

3224.9

11.356*

W.P. of .25 MAC

222

0.624

B.L. of .25 MAC

438.6

1.572

*Fuselage stations are relative to an origin 3.500 inches ahead of the nose of B₁₉

TABLE III
(Continued)
MODEL COMPONENT DESCRIPTIONS

MODEL COMPONENT: Canard C₄

GENERAL DESCRIPTION: Basic canard for B-15B Delta Wing Configuration

DRAWING NUMBER: WT-70-105224

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE AS BUILT</u>
Area (exposed)	<u>66286</u>	<u>0.706</u>
Span (equivalent)	<u>352</u>	<u>2.585</u>
Inb'd equivalent chord	<u>341</u>	<u>1.061</u>
Outb'd equivalent chord	<u>36</u>	<u>0.099</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u> </u>	<u> </u>
At Outb'd equiv. chord	<u> </u>	<u> </u>
Sweep Back Angles, degrees		
Leading Edge	<u>60</u>	<u>57.68</u>
Tailing Edge	<u>0</u>	<u>0</u>
Hingeline	<u> </u>	<u> </u>
Area Moment (Normal to hinge line)	<u> </u>	<u> </u>
Hinge line located at 25% of M.A.C. of exposed area		

TABLE III
(Continued)
MODEL COMPONENT DESCRIPTIONS

MODEL COMPONENT: Vertical - V₇

GENERAL DESCRIPTION: Basic vertical for B-15B Delta Wing Configuration

DRAWING NUMBER: WT-70-105222

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u> <u>AS BUILT</u>
Area	<u>177306</u>	<u>2.135</u>
Span (equivalent)	<u>485</u>	<u>1.674</u>
Inb'd equivalent chord	<u>504</u>	<u>1.723</u>
Outb'd equivalent chord	<u>252</u>	<u>0.826</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.35</u>	<u>0.35</u>
At Outb'd equiv. chord	<u> </u>	<u> </u>
Sweep Back Angles, degrees		
Leading Edge	<u>35</u>	<u>36.40</u>
Trailing Edge	<u>10</u>	<u>11.29</u>
Hingeline	<u>19.83</u>	<u>19.83</u>
Area Moment (Normal to hinge line)	<u> </u>	<u> </u>

TABLE IV.

LIST OF FIGURES

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Longitudinal Characteristics for Various Elevon Deflections	B	Elevon Deflections	109-168
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Trim Characteristics Versus Mach at Various Elevon Deflections	G	Elevon and Aileron Deflections	365-384
Longitudinal Coefficient Increments Due to Elevon Deflections	H	Alpha, Elevon Deflection	385-396
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Longitudinal Characteristics at Various Deflections	A, B	Configuration, Canard Deflection	417-532

TABLE V. DATA DISPLAY INDEX
(Continued)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Longitudinal Characteristics at Various Deflections	C	Configuration, Canard Deflection	533-542
Longitudinal Characteristics at Various Deflections	B	Canard Deflection, Configuration	543-558
Longitudinal Characteristics at Various Deflections	C	Configuration, Canard Deflection, Alpha	559-583
Longitudinal Stability Derivatives With Respect to Alpha at Various Canard Deflections	D	Canard Deflections Configuration	584-623
Longitudinal Stability Derivatives With Respect to Alpha at Various Canard Deflections	E	Alpha, Canard Deflec- tions, Configuration	624-660
Longitudinal Coefficient Versus Canard Deflection	F	Alpha, Configuration	661-750
Trim Characteristics at Various Canard Deflections	G	Canard Deflections, Configuration	751-770
Longitudinal Partial Derivatives With Respect to Canard Deflection	J	Alpha, Canard Deflections	771-815
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Body and Body With Vertical Tail, Longitudinal Characteristics	B	Configuration	831-850
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Wing Longitudinal Characteristics Referred to Wing Dimensions	L	Alpha	863-868

TABLE V. DATA DISPLAY INDEX
(Continued)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Body Longitudinal Characteristics Referred to Body Dimensions	L	Configuration Alpha	869-874
Longitudinal Buildup at Alphas Greater Than 6 Degrees	B	Configuration	875-922
Longitudinal Characteristics as Affected By Body Length	B	Configuration	923-942
Effect of Grit on Longitudinal Characteristics of Complete Configuration	B		943-990
Longitudinal Buildup at Small Alphas	B	Configuration	991-1010
Longitudinal Characteristics at 6 Degrees Sideslip and Small Alphas	B	Configuration	1011-1030
Component Longitudinal Increments At Small Alphas and Zero Yaw	B	Configuration, Components	1031-1062
Complete Configuration Lateral Coefficients Versus Beta	M	Configuration	1063-1139
Partial Derivatives With Respect to Beta	N	Beta, Configuration	1140-1163
Aileron Effect Versus Angle of Attack at Zero Beta	O		1164-1169
Partial Derivatives With Respect to Aileron Deflection	P	Alpha	1170-1174
Rudder Effect Versus Beta at 15 Degrees Alpha	M		1175-1237

TABLE V. DATA DISPLAY INDEX
(Concluded)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Yaw Control Devices at 35 Degrees Alpha Comparison	M	Configuration, Canard Deflection	1238-1258
Effect of F6 Yaw Control Versus Angle of Attack	O		1259-1264

PLOTTED COEFFICIENTS SCHEDULE:

- | | |
|---|---|
| A) CN, CA, CAF, CL, CD, L/D, CLM vs. Alpha
CLM vs. CN; CL vs. CD | J) DCN/DC, DCLMDC, DCA/DC, DCL/DC, DCD/DC
vs. ANGLE |
| B) CN, CA, CLM, CAF vs. Alpha | K) DCN/DC, DCLM/DC, DCA/DC, DCL/DC, DCD/DC
vs. MACH Number |
| C) CN, CA, CLM, CL, CD vs. MACH Number | L) CN, CA, CLM vs. MACH Number |
| D) D(CN)/D(ALPHA), D(CLM)/D(ALPHA), D(CA)/D(ALPHA),
D(CL)/D(ALPHA), D(CD)/D(ALPHA) vs. ALPHA | M) CY, CYN, CBL, CA, CLN, CSL, CLM vs. BETA |
| E) CLM/CN, D(CN)/D(ALPHA), D(CLM)/D(ALPHA)
vs. MACH Number | N) CYBETA, DCLNDB, DCSLDB vs. MACH Number |
| F) CN, CA, CLM, CL, CD, CLM/CN vs. ANGLE | O) CY, CYN, CLM, CBL, CLN, CSL vs. ALPHA |
| G) ALFTRM, L/DTRM, CLTRM, CDTRM vs. MACH Number | P) DCY/DA, DCYNDA, DCBLDA, DCLNDA, DCSLDA
vs. MACH Number |
| H) Δ CN, Δ CA, Δ CLM vs. MACH Number | |
| I) DCN/DE, DCLMDE, DCA/DE, DCL/DE, DCD/DE
vs. MACH Number | |

F I G U R E S

Notes:

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

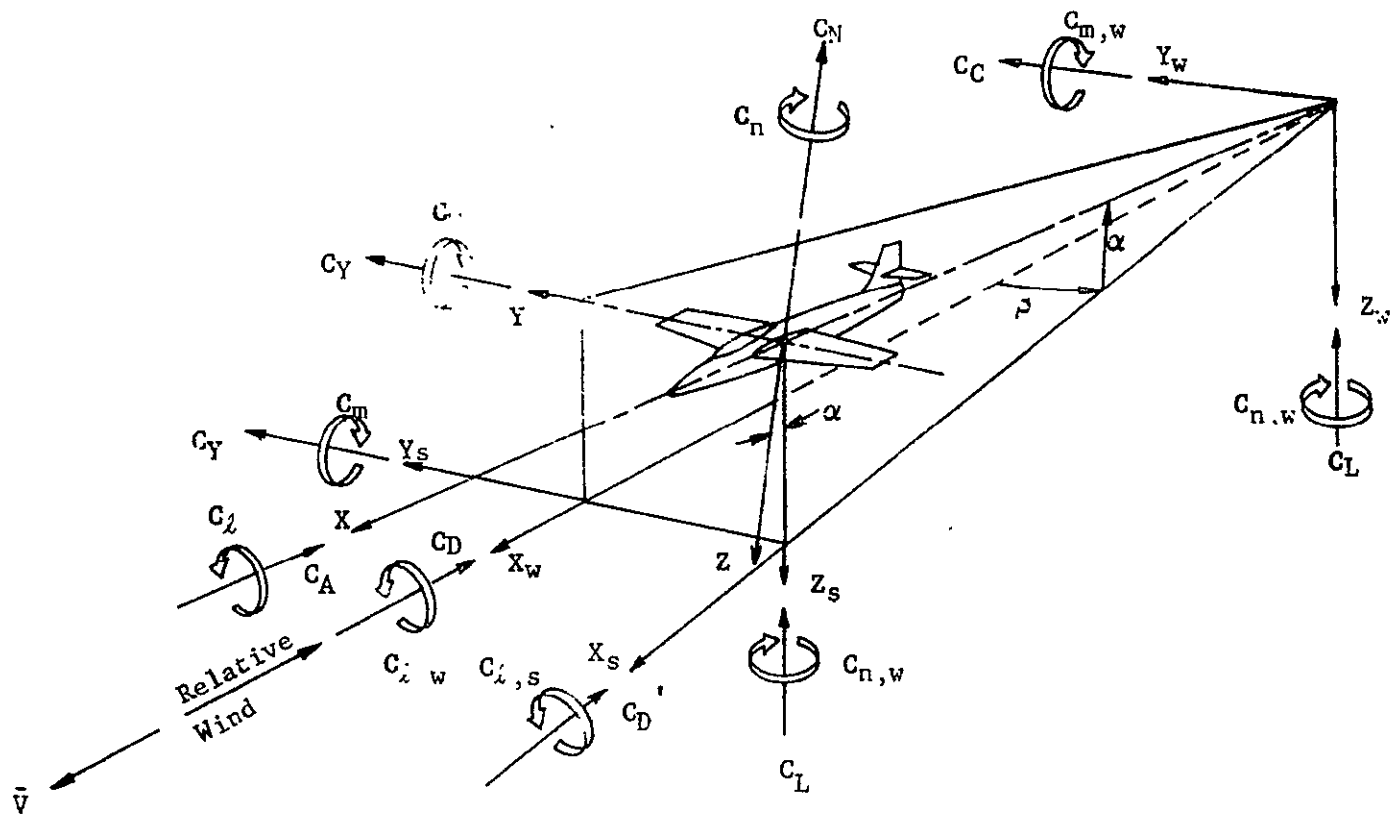


Figure 1. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

Fig 2

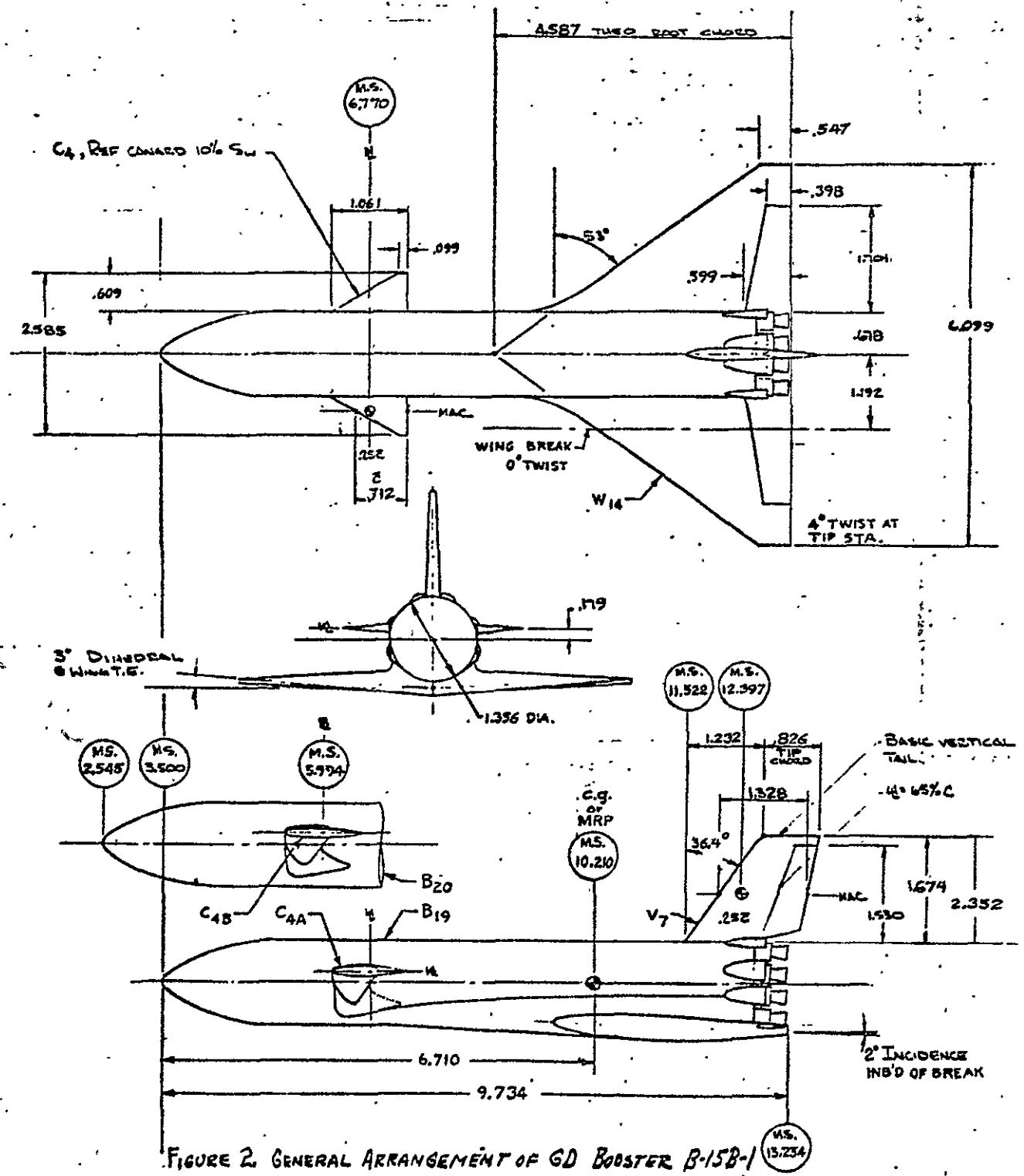


FIGURE 2. GENERAL ARRANGEMENT OF GD BOOSTER B-15B-1

Fig 2

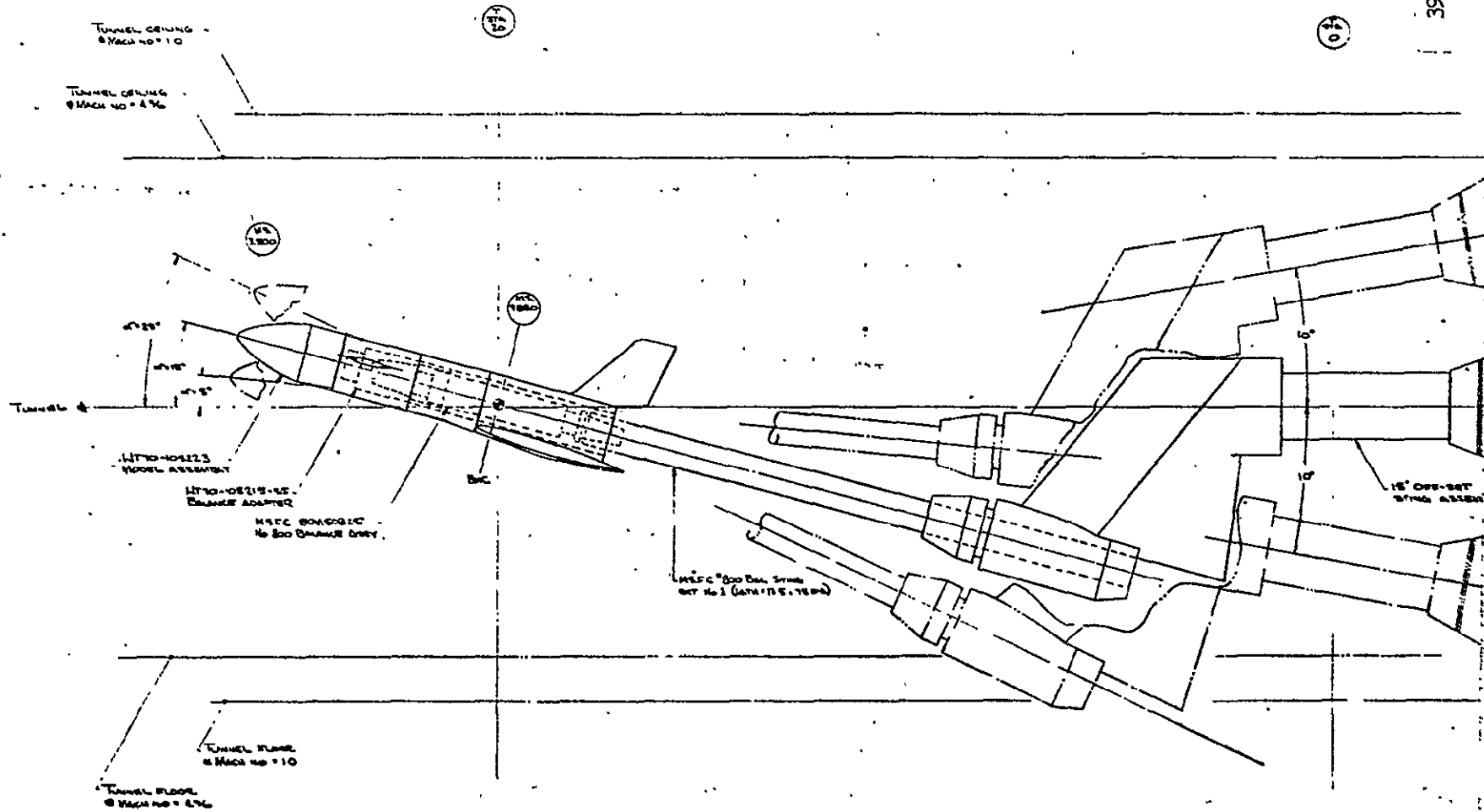


FIGURE 3. 15° OFFSET STING
at 5° to 25° Tunnel Inclination

3

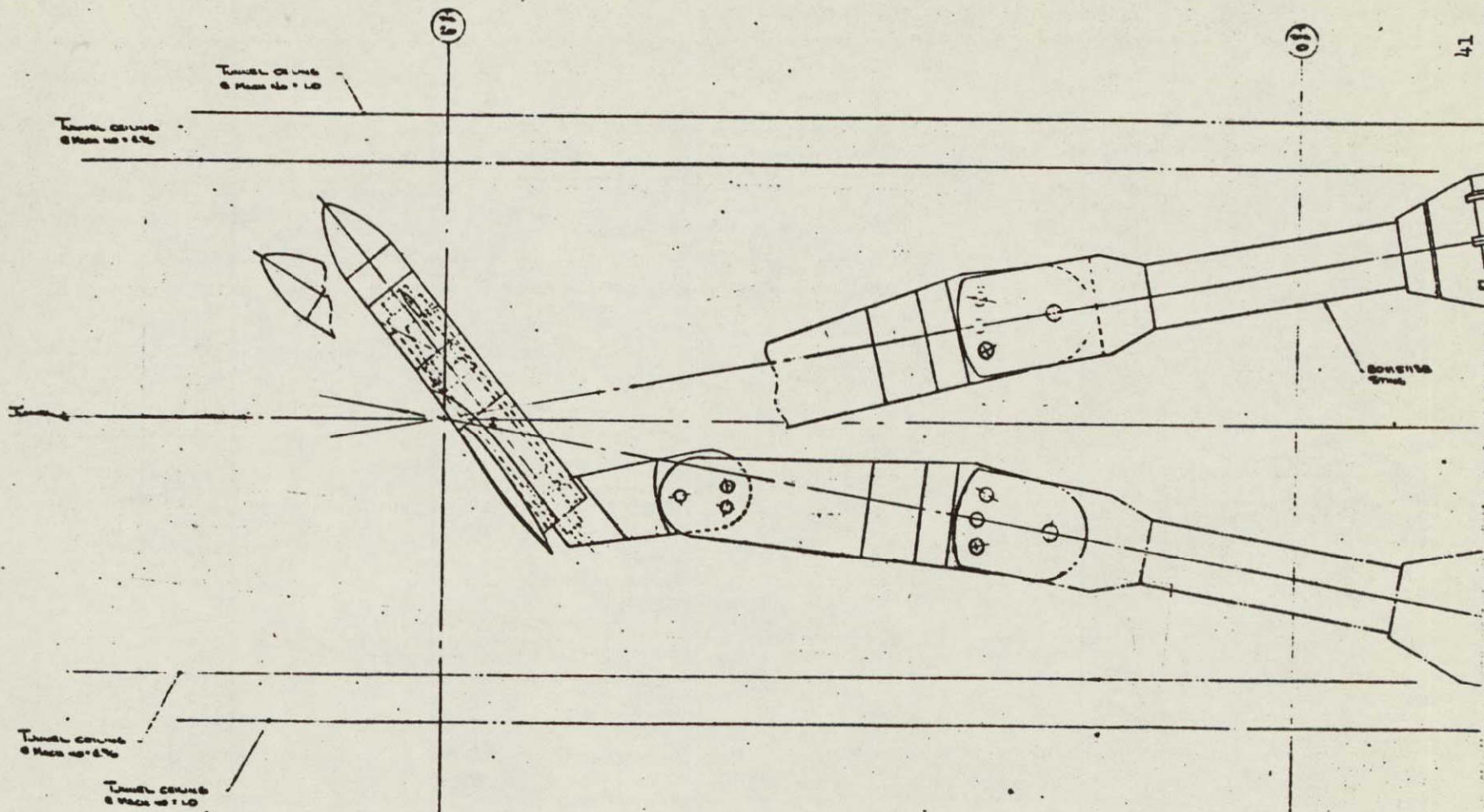
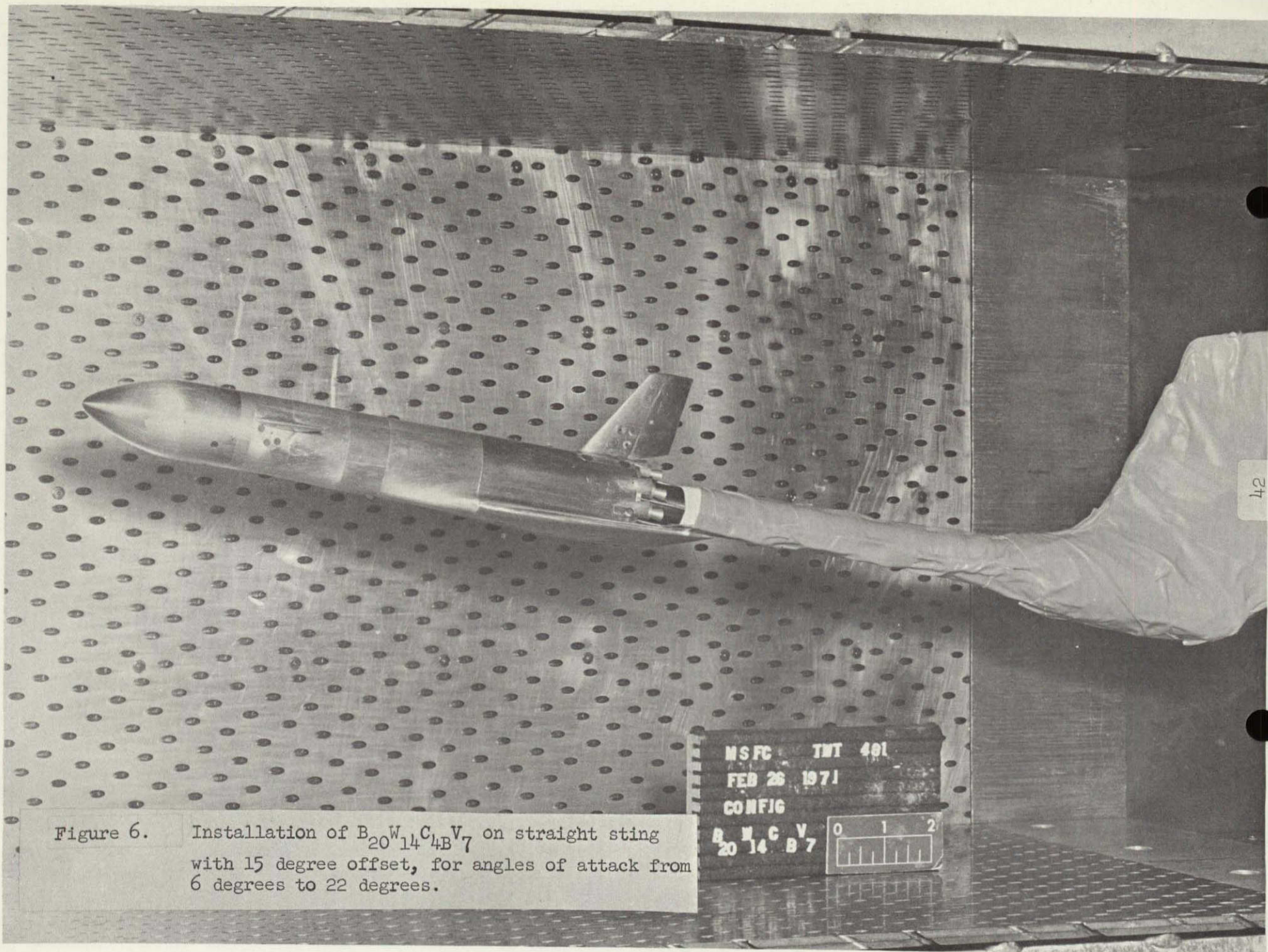


FIGURE 5. 40° STING SETTING
 $\alpha = 30^\circ$ TO 50°
TUNNEL INSTALLATION



42

MSFC TWT 401
FEB 26 1971
CONFIG
B W C V 0 1 2
20 14 B 7

Figure 6. Installation of B₂₀W₁₄C₄B₇V₇ on straight sting with 15 degree offset, for angles of attack from 6 degrees to 22 degrees.

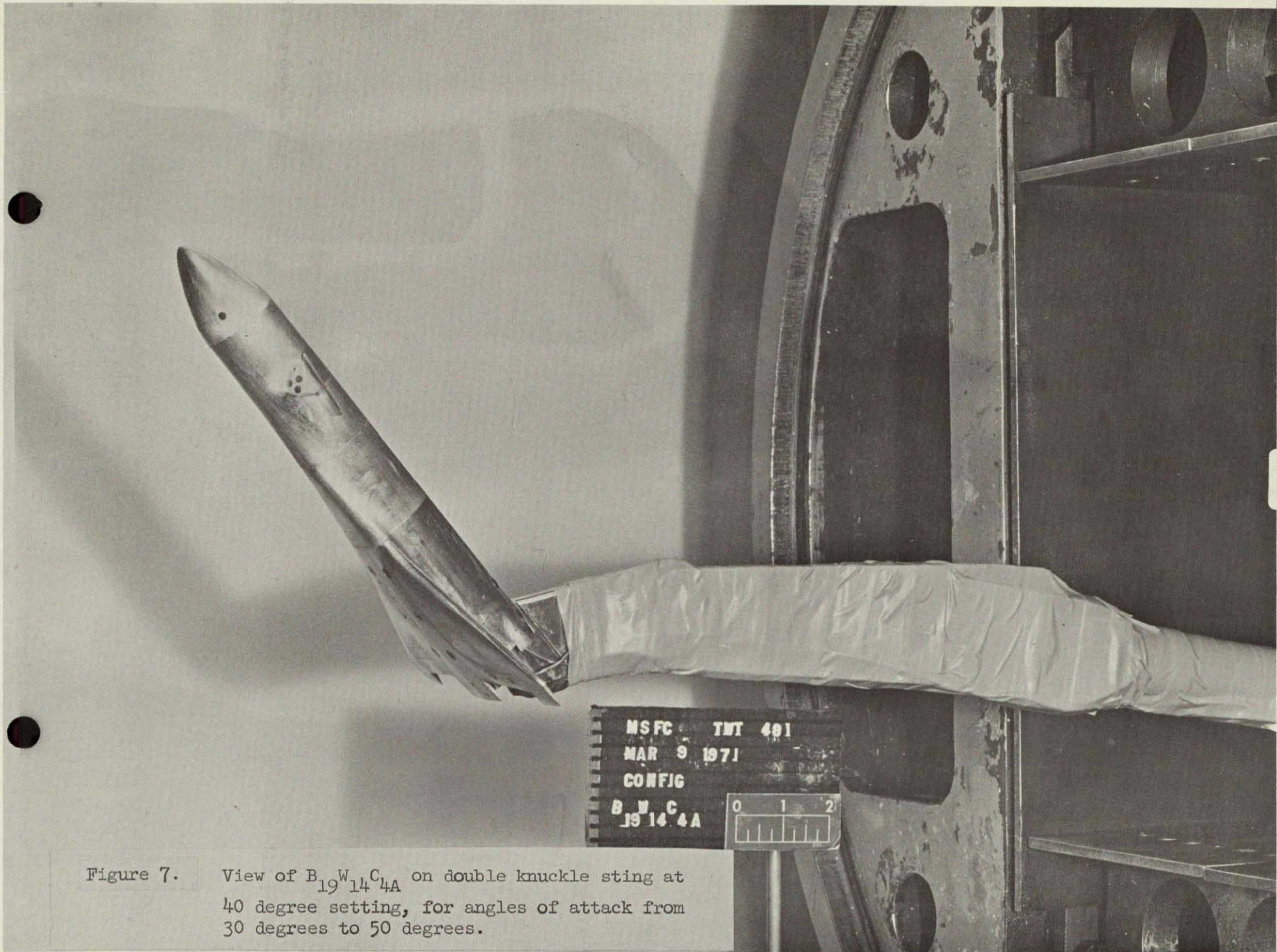


Figure 7. View of B₁₉W₁₄C_{4A} on double knuckle sting at 40 degree setting, for angles of attack from 30 degrees to 50 degrees.

Schlieren Photo, Run 141, Configuration
B₁₉W₁₄C_{14A}, M = 3, $\alpha = 46$ degrees. The 35
degree sting setting was used. Tunnel boundary
layer separation has progressed upstream to the
point that the flow on the model is affected.

Figure 8.

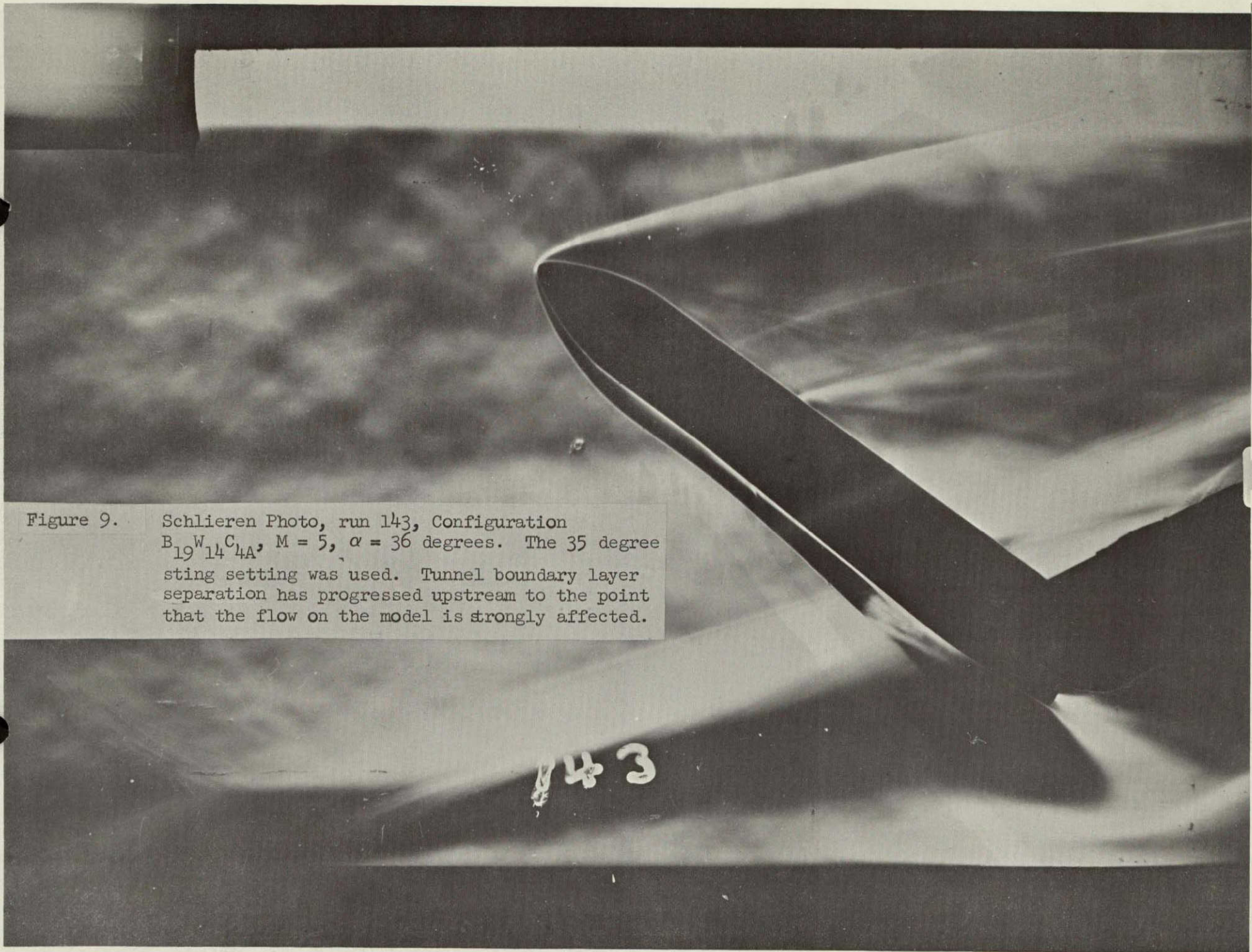


Figure 9. Schlieren Photo, run 143, Configuration $B_{19}W_{14}C_{4A}$, $M = 5$, $\alpha = 36$ degrees. The 35 degree sting setting was used. Tunnel boundary layer separation has progressed upstream to the point that the flow on the model is strongly affected.

143

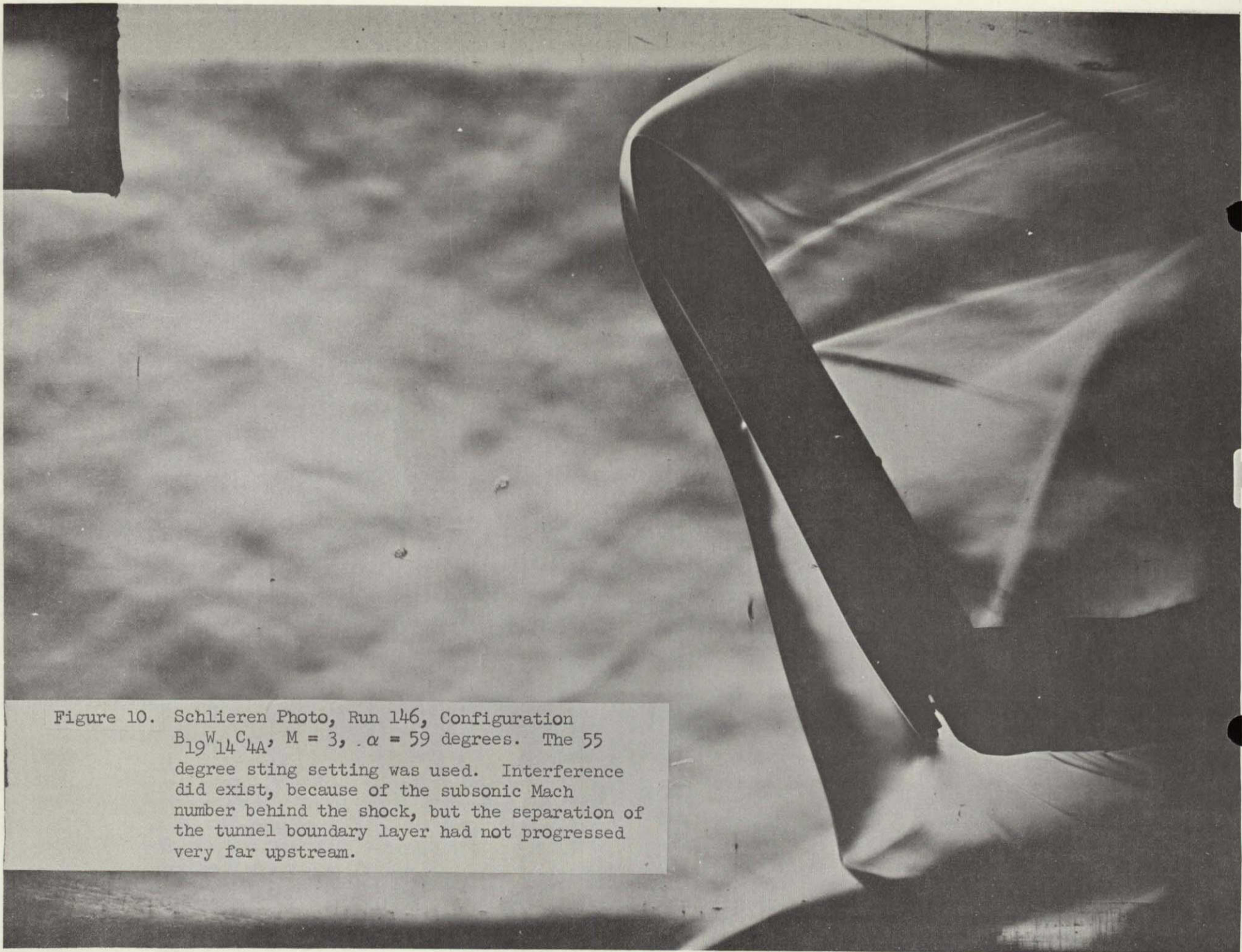


Figure 10. Schlieren Photo, Run 146, Configuration $B_{19}W_{14}C_{4A}$, $M = 3$, $\alpha = 59$ degrees. The 55 degree sting setting was used. Interference did exist, because of the subsonic Mach number behind the shock, but the separation of the tunnel boundary layer had not progressed very far upstream.



Figure 11. Schlieren Photo, Run 173, Configuration
 $B_{19}W_{14}C_{4A}$, $M = 3$, $\alpha = 49$ degrees. The 40
degree sting setting was used. The tunnel
boundary layer was separated by the incident
shock, but the separation had not progressed
far enough upstream to affect the flow on the
model.

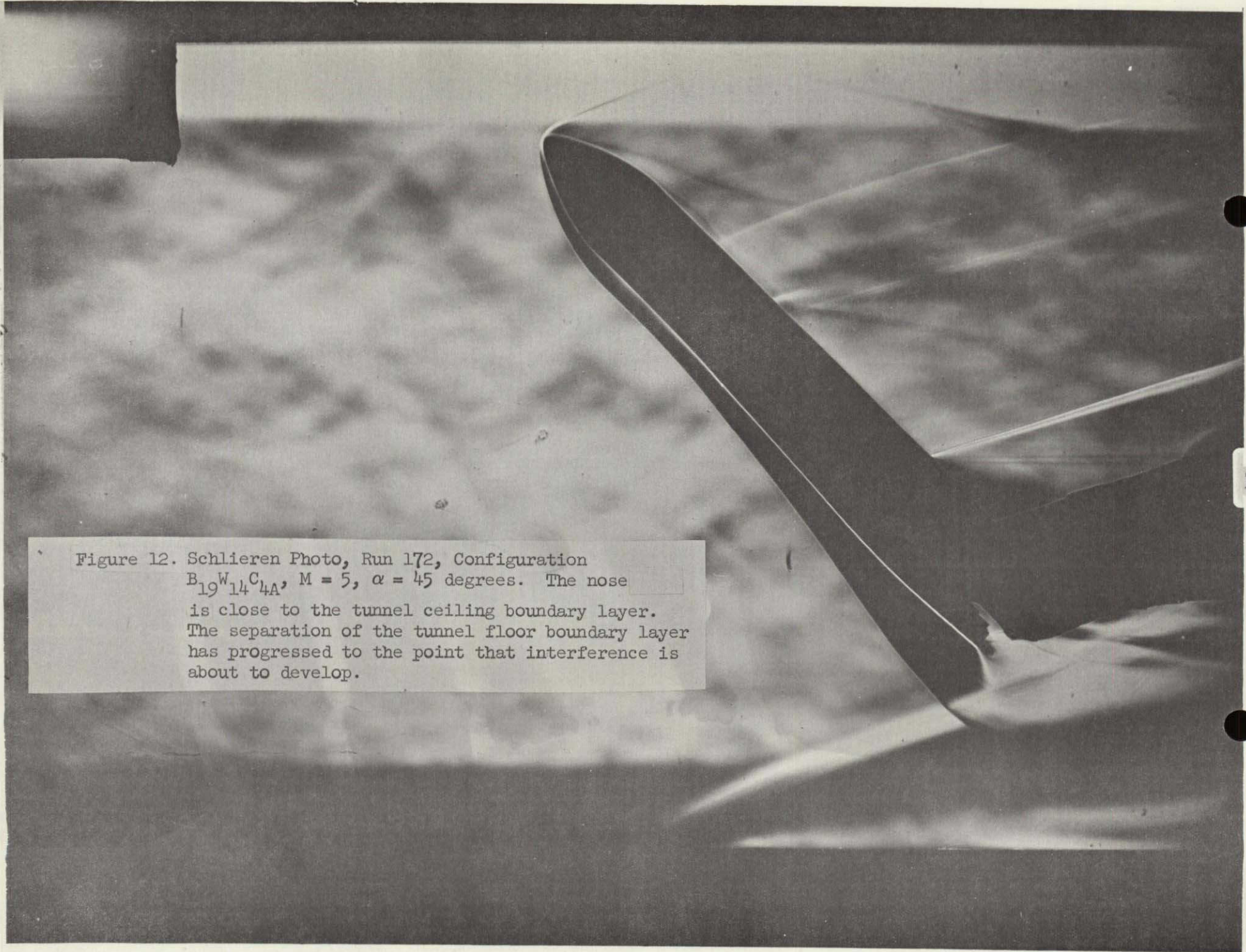


Figure 12. Schlieren Photo, Run 172, Configuration $B_{19}W_{14}C_{4A}$, $M = 5$, $\alpha = 45$ degrees. The nose is close to the tunnel ceiling boundary layer. The separation of the tunnel floor boundary layer has progressed to the point that interference is about to develop.

NOSE FLAP (F4)

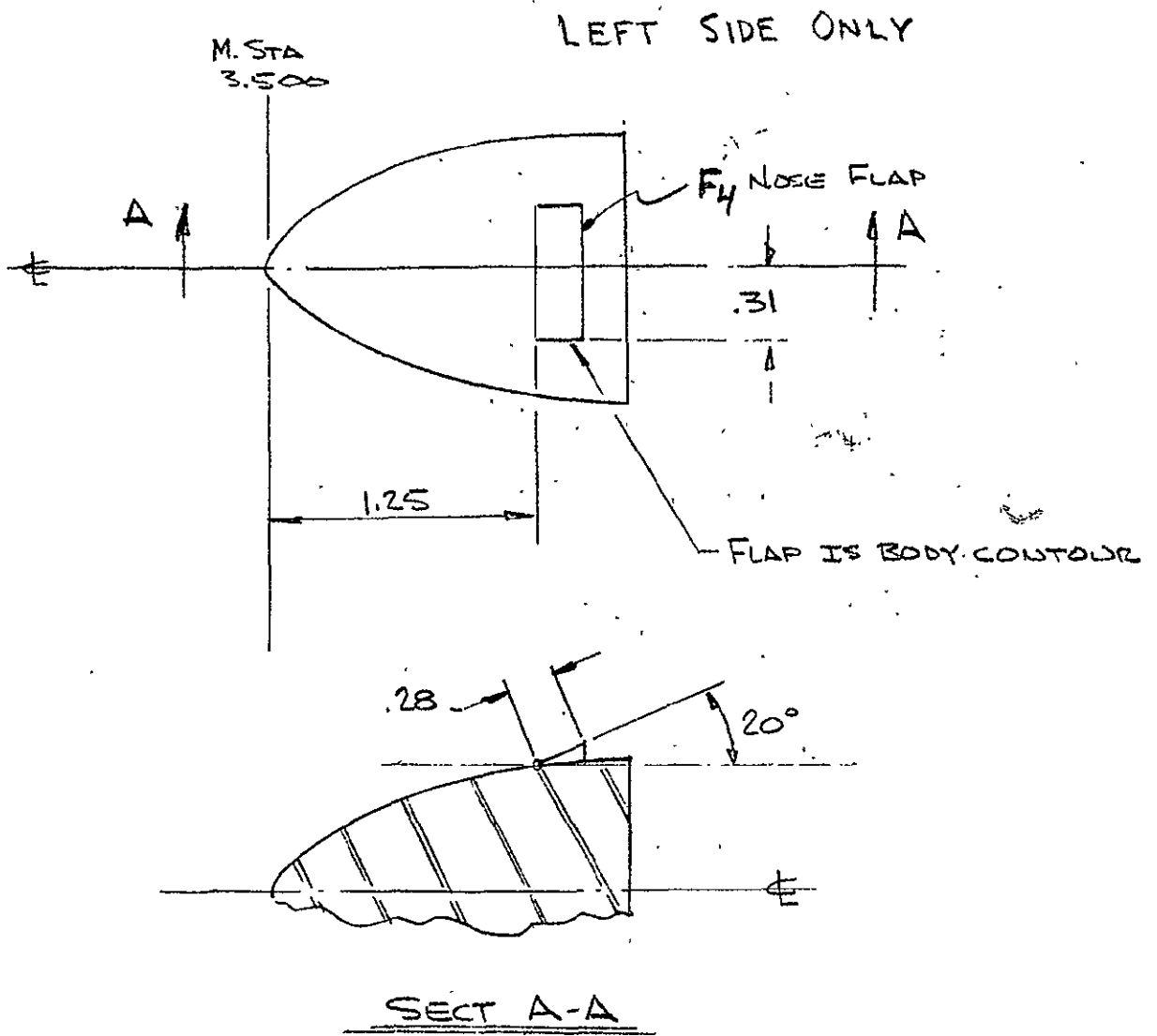
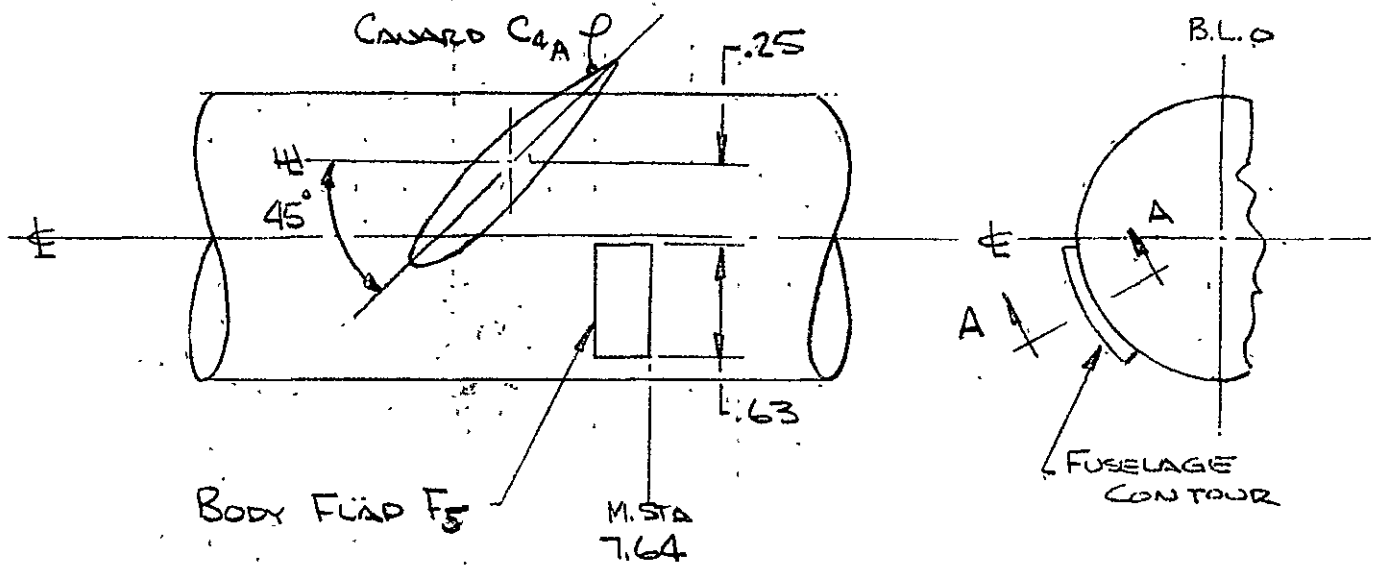
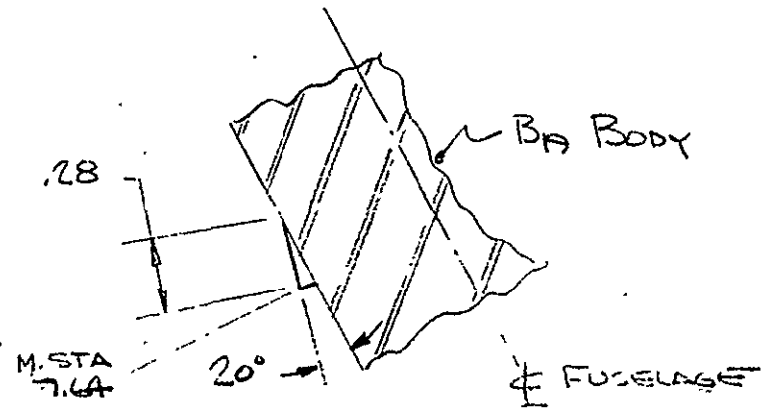


FIGURE 13. NOSE FLAP F4

BODY FLAP (F5)



LEFT SIDE ONLY



SECT A-A

FIGURE 14, BODY FLAP F5

VENTRAL FIN (F6)

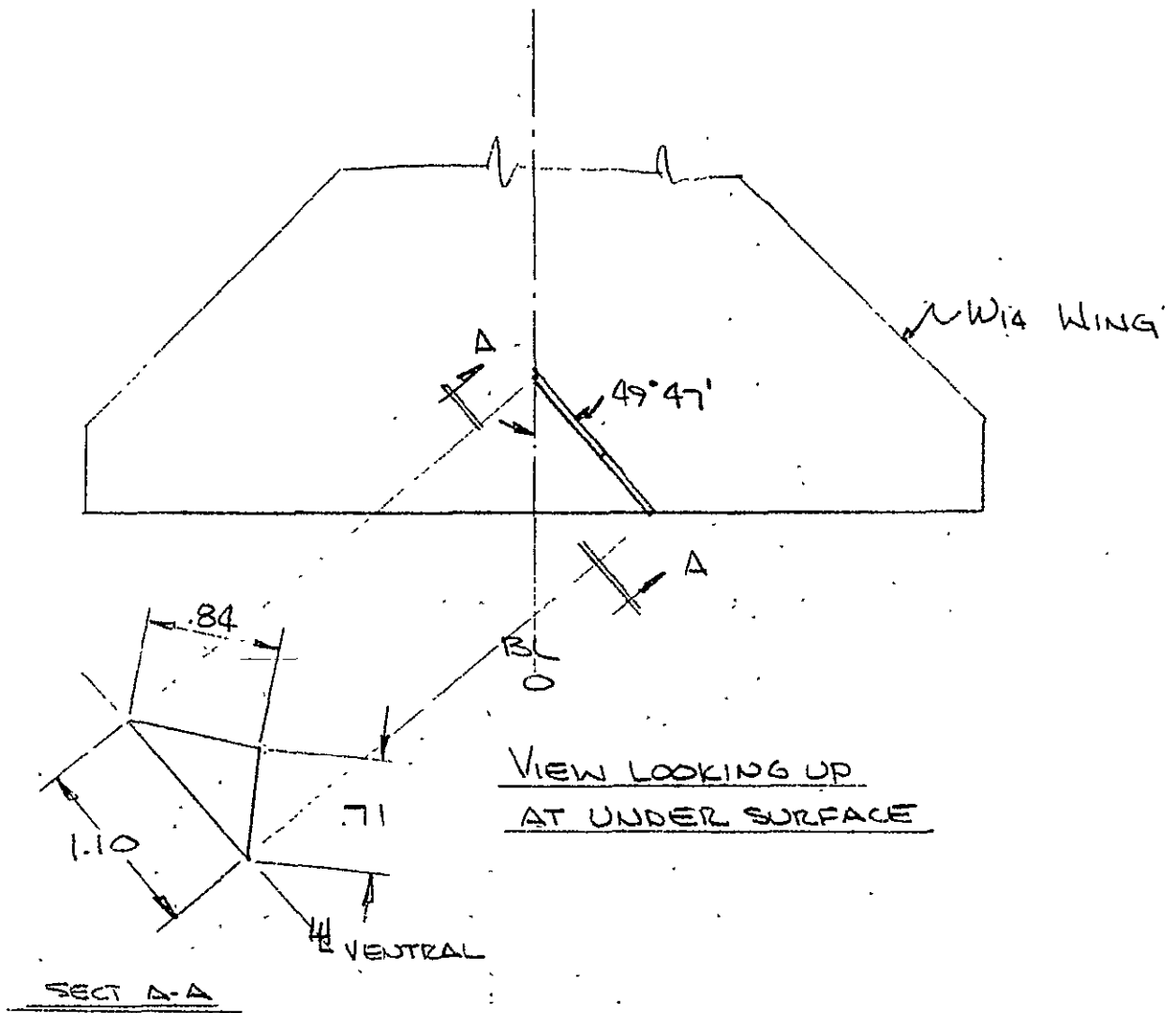


FIGURE 15. VENTRAL FIN F6

C4. CANARD WITH SPLIT TRAILING EDGE (CAS)

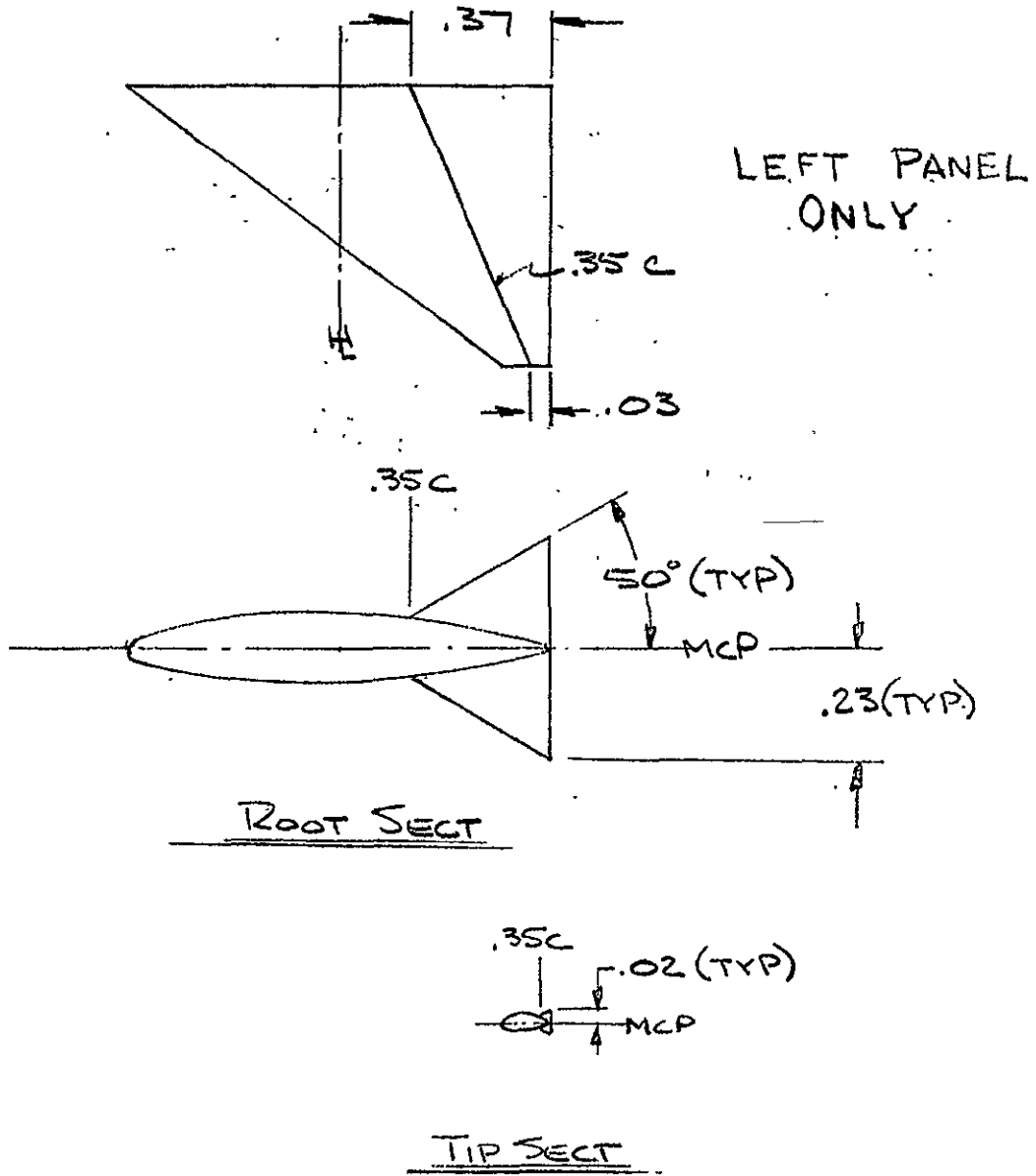


FIGURE 16. C4 CANARD WITH SPLIT TRAILING EDGE CHS

TABULATED DATA LISTING

A tabulated data listing, consisting of all aero data sets, both original and those created in arriving at the plotted material to be presented subsequently, is available as an addendum to this report. The tabular listing is made up in two sections:

- (a) a brief summary list of all data sets containing the identifier, the descriptor, and the resident dependent variables.
- (b) a full list of all data sets containing all resident or selected aerodynamic coefficients of the data sets as well as the above mentioned information.

The listing is currently sent on limited distribution to the following organizations:

NASA AMES	Mr. V. Stevens
NASA MSFC	Mr. J. Weaver
GD/C	Mr. R. Lanflisi

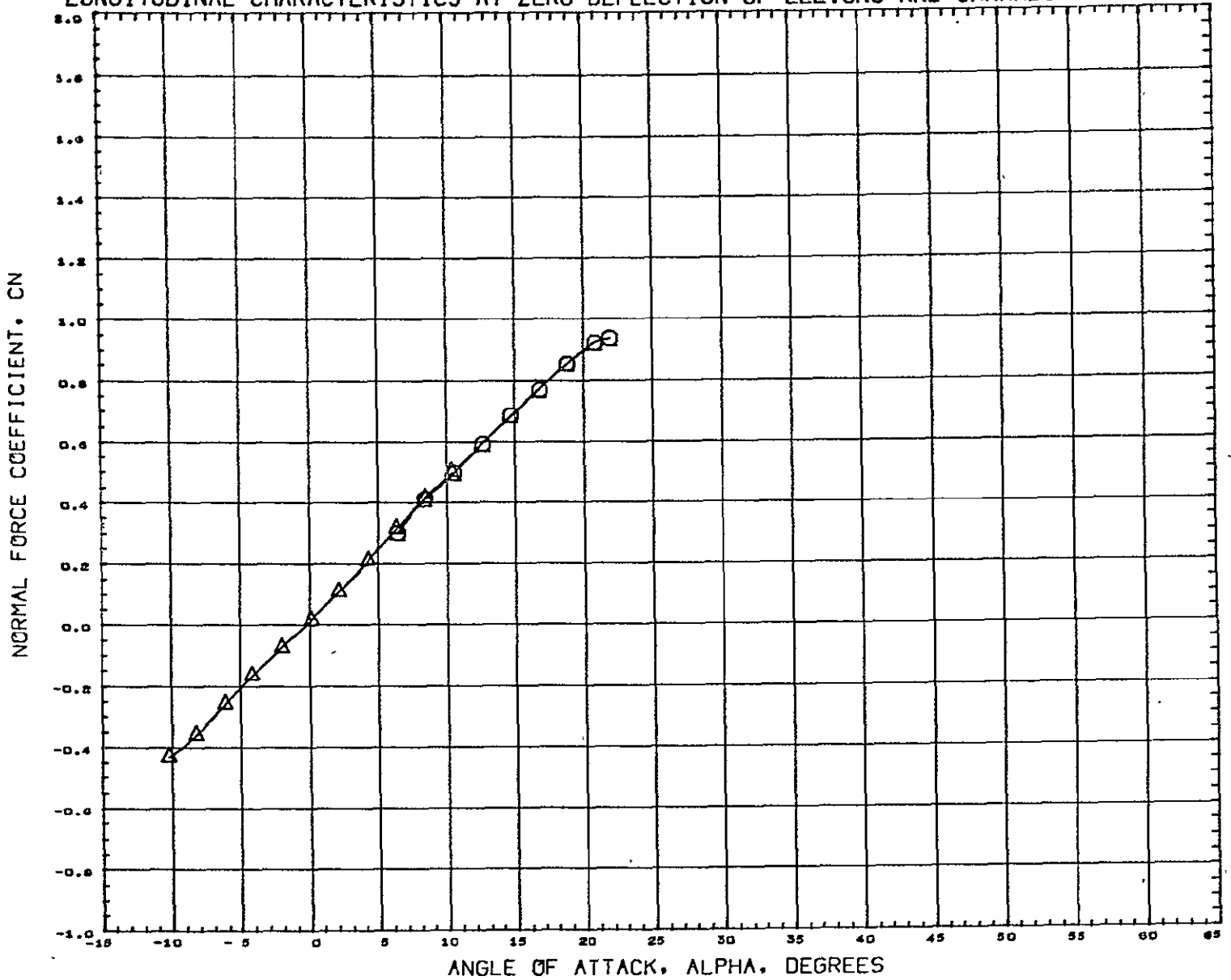
If copies of this listing are desired, please contact the above or the cognizant SADSAC personnel who, for this data, is:

Albert D. Martin
SADSAC/Dept. 2780
Chrysler Corporation Space Division
New Orleans, La. 70129

(504) 255-2304

DATA

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



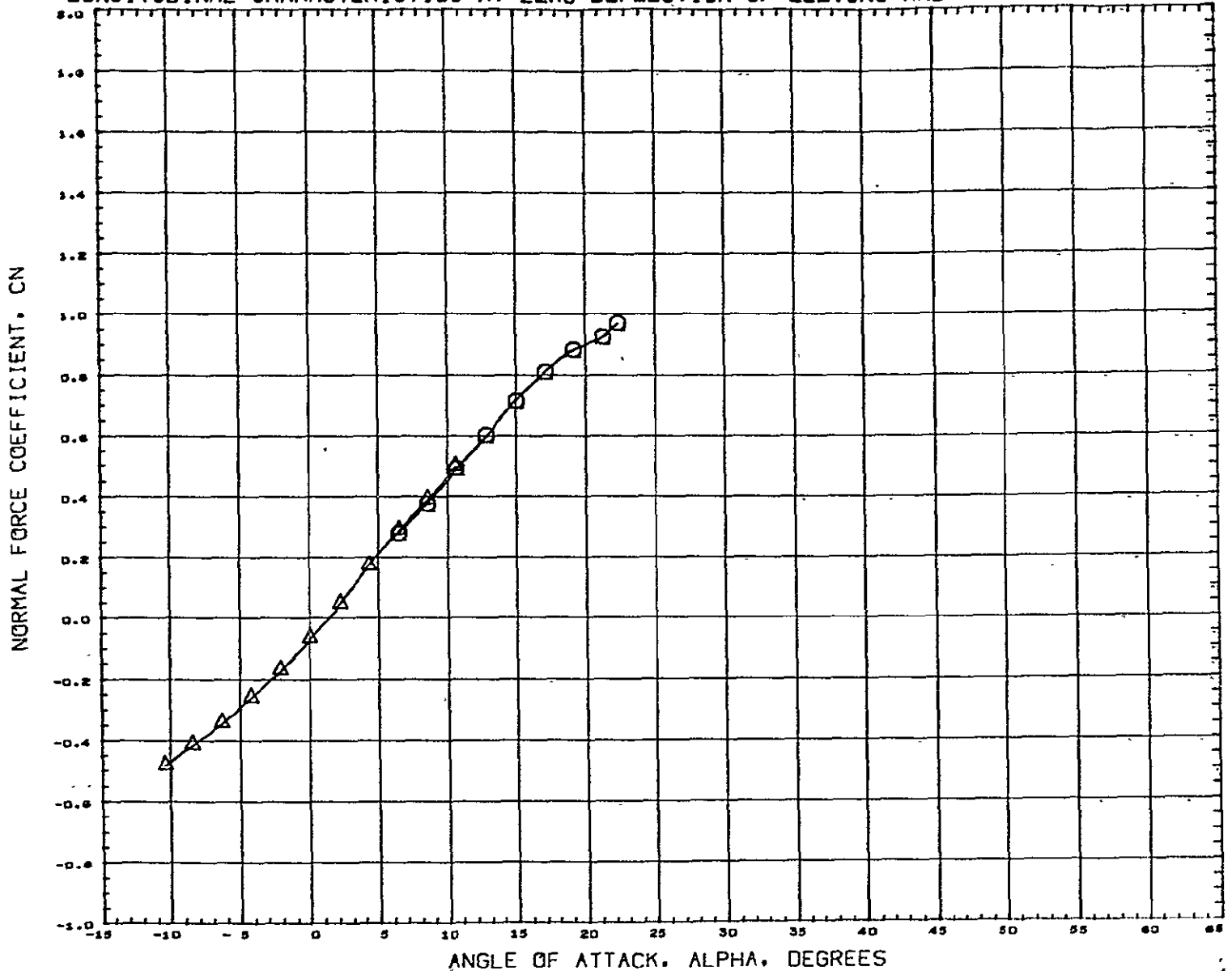
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C200D1)	MSFC 401 GD/C (BOOSTER) B19W14C4AV7
(E20B20)	MSFC 401 GD/C (BOOSTER) B19W14C4AV7
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	30.1N.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 0.607

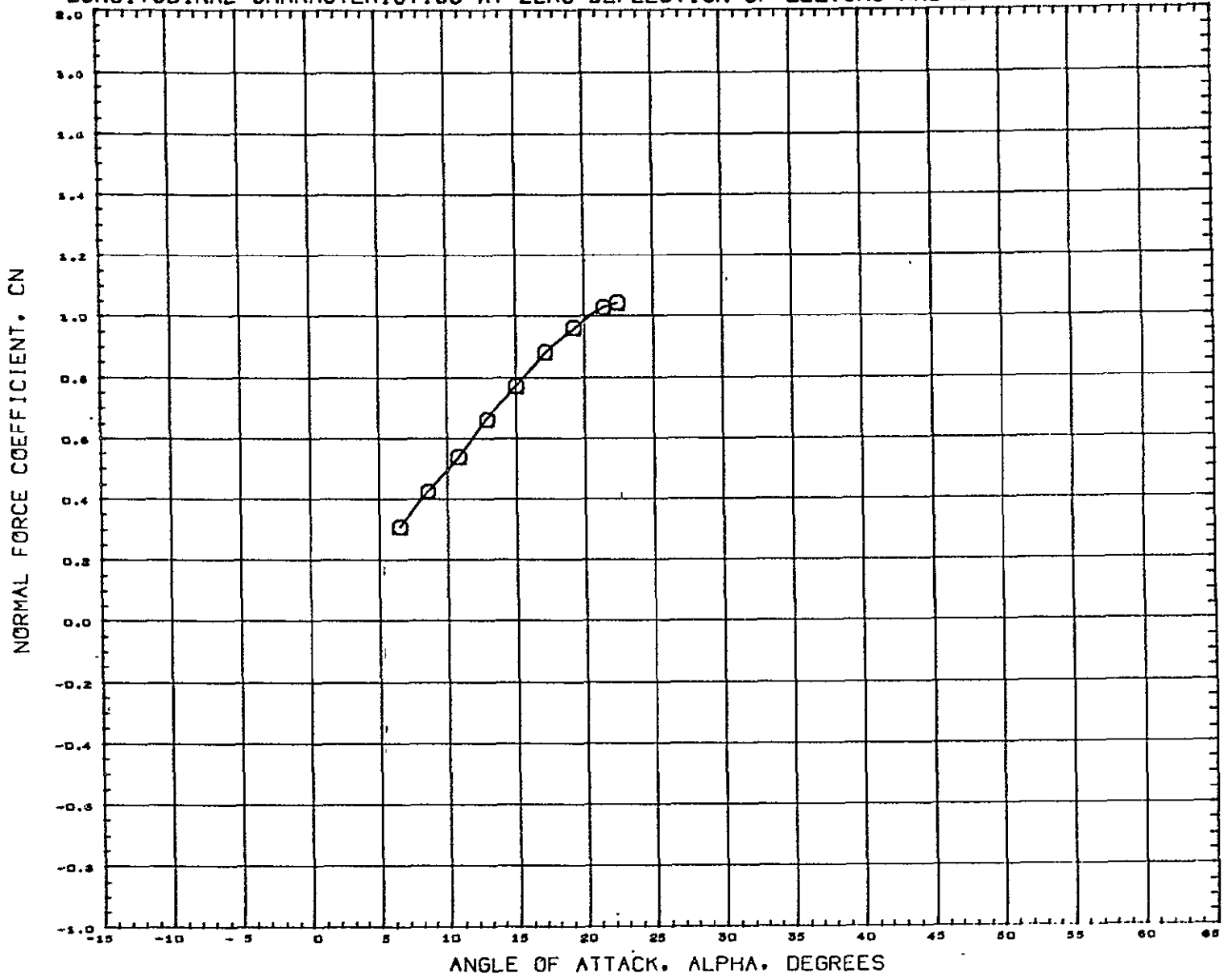
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC401 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	MSFC 401 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 0.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

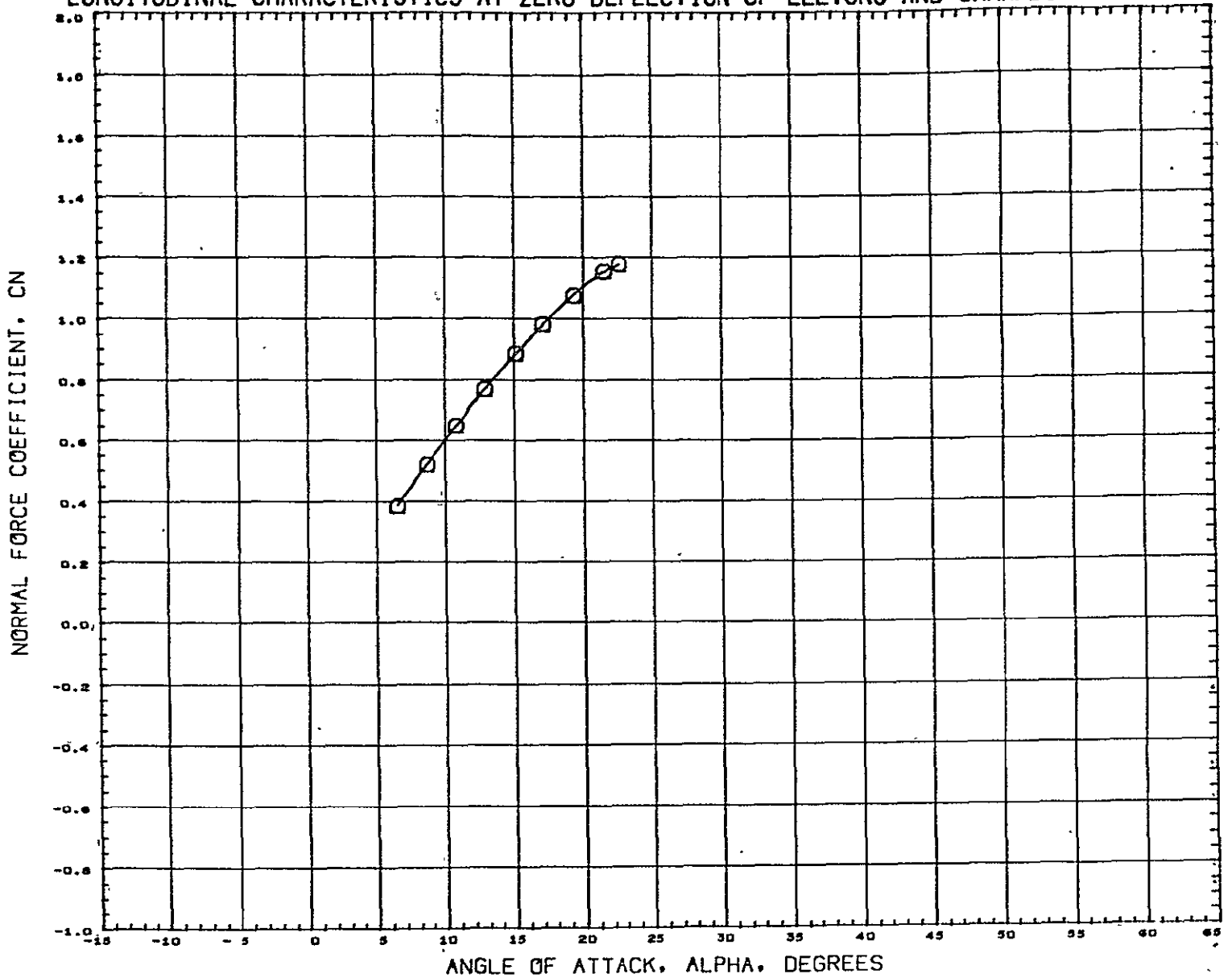


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
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(E20B2D)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0250 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.954

2 ⊕

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.



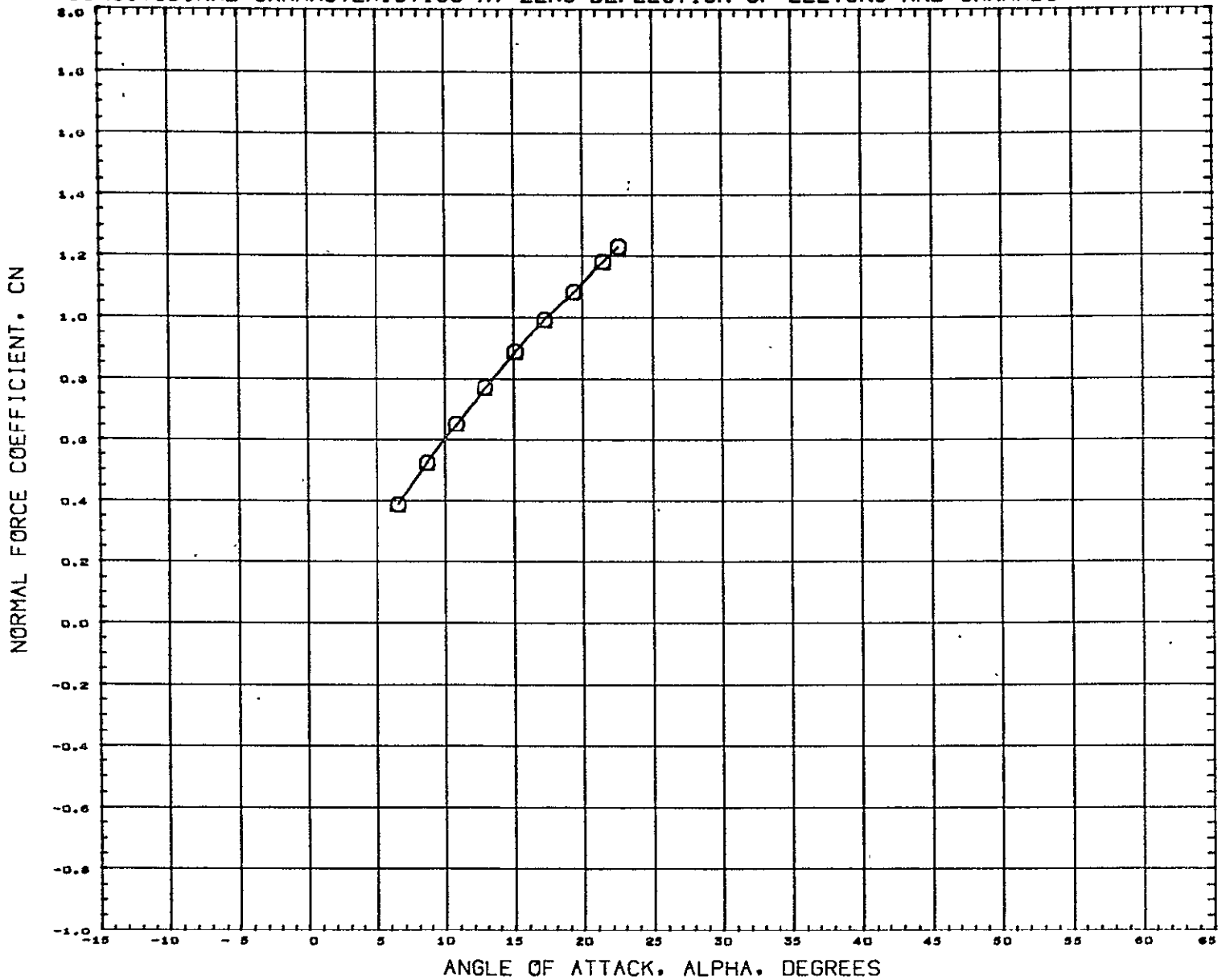
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(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(E20020)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E20051)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
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0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.0500	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 1.007

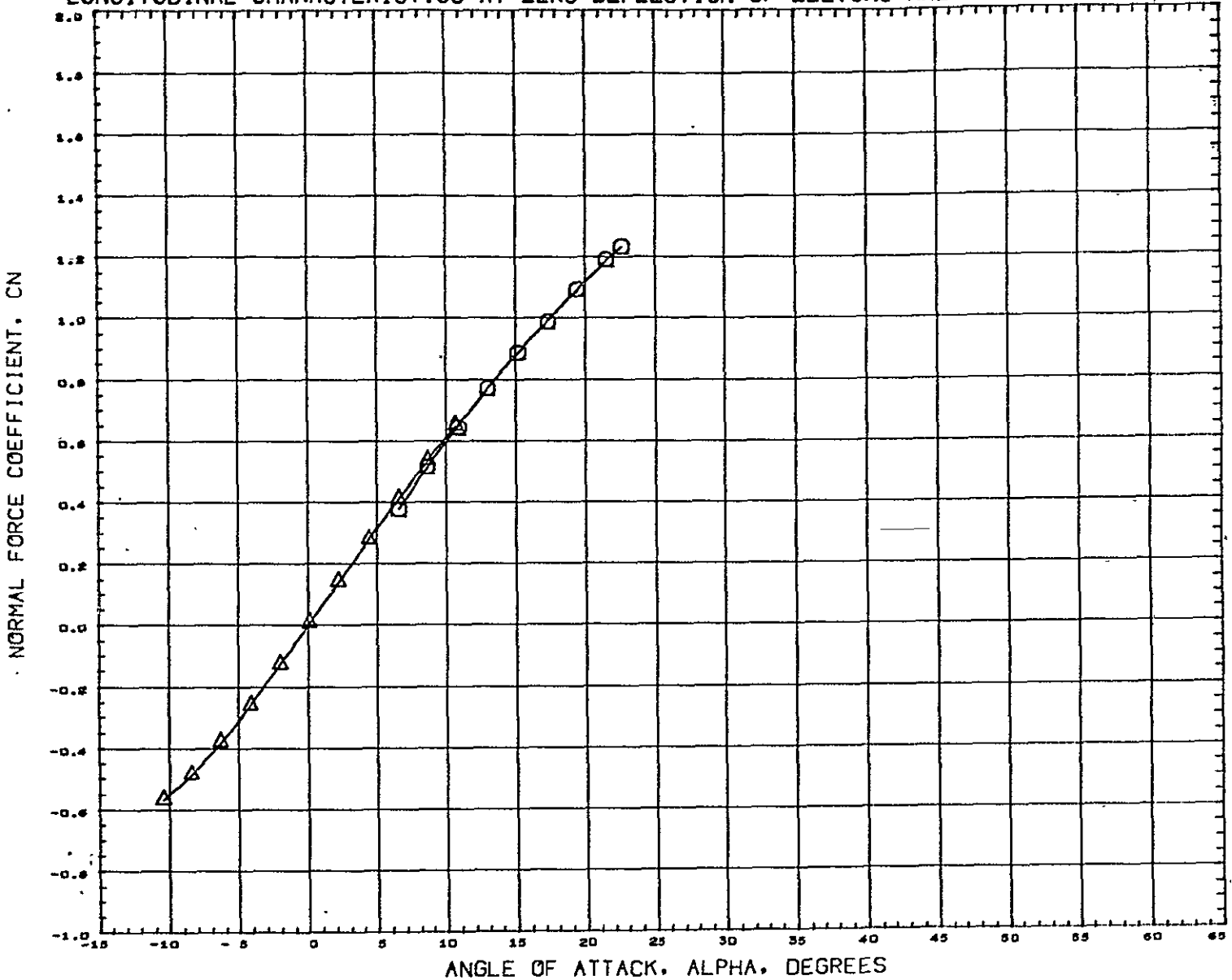
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4V7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0990 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

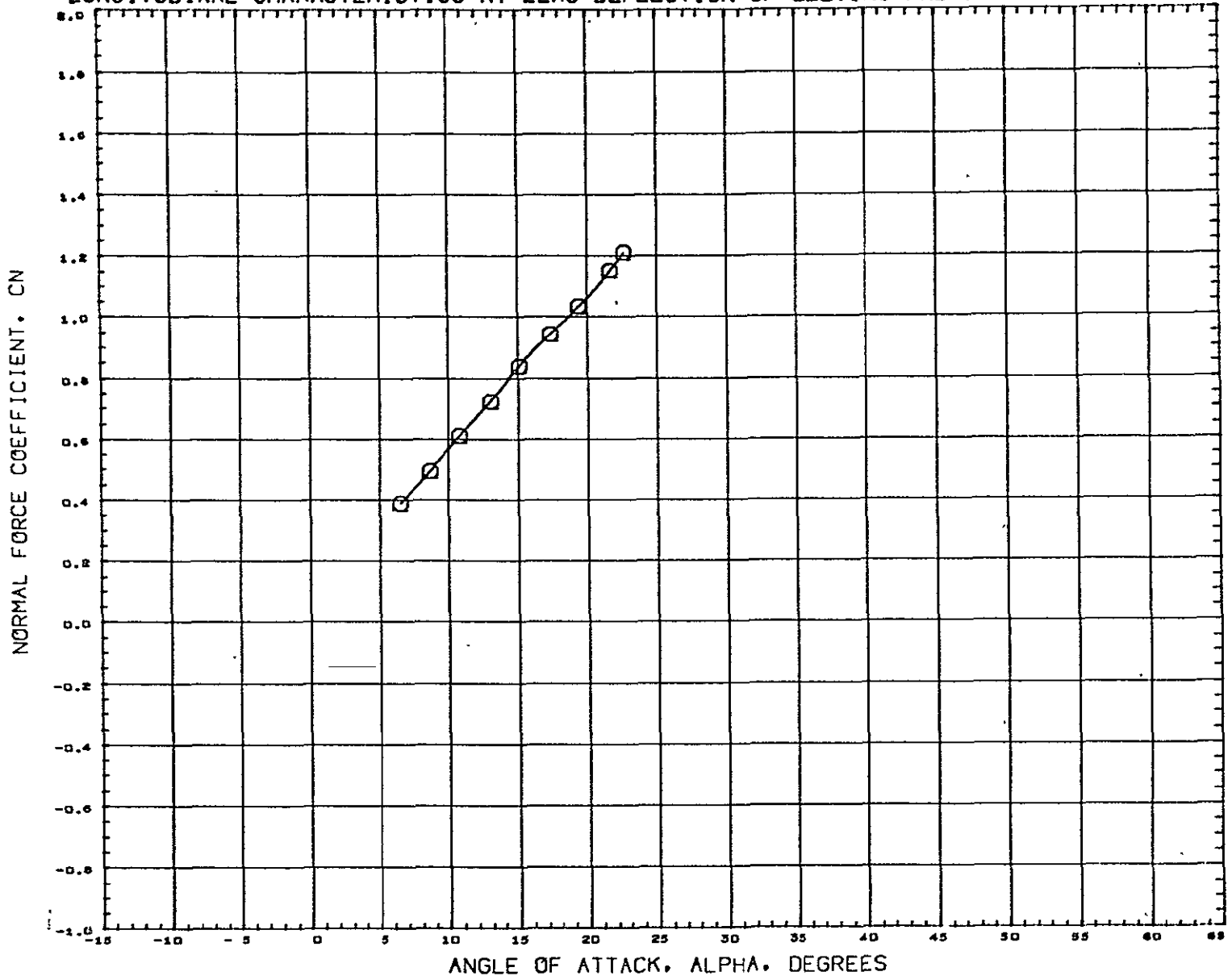


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C200D1)	H3FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E200B20)	H3FC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E200C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

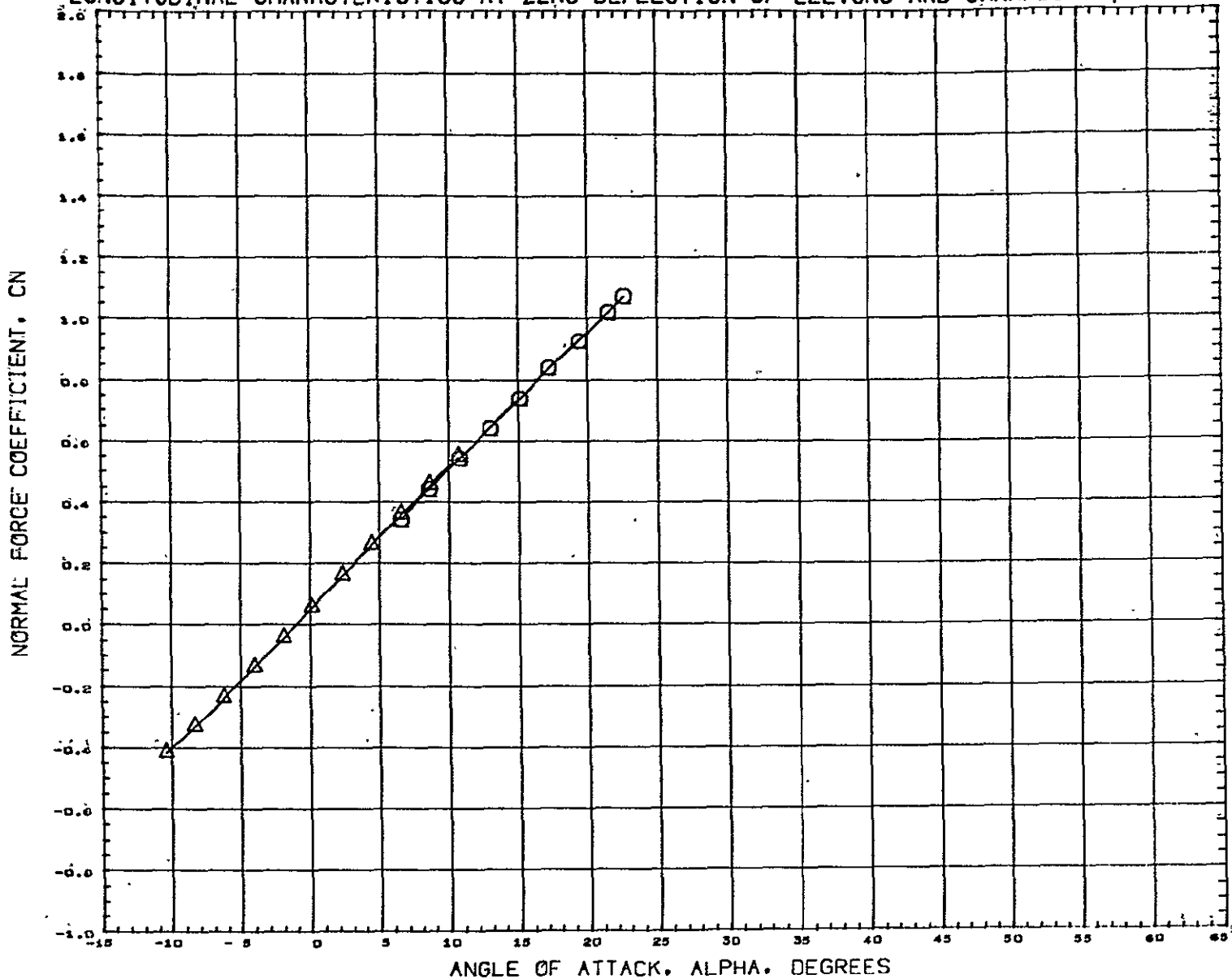
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 sq. in.
(E26B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E26C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



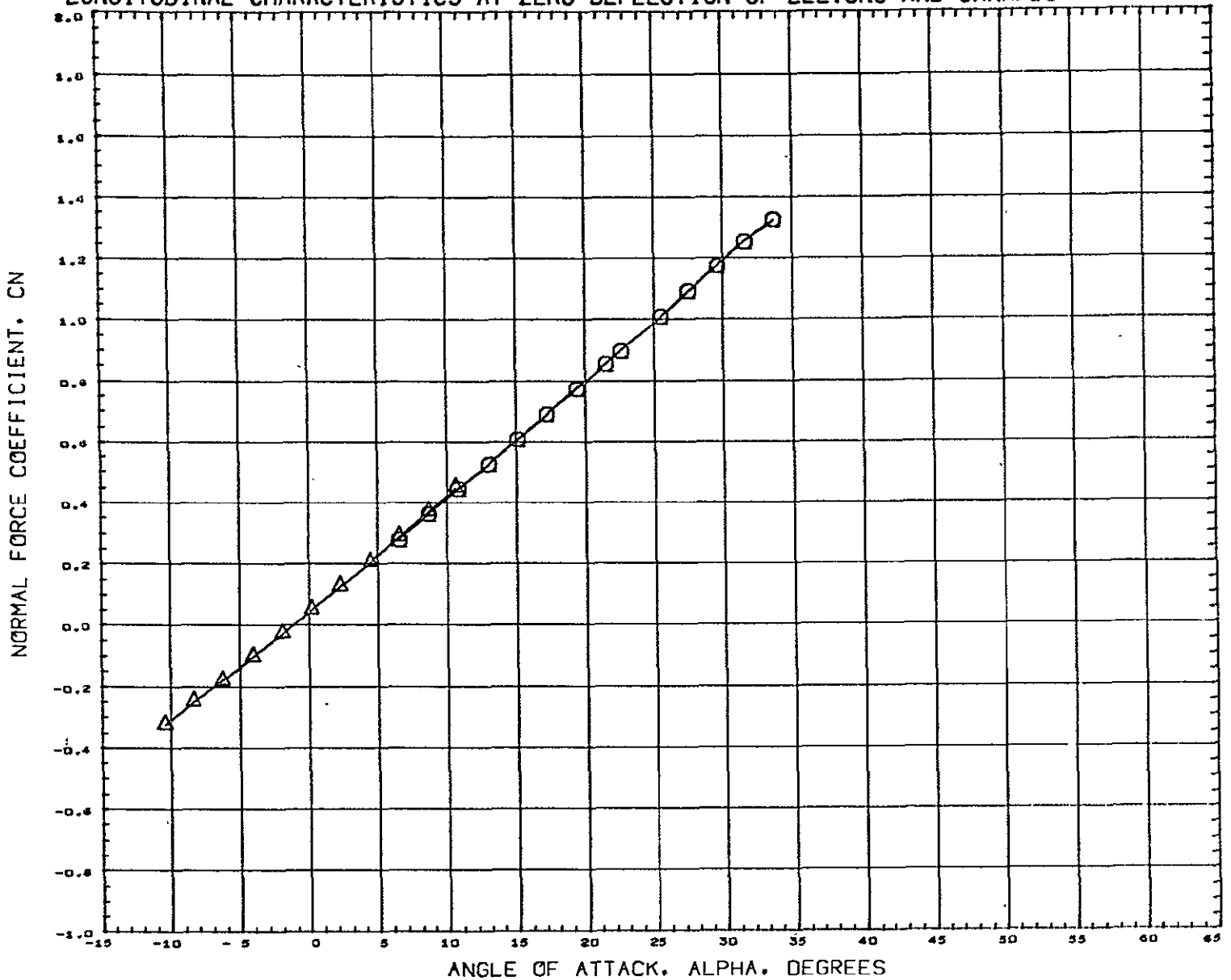
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(E20020)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7
(E20031)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
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0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 1.462

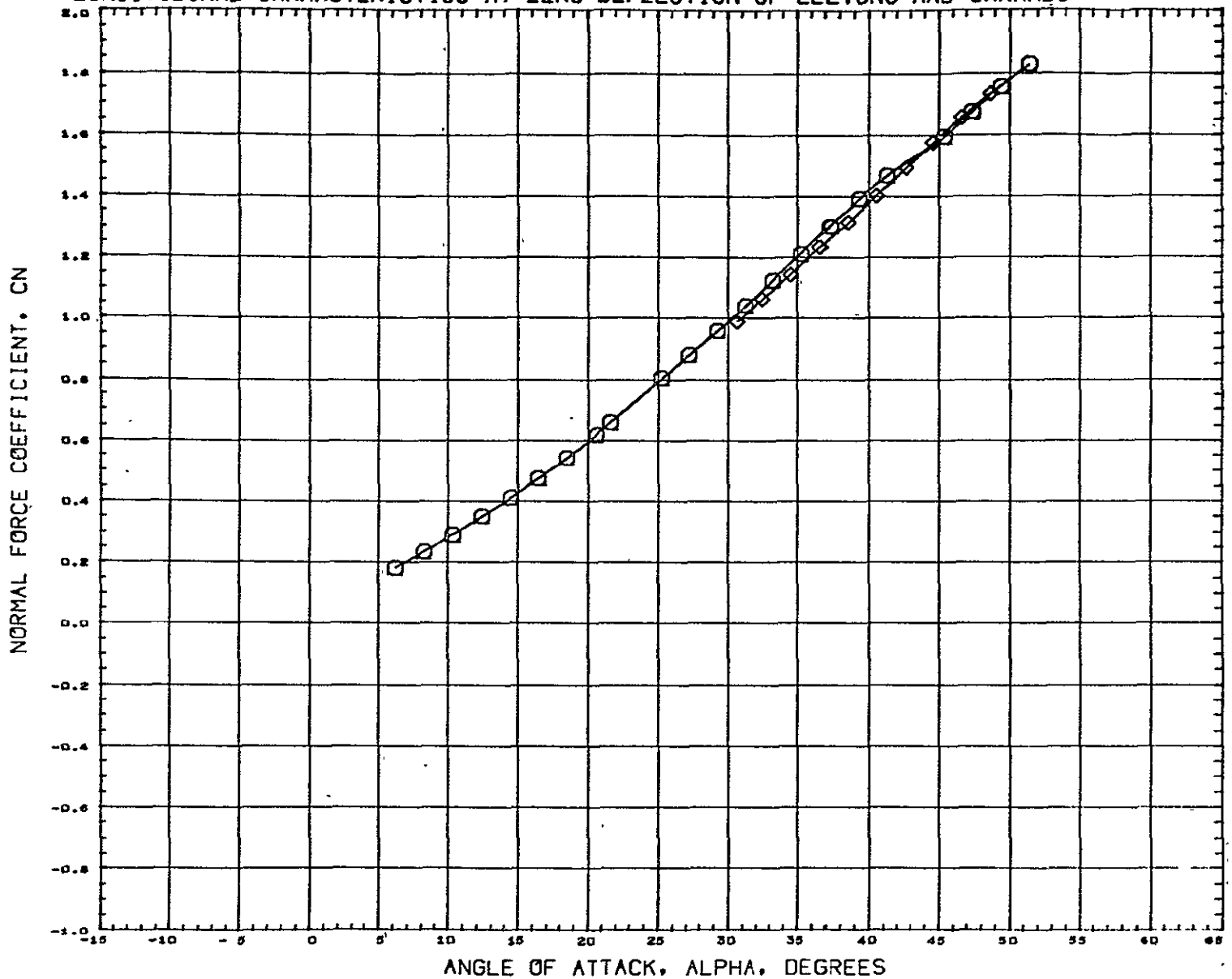
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 59. IN.
(E26820)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E26c51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.



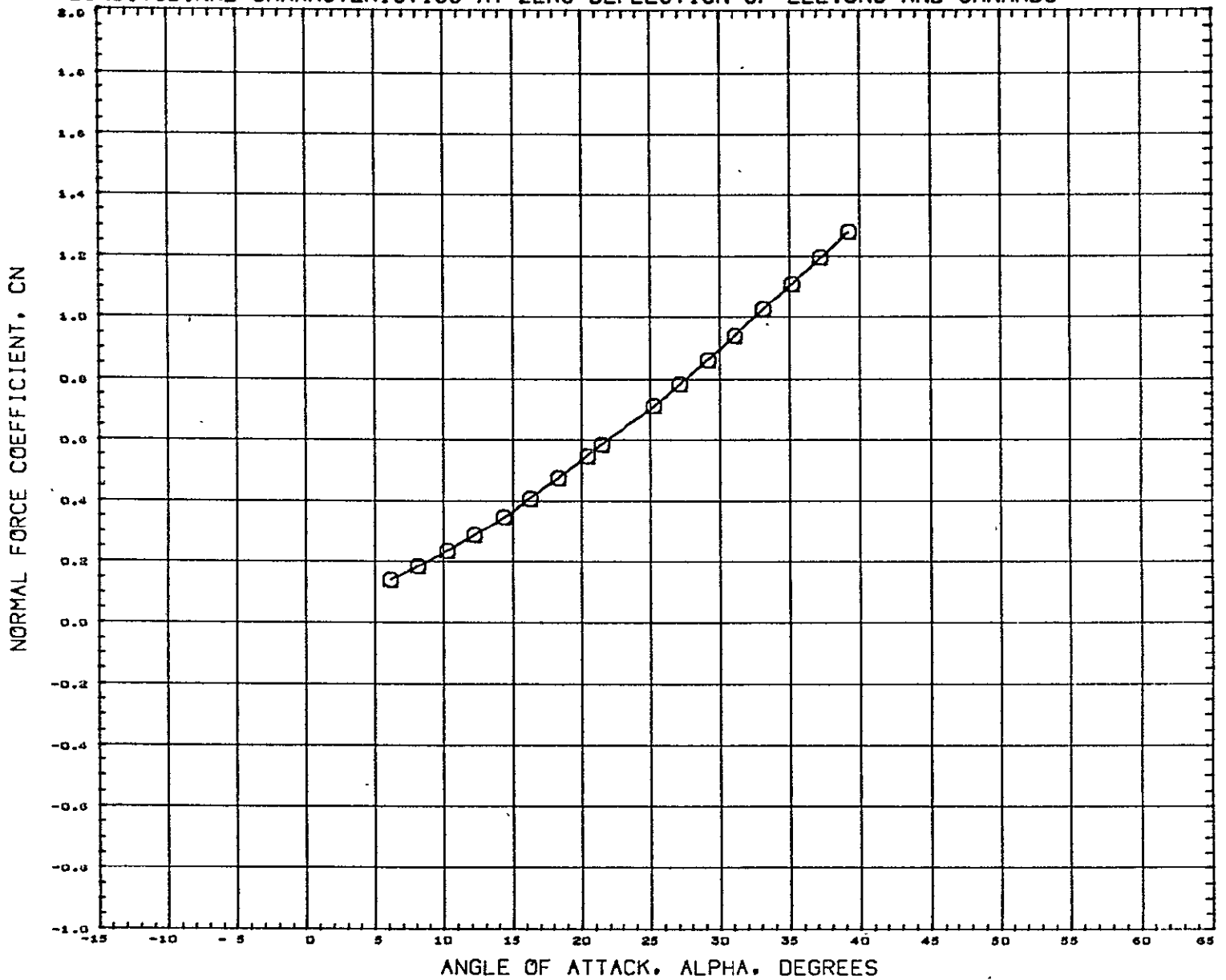
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28C51)	MSFC461 GD/C(BOOSTER)B19W14C4A

BETA	ELEVON	CANARD	RUDDER
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0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION	
SREF	15.6560 SQ. IN.
LREF	3.0950 IN.
BREF	6.0990 IN.
XHRP	6.7100 IN.
YHRP	0.0000 IN.
ZHRP	0.0000 IN.
SCALE	0.0035

MACH 2.990

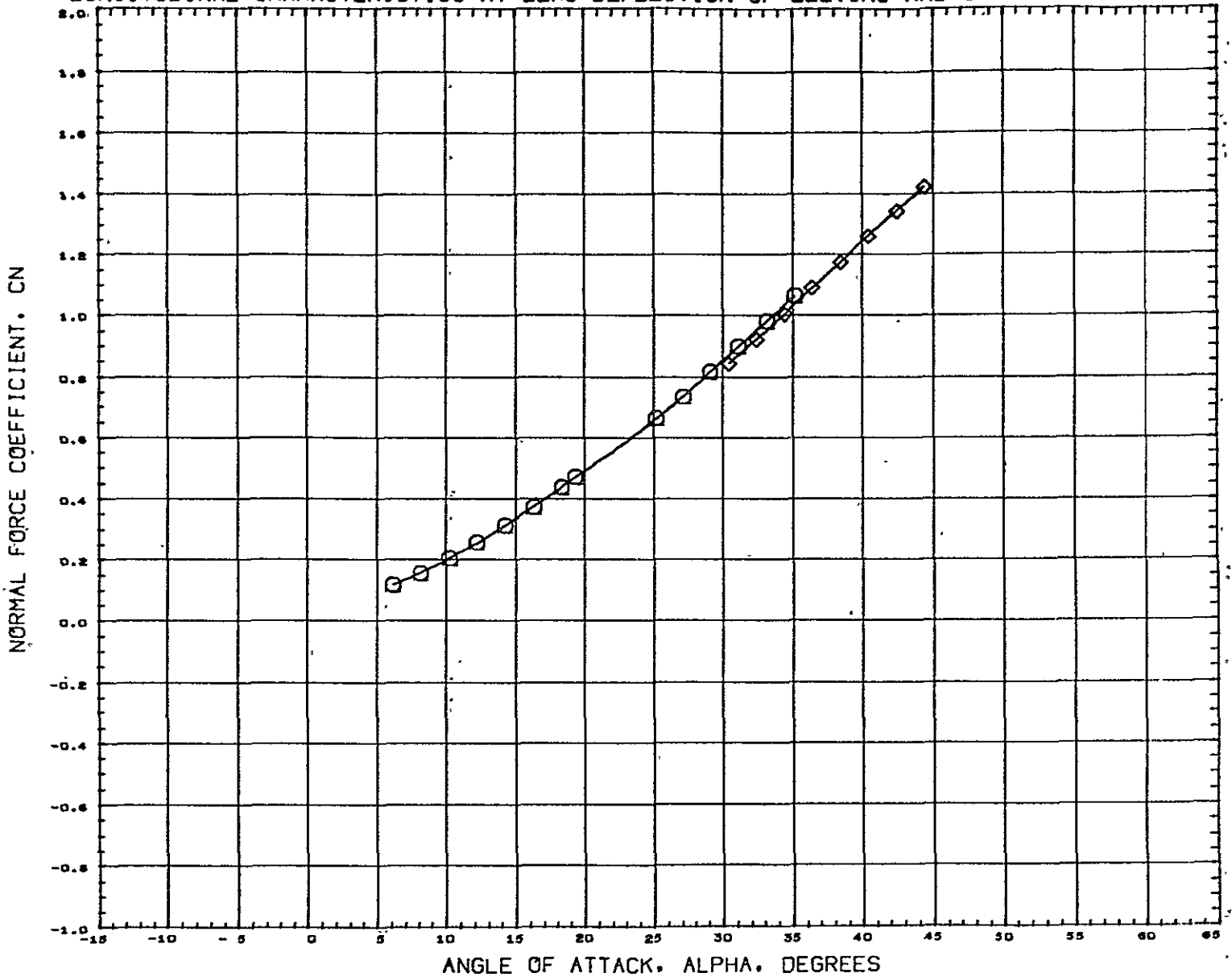
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



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(C290D1)	M3FC481 GD/C(BOOSTER)B19W14C4V7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E29B2D)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E29C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

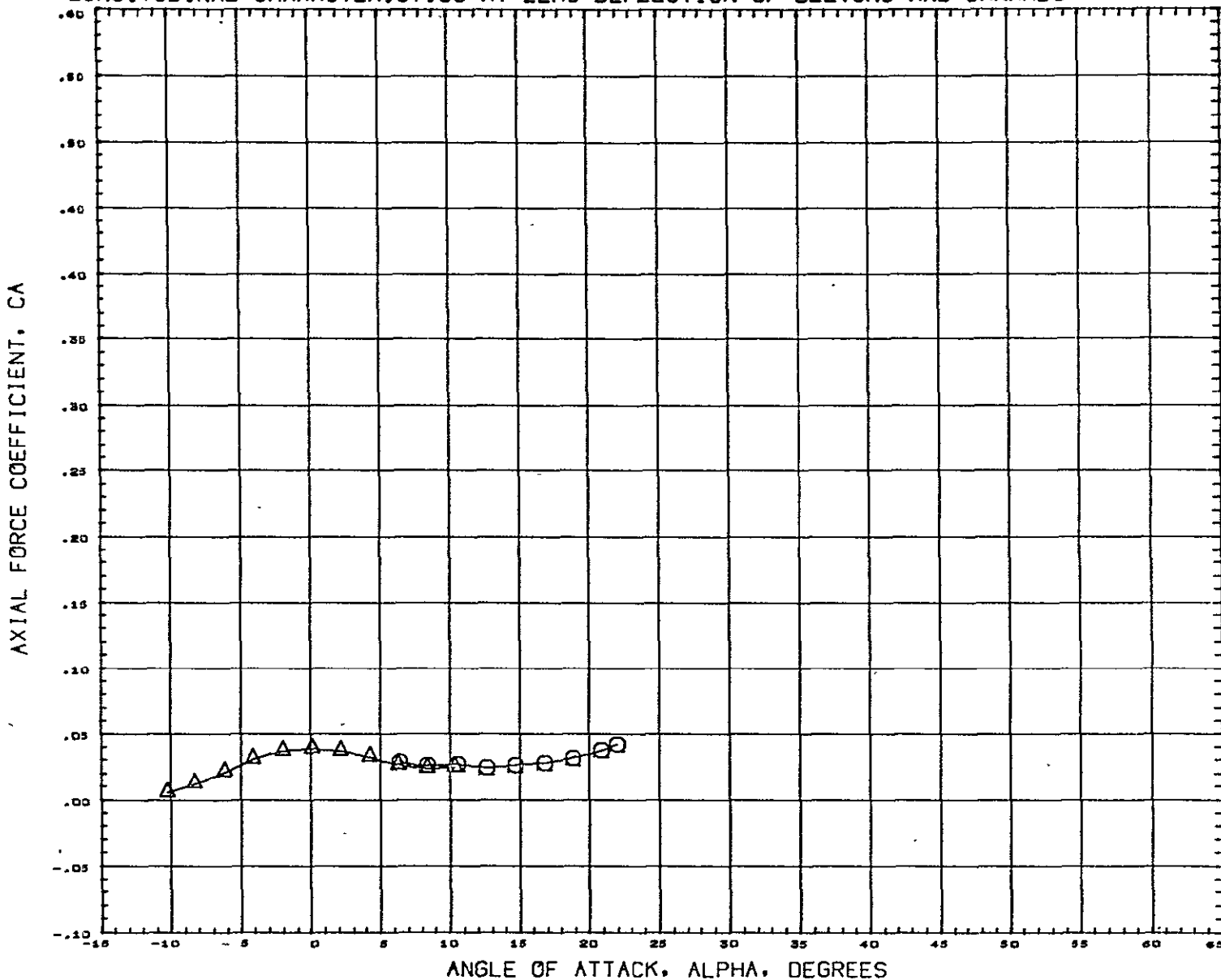
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION		
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560	SQ. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF	3.0950	IN.
(E28C51)	MSFC481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		BREF	6.0990	IN.
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						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

MACH 4.960

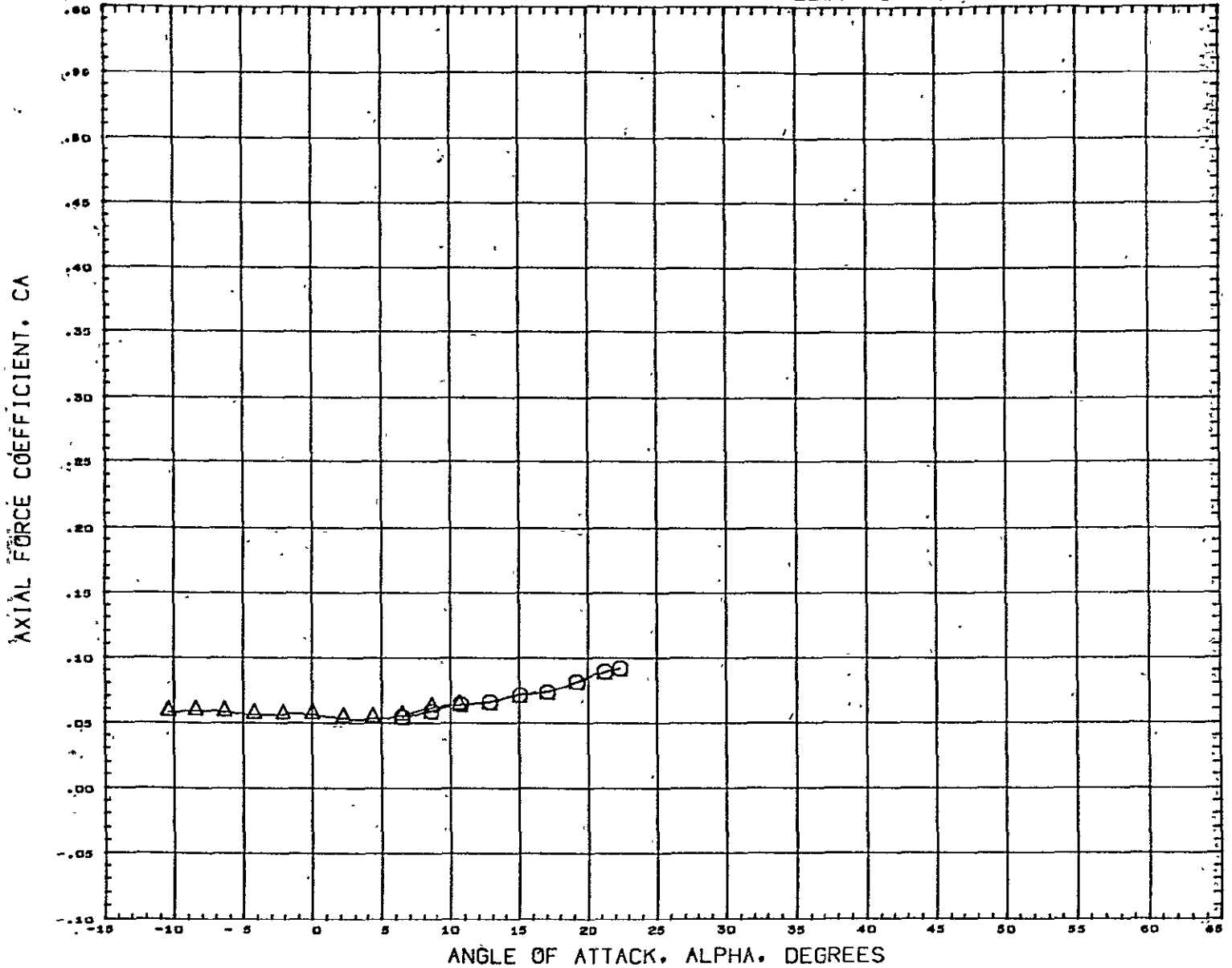
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(E28020)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.607

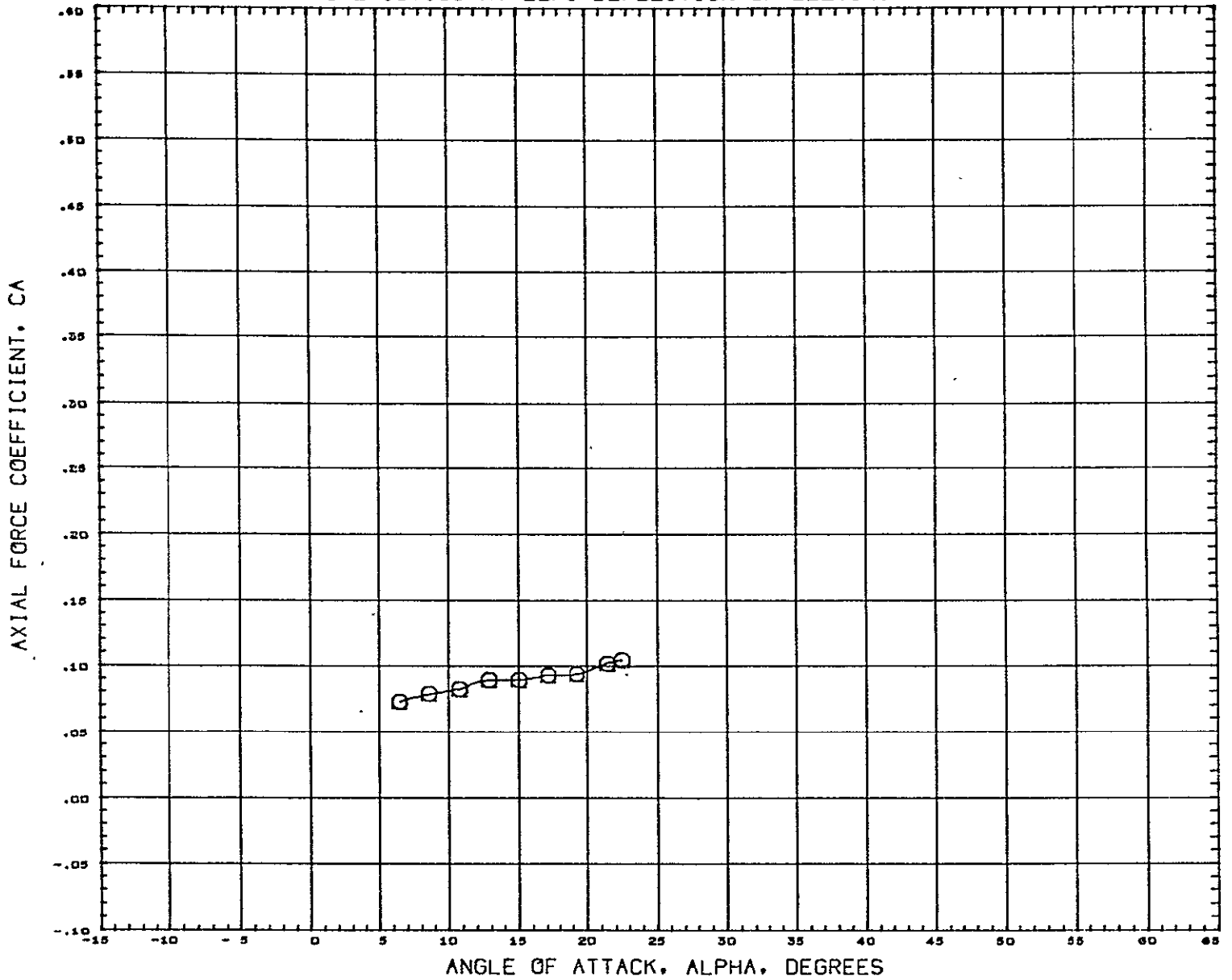
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26001)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 13.6300 30. IN.
(E26020)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E26051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
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						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

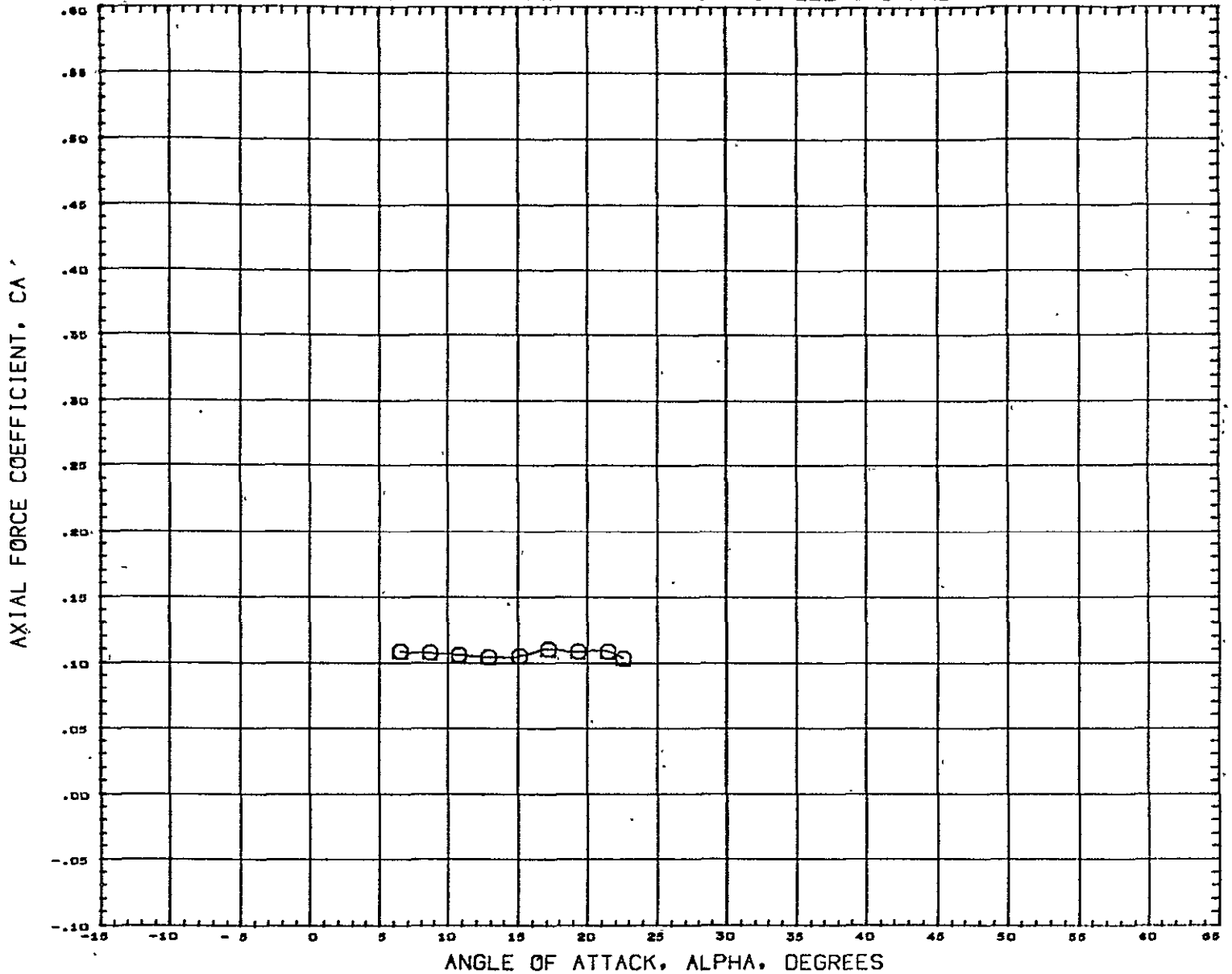
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	○	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28031)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
							XMRP 6.7100 IN.
							YMRP 0.0000 IN.
							ZMRP 0.0000 IN.
							SCALE 0.0035

MACH 0.954

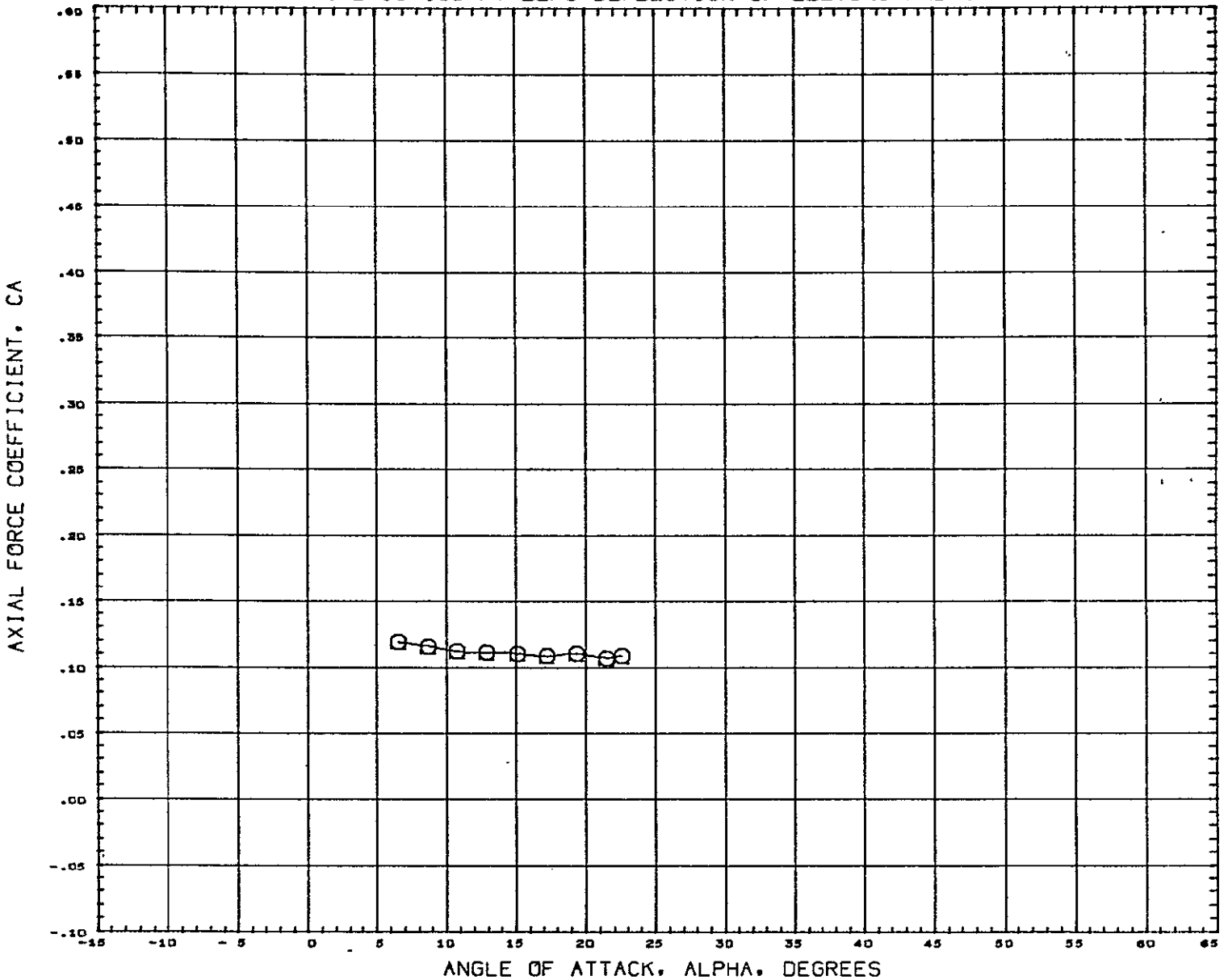
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AY7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E20020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
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						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

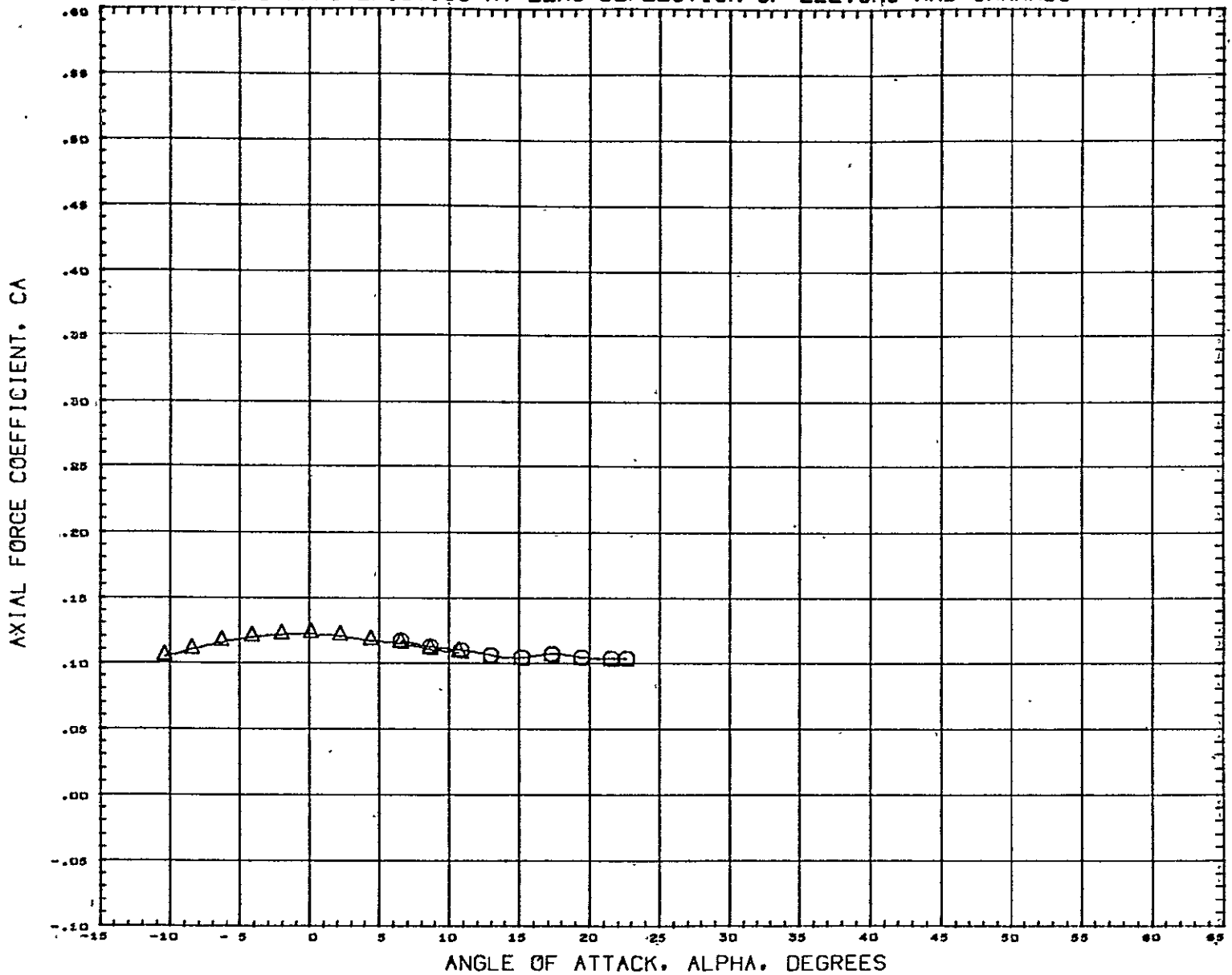
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
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(E29820)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0990 IN.
(E26C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
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						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

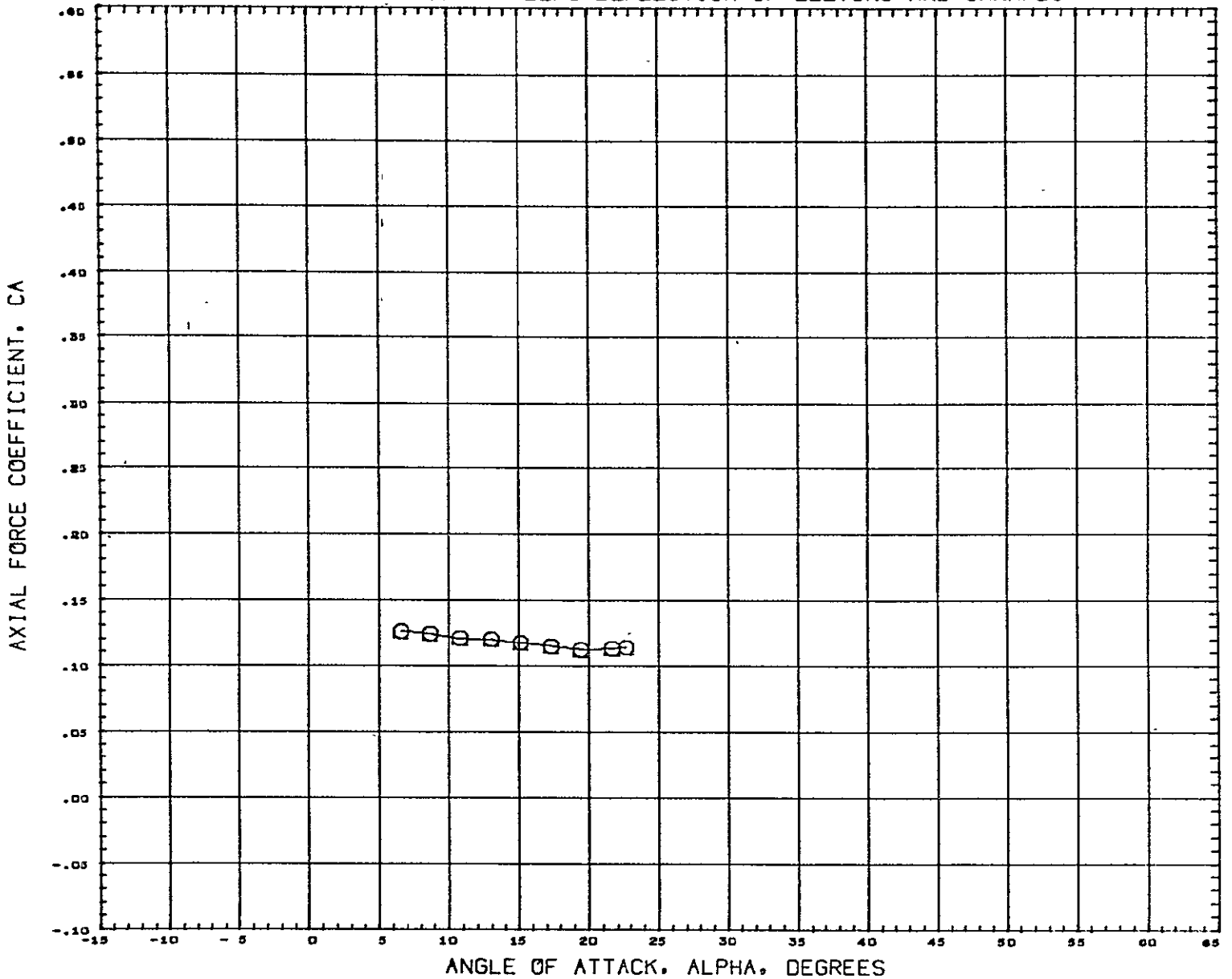
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C2#001)	○	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E2#B20)	△	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E2#C31)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
							XMRP 6.7100 IN.
							YMRP 0.0000 IN.
							ZMRP 0.0000 IN.
							SCALE 0.0035

MACH 1.105

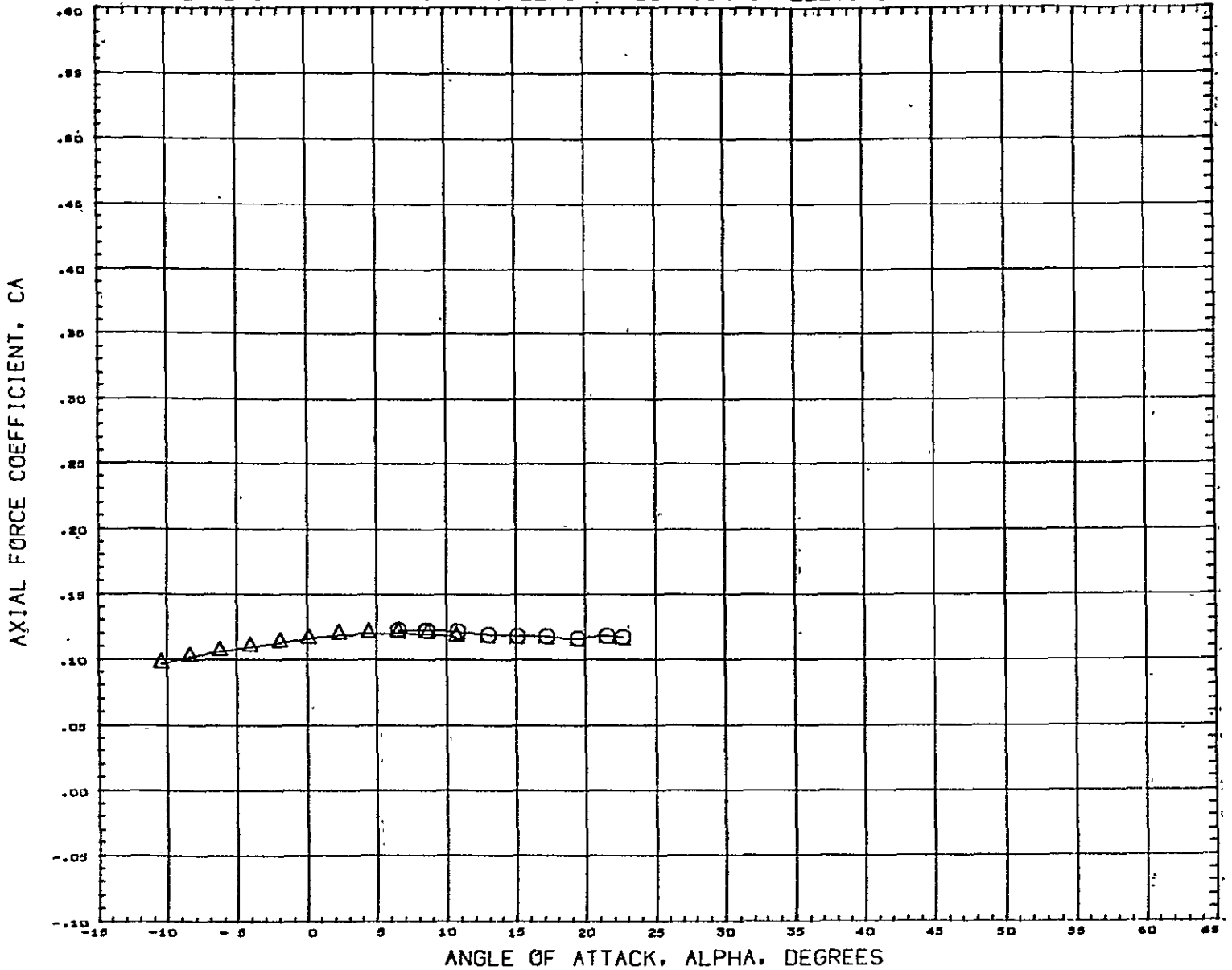
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C29001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30.IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0038

MACH 1.201

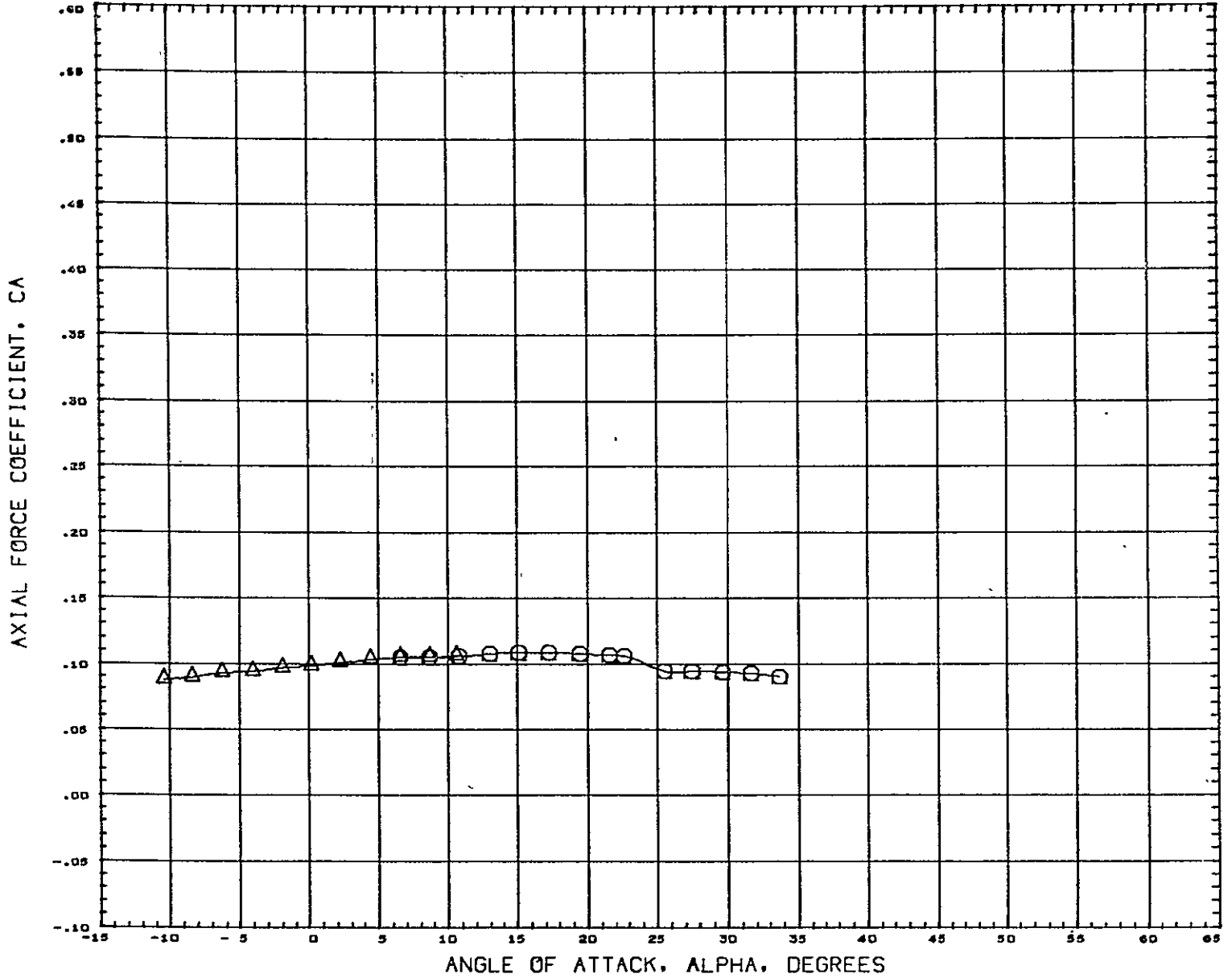
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26001)	M5FC401 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E26B20)	M5FC 401 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E26C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.462

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

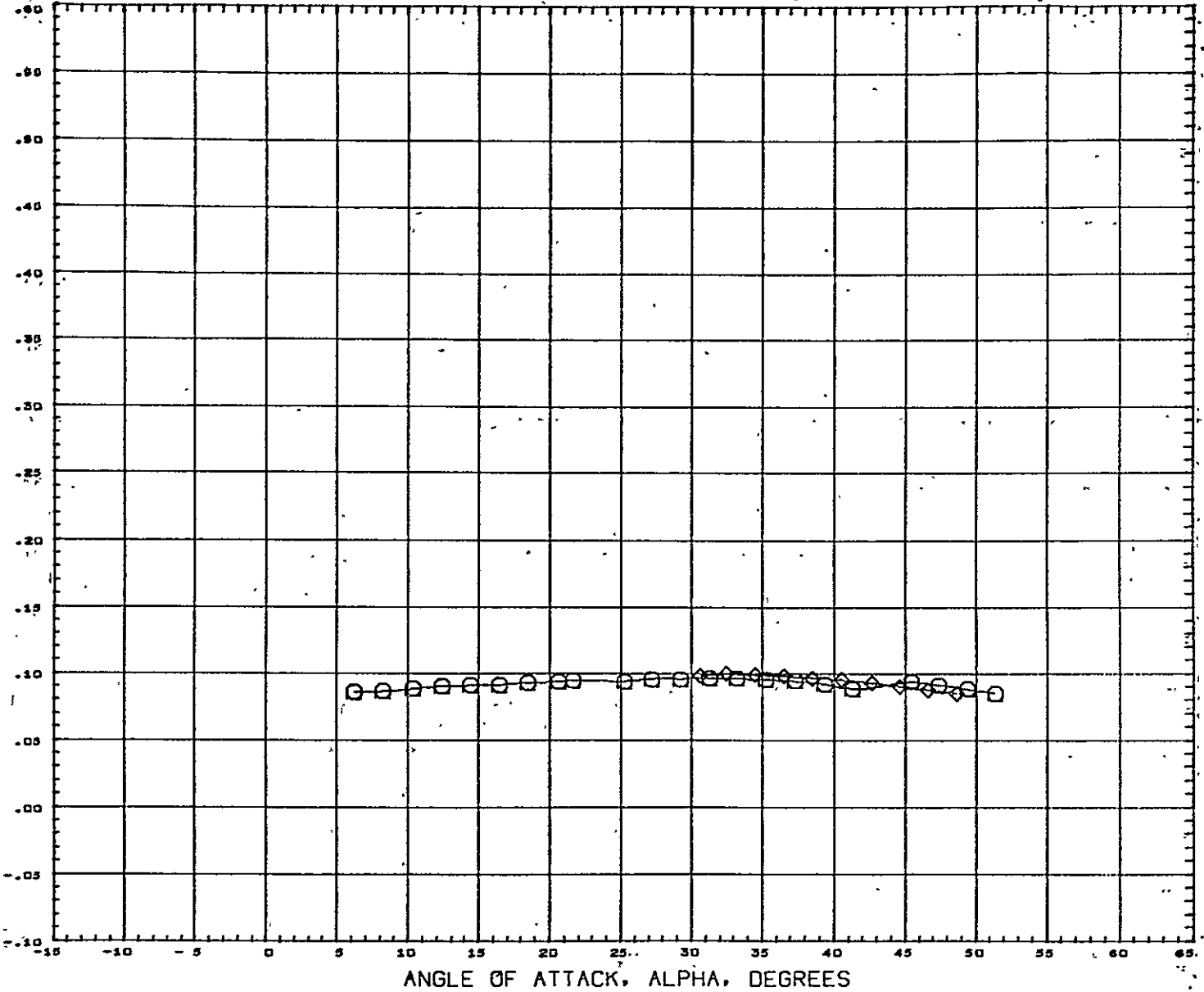


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.950

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.

AXIAL FORCE COEFFICIENT, CA

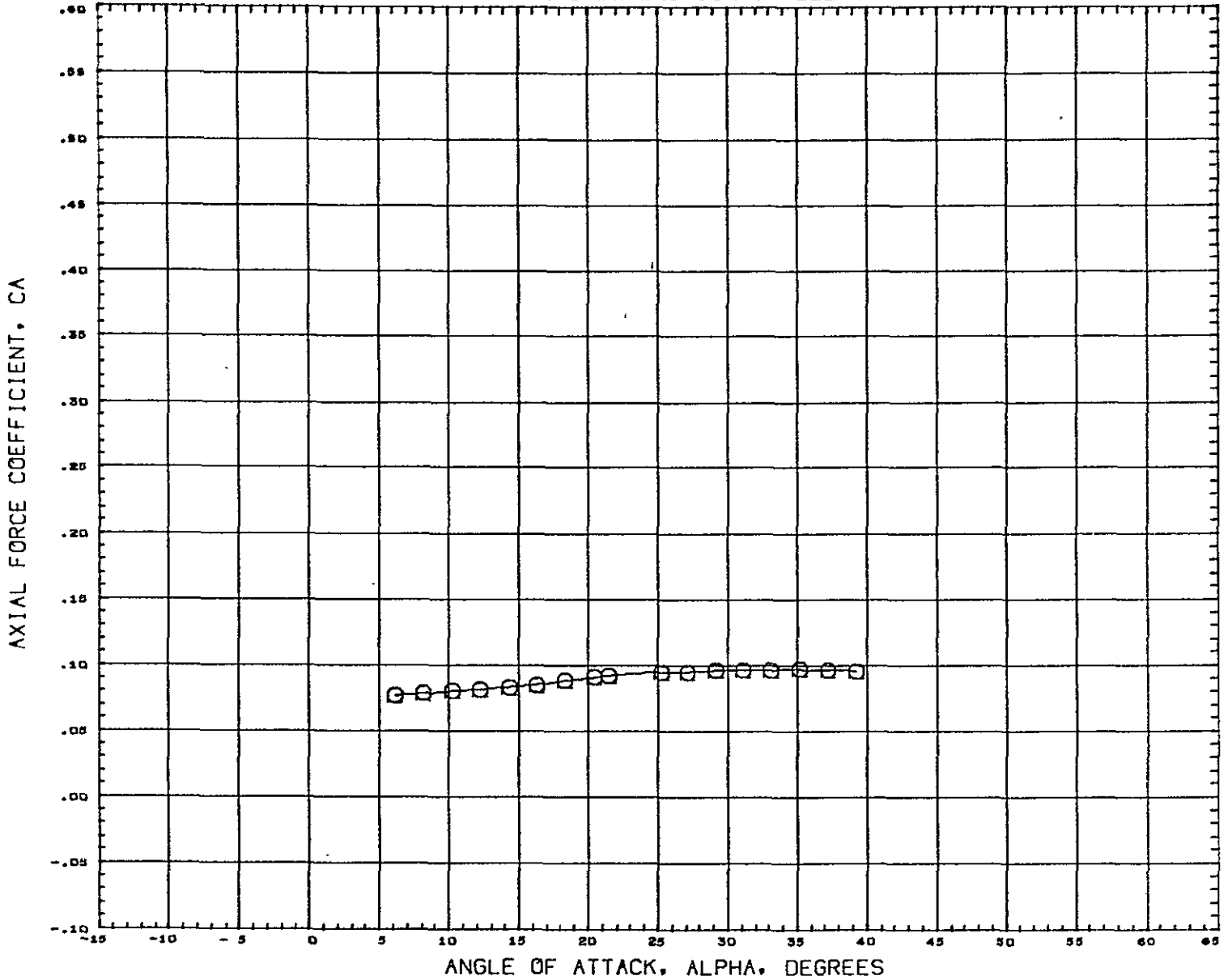


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 Sq. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	MSFC481 GD/C(BOOSTER) B19W14C4A	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

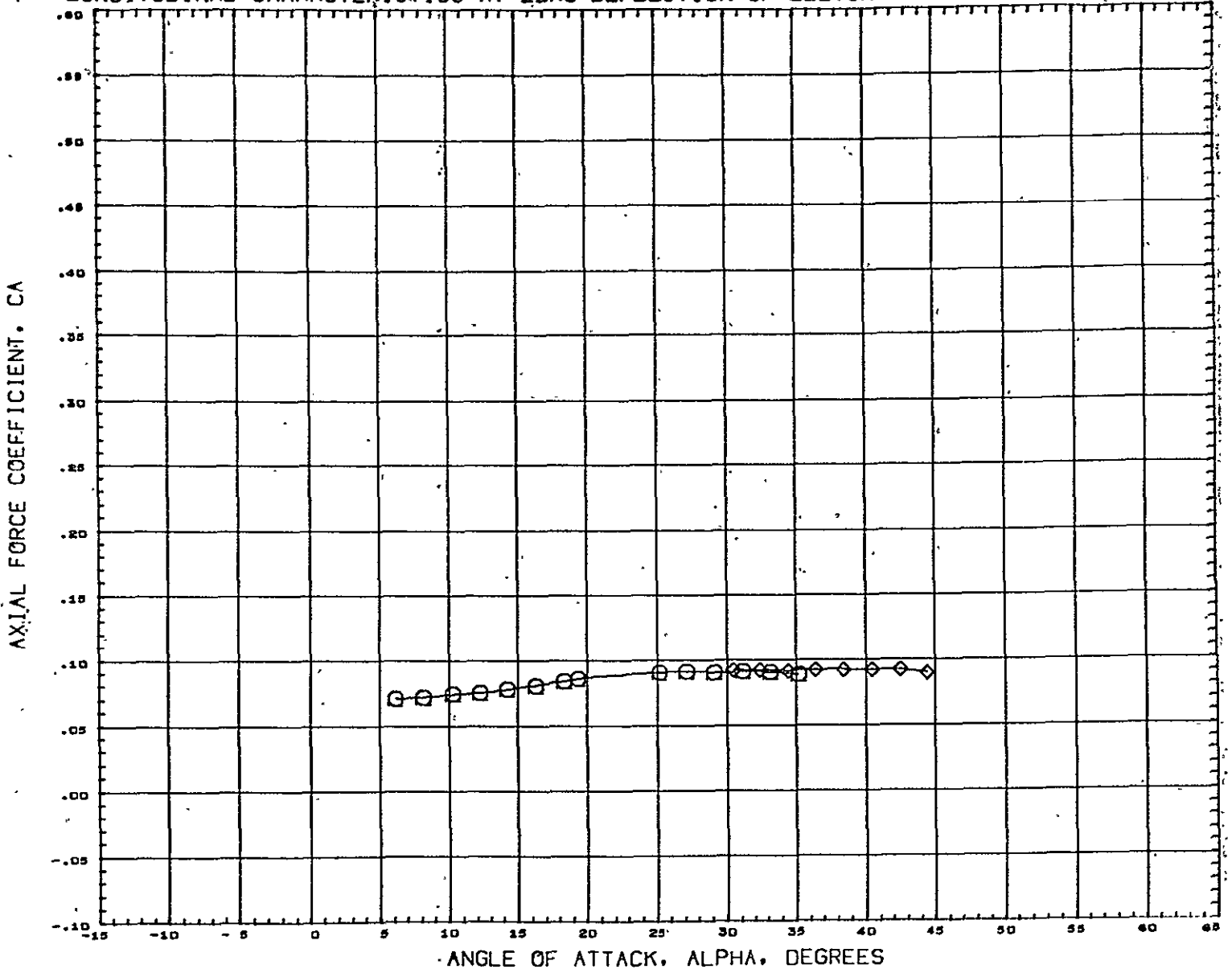
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6360 SQ. IN.
(E26B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E26C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

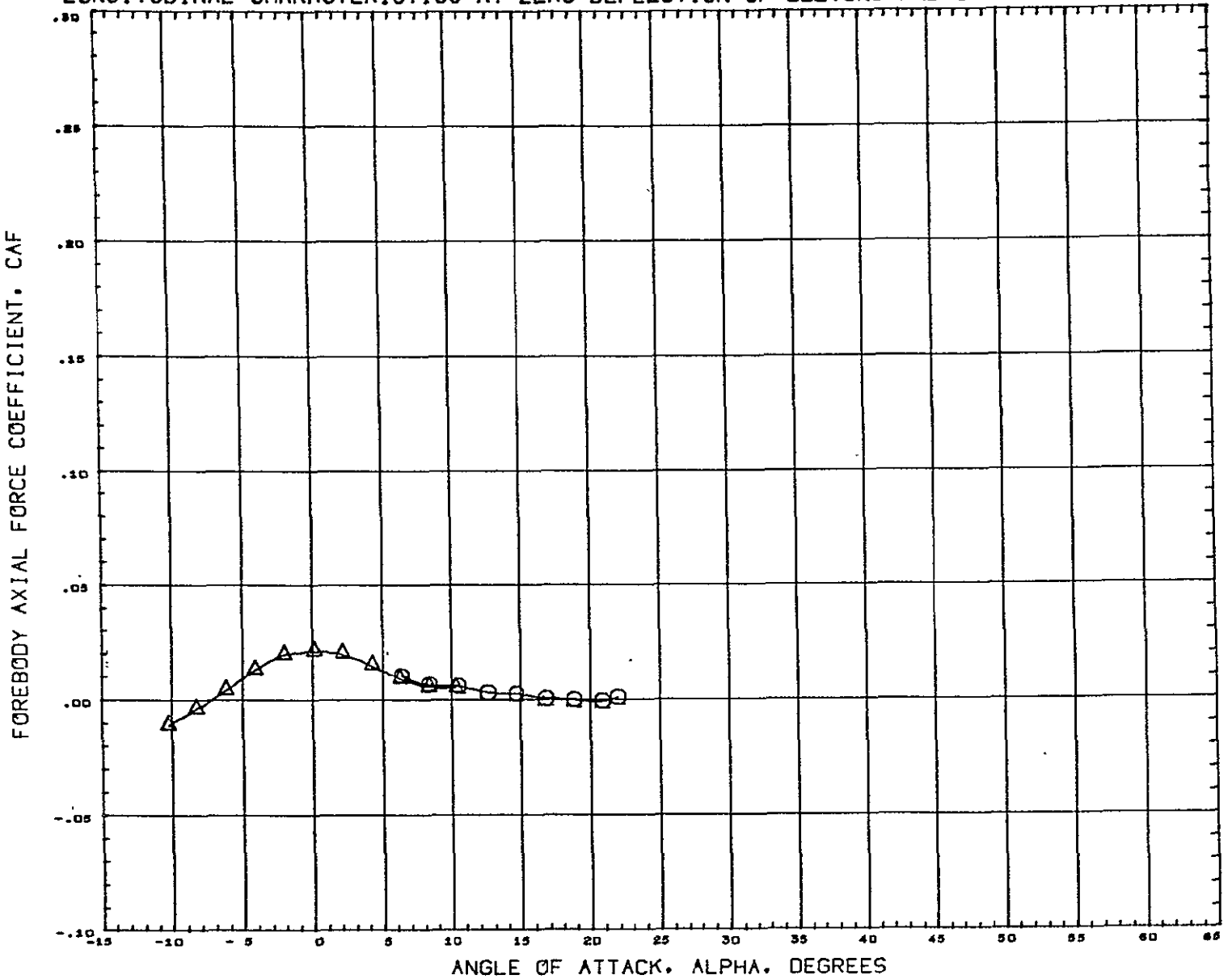
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(C28001)	○	M3FC4#1 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(E28020)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF	3.0950 IN.
(E28051)	◇	M3FC4#1 GD/C(BOOSTER) B19H14C4A	0.000	0.000	0.000		BREF	6.0990 IN.
							XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 4.900

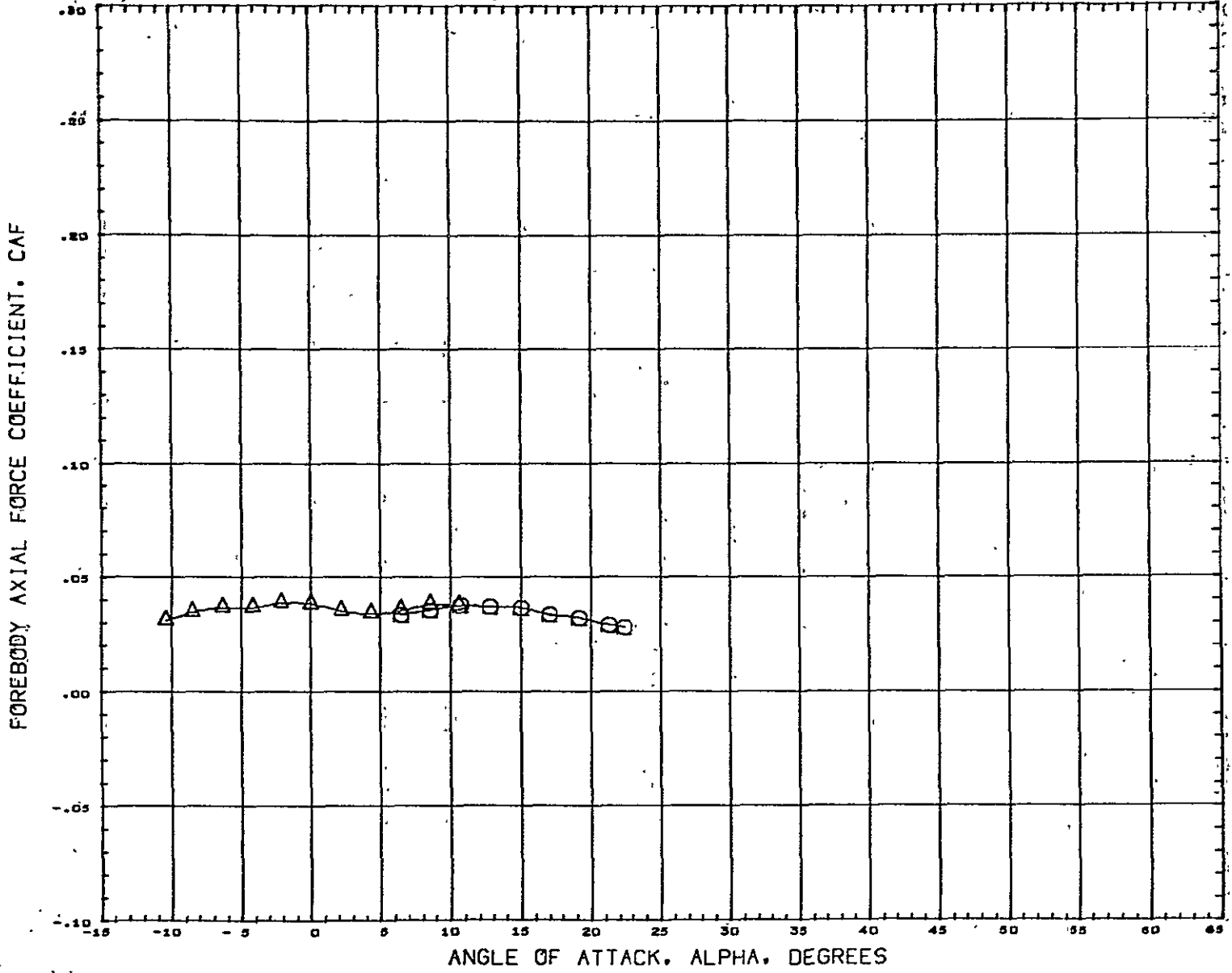
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(E28B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

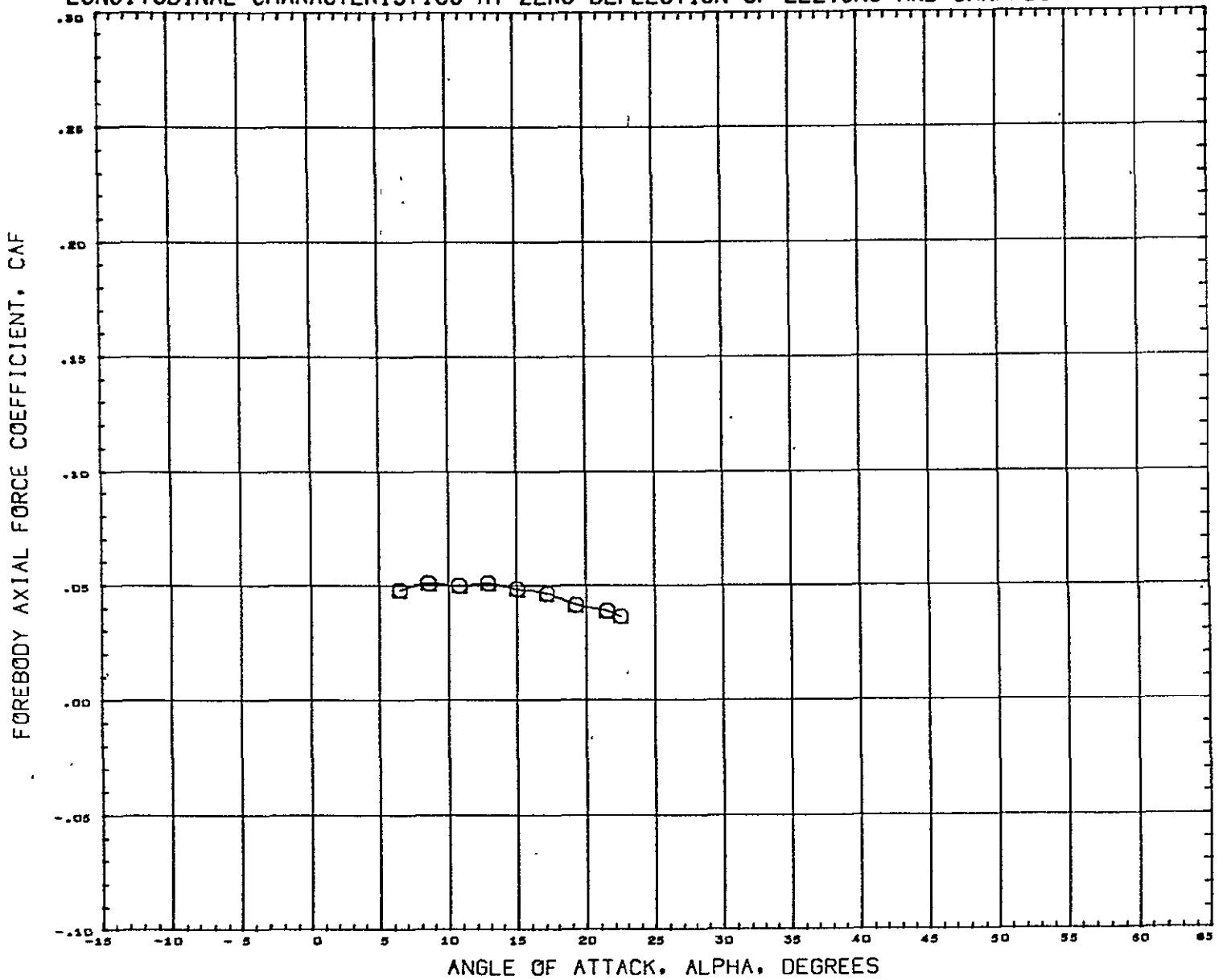
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0990 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

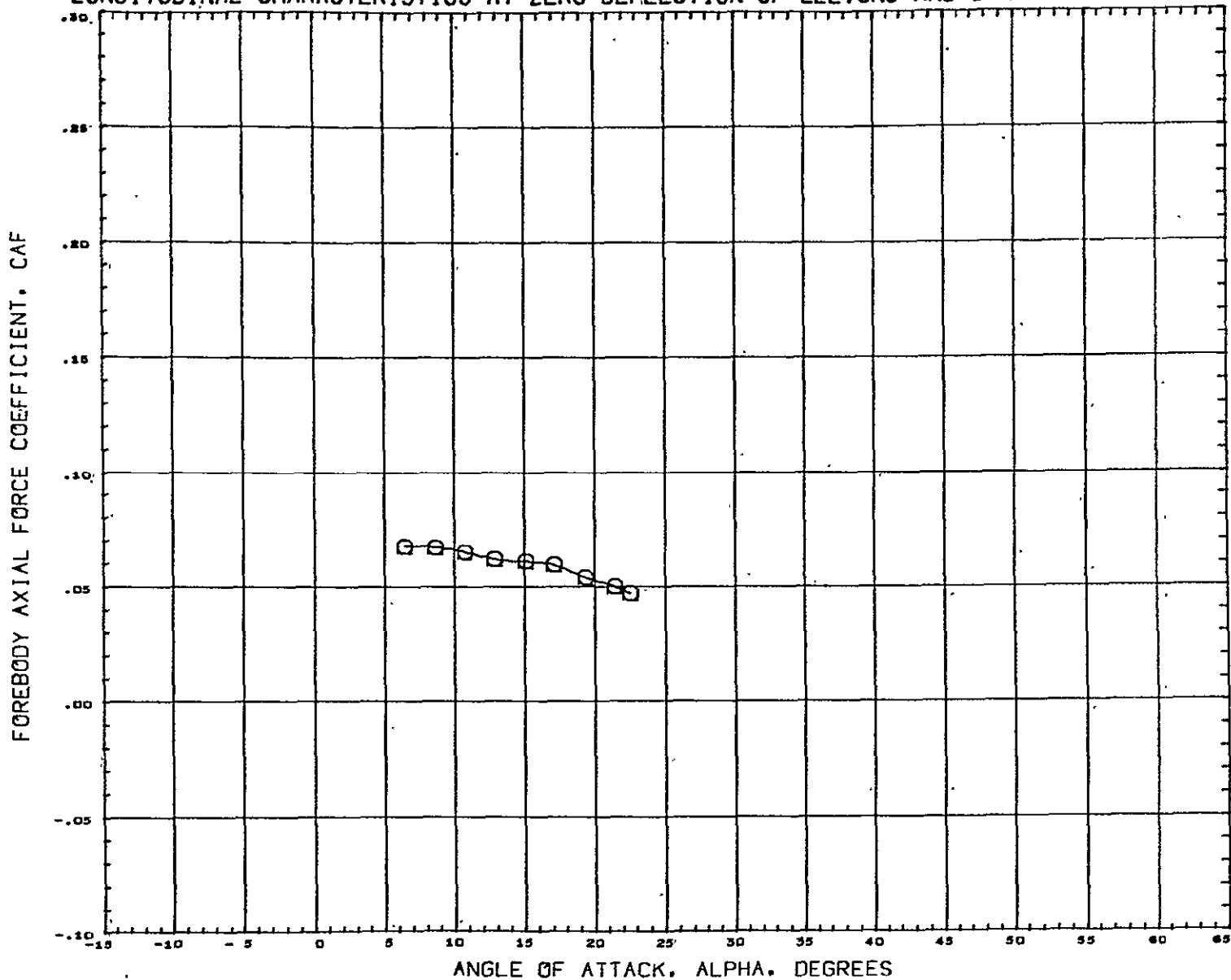
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(C28001)	○	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(E28020)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF	3.0950 IN.
(E28051)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF	6.0990 IN.
							XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 0.954

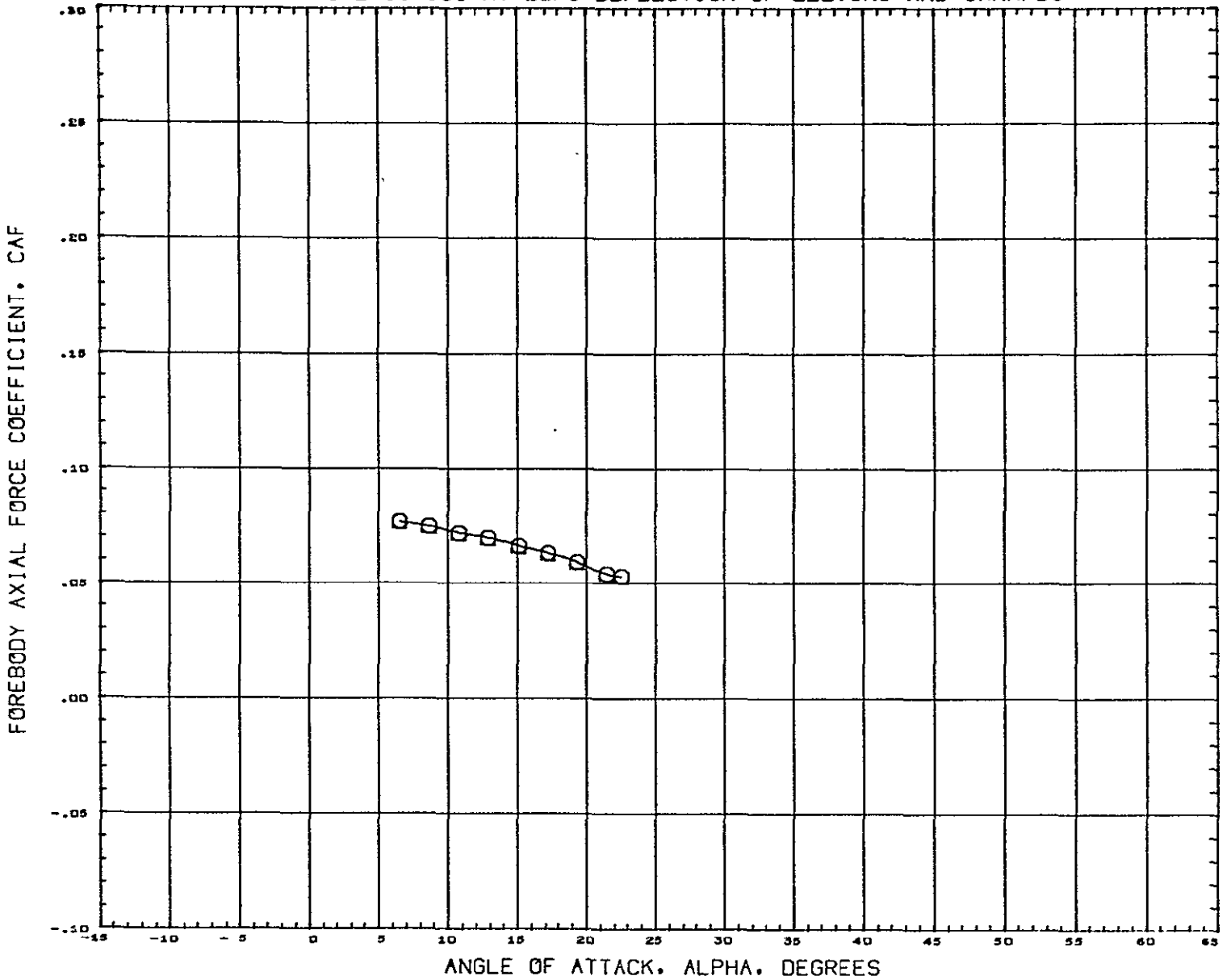
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(C20001)	MSFC401 CD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ.IN.
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF	3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.007

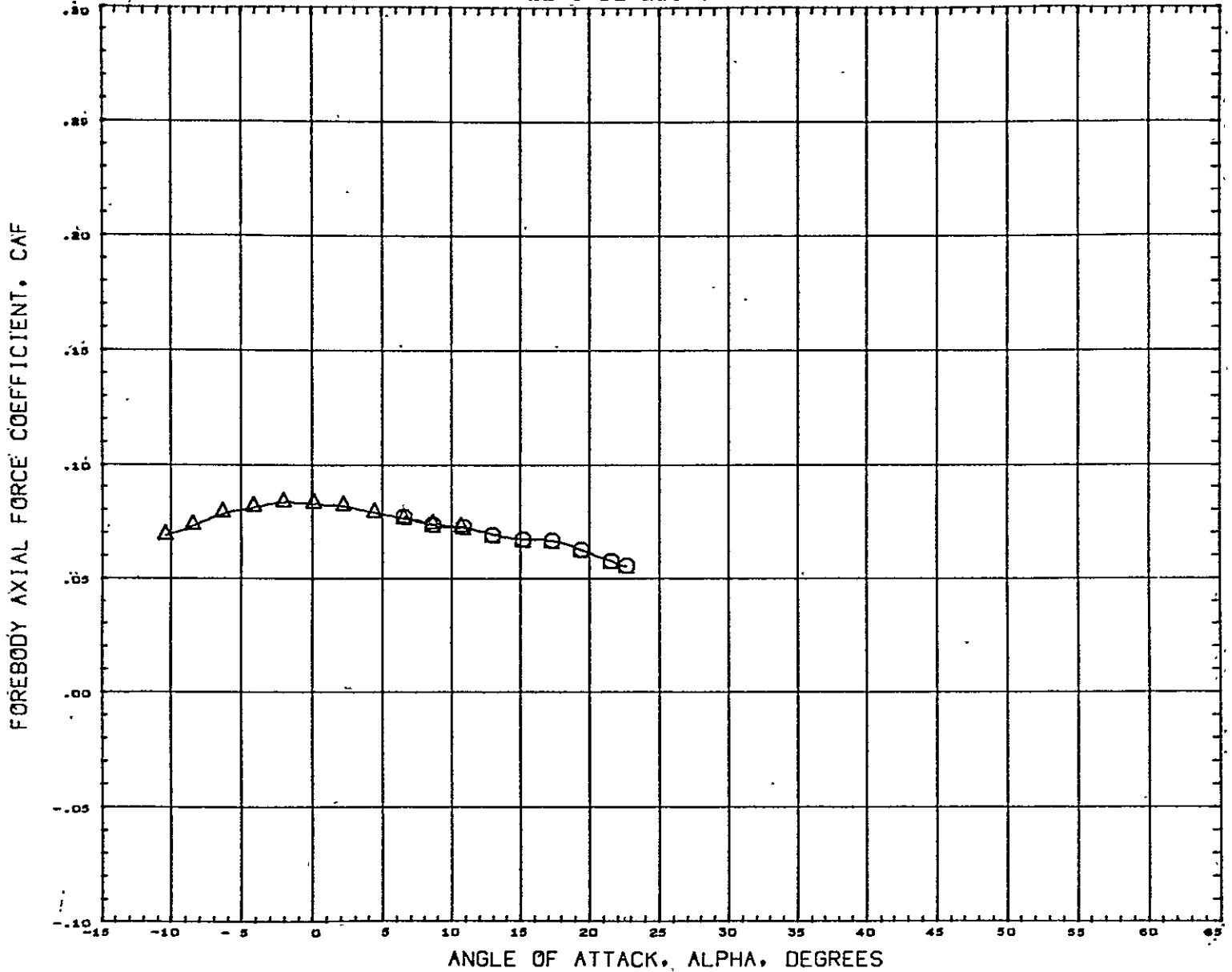
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC401 CD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(E28820)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.

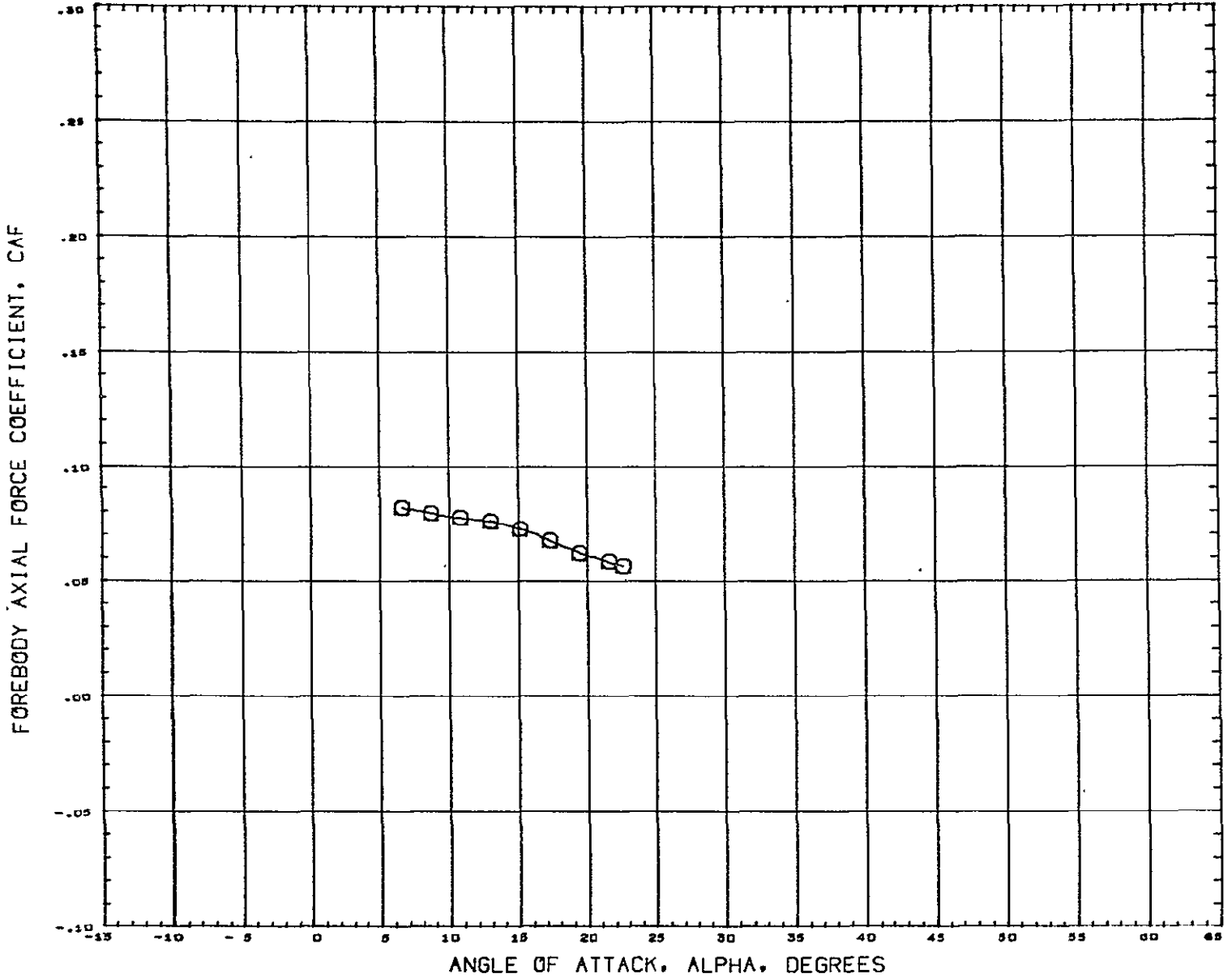


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E28B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6560 SQ. IN.
0.000	0.000	0.000		LREF 3.0950 IN.
0.000	0.000	0.000		BREF 6.0990 IN.
				XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 1.105

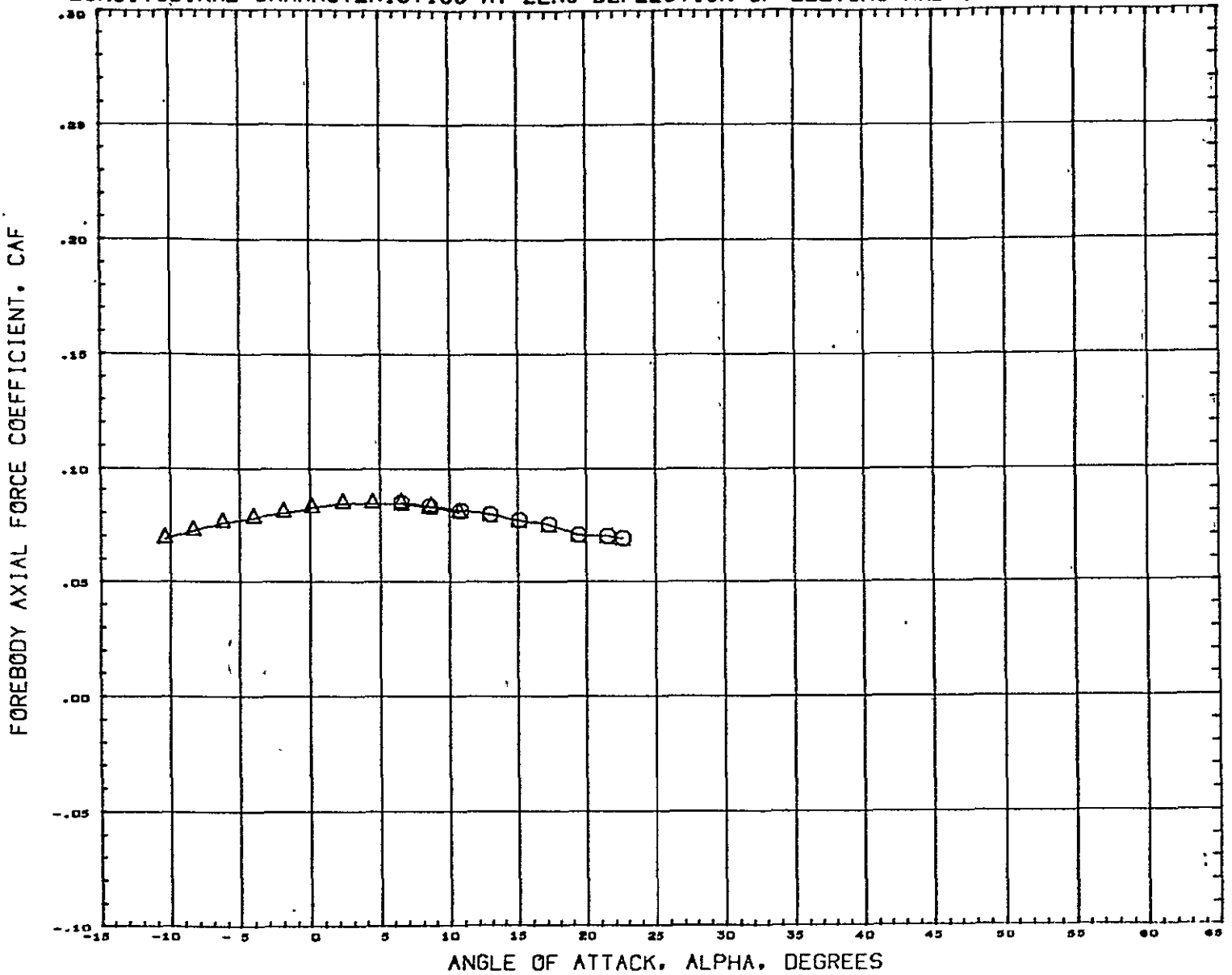
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28820)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



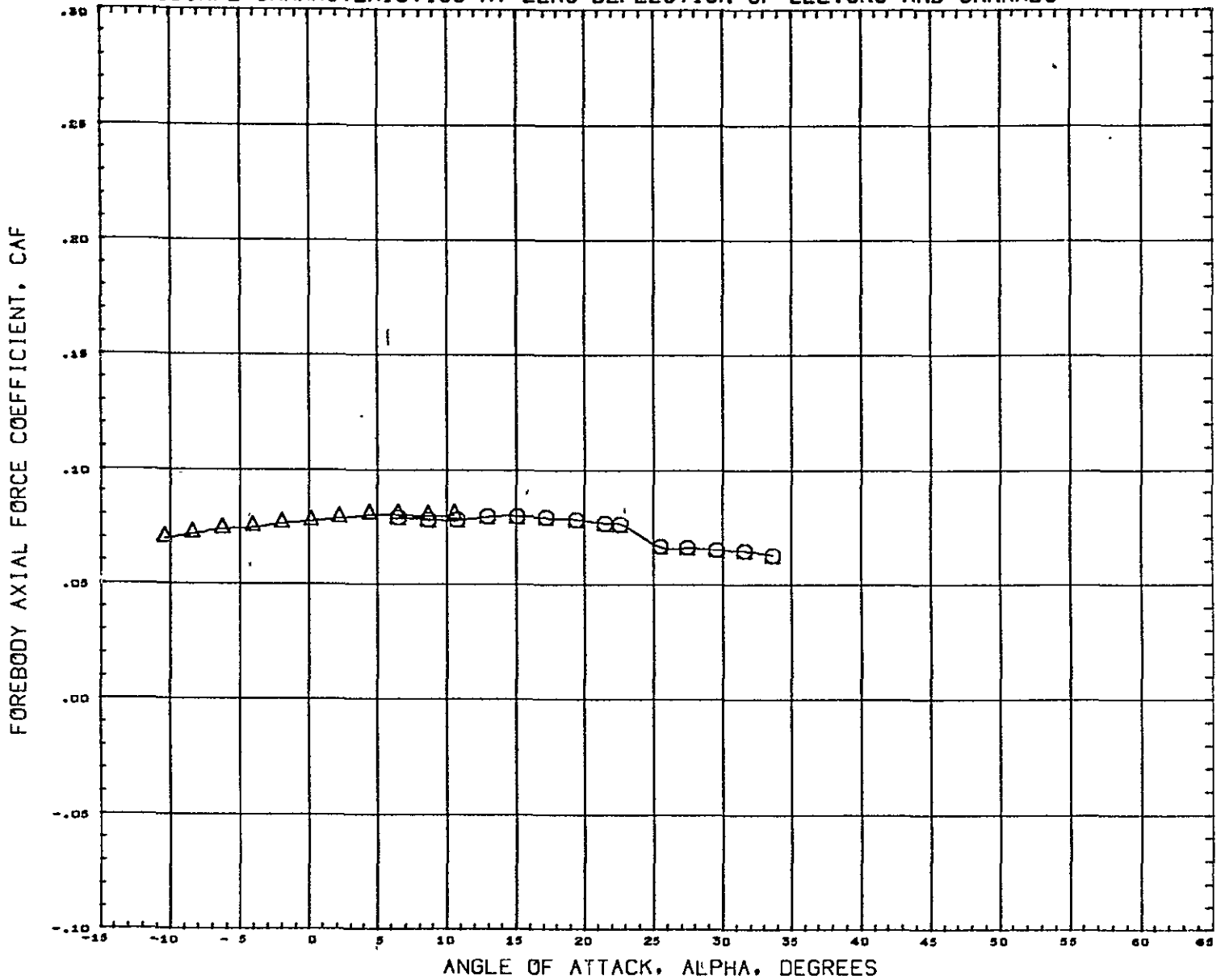
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E28020)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 1.462

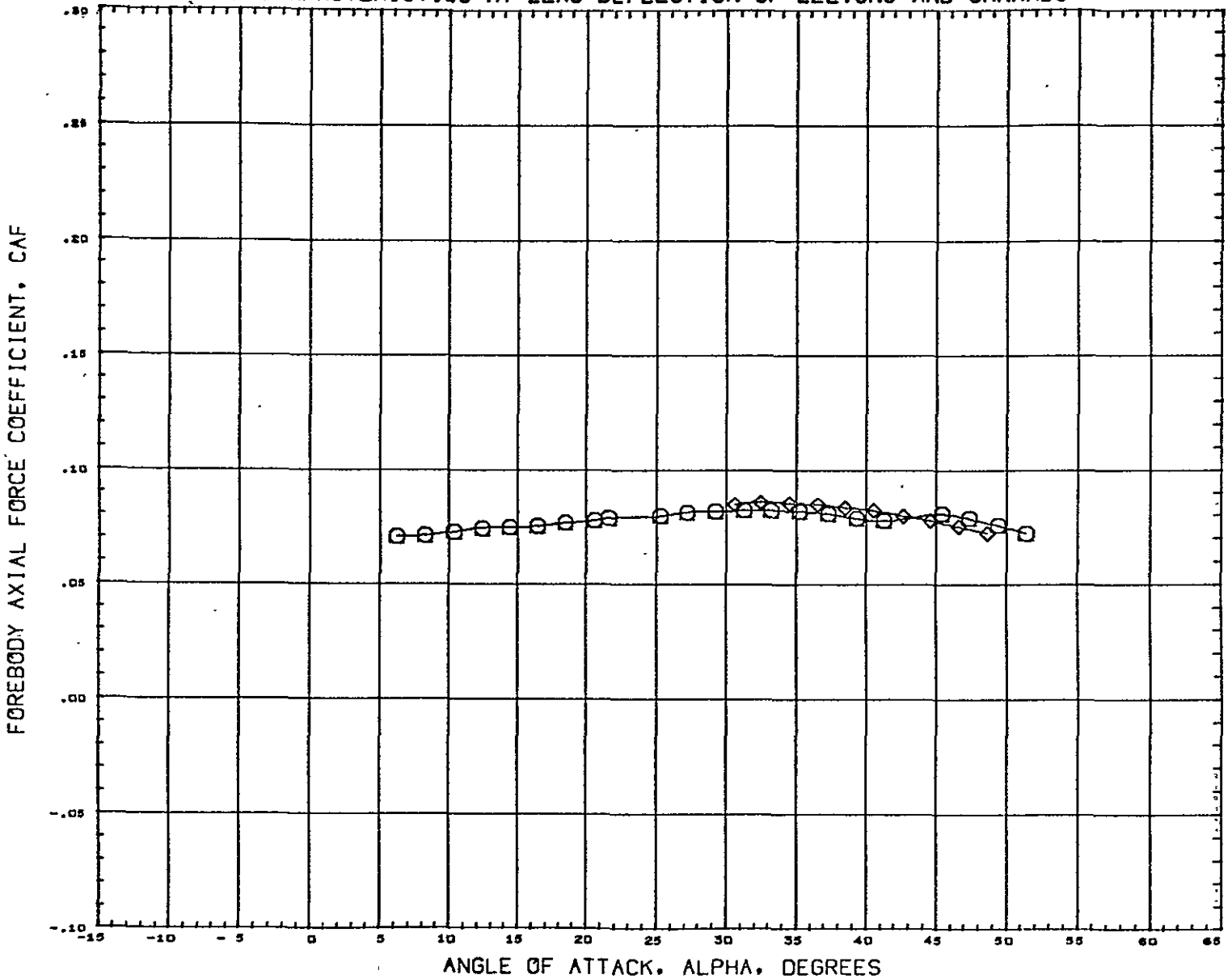
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6360 50.1N.
(E28020)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0980 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

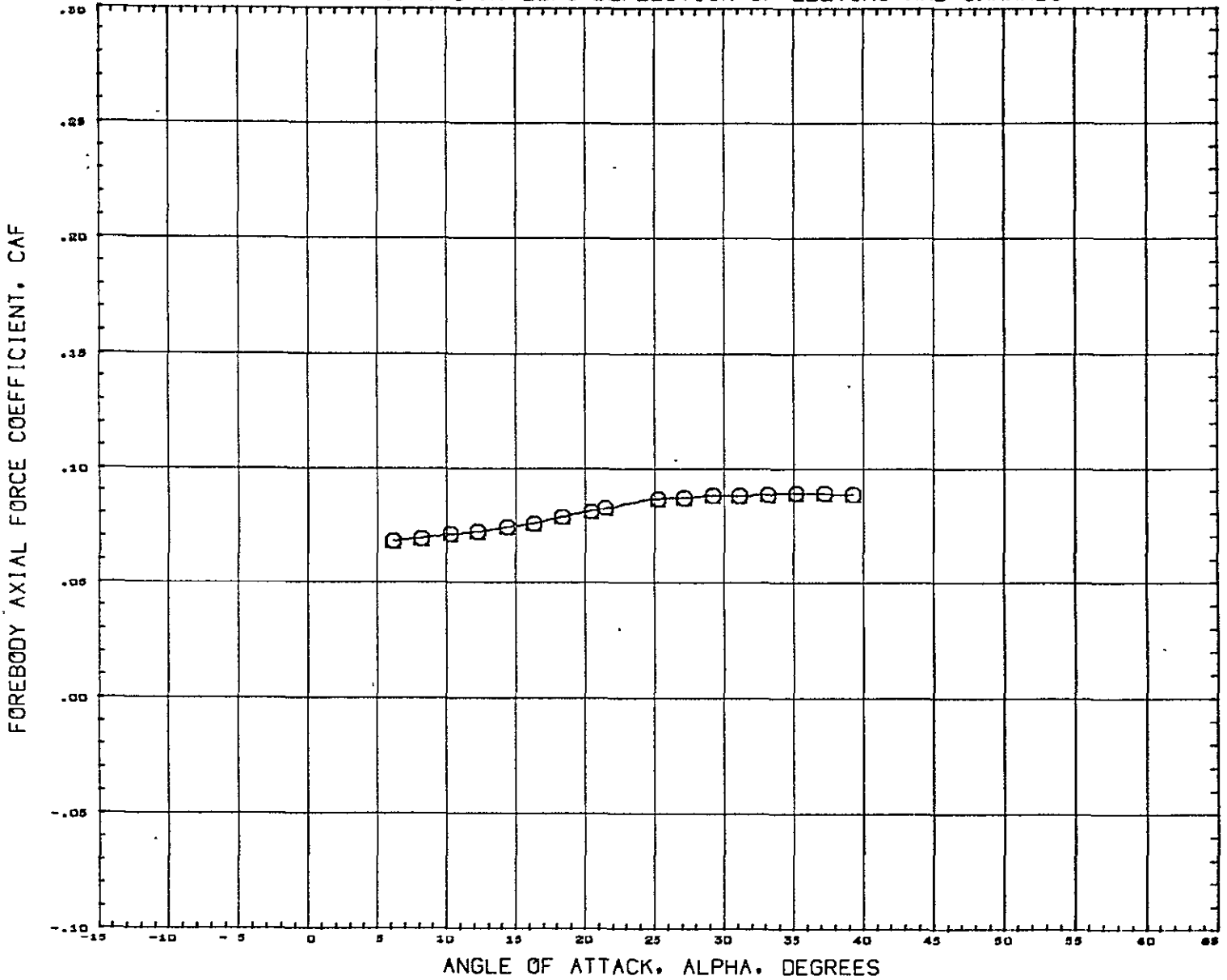
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	MSFC481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

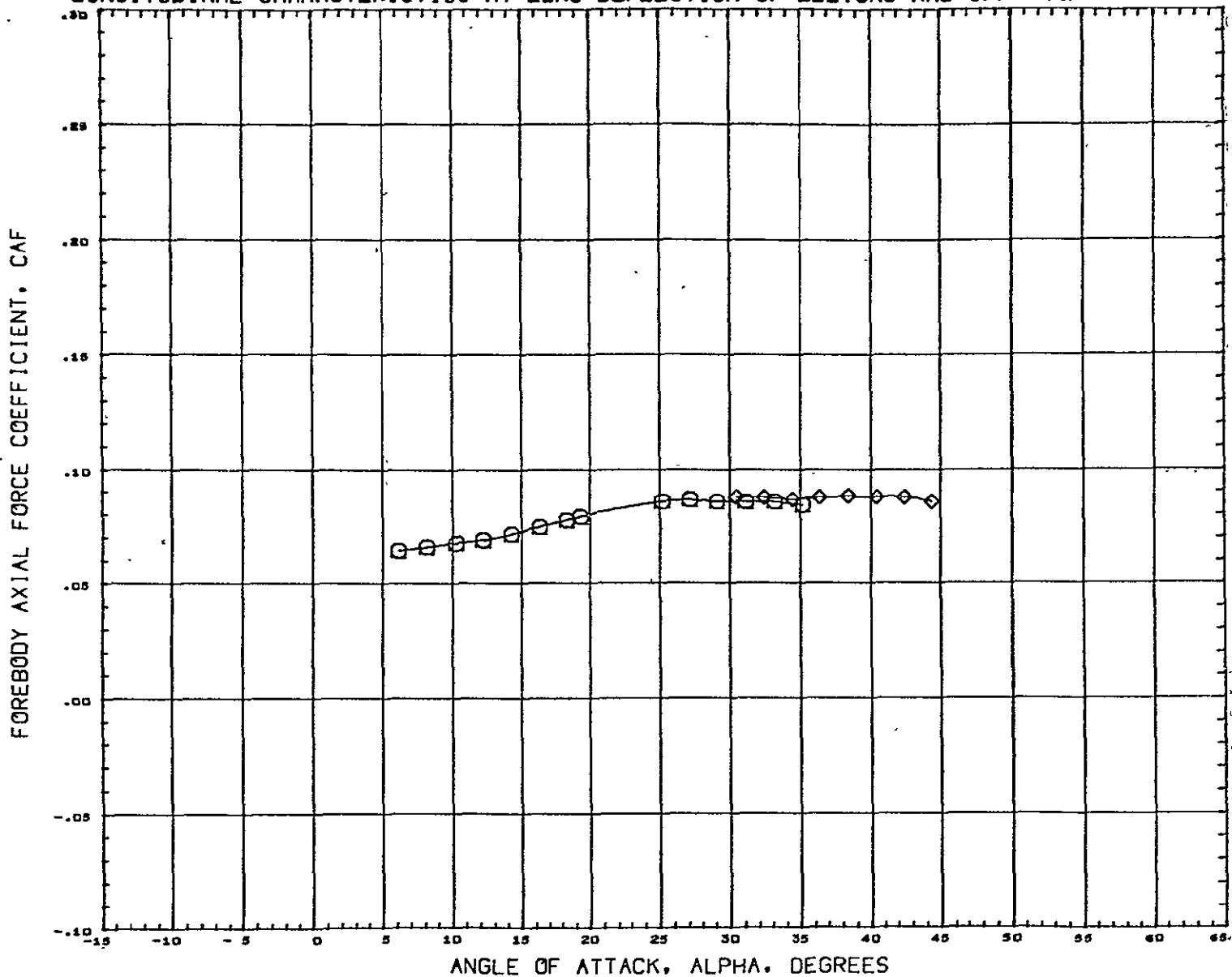
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C240D1)	MSFC401 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



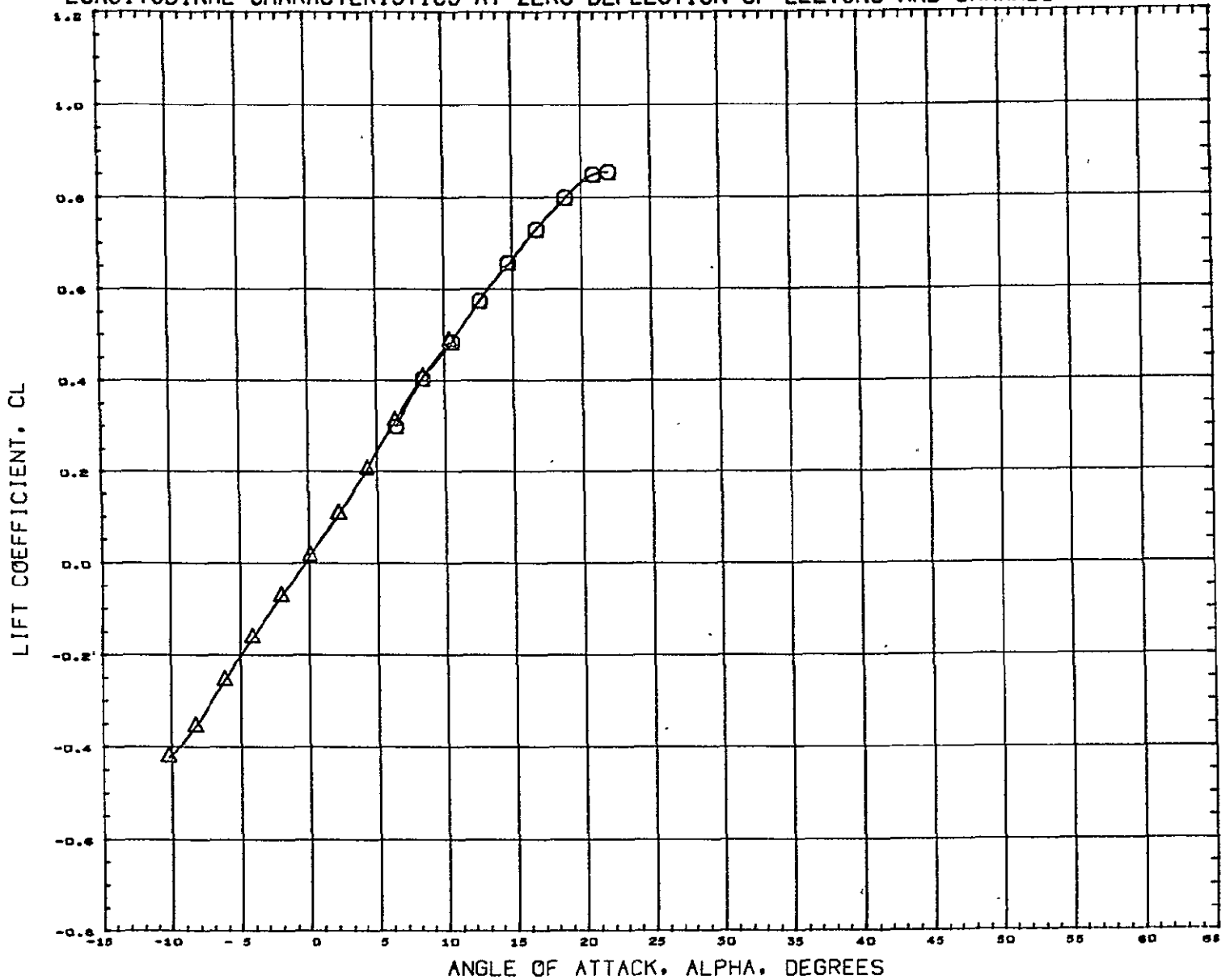
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28D01)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28C51)	MSFC481 GD/C(BOOSTER)B19W14C4A

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	30-IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

MACH 4.960

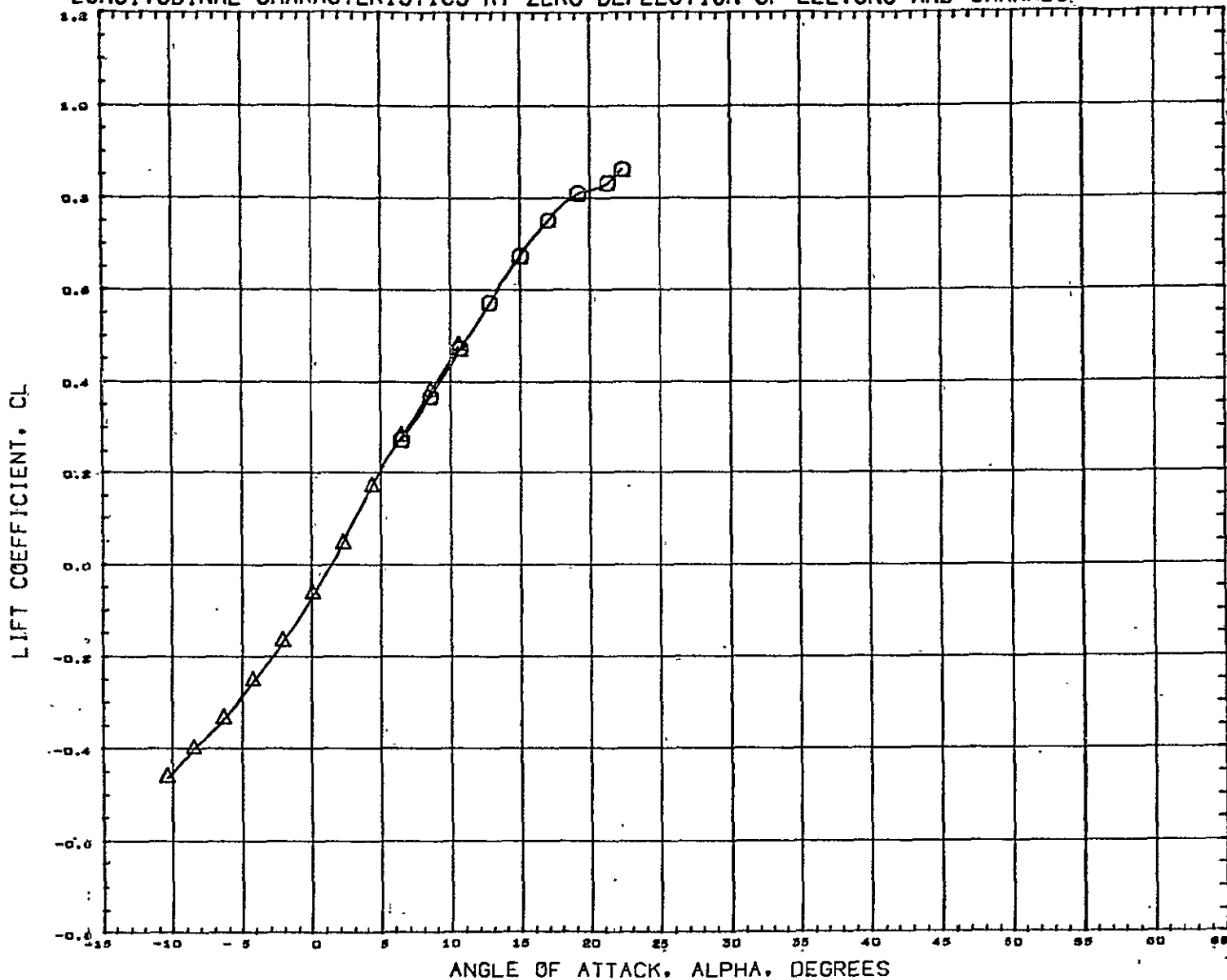
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		\$REF 15.6560 SQ. IN.
(E28020)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.



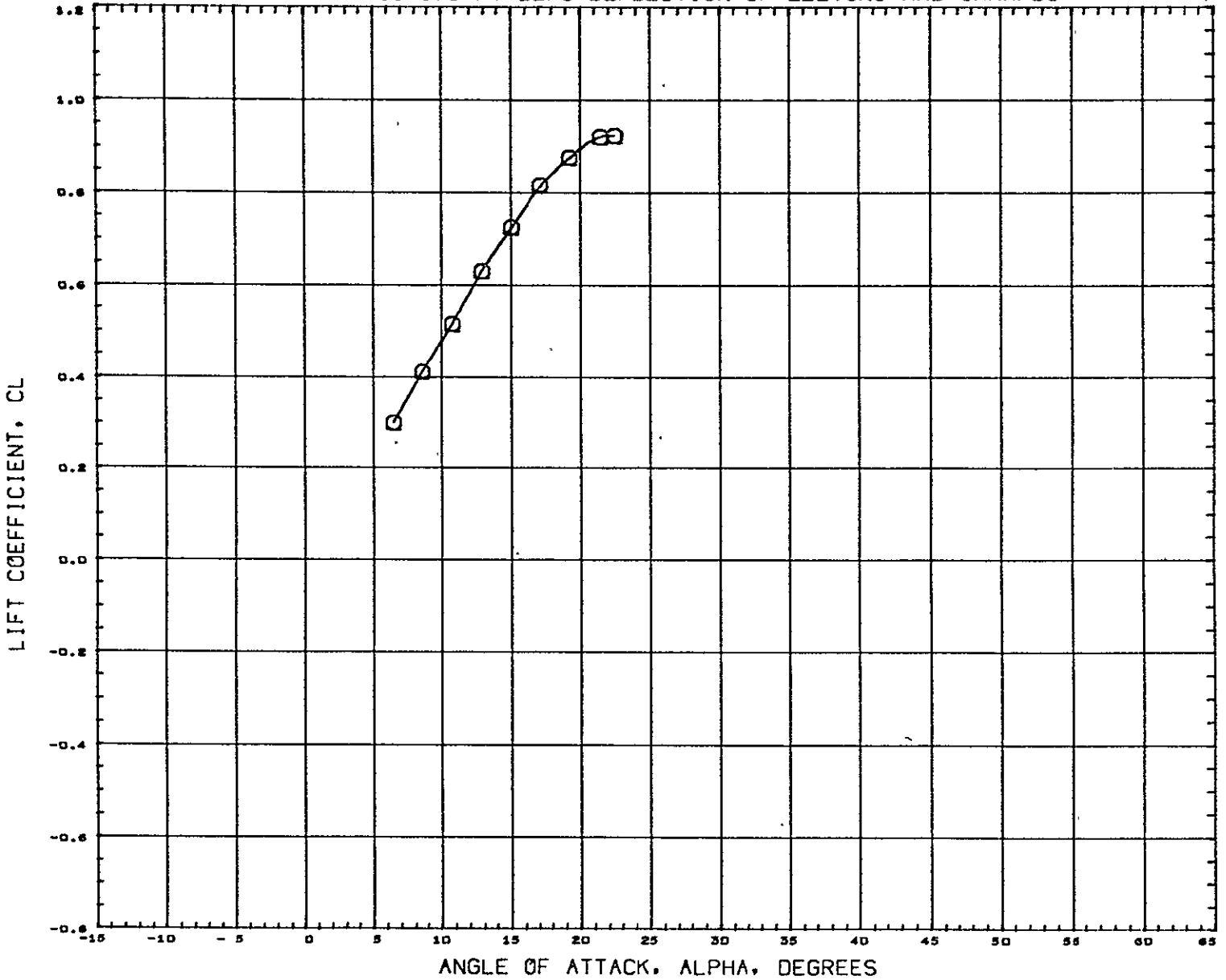
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C26001)	M5FC481 GD/C(BOOSTER)B19W14C4AV7
(E26020)	M5FC 401 GD/C(BOOSTER)B19W14C4AV7
(E26051)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 0.900

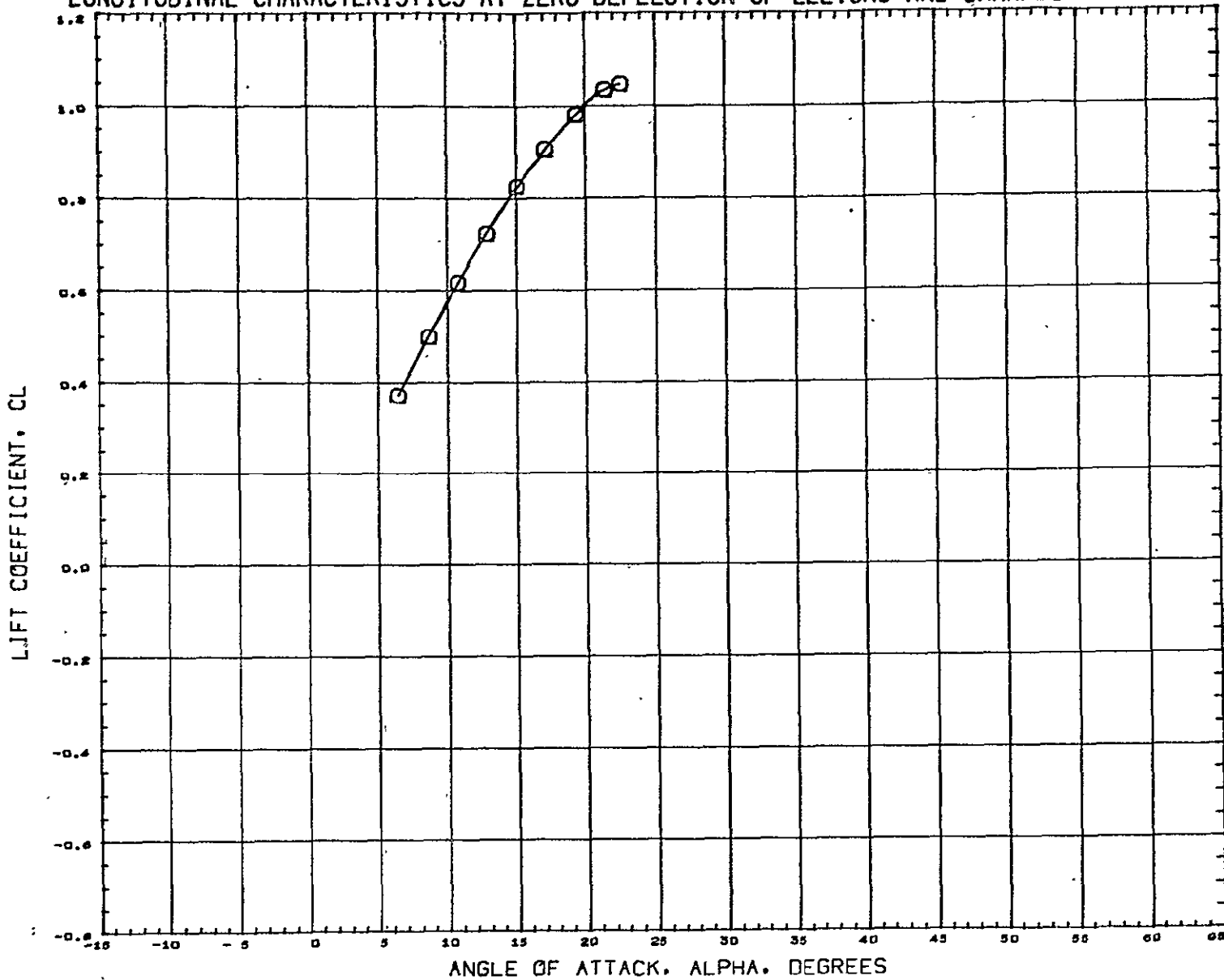
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

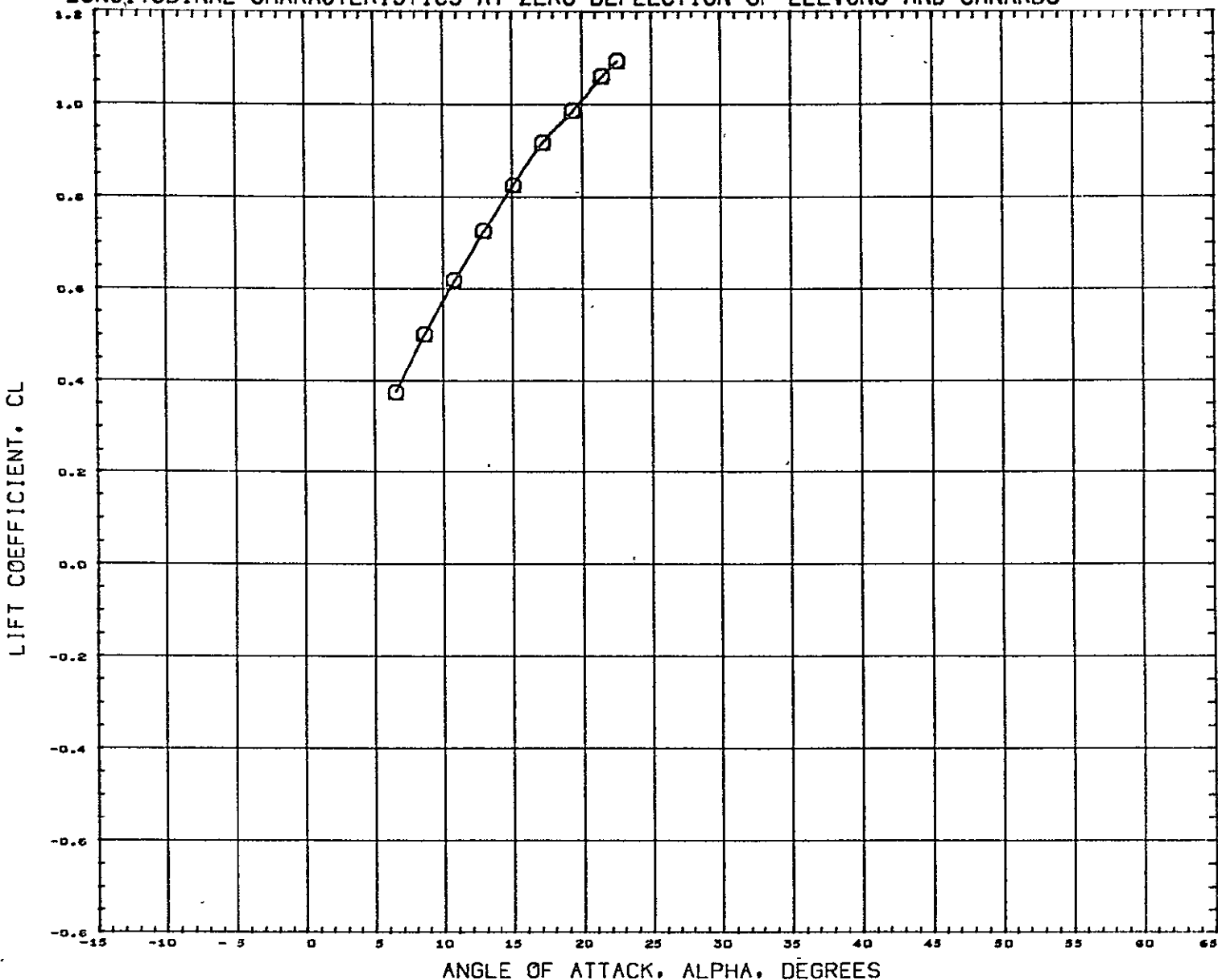
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 59. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

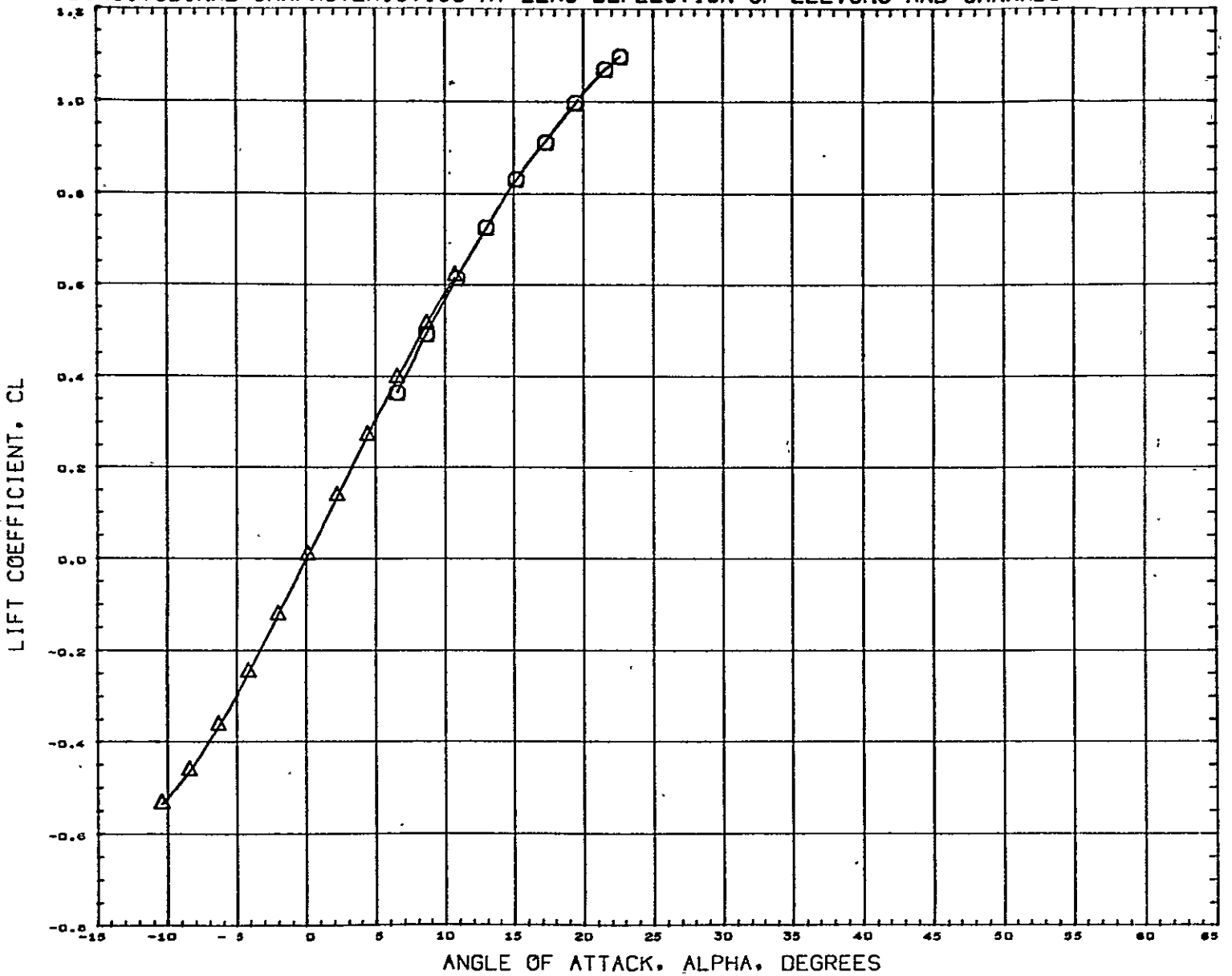
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC401 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E20020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

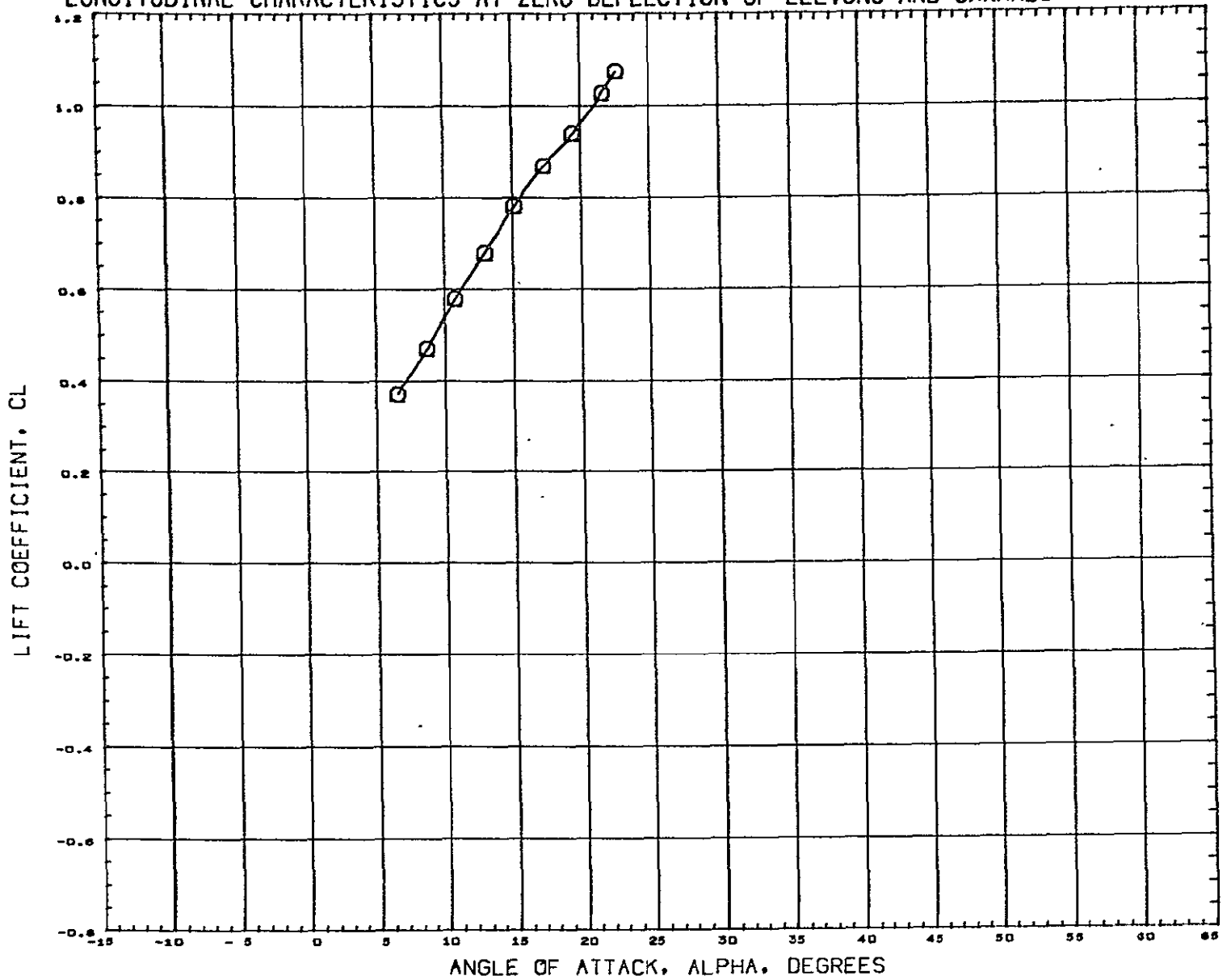
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

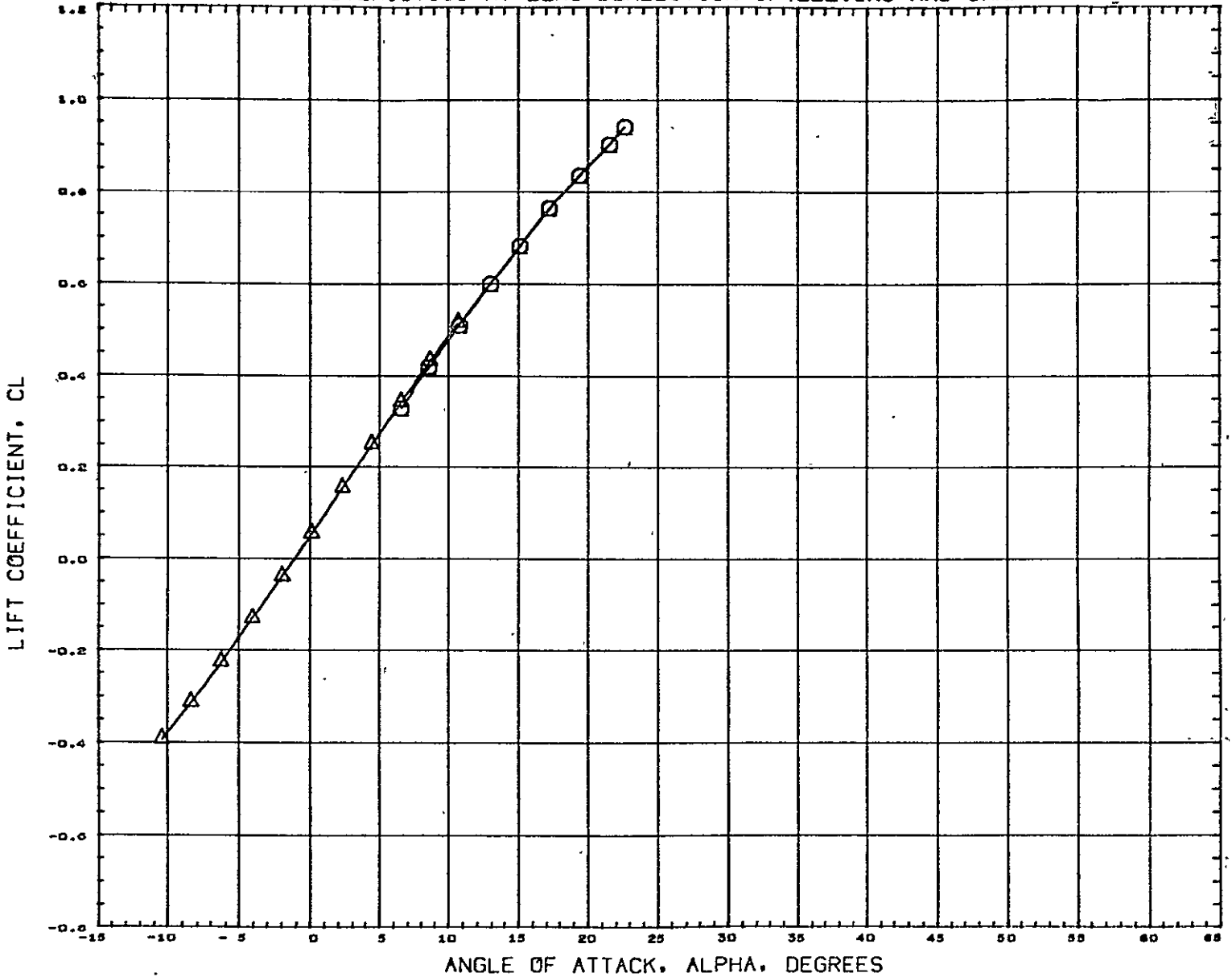
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4V7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

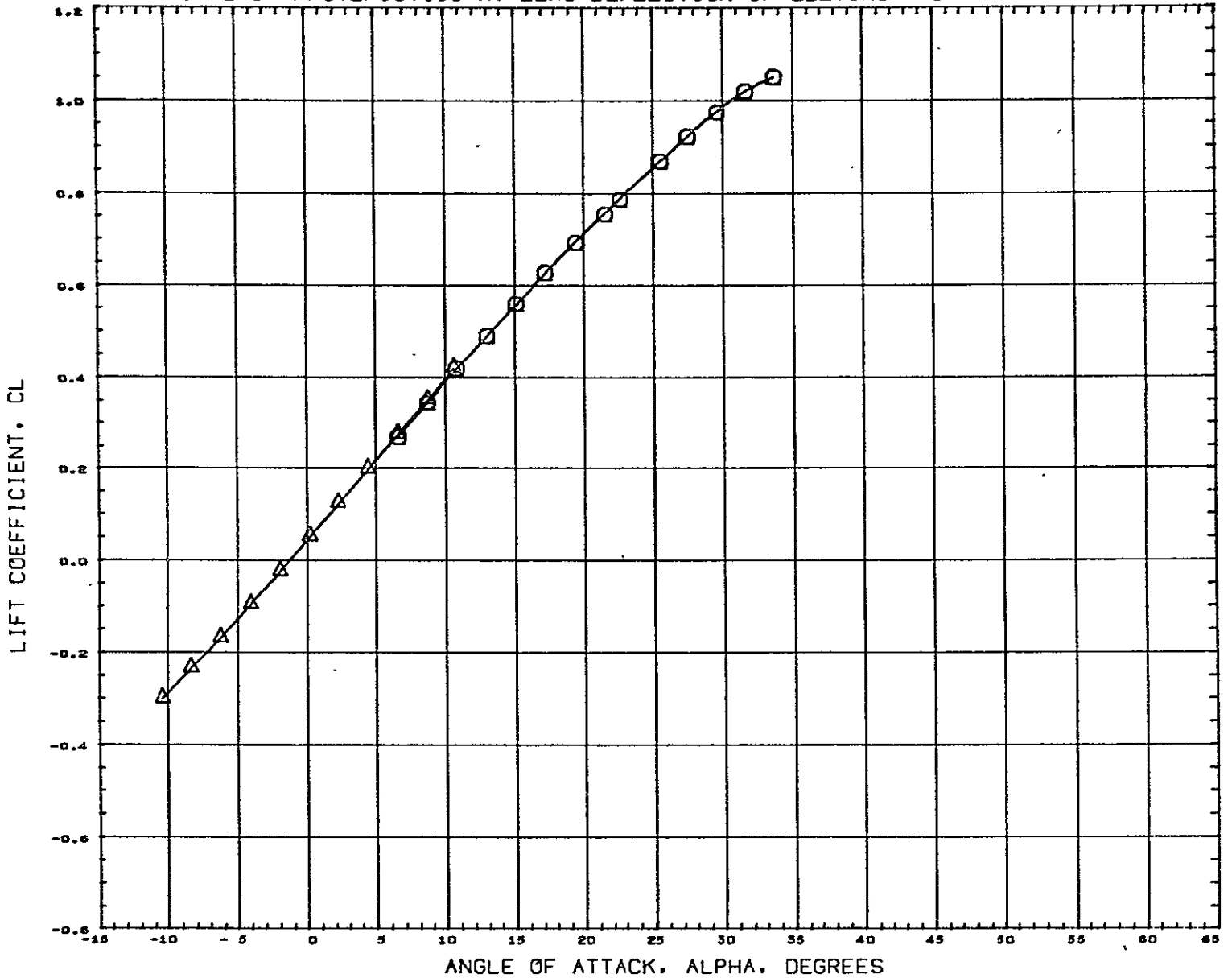
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(E28B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.462

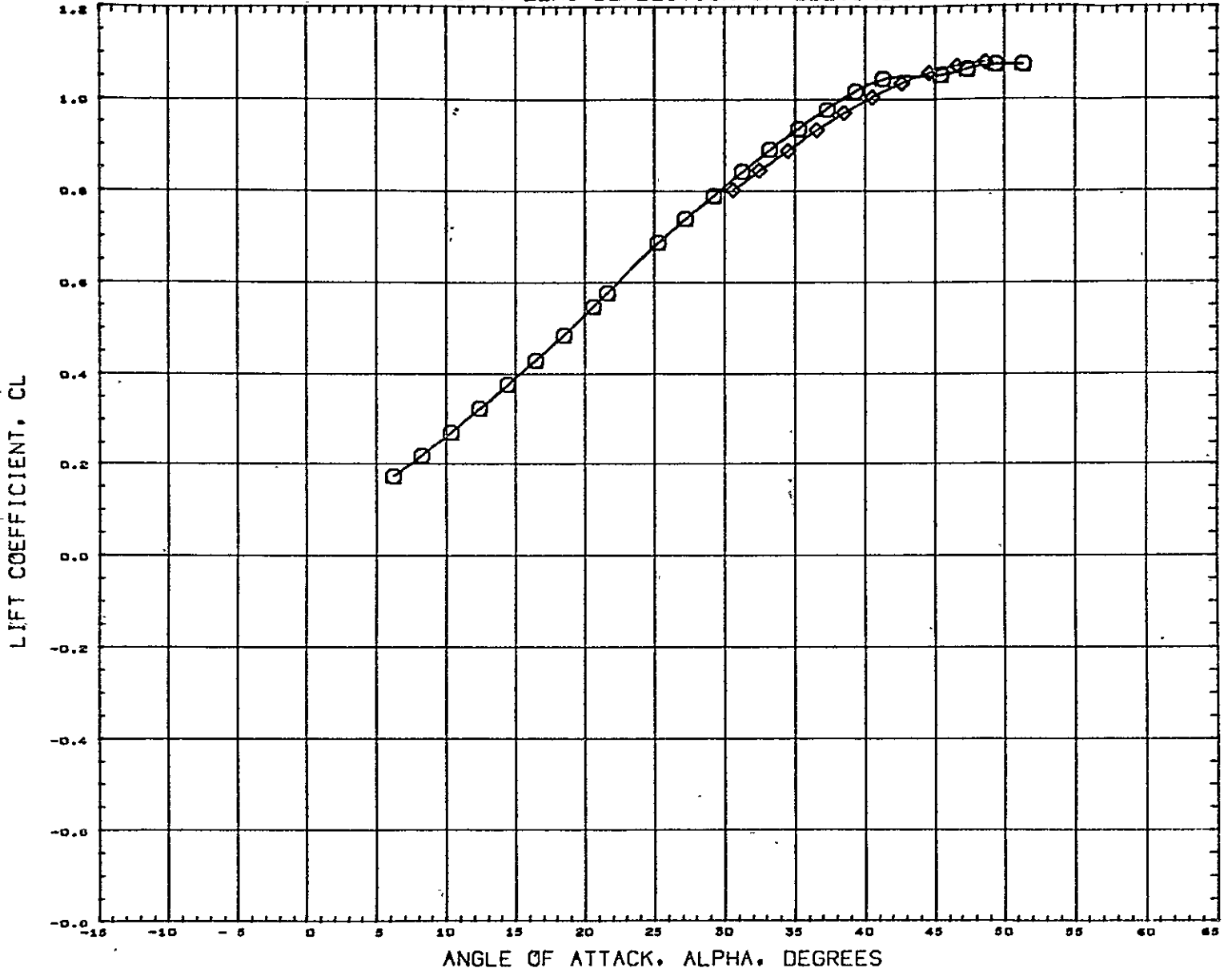
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C200U1)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E20B20)	MSFC 401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

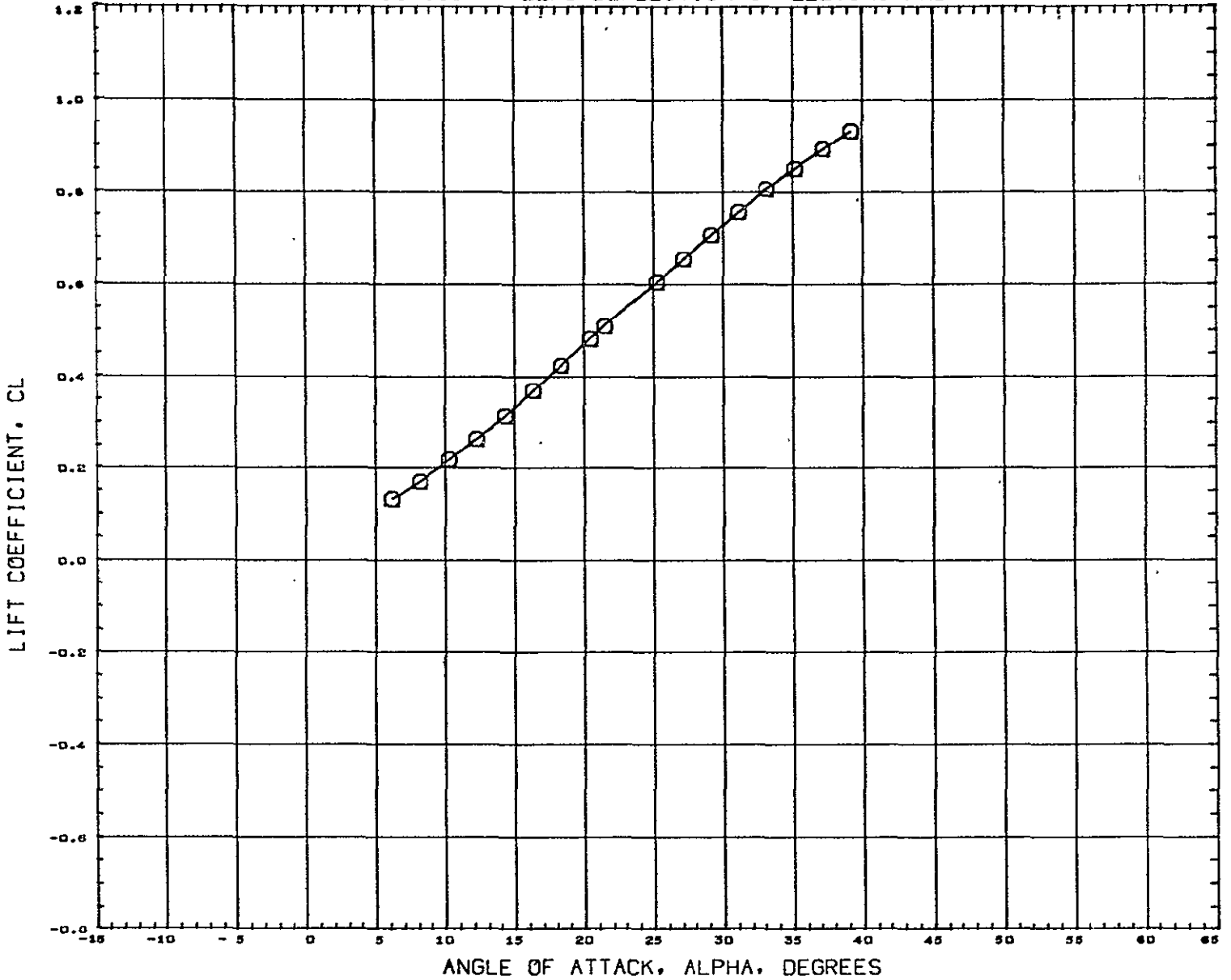
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C31)	MSFC481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



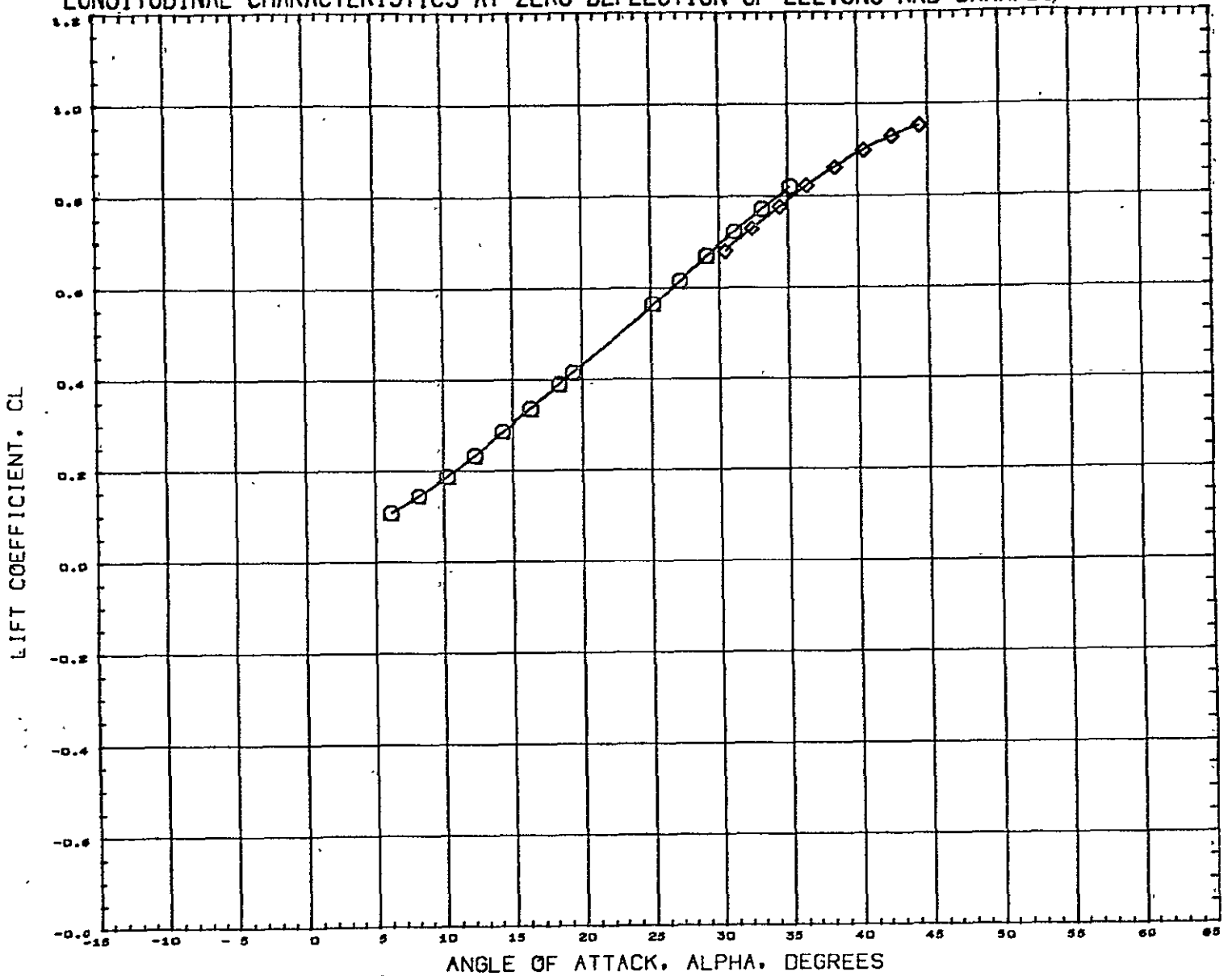
DATA SET SYMBOL - CONFIGURATION DESCRIPTION
 (C28001) \circ MSFC481 GD/C(BOOSTER)B19W14C4AV7
 (E28020) \triangle DATA NOT AVAILABLE FOR ALL CONDITIONS
 (E28033) \diamond DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 4.000

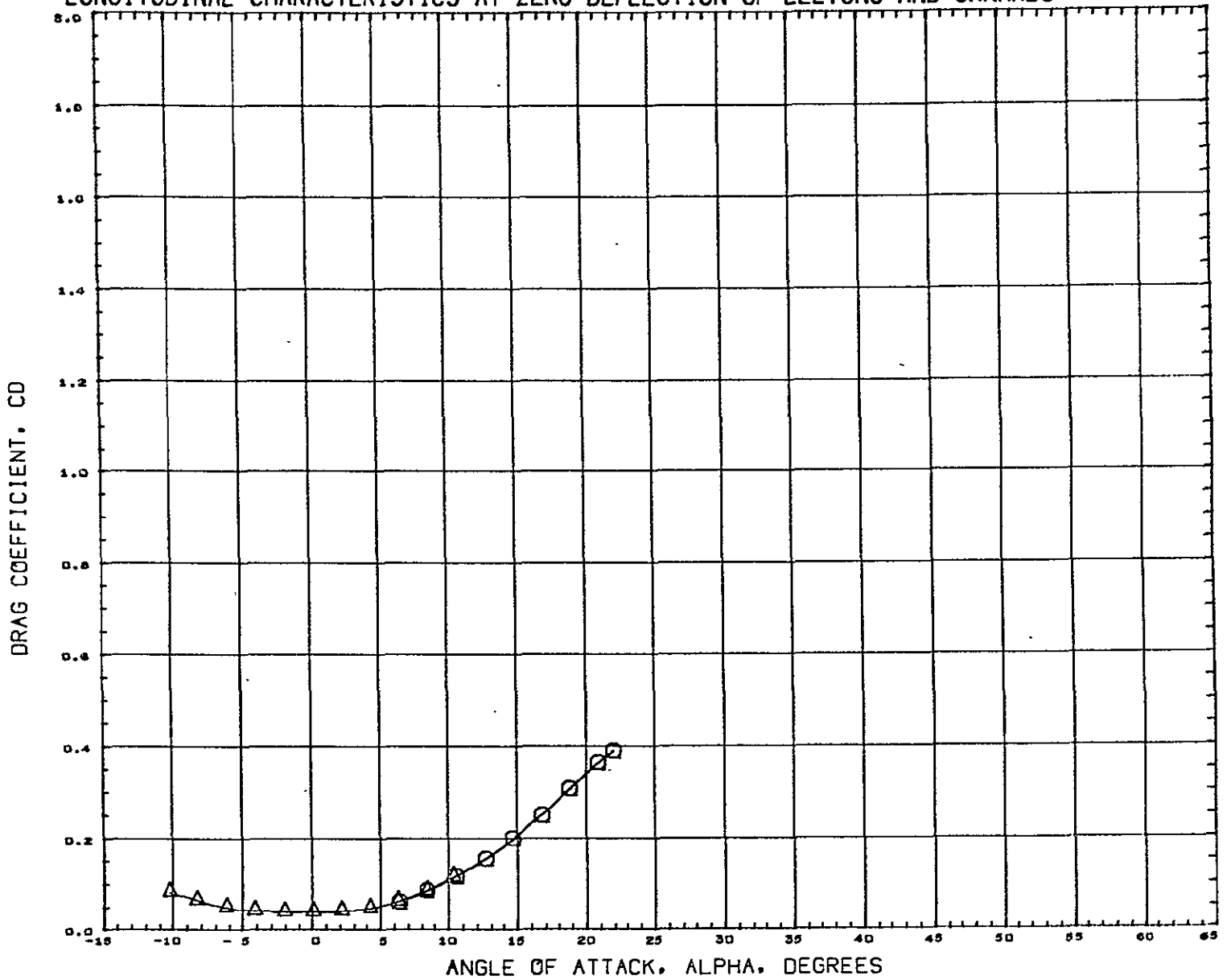
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(E20020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF	3.0950 IN.
(E20051)	MSFC481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 4.960

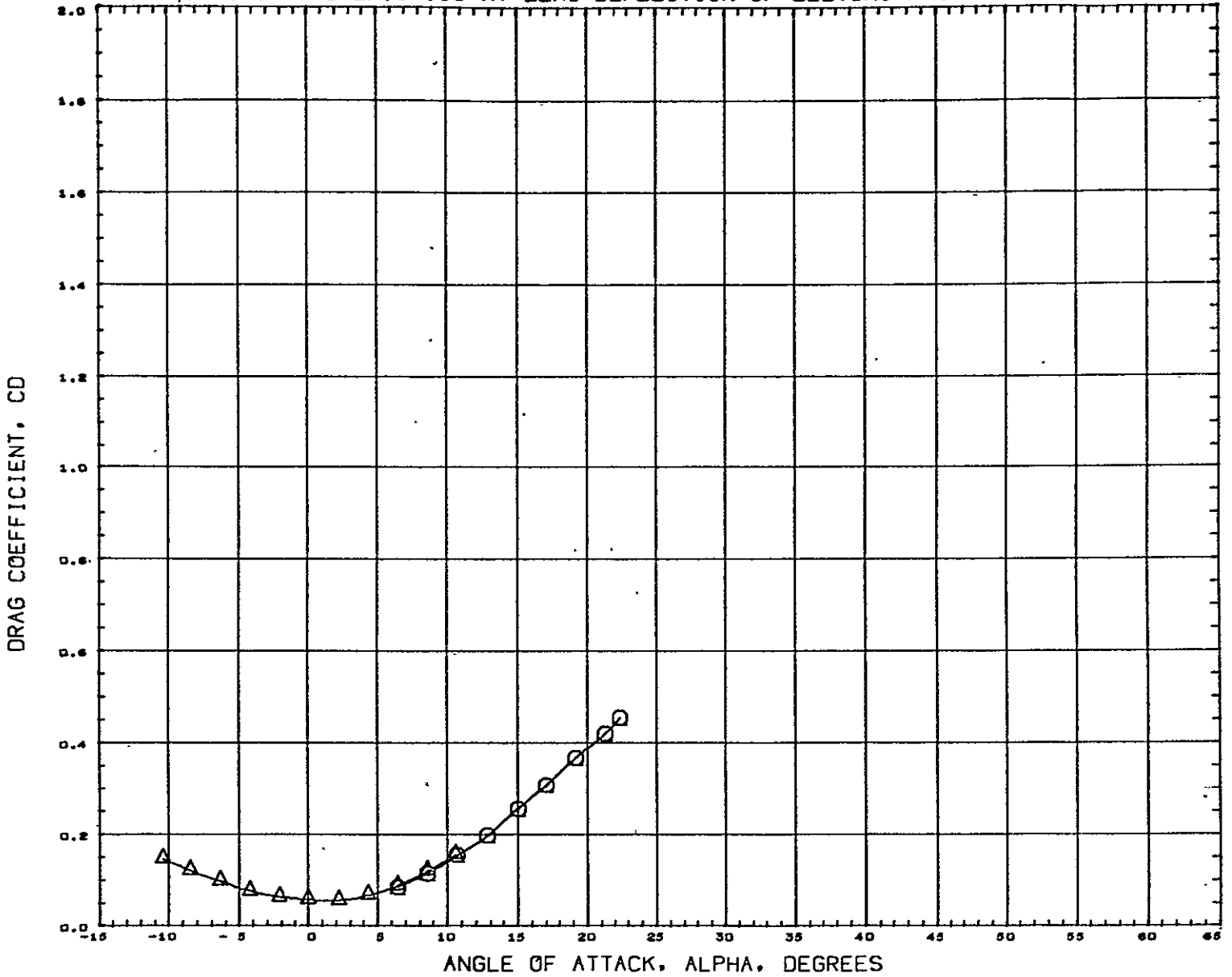
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

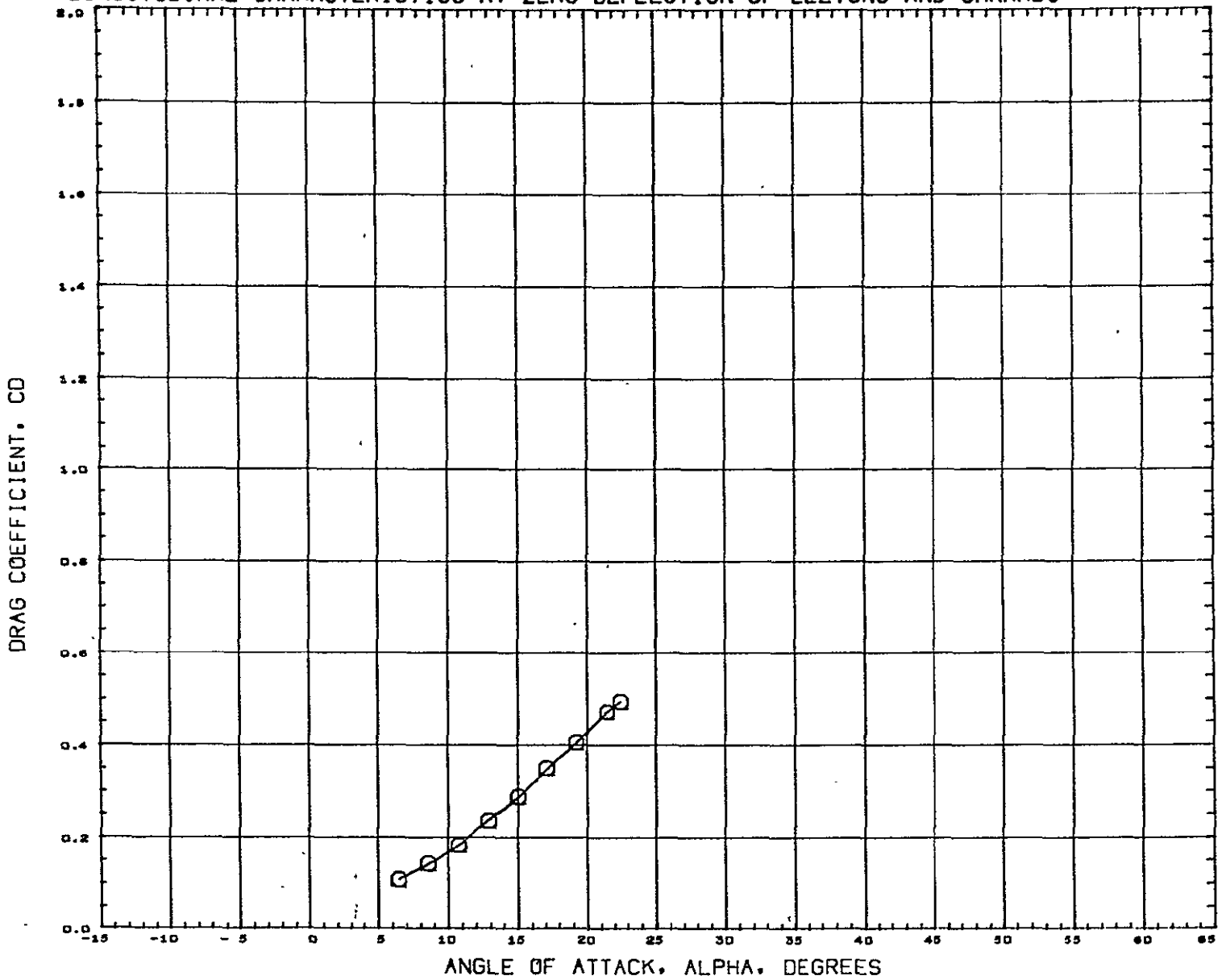
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C280D1)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 13.6560 SQ. IN.
(E28B2D)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

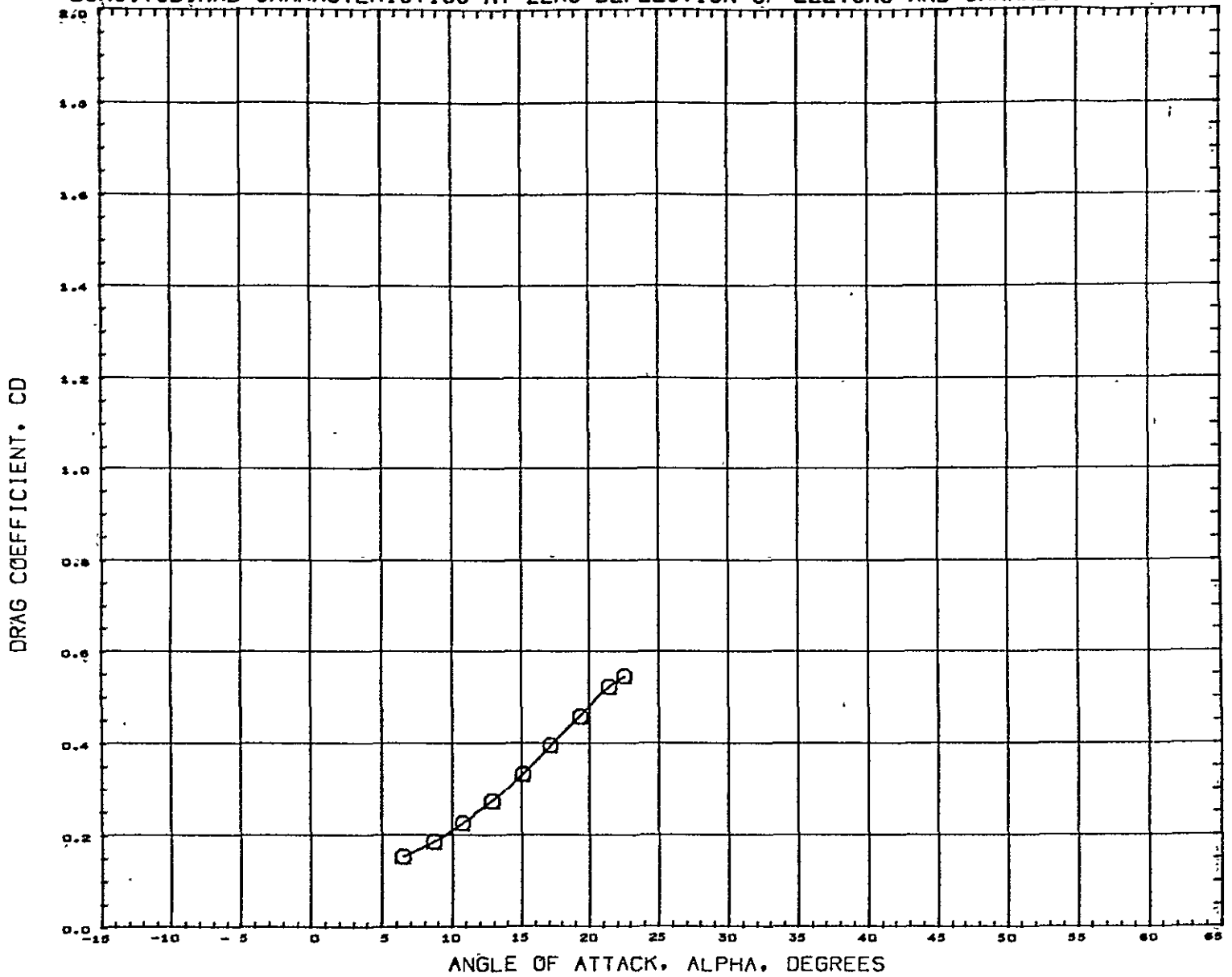
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E26020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E26C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

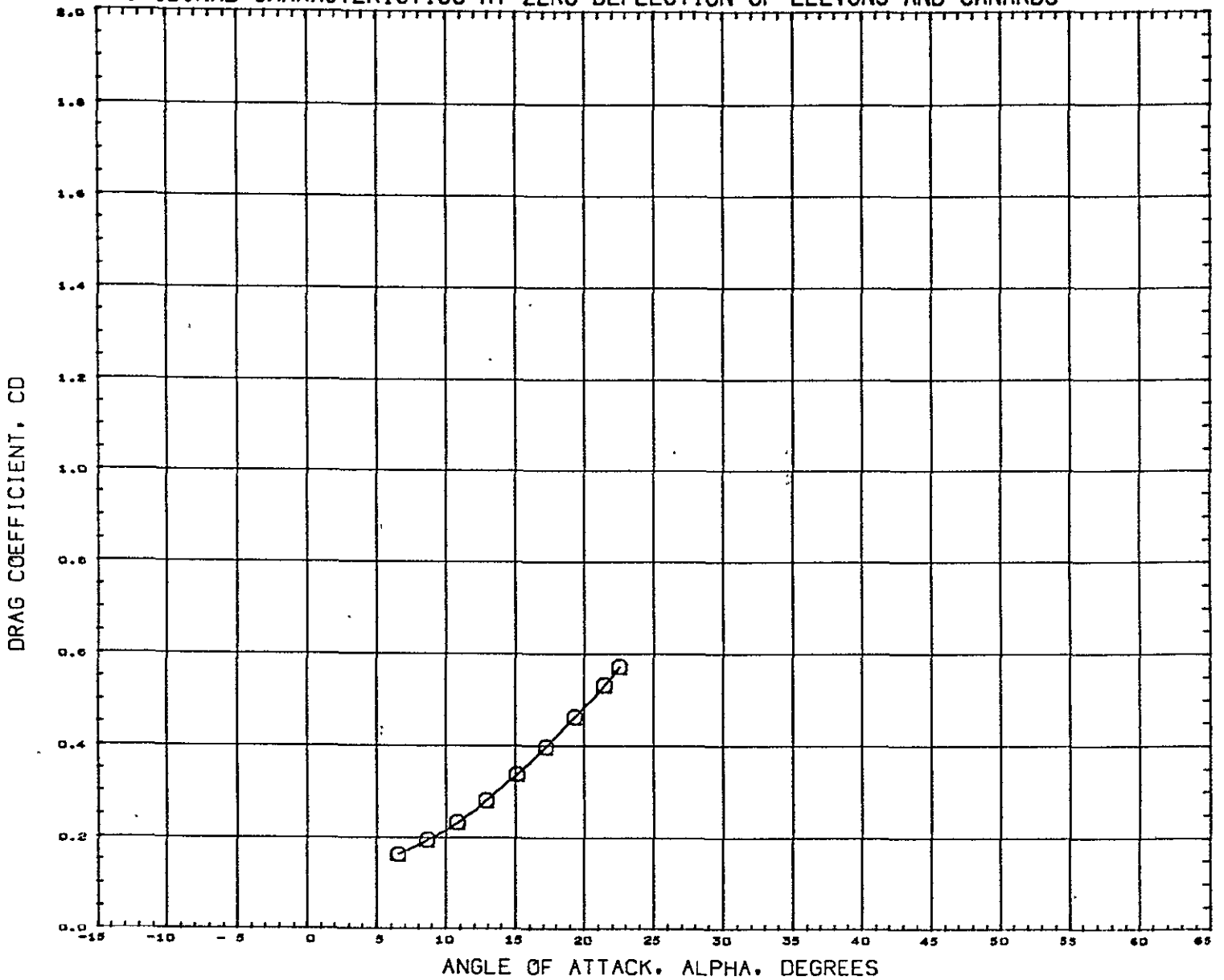
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 sq. in.
(E20020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

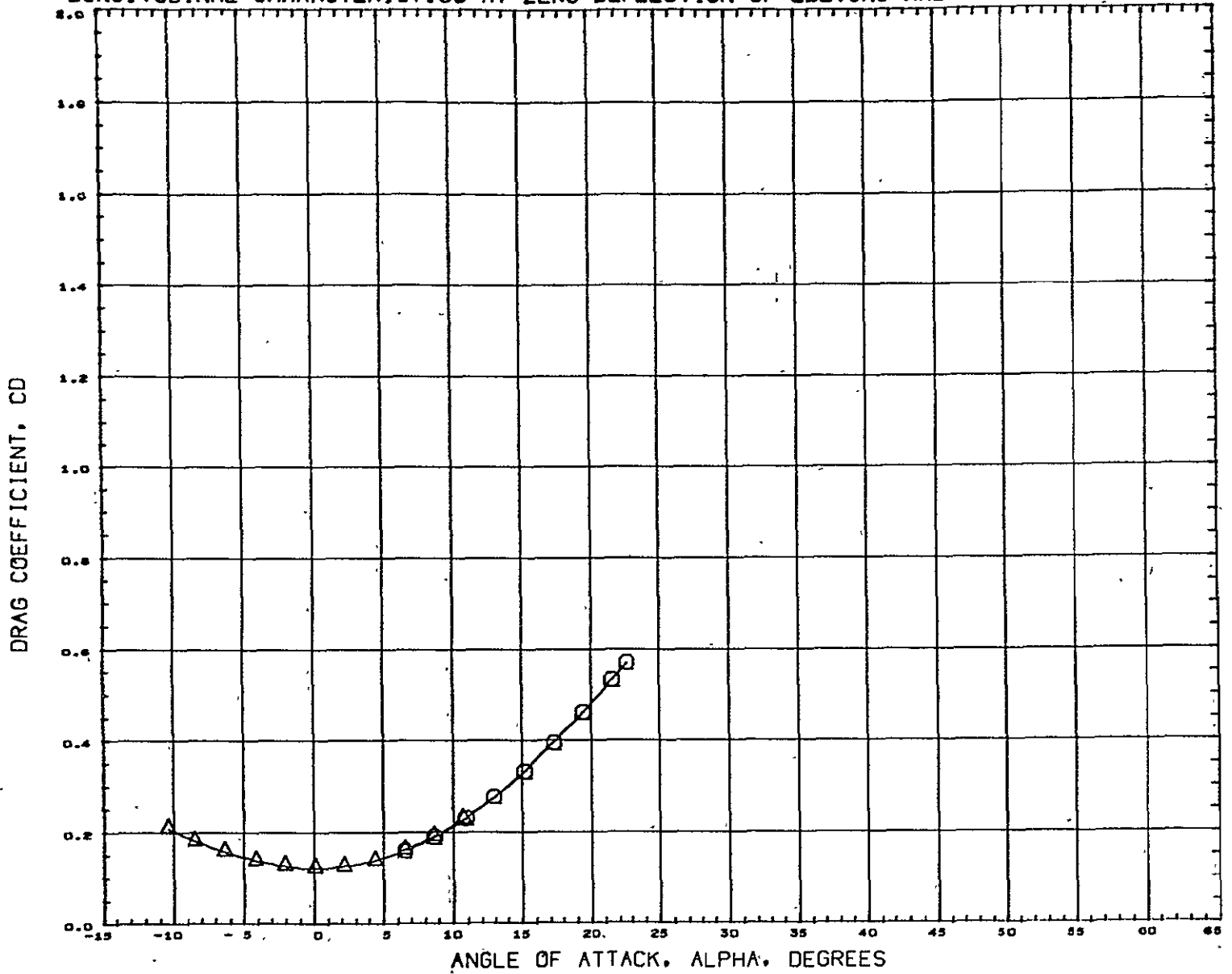


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C28001) ○ MSFC481 GD/C(BOOSTER) B19W14C4AV7
 (E2882U) △ DATA NOT AVAILABLE FOR ALL CONDITIONS
 (E28C51) ◇ DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000		SREF	15.6560 SQ. IN.
0.000	0.000	0.000		LREF	3.0950 IN.
0.000	0.000	0.000		BREF	6.0990 IN.
				XMRP	6.7100 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0035

MACH 1.051

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



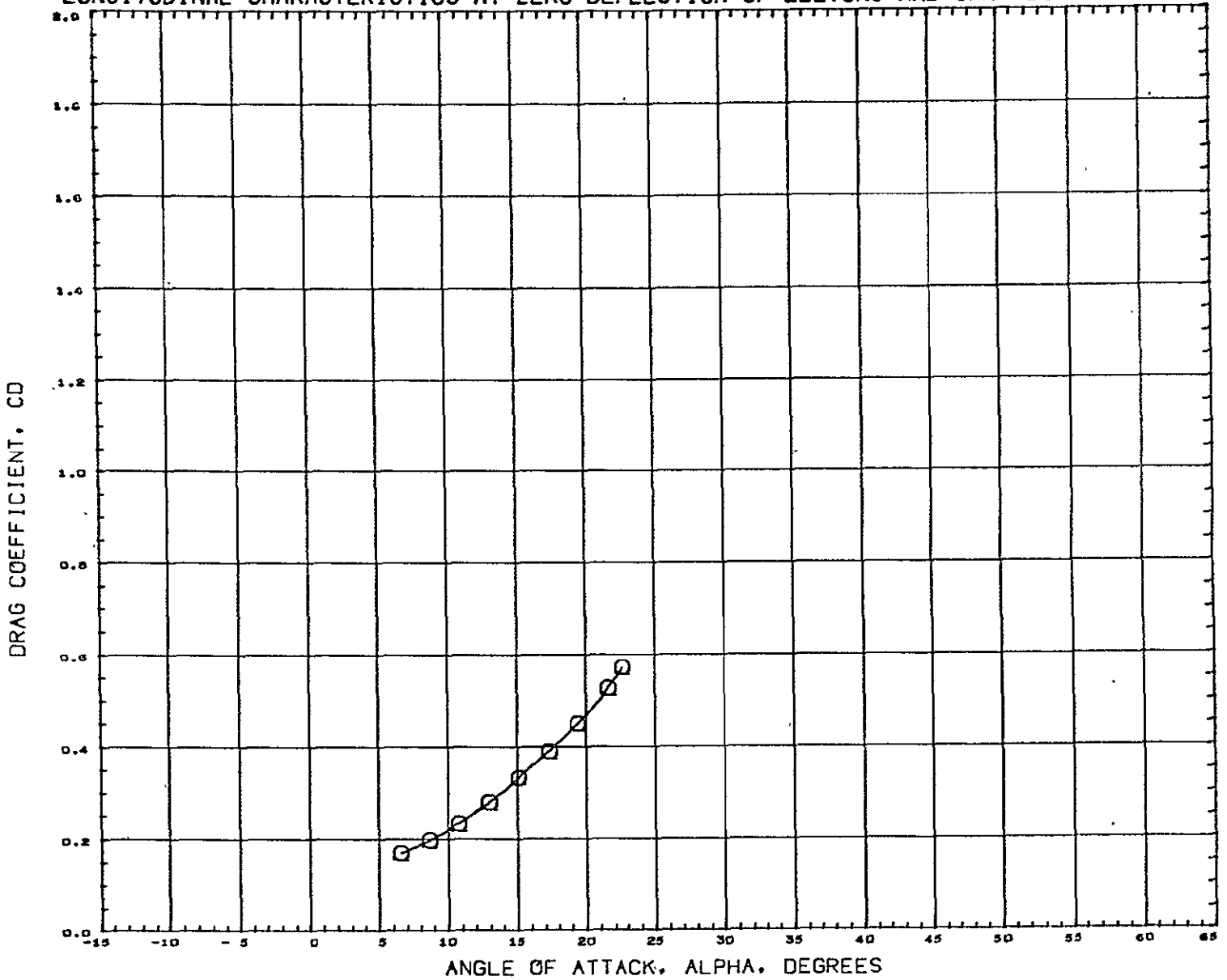
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E28B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 1.105

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

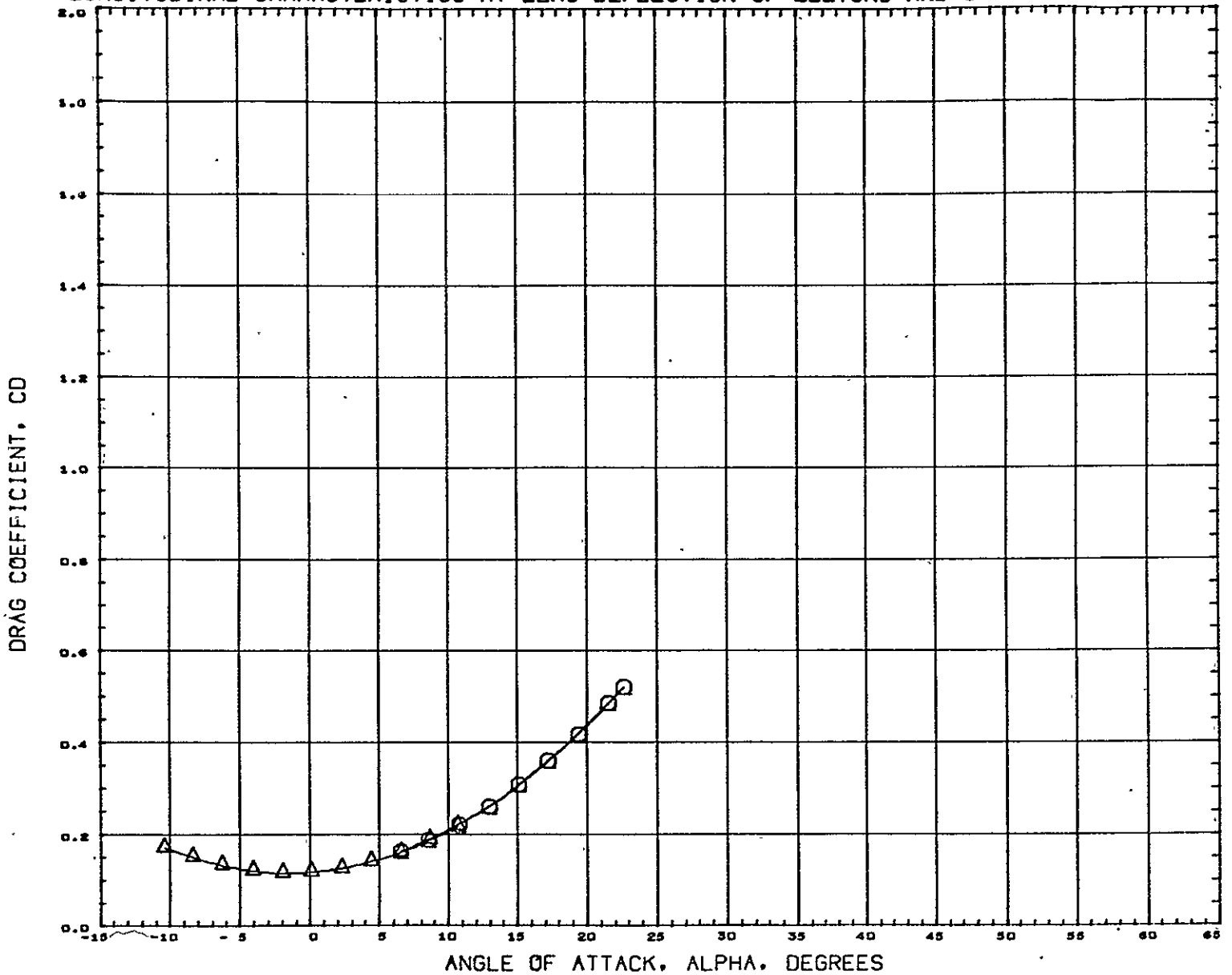


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AY7
(E28020)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000		SREF	15.6560 SQ. IN.
0.000	0.000	0.000		LREF	3.0950 IN.
0.000	0.000	0.000		BREF	6.0990 IN.
				XMRP	6.7100 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0035

MACH 1.201

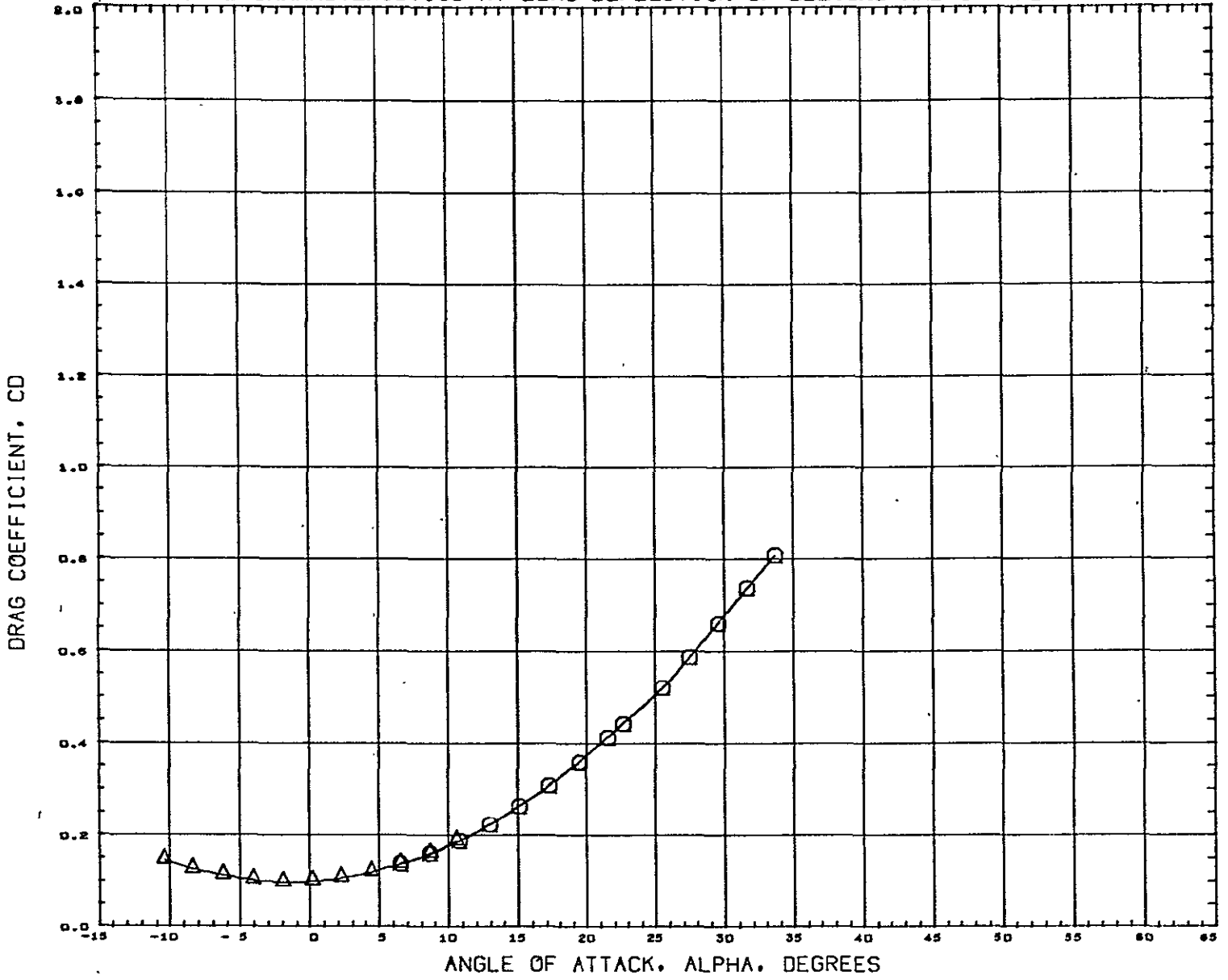
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26DD1)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B2D)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.462

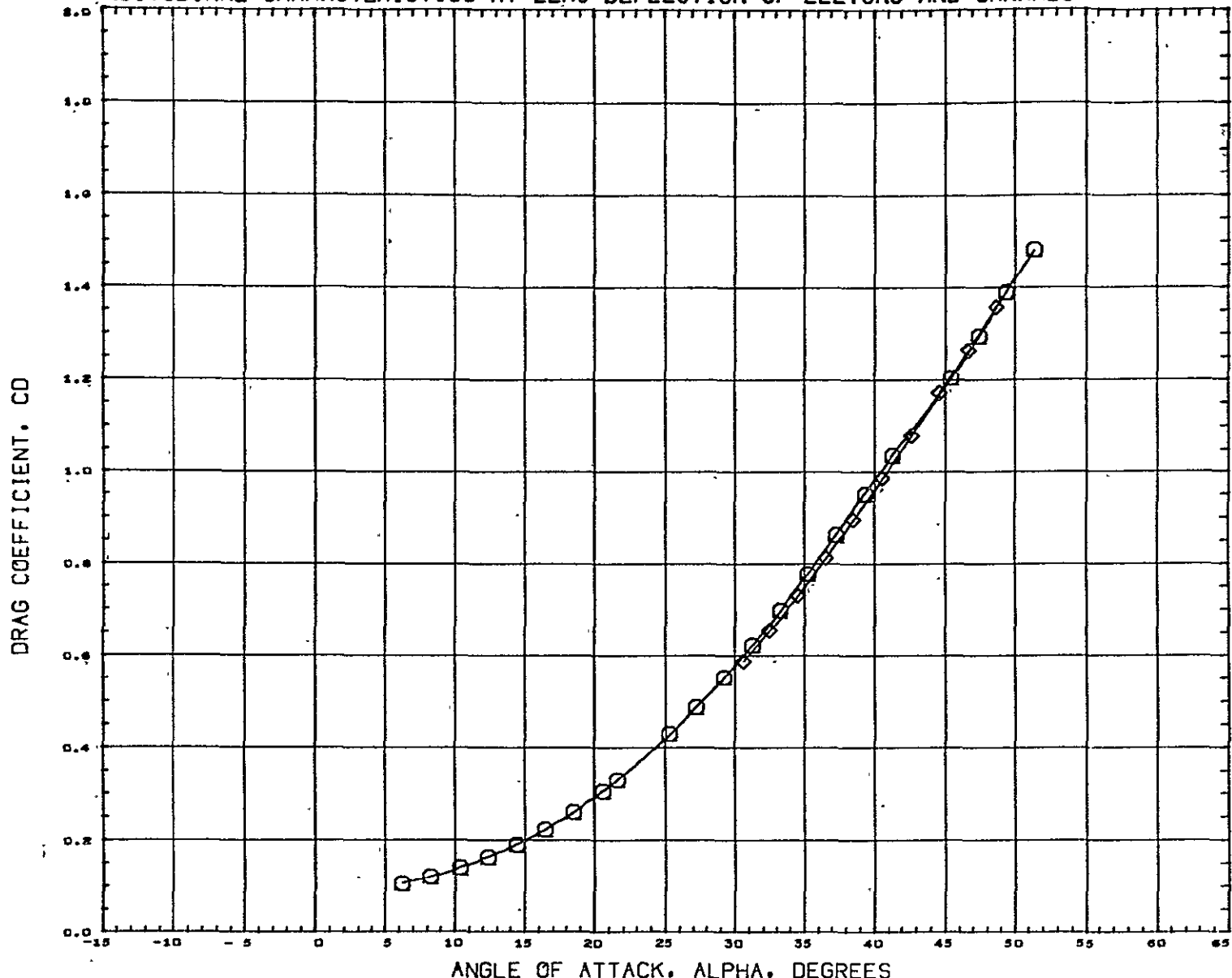
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.958

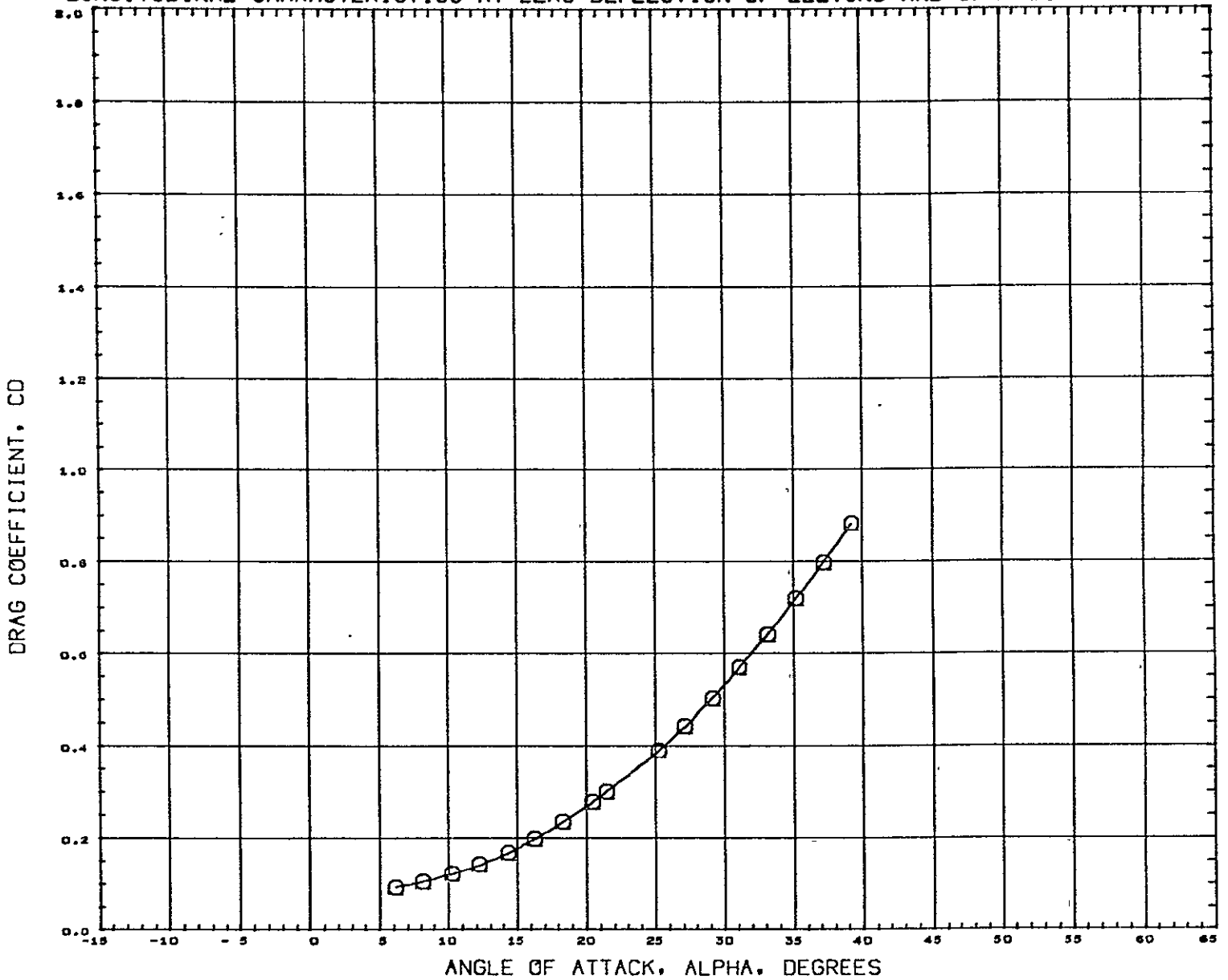
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C2#001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E2#B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E2#C31)	MSFC481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

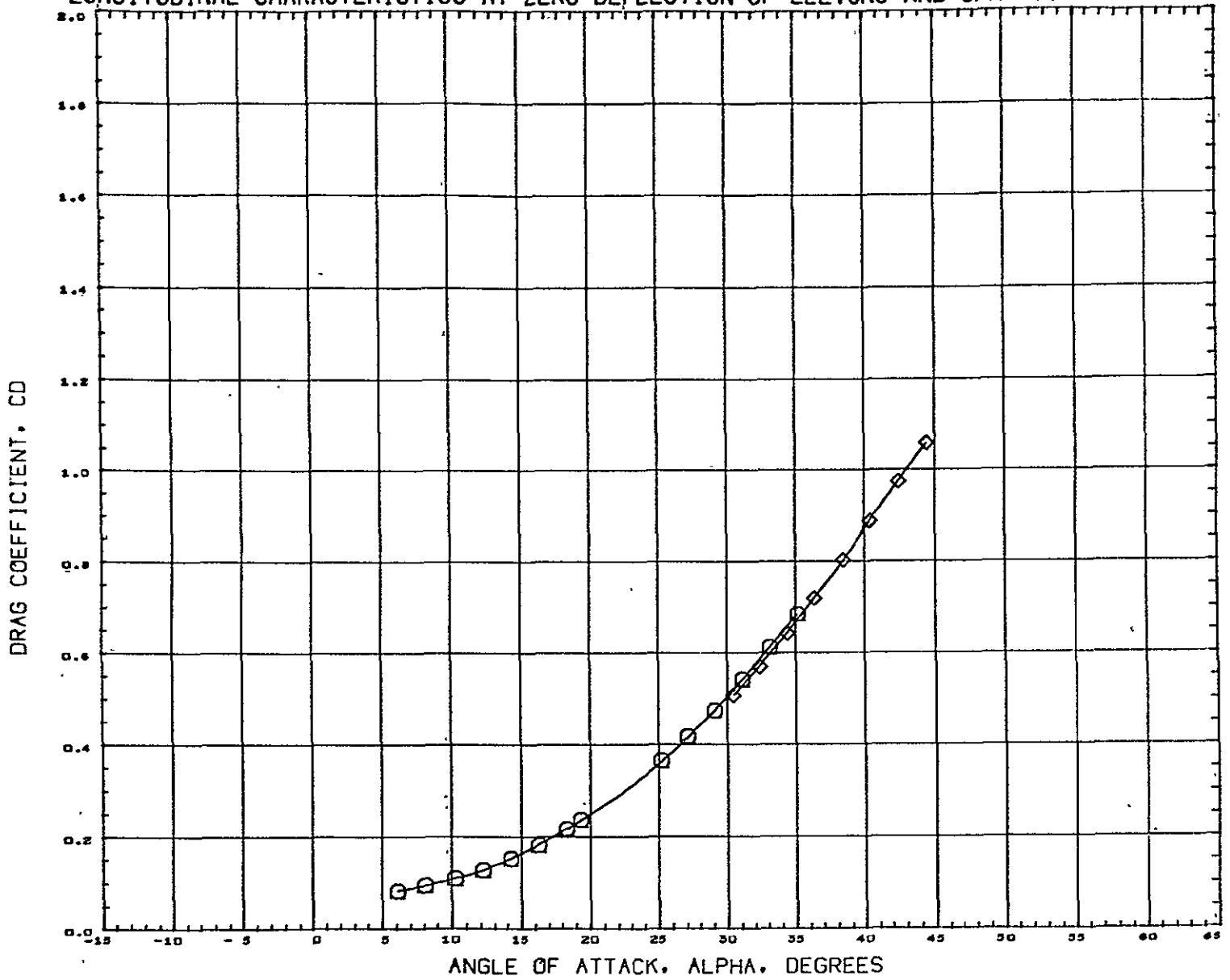
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 sq. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0055

MACH 4.000

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



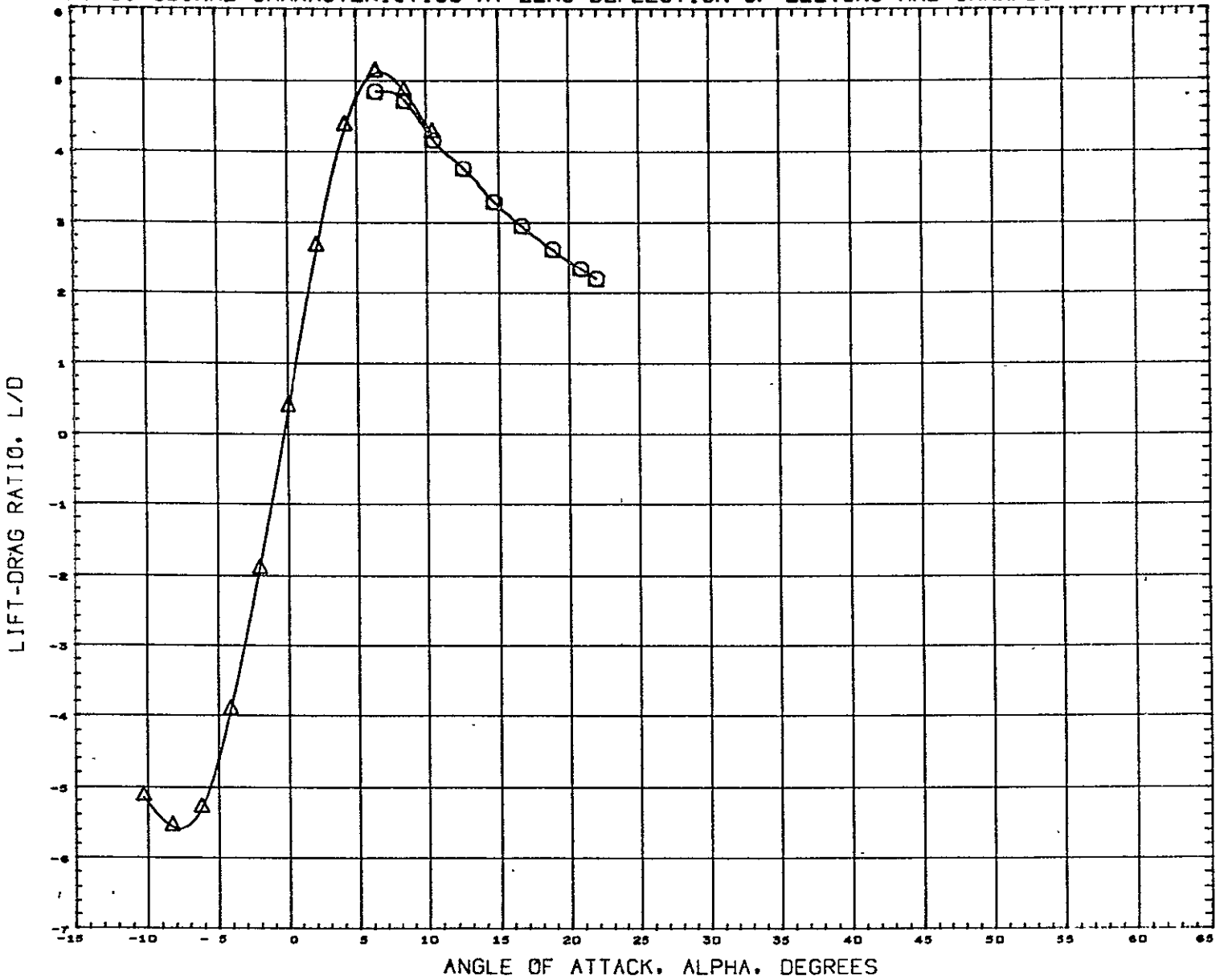
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4V7
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28C51)	MSFC481 GD/C (BOOSTER) B19W14C4A

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 4.960

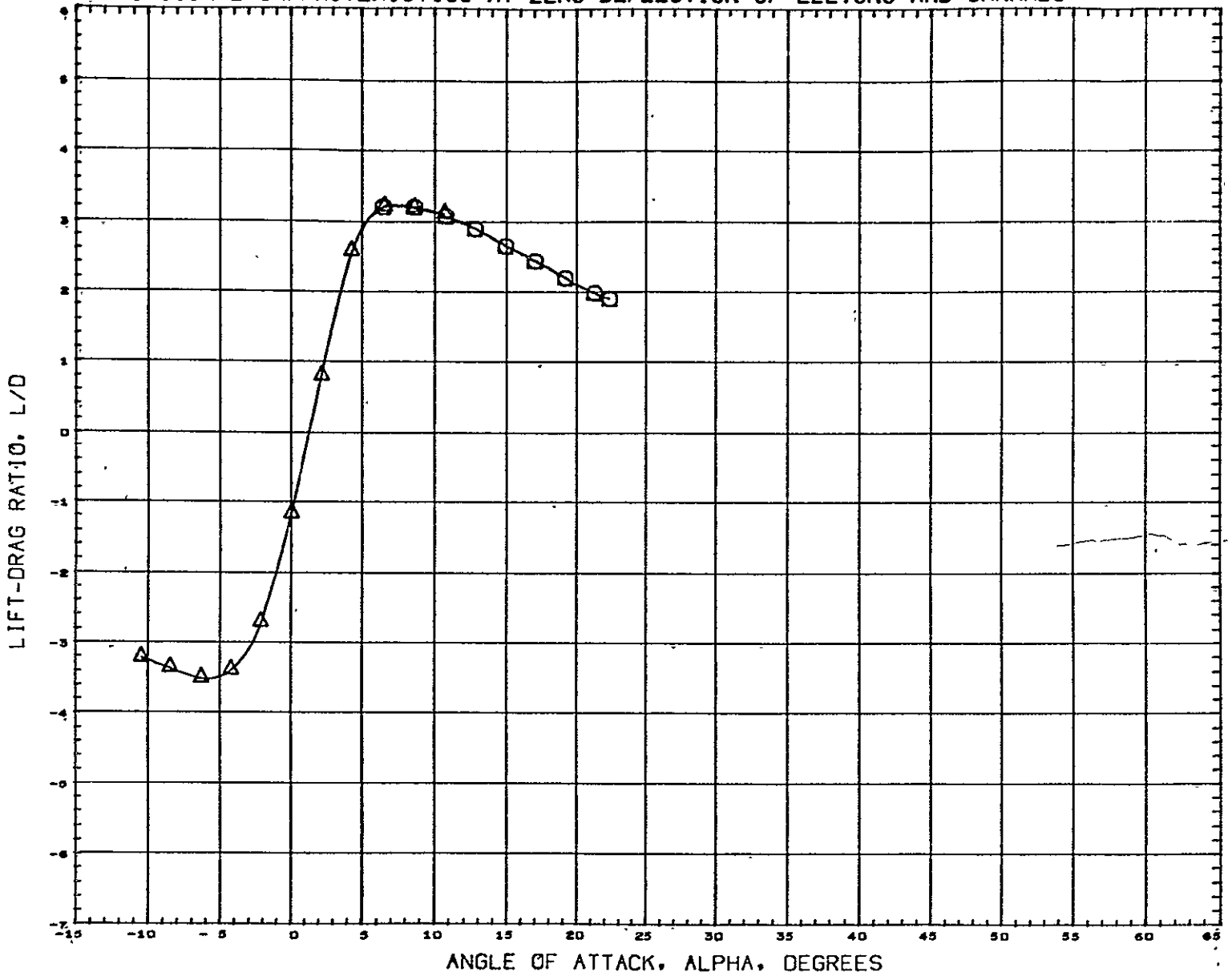
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 6.0990 IN.
						XHRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

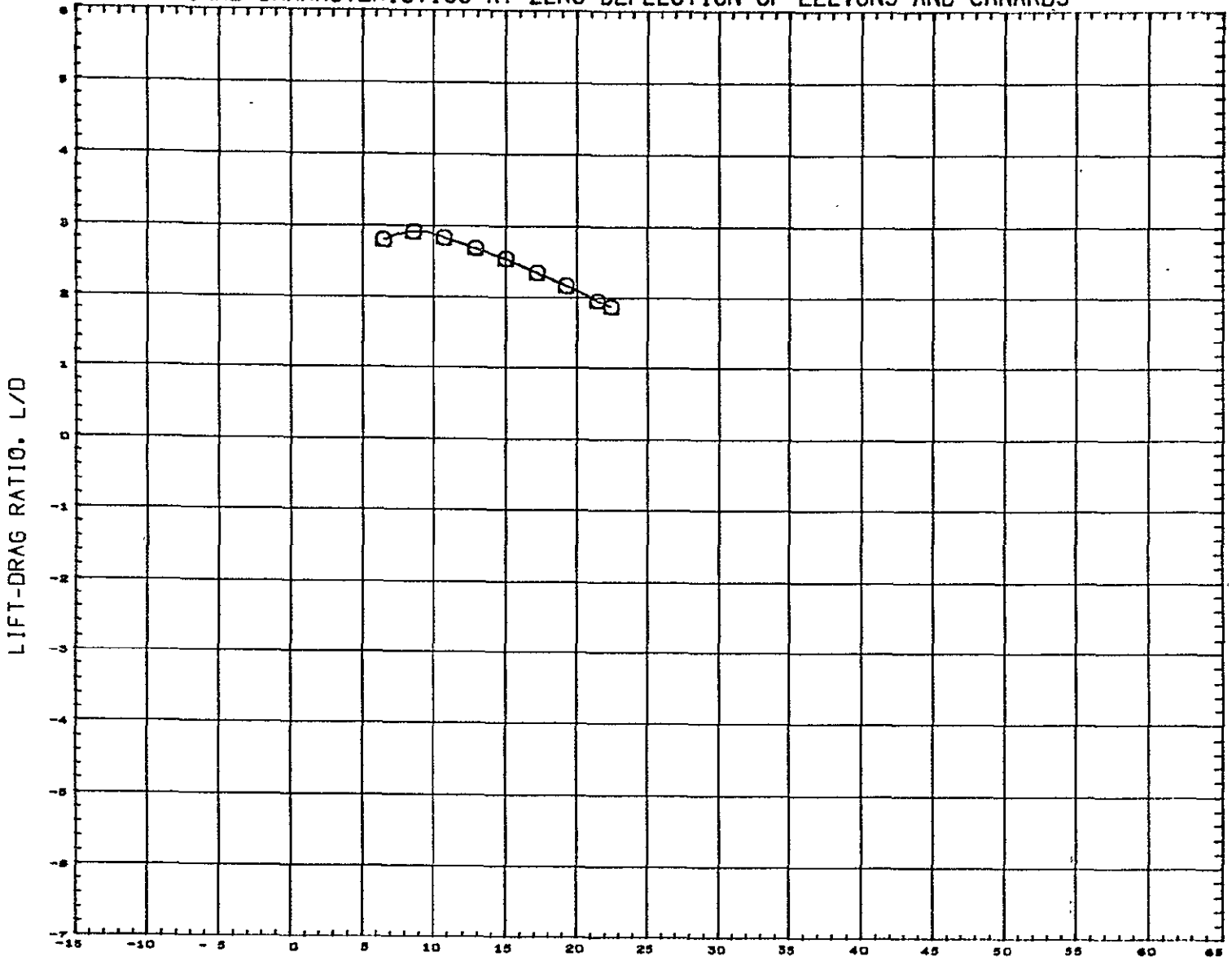


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

30

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

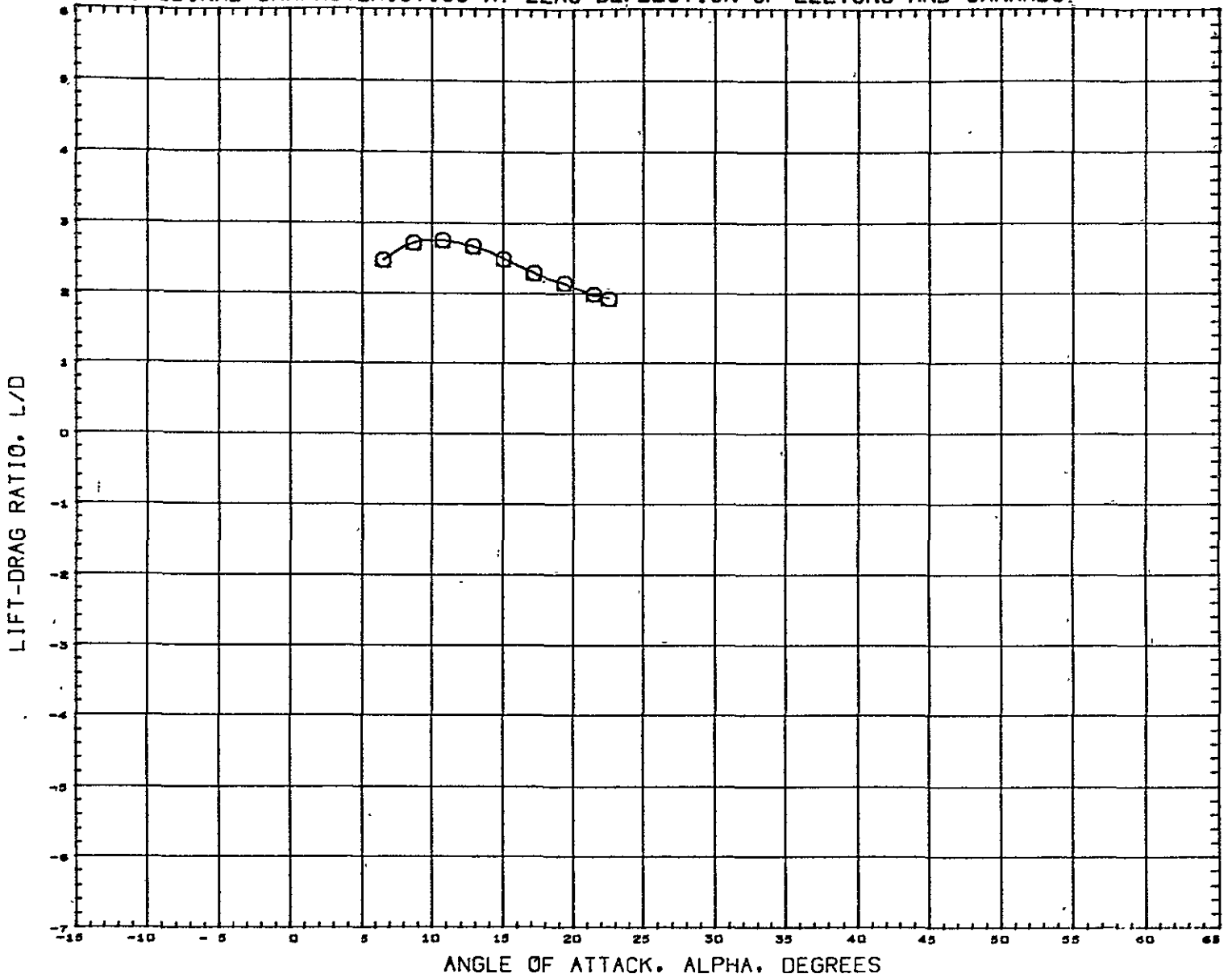


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

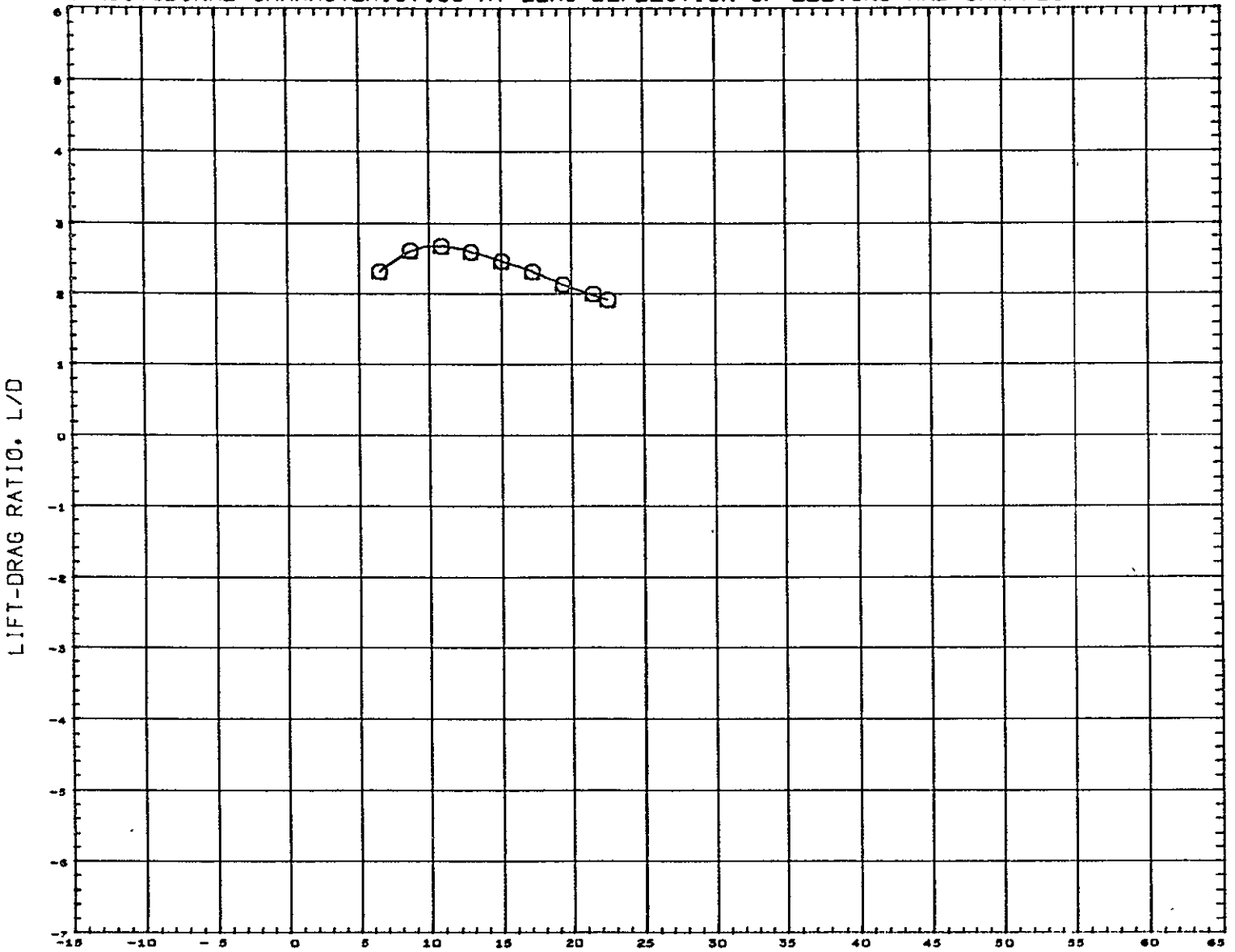
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 39.IN.
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

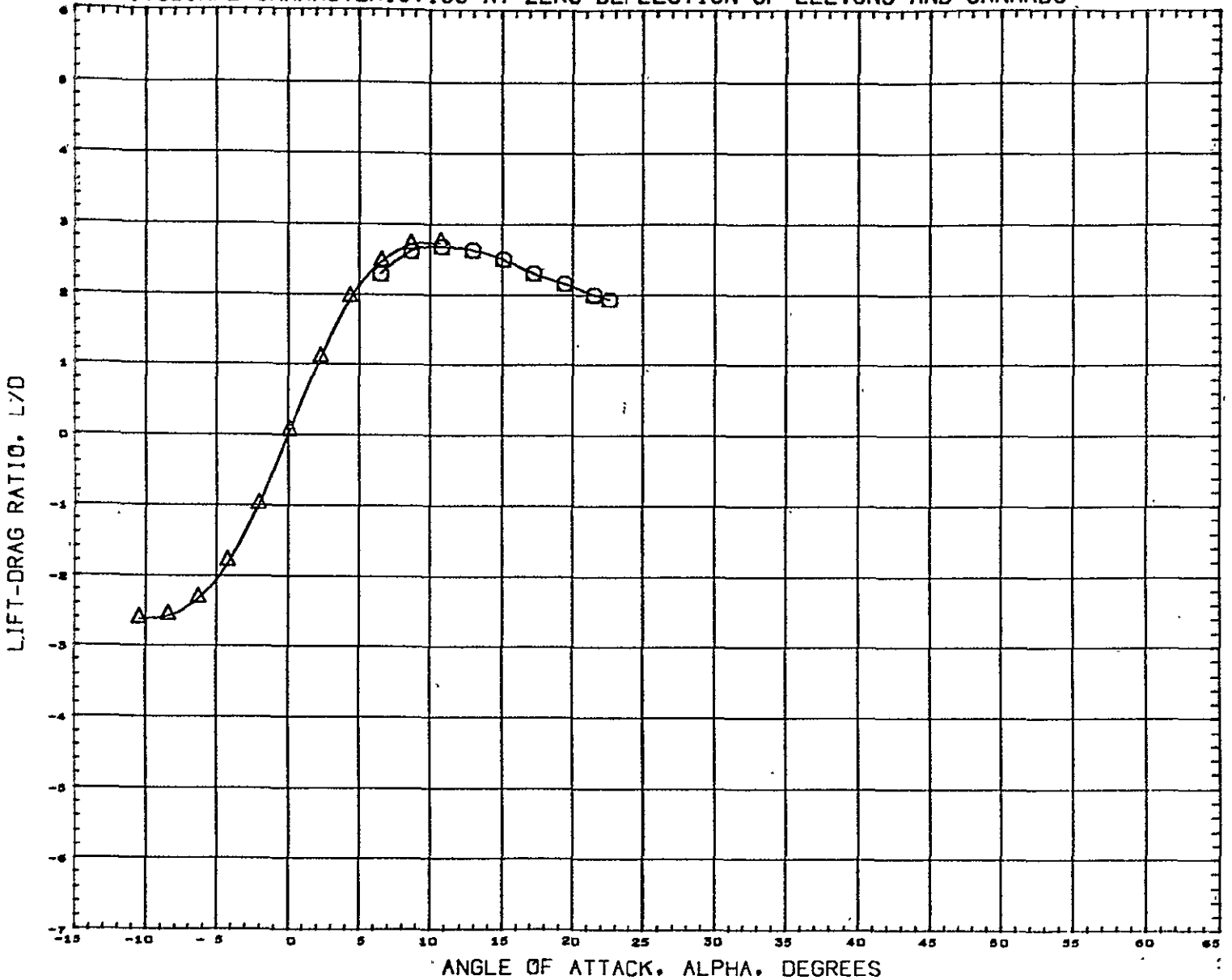


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28820)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

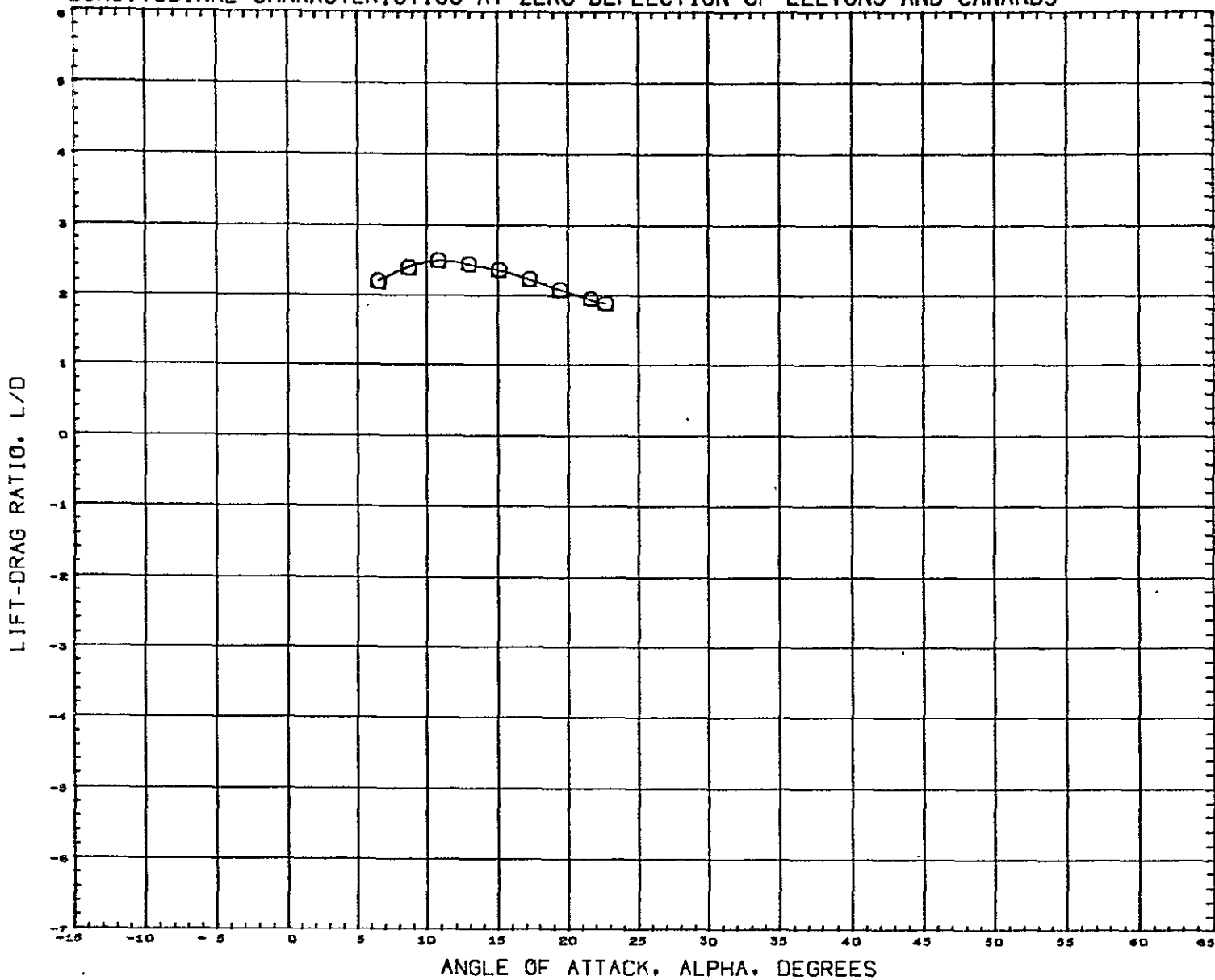
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(C20001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(E20B20)	MSFC 461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF	3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF	6.0990 IN.
						XHRP	4.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0035

MACH 1.105

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

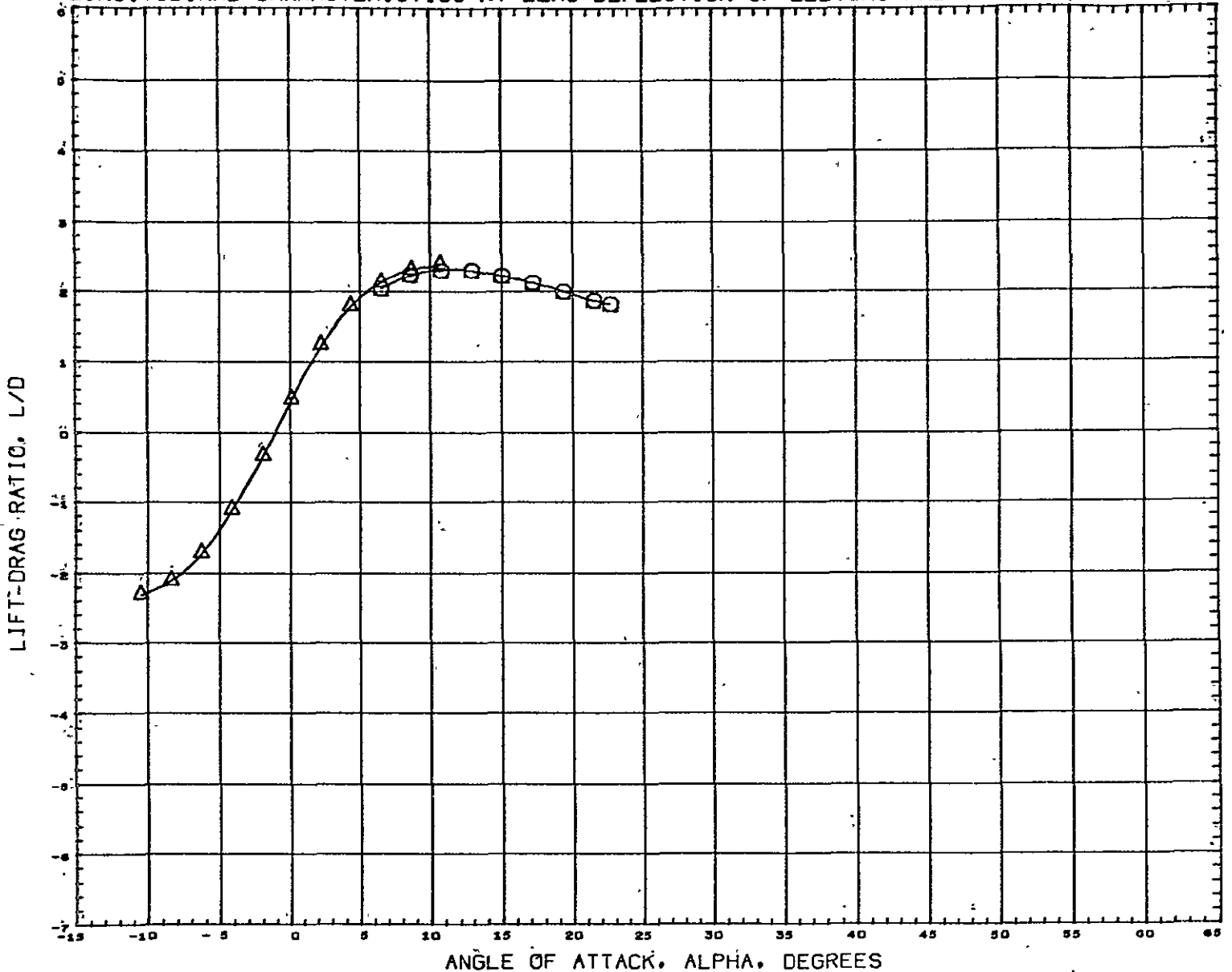


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC461 GD/C(BOOSTER)B19W14C4V7	0.000	0.000	0.000		SREF 15.6560 IN.
(E20820)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0033

MACH 1.201

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.



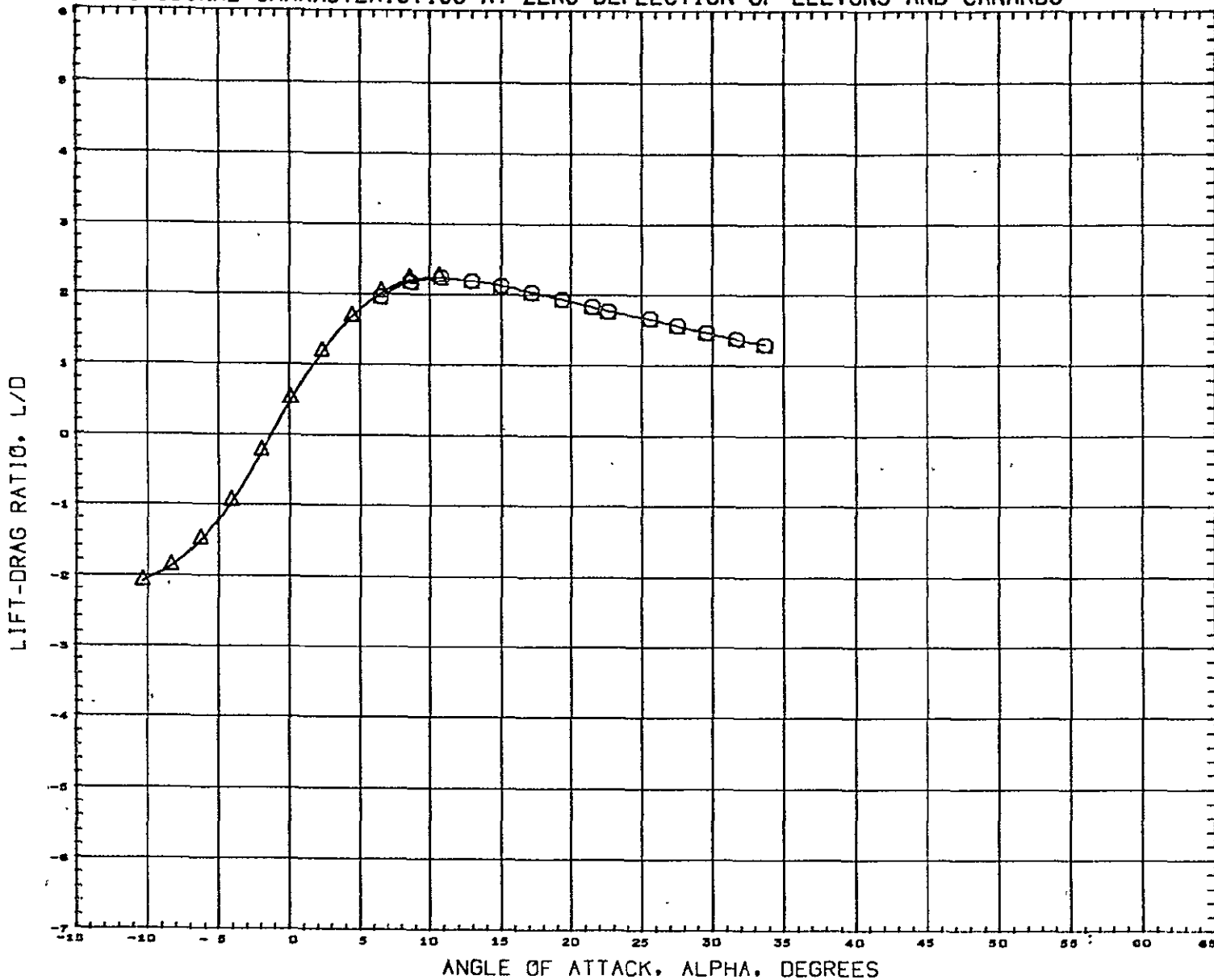
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(E20020)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7
(E20051)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION	
SREF	15.6560 SQ. IN.
LREF	3.0950 IN.
BREF	6.0990 IN.
XMRP	6.7100 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0035

MACH 1.462

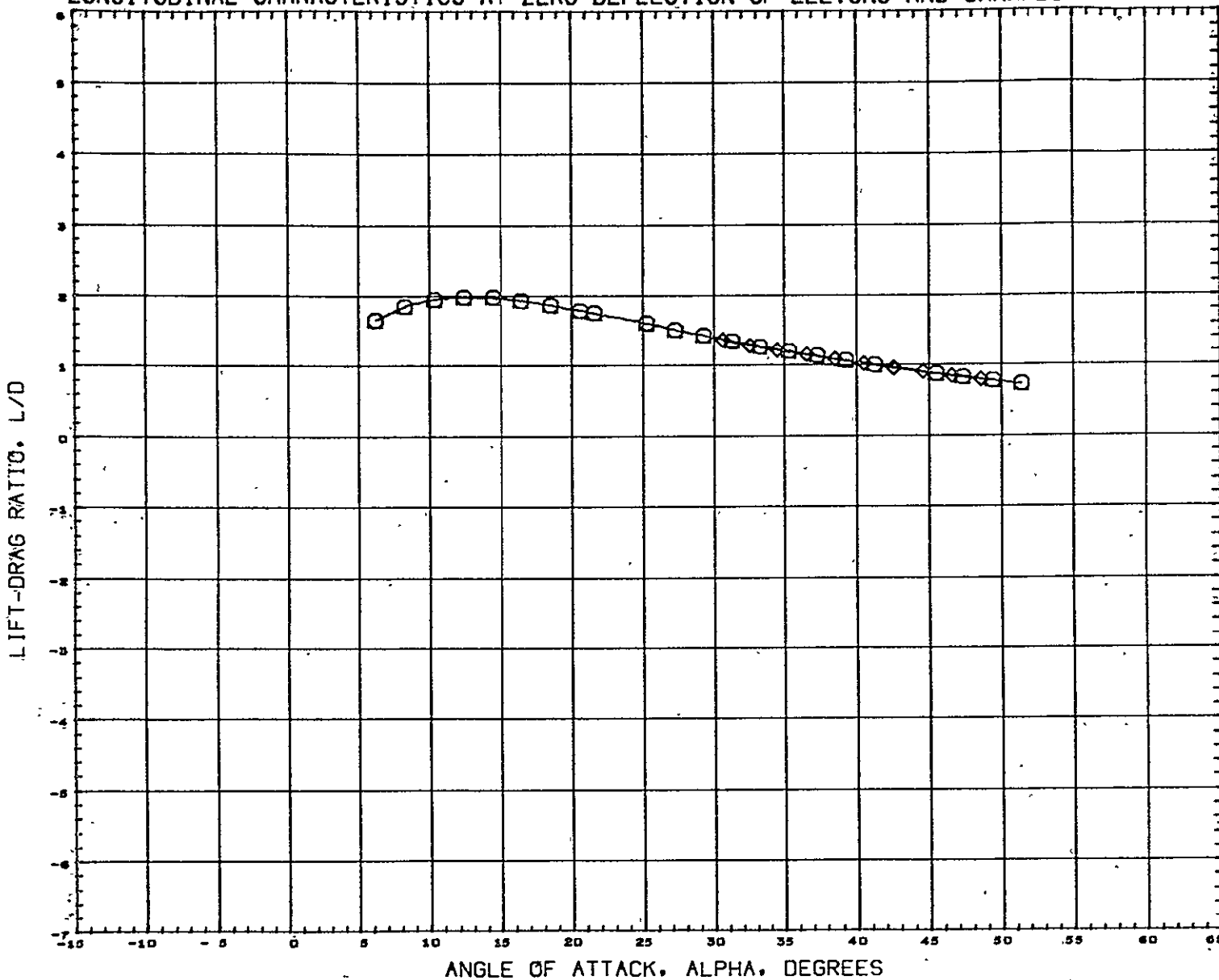
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(E20B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0039

MACH 1.958

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



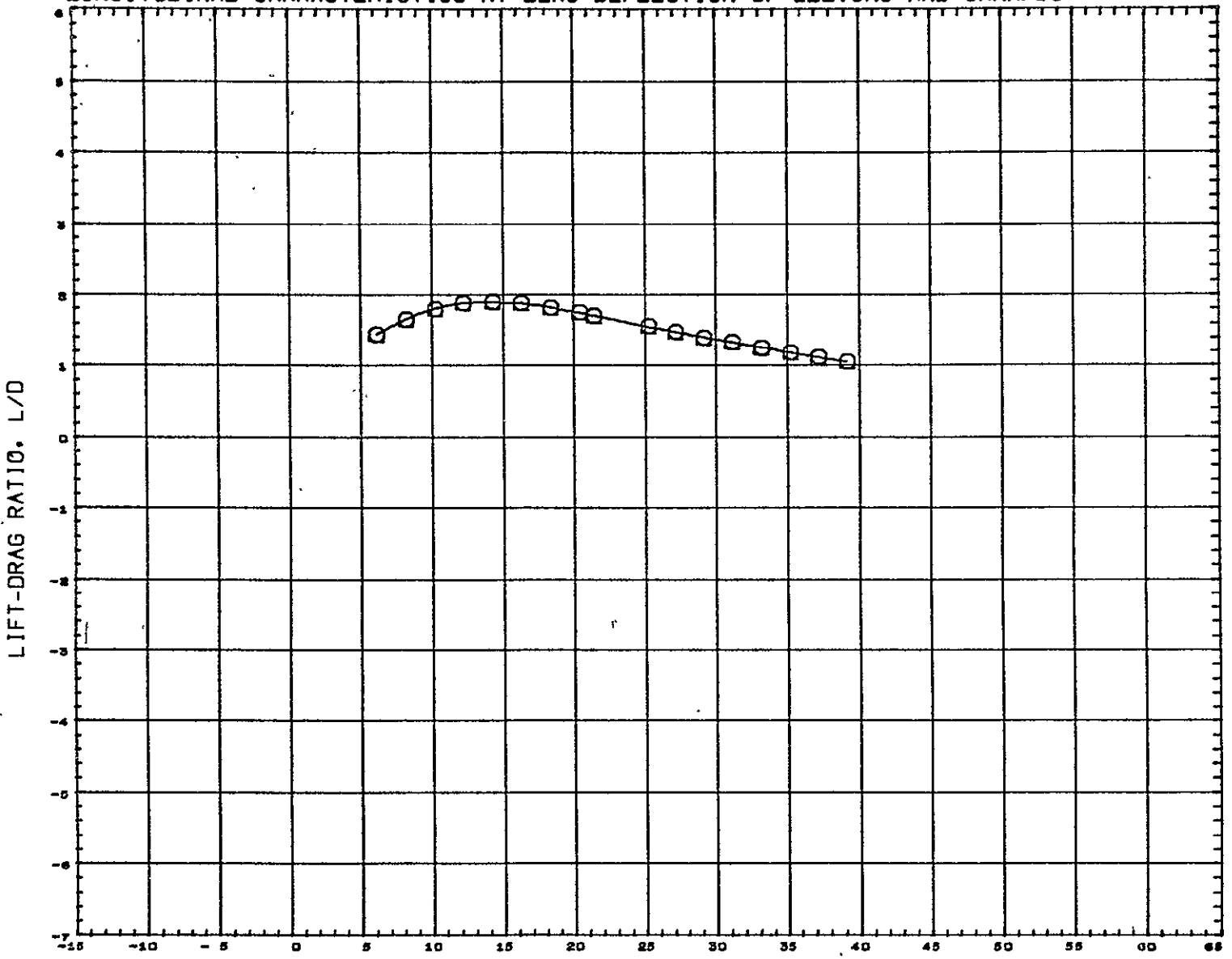
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C20001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E20C51)	MSFC461 GD/C(BOOSTER)B19W14C4A

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 2.990

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

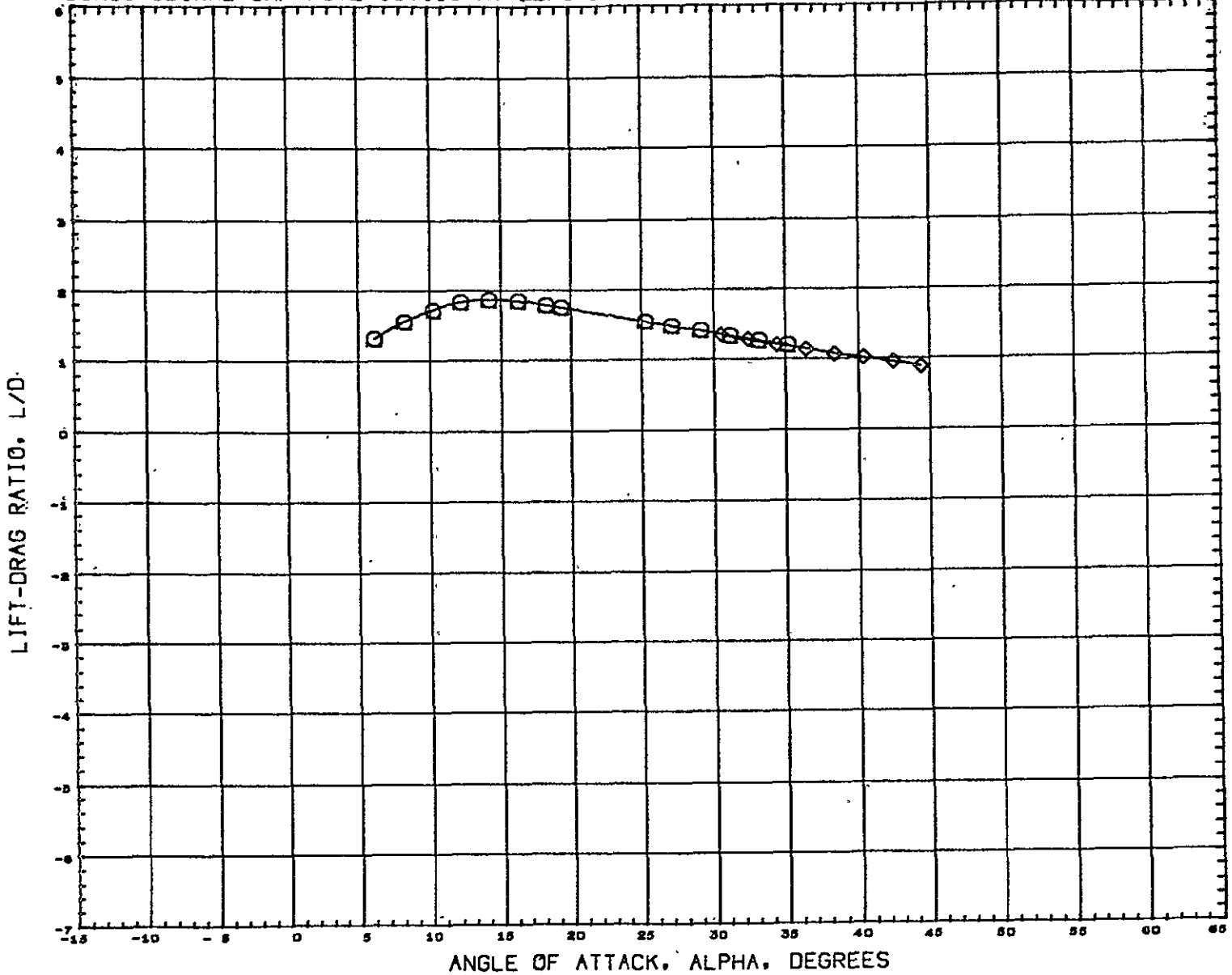


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6500 SQ. IN.
(E28820)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0850 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

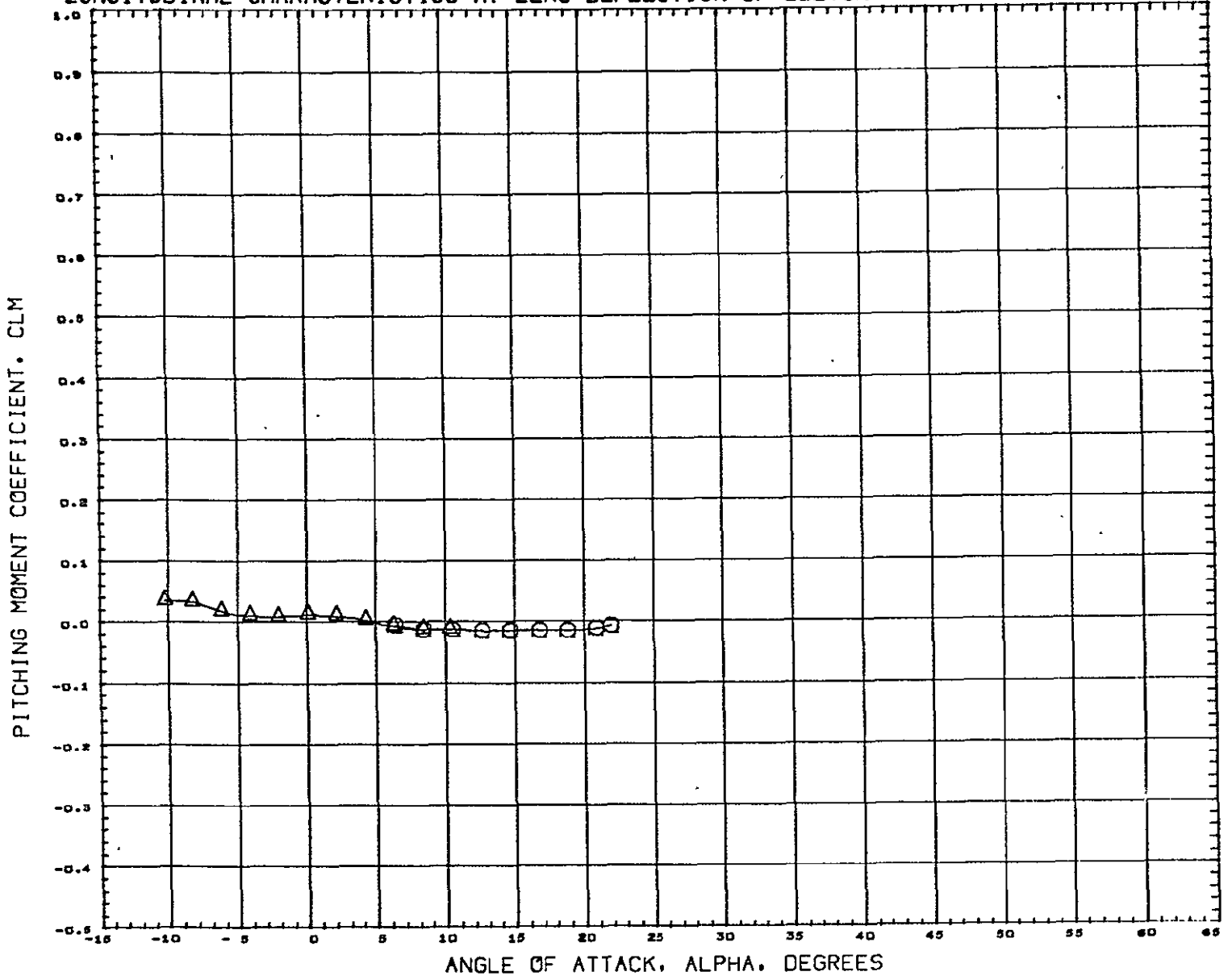
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(C28001)	M5FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 sq.in.
(E28020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF	3.0950 IN.
(E28051)	M5FC481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 4.960

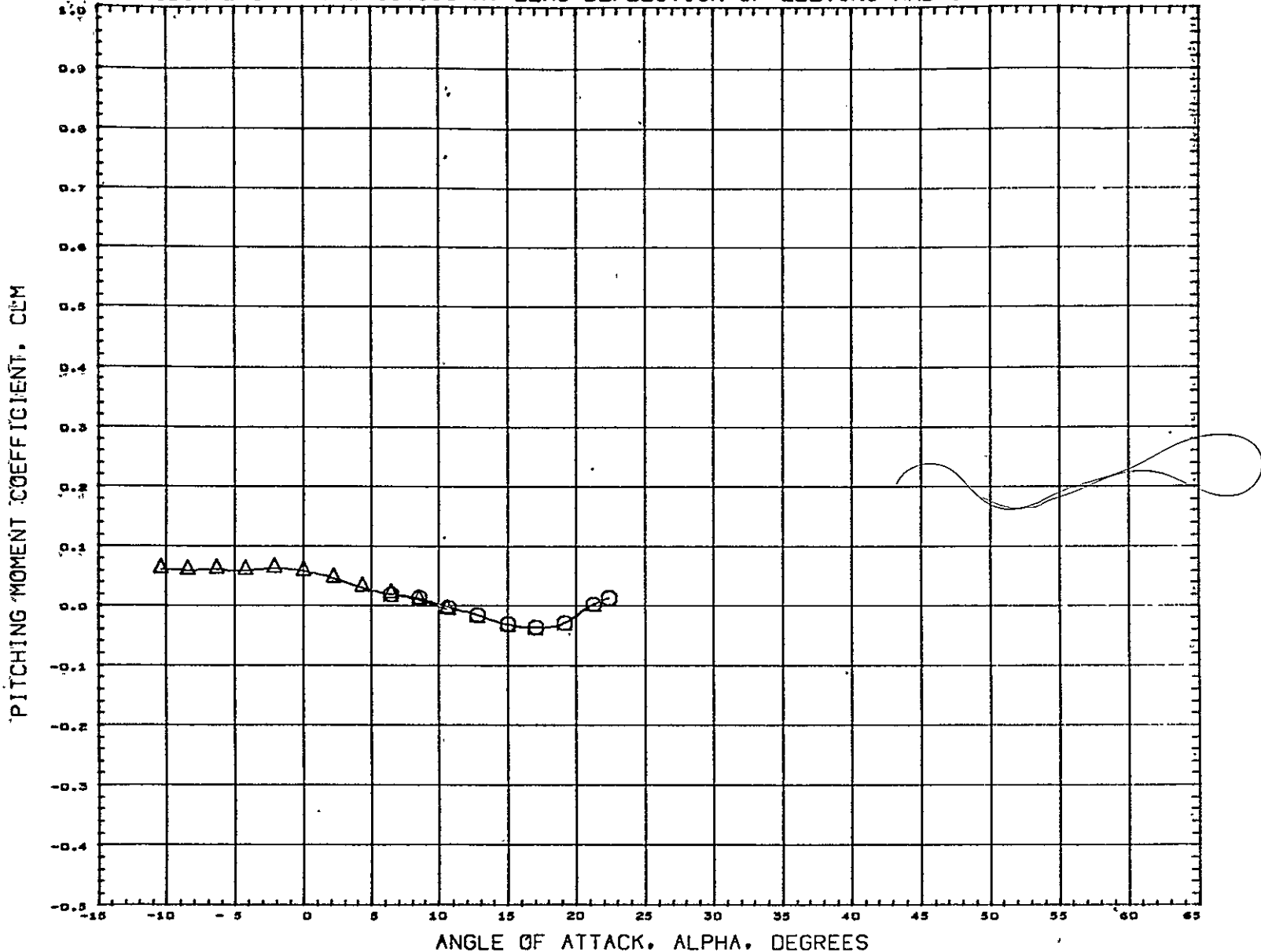
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
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						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

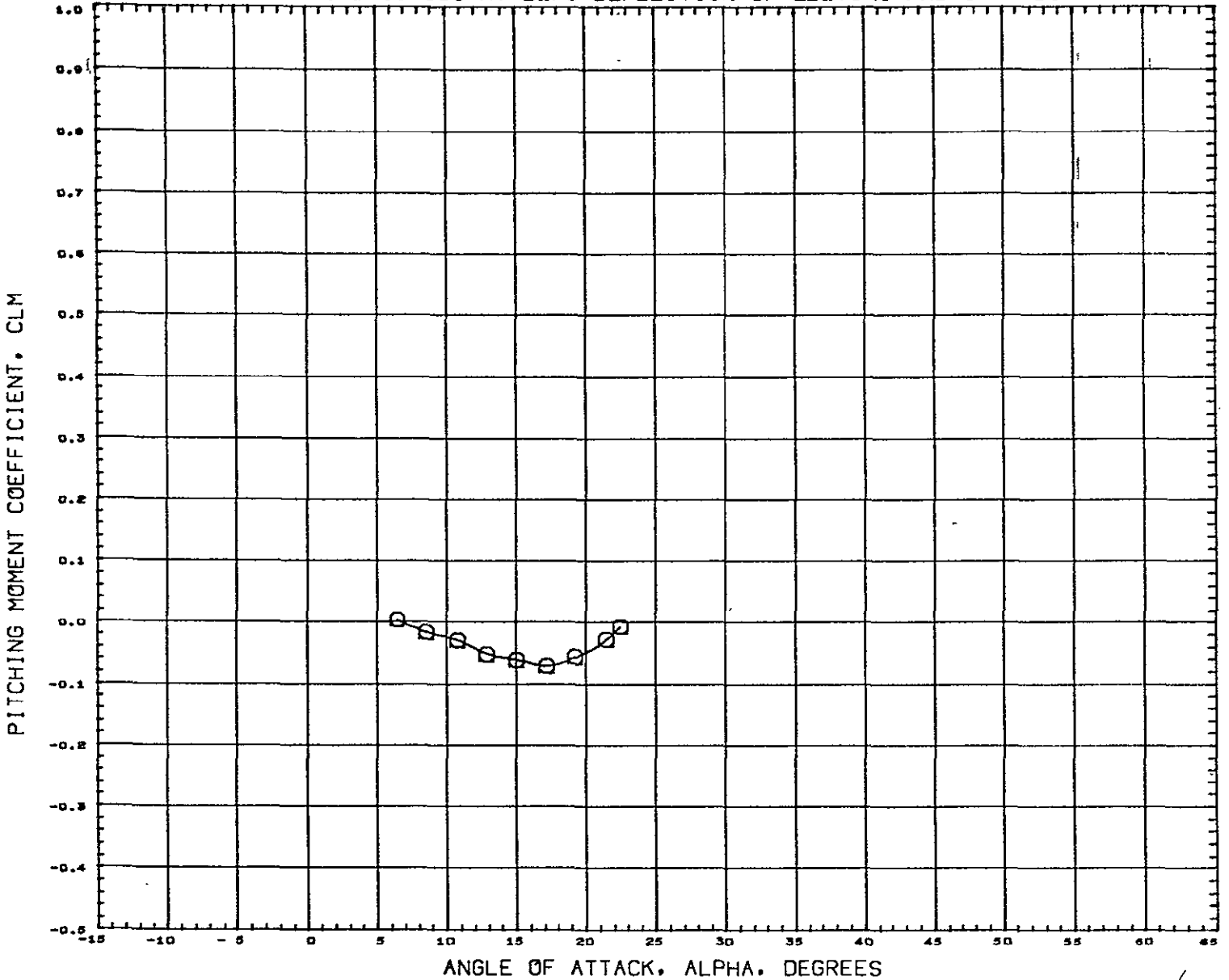
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28020)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
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						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

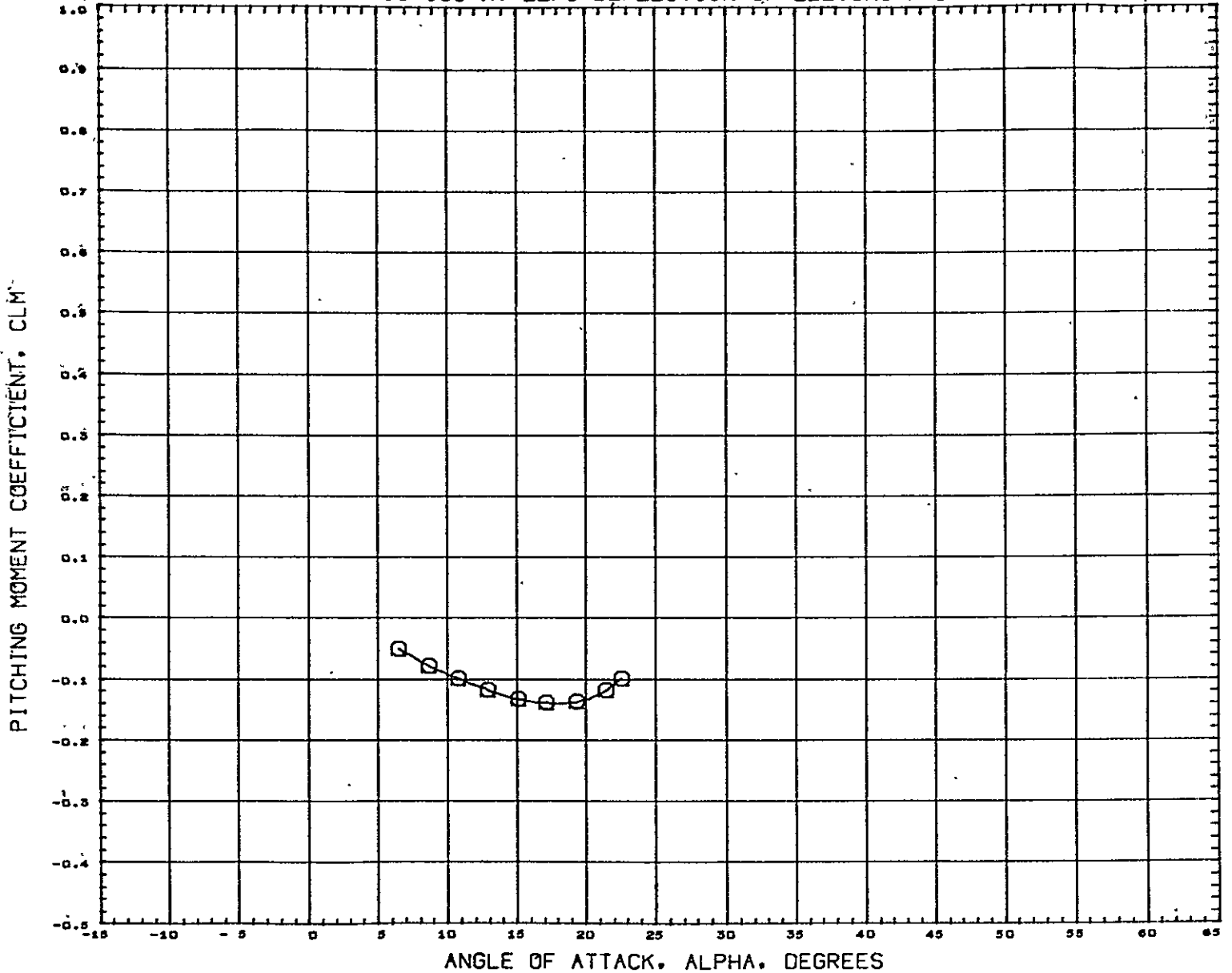
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(E28820)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
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						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

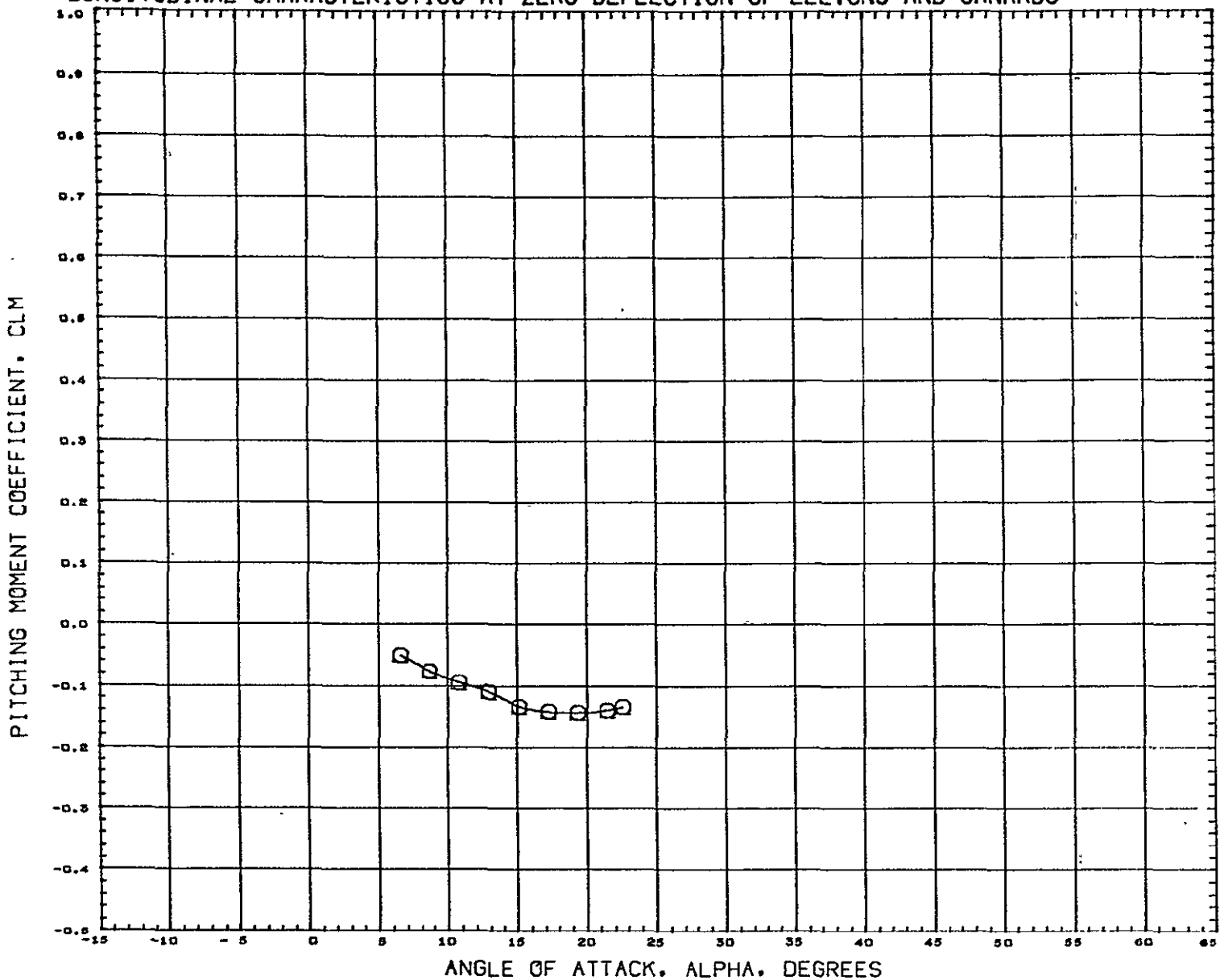
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(C20001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 59-IN.
(E20020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF	3.0950 IN.
(E20051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF	6.0990 IN.
						XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0035

MACH 1.007

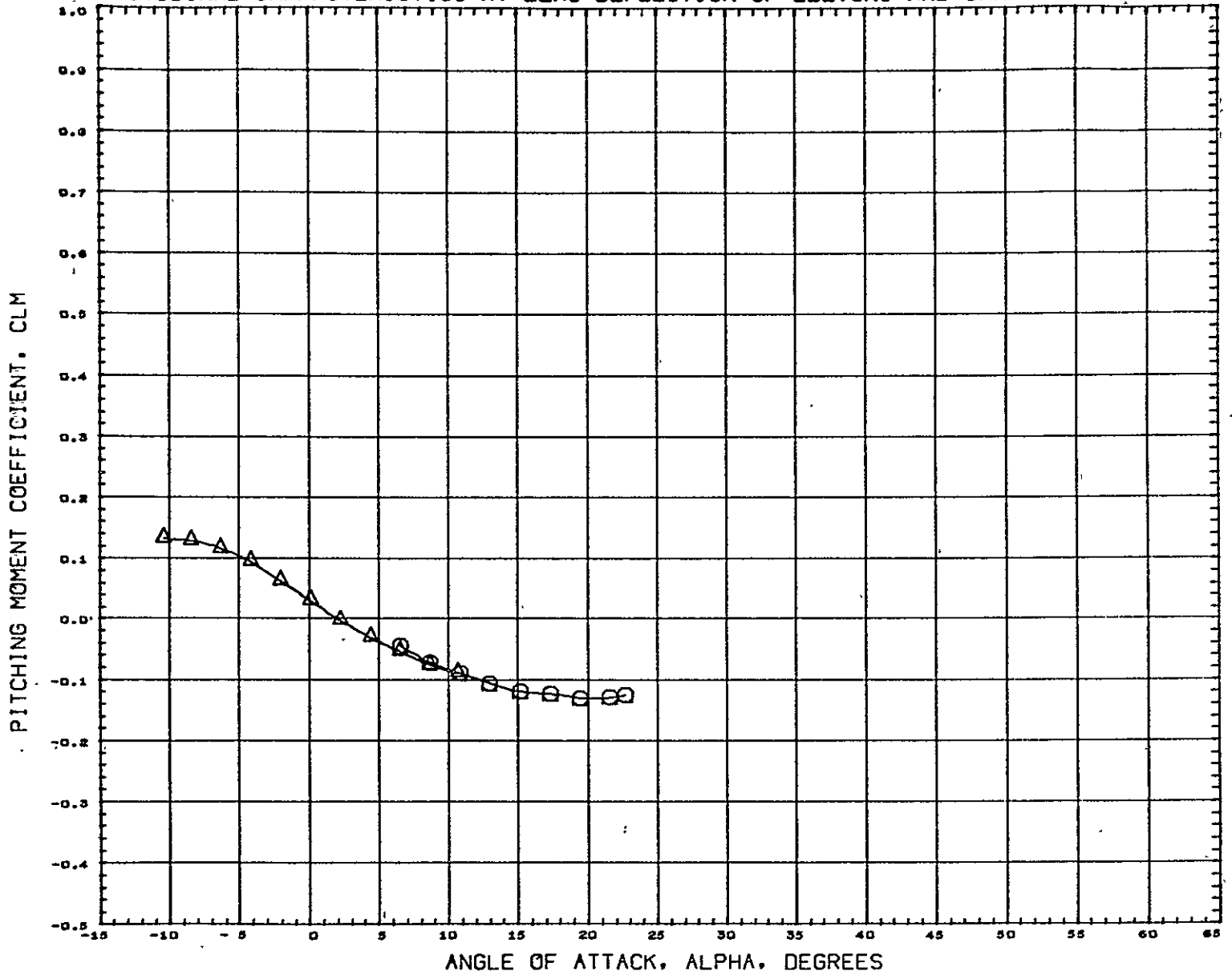
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 50.IN.
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

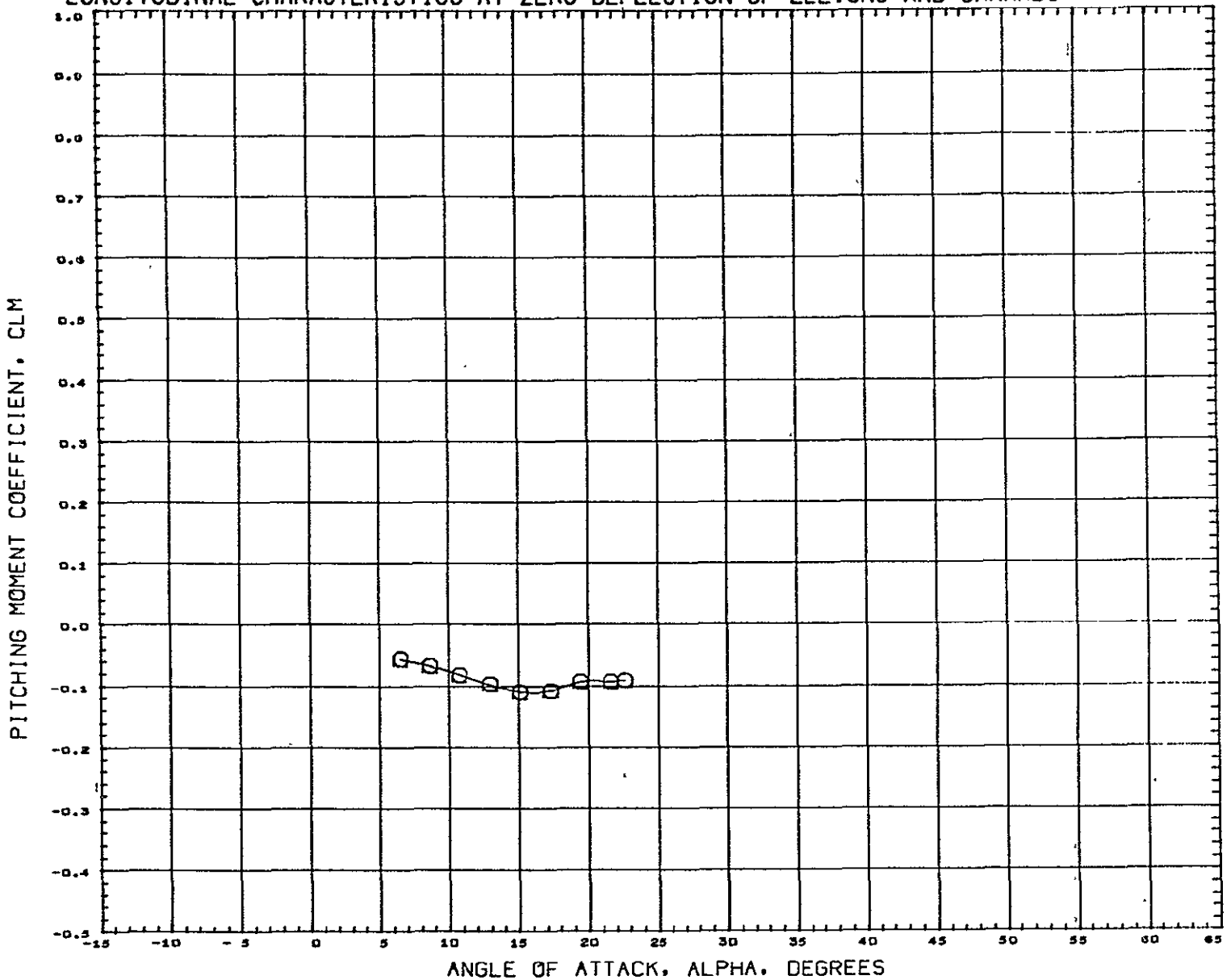
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28820)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

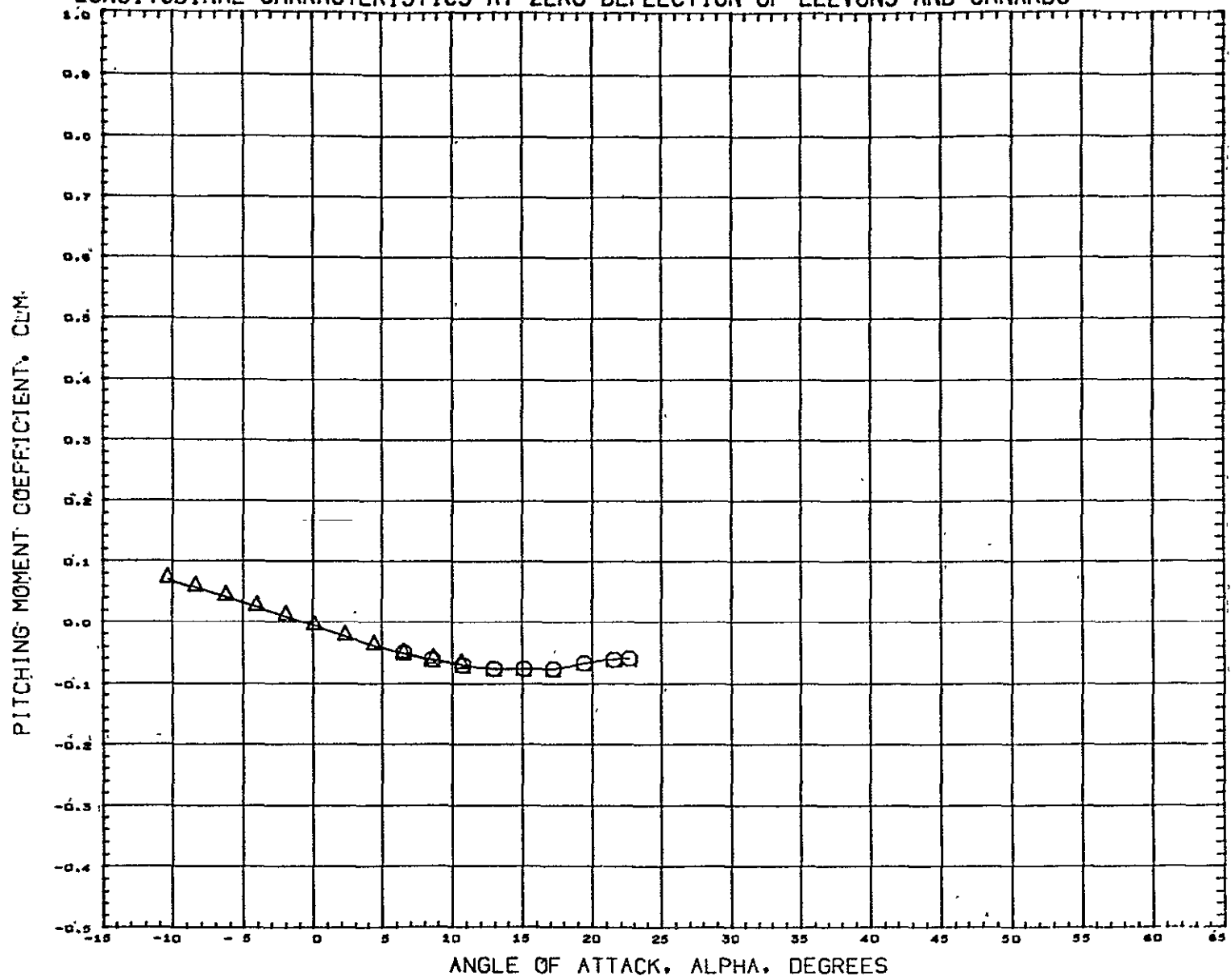
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0999 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 1.201

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

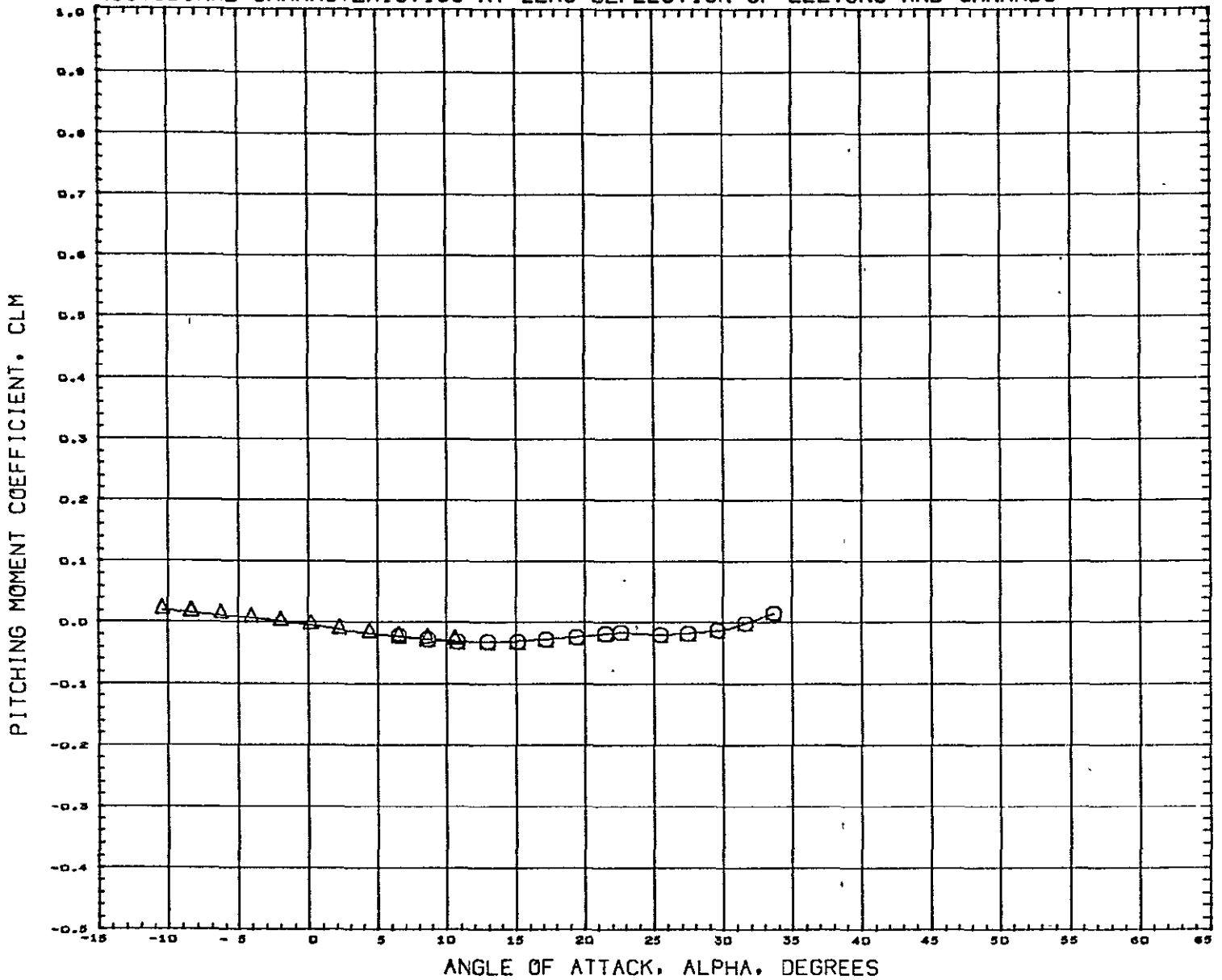


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7
(E28020)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6560 SQ. IN.
0.000	0.000	0.000		LREF 3.0050 IN.
0.000	0.000	0.000		BREF 6.0990 IN.
				XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0055

MACH 1.462

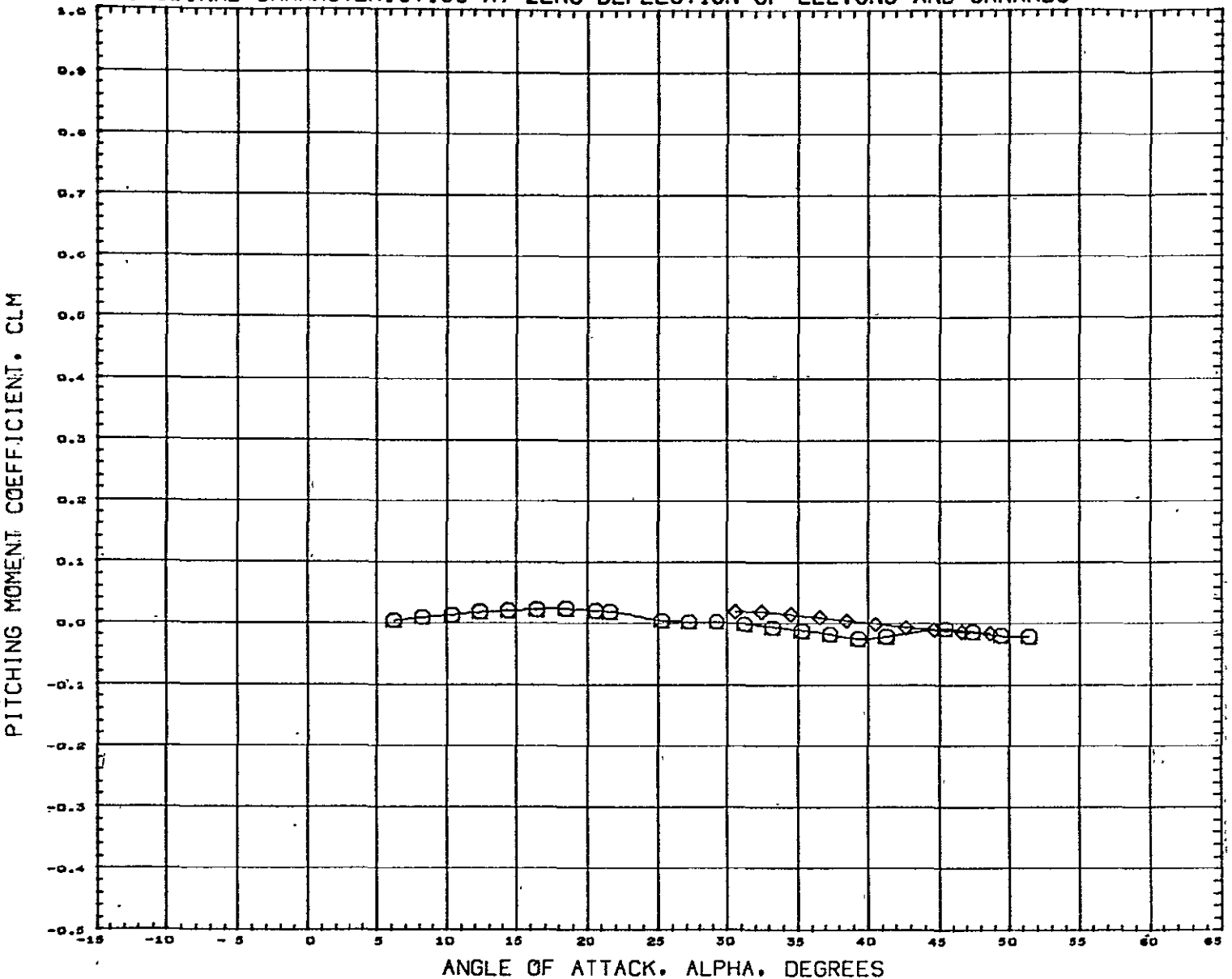
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 461 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
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						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

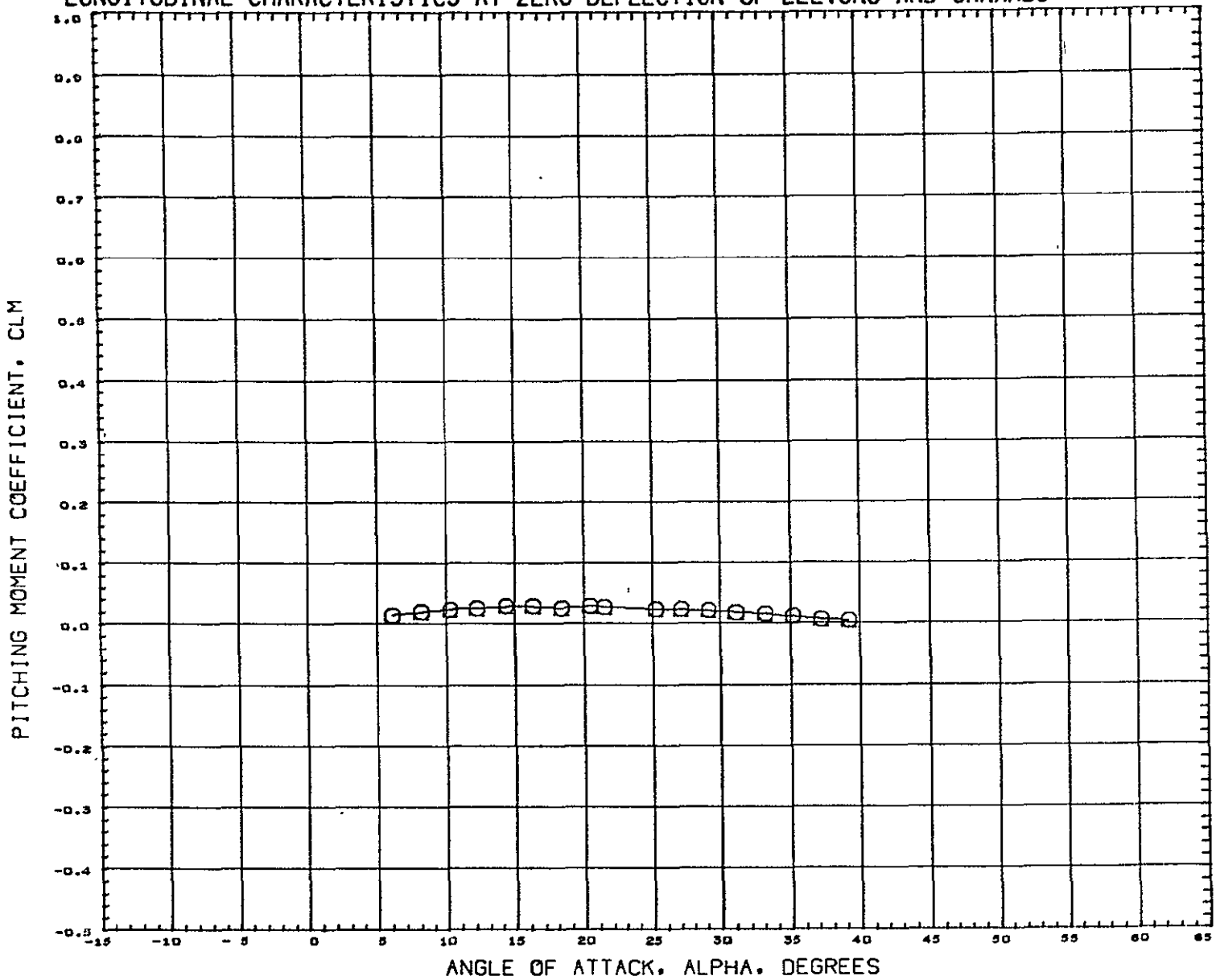
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E26B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0990 IN.
(E26C51)	MSFC461 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

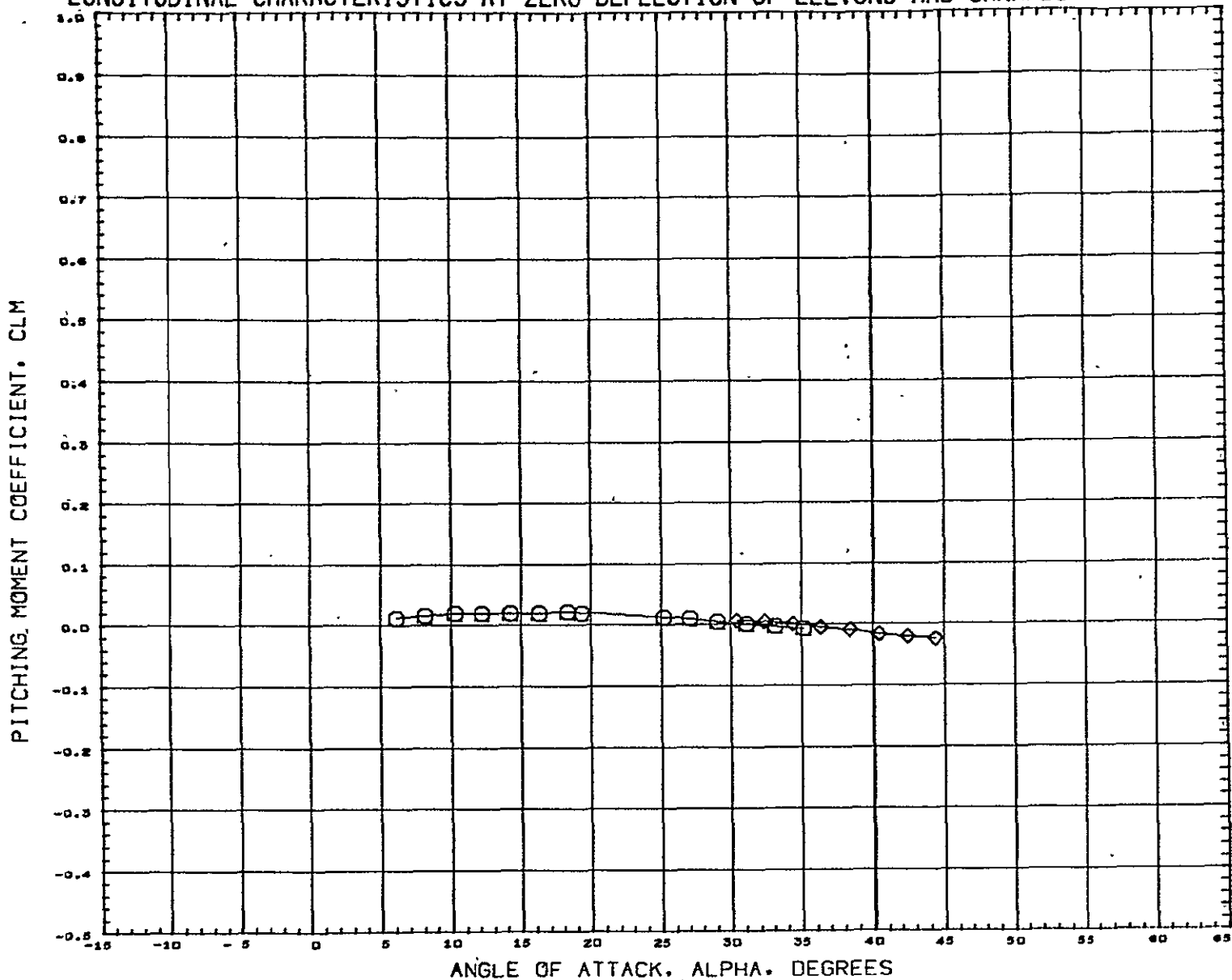
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E26B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0990 IN.
(E26C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



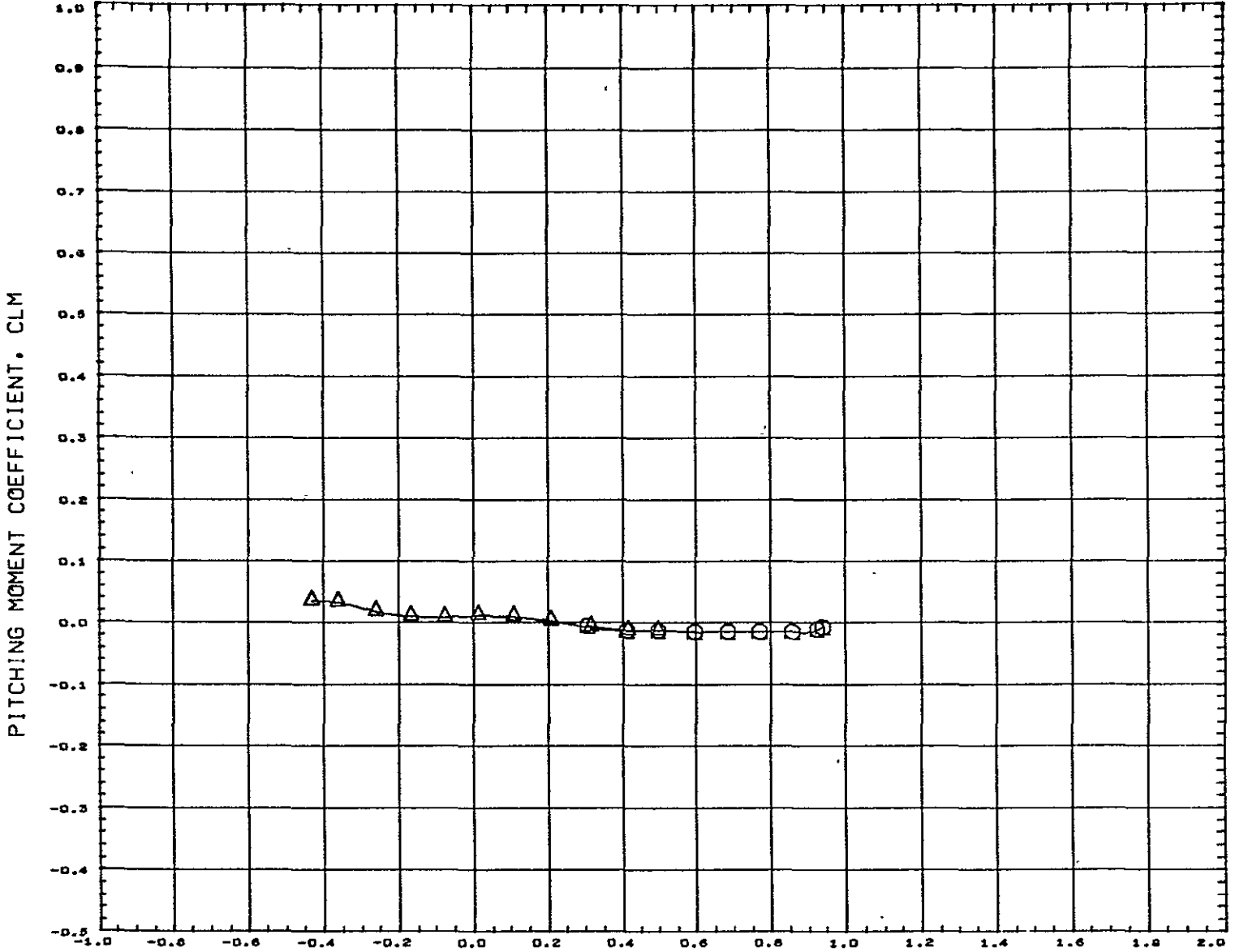
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(E20020)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E20051)	MSFC481 GD/C(BOOSTER)B19W14C4A

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 4.960

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

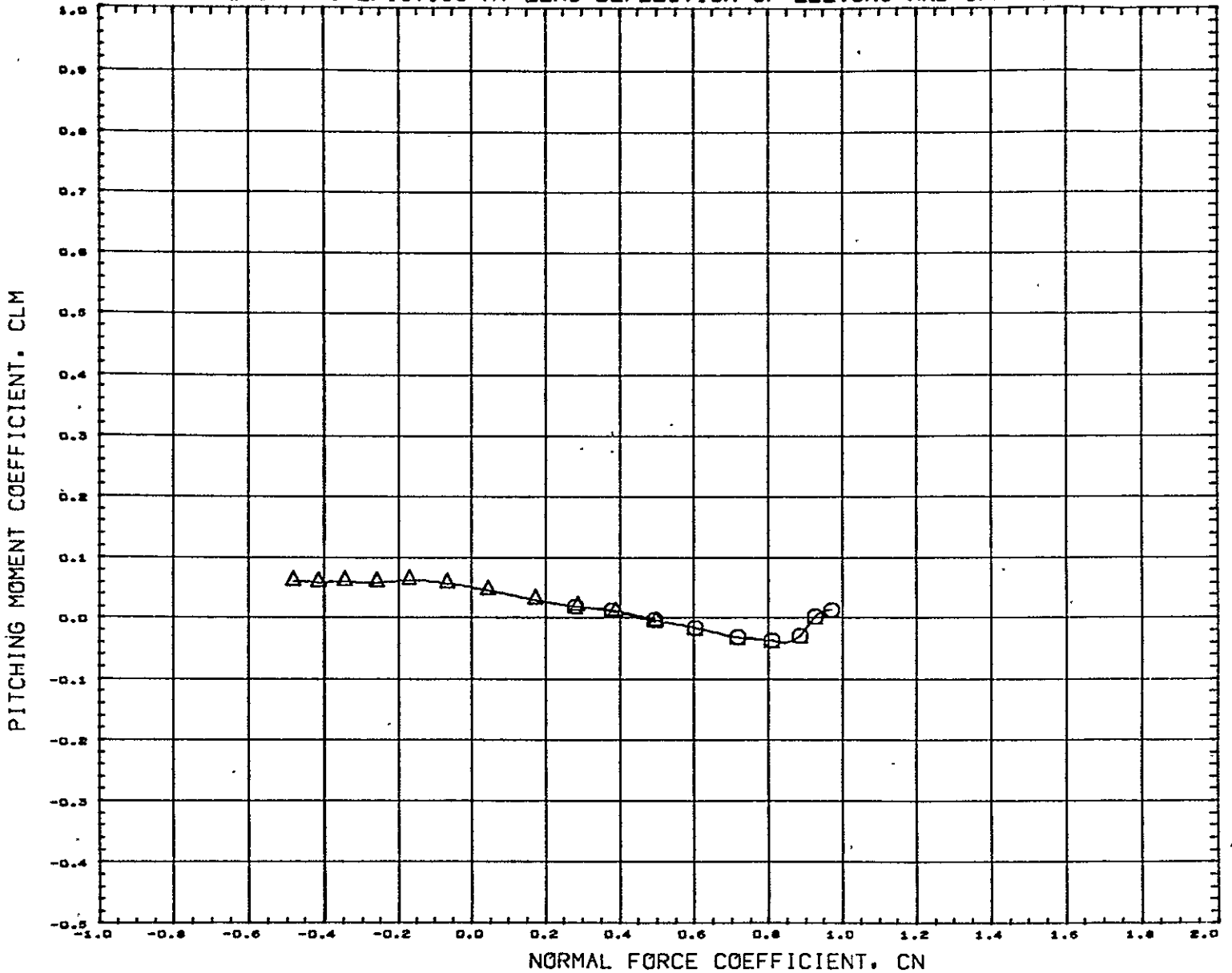


NORMAL FORCE COEFFICIENT, CN

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C280U1)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B2D)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

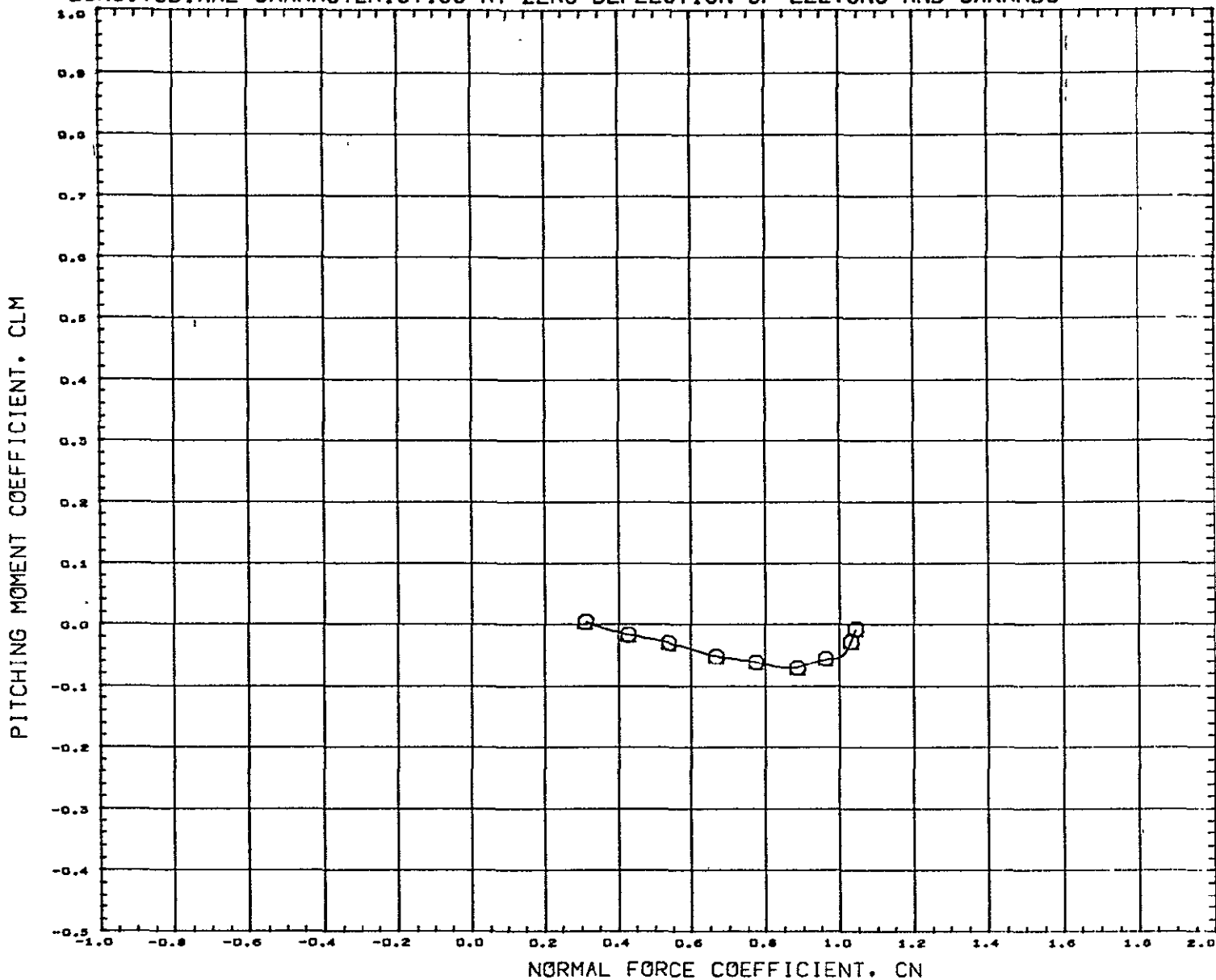


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C260D1)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E28B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E28C31)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6560 SQ. IN.
0.000	0.000	0.000		LREF 3.0950 IN.
0.000	0.000	0.000		BREF 6.0990 IN.
				XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 0.900

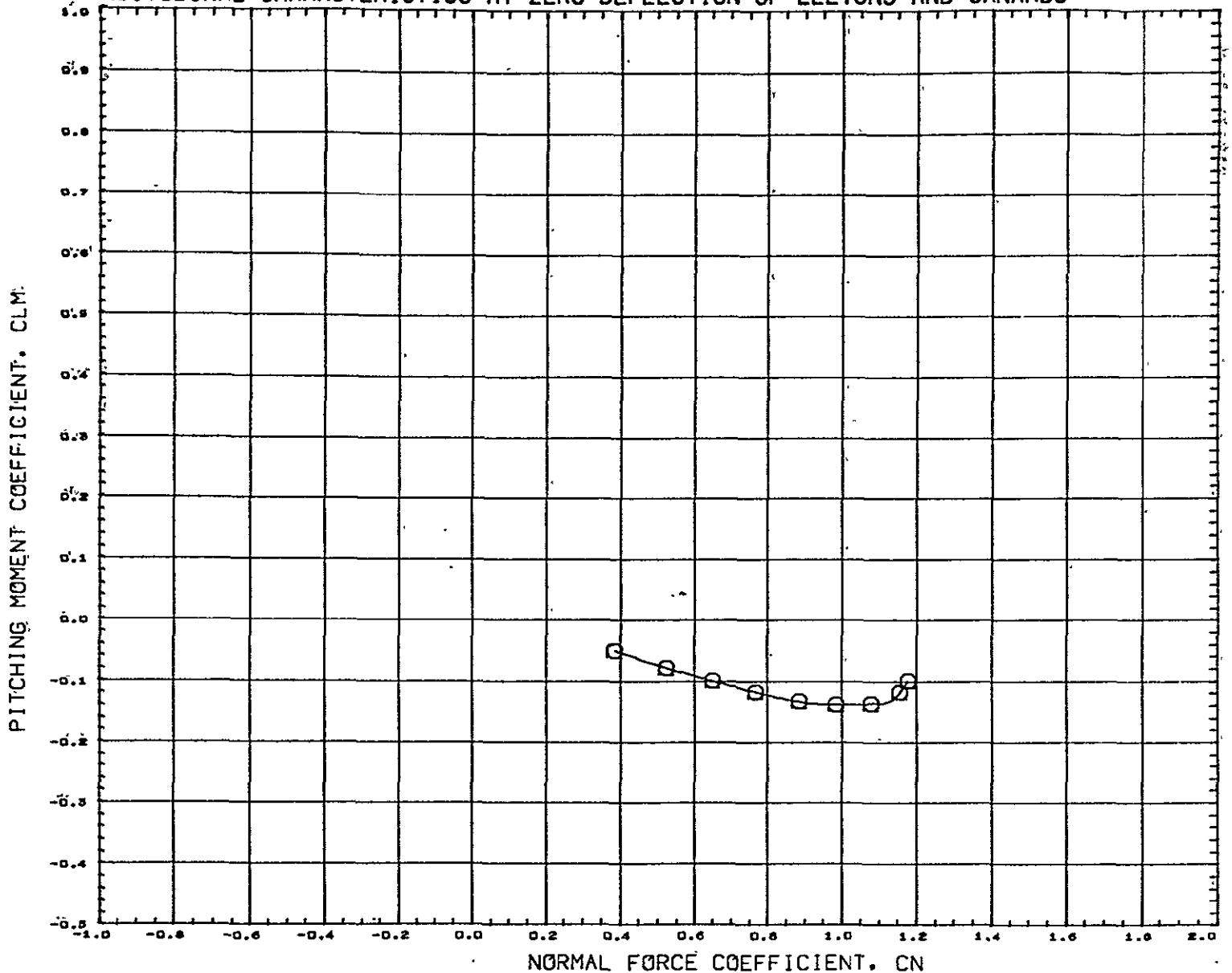
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.954

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



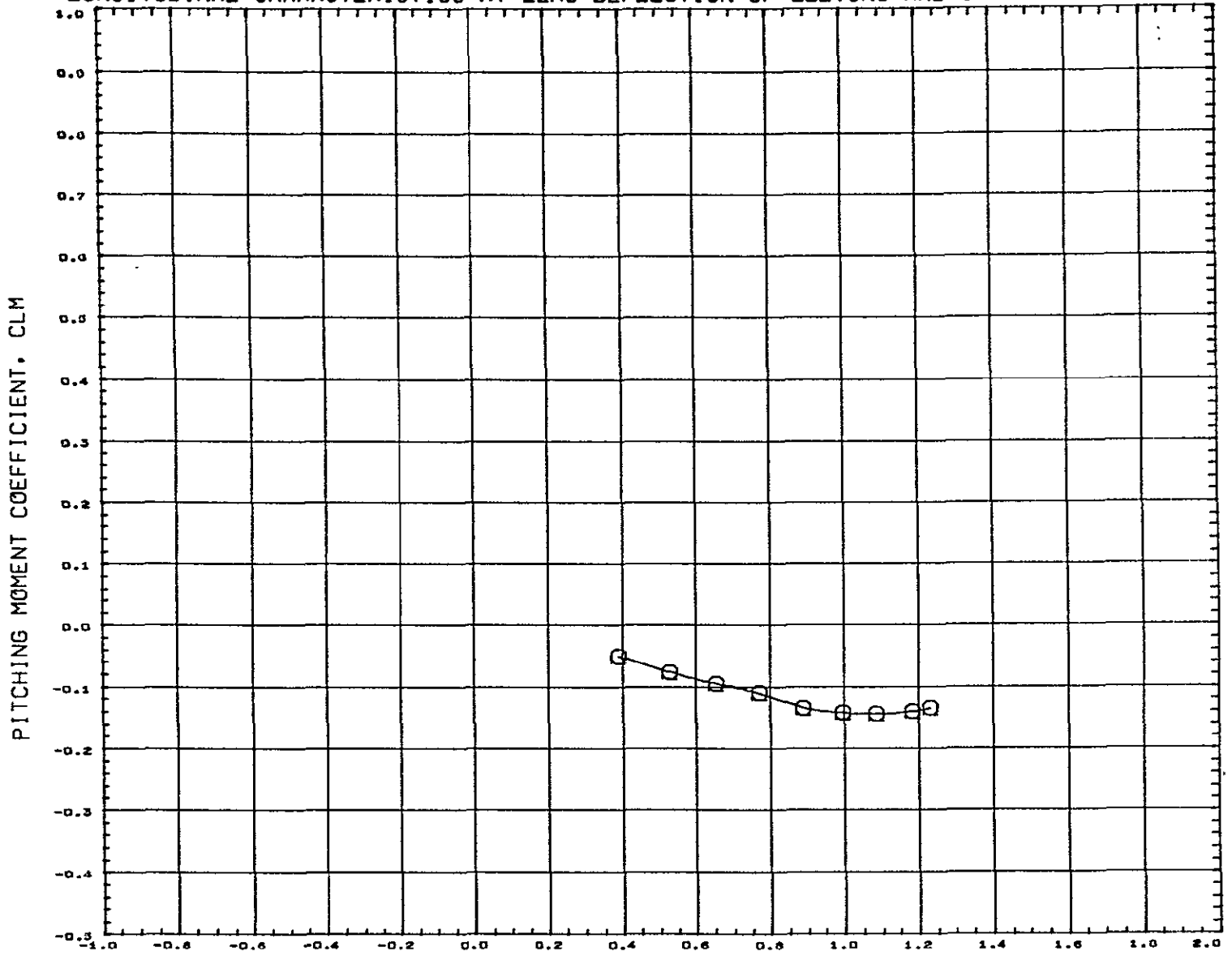
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4V7
(E28B2D)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 1.007

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

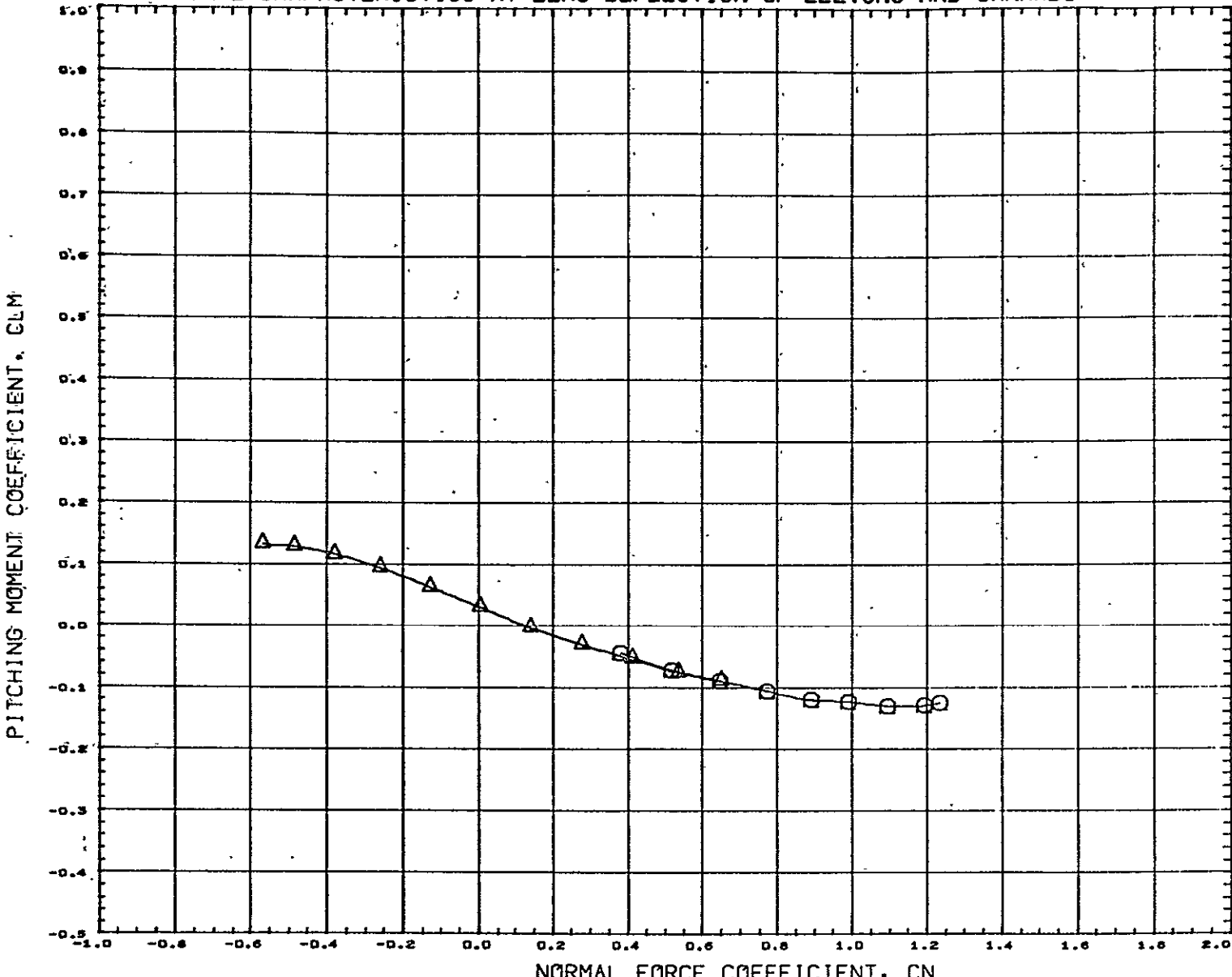


NORMAL FORCE COEFFICIENT, CN

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 50.IN.
(E28020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

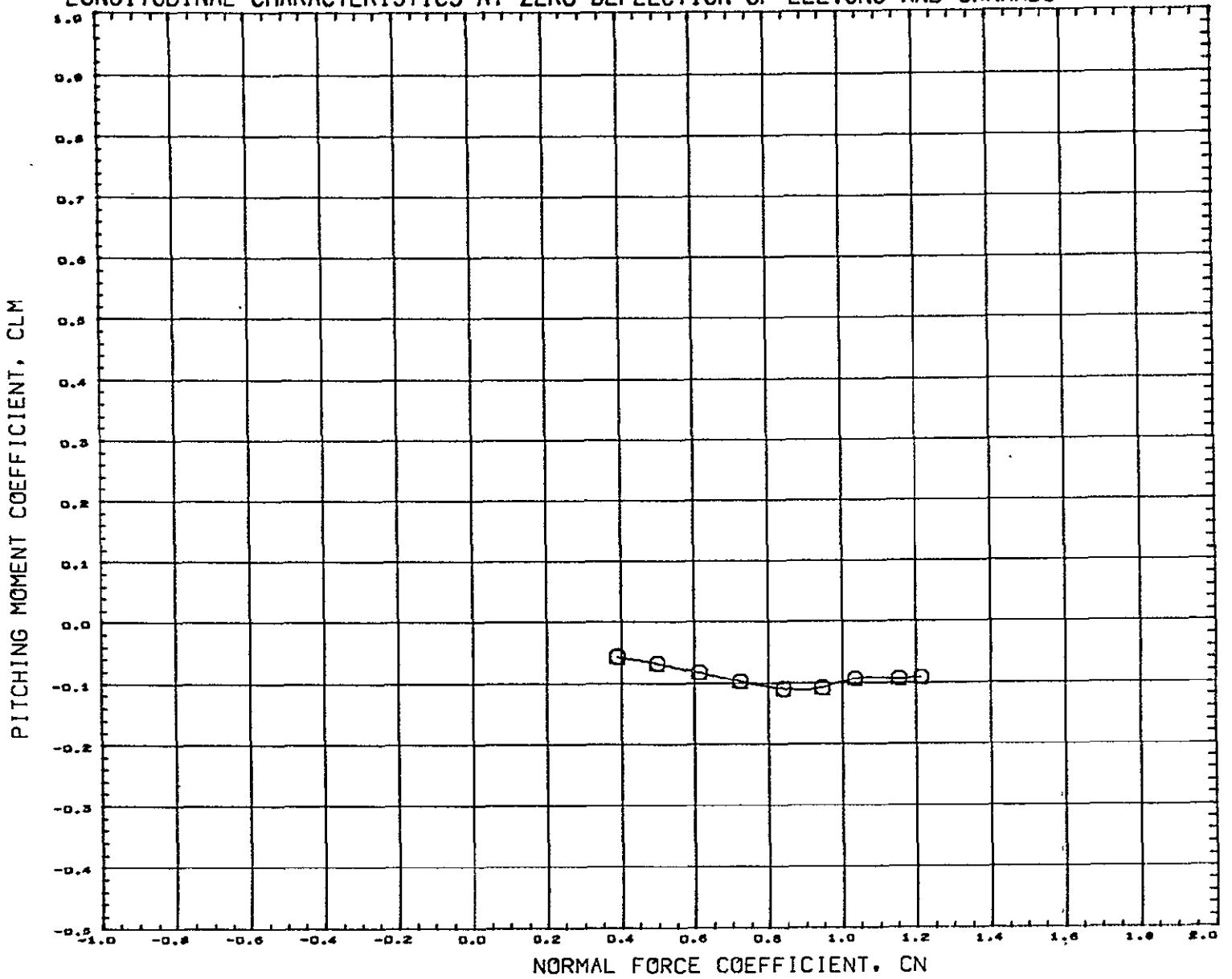


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7
(E28020)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7
(E28051)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000		SREF	15.6560 30. IN.
0.000	0.000	0.000		LREF	3.0950 IN.
0.000	0.000	0.000		BREF	6.0990 IN.
				XMRP	6.7100 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0035

MACH 1.105

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

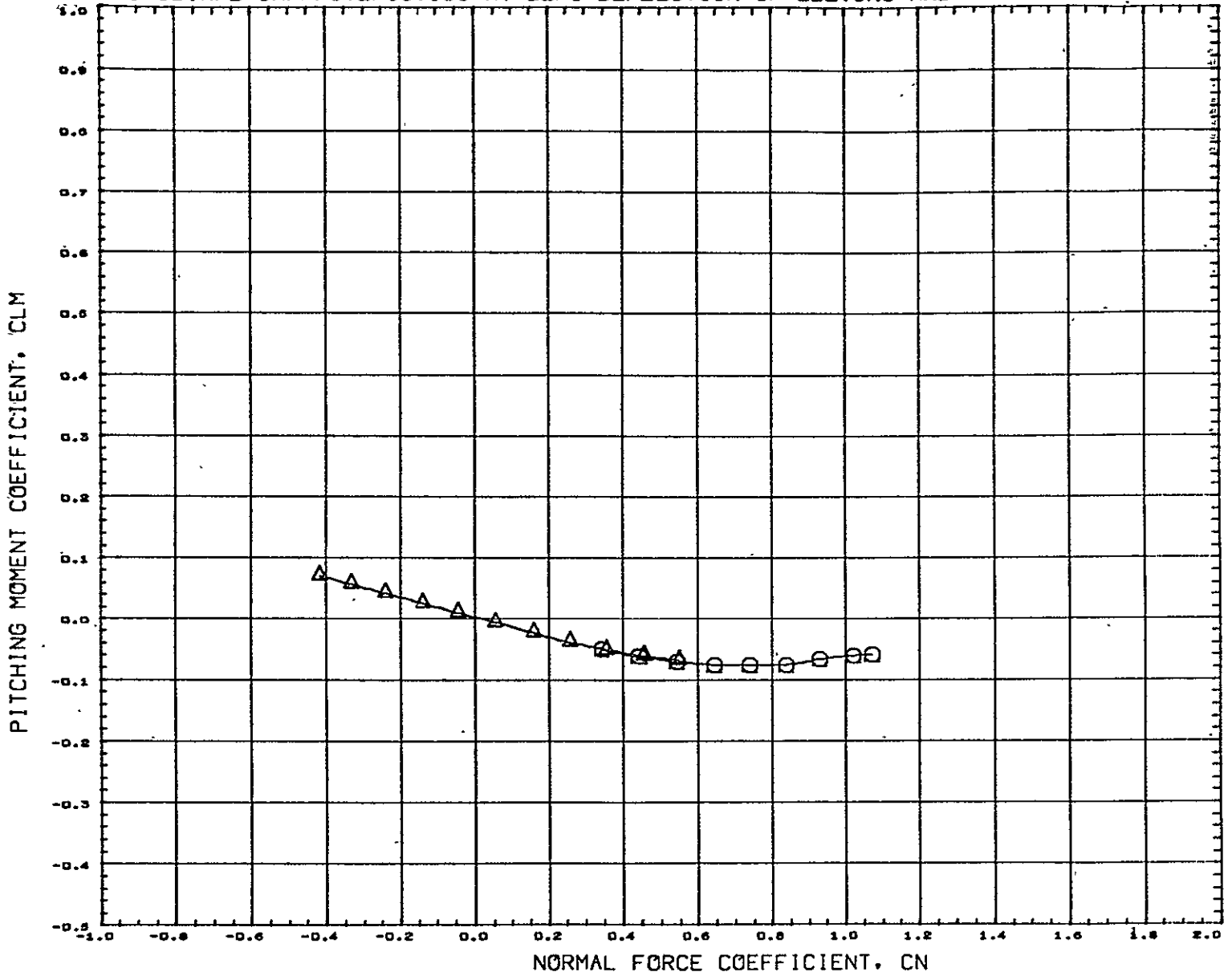


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C29001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(E28820)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6560 39.IN.
0.000	0.000	0.000		LREF 3.0950 IN.
0.000	0.000	0.000		BREF 6.0990 IN.
				XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 1.201

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS.



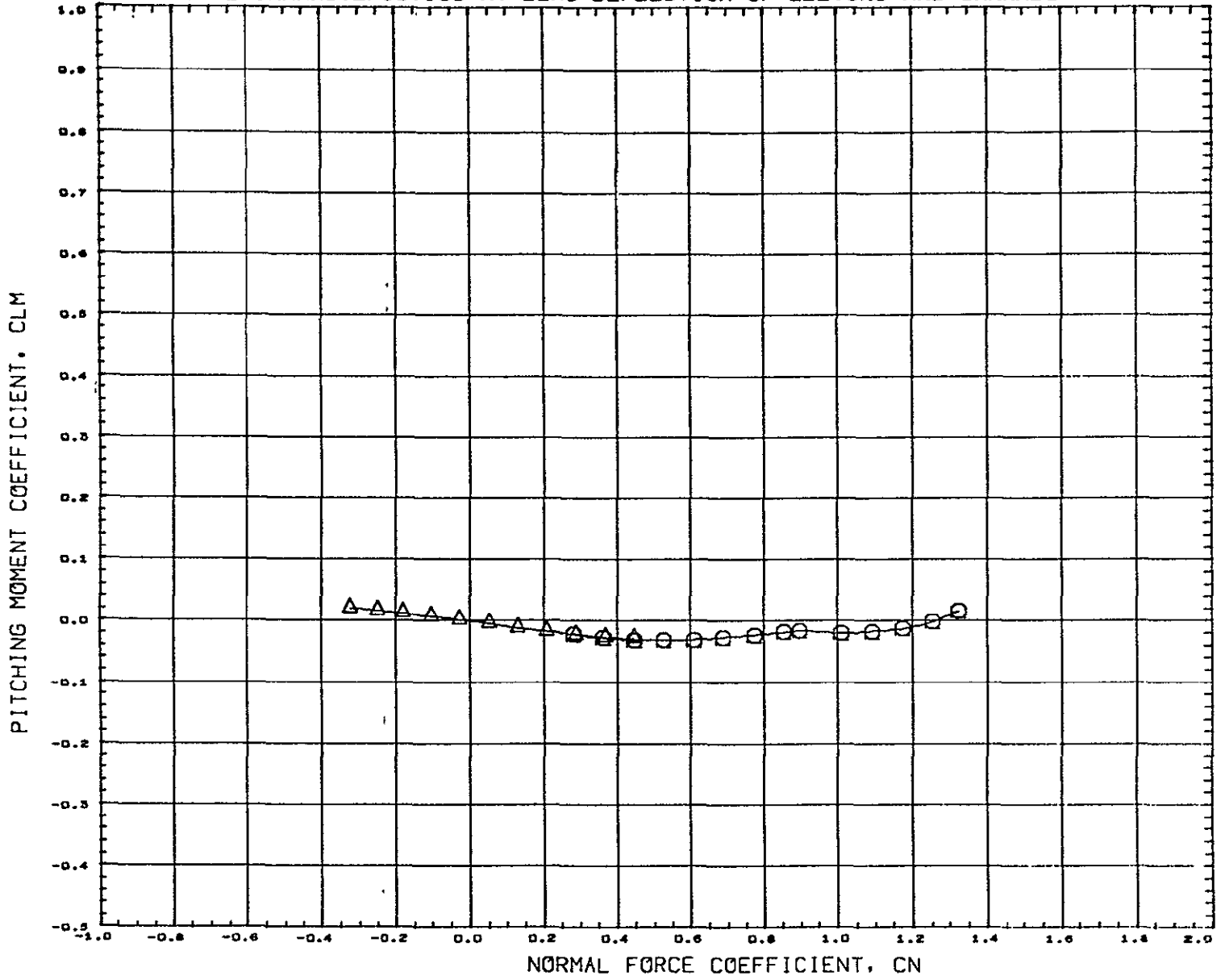
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	M5FC481 GD/C(BOOSTER)B19W14C4AV7
(E28820)	M5FC 481 GD/C(BOOSTER)B19W14C4AV7
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION	
SREF	15.6560 SQ. IN.
LREF	3.0950 IN.
BREF	6.0990 IN.
XMRP	6.7100 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0035

MACH 1.462

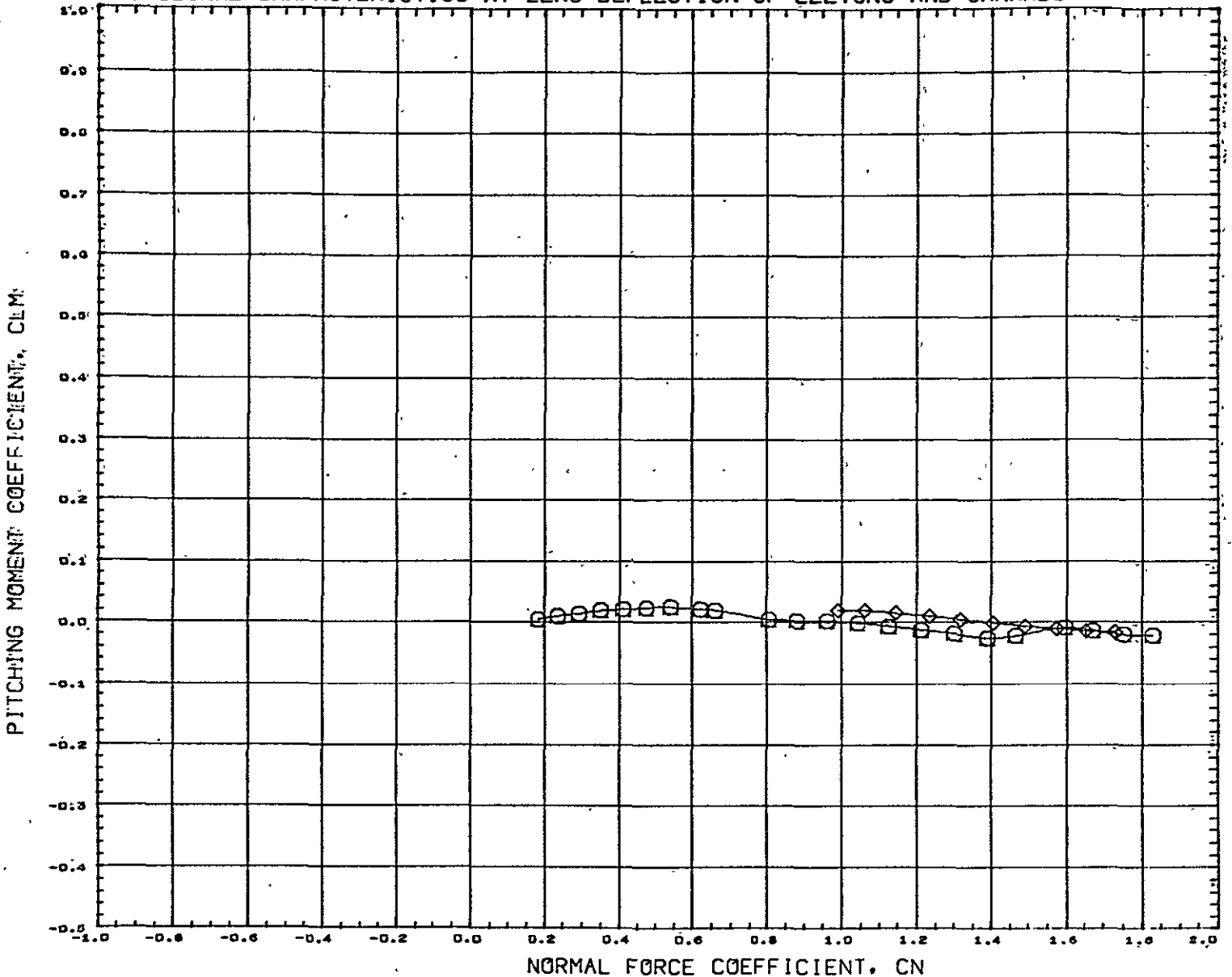
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 Sq. IN.
(E28B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



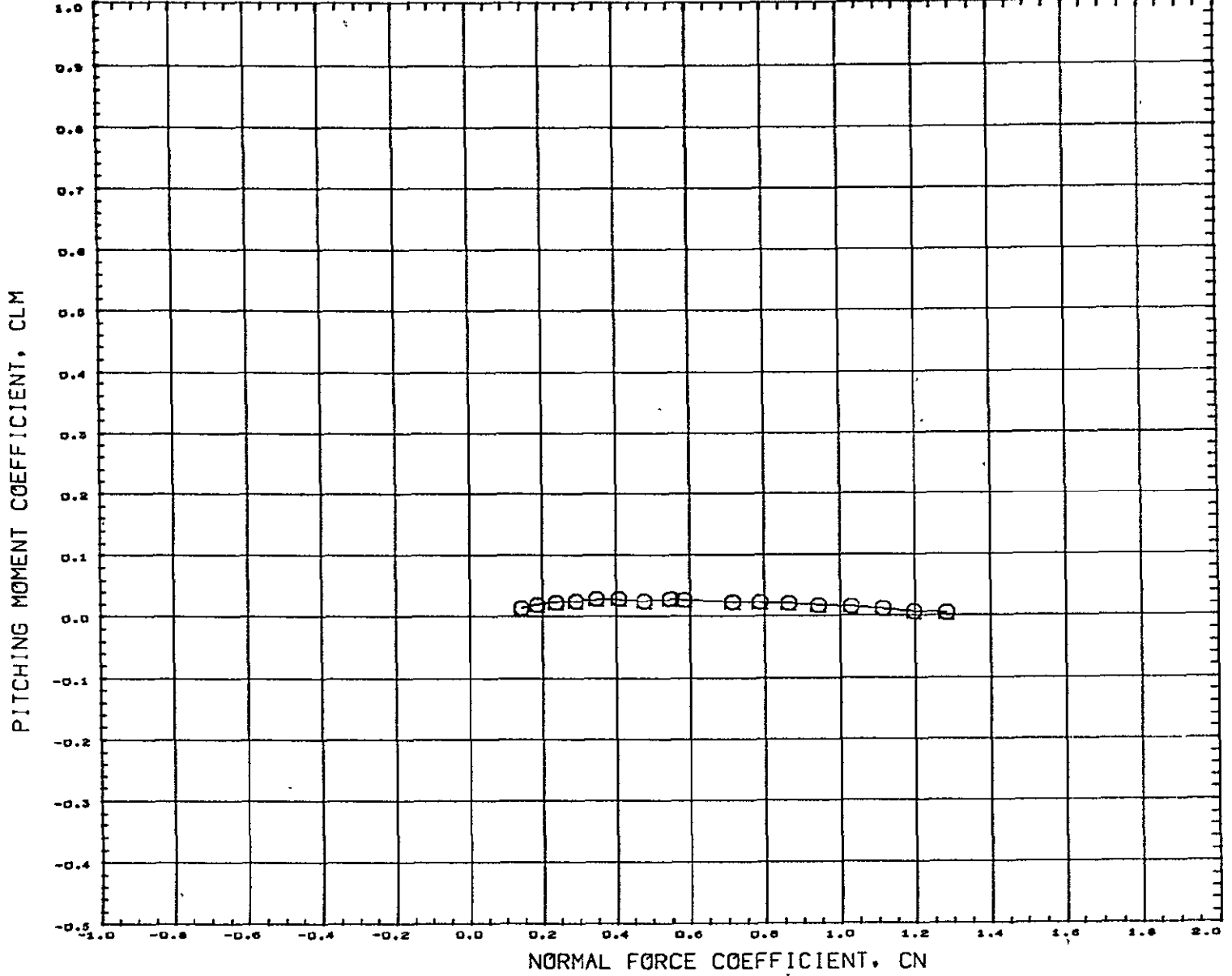
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7
(E28020)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28051)	MSFC481 GD/C(BOOSTER) B19W14C4A

NORMAL FORCE COEFFICIENT, CN

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6560 sq. IN.
0.000	0.000	0.000		LREF 3.0950 IN.
0.000	0.000	0.000		BREF 6.0990 IN.
				XHRP 6.7100 IN.
				YHRP 0.0000 IN.
				ZHRP 0.0000 IN.
				SCALE 0.0055

MACH 2.990

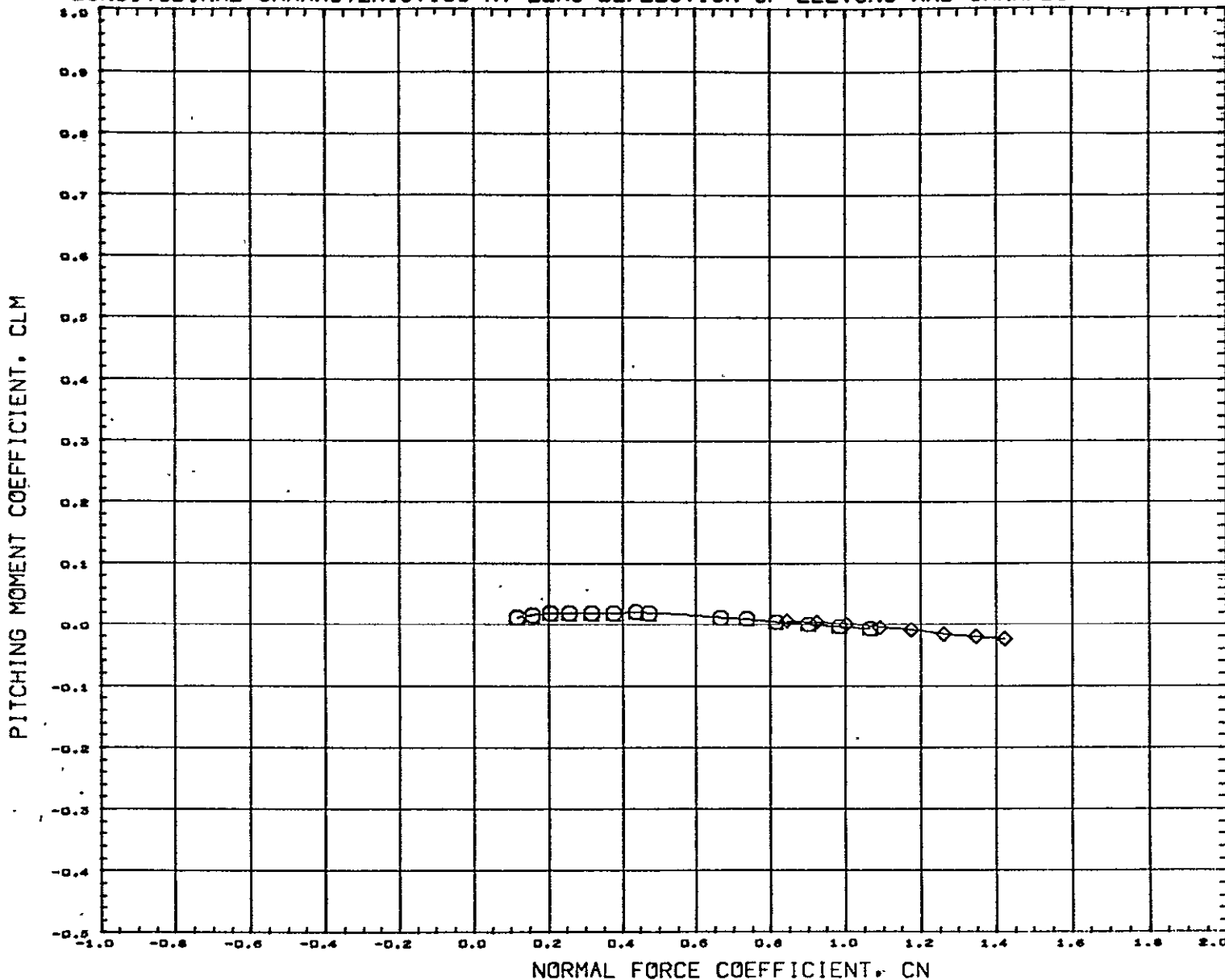
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AY7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YM RP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

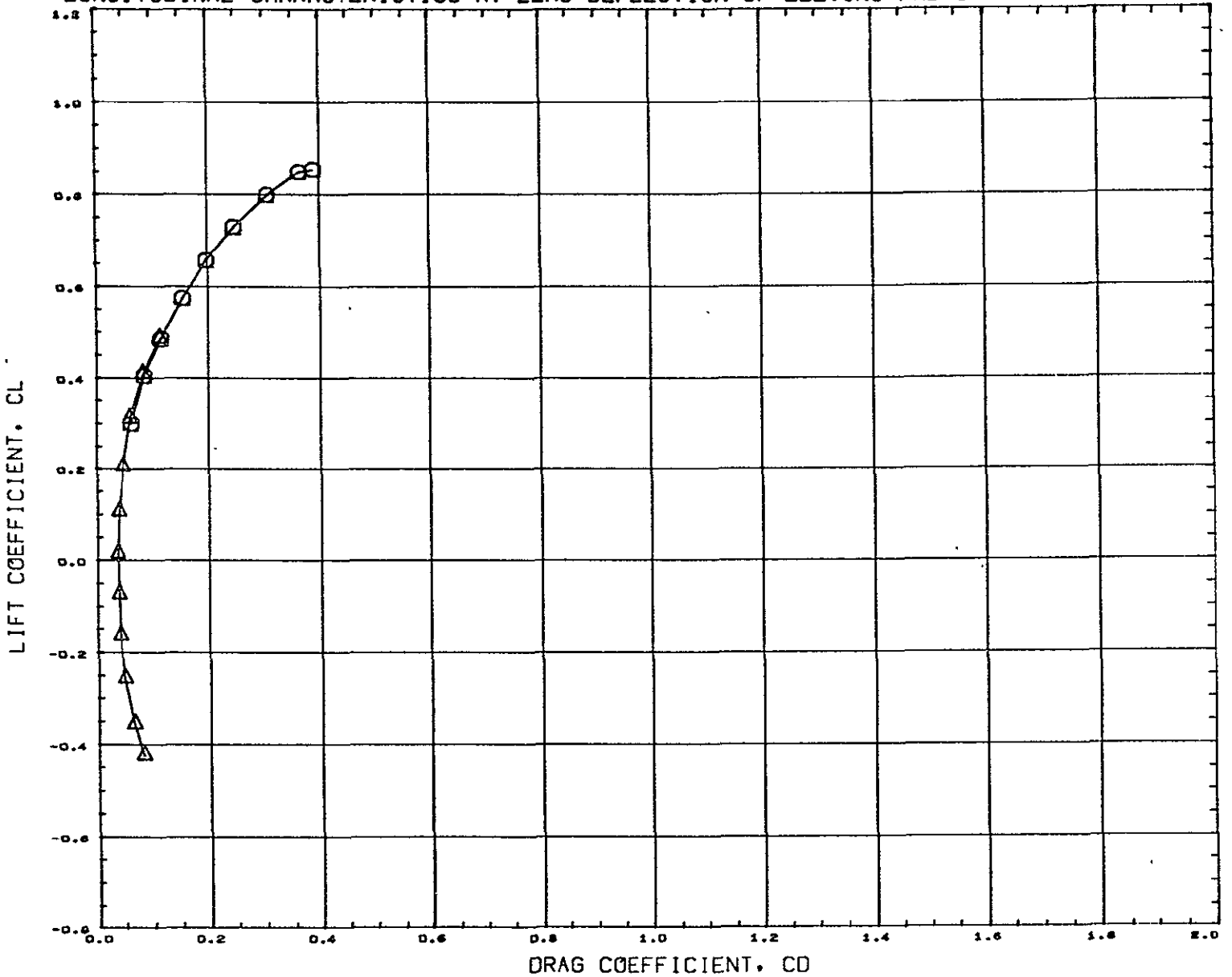


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28C51)	MSFC481 GD/C(BOOSTER)B19W14C4A

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6960 30.IN.
0.000	0.000	0.000		LREF 3.0950 IN.
0.000	0.000	0.000		BREF 6.0990 IN.
				XMRP 6.7100 IN.
				YHRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 4.960

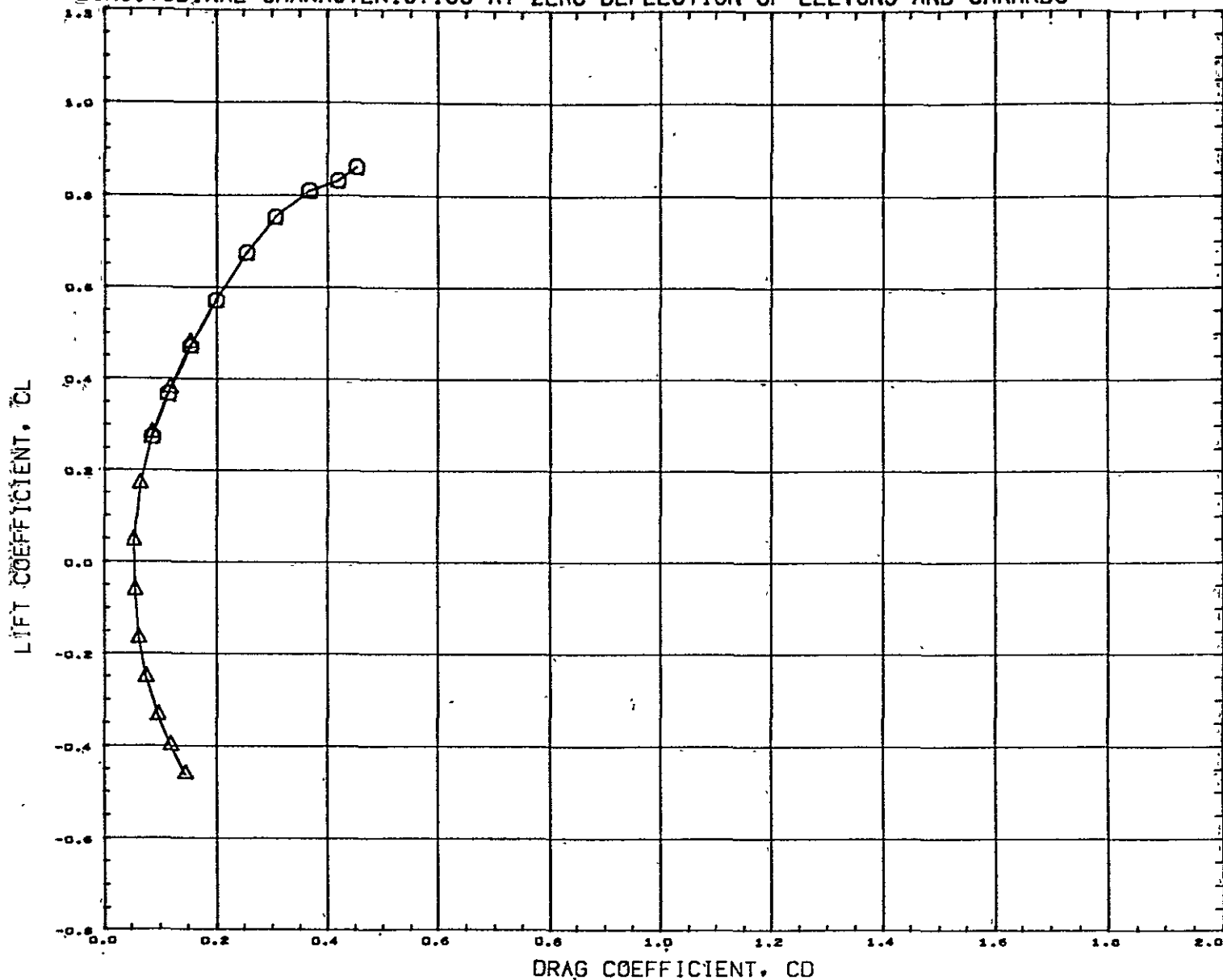
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28002)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

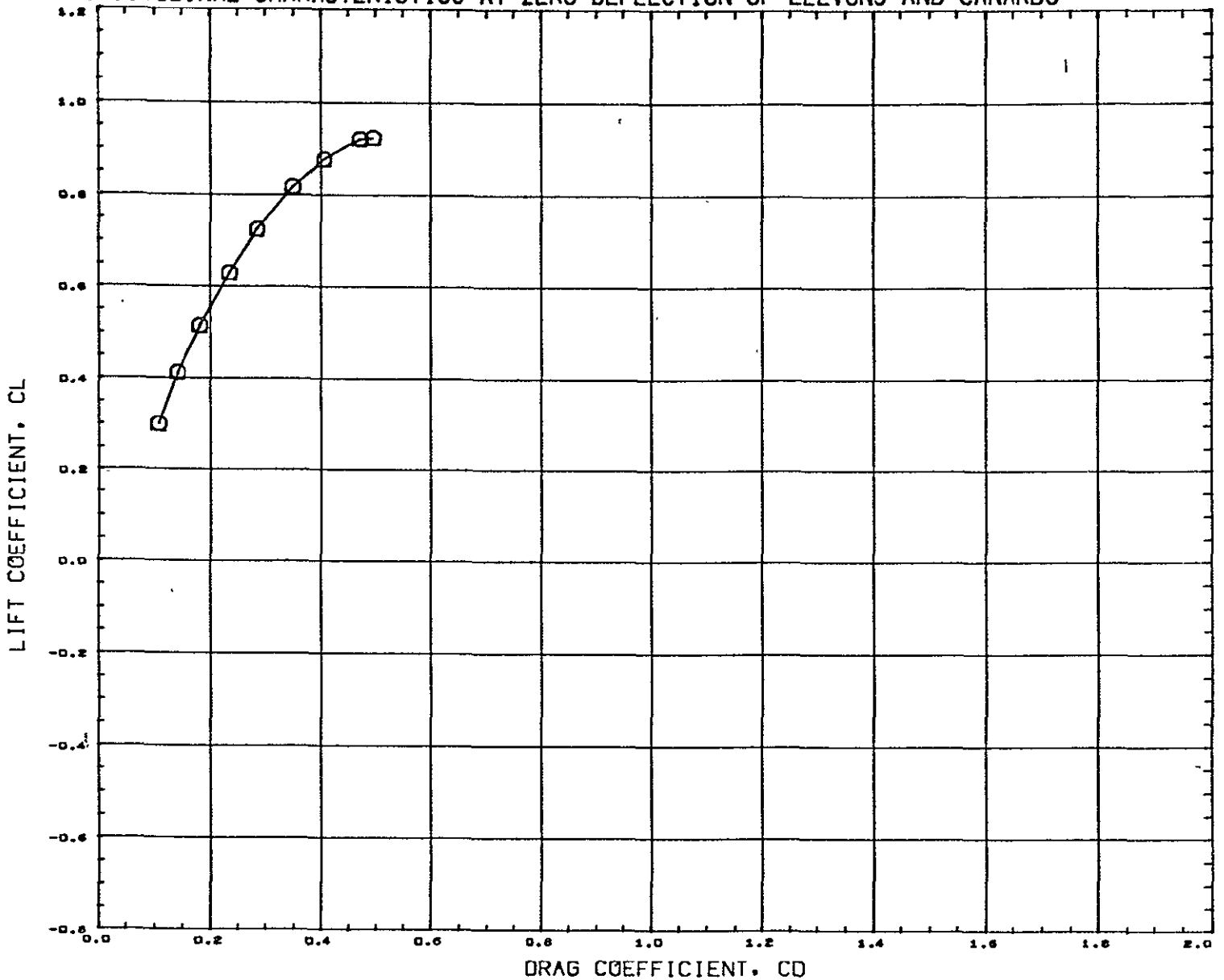
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.0560 SQ. IN.
(E28B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0990 IN.
(E28C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 0.900

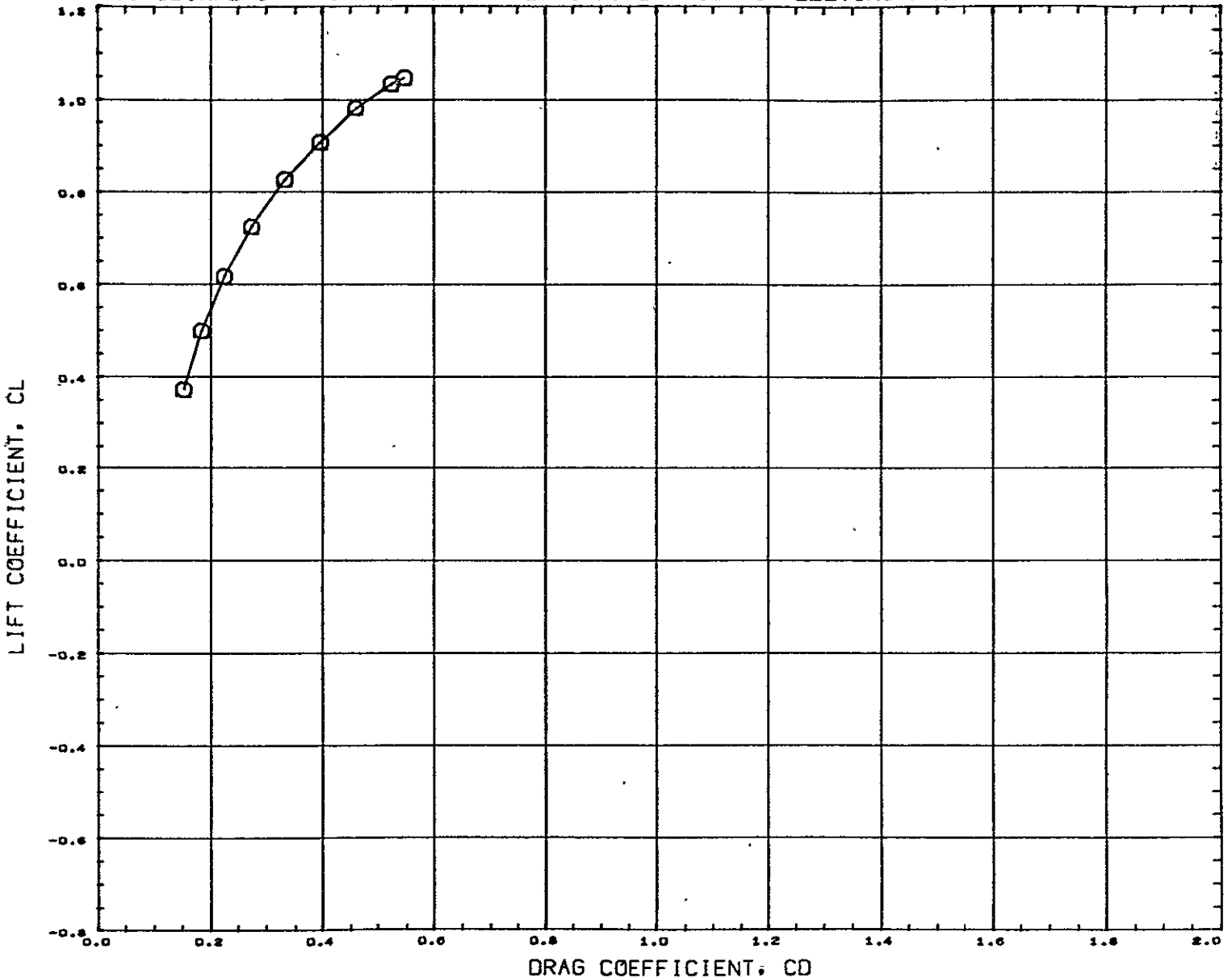
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C26001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E26B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E26C31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 0.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

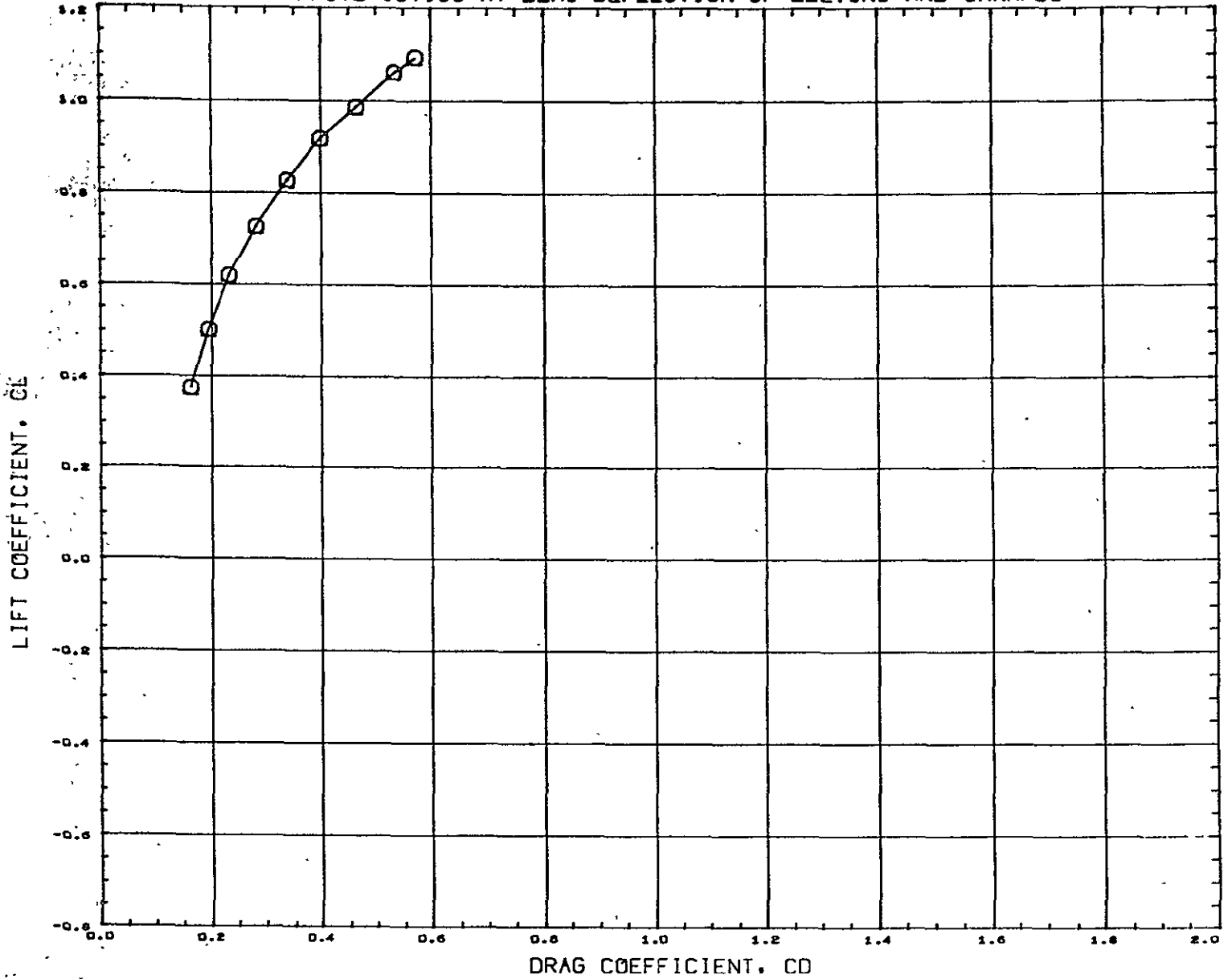


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C26001) ○ MSFC481 GD/C(BOOSTER)B19W14C4AV7
 (E26820) △ DATA NOT AVAILABLE FOR ALL CONDITIONS
 (E26C51) ◇ DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000		SREF	15.6560 SQ. IN.
0.000	0.000	0.000		LREF	3.0950 IN.
0.000	0.000	0.000		BREF	6.0990 IN.
				XHRP	6.7100 IN.
				YHRP	0.0000 IN.
				ZHRP	0.0000 IN.
				SCALE	0.0035

MACH 1.007

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DRAG COEFFICIENT, CD

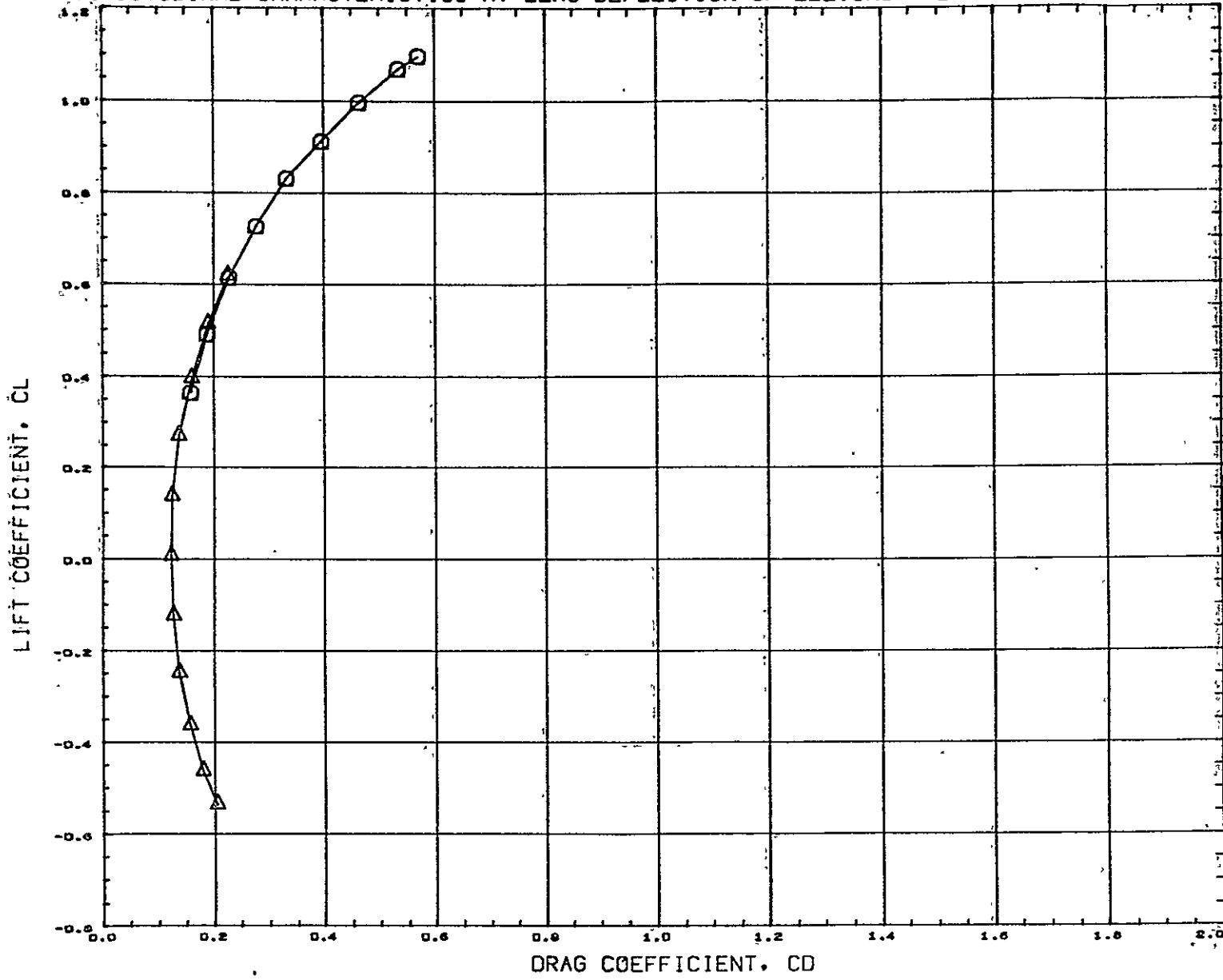
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C20001) \square MSFC481 GD/C(BOOSTER) B19W14C4AV7
 (E20020) \triangle DATA NOT AVAILABLE FOR ALL CONDITIONS
 (E20031) \diamond DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION	
SREF	19.6560 SQ. IN.
LREF	3.0950 IN.
BREF	6.0990 IN.
XMRP	6.7100 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0035

MACH 1.051

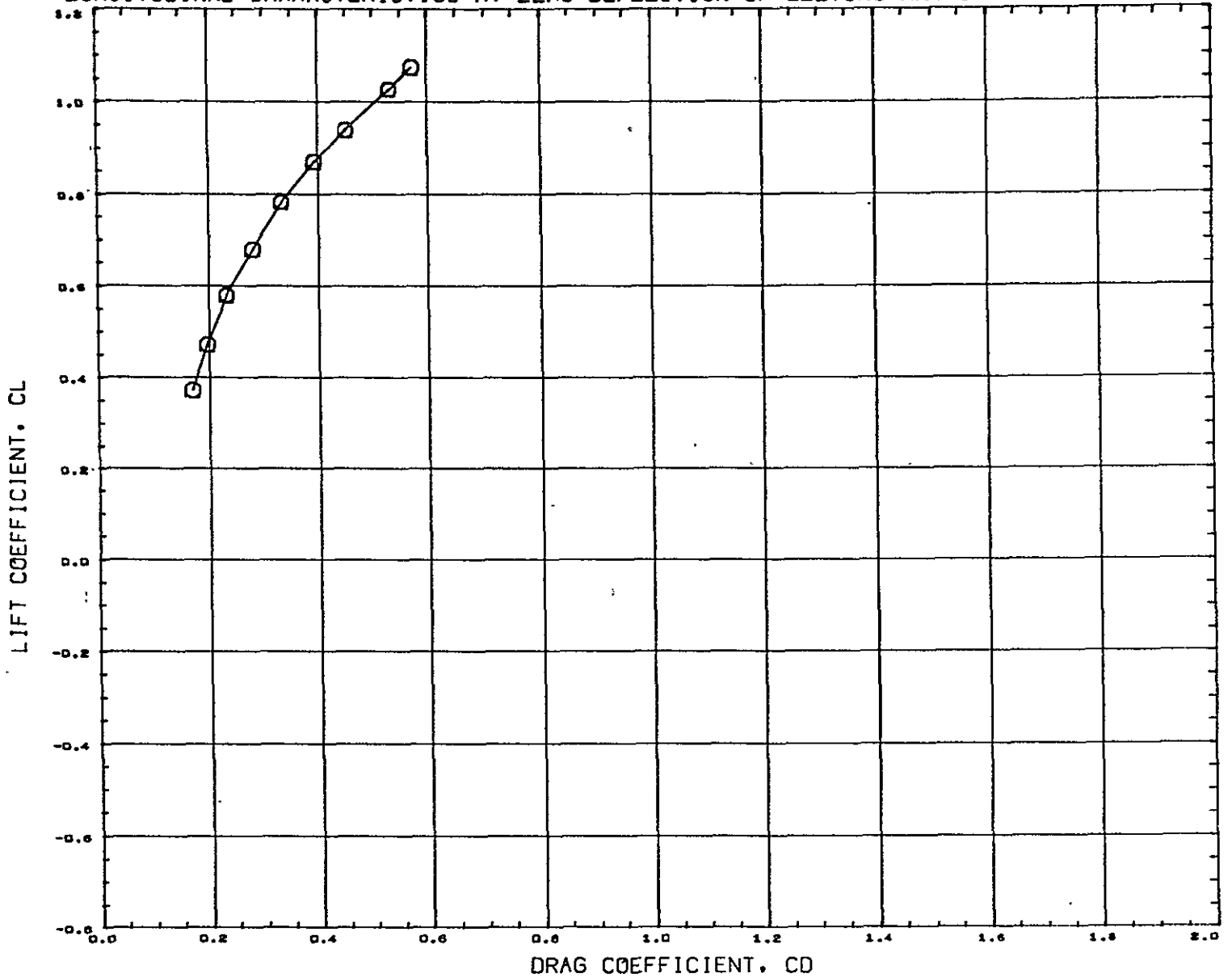
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

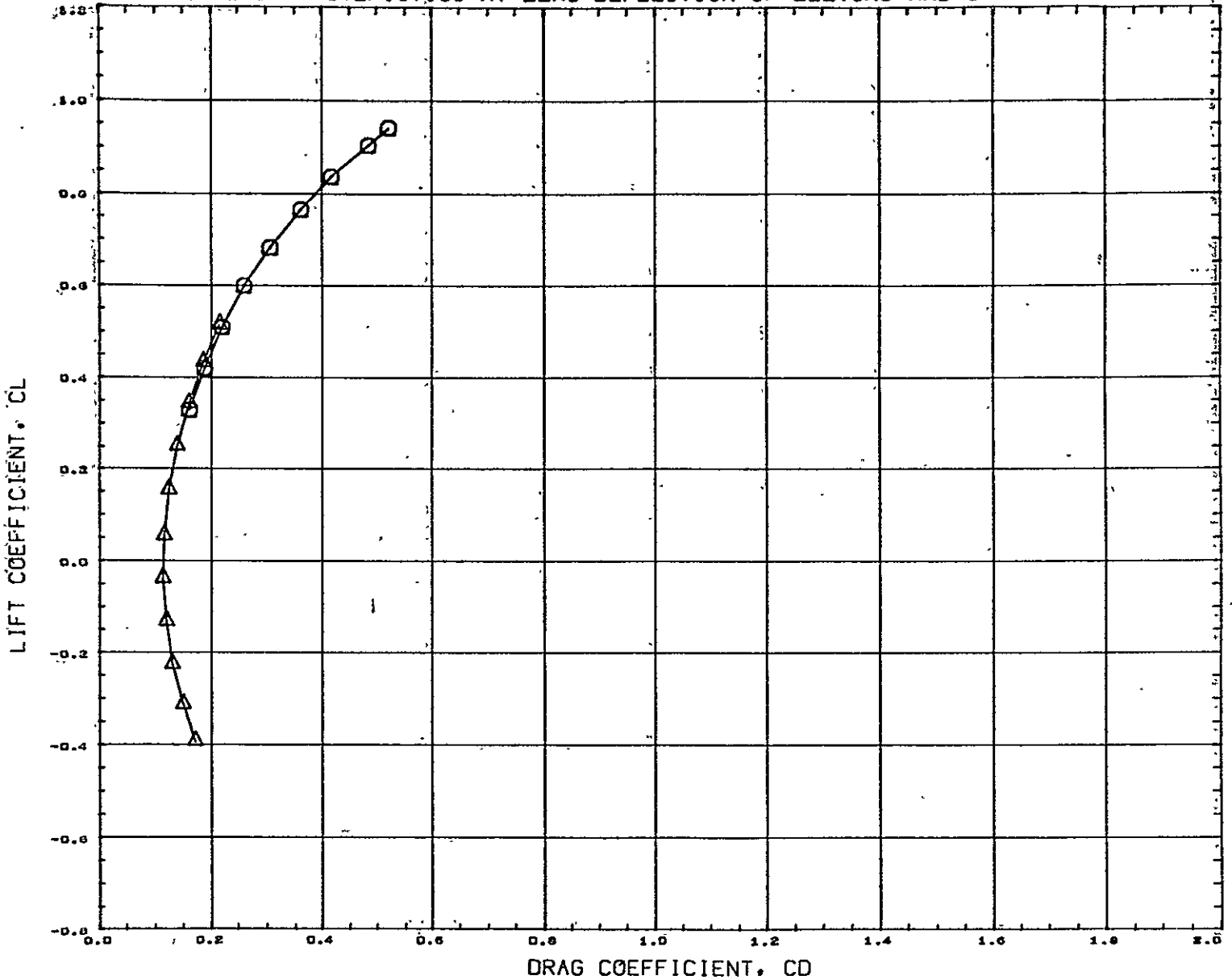
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W1AC4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		LREF 3.0950 IN.
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS

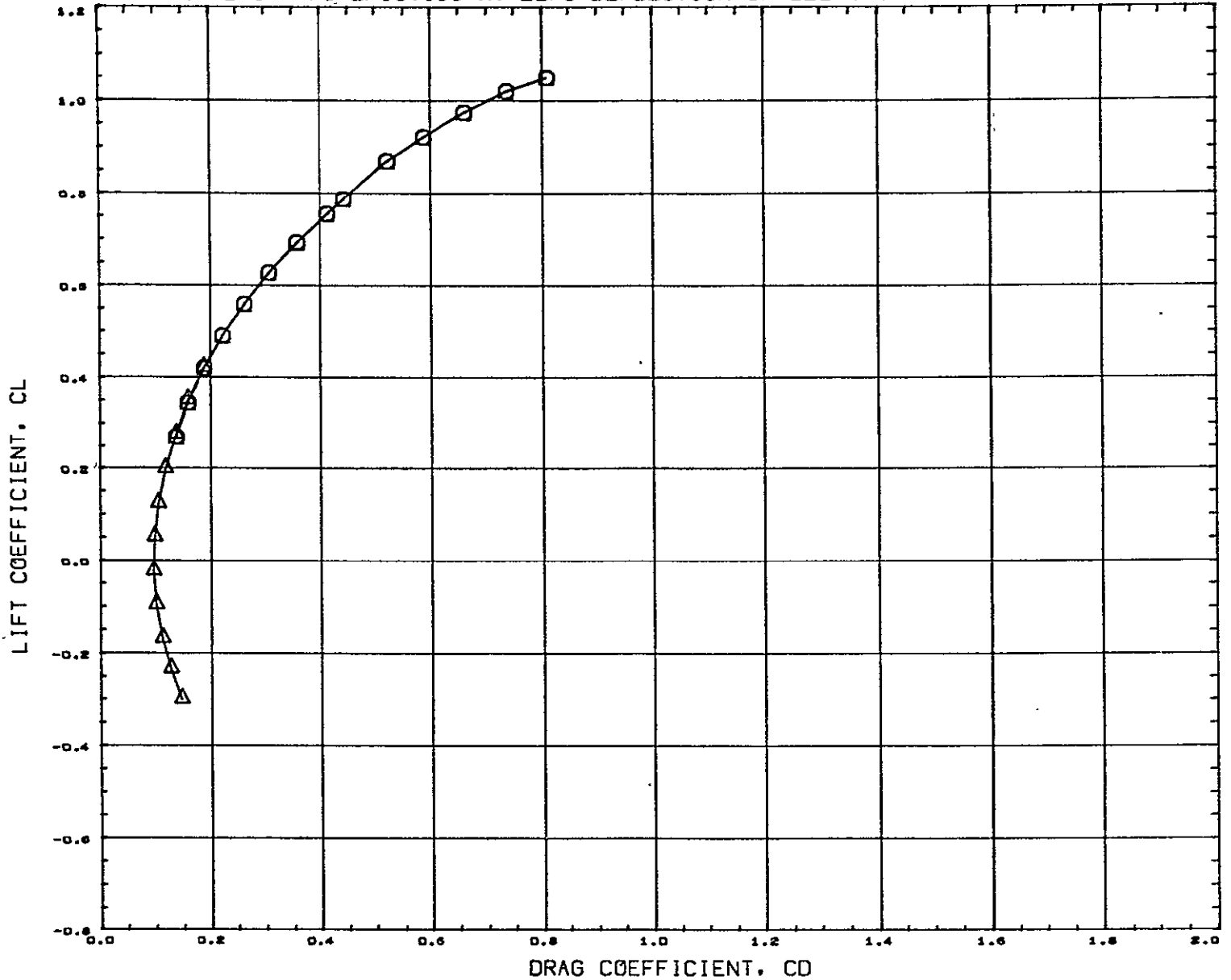


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C20001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7
(E20820)	MSFC 461 GD/C (BOOSTER) B19W14C4AV7
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6560 SQ. IN.
0.000	0.000	0.000		LREF 3.0990 IN.
0.000	0.000	0.000		BREF 6.0990 IN.
				XHRP 6.7100 IN.
				YHRP 0.0000 IN.
				ZHRP 0.0000 IN.
				SCALE 0.0055

MACH 1.462

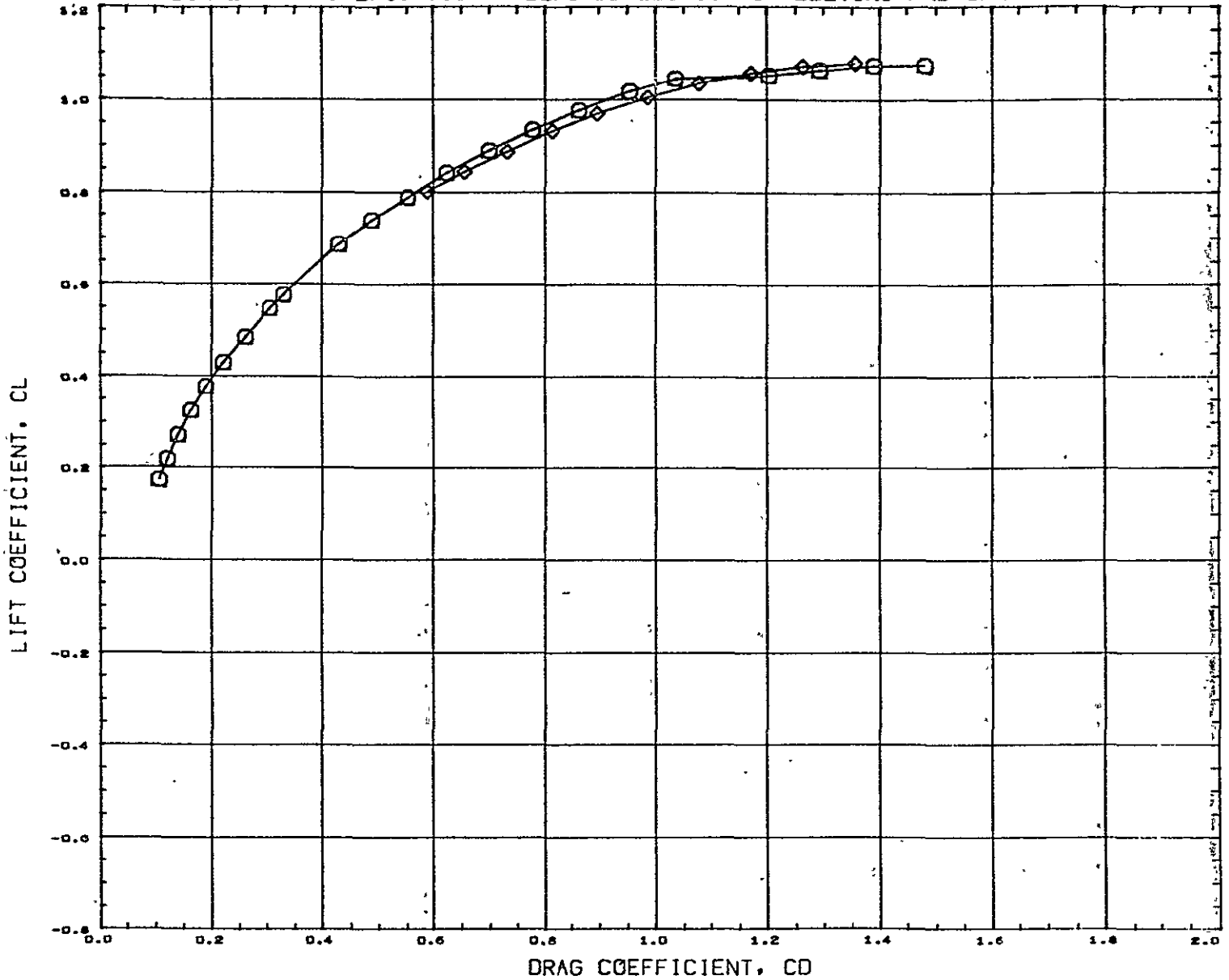
LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(C20001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E20020)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		LREF 3.0950 IN.
(Z20051)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.956

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



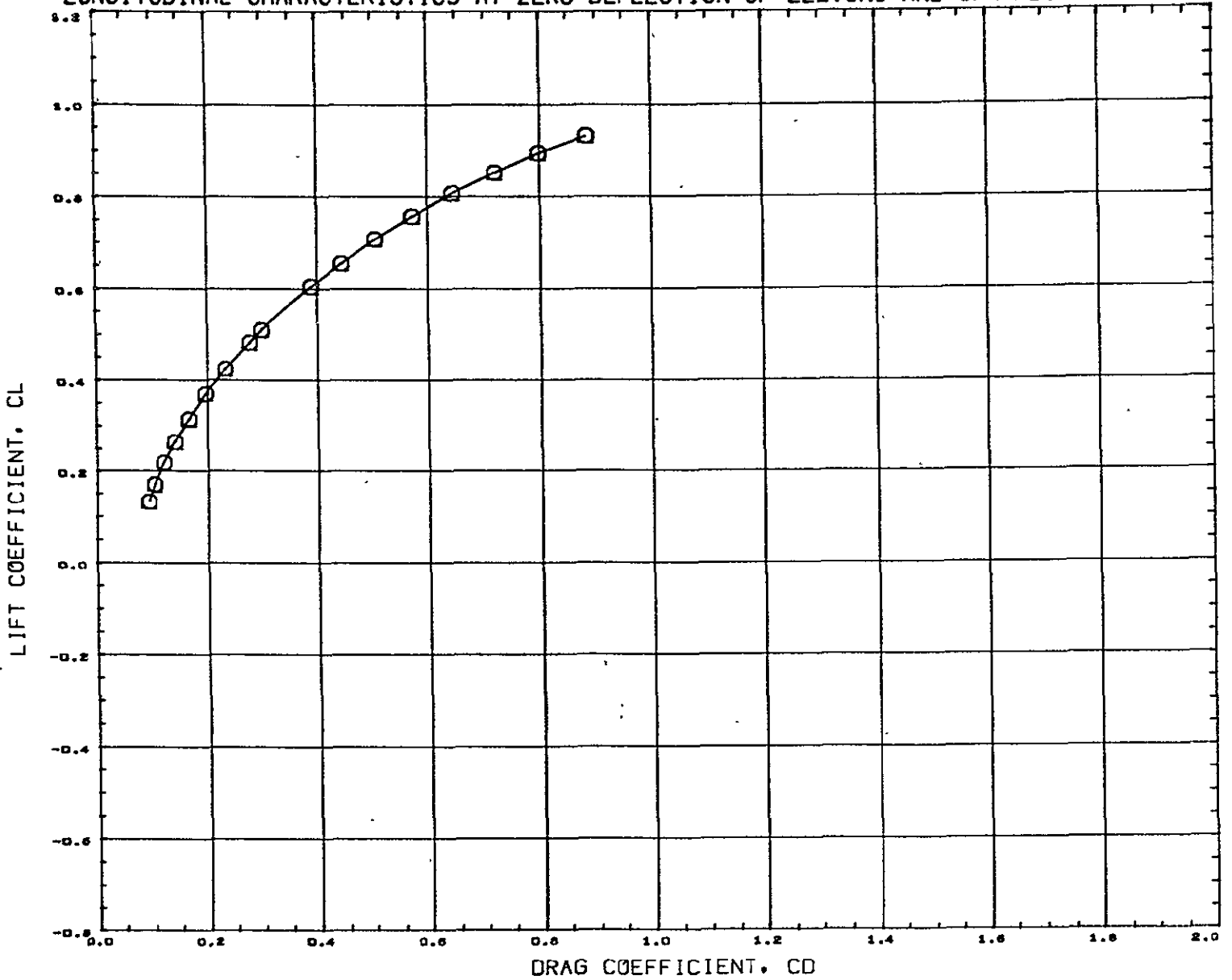
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C200D1)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E20C51)	MSFC481 GD/C(BOOSTER)B19W14C4A

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 2.990

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



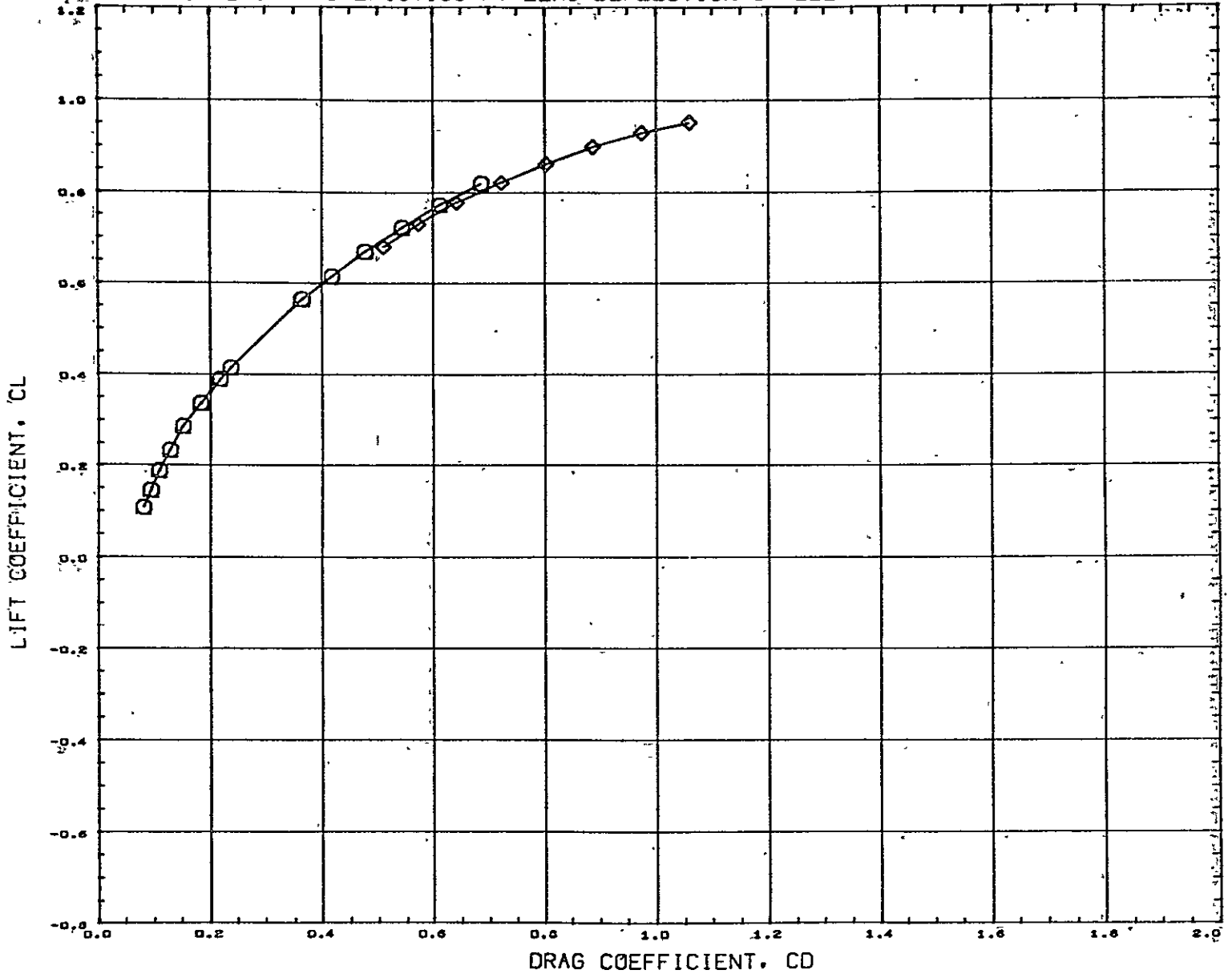
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7
(E20B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E20C51)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION	
SREF	15.6560 SQ. IN.
LREF	3.0950 IN.
BREF	6.0990 IN.
XMRP	6.7100 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0035

MACH 4.000

LONGITUDINAL CHARACTERISTICS AT ZERO DEFLECTION OF ELEVONS AND CANARDS



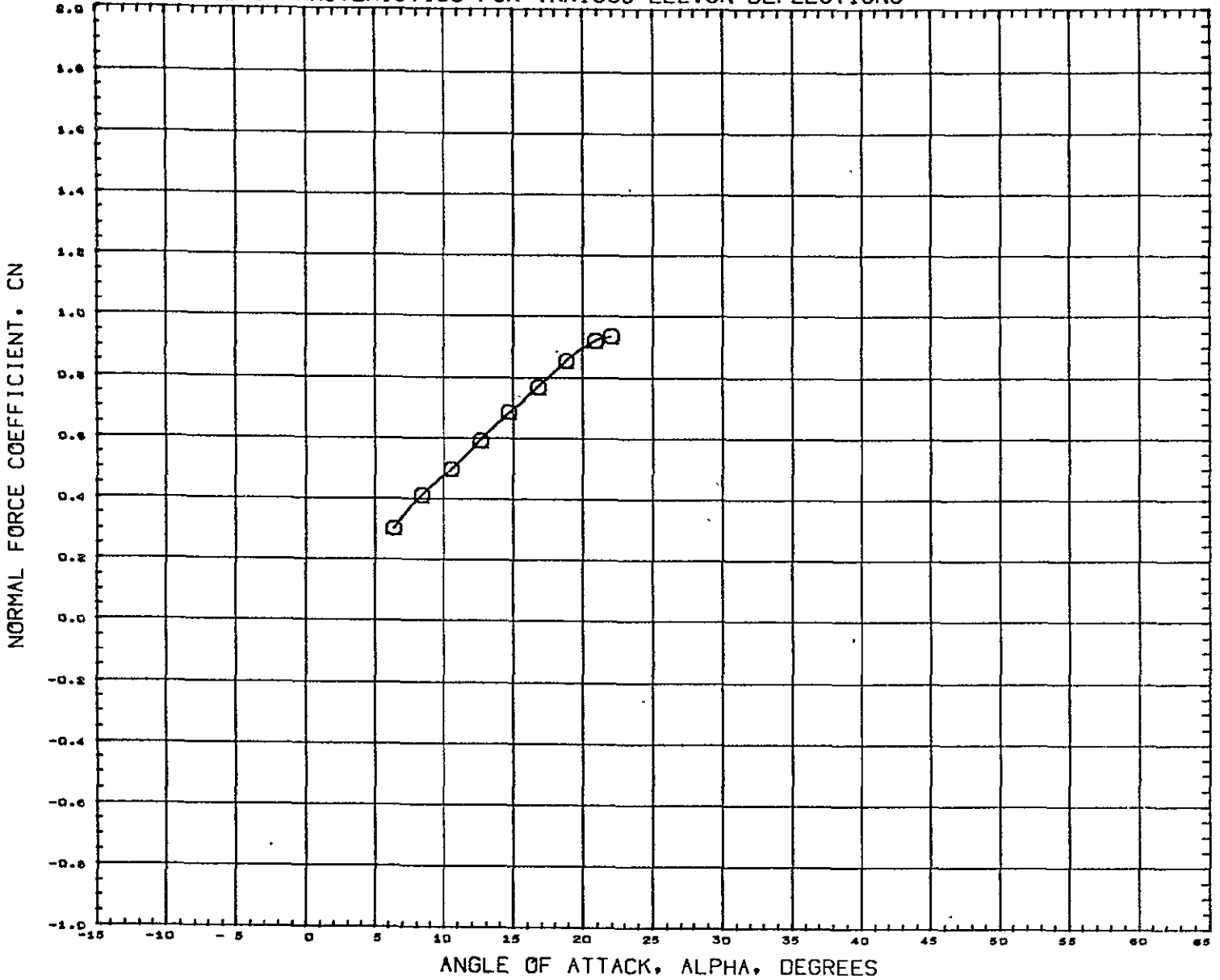
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7
(E28B20)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(E28C51)	MSFC481 GD/C (BOOSTER) B19W14C4A

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 4.960

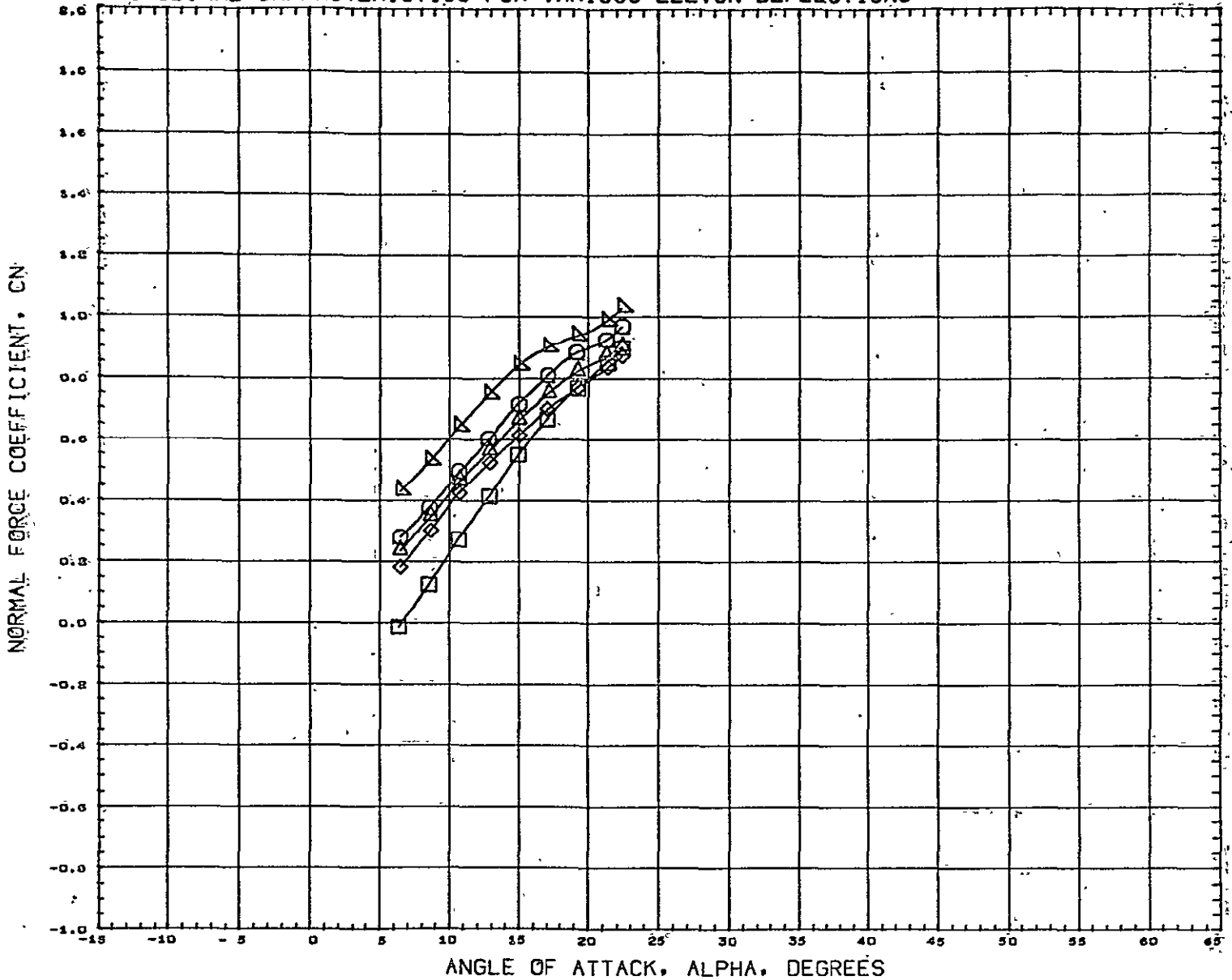
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

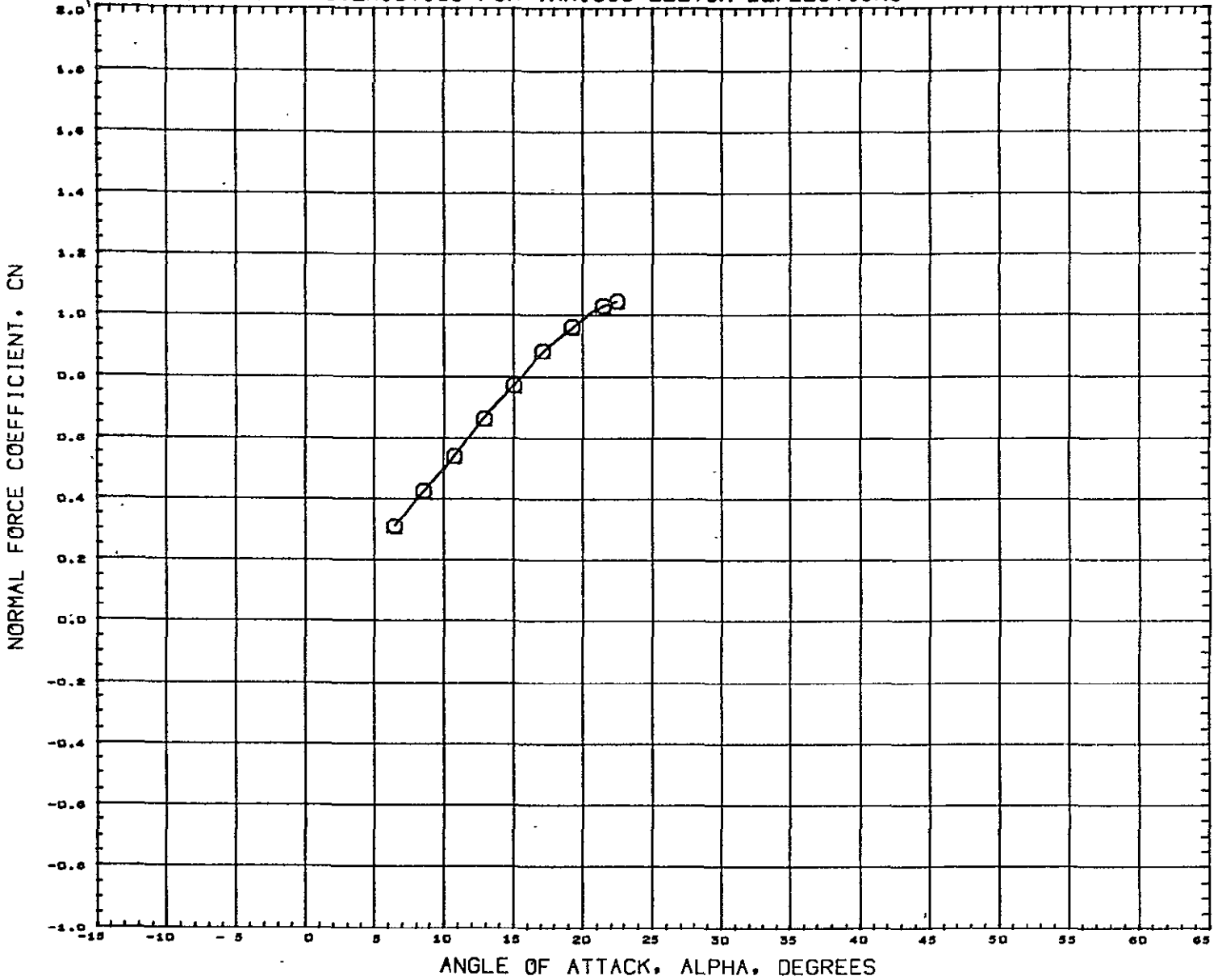
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	H3FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 32. IN.
(C28006)	H3FC481 GD/C(BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	H3FC481 GD/C(BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	H3FC481 GD/C(BOOSTER) B19W14C4AV7	-50.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C28012)	H3FC481 GD/C(BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0033

MACH 0.900

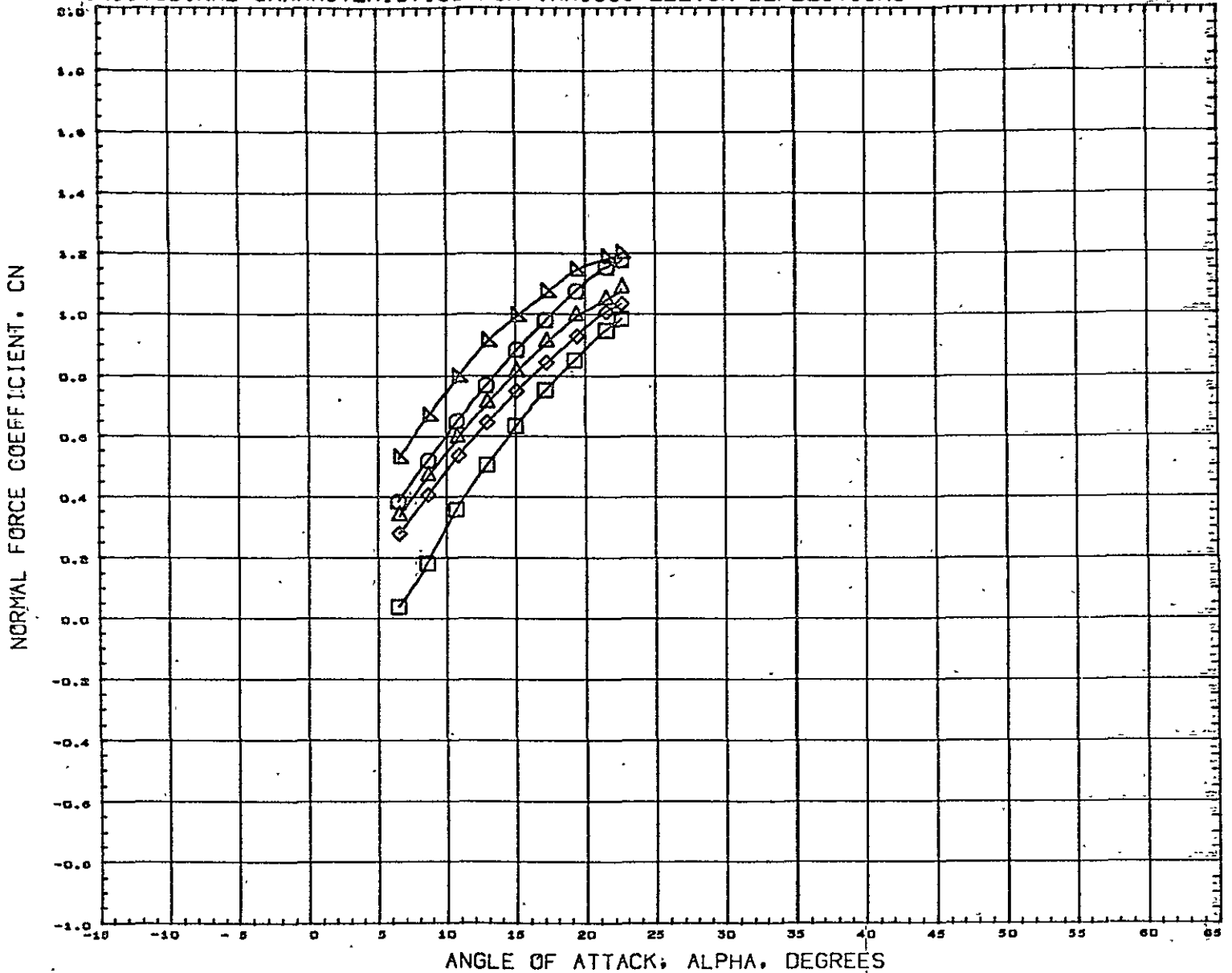
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 12.6560 30. IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

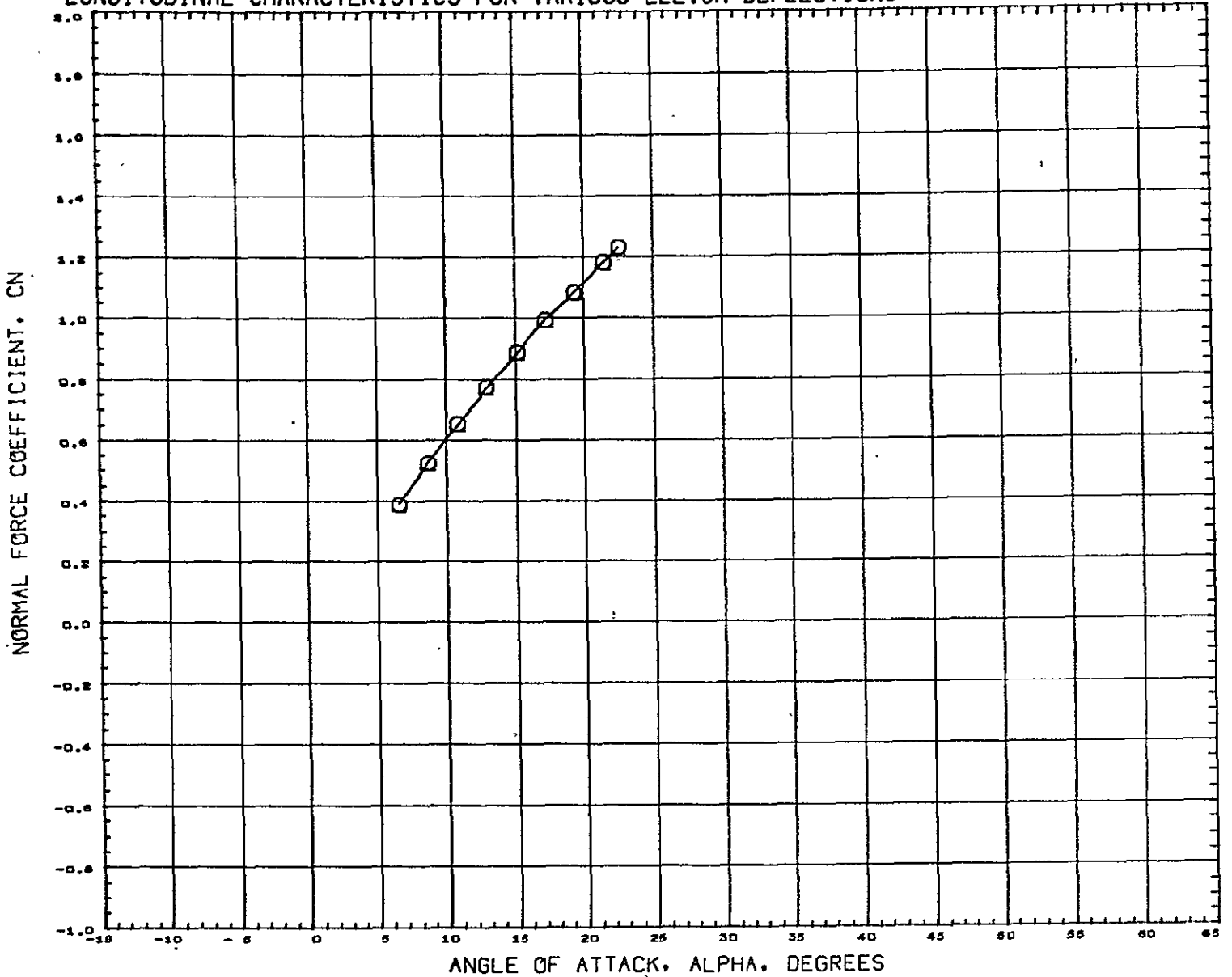
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0033

NACH 1.007

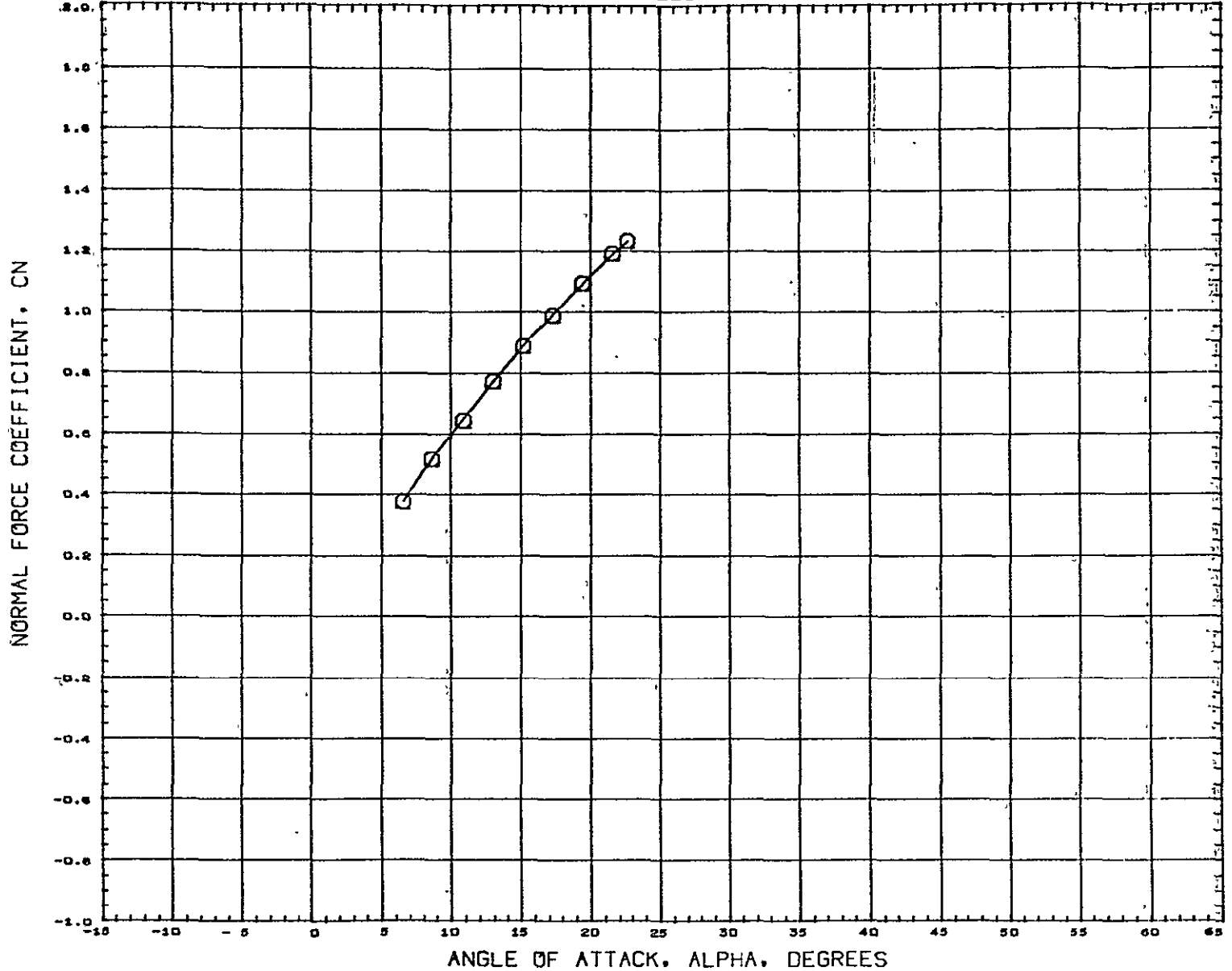
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0990 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28005)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

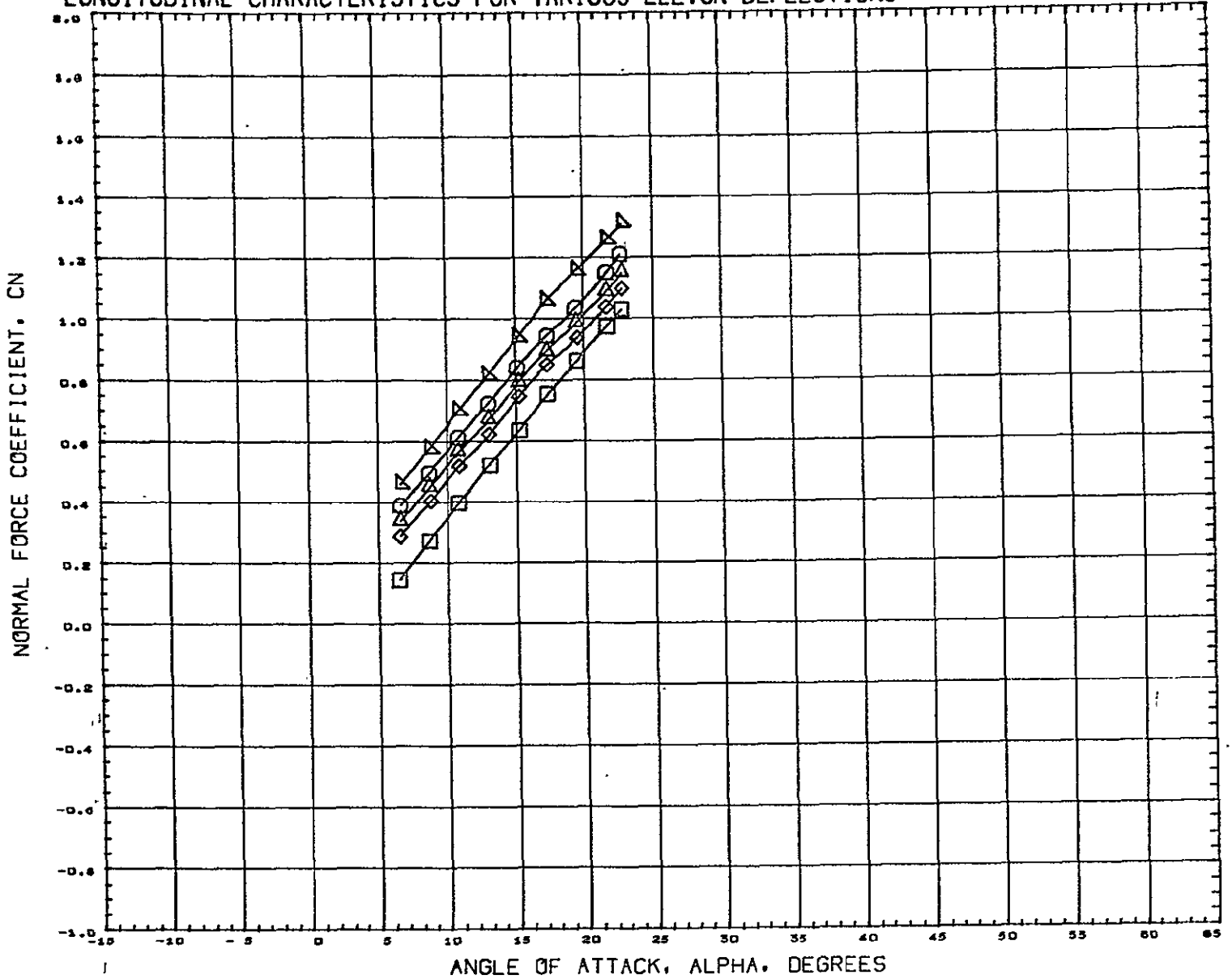
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 50. IN.
(C20008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C20002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.105

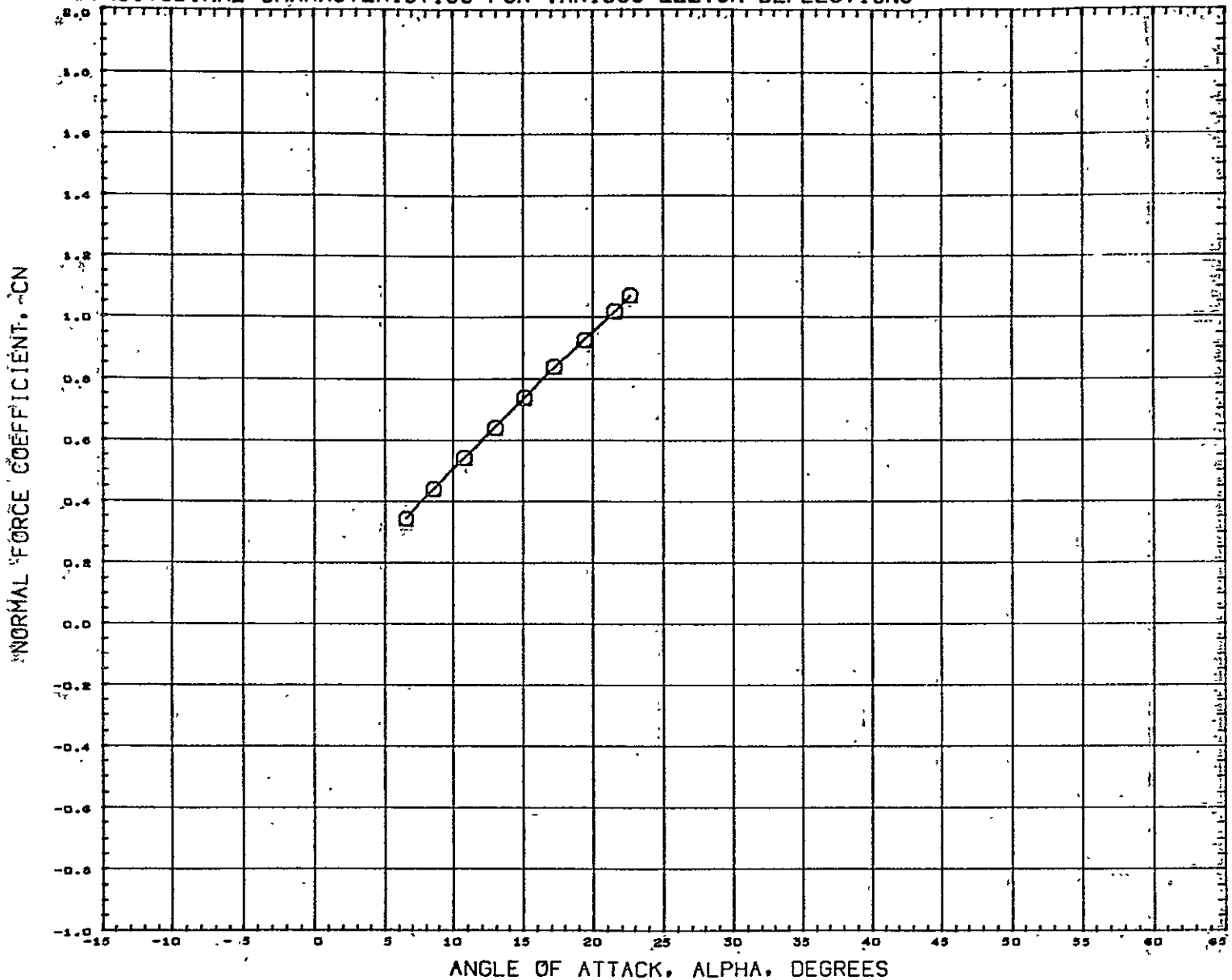
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	□	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28000)	○	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	◇	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	△	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	▽	MSFC481 GD/C (BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.201

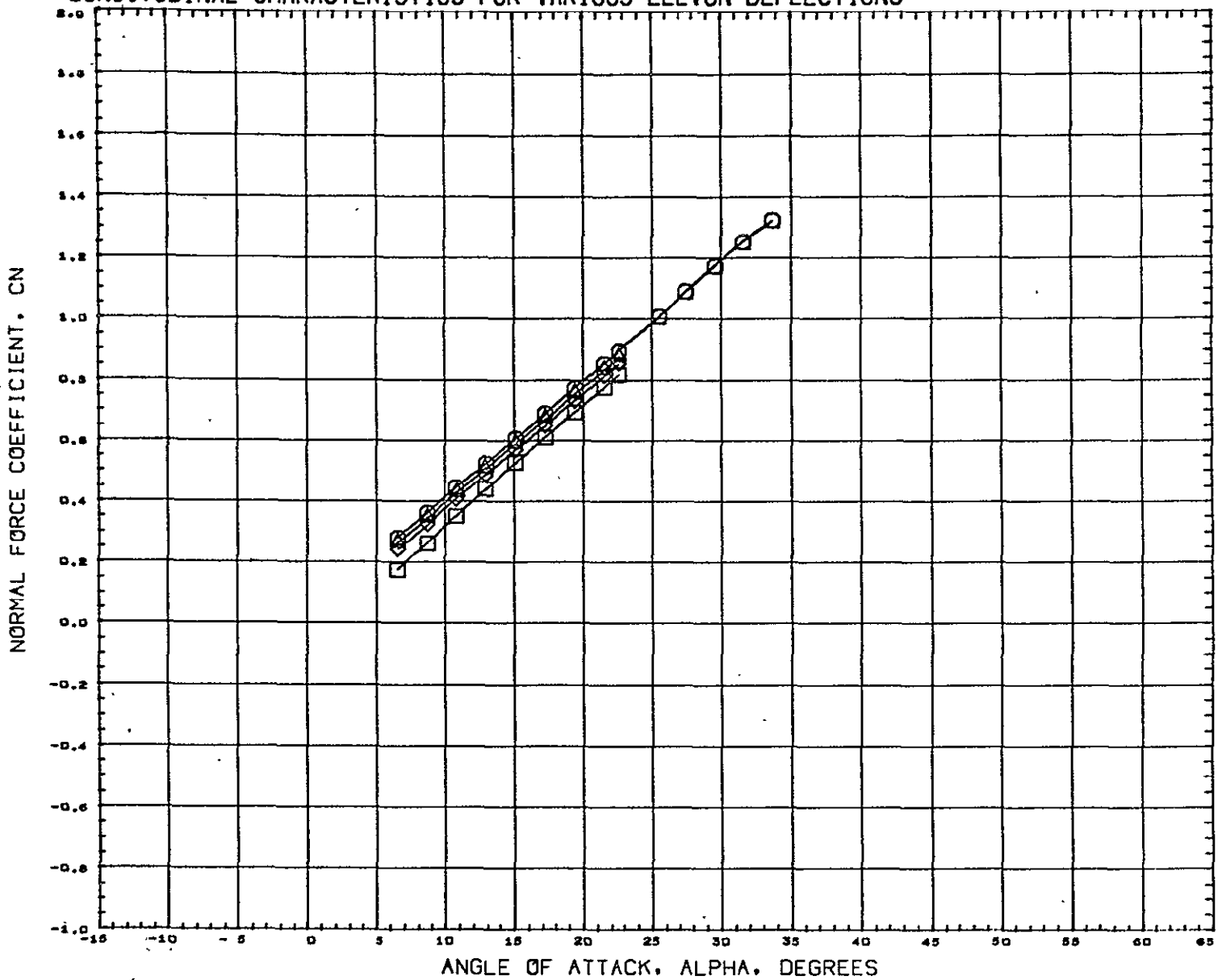
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 50 IN.
(C20000)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0990 IN.
(C20002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.462

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

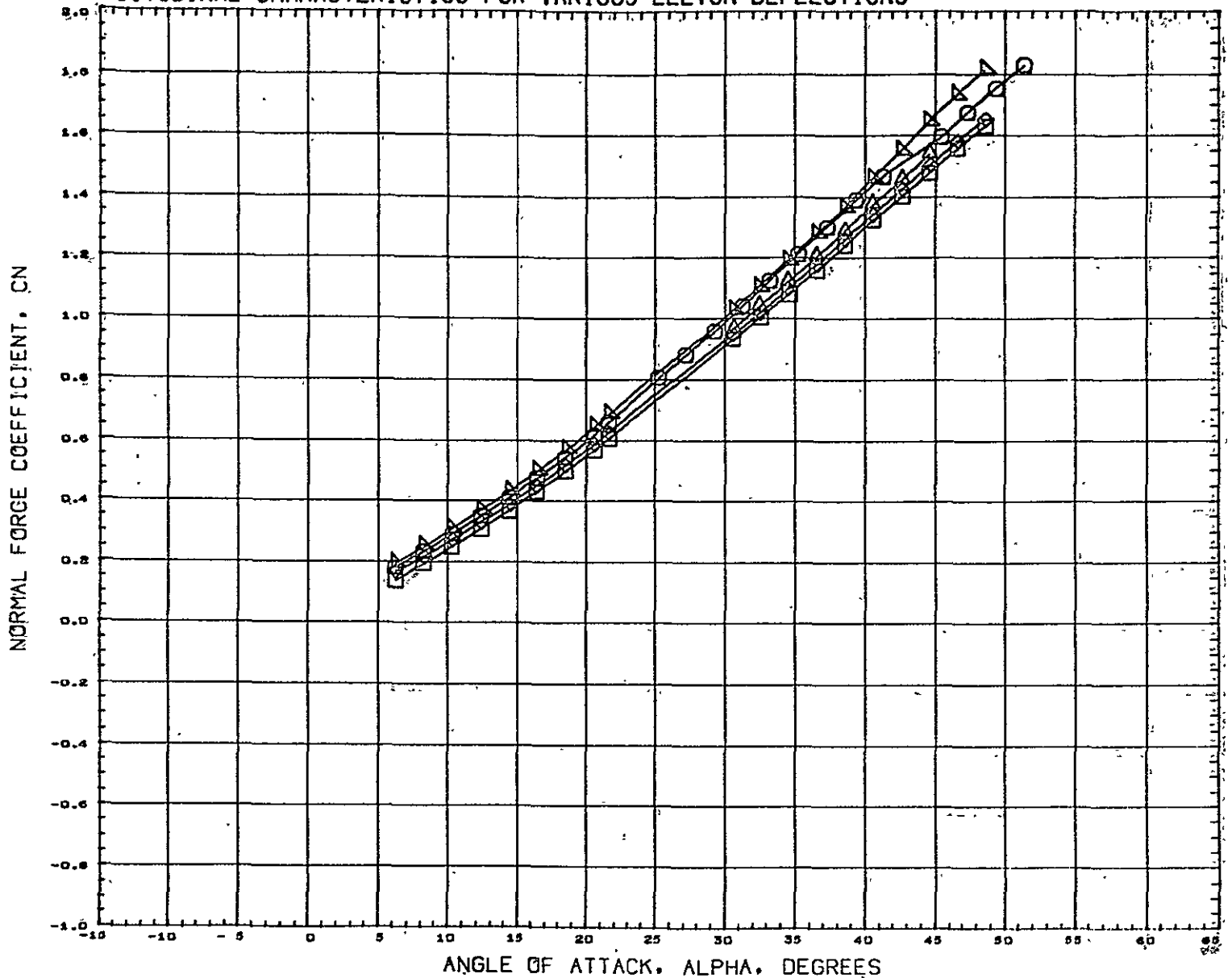


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 39. IN.
(C28000)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.958

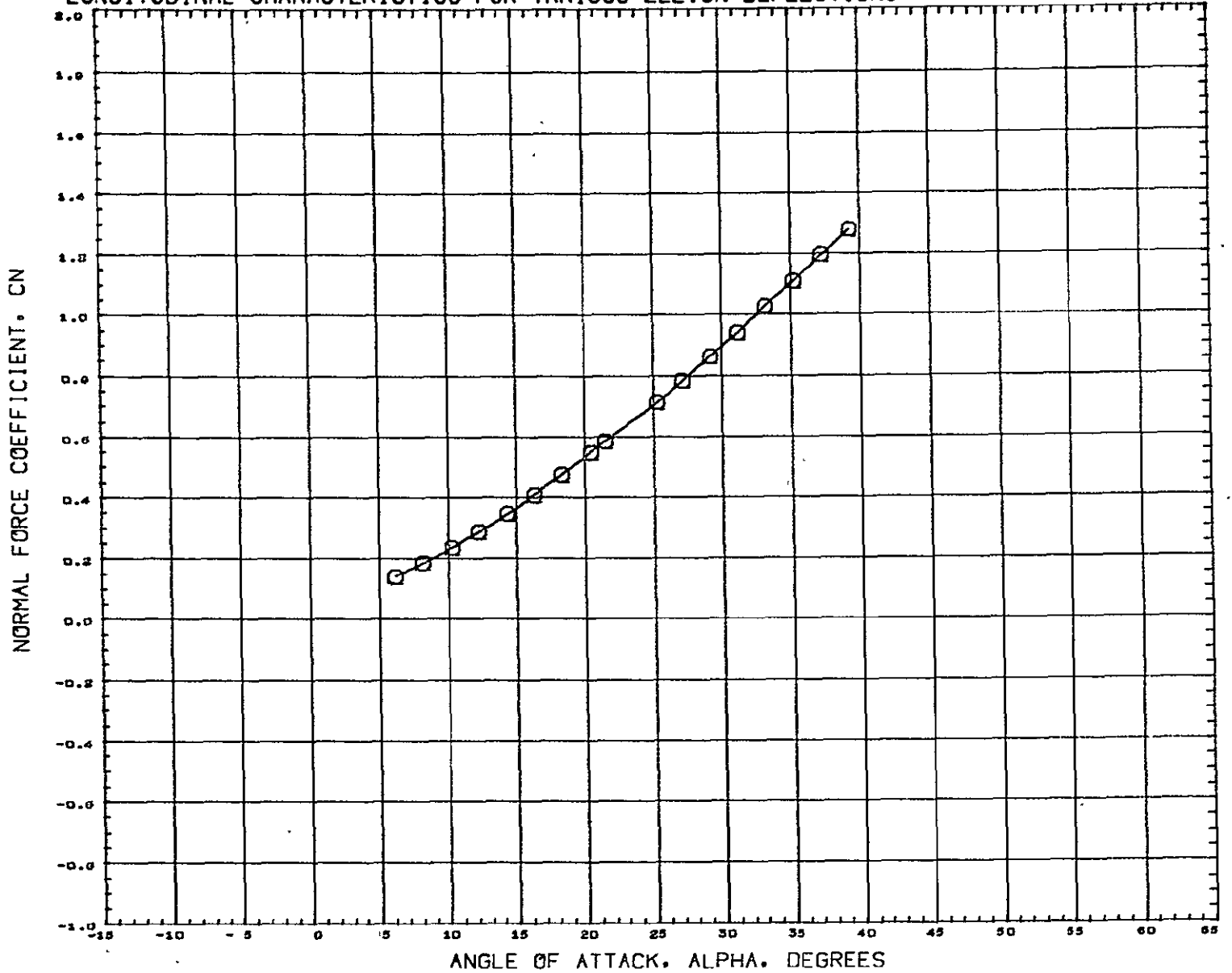
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	M5FC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20002)	M5FC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C20003)	M5FC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20012)	M5FC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
		10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0033

MACH 2.990

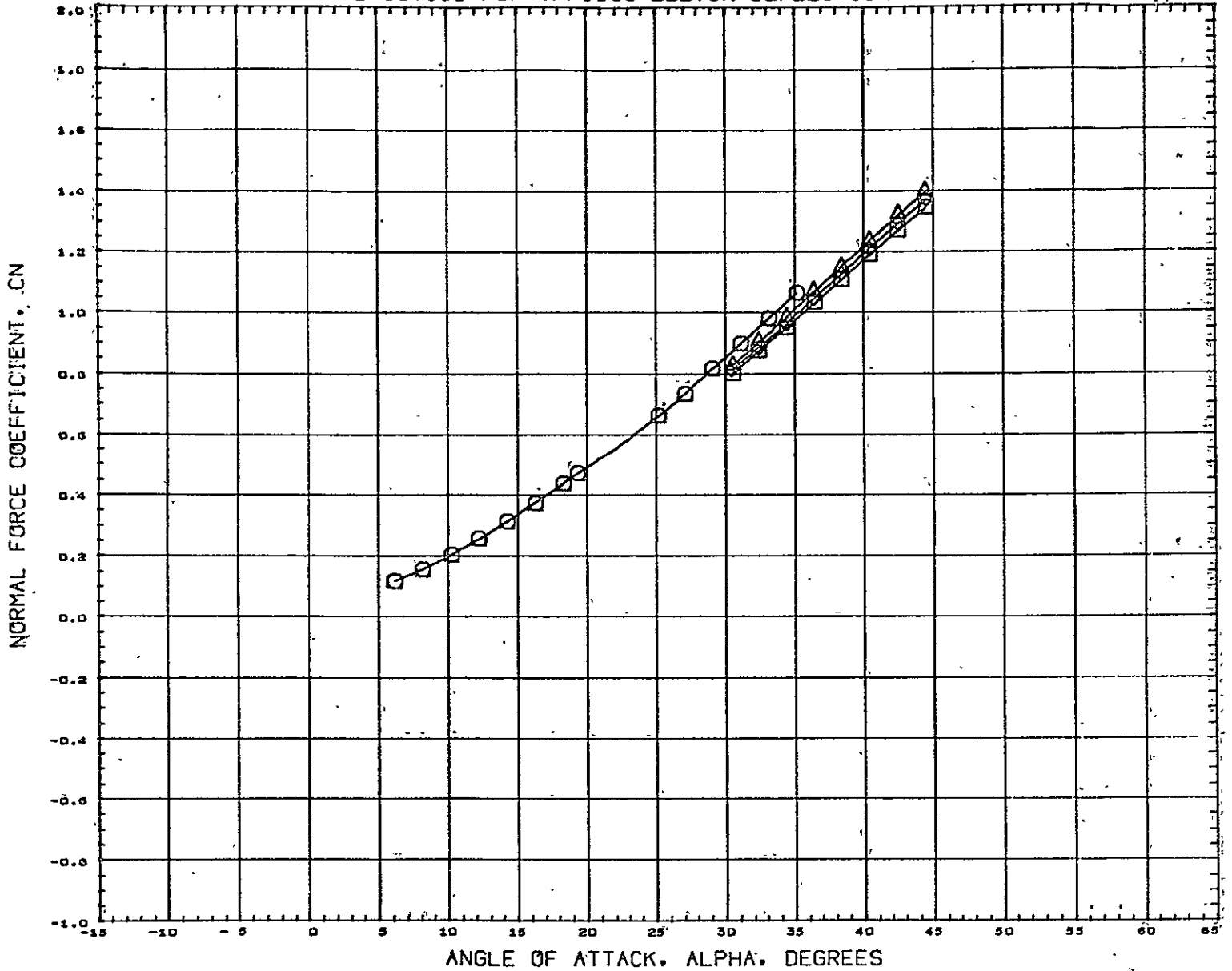
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	M5FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

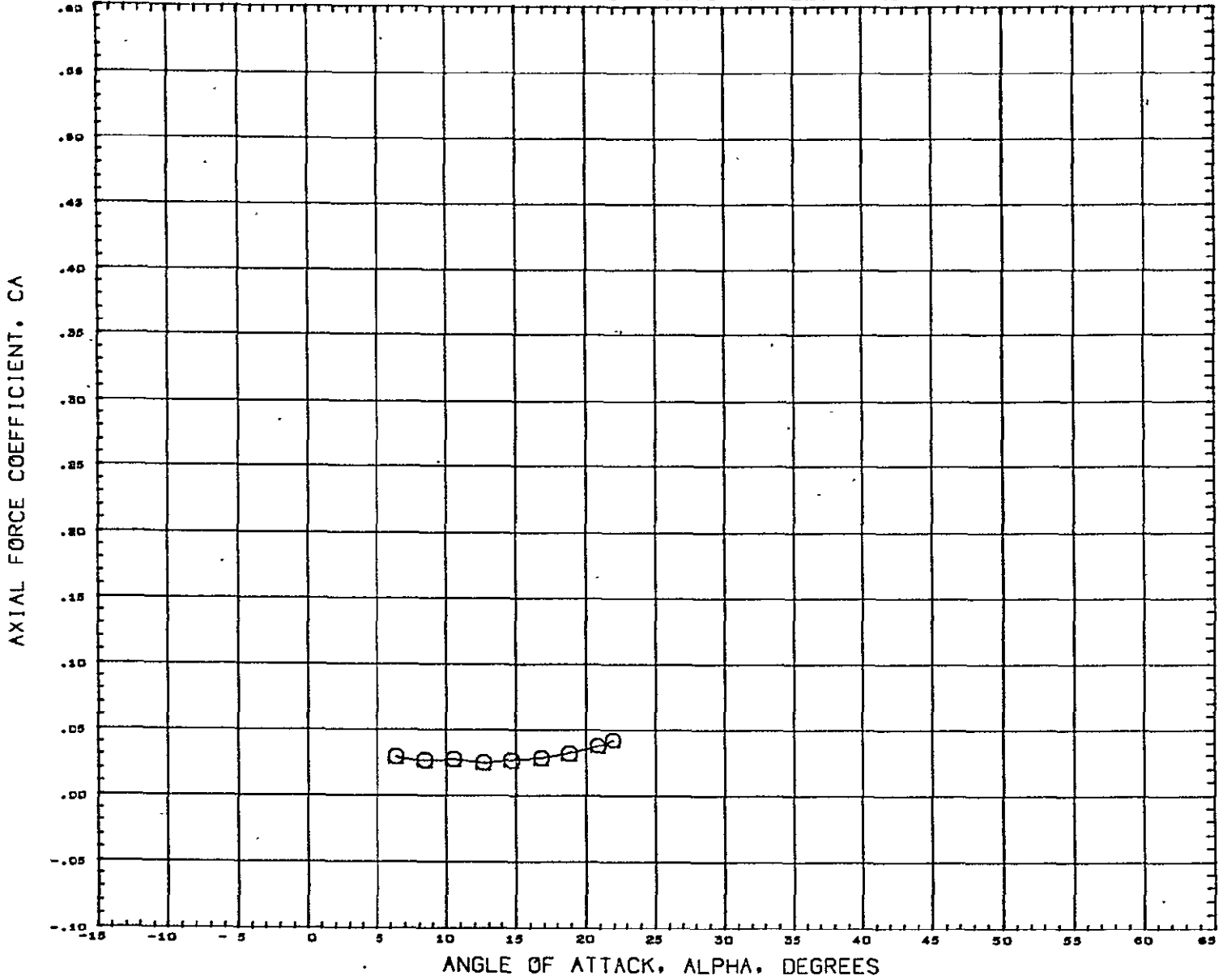
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C26008)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C26002)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26003)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C26012)	DATA NOT AVAILABLE FOR AEL. CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 4.960

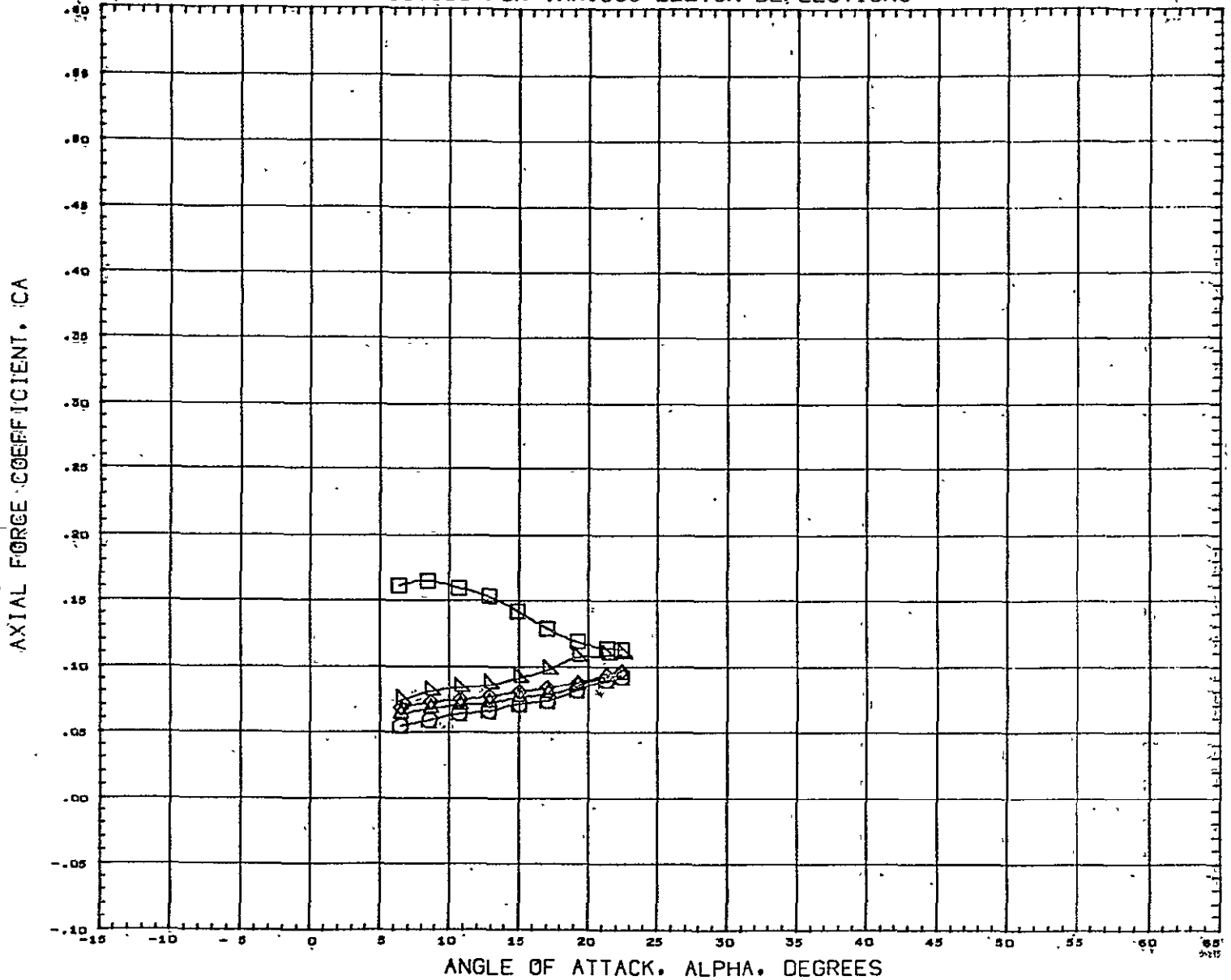
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0950 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 0.607

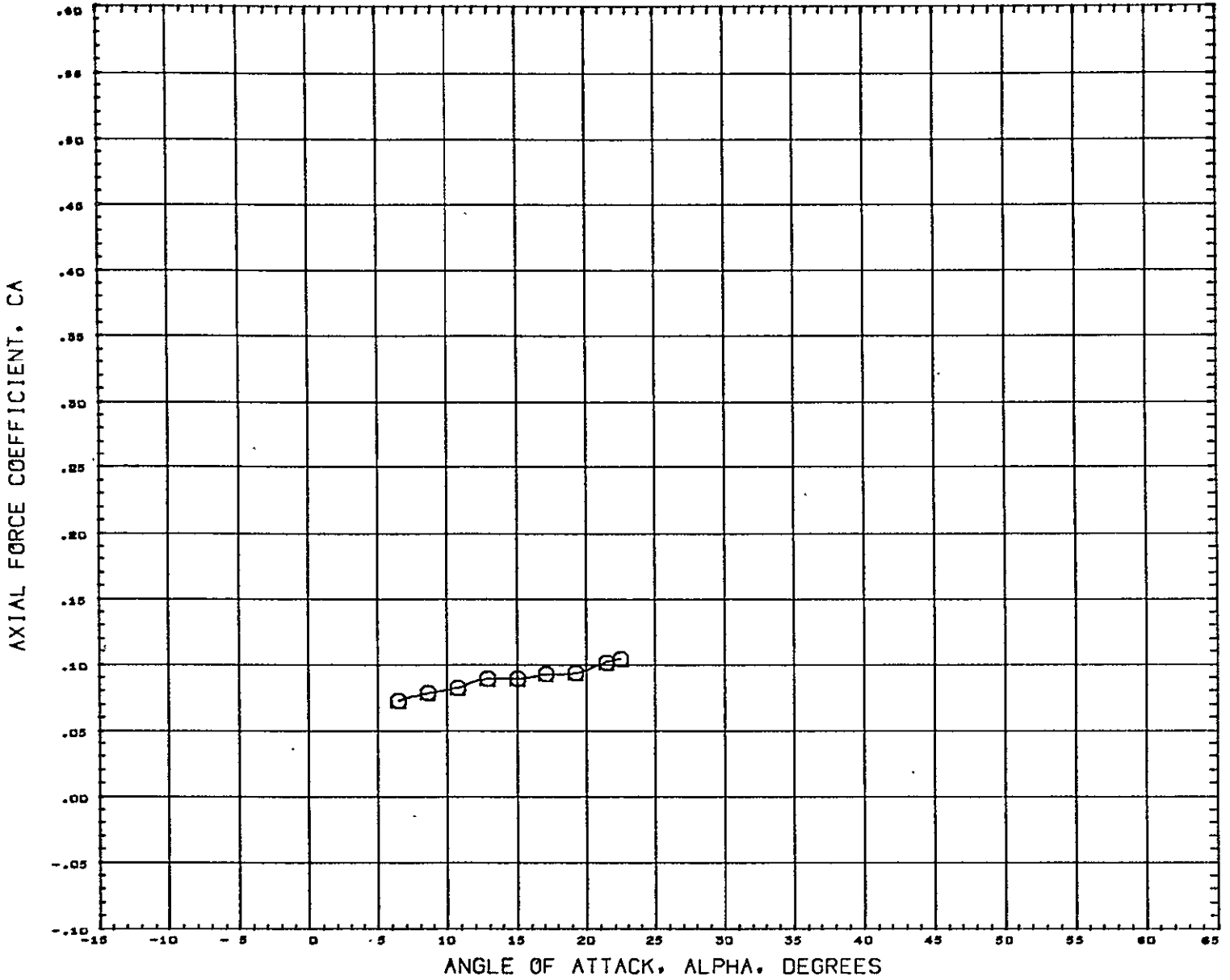
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	M3FC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28006)	M3FC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0960 IN.
(C28002)	M3FC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0960 IN.
(C28003)	M3FC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	M3FC481 GD/C (BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

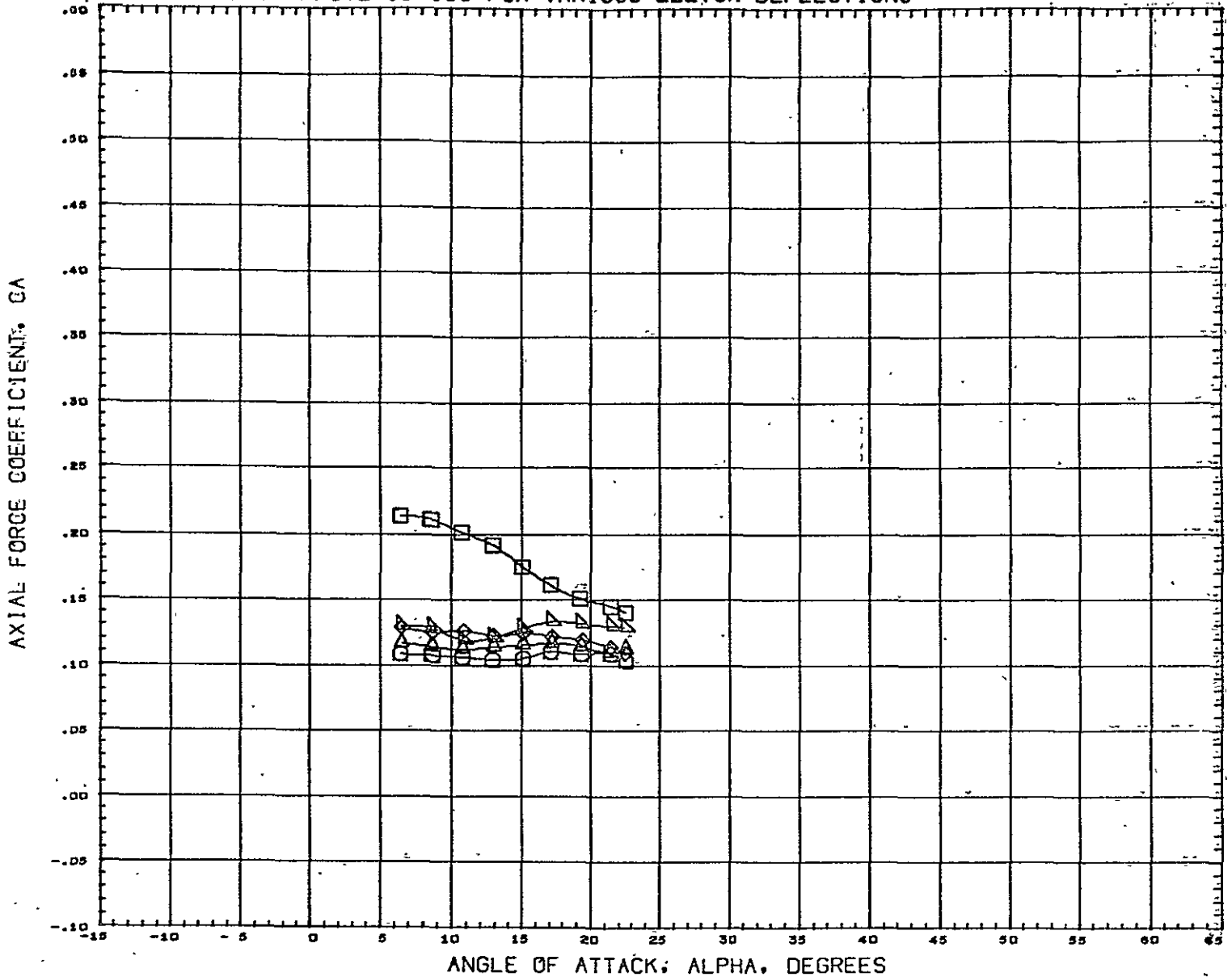
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

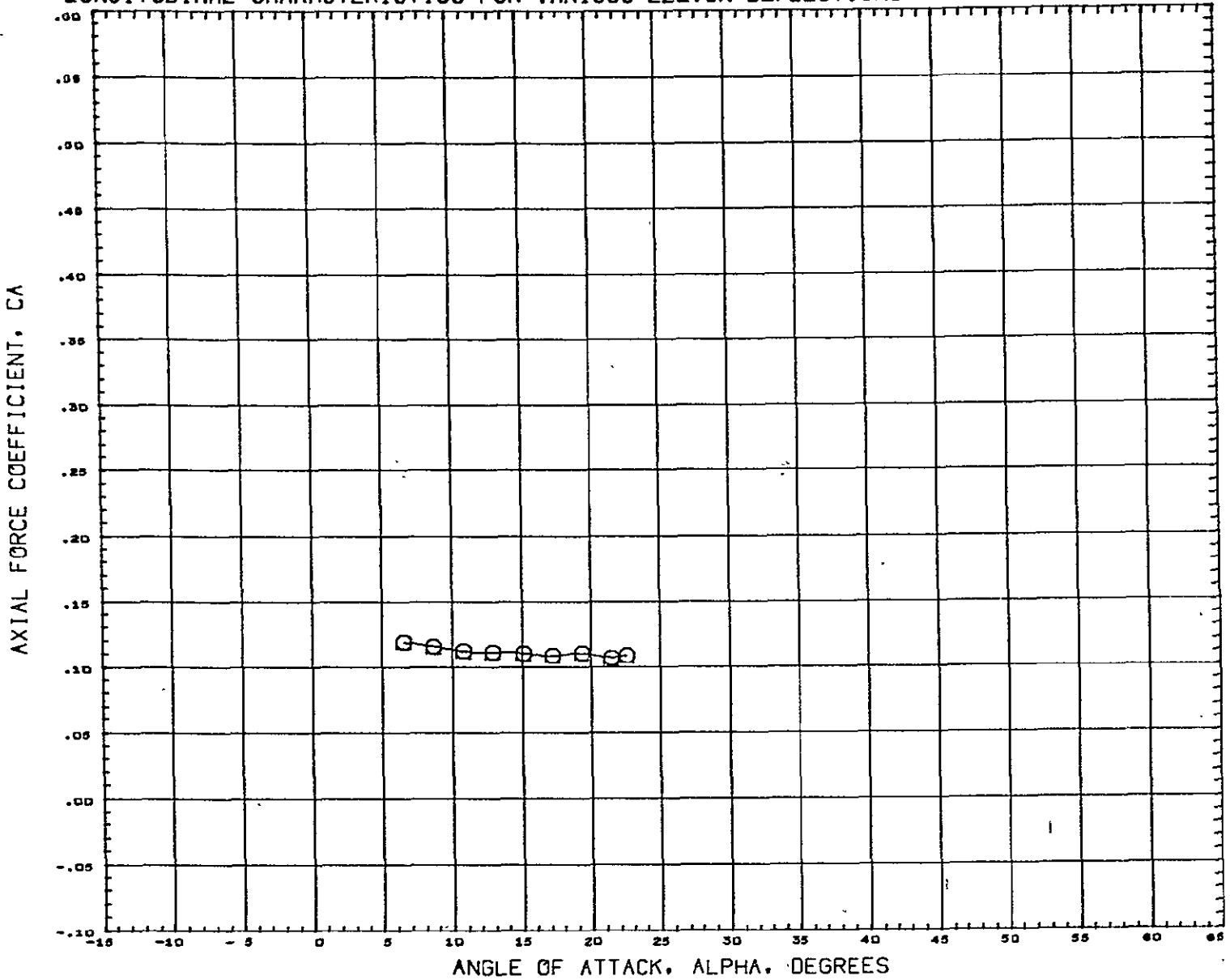
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.007

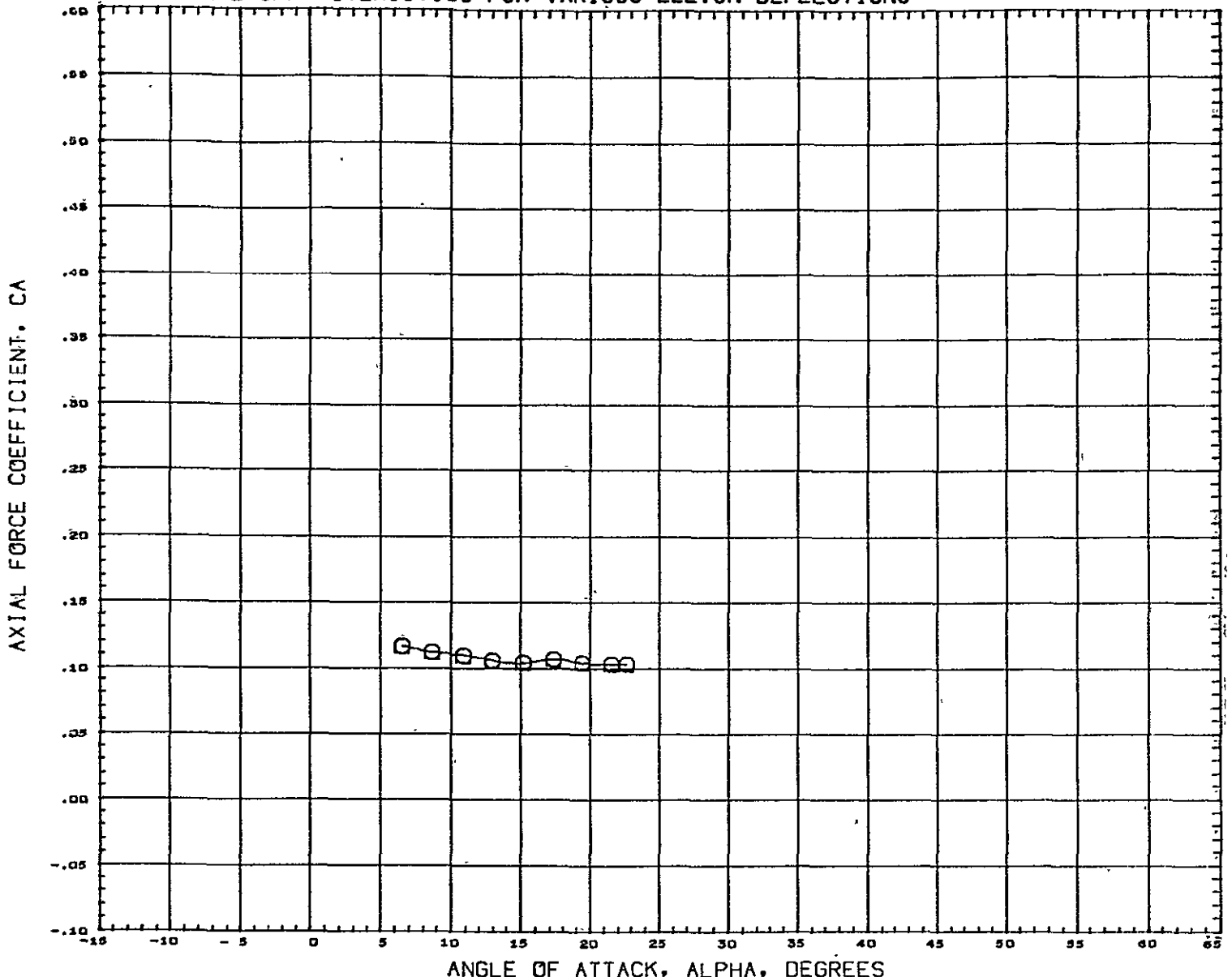
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.051

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

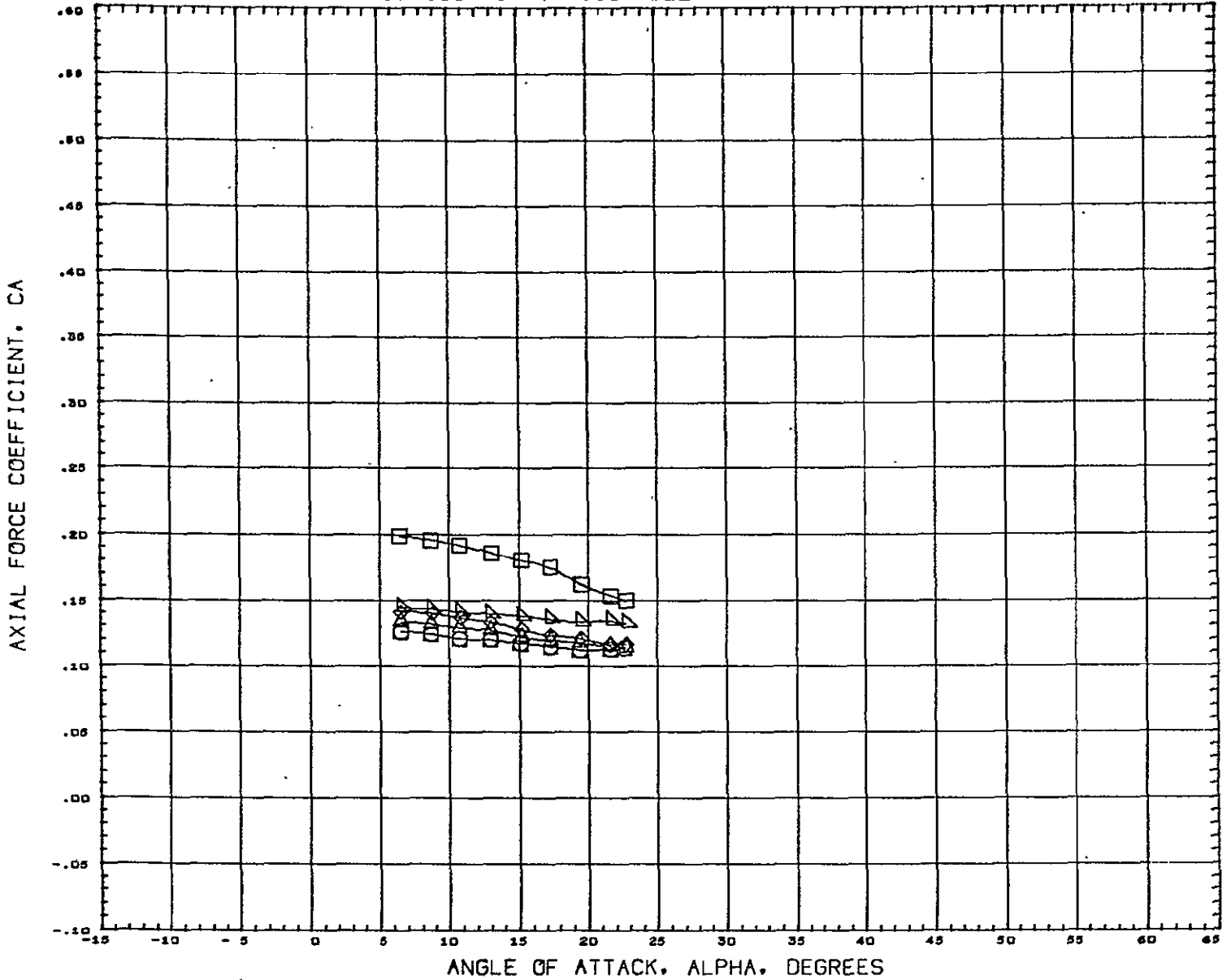


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20000)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C20002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C20012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

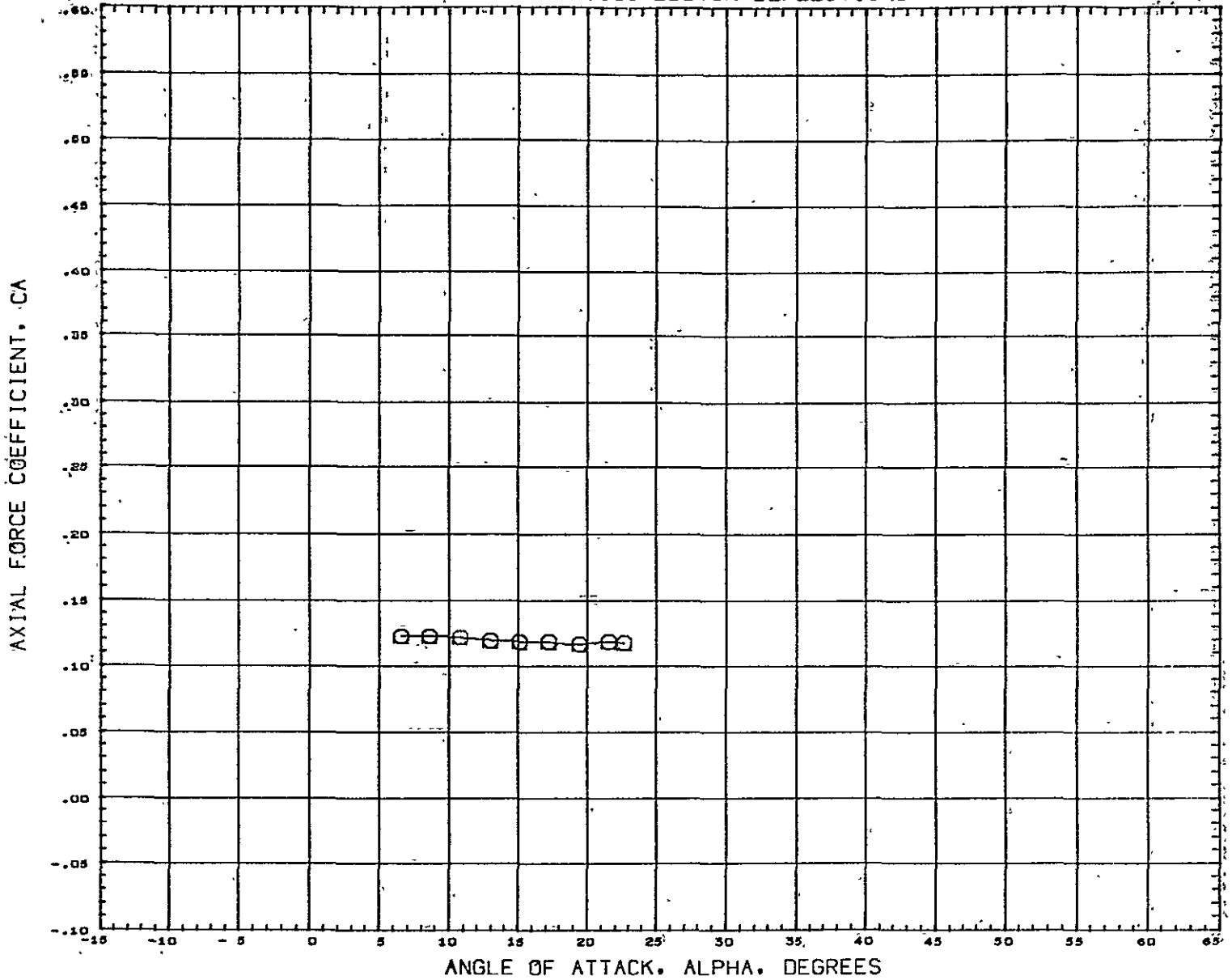
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28006)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	DREF 6.0990 IN.
(C28003)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.201

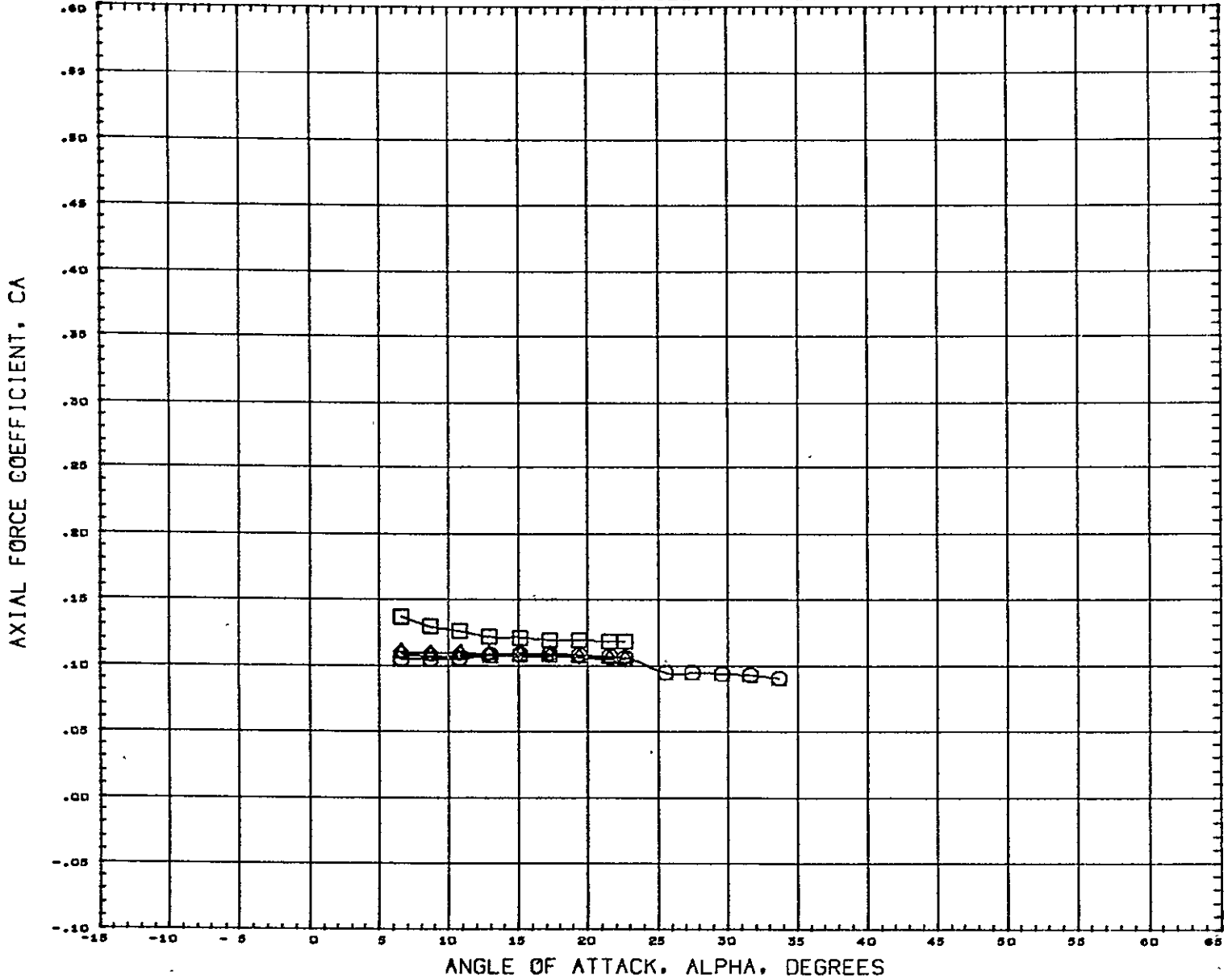
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	M3FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0930 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.462

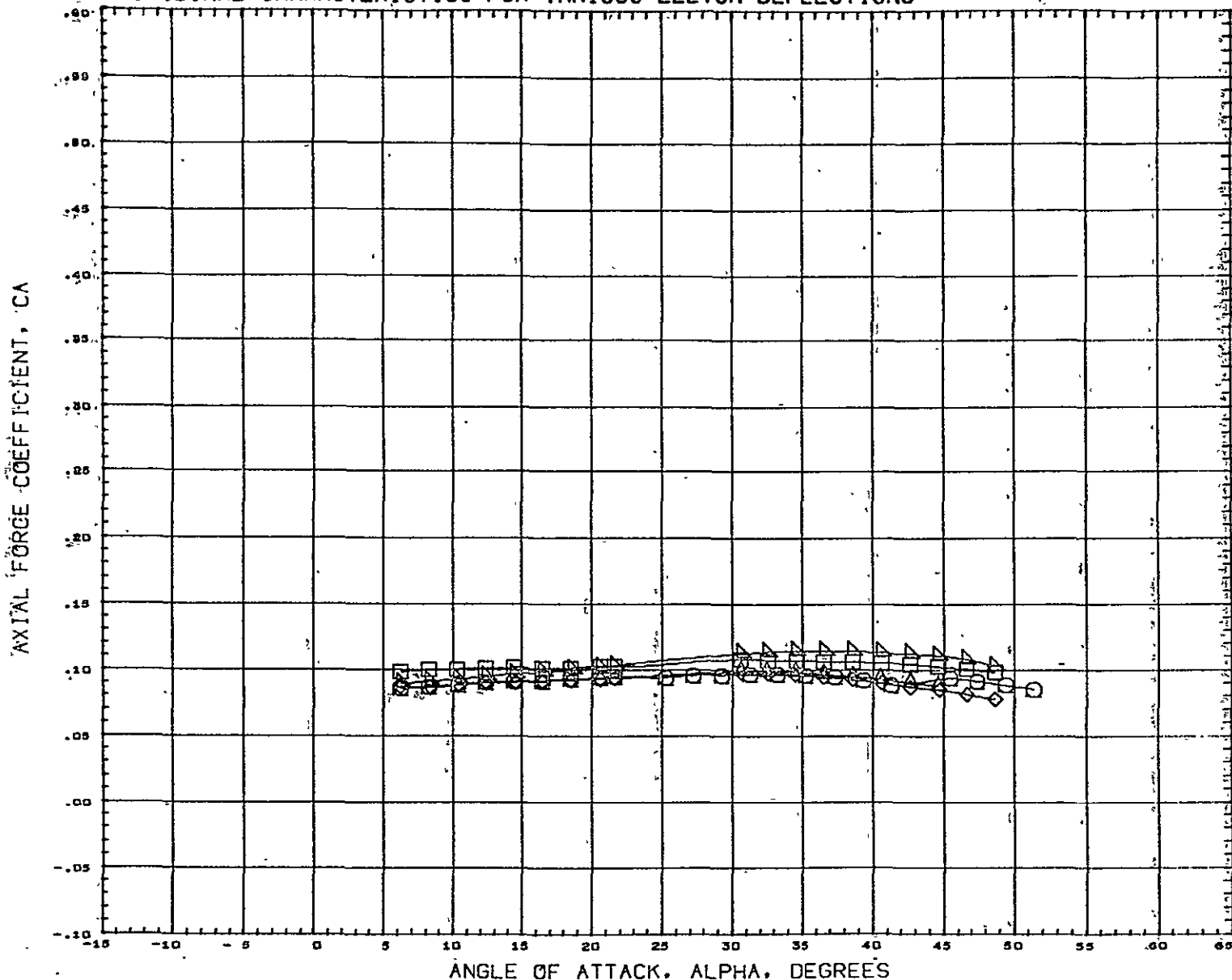
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)		M5FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	SREF 15.6560 sq. IN.
(C26000)		M5FC481 GD/C(BOOSTER)B19W14C4AV7	-10.000	10.000	0.000	LREF 3.0950 IN.
(C26002)		M5FC481 GD/C(BOOSTER)B19W14C4AV7	-20.000	0.000	0.000	BREF 6.0990 IN.
(C26003)		M5FC481 GD/C(BOOSTER)B19W14C4AV7	-60.000	0.000	0.000	XMRP 6.7100 IN.
(C26012)		DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.958

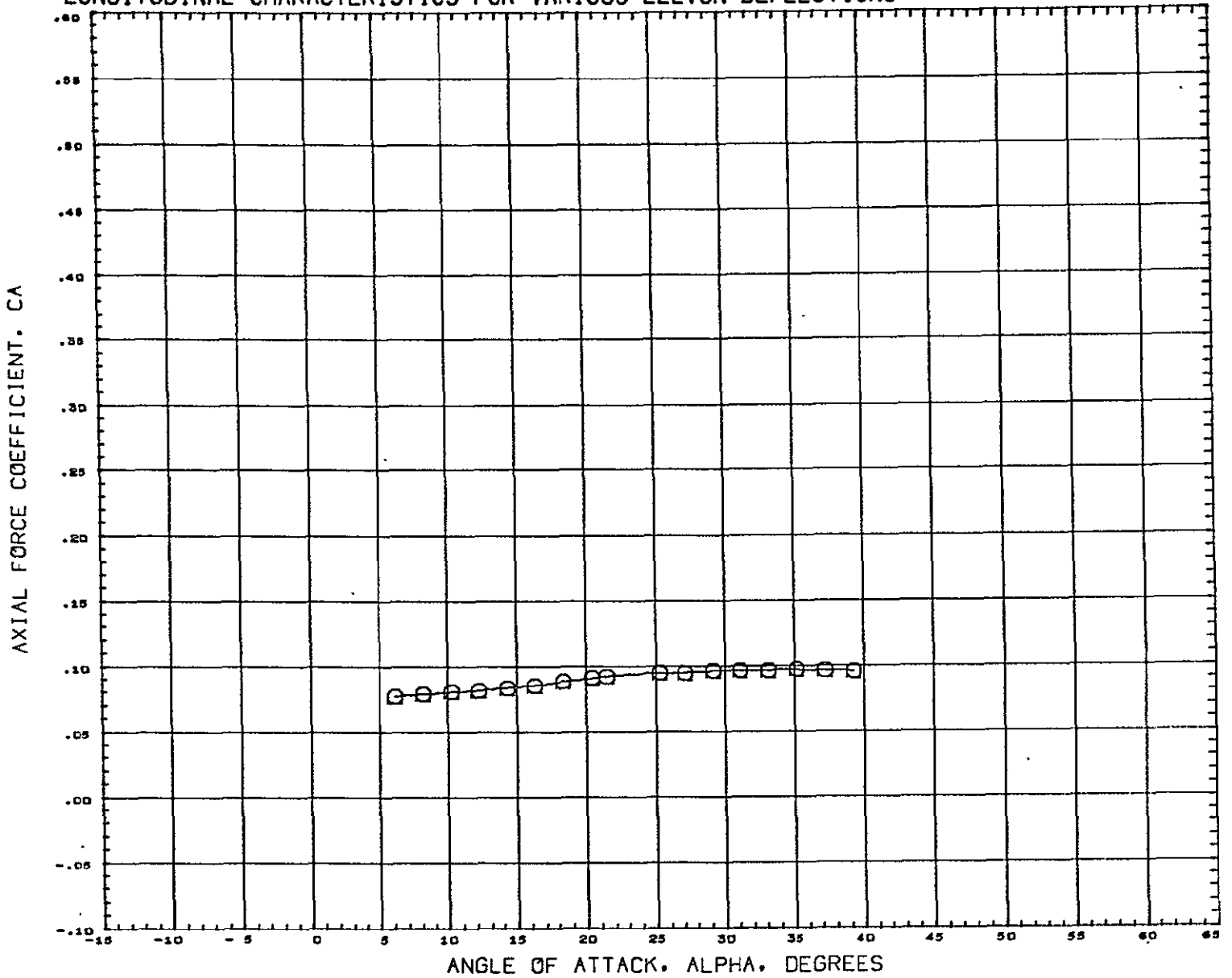
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20002)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C20003)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20004)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20012)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 2.990

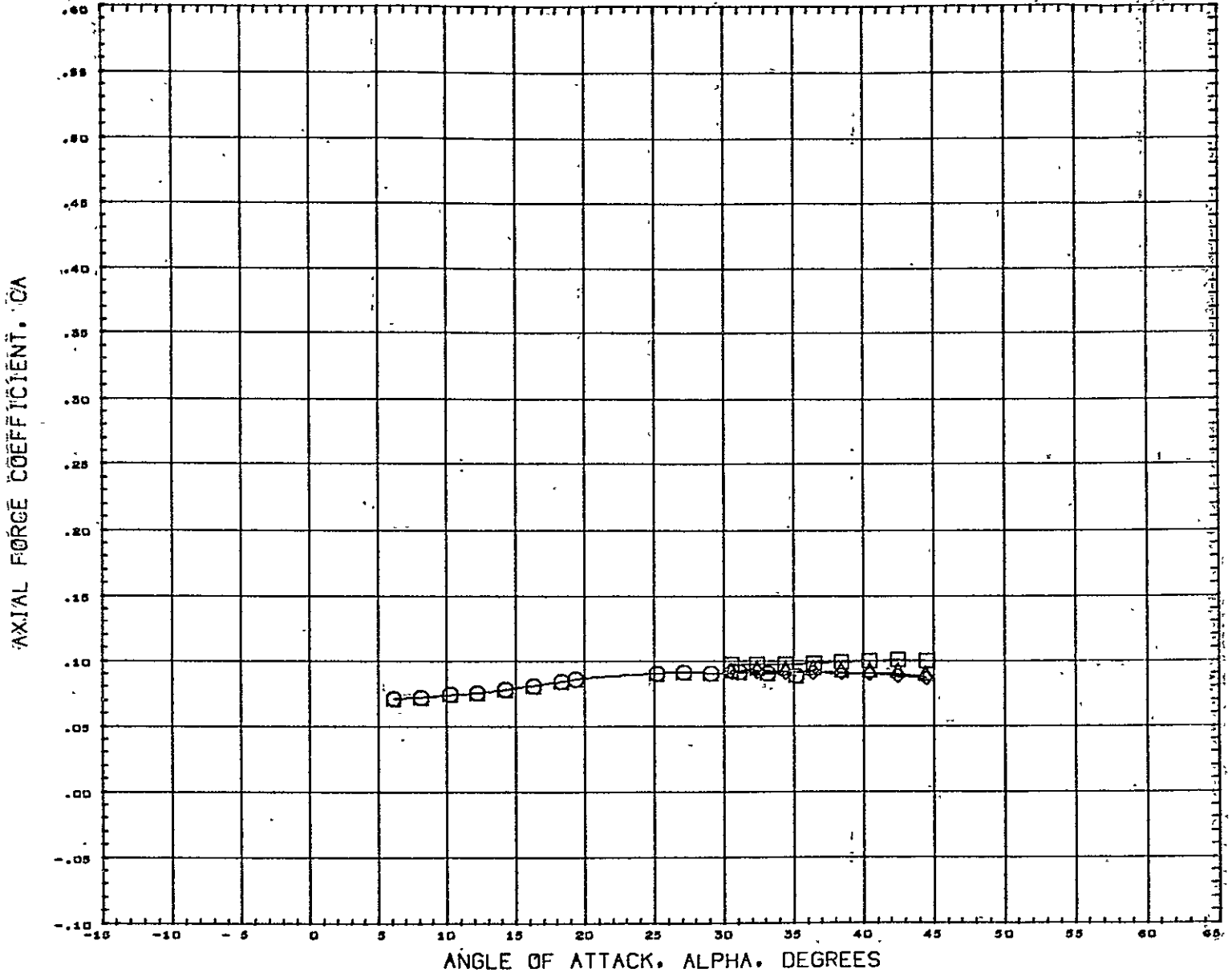
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ-IN.
(C28006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

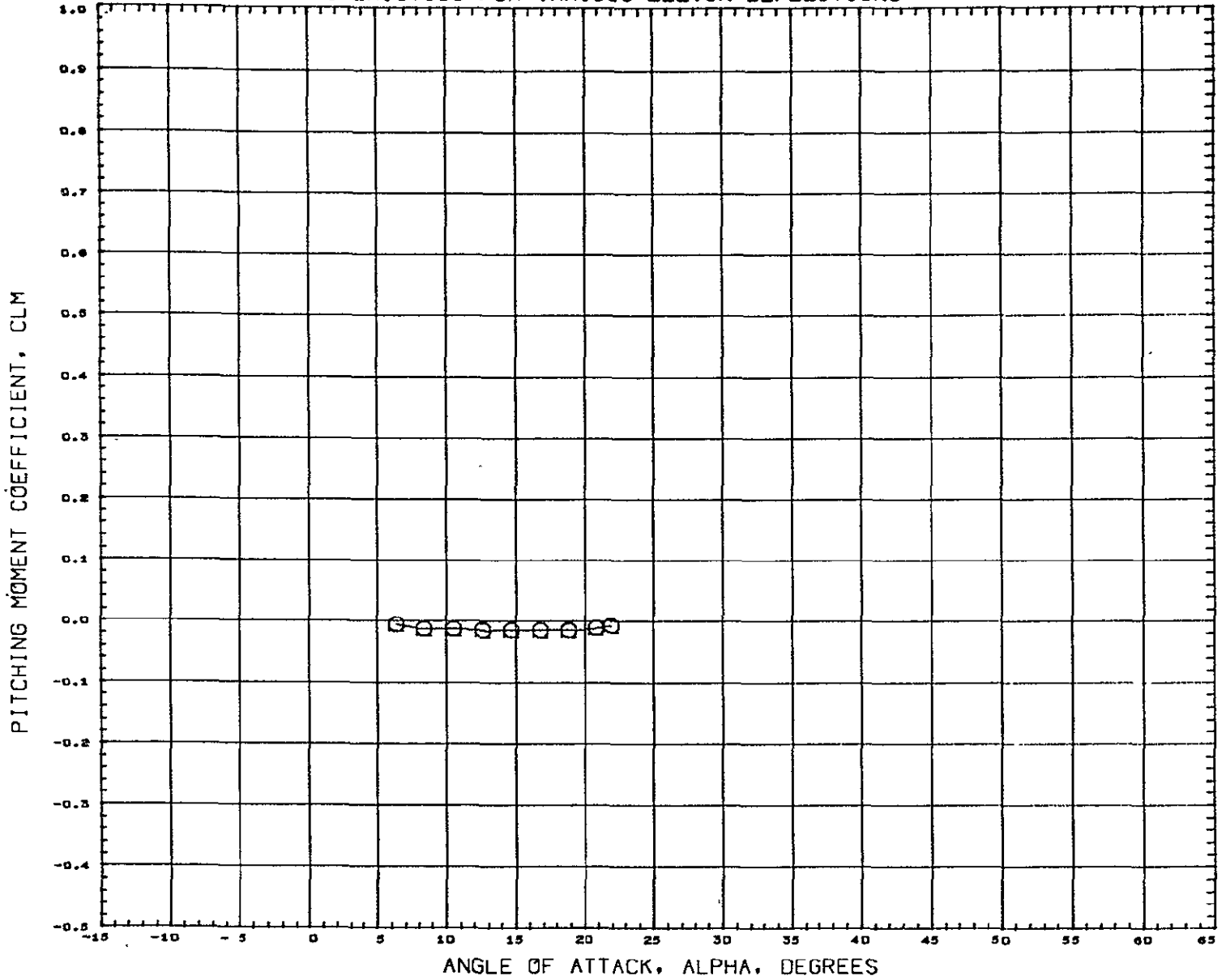
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 99. IN.
(C28006)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.960

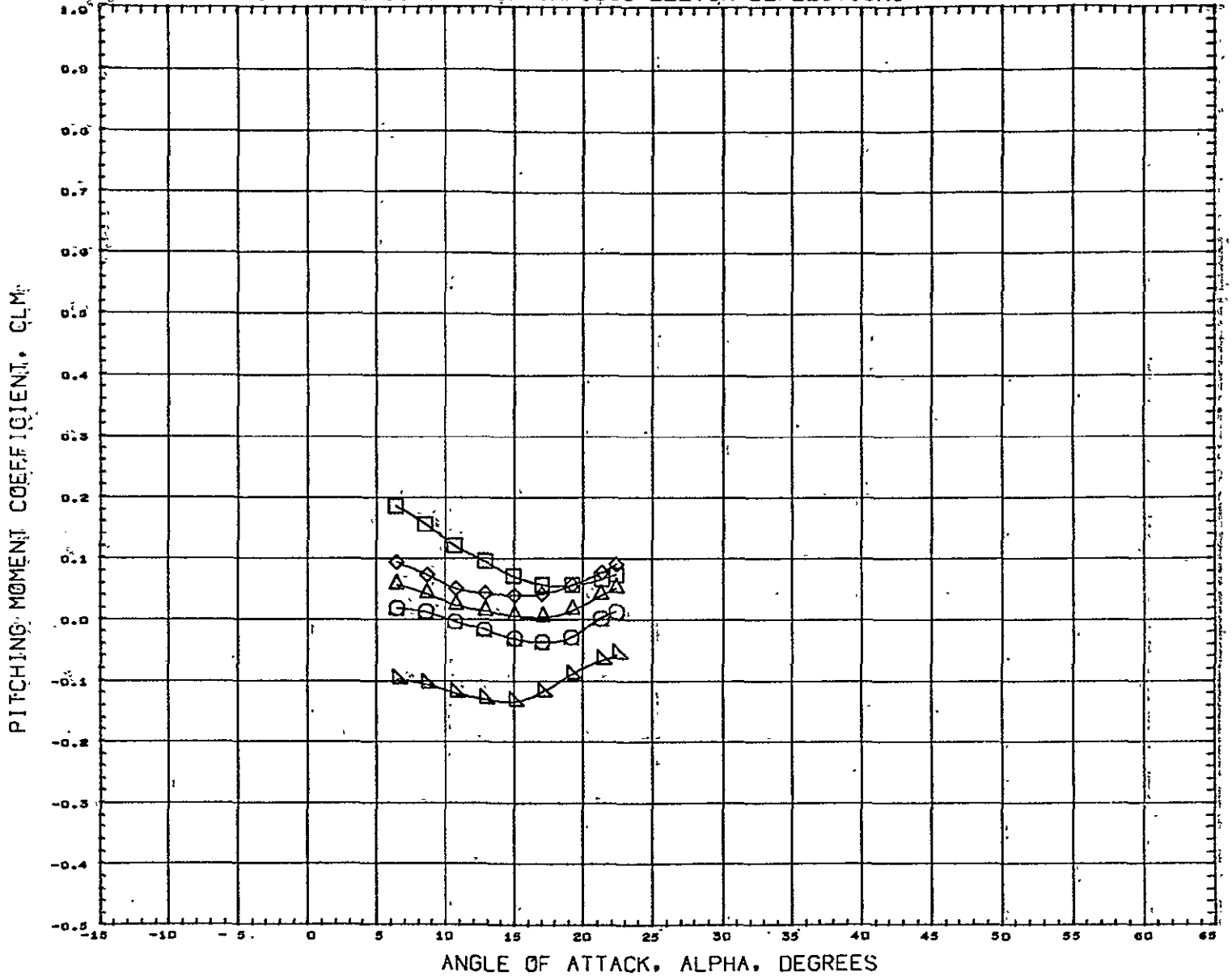
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C26006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C26002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C26012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

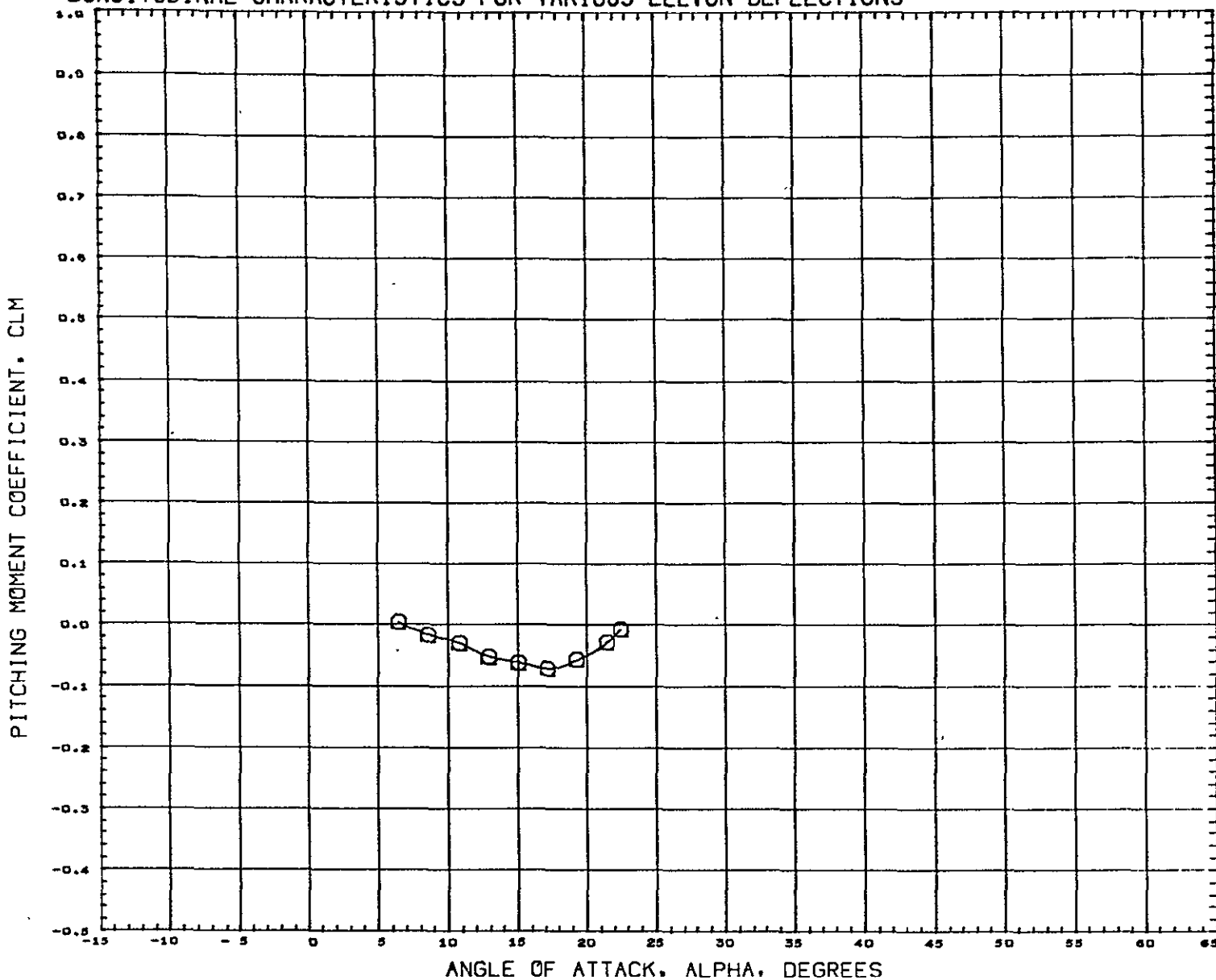
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

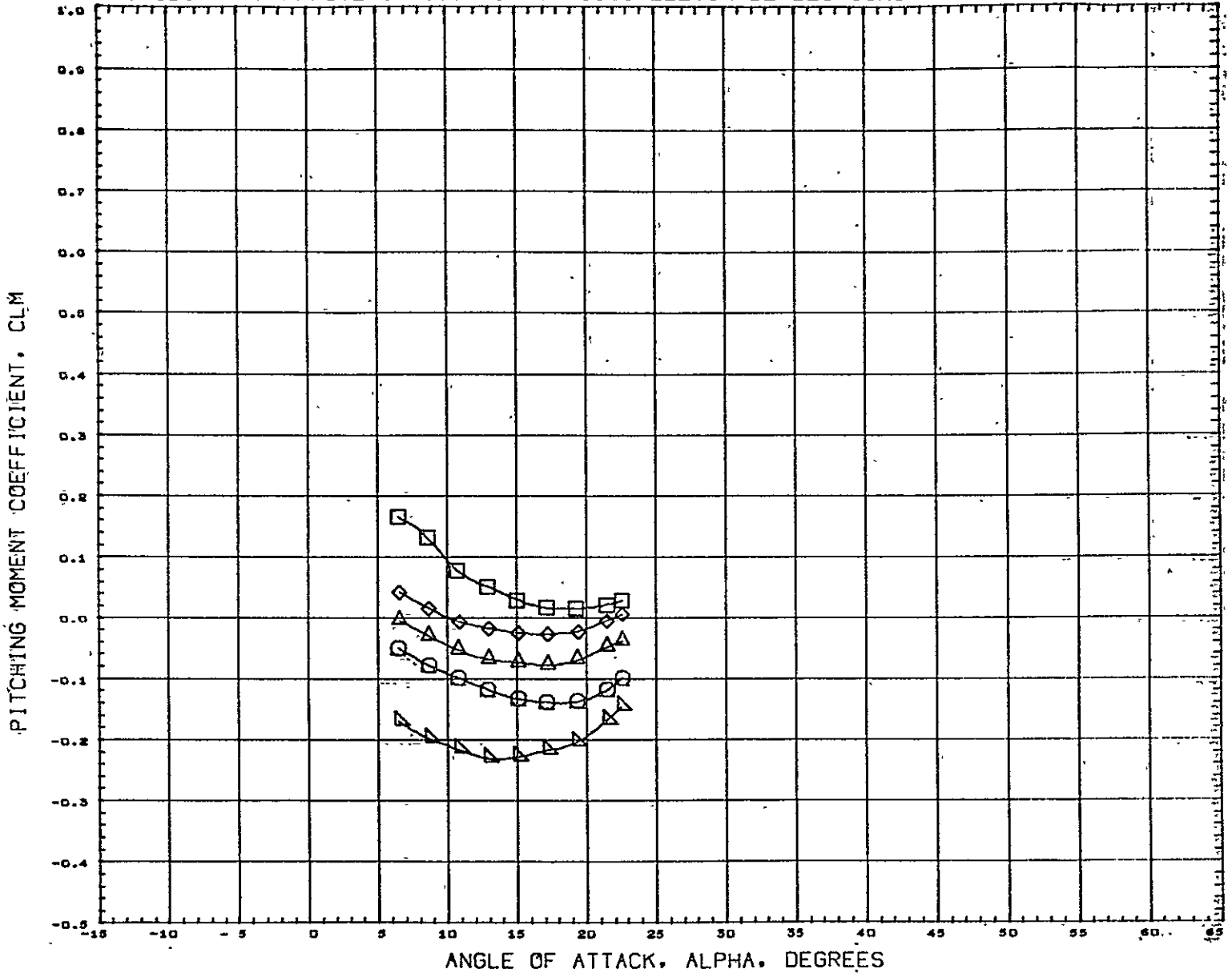
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 30. IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 0.954

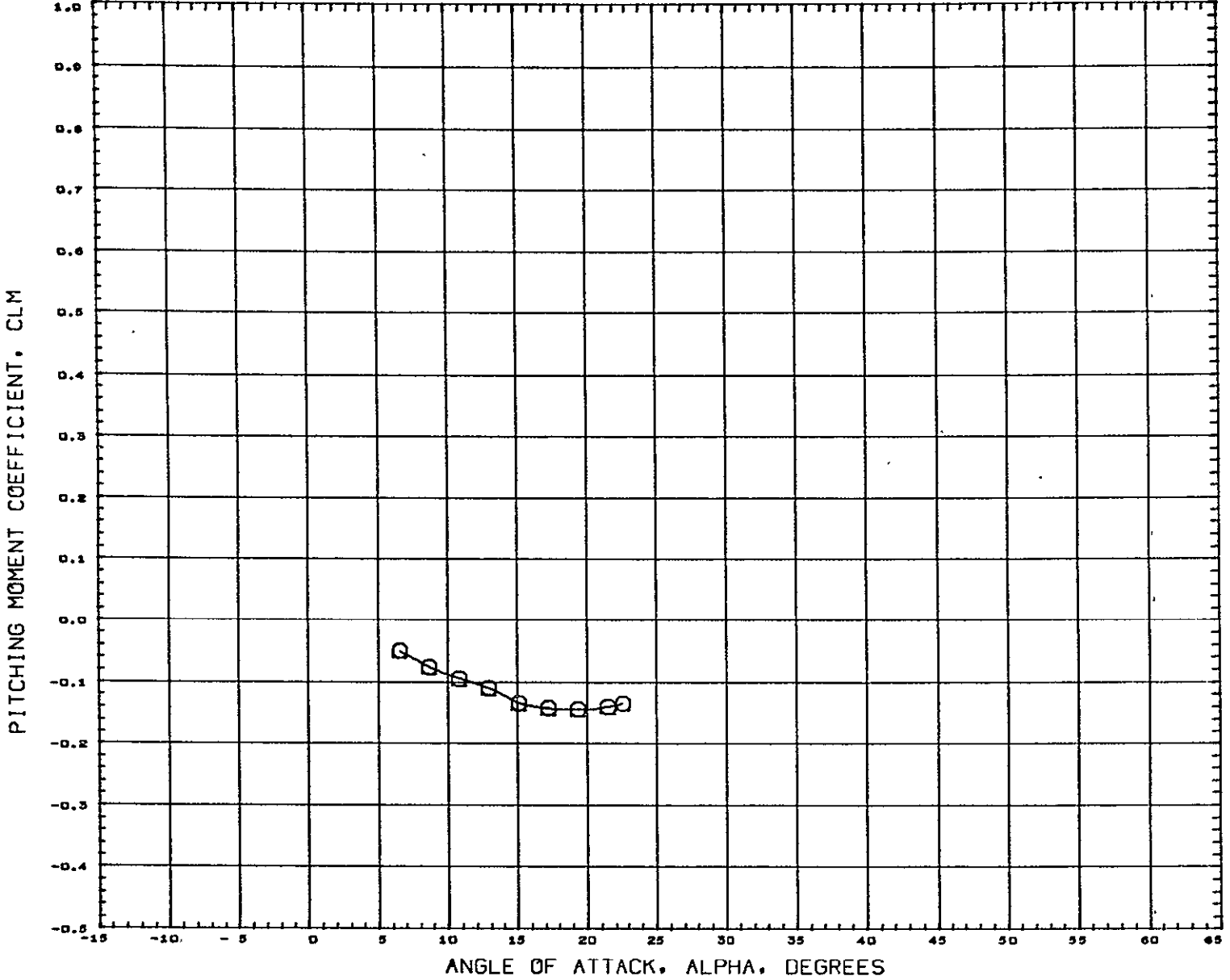
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

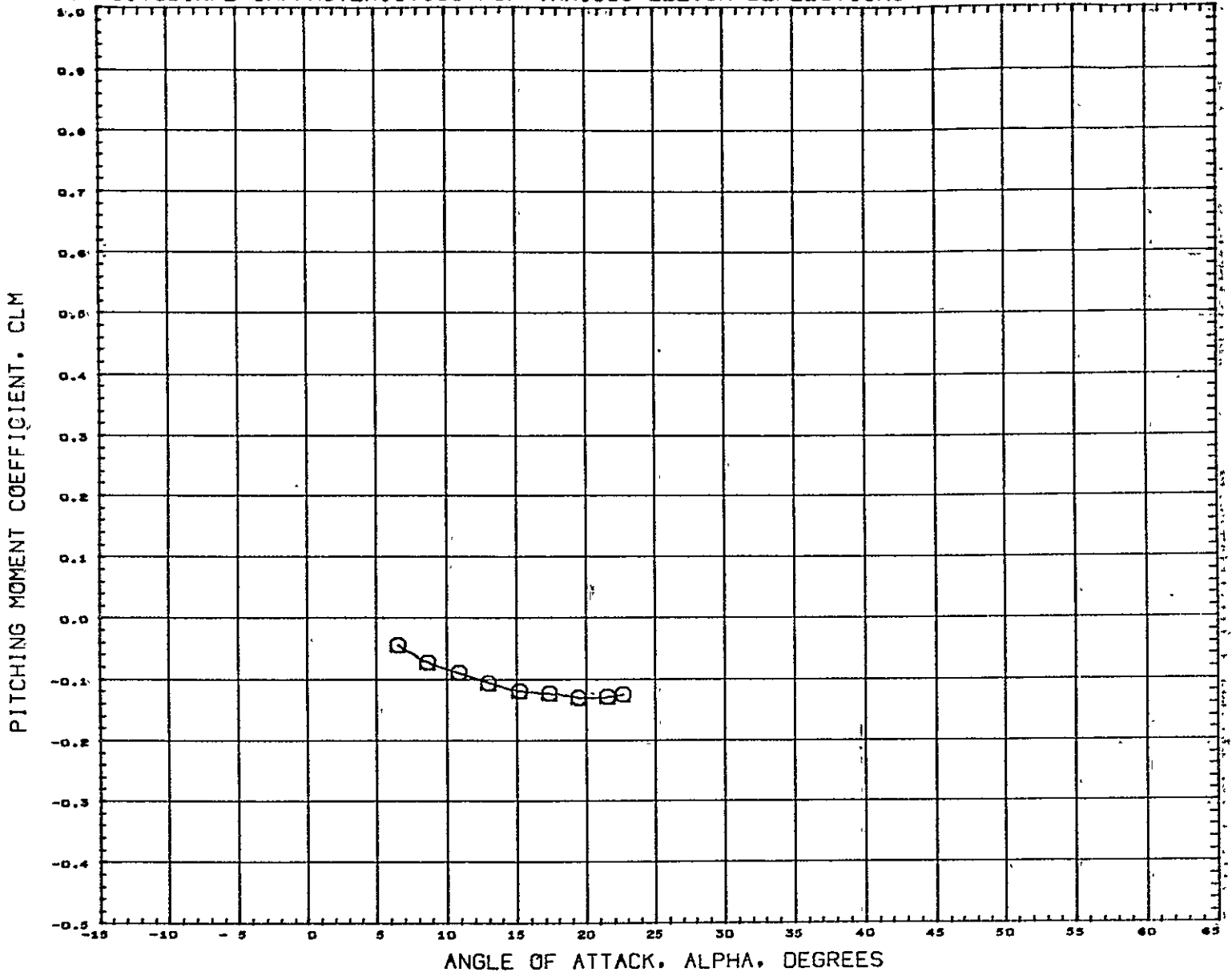


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0090 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

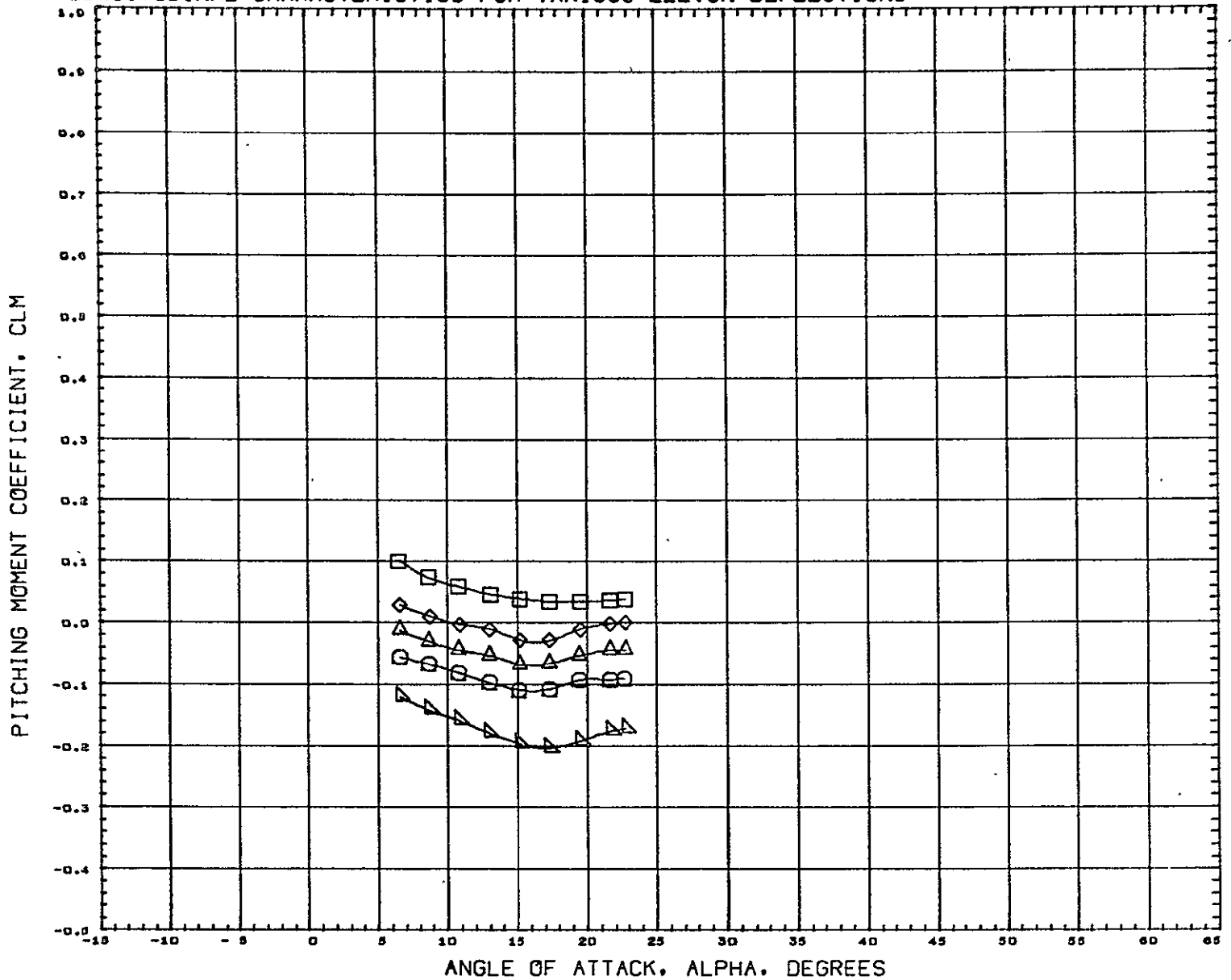
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C20002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035.

MACH 1.105

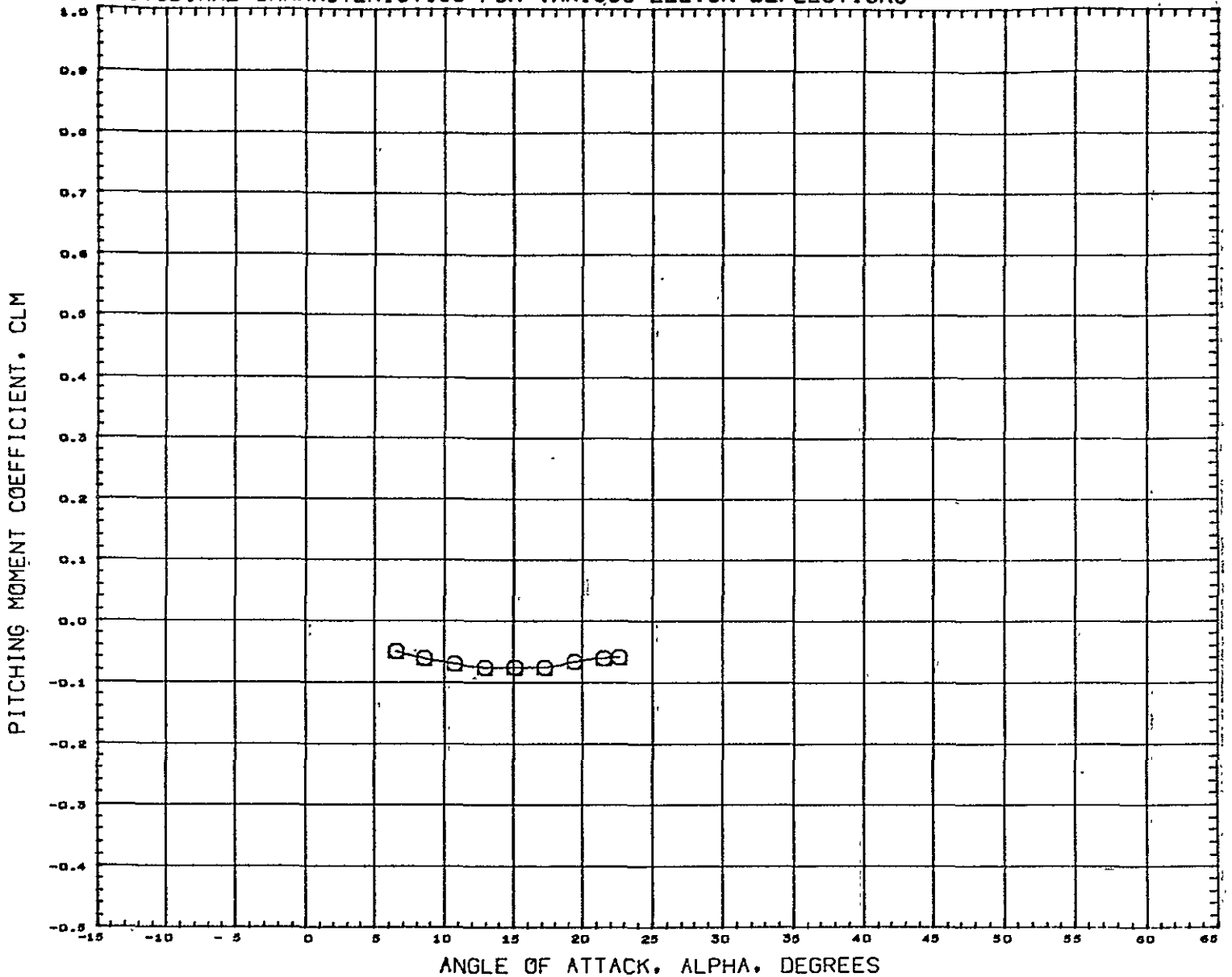
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20006)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C20002)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20003)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20012)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.201

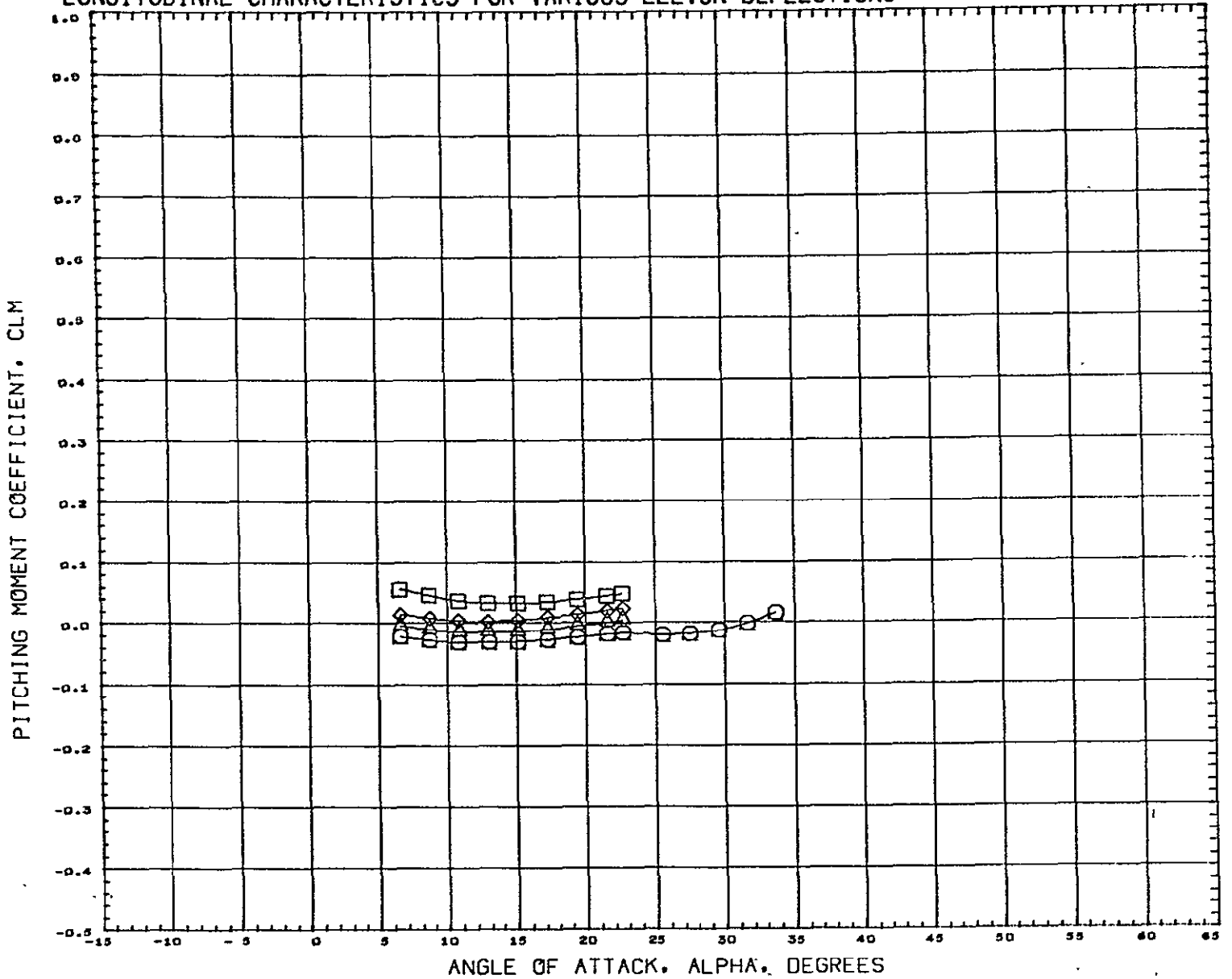
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AY7	0.000	0.000	0.000	0.000	SREF 15.6560 50. IN.
(C20008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C20002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C20012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.462

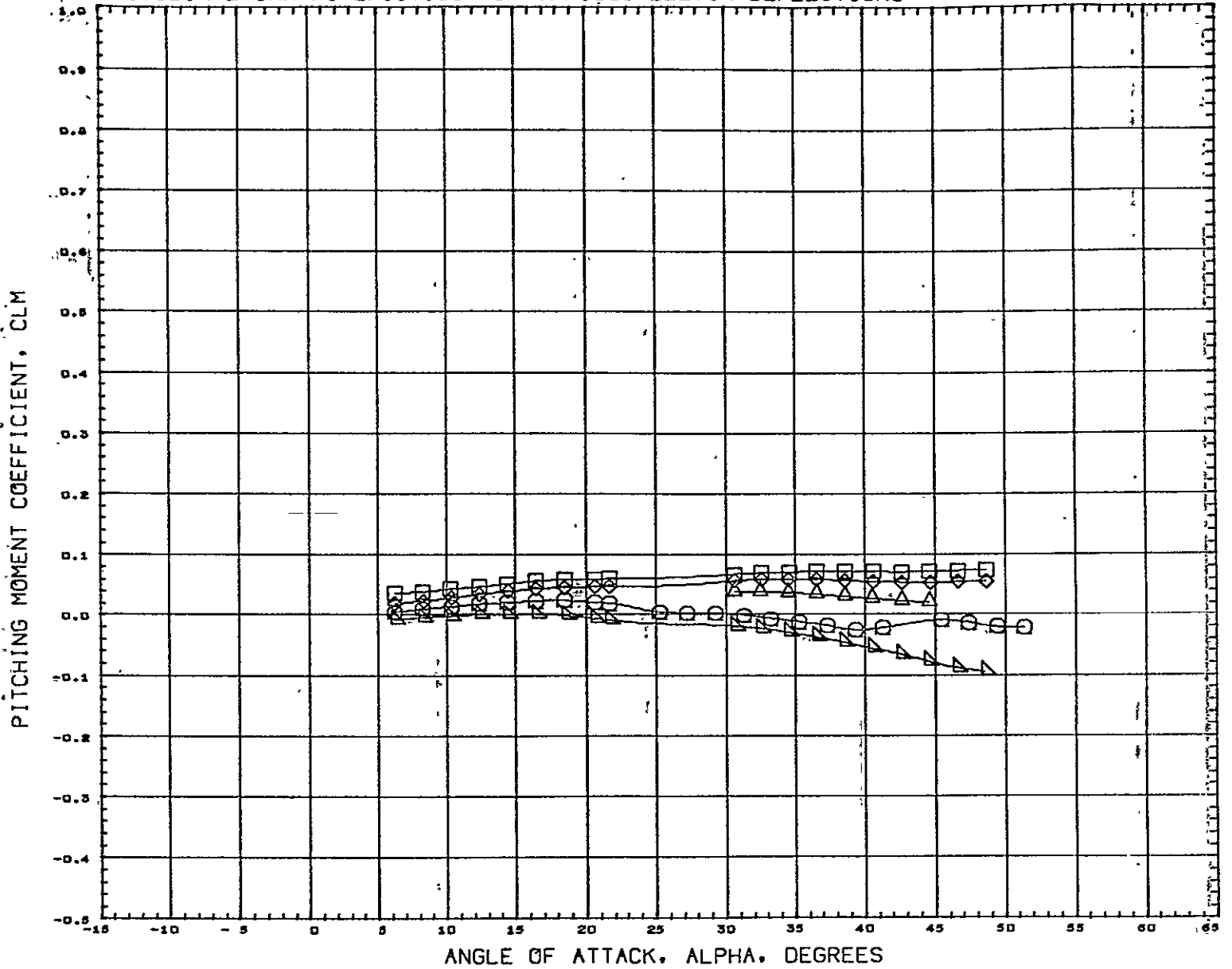
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 50. IN.
(C26006)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C26002)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26003)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	-40.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C26012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

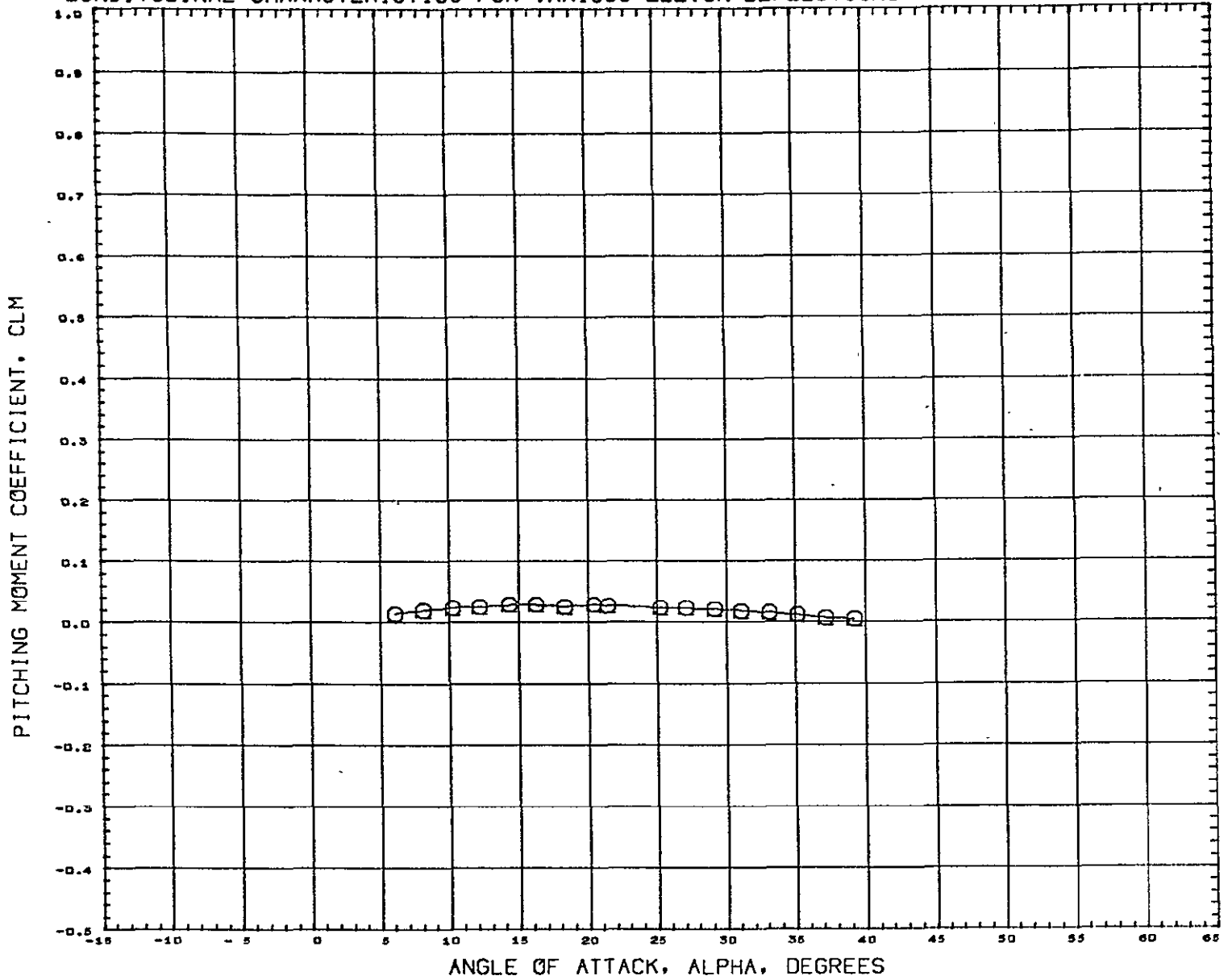
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)	MSFC461 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 Sq. IN.
(C26006)	MSFC461 GD/C(BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C26002)	MSFC461 GD/C(BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26003)	MSFC461 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C26012)	MSFC461 GD/C(BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

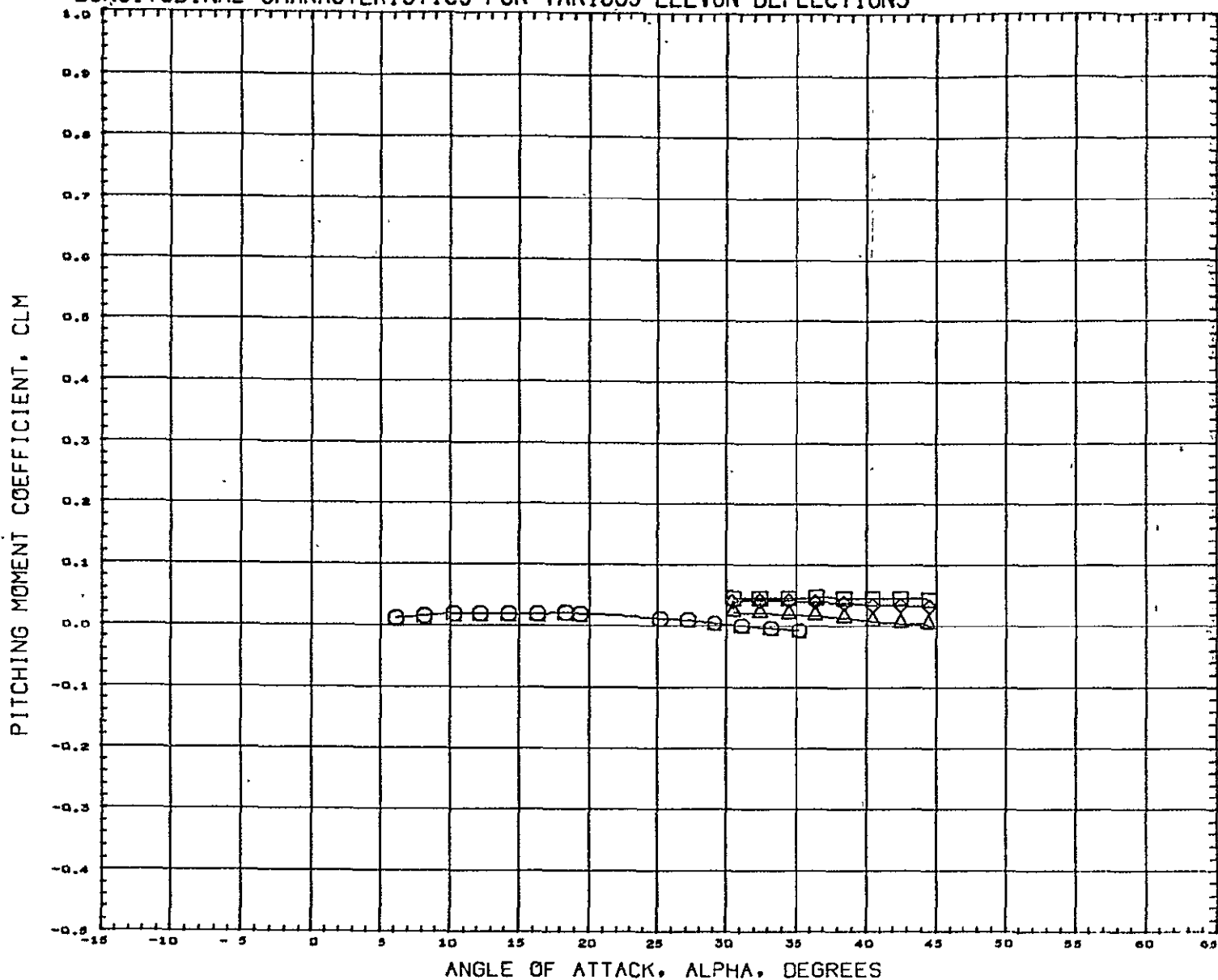
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

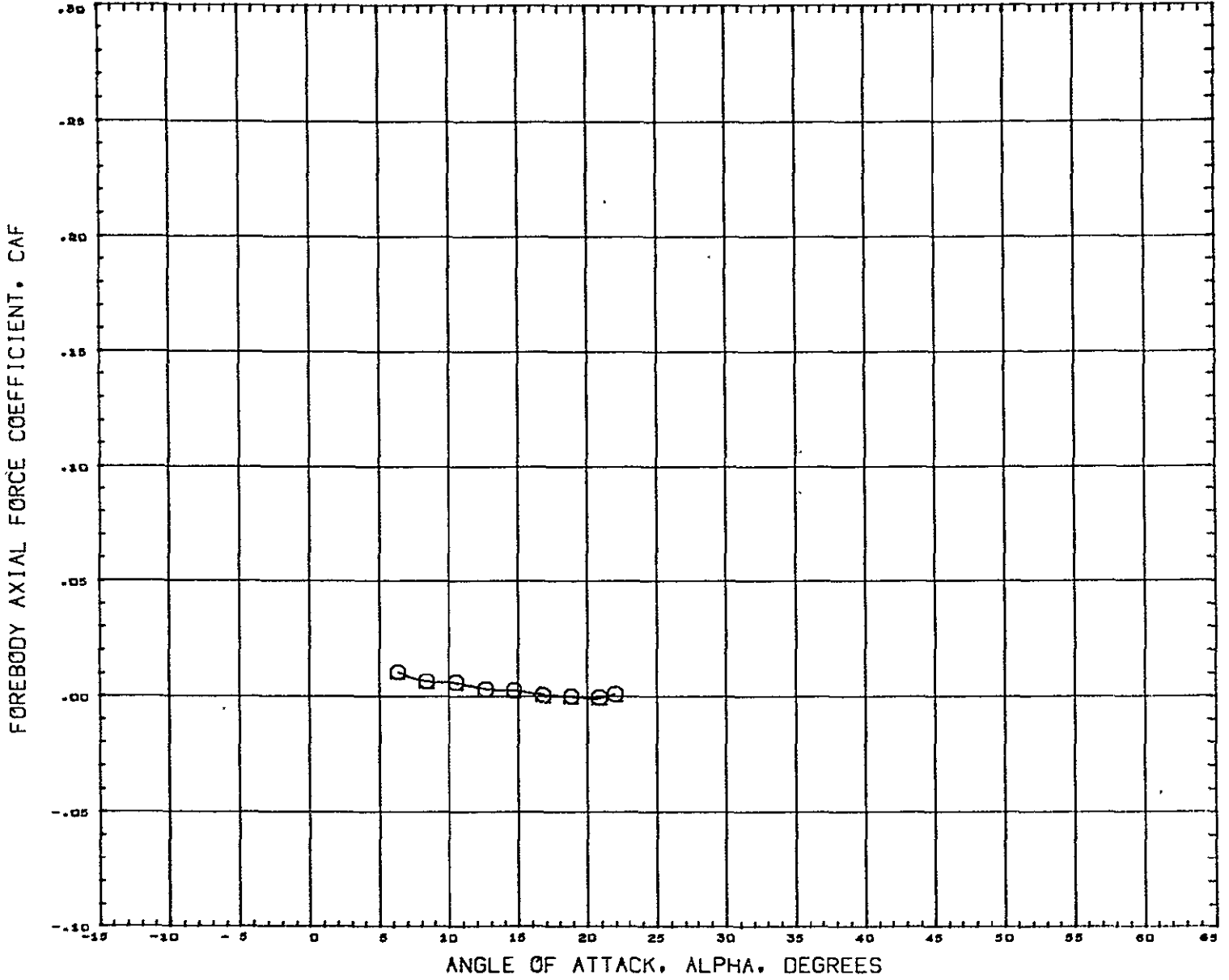
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC401 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20004)	MSFC401 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C20002)	MSFC401 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0950 IN.
(C20003)	MSFC401 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.960

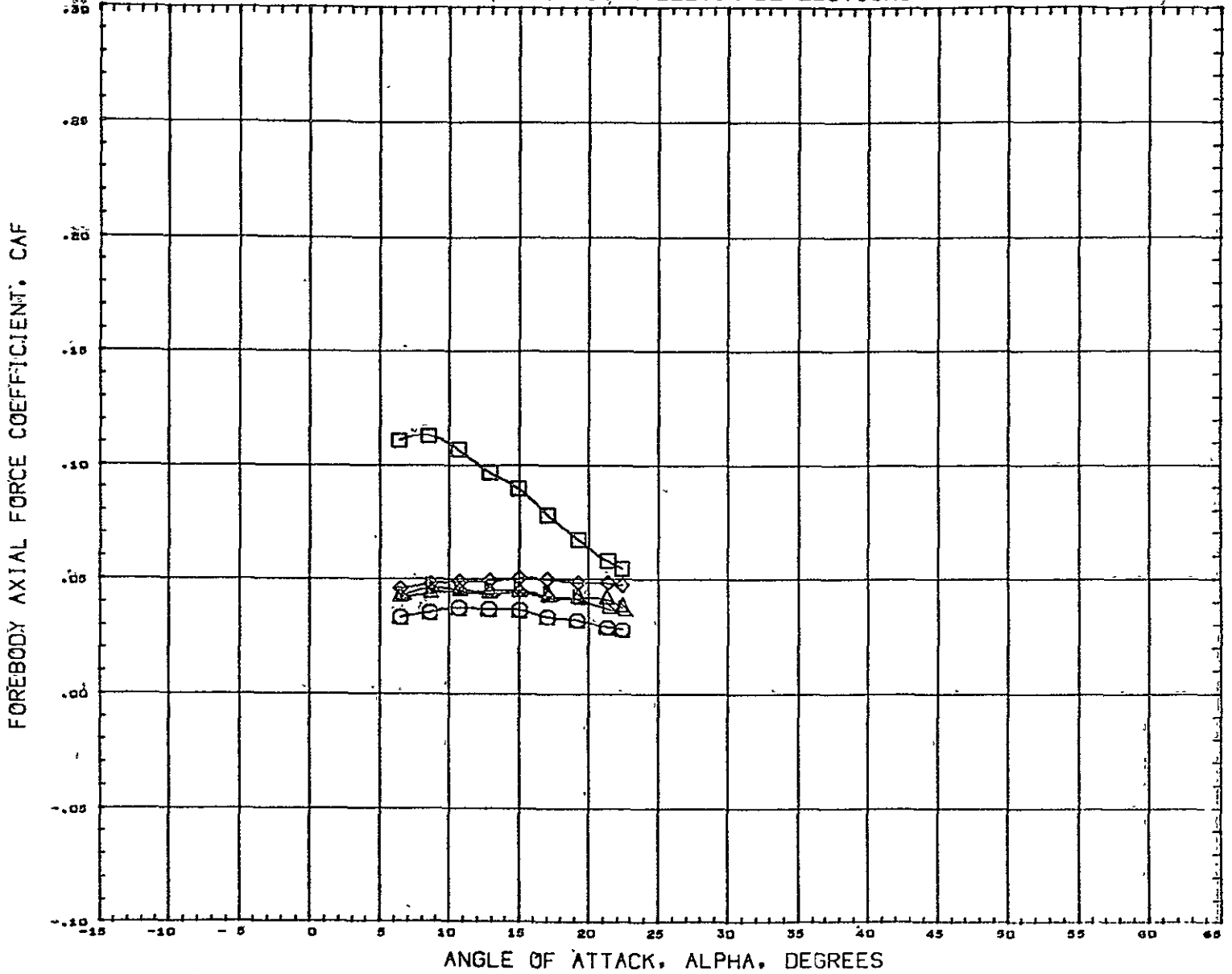
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0930 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

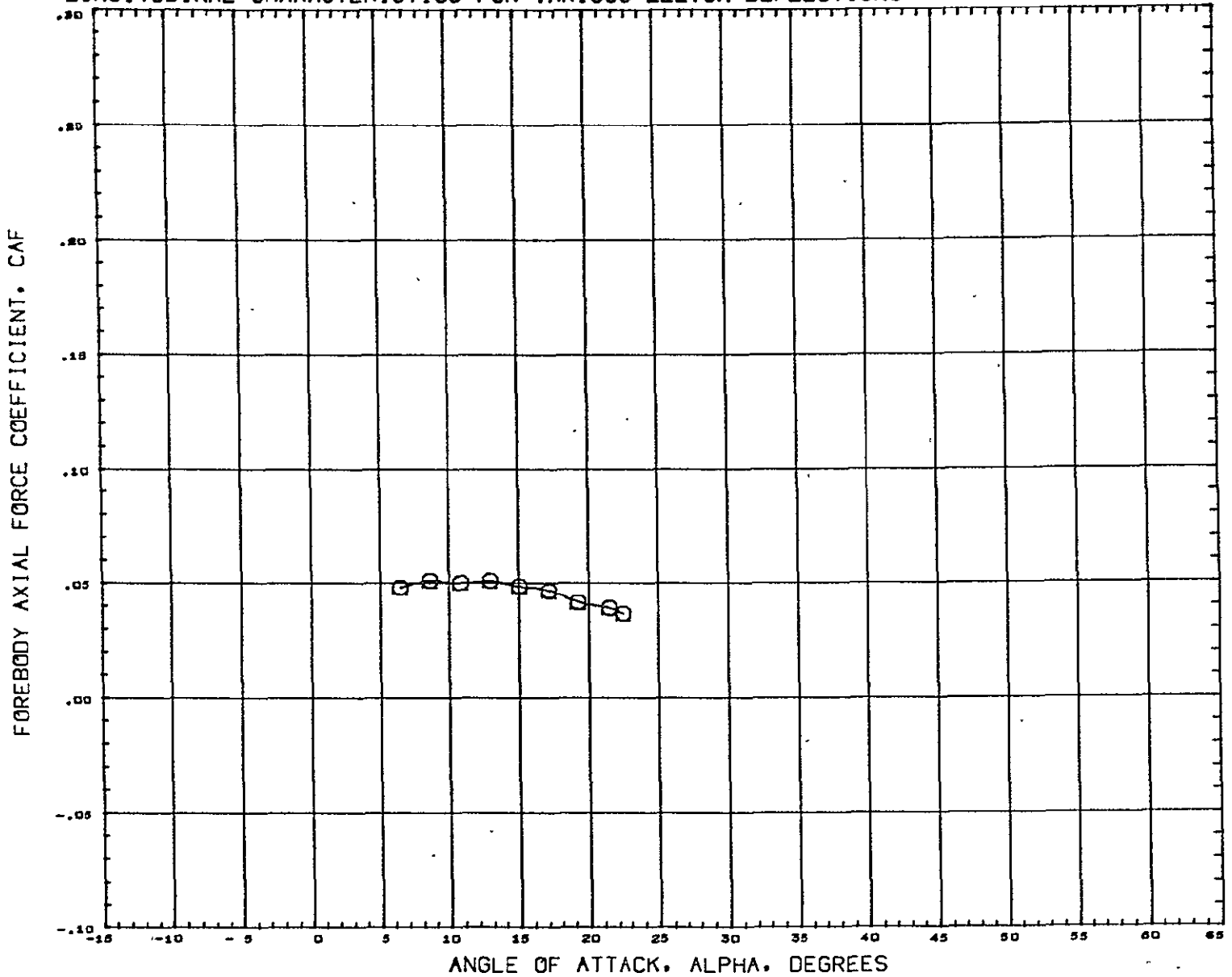
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.0560 30. IN.
(C28006)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRF 6.7100 IN.
(C28012)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	10.000	0.000	0.000	0.000	YHRF 0.0000 IN. ZHRF 0.0000 IN. SCALE 0.0055

MACH 0.900

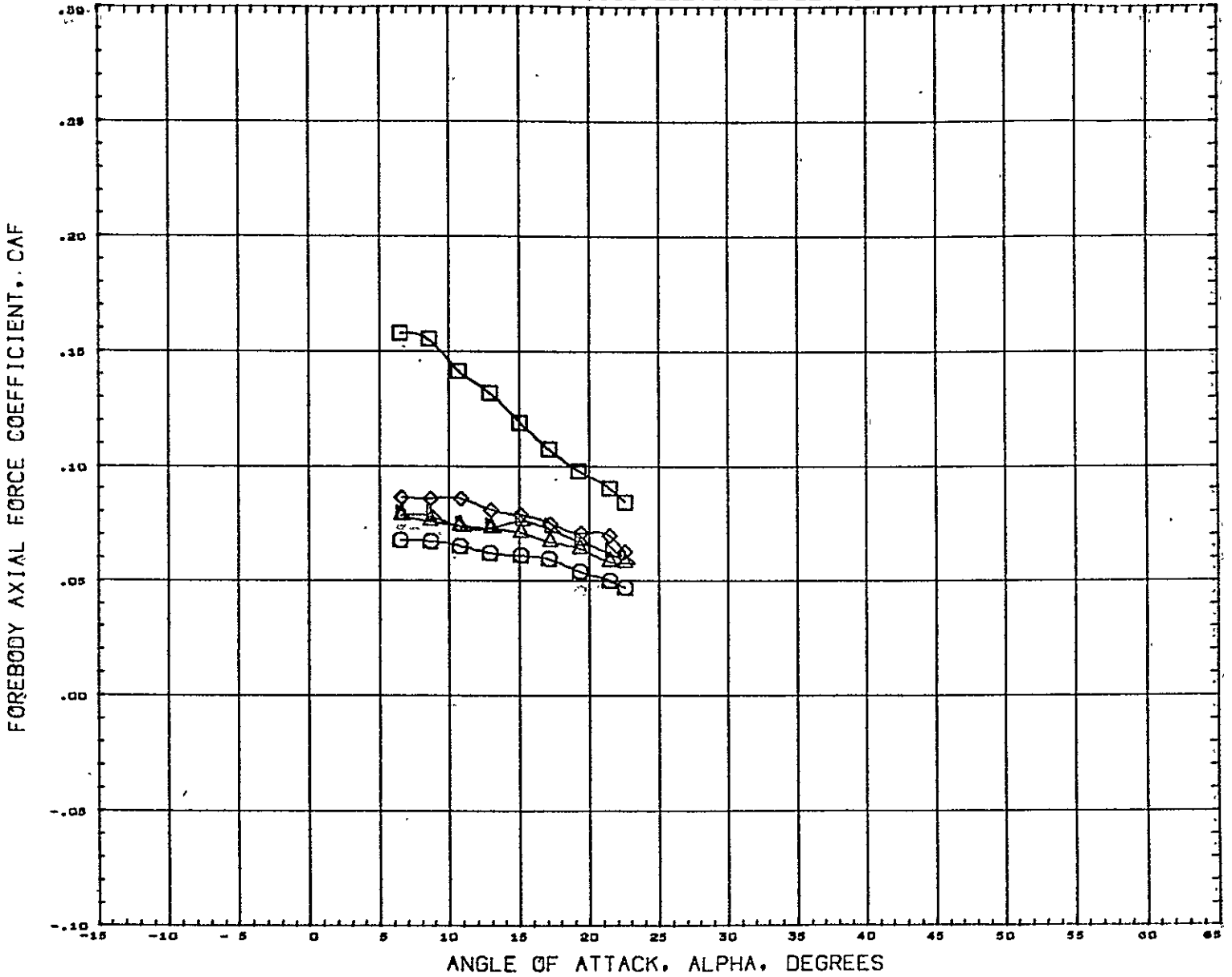
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C (BOOSTER) B19W14C4V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C26006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C26002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C26012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

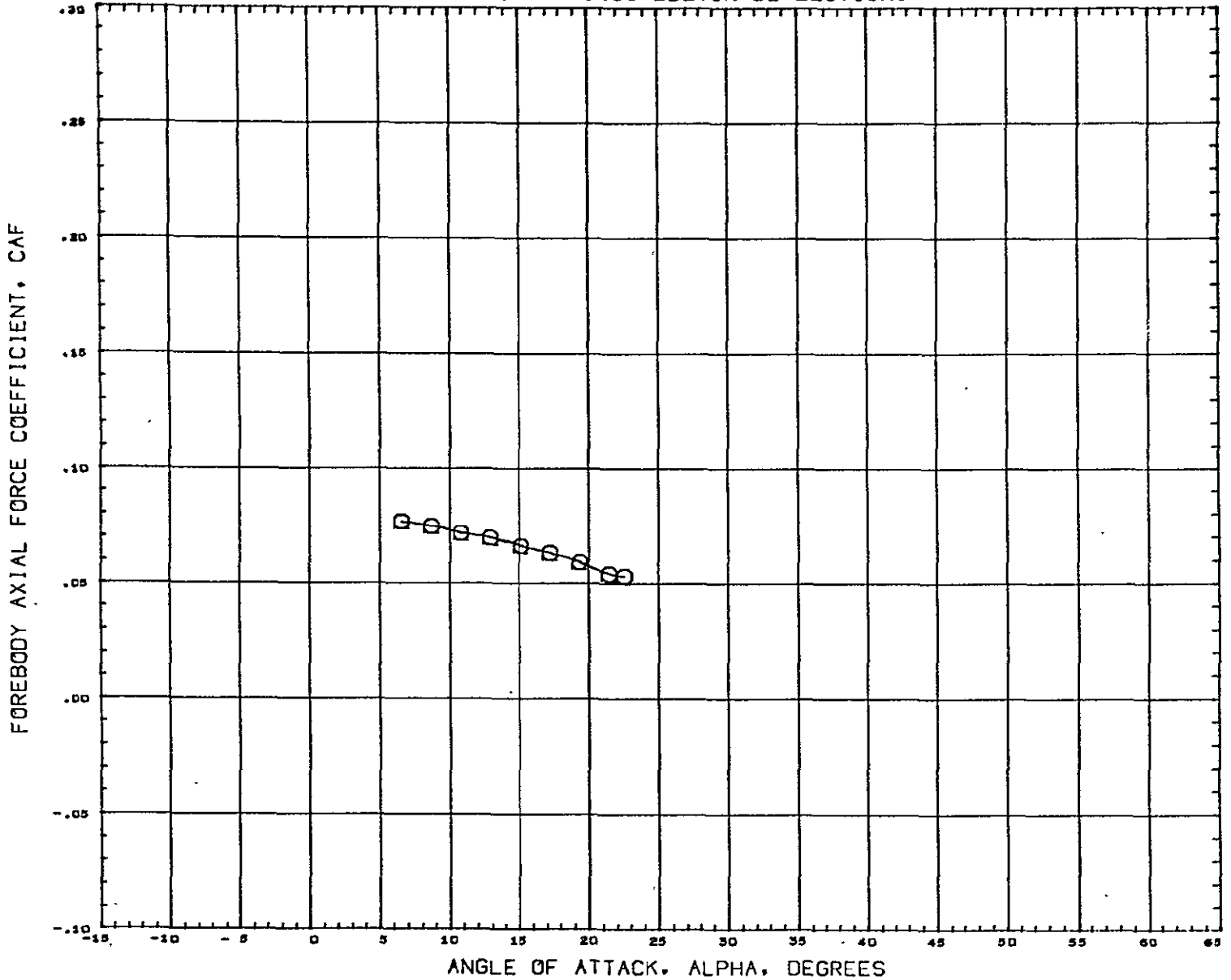
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	H5FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	H5FC481 GD/C(BOOSTER)B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	H5FC481 GD/C(BOOSTER)B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0950 IN.
(C28003)	H5FC481 GD/C(BOOSTER)B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	H5FC481 GD/C(BOOSTER)B19W14C4AV7	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 1.007

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

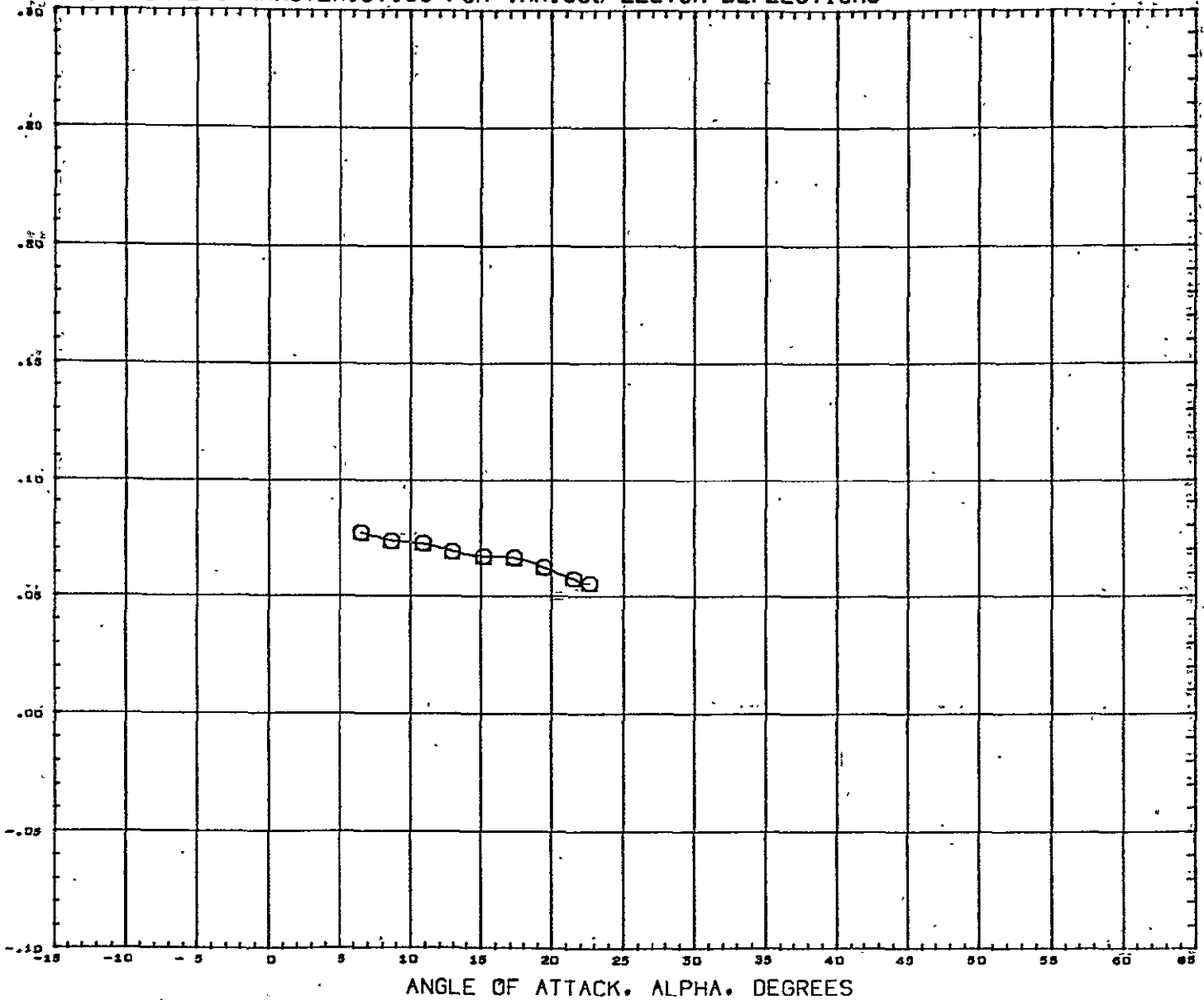


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ-IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

FOREBODY AXIAL FORCE COEFFICIENT, CAF

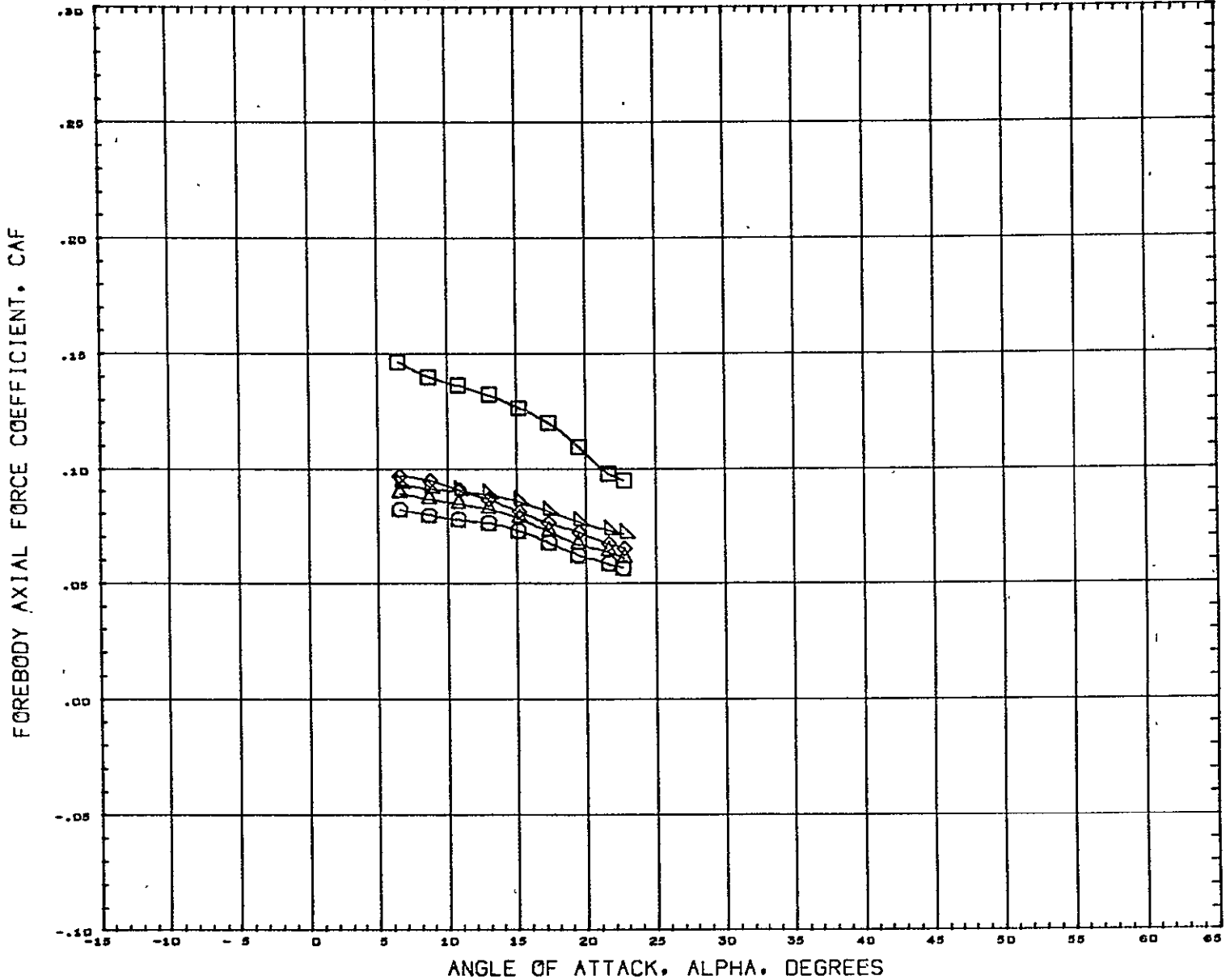


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ.IN.
(C26006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 5.0950 IN.
(C26002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C26012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

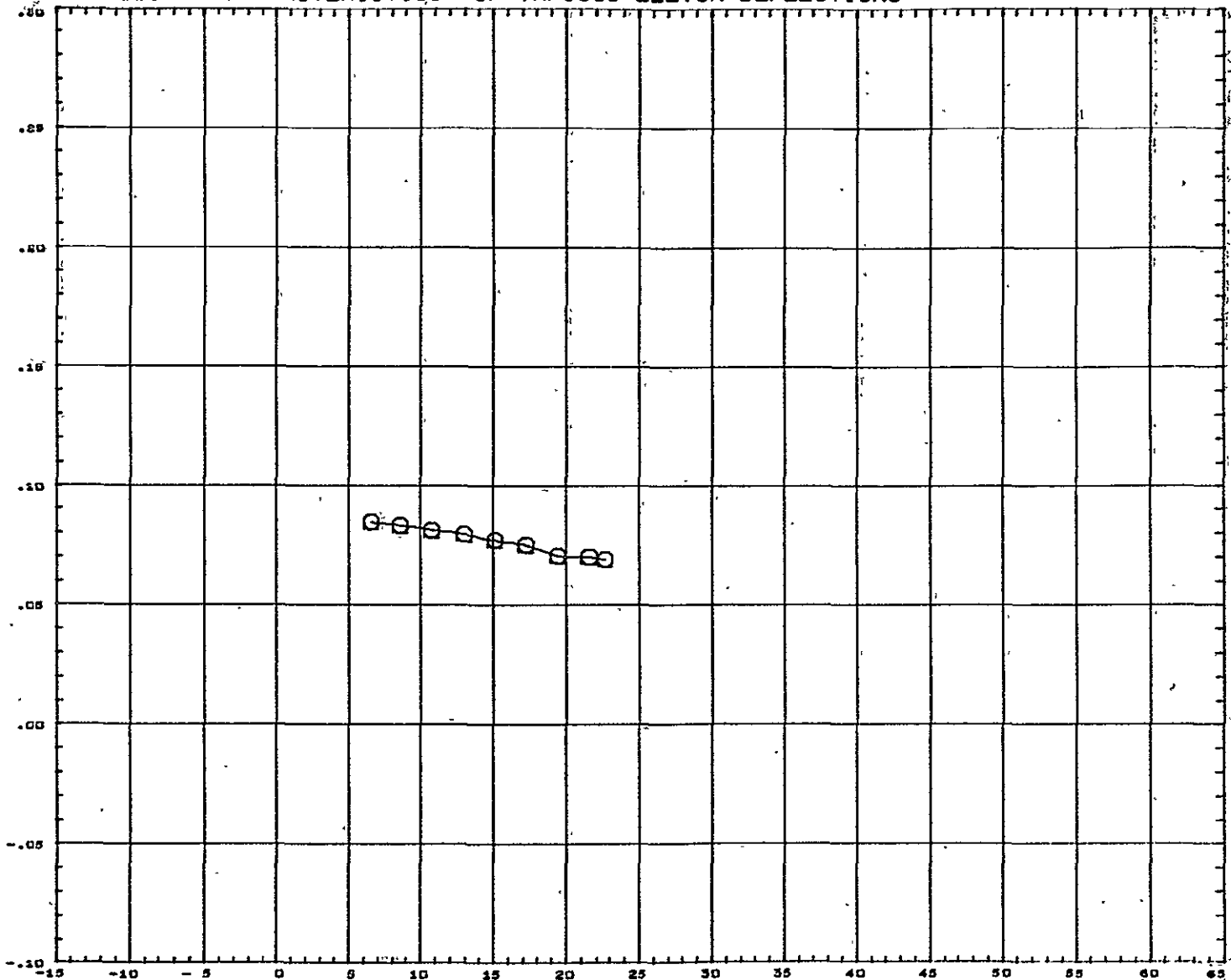


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)	 MSFC461 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C26006)		-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C26002)		-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26003)		-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C26012)		10.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.201

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

FOREBODY AXIAL FORCE COEFFICIENT, CAF

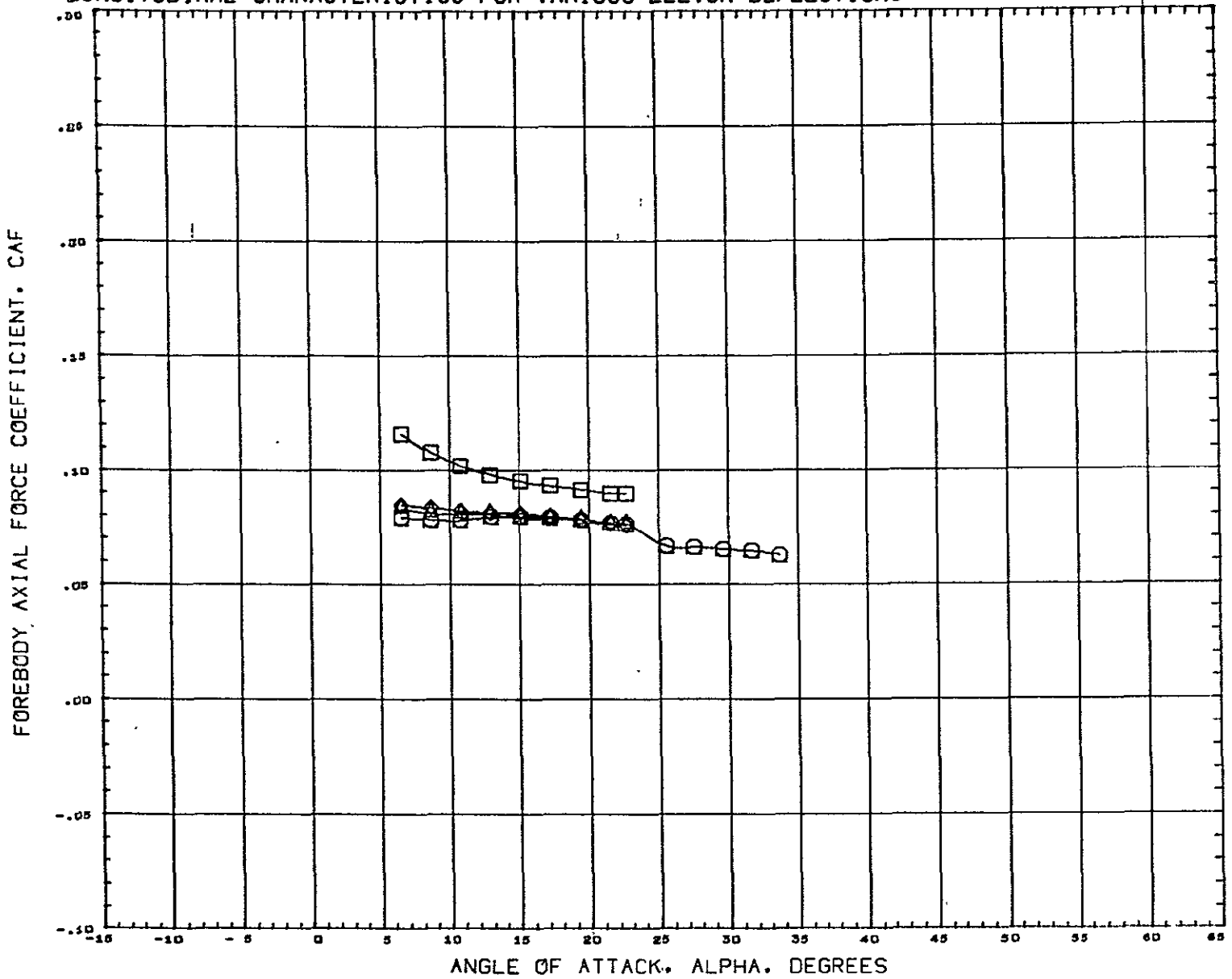


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C26006)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C26002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C26012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0033

MACH 1.462

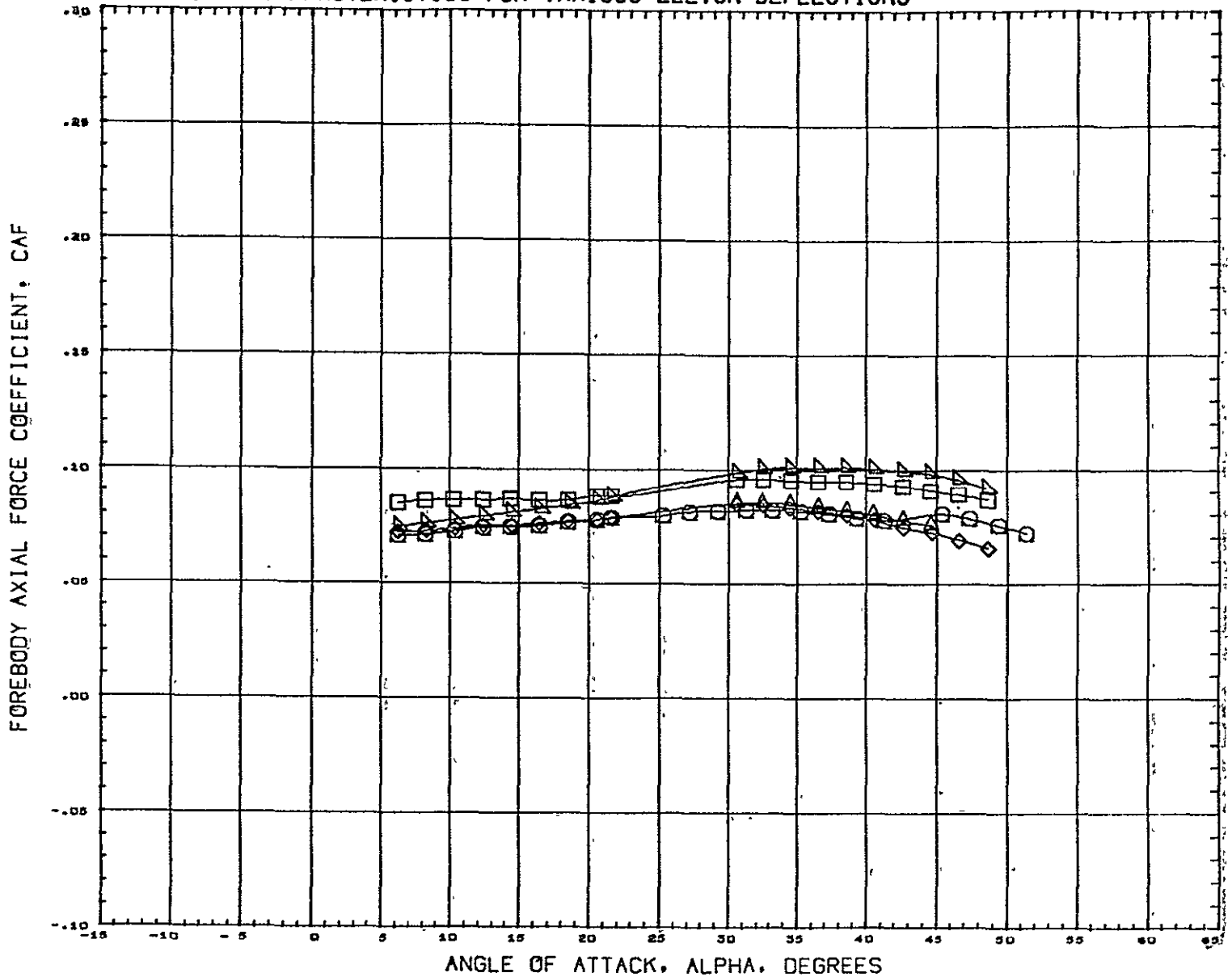
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.958

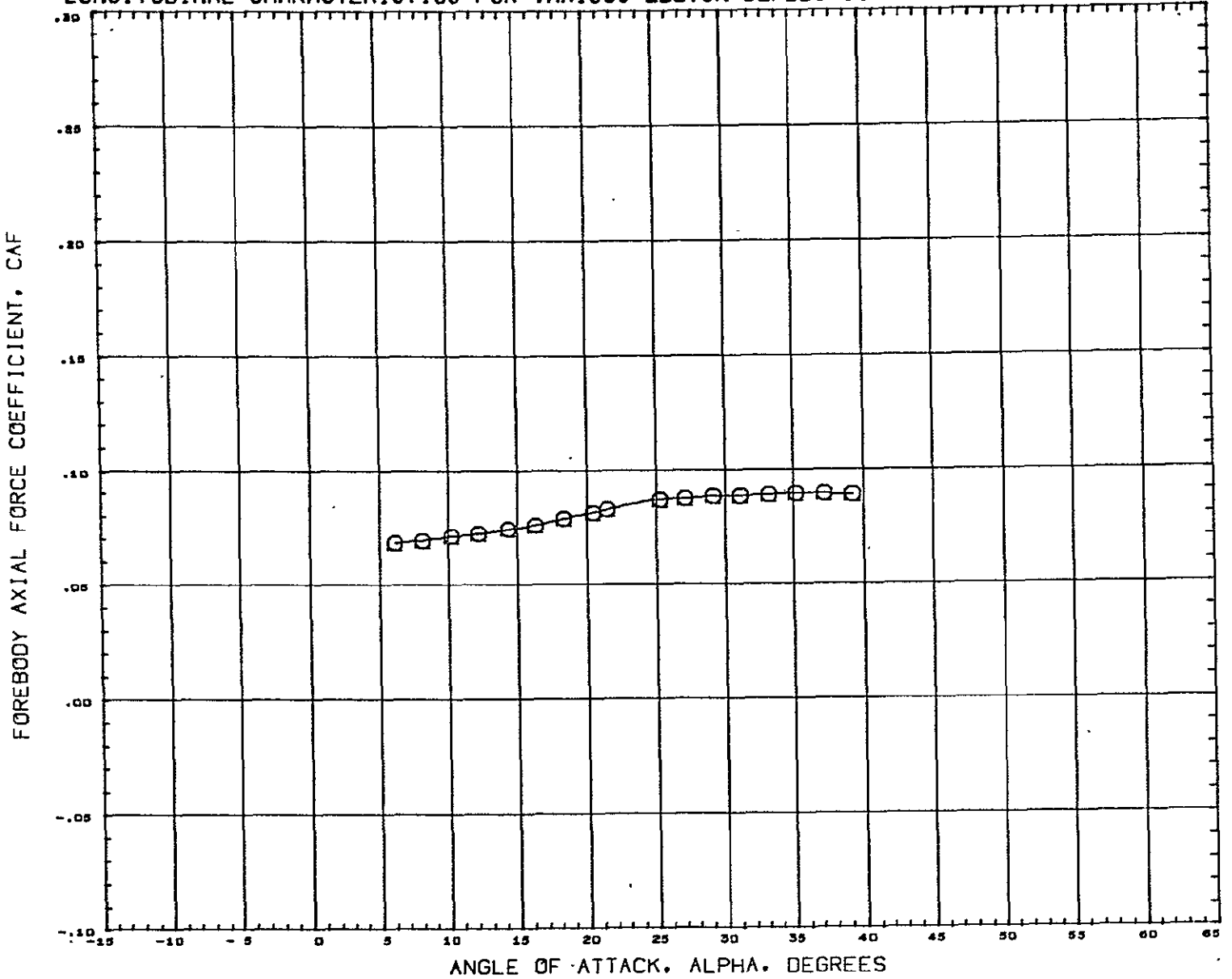
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20002)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0990 IN.
(C20003)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20012)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
		10.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

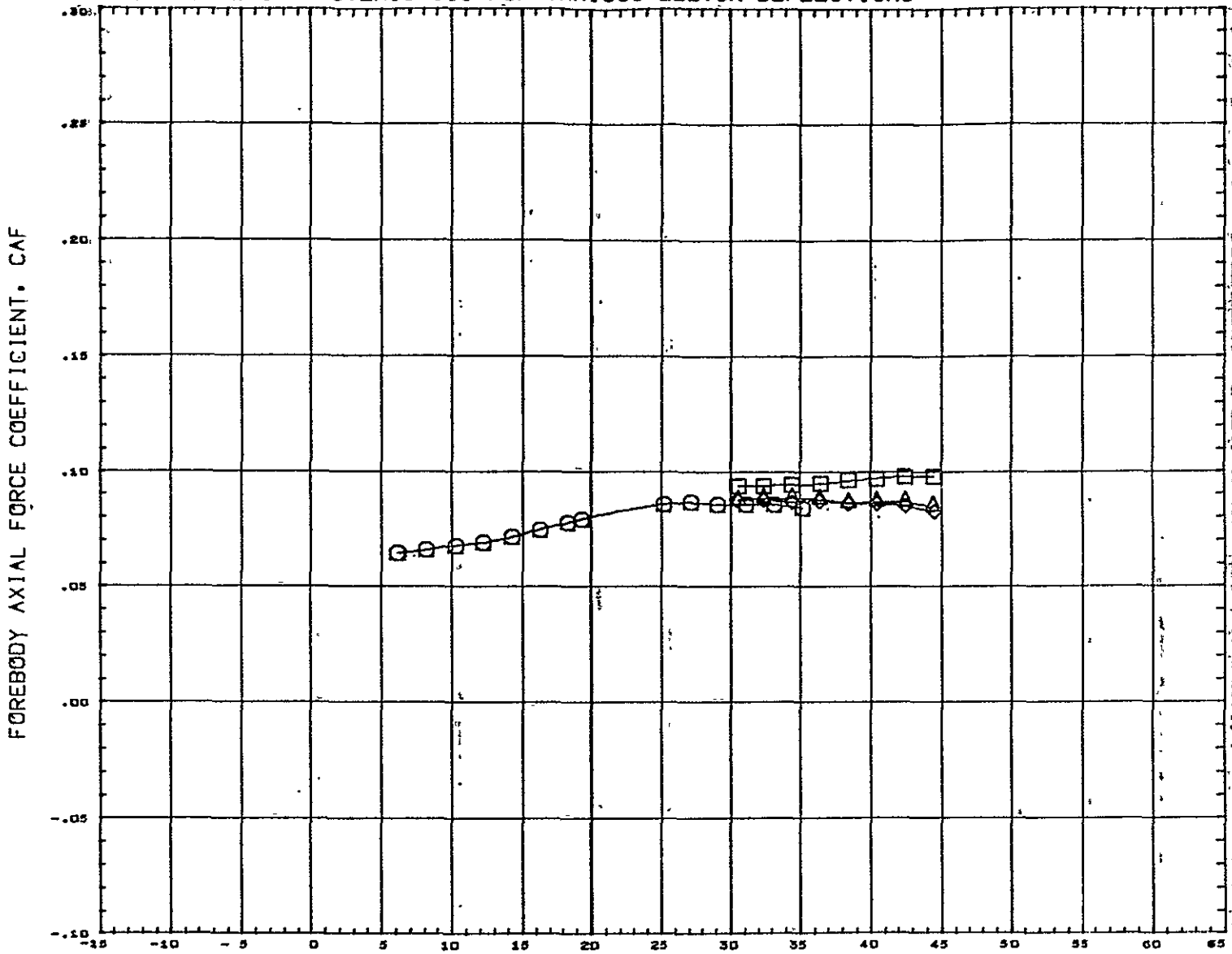
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

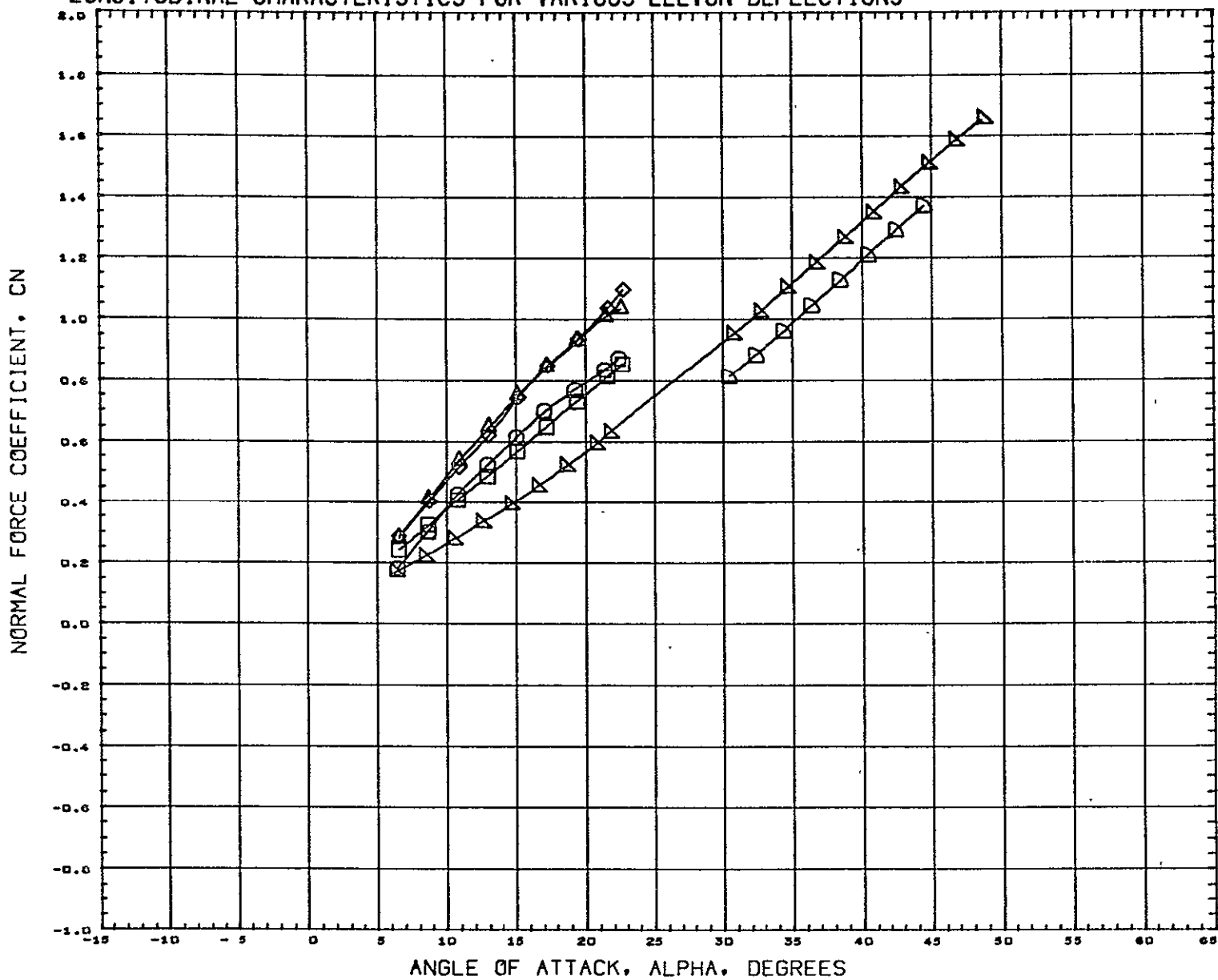


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28002)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-10.000	10.000	0.000	0.000	LREF 3.0950 IN.
(C28003)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-20.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28004)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	10.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035.

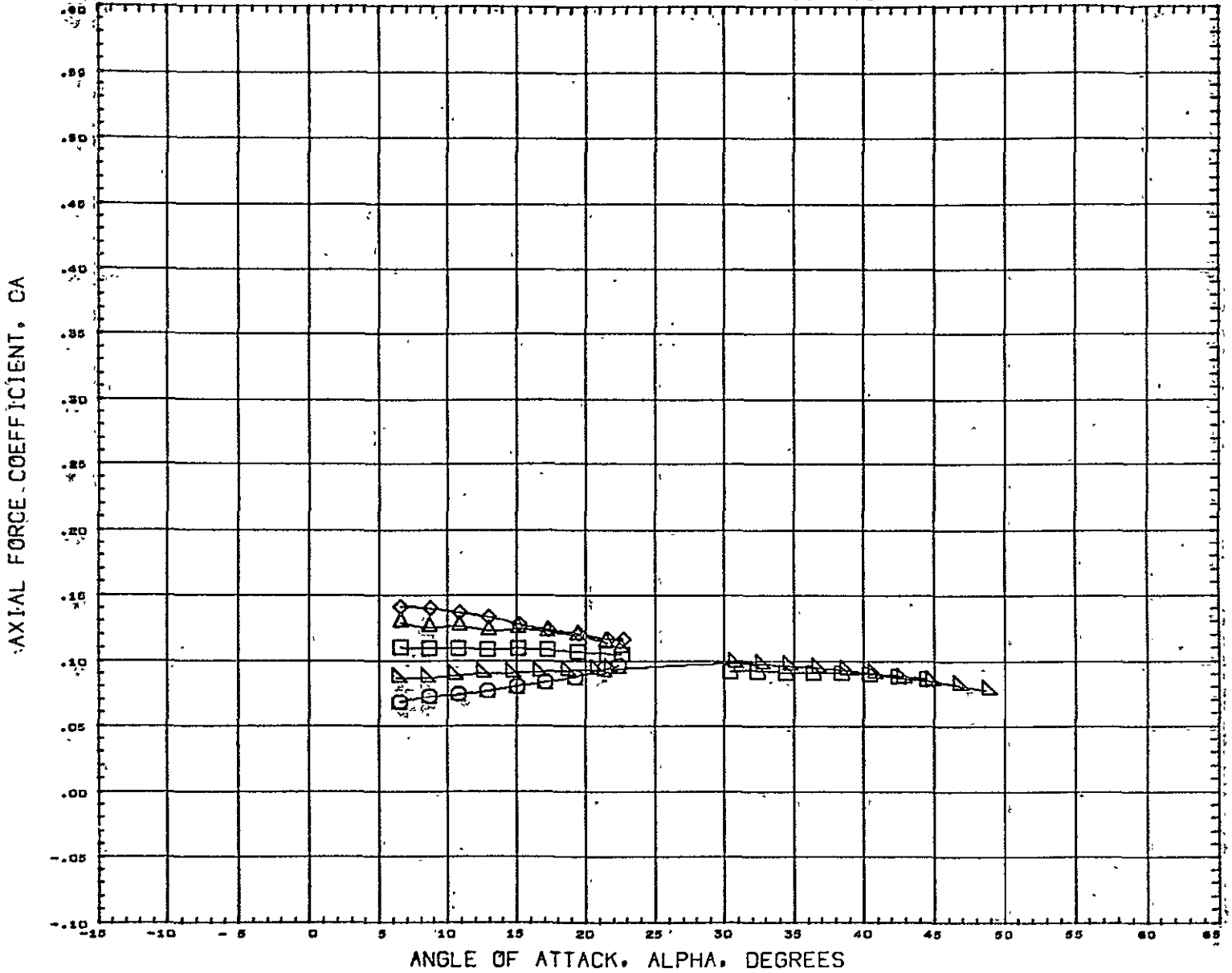
MACH 4.960

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.904	BETA	0.000	DEL	- 20.000	SREF	15.6560	39. IN.
◇	1.002	DER	- 20.000	DCL	0.000	LREF	3.0950	IN.
□	1.204	DCR	0.000	ELEVON	- 20.000	SREF	6.0990	IN.
△	1.959	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
▽	2.990					YMRP	0.0000	IN.
	4.960	DATA HIST. CODE		MVR#E#G		ZMRP	0.0000	IN.
						SCALE	0.0035	

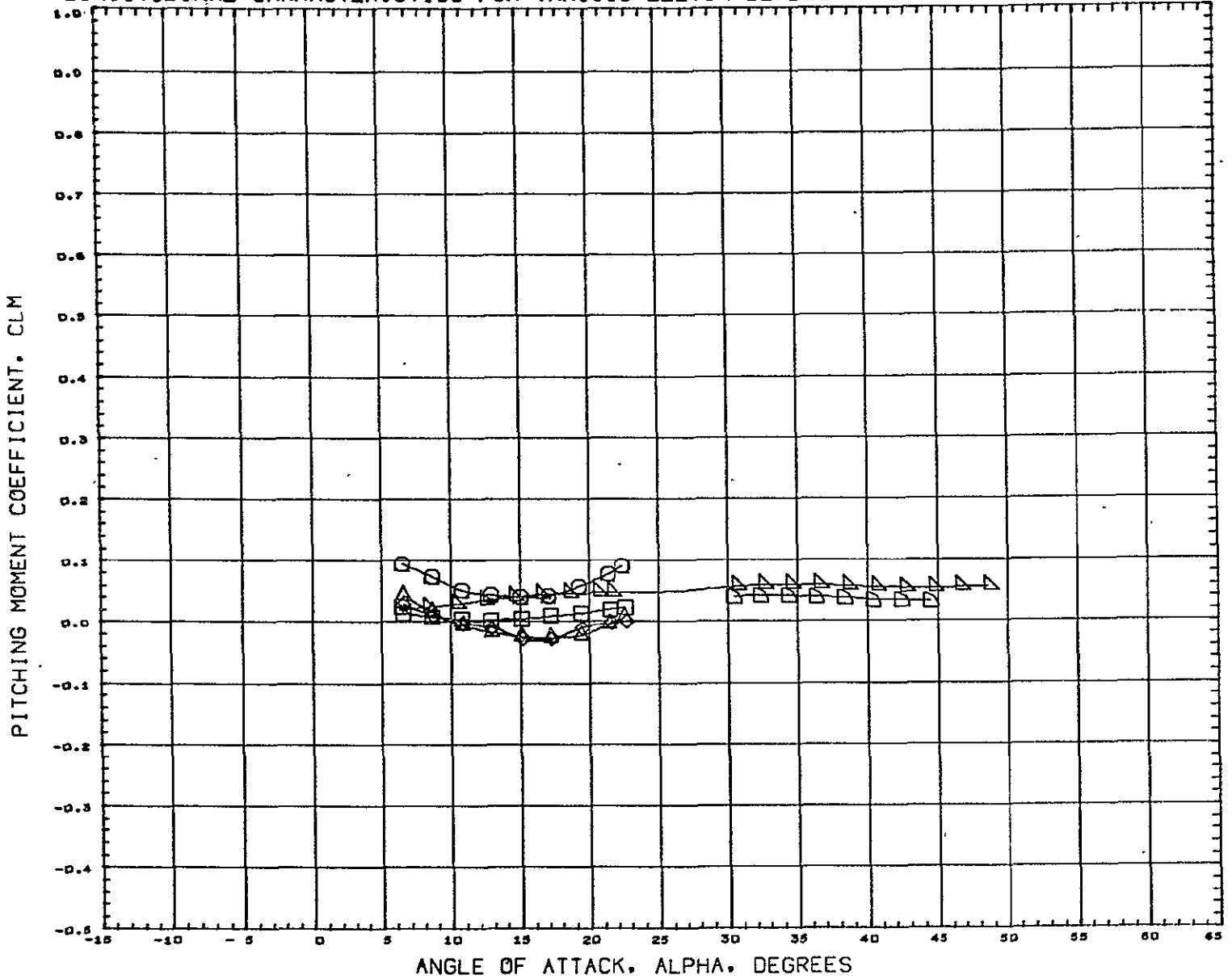
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES			
		BETA	DEL	DCL	ELEVON
◇	0.904	0.000	- 20.000	0.000	- 20.000
◇	1.002	0.000	- 20.000	0.000	0.000
◇	1.204	0.000	0.000	- 20.000	- 20.000
◇	1.959	0.000	0.000	0.000	0.000
◇	2.990	0.000	0.000	0.000	0.000
◇	4.960	DATA HIST. CODE	MVR#E#G		

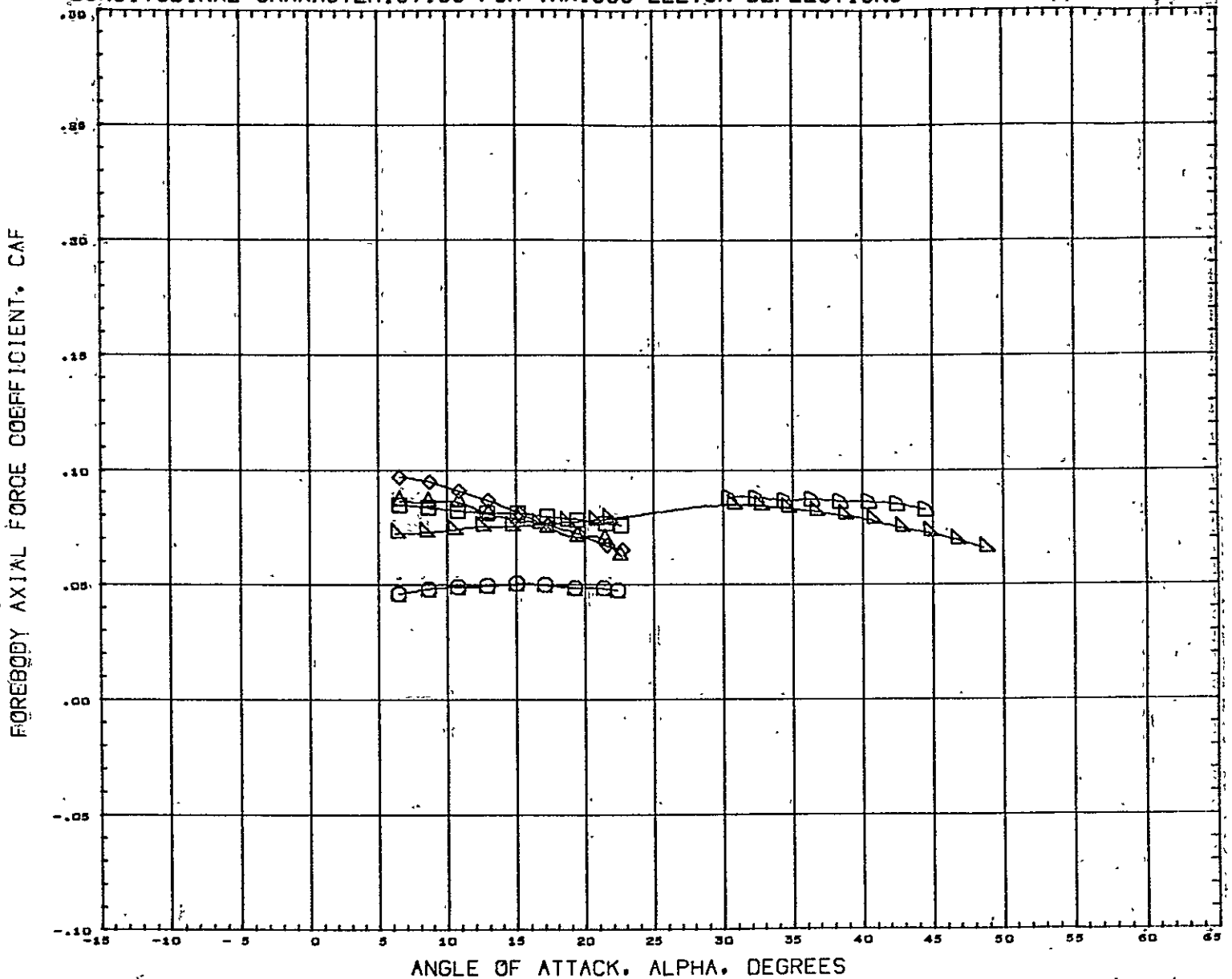
REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.904	BETA	0.000	DEL	- 20.000	SREF	15.6560	50. IN.
◇	1.002	DER	- 20.000	DCL	0.000	LREF	3.0930	IN.
◇	1.204	DCR	0.000	ELEVON	- 20.000	BREF	6.0990	IN.
□	1.959	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◇	2.990					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	HVR#E#G			ZMRP	0.0000	IN.
						SCALE	0.0035	

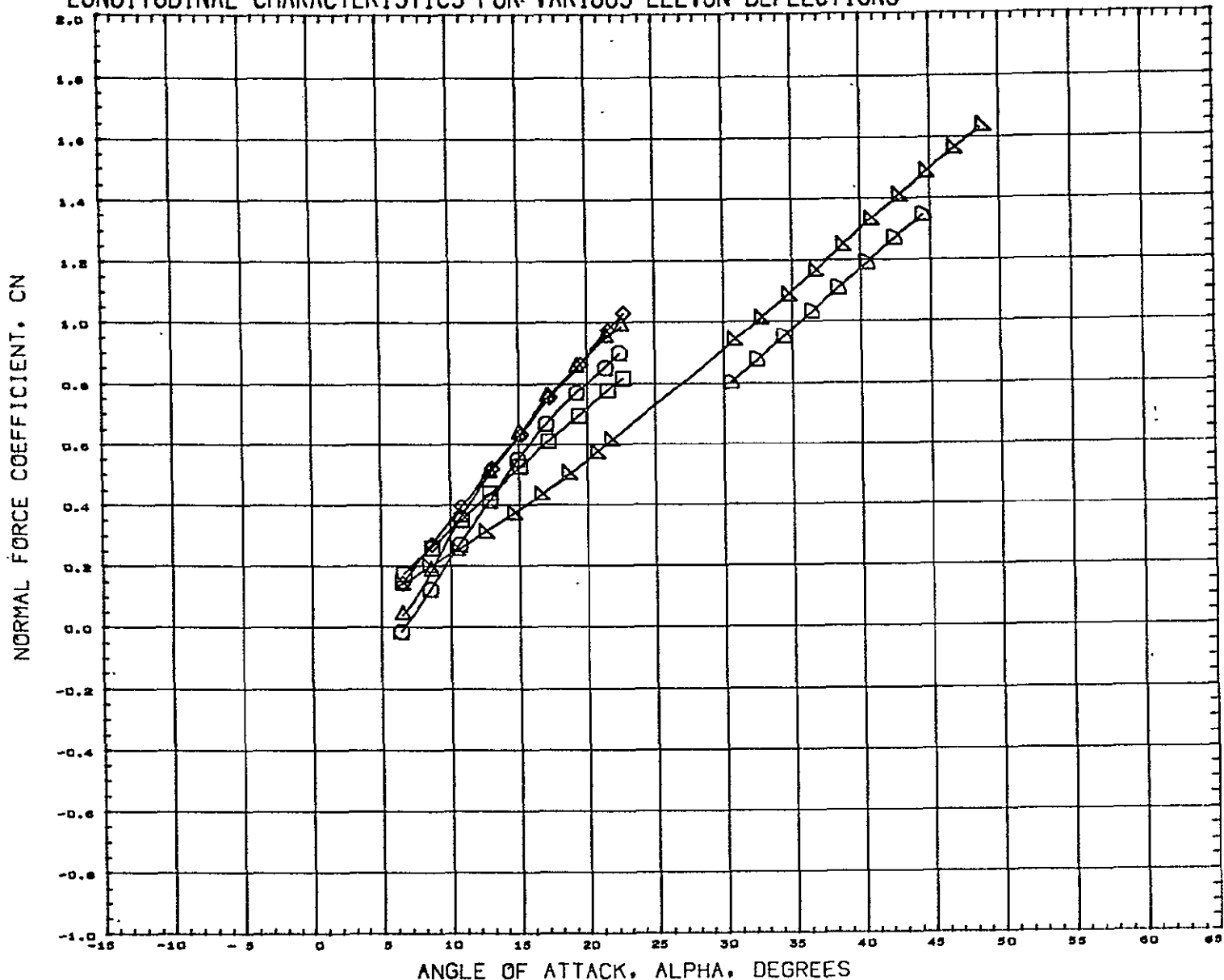
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES			
◇	0.904	BETA	0.000	DEL	- 20.000
□	1.002	DER	- 20.000	DCL	0.000
△	1.204	DCR	0.000	ELEVON	- 20.000
▽	1.959	CANARD	0.000	AIRLON	0.000
○	4.960	DATA HIST. CODE	MVR#E3C		

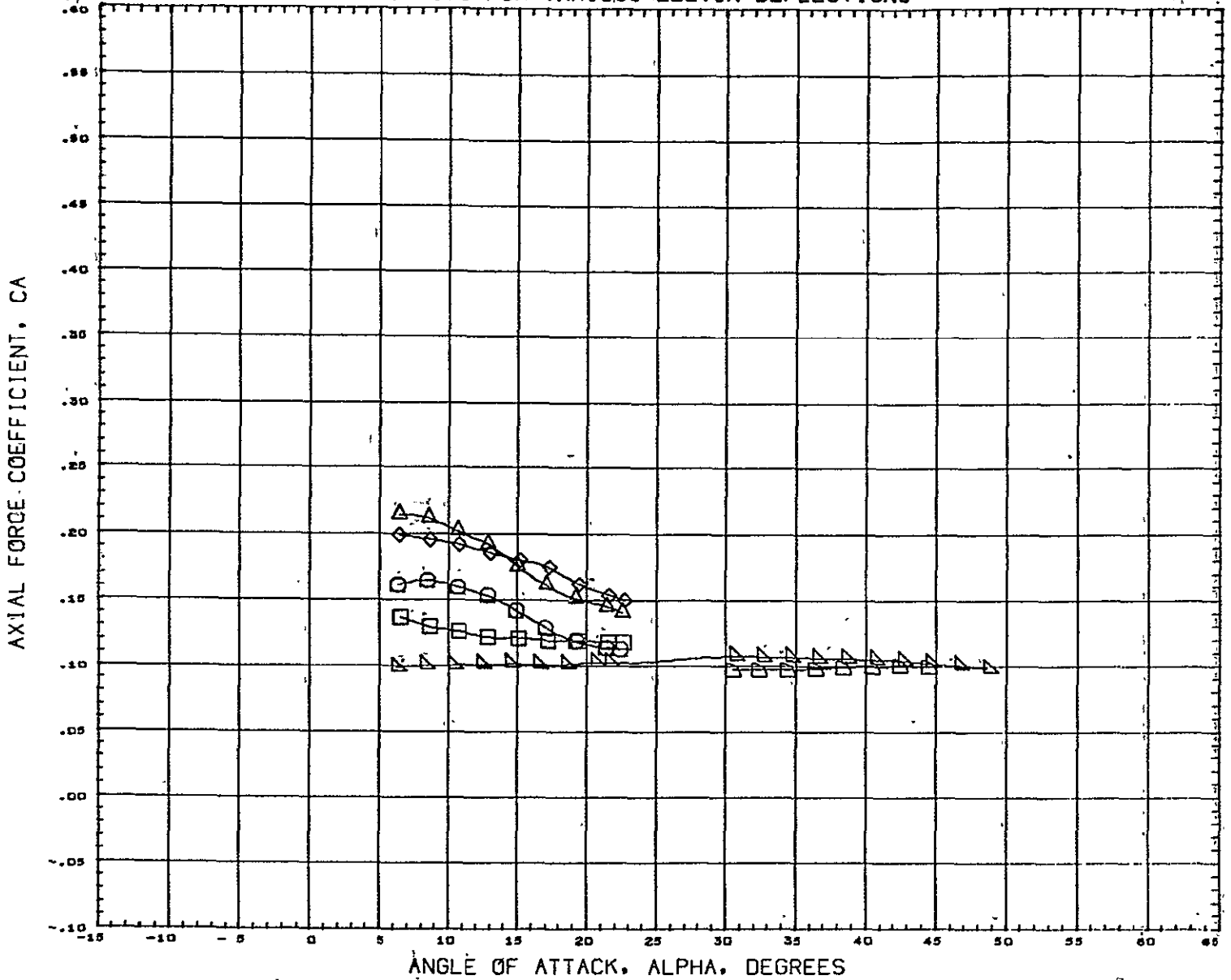
REFERENCE INFORMATION		
SRÉF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.903	BETA	0.000	DEL	- 60.000	SREF	15.6560	90 IN.
△	1.003	DER	- 60.000	DCL	0.000	LREF	3.0950	IN.
□	1.202	DCR	0.000	ELEVON	- 60.000	BREF	6.0990	IN.
◇	1.960	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
▽	2.960					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	MVR#E#G			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



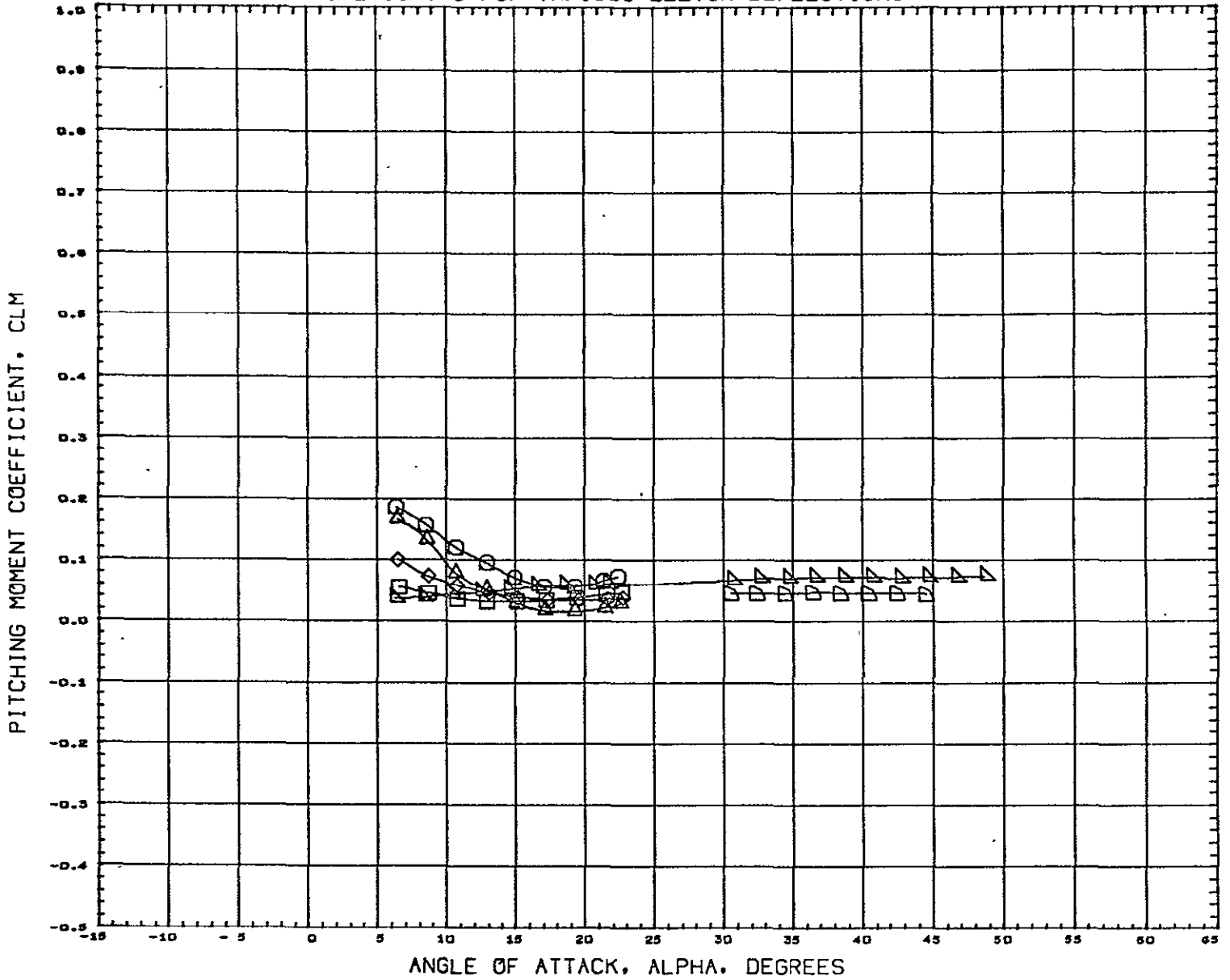
SYMBOL	MACH	PARAMETRIC VALUES			
△	0.901	BETA	0.000	DEL	- 60.000
◇	1.003	DER	- 60.000	DCL	0.000
○	1.202	DCR	0.000	ELEVON	- 60.000
□	1.960	CANARD	0.000	AILRON	0.000
▽	2.990				
▽	4.960	DATA HIST. CODE	MVR#E#G		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MSFC481 GD/C(B00STER)B19W14C4AV7

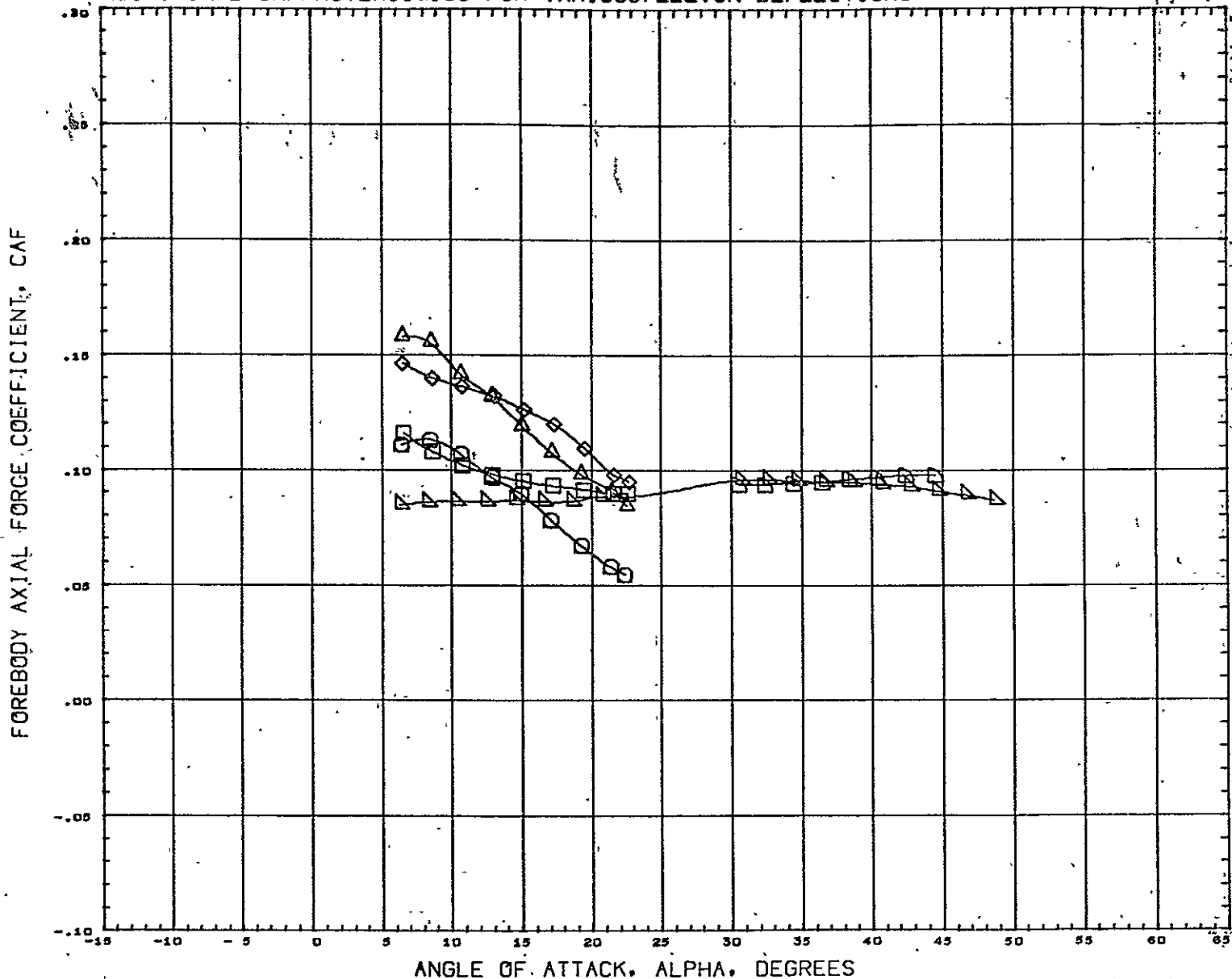
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LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION	
		BETA	DEL	DCL	ELEVON	SREF	sq. IN.
○	0.901	0.000	- 60.000	0.000	- 60.000	15.6560	30. IN.
□	1.003	- 60.000	0.000	0.000	0.000	3.0950	IN.
△	1.202	0.000	- 60.000	0.000	- 60.000	6.0990	IN.
◇	1.960	0.000	0.000	0.000	0.000	6.7100	IN.
*	2.990	CANARD	0.000	AILRON	0.000	0.0000	IN.
	4.960	DATA HIST. CODE	MVR#E#G			ZMRP	0.0000
						SCALE	0.0035

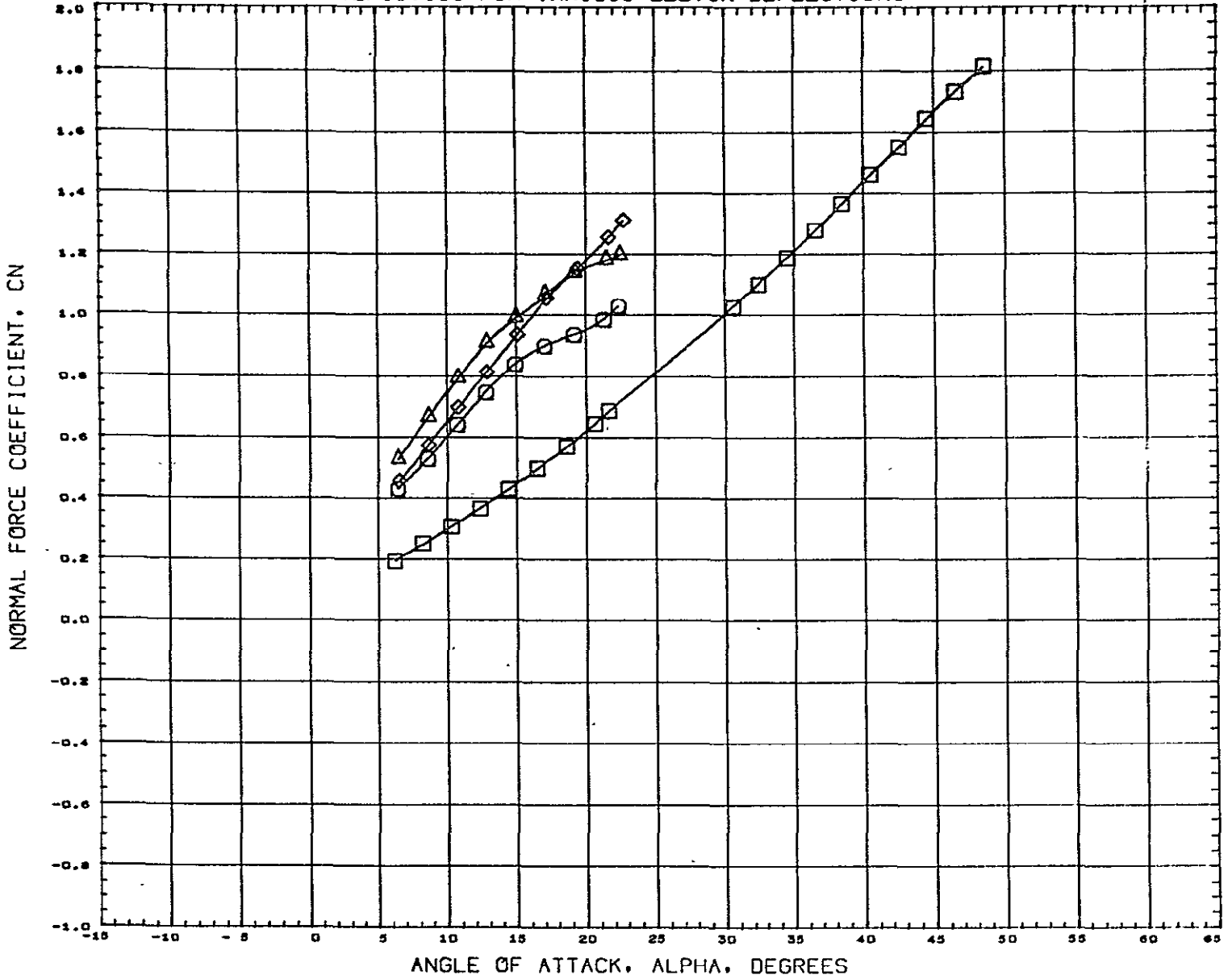
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES			
△	0.901	BETA	0.000	DEL	- 60.000
◇	1.003	DER	- 60.000	DCL	0.000
□	1.202	DCR	0.000	ELEVON	- 60.000
▽	1.960	CANARD	0.000	AILRON	0.000
○	4.960	DATA HIST. CODE	MVR#E&G		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

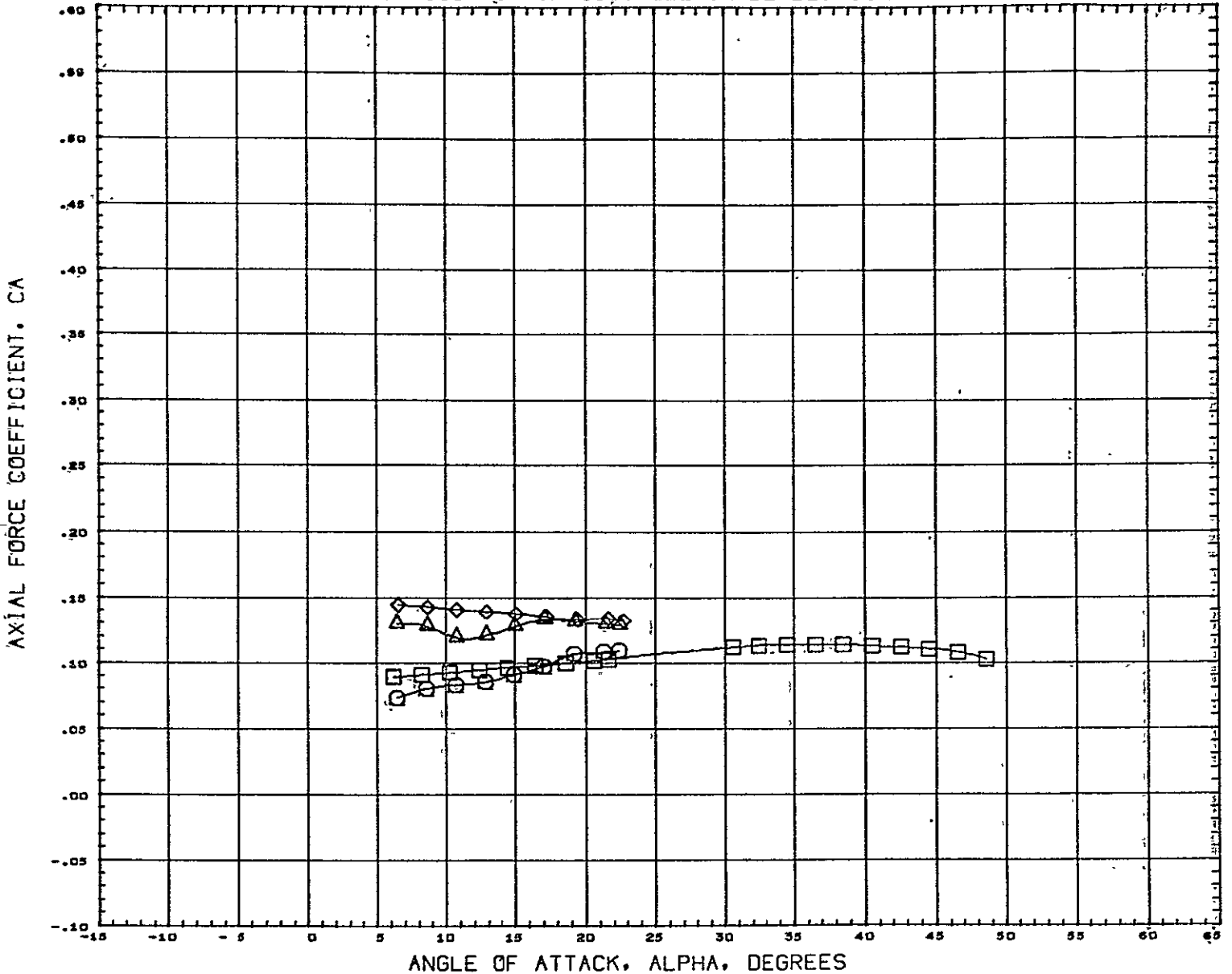
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	SREF	IN.	SQ. IN.
○	0.999	0.000	10.000	0.000	10.000	15.6560	3.0950	50. IN.
◇	1.003	0.000	10.000	0.000	10.000	6.0990	6.7100	IN.
□	2.990	0.000	0.000	0.000	0.000	0.0000	0.0000	IN.

DATA HIST. CODE MVR#E#6 SCALE 0.0035

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

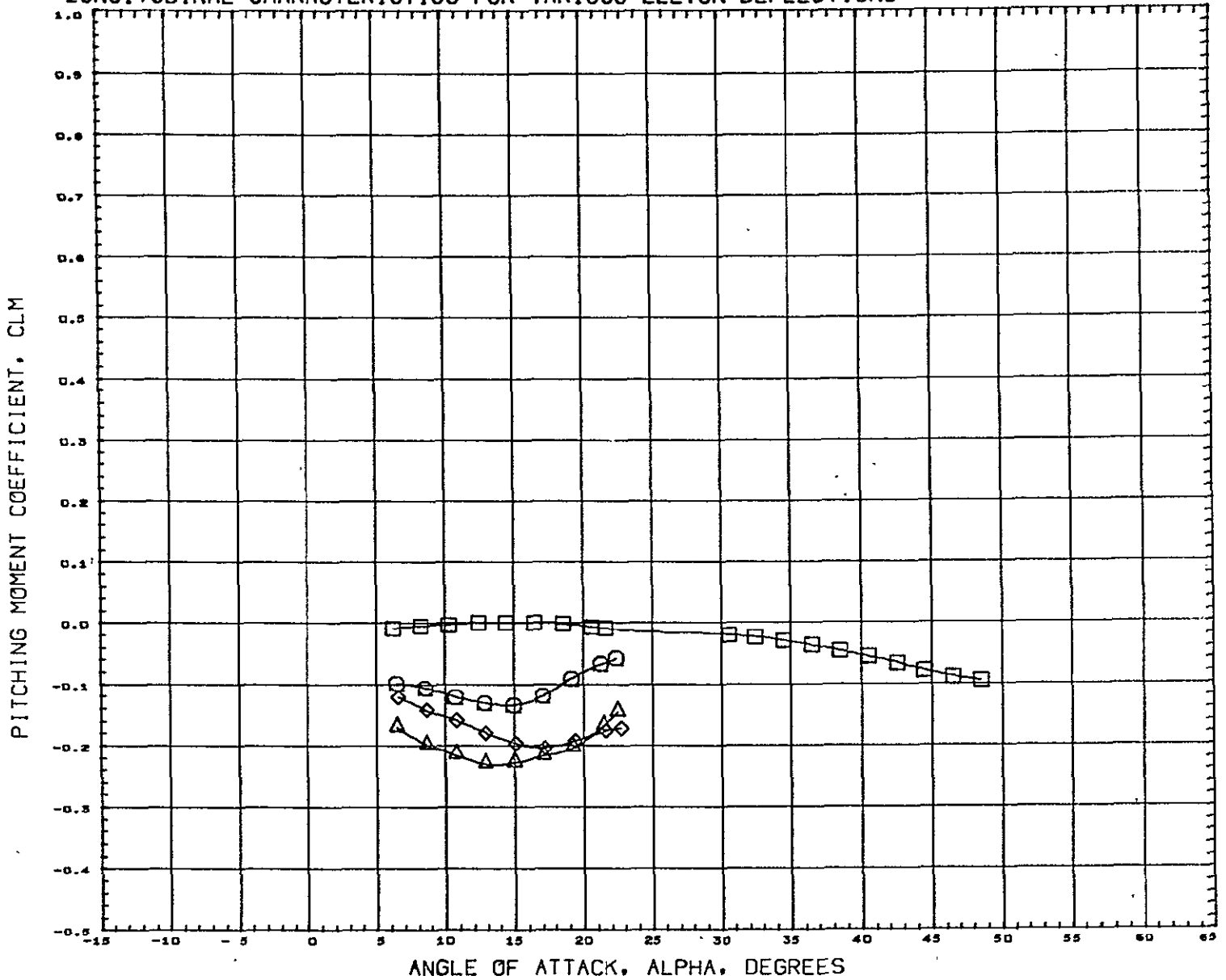


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	DEL	10.000
△	1.003	DER	10.000	DCL	0.000
◇	1.197	DCR	0.000	ELEVON	10.000
□	2.990	CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#*G

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

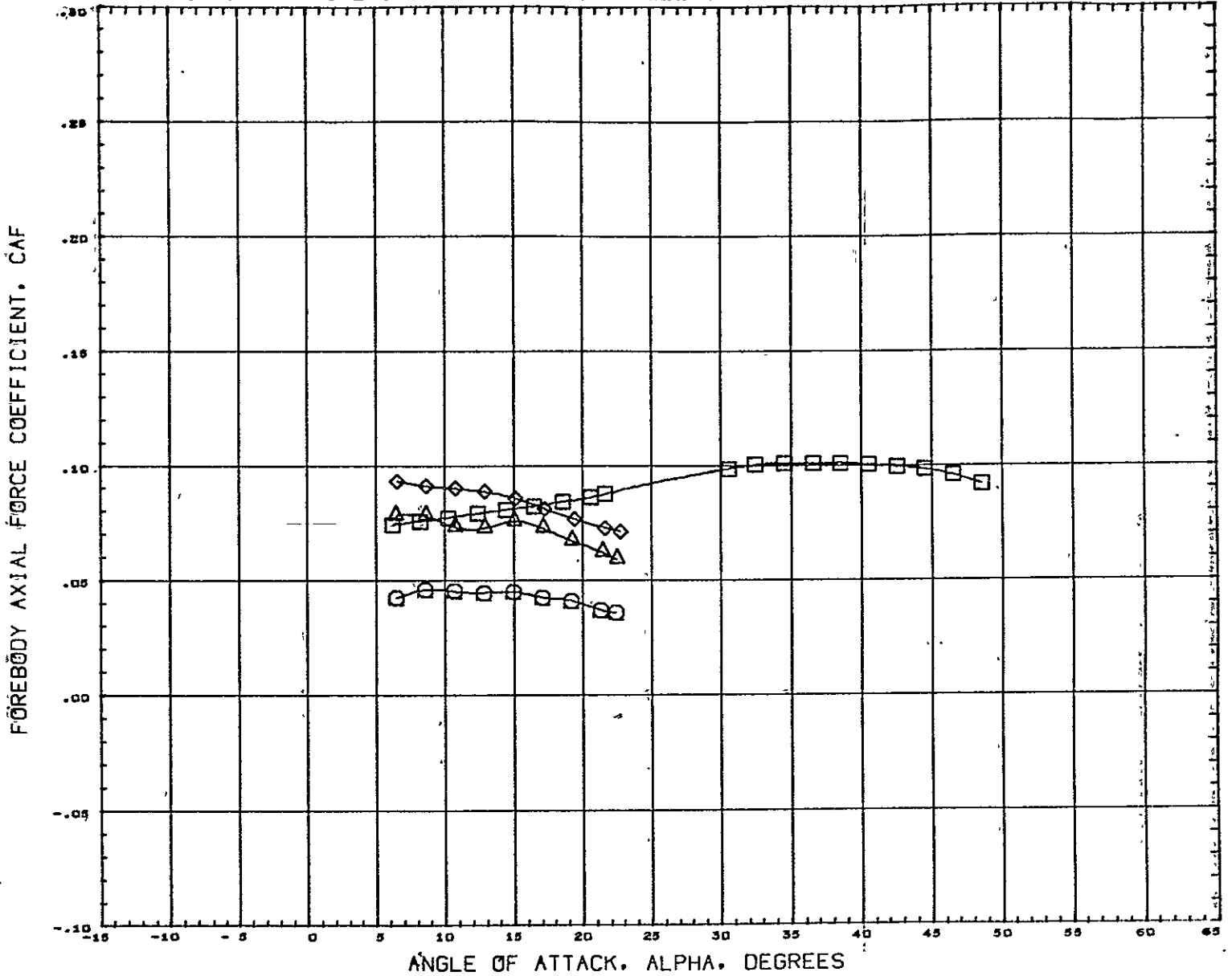


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	DEL	10.000
△	1.003	DER	10.000	DCL	0.000
◇	1.197	DCR	0.000	ELEVON	10.000
□	2.990	CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE NVR#E#G

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

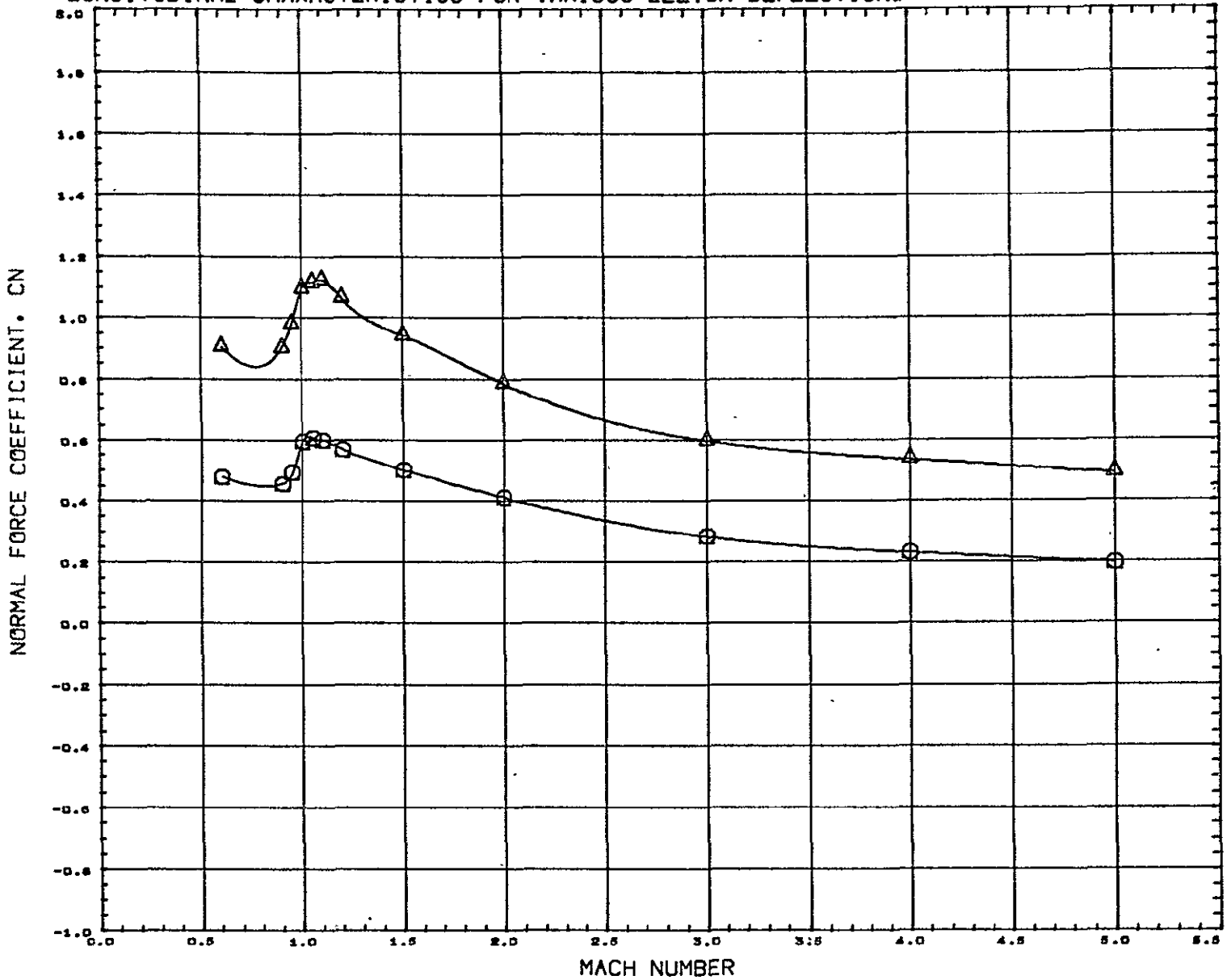


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	DEL	10.000
△	1.003	DER	10.000	DCL	0.000
◇	1.187	DCR	0.000	ELEVON	10.000
□	2.990	CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#G

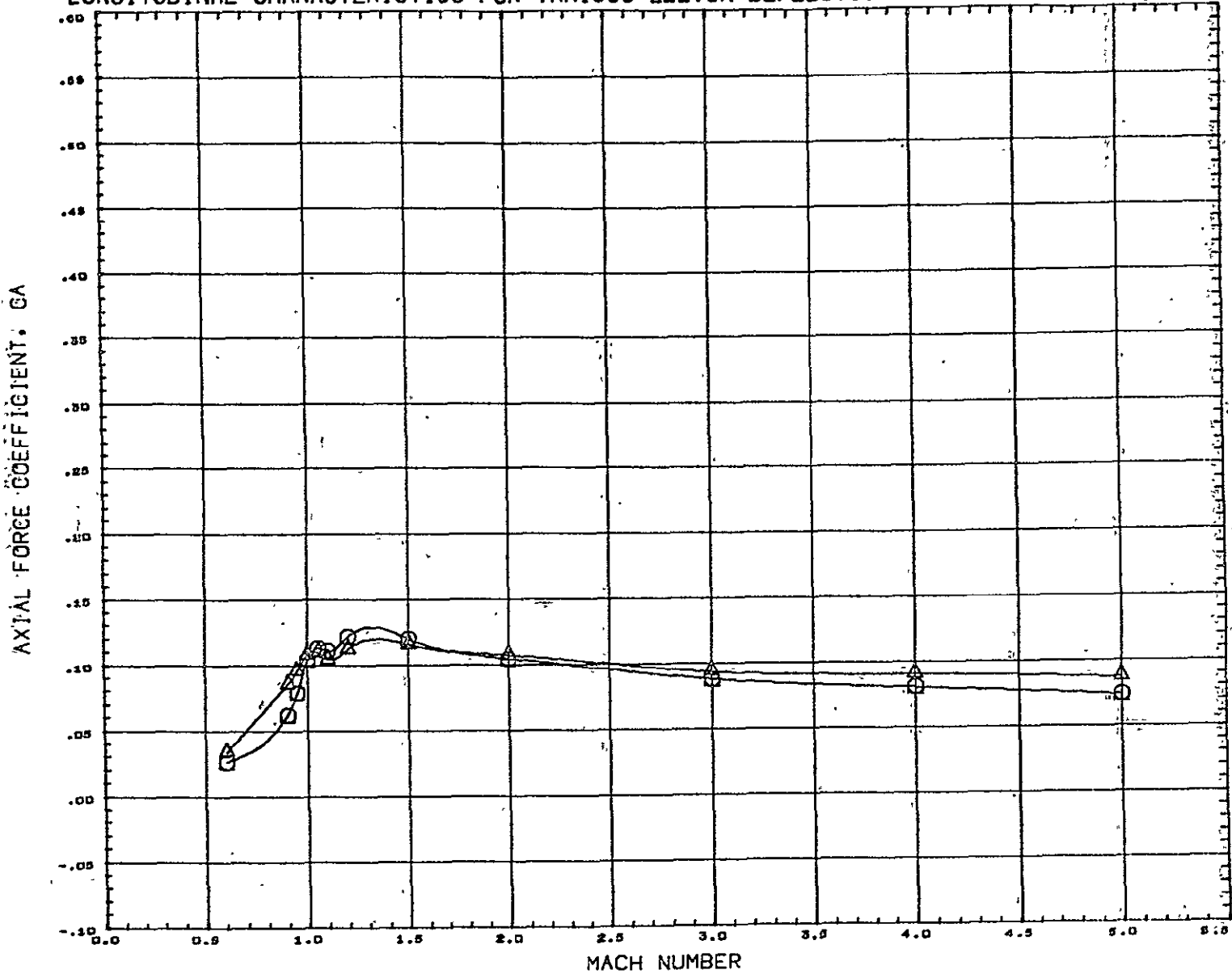
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000
DATA HIST. CODE		MVR#EI			

REFERENCE INFORMATION		
SREF	15.6580	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

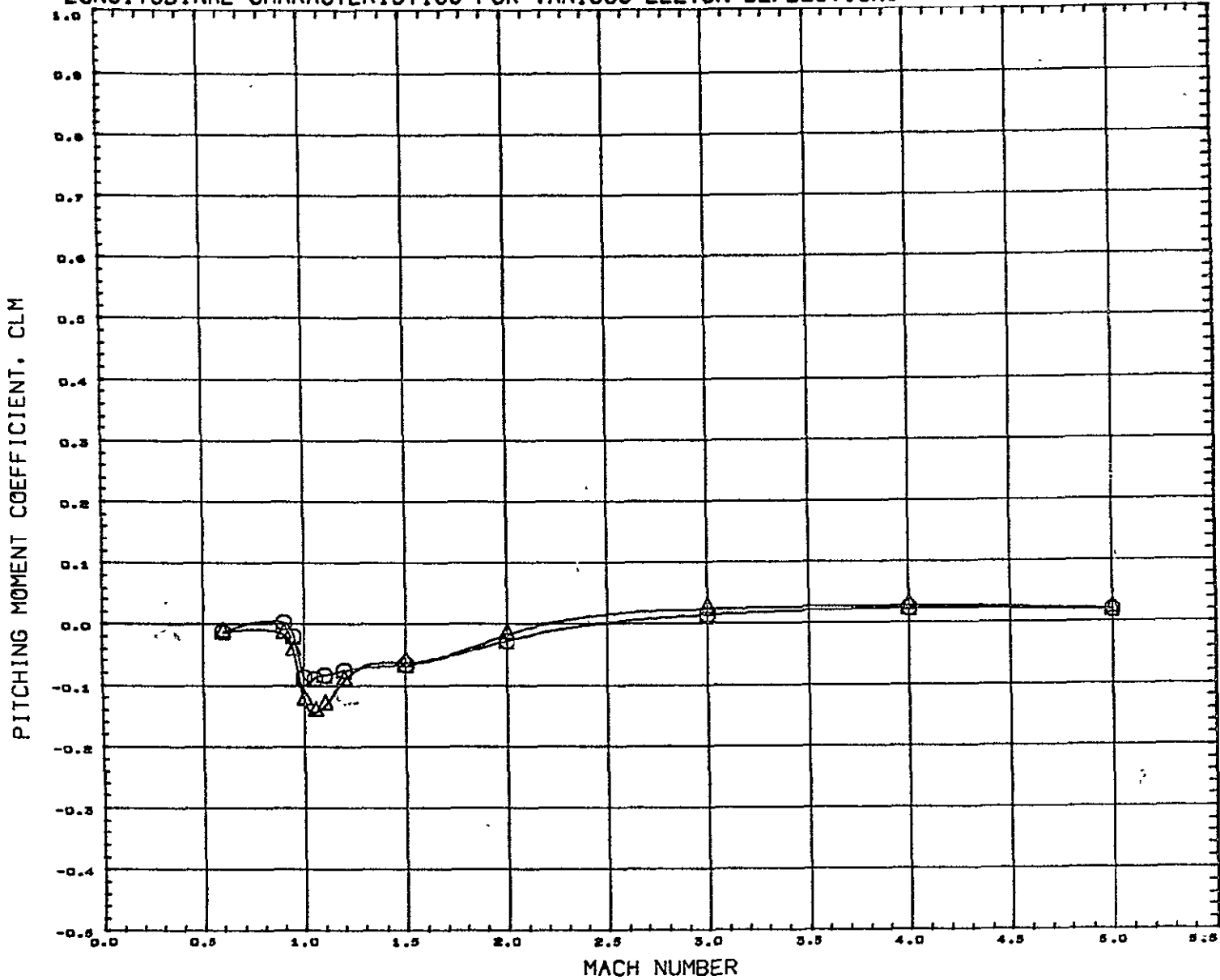


SYMBOL	ALPHA	PARAMETRIC VALUES			
	○	10.000	BETA	0.000	DEL
△	20.000	DER	0.000	DEL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	sq. in.
LREF	3.0950	in.
BREF	6.0900	in.
XMRP	0.7100	in.
YMRP	0.0000	in.
ZMRP	0.0000	in.
SCALE	0.0033	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

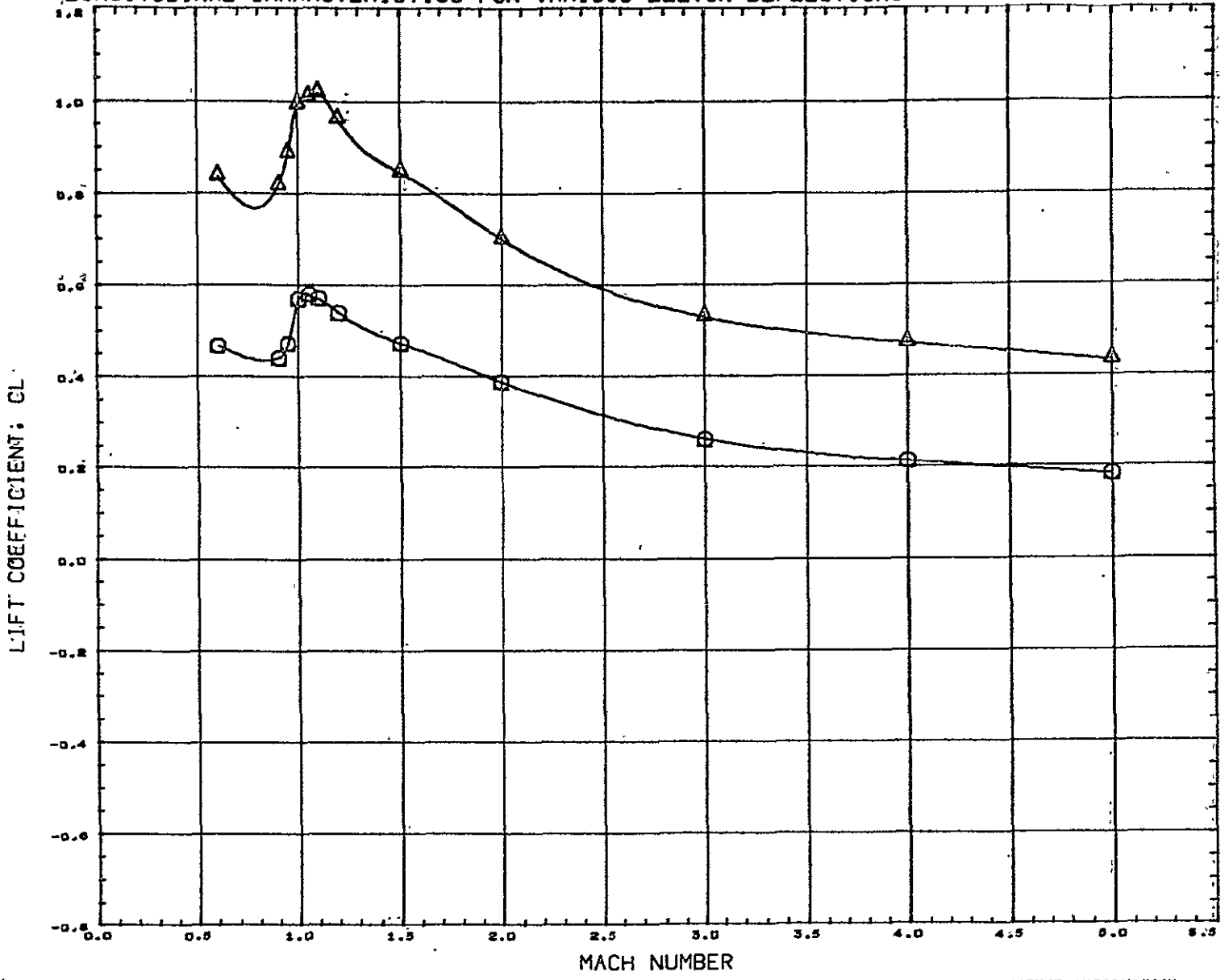


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

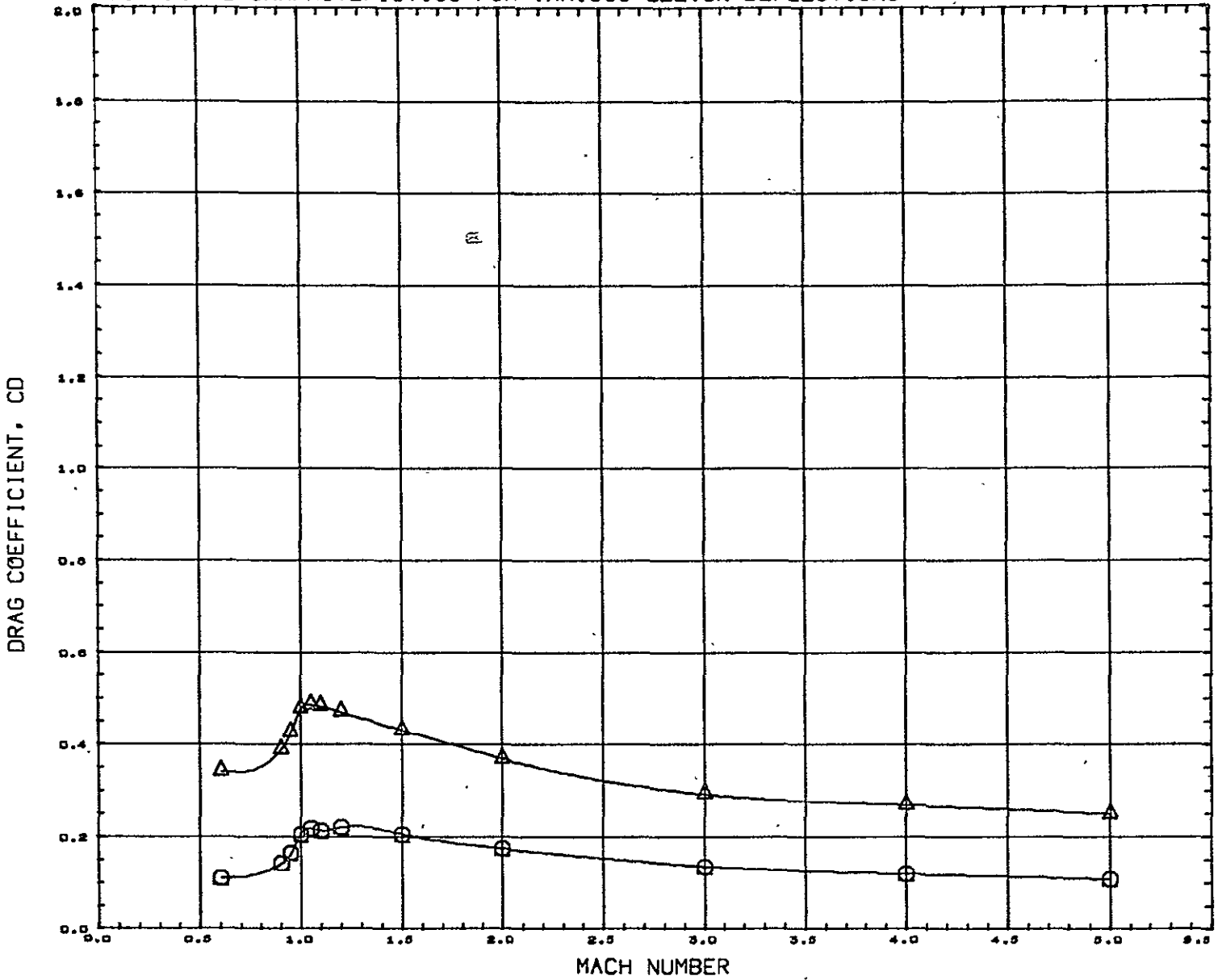
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LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



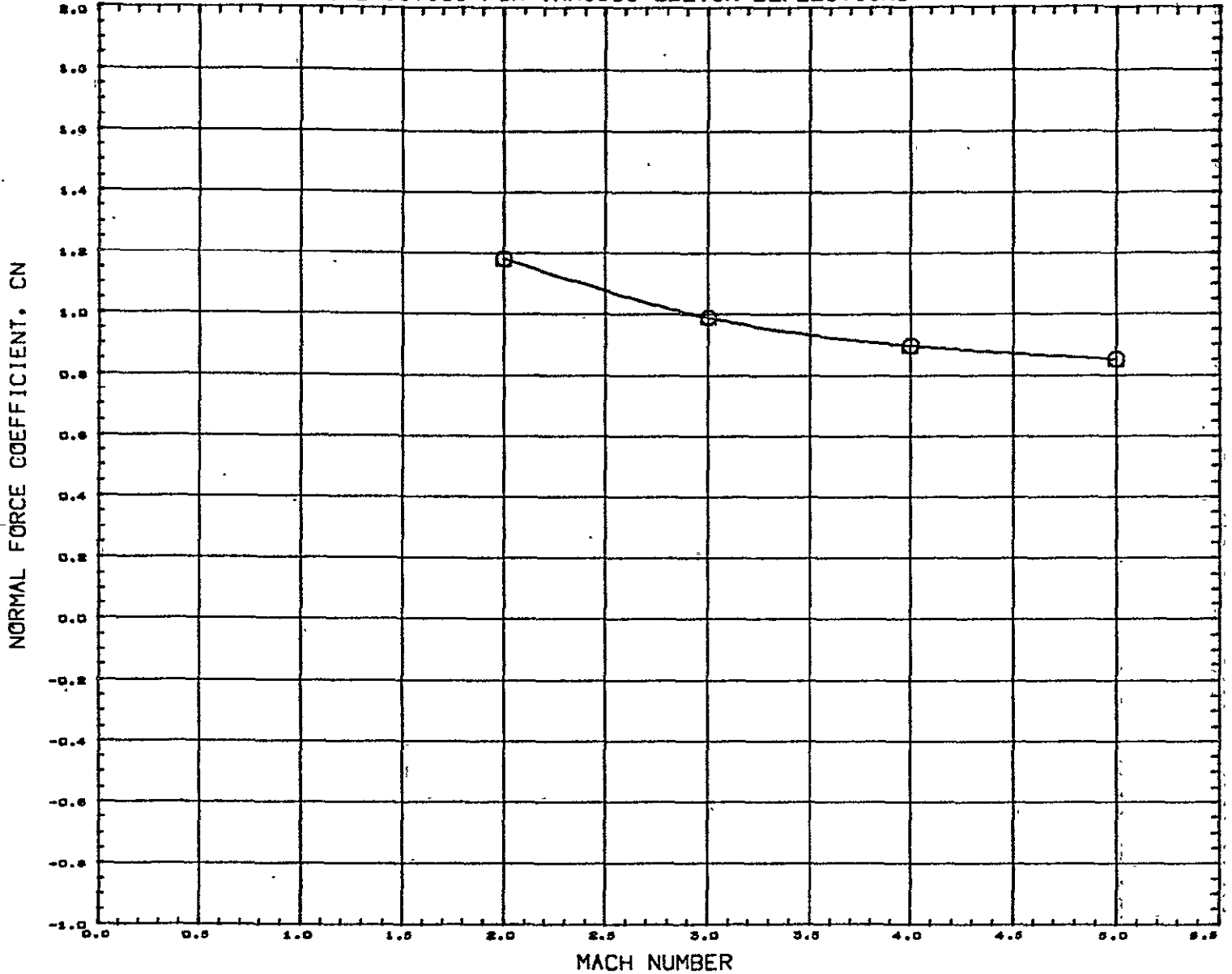
SYMBOL	ALPHA	BETA	PARAMETRIC VALUES			REFERENCE INFORMATION		
○	10.000	0.000	DEL	0.000	SREF	15.6560	sq. IN.	
△	20.000	0.000	DCL	0.000	LREF	3.0950	IN.	
		0.000	ELEVON	0.000	BREF	6.0990	IN.	
		0.000	AIRLON	0.000	XMRP	6.7100	IN.	
		0.000			YMRP	0.0000	IN.	
					ZMRP	0.0000	IN.	
					SCALE	0.0055		
	DATA HIST. CODE	MVR#E1						

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	0.000	SREF	19.6560	SQ. IN.
△	20.000	DER	0.000	DCL	0.000	LREF	3.0950	IN.
		DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	0.000	AIRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#EI					

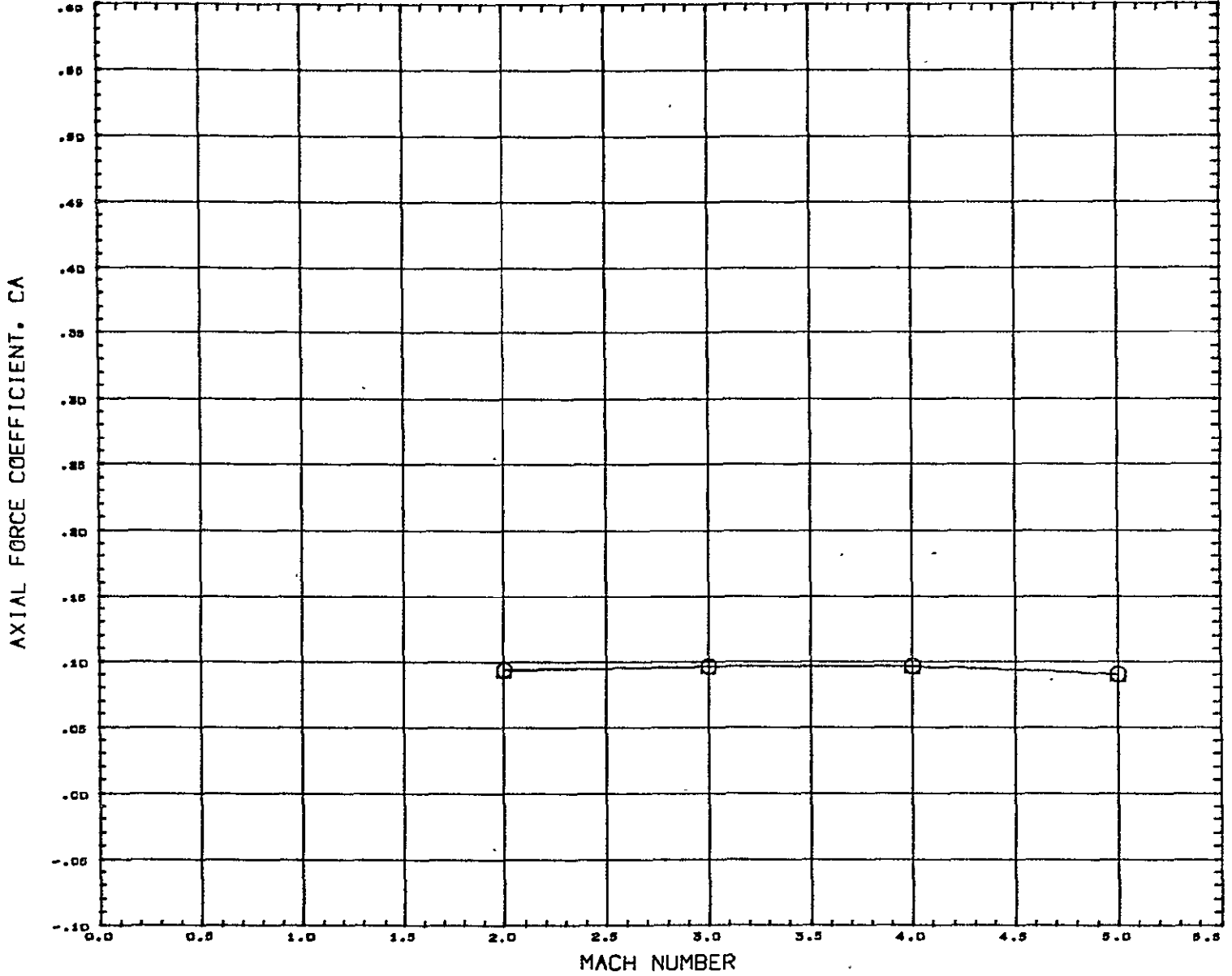
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE	MVR#E1		

REFERENCE INFORMATION		
SREF	15.0560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

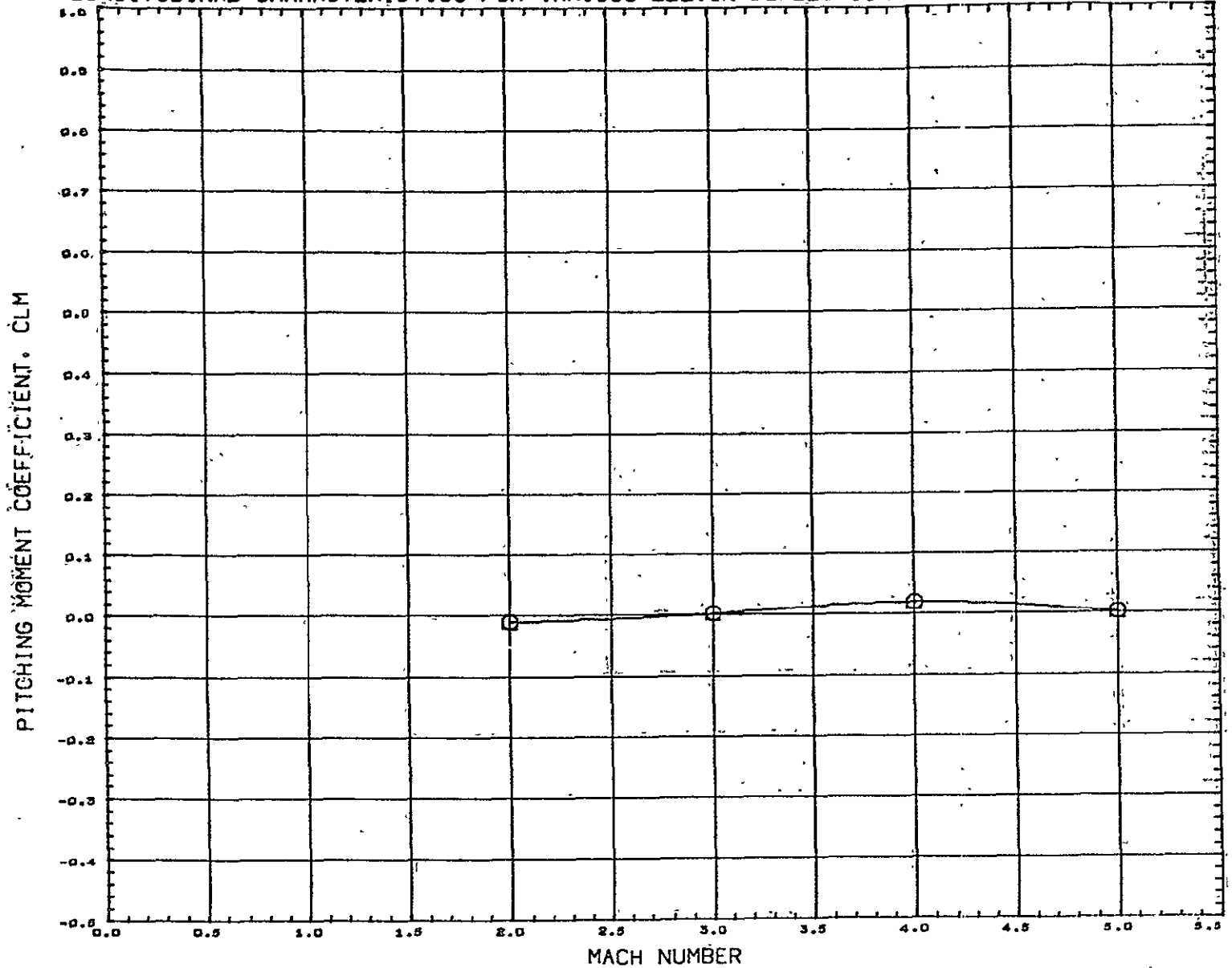
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
□	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE	HVR#EI		

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

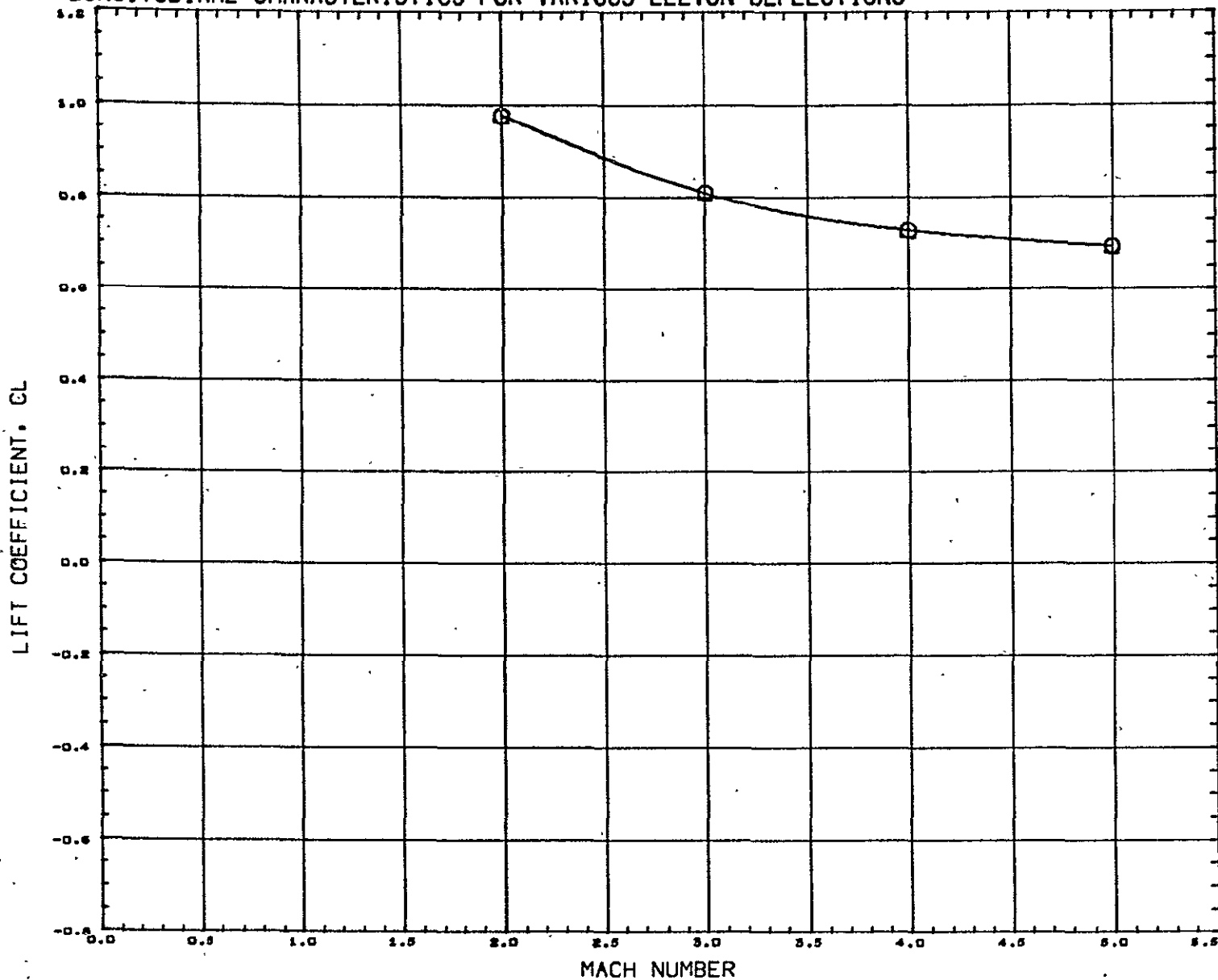


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	19.6560	90. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XHRP	0.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

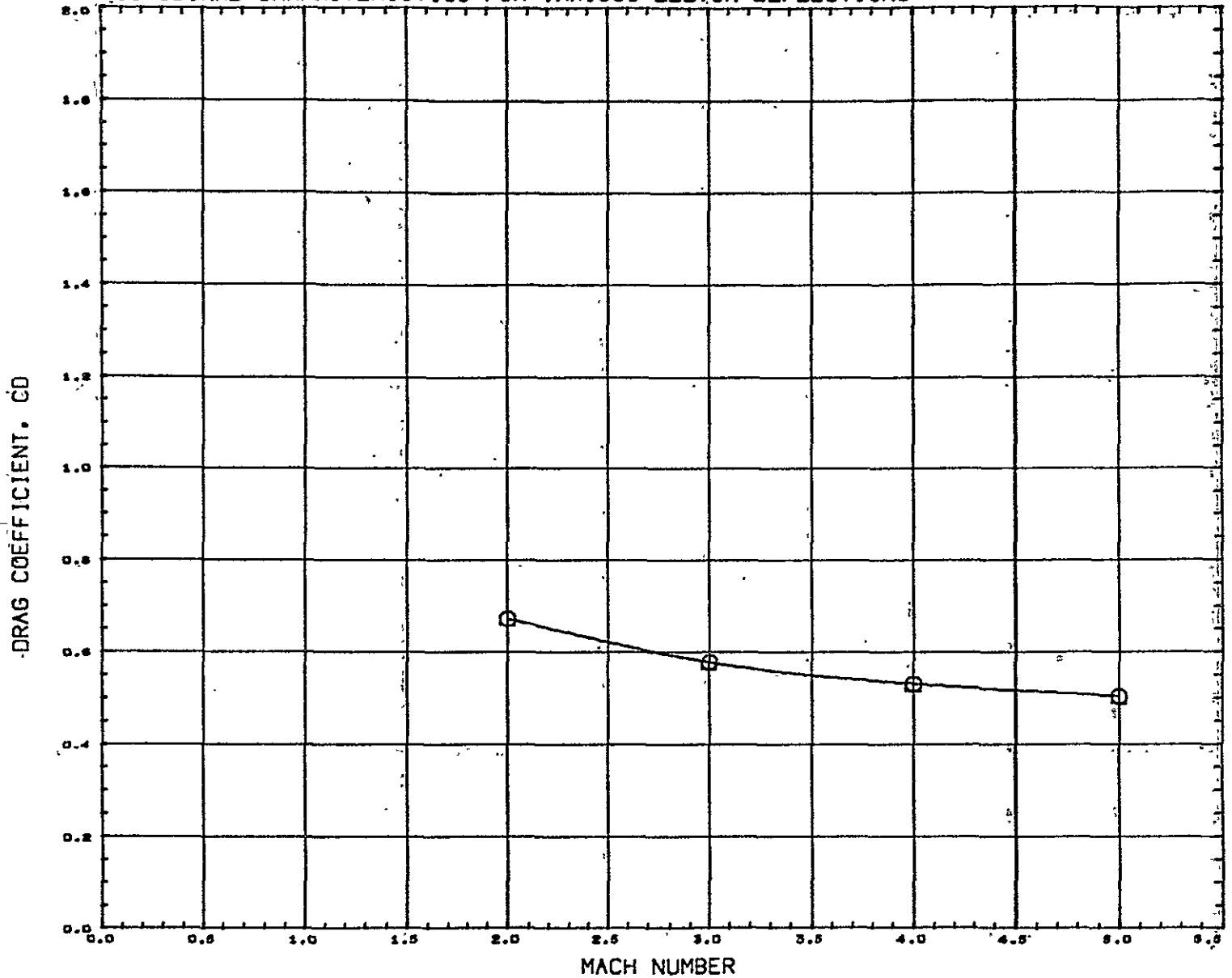
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LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	30.000	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
		DER	0.000	DCL	0.000	LREF	3.0990	IN.
		DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	HVR#E1					

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

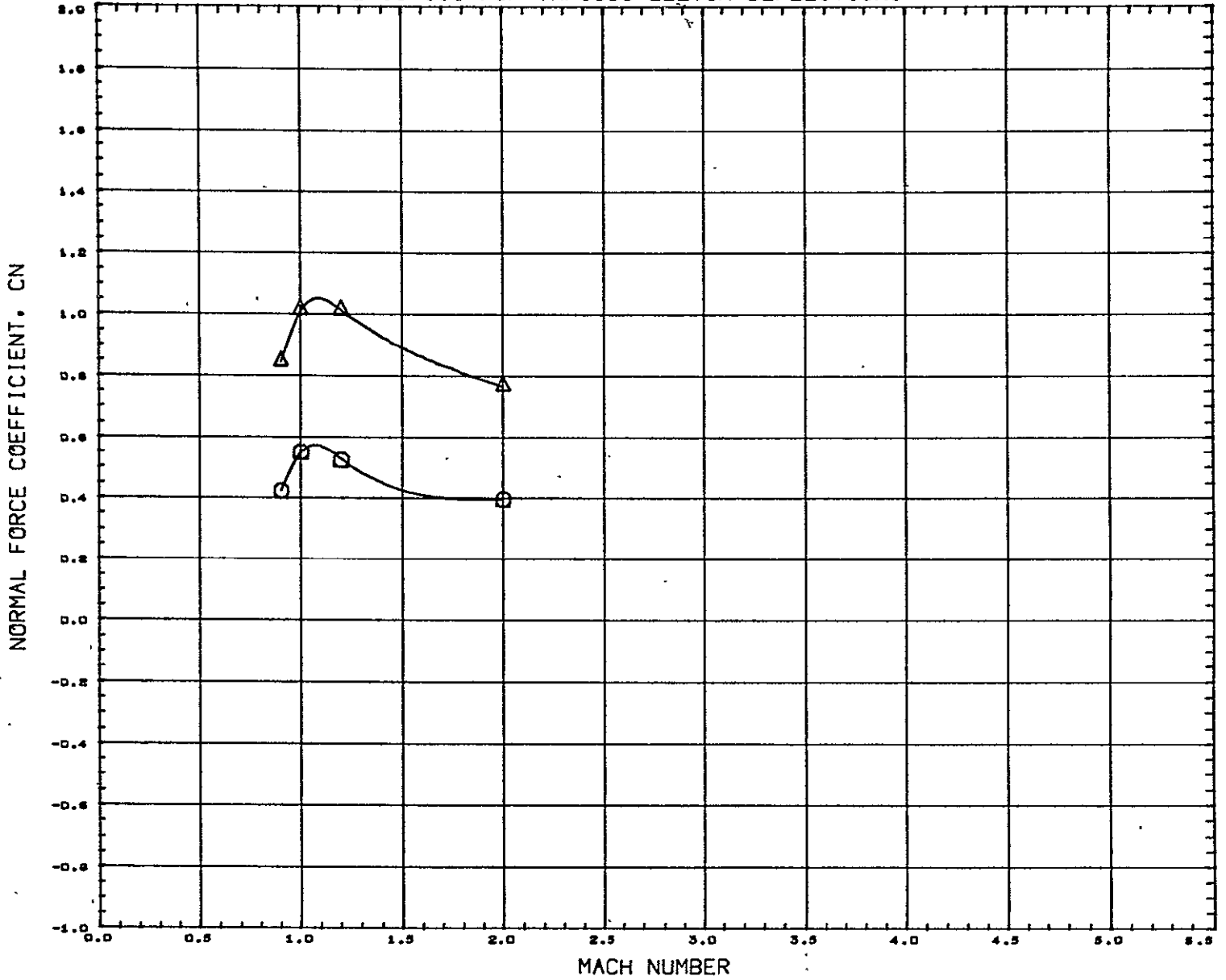


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#EI

REFERENCE INFORMATION		
SREF	18.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0980	IN.
YMRP	6.7100	IN.
ZMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

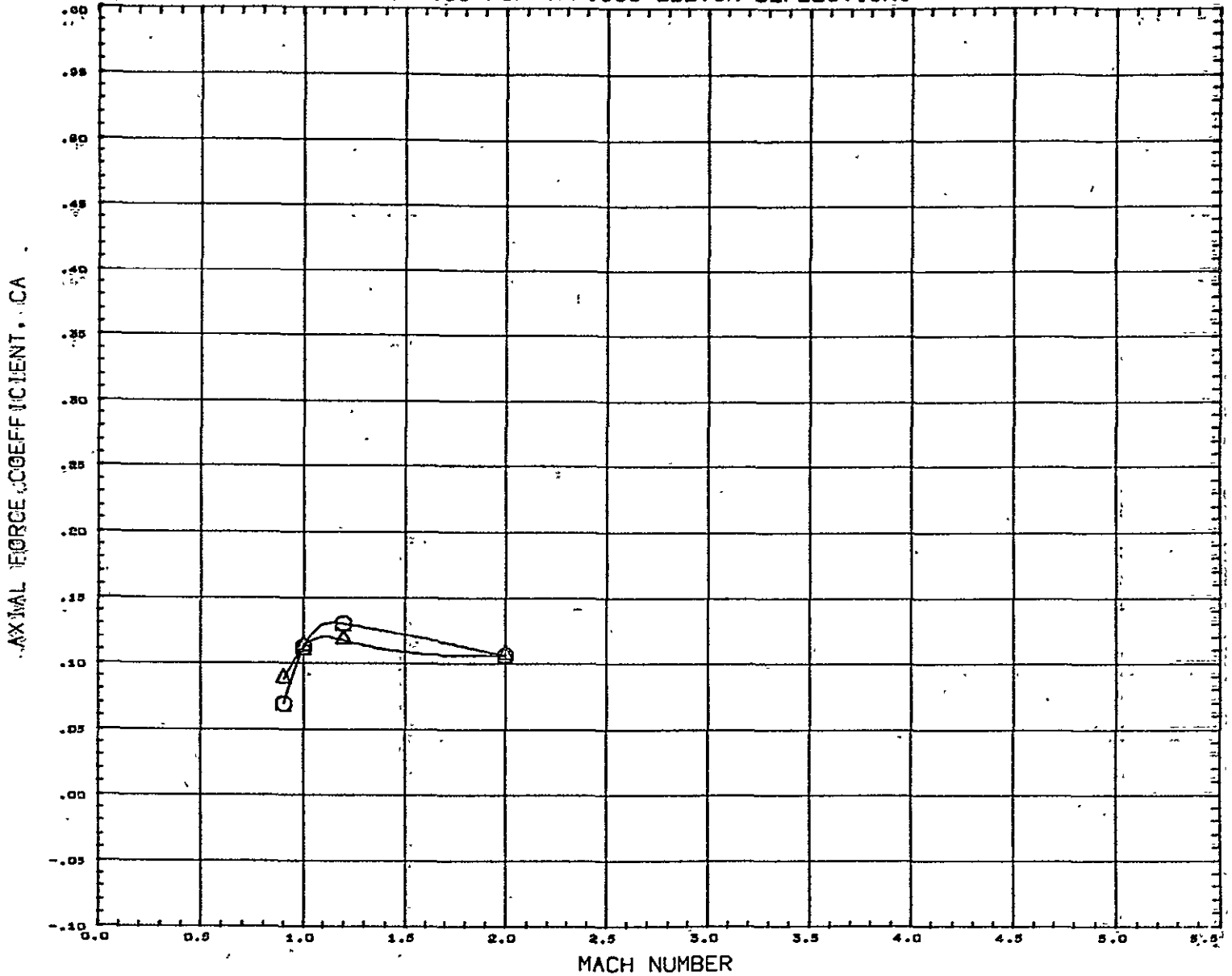


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES			
○	10.000		DEL	0.000		
△	20.000		DCL	0.000		
		DER	-20.000	DCL	0.000	
		OCR	0.000	ELEVON	-10.000	
		CANARD	0.000	AILRON	10.000	

REFERENCE INFORMATION		
SREF	19.6560	30. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



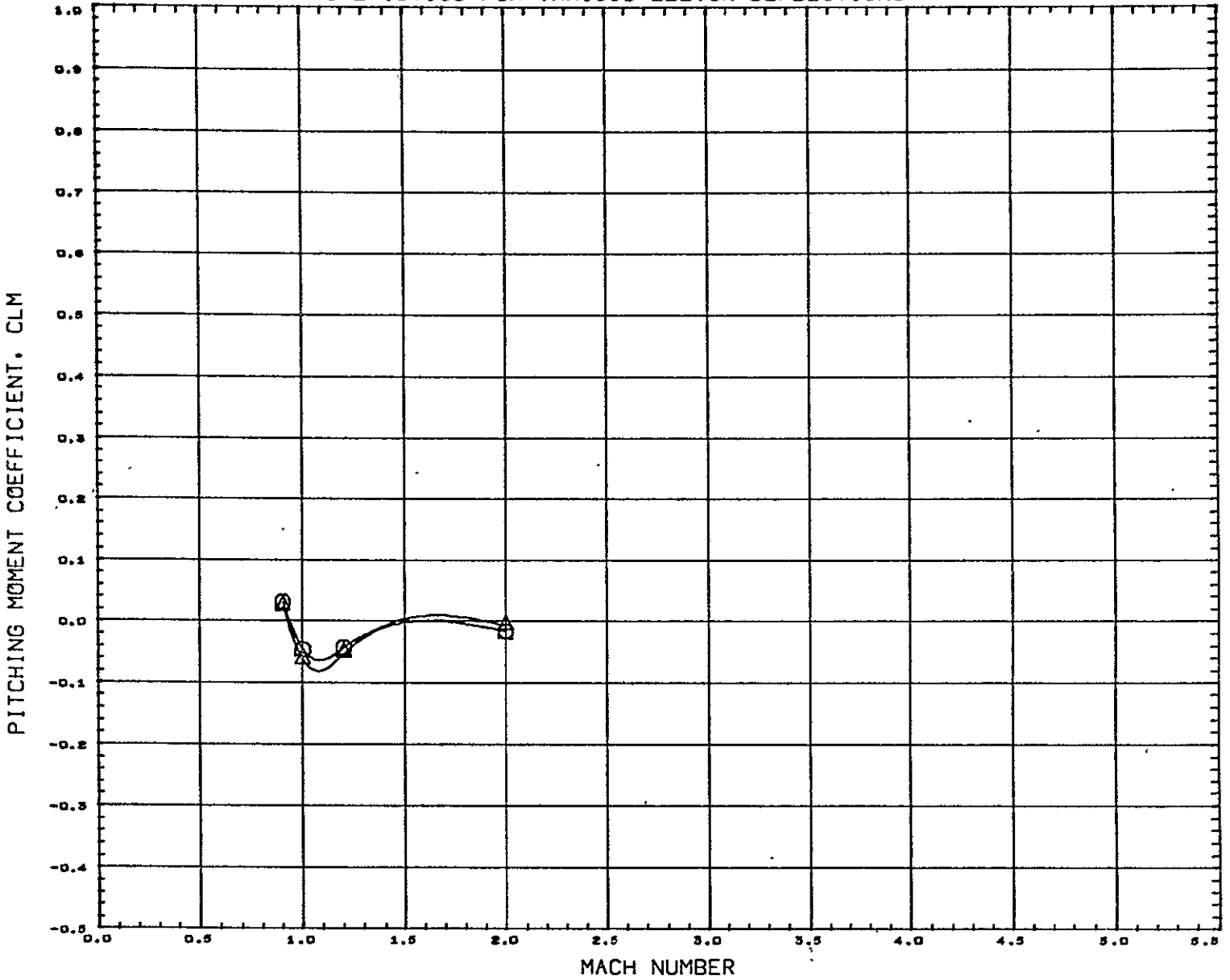
SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION	
○	10.000	BETA	0.000	OEL	0.000	SREF	15.6560 SQ. IN.
△	20.000	DER	- 20.000	DCL	0.000	LREF	3.0950 IN.
		DCR	0.000	ELEVON	- 10.000	BREF	6.0990 IN.
		CANARD	0.000	AILERON	10.000	XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035
		DATA HIST. CODE	MVR#E1				

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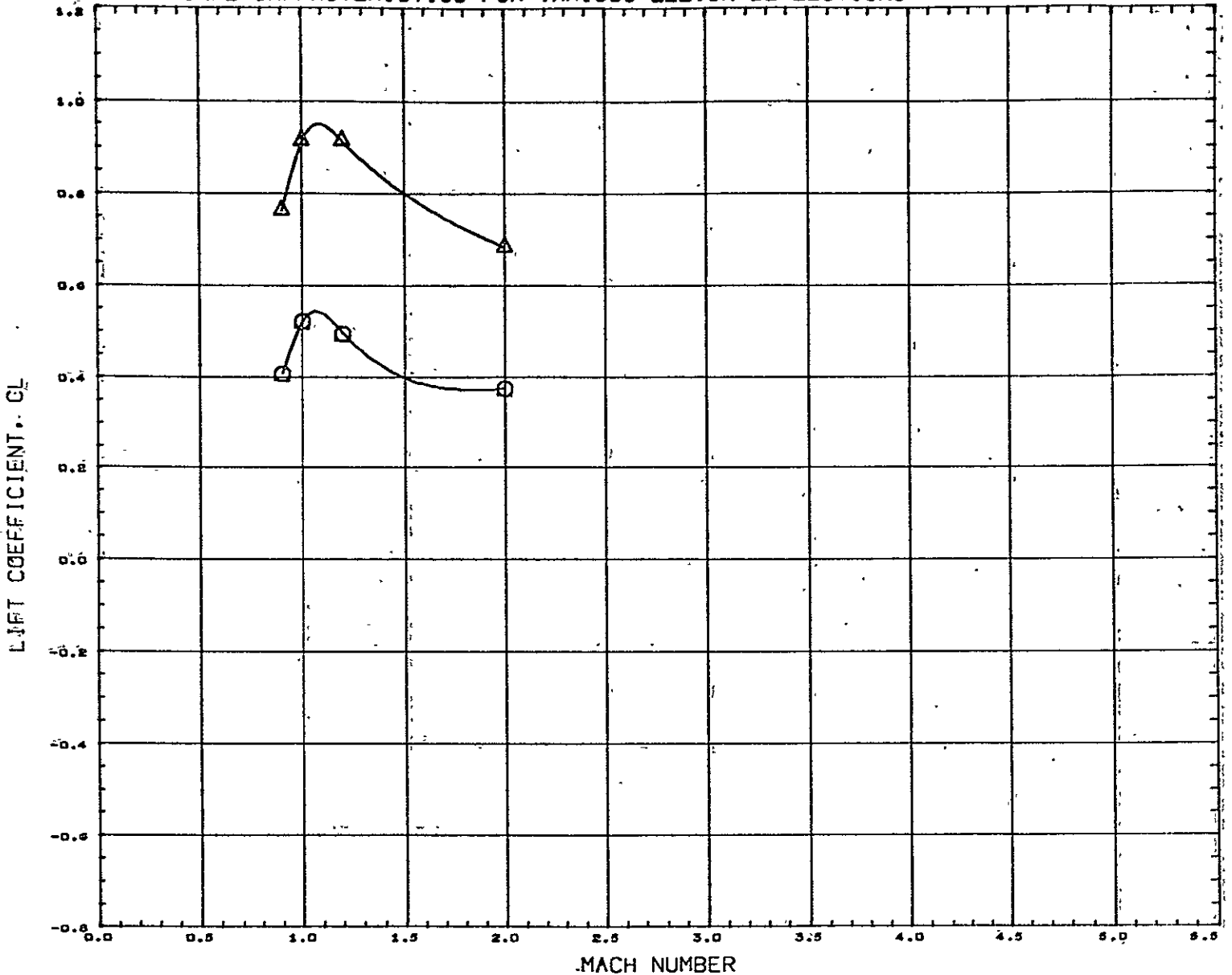
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
	○	10.000	BETA	0.000	DEL	0.000	SREF	15.6560
△	20.000	DER	- 20.000	DCL	0.000	LREF	3.0950	IN.
		DCR	0.000	ELEVON	- 10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	10.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#E1

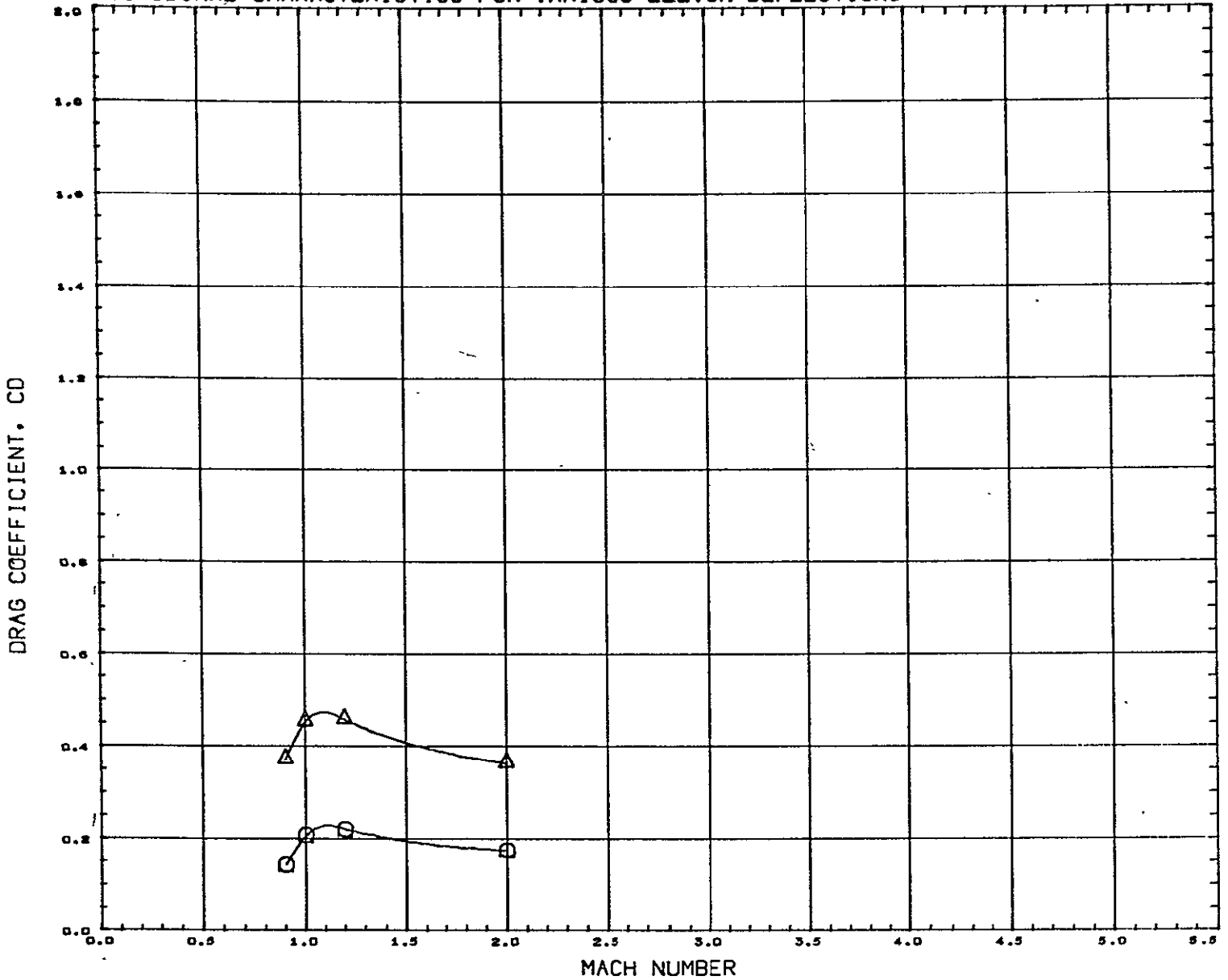
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CAÑARD	0.000	AILRÓN	10.000
DATA HIST. CODE HVR*E1					

REFERENCE INFORMATION		
SREF	15.6560	50 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

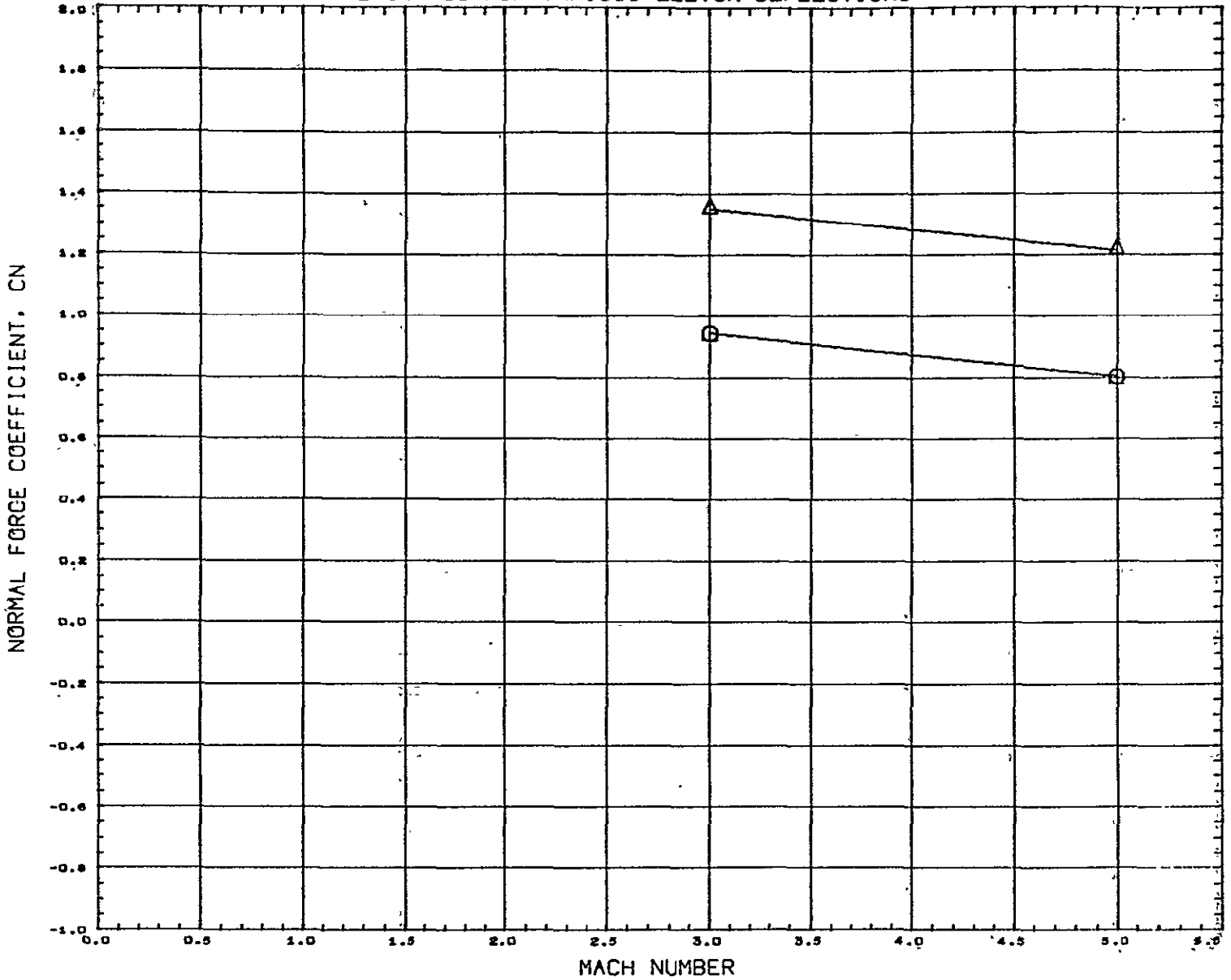


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*E1

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

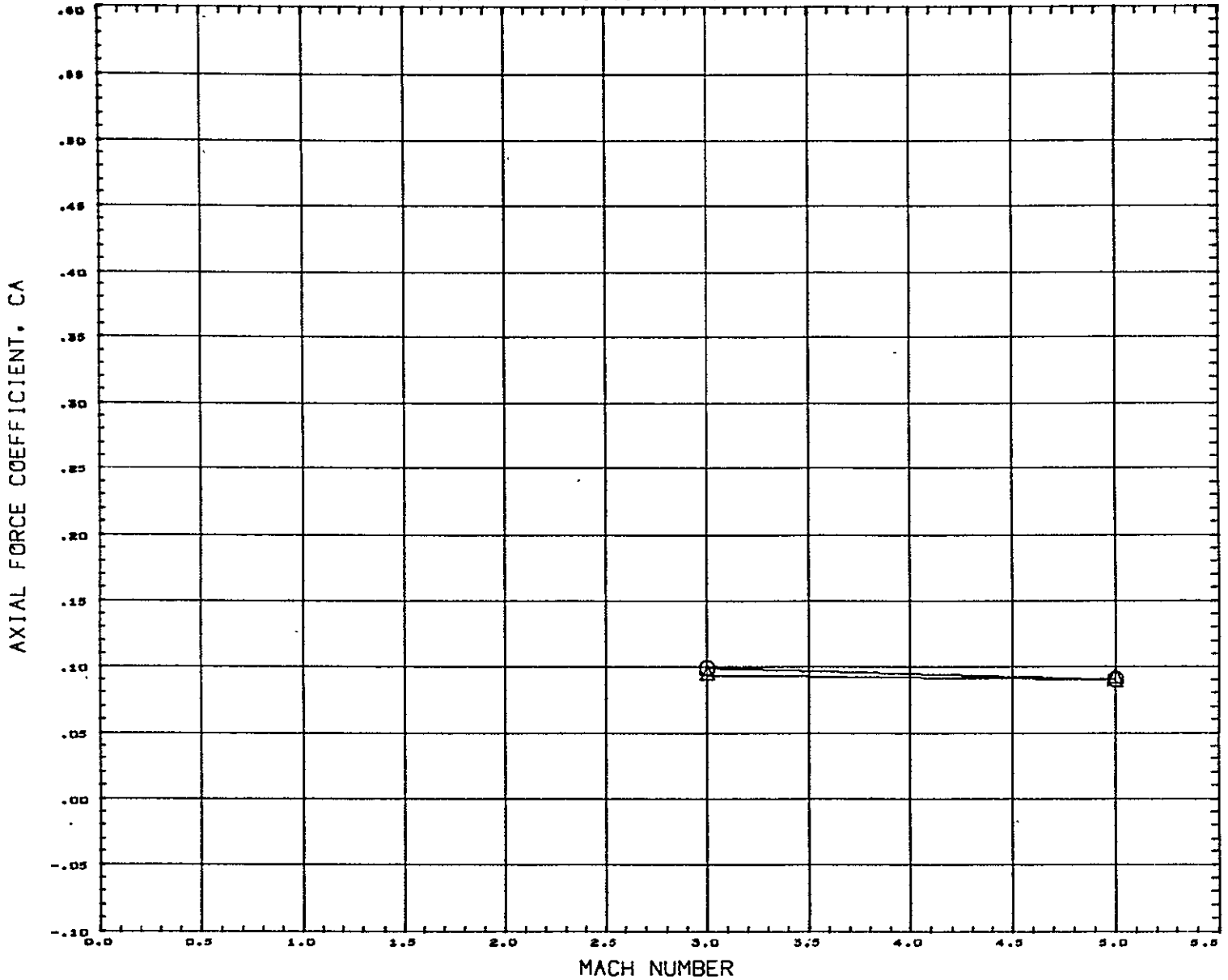


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
Δ	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000

DATA HIST. CODE 'MVR#E,I

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

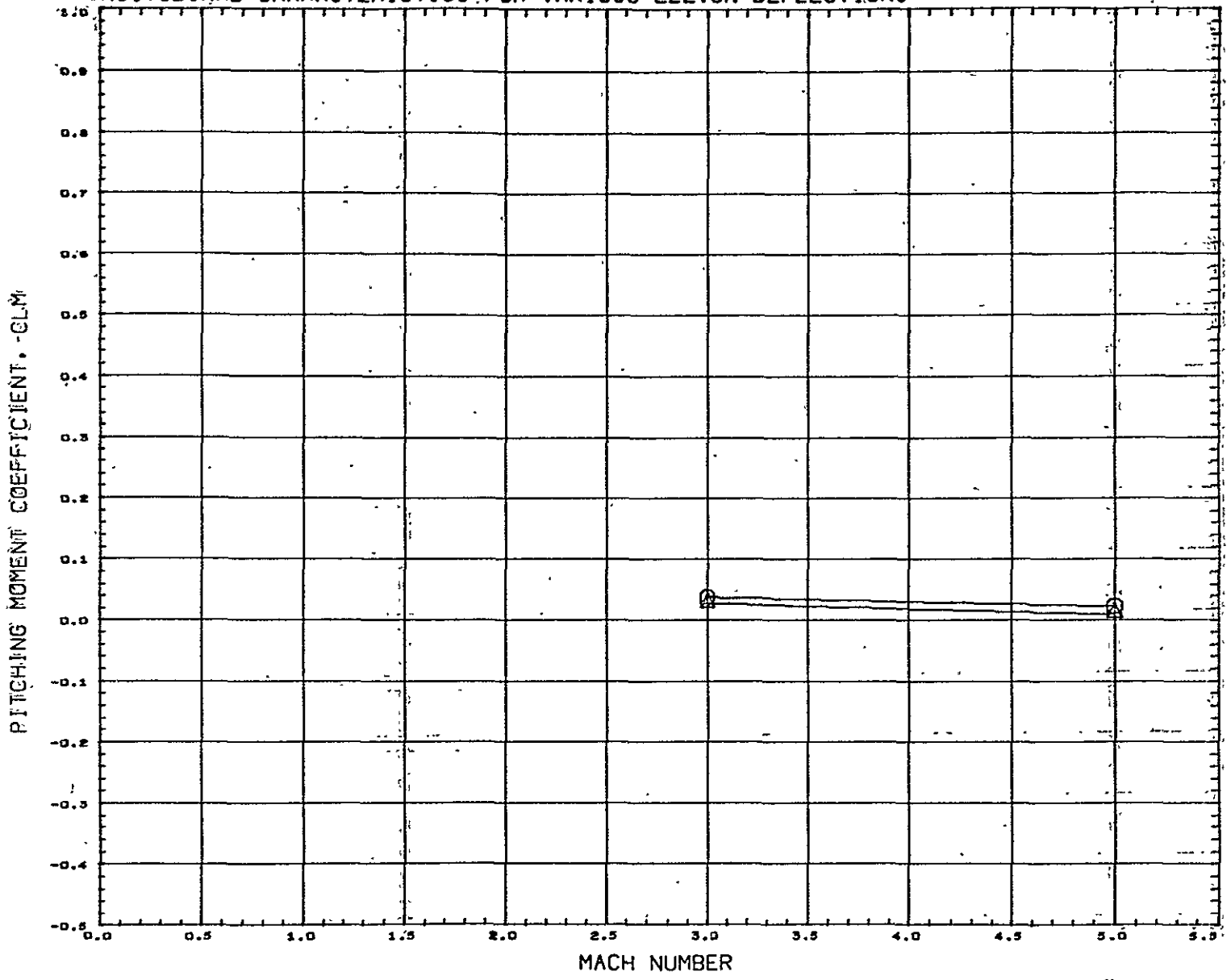


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

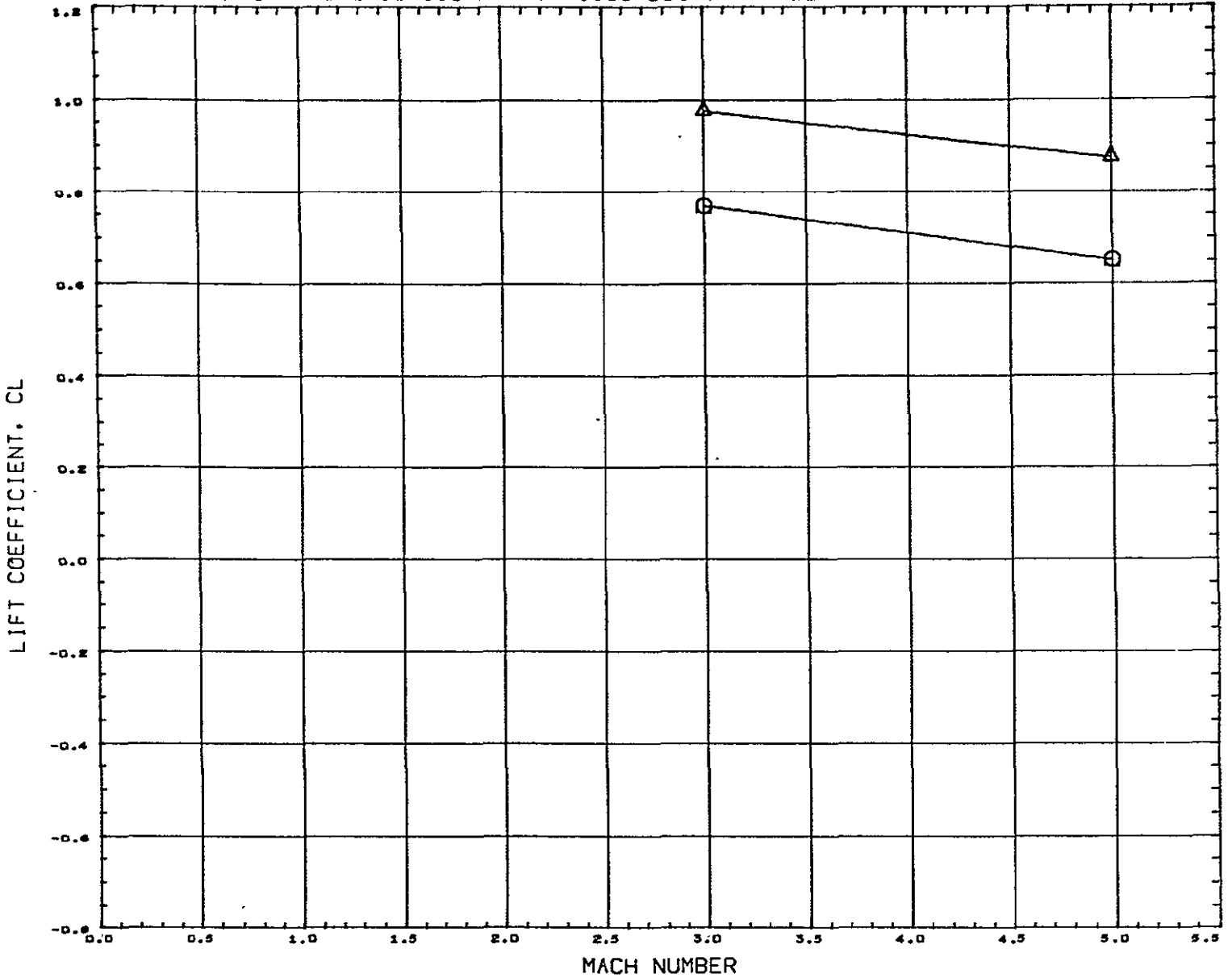
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	- 20.000	QCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILERON	10.000
		DATA HIST. CODE:	MVR#E1		

REFERENCE INFORMATION		
SREF	15.6560	50 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	0.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

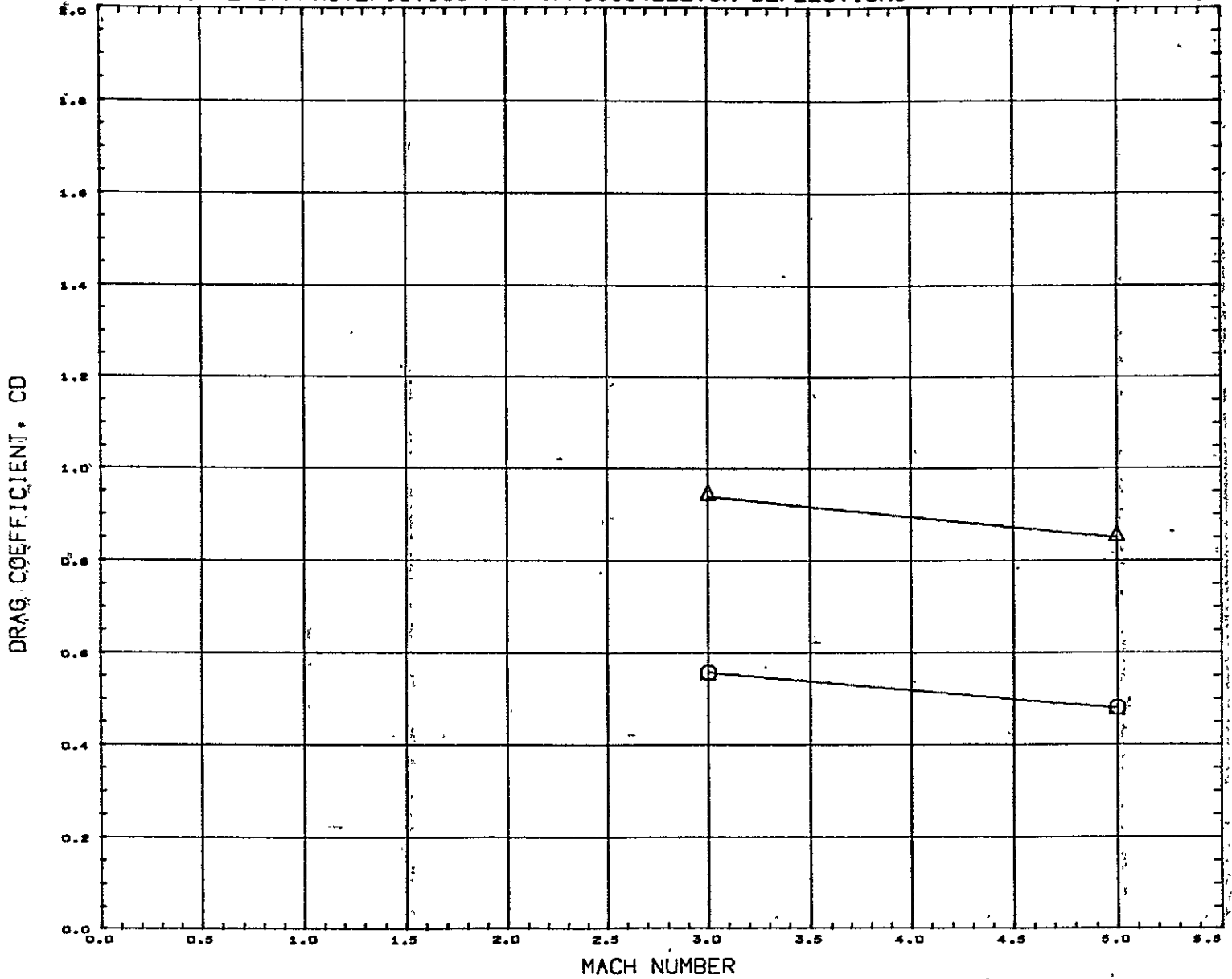


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	-20.000	DCL	0.000
		DCR	0.000	ELEVON	-10.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MYR#E1

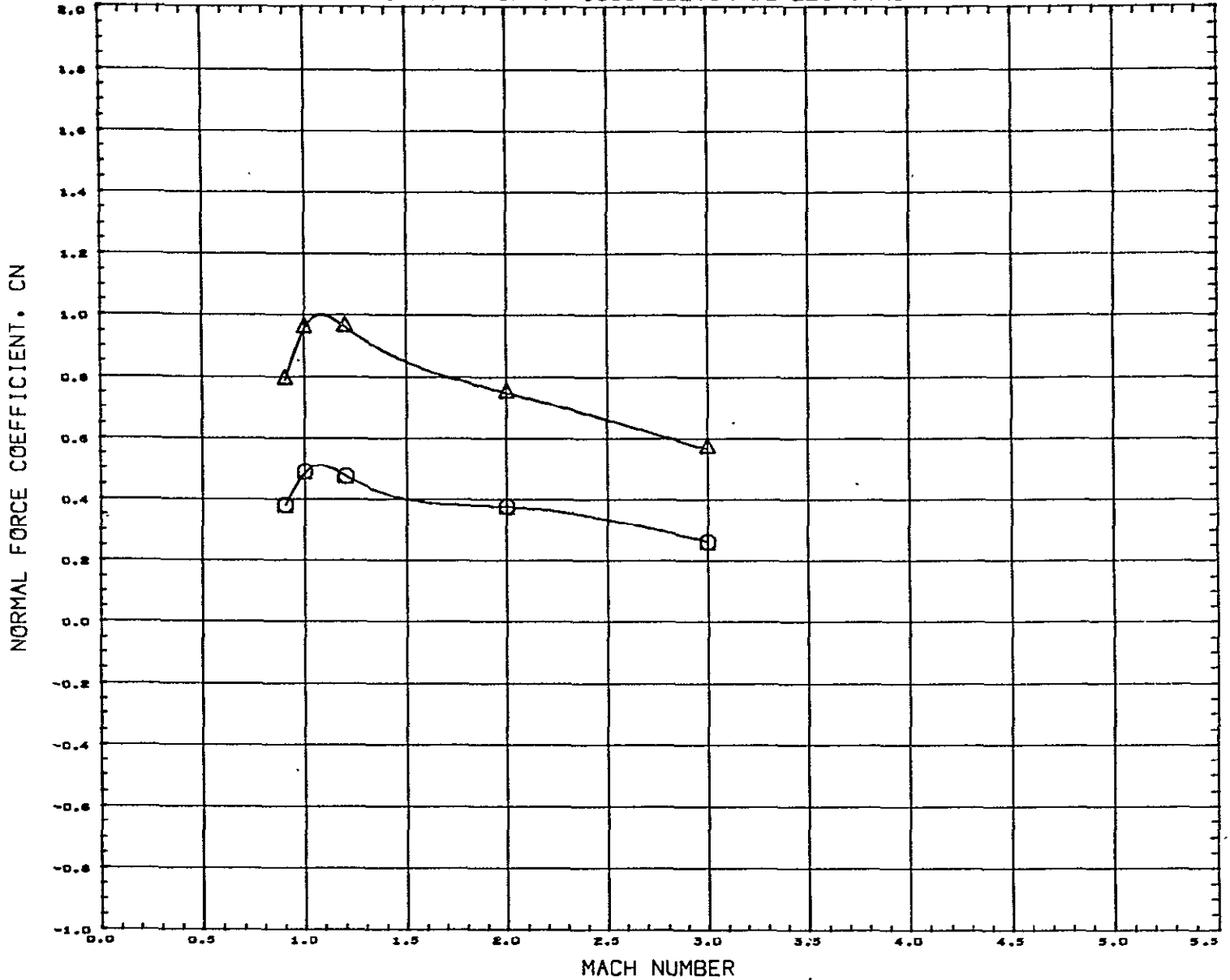
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000
		DATA HIST. CODE	HVR*EI		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

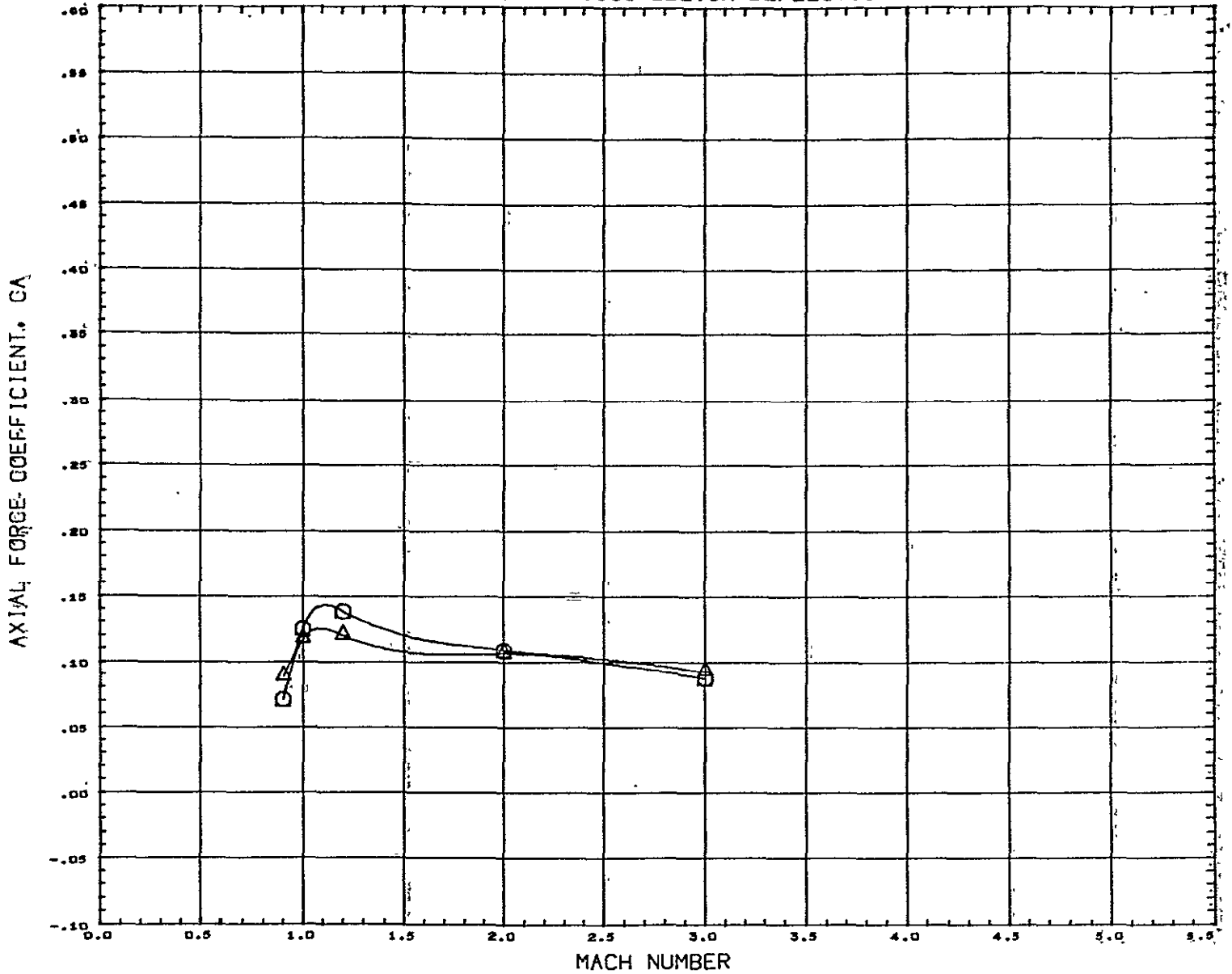


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 20.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE HVR#E1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

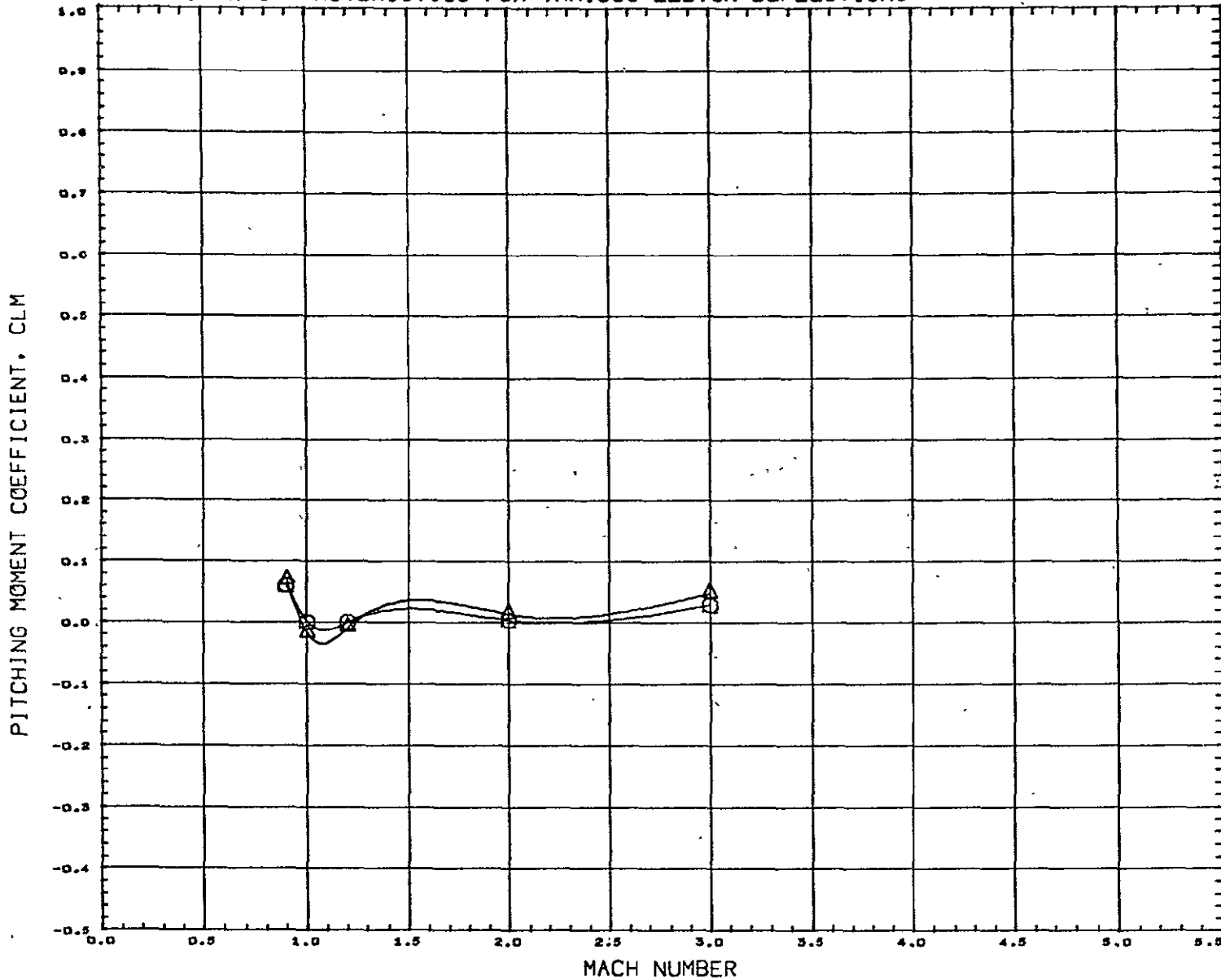


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 20.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E1

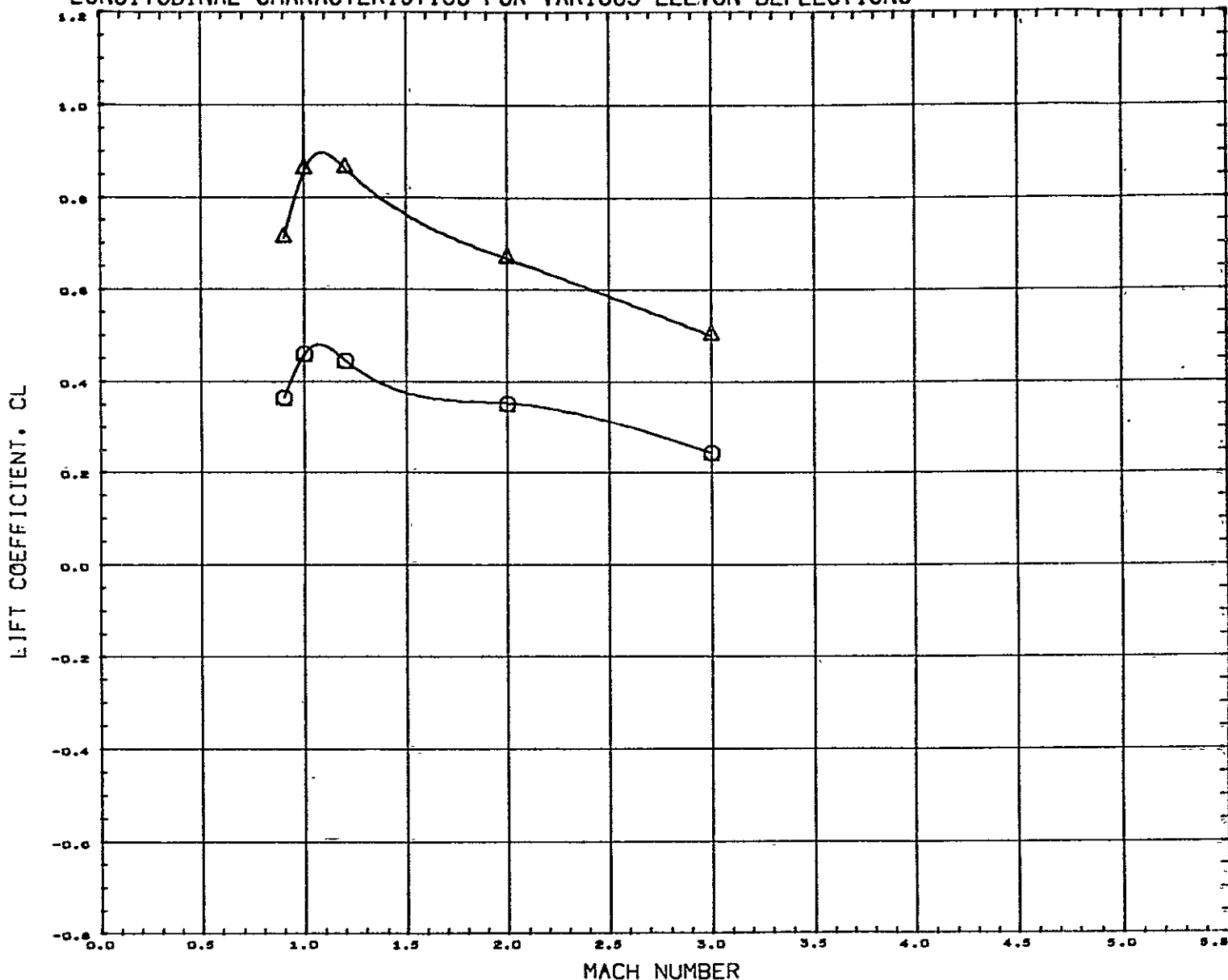
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SREF	15.6560	sq. in.
LREF	3.0050	in.
BREF	6.0990	in.
XMRP	6.7100	in.
YMRP	0.0000	in.
ZMRP	0.0000	in.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL □ △	ALPHA 10.000 20.000	PARAMETRIC VALUES BETA 0.000 DEL - 20.000 DER - 20.000 DCL 0.000 DCR 0.000 ELEVON - 20.000 CANARD 0.000 AILRON 0.000	REFERENCE INFORMATION SREF 15.6560 30. IN. LREF 3.0950 IN. BRP 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035
DATA HIST. CODE MVR#E1			

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

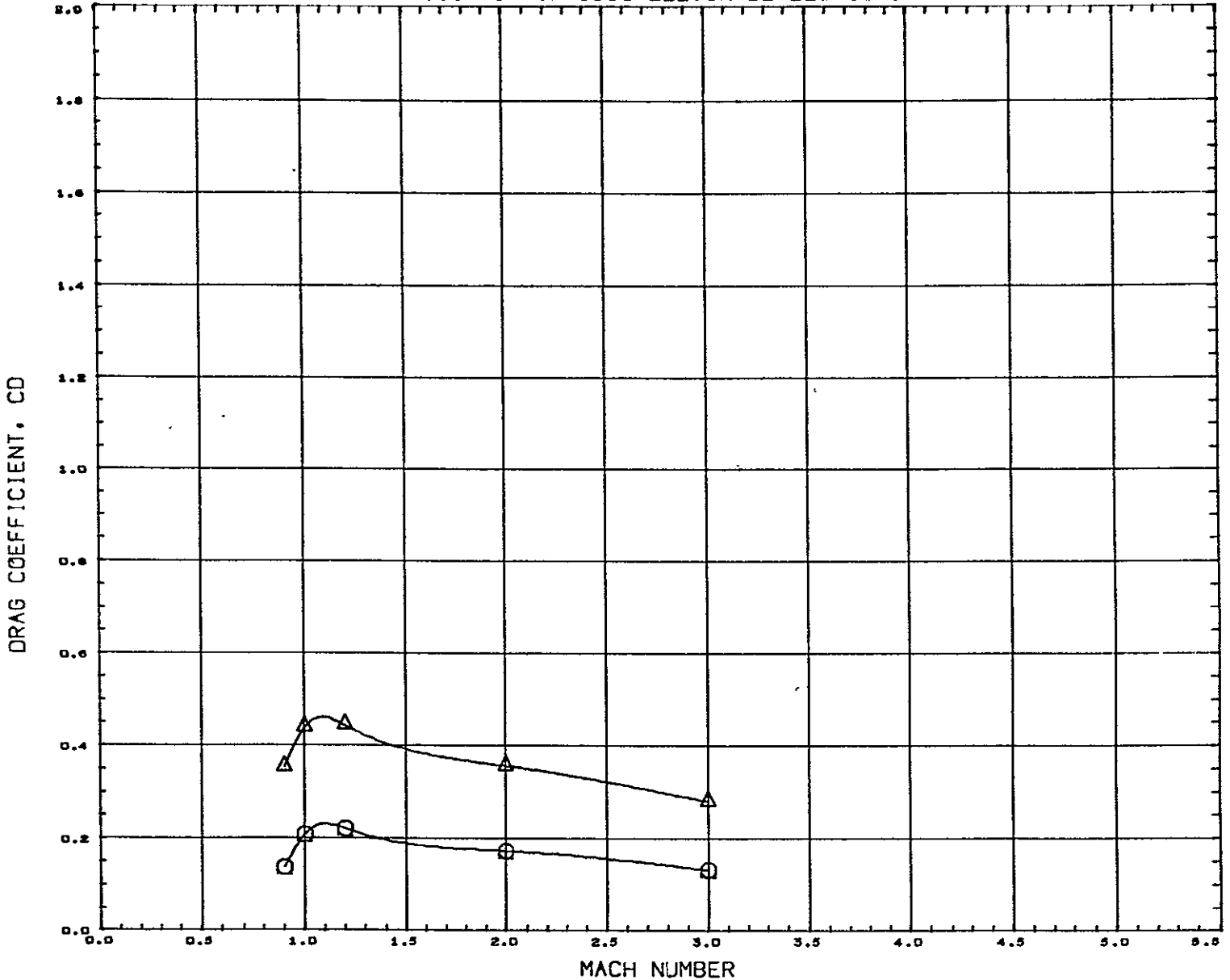


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 20.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILERON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

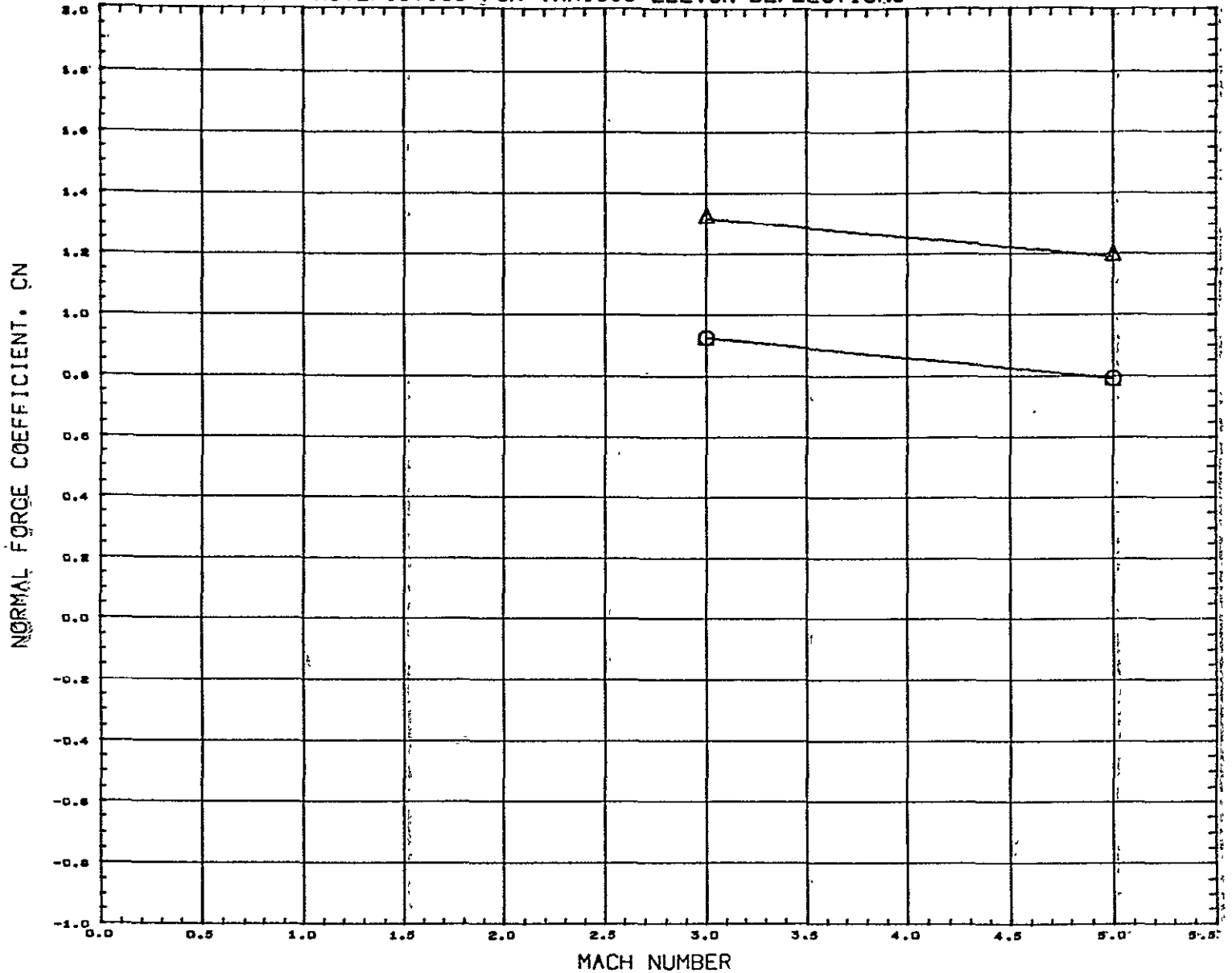
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL ○ △	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
	10.000	BETA	0.000	DEL	- 20.000	SREF	15.6560	sq. in.
	20.000	DER	- 20.000	DCL	0.000	LREF	3.0950	in.
		DCR	0.000	ELEVON	- 20.000	BREF	6.0990	in.
		CANARD	0.000	AILRON	0.000	XMRP	6.7100	in.
					YMRP	0.0000	in.	
					ZMRP	0.0000	in.	
					SCALE	0.0035		

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

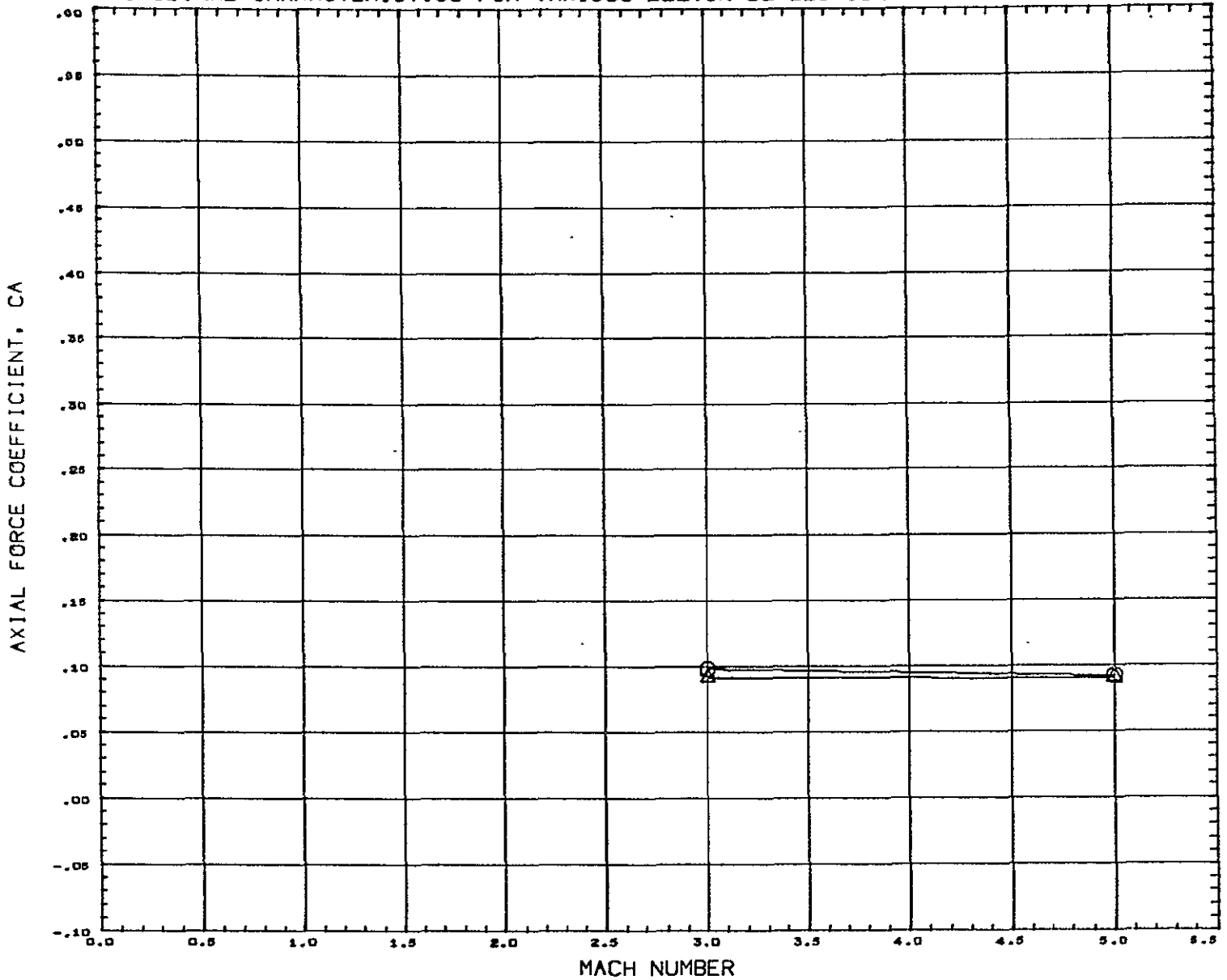


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 20.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILERON	0.000

DATA HIST. CODE MVR#EI

REFERENCE INFORMATION		
SREF	15.6560	50% IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

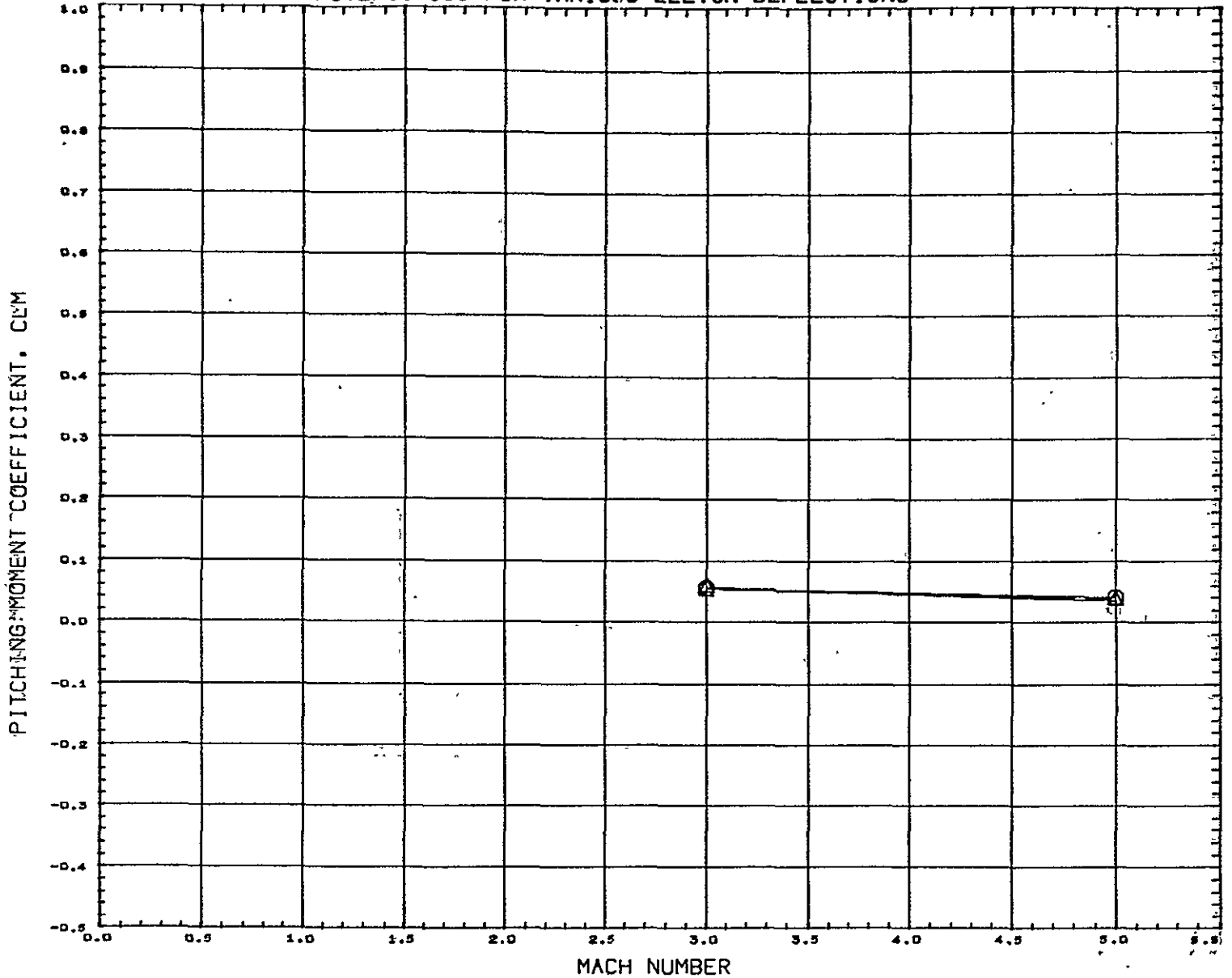
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 20.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILERON	0.000
DATA HIST. CODE		MVR#E1			

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

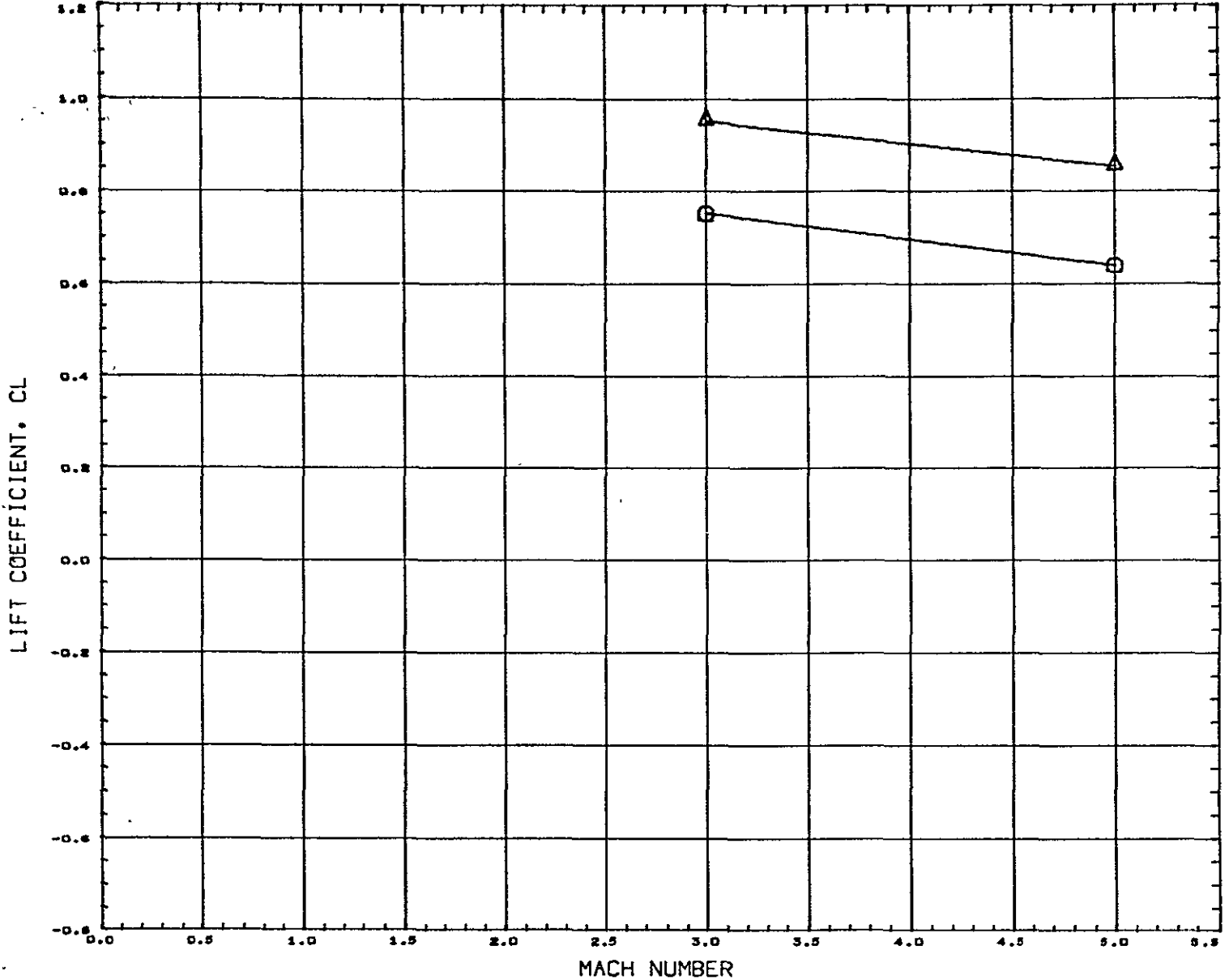
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 20.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILERON	0.000
		DATA HIST. CODE	MVR#E1		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
SREF	6.0990	IN.
YMRF	6.7100	IN.
YMRF	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0033	

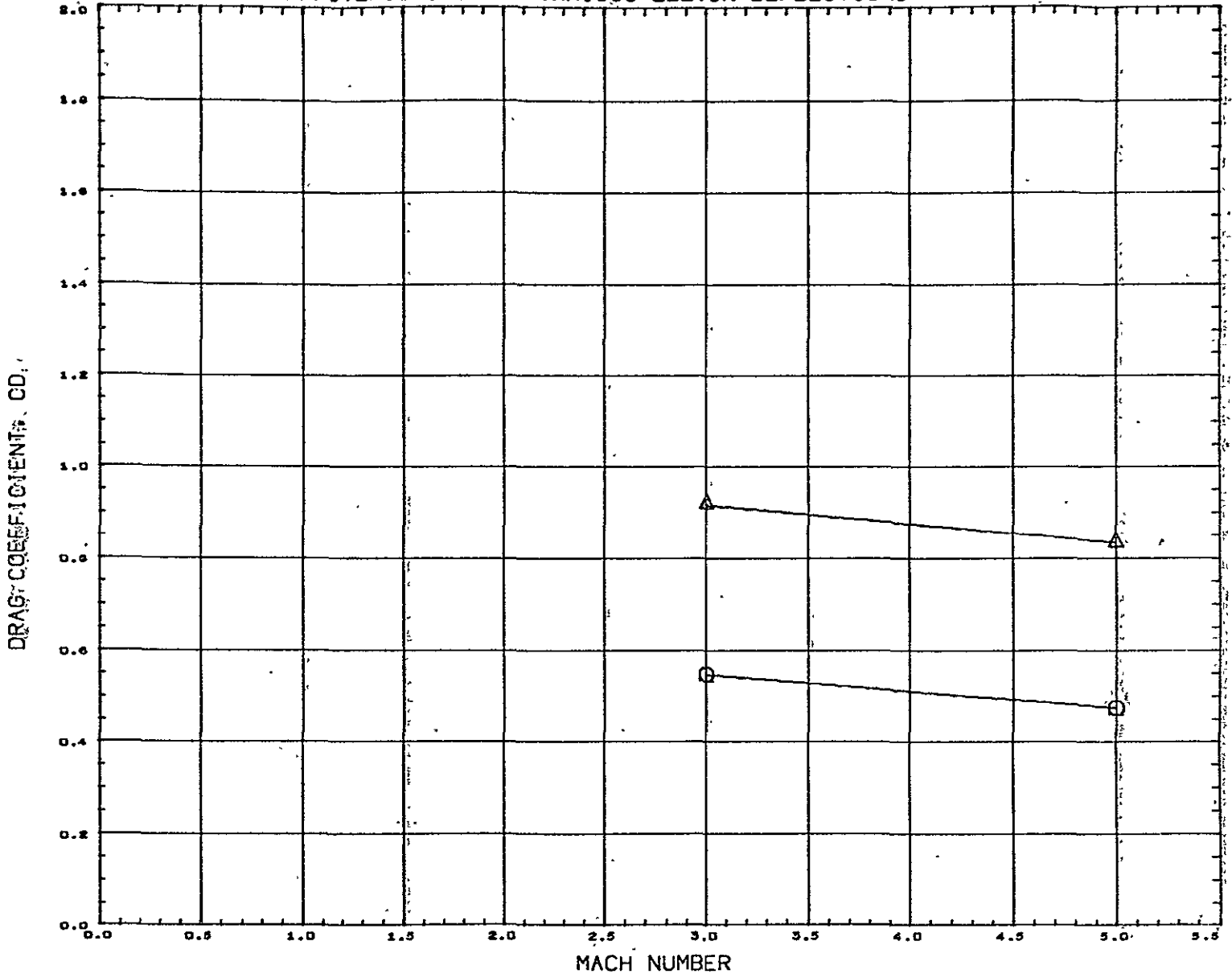
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 20.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE	HVR#EI		

REFERENCE INFORMATION		
SREF	15.6560	SQ.IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

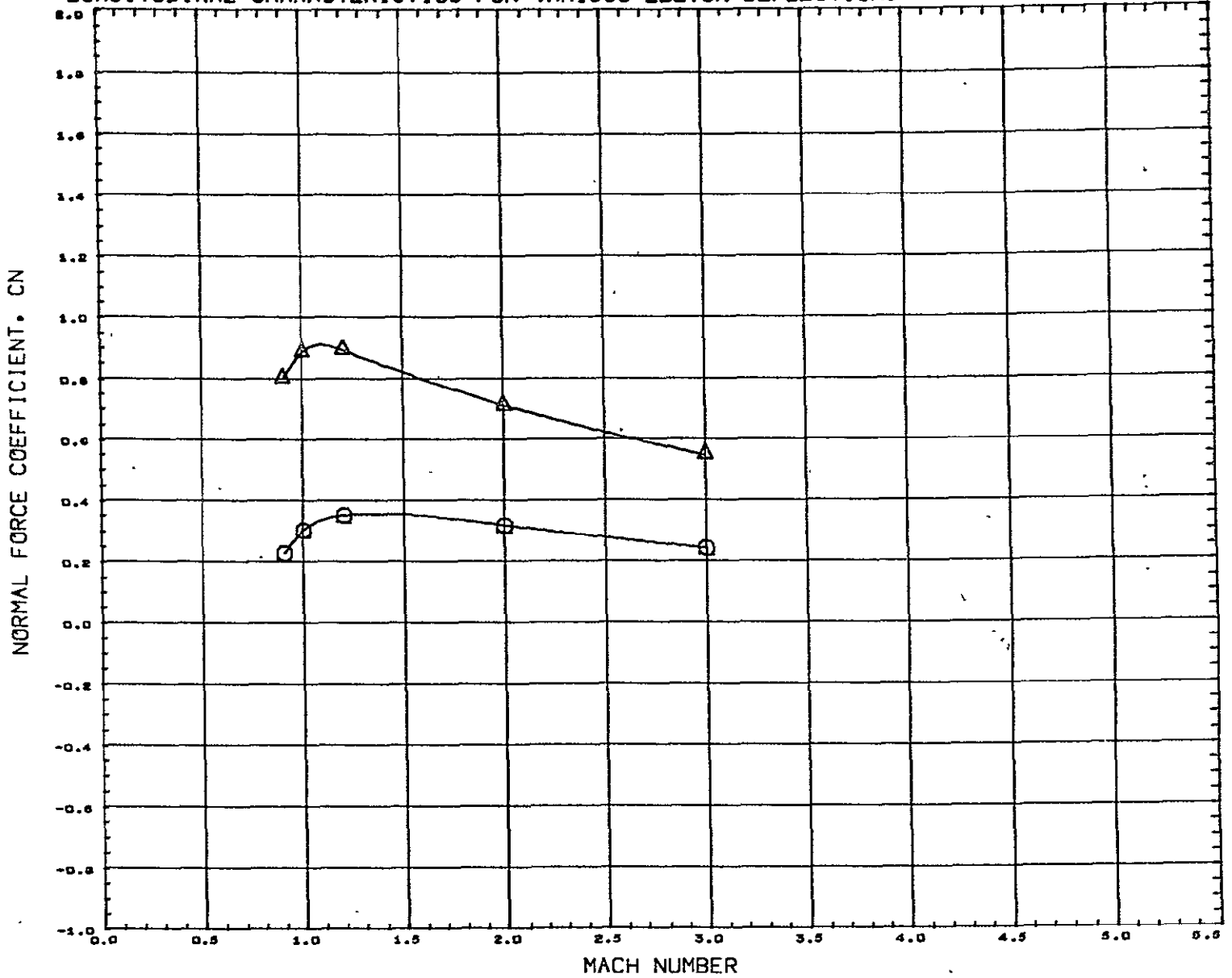
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 20.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE	MVR#E1		

REFERENCE INFORMATION		
SREF	15.6560	sq. in.
LREF	3.0950	in.
BREF	6.0990	in.
XMRP	6.7100	in.
YMRP	0.0000	in.
ZMRP	0.0000	in.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

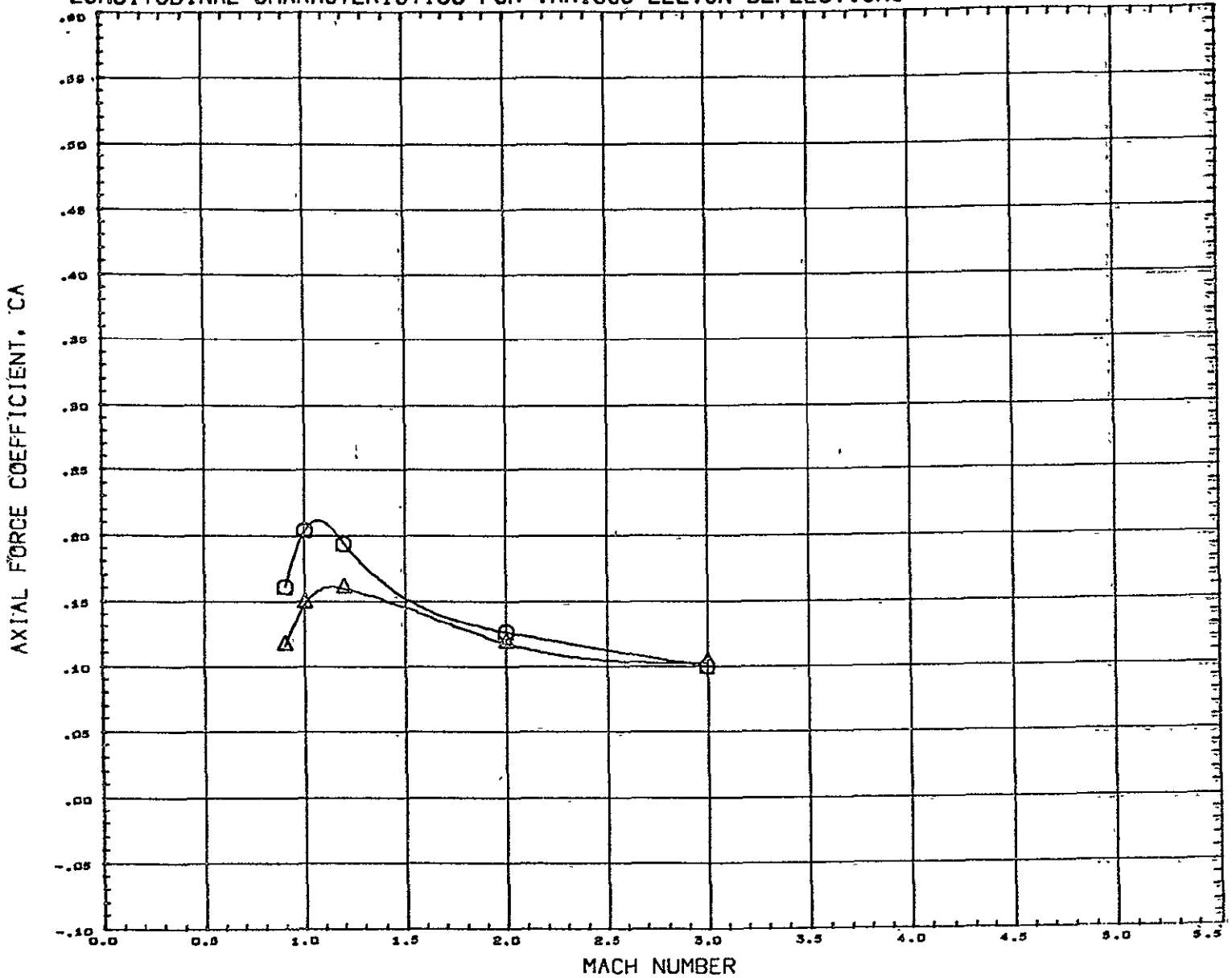


SYMBOL	ALPHA	PARAMETRIC VALUES			
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△	20.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

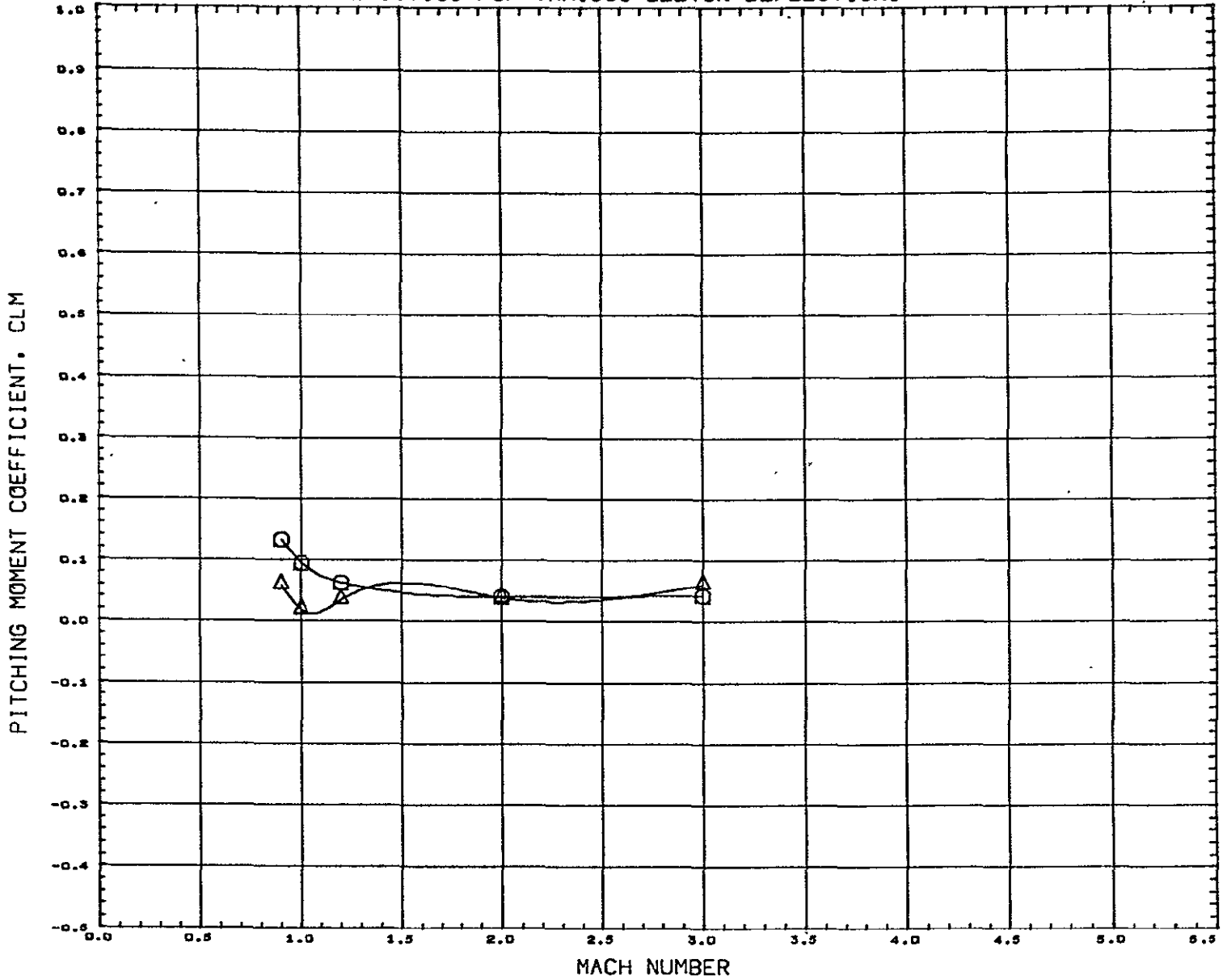


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES			
○	10.000		0.000	DEL	- 60.000	
△	20.000		- 60.000	DCL	0.000	
			0.000	ELEVON	- 60.000	
			0.000	AILRON	0.000	

REFERENCE INFORMATION		
SREF	19.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

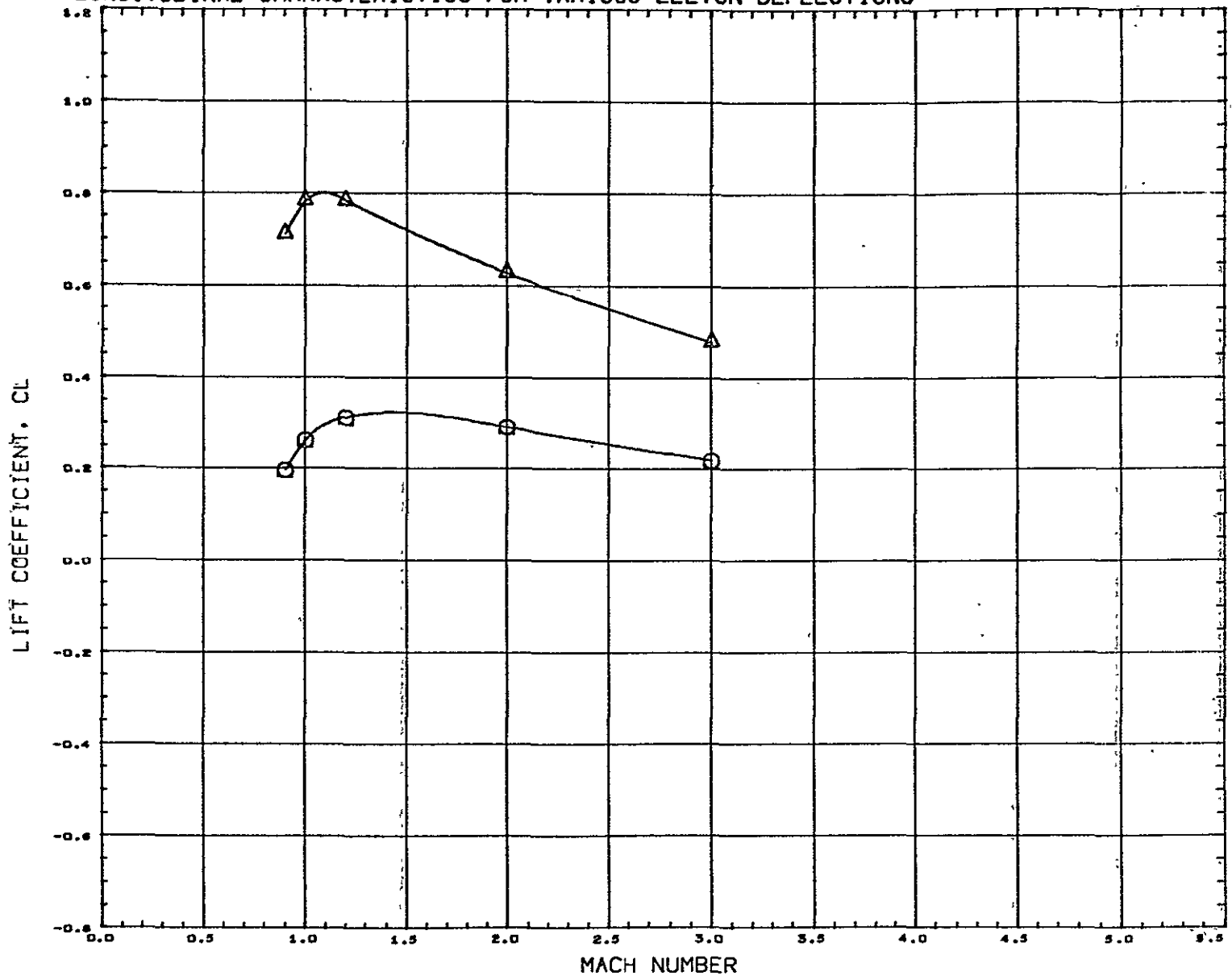


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 60.000
△	20.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AIRCON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

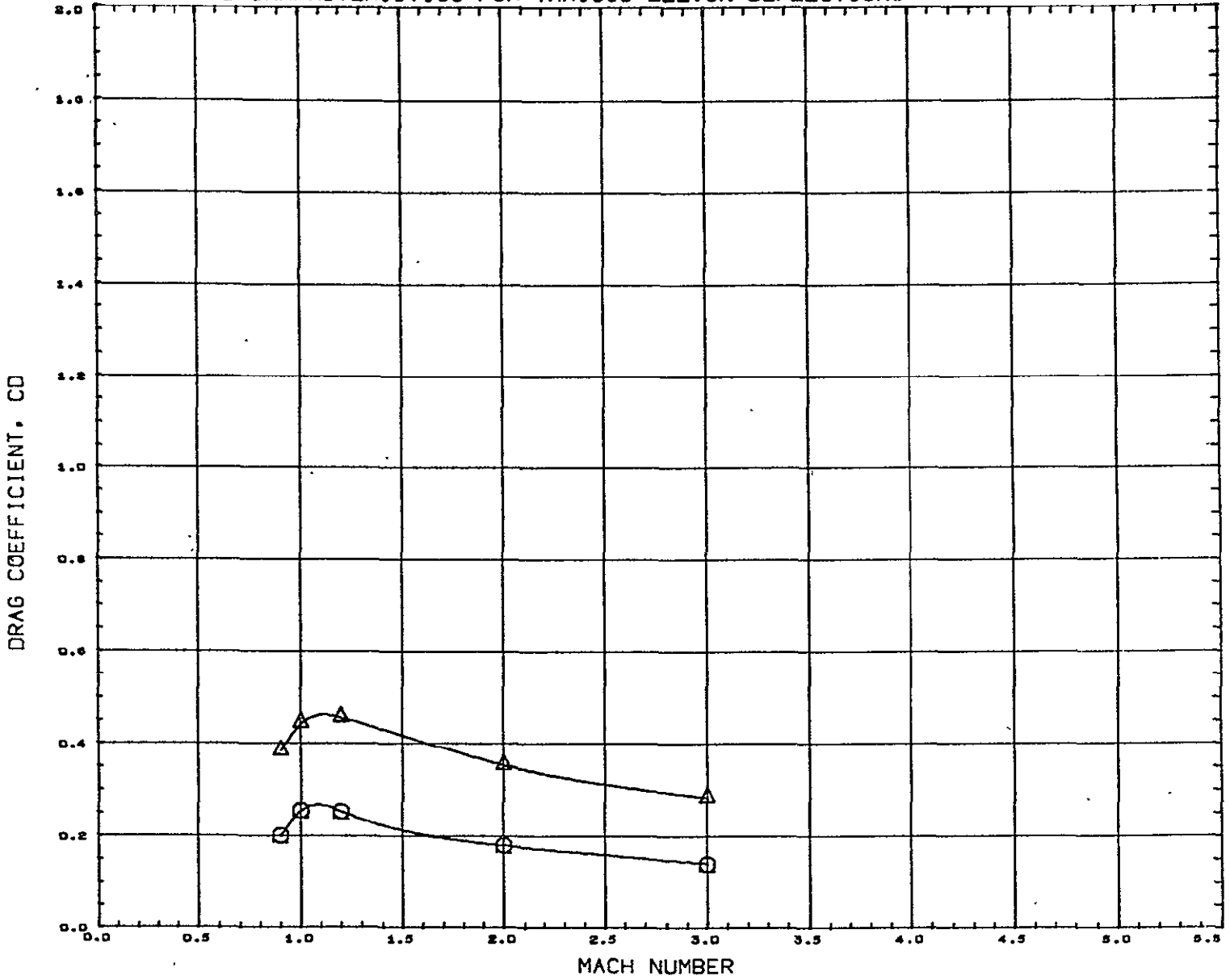


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 60.000
△	20.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0930	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E1

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

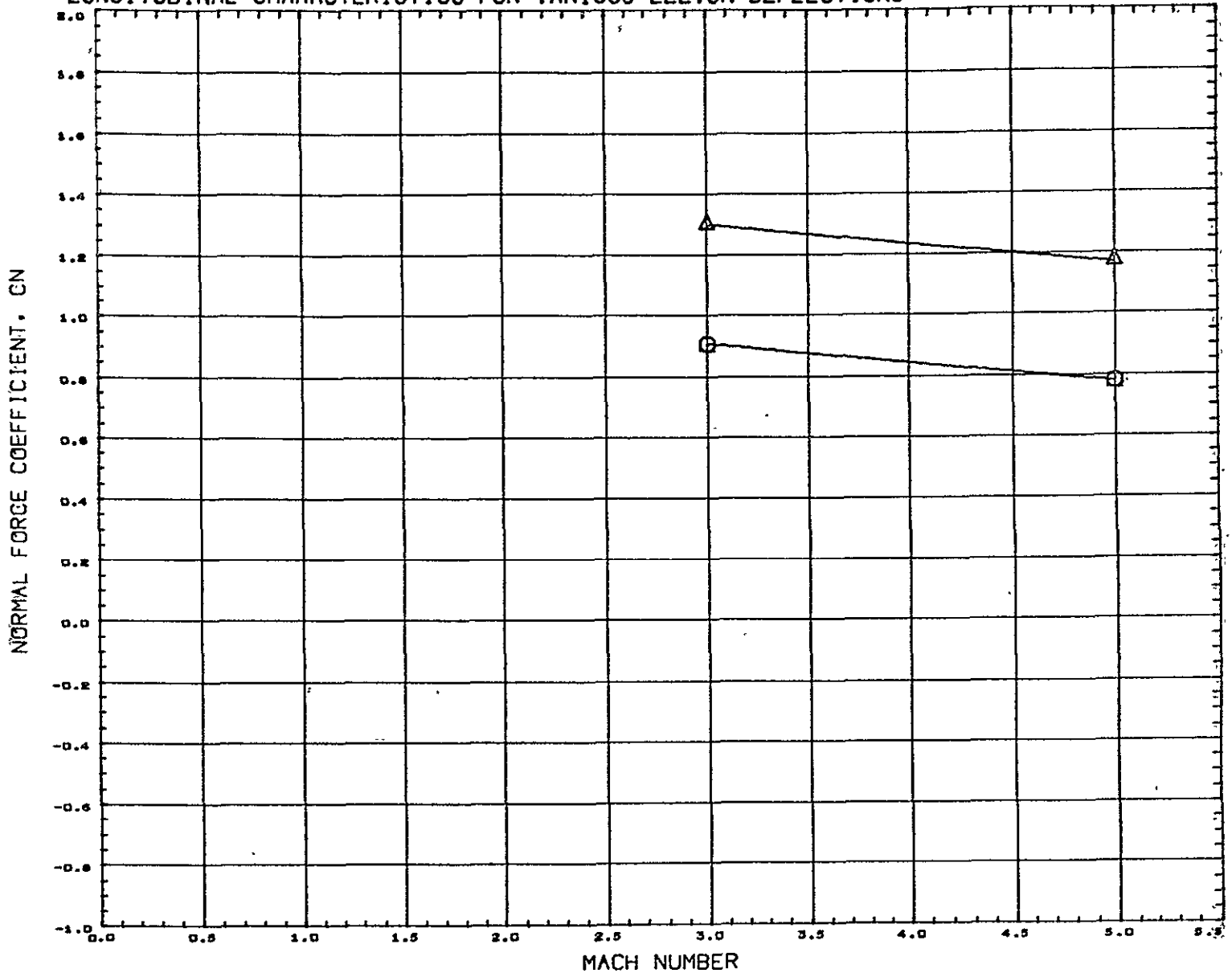


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 60.000
△	20.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

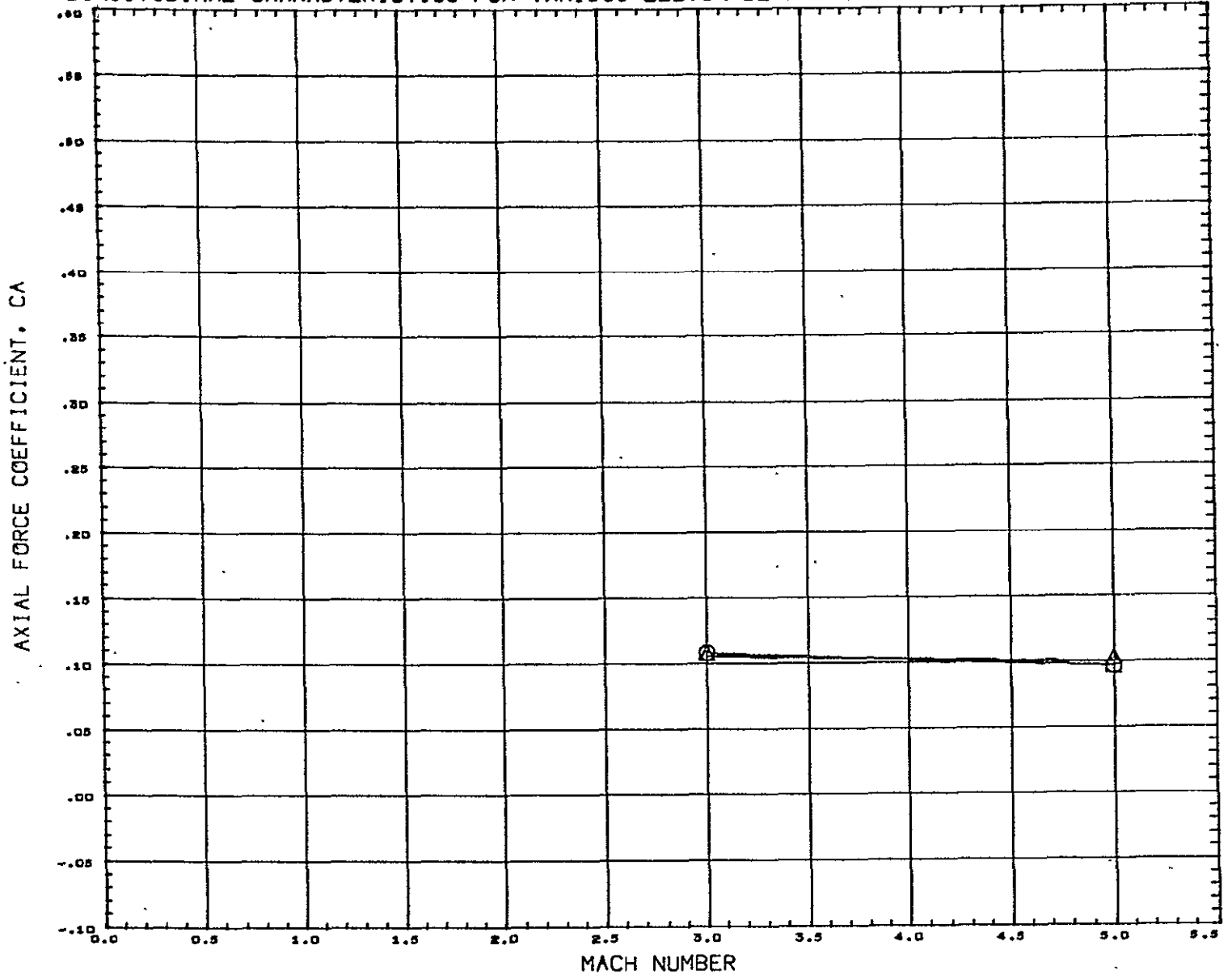


SYMBOL	ALPHA	PARAMETRIC VALUES			
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△	40.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AIRLON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
OREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

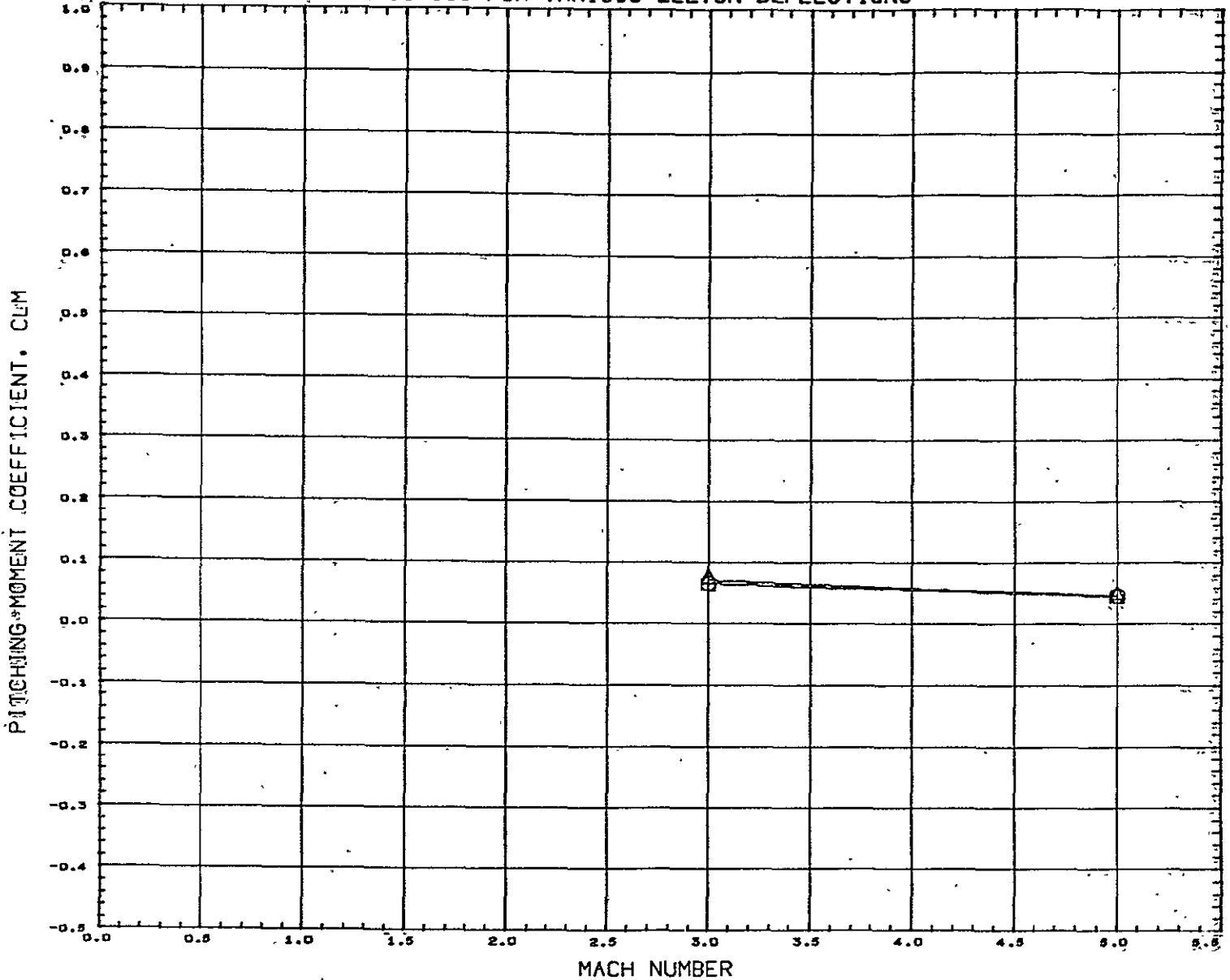


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 60.000
△	40.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE HVR*E1

REFERENCE INFORMATION		
SREF	15.6960	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

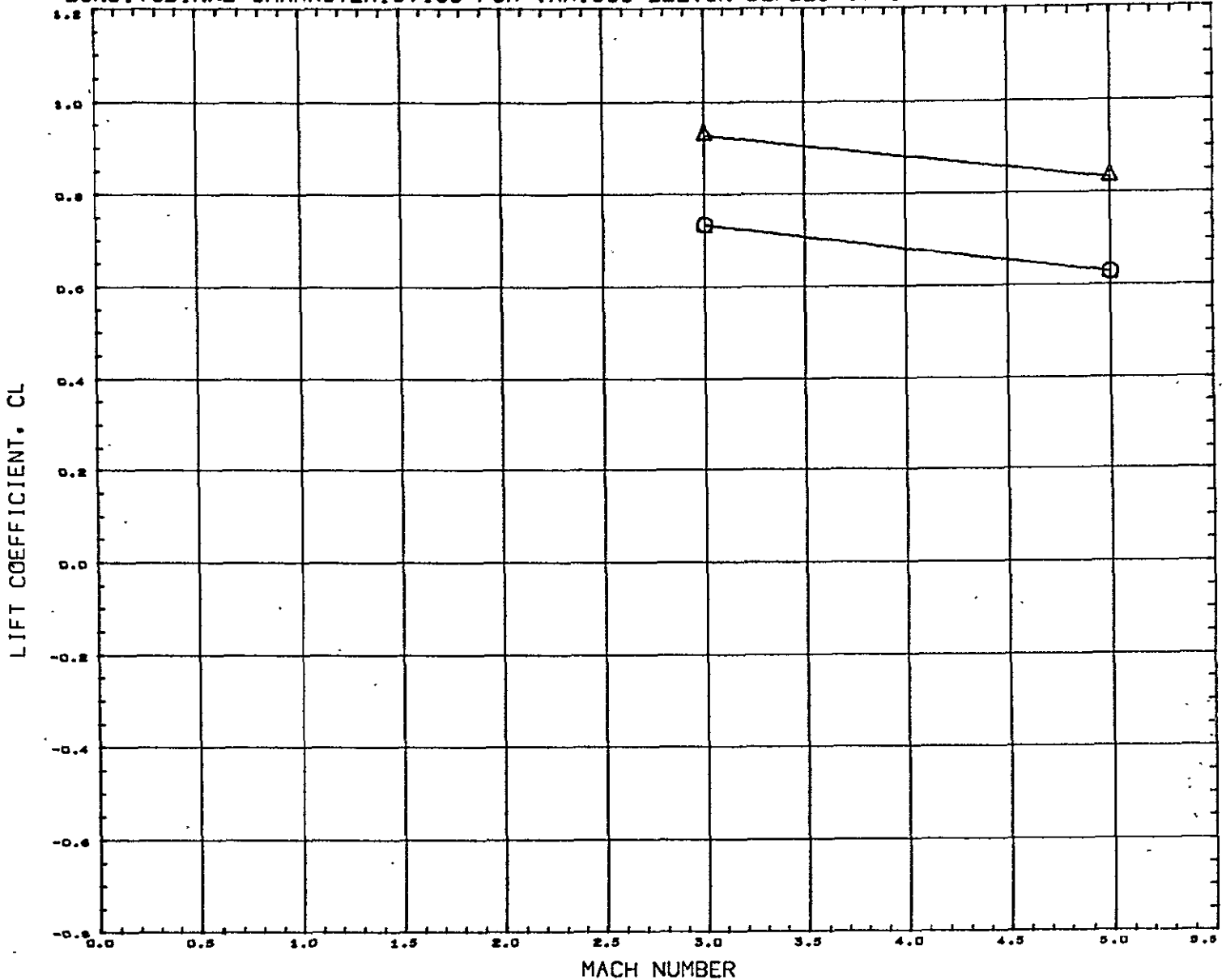


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	30.000	0.000	DEL	- 60.000	
△	40.000	60.000	DEL	0.000	
		0.000	ELEVON	- 60.000	
		0.000	AILERON	0.000	

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	19.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

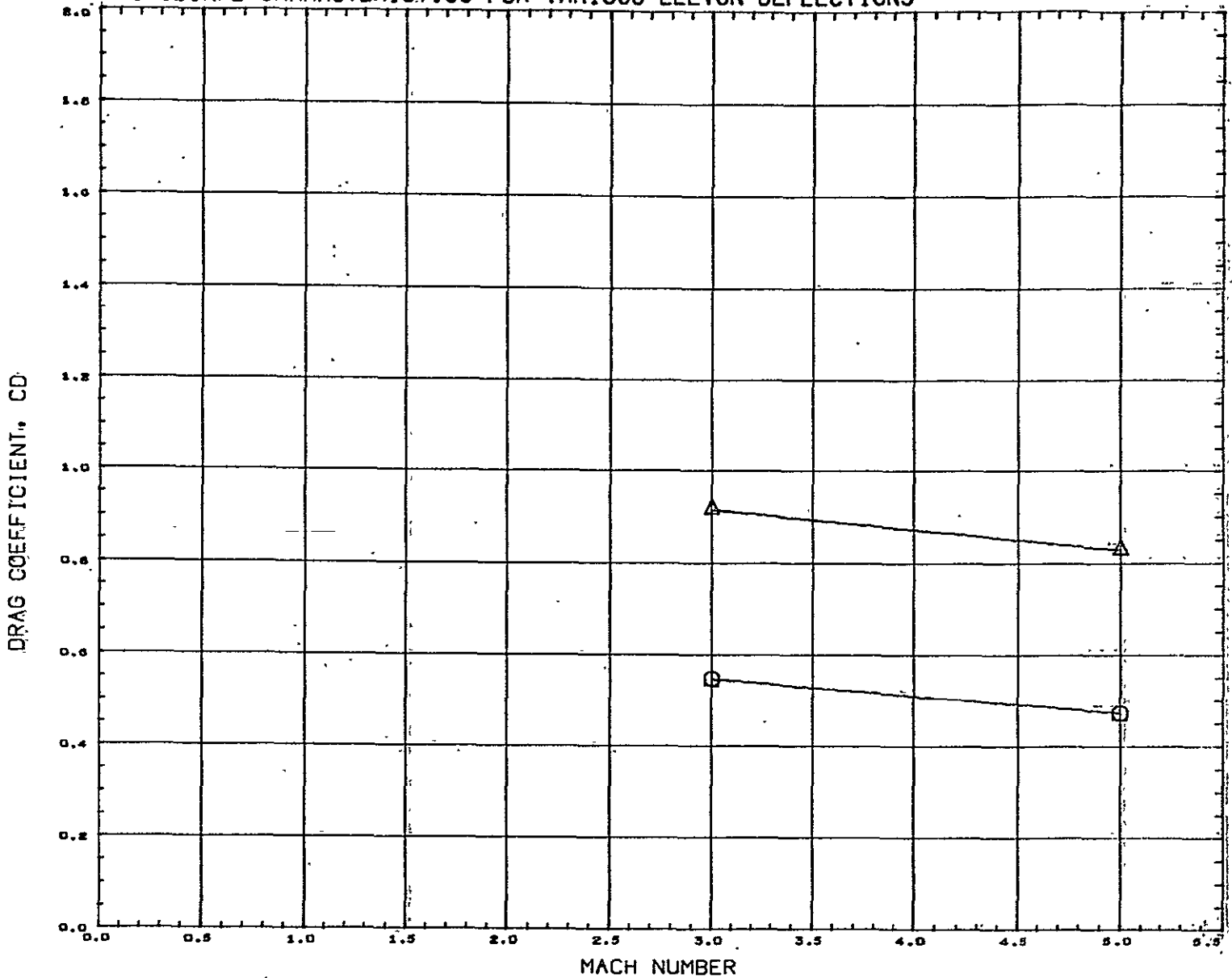


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	30.000	0.000	DEL	- 60.000	
△	40.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

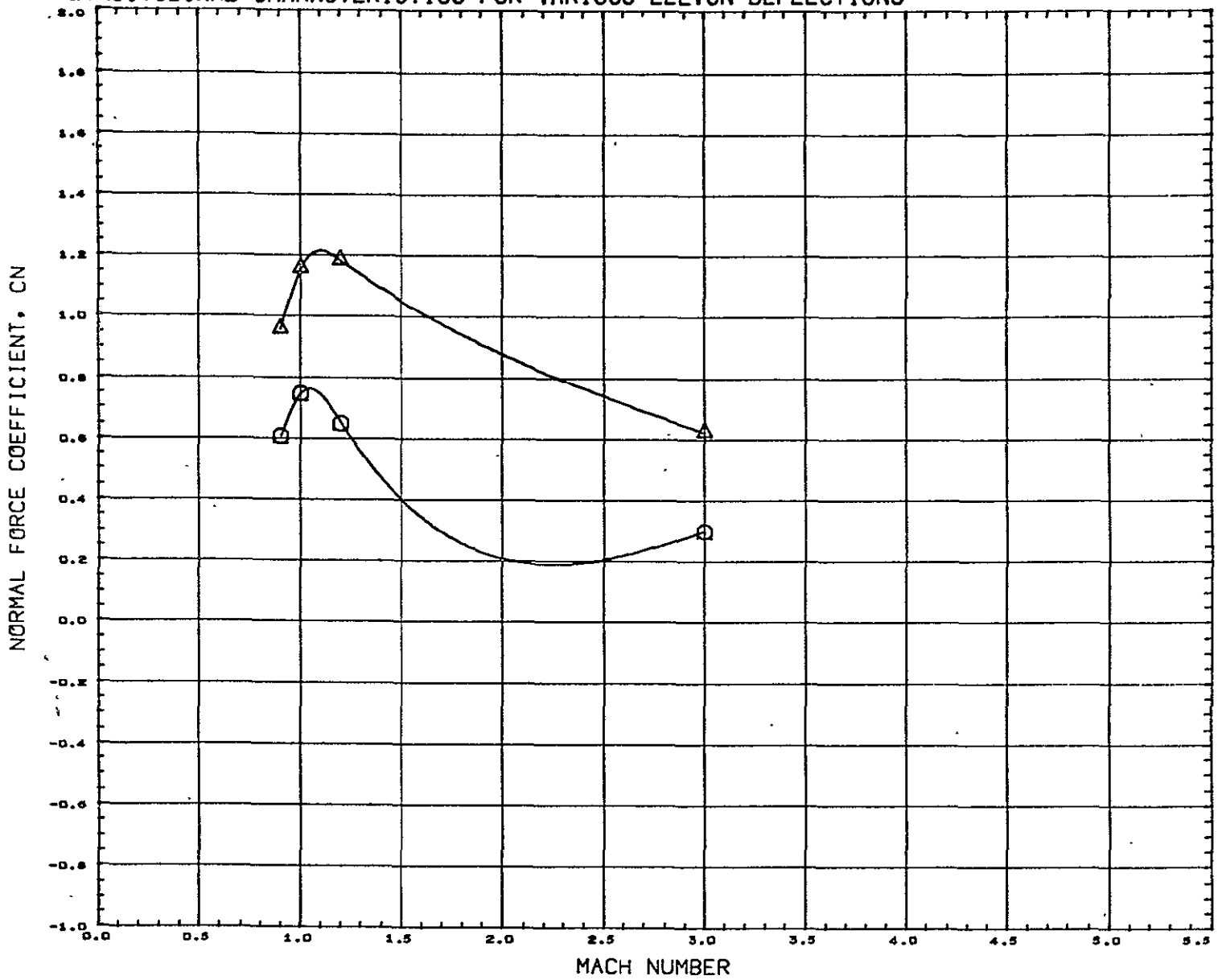


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	30.000		DEL	- 60.000'	
△	40.000	DER	- 60.000	DCL	0.000
		OCR	0.000	ELEVON	- 60.000'
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100'	IN.
YMRP	0.0000'	IN.
ZMRP	0.0000'	IN.
SCALE	0.0035'	

DATA HIST. CODE MVR#E1

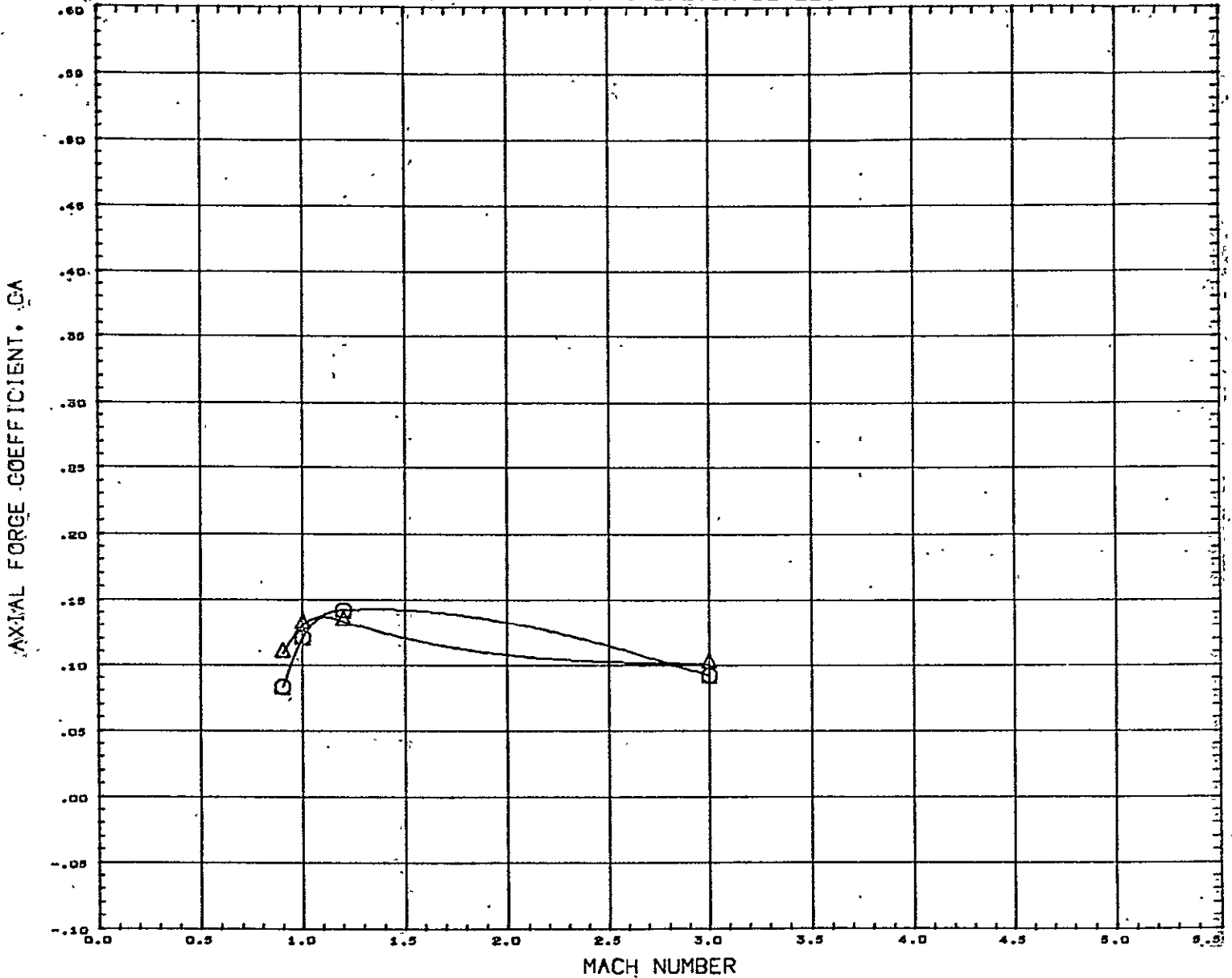
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
	10.000	BETA	0.000	DEL	10.000
○	20.000	DER	10.000	DCL	0.000
△		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILRON	0.000
	DATA HIST. CODE	MVR#E1			

REFERENCE INFORMATION		
SREF	15.8560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

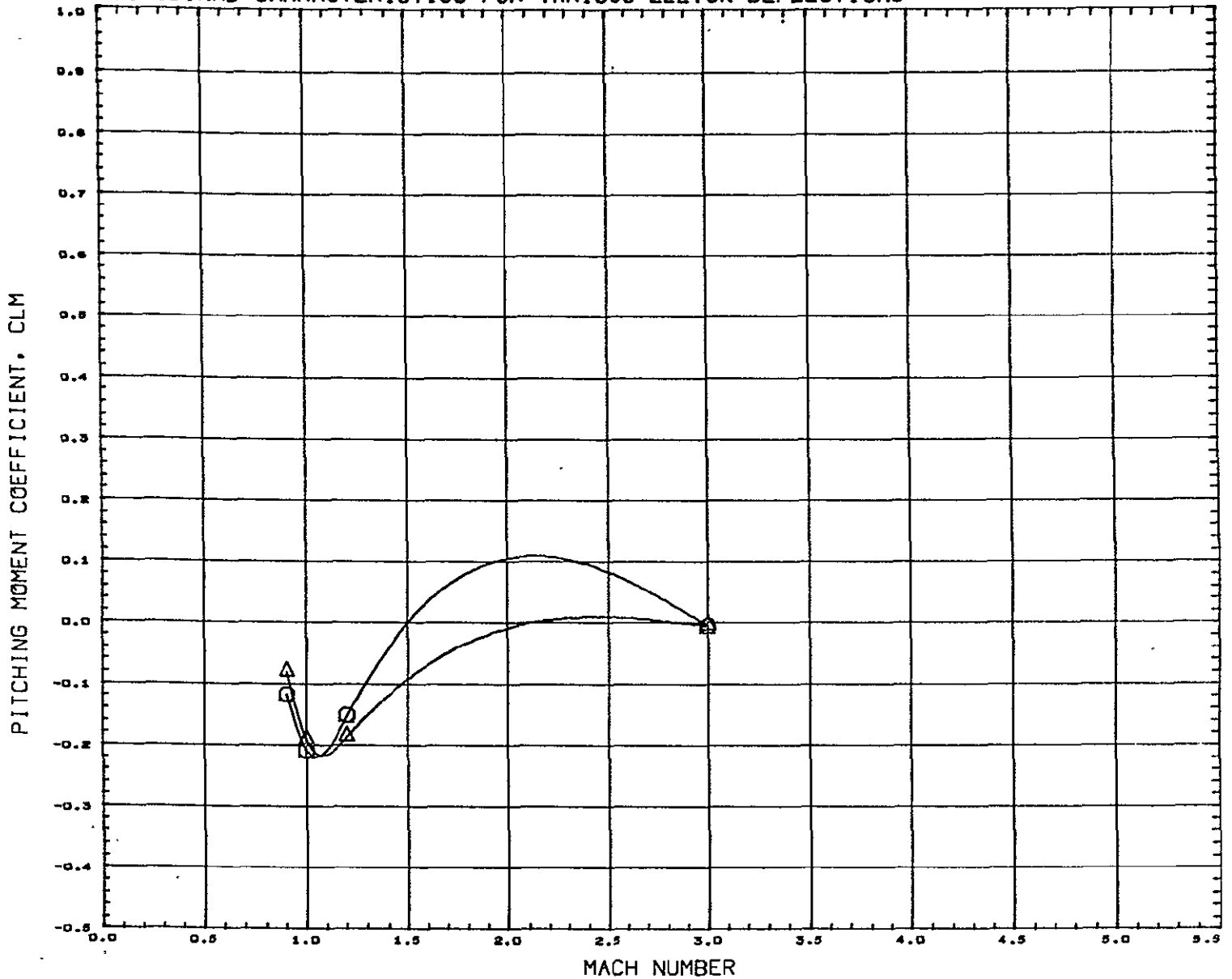


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE ; MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

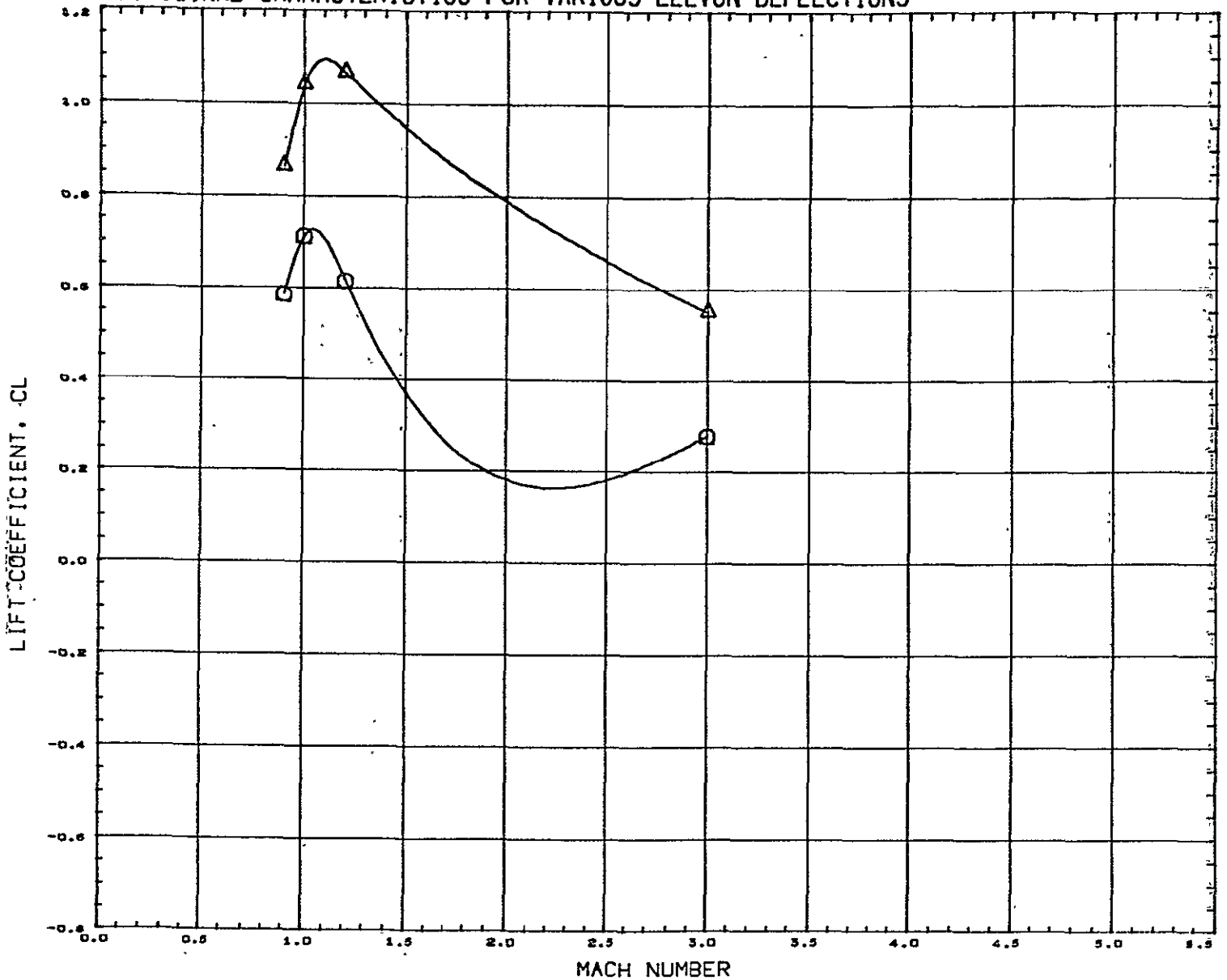


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI

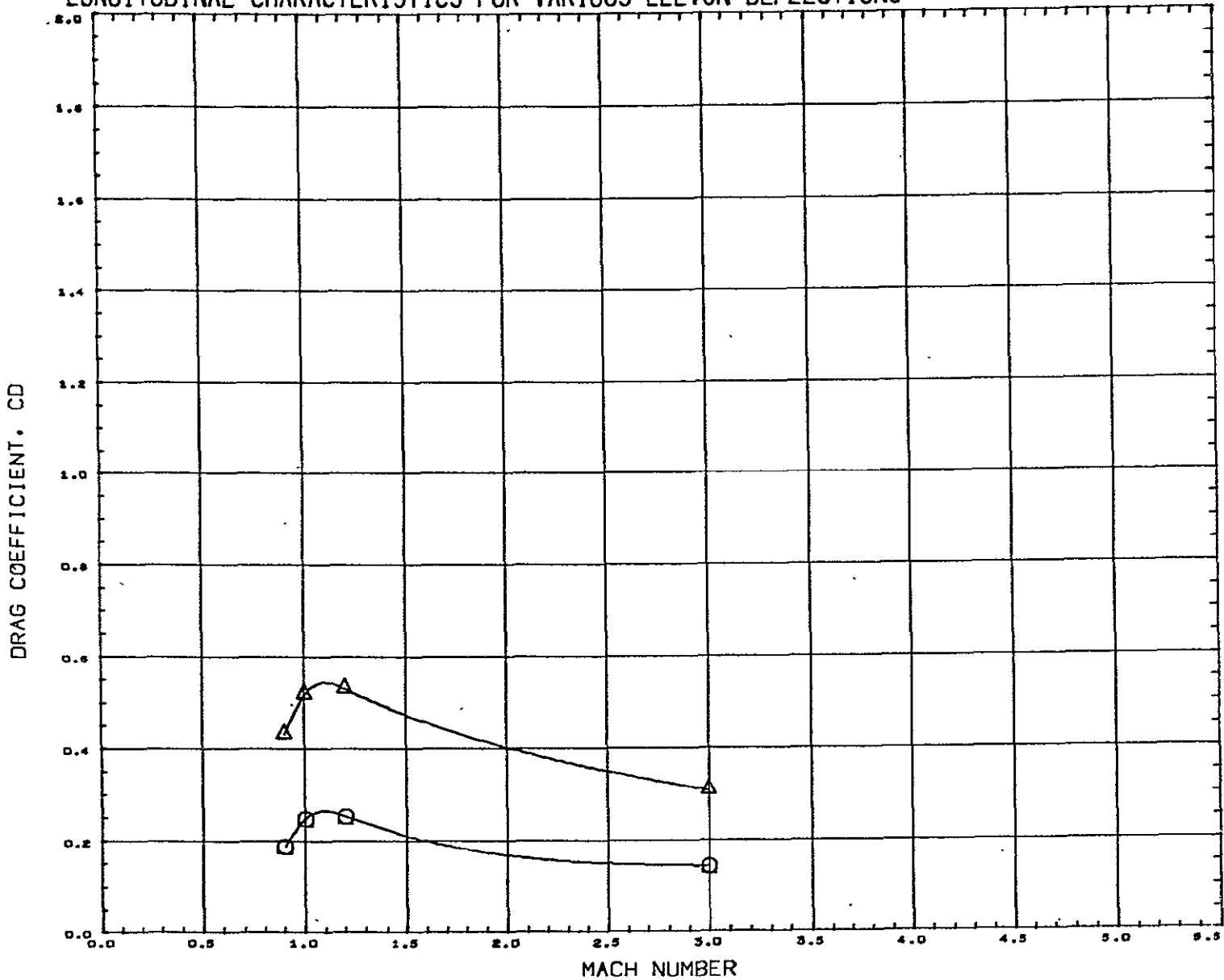
LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILERON	0.000
DATA HIST. CODE		MVR*E1			

REFERENCE INFORMATION		
SREF	15.6560	90 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS FOR VARIOUS ELEVON DEFLECTIONS

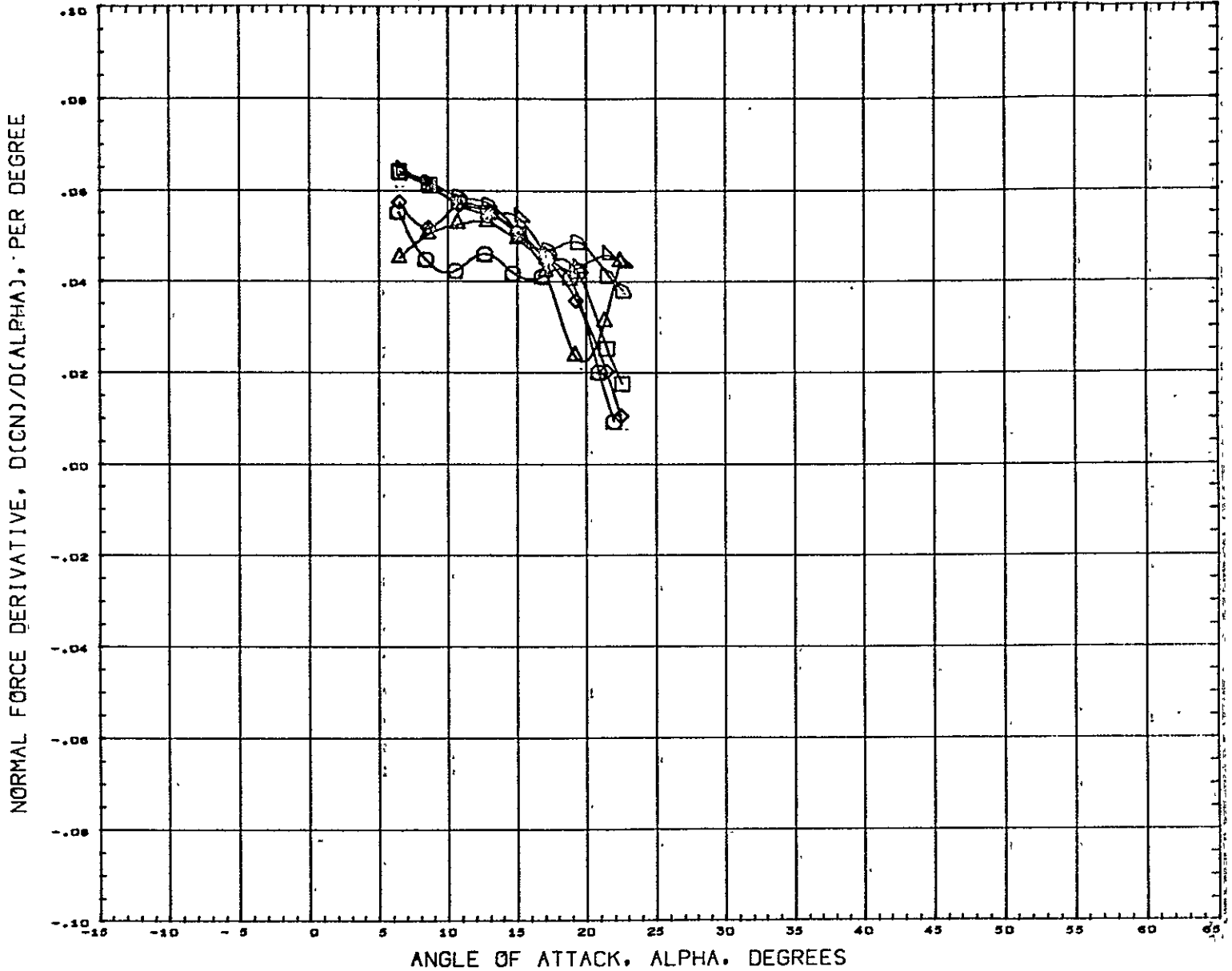


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES			
○	10.000		DEL	10.000		
△	20.000		DCL	0.000		
		DCR	0.000	ELEVON	10.000	
		CANARD	0.000	AILRON	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

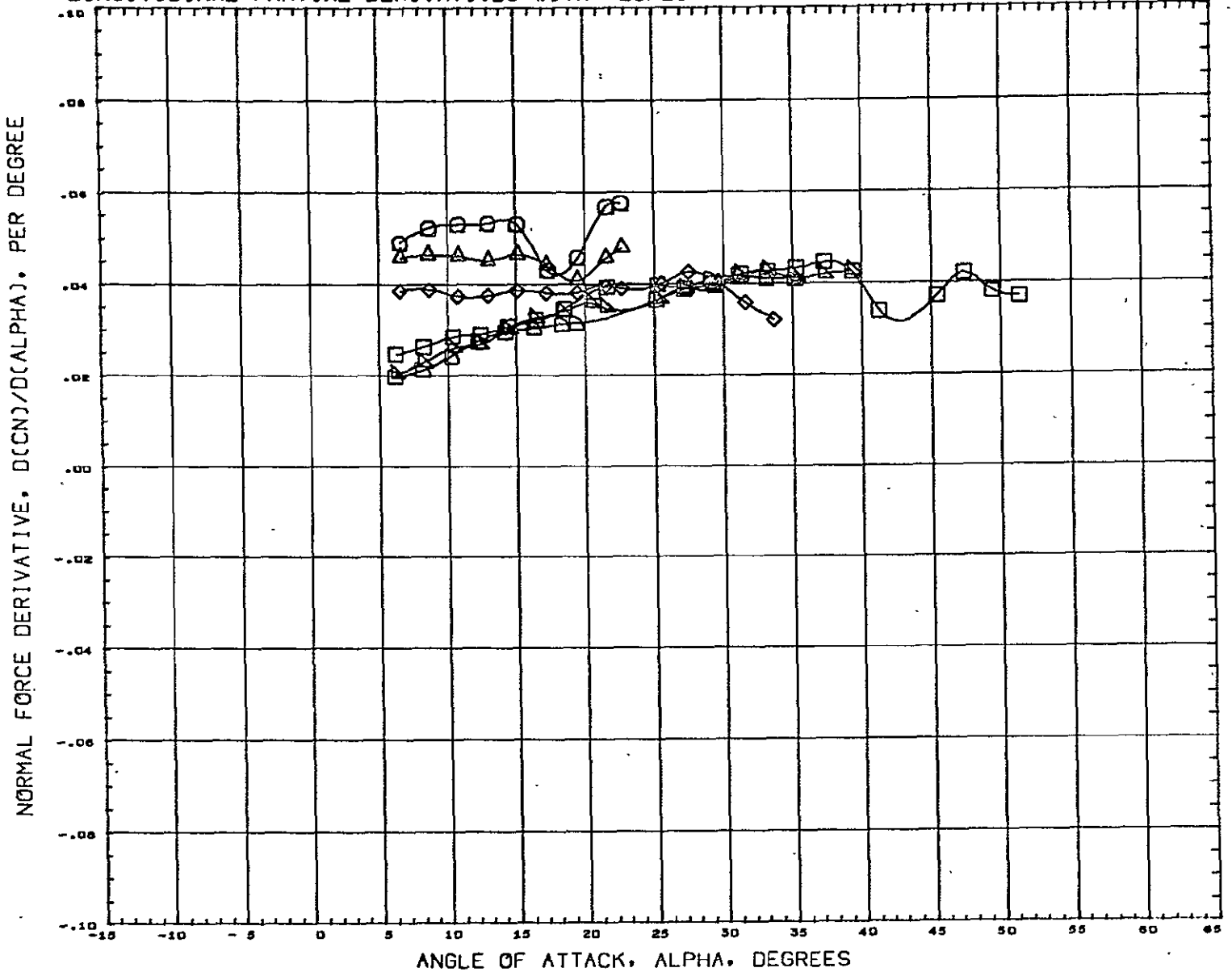
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	DEL	DCL	ELEVON	AIRLON	SREF	LREF	BREF
◇	0.607	0.000	0.000	0.000	0.000	15.6560	3.0950	6.0990	30. IN.
□	0.900	0.000	0.000	0.000	0.000	6.7100'	0.0000'	0.0000'	IN.
△	0.954	0.000	0.000	0.000	0.000	0.0039'			IN.
○	1.007	0.000	0.000	0.000	0.000				IN.
×	1.051	0.000	0.000	0.000	0.000				IN.
◇	1.105	DATA HIST. CODE	MVR#*GG						

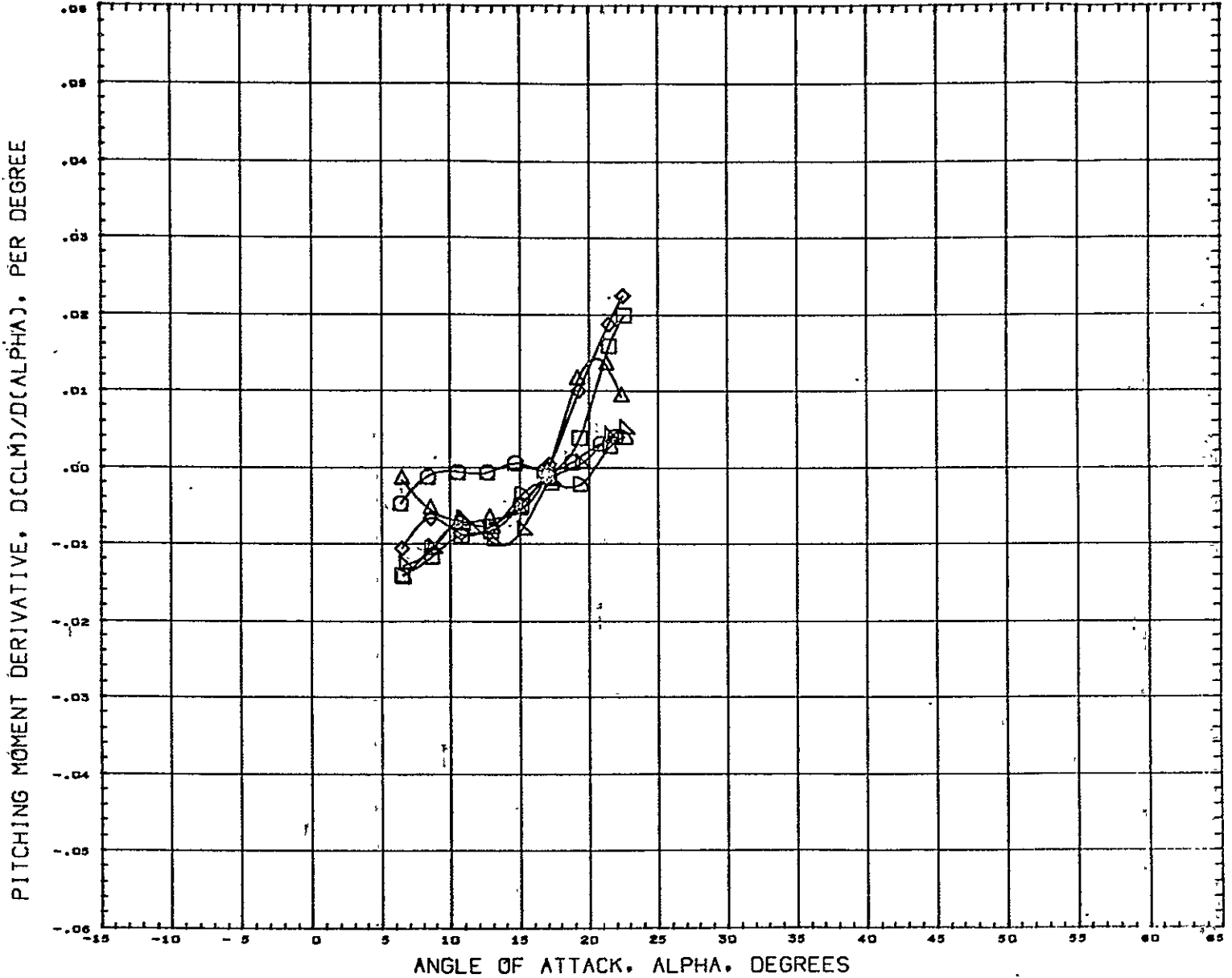
MSFC481 GD/C(B00STER)B19W14C4AV7

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	SREF	IN.	50. IN.
○	1.201	0.000	0.000	0.000	0.000	15.6560	50. IN.	
△	1.462	0.000	0.000	0.000	0.000	3.0930	IN.	
◇	1.938	0.000	0.000	0.000	0.000	6.0990	IN.	
□	2.990	0.000	0.000	0.000	0.000	6.7100	IN.	
▽	4.000	0.000	0.000	0.000	0.000	0.0000	IN.	
◇	4.960	DATA HIST. CODE	MVR#E9GG			ZMRP	0.0000	IN.
						SCALE	0.0035	

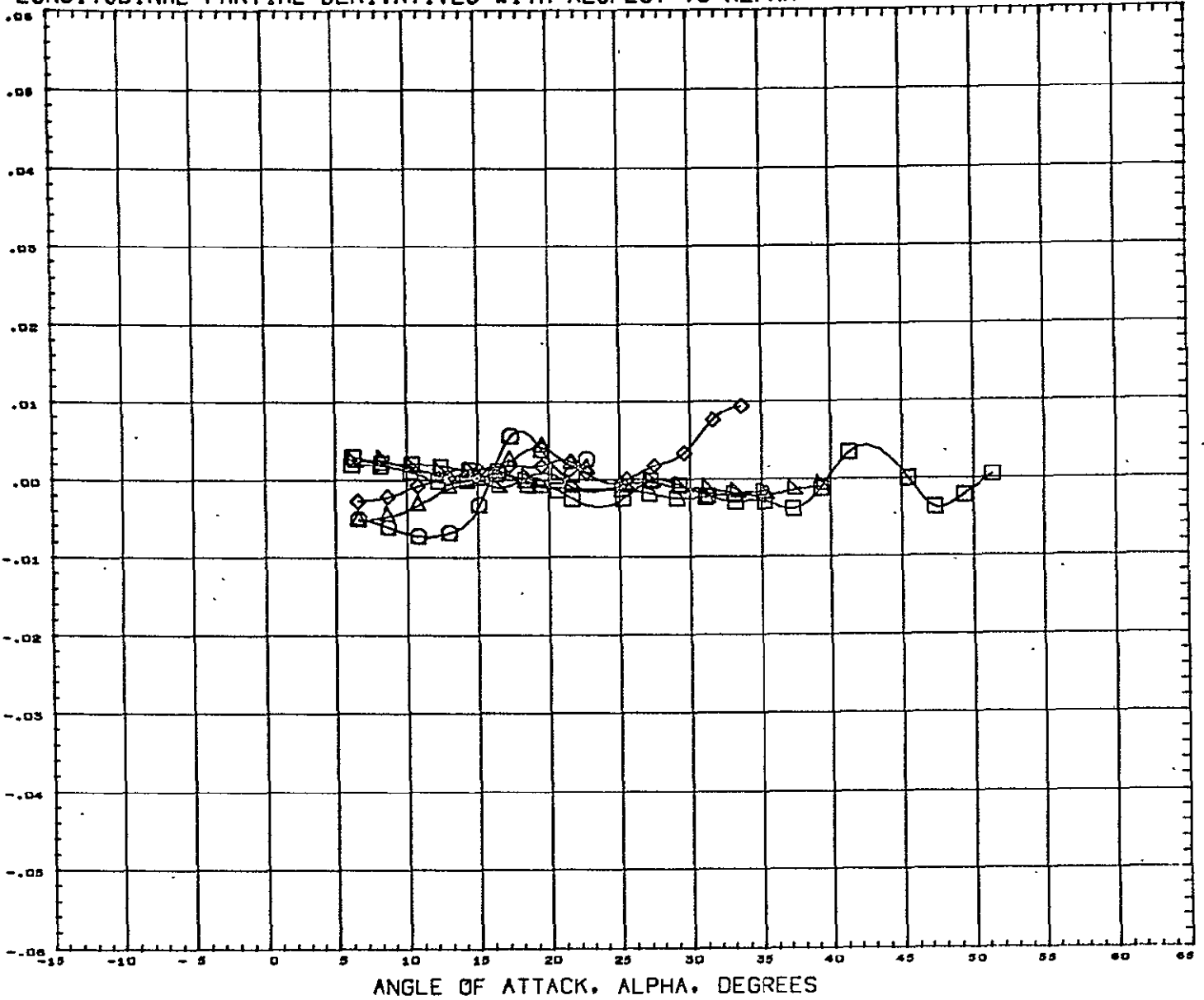
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	D'CL	ELEVON	AILRON	SREF	LREF
□	0.607	0.000	0.000	0.000	0.000	15.6560	3.0950	6.0990
◇	0.900	0.000	0.000	0.000	0.000	50. IN.	IN.	IN.
◇	0.954	0.000	0.000	0.000	0.000	IN.	IN.	IN.
△	1.007	0.000	0.000	0.000	0.000	6.7100	0.0000	0.0000
△	1.051	0.000	0.000	0.000	0.000	IN.	IN.	IN.
□	1.105	DATA HIST. CODE	MVR#E*66			ZMRP	0.0000	0.0035
						SCALE		

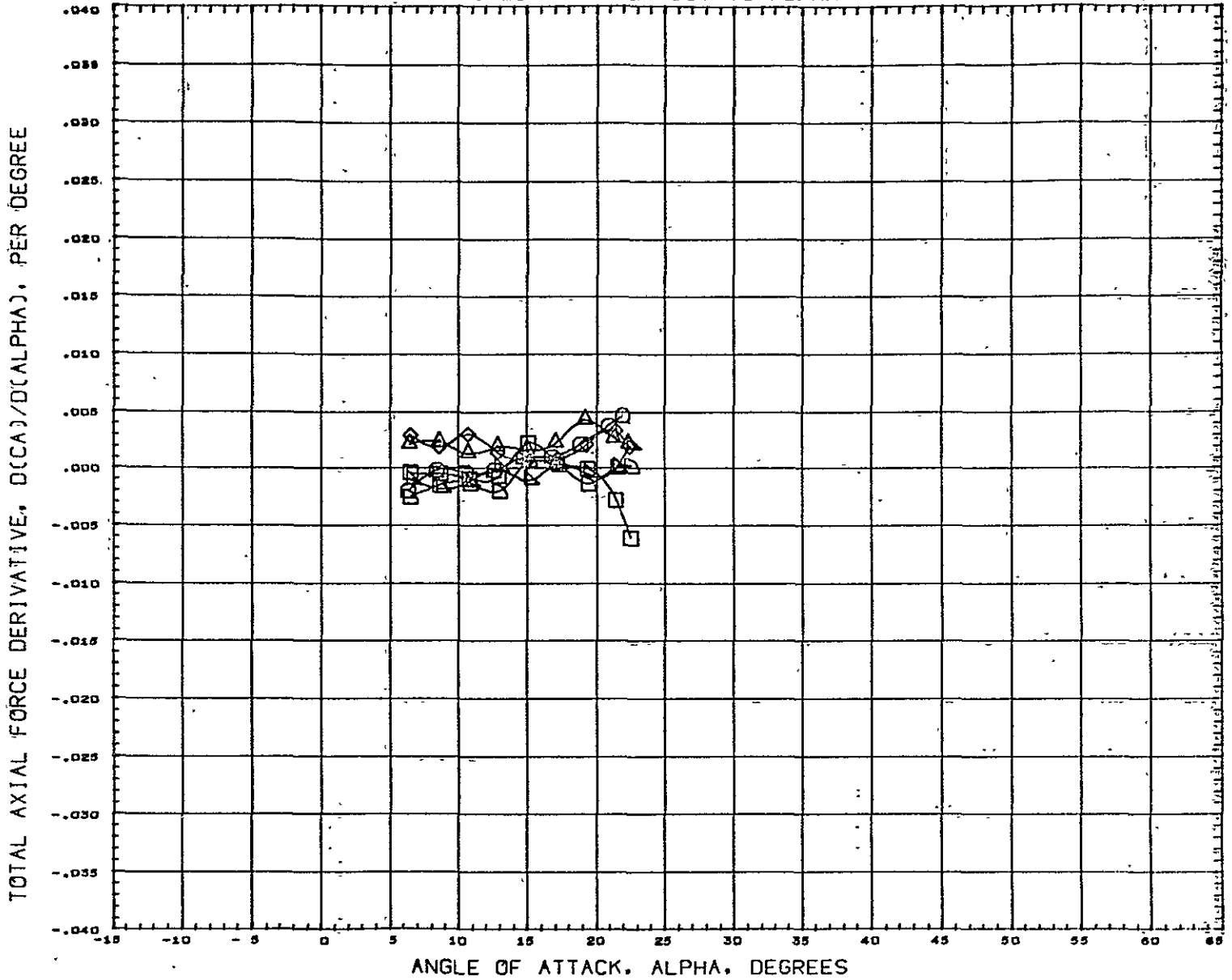
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

PITCHING MOMENT DERIVATIVE, $d(C_{LM})/d(\text{ALPHA})$, PER DEGREE



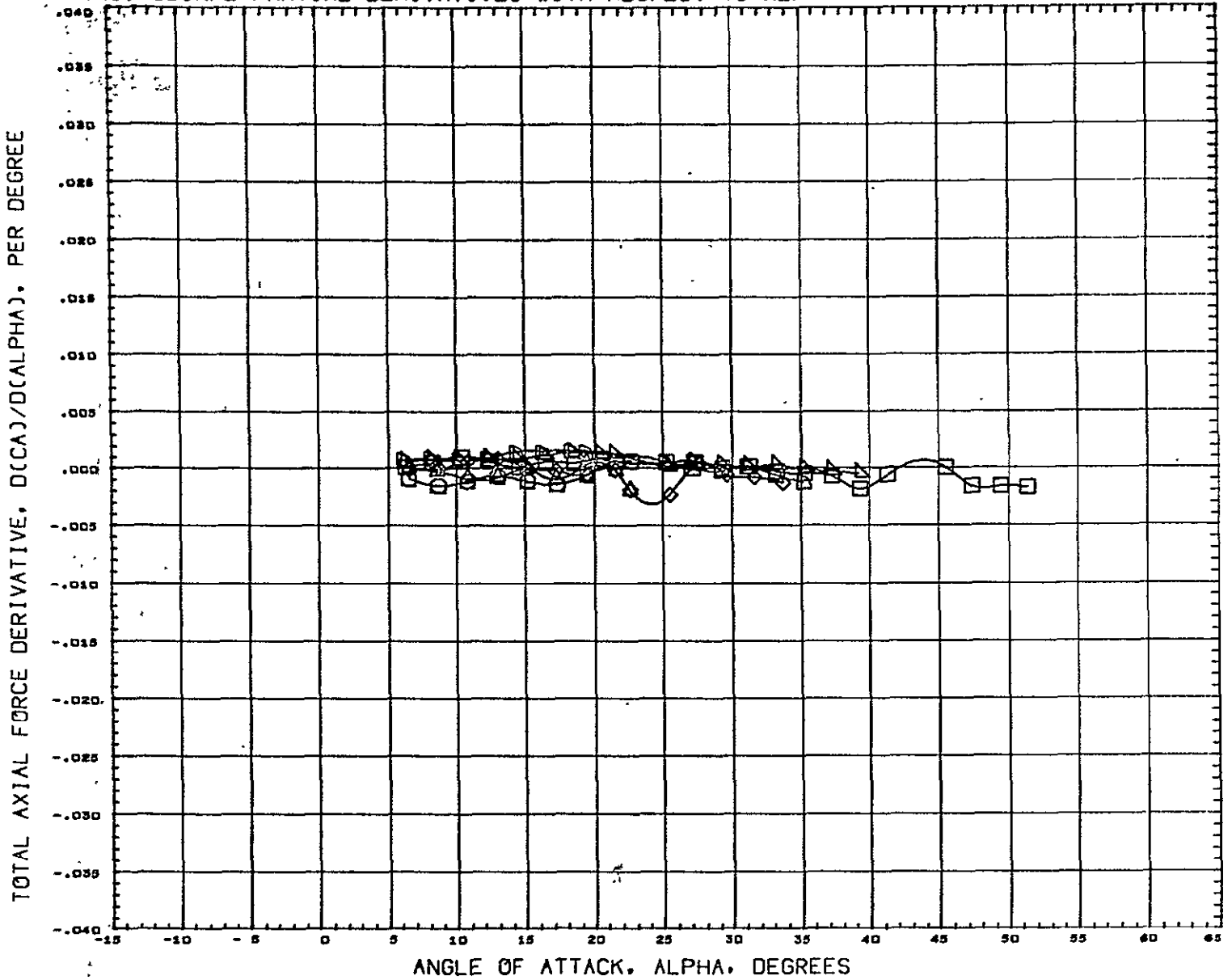
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
□	1.201	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
◇	1.462	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	1.958	DCR	0.000	ELEVON	0.000	SREF	6.0990	IN.
◇	2.990	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◇	4.000					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	MVR#E#GG			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



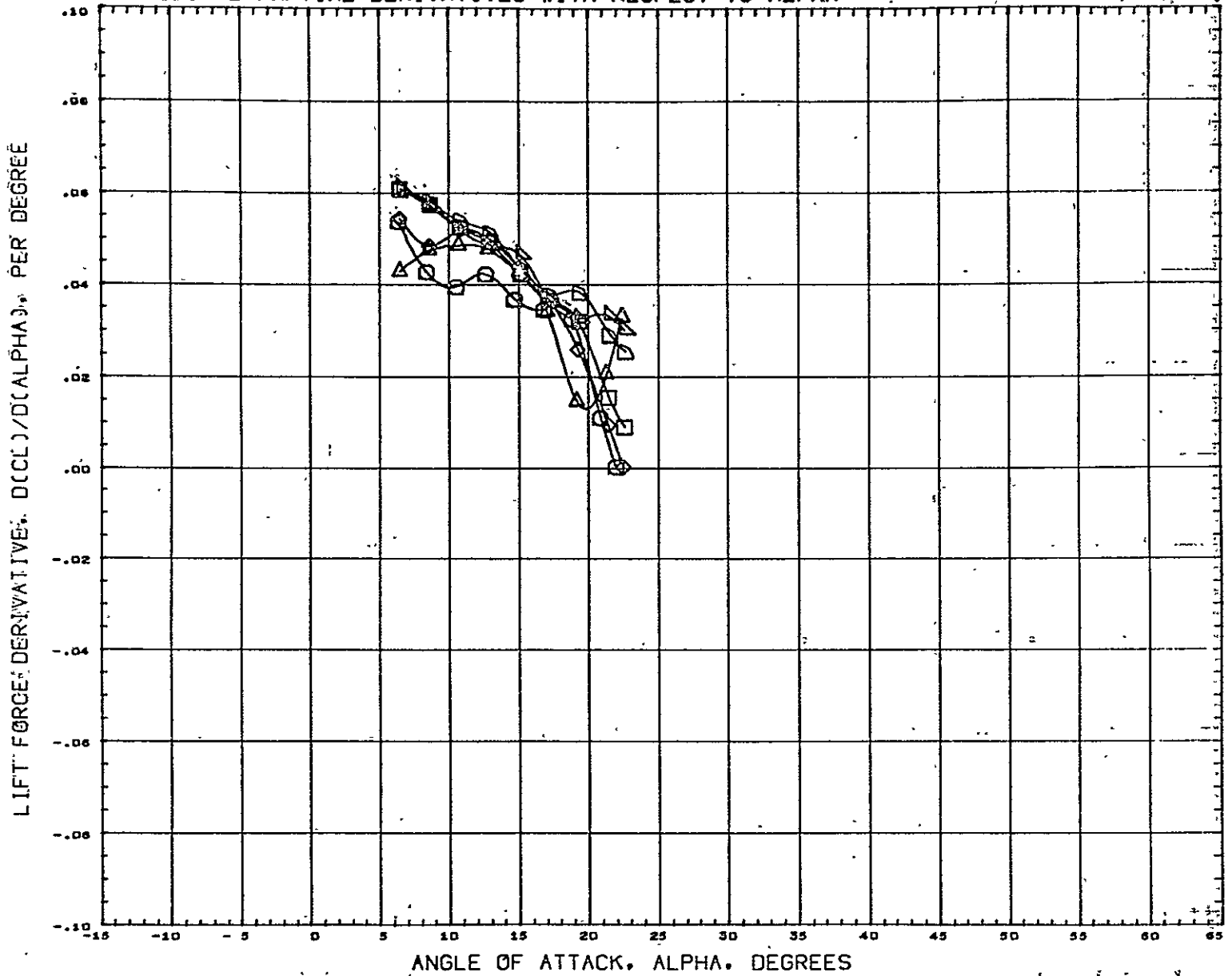
SYMBOL	MACH		PARAMETRIC VALUES			REFERENCE INFORMATION		
◇	0.607	BETA	0.000	DEL	0.000	SREF	15.6560	50 IN.
△	0.900	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	0.954	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
◇	1.007	CANARD	0.000	AILERON	0.000	XMRP	6.7100	IN.
◇	1.051					YMRP	0.0000	IN.
◇	1.109	DATA HIST. CODE	MVR#E*GG			ZMRP	0.0000	IN.
						SCALE	0.0038	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
□	1.201	BETA	0.000	DEL	0.000	SREF	15.6560	SQ. IN.
◇	1.462	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	1.958	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
◇	2.990	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◇	4.000					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	MVR#E*GG			ZMRP	0.0000	IN.
						SCALE	0.0035	

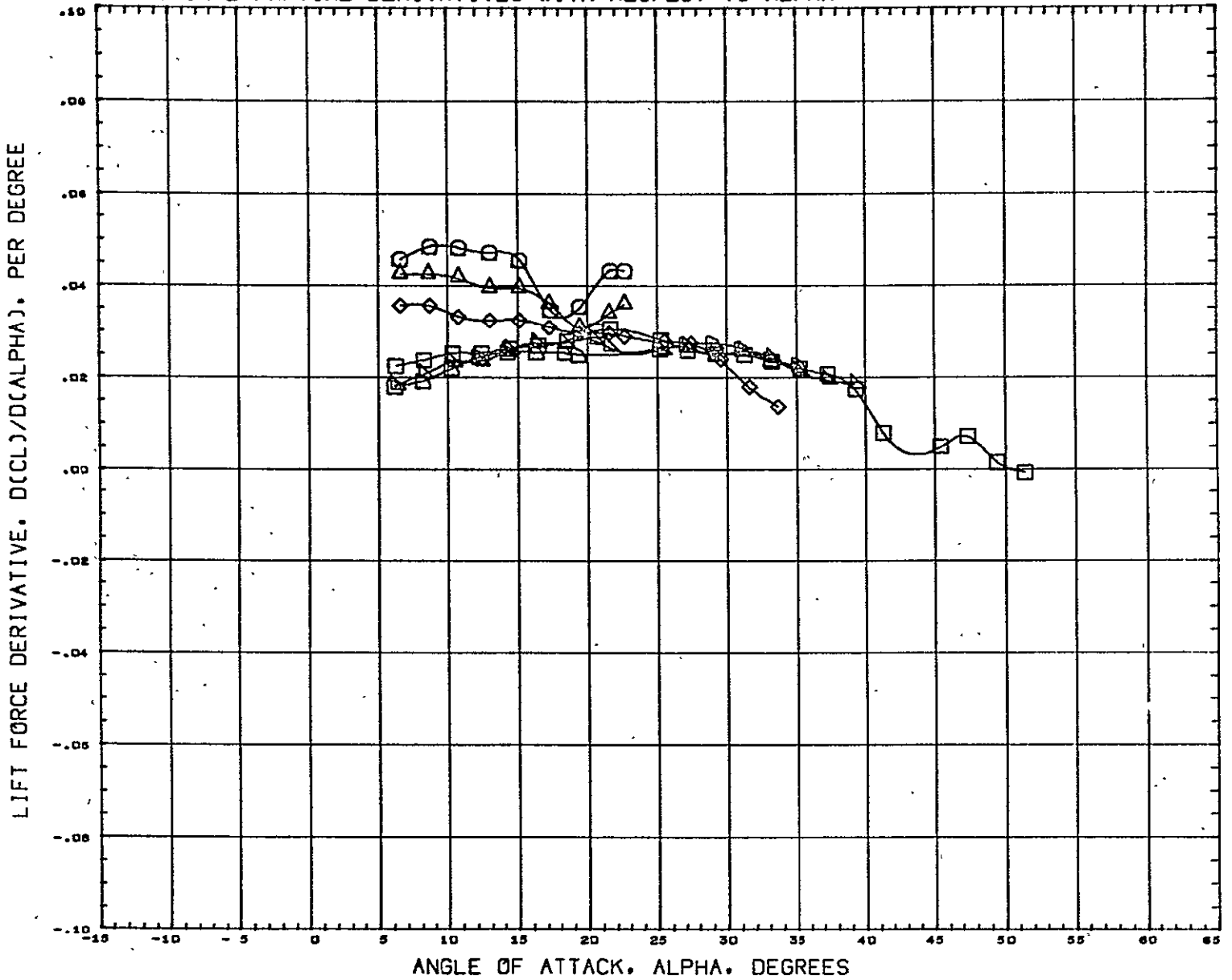
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES
○	0.607	BETA 0.000 DEL 0.000
□	0.900	DER 0.000 DCL 0.000
◇	0.954	DCR 0.000 ELEVON 0.000
△	1.007	CANARD 0.000 AIRLON 0.000
×	1.051	
	1.105	DATA HIST. CODE MVR#E#GG

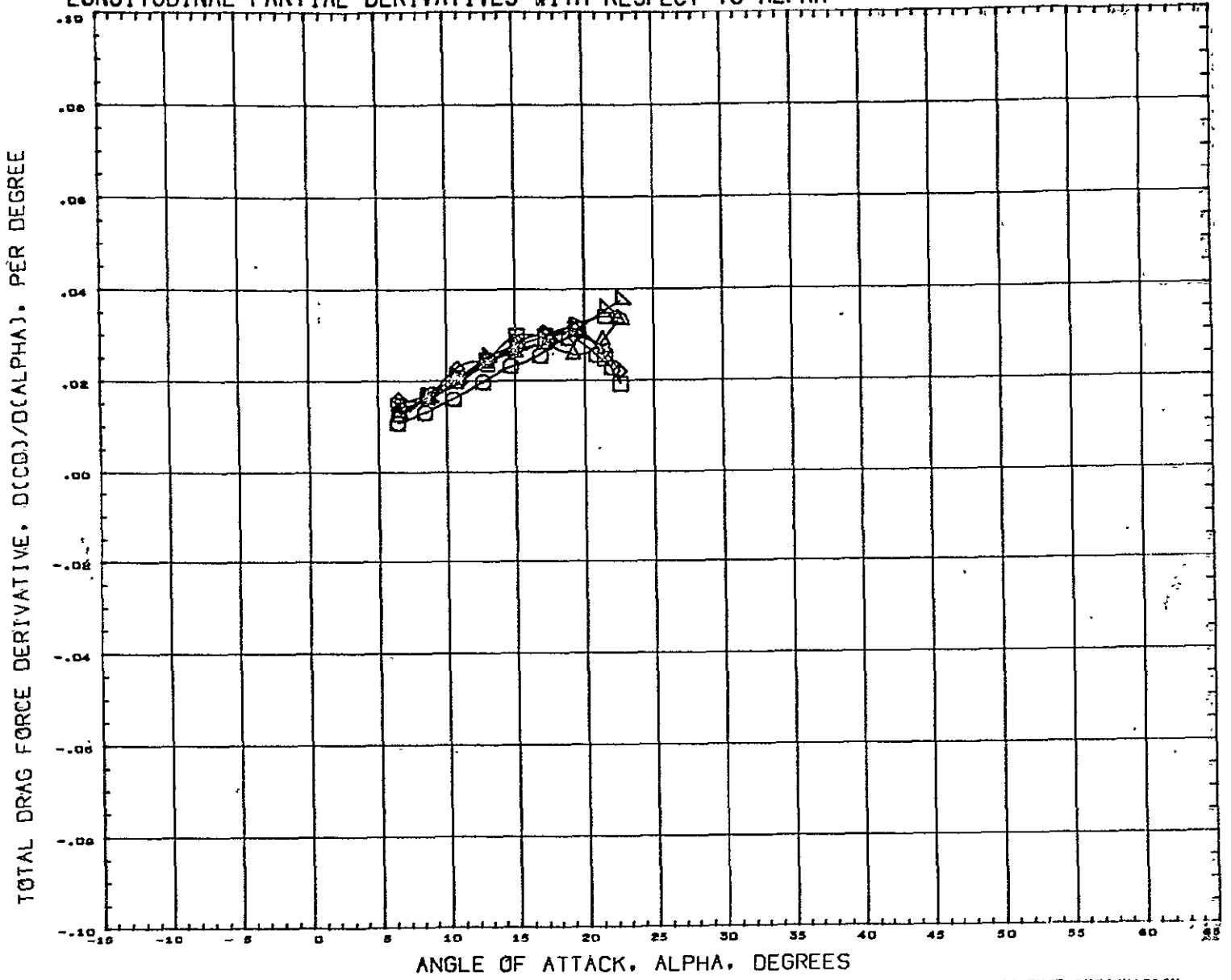
REFERENCE INFORMATION		
SREF	15.6560	IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	SRF	IN.	IN.
○	1.201	0.000	0.000	0.000	0.000	15.6560	50.	IN.
△	1.462	0.000	0.000	0.000	0.000	3.0950		IN.
◇	1.958	0.000	0.000	0.000	0.000	6.0990		IN.
□	2.990	0.000	0.000	0.000	0.000	6.7100		IN.
▽	4.000	0.000	0.000	0.000	0.000	0.0000		IN.
◇	4.960	0.000	0.000	0.000	0.000	0.0000		IN.
		DATA.HIST. CODE	MVR#E#GG			SCALE	0.0035	

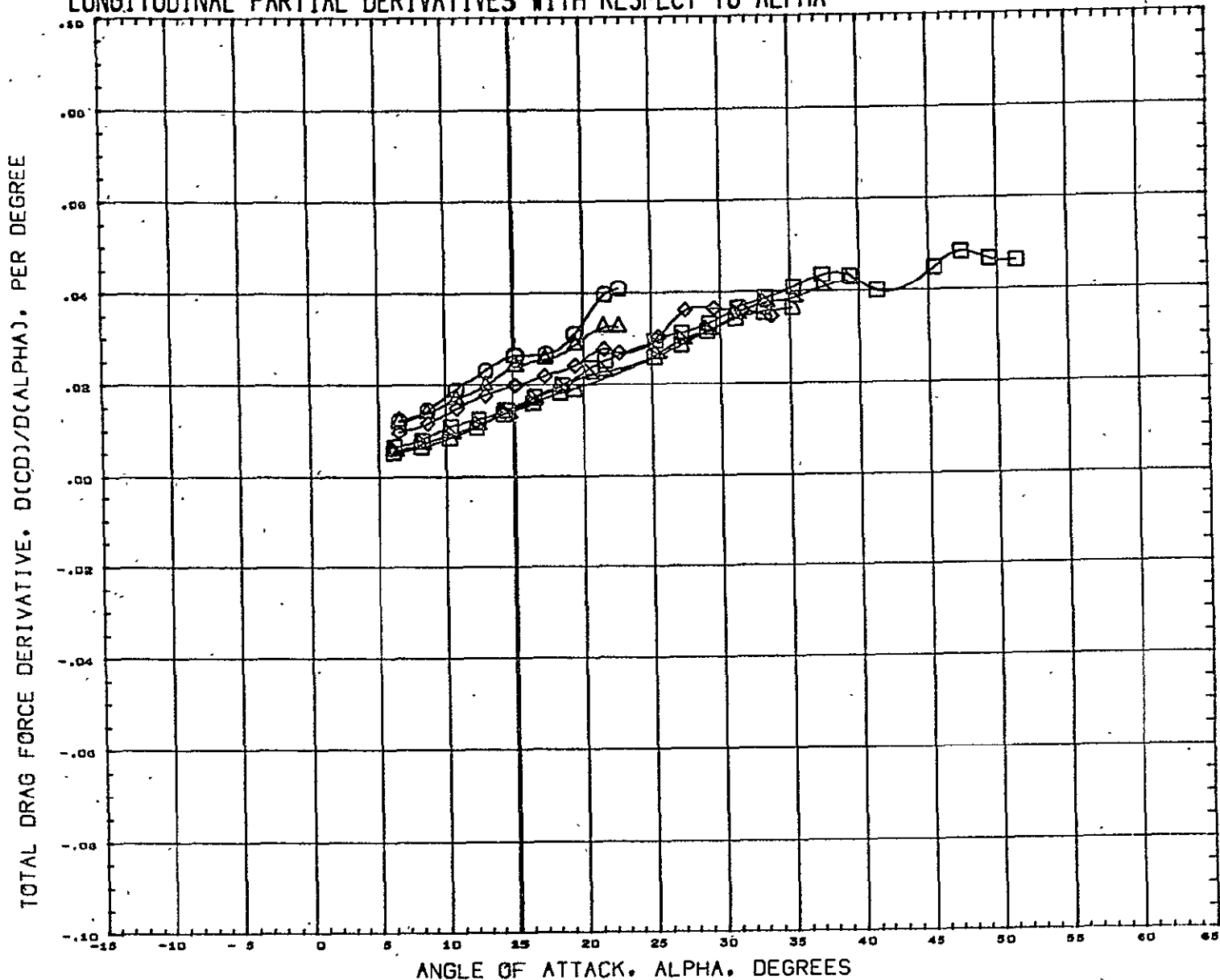
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.607	BETA	0.000	DEL	0.000
△	0.900	DER	0.000	DCL	0.000
◇	0.954	DCR	0.000	ELEVON	0.000
□	1.007	CANARD	0.000	AIRLON	0.000
▽	1.051				
◇	1.105	DATA HIST. CODE	MVR#E*GG		

REFERENCE INFORMATION		
SREF	15.6560	39 IN.
LREF	5.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0055	

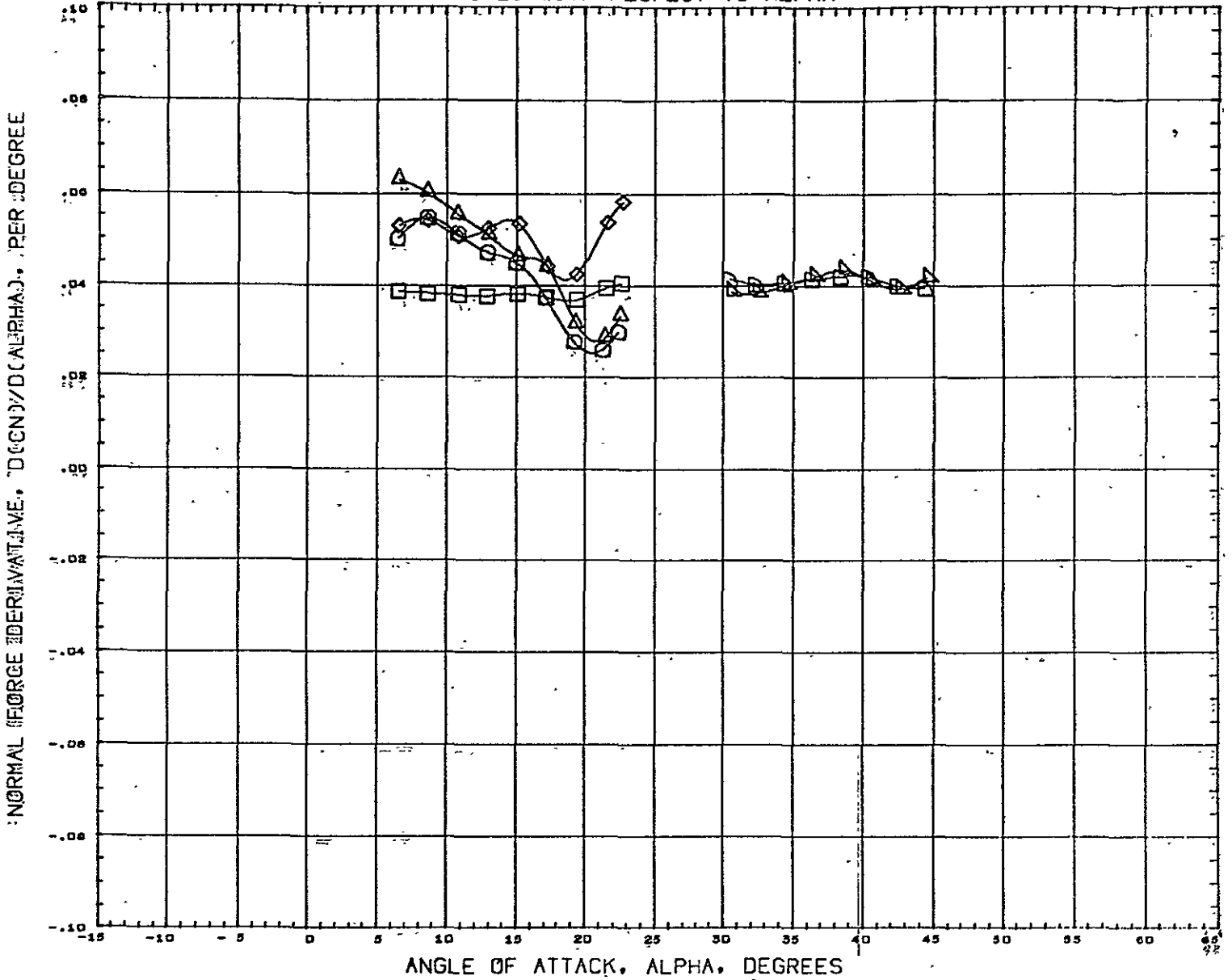
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES			
○	1.201	BETA	0.000	DEL	0.000
◇	1.462	DER	0.000	DCL	0.000
◇	1.956	DCR	0.000	ELEVON	0.000
◇	2.990	CANARD	0.000	AILRON	0.000
◇	4.000				
◇	4.960	DATA HIST. CODE	MVR#E*60		

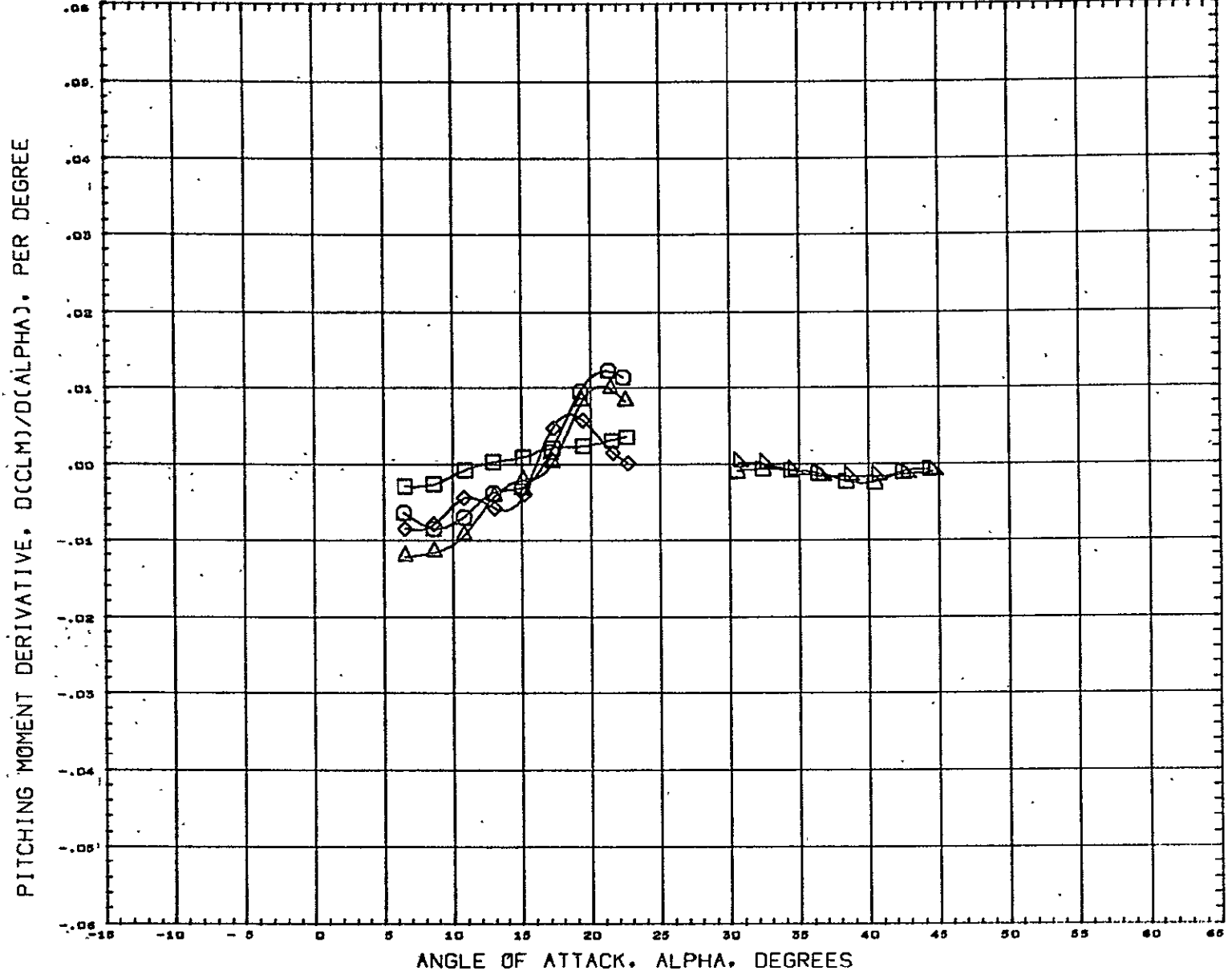
REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



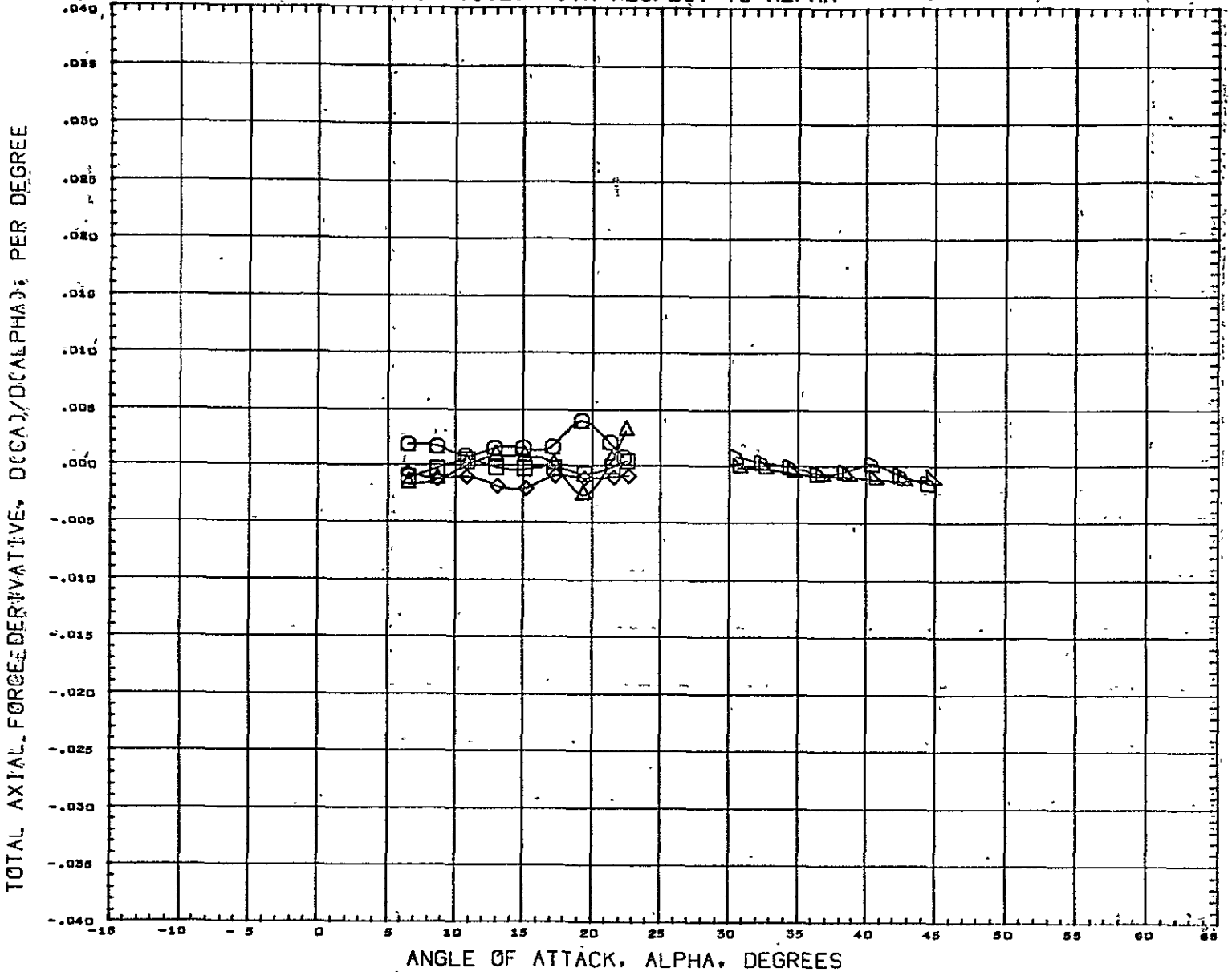
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	SREF	15.6560	30. IN.
◇	1.000	DER	-20.000	DCL	0.000	LREF	3.0950	IN.
△	1.206	OCR	0.000	ELEVON	-10.000	BREF	6.0990	IN.
◇	1.960	CANARD	0.000	AILRON	10.000	XHRP	6.7100	IN.
◇	2.990					YHRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	HVRRE#GG			ZHRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	SREF	15.6560	SQ. IN.
◇	1.000	DER	- 20.000	DCL	0.000	LREF	3.0950	IN.
△	1.206	DCR	0.000	ELEVON	- 10.000	BREF	6.0990	IN.
□	1.960	CANARD	0.000	AILRON	10.000	XMRP	6.7100	IN.
▽	2.990					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	MVR#E#GG			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	DEL	0.000
◇	1.000	DER	-20.000	DCL	0.000
◊	1.206	DCR	0.000	ELEVON	-10.000
◻	1.960	CANARD	0.000	AIRON	10.000
◼	2.990				
◽	4.960	DATA HIST. CODE	MVR*ERGG		

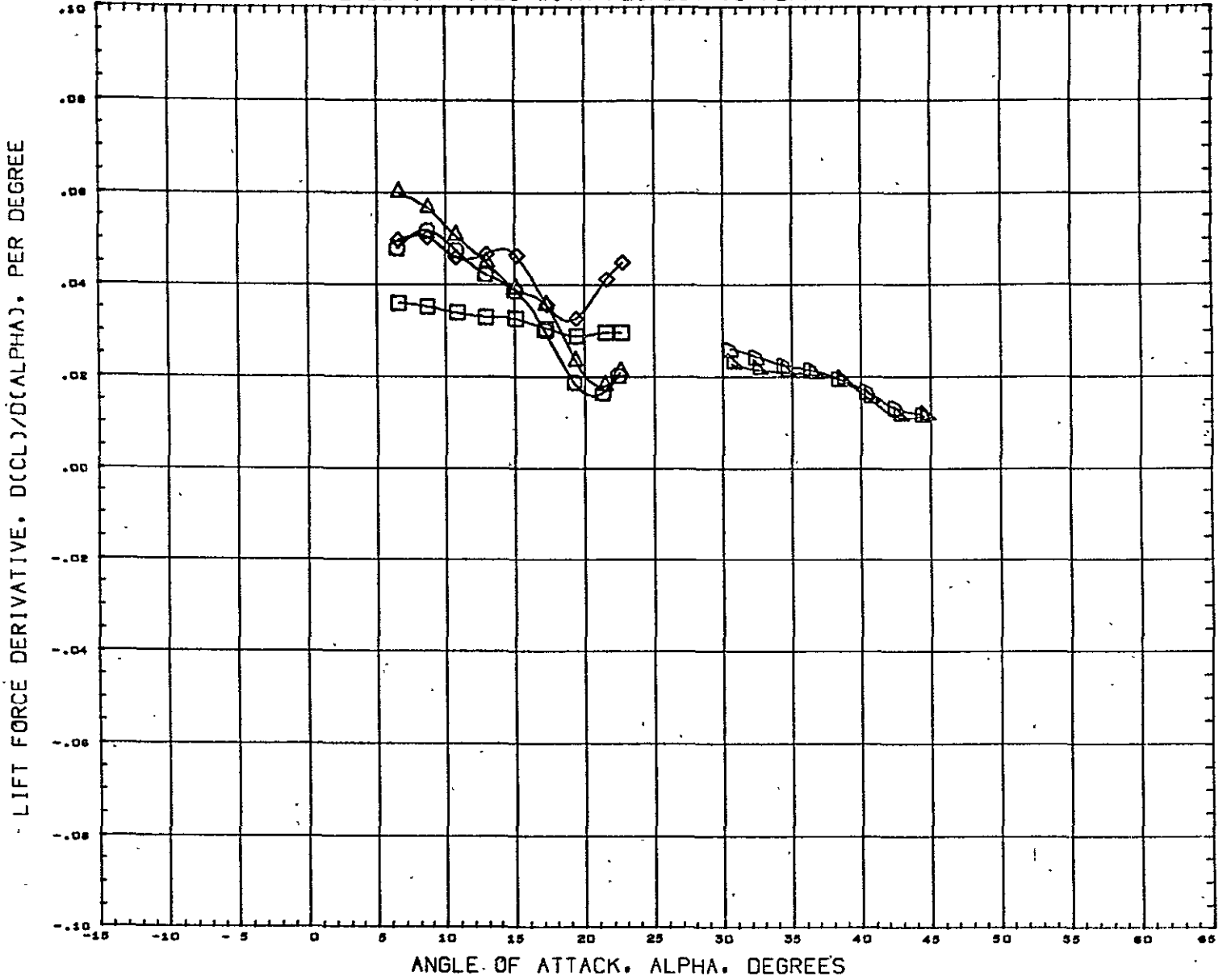
REFERENCE INFORMATION		
SREF	15.6560	58. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MSFC481 GD/(BOOSTER)B19W14C4AV7

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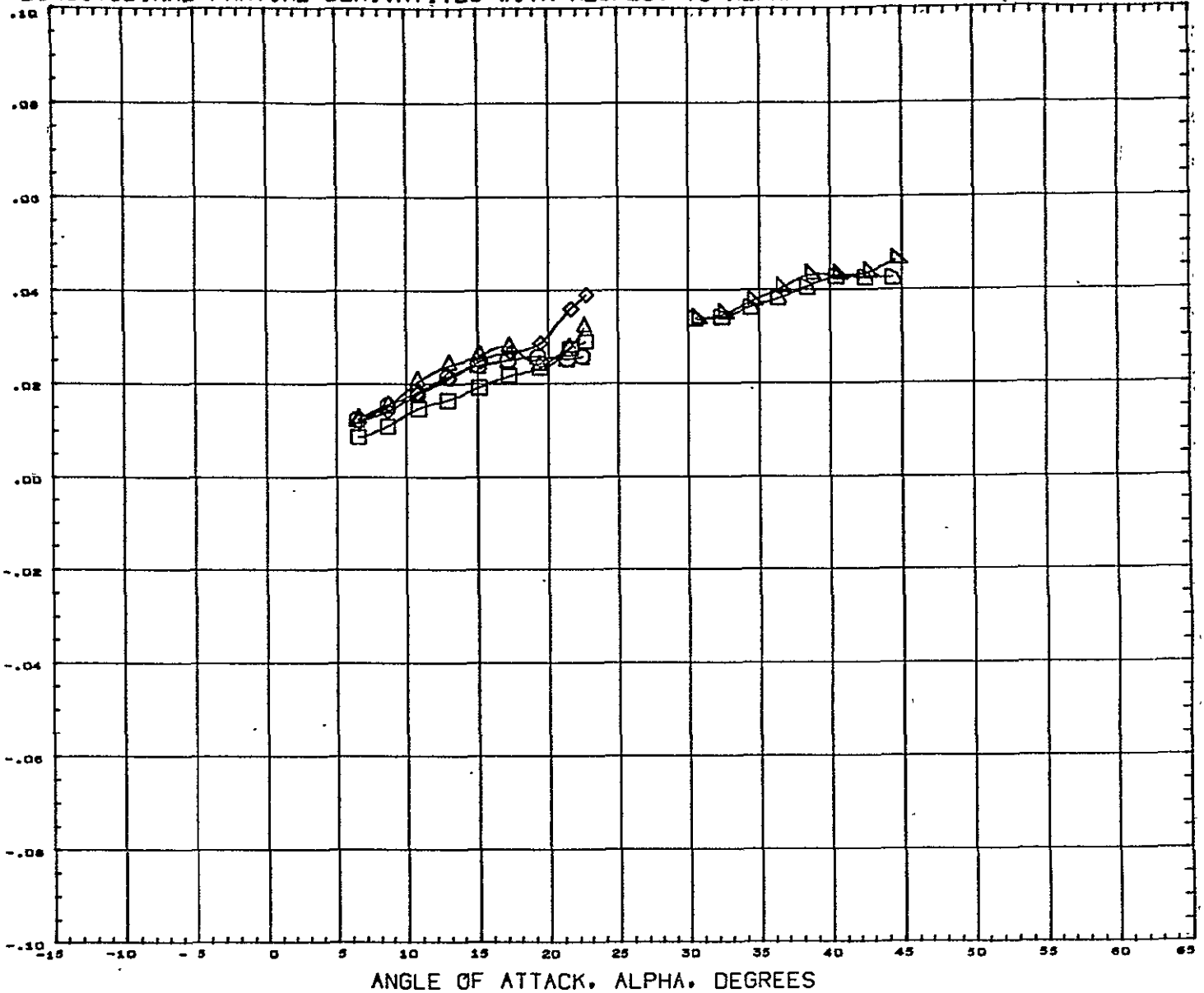
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION																																																					
<table border="0" style="font-size: small;"> <tr><td>○</td></tr> <tr><td>◇</td></tr> <tr><td>□</td></tr> <tr><td>△</td></tr> <tr><td>▽</td></tr> <tr><td>◇</td></tr> <tr><td>○</td></tr> </table>	○	◇	□	△	▽	◇	○	<table border="0" style="font-size: small;"> <tr><td>0.900</td></tr> <tr><td>1.000</td></tr> <tr><td>1.200</td></tr> <tr><td>1.900</td></tr> <tr><td>2.990</td></tr> <tr><td>4.960</td></tr> </table>	0.900	1.000	1.200	1.900	2.990	4.960	<table border="0" style="font-size: small;"> <tr><td>BETA</td><td>0.000</td><td>DEL</td><td>0.000</td></tr> <tr><td>DER</td><td>-20.000</td><td>DCL</td><td>0.000</td></tr> <tr><td>DCR</td><td>0.000</td><td>ELEVON</td><td>-10.000</td></tr> <tr><td>CANARD</td><td>0.000</td><td>AILRON</td><td>10.000</td></tr> <tr><td colspan="4">DATA HIST. CODE HVR#E*GG</td></tr> </table>	BETA	0.000	DEL	0.000	DER	-20.000	DCL	0.000	DCR	0.000	ELEVON	-10.000	CANARD	0.000	AILRON	10.000	DATA HIST. CODE HVR#E*GG				<table border="0"> <tr><td>SREF</td><td>15.0560</td><td>SQ. IN.</td></tr> <tr><td>LREF</td><td>3.0950</td><td>IN.</td></tr> <tr><td>BREF</td><td>6.0990</td><td>IN.</td></tr> <tr><td>XMRP</td><td>6.7100</td><td>IN.</td></tr> <tr><td>YMRP</td><td>0.0000</td><td>IN.</td></tr> <tr><td>ZMRP</td><td>0.0000</td><td>IN.</td></tr> <tr><td>SCALE</td><td>0.0035</td><td></td></tr> </table>			SREF	15.0560	SQ. IN.	LREF	3.0950	IN.	BREF	6.0990	IN.	XMRP	6.7100	IN.	YMRP	0.0000	IN.	ZMRP	0.0000	IN.	SCALE	0.0035	
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CANARD	0.000	AILRON	10.000																																																								
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LREF	3.0950	IN.																																																									
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XMRP	6.7100	IN.																																																									
YMRP	0.0000	IN.																																																									
ZMRP	0.0000	IN.																																																									
SCALE	0.0035																																																										

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

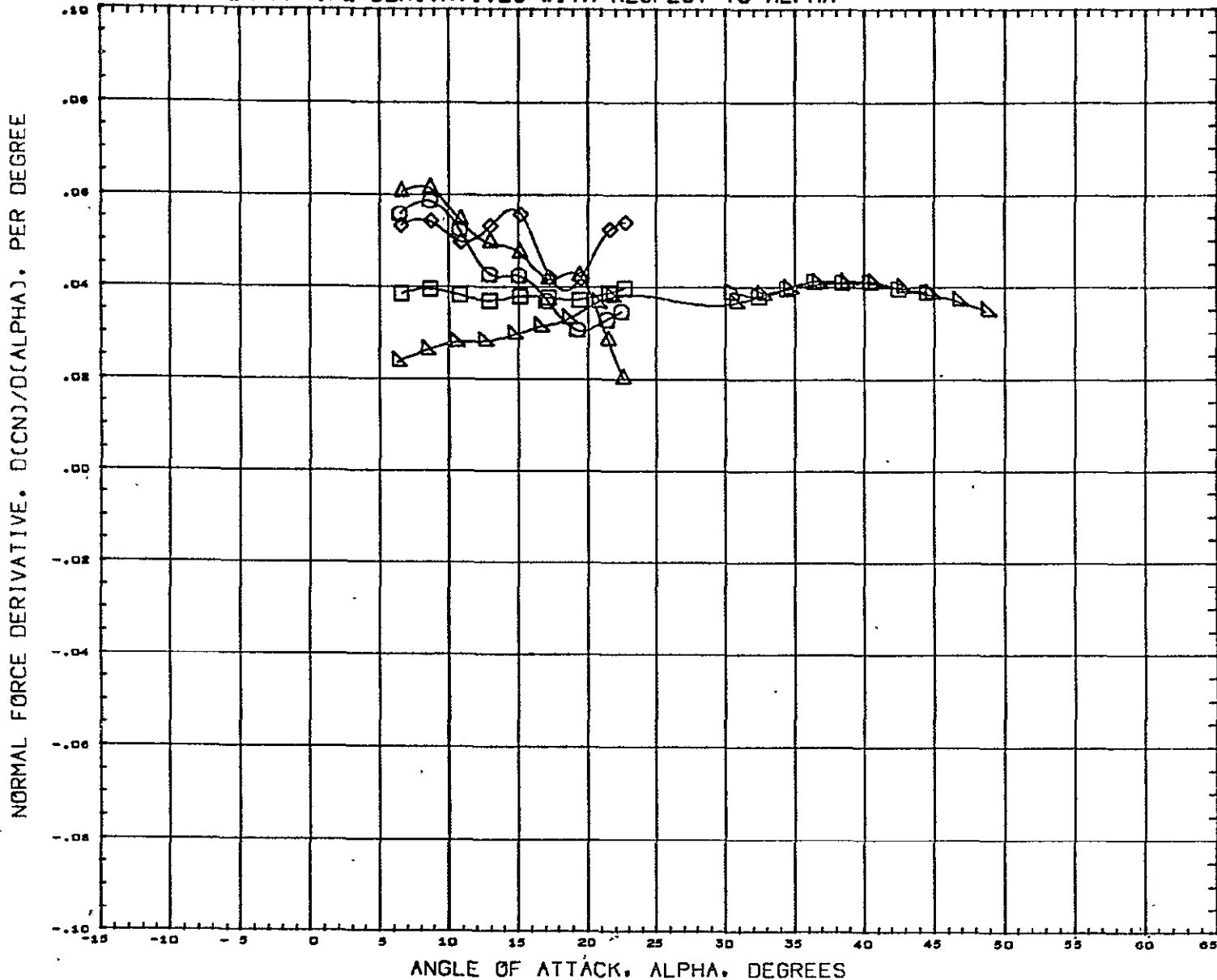
TOTAL DRAG FORCE DERIVATIVE, $D(CD)/D(\text{ALPHA})$, PER DEGREE



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	DEL	0.000
◇	1.000	DER	-20.000	DCL	0.000
◇	1.200	DCR	0.000	ELEVON	-10.000
◇	1.900	CANARD	0.000	AILRON	10.000
◇	4.900	DATA HIST. CODE	HVR*E*66		

REFERENCE INFORMATION ¹		
SREF	15.6500	50° IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000 ¹	IN.
ZMRP	0.0000 ¹	IN.
SCALE	0.0035 ¹	

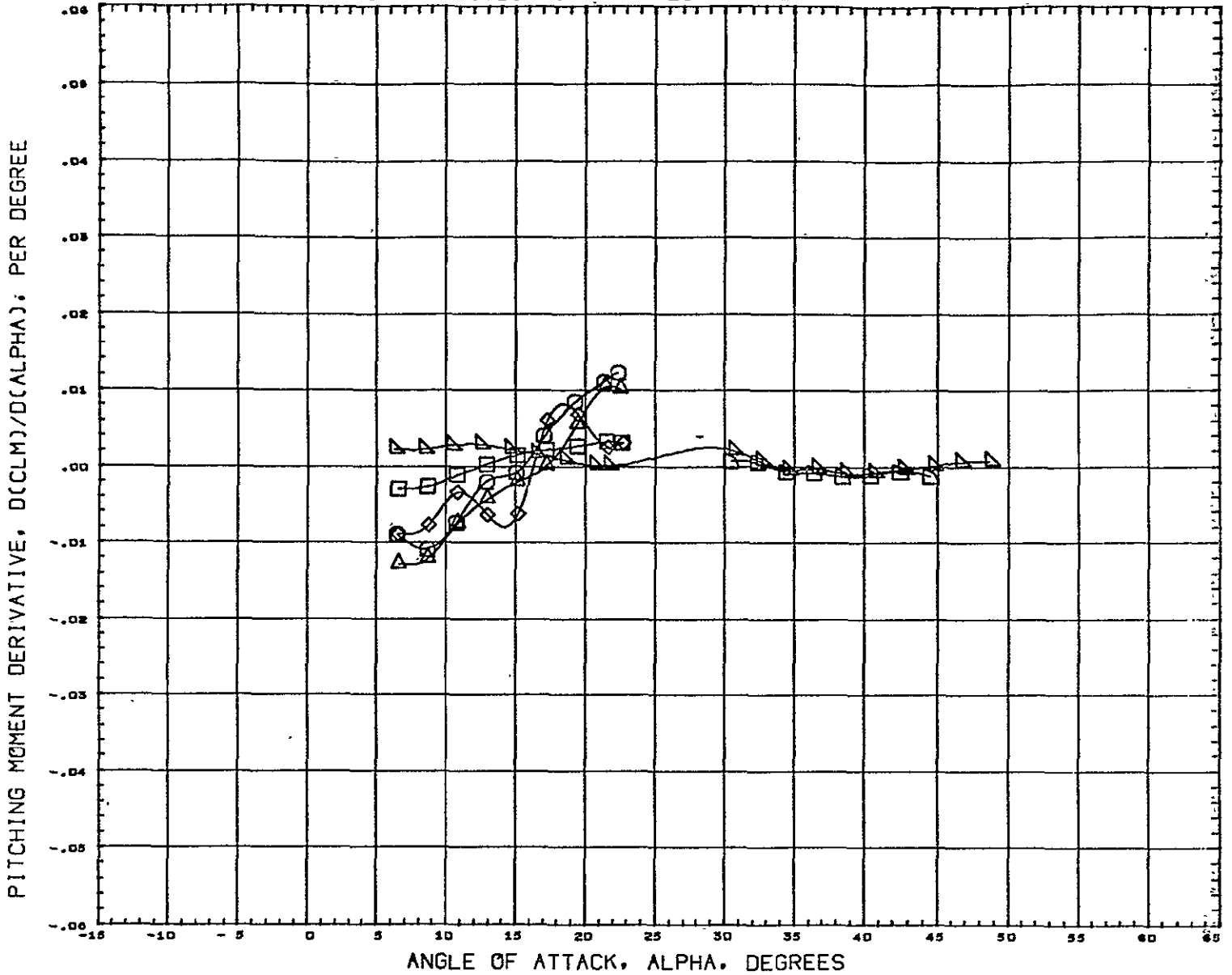
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.904	BETA	0.000	DEL	- 20.000
◇	1.002	DER	- 20.000	DCL	0.000
□	1.204	DCR	0.000	ELEVON	- 20.000
△	1.959	CANARD	0.000	AILRON	0.000
	2.990				
	4.960	DATA HIST. CODE	MVR#E*GG		

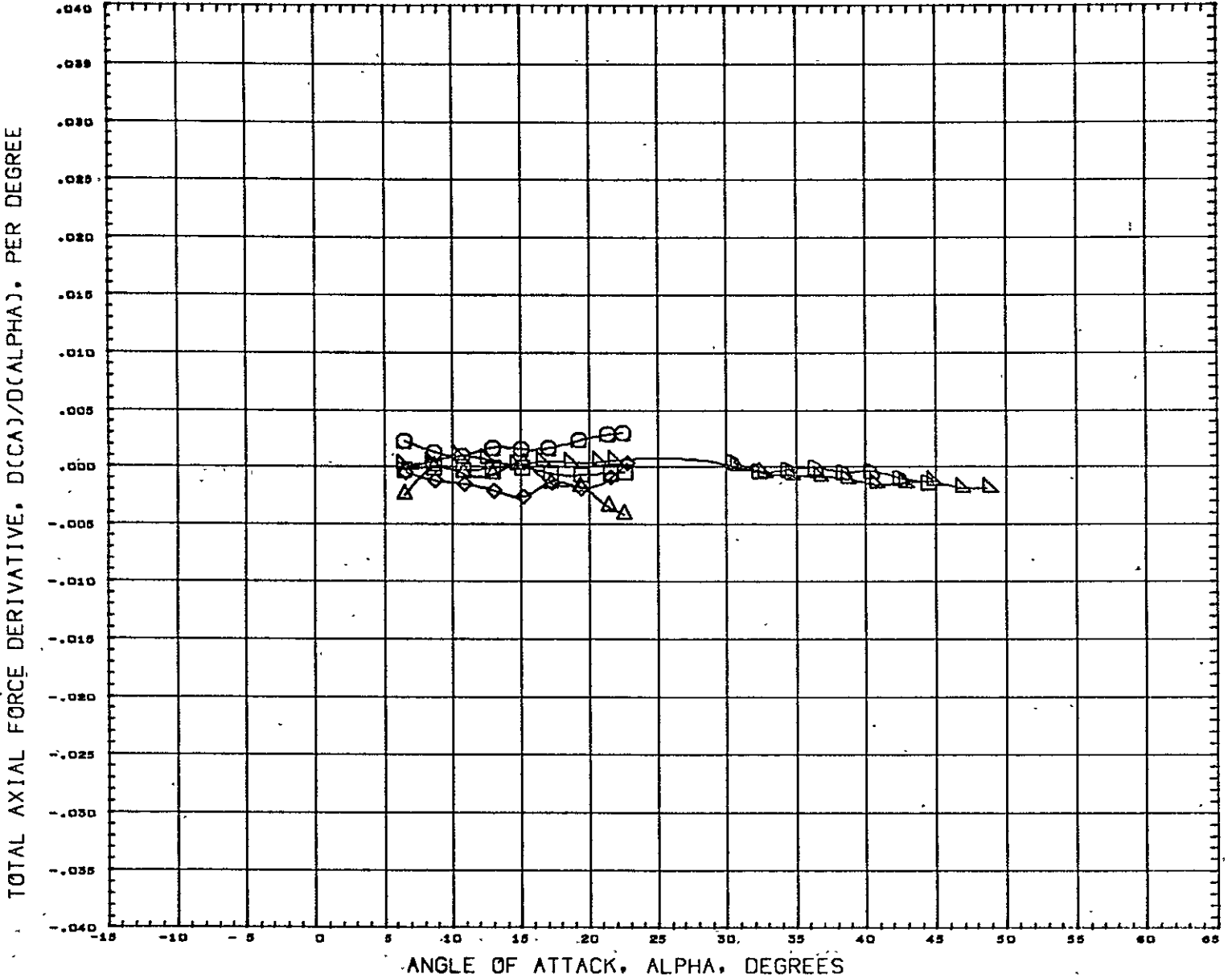
REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



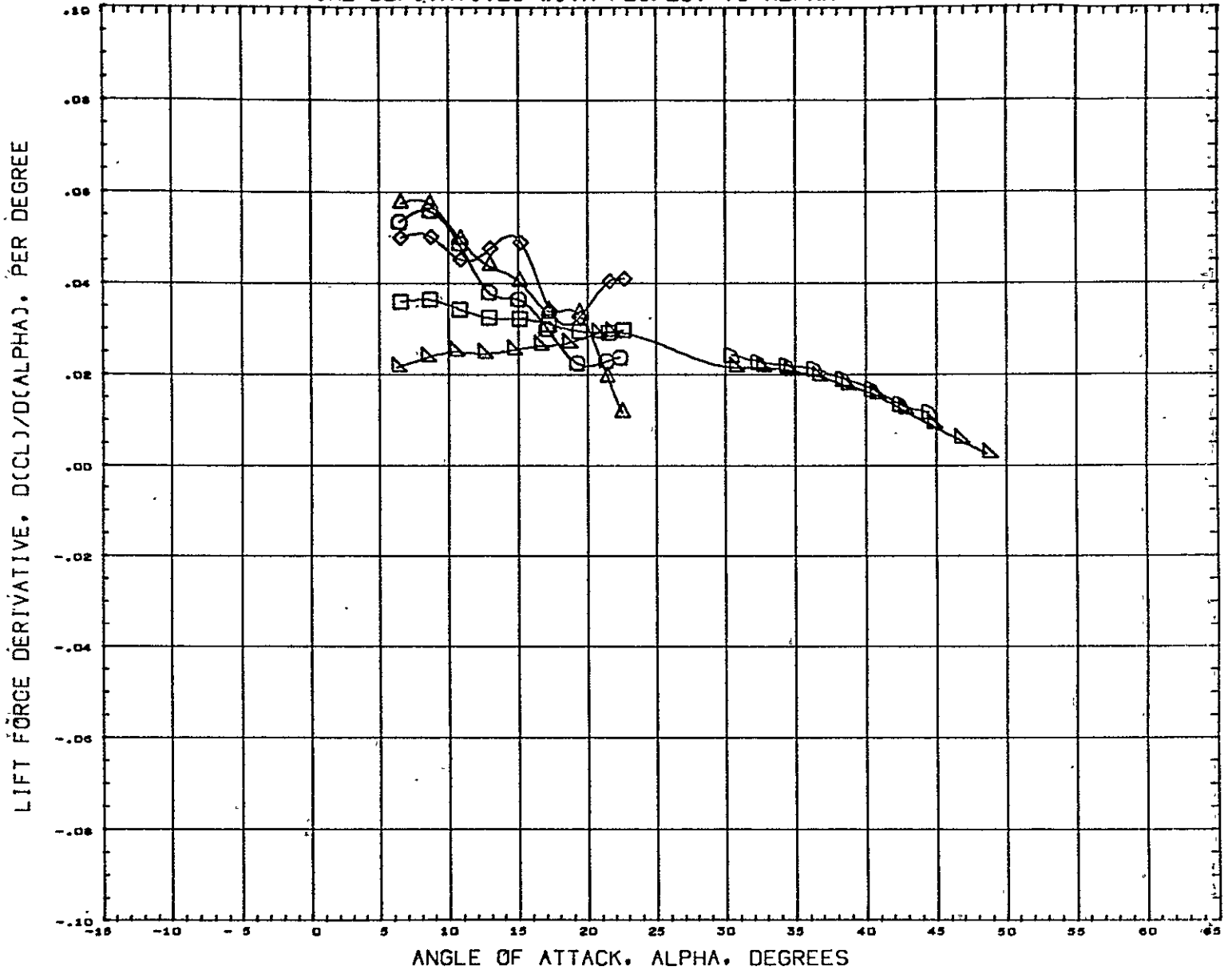
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
△	0.904	BETA	0.000	DEL	- 20.000	SREF	15.6560	50. IN.
◊	1.002	DER	- 20.000	DCL	0.000	LREF	3.0950	IN.
◻	1.204	OCR	0.000	ELEVON	- 20.000	BREF	6.0990	IN.
◇	1.959	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◊	2.990					YMRP	0.0000	IN.
△	4.960	DATA HIST. CODE		MVR#E#GG		ZMRP	0.0000	IN.
						SCALE	0.0055	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.904	BETA	0.000	DEL	- 20.000	SREF	15.6560	50. IN.
◇	1.002	DER	- 20.000	DCL	0.000	LREF	3.0990	IN.
◇	1.204	DCR	0.000	ELEVON	- 20.000	BREF	6.0990	IN.
◇	1.959	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◇	2.990					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	MVR#EGG			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

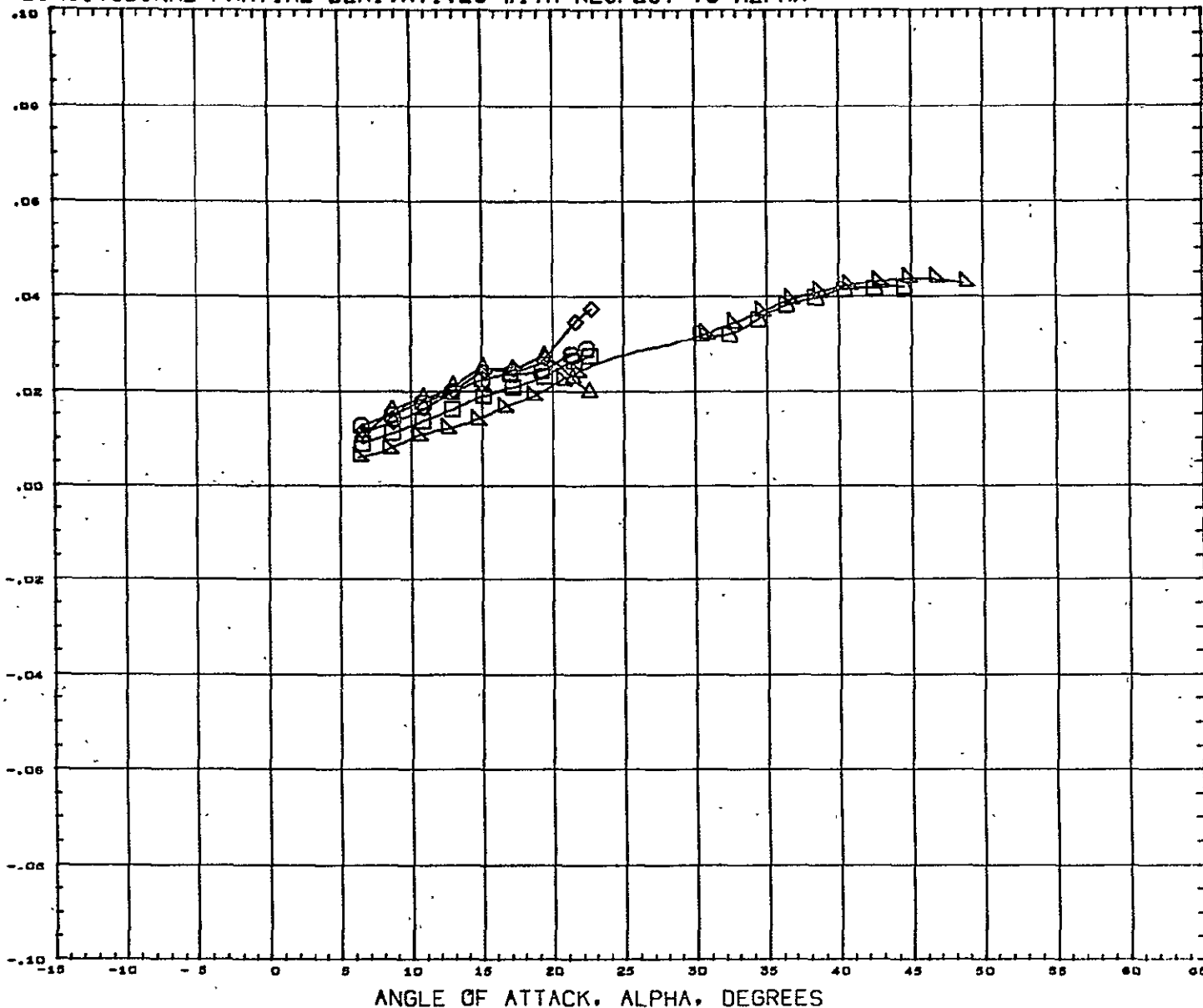


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.904	BETA	0.000	DEL	- 20.000
□	1.002	DER	- 20.000	DCL	0.000
△	1.204	DCR	0.000	ELEVON	- 20.000
◇	1.959	CANARD	0.000	AILRON	0.000
◇	2.990				
◇	4.960	DATA HIST. CODE: MVR#E#GG			

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

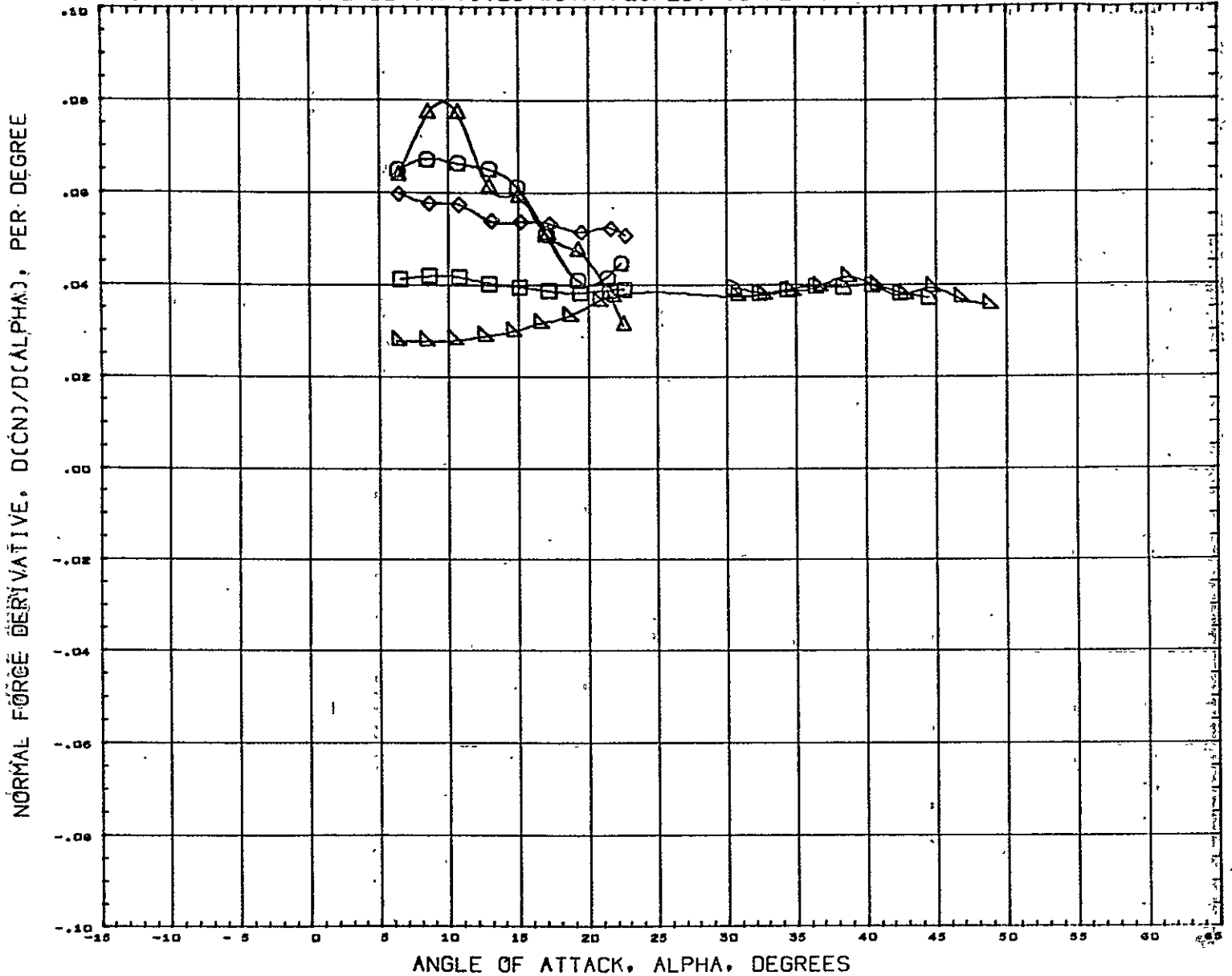
TOTAL DRAG FORCE DERIVATIVE, $D(CD)/D(\text{ALPHA})$, PER DEGREE



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.904	BETA	0.000	DEL	- 20.000	SREF	15.4560	50. IN.
◇	1.002	DER	- 20.000	DCL	0.000	LREF	3.0950	IN.
◇	1.204	DCR	0.000	ELEVON	- 20.000	BREF	6.0990	IN.
◇	1.959	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◇	2.990					YMRP	0.0000	IN.
◇	4.960					ZMRP	0.0000	IN.
		DATA HIST. CODE		MVR#E#GG		SCALE	0.0035	

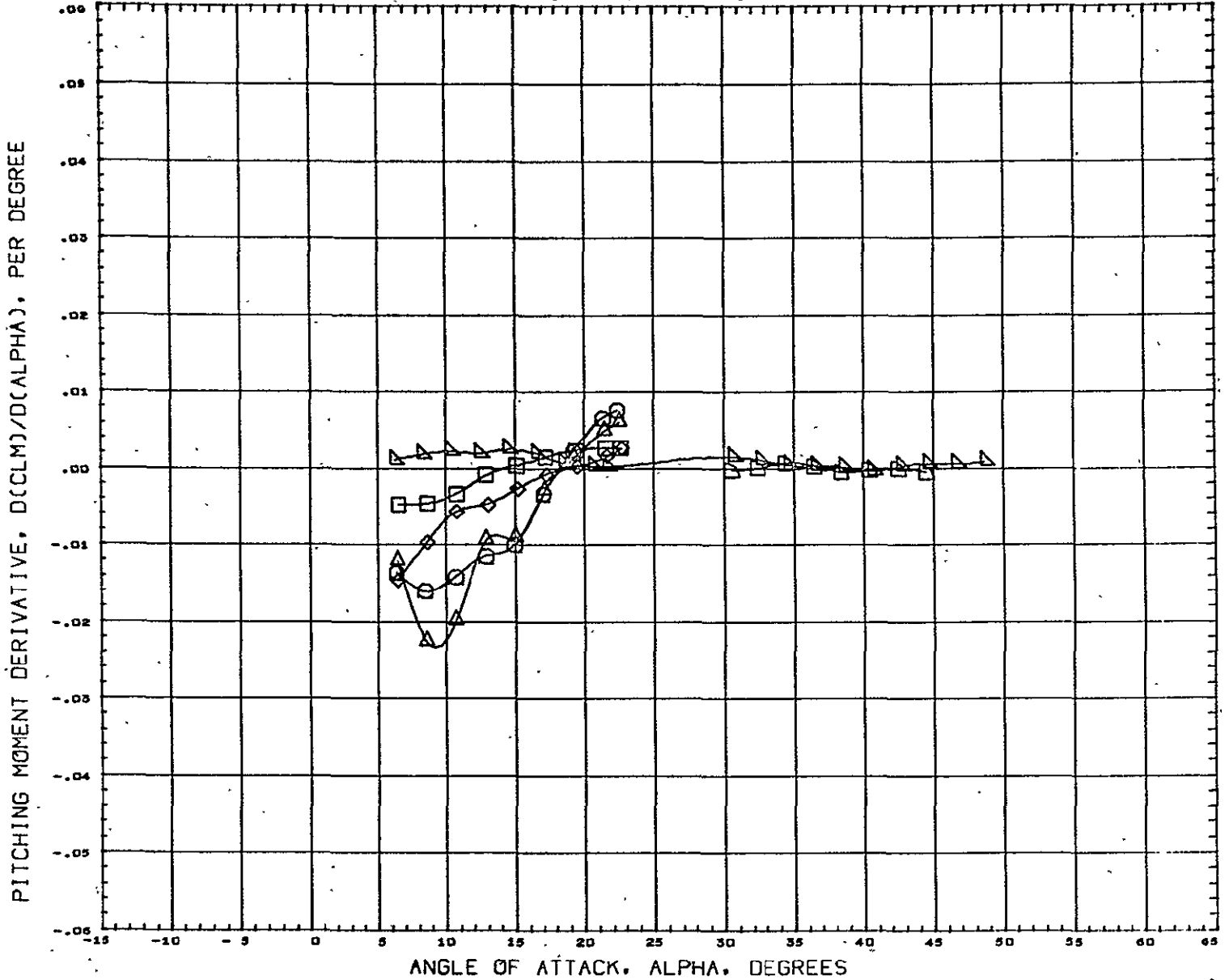
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



ANGLE OF ATTACK, ALPHA, DEGREES

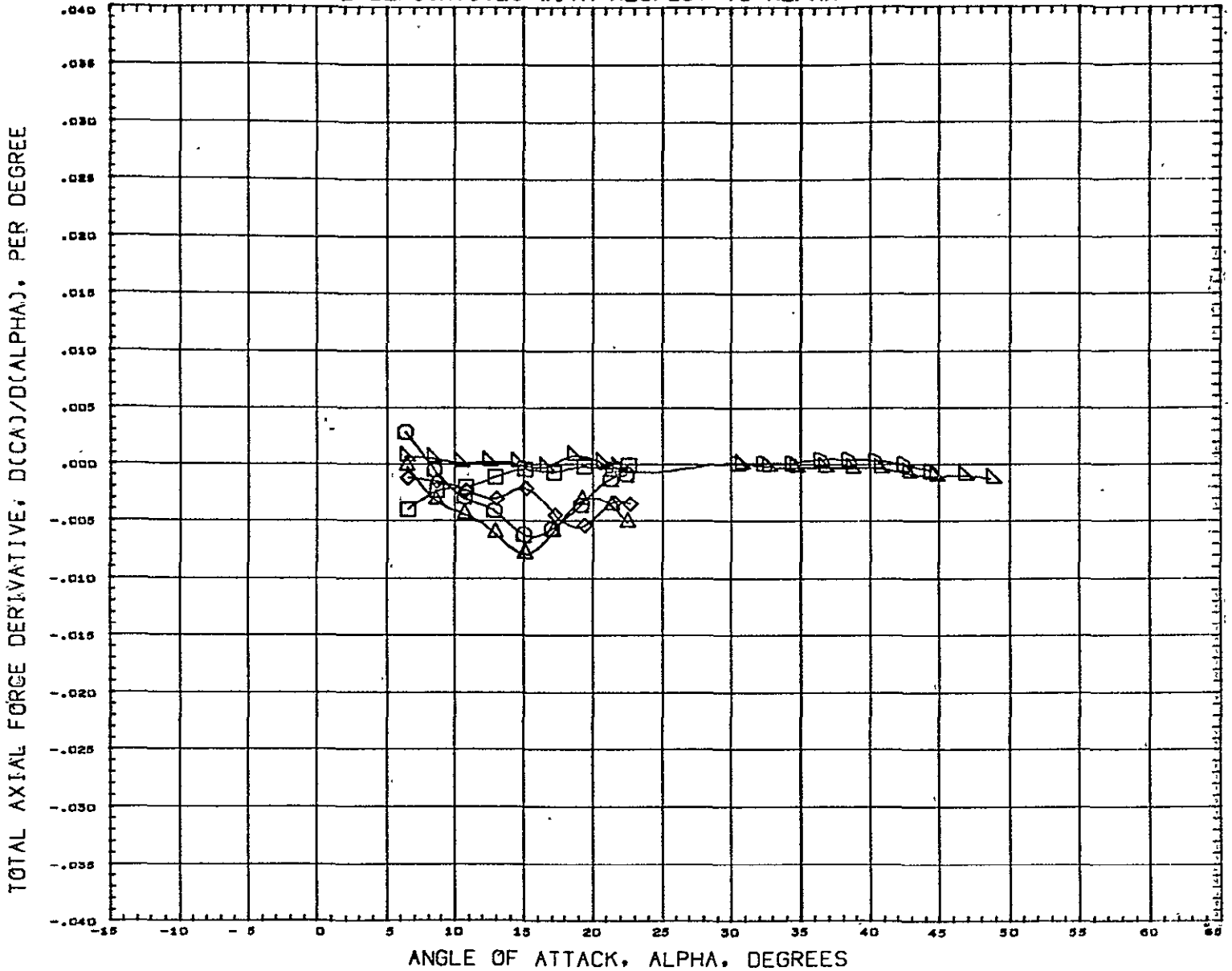
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.901	BETA	0.000	DEL	- 60.000	SREF	15.6560	80. IN.
◇	1.003	DER.	- 60.000	DCL	0.000	LREF	3.0950	IN.
□	1.202	DCR	0.000	ELEVON	- 60.000	BREF	6.0990	IN.
△	1.960	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
▽	2.990					YMRP	0.0000	IN.
	4.960	DATA HIST. CODE		HVR#E#CG		ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	SREF	LREF	BREF
◇	0.901	0.000	- 60.000	0.000	- 60.000	15.6560	3.0990	30. IN.
◇	1.003	0.000	- 60.000	0.000	0.000	6.0990	6.0990	IN.
◇	1.202	0.000	0.000	- 60.000	- 60.000	6.7100	6.7100	IN.
◇	1.960	0.000	0.000	0.000	0.000	0.0000	0.0000	IN.
◇	2.990	0.000	0.000	0.000	0.000	0.0000	0.0000	IN.
◇	4.960	DATA HIST. CODE MVR*E*GG				SCALE	0.0035	

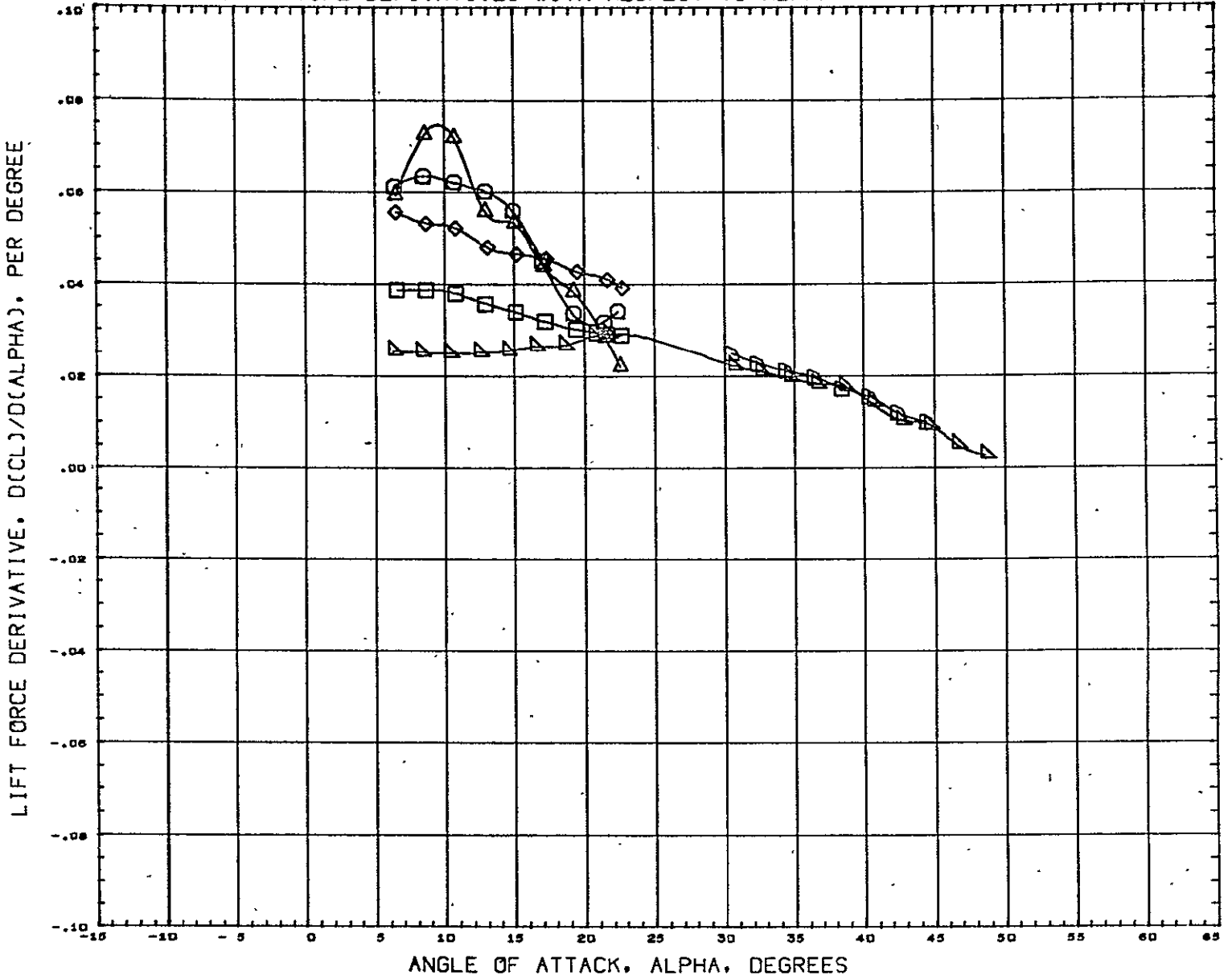
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	HACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	DEL	- 60.000
◇	1.003	DER	- 60.000	DCL	0.000
◇	1.202	DCR	0.000	ELEVON	- 60.000
◇	1.960	CANARD	0.000	AILERON	0.000
◇	2.990				
◇	4.960	DATA HIST. CODE	MVR#E#GG		

REFERENCE INFORMATION		
SREF	15.6560	50 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

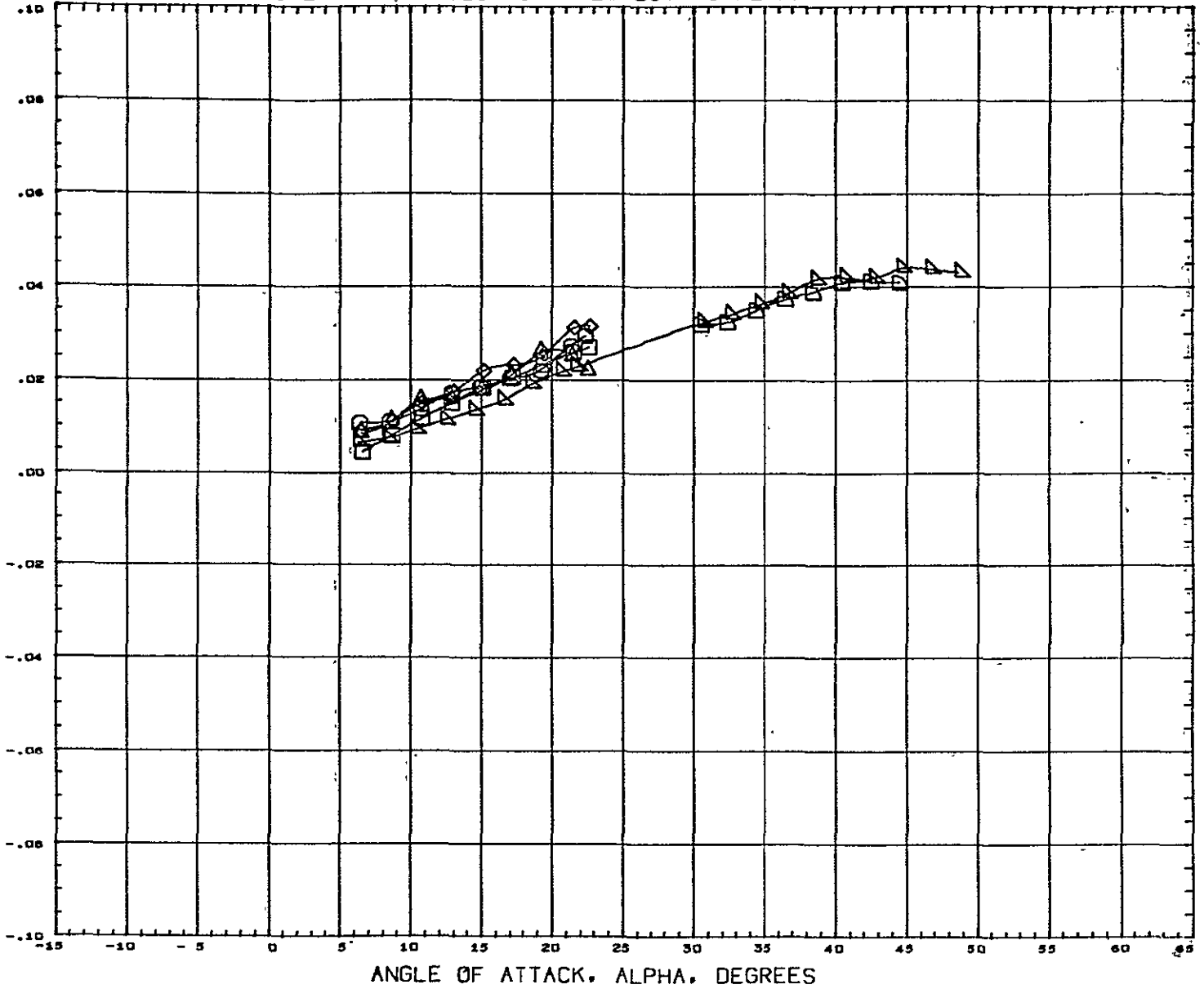
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.901	BETA	0.000	DEL	- 60.000	SREF	13.6560	30. IN.
◇	1.003	DER	- 60.000	DCL	0.000	LREF	3.0950	IN.
◇	1.202	DCR	0.000	ELEVON	- 60.000	BREF	6.0990	IN.
□	1.960	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
▽	2.990					YMRP	0.0000	IN.
◇	4.060	DATA HIST. CODE		MVR#E#GG		ZMRP	0.0000	IN.
						SCALE	0.0035	

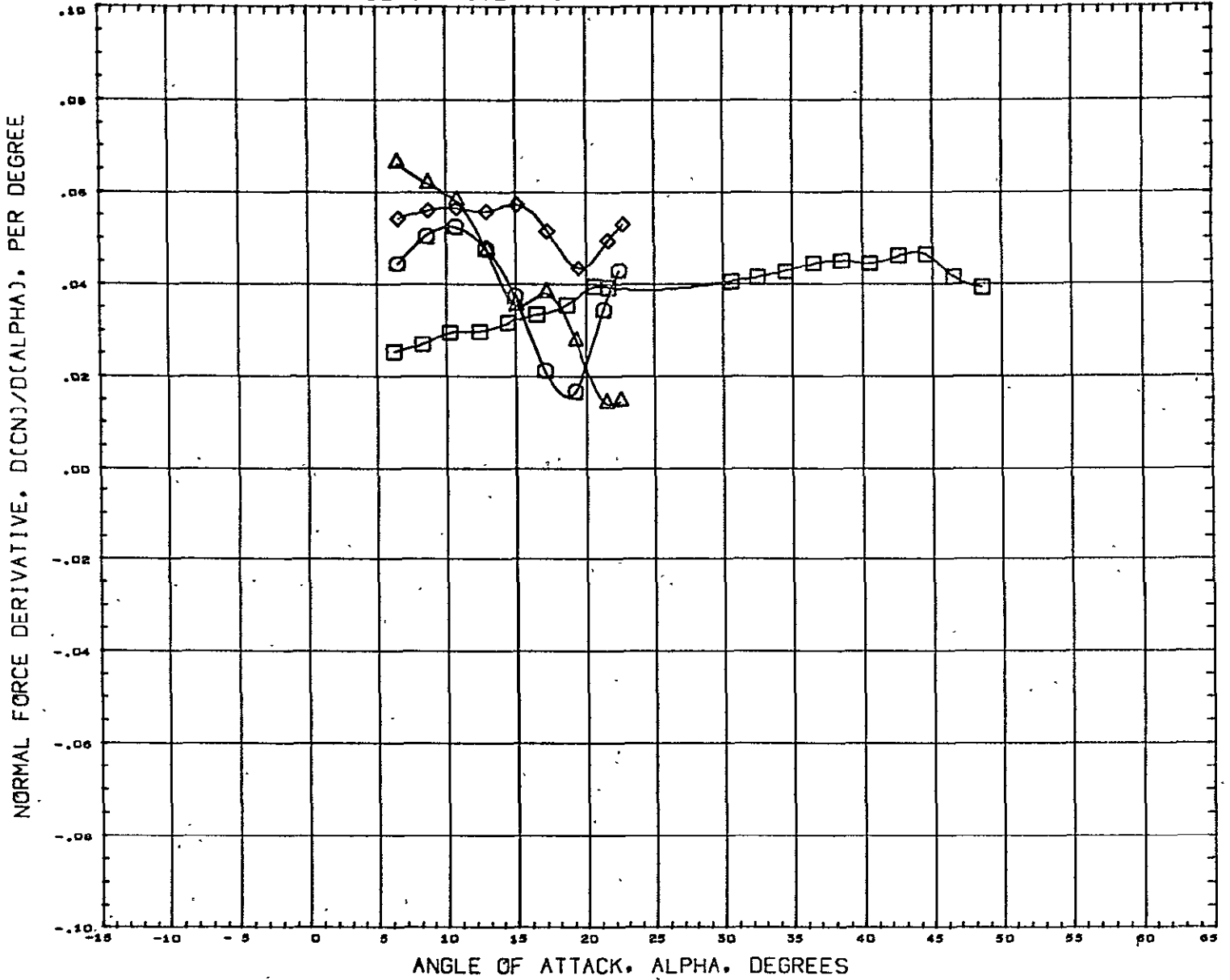
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

TOTAL DRAG FORCE DERIVATIVE, $D'(CD)/D(\text{ALPHA})$, PER DEGREE



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
□	0.901	BETA	0.000	DEL	- 60.000	SREF	15.6560	50 IN.
◇	1.003	DER	- 60.000	DCL	0.000	LREF	3.0950	IN.
◇	1.202	PCR	0.000	ELEVON	- 60.000	BREF	.60990	IN.
◇	1.960	CANARD	0.000	AILERON	0.000	XMRP	6.7100	IN.
◇	2.990					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	HVR#E*GG			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



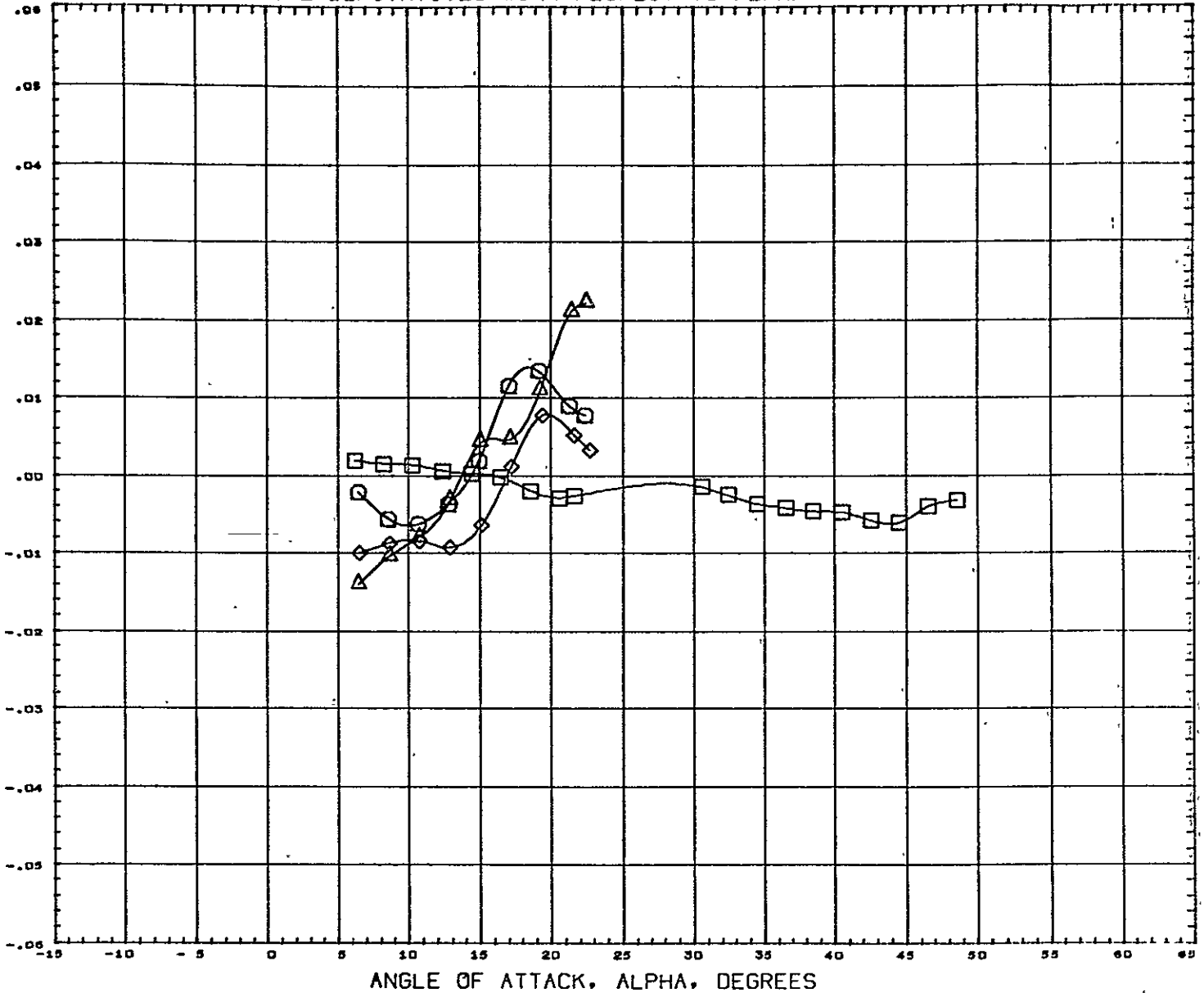
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.899	BETA	0.000	DEL	10.000	SREF	15.6560	30. IN.
△	1.003	DER	10.000	DCL	0.000	LREF	3.0950	IN.
◇	1.197	DCR	0.000	ELEVON	10.000	BREF	6.0990	IN.
□	2.990	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#E*GG

60

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

PITCHING MOMENT DERIVATIVE, $D(CLM)/D(\text{ALPHA})$, PER DEGREE

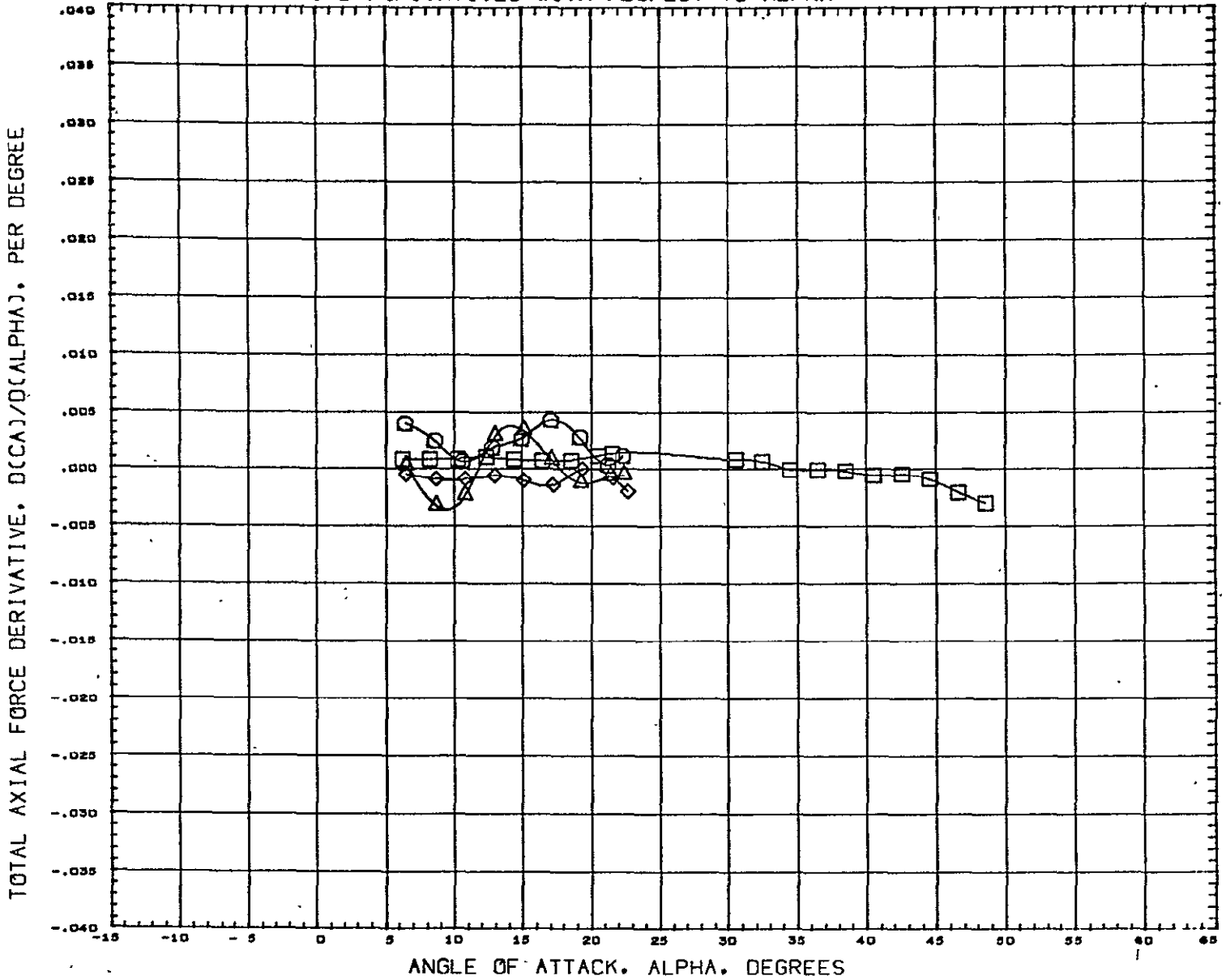


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	DEL	10.000
△	1.003	DER	10.000	DCL	0.000
◇	1.197	DCR	0.000	ELEVON	10.000
□	2.990	CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	39. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E*GG

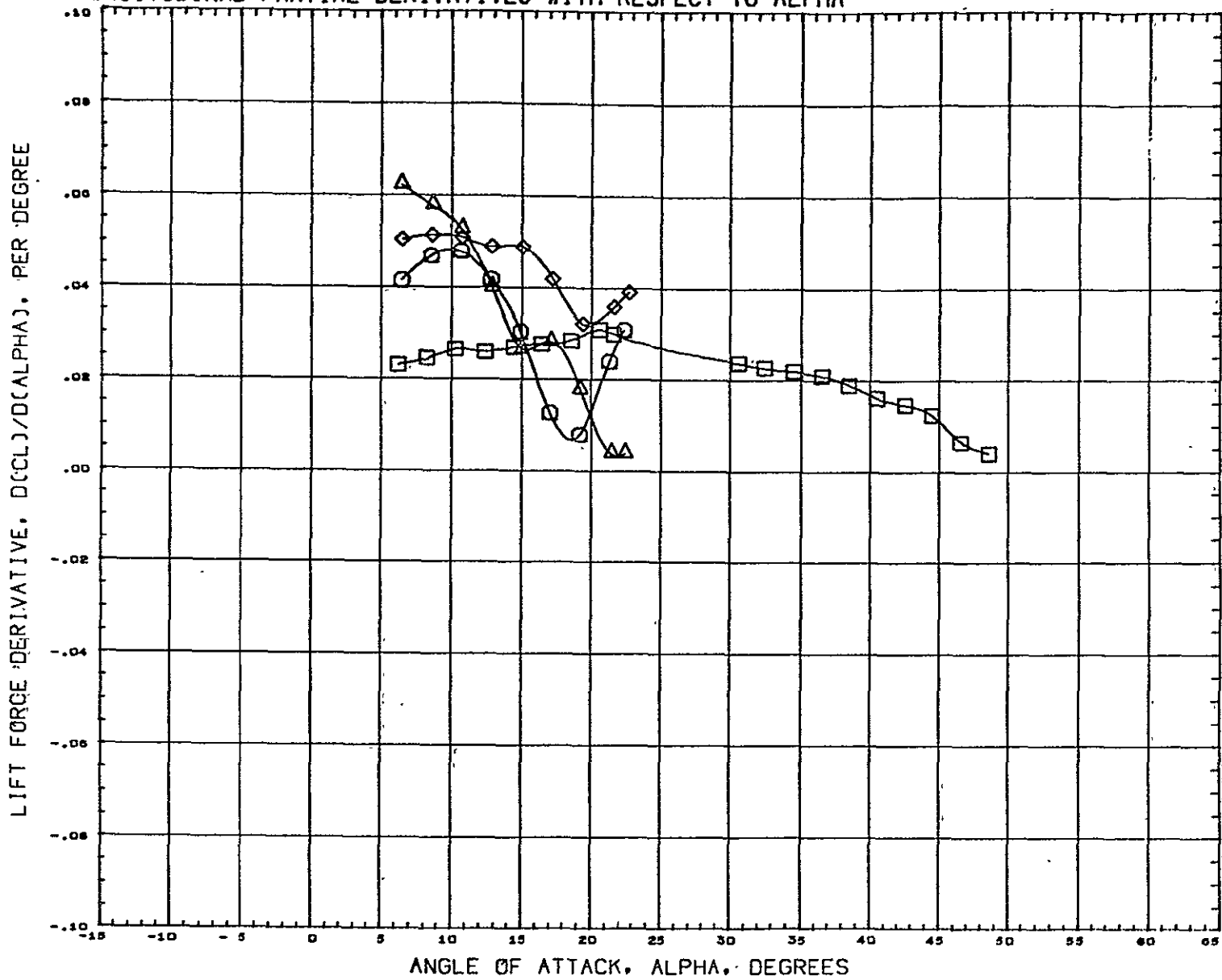
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.899	BETA	0.000	DEL	10.000	SREF	15.6560	SQ. IN.
△	1.003	DER	10.000	DCL	0.000	LREF	3.0950	IN.
◇	1.197	DCR	0.000	ELEVON	10.000	BREF	6.0990	IN.
□	2.990	CANARD	0.000	AIRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#E#GG

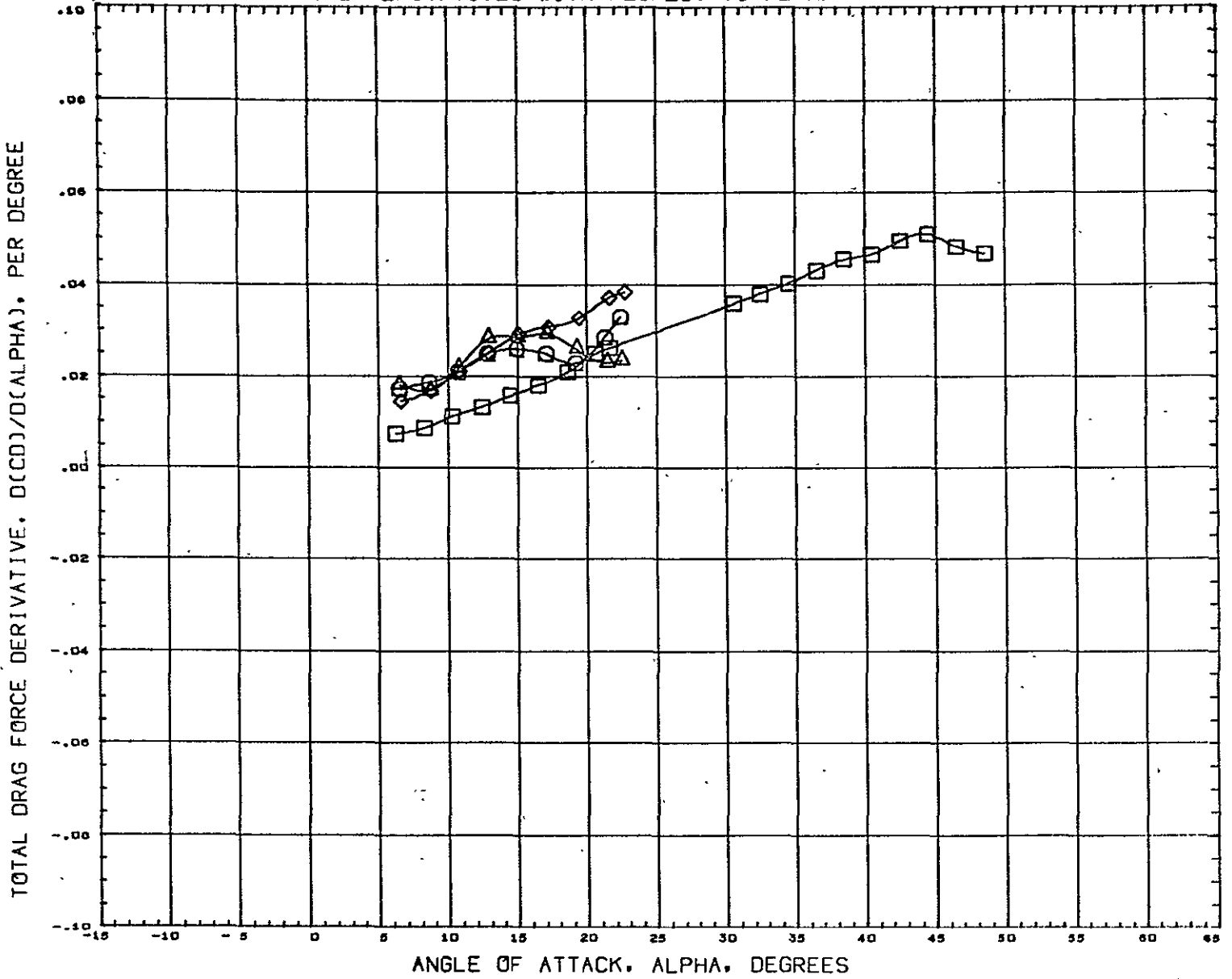
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.999	BETA	0.000	DEL	10.000	SREF	15.6560	SQ. IN.
◇	1.003	DER	10.000	DCL	0.000	LREF	3.0950	IN.
□	1.197	DCR	0.000	ELEVON	10.000	BREF	6.0990	IN.
	2.990	CANARD	0.000	AILRON	0.000	YNRP	6.7100	IN.
						YNRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#*CG

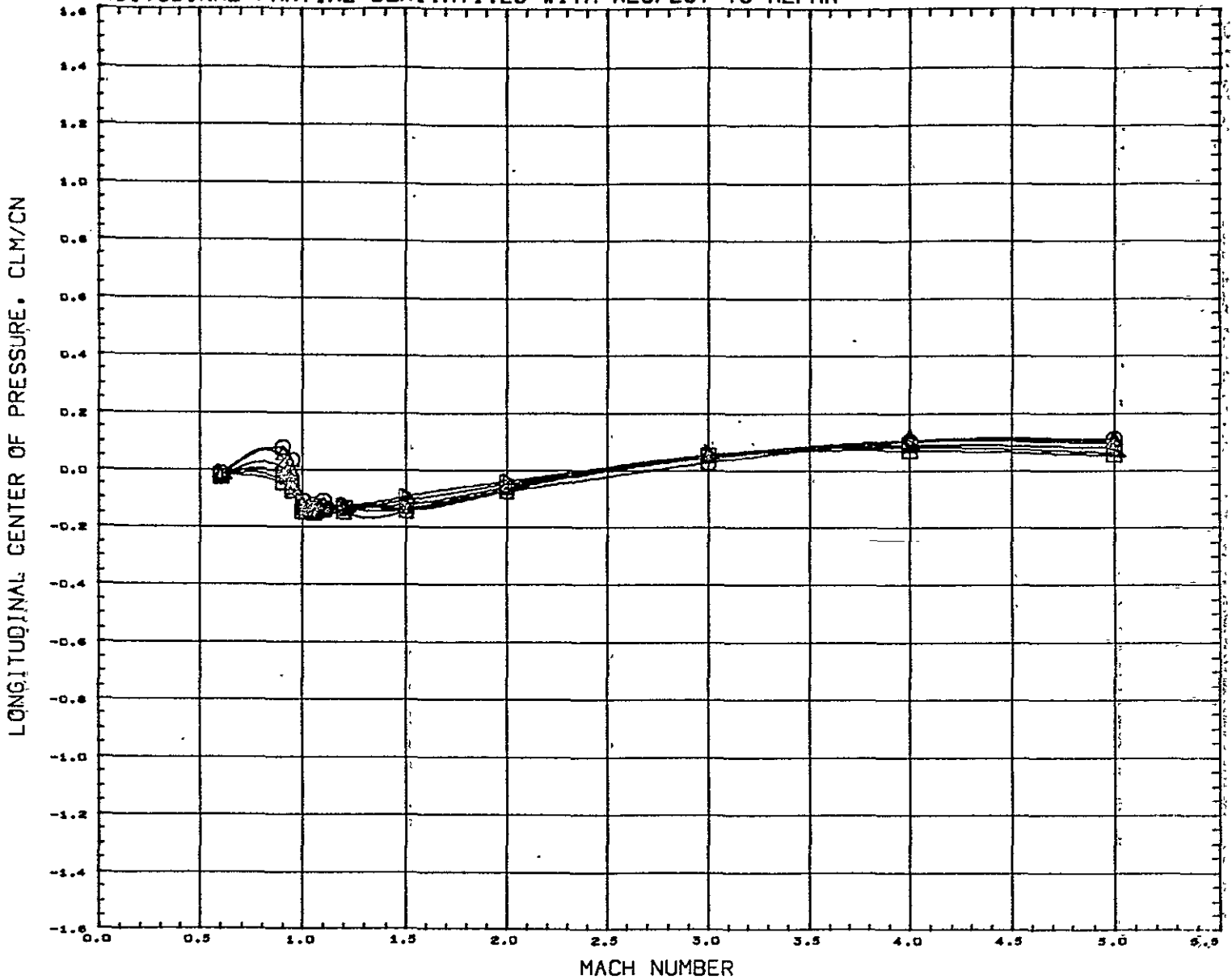
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.999	BETA	0.000	DEL	10.000	SREF	15.6560	59. IN.
△	1.003	DER	10.000	DCL	0.000	LREF	3.0950	IN.
◇	1.197	DCR	0.000	ELEVON	10.000	BREF	6.0990	IN.
□	2.900	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

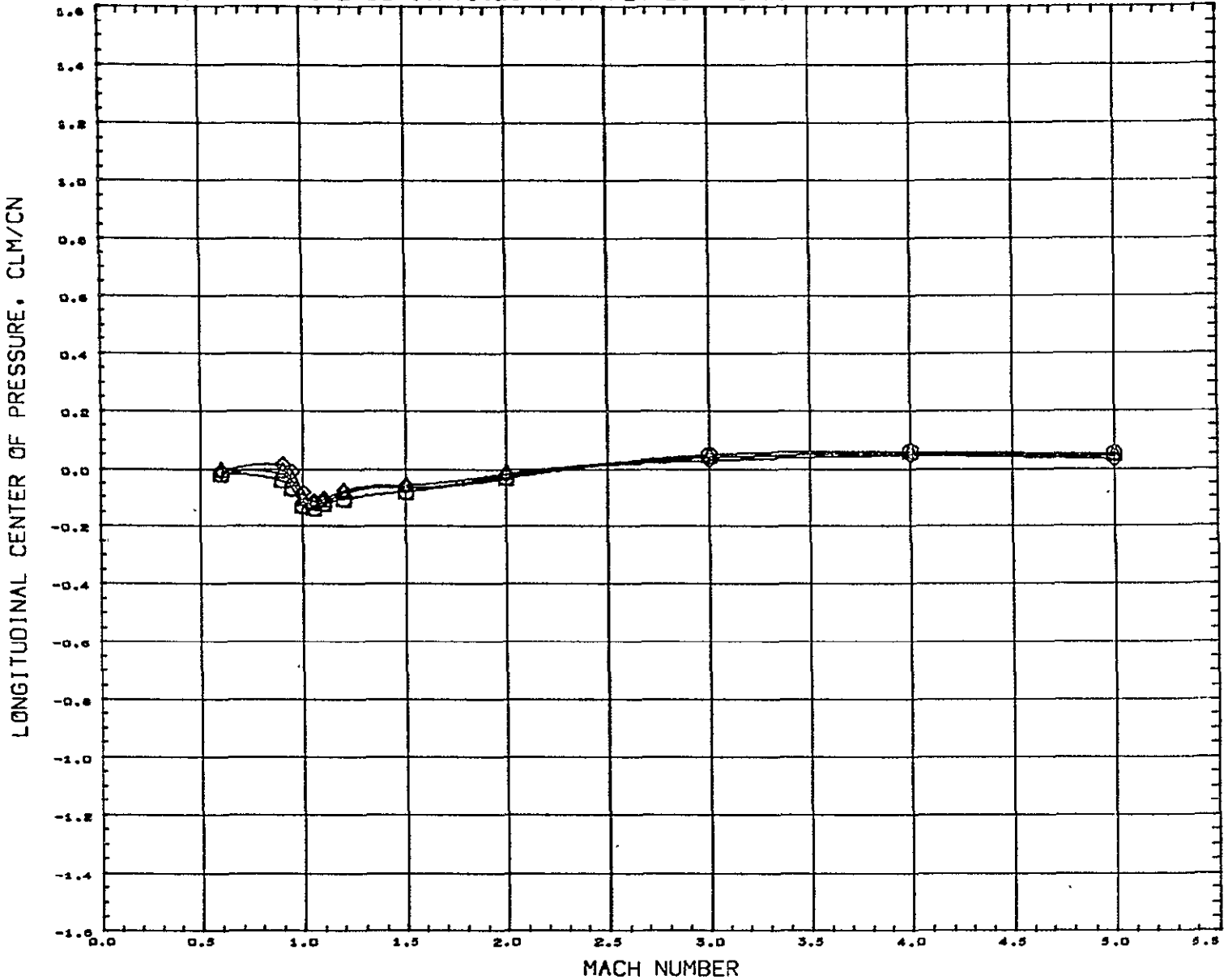
DATA HIST. CODE MVR#E*GG

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	6.000	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
◇	8.000	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	10.000	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
◇	12.000	CANARD	0.000	AILRON	0.000	YMRP	6.7100	IN.
◇	14.000					ZMRP	0.0000	IN.
◇	16.000	DATA HIST. CODE	MVR#E#G1			SCALE	0.0035'	

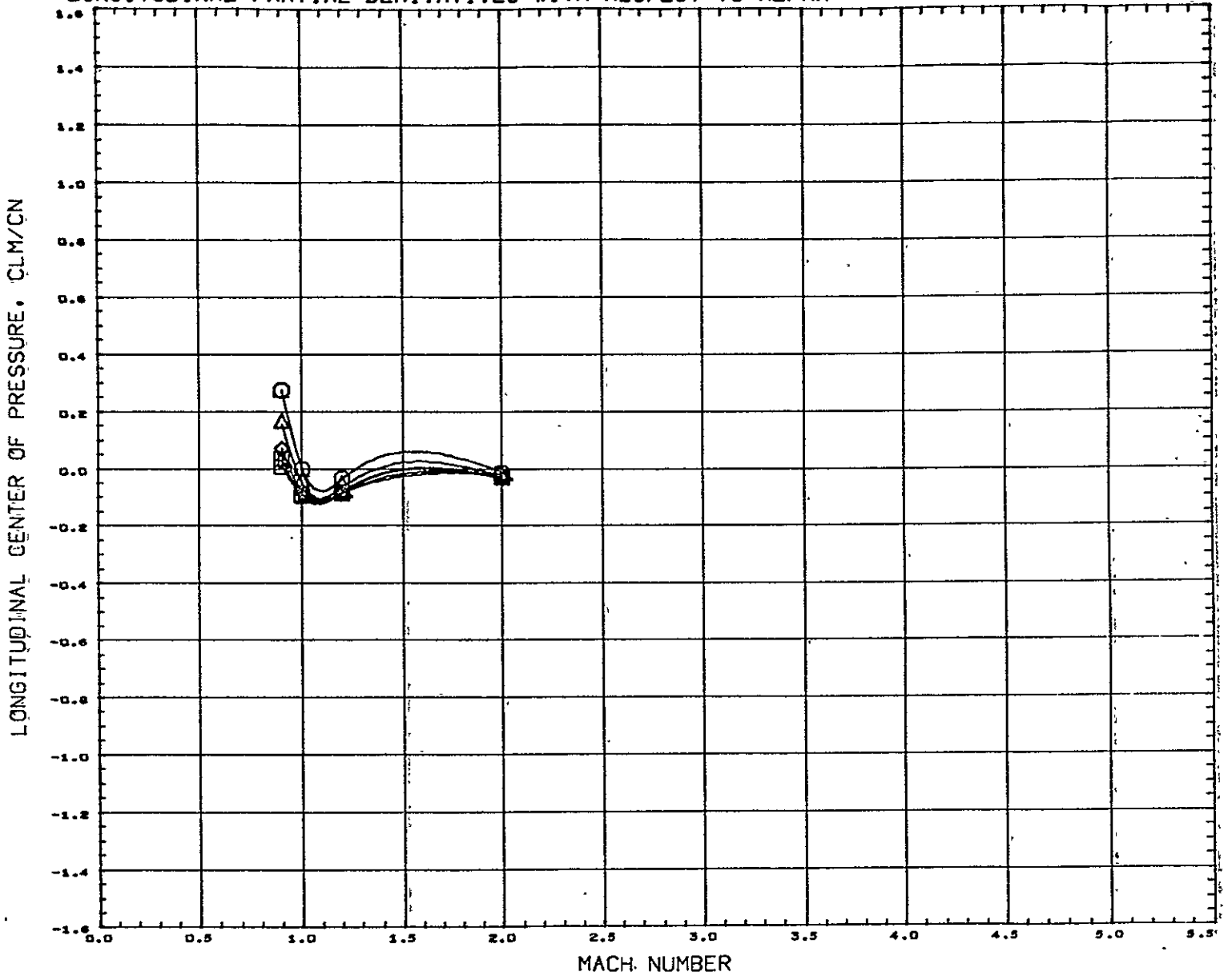
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
△	10.000	BETA	0.000	DEL	0.000	SREF	15.6560	sq. IN.
◇	20.000	DER	0.000	DCL	0.000	LREF	3.0950	IN.
	22.000	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	XHRP	6.7100	IN.
						YHRP	0.0000	IN.
						ZHRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#E#GI

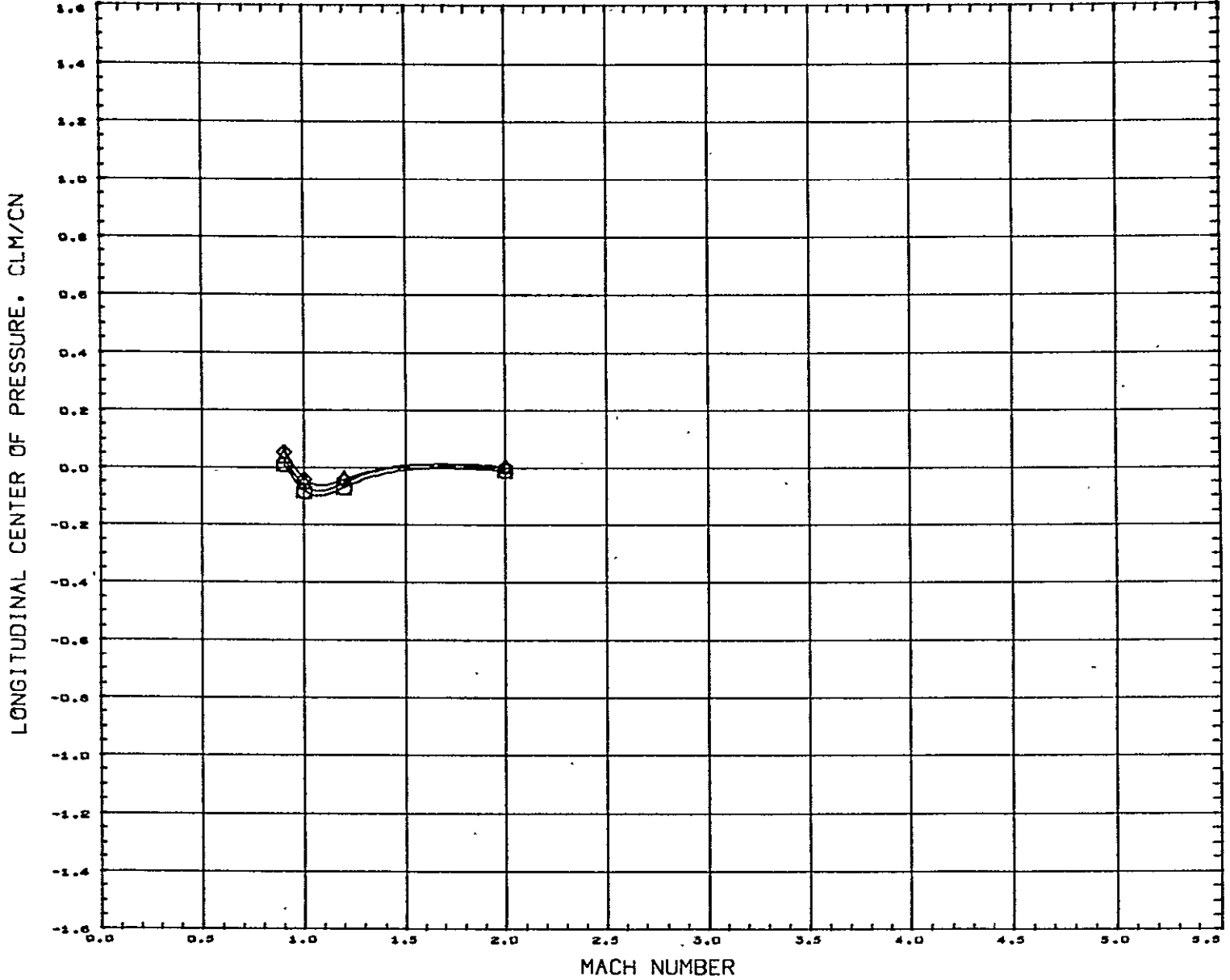
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	6.000	BETA	0.000	DEL	0.000
△	8.000	DER	-20.000	DCL	0.000
◇	10.000	DCR	0.000	ELEVON	-10.000
□	12.000	CANARD	0.000	AILERON	10.000
◇	14.000				
◇	16.000	DATA HIST. CODE	MVR#E#G1		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

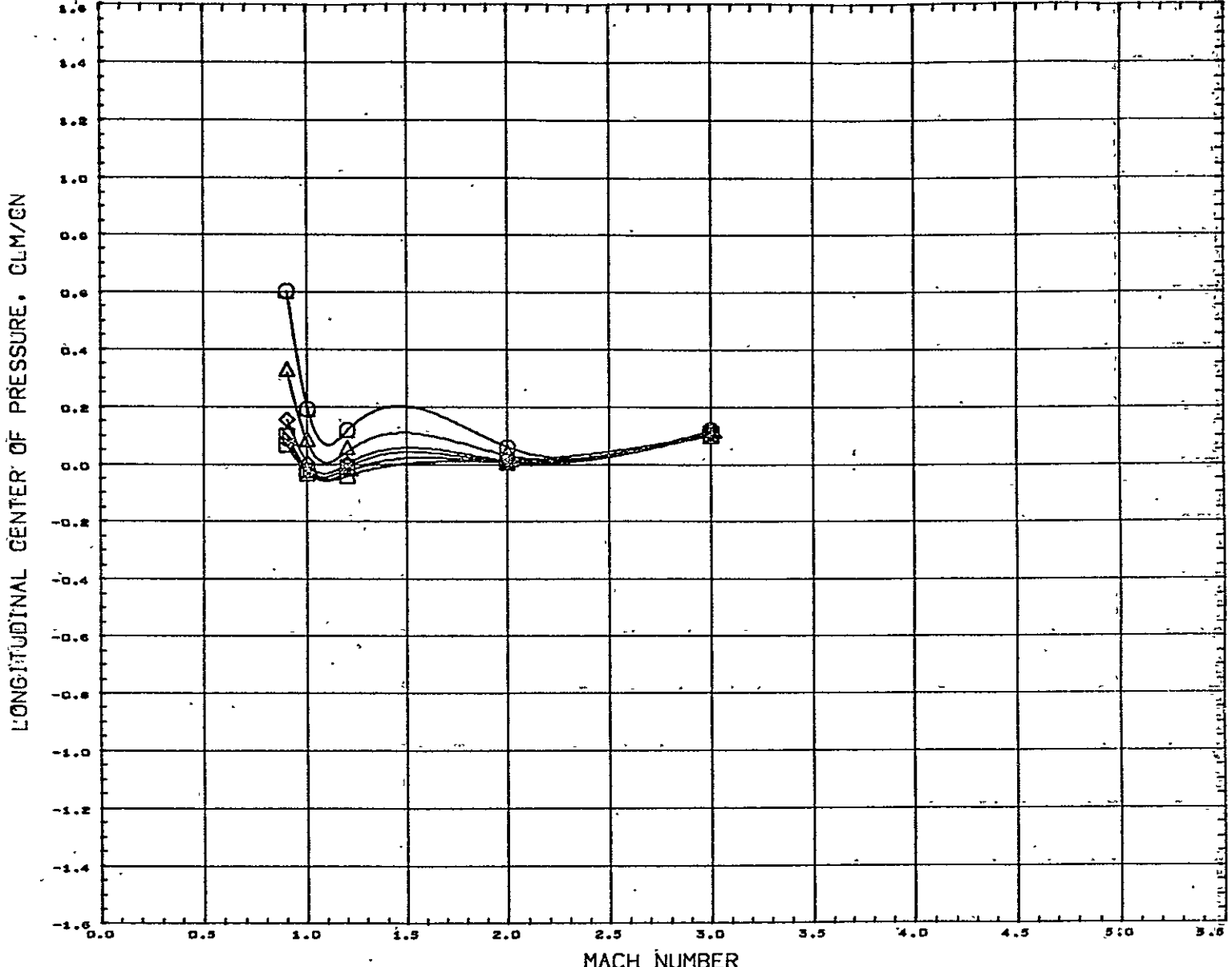


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	16.000	BETA	0.000	DEL	0.000
△	20.000	DER	- 20.000	DCL	0.000
◇	22.000	DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E*GI

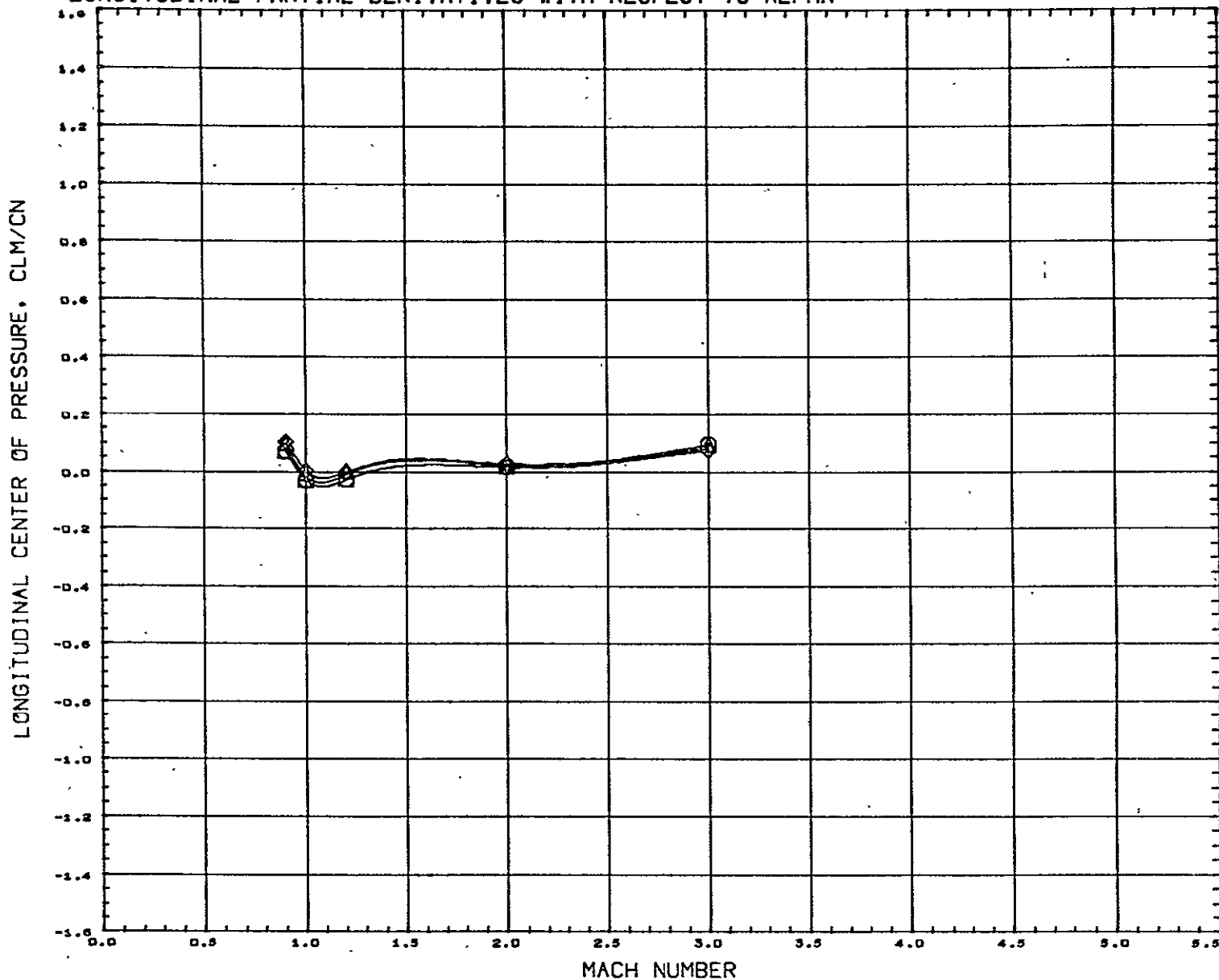
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	6.000	BETA	0.000	DEL	- 20.000
△	8.000	DER	- 20.000	DCL	0.000
◇	10.000	DCR	0.000	ELEVON	- 20.000
□	12.000	CANARD	0.000	AILERON	0.000
▽	14.000				
+	16.000	DATA HIST. CODE	MVR#E#G1		

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0033	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

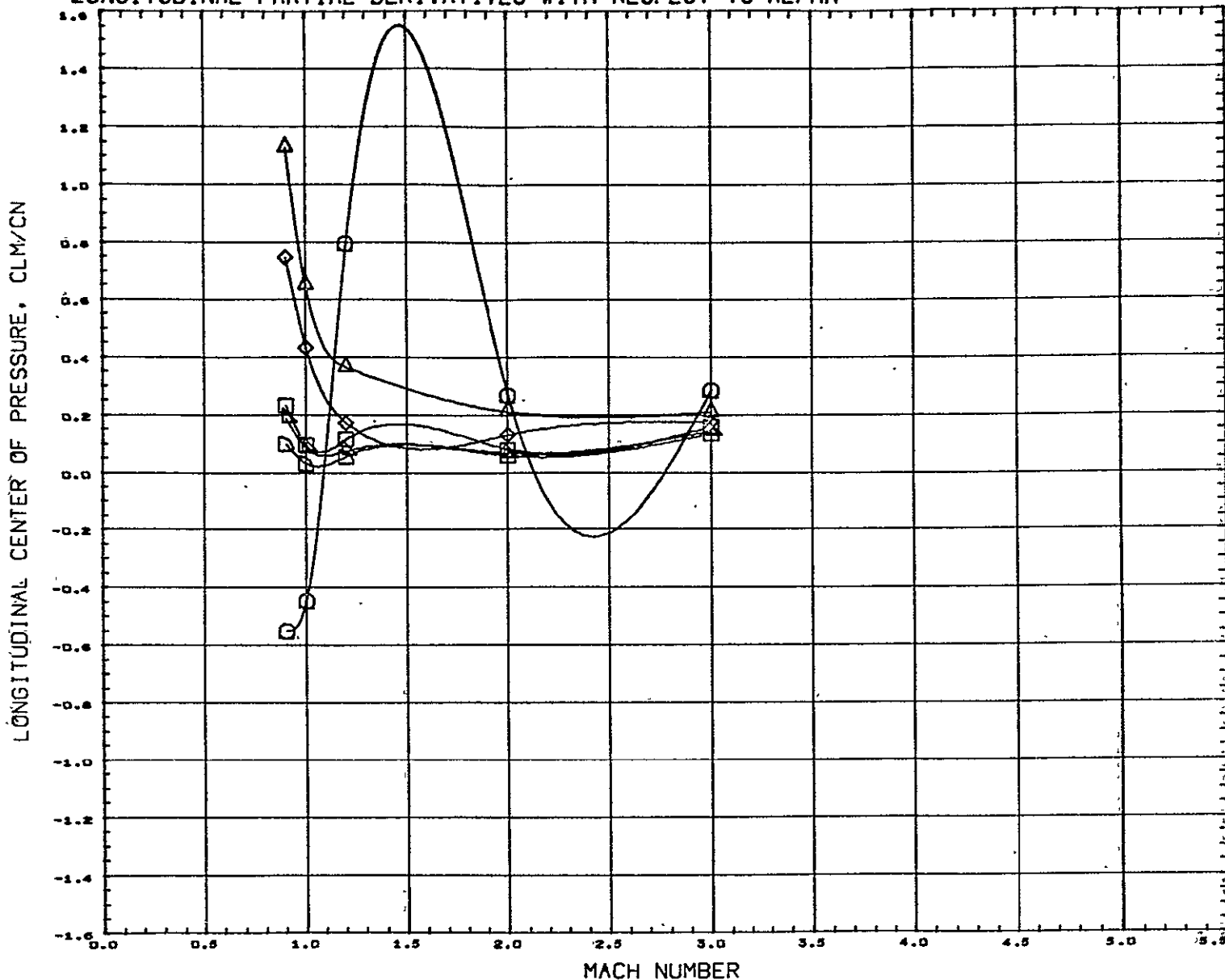


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 20.000
△	20.000	DER	- 20.000	DCL	0.000
◇	22.000	DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.0560	39. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#G1

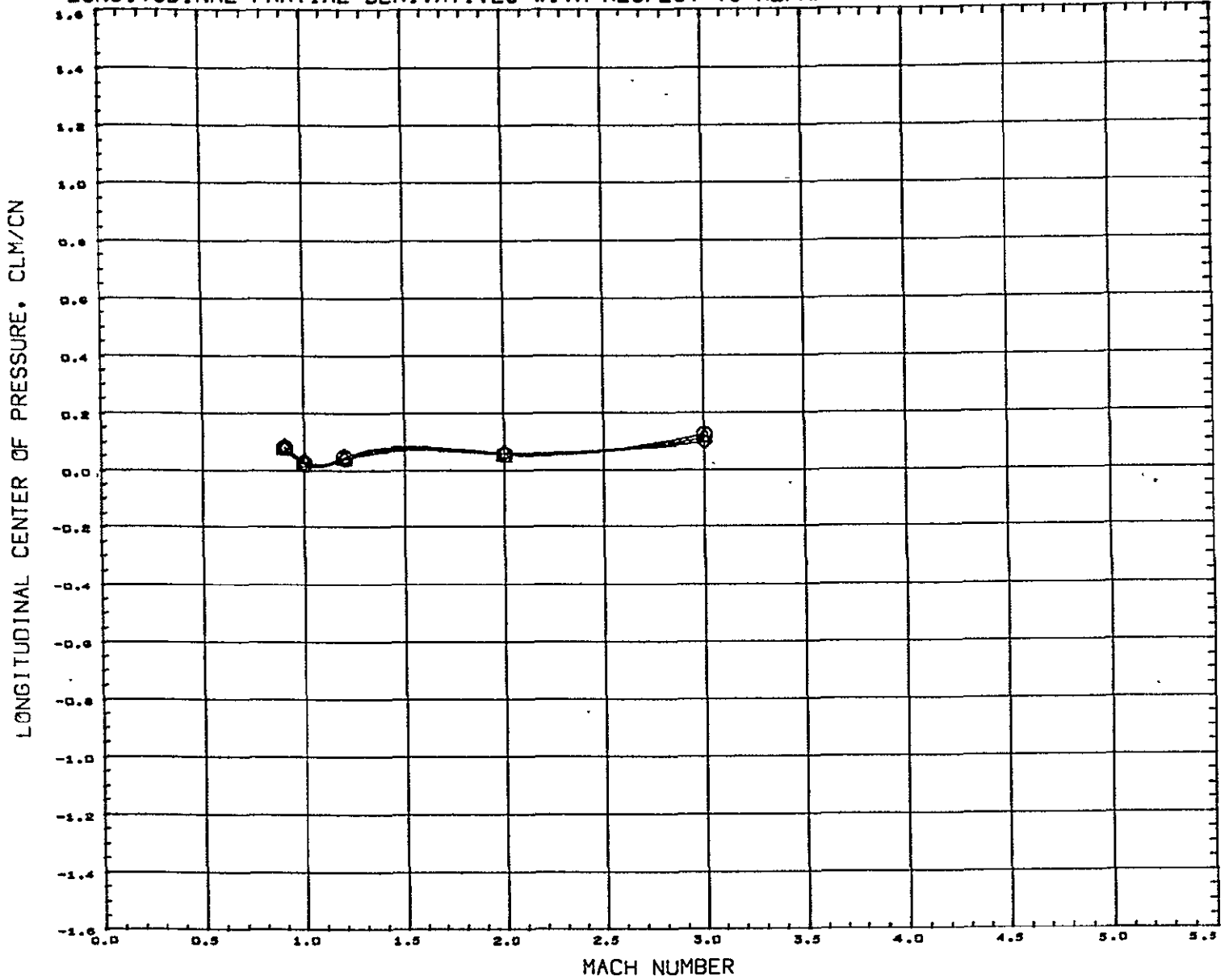
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES
○	6.000	BETA 0.000 DEL - 60.000
□	8.000	DER - 60.000 OCL 0.000
△	10.000	DCR 0.000 ELEVON - 60.000
◇	12.000	CANARD 0.000 AILRON 0.000
▽	14.000	
◻	16.000	DATA HIST. CODE MVR#E*GI

REFERENCE INFORMATION		
SREF	15.6560	30 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0055	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

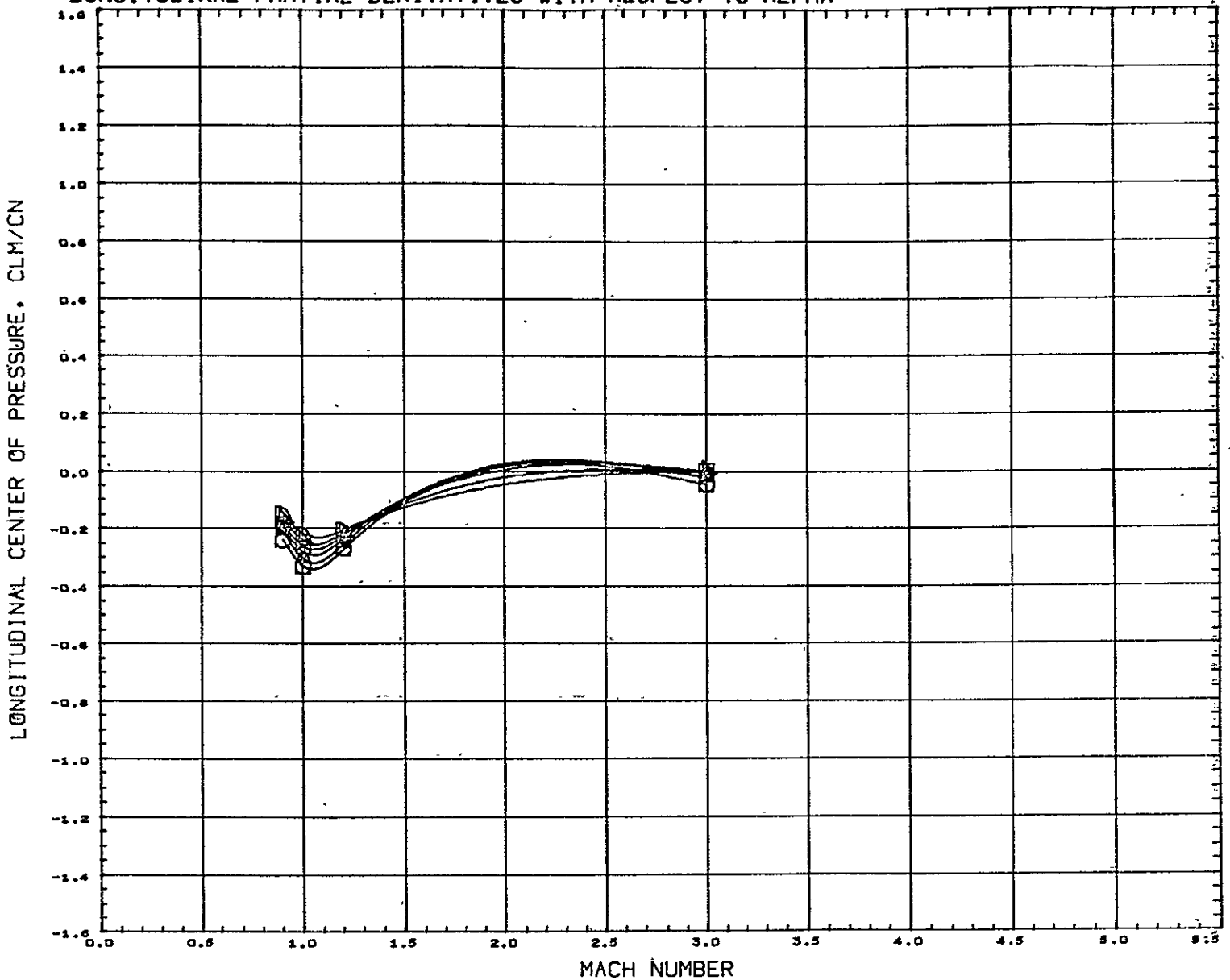


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	18.000	BETA	0.000	DEL	- 60.000
△	20.000	DER	- 60.000	DCL	0.000
◇	22.000	DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	90. IN.
LREF	3.0980	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#61

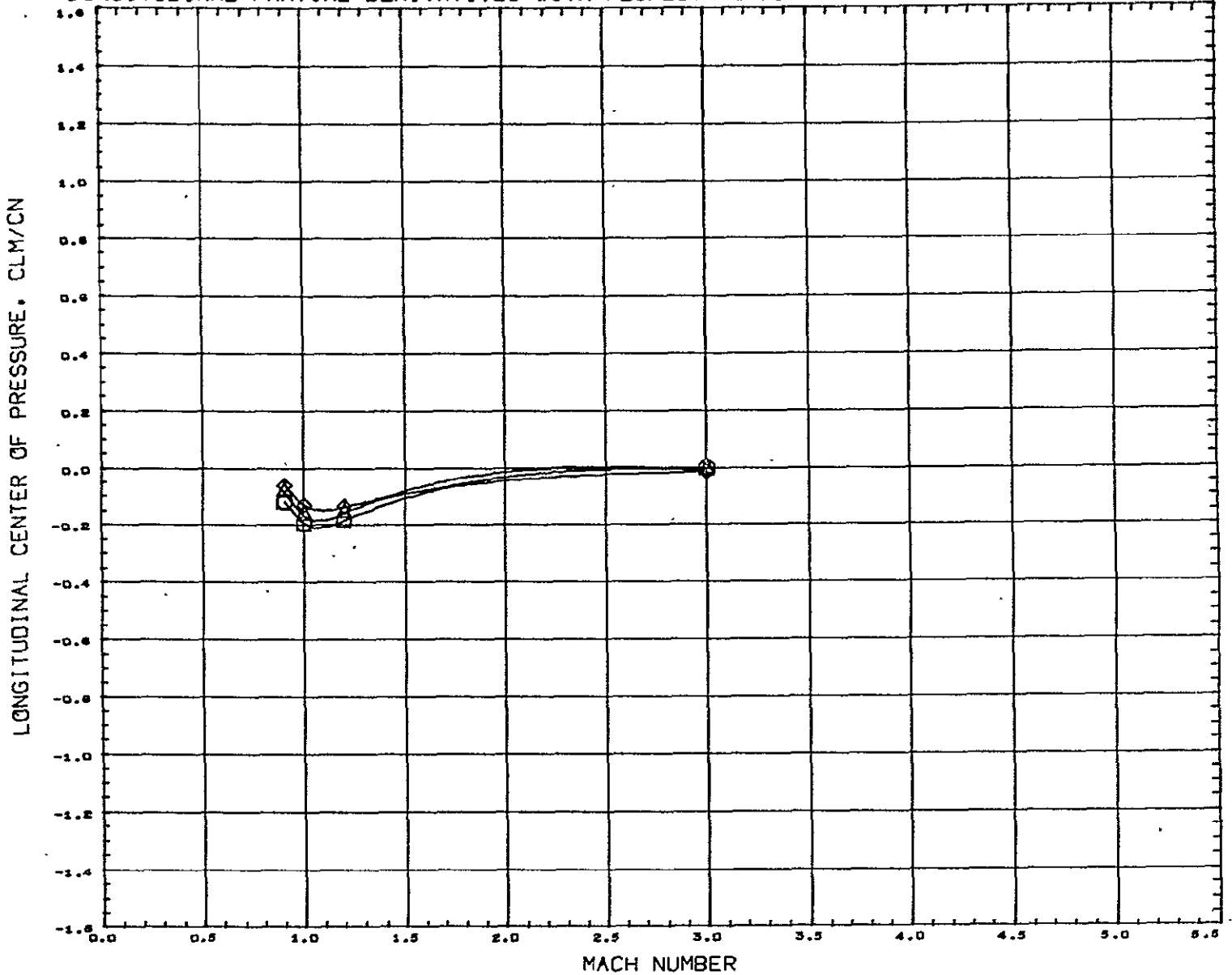
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
□	6.000	BETA	0.000	DEL	10.000
◇	8.000	DER	10.000	DCL	0.000
△	10.000	DCR	0.000	ELEVON	10.000
○	12.000	CANARD	0.000	AIRCN	0.000
▽	14.000				
◇	16.000	DATA HIST. CODE	MVR#E#GI		

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

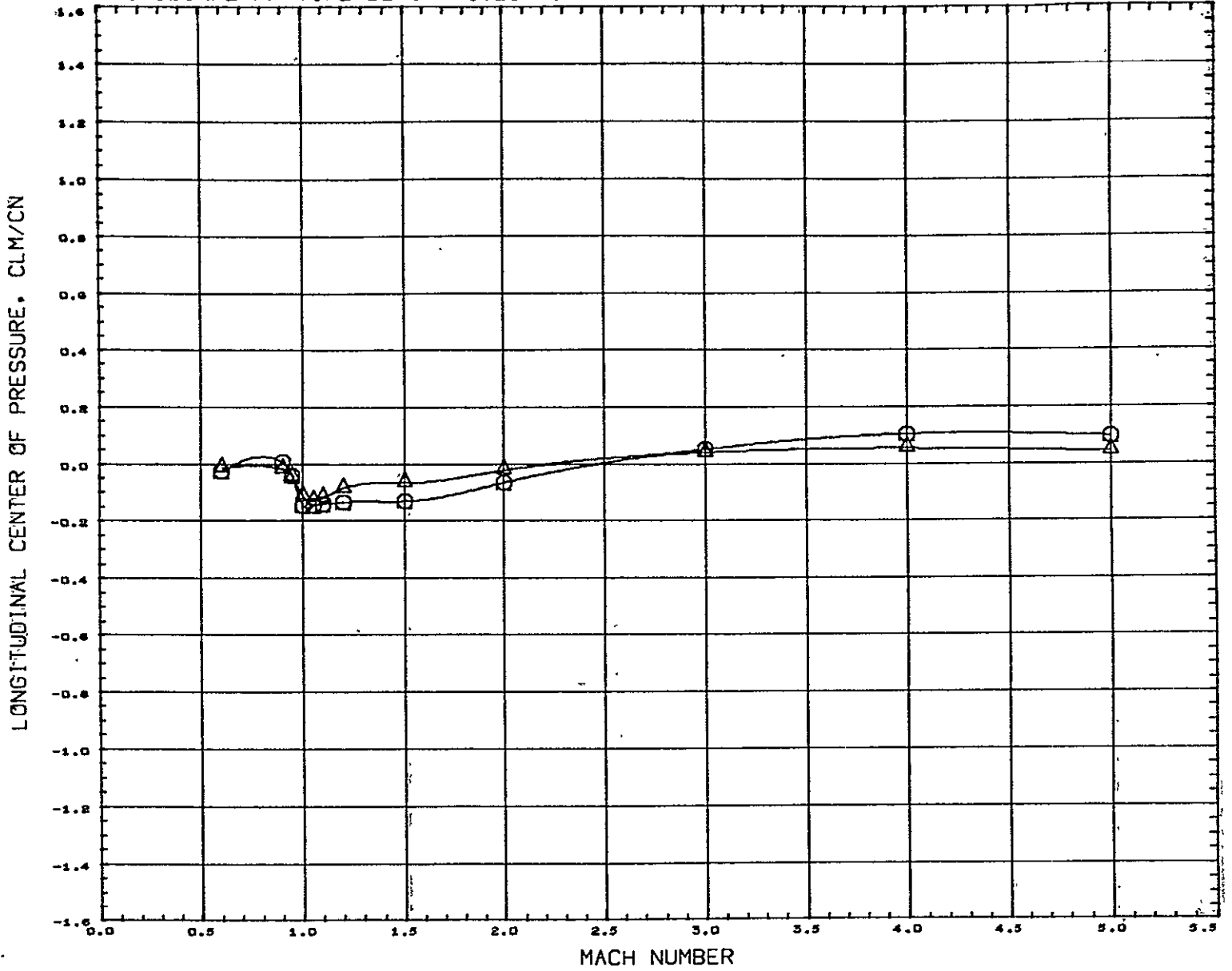


SYMBOL	ALPHA	PARAMETRIC VALUES			
◇	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
◇	22.000	DCR	0.000	ELEVON	10.000
		CANARD	0.000	AIRLON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

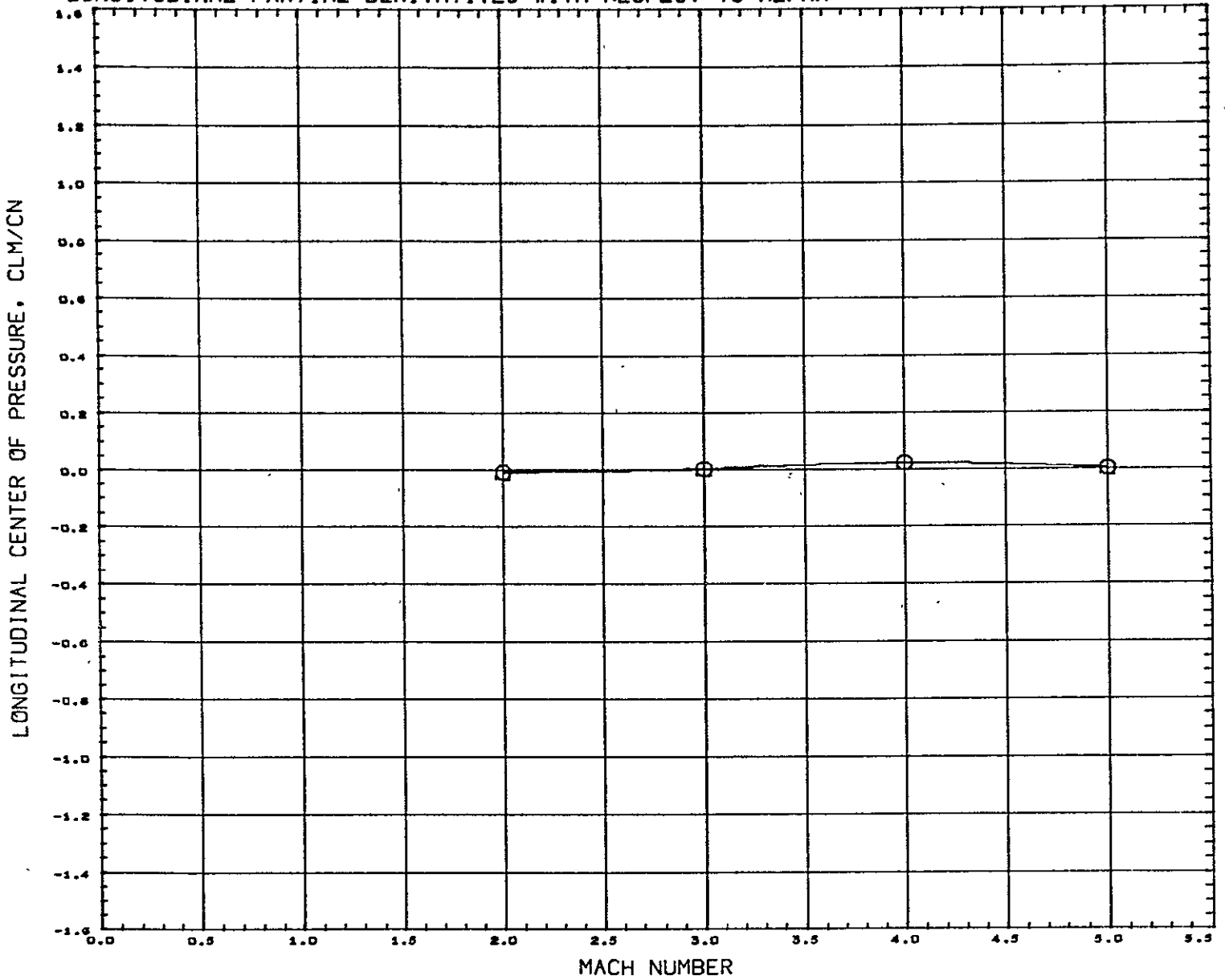
DATA HIST. CODE MVR#E#GI

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	0.000	SREF	15.6560	sq. IN.
△	20.000	DER	0.000	DCL	0.000	LREF	3.0950	IN.
		DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILERON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR0E1					

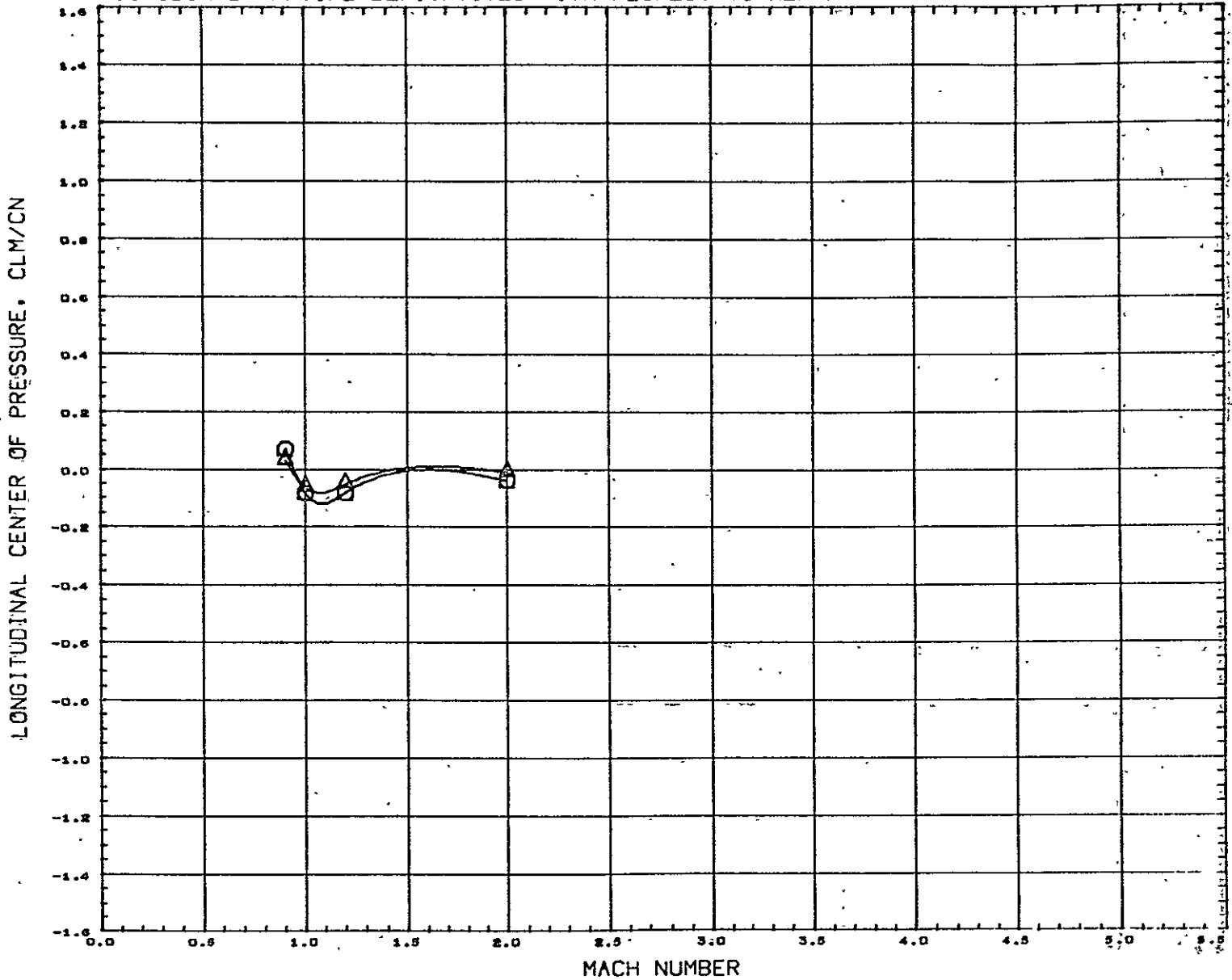
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AIRON	0.000
		DATA HIST. CODE	MVR#E1		

REFERENCE INFORMATION		
SREF	15.6560	33. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

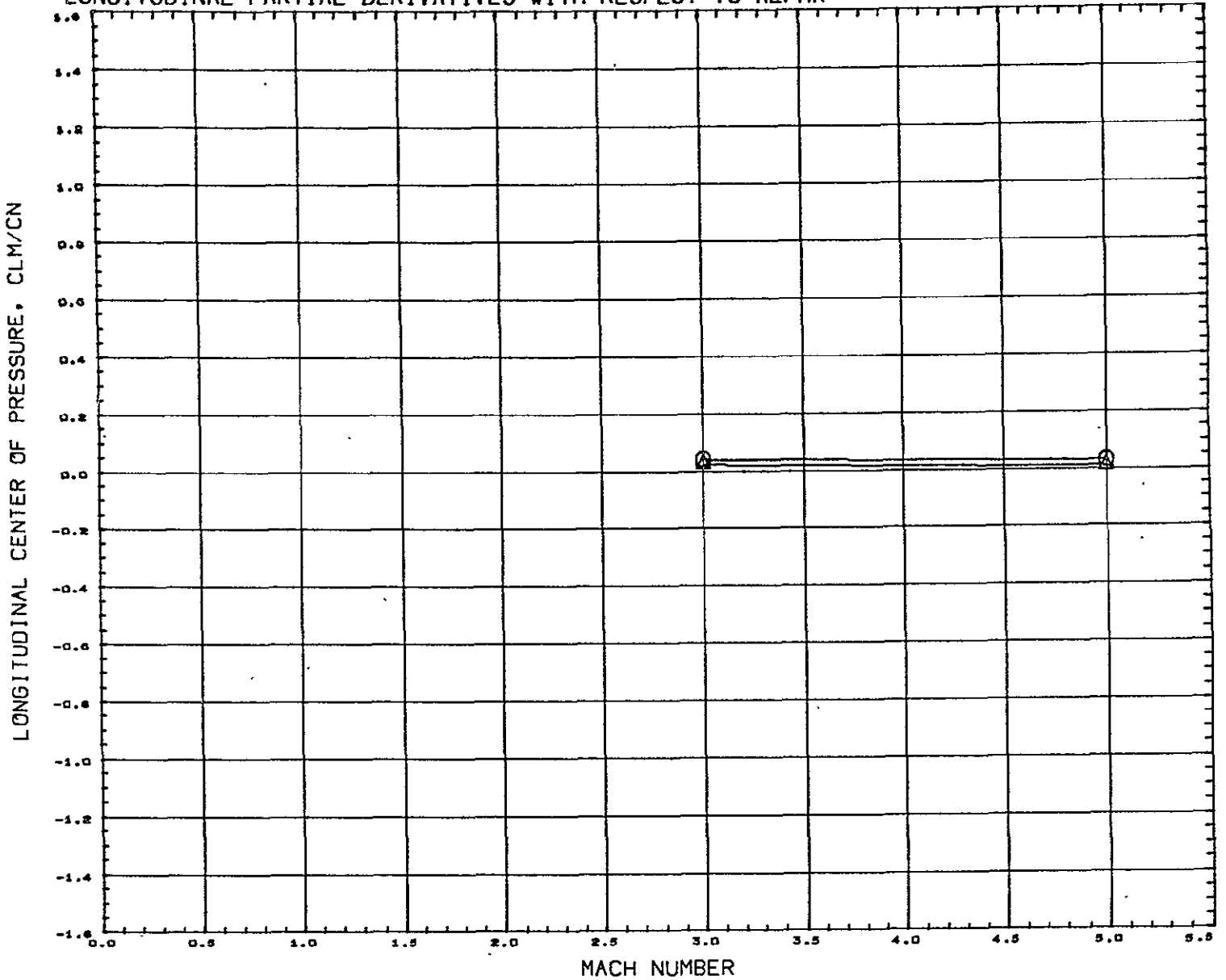
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	-20.000	DCL	0.000
		DCR	0.000	ELEVON	-10.000
		CANARD	0.000	AJLRON	10.000
DATA HIST. CODE		MVR#EI			

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

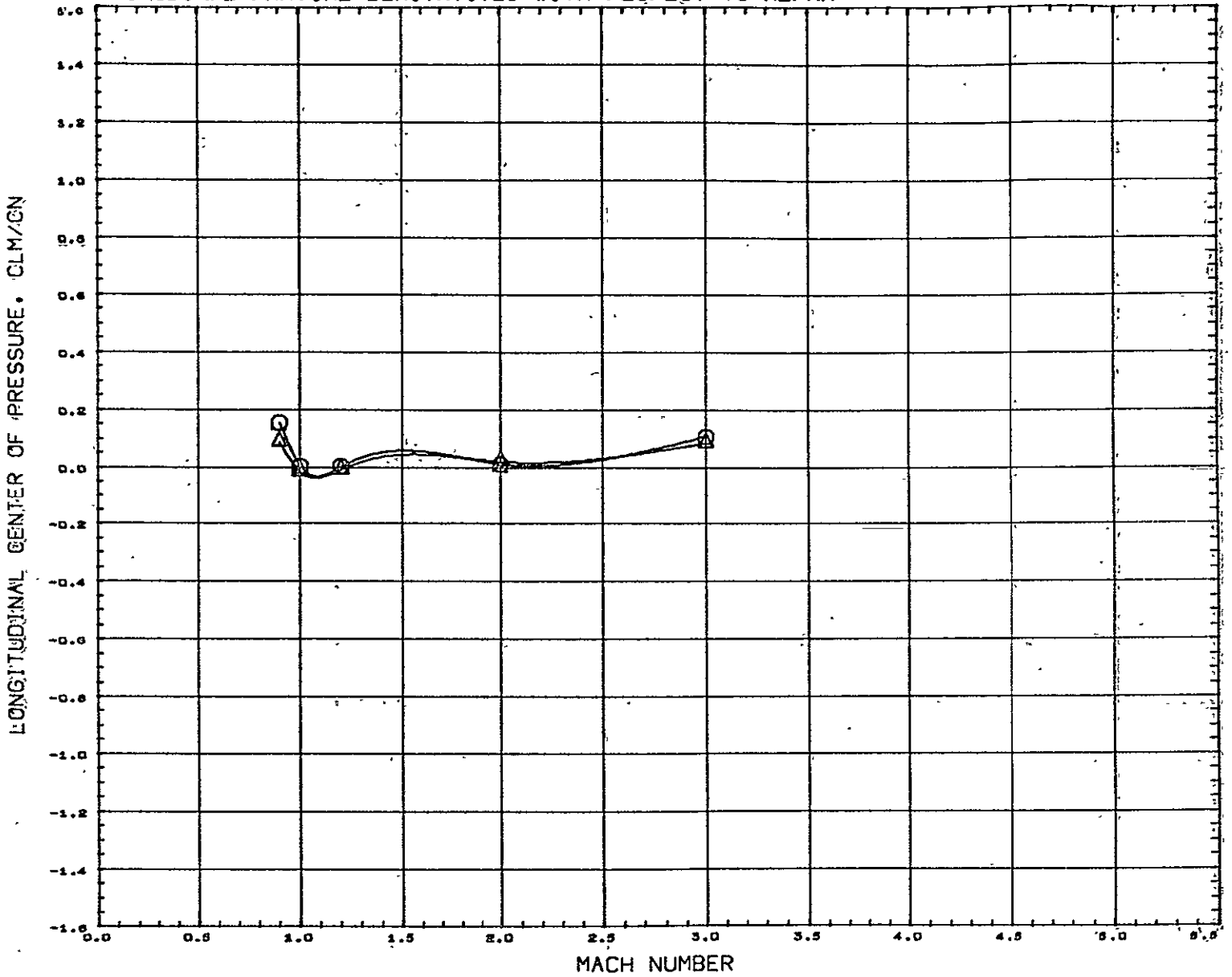


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	-20.000	DCL	0.000
		DCR	0.000	ELEVON	-10.000
		CANARD	0.000	AIRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XNRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

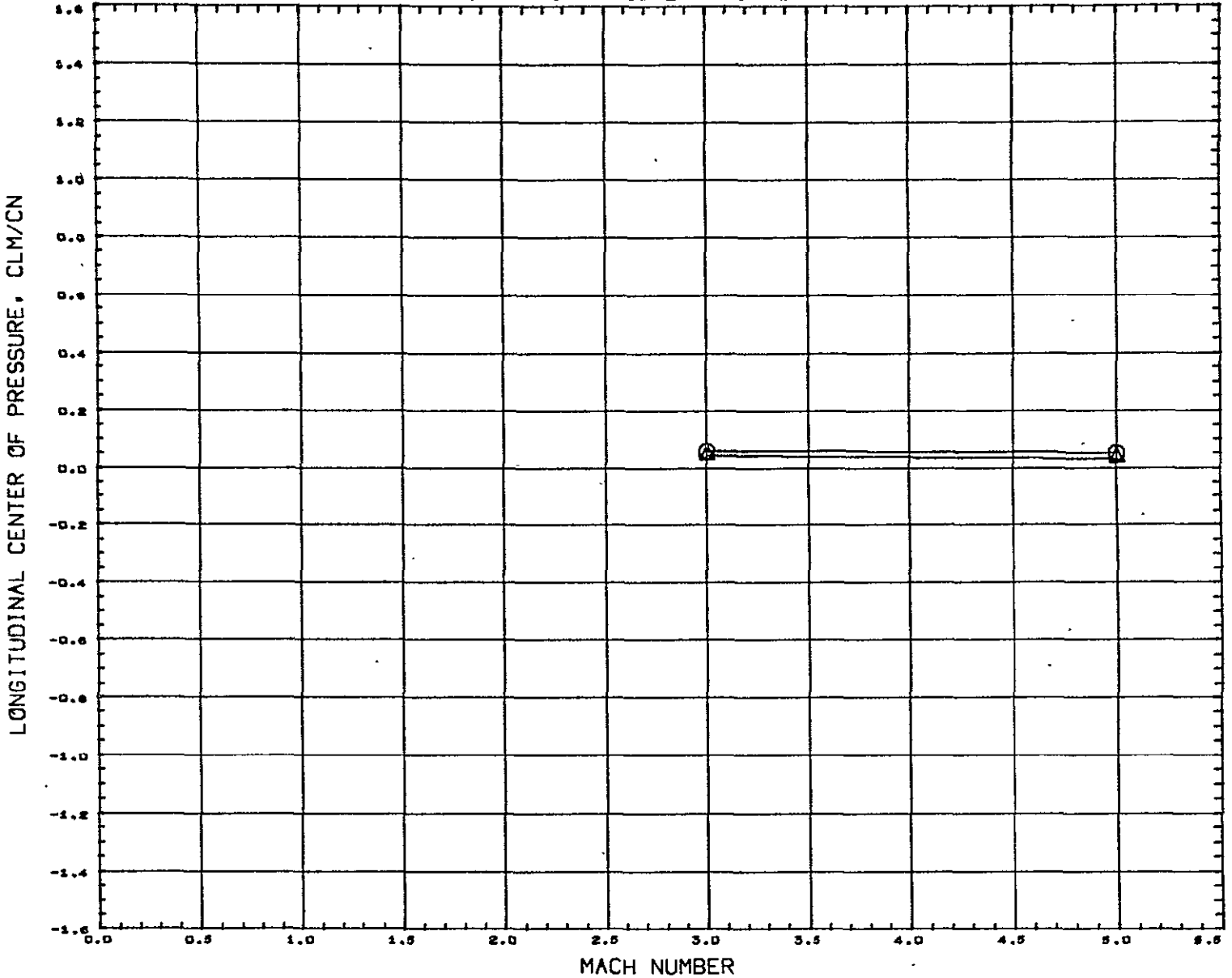
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 20.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILERON	0.000
DATA HIST. CODE		MVR#E1			

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	8.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

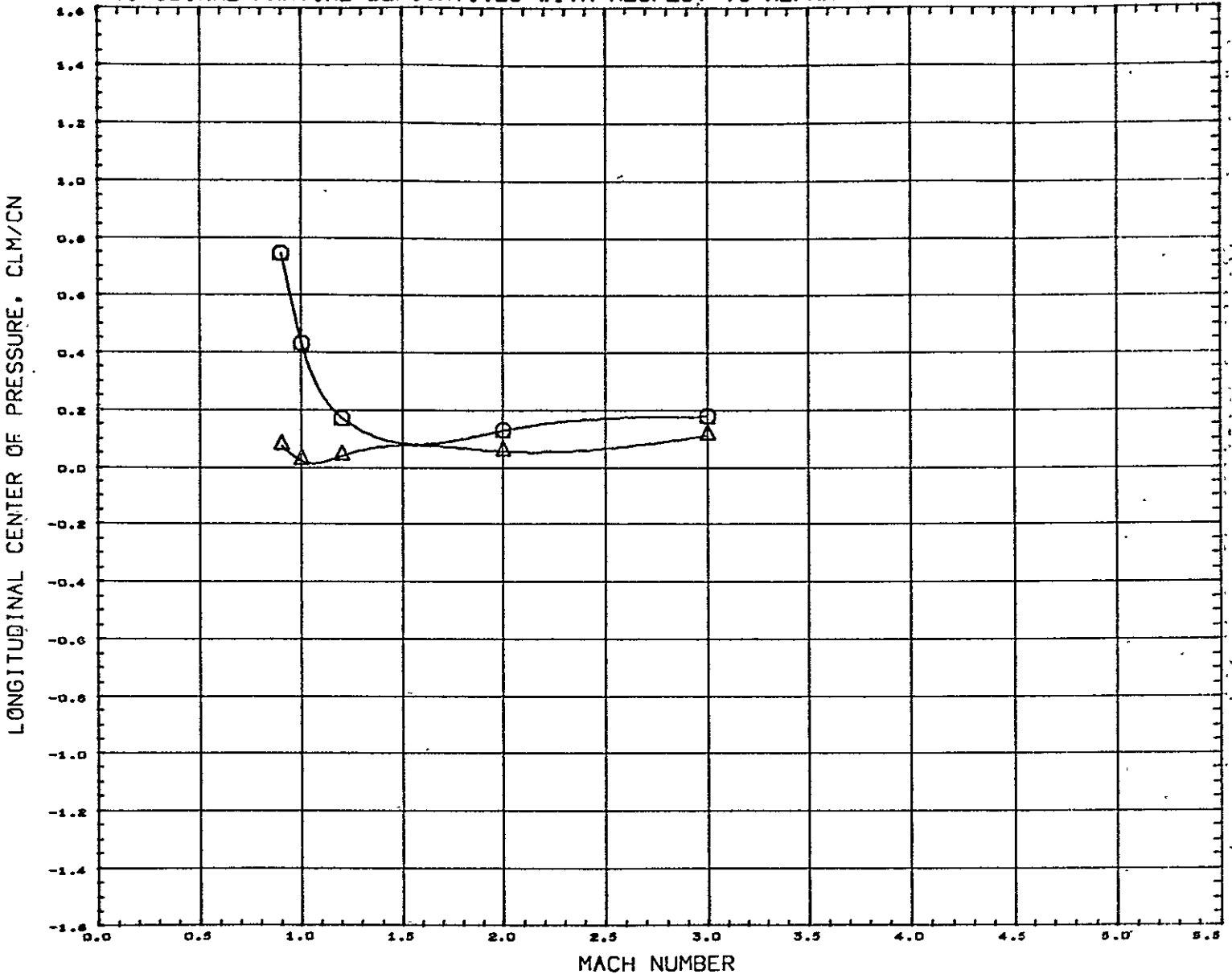


SYMBOL	ALPHA	PARAMETRIC VALUES			
∞	30.000	BETA	0.000	DEL	- 20.000
	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR*E1

REFERENCE INFORMATION		
SREF	15.6560	Sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

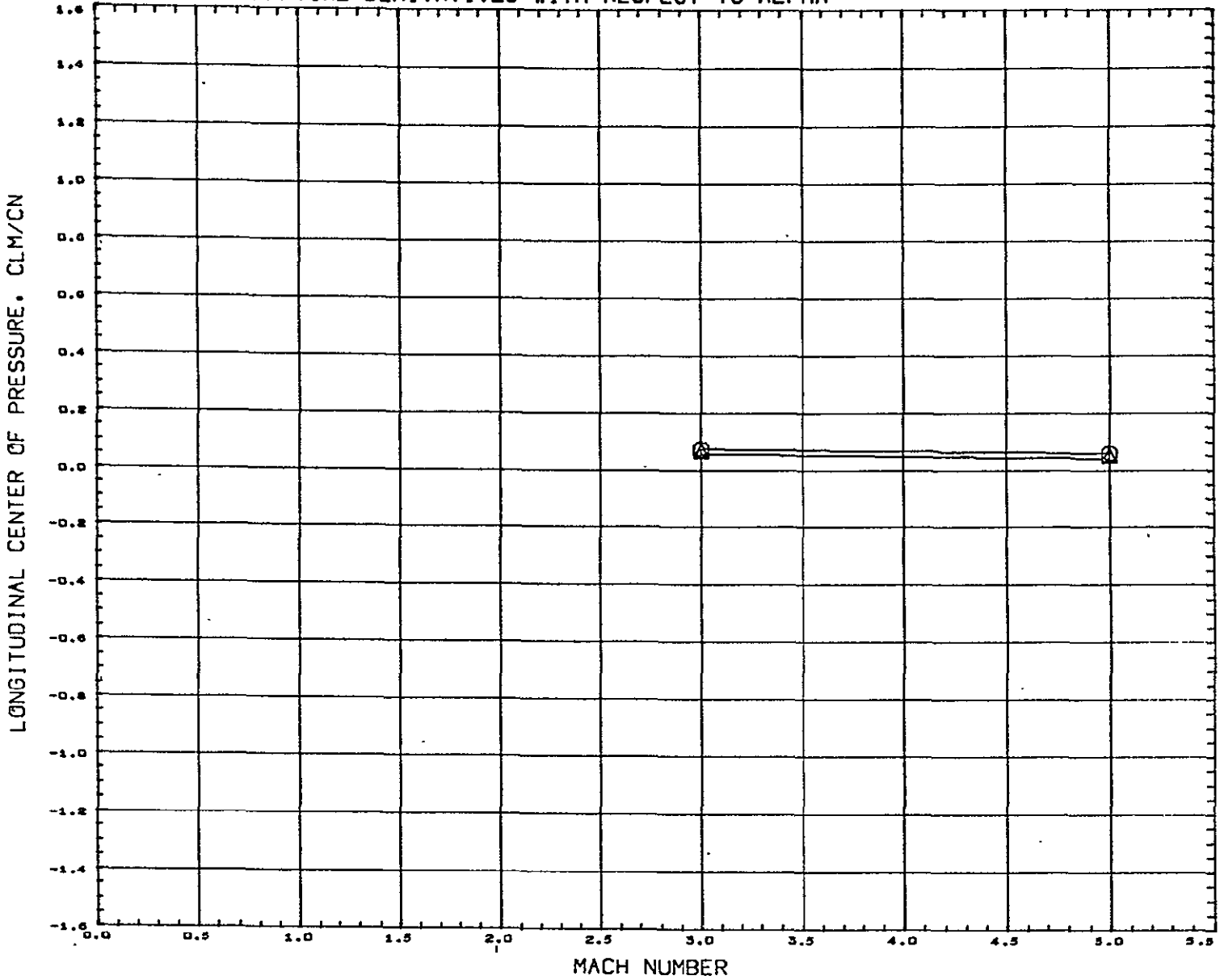
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 60.000
△	20.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE	MVRWEI		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

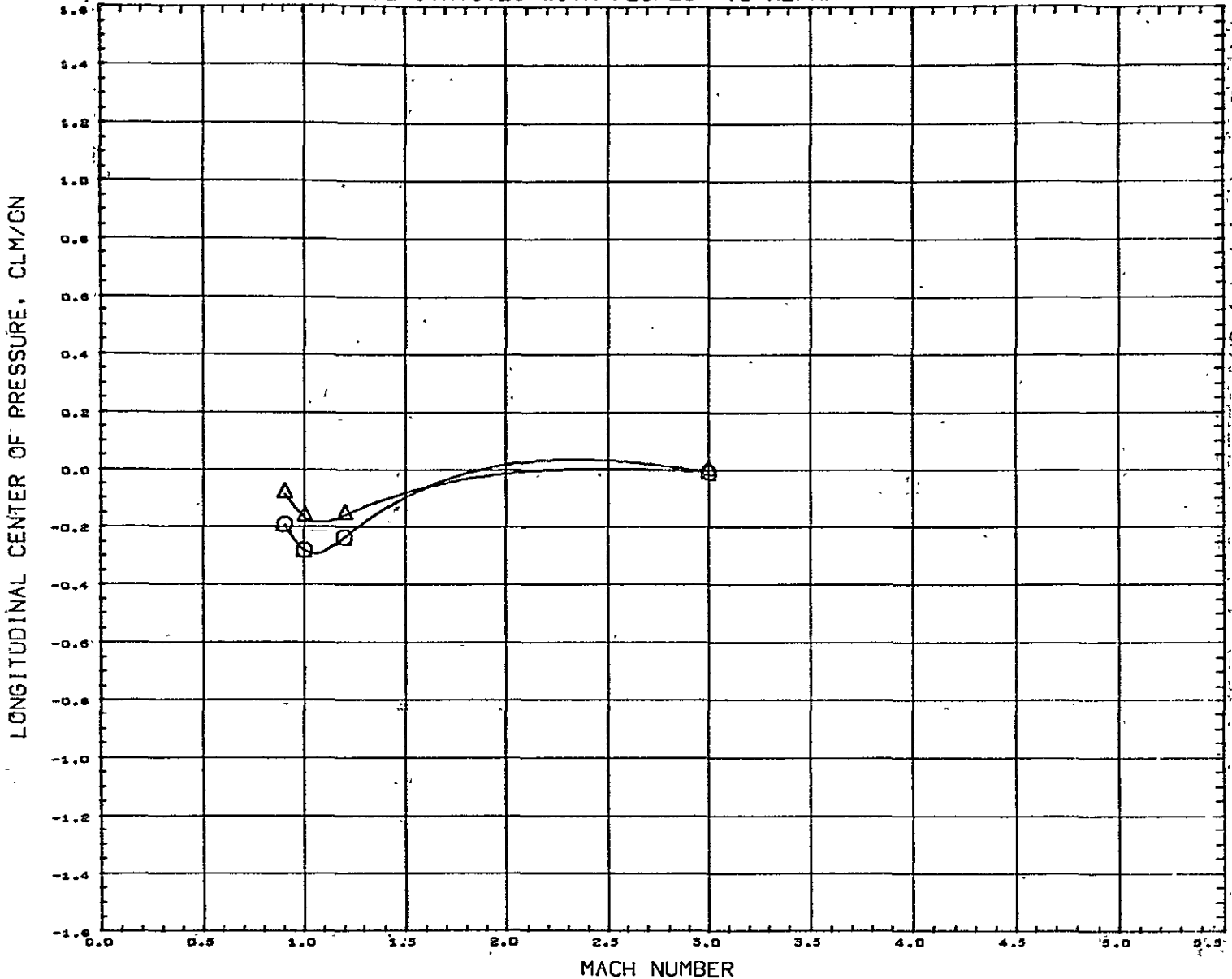


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 60.000
△	40.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

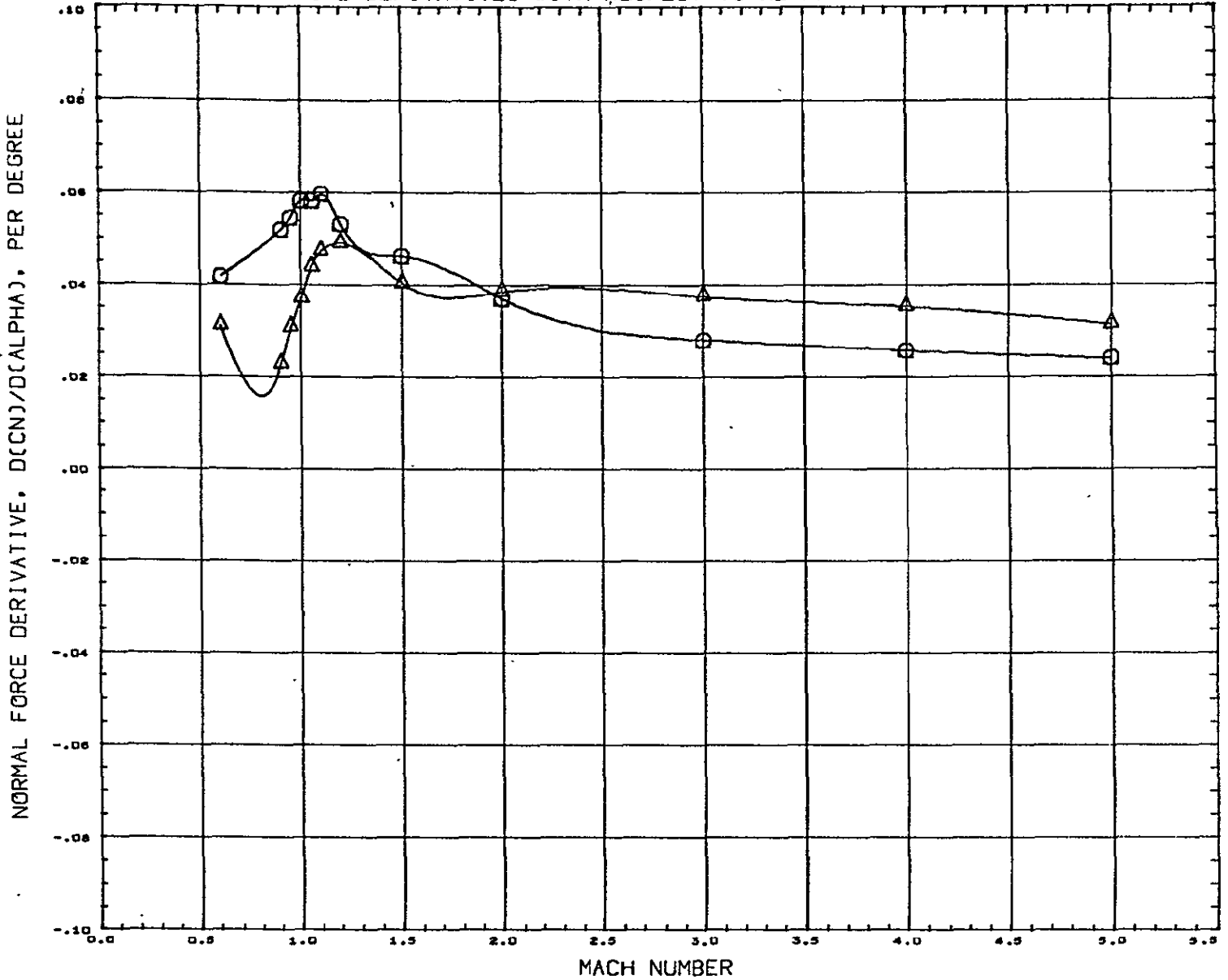
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE NVR#E1			

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

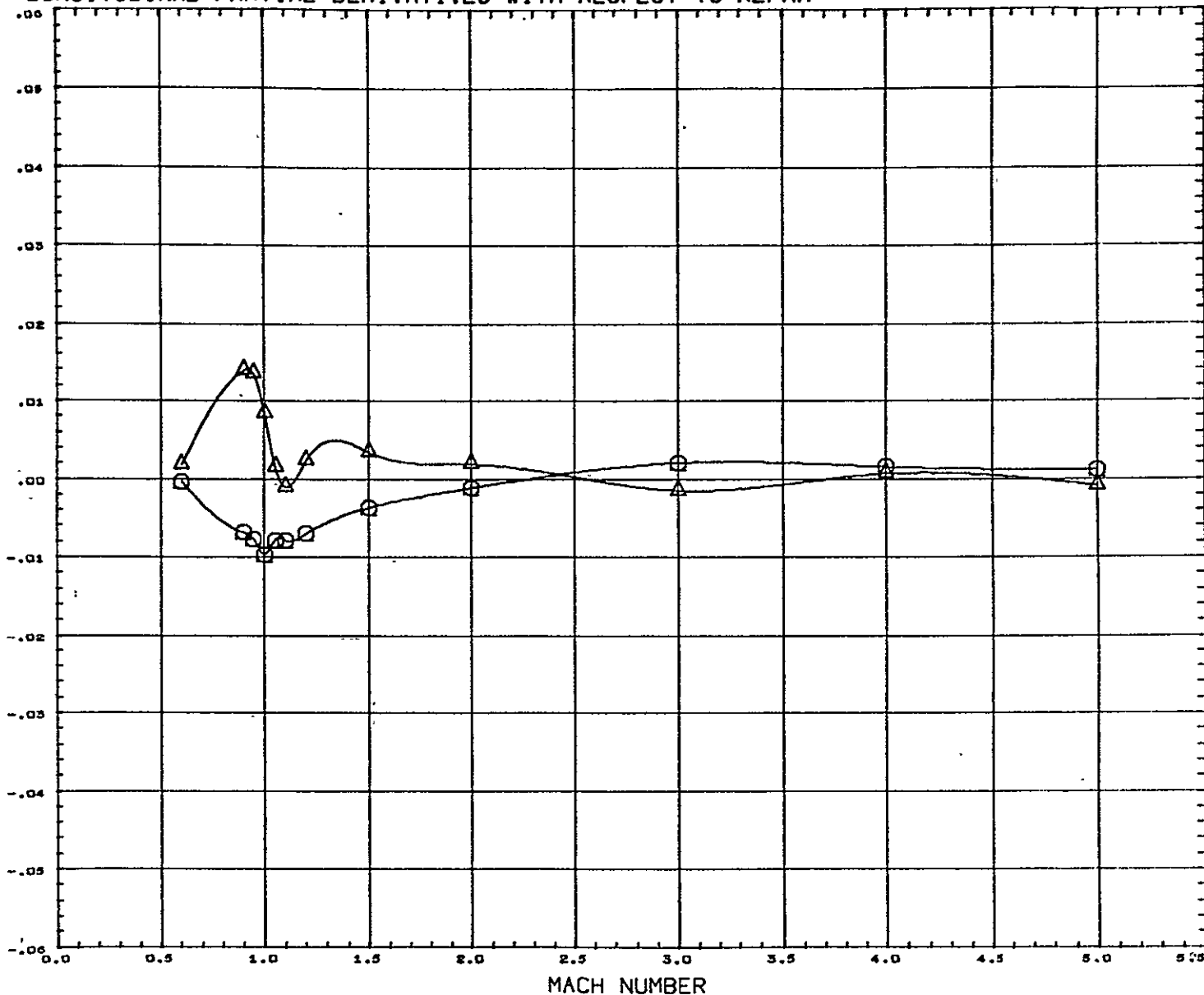
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	0.000	SREF	15.6560	30. IN.
△	20.000	DER	0.000	DCL	0.000	LREF	3.0950	IN.
		DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR*EG1					

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

PITCHING MOMENT DERIVATIVE, $D(CLM)/D(\text{ALPHA})$, PER DEGREE

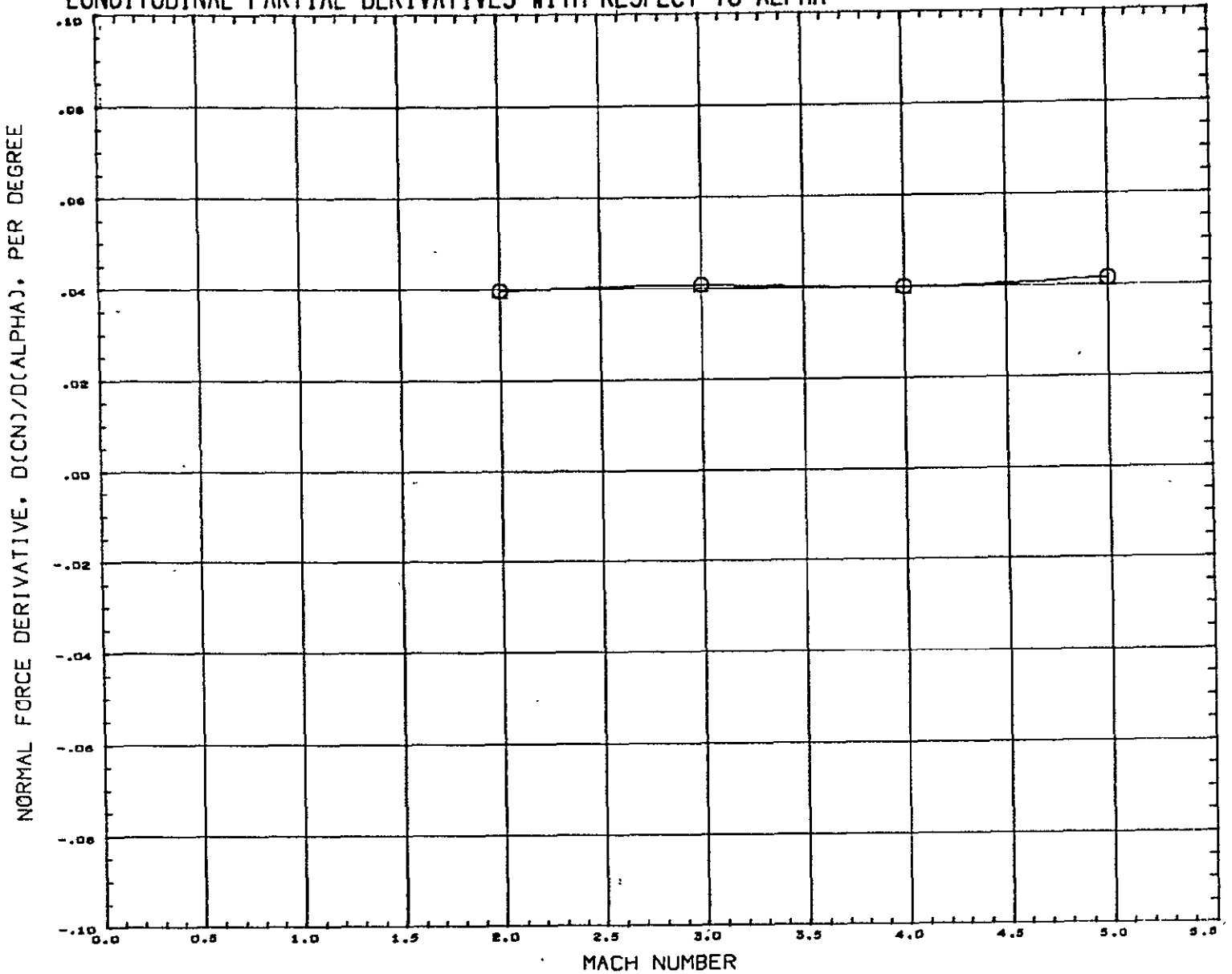


SYMBOL	ALPHA	PARAMETRIC VALUES				
○	10.000	BETA	0.000	DEL.	0.000	
	△	20.000	DER	0.000	DCL	0.000
			DCR	0.000	ELEVON	0.000
			CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#EG1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



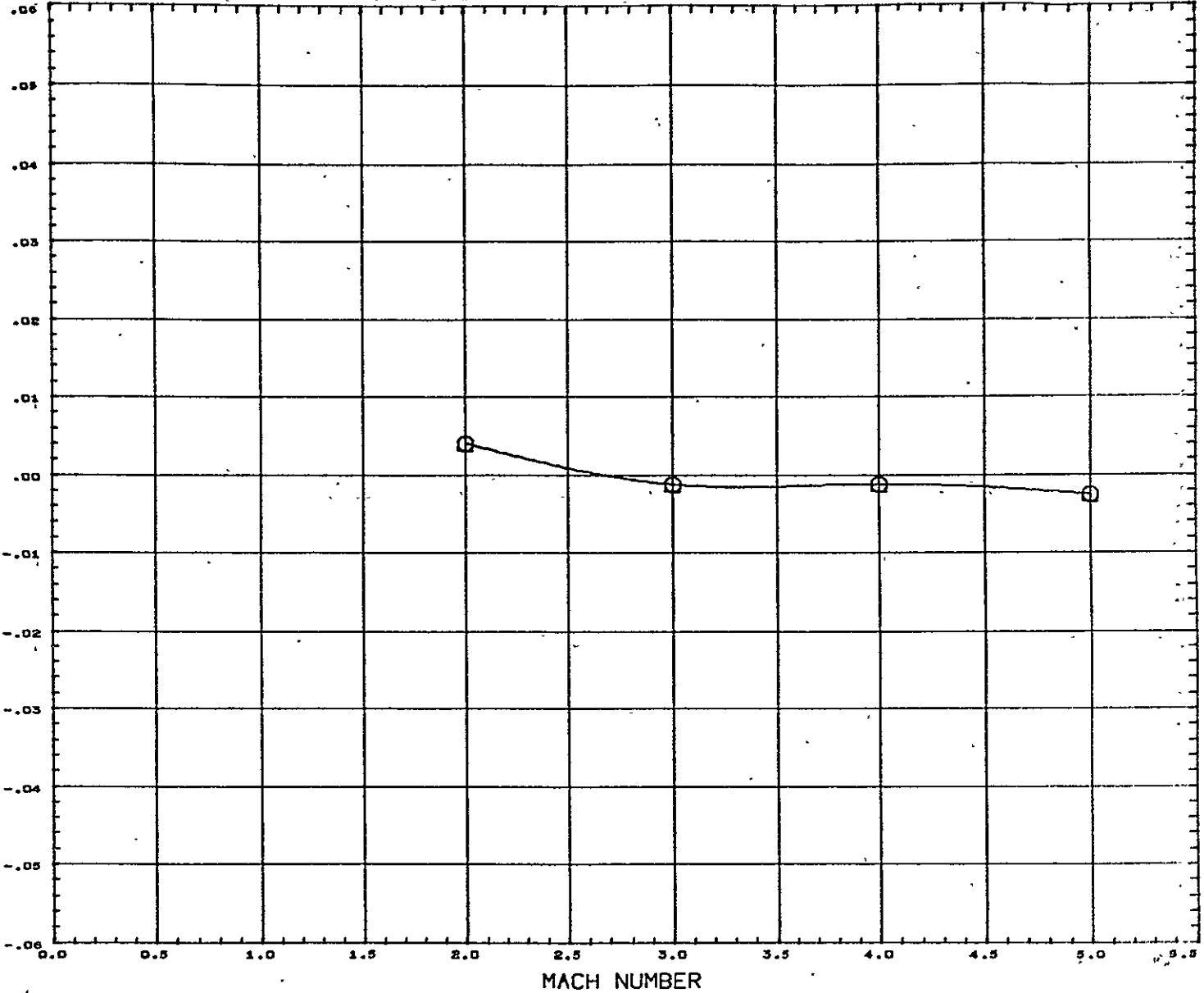
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EGI

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

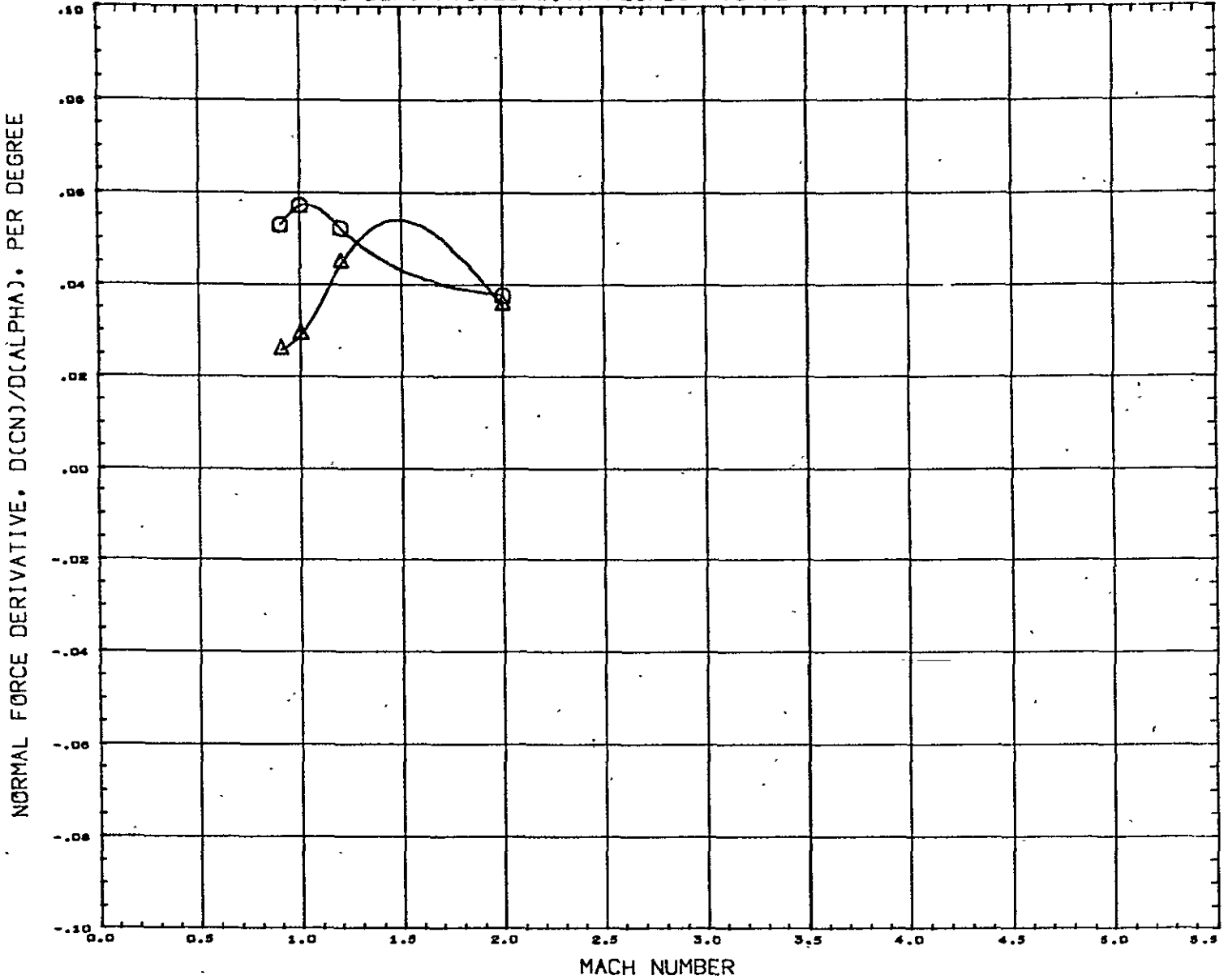
PITCHING MOMENT DERIVATIVE, $D(C_{LM})/D(\alpha)$, PER DEGREE



MACH NUMBER

SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
Q	30.000	BETA	0.000	DEL	0.000	SREF	15.6560	30. IN.
		DER	0.000	DCL	0.000	LREF	3.0950	IN.
		DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#EG1					

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

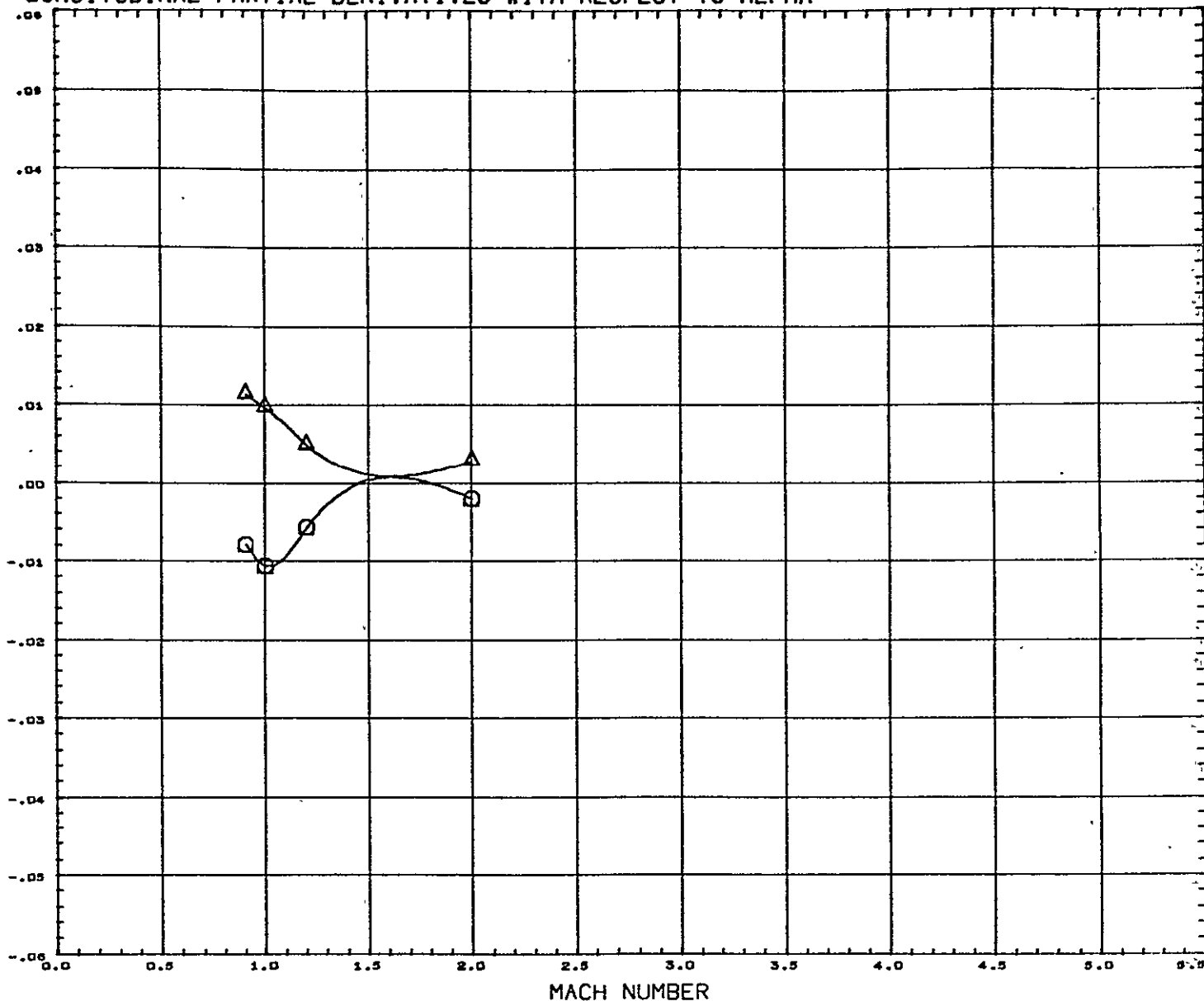


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000
DATA HIST. CODE		HVR*EGI			

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

PITCHING MOMENT DERIVATIVE, $D(CLM)/D(\text{ALPHA})$, PER DEGREE

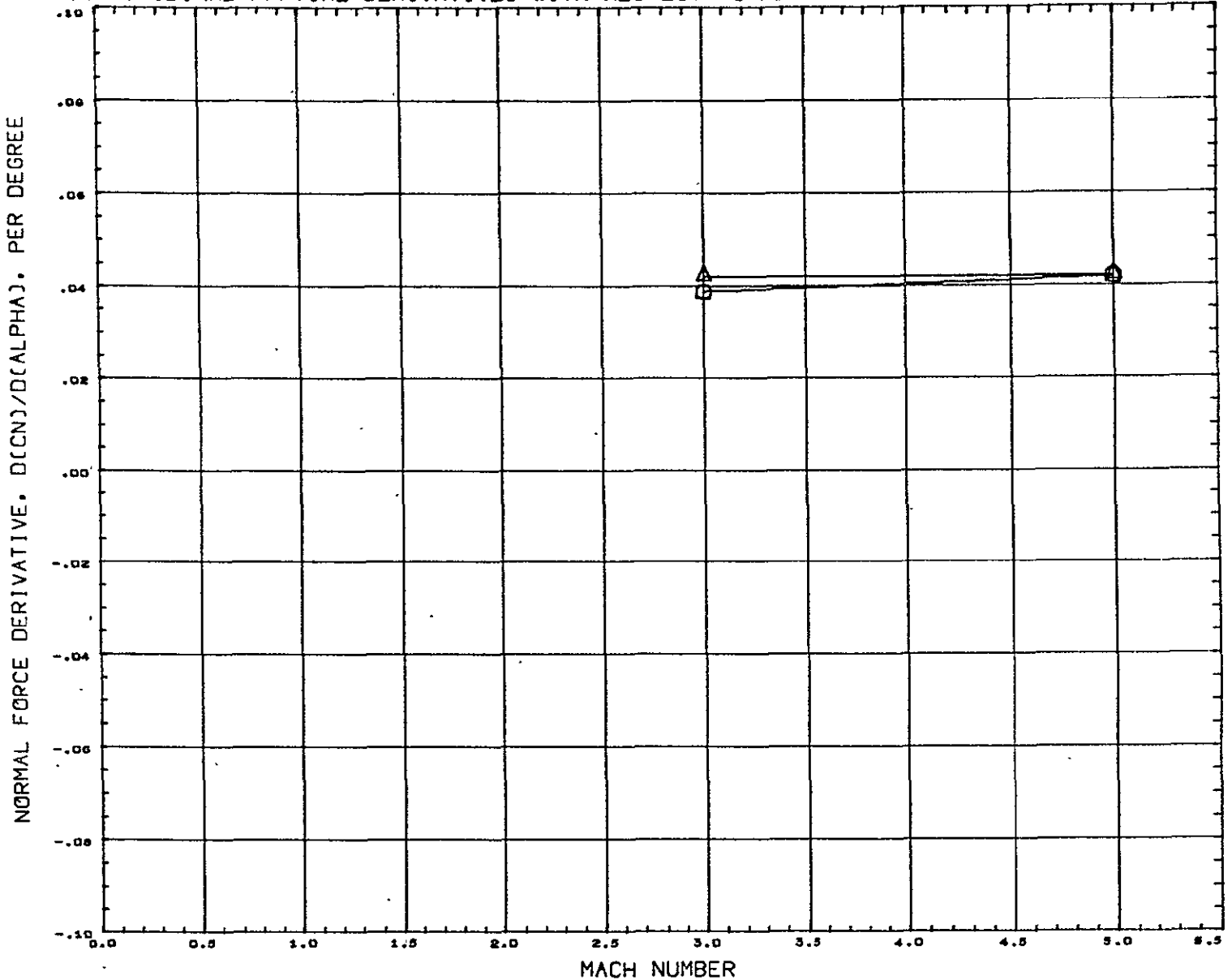


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000

DATA HIST. CODE MVR#EGI

REFERENCE INFORMATION		
SREF	15.6580	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0055	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



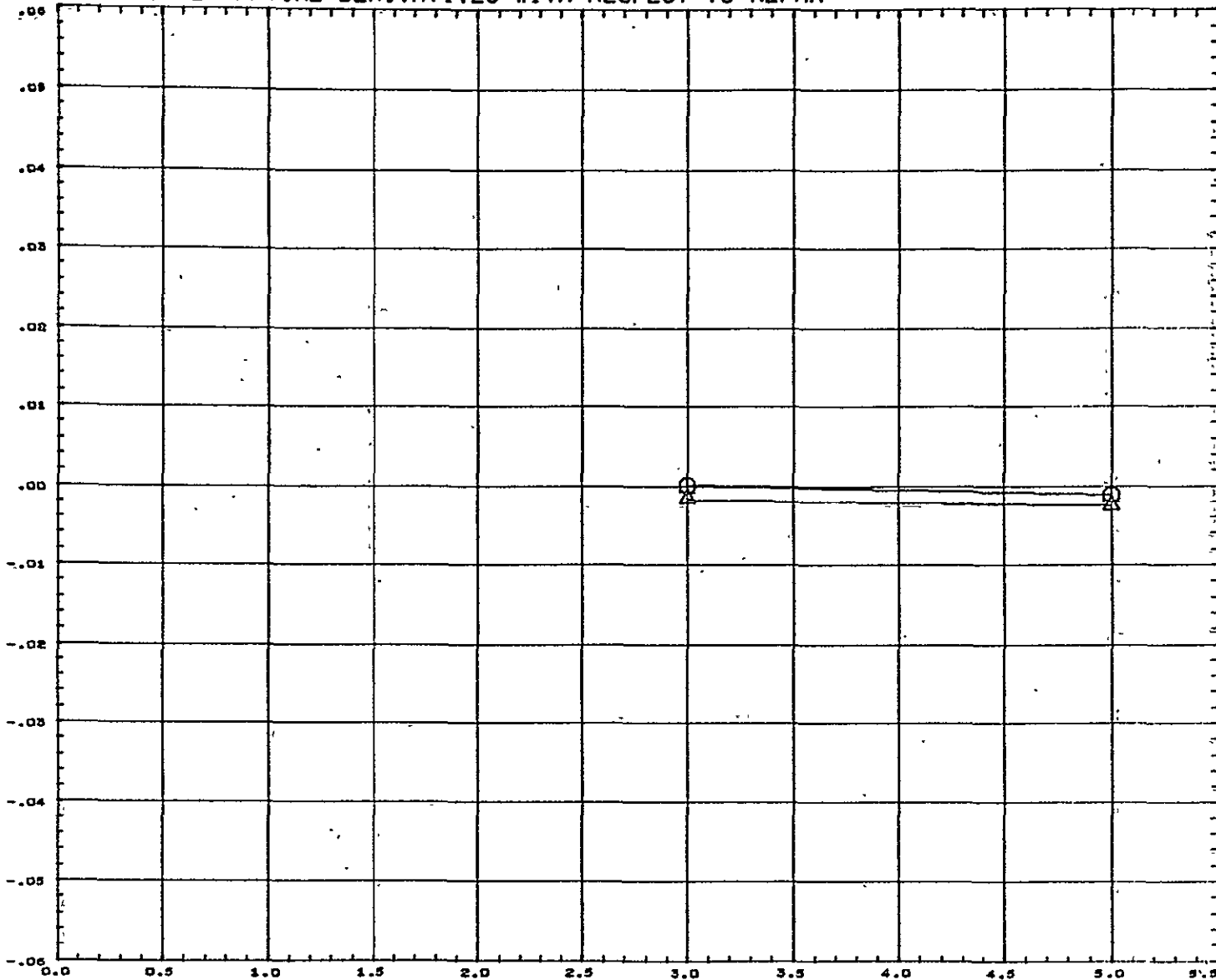
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000

DATA MIST. CODE MVR*EG1

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

PITCHING MOMENT DERIVATIVE, $D(C_{LM})/D(\text{ALPHA})$, PER DEGREE



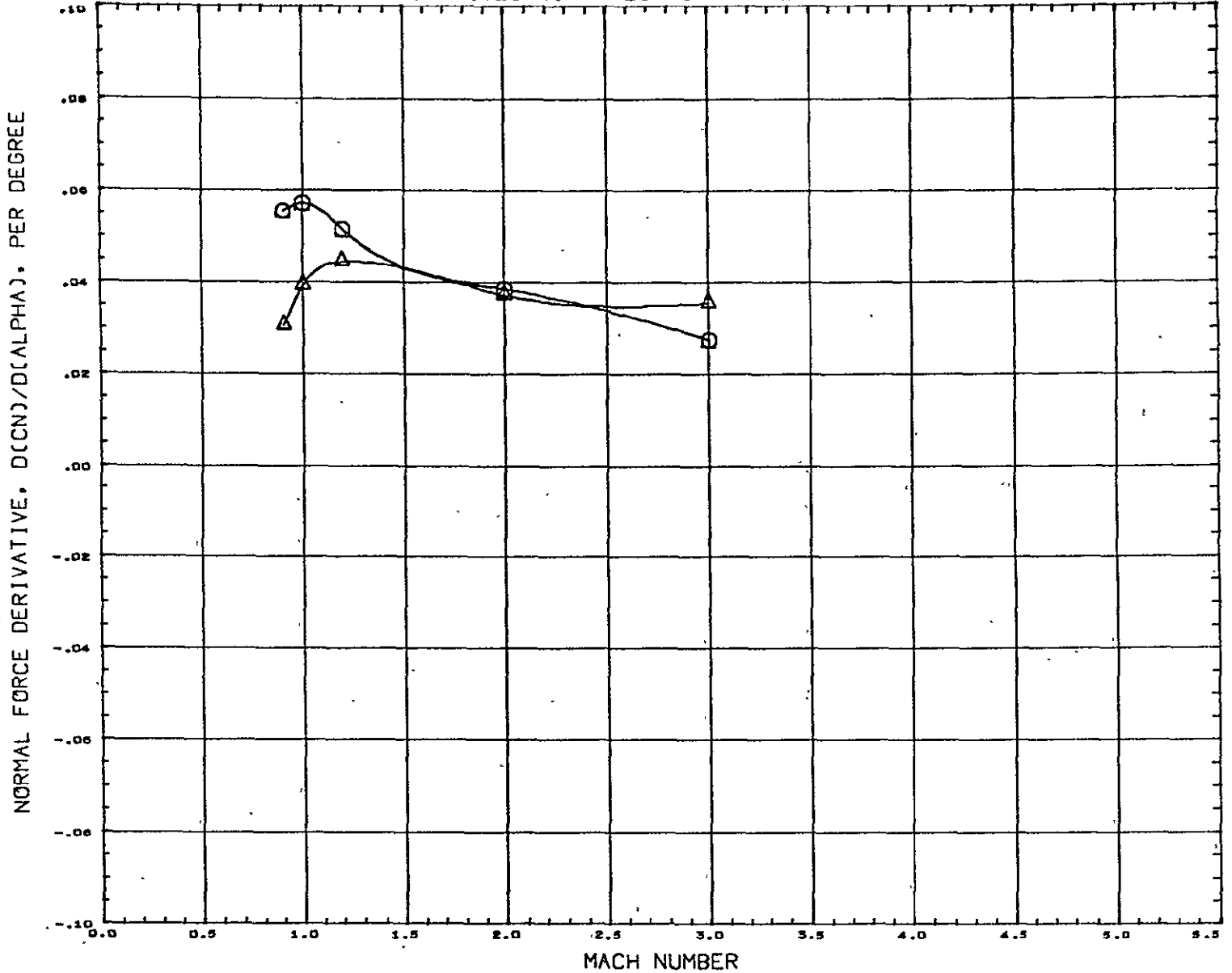
MACH NUMBER

SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILERON	10.000

DATA HIST. CODE MVR#EG1

REFERENCE INFORMATION		
SREF	15.6560	89: IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

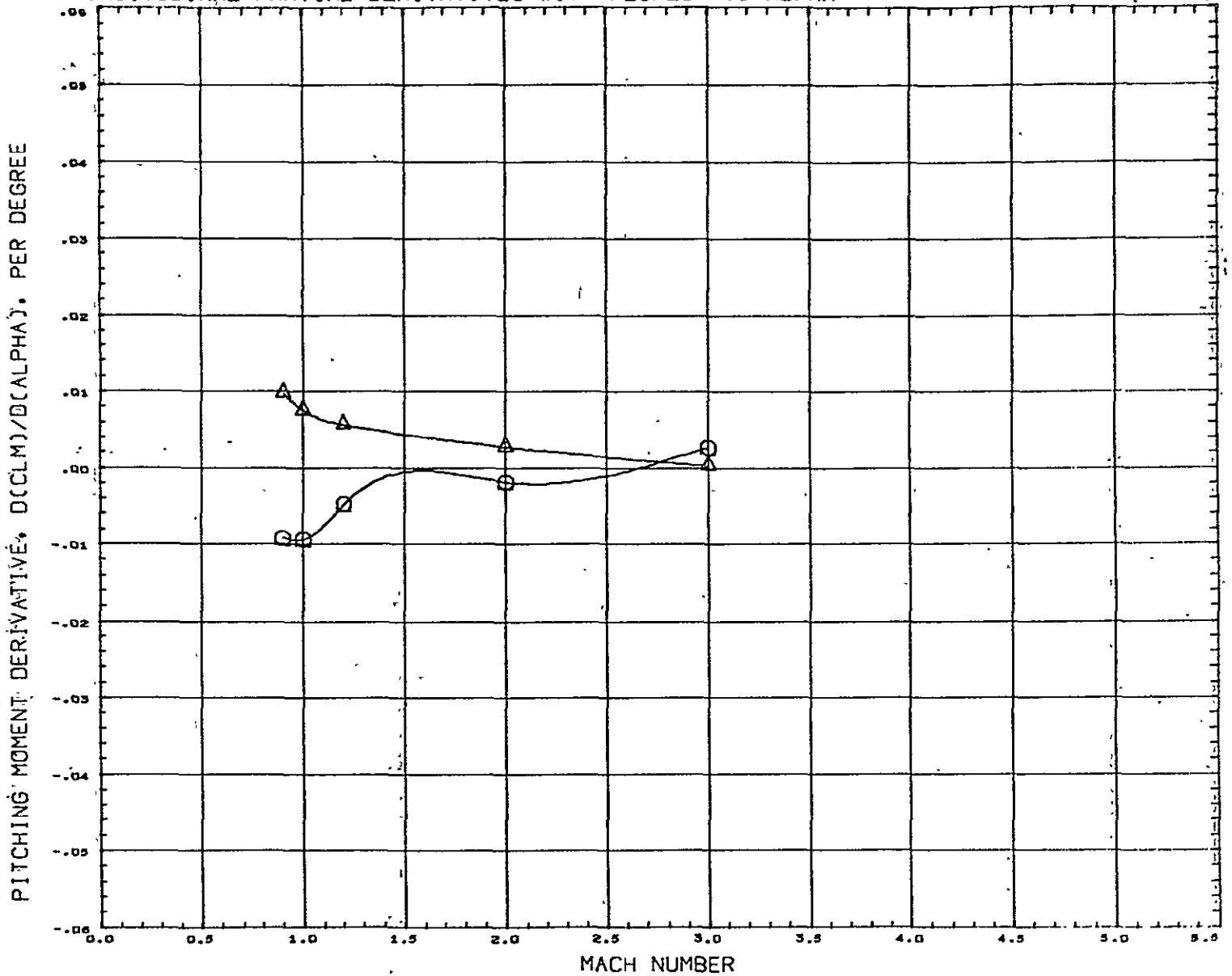


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 20.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#EGI

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0990	IN.
BREF	0.0990	IN.
XMRP	0.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

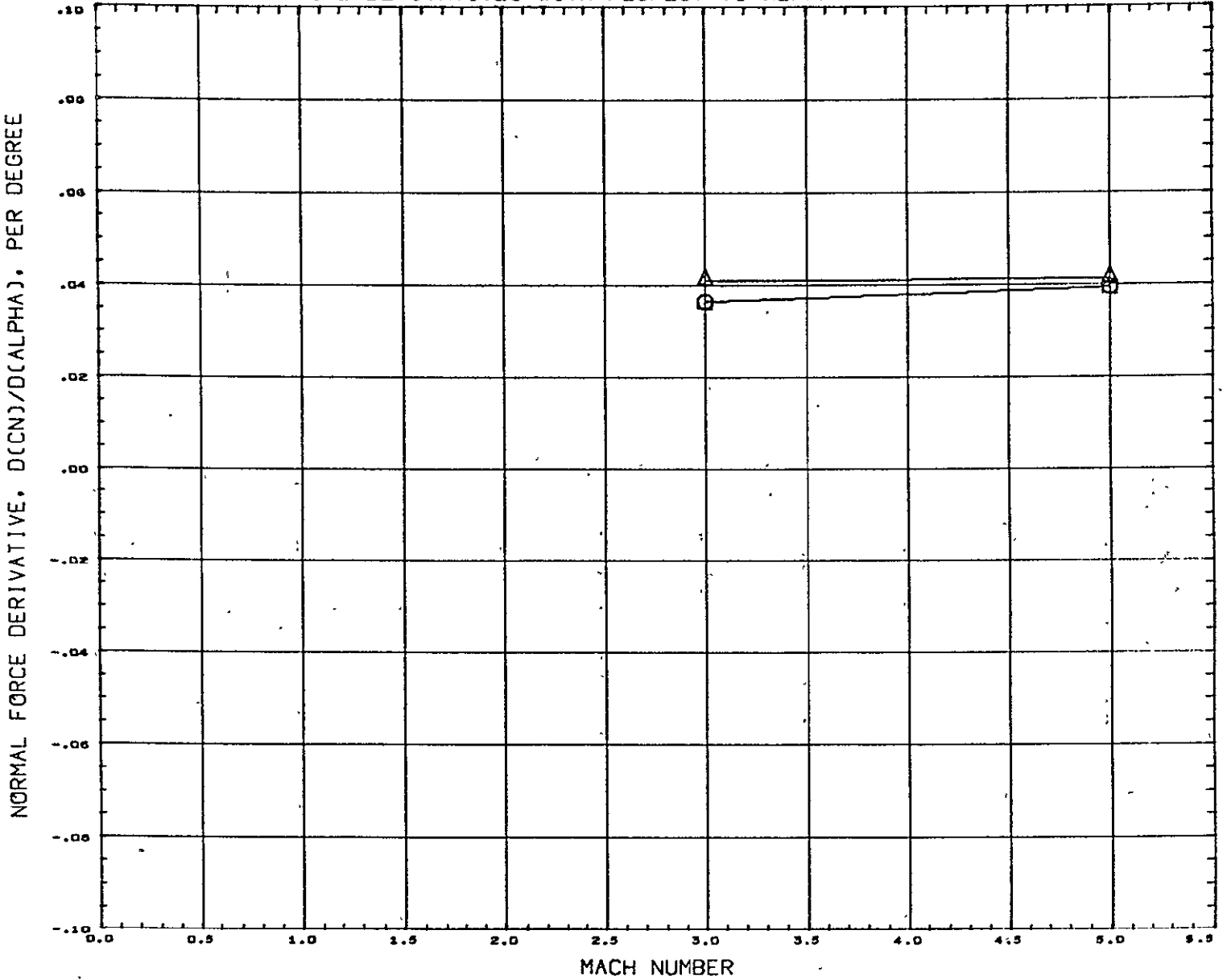
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 20.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE,	MVR#EG1		

REFERENCE INFORMATION		
SREF	19.6560	59. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



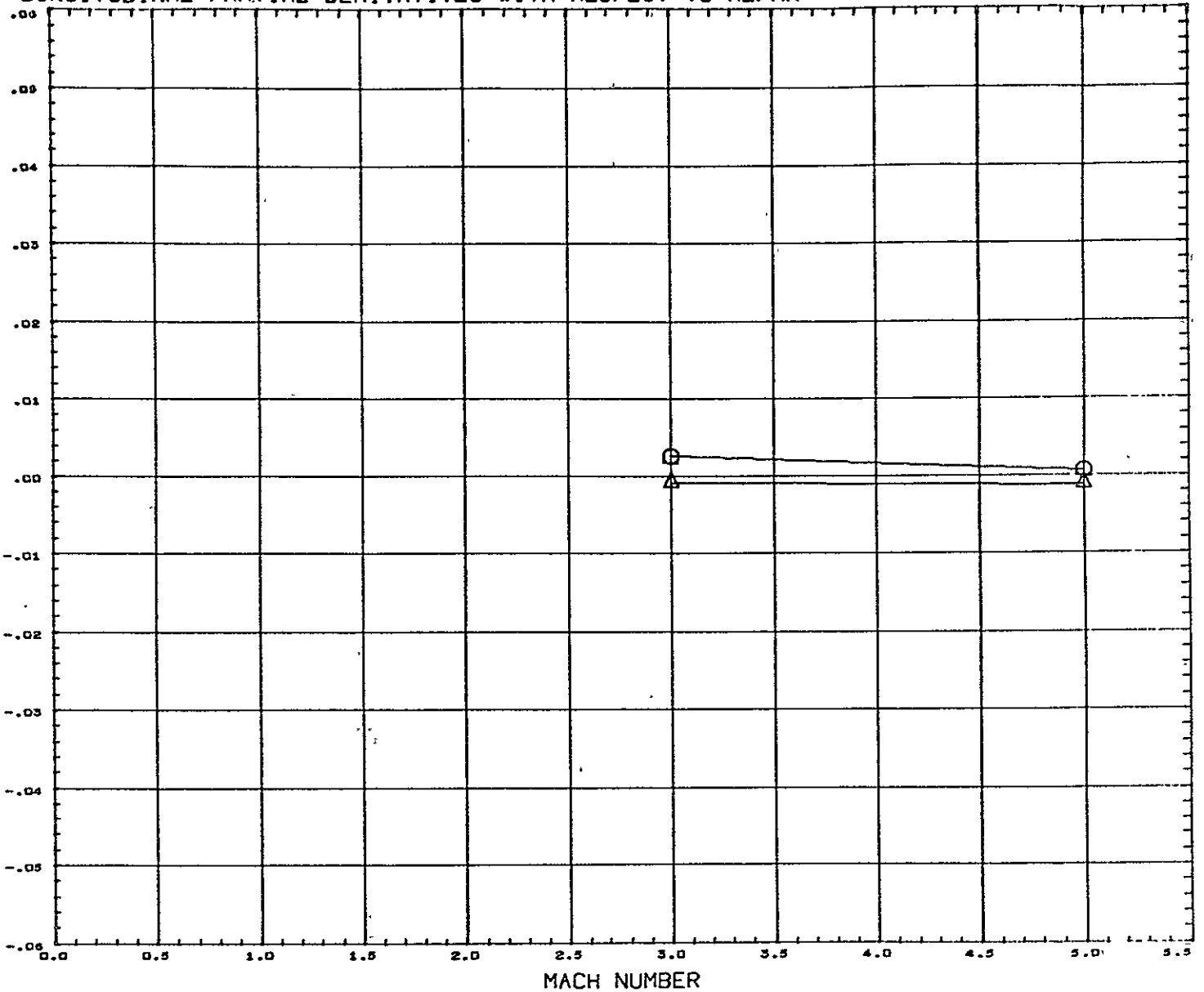
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 20.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E61

REFERENCE INFORMATION		
SREF	15.6560	50.1N.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

PITCHING MOMENT DERIVATIVE, $D(CLM)/D(\text{ALPHA})$, PER DEGREE

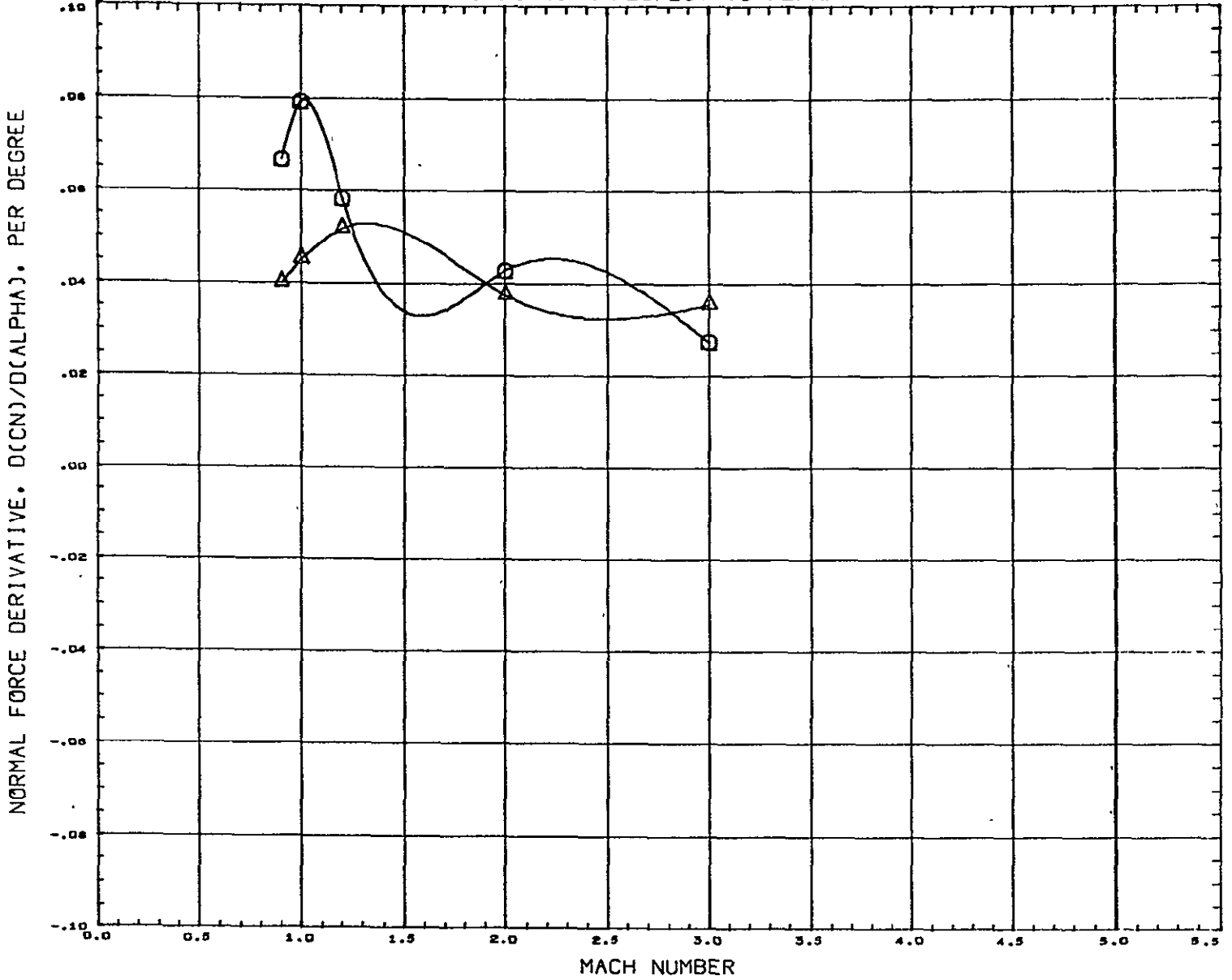


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 20.000
△	40.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7300	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#EG1

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA



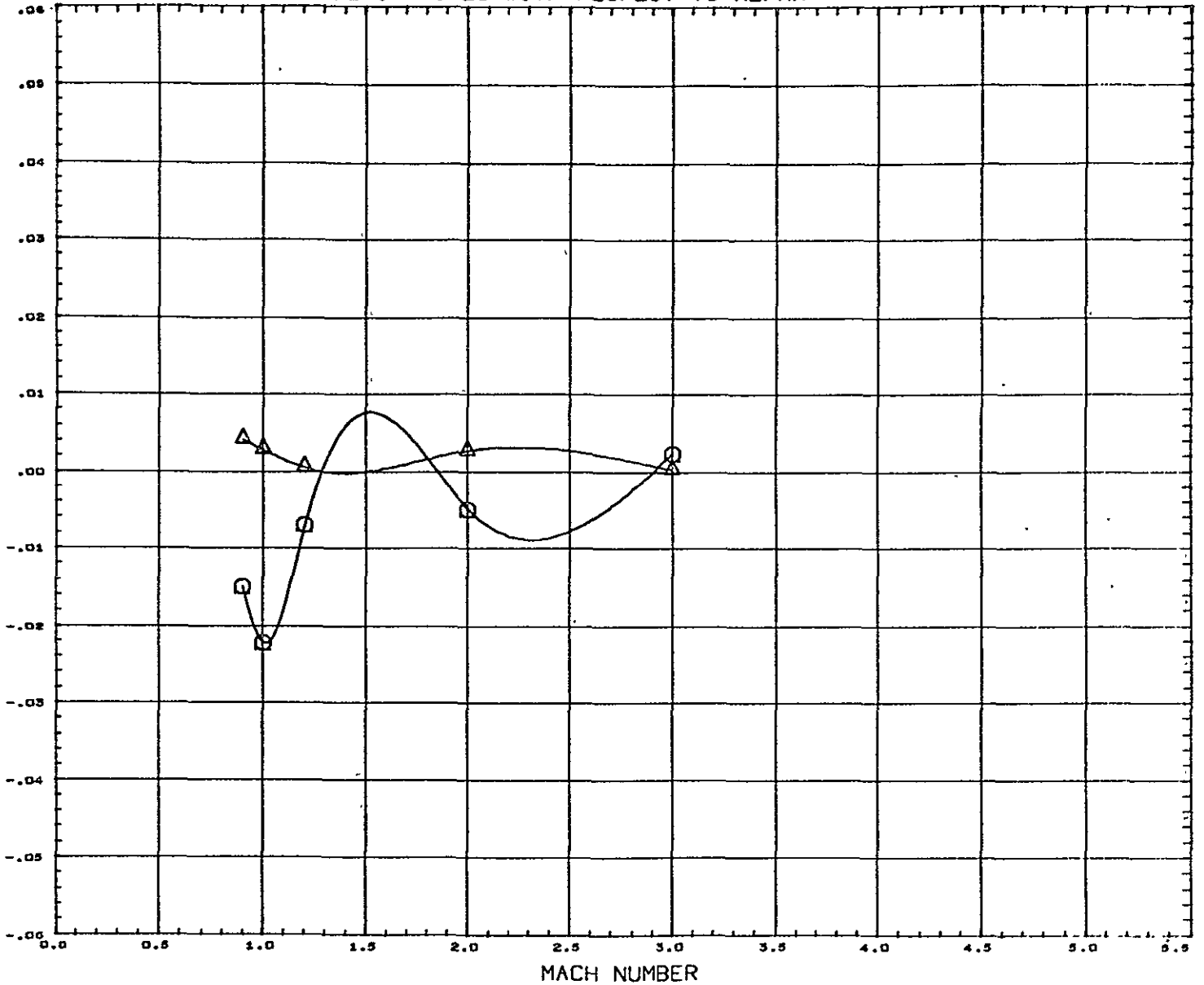
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 60.000
△	20.000	DER	- 60.000	DCL	0.000
		OCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EGJ

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

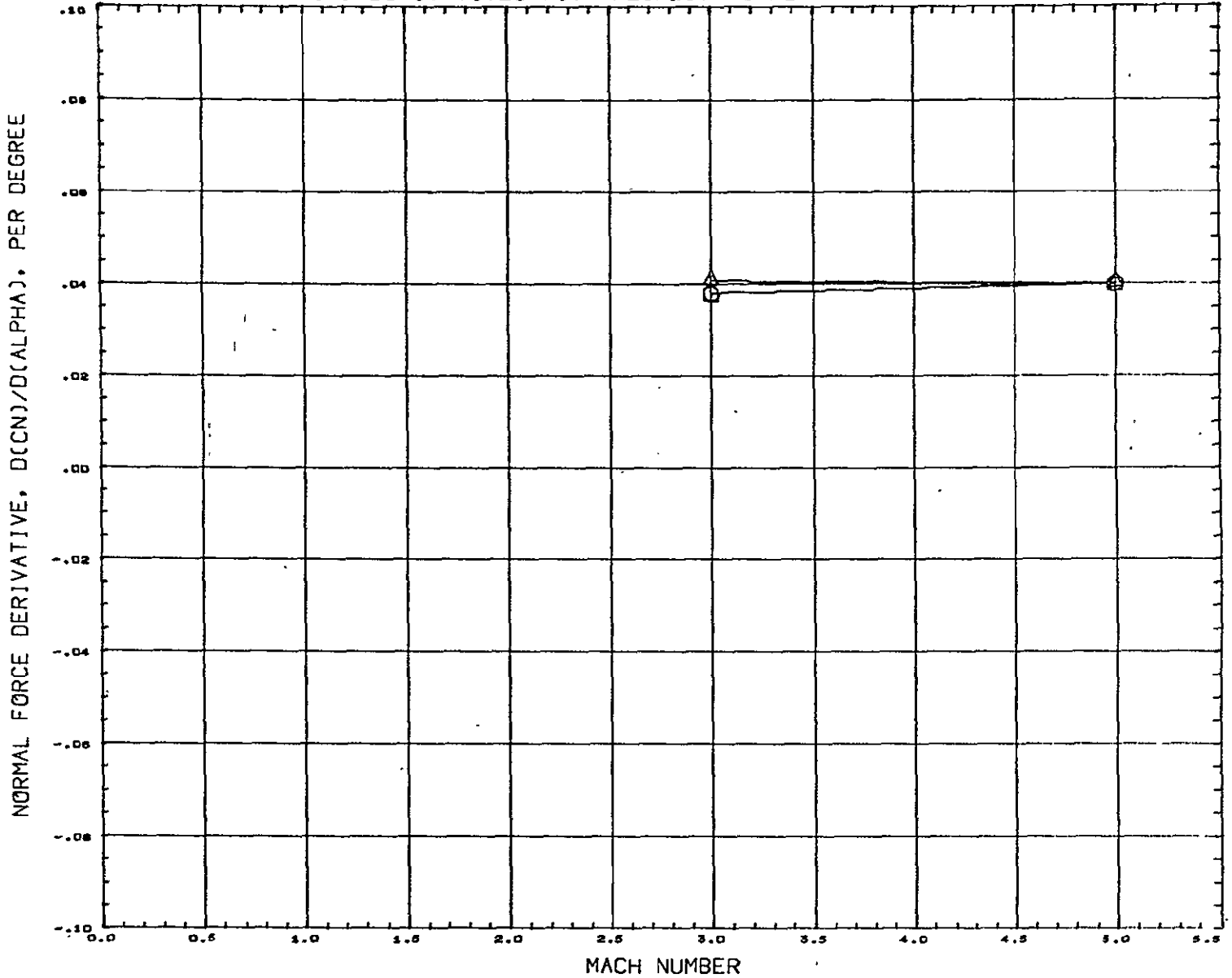
PITCHING MOMENT DERIVATIVE, $D(C_{LM})/D(\text{ALPHA})$, PER DEGREE



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	- 60.000	SREF	15.6560	SQ. IN.
△	20.000	DER	- 60.000	DCL	0.000	LREF	3.0950	IN.
		DCR	0.000	ELEVON	- 60.000	BREF	6.0990	IN.
		CANARD	0.000	AILERON	0.000	XHRP	6.7100	IN.
						YHRP	0.0000	IN.
						ZHRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE: MVR#EG1

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

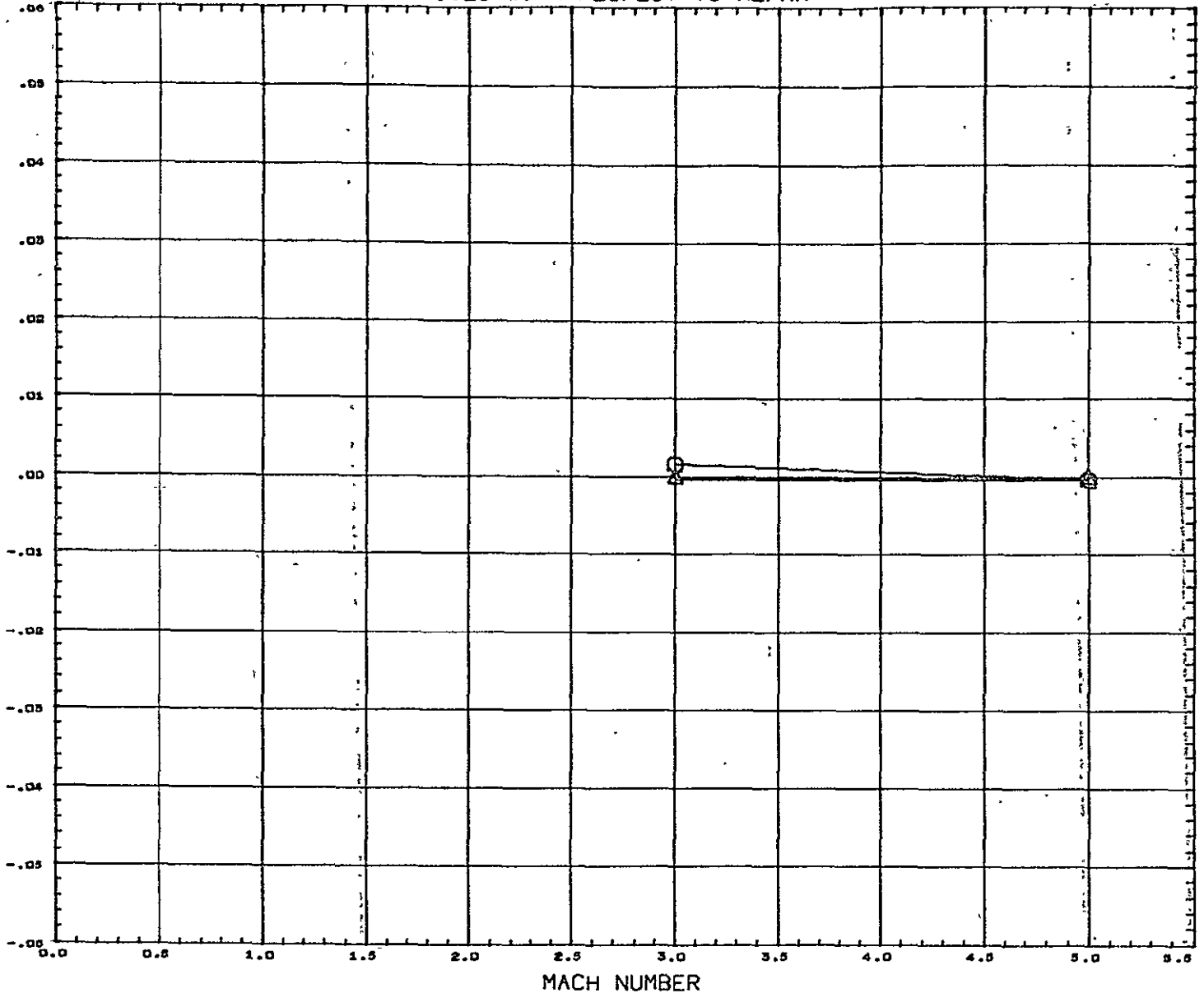


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	- 60.000
△	40.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE	MVR#EG1		

REFERENCE INFORMATION		
SREF	15.6560	50.IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

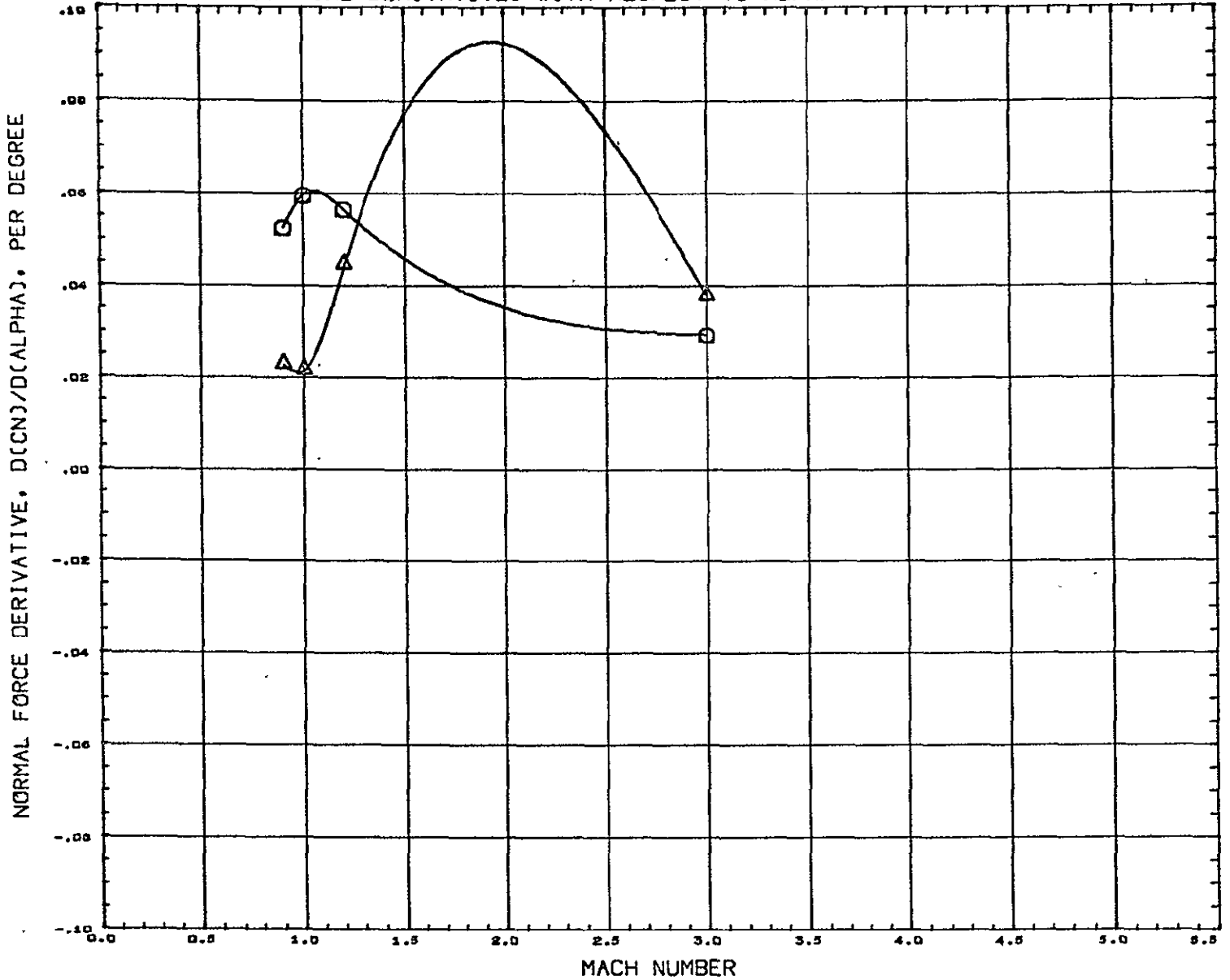
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

PITCHING MOMENT DERIVATIVE, $D(C_{LM})/D(\text{ALPHA})$, PER DEGREE



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
∞	30.000	BETA	0.000	DEL	- 60.000	SREF	15.6560	30. IN.
	40.000	DER	- 60.000	DCL	0.000	LREF	3.0950	IN.
		OCR	0.000	ELEVON	- 60.000	BREF	6.0990	IN.
		CANARD	0.000	AILERON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#EG1					

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

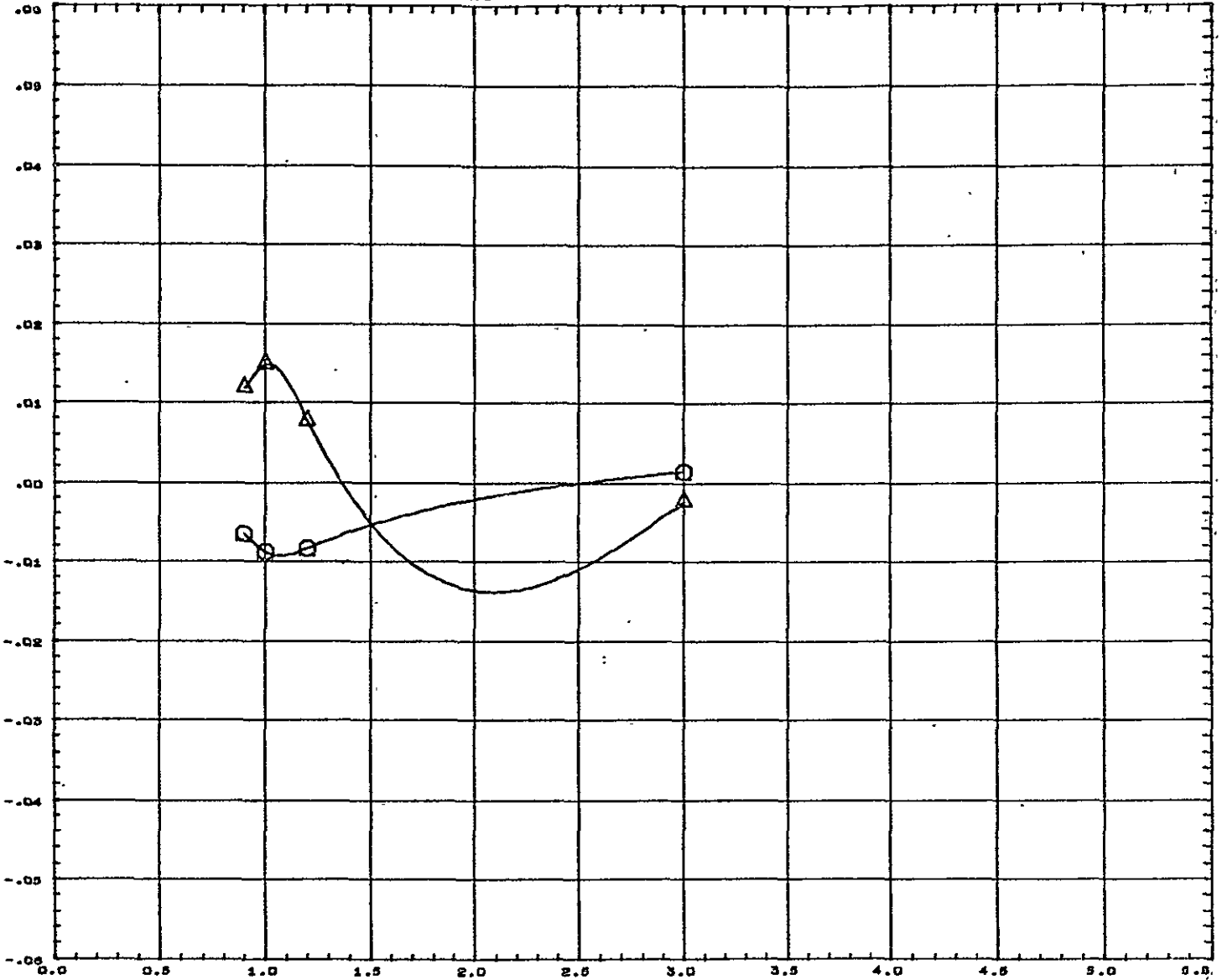


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILRON	0.000
DATA HIST. CODE		MVR#E61			

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO ALPHA

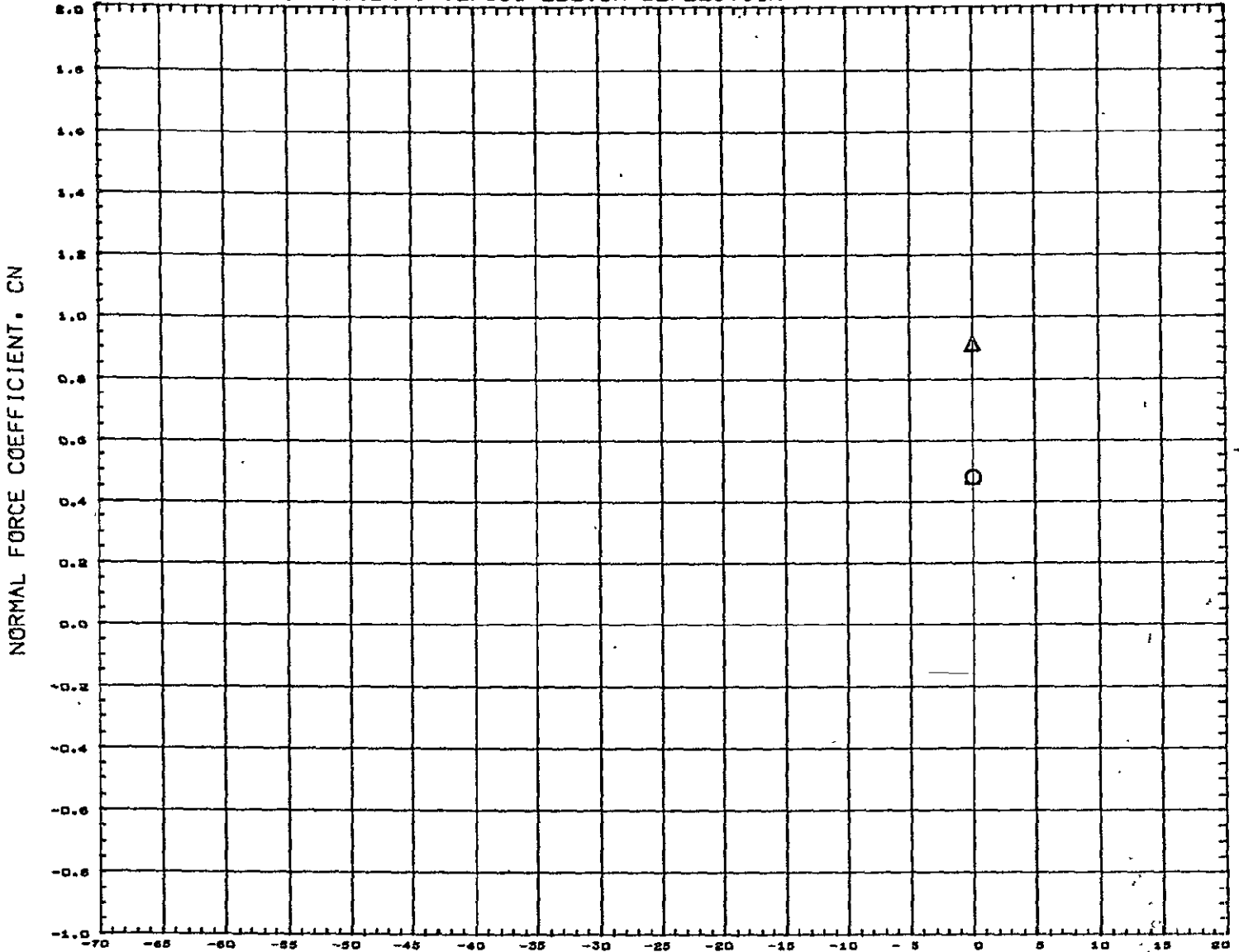
PITCHING MOMENT DERIVATIVE, $dC_{LM}/d(\alpha)$, PER DEGREE



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILRON	0.000
DATA HIST. CODE		MVR#EG1			

REFERENCE INFORMATION		
BREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

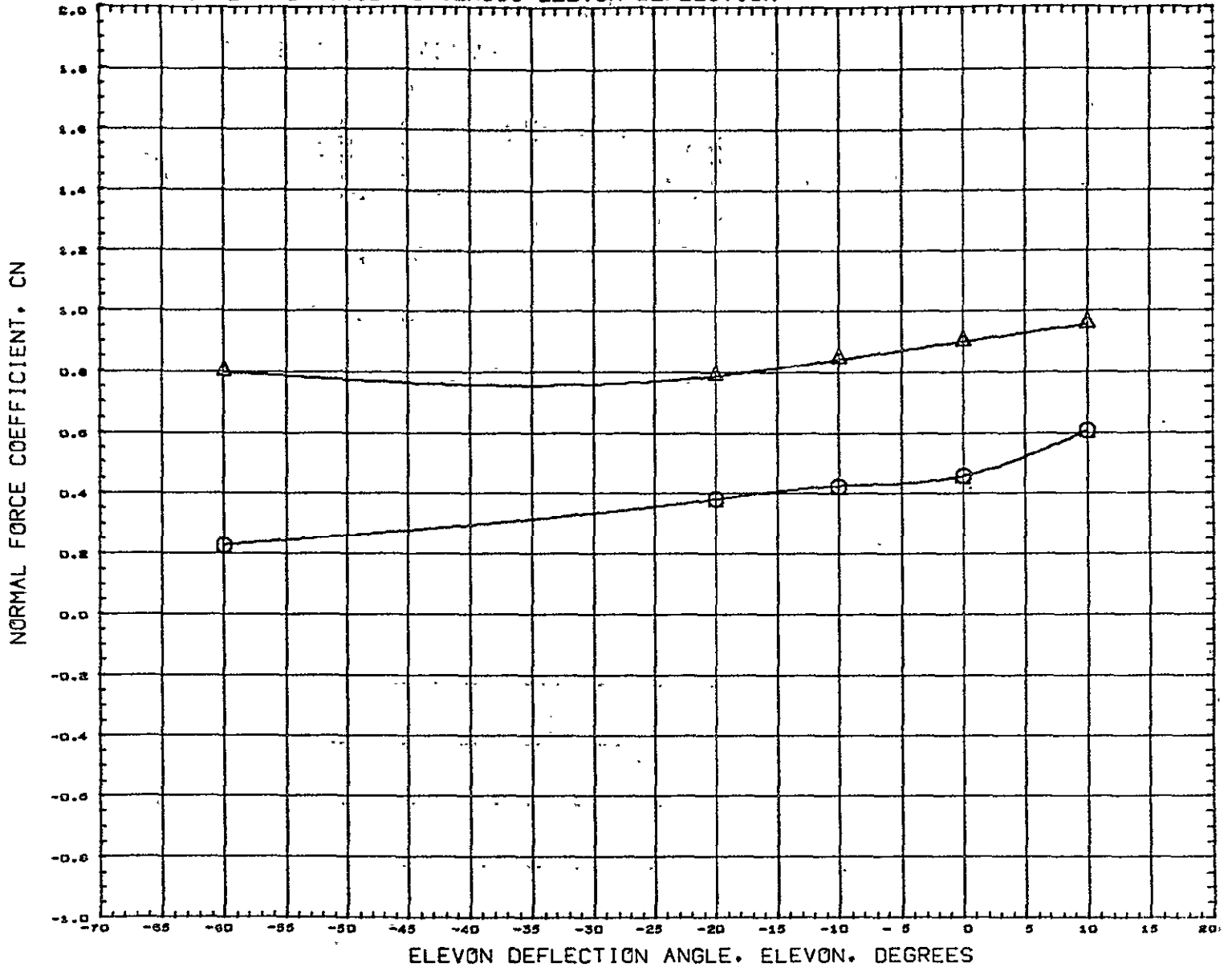


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
△	10.000	<u>MACH</u>	0.600	BETA	0.000	DATASET	ELEVON		SREF	15.6560	Sq. IN.	
	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 00.000	G28E71	- 20.000	LREF	3.0050	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0900	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
									YMRP	0.0000	IN.	
									ZMRP	0.0000	IN.	
									SCALE	0.0035		

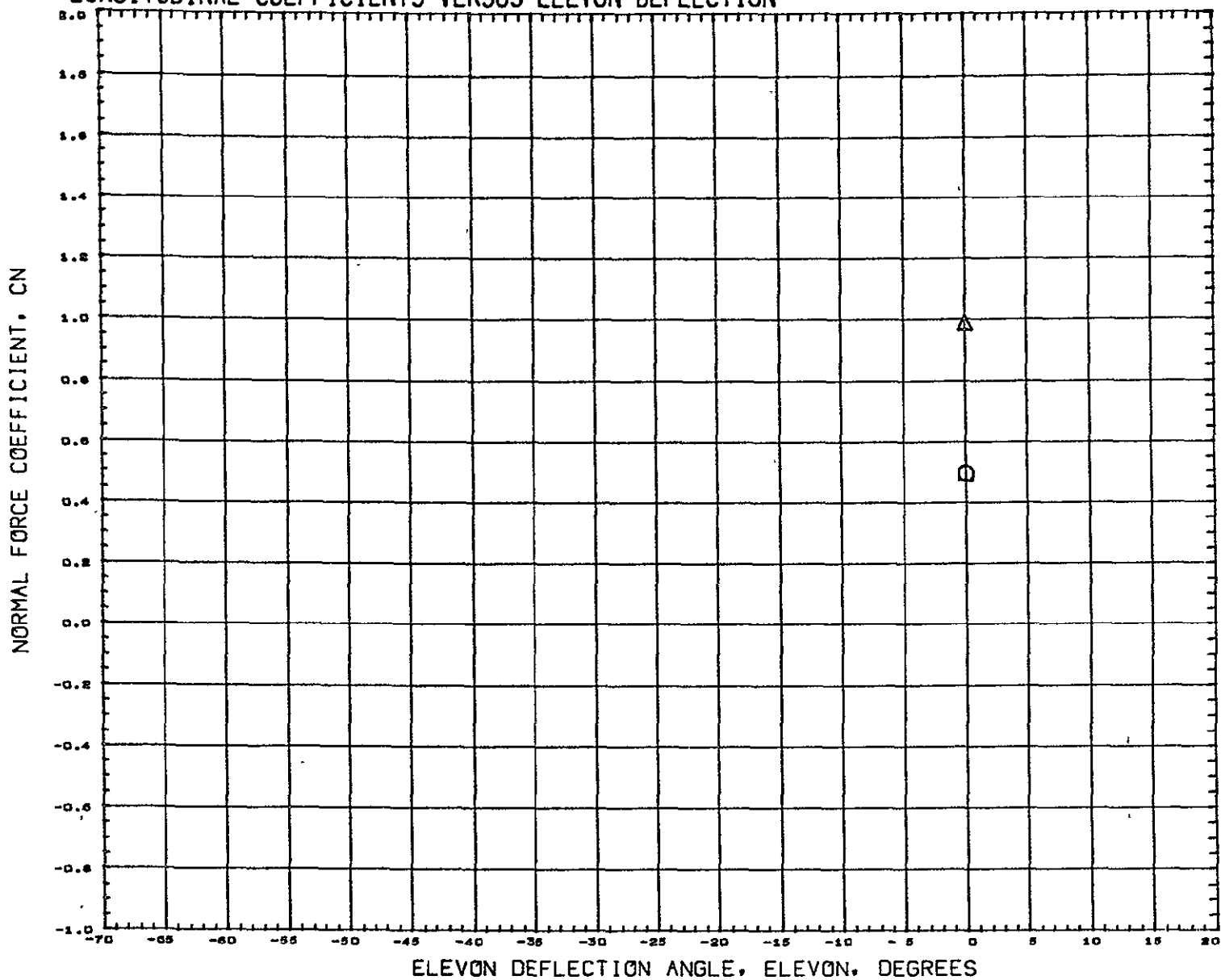
DATA HIST. CODE HVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



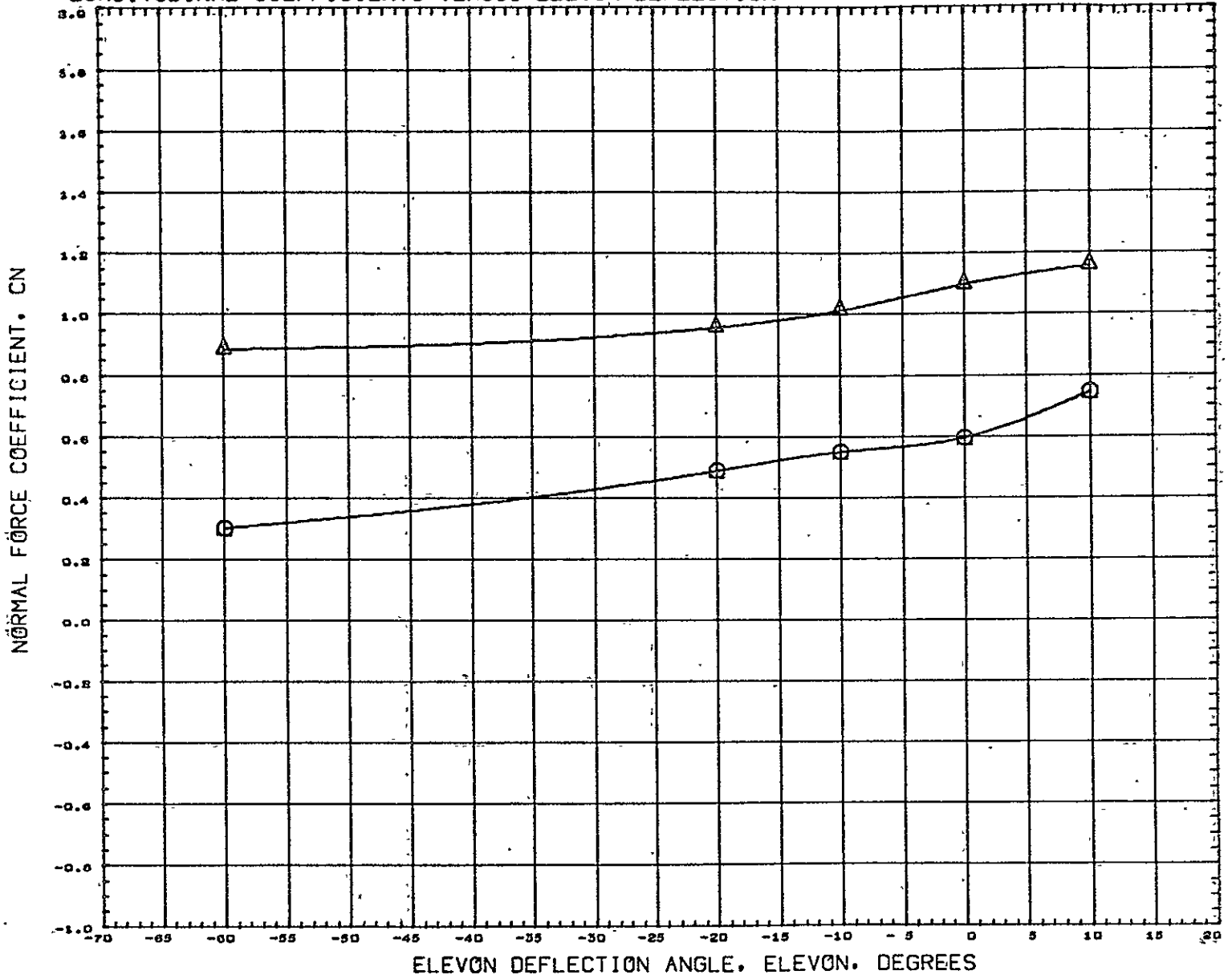
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.900	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	80. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	OCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#EI									

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.950	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	OCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	0.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#EI									

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

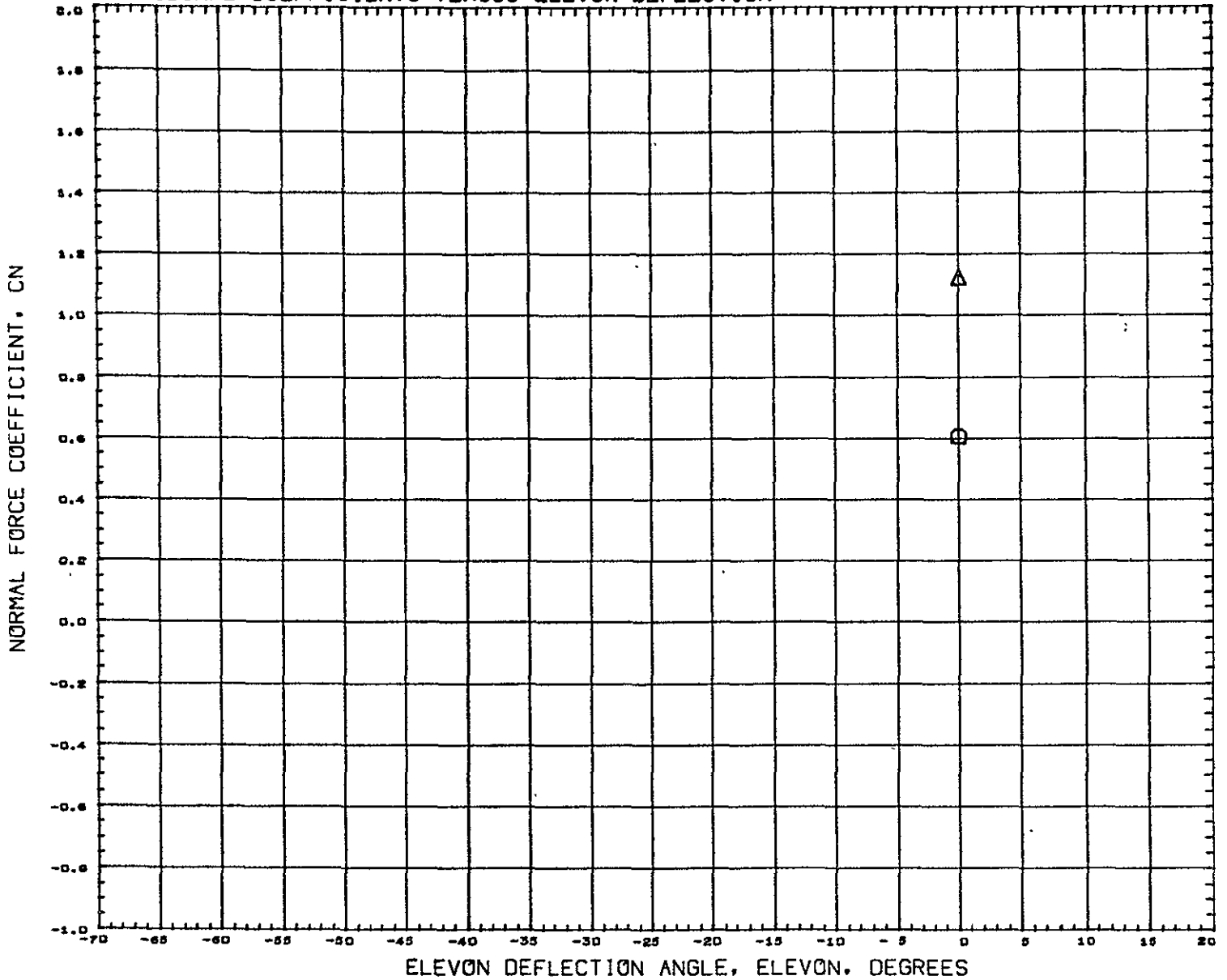


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XHRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

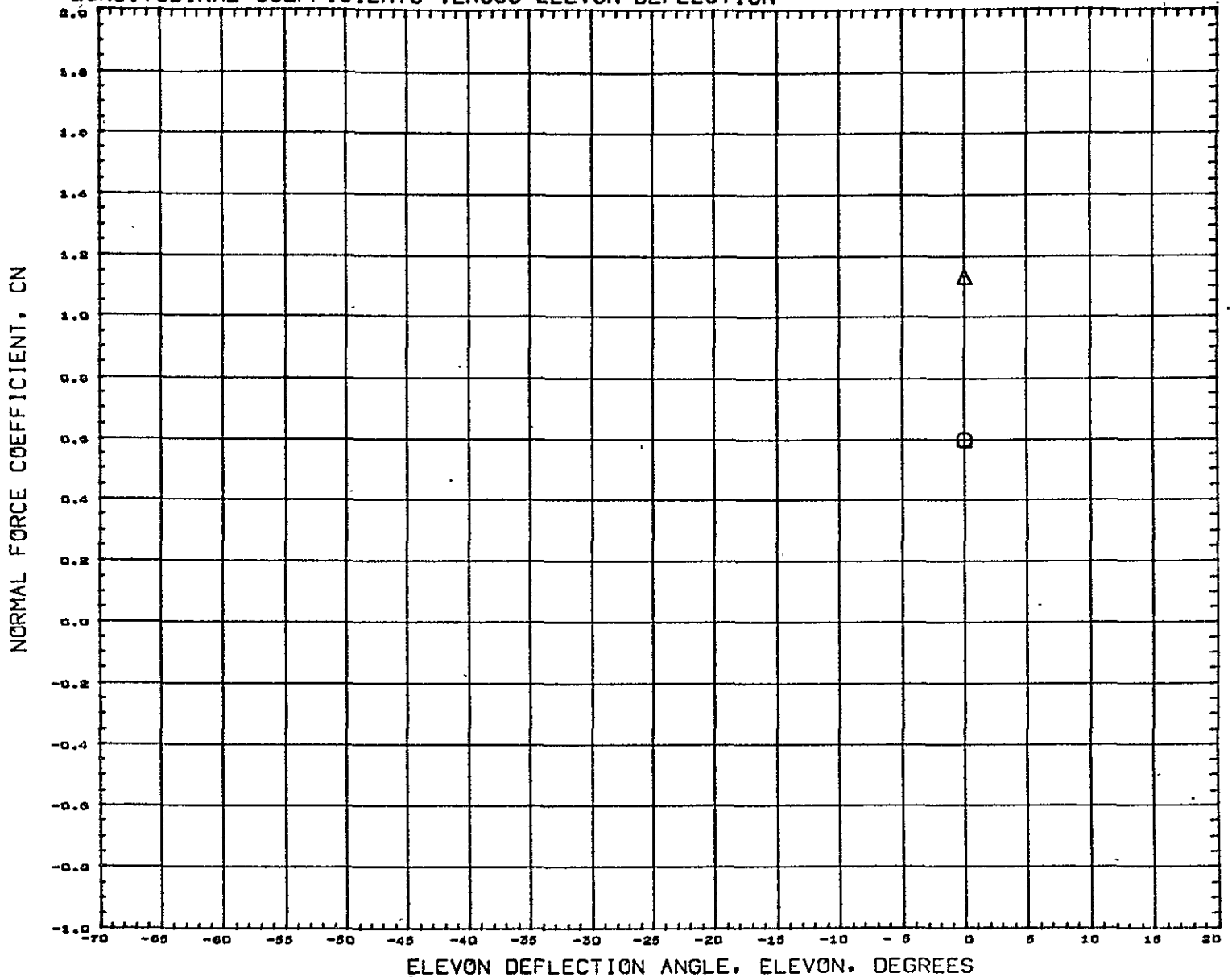
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	1.050	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	30. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28AD1	- 10.000	G28B51	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

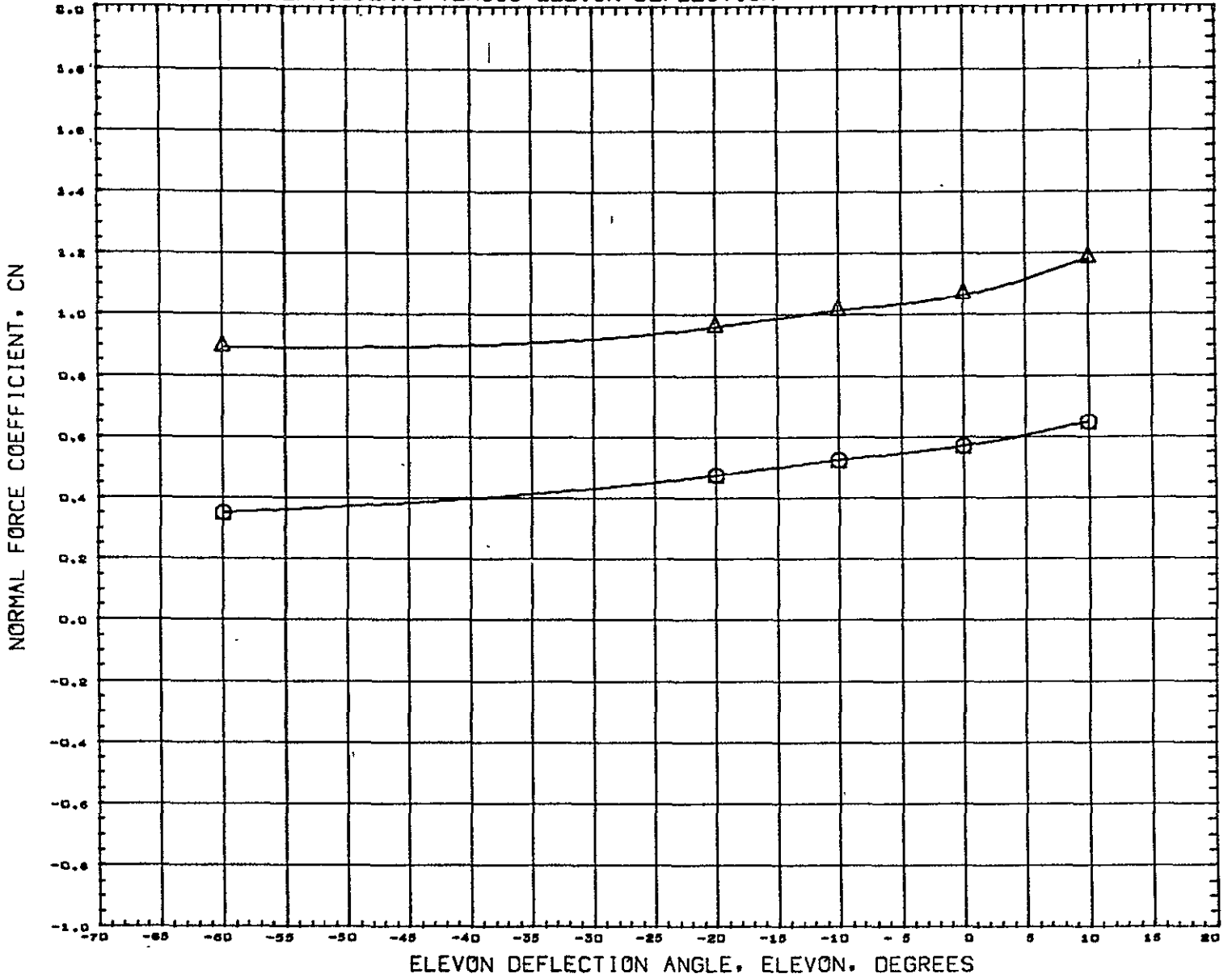


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
○	10.000	MACH	1.100	BETA	0.000	DATASET	ELEVON	SREF	15.6950	50. IN.	
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	LREF	3.0950	IN.	
		DCL	0.000	DCR	0.000	G28A01	- 10.000	BREF	6.0990	IN.	
		CANARD	0.000	AILRON	0.000	G28E77	10.000	XHRP	6.7100	IN.	
								YHRP	0.0000	IN.	
								ZHRP	0.0000	IN.	
								SCALE	0.0035		

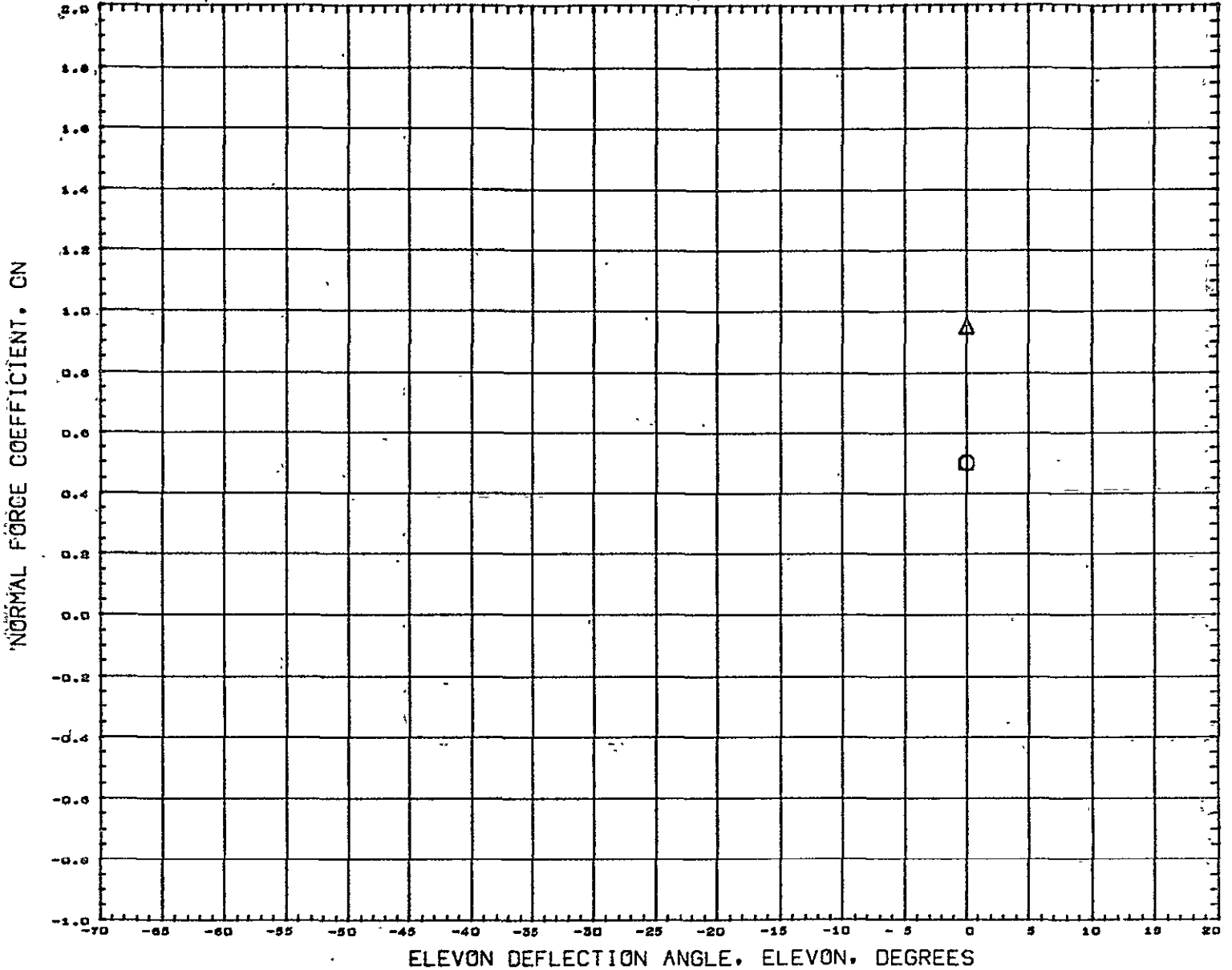
DATA HIST. CODE HVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



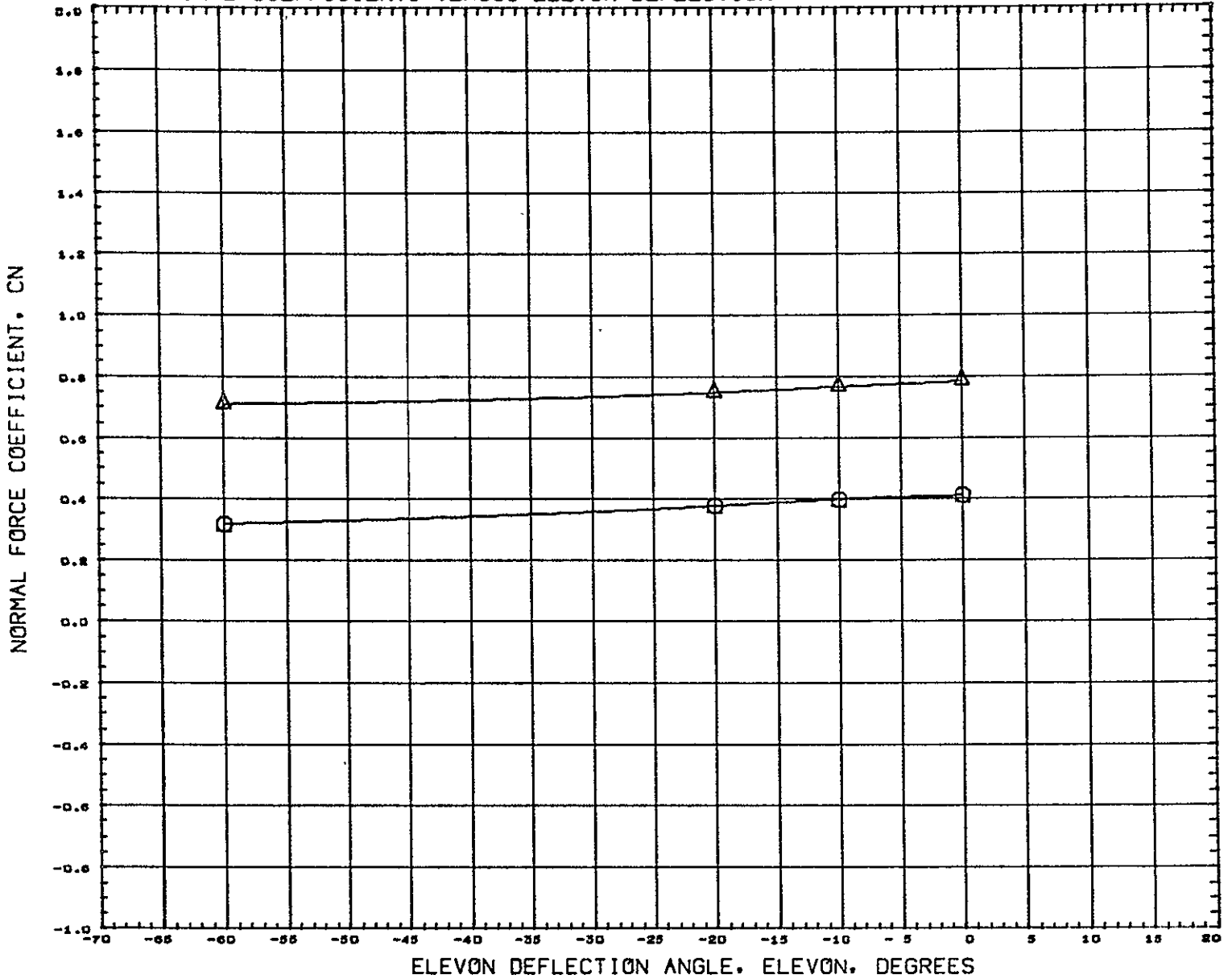
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	1.200	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	35.6560	39. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION					
○	10.000	1.500	BETA	0.000	DATASET	ELEVON	SREF	15.6560	50. IN.			
△	20.000	DEL - 60.000	DER - 60.000		G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.	
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			YMRP	6.7100	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
			DATA HIST. CODE	MVR#EI								

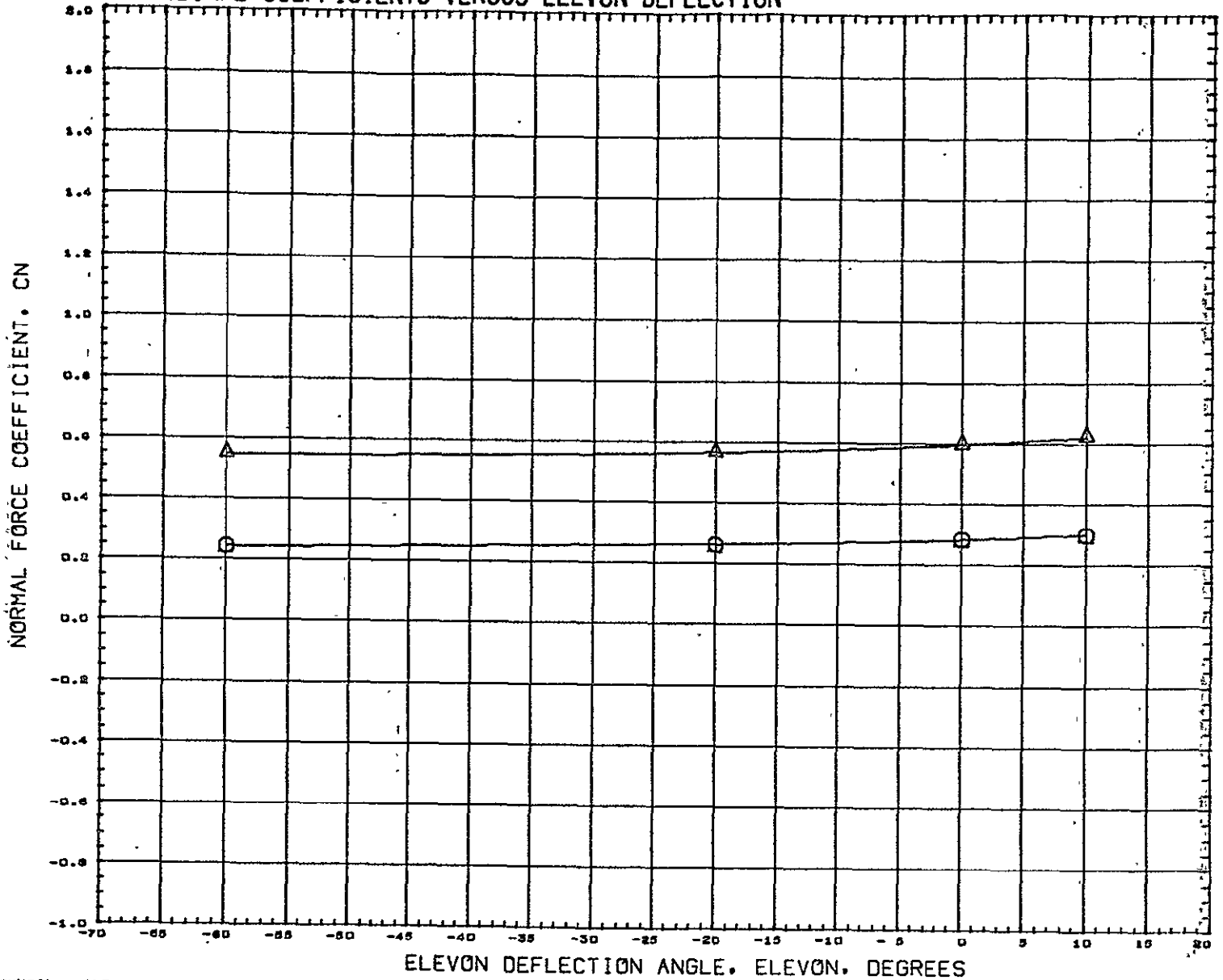
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DATASET	ELEVON	DATASET	ELEVON	SREF	IN.	SQ. IN.	
□	10.000	2.000	0.000	G28E74	- 60.000	G28E71	- 20.000	LREF	15.6560	IN.	
△	20.000	- 60.000	- 60.000	G28A01	- 10.000	G28B31	0.000	BREF	3.0950	IN.	
		0.000	0.000	G28E77	10.000			XMRP	6.0990	IN.	
		CANARD	0.000	AILRON	0.000			YMRP	6.7100	IN.	
								ZMRP	0.0000	IN.	
								SCALE	0.0035	IN.	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

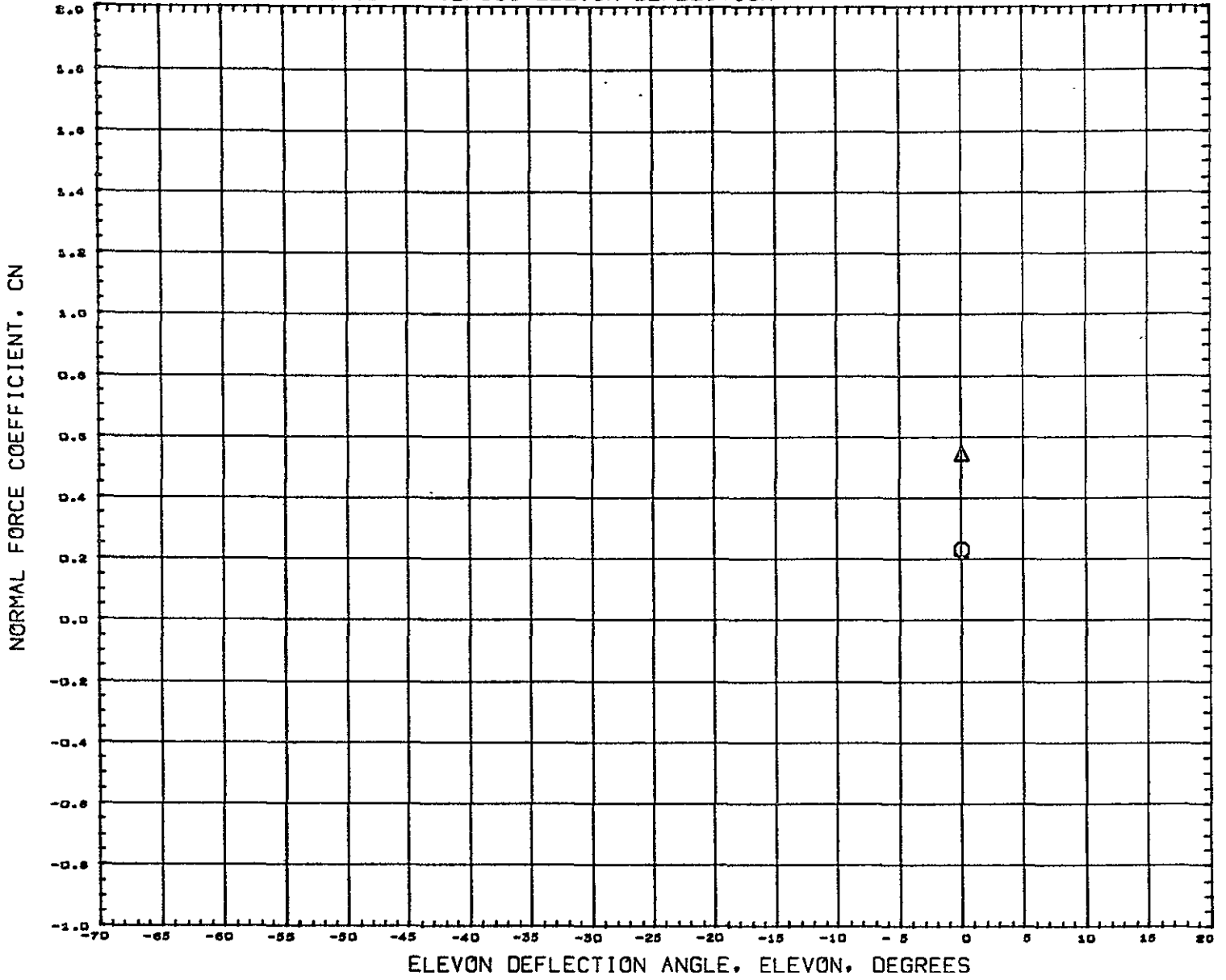


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION						
△	10.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	SREF	15.6560	50. IN.		
	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

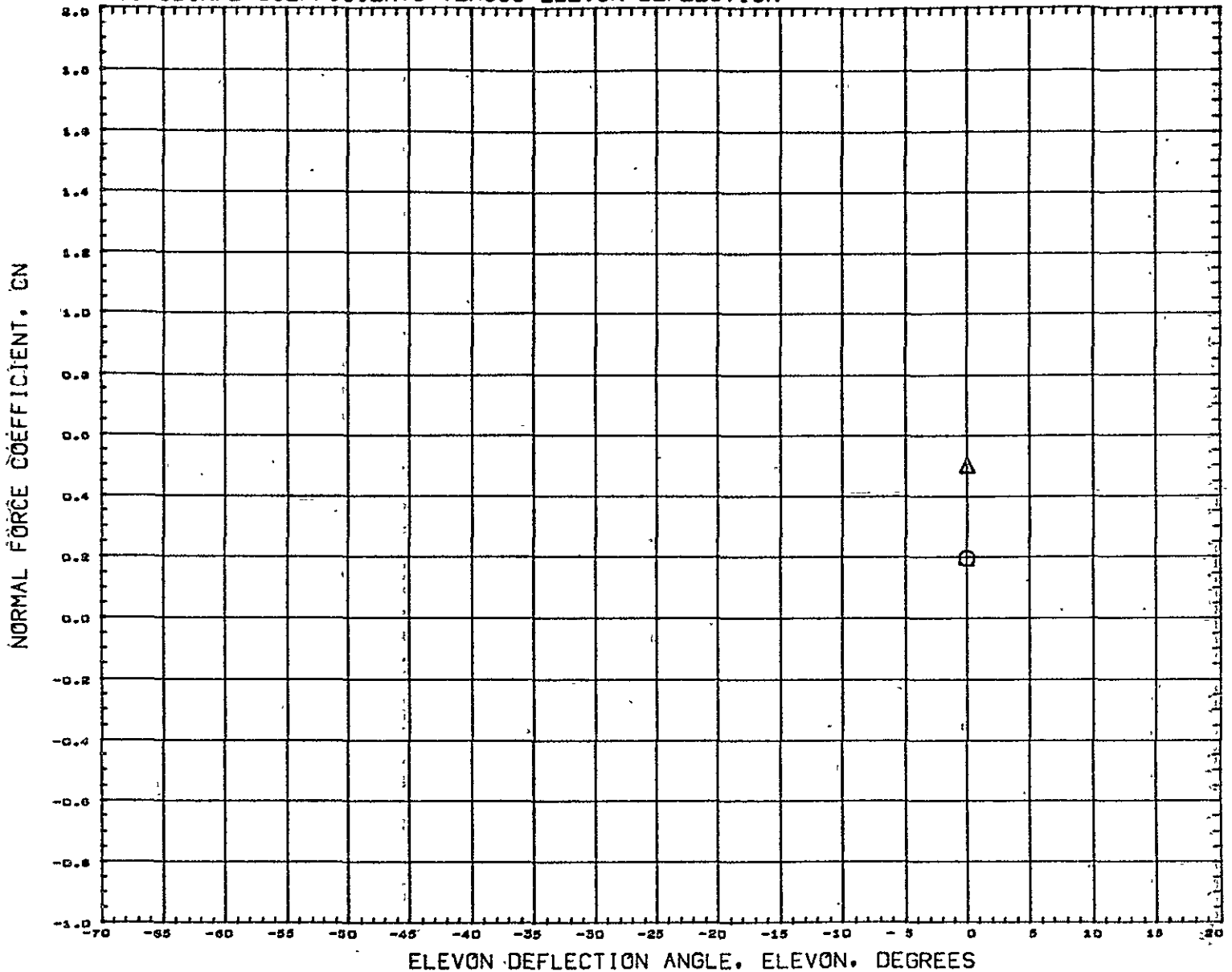
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DATASET	ELEVON	DATASET	ELEVON	SREF	IN.	SQ. IN.		
○	10.000	4.000	0.000	G28E74	- 60.000	G28E71	- 20.000	LREF	15.6560	50. IN.		
△	20.000	- 60.000	- 60.000	G28A01	- 10.000	G28B31	0.000	SREF	3.0950	IN.		
		DCL	0.000	DCR	0.000			XMRP	6.0990	IN.		
		CANARD	0.000	AILRON	0.000	G28E77	10.000	YMRP	6.7100	IN.		
								ZMRP	0.0000	IN.		
								SCALE	0.0035			

DATA HIST. CODE MVR#E1

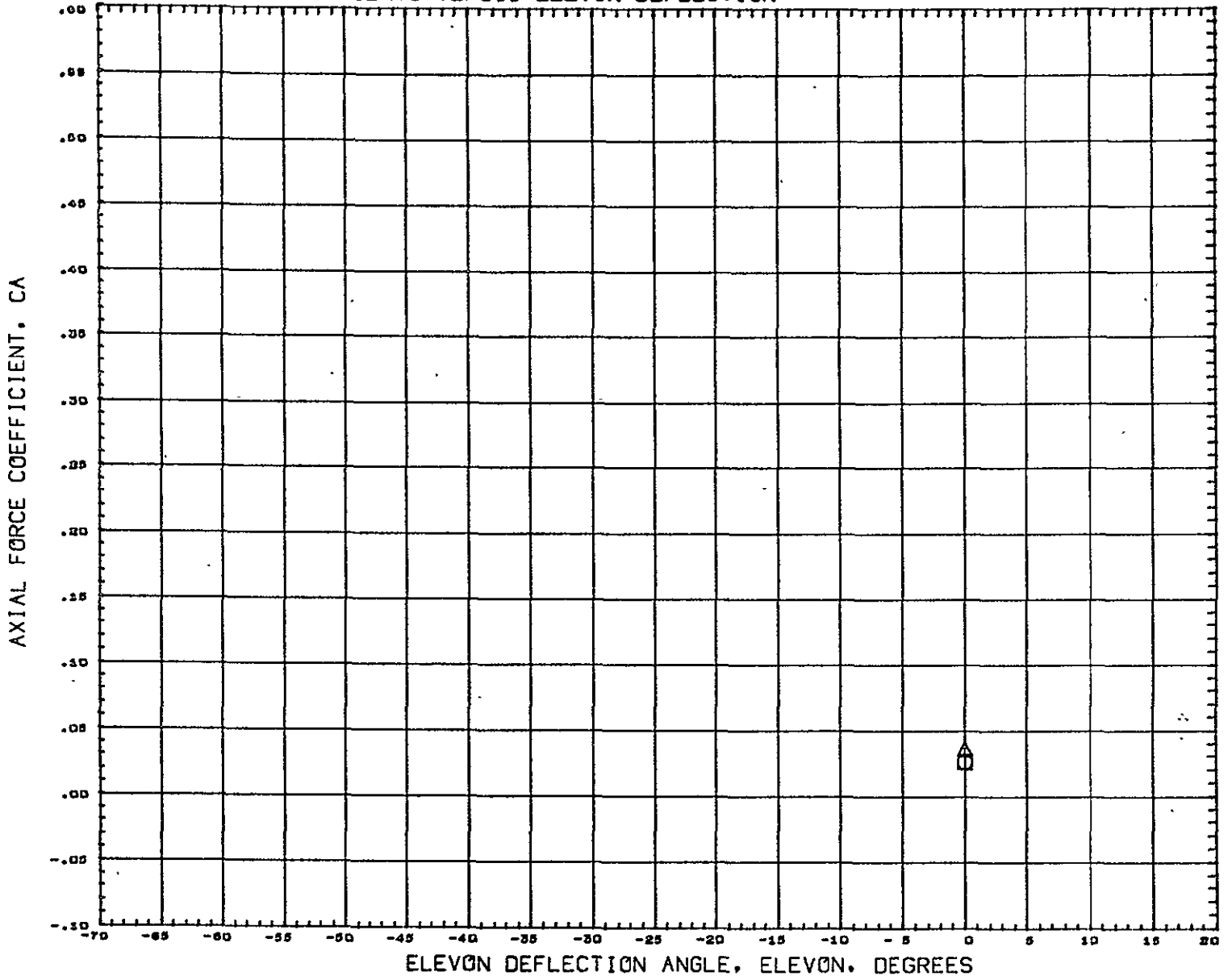
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	9.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	sq. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

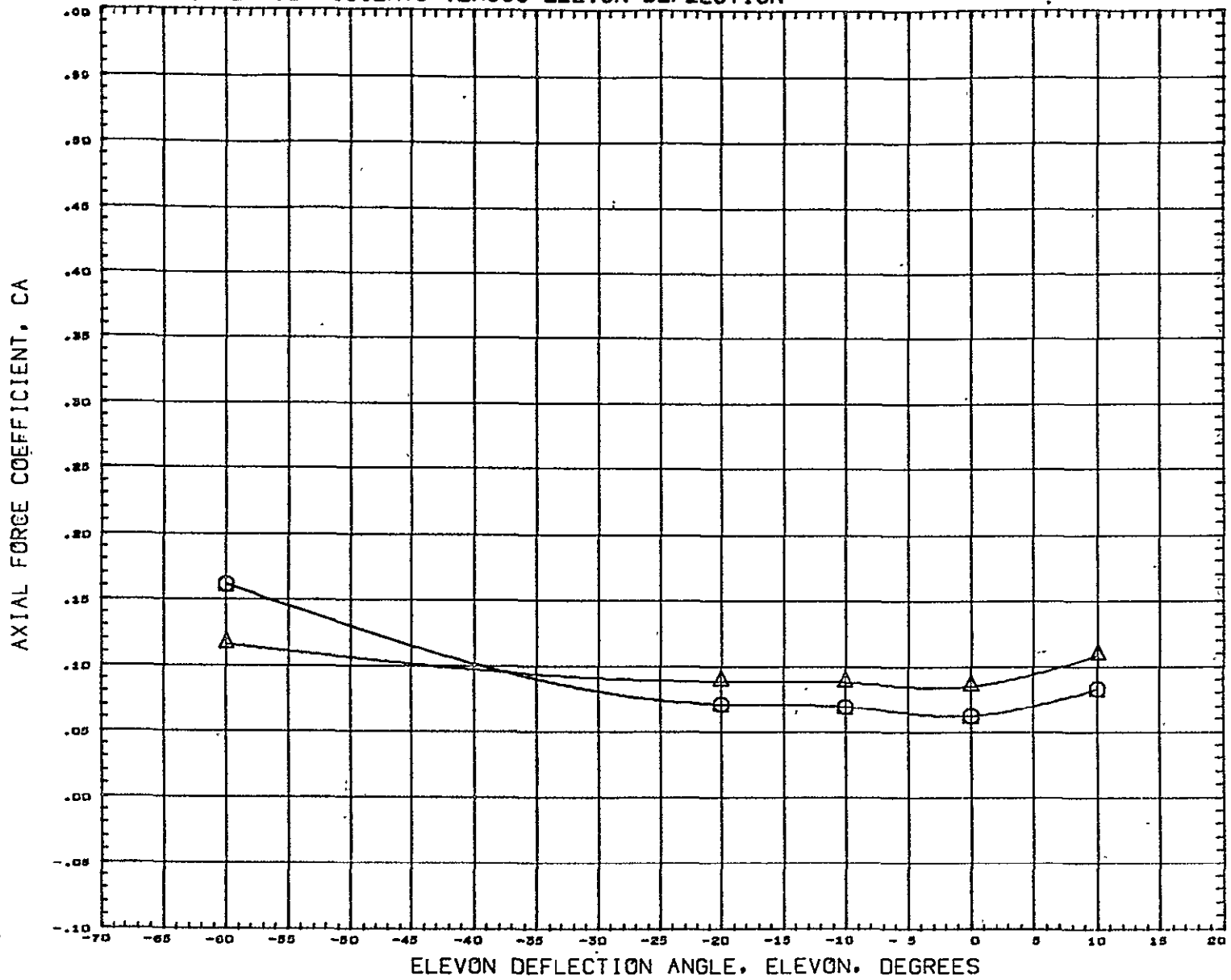
DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
Δ	10.000	MACH	0.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

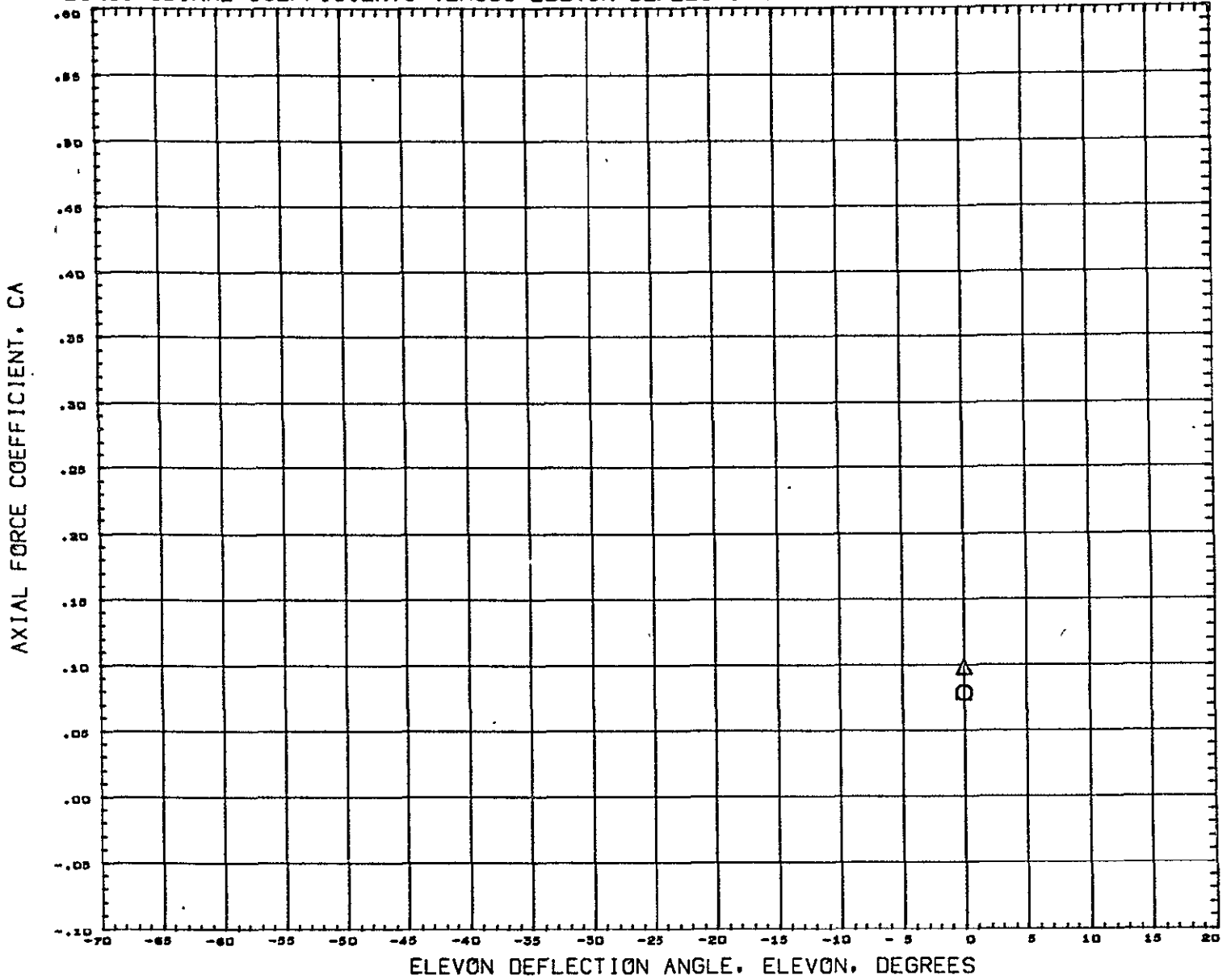
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	10.000	MACH	0.900	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF		Sq. IN.
○	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
△		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#EI

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

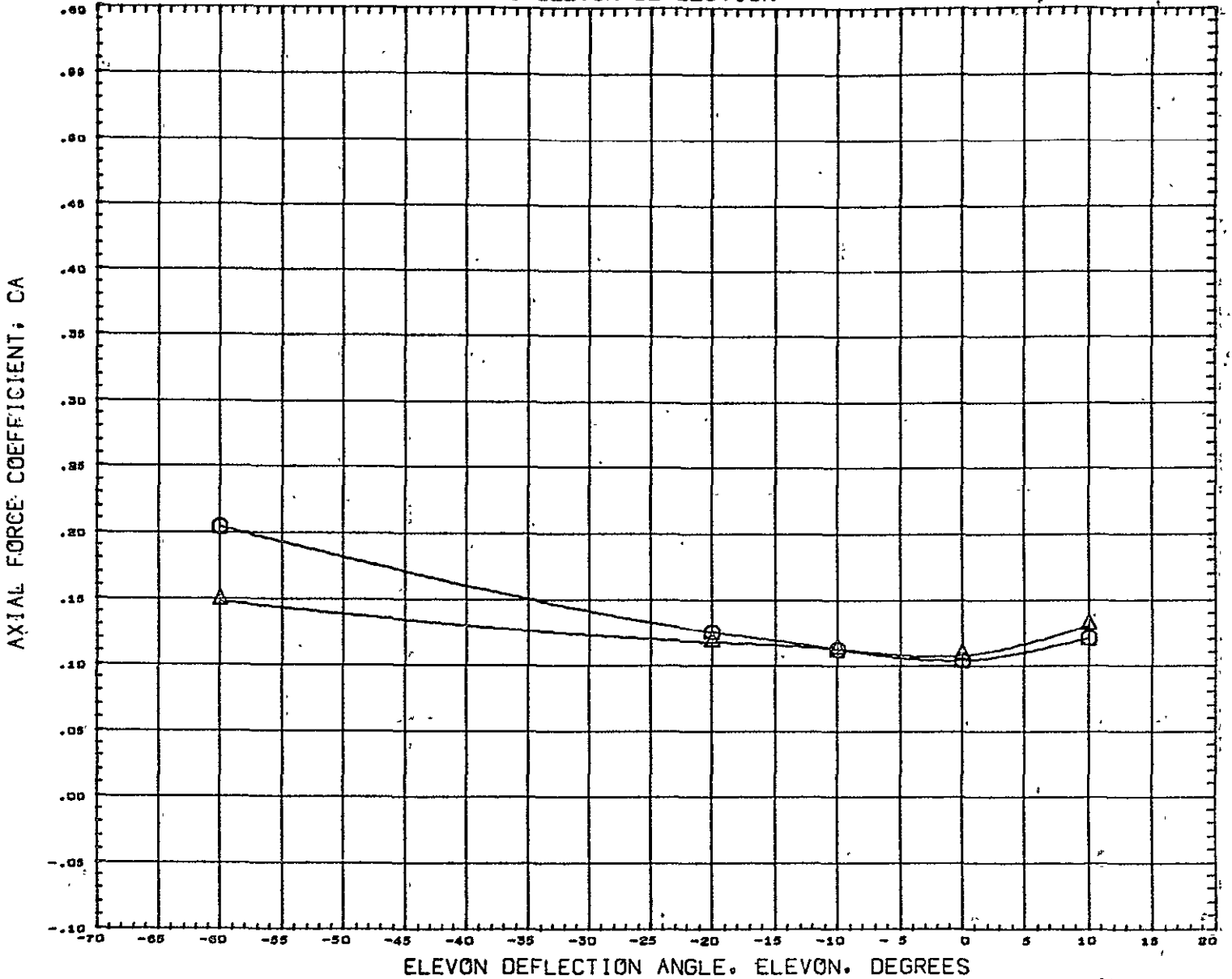


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	DEL	BETA	DER	DATASET	ELEVON	DATASET	ELEVON	SREF			
$\Delta \circ$	10.000	0.950	0.000	0.000	0.000	0.000	G28E74	- 60.000	G28E71	- 20.000	15.6560	30. IN.	
	20.000	- 60.000	0.000	- 60.000	0.000	0.000	G28A01	- 10.000	G28B31	0.000	3.0950	IN.	
		0.000	0.000	0.000	0.000	0.000	G28E77	10.000			6.0990	IN.	
		0.000	0.000	0.000	0.000	0.000					XMRP	6.7100	IN.
		0.000	0.000	0.000	0.000	0.000					YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

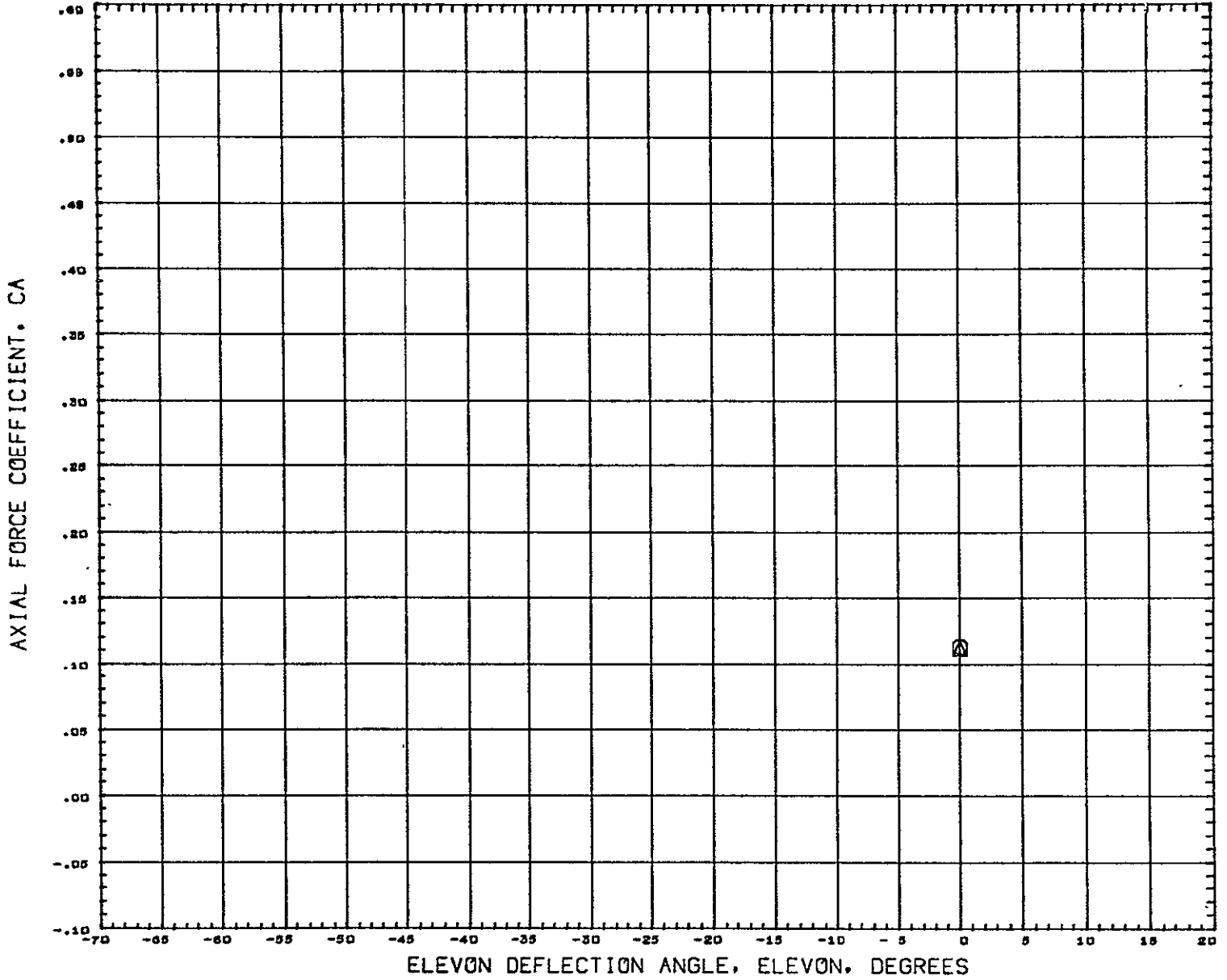
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LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	30. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

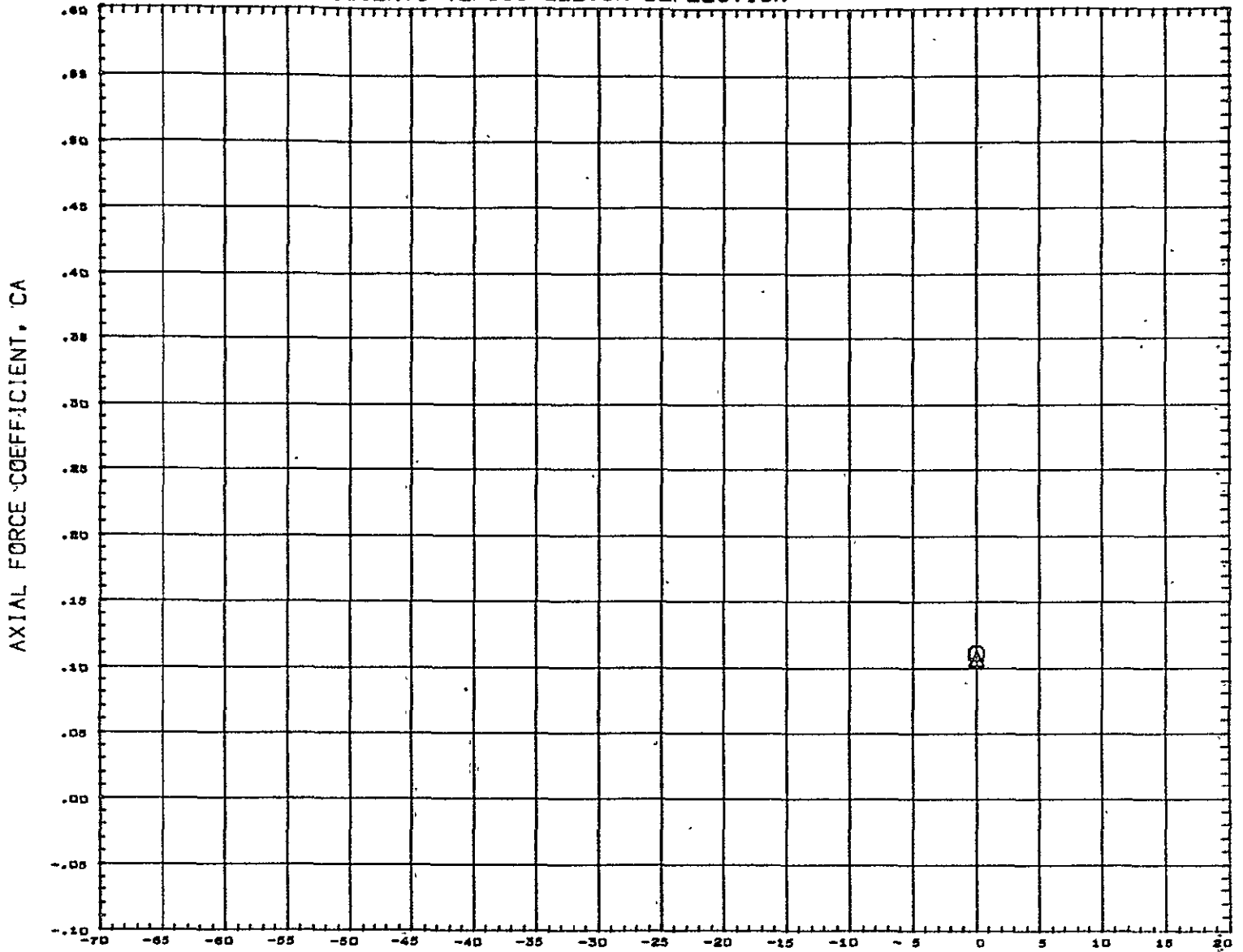
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DATASET	ELEVON	DATASET	ELEVON	SREF	IN.	IN.		
○	10.000	1.050	0.000	G28E74	- 60.000	G28E71	- 20.000	15.6560	30.0950	IN.		
△	20.000	DEL - 60.000	DER - 60.000	G28A01	- 10.000	G28B31	0.000	6.0990	6.7100	IN.		
		DCL 0.000	DCR 0.000	G28E77	10.000			0.0000	0.0000	IN.		
		CANARD 0.000	AILRON 0.000					ZHRP 0.0000	0.0035	IN.		
								SCALE				

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



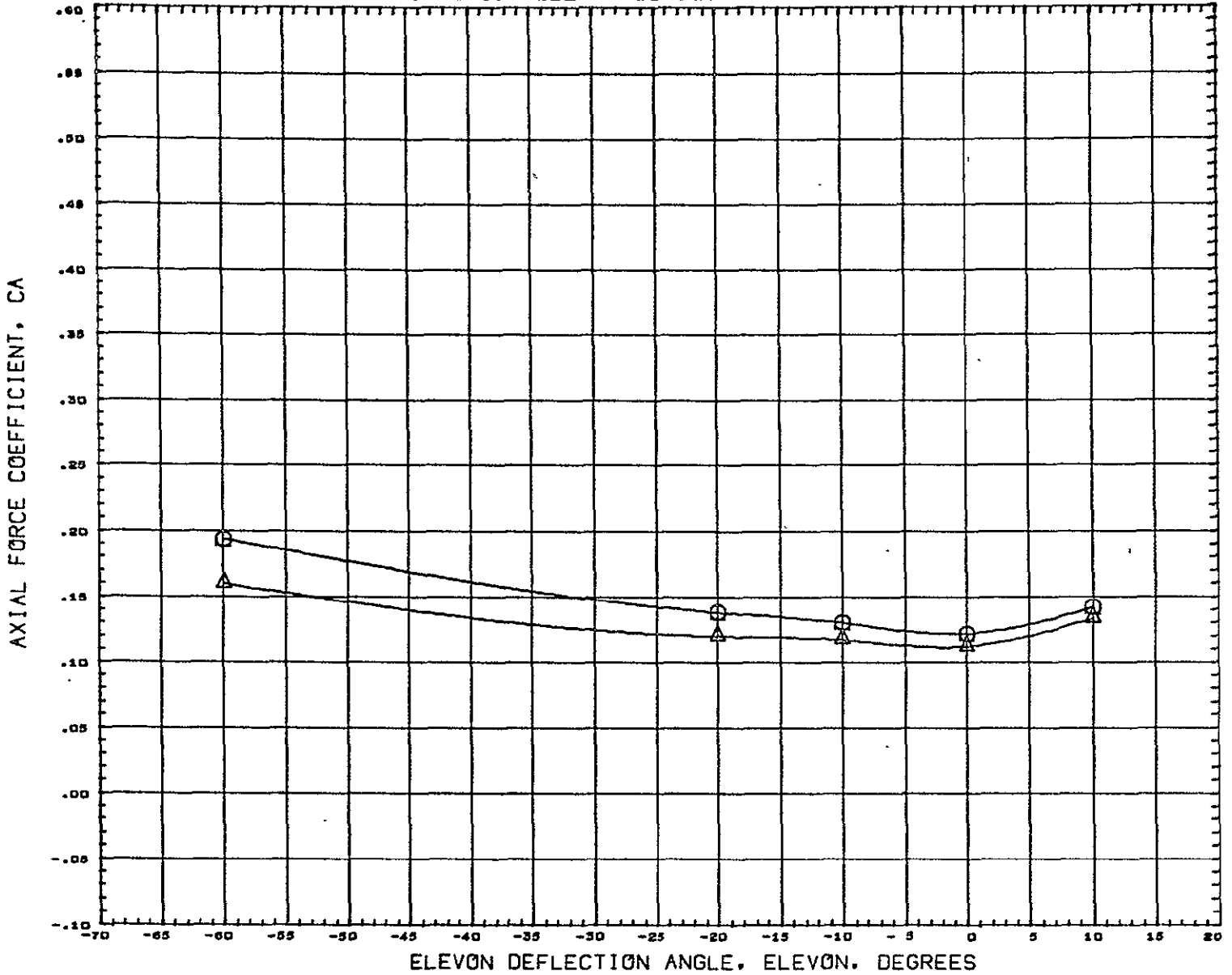
ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA		PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	10.000	20.000	MACH	BETA	DER	DATASET	ELEVON	DATASET	ELEVON	SREF	IN.	SQ. IN.	
○			1.100	0.000	- 60.000	G28E74	- 60.000	G28E71	- 20.000	15.6560			
△					0.000	G28A01	- 10.000	G28B31	0.000	3.0950			
						G28E77	10.000			6.0990			
										6.7100			
										0.0000			
										ZHRP	0.0000		
										SCALE	0.0035		

DATA HIST. CODE MVR#E1

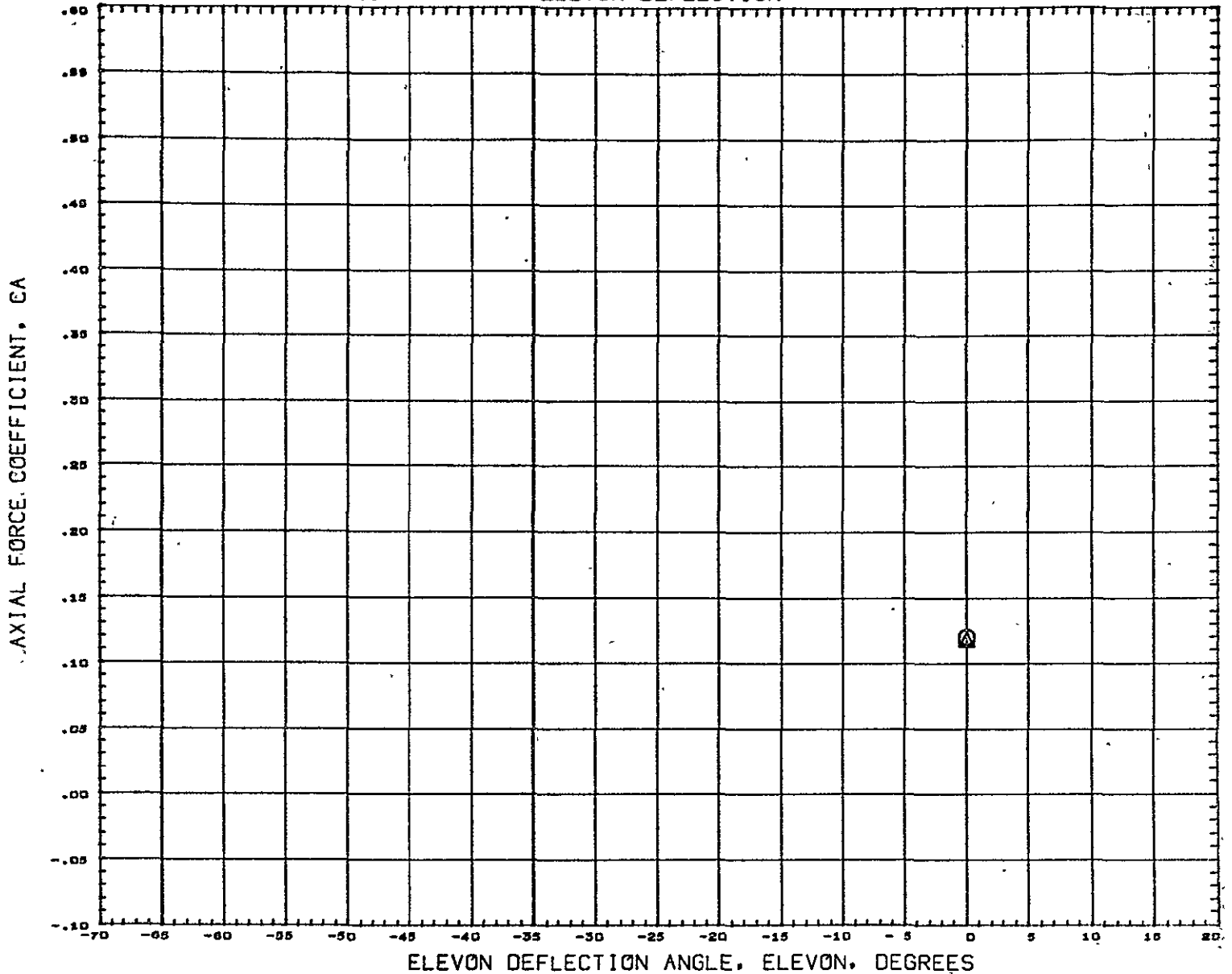
70

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.200	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	59. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E74	- 20.000	LREF	3.0930	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

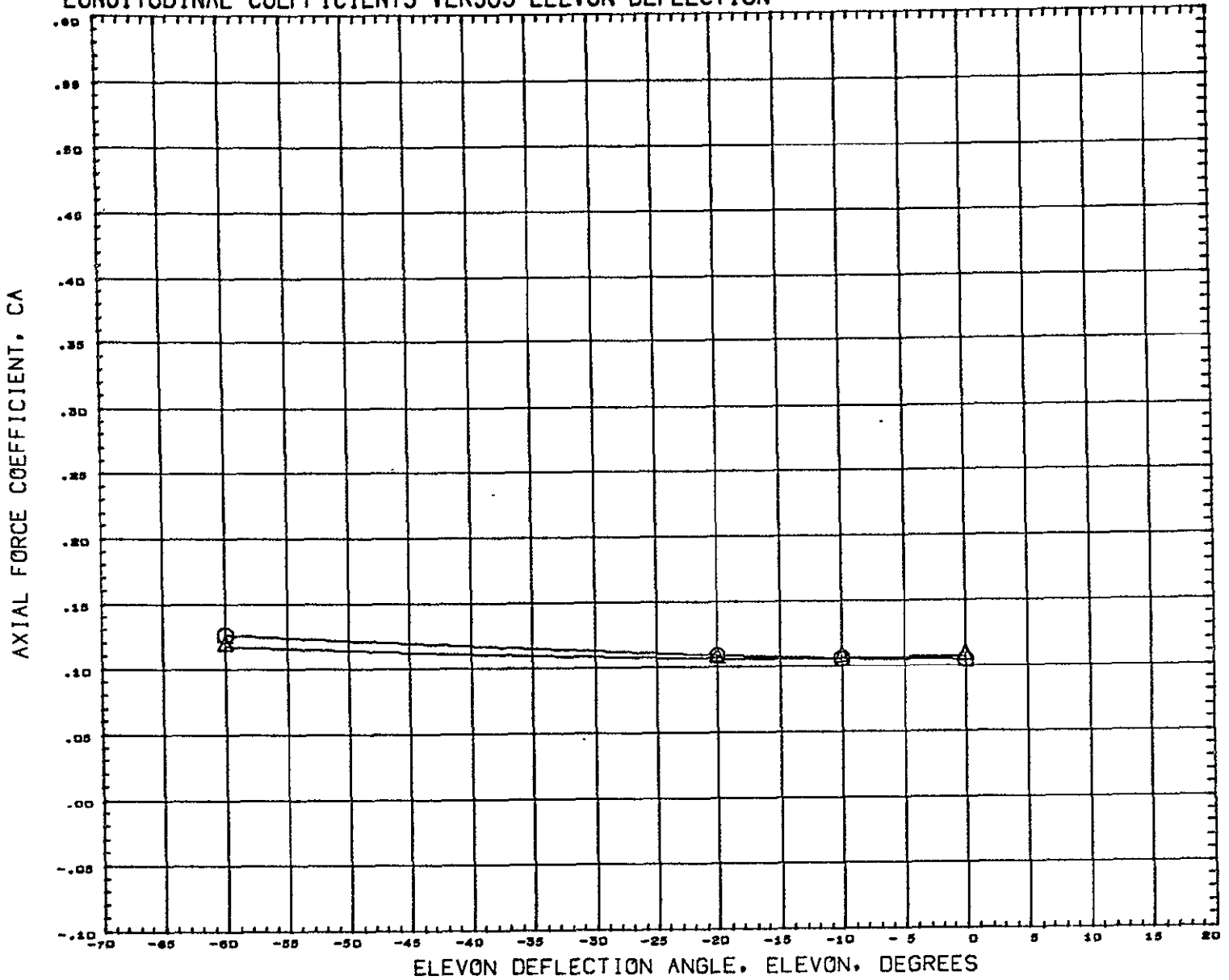
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
○	10.000	MACH	1.500	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.	
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.	
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.	
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.	
										YMRP	0.0000	IN.	
										ZMRP	0.0000	IN.	
										SCALE	0.0035'		

DATA HIST. CODE MVR#E1

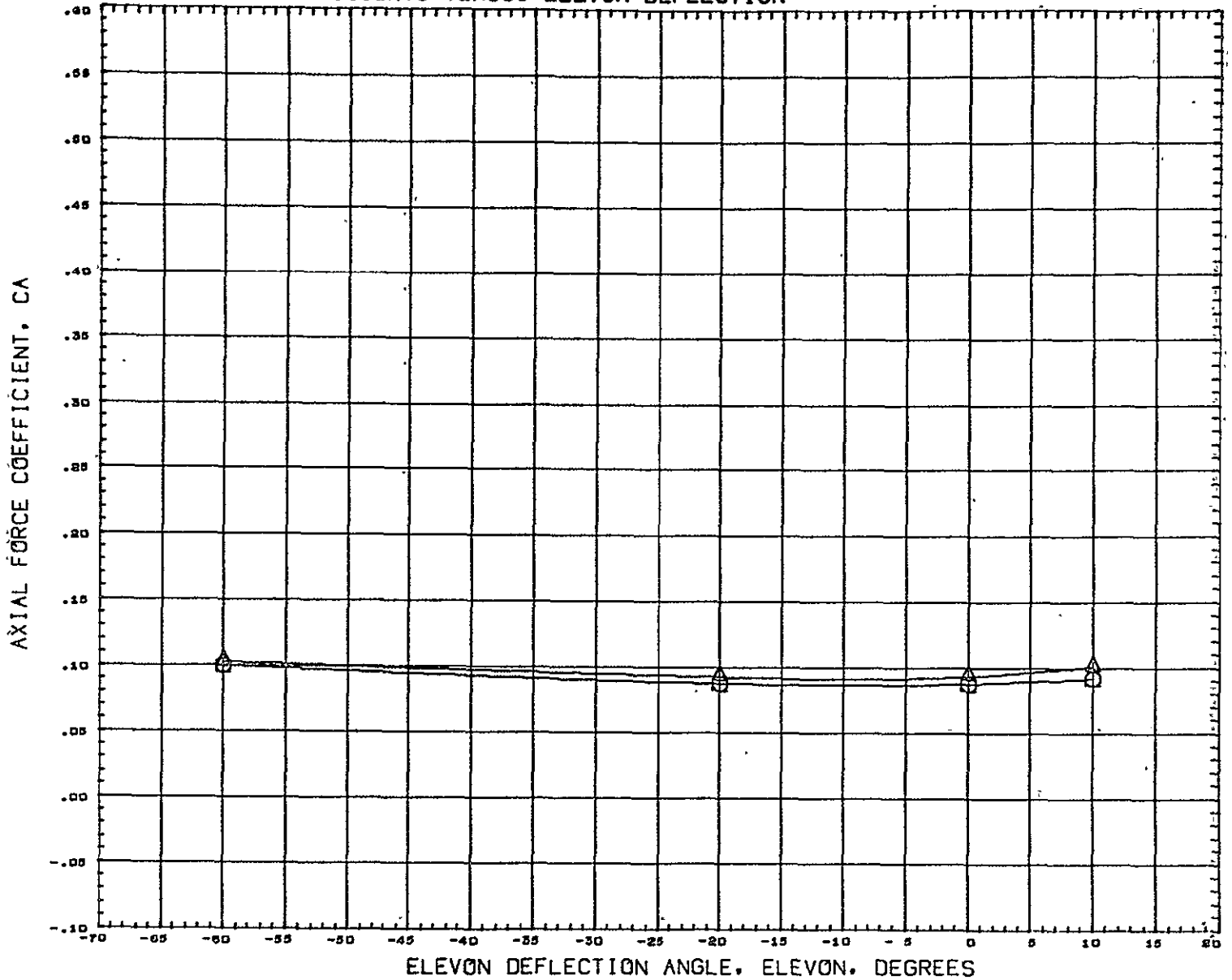
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	2.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	-60.000	DER	-60.000	G28E74	-60.000	G28E71	-20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	-10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	0.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

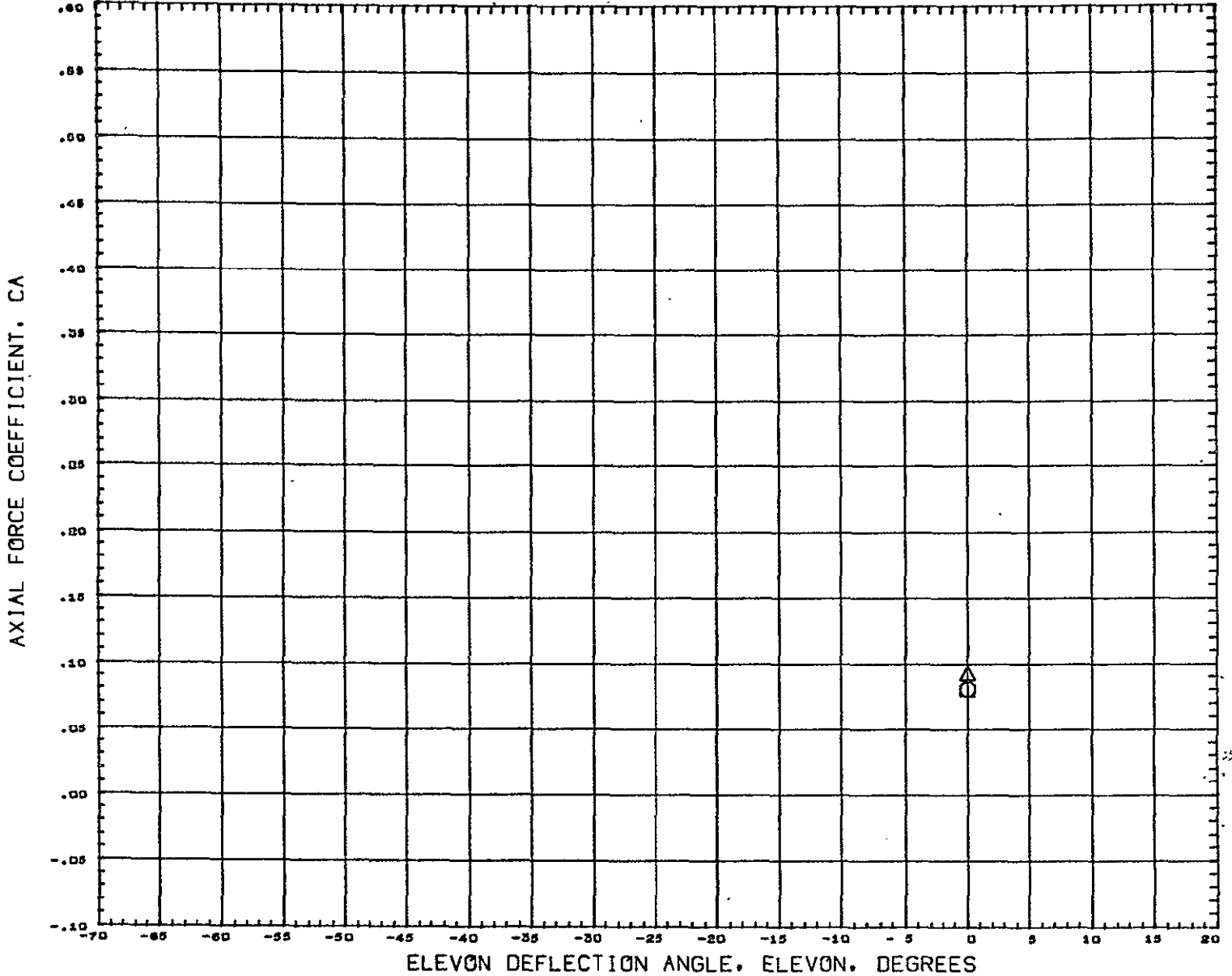
DATA HIST. CODE MYR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

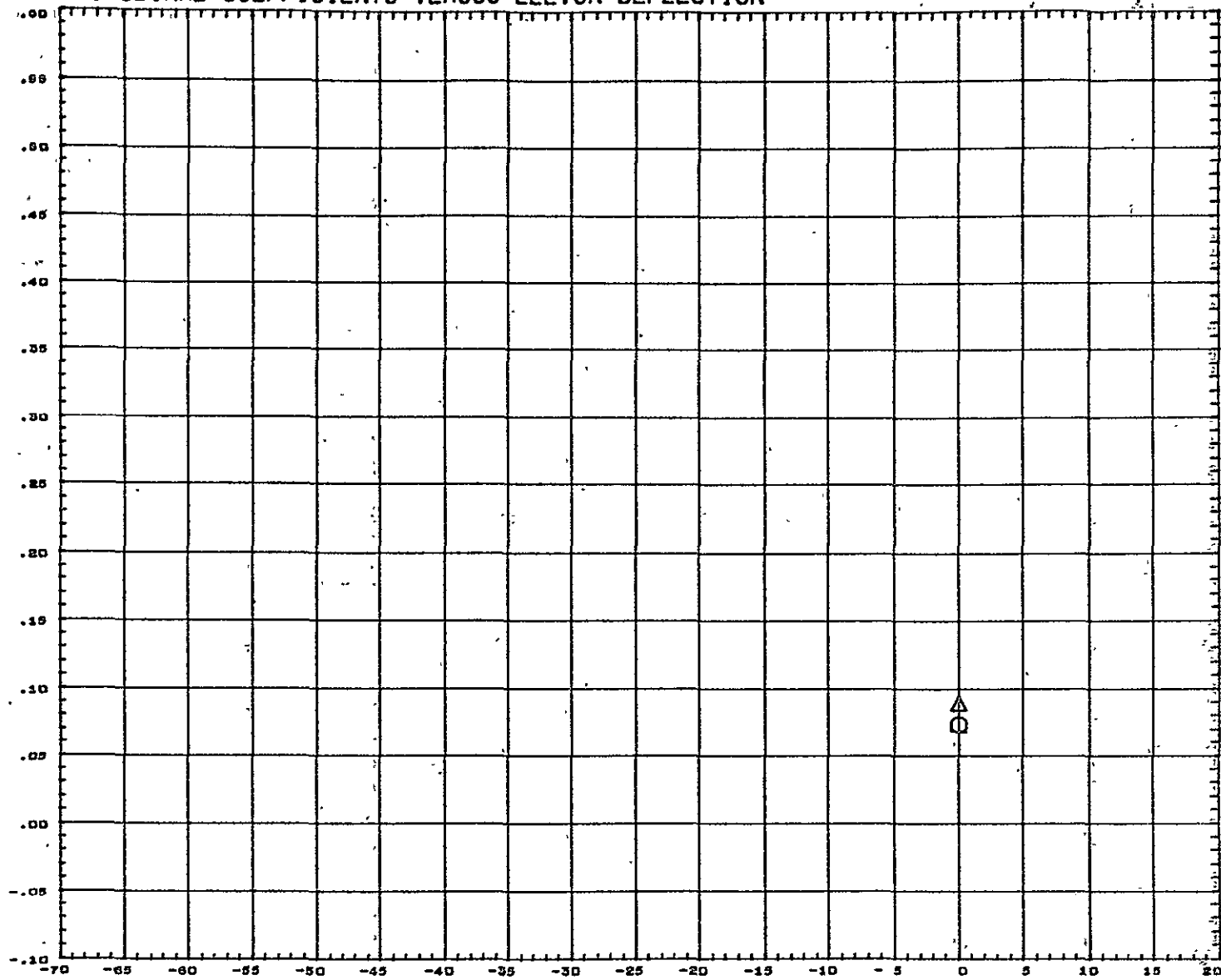


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	4.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	sq. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

AXIAL FORCE COEFFICIENT, CA

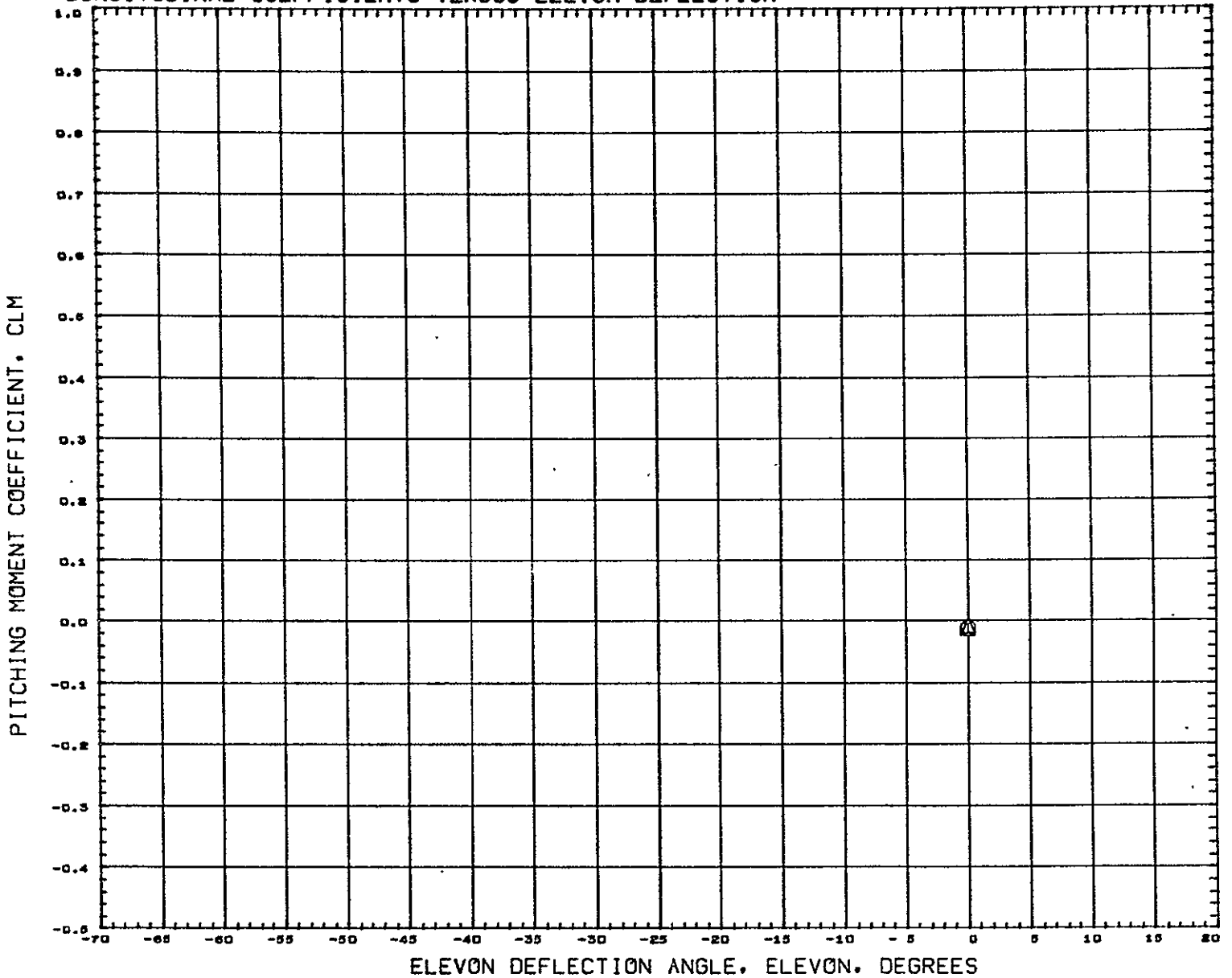


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA.		PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	10.000	20.000	MACH	5.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	90. IN.
△ ○			DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
			DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
			CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
											YMRP	0.0000	IN.
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										SCALE	0.0035		

DATA HIST. CODE HVR#E1

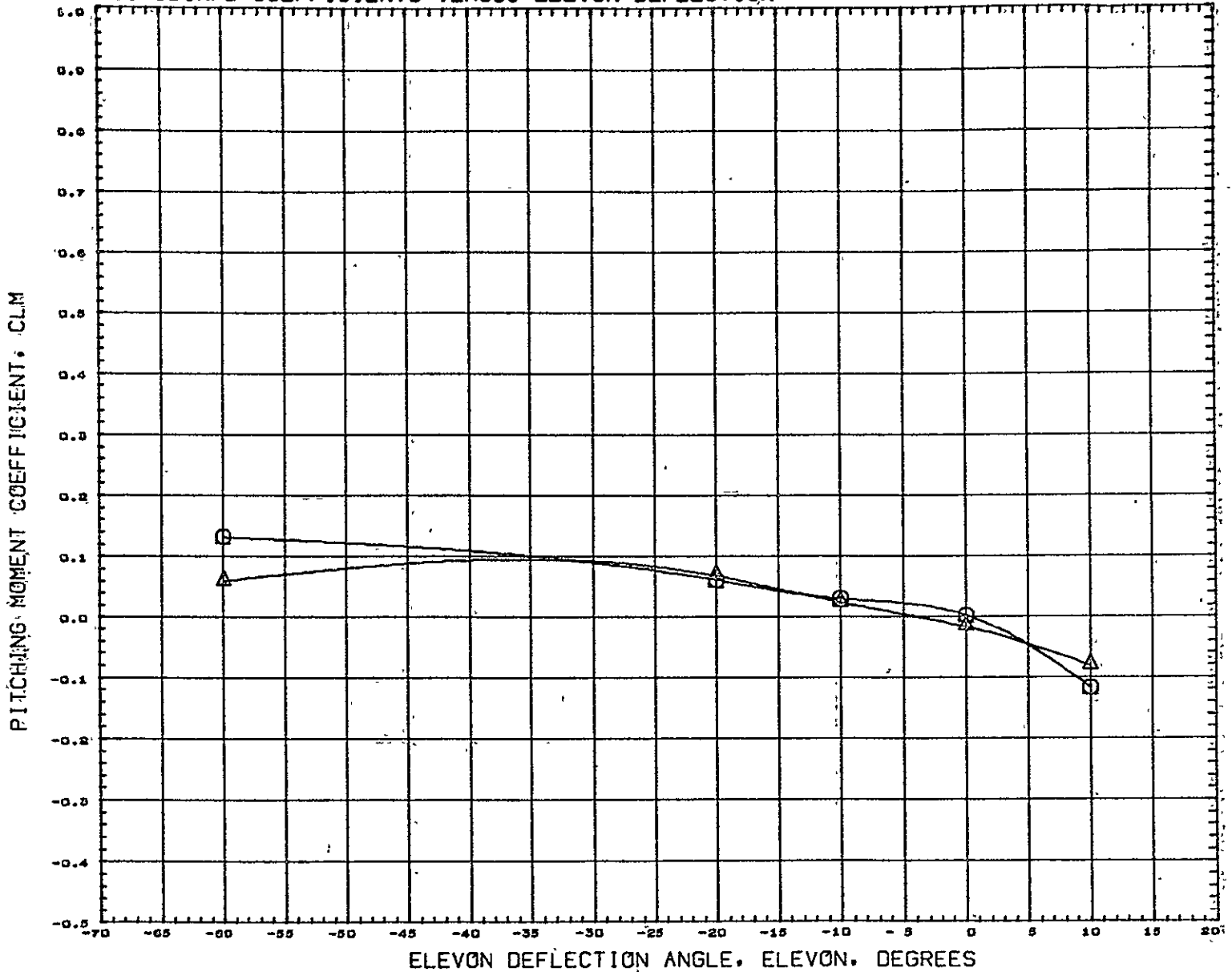
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	0.600	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ.IN.
△	20.000	DEL	-60.000	DER	-60.000	G28E74	-60.000	G28E71	-20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	-10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

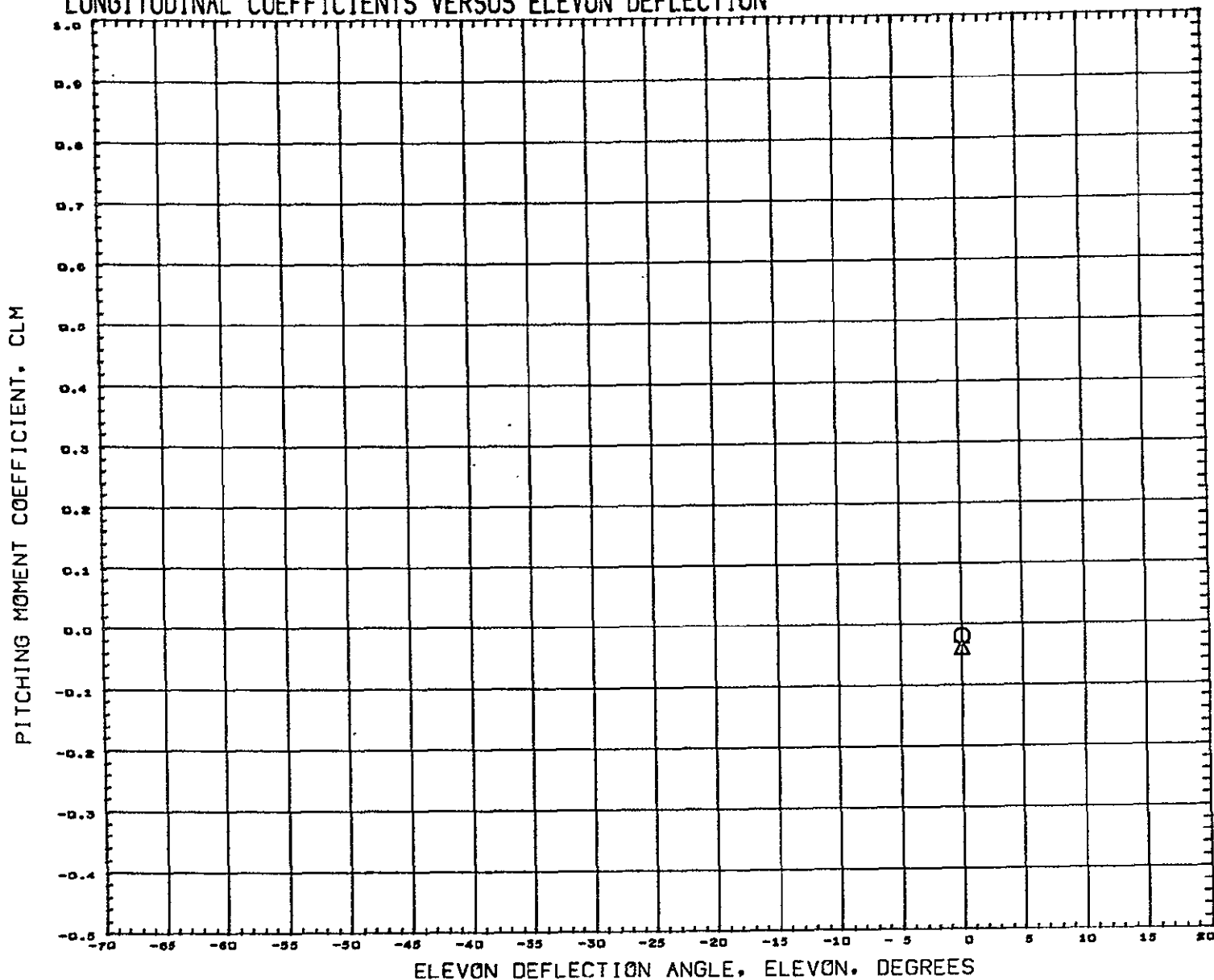
DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.900	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	30 IN.
△	20.000	DEL	-60.000	DER	-60.000	G28E74	-60.000	G28E71	-20.000	LREF	5.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	-10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

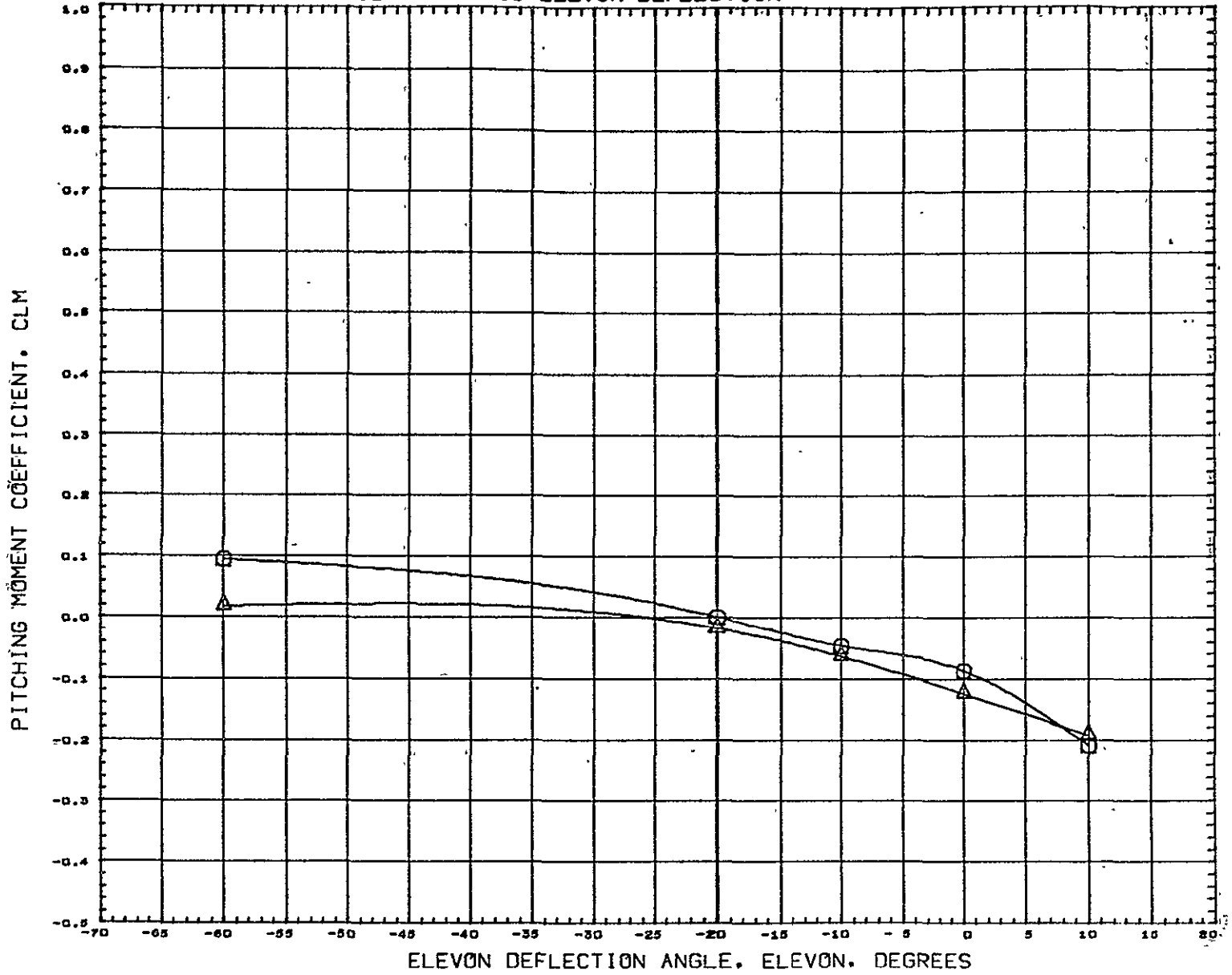


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION			
○	10.000		0.950	BETA	0.000	628E74	0.000	628E71	15.6560	30. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	628A01	- 10.000	628B31	3.0950	IN.
		DCL	0.000	DCR	0.000	628E77	10.000		6.0950	IN.
		CANARD	0.000	AILRON	0.000				0.7100	IN.
									0.0000	IN.
									0.0000	IN.
									SCALE	0.0035

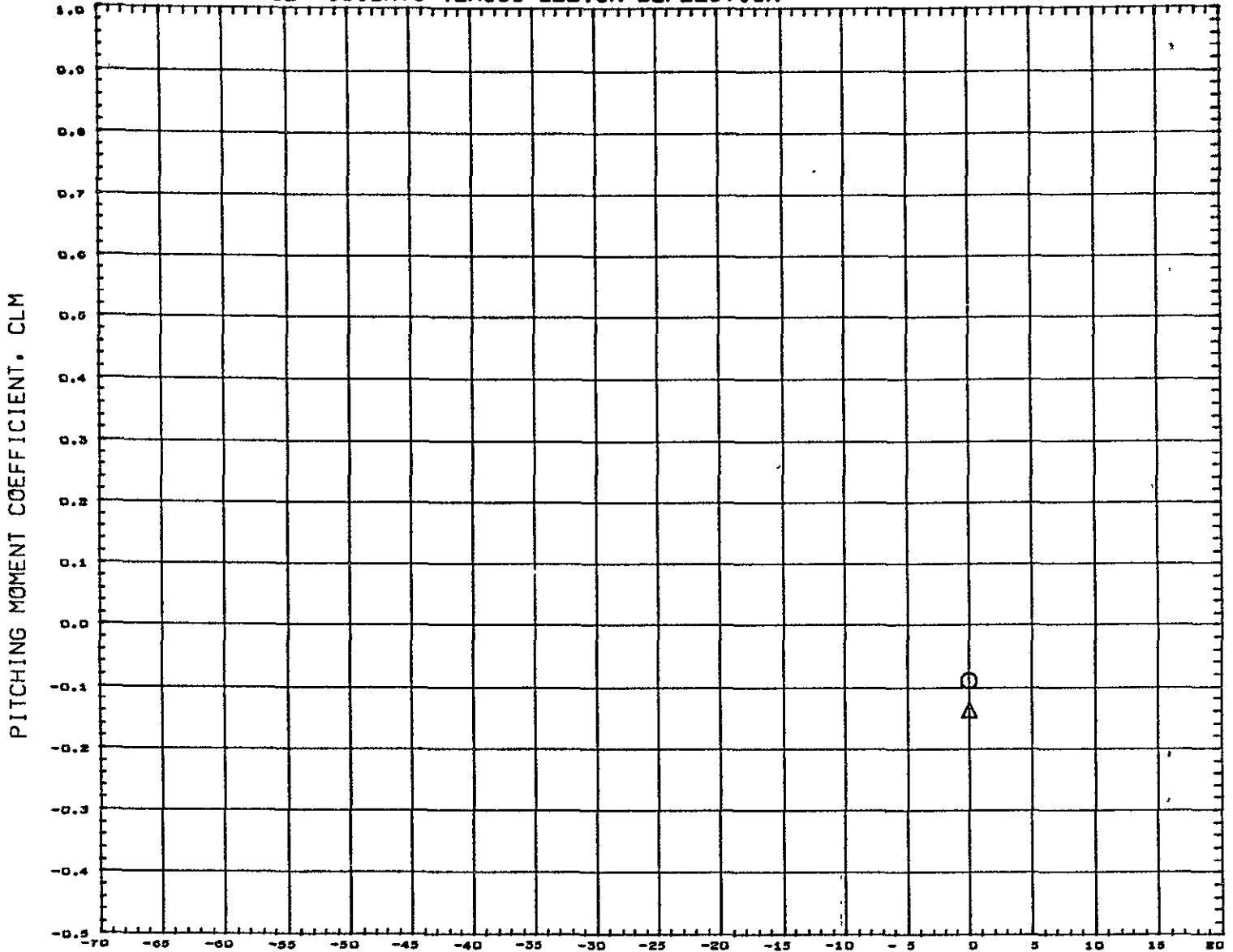
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LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28AD1	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVRWEI									

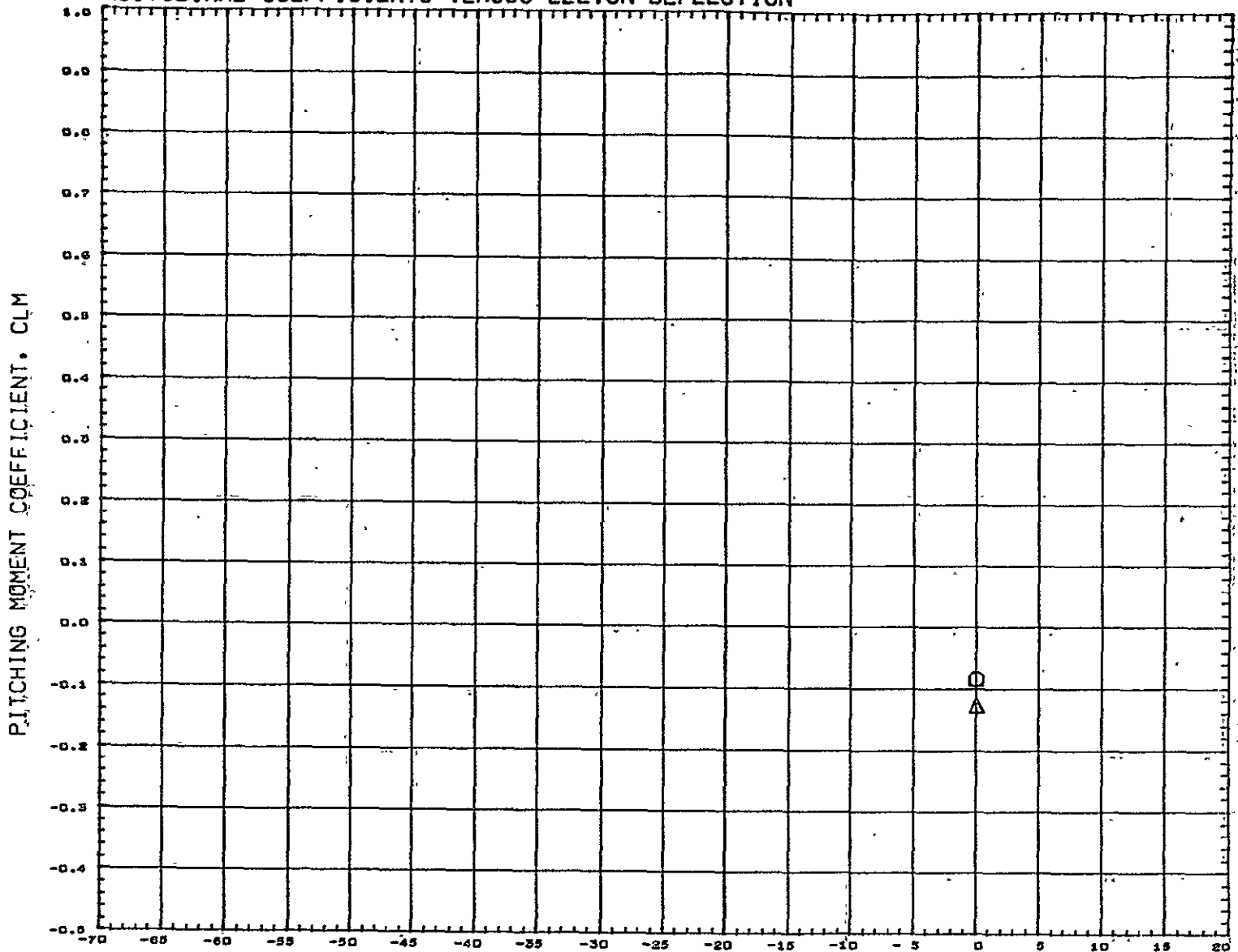
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.050	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	13.6560	sq. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

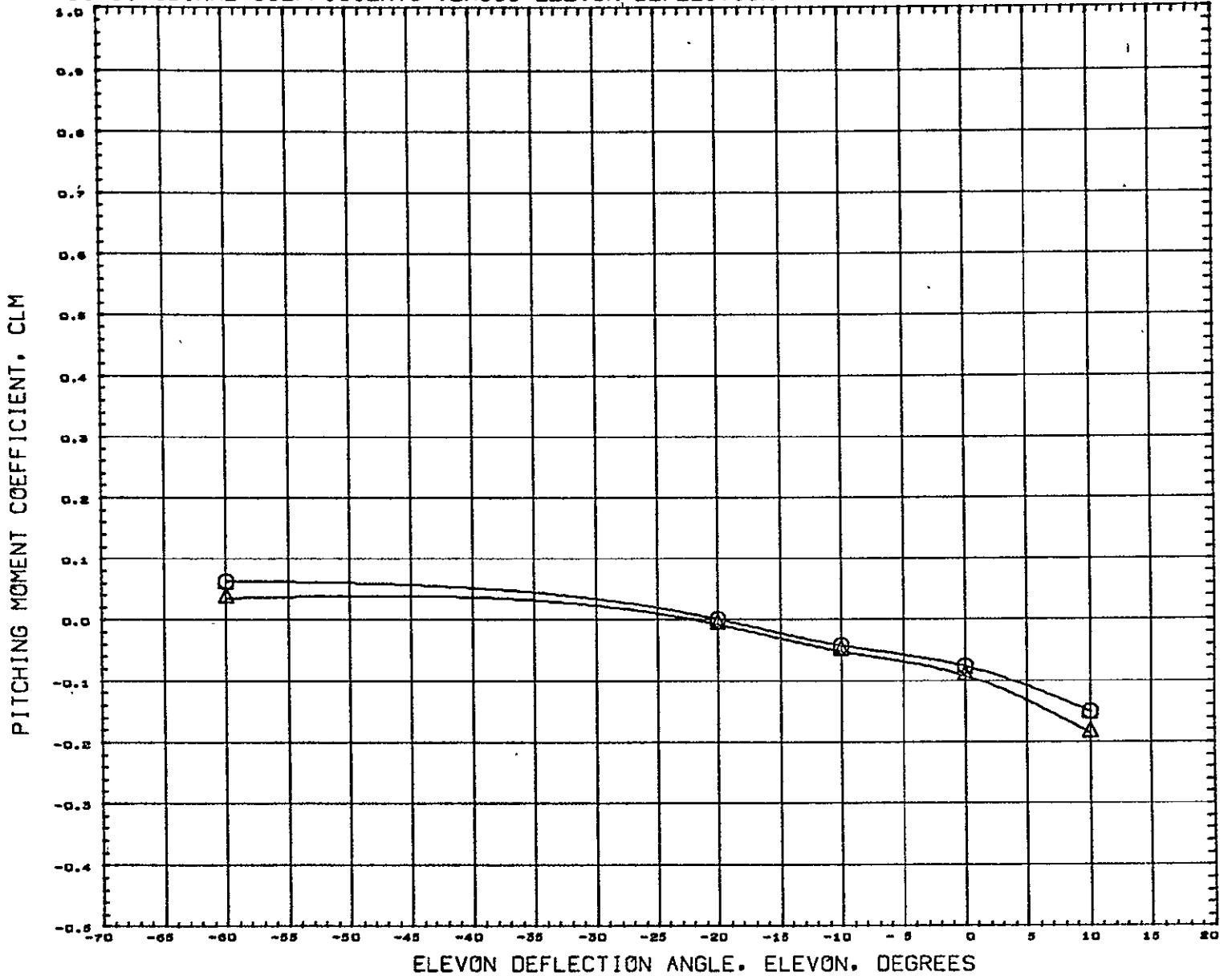
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	1.100	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	20.000	DEL ^{SP}	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

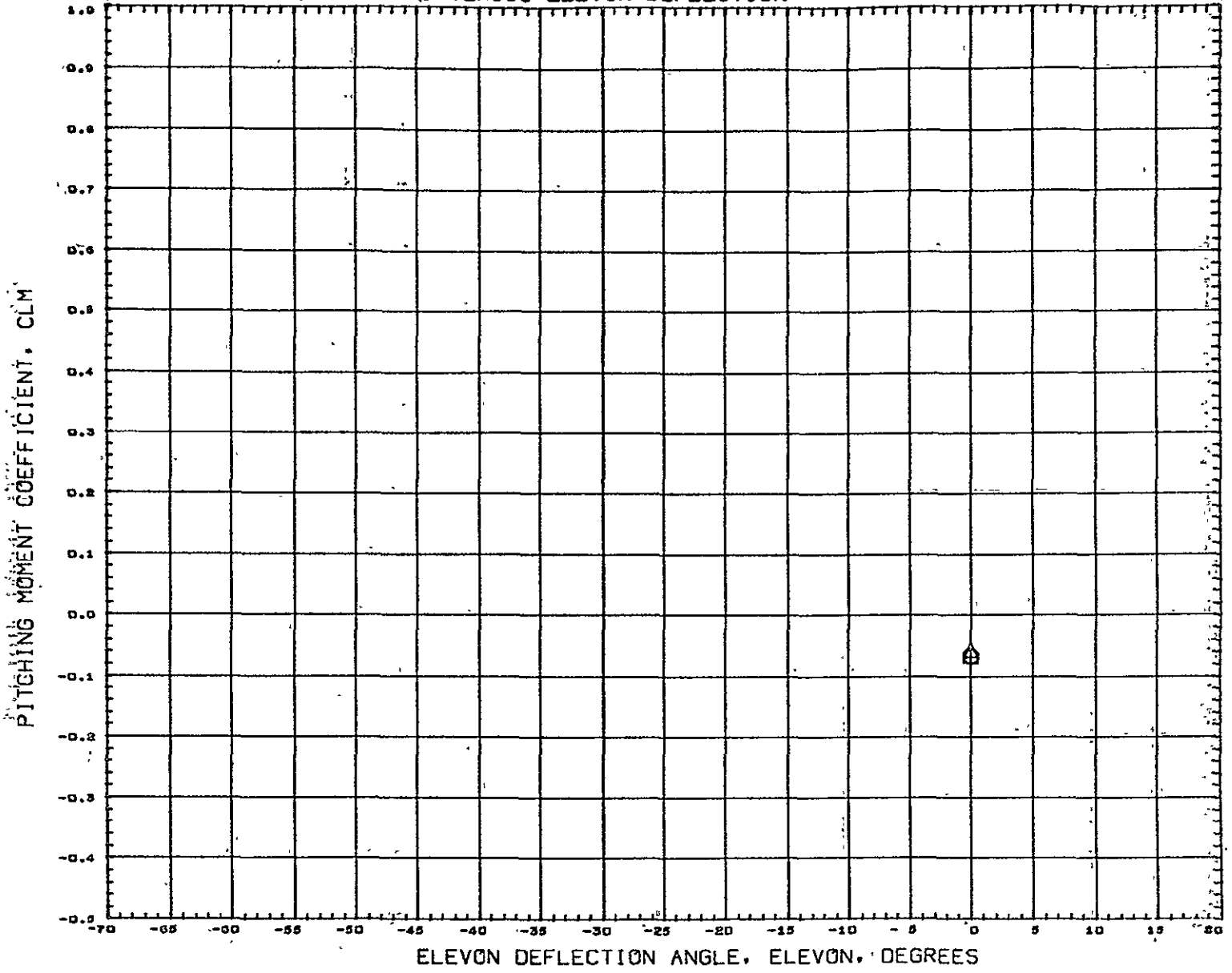
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.200	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	30.IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		OCL	0.000	DCR	0.000	G28AD1	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

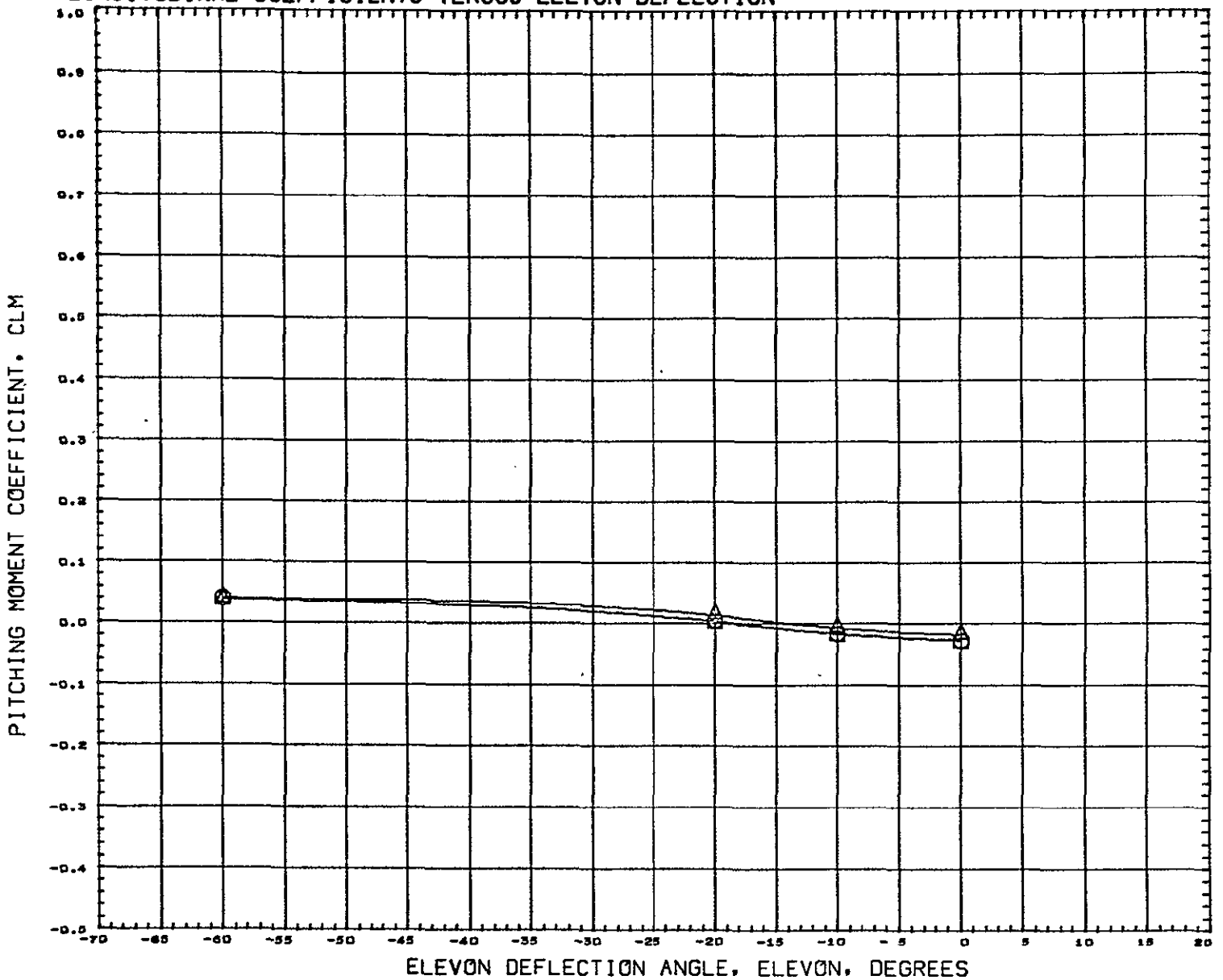
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MASH	1.500	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	32 IN.
△	20.000	DEL	-60.000	DER	-60.000	G28E74	-60.000	G28E71	-20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	-10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AIRON	0.000	G28E77	10.000			YHRP	6.7100	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0055	

DATA HIST. CODE MVR#E1

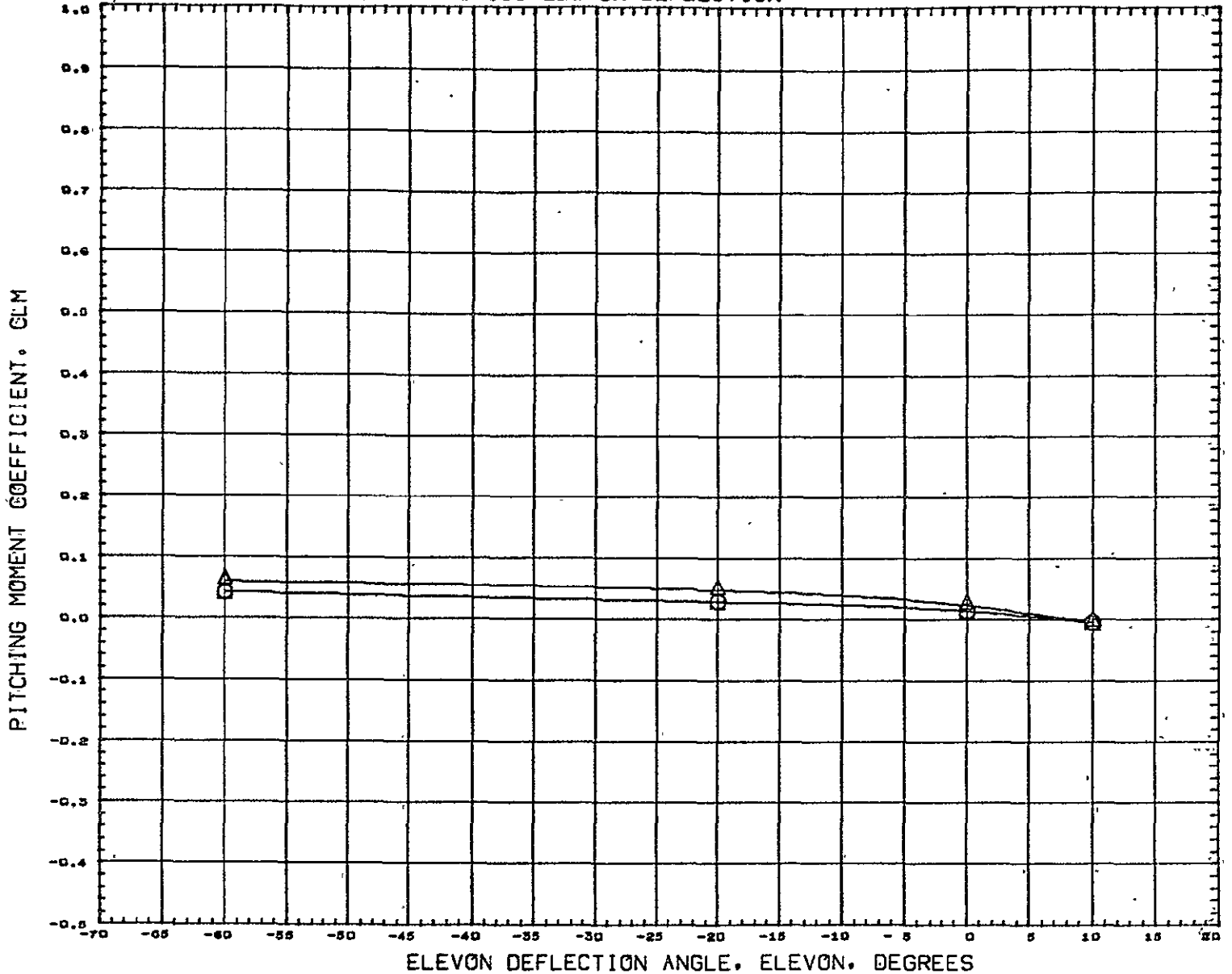
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	2.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6500	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

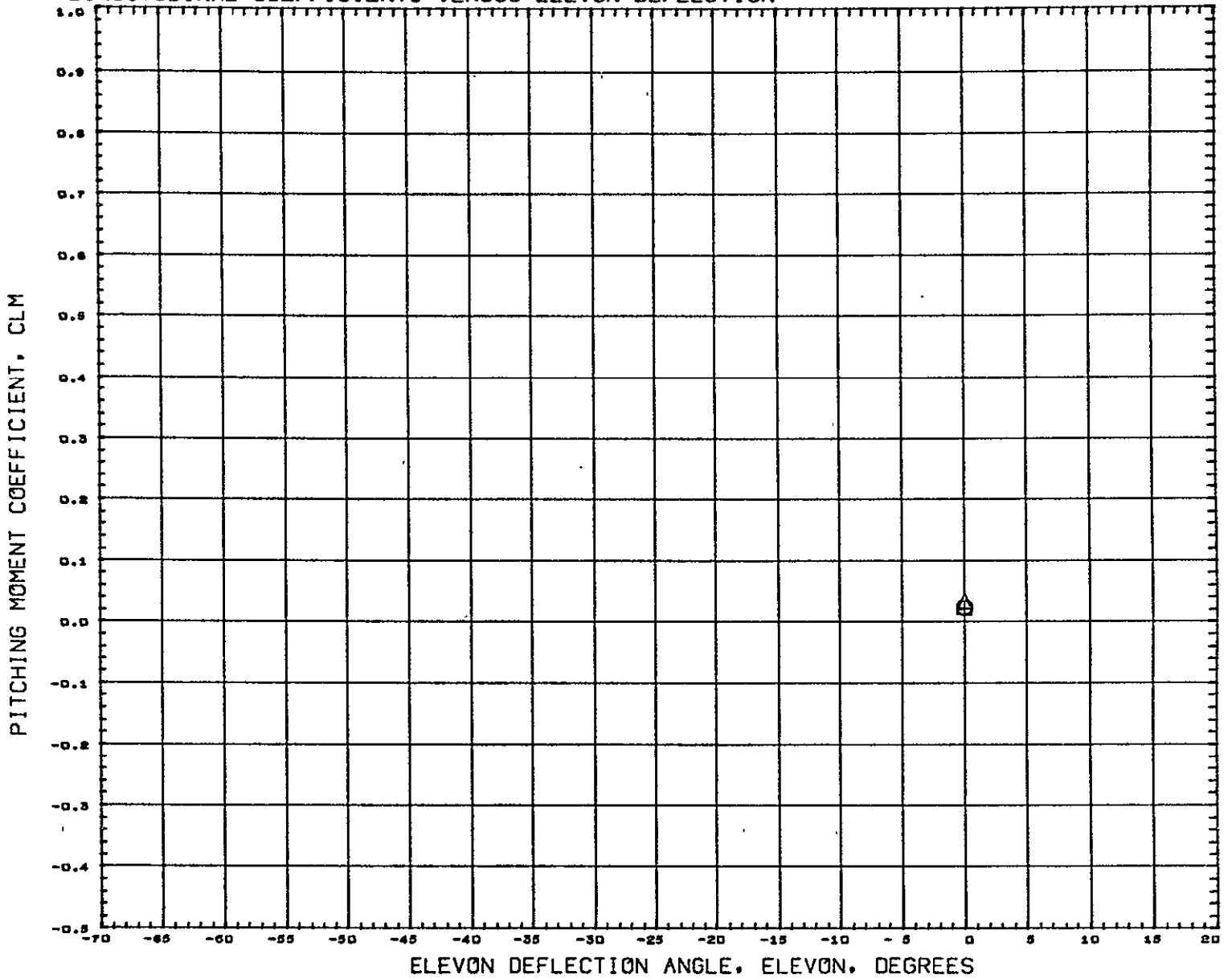
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION						
○	10.000	<u>HACH</u>	3.000	BETA	0.000	DATASET	ELEVON	SREF	15.6560	30. IN.		
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0990	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

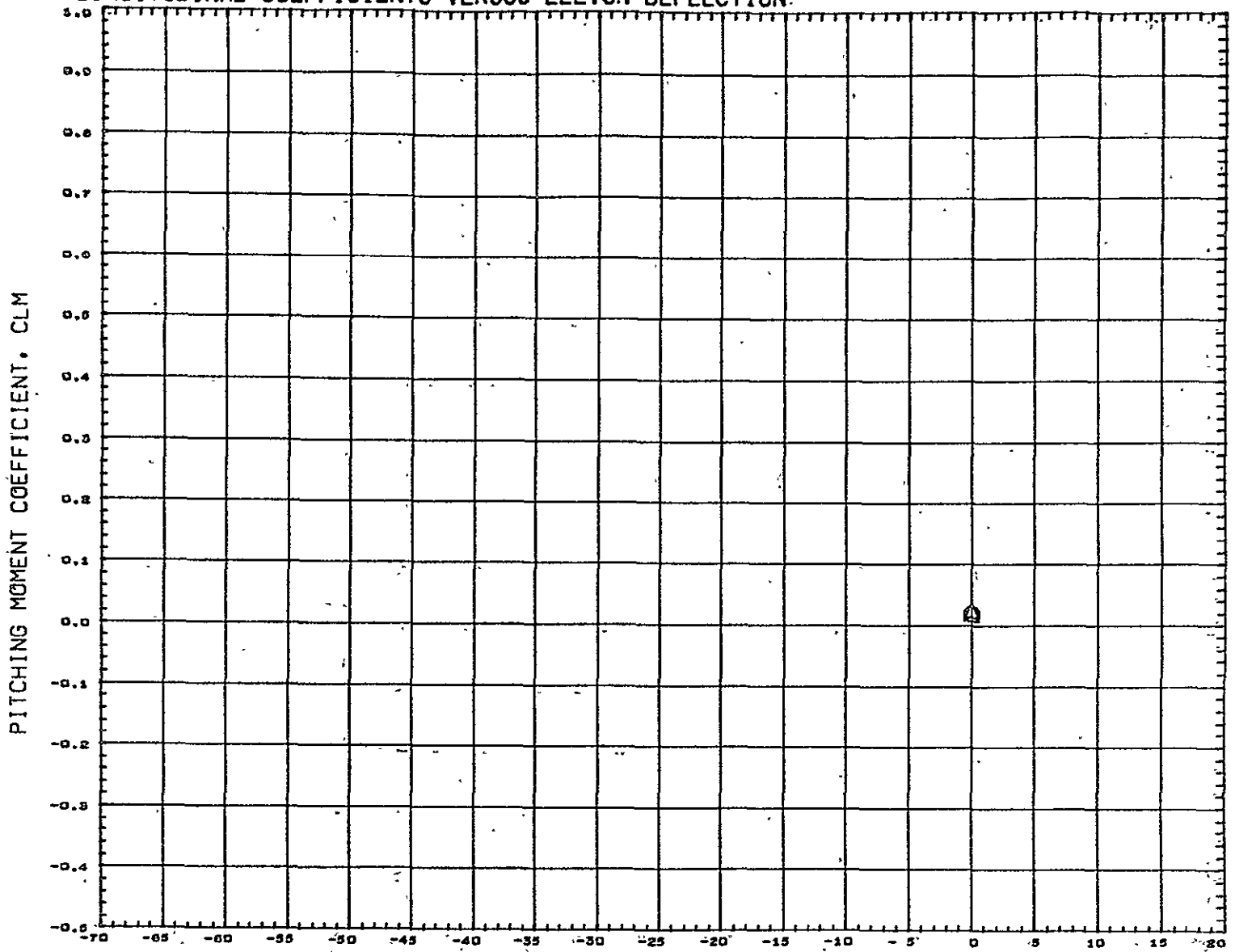
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DATASET	ELEVON	DATASET	ELEVON	SREF	IN.		
○	10.000	4.000	0.000	G28E74	60.000	G28E71	20.000	15.6560	50. IN.		
△	20.000	DEL - 60.000	DER - 60.000	G28A01	10.000	G28B31	0.000	3.0950	IN.		
		DCL	DCR	G28E77	10.000			6.0990	IN.		
		CANARD	AILRON					6.7100	IN.		
								YMRP	0.0000	IN.	
								ZMRP	0.0000	IN.	
								SCALE	0.0035		

DATA HIST. CODE MVR9E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION.

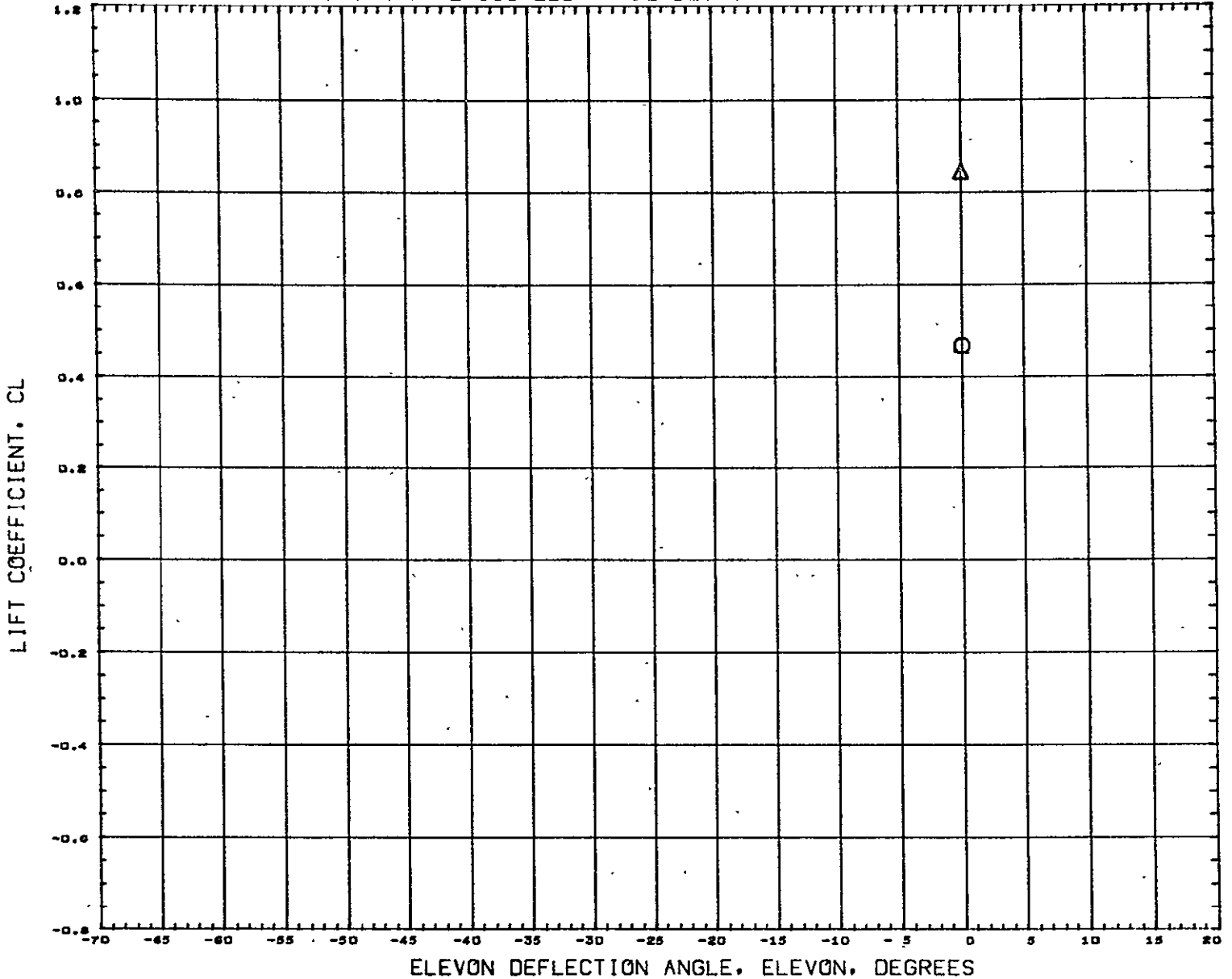


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION				
○	10.000	5.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	Sq. IN.
△	20.000	60.000	DEL	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		0.000	OCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		0.000	AILRON	0.000	G28E77	10.000			XHRP	6.7100	IN.
									YHRP	0.0000	IN.
									ZHRP	0.0000	IN.
									SCALE	0.0035	

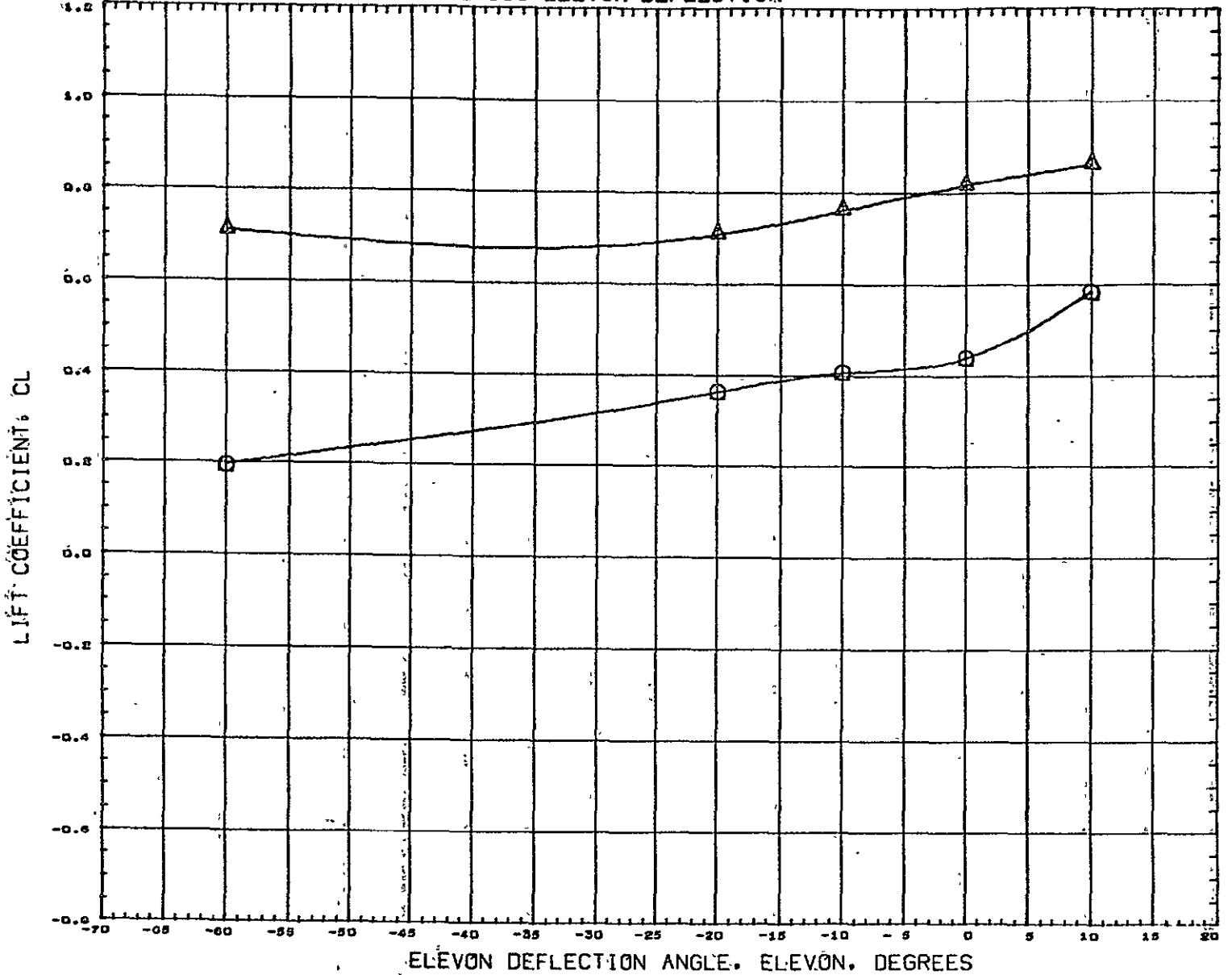
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LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MASH</u>	0.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6500	Sq. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

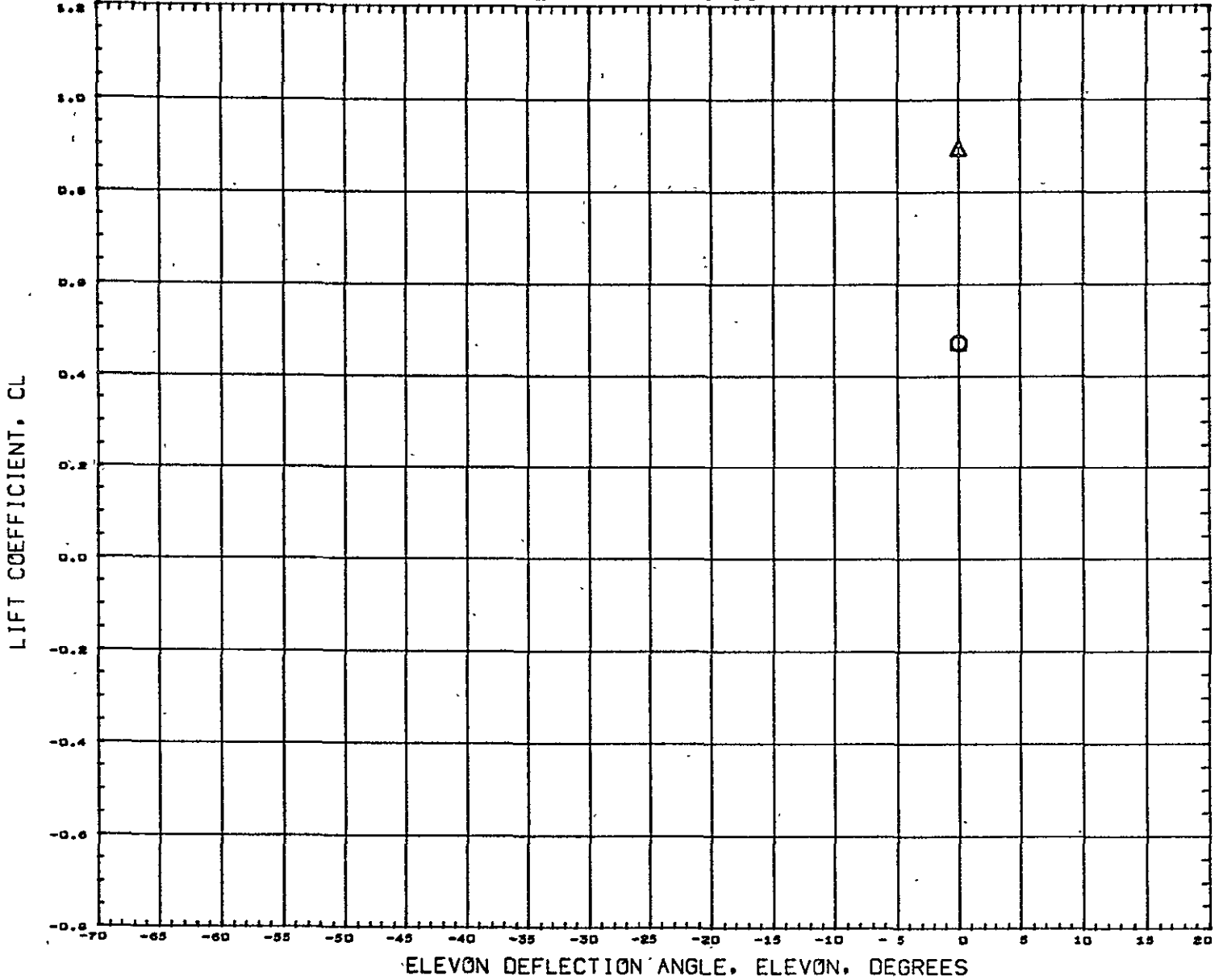
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION						
○	10.000	MACH	0.900	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AIRLON	0.000	G20E77	10.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

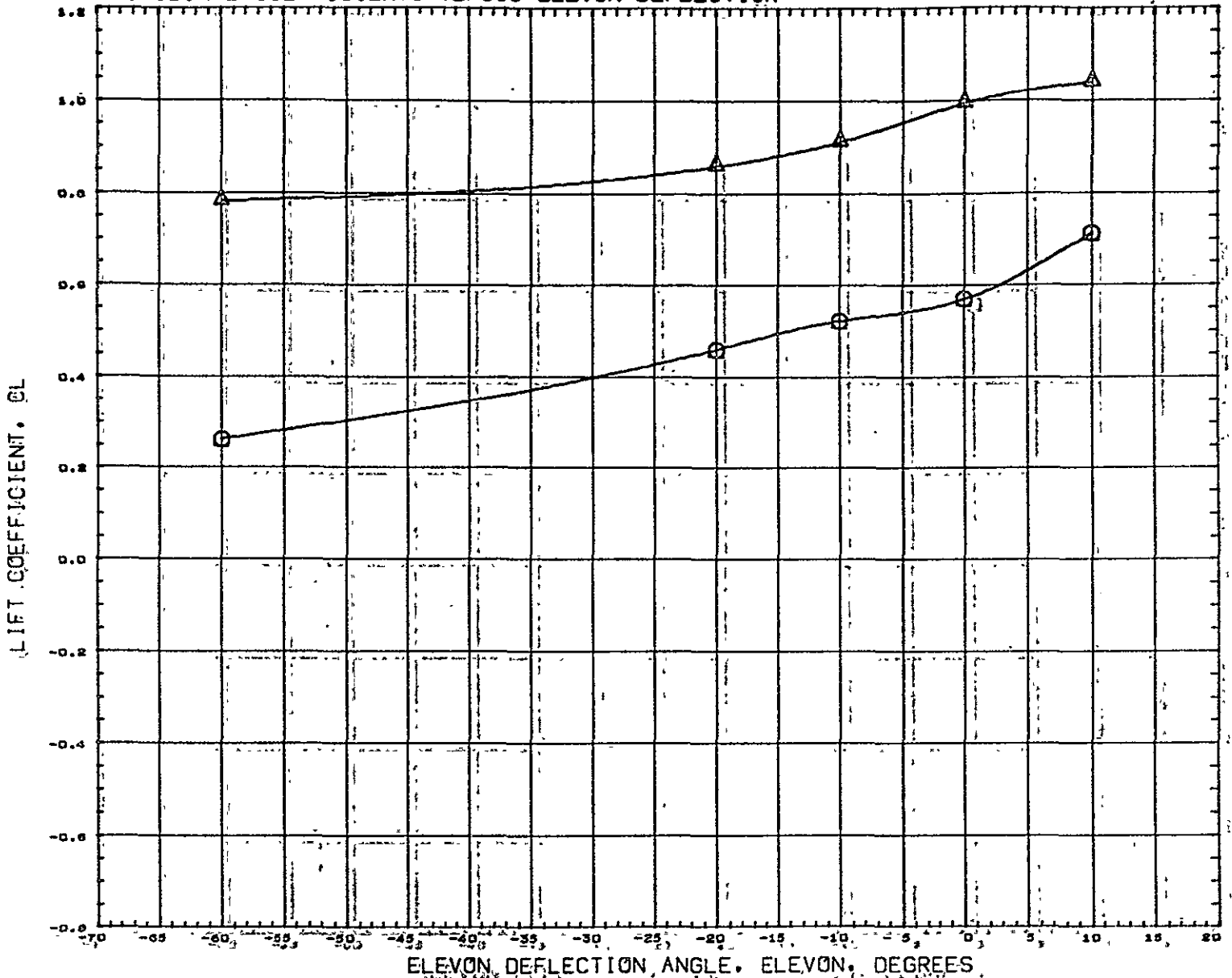
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DEL	DER	DATASET	ELEVON	DATASET	ELEVON	SREF	IN.	SCALE
○	10.000	0.950	0.000	-60.000	-60.000	G28E74	-60.000	G28E71	-20.000	LREF	15.6560	30. IN.
△	20.000	0.950	0.000	-60.000	-60.000	G28A01	-10.000	G28B31	0.000	BREF	6.0990	IN.
				0.000	0.000	G28E77	10.000			XMRP	6.7100	IN.
				0.000	0.000					YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

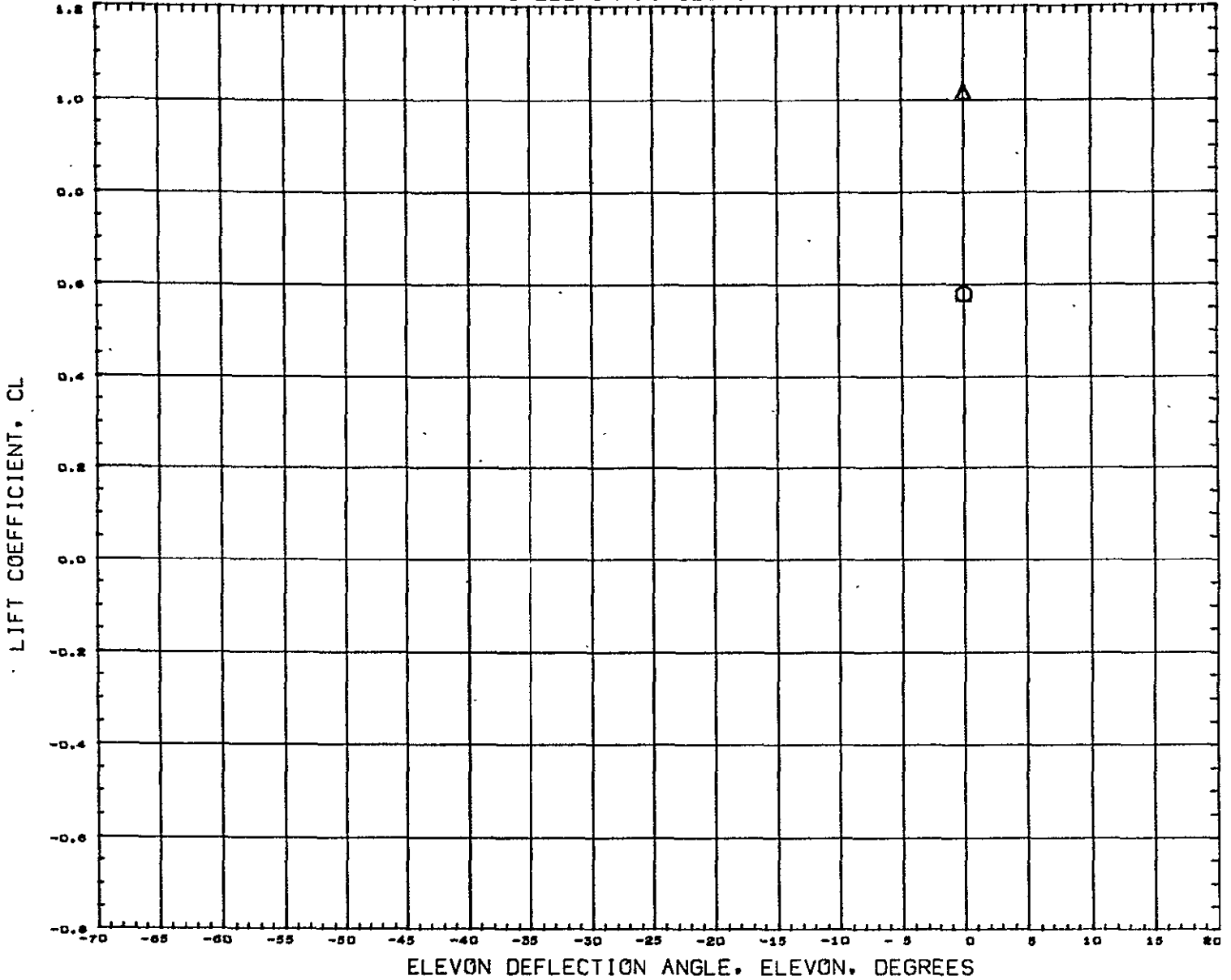
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000		BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.		
△	20.000		DEL	-60.000	G28E74	-60.000	G28E71	-20.000	LREF	3.0930	IN.		
			DCR	0.000	G28A01	-10.000	G28B31	0.000	BREF	6.0990	IN.		
			AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.		
									YMRP	0.0000	IN.		
									ZMRP	0.0000	IN.		
									SCALE	0.0030			

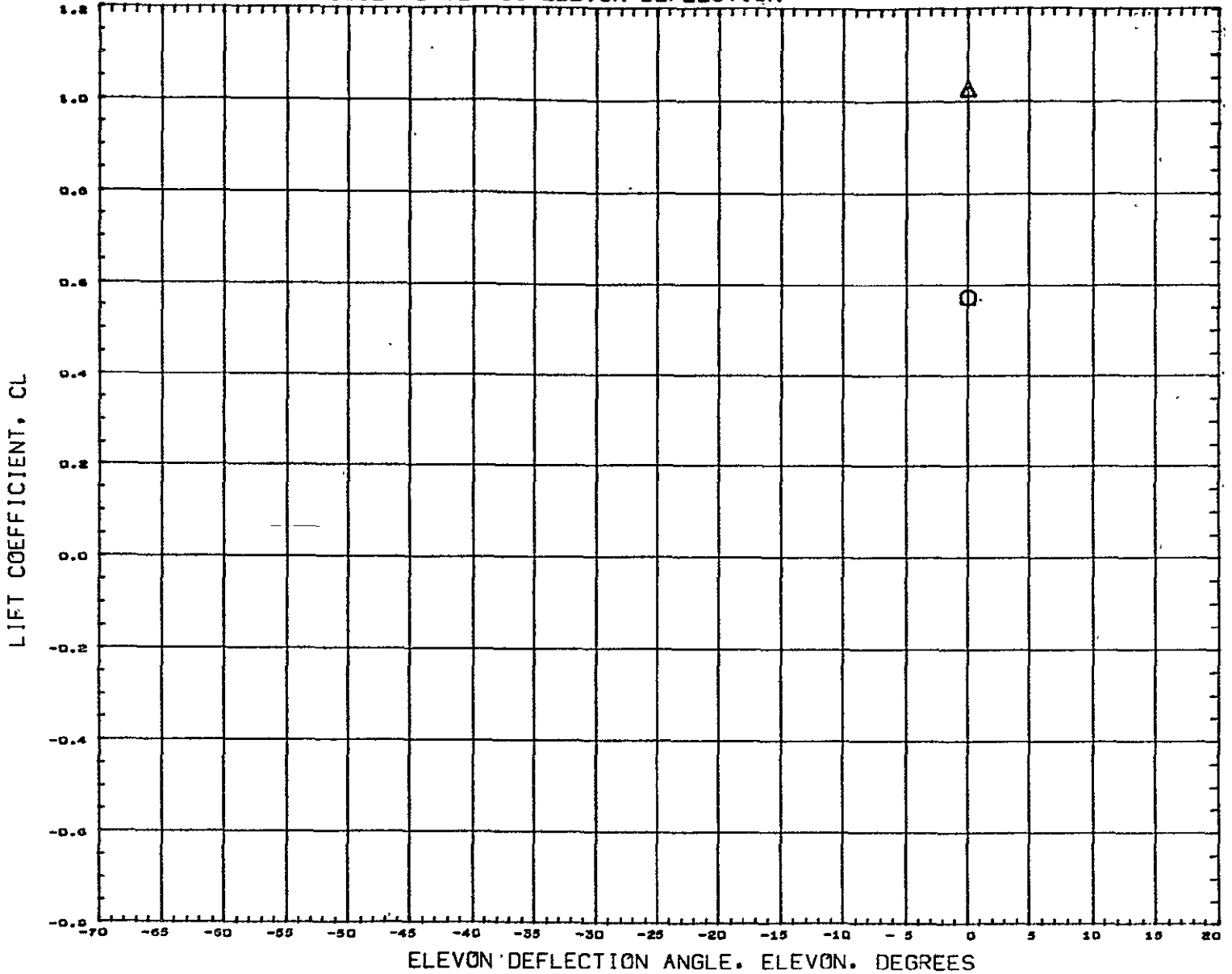
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LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.050	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50.IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	HVR#E1									

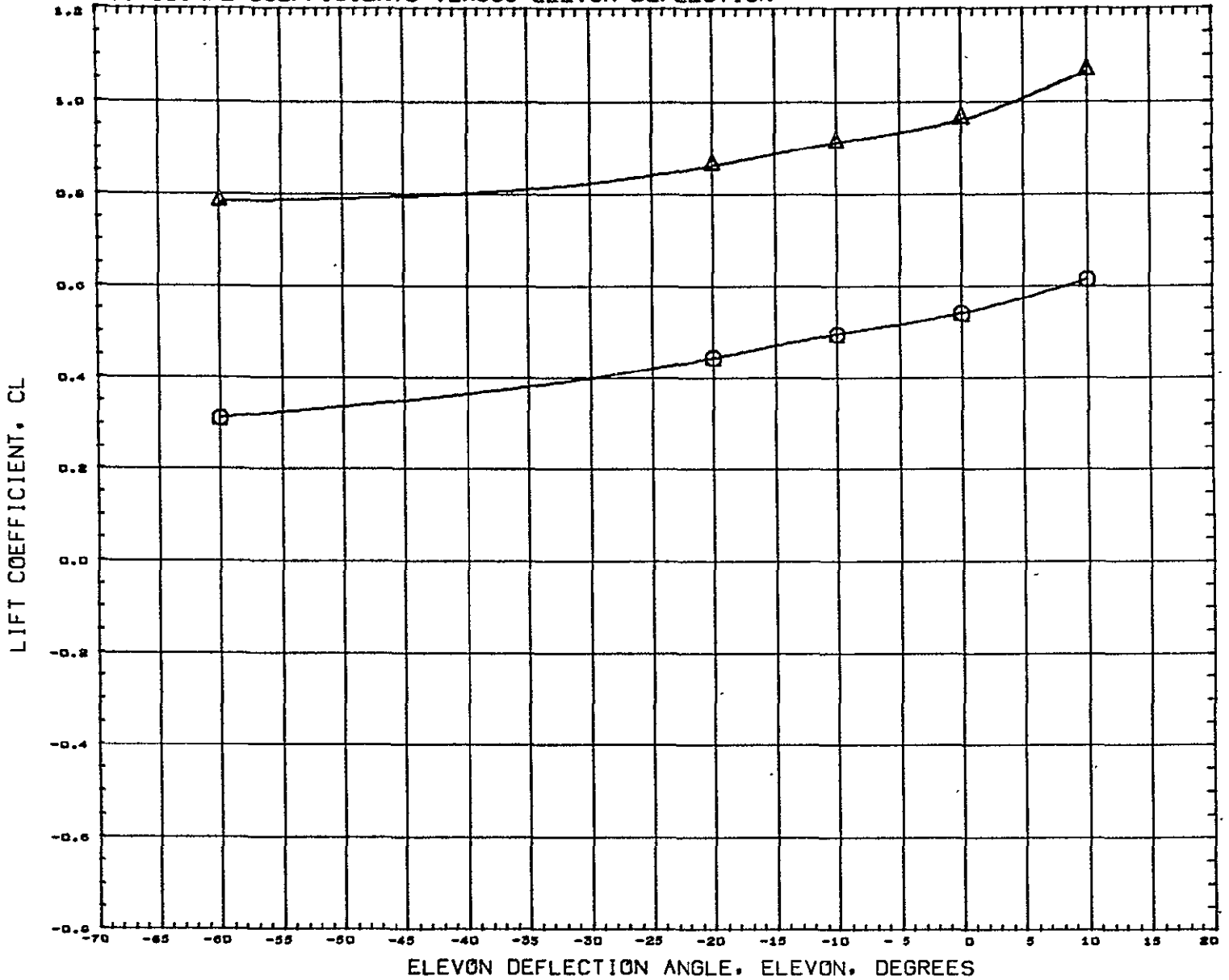
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE				REFERENCE INFORMATION			
○	10.000		1.100	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AIRLON	0.000	G28E77	10.000			YMRP	6.7100	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR4E1

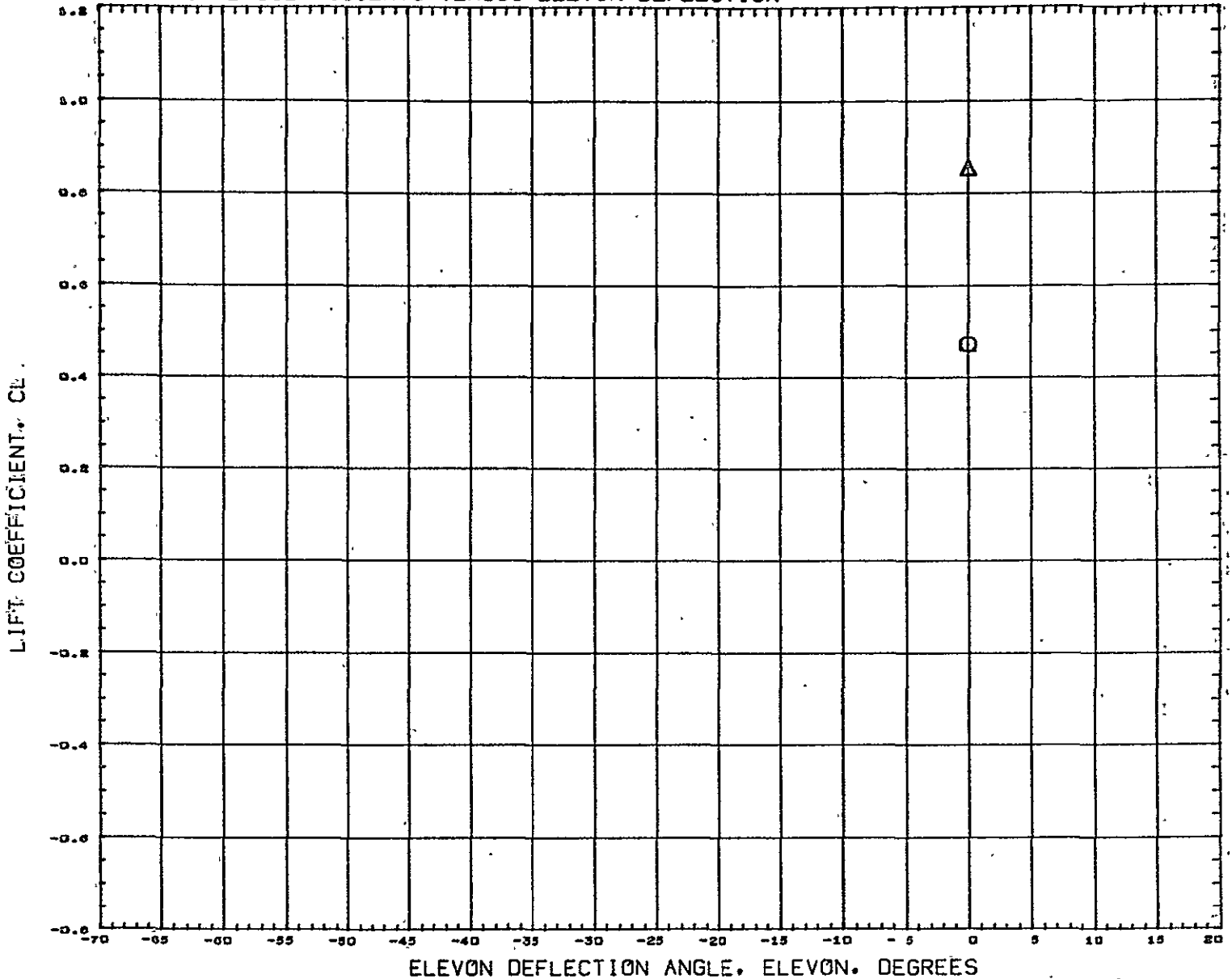
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.200	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	sq. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMNP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

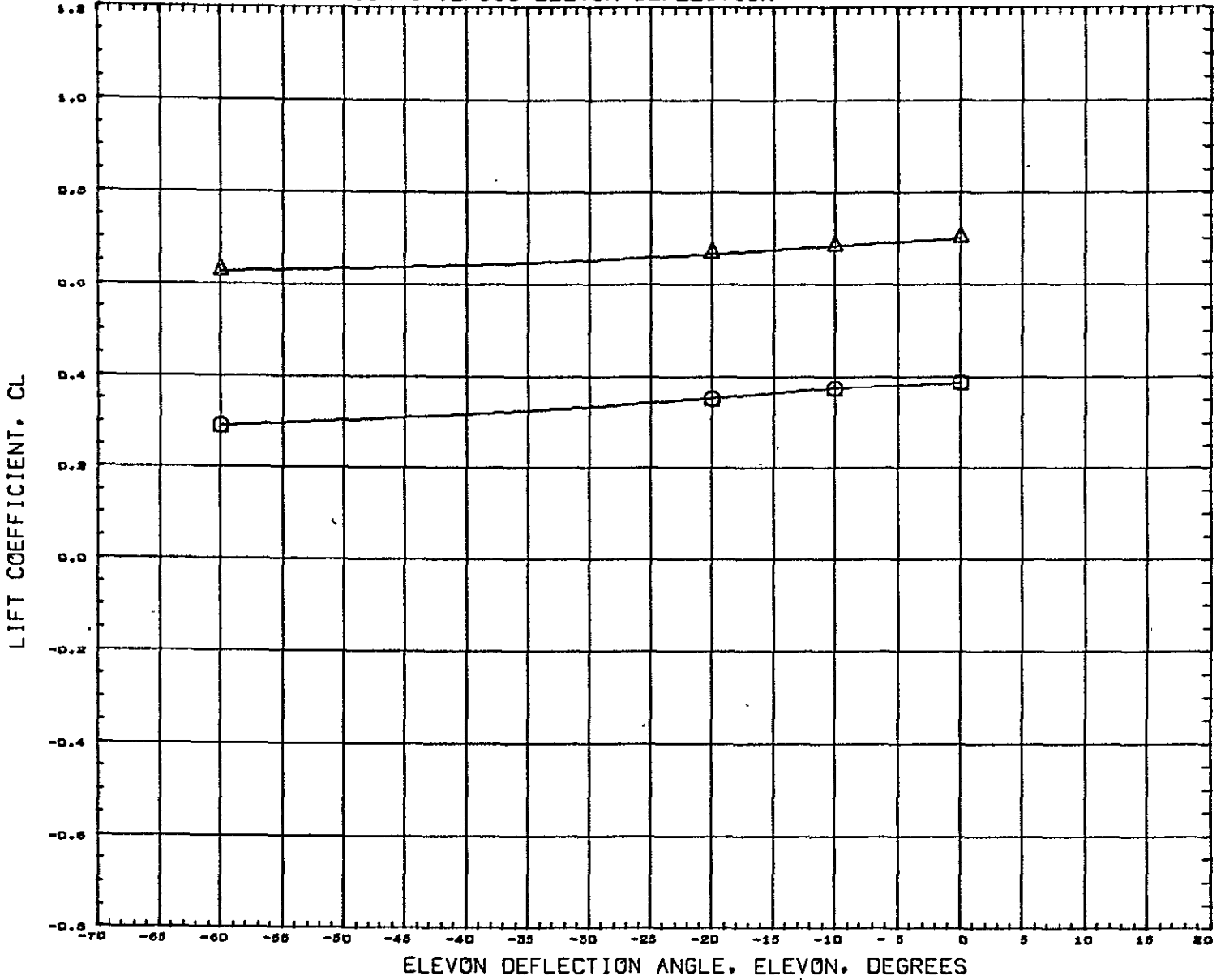
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	10.000	MACH 1.500 BETA 0.000	DATA SOURCE	SREF 15.6360 30 IN.
△	20.000	DEL - 60.000 DER - 60.000	G28E74 - 60.000 G28E71 - 20.000	LREF 3.0950 IN.
		DCL 0.000 DCR 0.000	G28A01 - 10.000 G28B31 0.000	BREF 6.0990 IN.
		CANARD 0.000 AILRON 0.000	G28E77 10.000	XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

DATA HIST. CODE MVR#E1

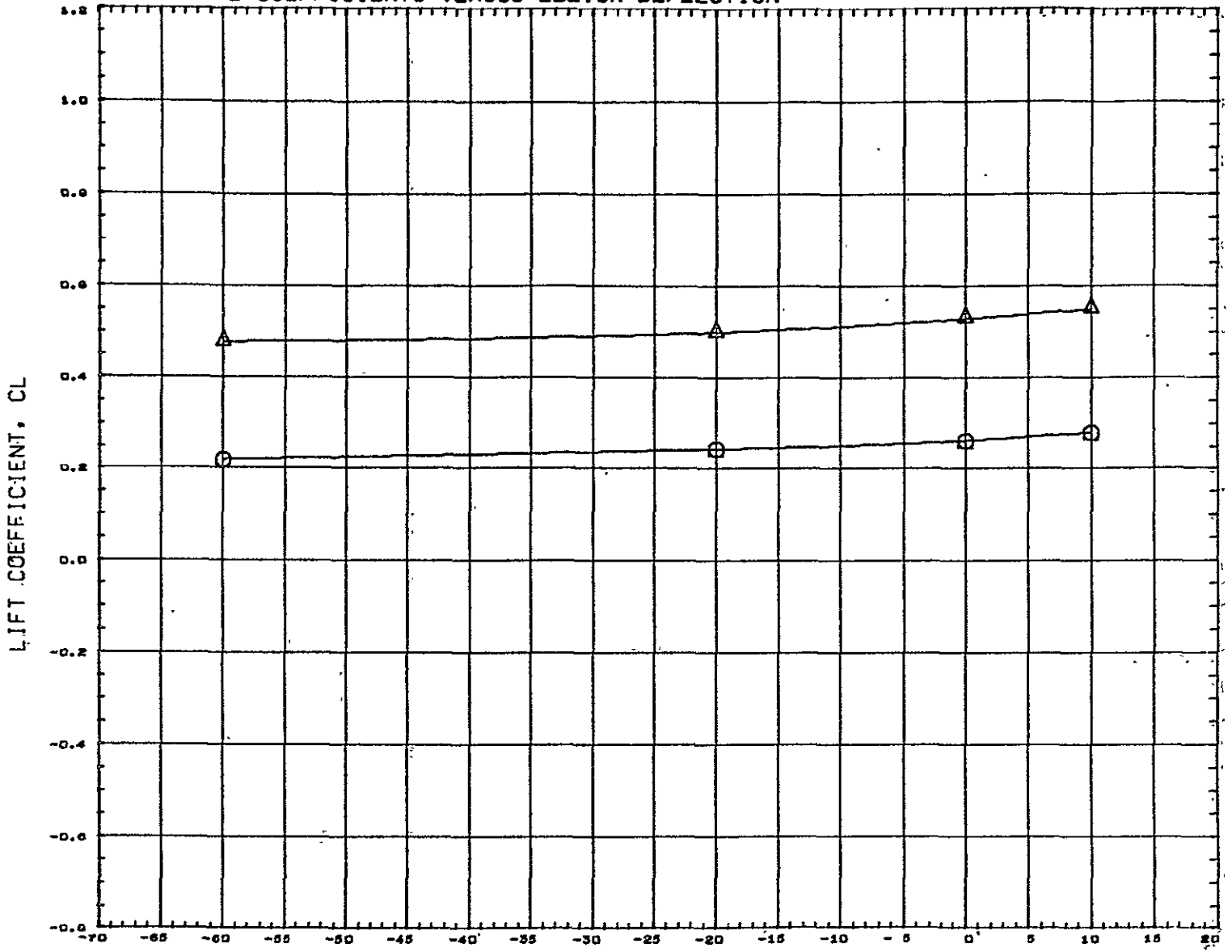
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA		PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
	10.000	20.000	MACH	BETA	DCR	AILRON	DATASET	ELEVON	DATASET	ELEVON	SREF	SQ. IN.
○	10.000	20.000	2.000	0.000	0.000	0.000	G28E74	- 60.000	G28E71	- 20.000	15.6560	84. IN.
△	10.000	20.000	DEL	DER	DCR	AILRON	G28A01	- 10.000	G28B51	0.000	3.0950	IN.
			DCL	DCR	AILRON		G28E77	10.000			6.0990	IN.
			CANARD								6.7100	IN.
											0.0000	IN.
											0.0000	IN.
											0.0035	IN.

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

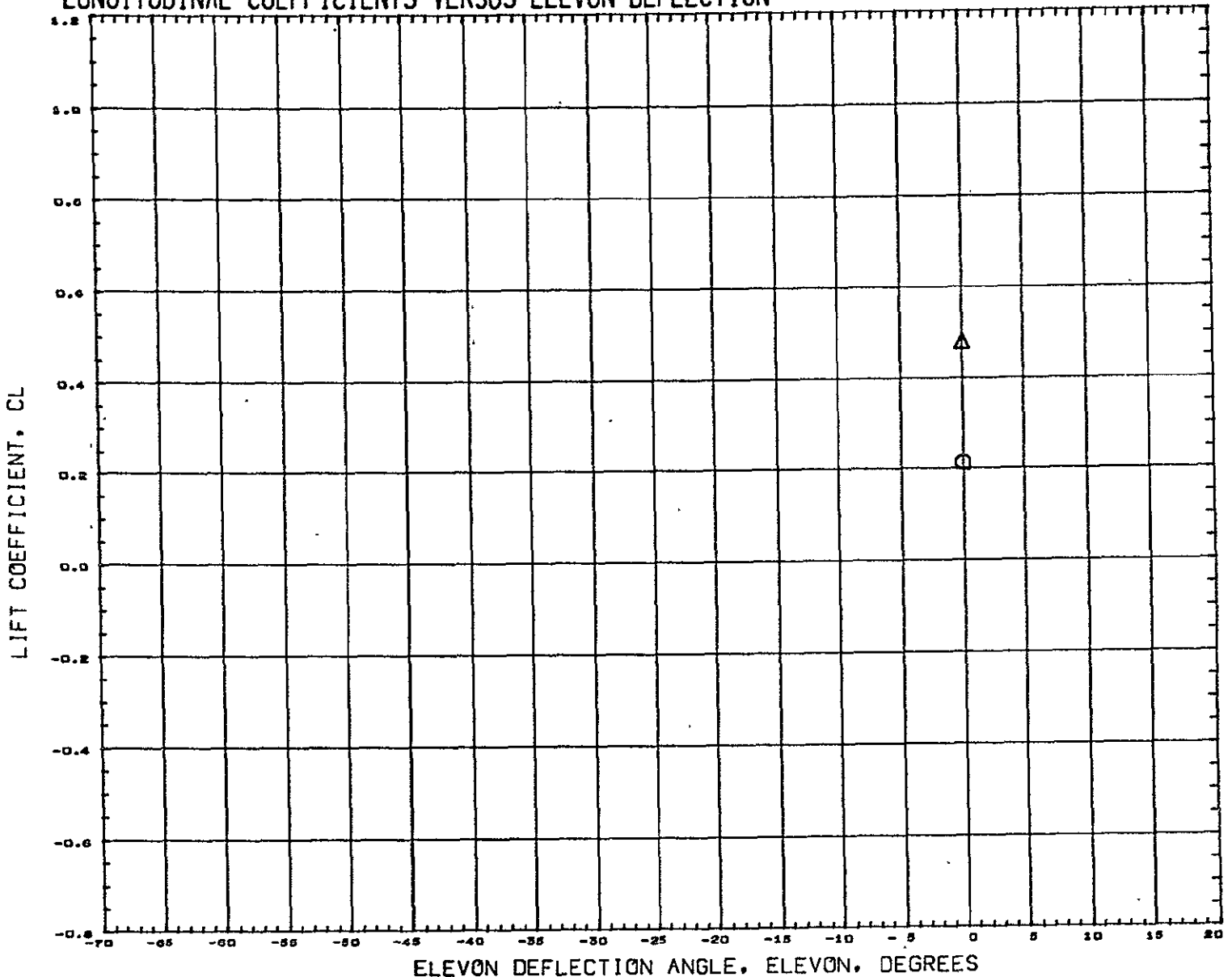


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	30. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	0.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#EI

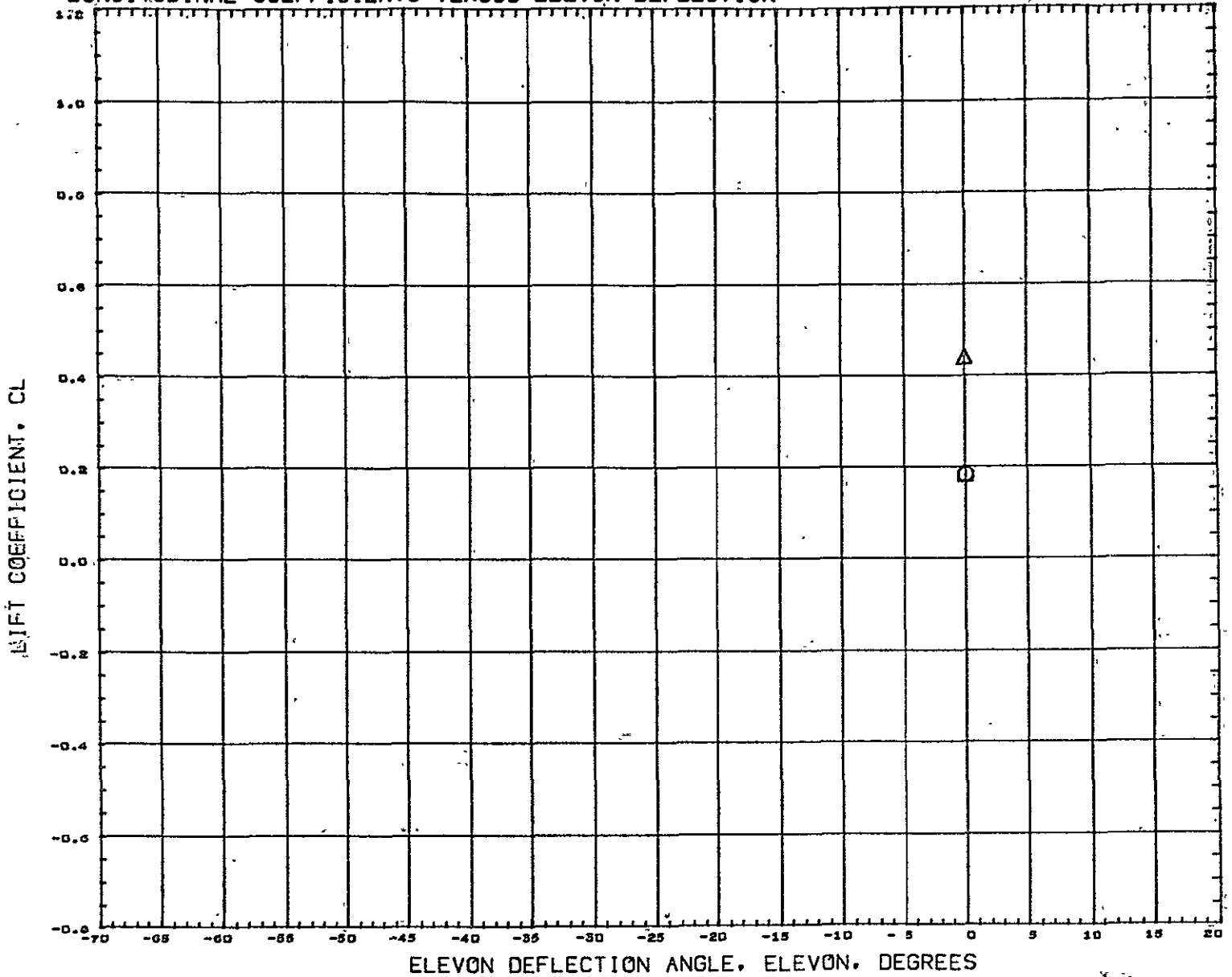
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	ELEVON	DATASET	ELEVON	SREF	SQ. IN.
○	10.000	4.000	0.000	-60.000	0.000	G28E74	-60.000	G28E71	-20.000	15.6560	50. IN.
△	20.000	0.000	0.000	0.000	0.000	G28A01	-10.000	G28B31	0.000	3.0950	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			6.0990	IN.
										6.7100	IN.
										0.0000	IN.
										0.0000	IN.
										SCALE	0.0035

DATA HIST. CODE MVR0E1

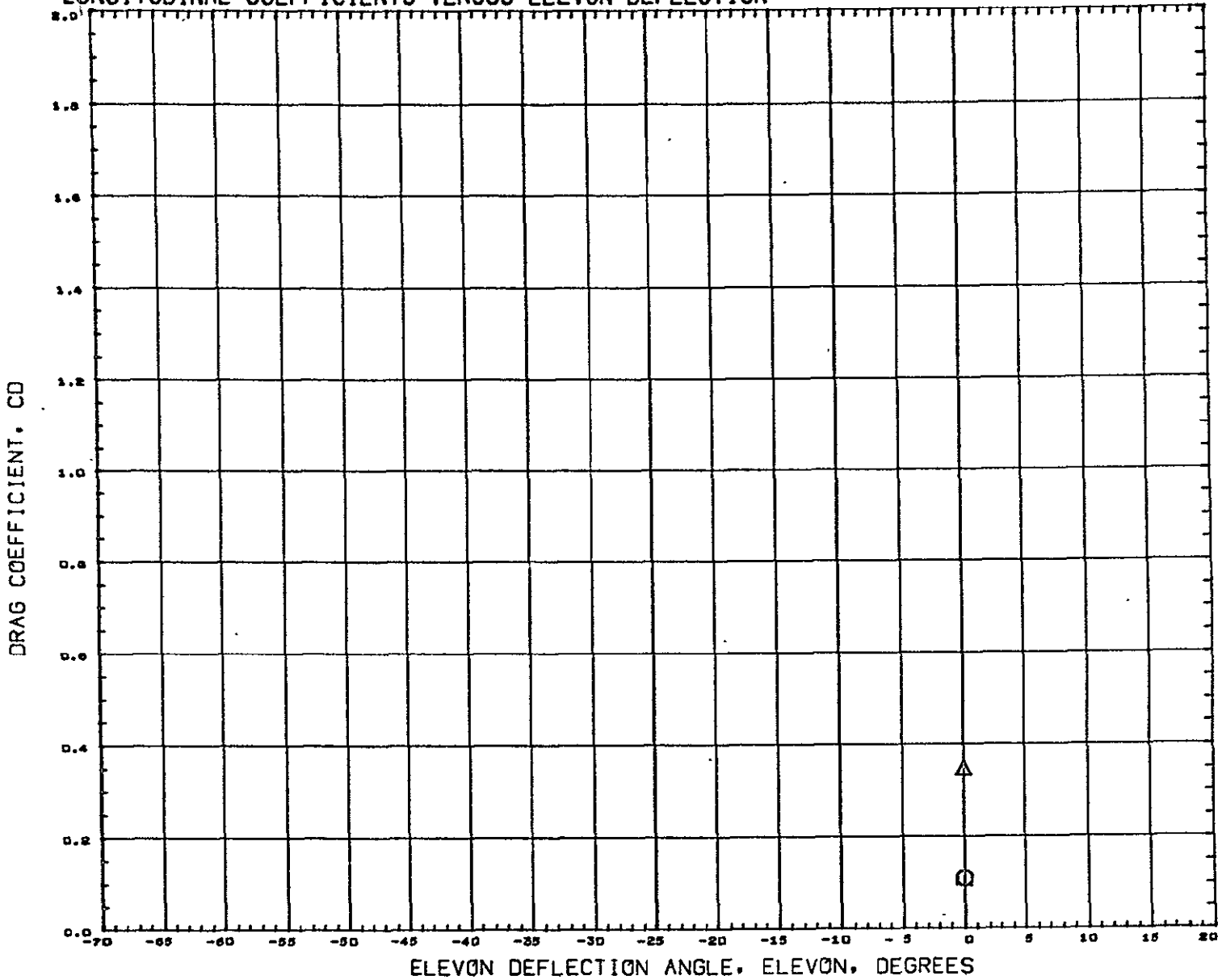
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	5.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	sq. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			YMRP	0.7100	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR0E1

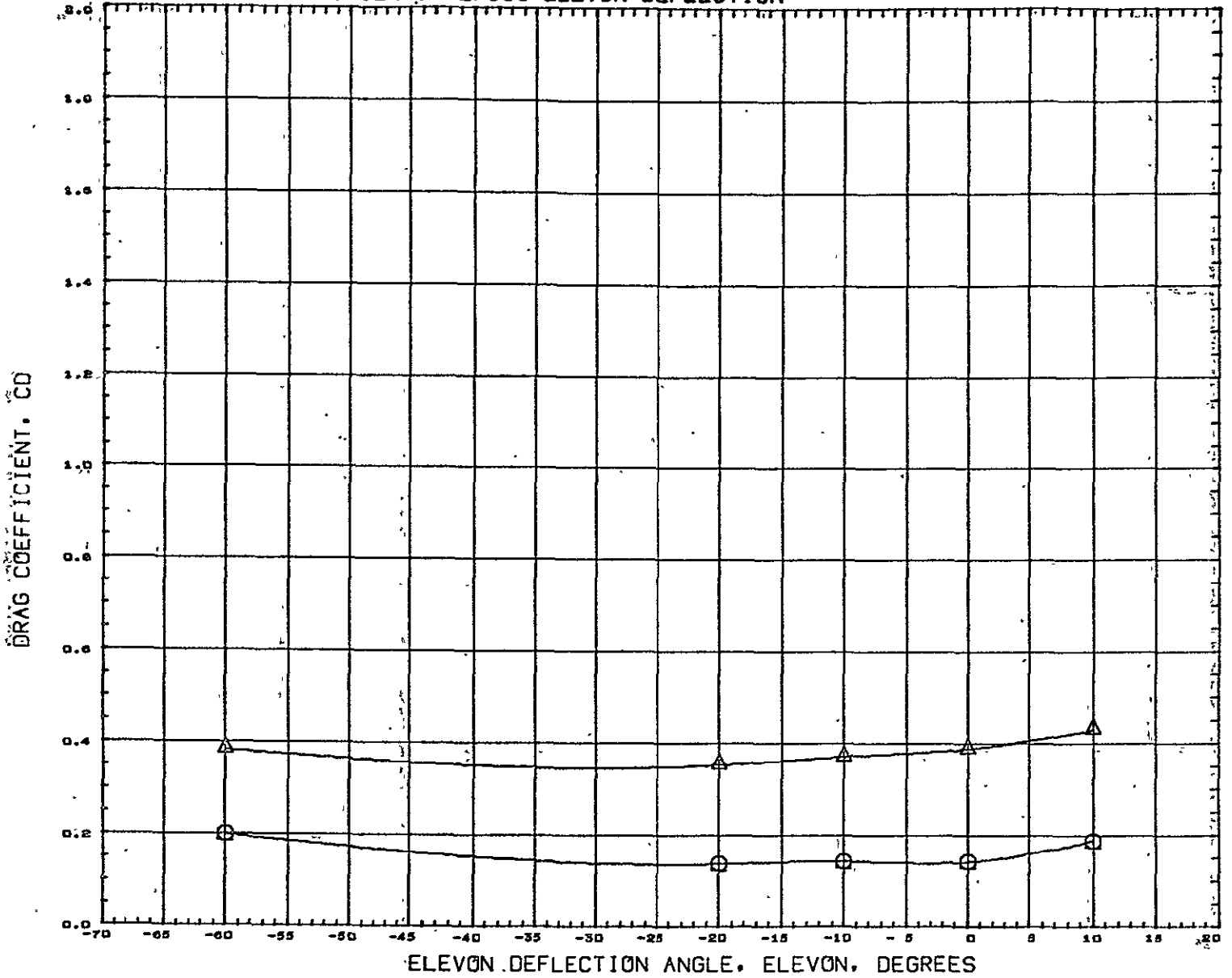
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	0.600	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28AD1	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0033	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

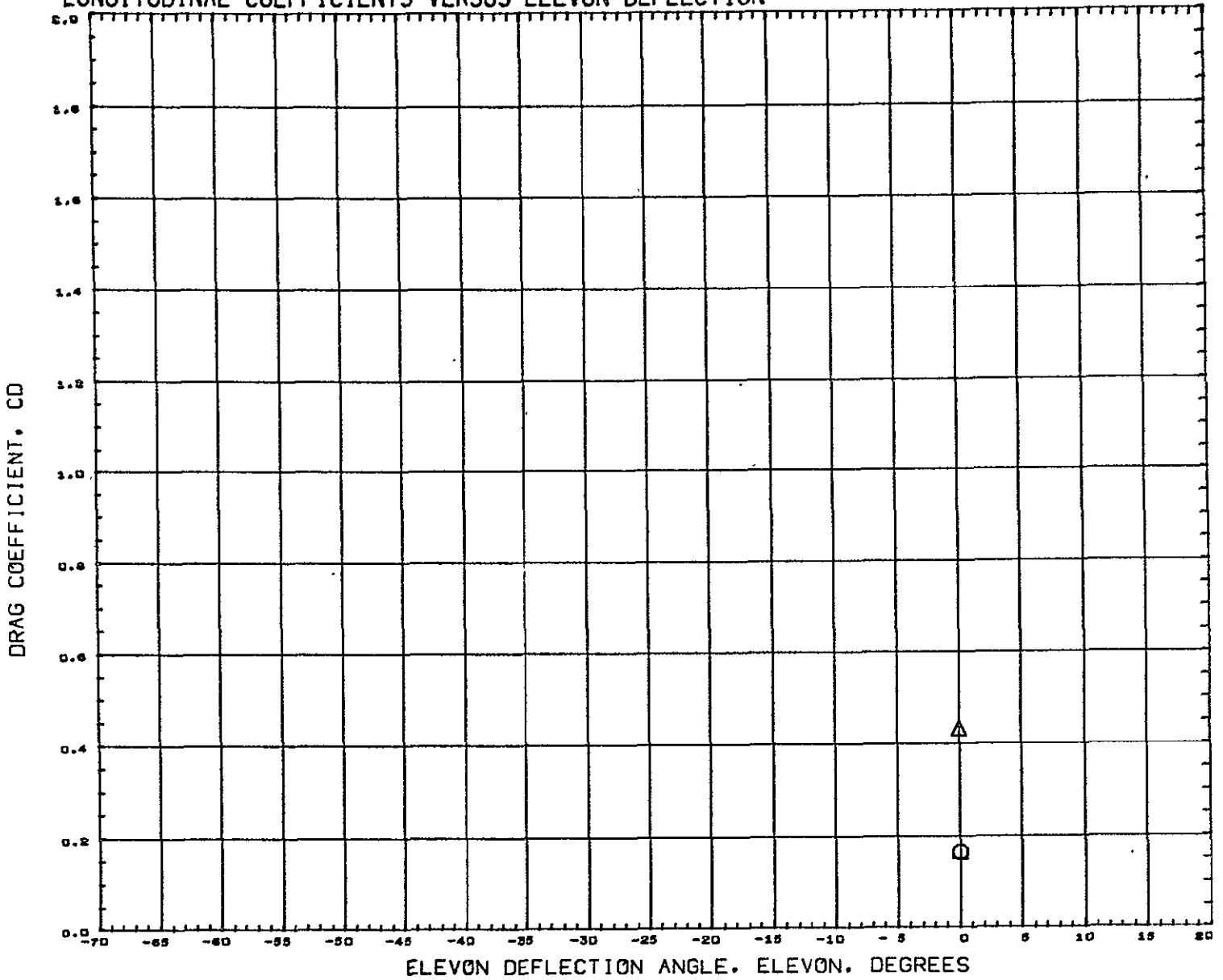


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000		BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	13.6560	sq. in.		
△	20.000		DEL	-60.000	DER	-60.000	G28E74	-60.000	G28E71	-20.000	IN.		
			DCL	0.000	DCR	0.000	G28A01	-10.000	G28B31	0.000	IN.		
			CANARD	0.000	AILERON	0.000	G28E77	10.000			IN.		
									YMRP	0.7100	IN.		
									ZMRP	0.0000	IN.		
									SCALE	0.0033			

DATA HIST. CODE MVR#E1

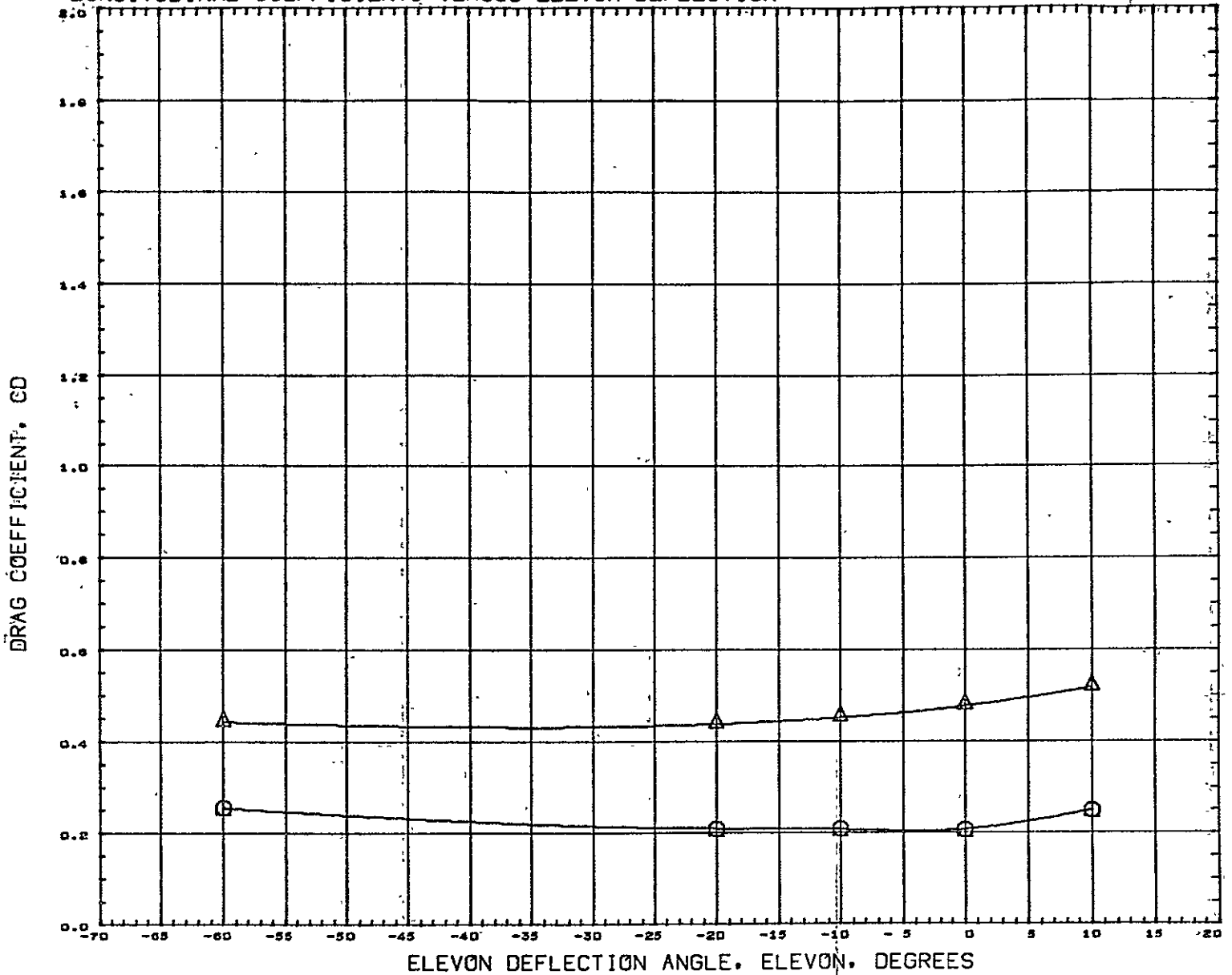
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.950	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	39.1N.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	1N.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	1N.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	1N.
										YMRP	0.0000	1N.
										ZMRP	0.0000	1N.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

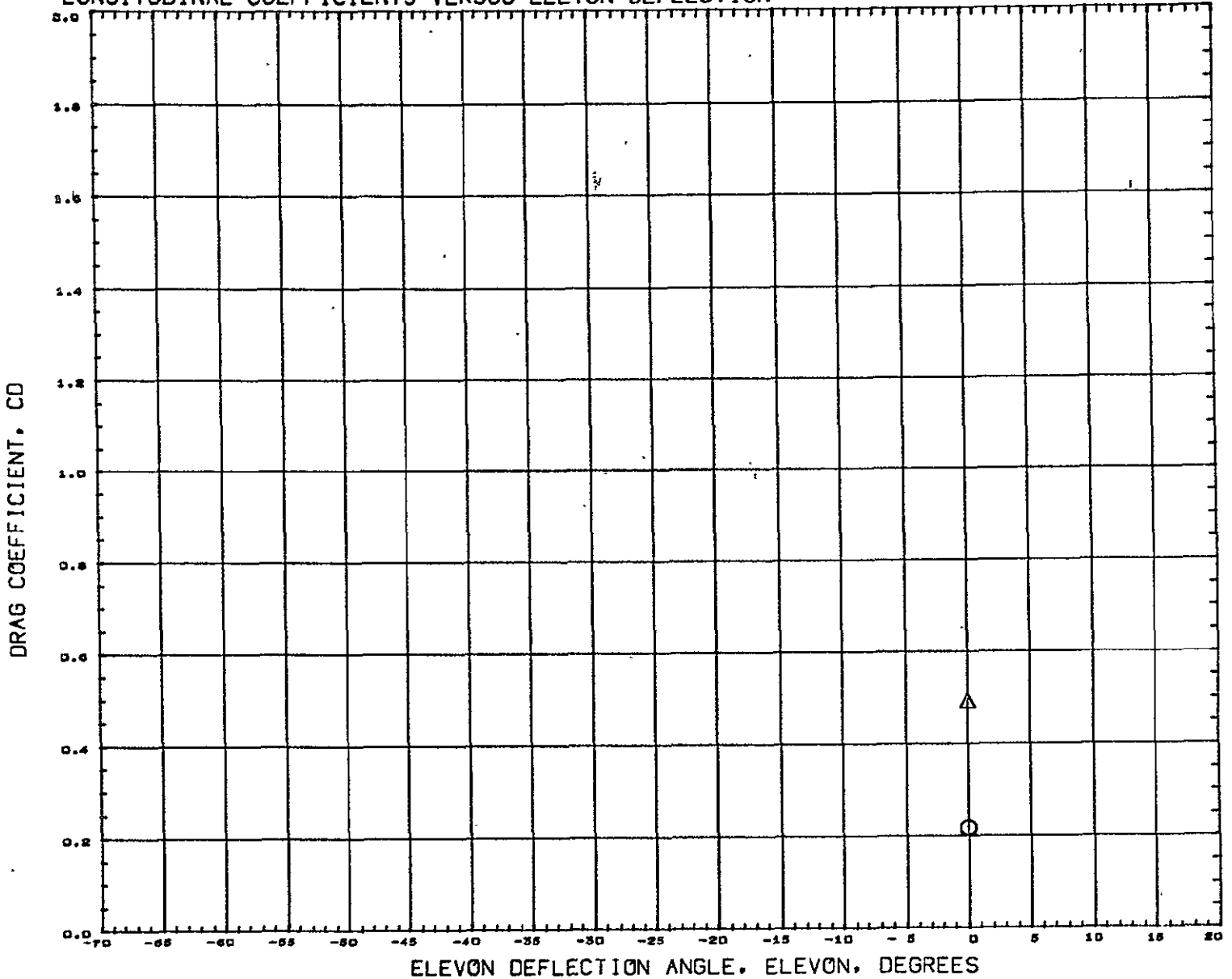
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	1.000	BETA	0.000	DATASET	ELEVON		SREF	15.6560	sq. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E74	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000		XMRP	6.7100	IN.
									YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0033	

DATA HIST. CODE MVR#E1

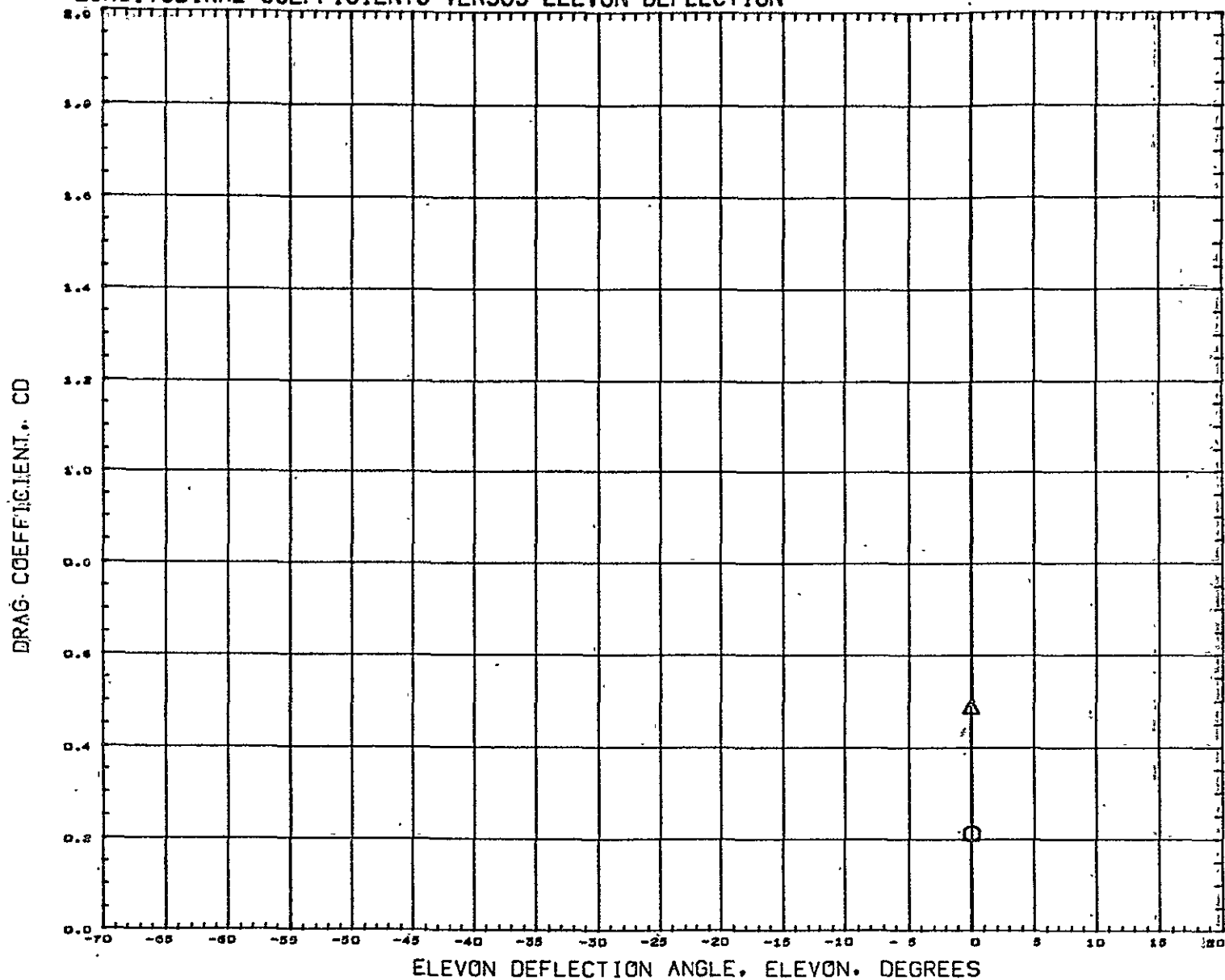
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DATASET	ELEVON	DATASET	ELEVON	SREF	IN.	SQ. IN.	
○	10.000	1.050	0.000	G28E74	- 60.000	G28E71	- 20.000	15.6560			
△	20.000	DEL - 60.000	DER - 60.000	G28A01	- 10.000	G28B31	0.000	3.0950			
		OCL 0.000	DCR 0.000	G28E77	10.000			6.0990			
		CANARD 0.000	AILRON 0.000					6.7100			
								YHRP 0.0000			
								ZHRP 0.0000			
								SCALE 0.0035			

DATA HIST. CODE HVR#EI

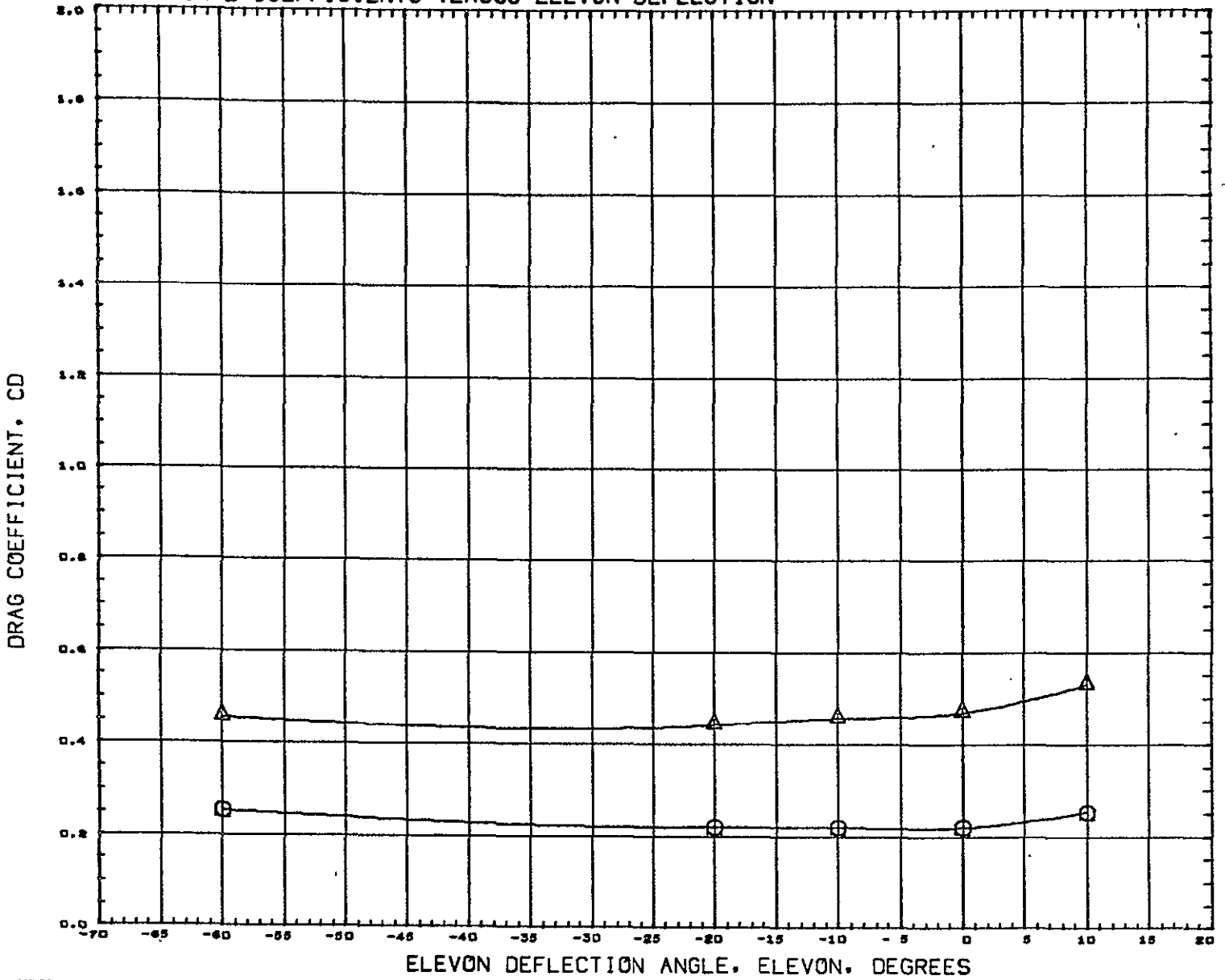
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.100	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	20.000	DEL	- 00.000	DER	- 00.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AIRON	0.000	G28E77	10.000			XMRP	0.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#E1

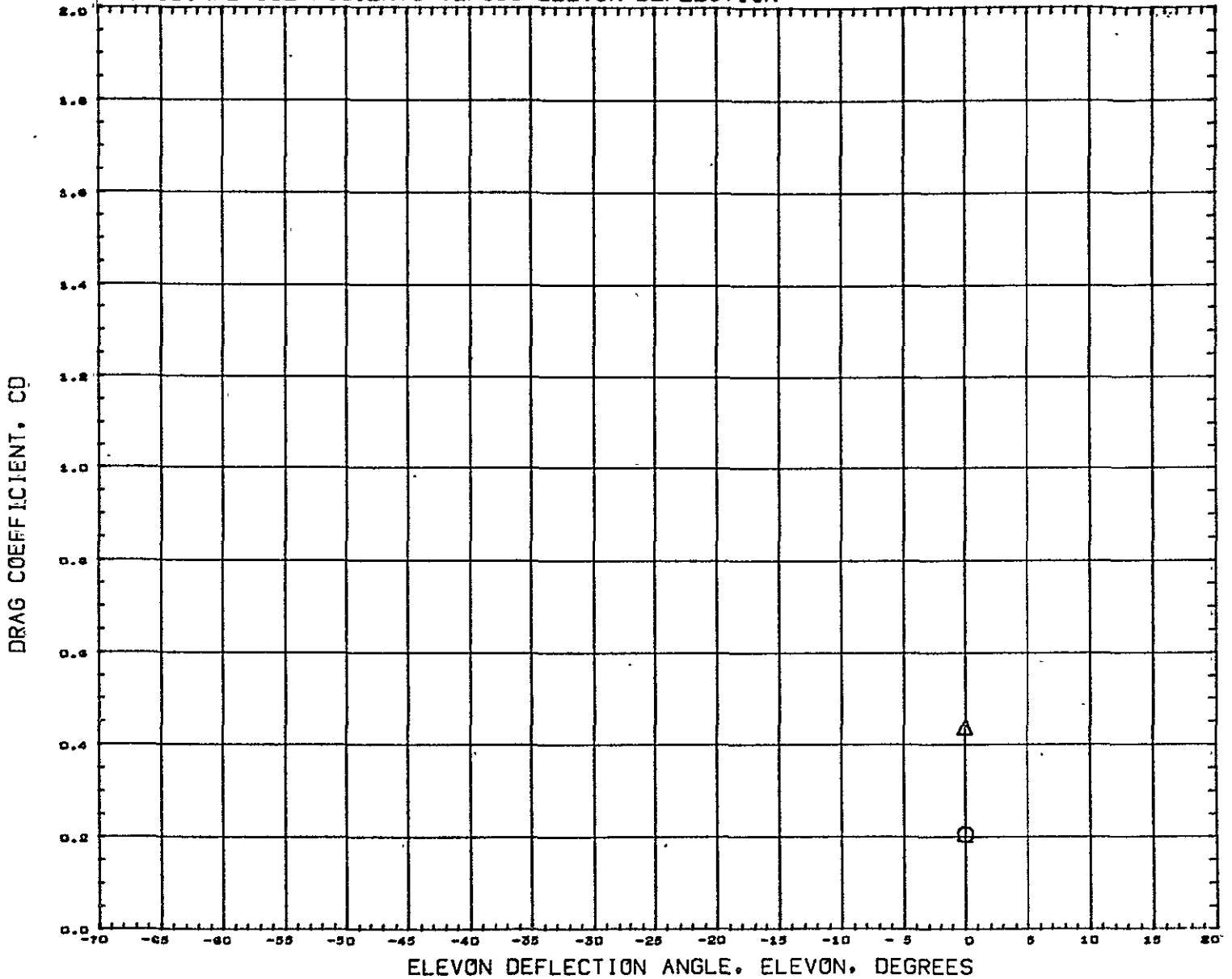
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.200	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	80. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		OCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*E1

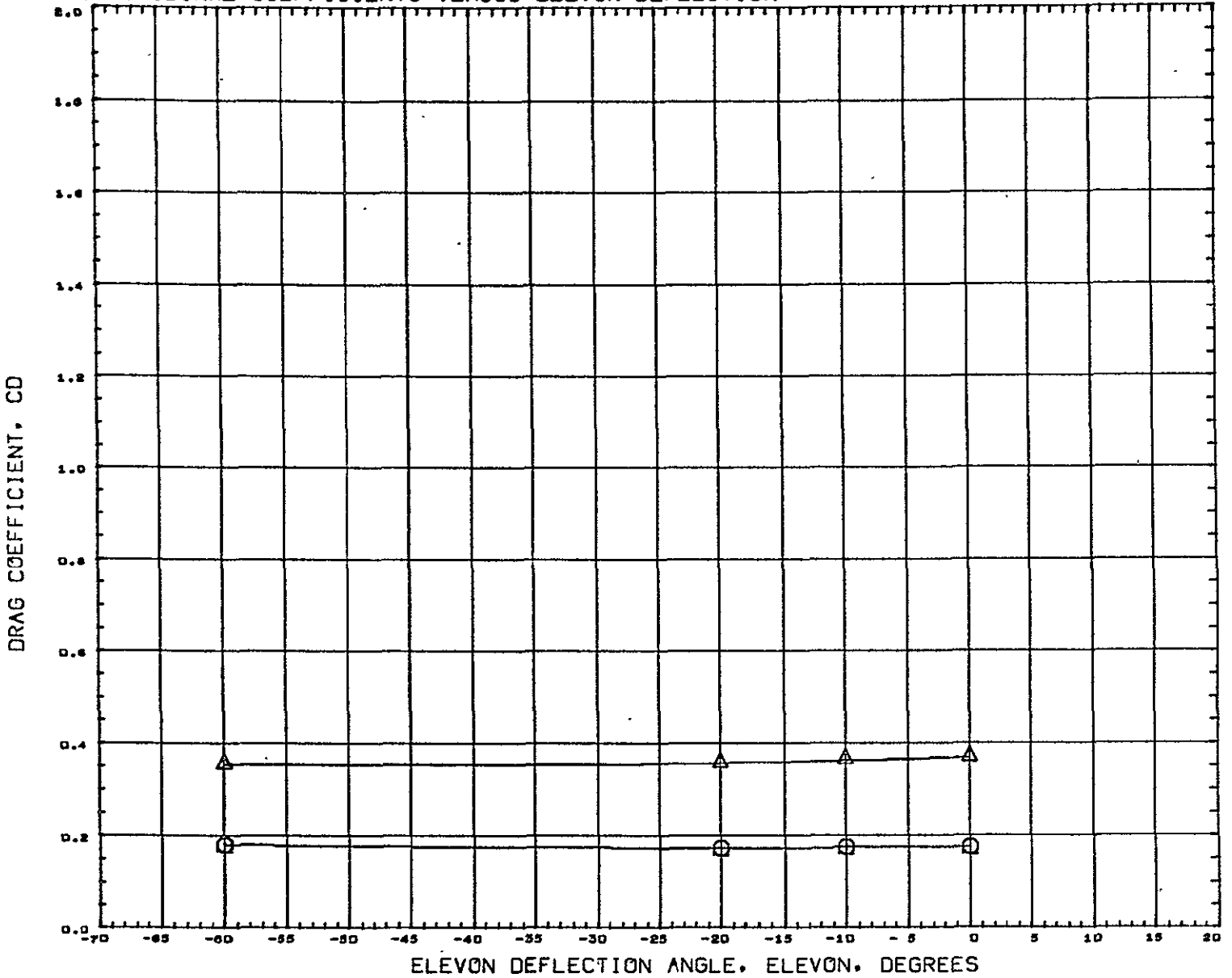
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	1.500	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XNRP	6.7100	IN.
										YNRP	0.0000	IN.
										ZNRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#EI

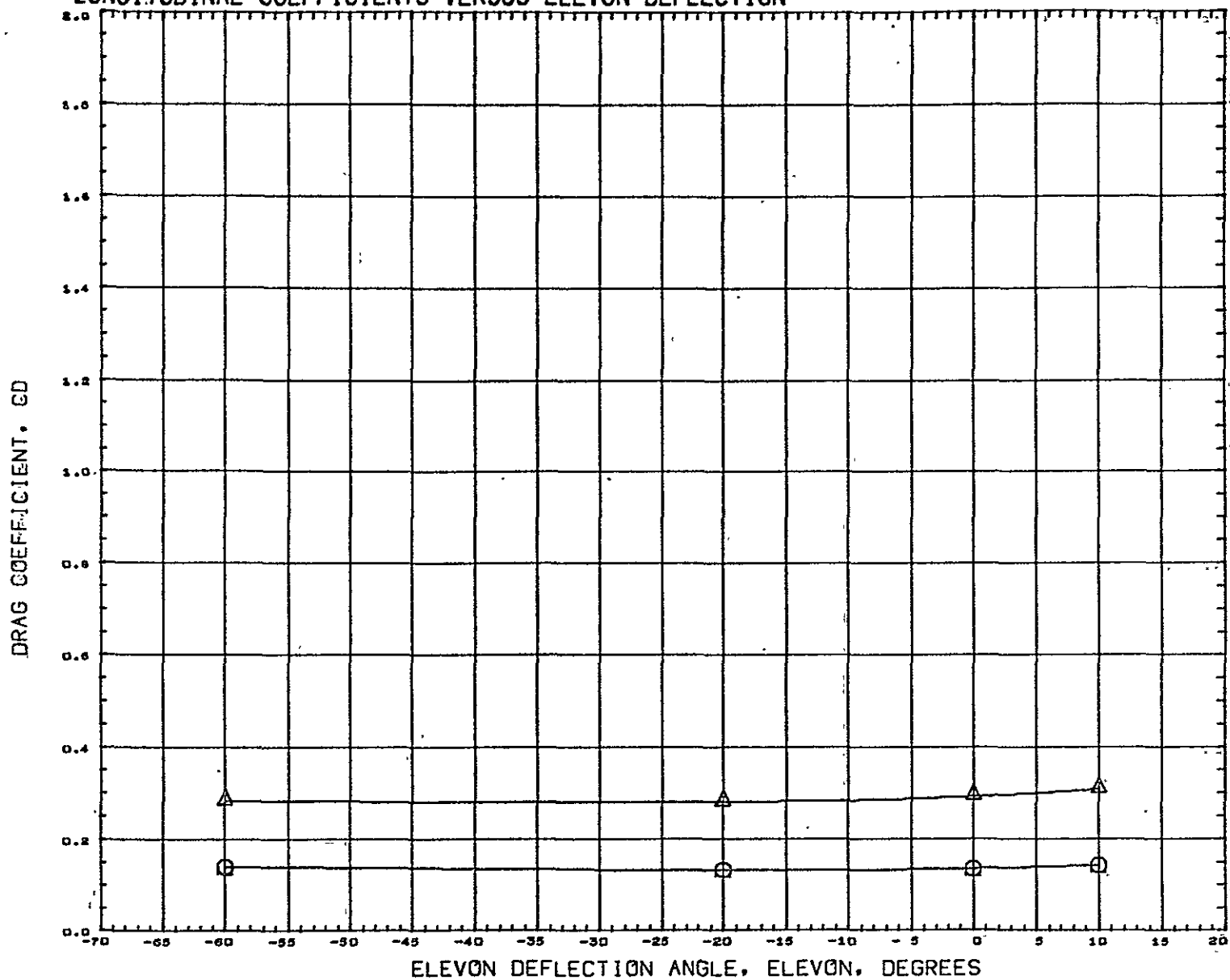
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	2.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	20.000	DEL	- 00.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0990	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	0.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0033	

DATA HIST. CODE MVR*E1

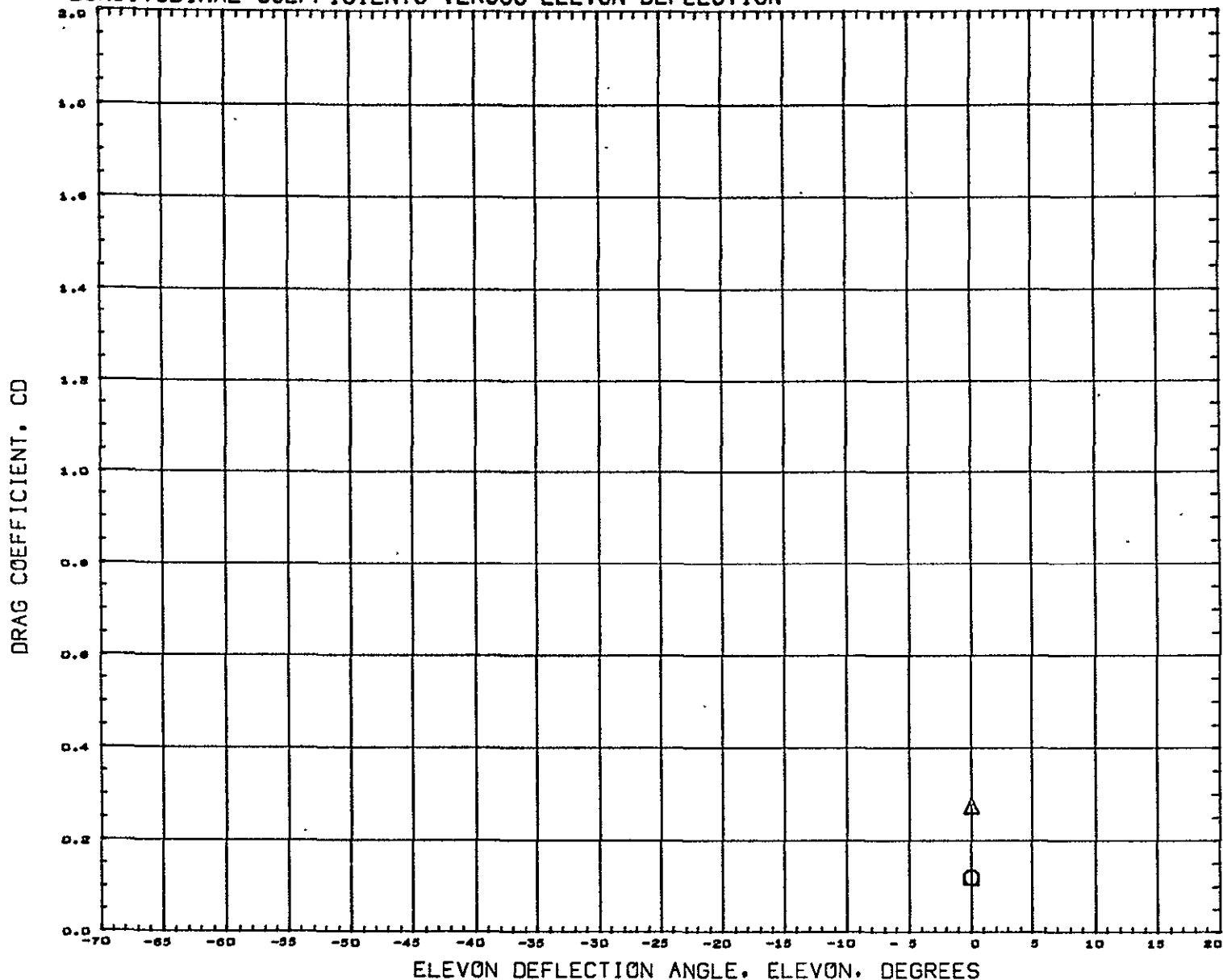
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*EI

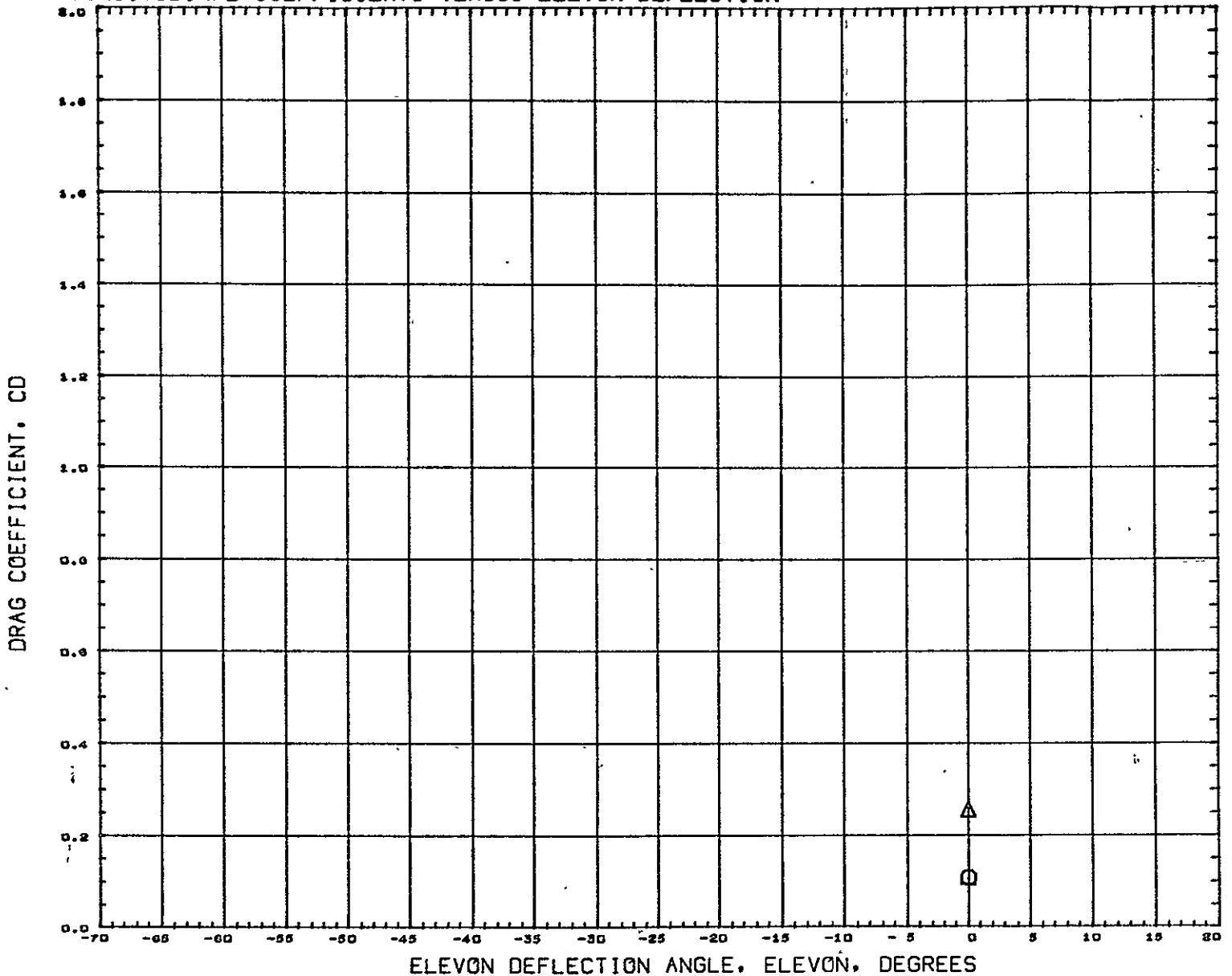
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	4.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	HVR*E1									

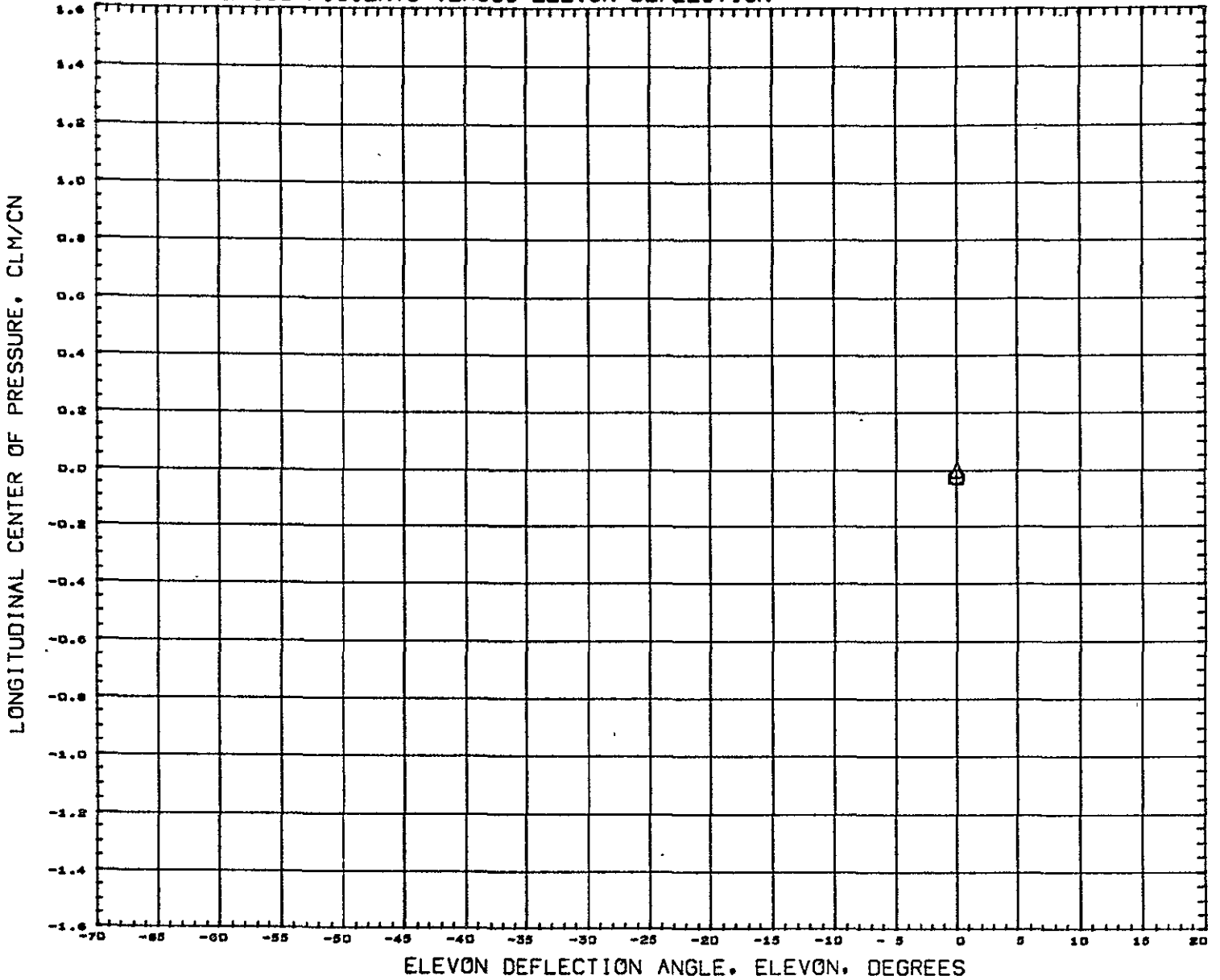
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	5.000	BETA	0.000	DATASET	ELEVON		SREF	15.6560	50.1N.	
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILERON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0055	

DATA HIST. CODE MVR#E1

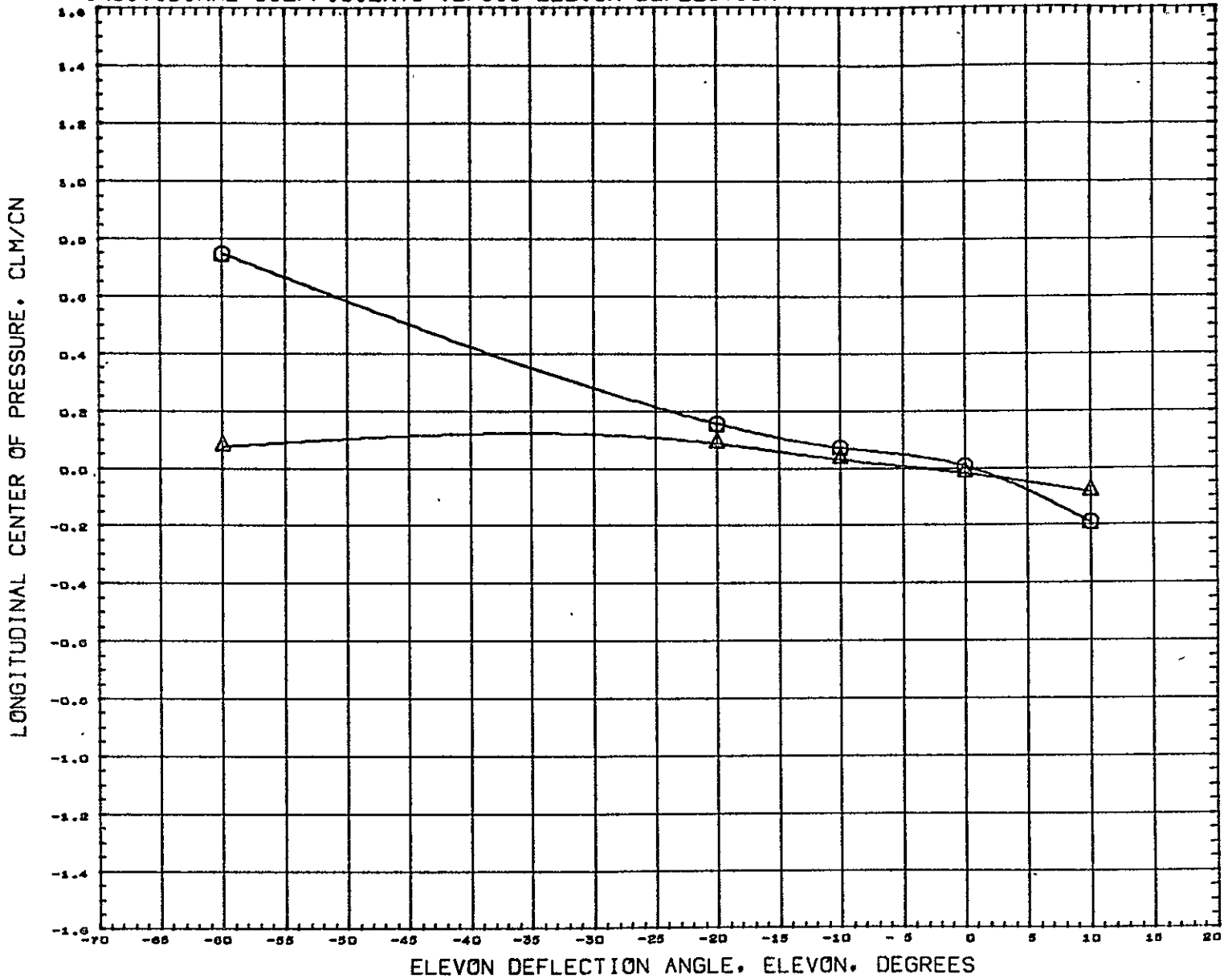
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	<u>MACH</u>	0.600	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XNRP	6.7100	IN.
										YNRP	0.0000	IN.
										ZNRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

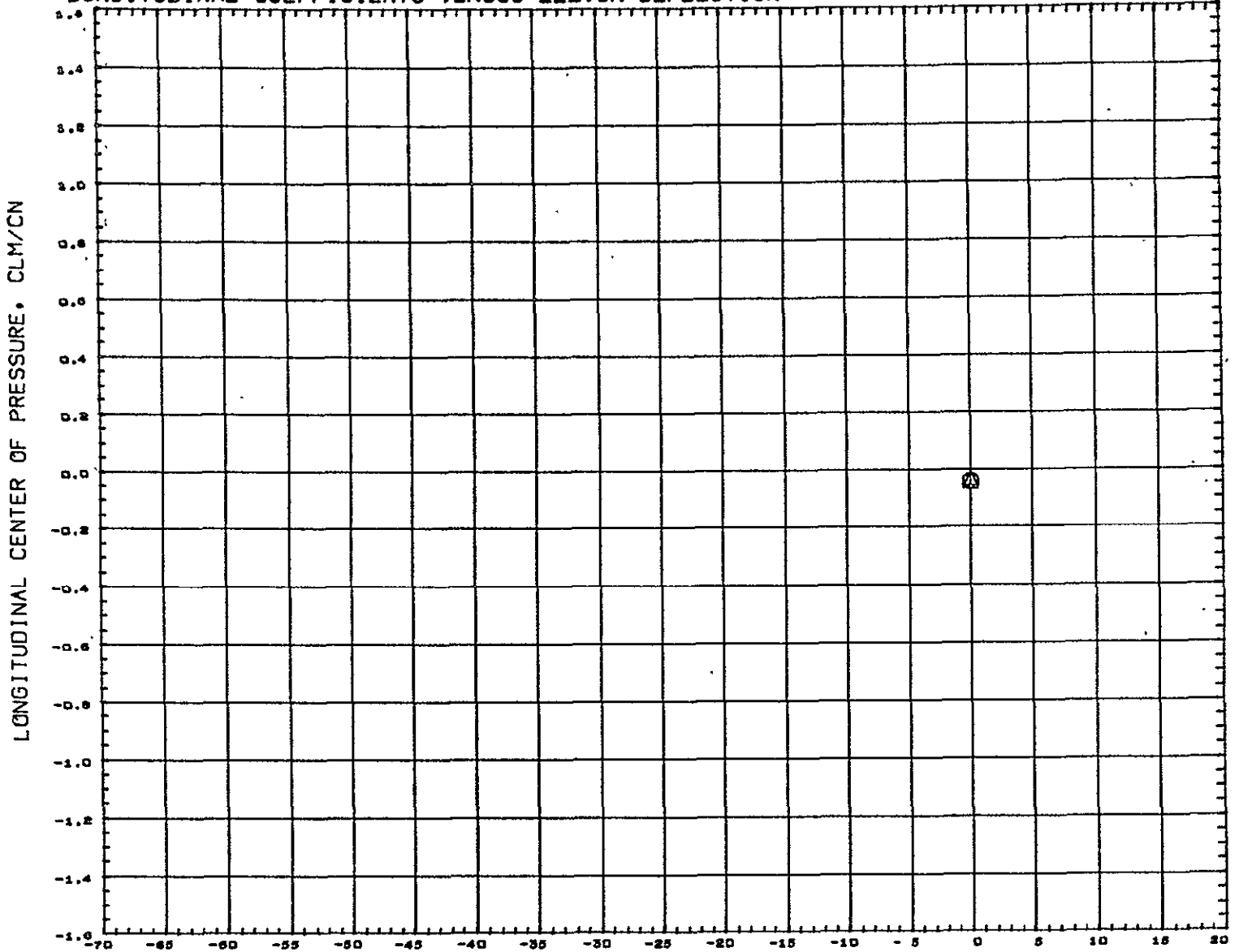
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.900	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6500	30. IN.
△	20.000	DEL	- 00.000	DER	- 00.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

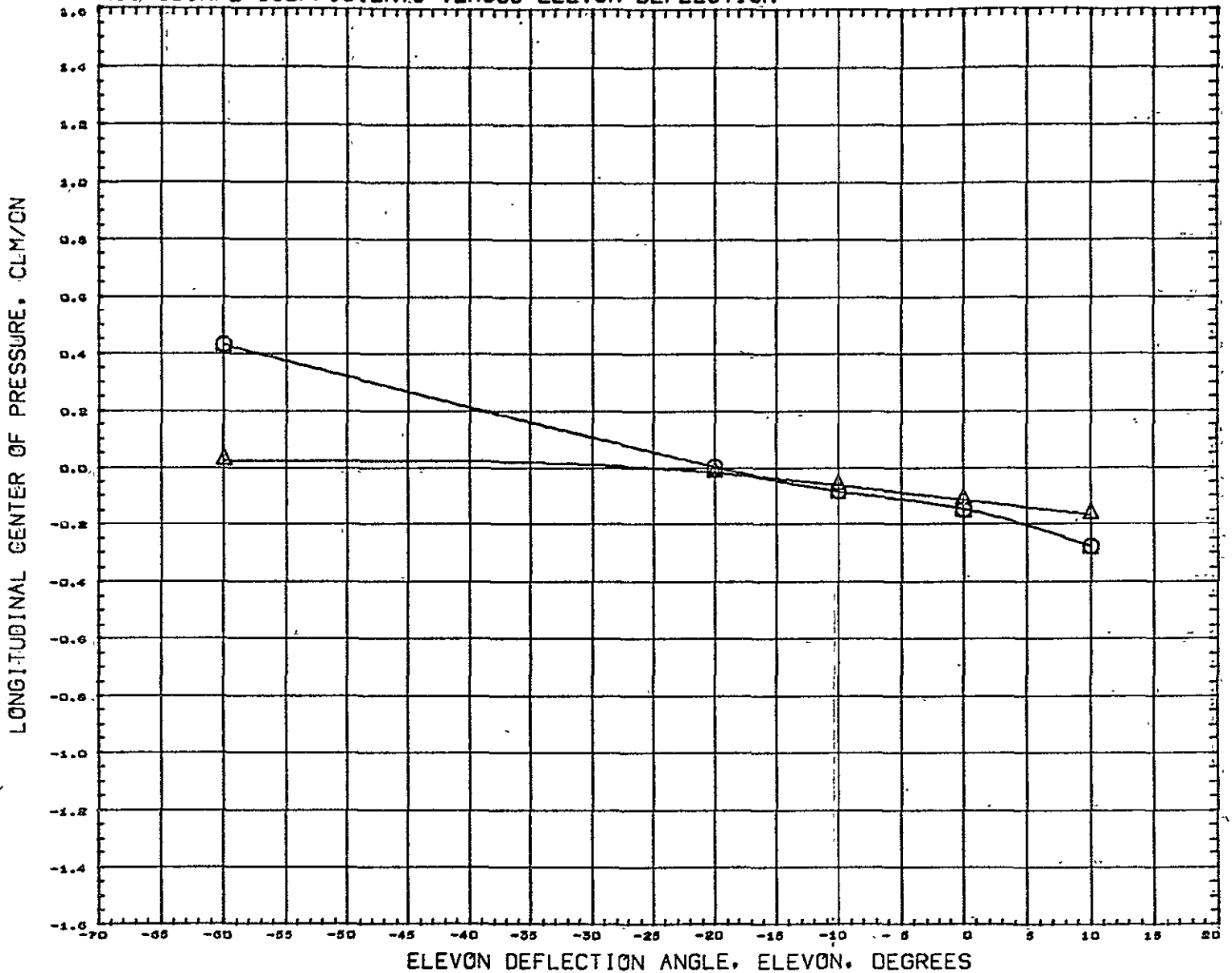


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AILRON	DATASET	ELEVON	DATASET	ELEVON	SREF		
○	10.000	0.950	0.000							15.6560	50. IN.	
△	20.000	DEL - 60.000	DER - 60.000		G28E74	- 60.000	G28E71	- 20.000		LREF	3.0950	IN.
		DCL	DCR		G28A01	- 10.000	G28B31	0.000		BREF	6.0990	IN.
		CANARD	AILRON		G28E77	10.000				XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#E1

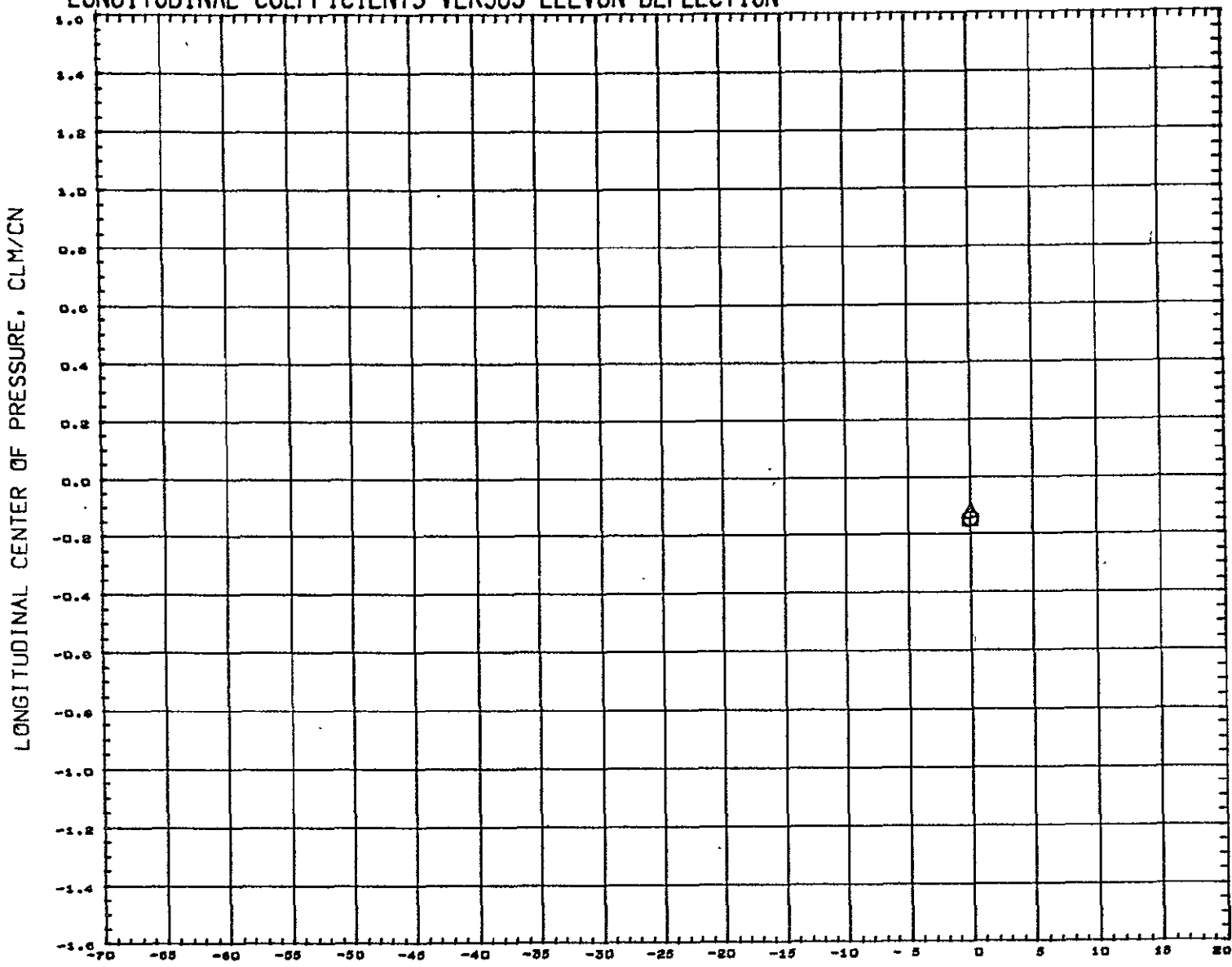
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION			
○	10.000	1.000	BETA	0.000	DATASET	ELEVON	REF	IN.		
△	20.000	1.000	DEL	-60.000	G28E74	-60.000	G28E71	-20.000	3.0950	IN.
			DCL	0.000	G28A01	-10.000	G28B31	0.000	6.0990	IN.
			CANARD	0.000	G28E77	10.000			6.7100	IN.
									0.0000	IN.
									0.0000	IN.
									0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

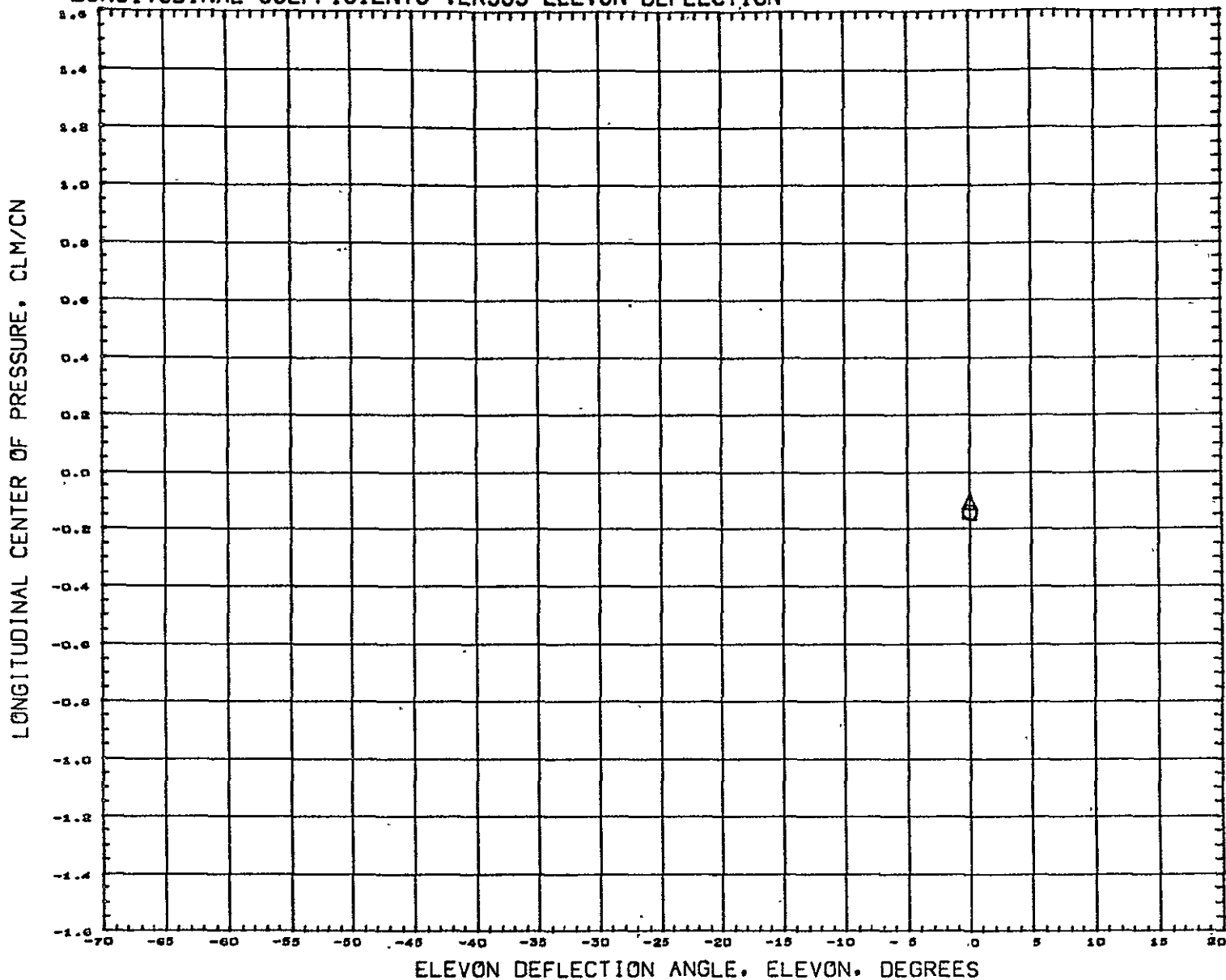


ELEVON DEFLECTION ANGLE, ELEVON. DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DATASET	ELEVON	DATASET	ELEVON	SREF	IN.		
□	10.000	1.050	0.000	G28E74	- 60.000	G28E71	- 20.000	15.6560	30. IN.		
△	20.000	- 60.000	- 60.000	G28A01	- 10.000	G28B31	0.000	3.0950	IN.		
		DCL	0.000	DCR	0.000			6.0990	IN.		
		CANARD	0.000	AILRON	0.000			6.7100	IN.		
								YMRP	0.0000	IN.	
								ZMRP	0.0000	IN.	
								SCALE	0.0035	IN.	

DATA HIST. CODE MVR#EI

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

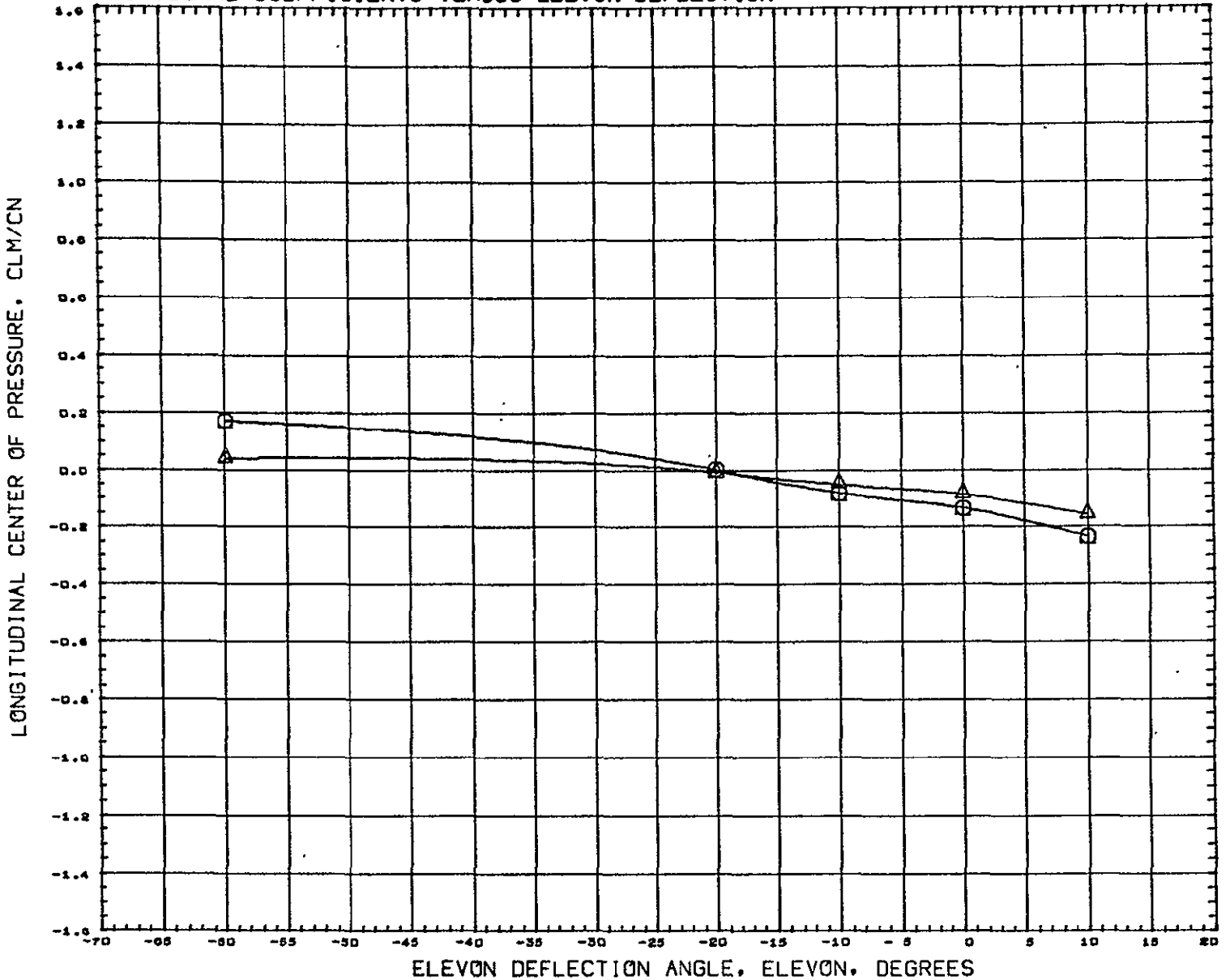


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
△	10.000	<u>MACH</u>	1.100	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.0560	SG.IN.
	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
									ZMRP	0.0000	IN.	
									SCALE	0.0035		

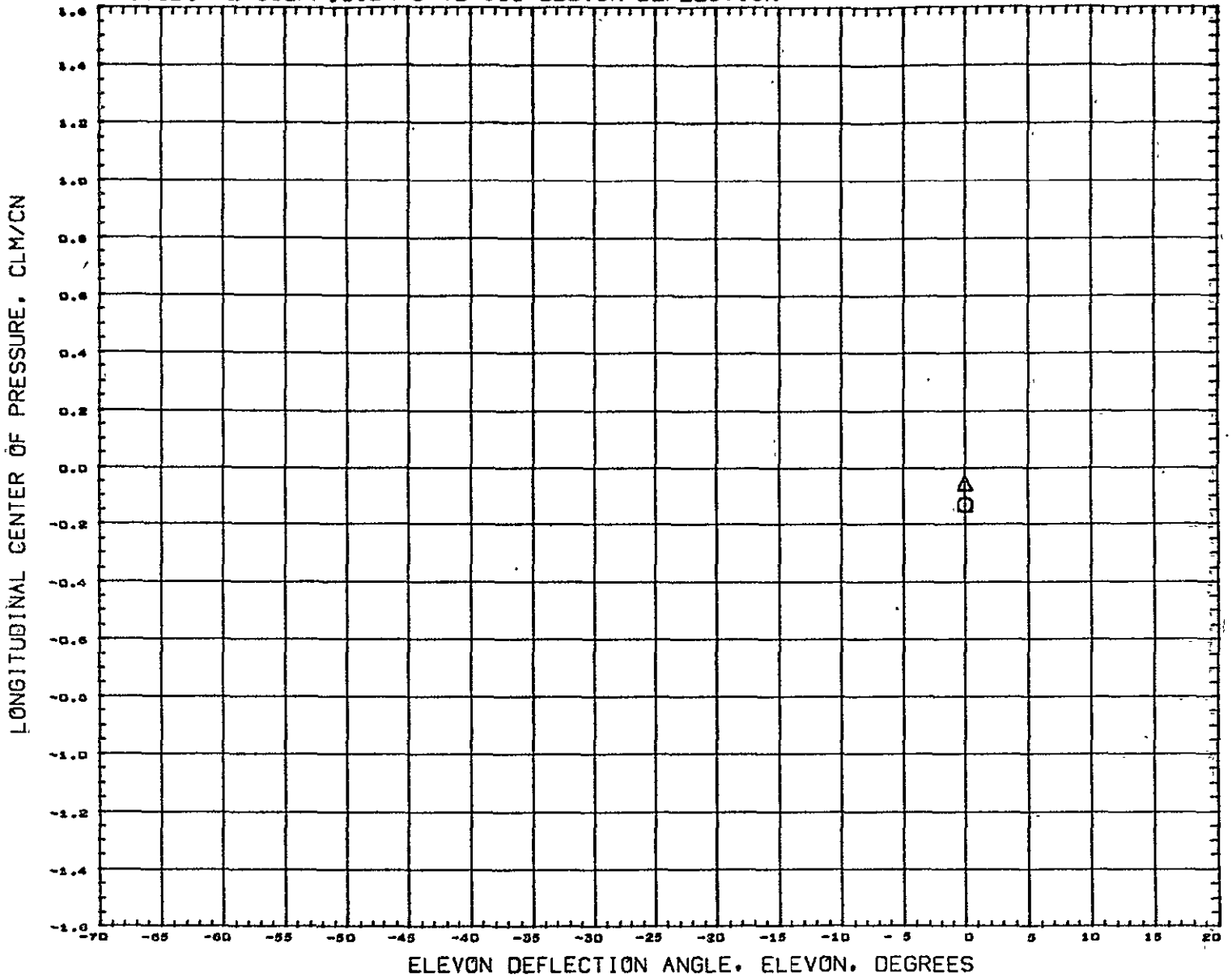
DATA HIST- CODE MVR0E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
□	10.000	MACH	1.200	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

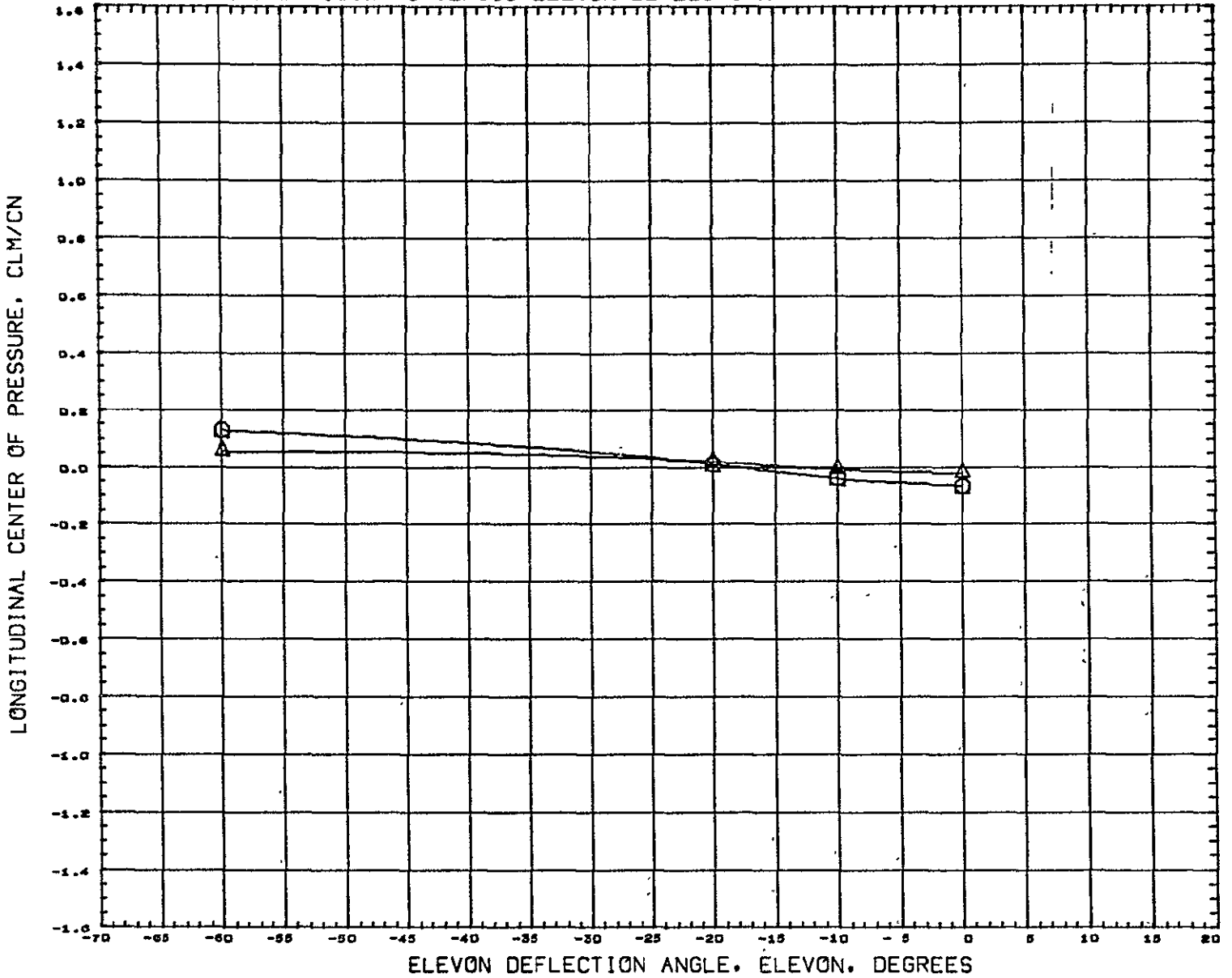
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	1.500	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	Sq. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0990	IN.
		DCL	0.000	OCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*E1

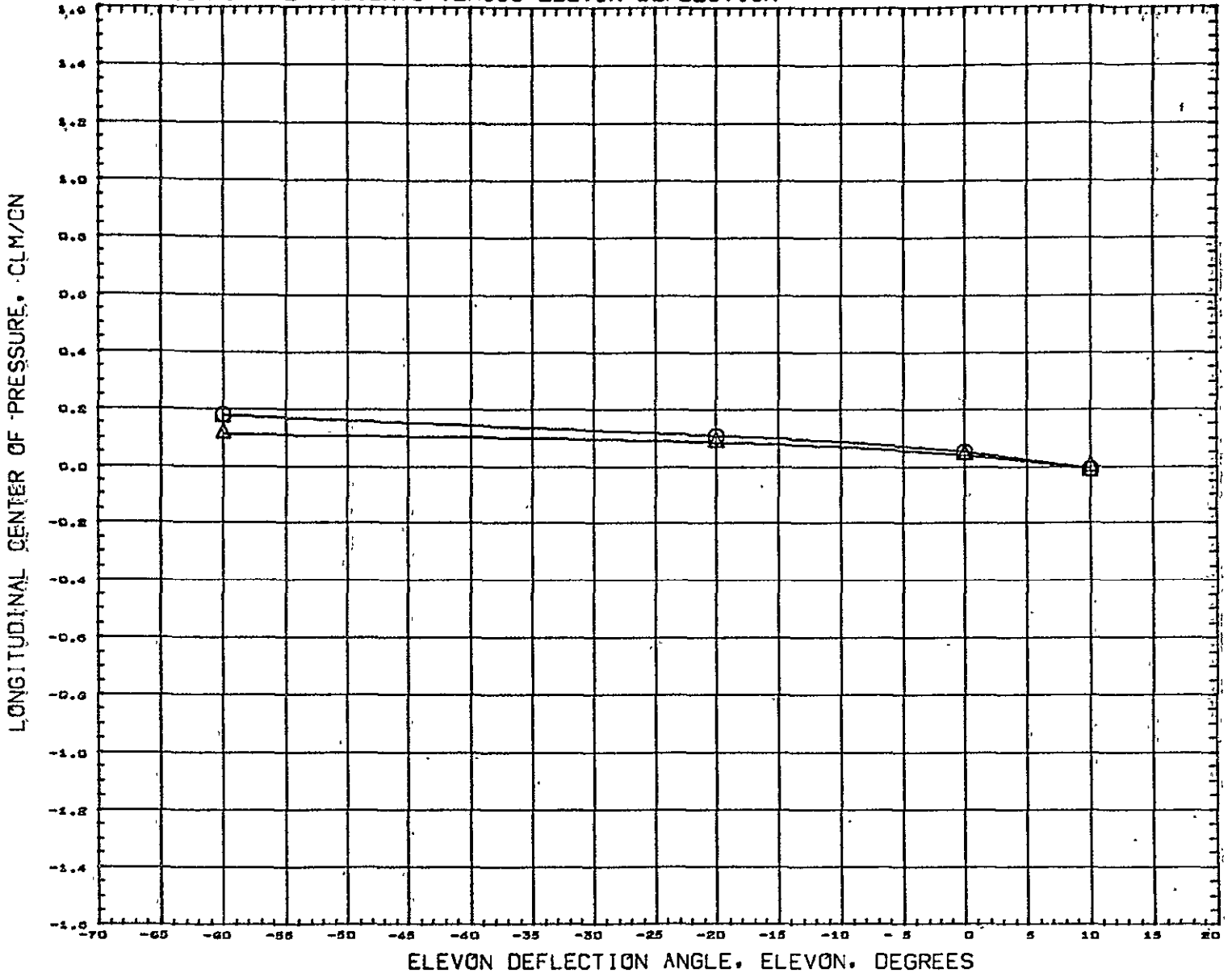
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	2.000	BETA	0.000	DATASET	ELEVON	SREF	15.6560	30. IN.		
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0990	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

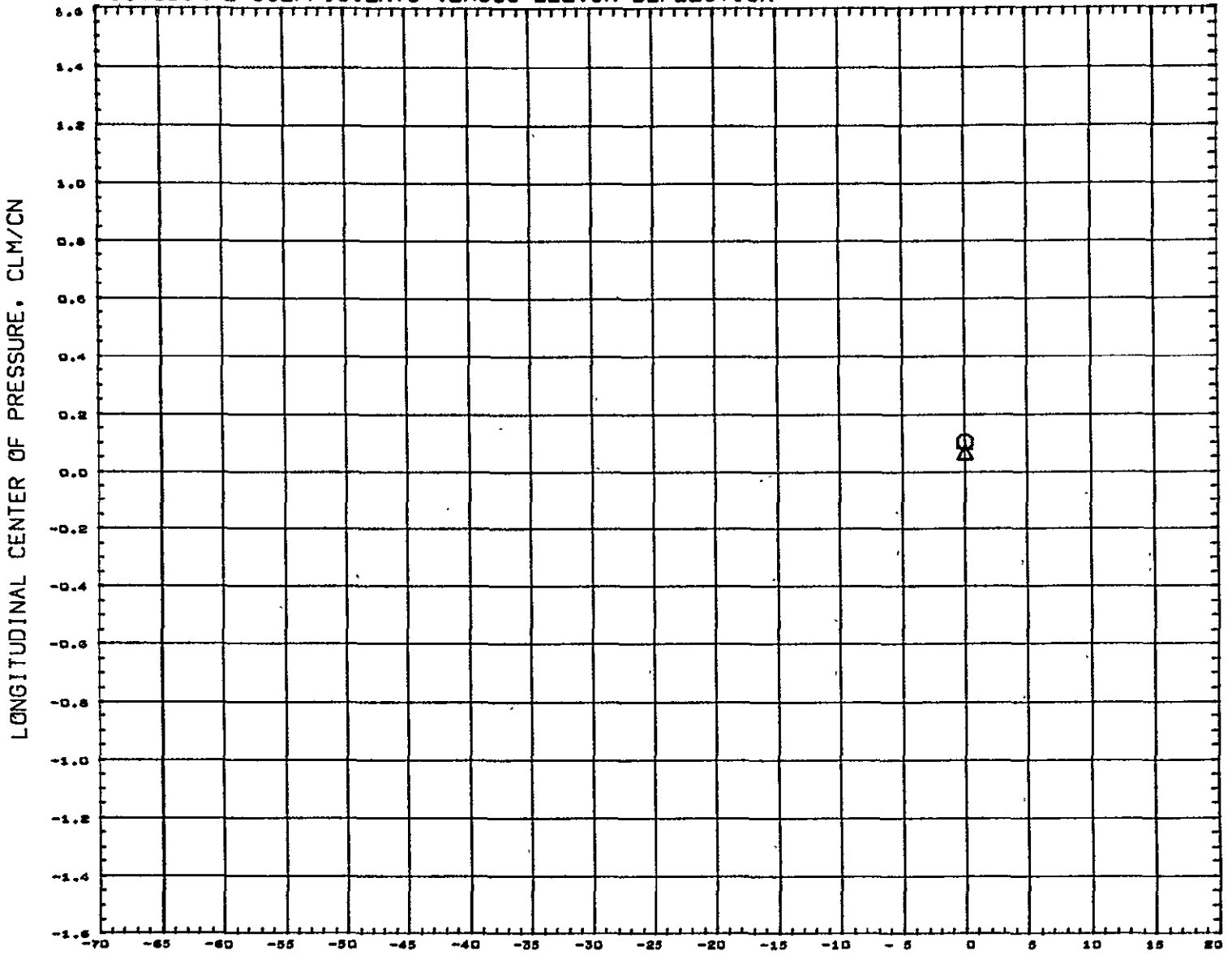
DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.0560	SQ. IN.
△	20.000	DEL	-60.000	DER	-60.000	G28E74	-60.000	G28E71	-20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	-10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

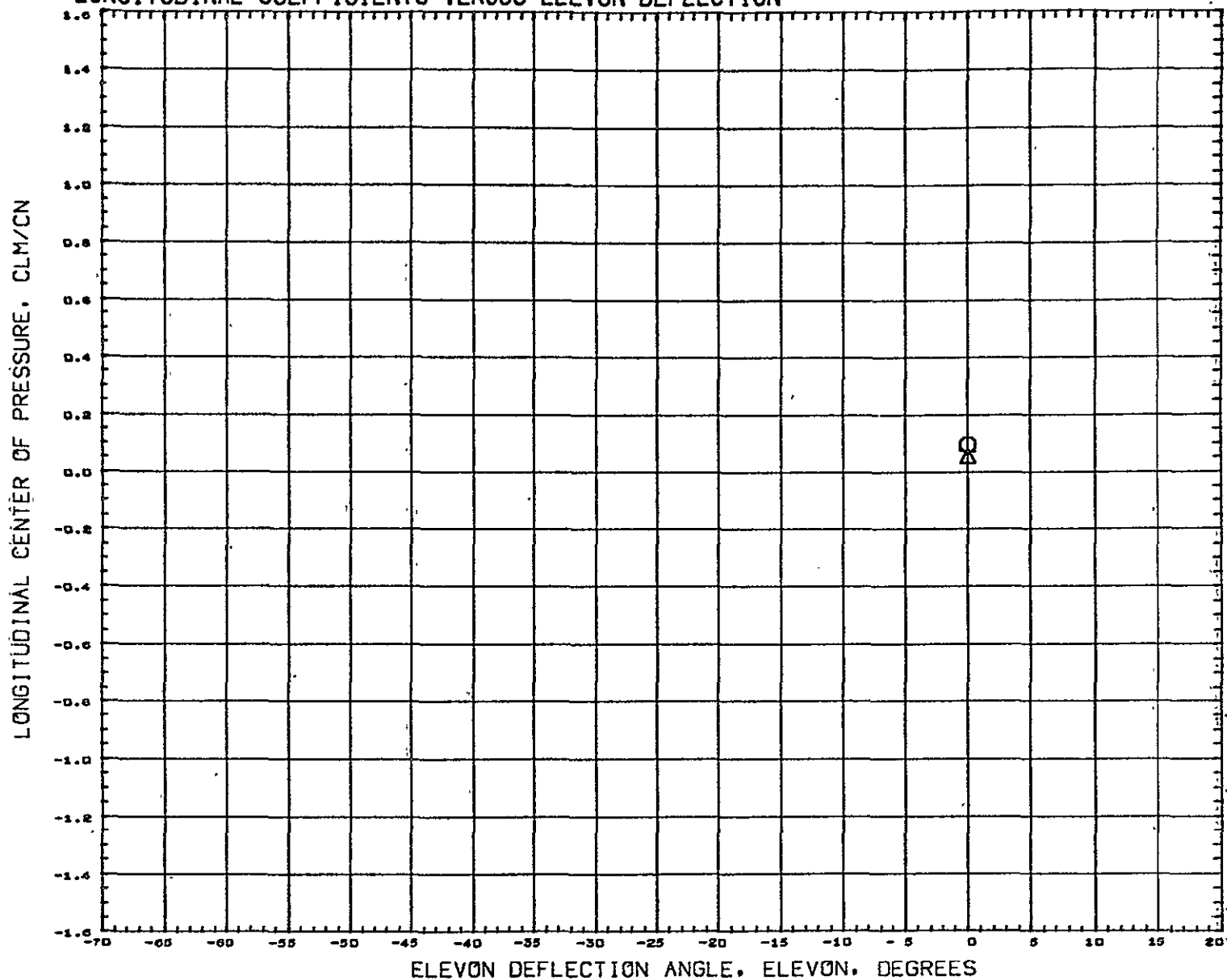


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	4.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	20.000	DEL	- 60.000	DER	- 60.000	G28E74	- 60.000	G28E71	- 20.000	LREF	3.0980	IN.
		DCL	0.000	DCR	0.000	G28A01	- 10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

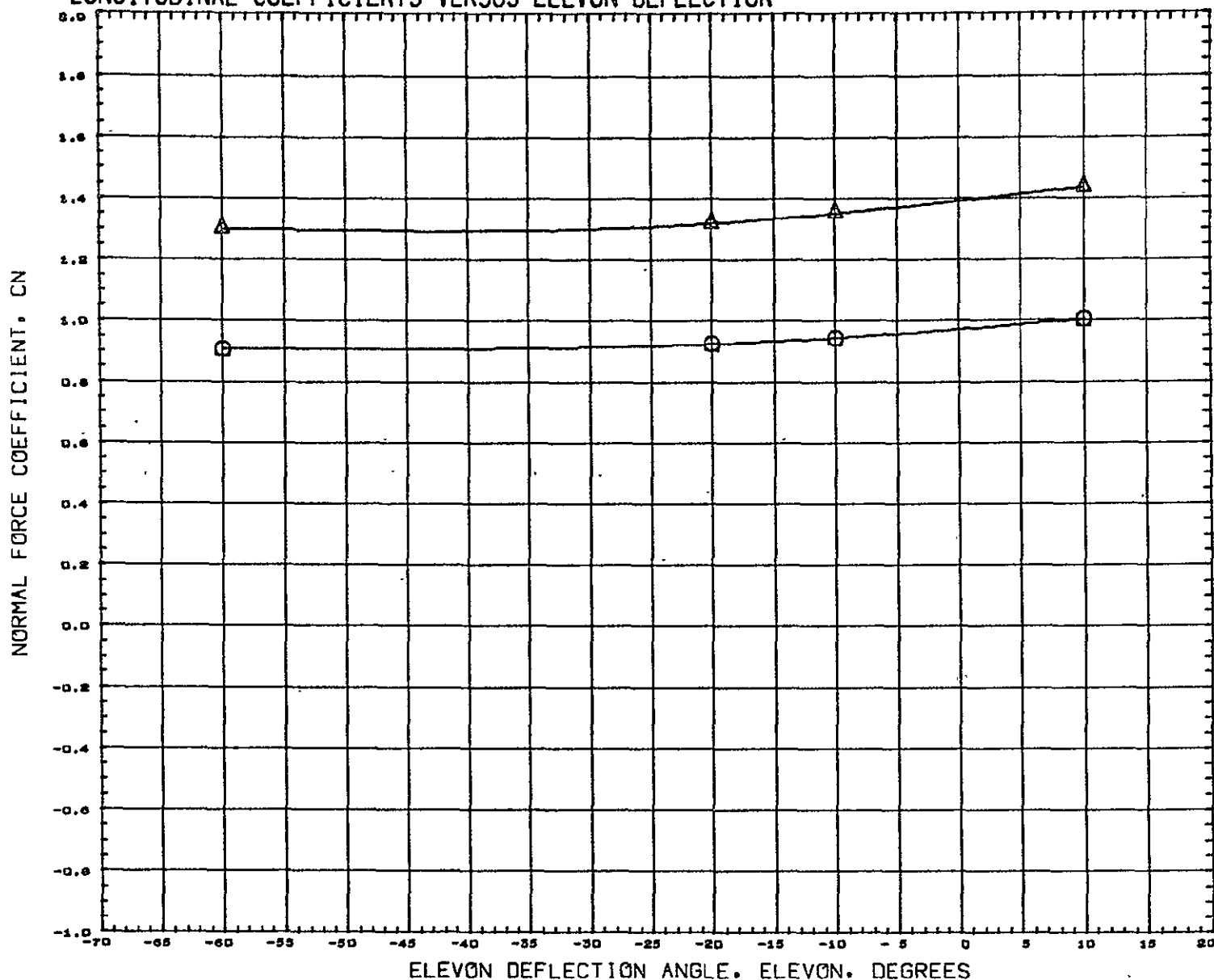
DATA HIST. CODE MVR#EI

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	5.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	90. IN.
△	20.000	DEL	-60.000	DER	-60.000	G28E74	-60.000	G28E71	-20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A01	-10.000	G28B31	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	G28E77	10.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0039	
		DATA HIST. CODE	MVR#E1									

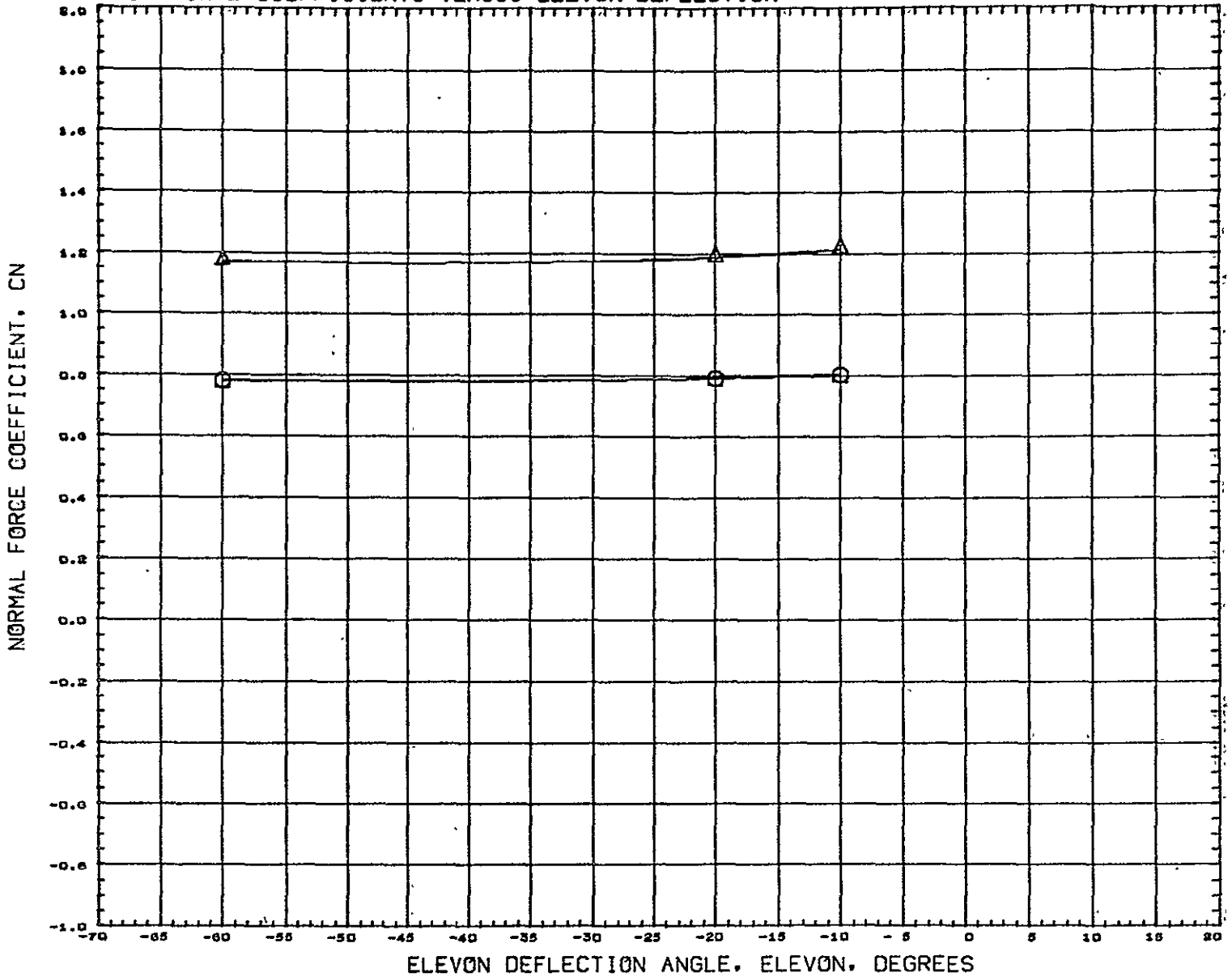
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

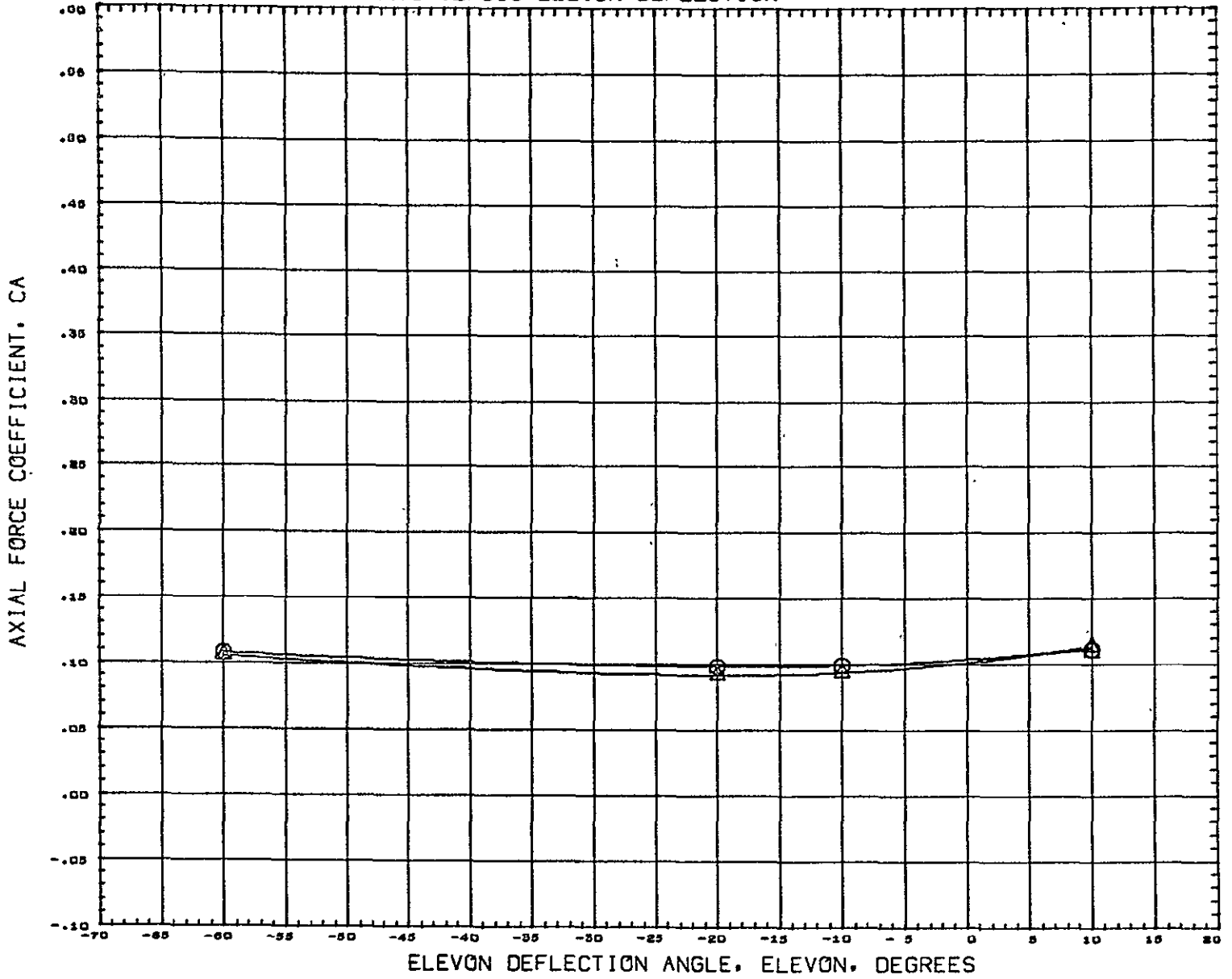
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	.80 IN.
△	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	G28E72	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28AD2	- 10.000	G28E78	10.000	SREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
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LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



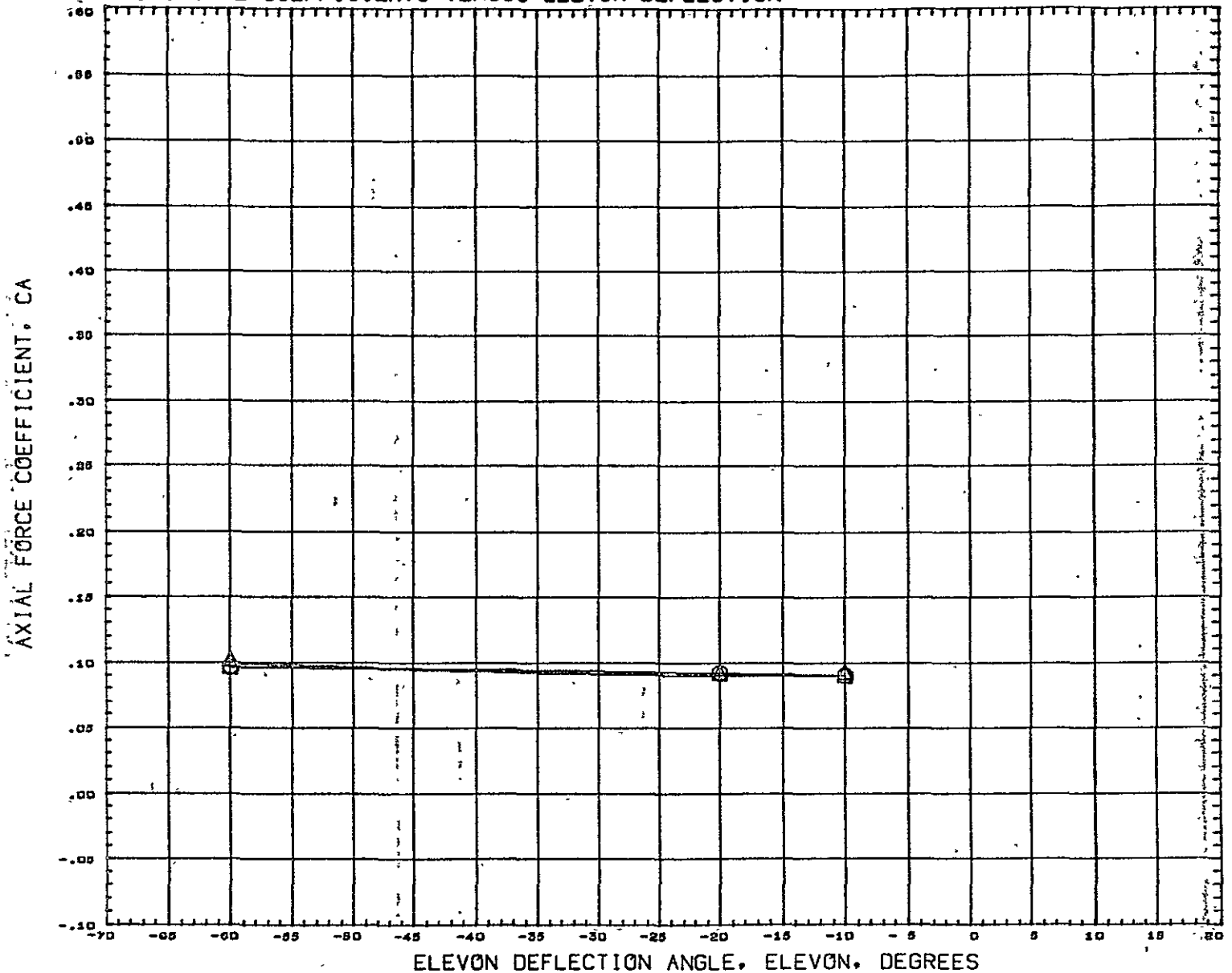
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	90. IN.
△	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	G28E72	- 20.000	LREF	3.0930	IN.
		DCL	0.000	DCR	0.000	G28A02	- 10.000	G28E78	10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#EI									

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	30.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.0560	59. IN.
△	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	G28E72	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A02	- 10.000	G28E78	10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

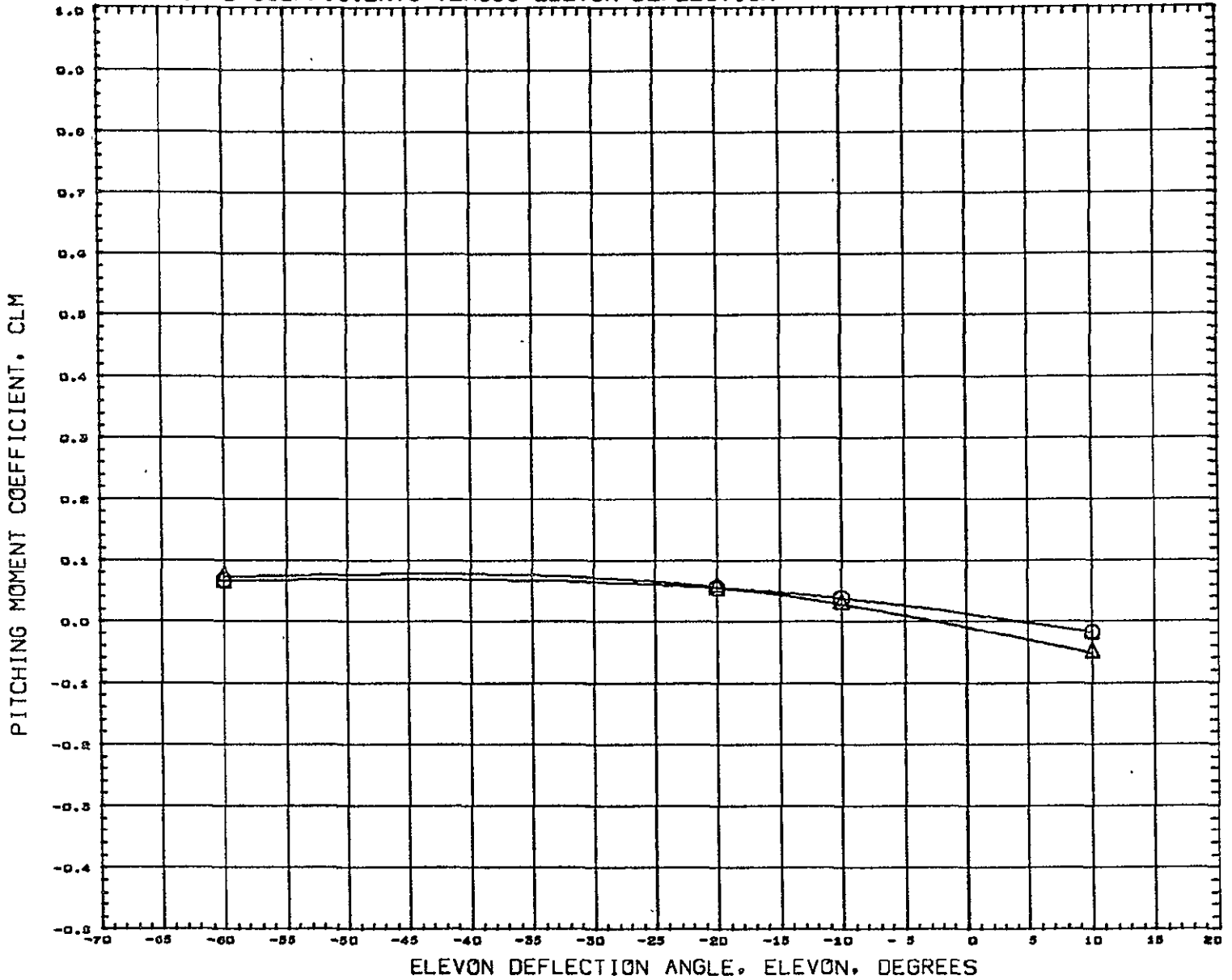
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	5.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	50. IN.
△	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	G28E72	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A02	- 10.000	G28E78	10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

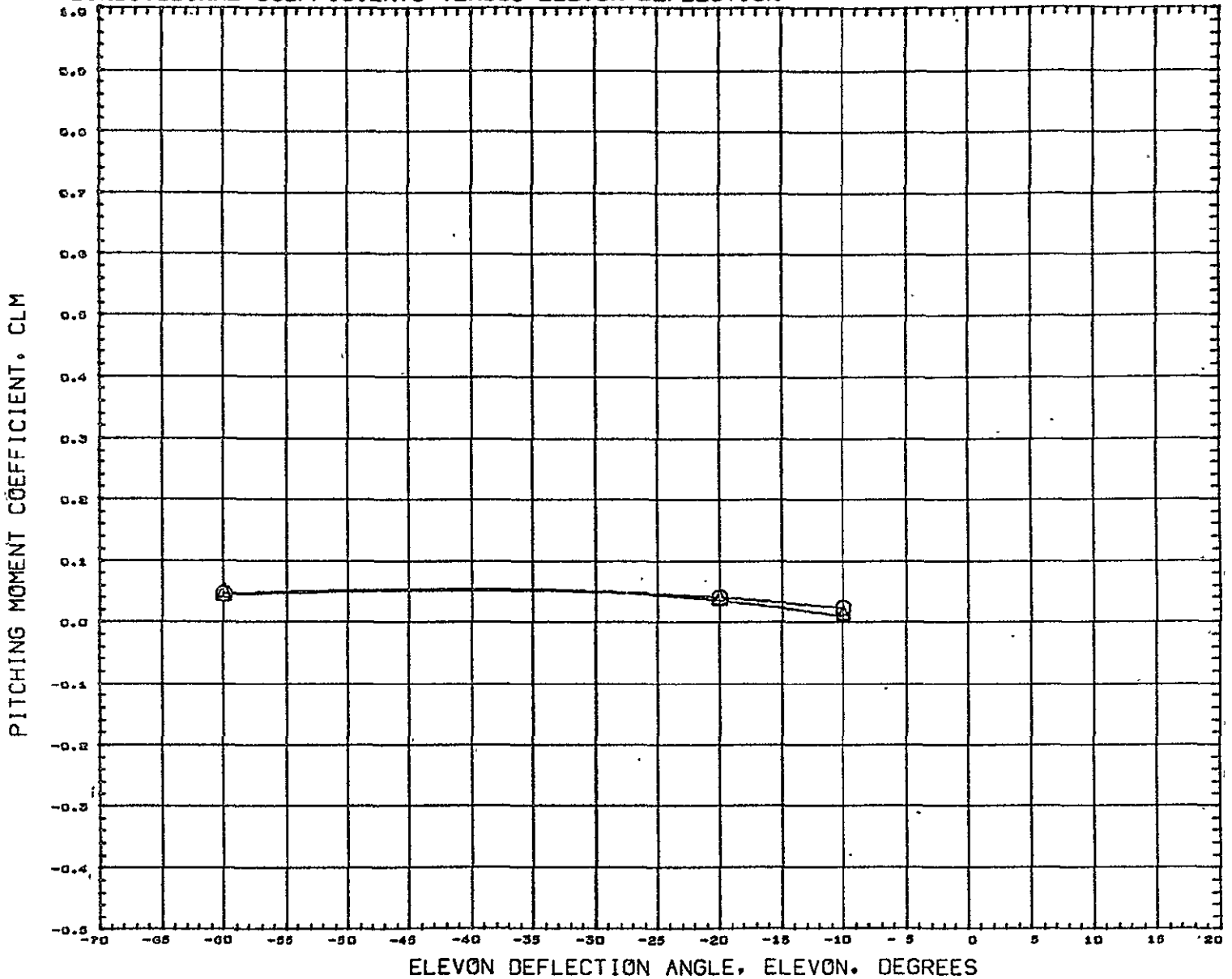
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
○	30.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	SREF	15.6560	SQ. IN.	
△	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	LREF	3.0950	IN.	
		DCL	0.000	DCR	0.000	G28A02	- 10.000	BREF	6.0990	IN.	
		CANARD	0.000	AILRON	0.000	G28E78	10.000	XMRP	6.7100	IN.	
								YMRP	0.0000	IN.	
								ZMRP	0.0000	IN.	
								SCALE	0.0035		
		DATA HIST. CODE	MVR#E1								

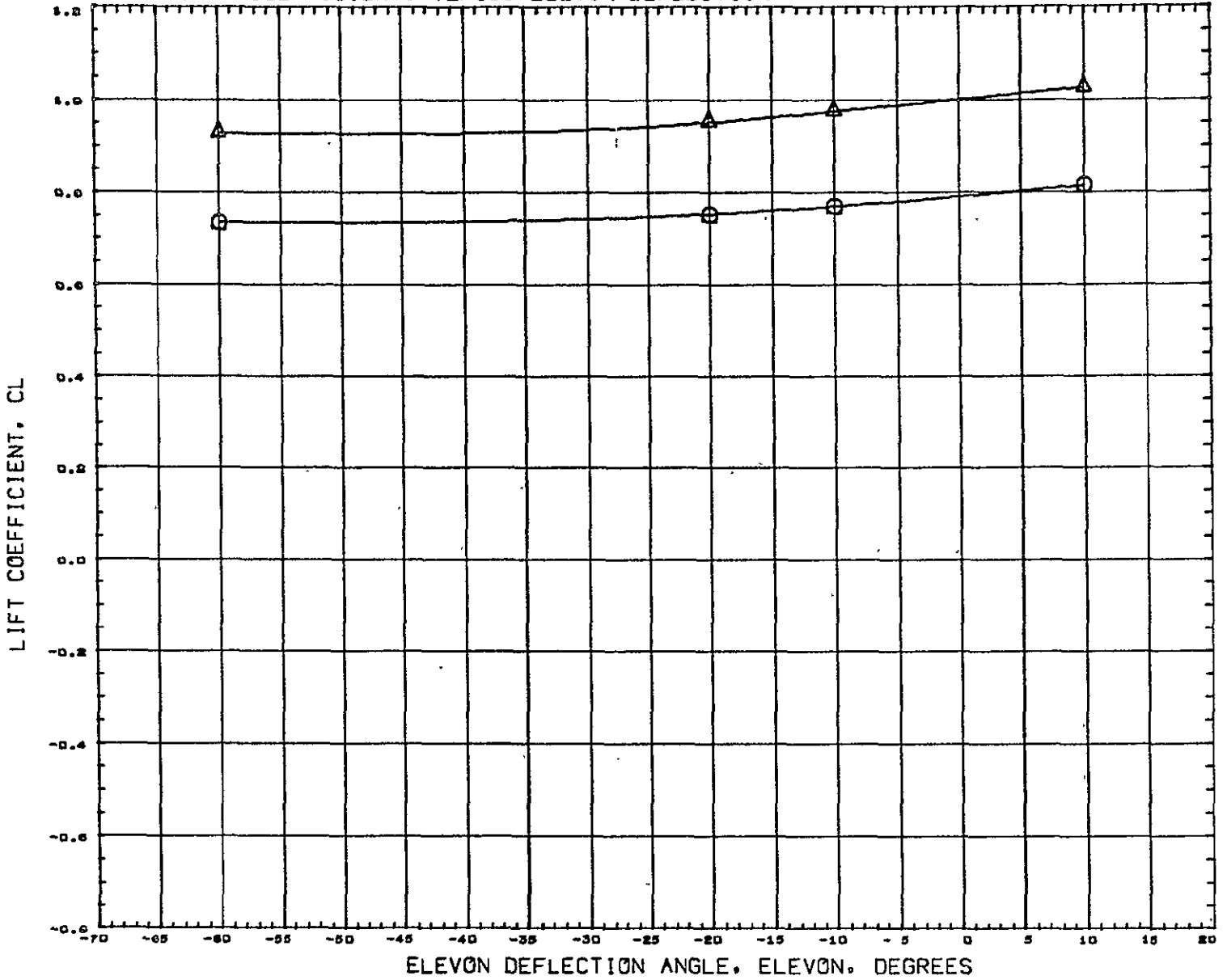
8 ⊕

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	5.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	G28E72	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A02	- 10.000	G28E78	10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#EI									

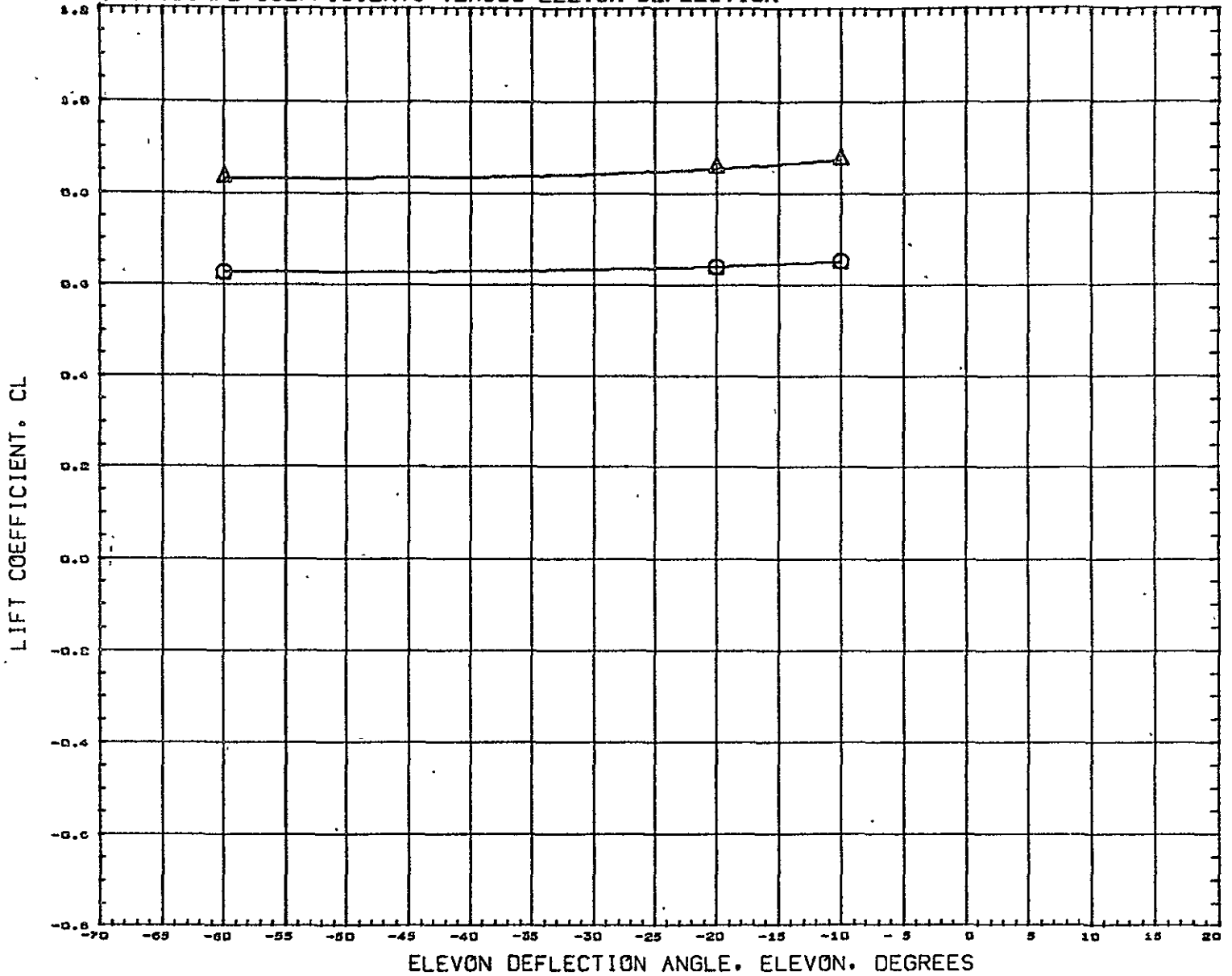
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
O	30.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	G28E72	- 20.000	LREF	3.0950	IN.
		OCL	0.000	DCR	0.000	G28A02	- 10.000	G28E78	10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	HVR#E1									

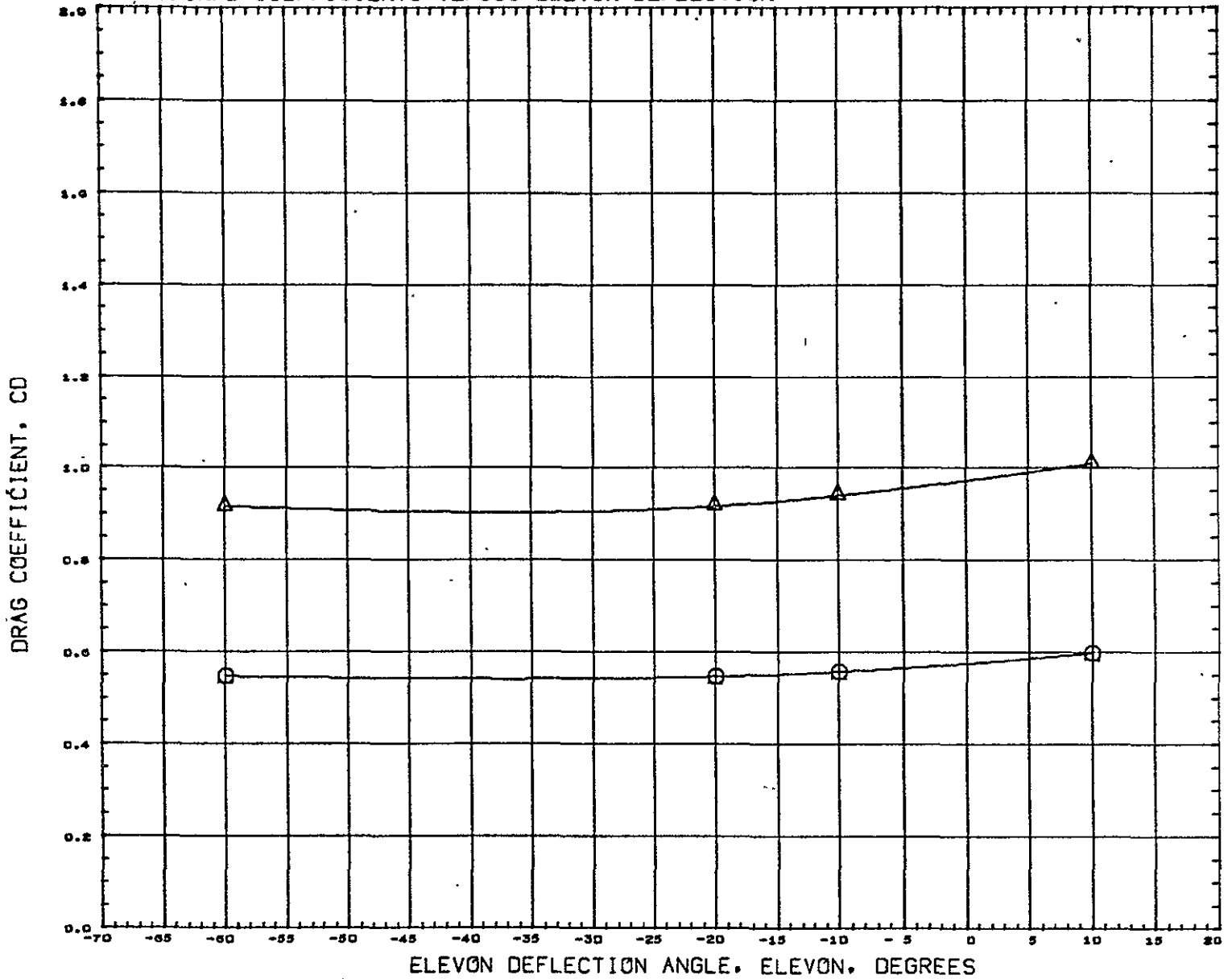
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
		MACH	BETA	DEL	DER	DCR	AILRON	DATASET	ELEVON	DATASET	ELEVON	SREF
○	30.000	5.000	0.000	-00.000	-00.000	0.000	G28E75	-60.000	G28E72	-20.000	15.6500	30. IN.
△	40.000	0.000	0.000	0.000	0.000	0.000	G28A02	-10.000	G28E78	10.000	3.0950	IN.
											6.0990	IN.
											6.7100	IN.
											0.0000	IN.
											0.0000	IN.
											0.0055	

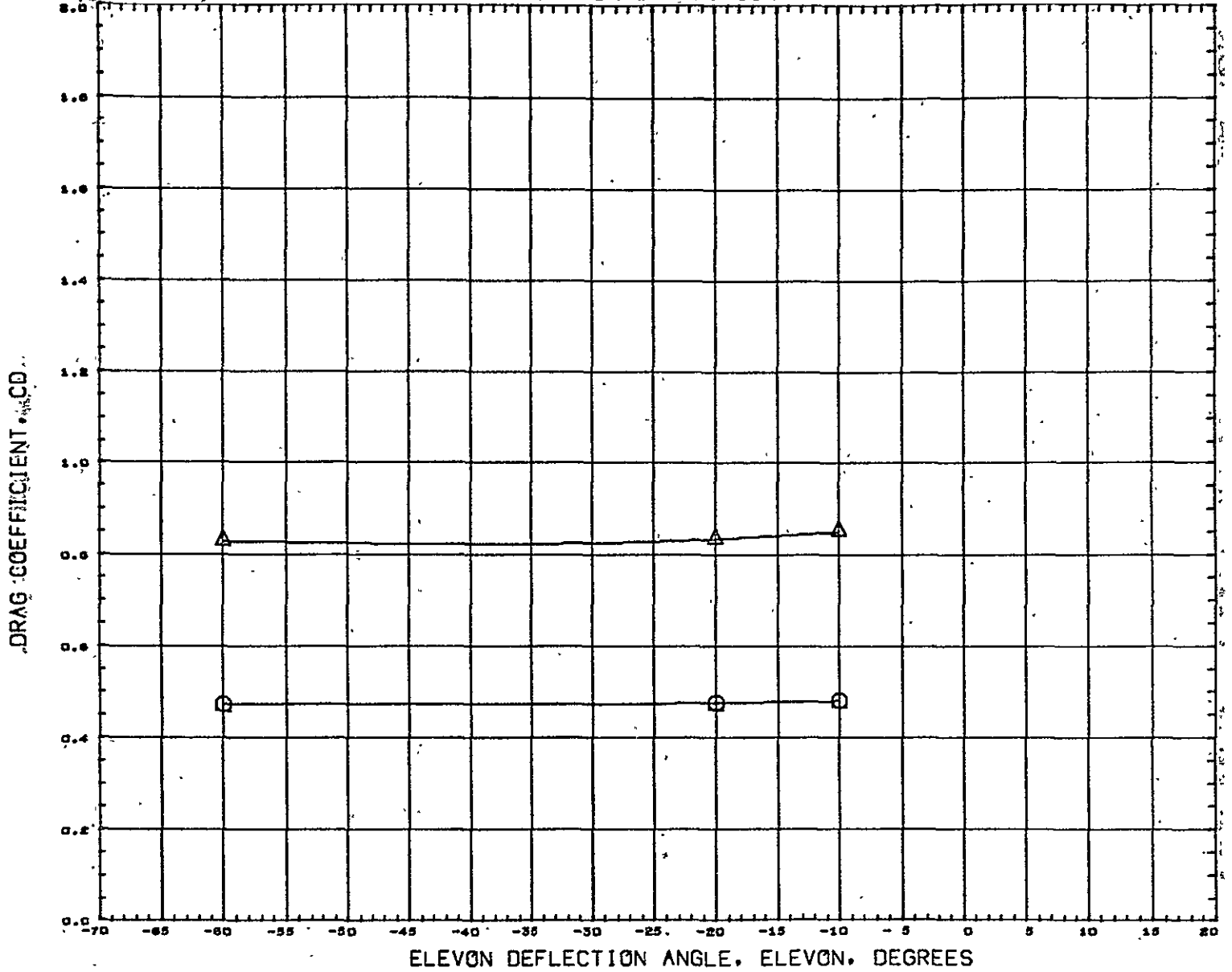
DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	3.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	30. IN.
△	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	G28E72	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A02	- 10.000	G28E78	10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

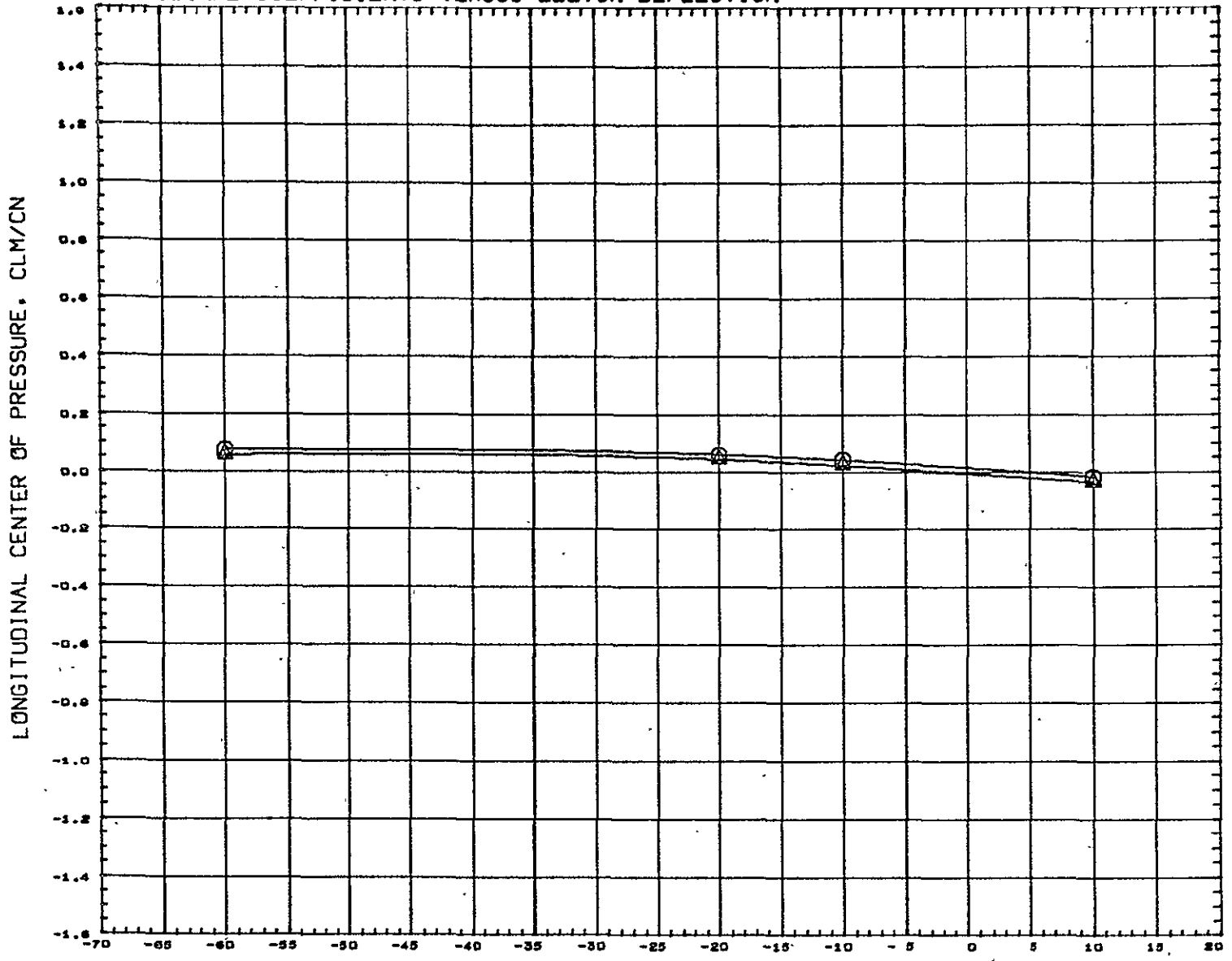
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	5.000	BETA	0.000	DATASET	ELEVON	DATASET	ELEVON	SREF	15.6560	SQ. IN.
△	40.000	DEL	- 60.000	DER	- 60.000	G28E75	- 60.000	G28E72	- 20.000	LREF	3.0950	IN.
		DCL	0.000	DCR	0.000	G28A02	- 10.000	G28E78	10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#EI

LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION

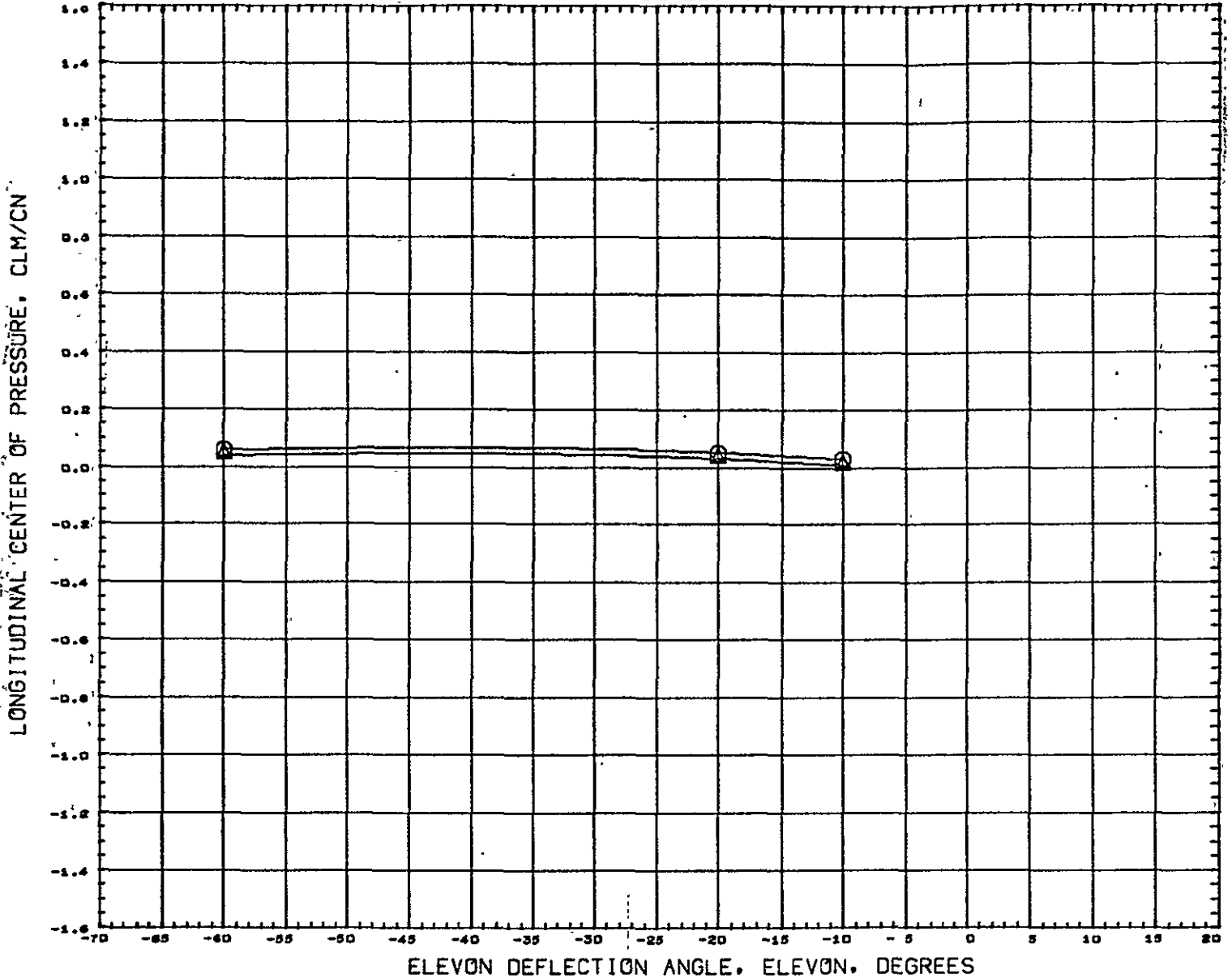


ELEVON DEFLECTION ANGLE, ELEVON, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DEL	DER	DATASET	ELEVON	DATASET	ELEVON	SREF	LREF	BREF
○	30.000	3.000	0.000	-60.000	-60.000	G28E75	-60.000	G28E72	-20.000	15.6560	3.0950	6.0990
△	40.000	0.000	0.000	0.000	0.000	G28A02	-10.000	G28E78	10.000	6.7100	0.0000	0.0000
		CANARD	0.000	AILRON	0.000					ZMRP	0.0000	0.0000
										SCALE	0.0035	

DATA HIST. CODE MVR#EI

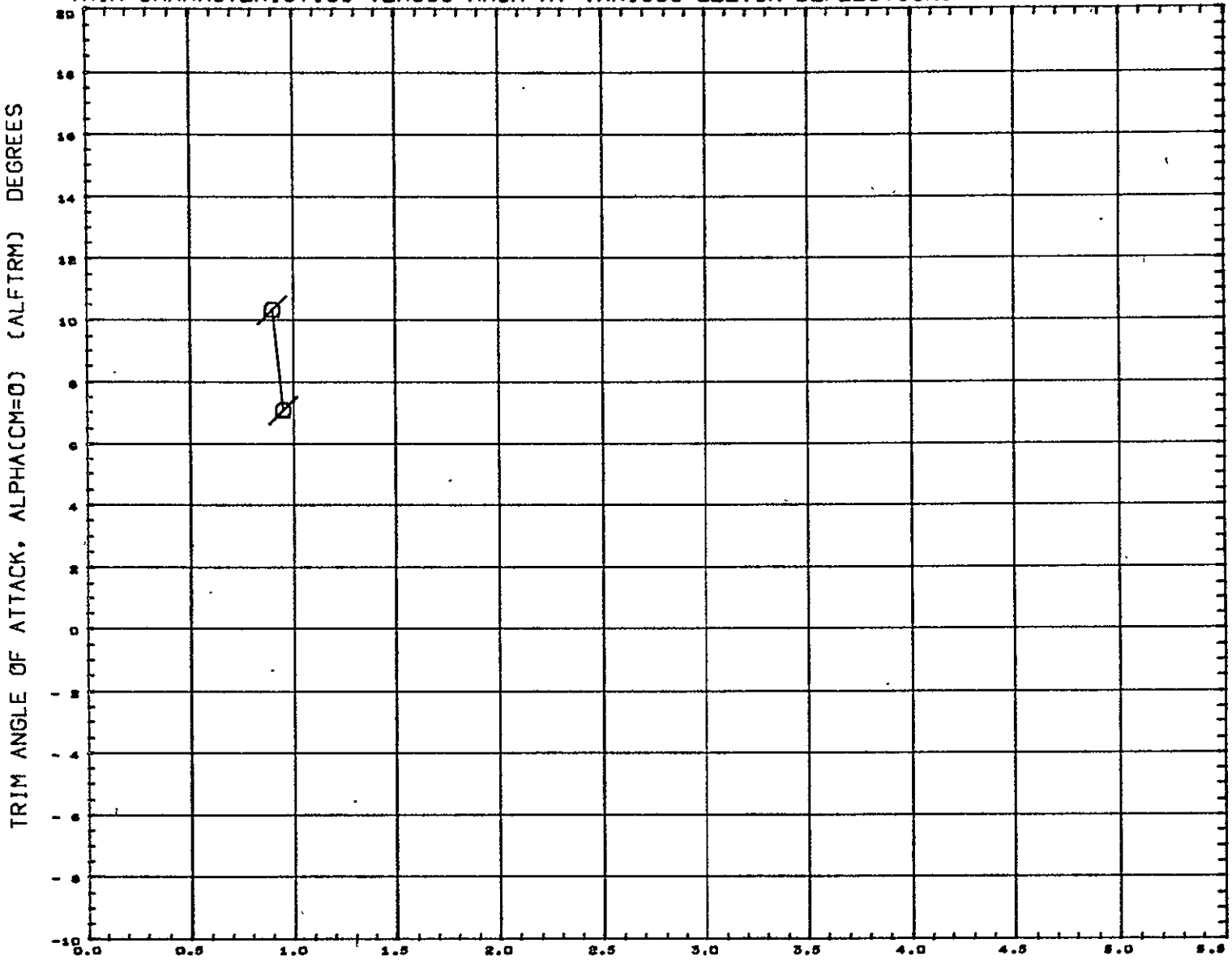
LONGITUDINAL COEFFICIENTS VERSUS ELEVON DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DATASET	ELEVON	DATASET	ELEVON	SREF	SQ.IN.			
Δ	30.000	5.000	0.000	G28E75	60.000	G28E72	20.000	15.6560	30.000	IN.		
	40.000	60.000	0.000	G28A02	10.000	G28E78	10.000	3.0990	IN.			
		0.000	0.000					6.0990	IN.			
		0.000	0.000					6.7100	IN.			
								0.0000	IN.			
								0.0000	IN.			
								0.0035	IN.			

DATA HIST. CODE MVR#EI

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

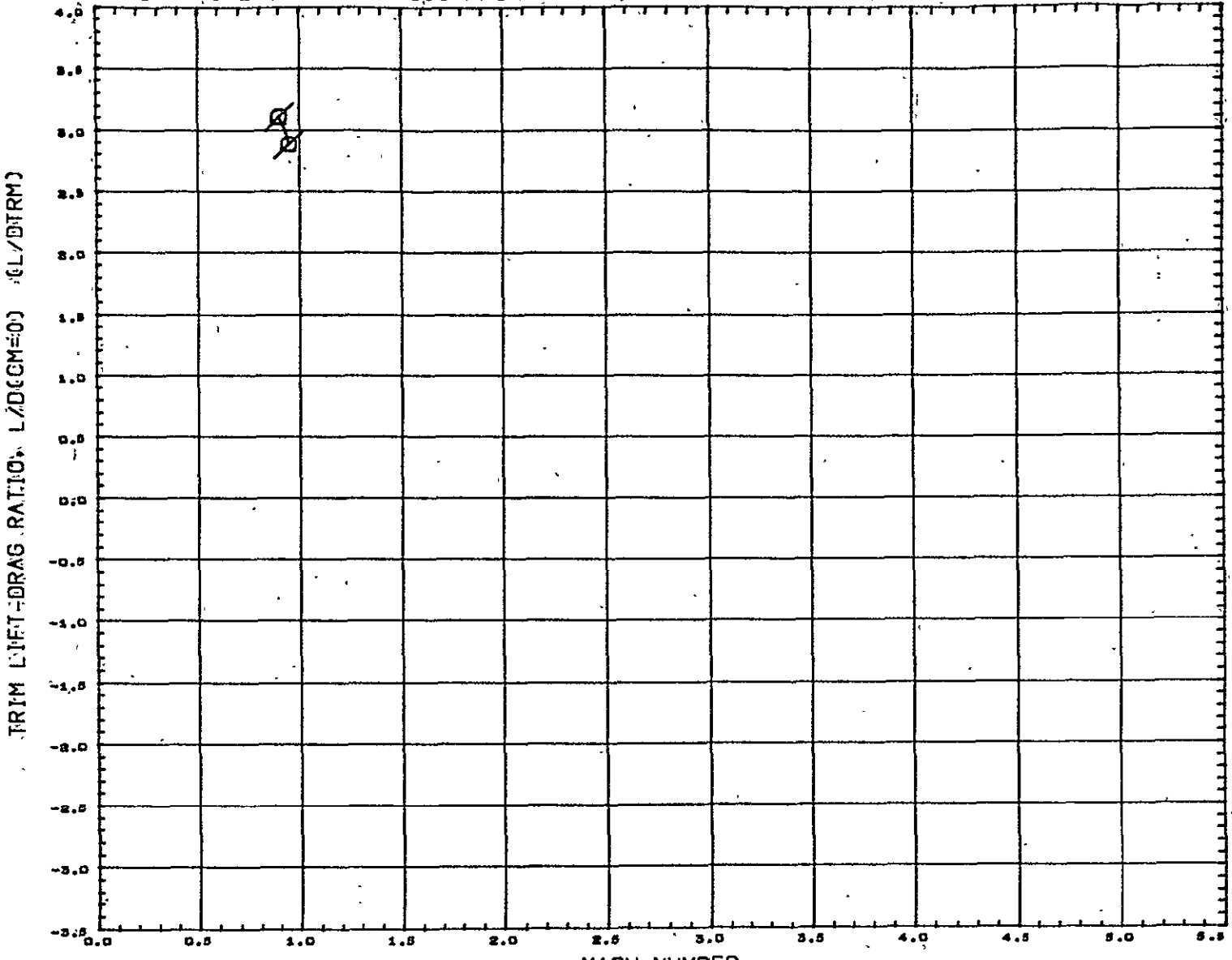


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	0.000
DCR	0.000	ELEVON	0.000
CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	sq. in.
LREF	3.0950	in.
BREF	6.0990	in.
XMRP	6.7100	in.
YMRP	0.0000	in.
ZMRP	0.0000	in.
SCALE	0.0035	

DATA HIST. CODE MVR#E#GIF

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

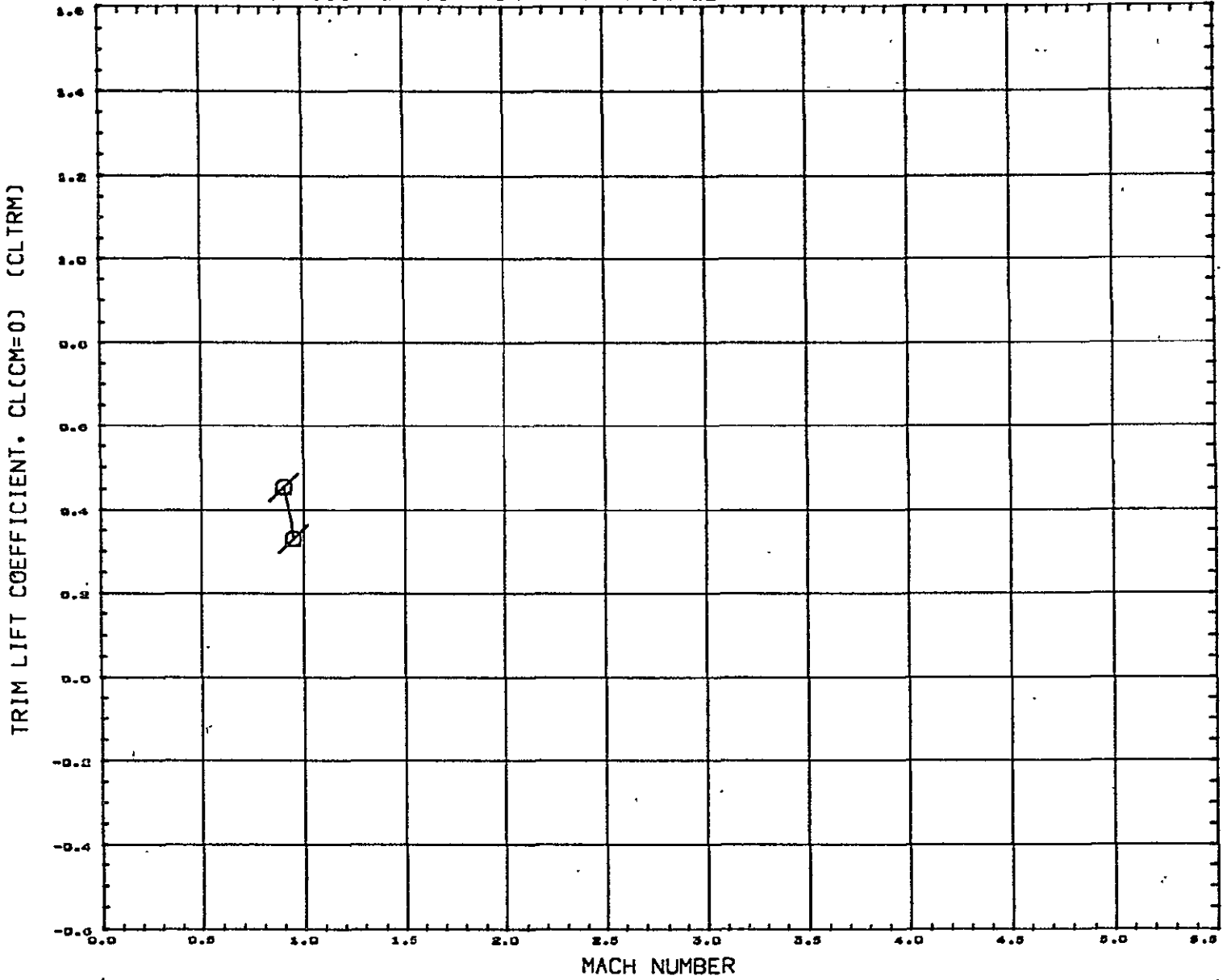


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	0.000
DCR	0.000	ELEVON	0.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#*GIF

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

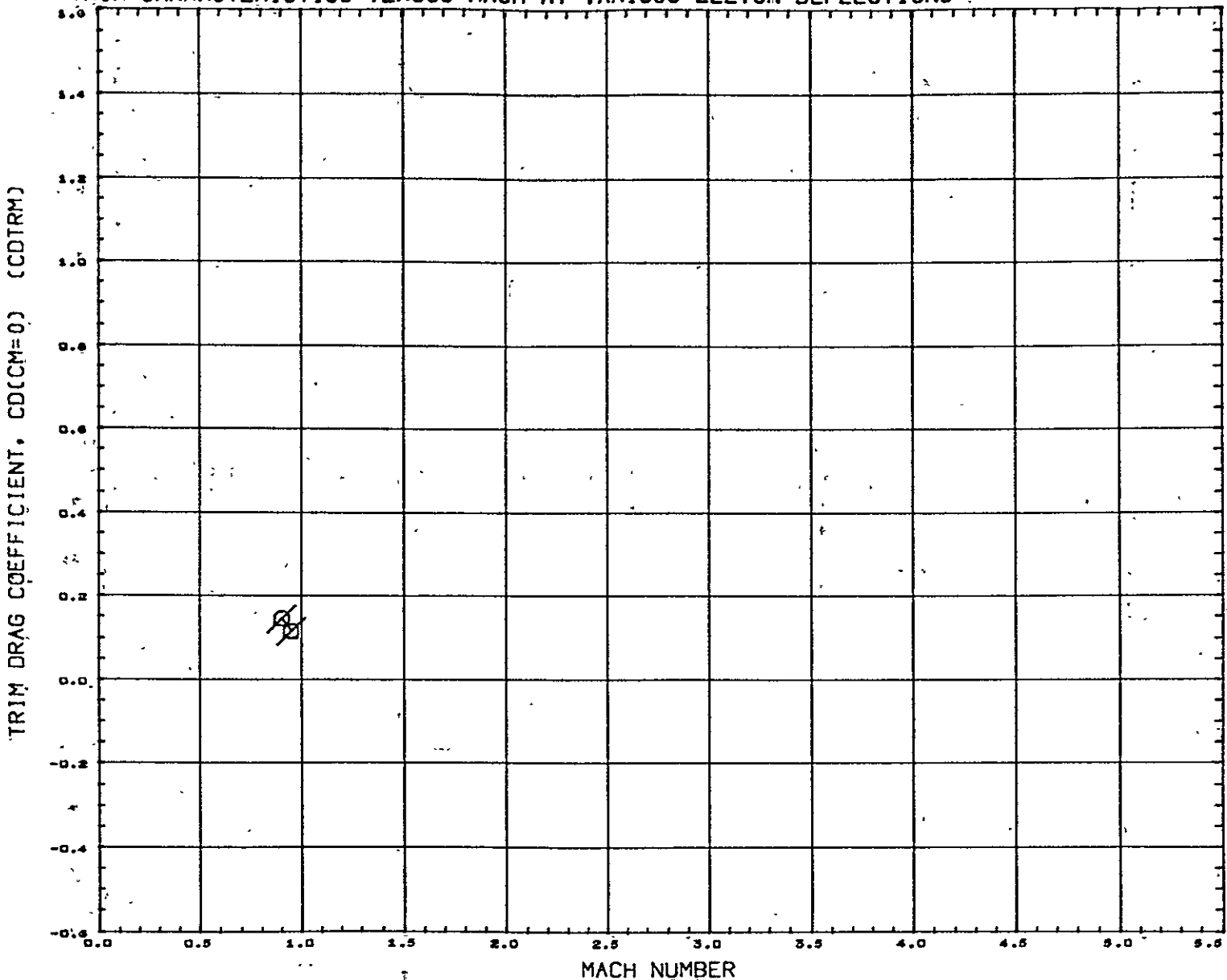


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	0.000
DCR	0.000	ELEVON	0.000
CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	89. IN.
LREF	3.0930	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#GIF

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS



PARAMETRIC VALUES

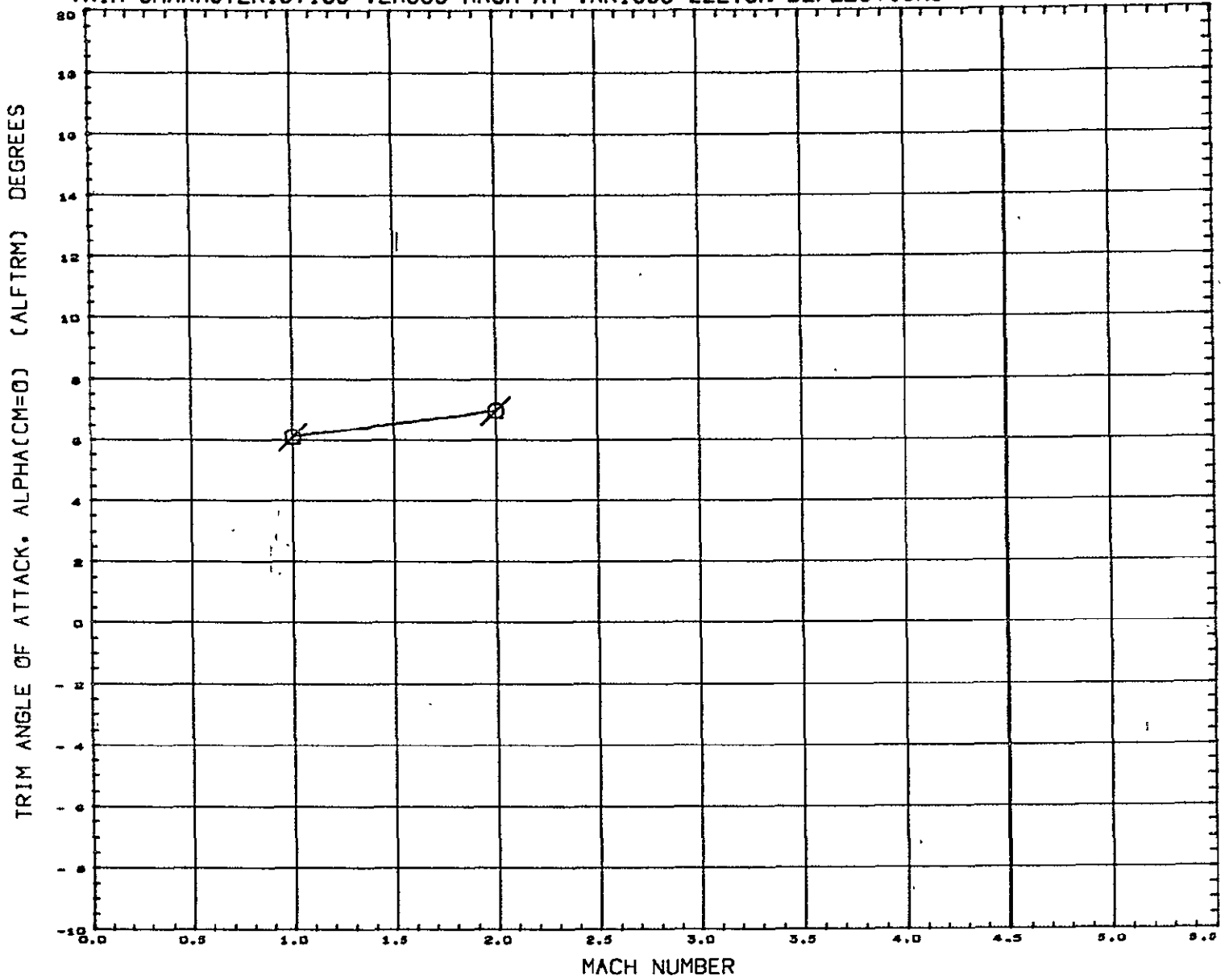
BETA	0.000	DEL	0.000
DER	0.000	DCL	0.000
DCR	0.000	ELEVON	0.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E*GIF

REFERENCE INFORMATION

SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS



PARAMETRIC VALUES

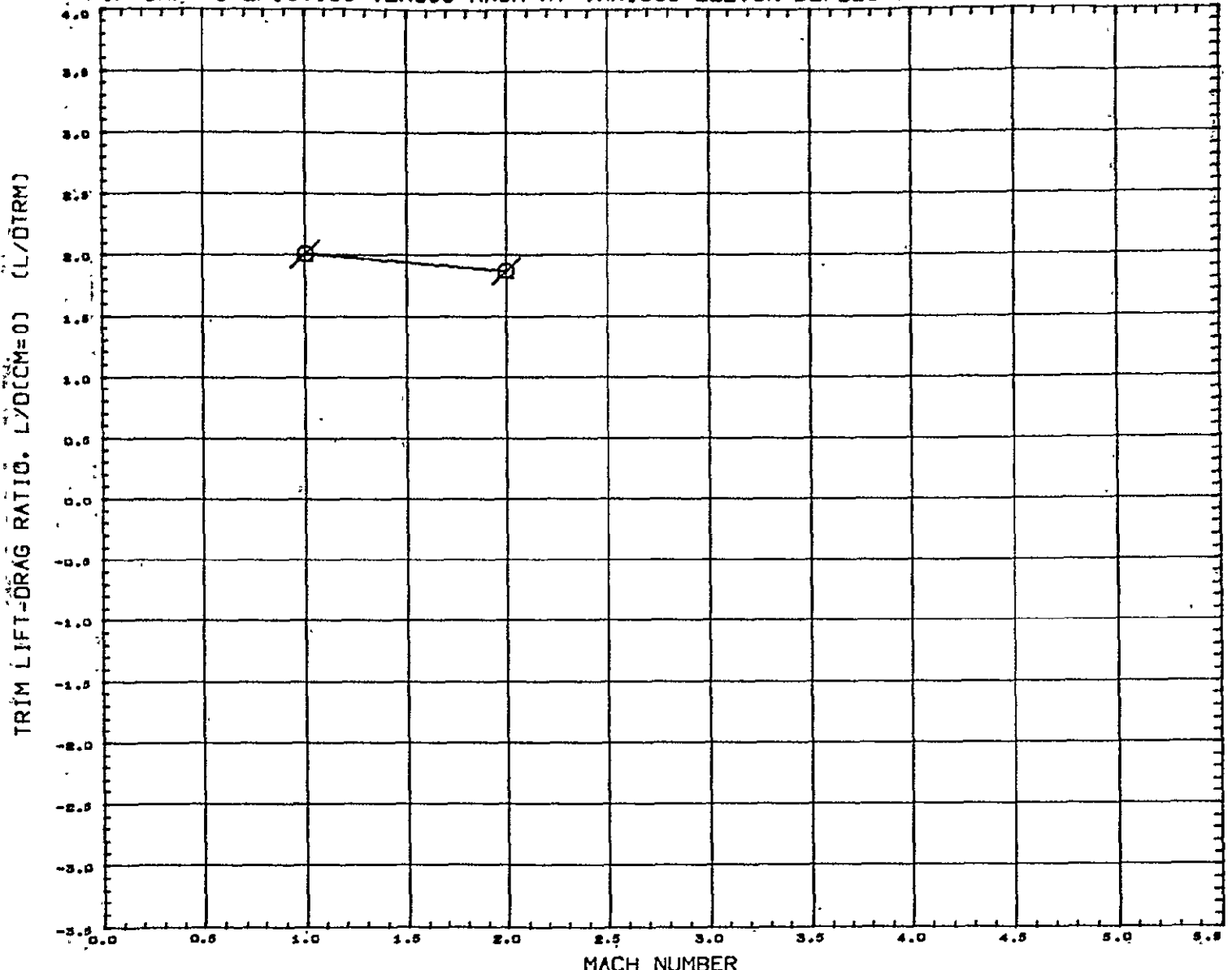
BETA	0.000	DEL	0.000
DER	- 20.000	DCL	0.000
DCR	0.000	ELEVON	- 10.000
CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION

SREF	19.6500	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E#GIF

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

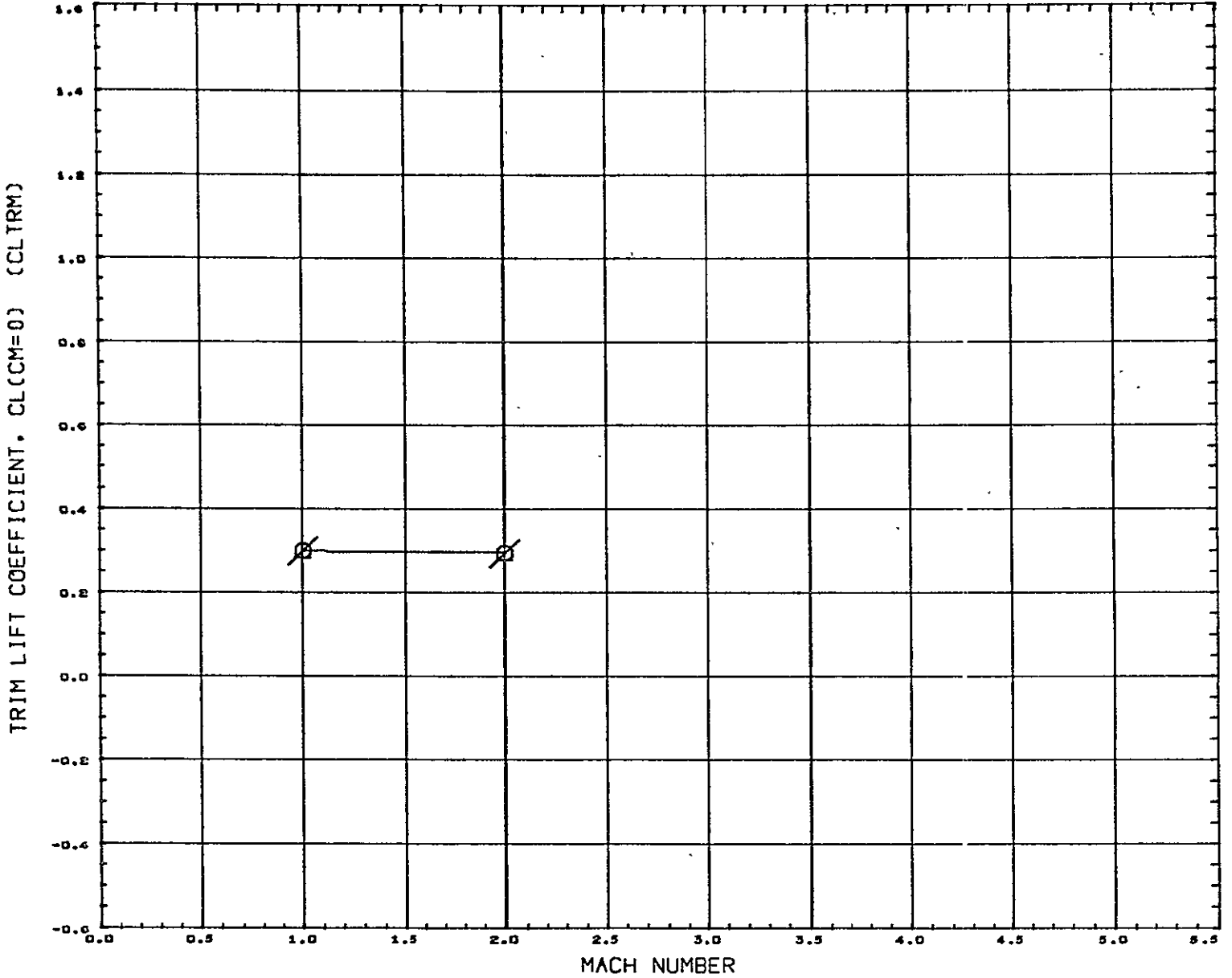


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	- 20.000	DCL	0.000
DCR	0.000	ELEVON	- 10.000
CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.4560	50 IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XHRP	0.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E*GIF

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS



PARAMETRIC VALUES

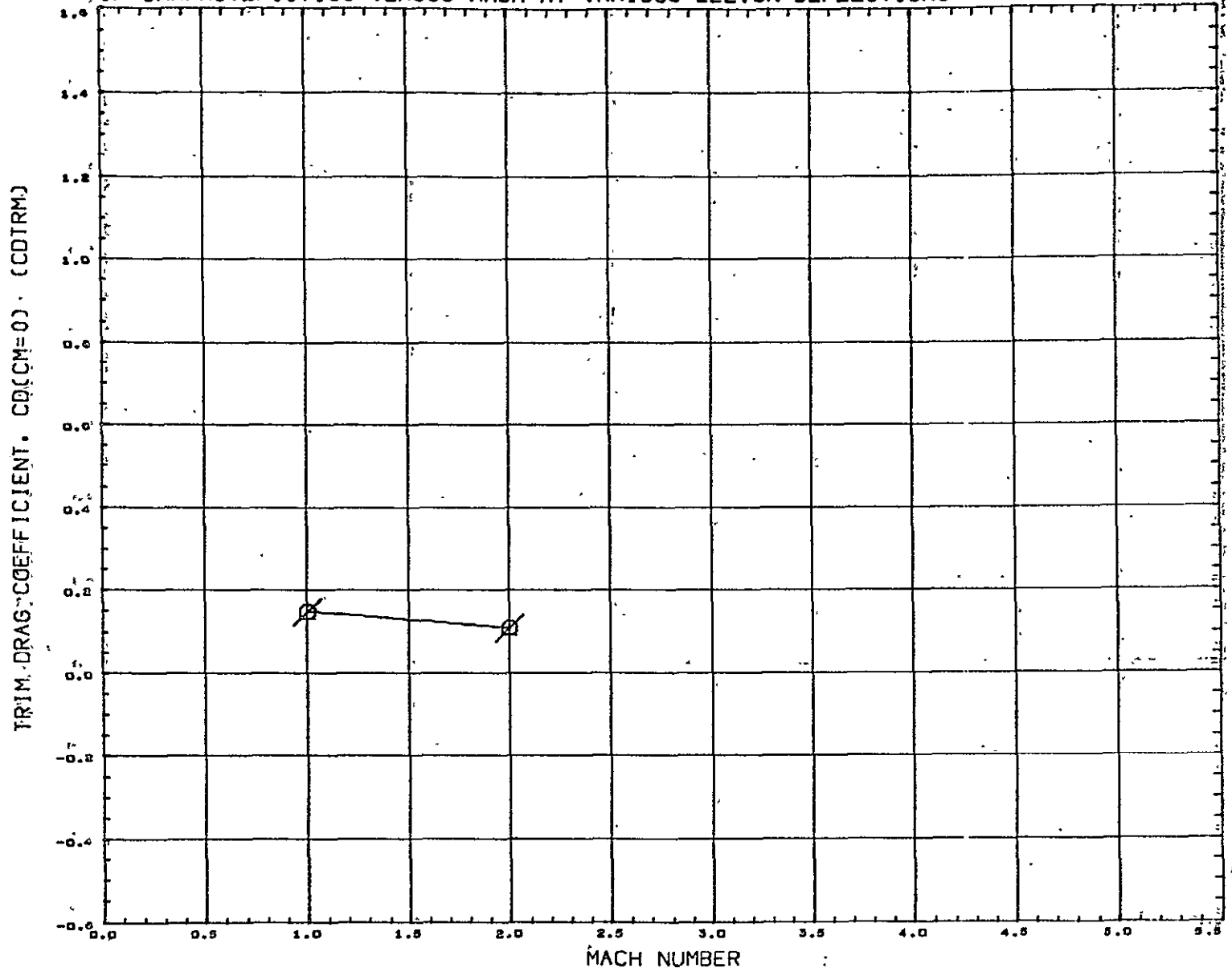
BETA	0.000	DEL	0.000
DER	-20.000	DCL	0.000
DCR	0.000	ELEVON	-10.000
CANARD	0.000	AILRON	10.000

DATA HIST. CODE HVR#E#GIF

REFERENCE INFORMATION

SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

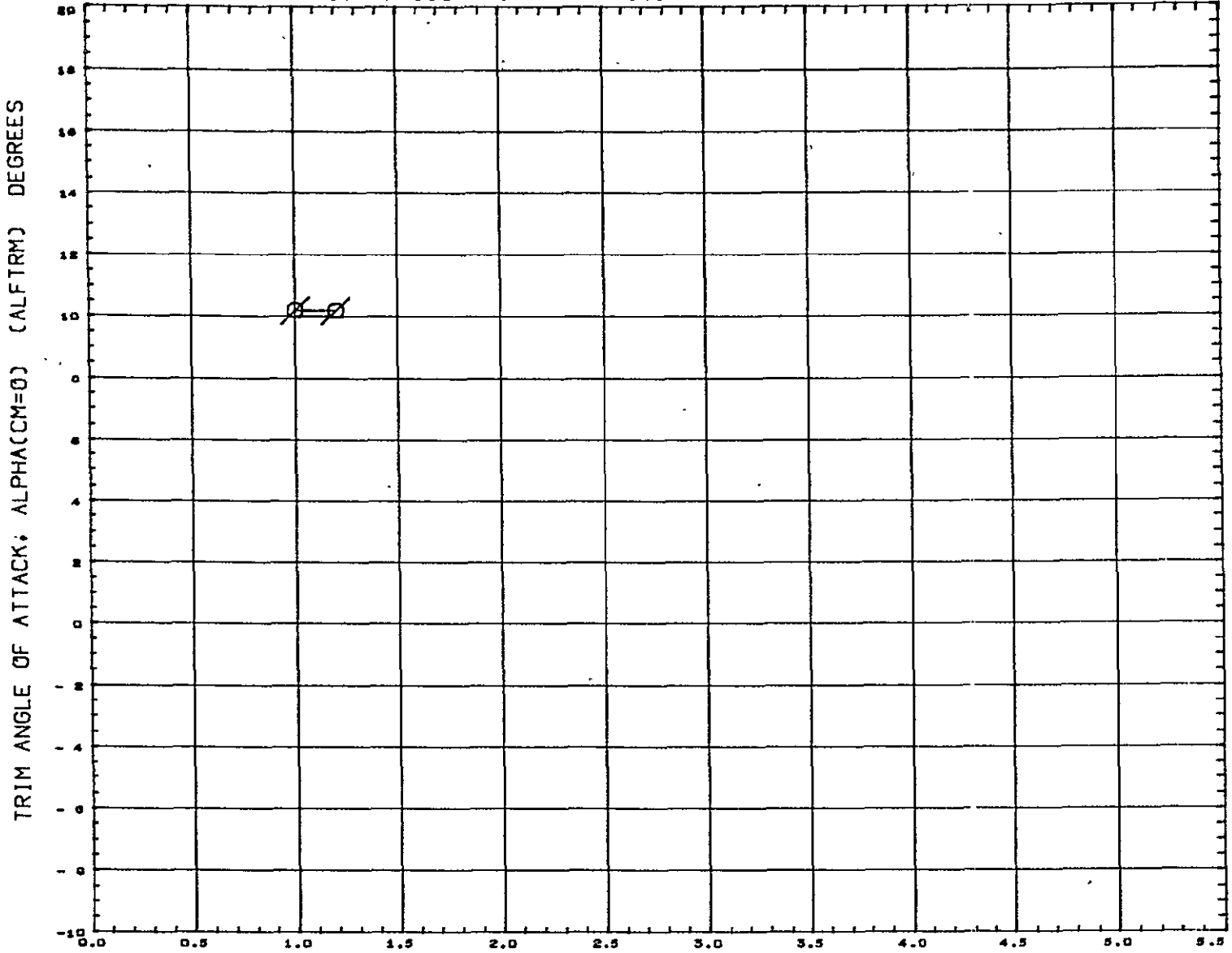


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	- 20.000	DEL	0.000
DCR	0.000	ELEVON	- 10.000
CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E*GIF

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

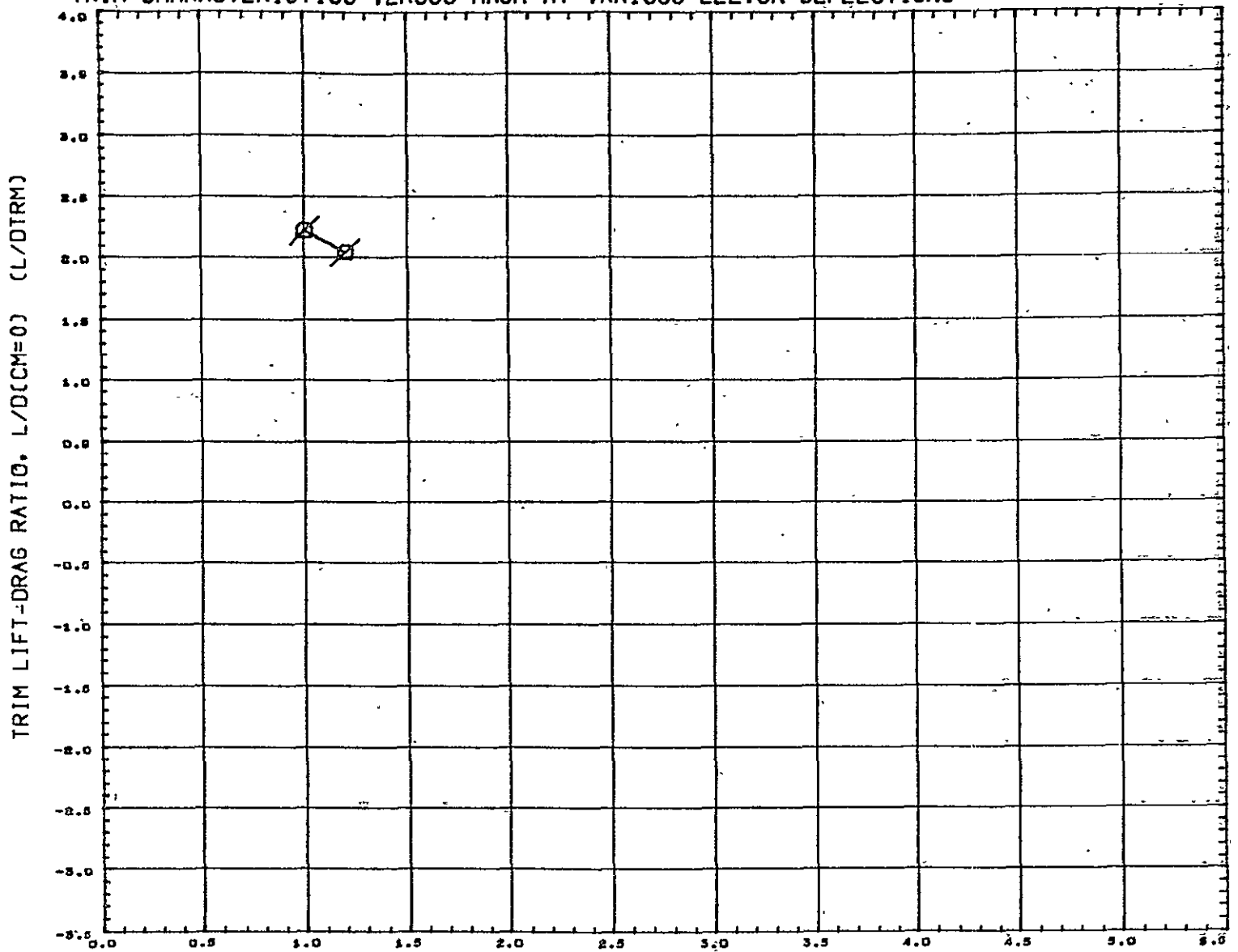


PARAMETRIC VALUES			
BETA	0.000	DEL	- 20.000
DER	- 20.000	DCL	0.000
OCR	0.000	ELEVON	- 20.000
CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#GIF

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS



PARAMETRIC VALUES

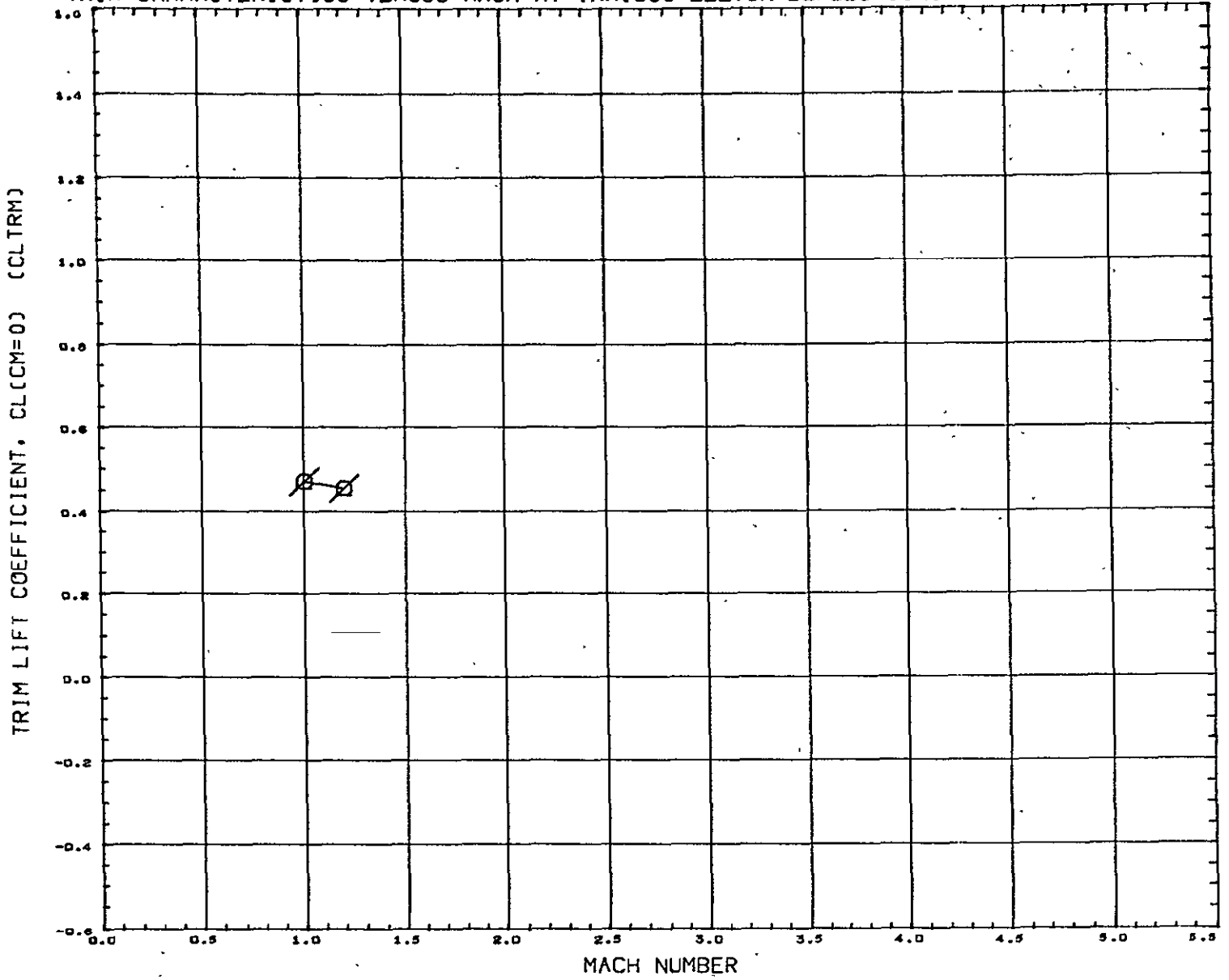
BETA	0.000	DEL	- 20.000
DER	- 20.000	DCL	0.000
DCR	0.000	ELEVON	- 20.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E#GIF

REFERENCE INFORMATION

SREF	15.0560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

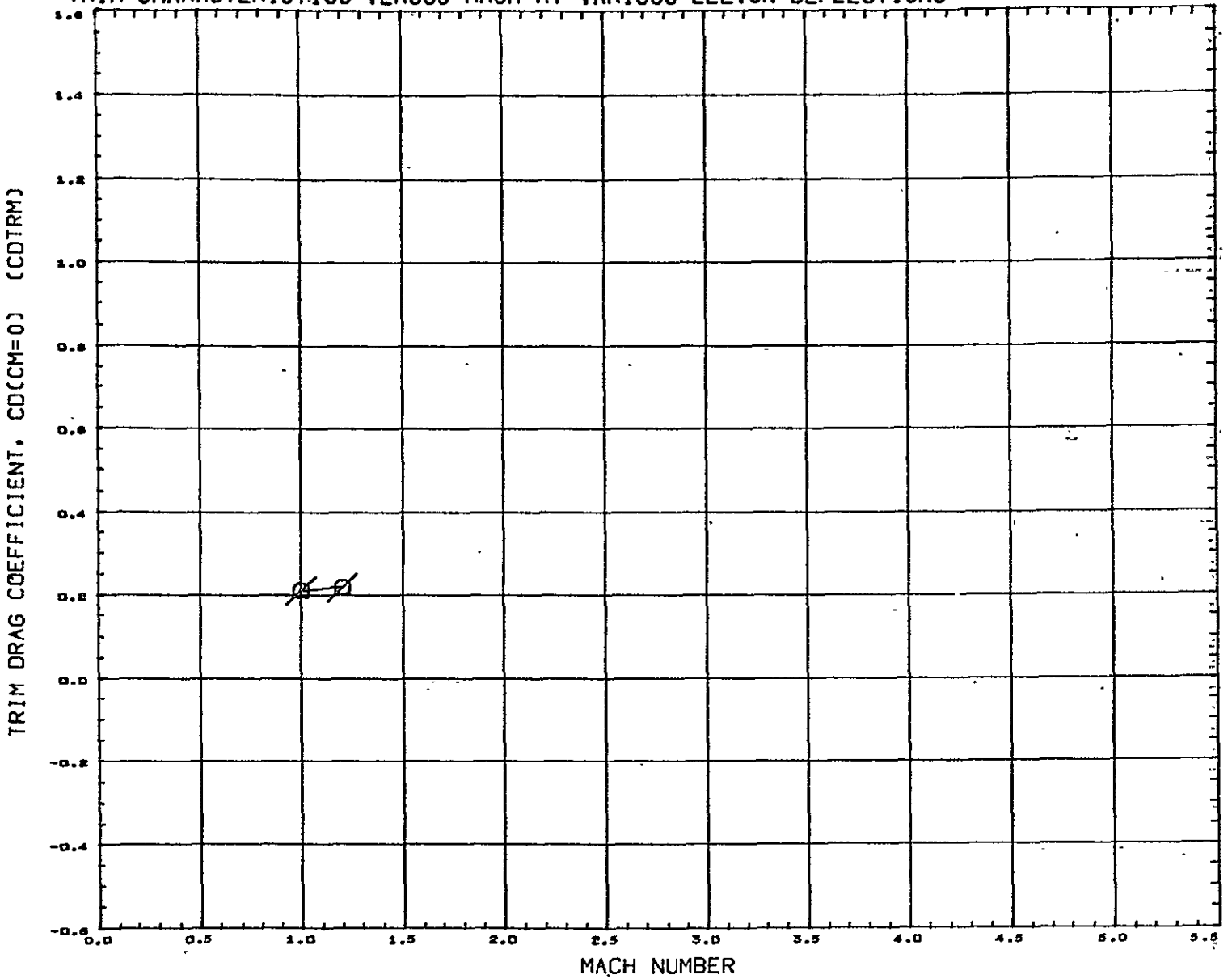


PARAMETRIC VALUES			
BETA	0.000	DEL	- 20.000
DER	- 20.000	DCL	0.000
DCR	0.000	ELEVON	- 20.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E*GIF

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

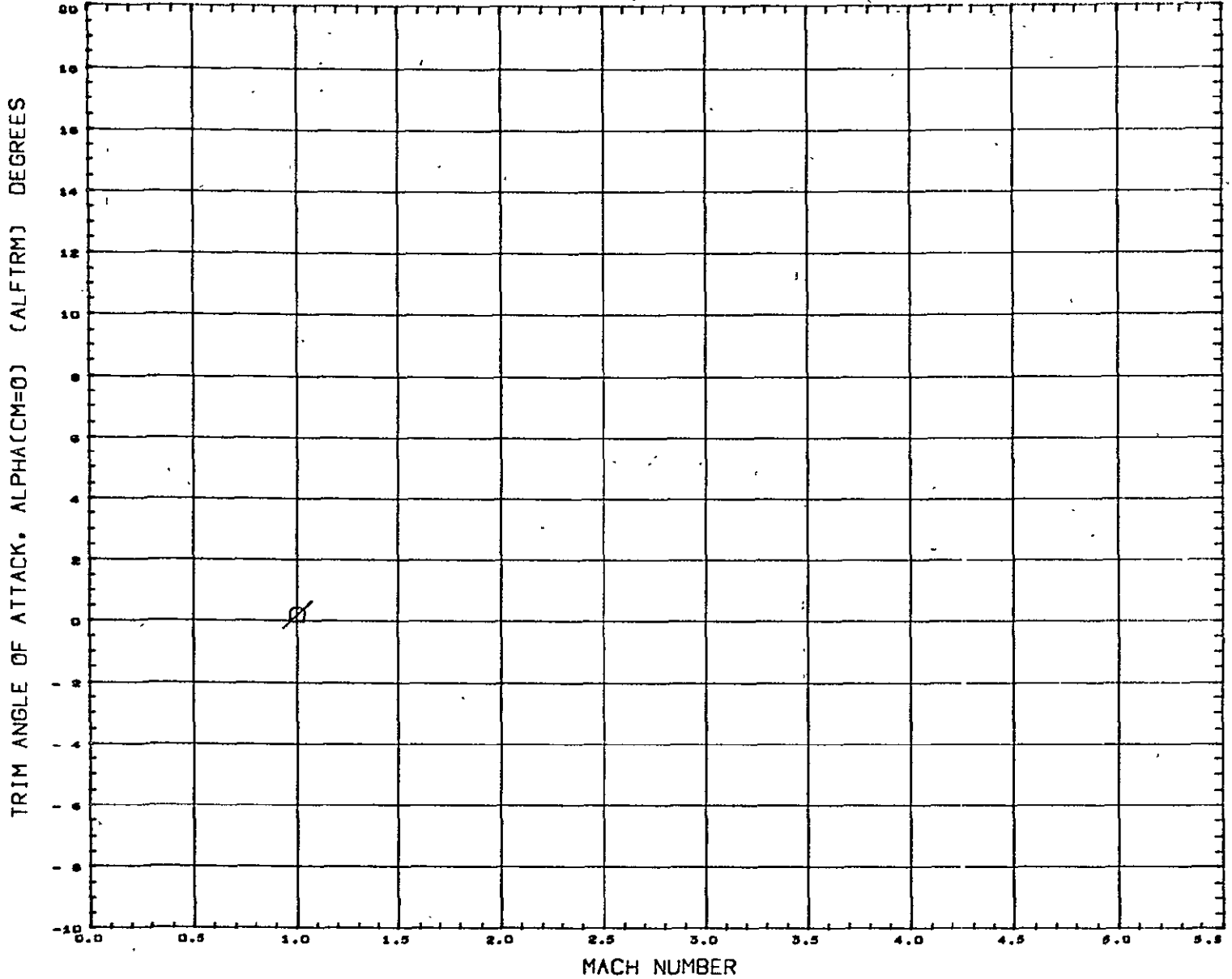


PARAMETRIC VALUES			
BETA	0.000	DEL	- 20.000
DER	- 20.000	DCL	0.000
DCR	0.000	ELEVON	- 20.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E#GIF

REFERENCE INFORMATION		
SREF	15.6500	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS



PARAMETRIC VALUES

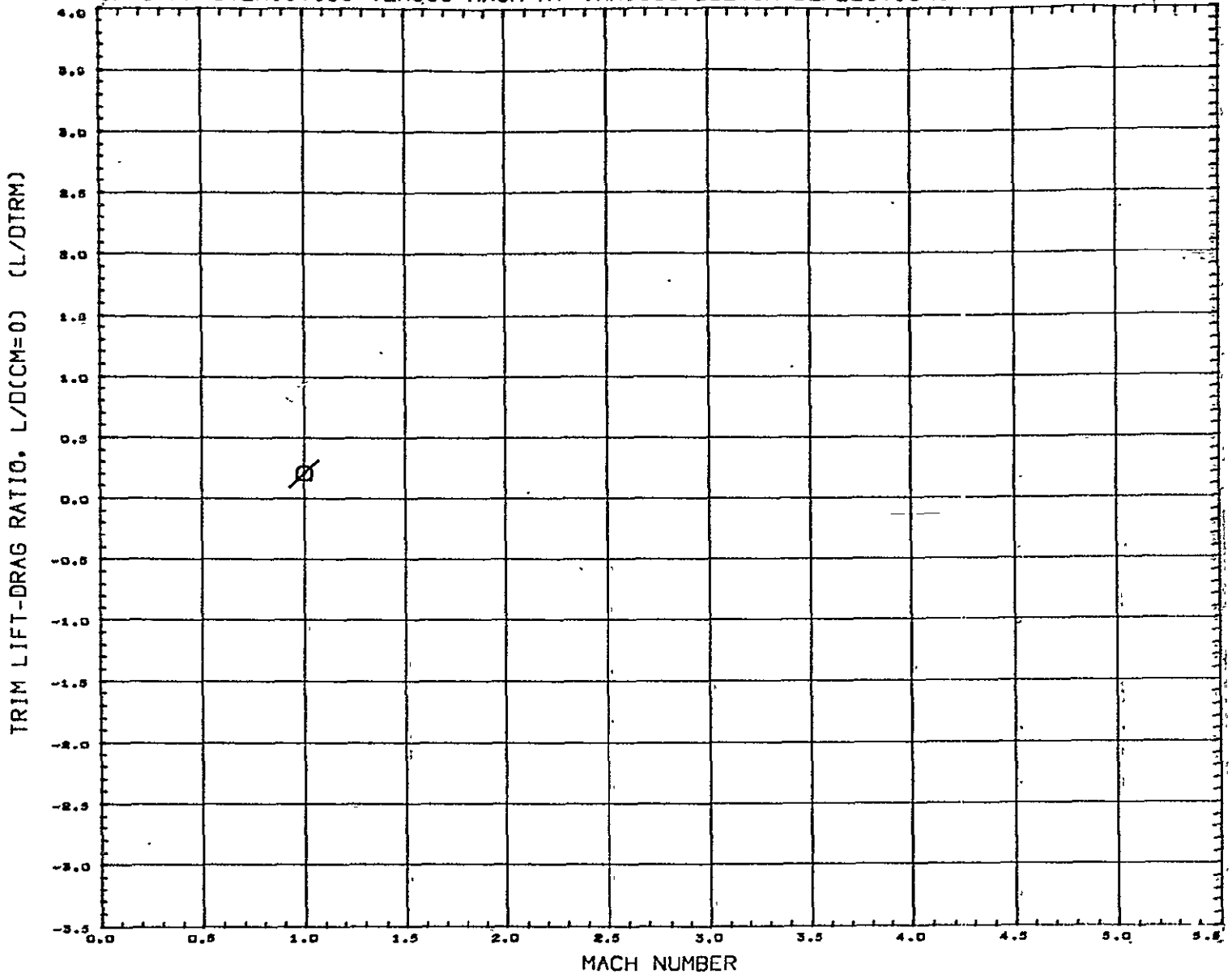
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DER	- 60.000	OCL	0.000
DCR	0.000	ELEVON	- 60.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE (MVR#E#GIF)

REFERENCE INFORMATION

SREF	15.6360	50. IN.
LREF	3.0950	IN.
BREF	6.0090	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

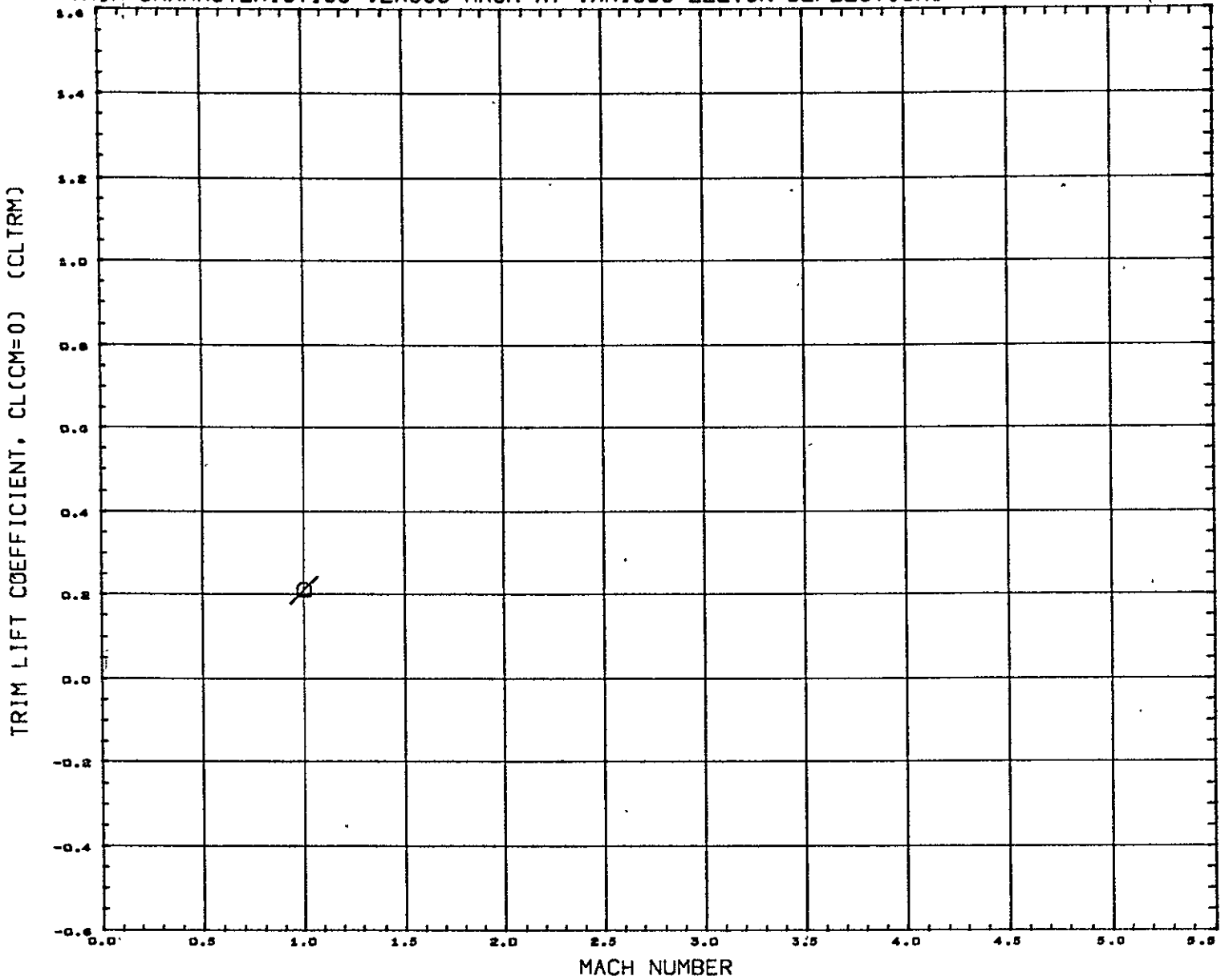


PARAMETRIC VALUES			
BETA	0.000	DEL	- 60.000
DER	- 60.000	DCL	0.000
DCB	0.000	ELEVON	- 60.000
CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6960	Sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E*GIF

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS



PARAMETRIC VALUES

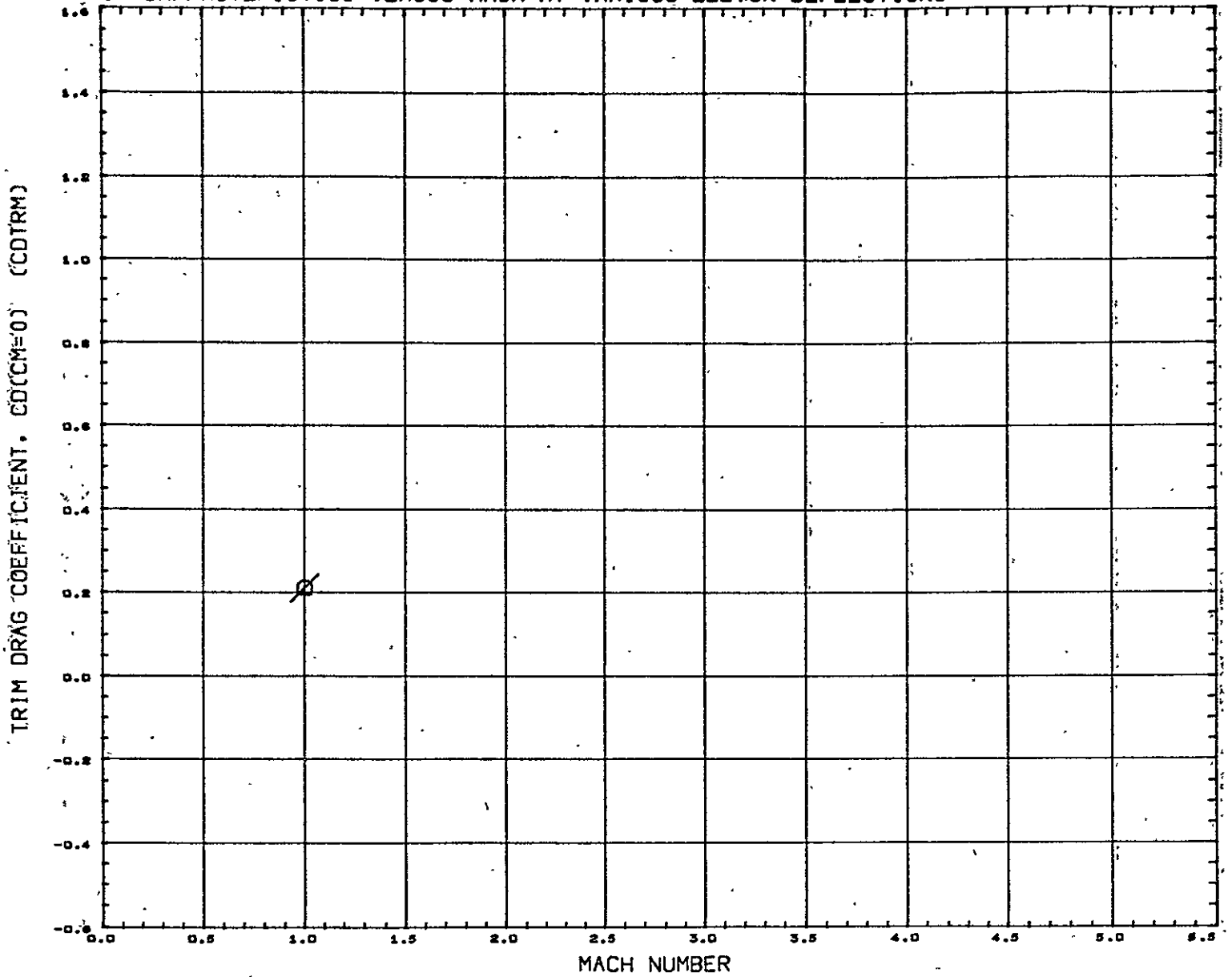
BETA	0.000	DEL	- 60.000
DER	- 60.000	DCL	0.000
DCR	0.000	ELEVON	- 60.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MYR#E#GIF

REFERENCE INFORMATION

SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS



PARAMETRIC VALUES

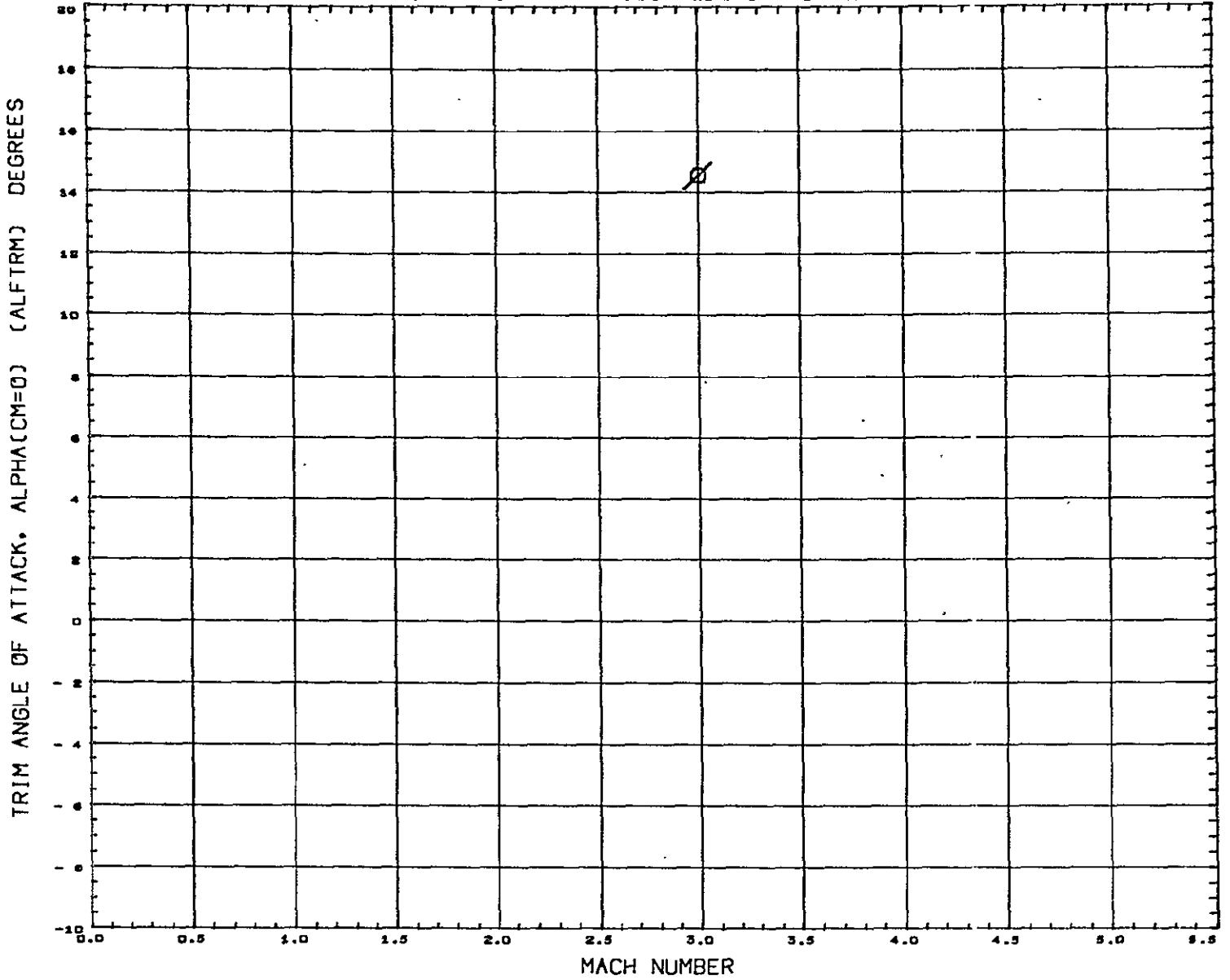
BETA	0.000	DEL	- 60.000
DER	- 60.000	DCL	0.000
OCR	0.000	ELEVON	- 60.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E*GIF

REFERENCE INFORMATION

SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

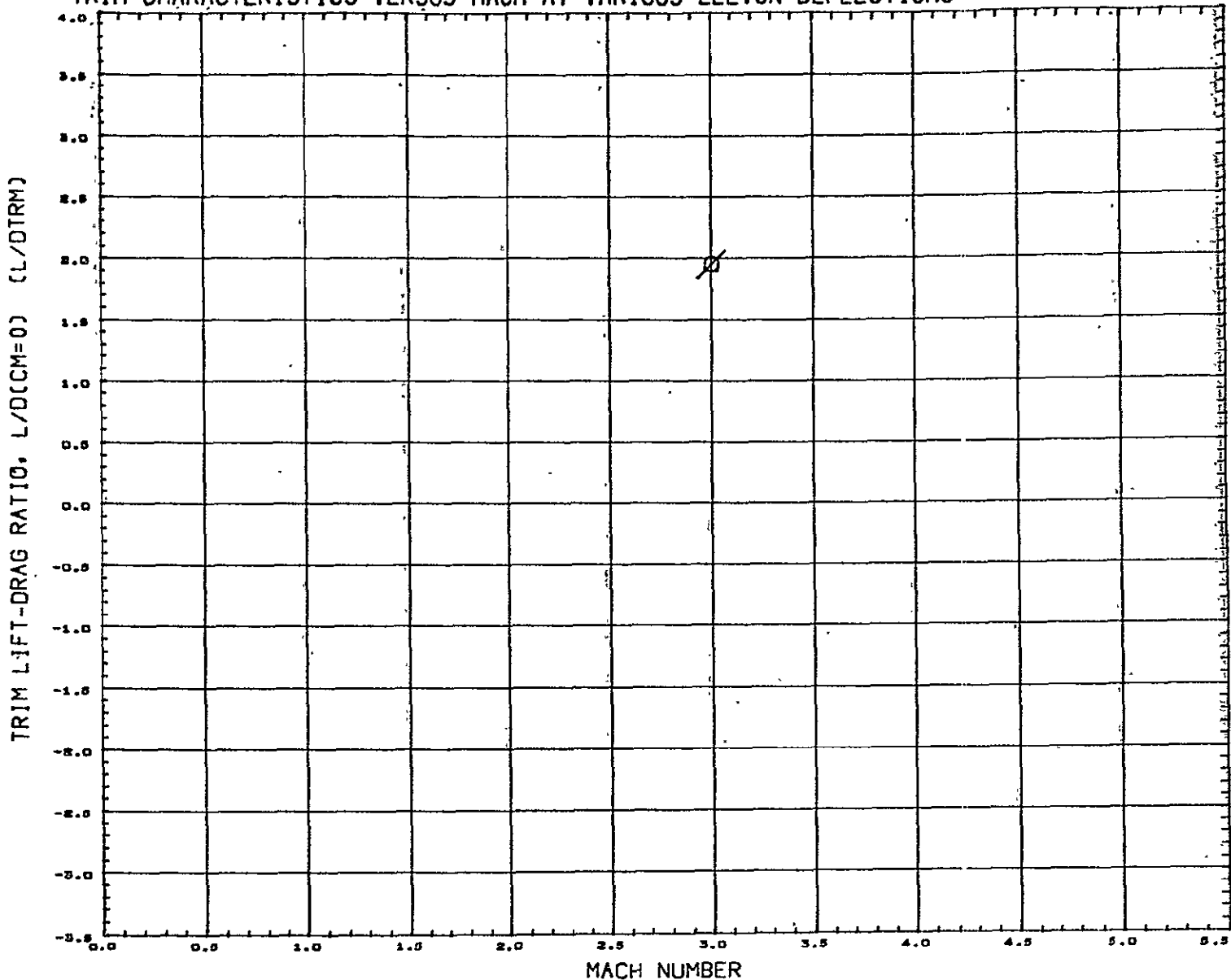


PARAMETRIC VALUES			
BETA	0.000	DEL	10.000
DER	10.000	DCL	0.000
DCR	0.000	ELEVON	10.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE HVR#E*6IF

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	5.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

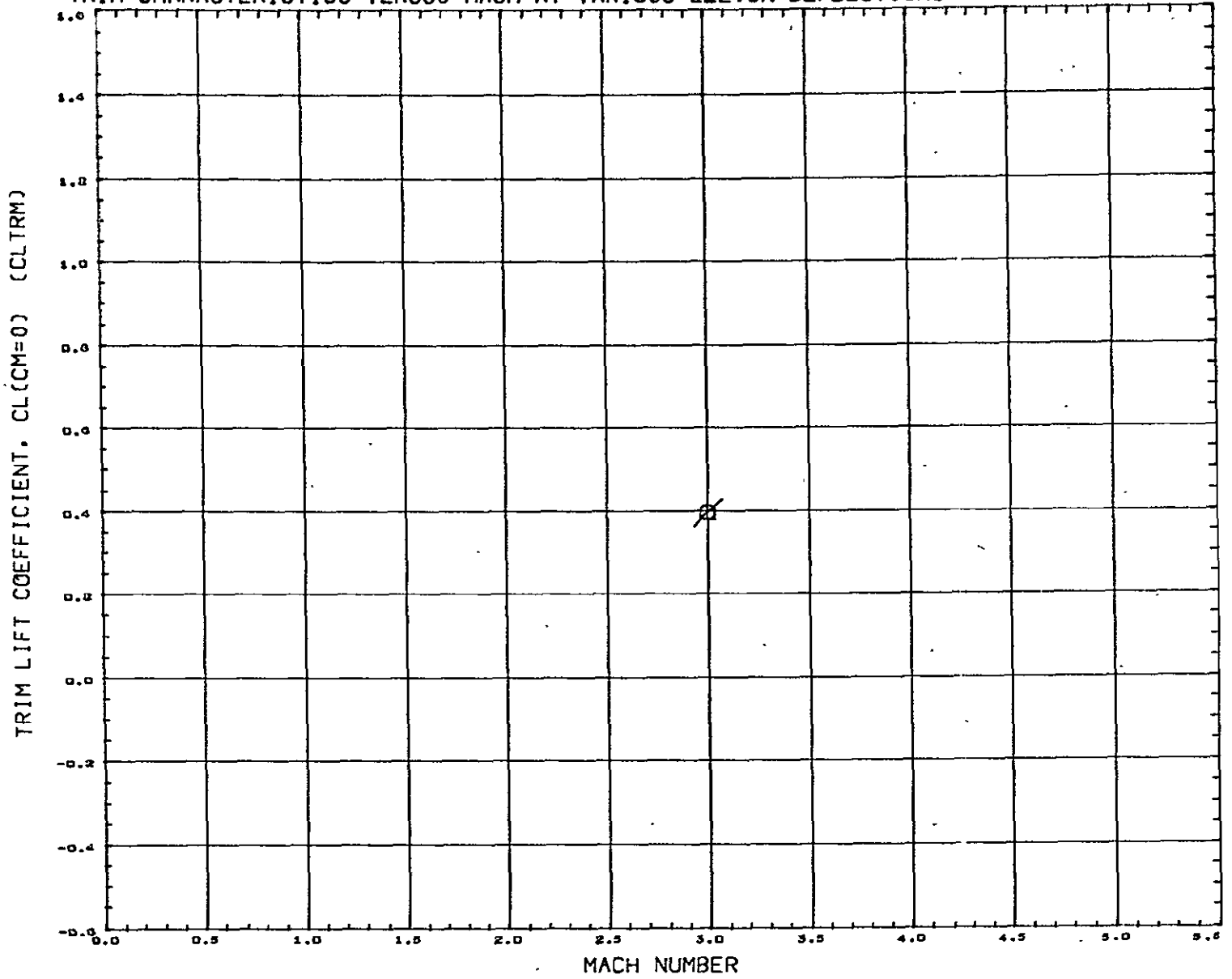


PARAMETRIC VALUES			
BETA	0.000	DEL	10.000
DER	10.000	DCL	0.000
DCR	0.000	ELEVON	10.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE HVR#E#GIF

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
SREF	6.0990	IN.
1MRP	6.7100	IN.
2MRP	0.0000	IN.
3MRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS



PARAMETRIC VALUES

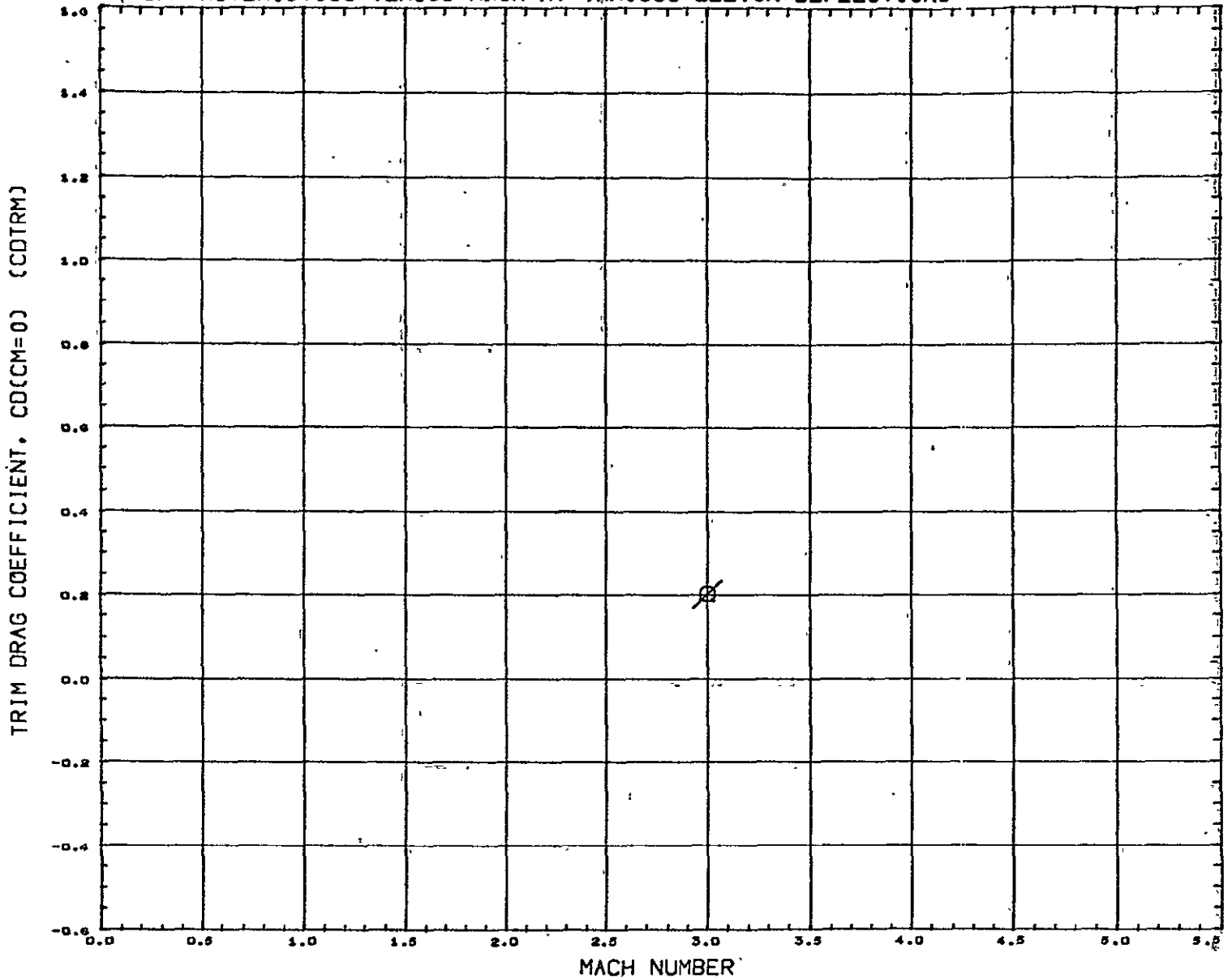
BETA	0.000	DEL	10.000
DER	10.000	DCL	0.000
DCR	0.000	ELEVON	10.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#E*GIF

REFERENCE INFORMATION

SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS VERSUS MACH AT VARIOUS ELEVON DEFLECTIONS

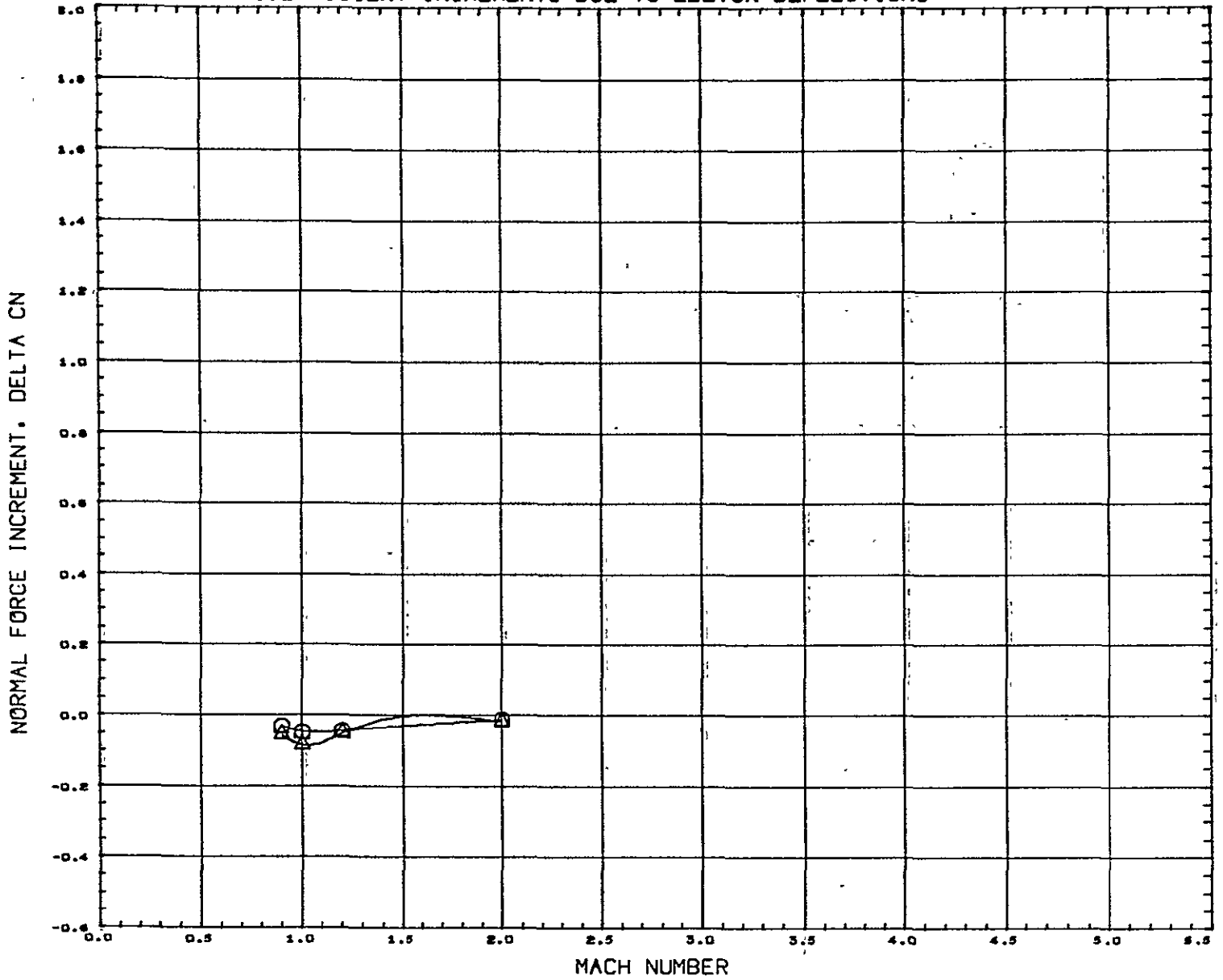


PARAMETRIC VALUES			
BETA	0.000	DEL	10.000
DER	10.000	DCL	0.000
DCR	0.000	ELEVON	10.000
CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0039	

DATA HIST. CODE MVR#EAGIF

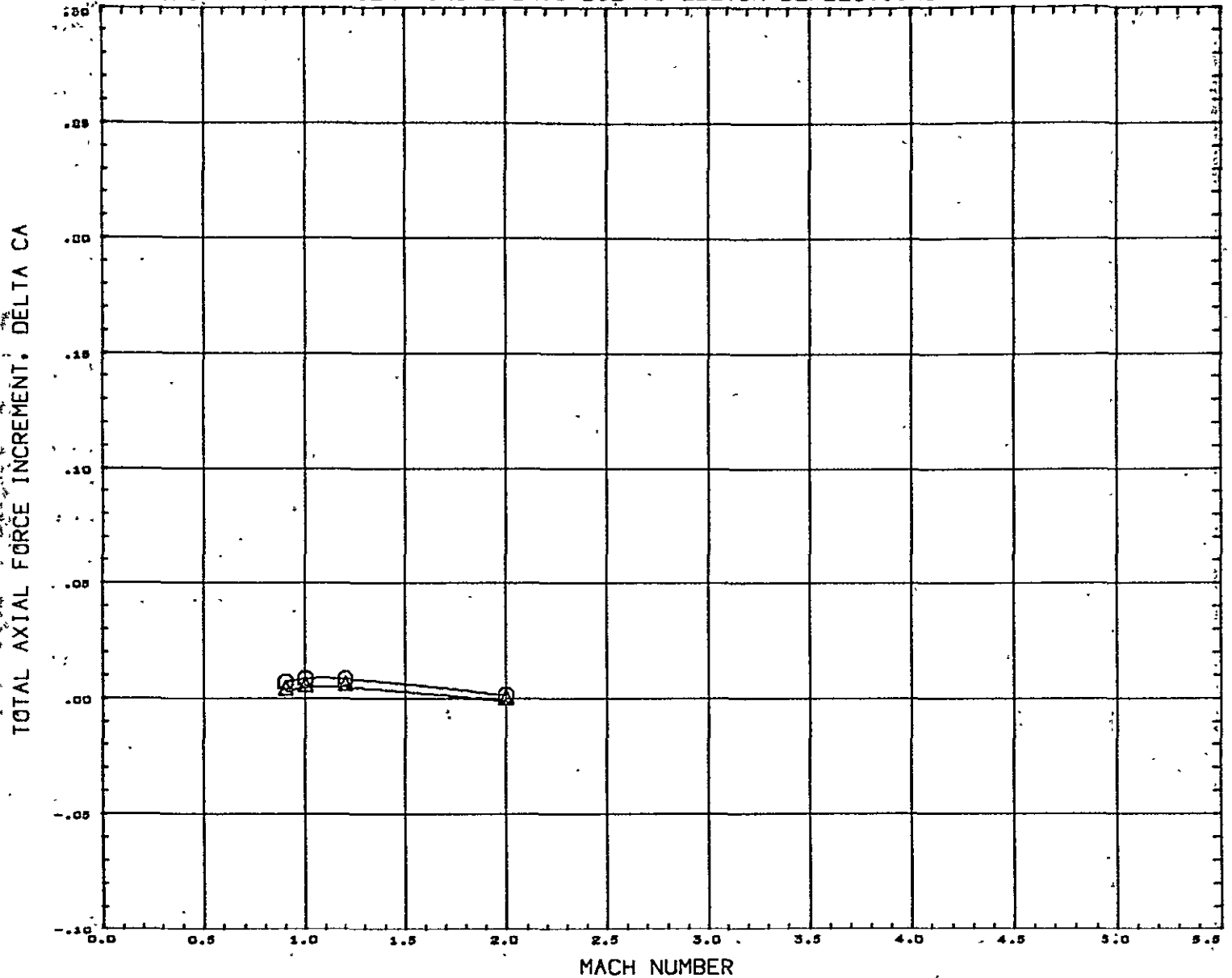
LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000
		DATA HIST. CODE	MVR#E1#C		

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

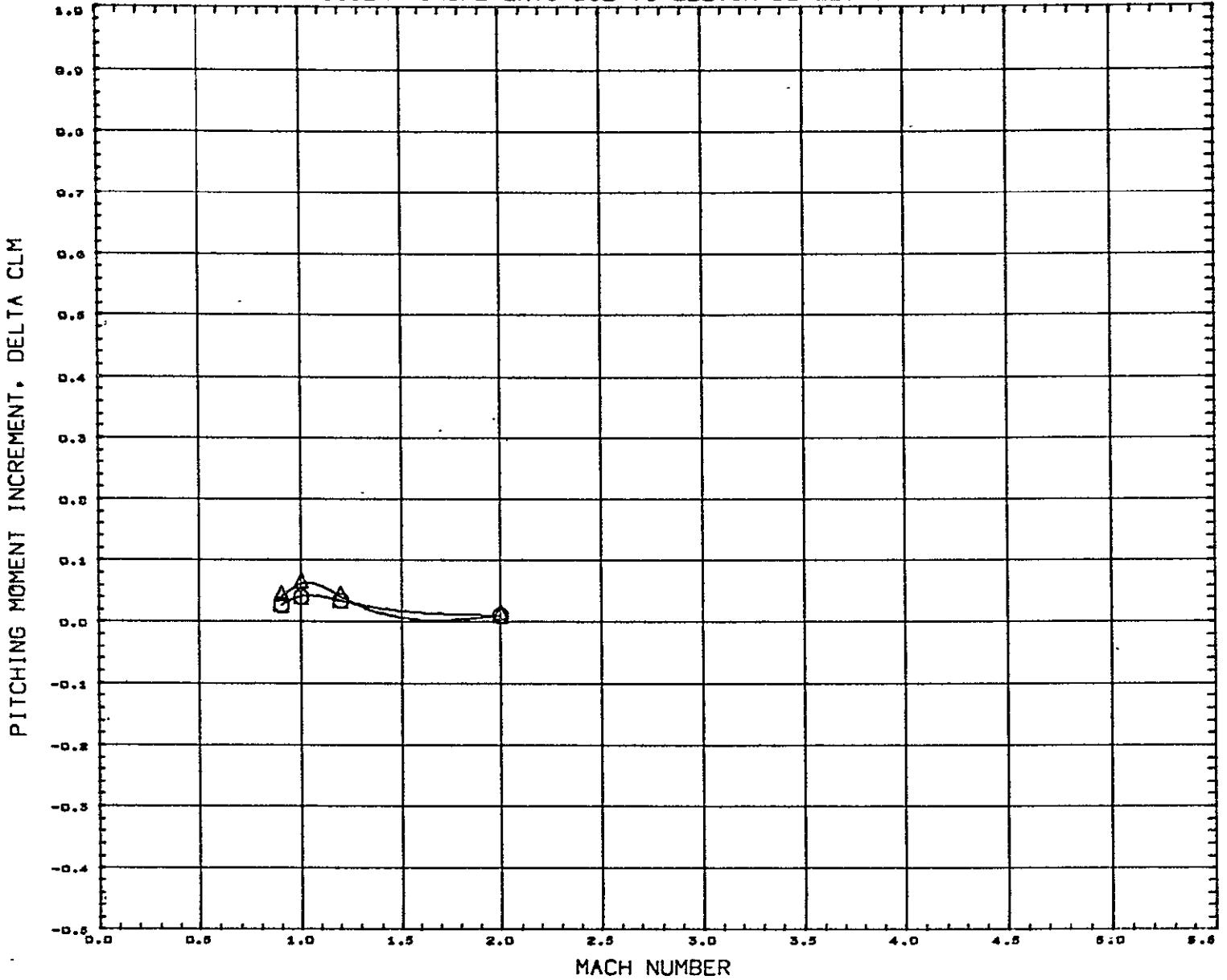
LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000
DATA HIST. CODE MVR*EI*C					

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS

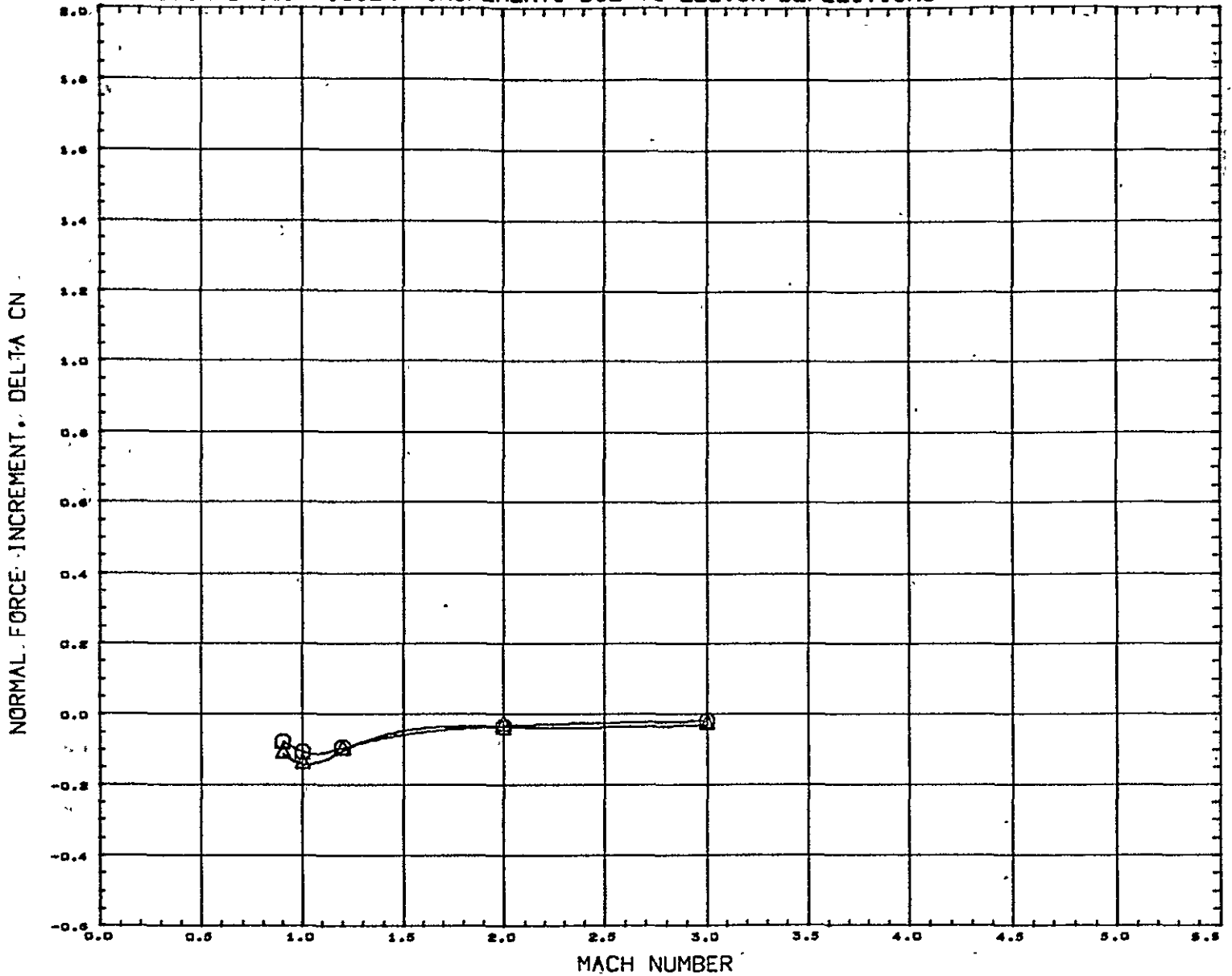


SYMBOL	ALPHA	PARAMETRIC VALUES			
∞	10.000	BETA	0.000	DEL	0.000
Δ	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 10.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#EI+C

LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS

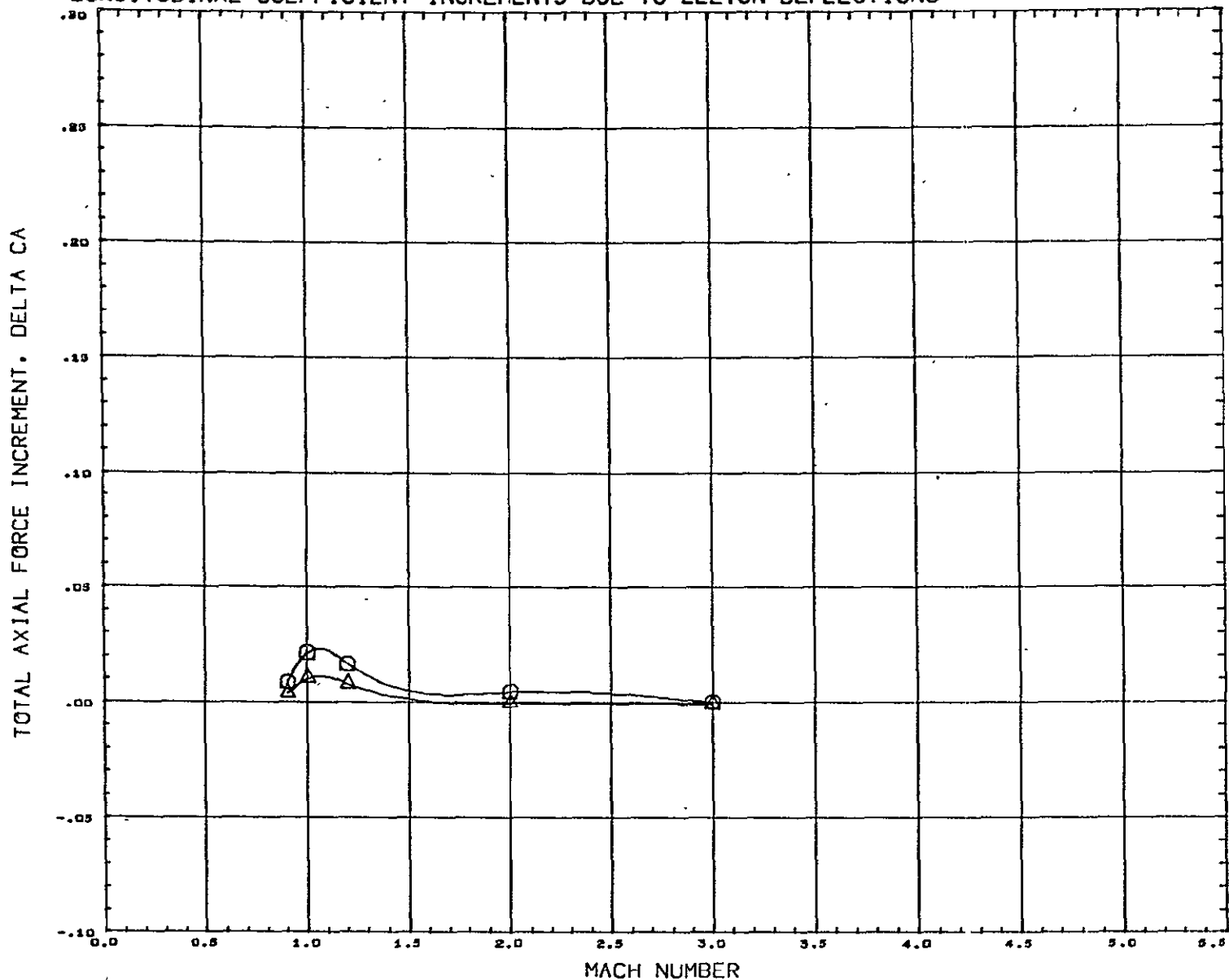


SYMBOL	ALPHA	PARAMETRIC VALUES			
∅	10.000	BETA	0.000	DEL	- 20.000
Δ	20.000	DER	- 20.000	DCL	0.000
		DCR	0.000	ELEVON	- 20.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#C

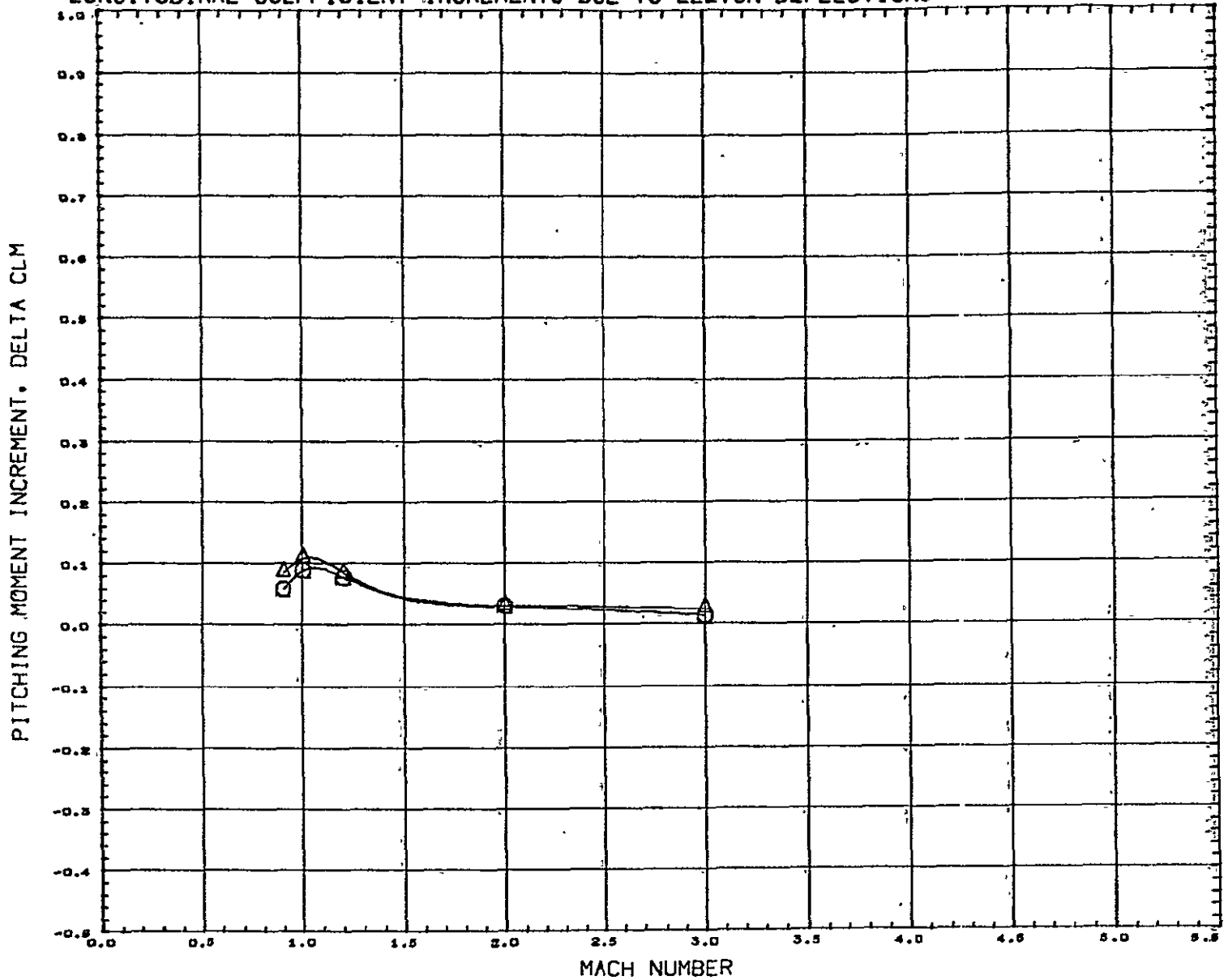
LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	-20.000
△	20.000	DER	-20.000	DCL	0.000
		DCR	0.000	ELEVON	-20.000
		CANARD	0.000	AILRON	0.000
DATA HIST. CODE		MVR9E19C			

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS

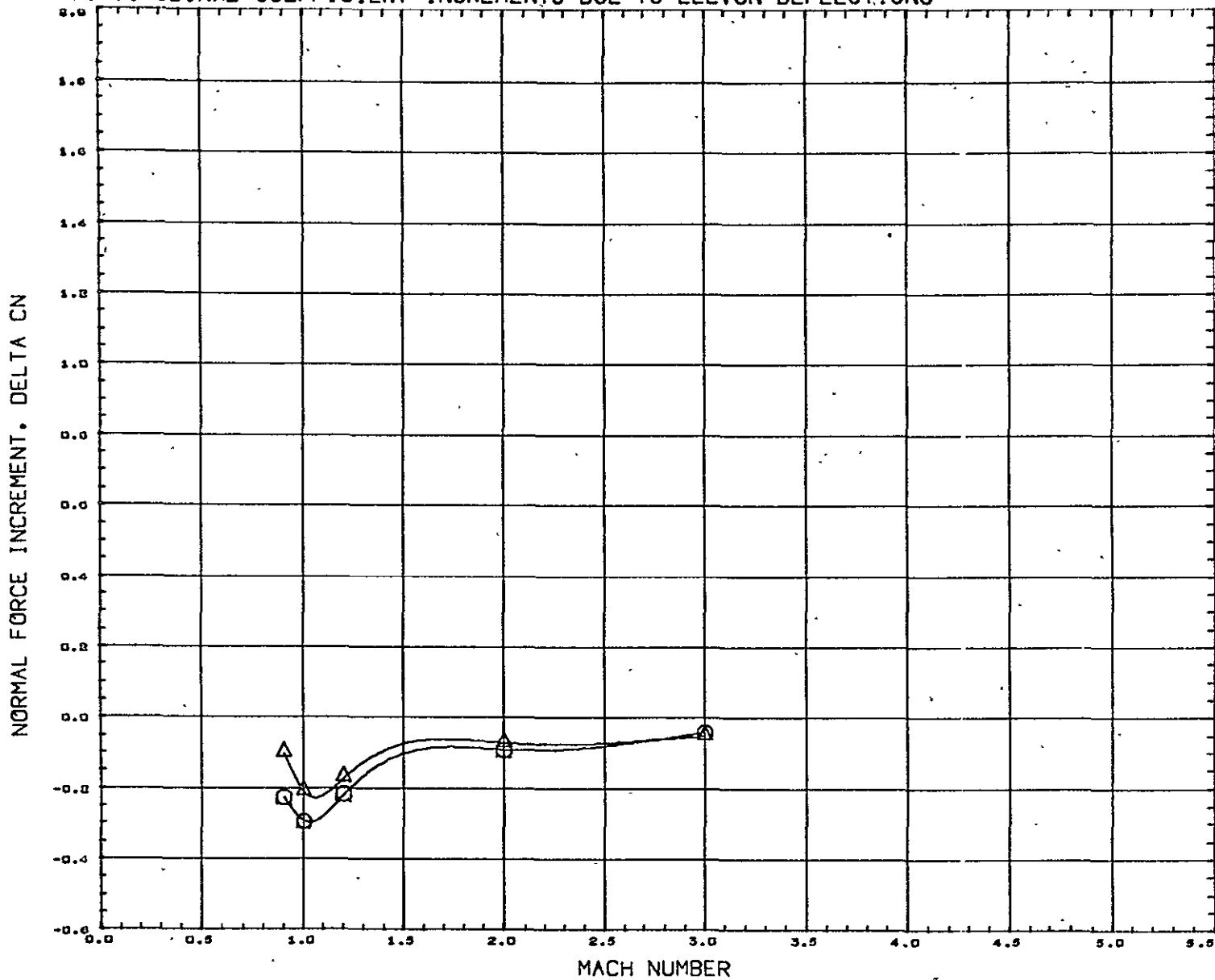


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
Δ	10.000	0.000	DEL	- 20.000
Δ	20.000	- 20.000	DCL	0.000
		0.000	ELEVON	- 20.000
		0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*E1+C

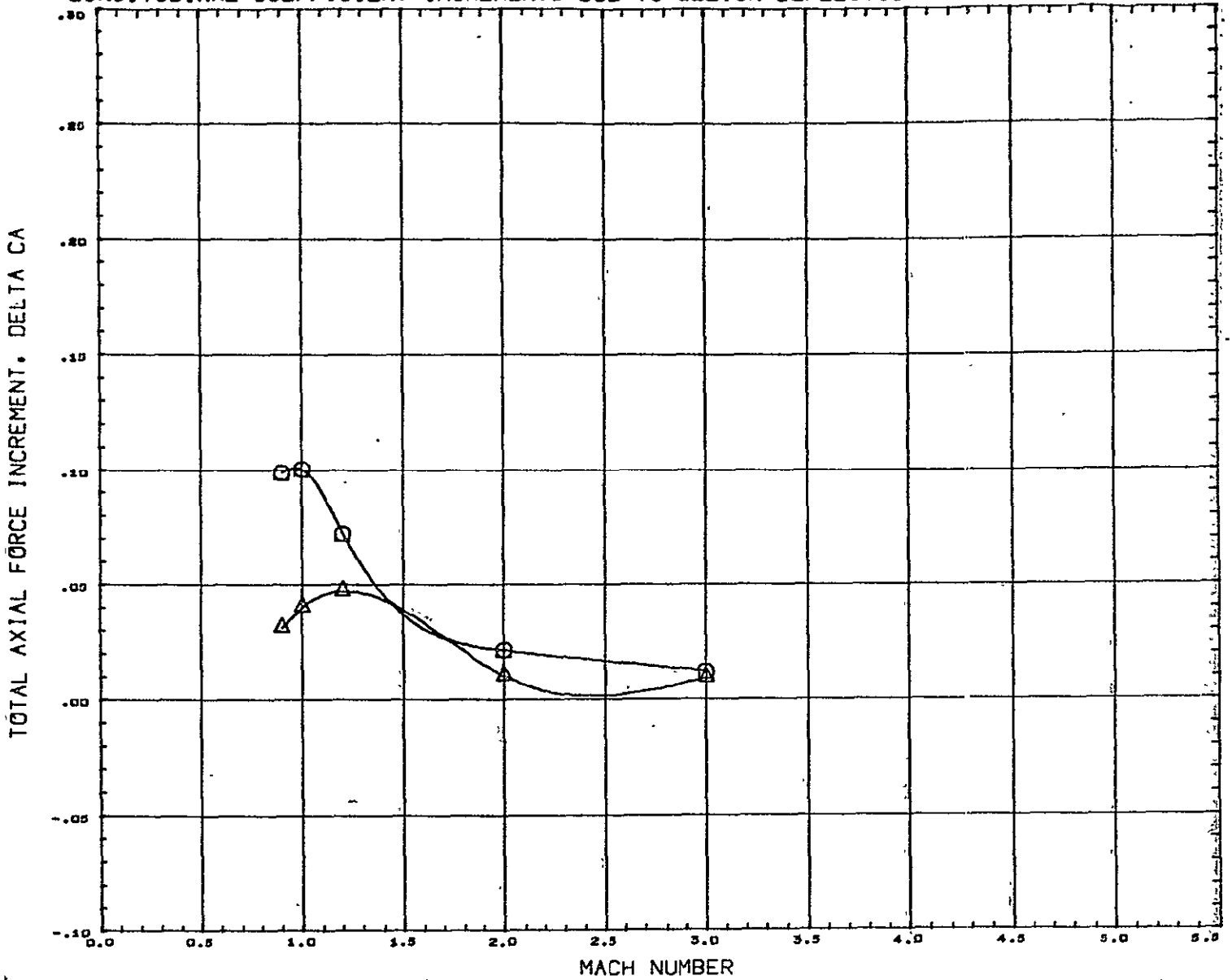
LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS



SYMBOL ○ △	ALPHA 10.000 20.000	BETA 0.000 DER - 60.000 DCR 0.000 CANARD 0.000	PARAMETRIC VALUES DEL - 60.000 DCL 0.000 ELEVON - 60.000 AILRON 0.000	REFERENCE INFORMATION SREF 13.6560 SQ. IN. LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035
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DATA HIST. CODE HVR#E1*C

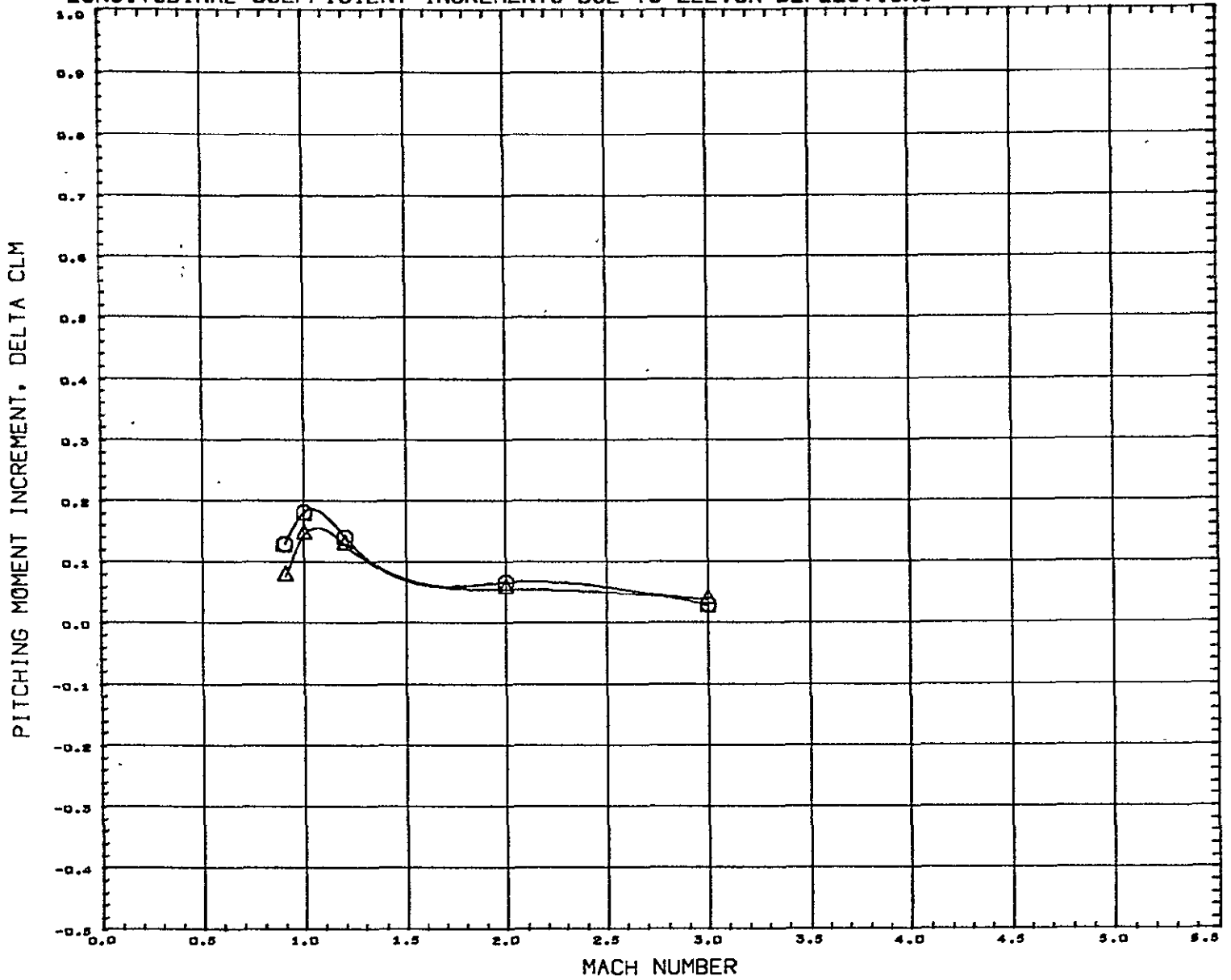
LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS.



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 60.000
△	20.000	DER	- 60.000	.DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000
DATA HIST. CODE HVR*E1*C					

REFERENCE INFORMATION		
SREF	15.6560	.30 IN.
LRFP	3.0950	IN.
BRFP	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS

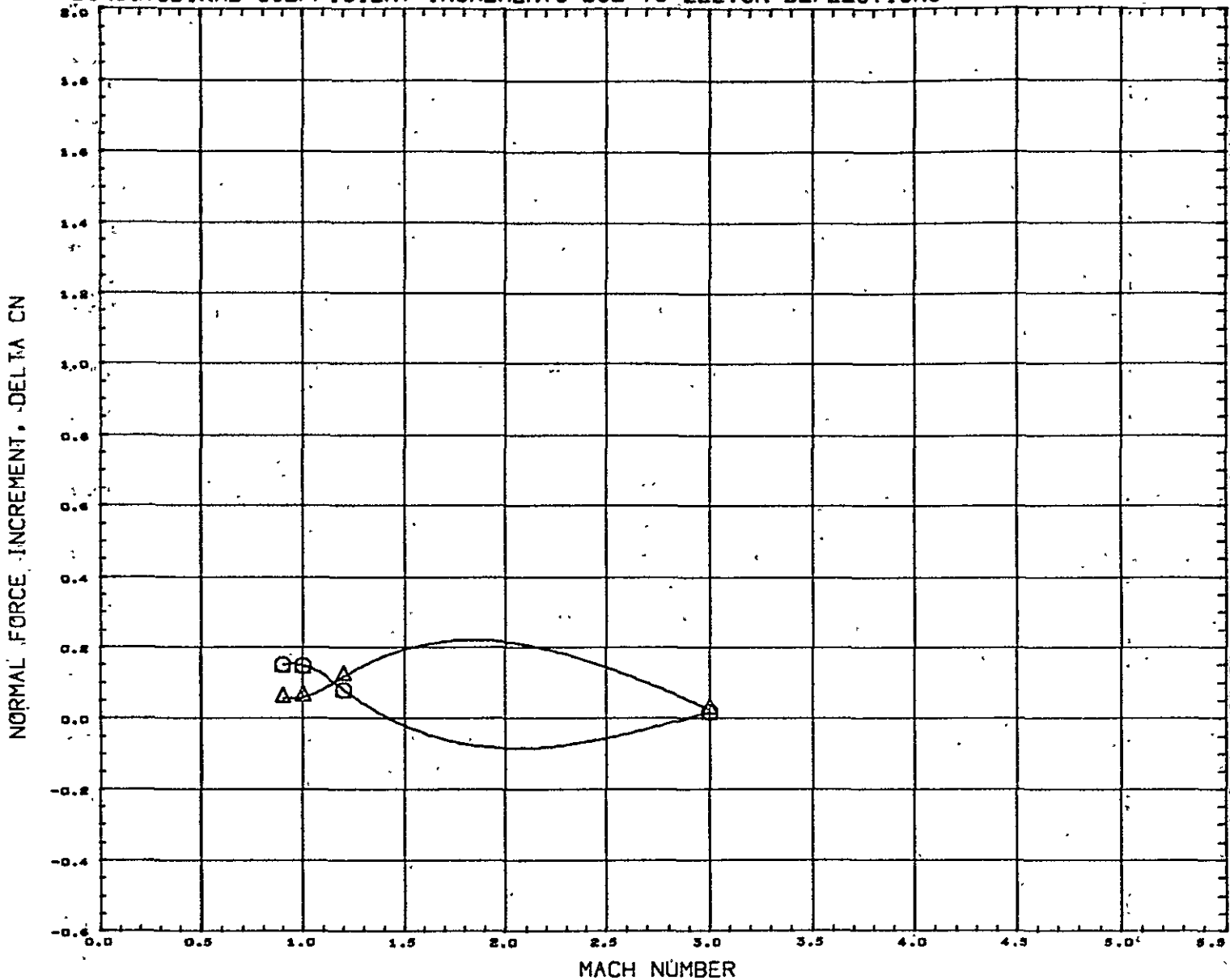


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	- 60.000
△	20.000	DER	- 60.000	DCL	0.000
		DCR	0.000	ELEVON	- 60.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI*C

LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS

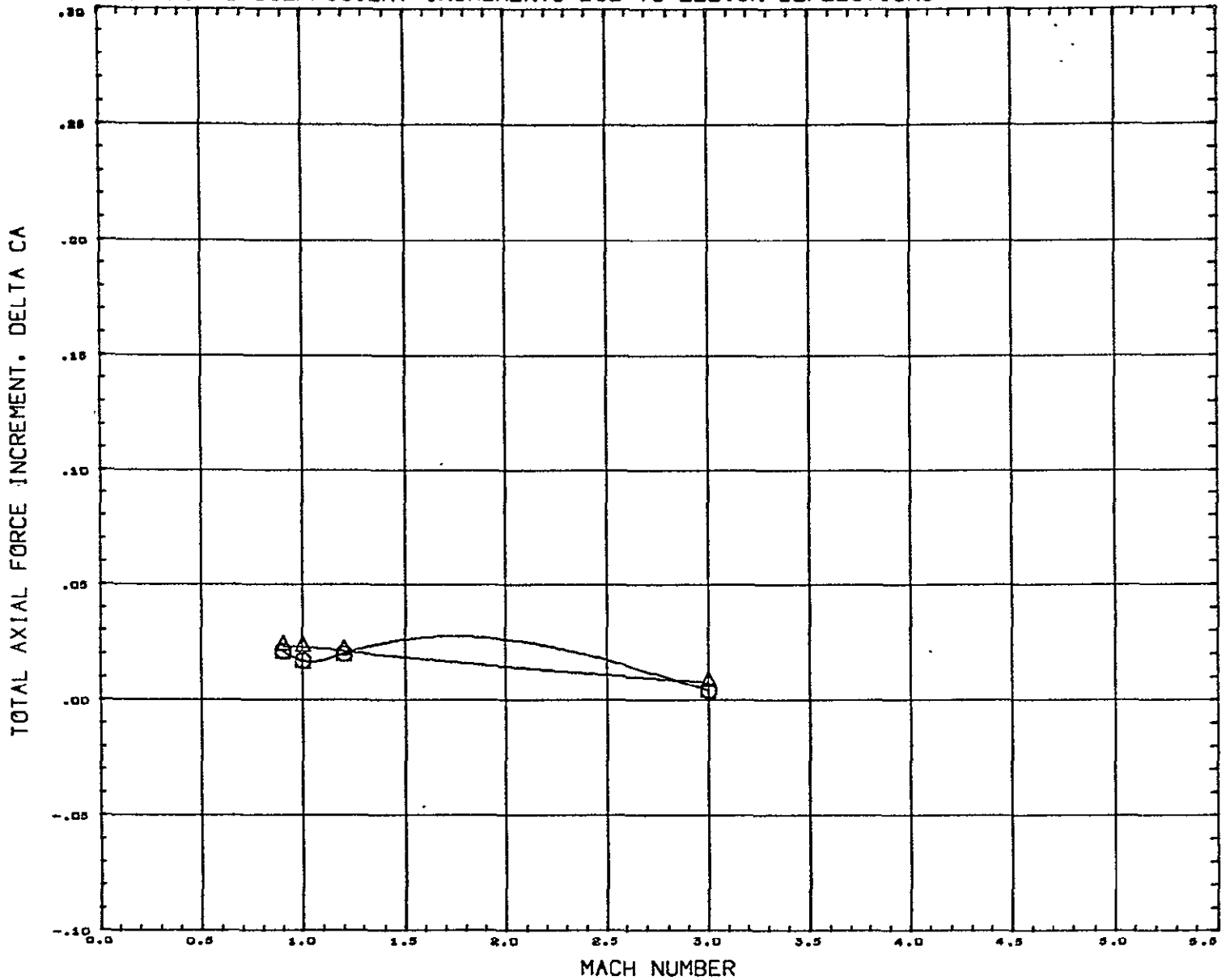


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#EI+C

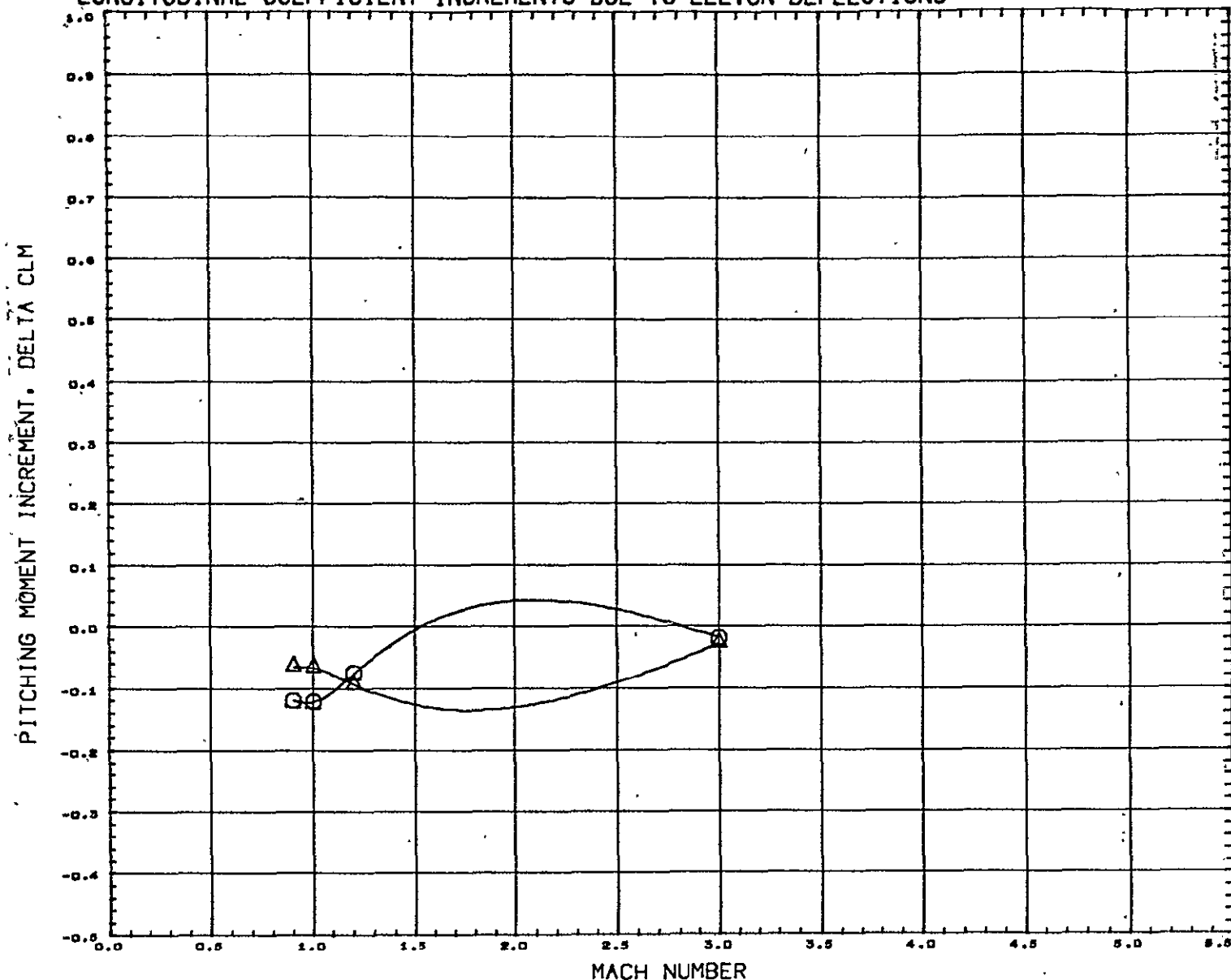
REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XNRP	6.7100	IN.
YNRP	0.0000	IN.
ZNRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	10.000	SREF	15.6560	30. IN.
△	20.000	DER	10.000	DCL	0.000	LREF	3.0950	IN.
		DCR	0.000	ELEVON	10.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#E14C					

LONGITUDINAL COEFFICIENT INCREMENTS DUE TO ELEVON DEFLECTIONS



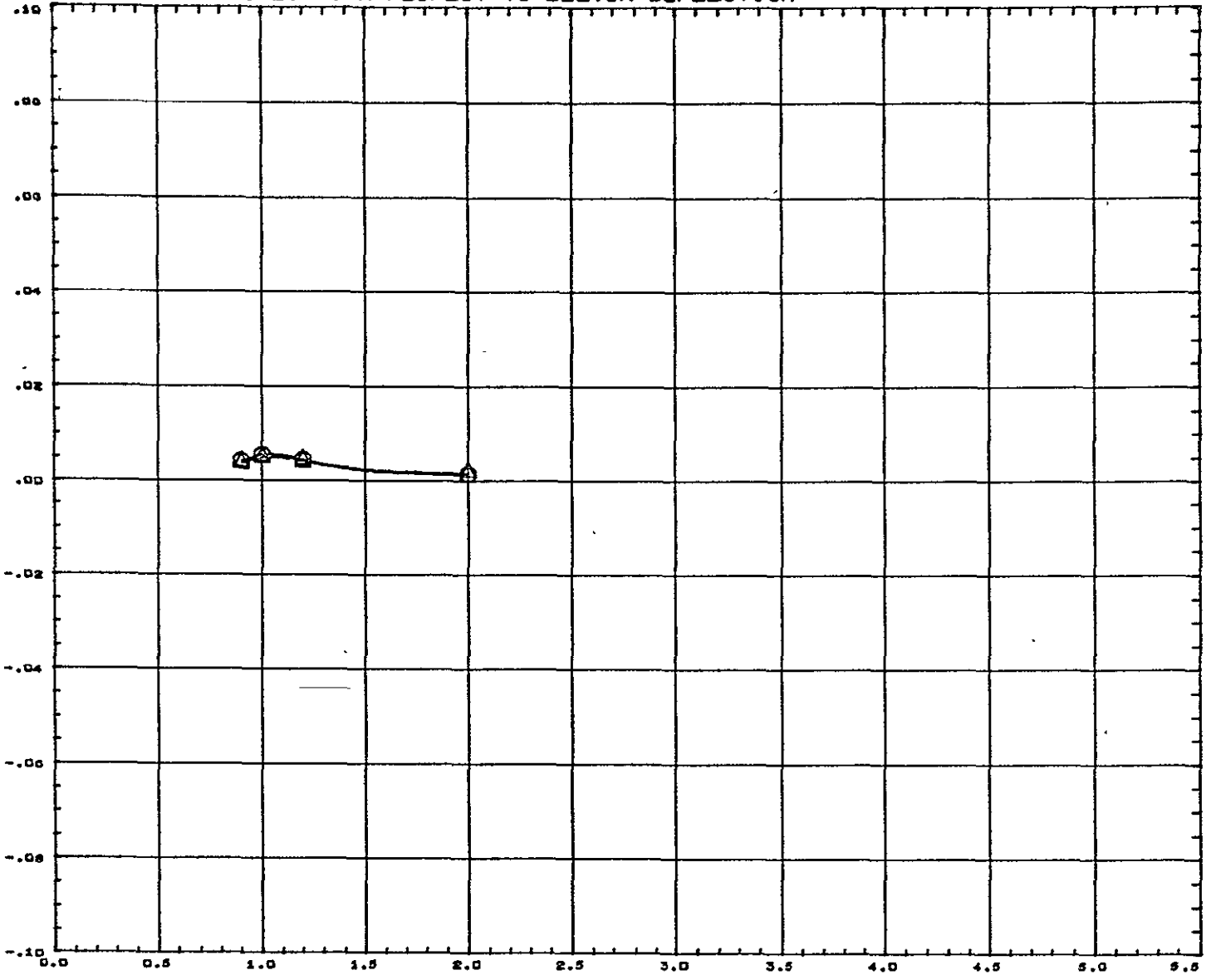
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	10.000
△	20.000	DER	10.000	DCL	0.000
		DCR	0.000	ELEVON	10.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6500	50. IN.
LREF	3.0050	IN.
BREF	0.0000	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E1+C

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

ELEVATOR NORMAL FORCE EFFECTIVENESS, DCN/ELEVATOR (DCN/DEG) PER DEG.



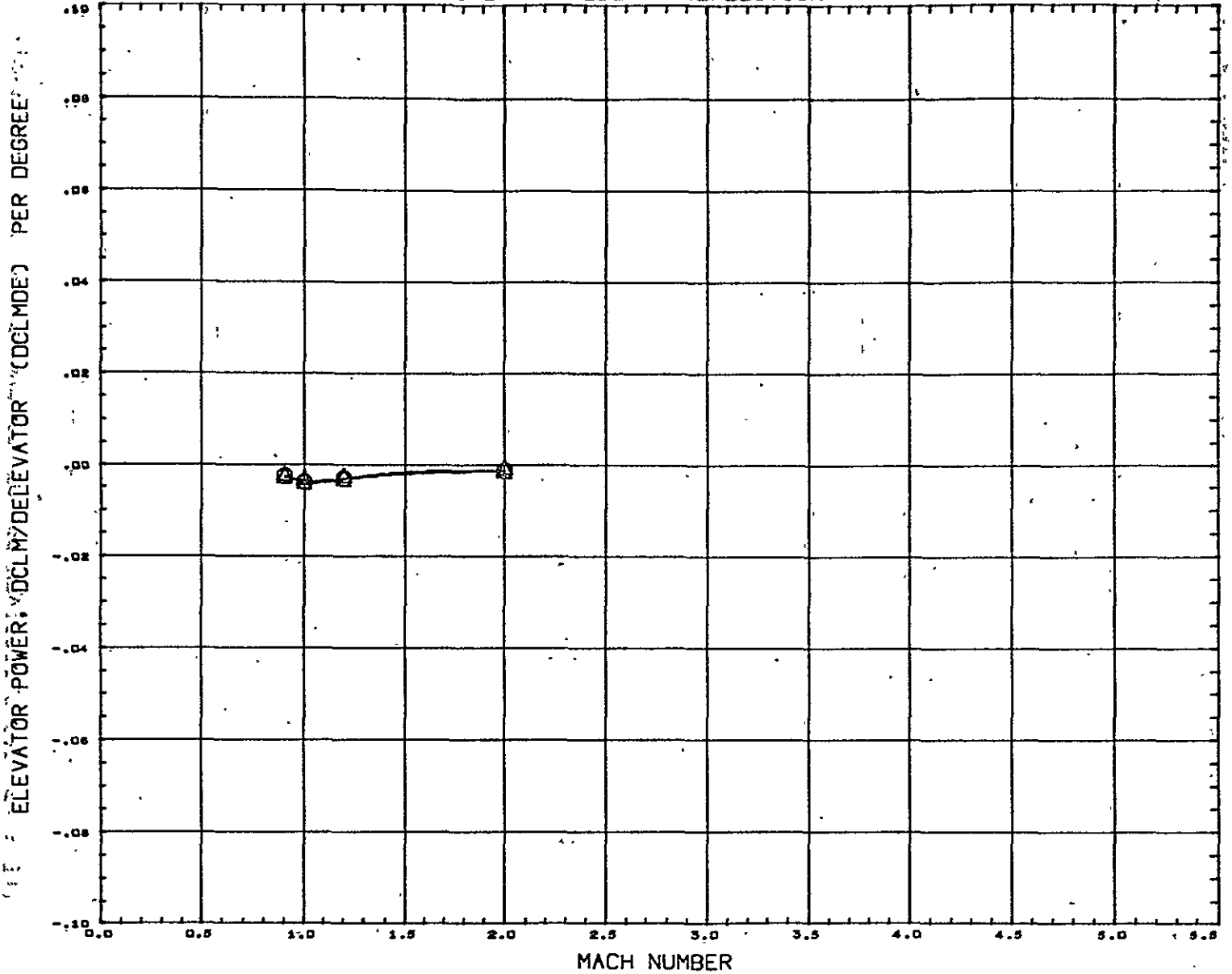
MACH NUMBER

SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DCL	0.000
△	20.000	DCR	0.000	ELEVON	- 40.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

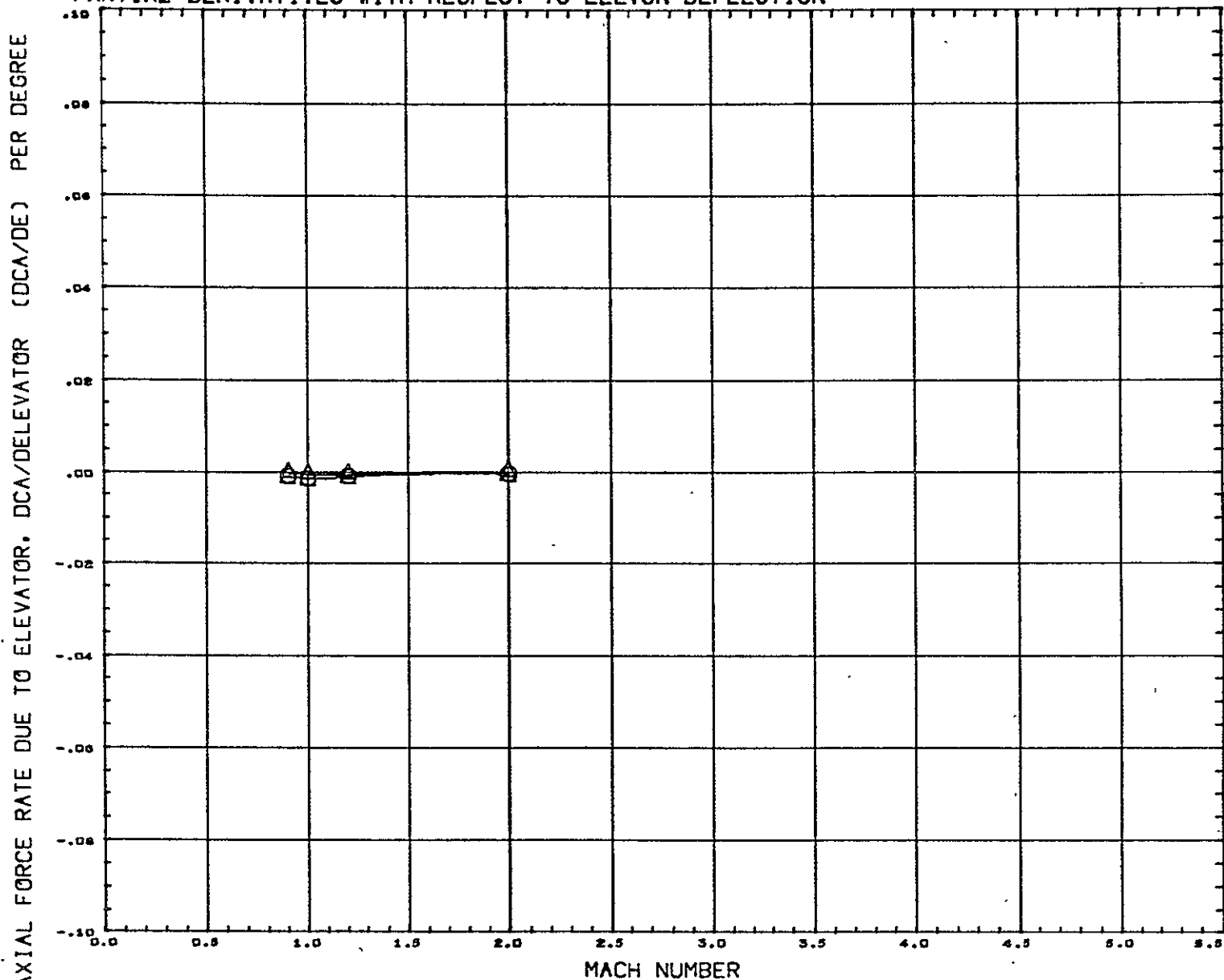


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	10.000	0.000	DCL	0.000
△	20.000	DCR	0.000	ELEVON = 40.000
		CANARD	0.000	

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI#H*P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION



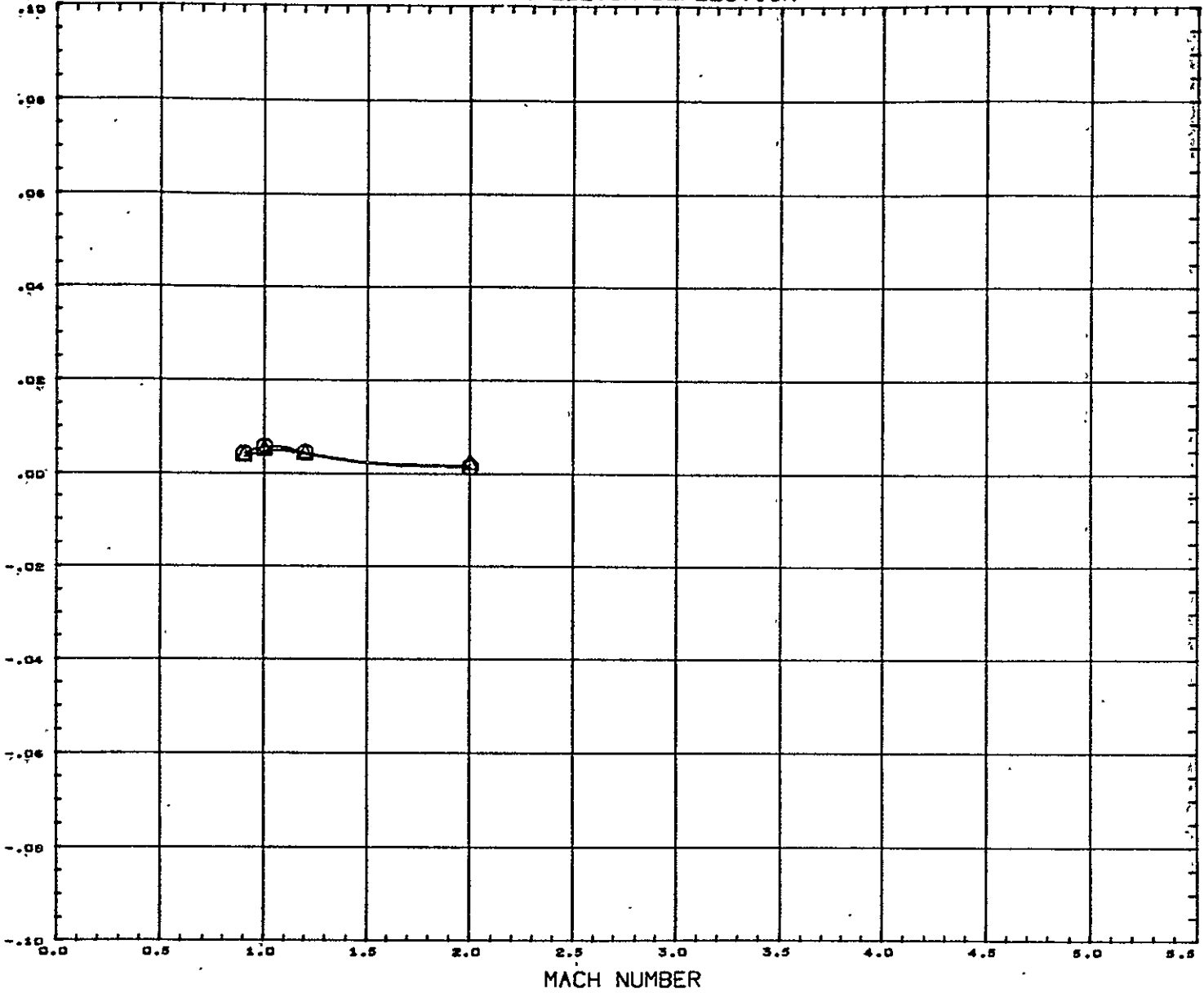
SYMBOL	ALPHA	PARAMETRIC VALUES			
△	10.000	BETA	0.000	DCL	0.000
	20.000	DCR	0.000	ELEVON	- 40.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

ELEVATOR LIFT EFFECTIVENESS: DCL/DELEVATOR (DCL/DE) PER DEGREE

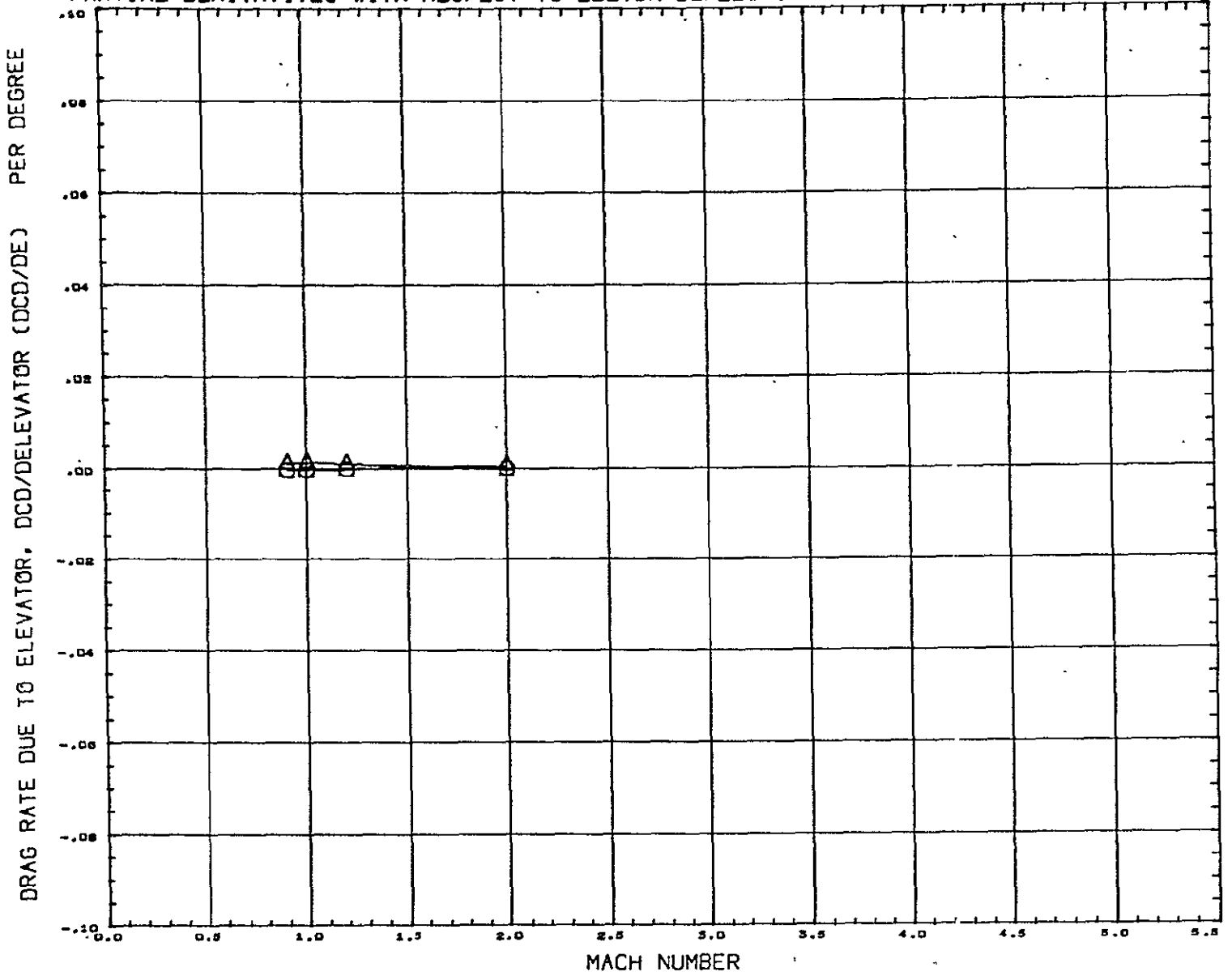


SYMBOL △	ALPHA	PARAMETRIC VALUES			
	10.000	BETA	0.000	DCL	0.000
	20.000	DCR	0.000	ELEVON	- 40.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	90. IN.
LREF	3.0930	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI#HWP

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION



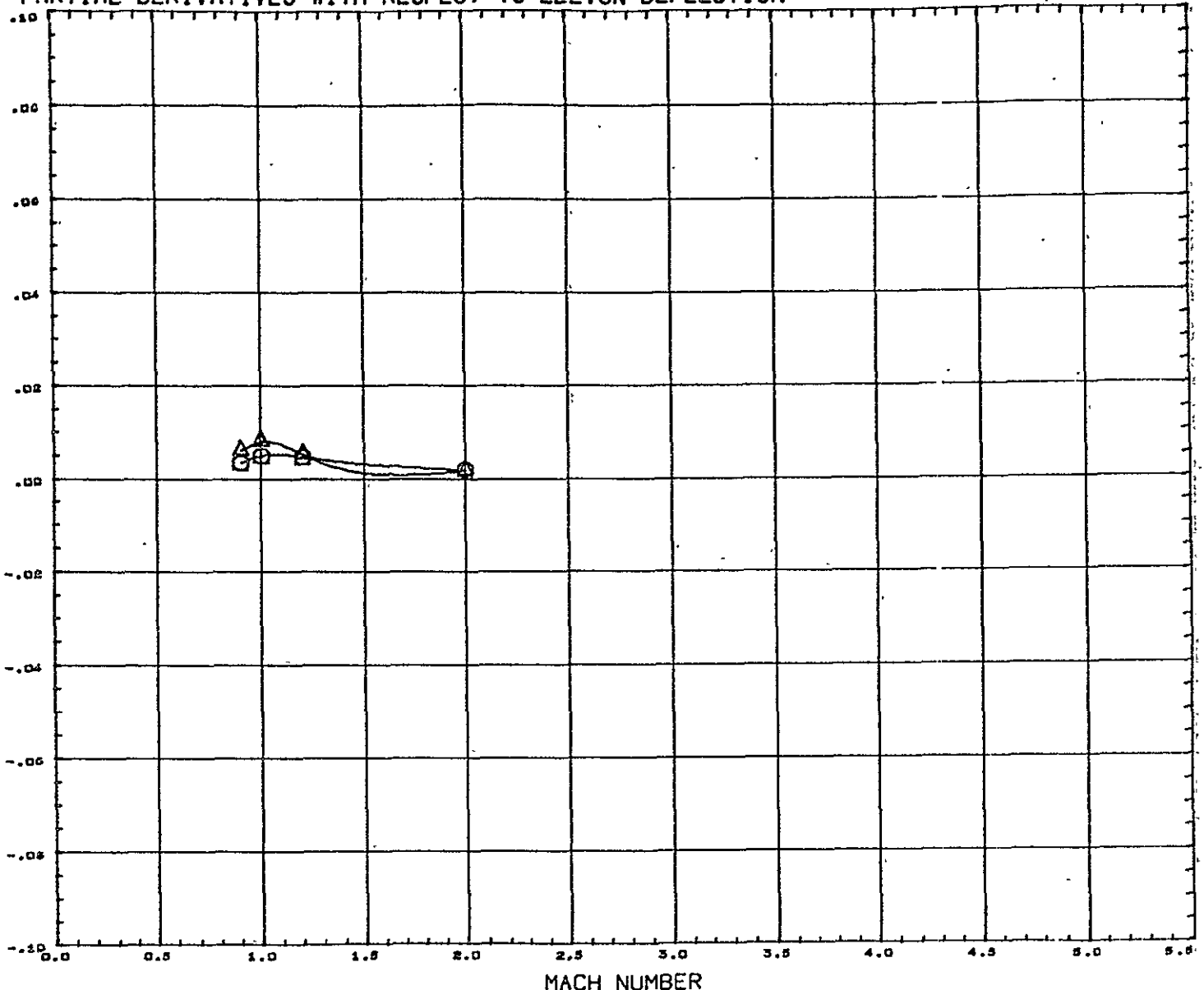
SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	10.000		0.000	DCL 0.000
△	20.000	DCR 0.000	0.000	ELEVON - 40.000
		CANARD	0.000	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
ZMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVRWEI#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

ELEVATOR NORMAL FORCE EFFECTIVENESS, DCN/ELEVATOR (DCN/DEG) PER DEG.

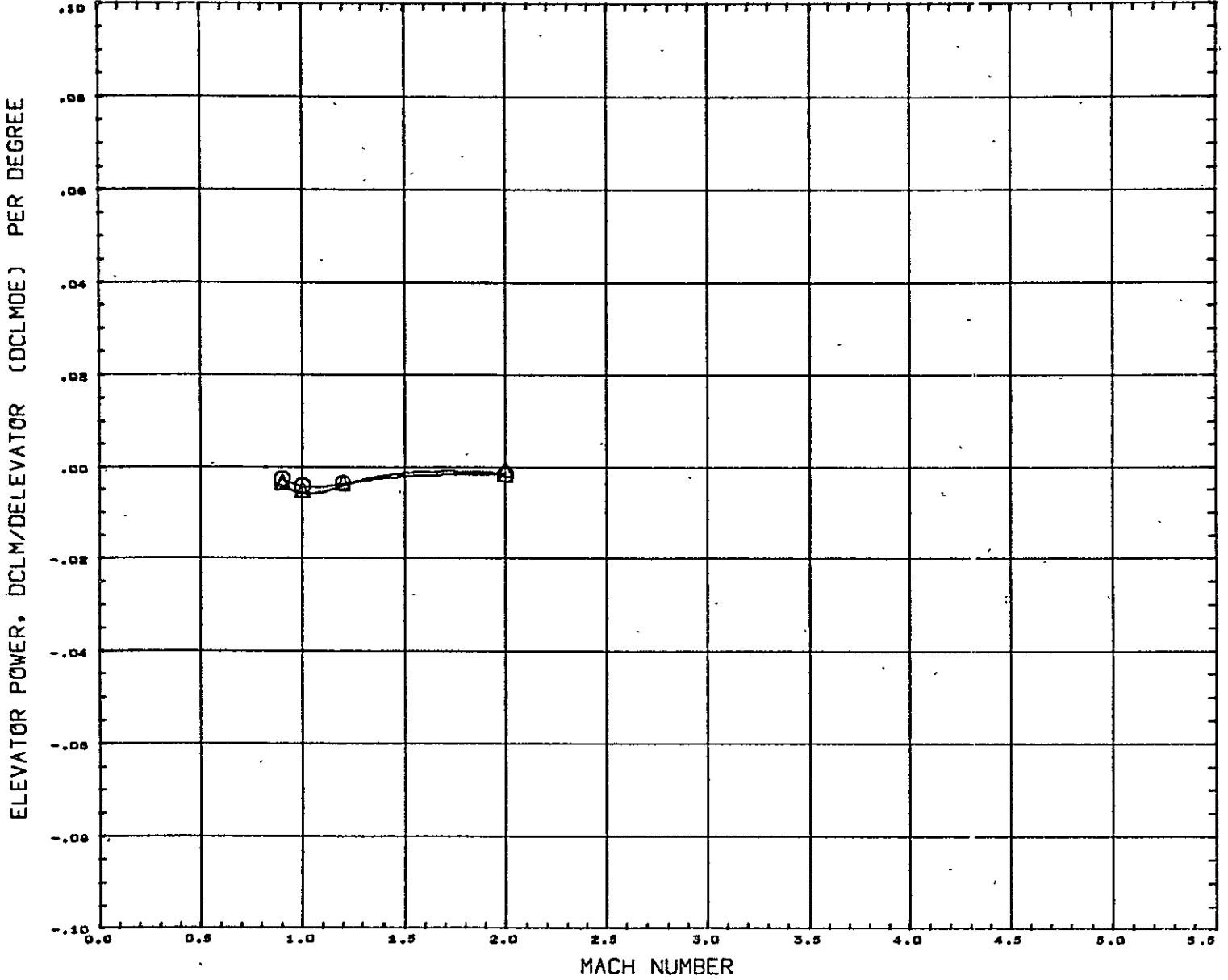


SYMBOL ALPHA PARAMETRIC VALUES
 10.000 BETA 0.000 DCL 0.000
 20.000 DCR 0.000 ELEVON - 15.000
 CANARD 0.000

REFERENCE INFORMATION
 SRCF 15.6560 30.IN.
 LRCF 3.0950 IN.
 BRCP 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

DATA HIST. CODE MVR#E1*H*P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION



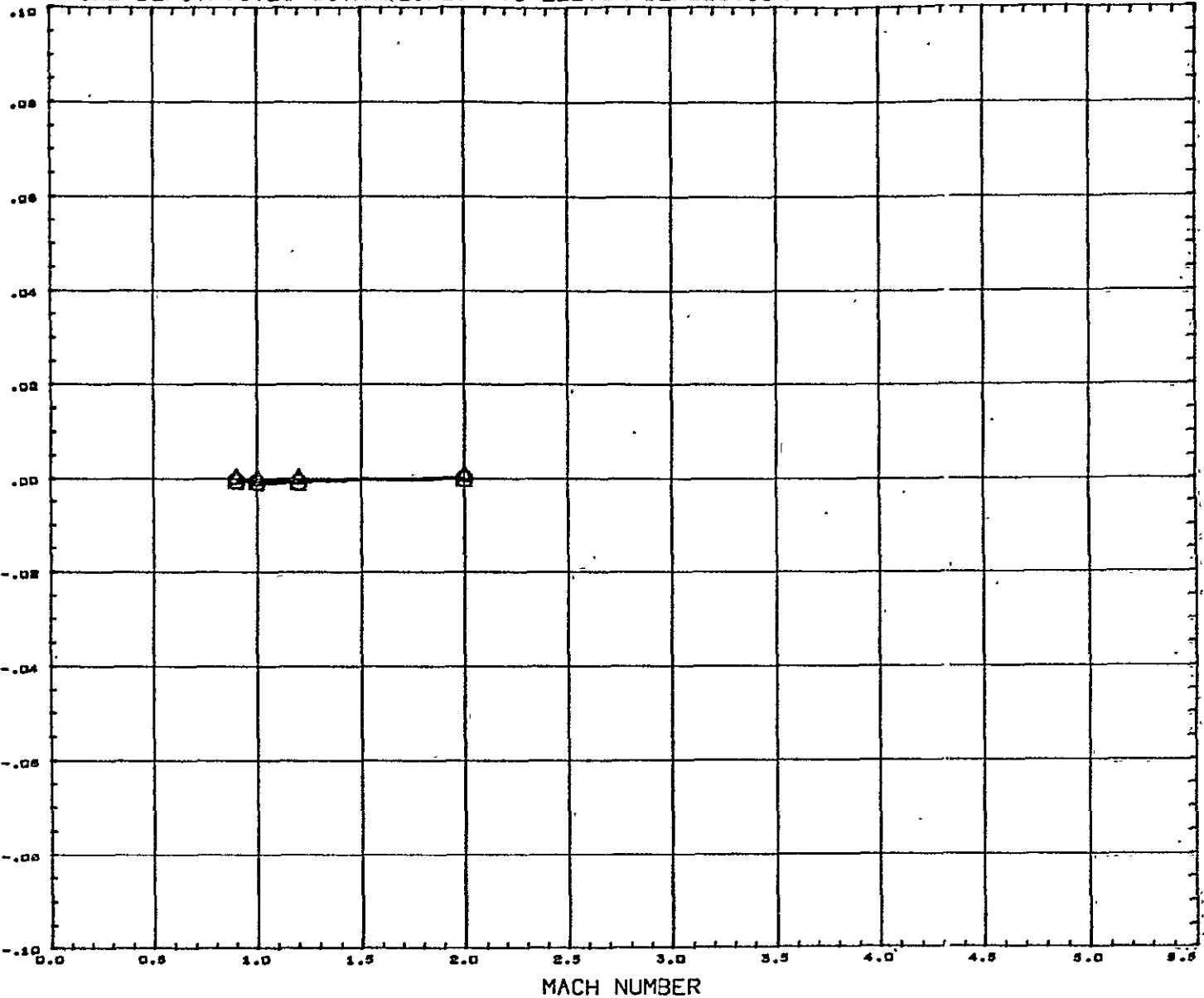
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DCL	0.000
△	20.000	DCR	0.000	ELEVON	- 15.000
		CANARD	0.000		

REFERENCE INFORMATION		
SRFP	15.6560	30. IN.
LRF	3.0950	IN.
ORF	6.0990	IN.
XMHP	6.7100	IN.
YMHP	0.0000	IN.
ZMHP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

AXIAL FORCE RATE DUE TO ELEVATOR, DCA/ELEVATOR (DCA/DE) PER DEGREE

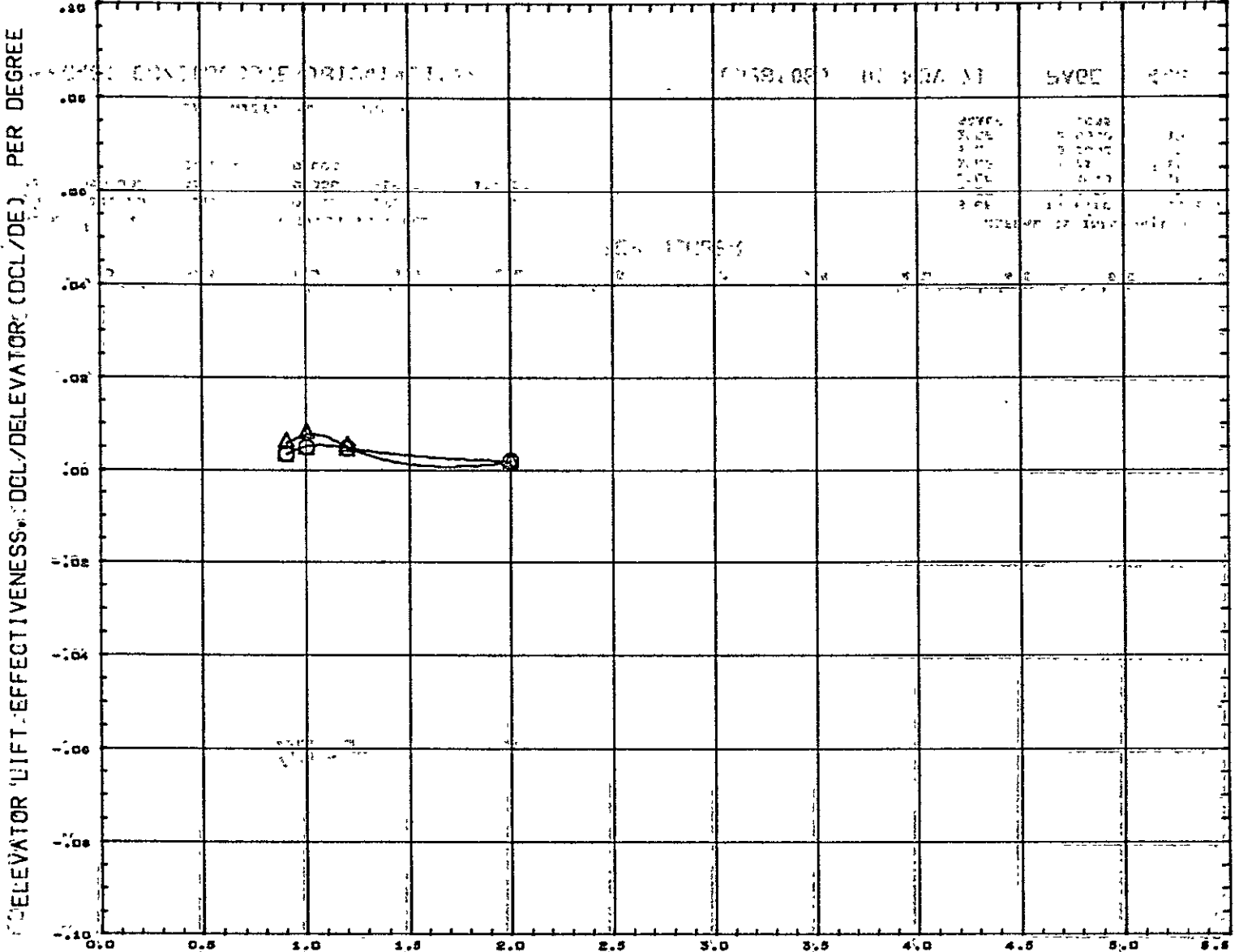


SYMBOL ALPHA PARAMETRIC VALUES
 D 10.000 BETA 0.000 DCL 0.000
 20.000 DCR 0.000 ELEVON - 15.000
 CANARD 0.000

REFERENCE INFORMATION
 SREF 15.6560 30. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XHFP 6.7100 IN.
 YHFP 0.0000 IN.
 ZHFP 0.0000 IN.
 SCALE 0.0035

DATA HIST. CODE MVR#E1#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

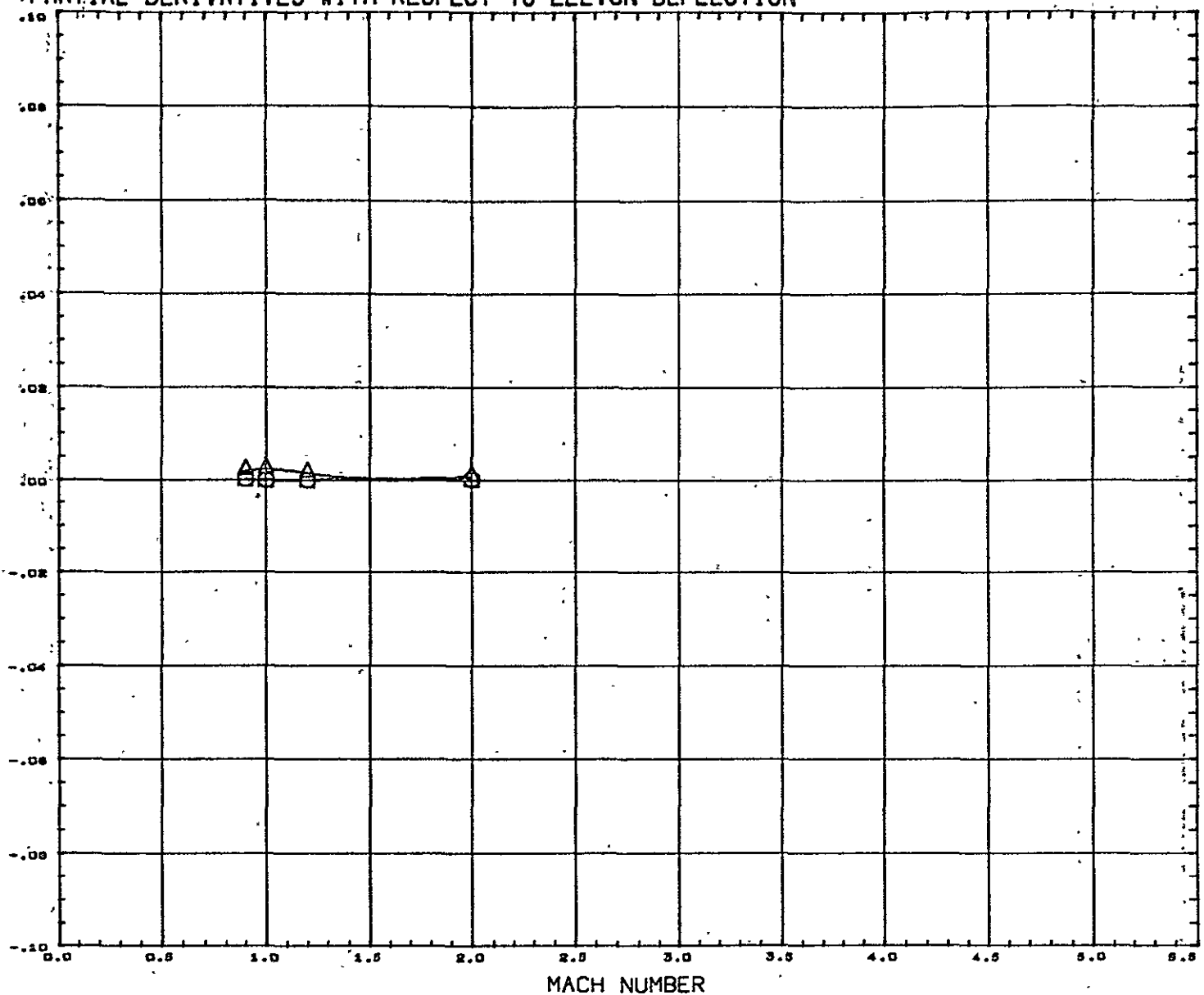


SYMBOL Δ
 ALPHA 10.000
 BETA 20.000
 DCR
 CANARD
 PARAMETRIC VALUES
 DCL 0.000
 ELEVON 15.000
 CANARD 0.000
 DATA HIST. CODE MVR#E1#H#P

REFERENCE INFORMATION
 SREF 15.6560 30. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

DRAG RATE DUE TO ELEVATOR (DCD/DE) PER DEGREE



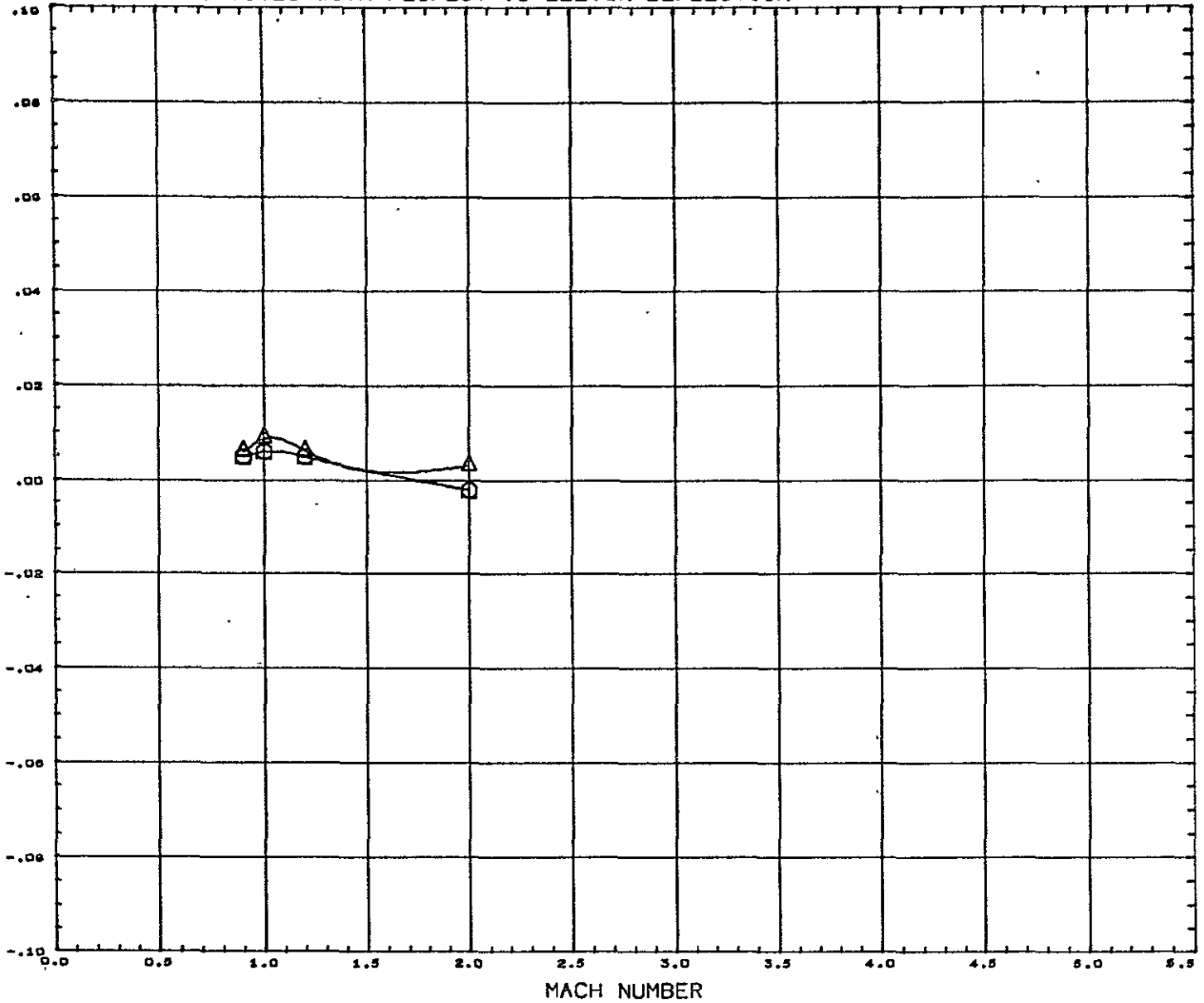
SYMBOL	ALPHA	PARAMETRIC VALUES			
Δ	10.000	BETA	0.000	DCL	0.000
	20.000	DCR	0.000	ELEVON	- 15.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

ELEVATOR NORMAL FORCE EFFECTIVENESS, DCN/DELEVATOR (DCN/DEG) PER DEG.

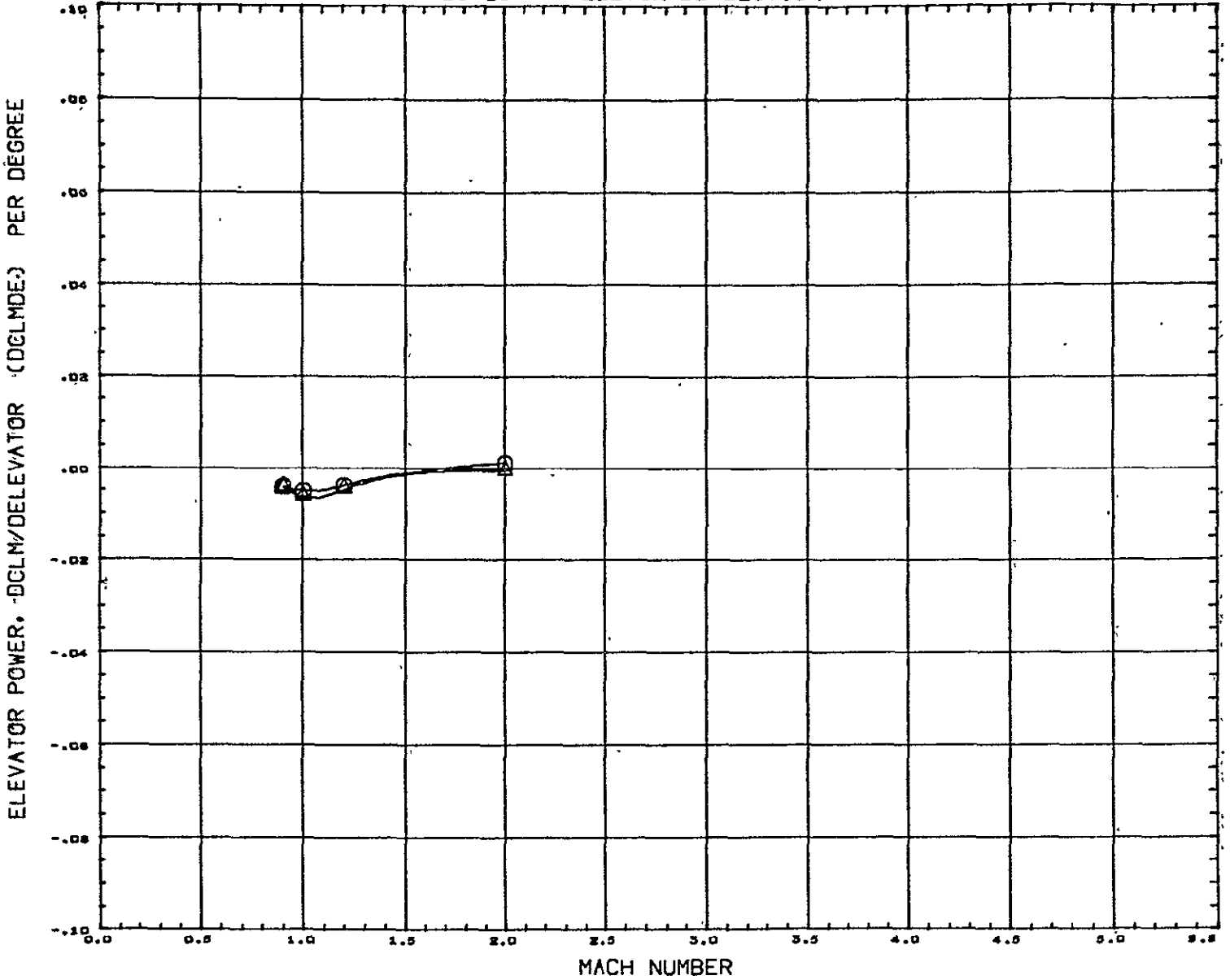


SYMBOL	ALPHA	PARAMETRIC VALUES			
△	10.000	BETA	0.000	DCL	0.000
□	20.000	DCR	0.000	ELEVON	- 5.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION



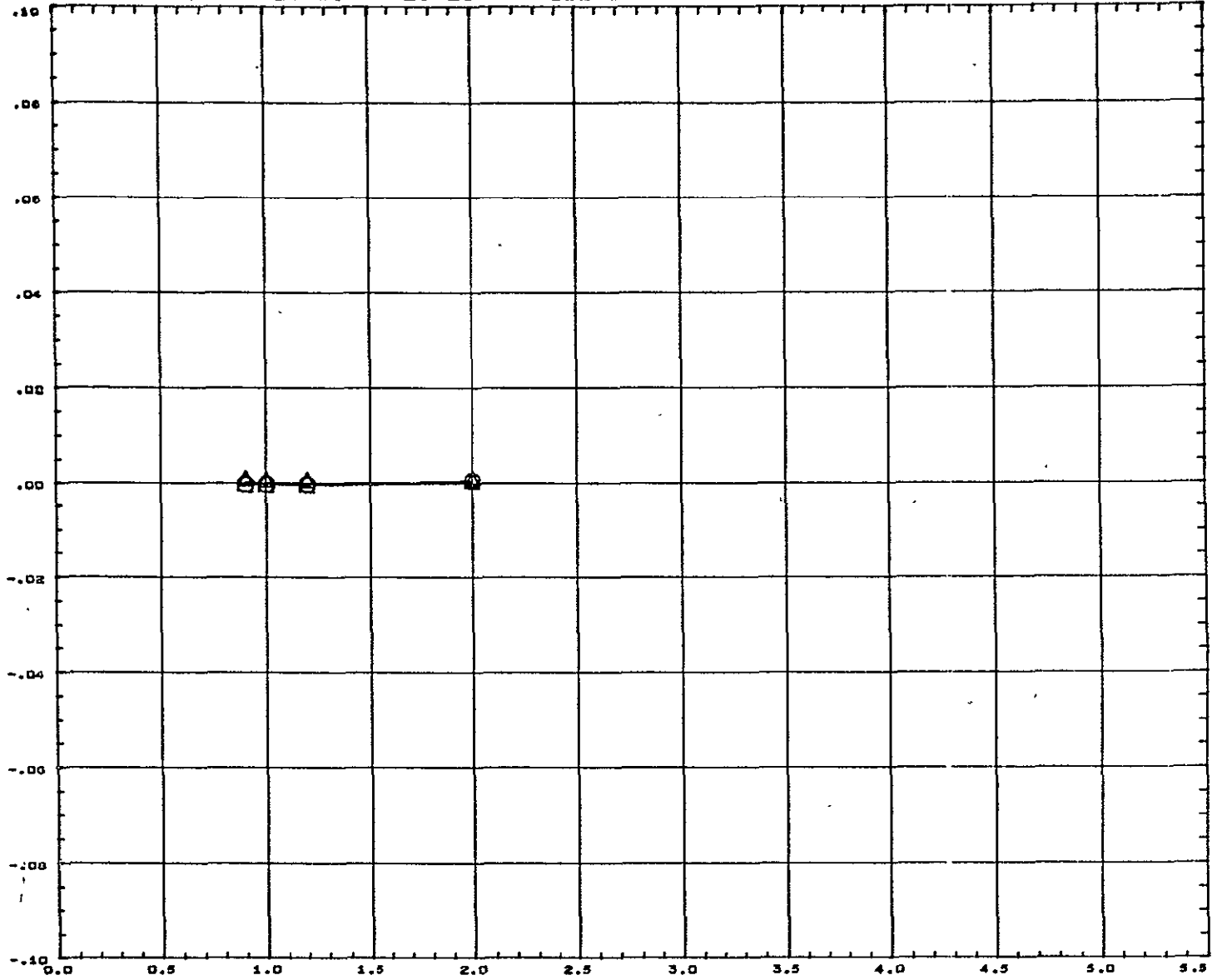
SYMBOL	ALPHA	PARAMETRIC VALUES
○	10.000	BETA 0.000 DCL 0.000
△	20.000	DCR 0.000 ELEVON - 5.000
		CANARD 0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E14H#F

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

AXIAL FORCE RATE DUE TO ELEVATOR, DCA/ELEVATOR (DCA/DE) PER DEGREE



MACH NUMBER

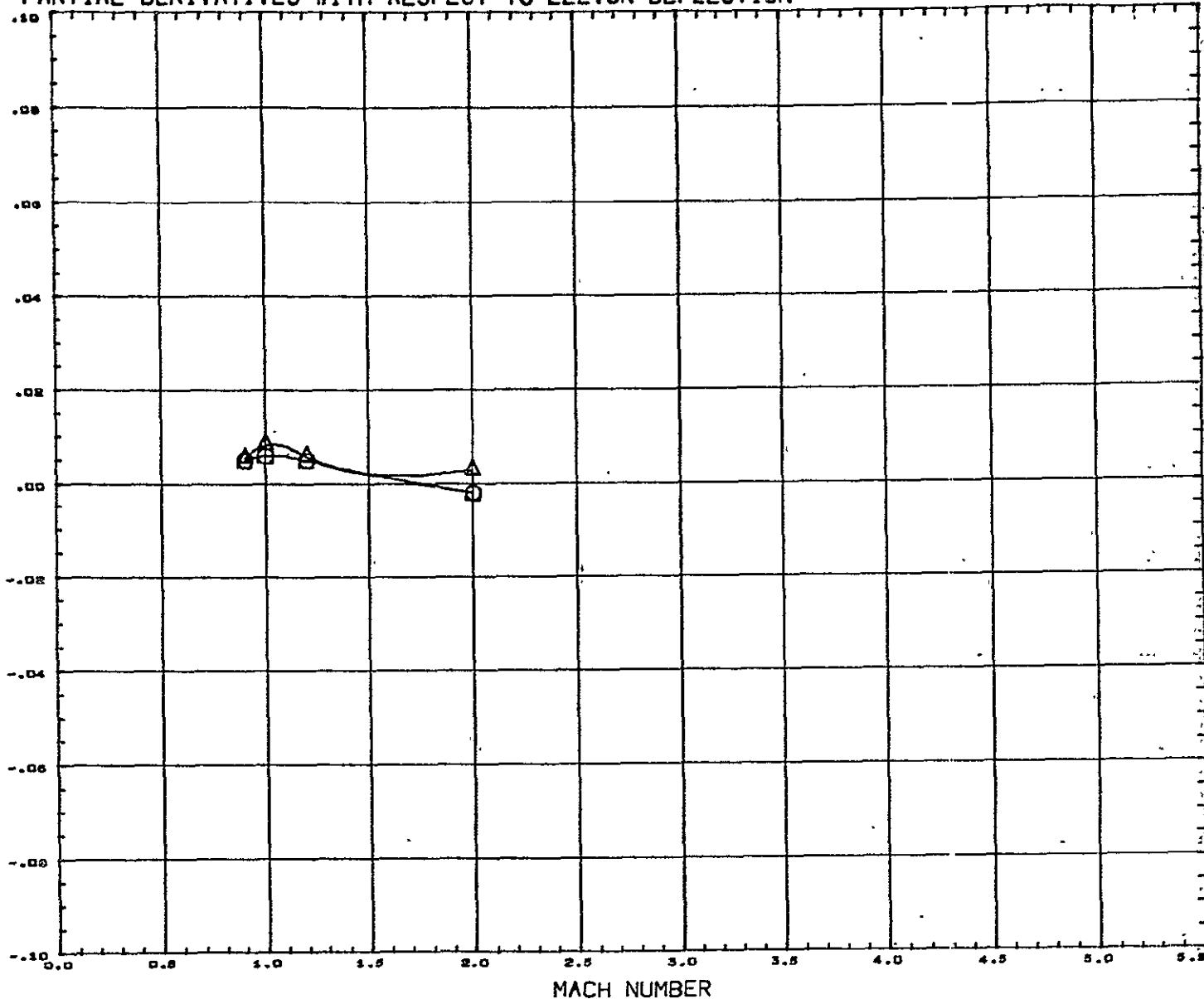
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DCL	0.000
△	20.000	DCR	0.000	ELEVON	- 5.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0960	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

ELEVATOR LIFT EFFECTIVENESS, DCL/DELEVATOR (DCL/DE) PER DEGREE

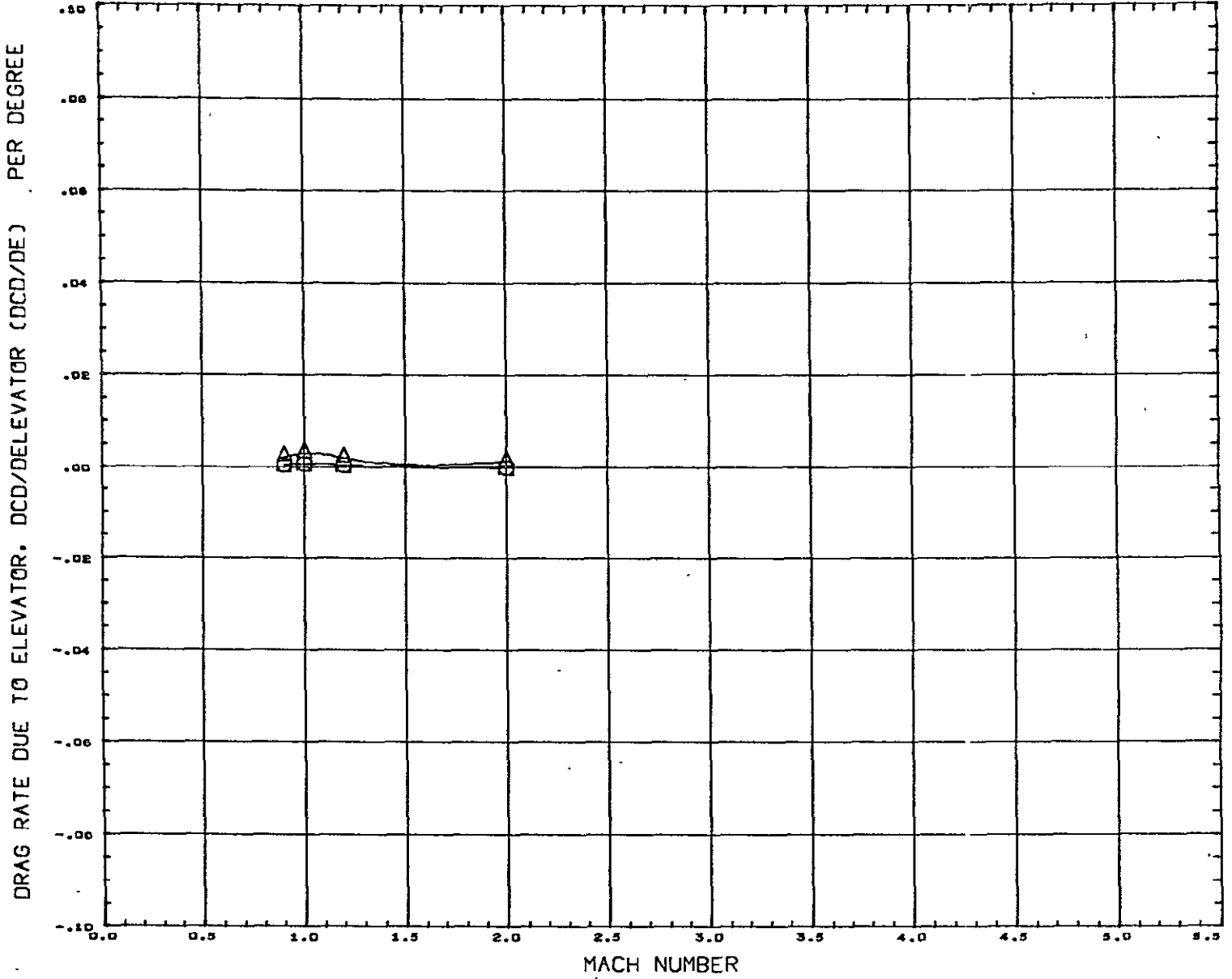


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DCL	0.000
△	20.000	DCR	0.000	ELEVON	- 5.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.0560	39. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI*H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION



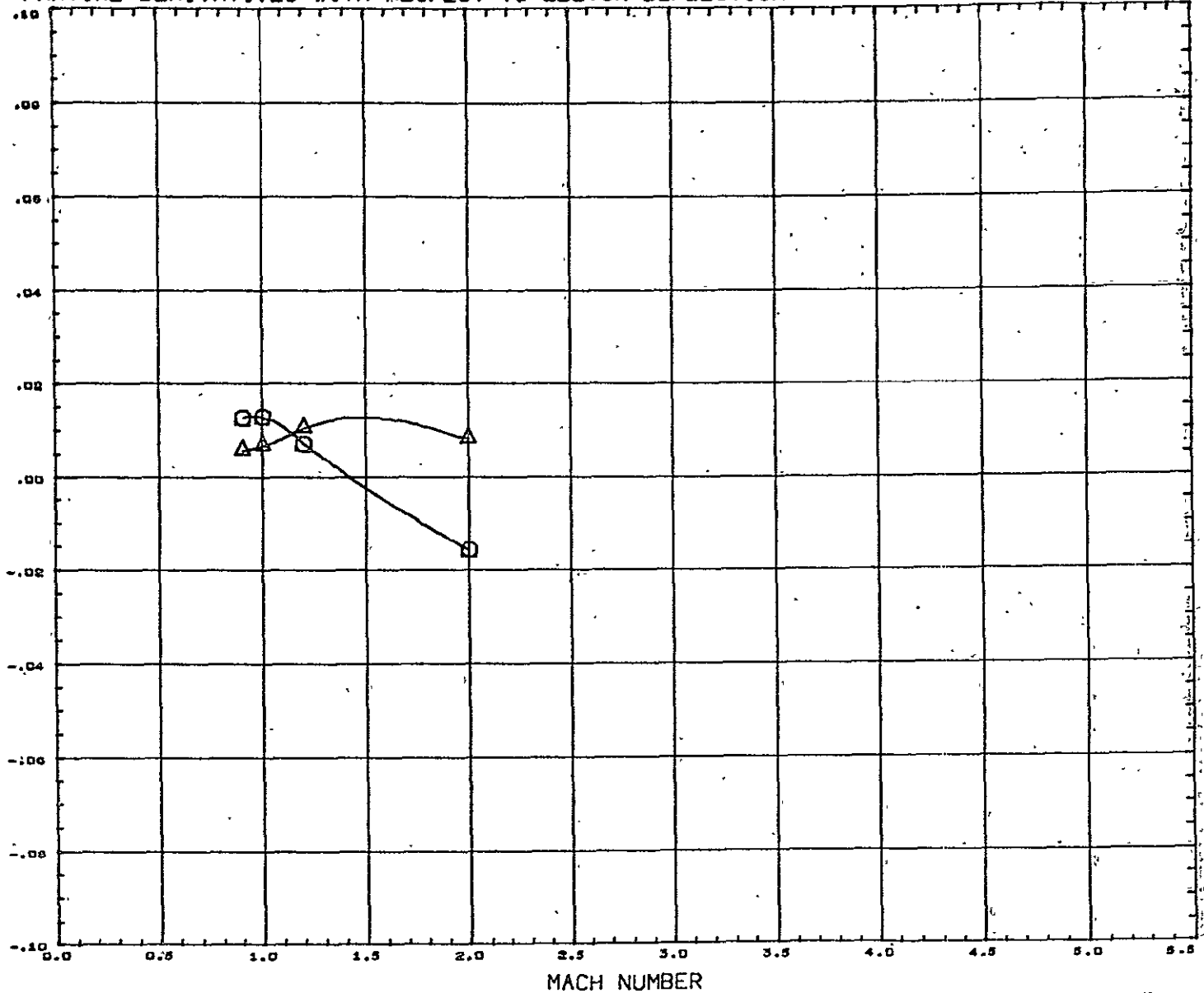
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DCL	0.000
△	20.000	DCR	0.000	ELEVON	- 5.000
		CANARD	0.000		

REFERENCE INFORMATION		
SHEF	15.6560	SQ. IN.
LHEF	3.0050	IN.
BHEF	6.0000	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

ELEVATOR NORMAL FORCE EFFECTIVENESS, DCN/ELEVATOR (DCN/DEG) PER DEG.

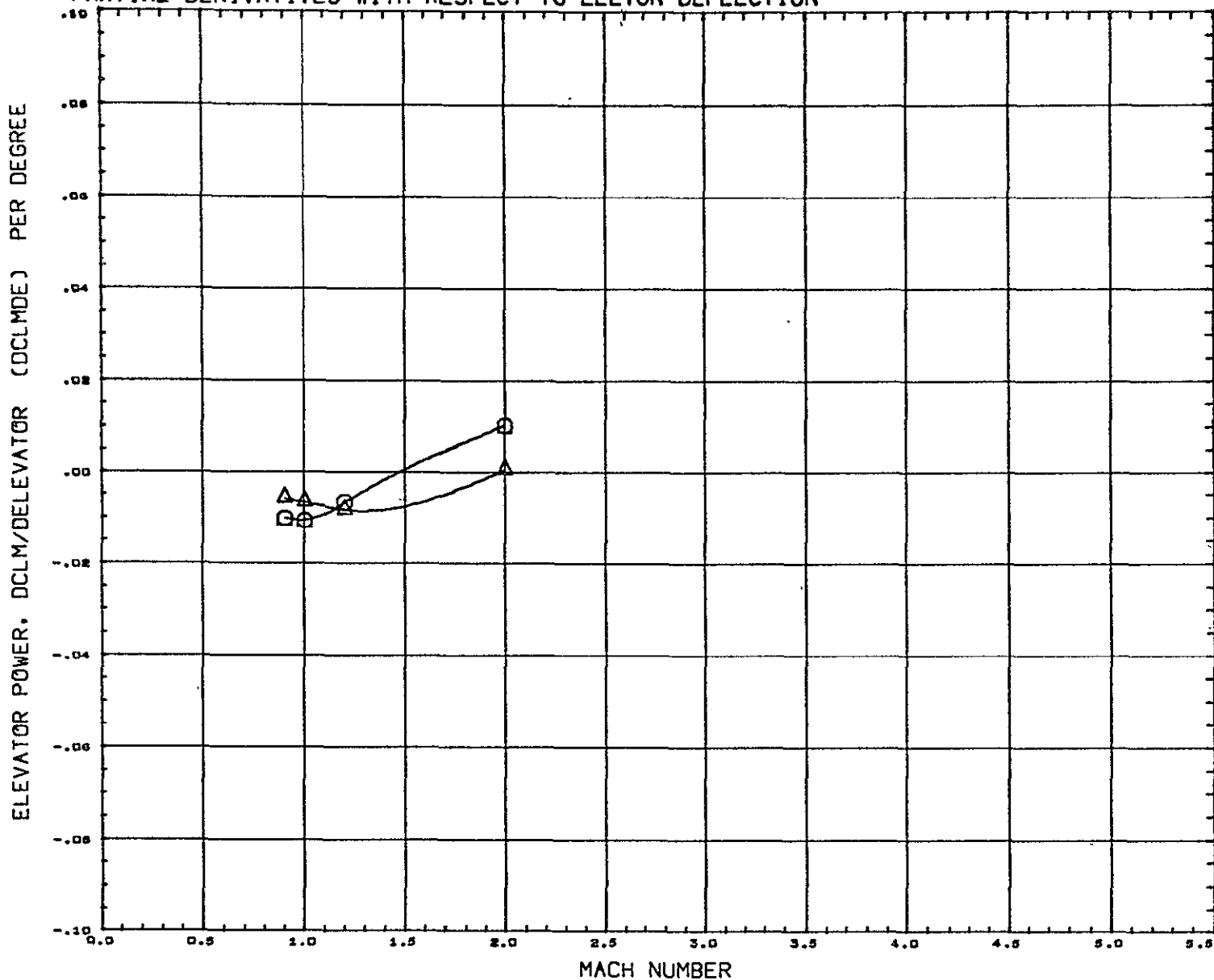


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
△	10.000		0.000	DCL	0.000
	20.000	DCR	0.000	ELEVON	5.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0950	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION



SYMBOL	PARAMETRIC VALUES	
	ALPHA	BETA
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△	20.000	0.000

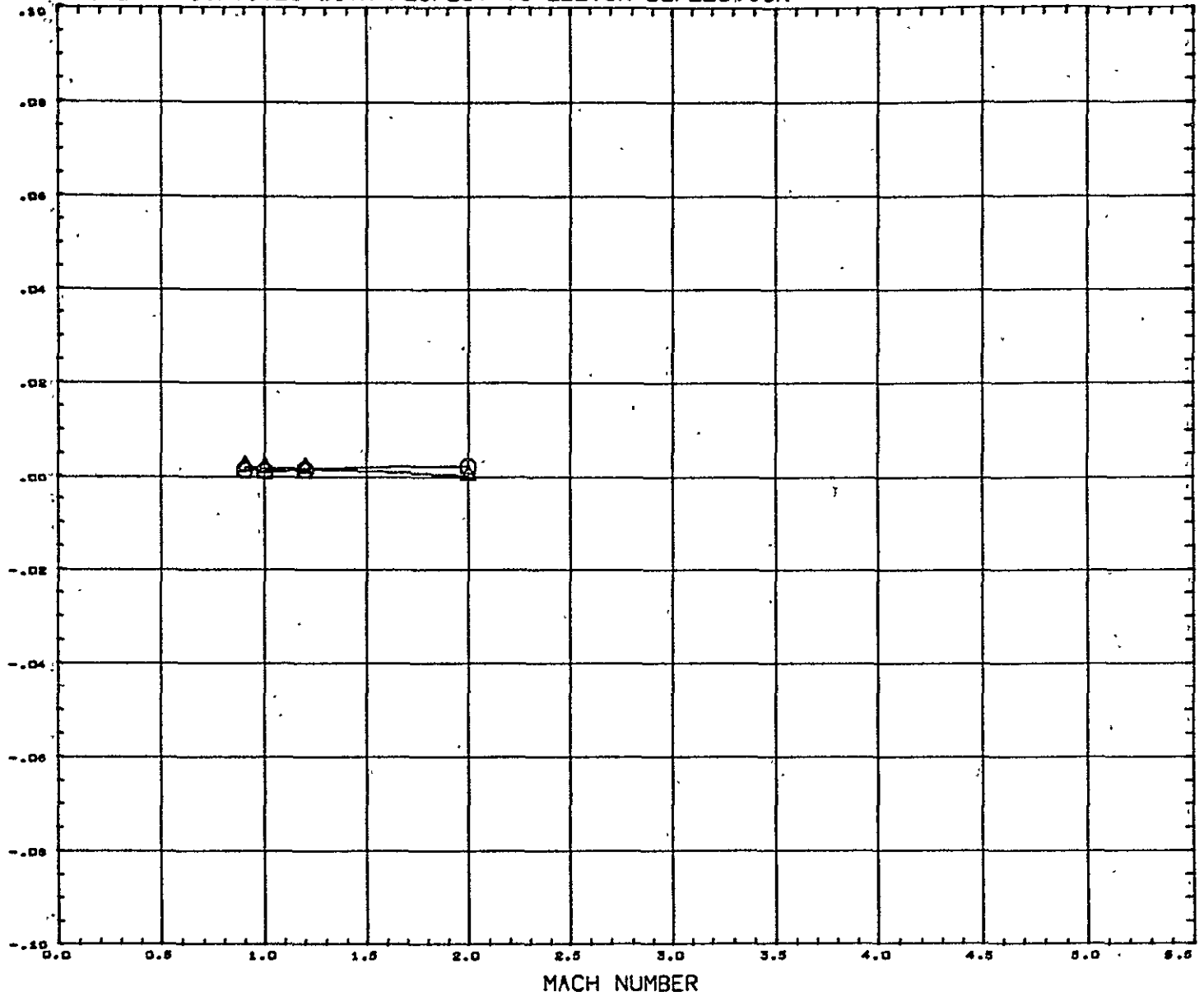
PARAMETRIC VALUES			
DCL	ELEVON	DCR	CANARD
0.000	5.000	0.000	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

AXIAL FORCE RATE DUE TO ELEVATOR, DCA/ELEVATOR (DCA/DE) PER DEGREE

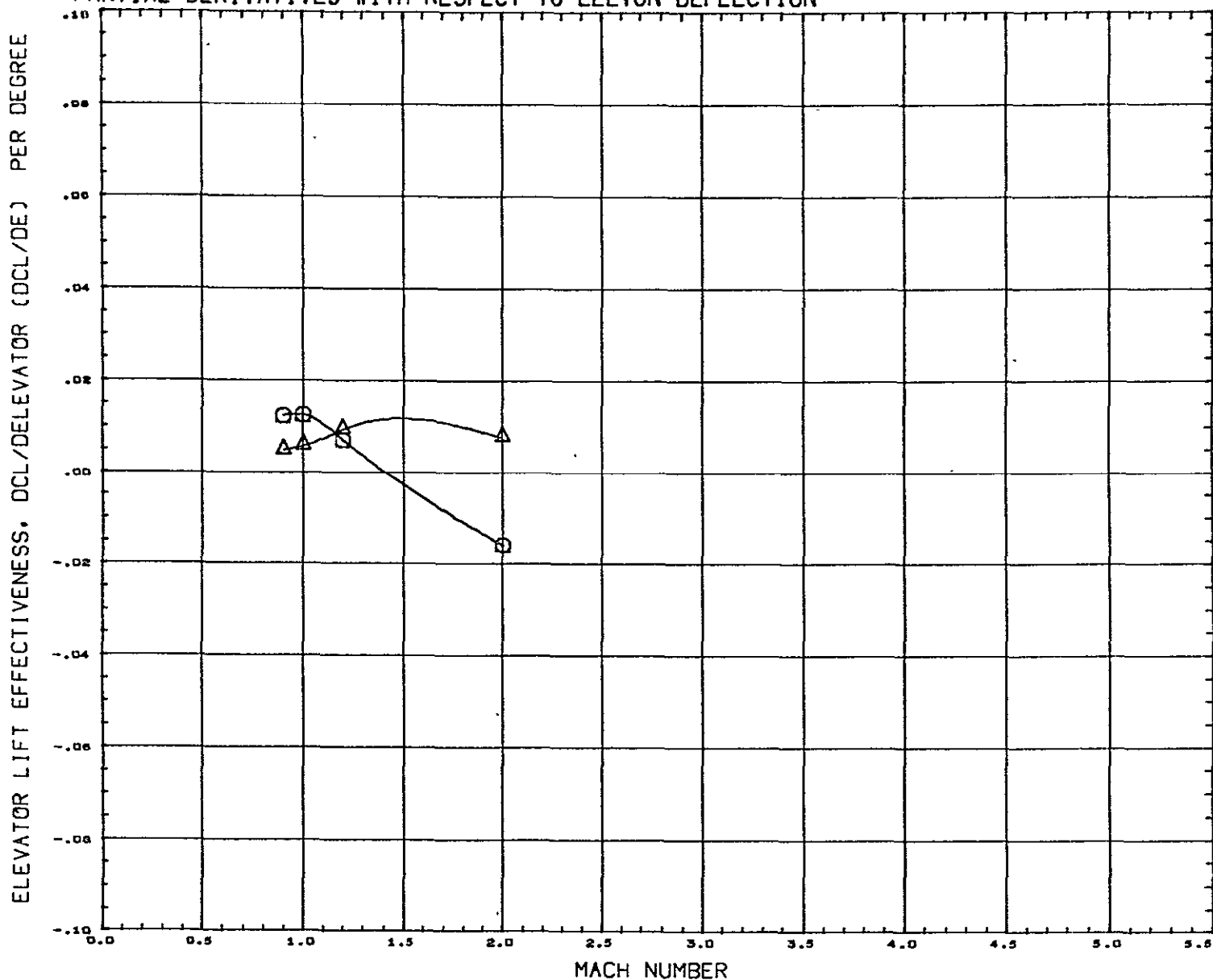


SYMBOL	ALPHA	PARAMETRIC VALUES			
△	10.000	BETA	0.000	DCL	0.000
	20.000	DCR	0.000	ELEVON δ	5.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI*HWP

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION

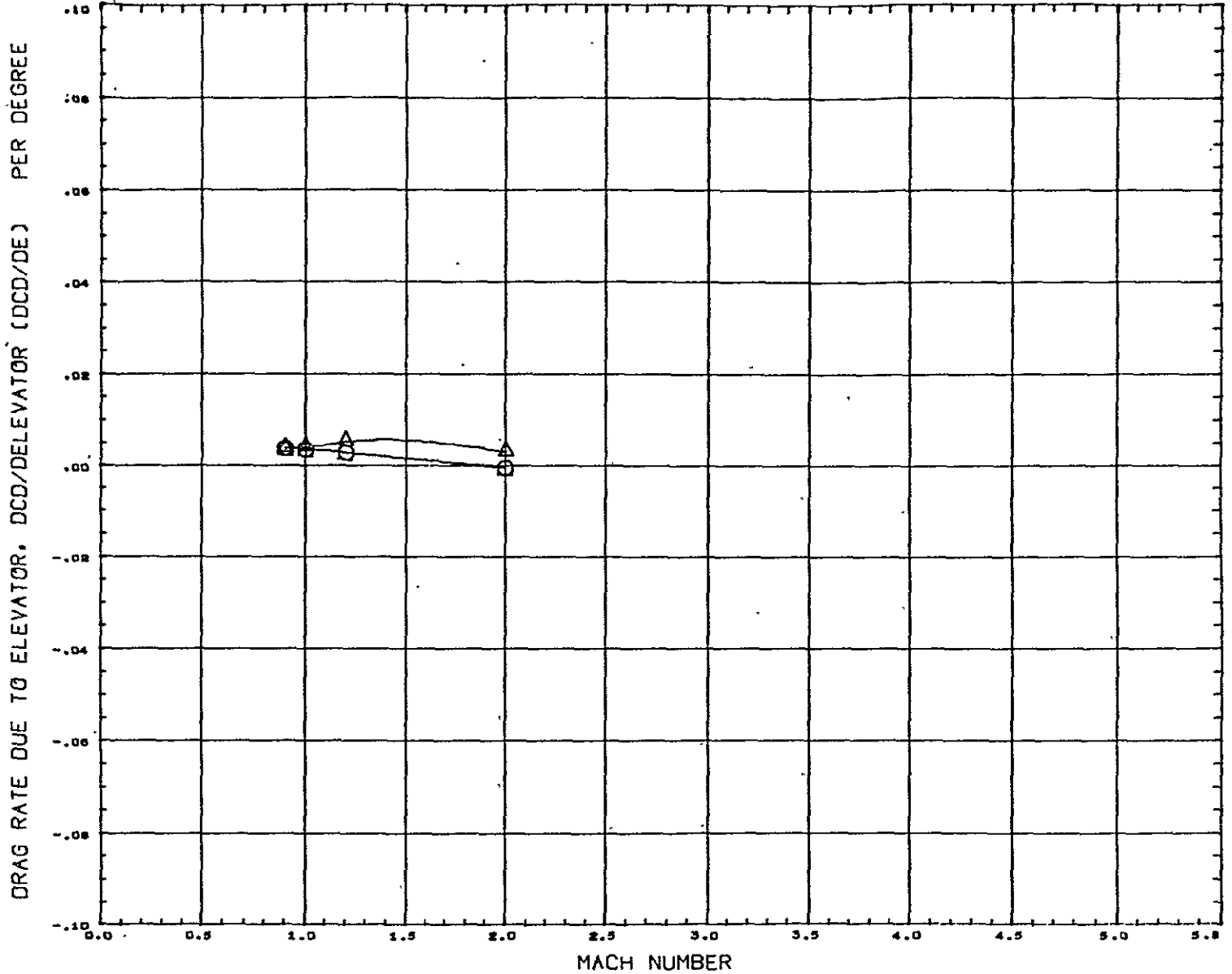


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	10.000	0.000	DCL	0.000	0.000
△	20.000	DCR	0.000	ELEVON	5.000
		CANARD	0.000		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

PARTIAL DERIVATIVES WITH RESPECT TO ELEVON DEFLECTION



SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
⊙	10.000	0.000	DCL	0.000	
△	20.000	DCR	0.000	ELEVON	5.000
		CANARD	0.000		

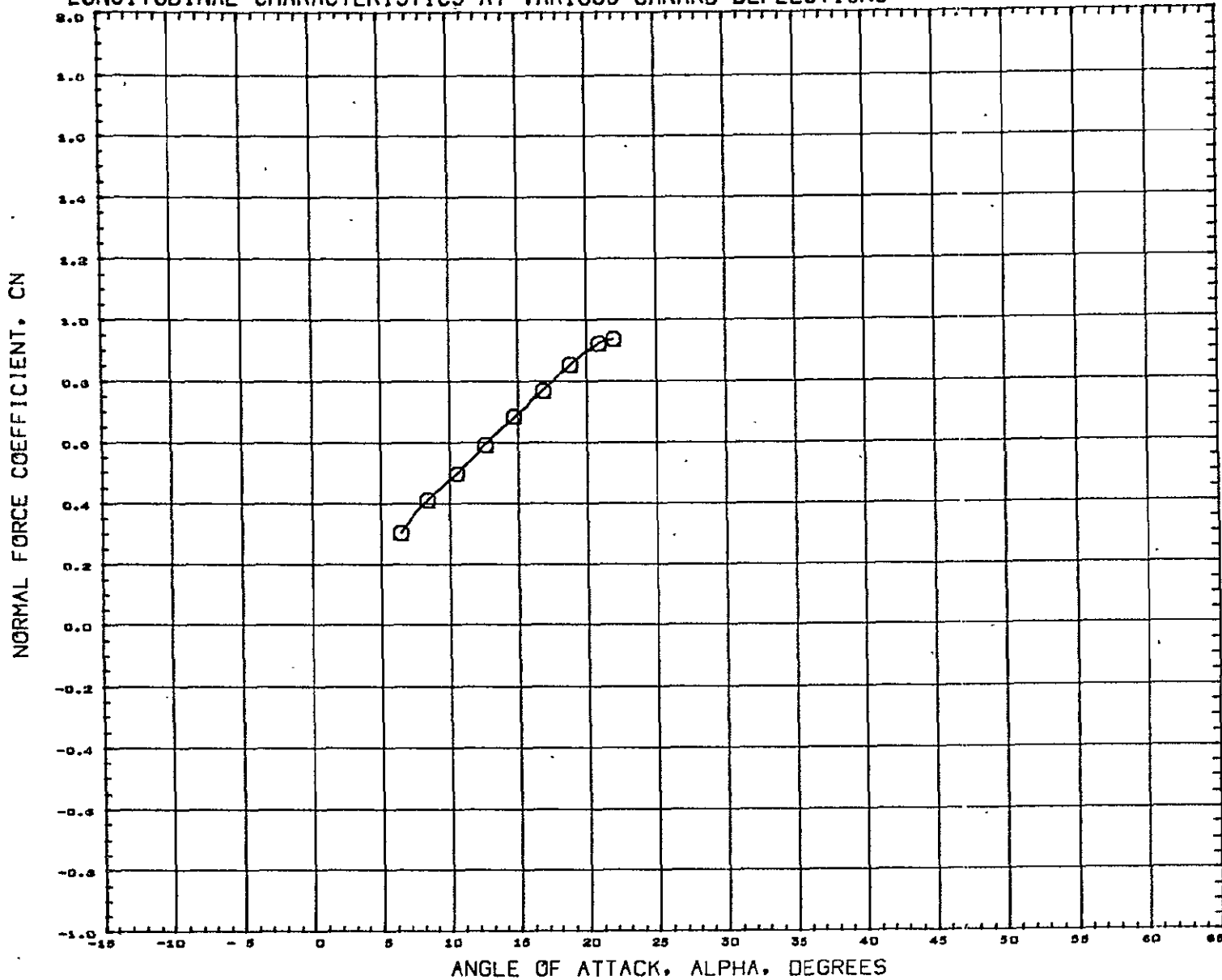
REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

MSFC481 GD/C(BOOSTER)B19W14C4AV7

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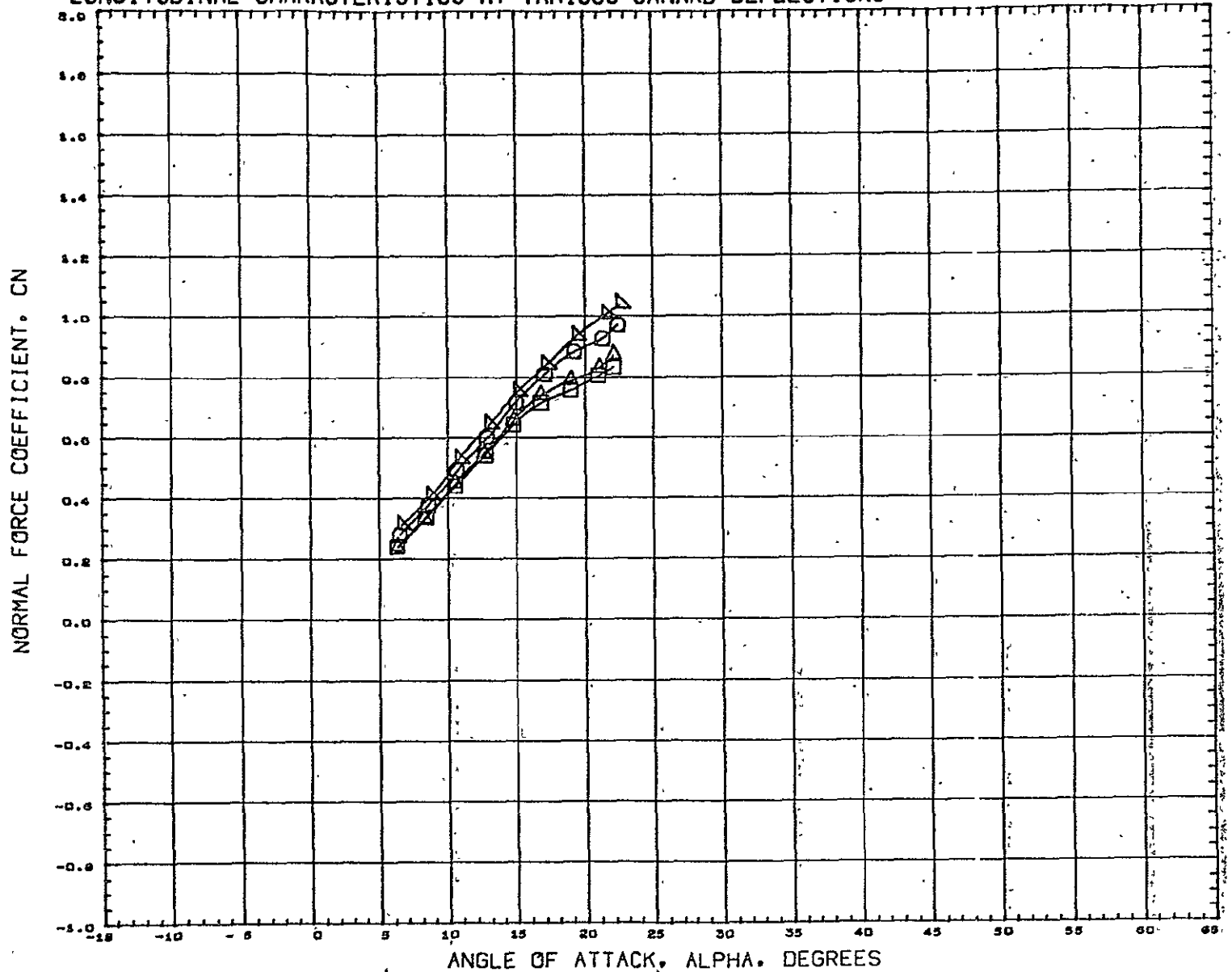
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0990 IN.
(E28090)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

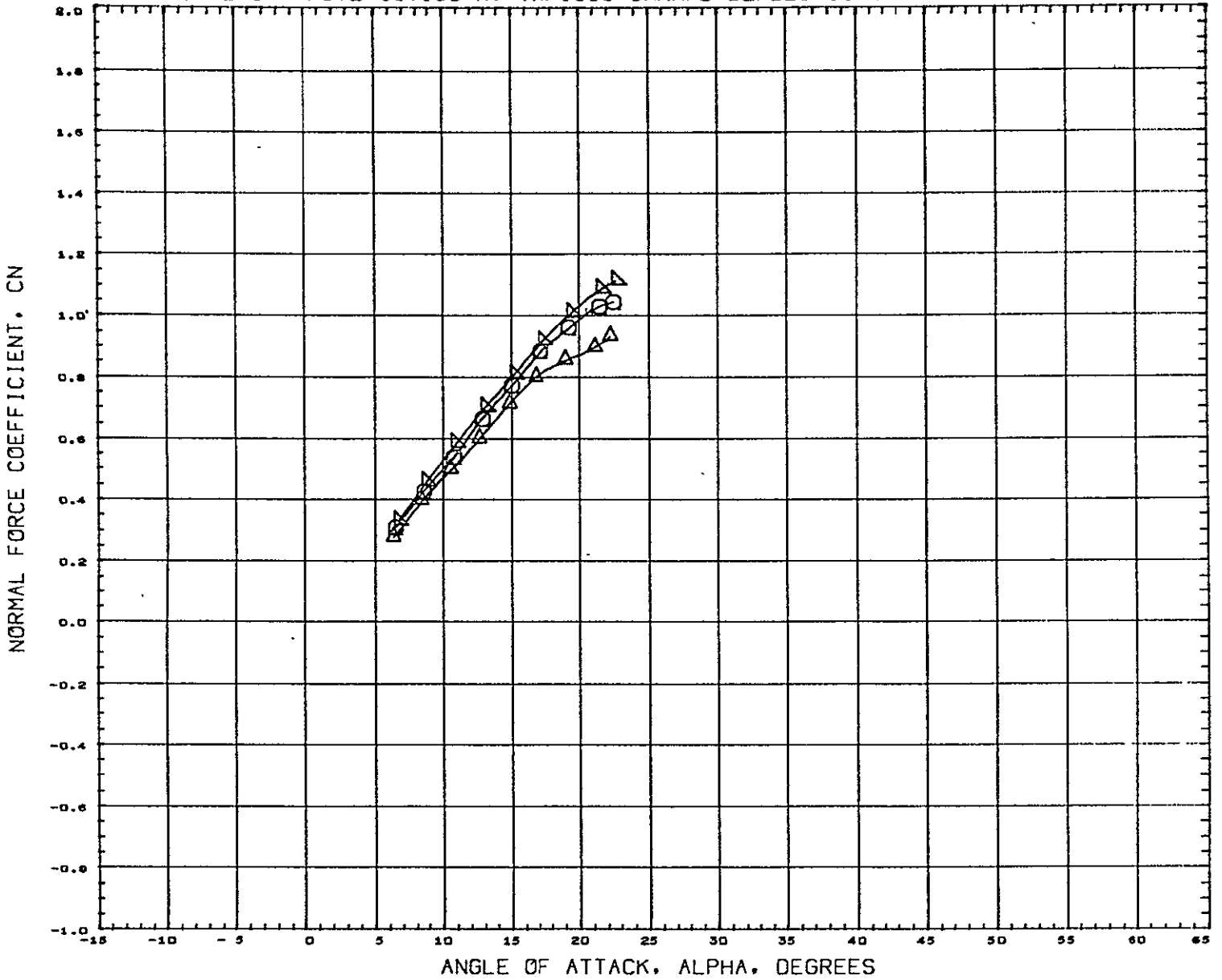
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 50 IN.
(C28005)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

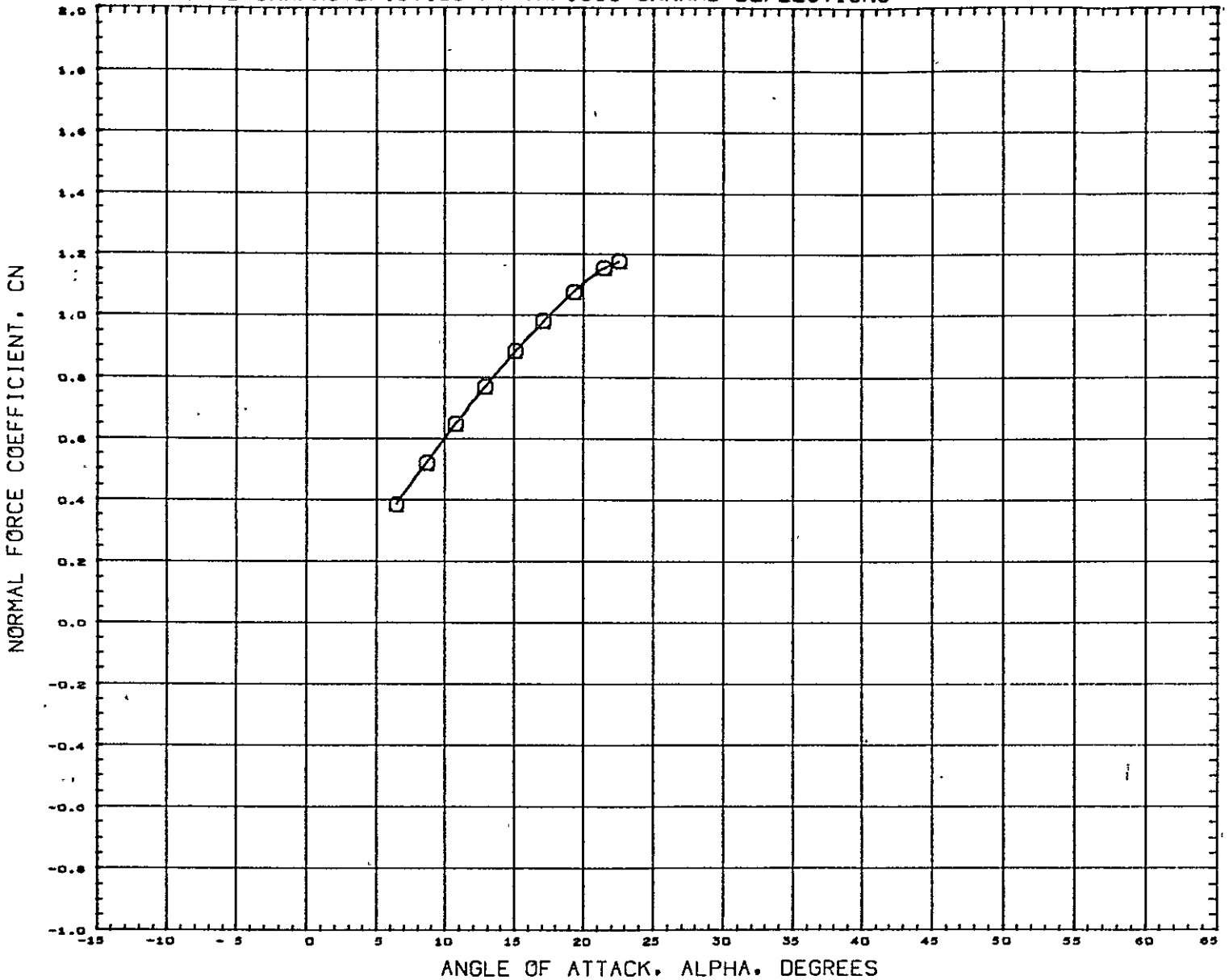
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.954

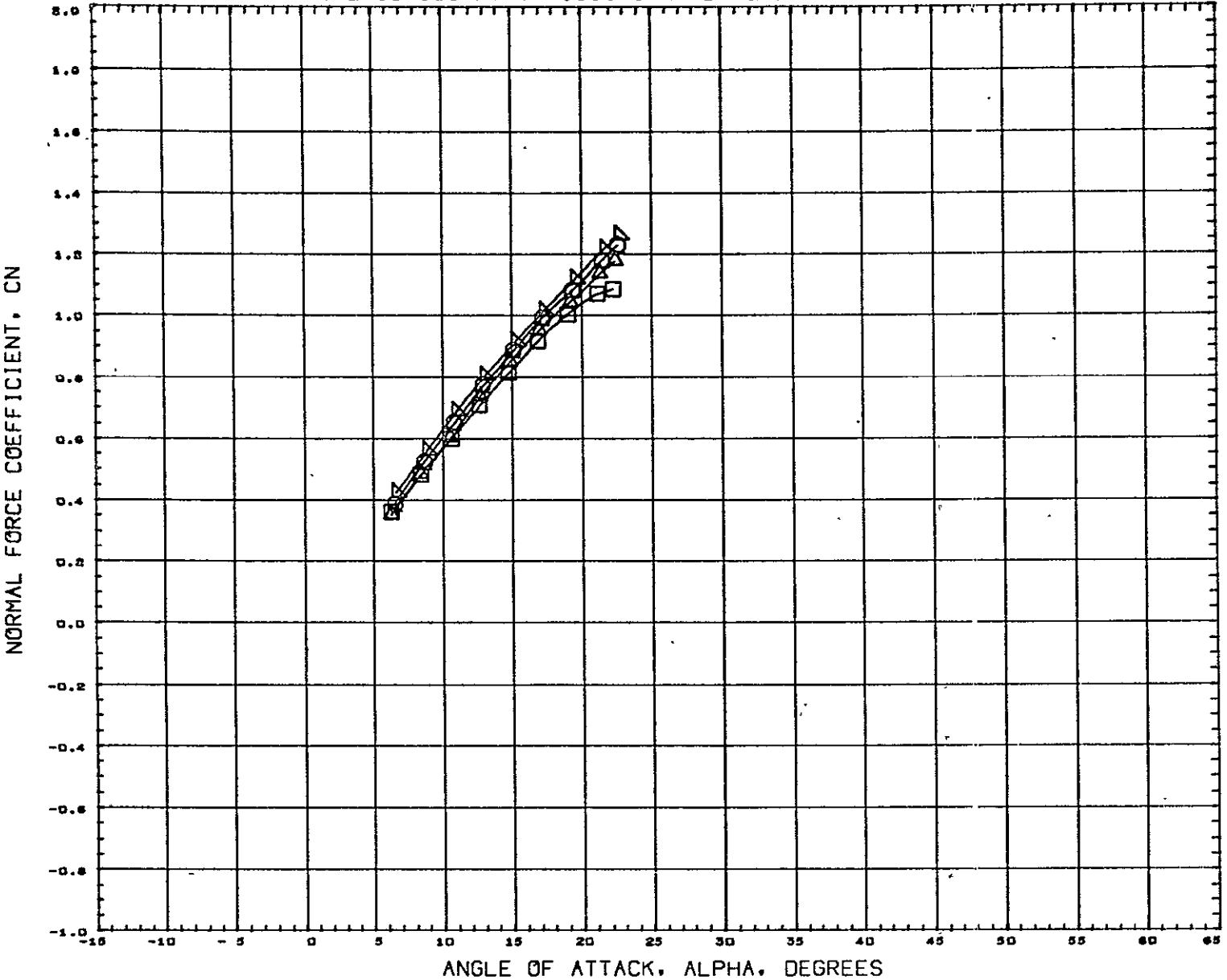
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

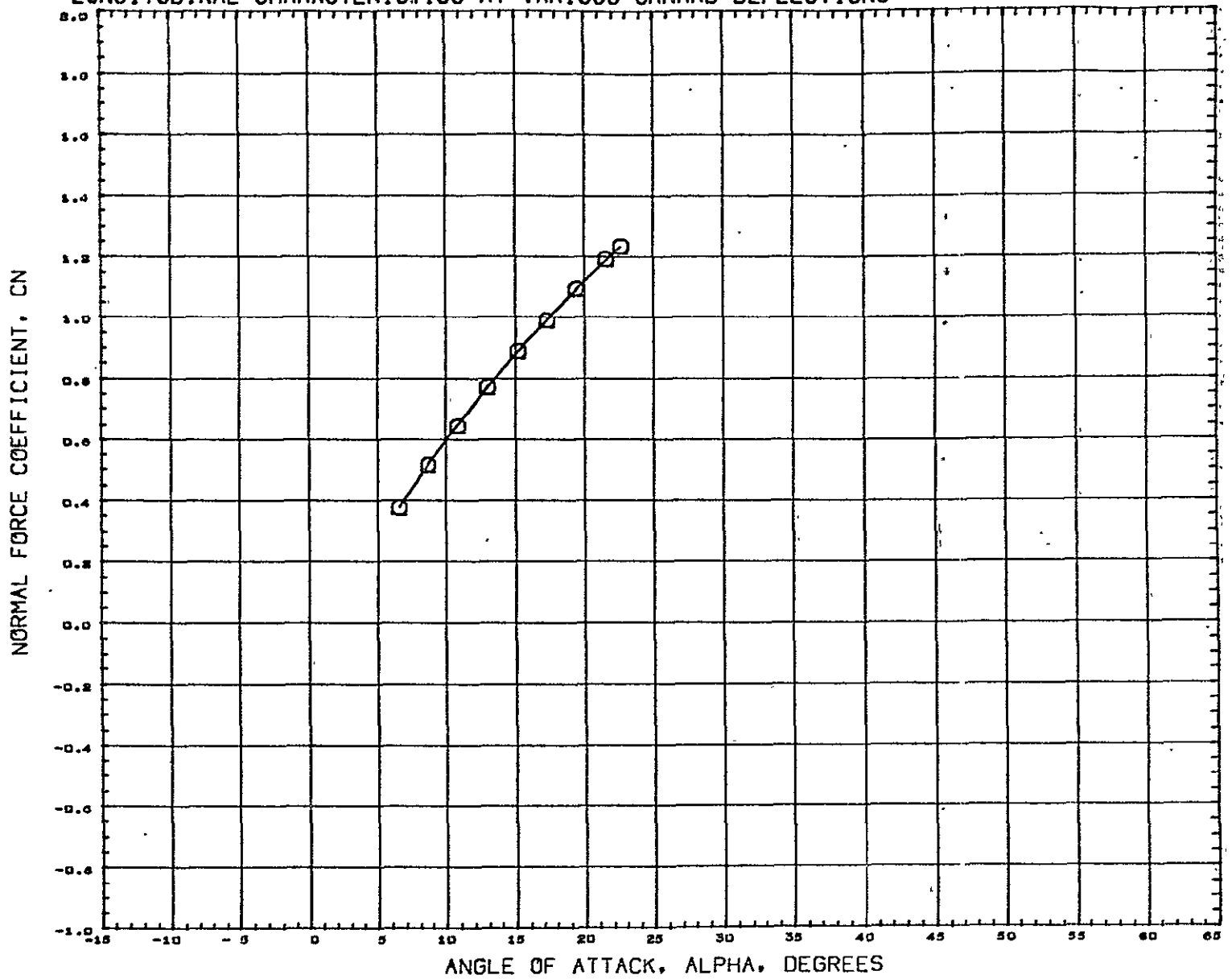
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	JREF 15.6560 SQ. IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	CRF 6.0990 IN.
(C20010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	YMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

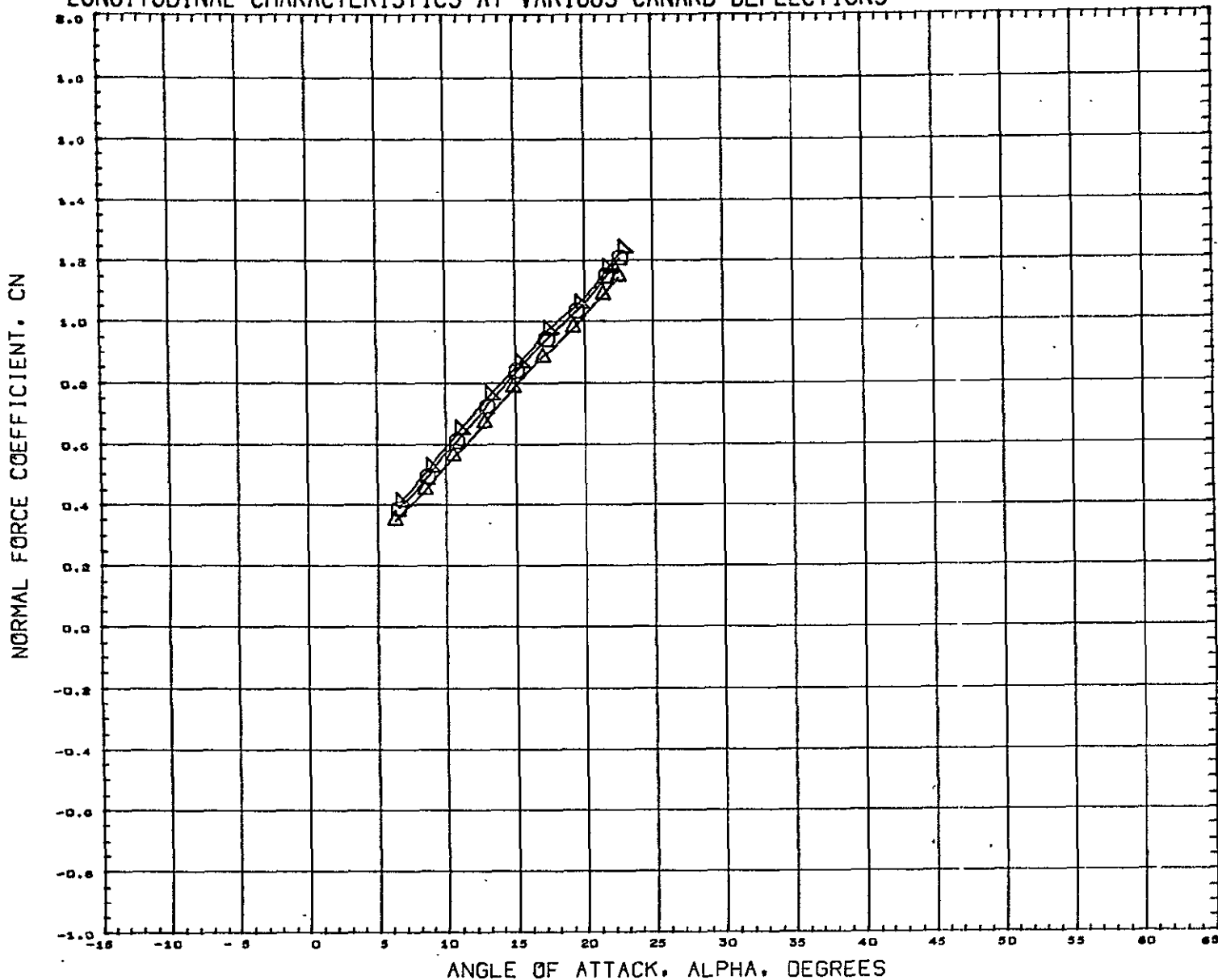
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14CAV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

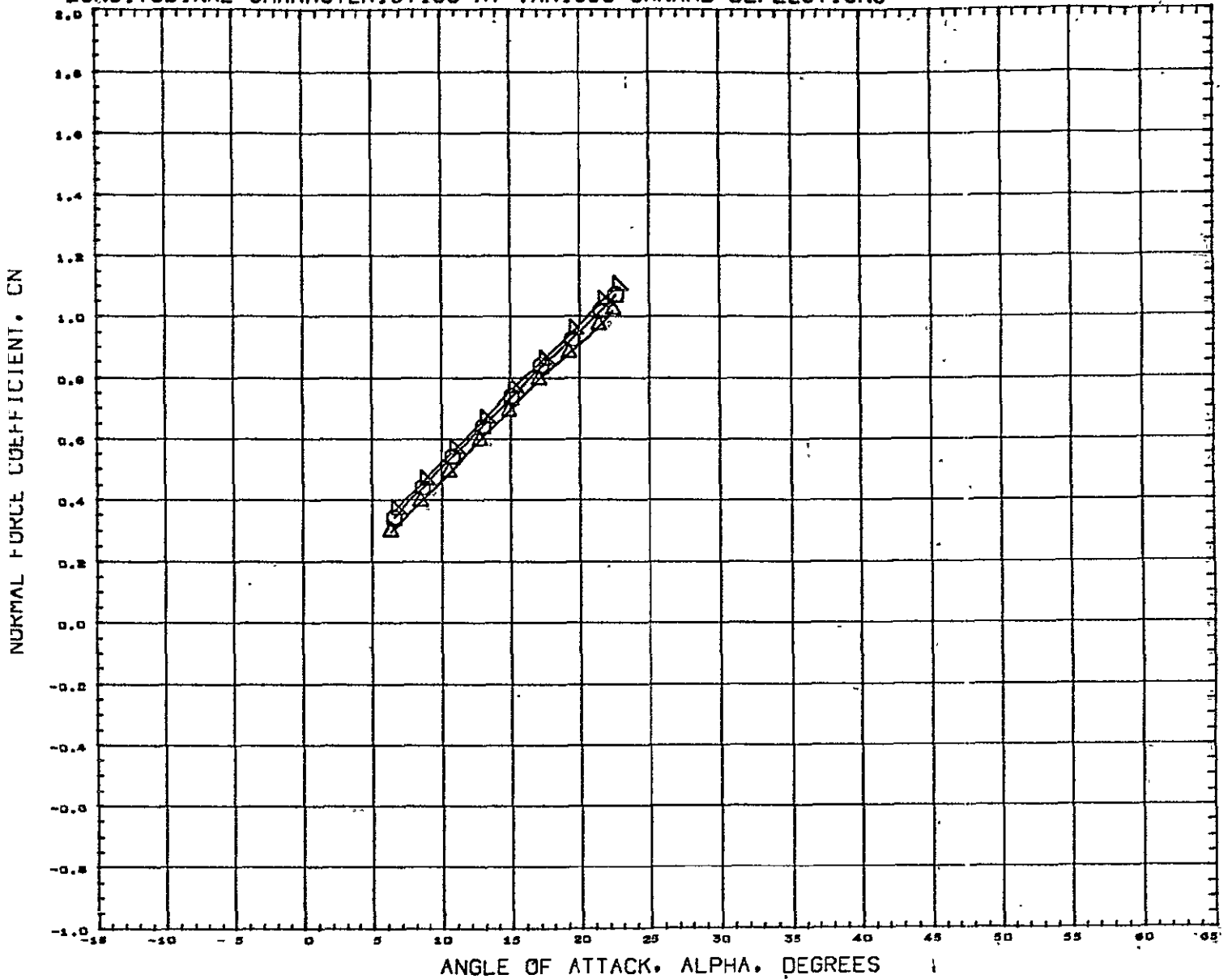


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28030)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.201

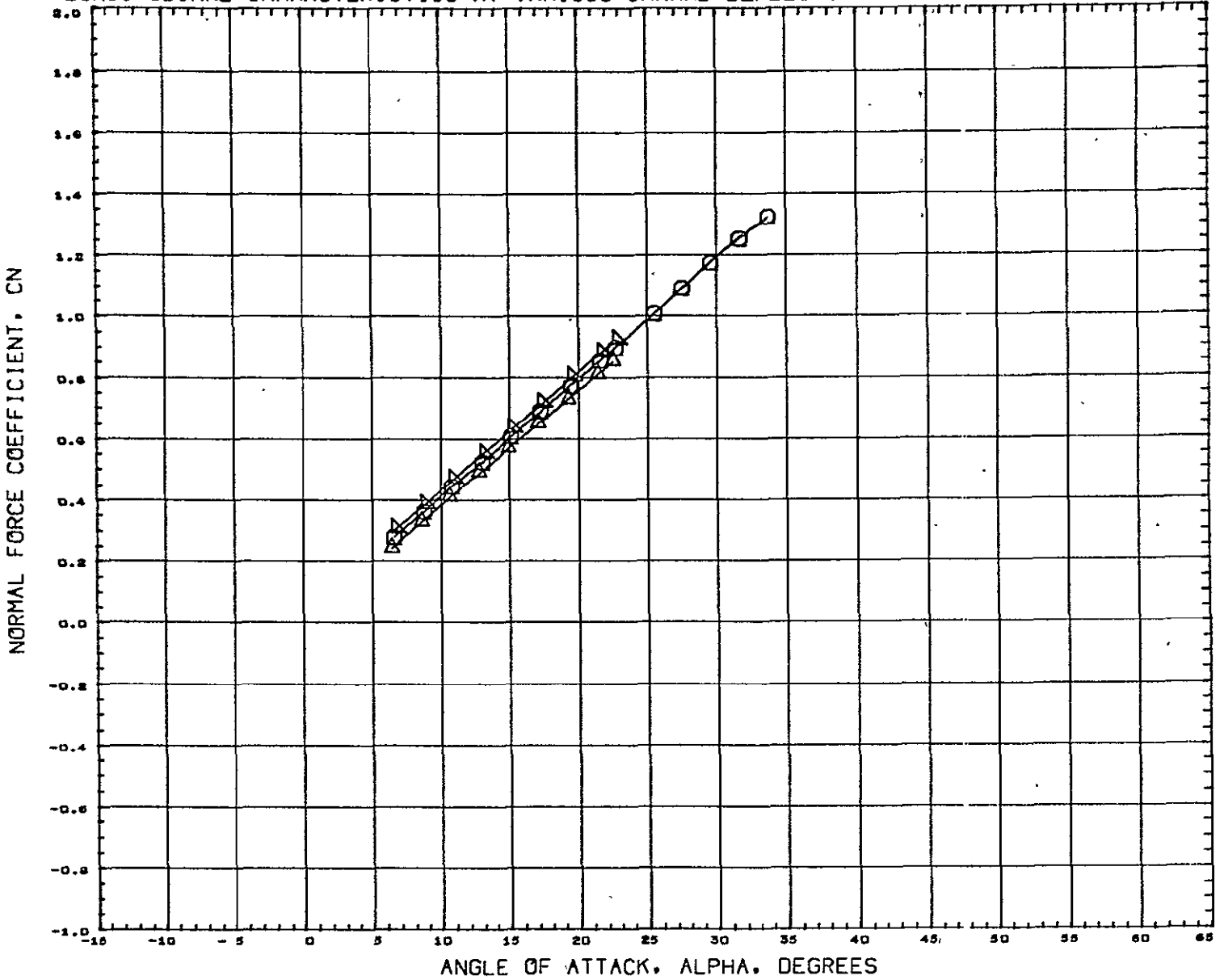
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 30.IN.
(C20009)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	SREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.462

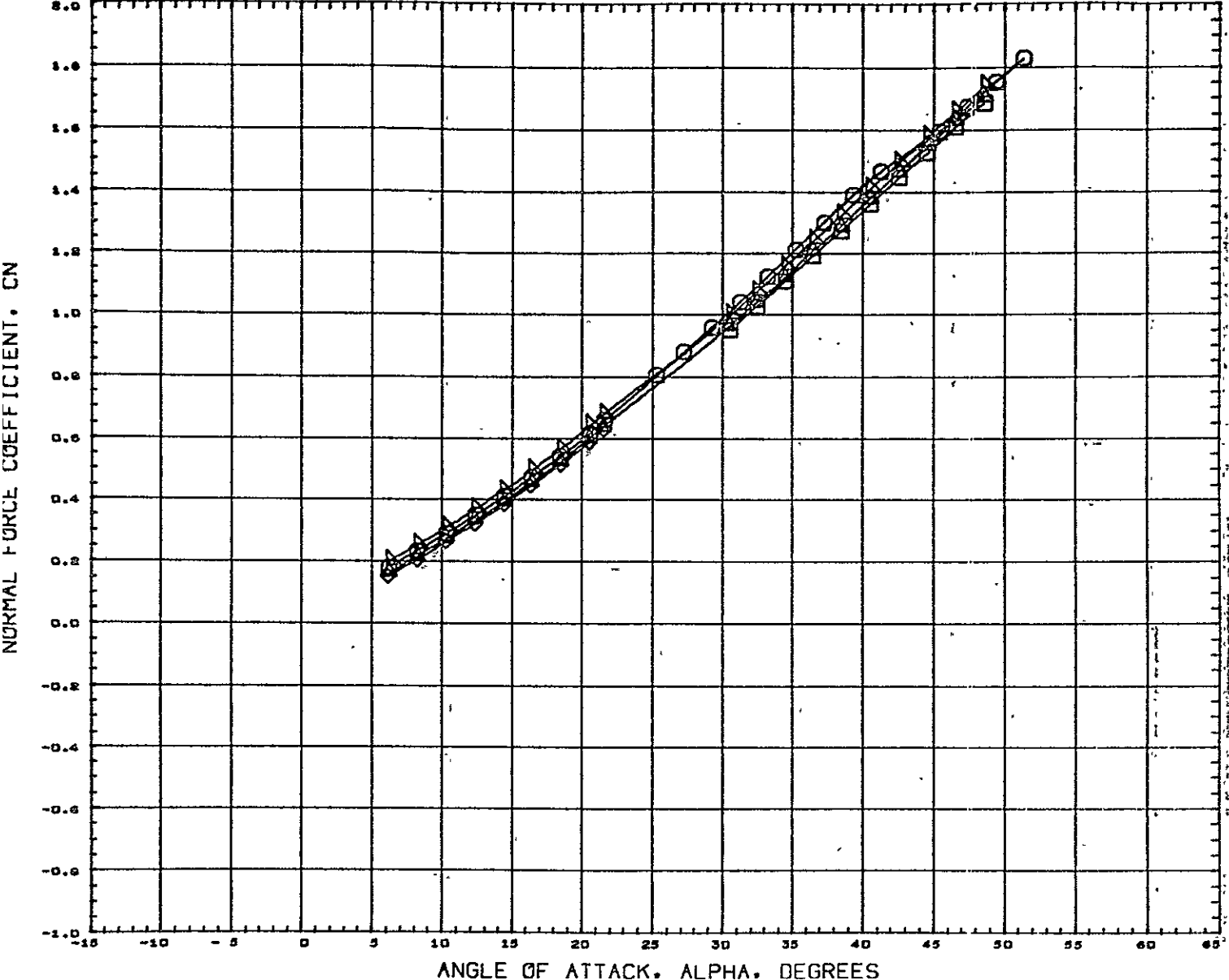
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20C90)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	KMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	VMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.958

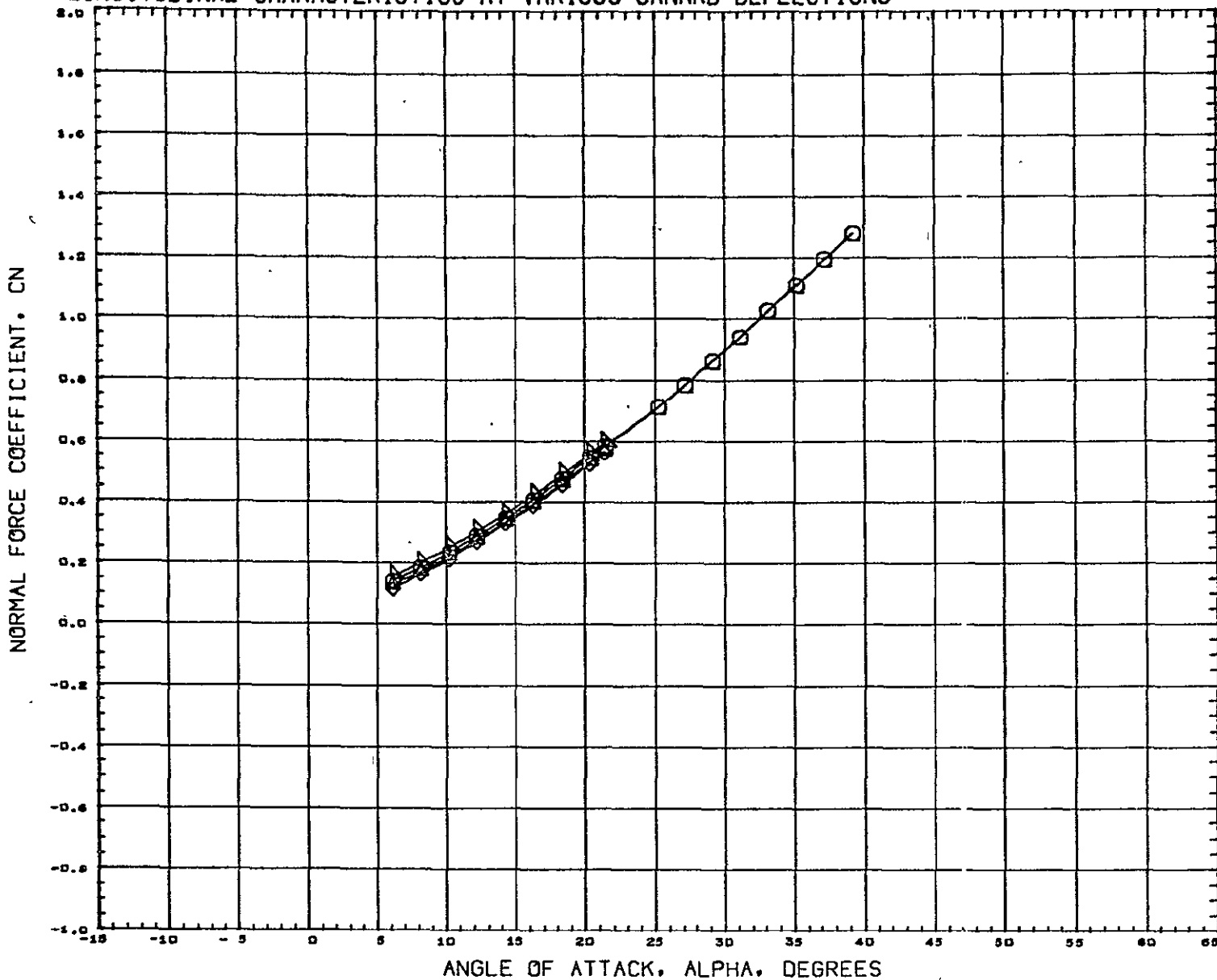
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 50. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	ZMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	ZMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

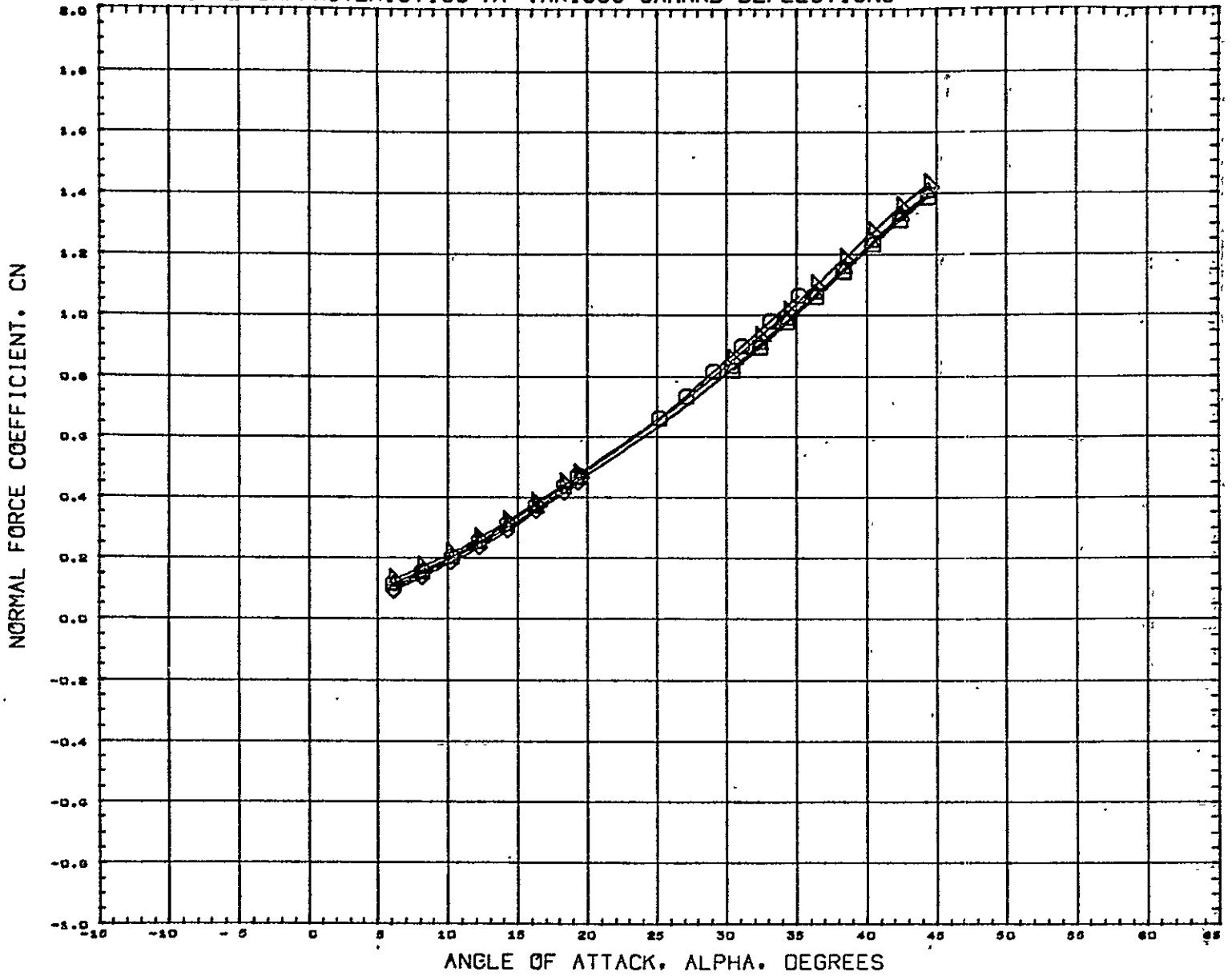
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6540 SQ. IN.
(C28009)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28030)	M3FC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	M3FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

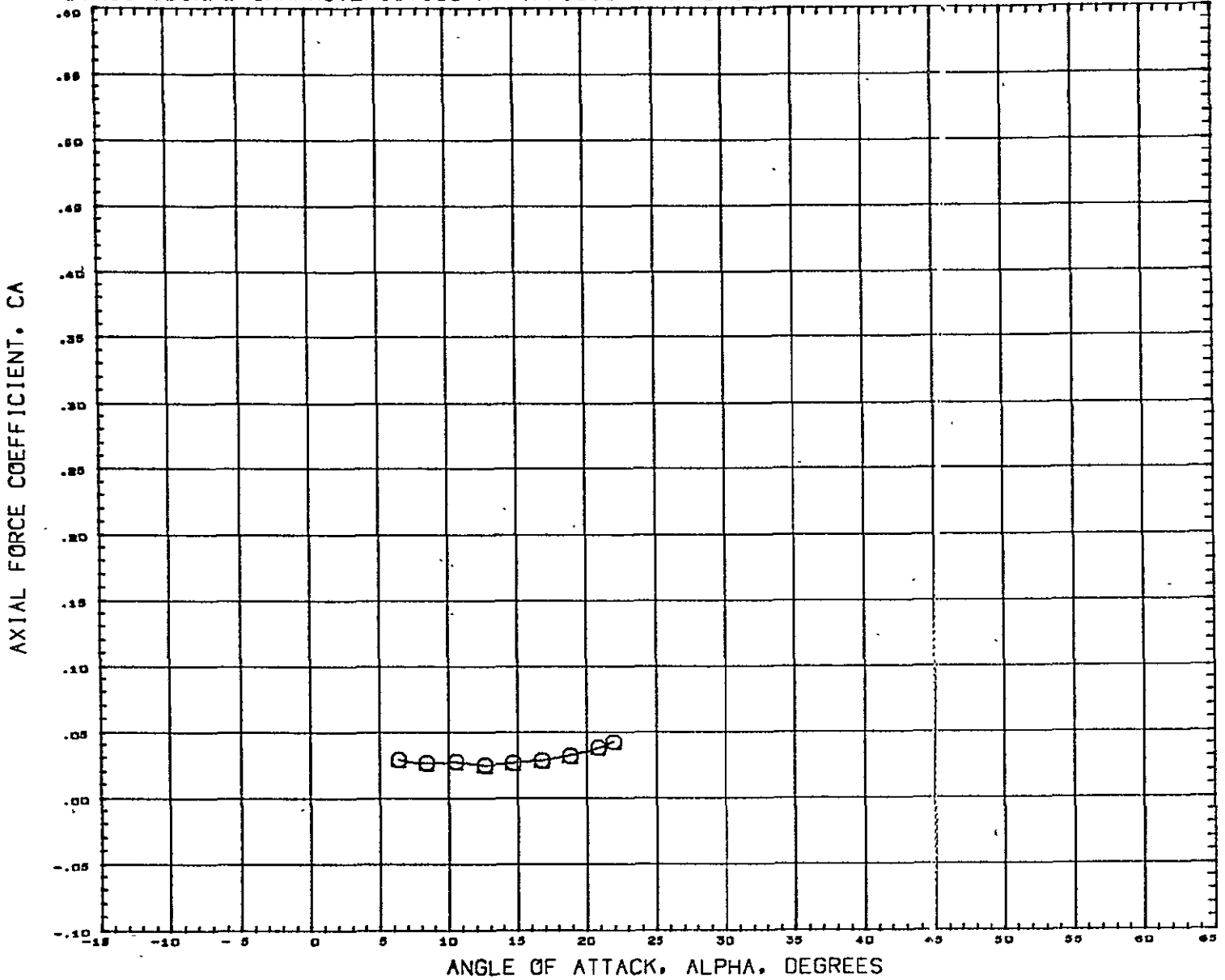
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	HSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 80. IN.
(C20009)	HSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20050)	HSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0980 IN.
(C20010)	HSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	HSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.960

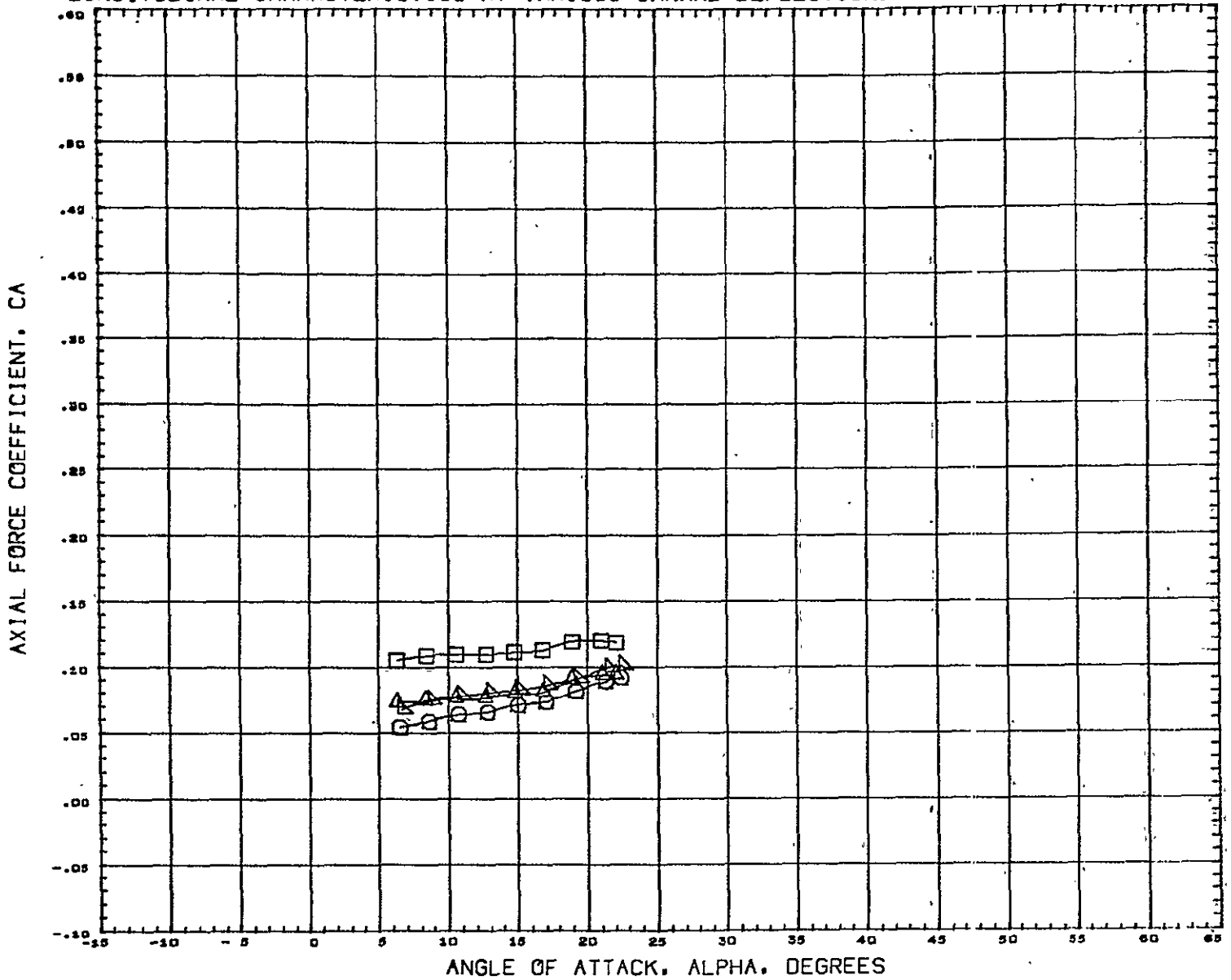
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

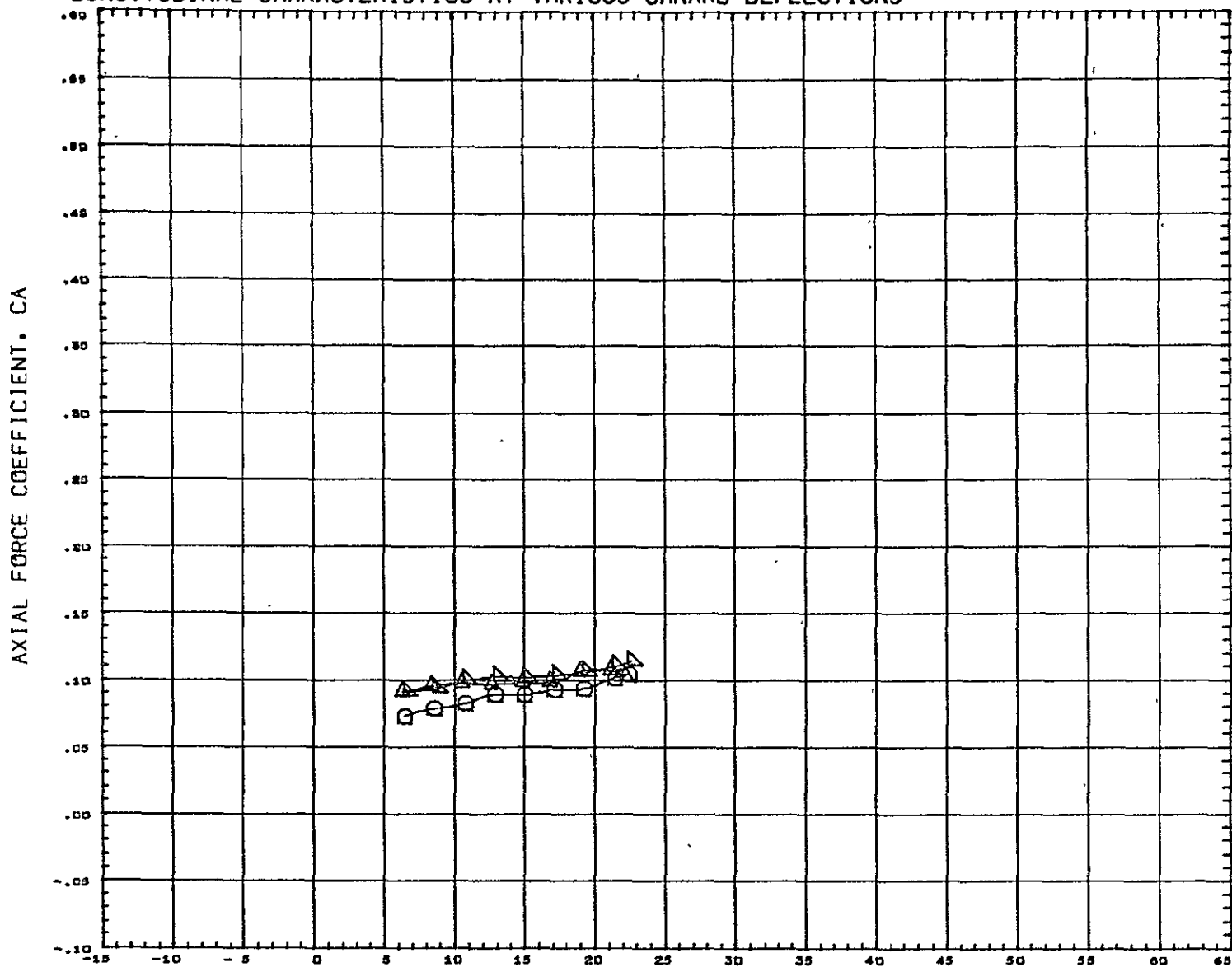
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28090)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C28011)	M3FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 0.900

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

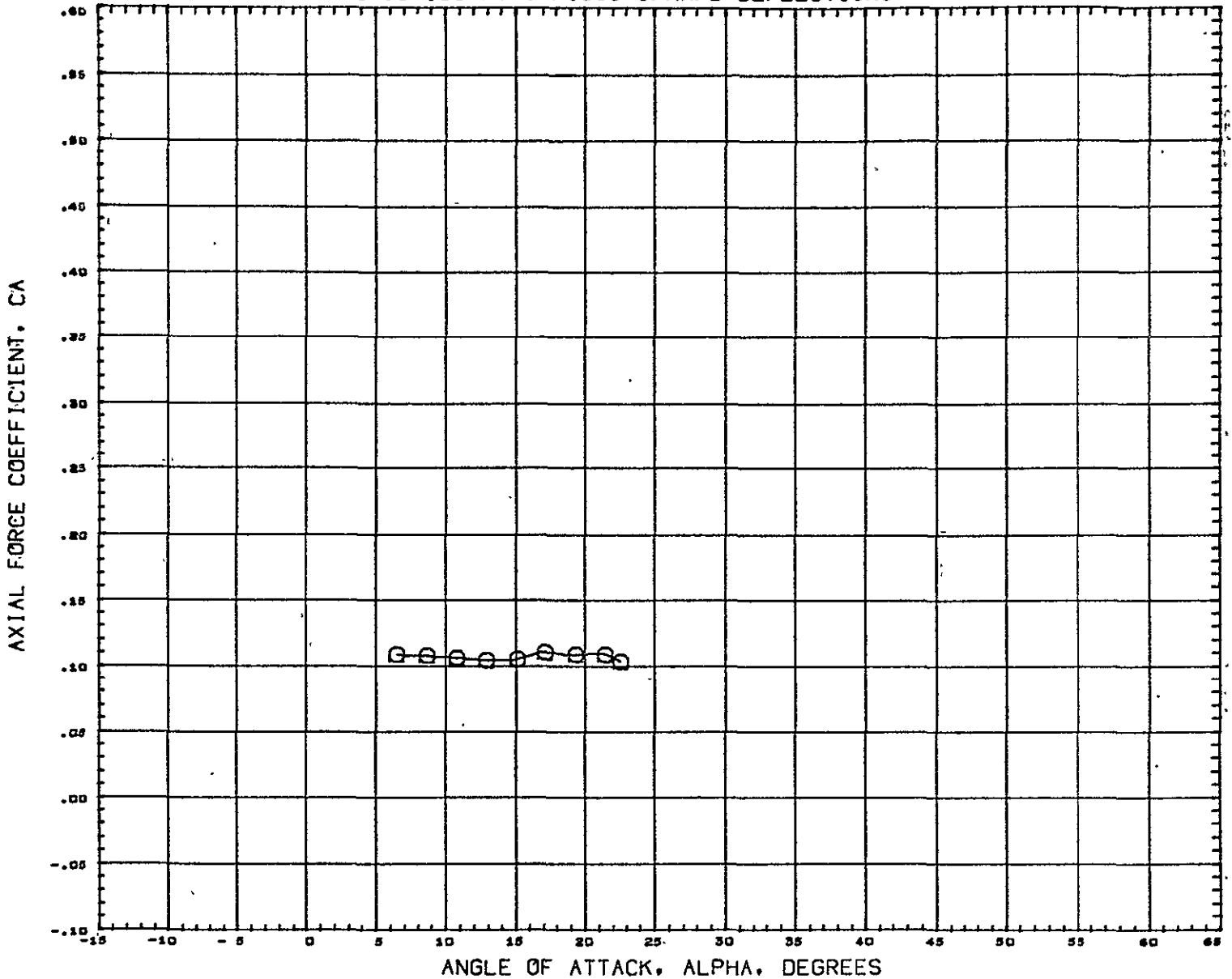


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 50. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0990 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XHRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 0.954

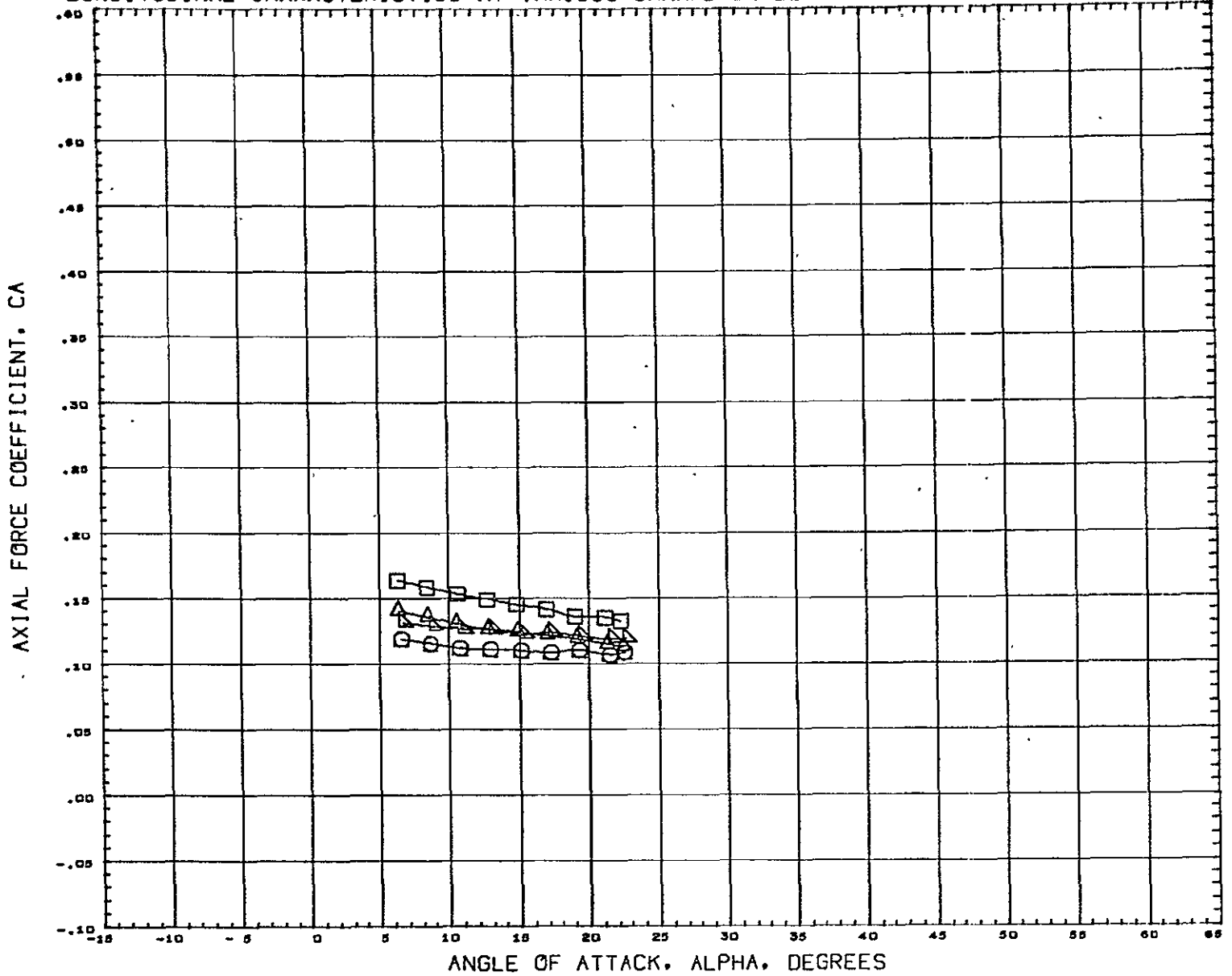
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	H8FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0930 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.007

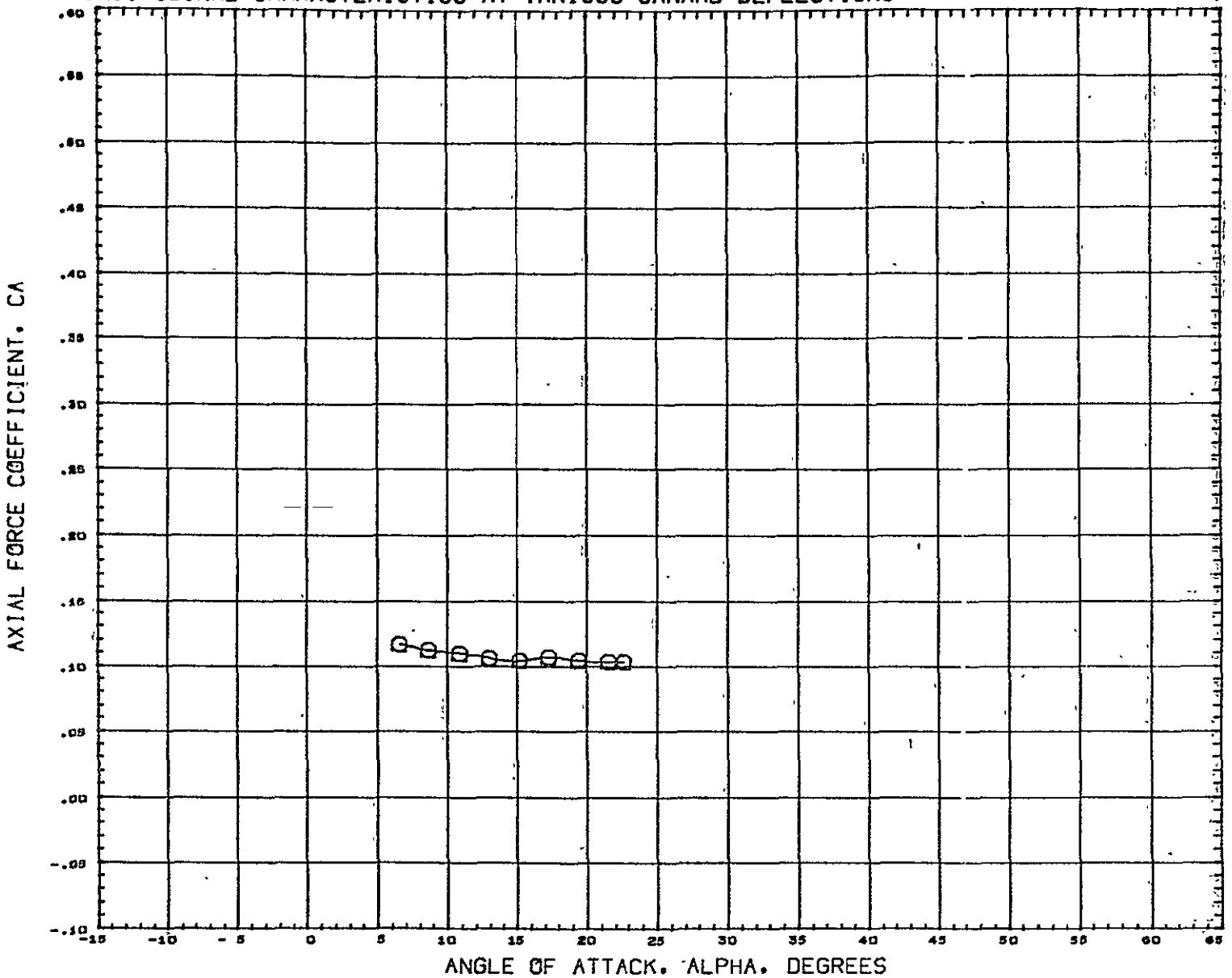
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0990 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.051

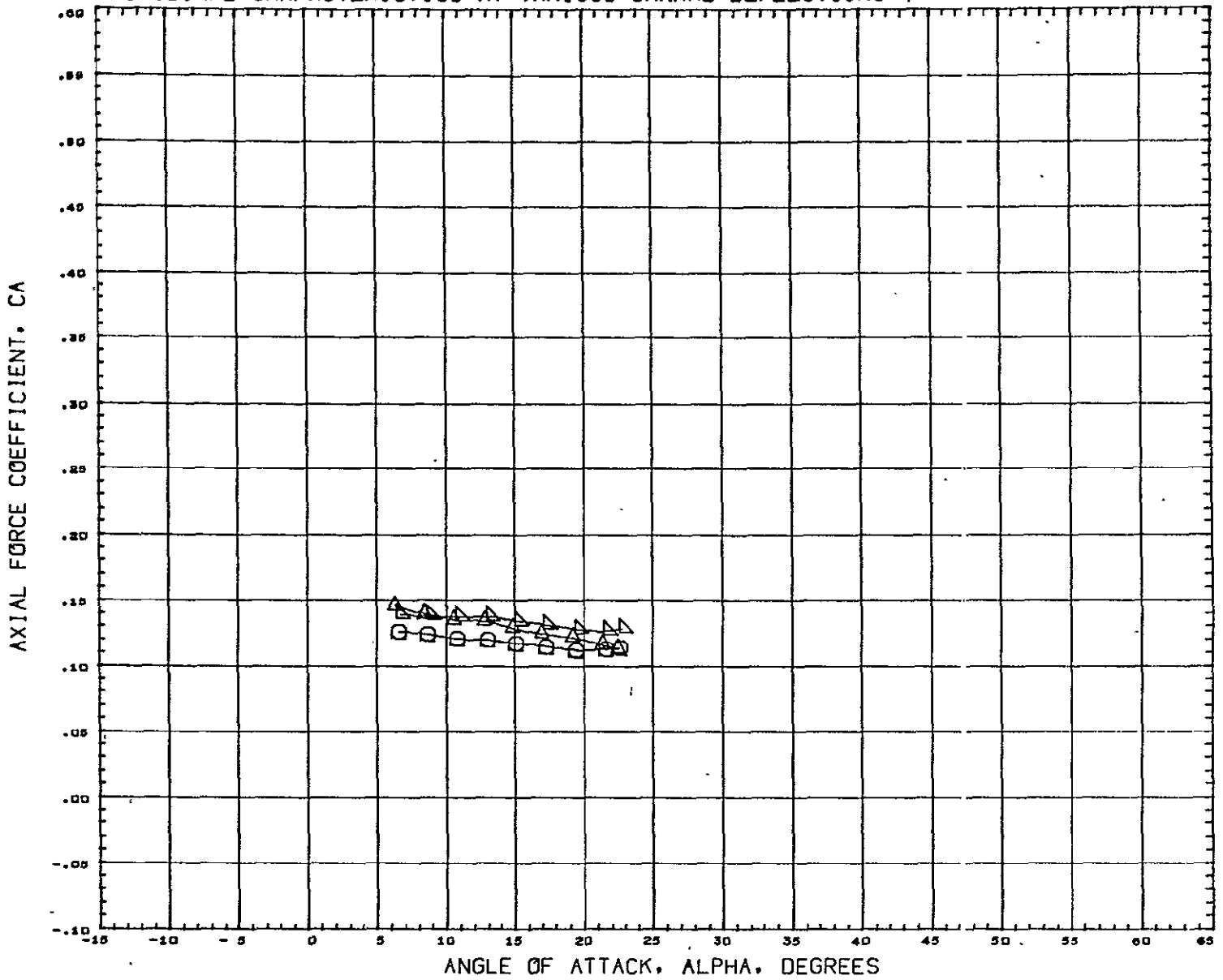
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC401 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20030)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.105

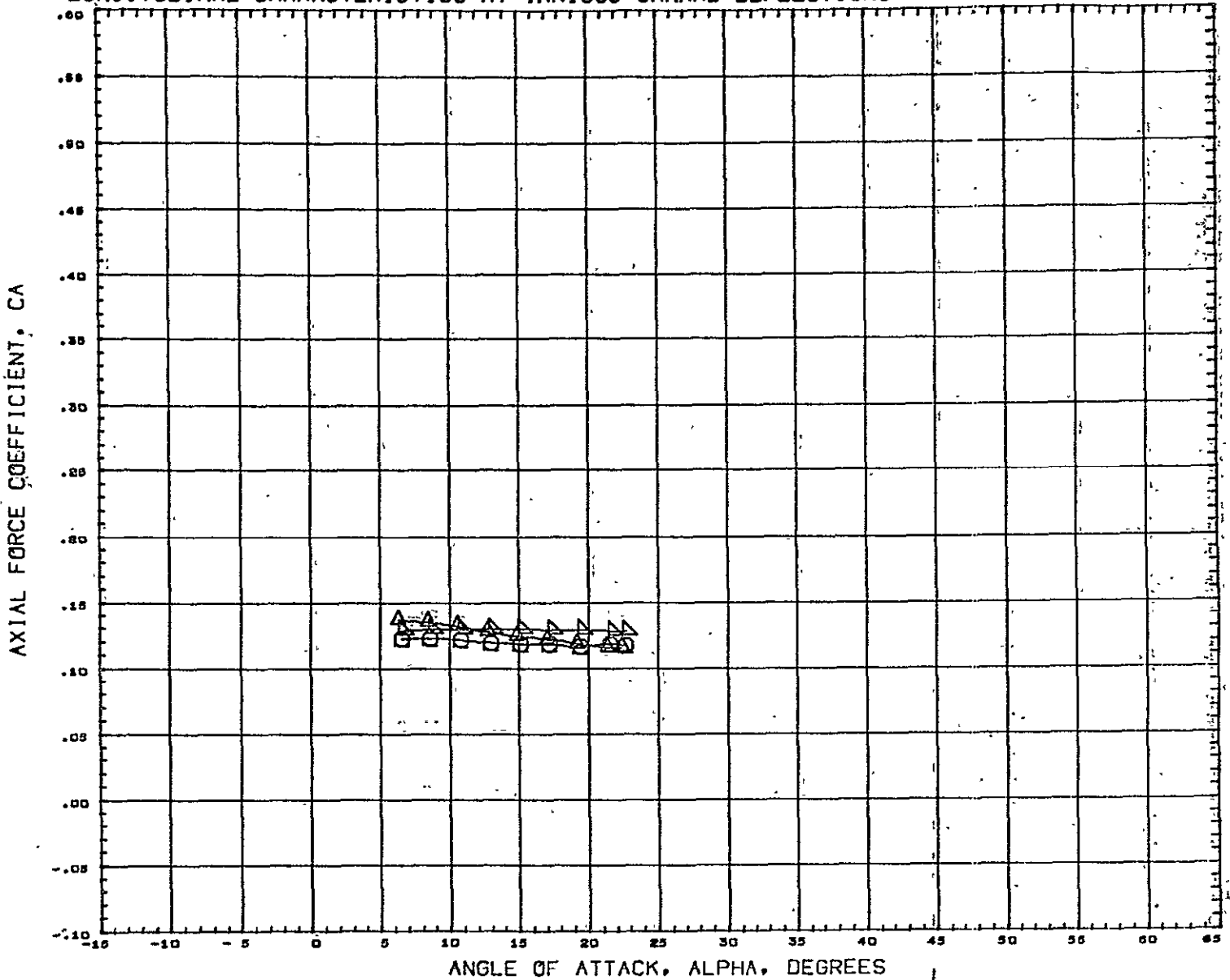
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4A7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER)B19W14C4A7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

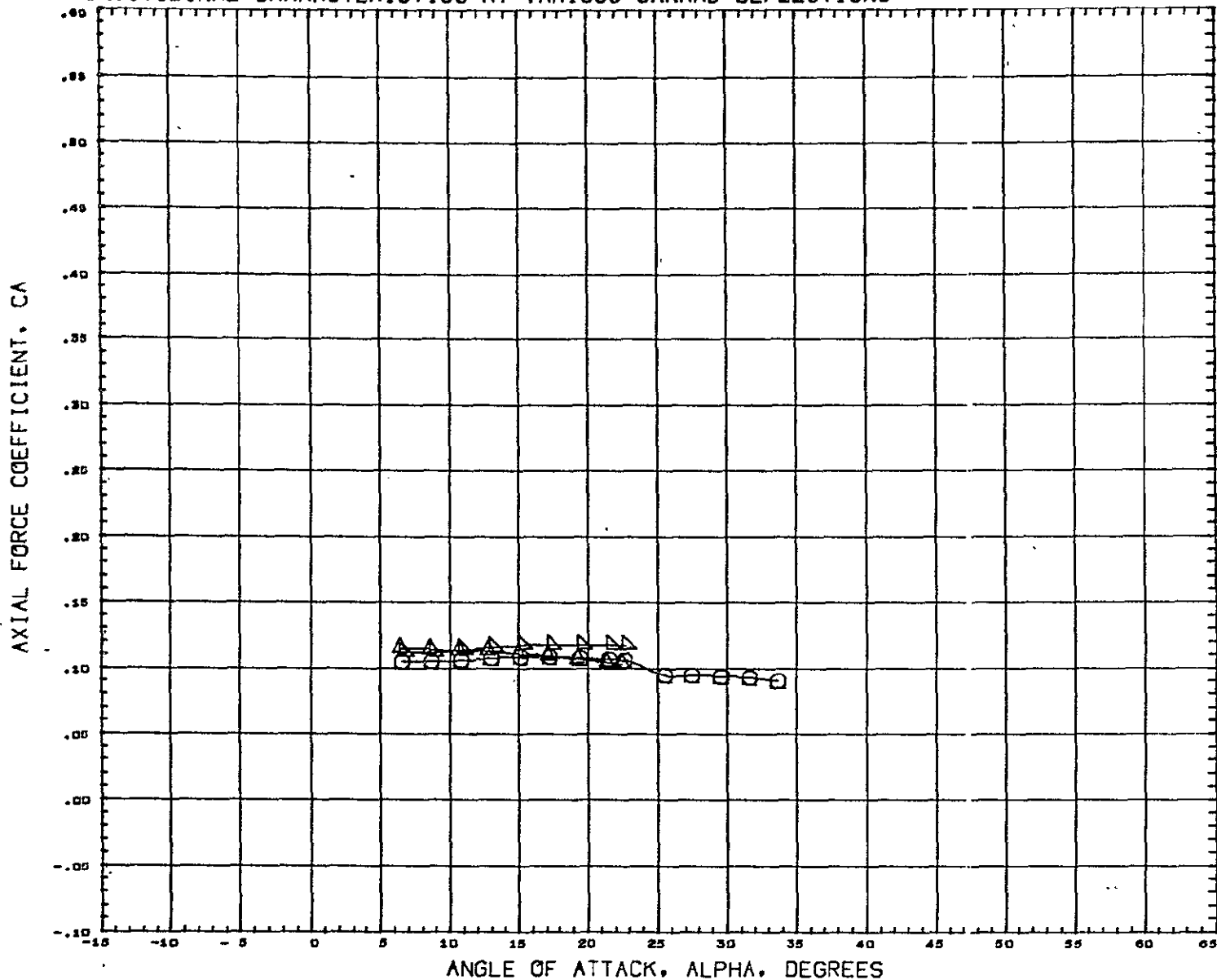
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	1REF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(C28030)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	MREF 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.462

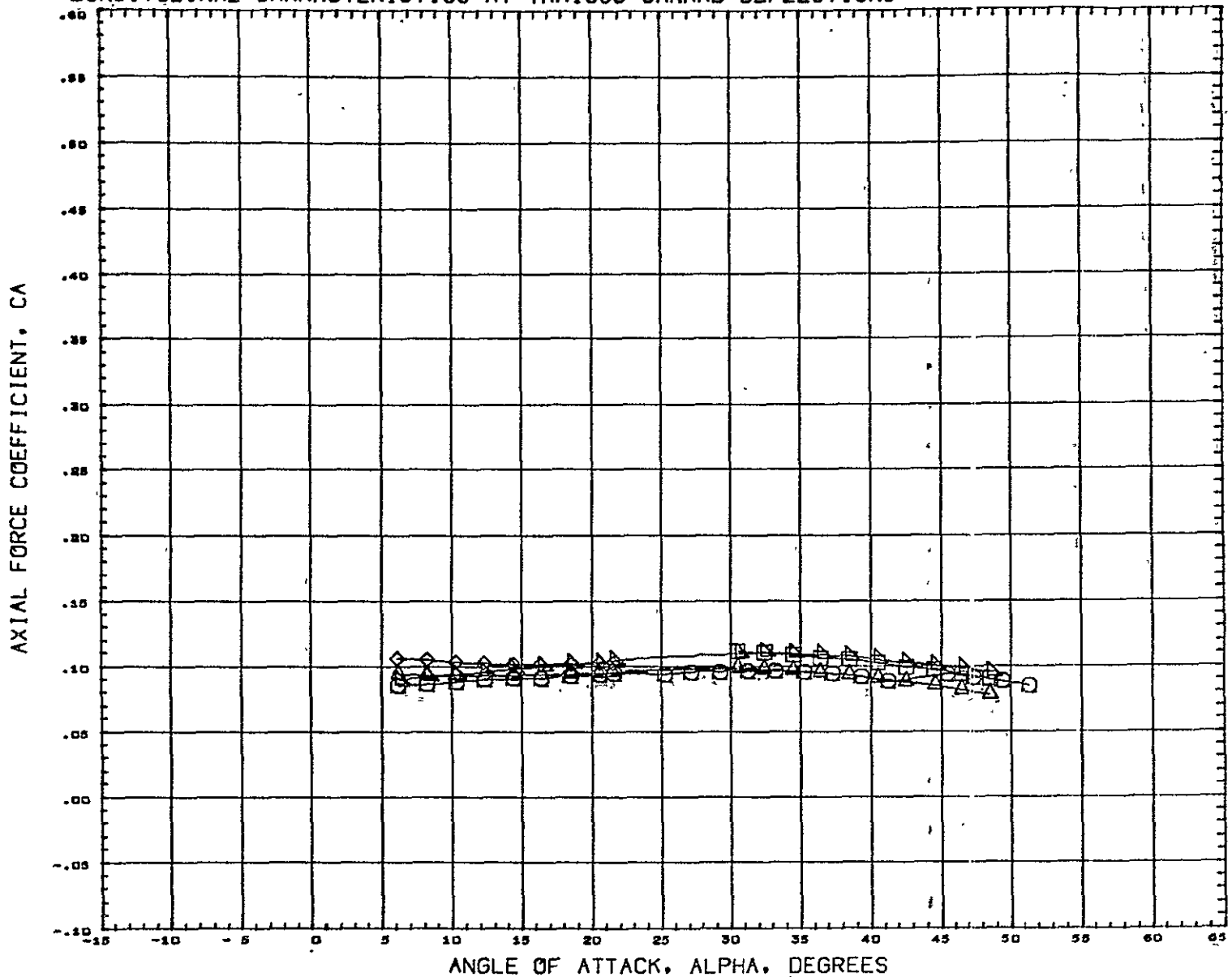
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	M5FC401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 50.IN.
(C20009)	M5FC401 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	M5FC 401 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.956

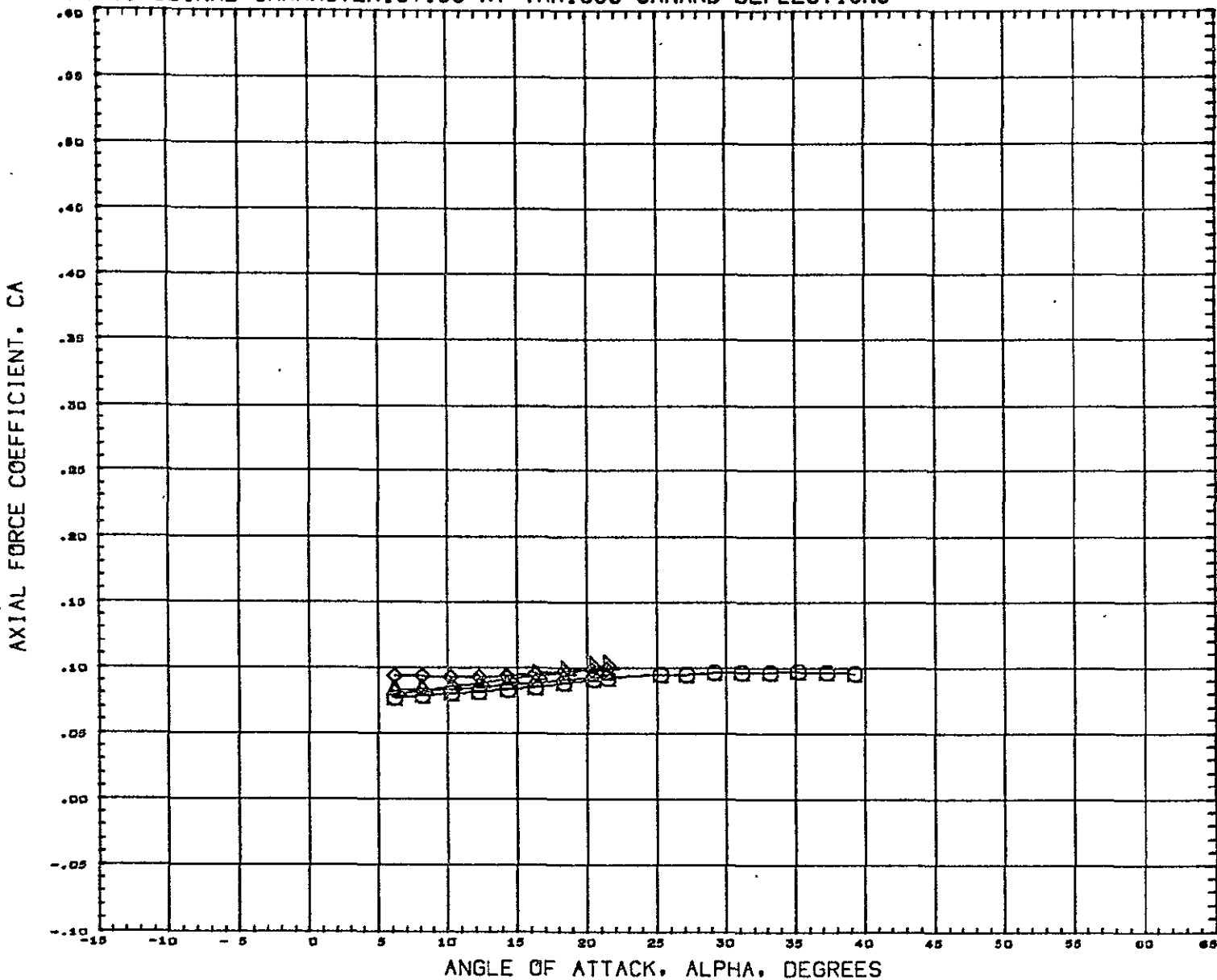
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	M3FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 30. IN.
(C20009)	M3FC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E26C90)	M3FC 481 GD/C(BOOSTER)B19W14C4AV7	-45.000	0.000	0.000	0.000	SREF 6.0990 IN.
(C20010)	M3FC481 GD/C(BOOSTER)B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	M3FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

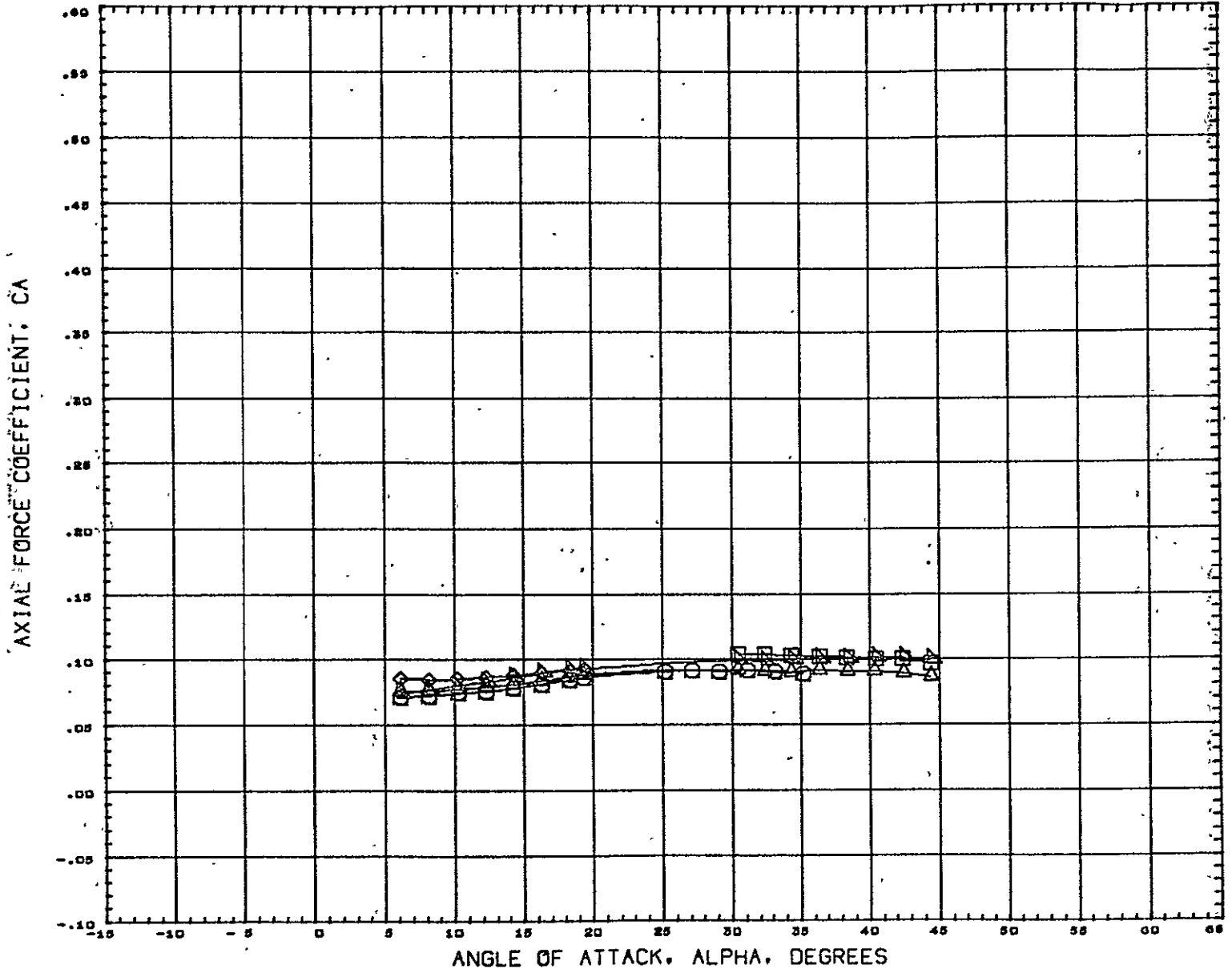
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 19.6500 SQ. IN.
(C28009)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0990 IN.
(E28C90)	M8FC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	M8FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.000

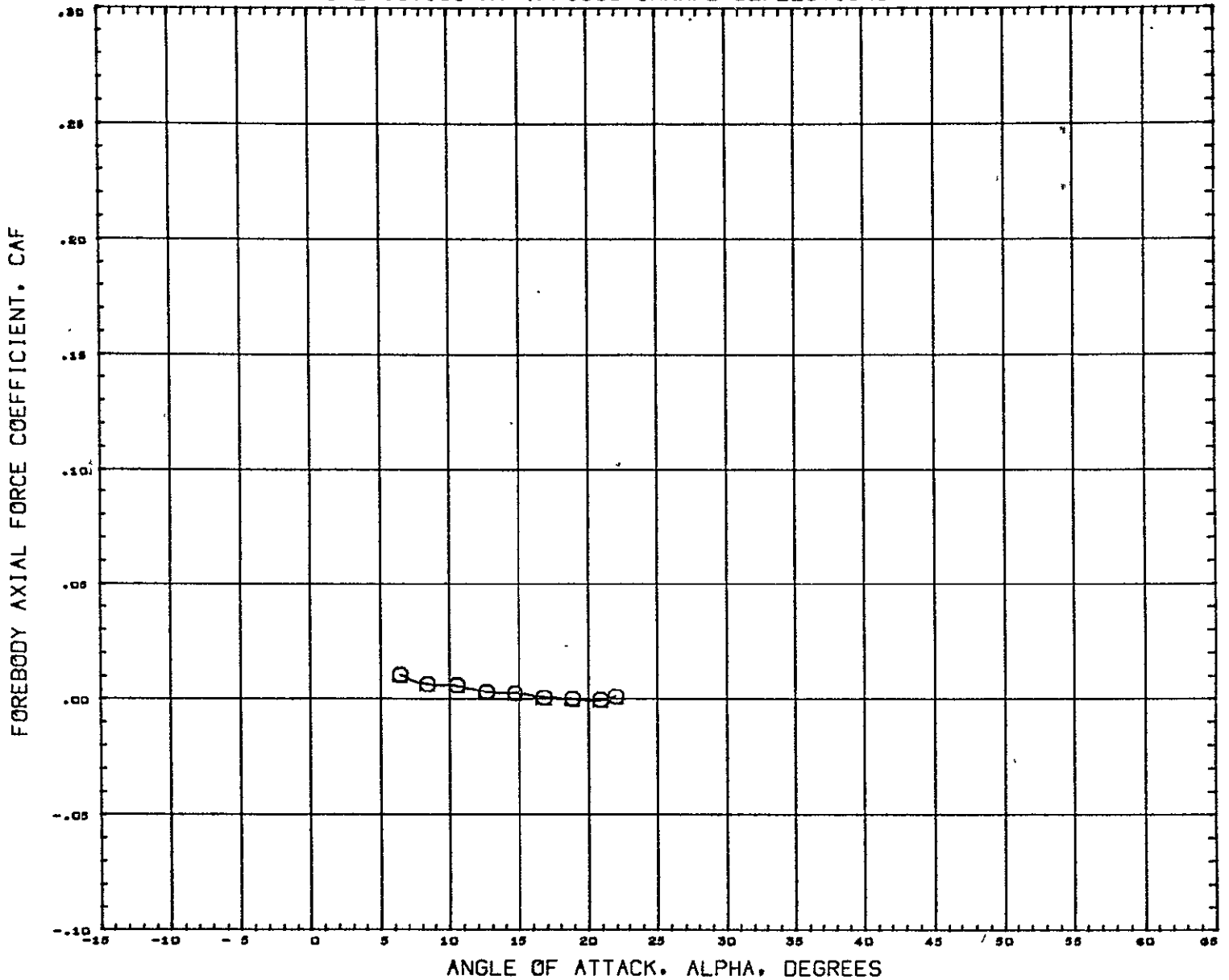
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20002)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20050)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.950

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

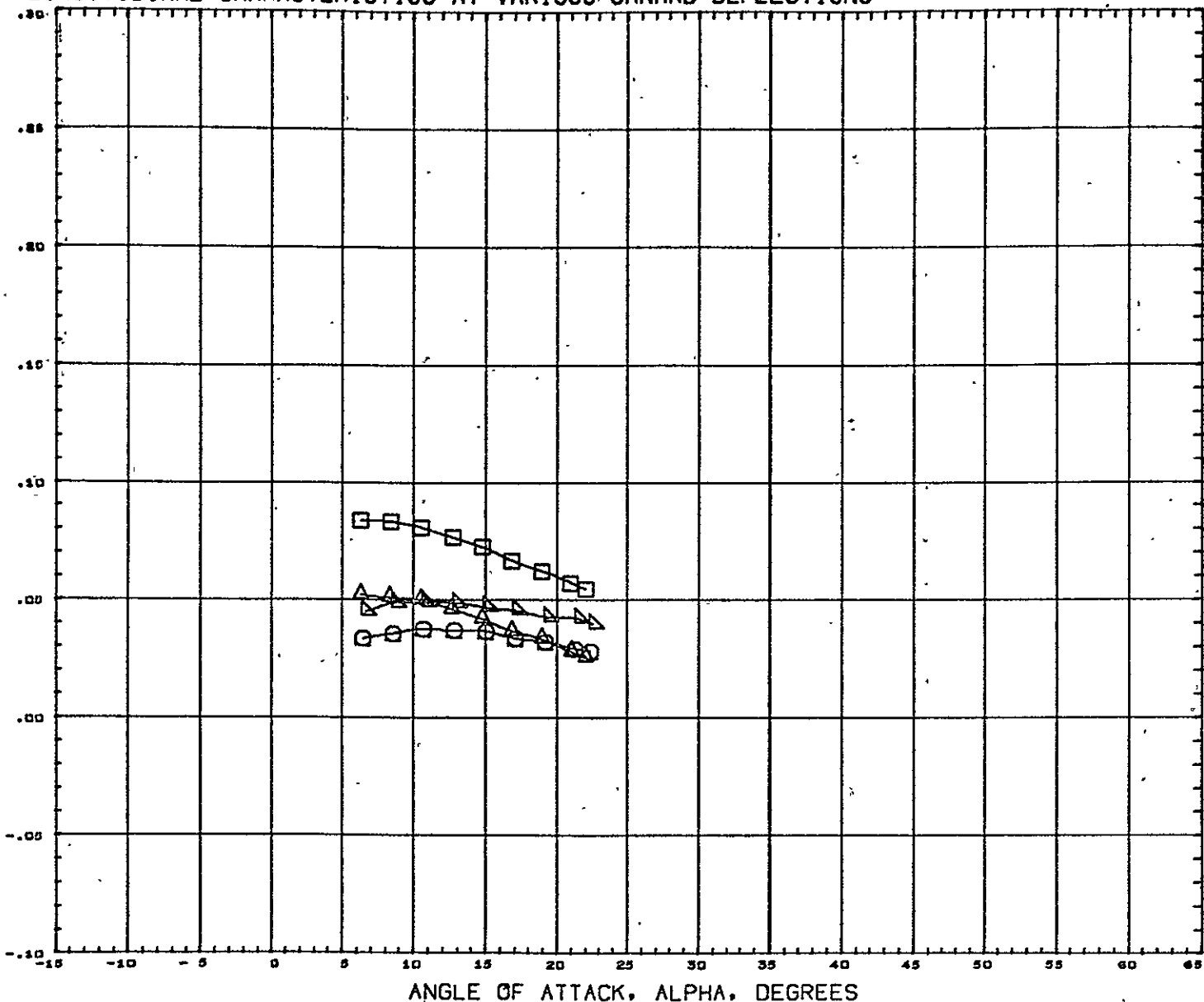


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	M3FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6360 sq. in.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.607

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

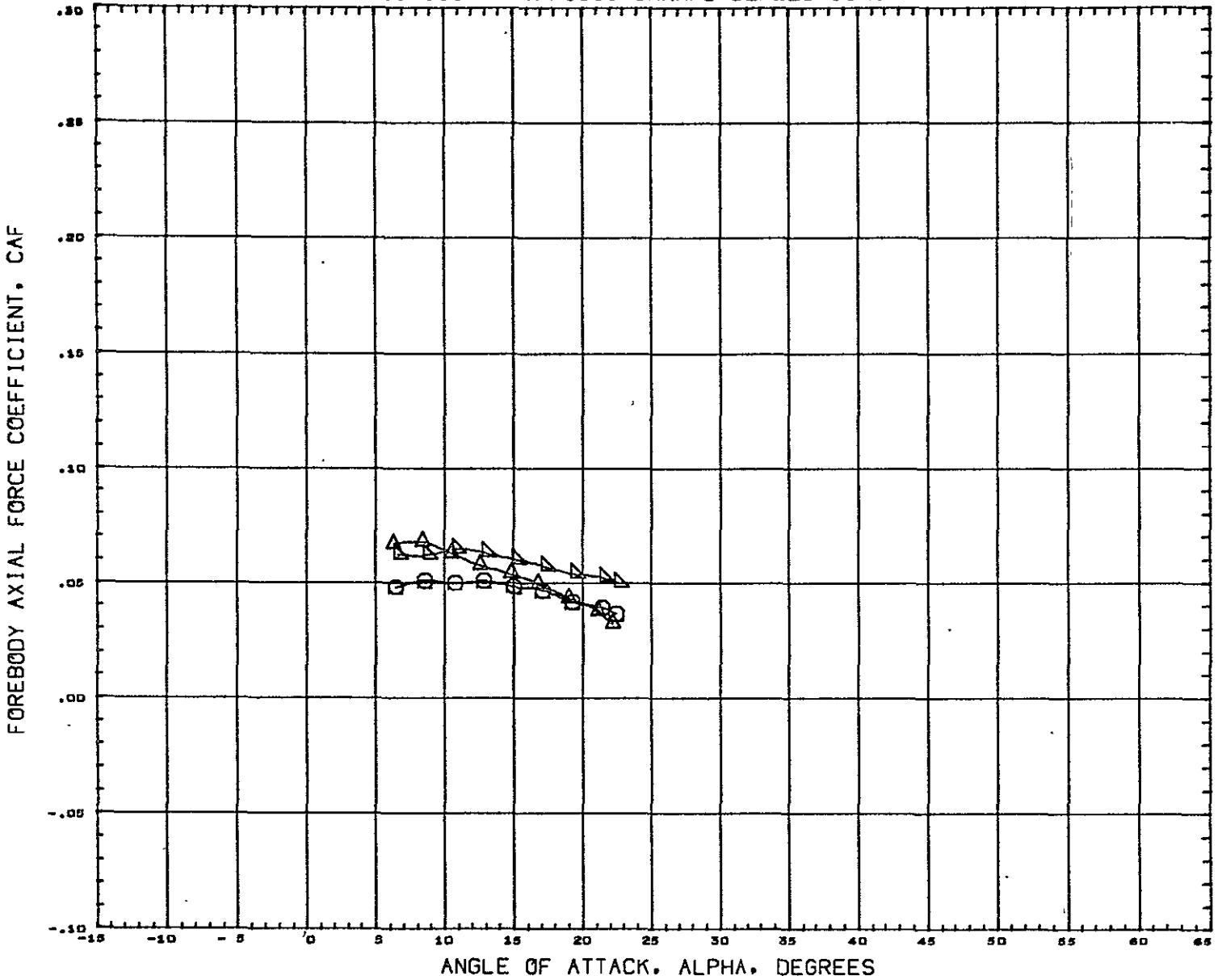
FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS					
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0900 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	-60.000	0.000		0.000	XMRP 6.7100 IN.
		15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0039

MACH 0.900

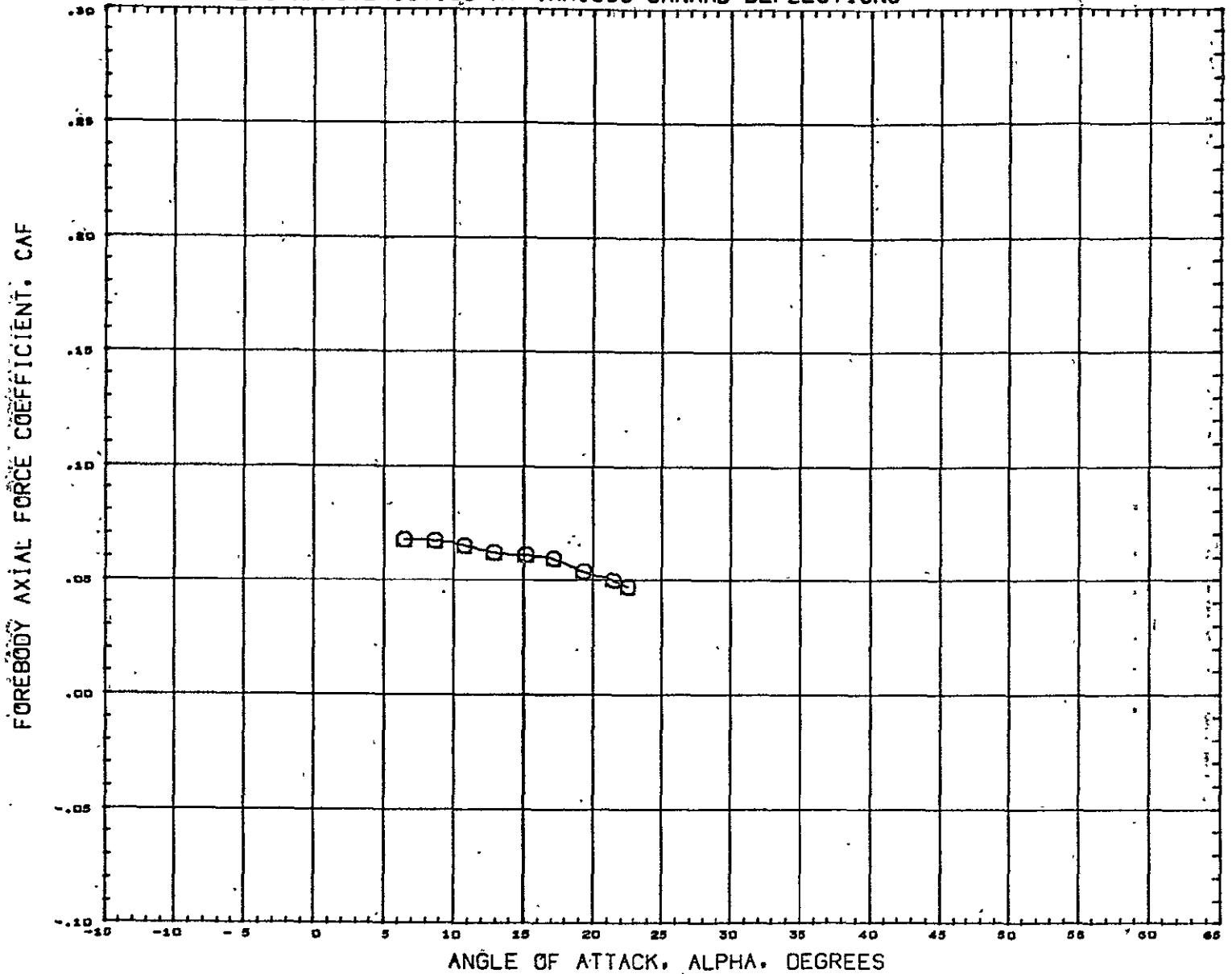
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C29D01)	M5FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	SREF	15.6560 SQ.IN.
(C29D00)	M5FC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000	0.000	LREF	3.0950 IN.
(E29C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	BREF	6.0990 IN.
(C29D10)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	XMRP	6.7100 IN.
(C29D11)	M5FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	YMRP	0.0000 IN.
					ZMRP	0.0000 IN.
					SCALE	0.0035

MACH 0.954

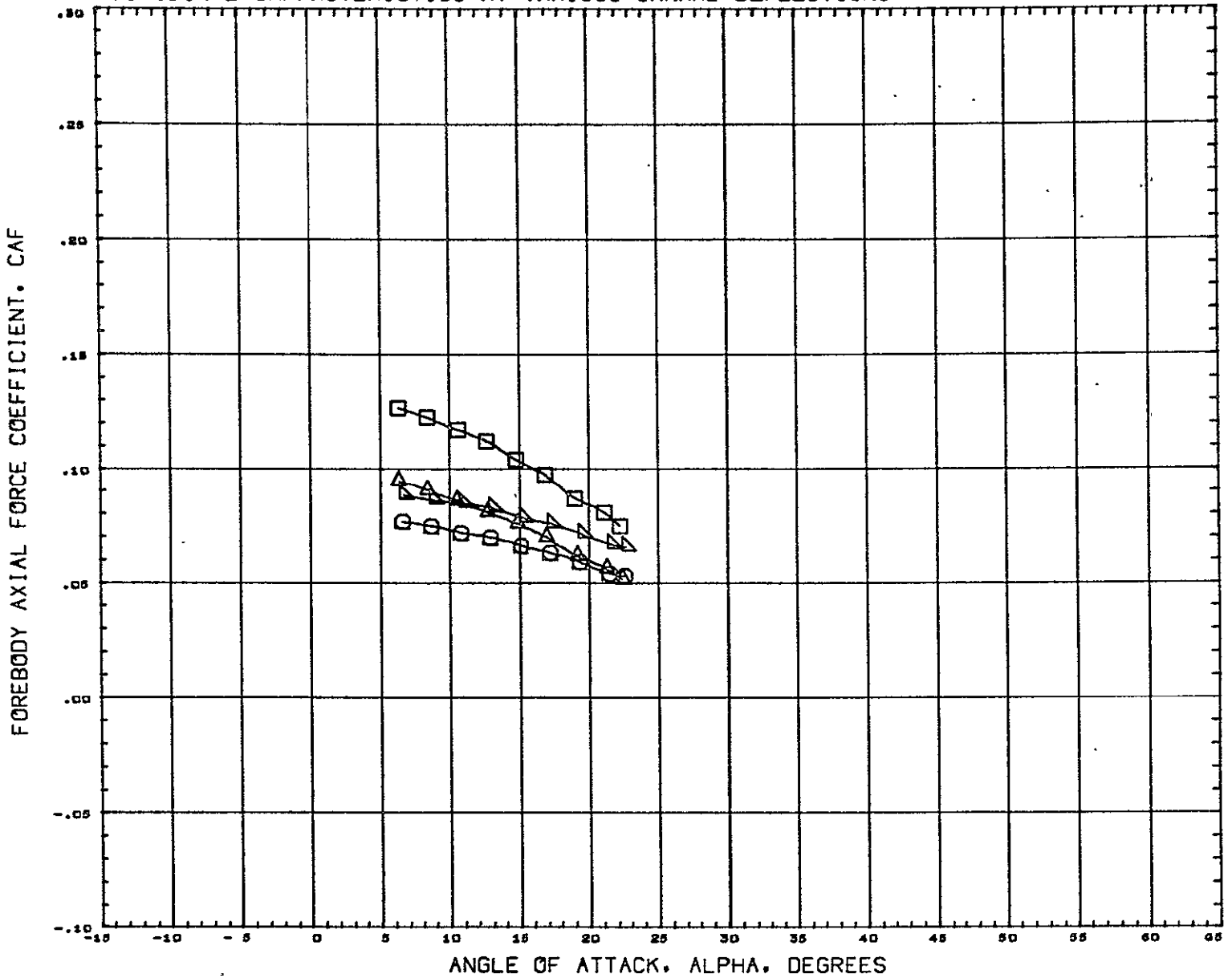
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)819W14C4V7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(C28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0900 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XHRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.007

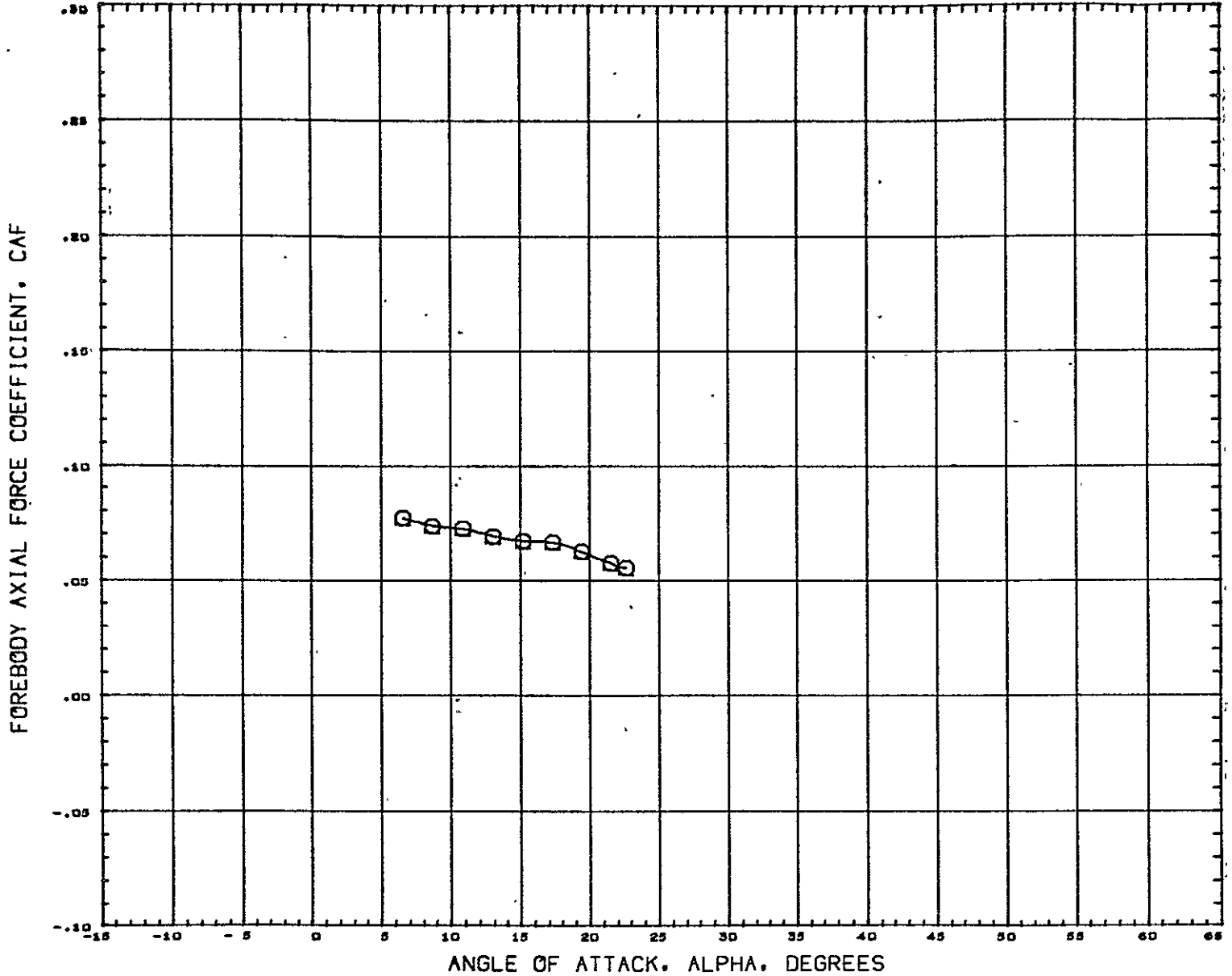
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	○	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	◇	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28050)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	△	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	▽	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.051

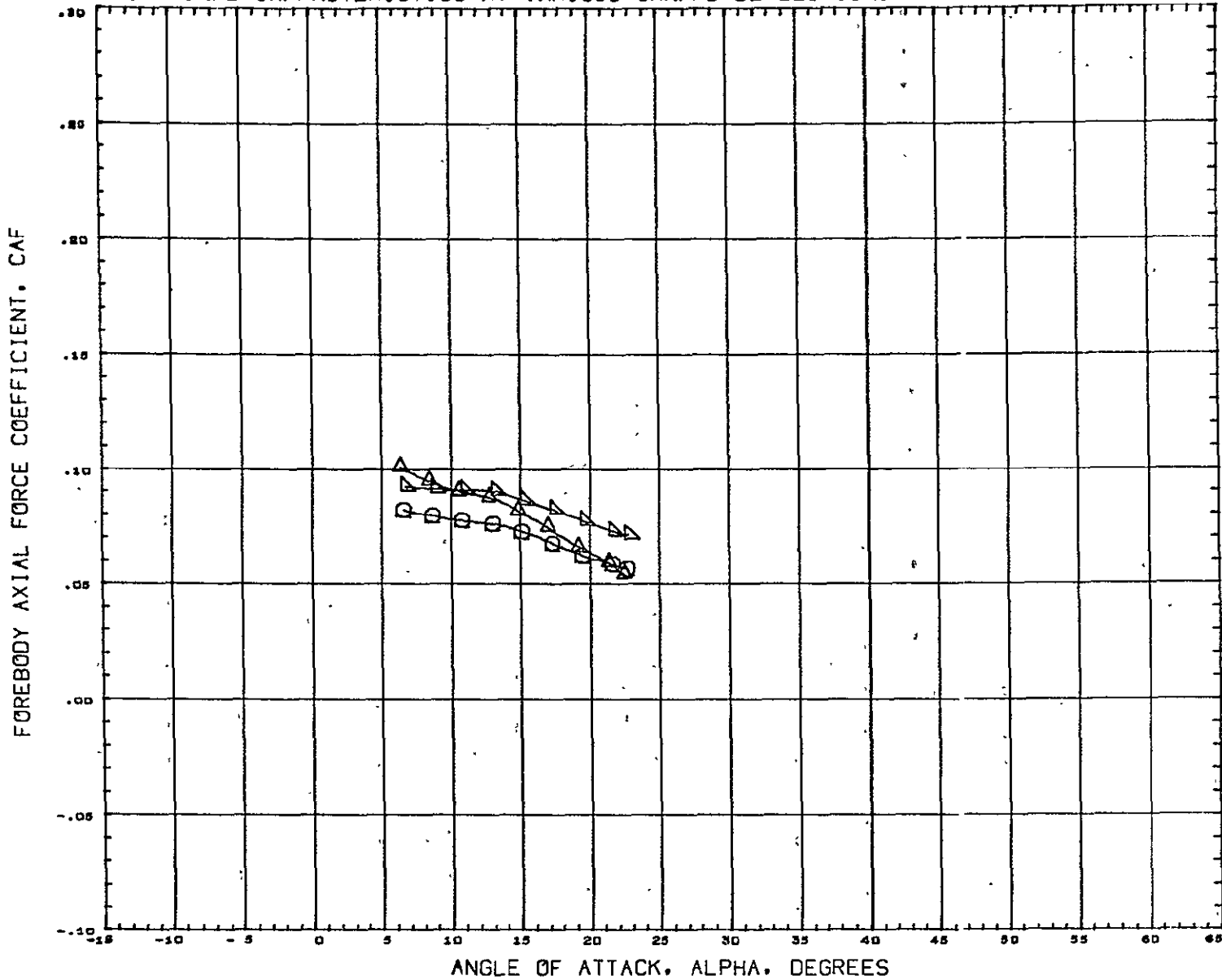
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 sq. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0990 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.105

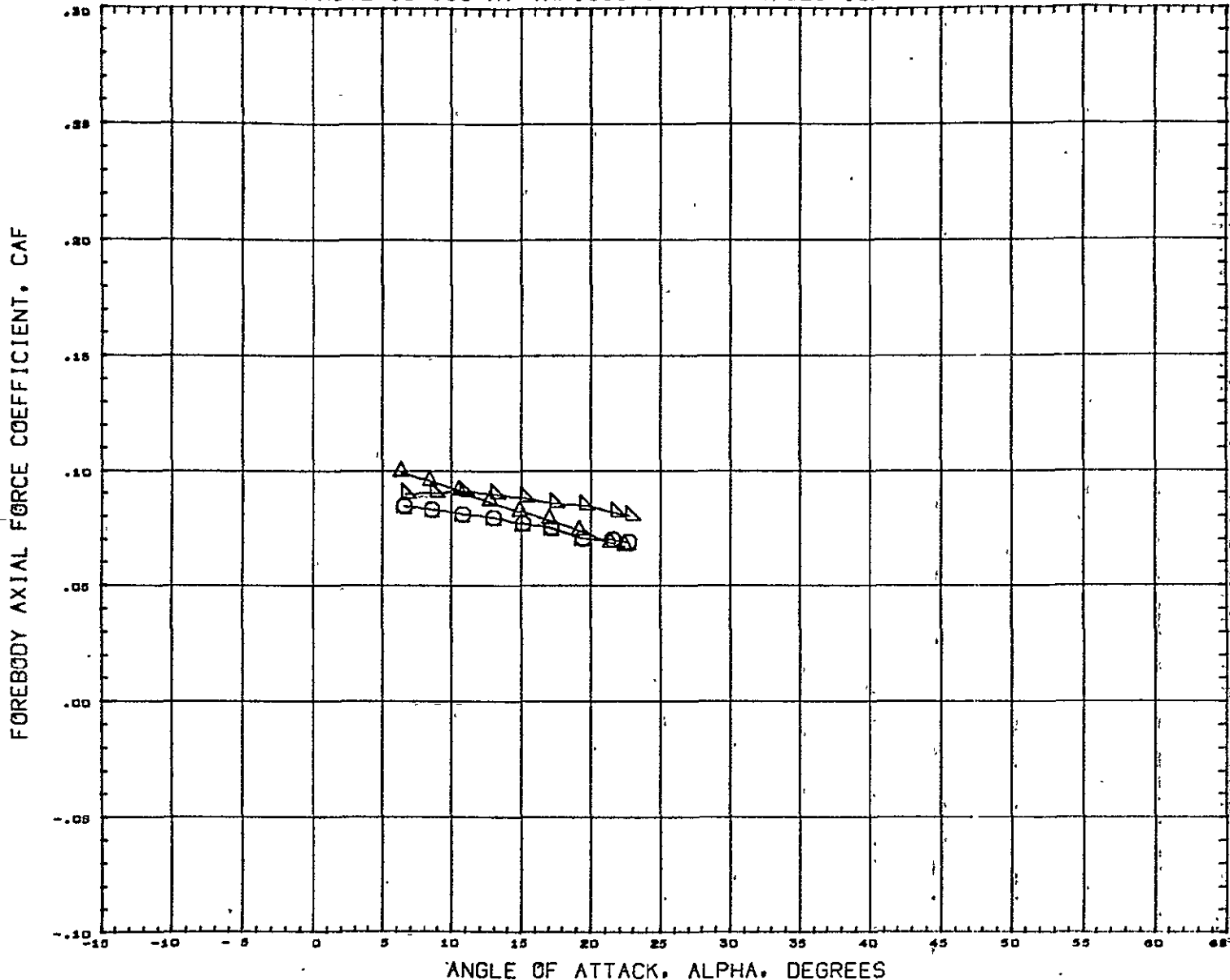
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.201

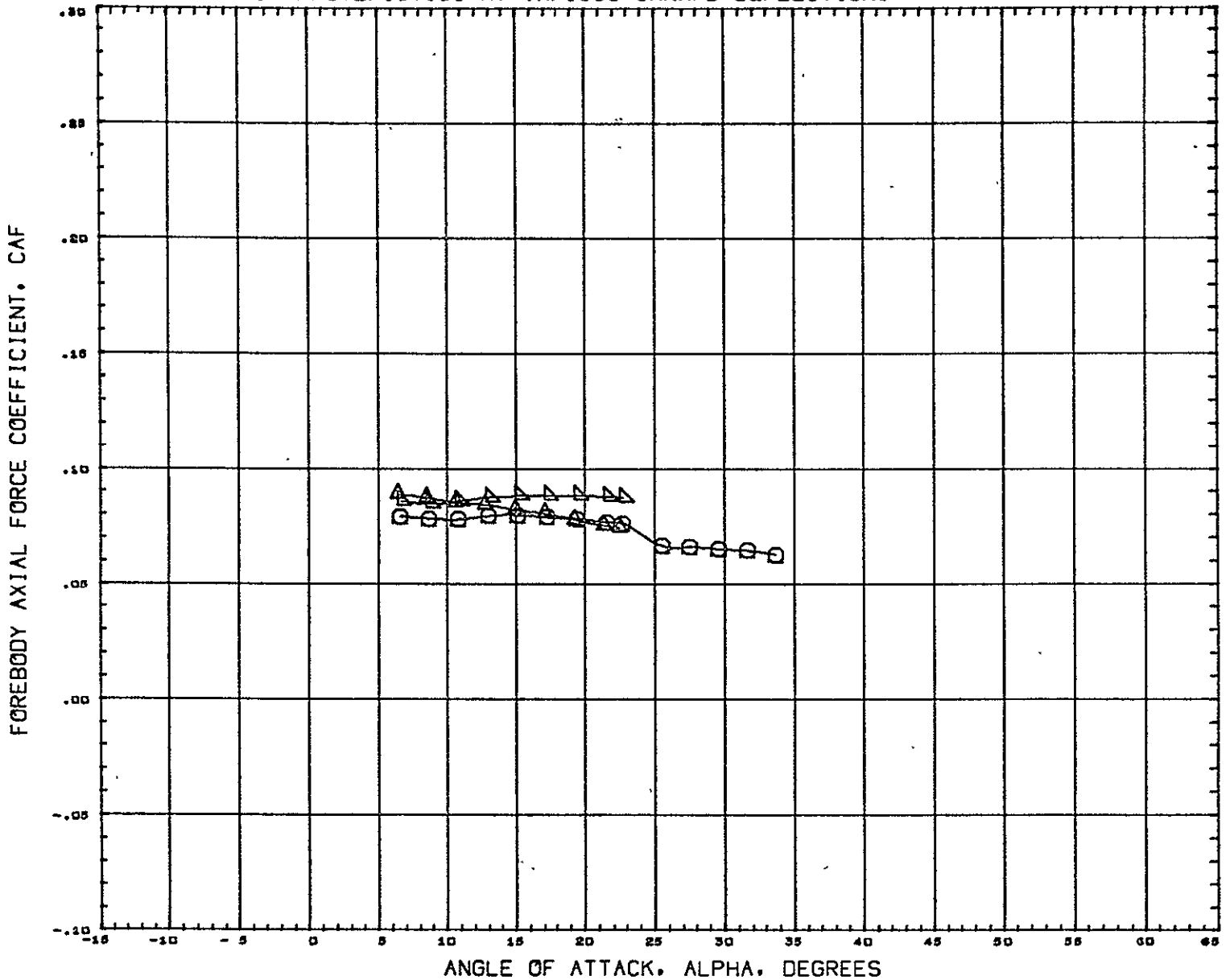
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.8560 39. IN.
(C28002)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(C28003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	SREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.462

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

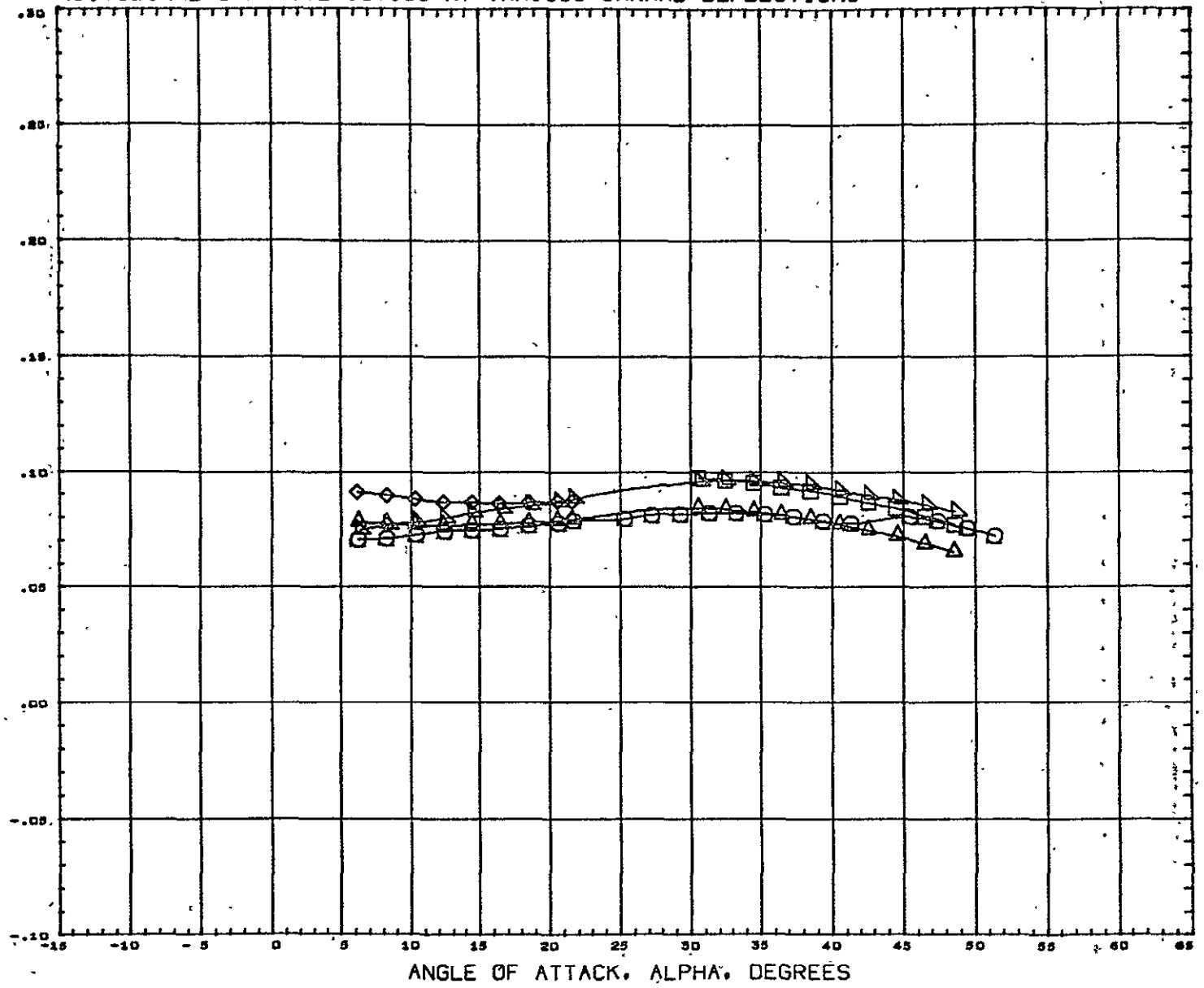


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0900 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.950

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

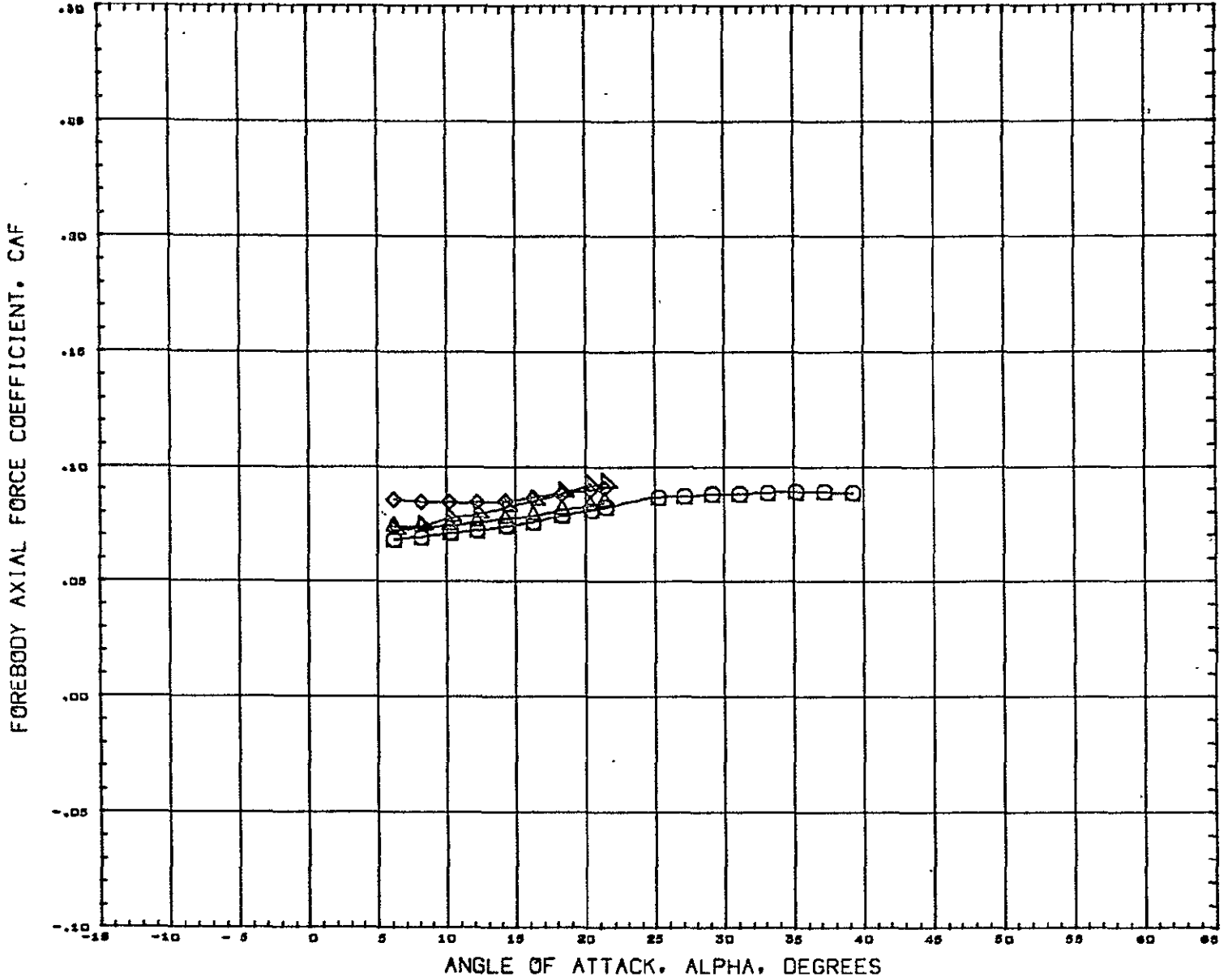
FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 39. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(R28C50)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XMRF 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRF 0.0000 IN. ZMRF 0.0000 IN. SCALE 0.0035

MACH 2.990

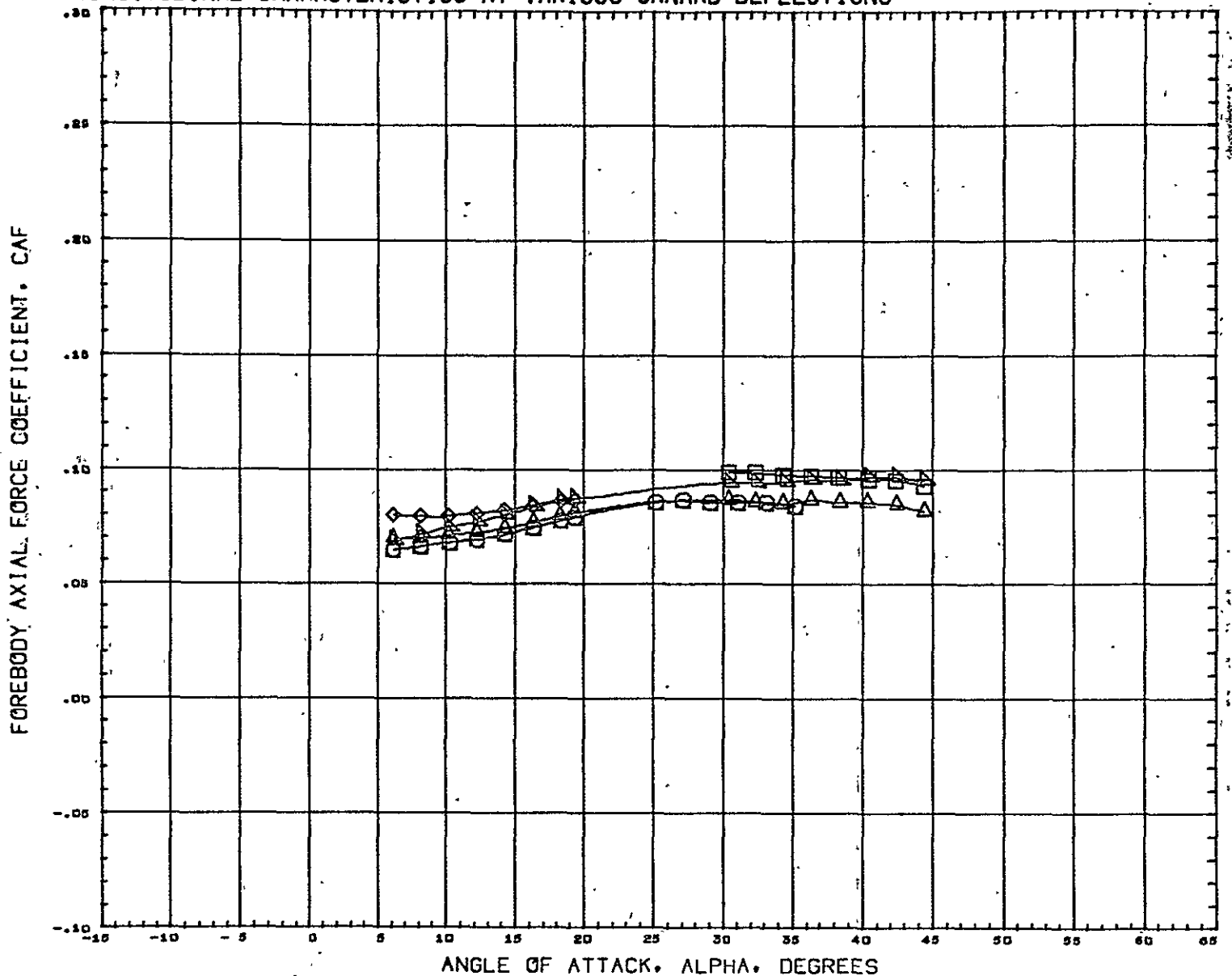
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 sq. IN.
(C28009)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20C50)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.000

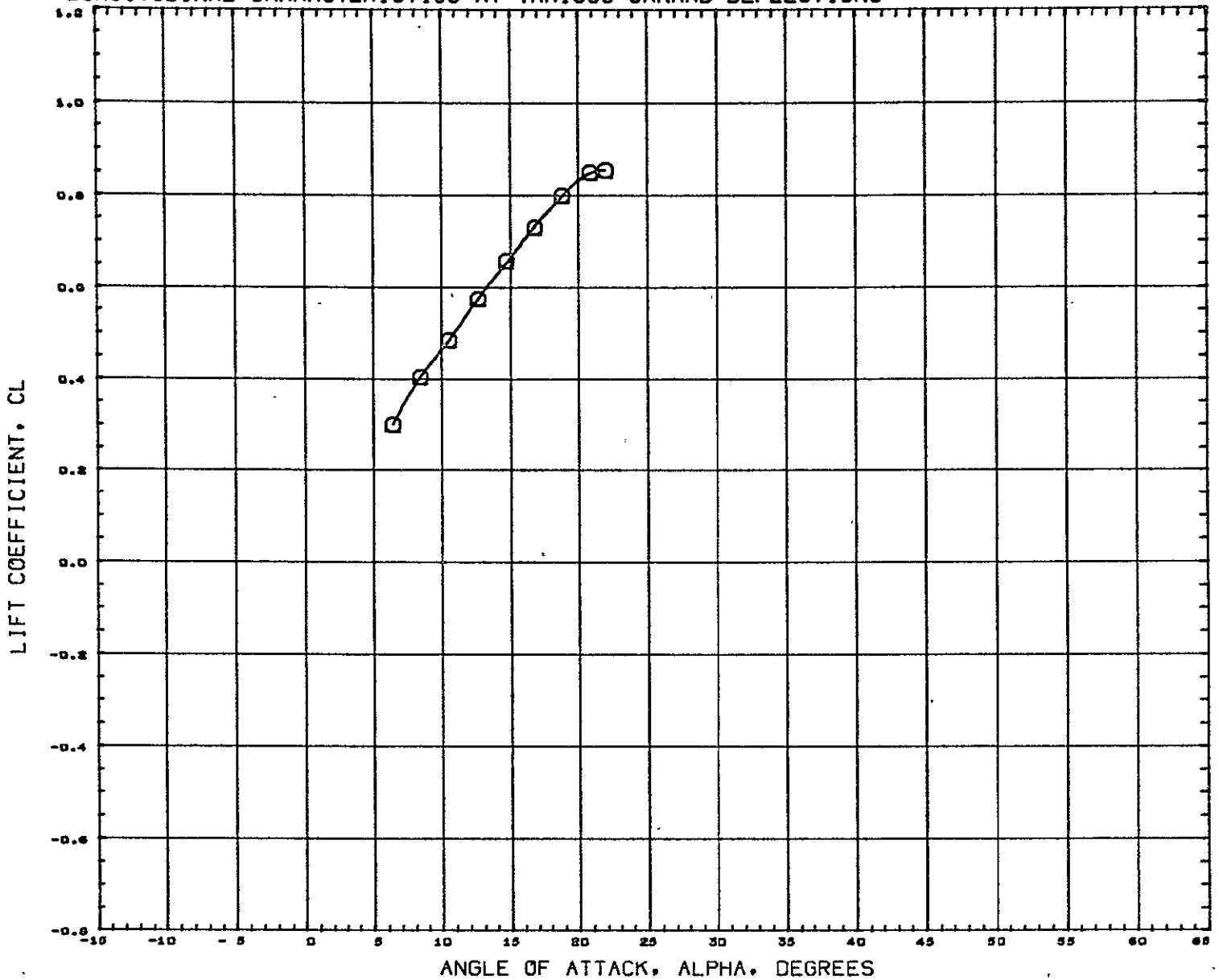
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20C50)	MSFC 461 GD/C (BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	MSFC461 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	MSFC 461 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.960

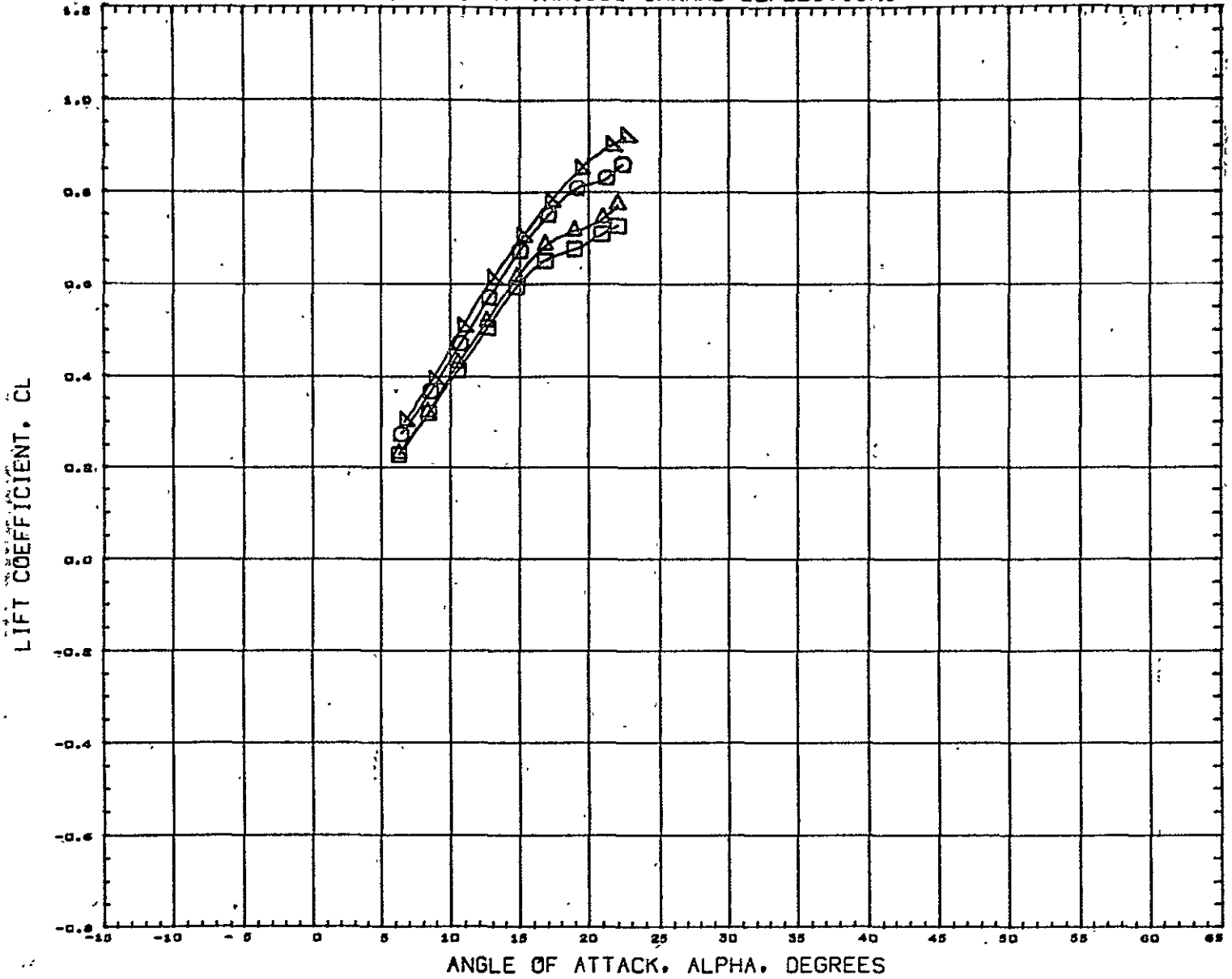
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M9FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 30.IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0990 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.607

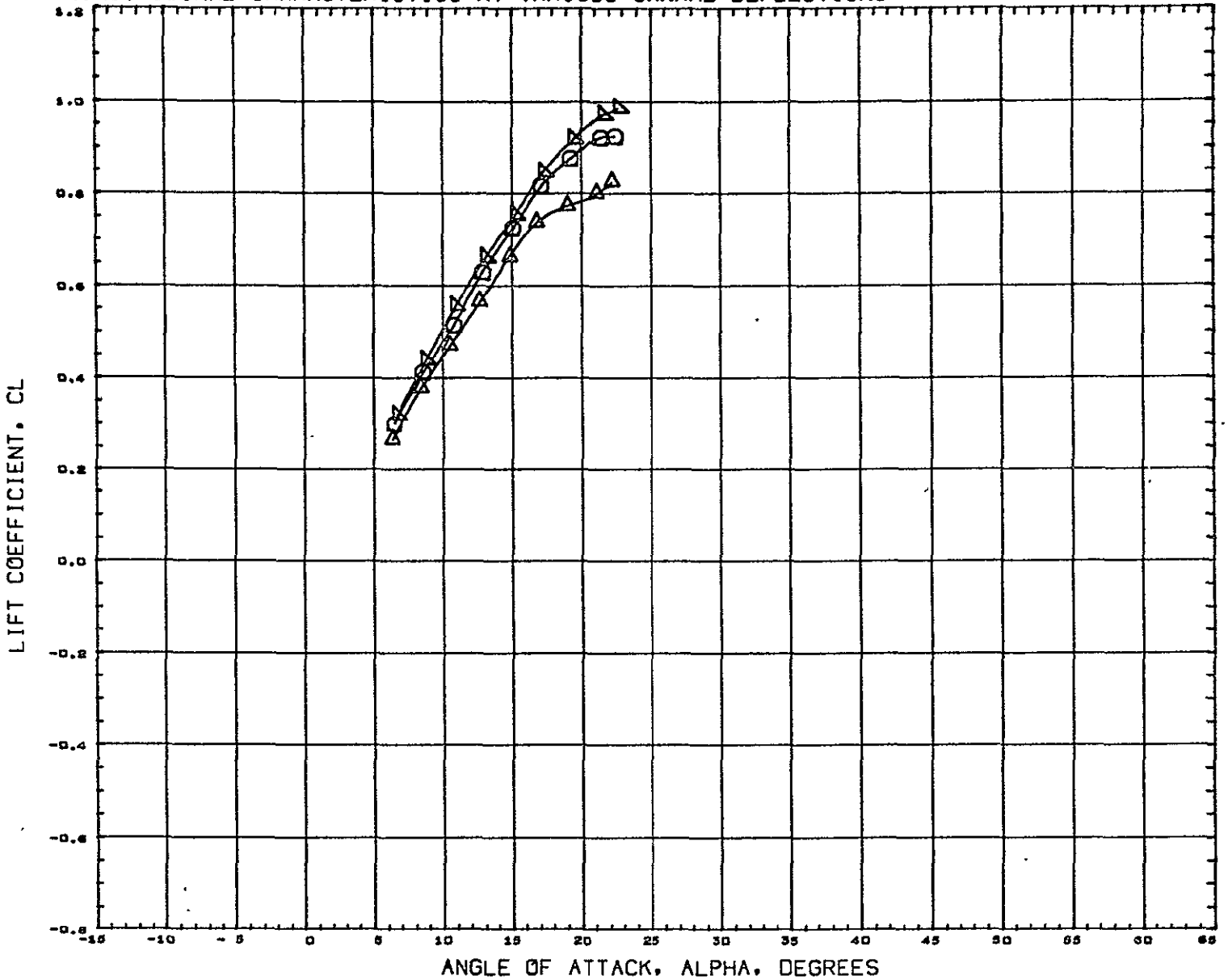
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 90. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

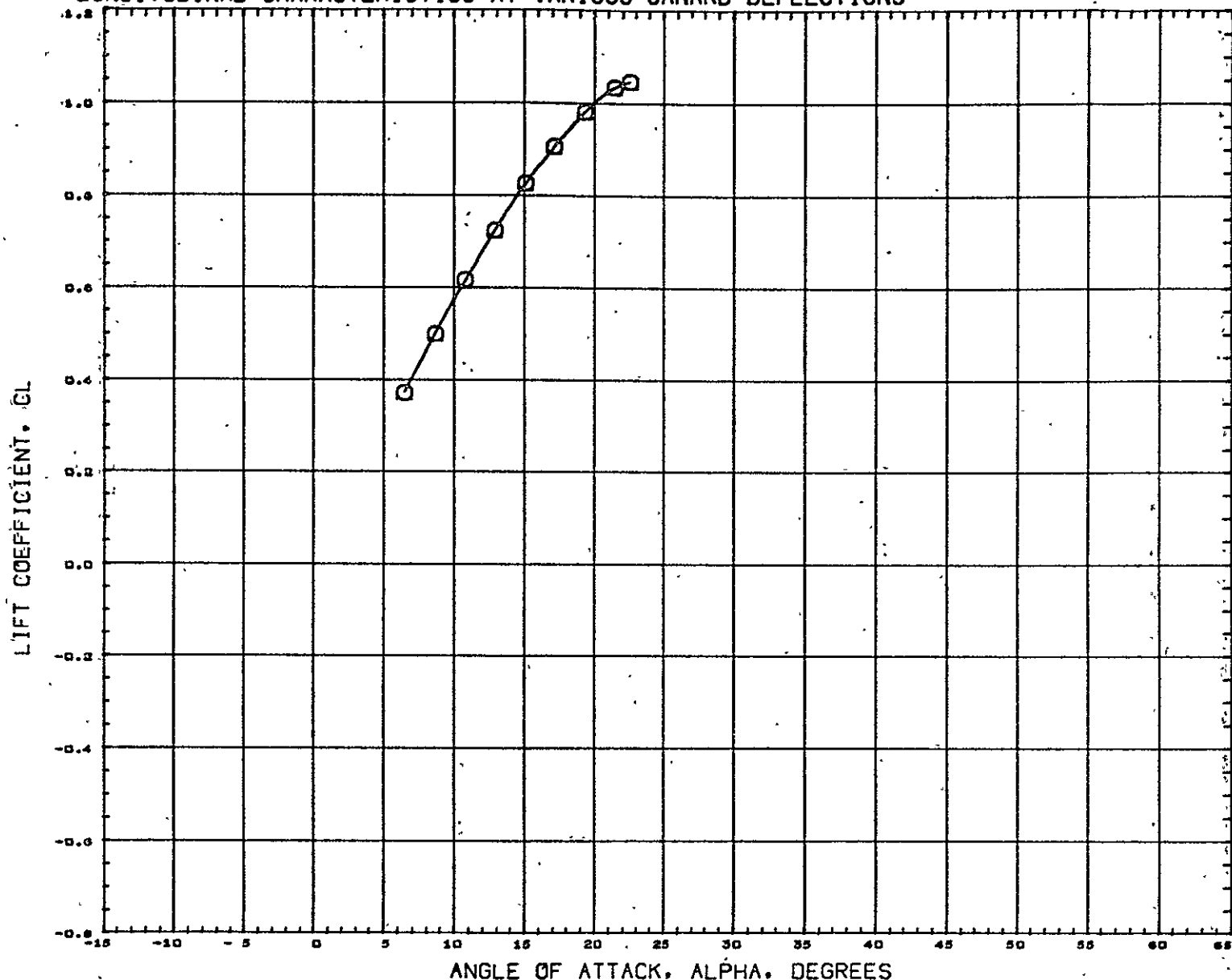
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28012)	M8FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.954

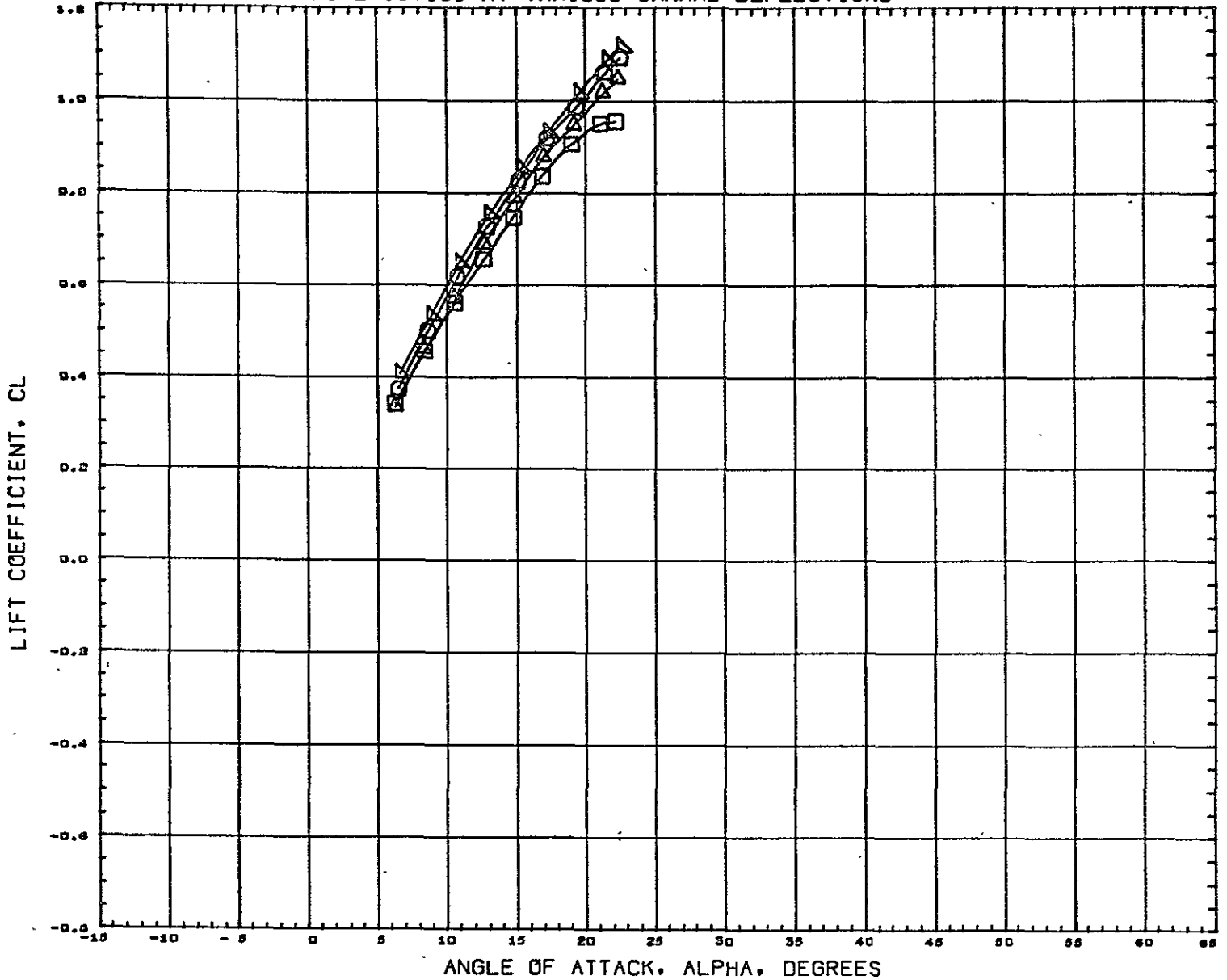
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(C28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

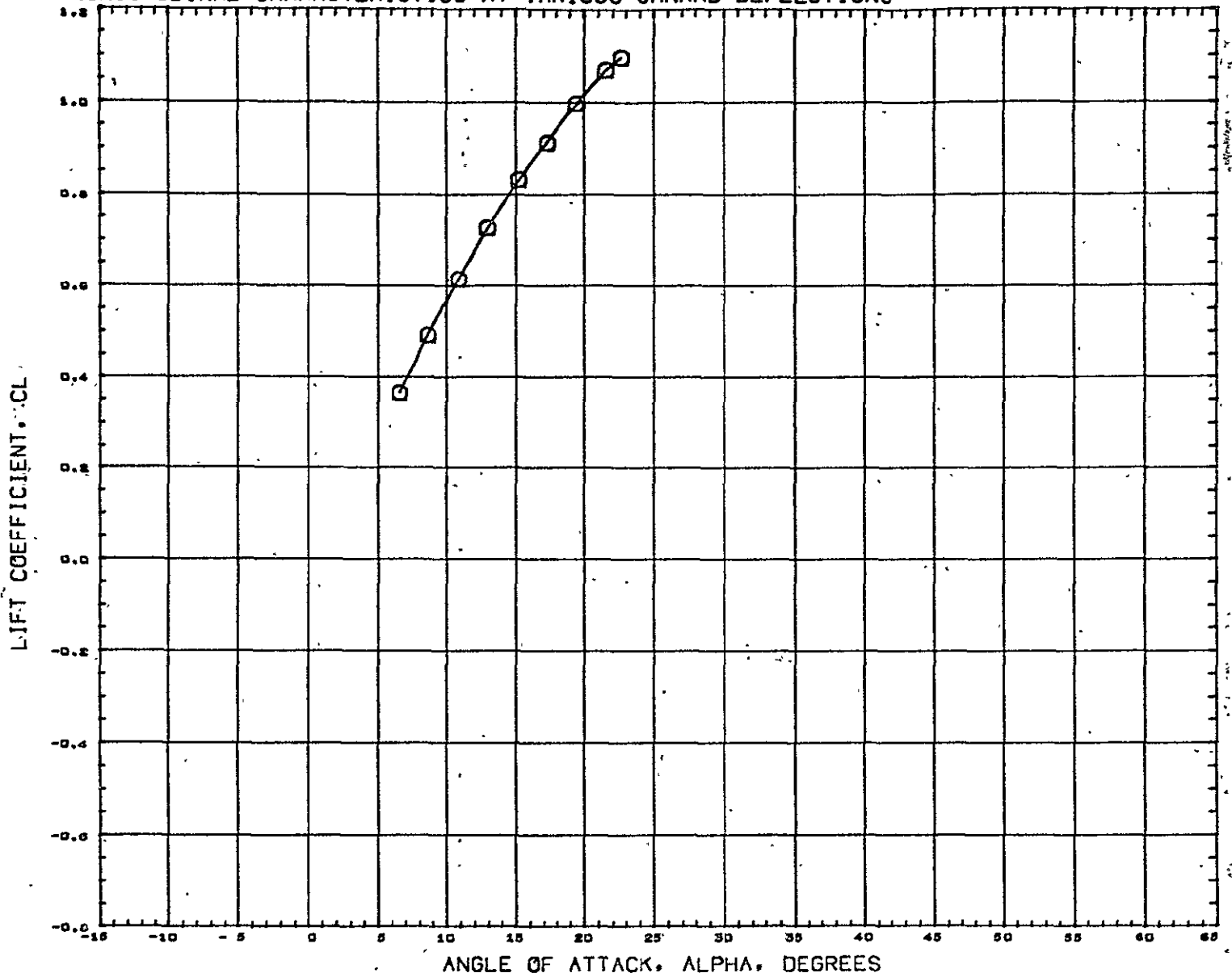
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28030)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	SREF 6.0990 IN.
(C28010)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	M3FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.051

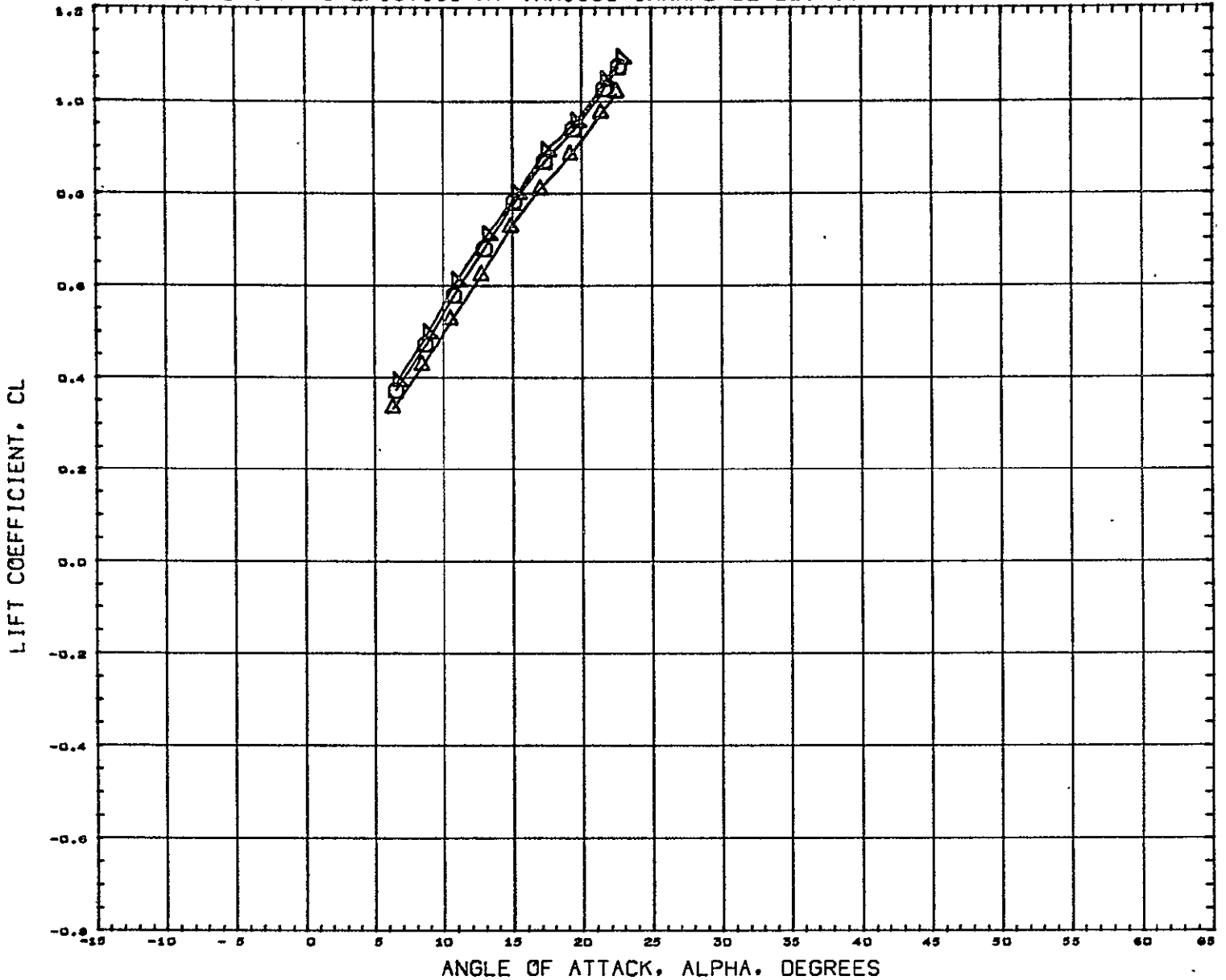
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4V7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20C80)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	YMRP 6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

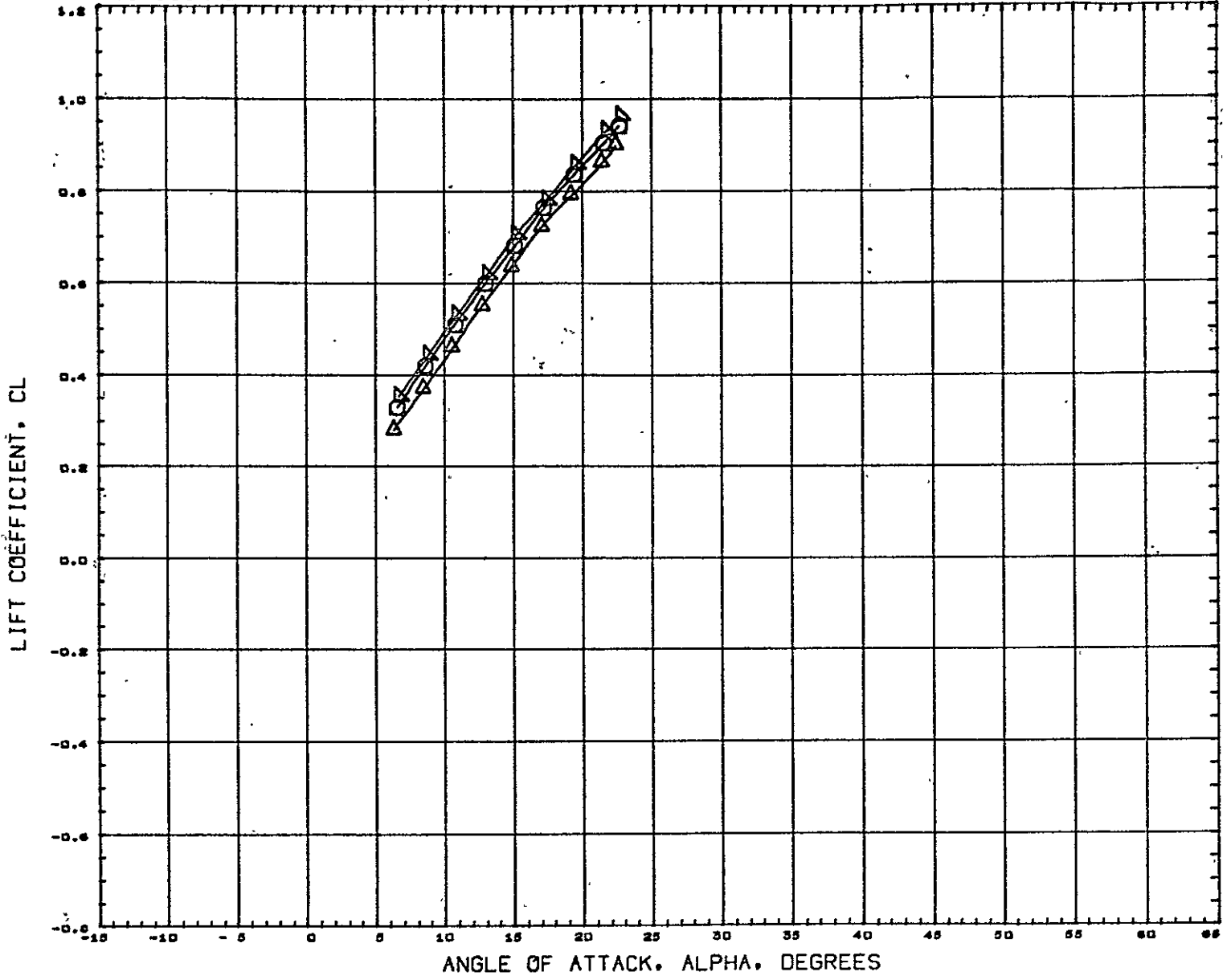
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	SREF	15.6560 sq. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	LREF	3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	BREF	6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	XHRP	6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7.	15.000	0.000	0.000	YHRP	0.0000 IN.
					ZHRP	0.0000 IN.
					SCALE	0.0035

MACH 1.201

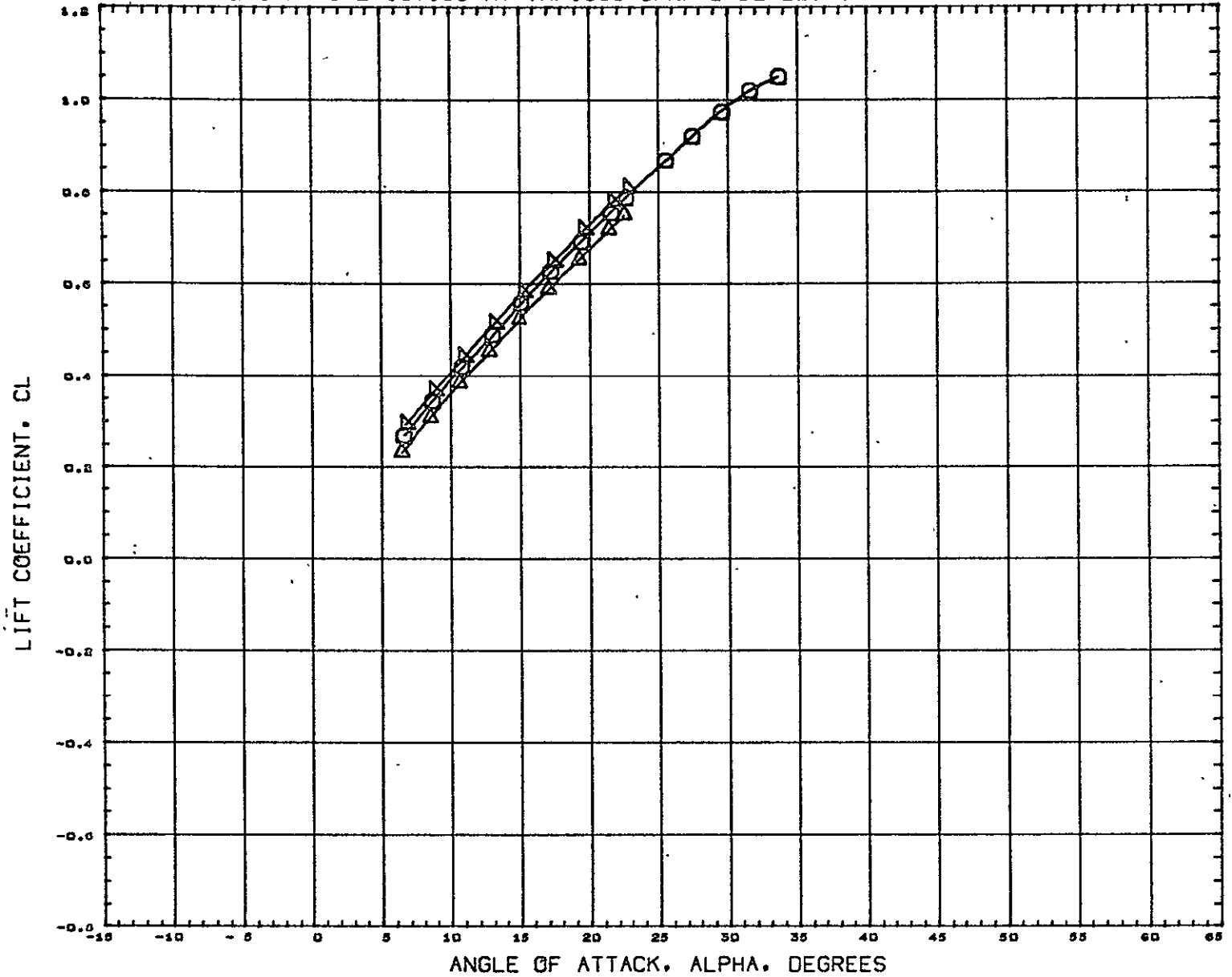
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C26001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6500 SQ. IN.
(C26009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E26050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0900 IN.
(C26010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C26011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0038

MACH 1.462

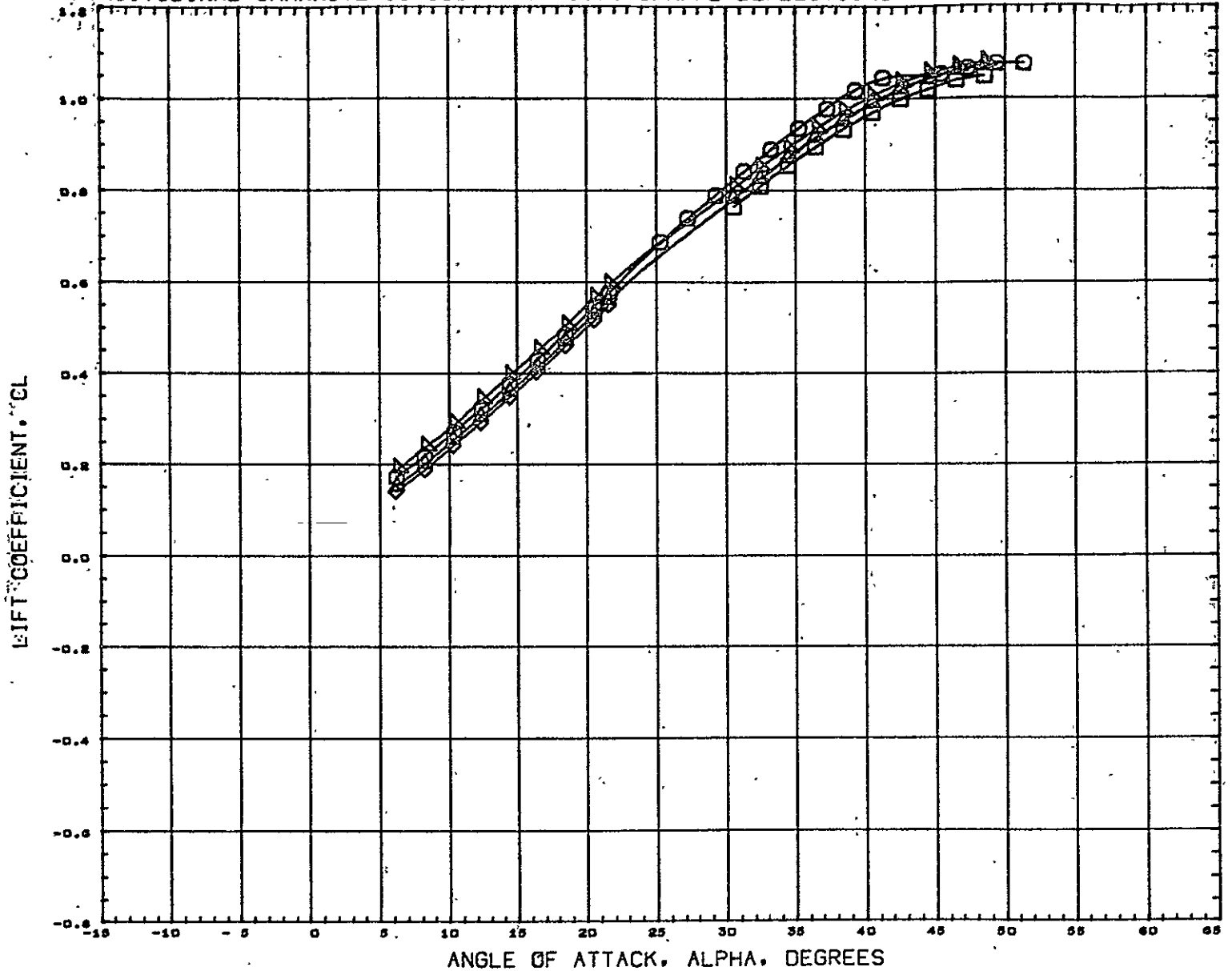
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	SREF	15.6560 IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	LREF	3.0950 IN.
(E20050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	BREF	6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	XMRP	6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	YMRP	0.0000 IN.
					ZMRP	0.0000 IN.
					SCALE	0.0035

MACH 1.058

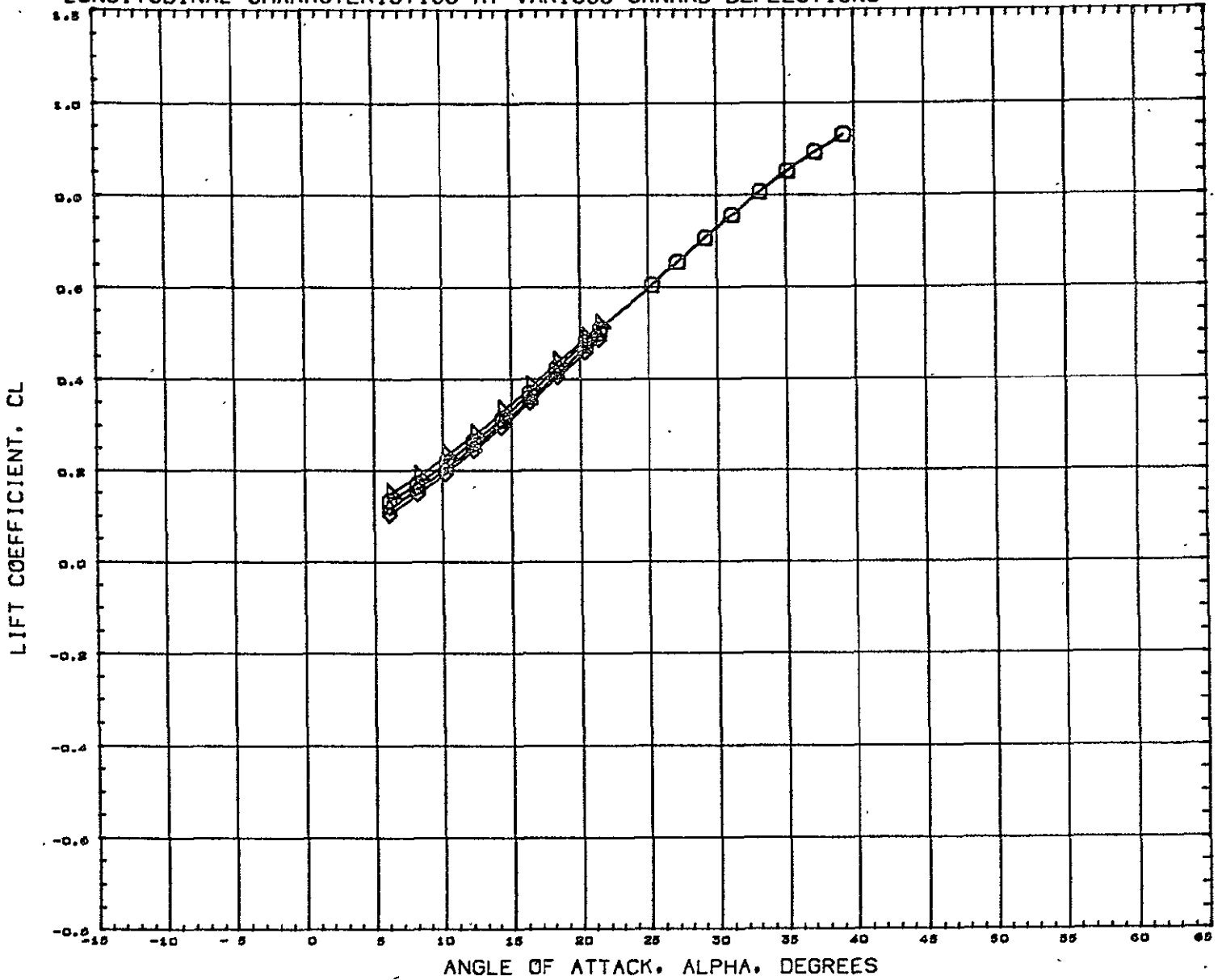
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.8560 sq. IN.
(C28009)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 5.0990 IN.
(E28C50)	M8FC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XHRP 6.7100 IN.
(C28011)	M8FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 2.990

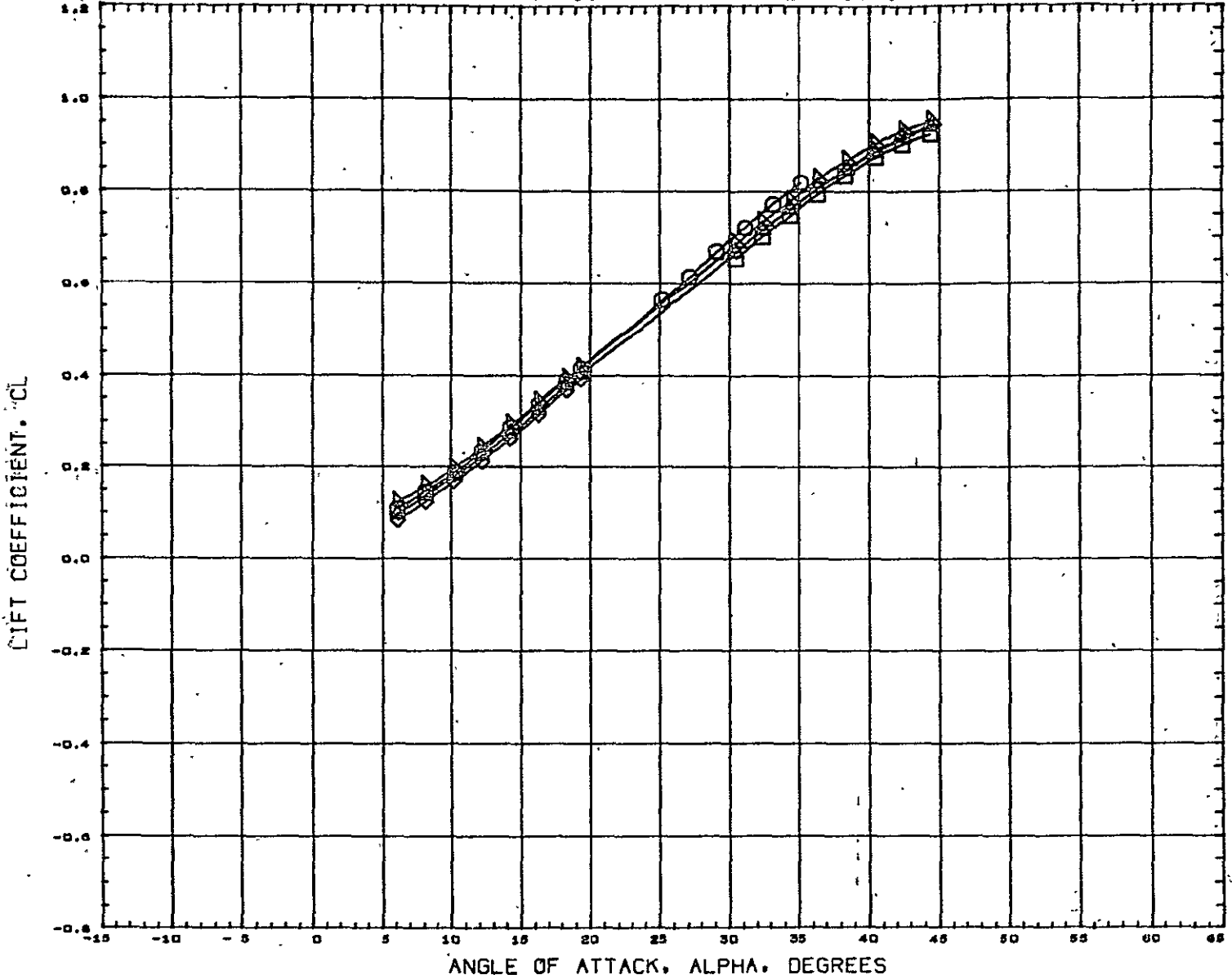
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 18.6500 80. IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20000)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0900 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0038

MACH 4.000

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

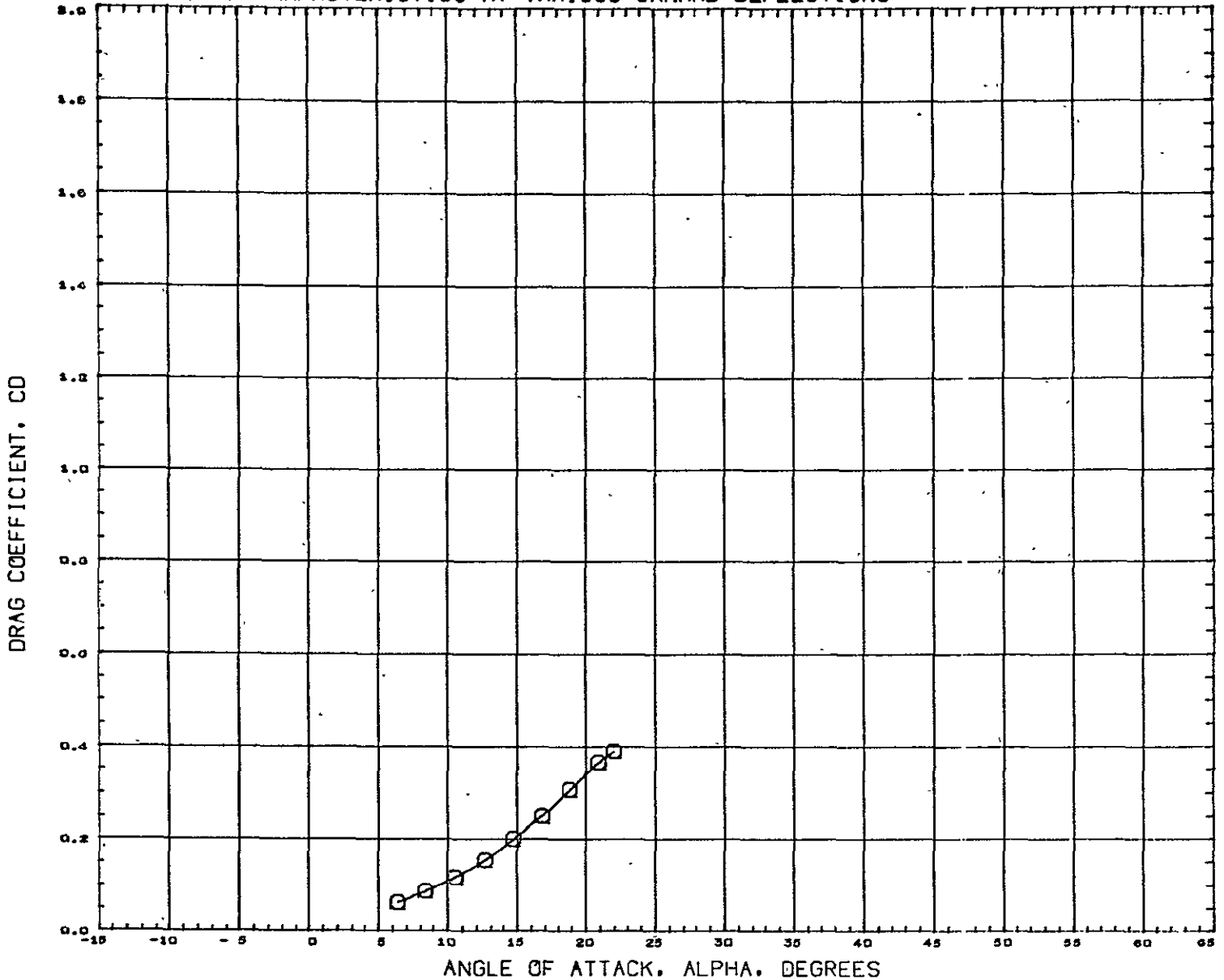


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6500 sq. IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0990 IN.
(E20C50)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0055

MACH 4.960

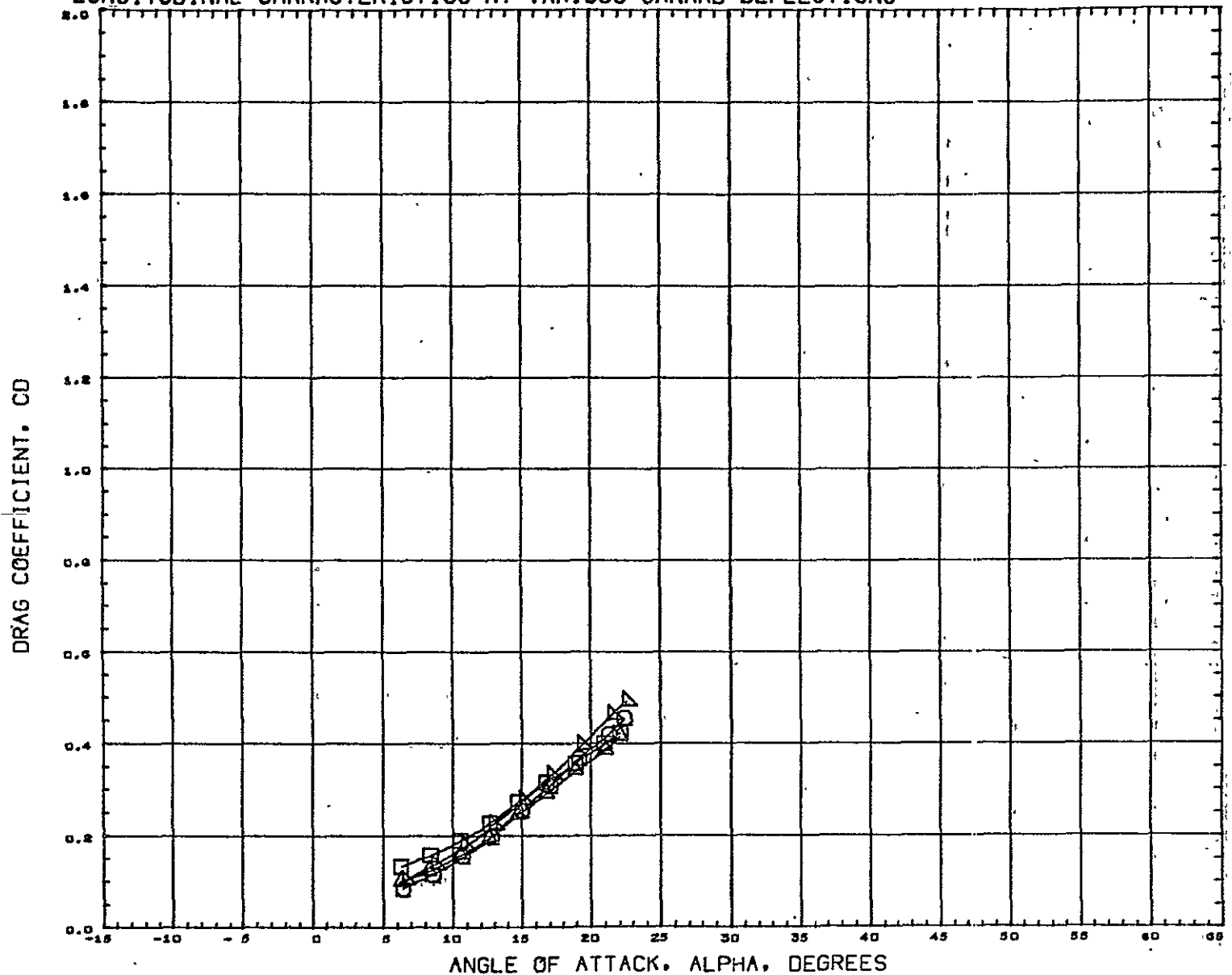
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28003)	MSFC461 GD/C(BOOSTER)S19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 sq. IN.
(C28008)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28030)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.607

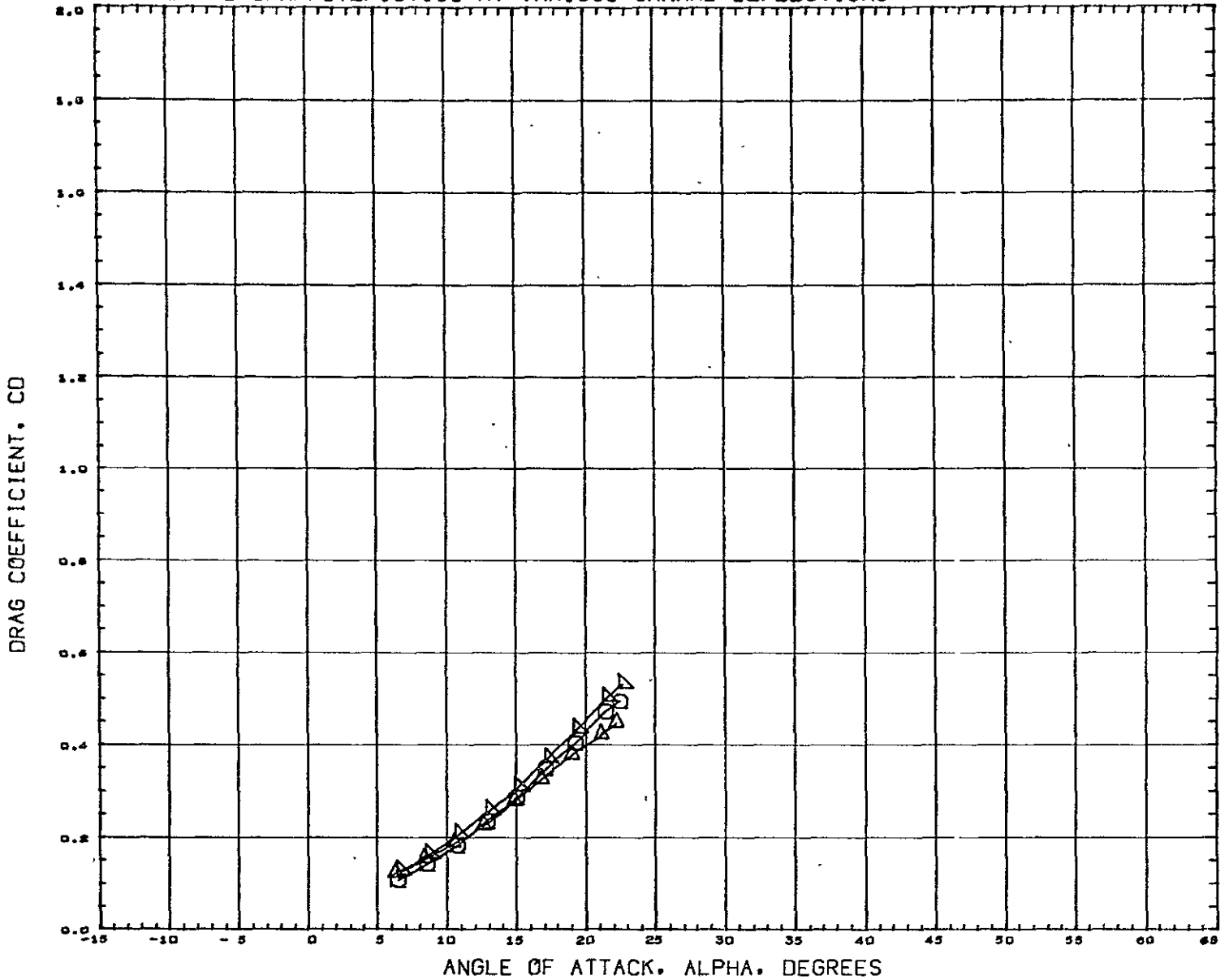
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(CZ0001)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(CZ0009)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 5.0950 IN.
(E20C00)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	SREF 6.0990 IN.
(CZ0010)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XMRP 6.7100 IN.
(CZ0011)	MSFC 401 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.900

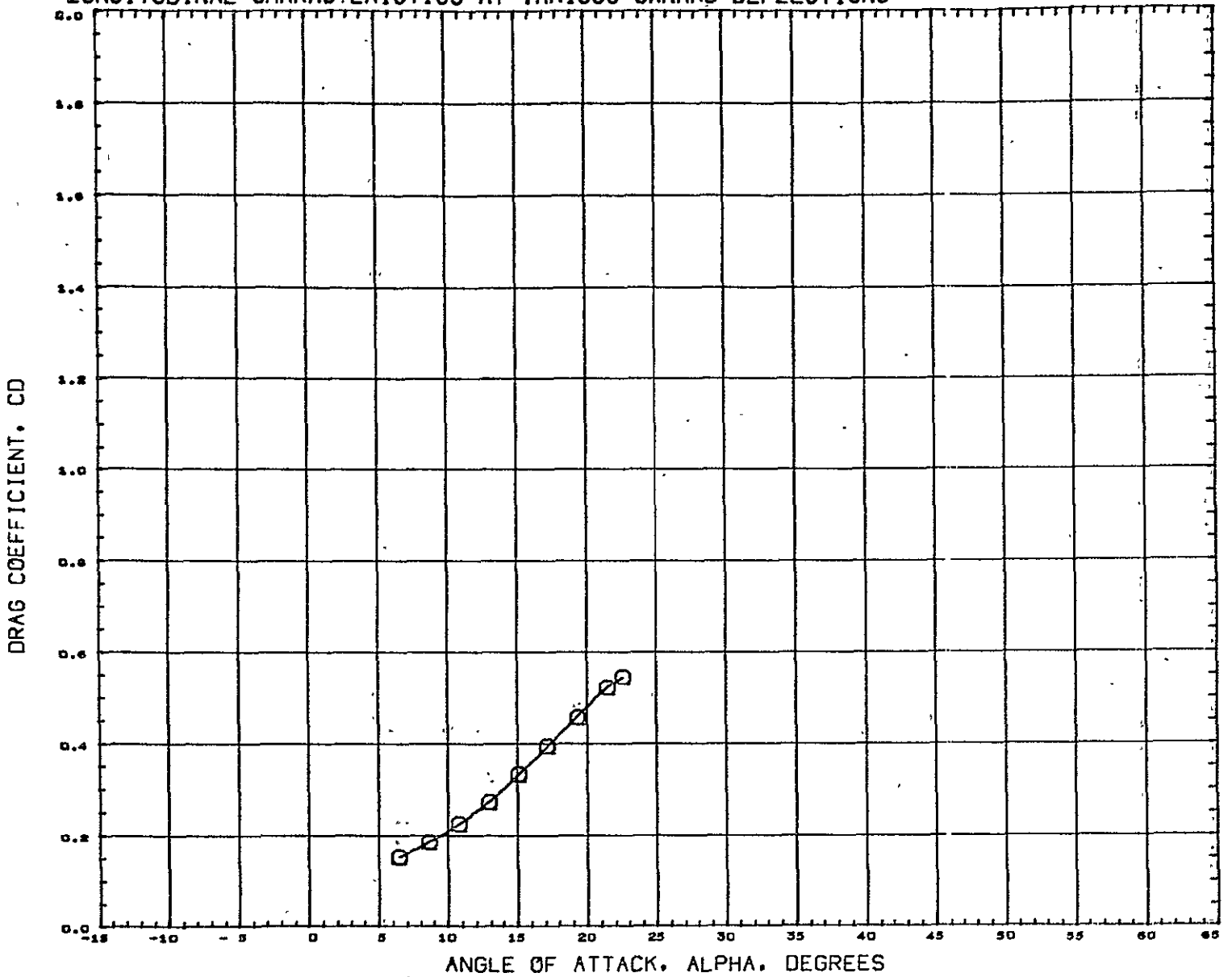
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 5.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS.	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.954

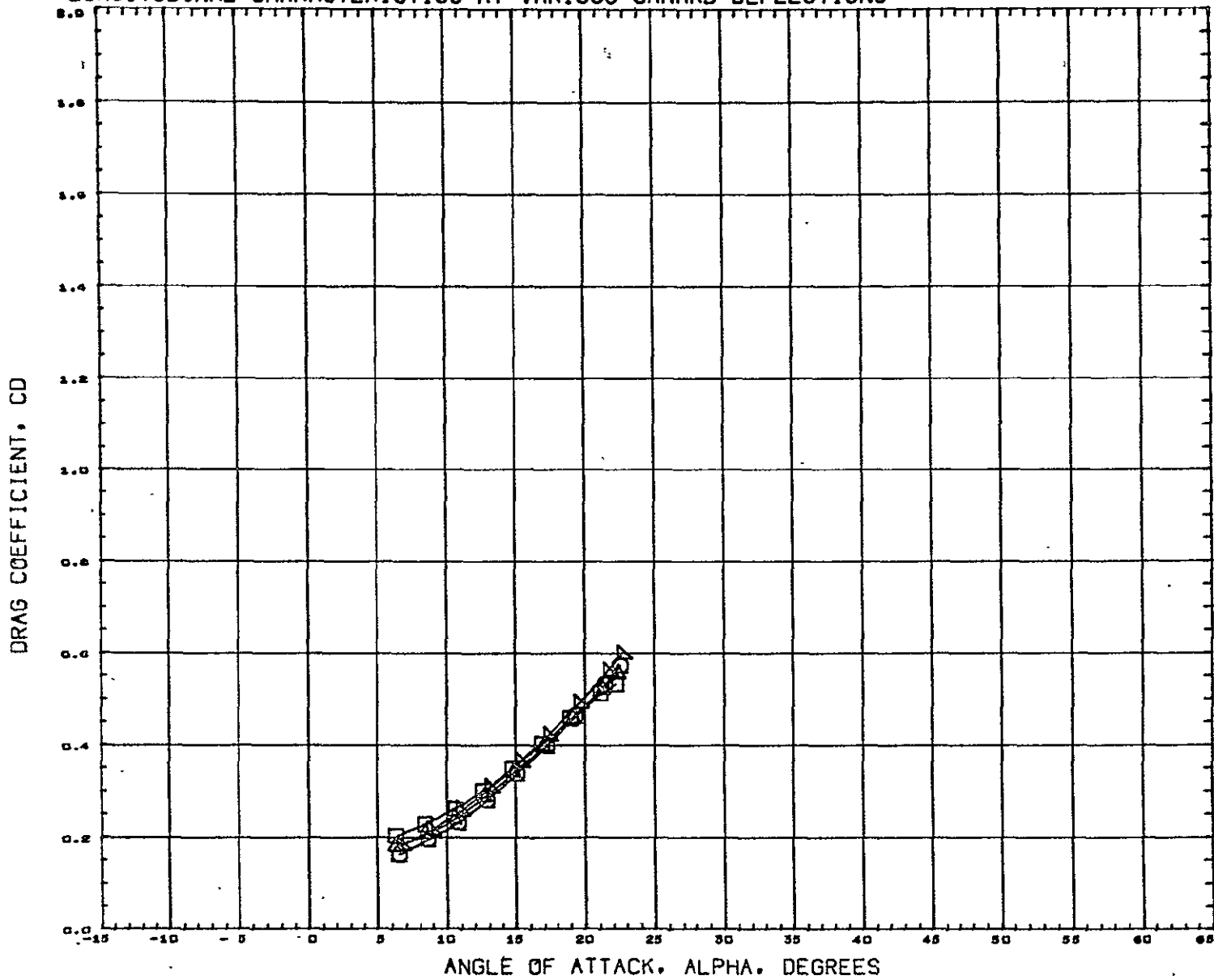
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	M8FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20020)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0950 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0033

MACH 1.007

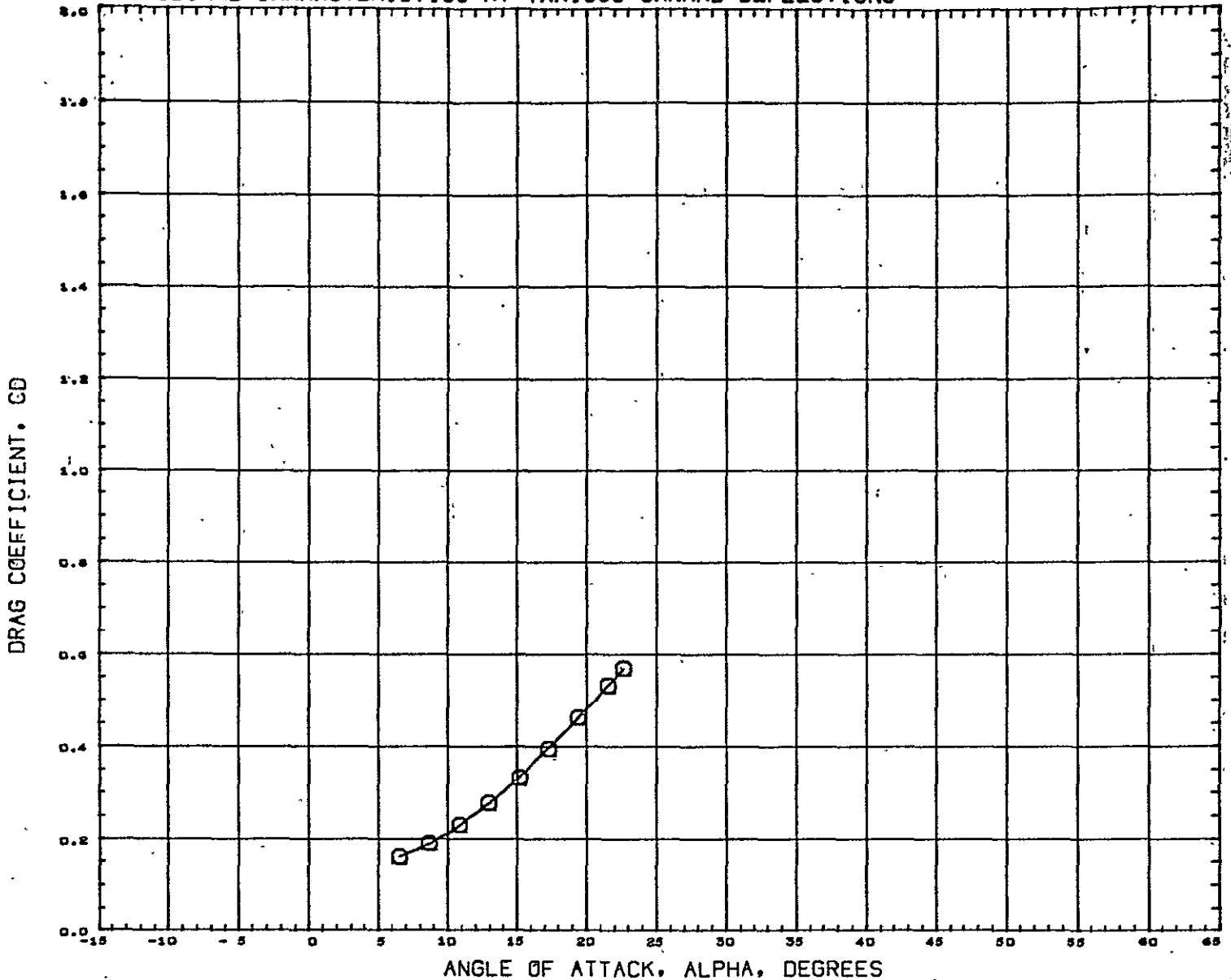
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28008)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.051

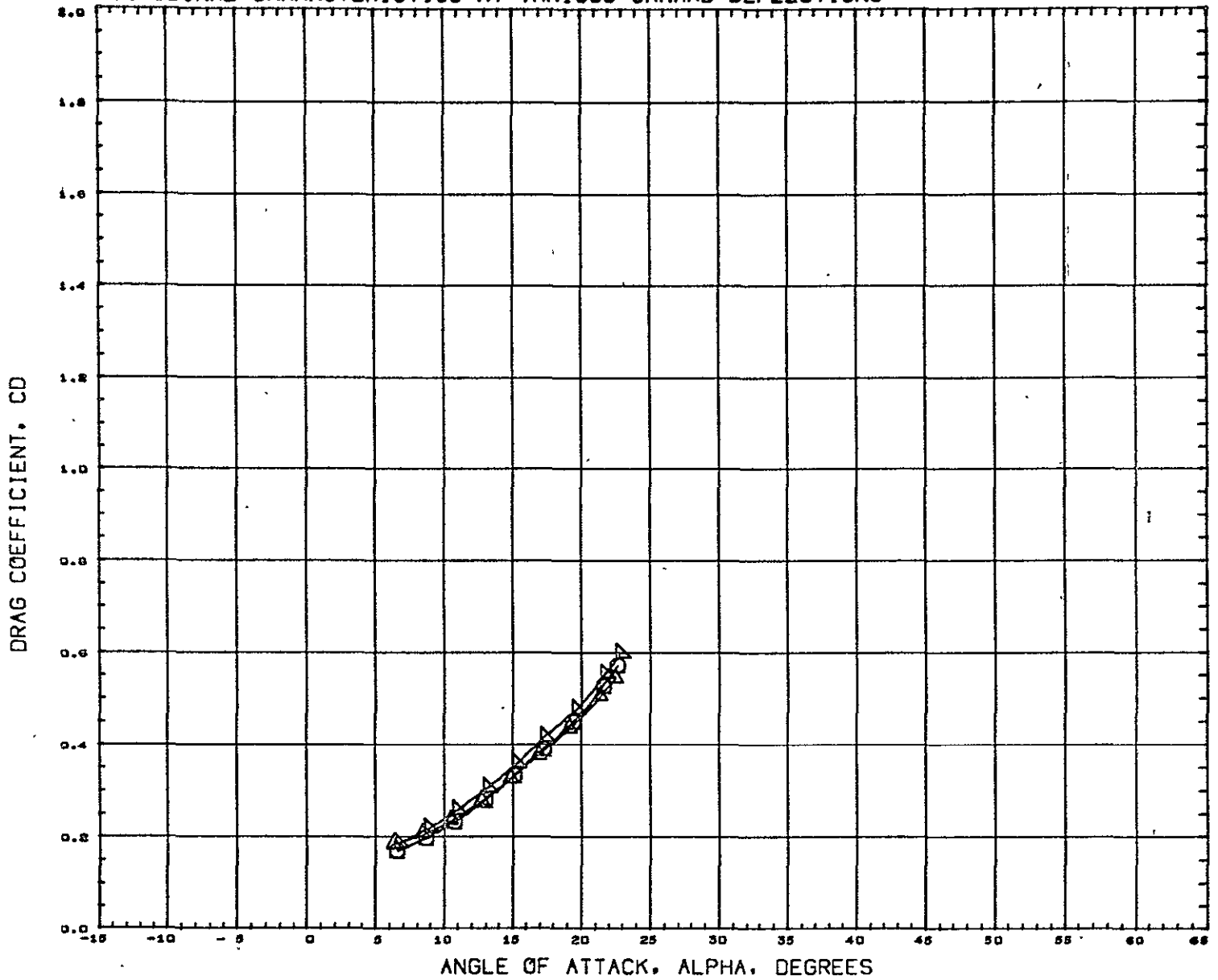
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0036

MACH 1.105

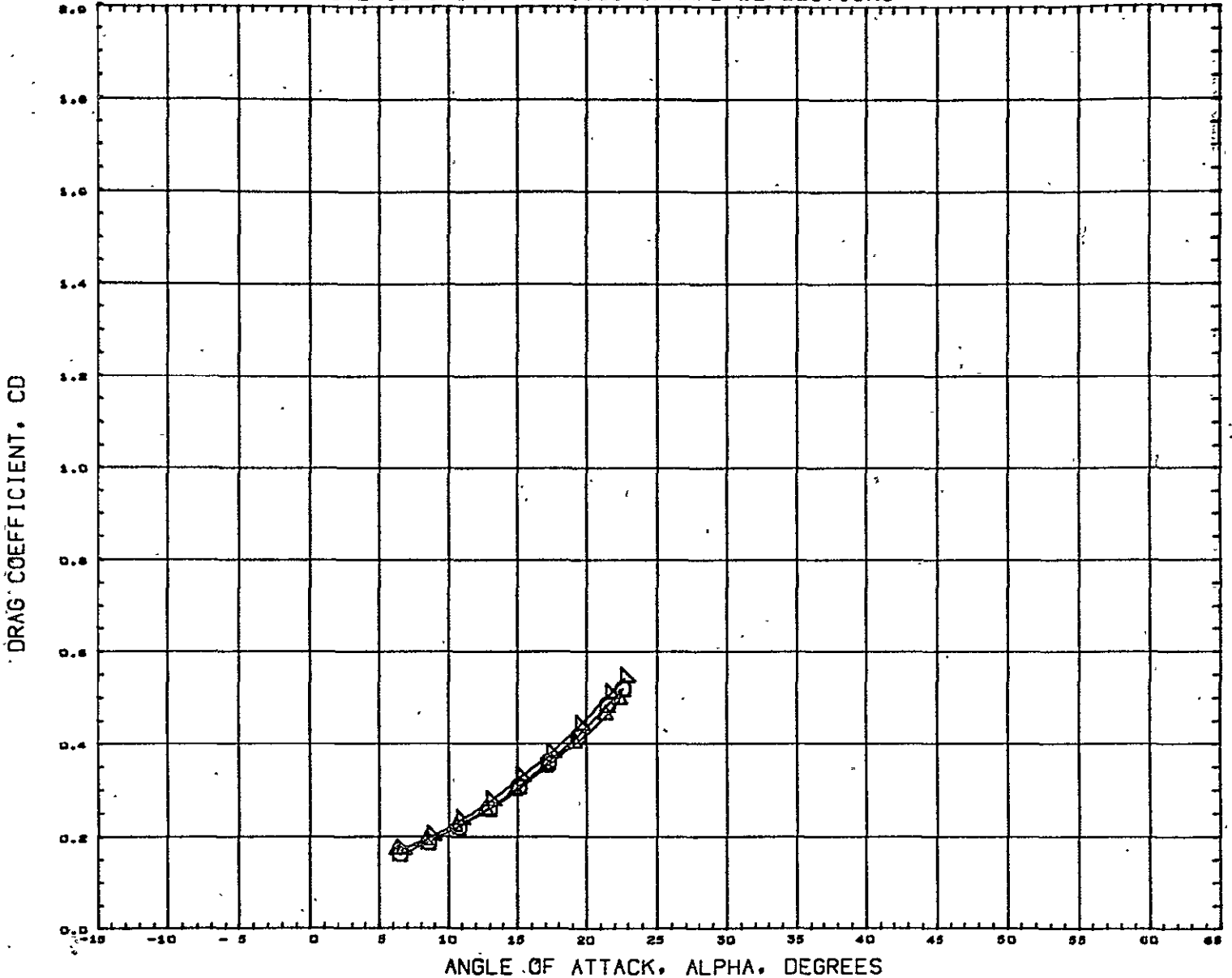
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC461 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 30.IN.
(C28009)	M8FC461 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0990 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C28011)	M8FC 461' GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.201

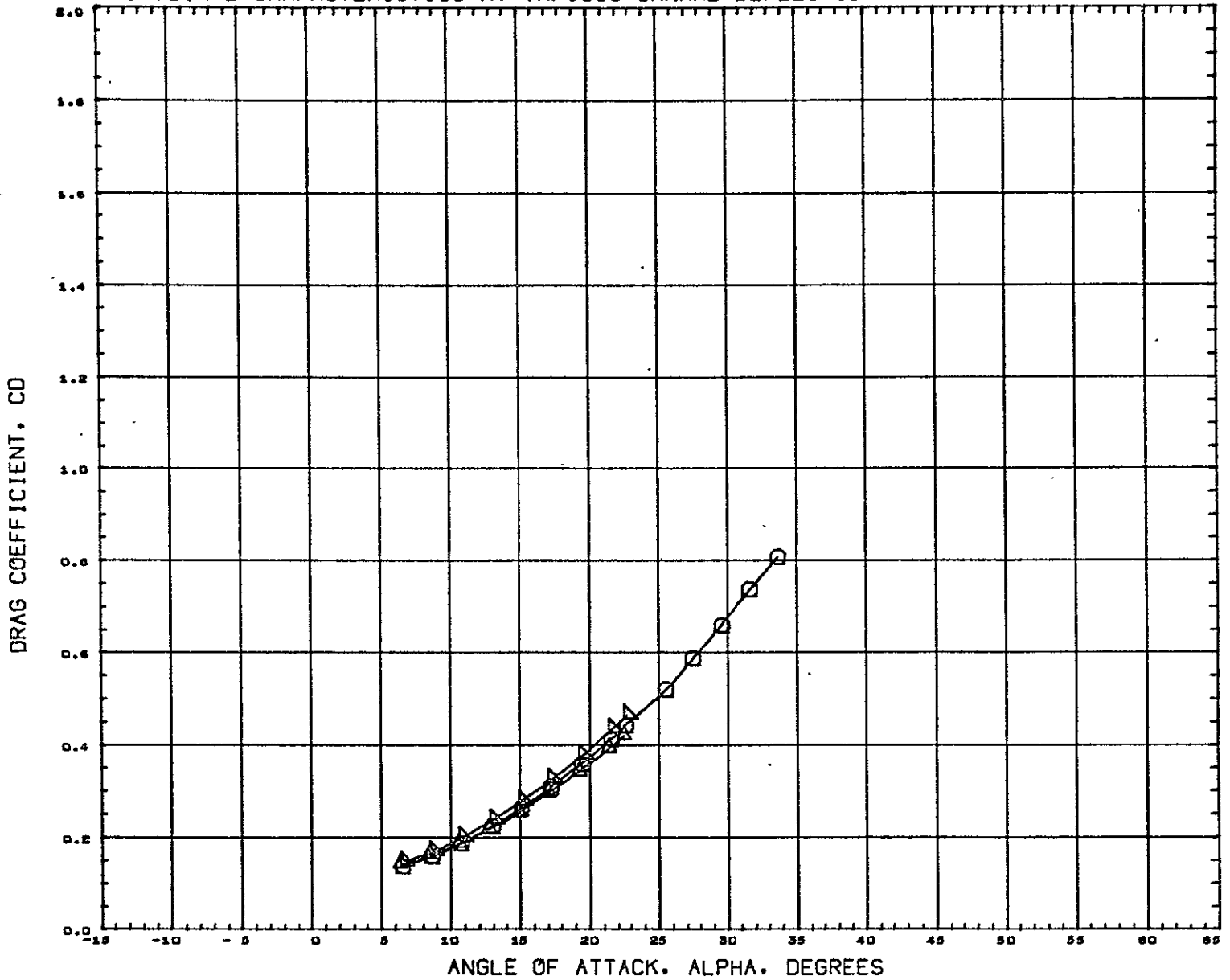
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000	0.000	LREF	3.0950 IN.
(E28090)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	BREF	6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	XMRP	6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	YMRP	0.0000 IN.
					ZMRP	0.0000 IN.
					SCALE	0.0035

MACH 1.462

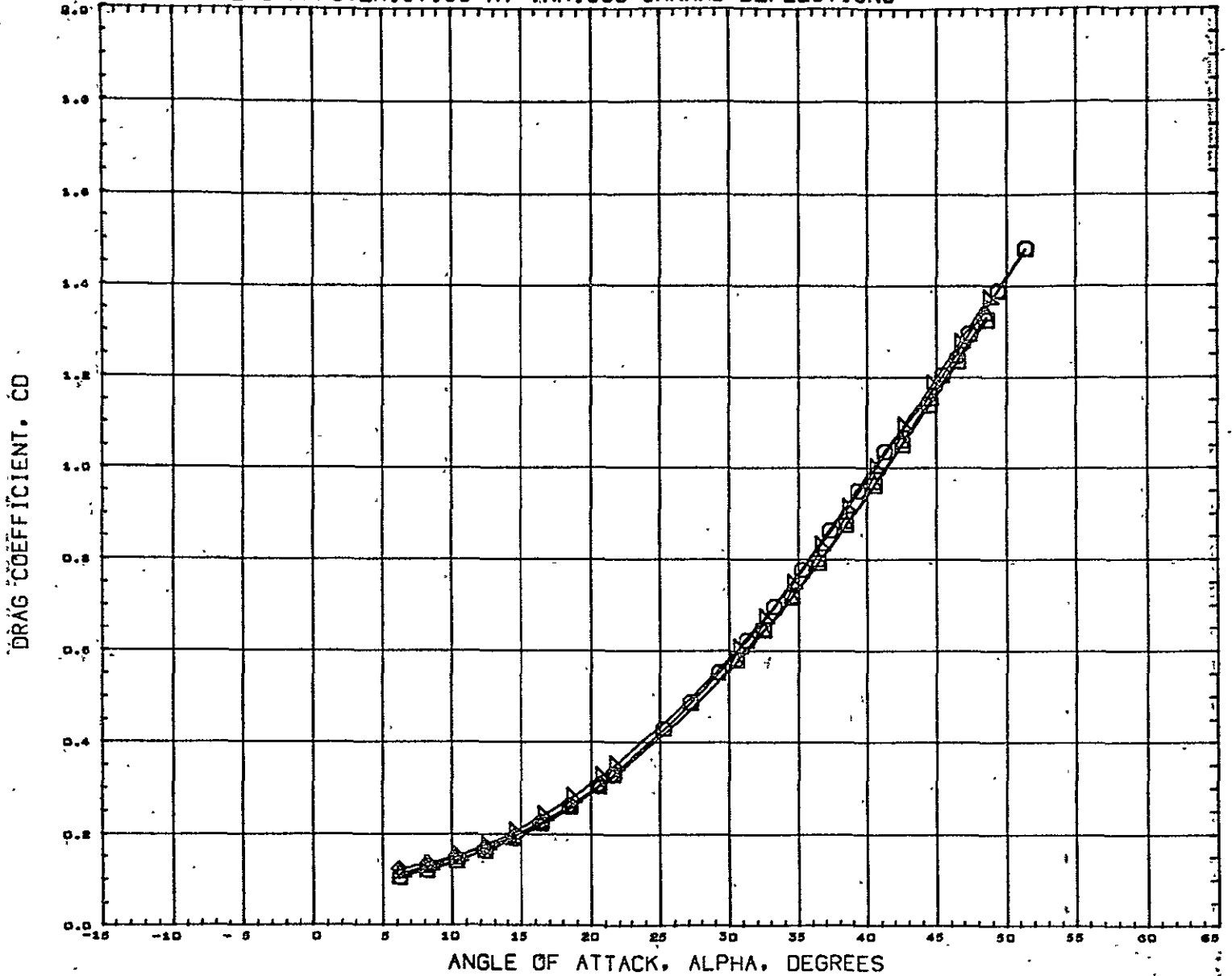
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C200D1)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 80. IN.
(C200D9)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20D10)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C20D11)	MSFC 401 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

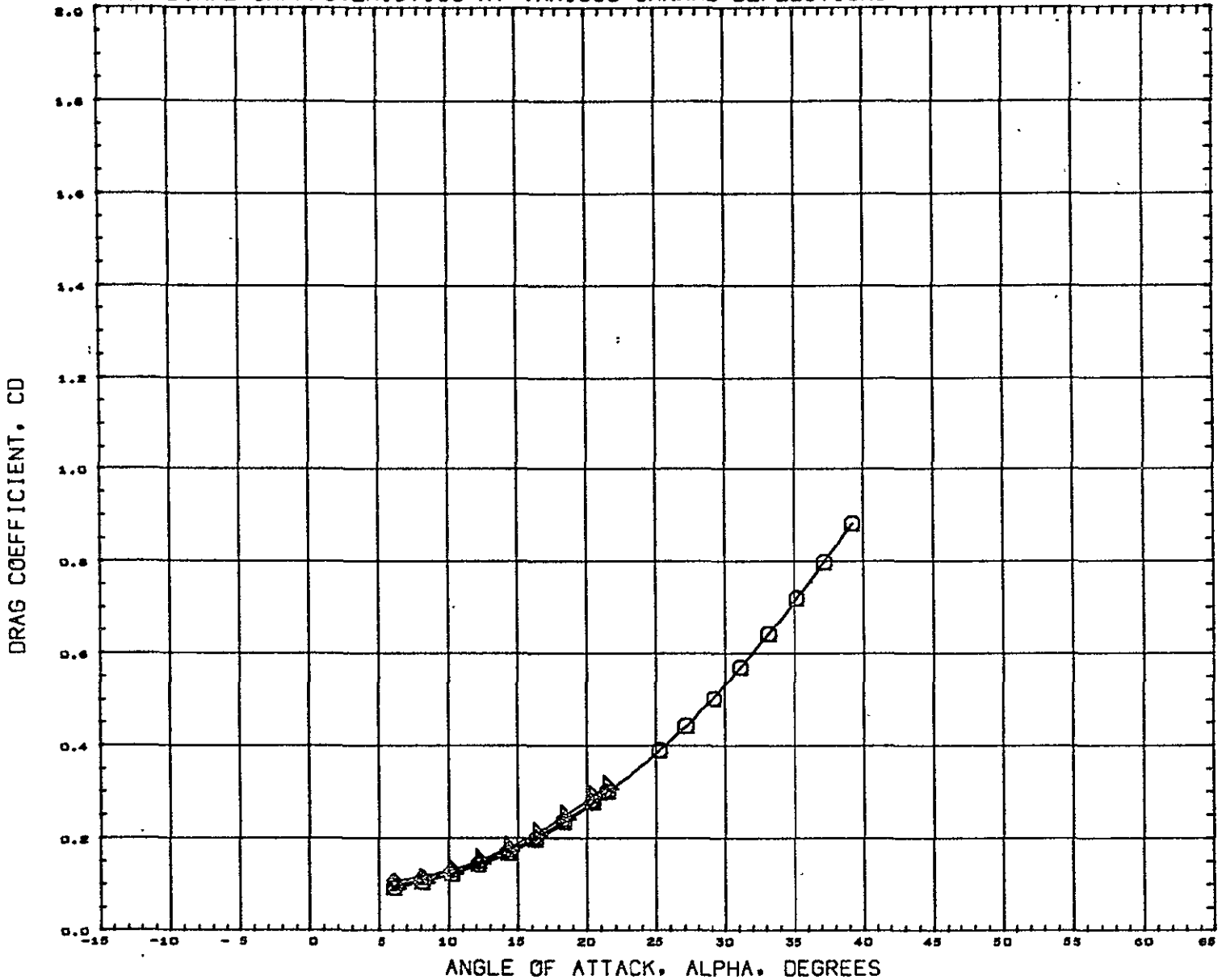
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 Sq. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28C80)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

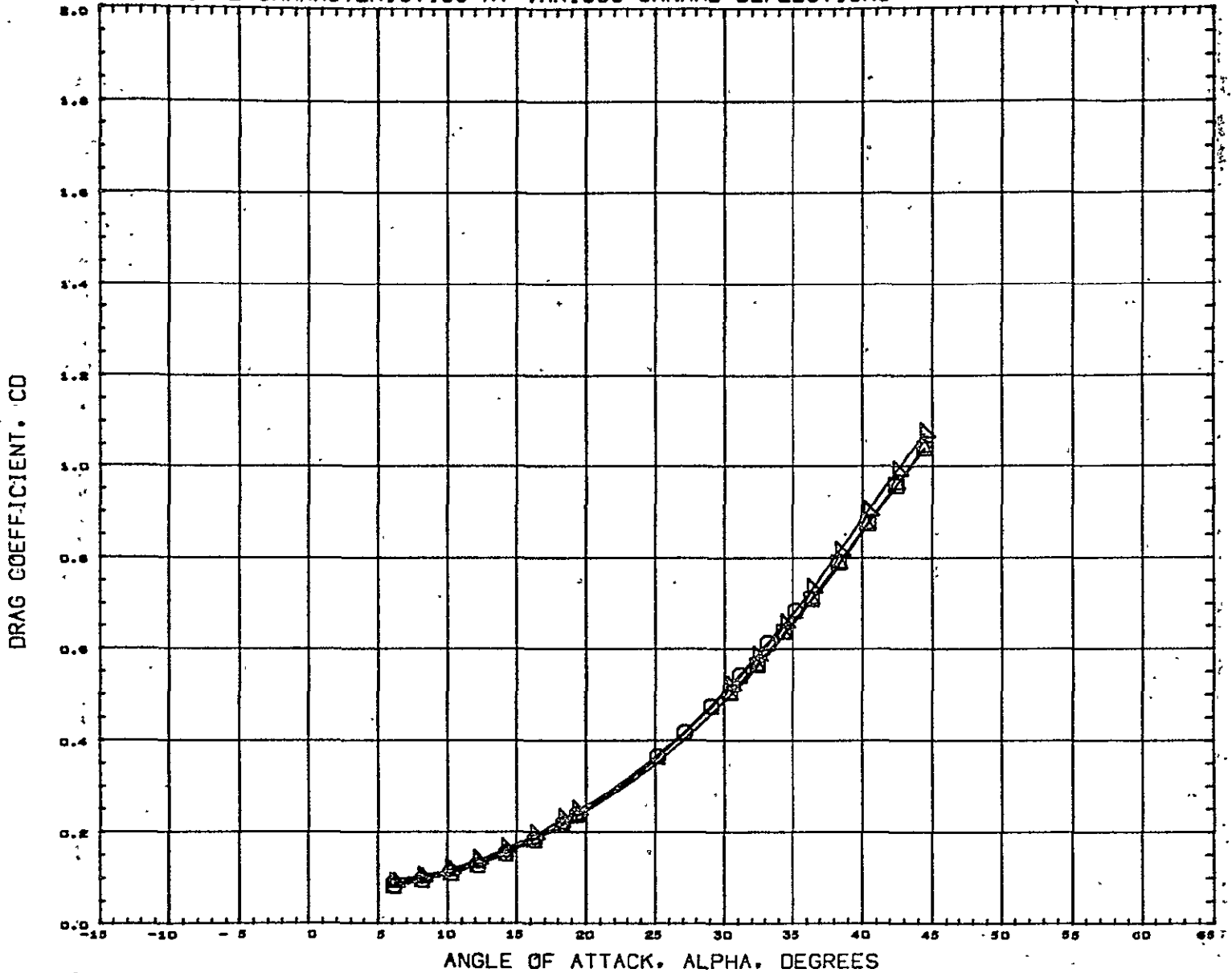


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	SREF	15.6560 30. IN.
(C28009)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	LREF	3.0950 IN.
(E28050)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	BREF	6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	XMRP	6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	YMRP	0.0000 IN.
					ZMRP	0.0000 IN.
					SCALE	0.0035

MACH 4.000

100

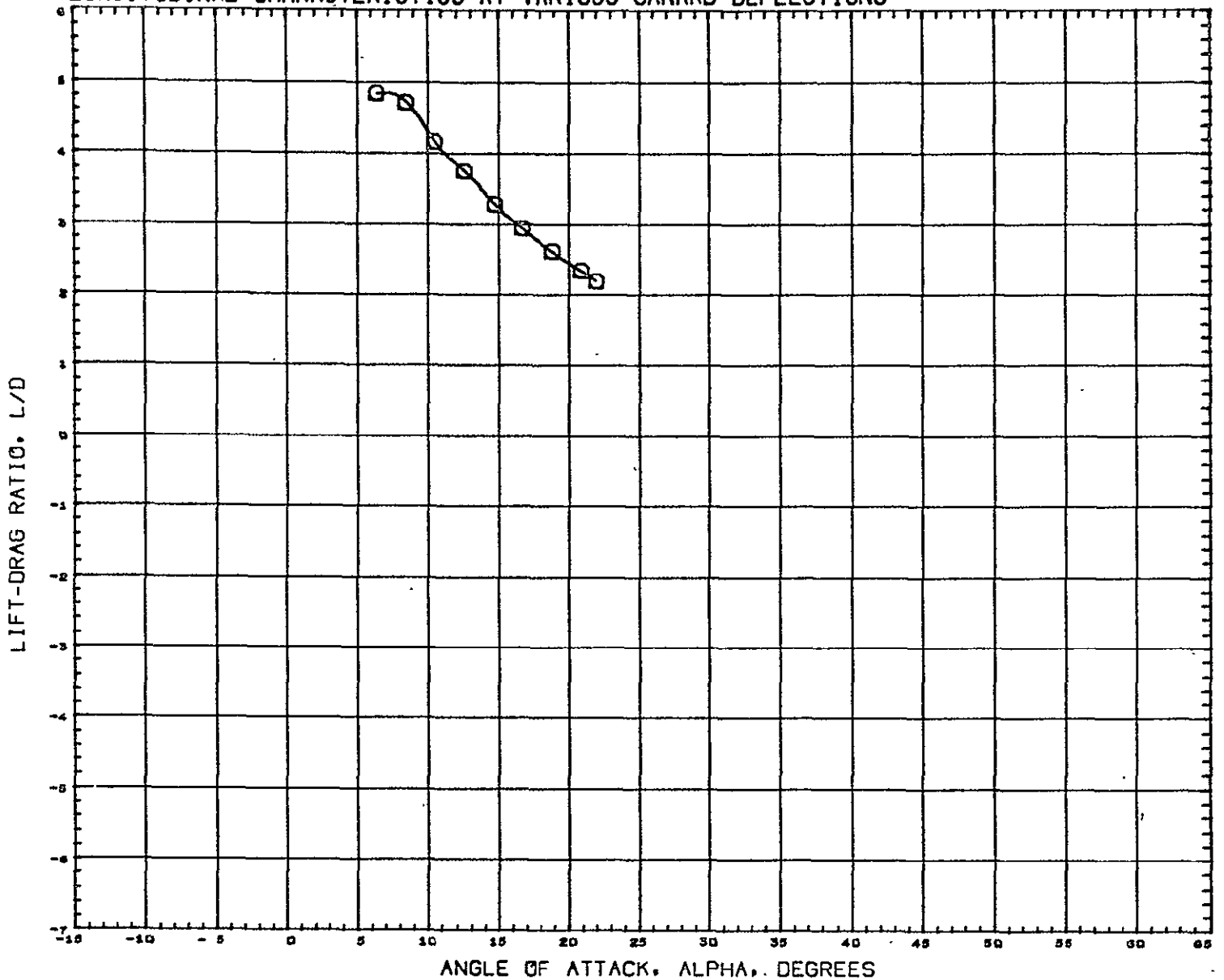
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560' 89. IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20050)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	SREF 6.0990 IN.
(C20010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0039

MACH 4.960

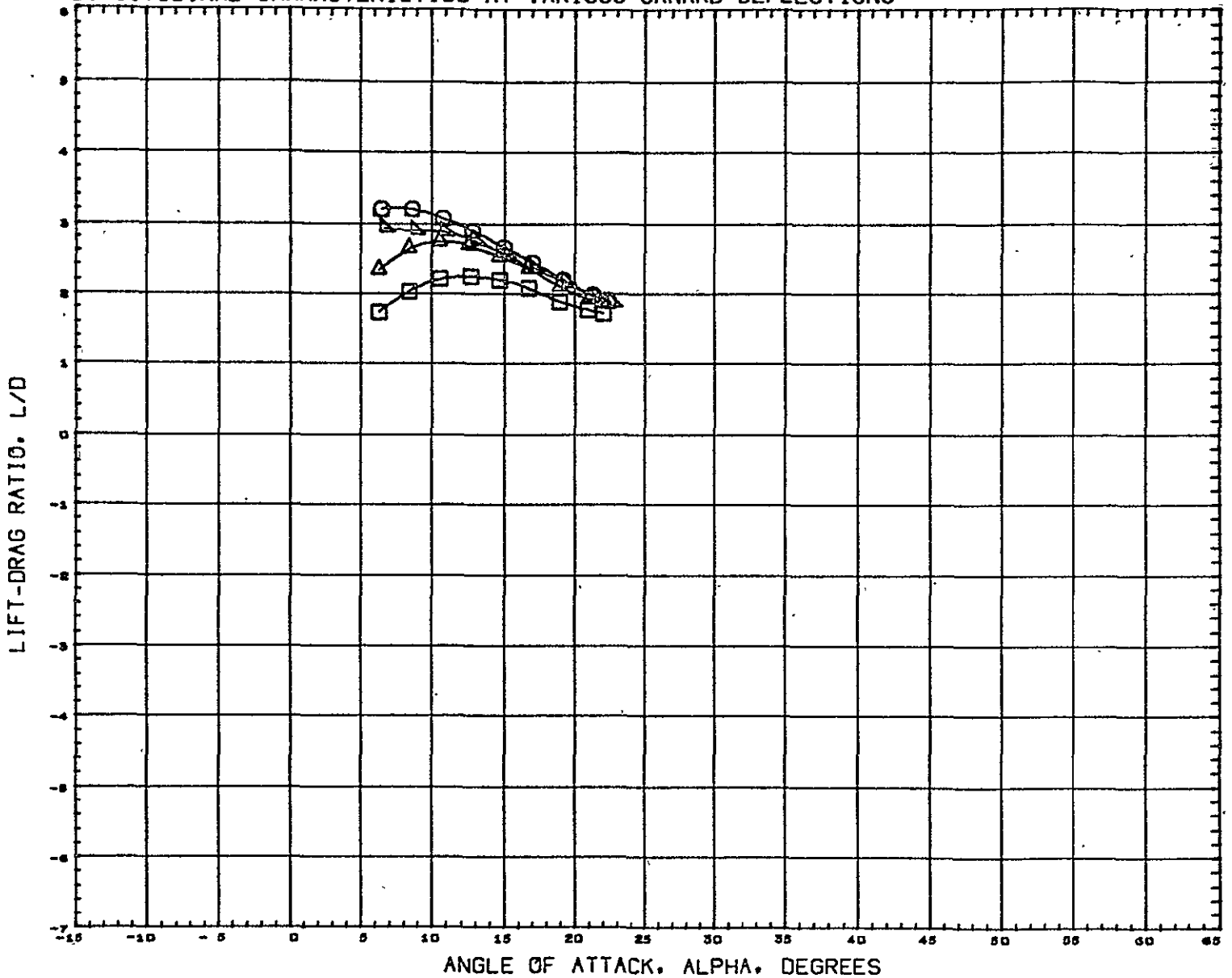
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(CR001)	MSFC481 GD/C(BOOSTER)B19W14C4V7	0.000	0.000		0.000	SREF 18.6500 SQ. IN.
(CR000)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(CR010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(CR011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.607

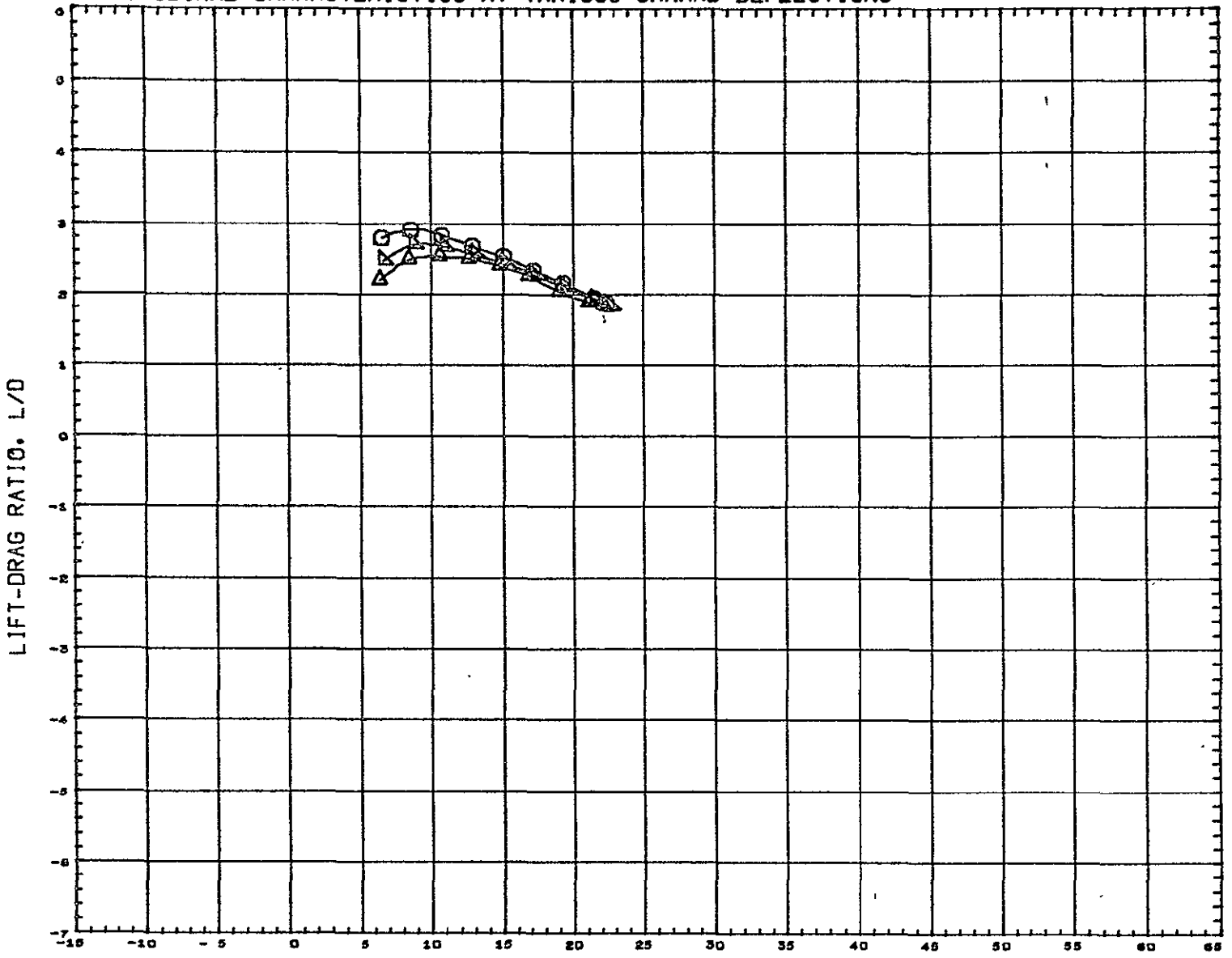
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	M5FC401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20009)	M5FC401 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0990 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	M5FC401 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C20011)	M5FC 401 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 0.900

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

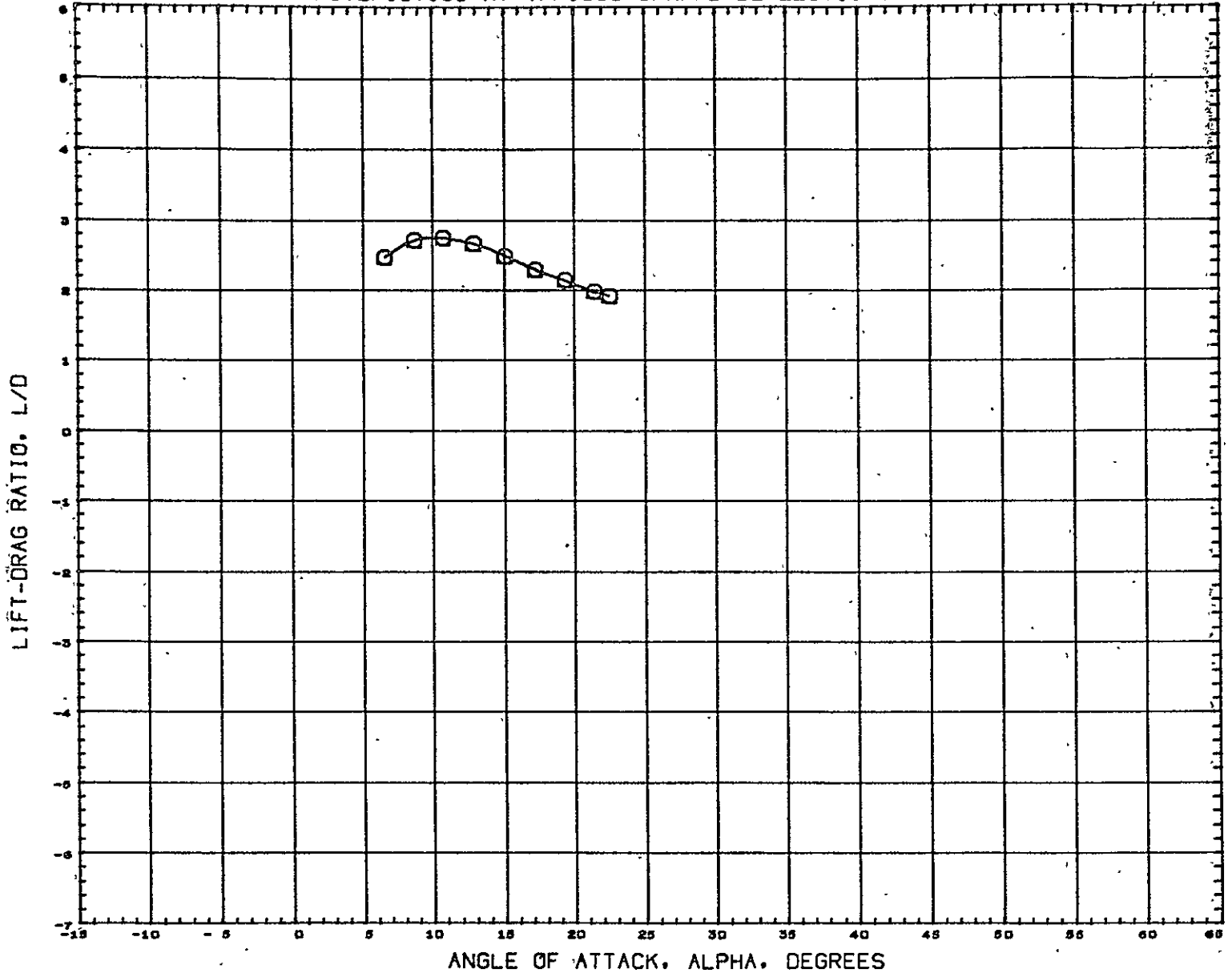


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC401 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC401 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0330 IN.
(E20C30)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		-0.000	XMRP 6.7100 IN.
(C20011)	MSFC 401 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.954

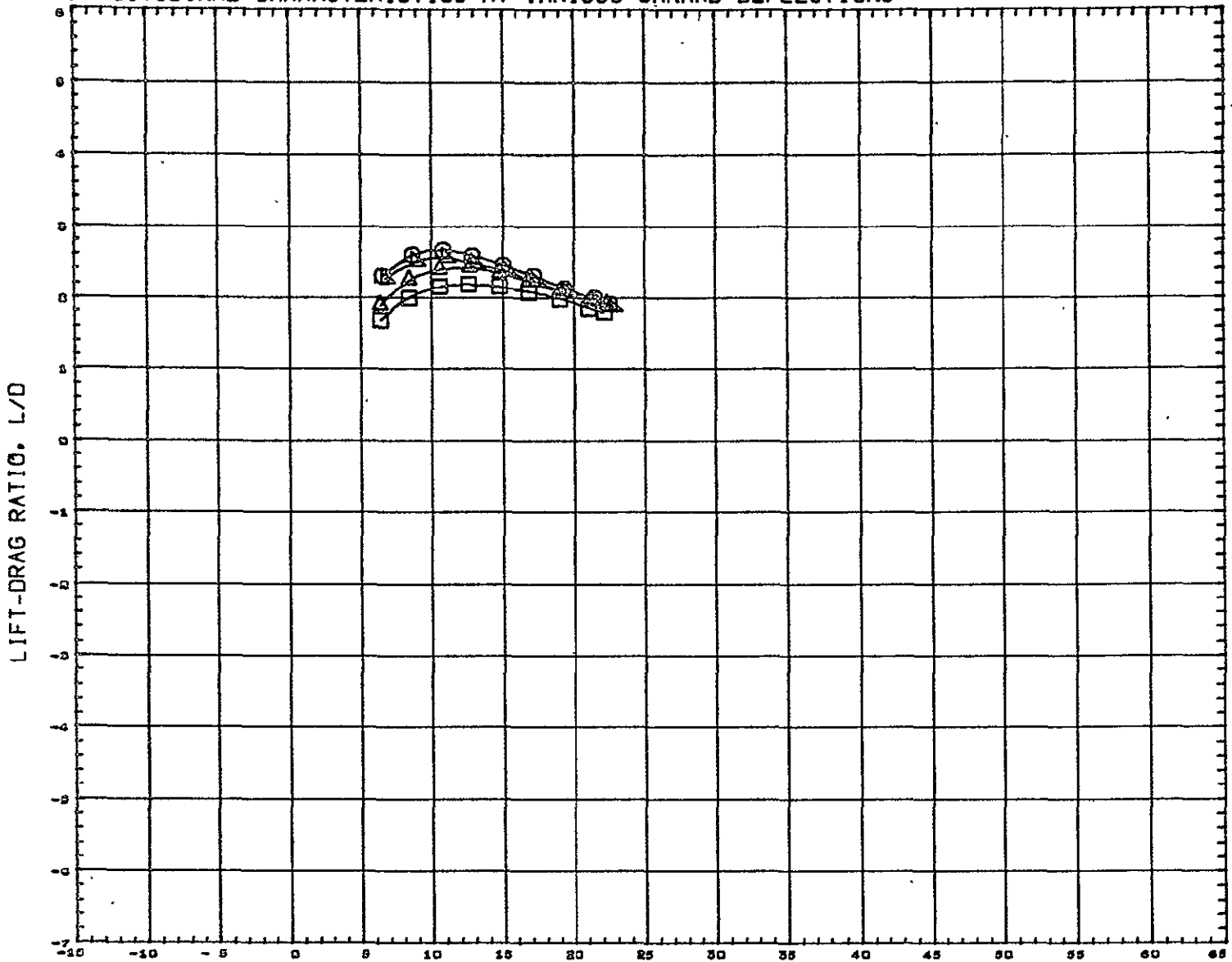
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E29C30)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0039

MACH 1.007

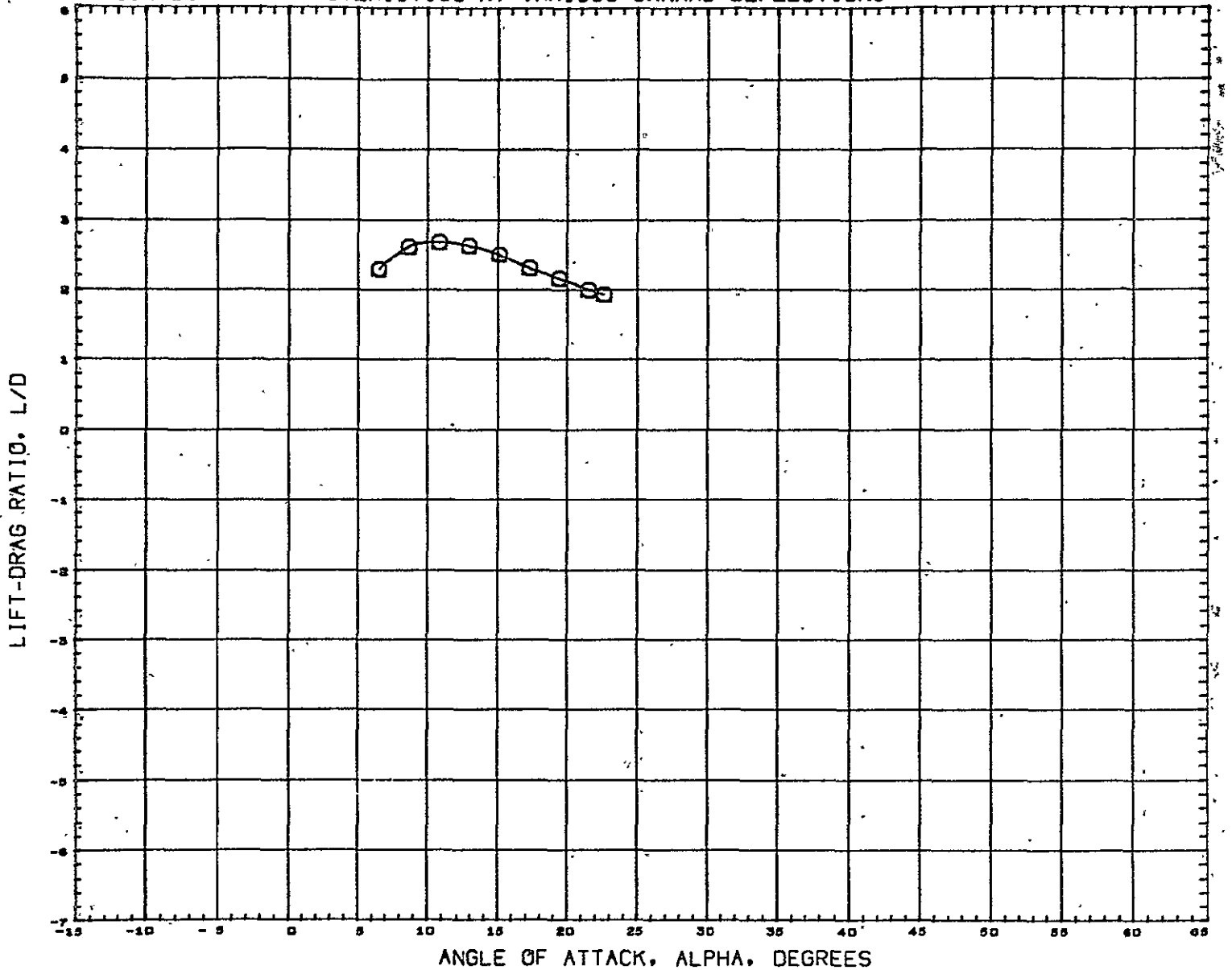
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.051

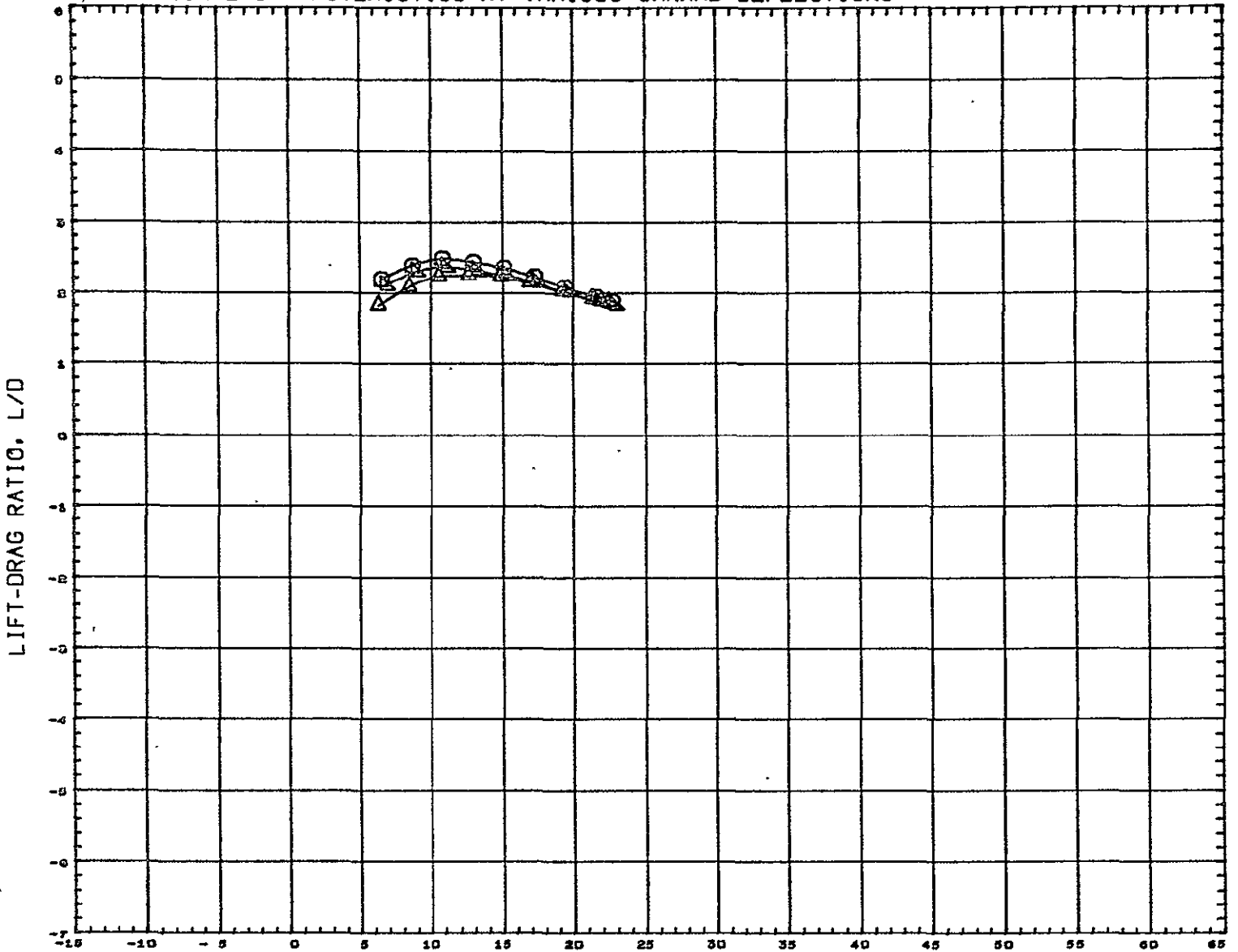
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	BREF 15.8500 30. IN.
(C28002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XHRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.105

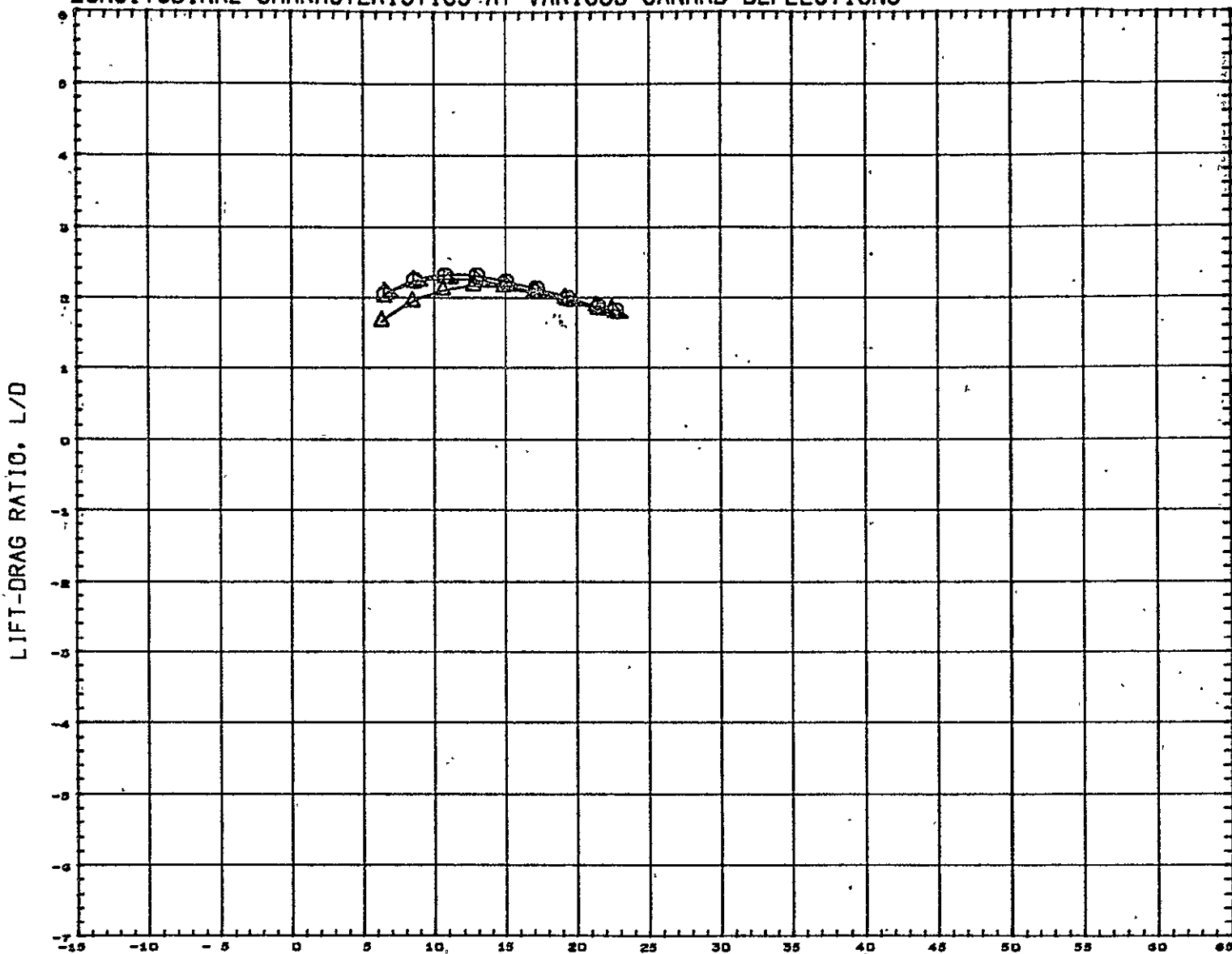
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M5FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(C28009)	M5FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	LREF	3.0950 IN.
(E26C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	BREF	6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	XMRP	6.7100 IN.
(C28011)	M5FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	YMRP	0.0000 IN.
					ZMRP	0.0000 IN.
					SCALE	0.0035

MACH 1.201

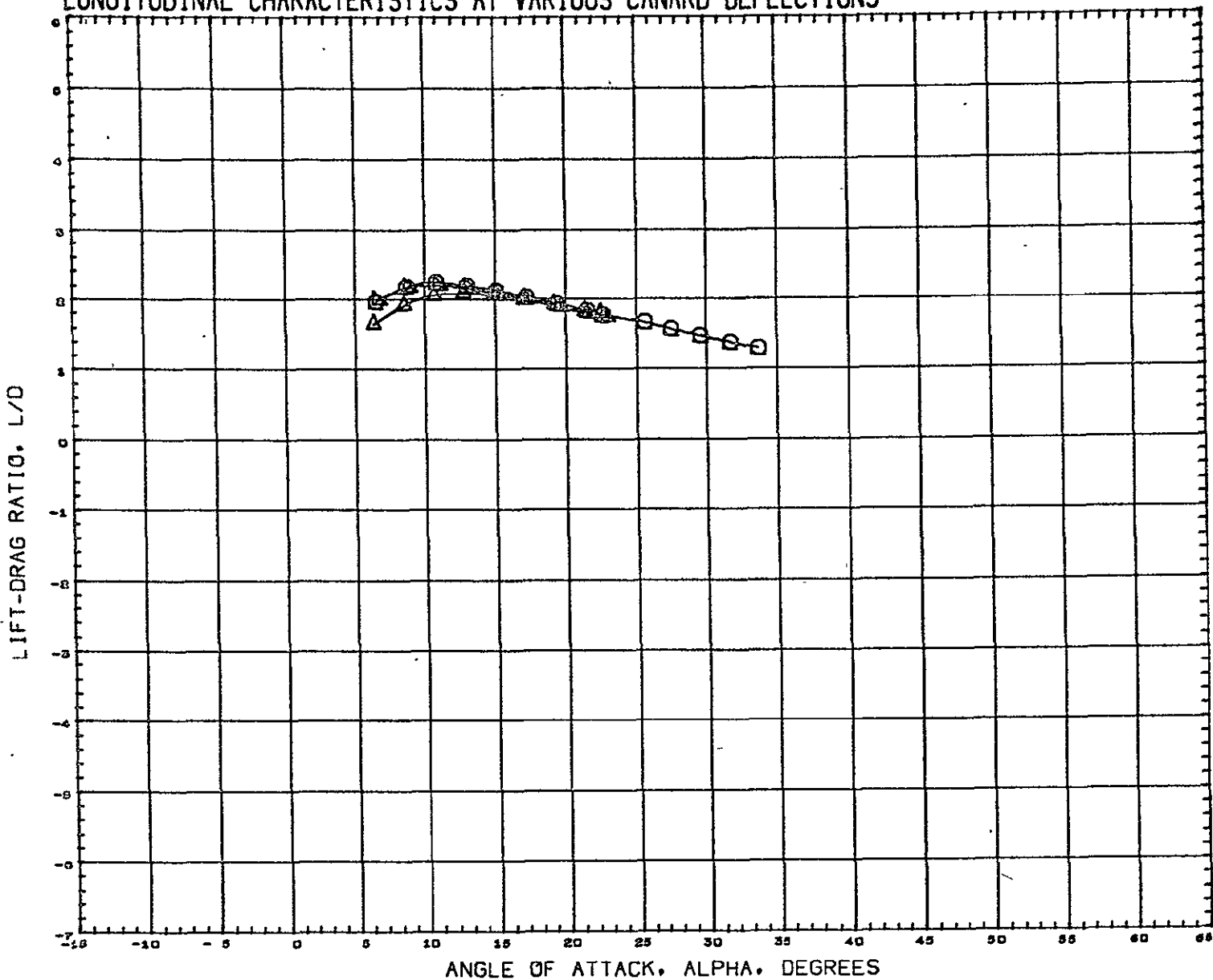
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	SREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.462

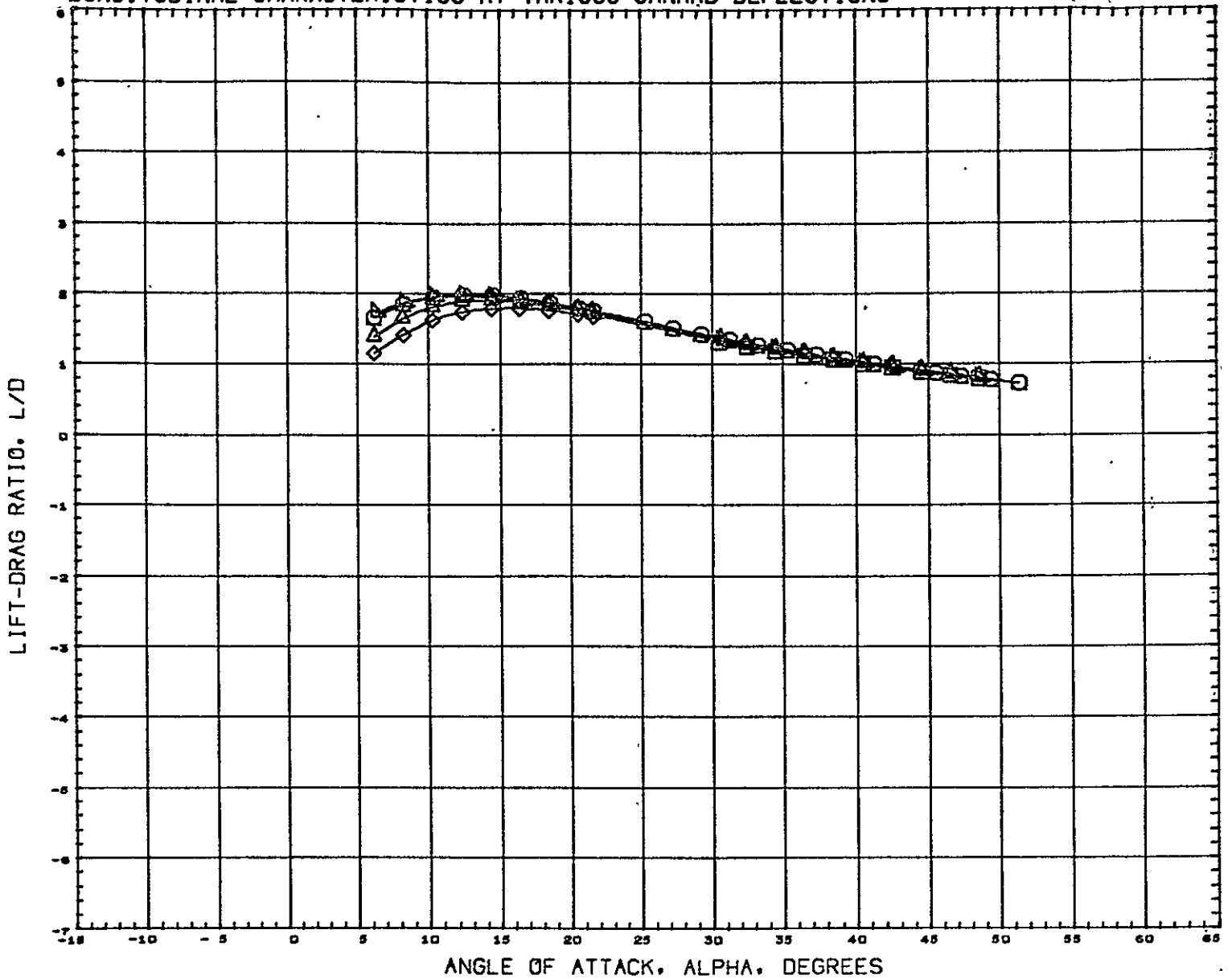
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20000)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20000)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

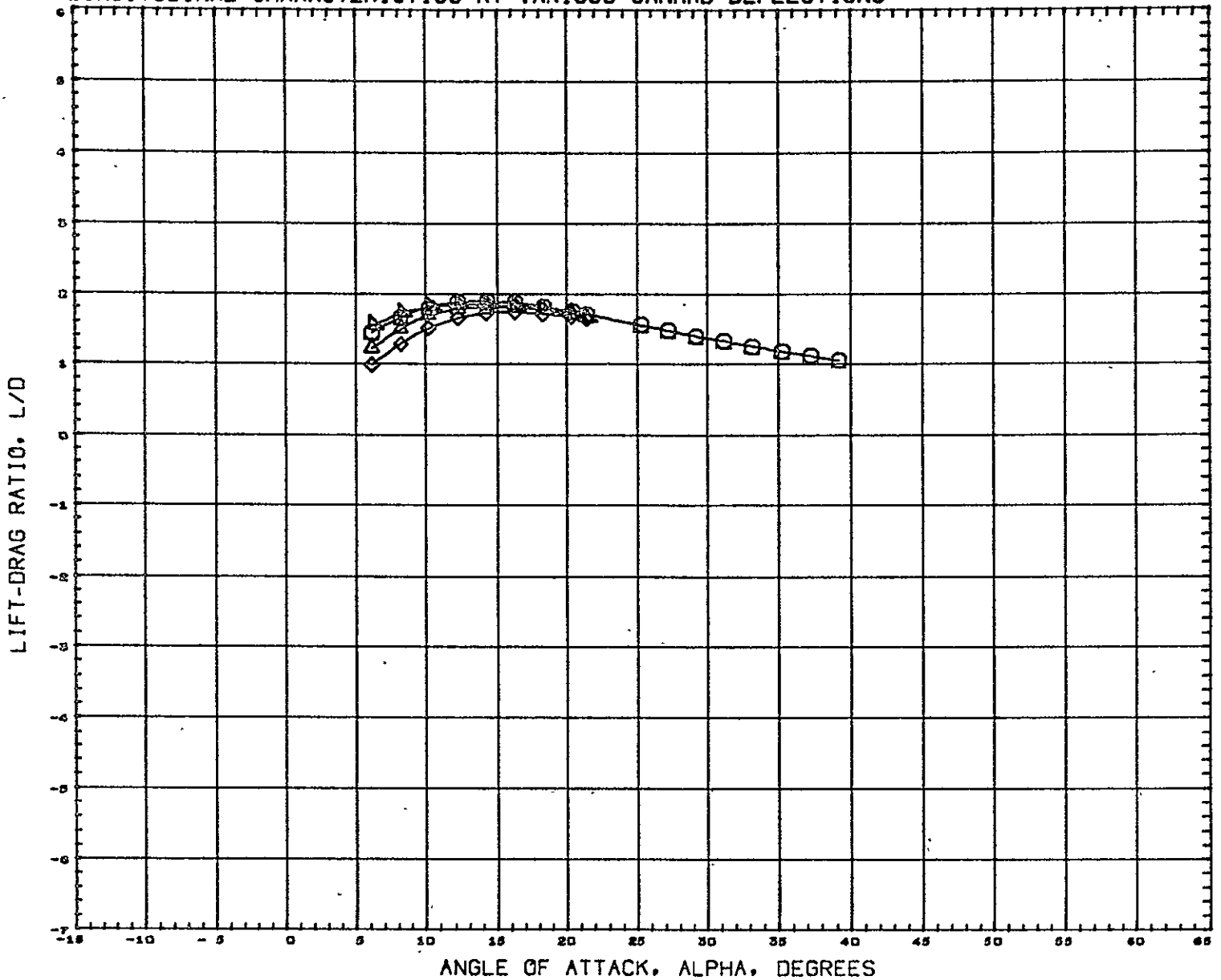
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28C50)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 2.990

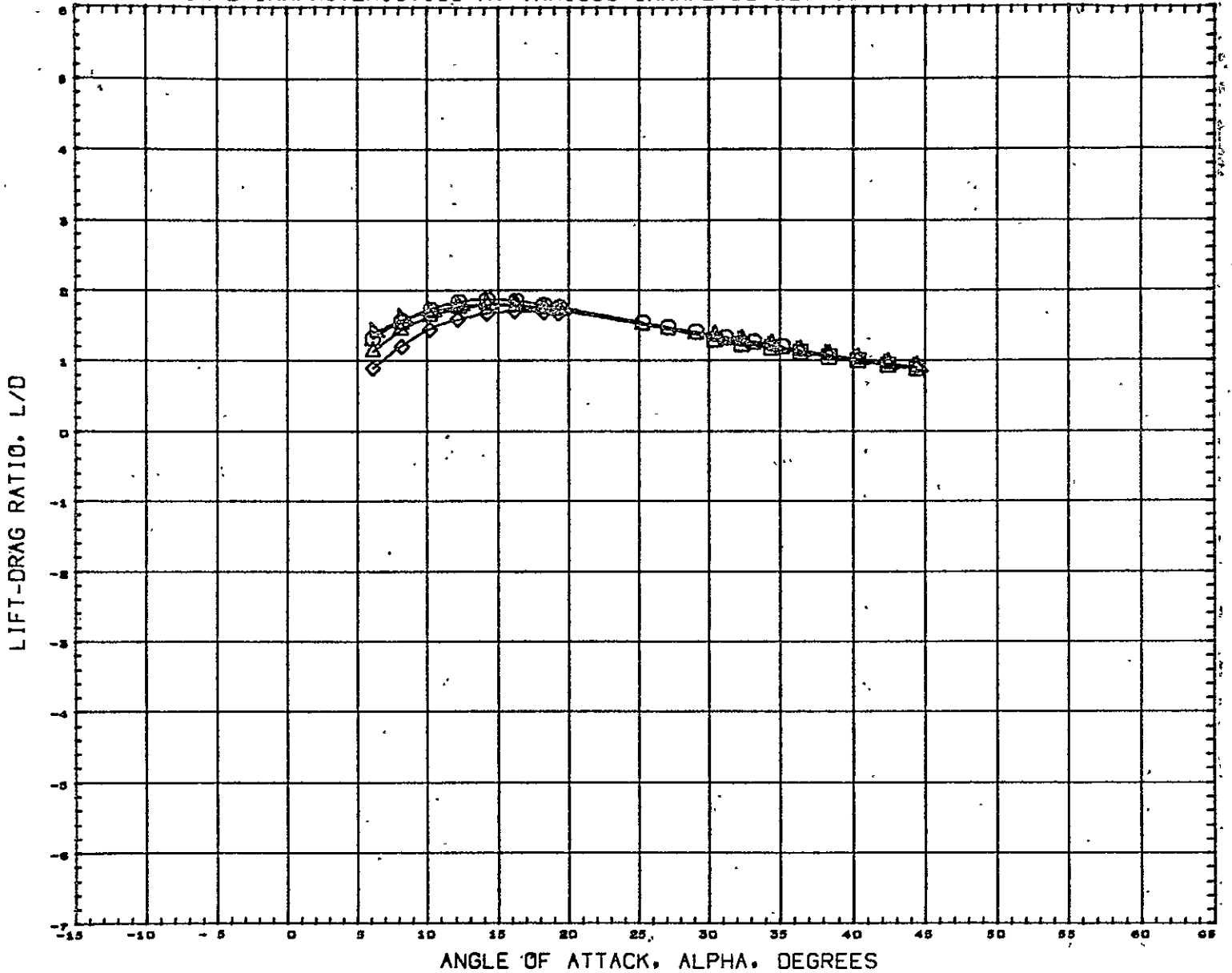
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION	
(C26001)	M5FC401 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF	15.6560 SQ. IN.
(C26009)	M5FC401 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF	3.0950 IN.
(E26C50)	M5FC 401 GD/C (BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF	6.0990 IN.
(C26010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP	6.7100 IN.
(C26011)	M5FC 401 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 4.000

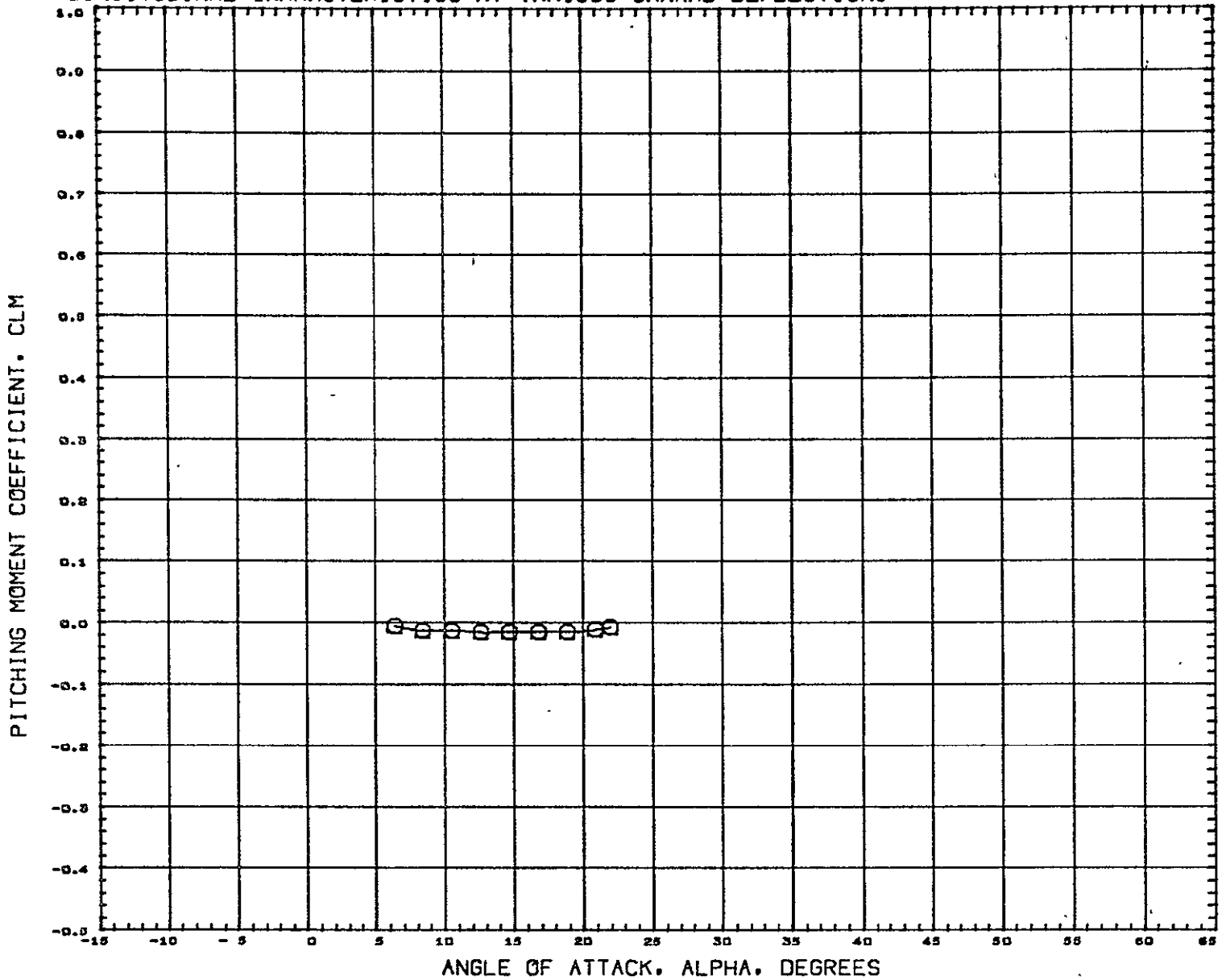
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M5FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	M5FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28C30)	M5FC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	M5FC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	M5FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.960

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

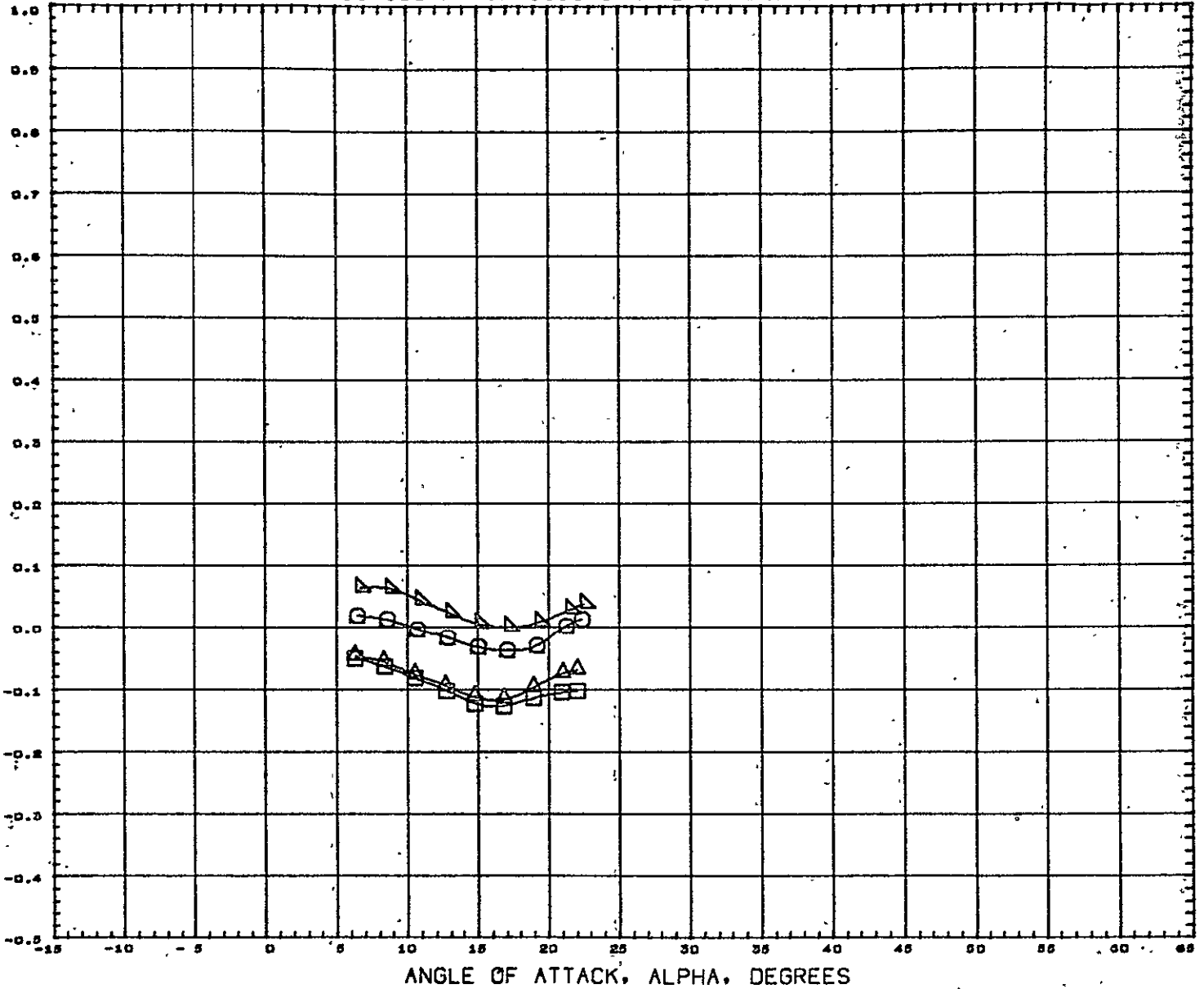


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION	
(C20001)	MSFC401 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF	15.6560 8Q. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	0.000	0.000	LREF	3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF	6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP	6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH -0.607

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT COEFFICIENT, CLM

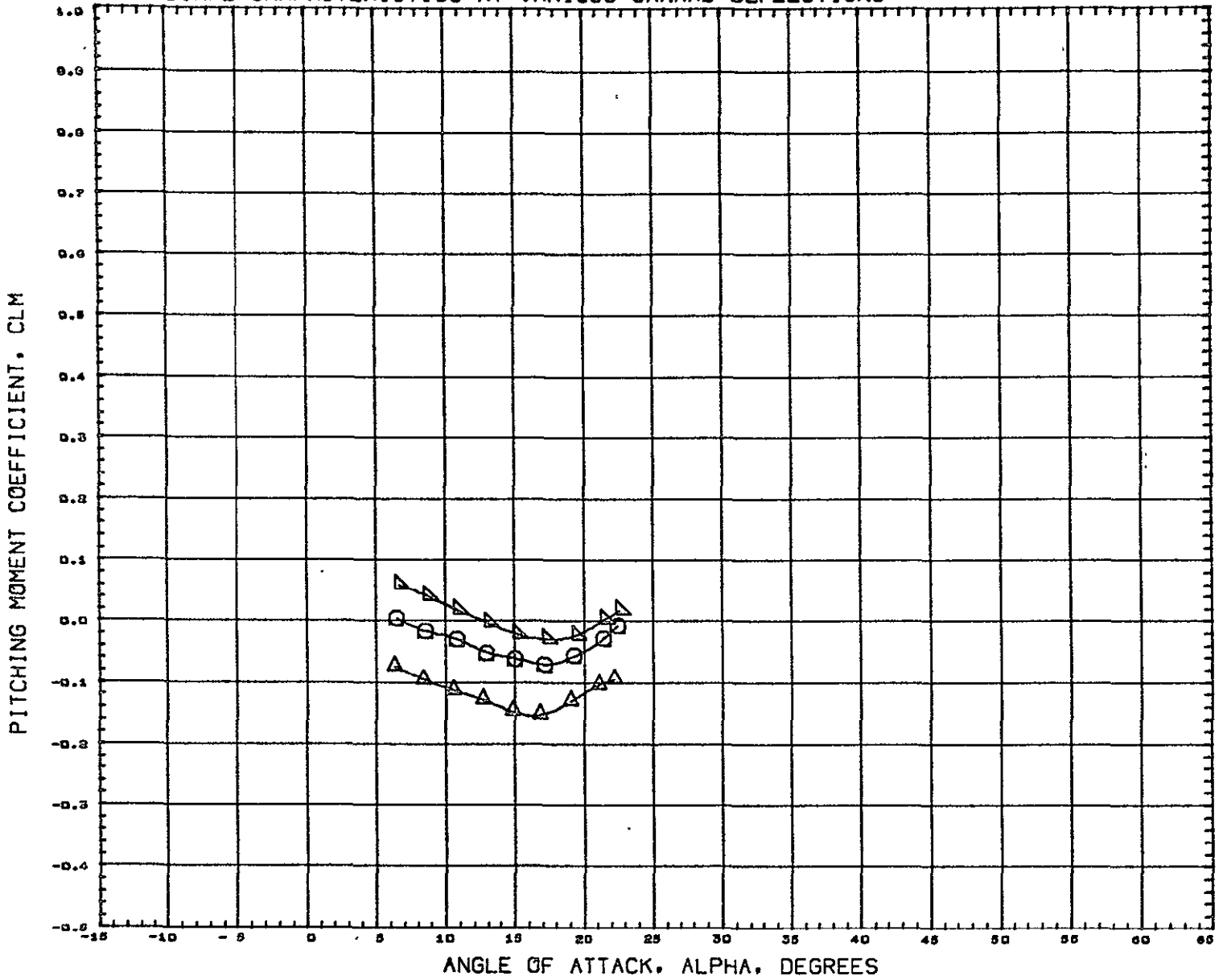


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0980 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0980 IN.
(C28010)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	M8FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 10.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.900

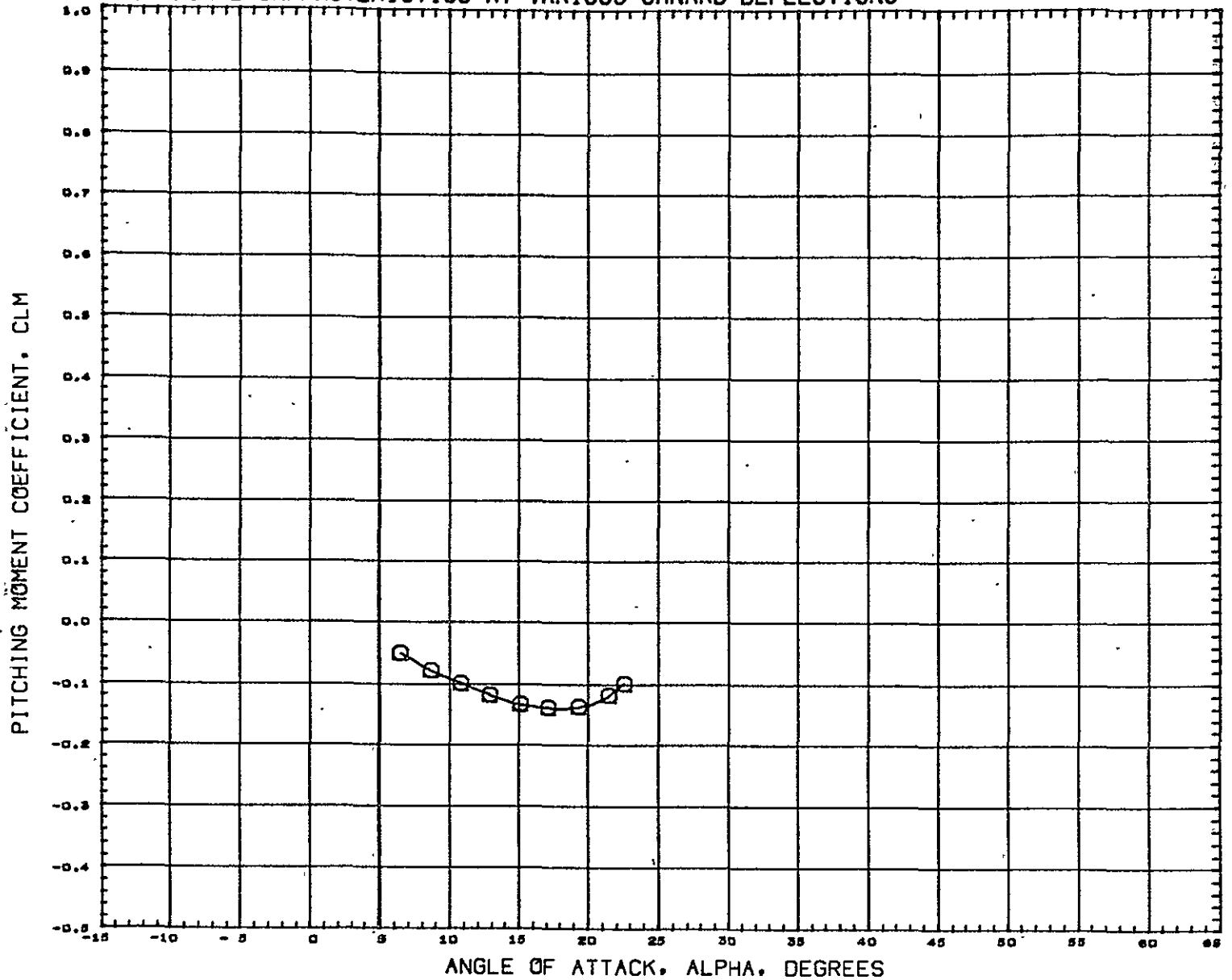
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0930 IN.
(E26C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XHRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4A87	15.000	0.000		0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0030

MACH 0.954

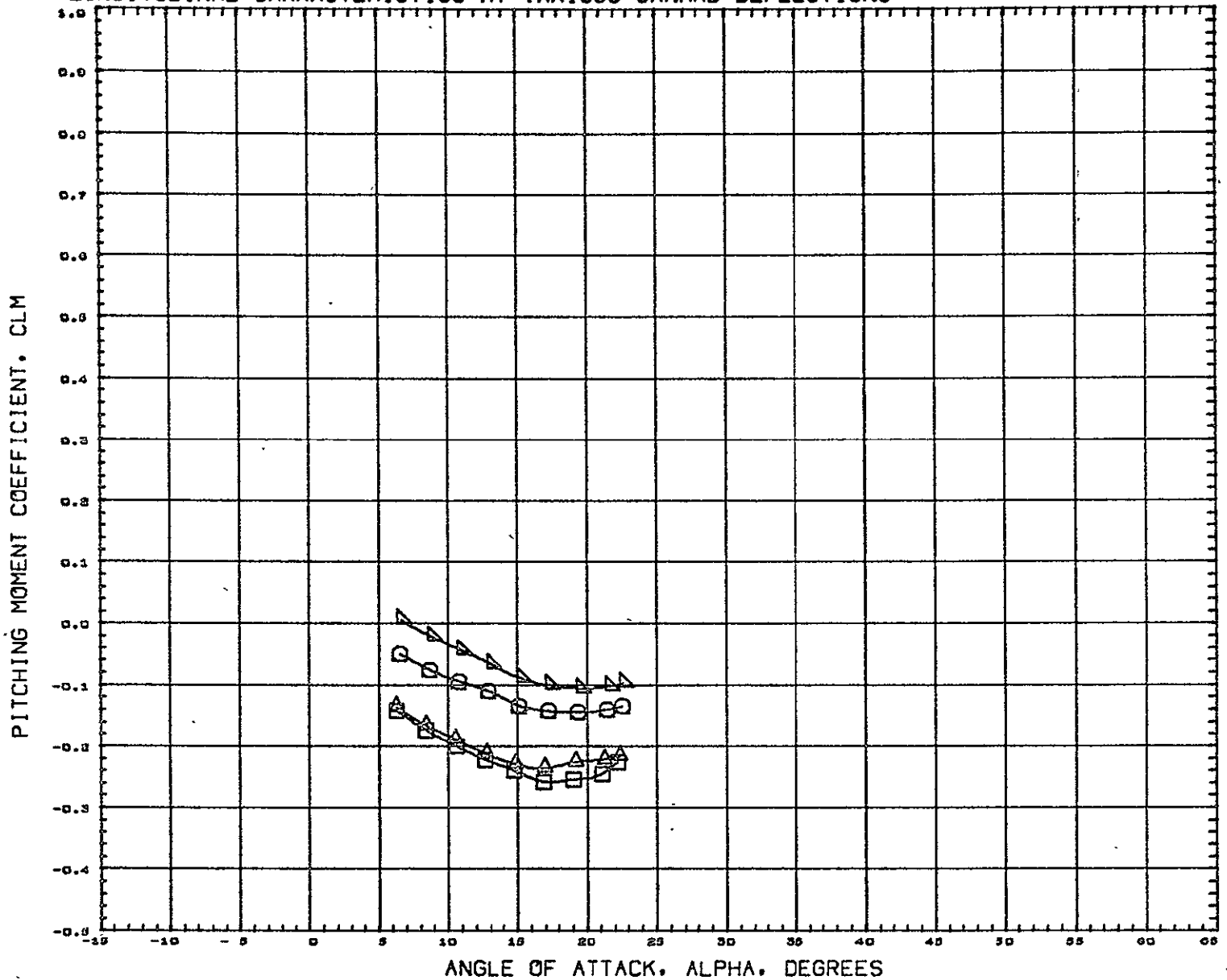
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6360 SQ. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	0.000	0.000	LREF 3.0990 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

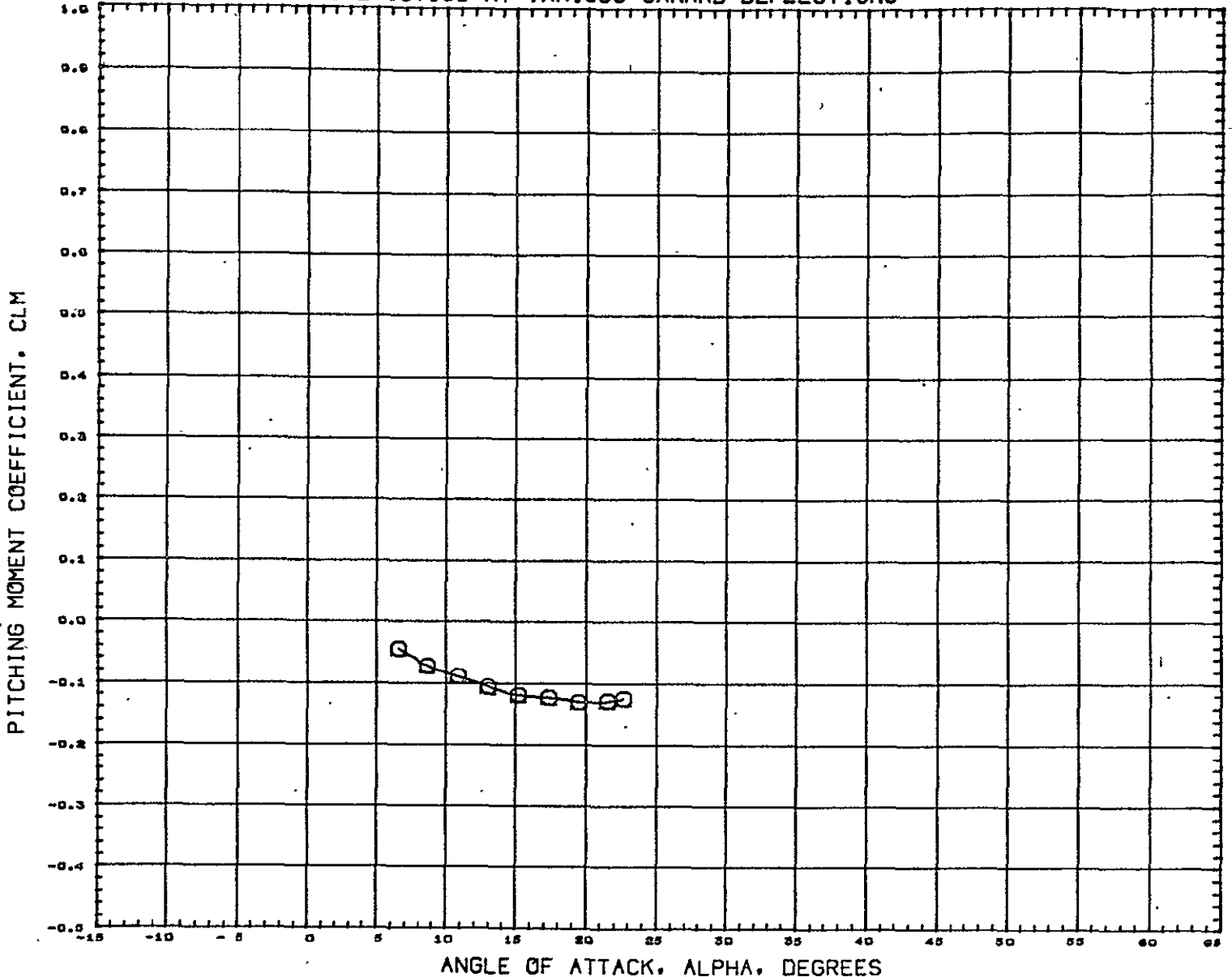
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0900 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.051

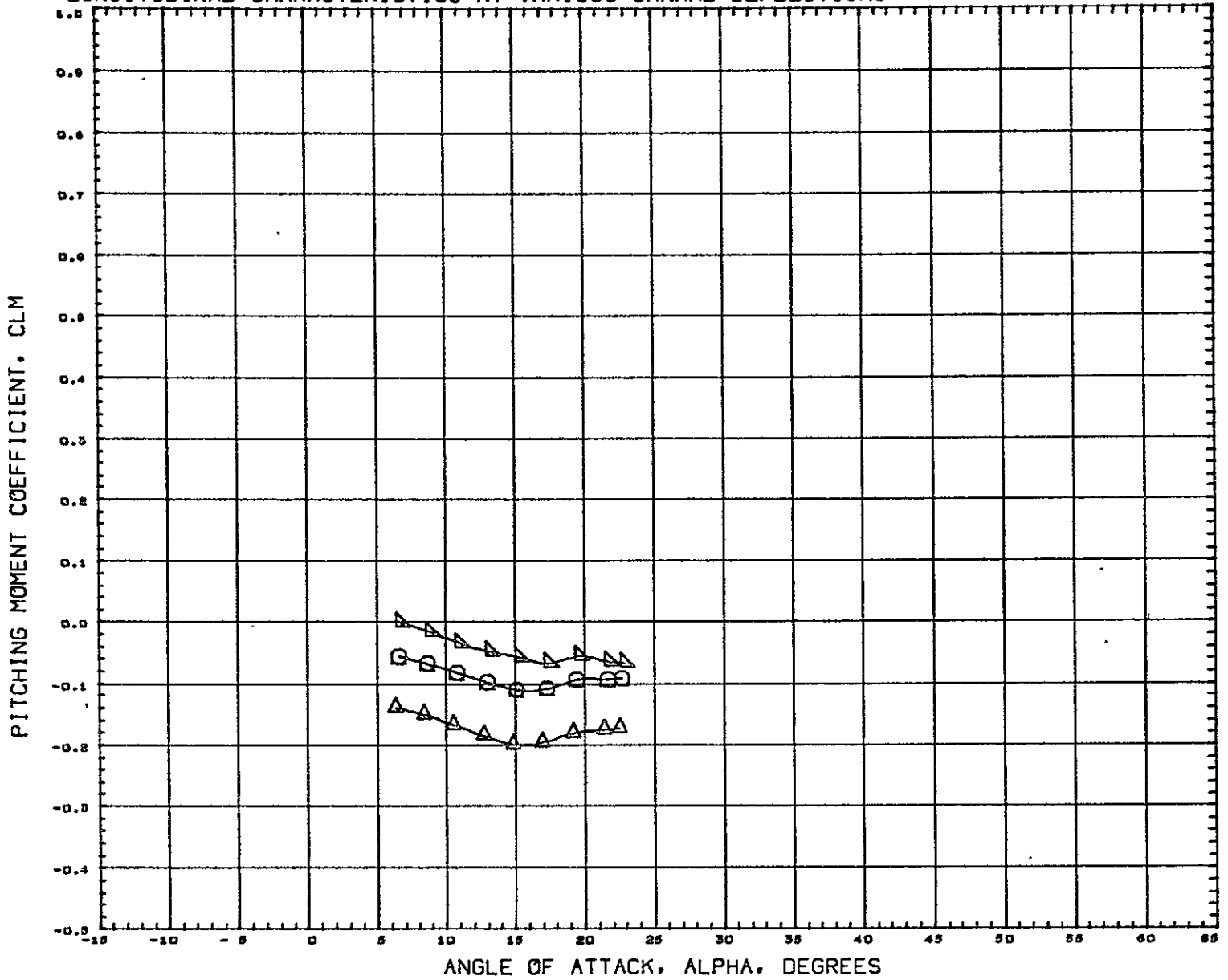
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 sq. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28030)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.105

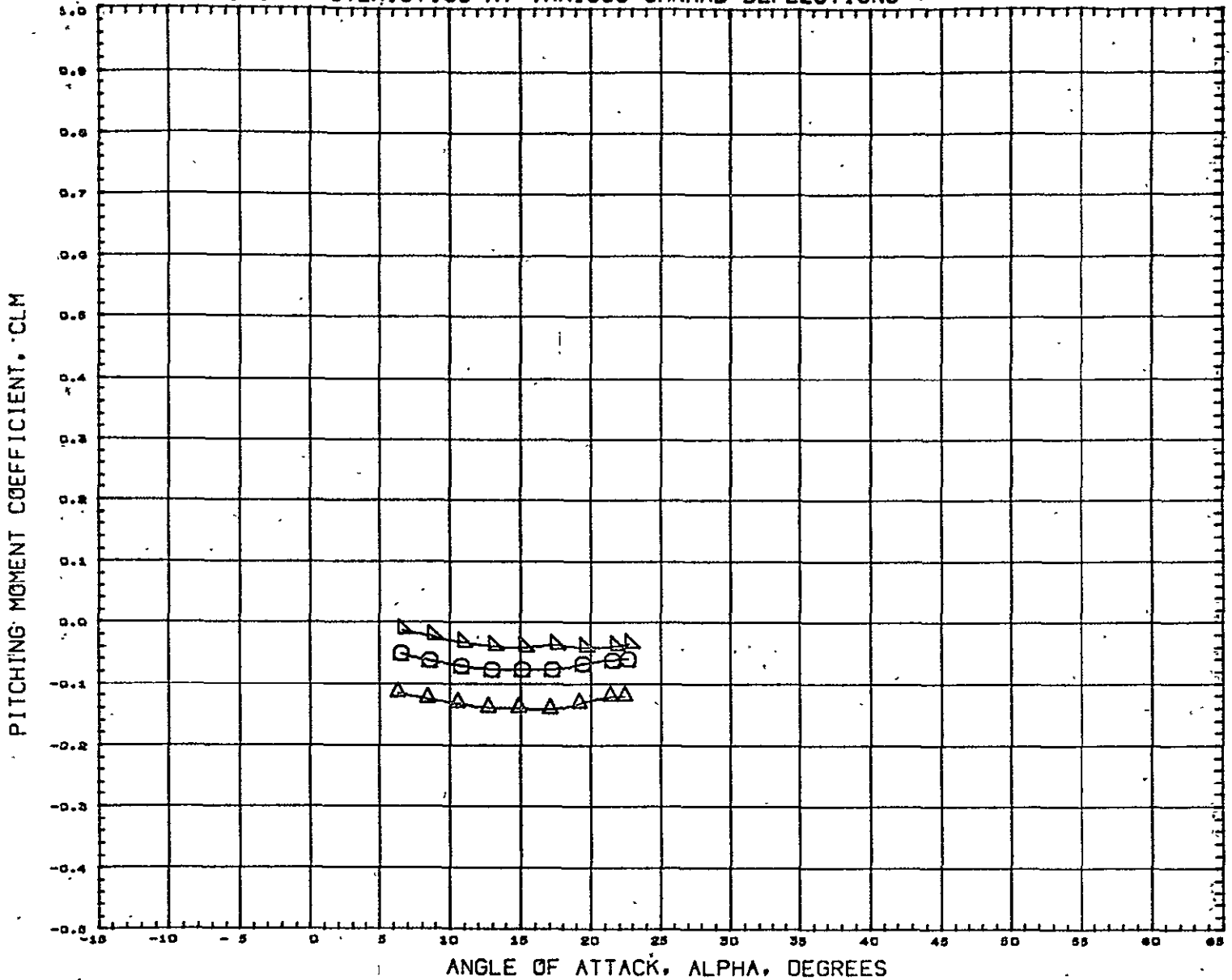
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 sq. IN.
(C28009)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	SREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	M8FC 401 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0038

MACH 1.201

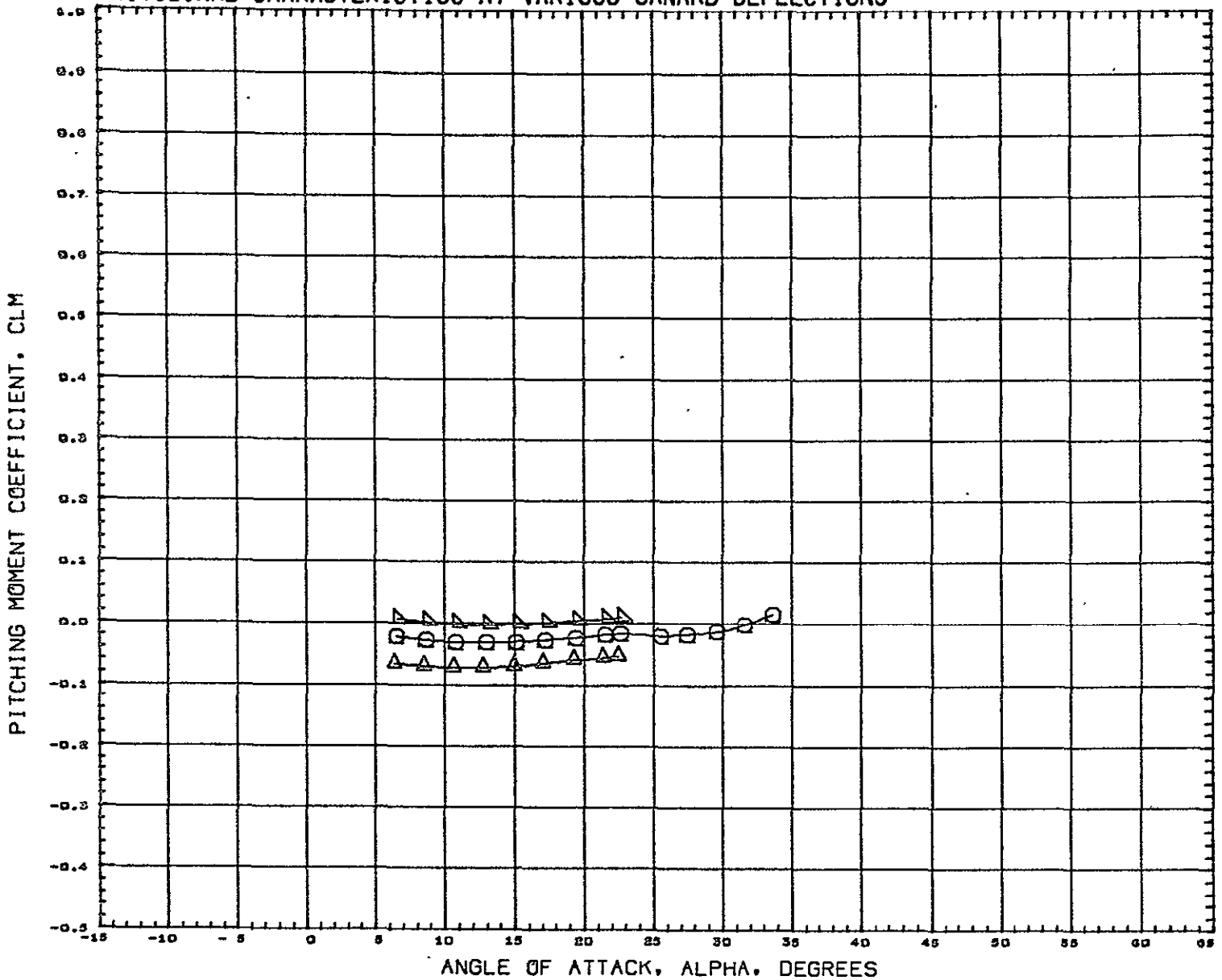
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)		MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 80. IN.
(C28009)		MSFC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(Z28050)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)		MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.462

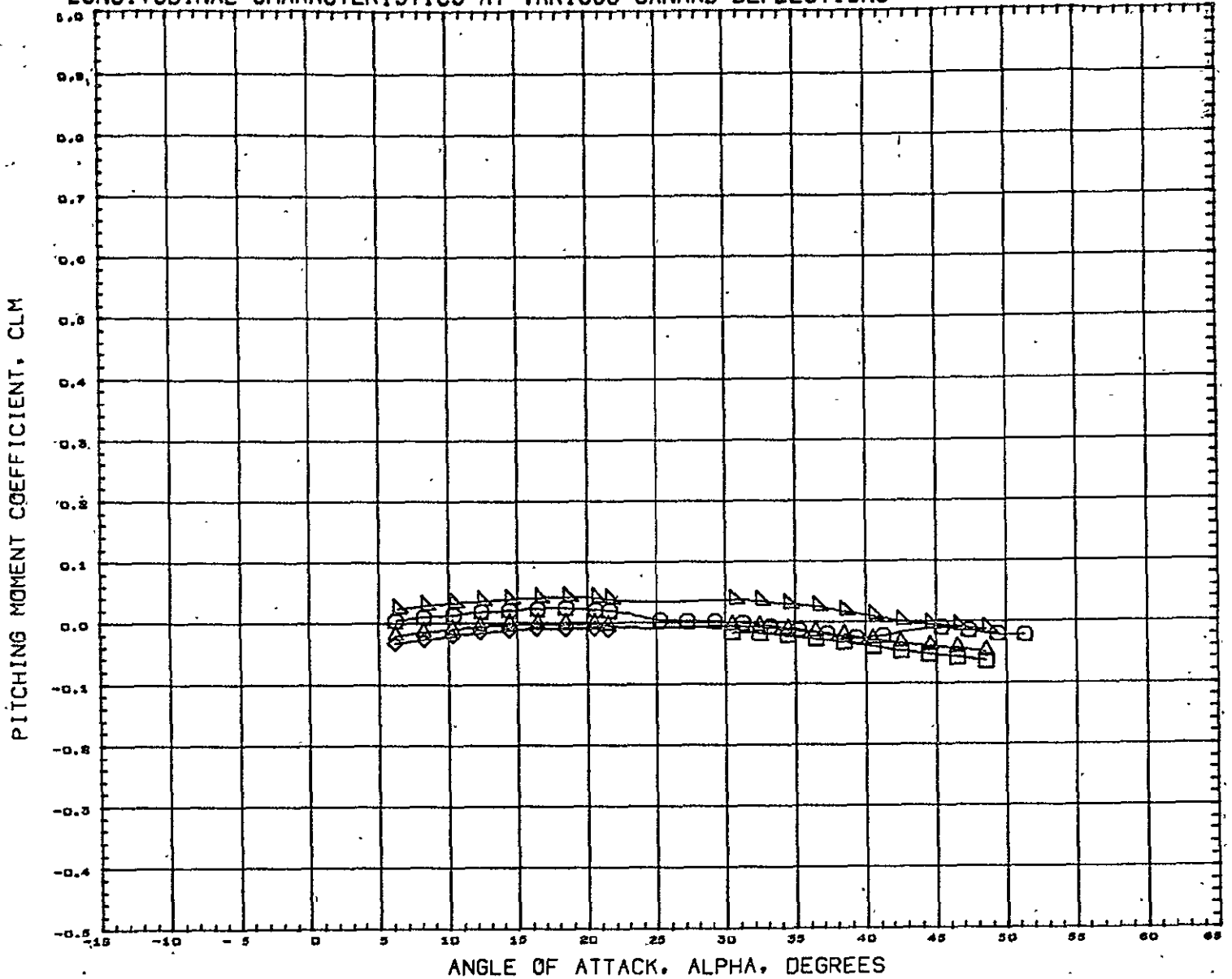
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0990 IN.
(E20000)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.998

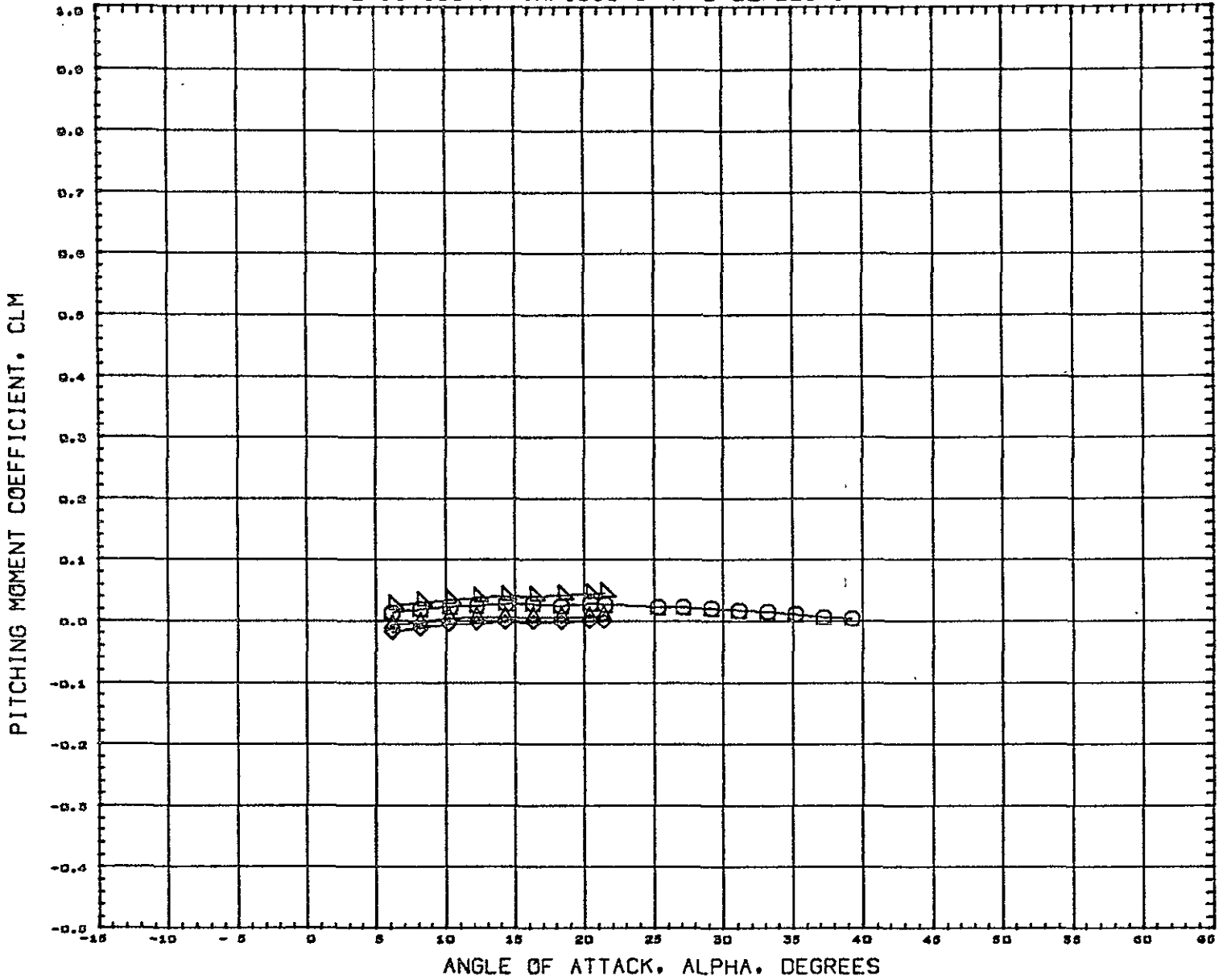
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C26005)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 50. IN.
(C26009)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E26030)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26010)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C26011)	MSFC 481 GD/C BOOSTER 'B19W14C4AB7	15.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 2.990

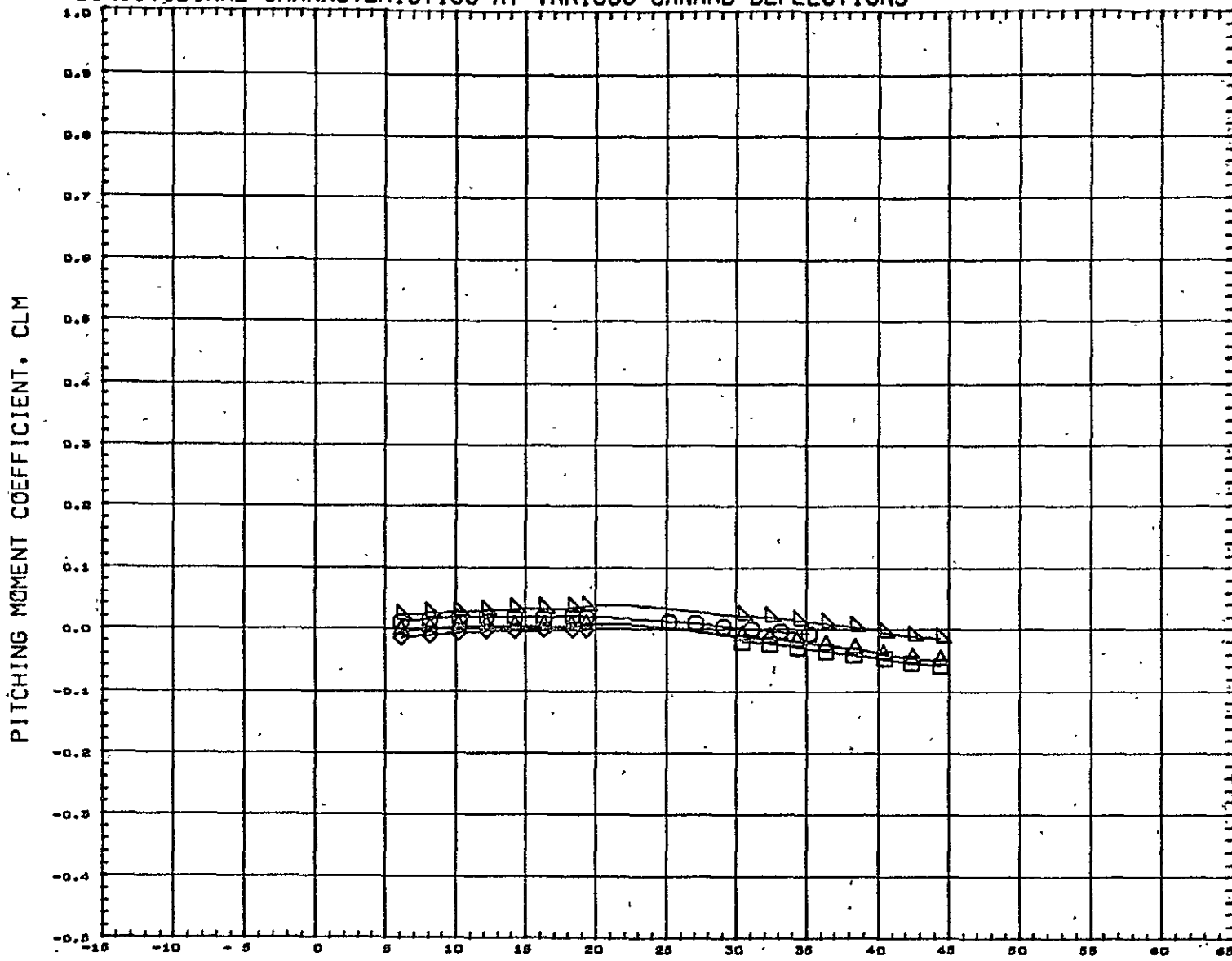
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C200D1)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 89. IN.
(C200D9)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0960 IN.
(E20C50)	M8FC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0960 IN.
(C20D10)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20D11)	M8FC 481 GD/C BOOSTER B19W14C4A87	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.000

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

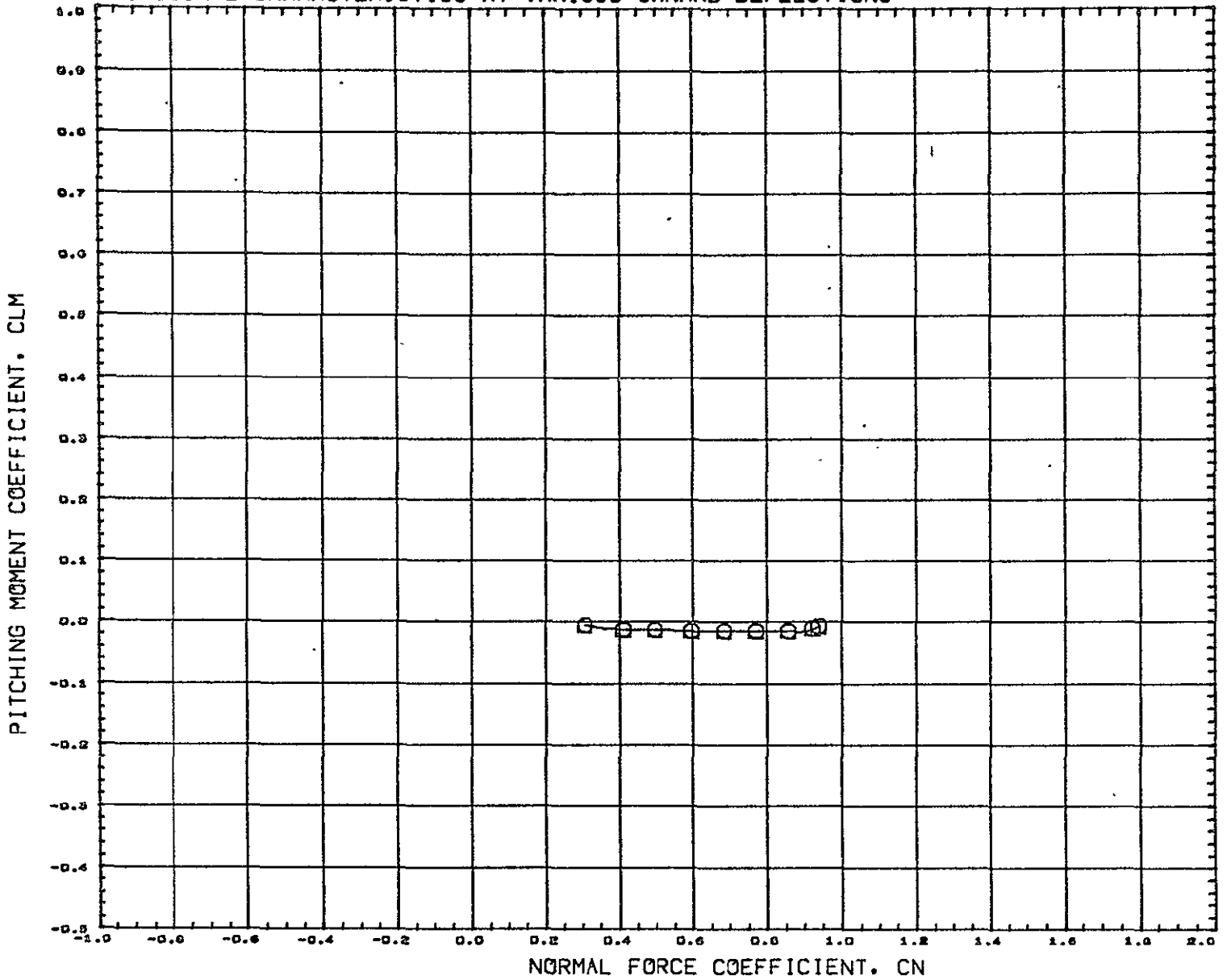


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	HSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 30.IN.
(C28009)	HSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	HSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0900 IN.
(C28010)	HSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XHRP 0.7100 IN.
(C28011)	HSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 4.980

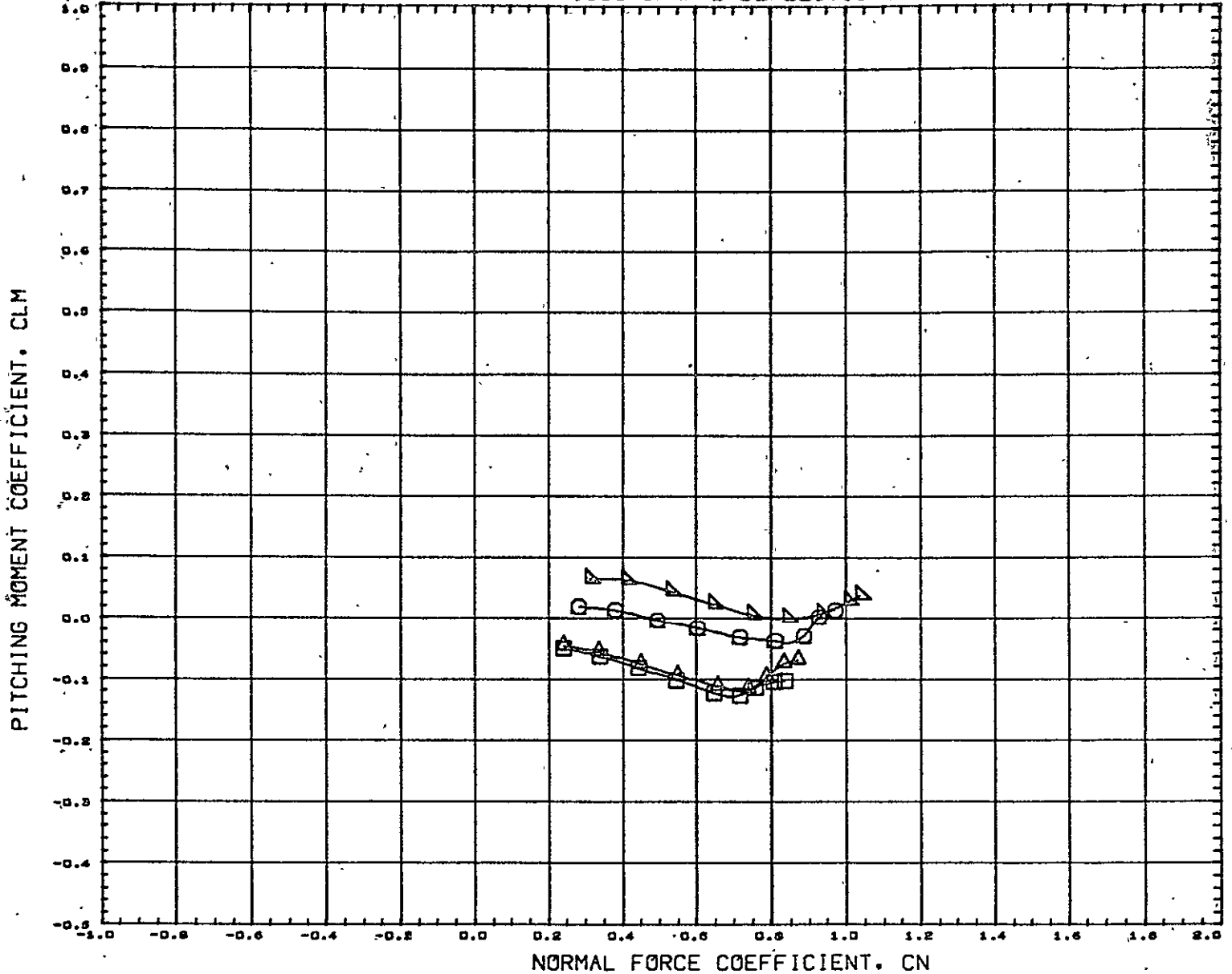
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	M5FC491 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.607

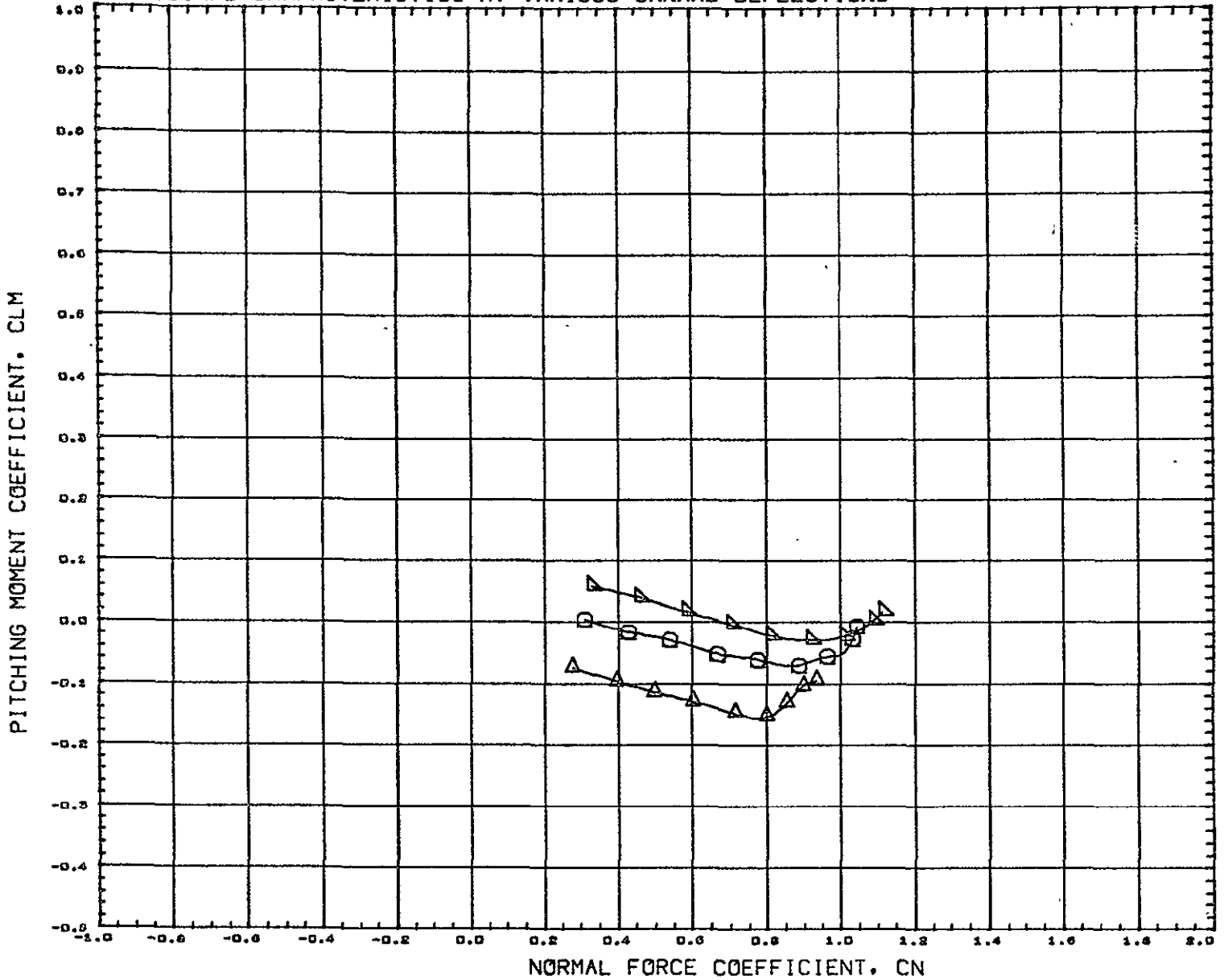
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0990 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	M8FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.900

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

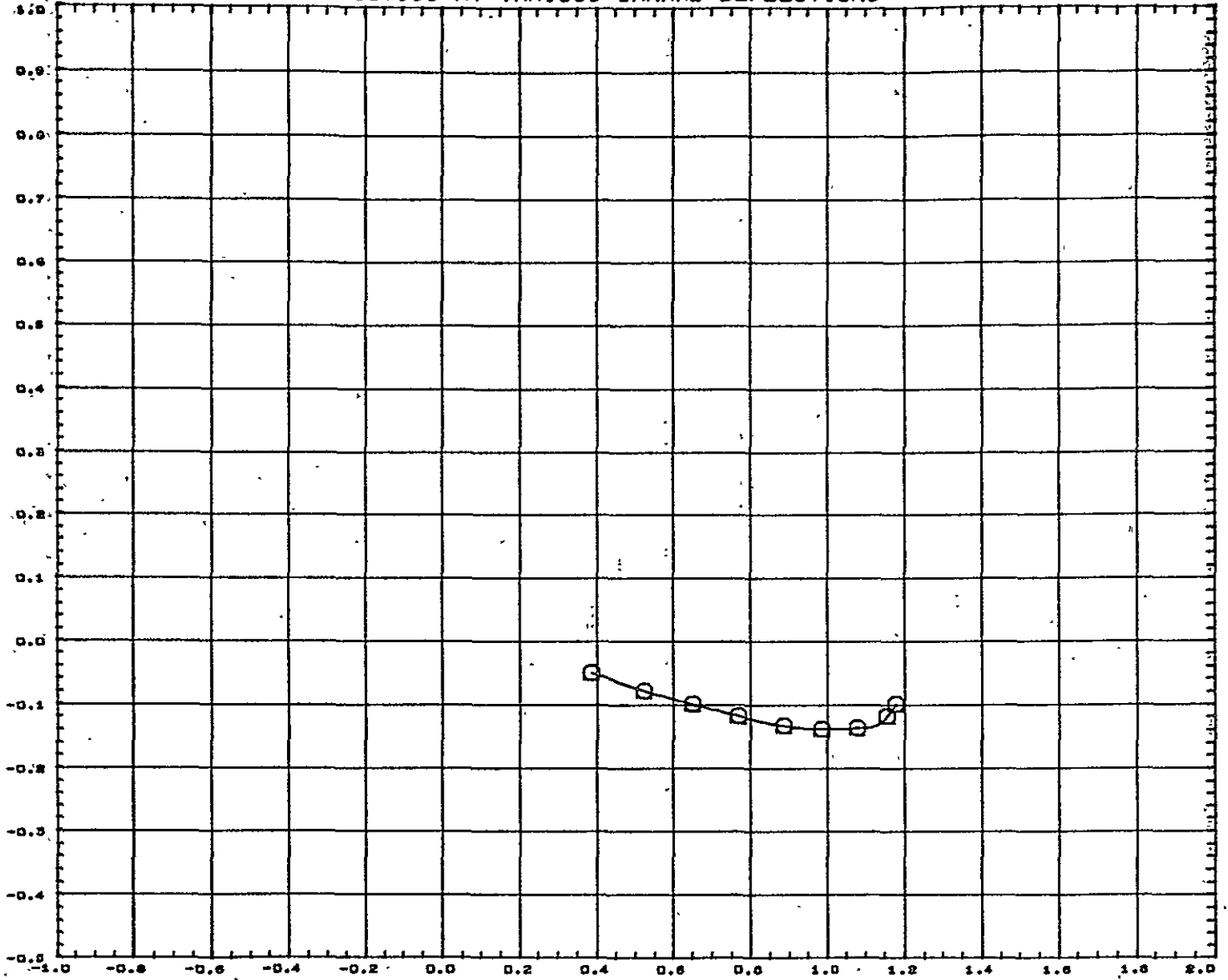


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT COEFFICIENT, CLM

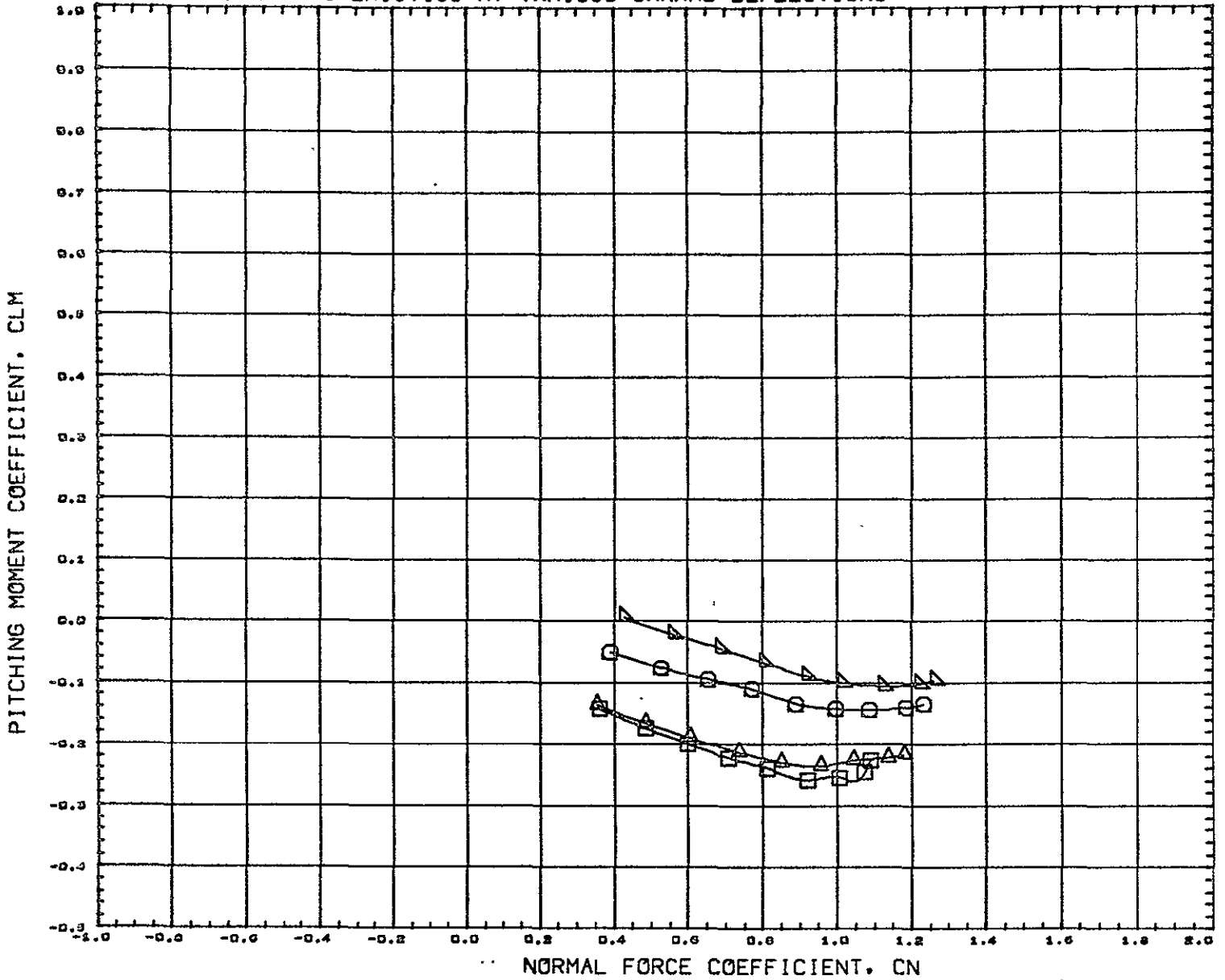


NORMAL FORCE COEFFICIENT, CN

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(C28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	YNRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	YNRP 0.0000 IN.
						ZNRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

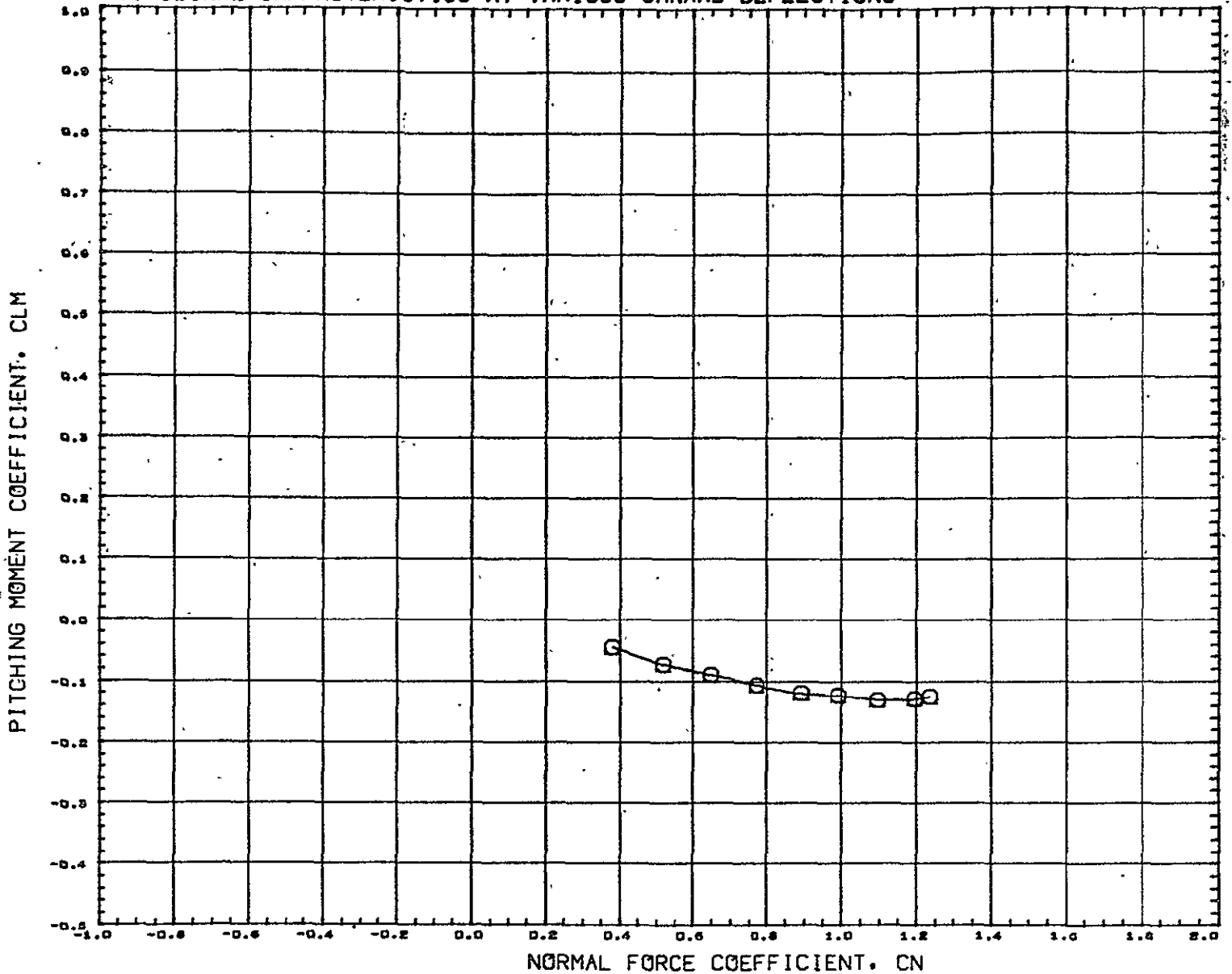
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28080)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XHRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.051

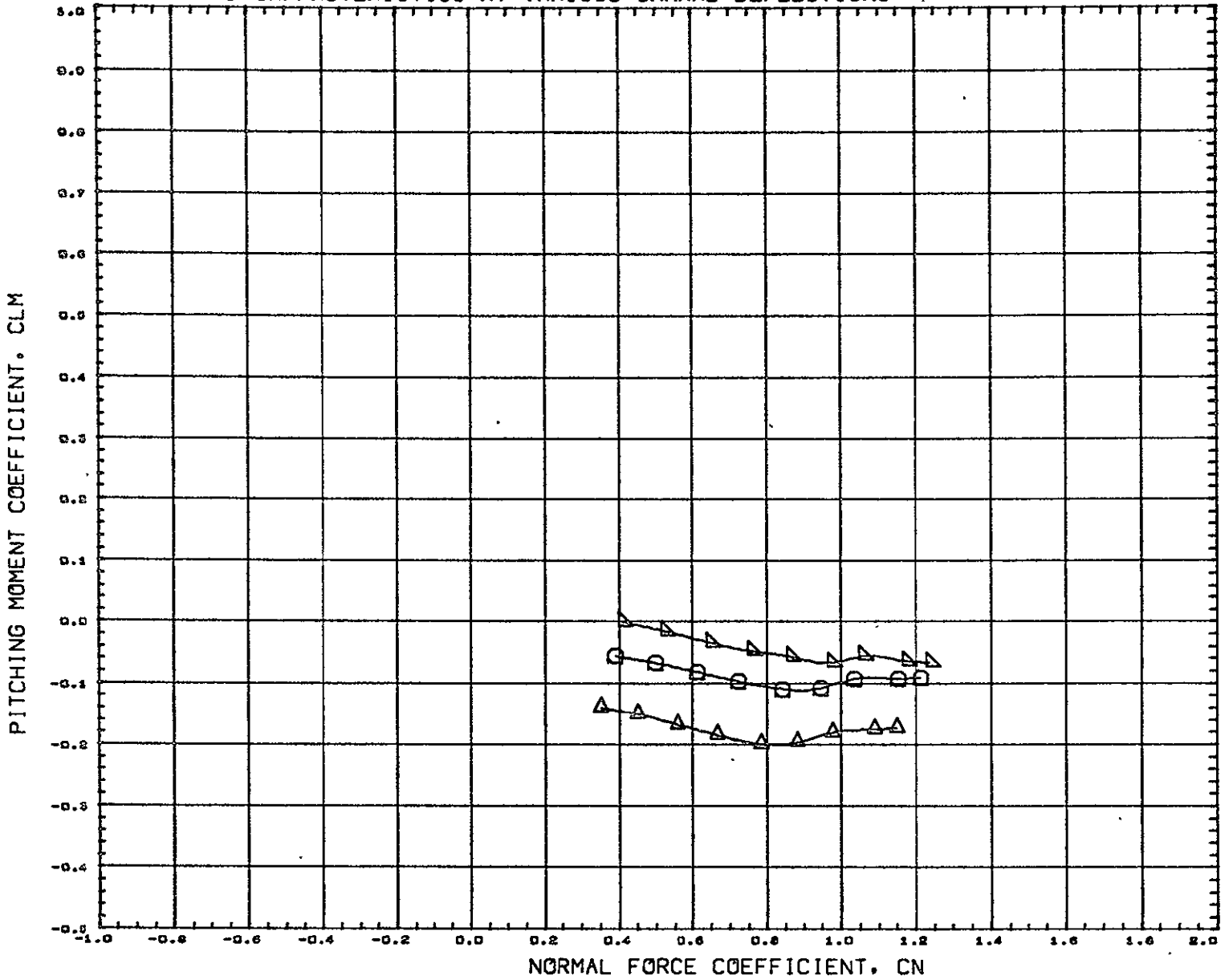
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C24001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 80. IN.
(C24009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E24050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C24010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C24011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

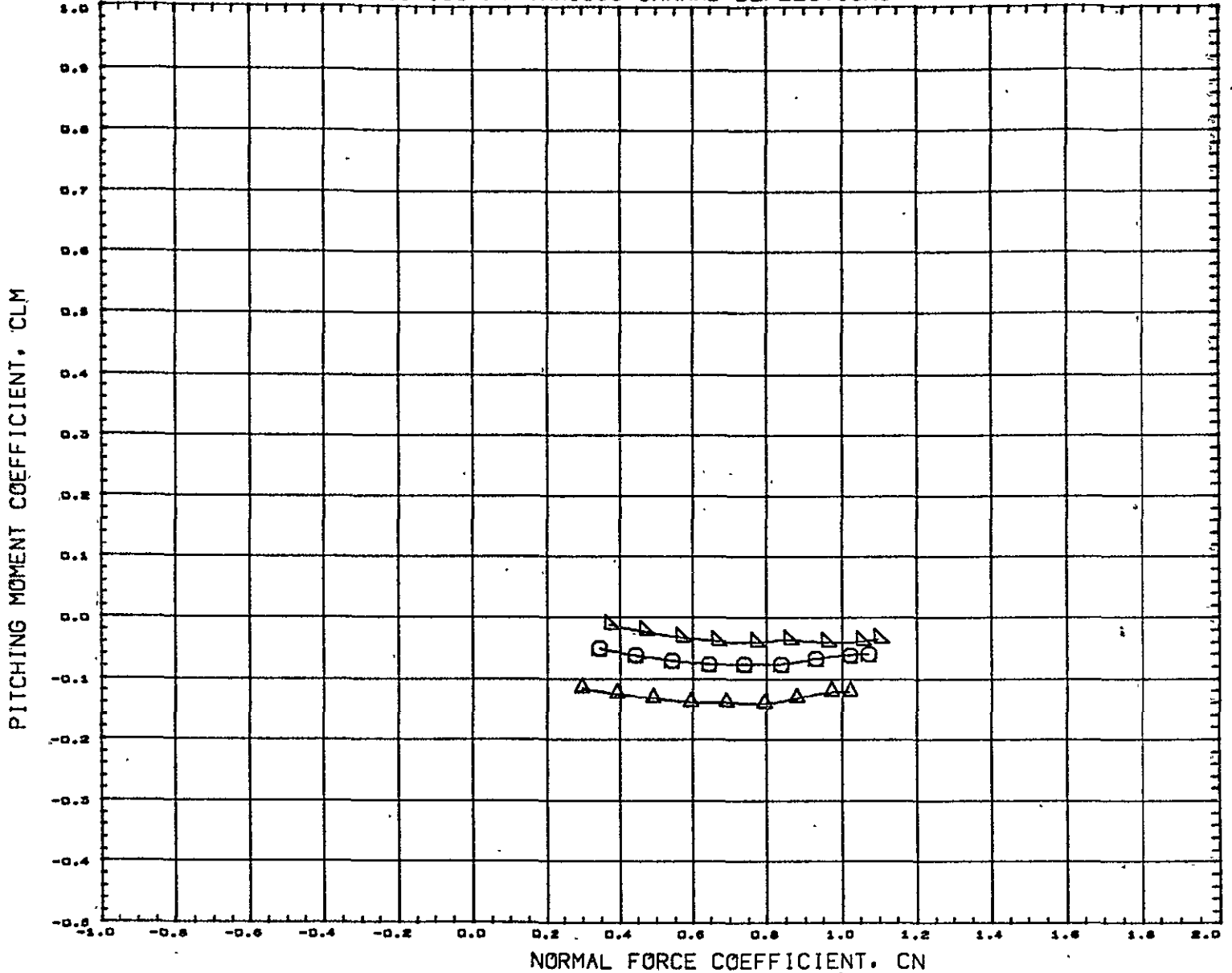
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC401 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20000)	MSFC401 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20011)	MSFC 401 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

HACH 1.201

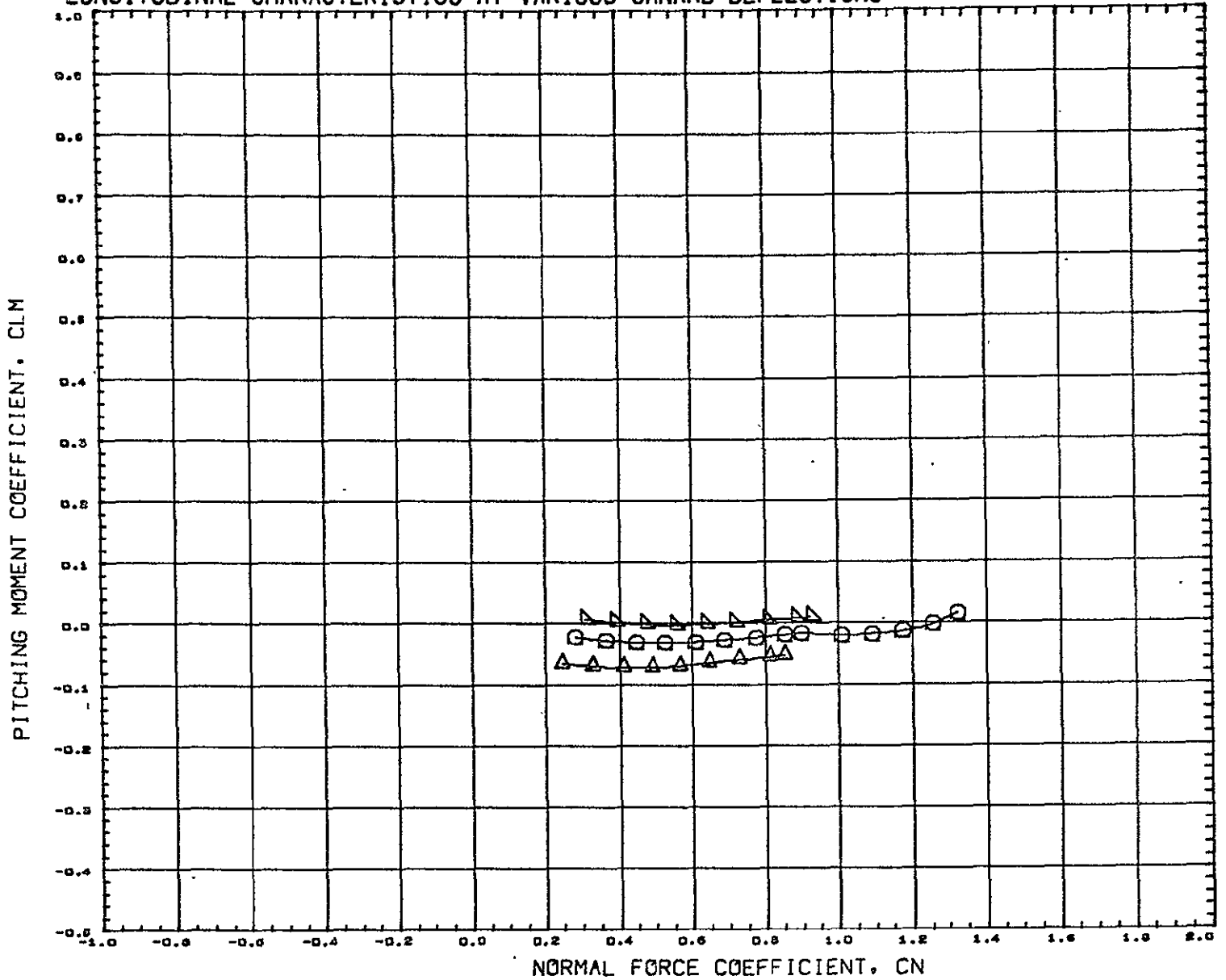
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E20C60)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20D10)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C20D11)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.462

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

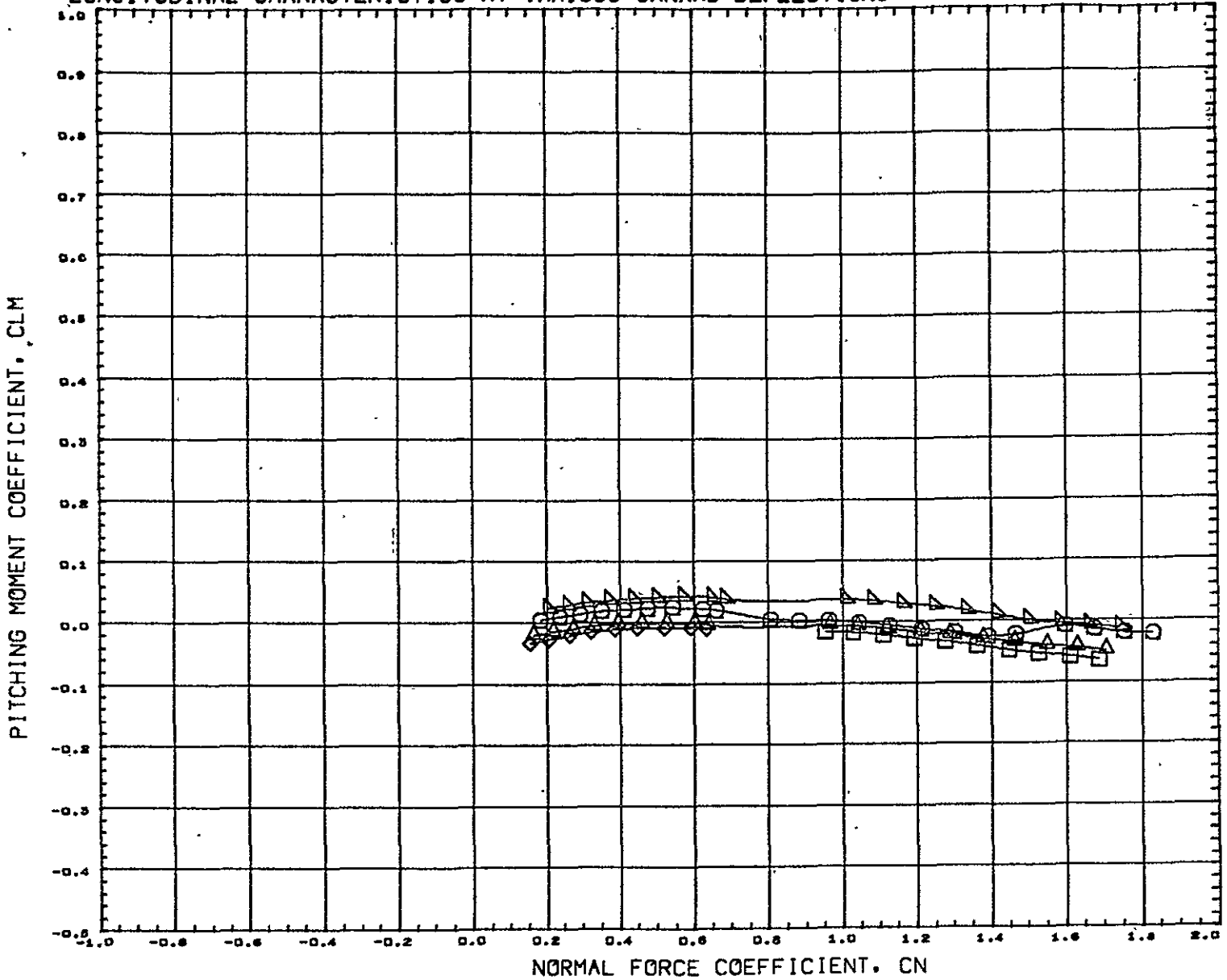


NORMAL FORCE COEFFICIENT, CN

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION	
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF	15.6560 Sq. IN.
(C20009)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF	3.0990 IN.
(E20050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000	0.000	0.000	BREF	6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000	0.000	0.000	XMRP	6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.956

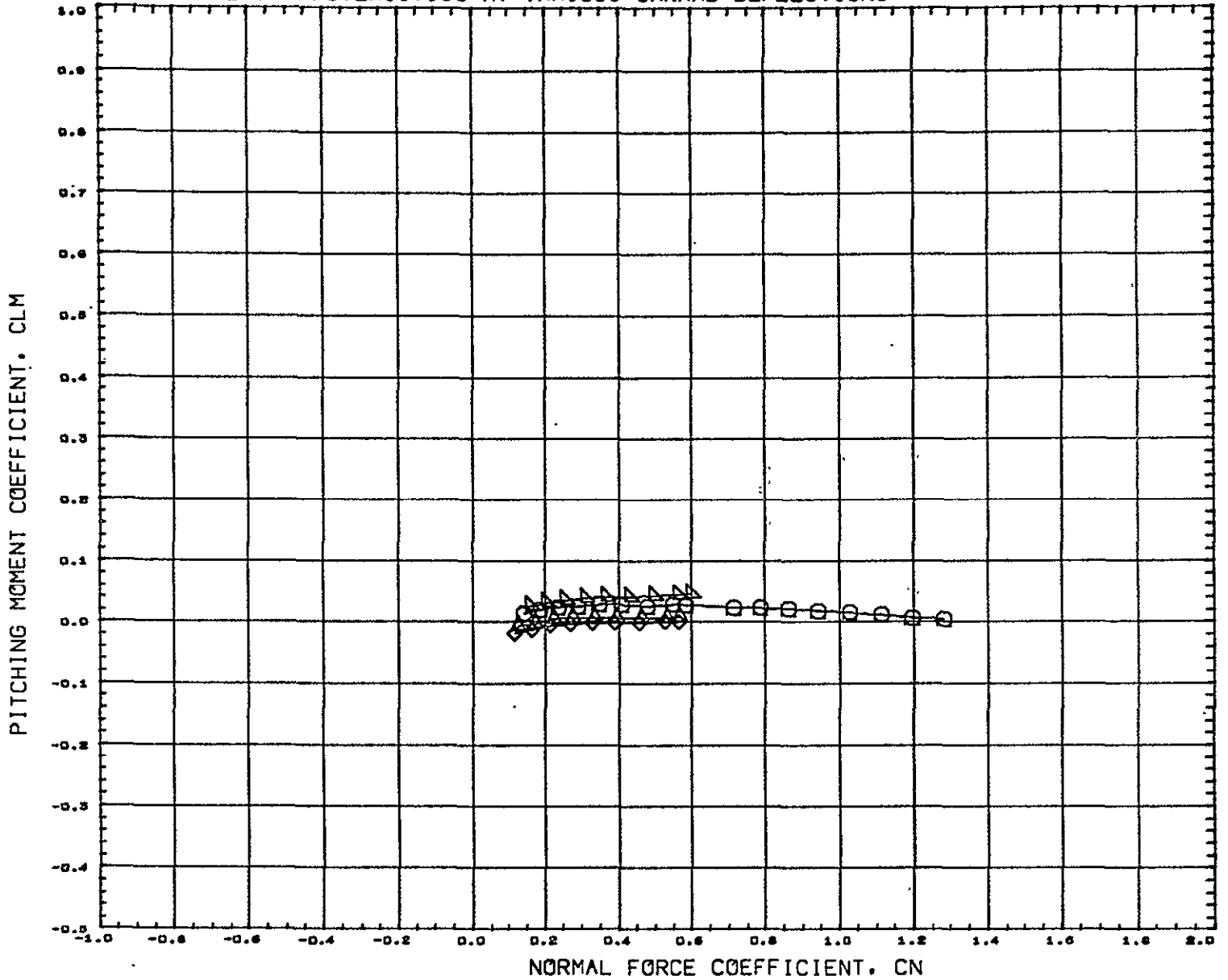
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(C28009)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	LREF	3.0950 IN.
(E28C50)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	BREF	6.0990 IN.
(C28010)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	XHRP	6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	YHRP	0.0000 IN.
					ZHRP	0.0000 IN.
					SCALE	0.0035

MACH 2.890

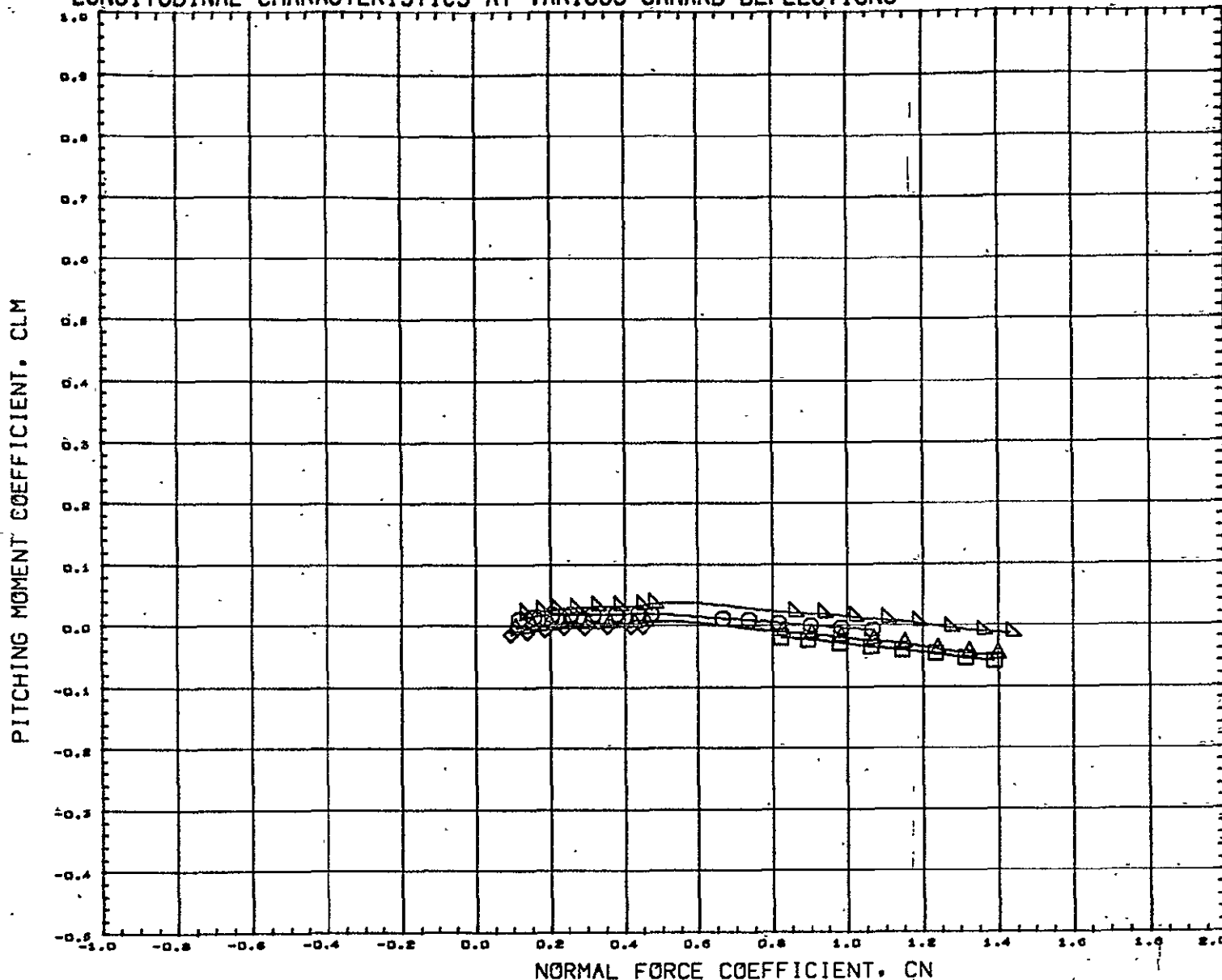
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION	
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF	15.6560 50.IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF	5.0950 IN.
(E28C50)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF	6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP	6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 4.000

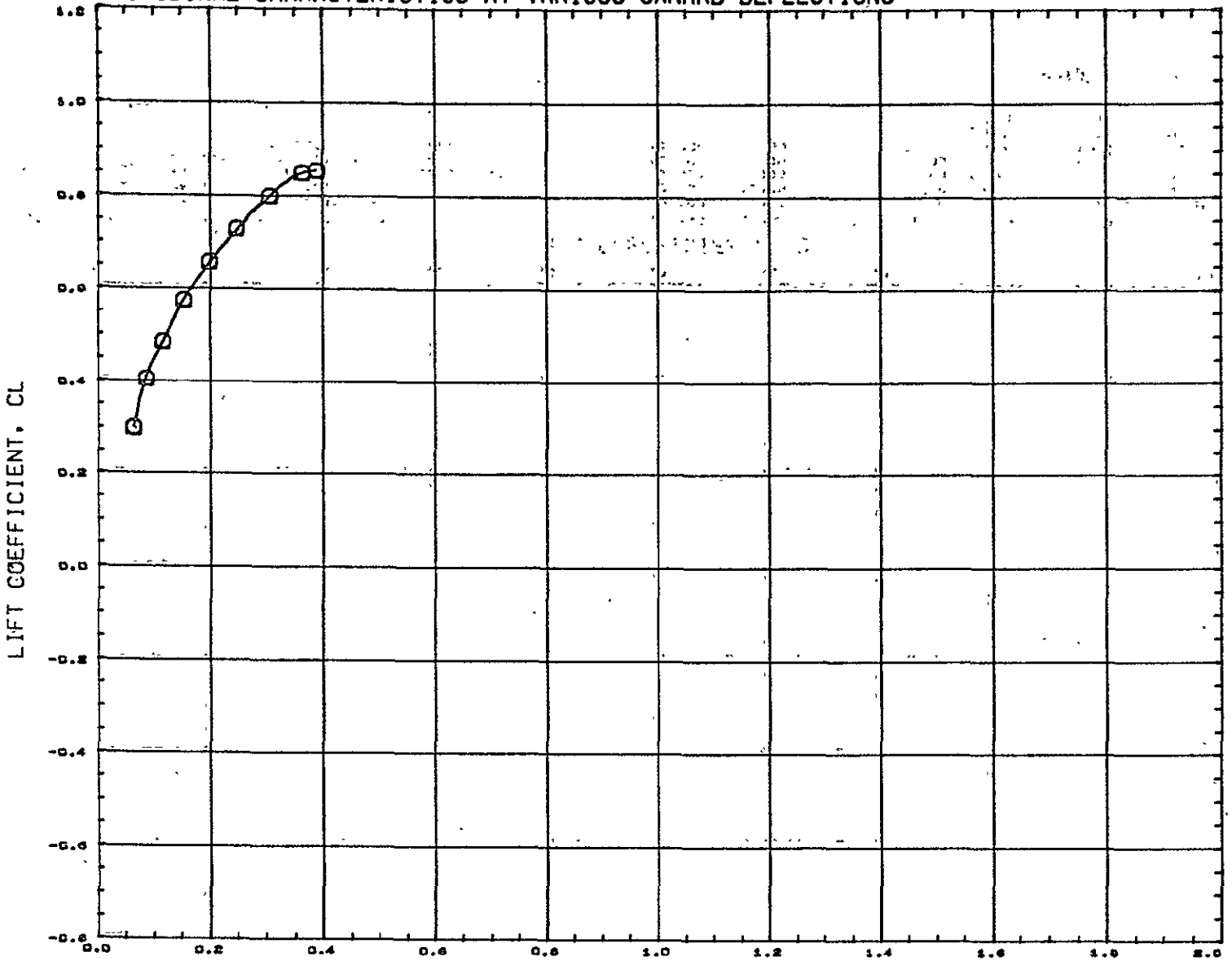
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28002)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28009)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000	0.000	0.000	LREF 3.0950 IN.
(E28050)	M8FC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28010)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000	0.000	0.000	XMRP 6.7100 IN.
(C28011)	M8FC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0085

MACH 4.960

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

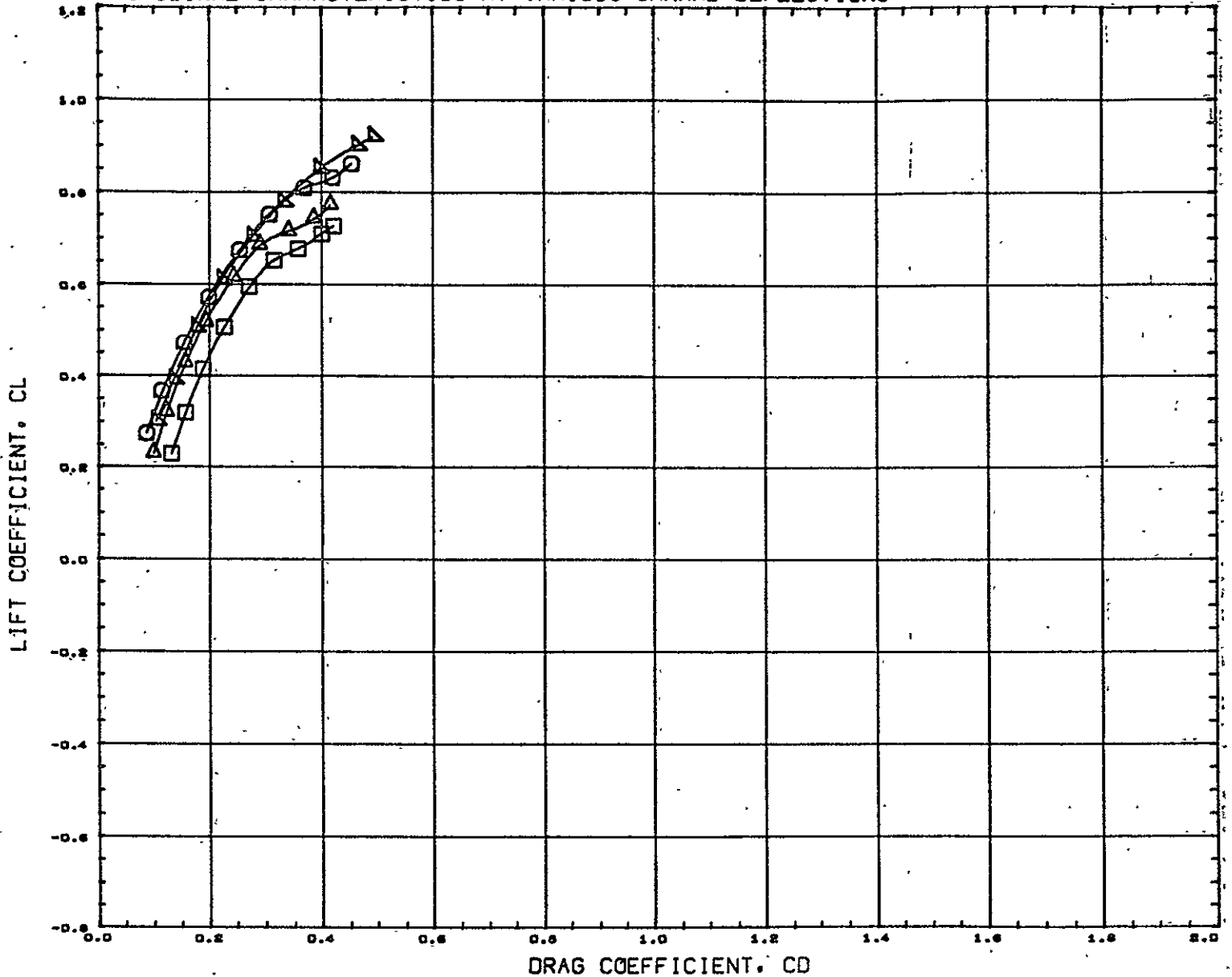


DRAG COEFFICIENT, CD

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C20009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20C90)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.007

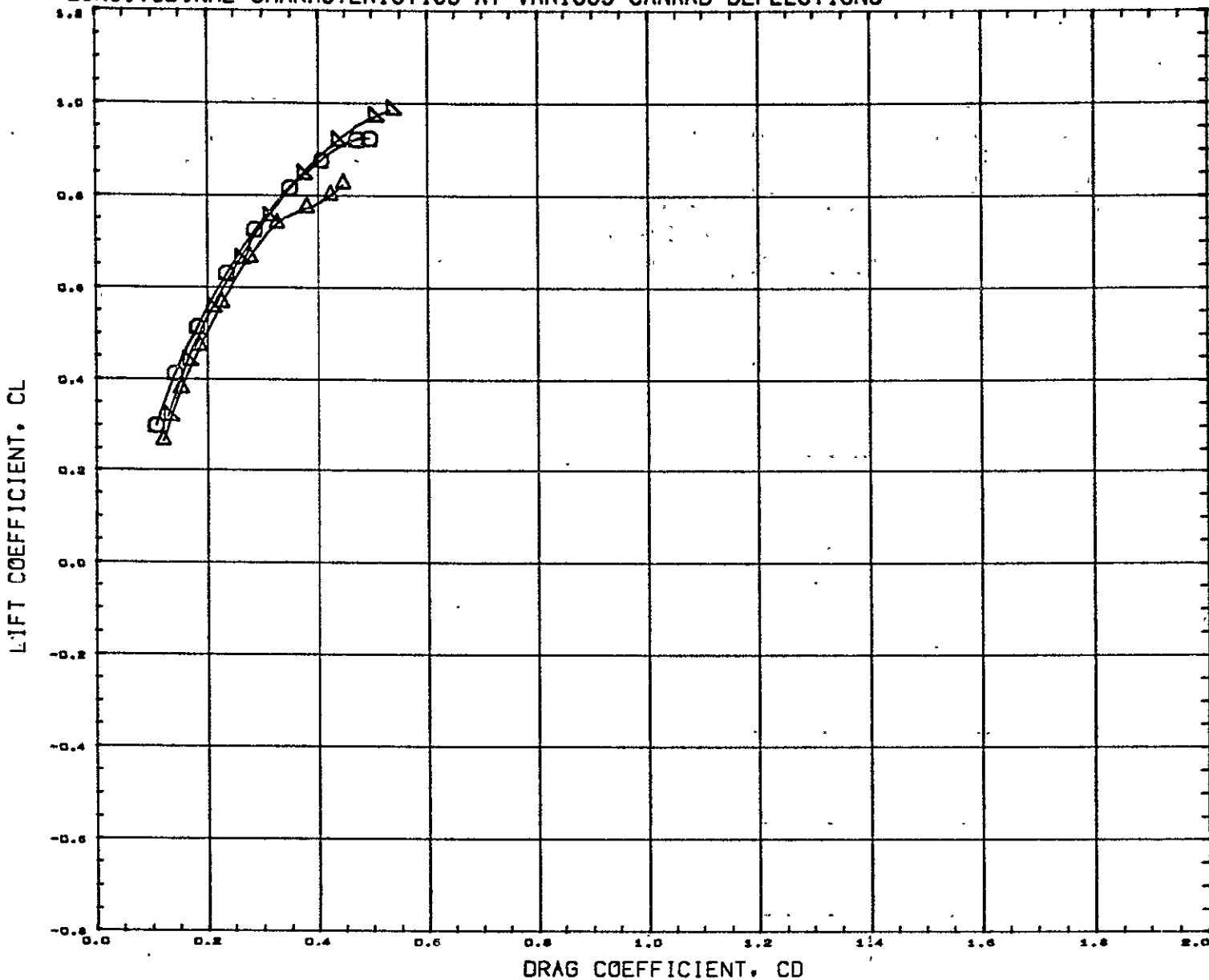
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 18.6560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.900

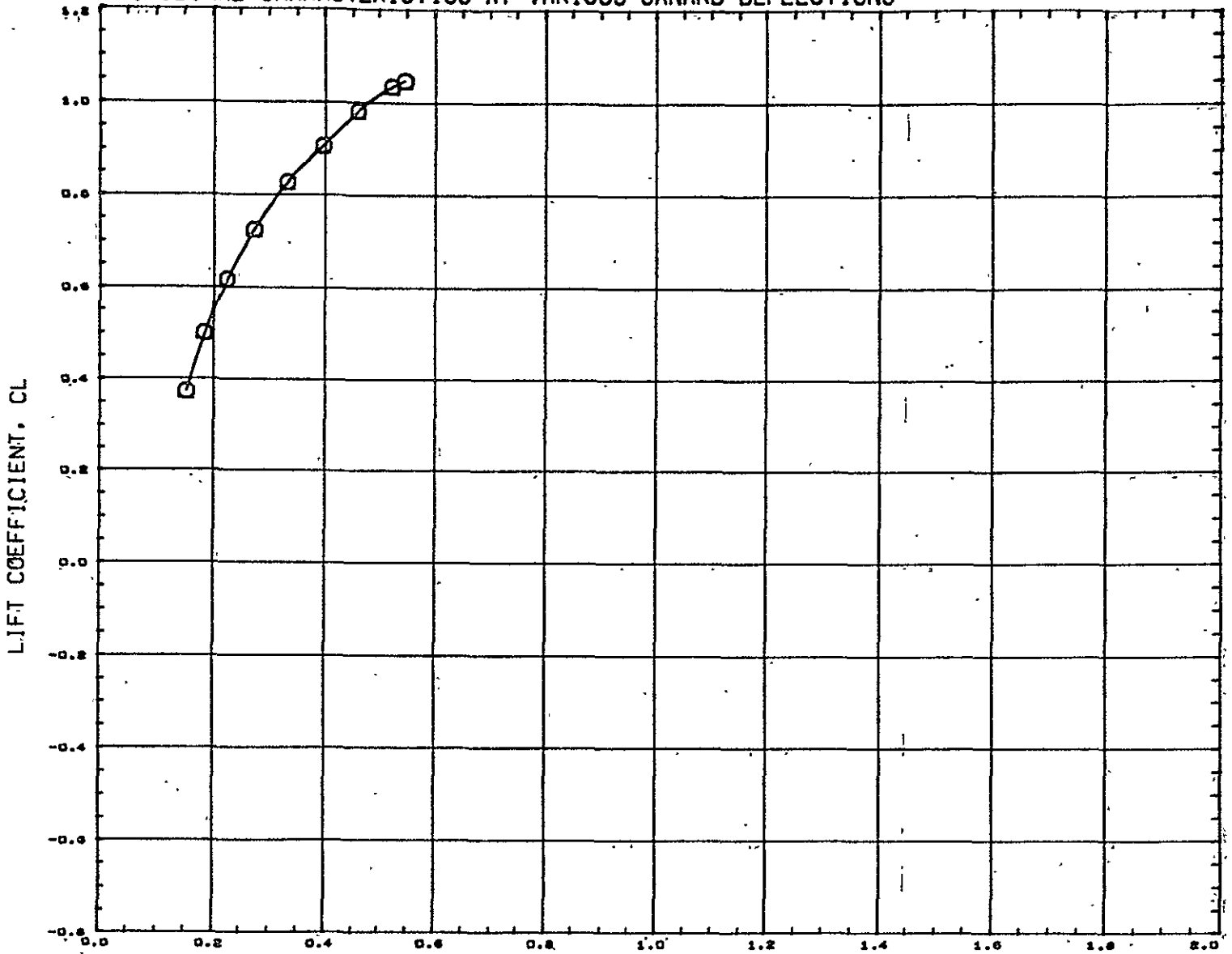
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.8560' 39. IN.
(C20009)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E20050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XHRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0039

MACH 0.954

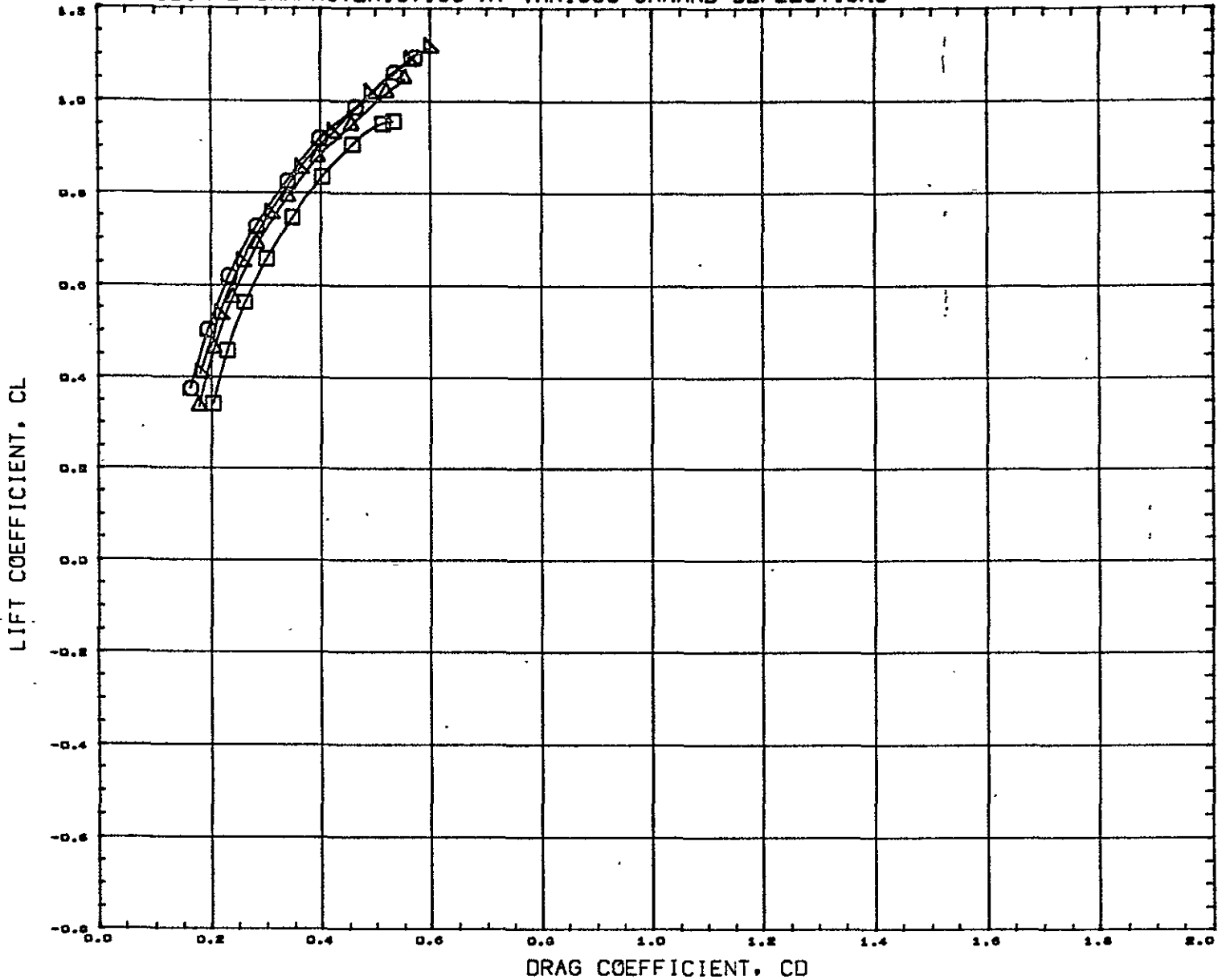
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4V7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.007

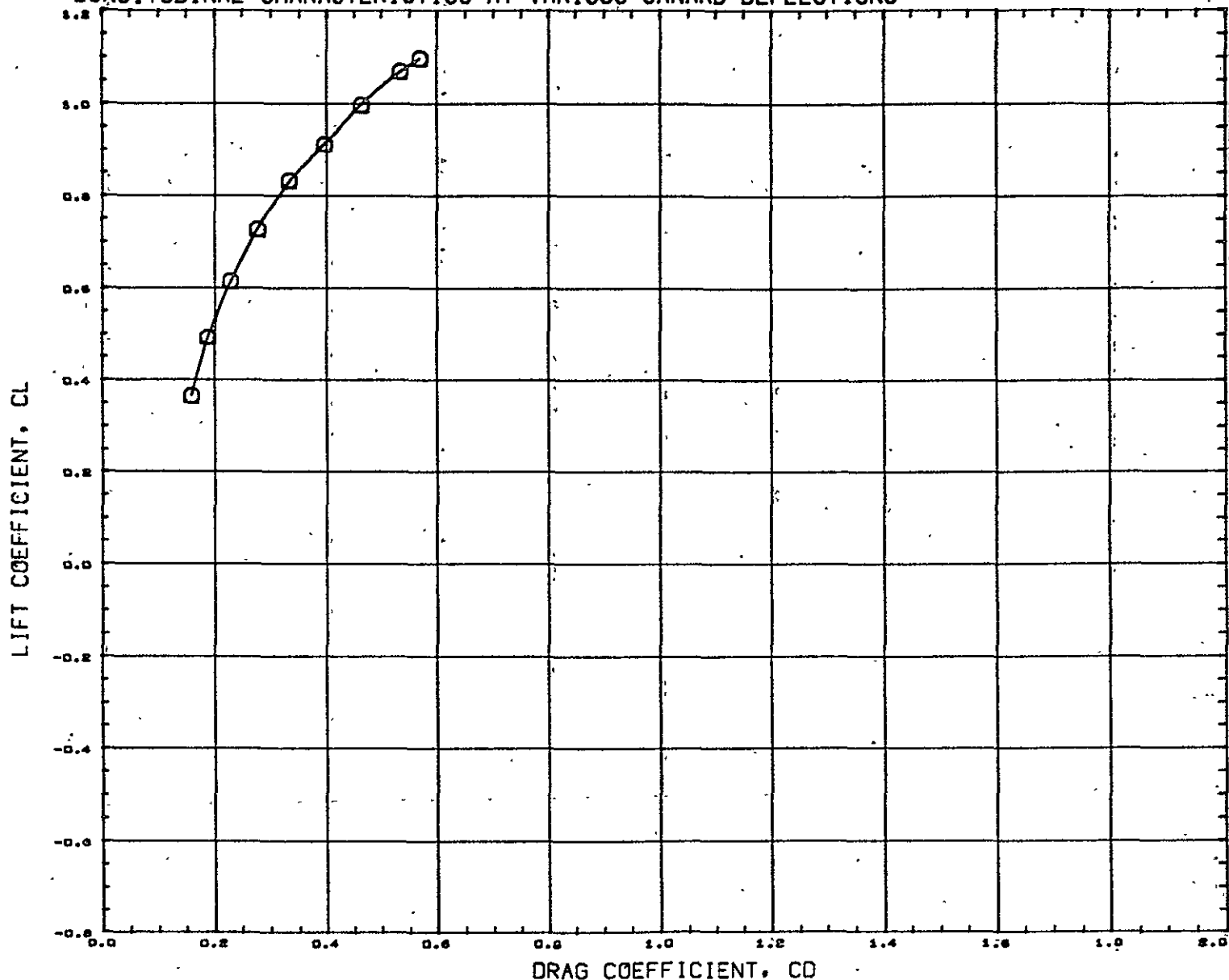
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.8560 SQ. IN.
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

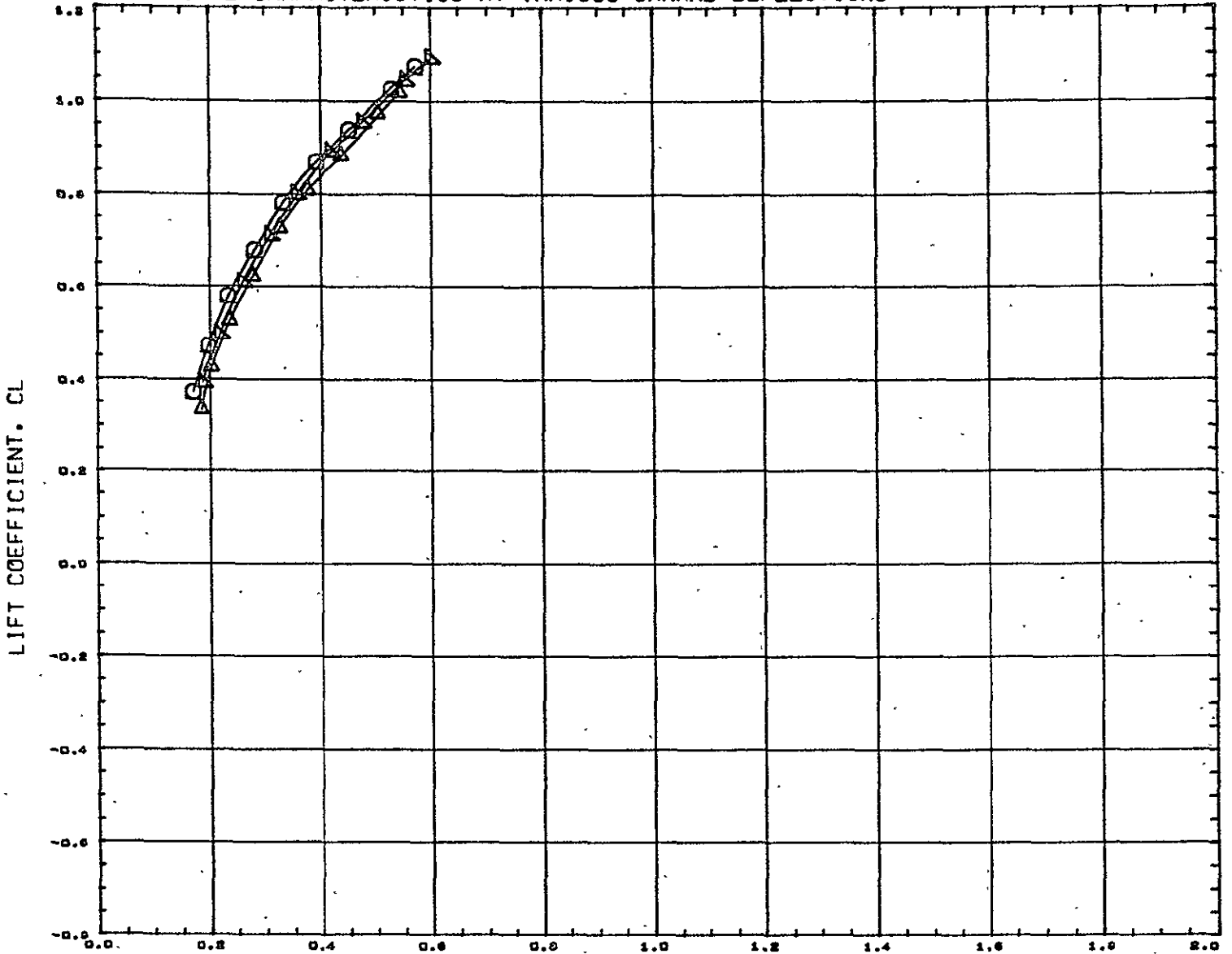
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C29001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ. IN.
(C28009)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

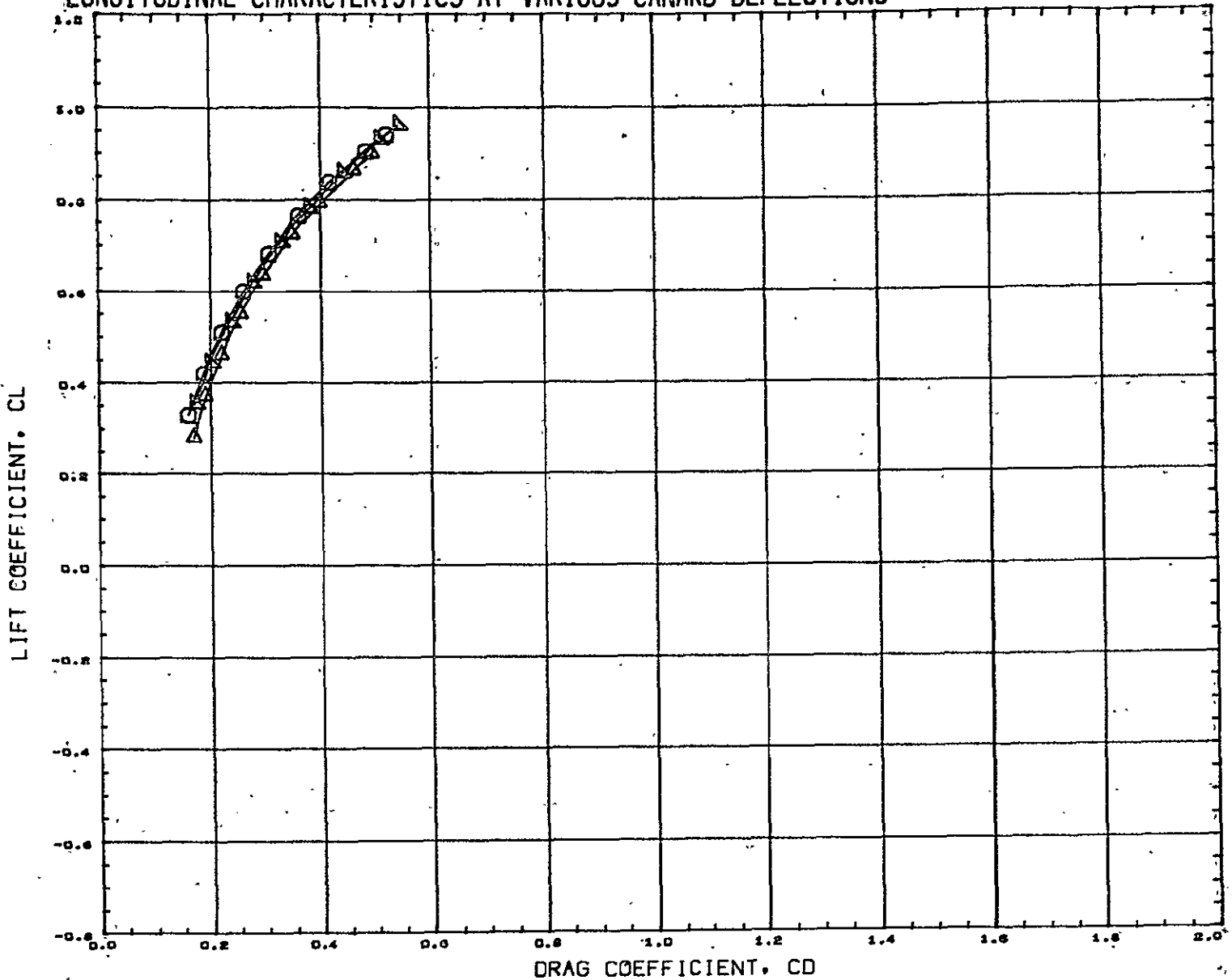


DRAG COEFFICIENT, CD

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6580 89.1N.
(C20009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0930 IN.
(E20050)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.201

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



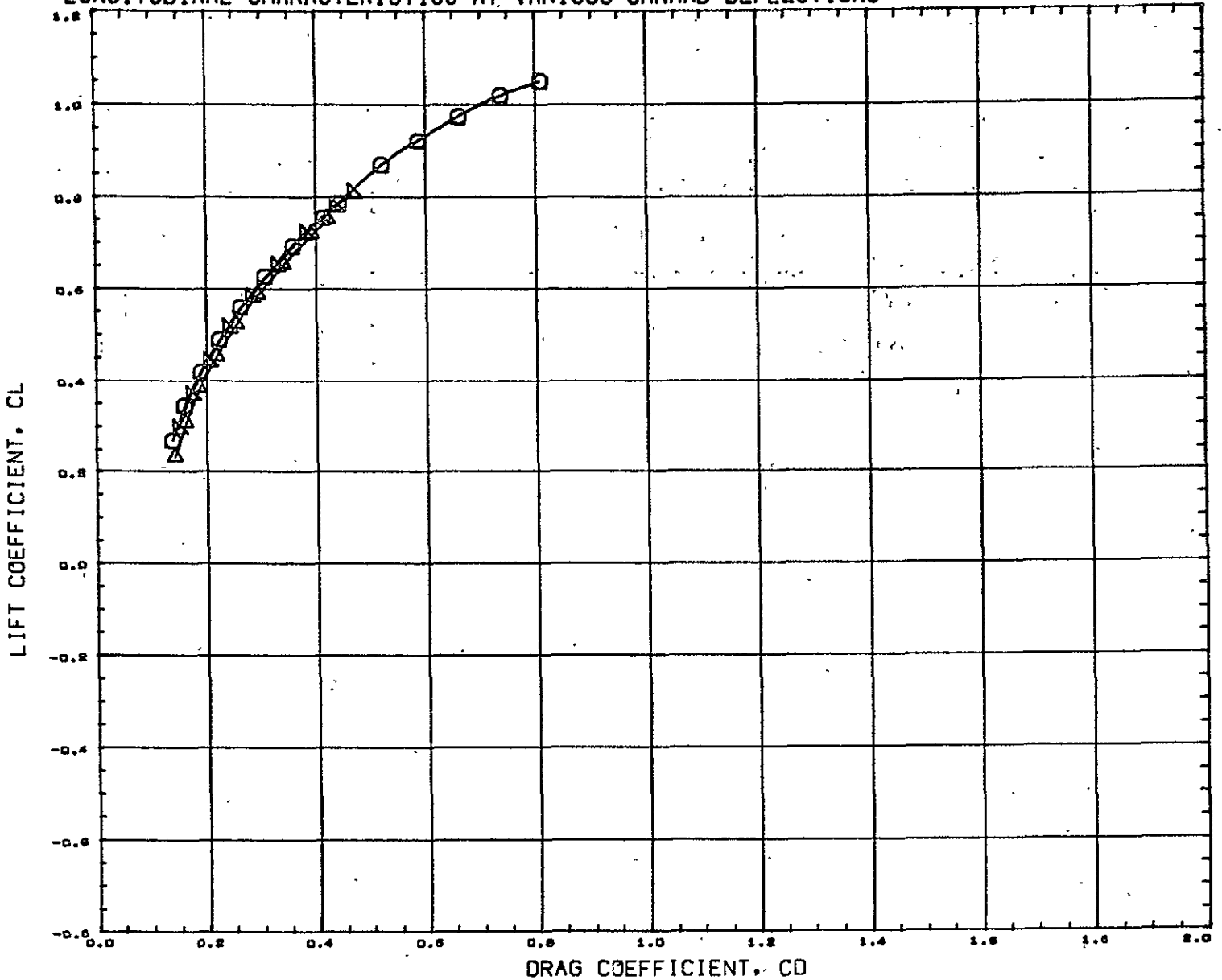
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(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7
(C28009)	MSFC481 GD/C(BOOSTER) B19W14C4AV7
(E28C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C28010)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4A87

MACH 1.462

DRAG COEFFICIENT, CD

CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 15.6560 39. IN.
-30.000	0.000	0.000	0.000	LREF 3.0050 IN.
-45.000	0.000	0.000	0.000	BRF 6.0000 IN.
-60.000	0.000	0.000	0.000	XMRP 6.7300 IN.
15.000	0.000	0.000	0.000	YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

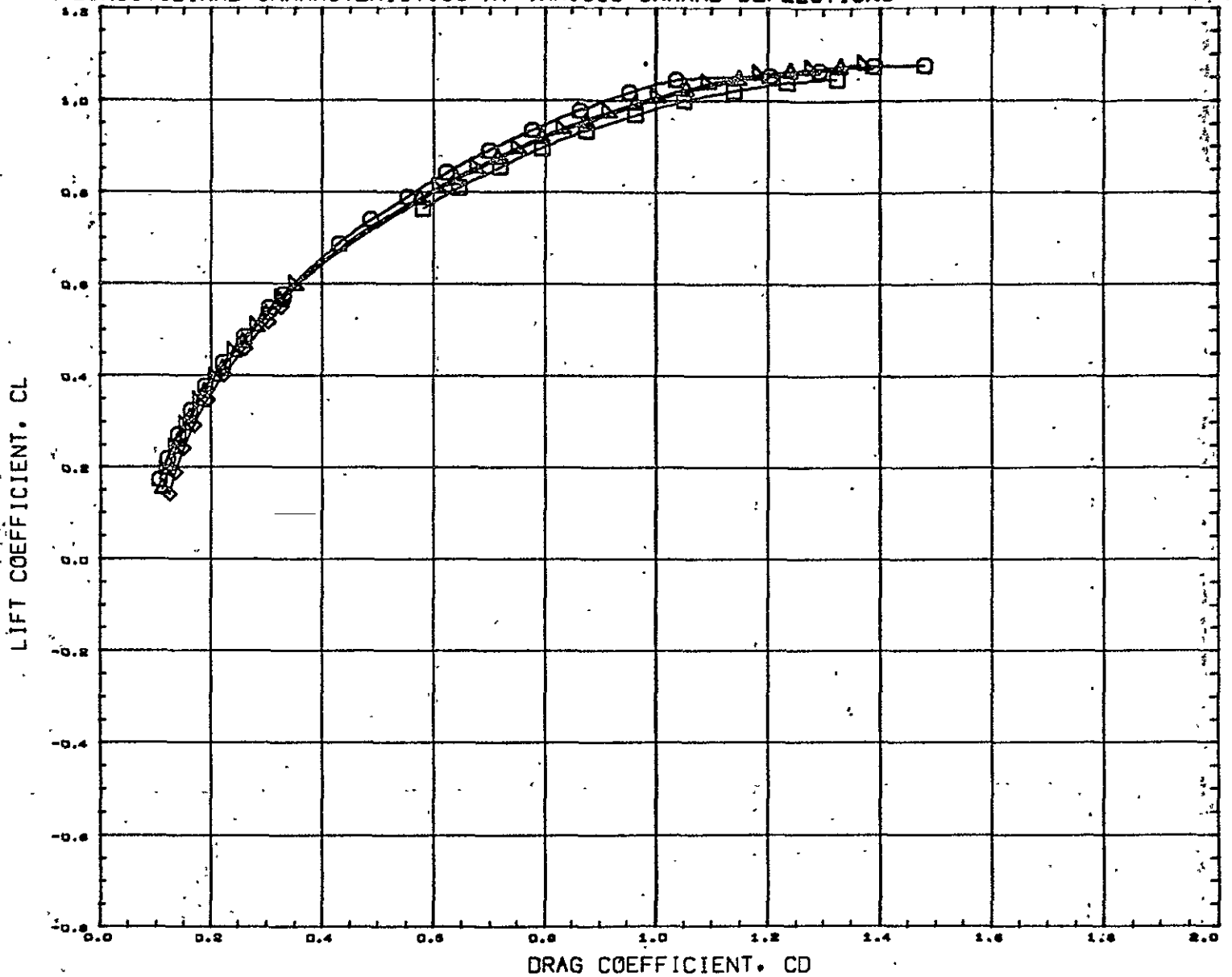
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C26003)	M5FC461 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 SQ.IN.
(C26009)	M5FC461 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E26C50)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	0.000		0.000	BREF 6.0990 IN.
(C26010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C26011)	M5FC 461 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

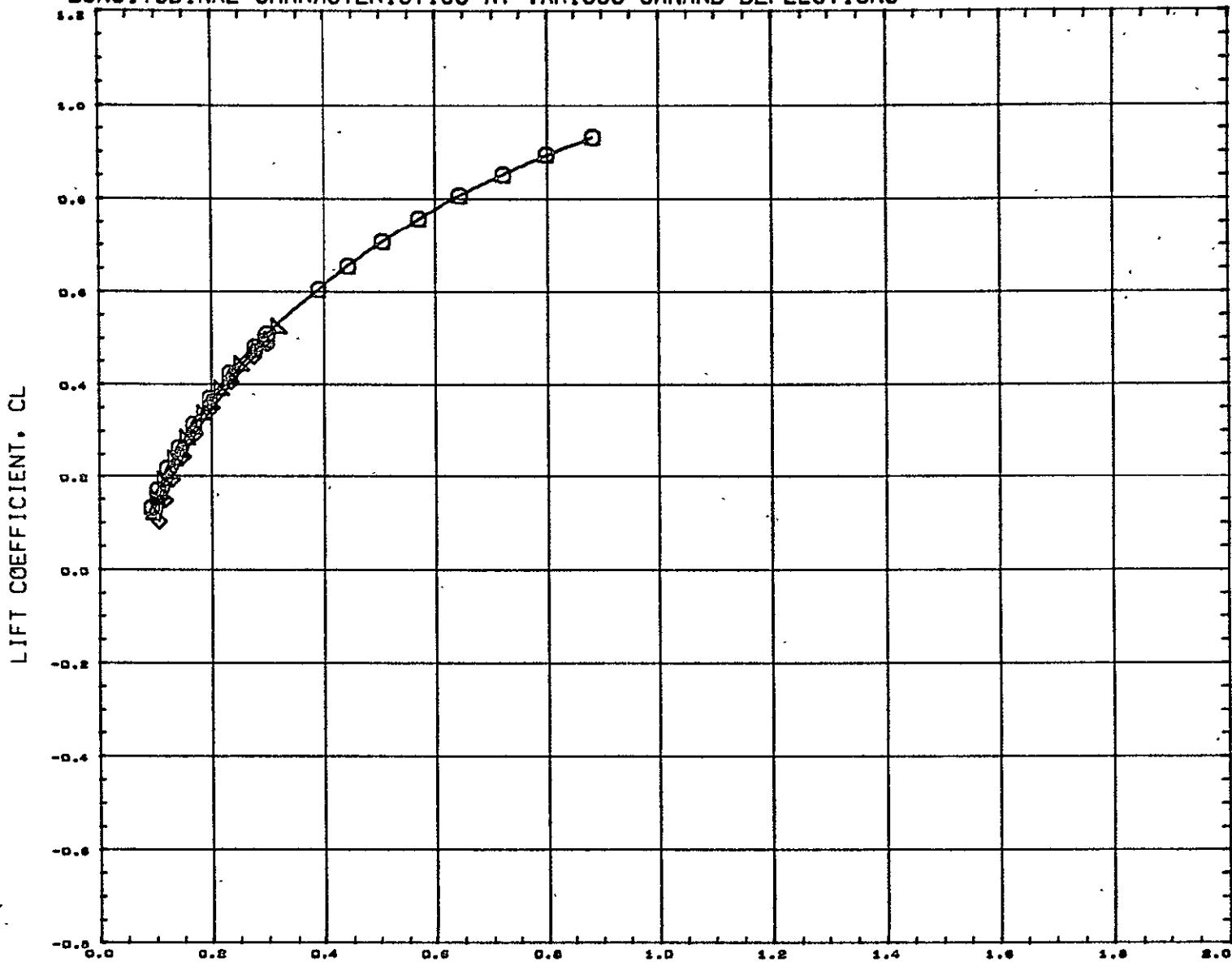
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 80.IN.
(C28009)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0980 IN.
(E28C50)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C28012)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 2.990

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

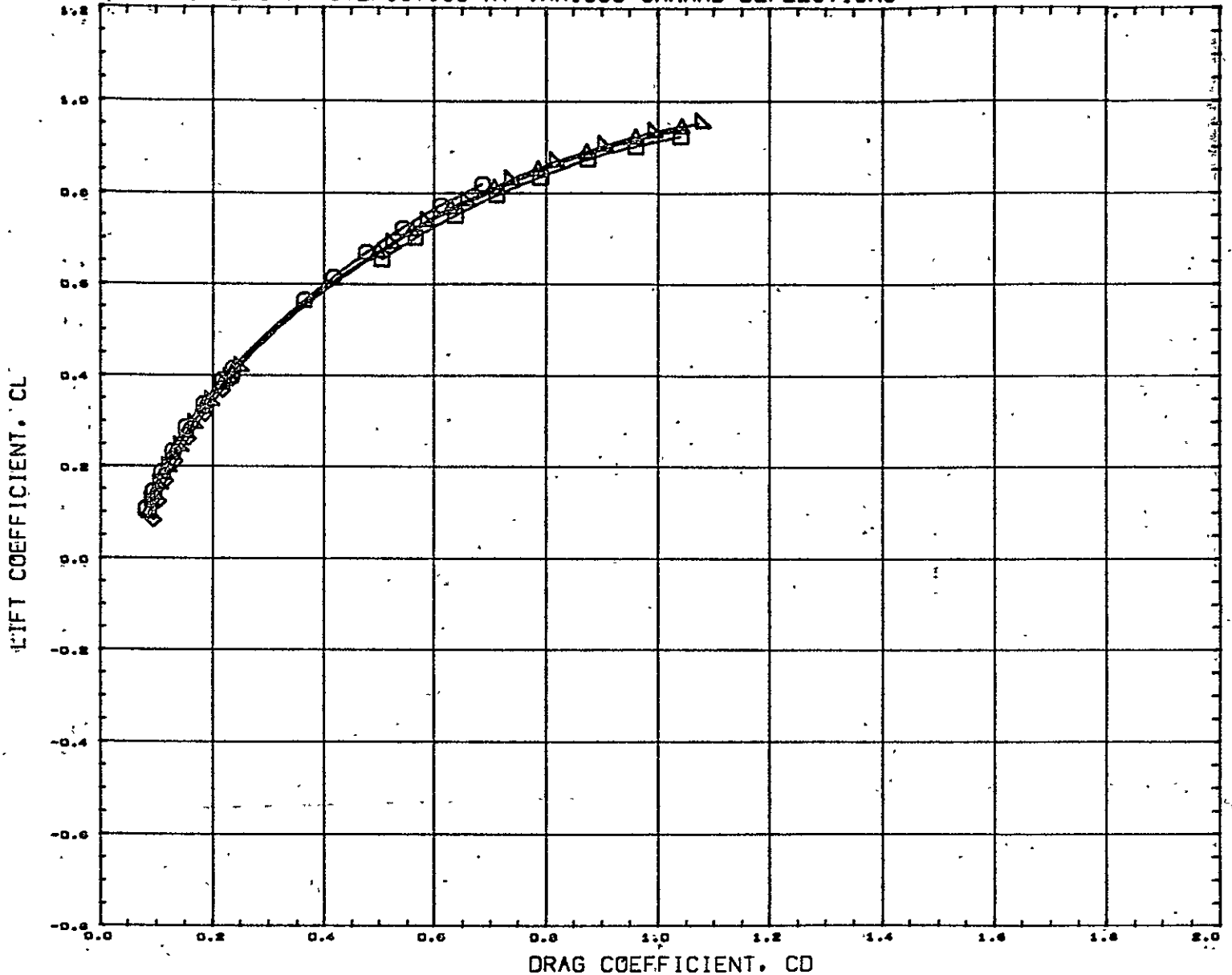


DRAG COEFFICIENT, CD

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C200D1)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.0560 30. IN.
(C200D9)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0850 IN.
(E20C50)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0990 IN.
(C20010)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-60.000	0.000		0.000	XMRP 6.7100 IN.
(C20011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

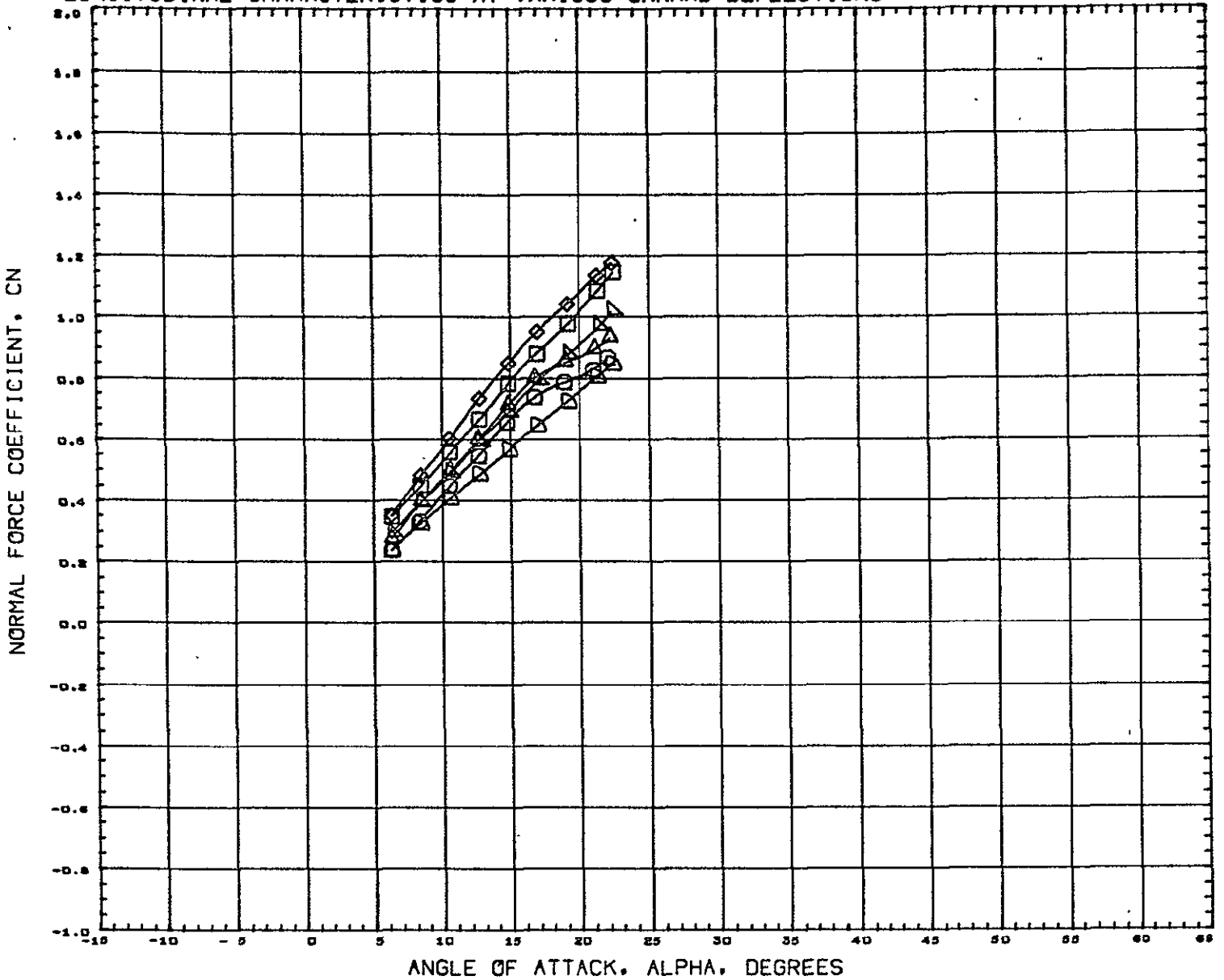
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	ELEVON	RUDDER	BETA	REFERENCE INFORMATION
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000		0.000	SREF 15.6560 50.IN.
(C28009)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-30.000	0.000		0.000	LREF 3.0950 IN.
(E28050)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	-45.000	0.000		0.000	BREF 6.0990 IN.
(C28010)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	-60.000	0.000		0.000	XMRP 6.7500 IN.
(C28011)	MSFC 481 GD/C BOOSTER B19W14C4AB7	15.000	0.000		0.000	YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

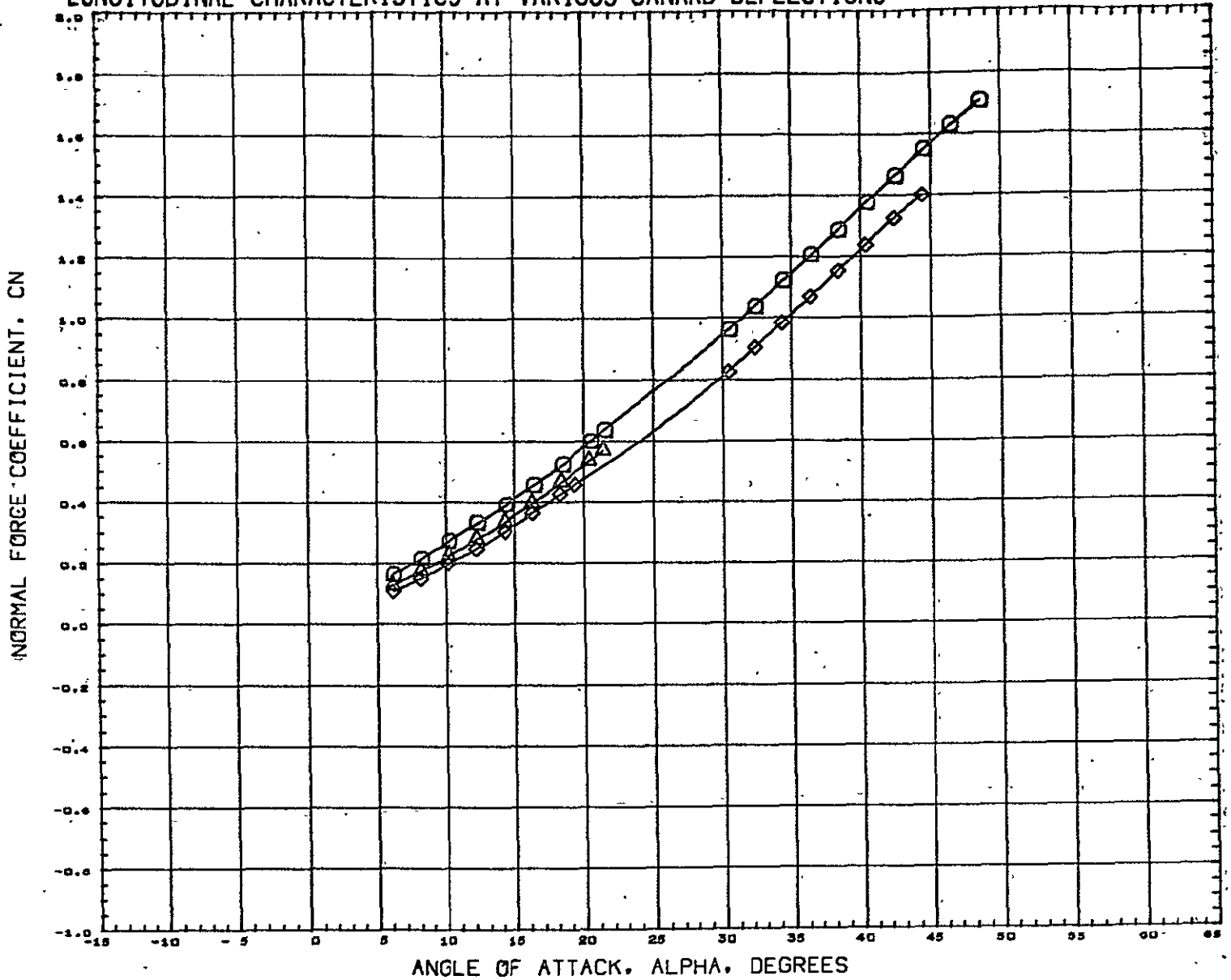
MACH 4.960

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION							
		BETA	DEL	DCL	ELEVON	AILRON	SREF	LREF	BREF	XMRP	YMRP	ZMRP	SCALE
○	0.902	0.000	0.000	-30.000	0.000	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0035	30. IN.
◇	0.955	0.000	0.000	0.000	0.000	3.0950	6.0990	6.7100	0.0000	0.0000	0.0035	IN.	
□	1.054	30.000	0.000	0.000	0.000	6.0990	6.7100	0.0000	0.0000	0.0035	IN.		
△	1.200	CANARD -30.000	0.000	0.000	0.000	6.7100	0.0000	0.0000	0.0035	IN.			
▽	1.464	0.000	0.000	0.000	0.000	0.0000	0.0000	0.0035	IN.				
□	1.982	DATA HIST. CODE	MVR#*G										

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

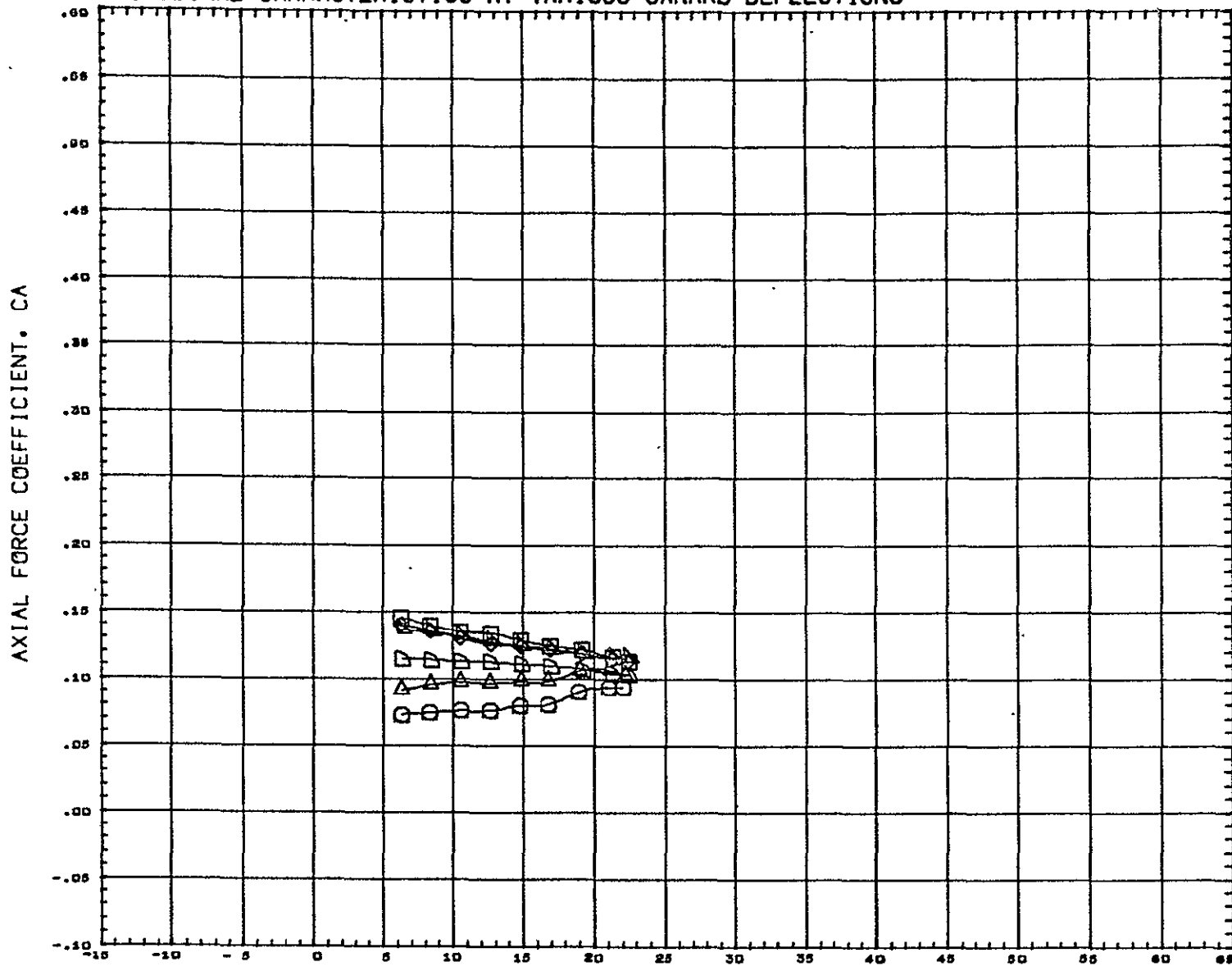


SYMBOL	MACH	PARAMETRIC VALUES			
○	2.000	BETA	0.000	DEL	0.000
△	4.000	DER	0.000	DCL	30.000
◇	4.960	DCR	30.000	ELEVON	0.000
		CANARD	-30.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#G

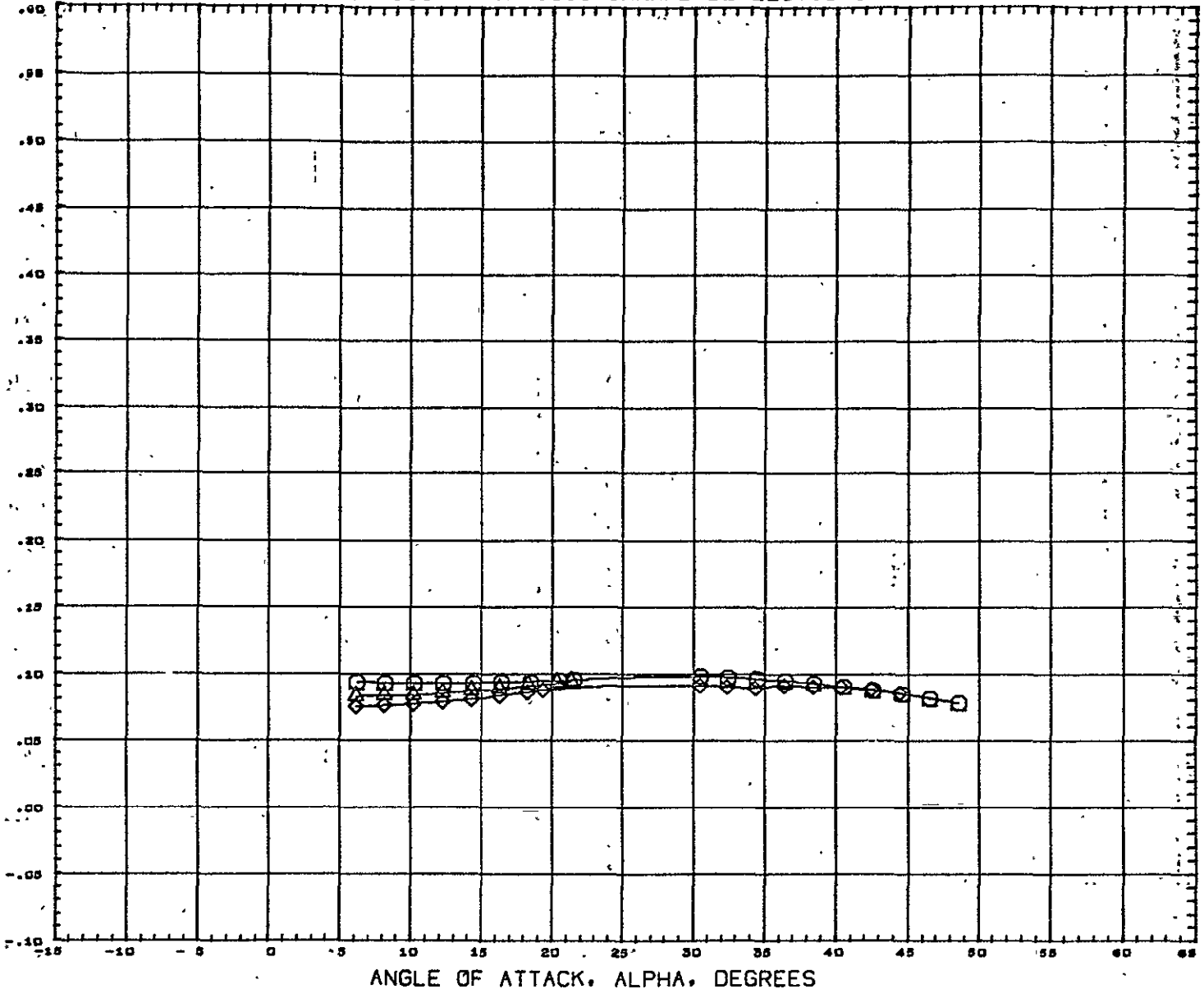
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION	
○	0.902	BETA	0.000	DEL	0.000	SREF	15.6560 SQ. IN.
△	0.955	DER	0.000	DCL	- 30.000	LREF	3.0950 IN.
◇	1.054	DCR	30.000	ELEVON	0.000	BREF	6.0990 IN.
□	1.200	CANARD	- 30.000	AILRON	0.000	XMRP	6.7100 IN.
▽	1.464					YMRP	0.0000 IN.
○	1.962	DATA HIST. CODE		HVR#E#G		ZMRP	0.0000 IN.
						SCALE	0.0035

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

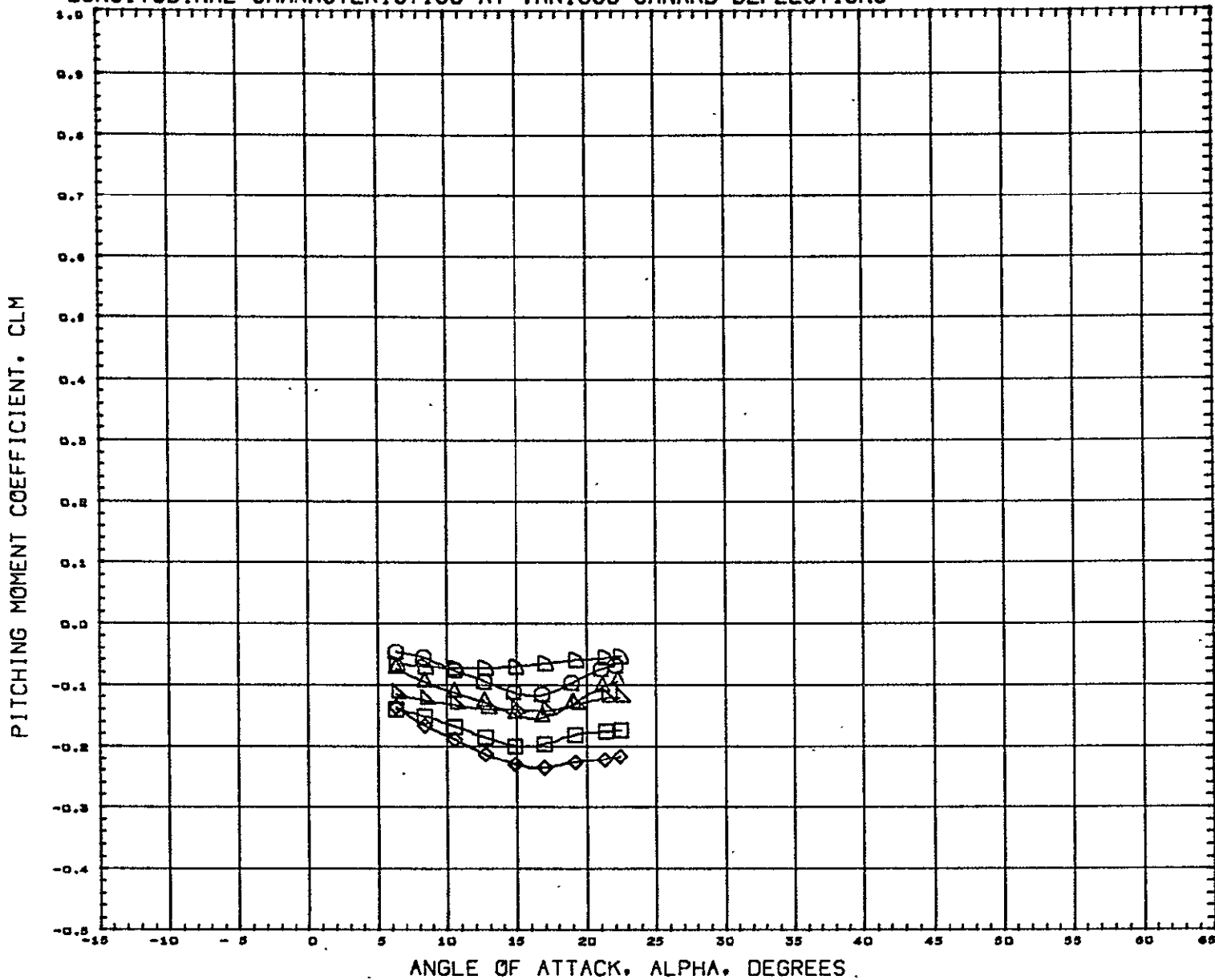
AXIAL FORCE COEFFICIENT, CA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	30. IN.
△	4.000	DER	0.000	DCL	- 30.000	LREF	3.0990	IN.
◇	4.960	DCR	30.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	- 30.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

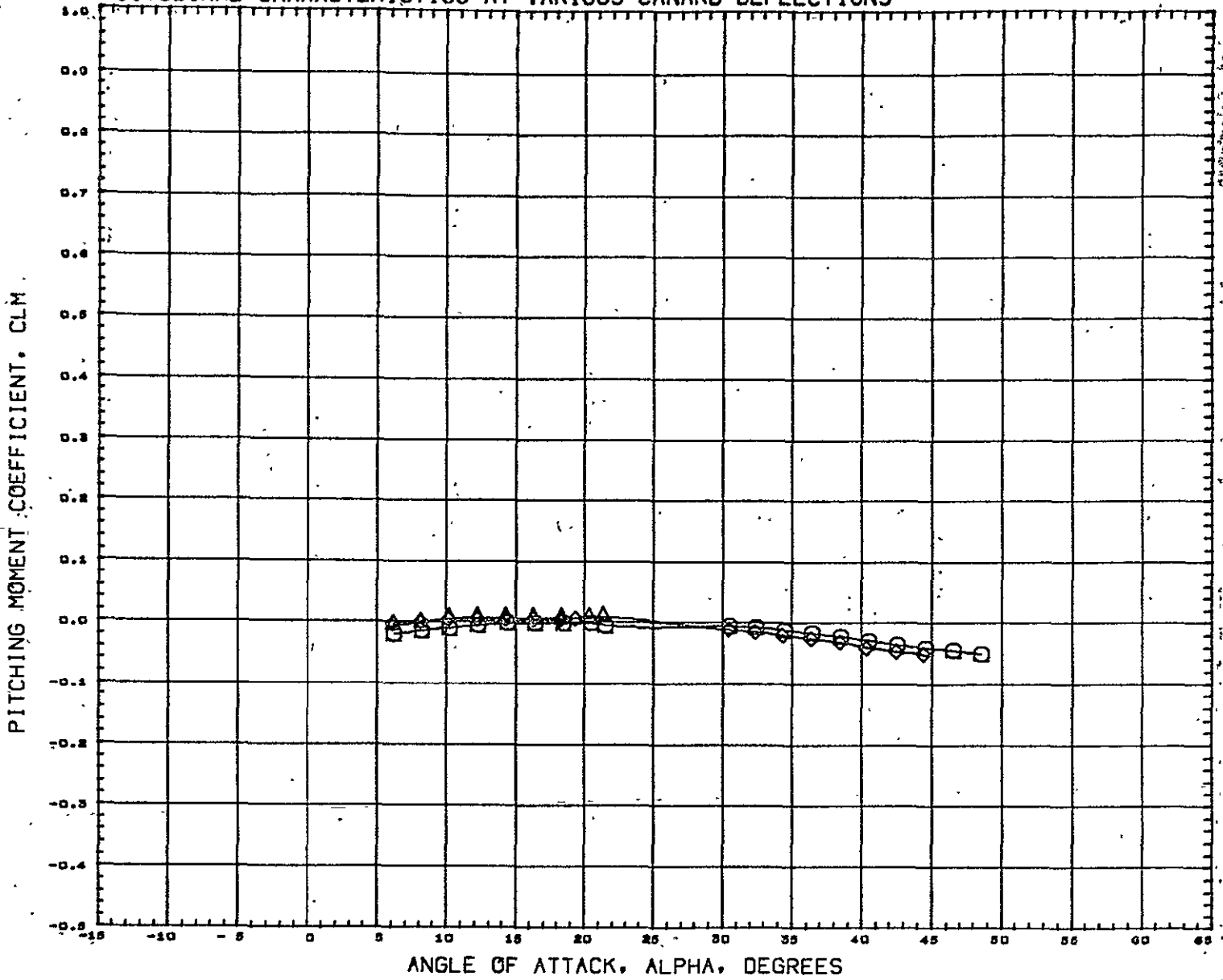
DATA MIST. CODE MVR#E#G

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	SREF	LREF	BREF
○	0.902	0.000	0.000	0.000	0.000	15.6560	30. IN.	
◇	0.955	0.000	0.000	-30.000	0.000	3.0990	IN.	
◇	1.054	30.000	0.000	0.000	0.000	6.0990	IN.	
□	1.200	CANARD -30.000	0.000	0.000	0.000	XMRP	6.7100	IN.
▽	1.464					YMRP	0.0000	IN.
◇	1.962					ZMRP	0.0000	IN.
		DATA HIST. CODE	MVR#E#G			SCALE	0.0033	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

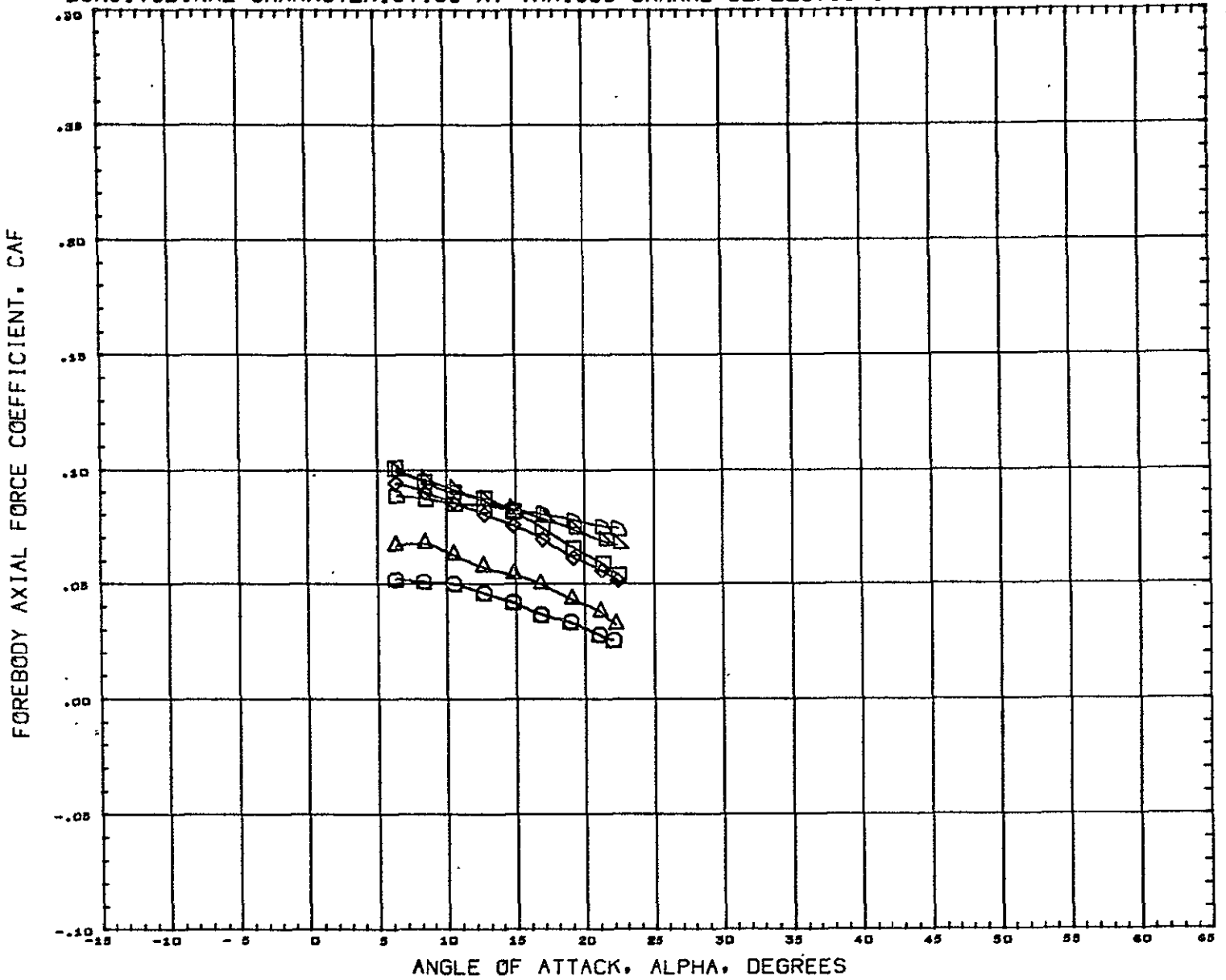


SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	0.000
△	4.000	DEG	0.000	DCL	-30.000
◇	4.960	DCR	30.000	ELEVON	0.000
		CANARD	-30.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6500	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

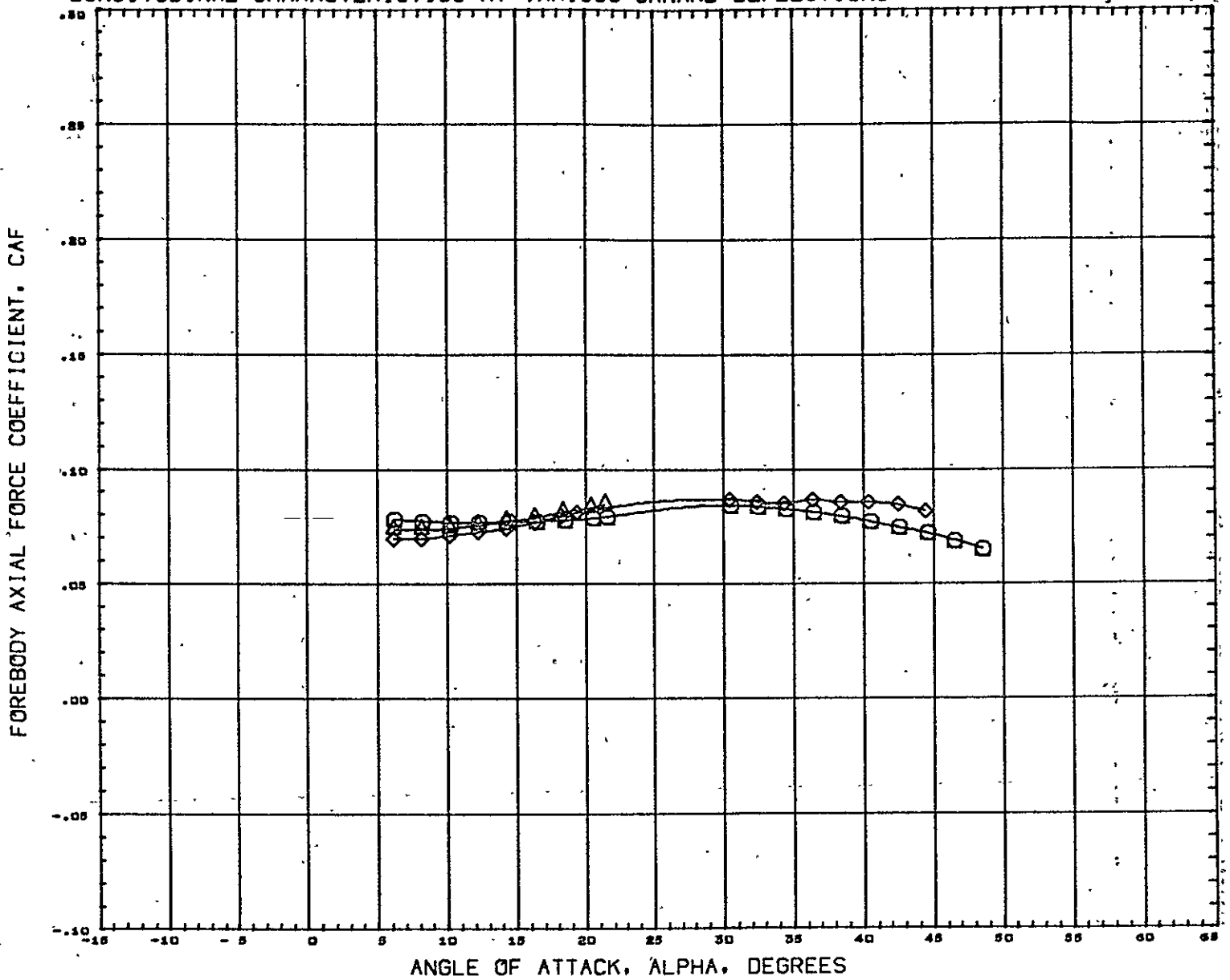
DATA HIST. CODE MVR#E#G

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION	
		BETA	DEL	DCL	ELEVON	YMRP	ZMRP
○	0.902	0.000	0.000	-30.000	0.000	15.6560	50. IN.
△	0.955	0.000	0.000	0.000	0.000	3.0950	IN.
□	1.054	30.000	0.000	0.000	0.000	6.0990	IN.
◇	1.200	-30.000	0.000	0.000	0.000	4.7100	IN.
▽	1.464	0.000	0.000	0.000	0.000	0.0000	IN.
	1.962	DATA HIST. CODE		MVR*E*G		SCALE	0.0035

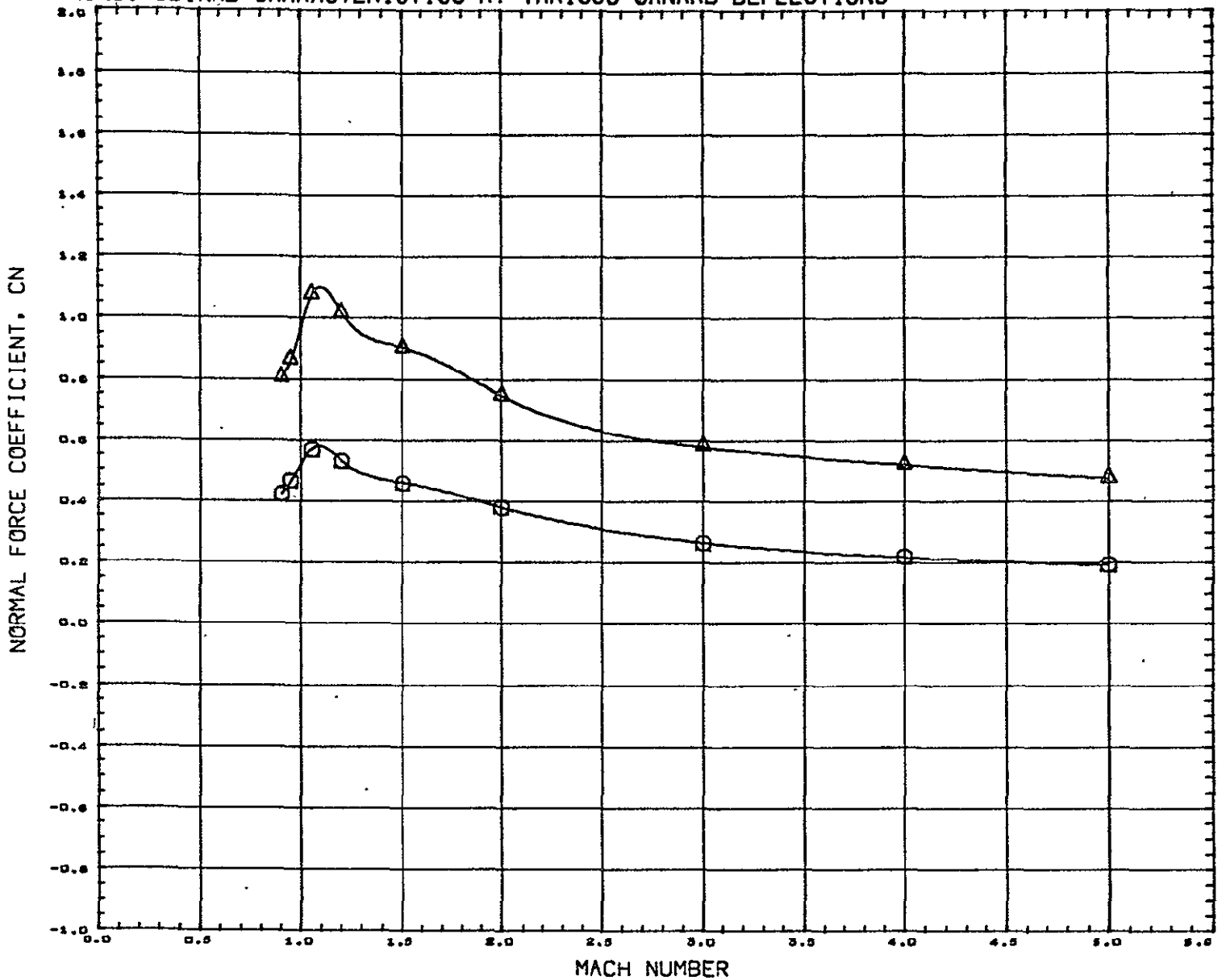
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
◇	4.000	DER	0.000	DCL	- 30.000	LREF	3.0950	IN.
		DCR	30.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	- 30.000	AILRON	0.000	XHRP	6.7100	IN.
						YHRP	0.0000	IN.
						ZHRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#E*6

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

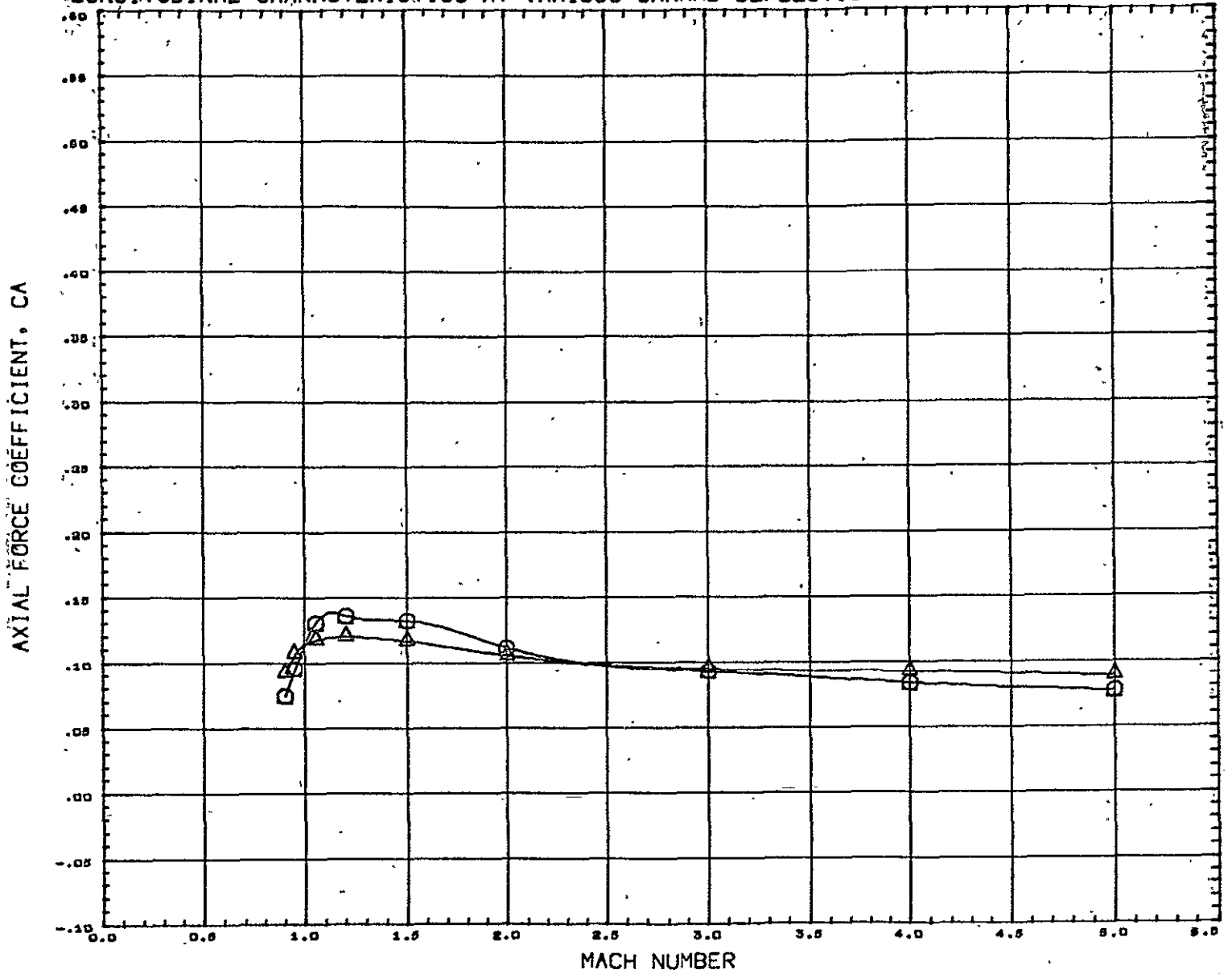


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	-30.000
		DCR	30.000	ELEVON	0.000
		CANARD	-30.000	AILERON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0980	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



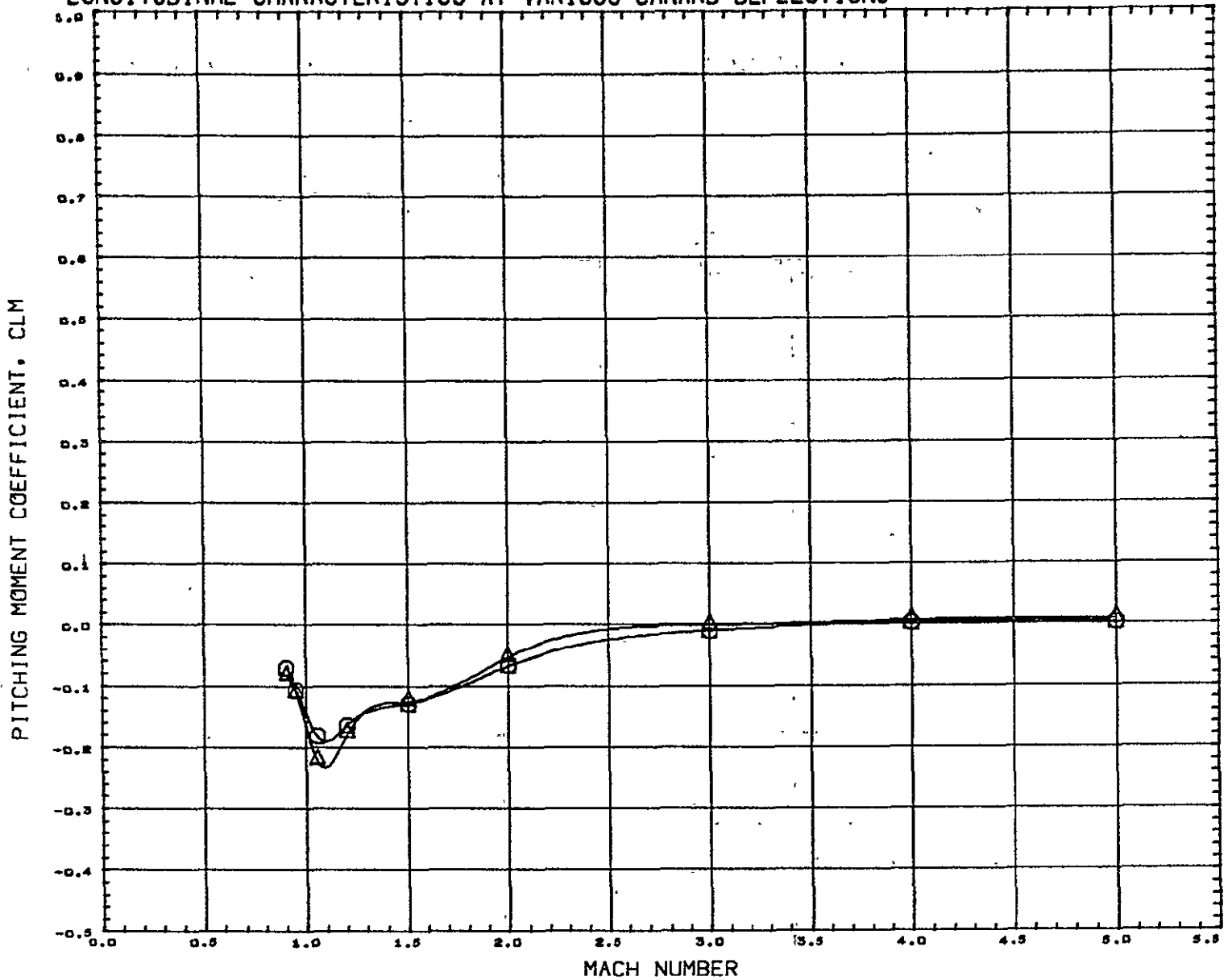
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
□	20.000	DER	0.000	DCL	-30.000
		OCR	30.000	ELEVON	0.000
		CANARD	-30.000	AILRON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0930	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

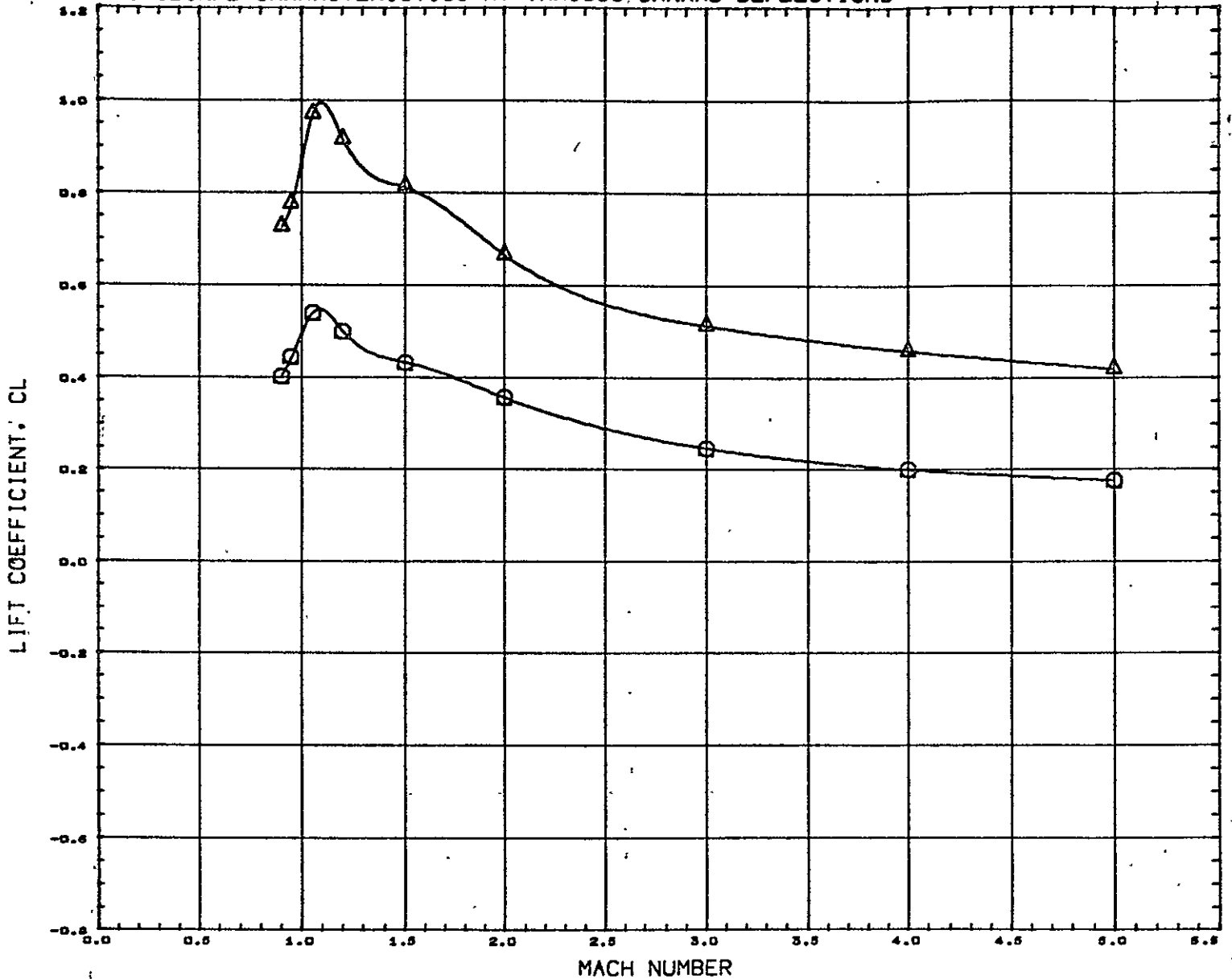
11④

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	0.000	SRFP	15.6560	50. IN.
△	20.000	DER	0.000	DCL	-30.000	LRFP	3.0950	IN.
		DGR	30.000	ELEVON	0.000	BRFP	6.0990	IN.
		CANARD	-30.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#E1					

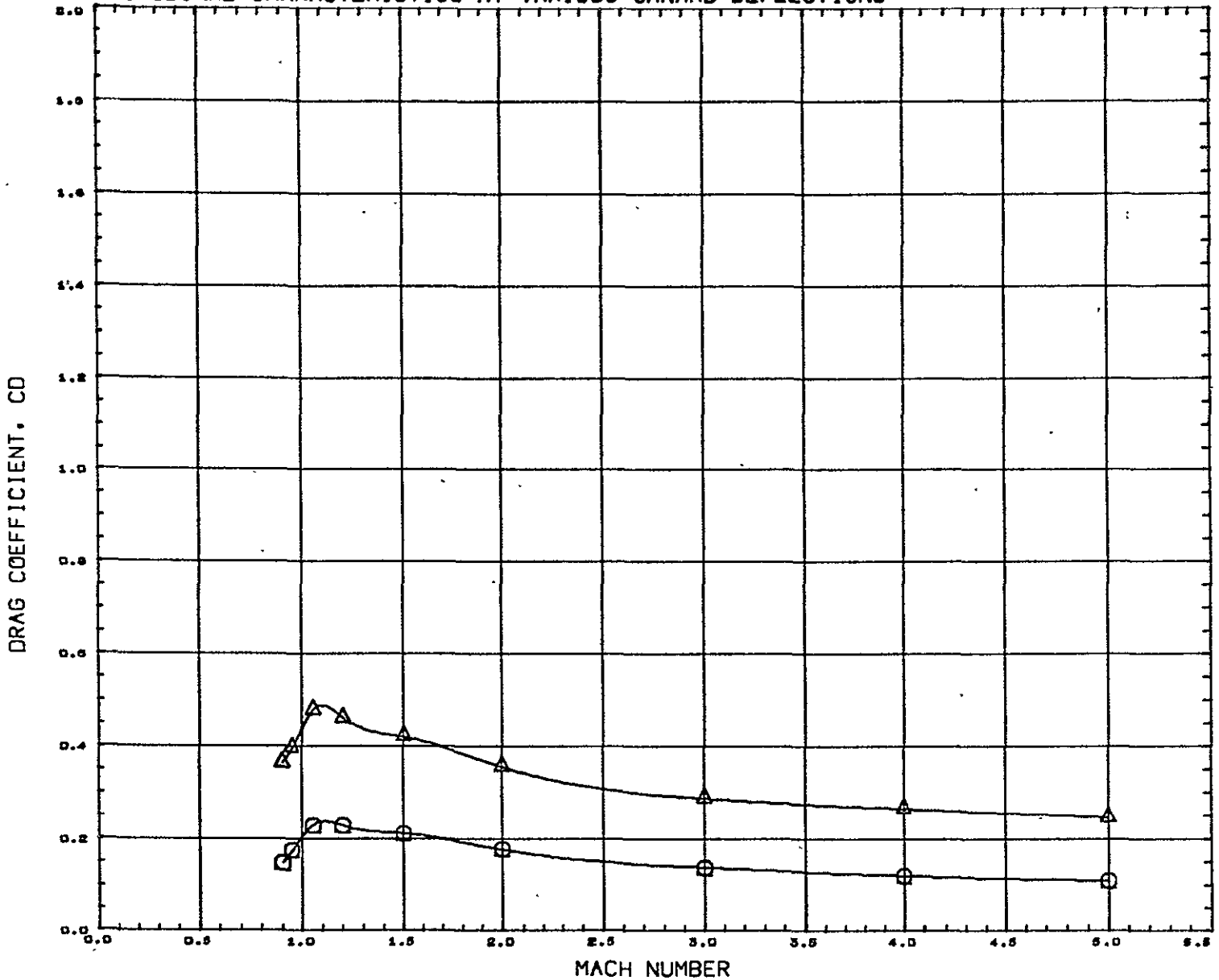
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	-30.000
		OCR	30.000	ELEVON	0.000
		CANARD	-30.000	AILRON	0.000
DATA HIST. CODE		MVR#E1			

REFERENCE INFORMATION		
SREF	15.6540	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

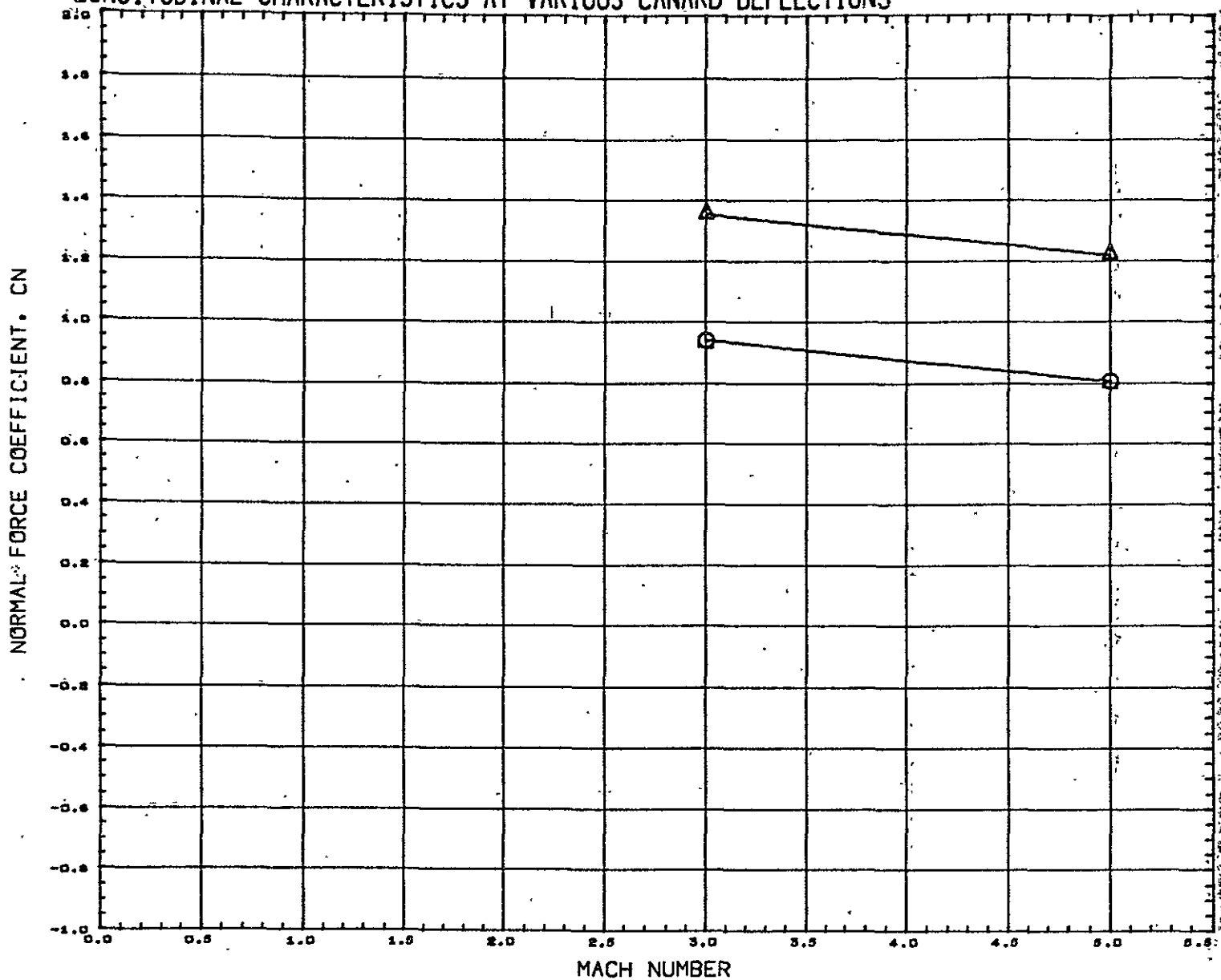


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 30.000
		DCR	30.000	ELEVON	0.000
		CANARD	- 30.000	AILRON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	59. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

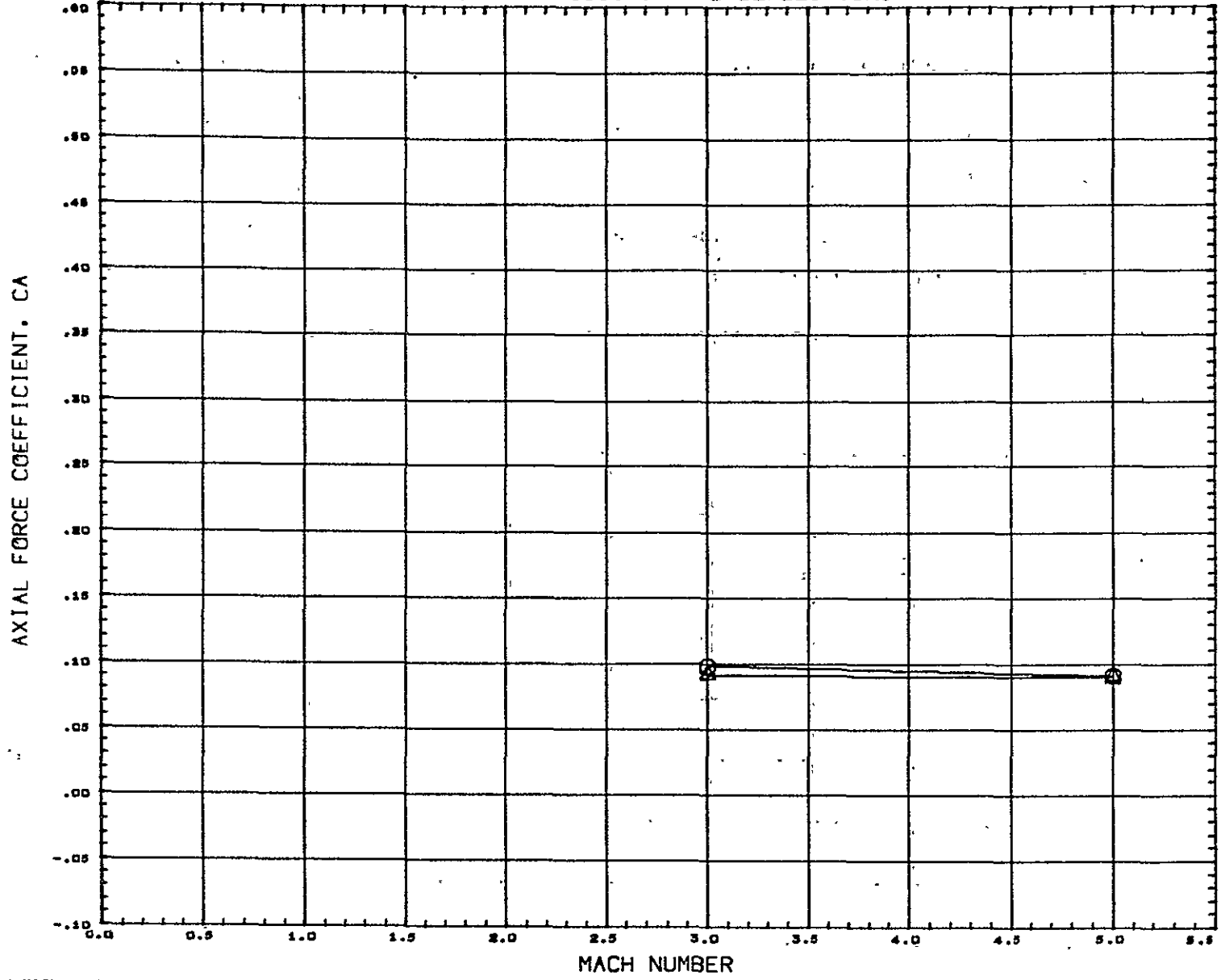


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	-30.000
		DCR	30.000	ELEVON	0.000
		CANARD	-30.000	AILRON	0.000

DATA HIST. CODE MVR#EI

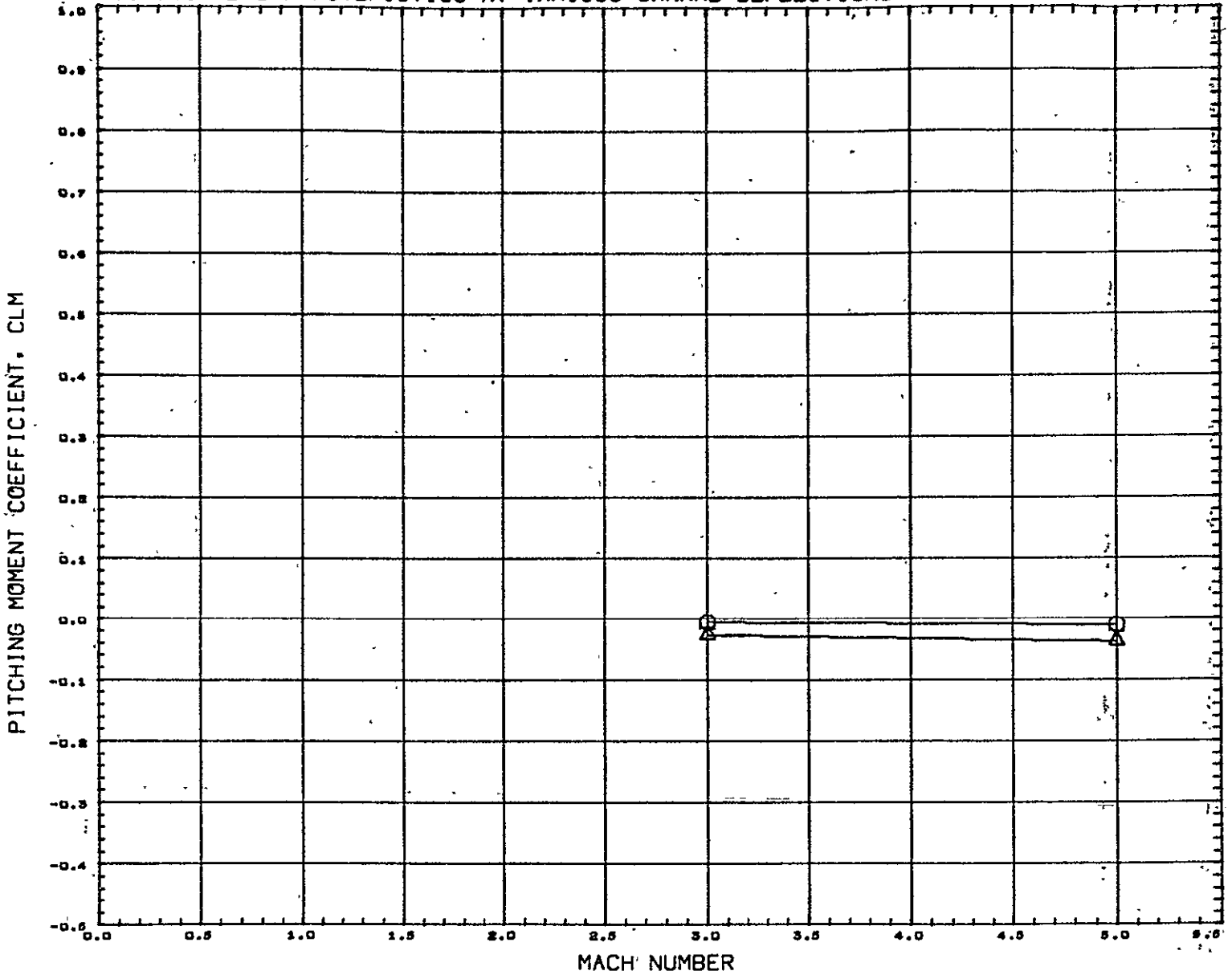
REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL Δ	ALPHA	PARAMETRIC VALUES			REFERENCE INFORMATION			
	30.000 40.000	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
		DER	0.000	DCL	- 30.000	LREF	3.0950	IN.
		DCR	30.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	- 30.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#E1					

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

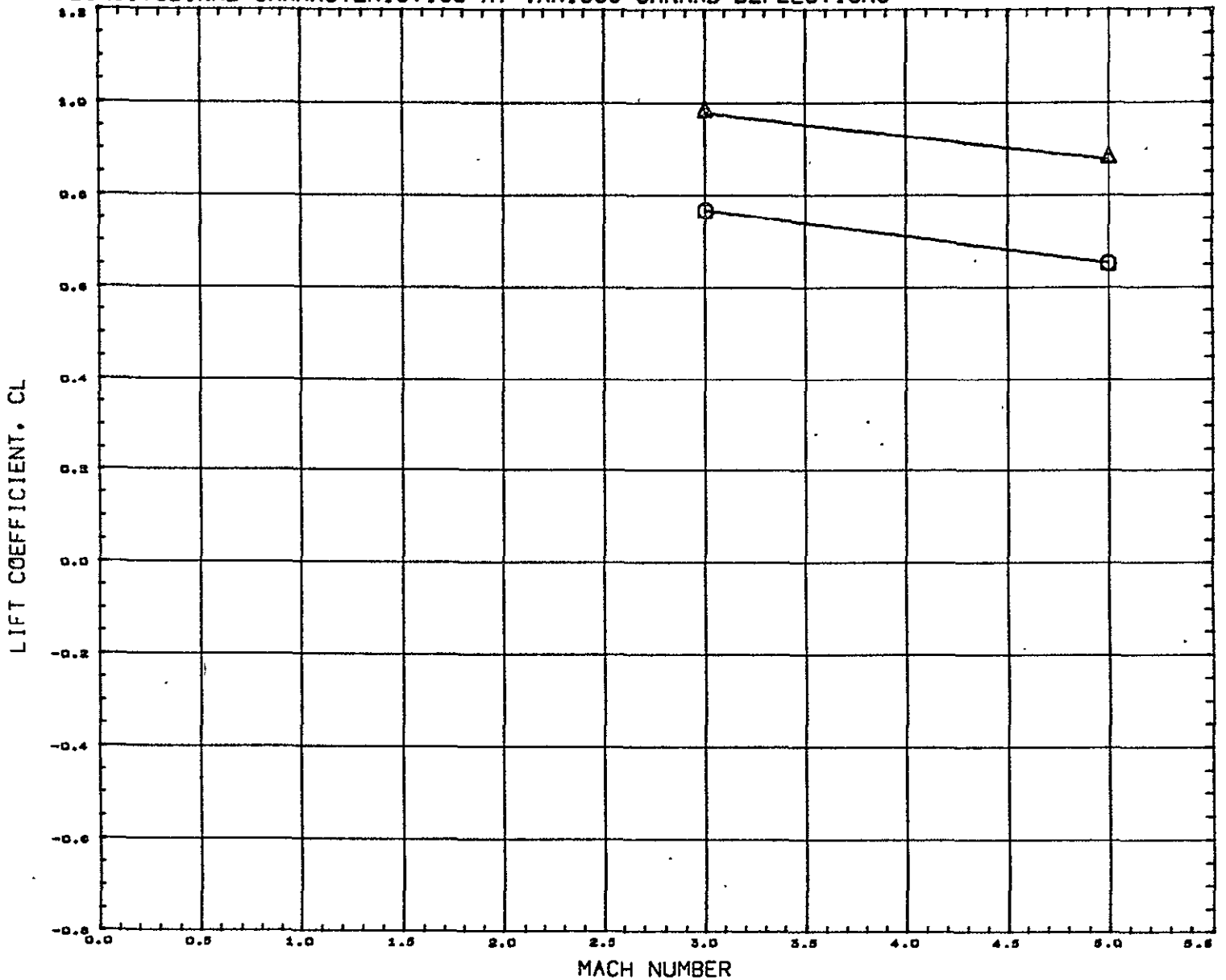


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	-30.000
		DCR	30.000	ELEVON	0.000
		CANARD	-30.000	AIRON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	82. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

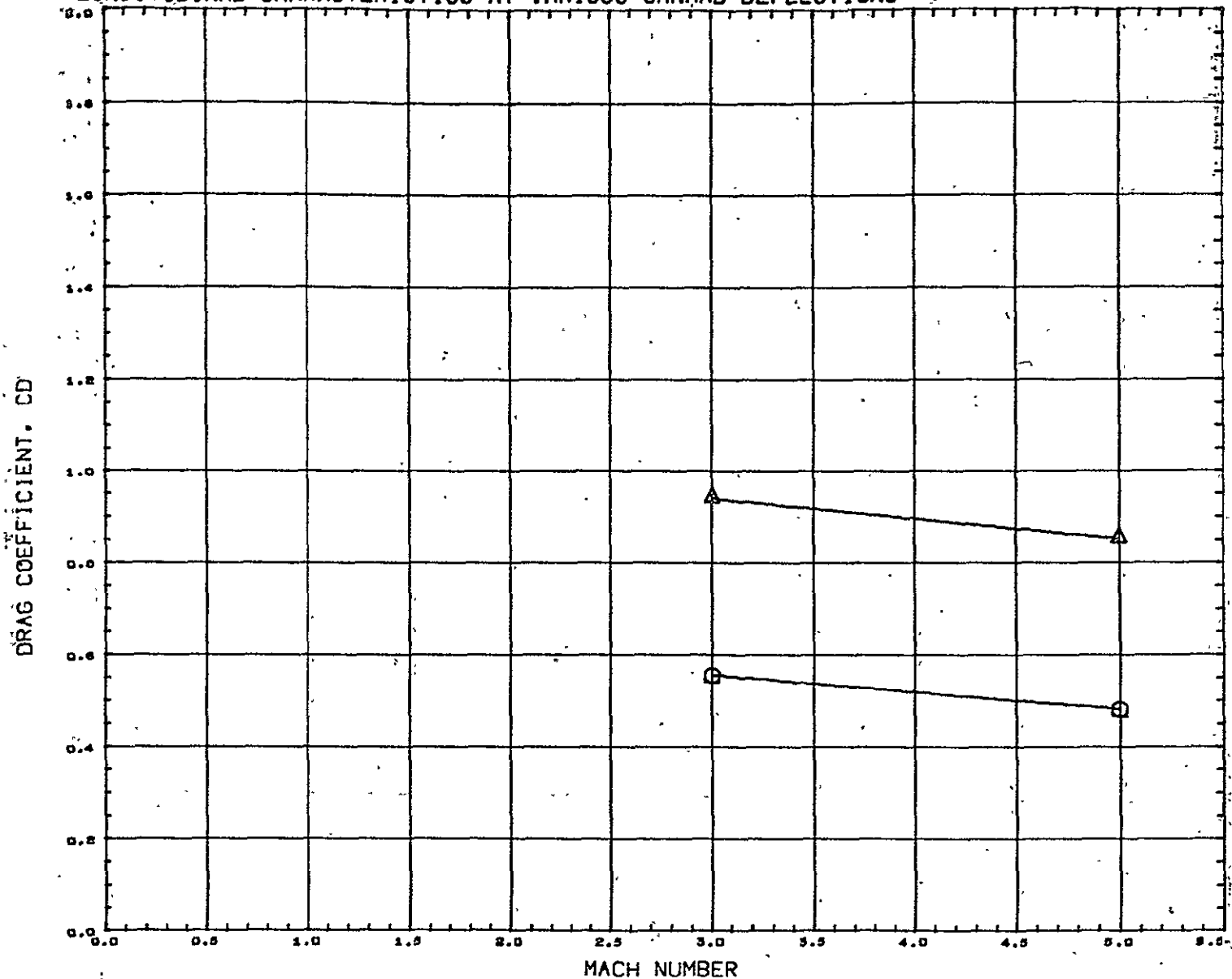


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	- 30.000
		DCR	30.000	ELEVON	0.000
		CANARD	- 30.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0050	IN.
BREF	6.0090	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

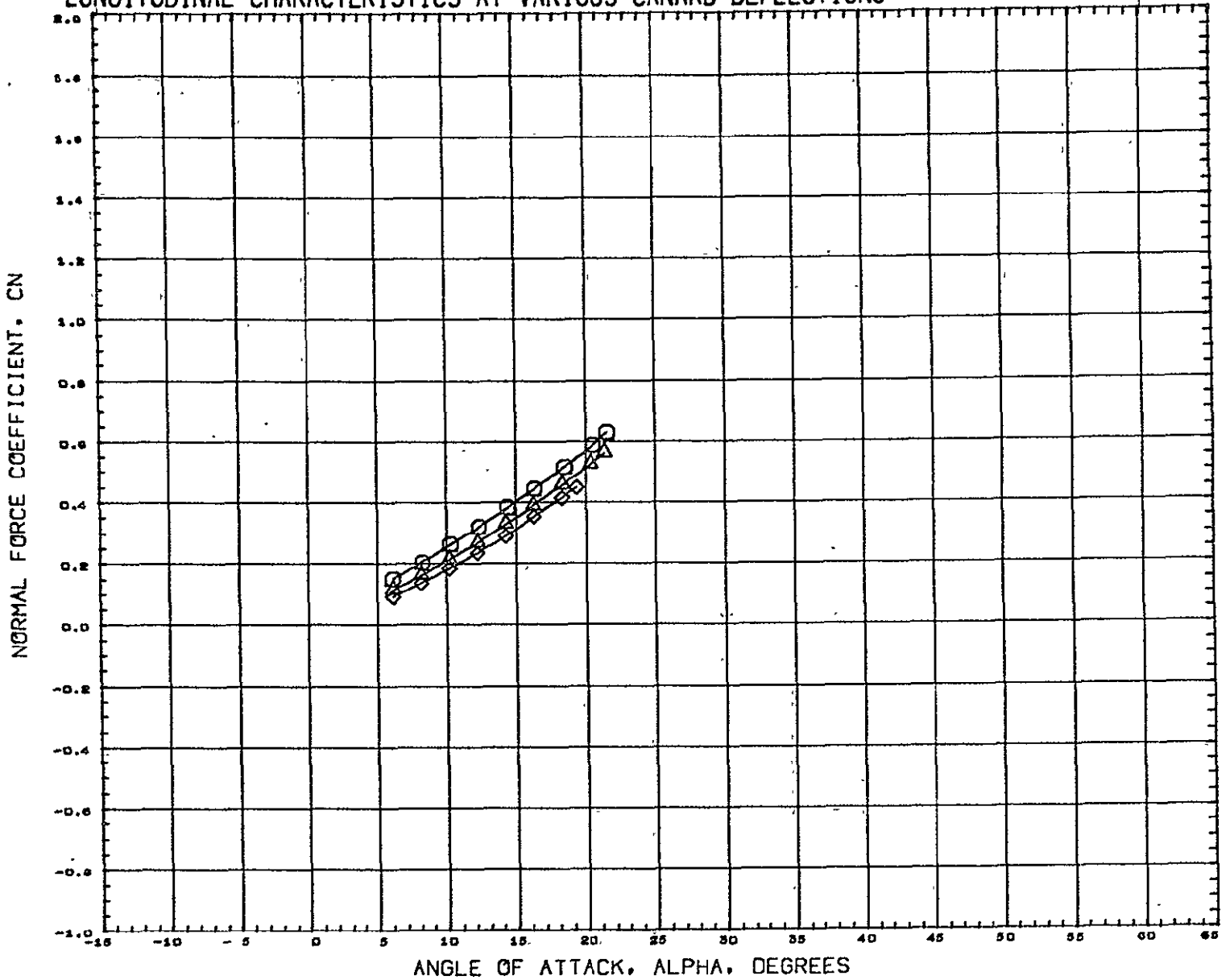
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	- 30.000
		DCR	30.000	ELEVON	0.000
		CANARD	- 30.000	AILRON	0.000
DATA HIST. CODE		MVR#E1			

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

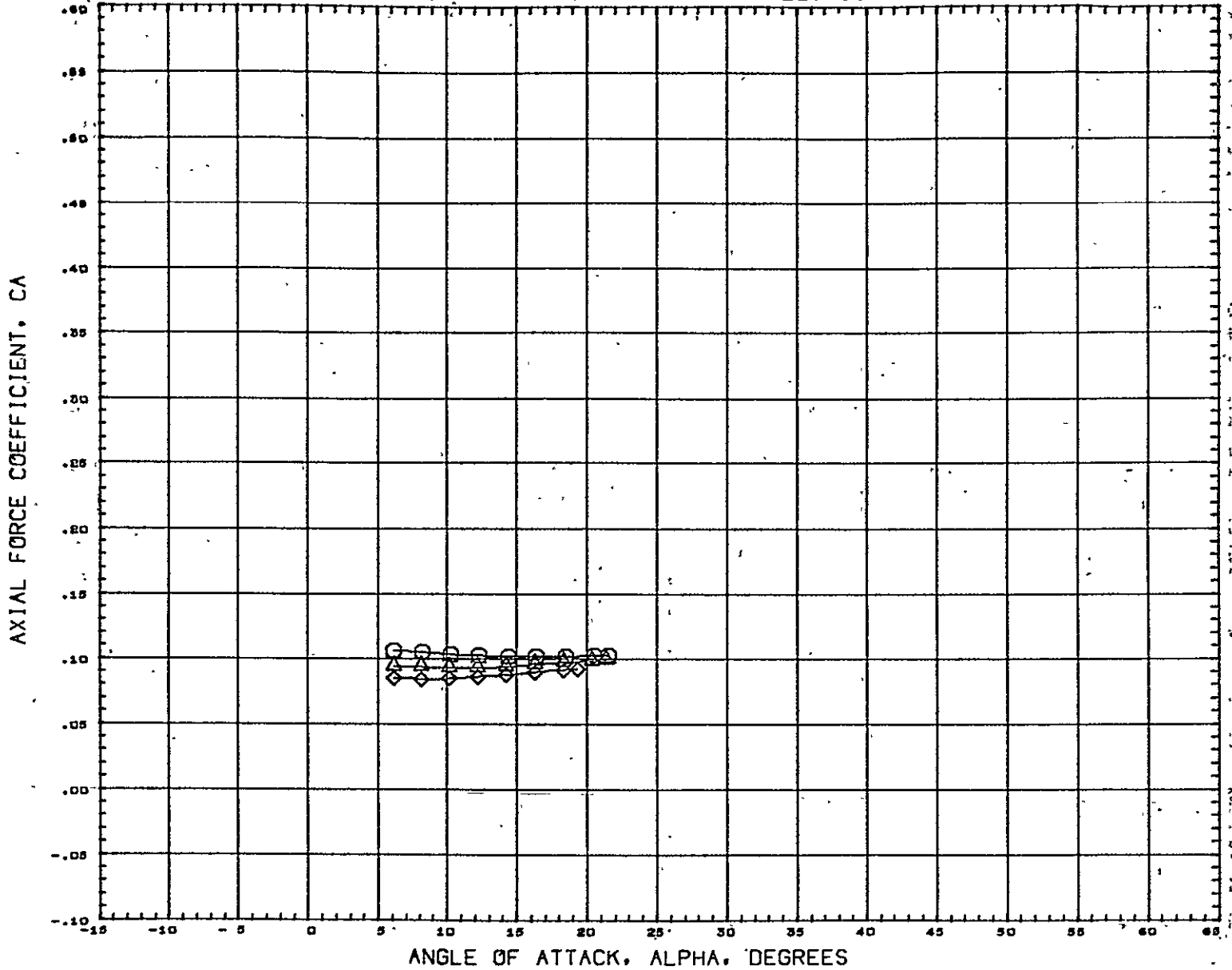


SYMBOL	MACH	PARAMETRIC VALUES			
		BETA	DEL	DCL	ELEVON
○	2.990	0.000	0.000	0.000	
◇	4.000	0.000	0.000	-45.000	
△	4.960	-45.000	0.000	0.000	
		CANARD	-45.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

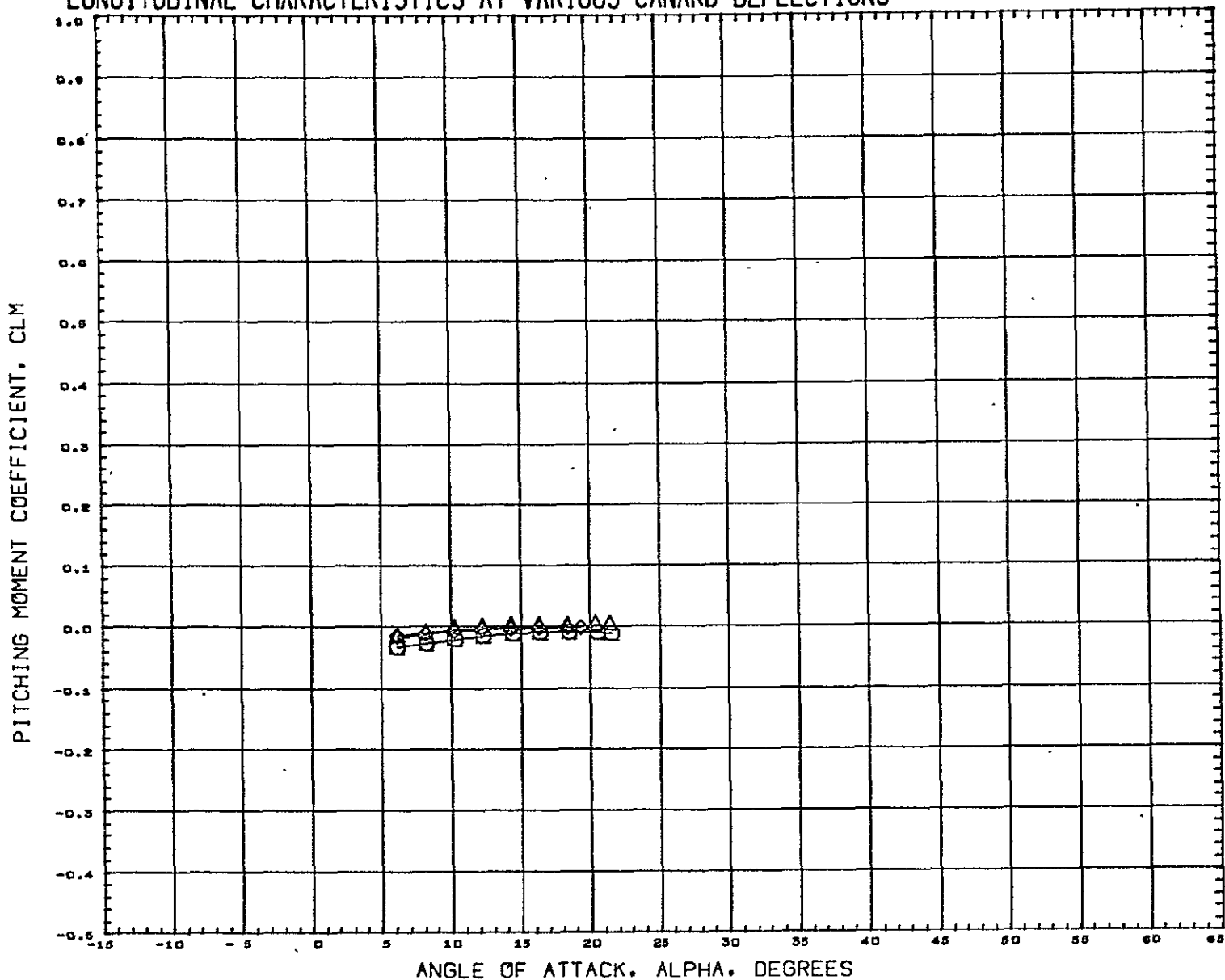
DATA HIST. CODE MVR#E

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	Sq. IN.
△	4.000	DER	0.000	DCL	-45.000	LREF	3.0950	IN.
◇	4.960	DCR	-45.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	-45.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE		MVR#E				

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

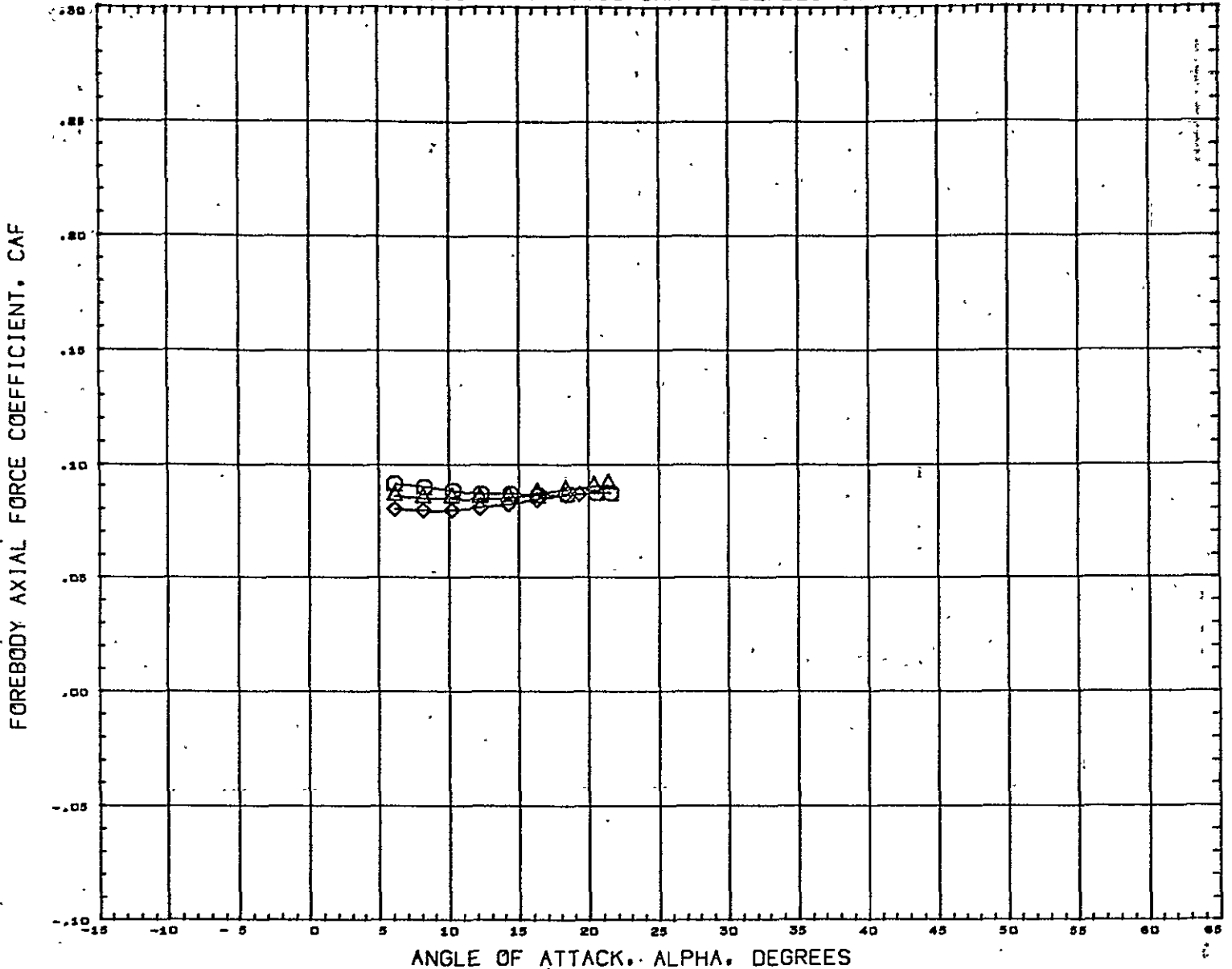


SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	0.000
△	4.000	DER	0.000	DCL	-45.000
◇	4.960	DCR	-45.000	ELEVON	0.000
		CANARD	-45.000	AILRON	0.000

REFERENCE INFORMATION		
BREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E

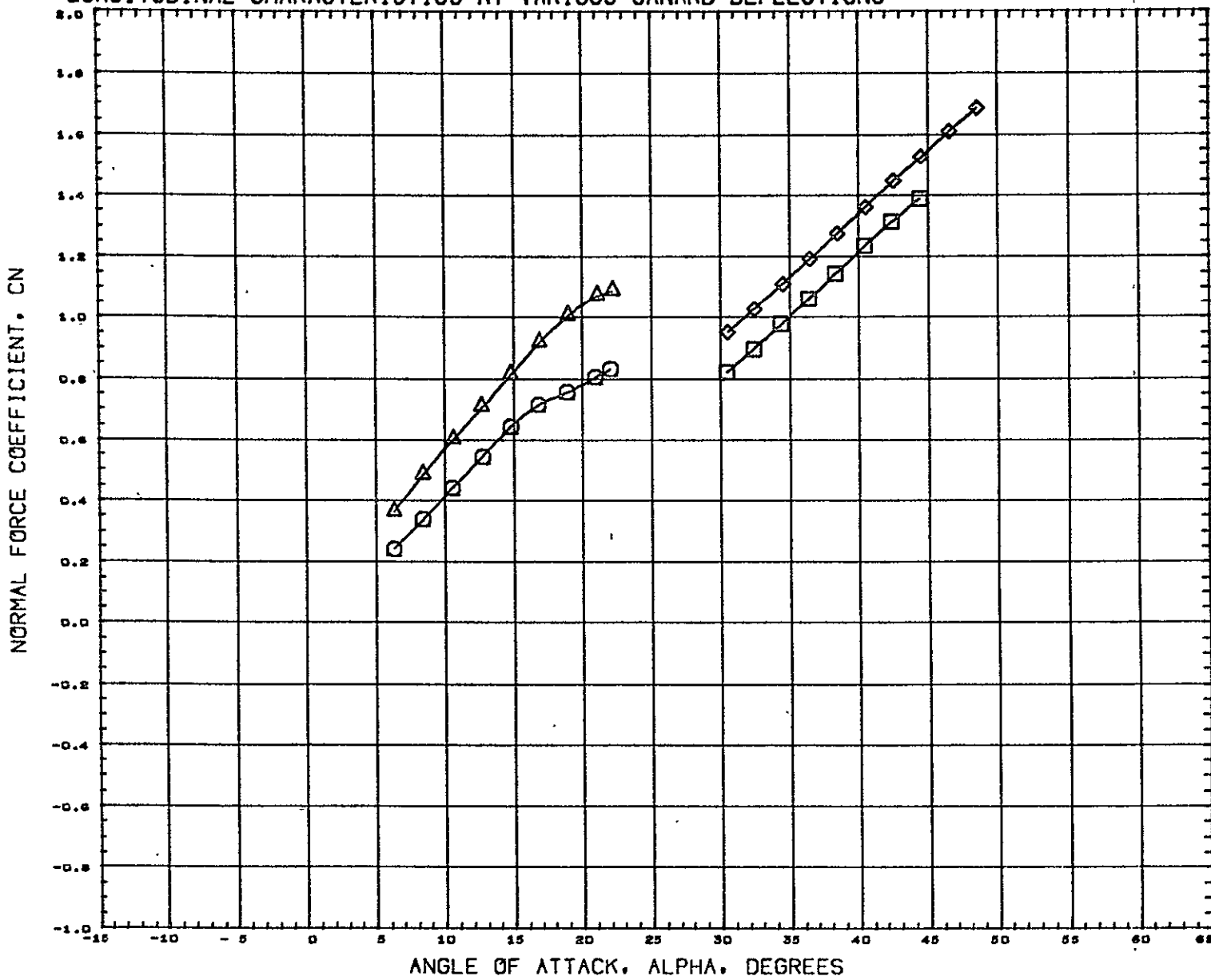
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
△	4.000	DER	0.000	DCL	- 45.000	LREF	3.0950	IN.
◇	4.960	DCR	- 45.000	ELEVON	0.000	SREF	6.0990	IN.
		CANARD	- 45.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE HYR#E

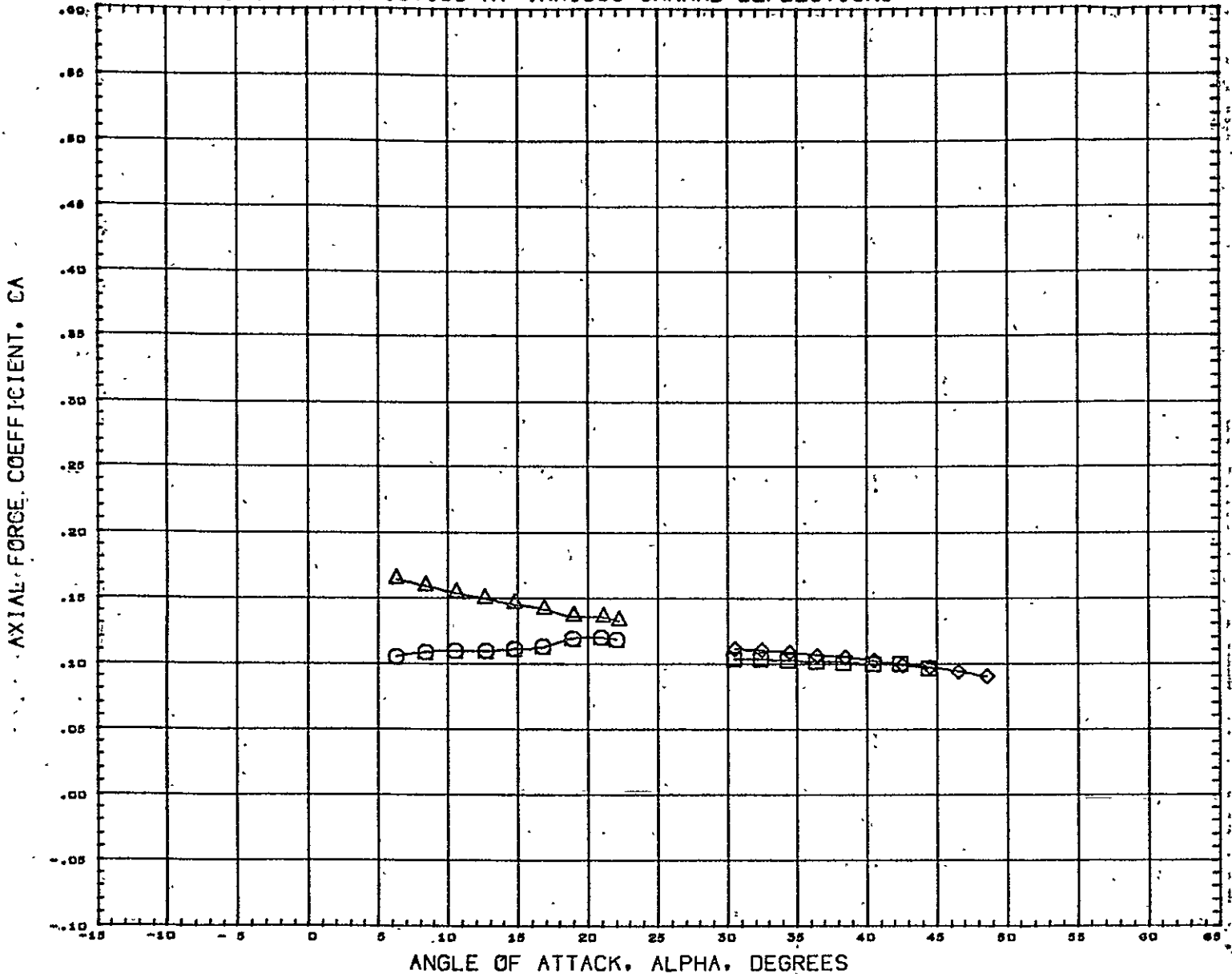
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	BREF	15.6560	59. IN.
△	1.053	DER	0.000	DCL	- 60.000	LREF	3.0950	IN.
◇	2.990	DCR	- 60.000	ELEVON	0.000	BREF	6.0990	IN.
□	4.980	CANARD	- 60.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

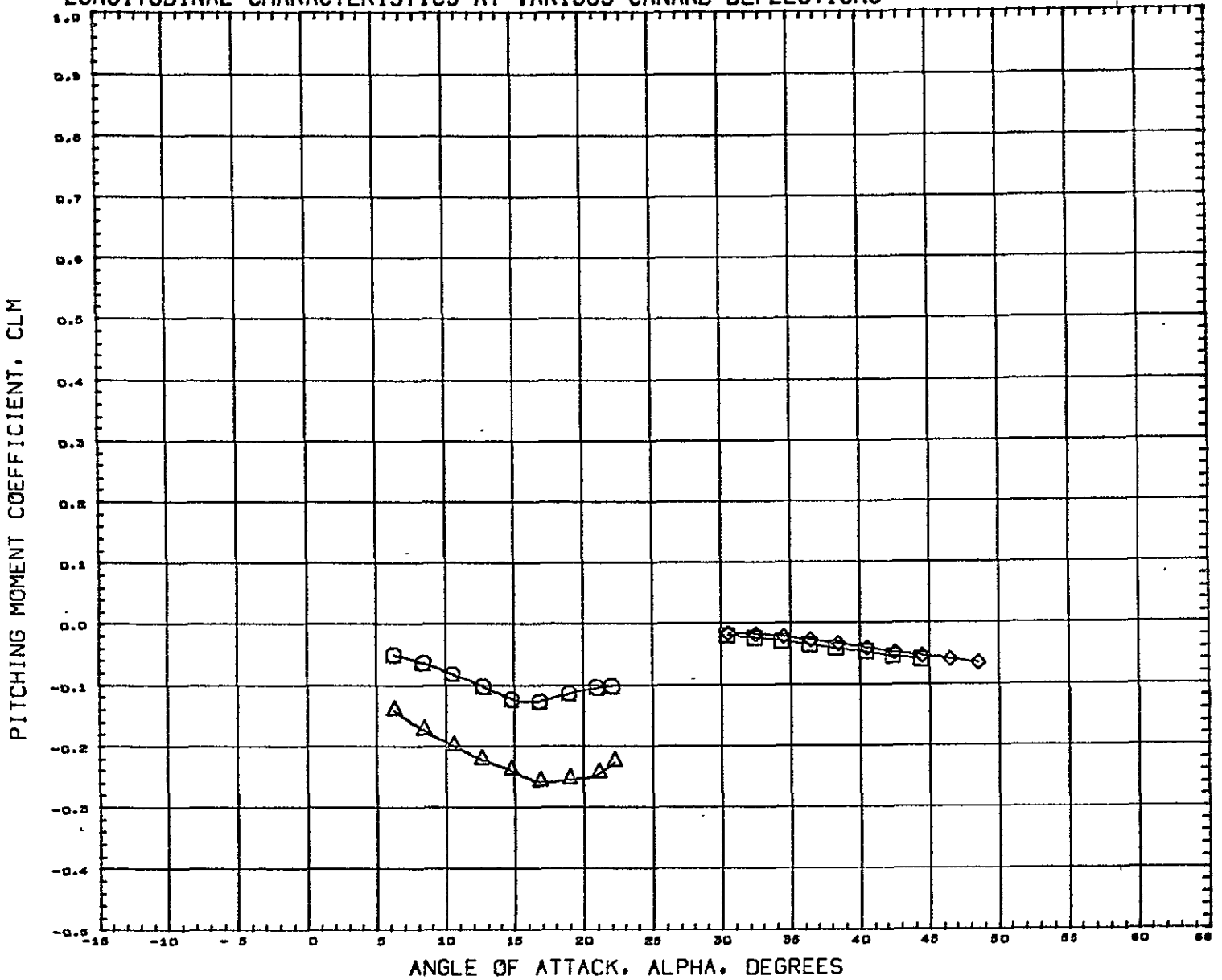
DATA HIST. CODE MVR#E*G

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	SREF	15.6560	SQ. IN:
△	1.053	DER	0.000	DCL	- 60.000	LREF	3.0950	IN.
◇	2.990	DCR	- 60.000	ELEVON	0.000	BREF	6.0990	IN.
□	4.960	CANARD	- 60.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZHRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#E#G					

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

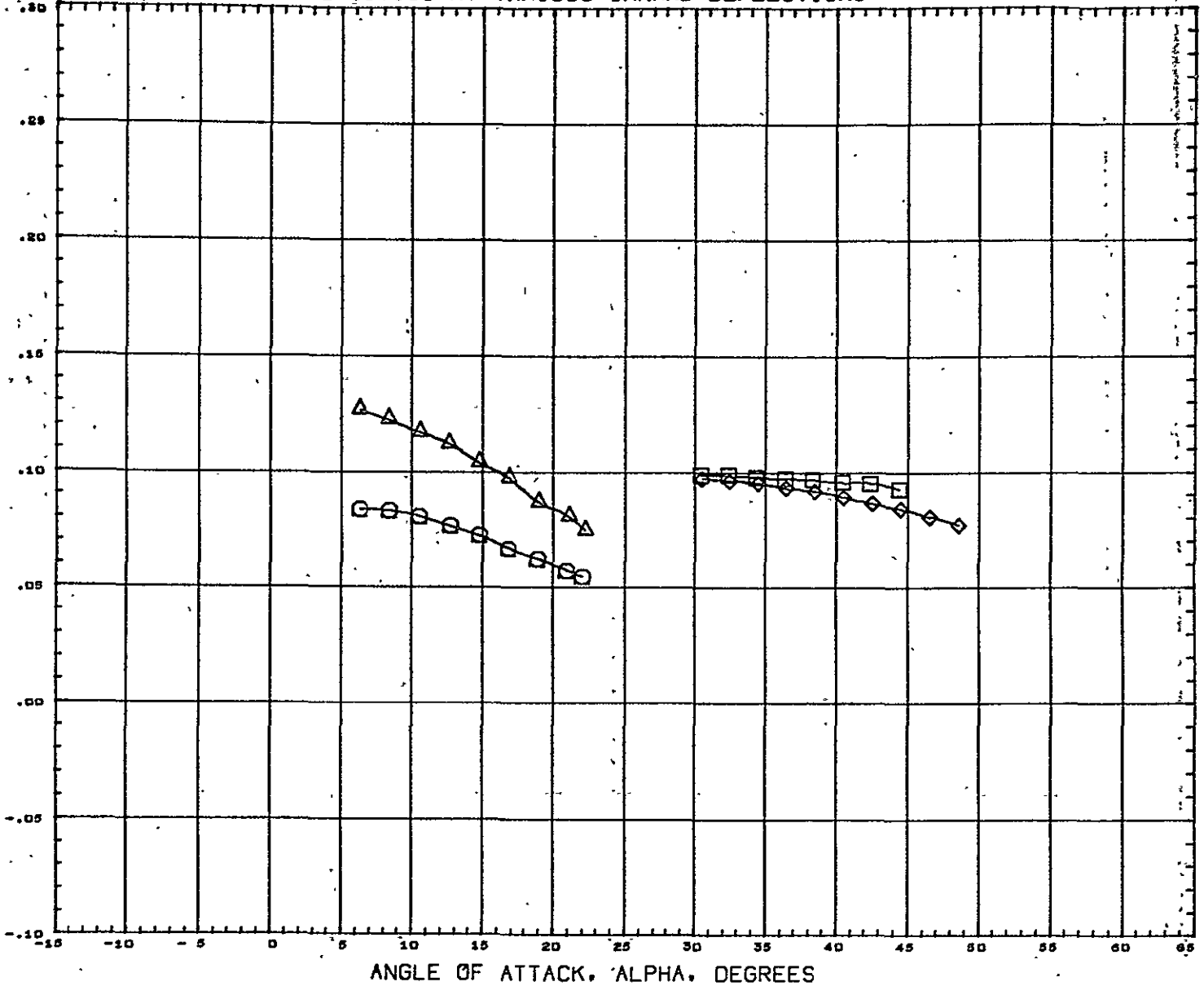


SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	REF	IN.	SCALE
○	0.900	0.000	0.000	0.000	3.0990	IN.		
△	1.093	0.000	0.000	-60.000	6.0990	IN.		
◇	2.990	-60.000	0.000	0.000	6.7100	IN.		
□	4.960	-60.000	0.000	0.000	0.0000	IN.	0.0035	

DATA HIST. CODE MVR#E*G

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

FOREBODY AXIAL FORCE COEFFICIENT, CAF

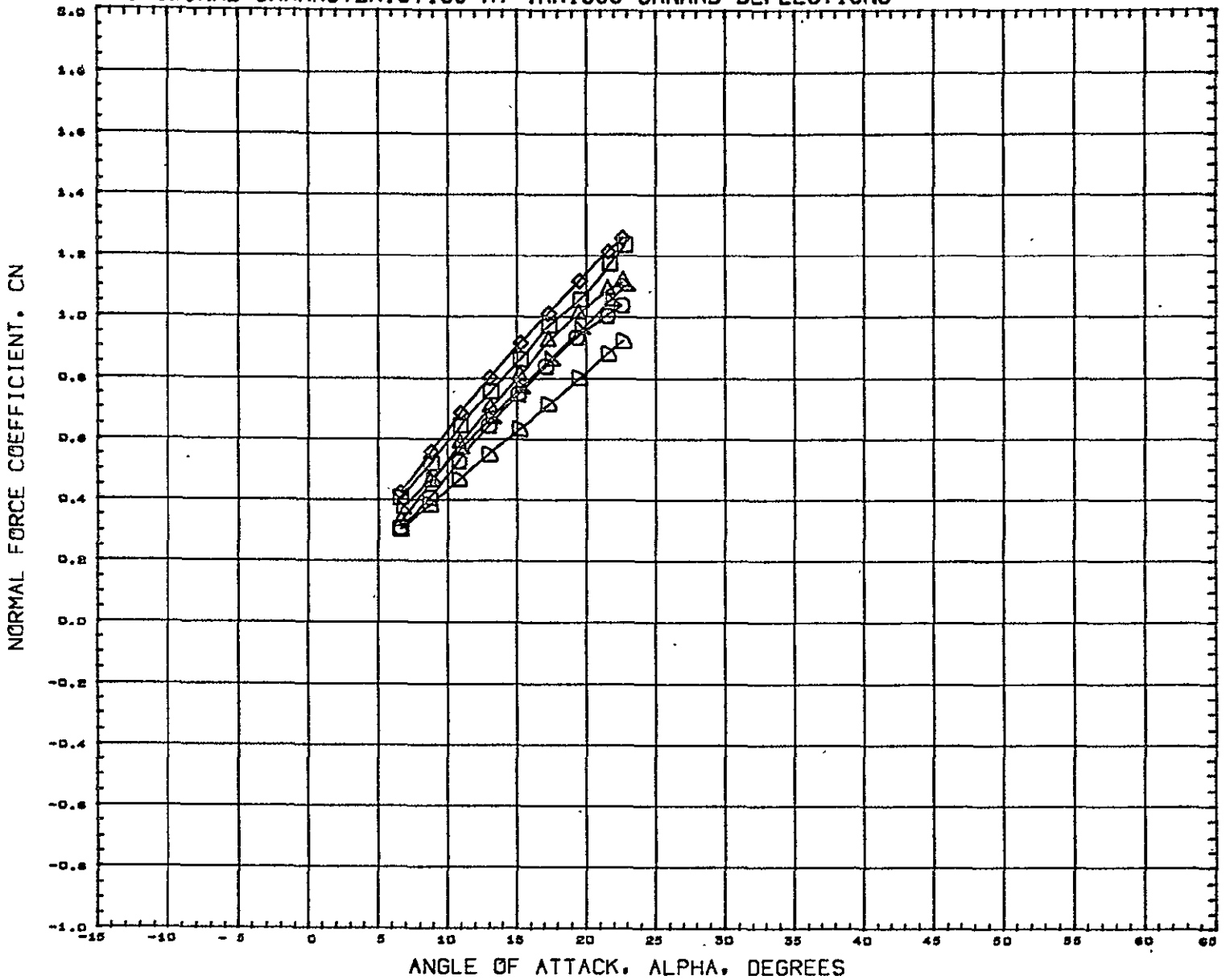


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	DEL	0.000
△	1.053	DER	0.000	DCL	- 60.000
◇	2.990	DCR	- 60.000	ELEVON	0.000
□	4.960	CANARD	- 60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

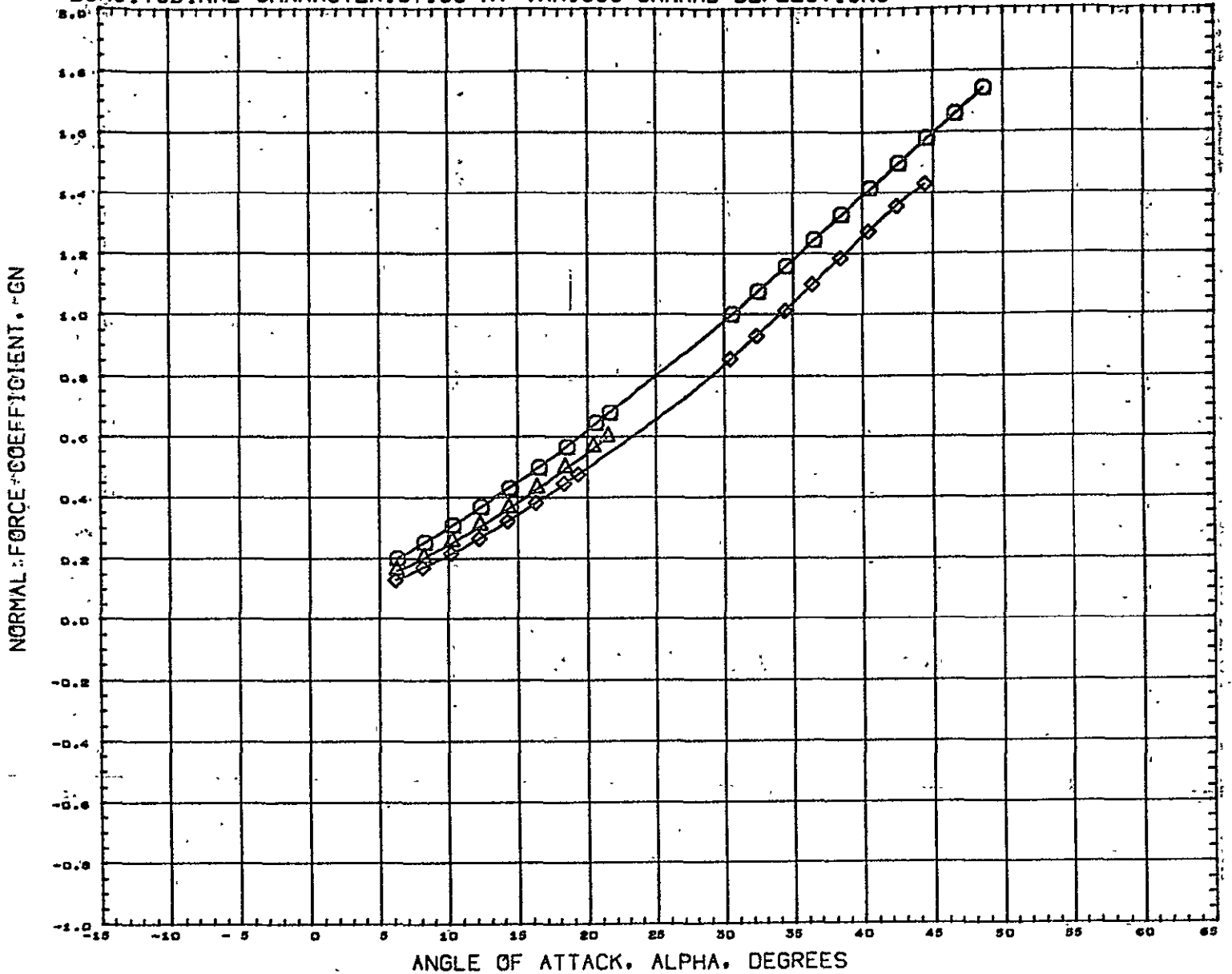
DATA HIST. CODE MVR#E#G

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.901	BETA	0.000	DEL	0.000	REF	15.6500	80. IN.
◇	0.955	DER	0.000	DCL	15.000	LREF	3.0950	IN.
□	1.051	DCR	15.000	ELEVON	0.000	REF	6.0900	IN.
△	1.203	CANARD	15.000	AILRON	0.000	XMRP	6.7100	IN.
▽	1.400					YMRP	0.0000	IN.
⊠	1.556	DATA HIST. CODE	MVR#E#G			ZMRP	0.0000	IN.
						SCALE	0.0035	

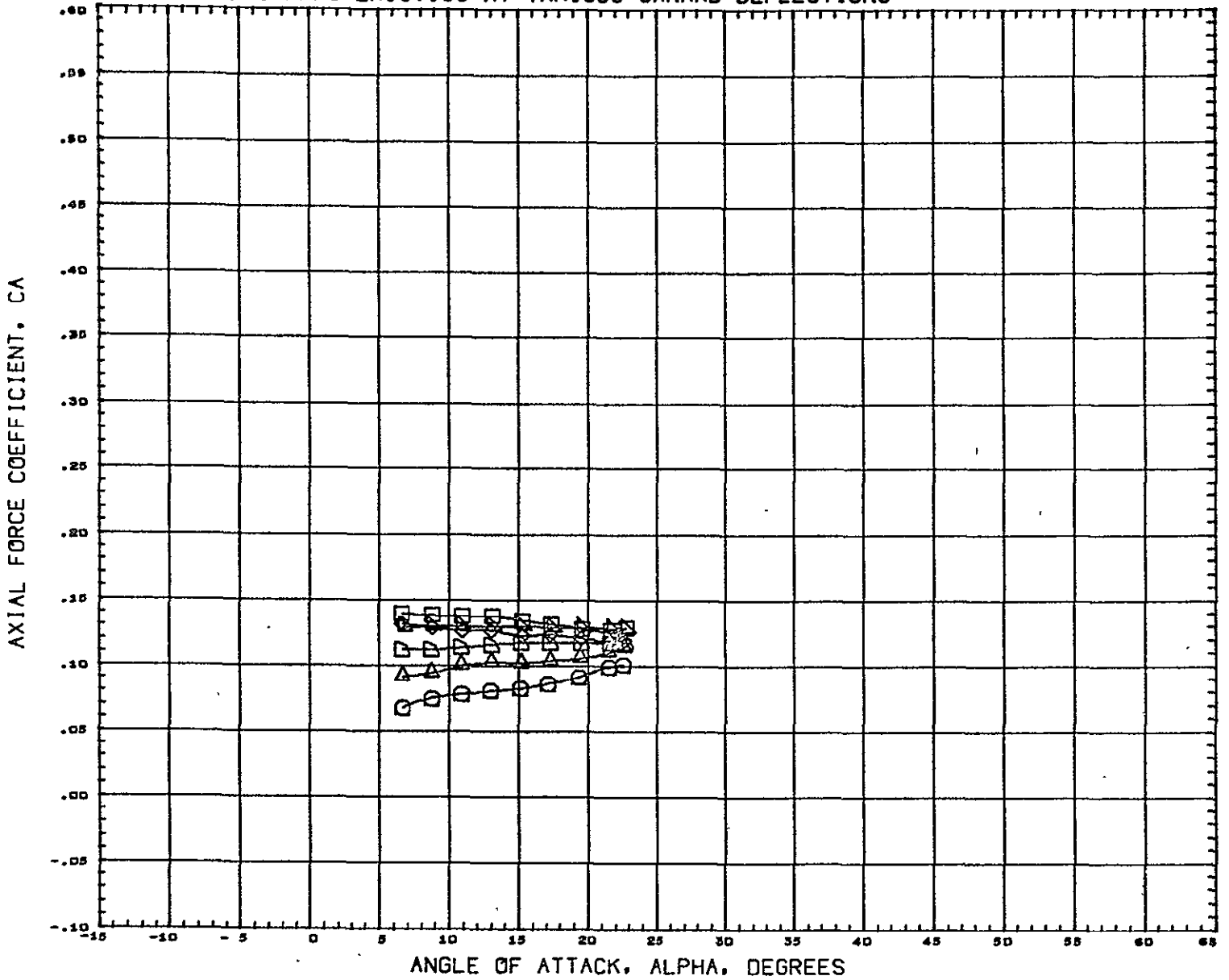
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	0.000
△	4.000	DER	0.000	DCL	15.000
◇	4.980	DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000
DATA HIST. CODE		MVR#EWG			

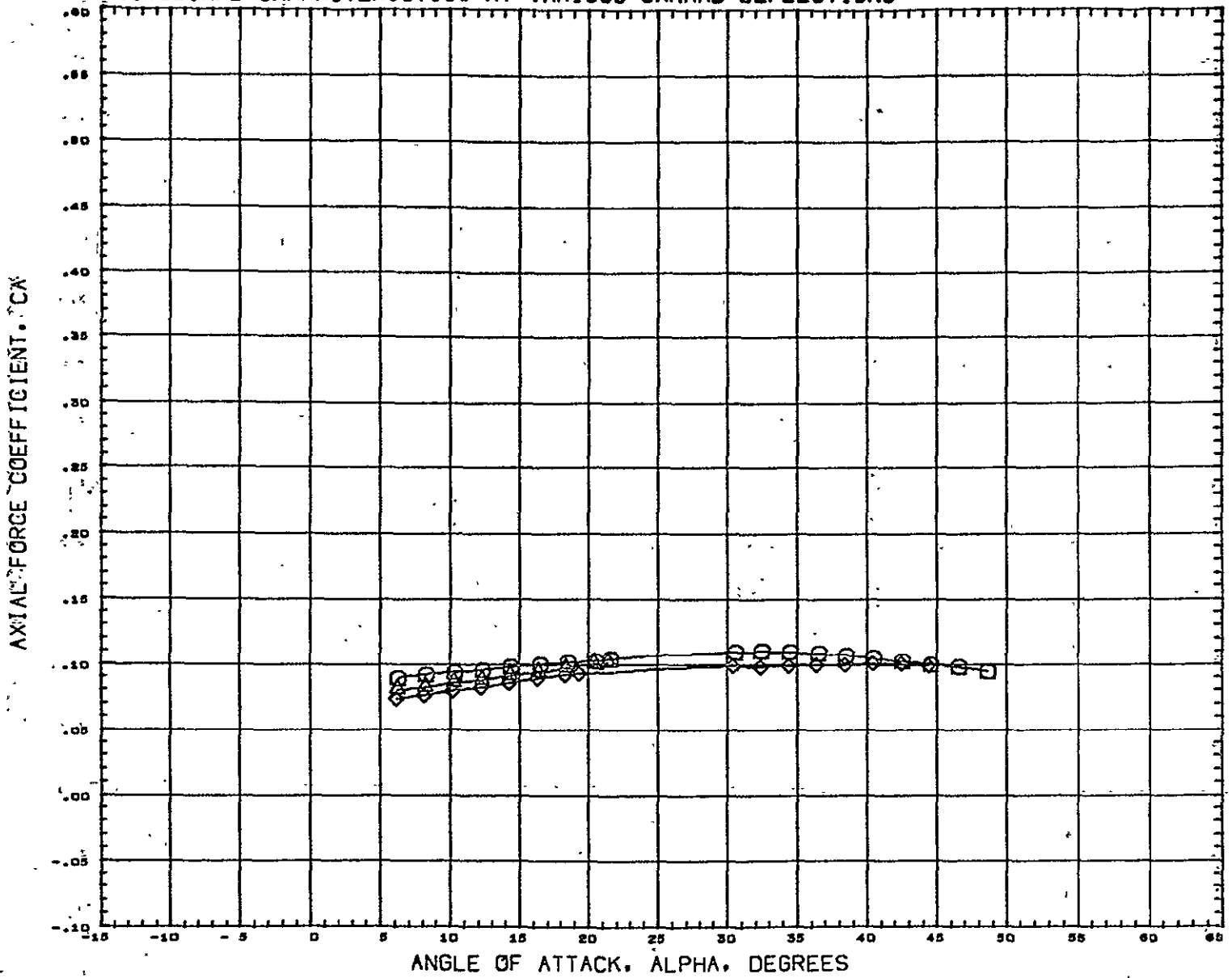
REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	SREF	IN.	IN.
□	0.901	0.000	0.000	0.000	0.000	15.6560	30.	IN.
◇	0.955	0.000	0.000	15.000	0.000	3.0950		IN.
△	1.051	15.000	0.000	0.000	0.000	6.0990		IN.
○	1.203	CANARD	15.000	AILRON	0.000	6.7300		IN.
	1.460					0.0000		IN.
	1.958	DATA HIST. CODE	HVR#E%G			ZMRP	0.0000	IN.
						SCALE	0.0035	

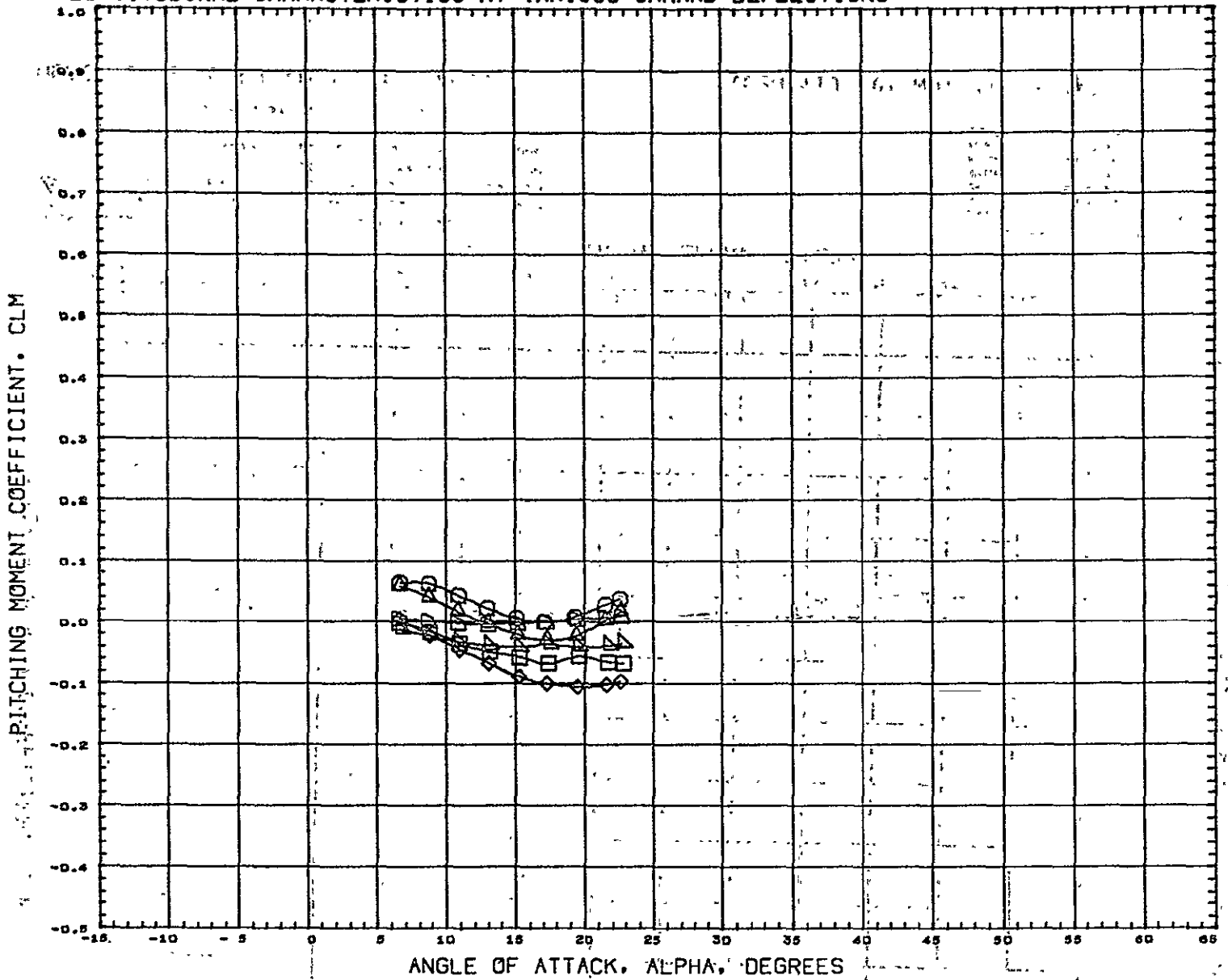
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
△	4.000	OER	0.000	DCL	15.000	LREF	3.0950	IN.
◇	4.960	OCR	15.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	15.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

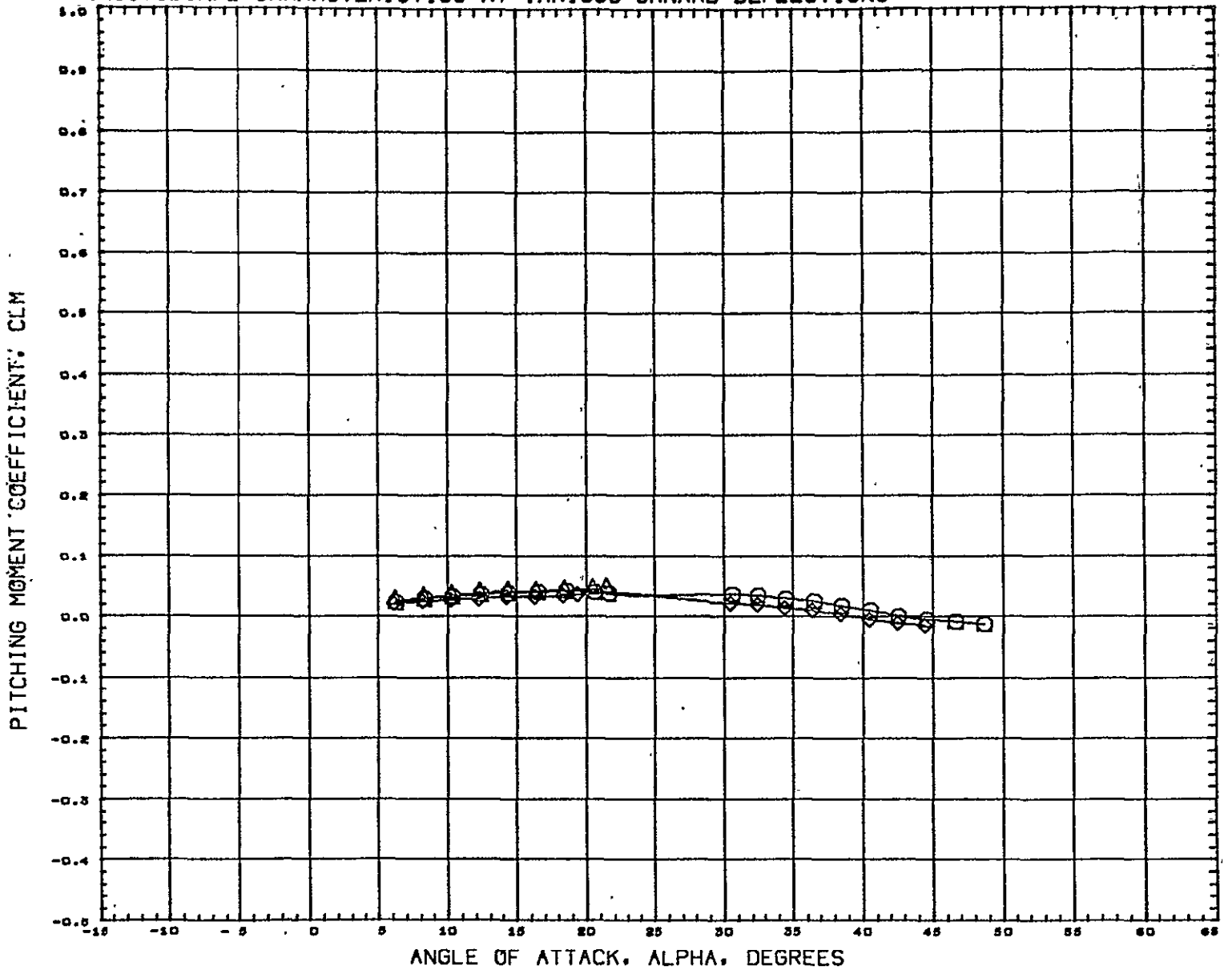
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LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DCL	DCL	DCL	SREF	LREF	BREF
○	0.901	0.000	0.000	0.000	0.000	15.6560	39. IN.	
△	0.955	0.000	0.000	15.000	0.000	3.0990	IN.	
◇	1.051	0.000	0.000	0.000	0.000	6.0990	IN.	
□	1.203	15.000	0.000	0.000	0.000	6.7100	IN.	
◇	1.460	CANARD	15.000	AILRON	0.000	0.0000	IN.	
◇	1.958	DATA HIST. CODE		MVR#E#G		0.0000	IN.	
						SCALE	0.0035	

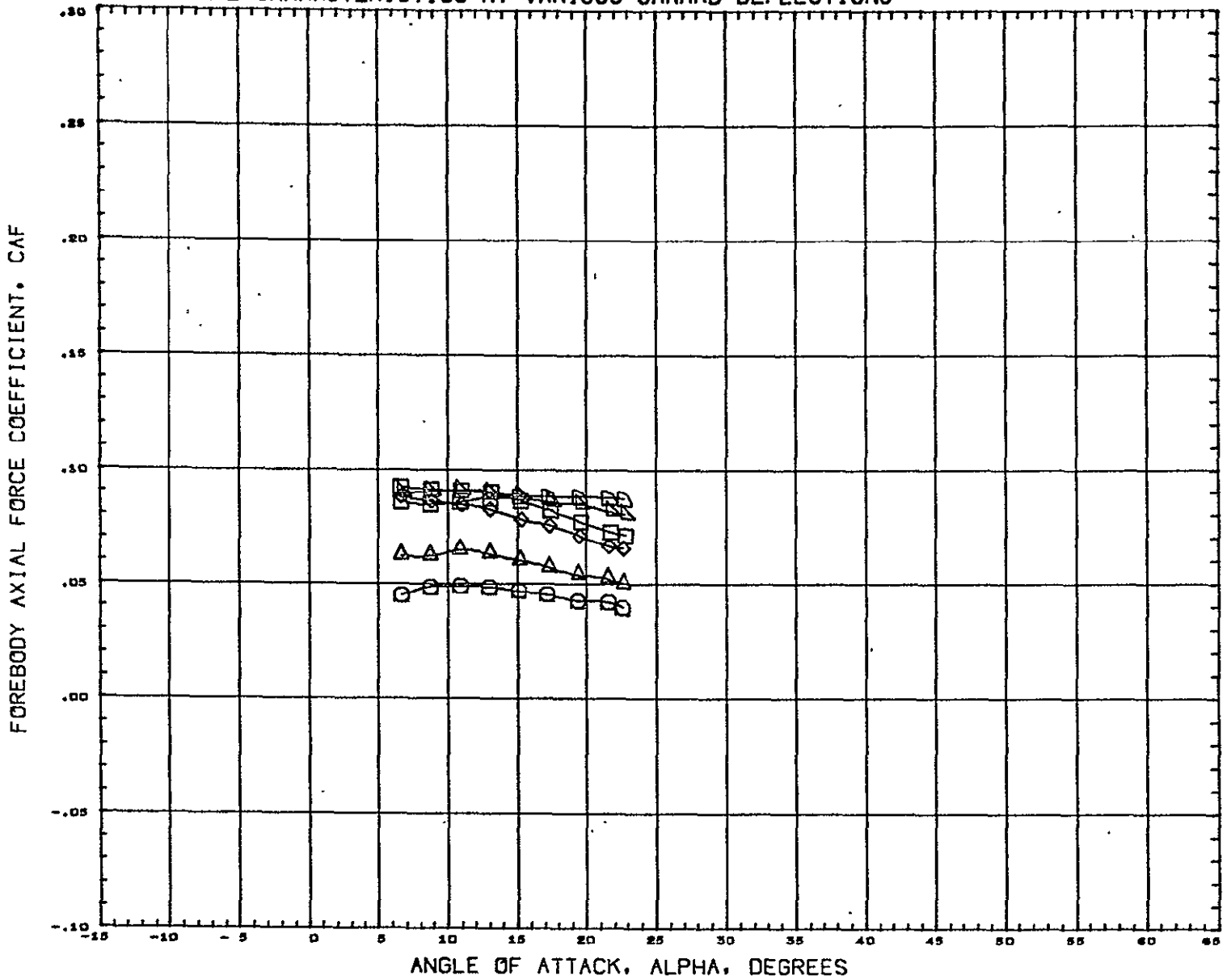
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	89. IN.
◇	4.000	DER	0.000	DCL	15.000	LREF	3.0950	IN.
◇	4.960	DCR	15.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	15.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

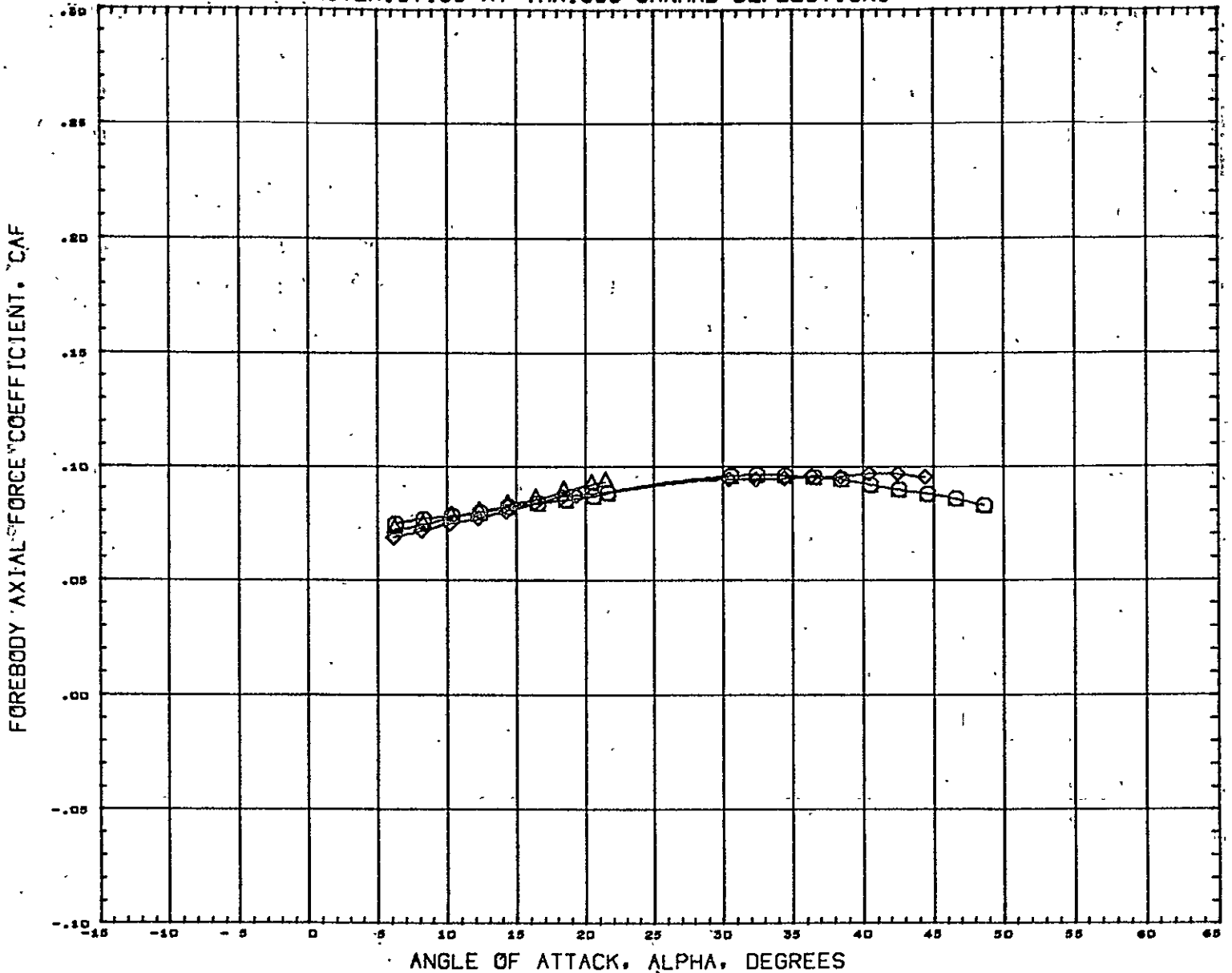
DATA HIST. CODE MVR*E*G

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION						
		BETA	DEL	DCL	ELEVON	AILRON	SREF	LREF	XMRP	YMRP	ZMRP	SCALE
○	0.901	0.000	0.000	0.000	15.000	0.000	15.6560	3.0950	0.0000	0.0000	0.0000	30. IN.
△	0.955	0.000	0.000	15.000	0.000	0.0000	6.0990	0.7100	0.0000	0.0000	0.0000	IN.
◇	1.051	15.000	0.000	0.000	0.000	0.0000	0.7100	0.0000	0.0000	0.0000	0.0000	IN.
□	1.203	CANARD	15.000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	IN.
▽	1.460											IN.
◇	1.958	DATA HIST. CODE	MVR#E#G									

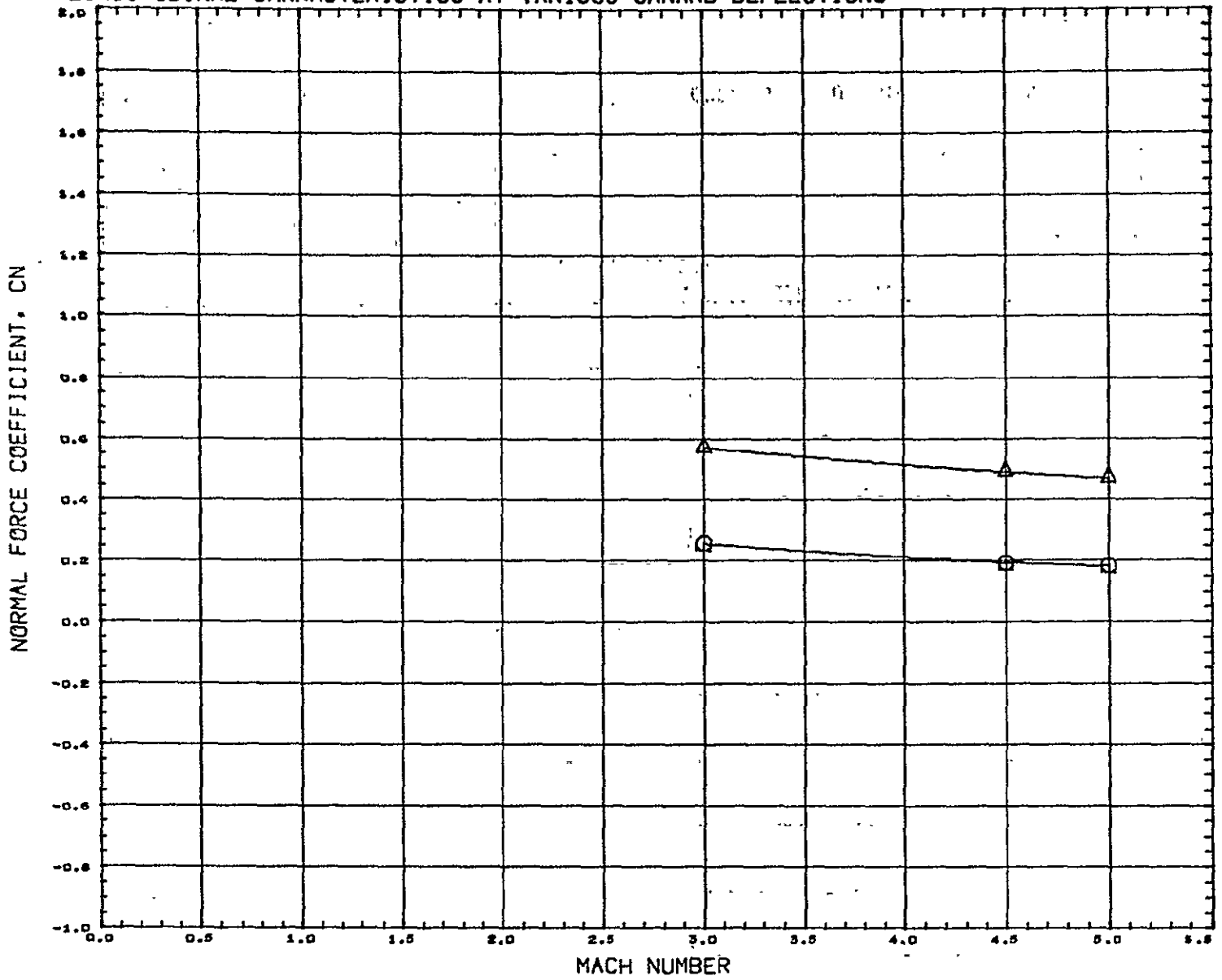
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
△	4.000	DER	0.000	DCL	15.000	LREF	3.0950	IN.
◇	4.960	DCR	15.000	ELEVON	0.000	SREF	6.0990	IN.
		CANARD	15.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR*E*G

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

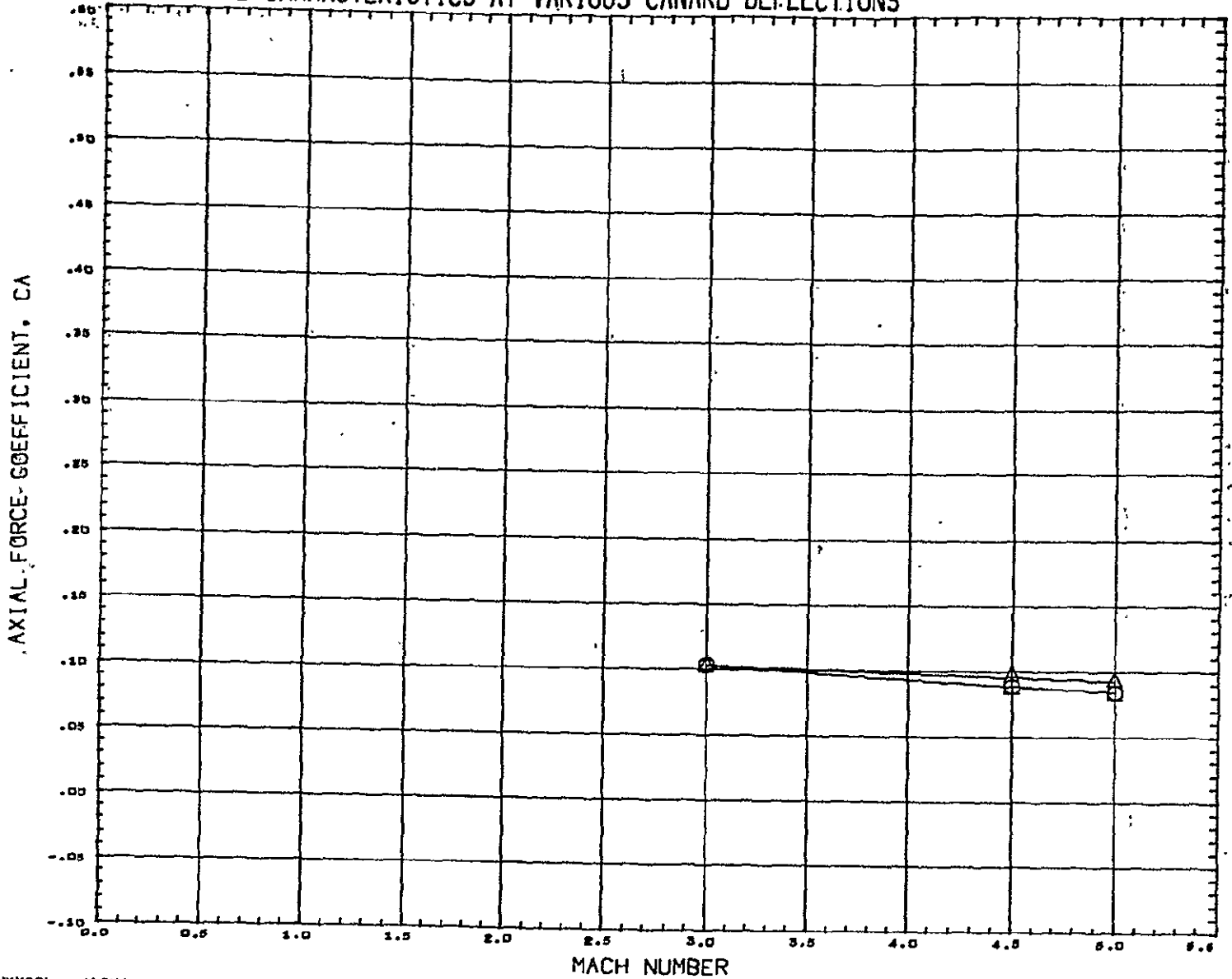


SYMBOL	ALPHA	PARAMETRIC VALUES			
□	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 45.000
		DCR	- 45.000	ELEVON	0.000
		CANARD	- 45.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7300	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

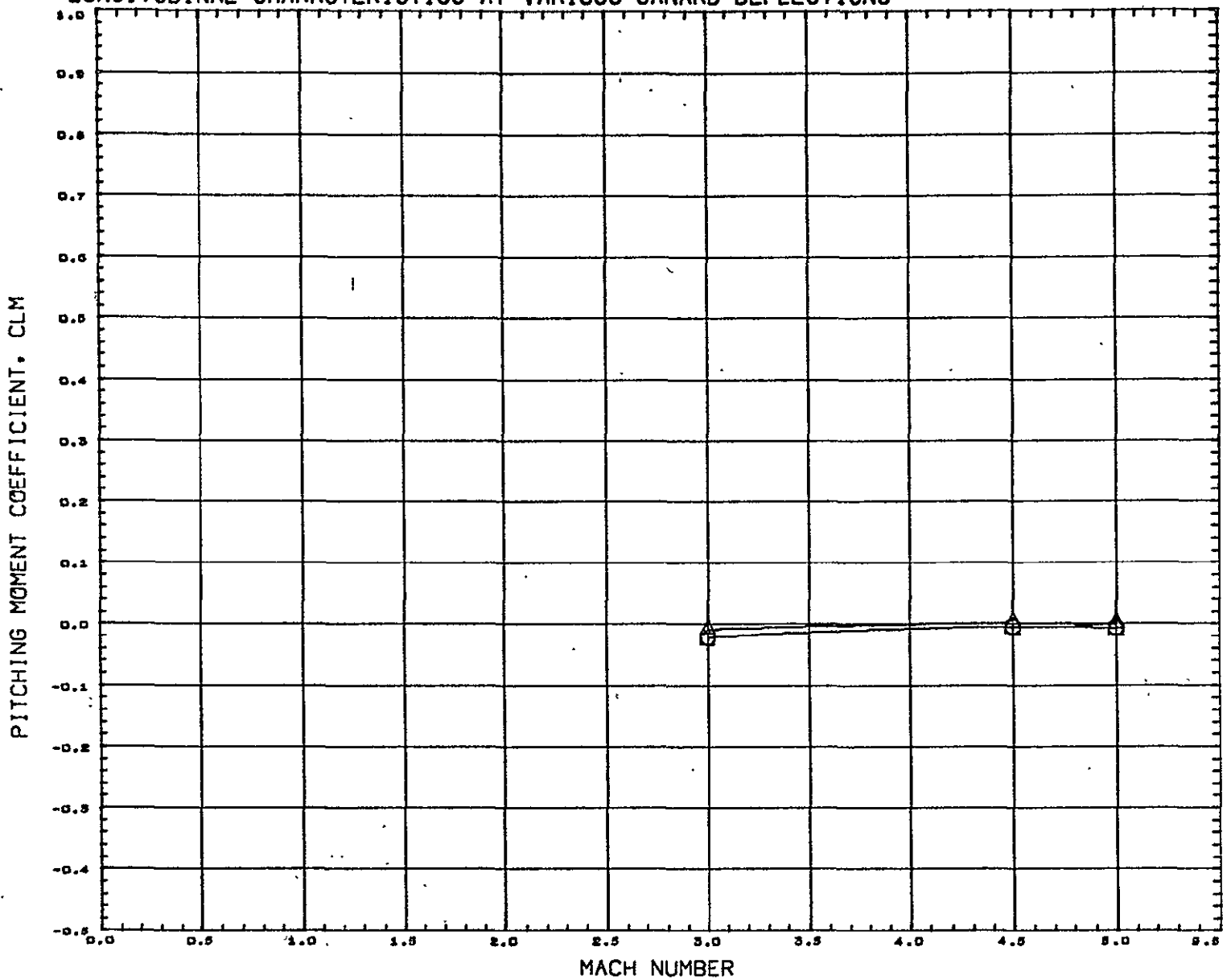


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	-45.000
		PCR	-45.000	ELEVON	0.000
		CANARD	-45.000	AILRON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0980	IN.
BREF	8.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

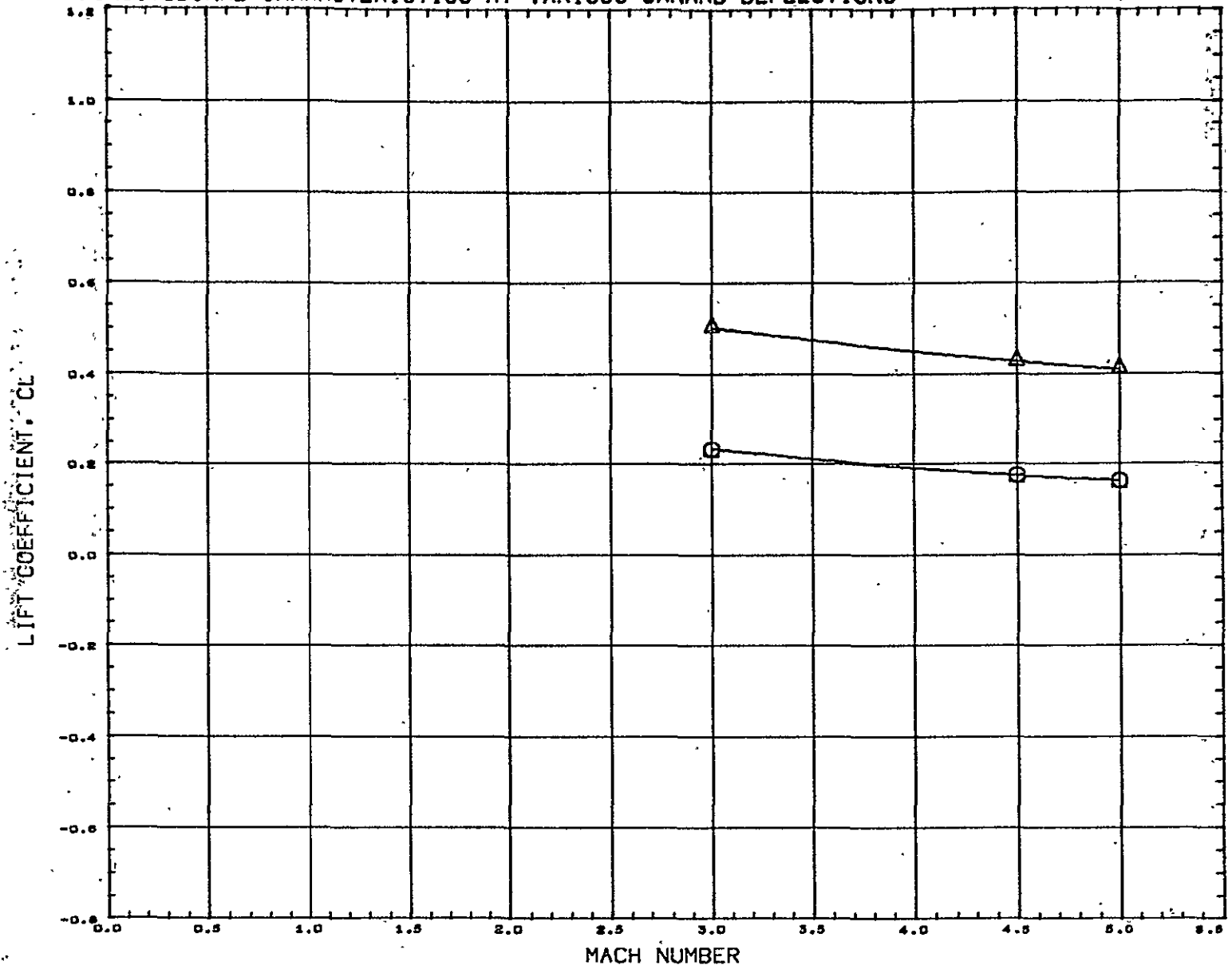


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	-45.000
		DCR	-45.000	ELEVON	0.000
		CANARD	-45.000	AILRON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	89. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

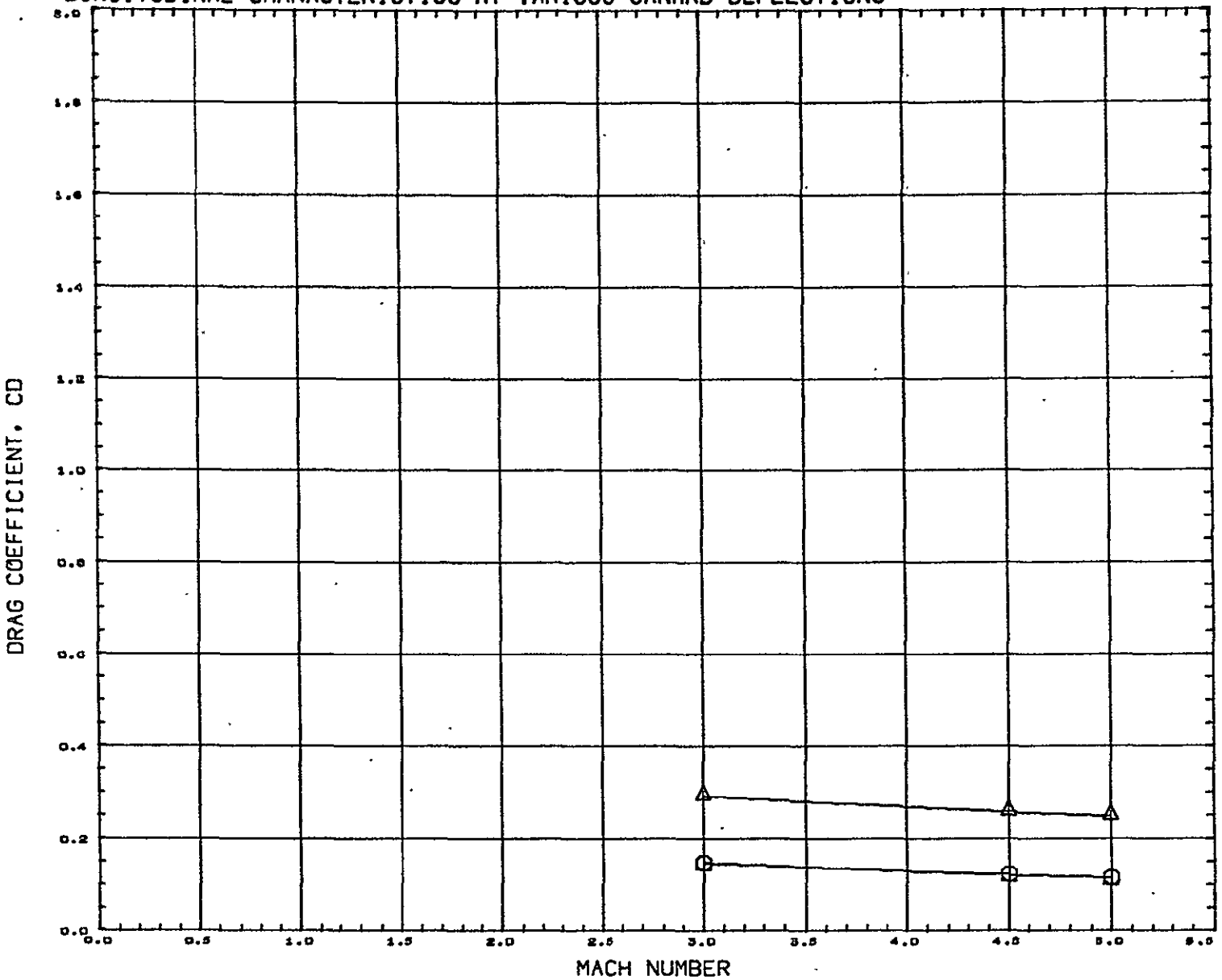
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	-45.000
		DCR	-45.000	ELEVON	0.000
		CANARD	-45.000	AILRON	0.000
DATA HIST. CODE		MVR#E1			

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



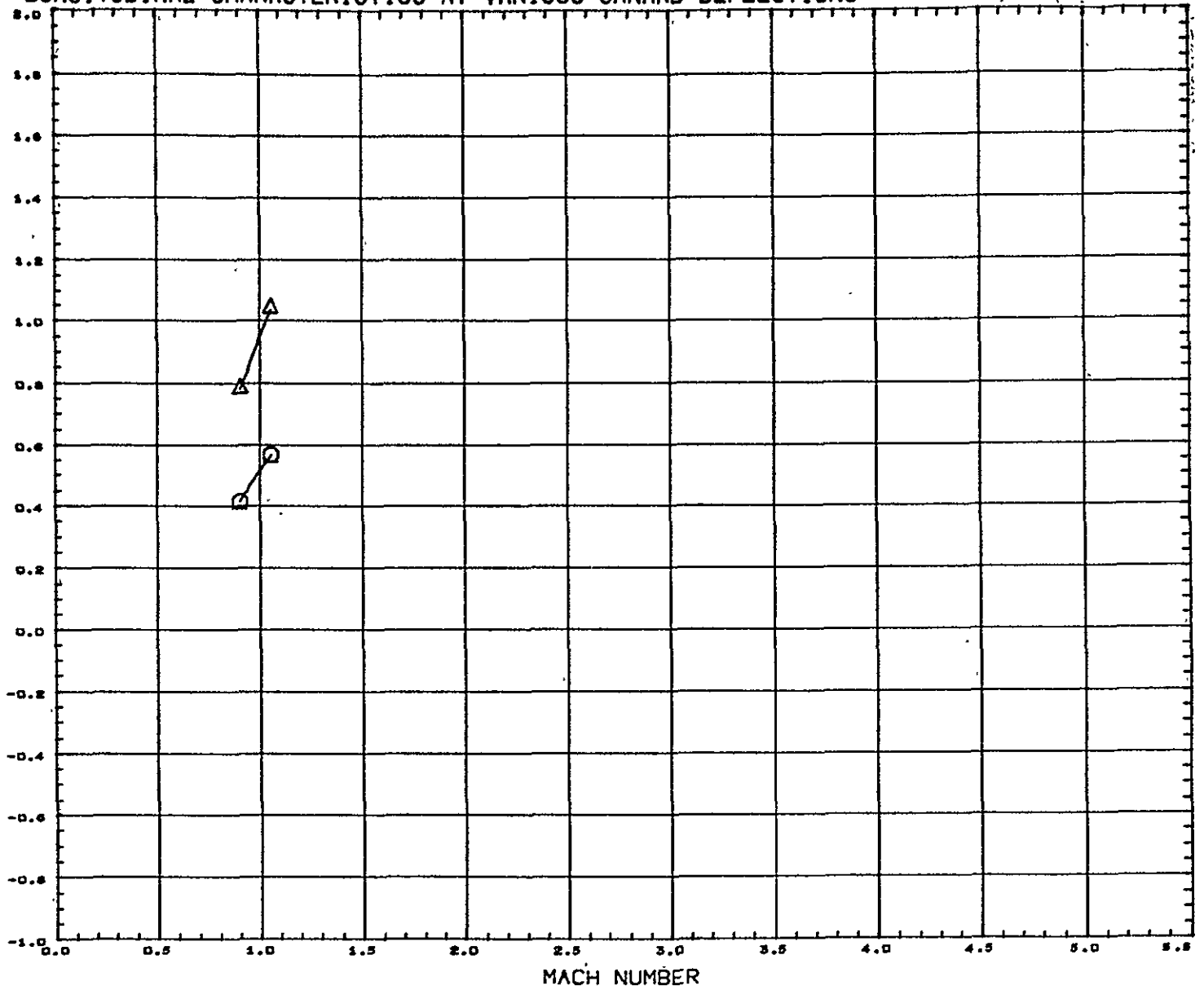
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 45.000
		DCR	- 45.000	ELEVON	0.000
		CANARD	- 45.000	AILRON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.0500	80. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XHRP	0.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

NORMAL FORCE COEFFICIENT, CN

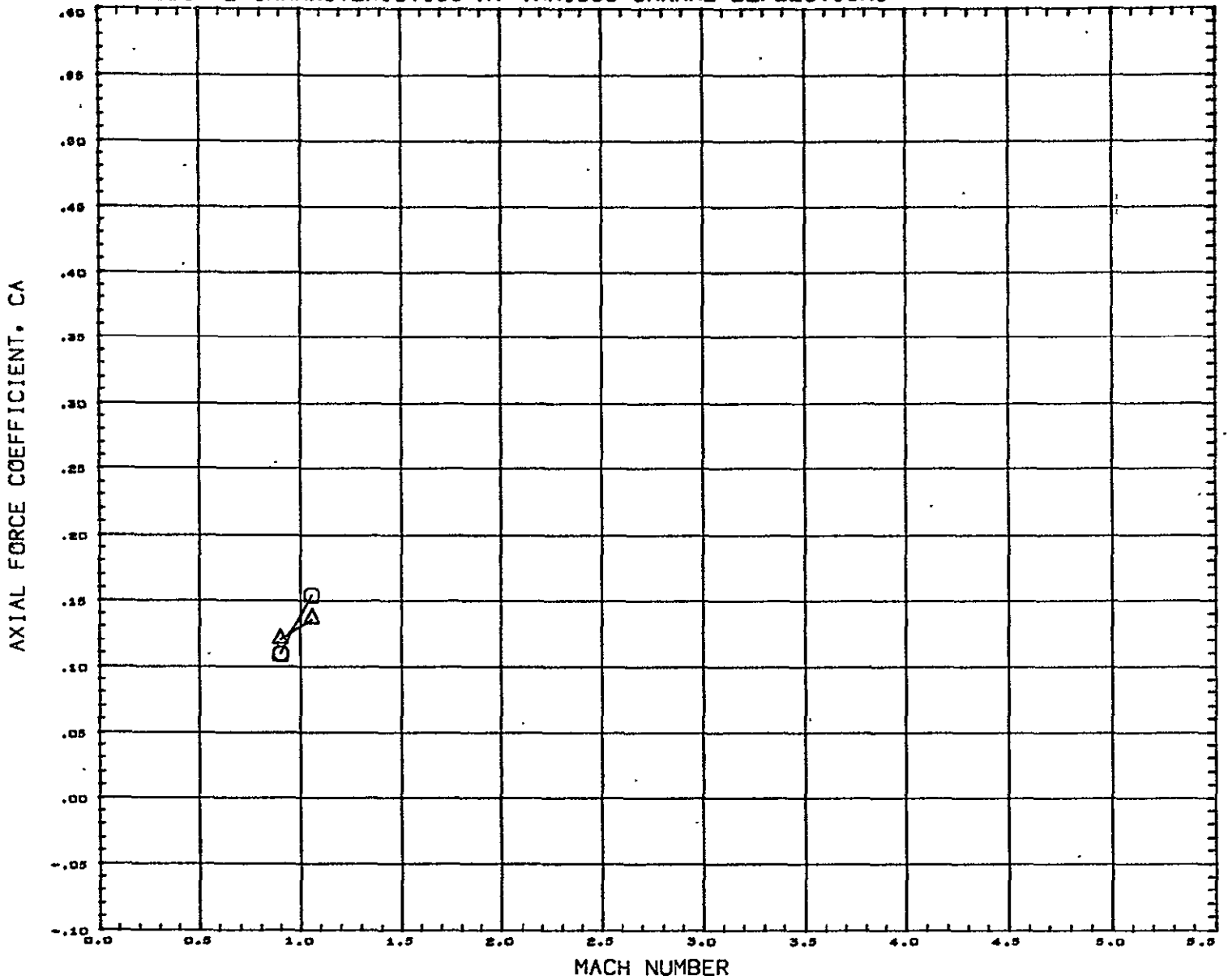


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 60.000
		DCR	- 60.000	ELEVON	0.000
		CANARD	- 60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



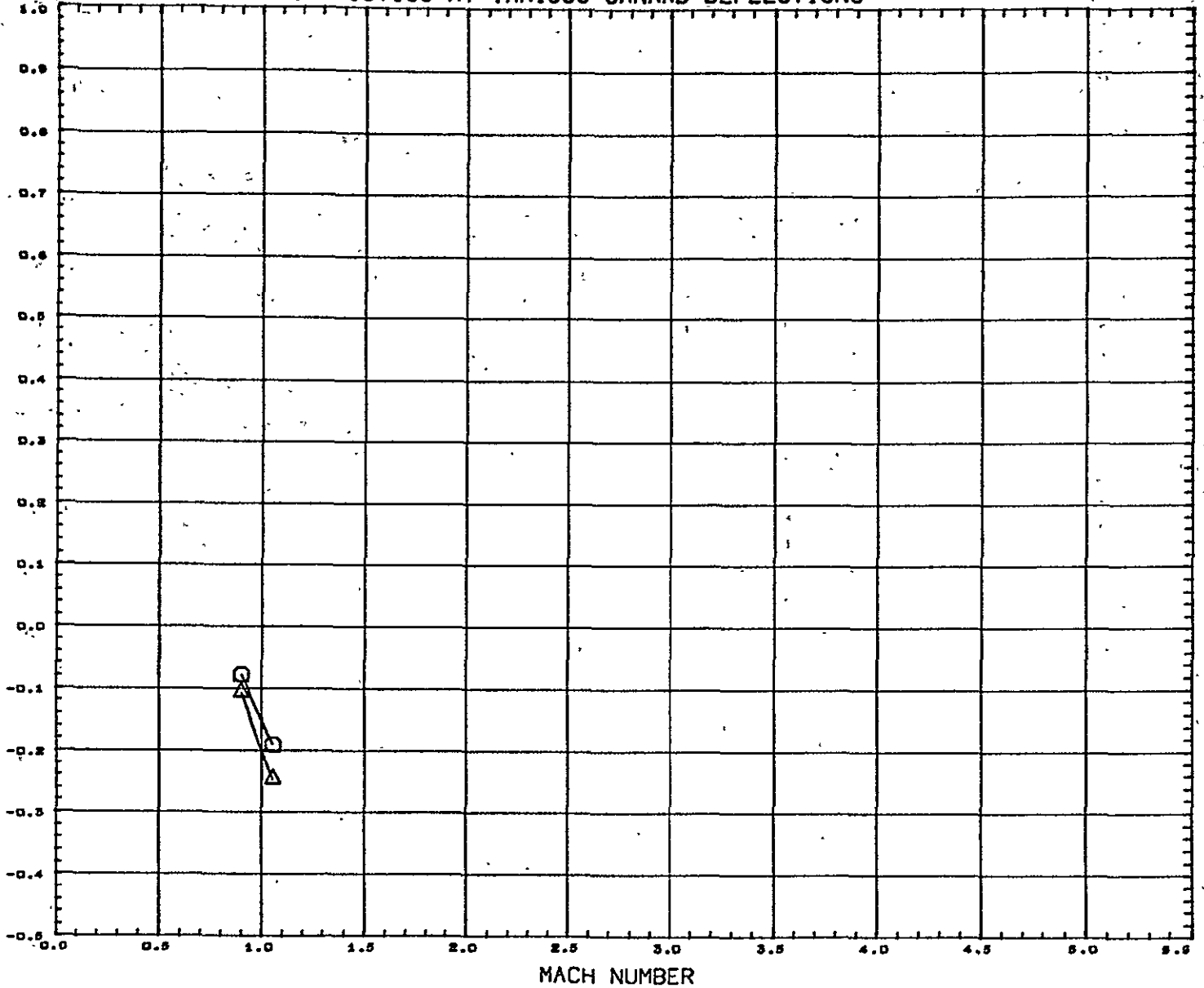
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 60.000
		DCR	- 60.000	ELEVON	0.000
		CANARD	- 60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
OREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0033	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT COEFFICIENT, C_{LM}

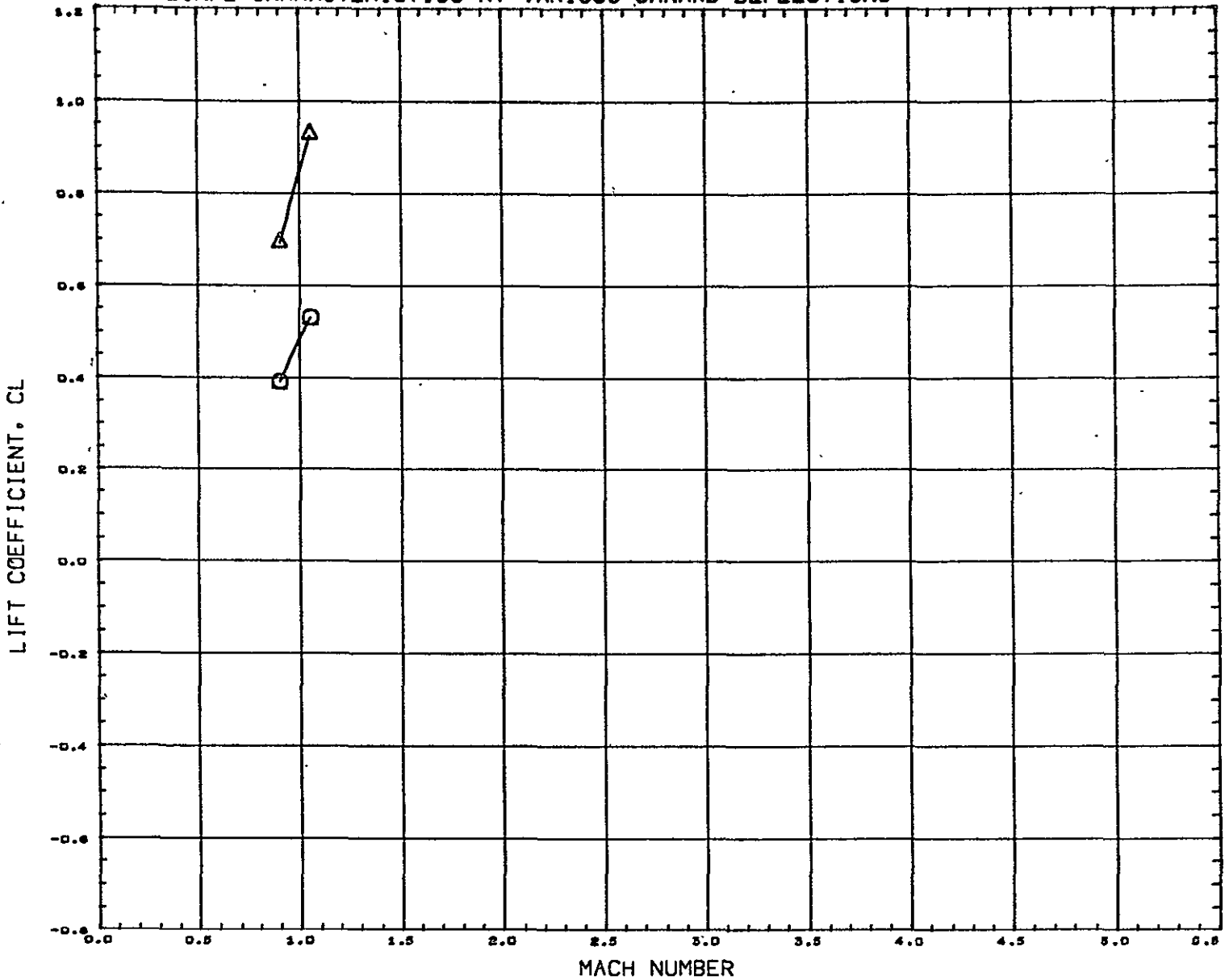


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	10.000	0.000	DEL	0.000	
△	20.000	0.000	DCL	-50.000	
		-60.000	ELEVON	0.000	
		-60.000	AILRON	0.000	

REFERENCE INFORMATION		
SREF	15.6560	89. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

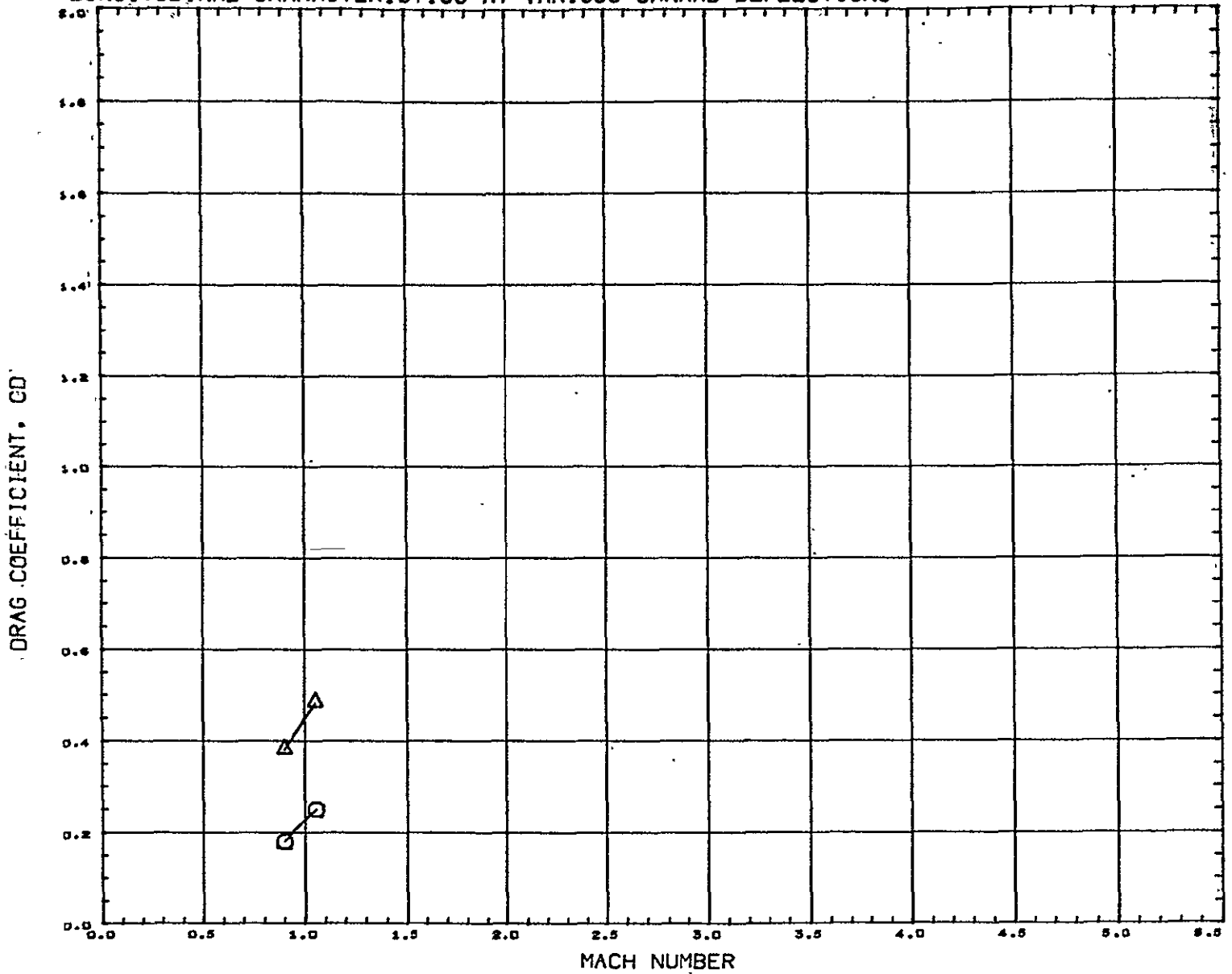
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 60.000
		DCR	- 60.000	ELEVON	0.000
		CANARD	- 60.000	AILRON	0.000
		DATA HIST. CODE	MVR#E1		

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 60.000
		DCR	- 60.000	ELEVON	0.000
		CANARD	- 60.000	AILRON	0.000

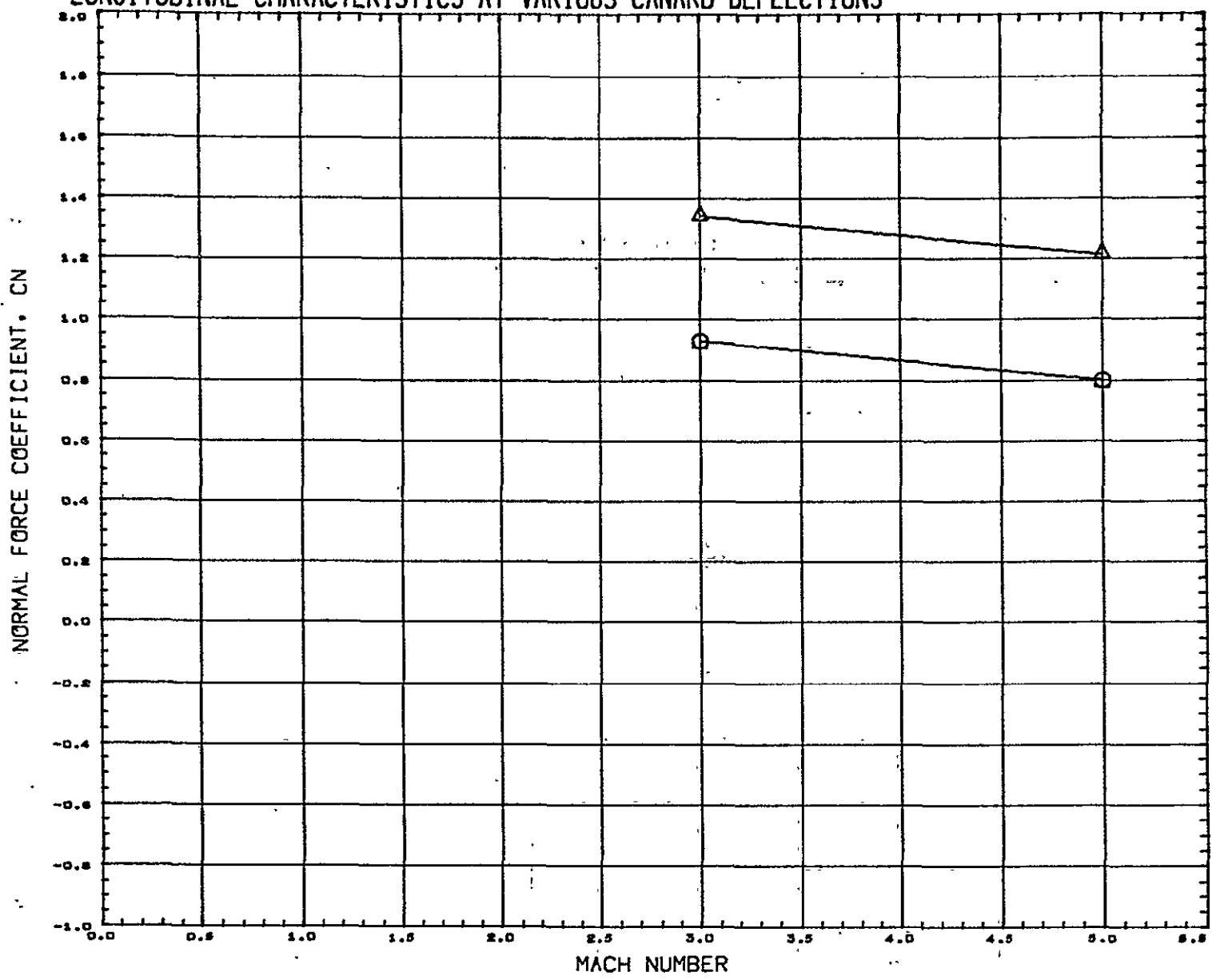
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LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

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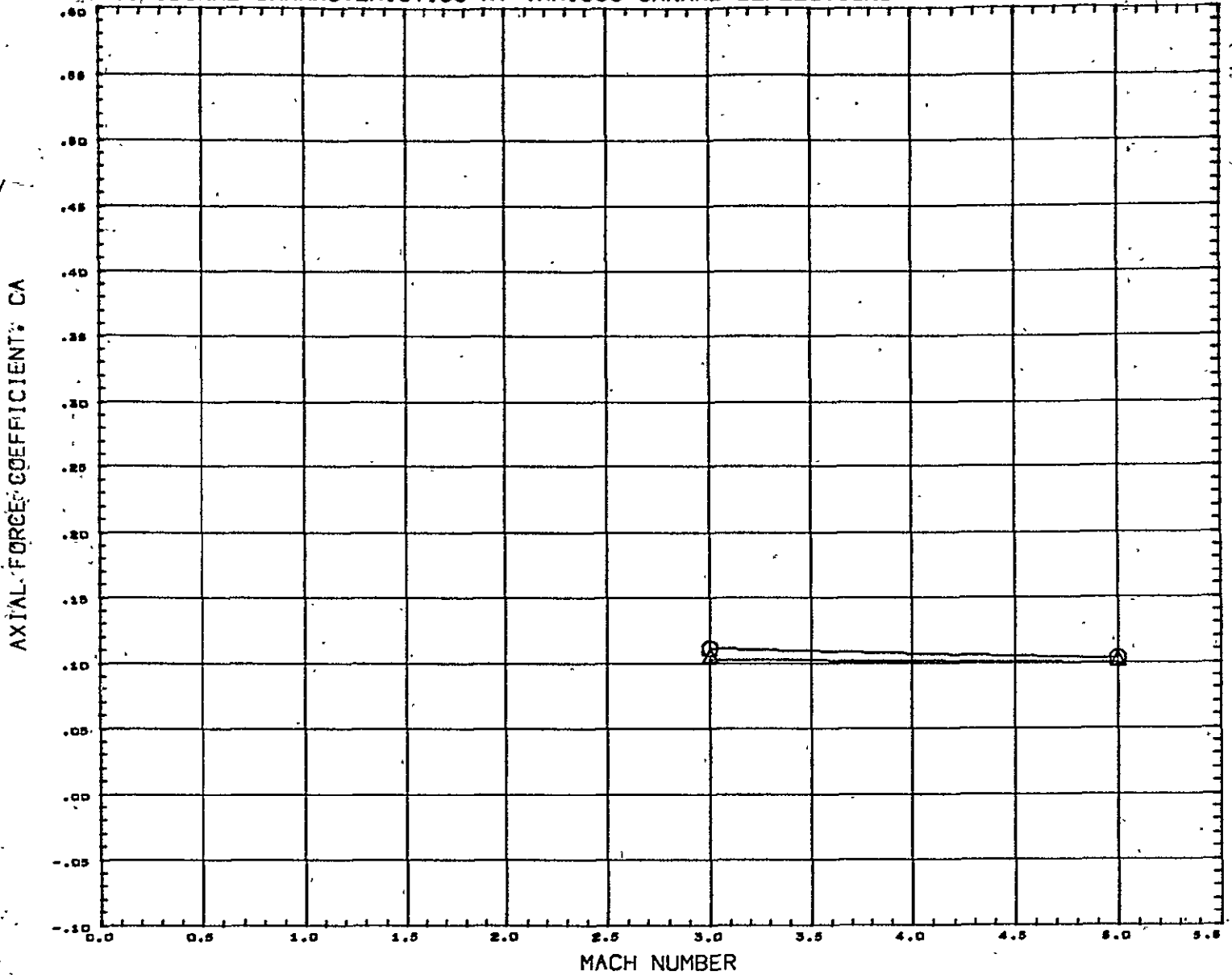
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LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	30.000	BETA	0.000	DEL	0.000	BREF	15.6560	SQ. IN.
△	40.000	DER	0.000	DCL	- 60.000	LREF	3.0930	IN.
		DCR	- 60.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	- 60.000	AILRON	0.000	KHRP	6.7100	IN.
						YHRP	0.0000	IN.
						ZHRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#E1					

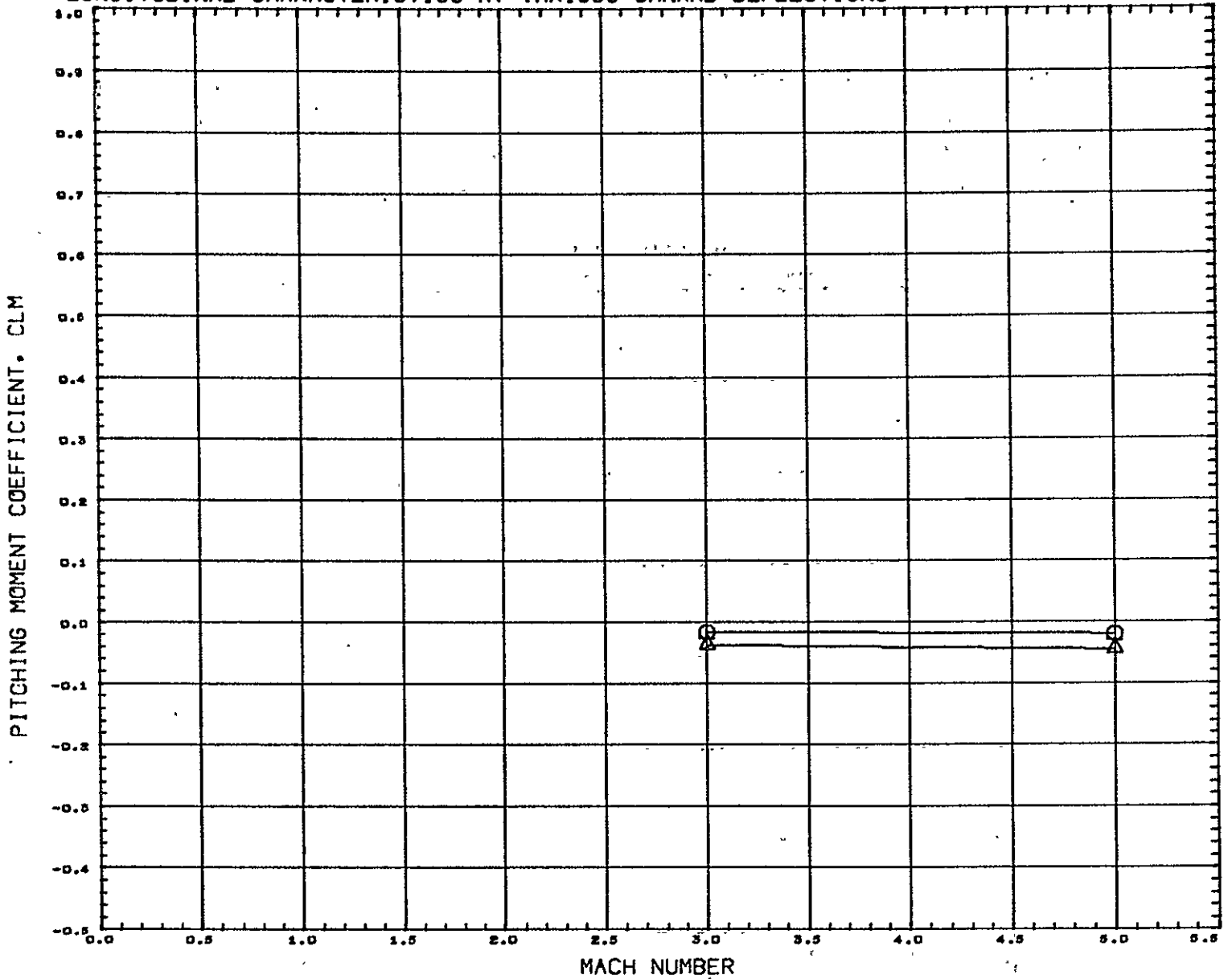
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	-60.000
		DCR	-60.000	ELEVON	0.000
		CANARD	-60.000	AILRON	0.000
DATA HIST. CODE		HVR#E1			

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0050	IN.
BREF	6.0890	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

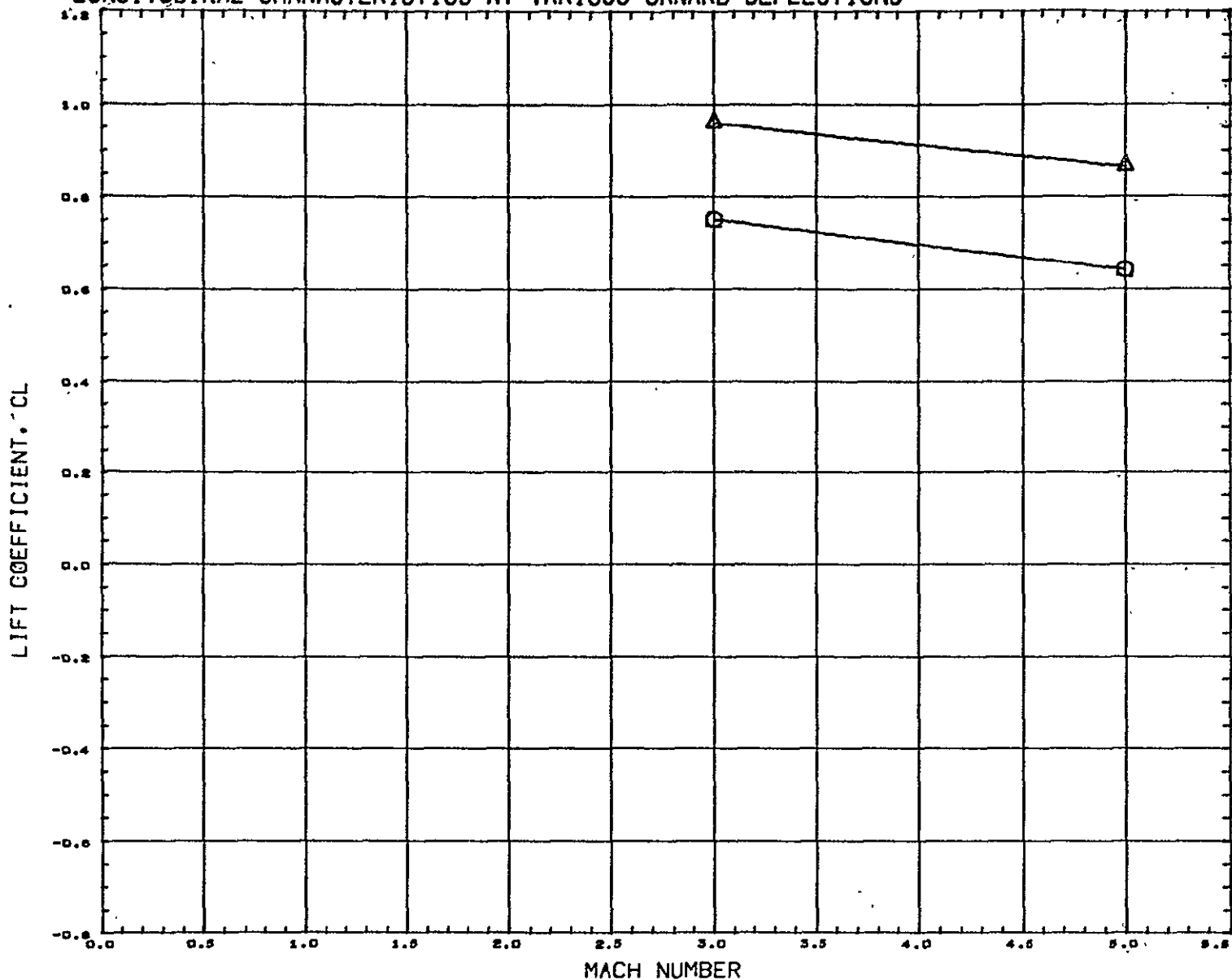


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	- 60.000
		DCR	- 60.000	ELEVON	0.000
		CANARD	- 60.000	AILRON	0.000

DATA HIST. CODE MVR#EI

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0050	IN.
BREF	0.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

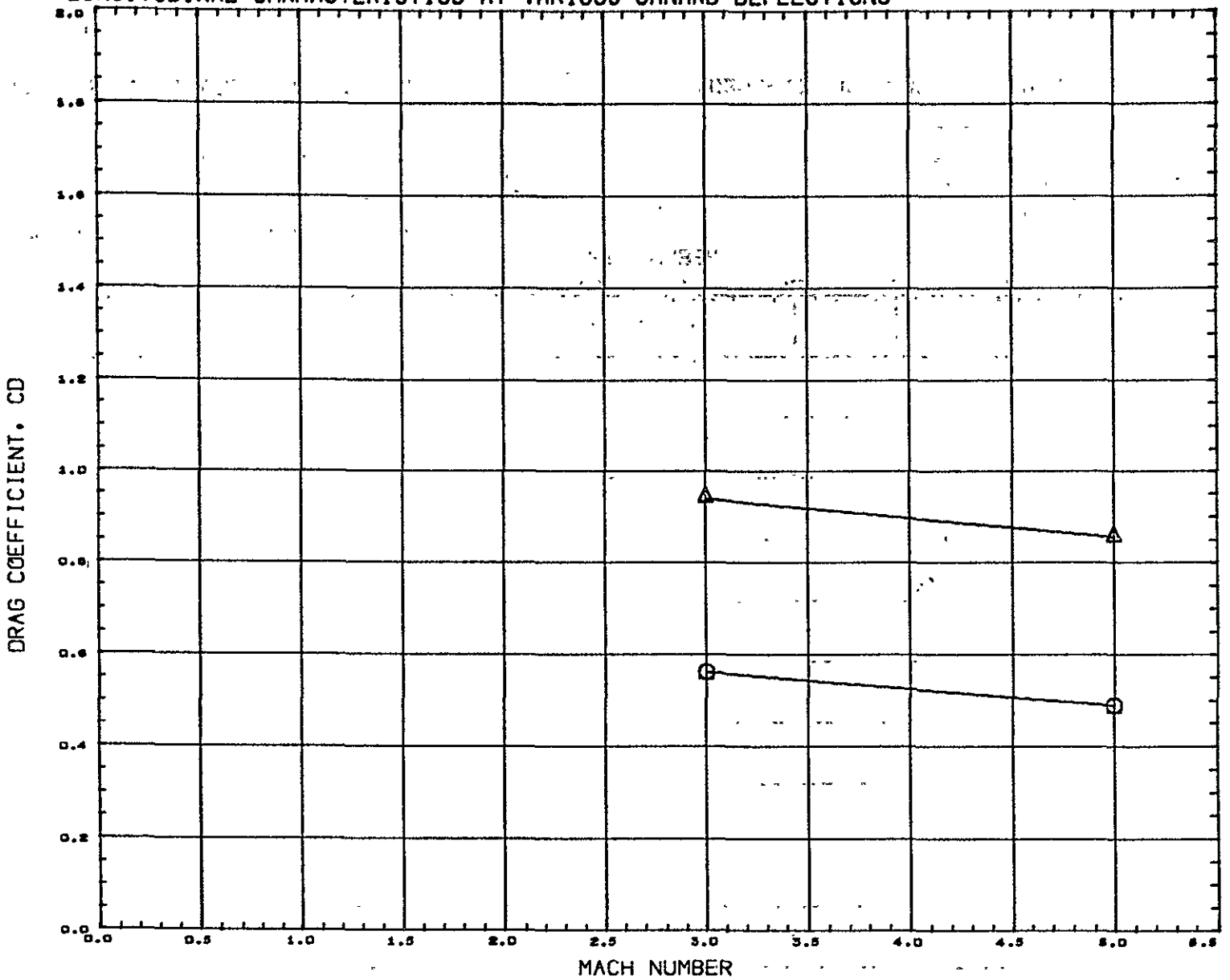


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	-60.000
		DCR	-60.000	ELEVON	0.000
		CANARD	-60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.8560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0039	

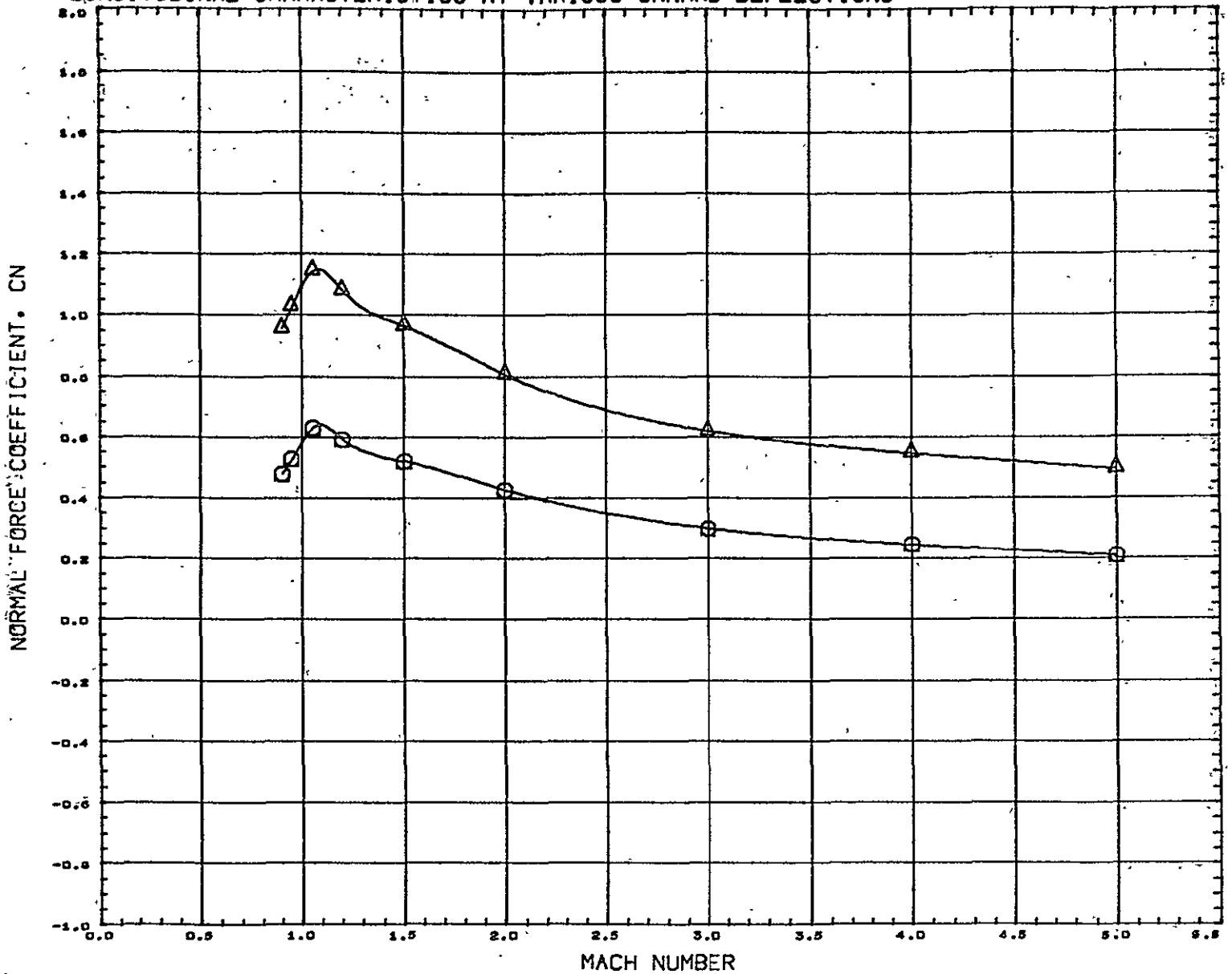
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LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	30.000	BETA	0.000	DEL	0.000	SREF	15.6560	Sq. IN.
△	40.000	DER	0.000	DCL	- 60.000	LREF	3.0050	IN.
		DCR	- 60.000	ELEVON	0.000	BREF	6.0000	IN.
		CANARD	- 60.000	AILRON	0.000	XMRP	0.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0038	
		DATA HIST. CODE	MVR#EI					

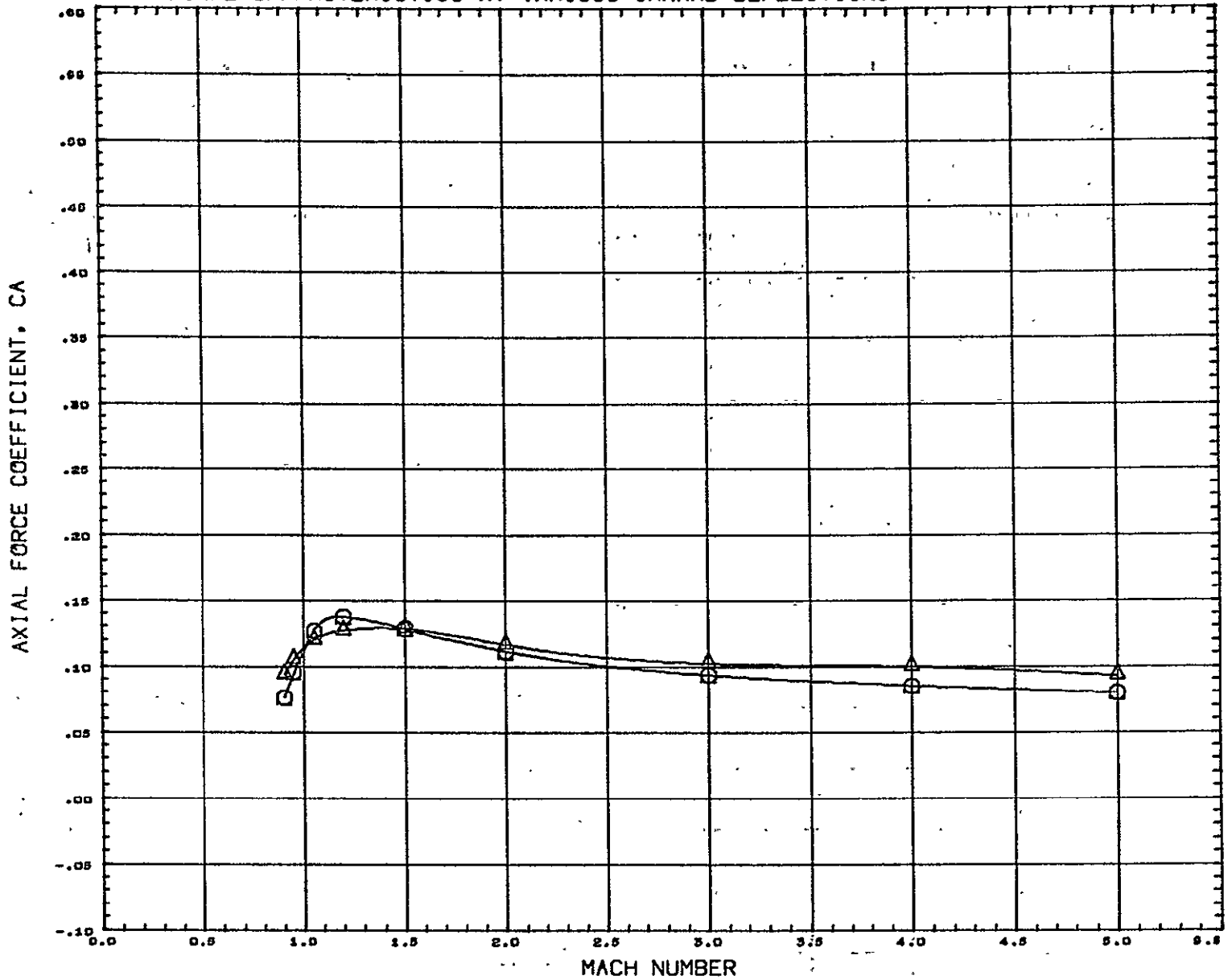
LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000
DATA HIST. CODE		MVR#E1			

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0950	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

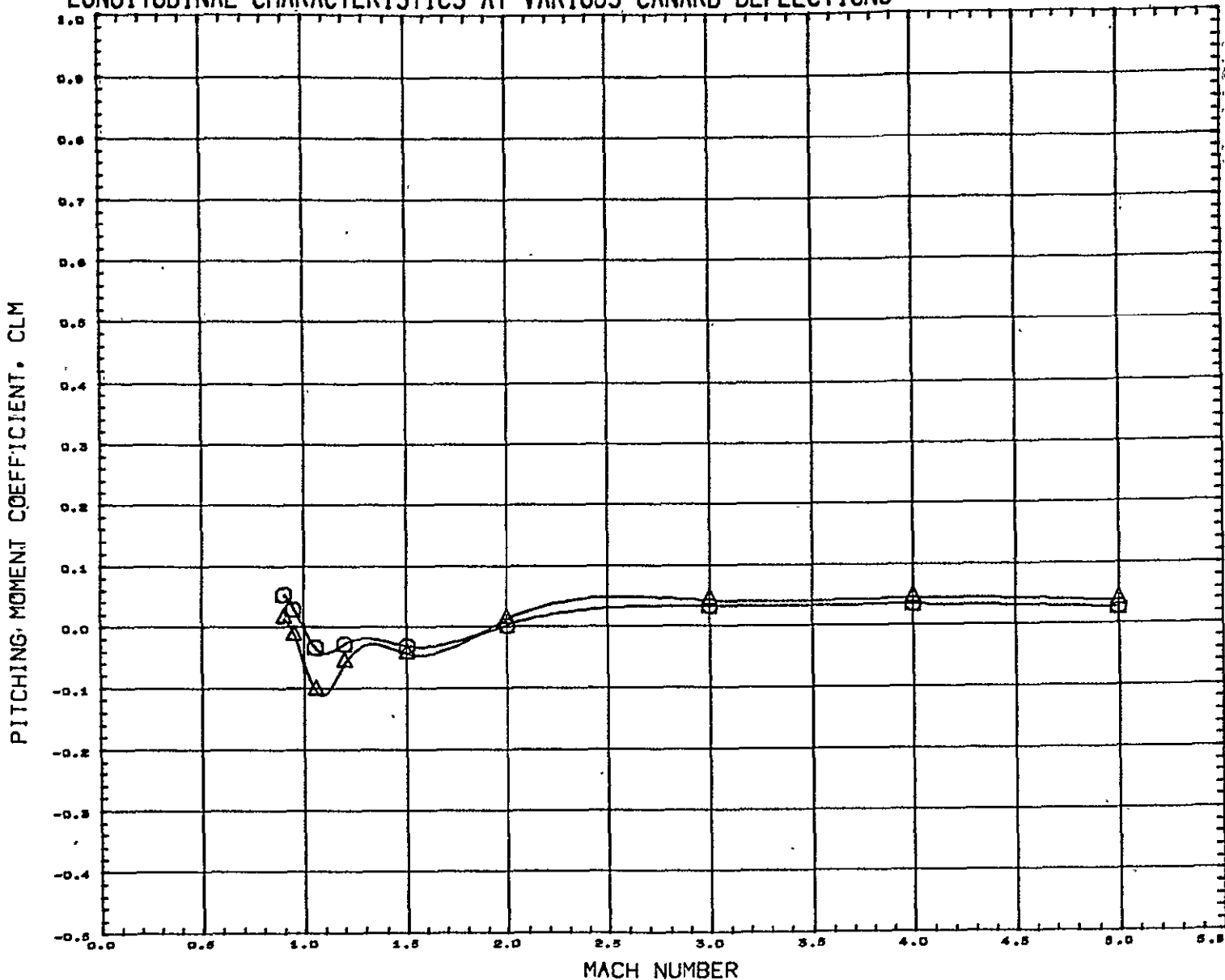


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.0560	sq. IN.
LREF	3.0050	IN.
BREF	6.0090	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

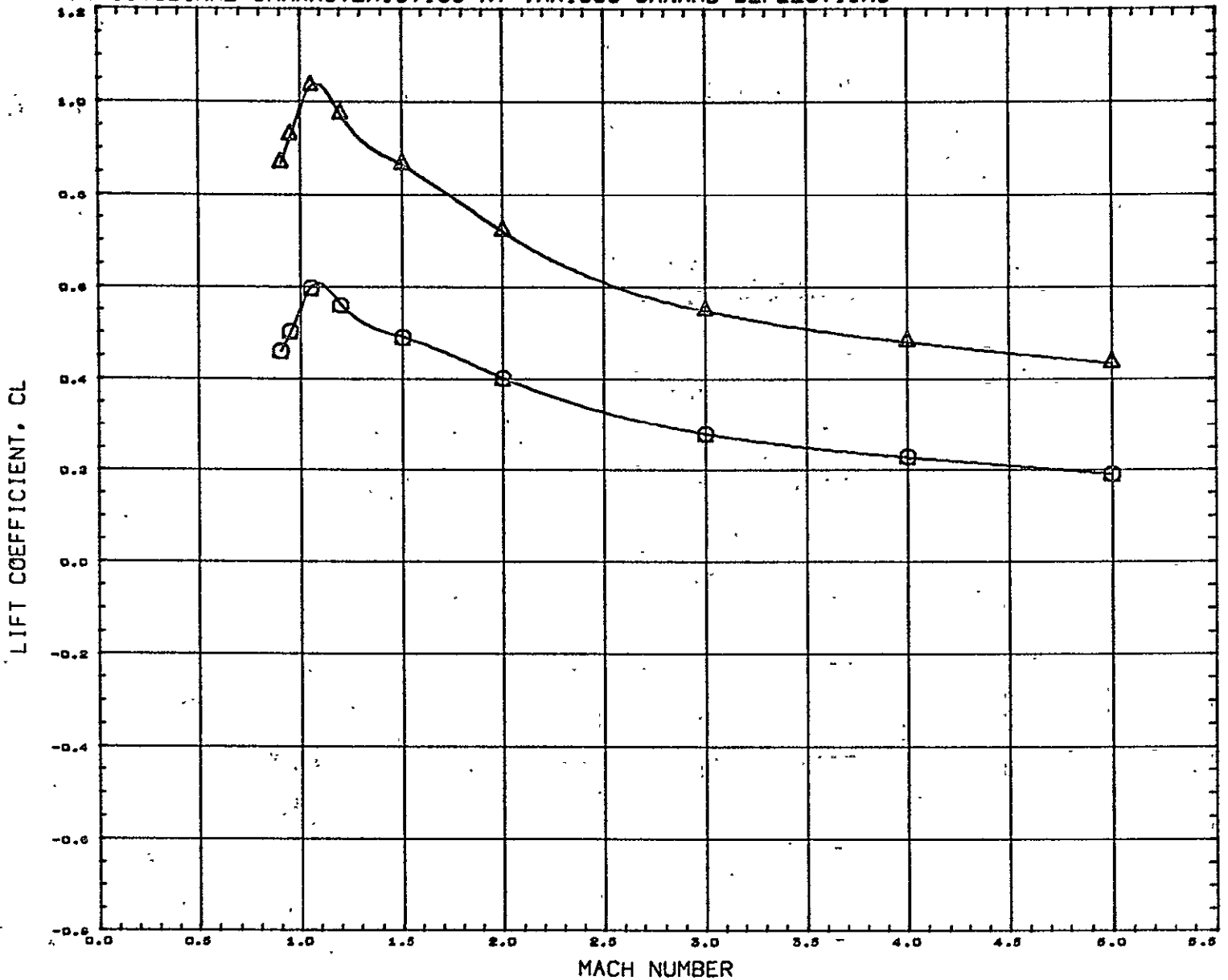


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.0560	80. IN.
LREF	3.0950	IN.
OREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

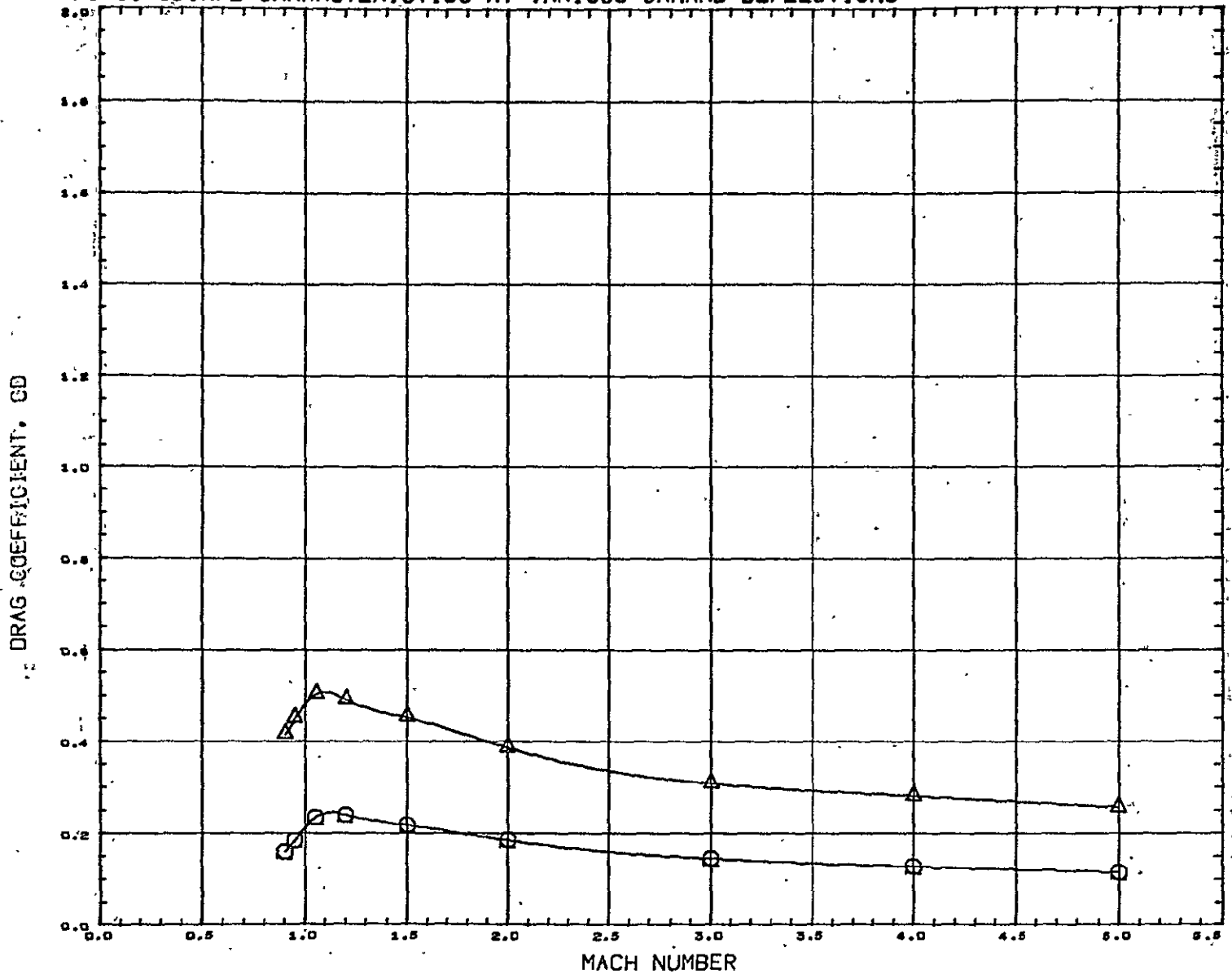


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR9E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	sq. in.
LREF	3.0950	in.
BREF	6.0990	in.
XMRP	6.7100	in.
YMRP	0.0000	in.
ZMRP	0.0000	in.
SCALE	0.0035	

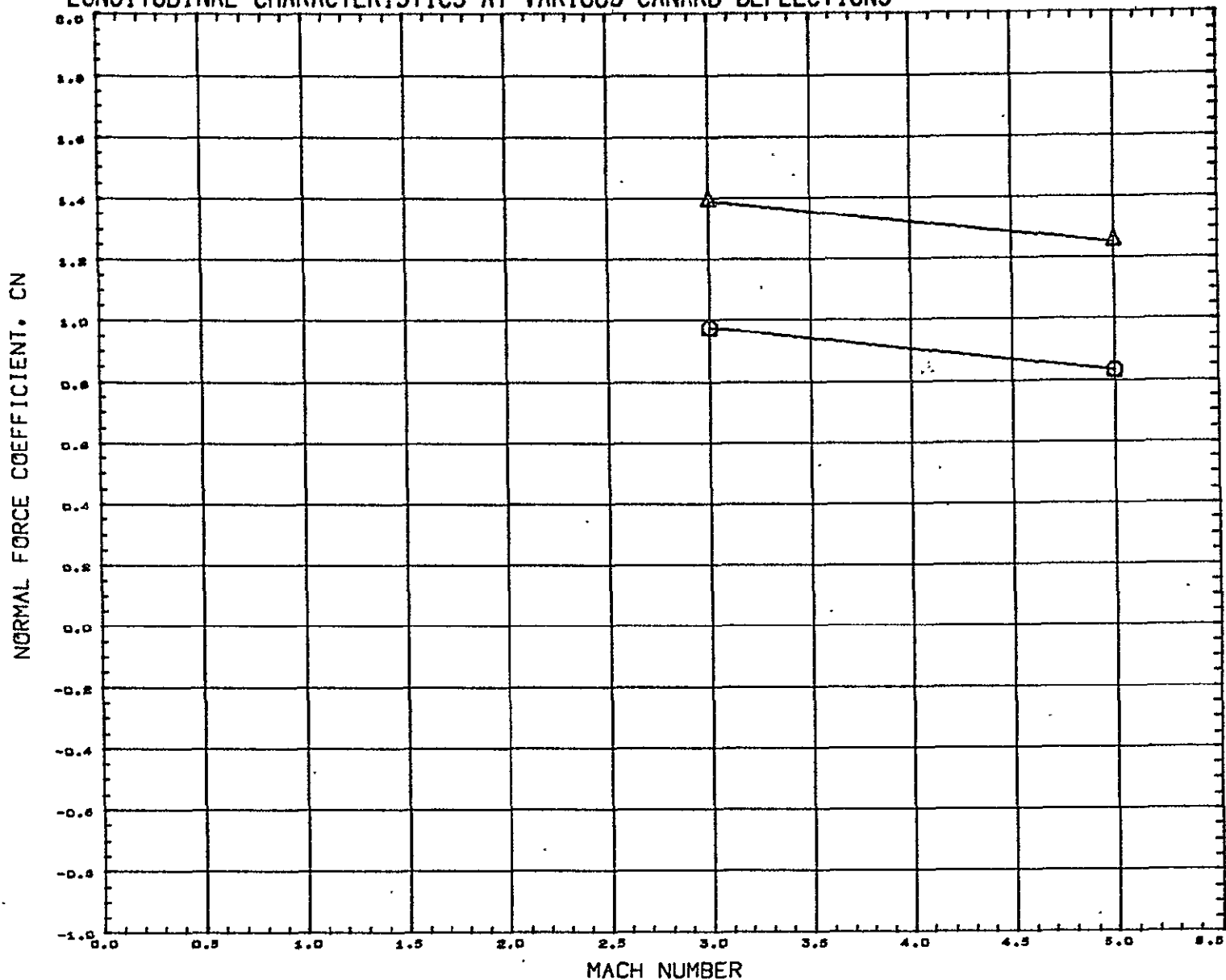
DATA HIST. CODE MVR#E1

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LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

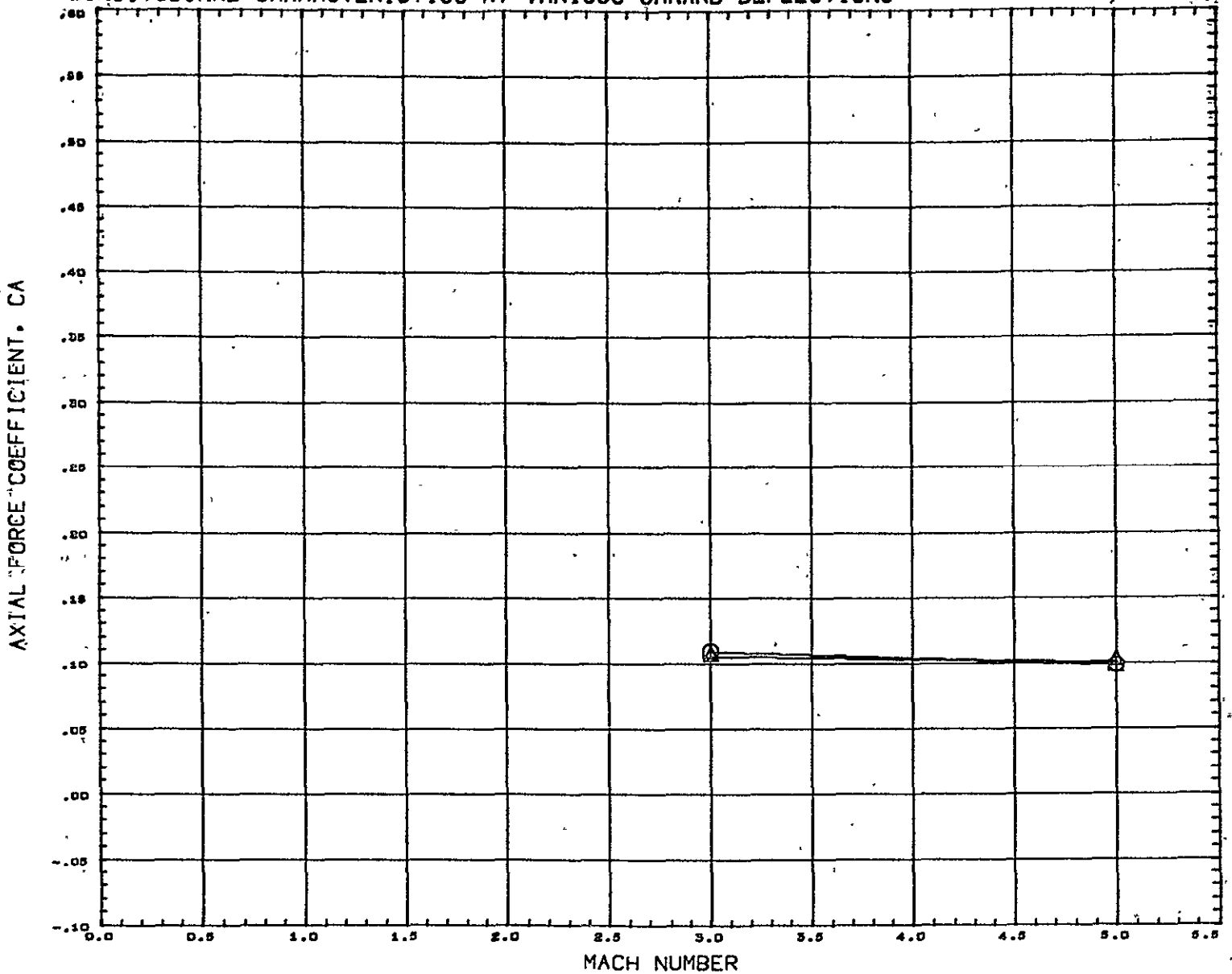


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

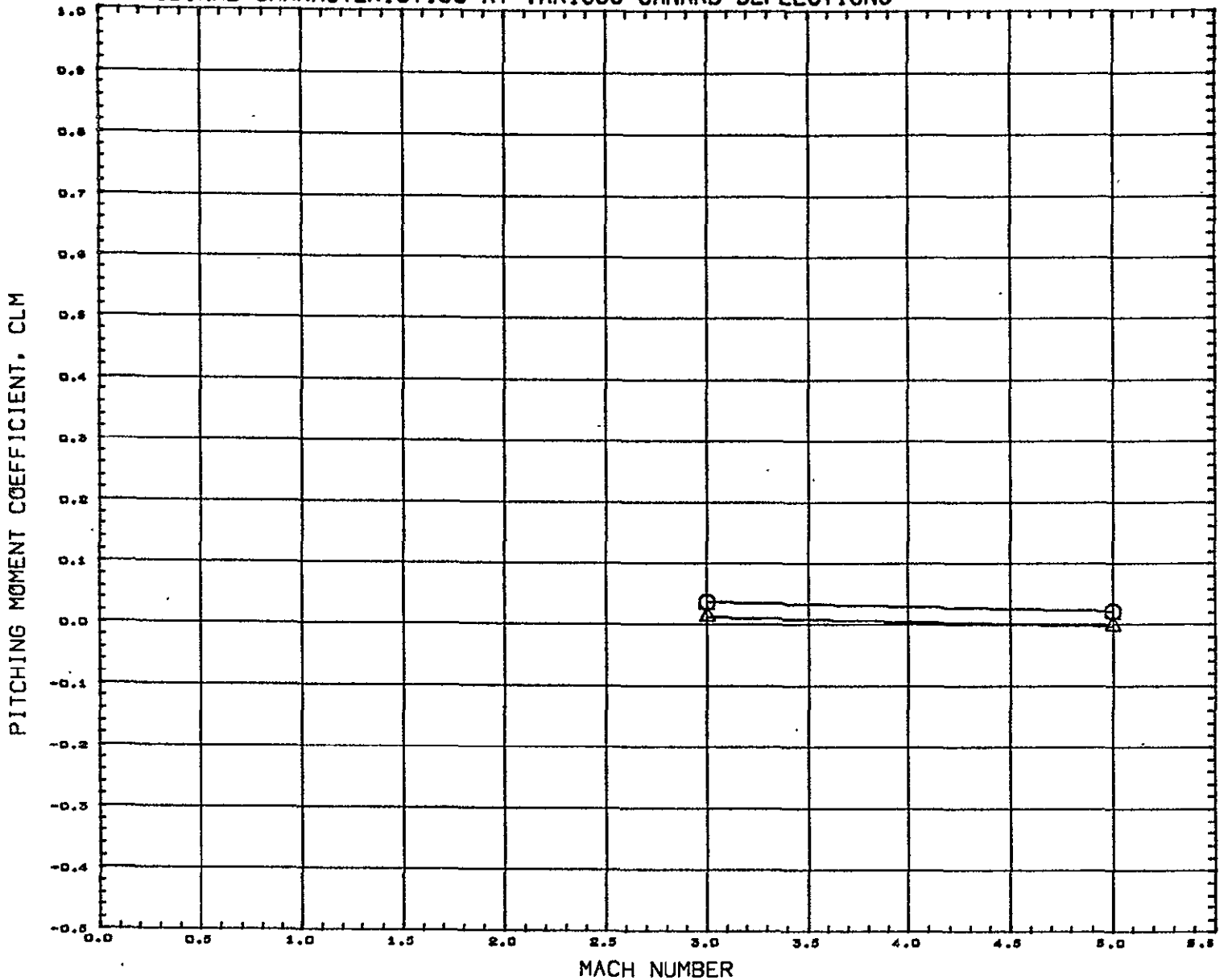


SYMBOL	ALPHA	PARAMETRIC VALUES			
		BETA	DEL	DCL	ELEVON
○	30.000	0.000	0.000	0.000	0.000
△	40.000	0.000	15.000	0.000	0.000
		DCR	15.000	AILRON	0.000
		CANARD	15.000		

REFERENCE INFORMATION		
SREF	15.6360	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

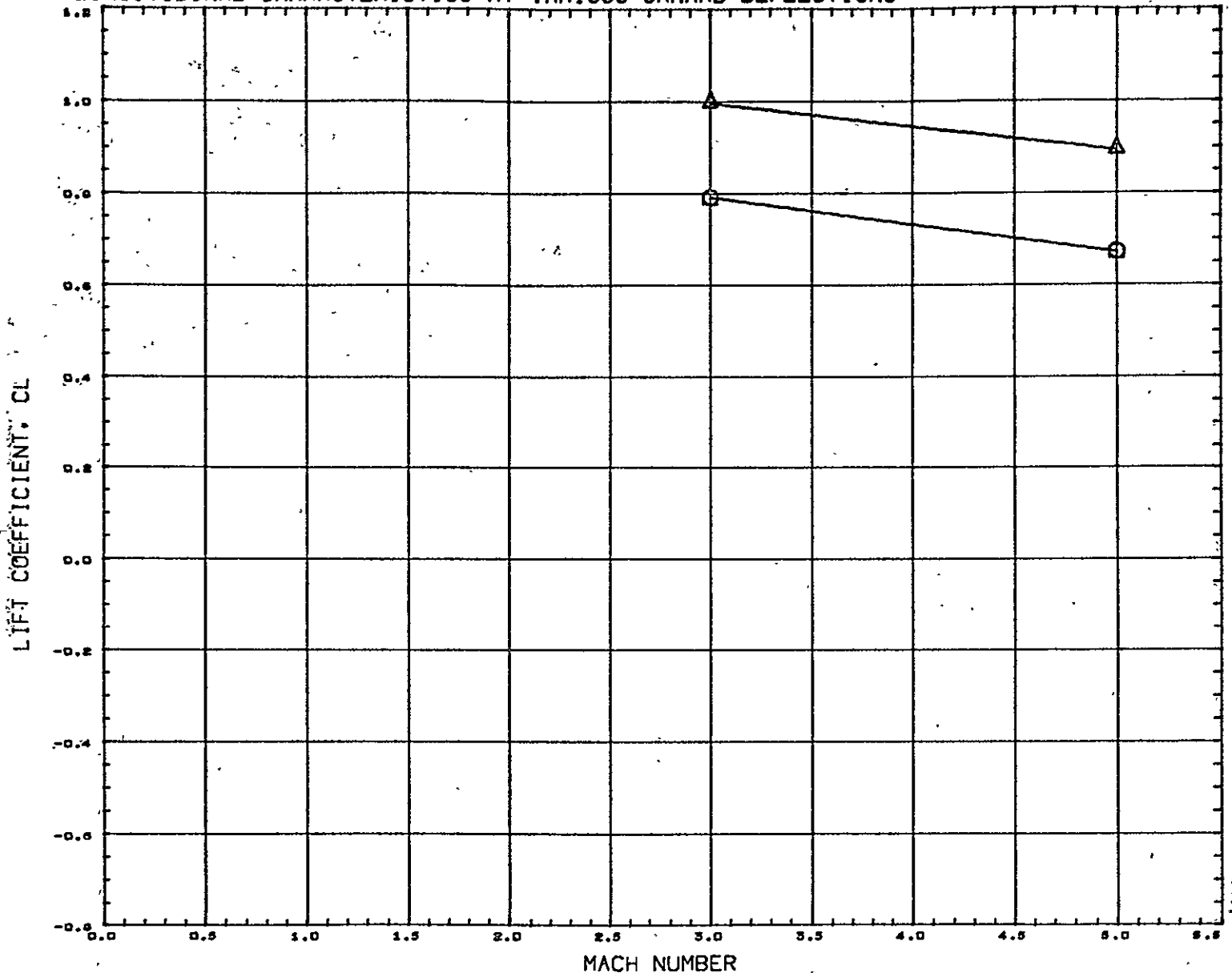


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

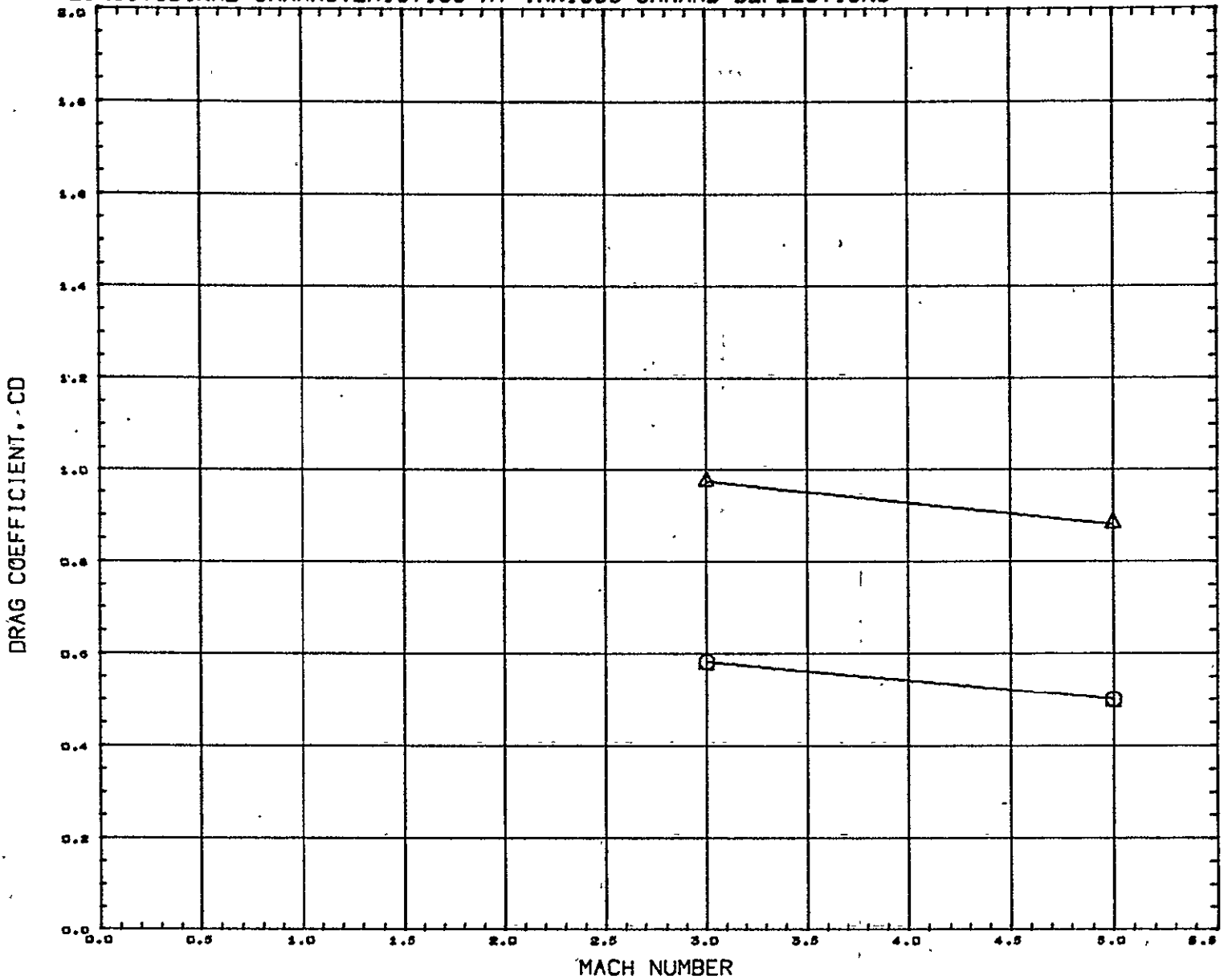


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6500	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVRWEI

LONGITUDINAL CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

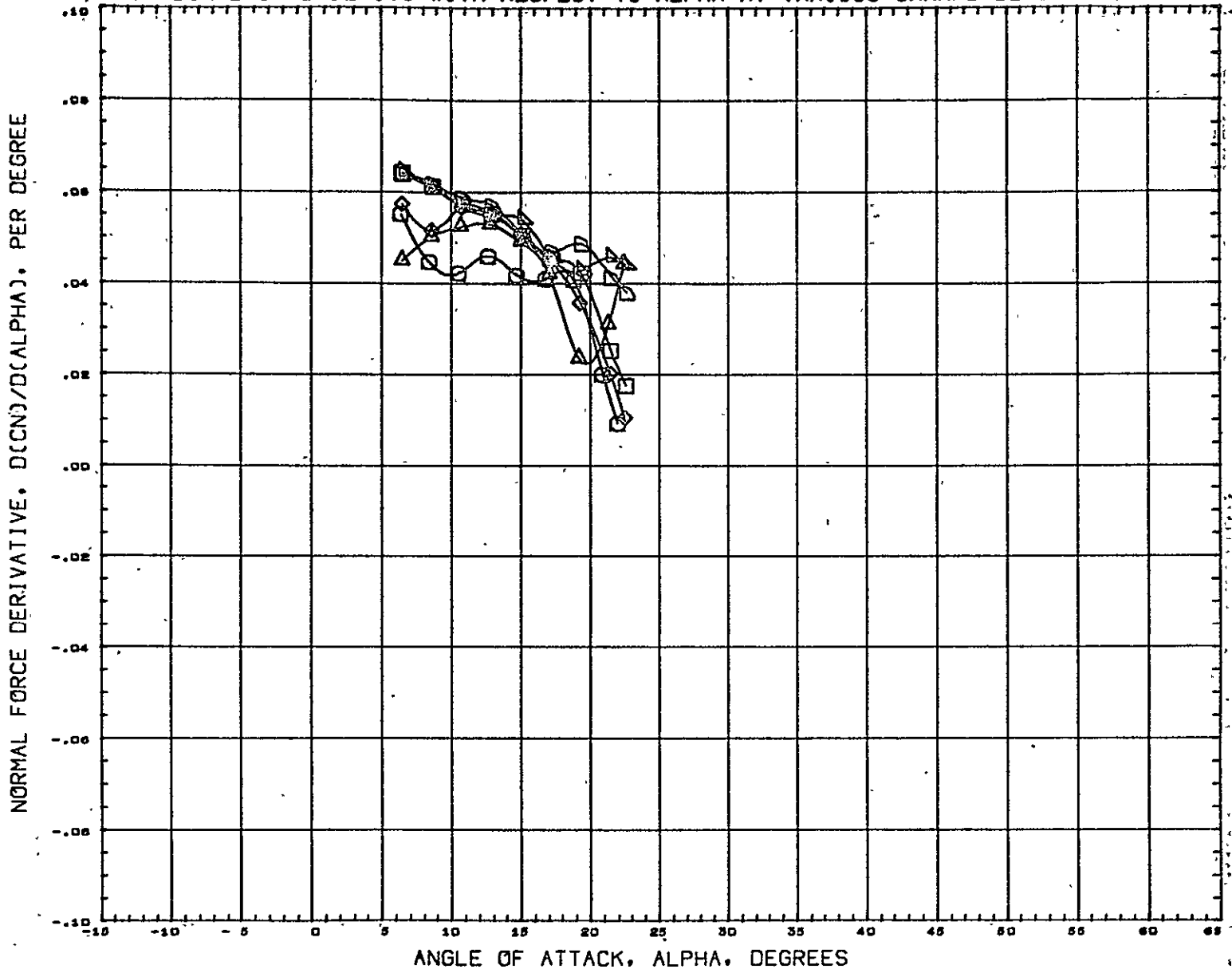


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6550	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7300	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

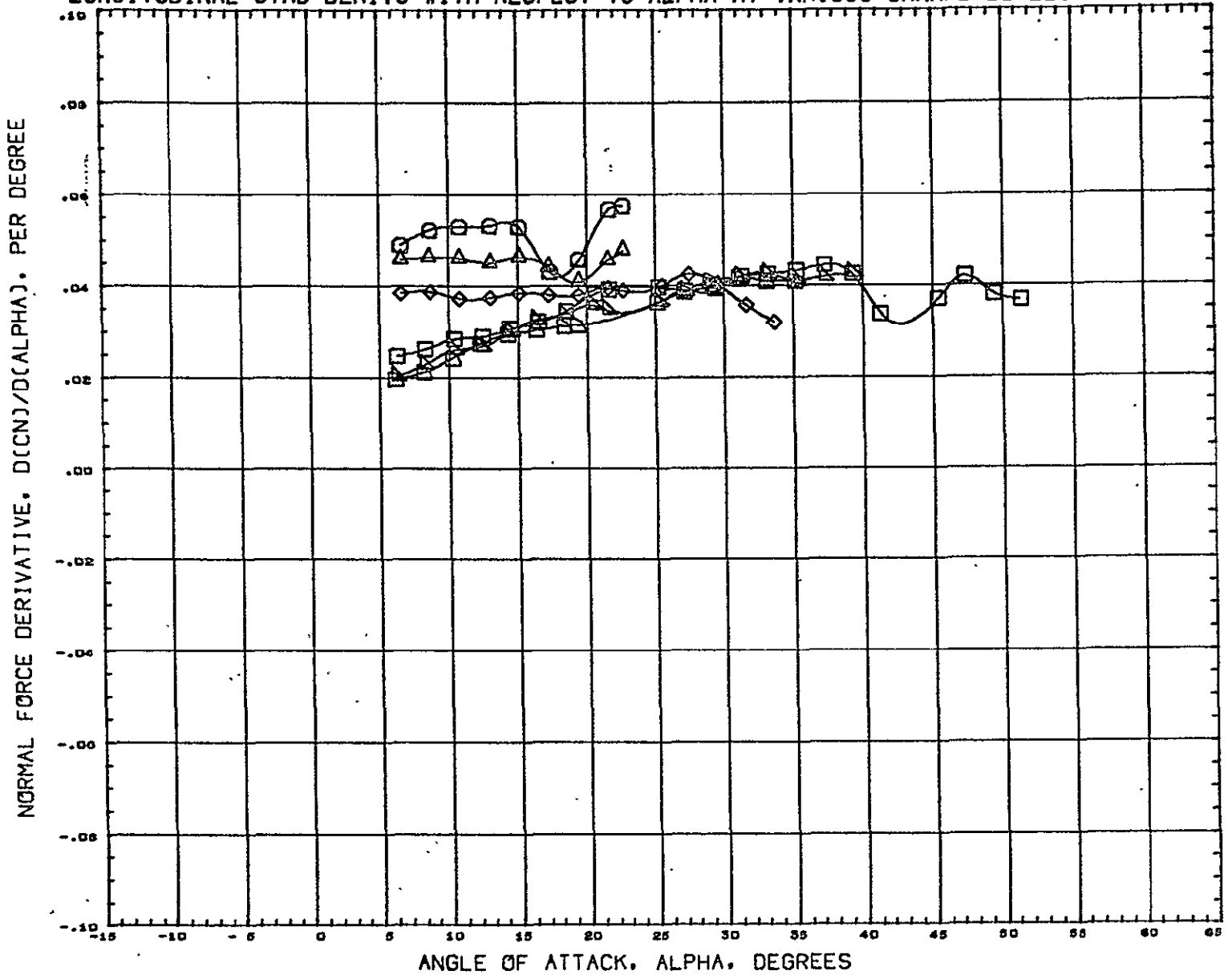
DATA HIST. CODE MVR#E1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION							
		BETA	DEL	DCL	ELEVON	AILRON	SREF	LREF	BREF	XMRP	YMRP	ZMRP	SCALE
◇	0.607	0.000	0.000	0.000	0.000	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0035	80. IN.
◇	0.900	0.000	0.000	0.000	0.000								IN.
◇	0.954	0.000	0.000	0.000	0.000								IN.
◇	1.007	0.000	0.000	0.000	0.000								IN.
◇	1.051	0.000	0.000	0.000	0.000								IN.
◇	1.105	DATA HIST. CODE	MVR#E#GG										

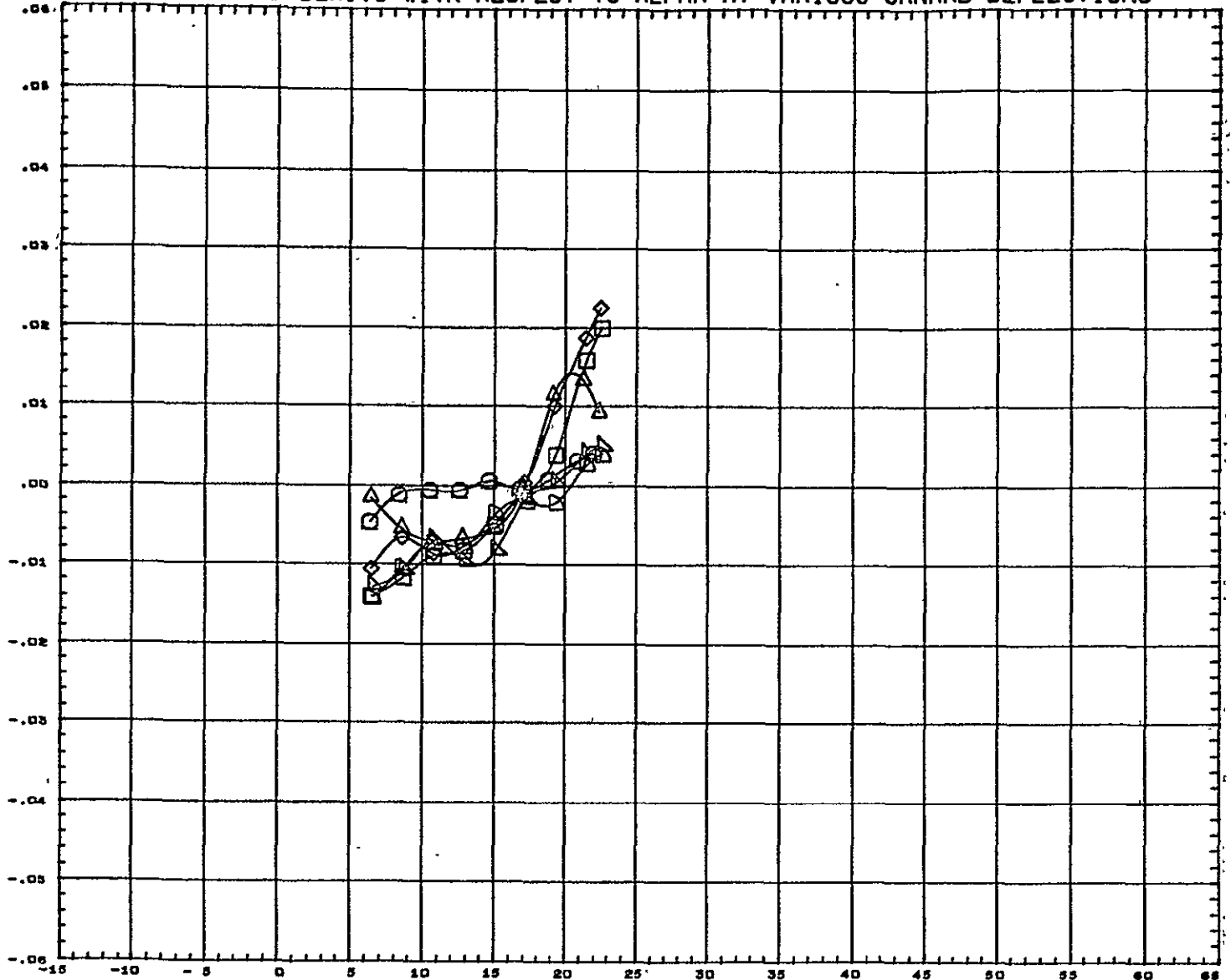
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	1.201	BETA	0.000	DEL	0.000	SREF	15.6560	SQ. IN.
△	1.462	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	1.956	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
□	2.990	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
▽	4.000					YMRP	0.0000	IN.
	4.960	DATA HIST. CODE	HVR#E#66			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT DERIVATIVE, $D(CLM)/D(\alpha)$, PER DEGREE



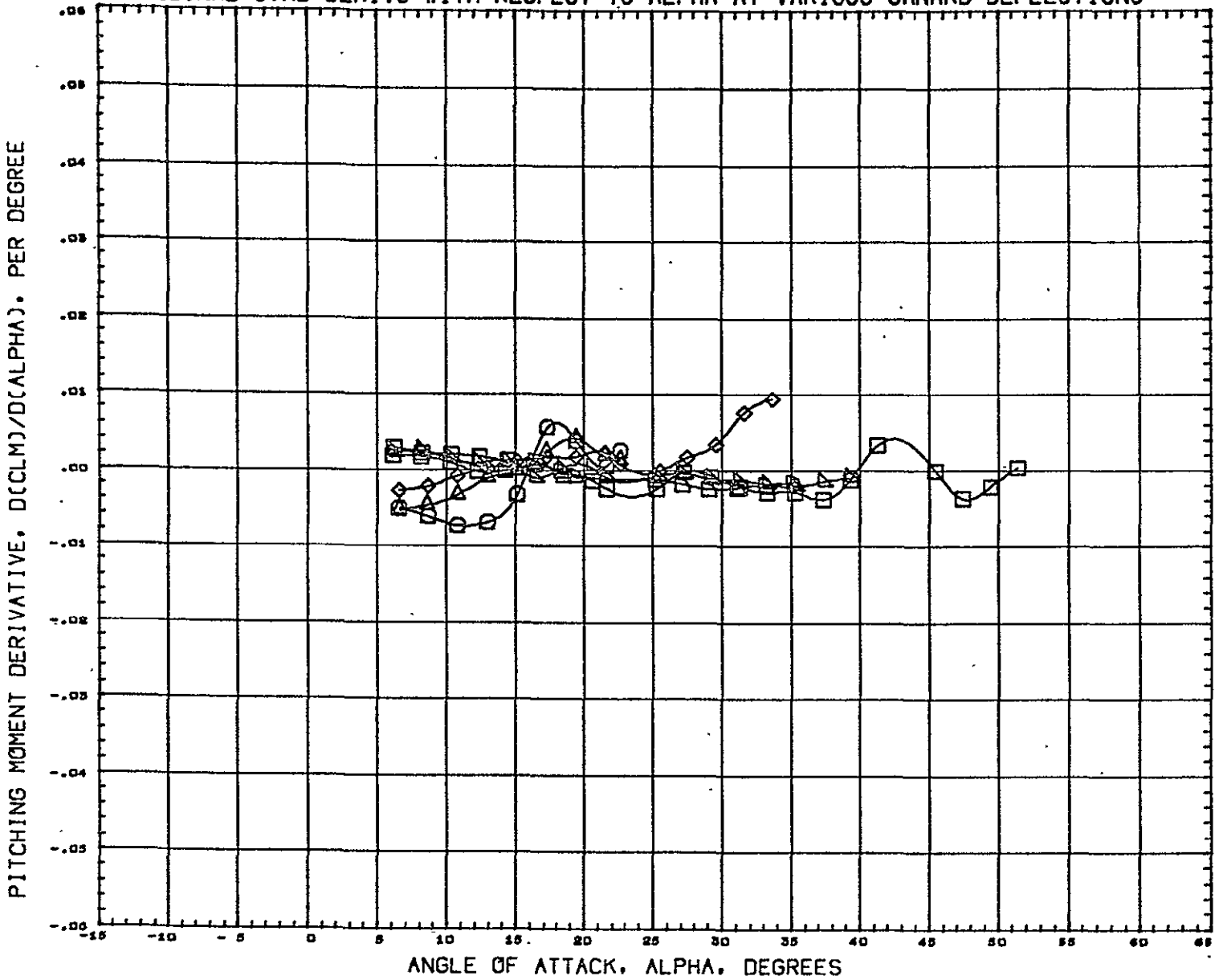
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	0.607	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
◇	0.900	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	0.954	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
◇	1.007	CANARD	0.000	AILRON	0.000	XHRP	6.7100	IN.
◇	1.051					YHRP	0.0000	IN.
◇	1.105	DATA HIST. CODE	MVR#E#GG			ZHRP	0.0000	IN.
						SCALE	0.0035	

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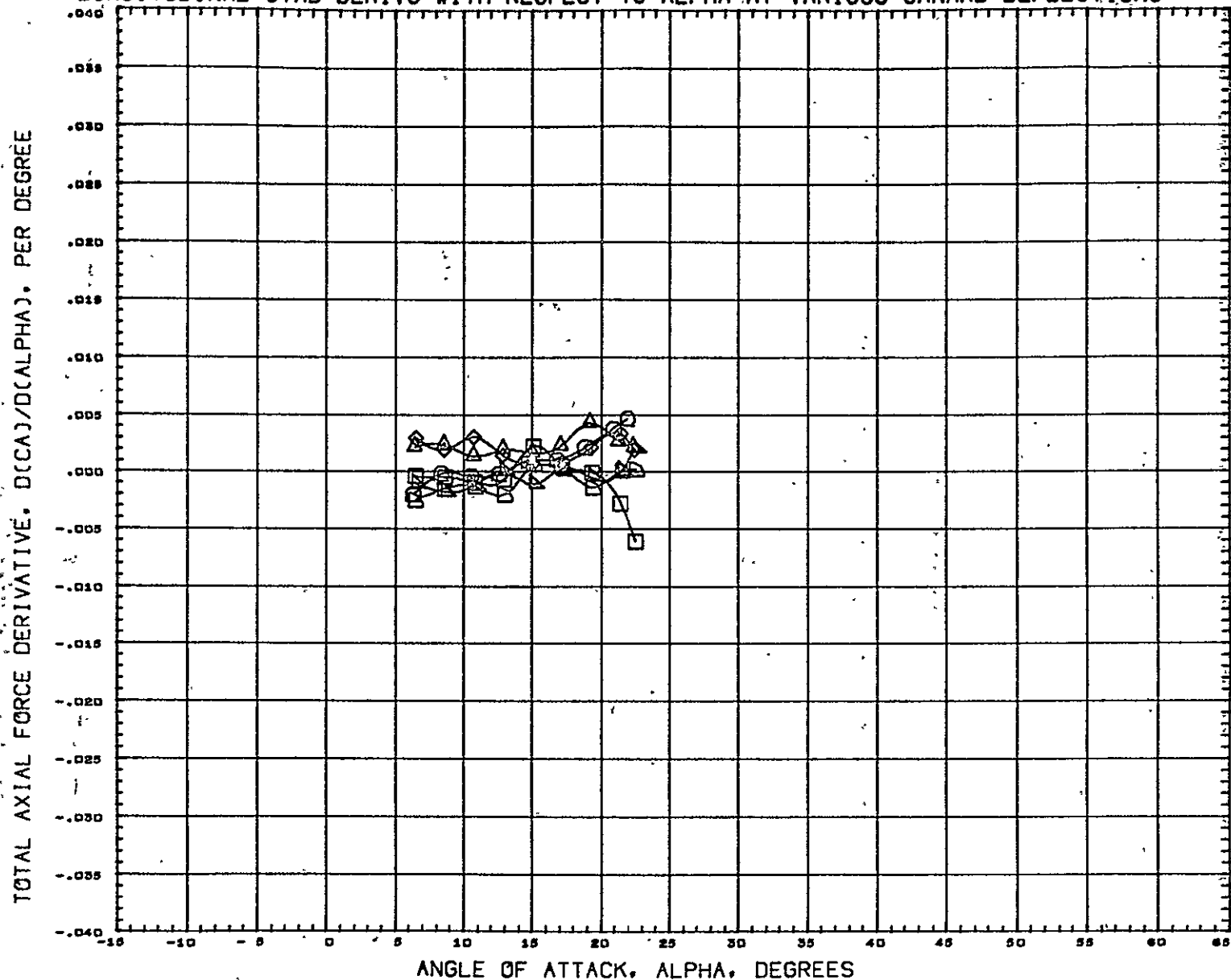
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LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



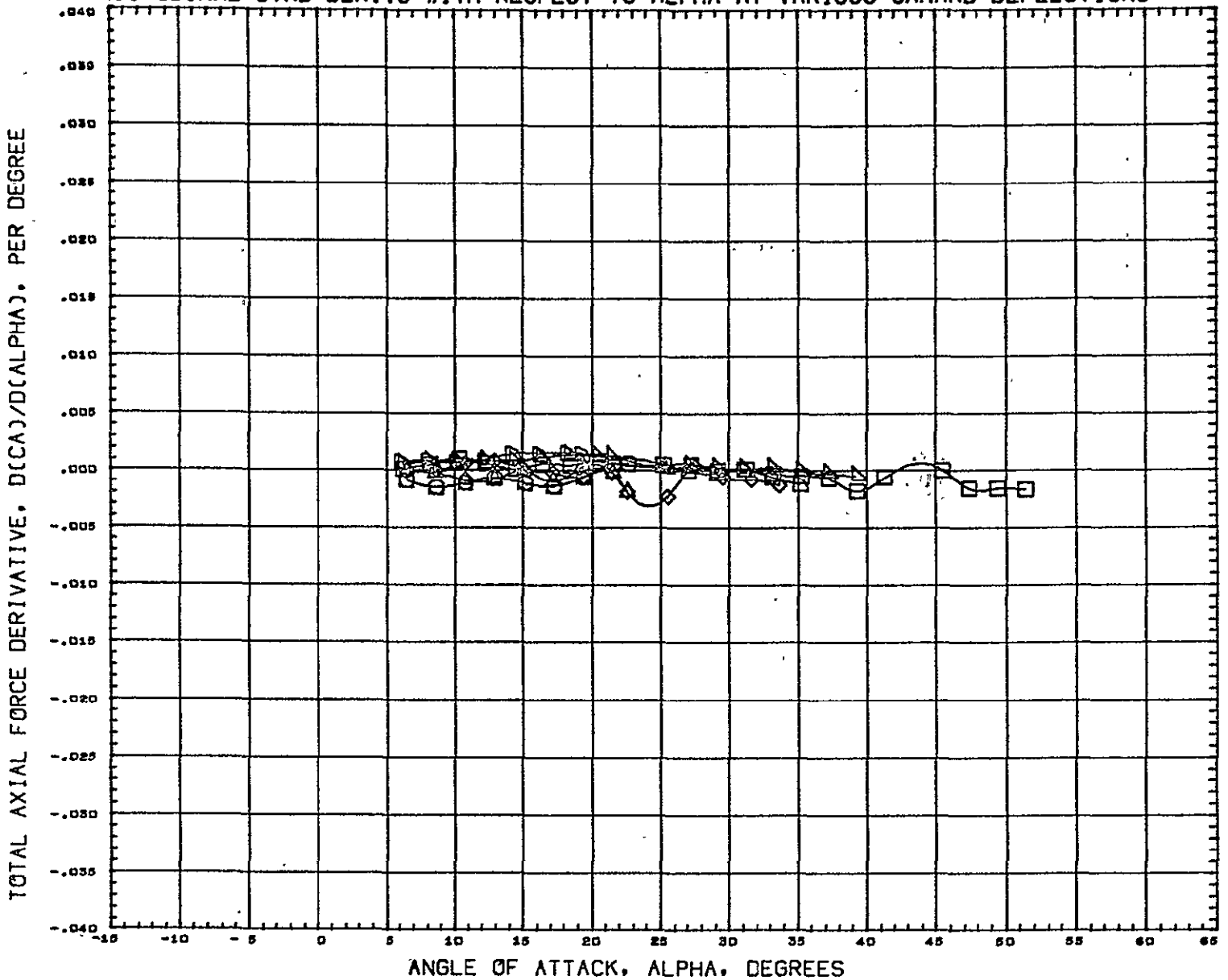
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	1.201	BETA	0.000	DEL	0.000	SREF	18.6860	80. IN.
◇	1.462	DER	0.000	DCL	0.000	LREF	3.0950	IN.
△	1.950	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
□	2.990	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◇	4.000					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	MVR#E#66			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.607	BETA	0.000	DEL	0.000	SREF	15.6560	50.IN.
◇	0.900	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	0.954	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
◇	1.007	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◇	1.051					YMRP	0.0000	IN.
◇	1.105	DATA HIST. CODE	HVR#E#GG			ZMRP	0.0000	IN.
						SCALE	0.0035	

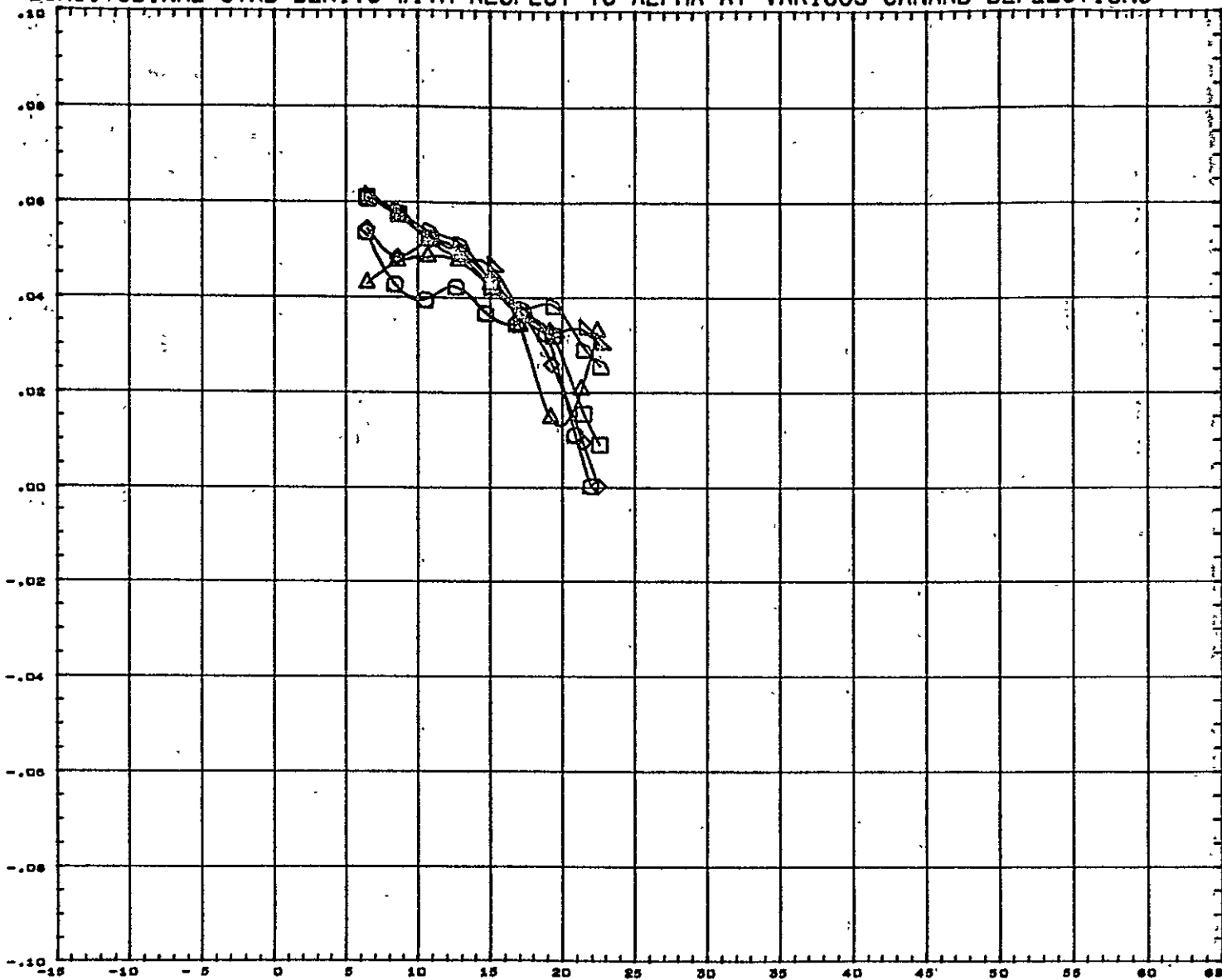
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	AIRLON		
◇	1.201	0.000	0.000	0.000	0.000	BREF	15.6560	80. IN.
◇	1.462	0.000	0.000	0.000	0.000	LREF	3.0950	IN.
◇	1.956	0.000	0.000	0.000	0.000	BREF	6.0990	IN.
◇	2.990	0.000	0.000	0.000	0.000	XMRP	4.7100	IN.
◇	4.000	0.000	0.000	0.000	0.000	YMRP	0.0000	IN.
◇	4.960	0.000	0.000	0.000	0.000	ZMRP	0.0000	IN.
		DATA HIST. CODE	MVR#E#GG			SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

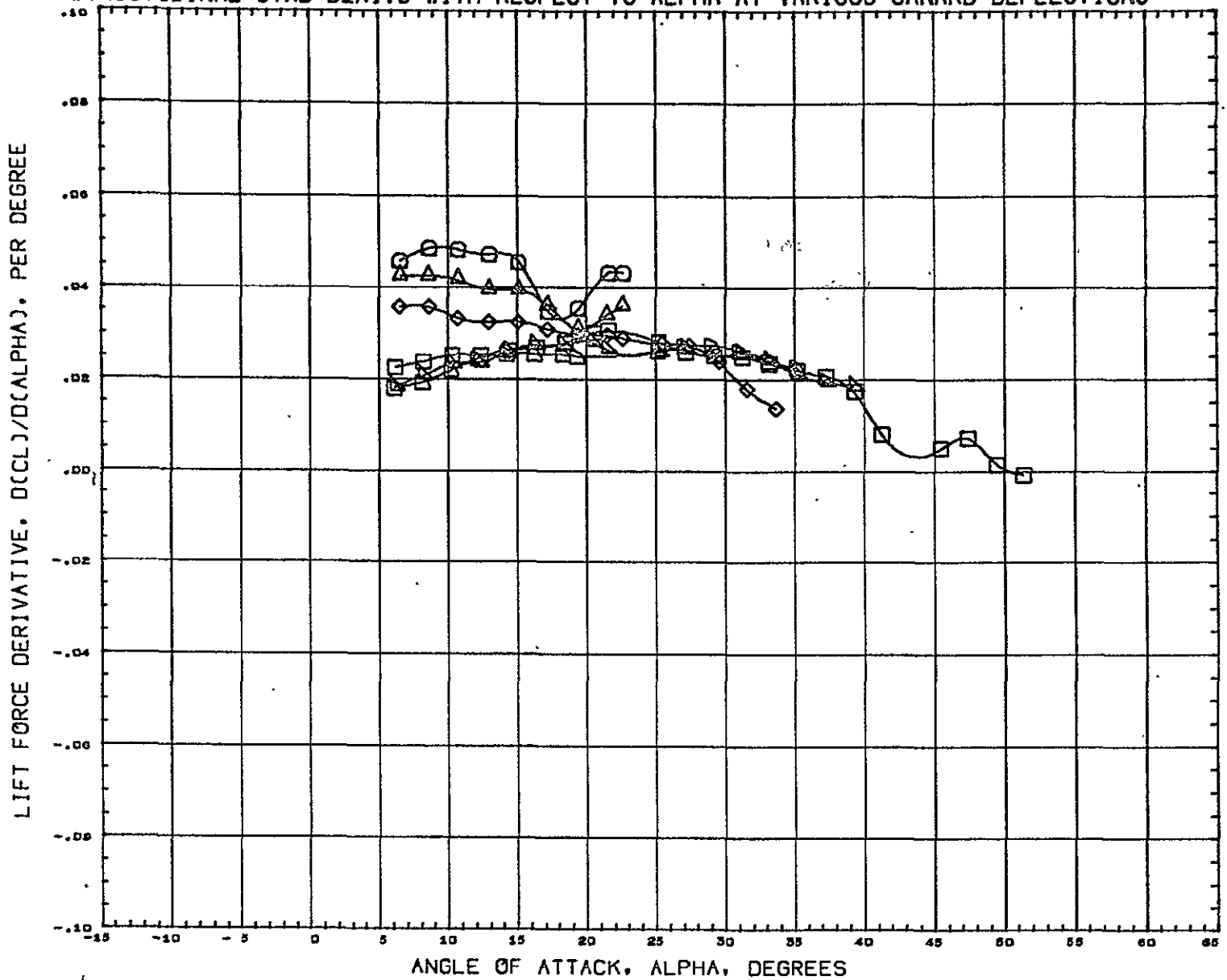
LIFT FORCE DERIVATIVE, $d(C_L)/d(\alpha)$, PER DEGREE



ANGLE OF ATTACK, ALPHA, DEGREES

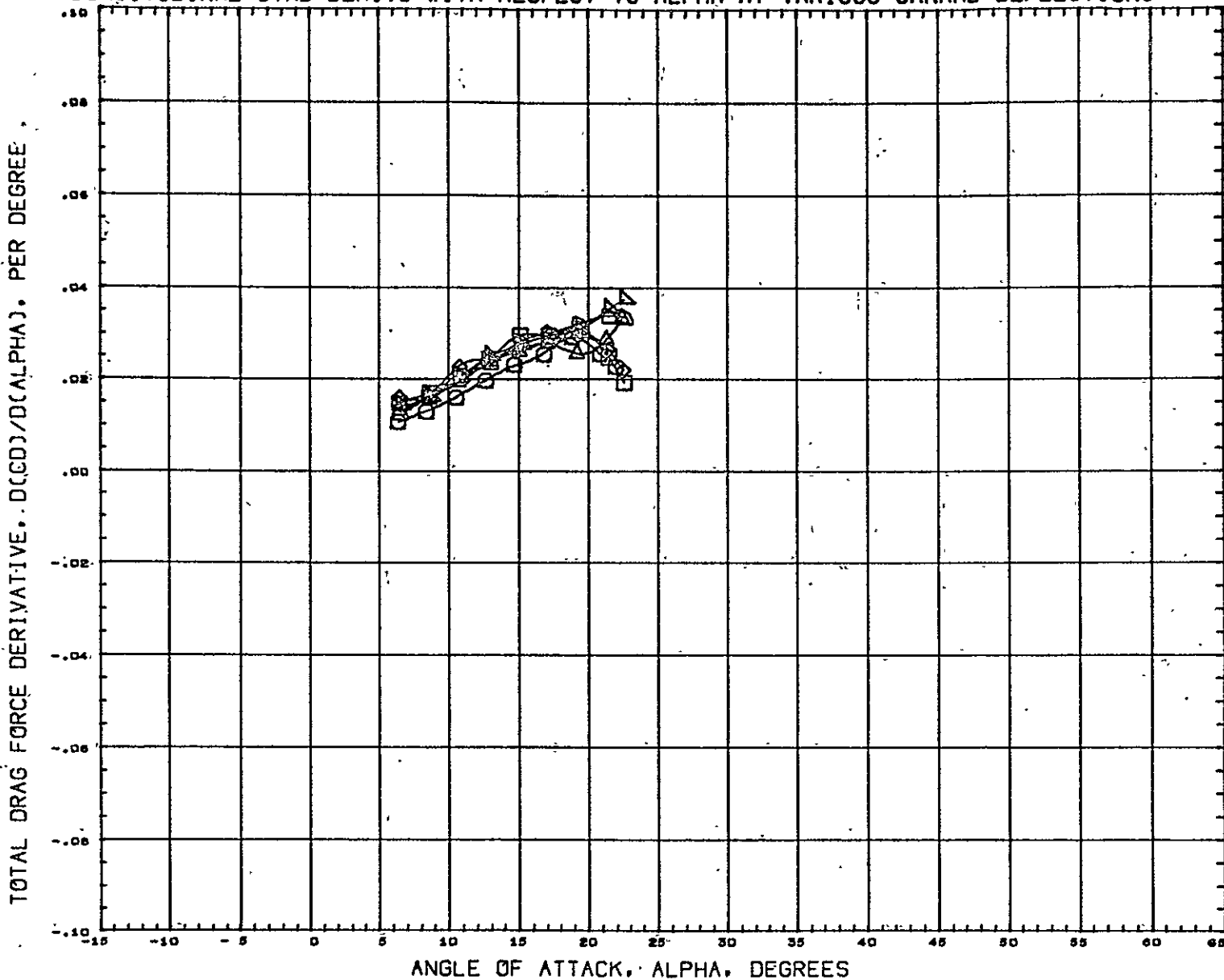
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
<div style="display: flex; flex-direction: column; gap: 5px;"> ◇ ◊ ◻ ◼ ◽ </div>	0.607 0.900 0.954 1.007 1.051 1.105	BETA DER DCR CANARD DATA HIST. CODE	0.000 0.000 0.000 0.000 MVR#E*GG	DEL DCL ELEVON AILRON	0.000 0.000 0.000 0.000	SREF LREF BREF XHRP YHRP ZHRP SCALE	15.6560 3.0950 6.0990 6.7100 0.0000 0.0000 0.0035	SQ. IN. IN. IN. IN. IN. IN.

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



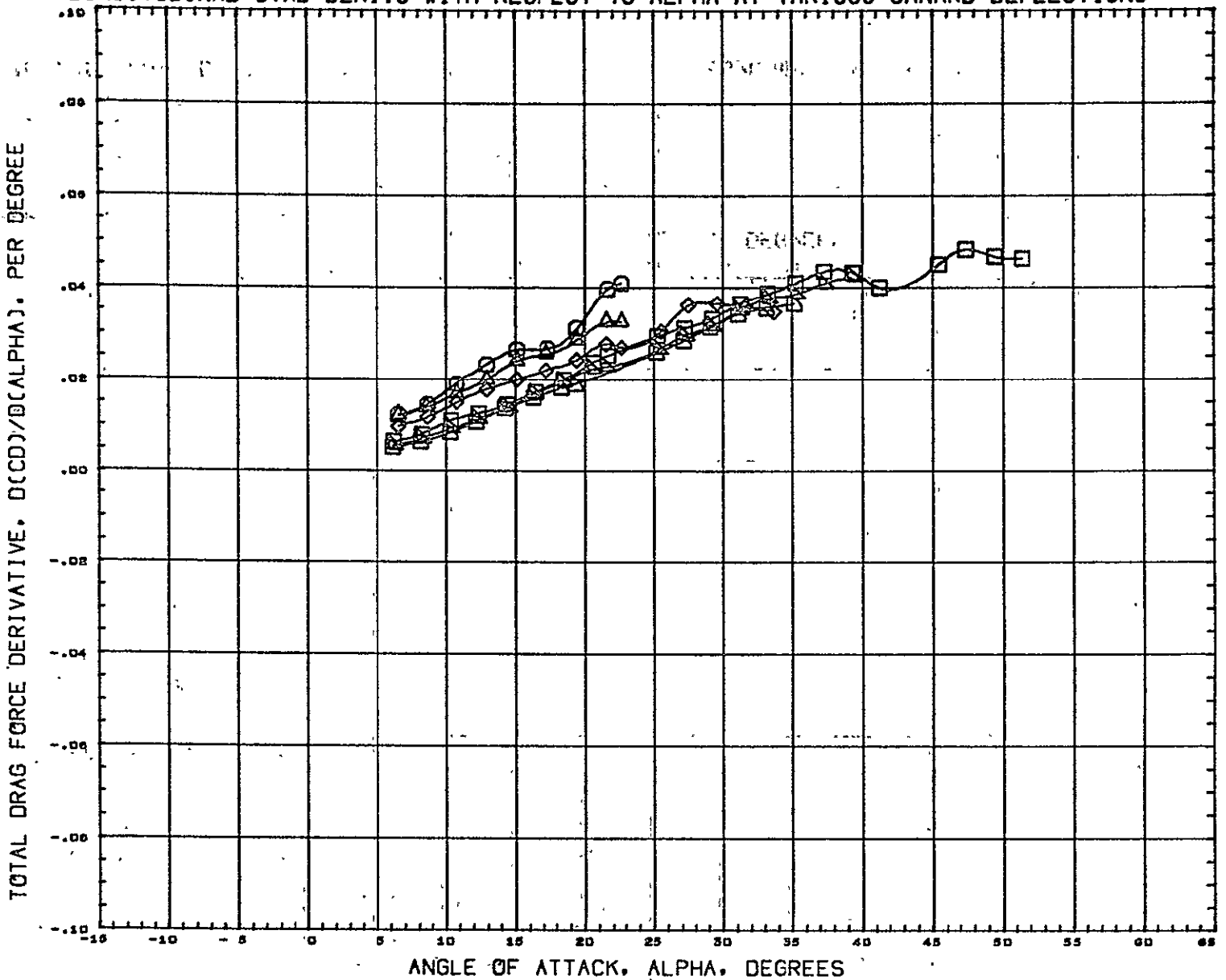
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	1.201	BETA	0.000	DEL	0.000	SREF	15.6560	39. IN.
△	1.462	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	1.956	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
□	2.990	CANARD	0.000	AILRON	0.000	XHRP	6.7100	IN.
◇	4.000					YHRP	0.0000	IN.
◇	4.960	DATA HIST. CODE	MVR+E*GG			ZHRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION	
		BETA	DEL	DCL	ELEVON	AILRON	
○	0.807	0.000	0.000	0.000	0.000	SREF	15.6560 90.IN.
□	0.900	0.000	0.000	0.000	0.000	LREF	3.0950 IN.
△	0.954	0.000	0.000	0.000	0.000	BREF	6.0990 IN.
◇	1.007	0.000	0.000	0.000	0.000	XMRP	6.7100 IN.
	1.051	0.000	0.000	0.000	0.000	YMRP	0.0000 IN.
	1.105	0.000	0.000	0.000	0.000	ZMRP	0.0000 IN.
		DATA HIST. CODE	MVR#E#GG			SCALE	0.0035

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



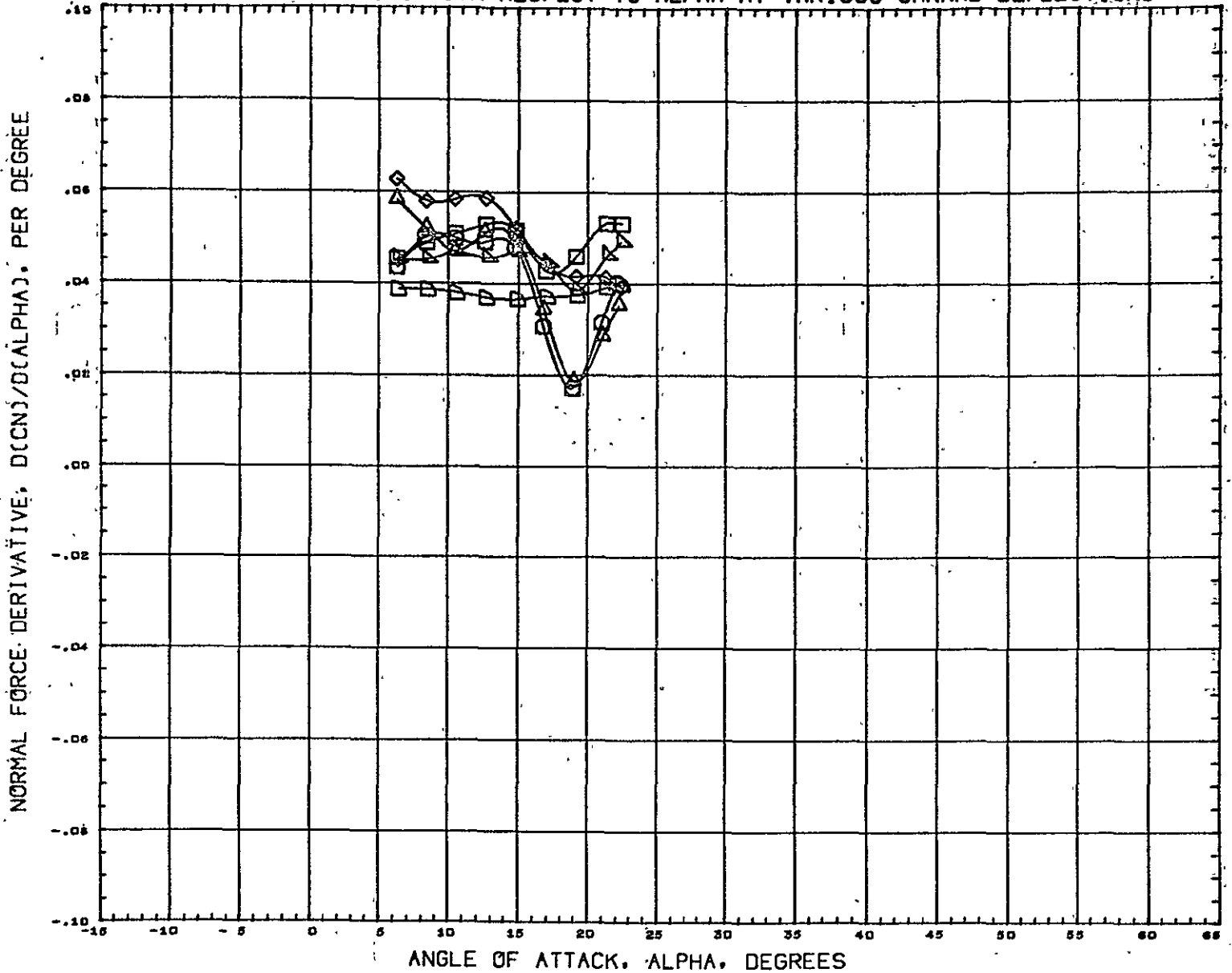
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION	
○	1.201	BETA	0.000	DEL	0.000	SREF	15.6560 30.IN.
◇	1.462	DER	0.000	DCL	0.000	LREF	3.0980 IN.
◇	1.956	DCR	0.000	ELEVON	0.000	BREF	0.0990 IN.
◇	2.990	CANARD	0.000	AILRON	0.000	XMRP	0.7100 IN.
◇	4.000					YMRP	0.0000 IN.
◇	4.960	DATA HIST. CODE	MVR#E*GG			ZMRP	0.0000 IN.
						SCALE	0.0035

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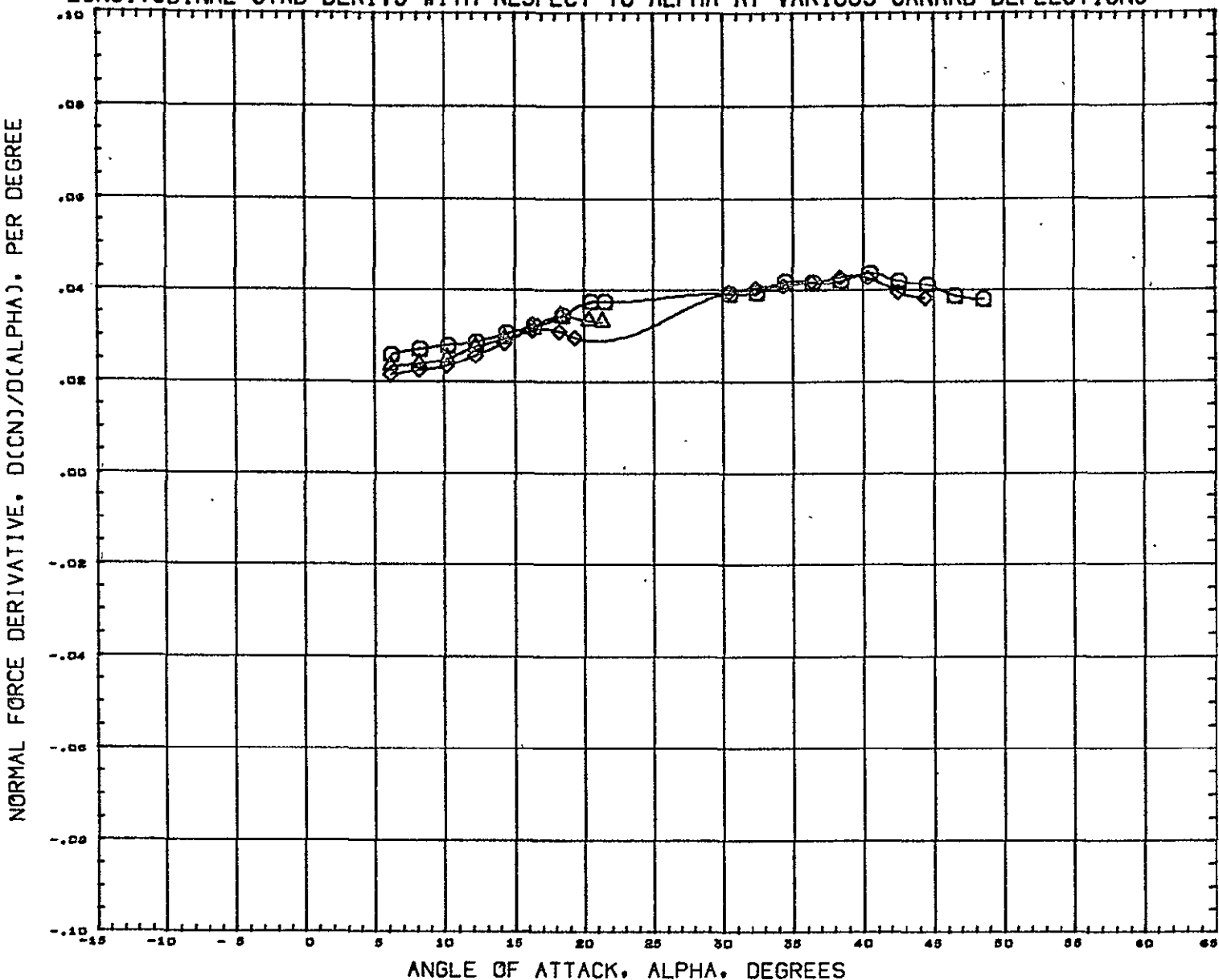
120

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	0.902	BETA	.0.000	DEL	0.000	SREF	15.6560	50. IN.
△	0.955	DER	0.000	DCL	- 30.000	LREF	3.0950	IN.
□	1.054	DCR	30.000	ELEVON	0.000	BREF	6.0990	IN.
▽	1.200	CANARD	- 30.000	AILRON	0.000	XMRP	6.7100	IN.
○	1.464					YMRP	0.0000	IN.
	1.962	DATA HIST. CODE	MVR#E#GG			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

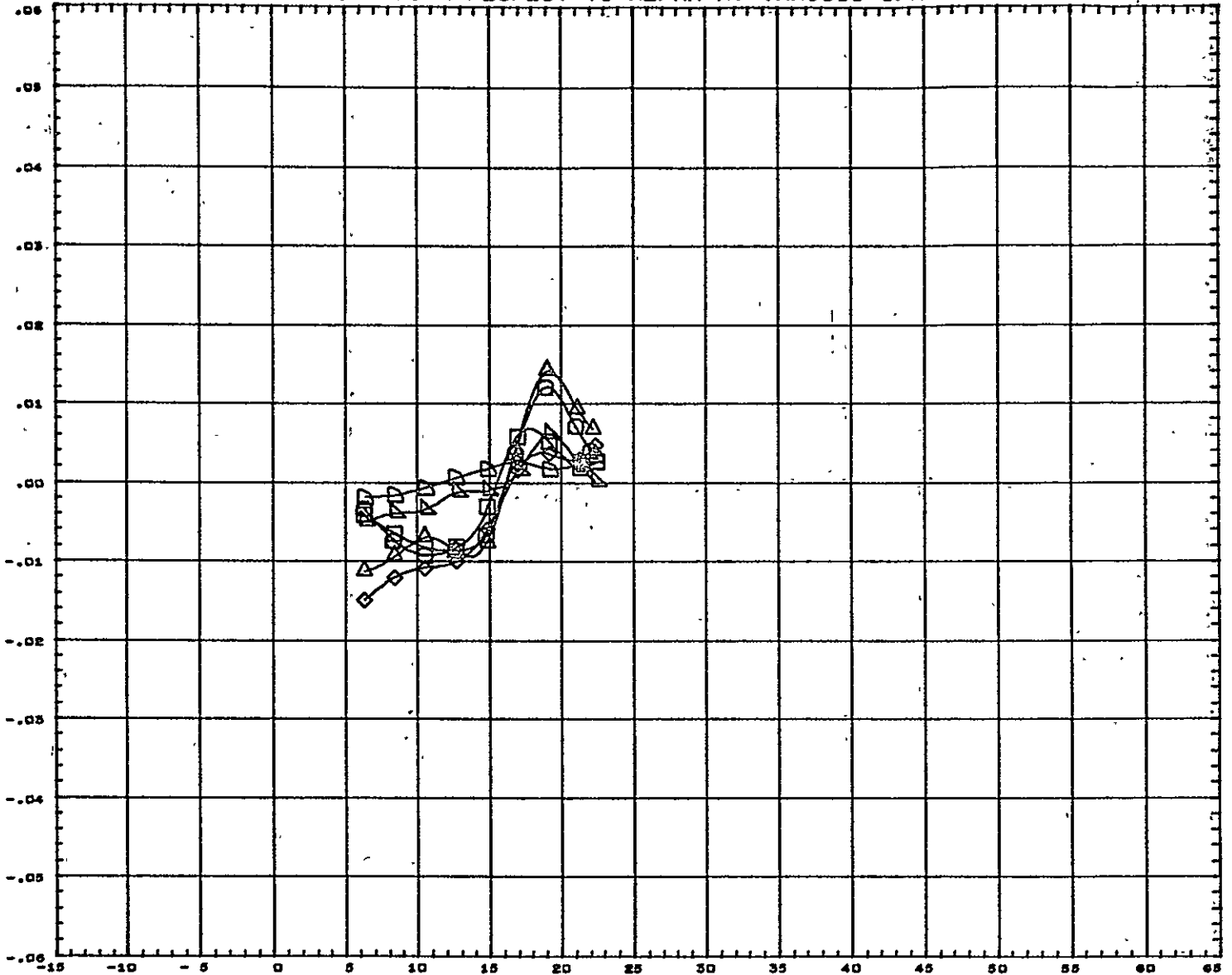


SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
△	4.000	DER	0.000	DCL	- 30.000	LREF	3.0950	IN.
◇	4.960	DCR	30.000	ELEVON	0.000	SREF	6.0980	IN.
		CANARD	- 30.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#E#GG

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

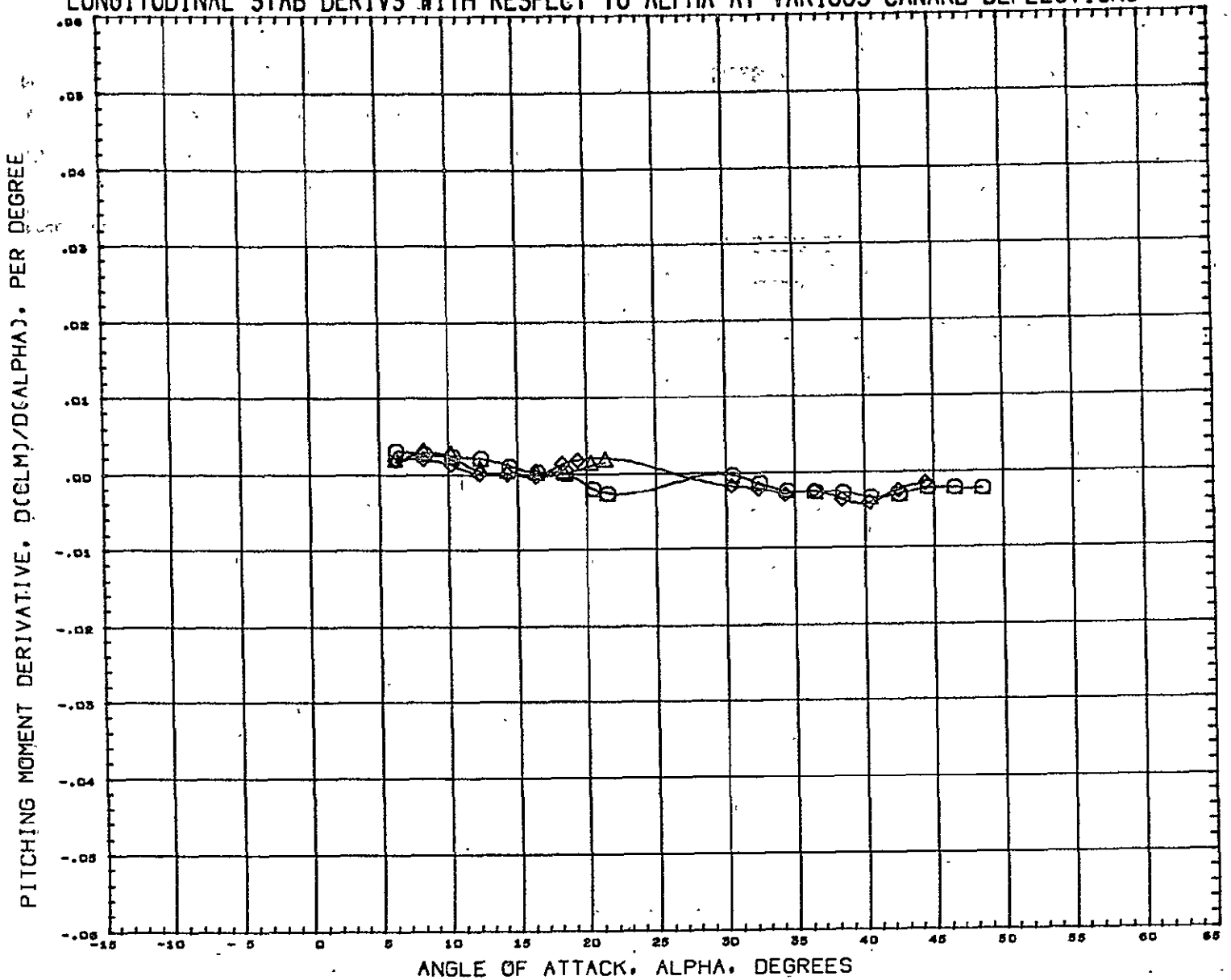
PITCHING MOMENT DERIVATIVE: $d(C_{LM})/d(\alpha)$, PER DEGREE



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	0.902	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
◇	0.955	DER	0.000	DCL	- 30.000	LREF	3.0950	IN.
◇	1.054	DCR	30.000	ELEVON	0.000	BREF	6.0990	IN.
◇	1.200	CANARD	- 30.000	AILRON	0.000	XMRP	6.7100	IN.
◇	1.464					YMRP	0.0000	IN.
◇	1.962	DATA HIST. CODE		MVR#E*GG		ZMRP	0.0000	IN.
						SCALE	0.0038	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

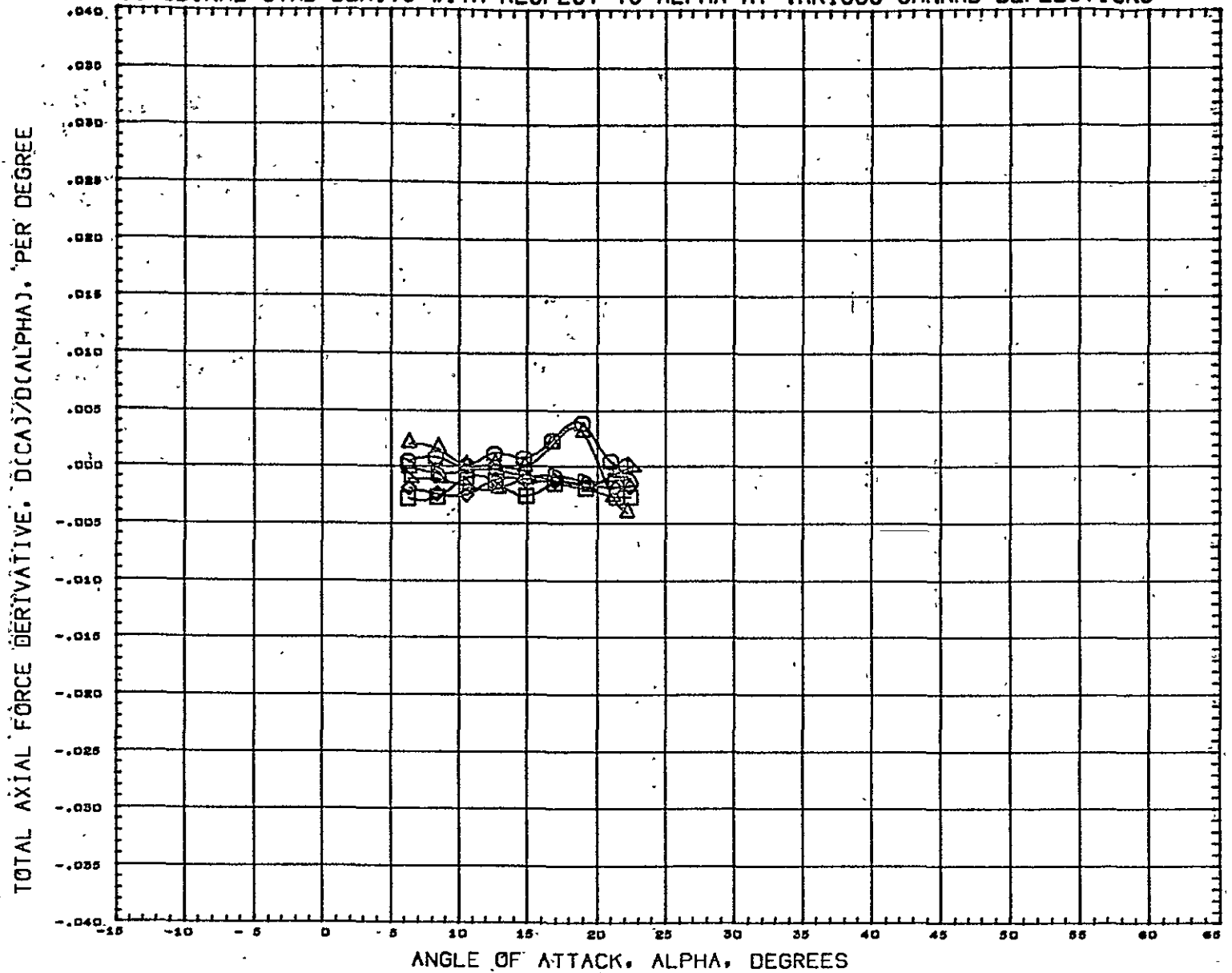


SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	0.000
◇	4.000	DER	0.000	DCL	- 30.000
△	4.960	DCR	30.000	ELEVON	0.000
		CANARD	- 30.000	AILRON	0.000

REFERENCE INFORMATION		
BREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XNRP	6.7100	IN.
YNRP	0.0000	IN.
ZNRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E*GG

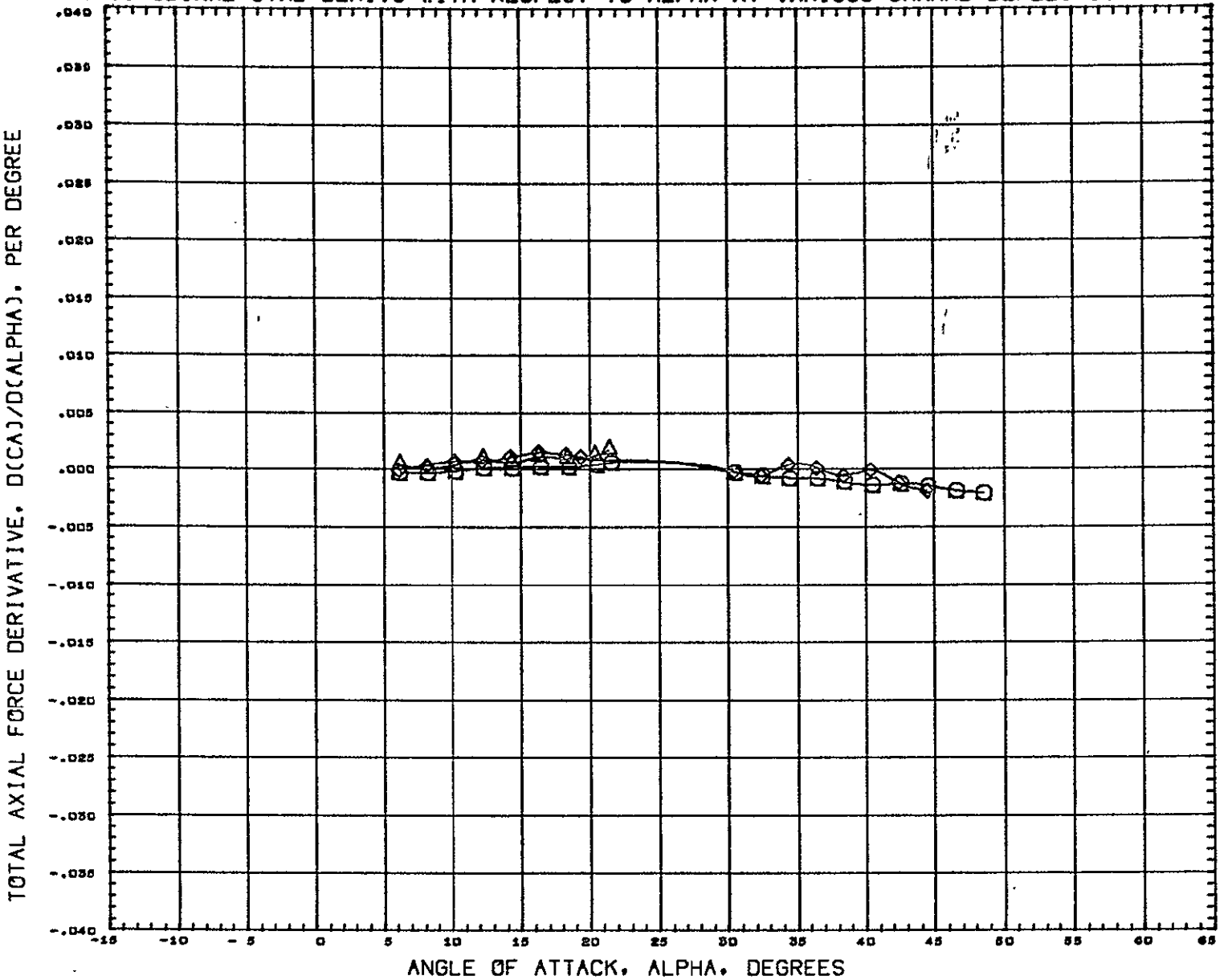
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES			
◇	0.902	-BETA	0.000	DEL	0.000
◇	0.955	DER	0.000	DCL	-30.000
◇	1.054	DCR	30.000	ELEVON	0.000
◇	1.200	CANARD	-30.000	AILRON	0.000
◇	1.464				
◇	1.962	DATA HIST. CODE	MVR#E#GG		

REFERENCE INFORMATION		
BREF	15.6560	30. IN.
LREF	3.0050	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

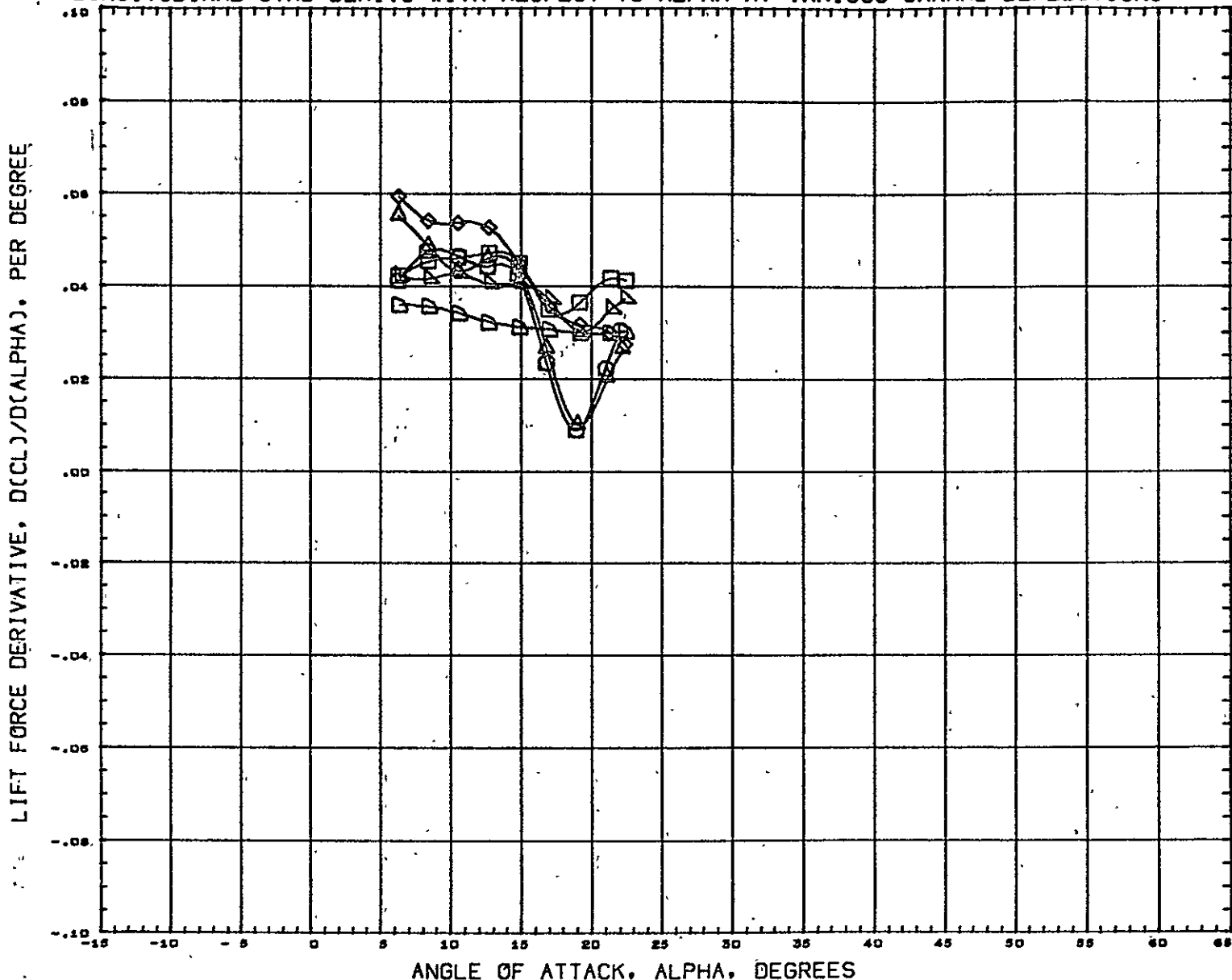


SYMBOL	MACH	PARAMETRIC VALUES			
◇	2.990	BETA	0.000	DEL	0.000
◇	4.000	DER	0.000	DCL	- 30.000
◇	4.960	DCR	30.000	ELEVON	0.000
		CANARD	- 30.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

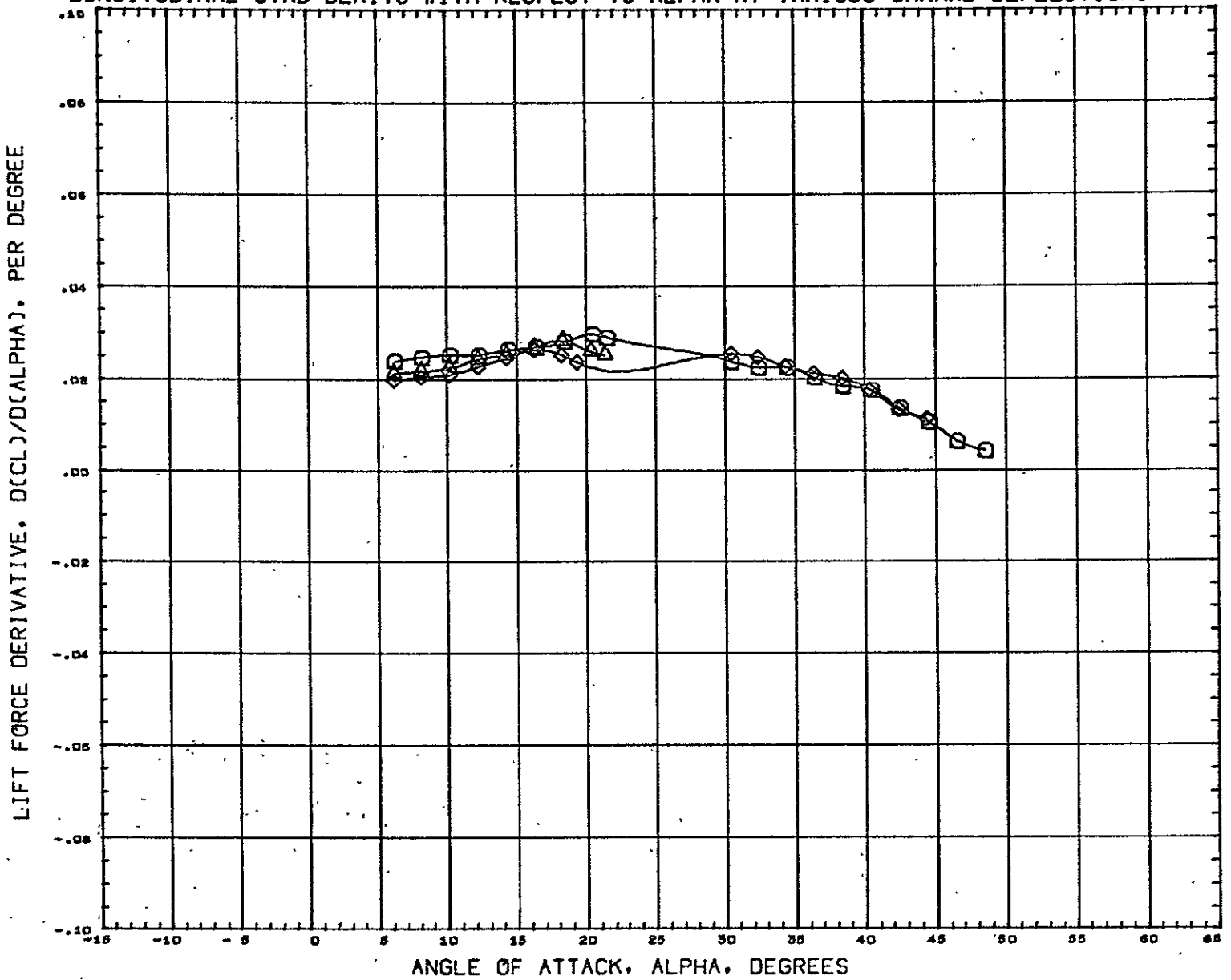
DATA HIST. CODE MVR#E#66

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	0.902	BETA	0.000	DEL	0.000	SREF	15.6500	80. IN.
◇	0.955	DER	0.000	DCL	- 30.000	LREF	3.0250	IN.
◇	1.054	DCR	30.000	ELEVON	0.000	SREF	6.0090	IN.
◇	1.200	CANARD	- 30.000	AILRON	0.000	XMRP	6.7100	IN.
◇	1.464					YMRP	0.0000	IN.
◇	1.962	DATA HIST. CODE	MVR#E4GG			ZMRP	0.0000	IN.
						SCALE	0.0035	

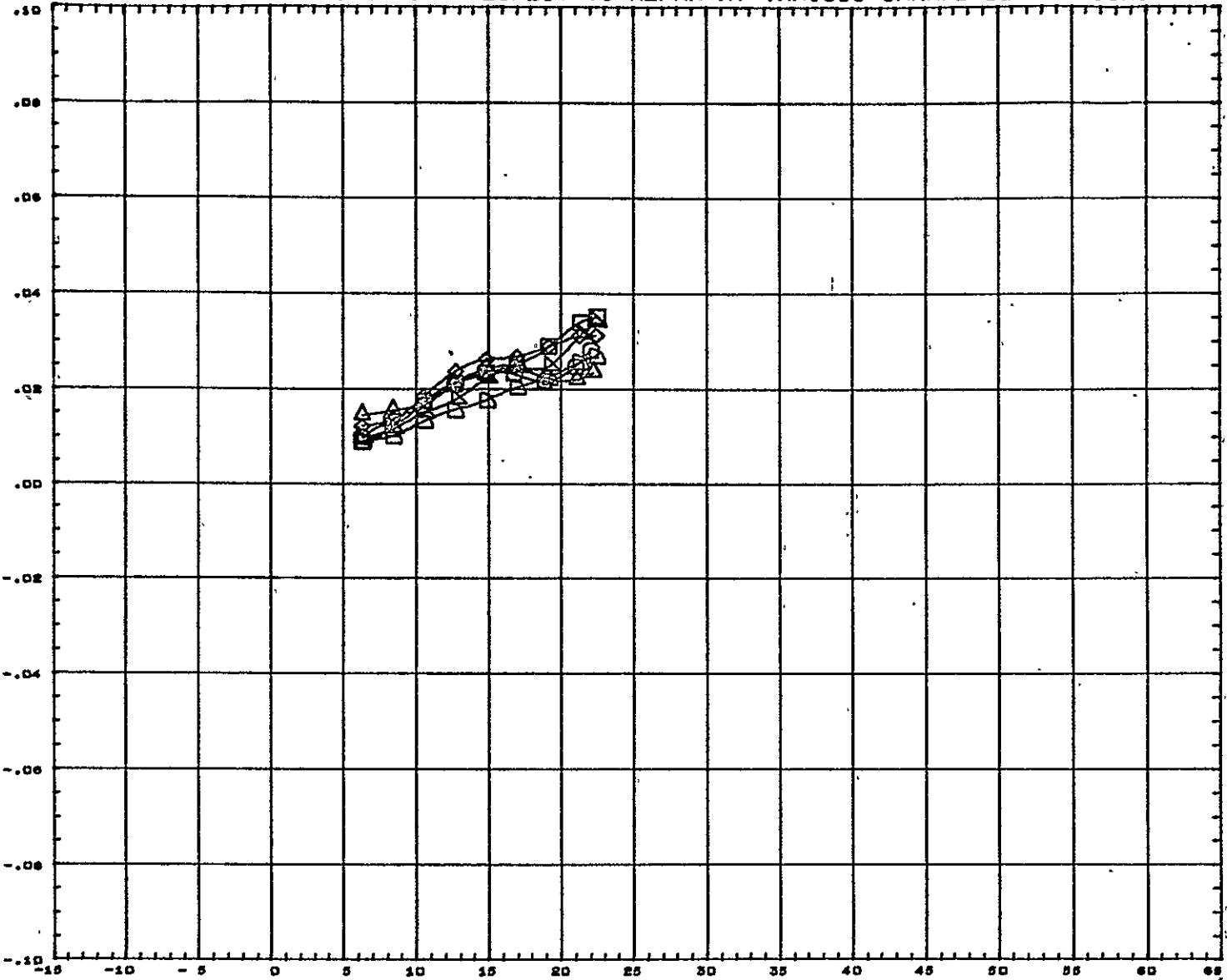
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
◇	4.000	DER	0.000	DCL	- 30.000	LREF	3.0950	IN.
	4.960	DCR	30.000	ELEVON	0.000	BREF	0.0990	IN.
		CANARD	- 30.000	AILRON	0.000	XHRP	0.7100	IN.
						YHRP	0.0000	IN.
						ZHRP	0.0000	IN.
						SCALE	0.0035	
DATA HIST. CODE		MVR#E*GG						

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

TOTAL DRAG FORCE DERIVATIVE, D(CD)/D(ALPHA), PER DEGREE

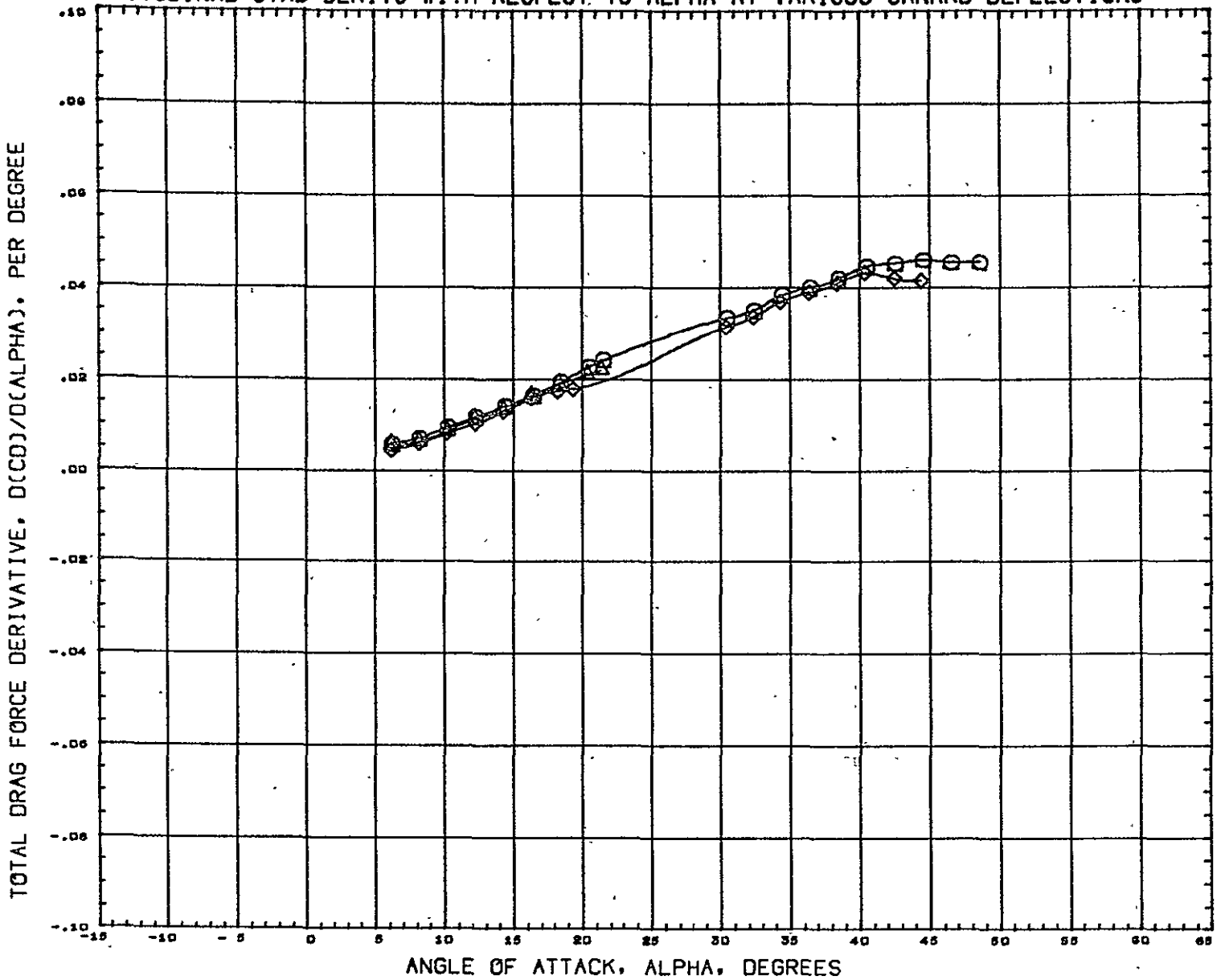


ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES			
◇	0.902	BETA	0.000	DEL	0.000
◇	0.955	DER	0.000	DCL	- 30.000
◇	1.054	DCR	30.000	ELEVON	0.000
◇	1.200	CANARD	- 30.000	AILRON	0.000
◇	1.464				
◇	1.962	DATA HIST. CODE	MVR#E#GG		

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

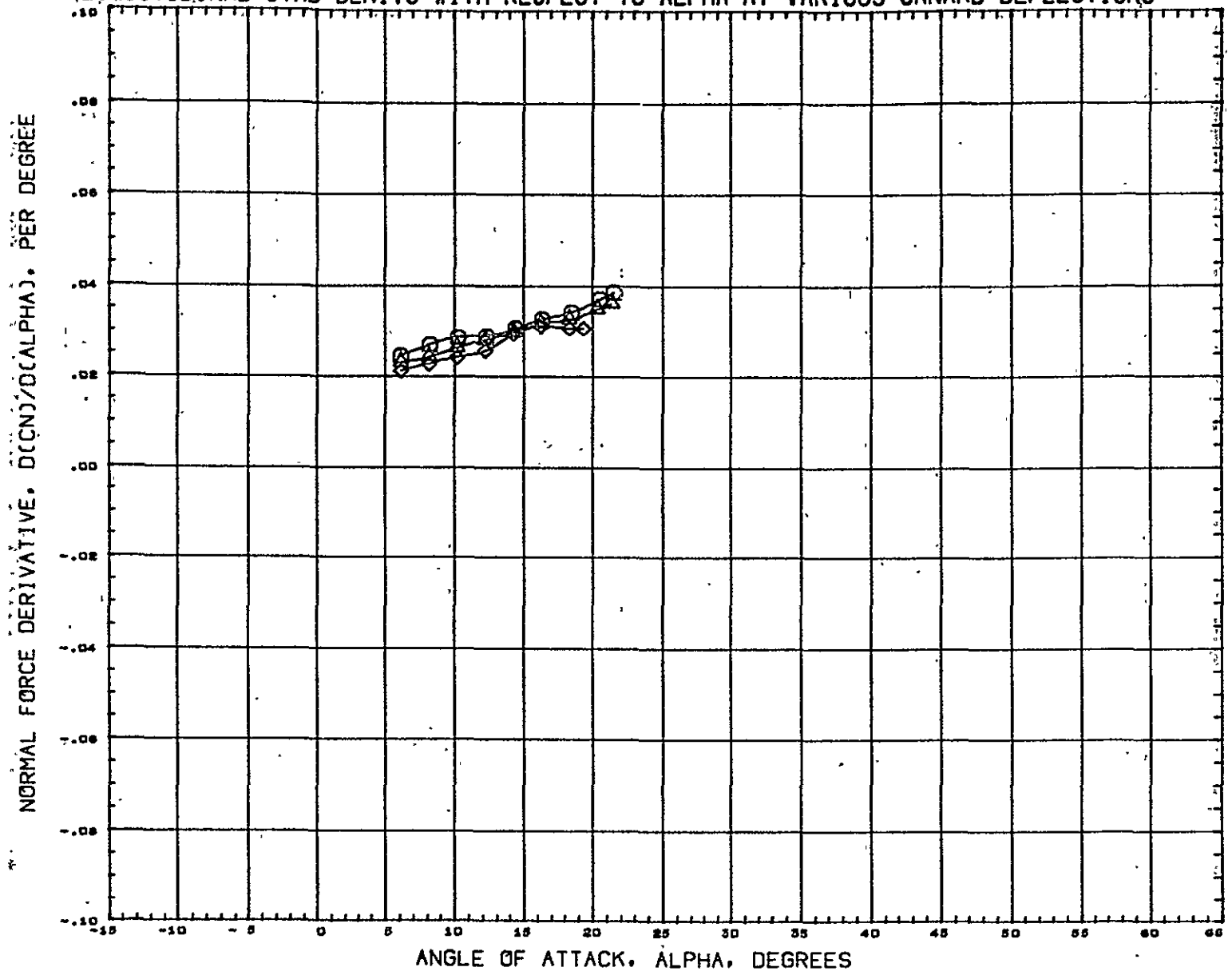


SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	0.000
◇	4.000	DER	0.000	DCL	-30.000
◇	4.960	DCR	30.000	ELEVON	0.000
		CANARD	-30.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6500	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

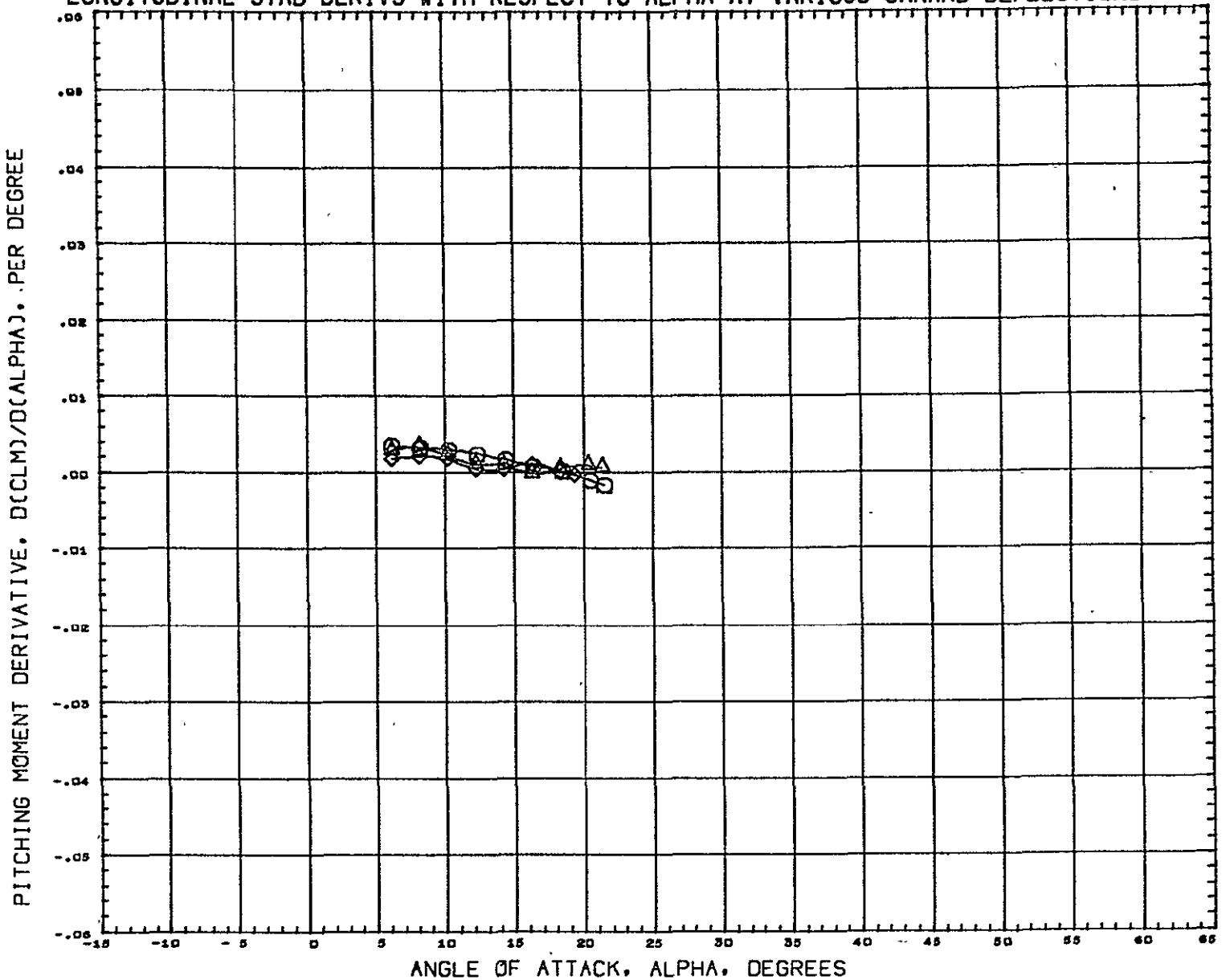
DATA HIST. CODE MVR#E#GG

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
△	4.000	DER	0.000	DCL	45.000	LREF	3.0950	IN.
◇	4.960	DCR	-45.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	-45.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#EG					

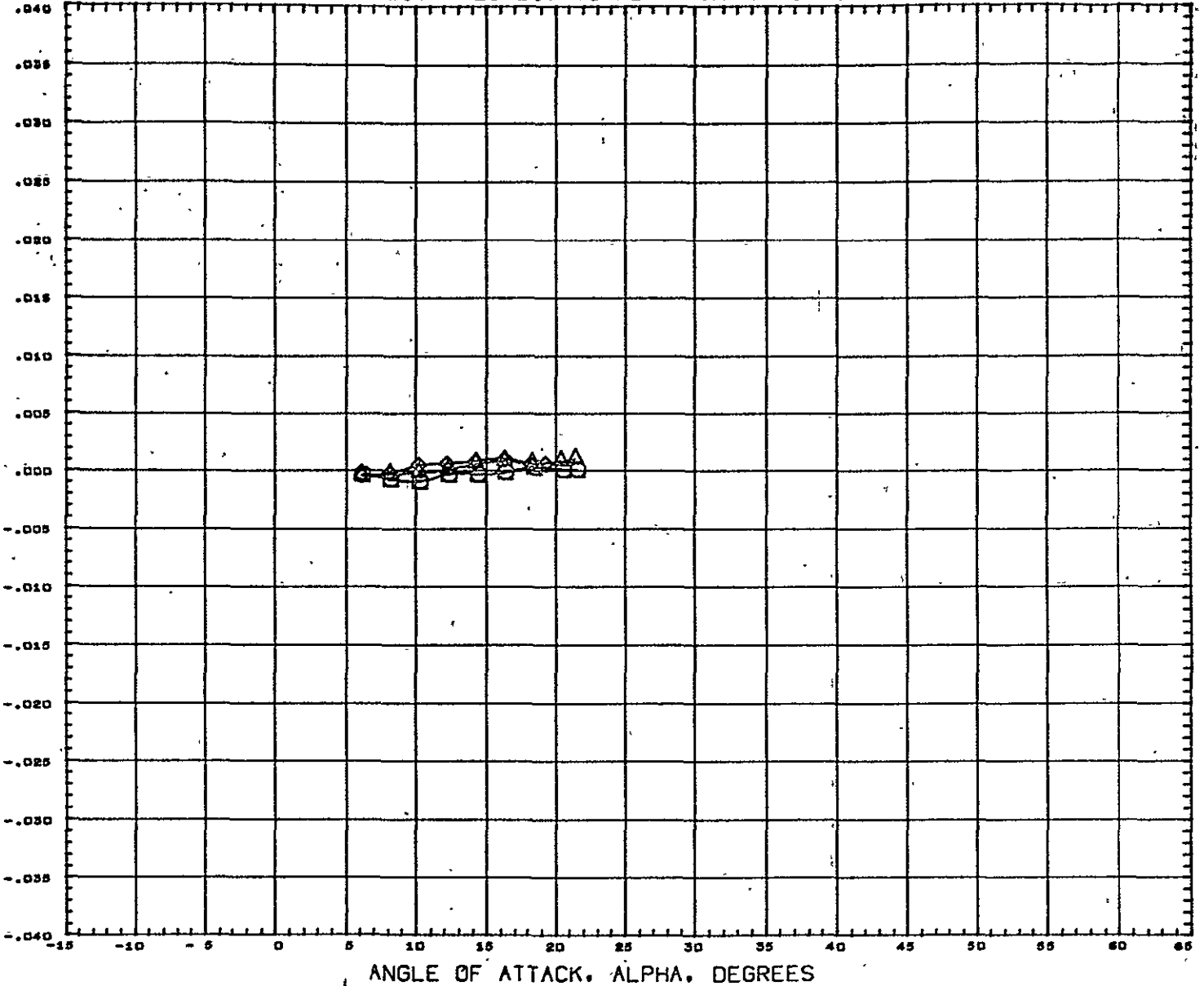
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION			
○	MACH	BETA	DEL	DEL	0.000	0.000	9REF	15.6560	30. IN.
△	2.990	DER	DCL	- 45.000	0.000	0.000	LREF	3.0950	IN.
◇	4.000	DCR	ELEVON	0.000	0.000	0.000	BREF	6.0990	IN.
	4.960	CANARD	AIRON	0.000	0.000	0.000	XMRP	6.7100	IN.
							YMRP	0.0000	IN.
							ZMRP	0.0000	IN.
							SCALE	0.0035	
		DATA HIST. CODE	MVR#EG						

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

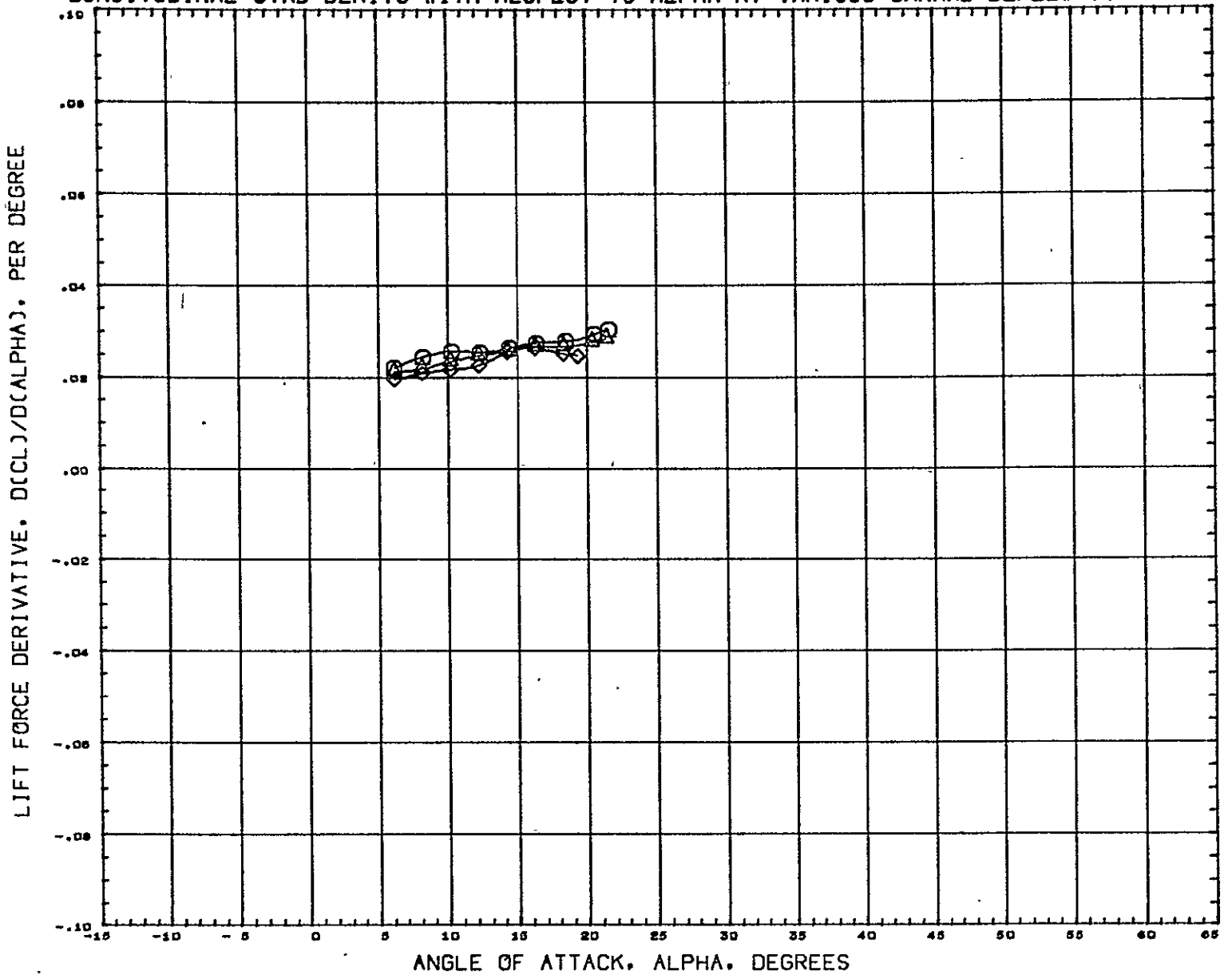
TOTAL AXIAL FORCE DERIVATIVE, $d(CAx)/d(\alpha)$, PER DEGREE



SYMBOL		MACH		PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	△	2.990	BETA	0.000	DEL	0.000	SREF	.15.6560	50. IN.	
		4.000	DER	0.000	DCL	-45.000	LREF	3.0950	IN.	
		4.960	OCR	-45.000	ELEVON	0.000	BREF	6.0990	IN.	
			CANARD	-45.000	AILRON	0.000	XMRP	6.7100	IN.	
							YMRP	0.0000	IN.	
							ZMRP	0.0000	IN.	
							SCALE	0.0035		

DATA HIST. CODE MVR*EG

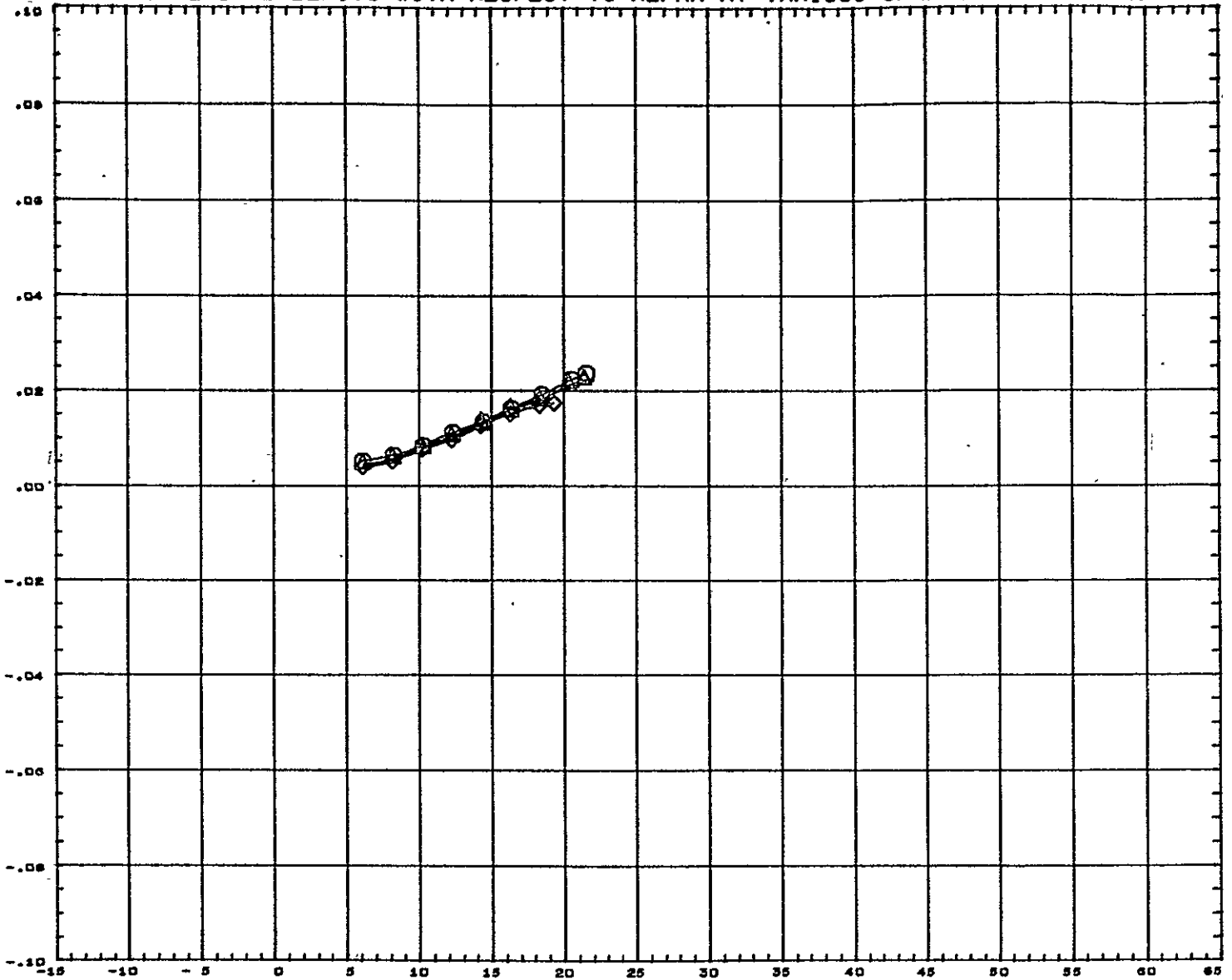
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.6500	30. IN.
△	4.000	DER	0.000	DCL	- 45.000	LREF	3.0980	IN.
◇	4.960	DCR	- 45.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	- 45.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#EG					

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

TOTAL DRAG FORCE DERIVATIVE, D(CD)/D(ALPHA), PER DEGREE

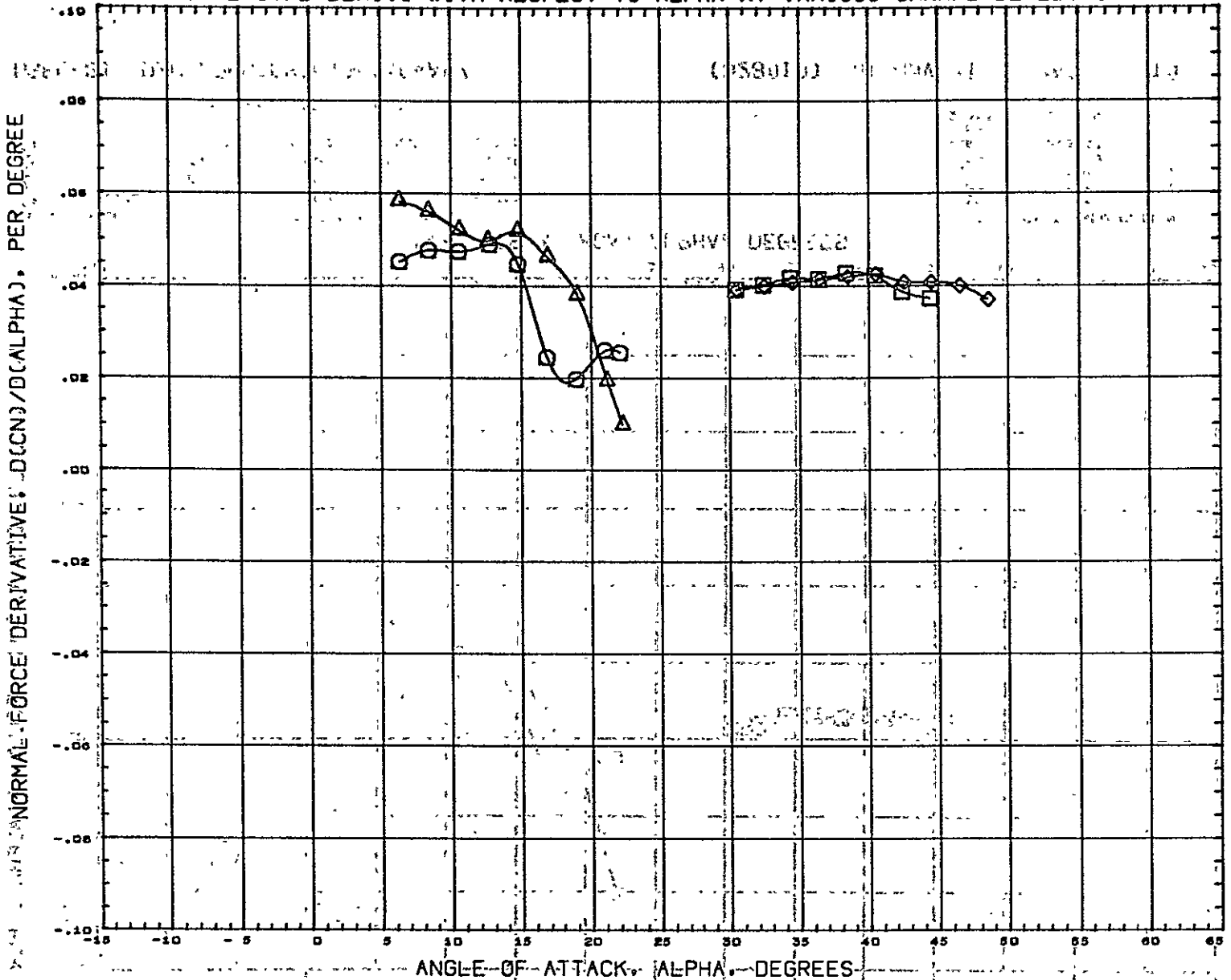


ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	DEL	DCL	ELEVON	AILRON	SREF	LREF	BREF
◇	2.990	0.000	0.000	-45.000	0.000		15.6560	3.0950	6.0990
◇	4.000	0.000	0.000	-45.000	0.000		XMRP	6.7100	YMRP
◇	4.960	-45.000	0.000	0.000	0.000		ZMRP	0.0000	SCALE
		CANARD	-45.000	AILRON	0.000			0.0000	0.0035

DATA HIST. CODE MVR#EG

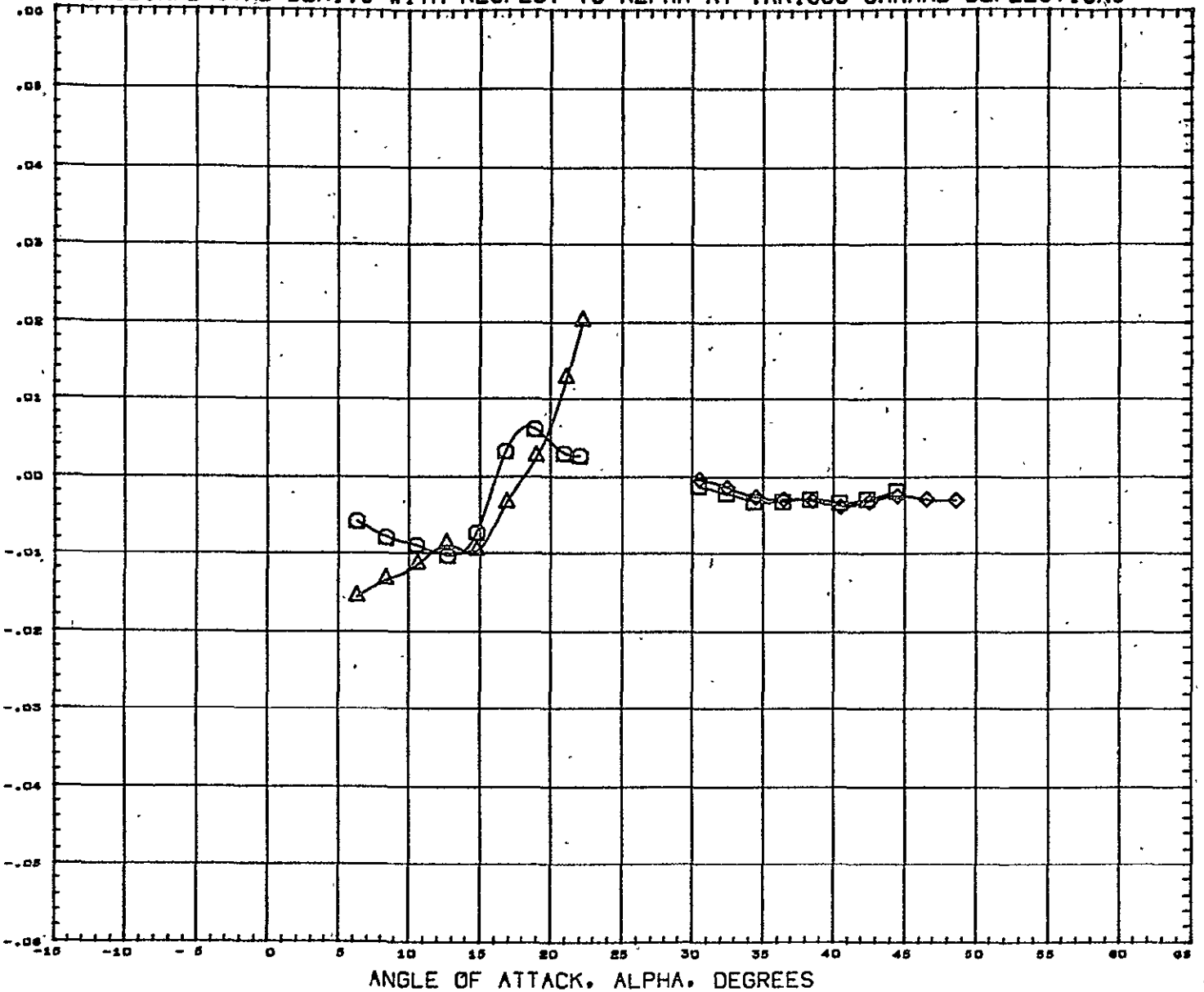
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	SREF	15.6560	SQ. IN.
△	1.053	DER	0.000	DCL	-60.000	LREF	3.0990	IN.
◇	2.990	DCR	-60.000	ELEVON	0.000	BREF	6.0990	IN.
□	4.960	CANARD	-60.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MYR#E#CG					

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT DERIVATIVE, $dC_{LM}/d(\alpha)$, PER DEGREE



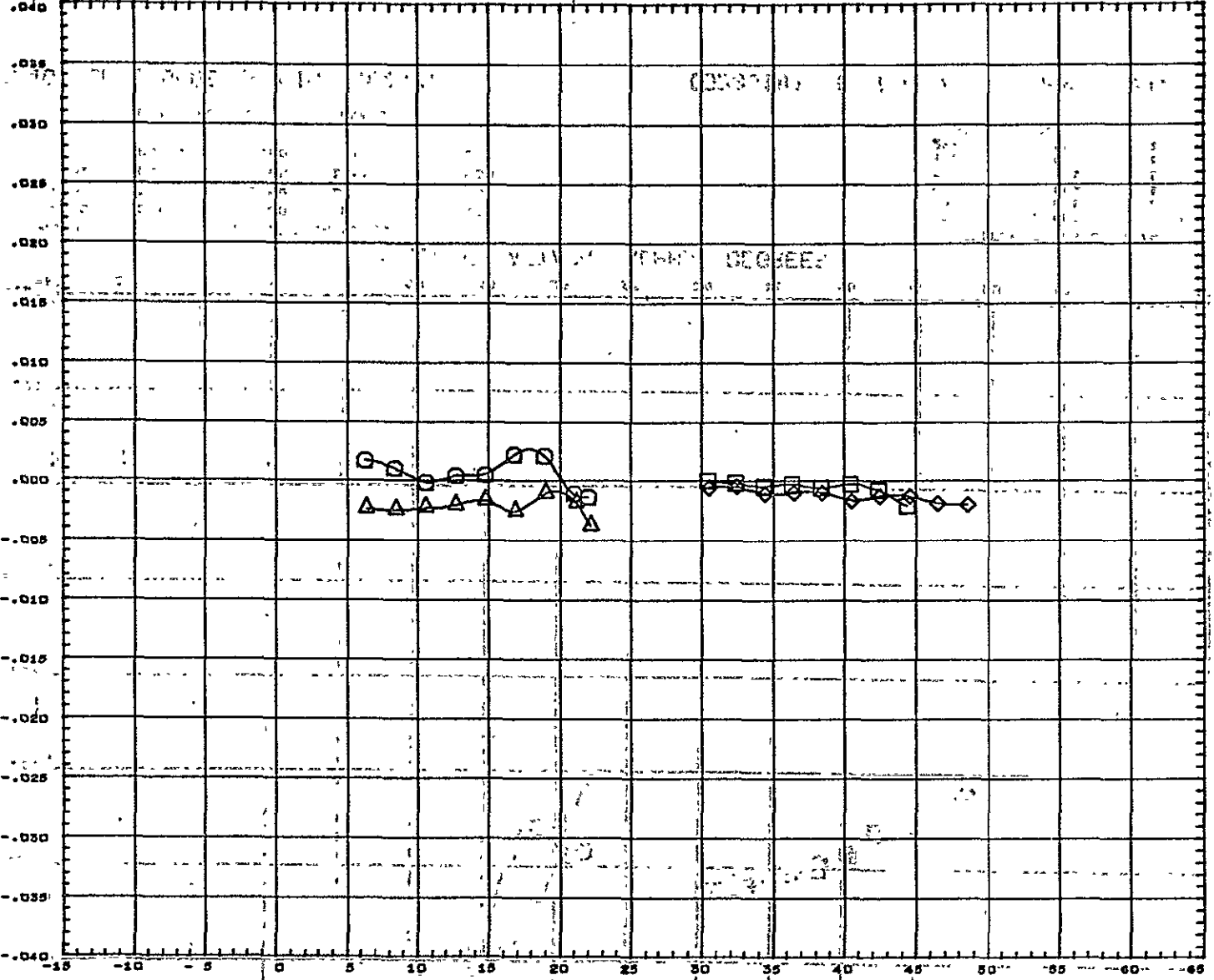
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.990	BETA	0.000	DEL	0.000
△	1.990	DER	0.000	DCL	-60.000
◇	2.990	DCR	-60.000	ELEVON	0.000
◇	4.990	CANARD	-60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#*GC

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

TOTAL AXIAL FORCE DERIVATIVE (DCCA)/D(ALPHA), PER DEGREE



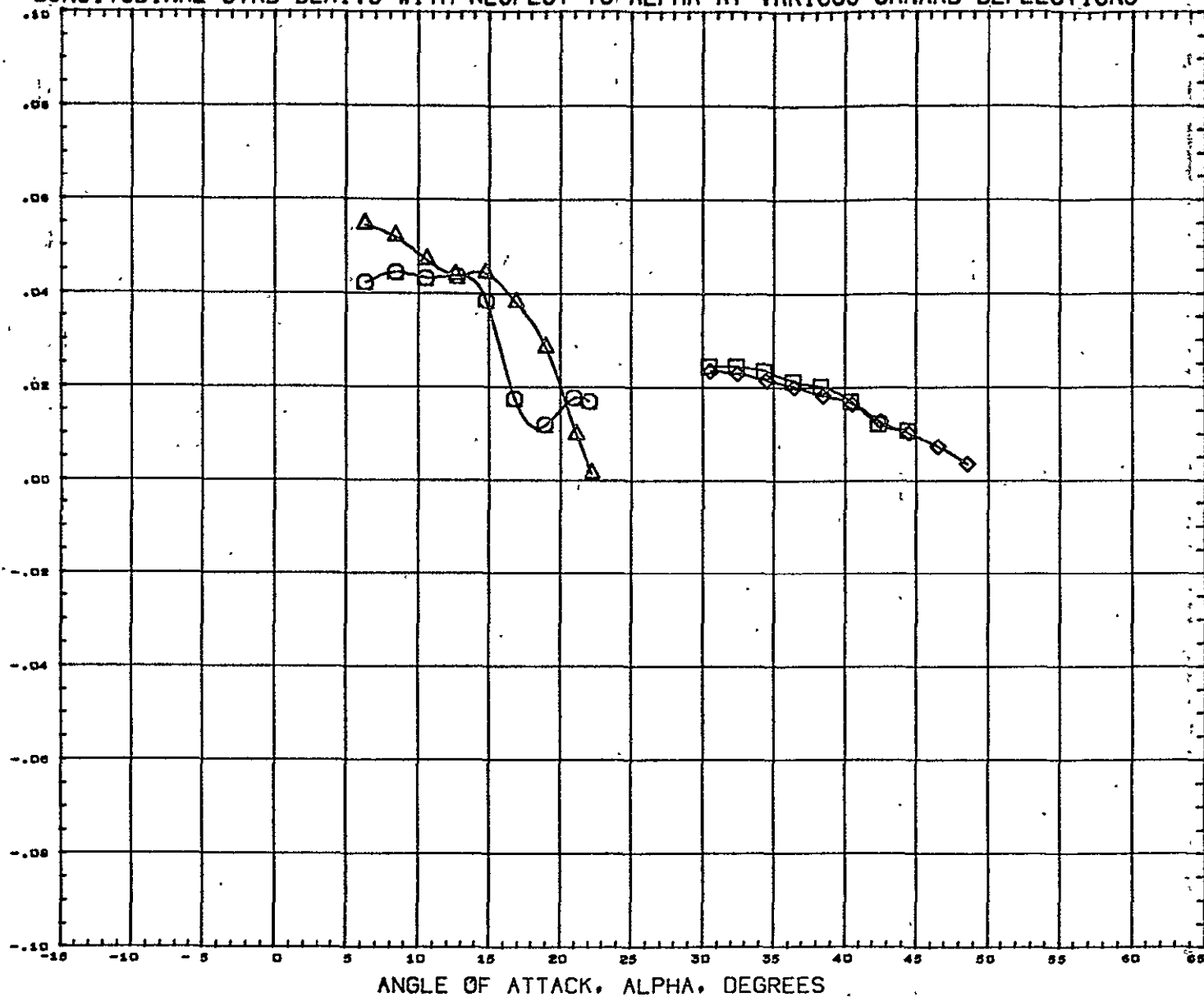
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
△	2.053	DER	0.000	DCL	60.000	LREF	3.0950	IN.
◇	2.990	DCR	-60.000	ELEVON	0.000	BREF	6.0990	IN.
□	4.960	CANARD	-60.000	AILRON	0.000	XMRP	0.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#*GG					

COMPILED BY: [unclear] FOR: [unclear] ON: [unclear] BY: [unclear]

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

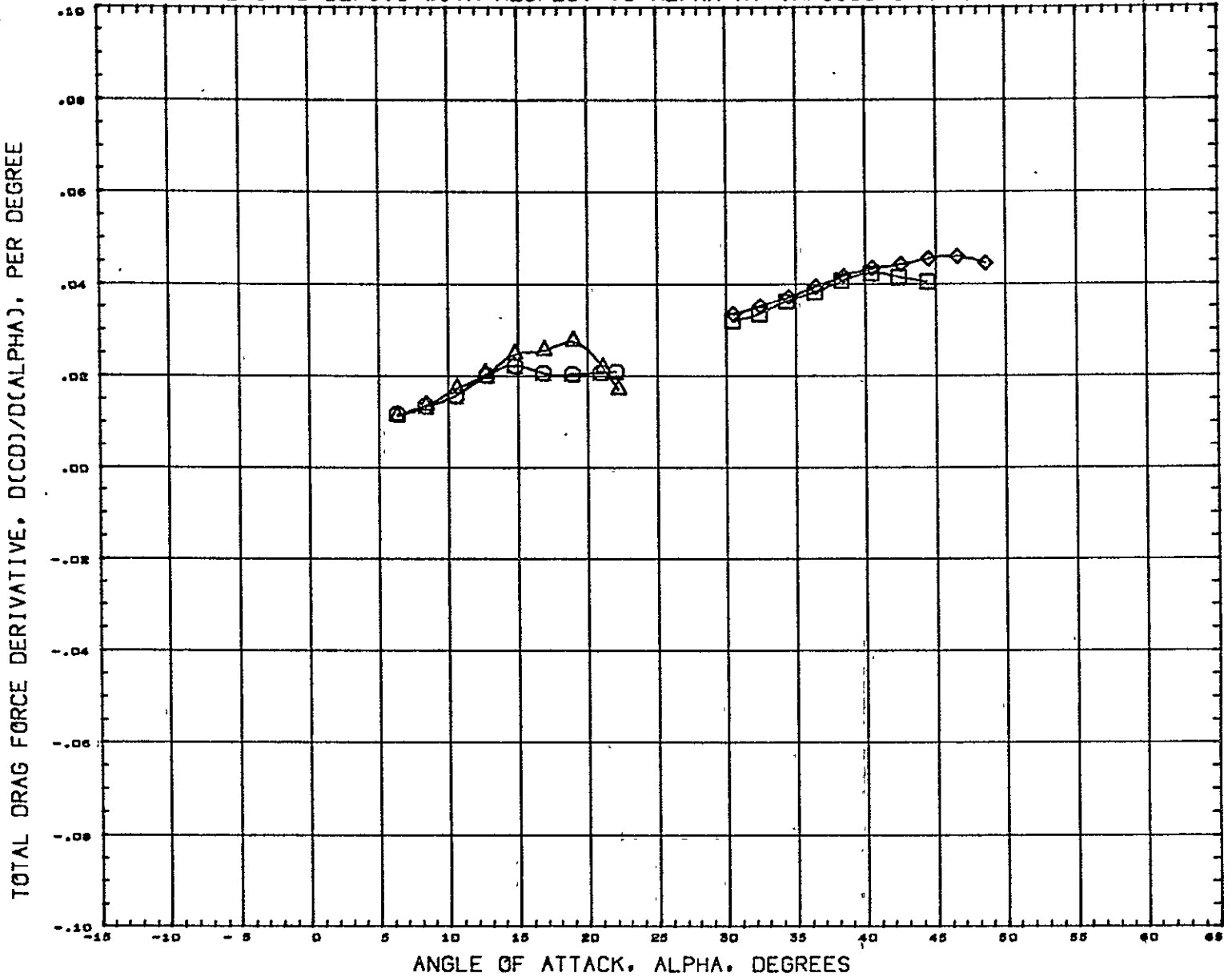
LIFT FORCE DERIVATIVE, $D(C_L)/D(\alpha)$, PER DEGREE



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	GRF	IN.	IN.
○	0.900	0.000	0.000	0.000	0.000	15.6560	80.	IN.
△	1.053	DER	0.000	- 60.000	0.000	3.0950	IN.	
◇	2.990	DCR	- 60.000	0.000	0.000	6.0990	IN.	
□	4.960	CANARD	- 60.000	AILRON	0.000	6.7100	IN.	
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#E#GG

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

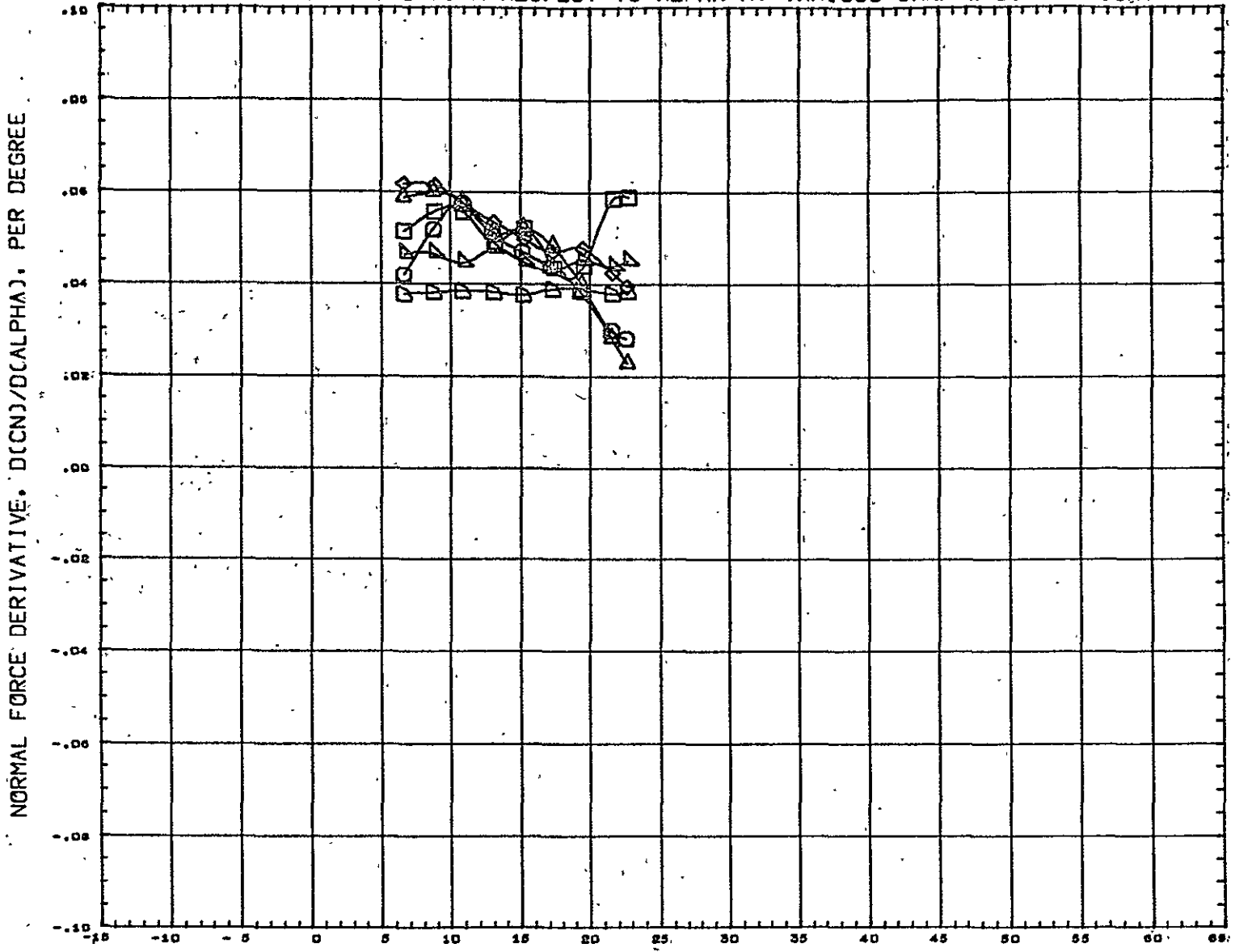


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	DEL	0.000
◇	2.990	DER	0.000	DCL	- 60.000
◇	2.990	DCR	- 60.000	ELEVON	0.000
□	4.960	CANARD	- 60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

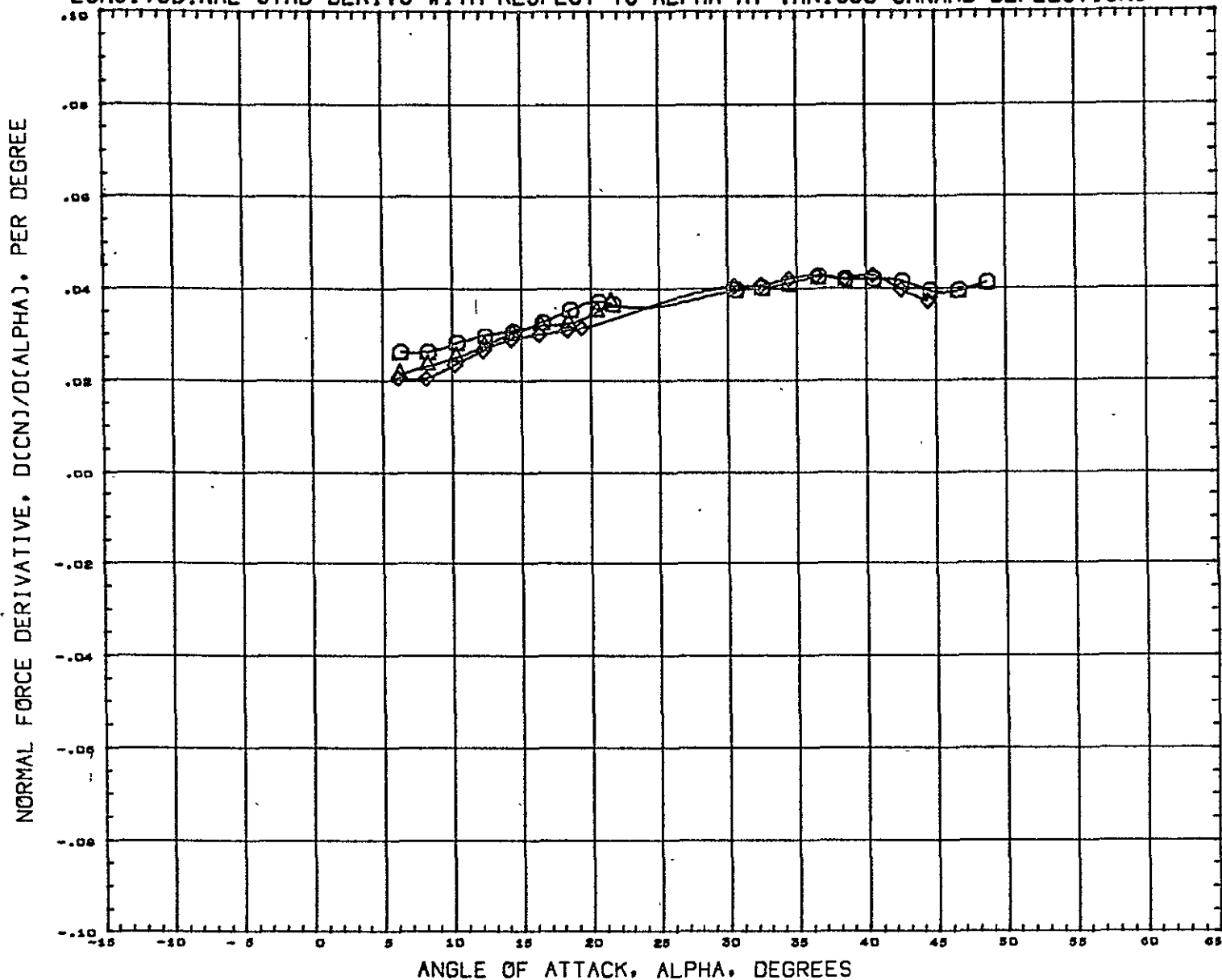
DATA HIST. CODE MVR#E#GG

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL		MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
□	◇	0.901	BETA	0.000	DEL	0.000	SREF	15.6560	SQ. IN.
◇	◇	0.955	DER	0.000	DCL	15.000	LREF	3.0950	IN.
◇	◇	1.051	DCR	15.000	ELEVON	0.000	BREF	6.0990	IN.
◇	◇	1.203	CANARD	15.000	AIRON	0.000	XMRP	6.7100	IN.
◇	◇	1.400					YMRP	0.0000	IN.
◇	◇	1.956	DATA HIST. CODE	MVR#E#GG			ZMRP	0.0000	IN.
							SCALE	0.0055	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



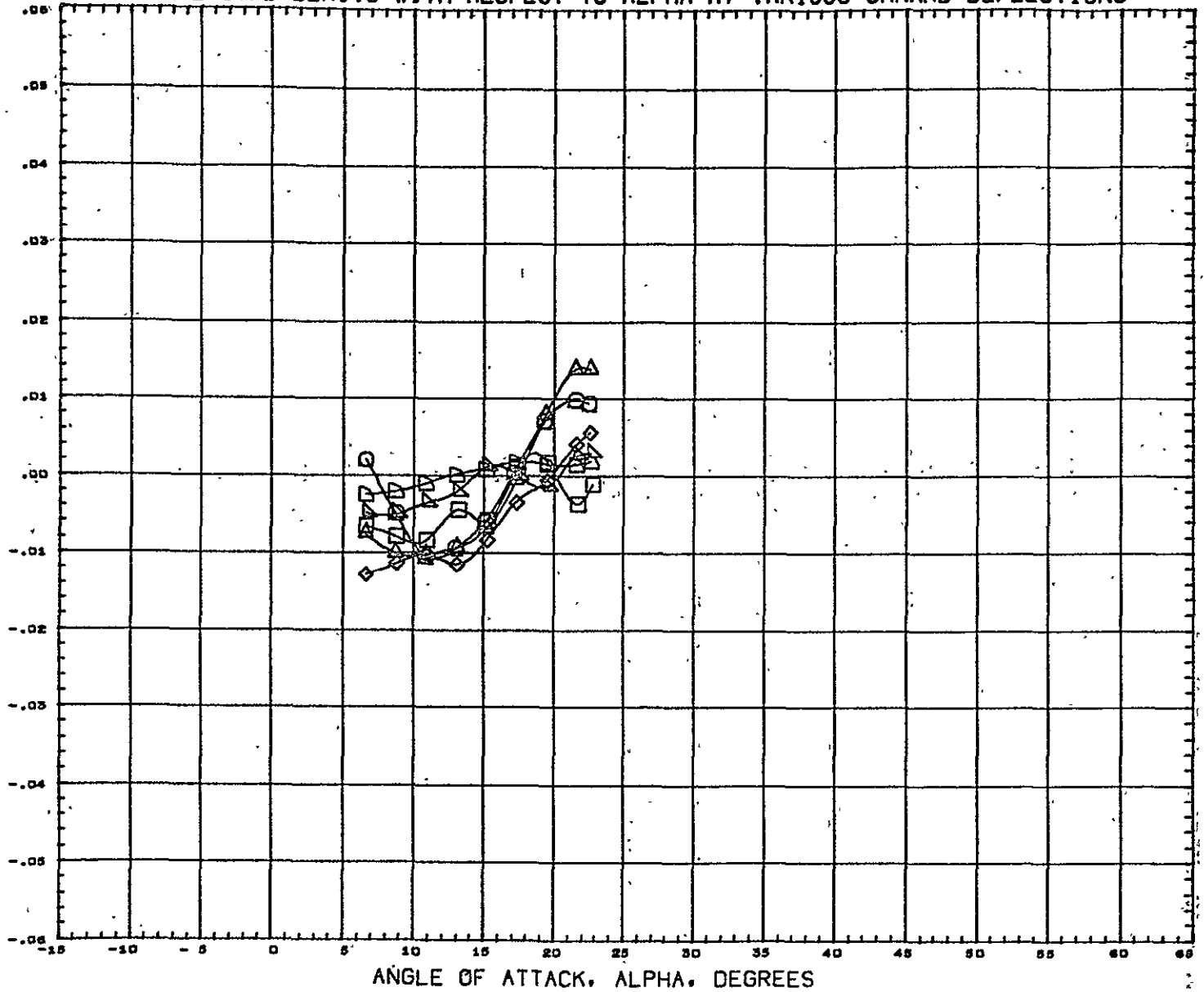
SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	0.000
△	4.000	DER	0.000	DCL	15.000
◇	4.960	DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#GG

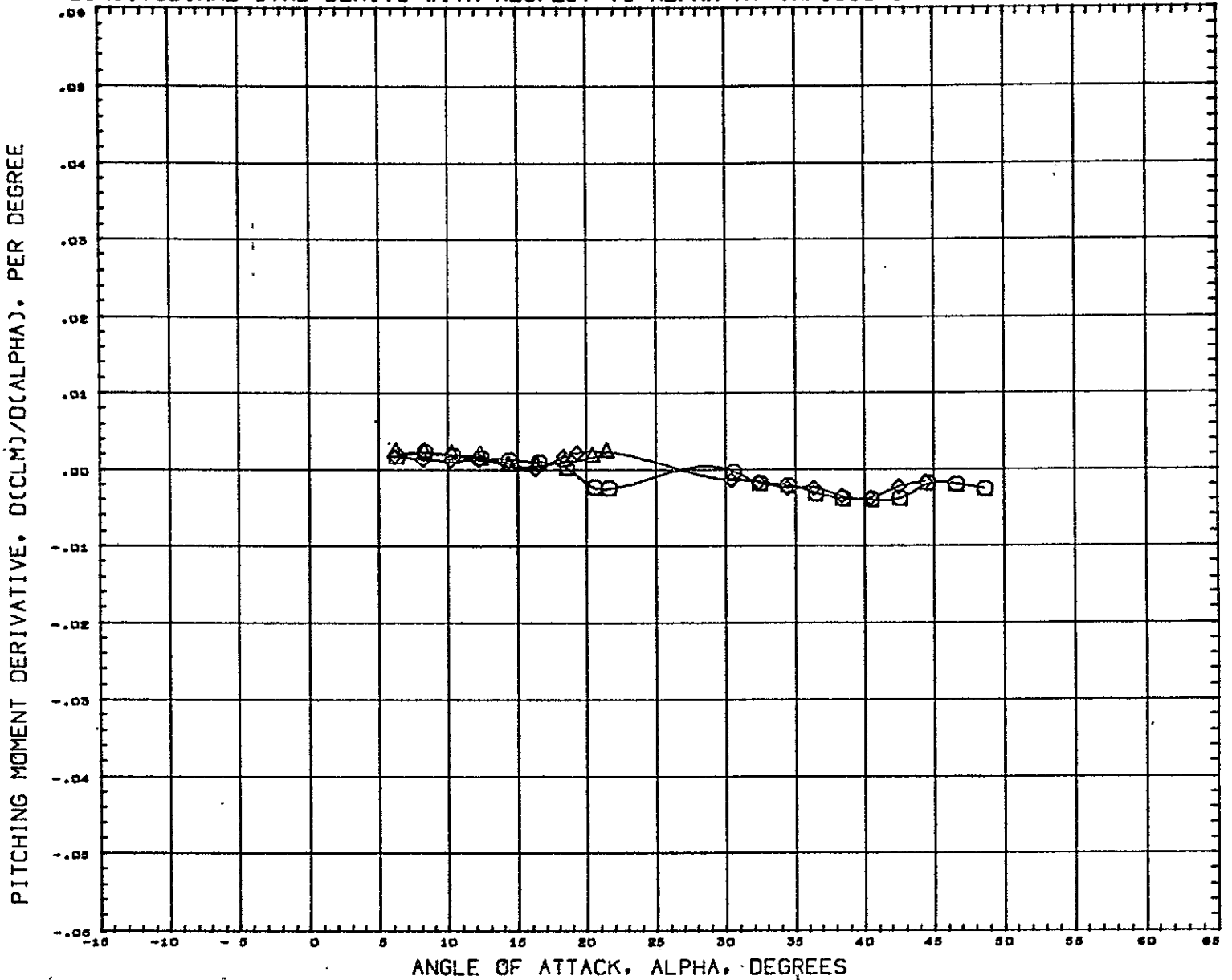
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT DERIVATIVE, $dC_{LM}/d(\alpha)$, PER DEGREE



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION			
		BETA	DEL	DCL	ELEVON	AILRON	SREF	LREF	BREF
○	0.901	0.000	0.000	0.000	0.000	0.000	15.0560	3.0950	6.0990
○	0.955	0.000	0.000	15.000	0.000	0.000	3.0950	6.0990	6.7100
○	1.051	15.000	0.000	0.000	0.000	0.000	6.0990	6.7100	0.0000
○	1.203	CANARD	15.000	0.000	0.000	0.000	0.0000	0.0000	0.0000
○	1.400						0.0000	0.0000	0.0000
○	1.958	DATA HIST. CODE	MVR#E9GG				0.0035		

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

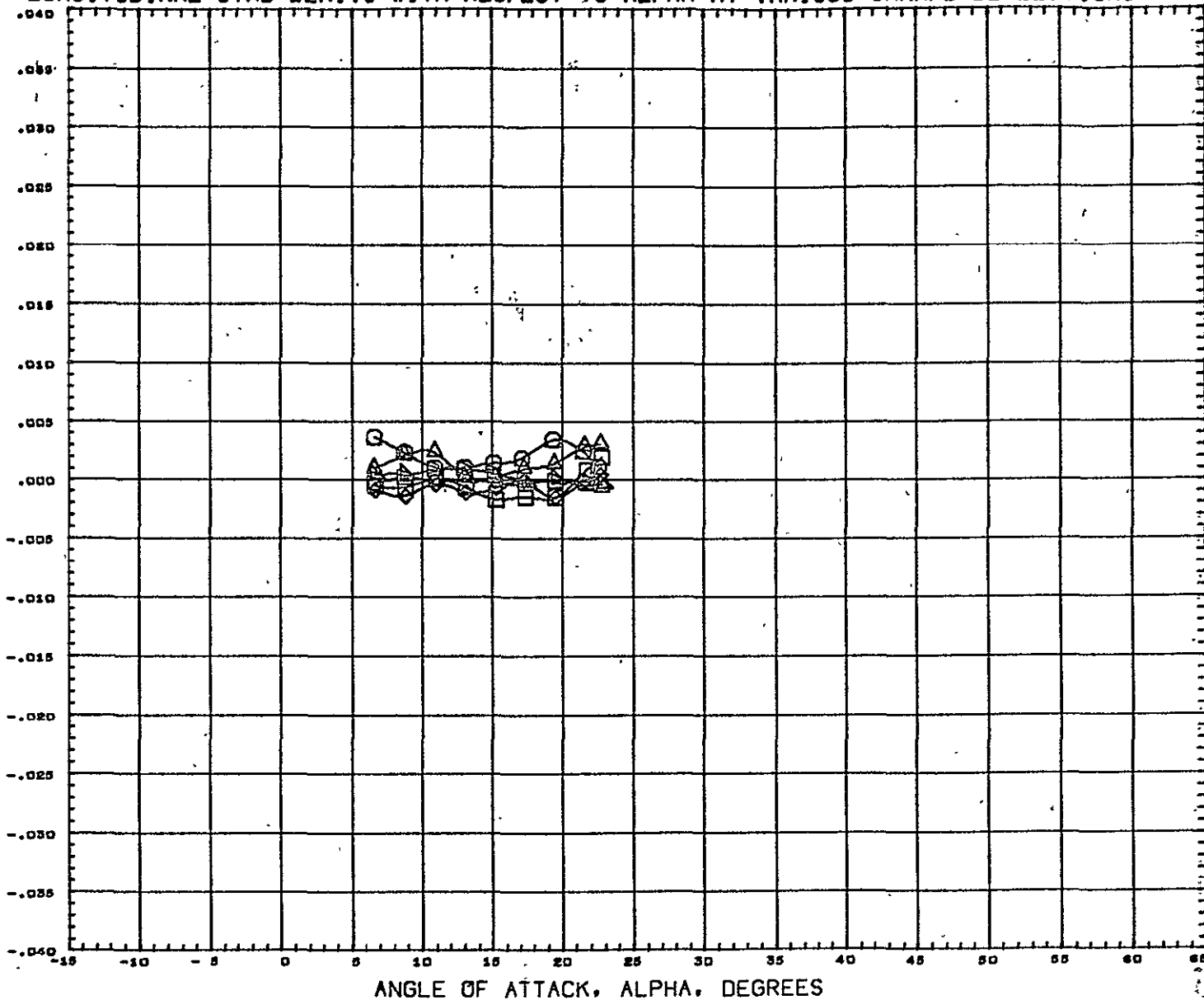


SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	DCL	SREF	IN.	IN.
○	2.990	0.000	0.000	15.000	0.000	15.6560	89. IN.	
◇	4.000	0.000	0.000	15.000	0.000	3.0950	IN.	
△	4.960	15.000	0.000	0.000	0.000	6.0990	IN.	
		CANARD	15.000	AILRON	0.000	XMRP	6.7100 IN.	
						YMRP	0.0000 IN.	
						ZMRP	0.0000 IN.	
						SCALE	0.0035	

DATA HIST. CODE MVR#E#GG

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

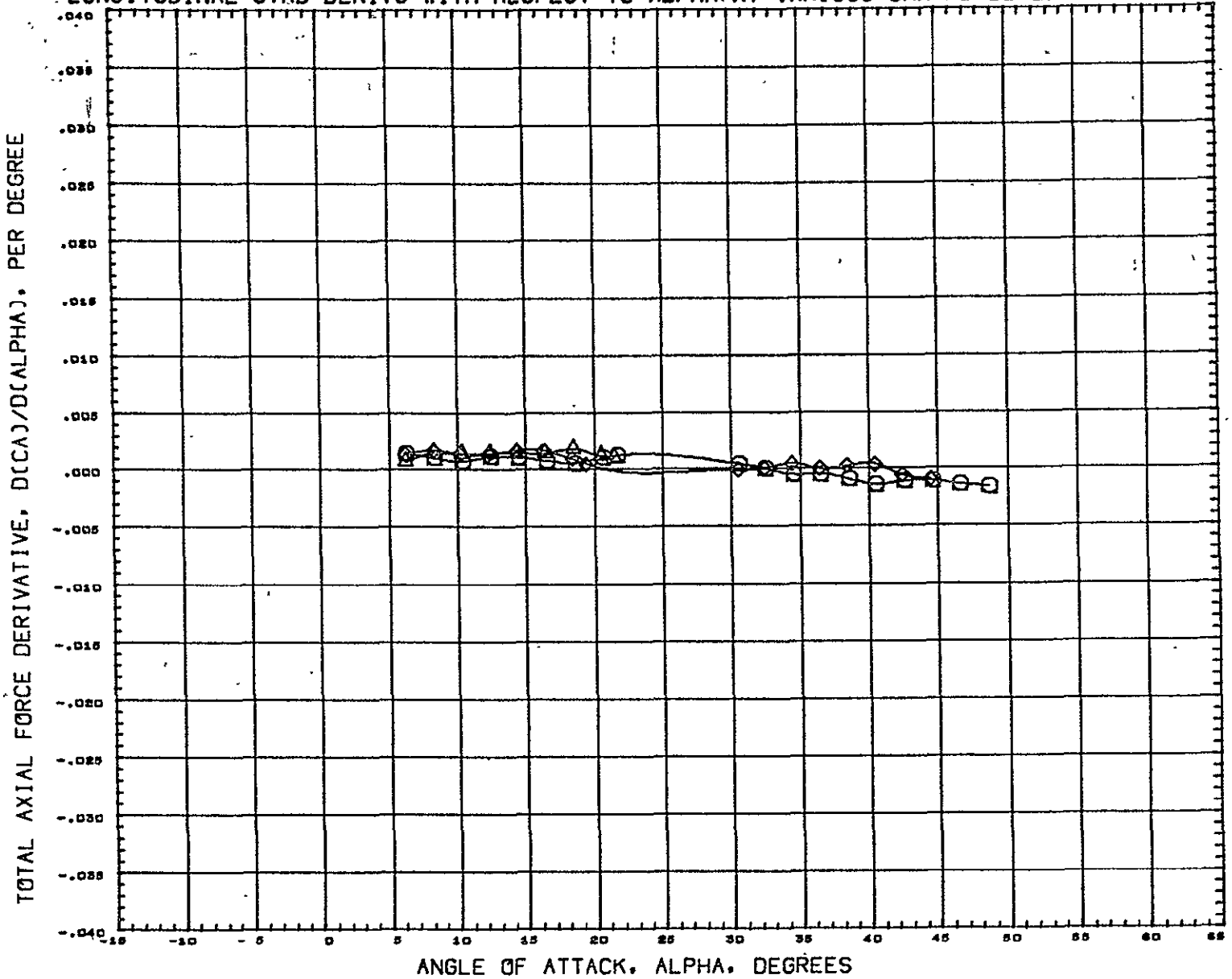
TOTAL AXIAL FORCE DERIVATIVE, D(CA)/D(ALPHA), PER DEGREE



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.001	BETA	0.000	DEL	0.000
◇	0.955	DER	0.000	DCL	15.000
◇	1.051	DCR	15.000	ELEVON	0.000
◇	1.203	CANARD	15.000	AILRON	0.000
◇	1.460				
◇	1.958	DATA HIST. CODE	MVR#E#GG		

REFERENCE INFORMATION		
SREF	15.6500	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

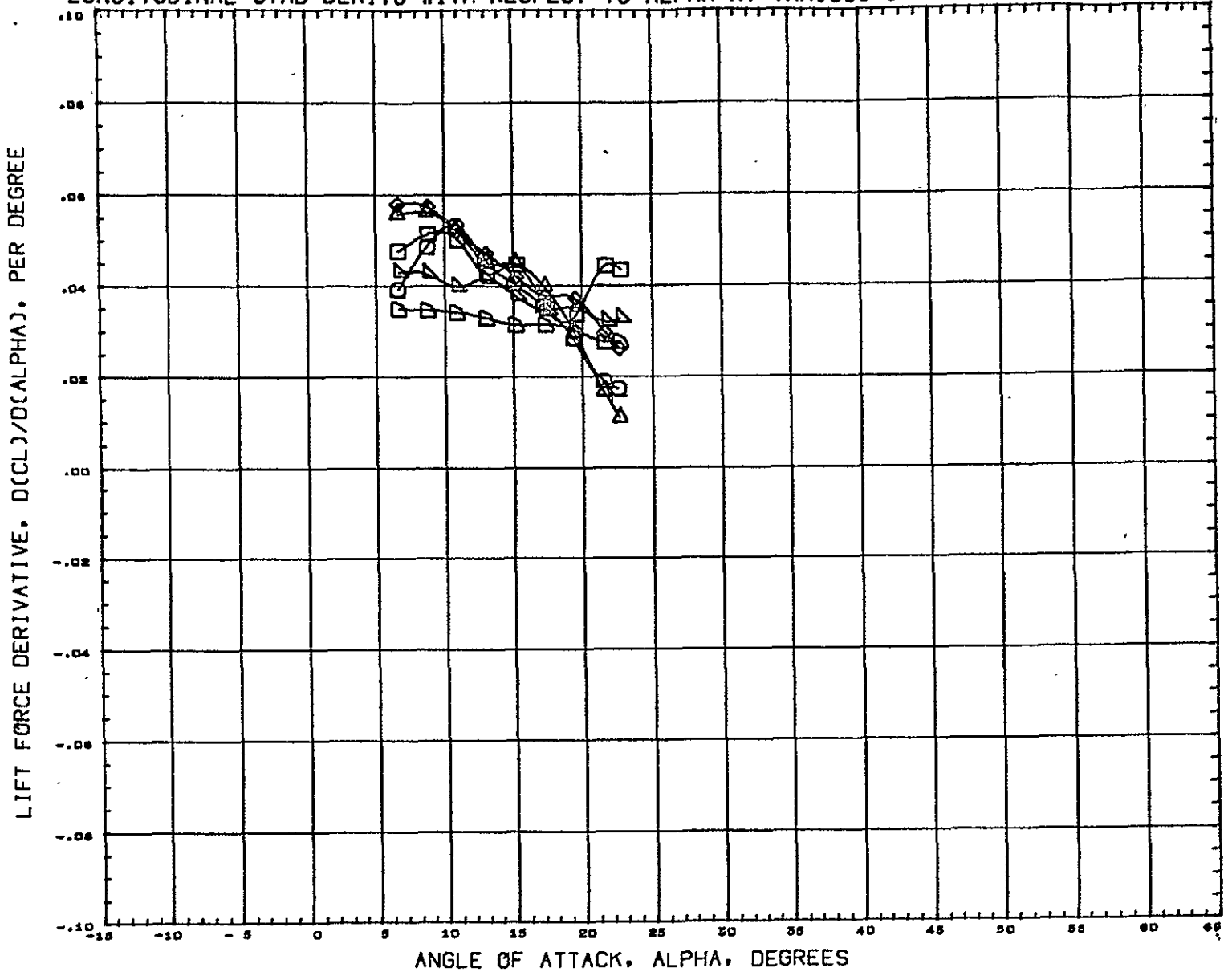


SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	0.000
△	4.000	DER	0.000	DEL	15.000
◇	4.960	DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
BREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EGG

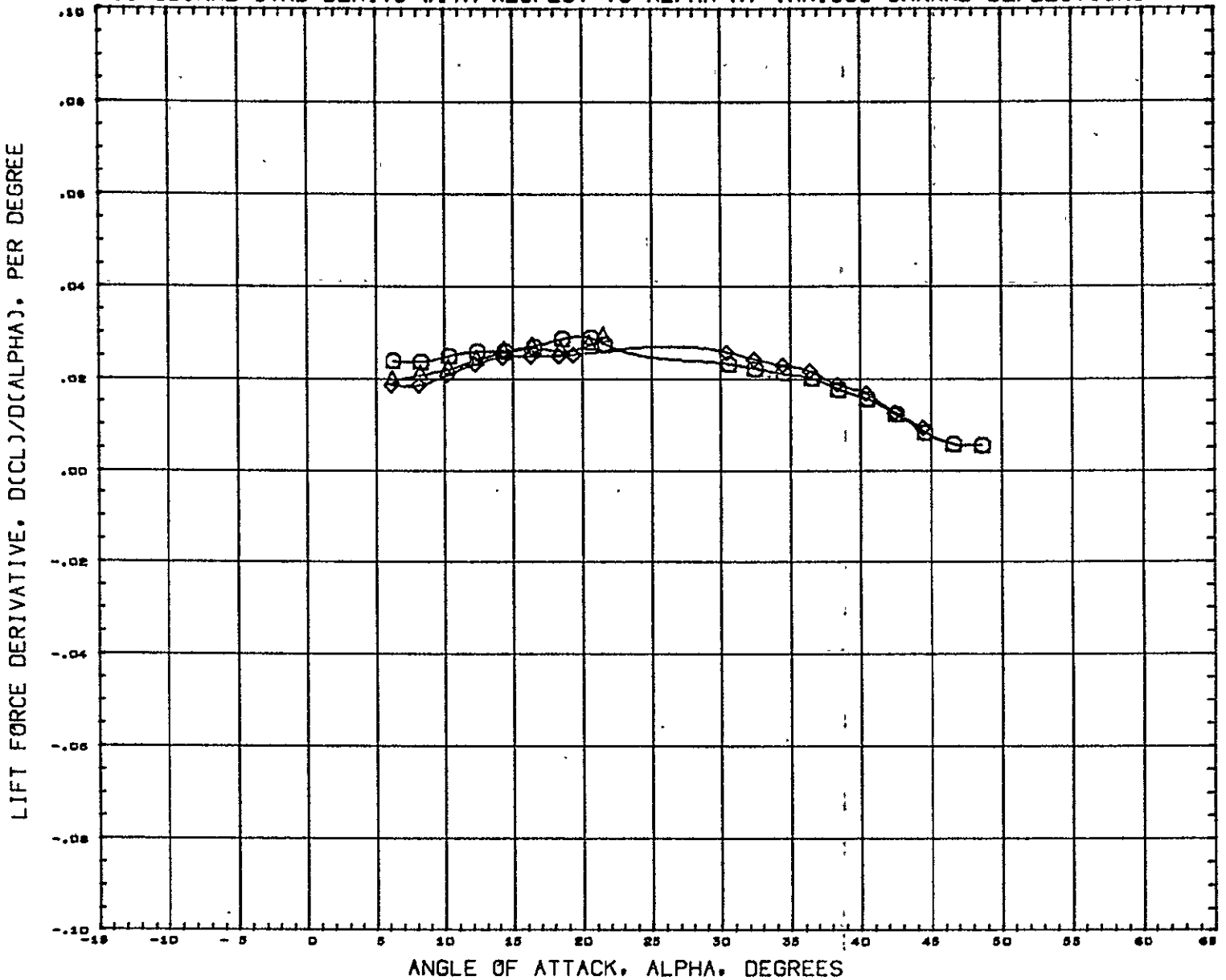
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES			
◇	0.901	BETA	0.000	DEL	0.000
◇	0.955	DER	0.000	DCL	15.000
◇	1.051	DCR	15.000	ELEVON	0.000
◇	1.203	CANARD	16.000	AILRON	0.000
◇	1.460				
◇	1.958	DATA HIST. CODE	MVR#E#GG		

REFERENCE INFORMATION		
SREF	15.6560	sq. in.
LREF	3.0950	in.
BREF	6.0890	in.
XMRP	6.7100	in.
YMRP	0.0000	in.
ZMRP	0.0000	in.
SCALE	0.0035	

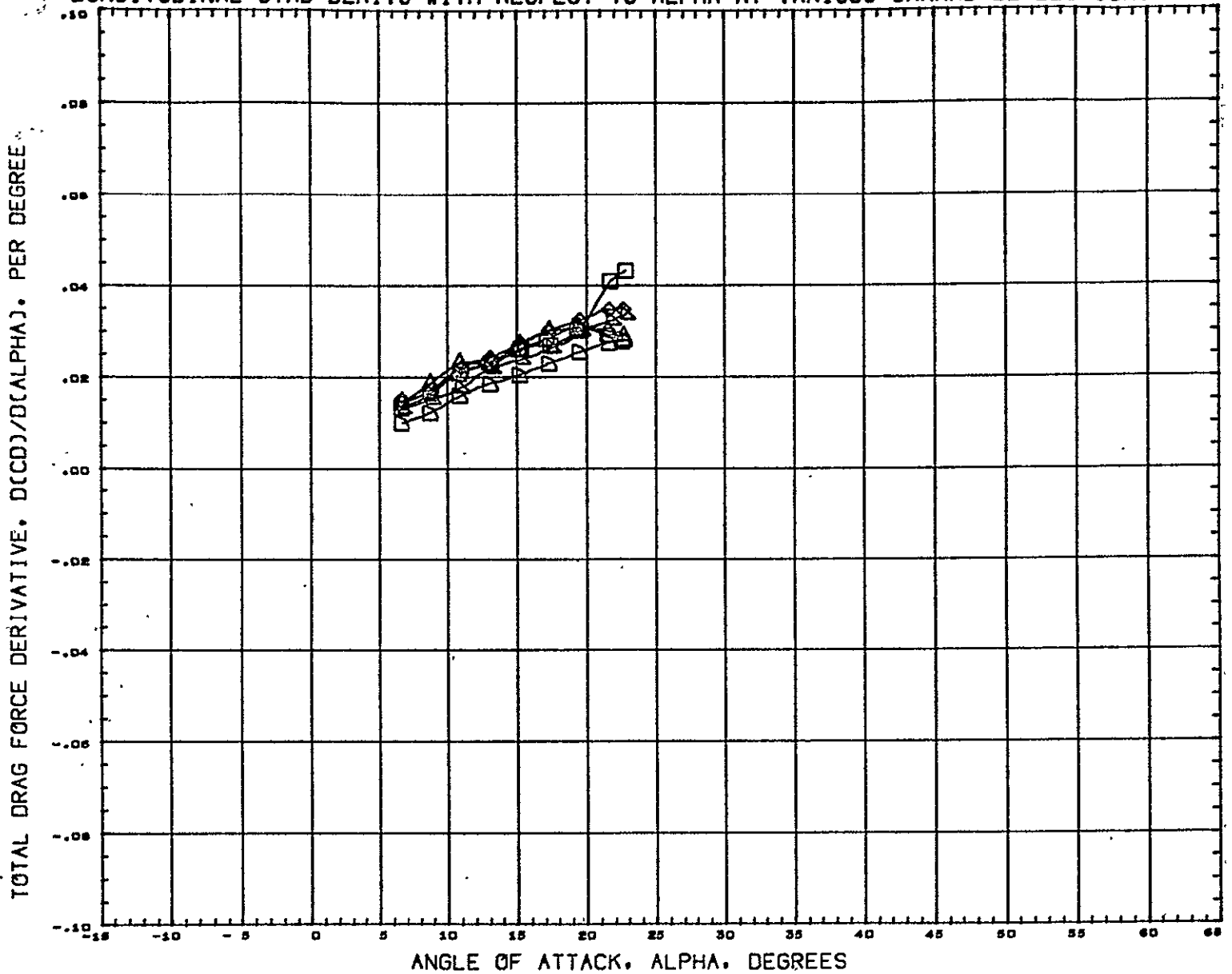
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	0.000	SREF	15.0560	SQ. IN.
△	4.000	DER	0.000	DCL	15.000	LREF	3.0990	IN.
◇	4.960	DCR	15.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	15.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

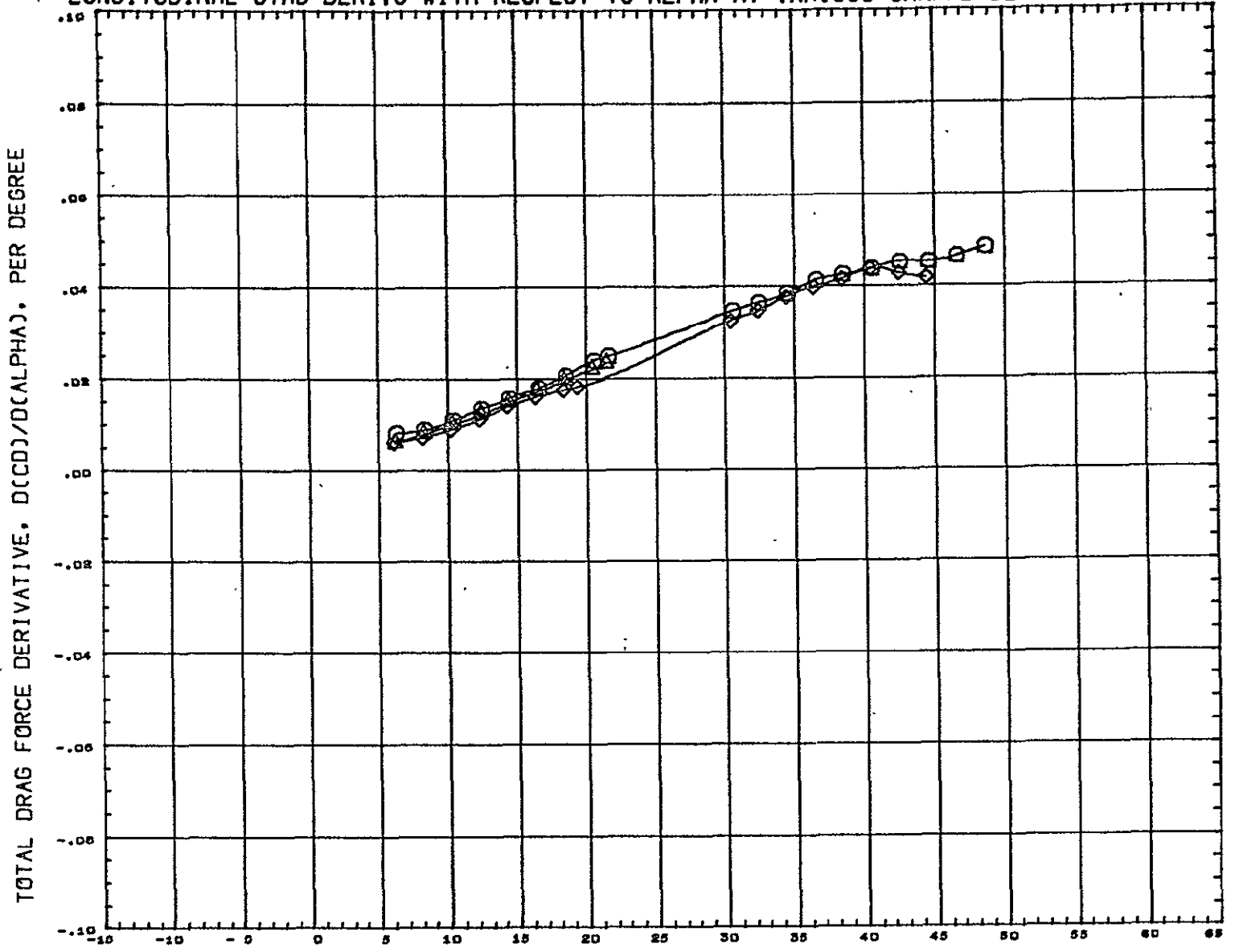
DATA HIST. CODE MVR#E#GG

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



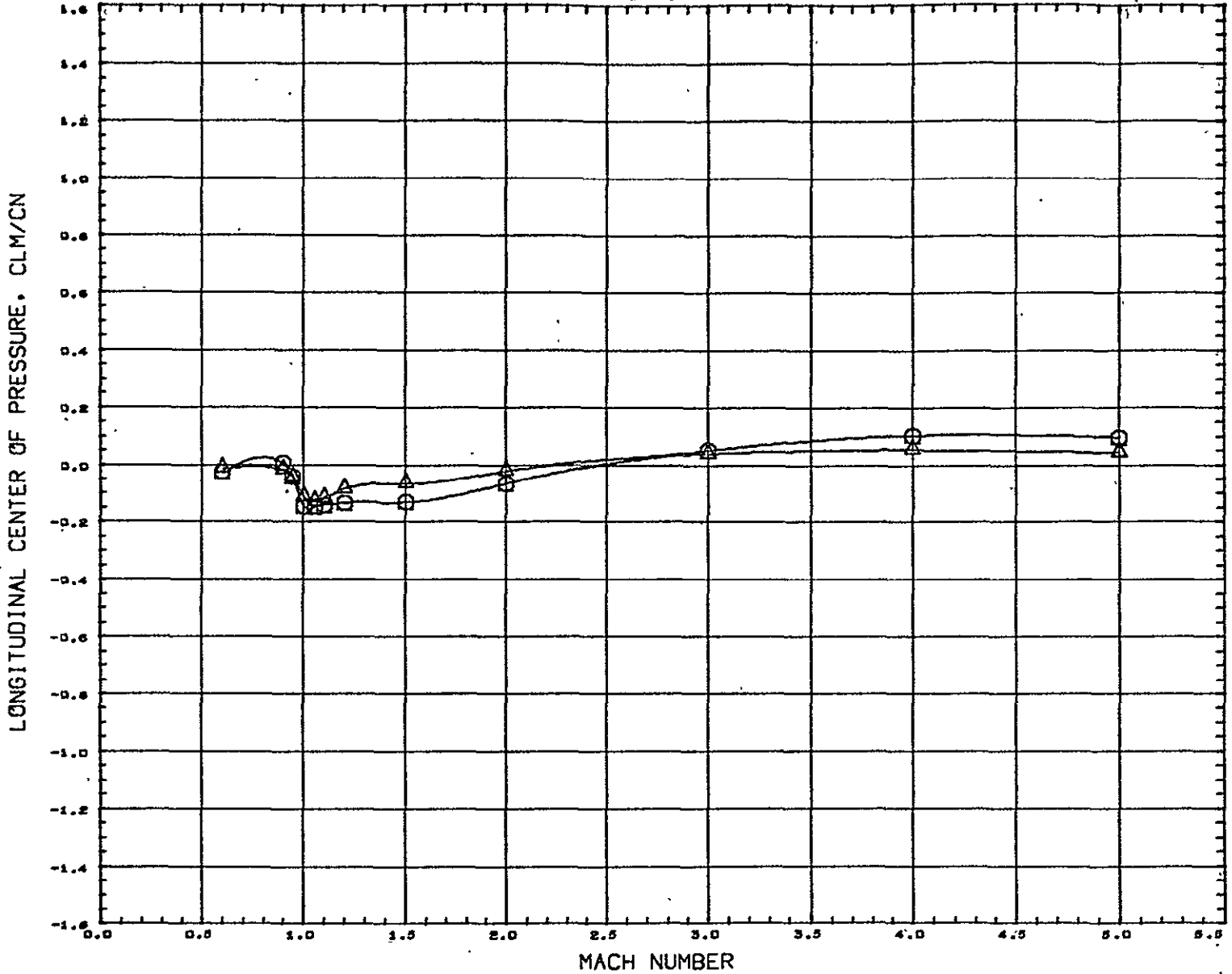
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION						
		BETA	DEL	DCL	ELEVON	AILRON	SREF	LREF	BREF	XMRP	YHRP	ZHRP
◇	0.901	0.000	0.000	15.000	0.000	15.6560	30.0000	30.0000	0.0000	0.0000	0.0000	0.0035
◇	0.955	0.000	0.000	15.000	0.000	3.0950	30.0000	30.0000	0.0000	0.0000	0.0000	0.0035
◇	1.051	0.000	0.000	15.000	0.000	6.0990	30.0000	30.0000	0.0000	0.0000	0.0000	0.0035
◇	1.203	0.000	0.000	15.000	0.000	8.7100	30.0000	30.0000	0.0000	0.0000	0.0000	0.0035
◇	1.460	0.000	0.000	15.000	0.000	0.0000	30.0000	30.0000	0.0000	0.0000	0.0000	0.0035
◇	1.958	0.000	0.000	15.000	0.000	0.0000	30.0000	30.0000	0.0000	0.0000	0.0000	0.0035

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL		MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	◇	2.990	BETA	0.000	DEL	0.000	SREF	15.6560	SQ. IN.
△	◇	4.000	DER	0.000	DCL	15.000	LREF	3.0950	IN.
◇	◇	4.960	DCR	15.000	ELEVON	0.000	BREF	6.0990	IN.
			CANARD	15.000	AILRON	0.000	XMRP	0.7100	IN.
							YMRP	0.0000	IN.
							ZMRP	0.0000	IN.
							SCALE	0.0035	
			DATA HIST. CODE	MVR#E*GG					

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

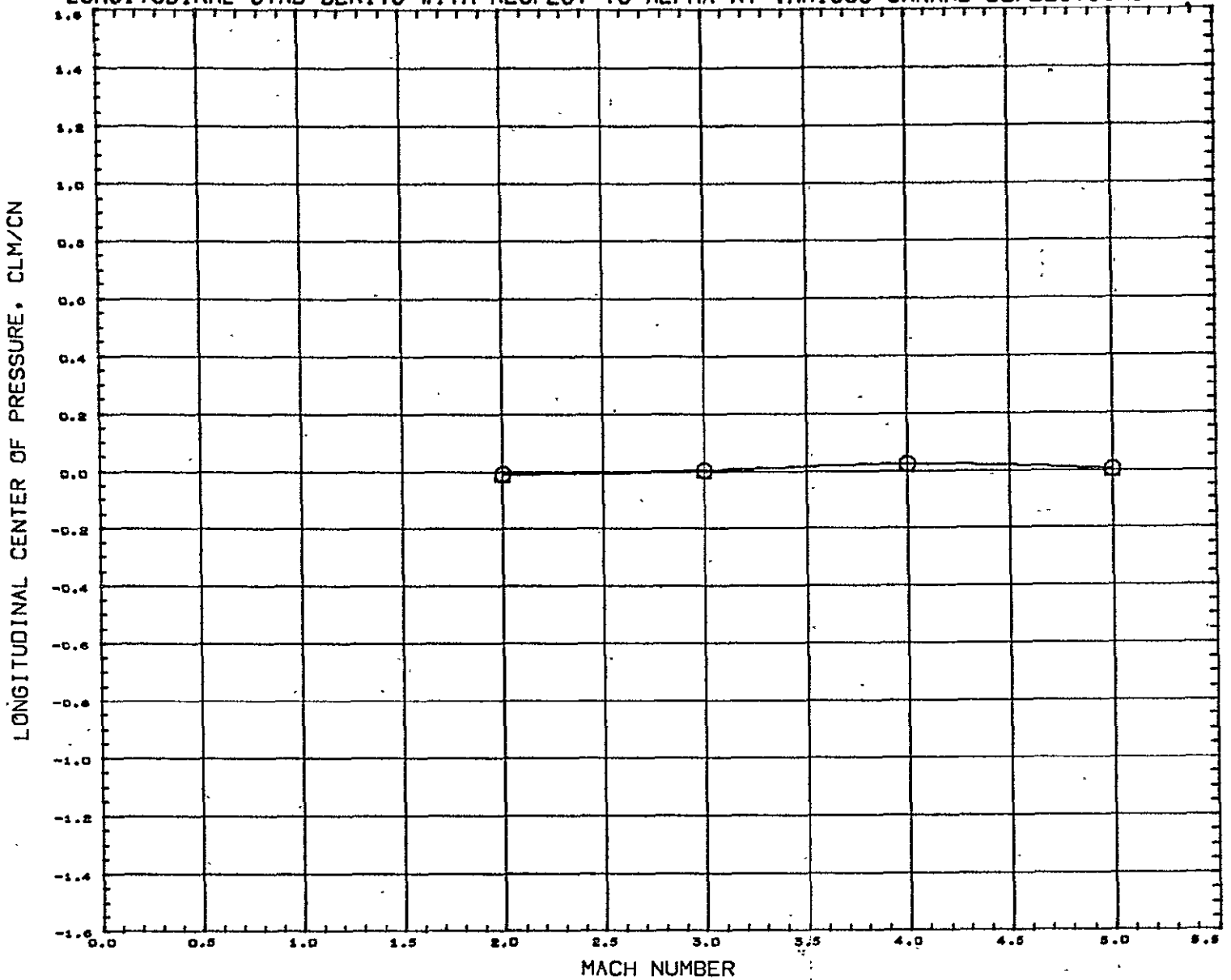


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

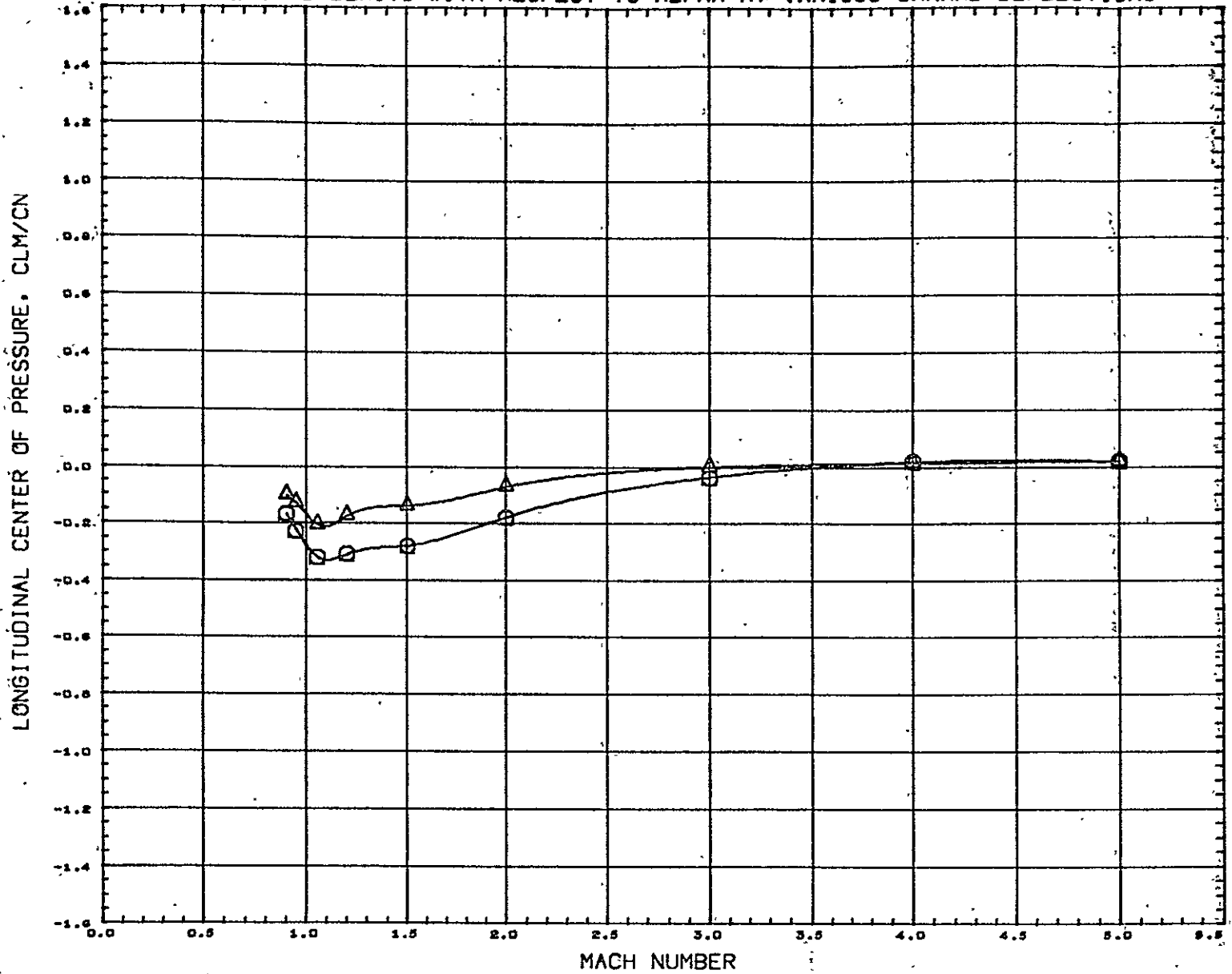


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	13.6500	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



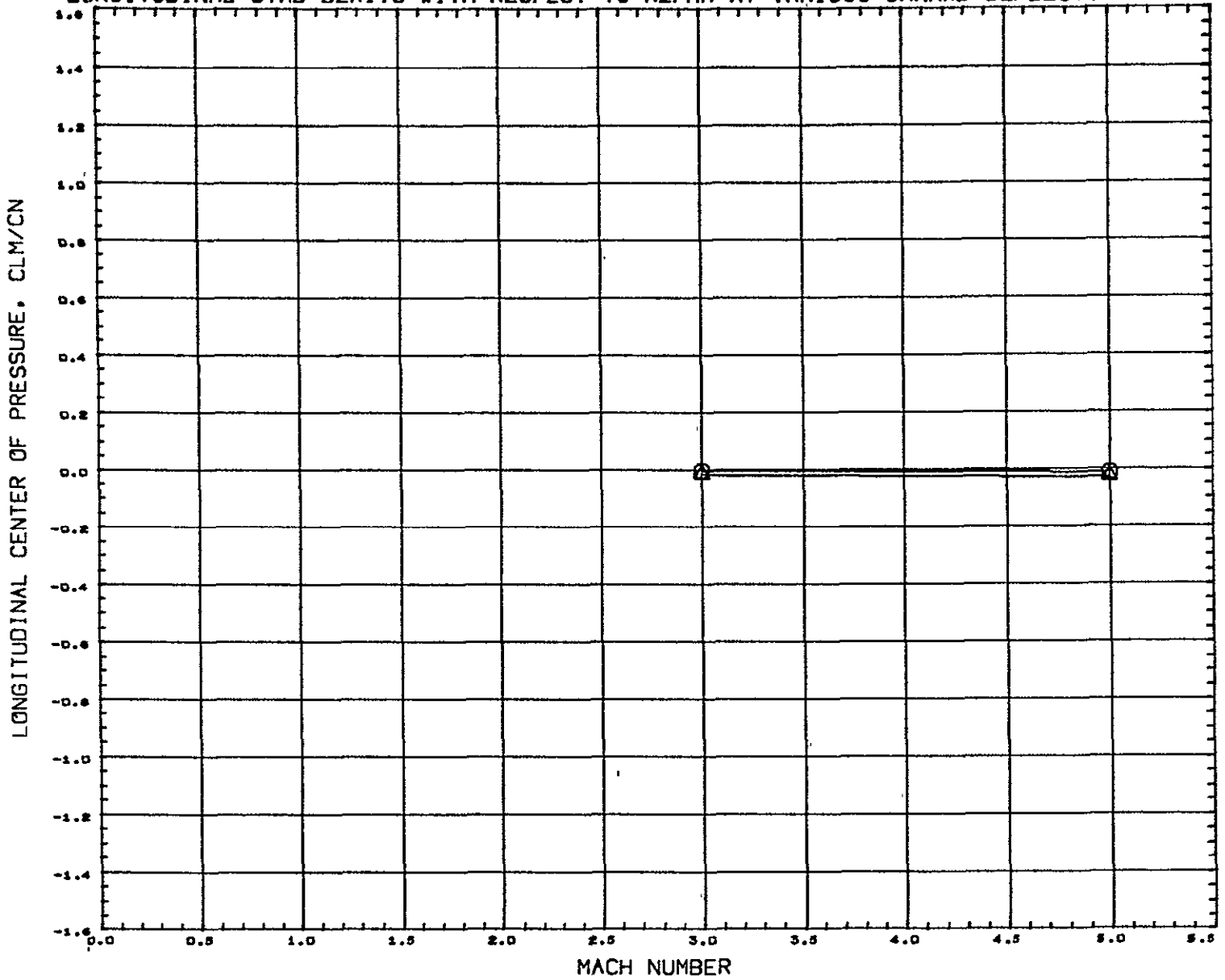
SYMBOL : ALPHA
 ○ 10.000
 △ 20.000

PARAMETRIC VALUES
 BETA 0.000 DEL 0.000
 DER 0.000 DCL - 30.000
 OCR 30.000 ELEVON 0.000
 CANARD - 30.000 AILRON 0.000

DATA HIST. CODE MVR#EI

REFERENCE INFORMATION
 SREF 15.6560 80. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

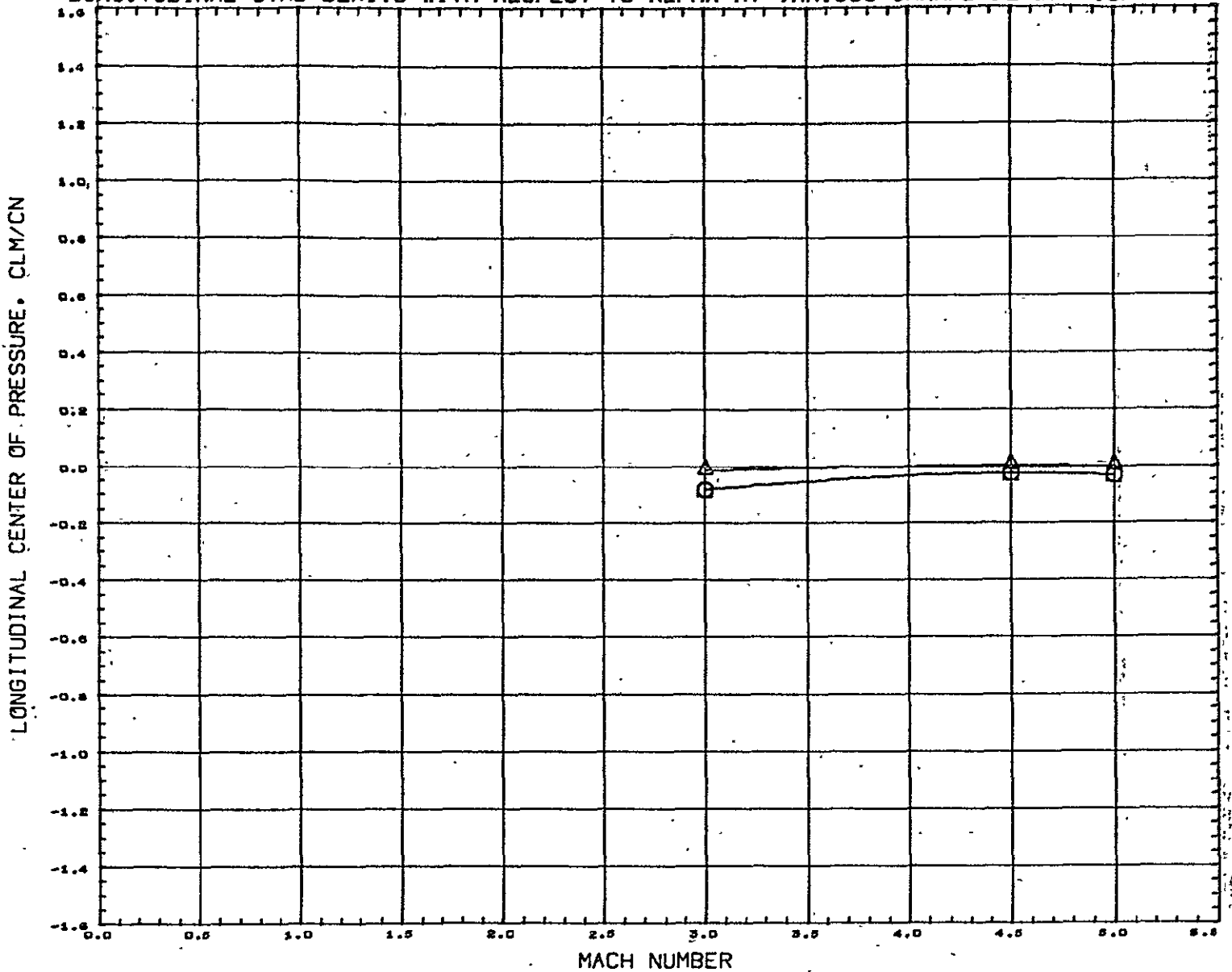


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	- 30.000
		DCR	30.000	ELEVON	0.000
		CANARD	- 30.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

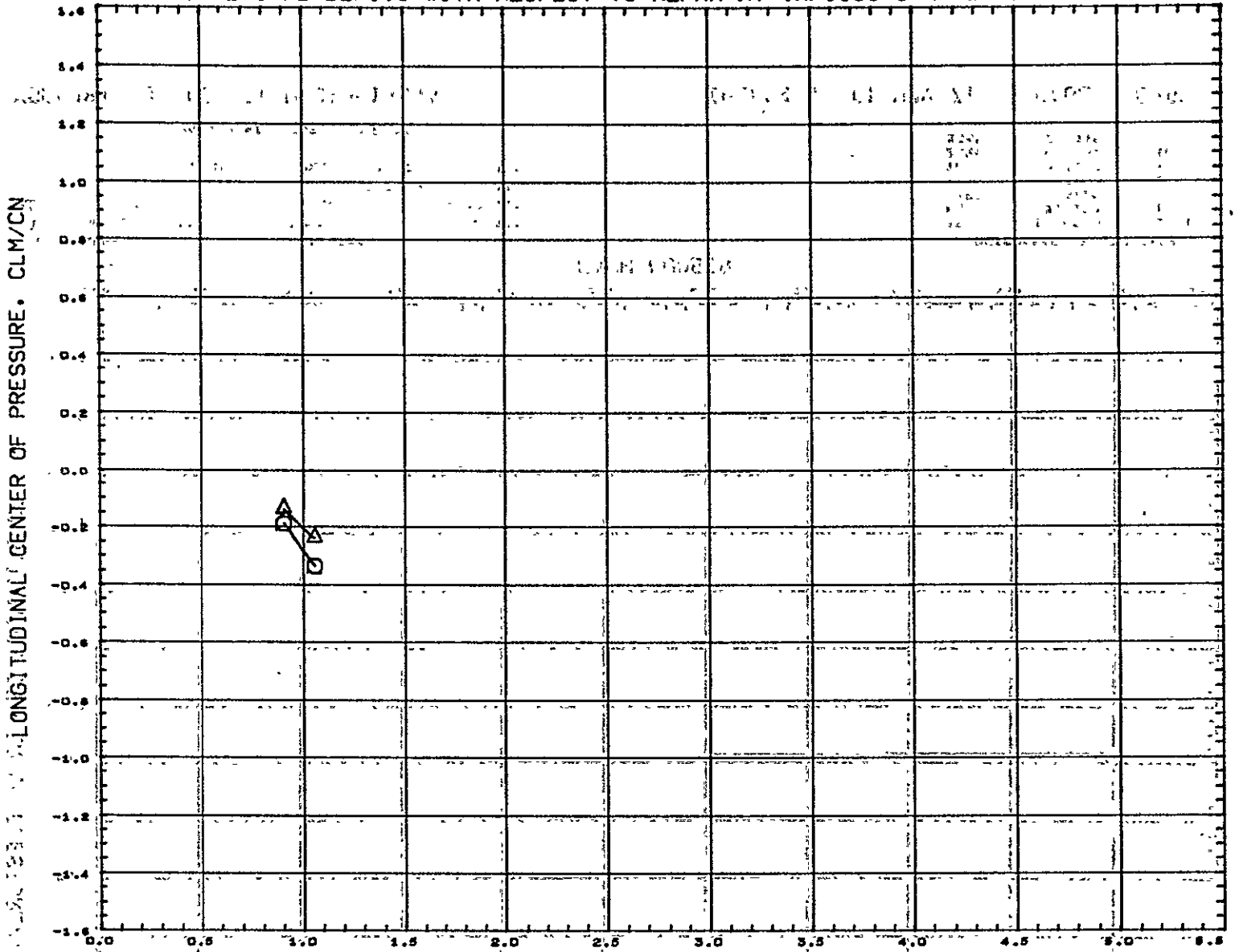
DATA HIST. CODE HVR#E1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	0.000	BREF	15.6560	30. IN.
△	20.000	DER	0.000	DCL	- 45.000	LREF	3.0950	IN.
		DCR	- 45.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	- 45.000	AILRON	0.000	XHRP	6.7100	IN.
						YHRP	0.0000	IN.
						ZHRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#E1					

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



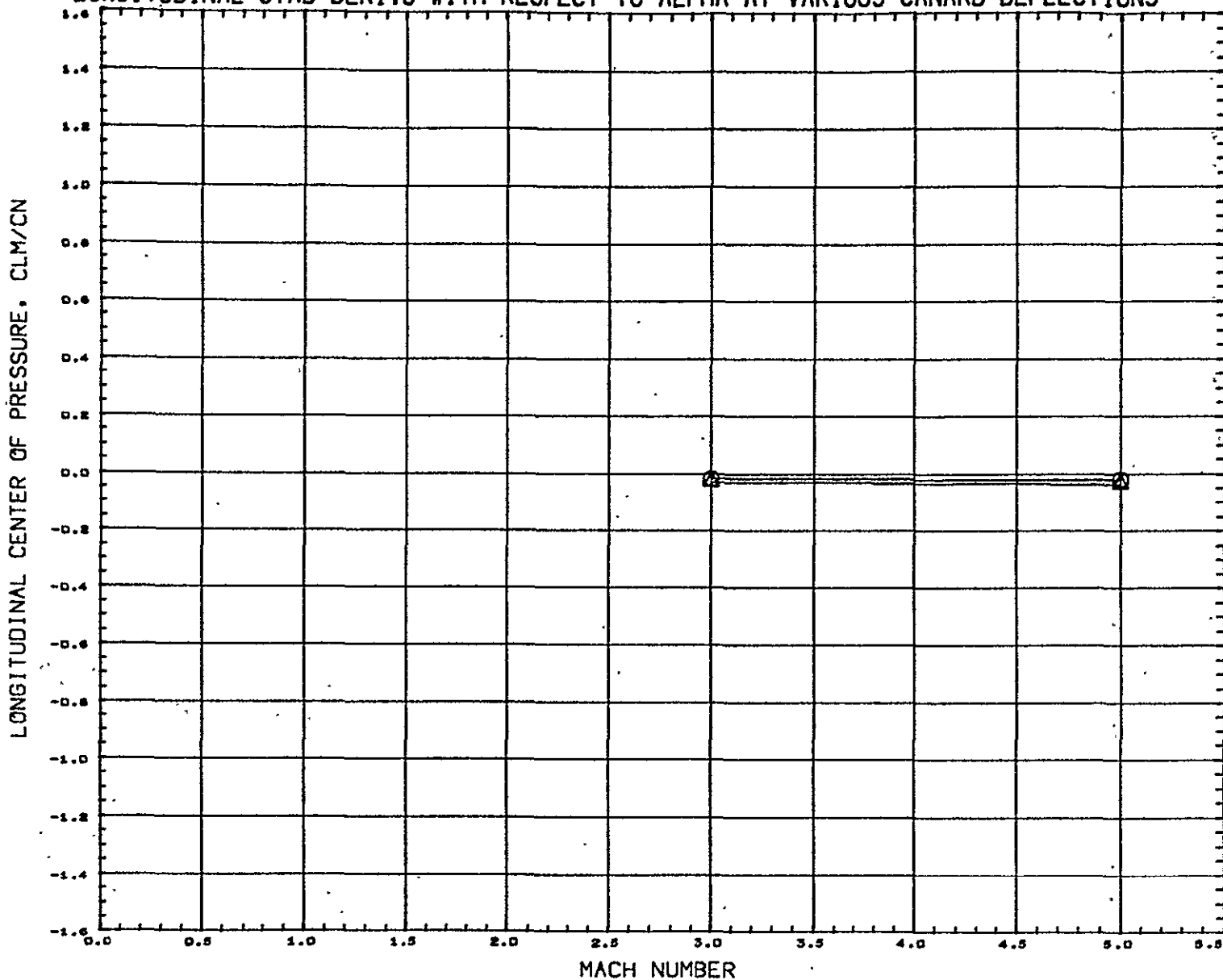
SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION		
○	ALPHA 10.000	BETA 0.000	DEL 0.000	DCL - 60.000	SREF 15.6500	89. IN.		
△	20.000	DER 0.000	ELEVON 0.000		LREF 3.0050	IN.		
		DCR - 60.000	AILRON 0.000		BREF 6.0090	IN.		
		CANARD - 60.000			XHRP 6.7100	IN.		
					YHRP 0.0000	IN.		
					ZHRP 0.0000	IN.		
					SCALE 0.0035			
	DATA HIST. CODE	MVR#E1						

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LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

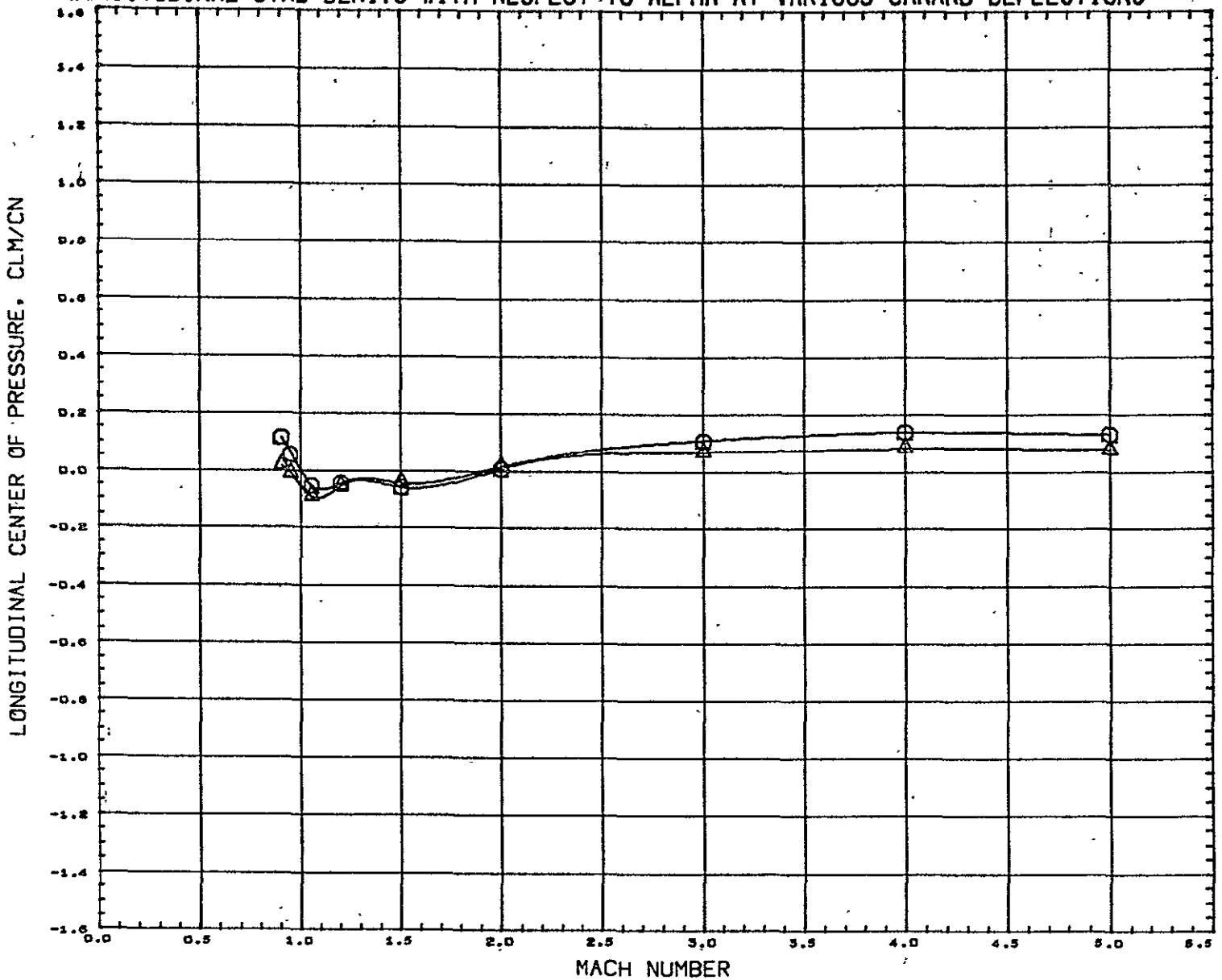


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	- 60.000
		DCR	- 60.000	ELEVON	0.000
		CANARD	- 60.000	AILRON	0.000

DATA HIST. CODE MVR#EI

REFERENCE INFORMATION		
SREF	15.6560	89. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

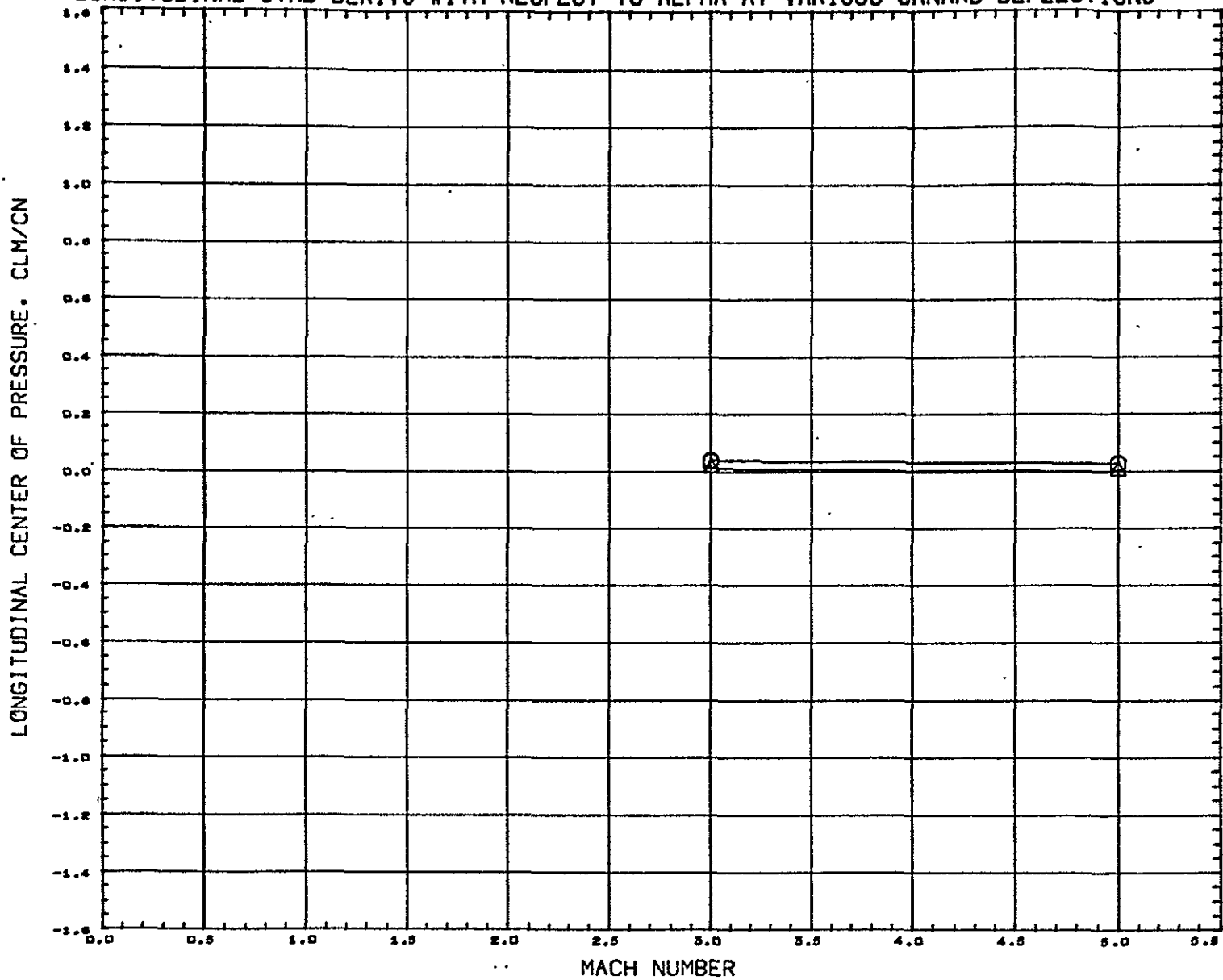


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

DATA HIST. CODE MVR#E1

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

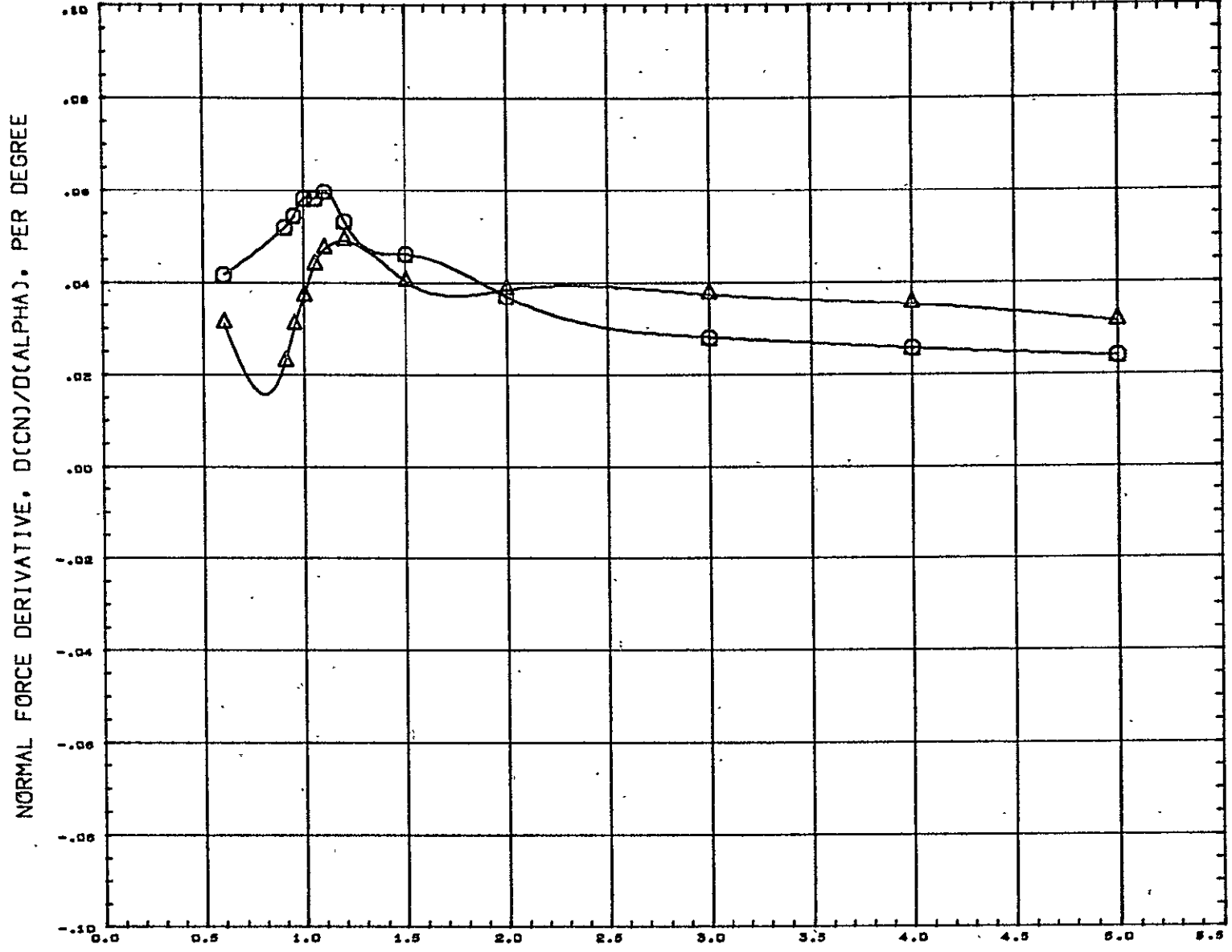


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.0560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



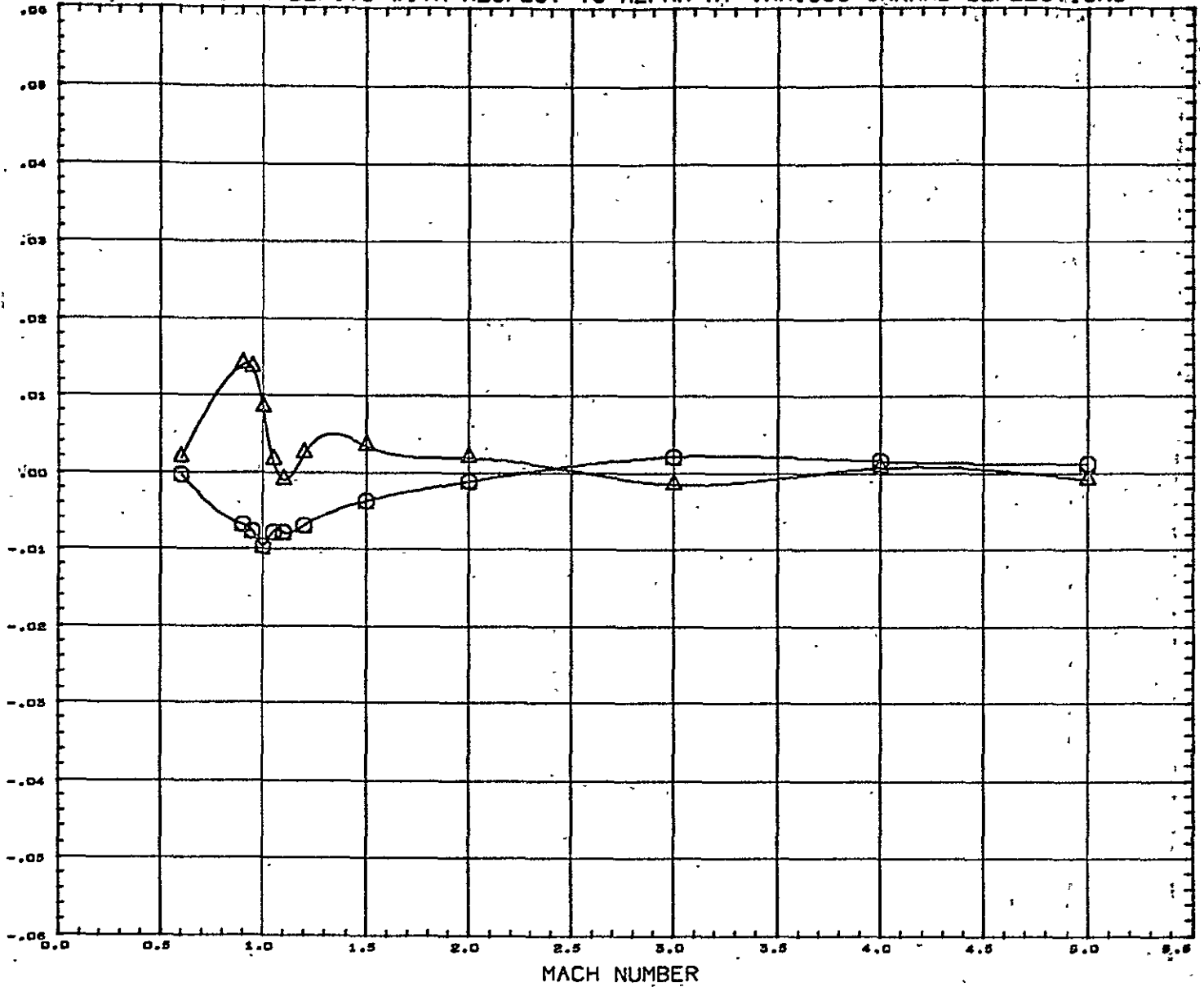
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0900	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0055	

DATA HIST. CODE MVR#EG1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT DERIVATIVE, $dC_{Lm}/d(\alpha)$, PER DEGREE

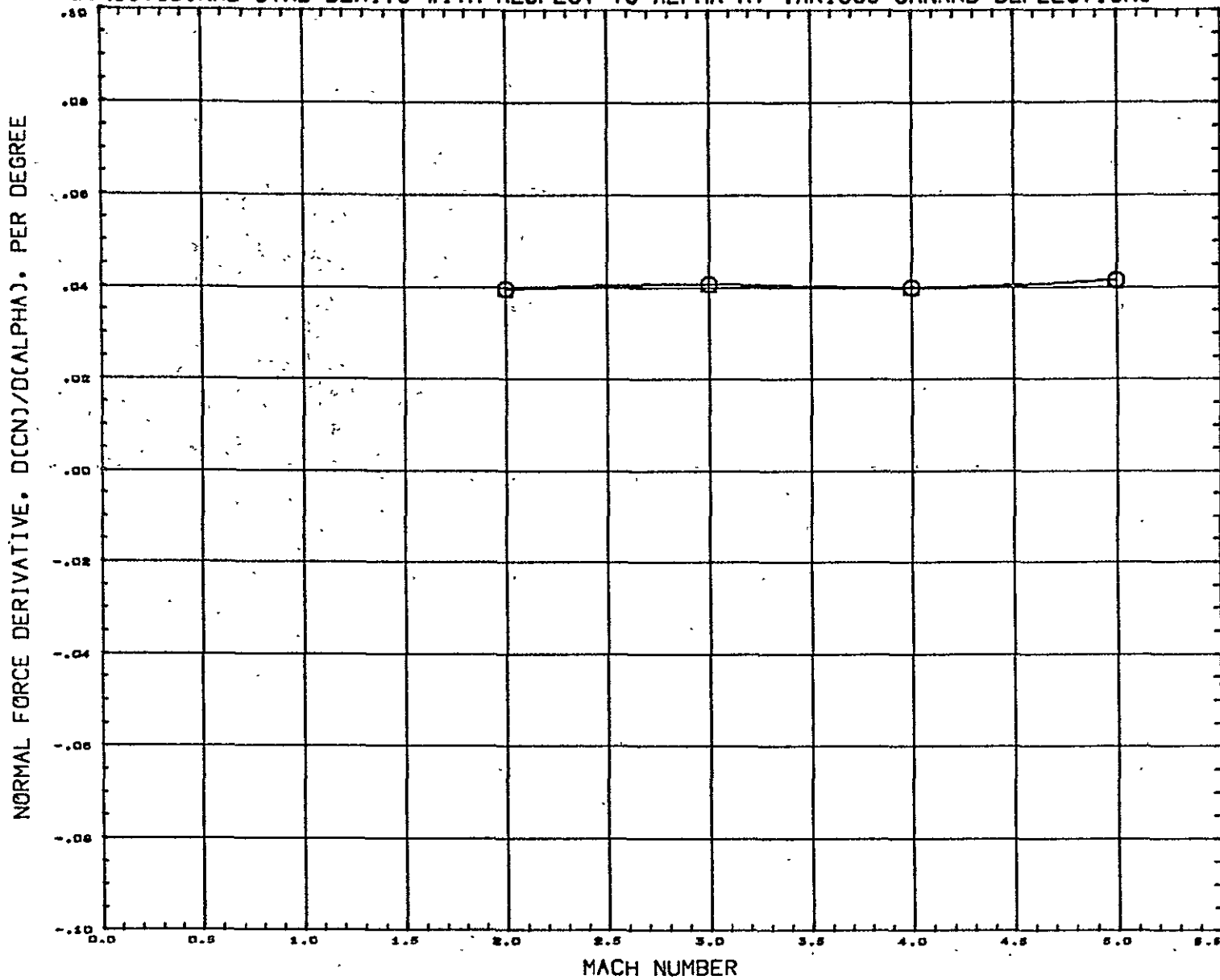


SYMBOL	ALPHA	PARAMETRIC VALUES			
△	10.000	BETA	0.000	DEL	0.000
○	20.000	DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#EG1

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0055	

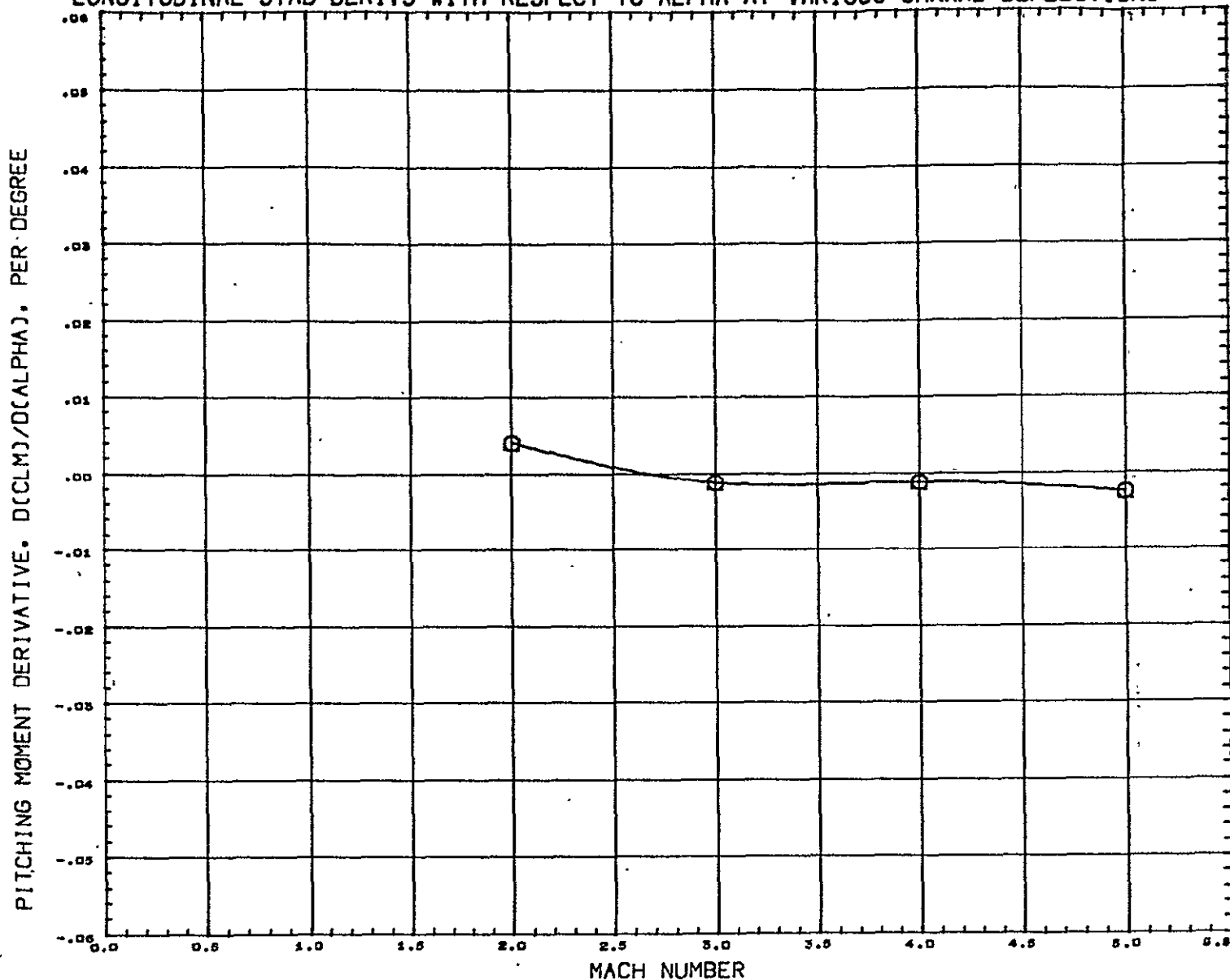
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AILRON	0.000
		DATA HIST. CODE	MVR#EG1		

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0036	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

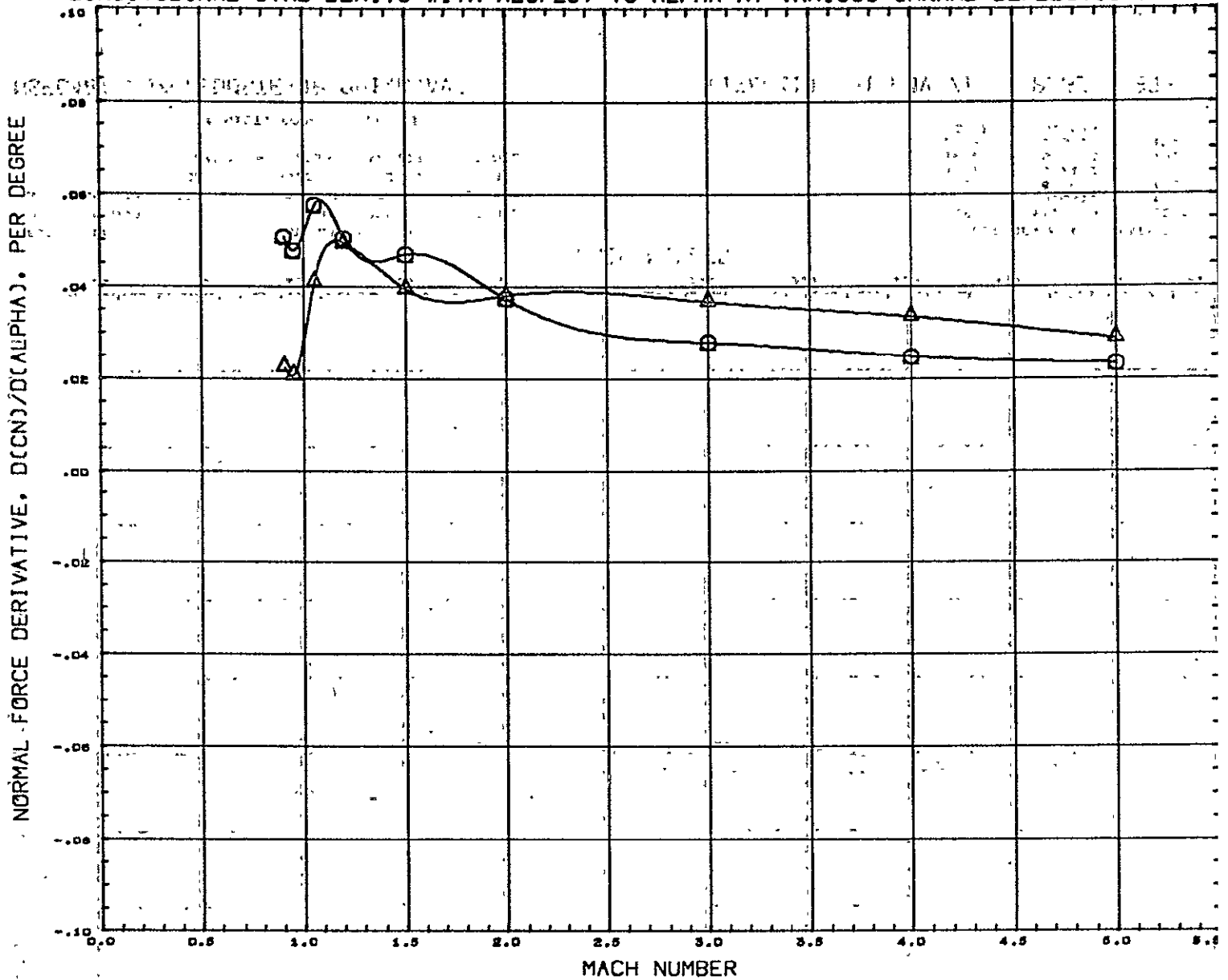


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
		DER	0.000	DCL	0.000
		DCR	0.000	ELEVON	0.000
		CANARD	0.000	AIRCAN	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EG1

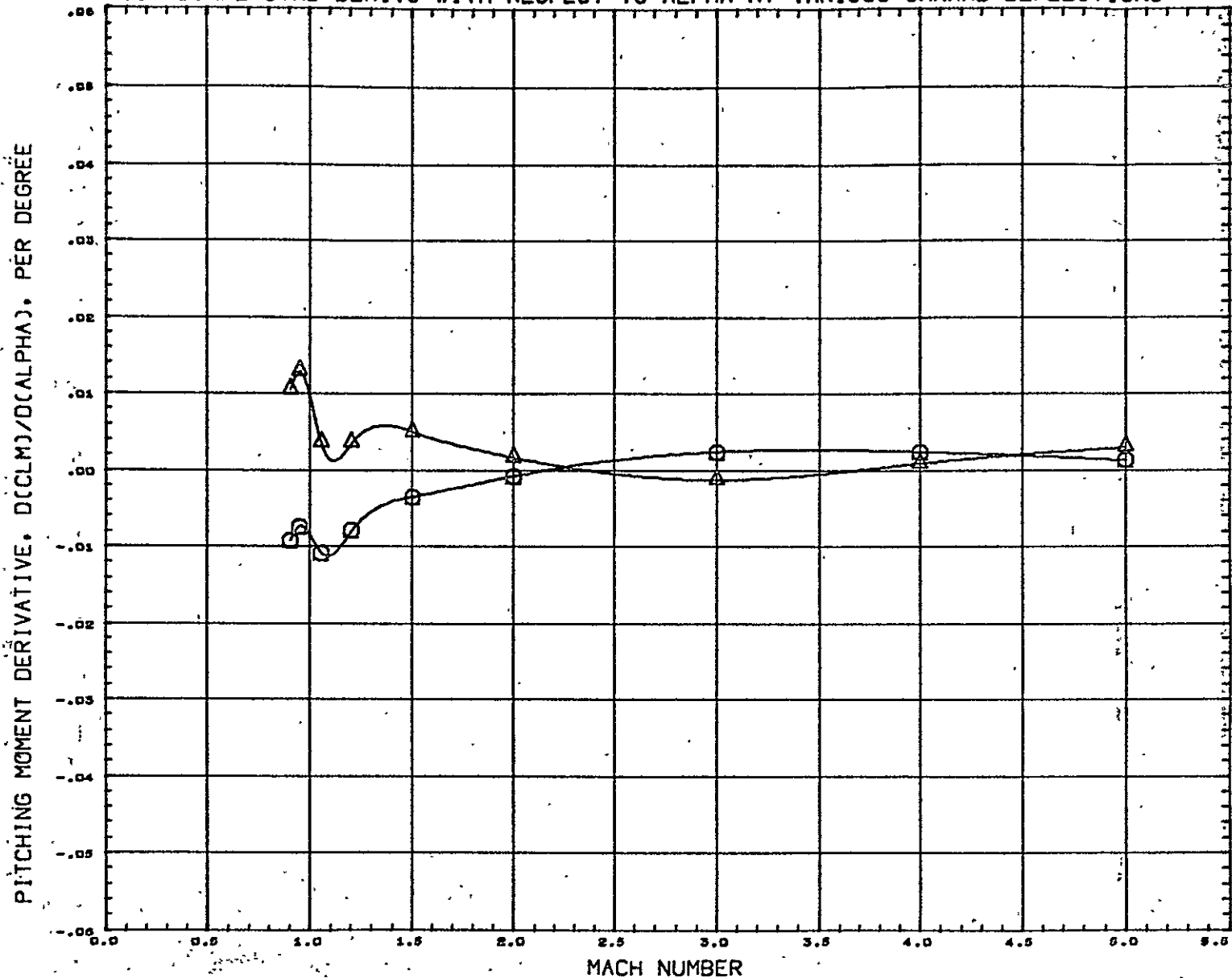
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	-30.000
		DCR	30.000	ELEVON	0.000
		CANARD	30.000	AILRON	0.000
DATA HIST. CODE		MVR#EG1			

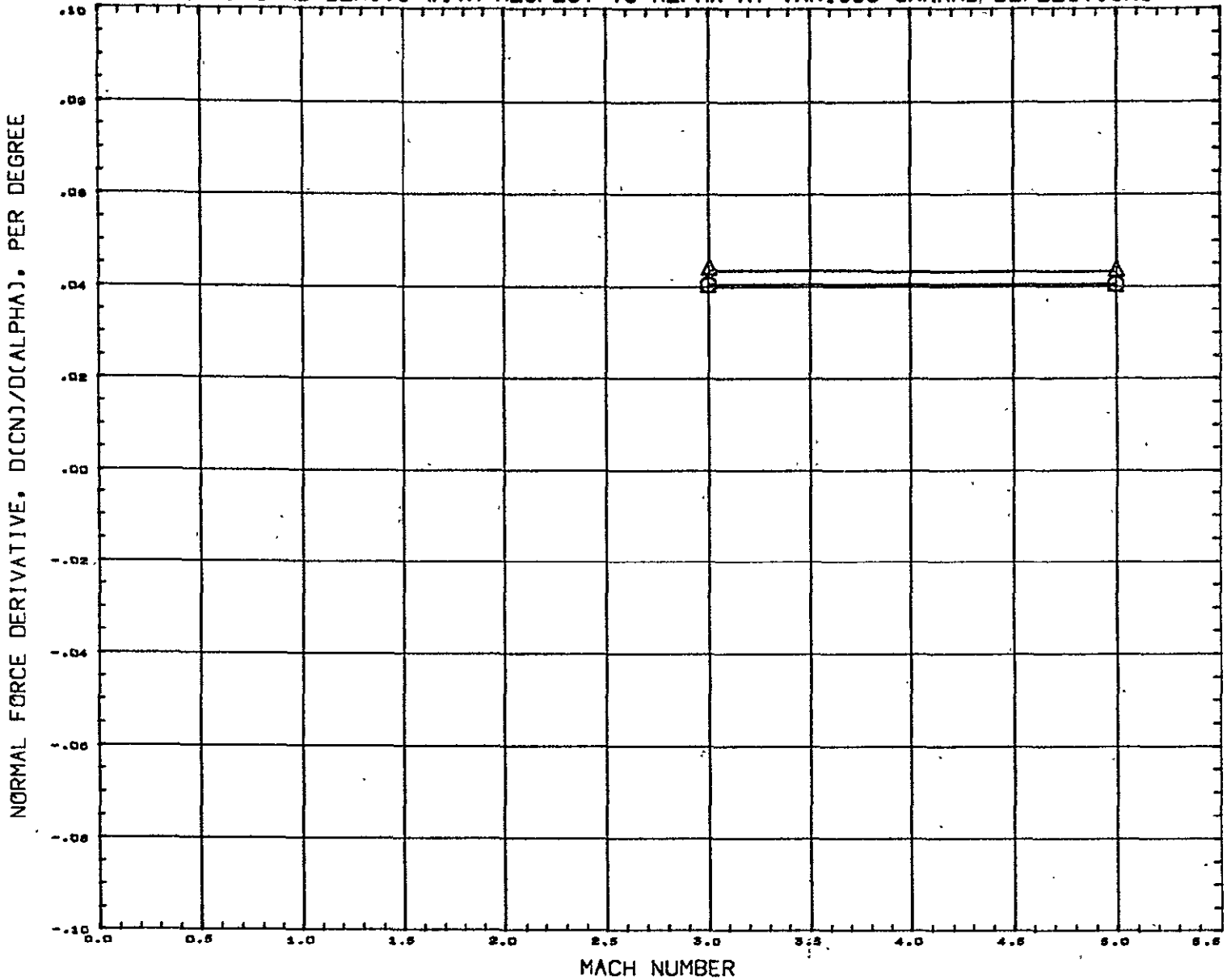
REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL ○ △	ALPHA 10.000 20.000	PARAMETRIC VALUES BETA 0.000 DEL 0.000 DER 0.000 DCL - 30.000 DCR 30.000 ELEVON 0.000 CANARD - 30.000 AILRON 0.000	REFERENCE INFORMATION SREF 15.6560 80. IN. LREF 3.0950 IN. BREF 6.0990 IN. YMRP 4.7300 IN. ZMRP 0.0000 IN. SCALE 0.0035
		DATA HIST. CODE MVR#EGI	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

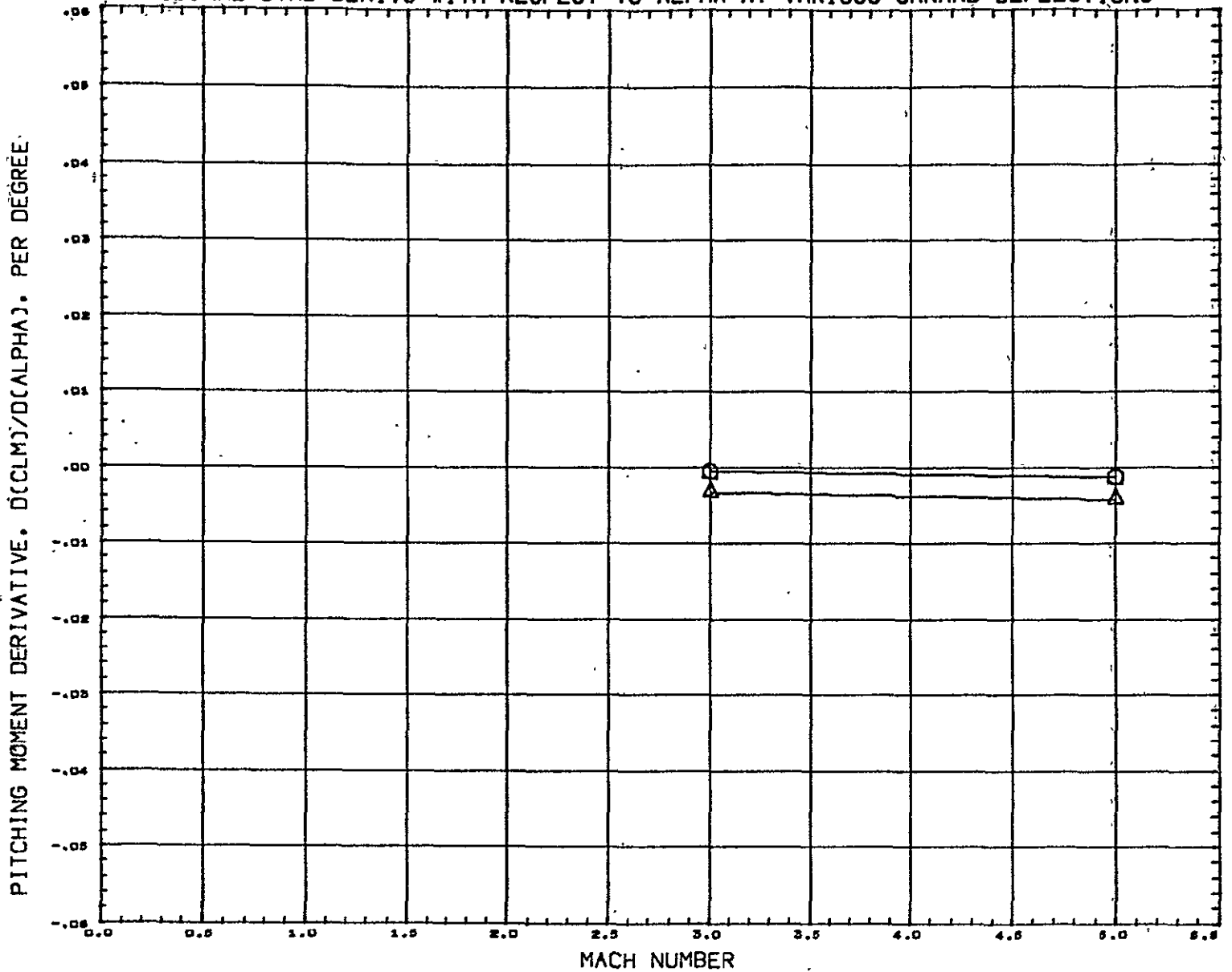


SYMBOL	ALPHA	PARAMETRIC VALUES			
Δ	30.000	BETA	0.000	DEL	0.000
	40.000	DER	0.000	DCL	- 30.000
		DCR	30.000	ELEVON	0.000
		CANARD	- 30.000	AILRON	0.000

DATA HIST. CODE MVR#EGI

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

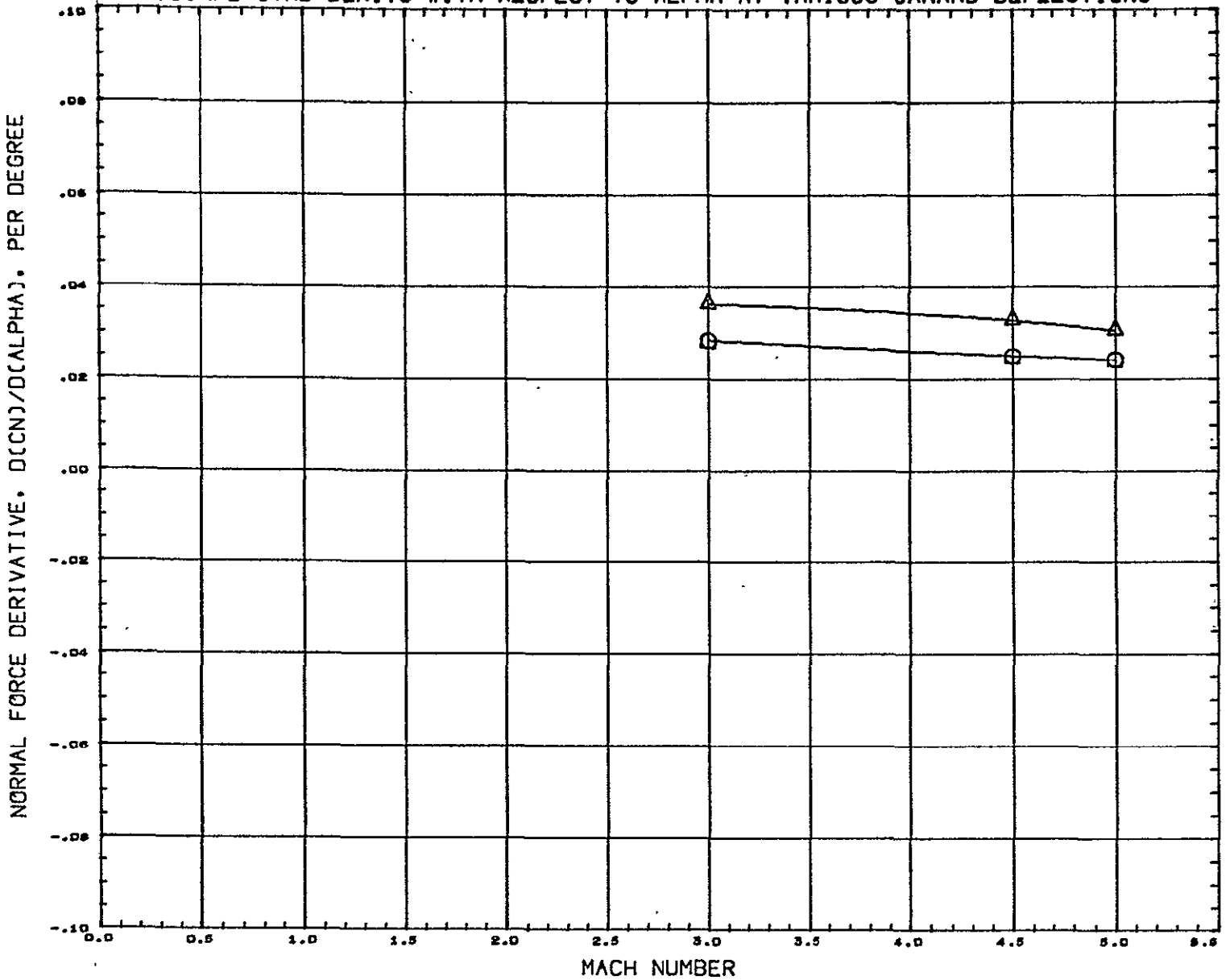


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	- 30.000
		DCR	30.000	ELEVON	0.000
		CANARD	- 30.000	AILRON	0.000

DATA HIST. CODE MVR#EG1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0980	IN.
BREF	6.0990	IN.
XHRF	6.7100	IN.
YHRF	0.0000	IN.
ZHRF	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

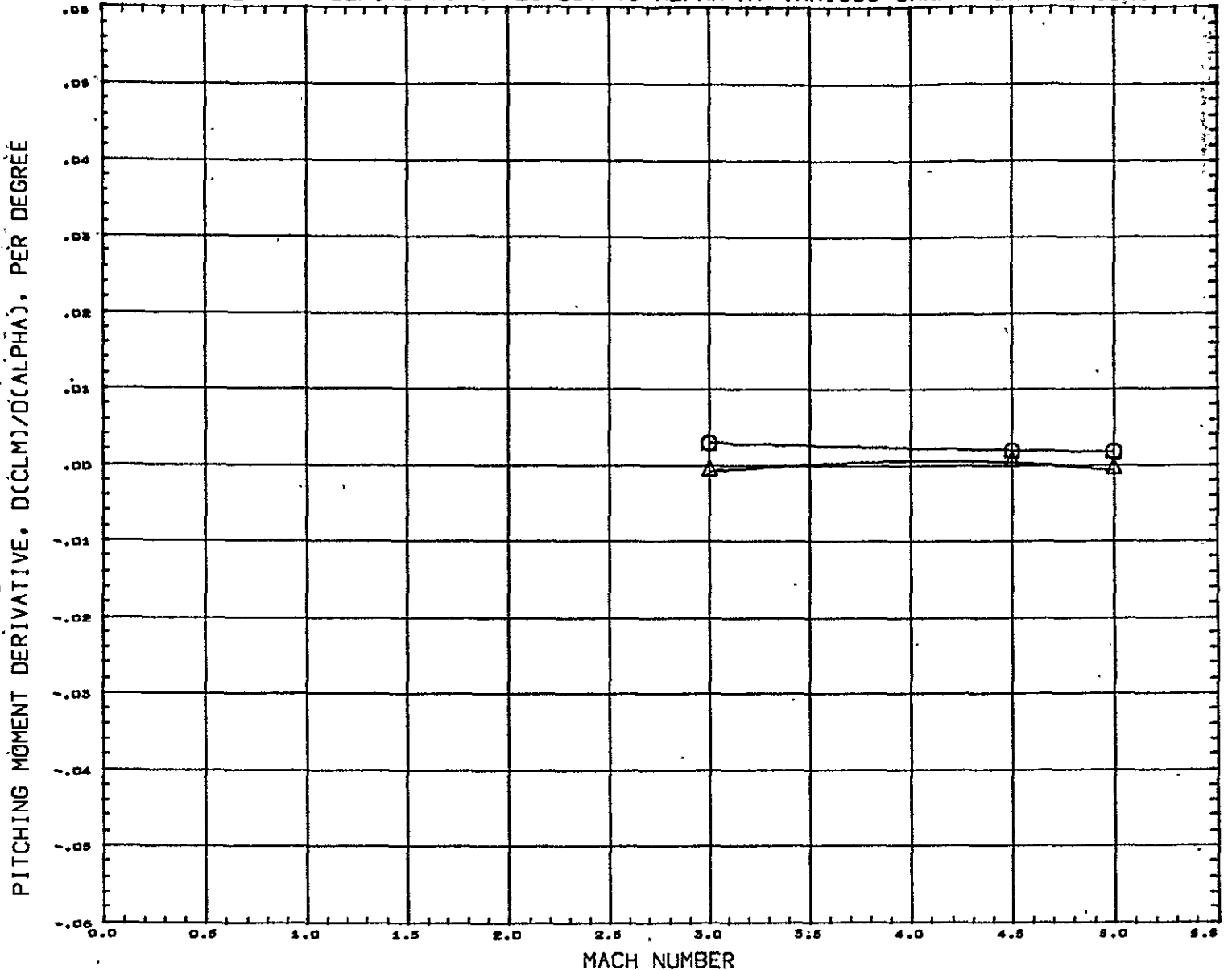


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 45.000
		DCR	- 45.000	ELEVON	0.000
		CANARD	- 45.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6960	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EGI

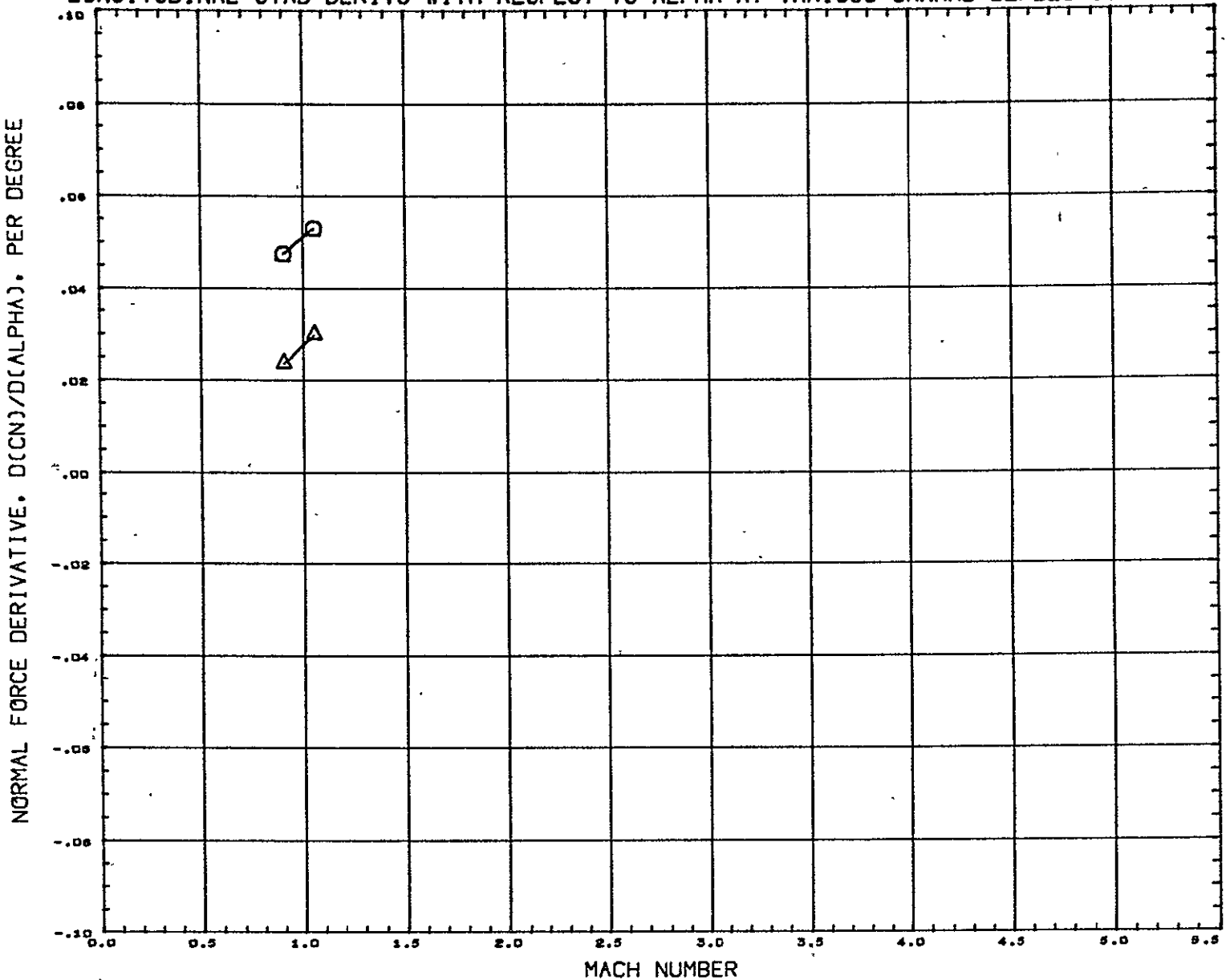
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
△	20.000	DCR	0.000	DCL	- 45.000	LREF	3.0950	IN.
		DCR	- 45.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	- 45.000	AIRLON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#EGI

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



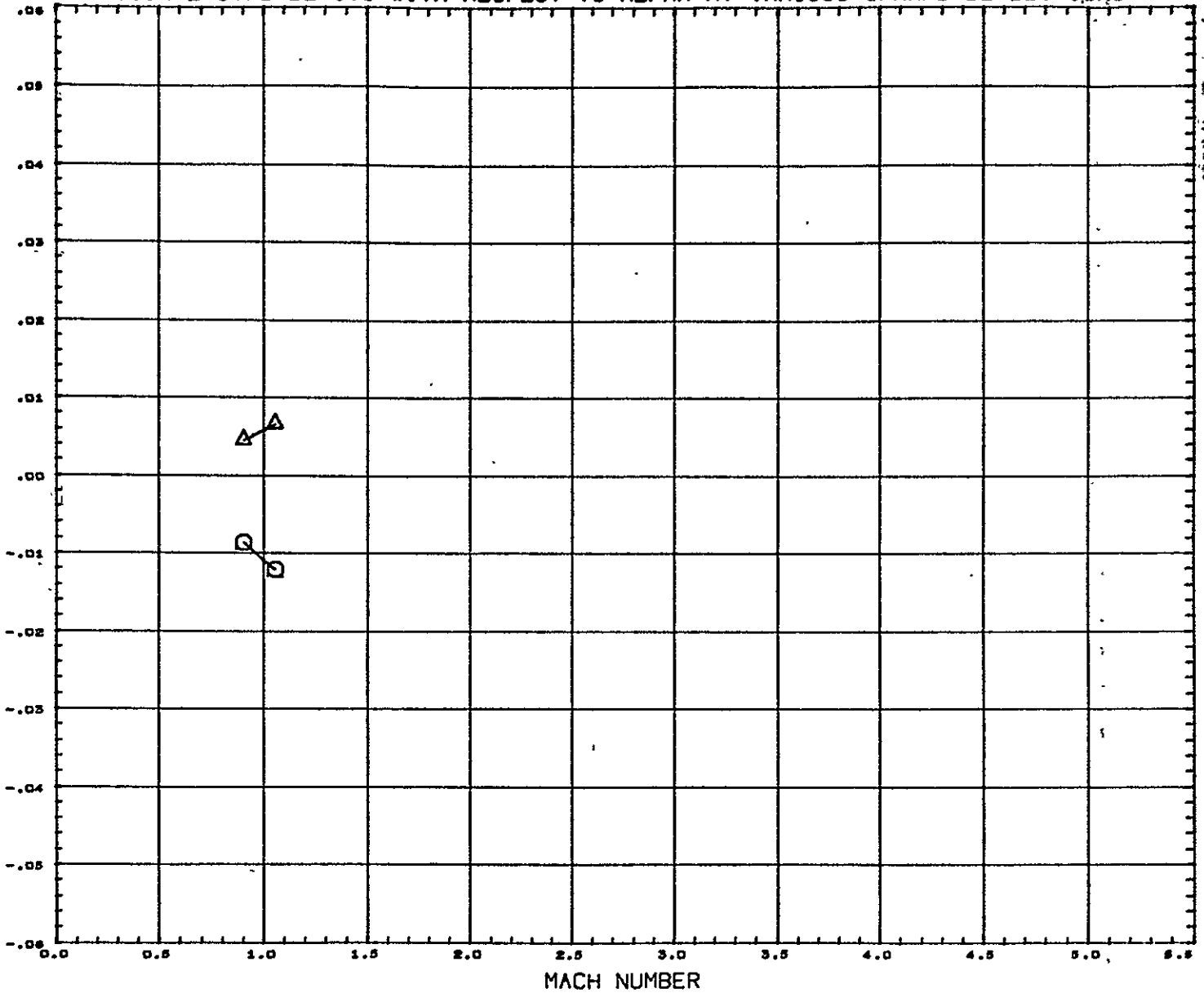
SYMBOL	ALPHA	PARAMETRIC VALUES			
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△	20.000	DER	0.000	DCL	- 60.000
		DCR	- 60.000	ELEVON	0.000
		CANARD	- 60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EG1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT DERIVATIVE, $dC_{LM}/d(\alpha)$, PER DEGREE

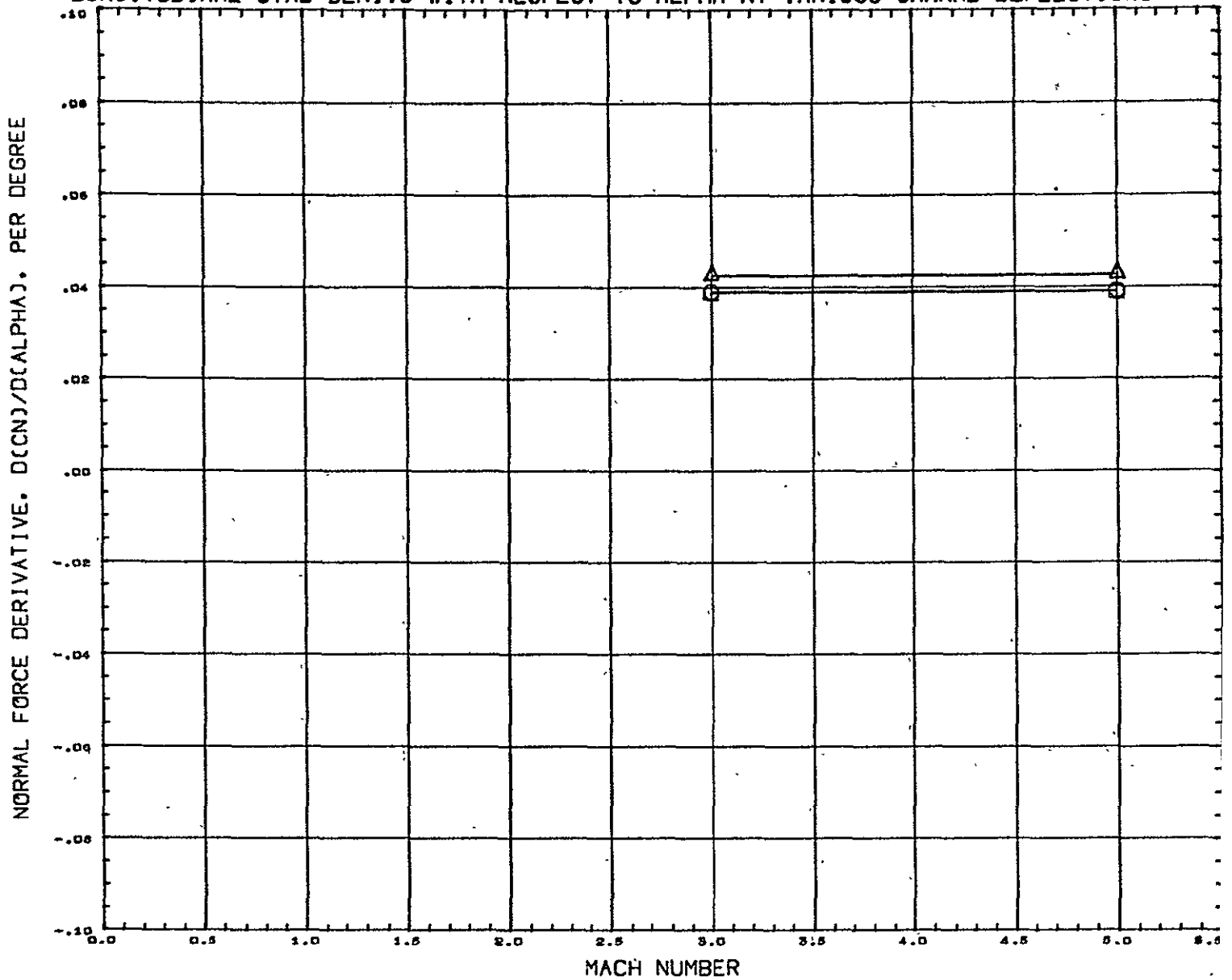


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 60.000
		DCR	- 60.000	ELEVON	0.000
		CANARD	- 60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

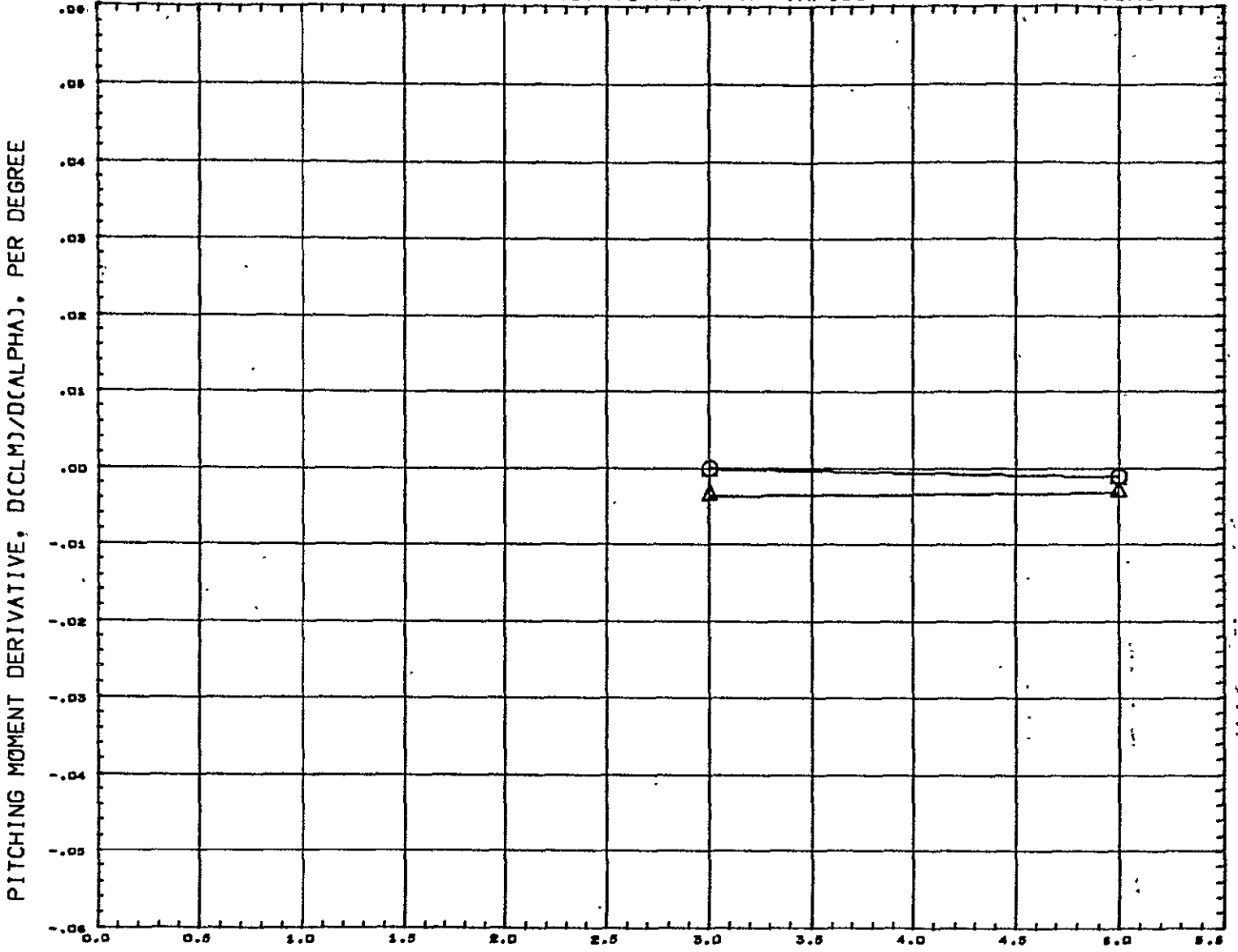
DATA HIST. CODE MVR#EG1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	30.000	BETA	0.000	DEL	0.000	SREF	15.6560	89. IN.
△	40.000	DER	0.000	DCL	- 60.000	LREF	3.0950	IN.
		DCR	- 60.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	- 60.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#61					

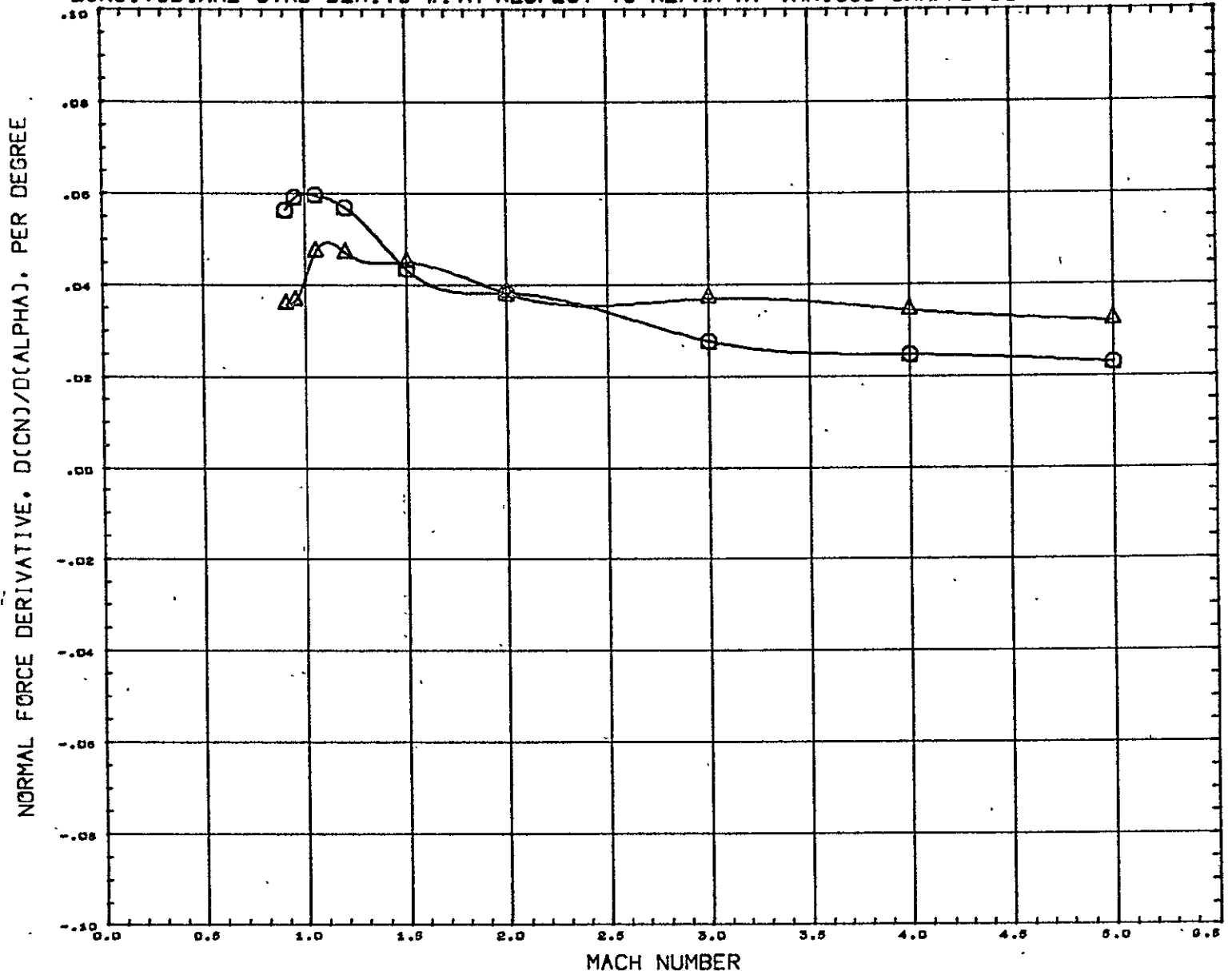
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	30.000	BETA	0.000	DEL	0.000	SREF	15.6560	82.1N.
△	40.000	DER	0.000	DCL	-60.000	LREF	3.0950	IN.
		DCR	-60.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	-60.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR#EG1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



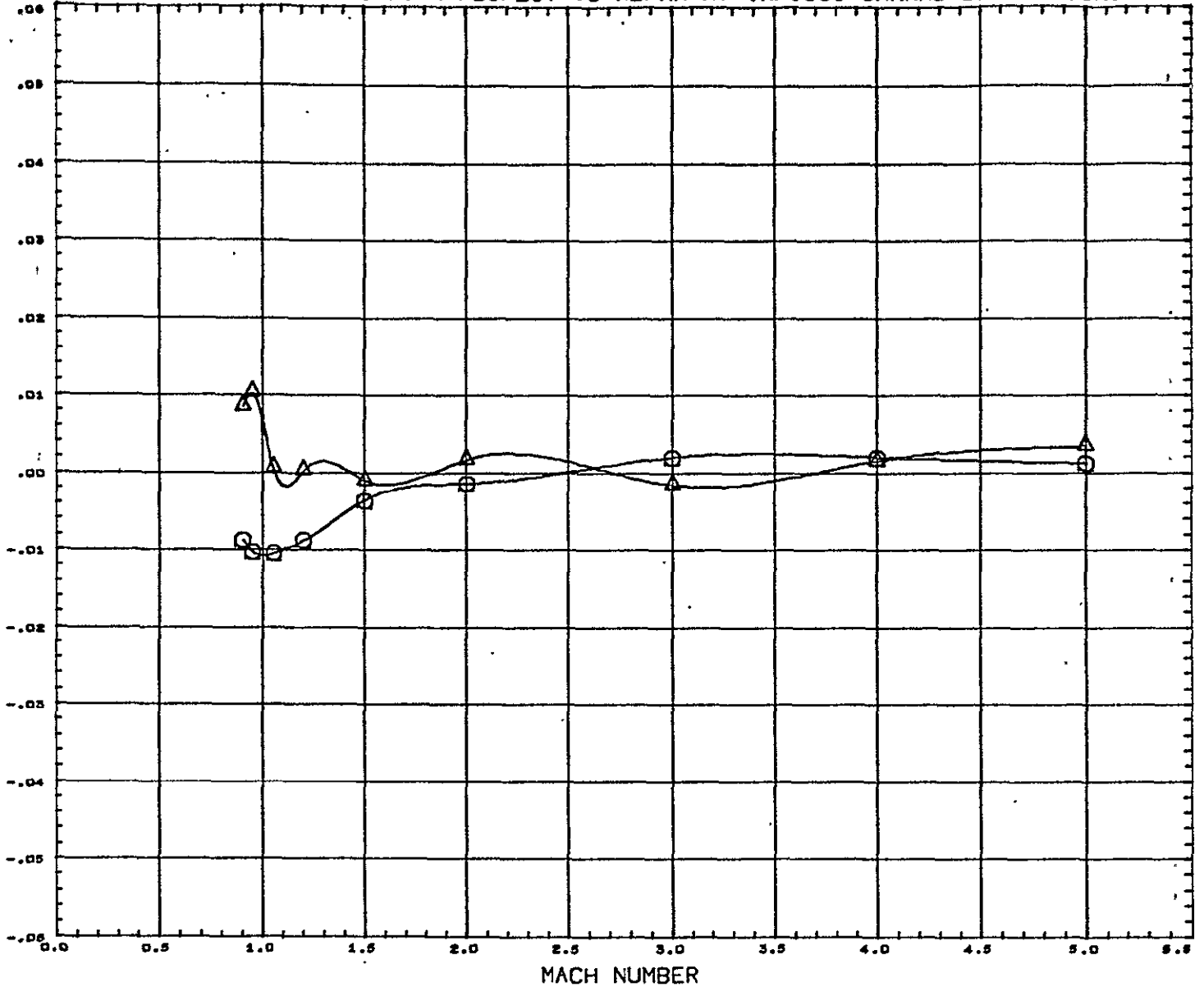
SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#61

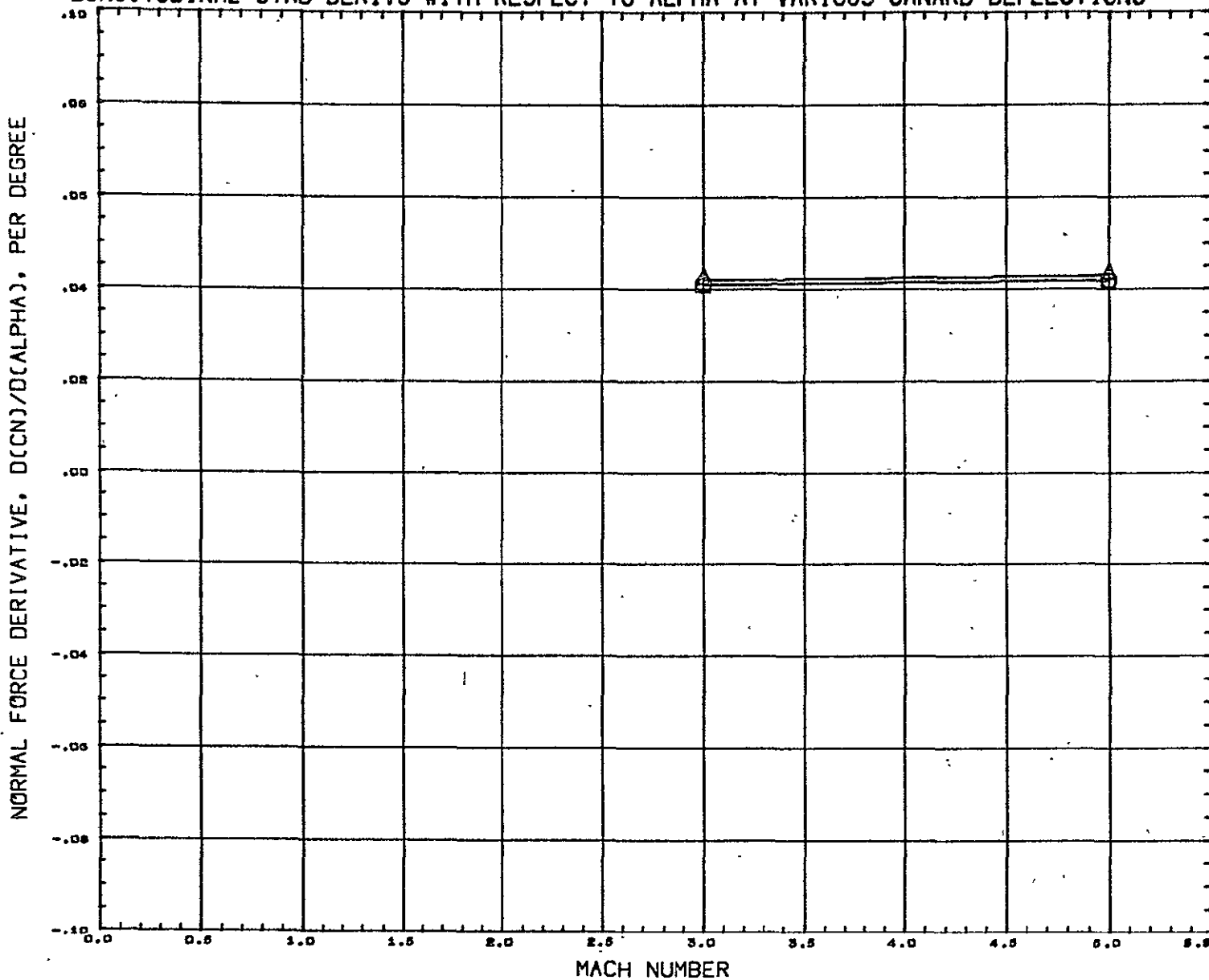
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

PITCHING MOMENT DERIVATIVE: $DC_{CLM}/D(\alpha)$, PER DEGREE



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	10.000	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
△	20.000	DER	0.000	DCL	15.000	LREF	3.0950	IN.
		DCR	15.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	15.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#EG1					

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

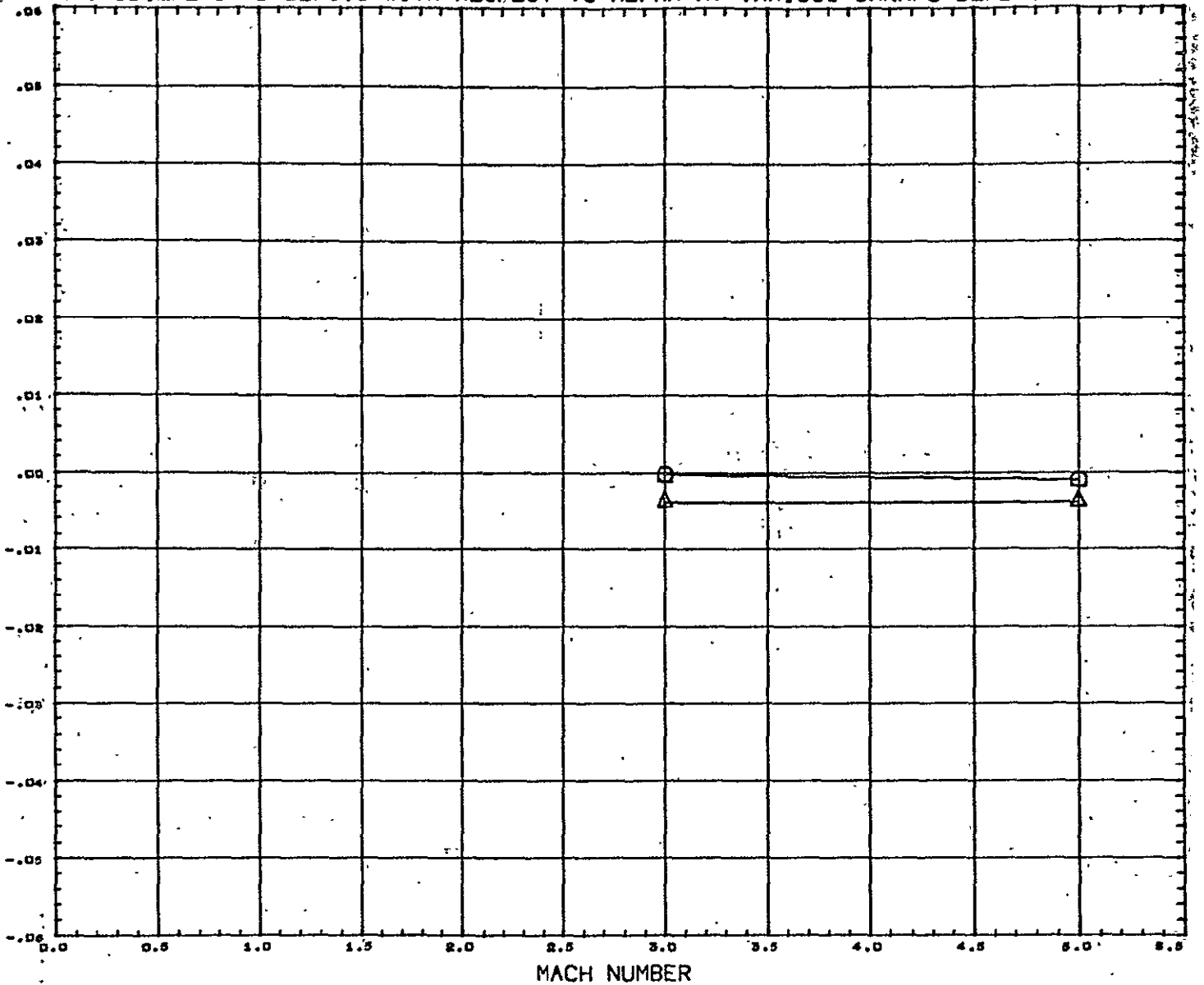


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	30.000	BETA	0.000	DEL	0.000
△	40.000	DER	0.000	DCL	15.000
		DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
BREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0036	

DATA HIST. CODE MVR#EG1

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS:



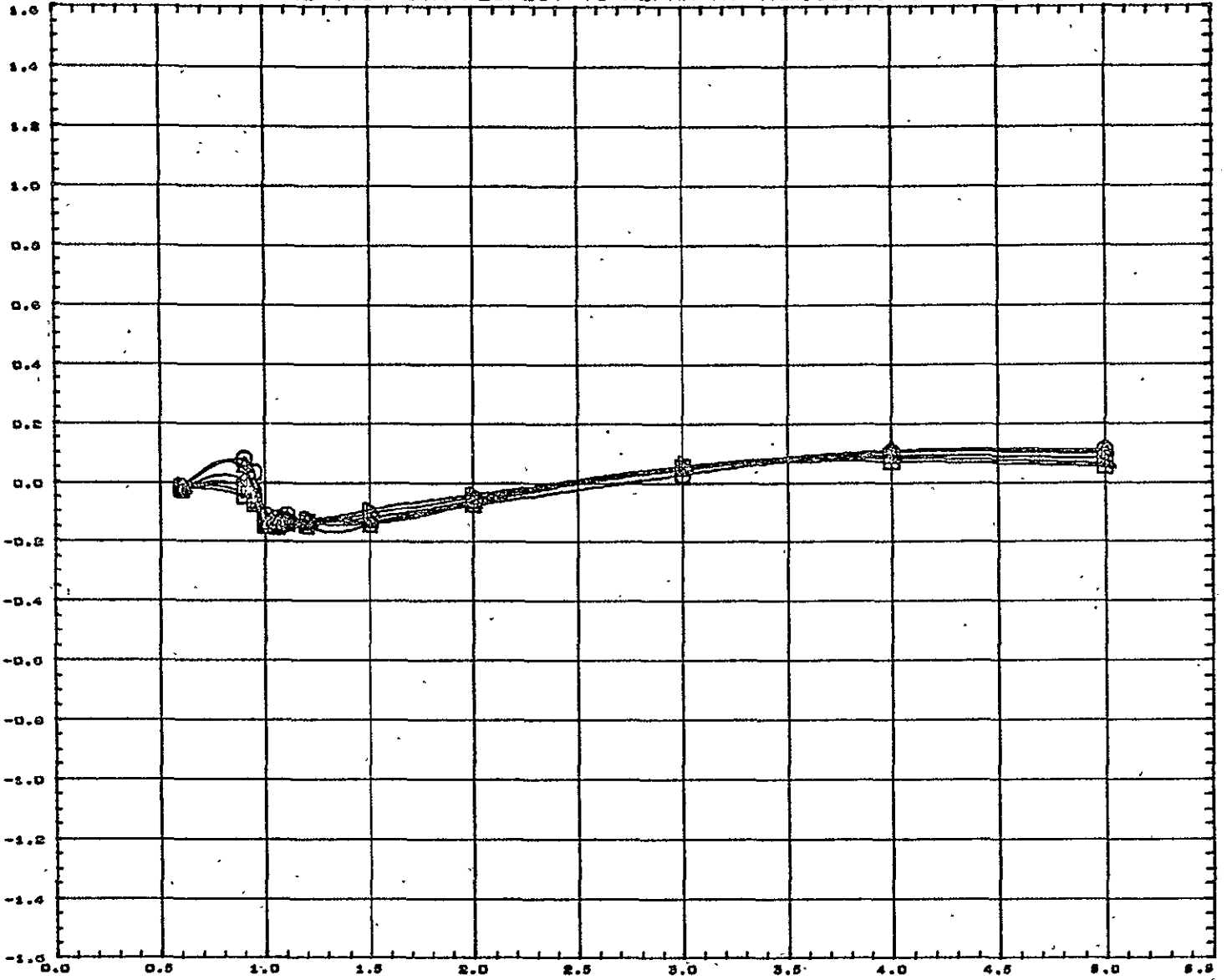
ALPHA	PARAMETRIC VALUES			
30.000	BETA	0.000	DEL	0.000
40.000	DER	0.000	DCL	15.000
	DCR	15.000	ELEVON	0.000
	CANARD	15.000	AILRON	0.000

DATA HIST. CODE HVR#EG1

REFERENCE INFORMATION		
SREF	15.6560	80. IN.
LREF	5.0950	IN.
BREF	6.0900	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0055	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

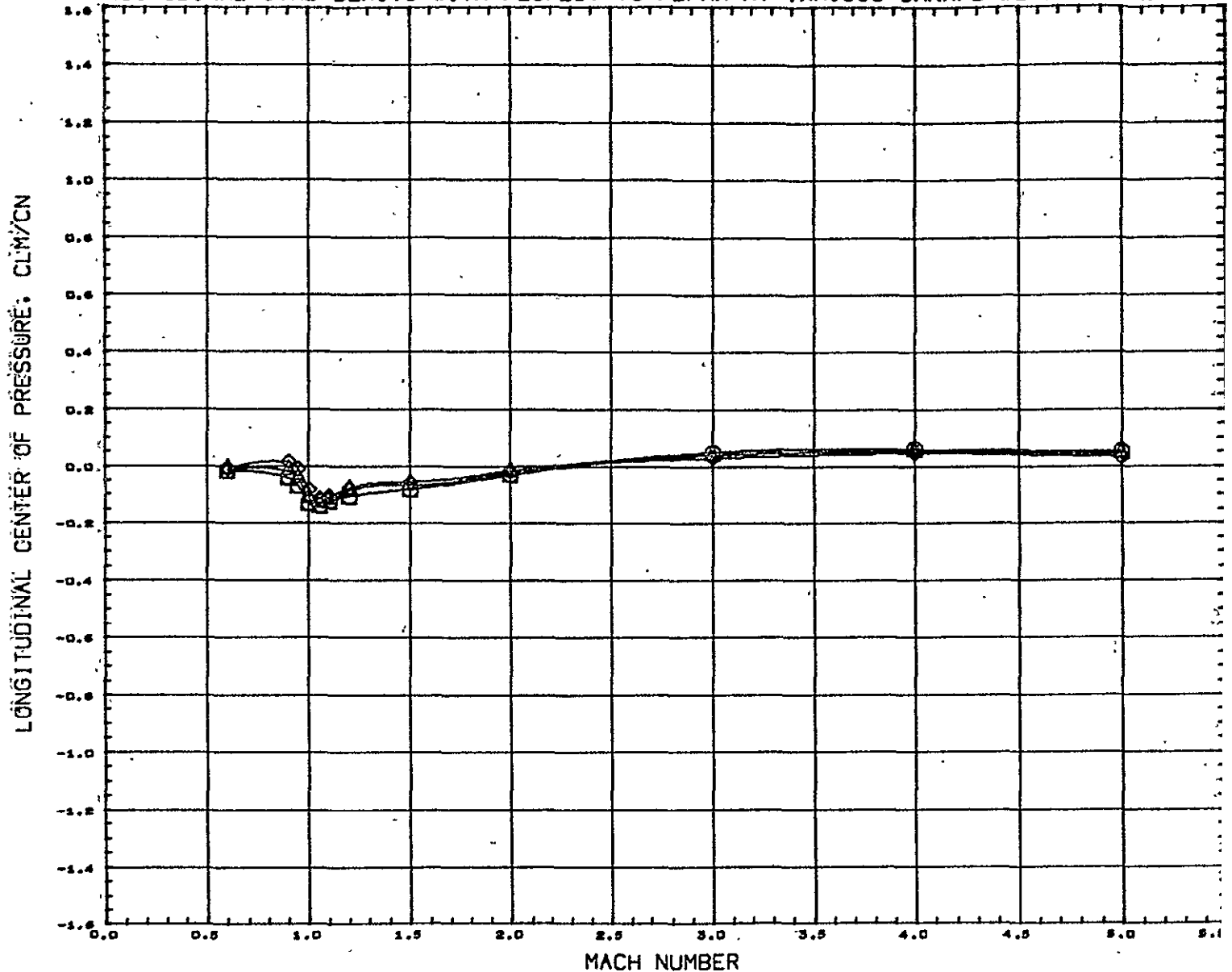
LONGITUDINAL CENTER OF PRESSURE, CLM/CN



MACH NUMBER

SYMBOL	PARAMETRIC VALUES				REFERENCE INFORMATION	
	ALPHA	BETA	DEL	DCL	SRF	IN.
◇	0.000	0.000	0.000	0.000	15.6560	80. IN.
◇	0.000	0.000	0.000	0.000	3.0950	IN.
◇	10.000	0.000	0.000	0.000	6.0990	IN.
◇	12.000	0.000	0.000	0.000	6.7100	IN.
◇	14.000	0.000	0.000	0.000	0.0000	IN.
◇	16.000	0.000	0.000	0.000	0.0000	IN.
	DATA HIST. CODE	MVR#E#CI			SCALE	0.0035

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
△	10.000	BETA	0.000	DEL	0.000	SREF	15.0560	80. IN.
◇	20.000	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	32.000	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
		CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	

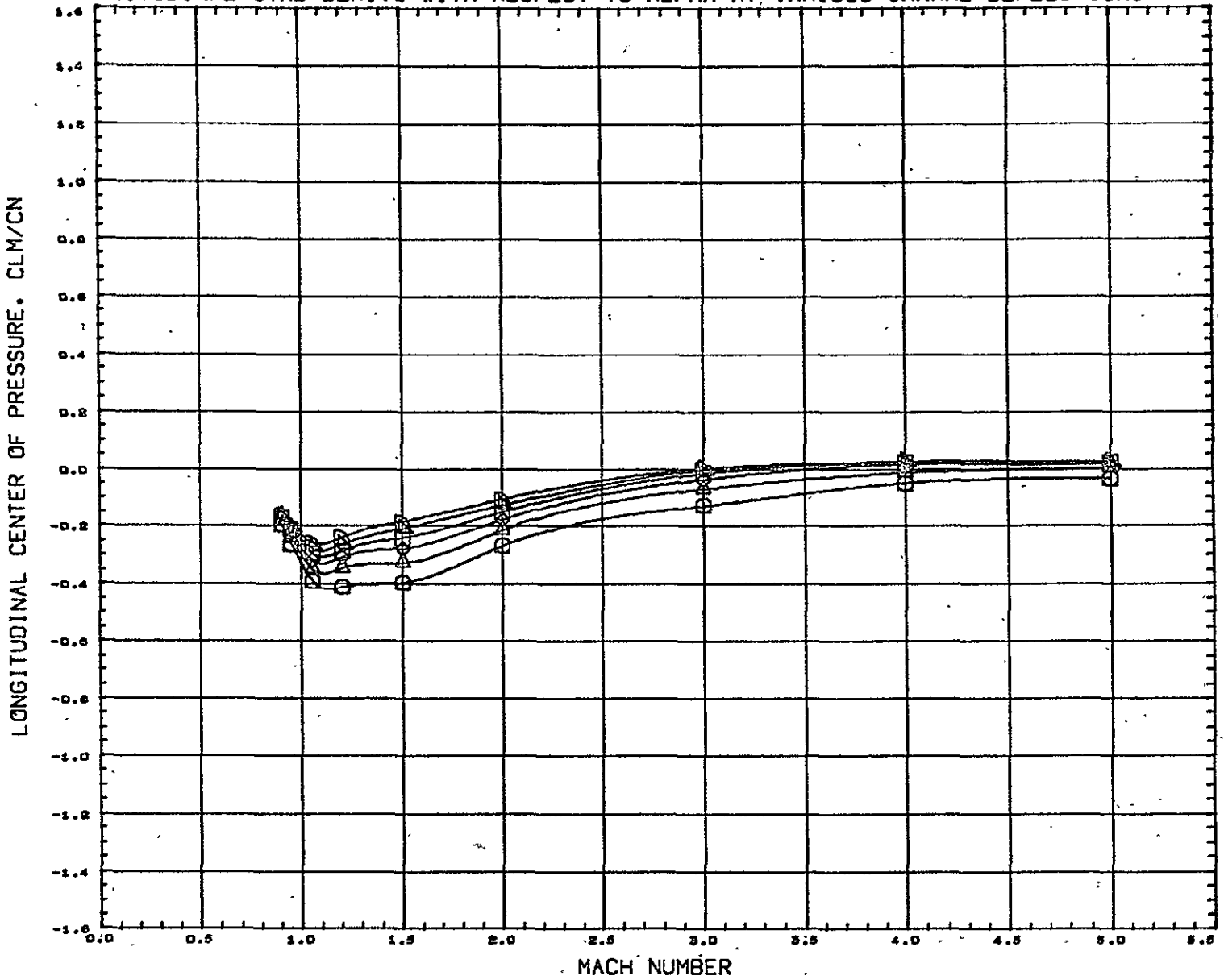
DATA HIST. CODE MVR#E#G1

MSFC481 GD/C(BOOSTER)B19W14C4AV7

(T28001) 01 NOV 71 PAGE 652

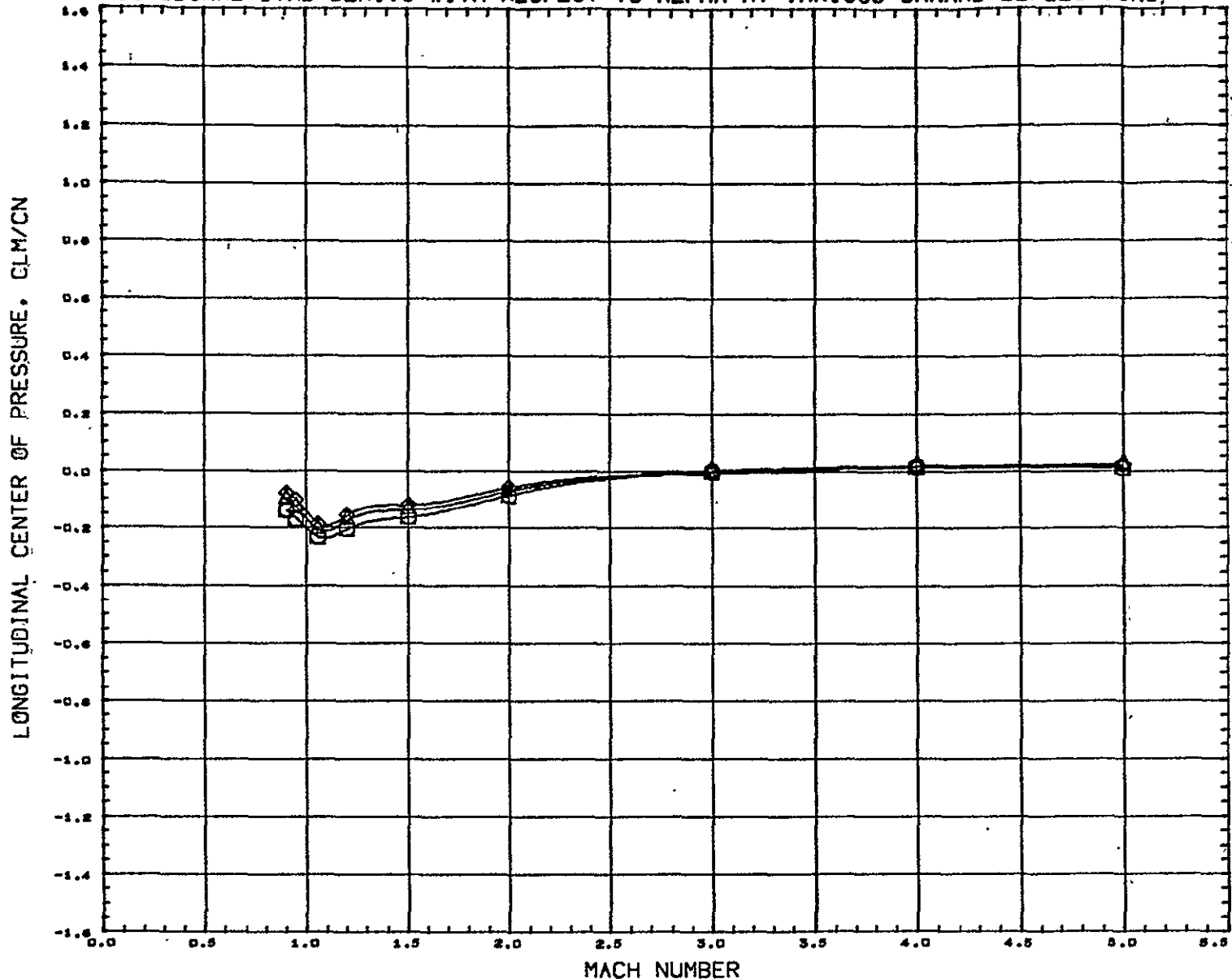
130

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.000	BETA	0.000	DEL	0.000	SRF	15.6560	80. IN.
◇	8.000	DER	0.000	DCL	- 30.000	LREF	3.0850	IN.
◇	10.000	DCR	30.000	ELEVON	0.000	ORF	6.0690	IN.
◇	12.000	CANARD	- 30.000	AILRON	0.000	XMRP	6.7100	IN.
◇	14.000					YMRP	0.0000	IN.
◇	16.000					ZMRP	0.0000	IN.
		DATA HIST. CODE		MVR#E#GI		SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

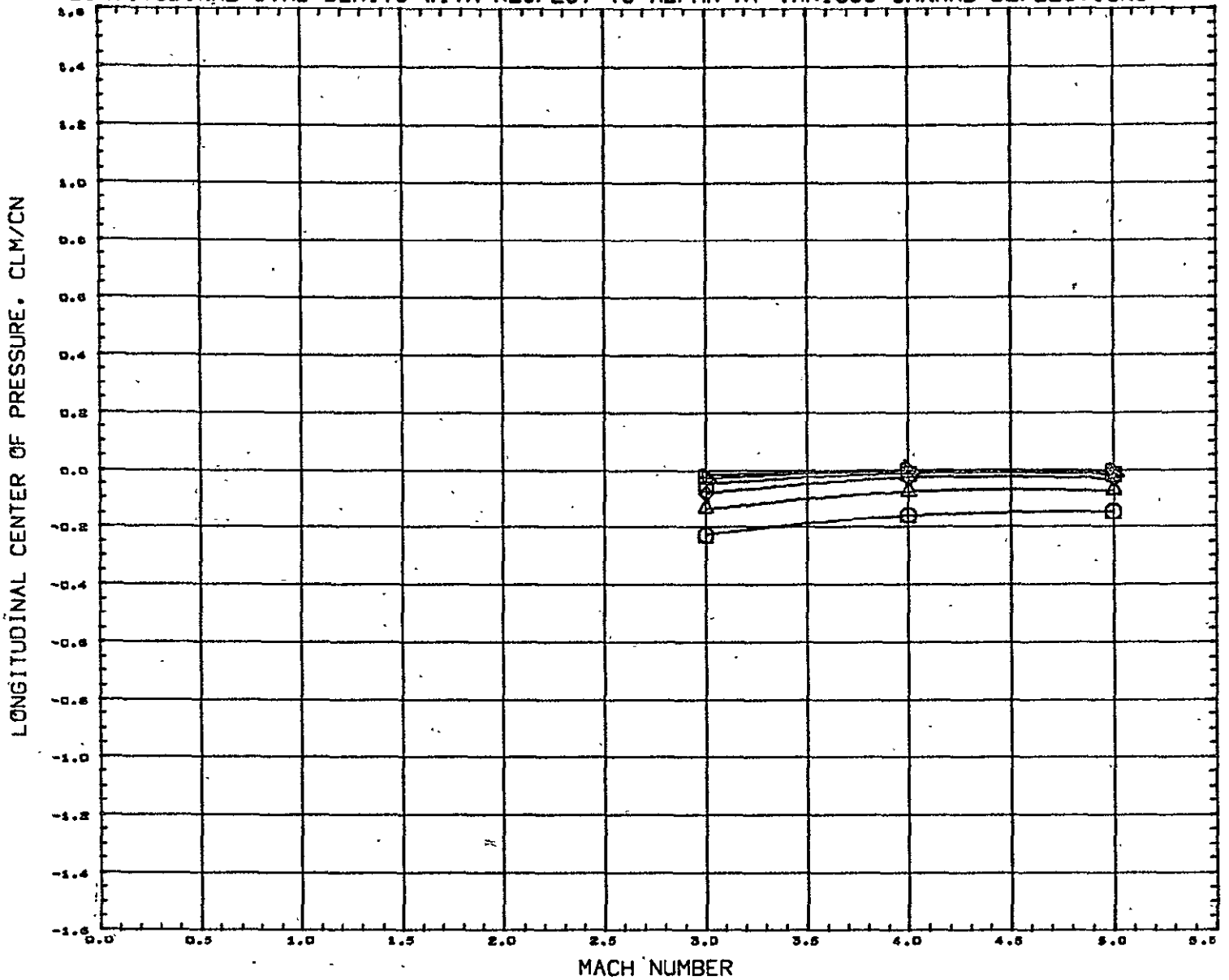


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	18.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	-30.000
◇	22.000	DCR	30.000	ELEVON	0.000
		CANARD	-30.000	AILRON	0.000

DATA HIST. CODE HVR#E#GI

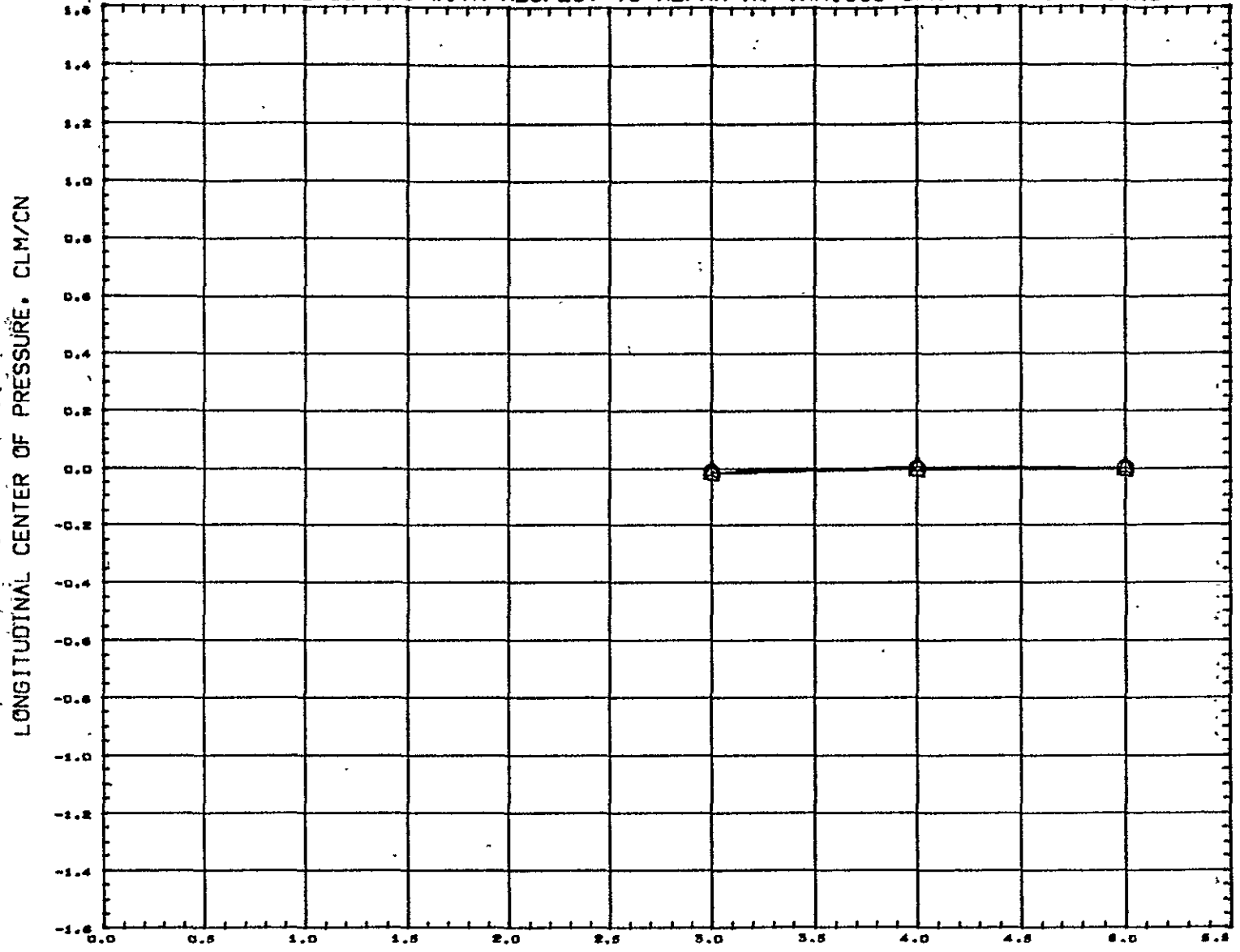
REFERENCE INFORMATION		
SREF	15.6560	89. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	8.000	BETA	0.000	DEL	0.000	SREF	15.6560	90. IN.
◇	8.000	DER	0.000	DCL	-45.000	LREF	3.0990	IN.
◇	10.000	DCR	-45.000	ELEVON	0.000	BREF	6.0990	IN.
◇	12.000	CANARD	-45.000	AIRON	0.000	XMRP	6.7100	IN.
◇	14.000					YMRP	0.0000	IN.
◇	16.000	DATA HIST. CODE	MVR*EIF			ZMRP	0.0000	IN.
						SCALE	0.0035	

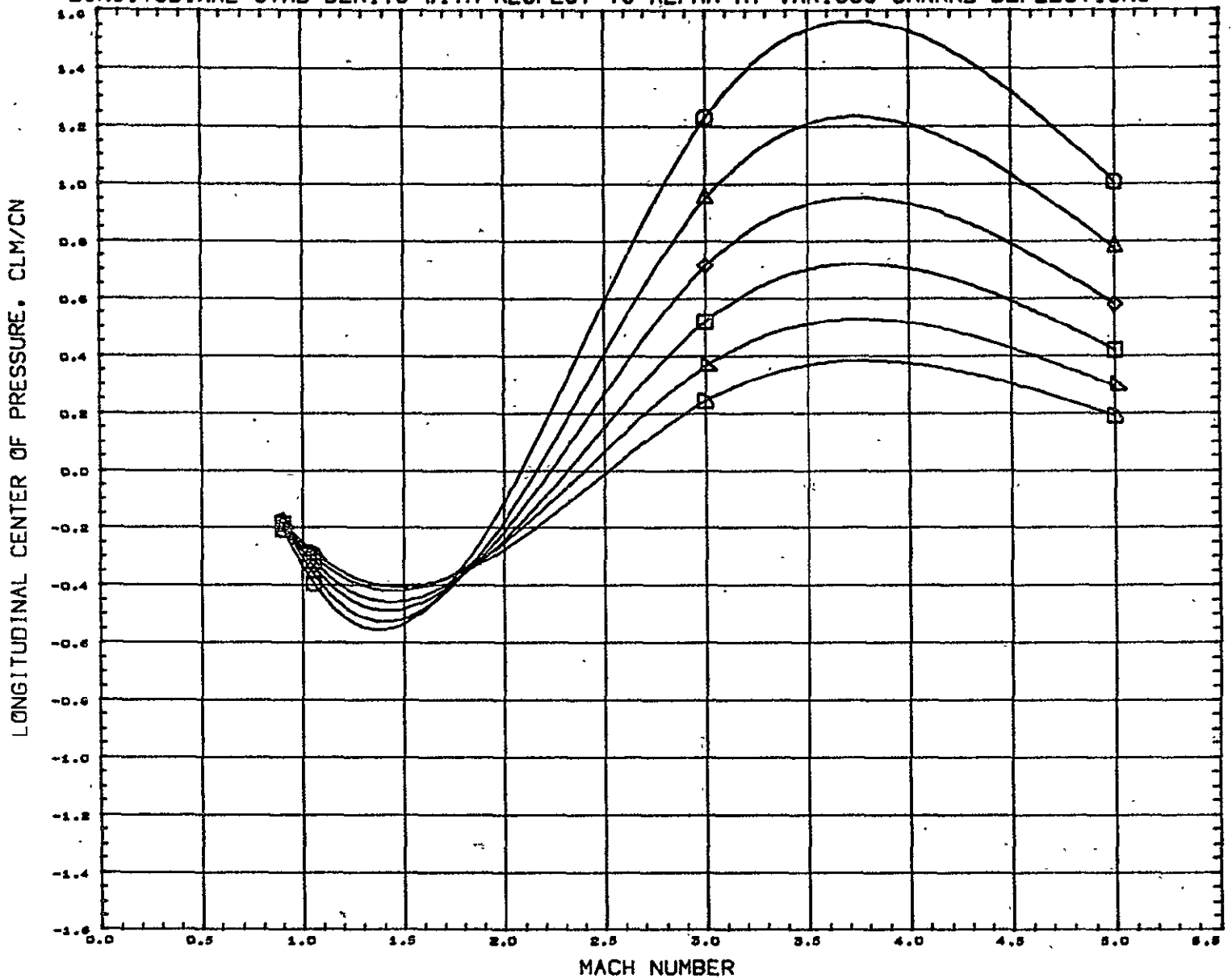
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	- 45.000
		DCR	- 45.000	ELEVON	0.000
		CANARD	- 45.000	AILRON	0.000
		DATA HIST. CODE HVR#EIF			

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

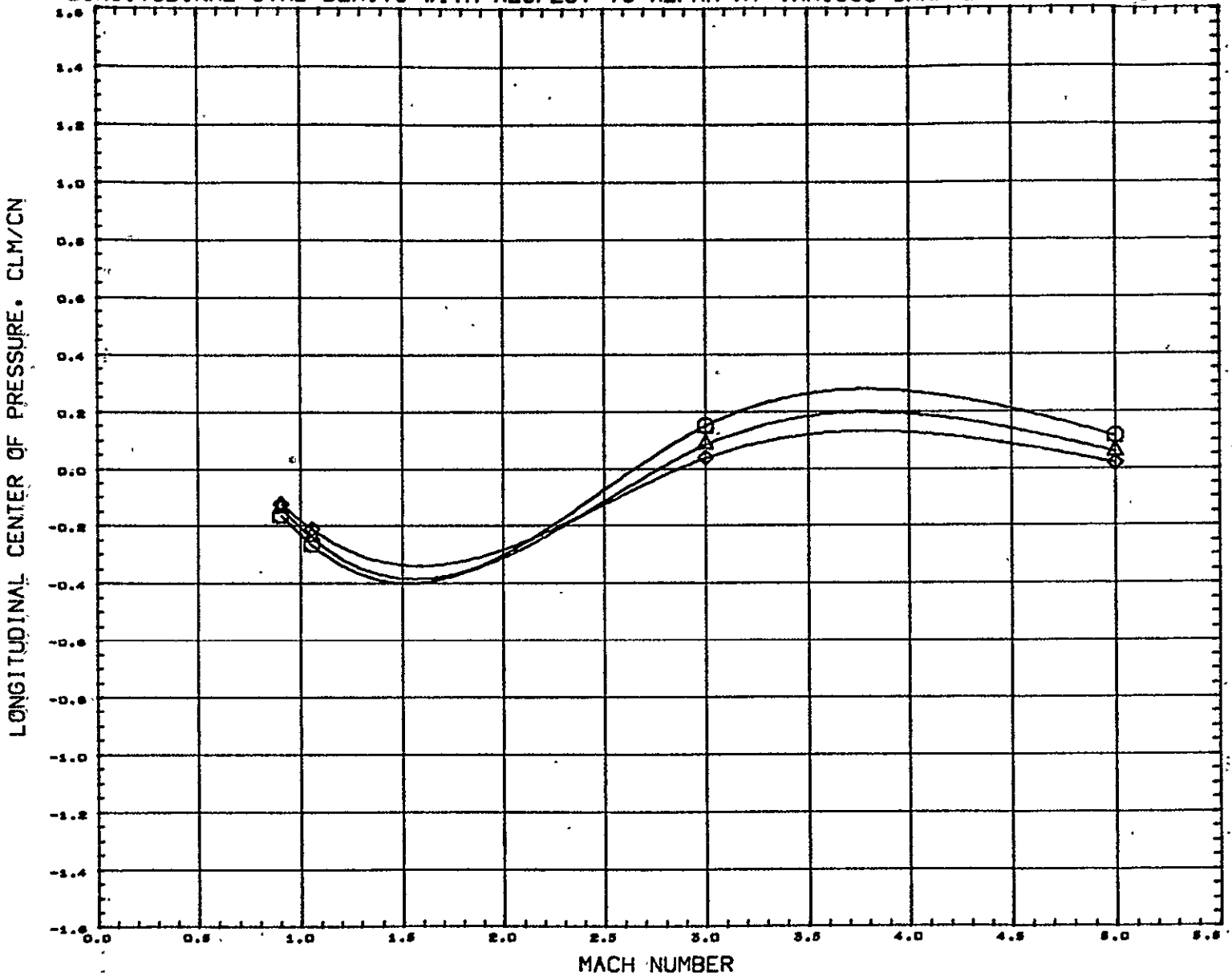
LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	6.000	BETA	0.000	DEL	0.000
△	6.000	DER	0.000	DCL	-60.000
◇	10.000	DCR	-60.000	ELEVON	0.000
□	12.000	CANARD	-60.000	AILERON	0.000
▽	14.000				
◇	16.000	DATA HIST. CODE	MVR#E61		

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0980	IN.
BREF	6.0990	IN.
XMRP	5.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

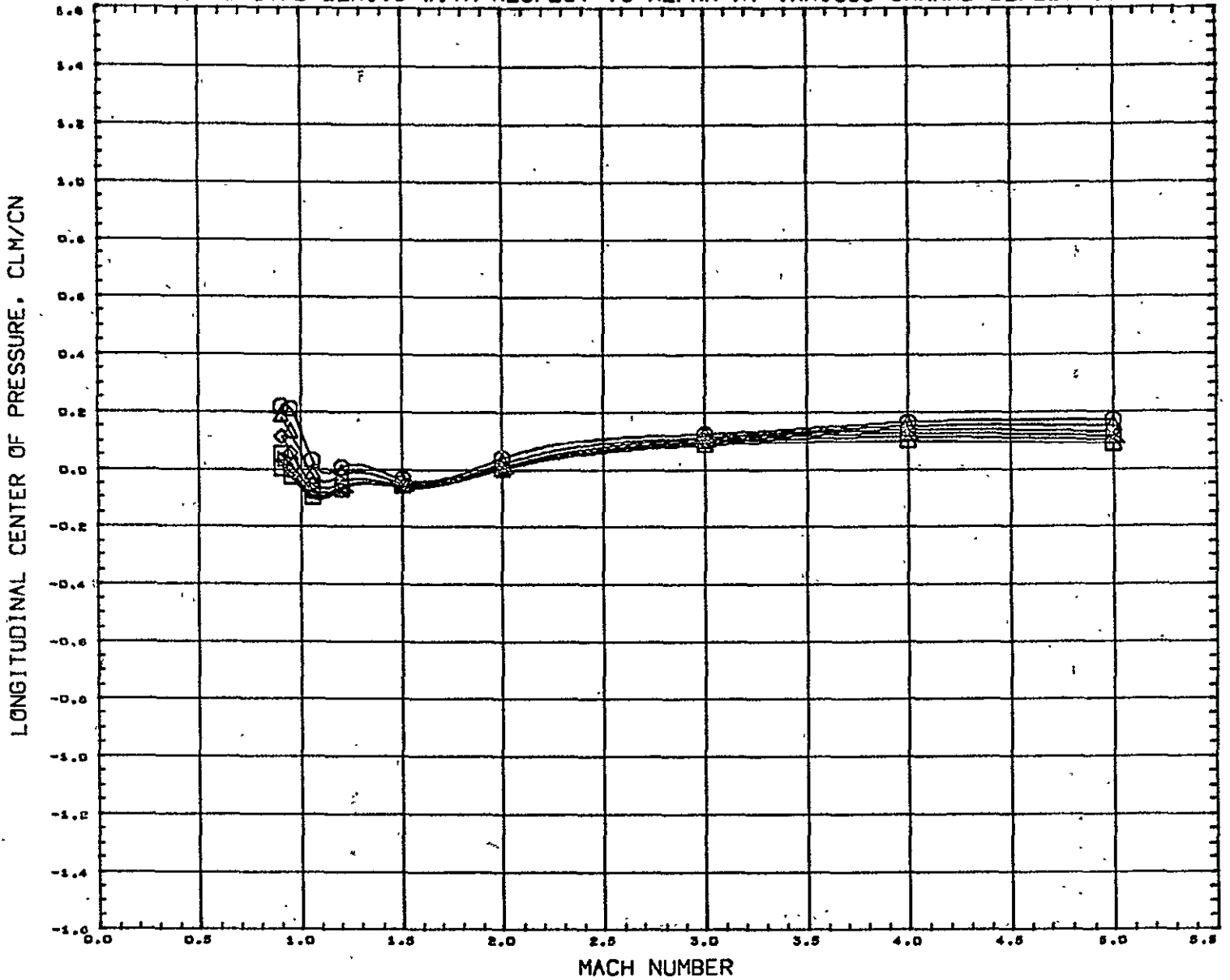


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
◇	20.000	DER	0.000	DCL	-60.000
◇	22.000	DCR	-60.000	ELEVON	0.000
		CANARD	-60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

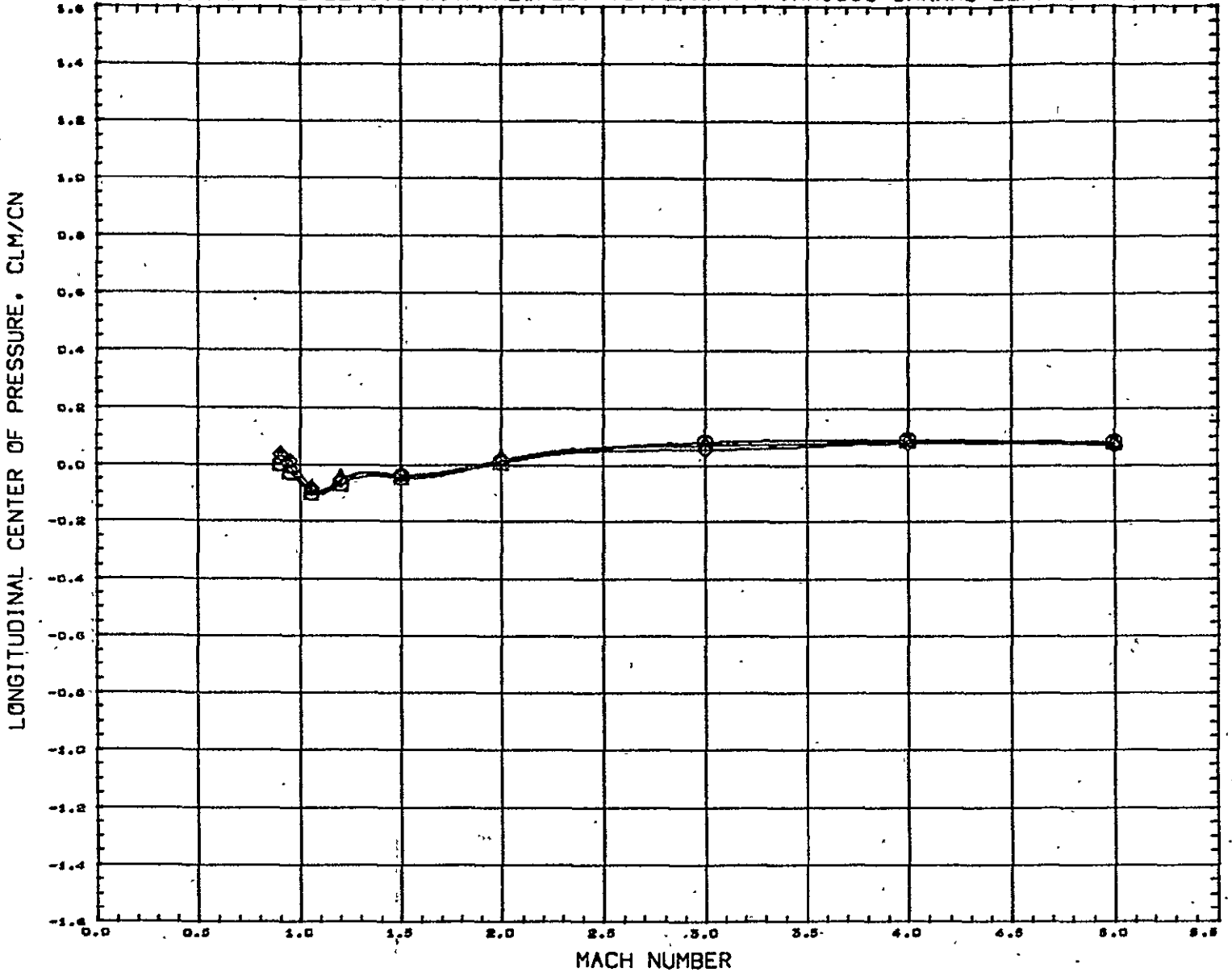
DATA HIST. CODE HVR#E#GI

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS



SYMBOL	ALPHA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	6.000	BETA	0.000	DEL	0.000	SREF	15.6560	80. IN.
△	8.000	DER	0.000	DCL	15.000	LREF	3.0950	IN.
◇	10.000	DCR	15.000	ELEVON	0.000	BREF	6.0990	IN.
□	12.000	CANARD	15.000	AIRON	0.000	XMRP	6.7100	IN.
◇	14.000					YMRP	0.0000	IN.
○	16.000	DATA HIST. CODE	MVR#E#G1			ZMRP	0.0000	IN.
						SCALE	0.0035	

LONGITUDINAL STAB DERIVS WITH RESPECT TO ALPHA AT VARIOUS CANARD DEFLECTIONS

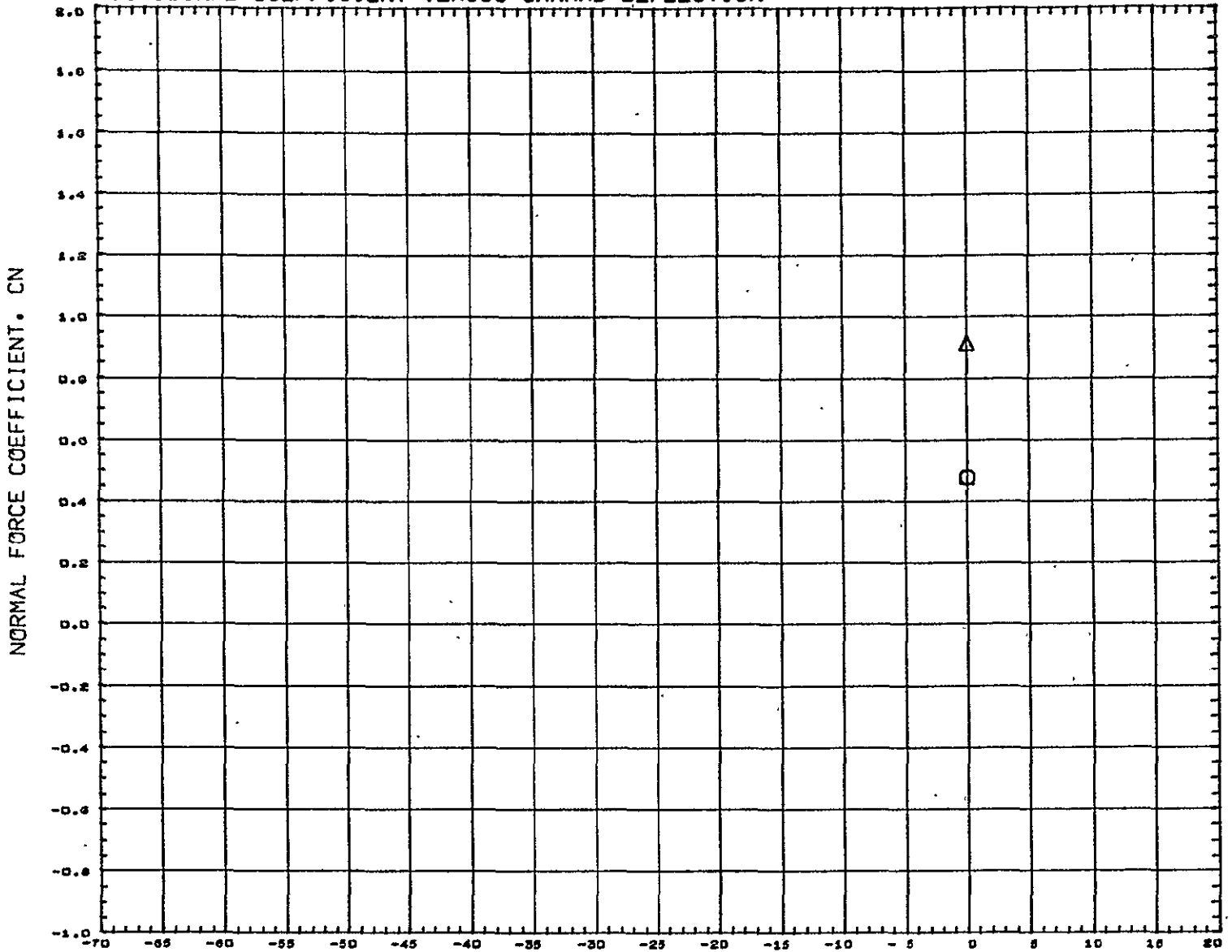


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	DCL	15.000
◇	22.000	DCR	15.000	ELEVON	0.000
		CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#RGZ

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

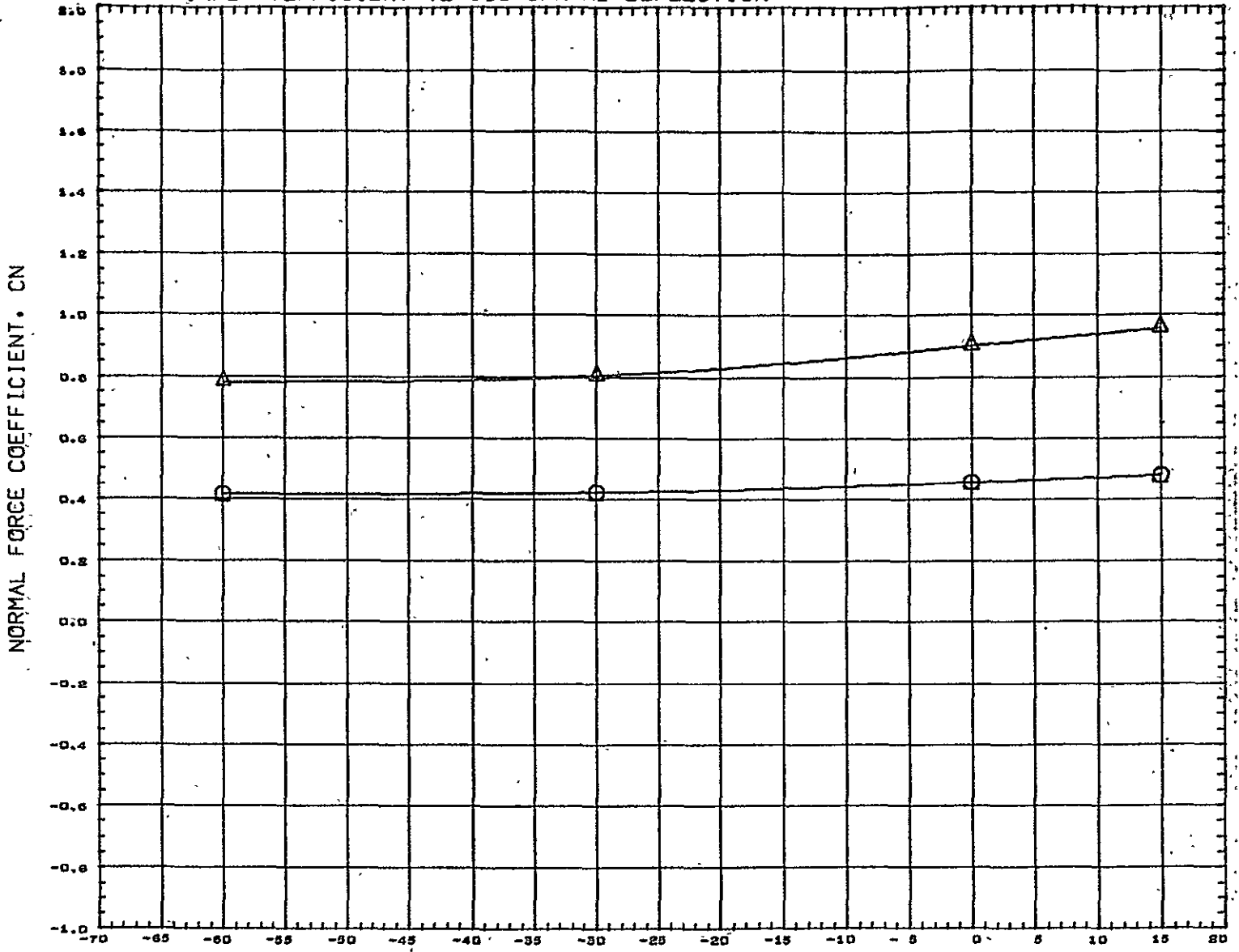


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.600	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6500	80. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0900	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

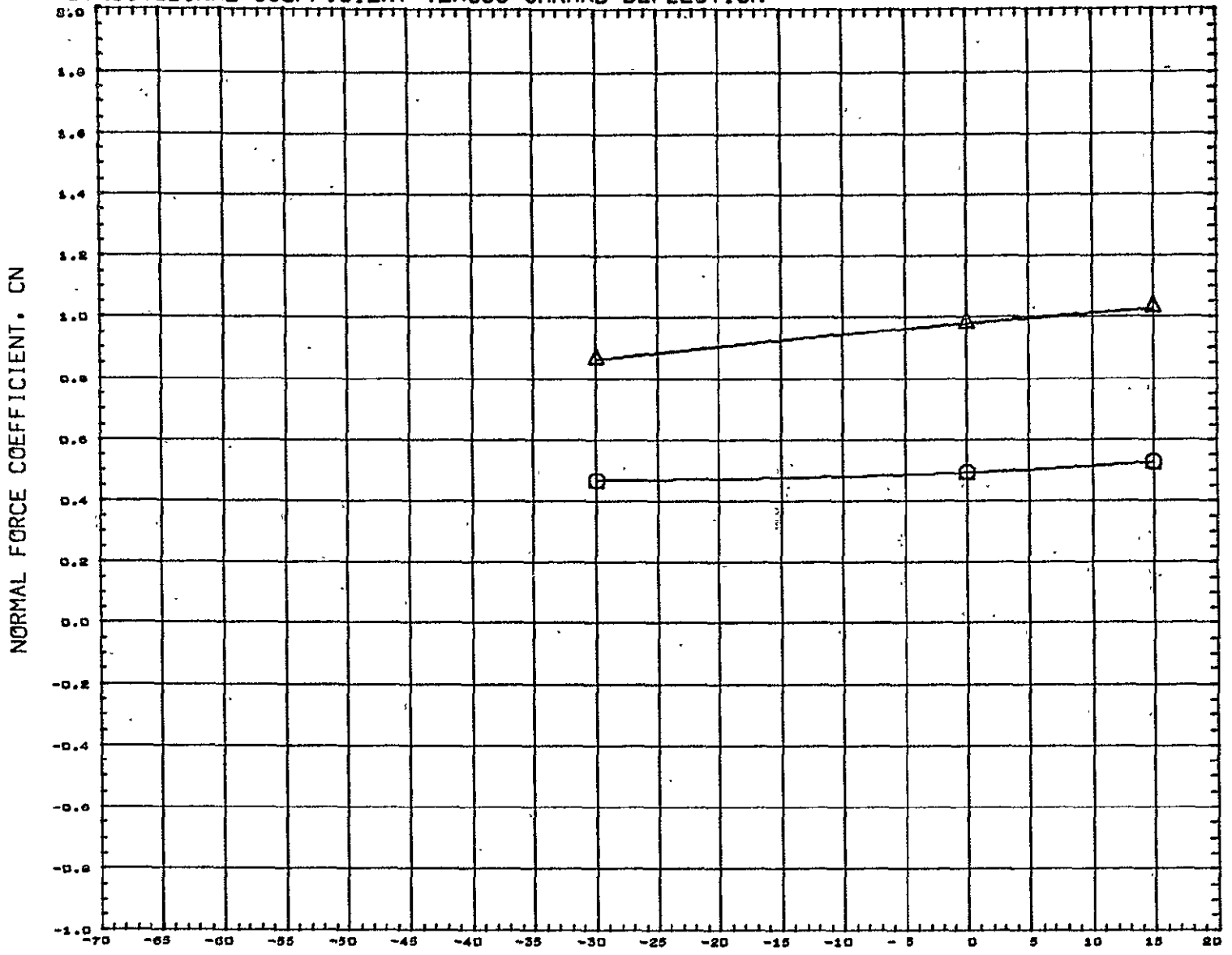
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.
○	10.000	0.900	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6500	30.0000	30. IN.	
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	6.0990	6.7100	IN.	
		DCL	DCL	DCL	G28C44	15.000			0.0000	0.0000	IN.	
		ELEVON	AILRON	AILRON					ZHRP	0.0035	IN.	
									SCALE			

DATA HIST. CODE MVR#E1

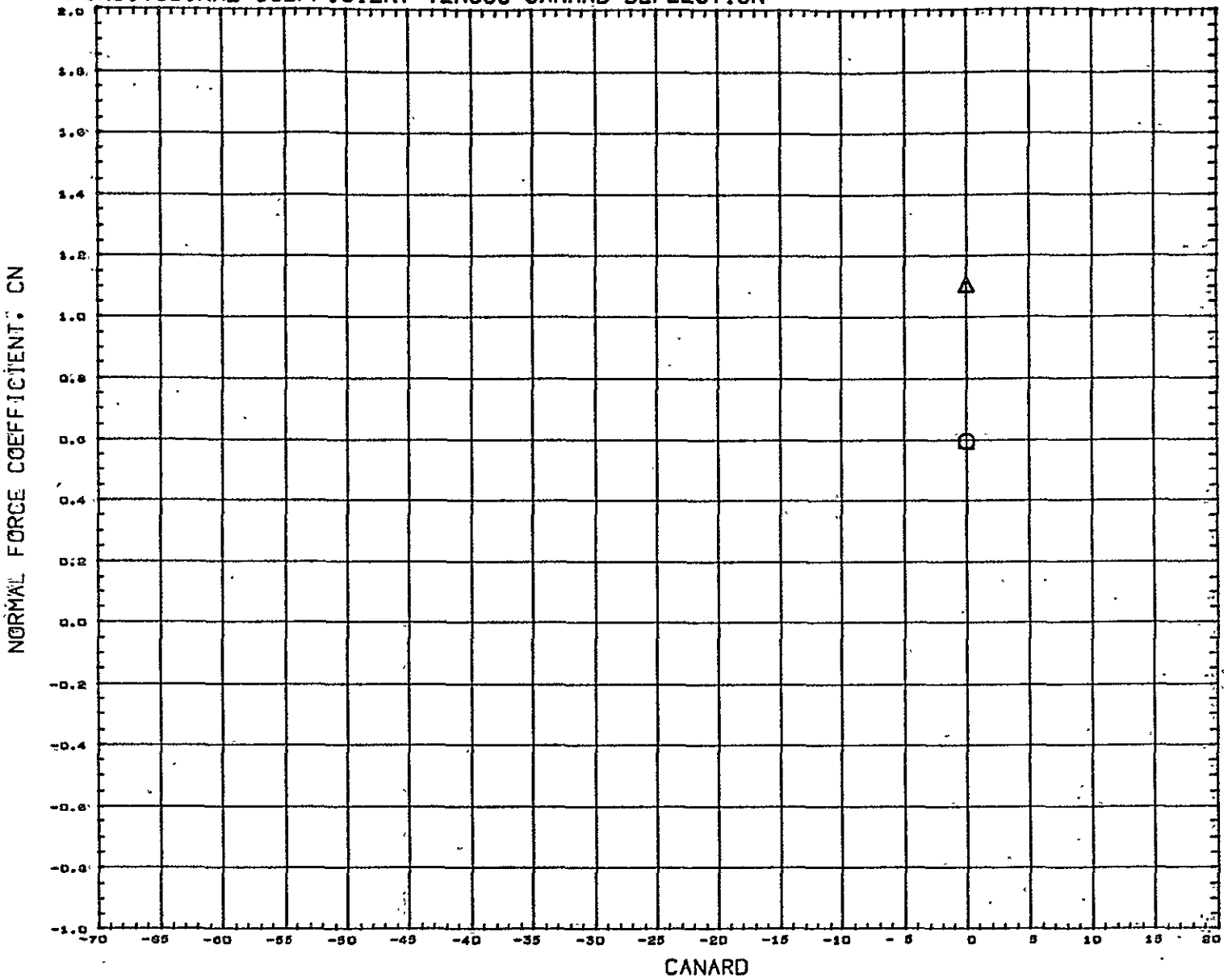
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION			
○	10.000	<u>MACH</u>	0.950	BETA	0.000	DATA SET	CANARD	DATA SET	CANARD	SREF	15.6560	50. IN.
	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
									YMRP	0.0000	IN.	
									ZMRP	0.0000	IN.	
									SCALE	0.0035		

DATA HIST. CODE MVR#E1

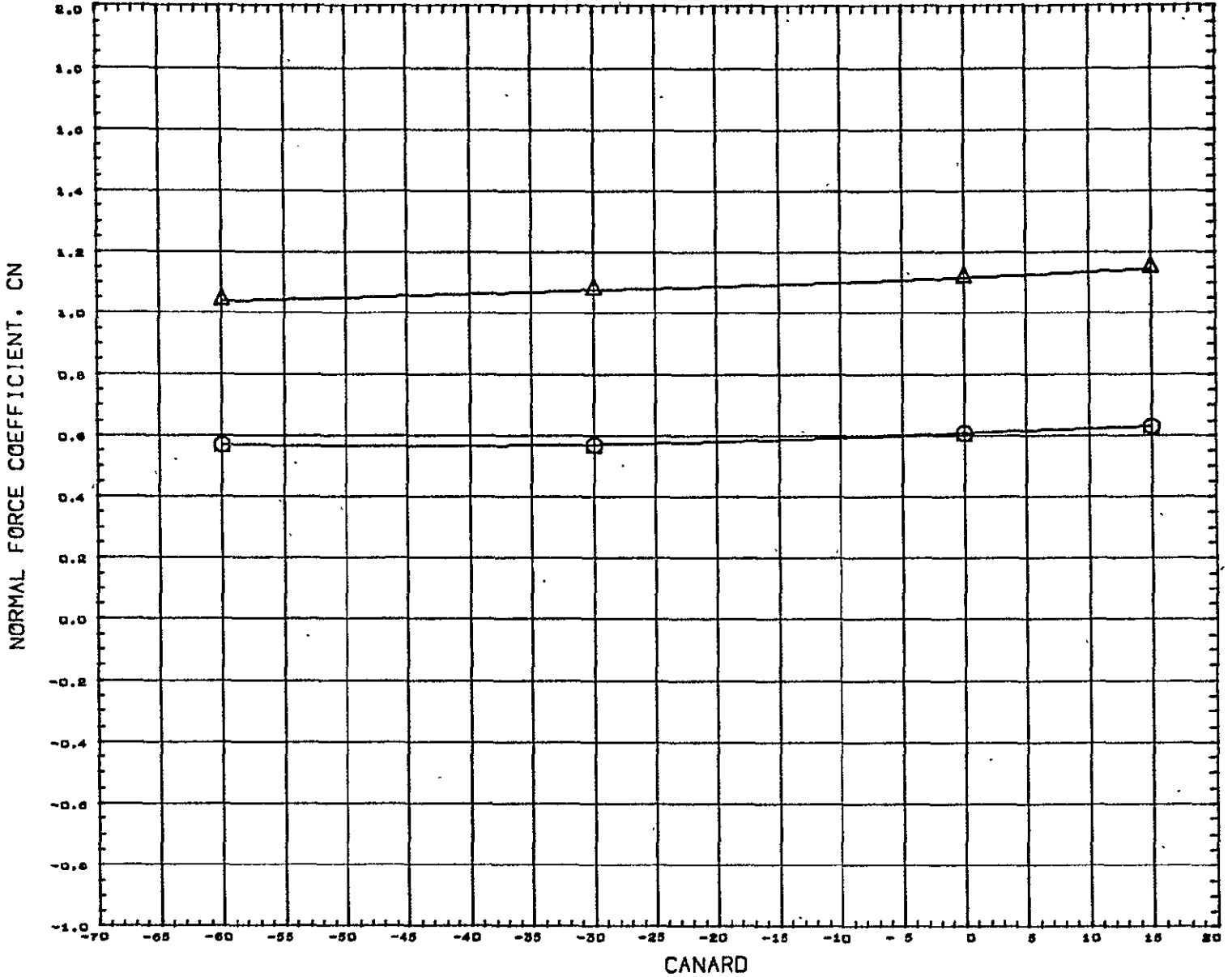
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000		BETA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	SREF	15.6560	80. IN.
△	20.000		DEL	0.000	DER	0.000	G28C47	- 80.000	G28C50	- 45.000	LREF	3.0950	IN.
			DCL	- 80.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
			ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR#E1

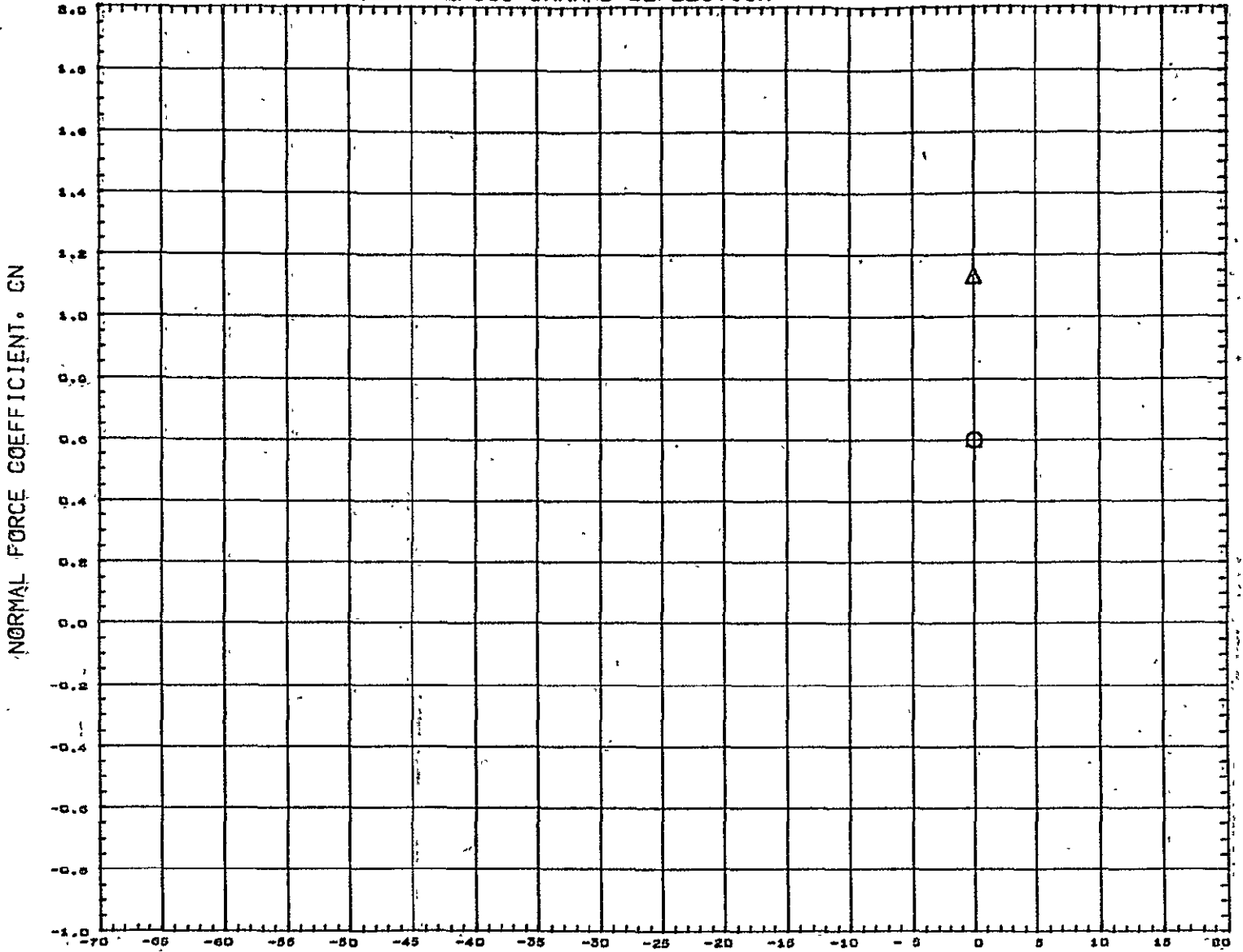
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.		
○	10.000	1.050	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6260	3.0950	IN.		
△	20.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	0.0990	6.7100	IN.		
		DCL	- 60.000	DCR	- 60.000	G28C44	15.000	0.0000	0.0000	IN.		
		ELEVON	0.000	AILRON	0.000			ZMRP	0.0000	IN.		
								SCALE	0.0035	IN.		

DATA HIST. CODE MVR9EI

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

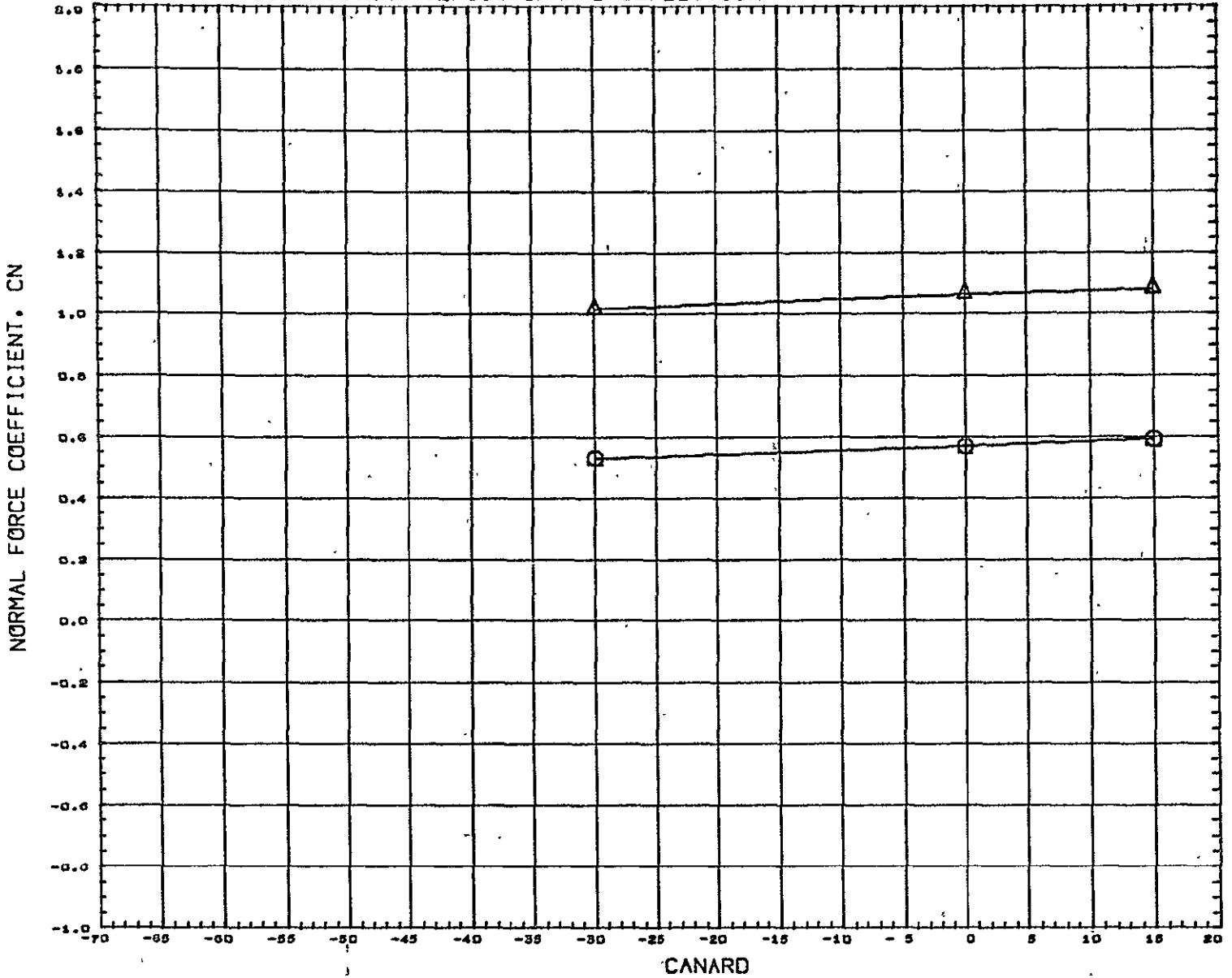


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.100	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	90. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AIRCON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0050	

DATA HIST. CODE MVR#EI

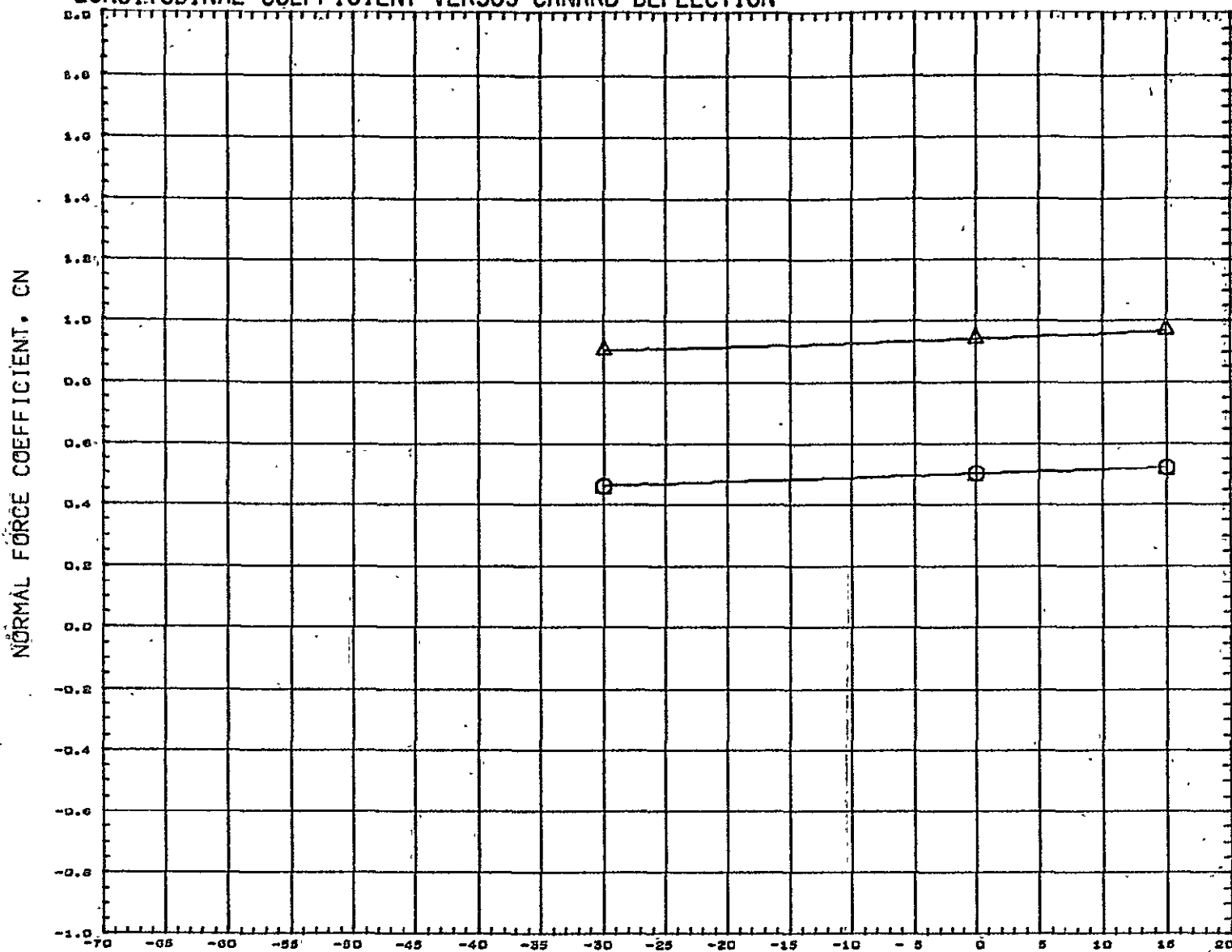
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION					
		MACH	BETA	DEL	DER	DCL	DCR	ELEVON	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.
○	10.000	1.200	0.000	0.000	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	30. IN.	
△	80.000	0.000	0.000	- 60.000	- 60.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.	
									G28C44	15.000			6.0990	IN.	
													6.7100	IN.	
													0.0000	IN.	
													0.0000	IN.	
													0.0035		

DATA HIST. CODE MVR#EI

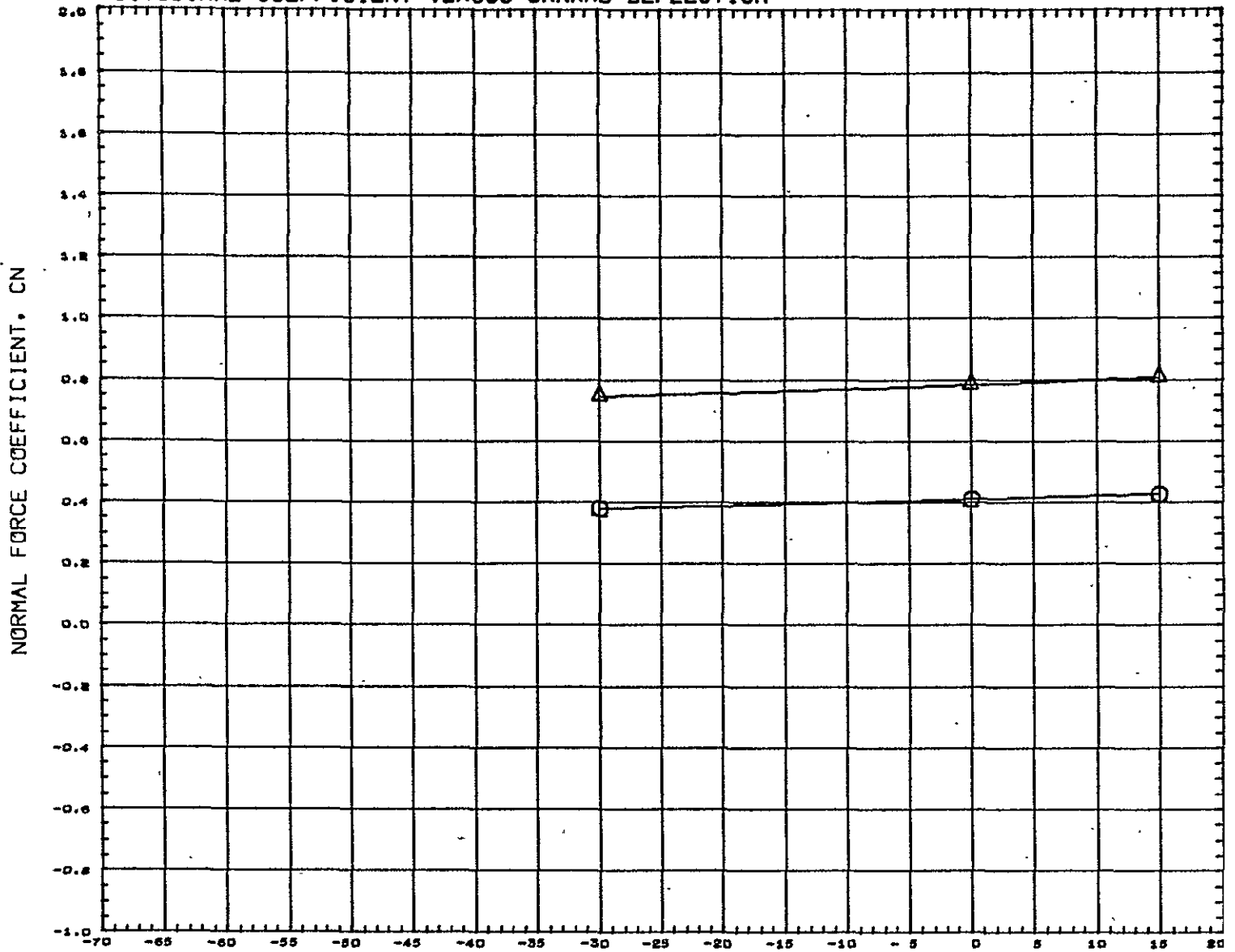
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	SG.IN.	
○	10.000	1.500	0.000	0.000	0.000				15.6560	50. IN.		
△	20.000	0.000	0.000	0.000	0.000				3.0950	IN.		
		DEL	DCR	- 60.000	0.000	G28C47	- 60.000	G28C50	45.000	SREF	6.0990	IN.
		DCL	AILRON	0.000	0.000	G28C41	- 30.000	G28B31	0.000	XMRP	6.7100	IN.
		ELEVON				G28C44	15.000			YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

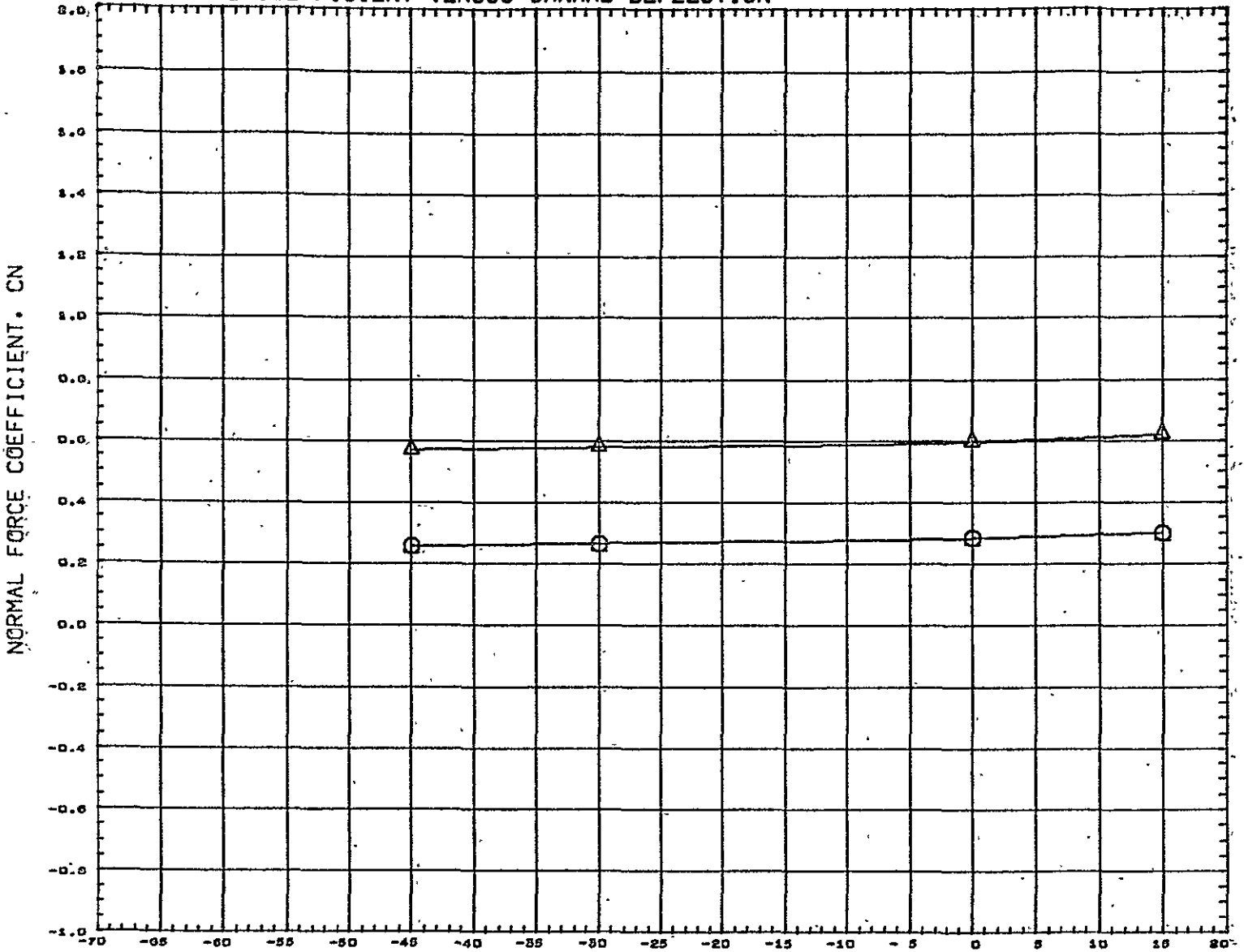
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	2.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6660	30. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AIRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

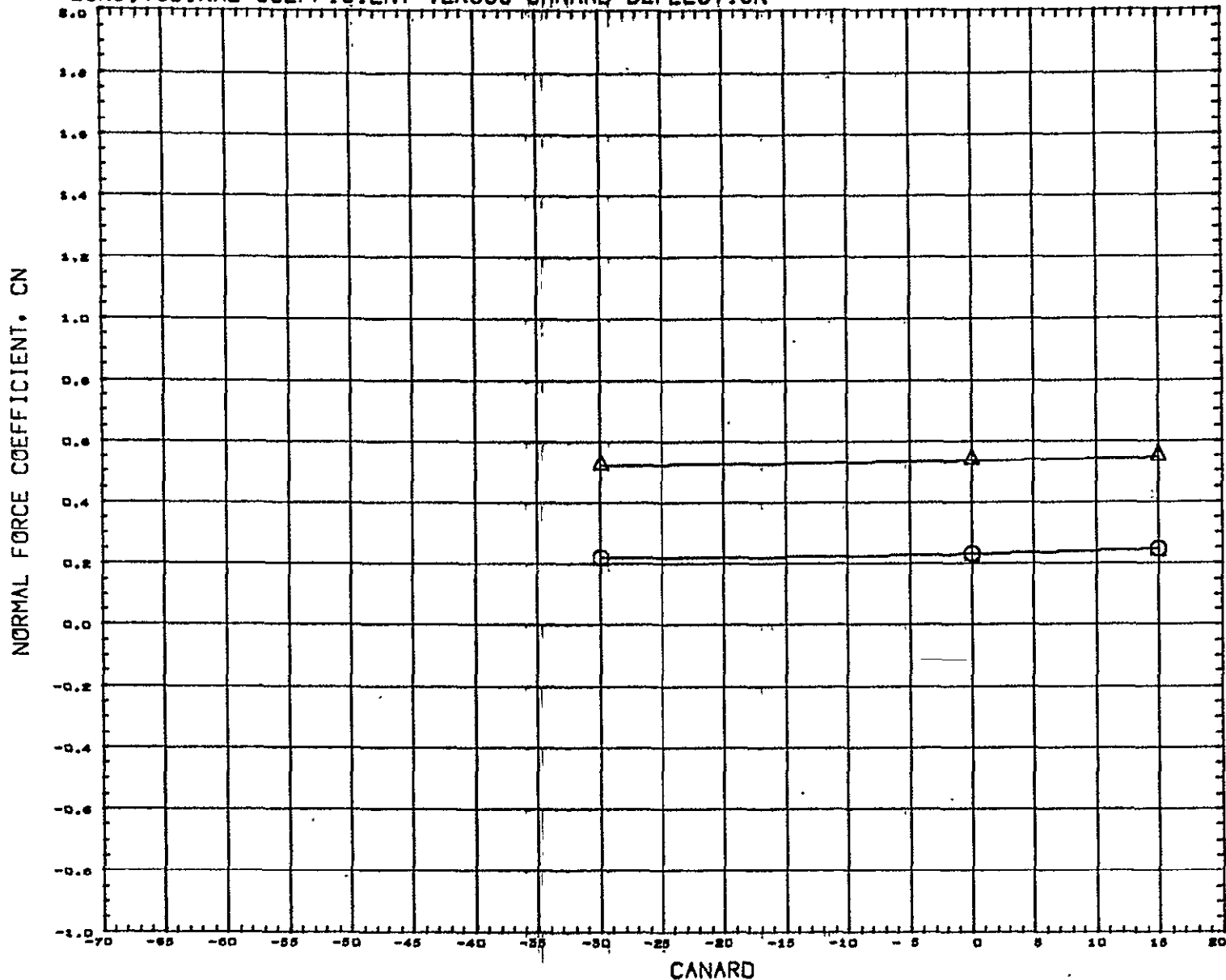
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION.



SYMBOL		ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
○		10.000	MACH	3.000	BETA	0.000	DATASET	CANARD	SREF	15.6560	50. IN.
△		20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	IN.
			DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	IN.
			ELEVON	0.000	AILRON	0.000	G28C44	15.000			IN.
									YHRP	0.7100	IN.
									ZHRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR#EX

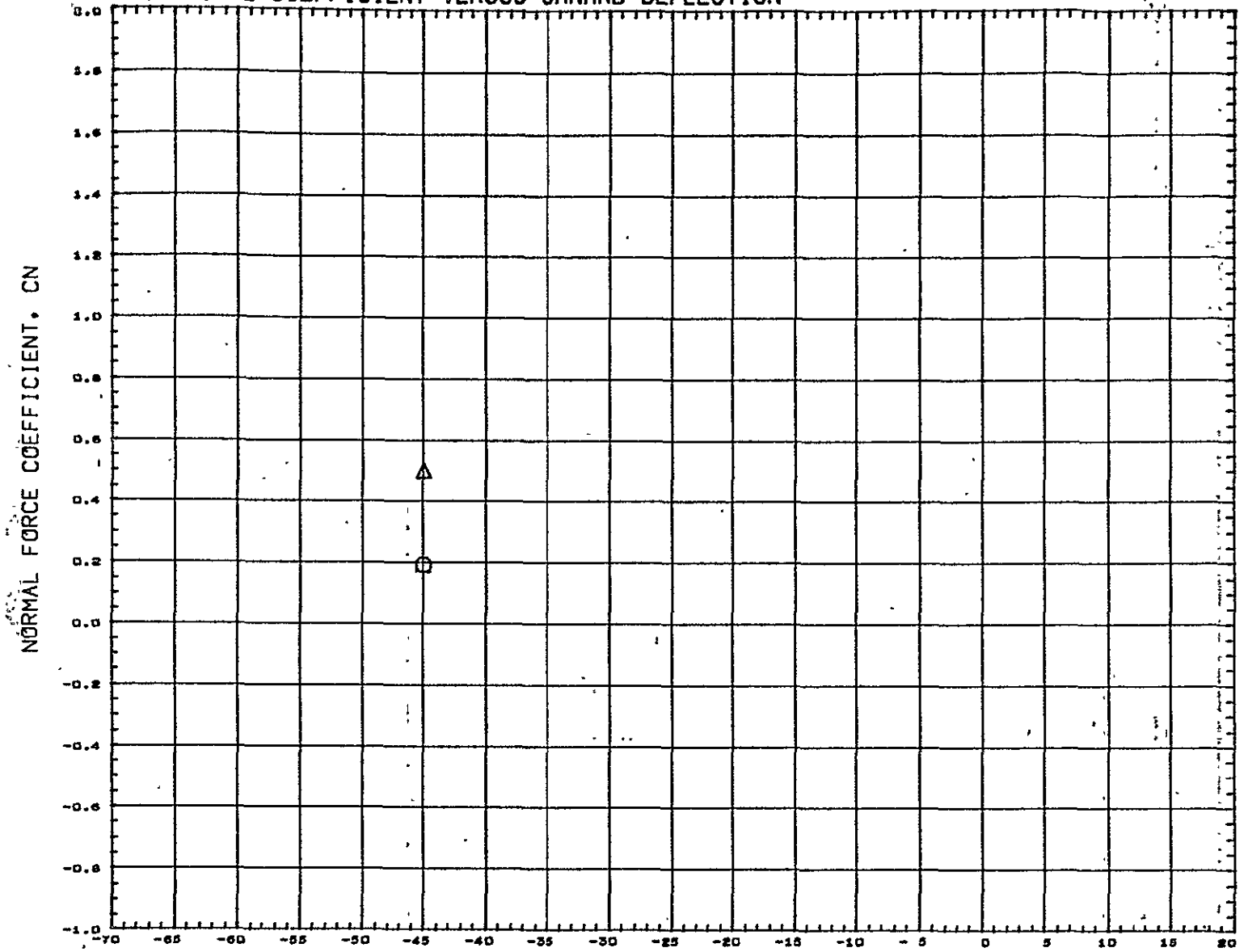
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	DATA SET	CANARD	DATA SET	CANARD	SREF	IN.	SQ. IN.	
○	10.000	4.000	0.000	G28C47	- 60.000	G28C50	- 45.000	16.6560	3.0950	IN.	
△	20.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	6.0990	6.7100	IN.	
		DCL - 60.000	DCR - 60.000	G28C44	15.000			YMRP	0.0000	IN.	
		ELEVON 0.000	AILRON 0.000					ZMRP	0.0000	IN.	
								SCALE	0.0035		

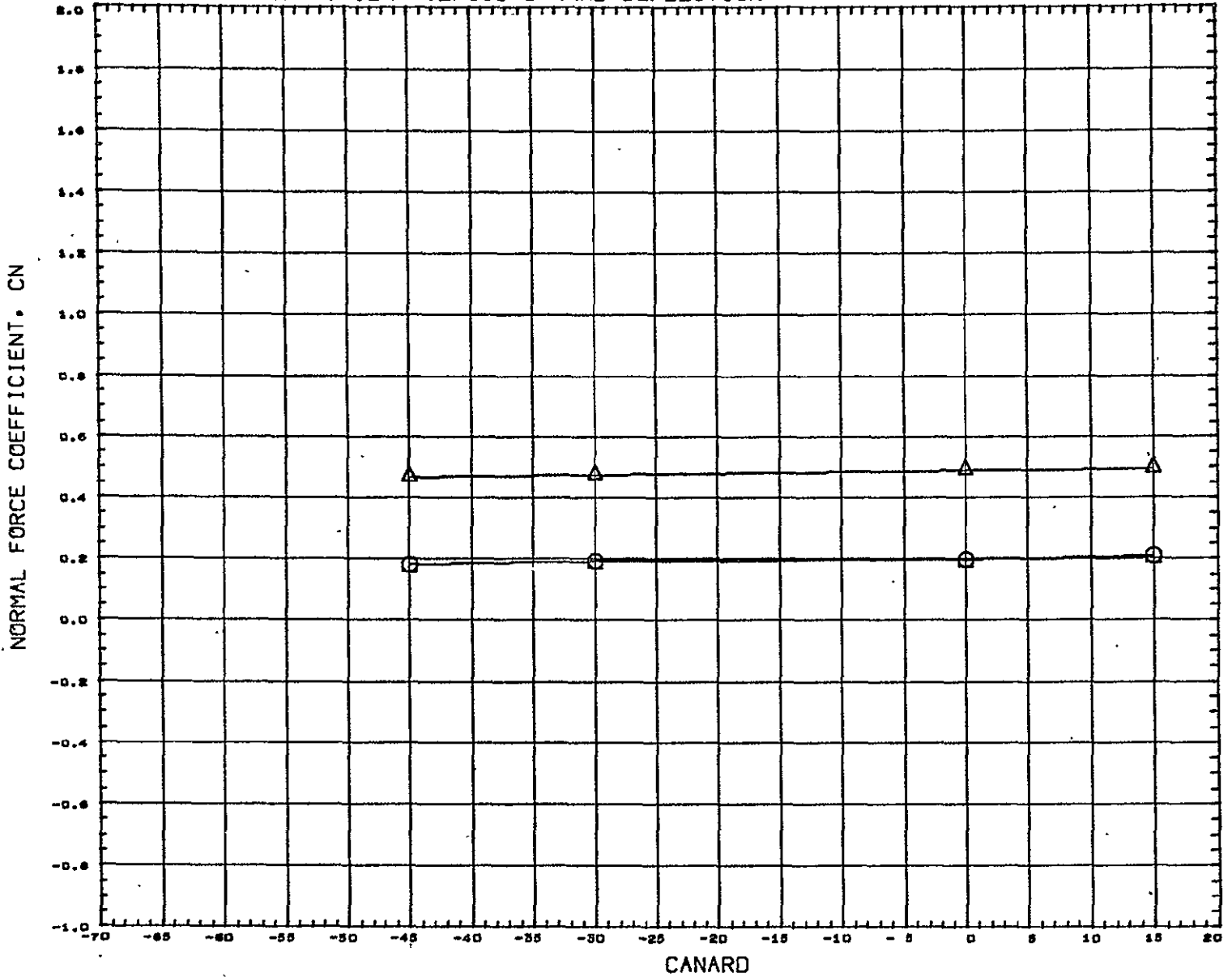
DATA HIST. CODE HVR4E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
□	10.000	4.500	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	30. IN.		
△	20.000	0.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		- 60.000	.DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	-6.0990	IN.		
		0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.		
									YMRP	0.0000	IN.		
									ZMRP	0.0000	IN.		
									SCALE	0.0035			
			DATA HIST. CODE	HVR9EI									

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

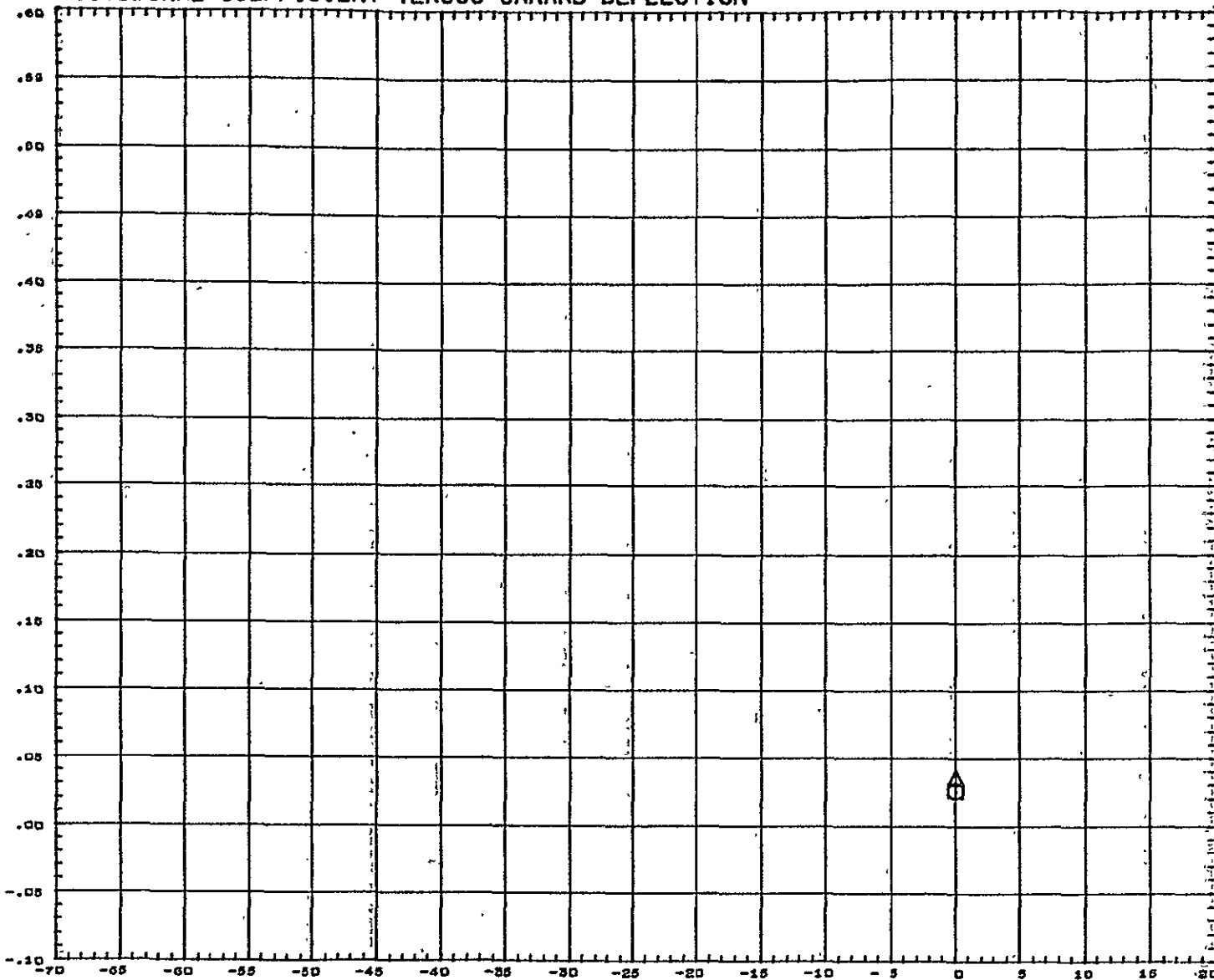


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	.5.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	Sq. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

AXIAL FORCE COEFFICIENT, CA



CANARD

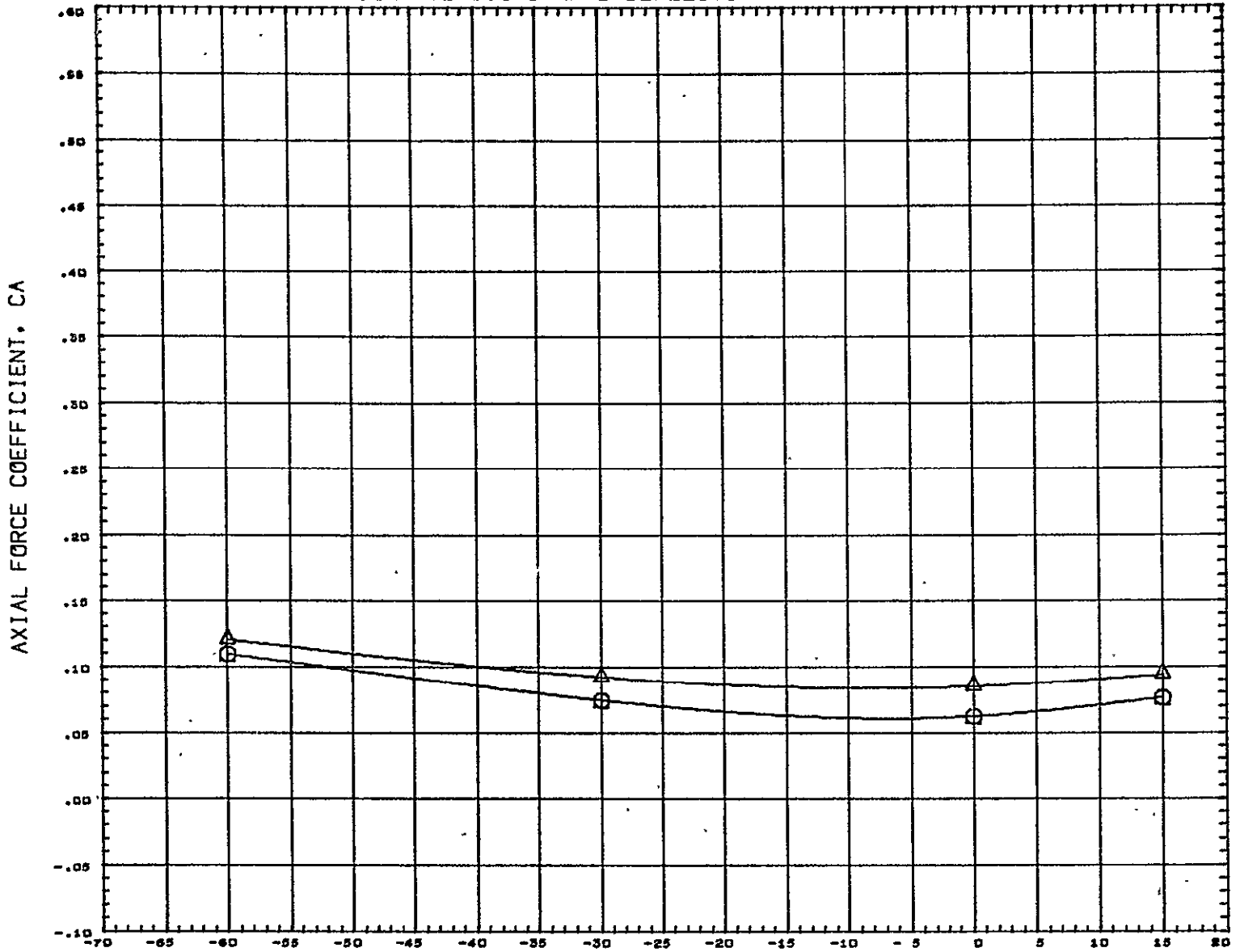
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△	10.000	MACH	0.600	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ. IN.
	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AIRON	0.000	G28C44	15.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

MSFC481 GD/C(BOOSTER)B19W14C4AV7

(G28C47) 01 NOV 71 PAGE 674

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



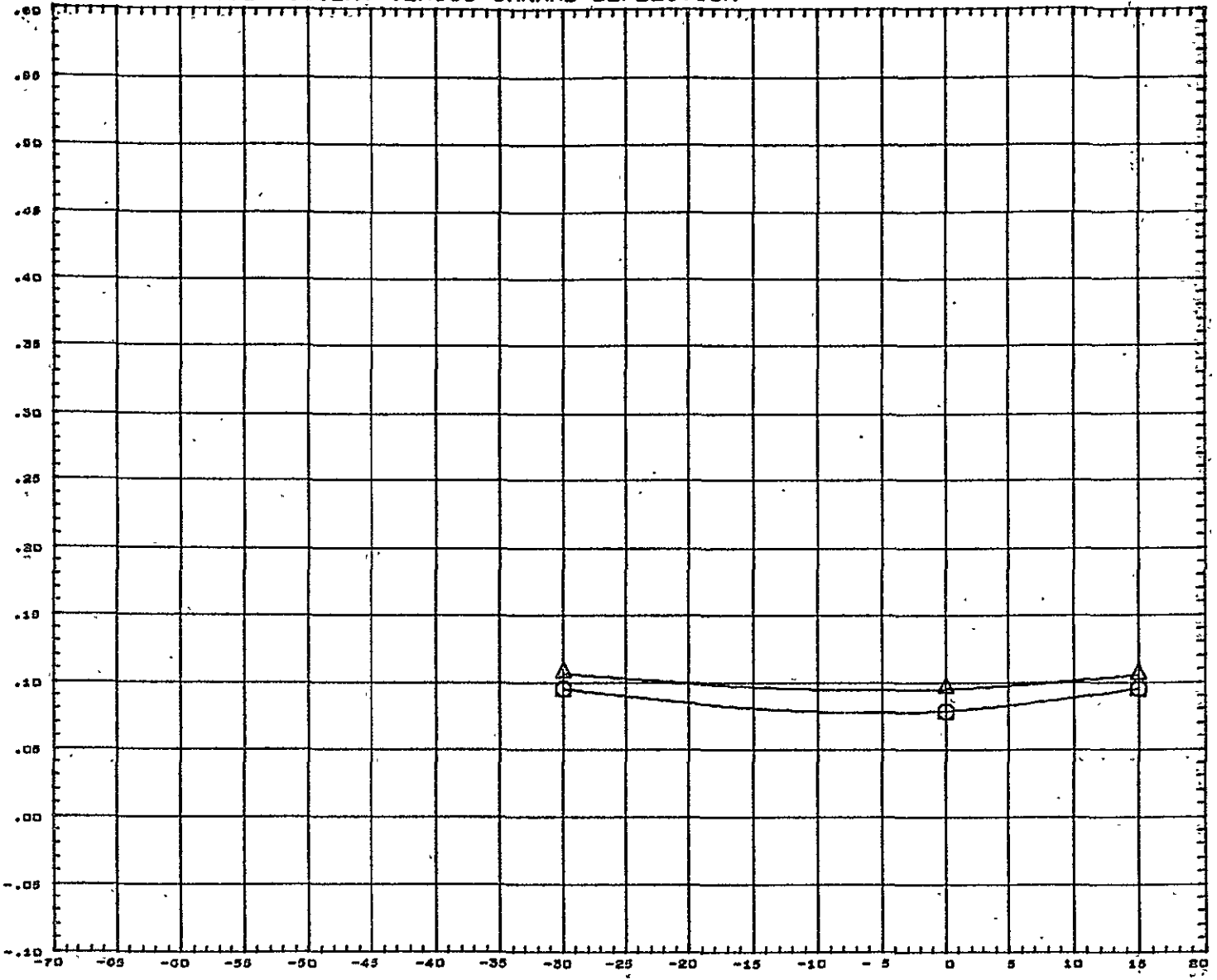
CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.900	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	92.IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

AXIAL FORCE COEFFICIENT, CA

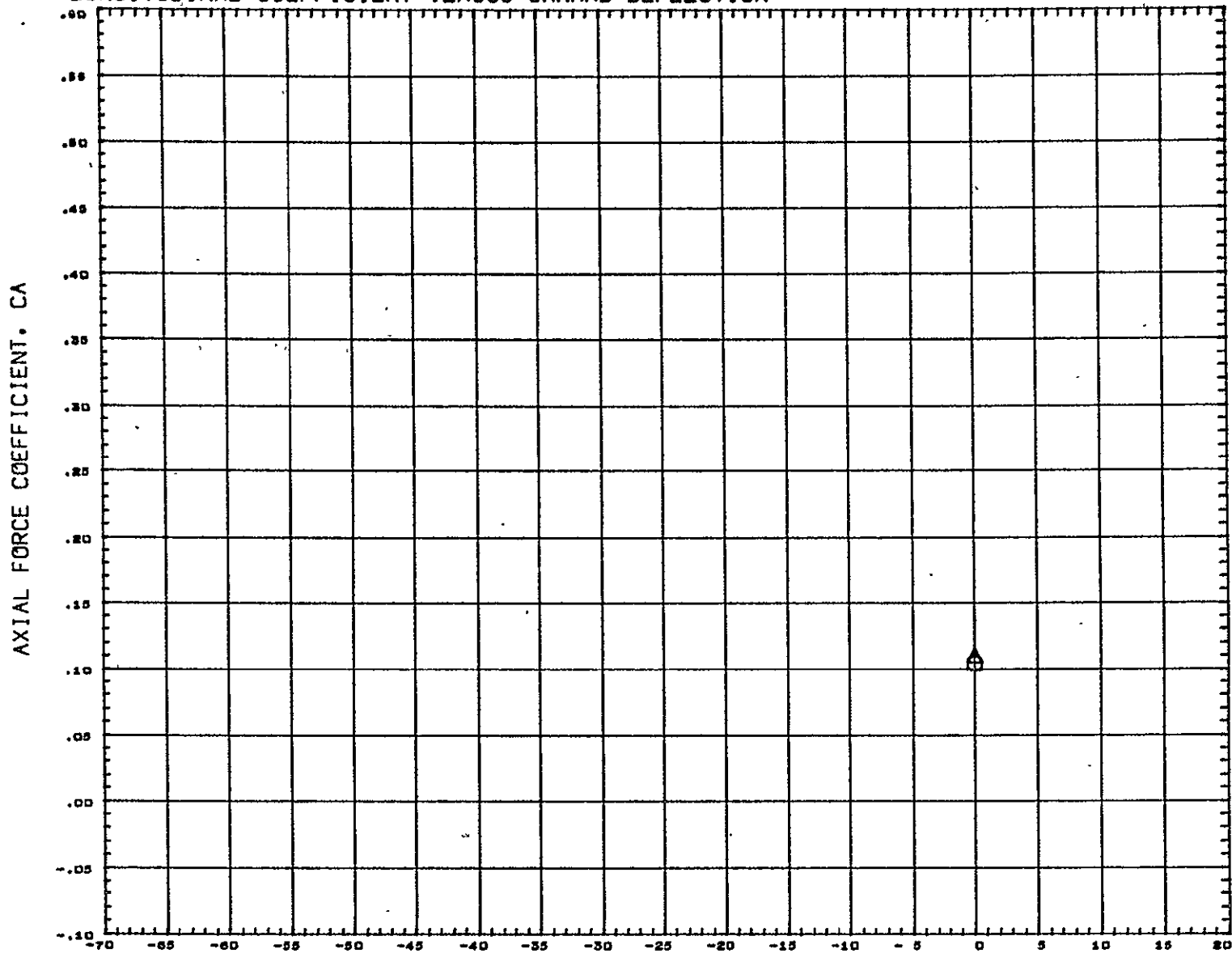


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DEL	DCR	DATASET	CANARD	DATASET	CANARD	SREF	LREF	BREF
△	10.000	0.950	0.000	0.000	0.000	0.000	0.000	0.000	15.6960	3.0950	6.0990	
	20.000	0.000	0.000	-60.000	-60.000	0.000	0.000	0.000	6.7100	0.0000	0.0000	
		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.0000	0.0035	

DATA HIST. CODE MVR9E1

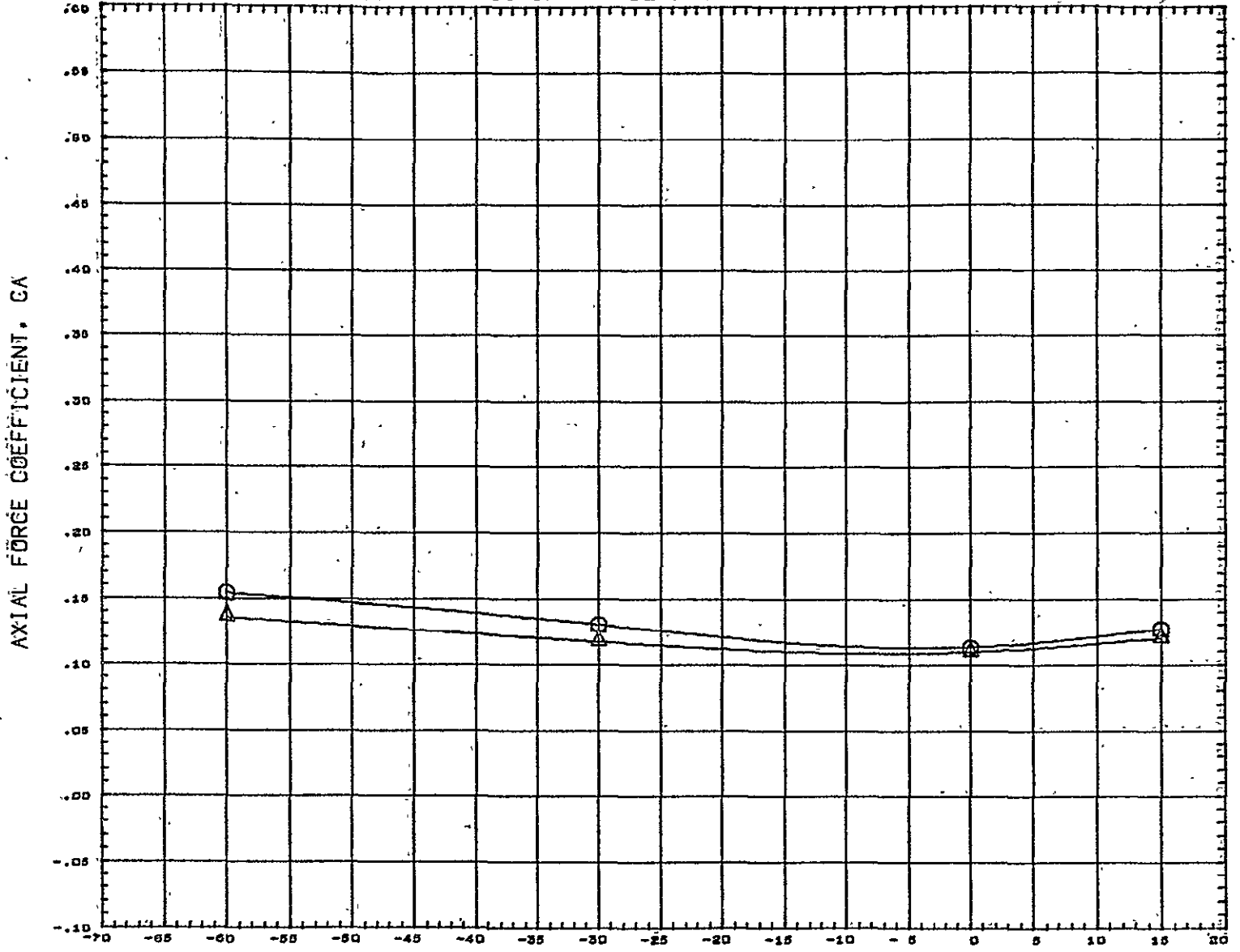
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
○	10.000	1.000	0.000	0.000	0.000					15.6560	89. IN.	
△	20.000	0.000	0.000	0.000	0.000					3.0950	IN.	
		DEL	PCR			G28C47	- 60.000	G28C50	- 45.000	BREF	6.0990	IN.
		- 60.000	- 60.000			G28C41	- 30.000	G28B31	0.000	XMRP	6.7100	IN.
		ELEVON	AILRON			G28C44	15.000			YMRP	0.0000	IN.
		0.000	0.000							ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

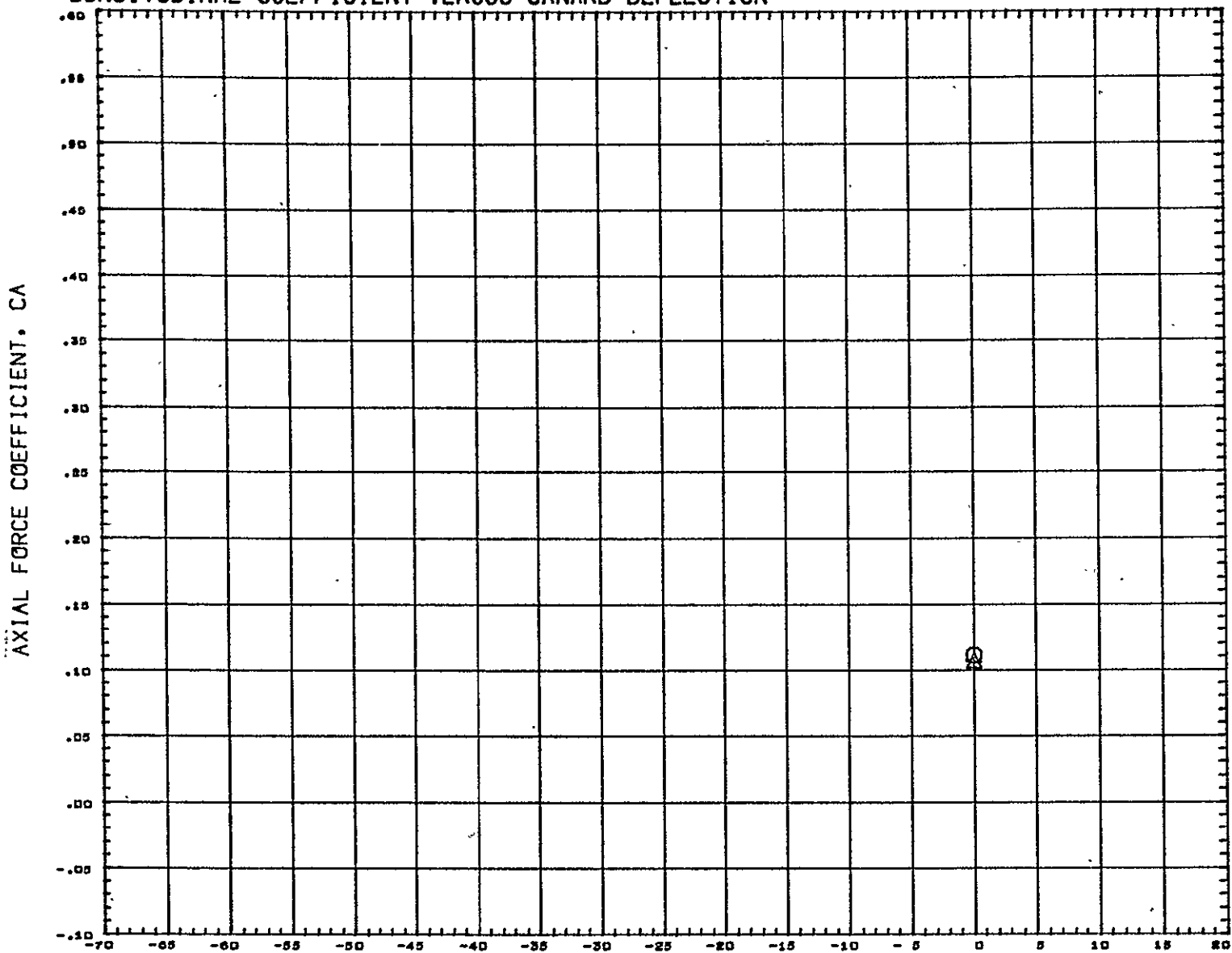
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.
○	10.000	1.050	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	15.0950	90. IN.
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B51	0.000	BREF	0.0990	IN.
		- 60.000	- 60.000	- 60.000	G28C44	15.000			XHRP	0.7100	IN.
		0.000	0.000	0.000					YHRP	0.0000	IN.
									ZHRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR#E1

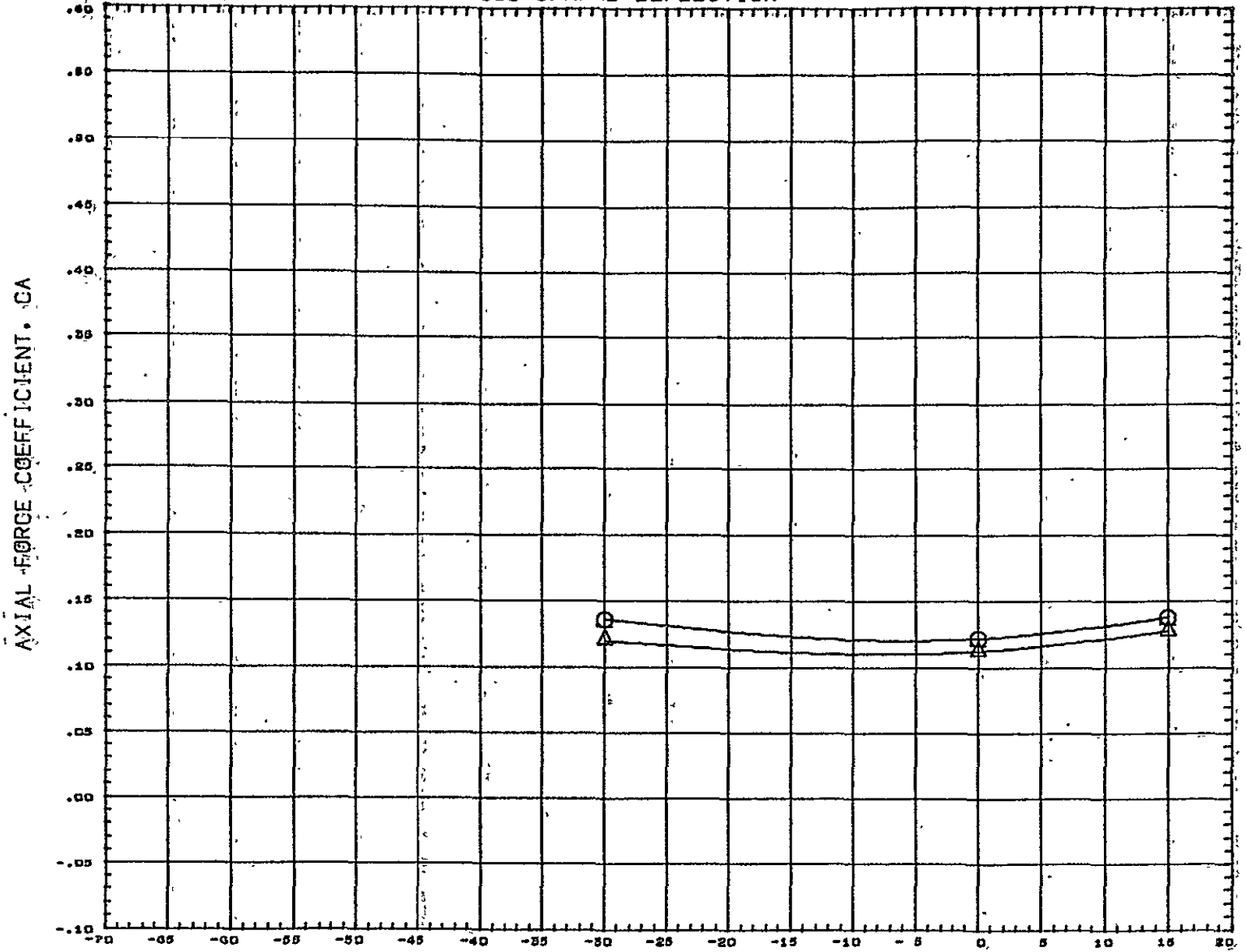
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
O Δ	10.000	MACH	1.100	BETA	0.000	DATA SET	CANARD	DATA SET	CANARD	SREF	15.6560	SQ. IN.	
	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.	
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.	
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.	
										YMRP	0.0000	IN.	
									ZMRP	0.0000	IN.		
									SCALE	0.0035			

DATA HIST. CODE MVR0E1

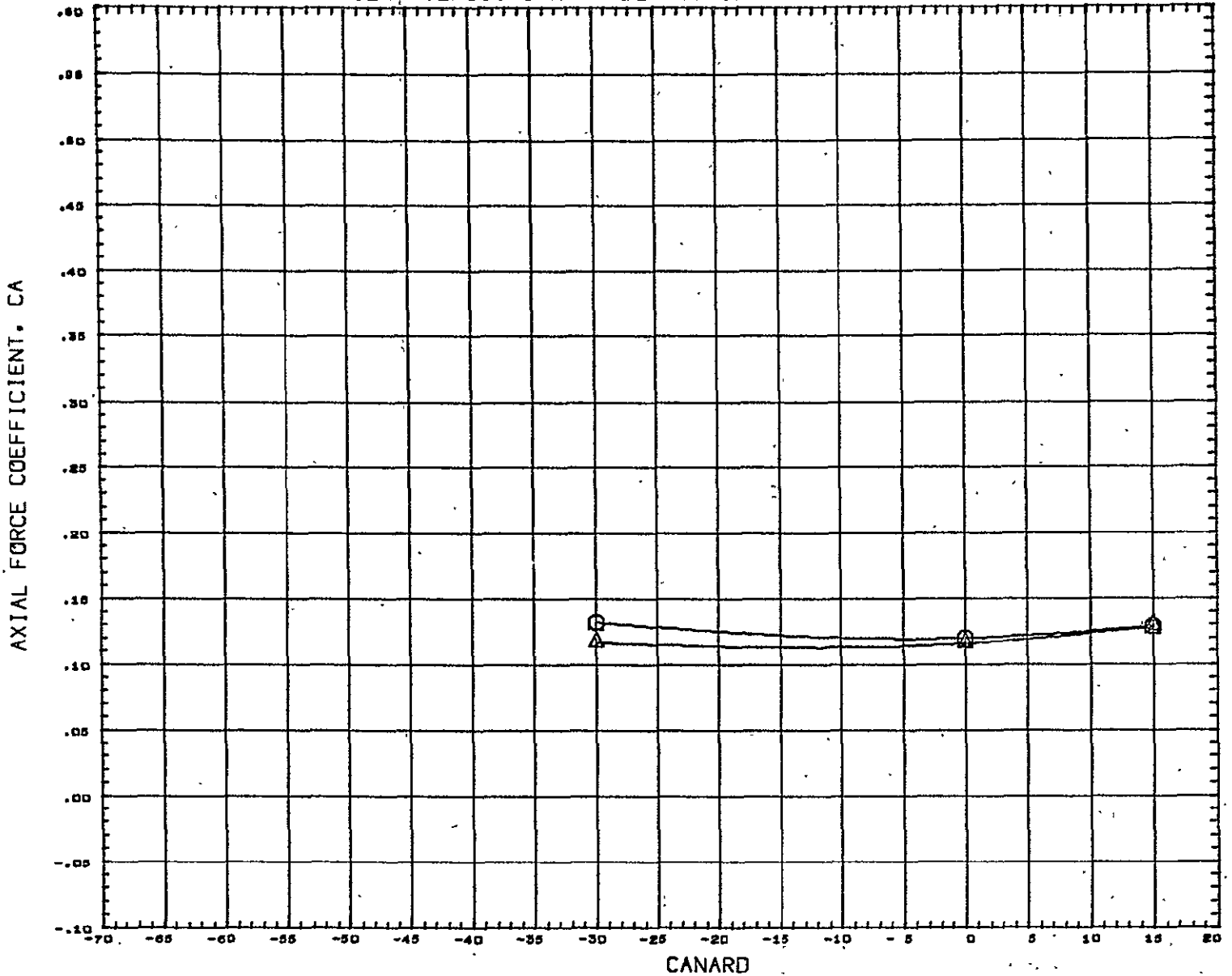
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	DER.	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
○	10.000	1.200	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	80.	6400.
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.	31.25.
		DCL - 60.000	DCR - 60.000		G28C44	15.000			6.0990	IN.	37.19.
		ELEVON 0.000	AIRLON 0.000						6.7100	IN.	45.02.
									0.0000	IN.	0.00.
									ZHRP 0.0000	IN.	0.00.
									SCALE 0.0035		

DATA HIST. CODE: MVR#E1

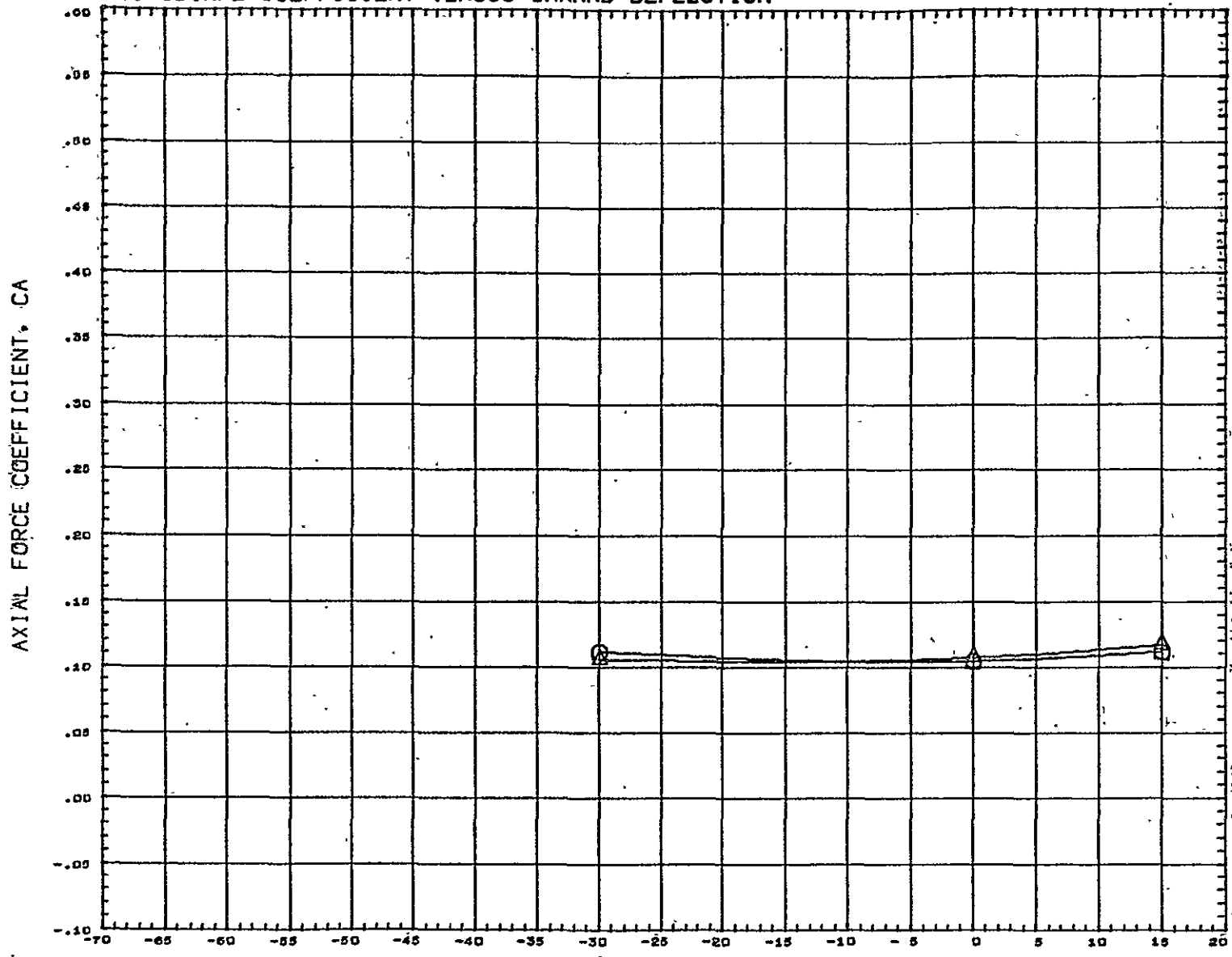
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	1.500	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	99. IN.		
△	20.000	0.000	DEL	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.		
			DCL	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.		
			ELEVON	0.000	G28C44	15.000			XMRP	6.7100	IN.		
									YMRP	0.0000	IN.		
									ZMRP	0.0000	IN.		
									SCALE	0.0033			

DATA HIST. CODE MVR#EI

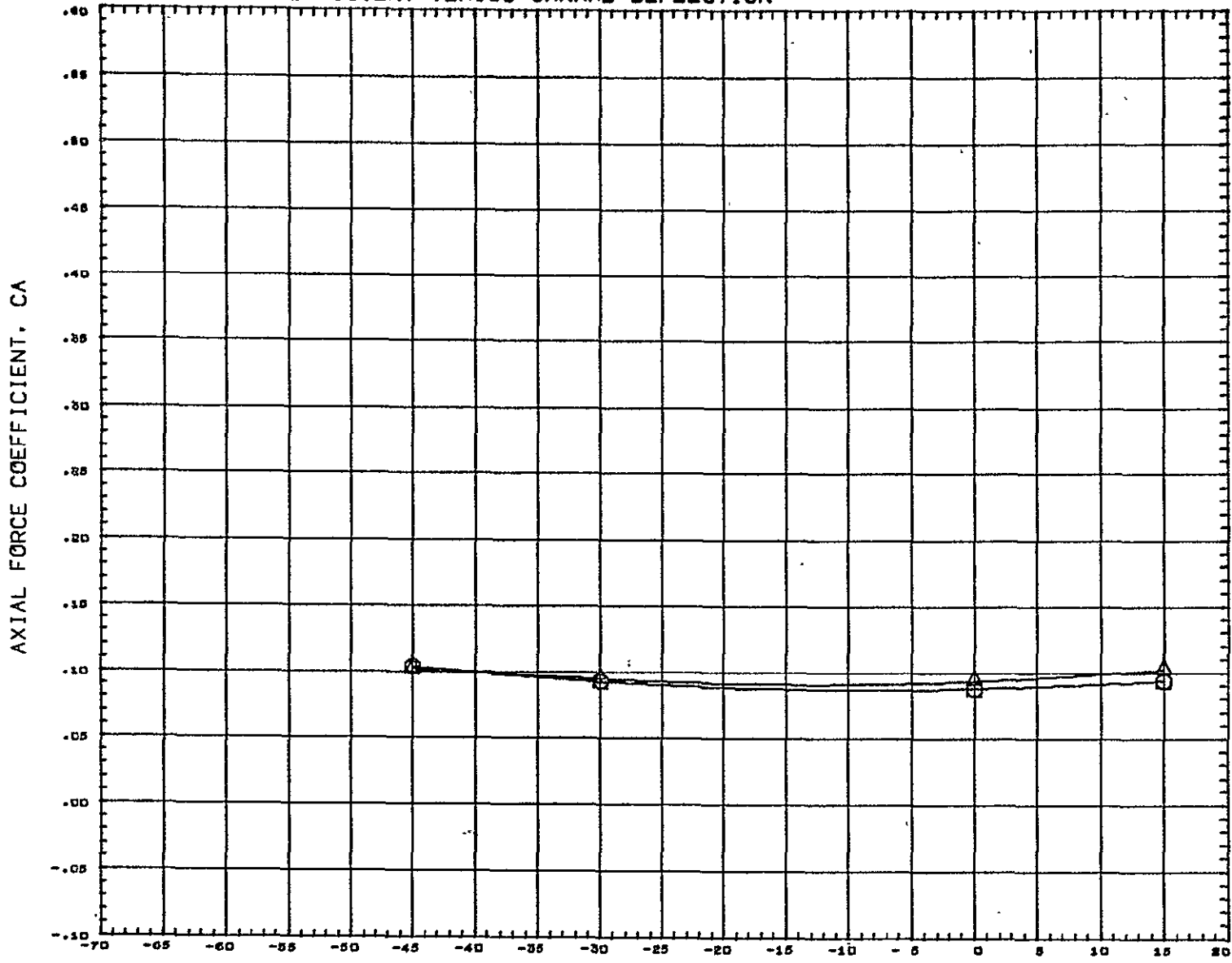
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.	
○	10.000	2.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	15.6560	30. IN.	
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	BREF	3.0950	IN.	
		- 60.000	- 60.000		G28C44	15.000			XMRP	6.0990	IN.	
		0.000	0.000						YMRP	6.7100	IN.	
									ZMRP	0.0000	IN.	
									SCALE	0.0035		

DATA HIST. CODE MVR#EI

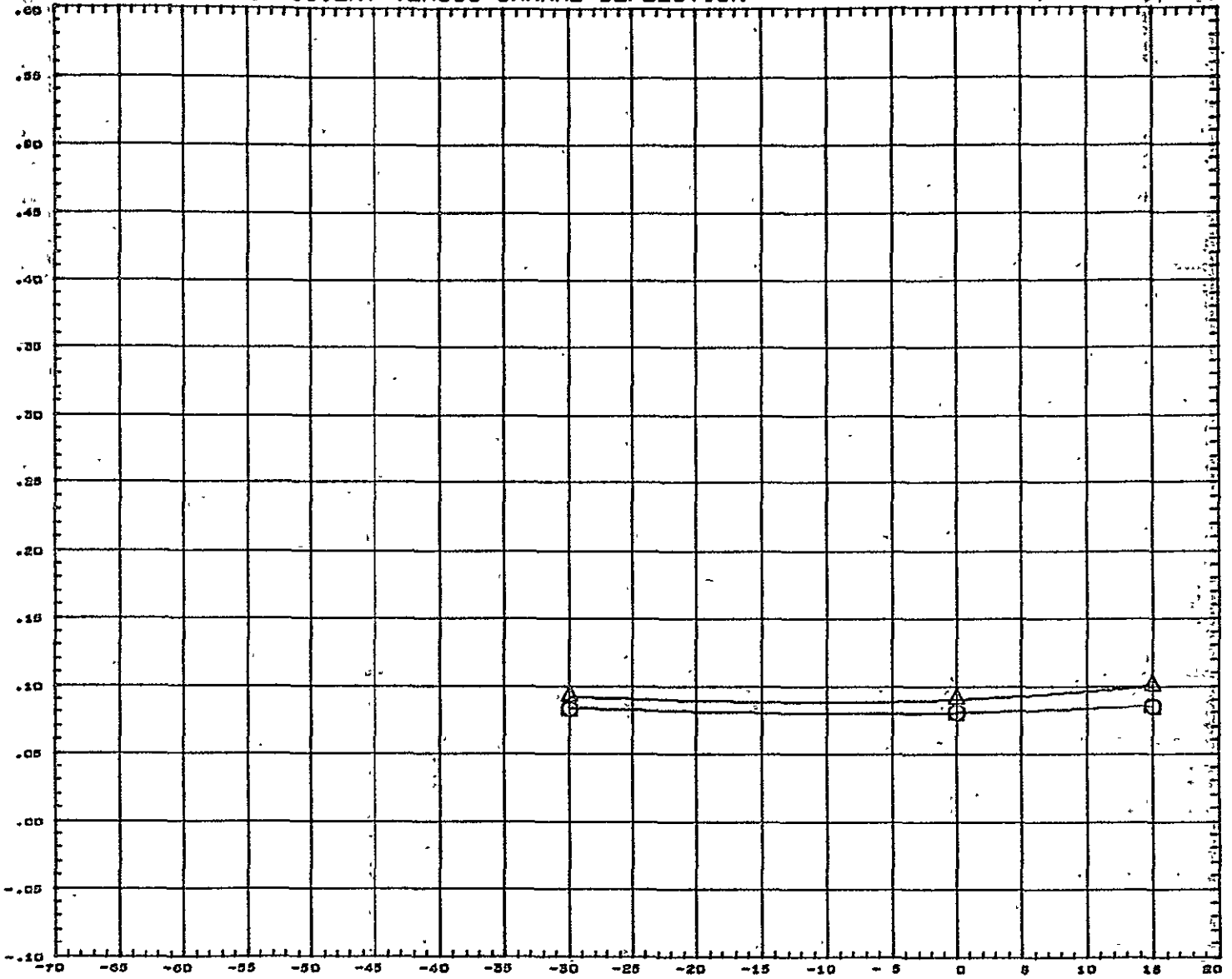
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	3.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6500	30. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0050	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	ATLRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#EI									

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

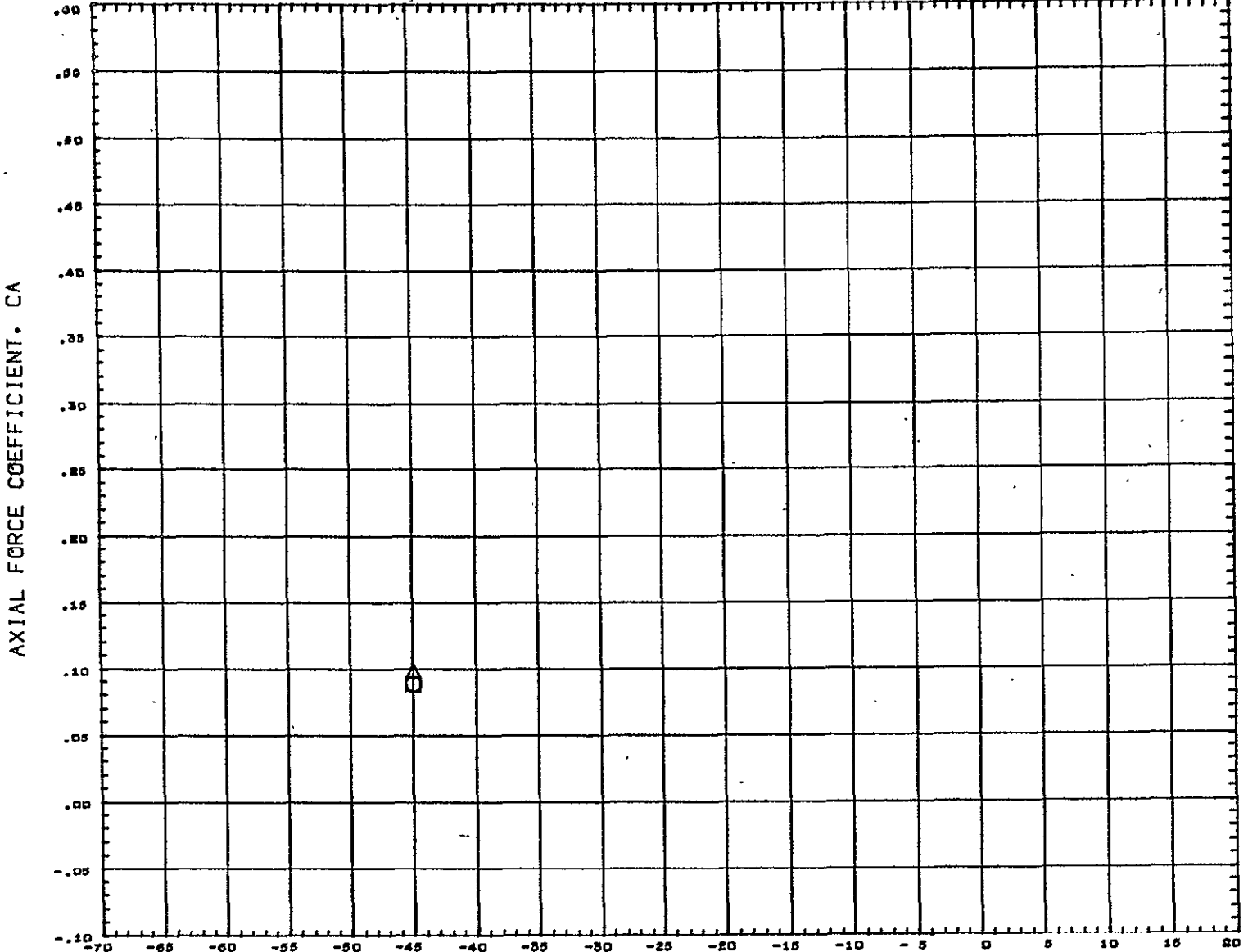
AXIAL FORCE COEFFICIENT, CA



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.
○	10.000	4.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	15.6560	80. IN.
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		DCL	- 60.000	DCR	- 60.000	G28C44	15.000		XMRP	6.7100	IN.
		ELEVON	0.000	AILRON	0.000				YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE HVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

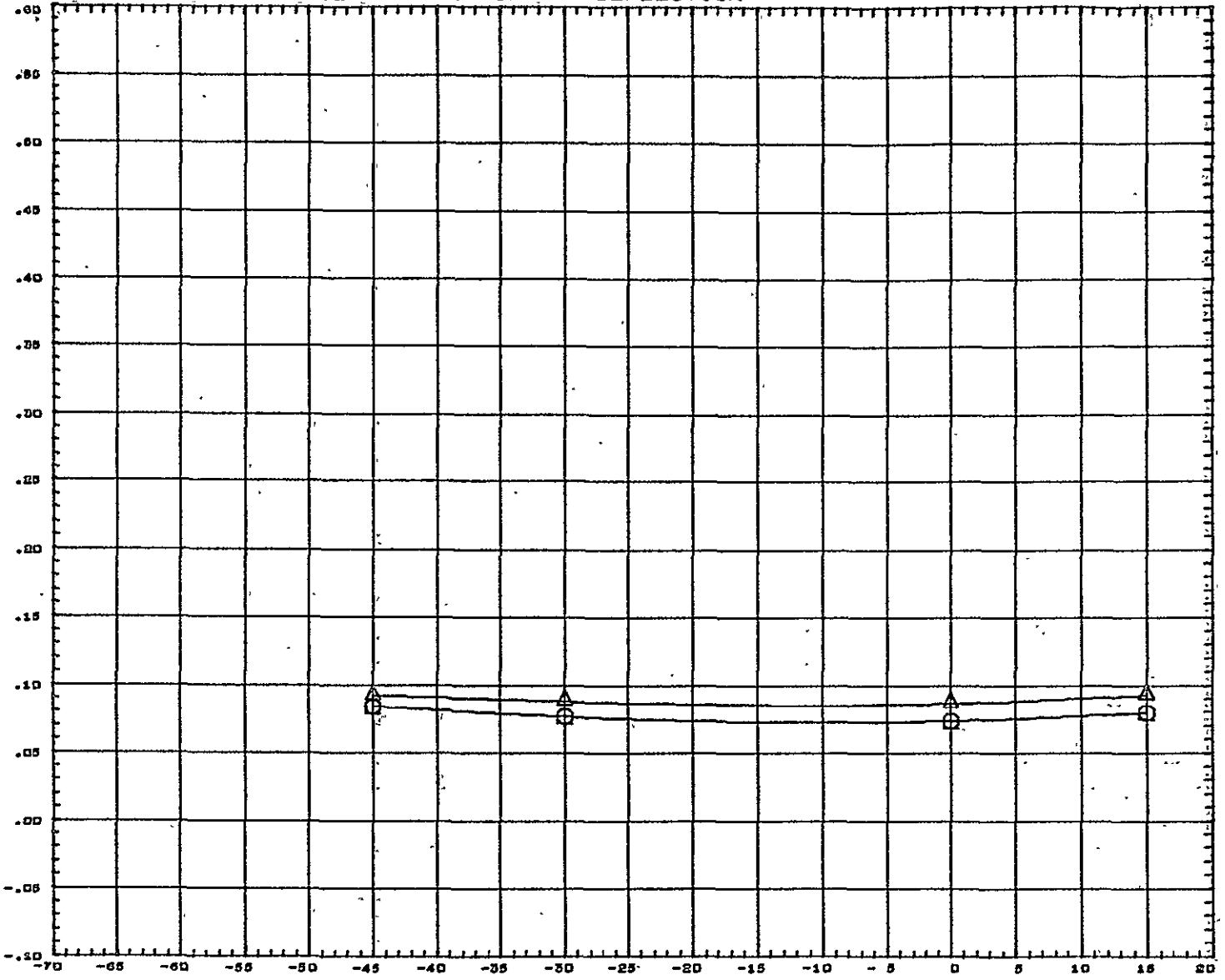


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	SCALE	SQ. IN.
○	10.000	4.500	0.000							15.6560		50. IN.
△	20.000	0.000	0.000		G28C47	- 60.000	G28C50	- 45.000		3.0950		IN.
					G28C41	- 30.000	G28B31	0.000		6.0990		IN.
					G28C44	15.000				6.7100		IN.
										0.0000		IN.
										0.0000		IN.
										0.0035		

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

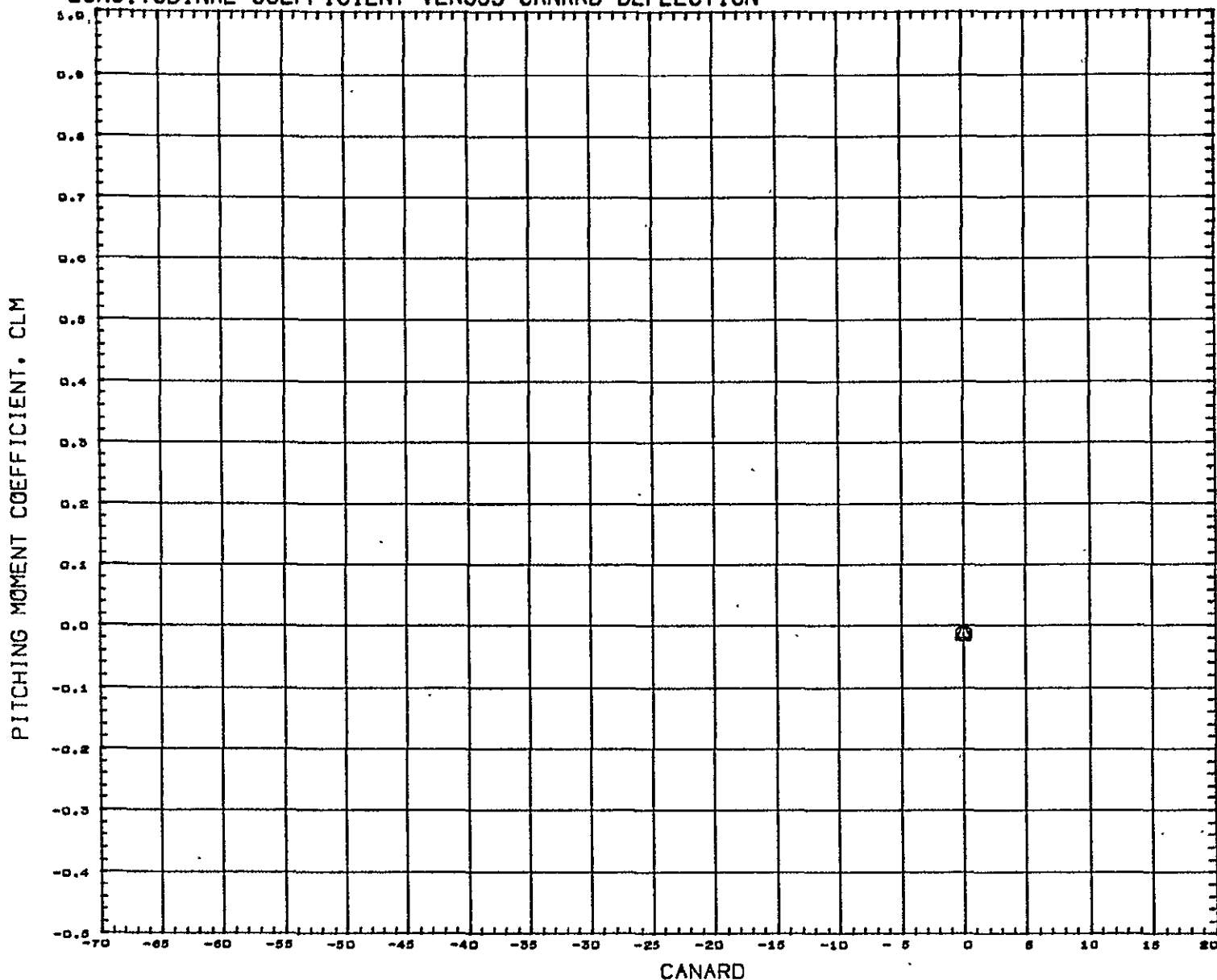
AXIAL FORCE COEFFICIENT, CA



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.
○	10.000	5.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	80. IN.	
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0050	IN.	
		DCL	- 60.000	DCR	- 60.000	G28C44	15.000		6.0990	IN.	
		ELEVON	0.000	AILRON	0.000				0.7100	IN.	
									0.0000	IN.	
									ZHRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR#E1

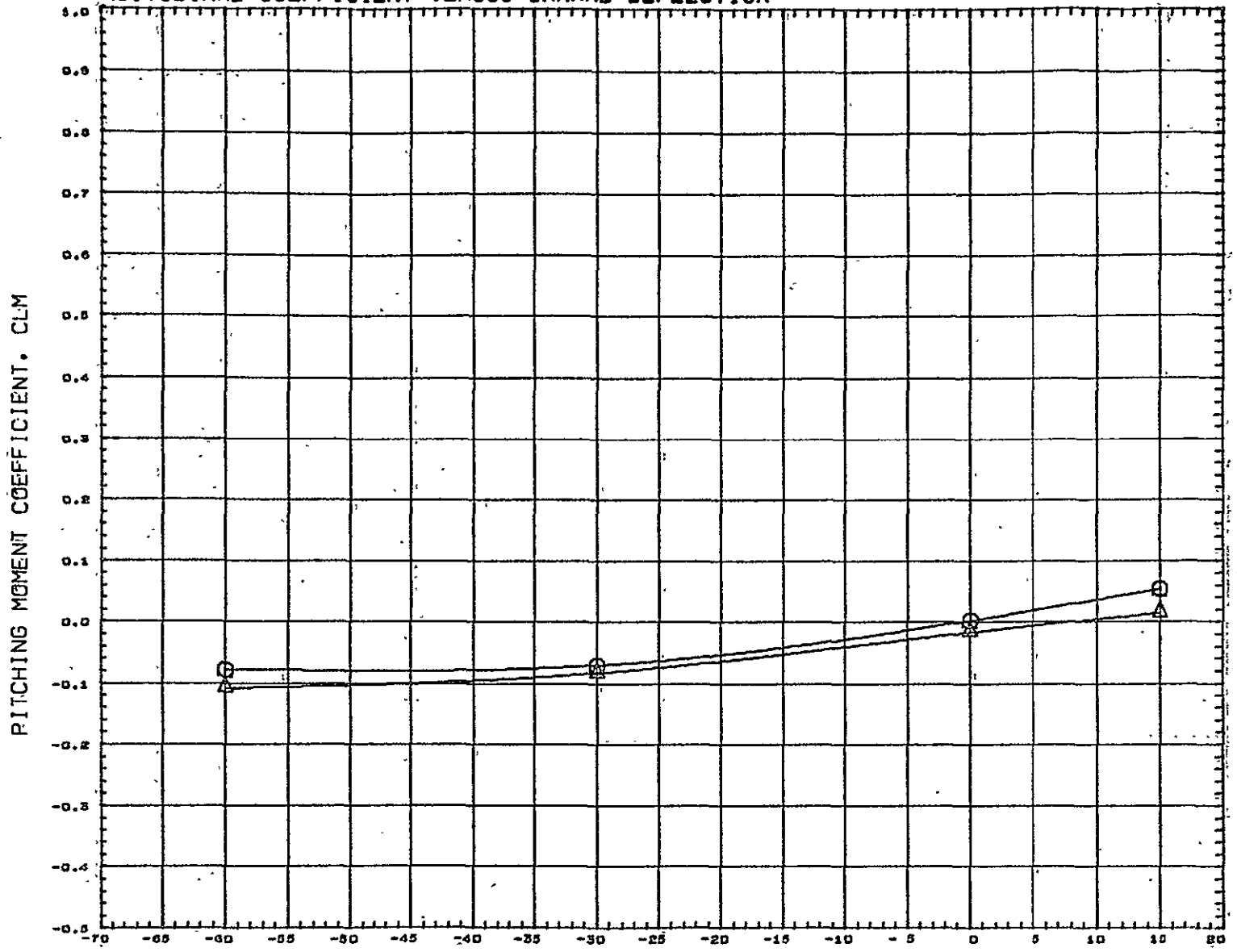
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	BREF	SCALE	IN.	
○	10.000	0.600	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	BREF	15.6560	80. IN.
△	20.000	0.000	0.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	LREF	3.0000	IN.
							G28C44	15.000			BREF	6.0000	IN.
											XMRP	6.7100	IN.
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR#E1

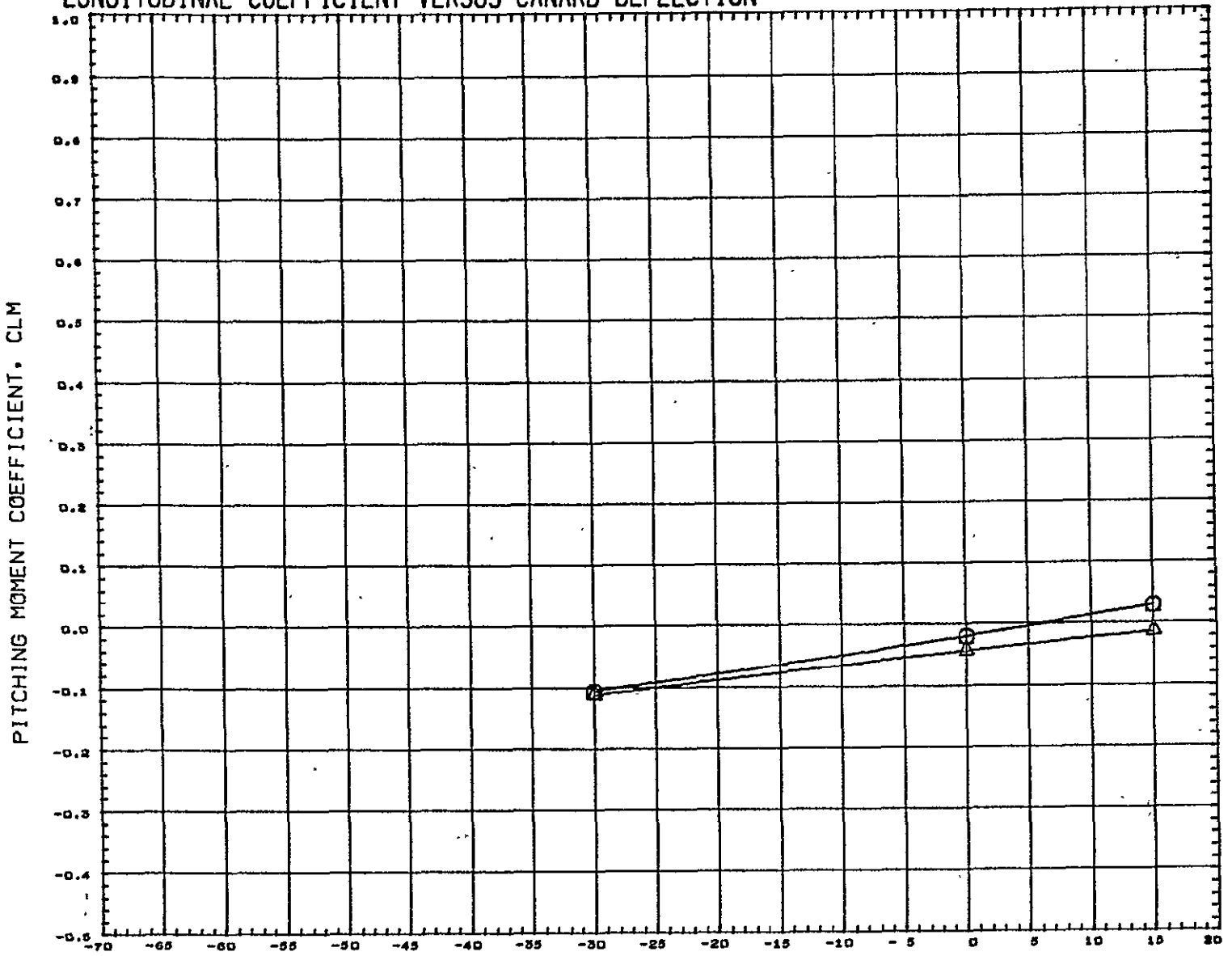
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.900	BETA	0.000	DATASET	CANARD	DATASET	CANARD	BREF	15.6560	39. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

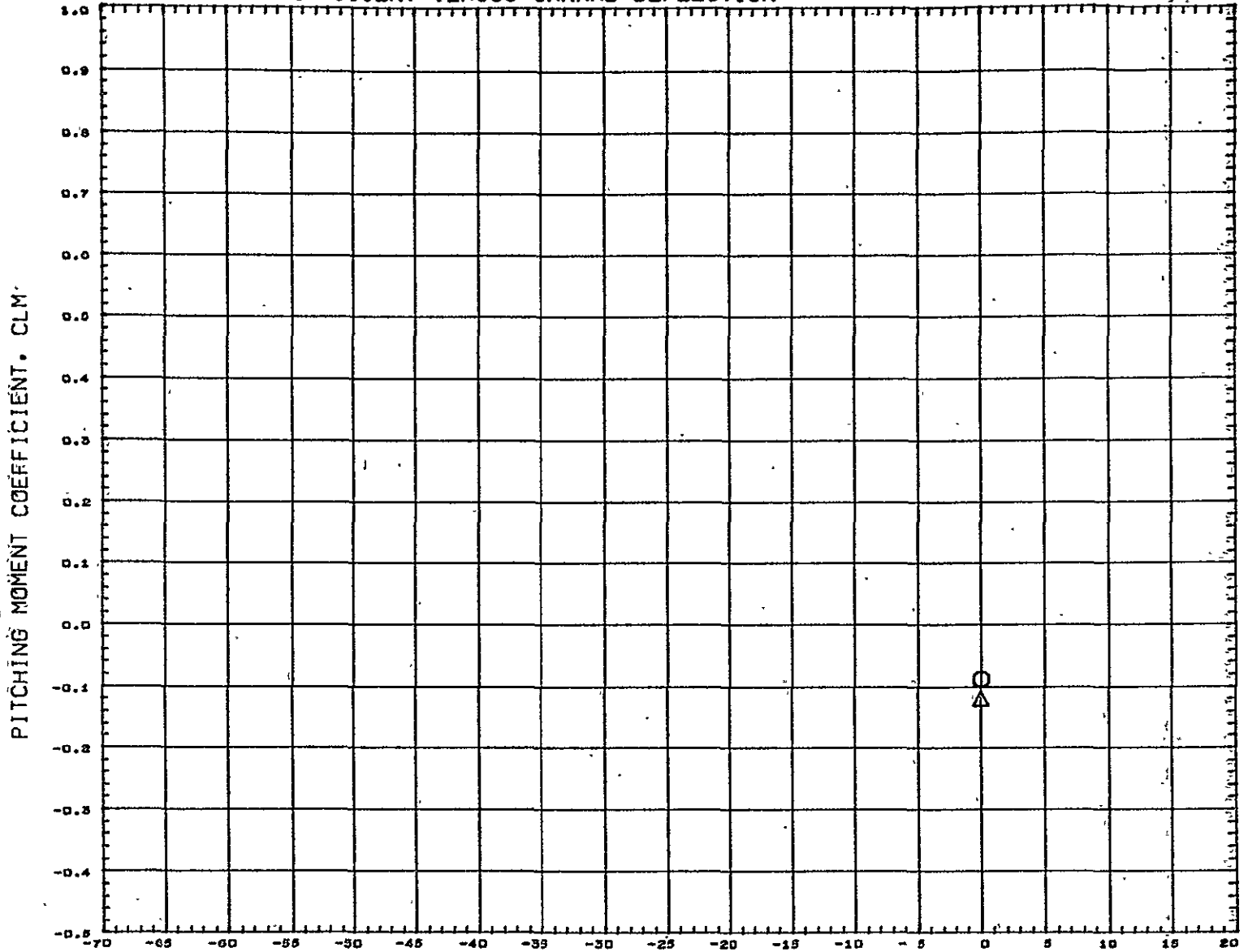


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION				
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	sq. IN.		
○	10.000	0.950	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	50. IN.	
△	20.000	0.000	0.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.	
		DCL	- 60.000	DCR	- 60.000			G28C44	15.000			6.0990	IN.
		ELEVON	0.000	AILRON	0.000							0.7100	IN.
												0.0000	IN.
												0.0000	IN.
												0.0035	IN.

DATA HIST. CODE MVR#E1

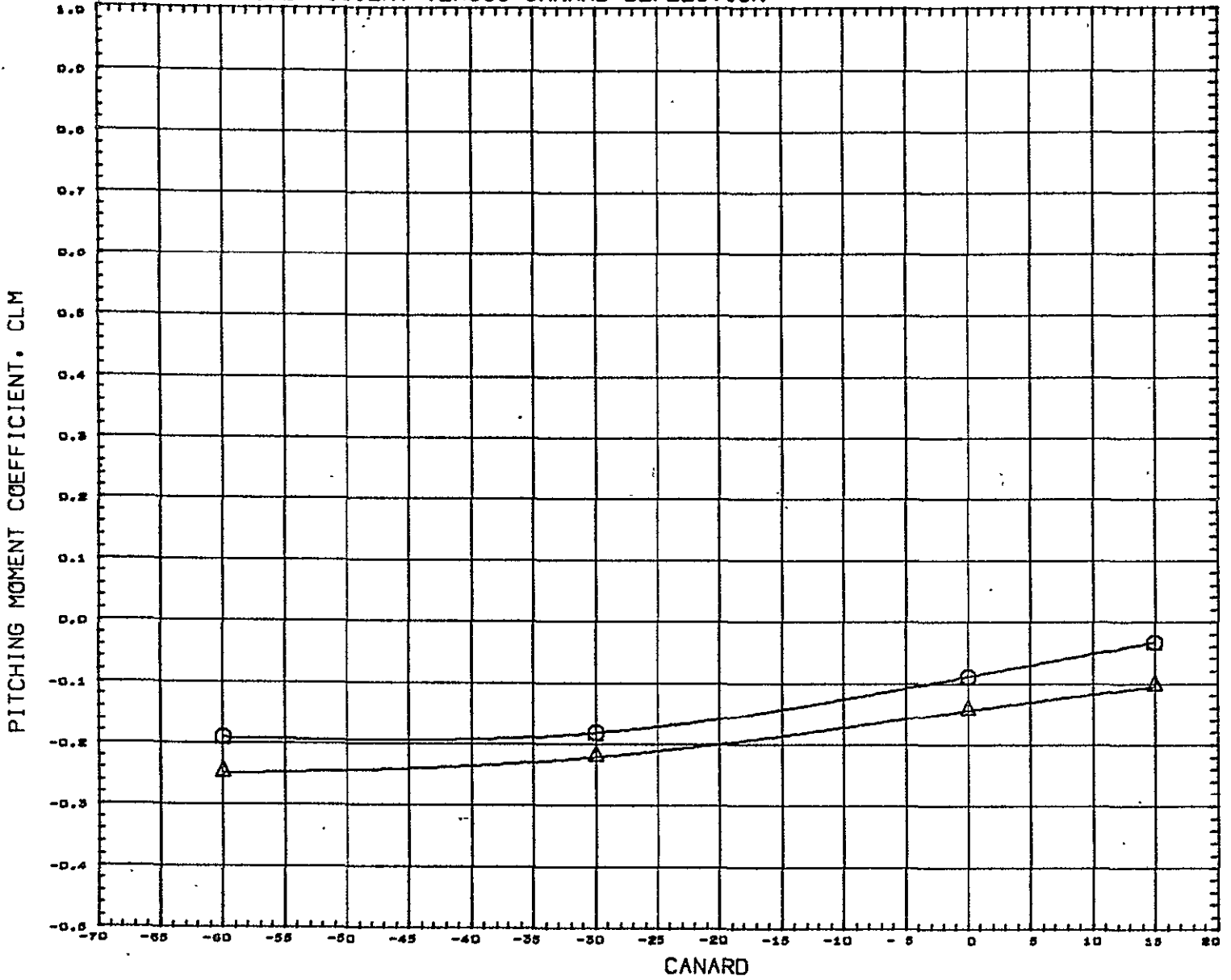
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
○	10.000	1.000	0.000	0.000	0.000					15.6560		
△	20.000	0.000	0.000	0.000	0.000					3.0950		
		DEL	DER	DCR	DCR	G28C47	- 60.000	G28C50	- 45.000	LREF	6.0990	IN.
		DCL	DCR	AILRON	AILRON	G28C41	- 30.000	G28B31	0.000	SREF	6.7100	IN.
		ELEVON	AILRON			G28C44	15.000			XMRP	0.0000	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#E1

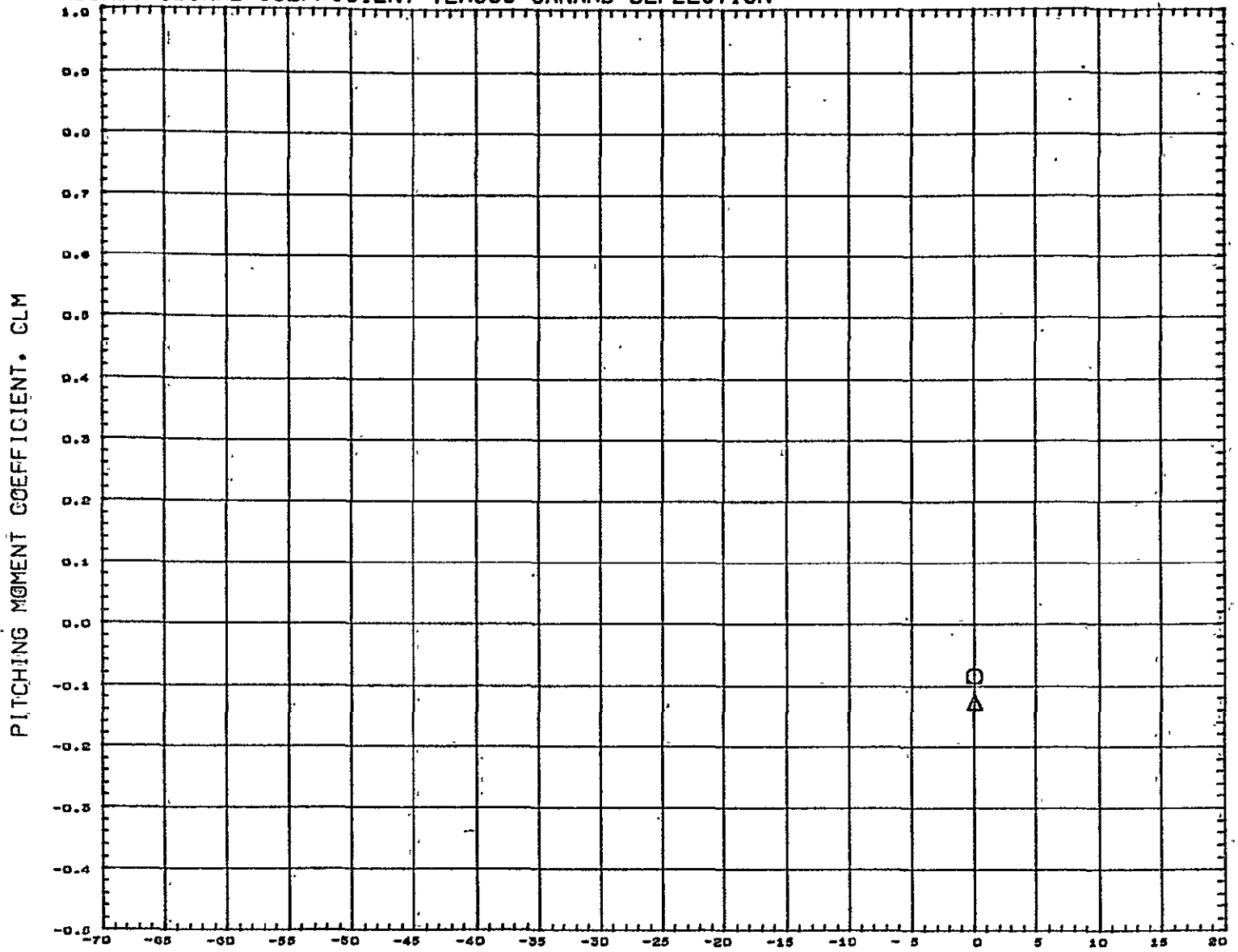
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.
○	10.000	1.050	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	80	IN.	
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.	IN.	
		- 60.000	- 60.000	- 60.000	G28C44	15.000			6.0990	IN.	IN.	
		0.000	0.000	0.000					6.7100	IN.	IN.	
									0.0000	IN.	IN.	
									0.0000	IN.	IN.	
									SCALE	0.0035		

DATA HIST. CODE MVR#E1

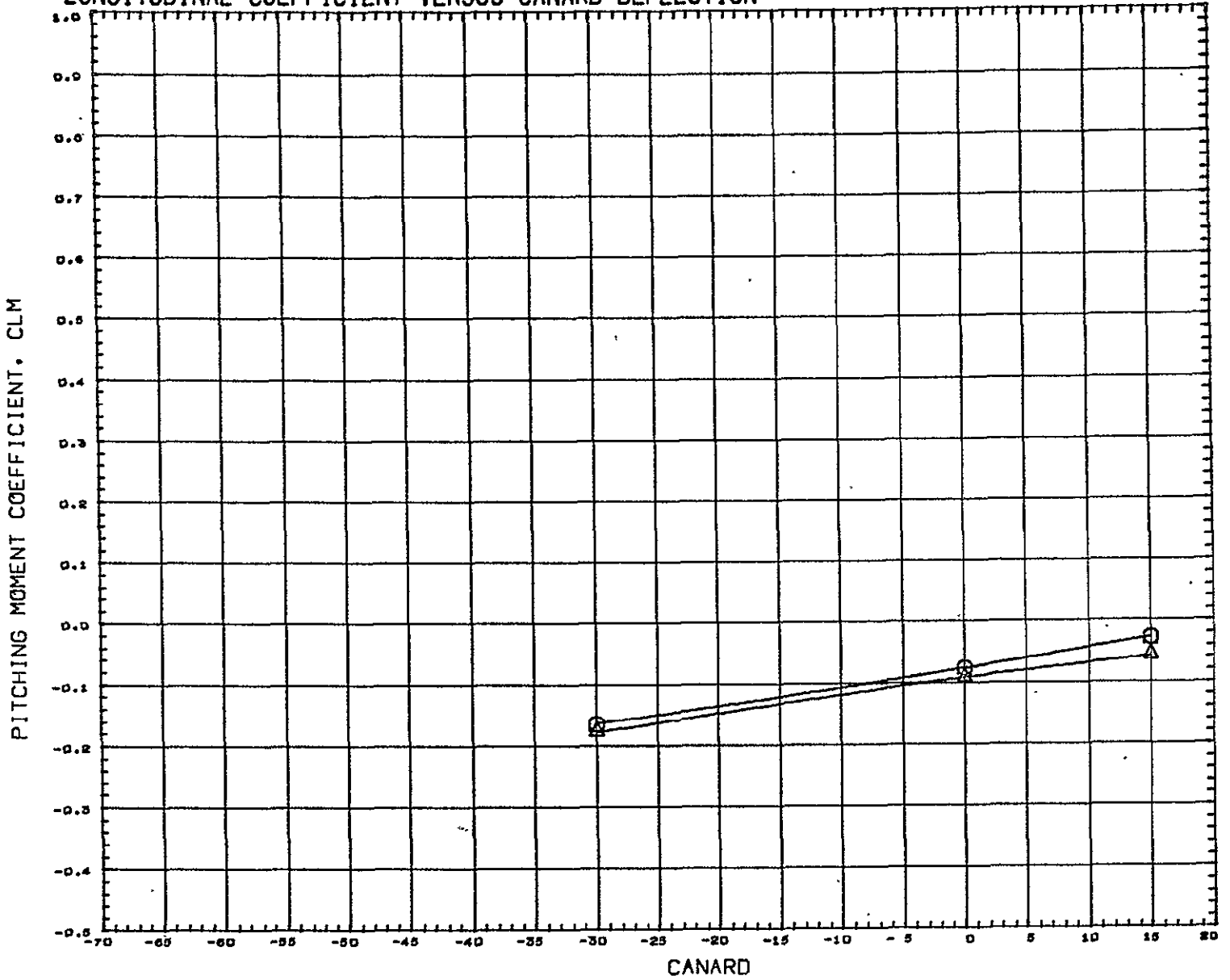
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SCALE	
○	10.000	1.100	0.000	0.000	0.000	0.000	628C47	- 60.000	628C50	- 45.000	15.6560	30. IN.	
△	20.000	0.000	0.000	0.000	0.000	0.000	628C41	- 30.000	628B31	0.000	3.0980	IN.	
		DCL	DCR				628C44	15.000			6.0990	IN.	
		ELEVON									6.7100	IN.	
											0.0000	IN.	
											0.0000	IN.	
											0.0035		

DATA HIST. CODE MVR9E1

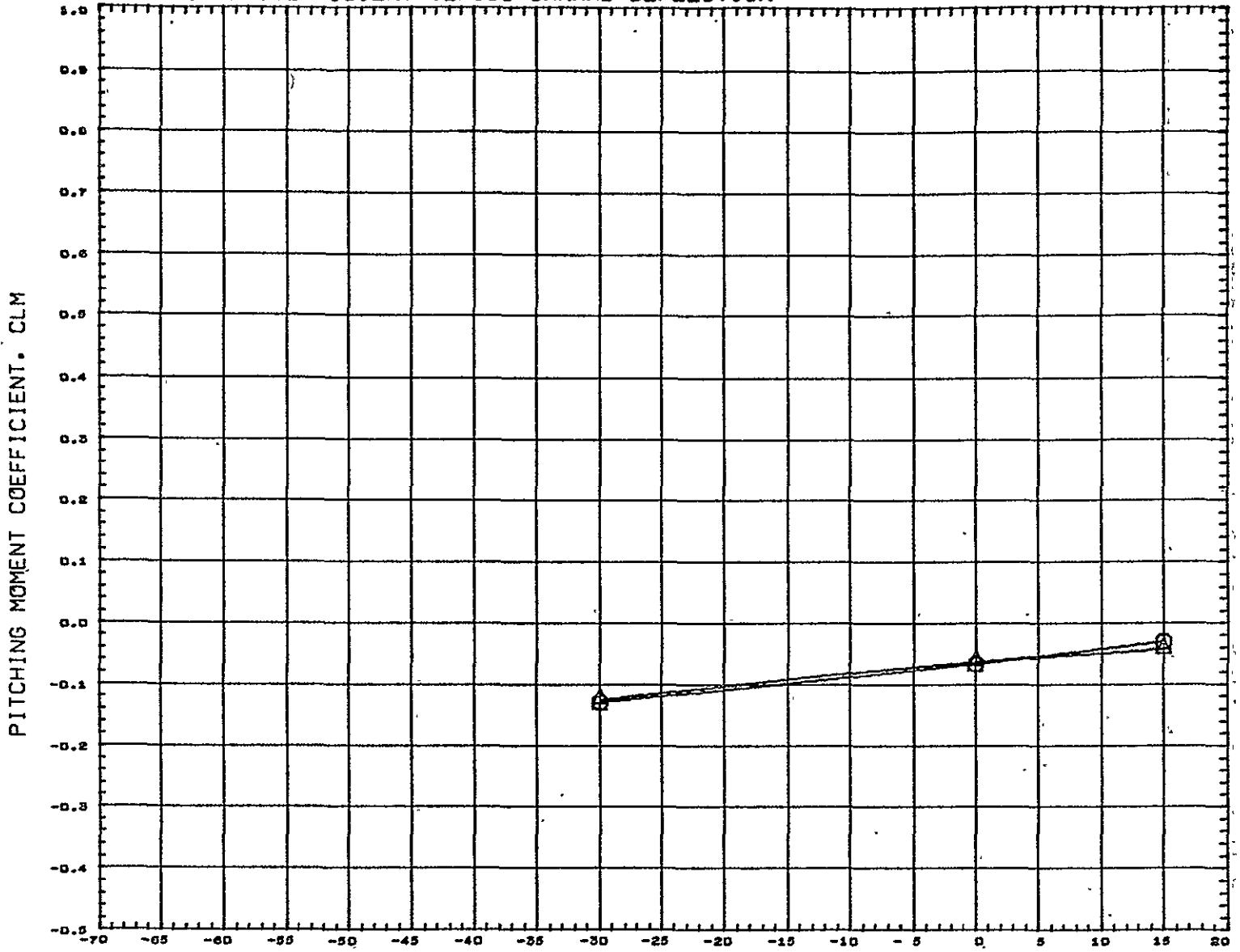
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	LREF	BREF	
○	10.000	1.200	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	80. IN.	
△	20.000	0.000	0.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.	
		- 60.000	- 60.000	- 60.000	- 60.000	- 60.000	G28C44	15.000			6.0090	IN.	
		ELEVON	0.000	AILRON	0.000	0.000					XMRP	6.7100	IN.
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR#E1

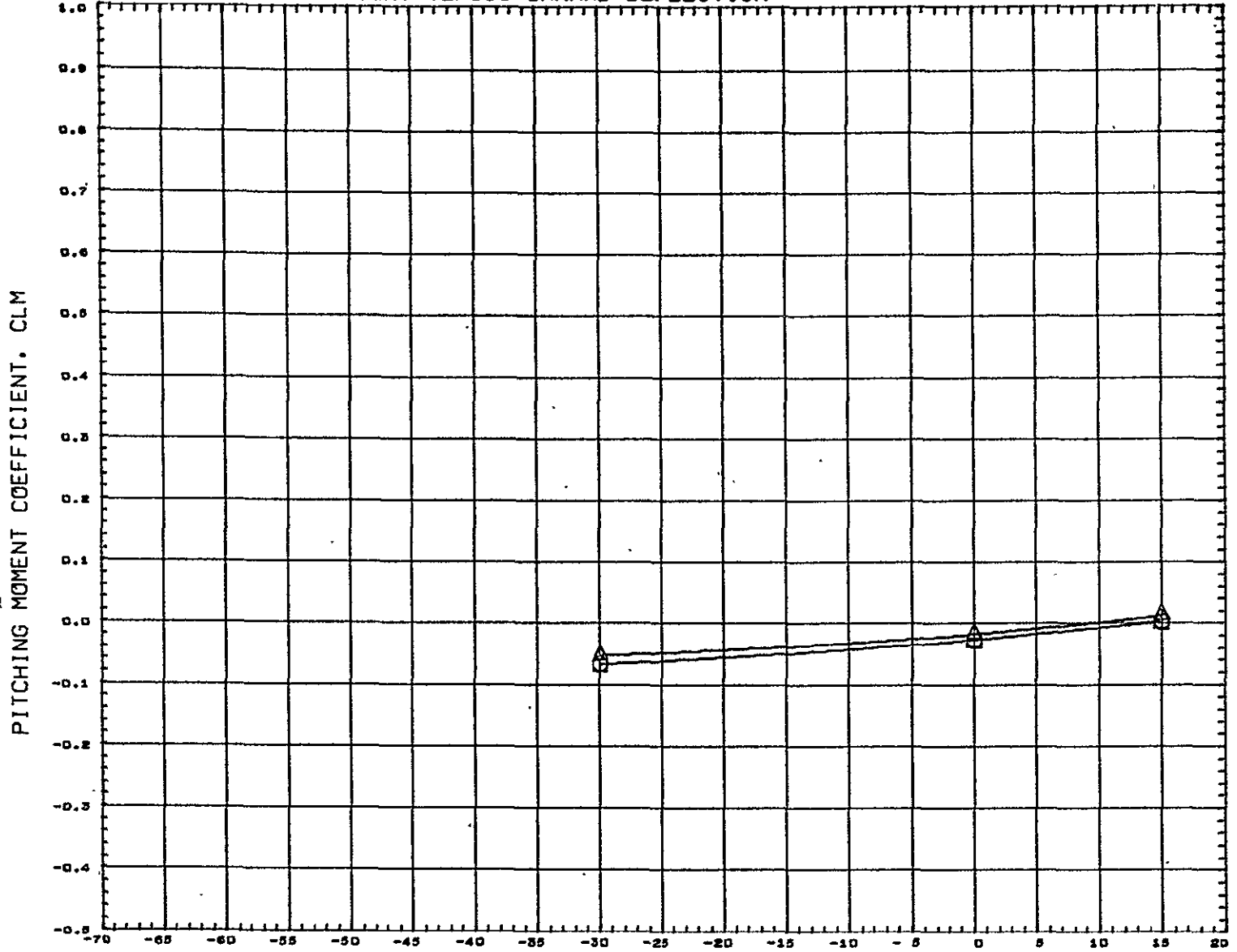
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○		10.000	MACH	1.500	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	80. IN.
△		20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
			DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
			ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

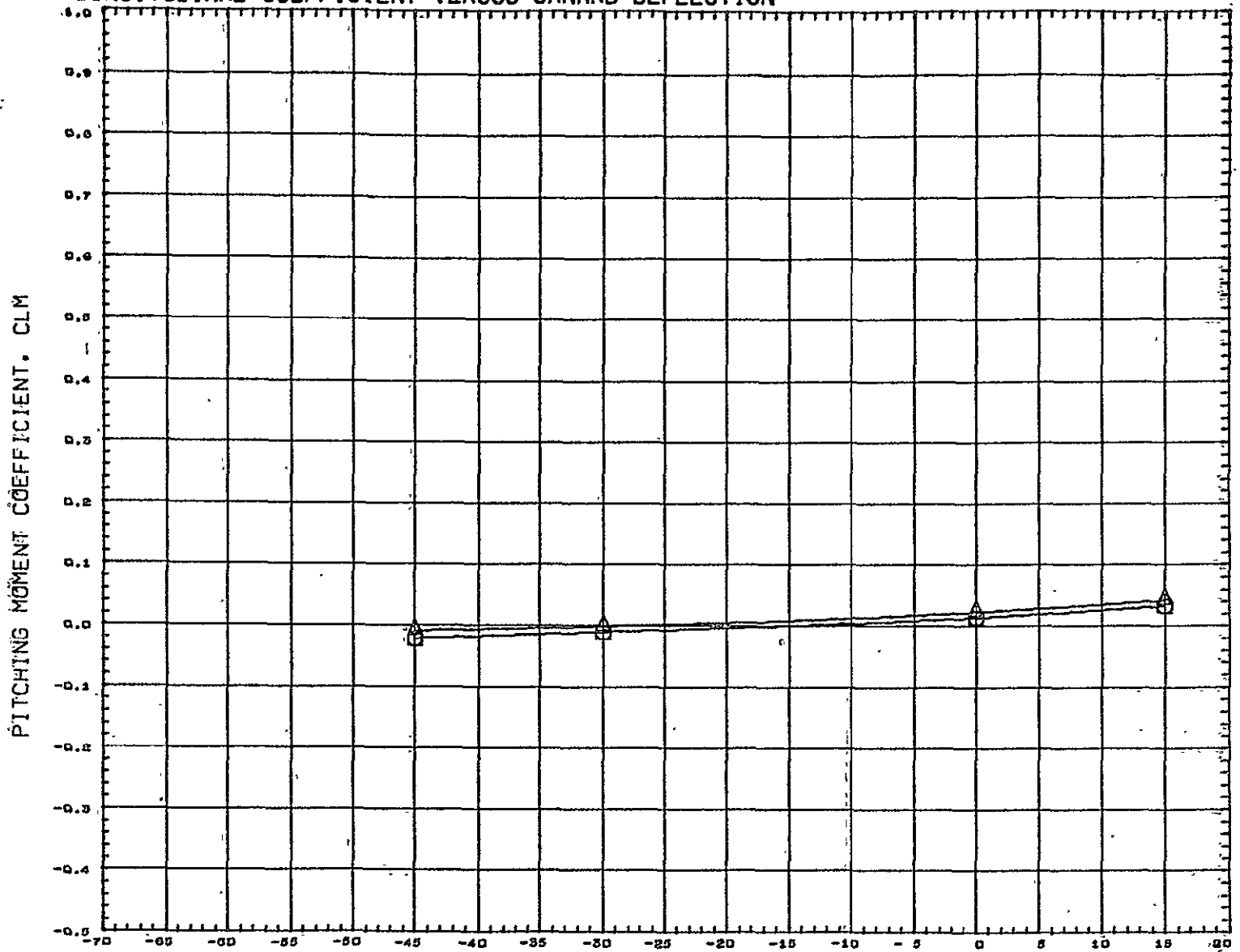


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
□	10.000	MACH	2.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

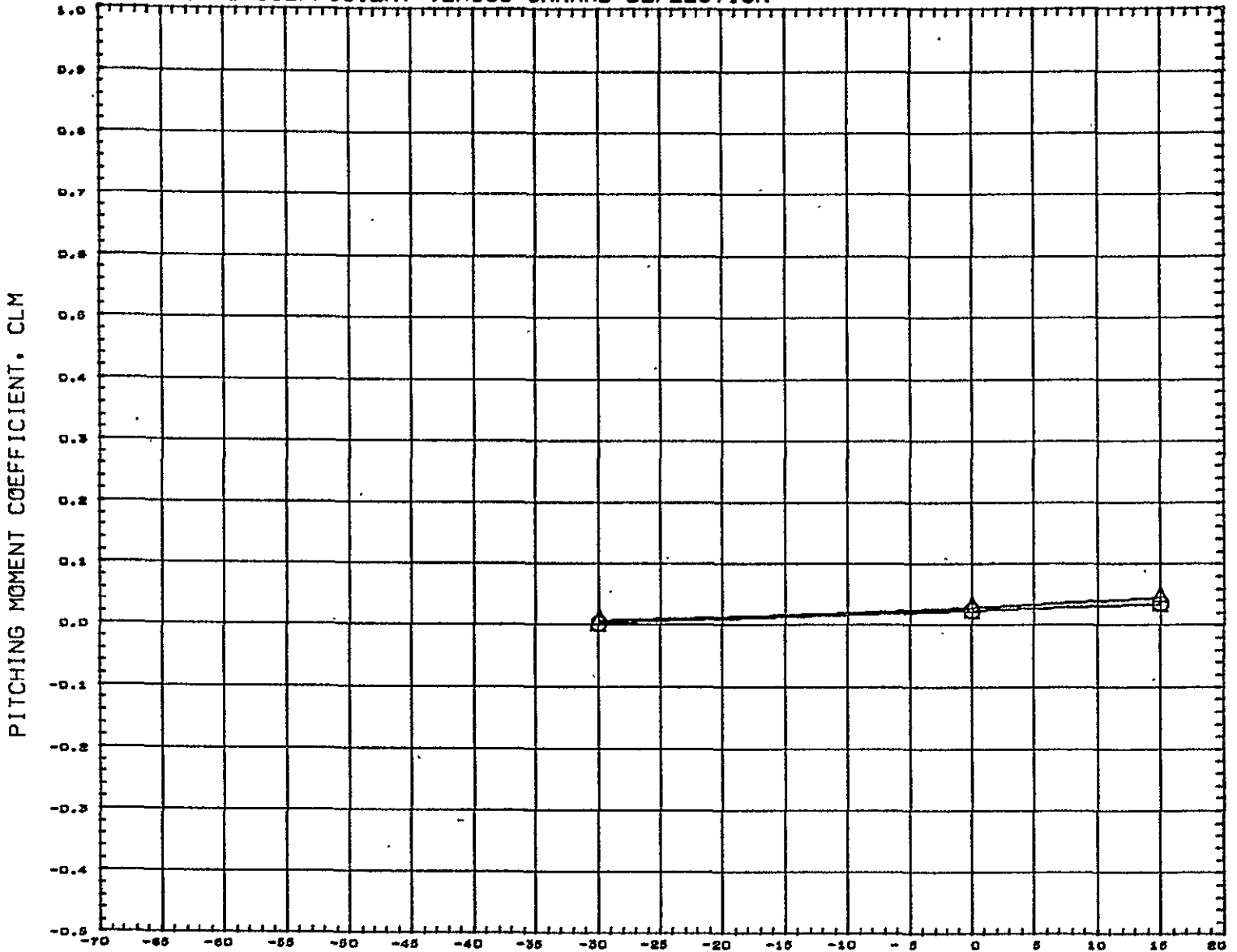
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.
○	10.000	3.000	0.000	0.000	0.000					15.6560	39. IN.	
△	20.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.	
		60.000	60.000	60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.	
					G28C44	15.000			XMRP	6.7100	IN.	
									YMRP	0.0000	IN.	
									ZMRP	0.0000	IN.	
									SCALE	0.0035		

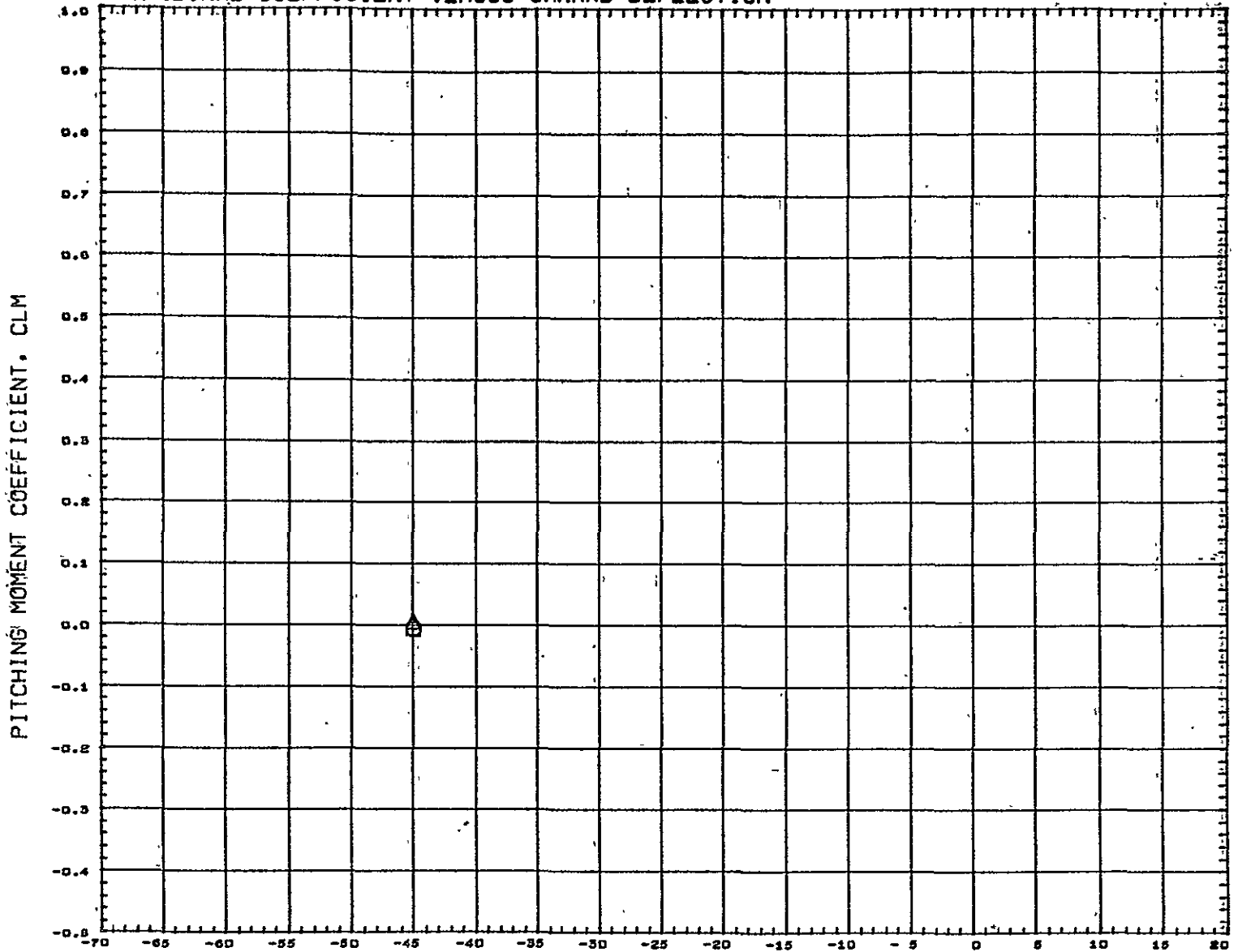
DATA HIST. CODE HVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	4.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	sq. IN.
△	20.000	OEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		OCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

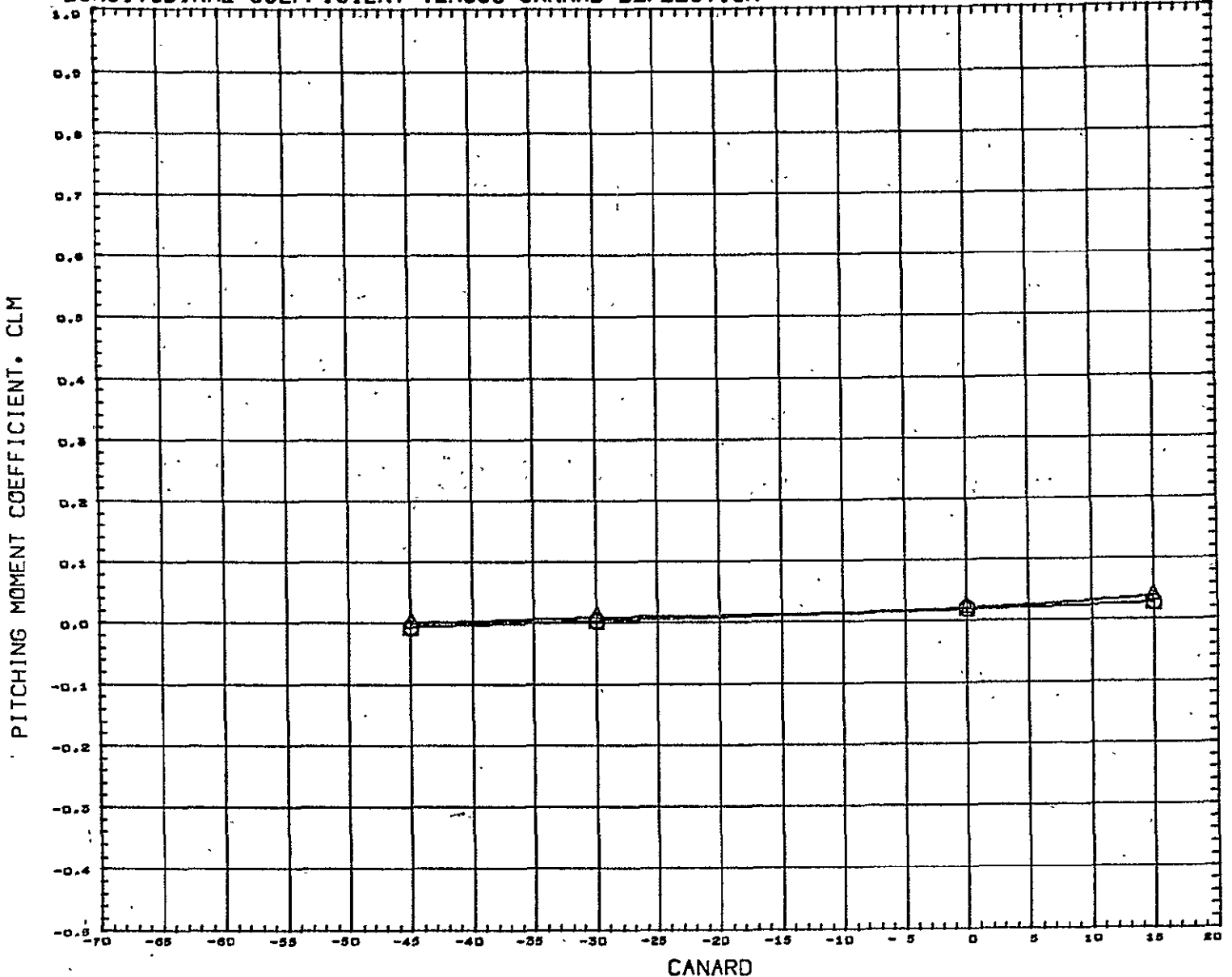
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.
○	10.000	4.500	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6500	80. IN.	
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.	
		DCL	DCR		G28C44	15.000			6.0990	IN.	
		ELEVON	ATLRON						6.7100	IN.	
									0.0000	IN.	
									ZHRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE HVR#E1

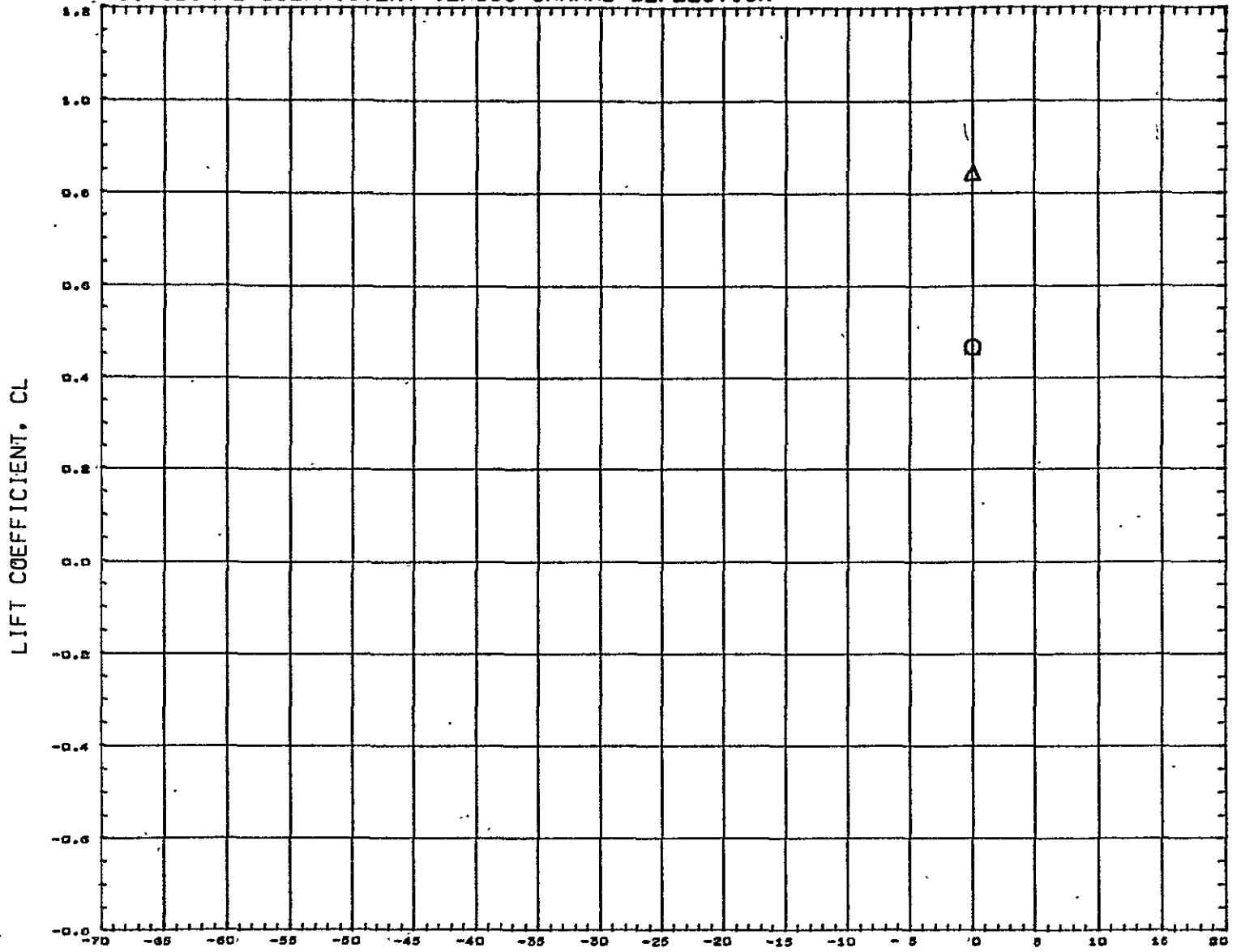
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	DER	DATASET	CANARD	DATASET	CANARD	SREF	LREF	BREF
○	10.000	5.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	3.0950	6.0990
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	6.7100	0.0000	0.0000
		DEL	DCR	AILRON					XMRP	ZMRP	SCALE
		- 60.000	- 60.000	0.000					0.0000	0.0000	0.0035

DATA HIST. CODE MVR#E1-

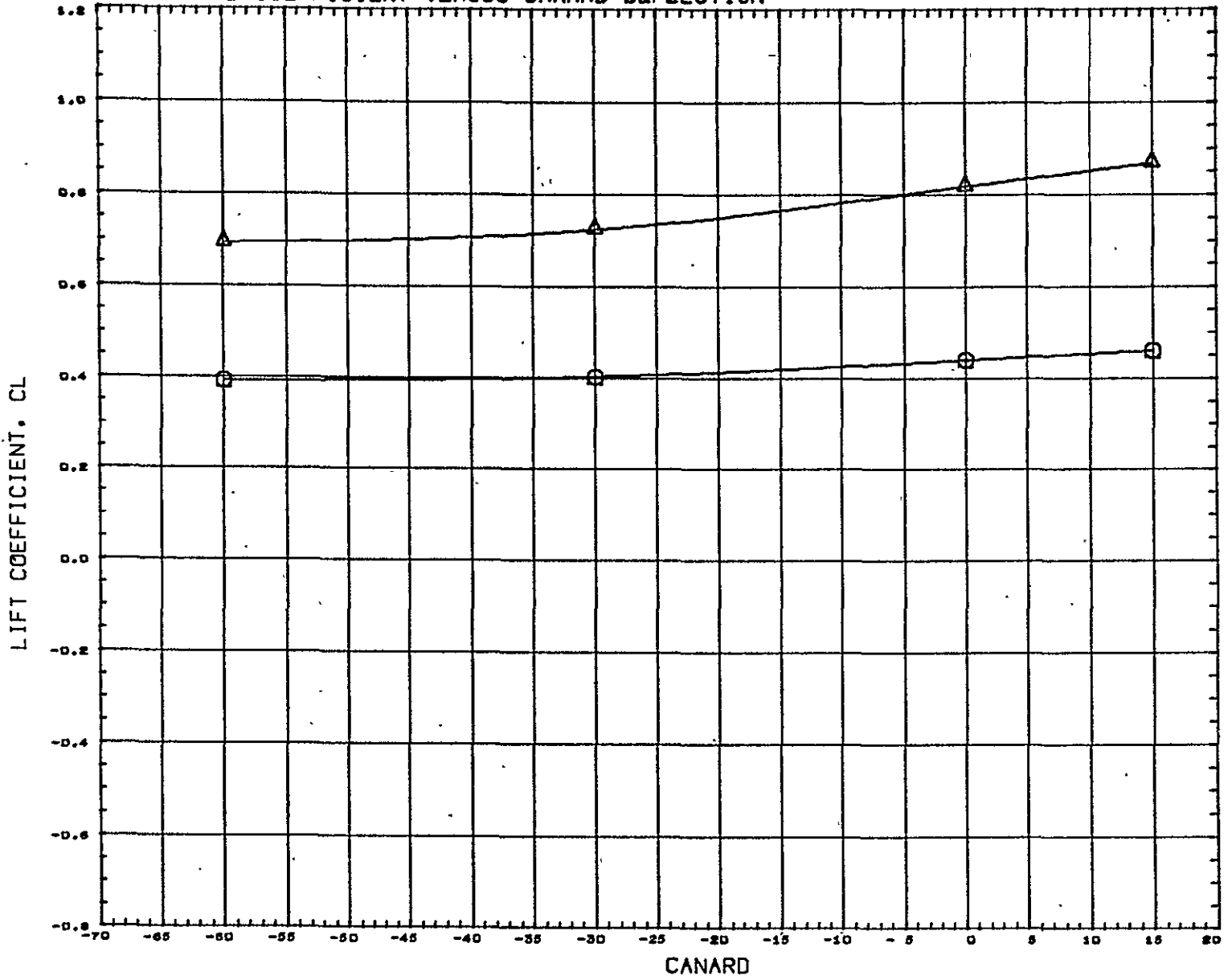
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
○	10.000	0.600	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	15.6560	3.0950
△	20.000	0.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	6.0990
		- 60.000	0.000	- 60.000	0.000	G28C44	15.000			XHRP	6.7100	6.7100
		ELEVON	0.000	AILRON	0.000					YHRP	0.0000	0.0000
										ZHRP	0.0000	0.0000
										SCALE	0.0035	0.0035

DATA HIST. CODE HVR#EI

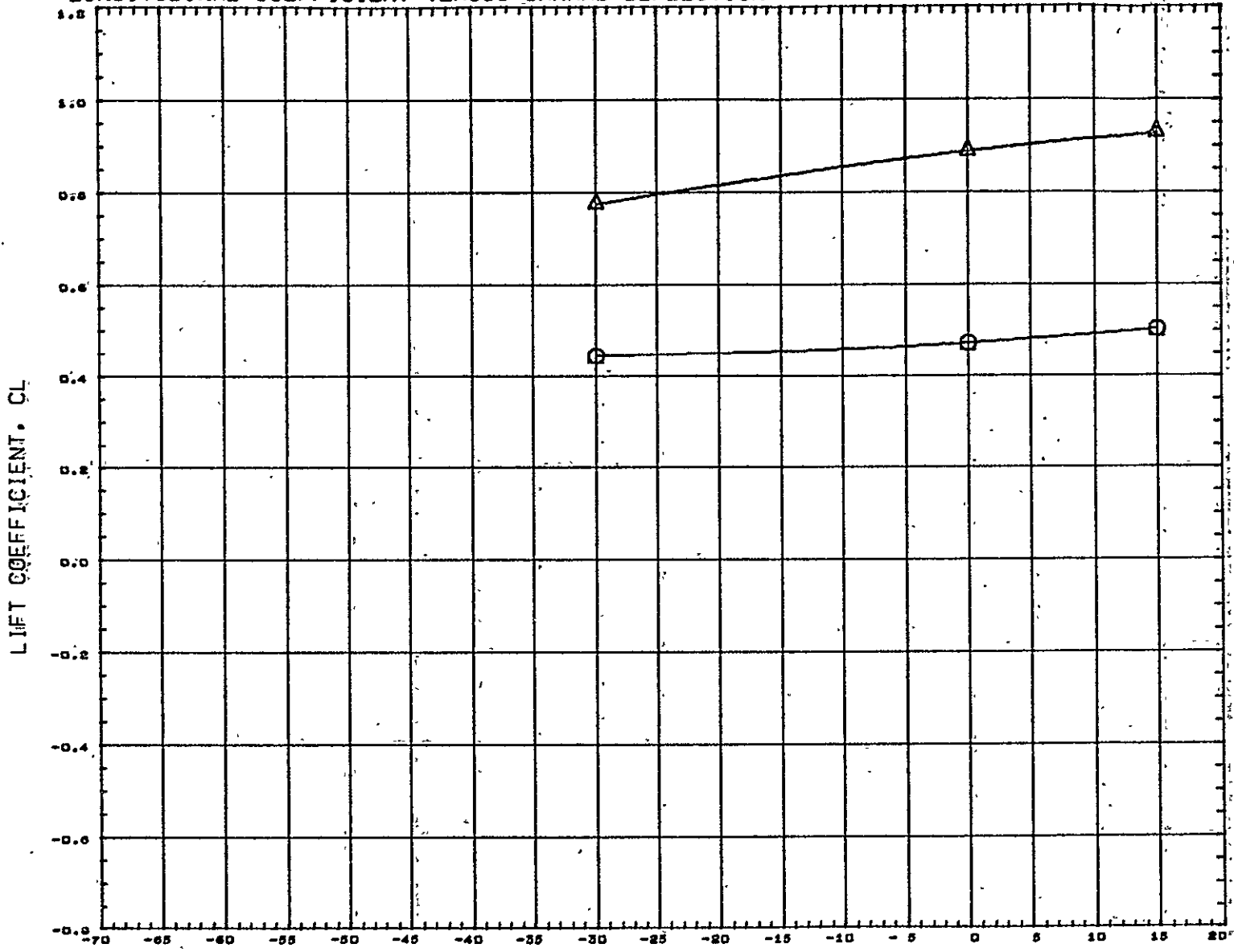
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.
○	10.000	0.900	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	3.0950	30. IN.	
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	6.0990	6.7100	IN.	
		- 60.000	- 60.000	0.000	G28C44	15.000			0.0000	0.0000	IN.	
		0.000	0.000	0.000					ZMRP	0.0000	IN.	
									SCALE	0.0035		

DATA HIST. CODE MVR*EI

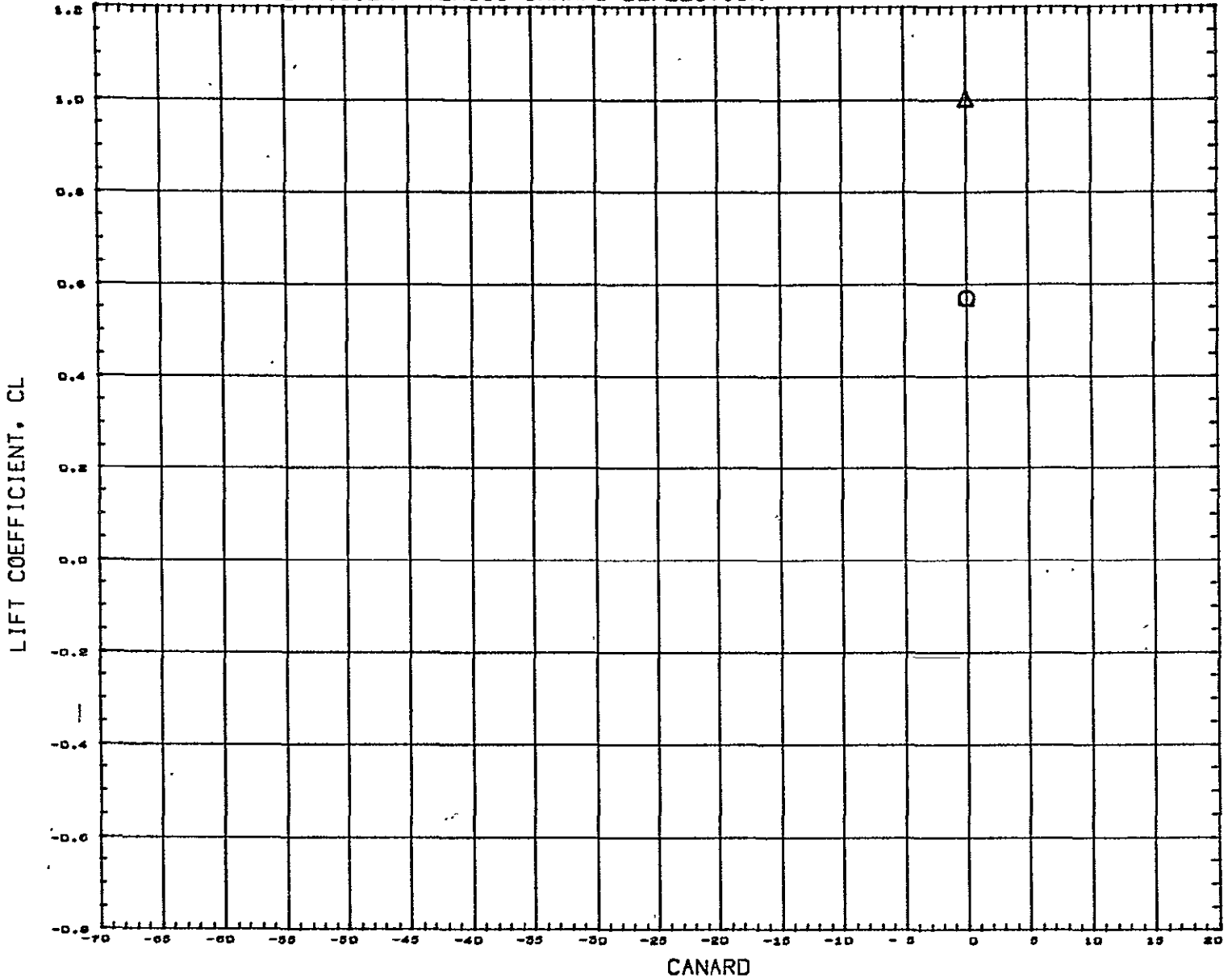
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○		10.000	MACH	0.950	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	50. IN.
△		20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0980	IN.
			DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
			ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR#E1-

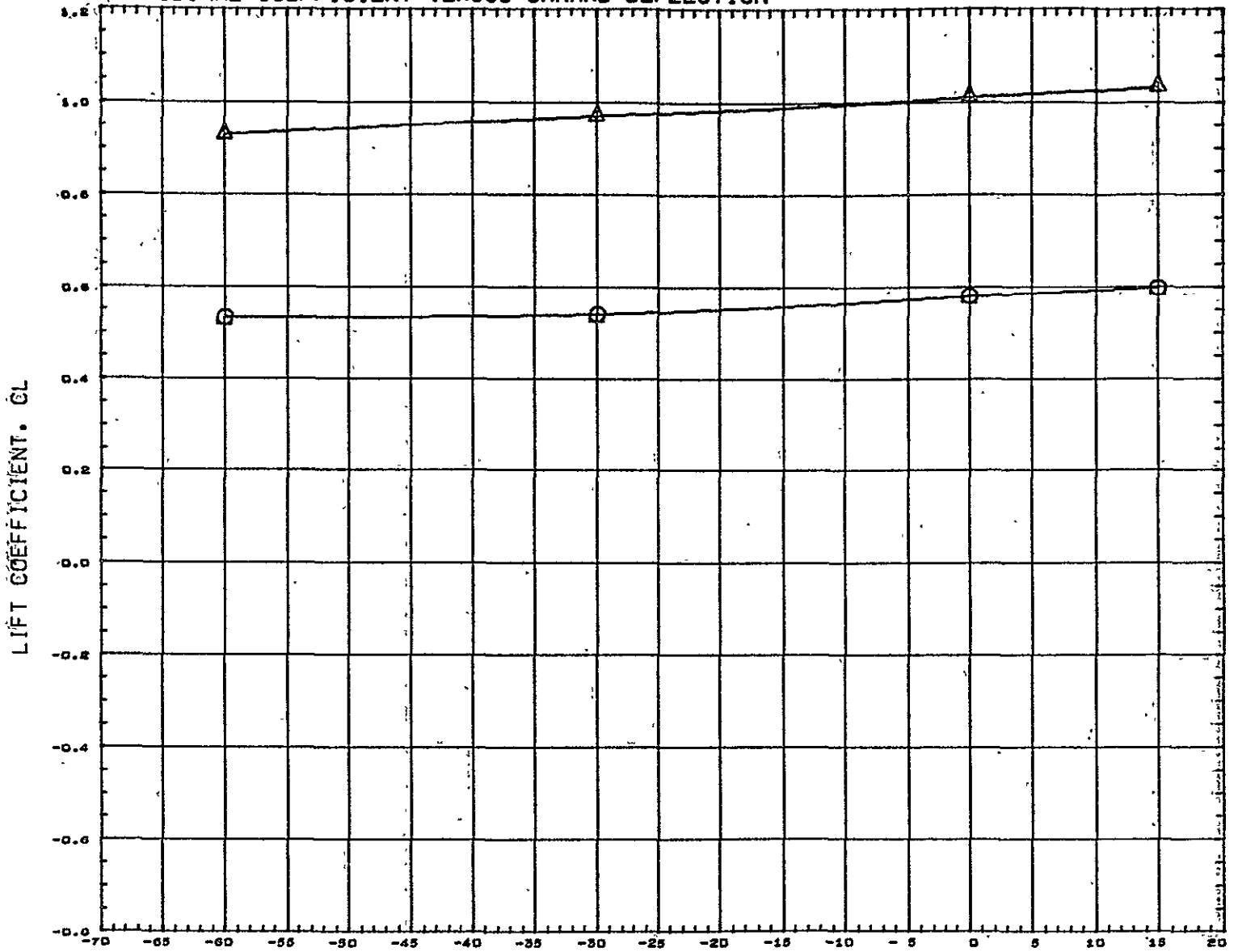
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.0500	SQ. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	SREF	6.0900	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#E1

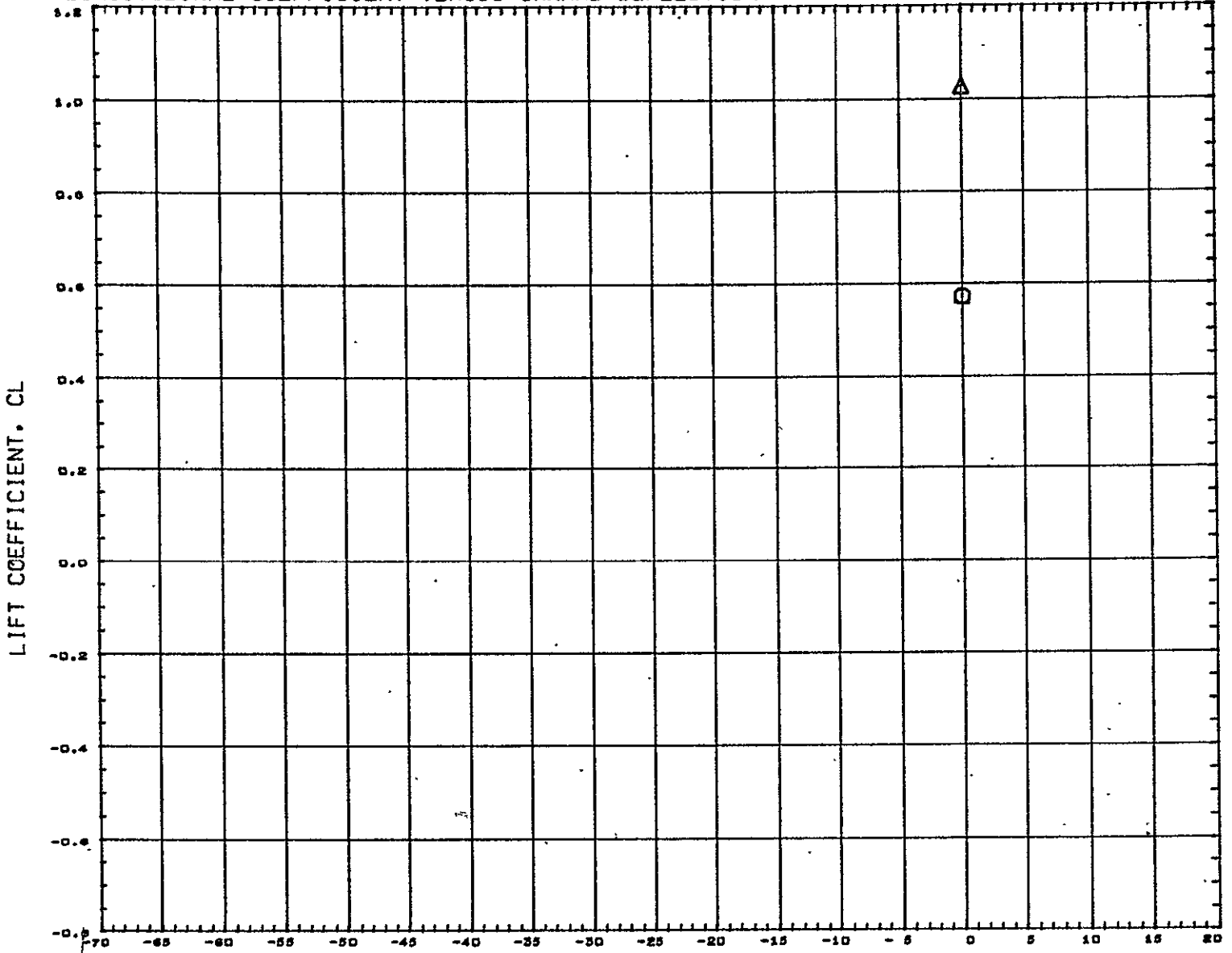
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DEL	DCR	DATASET	CANARD	SCALE	SREF	IN.	
○	10.000	1.050	0.000	0.000	G28C47	- 60.000	G28C50	15.6500	30. IN.		
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	3.0990	IN.		
		- 60.000	- 60.000		G28C44	15.000		6.0990	IN.		
		0.000	0.000					0.7100	IN.		
								0.0000	IN.		
								0.0000	IN.		
								0.0035	IN.		

DATA HIST. CODE MVR#E1

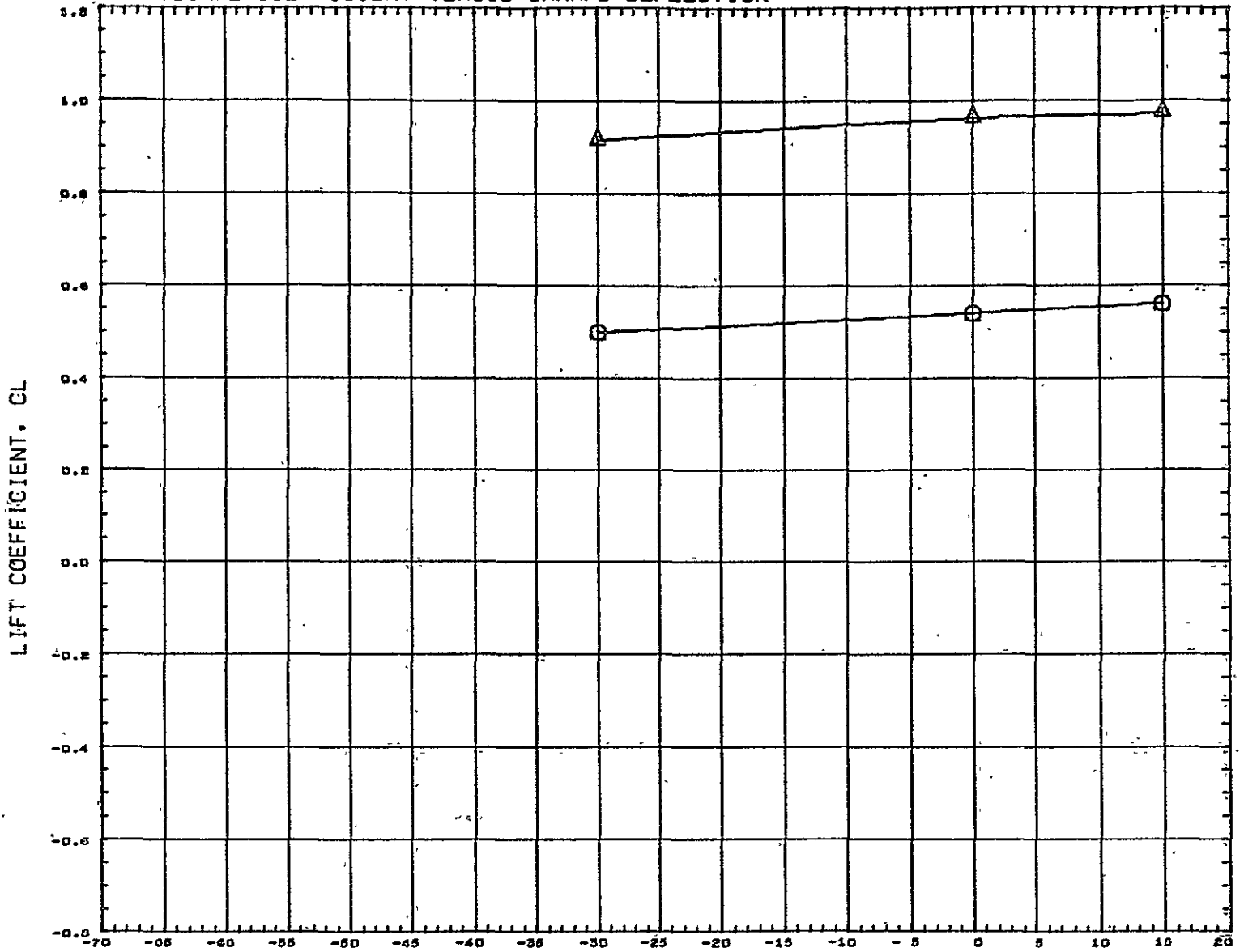
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SG. IN.
○	10.000	1.100	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	30. IN.
△	20.000	0.000	0.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0050	IN.
		DCL	- 60.000	DCR	- 60.000	G28C44	15.000				6.0990	IN.
		ELEVON	0.000								6.7100	IN.
											0.0000	IN.
											0.0000	IN.
											0.0035	

DATA HIST. CODE MVR#E1

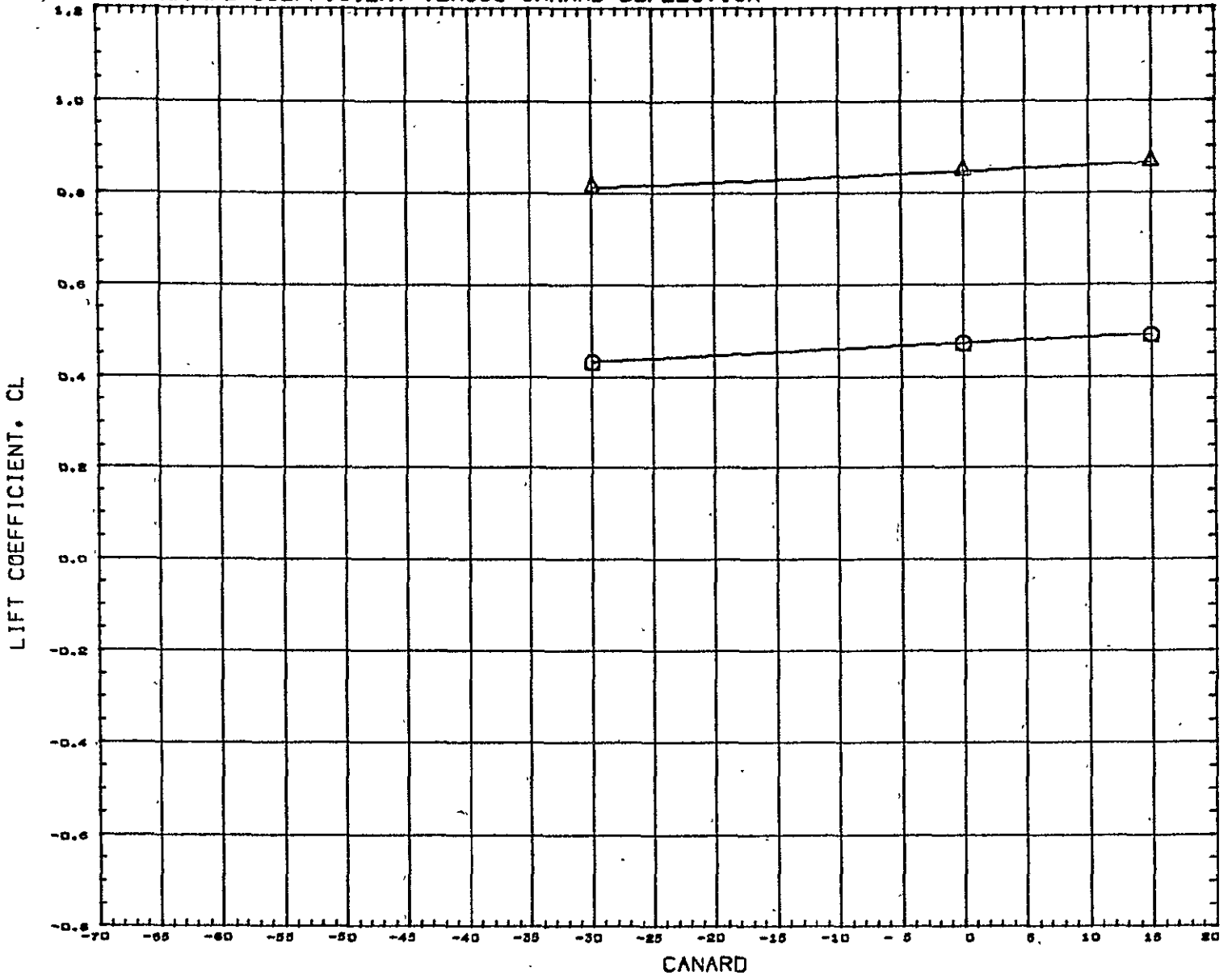
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	DEL	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.	
○	10.000	1.200	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	3.0950	IN.
△	20.000	0.000	0.000	- 60.000	- 60.000	0.000	G28C41	- 30.000	G28B31	0.000	6.0990	6.7100	IN.
		0.000	0.000	0.000	0.000	0.000	G28C44	15.000			0.0000	0.0000	IN.
											ZMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

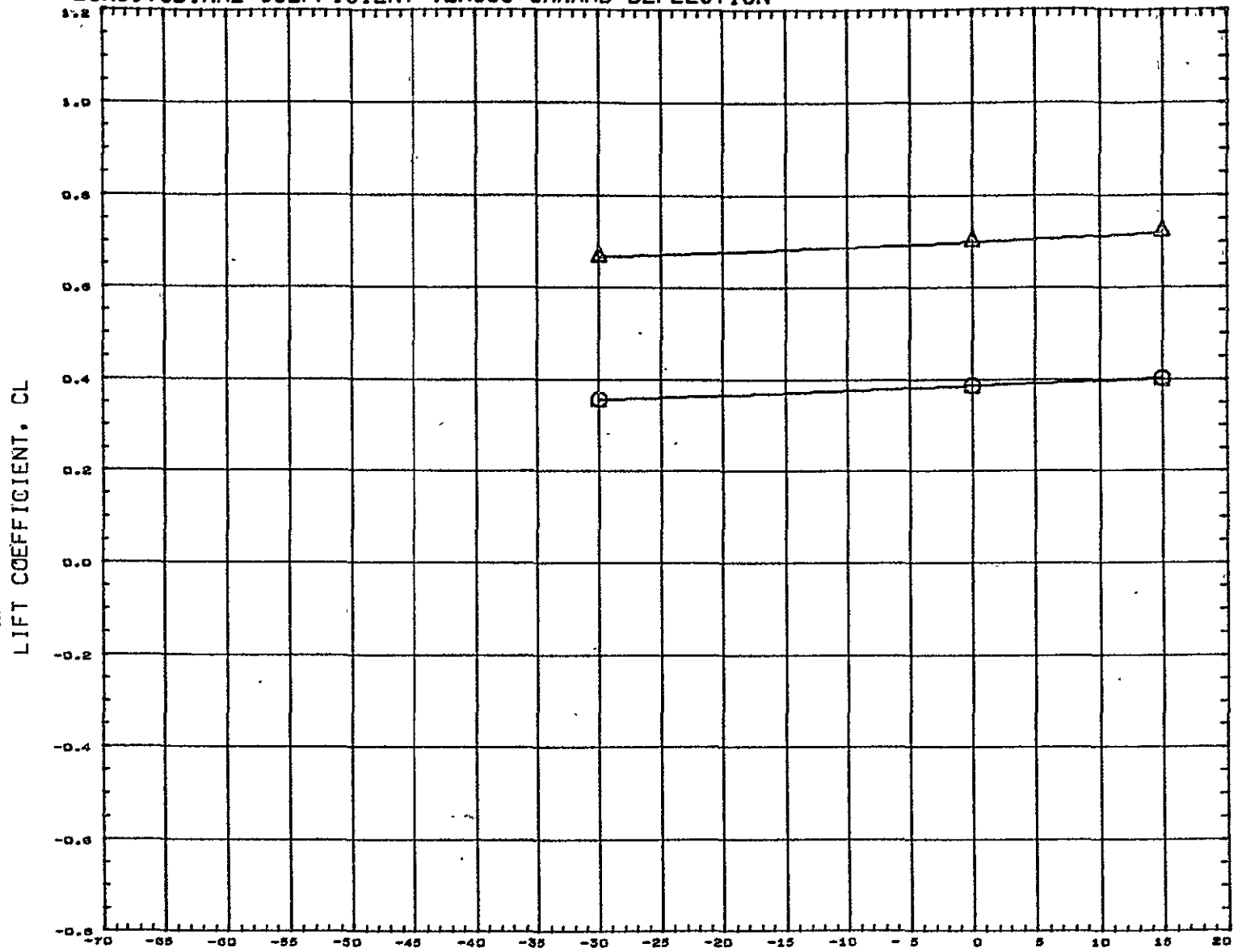
DATA HIST. CODE HVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	1.500	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	50. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#EI									

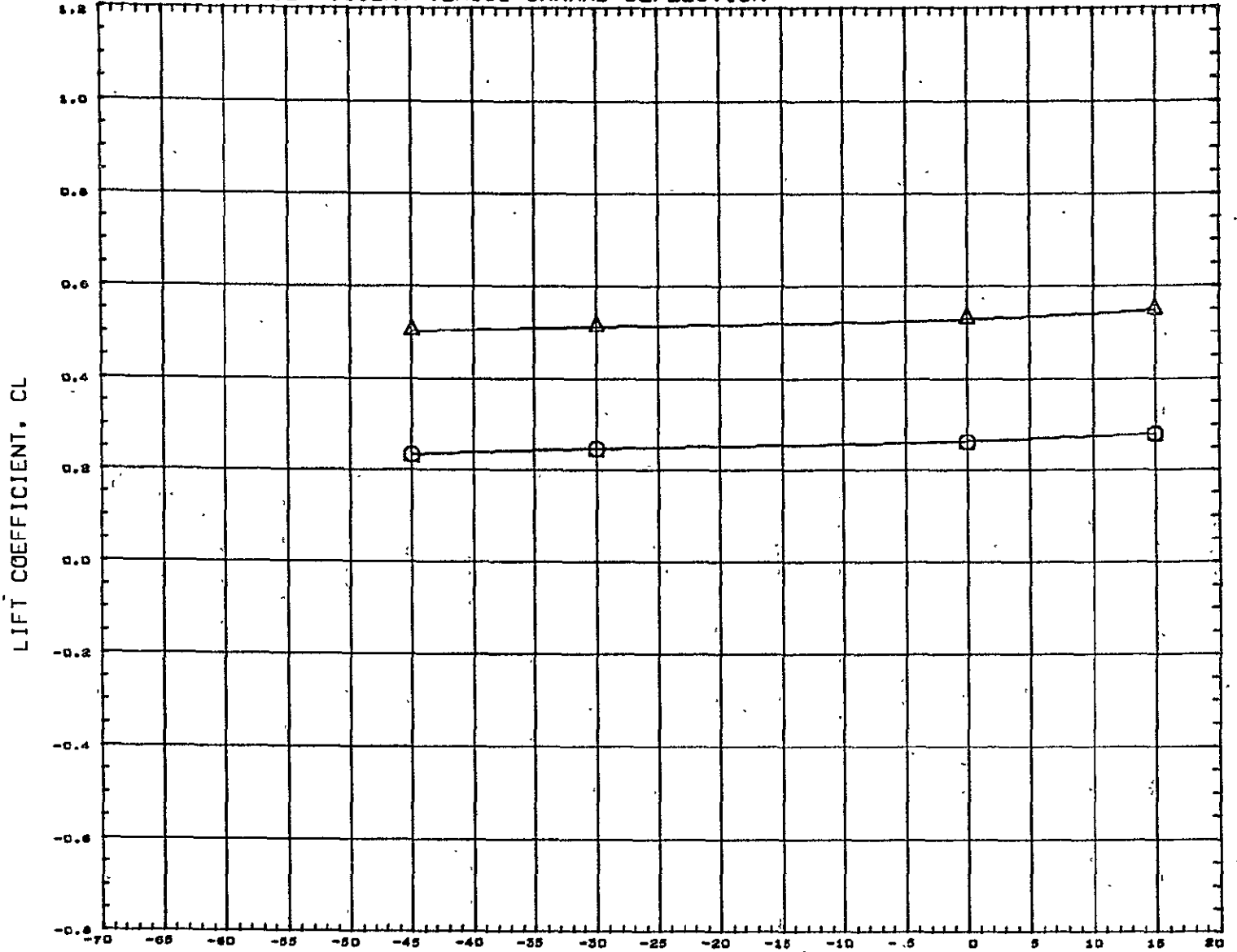
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	2.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	18.6560	Sq. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

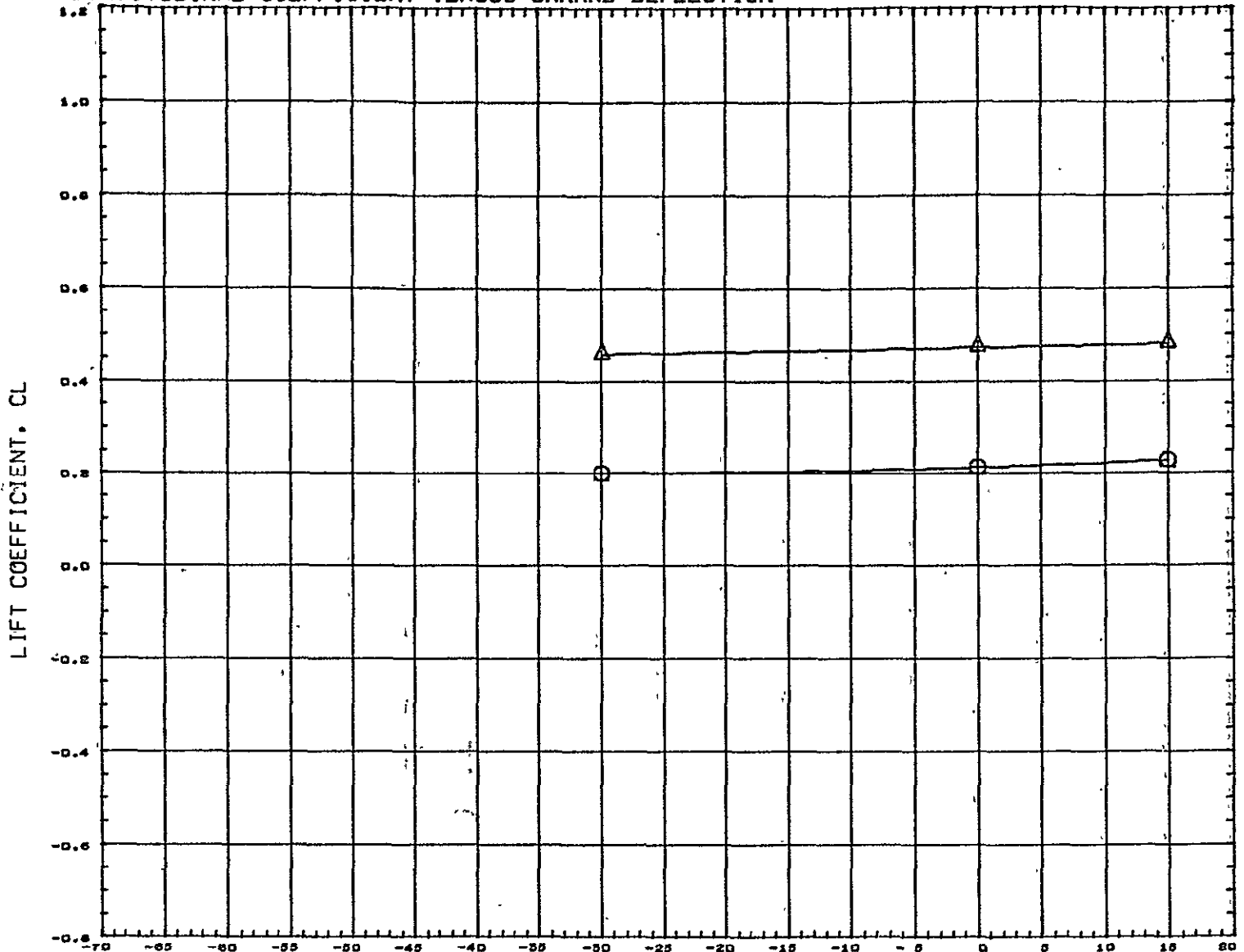


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	10.000	MACH 3.000 BETA 0.000	G28C47 - 60.000	SREF 15.6560 SQ. IN.
△	20.000	DEL 0.000 DER 0.000	G28C50 - 45.000	LREF 3.0950 IN.
		DCL - 60.000 DCR - 60.000	G28C41 - 30.000	BREF 6.0990 IN.
		ELEVON 0.000 AILRON 0.000	G28C44 15.000	XMRP 6.7100 IN.
			G28B31 0.000	YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

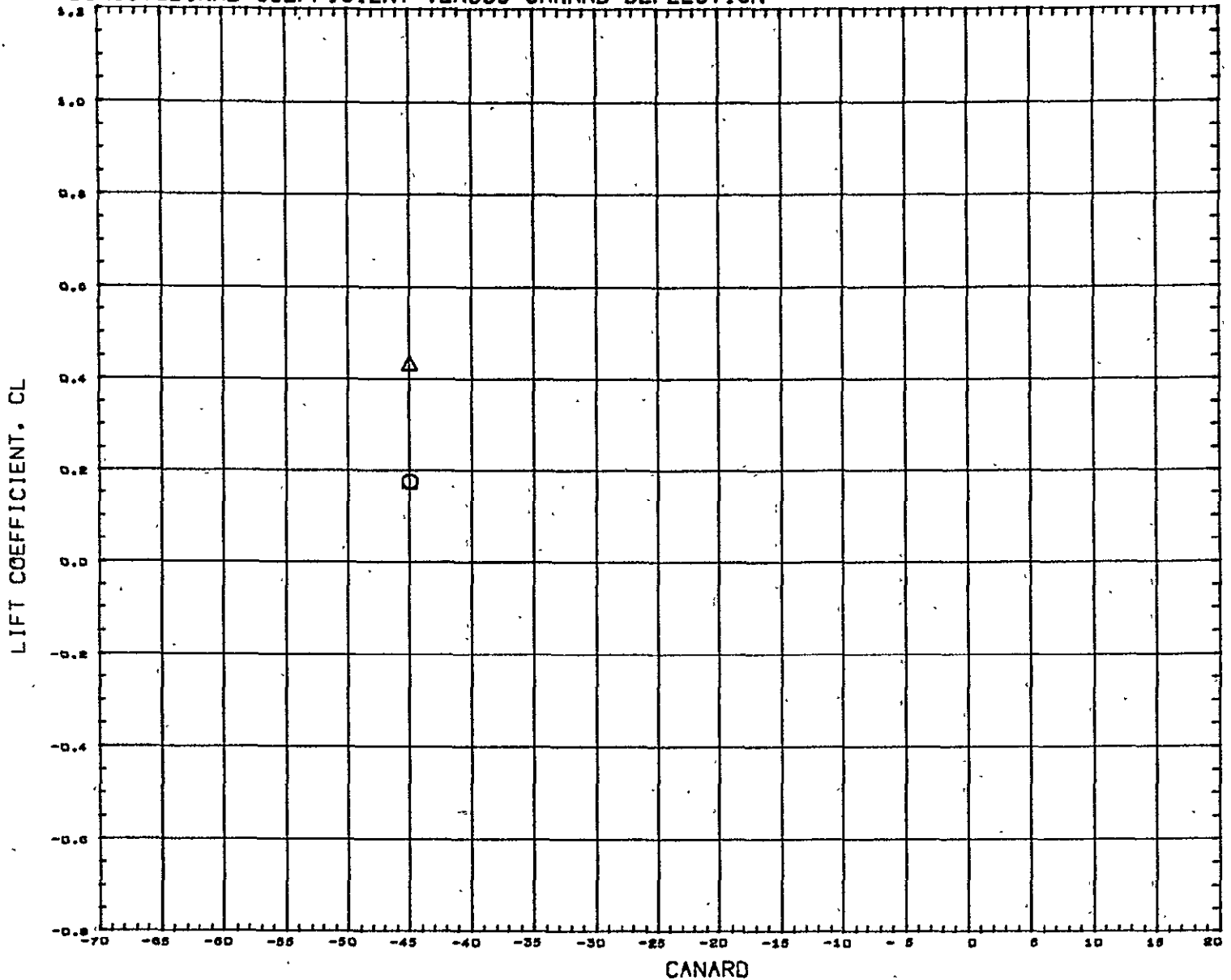


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	4.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	80. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0990	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AIRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

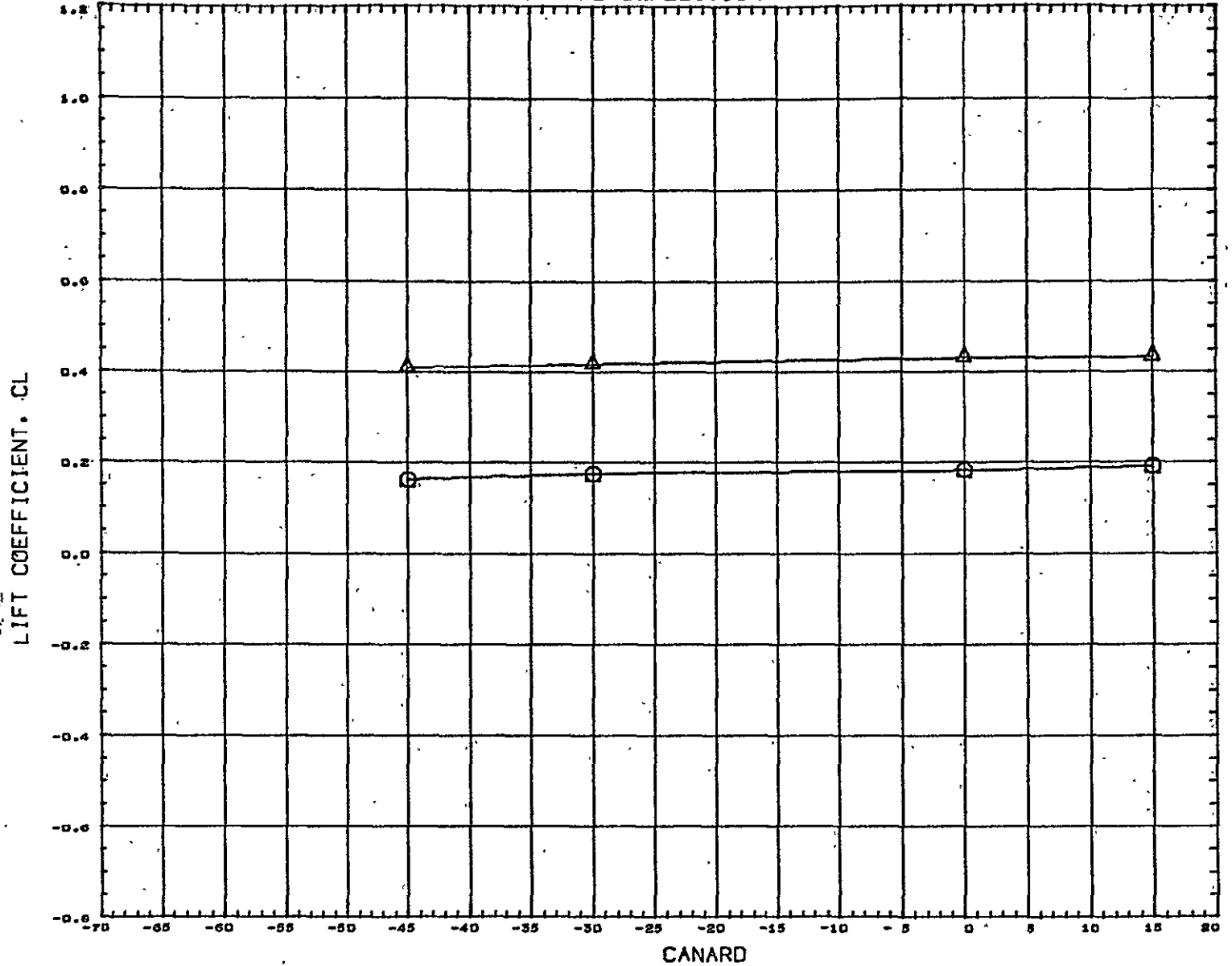
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	4.500	BETA	0.000	DATASET	CANARD	DATASET	CANARD	BREF	15.6560	80. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#EI

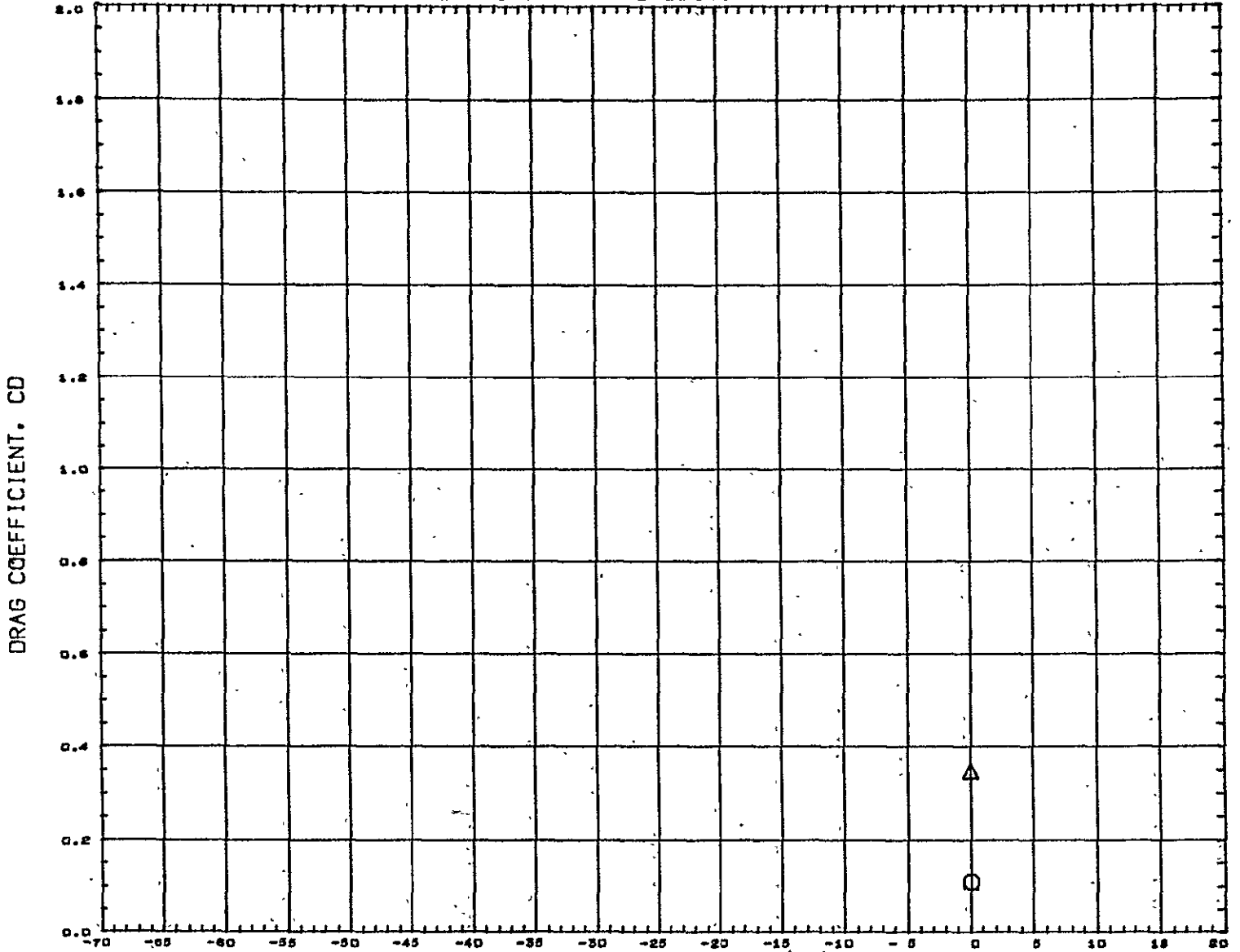
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION				
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.		
○	10.000	5.000	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	80. IN.	
△	20.000	0.000	0.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.	
		DCL	- 60.000	DCR	- 60.000	0.000	0.000	G28C44	15.000		6.0990	IN.	
		ELEVON	0.000	AILRON	0.000	0.000	0.000				6.7100	IN.	
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE : MYRREI

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

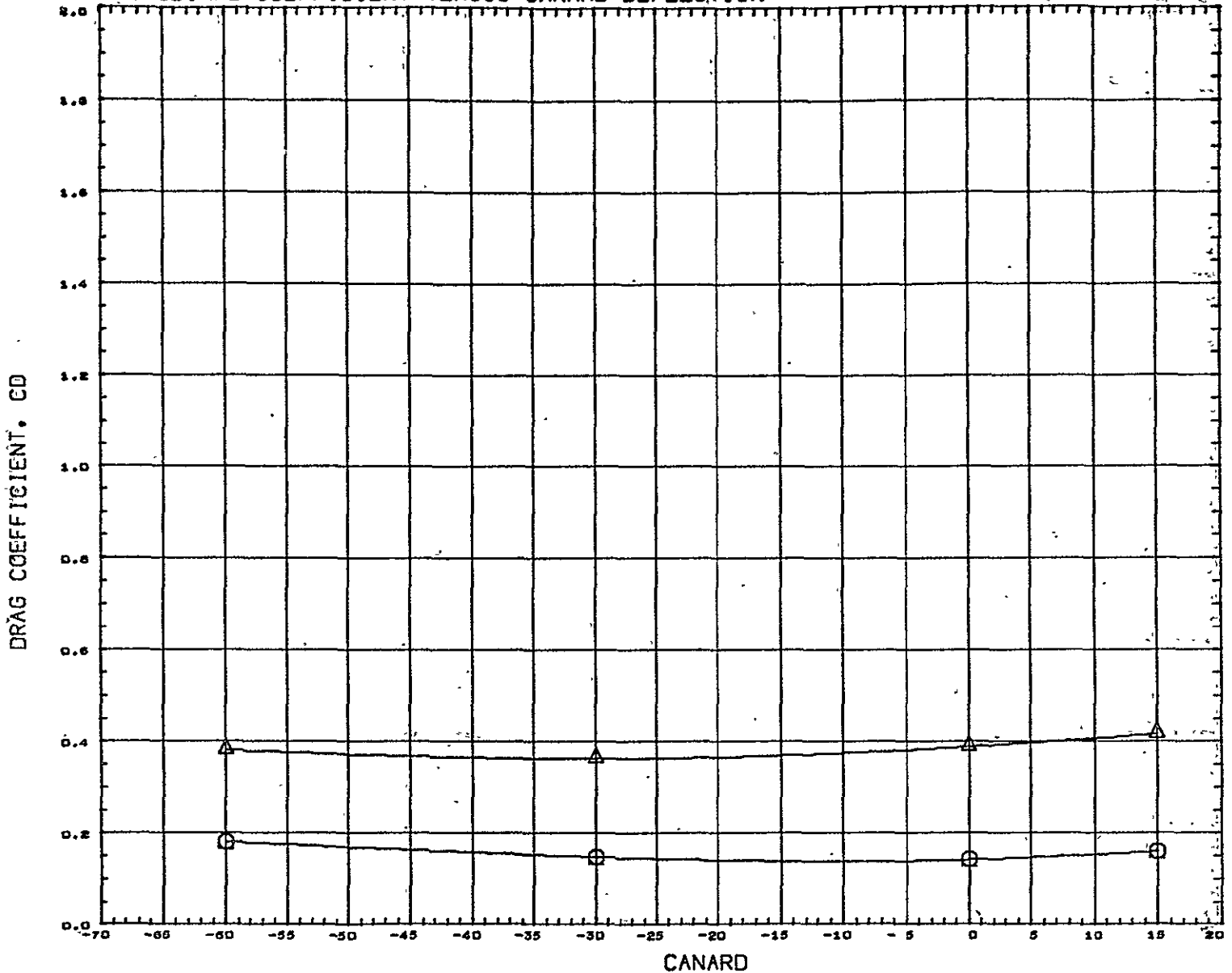


CANARD

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE			REFERENCE INFORMATION				
○	10.000		0.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6360	sq. in.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	0.0990	IN.
		ELEVON	0.000	AIRON	0.000	G28C44	15.000			XMRP	0.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#E1

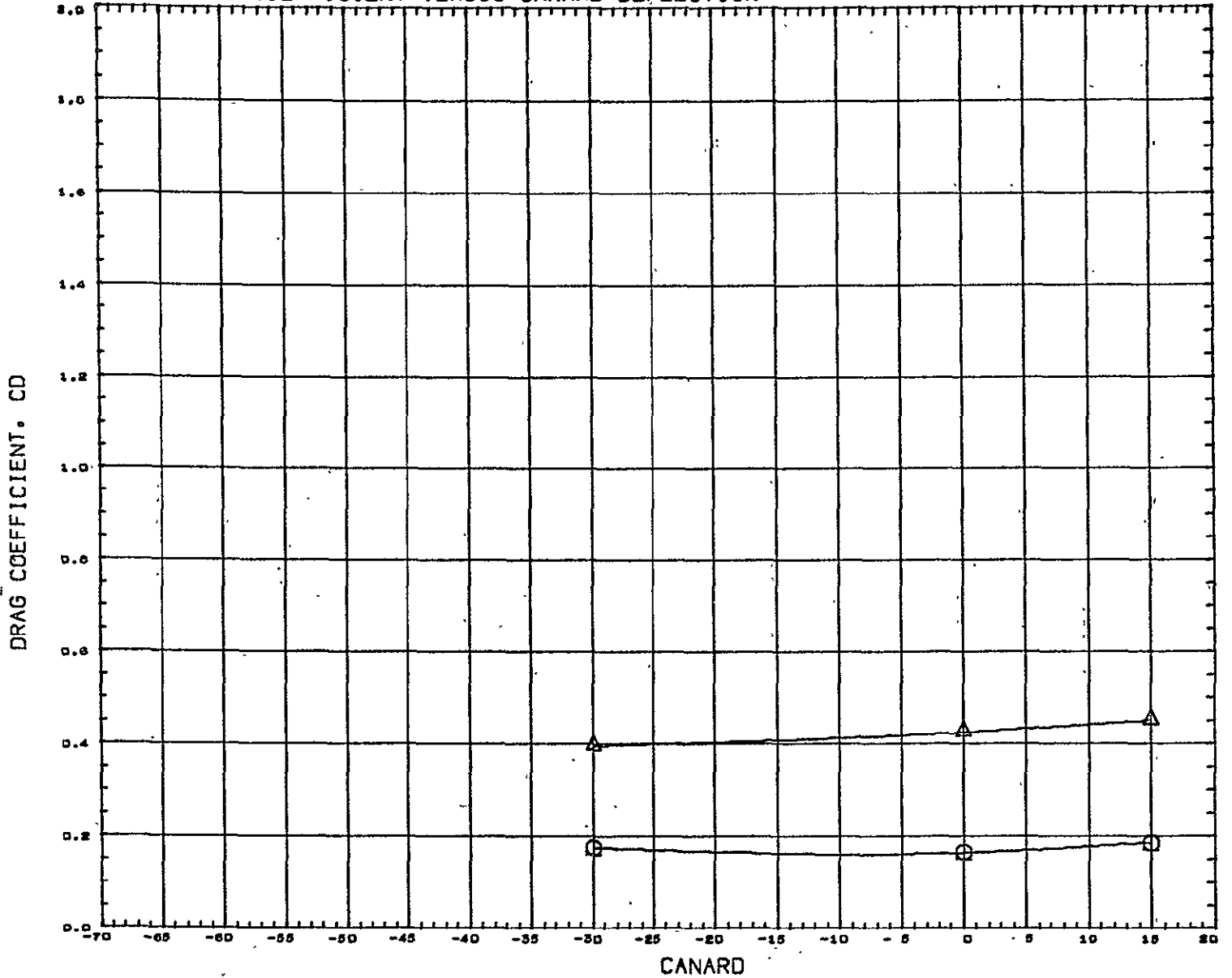
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.	sq. IN.
○	10.000	0.900	0.000	0.000	0.000					19.6500	36.0000	IN.
△	20.000	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0050	IN.
		DEL	0.000	DER	0.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		DCL	- 60.000	DCR	- 60.000	G28C44	15.000			YMRP	6.7100	IN.
		ELEVON	0.000	AIRLON	0.000					ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVRX11

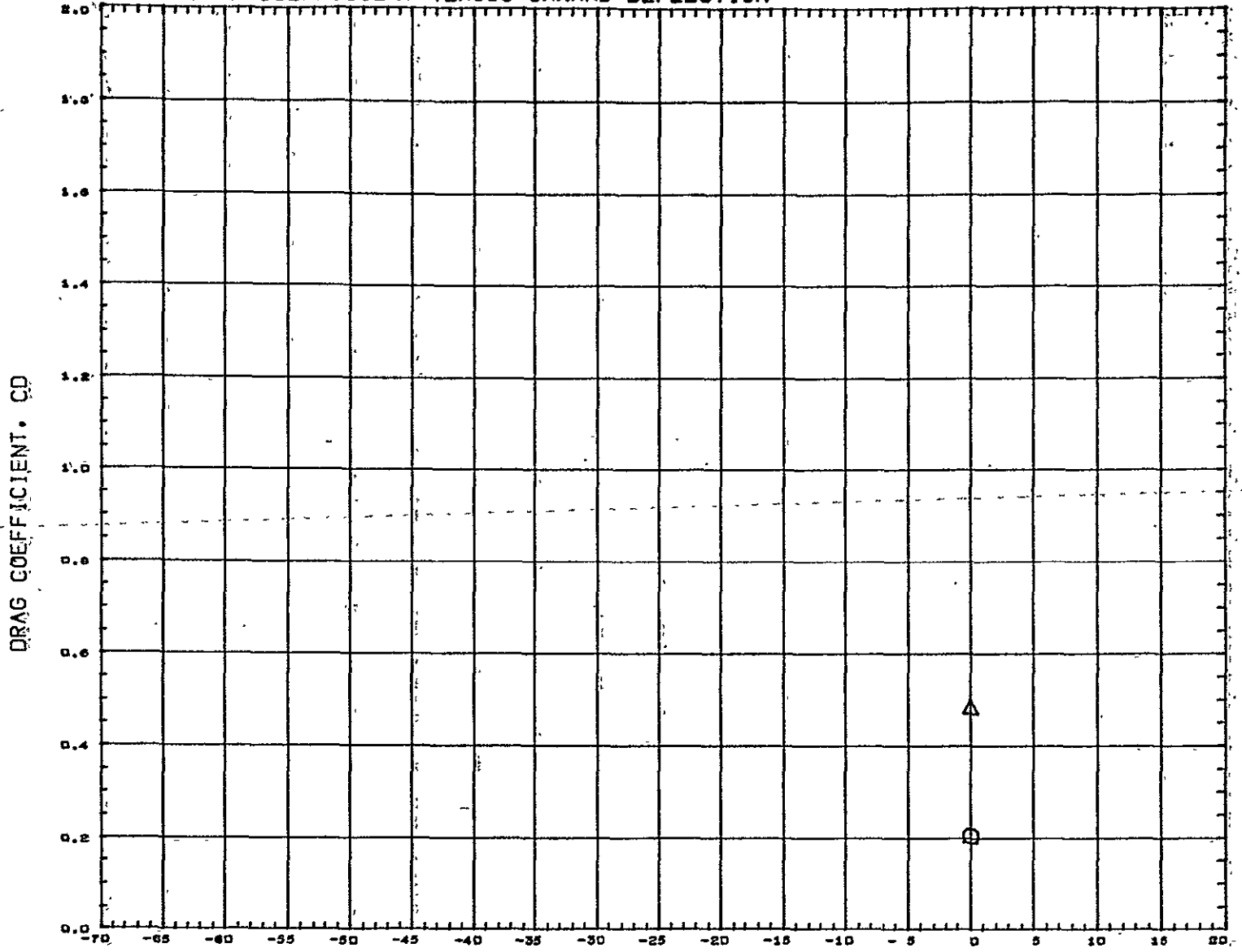
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	DEL	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.	
○	10.000	0.950	0.000	0.000	0.000	0.000	628C47	- 60.000	628C50	- 45.000	15.6560	3.0980	IN.
△	20.000	0.000	0.000	- 60.000	- 60.000	0.000	628C41	- 30.000	628D31	0.000	6.0990	6.7100	IN.
		ELEVON	0.000	AILRON	0.000	0.000	628C44	15.000			0.0000	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

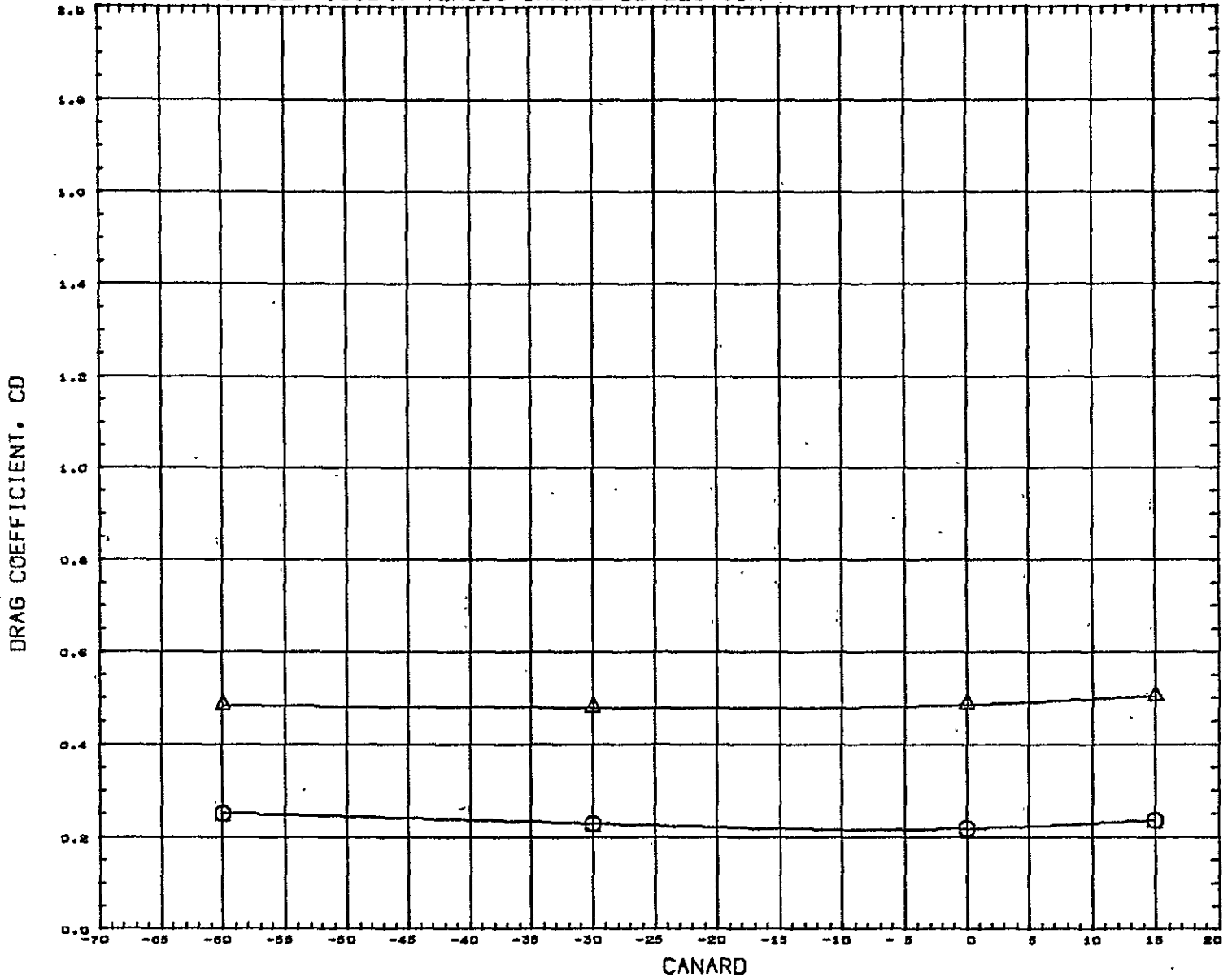


CANARD

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE			REFERENCE INFORMATION			
○	10.000	1.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6500	82. IN.
△	20.000	1.000	DEL	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
			DCL	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
			DCR	- 60.000	G28C44	15.000			XMRP	6.7100	IN.
			ELEVON	0.000					YMRP	0.0000	IN.
			AIRTON	0.000					ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE : MVR#E1

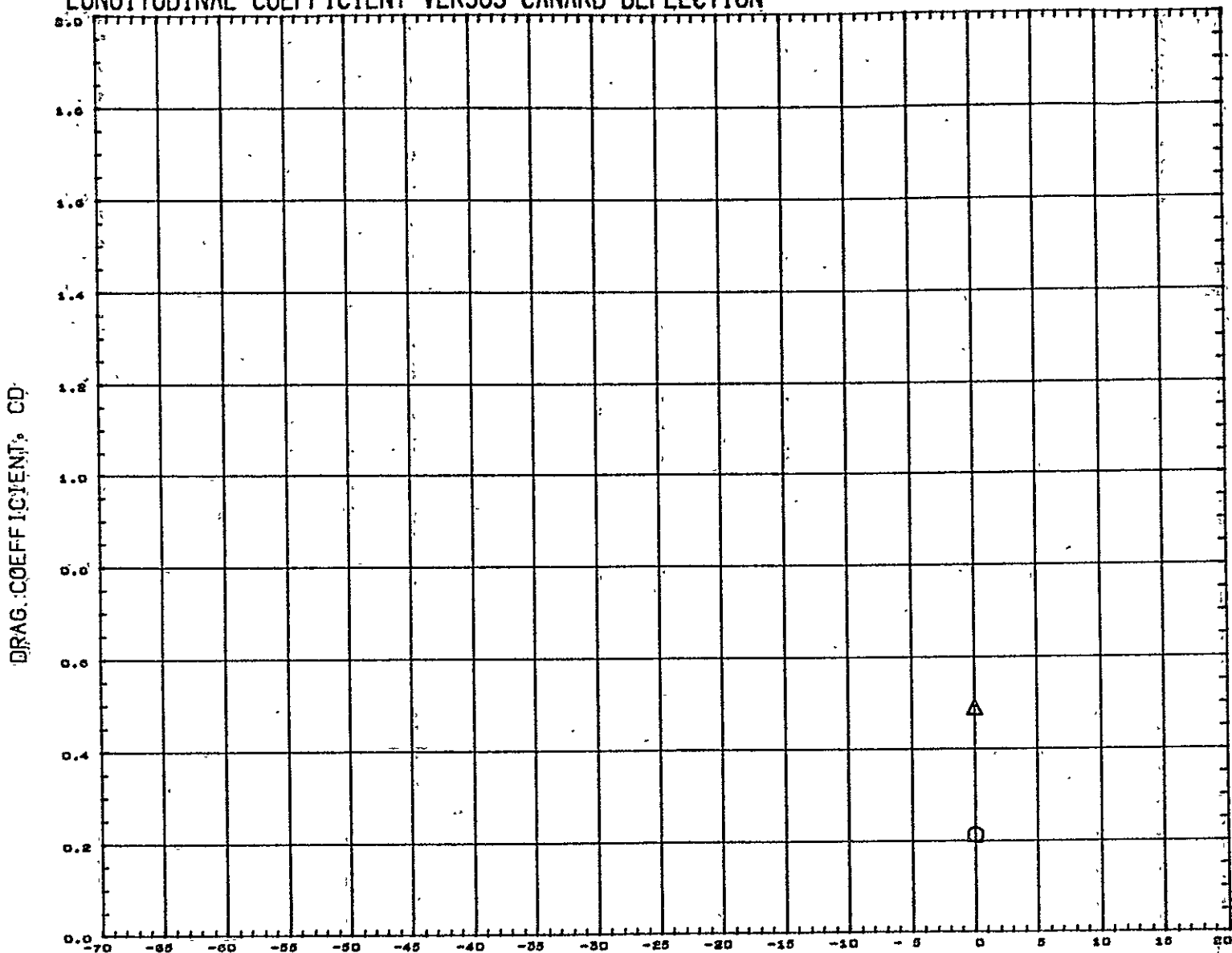
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	1.050	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	19.6560	80. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0900	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

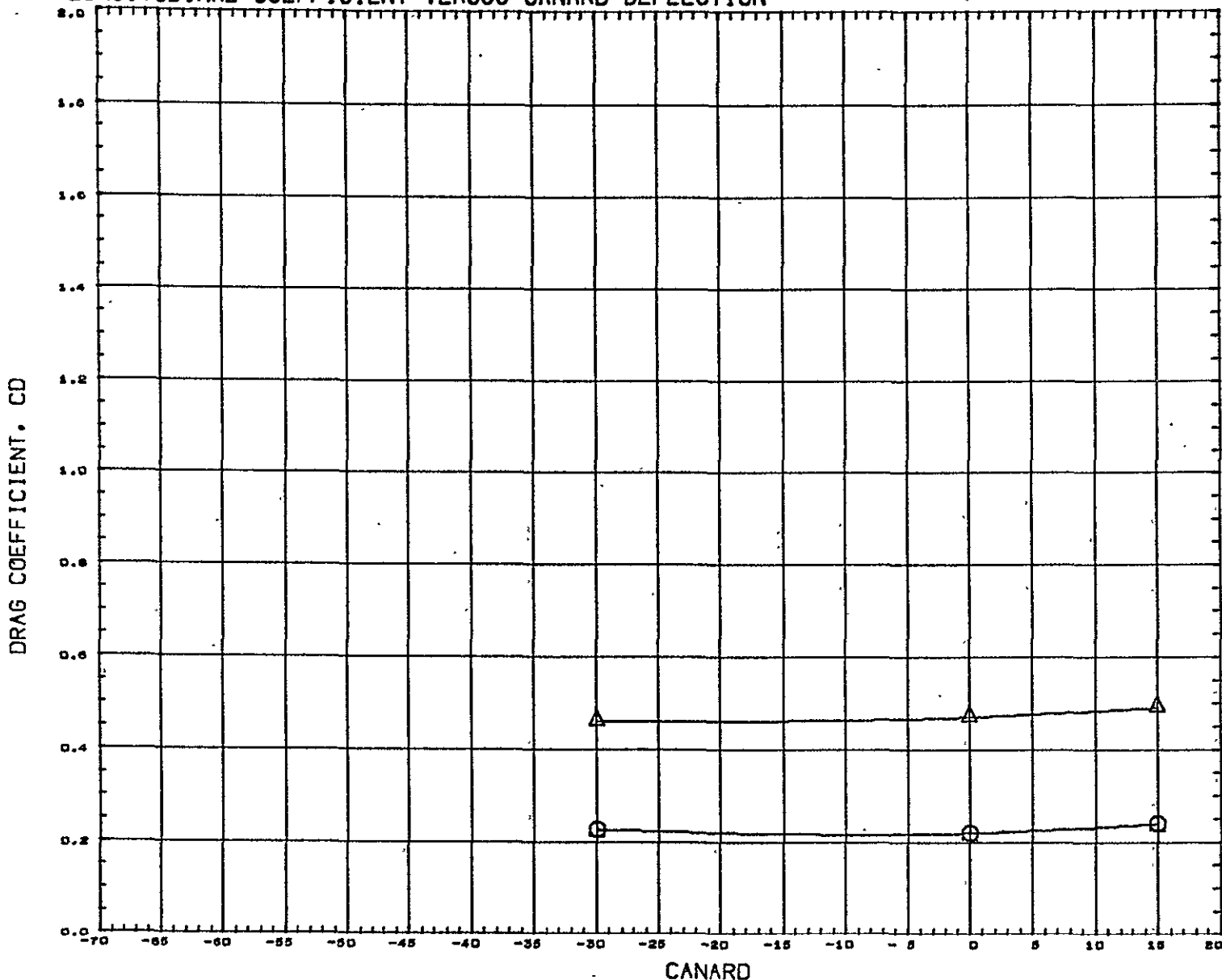


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.100	BETA	0.000	DATASET	CANARD	DATASET	CANARD	BREF	13.6560	80 IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	D'CR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AIRLON	0.000	G28C44	15.000			XMRP	0.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

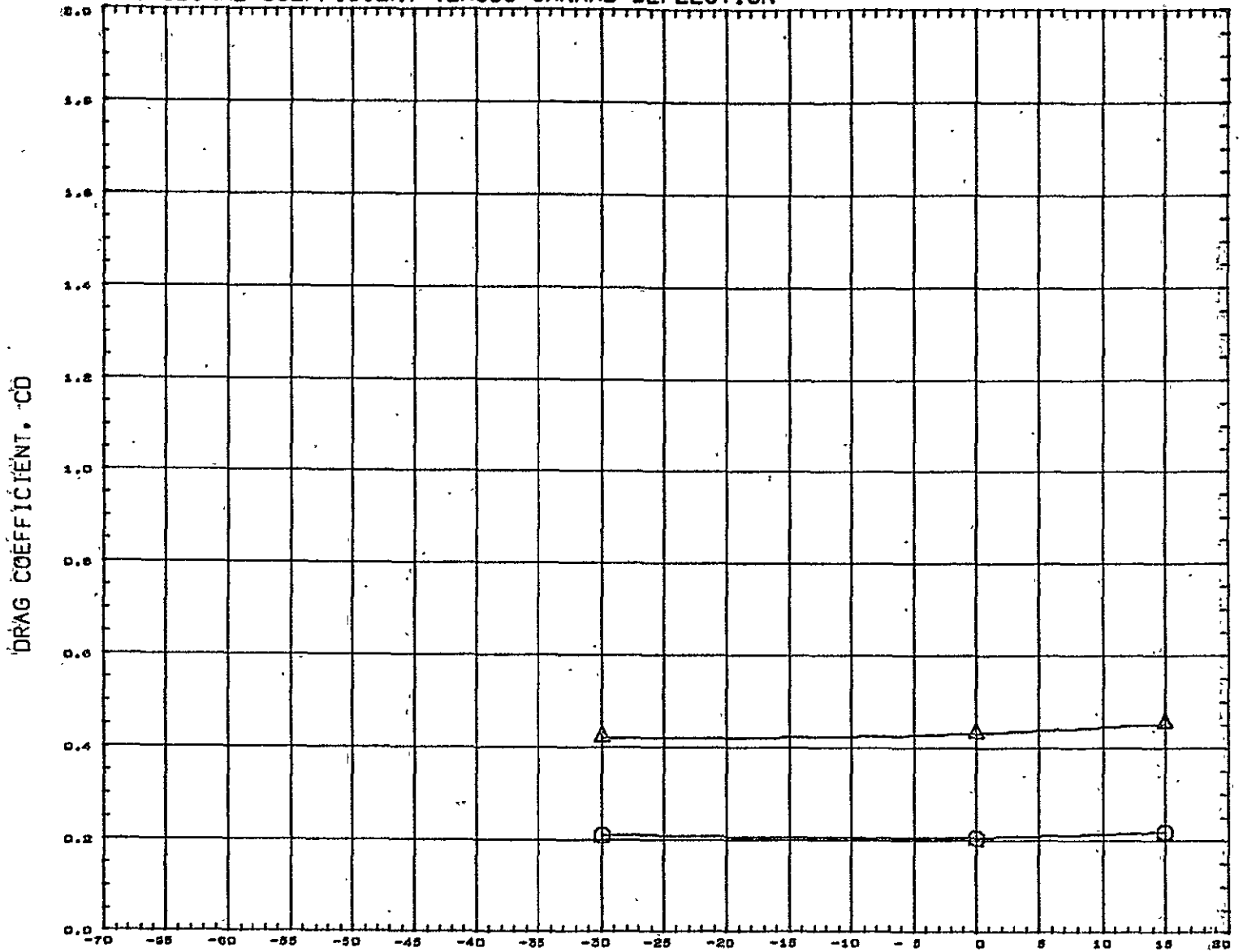
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DATASET	CANARD	DATASET	CANARD	SREF	IN.		
○	10.000	1.200	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6250	60. IN.		
△	20.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.		
		DCL - 60.000	DCR - 60.000	G28C44	15.000			6.0990	IN.		
		ELEVON 0.000	AILRON 0.000					6.7100	IN.		
								YMRP 0.0000	IN.		
								ZMRP 0.0000	IN.		
								SCALE 0.0035			

DATA HIST. CODE MVR#E1

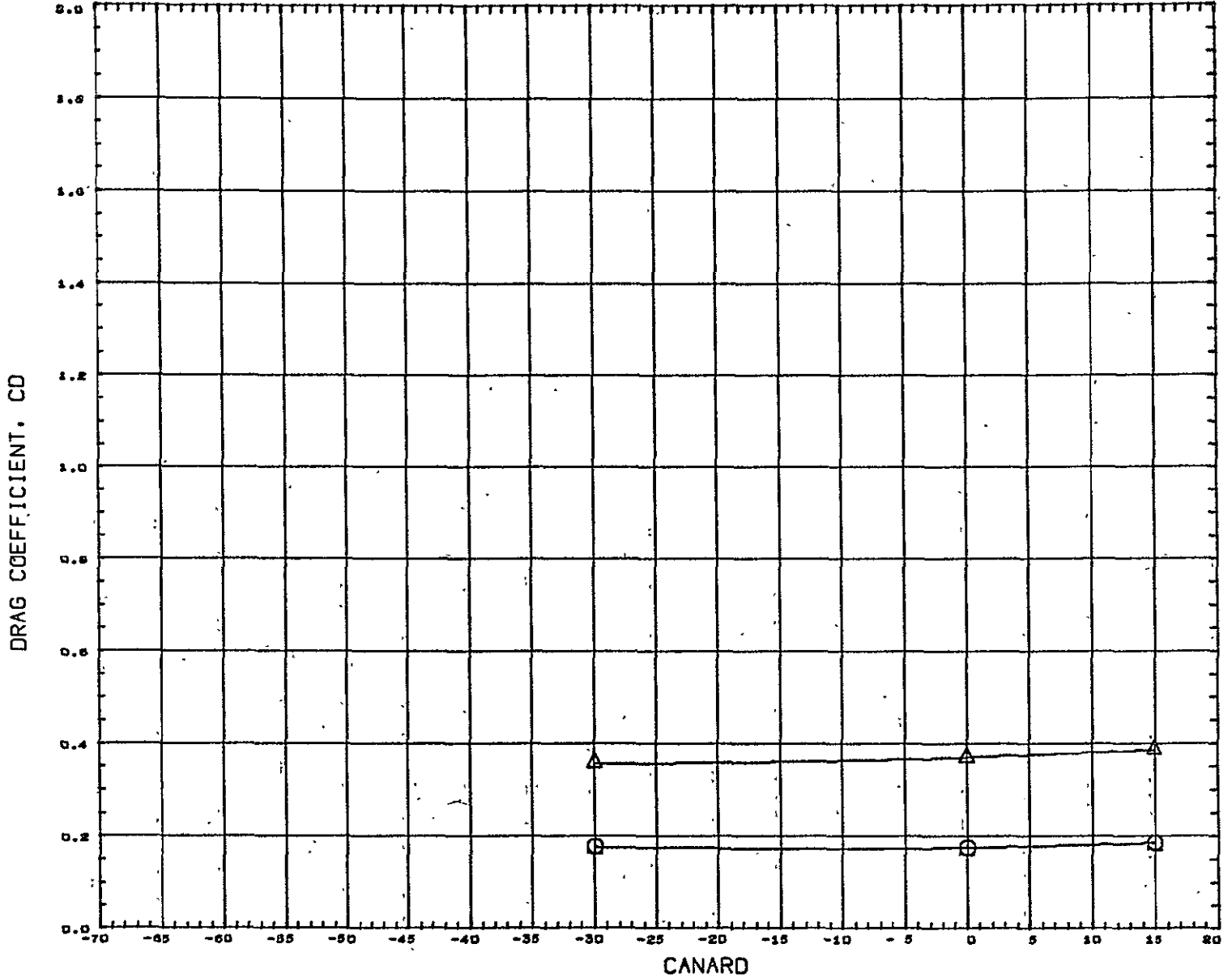
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.500	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AIRLON	0.000	G28C44	15.000			XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	HVR#E1									

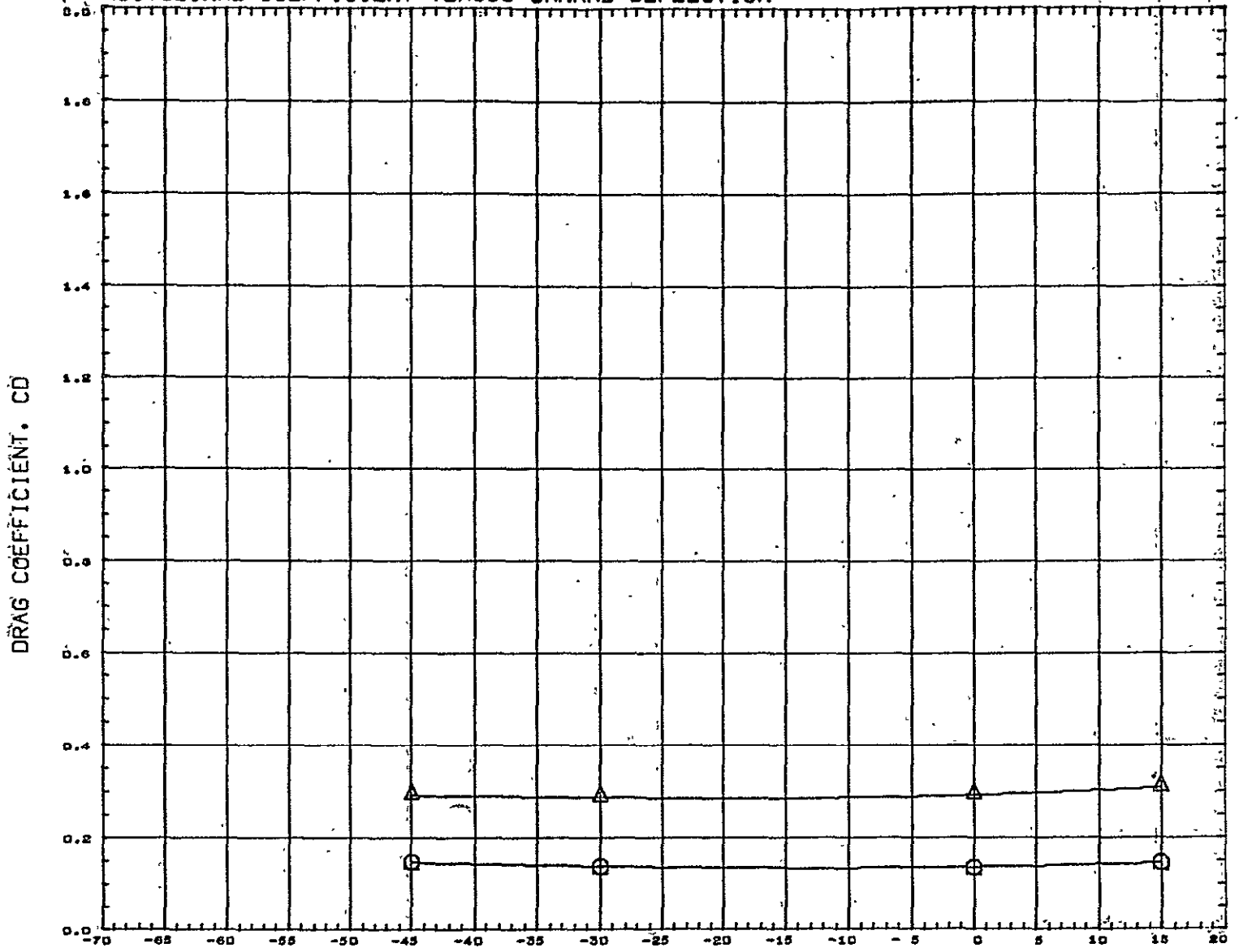
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	2.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	19.6560	SQ. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AIRLON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

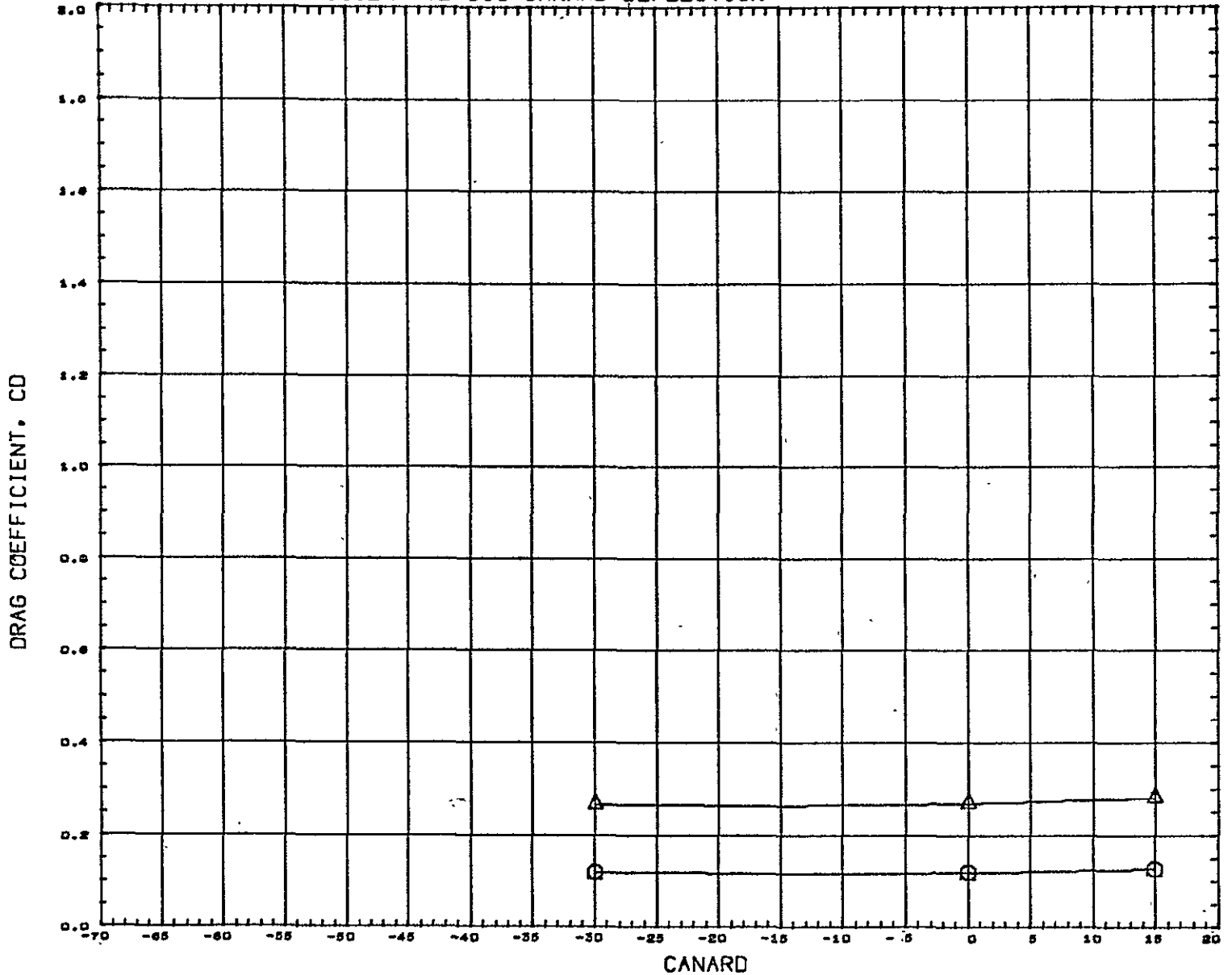
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	LREF	BREF
○	10.000	3.000	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	30. IN.
△	20.000	0.000	0.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.
		- 60.000	DCR	- 60.000			G28C44	15.000			6.0950	IN.
		ELEVON	0.000	AILRON	0.000						6.7100	IN.
											0.0000	IN.
											0.0000	IN.
											SCALE	0.0035

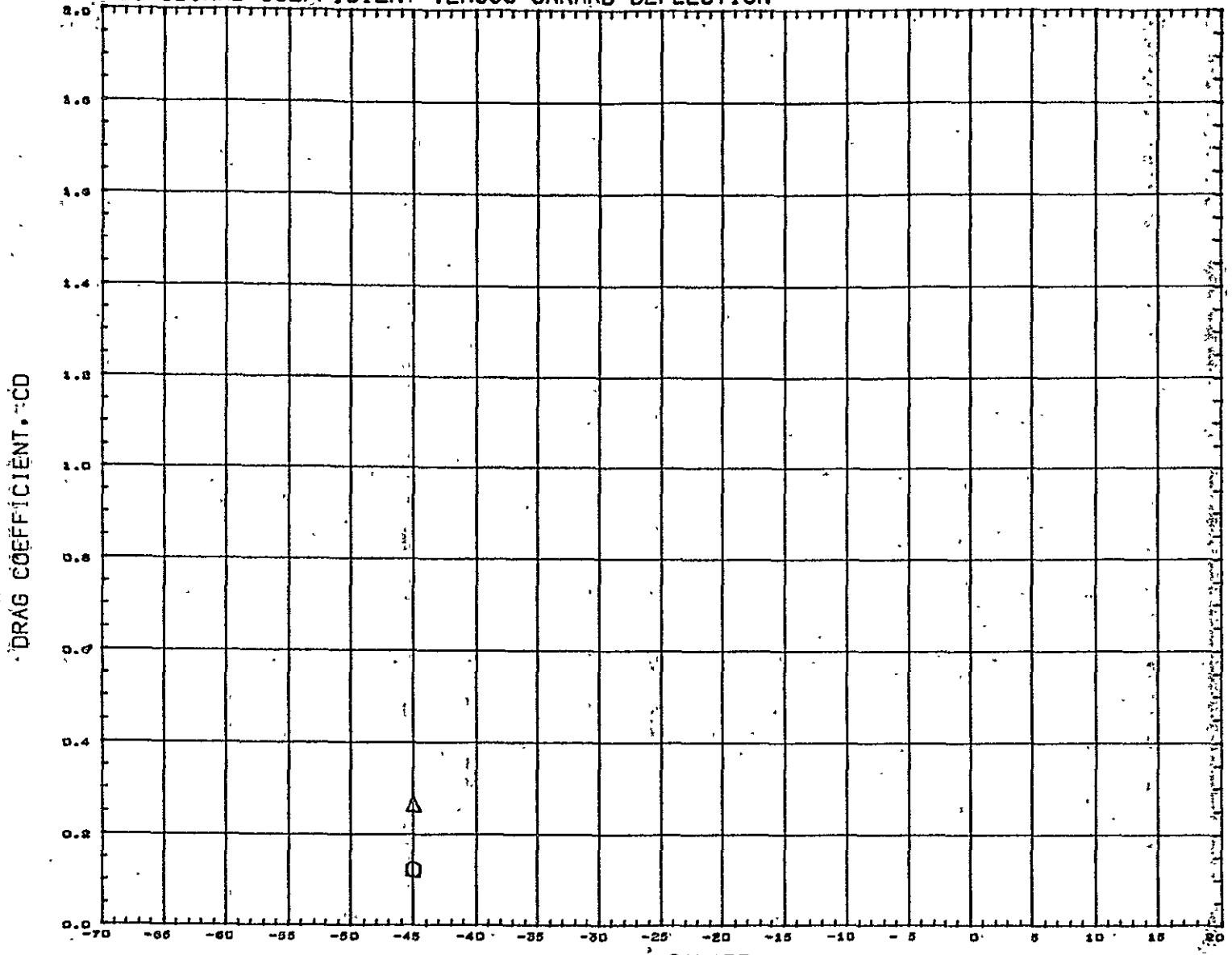
DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	4.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	0.7300	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

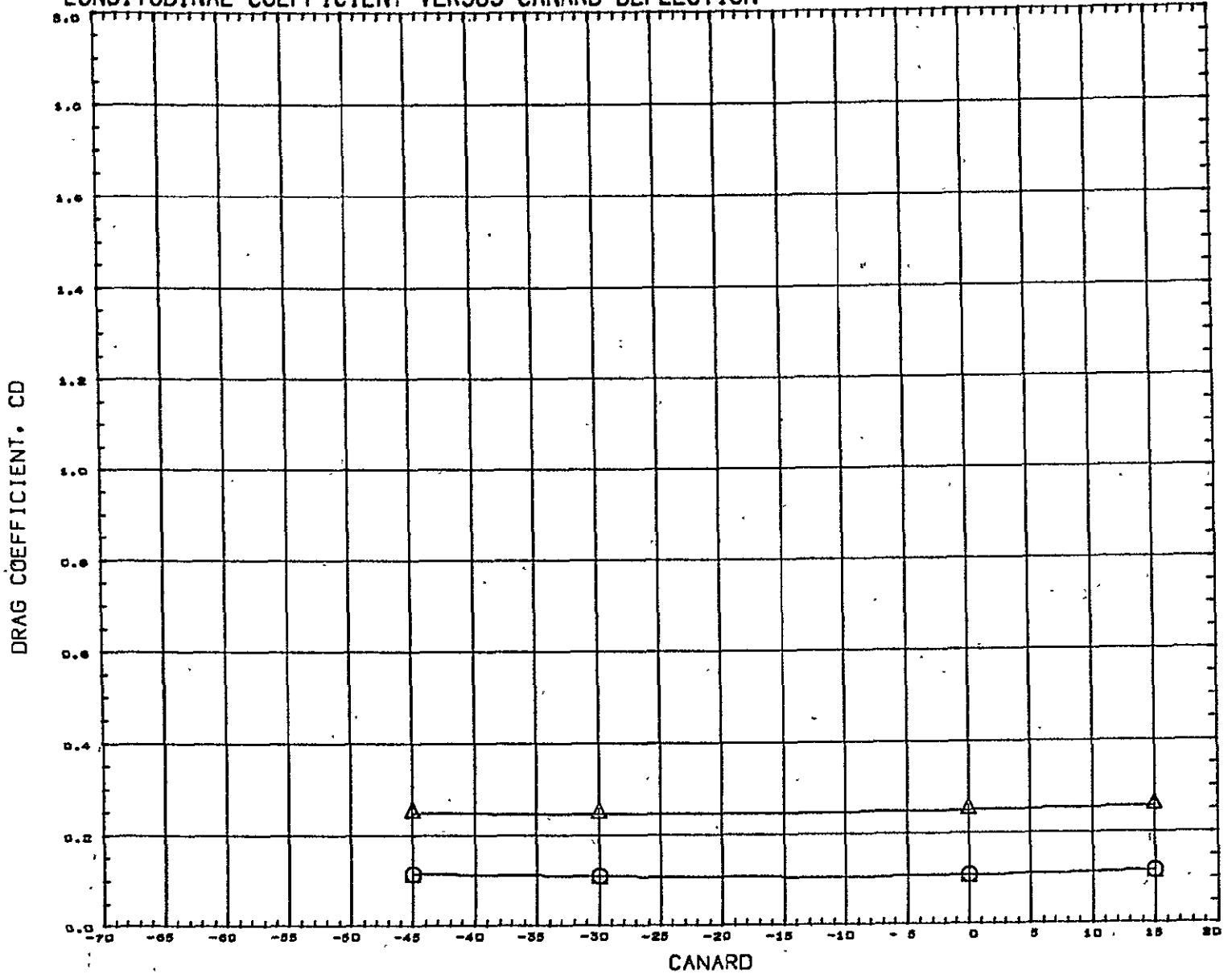
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL		PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	4.500	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	50. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0990	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
		DATA HIST. CODE	MVR#E1							SCALE	0.0035	

MSFC481 GD/C(B00STER)B19W14C4AV7

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

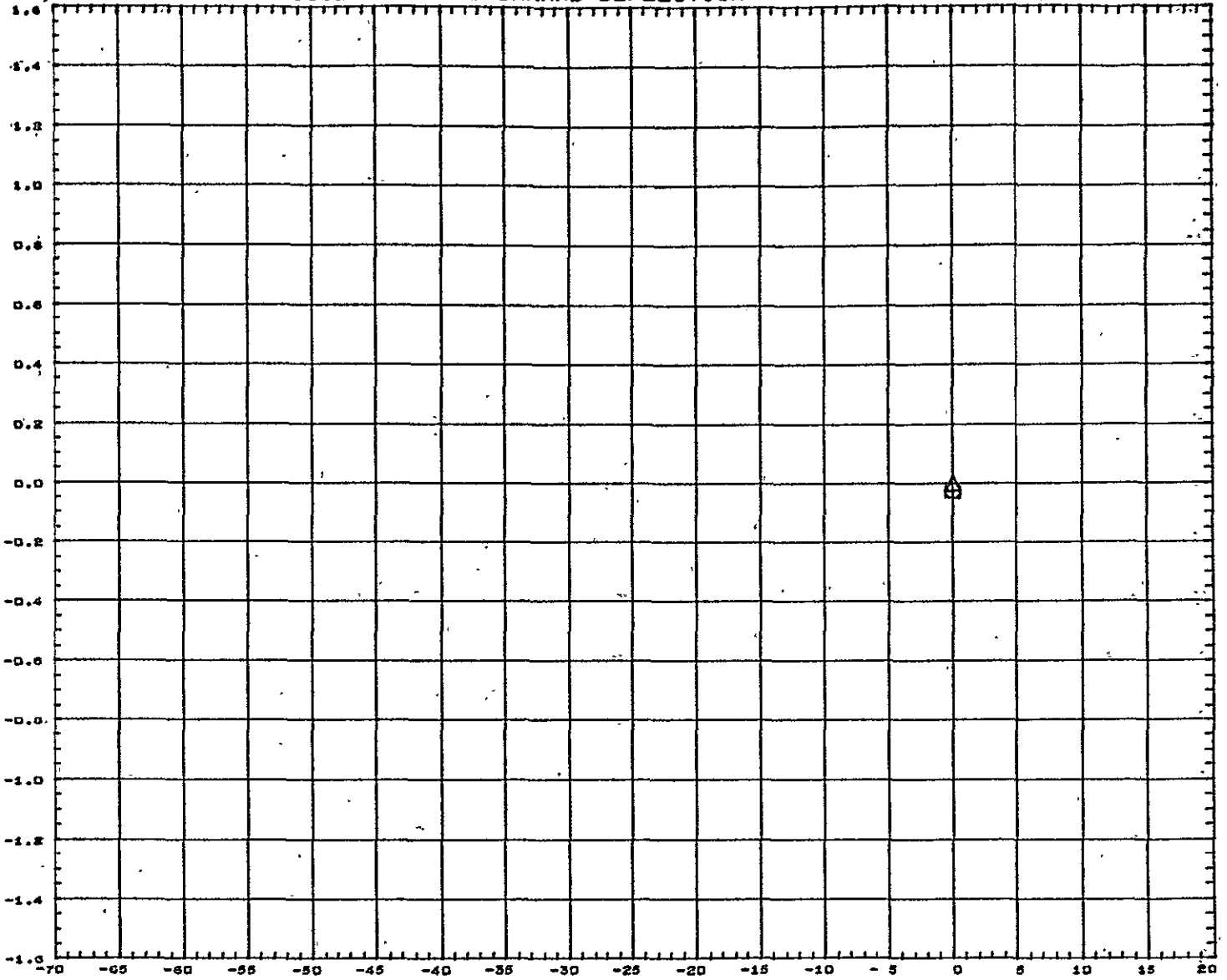


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	IN.	
○	10.000	5.000	0.000	0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	80. IN.
△	20.000	0.000	0.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.
		- 60.000	DCR	- 60.000			G28C44	15.000			6.0990	IN.
		0.000	AILRON	0.000							6.7100	IN.
											0.0000	IN.
											0.0000	IN.
											0.0035	

DATA HIST. CODE MVR#EI

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

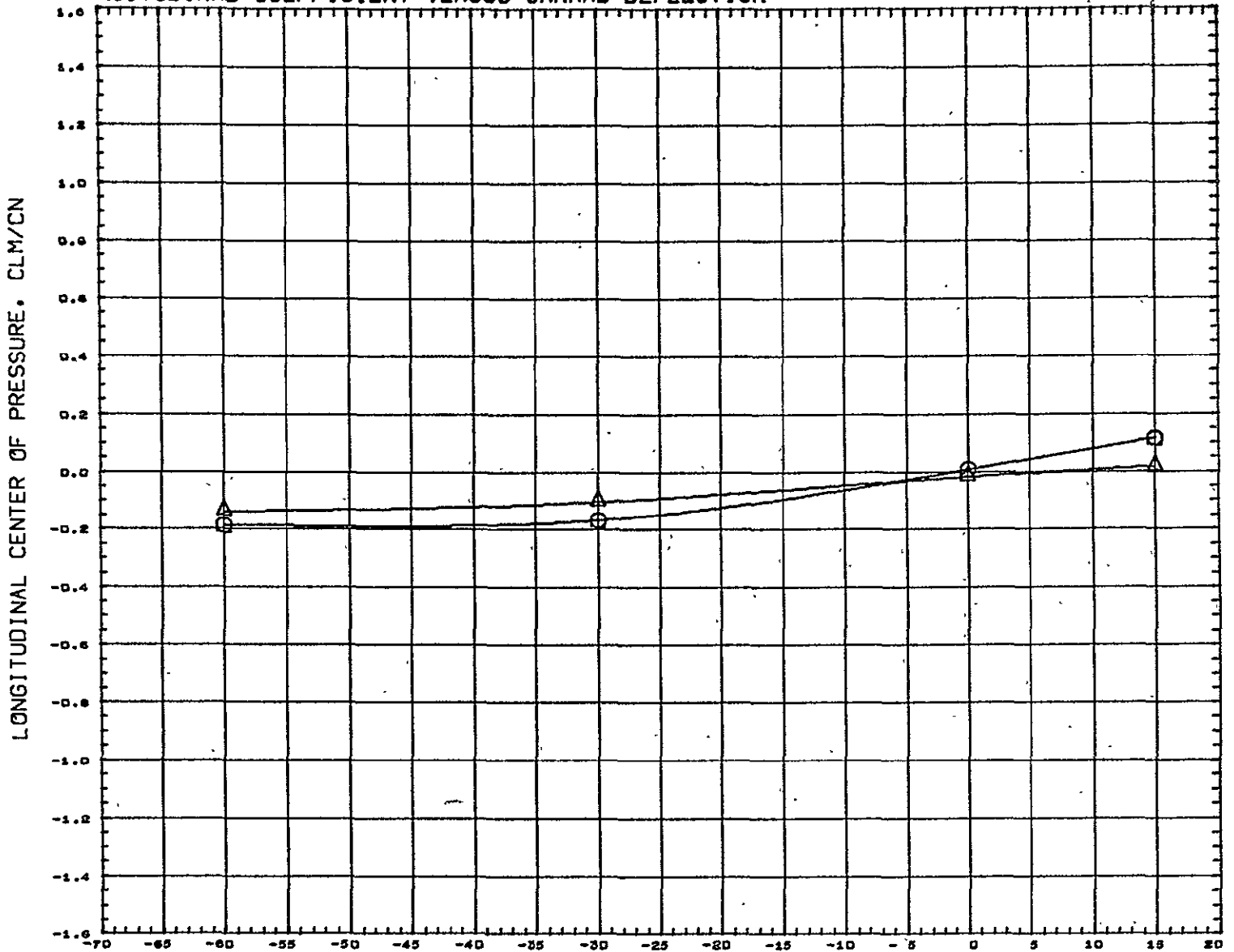
LONGITUDINAL CENTER OF PRESSURE, CLM/CN



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		HASH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.
○	10.000		0.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	3.0950	50. IN.	
△	20.000	DEL	0.000	DER	0.000	G28C41	- 30.000	G28B31	0.000	0.0990	IN.	
		DCL	- 60.000	DCR	- 60.000	G28C44	15.000			6.7100	IN.	
		ELEVON	0.000	AILRON	0.000					0.0000	IN.	
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVRWEI

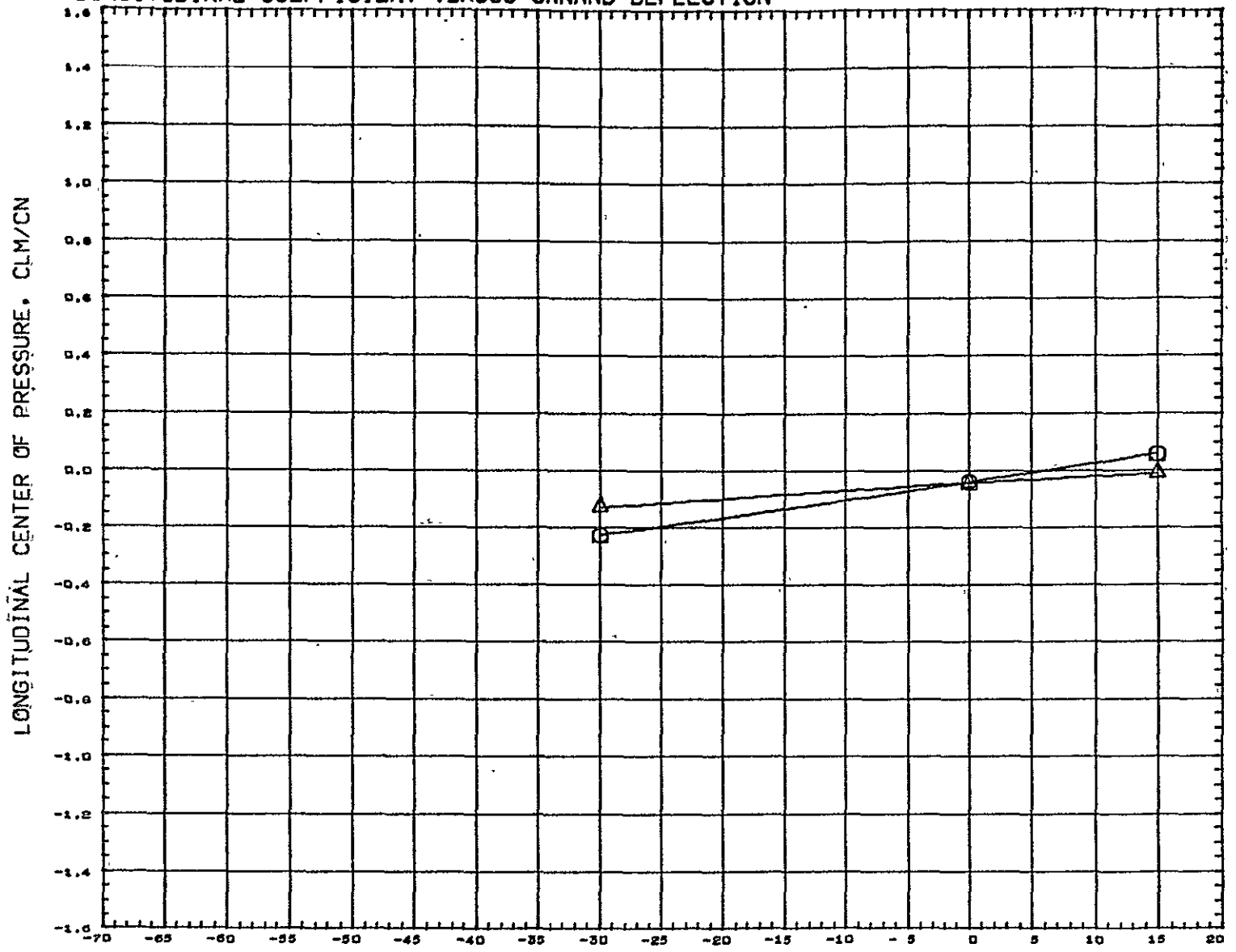
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL		PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	0.900	BETA	0.000	DATASET	CANARD		SREF	15.6560	50. IN.	
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AIRLON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

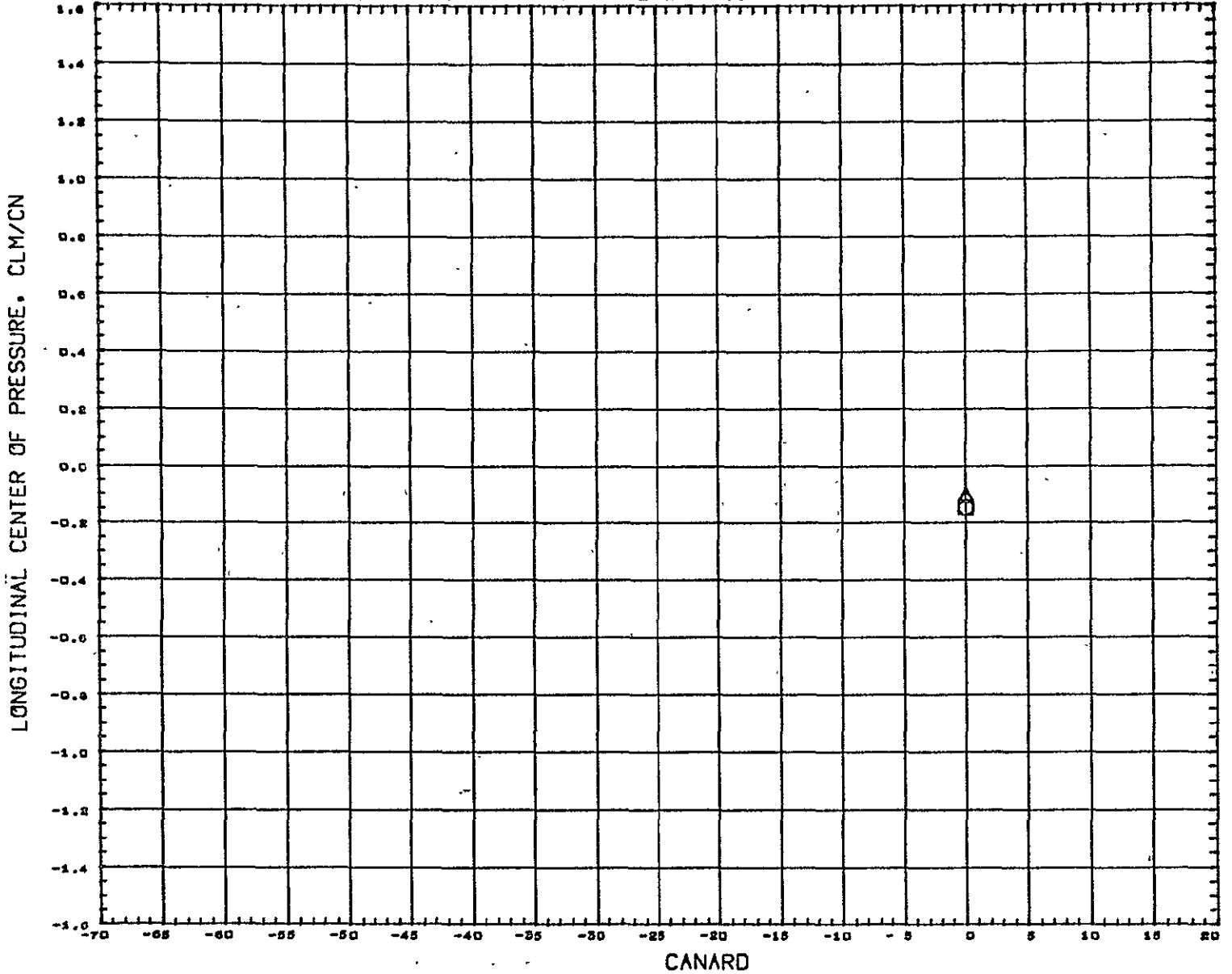
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○		10.000	MACH	0.950	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	32. IN.
		20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
△			DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
			ELEVON	0.000	AIRCÓN	0.000	G28C44	15.000			XMRP	6.7100	IN.
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE HVR#E1

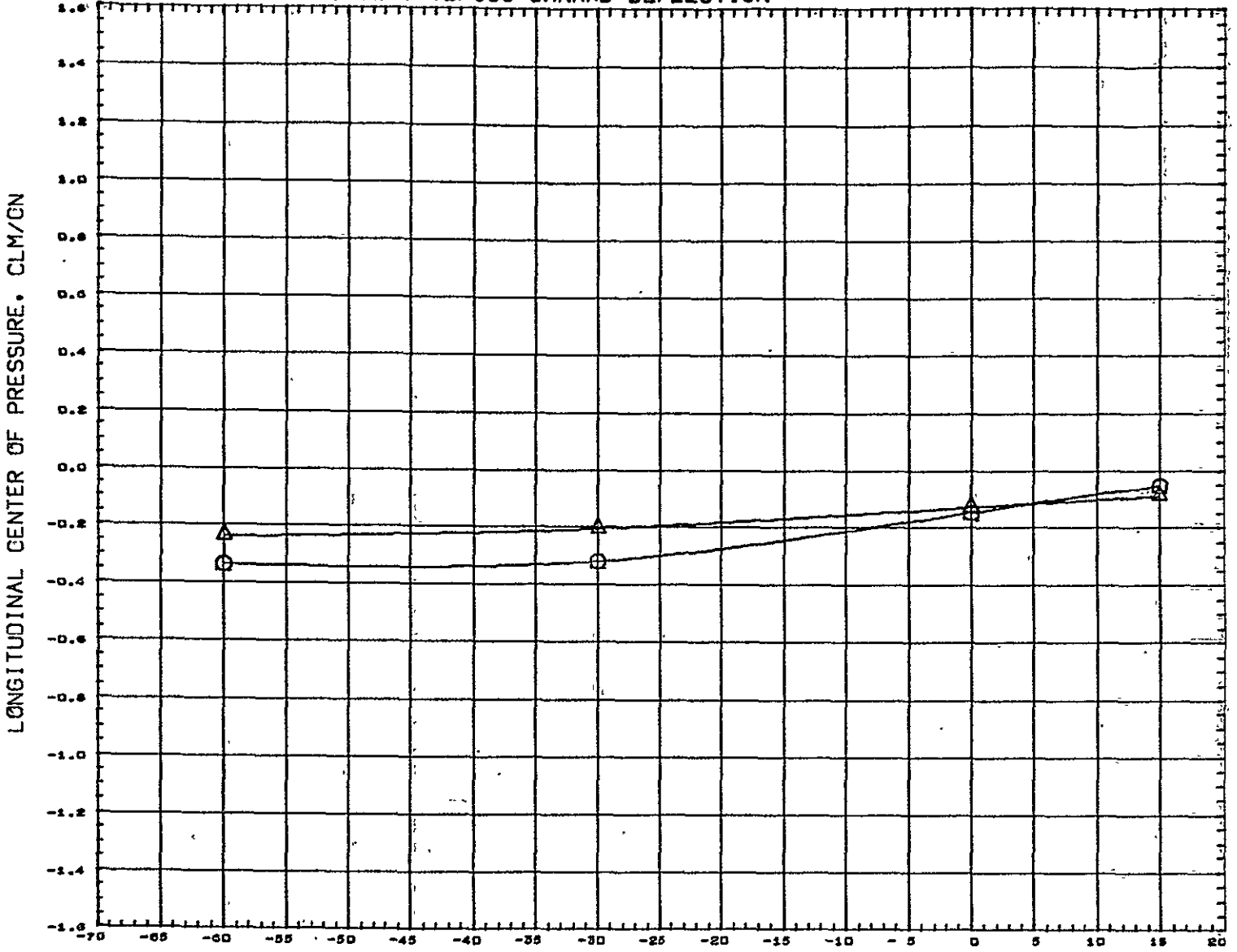
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	DER	DATASET	CANARD	DATASET	CANARD	SREF	IN.	sq. IN.
⊗	10.000	1.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560		
	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950		IN.
		- 60.000	- 60.000	- 60.000	G28C44	15.000			6.0990		IN.
		0.000	AILRON	0.000					XMRP	6.7100	IN.
								YMRP	0.0000	IN.	
								ZMRP	0.0000	IN.	
								SCALE	0.0033		

DATA HIST. CODE MVR#E1

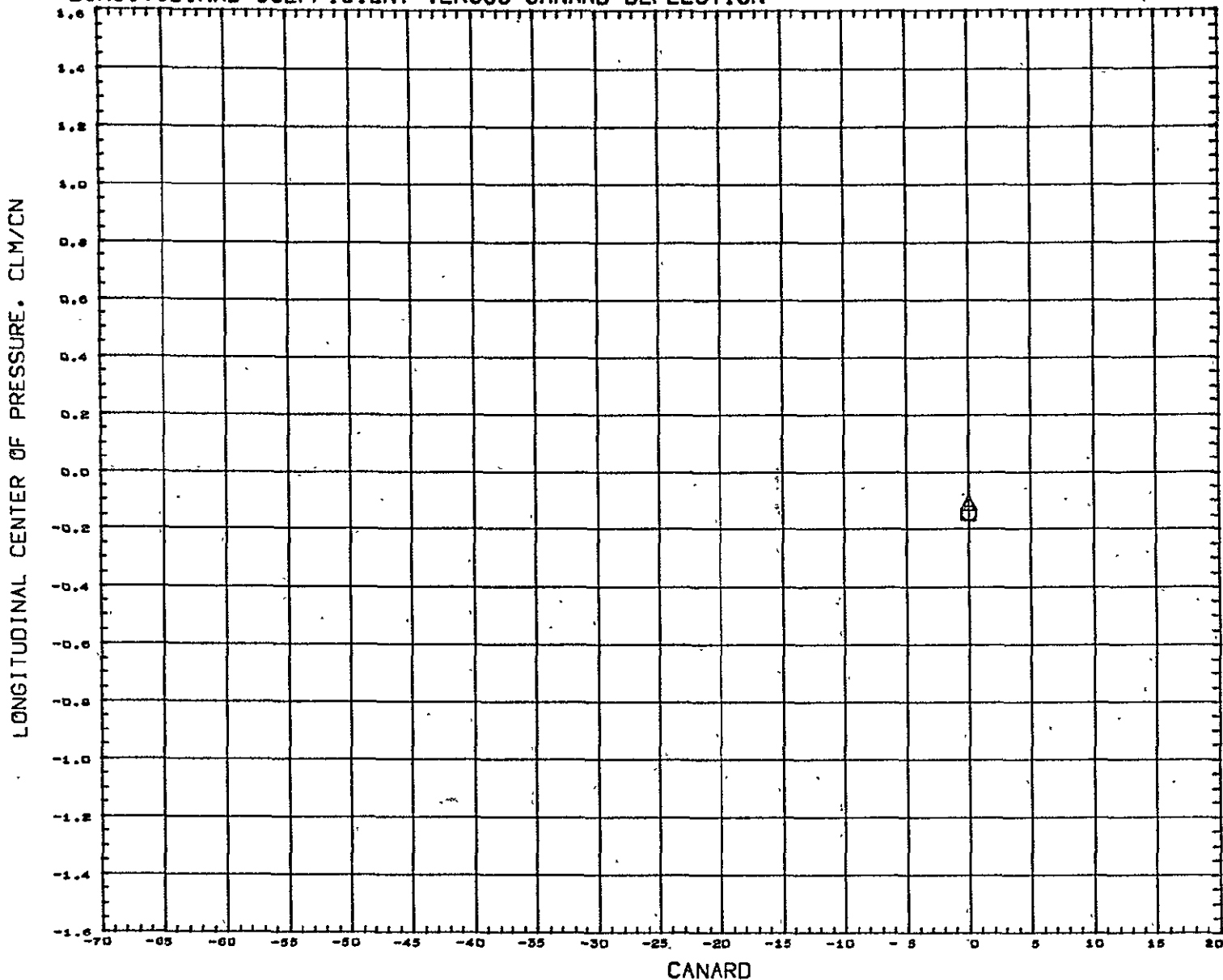
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DATASET	CANARD	DATASET	CANARD	SREF	LREF	BREF		
△	10.000	1.050	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	3.0950	30.1N.		
○	20.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	6.0990	6.0990	IN.		
		DCL - 60.000	DCR - 60.000	G28C44	15.000			6.7100	0.0000	IN.		
		ELEVON 0.000	AIRLÓN 0.000					0.0000	0.0000	IN.		
								ZMRP	0.0000	IN.		
								SCALE	0.0035			

DATA HIST. CODE HVR#E1

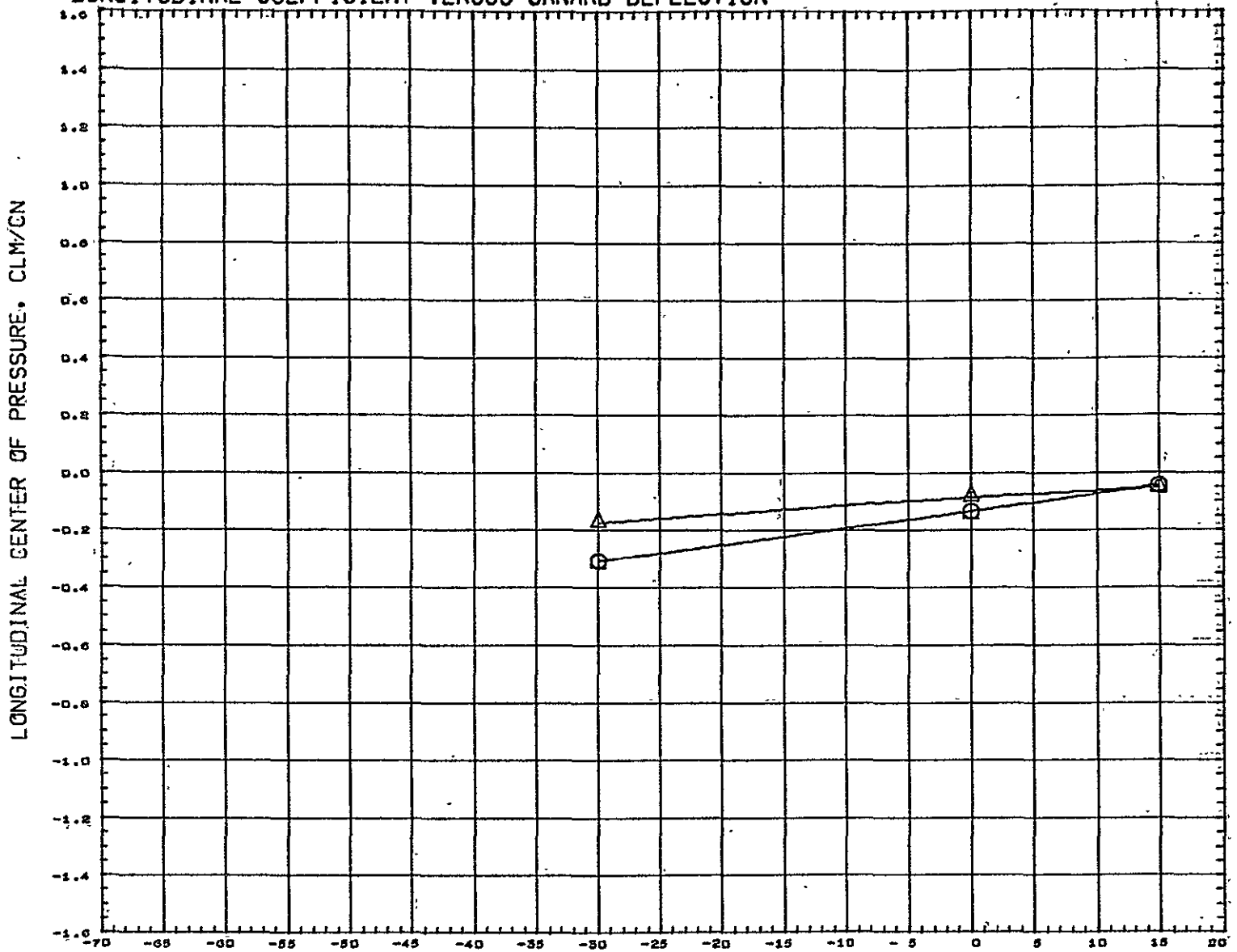
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
		MACH	BETA	DER	DCR	DATASET	CANARD	DATASET	CANARD	SREF	SQ. IN.	
○	10.000	1.100	0.000	0.000	0.000				15.6560	30. IN.		
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	3.0950	IN.	
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	6.0990	IN.	
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			6.7100	IN.	
										0.0000	IN.	
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

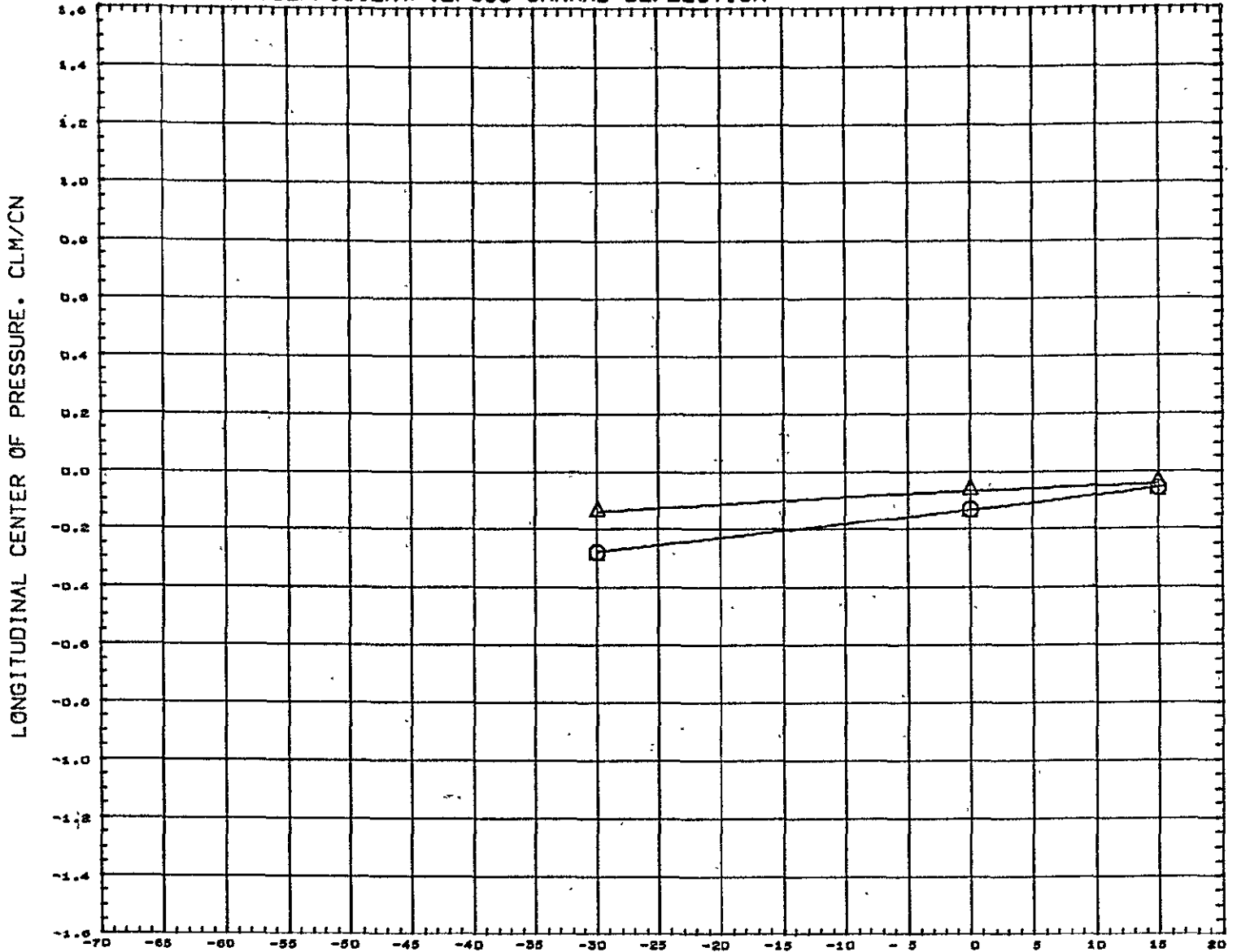
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA'	0.000	DATASET	CANARD	DATASET	CANARD	SREF	SQ. IN.	
○	10.000	1.200	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	15.6560	IN.	
△	20.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.	
		60.000	- 60.000	G28C44	15.000			XMRP	6.7100	IN.	
		0.000	0.000					YMRP	0.0000	IN.	
								ZMRP	0.0000	IN.	
								SCALE	0.0035		

DATA HIST. CODE MVR#E1

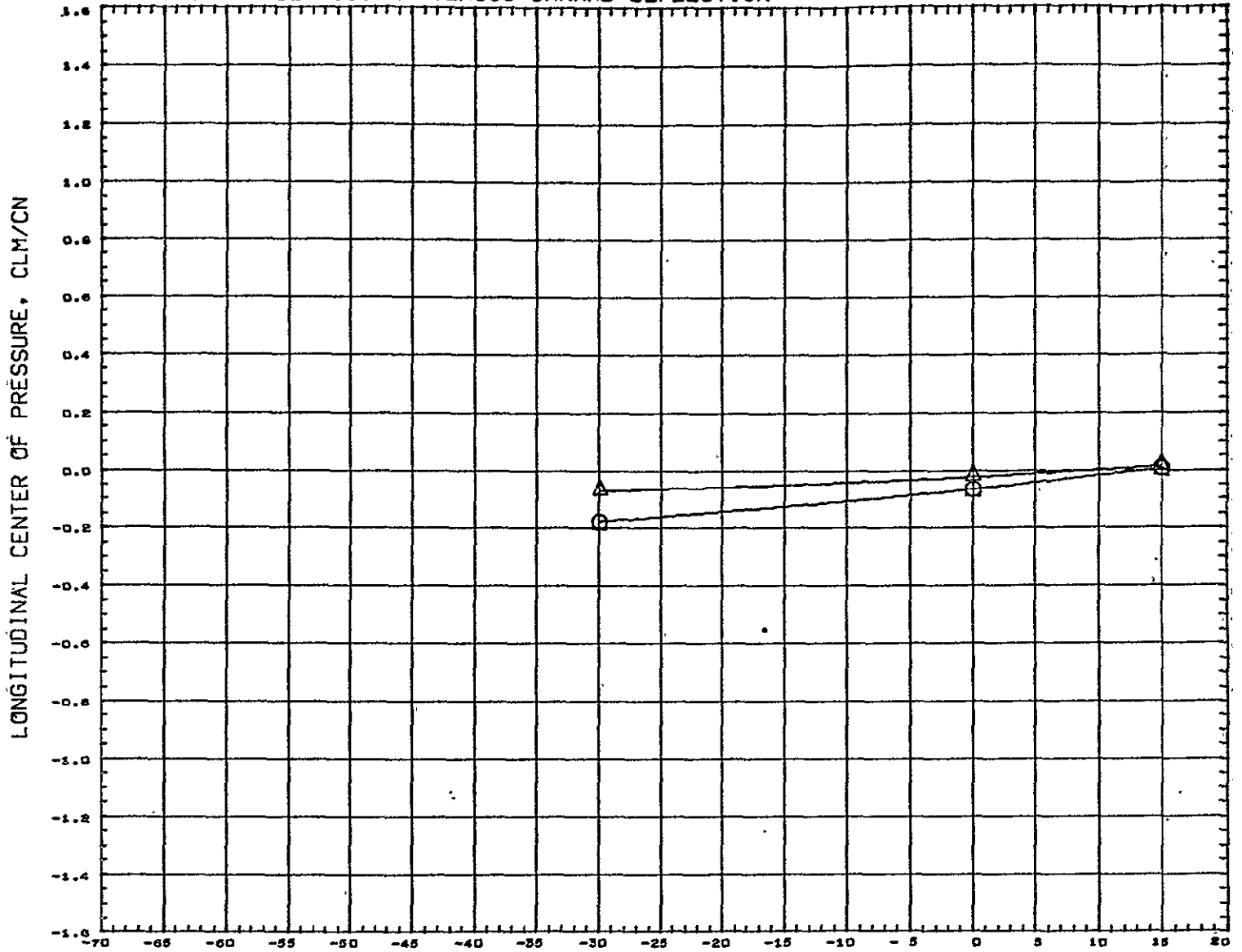
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DATASET	CANARD	DATASET	CANARD	SREF	IN.		
○	10.000	1.500	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	80. IN.		
△	20.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.		
		60.000	- 60.000	G28C44	15.000			6.0990	IN.		
		0.000	0.000					6.7100	IN.		
								0.0000	IN.		
								0.0000	IN.		
								0.0035			

DATA HIST. CODE MVR#E1

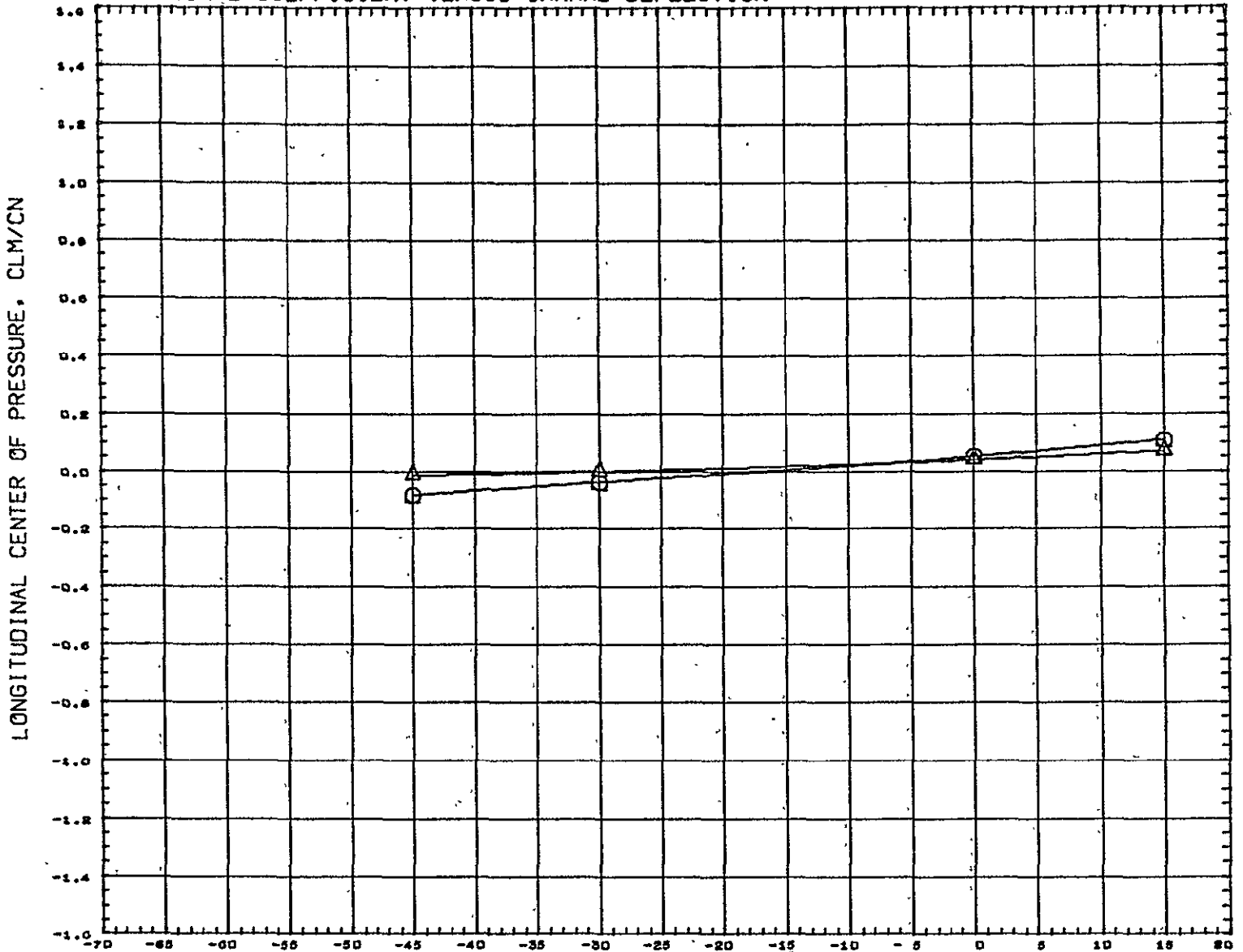
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	SQ. IN.	
○	10.000	2.000	0.000	0.000	0.000				15.6560	SQ. IN.		
△	20.000	0.000	0.000	0.000	0.000				3.0950	IN.		
		-60.000	-60.000	-60.000	-60.000	G28C47	-60.000	G28C50	-45.000	6.0990	IN.	
		0.000	0.000	0.000	0.000	G28C41	-30.000	G28B31	0.000	6.7100	IN.	
						G28C44	15.000			0.0000	IN.	
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

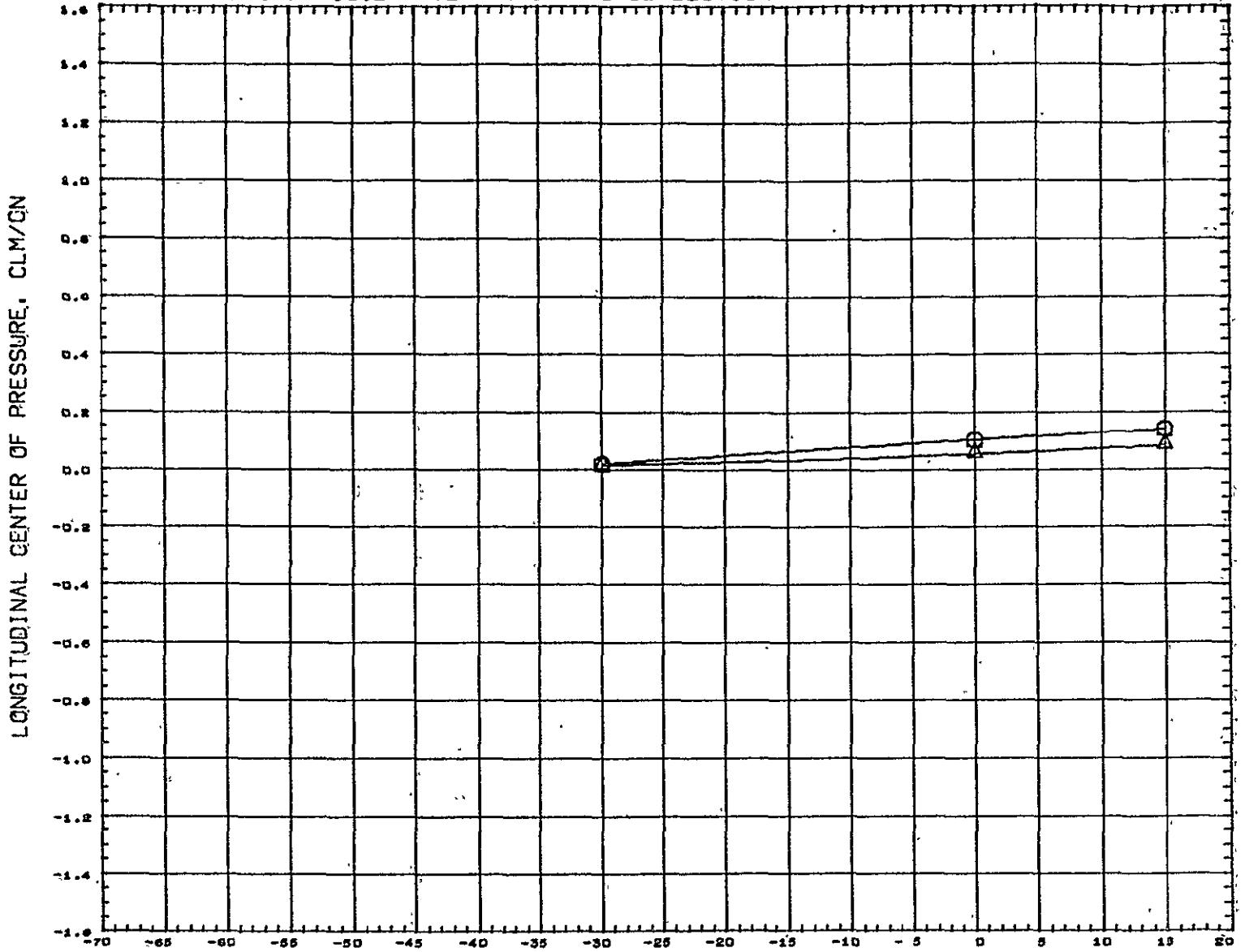
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	IN.
○	10.000	3.000	0.000	0.000	G28C47	- 60.000	G28C50	- 45.000	15.6560	80. IN.	
△	20.000	0.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	3.0950	IN.	
		- 60.000	- 60.000		G28C44	15.000			6.0990	IN.	
		0.000	0.000						6.7100	IN.	
									0.0000	IN.	
									0.0000	IN.	
									0.0035		

DATA HIST. CODE MVR#E1

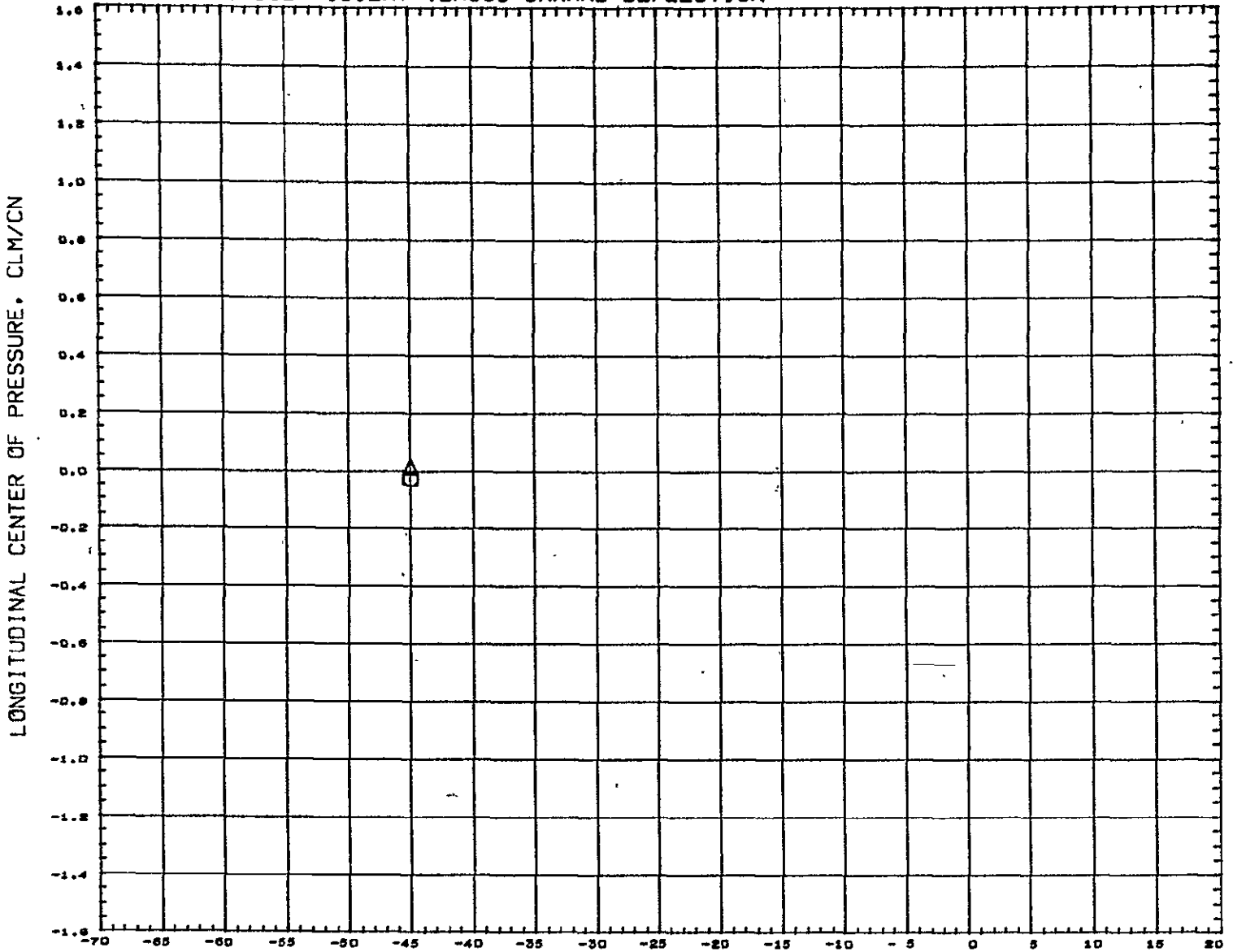
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	10.000	MACH	4.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6500	50. IN.
△	20.000	DEL	0.000	DER	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000	G28C44	15.000			XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

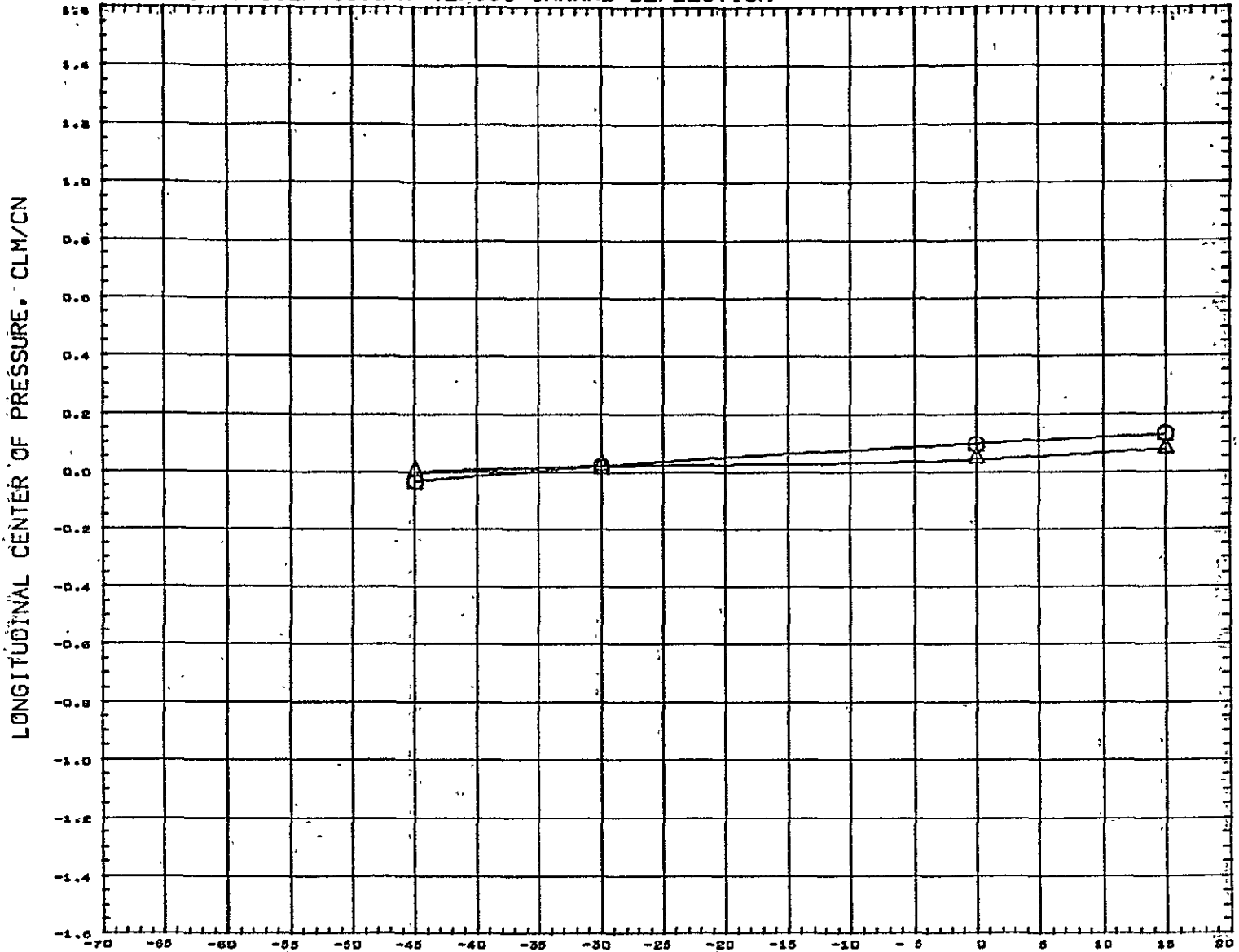
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
		MACH	BETA	DATASET	CANARD	DATASET	CANARD	SREF	IN.		
○	10.000	4.500	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	15.6560	30.0950	IN.
△	20.000	0.000	0.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	6.7100	IN.
		DCL - 60.000	DCR - 60.000	G28C44	15.000			XMRF	0.0000	0.0000	IN.
		ELEVON 0.000	AILRON 0.000					ZMRP	0.0000	0.0035	IN.
								SCALE			

DATA HIST. CODE MVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

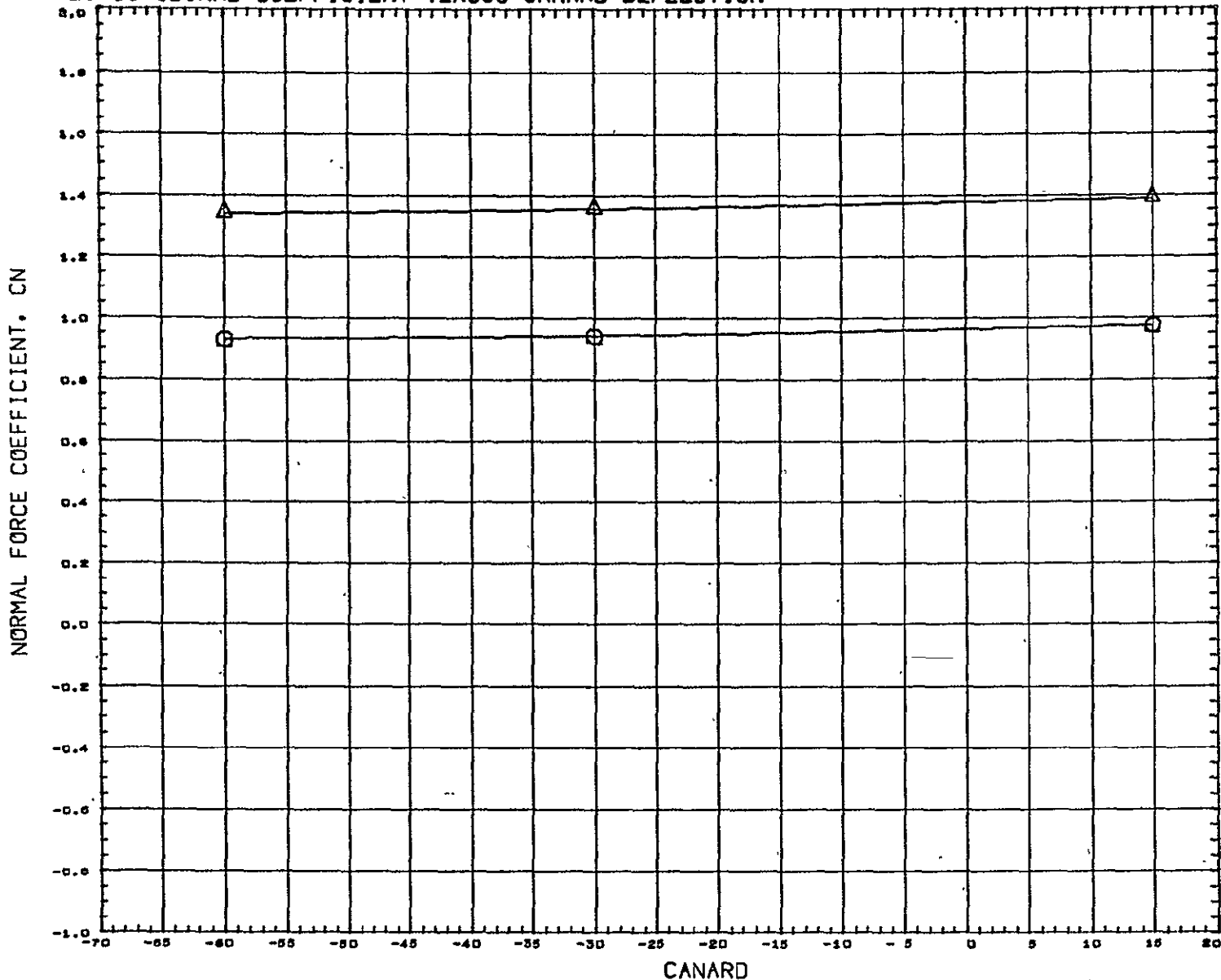


CANARD

SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE				REFERENCE INFORMATION		
○	10.000	5.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	30. IN.
△	20.000	0.000	DEL	0.000	G28C47	- 60.000	G28C50	- 45.000	LREF	3.0950	IN.
		- 60.000	DCL	- 60.000	G28C41	- 30.000	G28B31	0.000	BREF	6.0990	IN.
		0.000	ELEVON	0.000	G28C44	15.000			XMRP	6.7100	IN.
									YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0035	

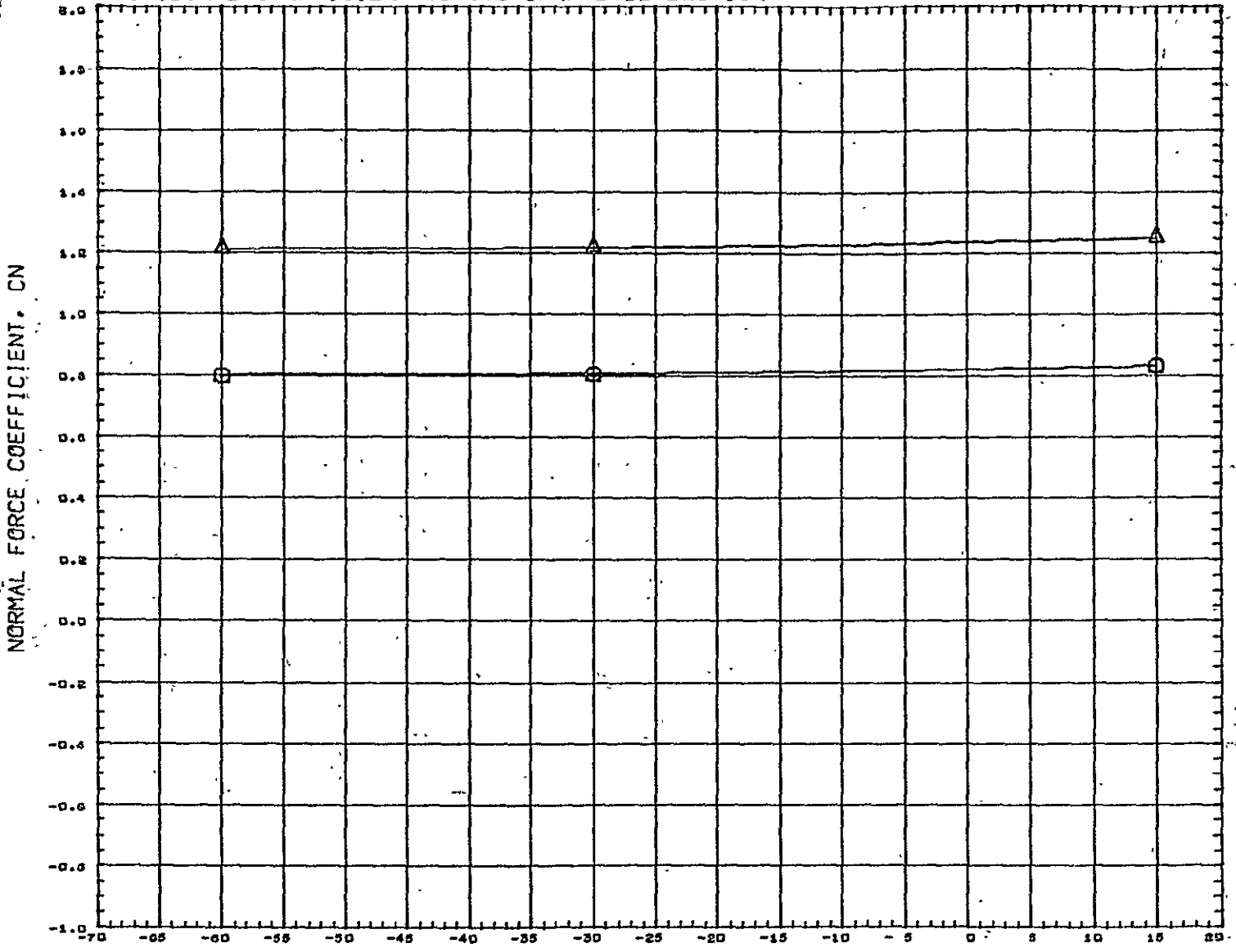
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LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	3.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	30.IN.
△	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0900	IN.
		ELEVON	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0033	
		DATA HIST. CODE	HVR#EI									

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

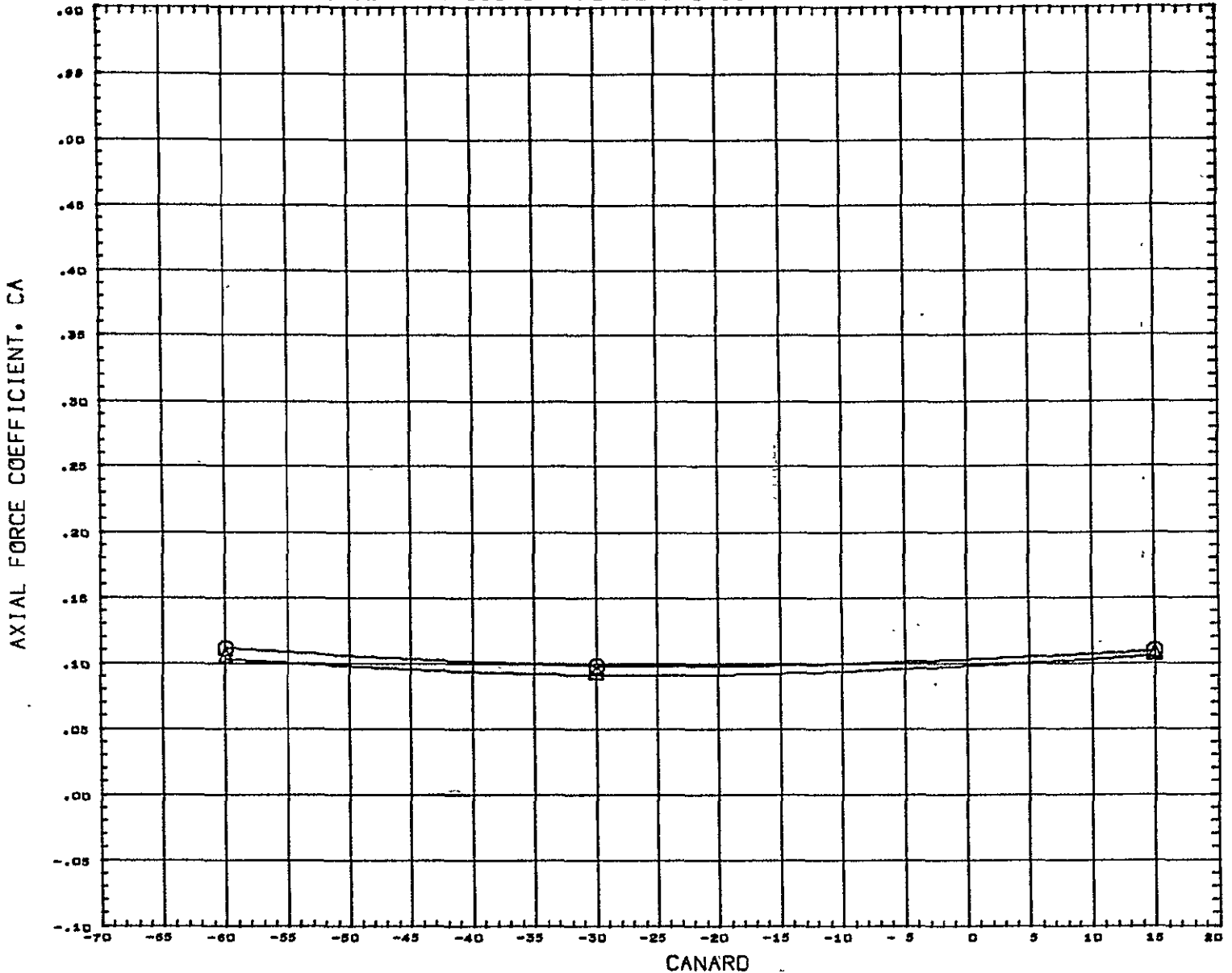


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	5.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	50. IN.
△	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0990	IN.
		ELEVON	0.000	AIRLON	0.000					XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

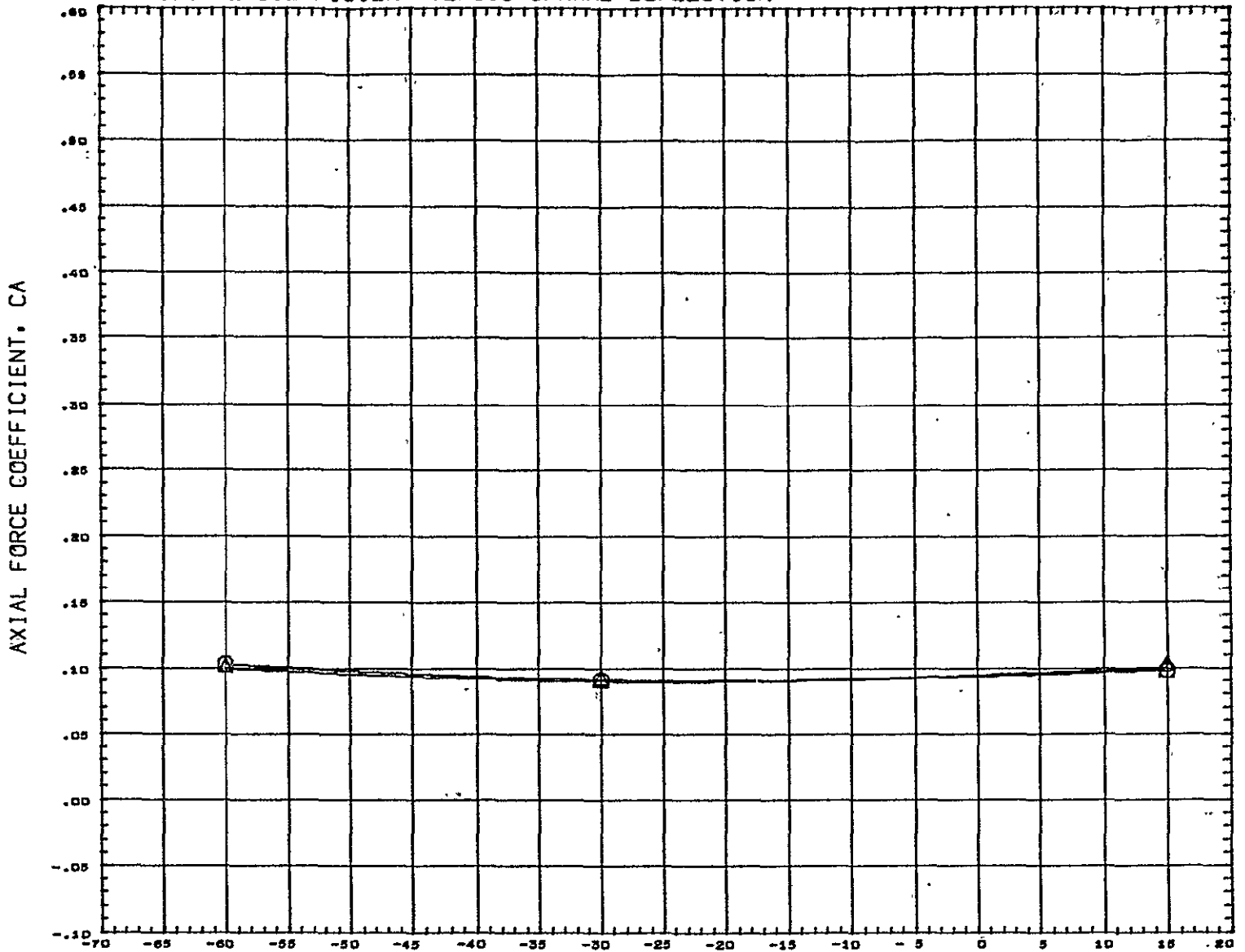
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LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	30.000	MACH	3.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ. IN.
△	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000					XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

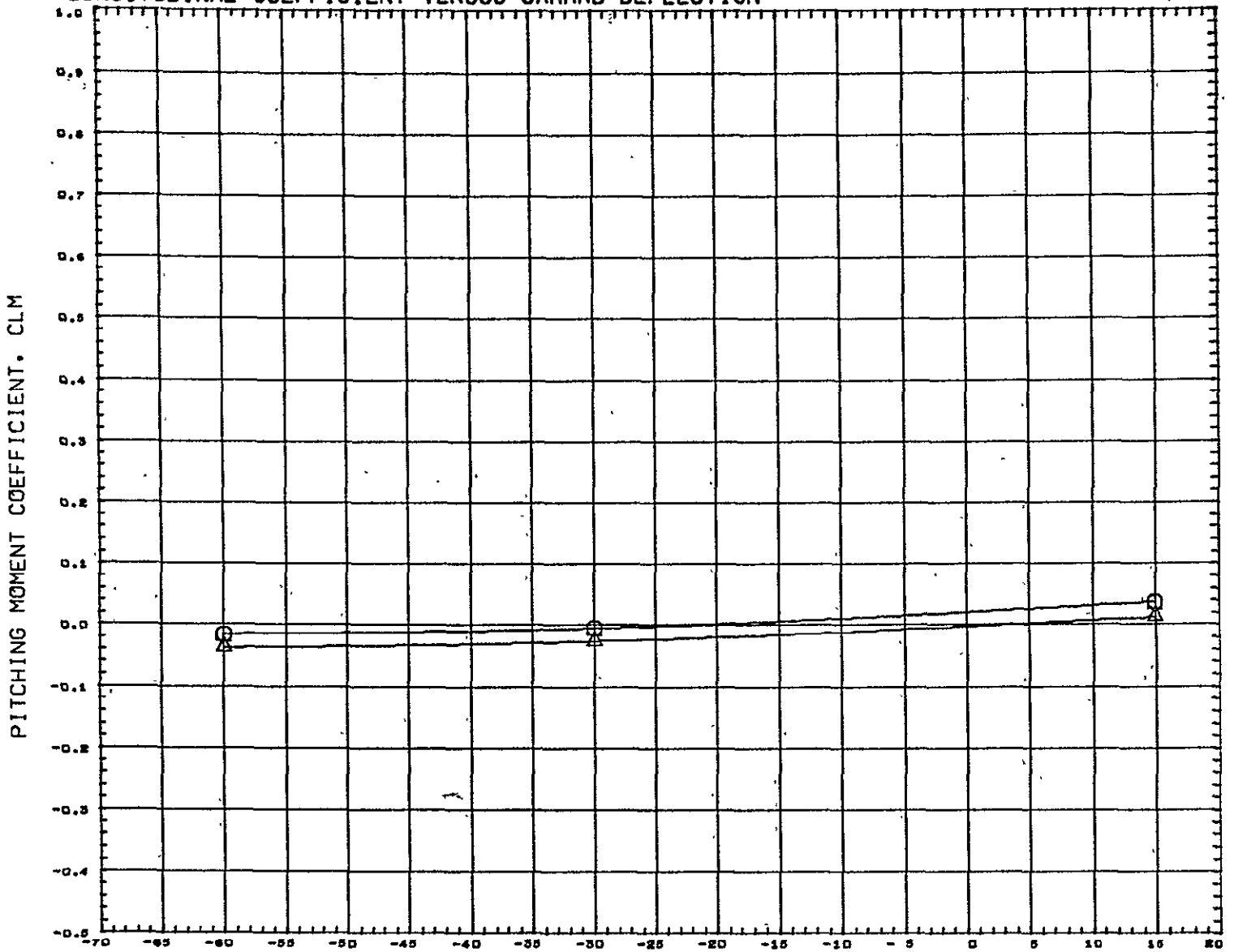
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF		
○	30.000	5.000	0.000	0.000	G28C48	- 60.000	G28C42	- 30.000	15.6560	30.0950	30. IN.
△	40.000	0.000	0.000	0.000	G28C45	15.000			6.0990	6.7100	IN.
		DCL - 60.000	OCR - 60.000						XMRP	0.0000	IN.
		ELEVON 0.000	AILRON 0.000						ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE HVR#E1

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

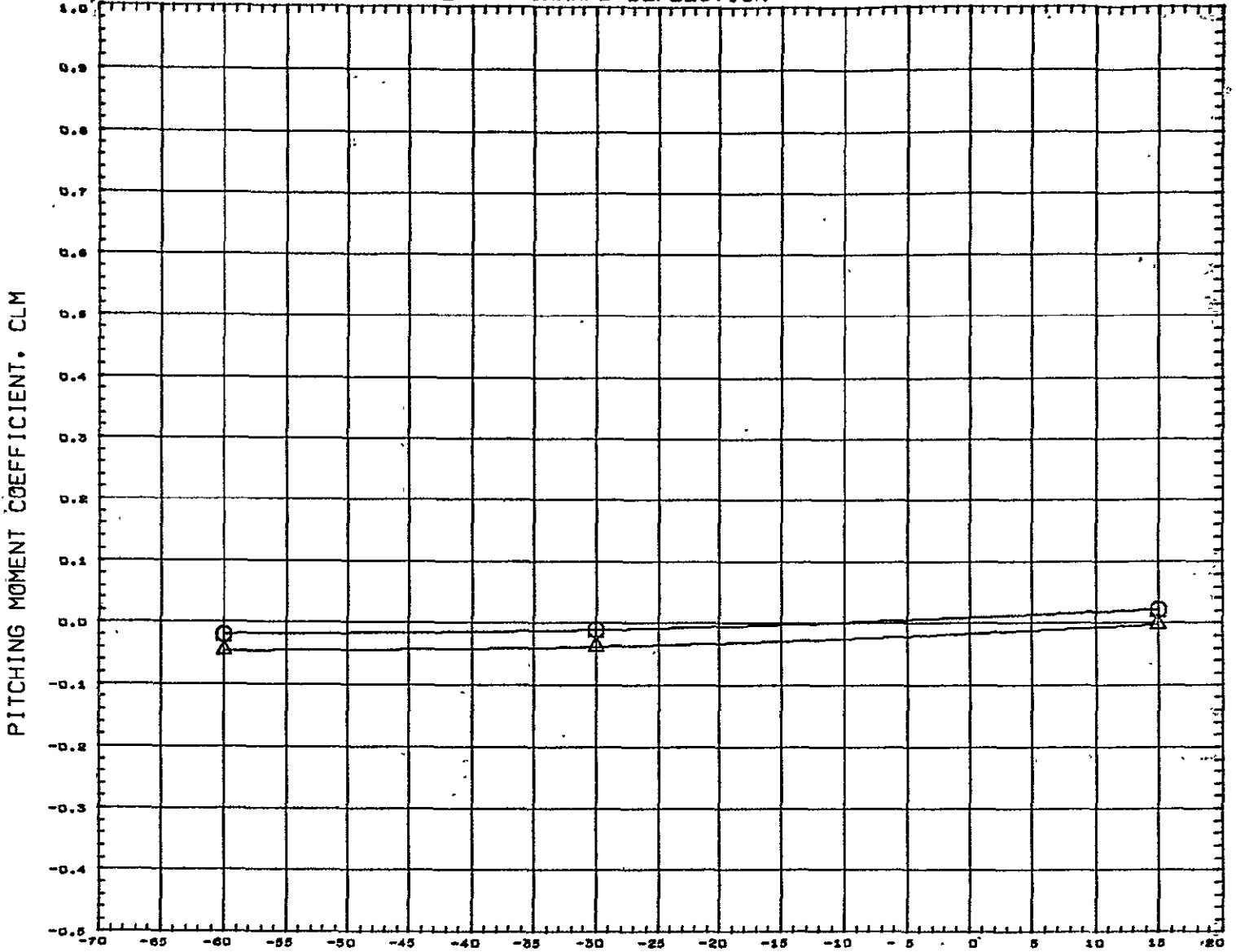


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
O Δ	30.000	<u>MACH</u>	3.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	50.IN.
	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
									ZMRP	0.0000	IN.	
									SCALE	0.0035		

DATA HIST. CODE MVR#E1

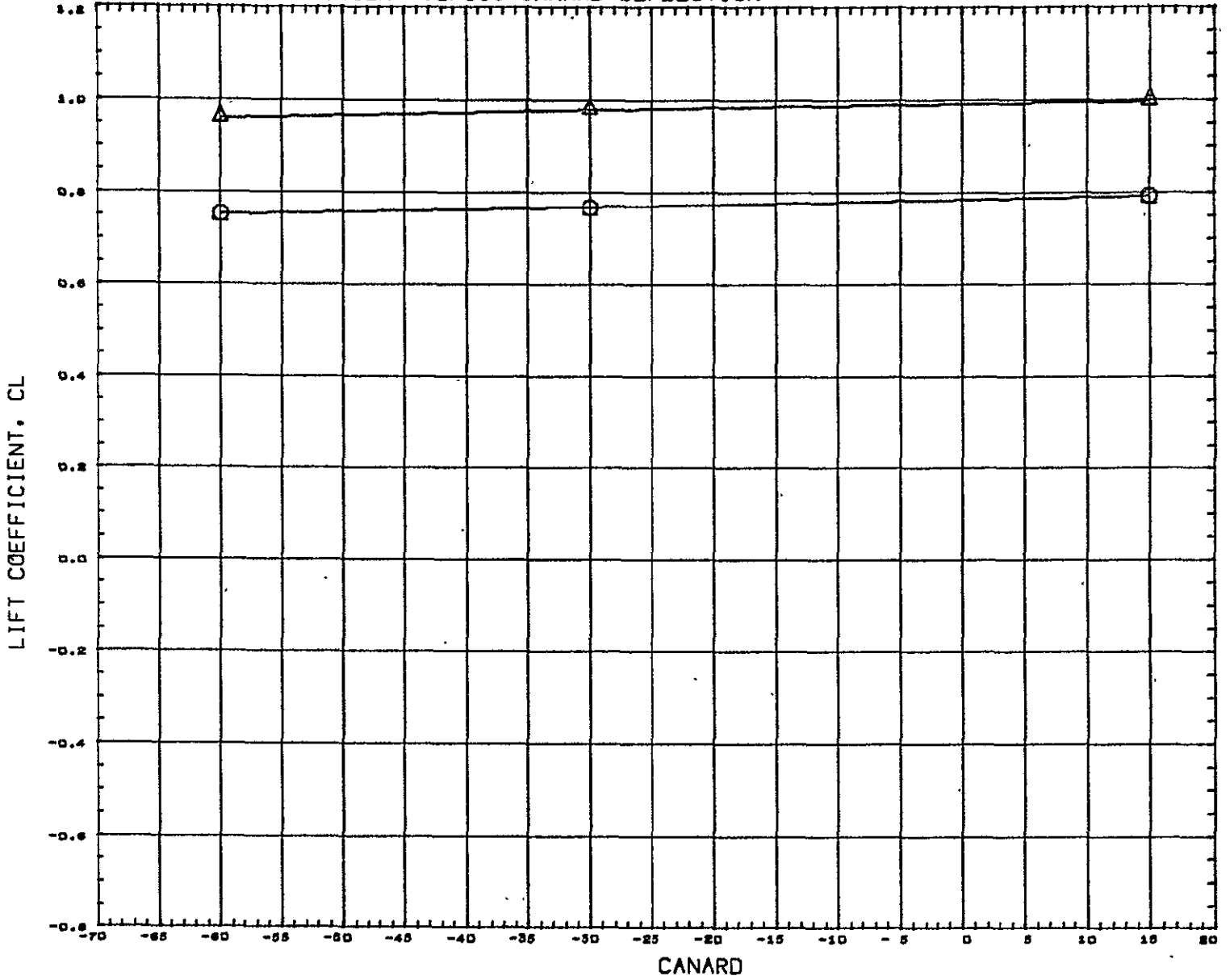
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	5.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.8560	80. IN.
△	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

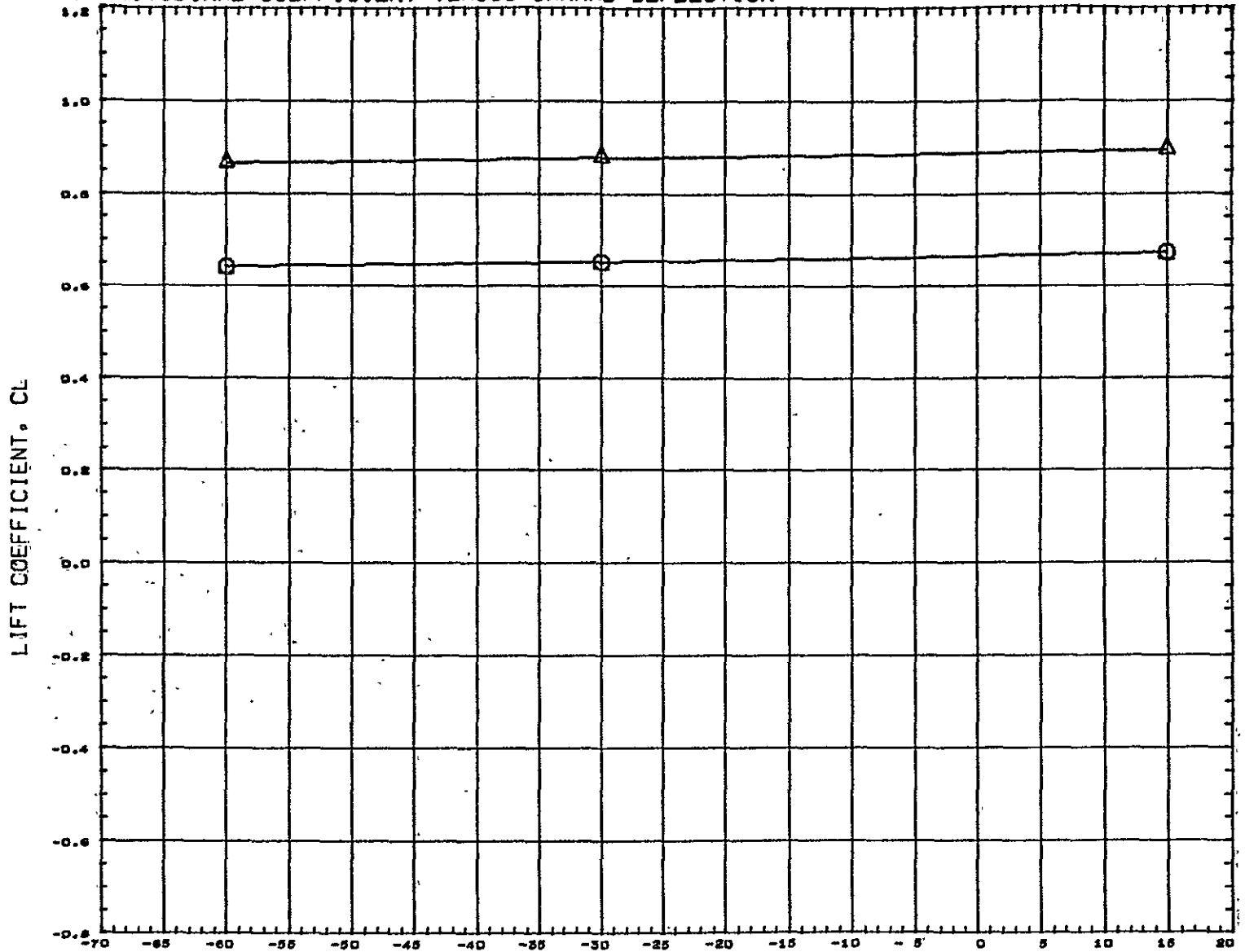
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
O	30.000	MACH	3.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	50. IN.
Δ	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0900	IN.
		ELEVON	0.000	AILRON	0.000					XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#EI

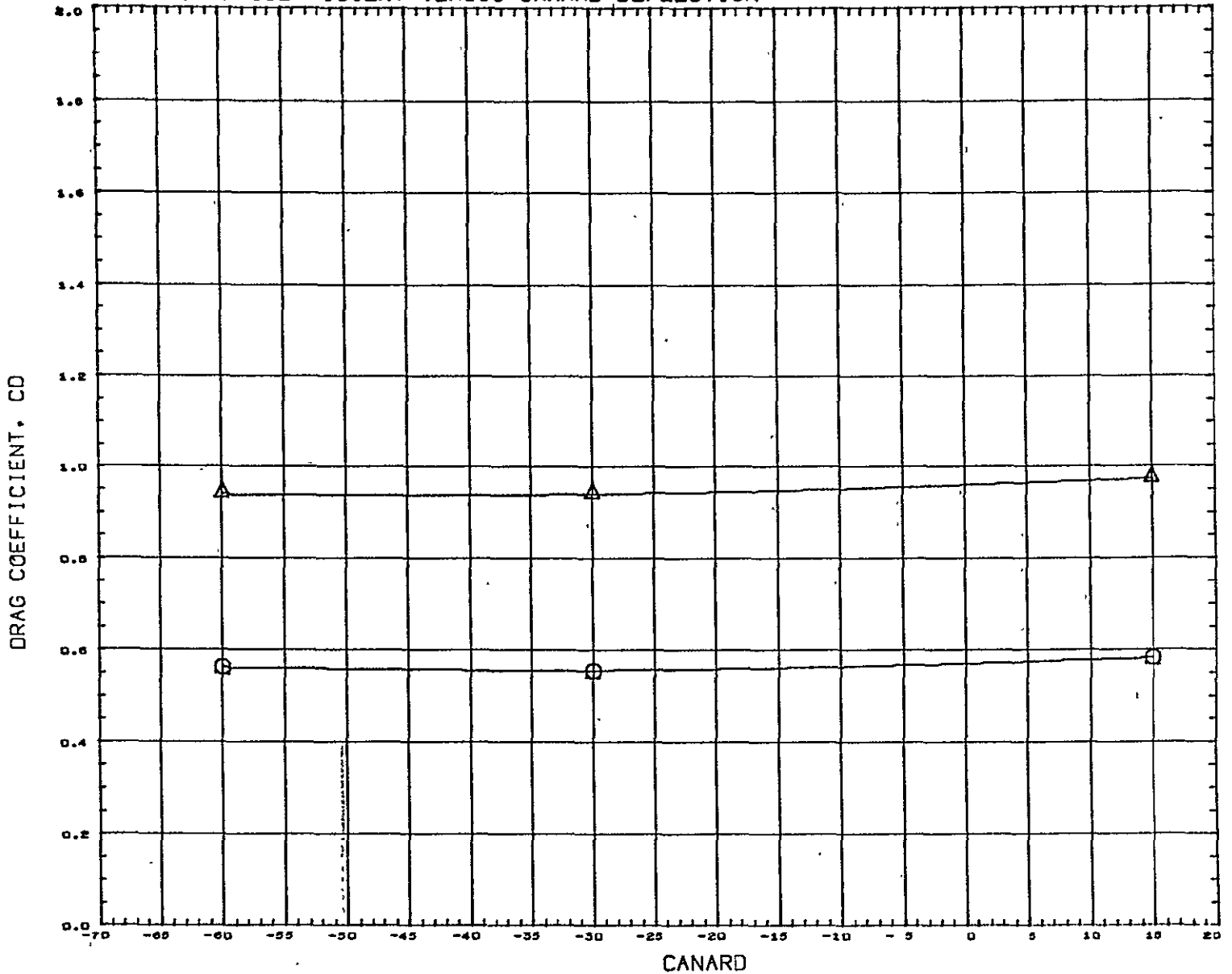
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION		
○		30.000	MACH	5.000	BETA	0.000	DATASET	CANARD	SREF	15.6560	50. IN.
△		40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	LREF	3.0950	IN.
			DCL	- 60.000	DCR	- 60.000	G28C45	15.000	BREF	6.0990	IN.
			ELEVON	0.000	AILRON	0.000			XMRP	6.7100	IN.
									YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR#EI

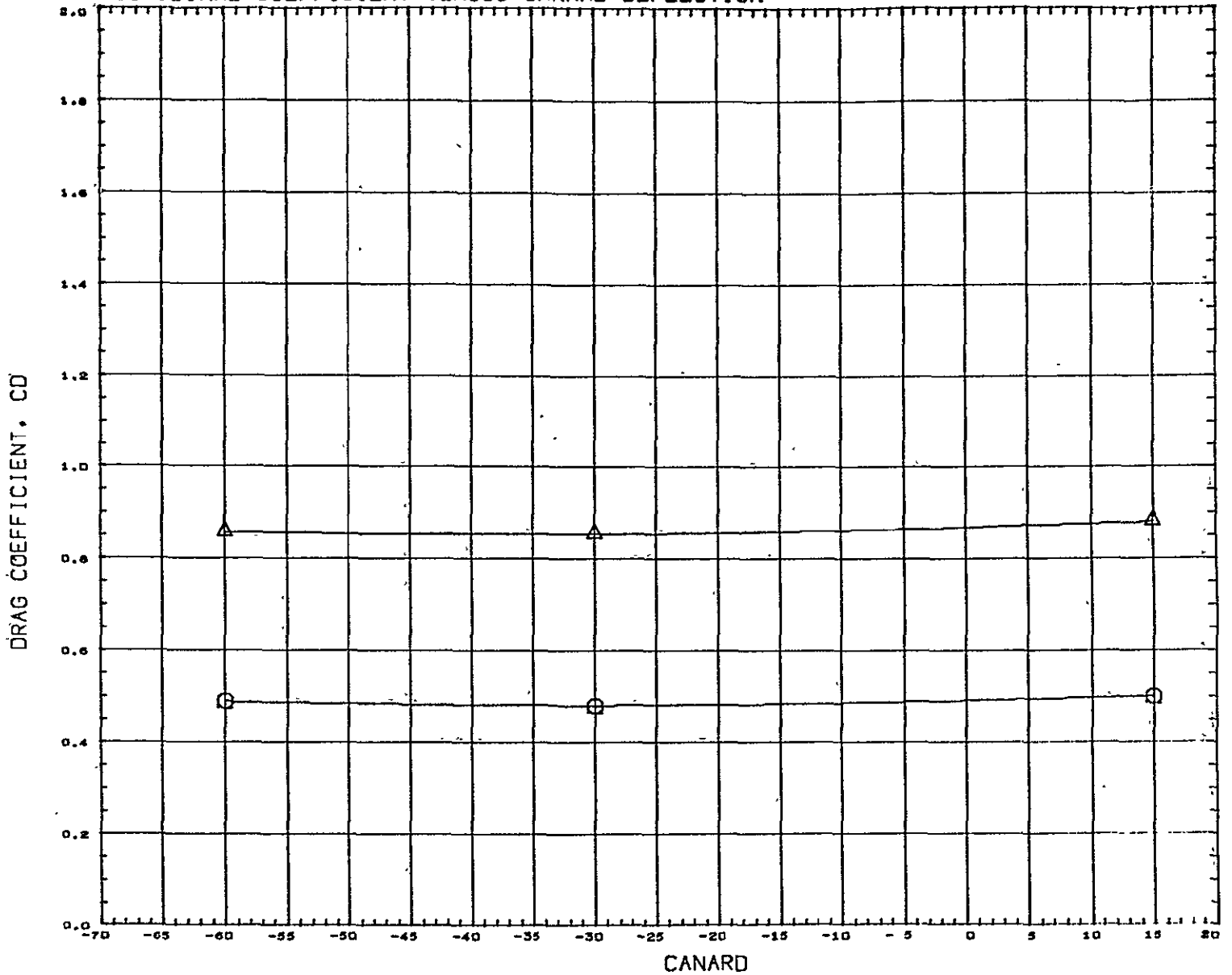
LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	3.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	90. IN.
△	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

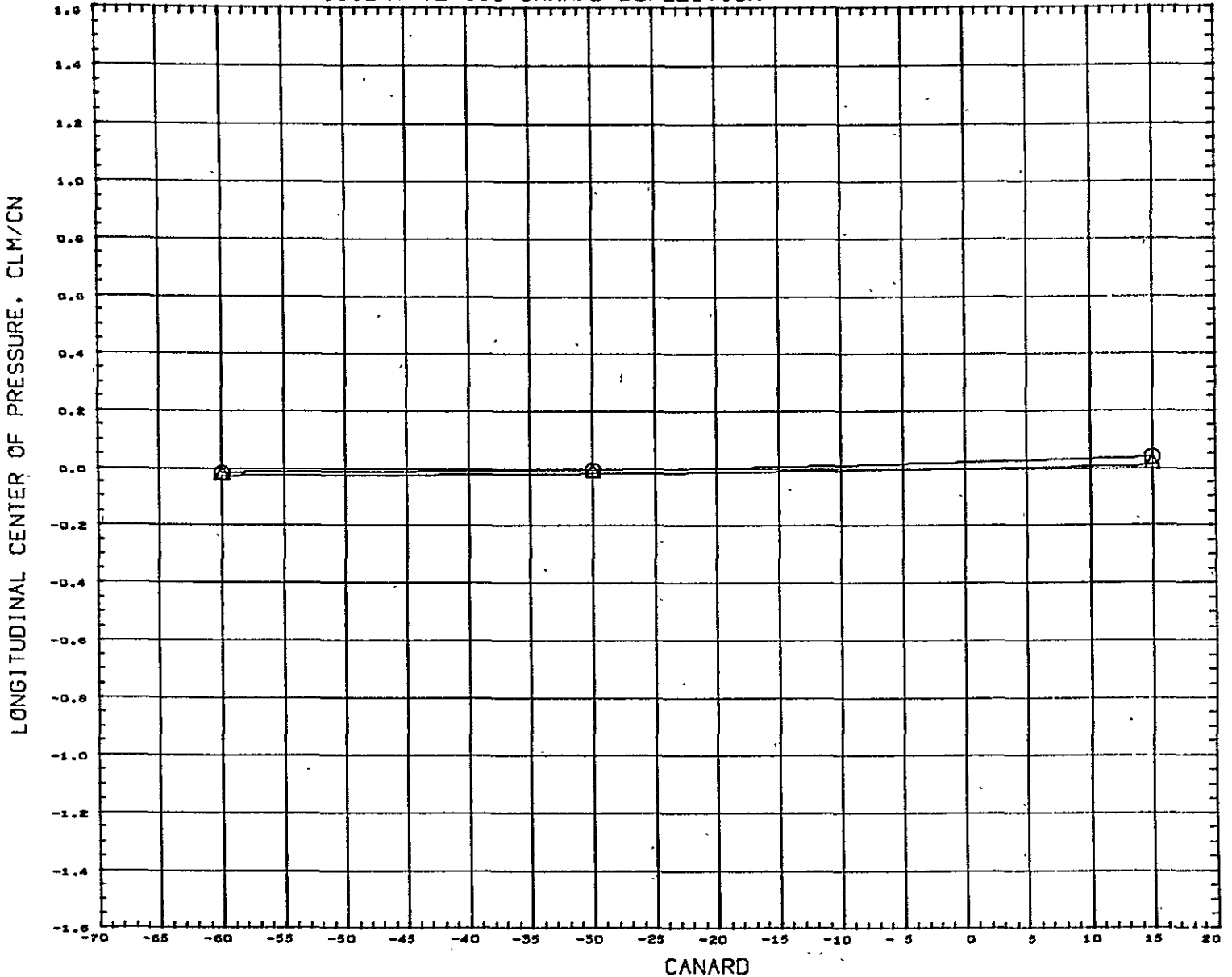
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LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



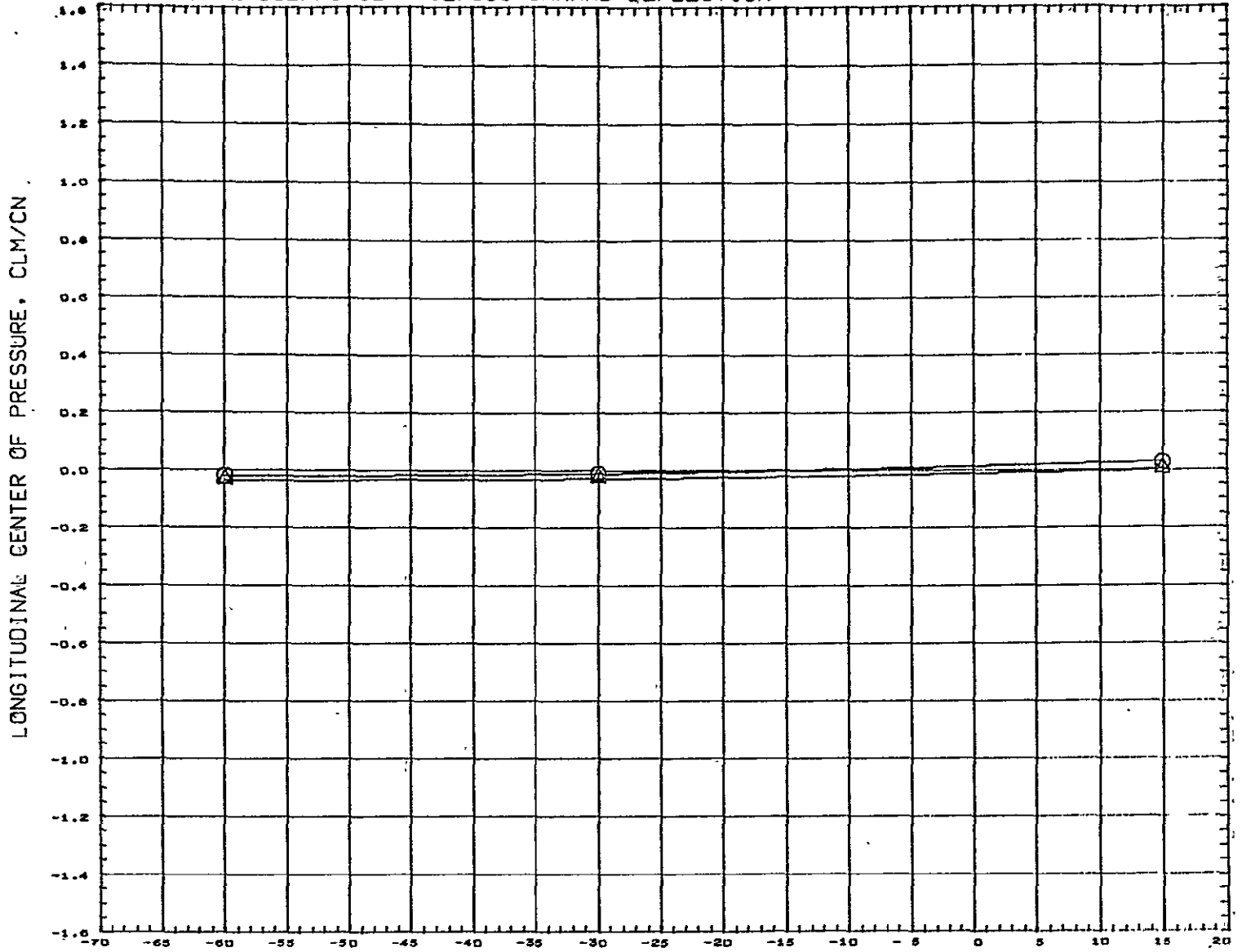
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	5.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6360	30. IN.
△	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0990	IN.
		ELEVON	0.000	AILERON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR*E1									

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	30.000	MACH	3.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6500	SQ. IN.
△	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000					XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	
		DATA HIST. CODE	MVR#E1									

LONGITUDINAL COEFFICIENT VERSUS CANARD DEFLECTION

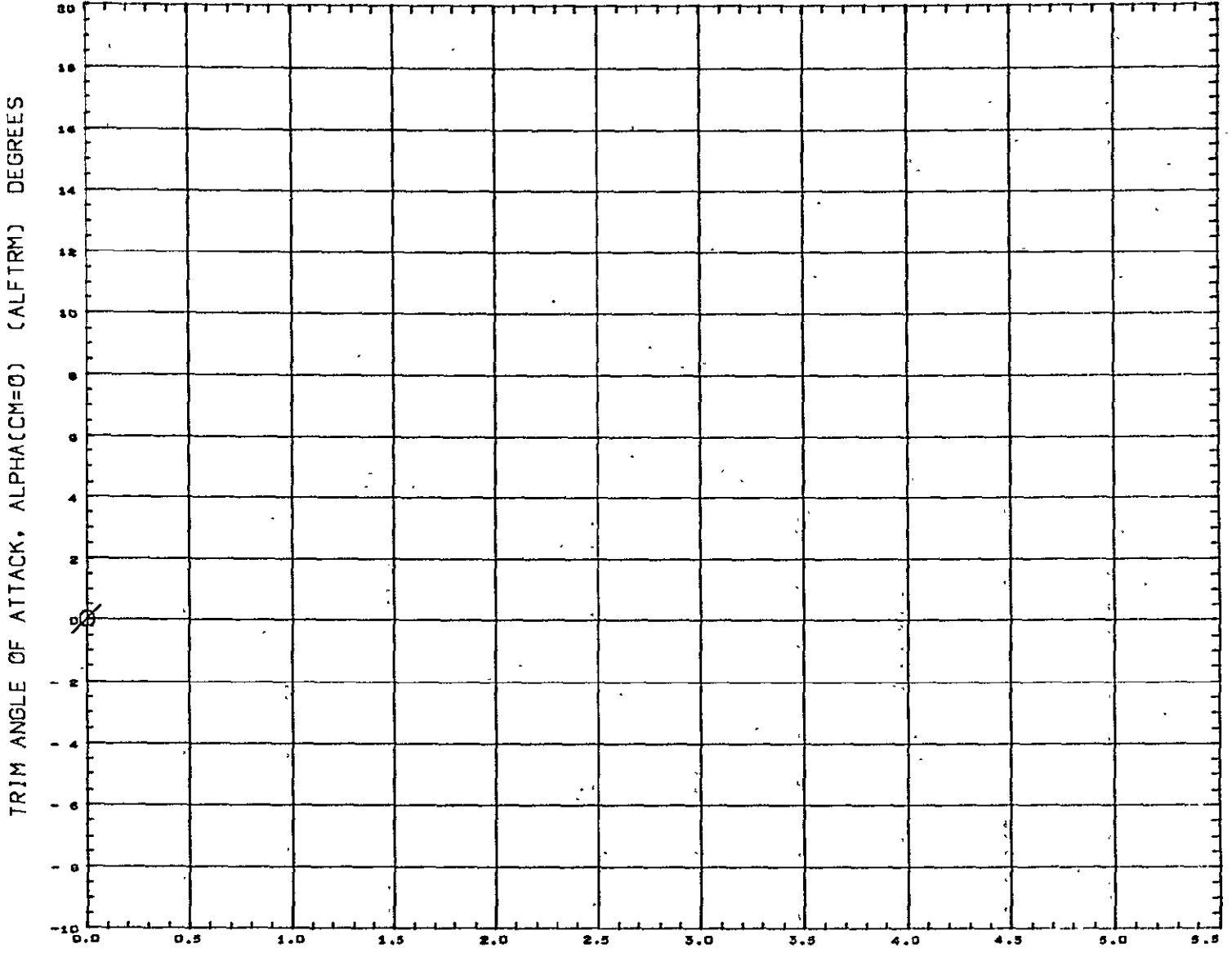


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
O Δ	30.000	MACH	5.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	80-IN.
	40.000	DEL	0.000	DER	0.000	G28C48	- 60.000	G28C42	- 30.000	LREF	3.0950	IN.
		DCL	- 60.000	DCR	- 60.000	G28C45	15.000			BREF	6.0990	IN.
		ELEVON	0.000	AILRON	0.000					KMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

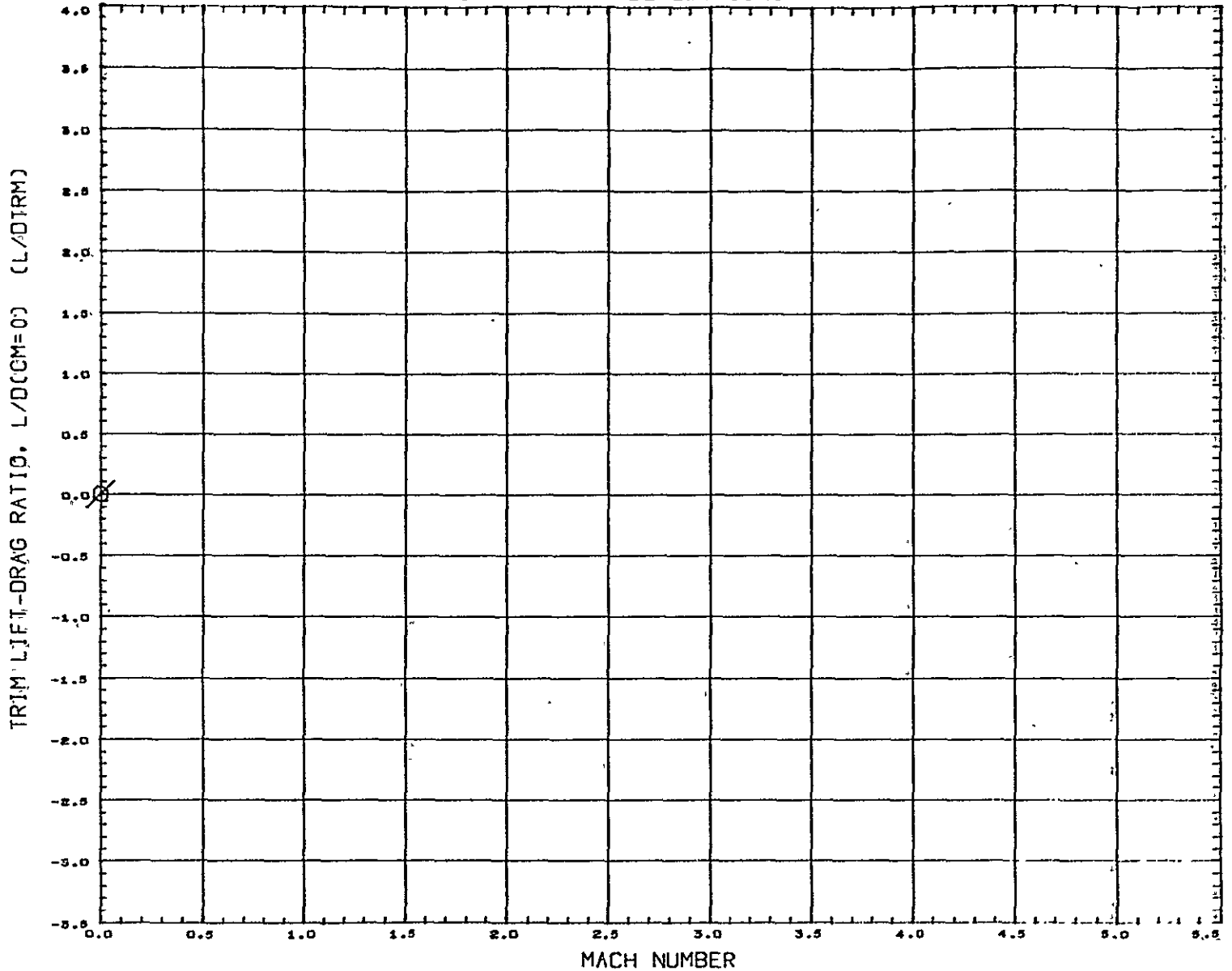


PARAMETRIC VALUES			
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DER	0.000	DCL	- 60.000
DCR	- 60.000	ELEVON	0.000
CANARD	- 60.000	AILRON	0.000

DATA HIST. CODE HVR#E#GIF

REFERENCE INFORMATION		
SREF	15.6560	30.IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

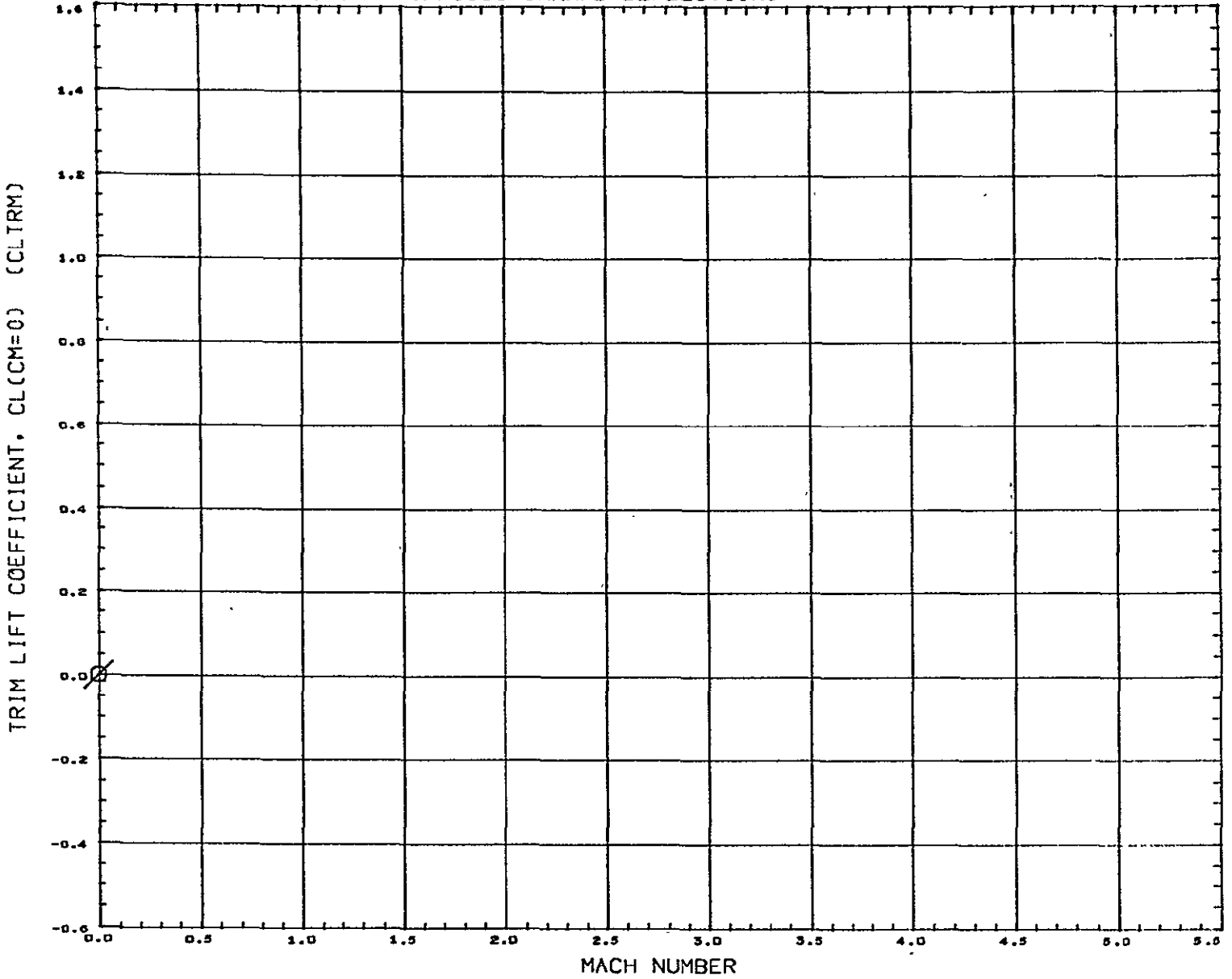


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	- 60.000
DCR	- 60.000	ELEVON	0.000
CANARD	- 60.000	AILRON	0.000

DATA HIST. CODE MVR#E#GIF

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

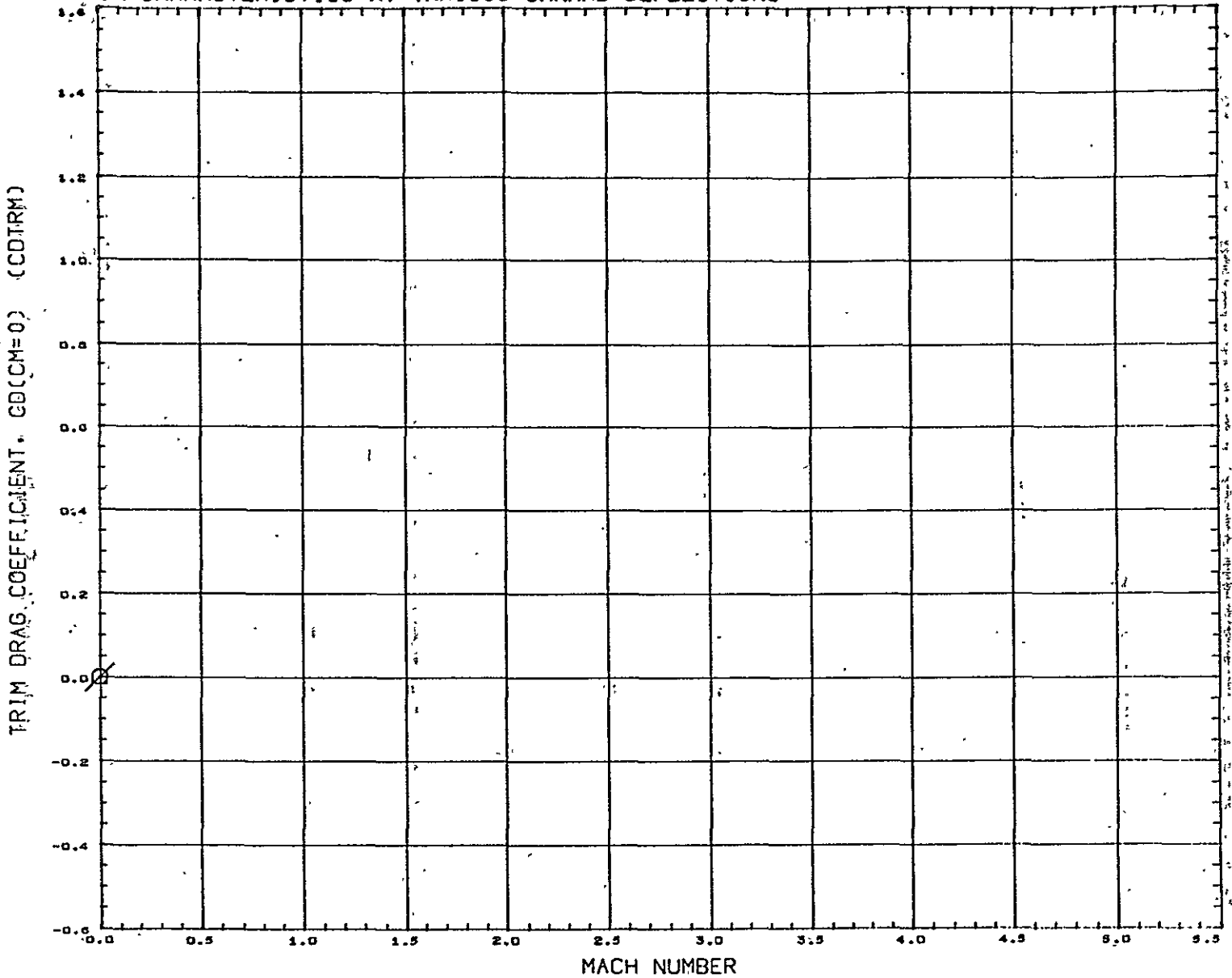


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	- 60.000
DCR	- 60.000	ELEVON	0.000
CANARD	- 60.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E*61F

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES

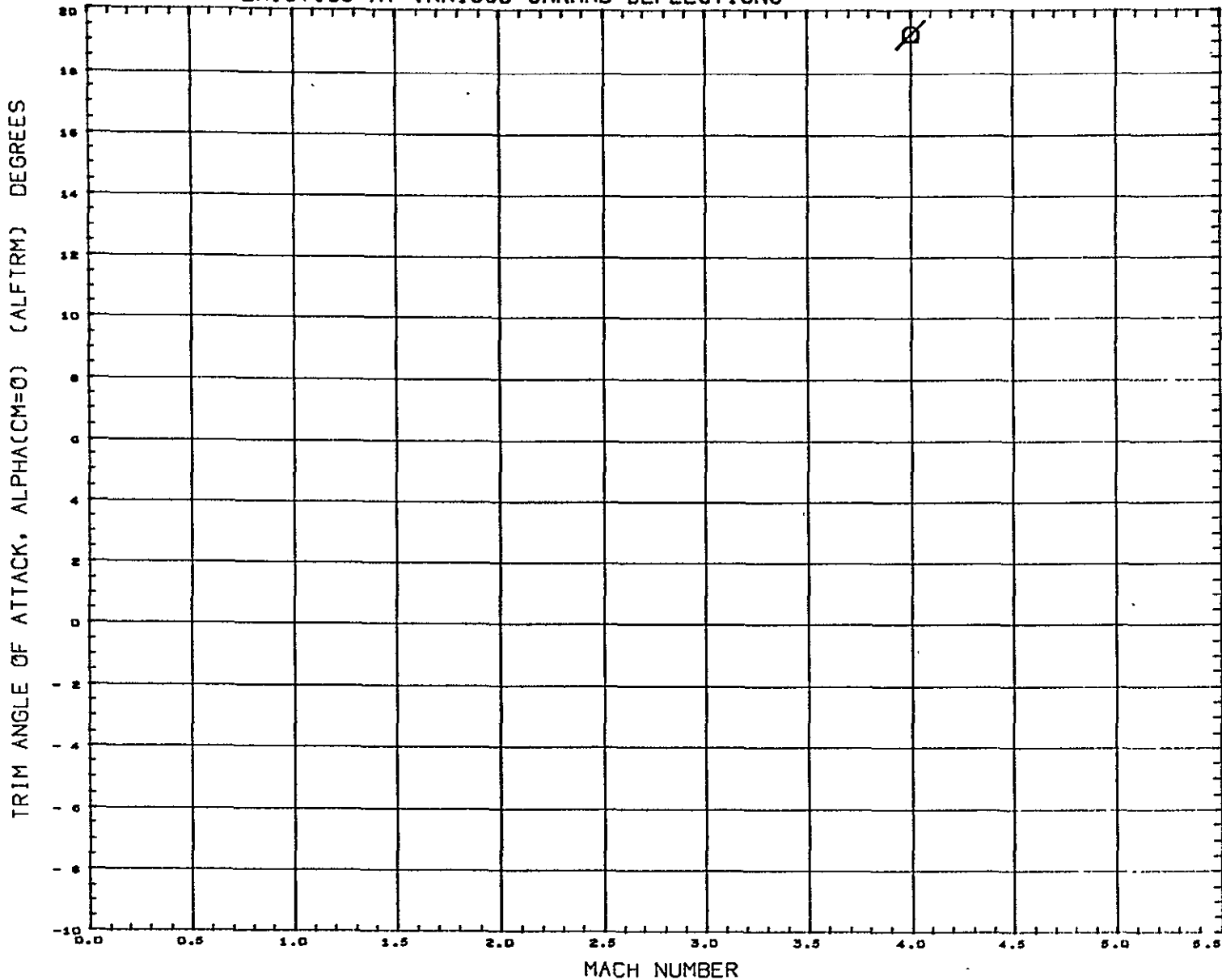
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CANARD	- 60.000	AILRON	0.000

DATA HIST. CODE MVR#E%GIF

REFERENCE INFORMATION

SREF	15.6500	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES

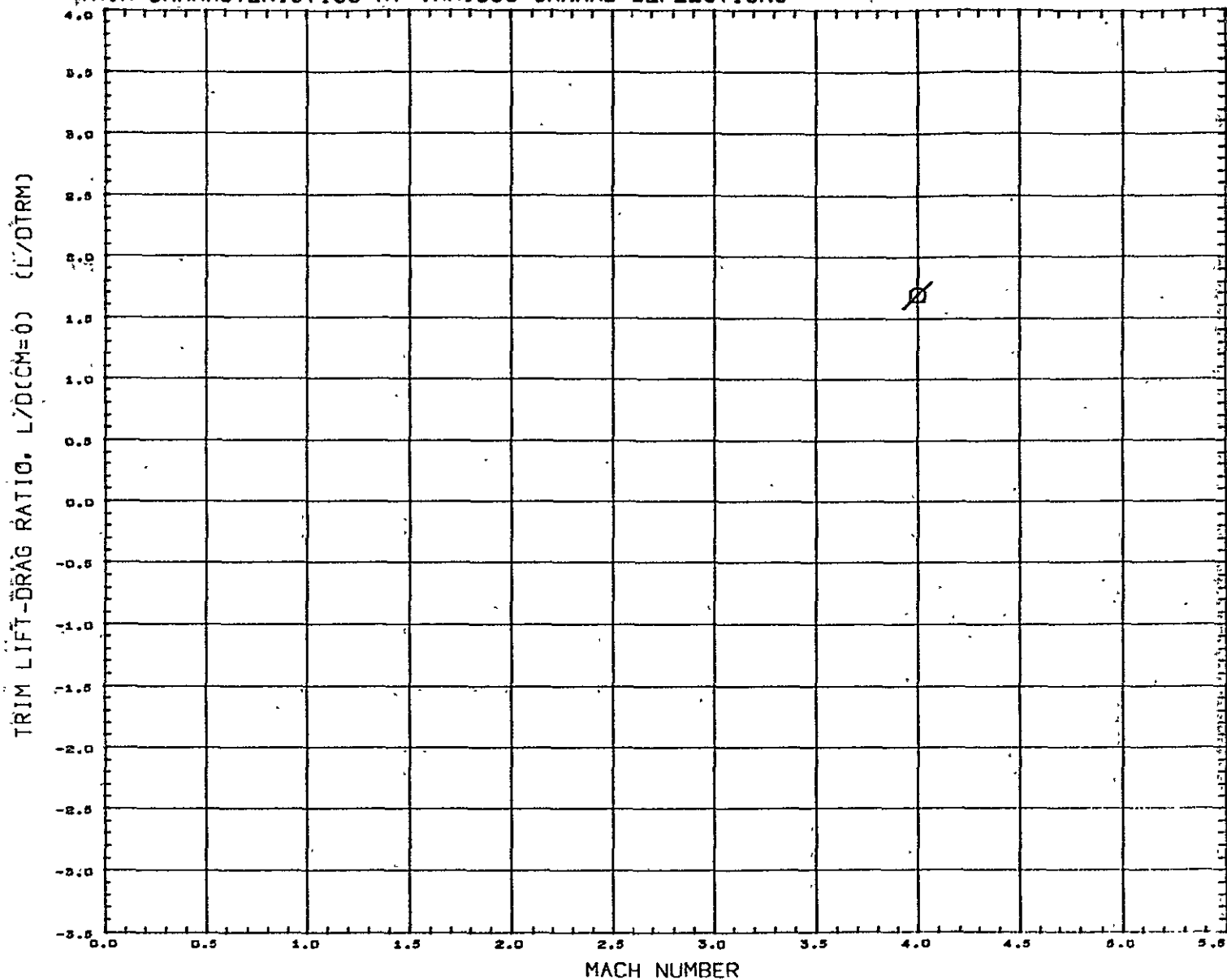
BETA	0.000	DEL	0.000
DER	0.000	DCL	- 45.000
DCR	- 45.000	ELEVON	0.000
CANARD	- 45.000	AILRON	0.000

DATA HIST. CODE HVR#EIF

REFERENCE INFORMATION

SREF	15.6560	39. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

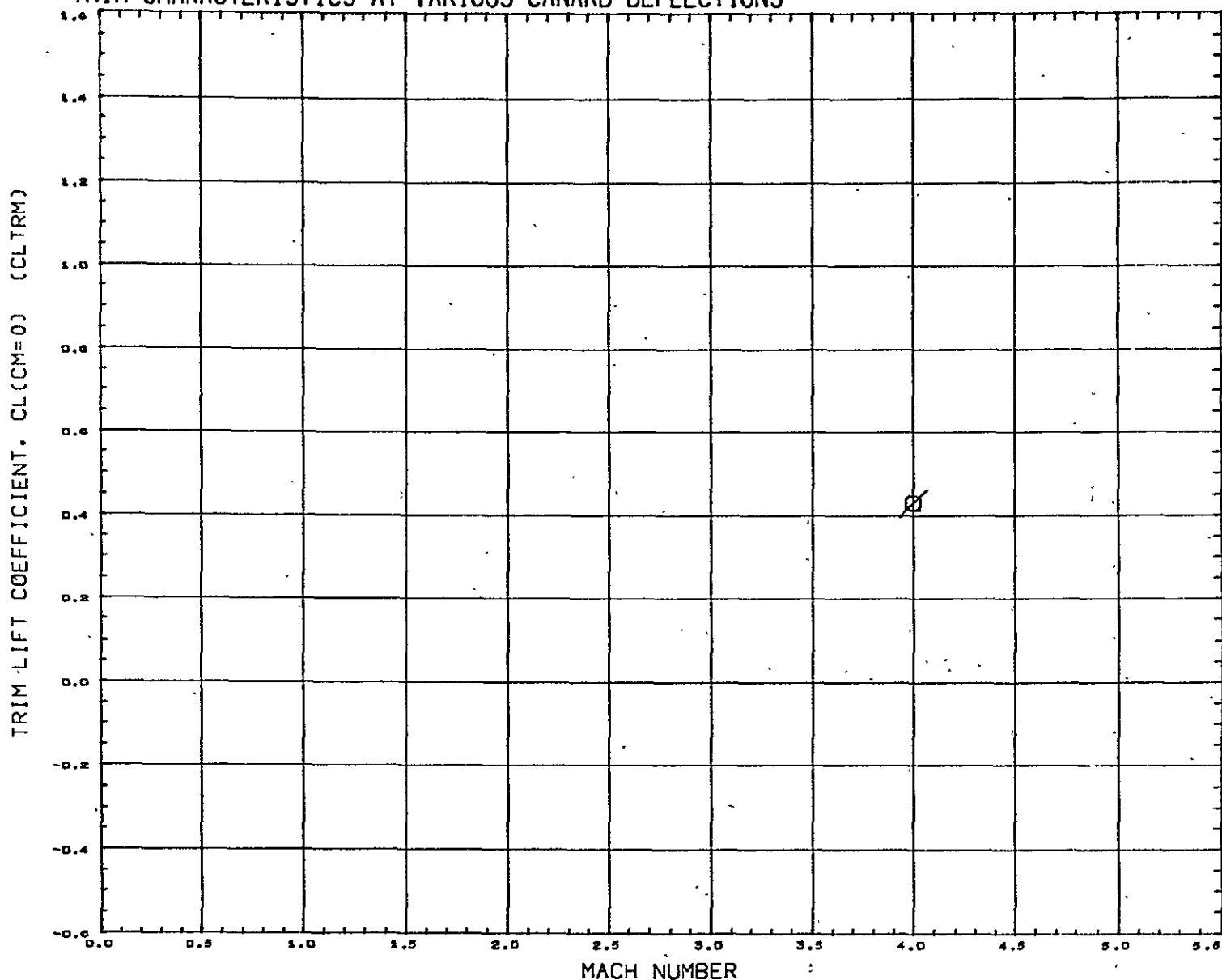


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	- 45.000
DCR	- 45.000	ELEVON	0.000
CANARD	- 45.000	AILRON	0.000

DATA HIST. CODE MVR#EIF

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES

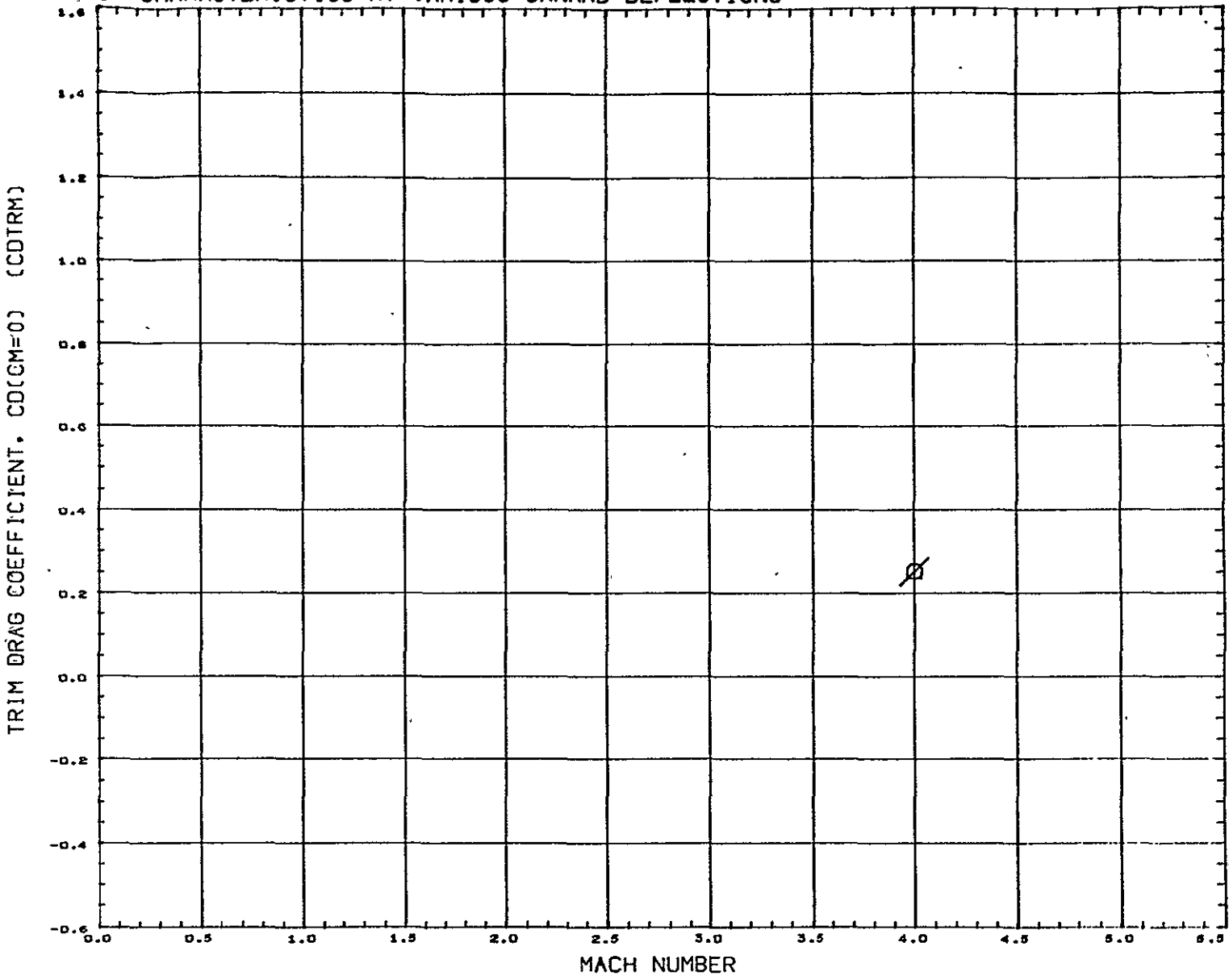
BETA	0.000	DEL	0.000
DER	0.000	DCL	- 45.000
OCR	- 45.000	ELEVON	0.000
CANARD	- 45.000	AILRON	0.000

DATA HIST. CODE MVR#EIF

REFERENCE INFORMATION

SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

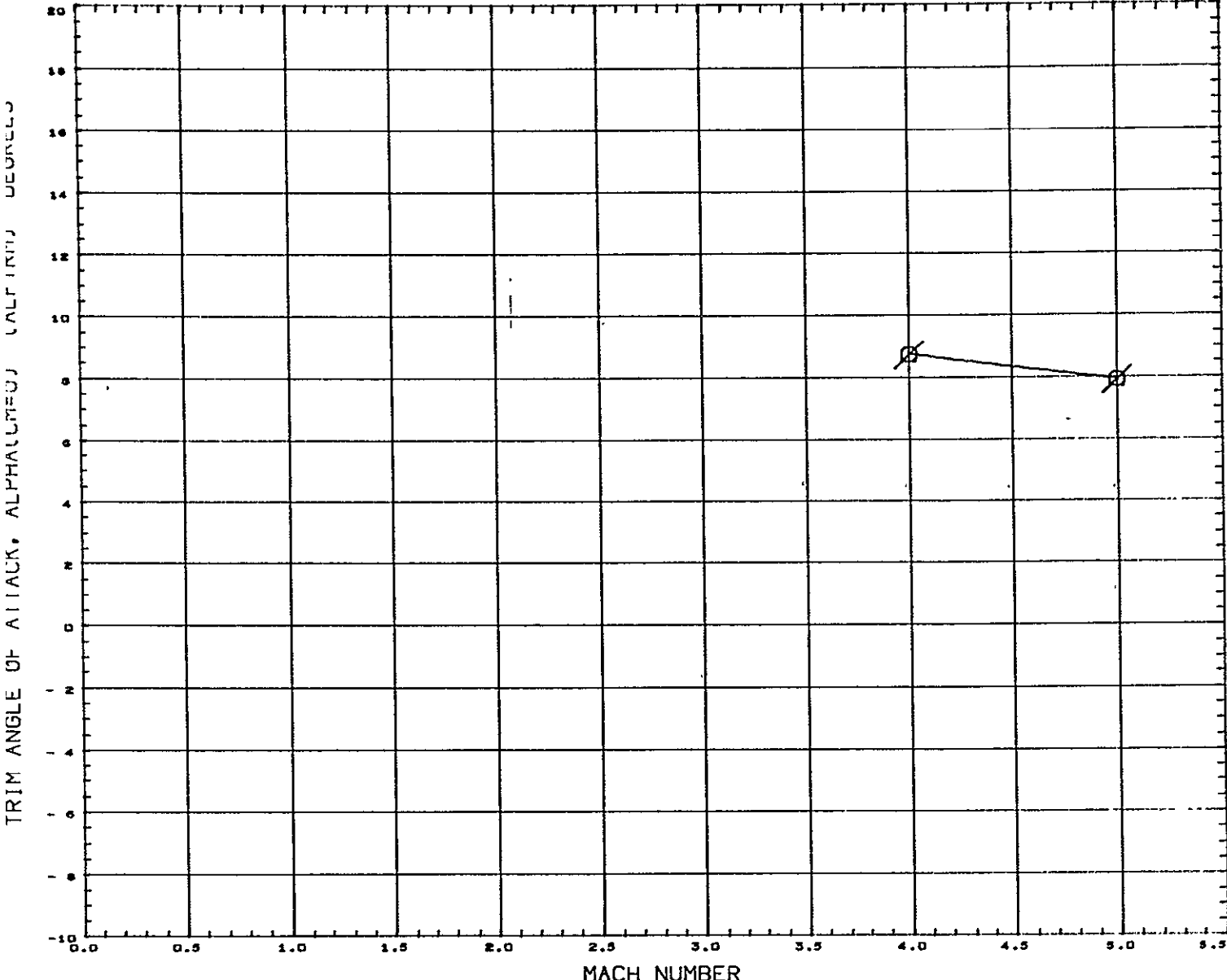


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	- 45.000
DCR	- 45.000	ELEVON	0.000
CANARD	- 45.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EIF

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES

BETA	0.000	DEL	0.000
DER	0.000	DCL	- 30.000
DCR	30.000	ELEVON	0.000
CANARD	- 30.000	AILRON	0.000

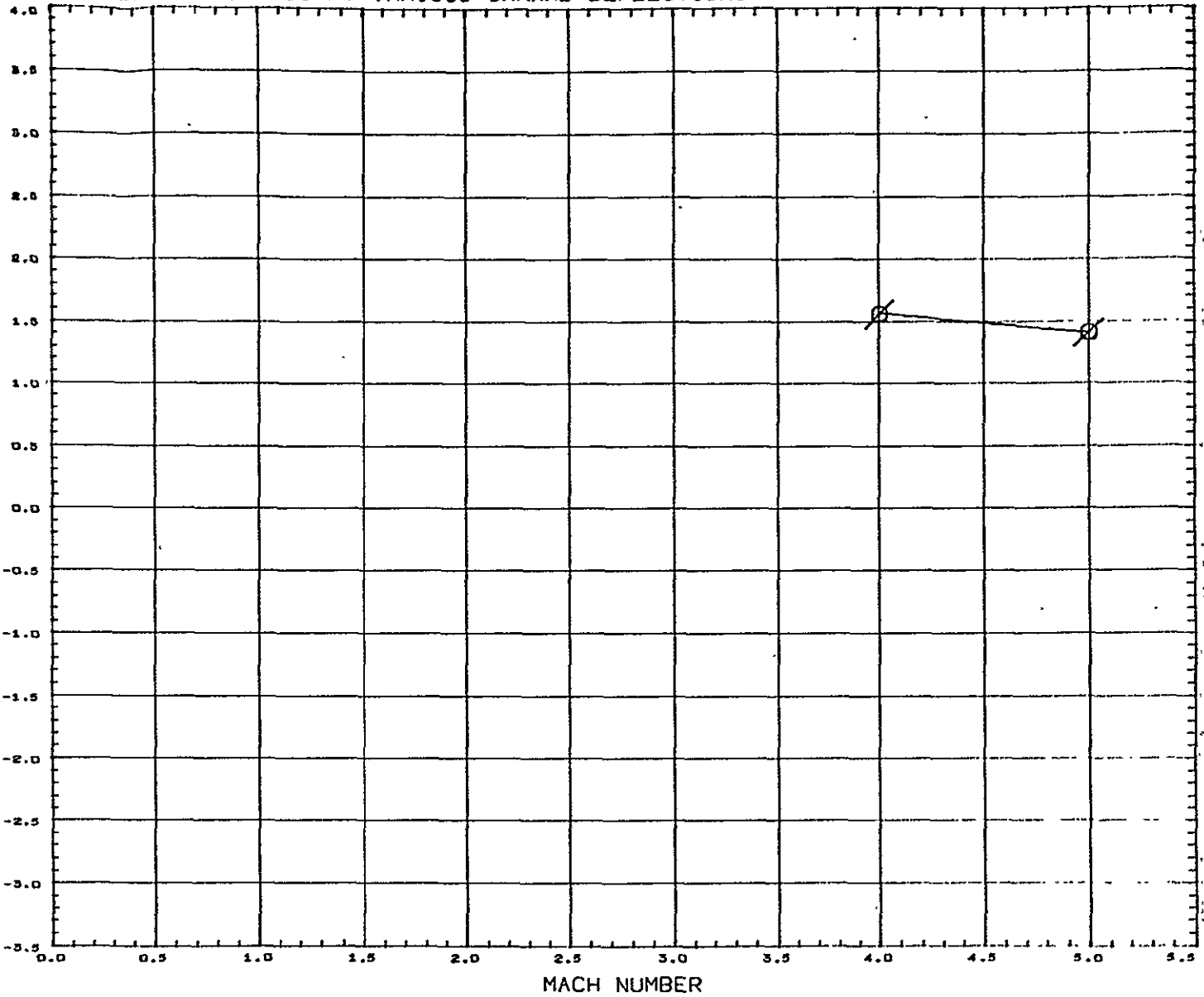
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REFERENCE INFORMATION

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LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

TRIM LIFT-DRAG RATIO, L/D(CM=0) (L/DTRM)

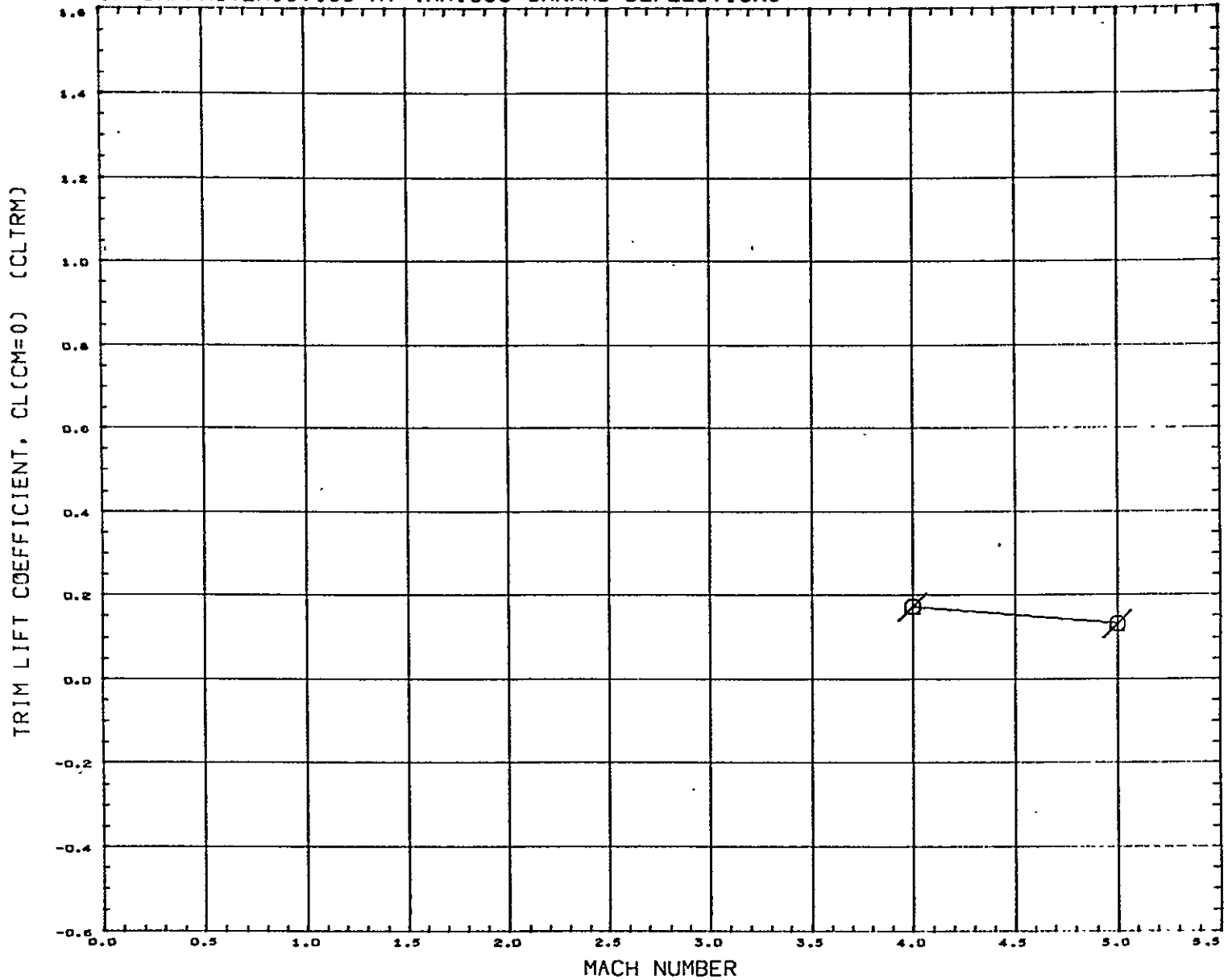


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	- 30.000
DCR	30.000	ELEVON	0.000
CANARD	- 30.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#GIF

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES

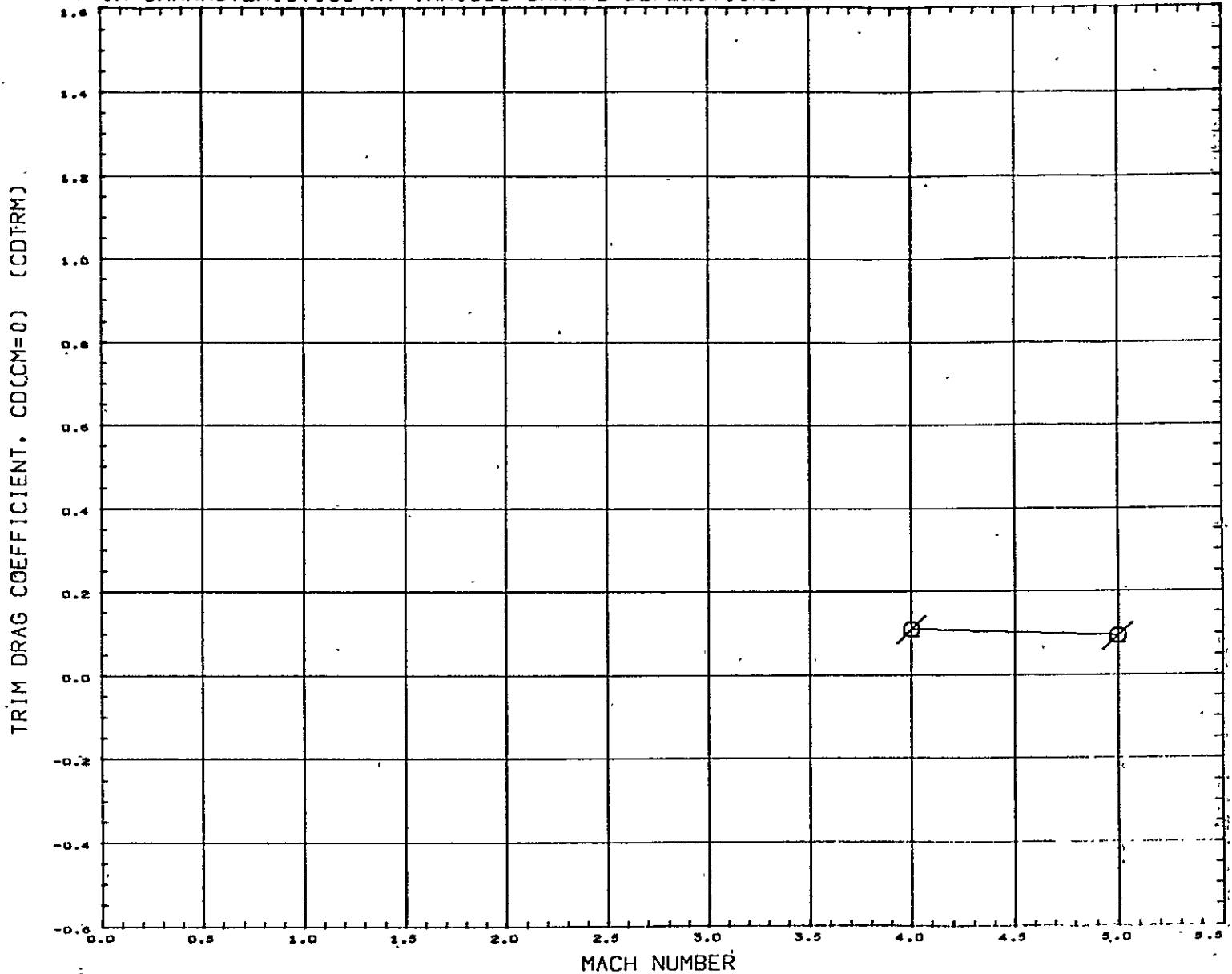
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DER	0.000	DCL	- 30.000
DCR	30.000	ELEVON	0.000
CANARD	- 30.000	AILRON	0.000

DATA HIST. CODE MVR*E*GIF

REFERENCE INFORMATION

SREF	15.6500	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES

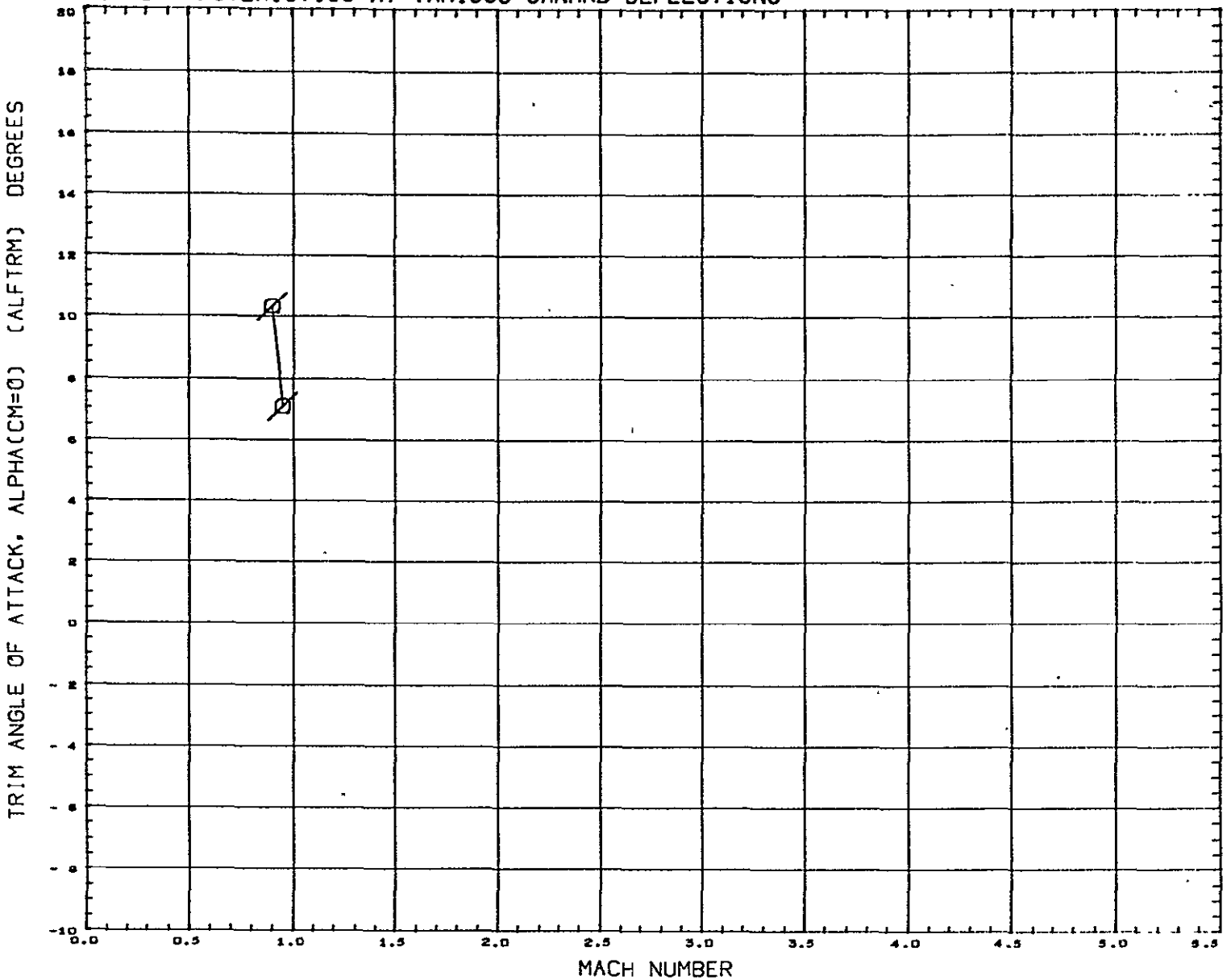
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DER	0.000	DCL	- 30.000
DCR	30.000	ELEVON	0.000
CANARD	- 30.000	AILRON	0.000

DATA HIST. CODE MVR*E*GIF

REFERENCE INFORMATION

SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

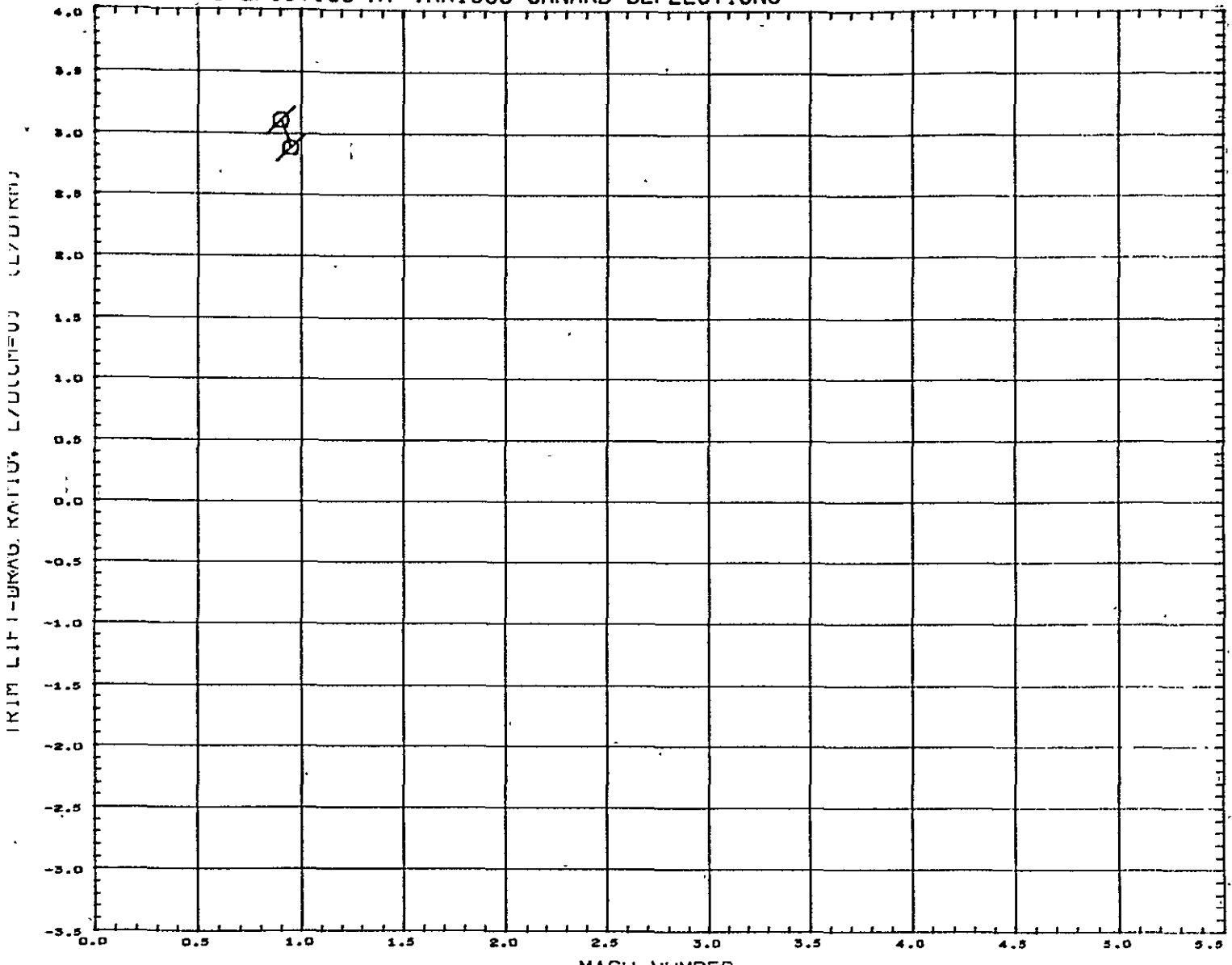


PARAMETRIC VALUES			
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DER	0.000	DCL	0.000
DCR	0.000	ELEVON	0.000
CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#GIF

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

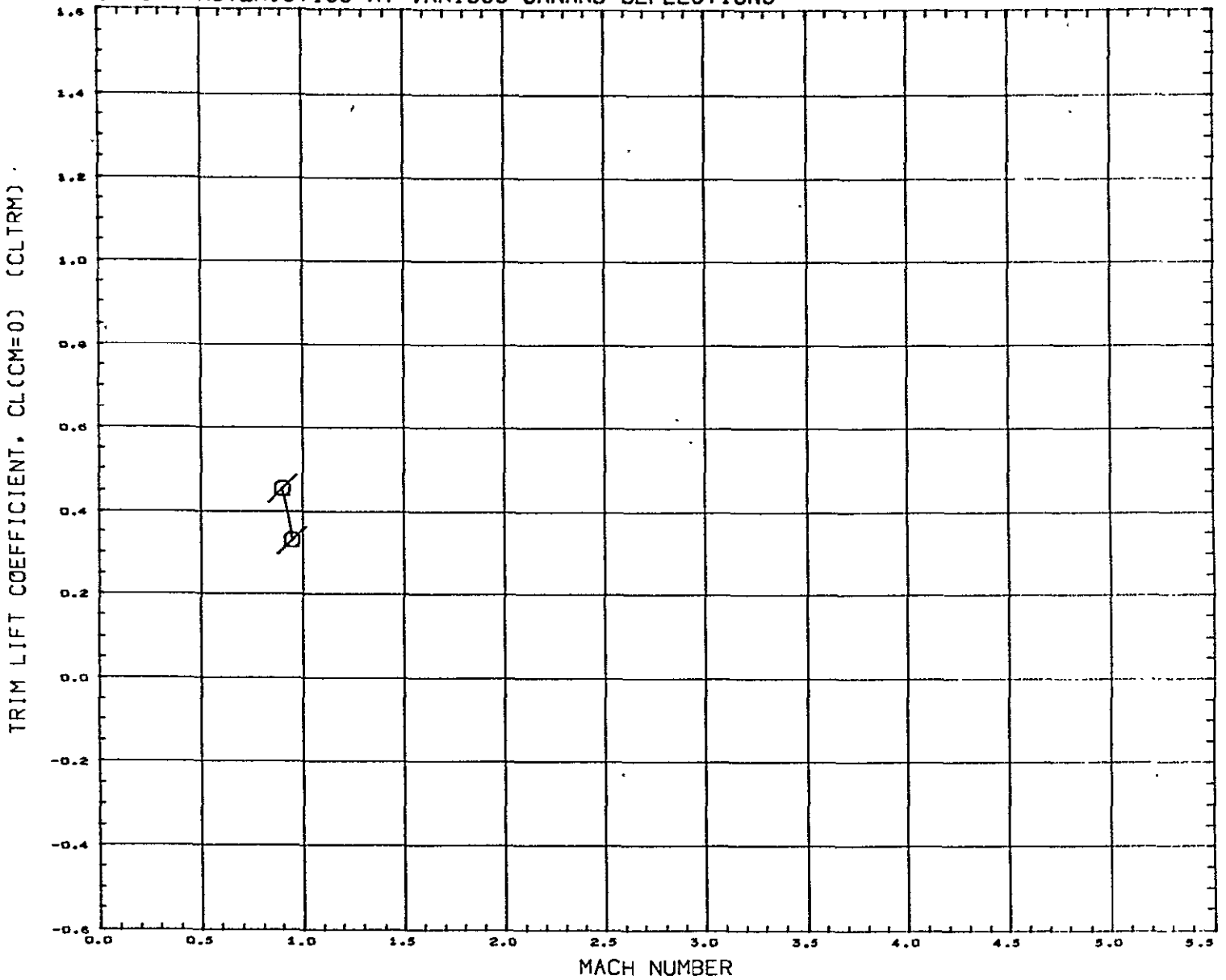


PARAMETRIC VALUES			
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DER	0.000	DCL	0.000
DCR	0.000	ELEVON	0.000
CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E*GIF

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

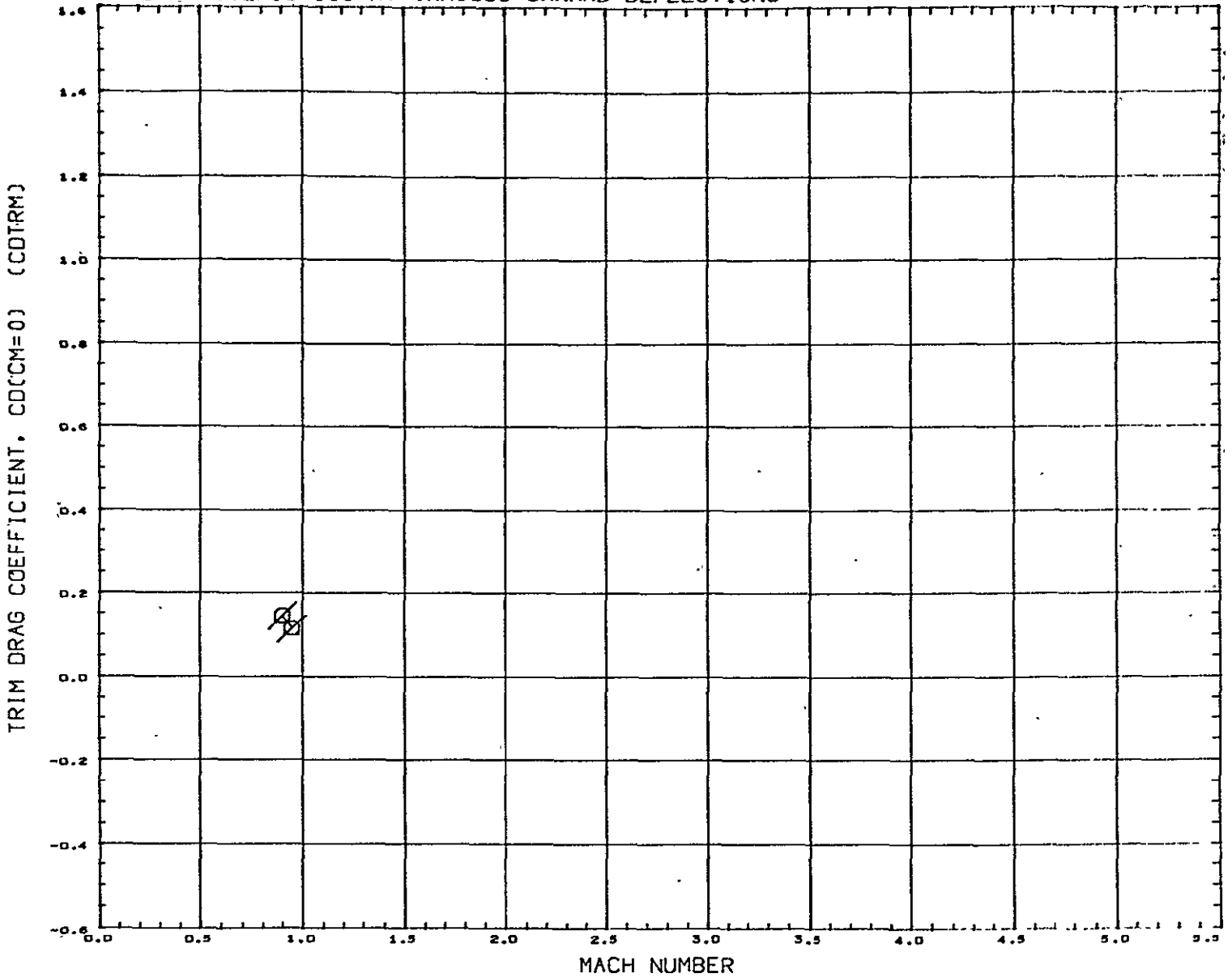


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	0.000
OCR	0.000	ELEVON	0.000
CANARD	0.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E#GIF

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

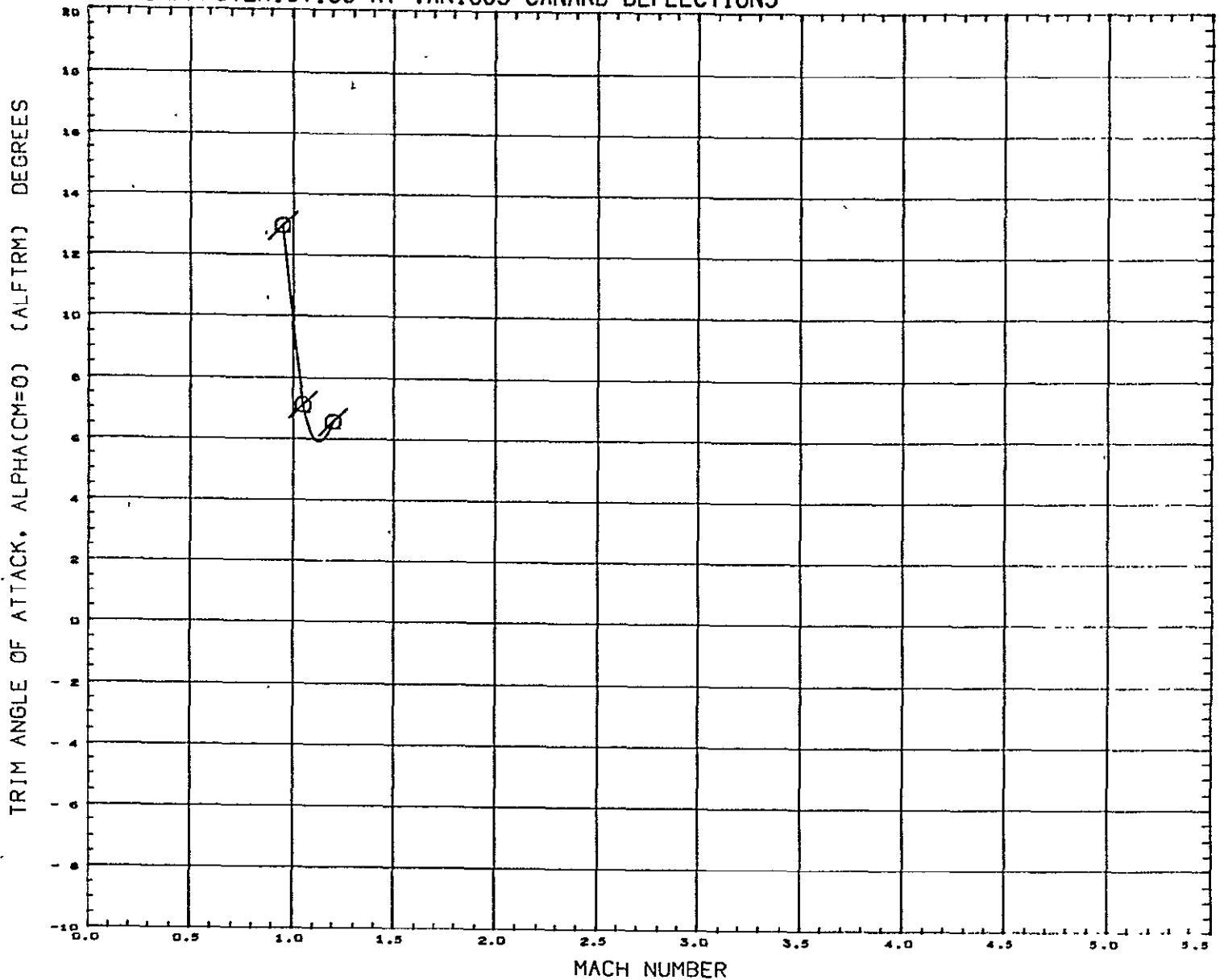


PARAMETRIC VALUES			
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DER	0.000	DCL	0.000
DCR	0.000	ELEVON	0.000
CANARD	0.000	AILRON	0.000

DATA HIST. CODE MVR#*G1F

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0055	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS

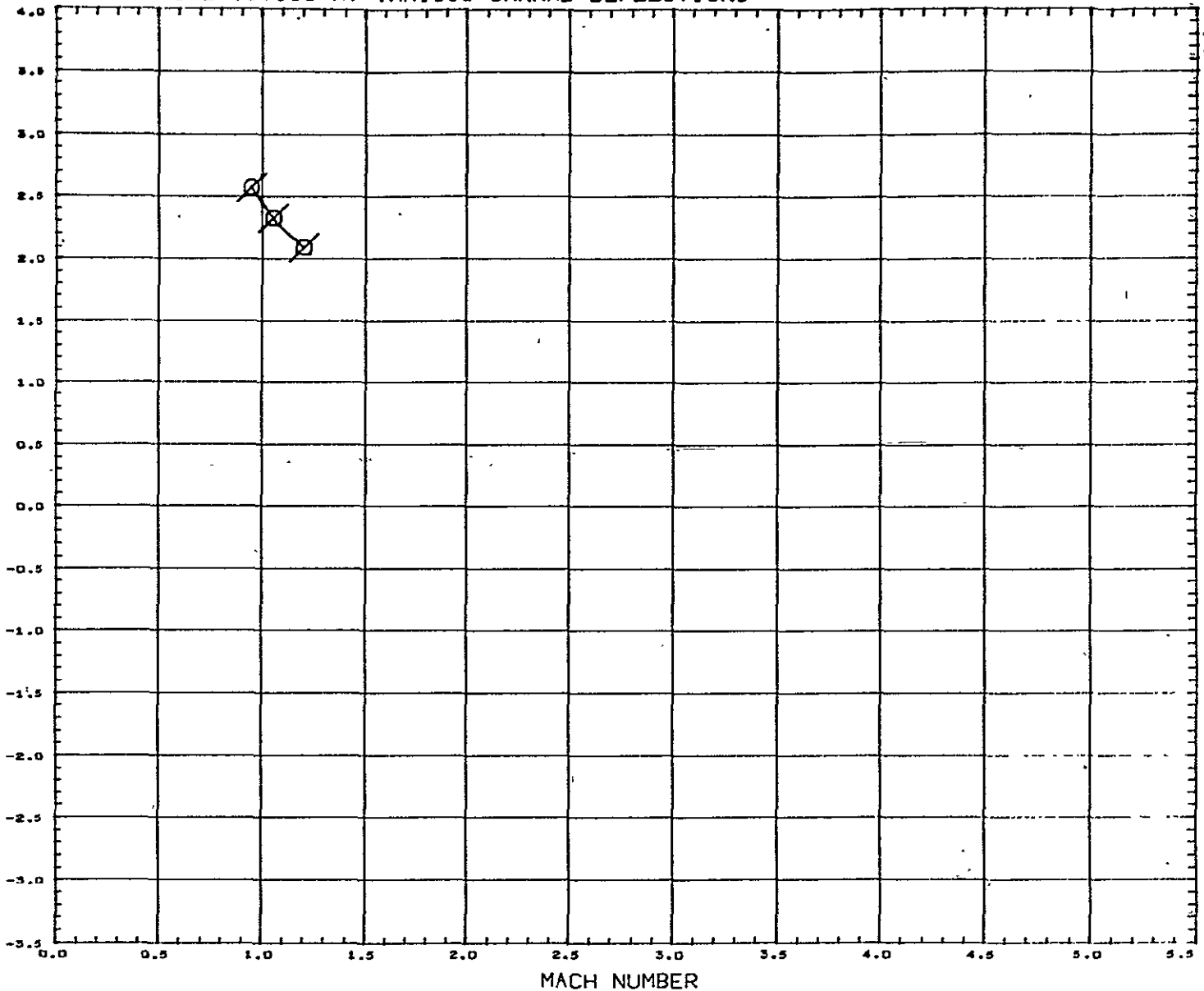


PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	15.000
DCR	15.000	ELEVON	0.000
CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E9GIF

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES

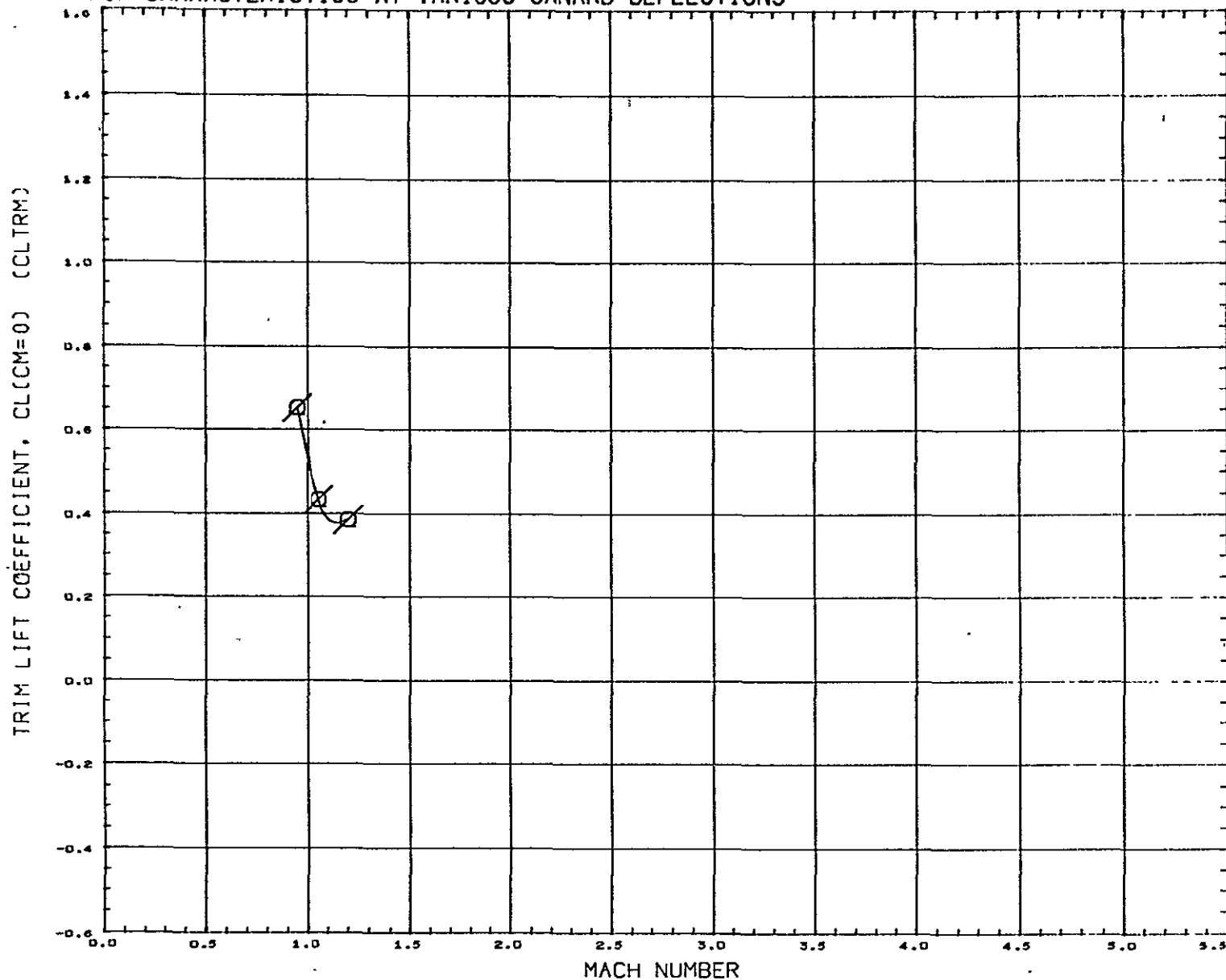
BETA	0.000	DEL	0.000
DER	0.000	DCL	15.000
DCR	15.000	ELEVON	0.000
CANARD	15.000	AILRON	0.000

DATA HIST. CODE MVR#E*GIF

REFERENCE INFORMATION

SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES

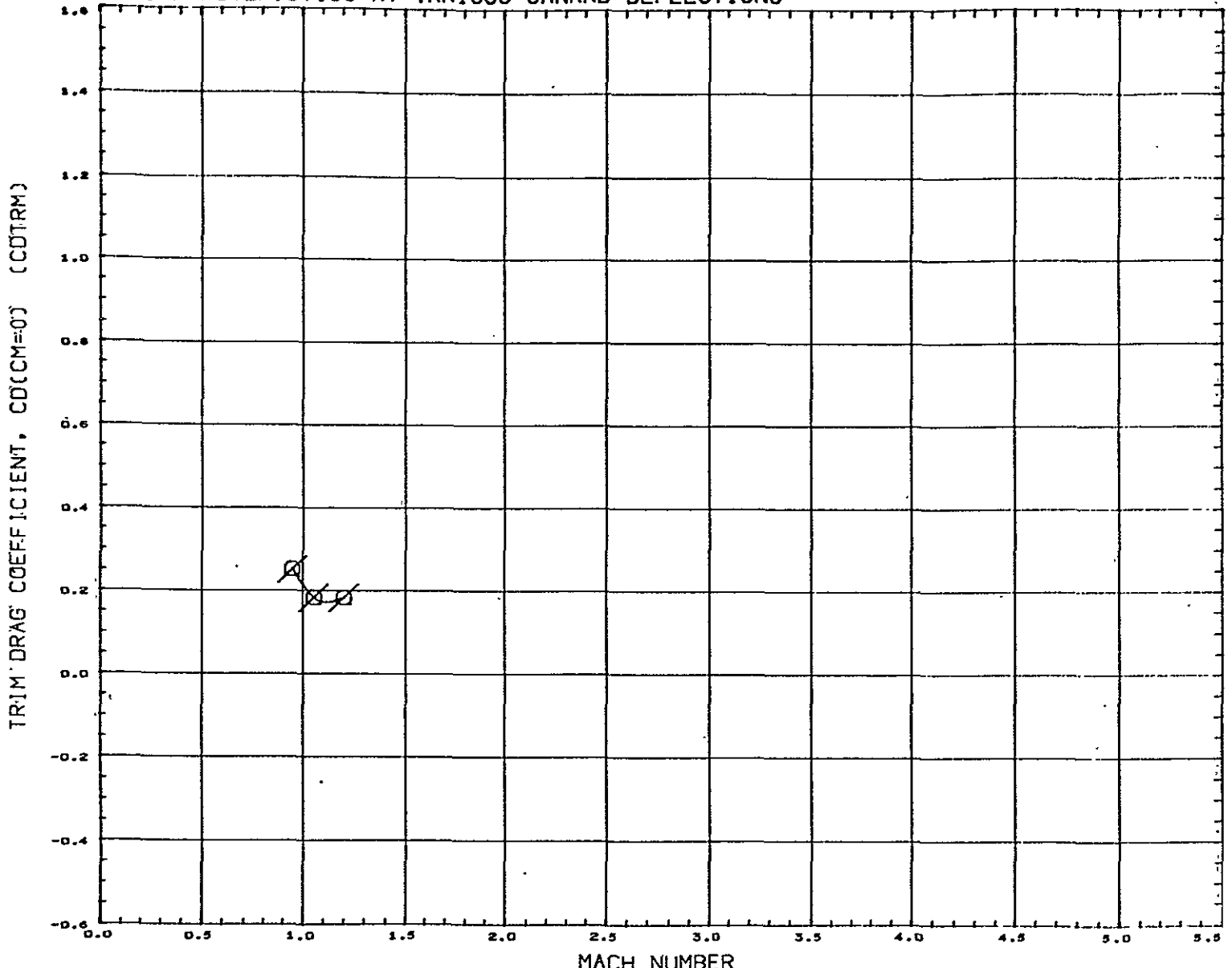
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DER	0.000	DCL	15.000
DCR	15.000	ELEVON	0.000
CANARD	15.000	AILRON	0.000

DATA HIST. CODE HVR*E%GIF

REFERENCE INFORMATION

SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

TRIM CHARACTERISTICS AT VARIOUS CANARD DEFLECTIONS



PARAMETRIC VALUES			
BETA	0.000	DEL	0.000
DER	0.000	DCL	15.000
DCR	15.000	ELEVON	0.000
CANARD	15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E#GIF

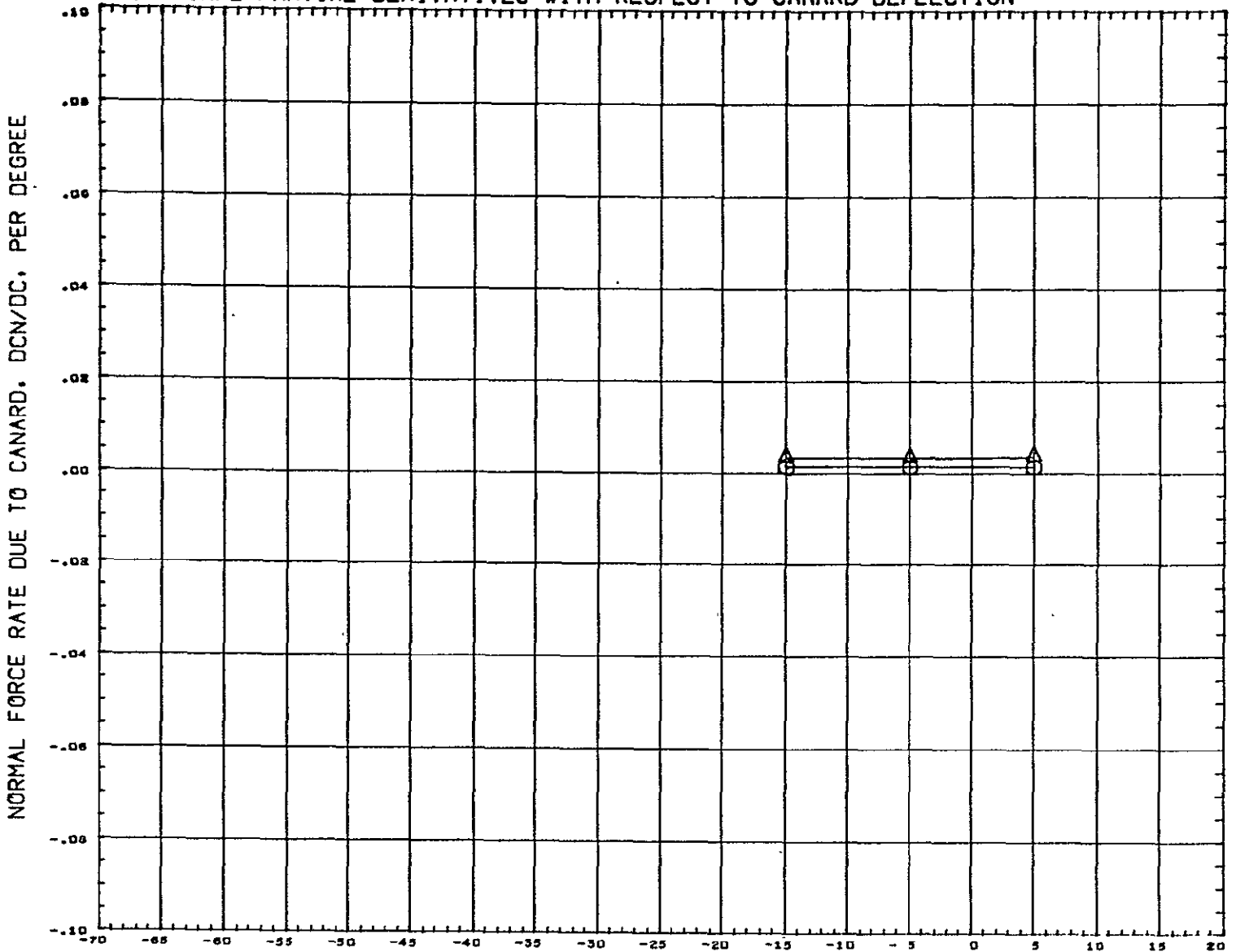
MSFC 481 GD/C BOOSTER B19W14C4AB7

(E28011) 01 NOV 71

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15 ⊕

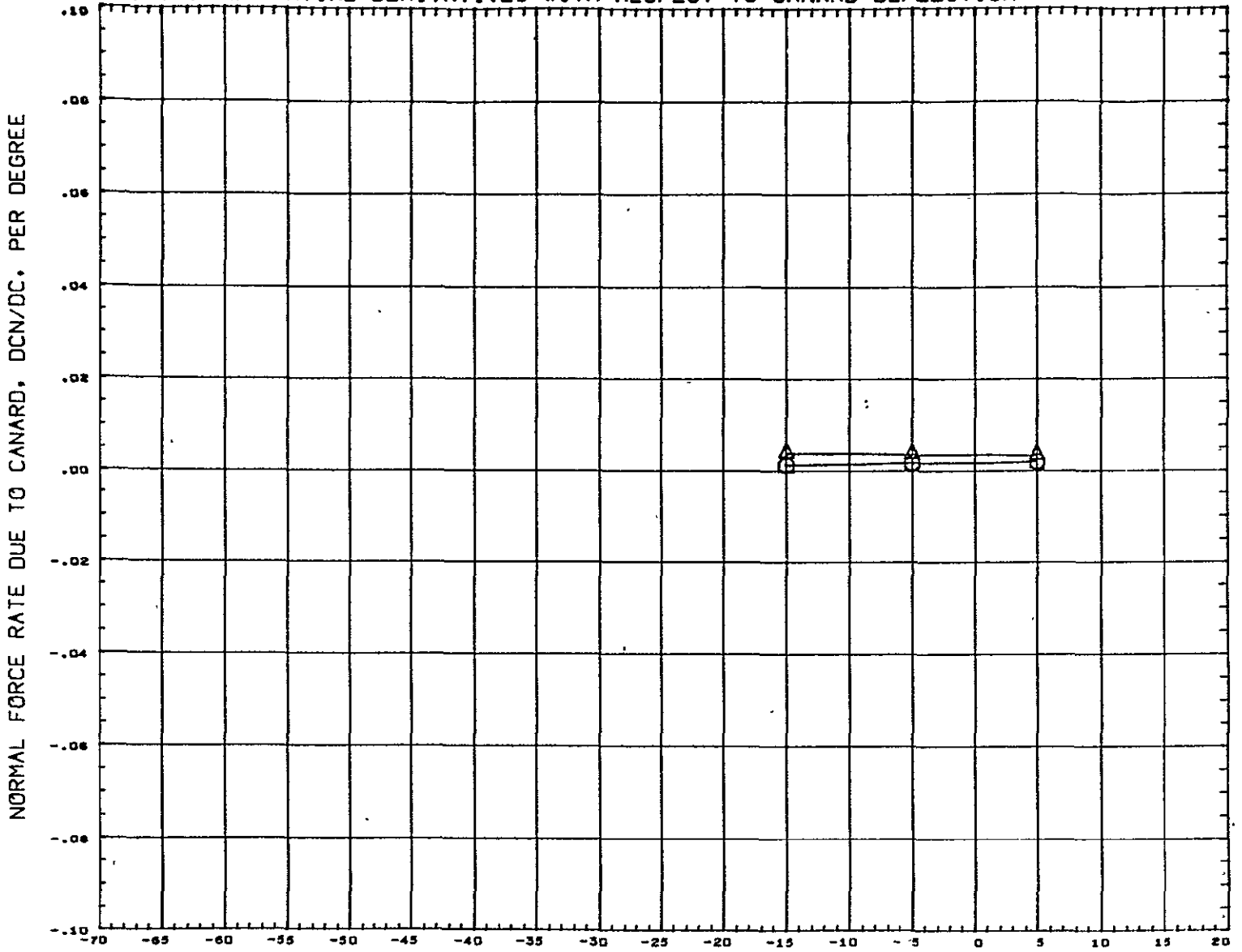
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION		
∅	10.000	0.900	BETA	0.000	0.000	0.000	SREF	15.6560	30. IN.
∅	20.000	DEL	0.000	DER	0.000	0.000	LREF	5.0950	IN.
		ELEVON	0.000	AILRON	0.000	0.000	BREF	6.0990	IN.
							XMRP	6.7100	IN.
							YMRP	0.0000	IN.
							ZMRP	0.0000	IN.
							SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

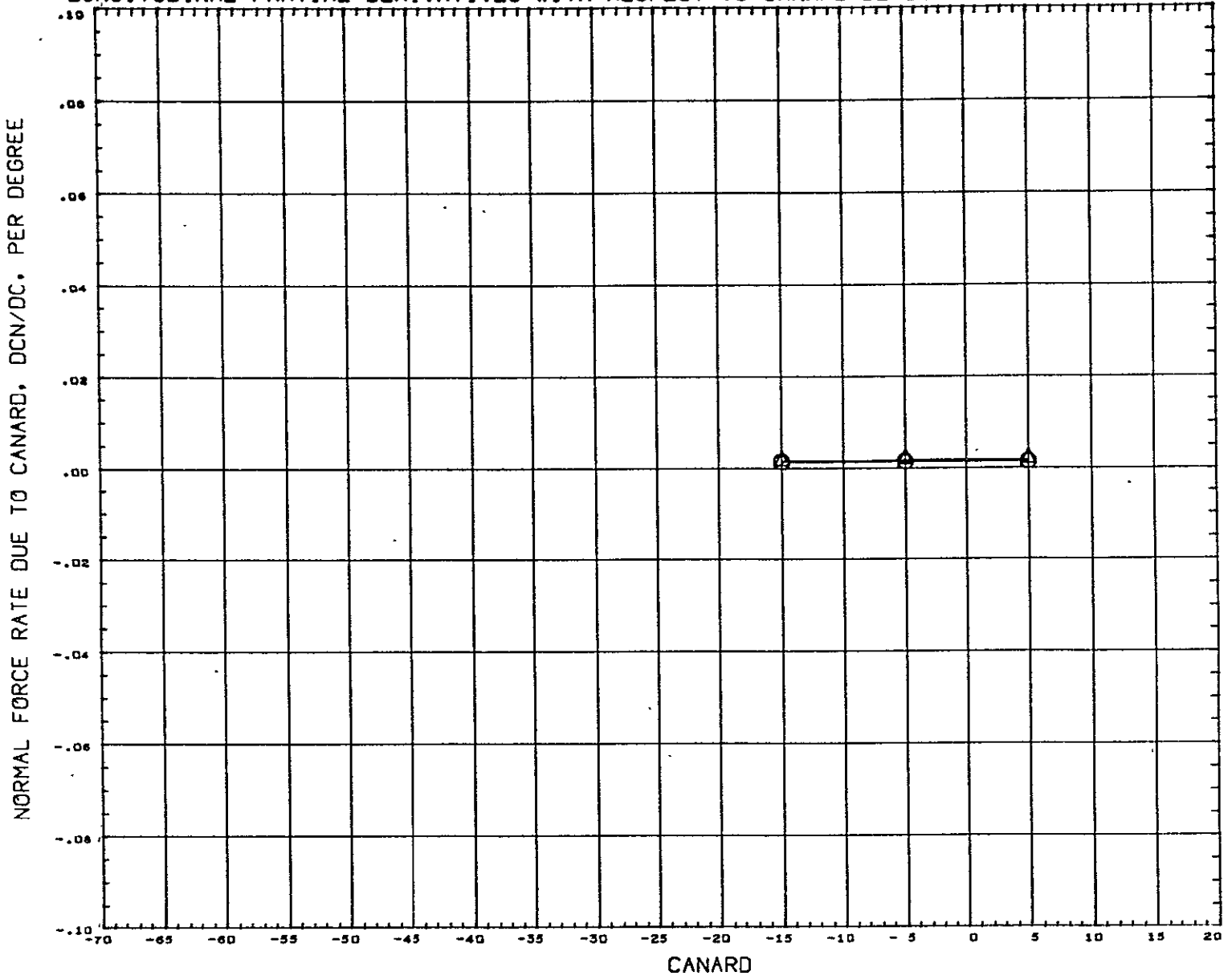
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL		PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
○	ALPHA	10.000	MACH	0.950	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	30. IN.
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0990	IN.	
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.	
										XMRP	6.7100	IN.	
										YMRP	0.0000	IN.	
										ZMRP	0.0000	IN.	
										SCALE	0.0035		

DATA HIST. CODE MVR*E1*H*P

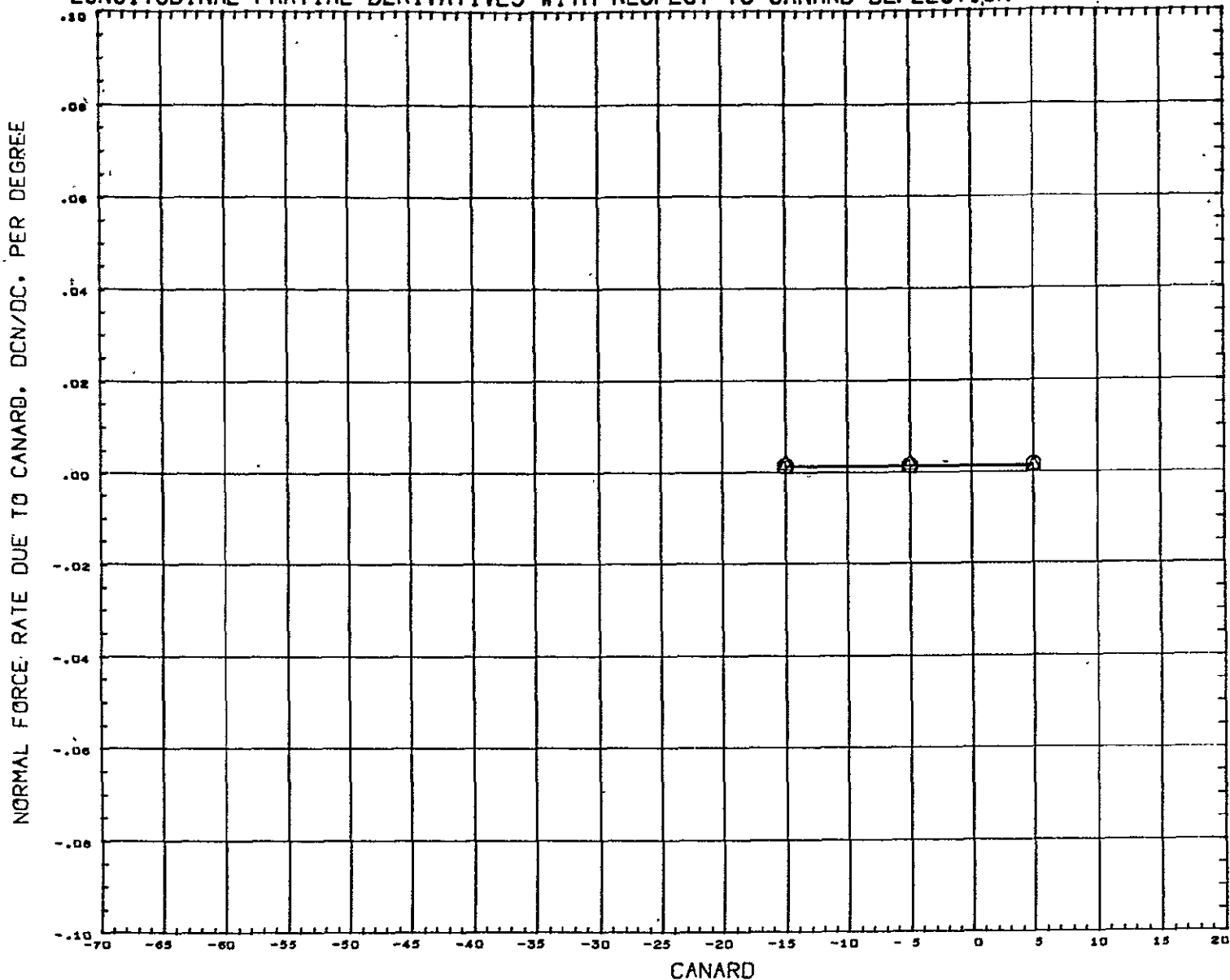
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
△	10.000	<u>MACH</u>	1.050	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ. IN.
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*E1#*P

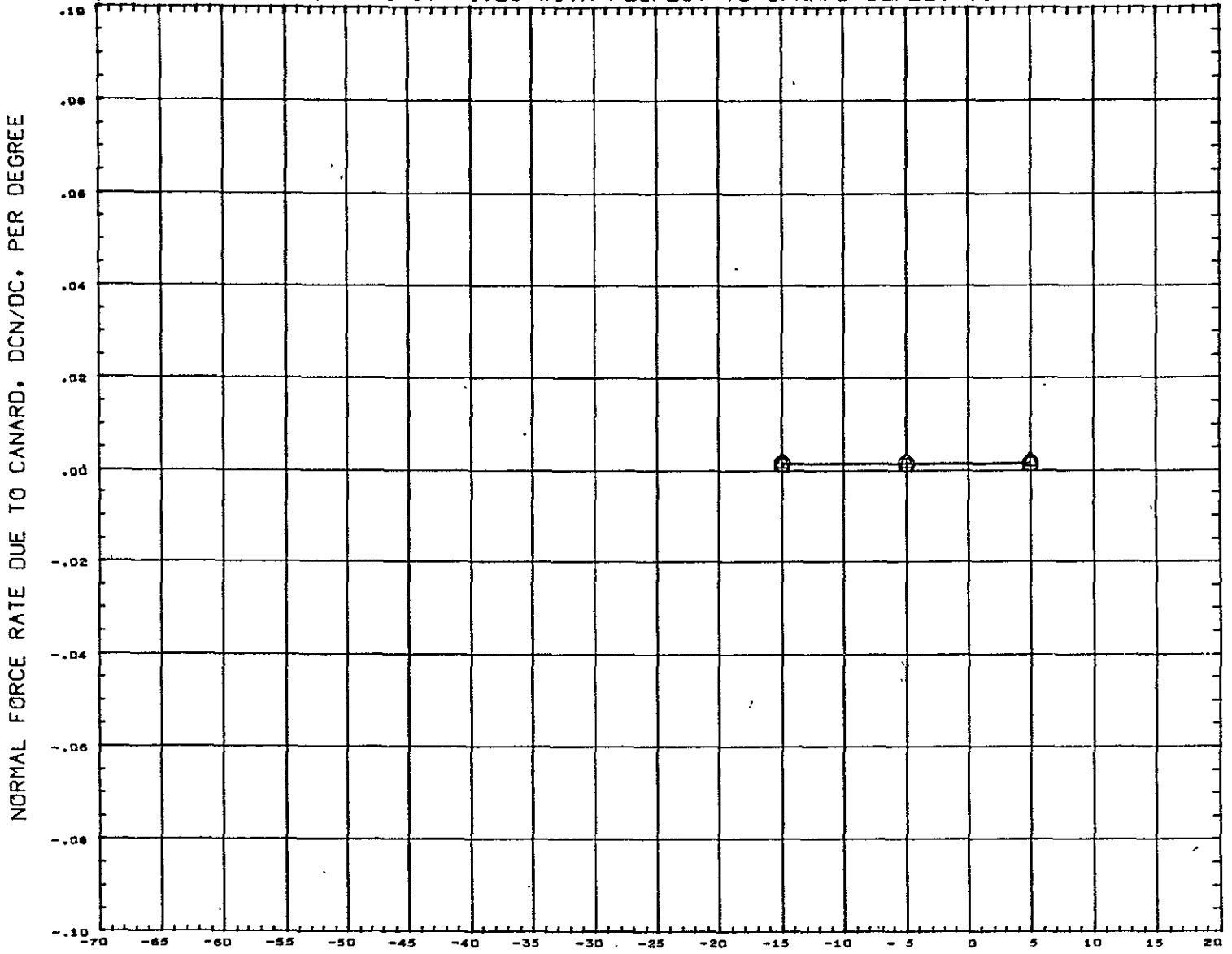
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
∅	10.000	20.000	1.200	0.000	028109	- 15.000	028110	- 5.000	15.6560	3.0950	IN.
		DEL	0.000	0.000	028111	5.000			6.0990	6.7100	IN.
		ELEVON	0.000	AILRON	0.000				0.0000	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR#EI*H*P

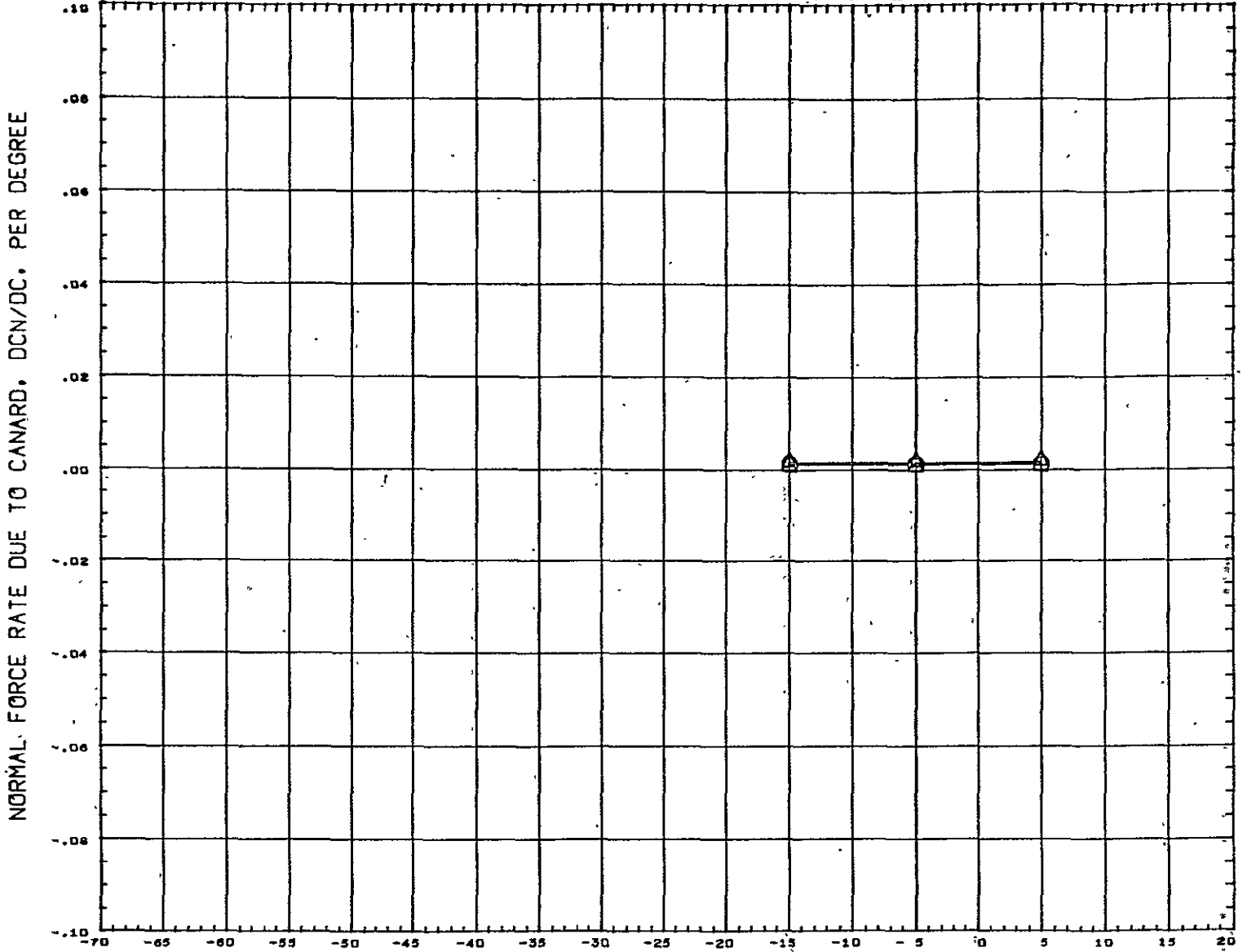
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
O △	10.000	<u>MACH</u>	1.500	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ.IN.	
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.	
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.	
										XMRP	6.7100	IN.	
										YMRP	0.0000	IN.	
										ZMRP	0.0000	IN.	
										SCALE	0.0035		

DATA HIST. CODE MVR#E1#H#P

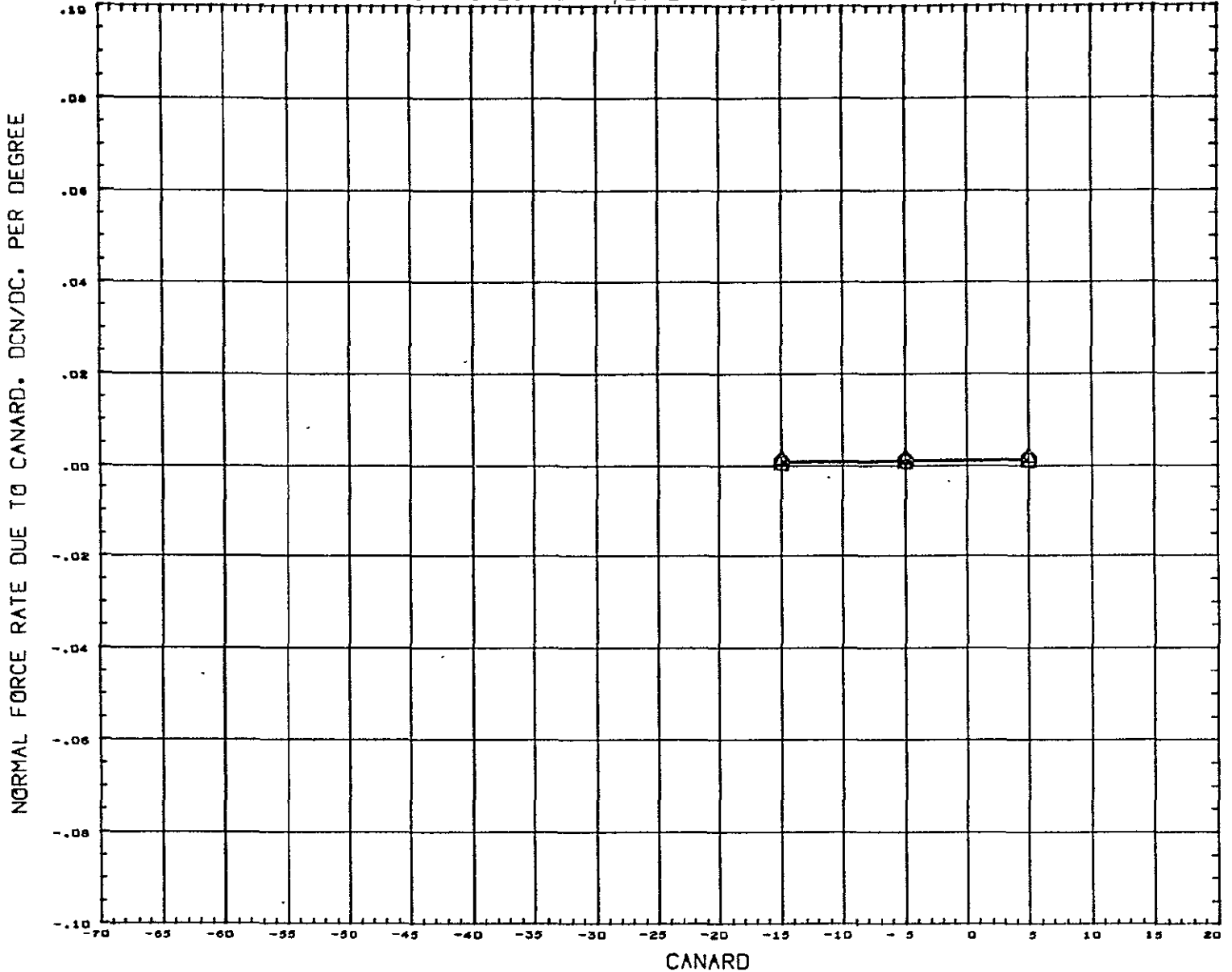
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION											
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	SQ. IN.	LREF	IN.	BREF	IN.	XMRP	IN.	ZMRP	IN.	SCALE	
○	10.000	2.000	0.000	0.000	028109	-15.000	028110	-5.000	15.6560	SQ. IN.	3.0950	IN.	6.0990	IN.	6.7100	IN.	0.0000	IN.	0.0000	IN.	0.0035
△	20.000	0.000	0.000	0.000	028111	5.000															

DATA HIST. CODE HVR*EI*H*P

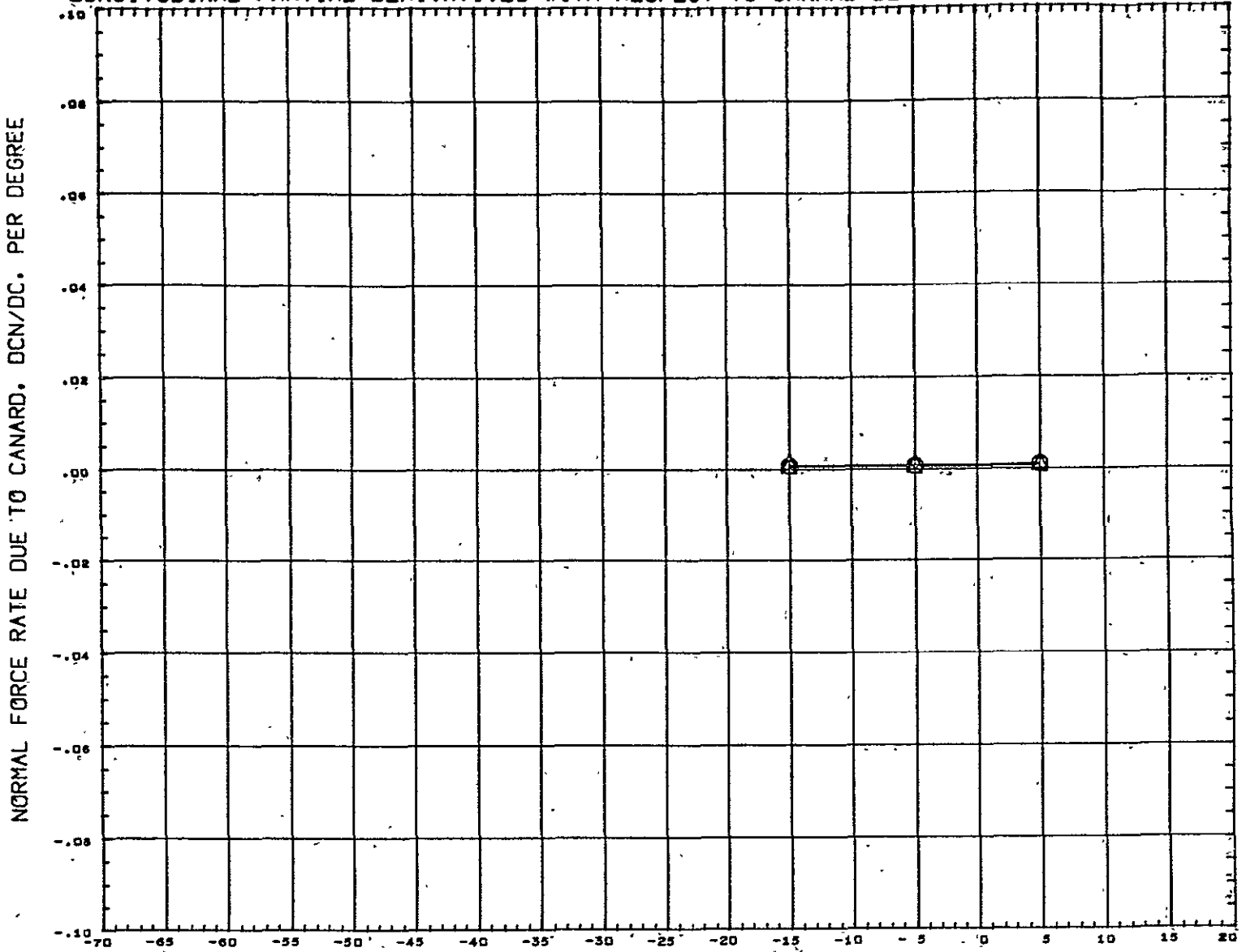
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	BETA	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
○	10.000	3.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	IN.	
△	20.000	DEL	0.000	DER	028111	5.000			3.0950	IN.	
		ELEVON	0.000	AILRON					6.0990	IN.	
									6.7100	IN.	
									0.0000	IN.	
									0.0000	IN.	
									0.0035	IN.	

DATA HIST. CODE MVR#E1#H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

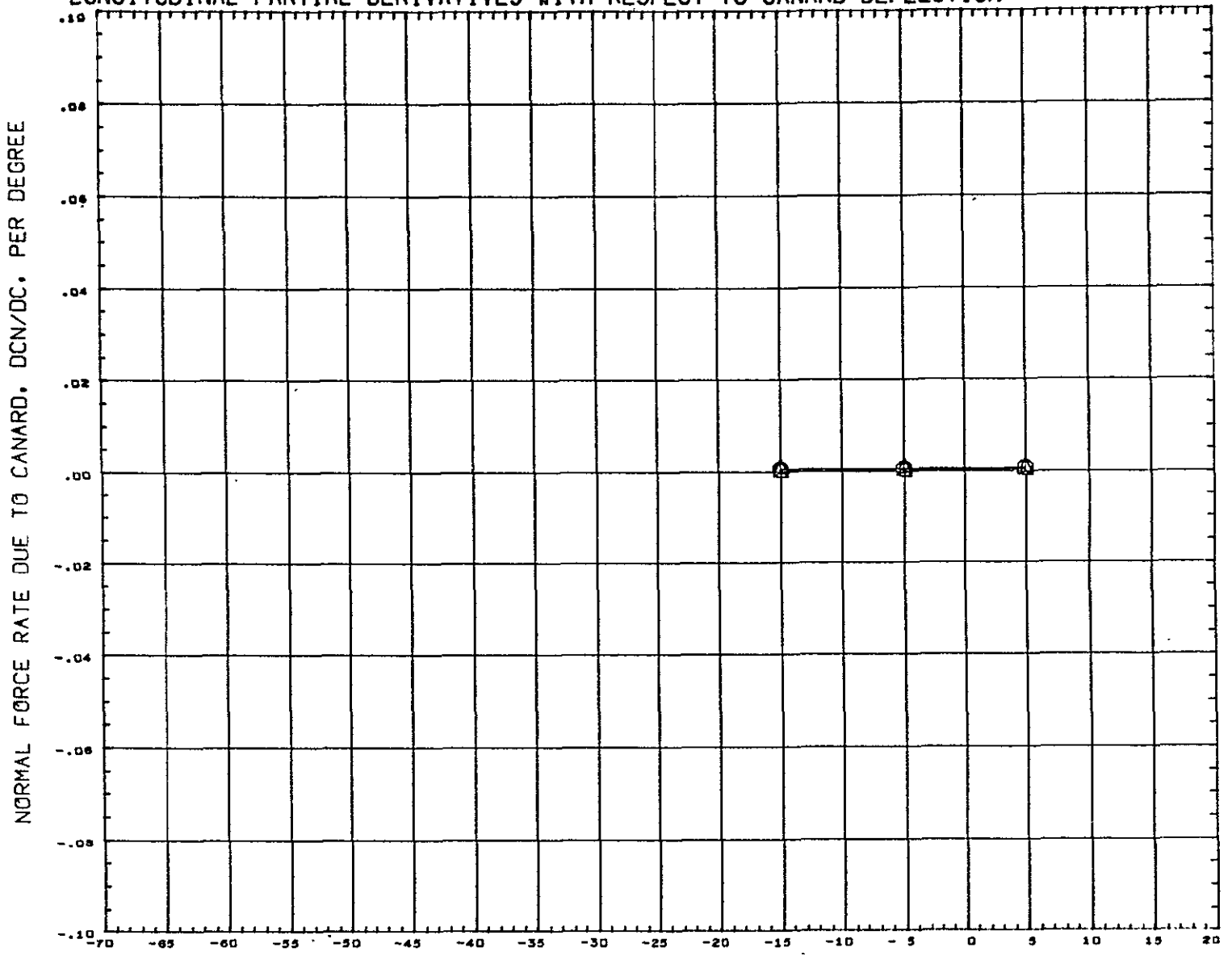


CANARD

SYMBOL	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BETA	BETA	DATASET	CANARD	DATASET	CANARD	SREF	SQ. IN.
○	10.000	4.000	0.000	0.000	O28109	- 15.000	O28110	5.000	15.6560	59. IN.
△	20.000	DEL	0.000	DER	O28111	5.000			3.0950	IN.
		ELEVON	0.000	AILRON					6.0990	IN.
									6.7100	IN.
									0.0000	IN.
									0.0000	IN.
									0.0035	

DATA HIST. CODE MVR*EI*H*P

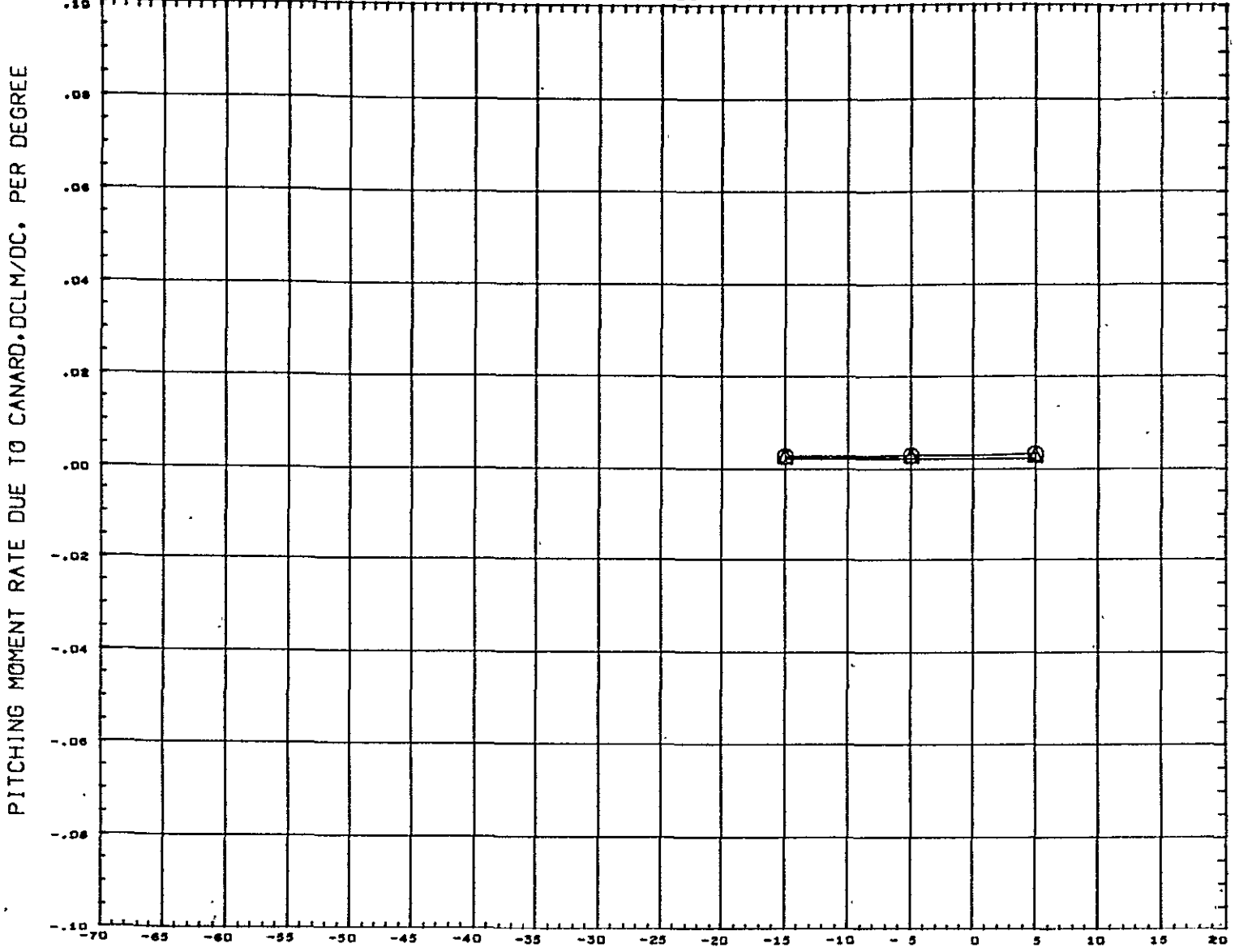
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
○		10.000	MACH	5.000	BETA	0.000	DATASET	CANARD	SREF	15.6560	50. IN.
△		20.000	DEL	0.000	DER	0.000	028109	- 15.000	LREF	3.0950	IN.
			ELEVON	0.000	AILRON	0.000	028111	5.000	BREF	6.0990	IN.
									XHRP	6.7100	IN.
									YHRP	0.0000	IN.
									ZHRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR*E1#H#P

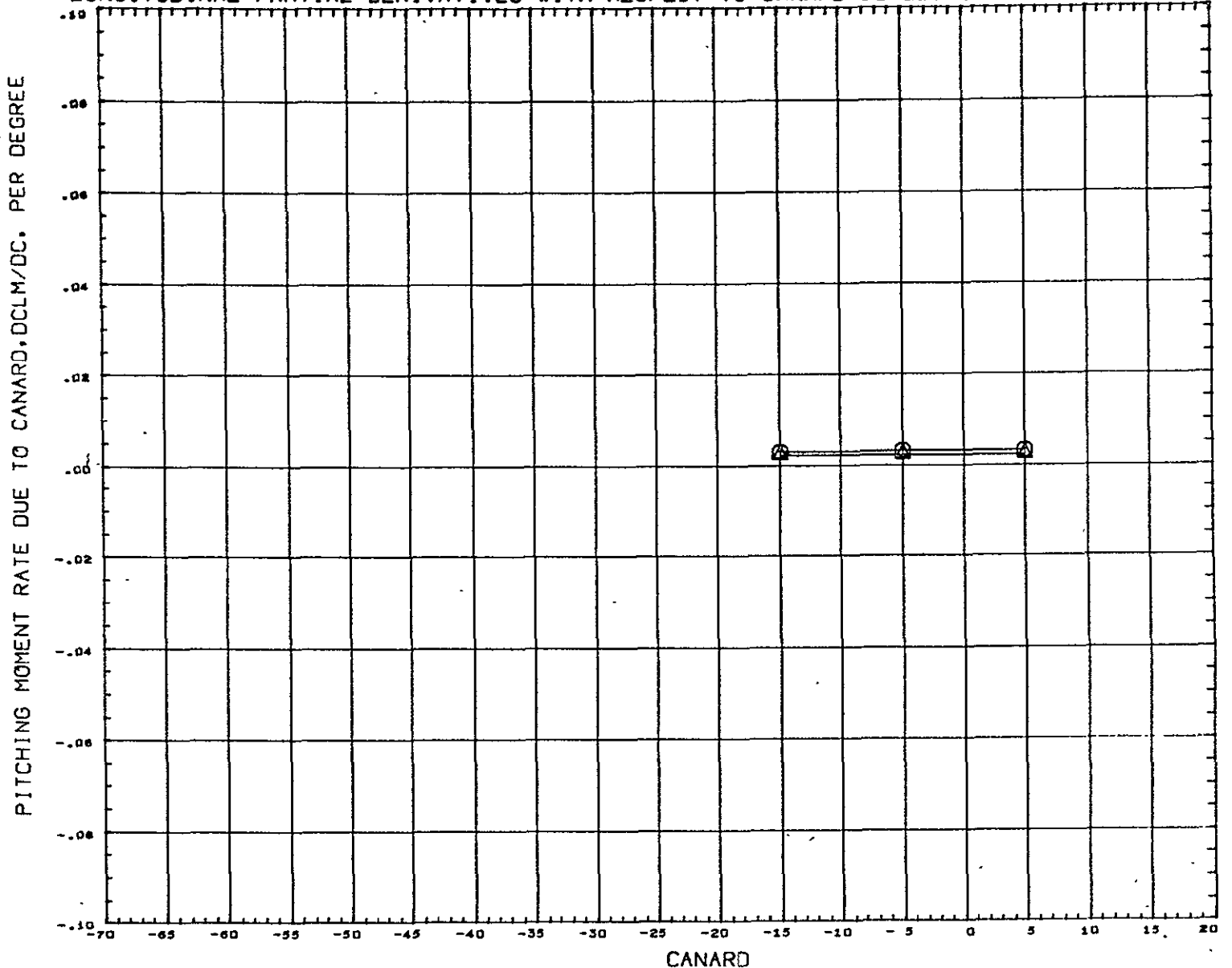
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION			
	ALPHA	MACH	BETA	DATASET	CANARD	SREF	IN.	
○	10.000	0.900	0.000	028109	- 15.000	15.6560	59. IN.	
△	20.000	0.000	0.000	028111	5.000	3.0950	IN.	
		DEL	DER			6.0990	IN.	
		ELEVON	AILRON			6.7100	IN.	
						XHRP	0.0000	IN.
						ZHRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE HVR*EI*H*P

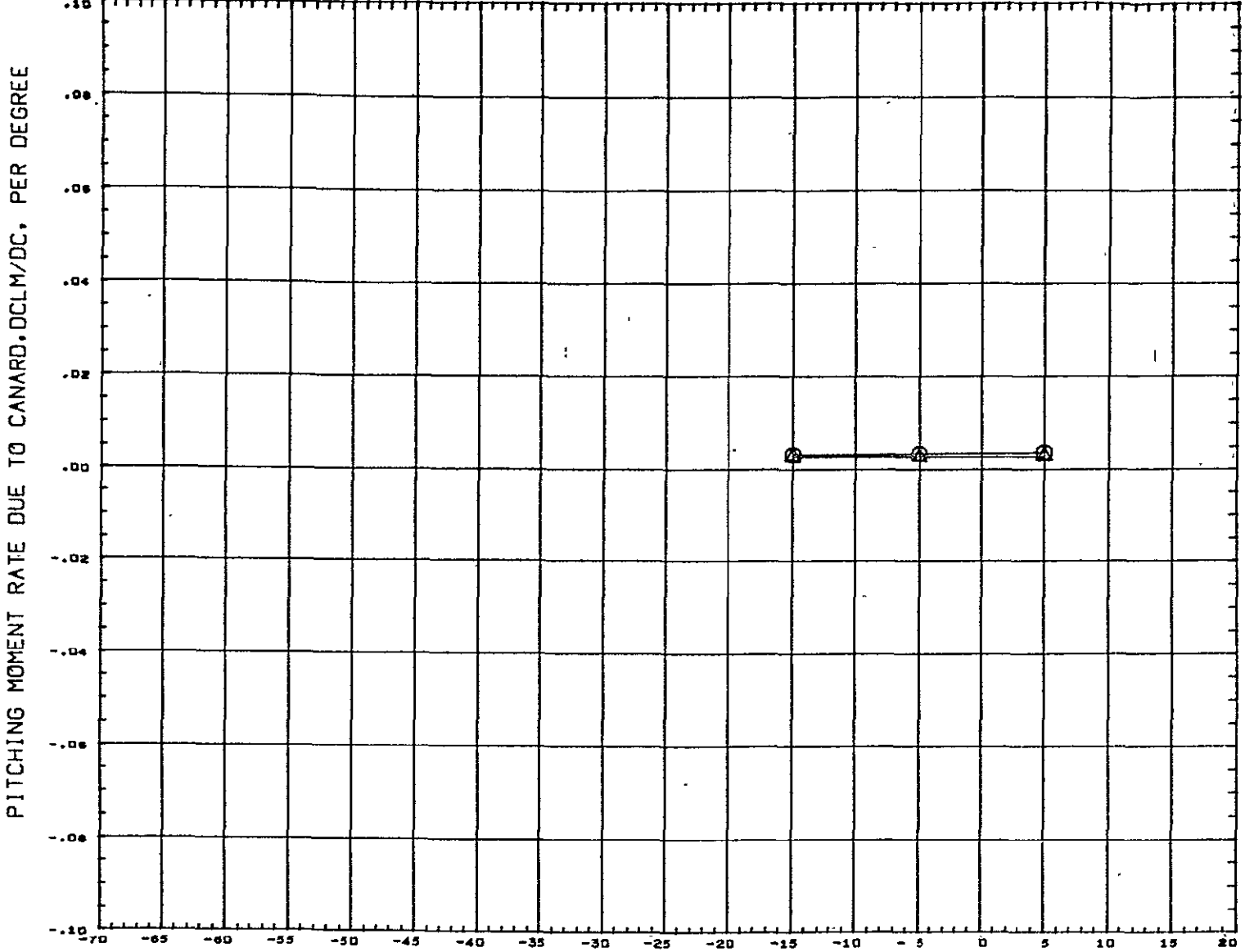
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.	
○	10.000	0.950	BETA	0.000	028109	- 15.000	028110	- 5.000	15.6560	3.0950	6.0990	
△	20.000	0.000	DEL	0.000	028111	5.000		6.7100	0.0000	0.0000	0.0035	
		0.000	ELEVON	0.000								

DATA HIST. CODE MVR*EI*H*P

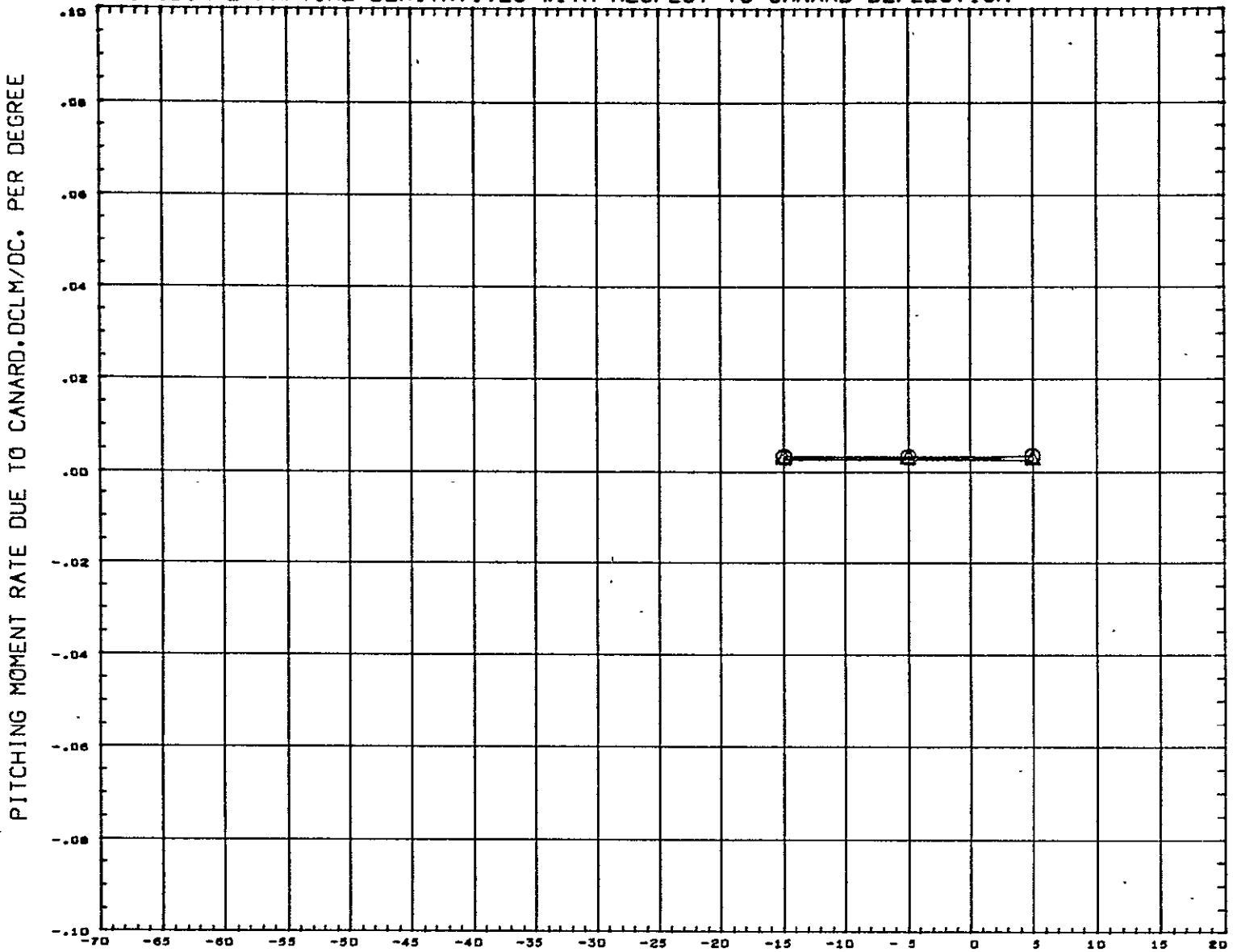
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL		ALPHA		PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	1.050	BETA	0.000	DATA SET	CANARD	SREF	15.6560	SQ. IN.
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000	BREF	6.0990	IN.
								XMRP	6.7100	IN.
								YMRP	0.0000	IN.
								ZMRP	0.0000	IN.
								SCALE	0.0035	

DATA HIST. CODE HVR*E1*H*P

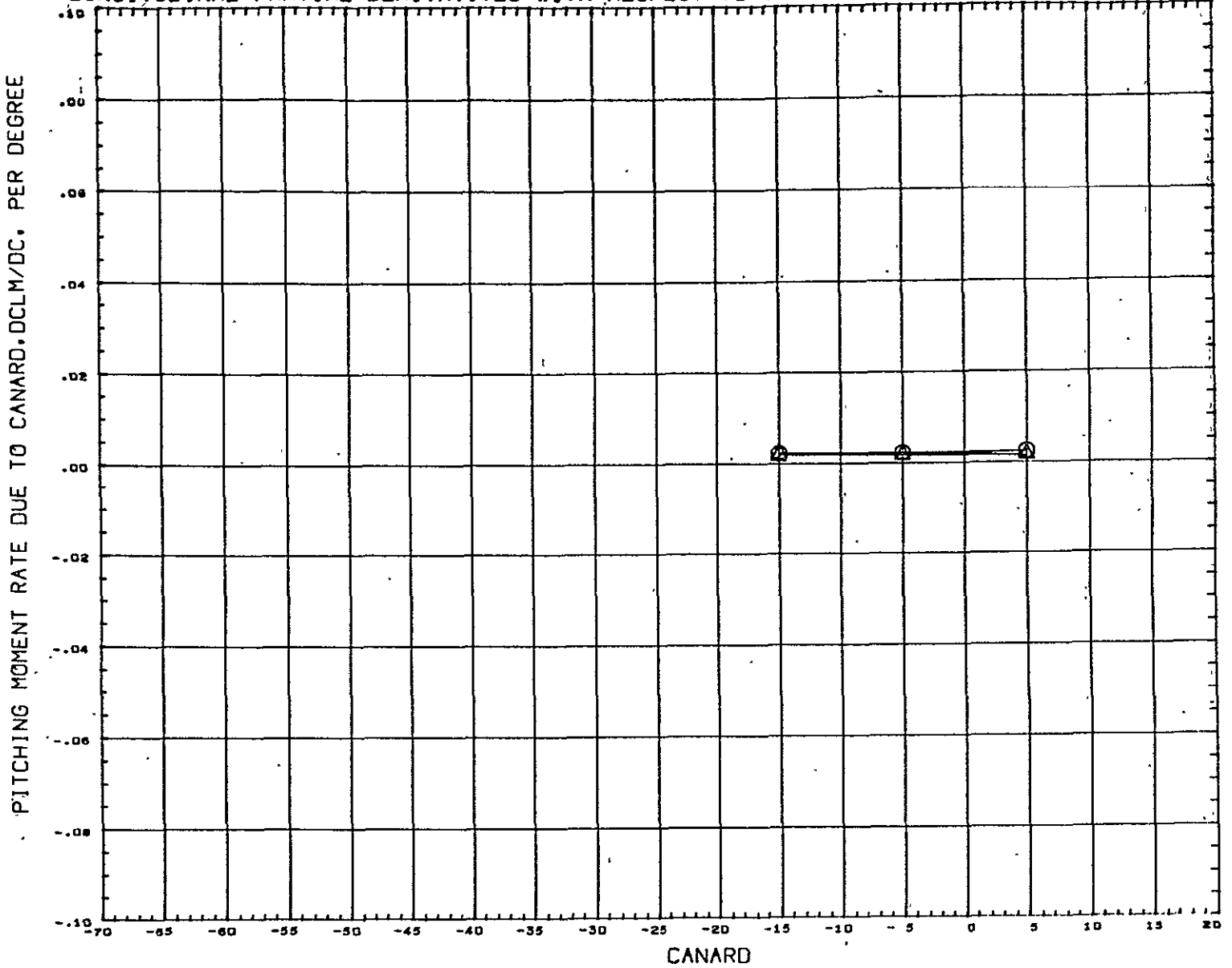
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



CANARD												
SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION			
△	10.000	MACH	1.200	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6960	30. IN.
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0039	

DATA HIST. CODE MVR#E1#H#P

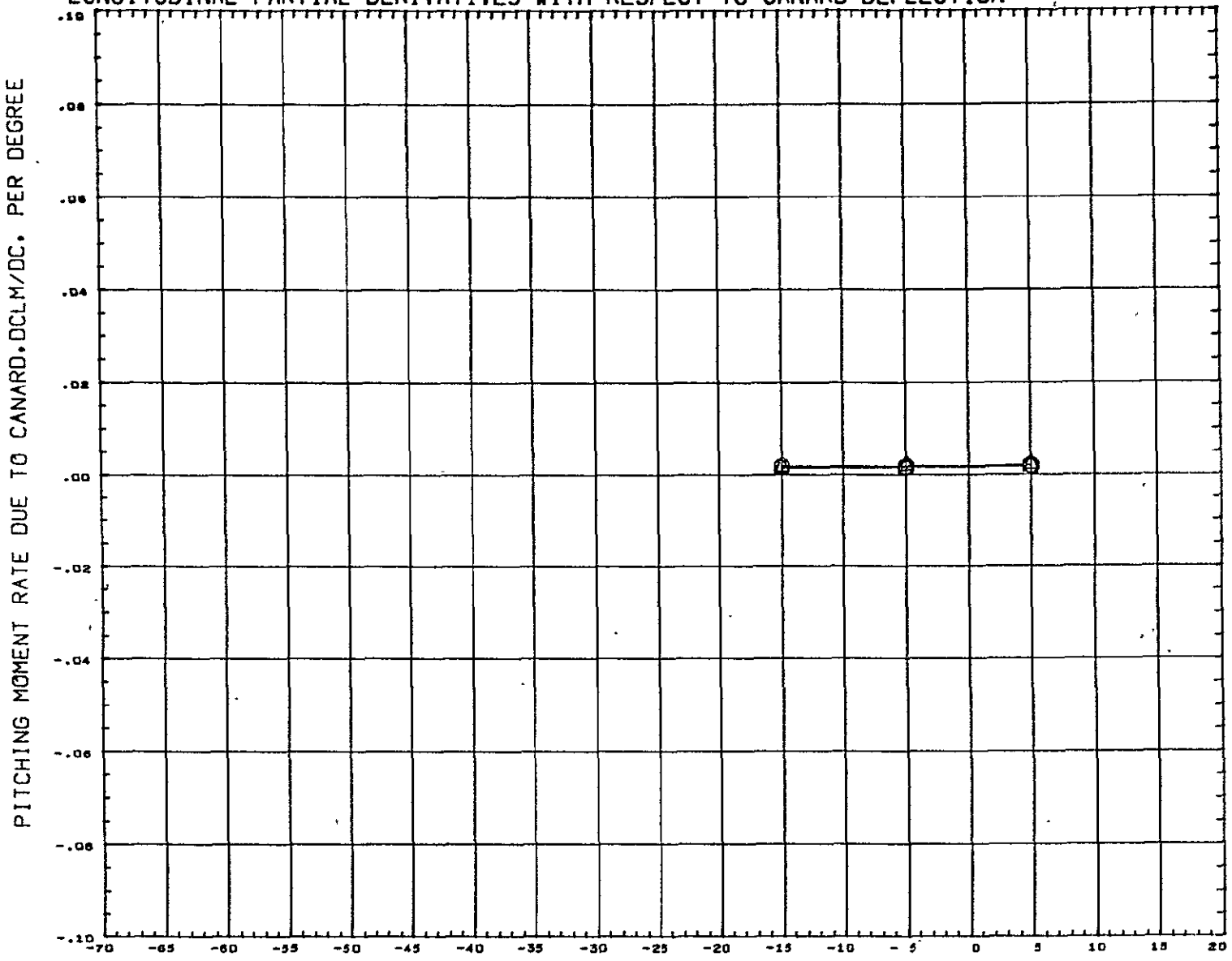
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DEL	DER	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.
○	10.000	1.500	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	3.0950	50. IN.	
△	20.000	0.000	0.000	0.000	028111	5.000			6.0990	6.7100	IN.	
		ELEVON	0.000	AILRON	0.000				0.0000	0.0000	IN.	
									ZMRP	0.0000	IN.	
									SCALE	0.0035		

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

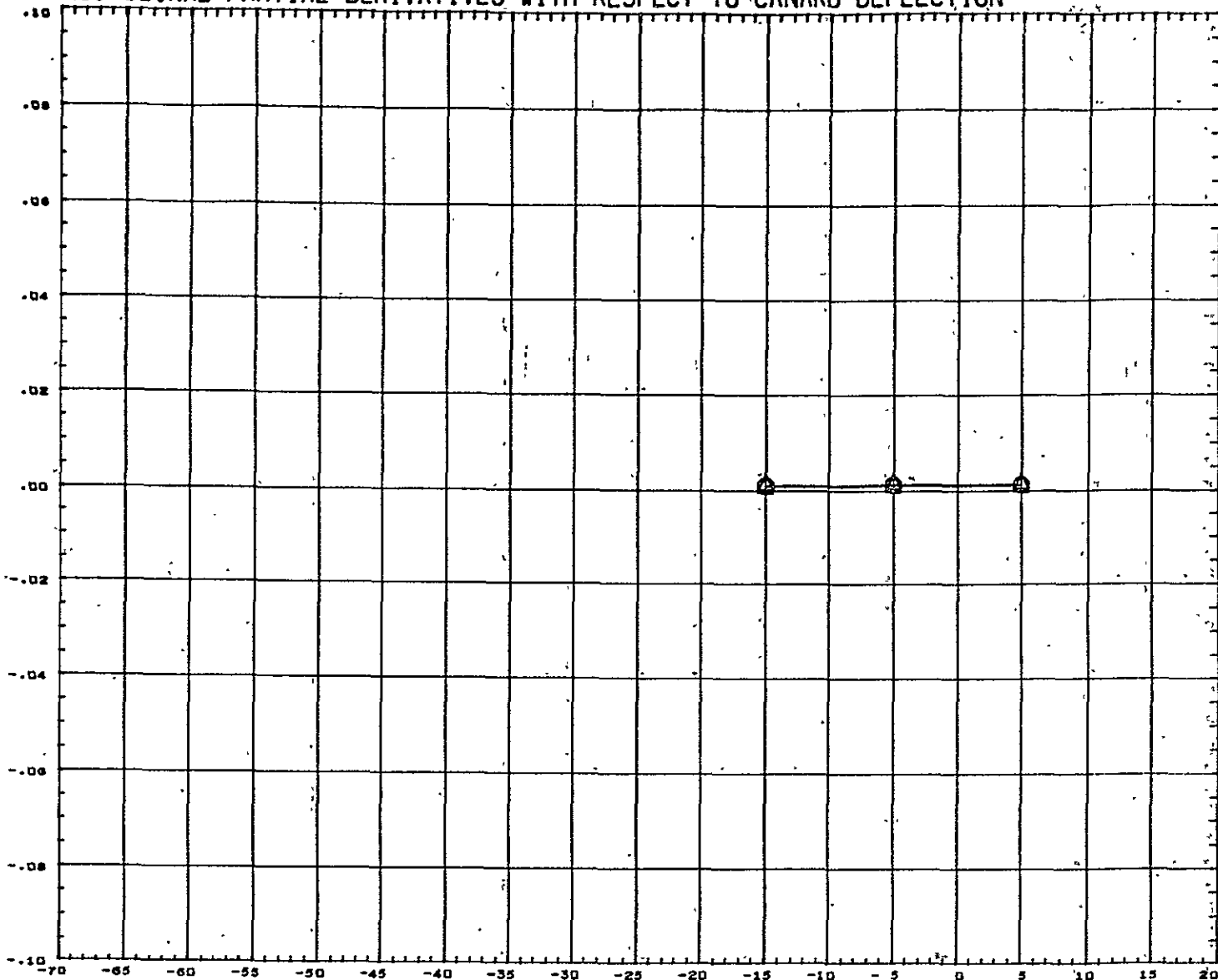


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	2.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	30. IN.
△	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E{#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

PITCHING MOMENT RATE DUE TO CANARD, DCLM/DC, PER DEGREE

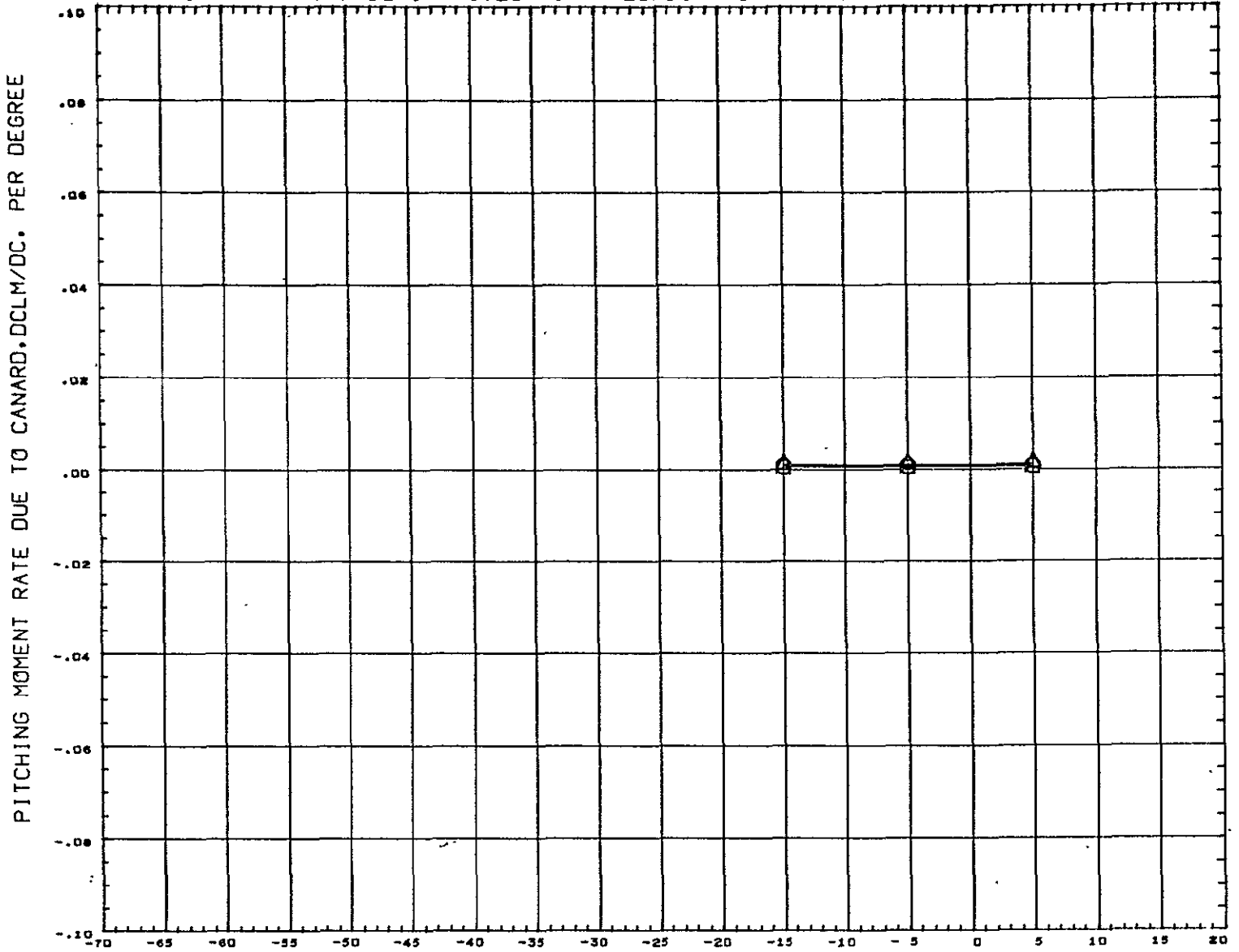


CANARD

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION							
	ALPHA	MACH	BETA	DEL	DEL	AILRON	DATA SOURCE	CANARD	SREF	LREF	BREF	XMRP	YMRP	ZMRP	SCALE	
Δ	10.000	3.000	0.000	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	3.0950	6.0990	6.7100	0.0000	0.0035
	20.000	0.000	0.000	0.000	0.000	0.000	028111	5.000								

DATA HIST. CODE MVR#E1#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

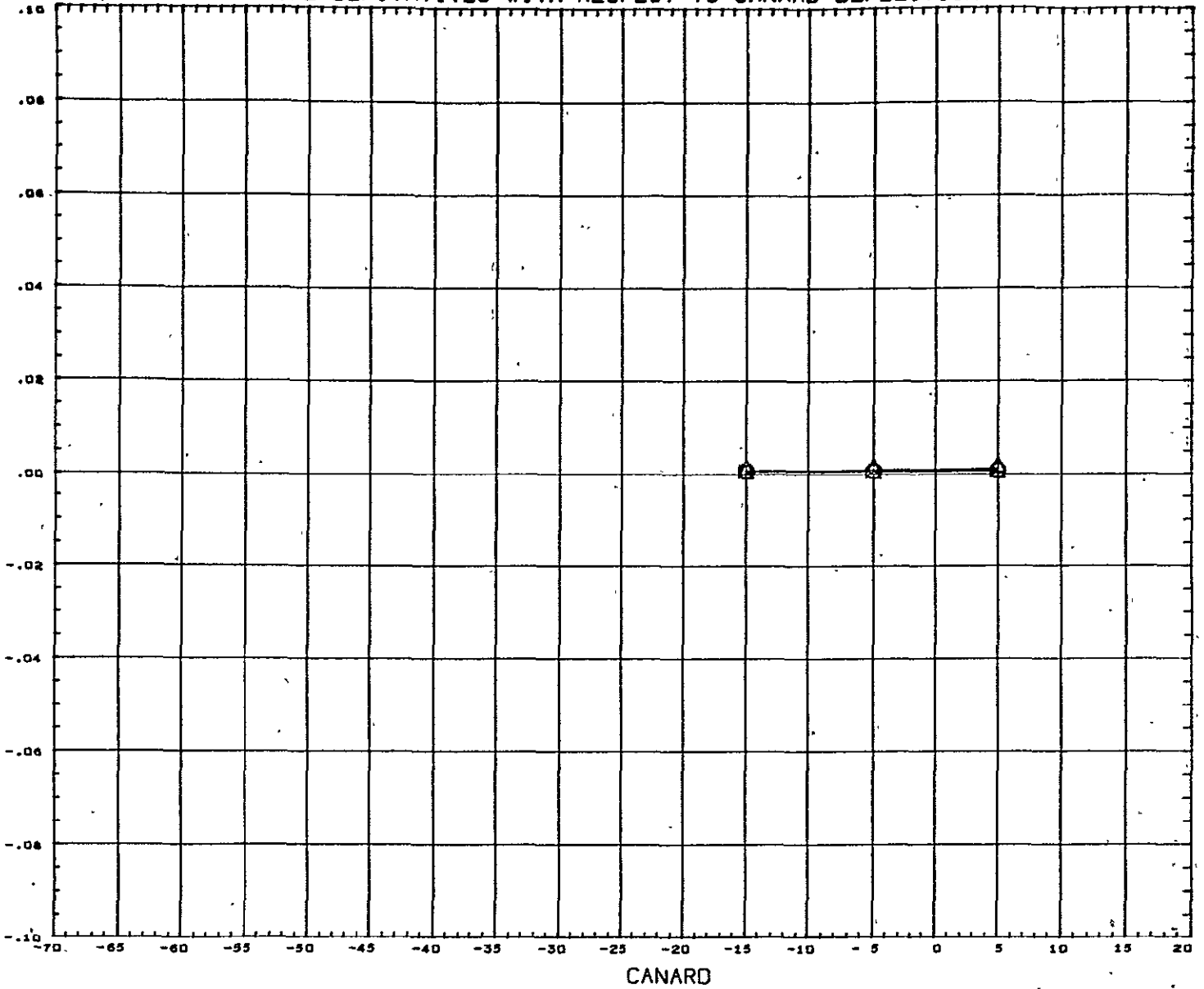


SYMBOL		ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION			
△	10.000	MACH	4.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	50. IN.
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0055	

DATA HIST. CODE MVR*E1*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

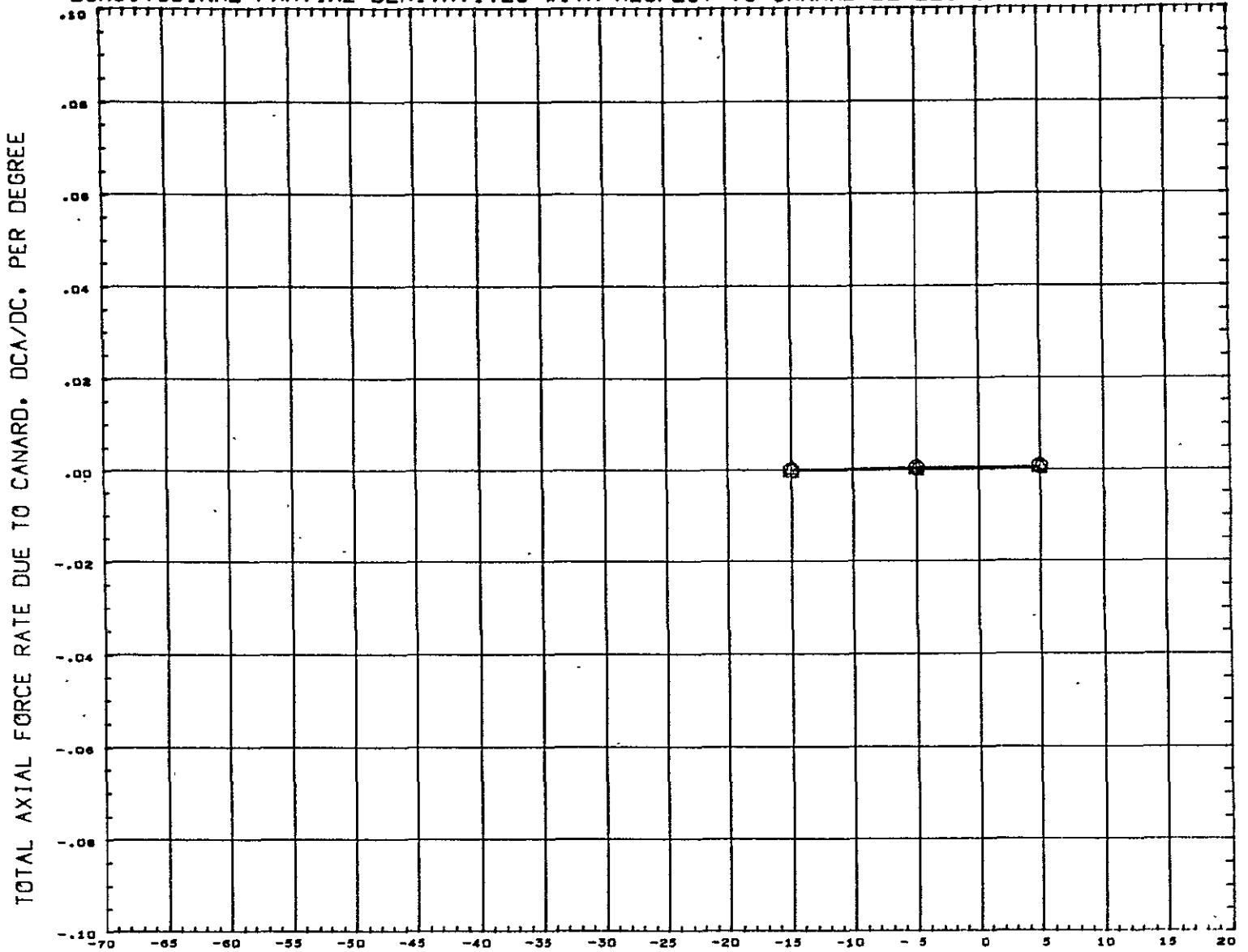
PITCHING MOMENT RATE DUE TO CANARD, DCLM/DC, PER DEGREE



SYMBOL	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
	ALPHA	MACH	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	50. IN.	
○	10.000	5.000	0.000	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
△	20.000	0.000	0.000	0.000	028111	5.000			BREF	6.0990	IN.
		ELEVON	0.000	AILRON					XMRP	6.7100	IN.
									YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

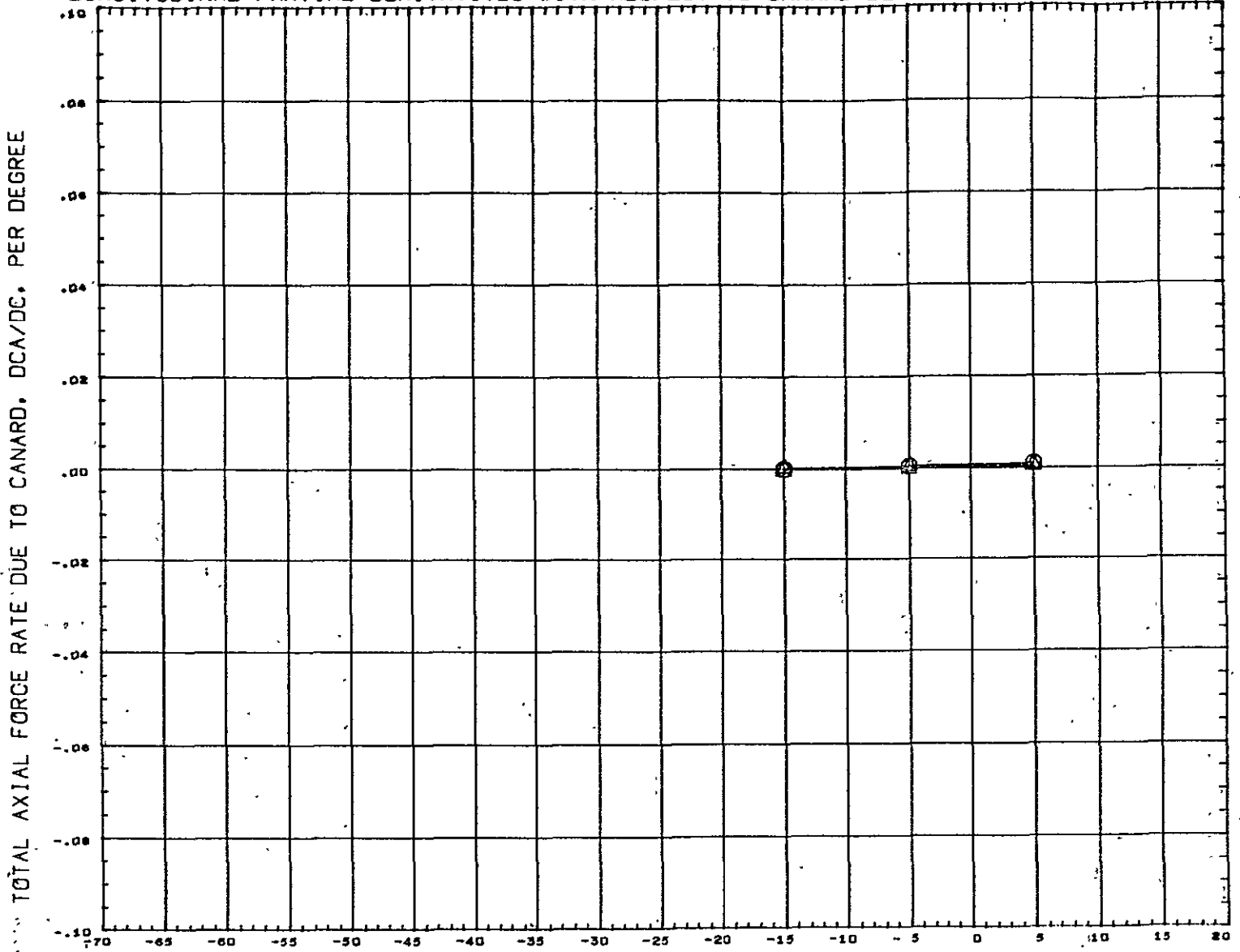
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DEL	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
○	10.000	0.900	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	3.0950	IN.
△	20.000	0.000	0.000	0.000	0.000	028111	5.000			6.0990	6.7100	IN.
		0.000	0.000	0.000	0.000					0.0000	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

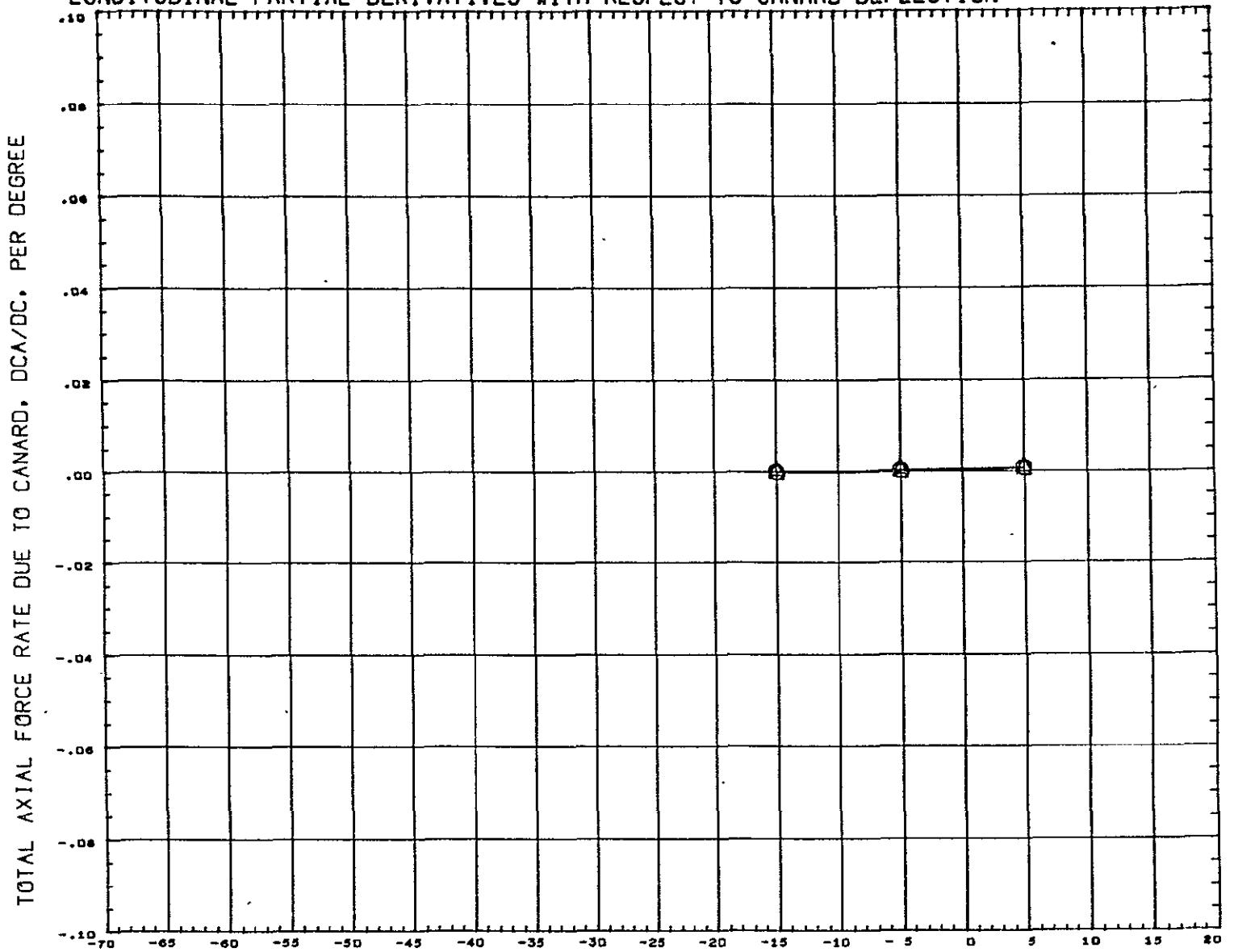


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.
Δ	10.000	0.950	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	30.	IN.
	20.000	0.000	0.000	0.000	0.000	028111	5.000			3.0990		IN.
		ELEVON	0.000							5.0990		IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

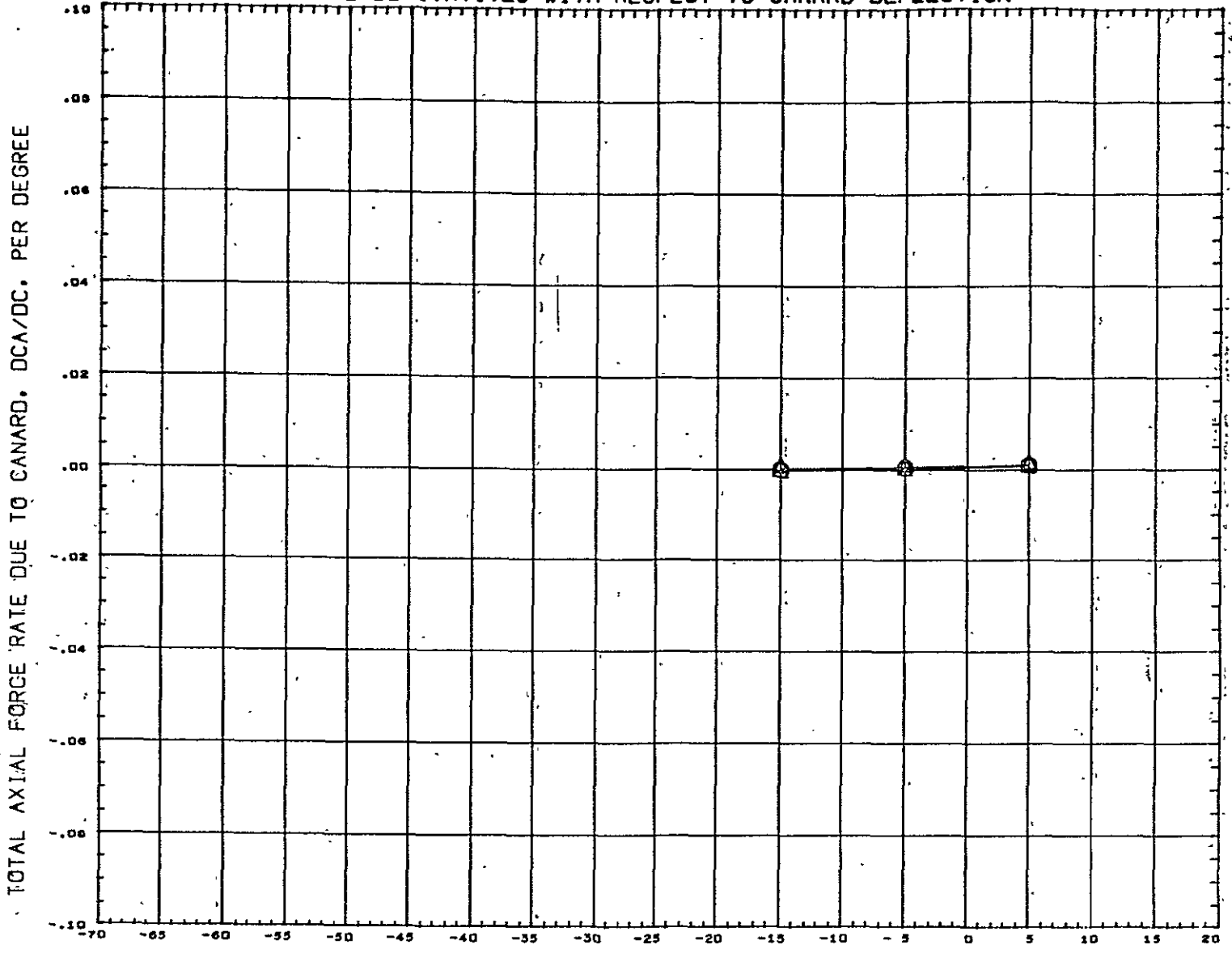


CANARD

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	IN.	IN.
○	10.000	1.050	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	30.	IN.
	20.000	DEL	0.000	0.000	028109	- 15.000	028110	- 5.000	3.0950		IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000		6.0990		IN.
									XMRP	6.7100	IN.
									YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR#E1#H*P

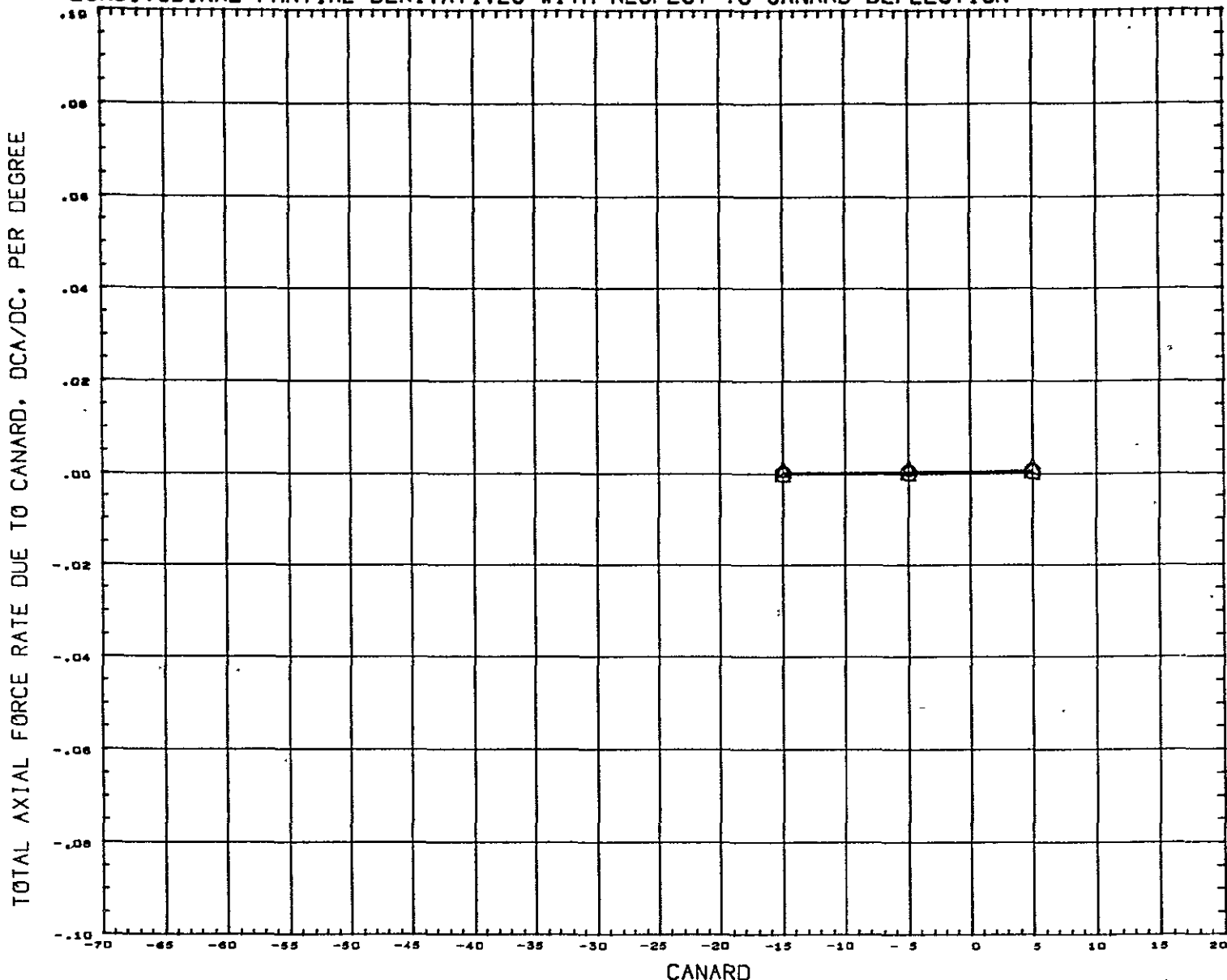
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.200	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	50. IN.
△	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MYR#E1#H#P

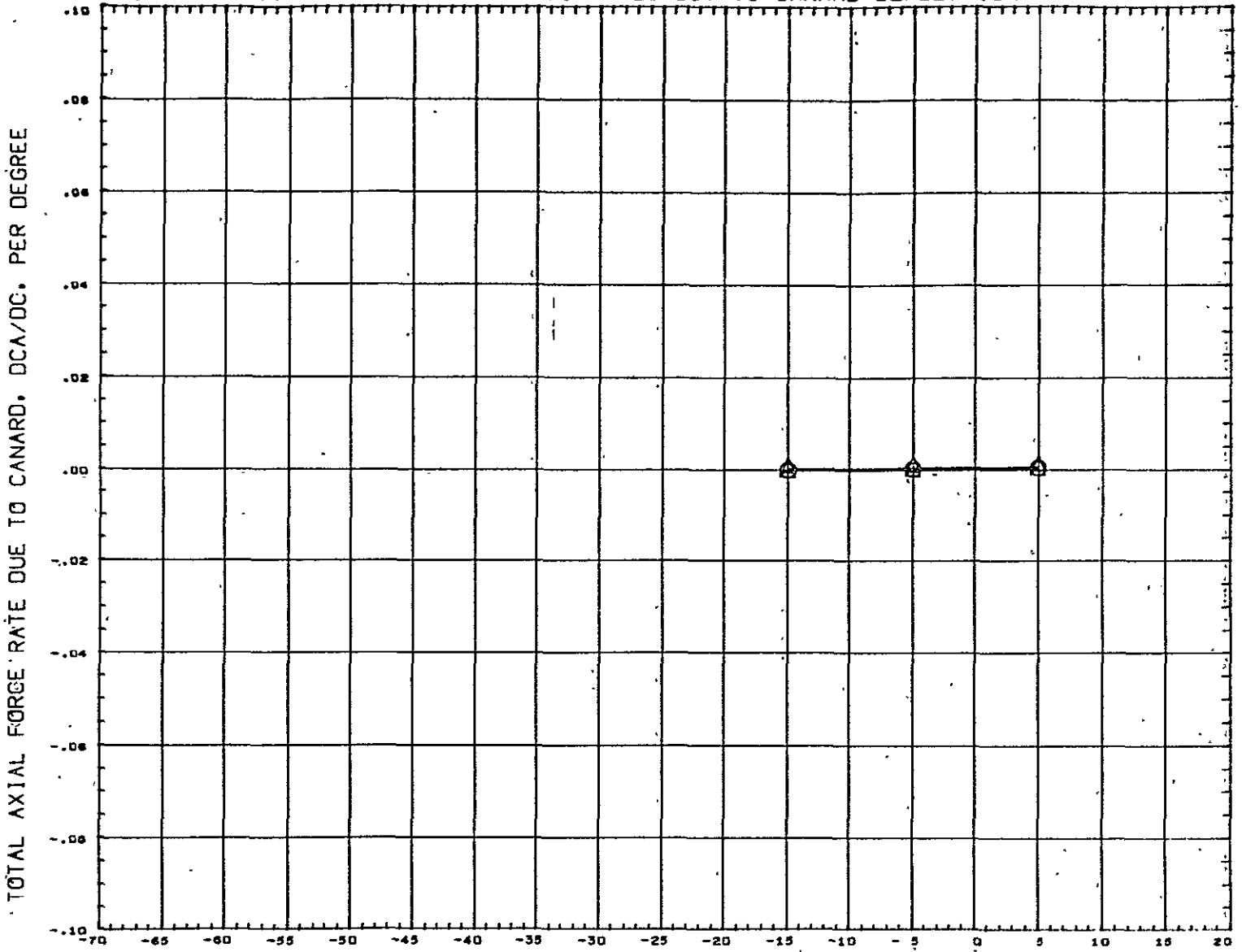
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	DEL	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	LREF	BREF	
○	10.000	1.500	0.000	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	90. IN.	
△	20.000	0.000	0.000	0.000	0.000	0.000	028111	5.000			3.0950	IN.	
		ELEVON	0.000	0.000	0.000						6.0990	IN.	
											XMRP	6.7100	IN.
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

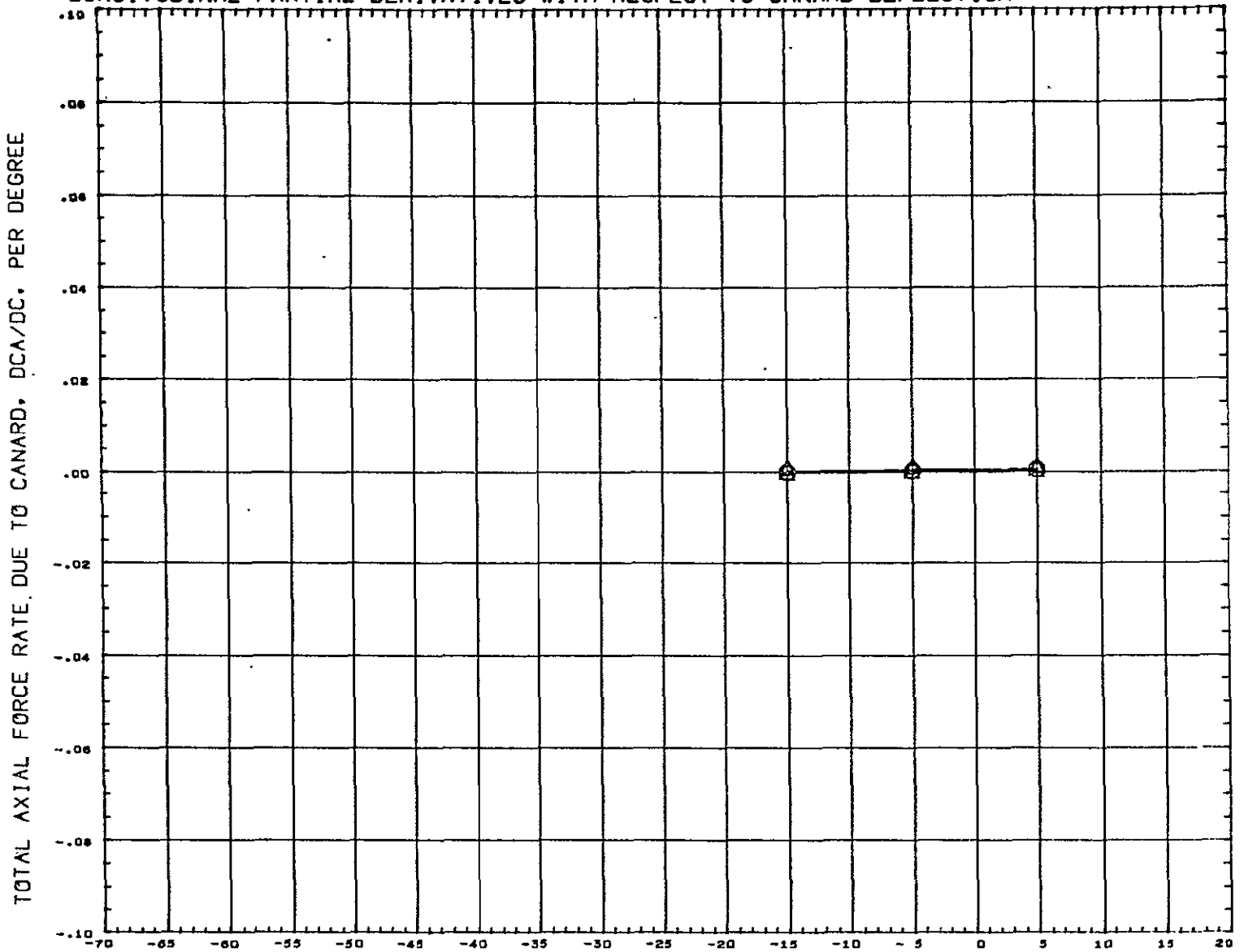


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
⊙	10.000	MACH	2.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ. IN.
△	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*EI#H*P

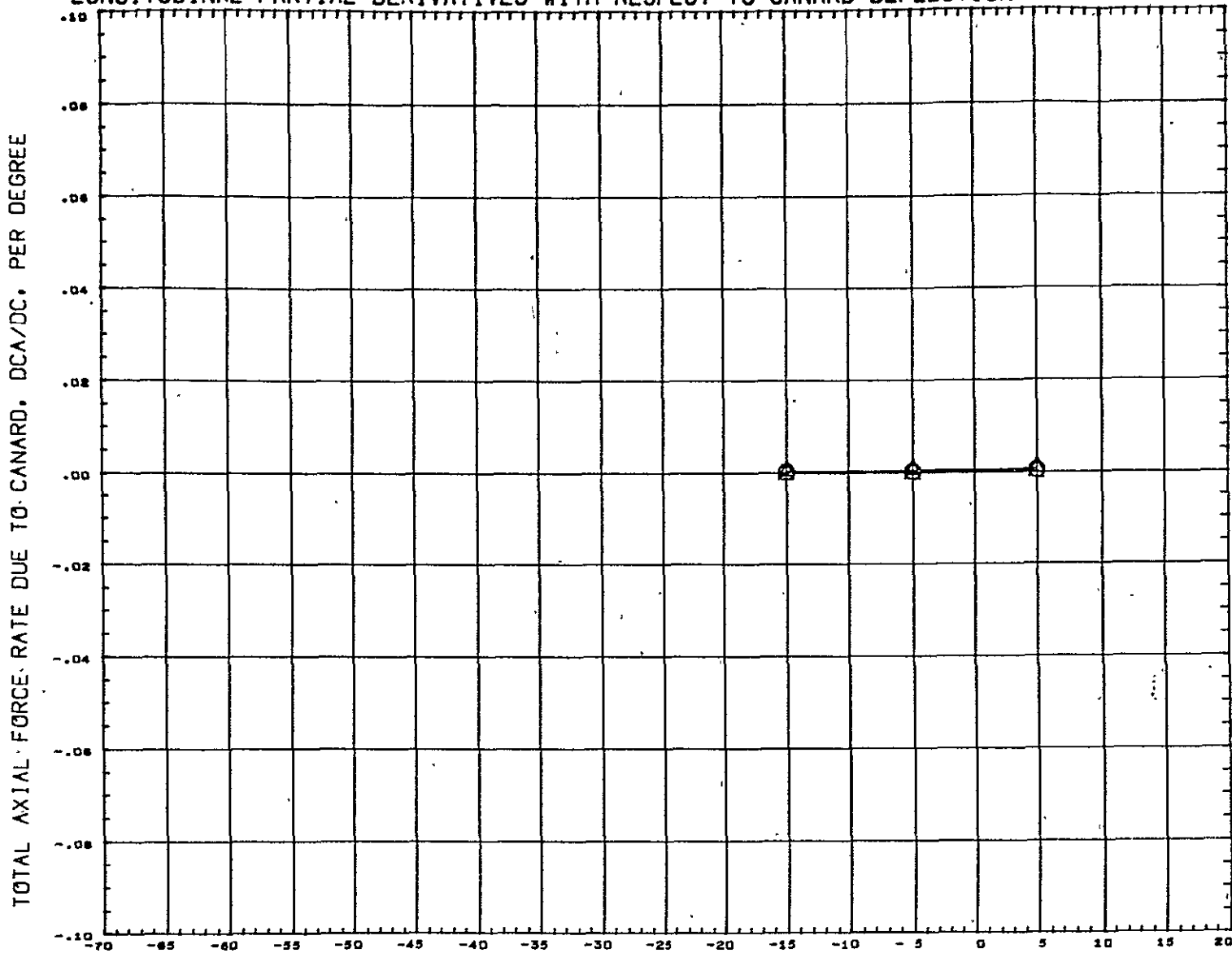
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION			
△		10.000	HASH	3.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	90. IN.
		20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
			ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
											XMRP	6.7100	IN.
											YMRP	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

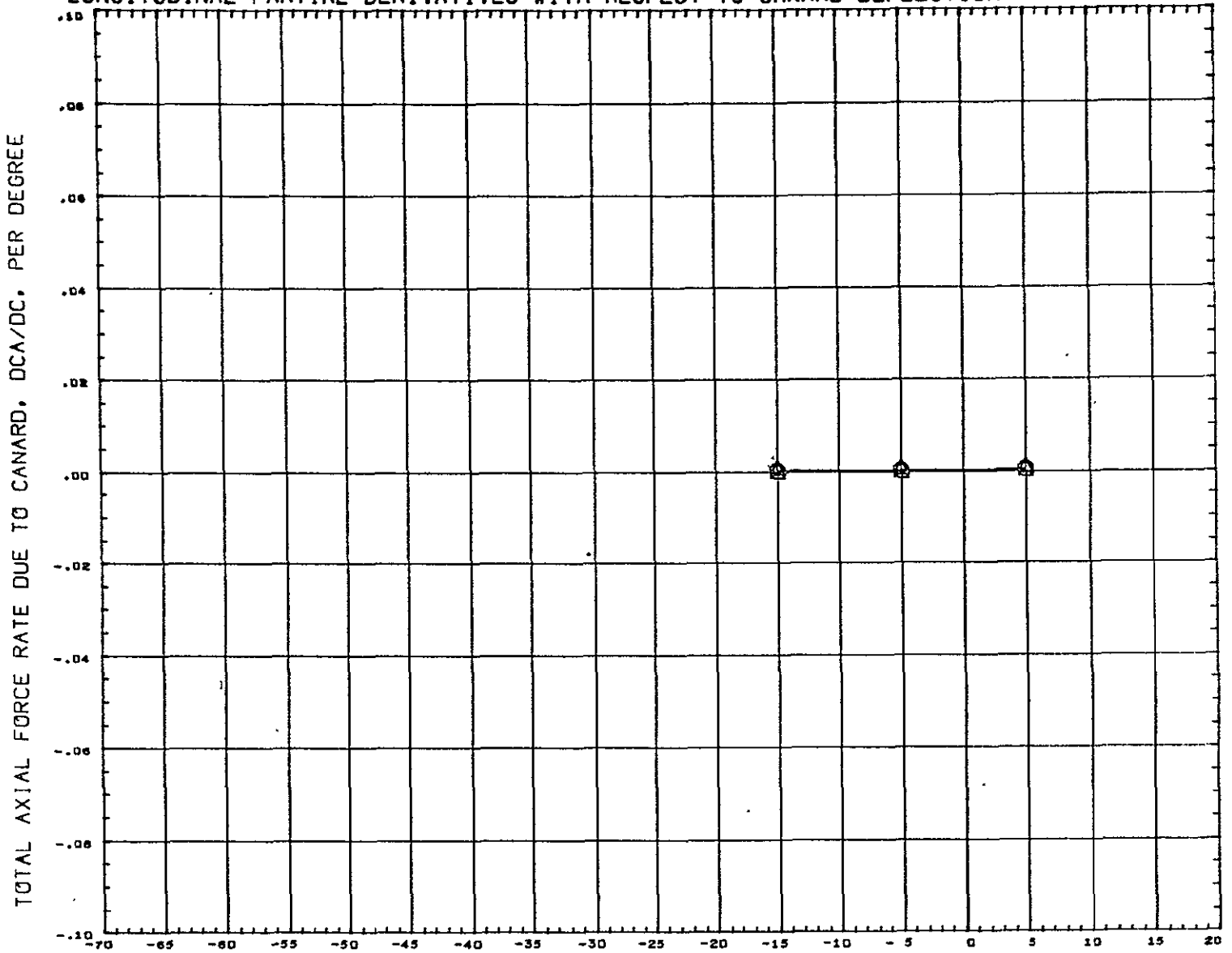


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	SQ.IN.	
○	10.000	4.000	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	SQ.IN.	
△	20.000	0.000	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	3.0950	IN.	
		ELEVON	0.000	0.000	0.000	028111	5.000			6.0950	IN.	
										6.7100	IN.	
										0.0000	IN.	
										0.0000	IN.	
										0.0035		

DATA HIST. CODE MVR*EI*H*P

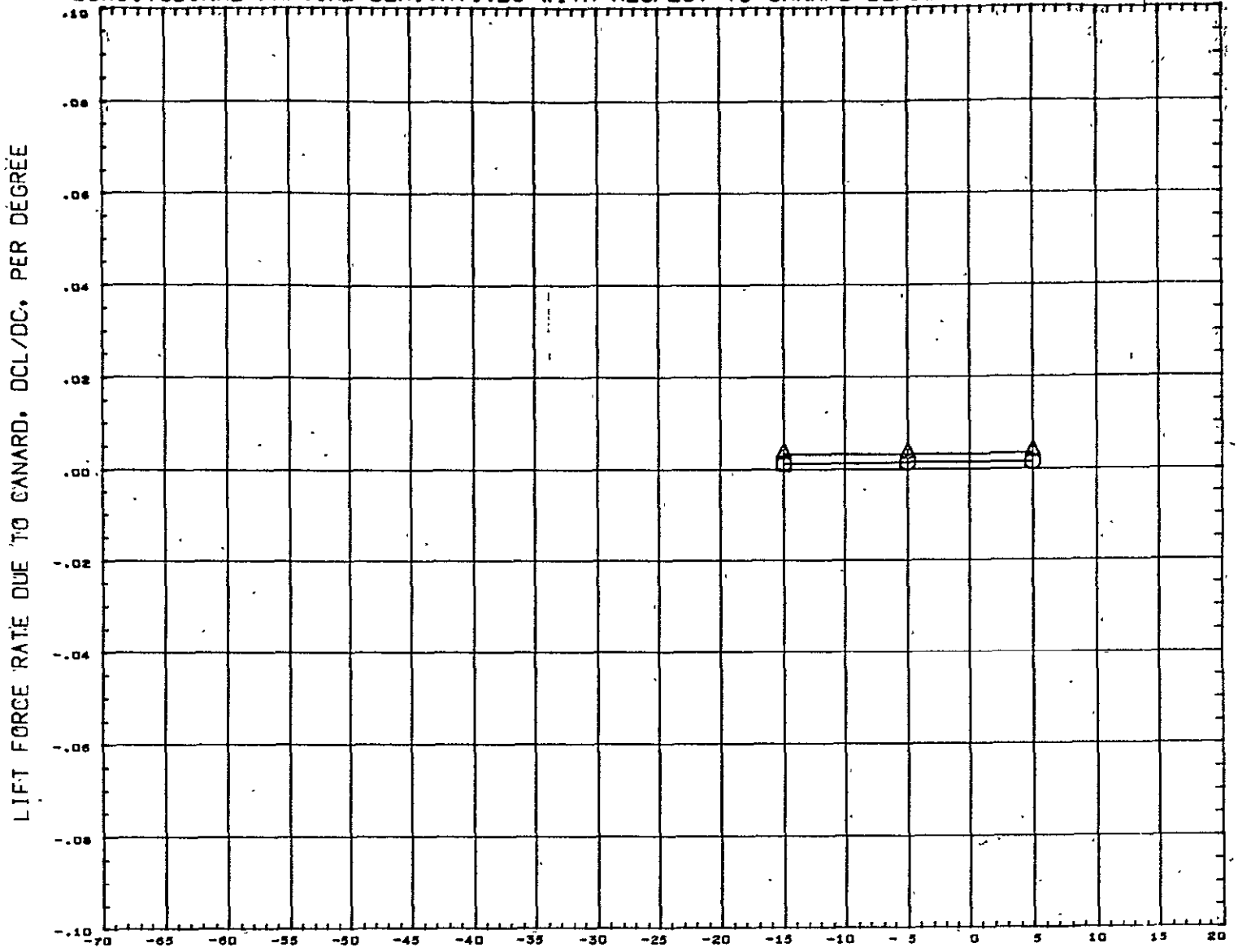
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	SQ. IN.	IN.	
○	10.000	5.000	0.000	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	3.0950	IN.
△	20.000	0.000	0.000	0.000	0.000	028111	5.000				6.0990	6.7100	IN.
		ELEVON	0.000								0.0000	0.0000	IN.
											ZMRP	0.0000	IN.
											SCALE	0.0035	

DATA HIST. CODE MVR*E1*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

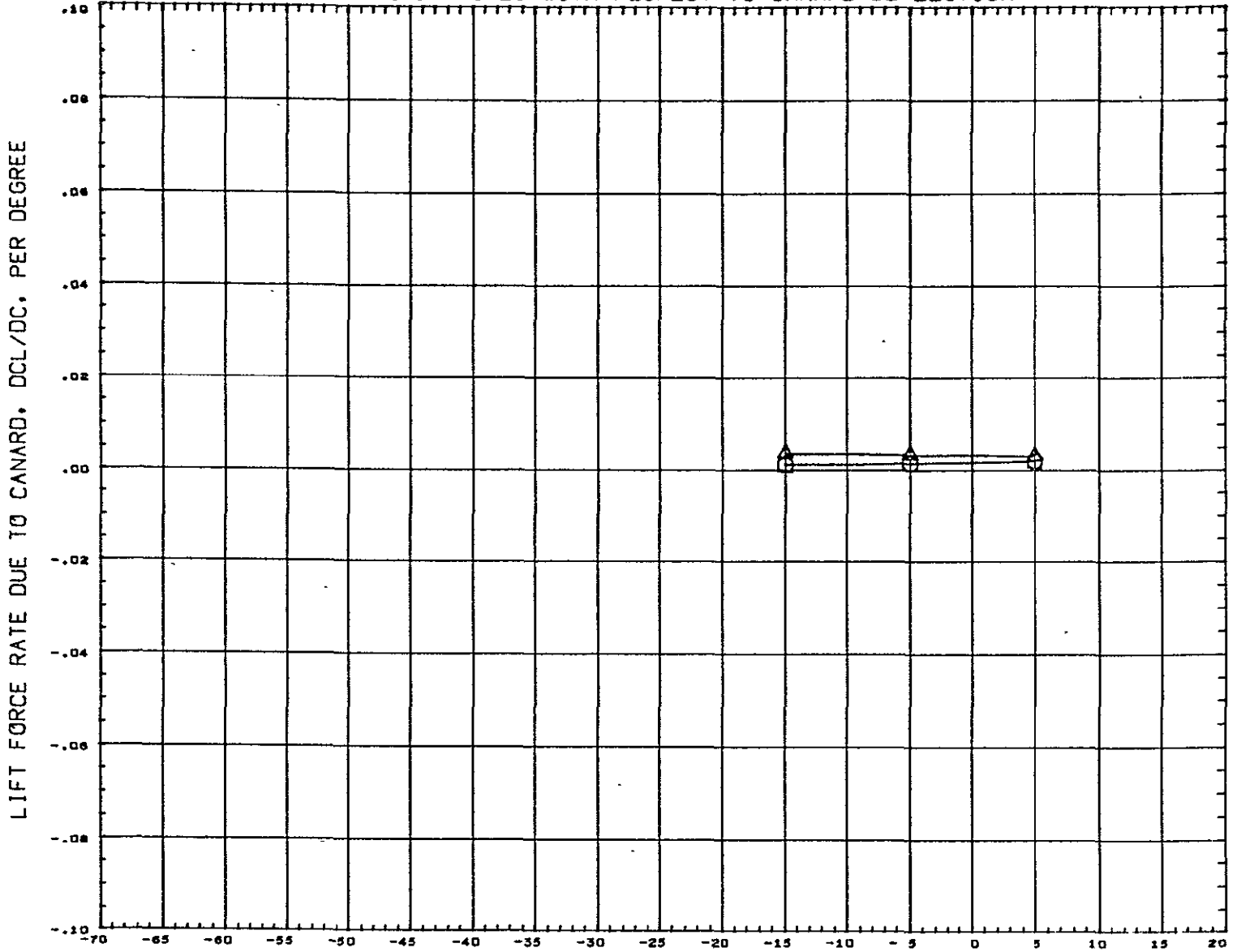


CANARD

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	BETA	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
Δ	10.000	20.000	0.900	0.000	028109	- 15.000	028110	- 5.000	15.6560	3.0950	6.0990
		ELEVON	0.000	0.000	028111	5.000			6.7100	0.0000	0.0035
			0.000	0.000					0.0000		
									SCALE		

DATA HIST. CODE MVR*EI#H*P

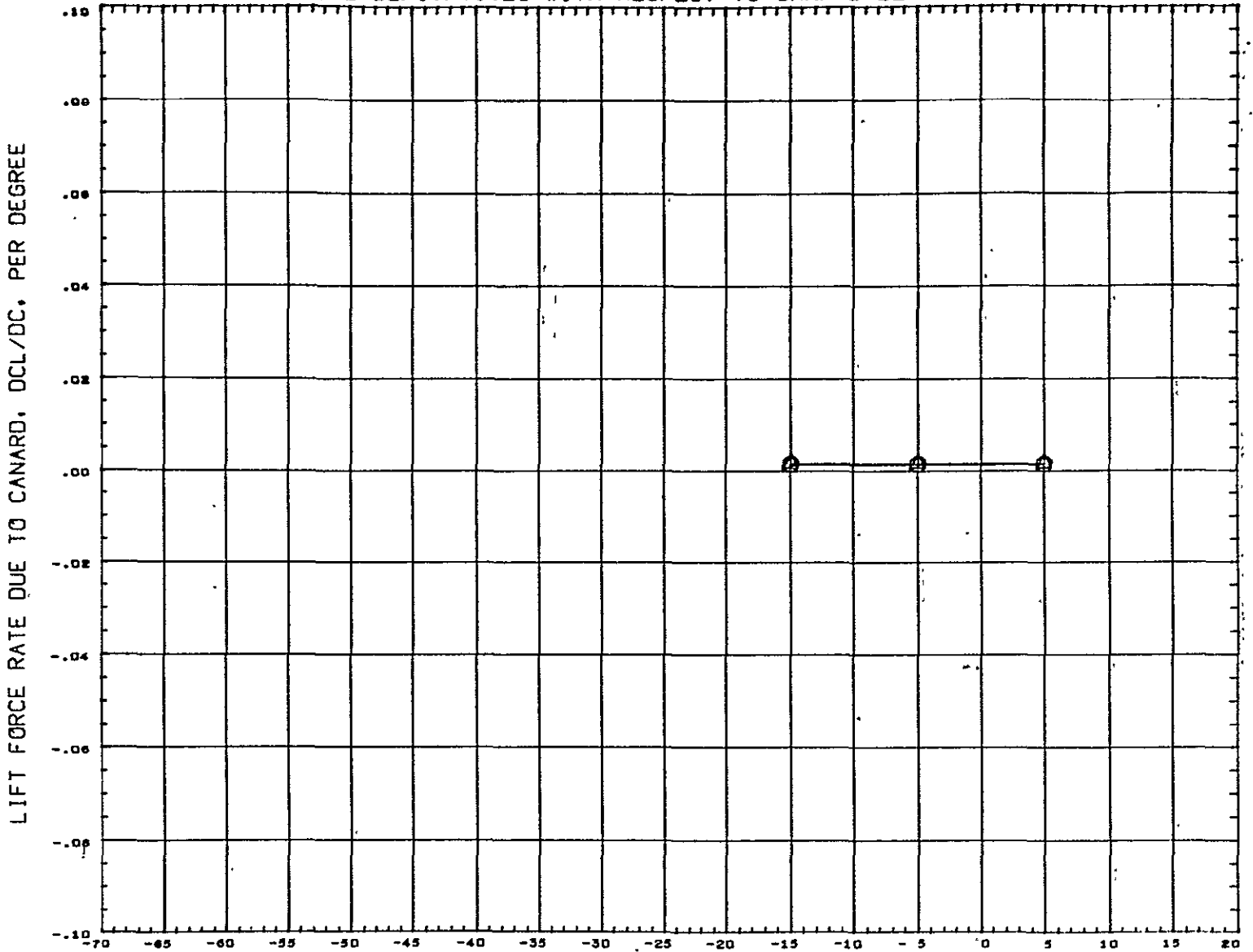
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION				
∅	10.000	<u>MACH</u>	0.950	BETA	0.000	DATA SET	CANARD	DATA SET	CANARD	SREF	15.6560	50-IN.
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRCN	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

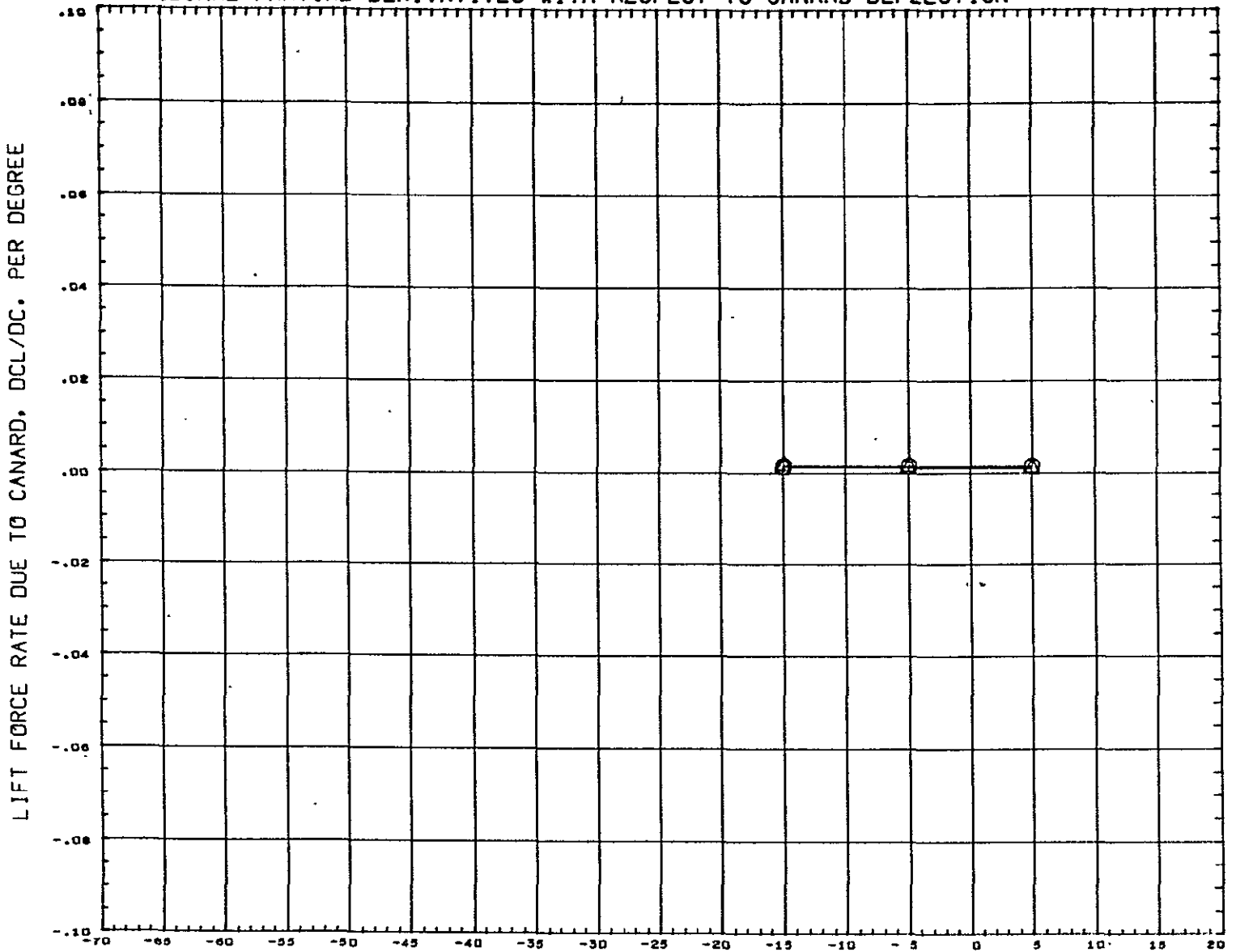


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	1.050	BETA	0.000	DATA SET	CANARD	DATA SET	CANARD	SREF	15.6560	50.IN.
△	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



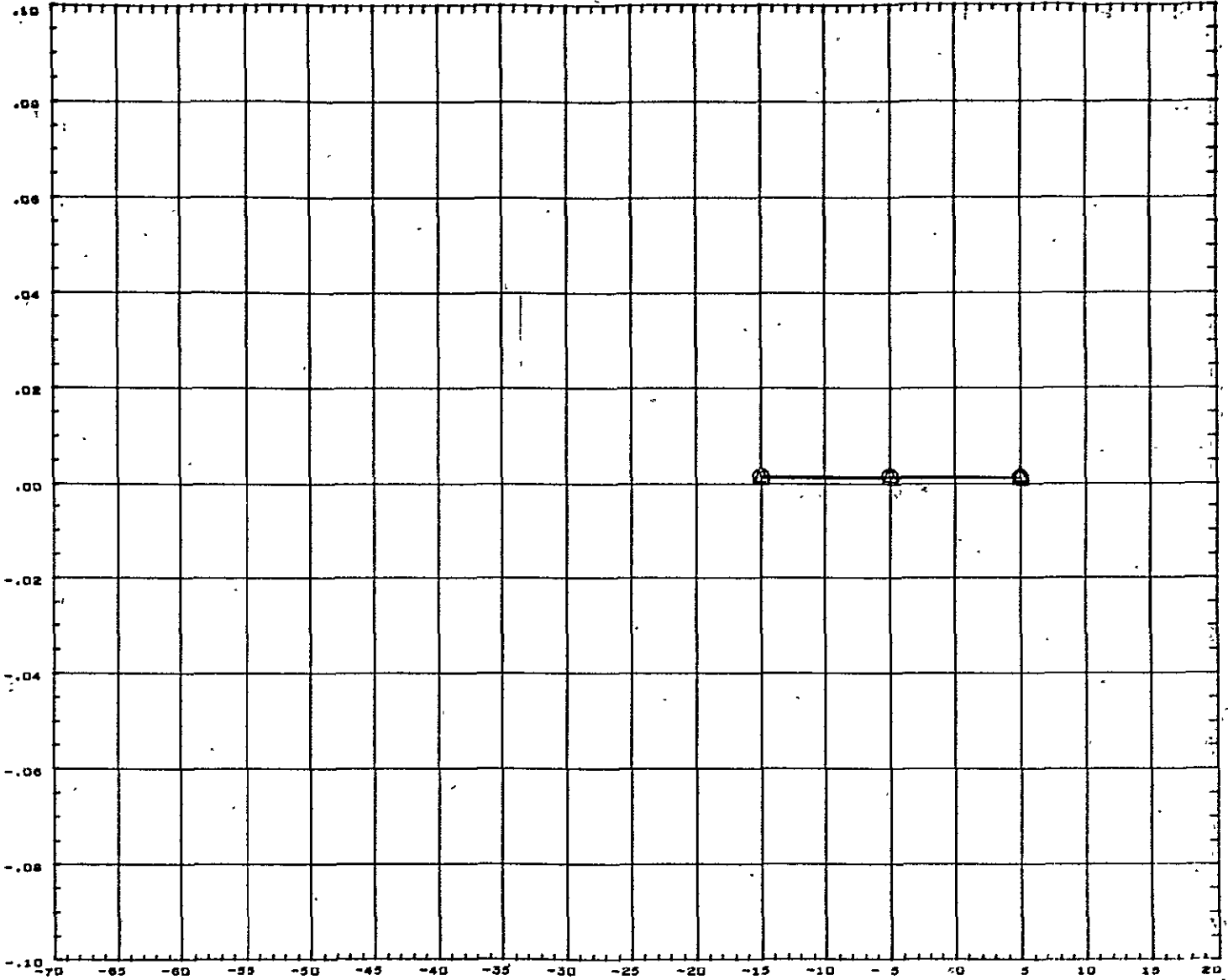
CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION			
○	10.000	MACH	1.200	BETA	0.000	DATASET	CANARD	SREF	15.6560	Sq. IN.
△	20.000	DEL	0.000	DER	0.000	028109	- 15.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000	BREF	6.0990	IN.
								XMRP	6.7100	IN.
								YMRP	0.0000	IN.
								ZMRP	0.0000	IN.
								SCALE	0.0035	

DATA HIST. CODE MVR#EI#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

LIFT FORCE RATE DUE TO CANARD, $dC_L/d\delta$, PER DEGREE

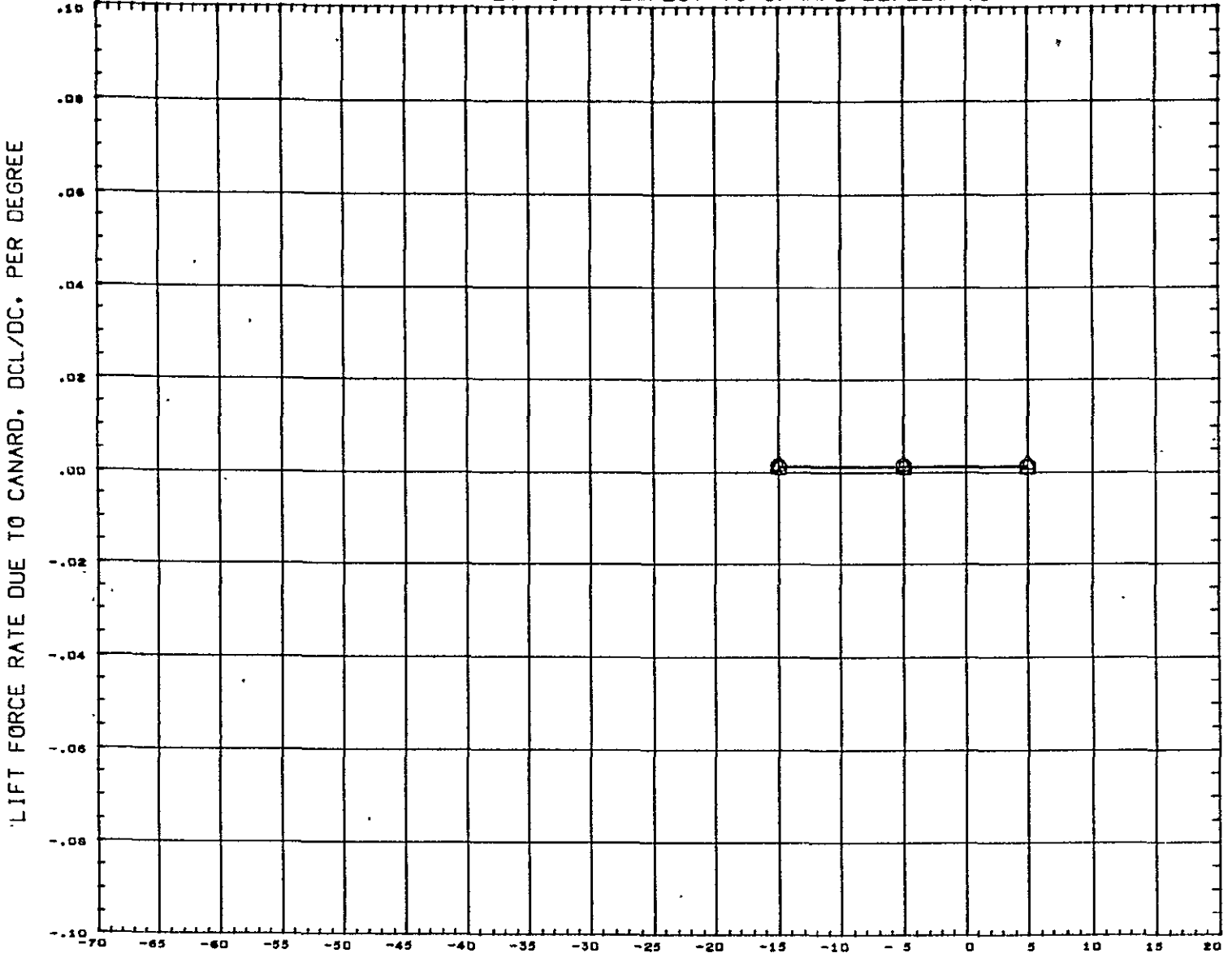


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION			
		MACH	BETA	0.000	0.000	DATASET	CANARD	SREF	IN.	IN.	
Δ	10.000	1.500	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	30.1N	
	20.000	DEL	0.000	0ER	0.000				3.0950	IN.	
		ELEVON	0.000	AILRON	0.000	028111	5.000		6.0990	IN.	
									XMRP	0.7100	IN.
									YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR*E1*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

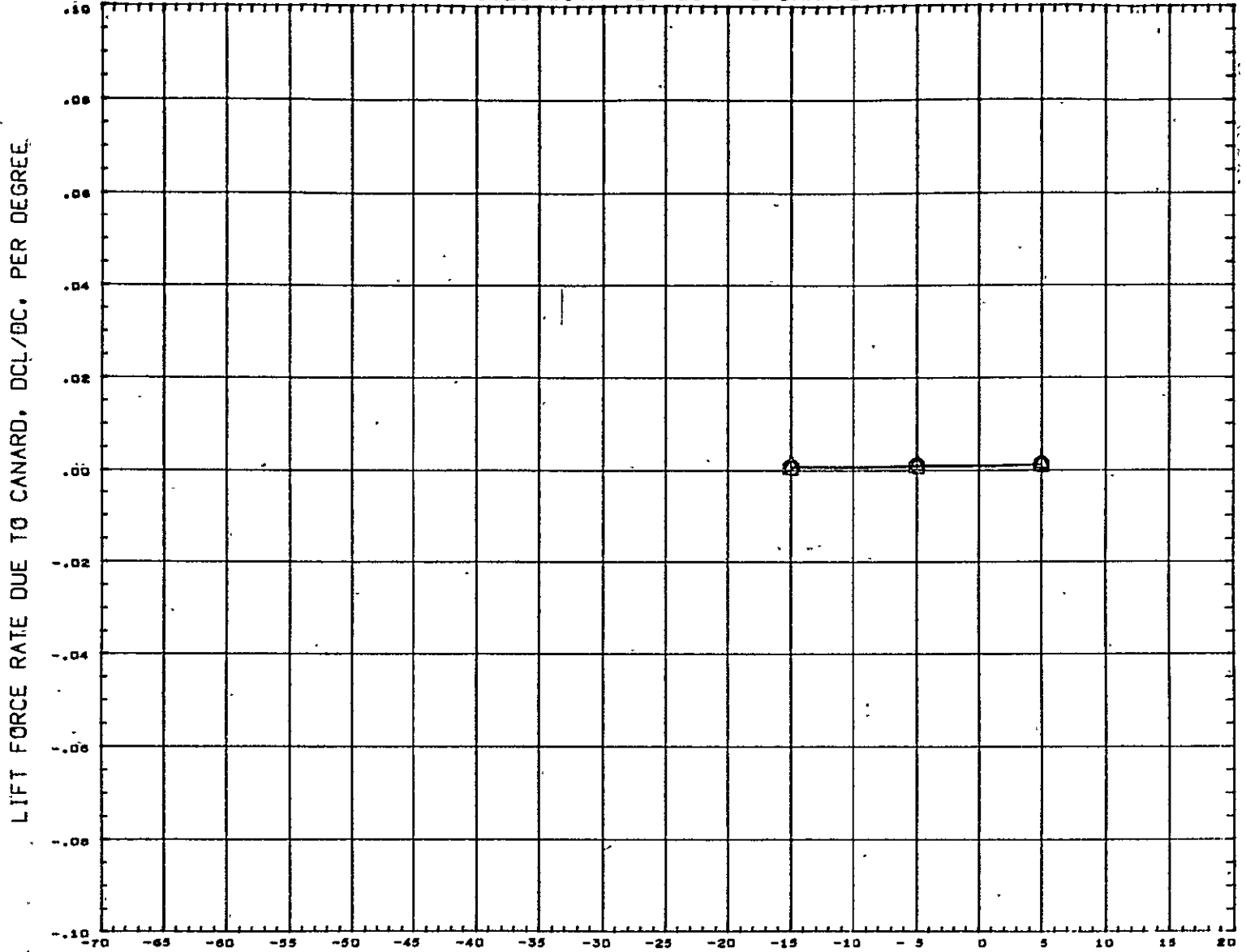


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
Δ	10.000	<u>MACH</u>	2.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	34. IN.
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*E1*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

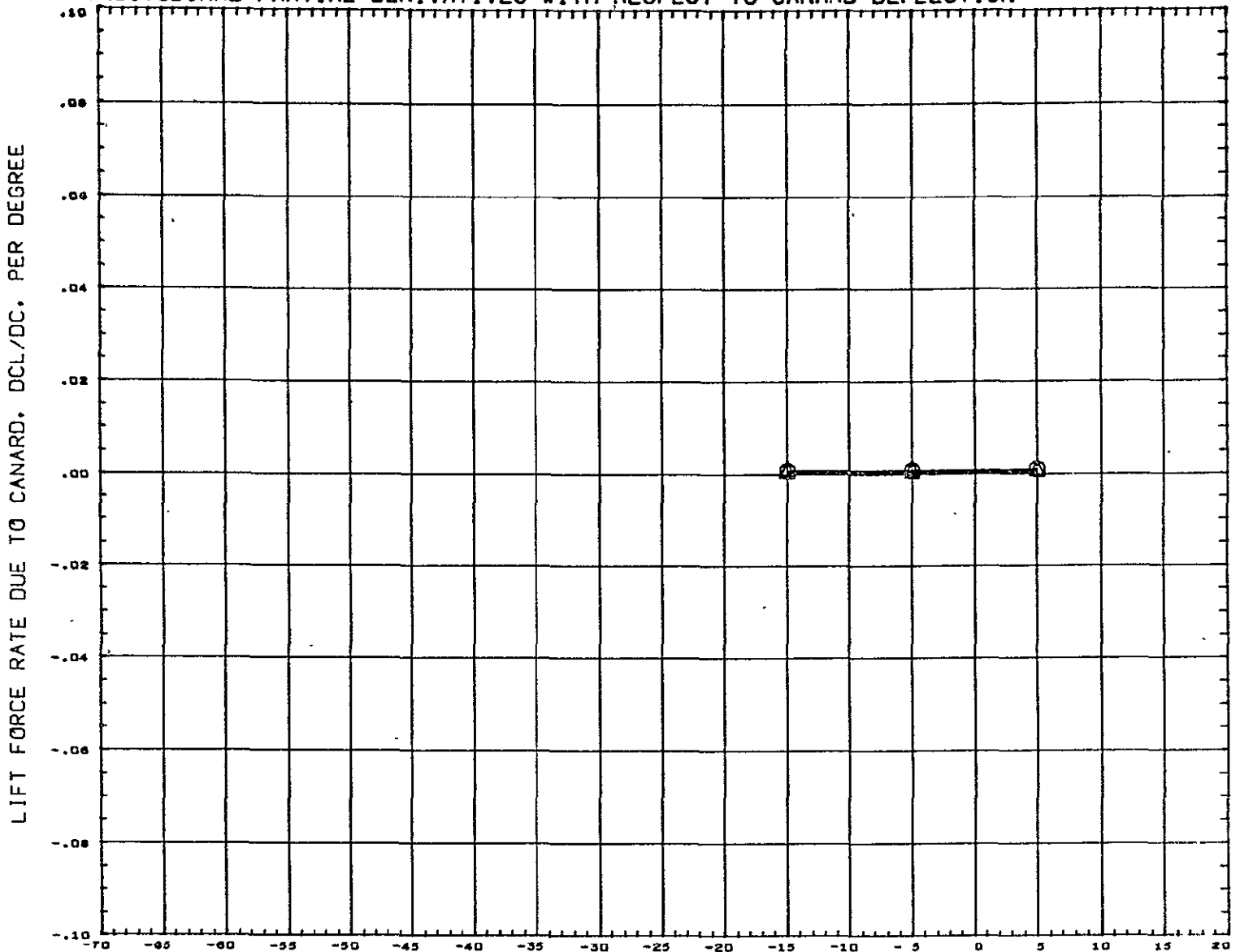


CANARD

SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA	DER	DATASET	CANARD	DATASET	CANARD	SREF	IN.	SQ. IN.
○	10.000	3.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560		
△	20.000	0.000	0.000	0.000	028111	5.000			3.0950		
		ELEVON	0.000	AILRON					6.0990		
									XHRP	6.7100	
									YHRP	0.0000	
									ZHRP	0.0000	
									SCALE	0.0035	

DATA-HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

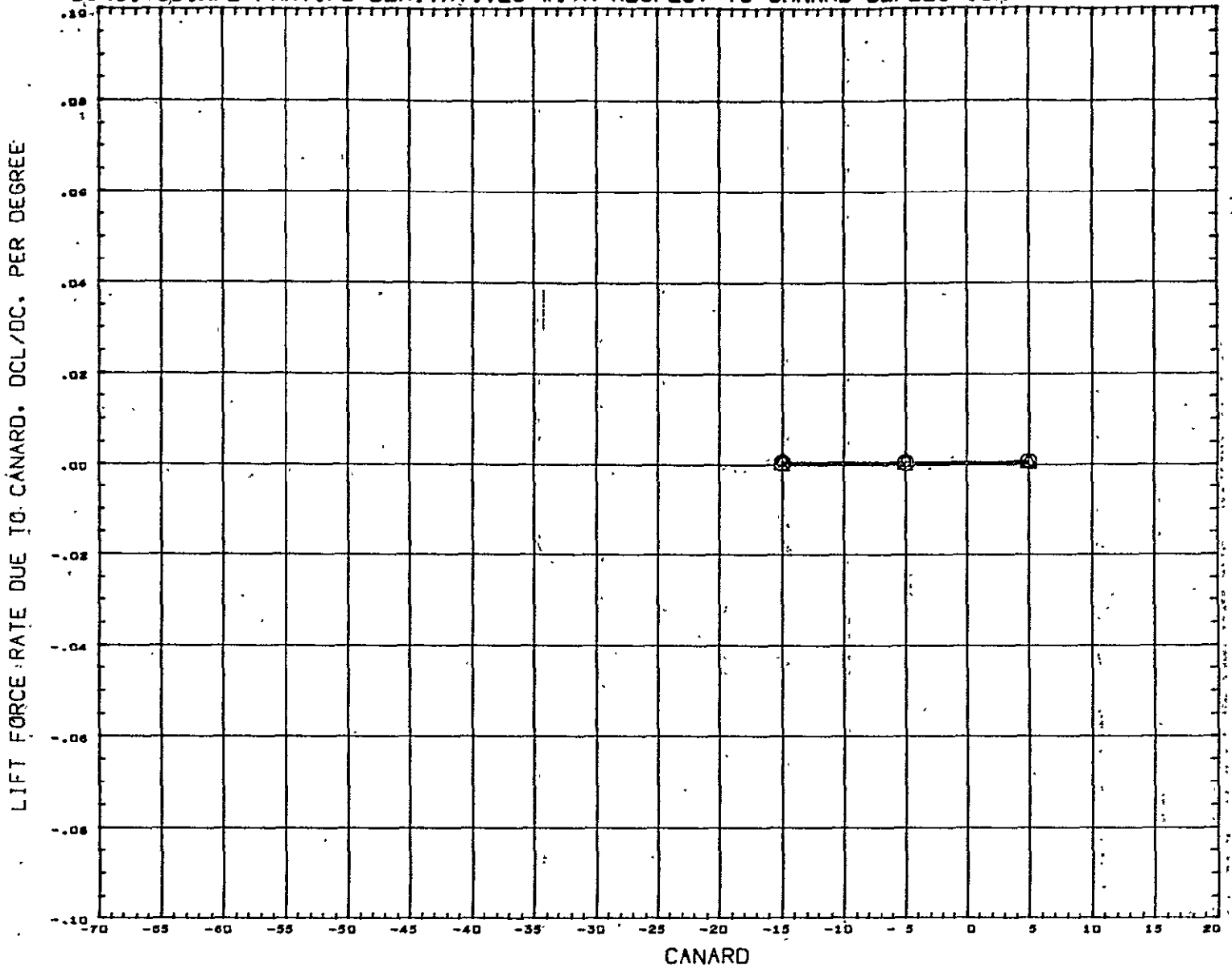


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	<u>MACH</u>	4.000	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	90. IN.
△	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE HVR#E1#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



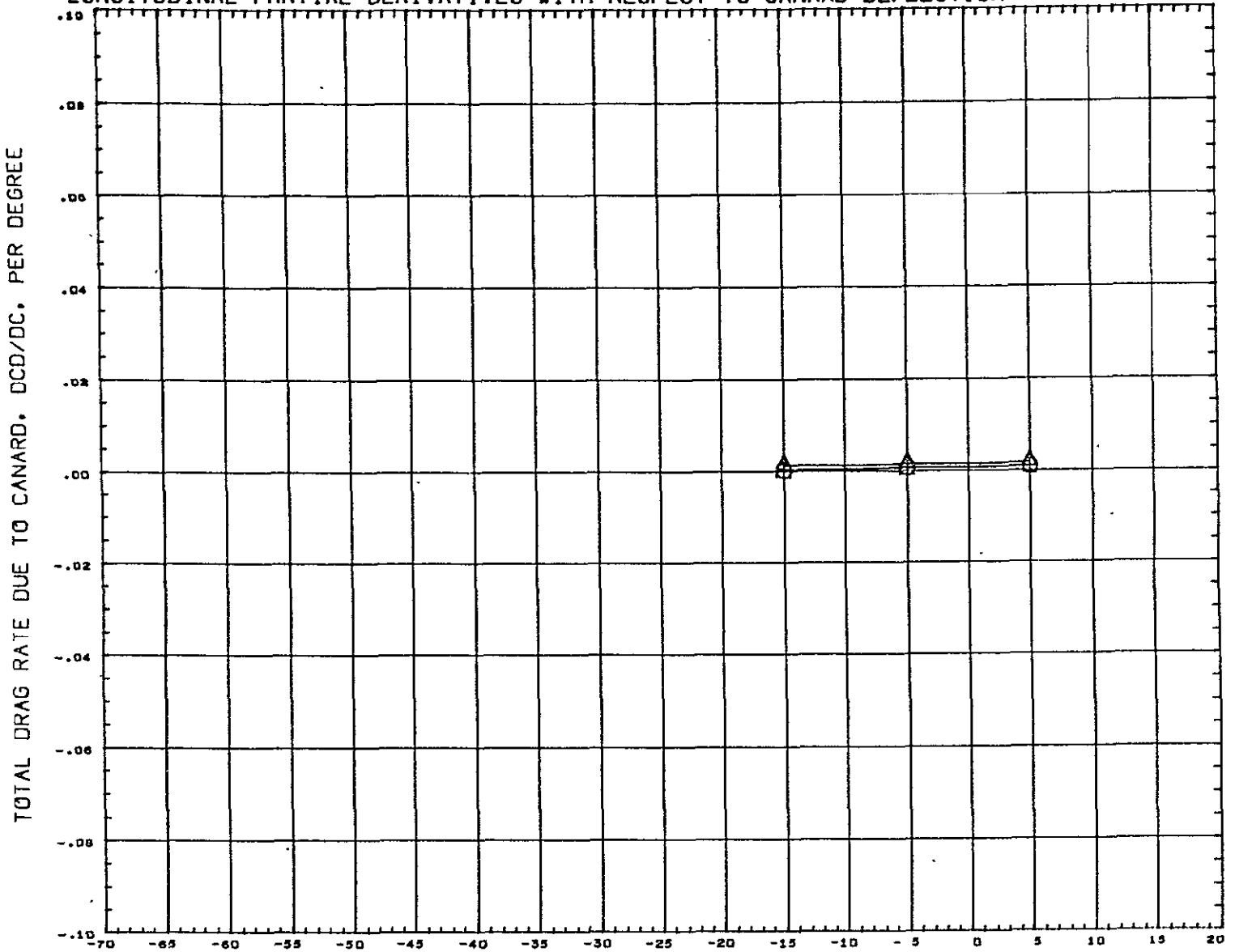
SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION			
			BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	IN.	
○	10.000	5.000	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	50. IN.	
△	20.000	0.000	0.000	0.000	0.000	028111	5.000			3.0950	IN.	
		ELEVON	0.000	0.000	0.000					6.0990	IN.	
										XMRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#EI#H#P

MSFC481 GD/C(BOOSTER)B19W14C4AV7

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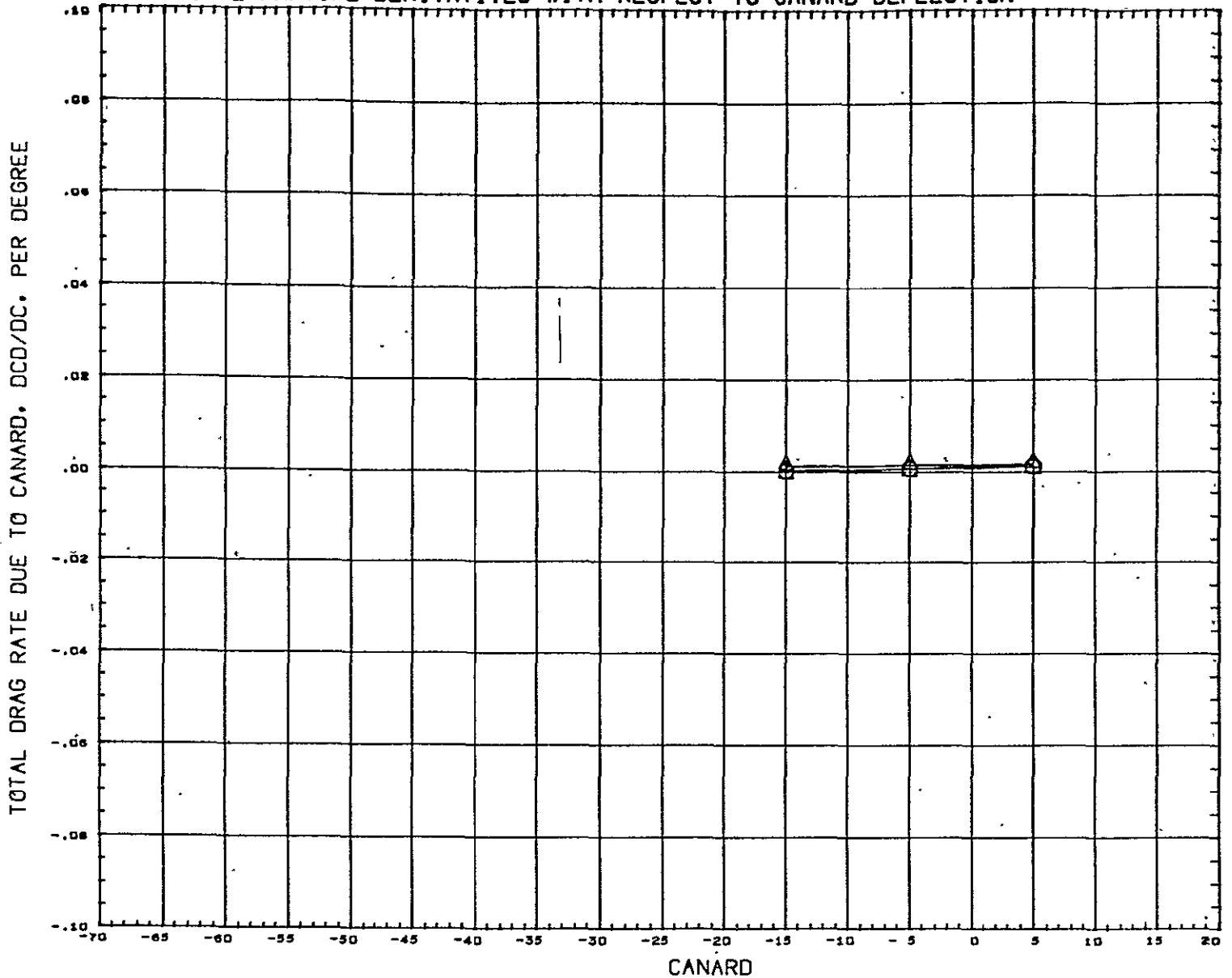
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AIRON	DATASET	CANARD	DATASET	CANARD	SREF	SCALE	SQ. IN.
∞	10.000	0.900	0.000	0.000	0.000							
	20.000	DEL	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	0.0035	30. IN.
		ELEVON	0.000	0.000	0.000	028111	5.000			3.0950		IN.
										6.0990		IN.
										6.7100		IN.
										0.0000		IN.
										0.0000		IN.
												IN.

DATA HIST. CODE MVR*EI*H*P

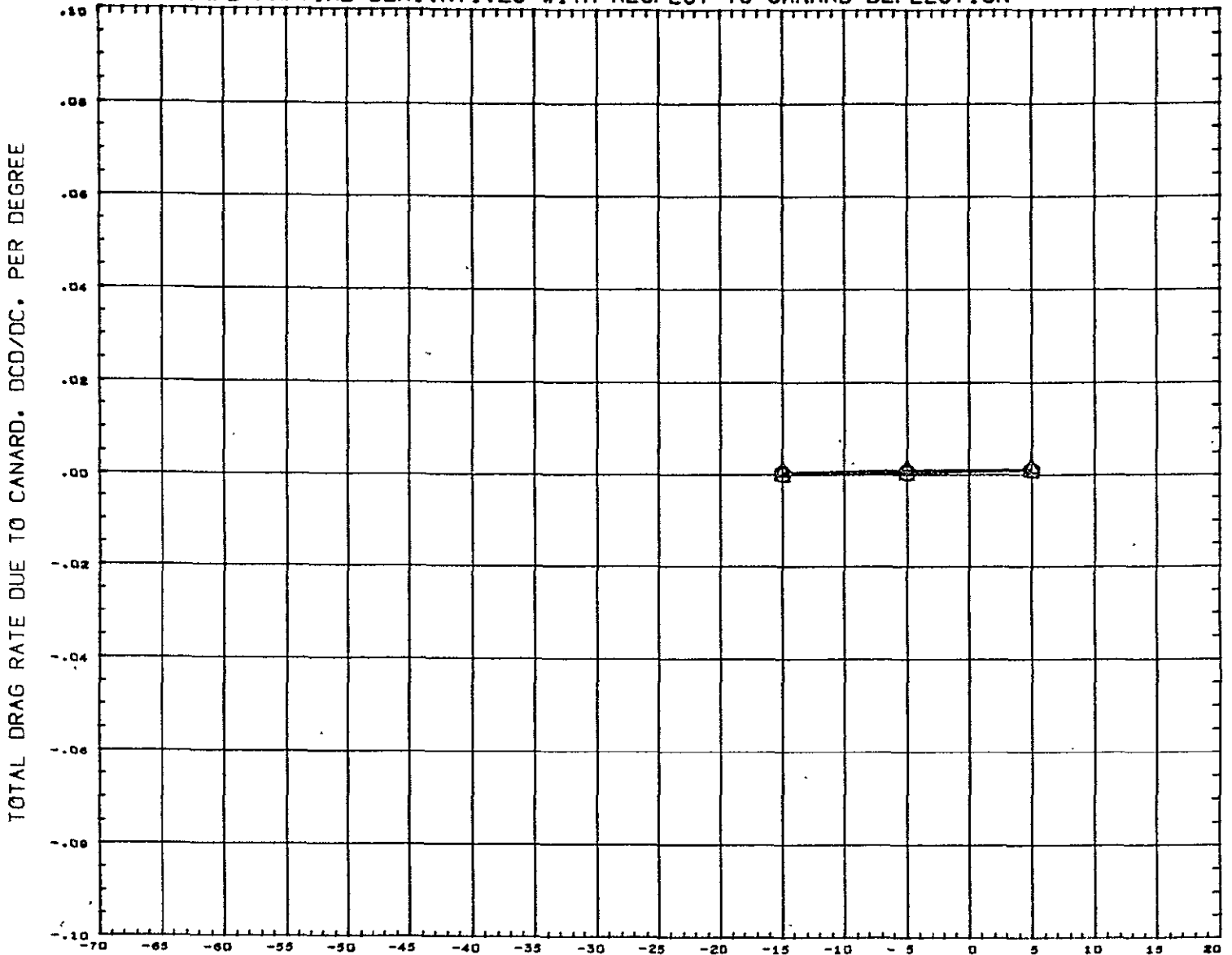
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	10.000	MACH	0.950	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	SQ. IN.
△	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XHRP	6.7100	IN.
										YHRP	0.0000	IN.
										ZHRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1*H*P

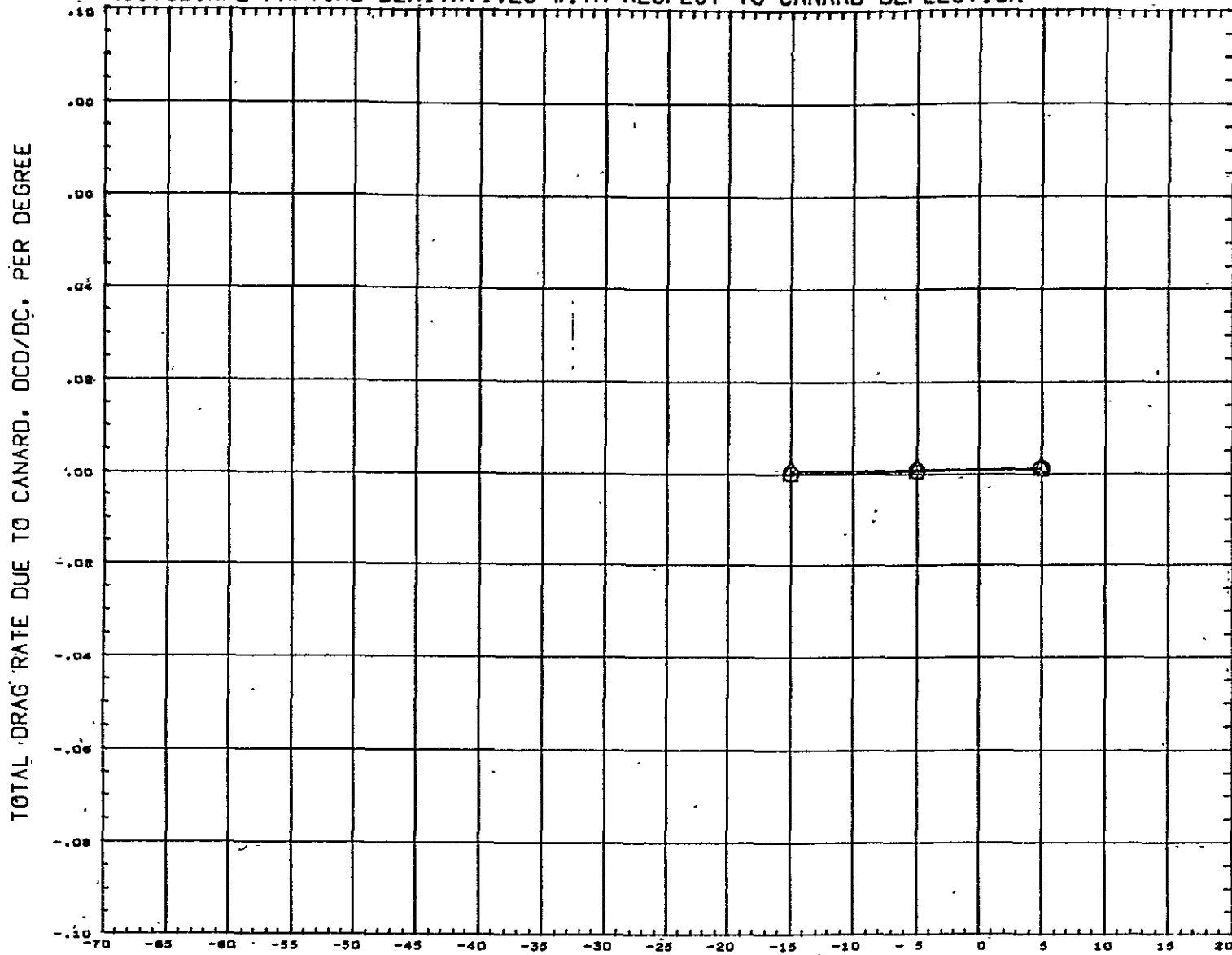
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION		
□		10.000	MACH	1.050	BETA	0.000	DATA SET	CANARD	SREF	15.6560	50. IN.
△		20.000	DEL	0.000	DER	0.000	028109	- 15.000	LREF	3.0950	IN.
			ELEVON	0.000	AILRON	0.000	028111	5.000	BREF	6.0990	IN.
									XMRP	6.7100	IN.
									YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR*EI*M*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

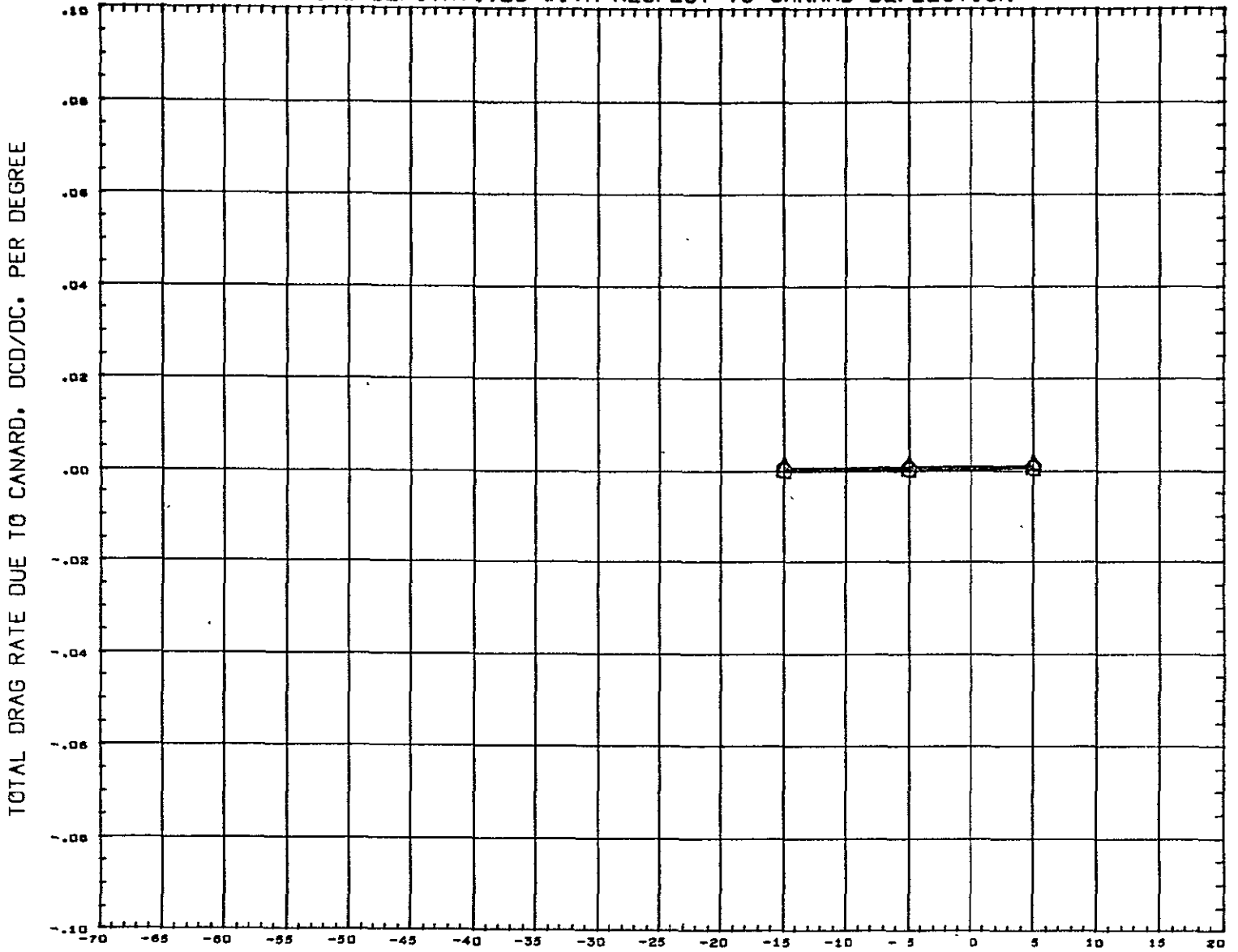


CANARD

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
△	10.000	MACH	1.200	BETA	0.000	DATASET	CANARD	DATASET	CANARD	SREF	15.6560	Sq. IN.
	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AILRON	0.000	028111	5.000			BREF	6.0990	IN.
										XHRP	6.7100	IN.
										YMRP	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR#E1*H*P

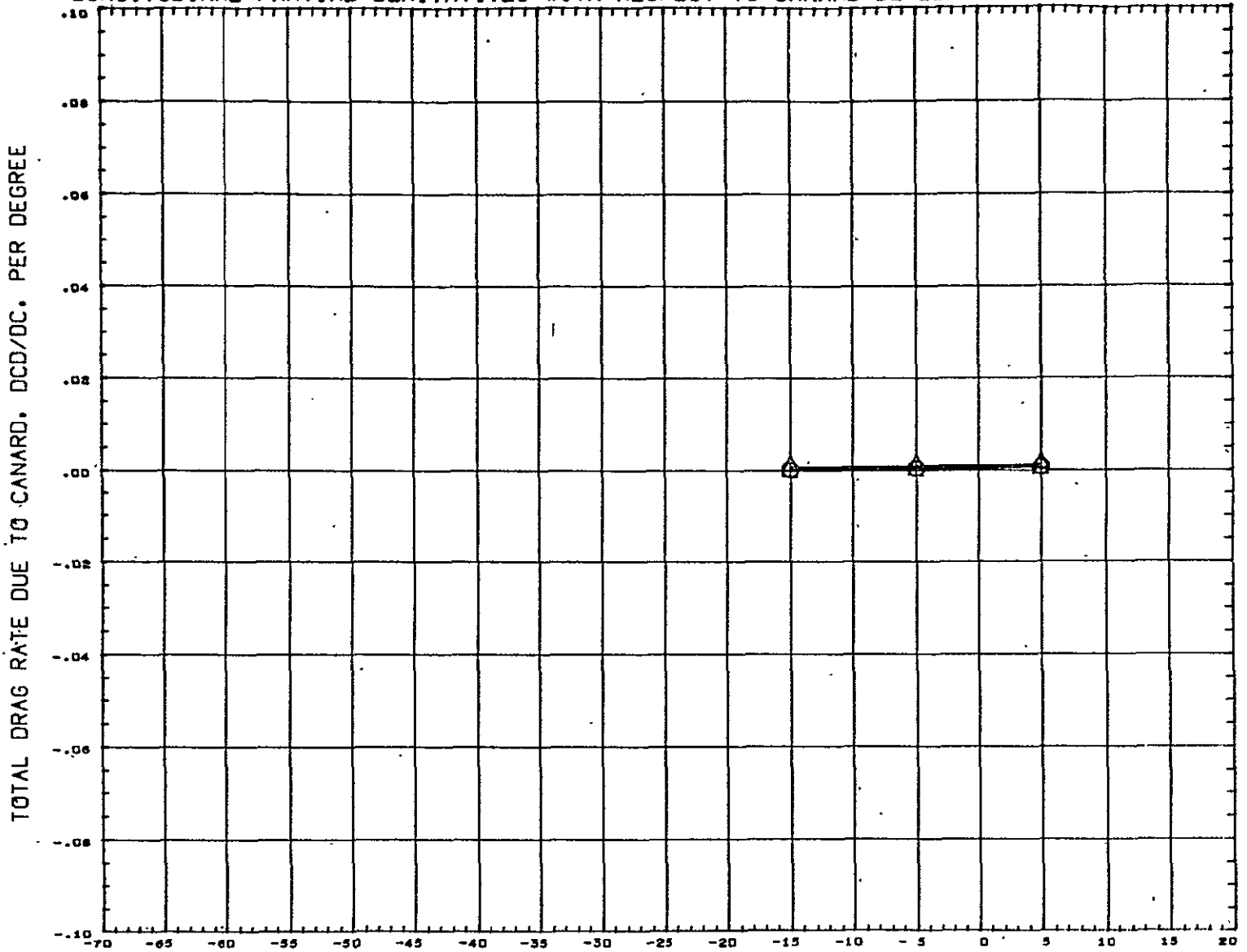
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES			DATA SOURCE				REFERENCE INFORMATION		
∞	10.000	1.500	BETA	0.000	028109	- 15.000	028110	- 5.000	SREF	19.6560	SQ. IN.	
	20.000	0.000	DEL	0.000	028111	5.000			LREF	3.0950	IN.	
		0.000	ELEVON	0.000					BREF	6.0940	IN.	
									XMRP	6.7100	IN.	
									YMRP	0.0000	IN.	
									ZMRP	0.0000	IN.	
									SCALE	0.0035		

DATA HIST. CODE MYR#E1*H*P

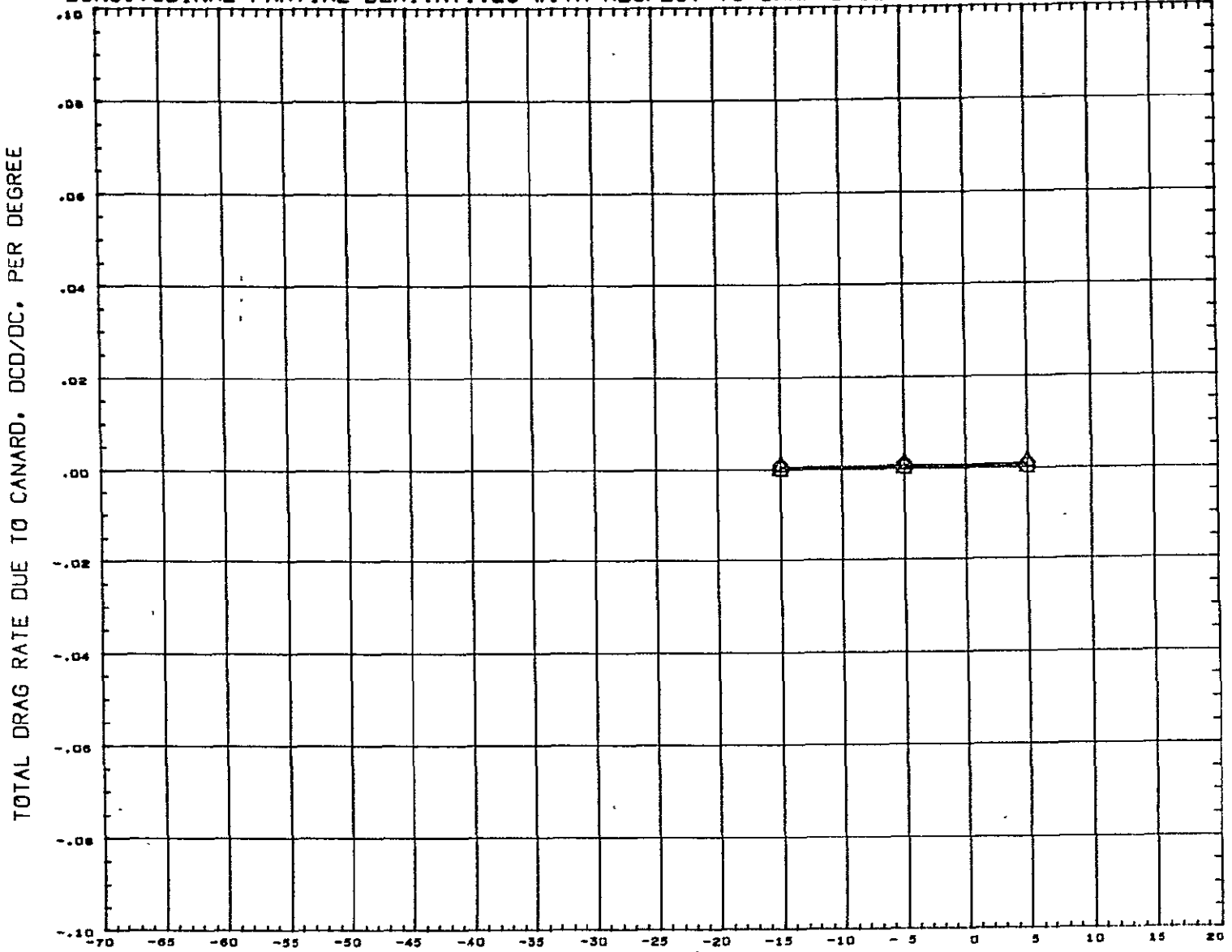
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL		ALPHA	PARAMETRIC VALUES			DATA SOURCE		REFERENCE INFORMATION					
○	10.000	MACH	2.000	BETA	0.000	DATASET	CANARD	SREF	15.6560	Sq. IN.			
	△	20.000	DEL	0.000	DER	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		ELEVON	0.000	AIRON	0.000	028111	5.000	BREF	6.0990	IN.			
								XMRP	6.7100	IN.			
								YMRP	0.0000	IN.			
								ZMRP	0.0000	IN.			
								SCALE	0.0035				

DATA HIST. CODE MVR*E1*H*P

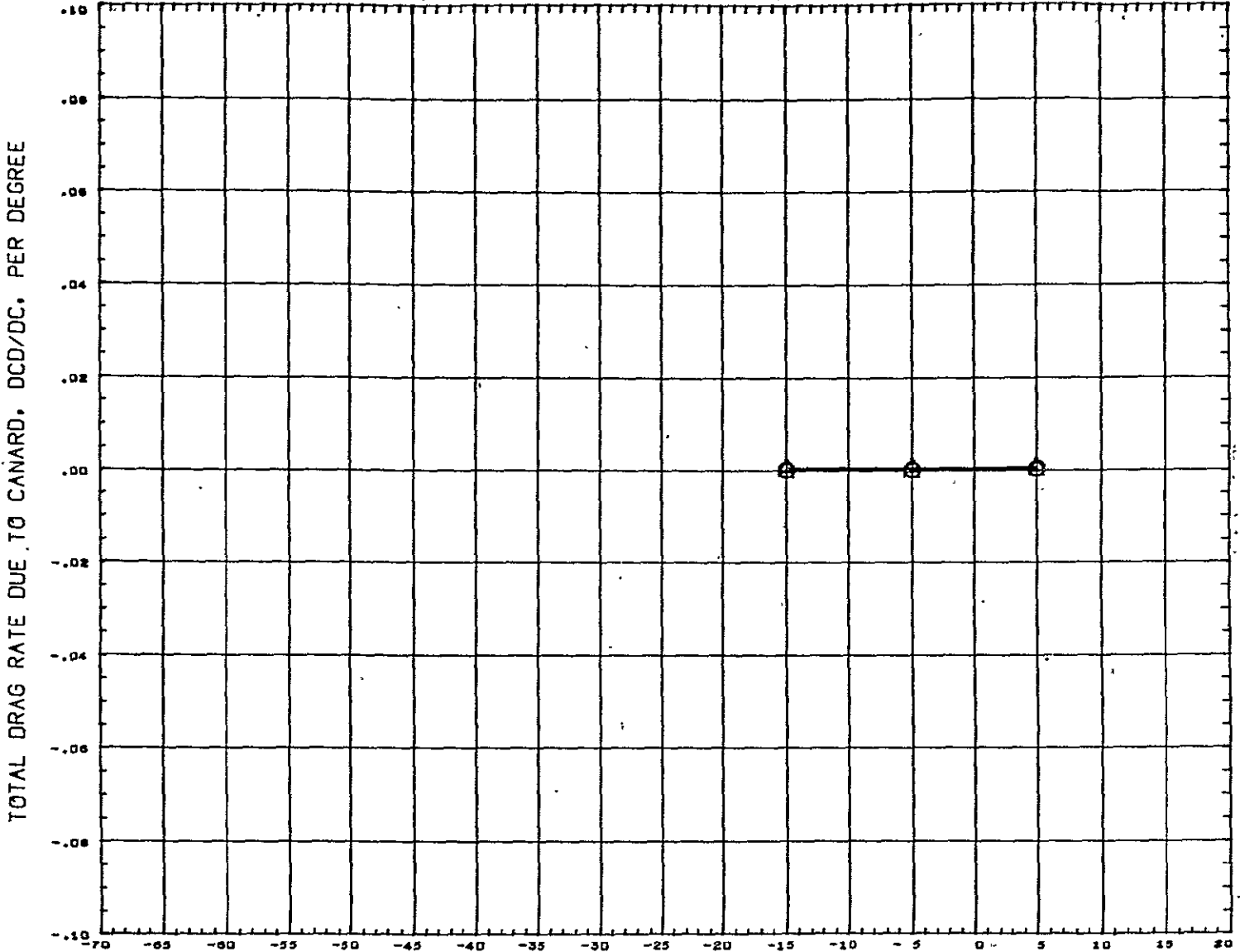
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	MACH	PARAMETRIC VALUES		DATA SOURCE			REFERENCE INFORMATION			
○	10.000	3.000	BETA	0.000	028109	- 15.000	028110	- 5.000	SREF	15.6560	50. IN.
△	20.000	0.000	DEL	0.000	028109	- 15.000	028110	- 5.000	LREF	3.0950	IN.
		0.000	ELEVON	0.000	028111	5.000			BREF	6.0990	IN.
									XMRP	6.7100	IN.
									YHRP	0.0000	IN.
									ZHRP	0.0000	IN.
									SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

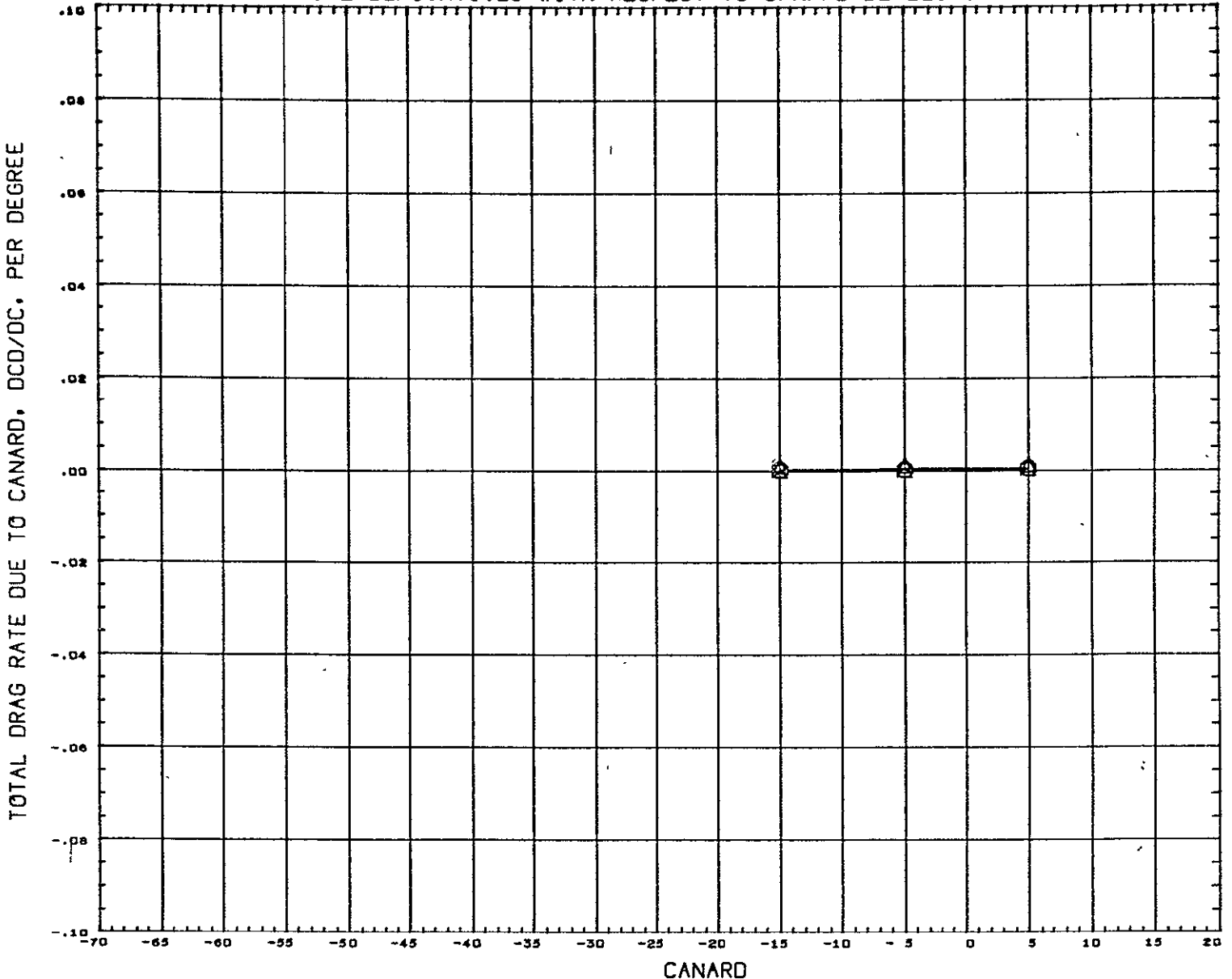


CANARD

YMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	ALPHA	MACH	BETA		DATASET	CANARD	DATASET	CANARD	SREF	IN.	
○	10.000	4.000	0.000		028109	- 15.000	028110	- 5.000	15.6560	50. IN.	
△	20.000	0.000	0.000		028111	5.000			3.0950	IN.	
		ELEVON	0.000	AILRON	0.000				6.0990	IN.	
									XMRP	6.7100	IN.
									YMRP	0.0000	IN.
									ZMRP	0.0000	IN.
									SCALE	0.0033	

DATA HIST. CODE MVR*EI*H*P

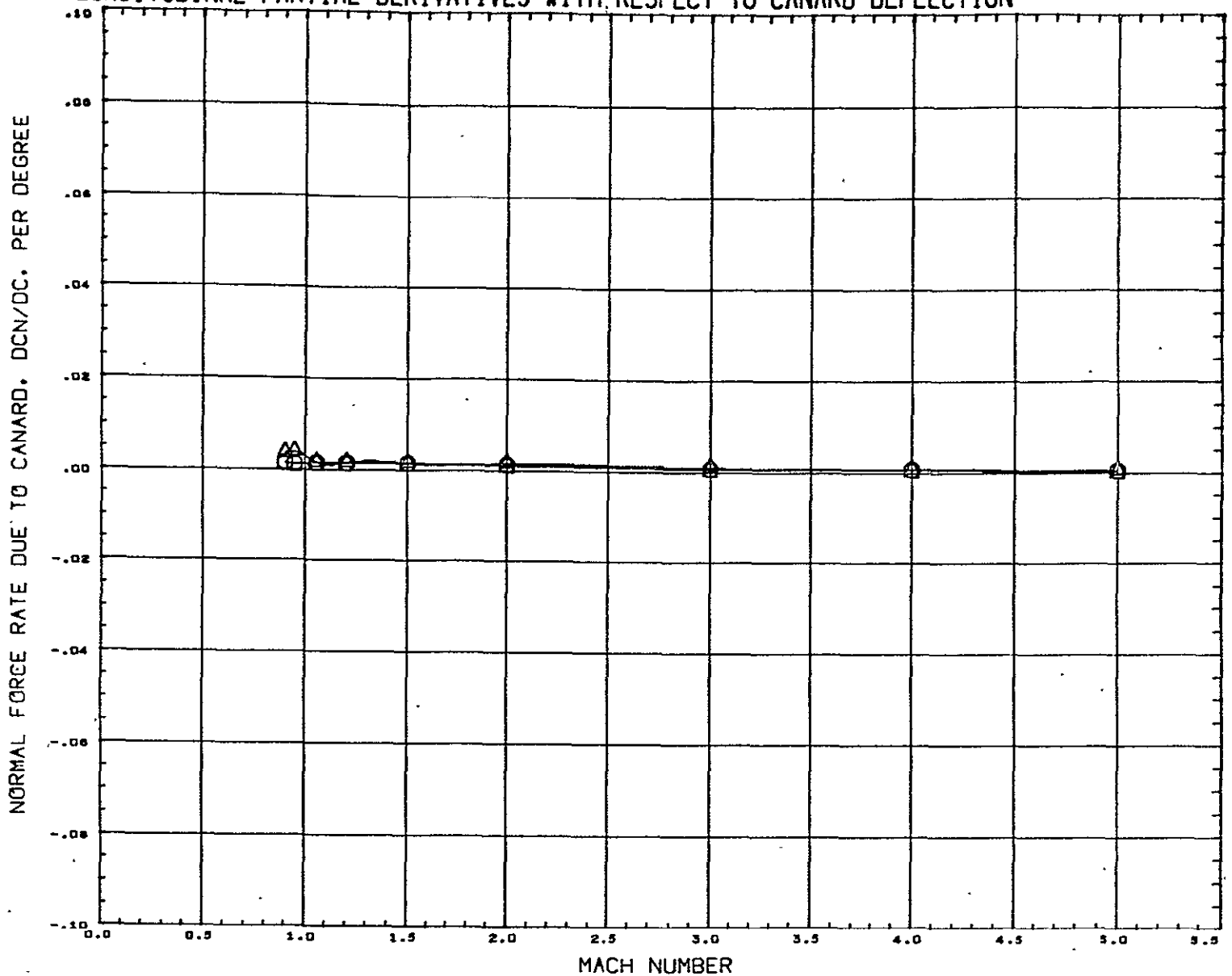
LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
		MACH	BETA	DER	AILRON	DATASET	CANARD	DATASET	CANARD	SREF	SQ. IN.	IN.
○	10.000	5.000	0.000	0.000	0.000	028109	- 15.000	028110	- 5.000	15.6560	3.0950	IN.
△	20.000	0.000	0.000	0.000	0.000	028111	5.000			6.0990	6.7100	IN.
		ELEVON	0.000							0.0000	0.0000	IN.
										ZMRP	0.0000	IN.
										SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

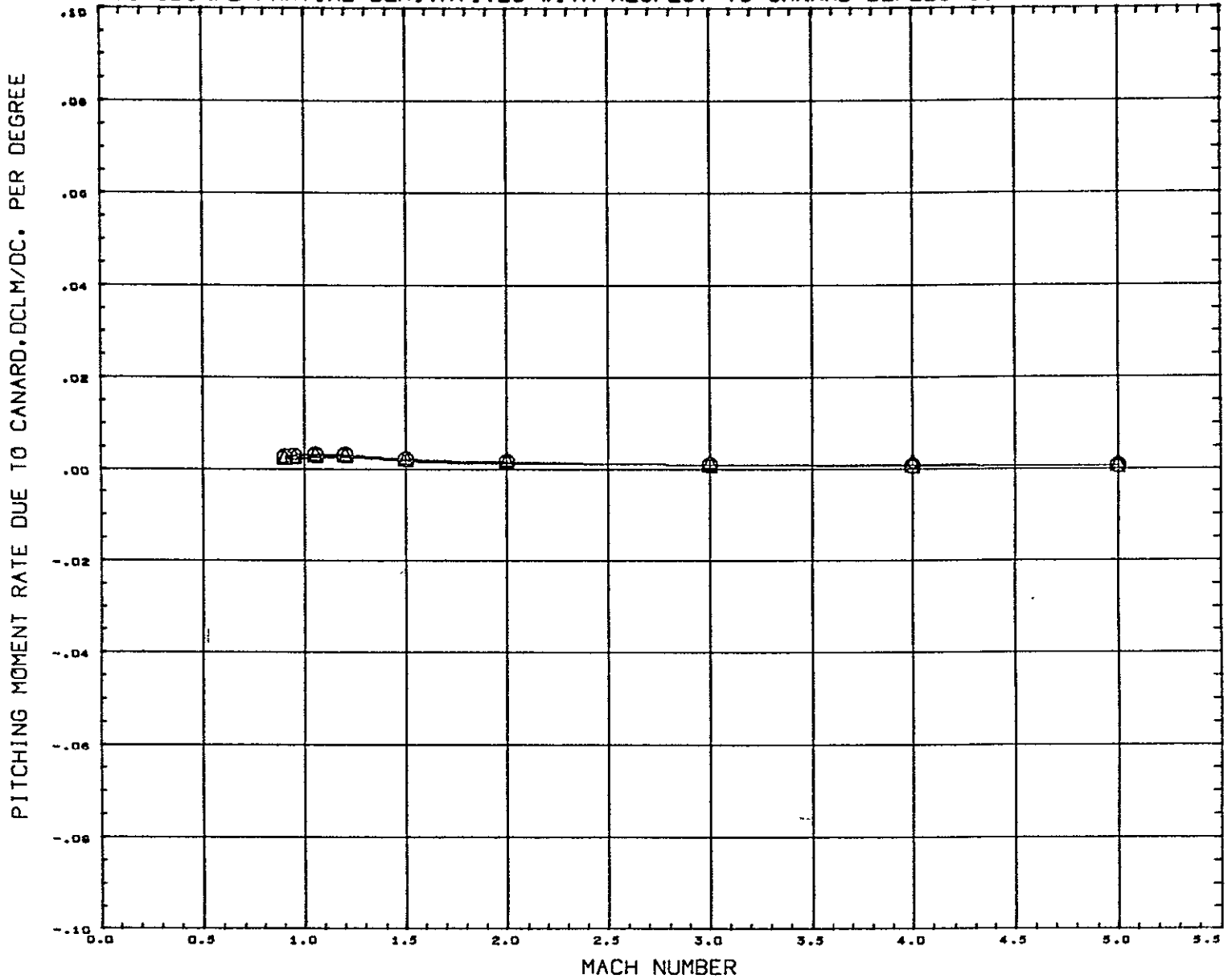


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	- 15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR*E1#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

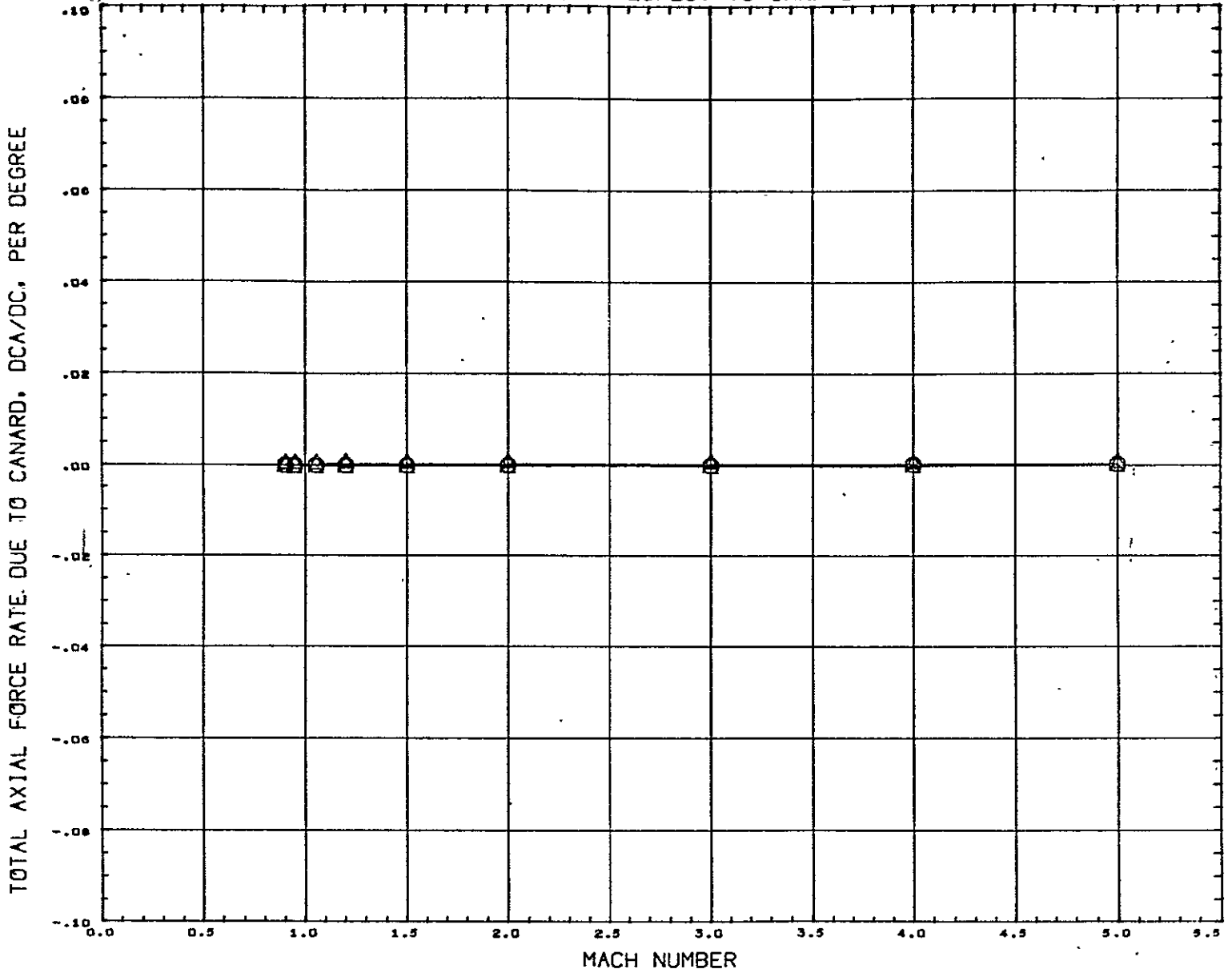


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	- 15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	sq. in.
LREF	3.0950	in.
BREF	6.0990	in.
XMRP	0.7100	in.
YMRP	0.0000	in.
ZMRP	0.0000	in.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

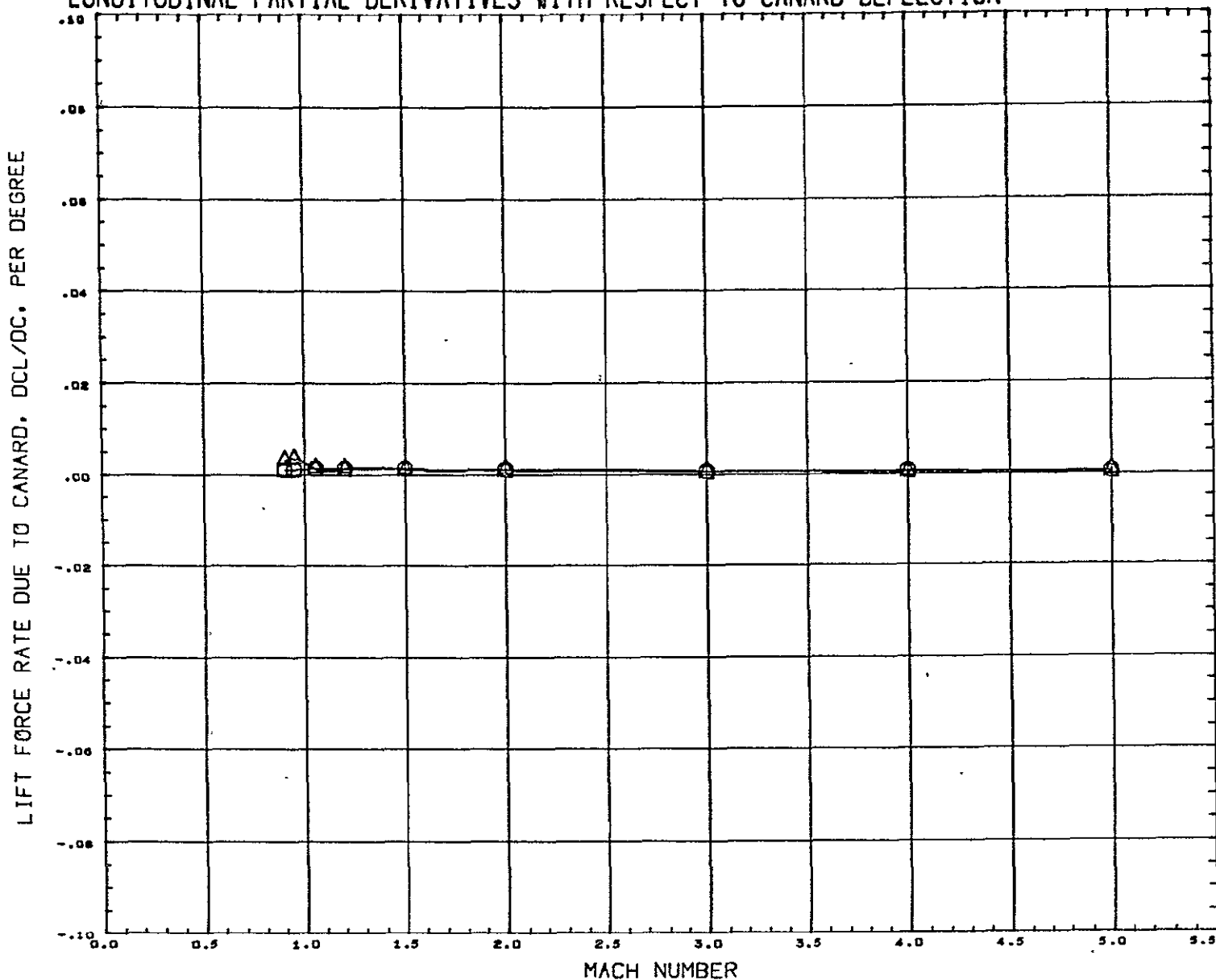


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	- 15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0055	

DATA HIST. CODE HVR9E1*H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

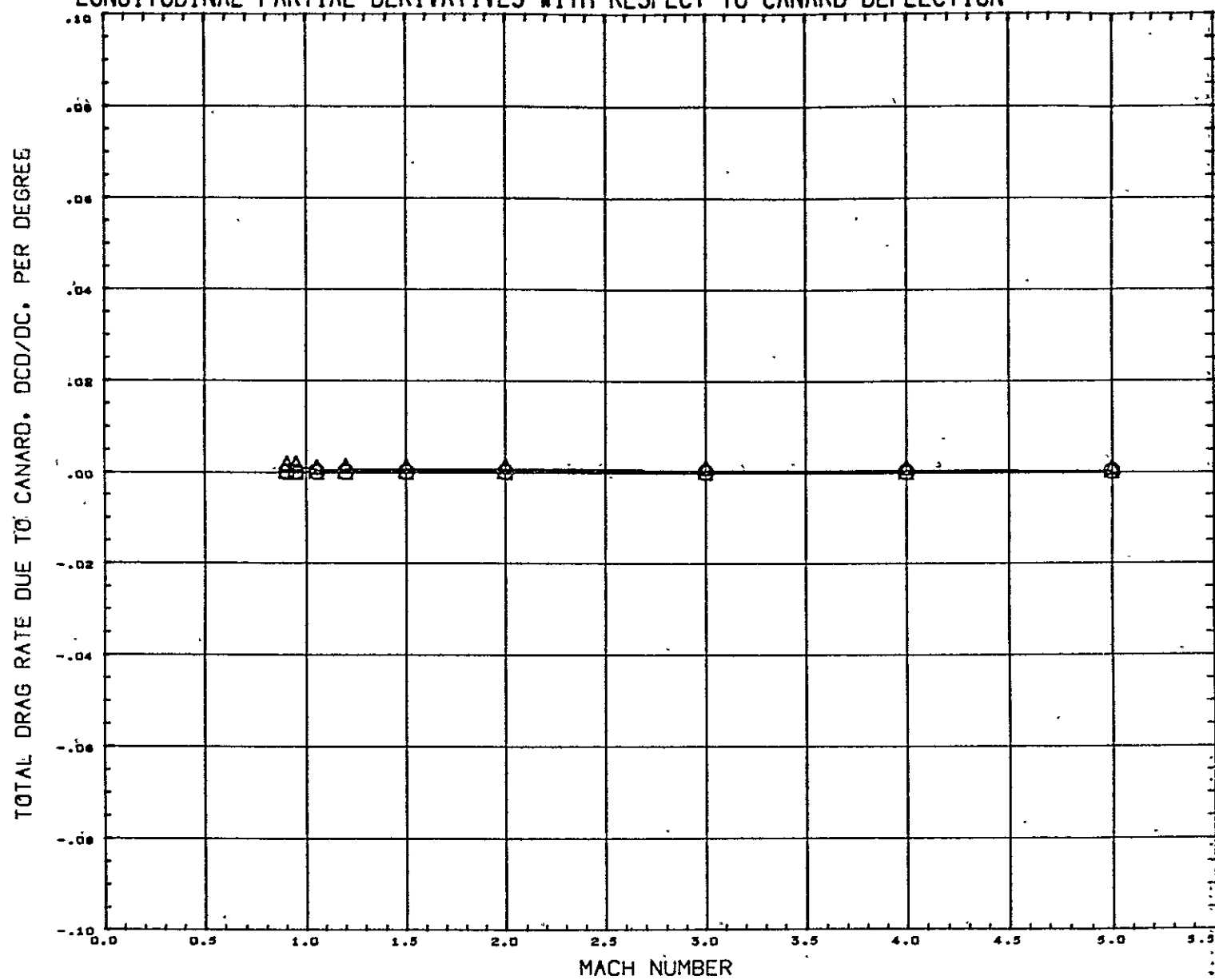


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	- 15.000	AIRLON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

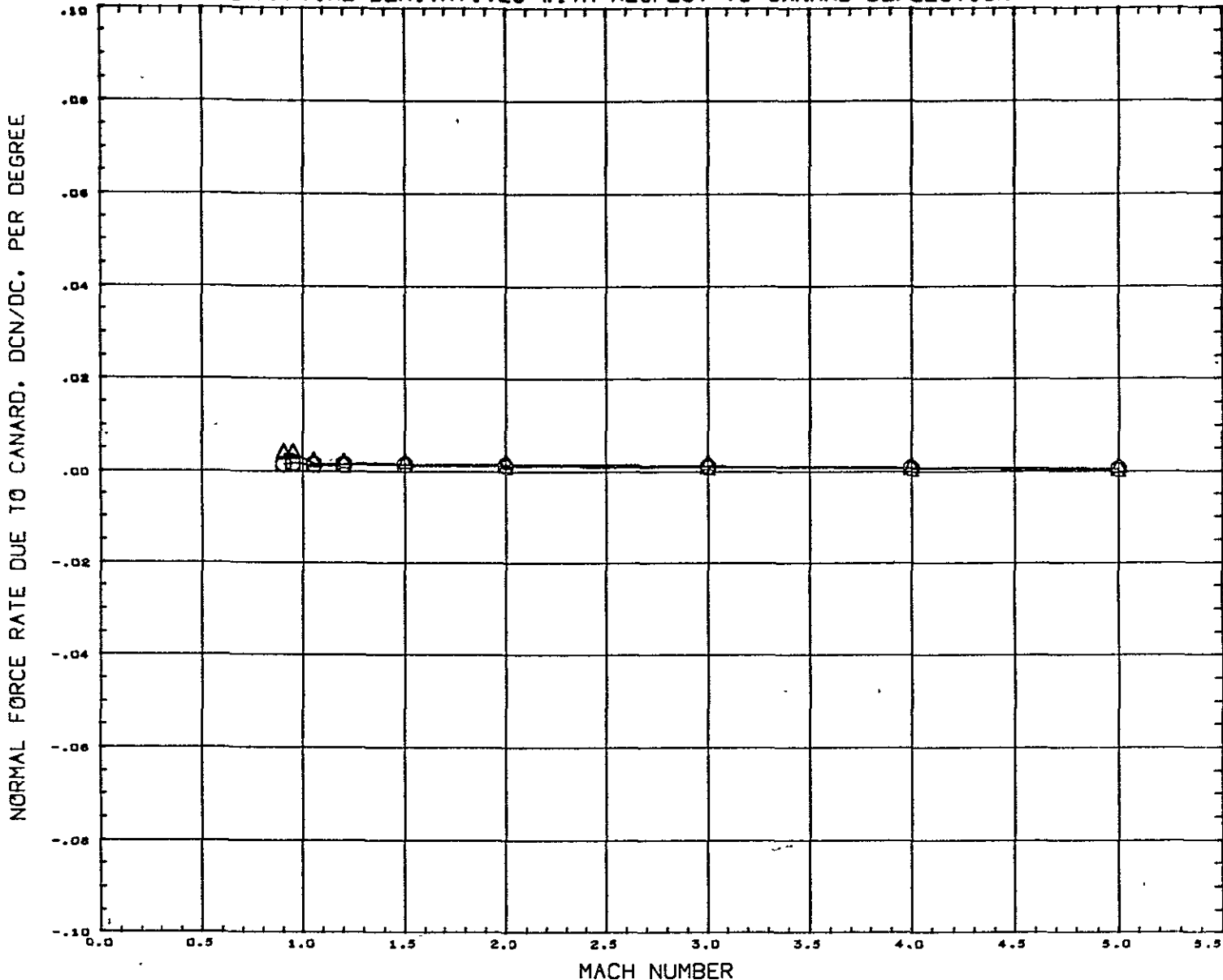


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	- 15.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

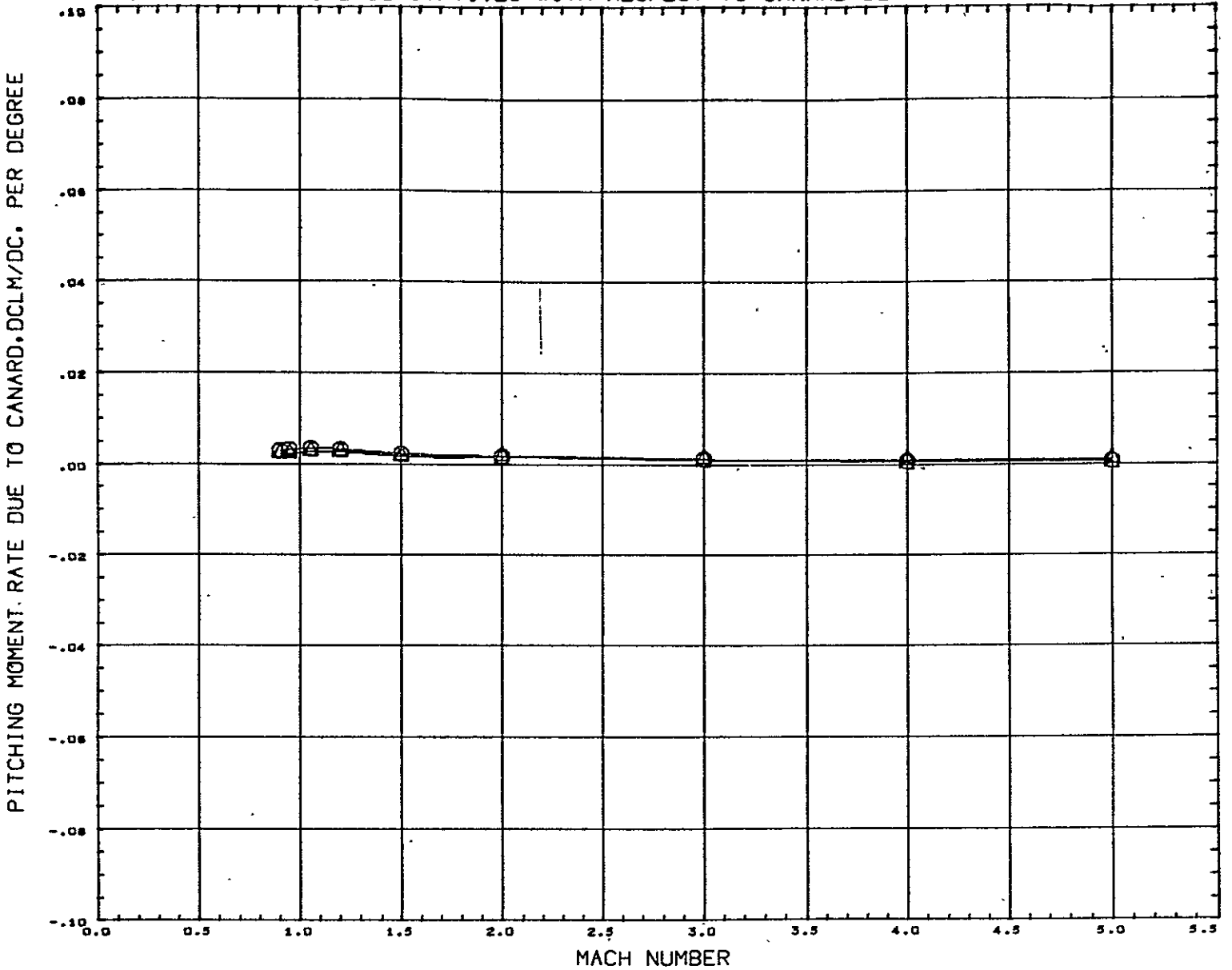


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	10.000		0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	- 5.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

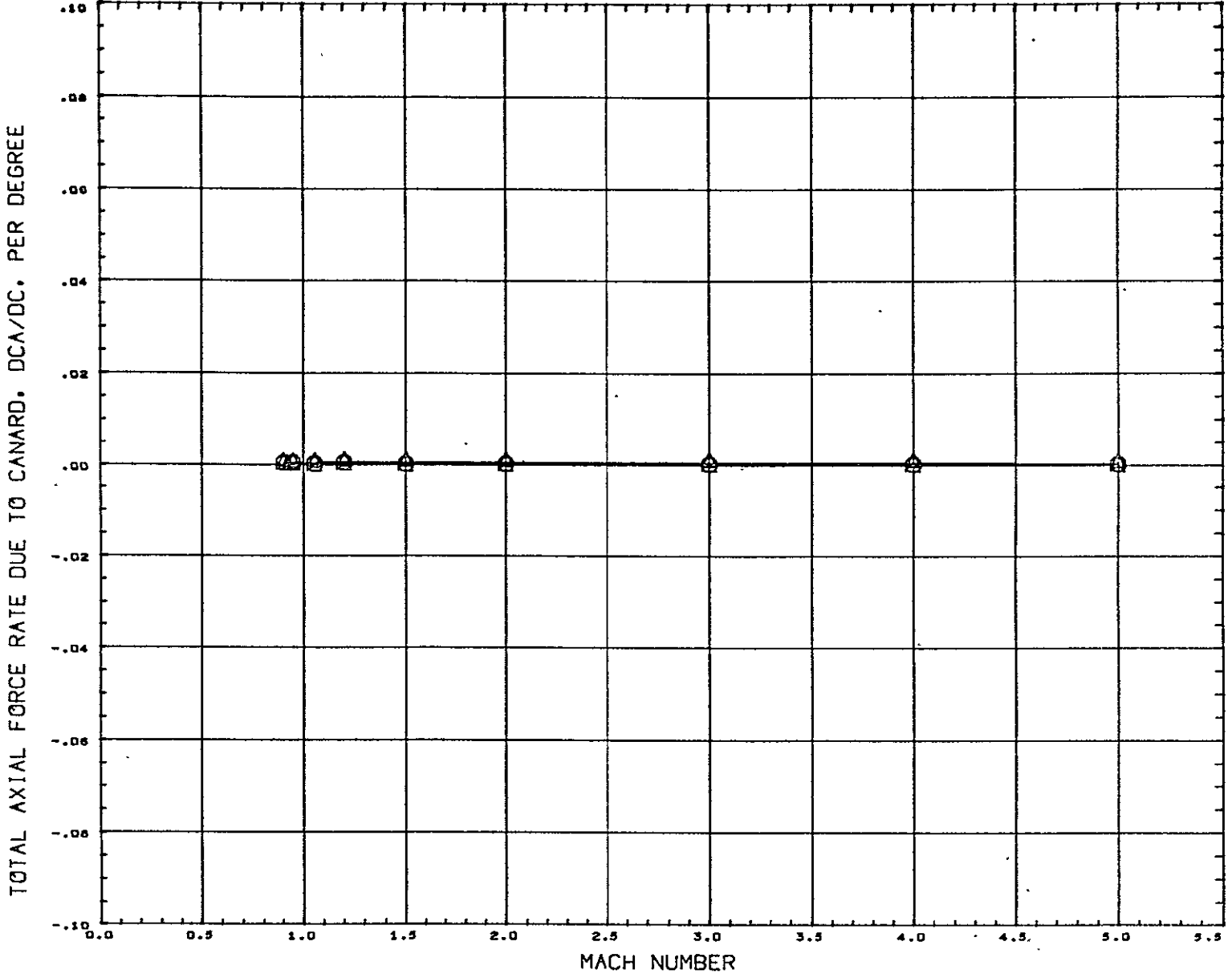


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	- 5.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	50.1N.
LREF	3.0950	IN.
BREF	8.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

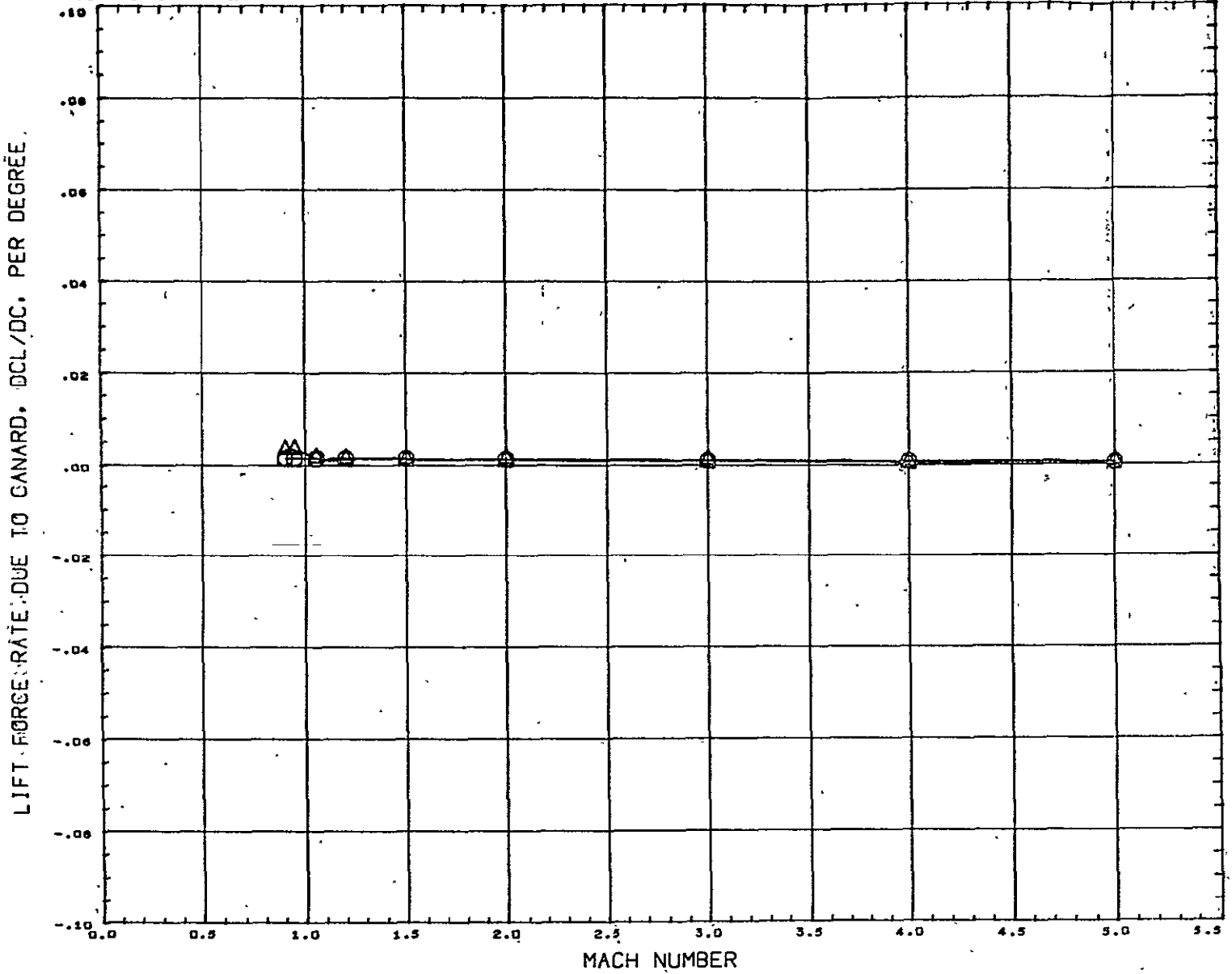


SYMBOL	ALPHA	PARAMETRIC VALUES			
△	10.000	BETA	0.000	DEL	0.000
	20.000	DER	0.000	ELEVON	0.000
		CANARD	5.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	Sq. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	- 5.000	AILRON	0.000

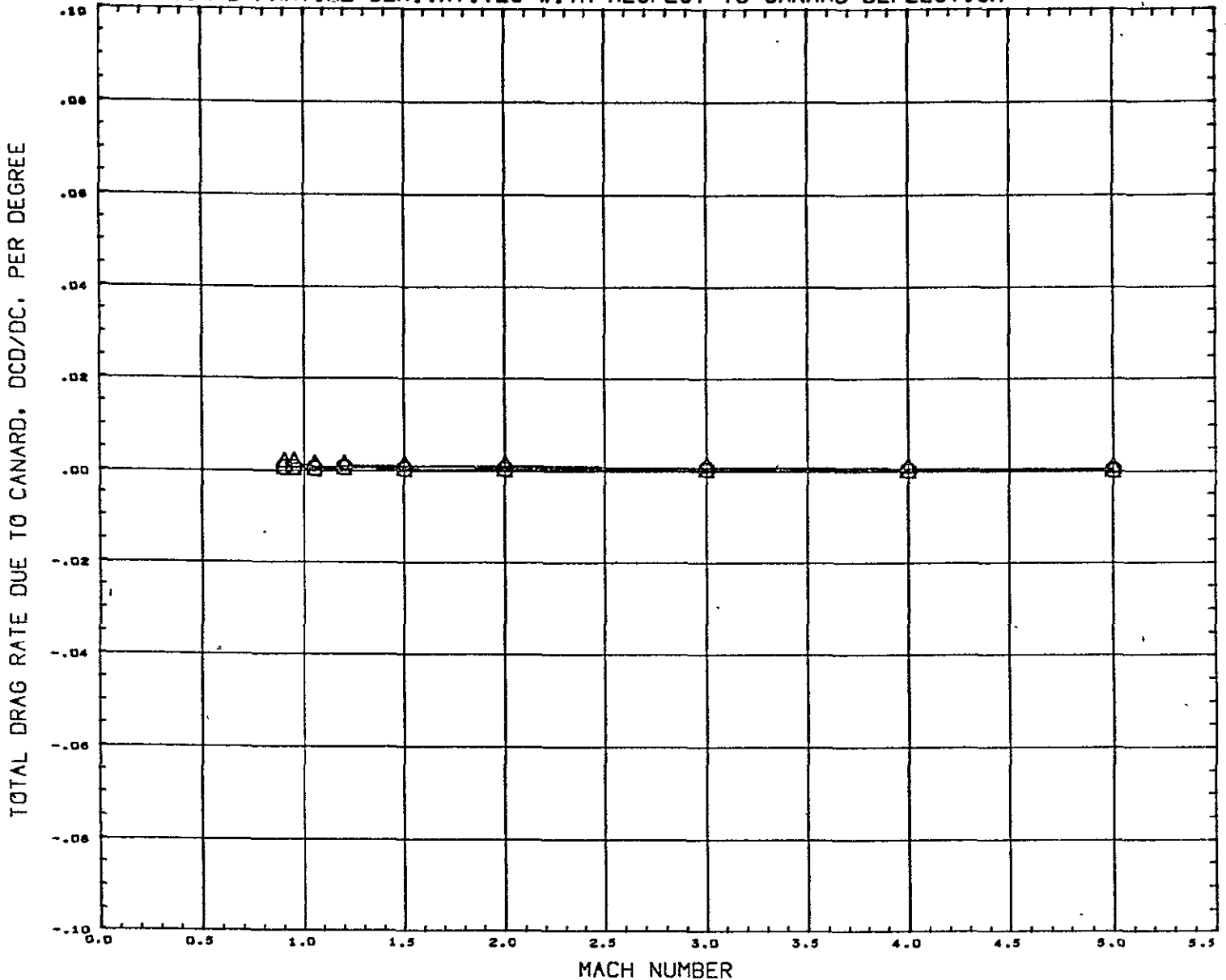
REFERENCE INFORMATION		
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LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI*HP

MSFC481 GD/C(B00STER)B19W14C4AV7

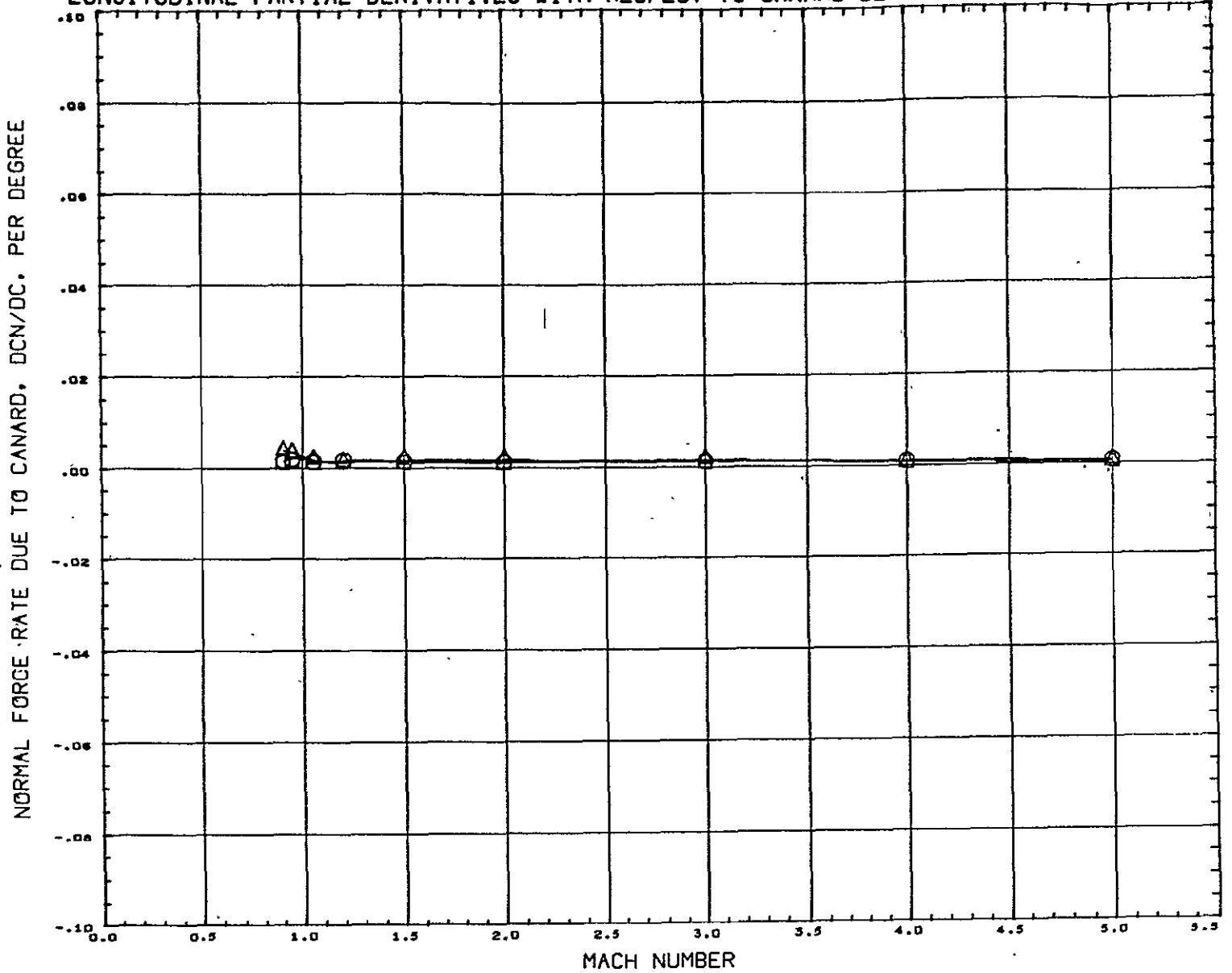
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LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL ○ △	ALPHA 10.000 20.000	BETA DER CANARD -	PARAMETRIC VALUES 0.000 DEL 0.000 ELEVON 5.000 AILRON 0.000		REFERENCE INFORMATION SREF 15.6560 SQ. IN. LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035
DATA HIST. CODE			MVR*EI*M*P		

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	5.000	AILRON	0.000

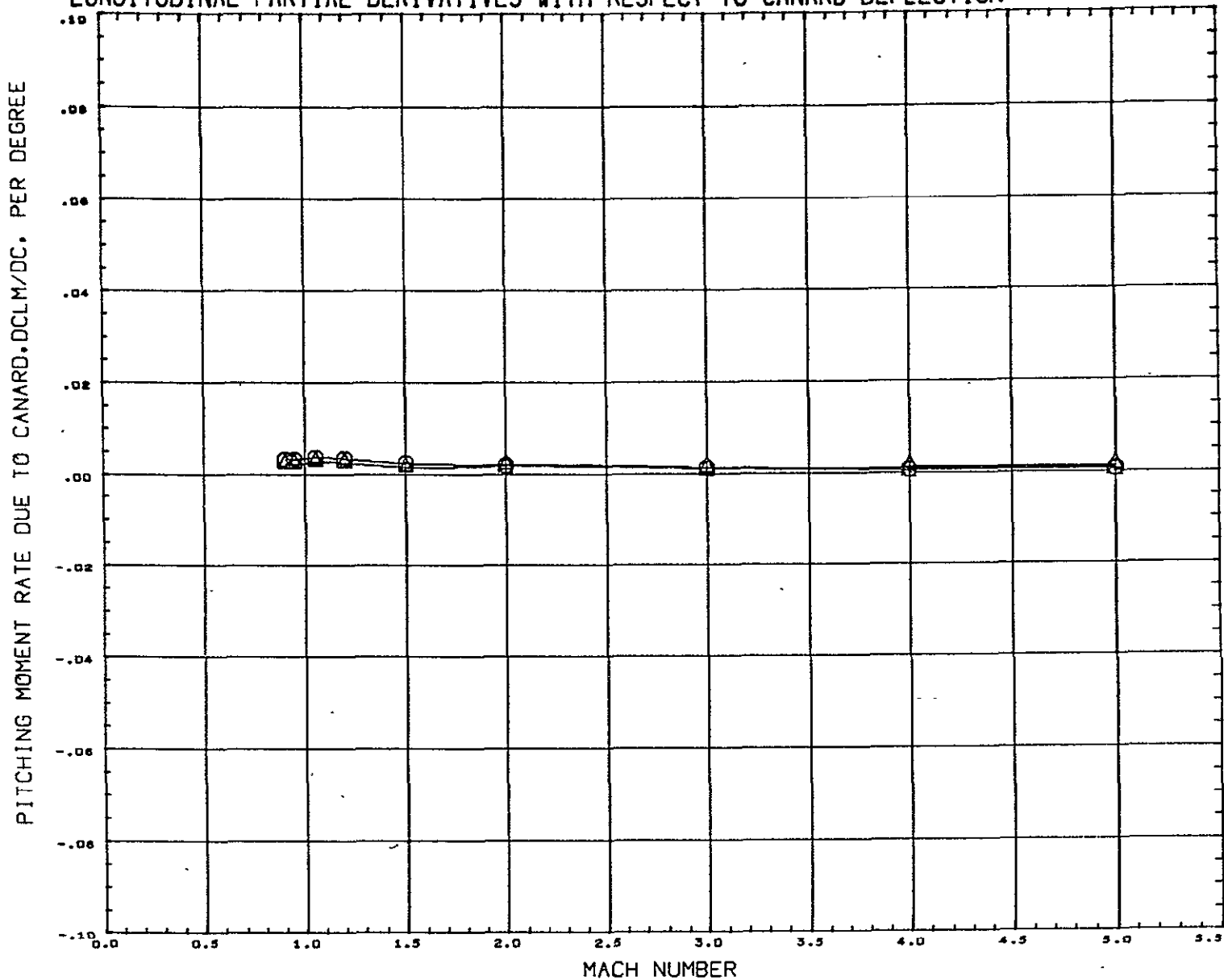
REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

MSFC481 GD/C(BOOSTER)B19W14C4AV7

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LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

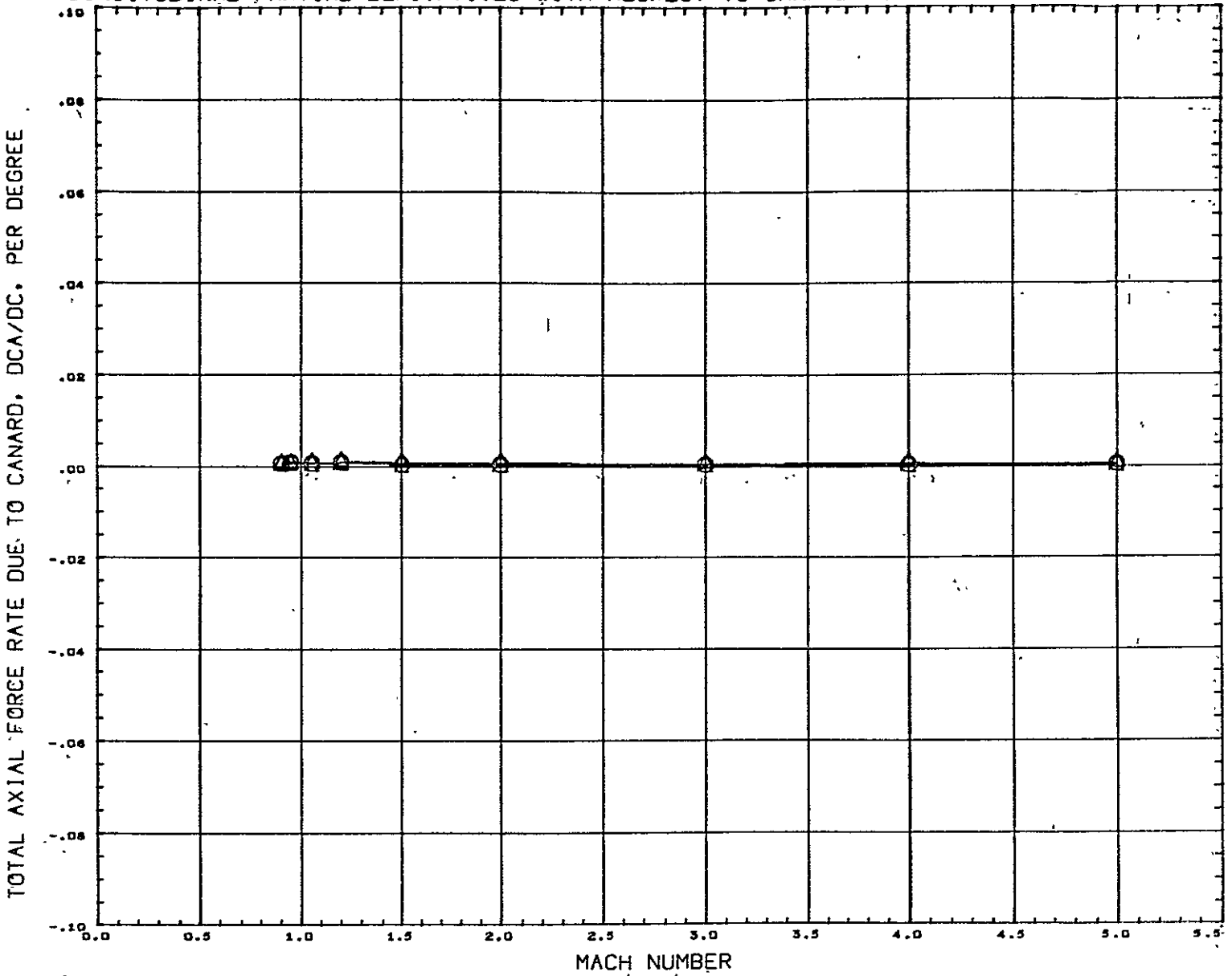


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	5.000	AILRON	0.000

REFERENCE INFORMATION		
.SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

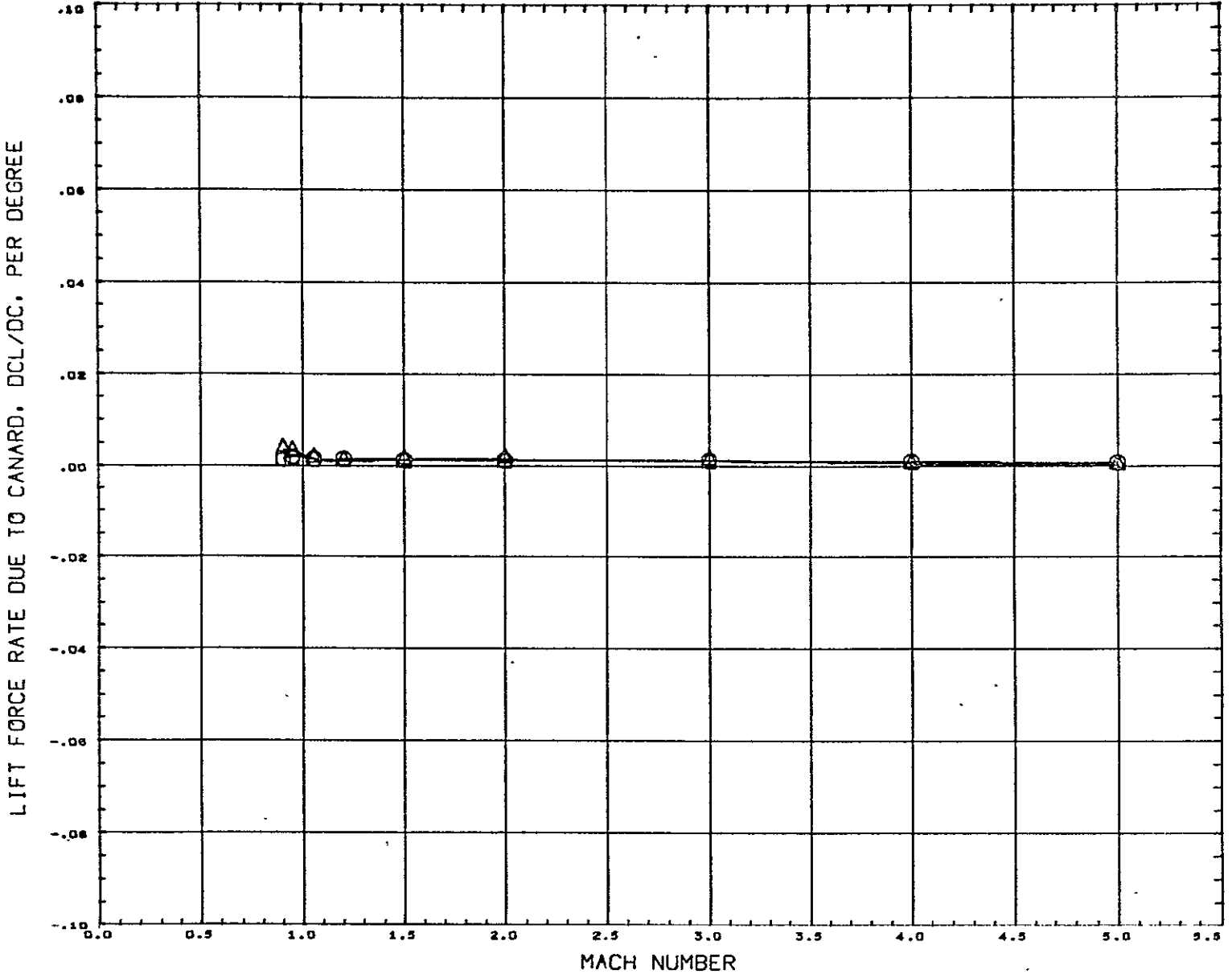


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	5.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EI*H*P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION

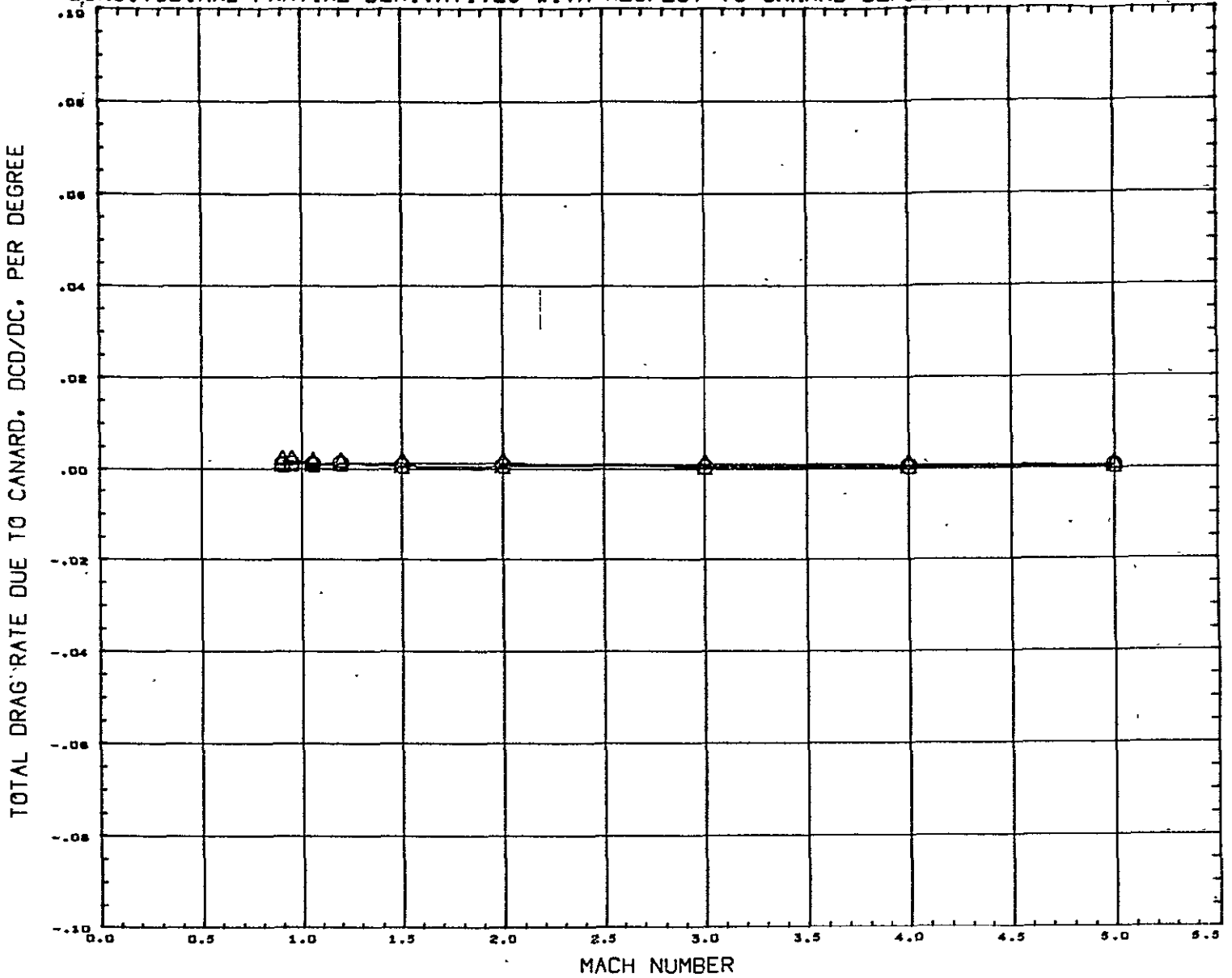


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	10.000	0.000	DEL	0.000	0.000
△	20.000	DER	0.000	ELEVON	0.000
		CANARD	5.000	AILRON	0.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#H#P

LONGITUDINAL PARTIAL DERIVATIVES WITH RESPECT TO CANARD DEFLECTION



SYMBOL	ALPHA	PARAMETRIC VALUES			
△	10.000	BETA	0.000	DEL	0.000
	20.000	DER	0.000	ELEVON	0.000
		CANARD	5.000	AILRON	0.000

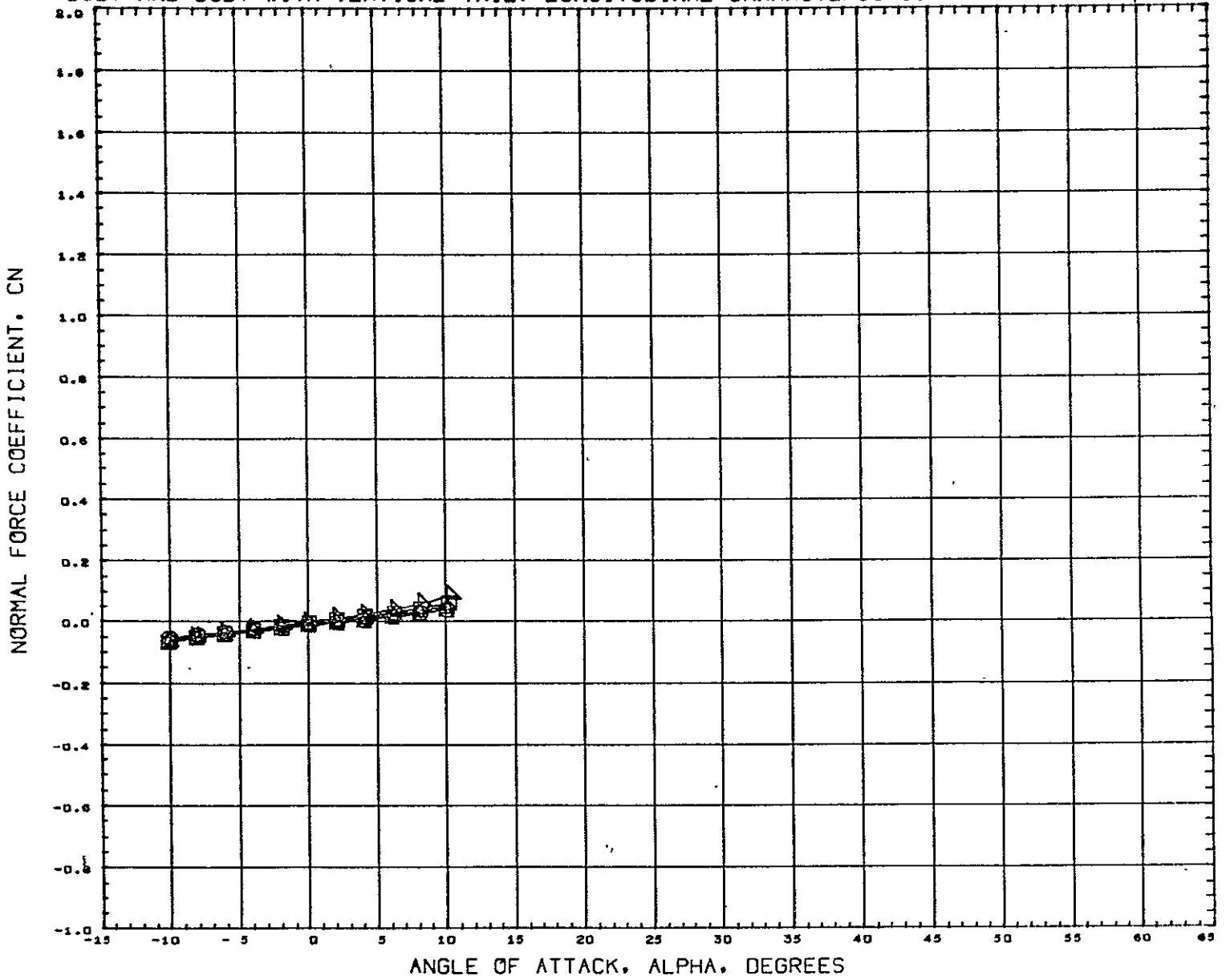
REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1*H*P

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BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS

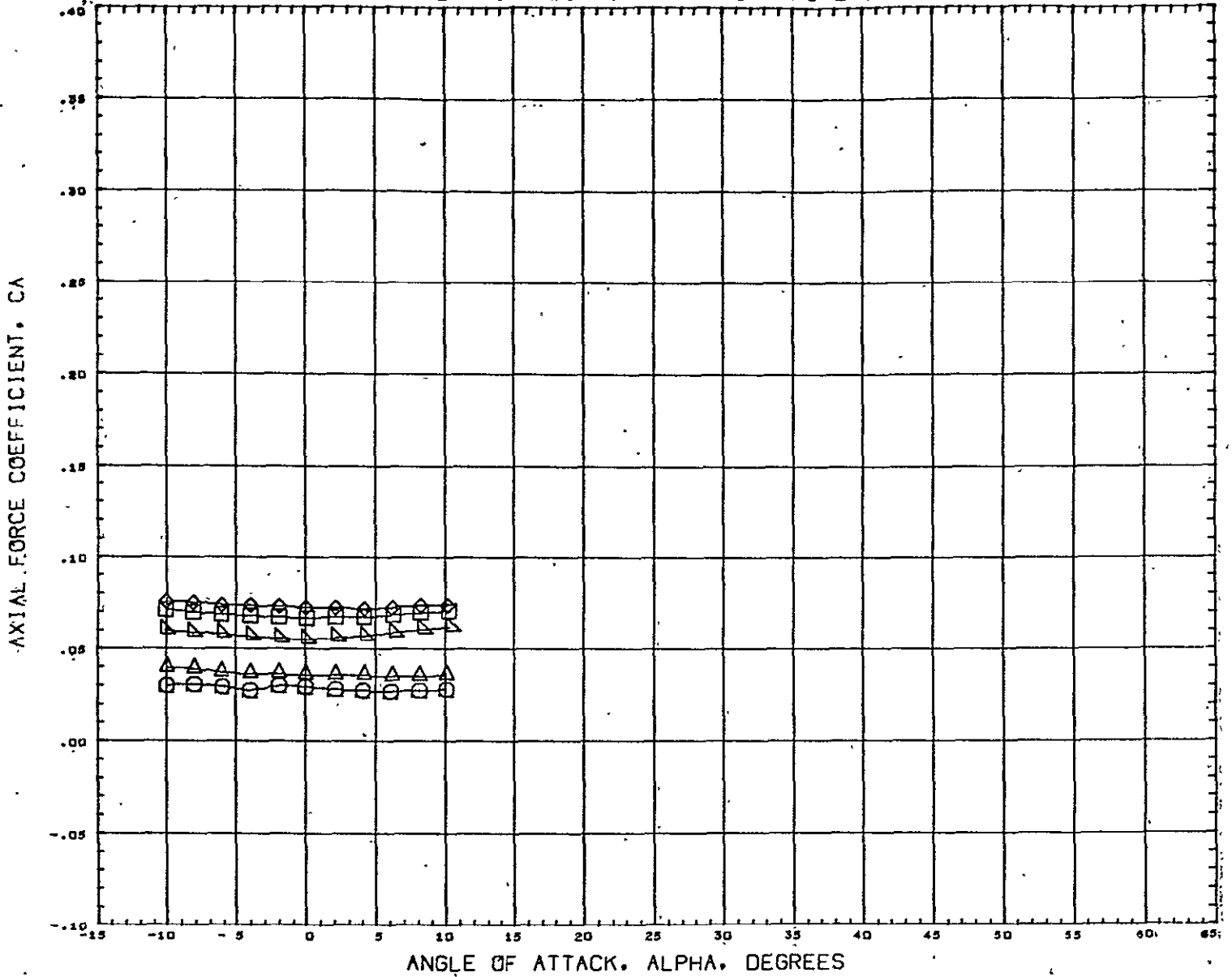


SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	0.610	0.000	
△	0.901	0.000	
◇	1.105	0.000	
◊	1.461	0.000	
◻	1.966	0.000	

REFERENCE INFORMATION		
SREF	15.6560	50 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS

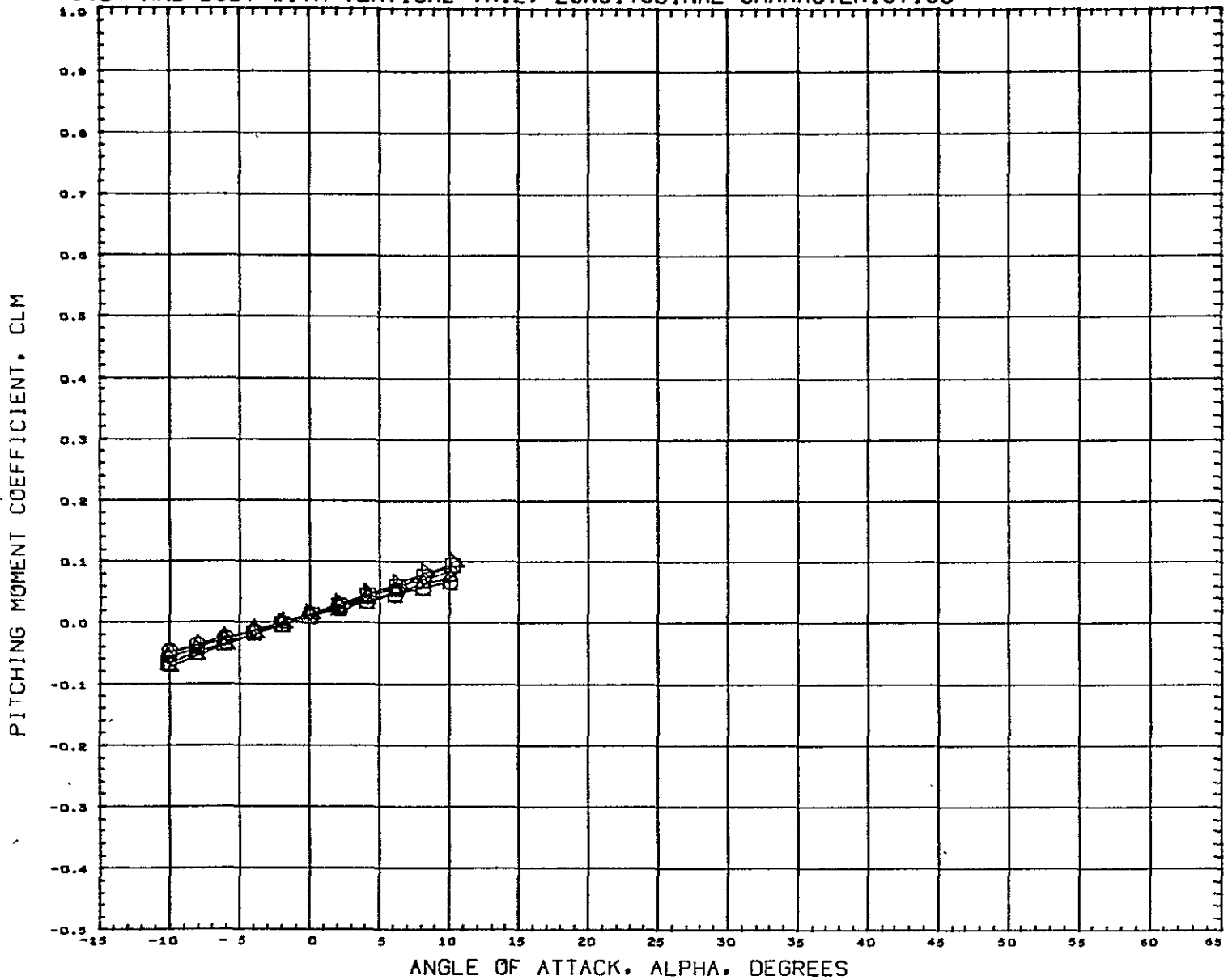


SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	0.610		0.000
△	0.901		
◇	1.105		
□	1.461		
▽	1.966		

DATA HIST. CODE MVR#E

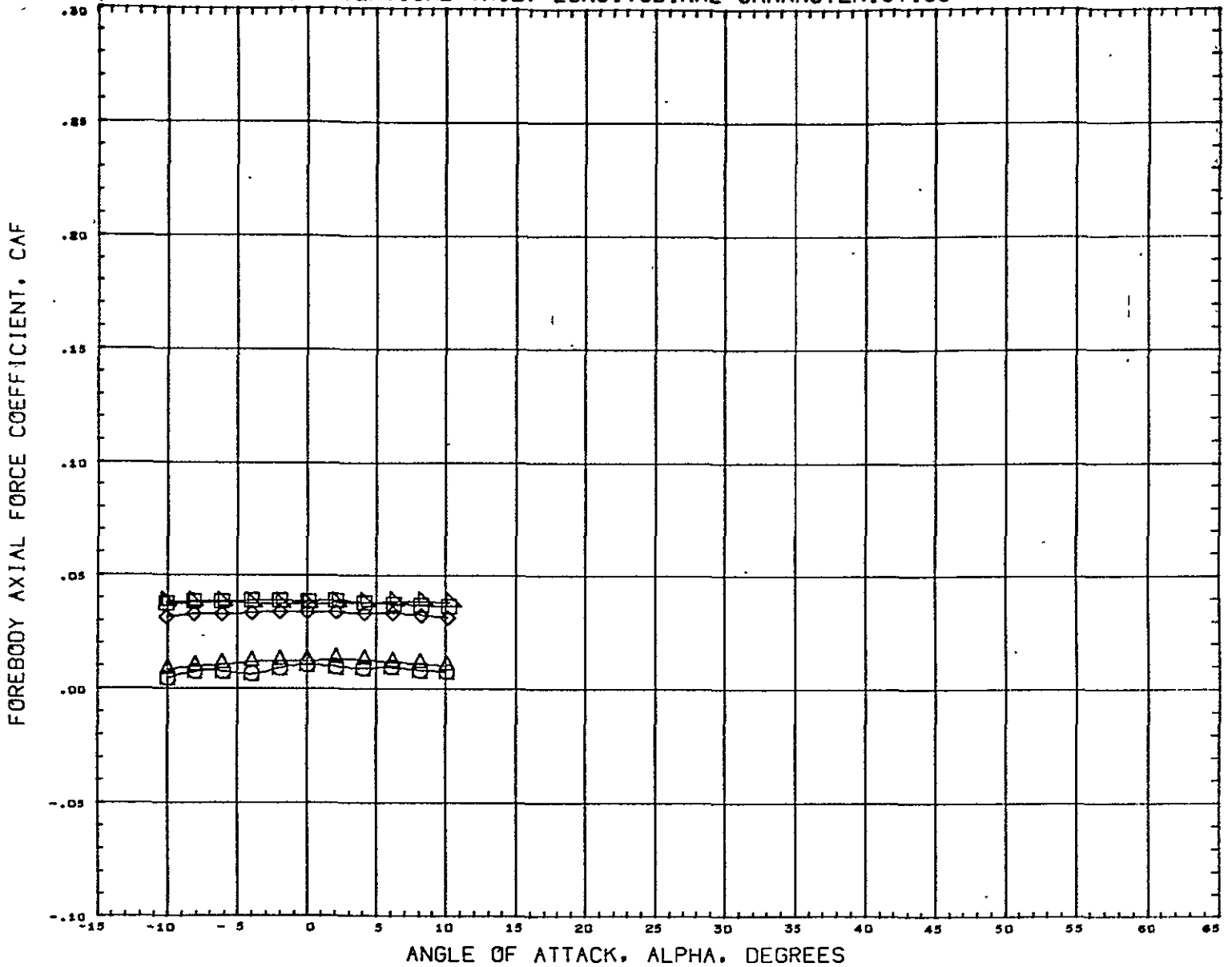
REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	0.610		0.000	SREF 15.6360 50. IN.
◇	0.901			LREF 3.0950 IN.
◇	1.105			BREF 6.0990 IN.
◇	1.461			XMRP 6.7100 IN.
◇	1.906			YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035
		DATA HIST. CODE	MVR*E	

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS

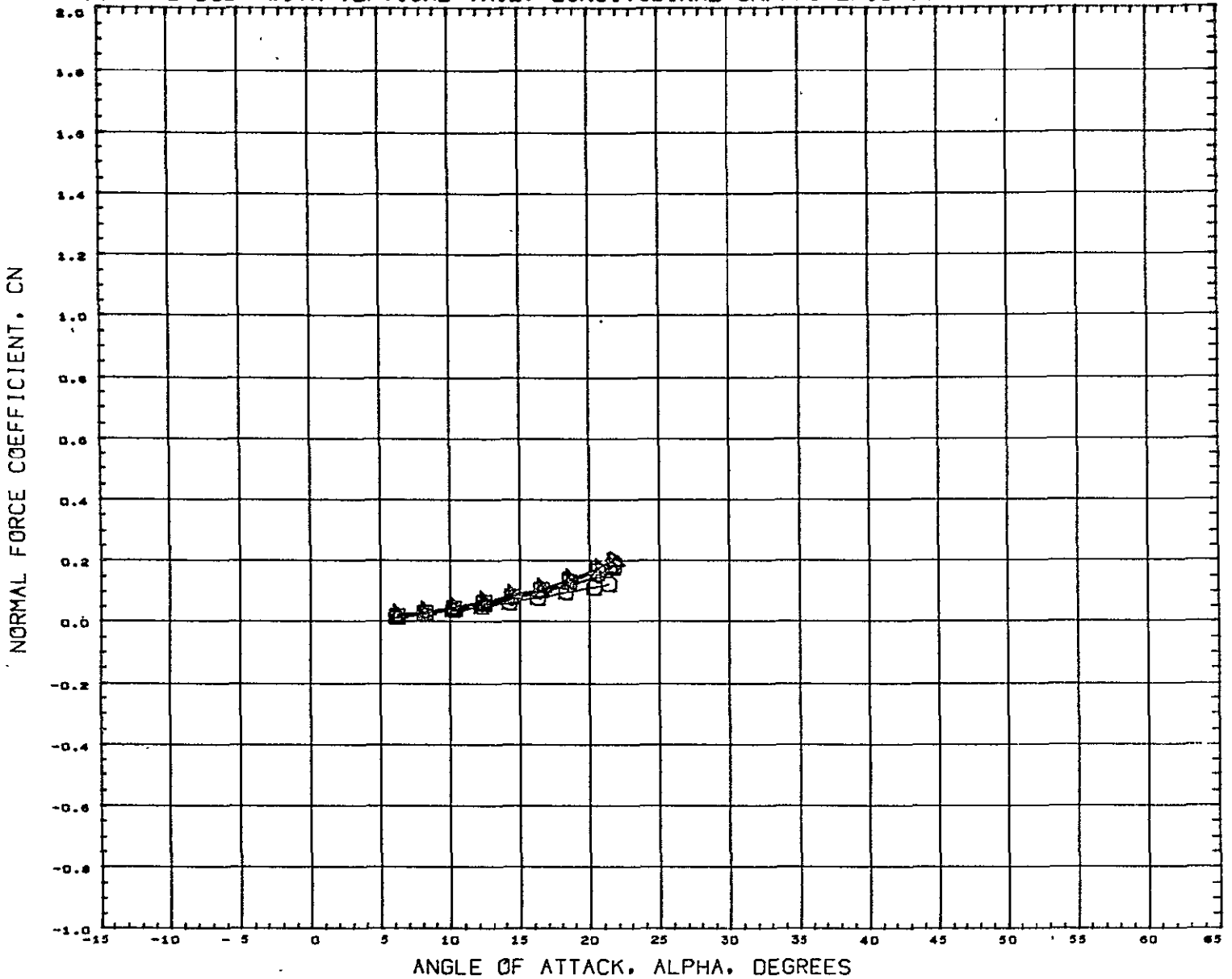


SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	0.610		0.000
△	0.901		
◇	1.105		
□	1.461		
▽	1.966		

DATA HIST. CODE HVR#E

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

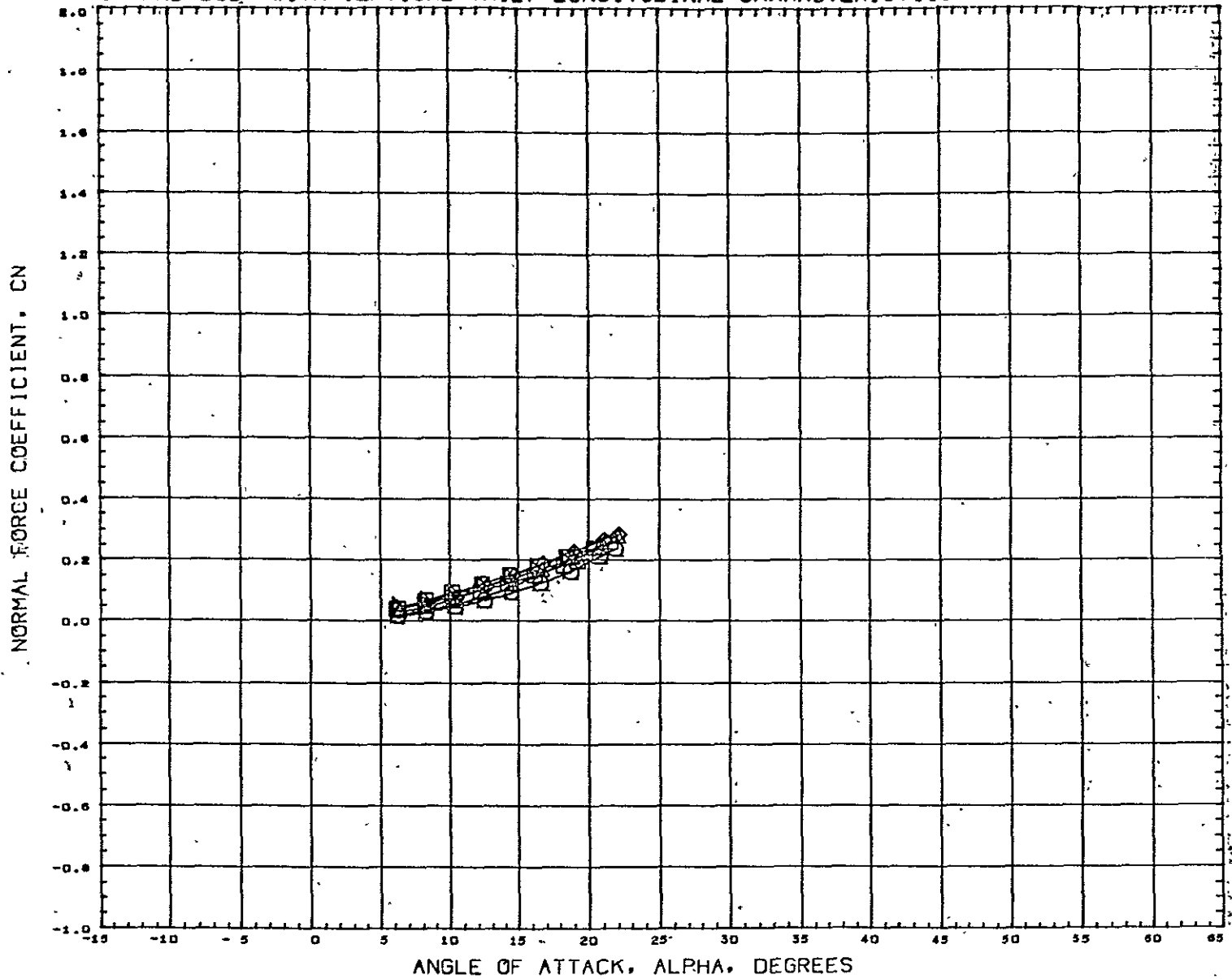
BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	BETA	PARAMETRIC VALUES		
○	0.607		0.000	RUDDER	0.000
◇	0.907				
◇	0.957				
□	1.005				
▽	1.054				
◇	1.100				
		DATA HIST. CODE	MVR#E		

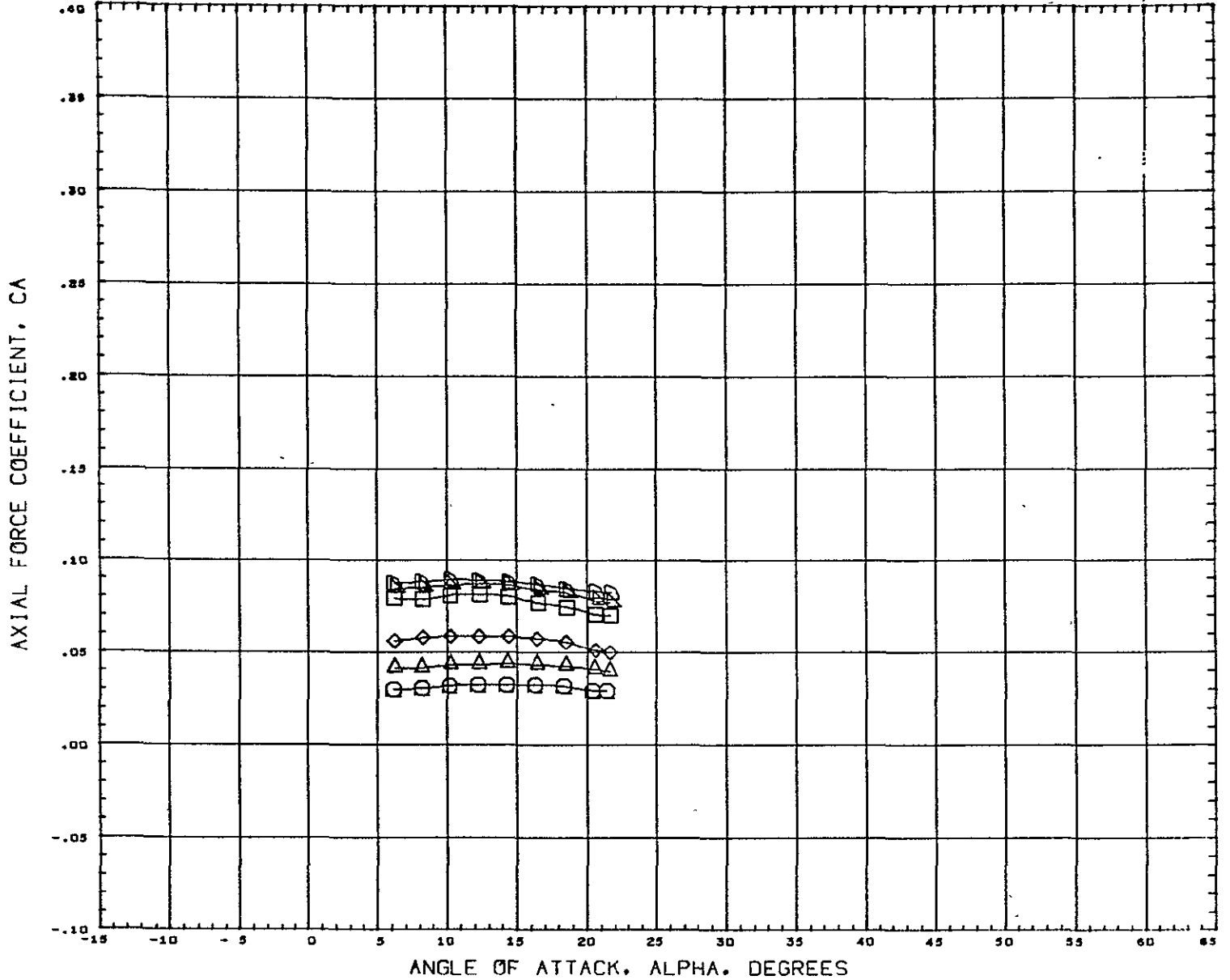
REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS



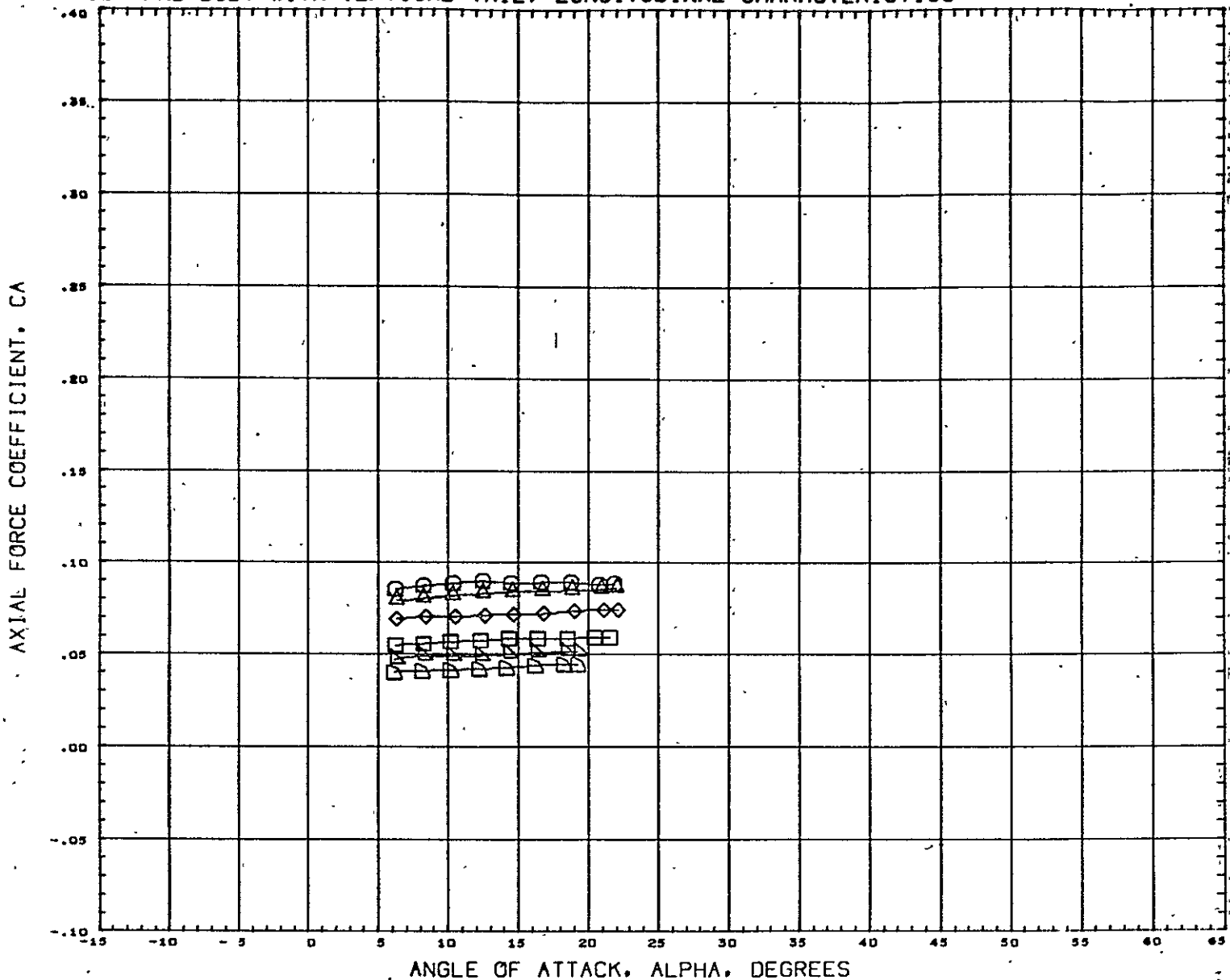
SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION			
○	1.198	BETA	0.000	RUDDER	0.000	SREF	15.6560	50. IN.
△	1.463					LREF	3.0950	IN.
◇	1.966					BREF	6.0990	IN.
◊	2.990					XMRP	6.7100	IN.
◻	4.000					YMRP	0.0000	IN.
◼	4.960	DATA HIST. CODE		MVR*E		ZMRP	0.0000	IN.
						SCALE	0.0055	

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	BETA	PARAMETRIC VALUES		REFERENCE INFORMATION	
○	0.607		0.000	RUDDER	0.000	SREF 15.6560 30.IN.
◇	0.907					LREF 3.0950 IN.
△	0.957					BREF 6.0990 IN.
□	1.005					XMRP 6.7100 IN.
▽	1.054					YMRP 0.0000 IN.
◇	1.100					ZMRP 0.0000 IN.
		DATA HIST. CODE		MVR#E		SCALE 0.0035

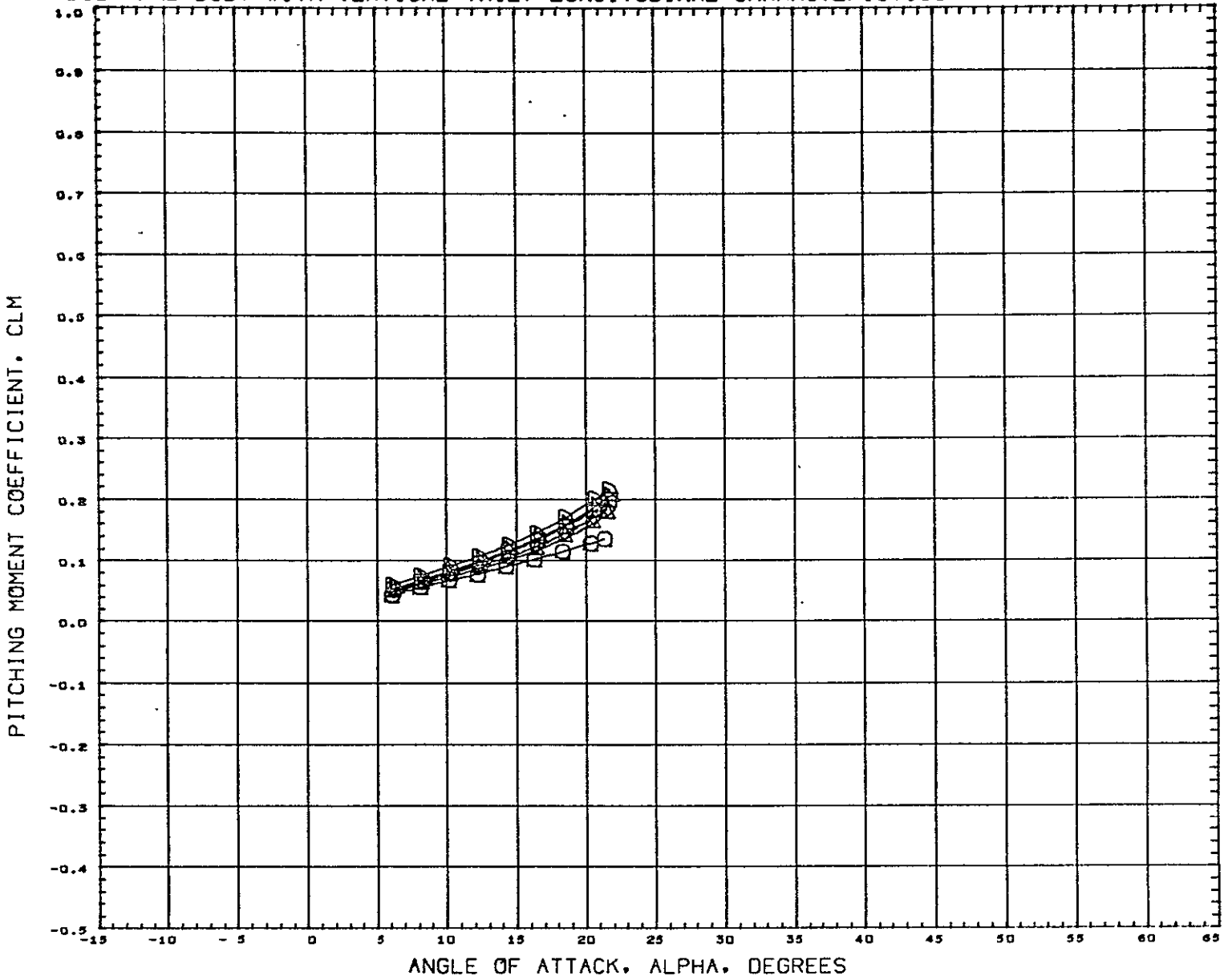
BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES		
□	1.198	BETA	0.000	RUDDER 0.000
◇	1.463			
◇	1.966			
◇	2.990			
◇	4.000			
◇	4.960	DATA HIST. CODE	MVR#E	

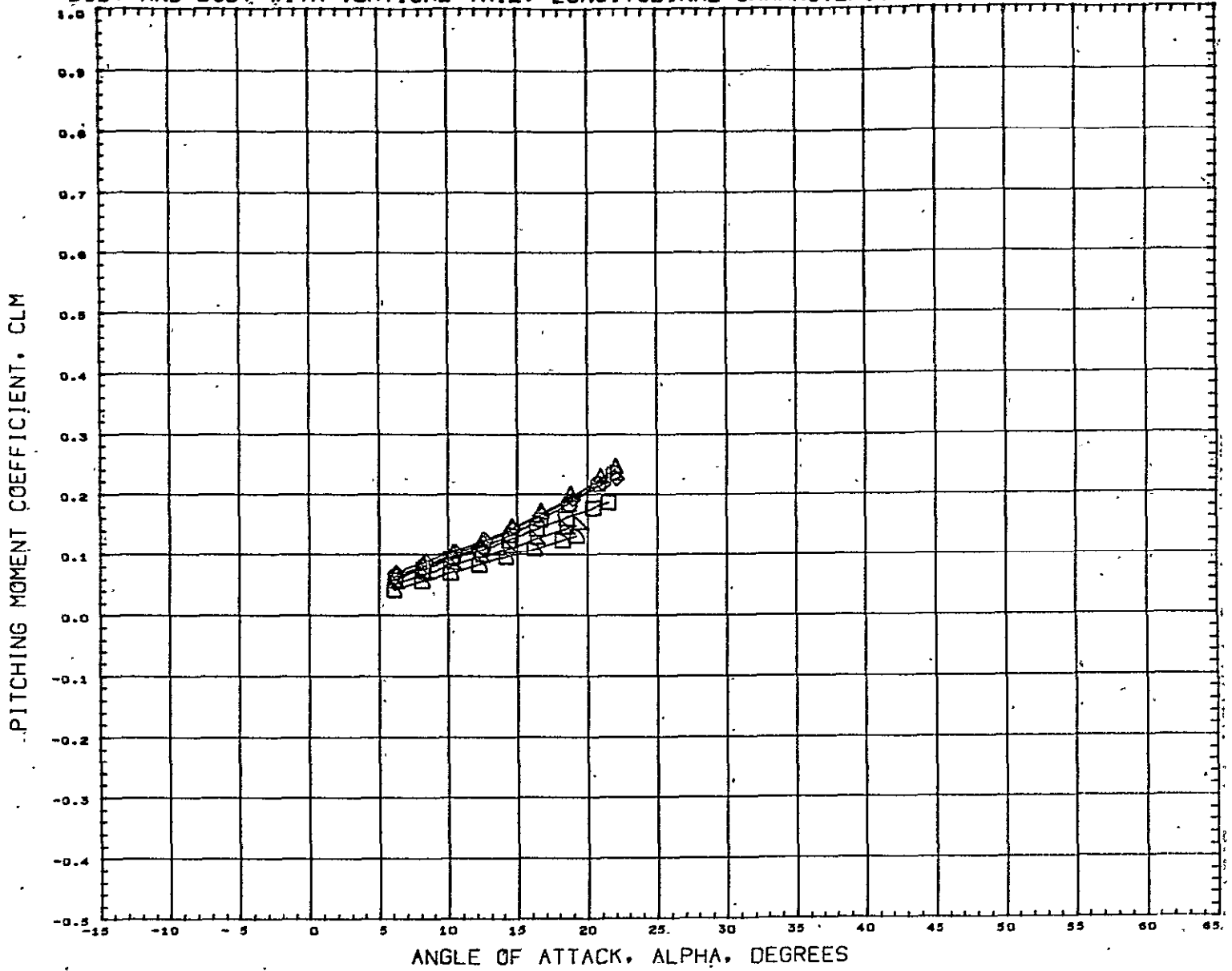
REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS



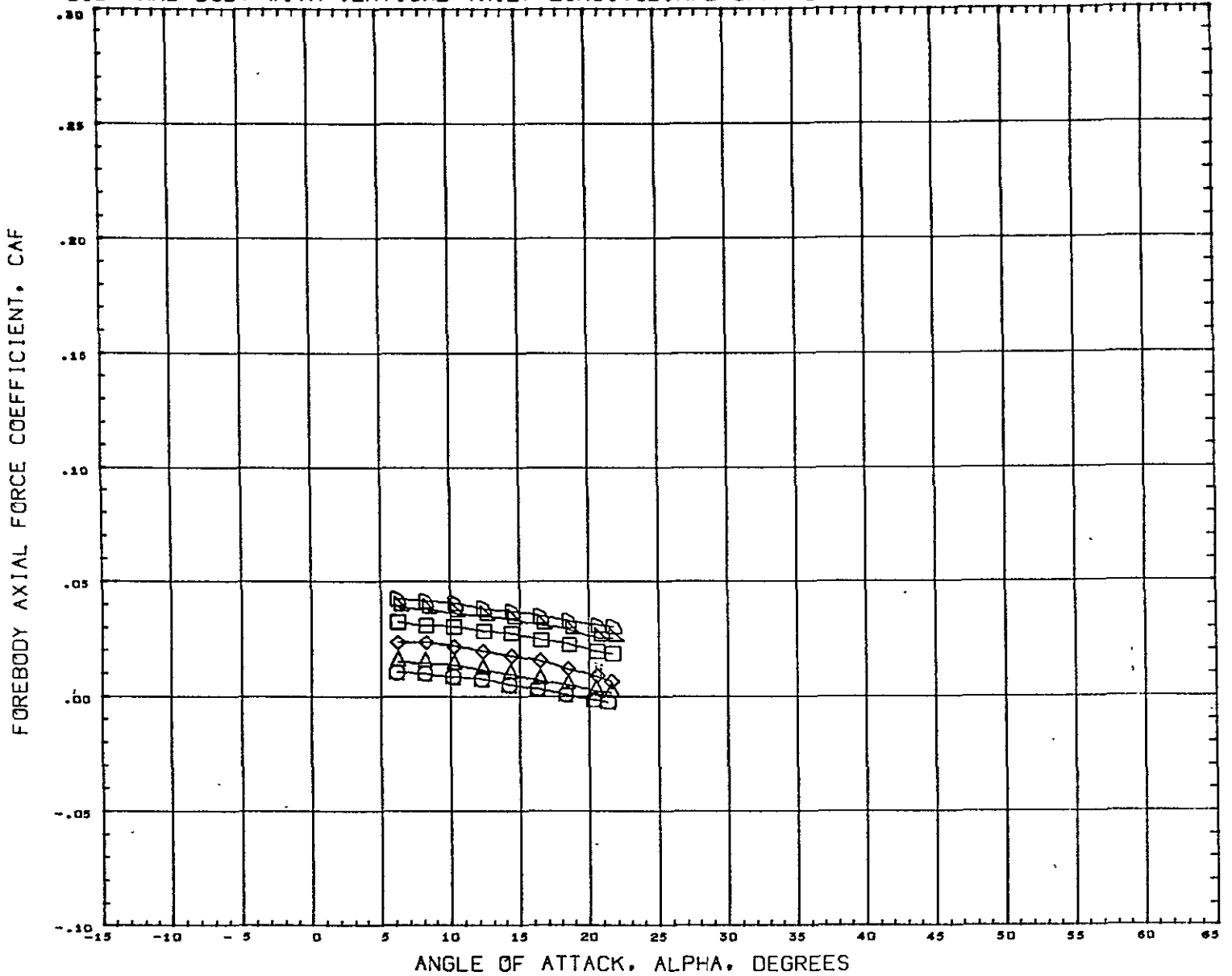
SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION			
○	0.607	BETA	0.000	RUDDER	0.000	SREF	15.6580	50. IN.
◇	0.907					LREF	3.0950	IN.
△	0.957					BREF	6.0990	IN.
□	1.005					XMRP	6.7100	IN.
▽	1.054					YMRP	0.0000	IN.
◇	1.100	DATA HIST. CODE		MVR#E		ZMRP	0.0000	IN.
						SCALE	0.0035	

BODY AND BODY WITH VERTICAL TAIL. LONGITUDINAL CHARACTERISTICS



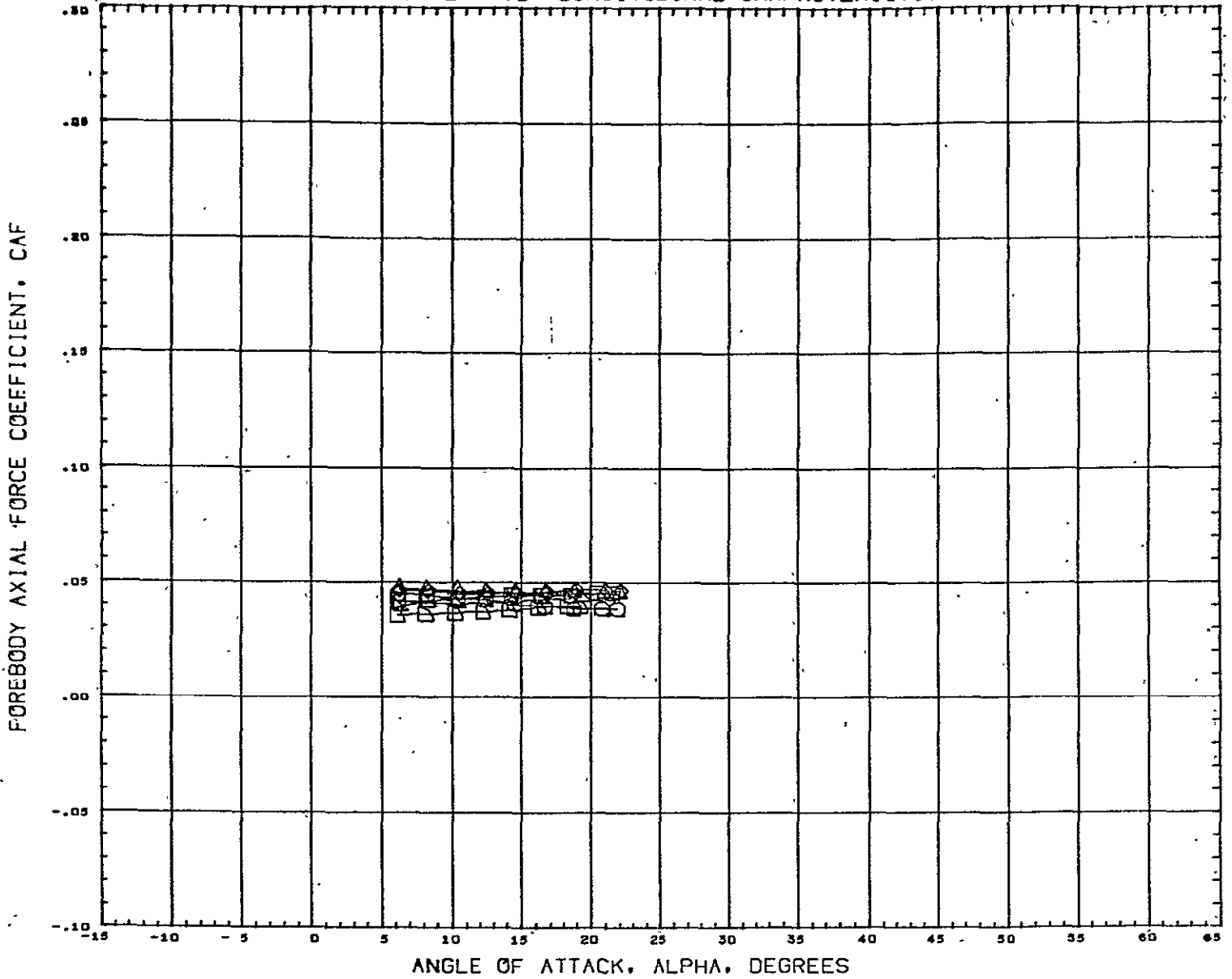
SYMBOL	MACH	BETA	PARAMETRIC VALUES		REFERENCE INFORMATION			
○	1.198		0.000	RUDDER	0.000	SREF	15.6560	SQ. IN.
◇	1.463					LREF	3.0950	IN.
◇	1.966					BREF	6.0990	IN.
◇	2.990					XMRP	6.7100	IN.
◇	4.000					YMRP	0.0000	IN.
◇	4.960					ZMRP	0.0000	IN.
						SCALE	0.0035	

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
		BETA	RUDDER		SREF	SQ. IN.	
□	0.607	0.000	0.000	19.6560			
◇	0.907			3.0950			
△	0.957			6.0990			
○	1.005			6.7100			
◻	1.054			0.0000			
◻	1.100			0.0000			
		DATA HIST. CODE	MVR#E	SCALE	0.0035		

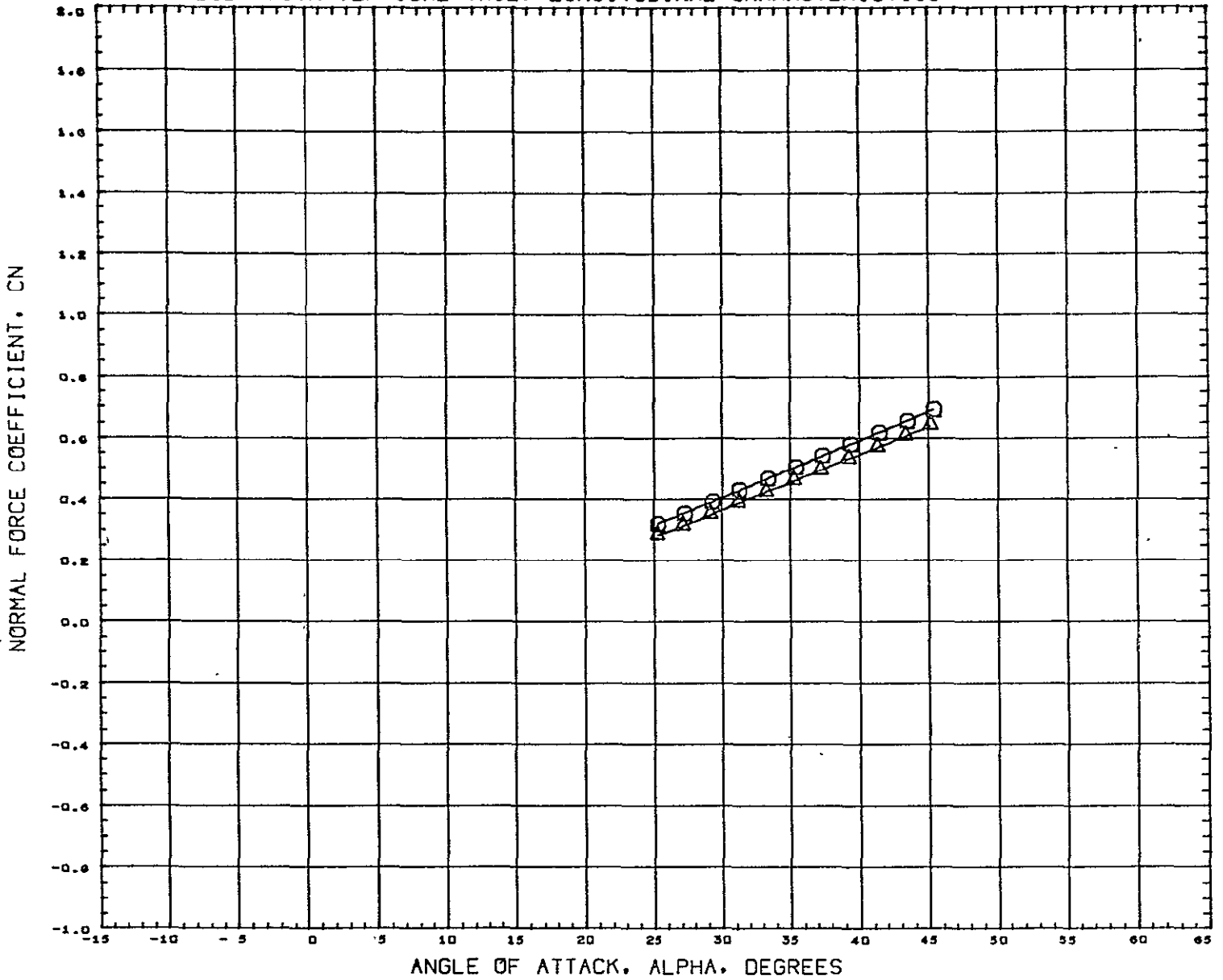
BODY AND BODY WITH VERTICAL TAIL. LONGITUDINAL CHARACTERISTICS



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
		BETA	RUDDER		SREF	IN.	
◇	1.198	0.000	0.000	15.6560	50. IN.		
◇	1.463			3.0950	IN.		
◇	1.966			6.0990	IN.		
◇	2.990			6.7100	IN.		
◇	4.000			0.0000	IN.		
◇	4.960			0.0000	IN.		
		DATA HIST. CODE	MVR#E	SCALE	0.0035		

BODY AND BODY WITH VERTICAL TAIL. LONGITUDINAL CHARACTERISTICS



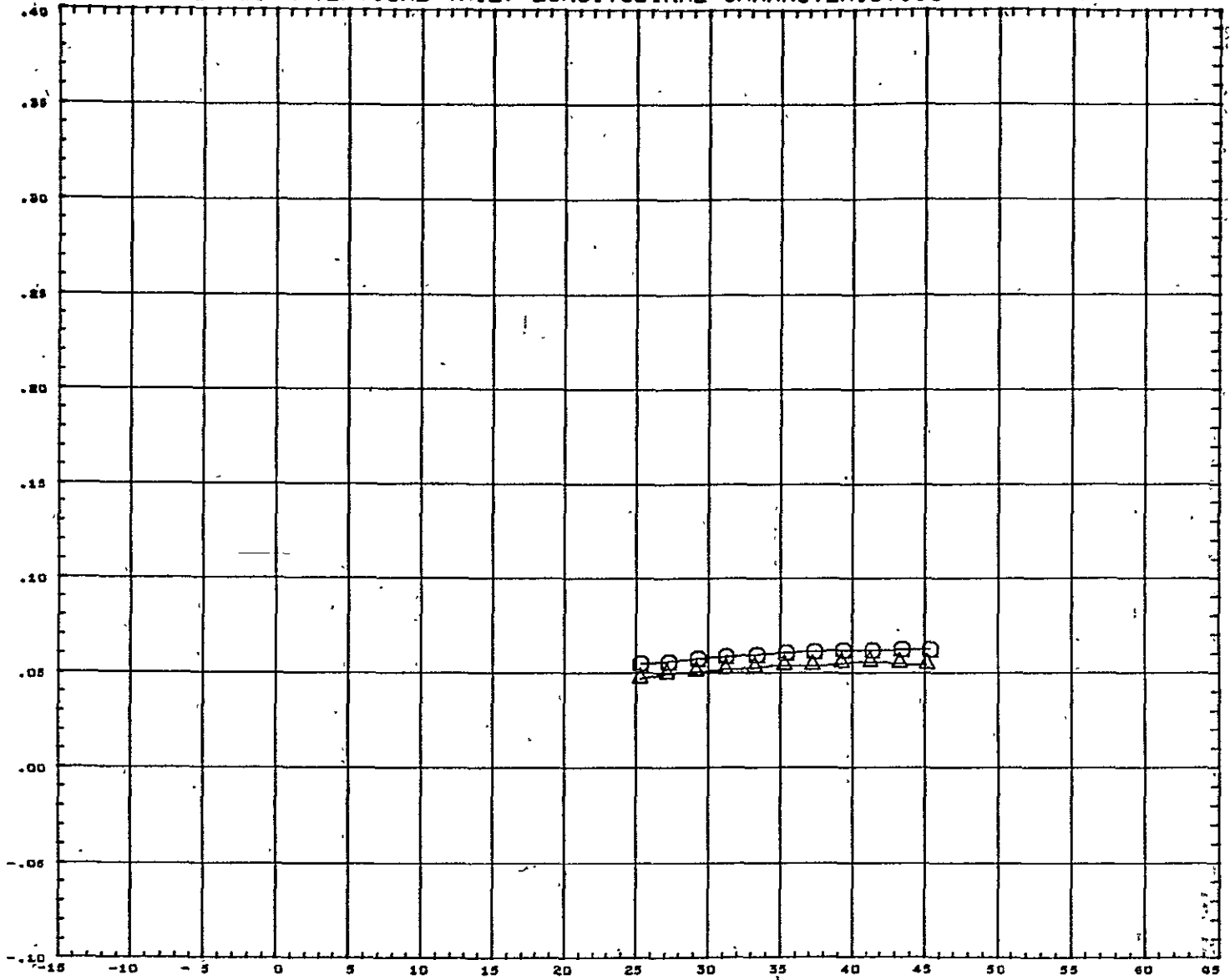
SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	2.990	0.000	
△	4.959		

REFERENCE INFORMATION		
SREF	19.6560	50 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS

AXIAL FORCE COEFFICIENT, CA



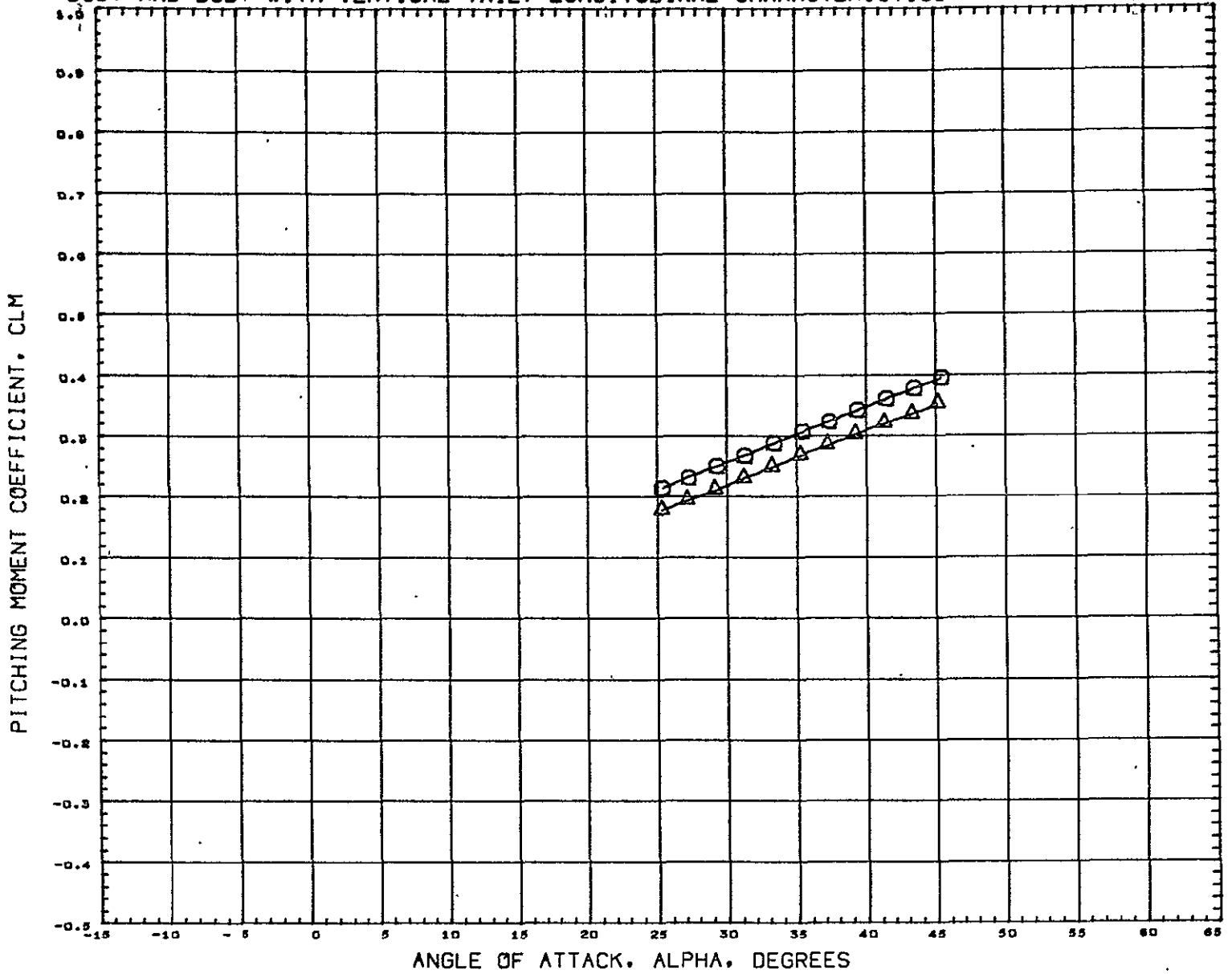
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	2.990		0.000
△	4.959		

REFERENCE INFORMATION		
SREF	15.6560	50 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS

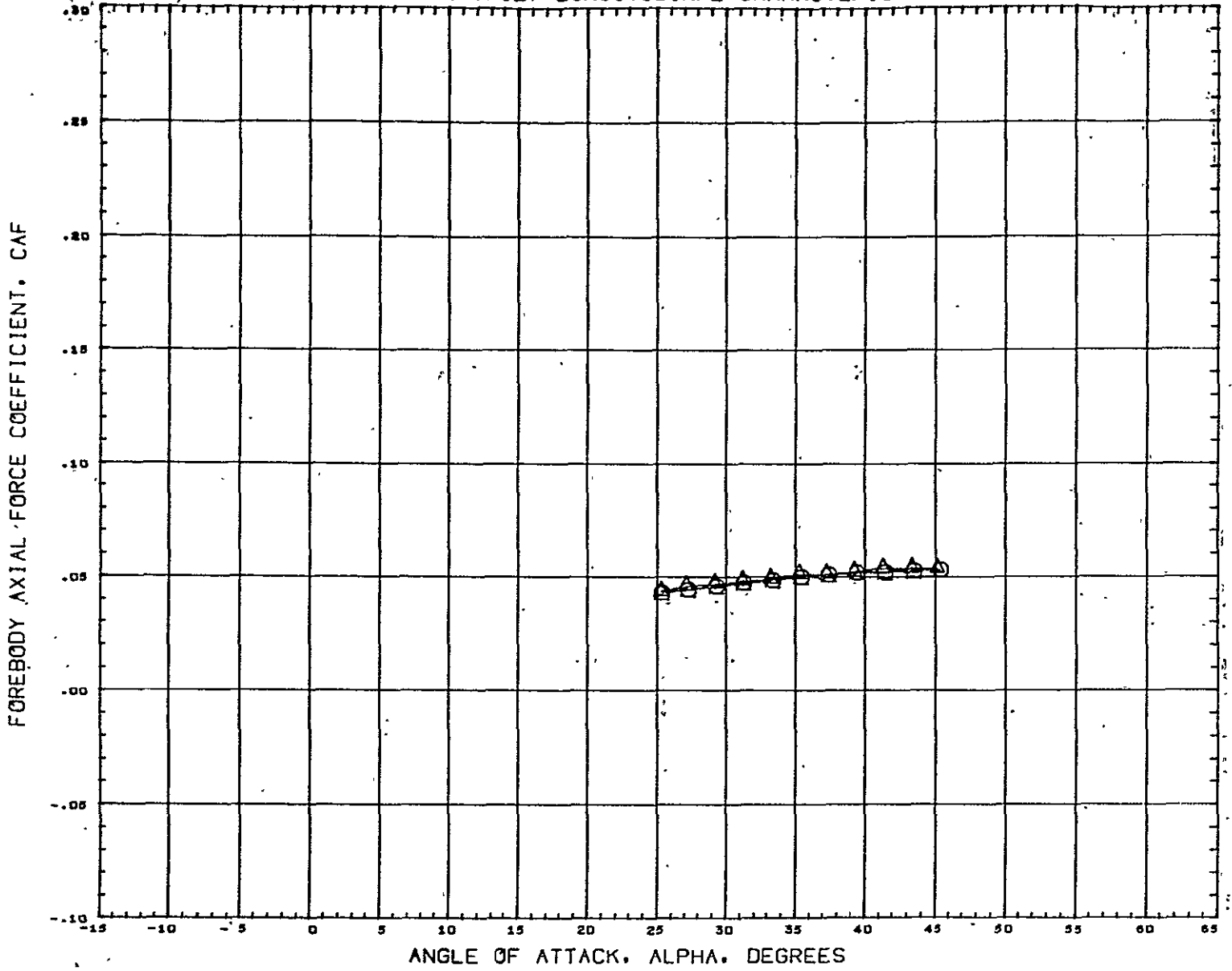


SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	2.990		0.000
△	4.959		

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	5.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*E

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS

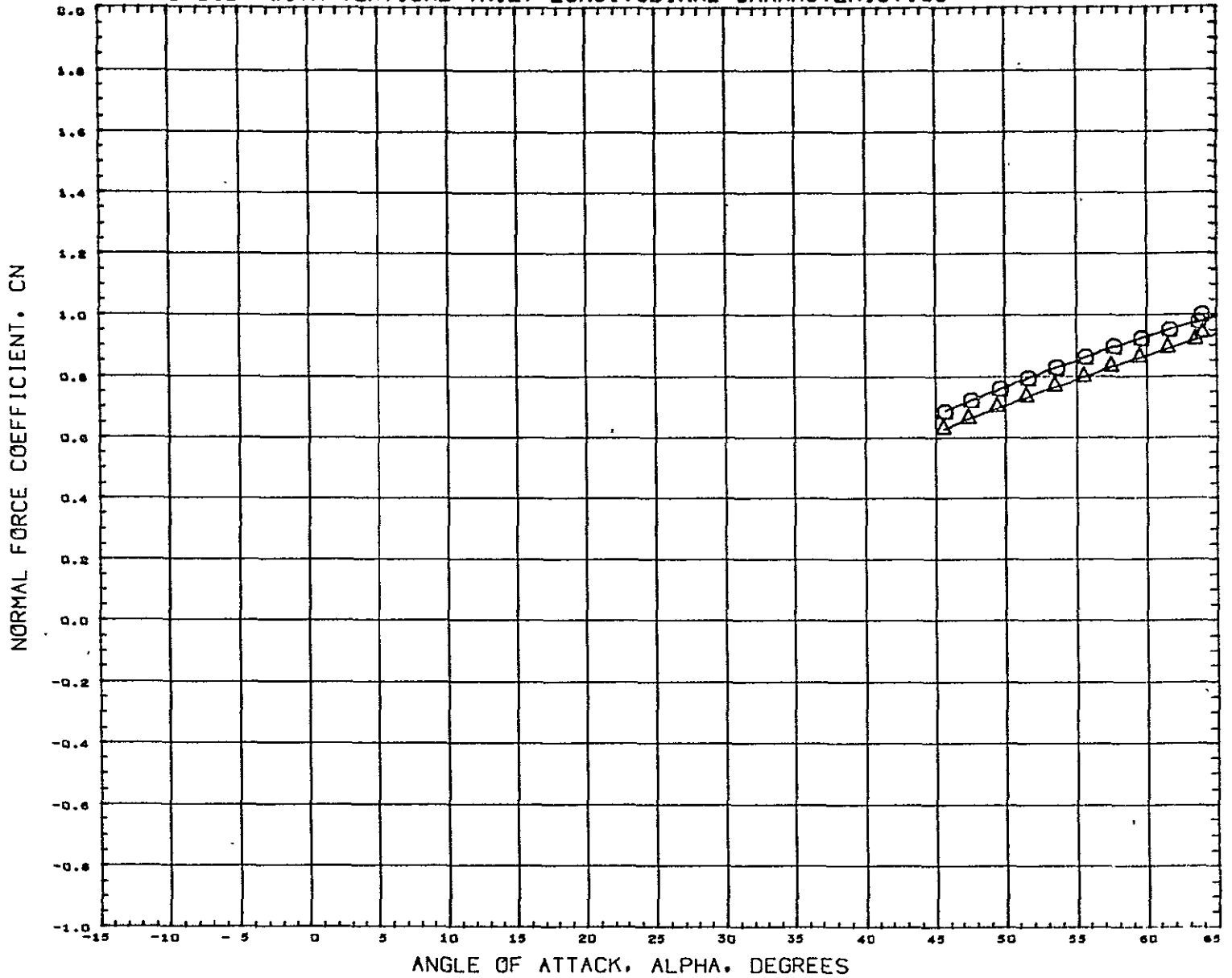


SYMBOL Δ MACH 2.990 BETA 0.000
 4.959

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XHRP 6.7100 IN.
 YHRP 0.0000 IN.
 ZHRP 0.0000 IN.
 SCALE 0.0035

DATA HIST. CODE MVR#E

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS

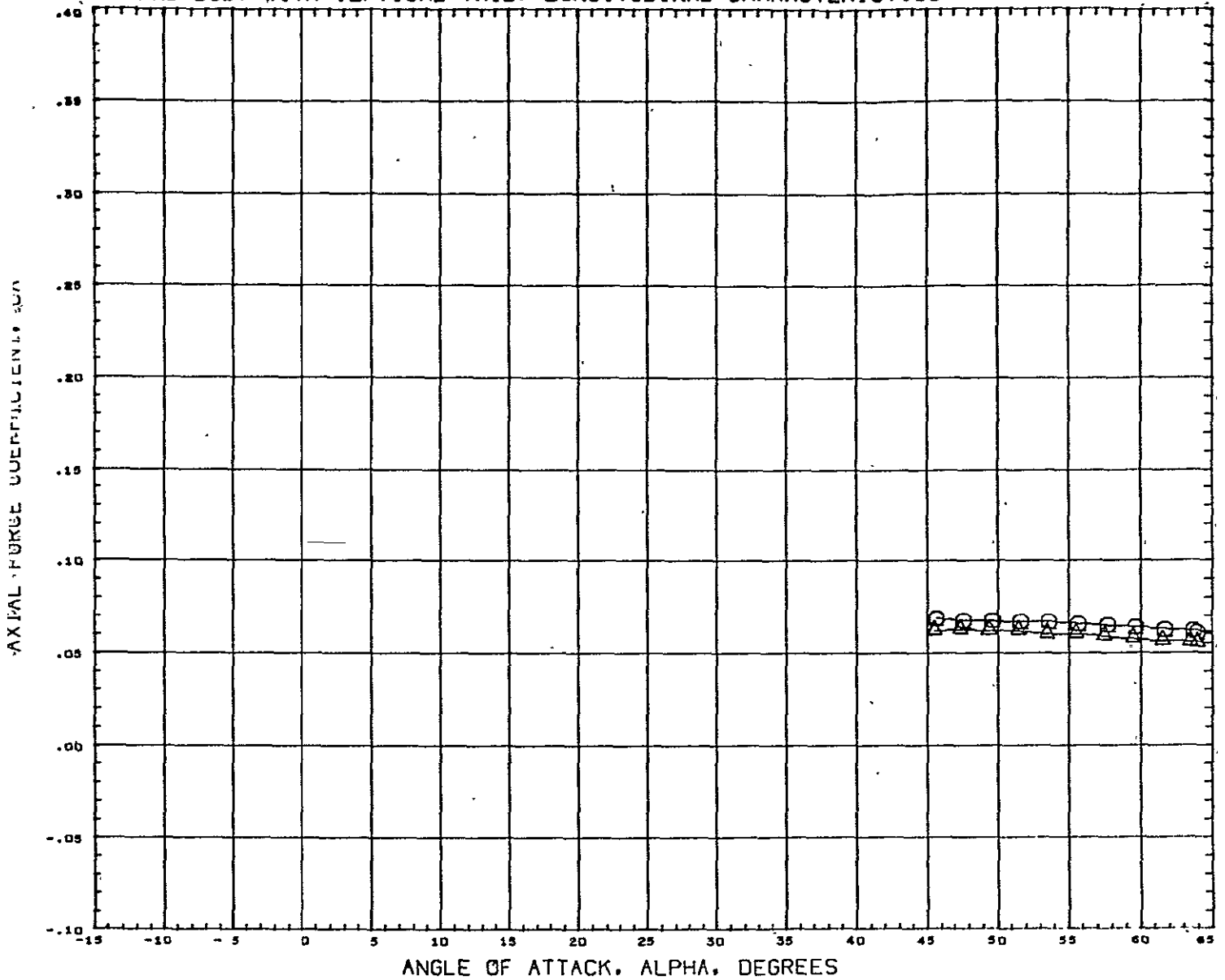


SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	2.990	0.000	
△	4.959		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*E

BODY AND BODY WITH VERTICAL TAIL, LONGITUDINAL CHARACTERISTICS

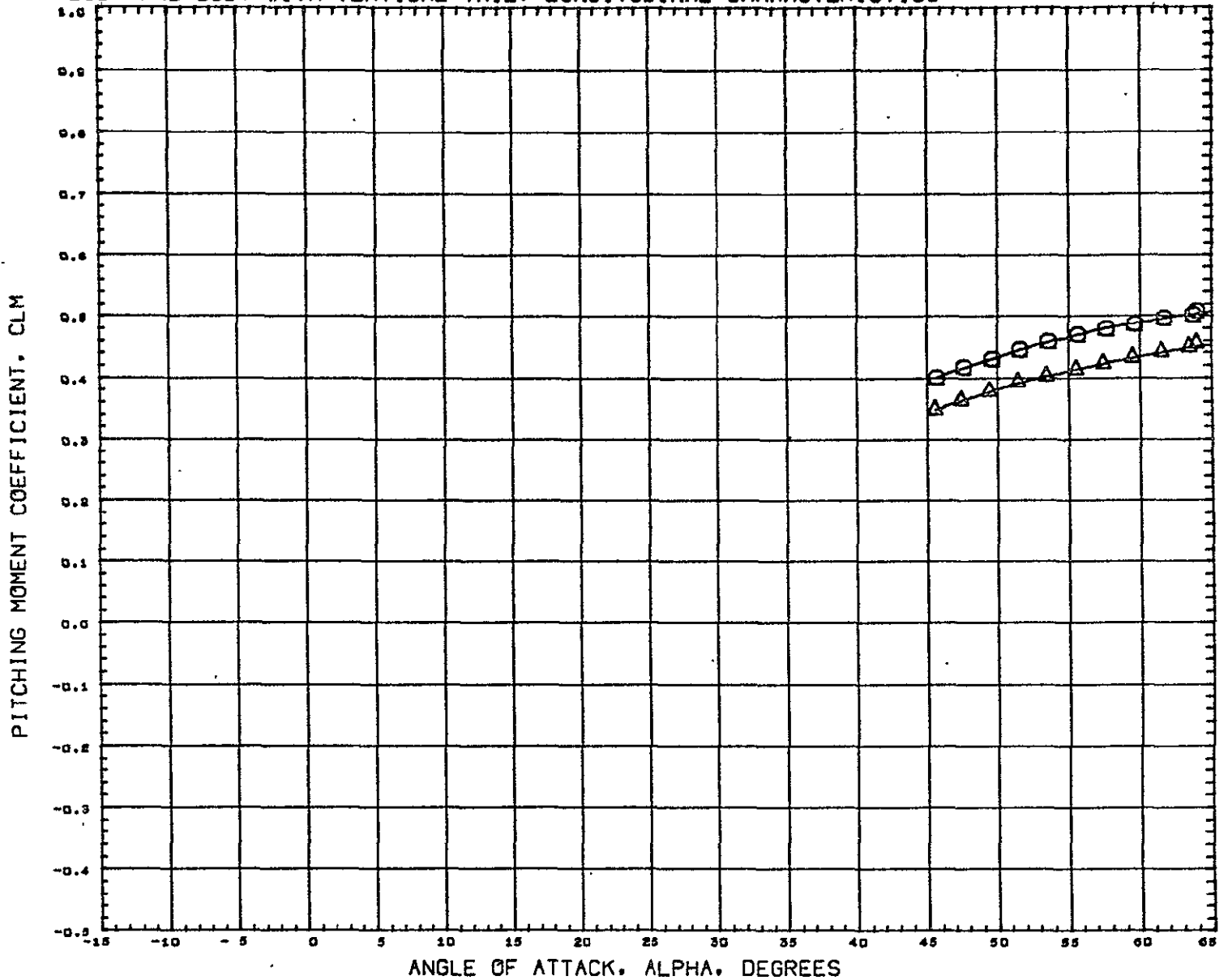


SYMBOL Δ MACH 2.990 BETA 0.000
 4.959

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

DATA HIST. CODE MVR#E

BODY AND BODY WITH VERTICAL TAIL. LONGITUDINAL CHARACTERISTICS

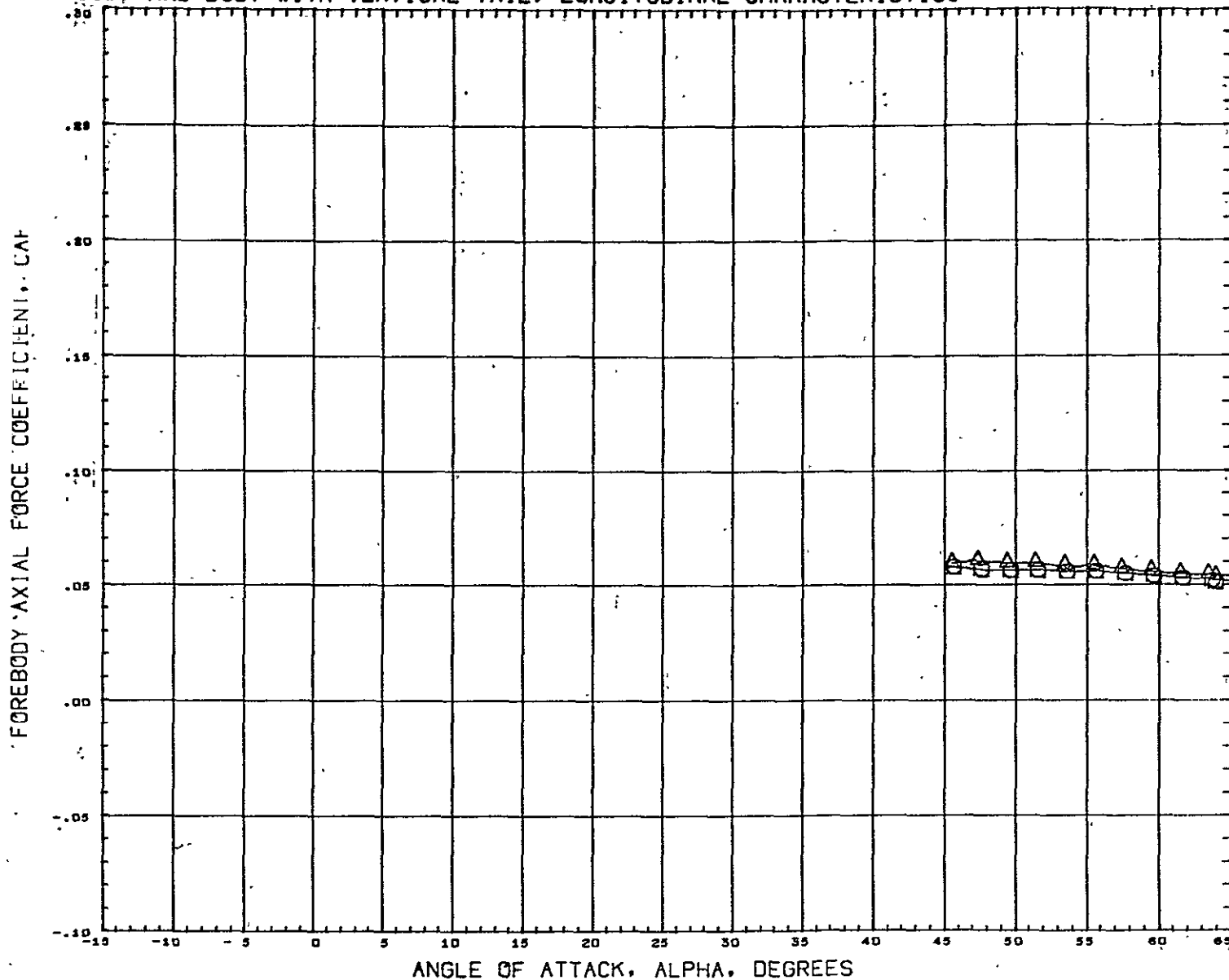


SYMBOL / MACH PARAMETRIC VALUES
 ○ 2.990 BETA 0.000
 △ 4.959

REFERENCE INFORMATION
 SREF 15.0560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

DATA HIST. CODE HVR*E

BODY AND BODY WITH VERTICAL TAIL. LONGITUDINAL CHARACTERISTICS

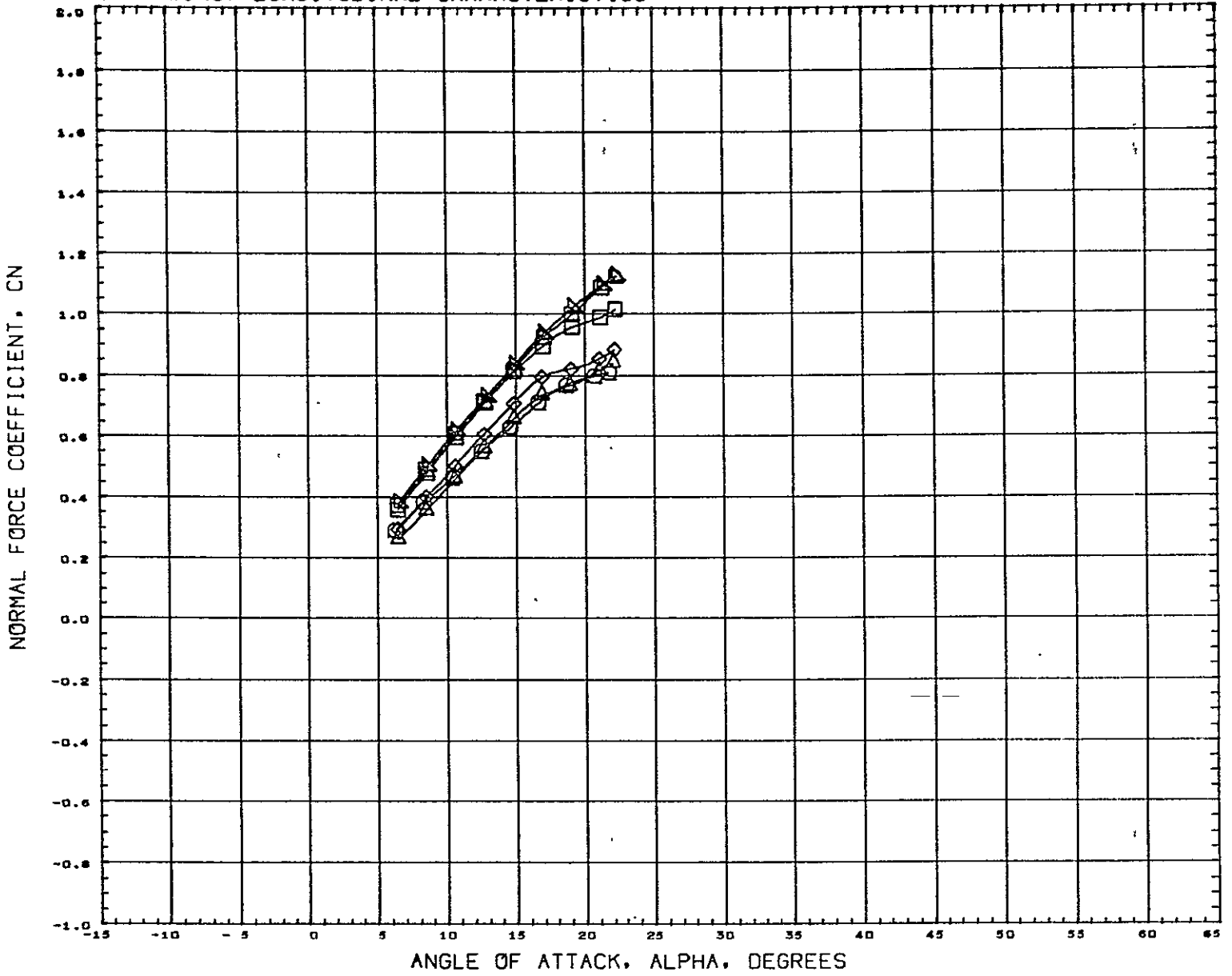


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 2.990 0.000
 △ 4.959

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

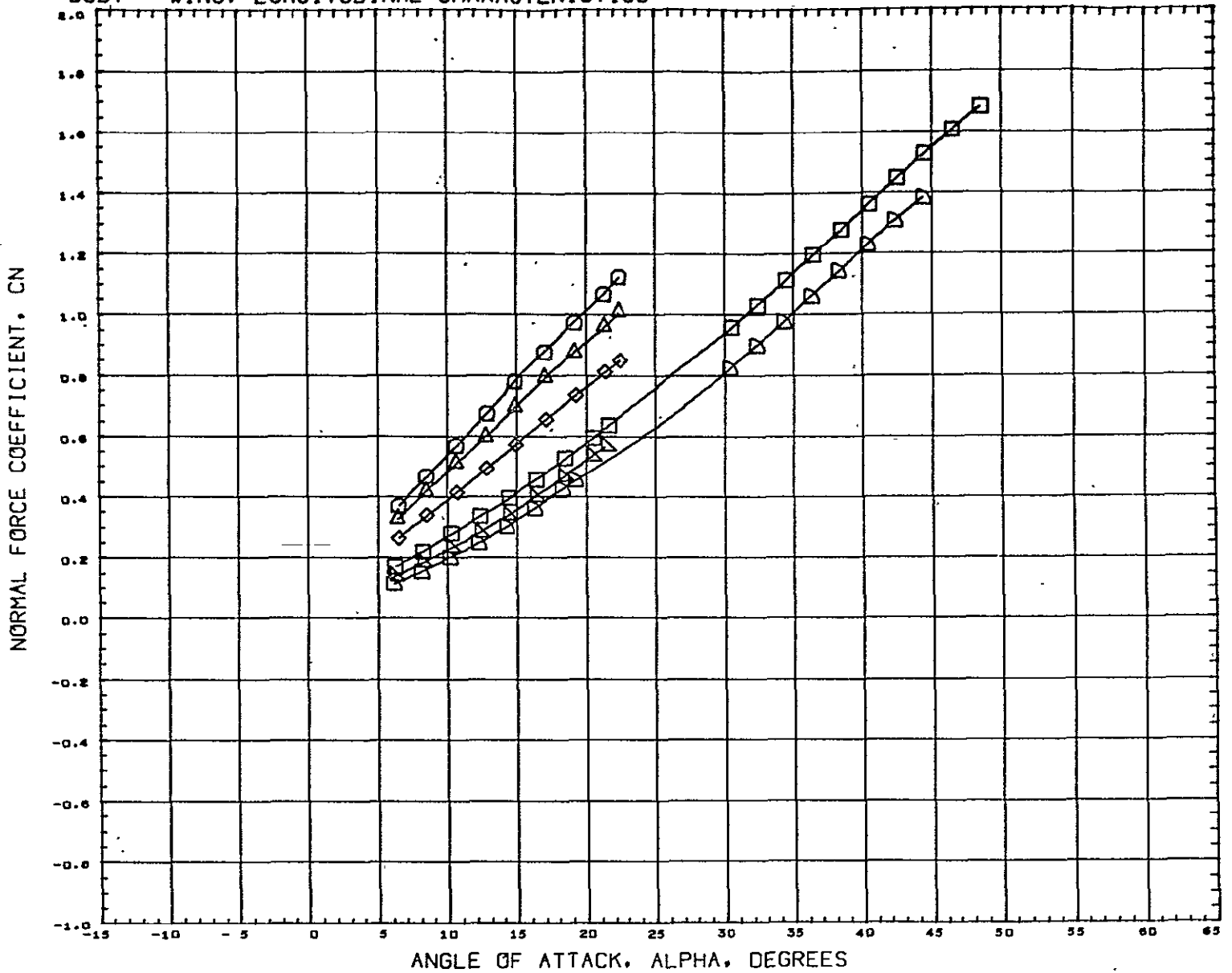
DATA HIST. CODE MVR+E

BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.604	BETA	0.000	DEL	0.000	SREF	15.6560	sq. in.
△	0.905	DER	0.000	ELEVON	0.000	LREF	3.0950	in.
◇	0.953	AILRON	0.000			BREF	6.0990	in.
○	1.000					XMRP	6.7100	in.
△	1.047					YMRP	0.0000	in.
◇	1.101	DATA HIST. CODE		HVR*E*G		ZMRP	0.0000	in.
						SCALE	0.0035	

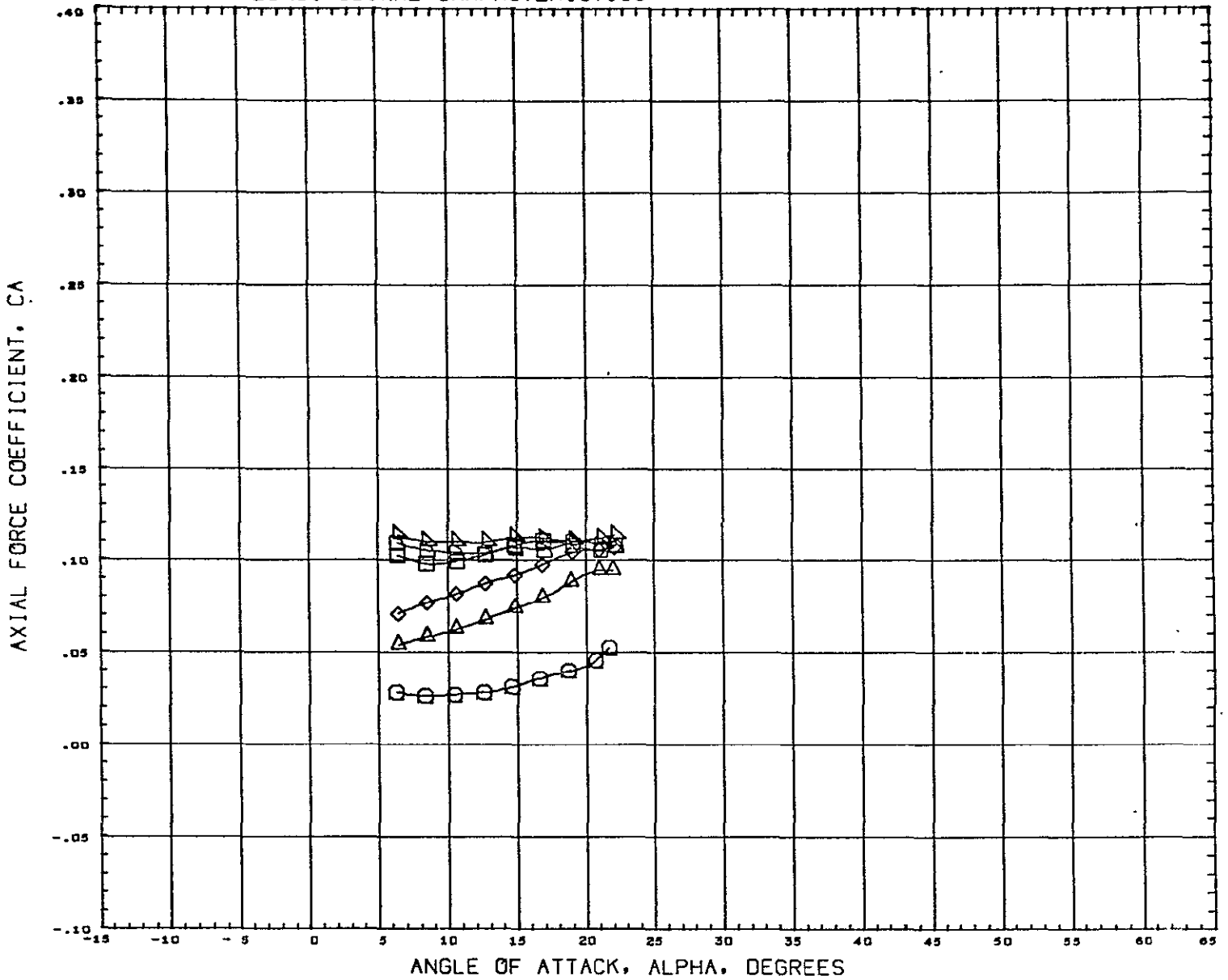
BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES			
○	1.199	BETA	0.000	DEL	0.000
◇	1.463	DER	0.000	ELEVON	0.000
◇	1.964	AILRON	0.000		
□	2.990				
◇	4.000				
◇	4.960	DATA HIST. CODE	MVR#E*G		

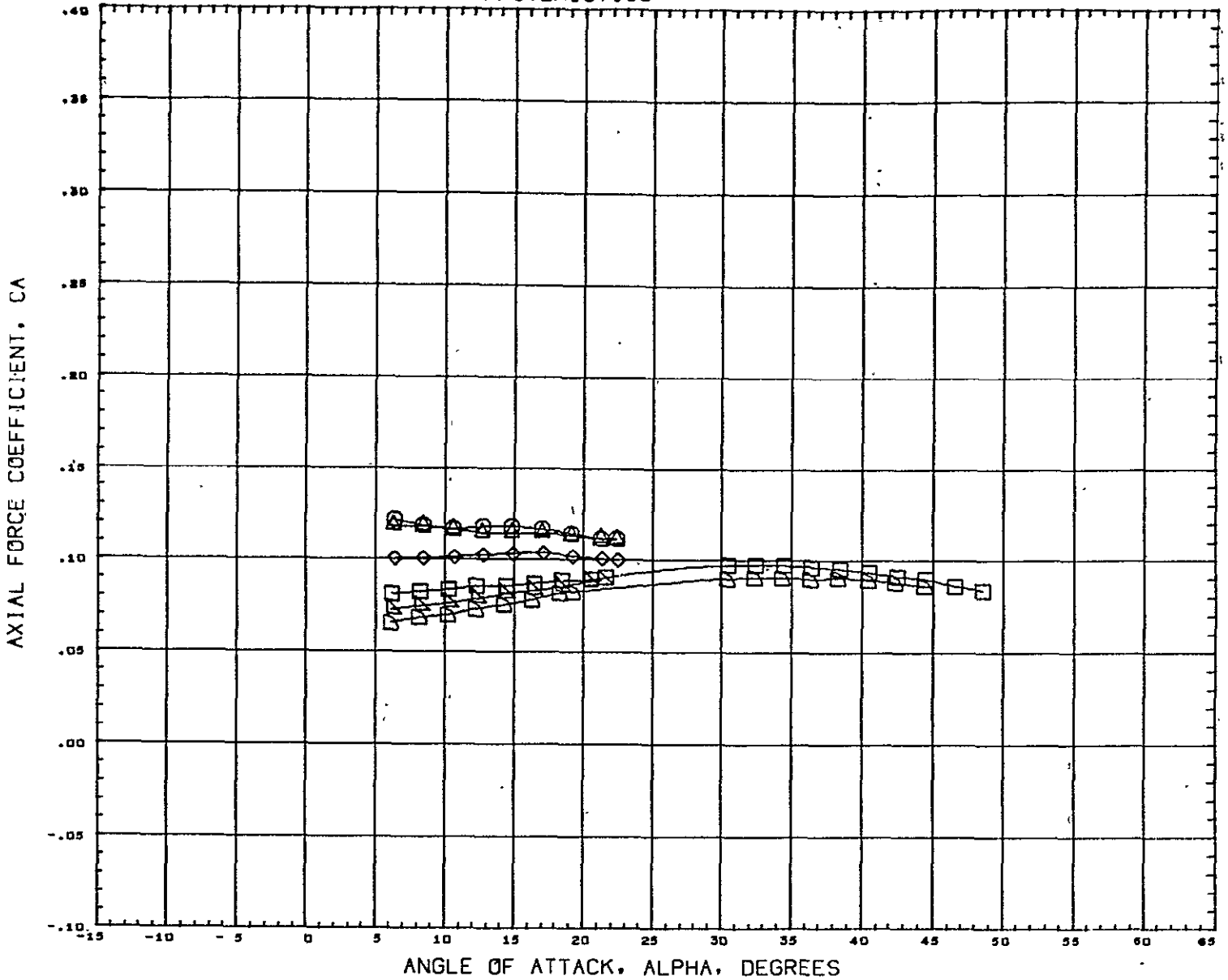
REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0990	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	ELEVON	SREF	IN.	SQ. IN.	
□	0.604	0.000	0.000	0.000	13.6560	IN.	3.0950	
◇	0.905	0.000	0.000	0.000	6.0990	IN.	6.7100	
△	0.953	0.000			0.0000	IN.	0.0000	
○	1.000				0.0000	IN.	0.0035	
◇	1.047							
□	1.101	DATA HIST. CODE	MVR*E*G					

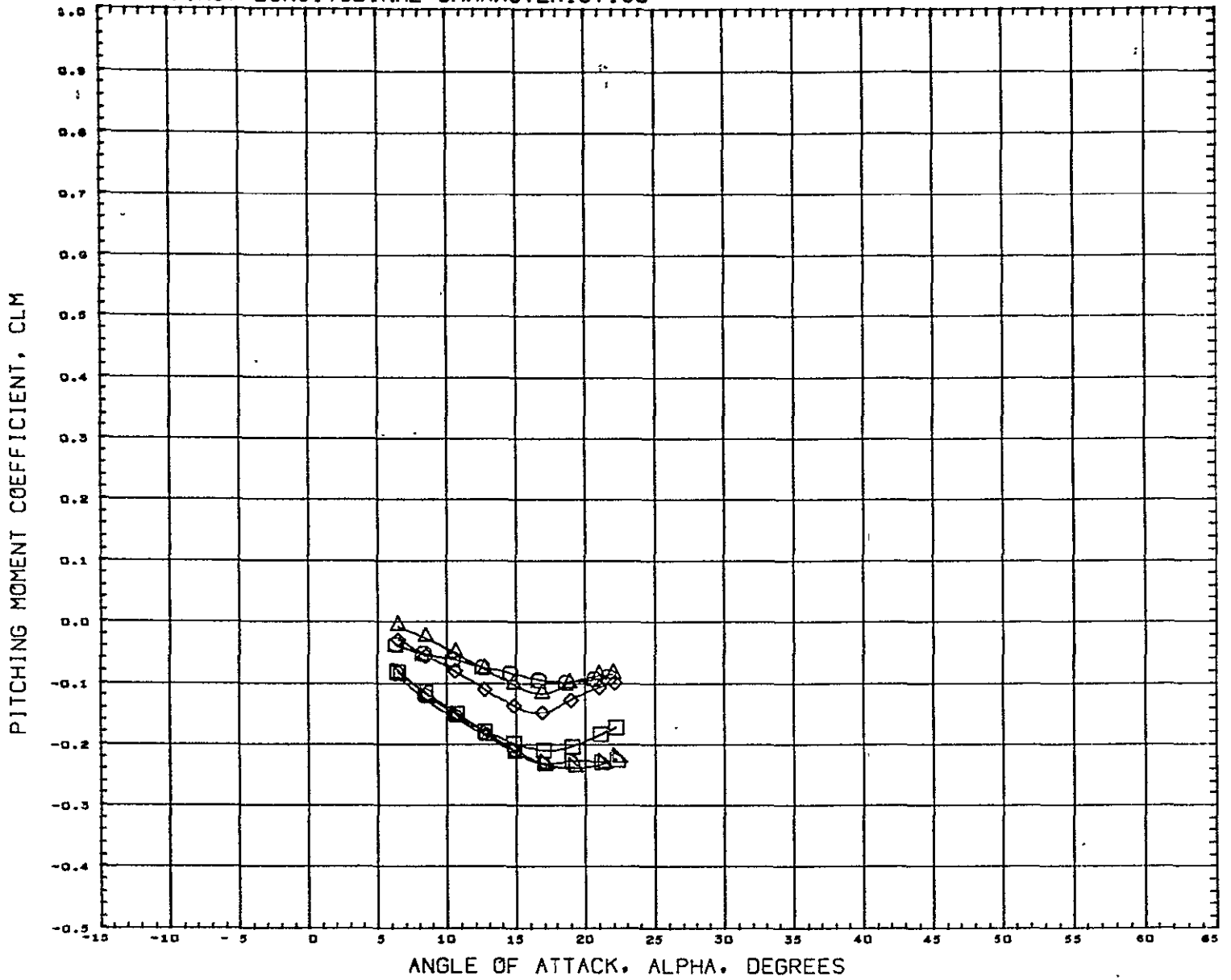
BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES			
□	1.199	BETA	0.000	DEL	0.000
◇	1.463	DER	0.000	ELEVON	0.000
◇	1.984	AILRON	0.000		
□	2.990				
□	4.000				
□	4.980	DATA HIST. CODE	MVR*E#G		

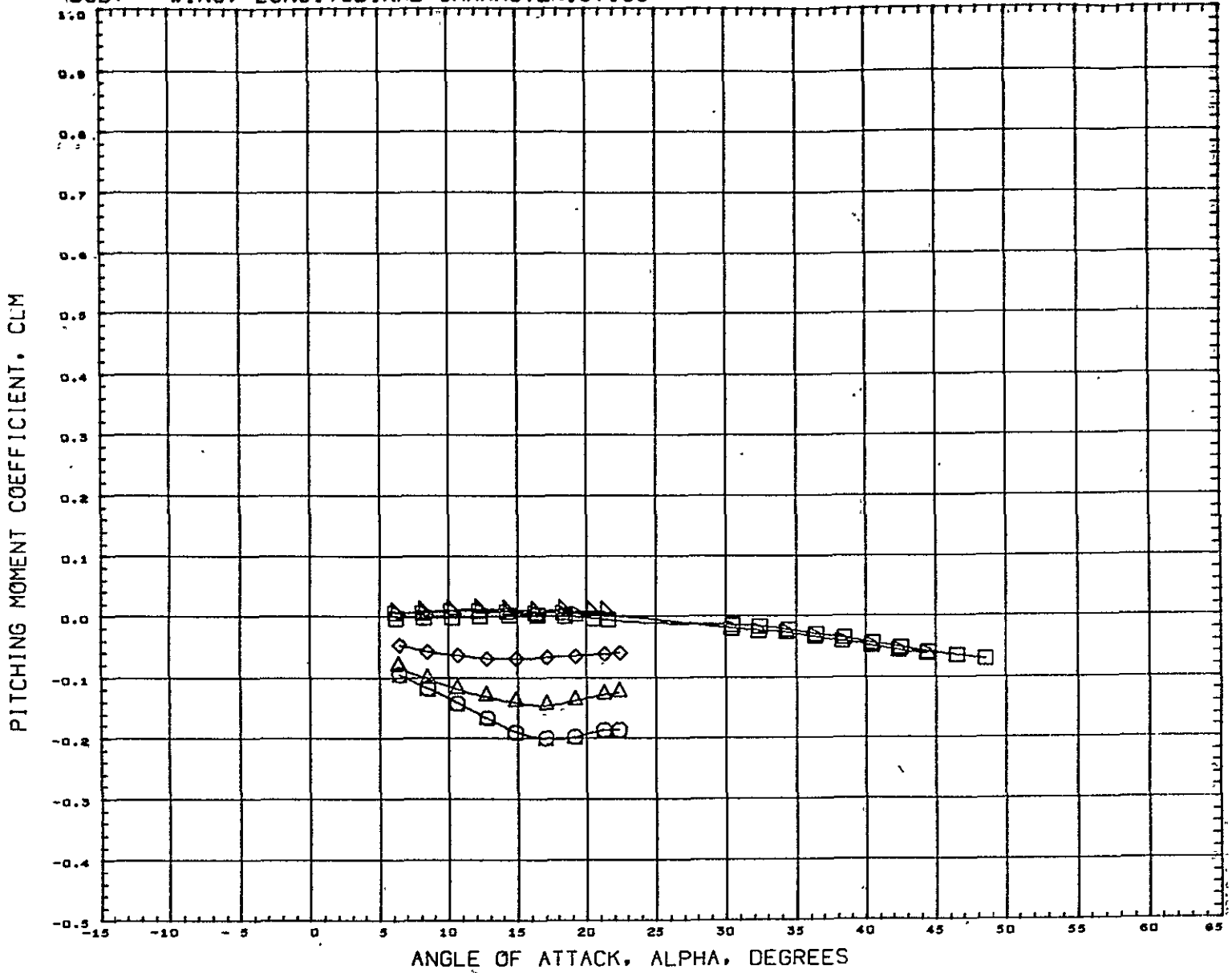
REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION			
○	0.604	BETA	0.000	DEL	0.000	SREF	19.6560	SQ. IN.
△	0.905	DER	0.000	ELEVON	0.000	LREF	3.0950	IN.
◇	0.953	AILRON	0.000			BREF	6.0990	IN.
□	1.000					XMRP	6.7100	IN.
▽	1.047					YMRP	0.0000	IN.
◇	1.101	DATA HIST. CODE	MVR#E66			ZMRP	0.0000	IN.
						SCALE	0.0035	

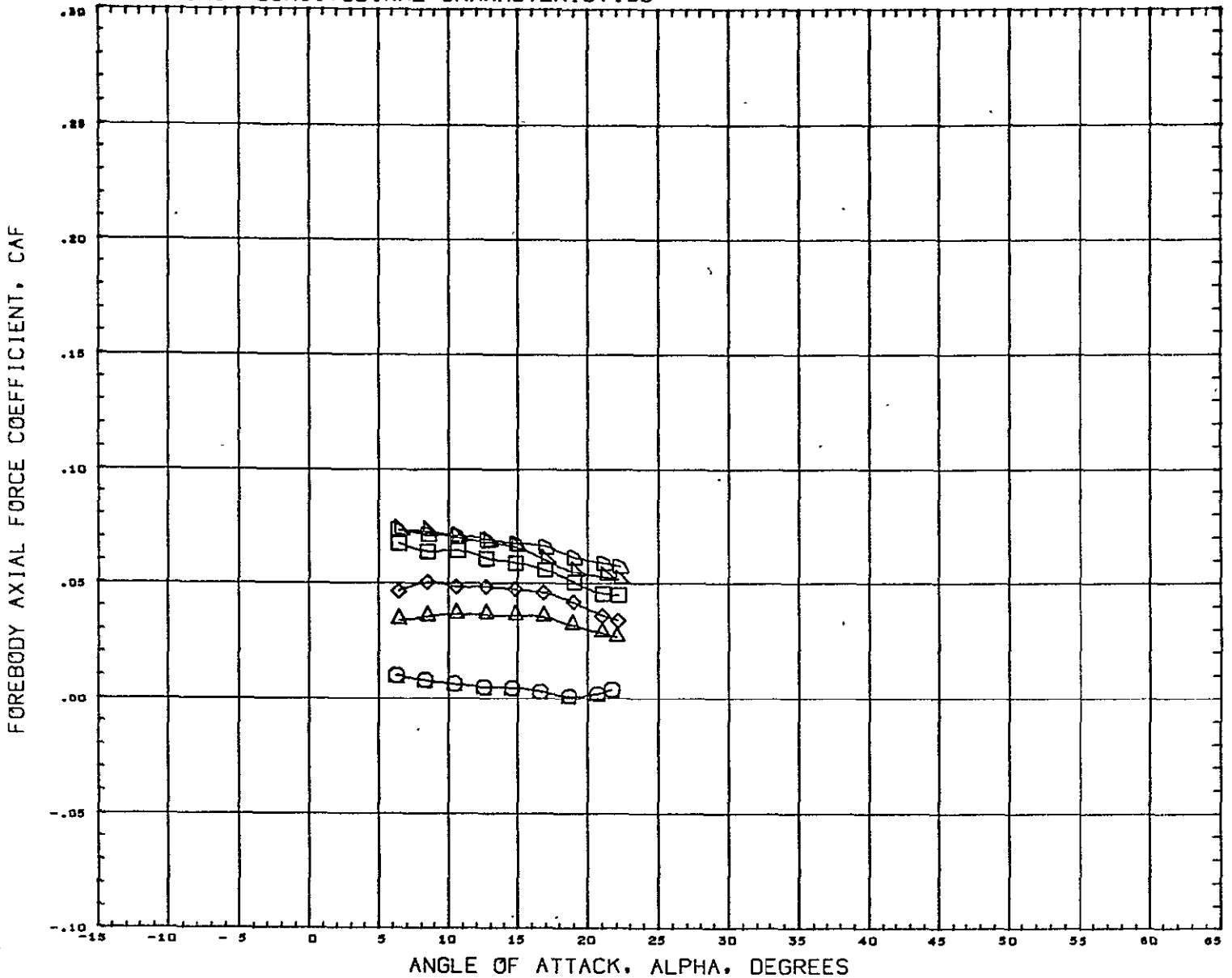
BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	ELEVON	SREF	SQ. IN.		
◇	1.199	0.000	0.000	0.000	15.6560	SQ. IN.		
△	1.463	0.000	0.000	0.000	3.0950	IN.		
◇	1.964	0.000	0.000	0.000	6.0990	IN.		
◇	2.990	0.000	0.000	0.000	6.7100	IN.		
◇	4.000	0.000	0.000	0.000	0.0000	IN.		
◇	4.960	0.000	0.000	0.000	0.0000	IN.		
		DATA HIST. CODE	MVR*E#G		SCALE	0.0035		

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BODY - WING, LONGITUDINAL CHARACTERISTICS

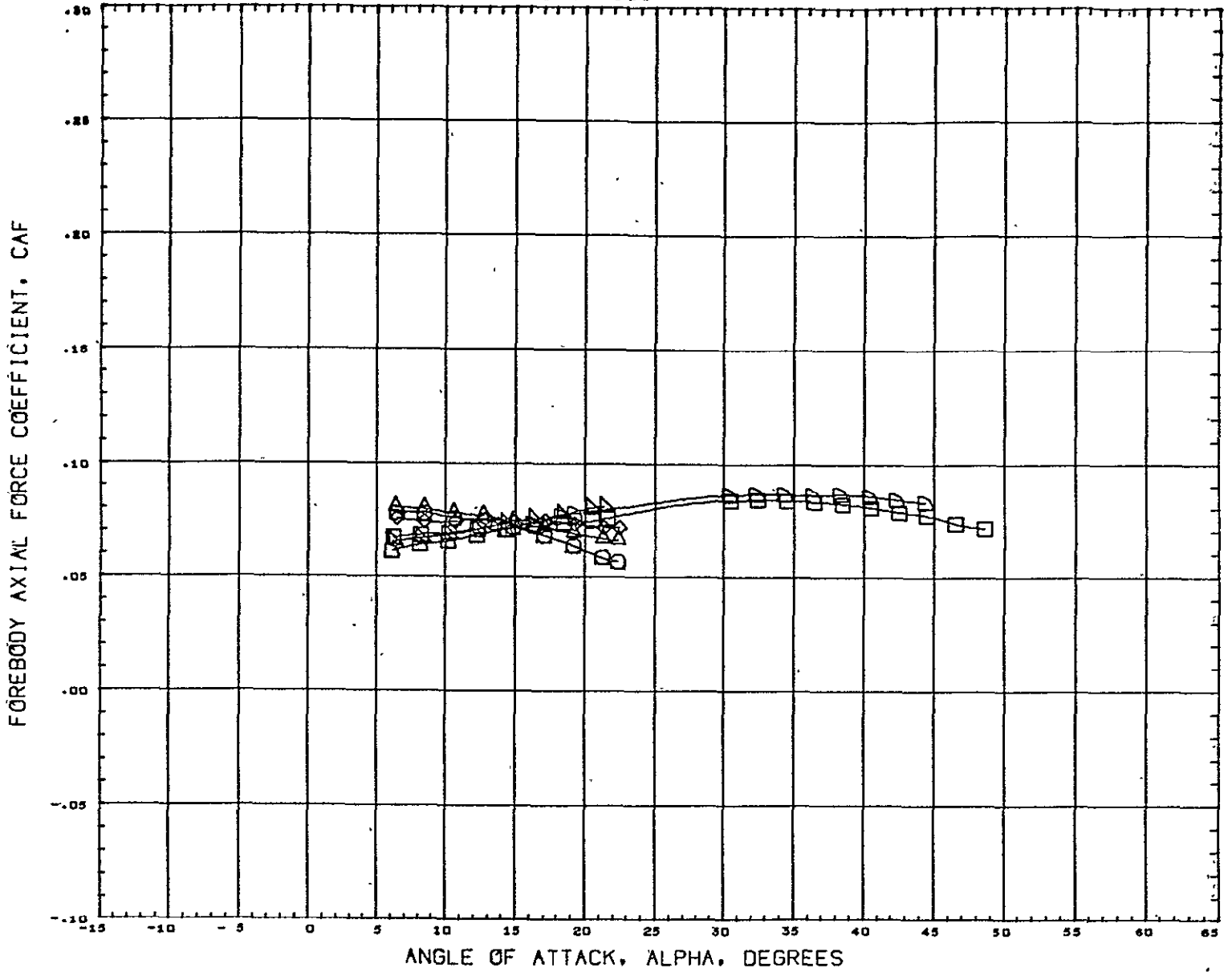


SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.604	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
◇	0.905	DER	0.000	ELEVON	0.000	LREF	3.0950	IN.
△	0.953	AILRON	0.000			BREF	6.0990	IN.
□	1.000					XMRP	6.7100	IN.
▽	1.047					YMRP	0.0000	IN.
◻	1.101	DATA HIST. CODE	MVR#E#G			ZMRP	0.0000	IN.
						SCALE	0.0035	

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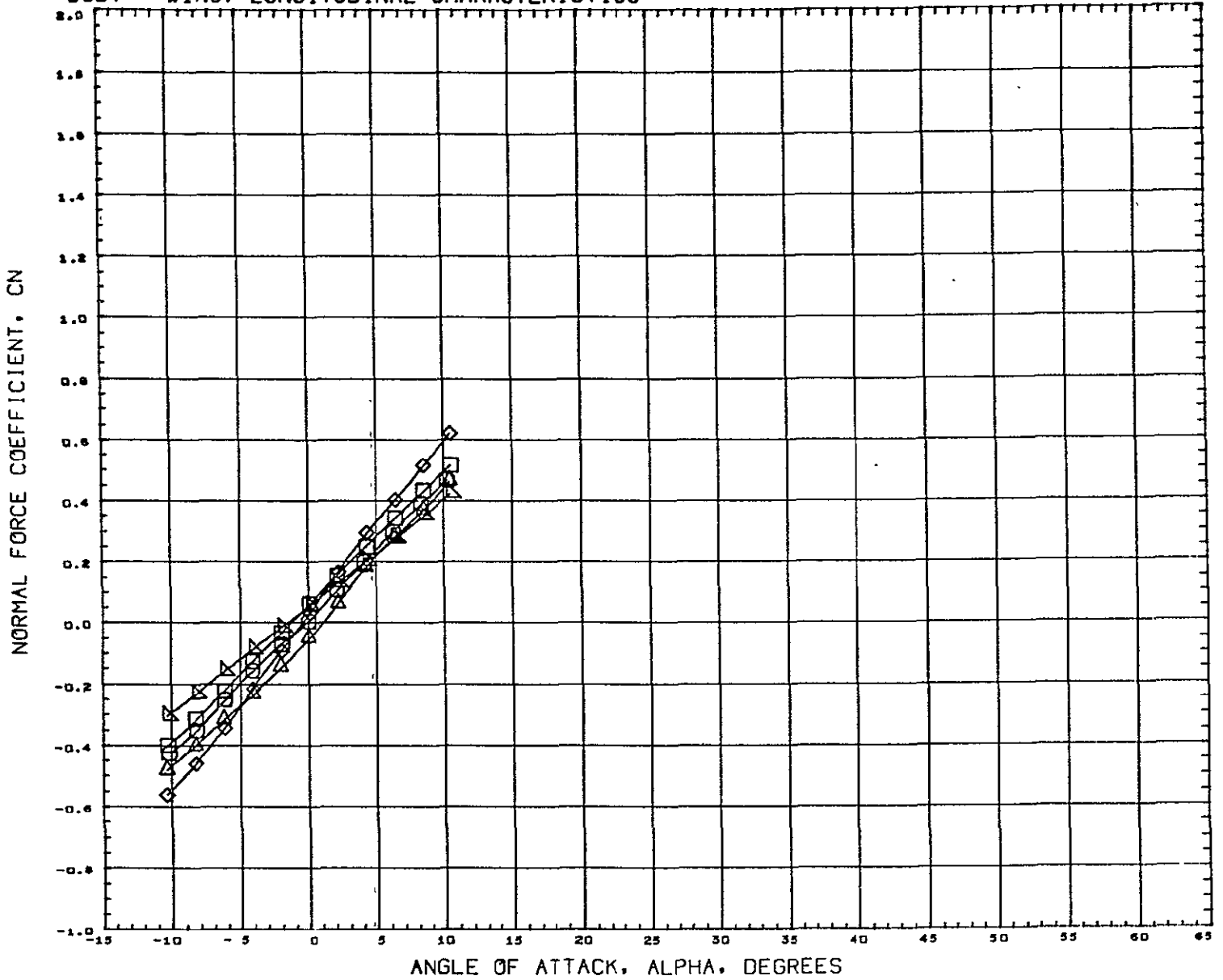
BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	ELEVON	SREF	LREF	BREF	
○	1.199	0.000	0.000	0.000	15.6560	3.0990	6.0990	
◇	1.463	0.000	0.000	0.000	59. IN.	IN.	IN.	
◇	1.964	0.000	0.000	0.000	6.7100	IN.	IN.	
◇	2.990				0.0000	IN.	IN.	
◇	4.000				0.0000	IN.	IN.	
◇	4.960	DATA HIST. CODE	MVR#*G		SCALE	0.0035		

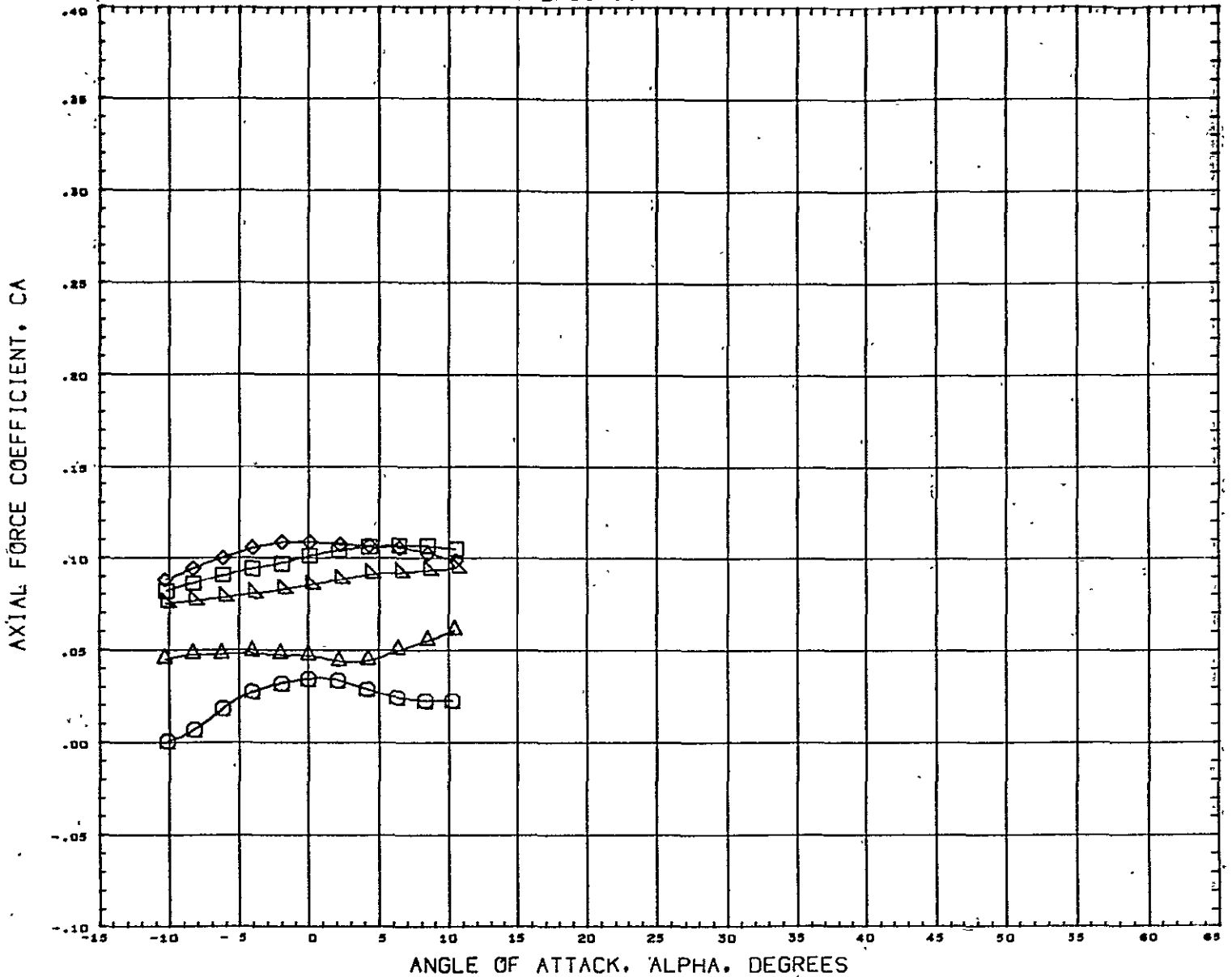
MSFC481 GD/C(B00STER)B19W14V7

BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.606	BETA	0.000	DEL	0.000	SREF	15.6560	39. IN.
◇	0.903	DER	0.000	ELEVON	0.000	LREF	3.0950	IN.
□	1.102	AILRON	0.000			BREF	6.0990	IN.
△	1.462					XMRP	6.7100	IN.
⊗	1.967					YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE		MVR#E				

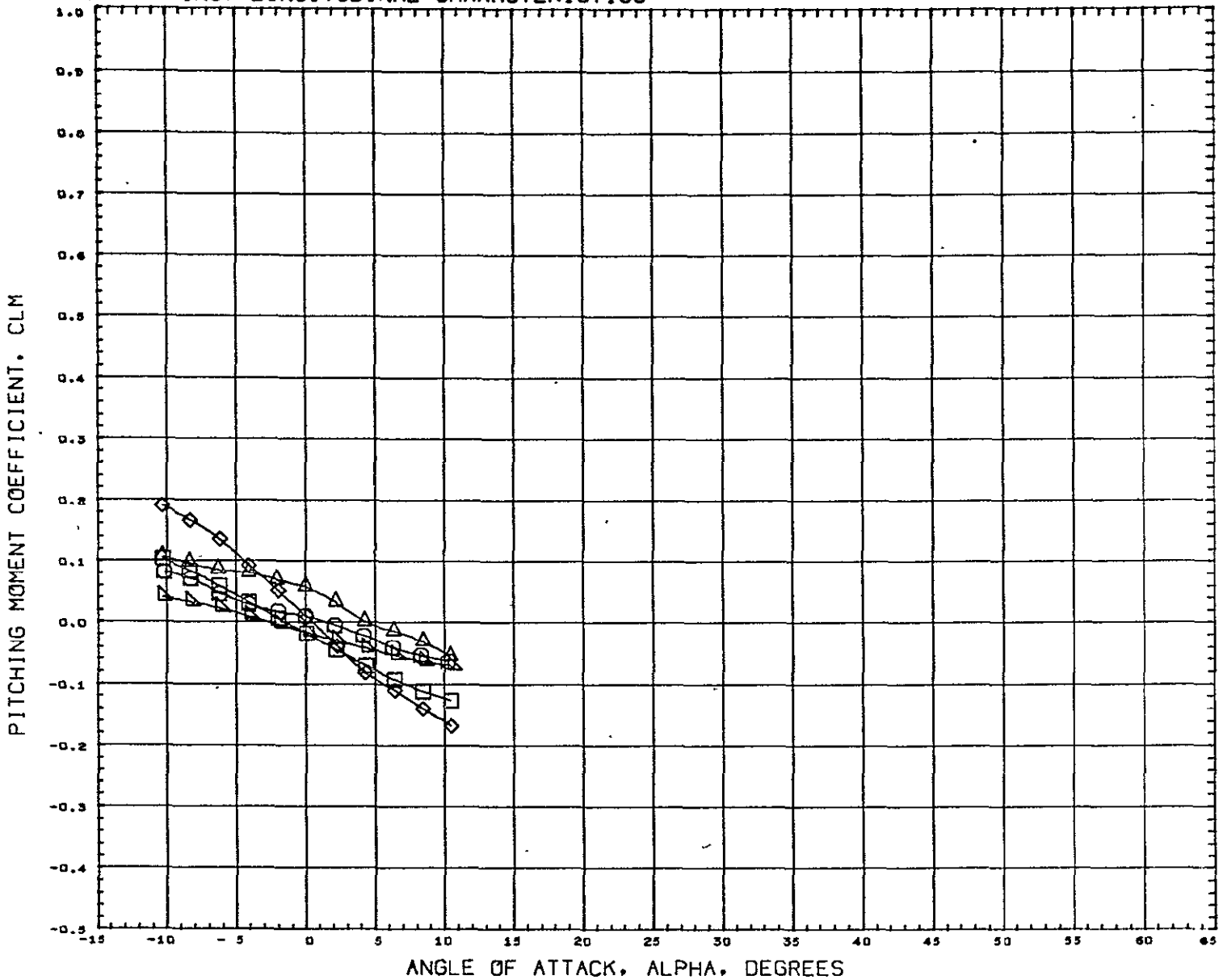
BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES			
◇	0.606	BETA	0.000	DEL	0.000
□	0.903	DER	0.000	ELEVON	0.000
△	1.102	AILRON	0.000		
○	1.462				
	1.967				
		DATA HIST. CODE	MVR#E		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
OREF	6.0900	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

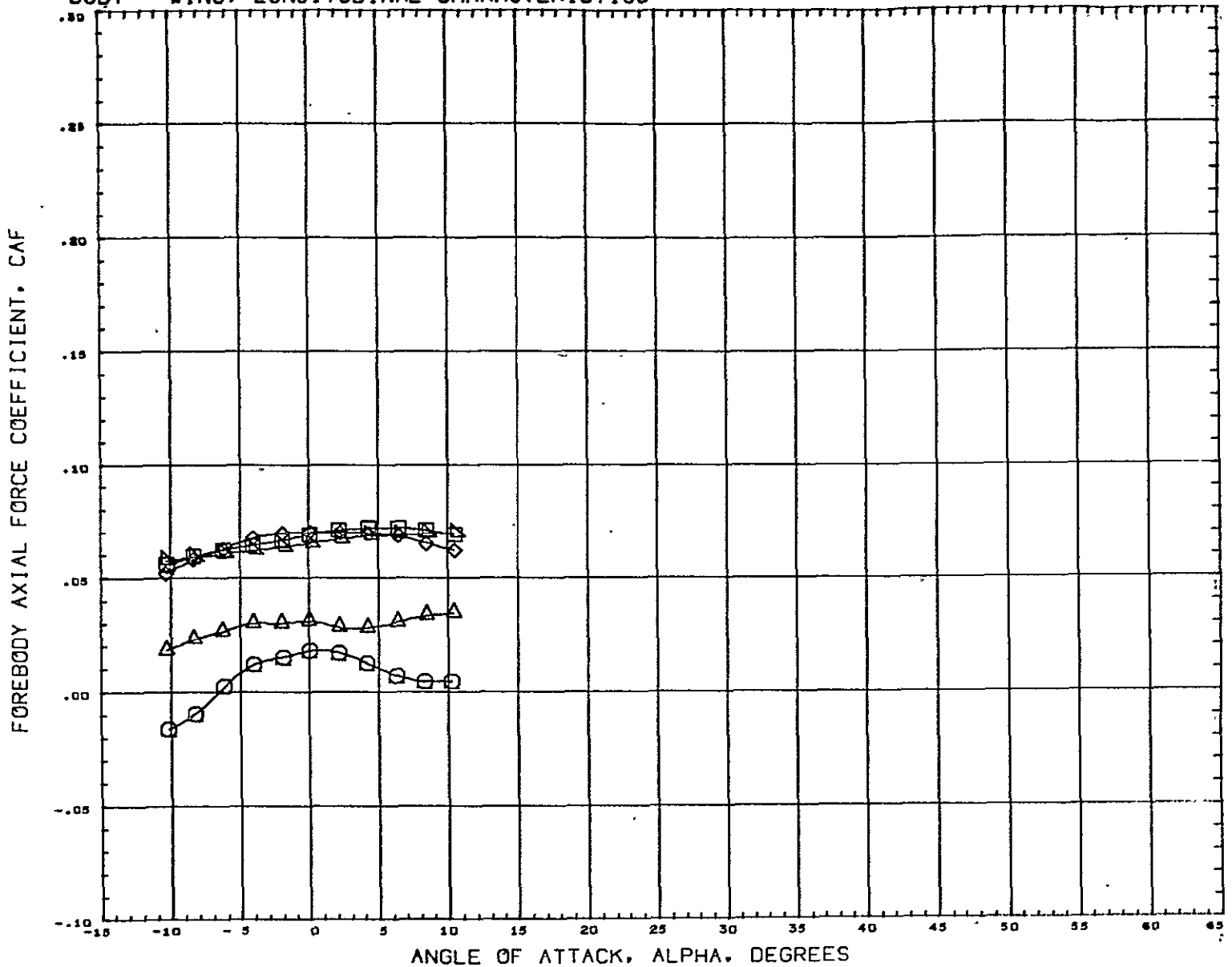
BODY - WING, LONGITUDINAL CHARACTERISTICS



SYMBOL	MACH	PARAMETRIC VALUES			
◇	0.608	BETA	0.000	DEL	0.000
△	0.903	DER	0.000	ELEVON	0.000
□	1.102	AILRON	0.000		
○	1.462				
▽	1.967				
		DATA HIST. CODE		MVR#E	

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

BODY - WING, LONGITUDINAL CHARACTERISTICS

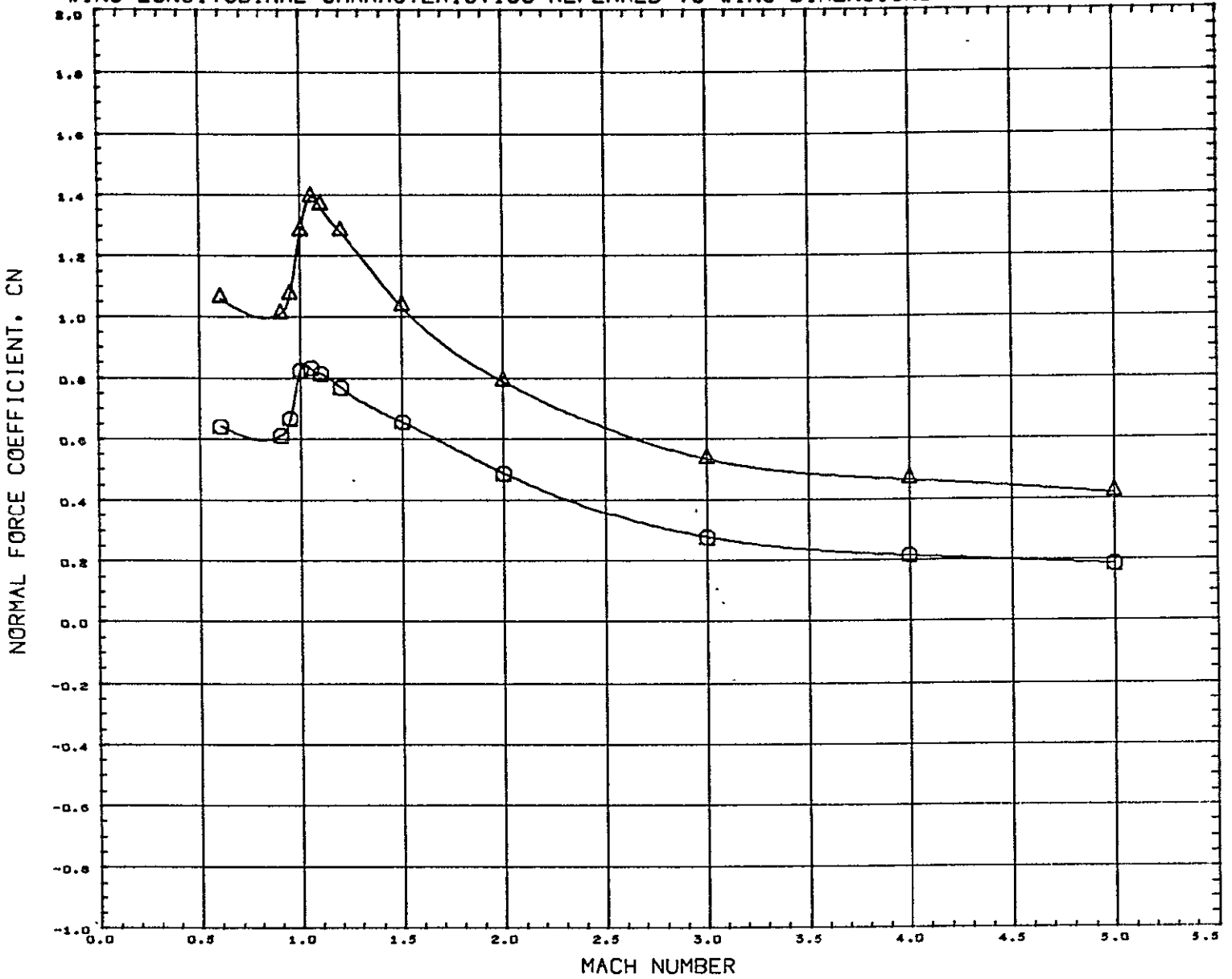


SYMBOL	MACH	PARAMETRIC VALUES			
		BETA	DEL	ELEVON	
○	0.606	0.000	0.000	0.000	
△	0.903	0.000	0.000	0.000	
◇	1.102	0.000			
□	1.462				
	1.967				

DATA HIST. CODE MVR#E

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

WING LONGITUDINAL CHARACTERISTICS REFERRED TO WING DIMENSIONS

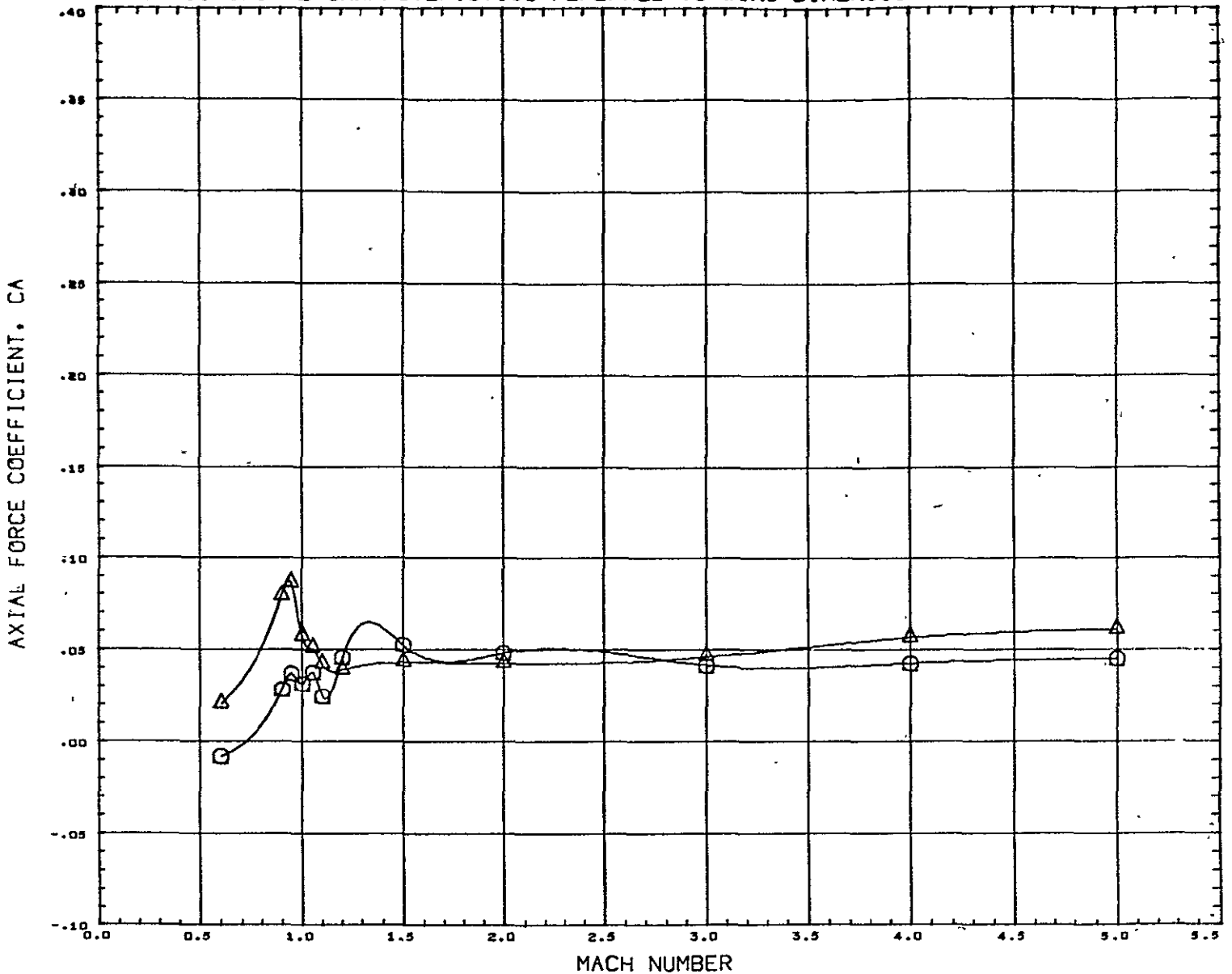


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	RUDDER
○	10.000		0.000	0.000
△	20.000			

REFERENCE INFORMATION		
SREF	10.0300	SQ. IN.
LREF	2.5040	IN.
BREF	4.7430	IN.
XMRP	7.8570	IN.
YMRP	0.0000	IN.
ZMRP	0.6240	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI*CS

WING LONGITUDINAL CHARACTERISTICS REFERRED TO WING DIMENSIONS

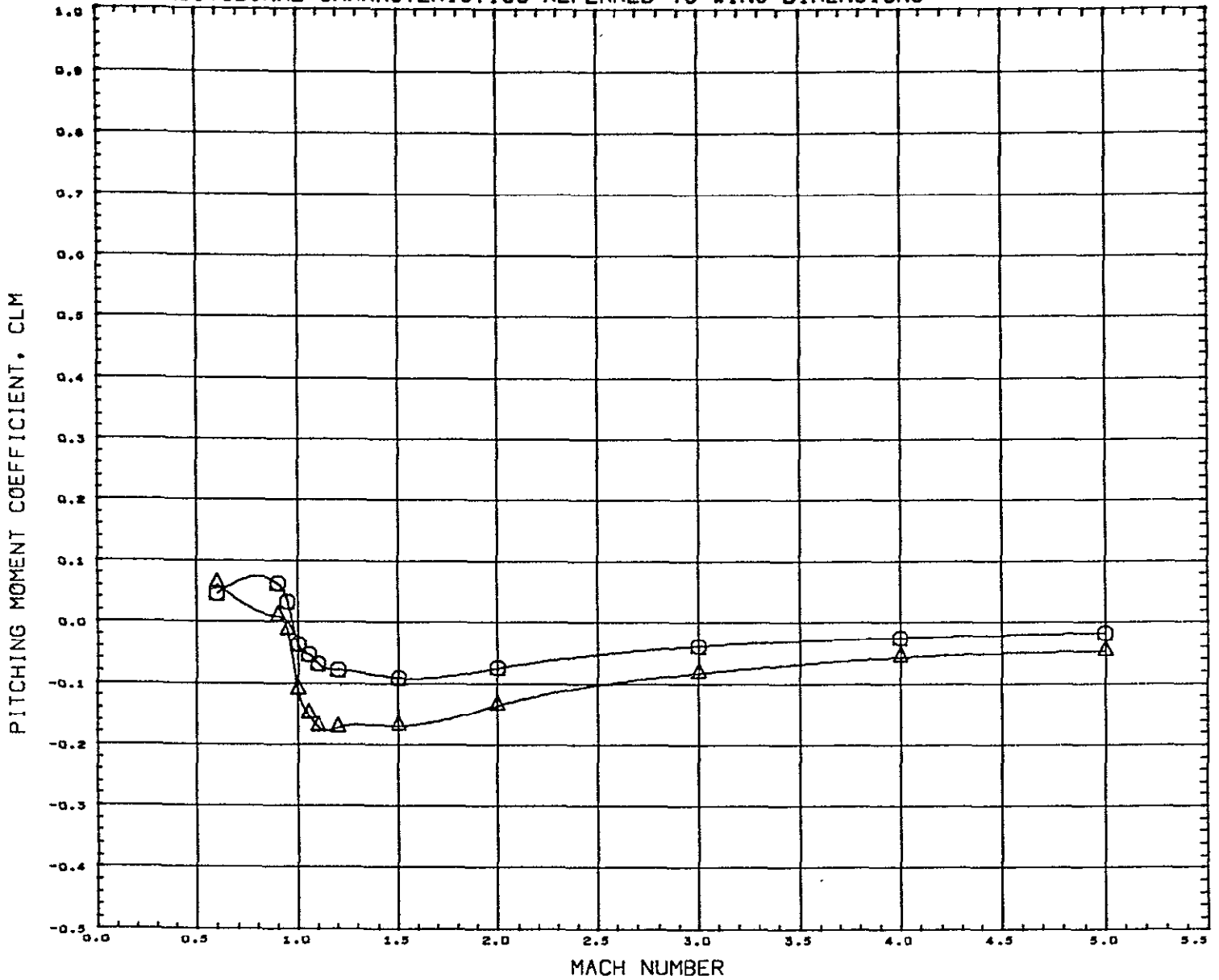


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	RUDDER
○	10.000		0.000	0.000
△	20.000			

REFERENCE INFORMATION		
SREF	10.0300	SQ.IN.
LREF	2.5040	IN.
BREF	4.7430	IN.
XMRP	7.8570	IN.
YMRP	0.0000	IN.
ZMRP	0.6240	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#EI*CS

WING LONGITUDINAL CHARACTERISTICS REFERRED TO WING DIMENSIONS

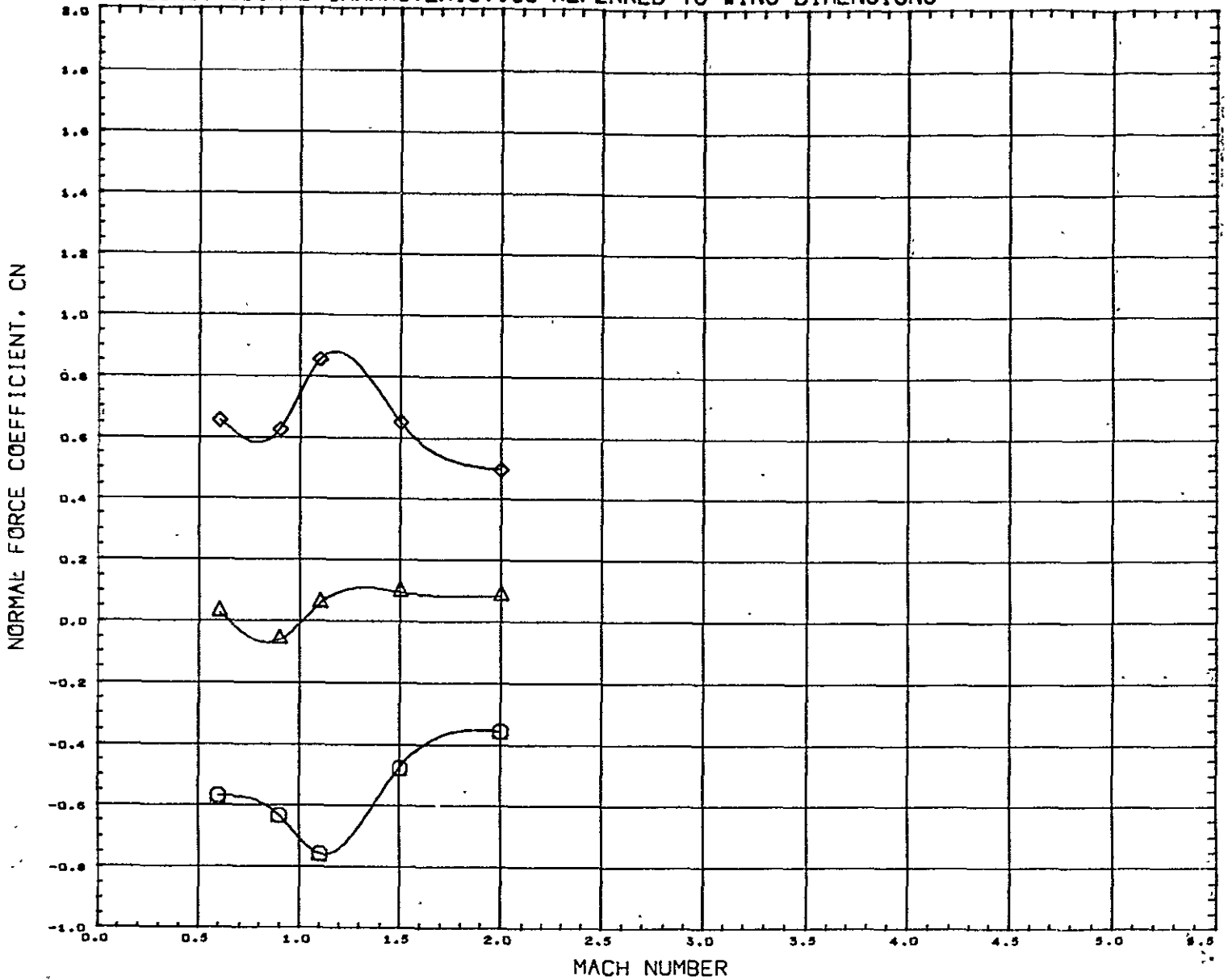


SYMBOL ALPHA PARAMETRIC VALUES
 O 10.000 BETA 0.000 RUDDER 0.000
 Δ 20.000

REFERENCE INFORMATION
 SREF 10.0300 SQ. IN.
 LREF 2.5040 IN.
 BREF 4.7430 IN.
 XMRP 7.6370 IN.
 YMRP 0.0000 IN.
 ZMRP 0.6240 IN.
 SCALE 0.0035

DATA HIST. CODE MVR*EI*CS

WING LONGITUDINAL CHARACTERISTICS REFERRED TO WING DIMENSIONS

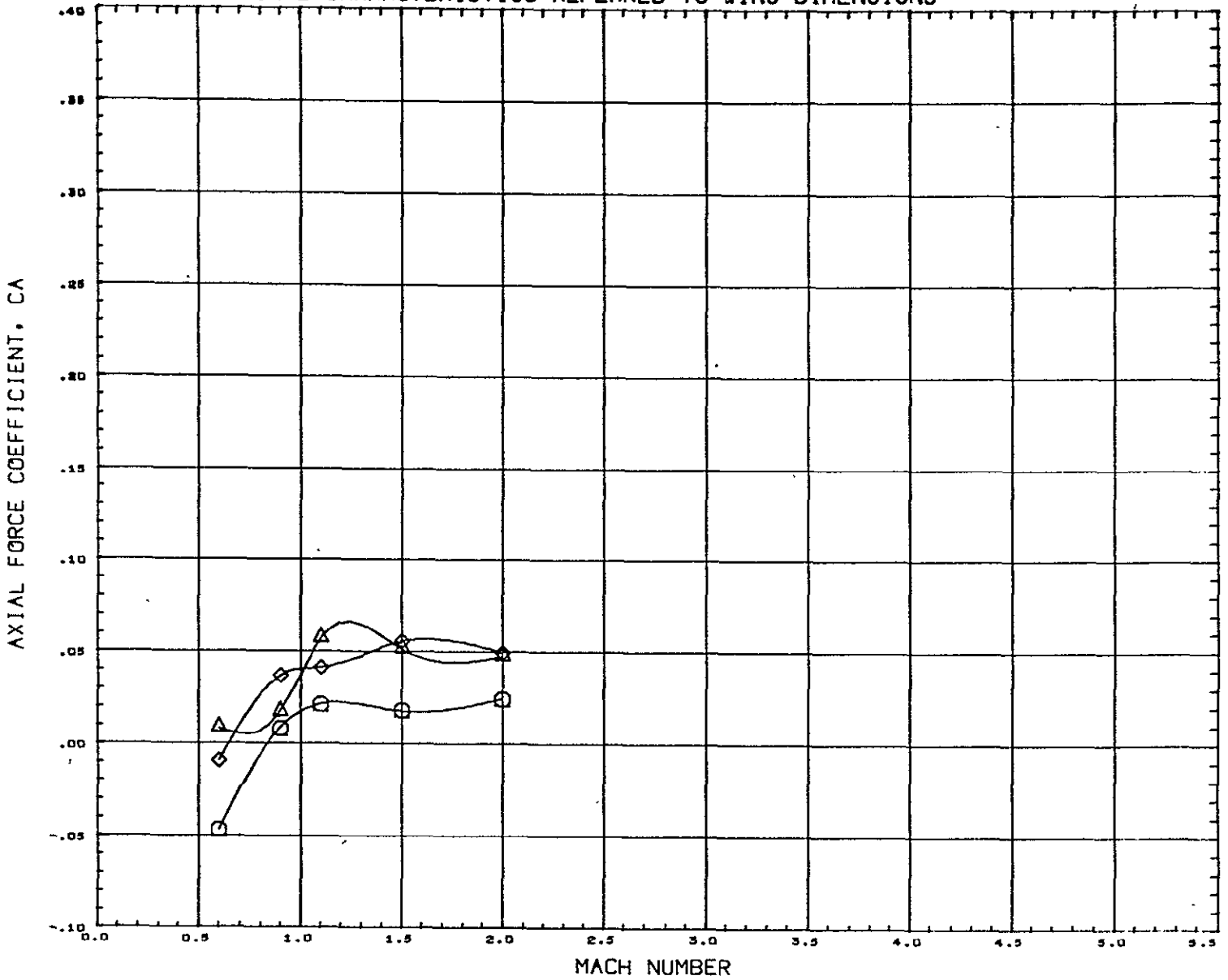


SYMBOL ALPHA BETA PARAMETRIC VALUES
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 △ 0.000
 ◇ 10.000

REFERENCE INFORMATION
 SREF 10.0300 SQ. IN.
 LREF 2.5040 IN.
 BREF 4.7430 IN.
 XMRP 7.8570 IN.
 YMRP 0.0000 IN.
 ZMRP 0.6240 IN.
 SCALE 0.0035

DATA HIST. CODE MVR#EI*CS

WING LONGITUDINAL CHARACTERISTICS REFERRED TO WING DIMENSIONS

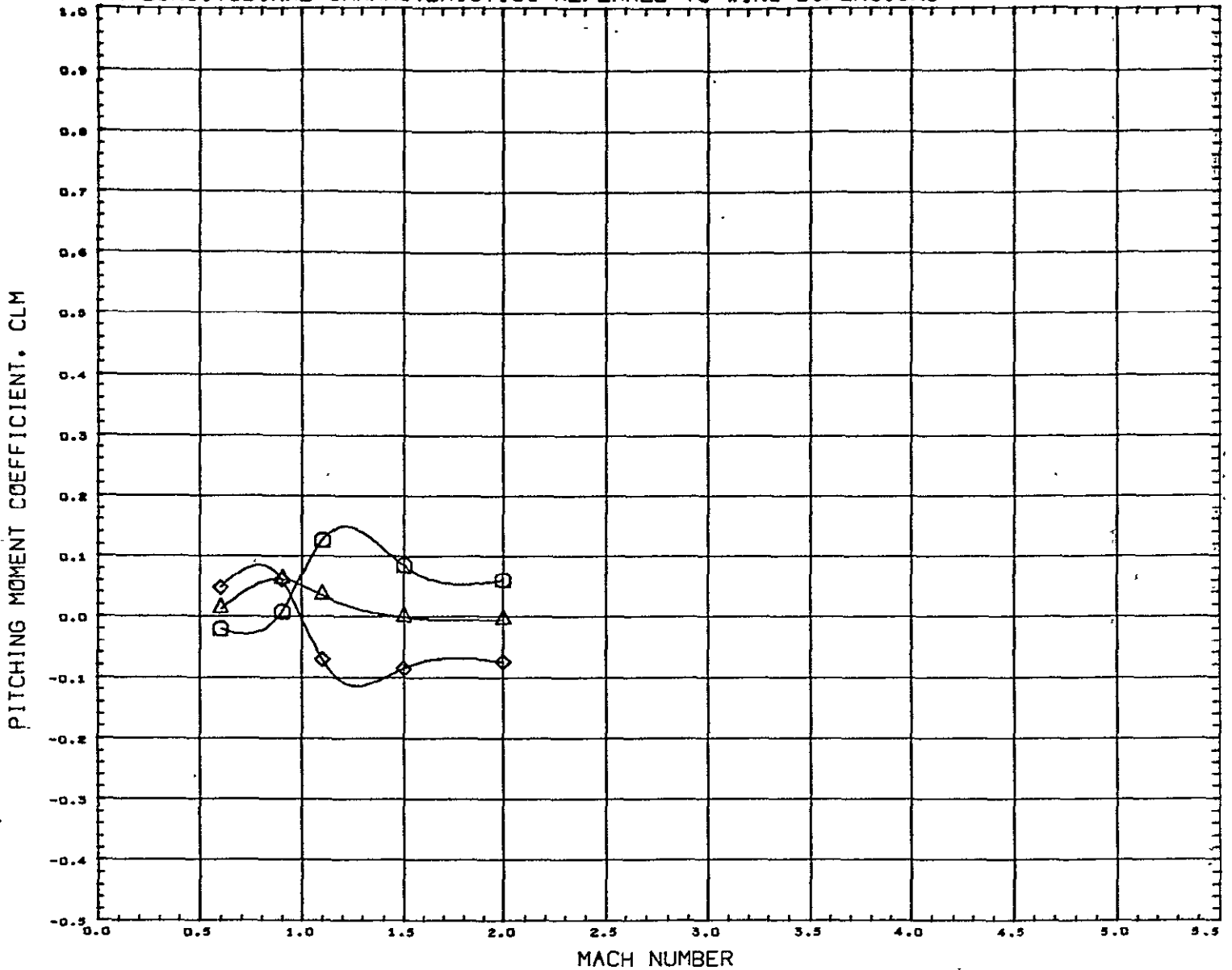


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	- 10.000		0.000
△	0.000		
◇	10.000		

REFERENCE INFORMATION		
SREF	10.0300	50. IN.
LREF	2.5040	IN.
BREF	4.7430	IN.
XMRP	7.8570	IN.
YMRP	0.0000	IN.
ZMRP	0.6240	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*E1*CS

WING LONGITUDINAL CHARACTERISTICS REFERRED TO WING DIMENSIONS

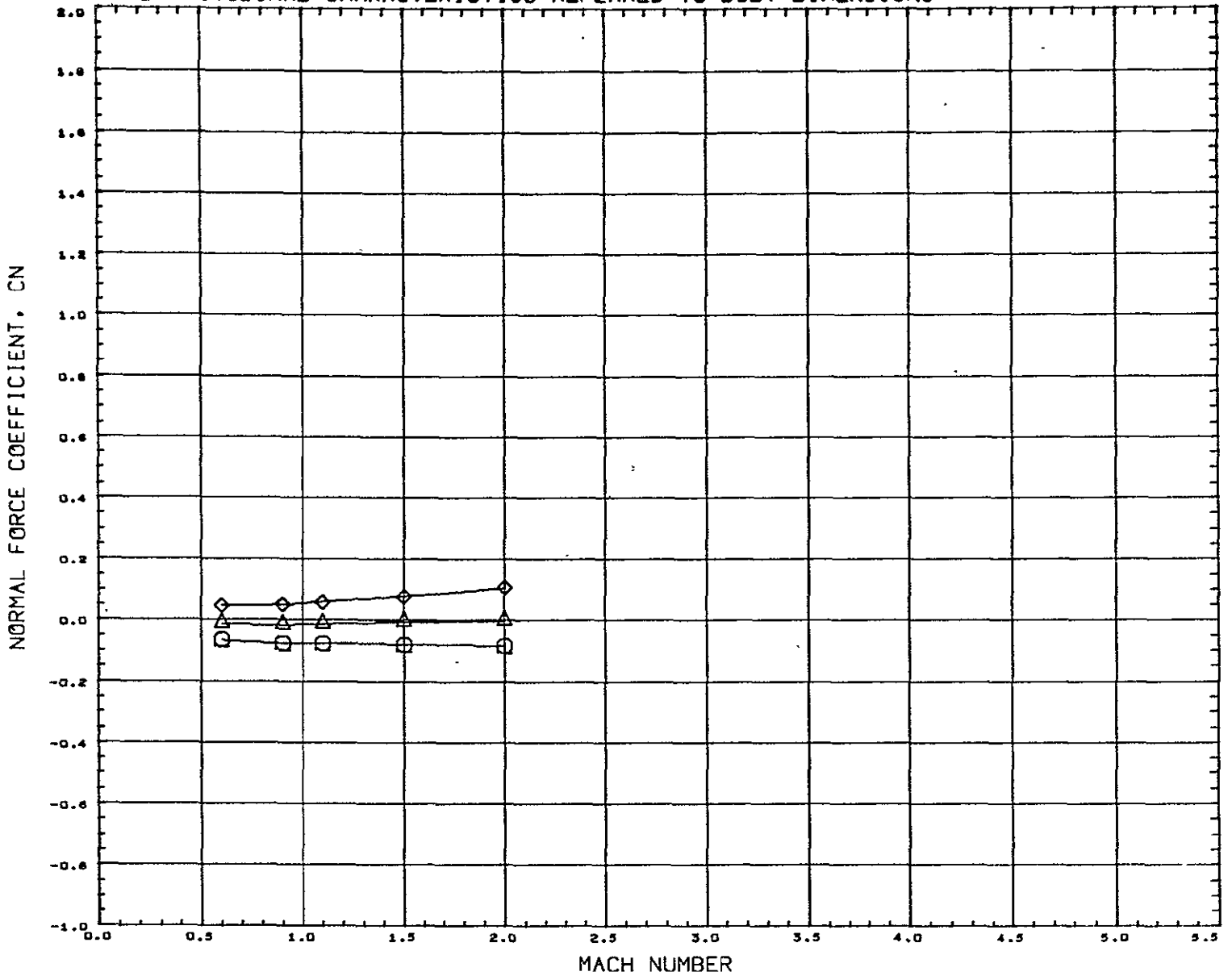


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	- 10.000		0.000
△	0.000		
◇	10.000		

REFERENCE INFORMATION		
SREF	10.0300	SQ. IN.
LREF	2.9040	IN.
BREF	4.7430	IN.
XMRP	7.8570	IN.
YMRP	0.0000	IN.
ZMRP	0.6240	IN.
SCALE	0.0035	

DATA HIST. CODE HVR#E1*CS

BODY LONGITUDINAL CHARACTERISTICS REFERRED TO BODY DIMENSIONS

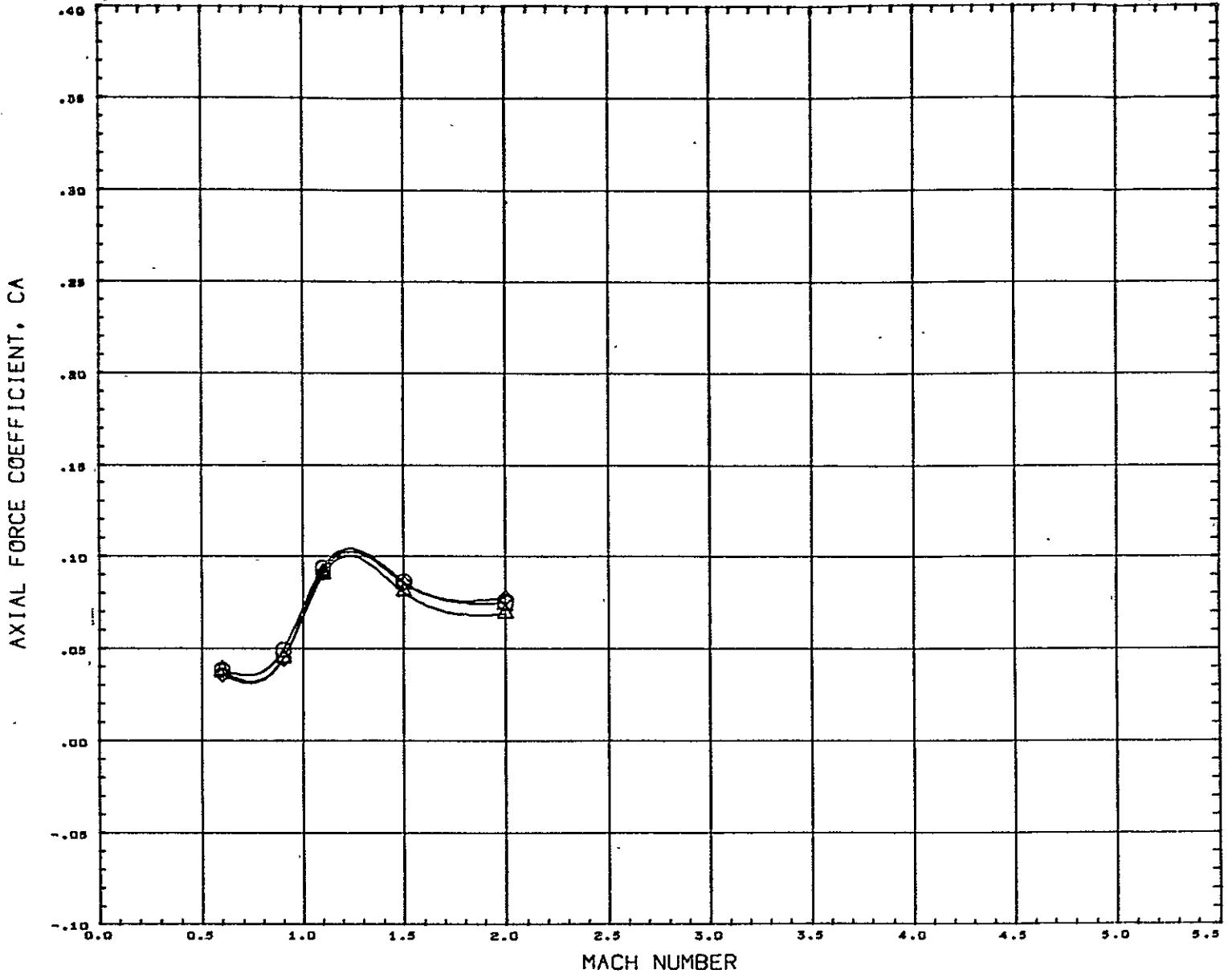


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	-10.000	0.000	0.000
△	0.000	0.000	0.000
◇	10.000	0.000	0.000

REFERENCE INFORMATION		
SREF	12.5010	SQ. IN.
LREF	9.7340	IN.
BREF	1.3560	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1S

BODY LONGITUDINAL CHARACTERISTICS REFERRED TO BODY DIMENSIONS

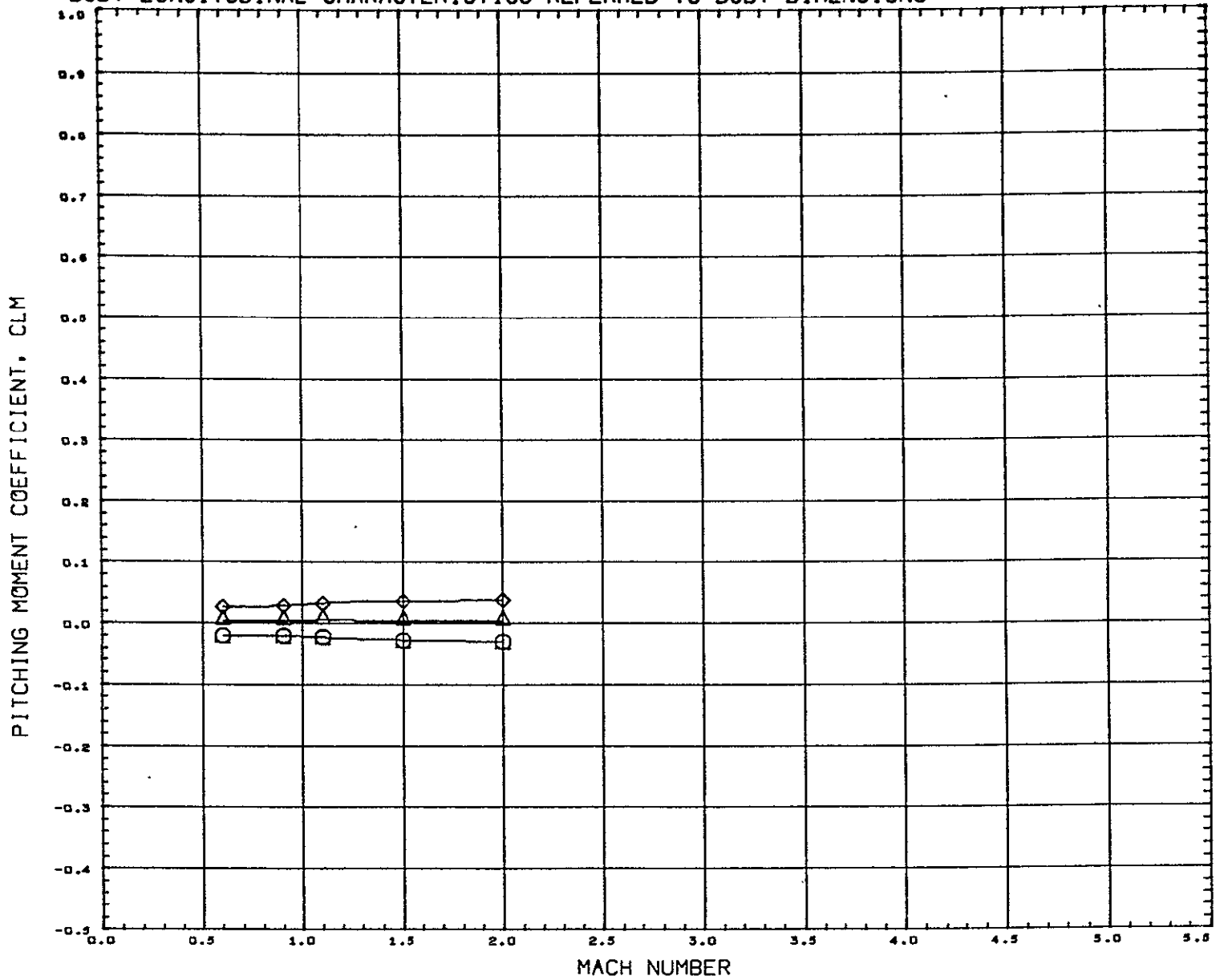


SYMBOL ALPHA BETA PARAMETRIC VALUES
 ○ - 10.000
 △ 0.000
 ◇ 10.000

REFERENCE INFORMATION
 SREF 12.5010 SQ. IN.
 LREF 9.7340 IN.
 BREF 1.3560 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

DATA HIST. CODE MVR#EIS

BODY LONGITUDINAL CHARACTERISTICS REFERRED TO BODY DIMENSIONS

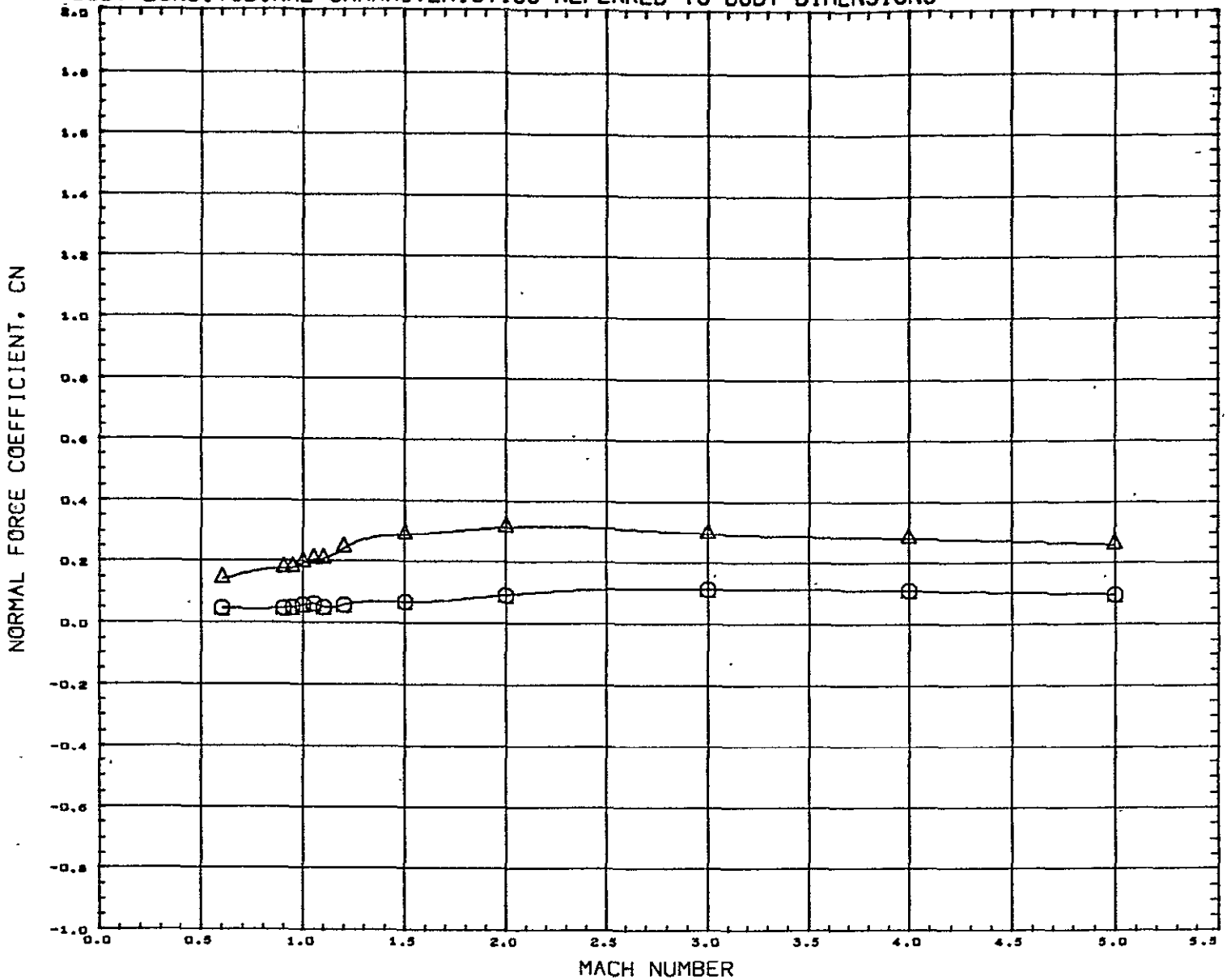


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES
○	- 10.000		0.000
△	0.000		
◇	10.000		

REFERENCE INFORMATION		
SREF	12.5010	sq. IN.
LREF	9.7340	IN.
BREF	1.3560	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1S

BODY LONGITUDINAL CHARACTERISTICS REFERRED TO BODY DIMENSIONS

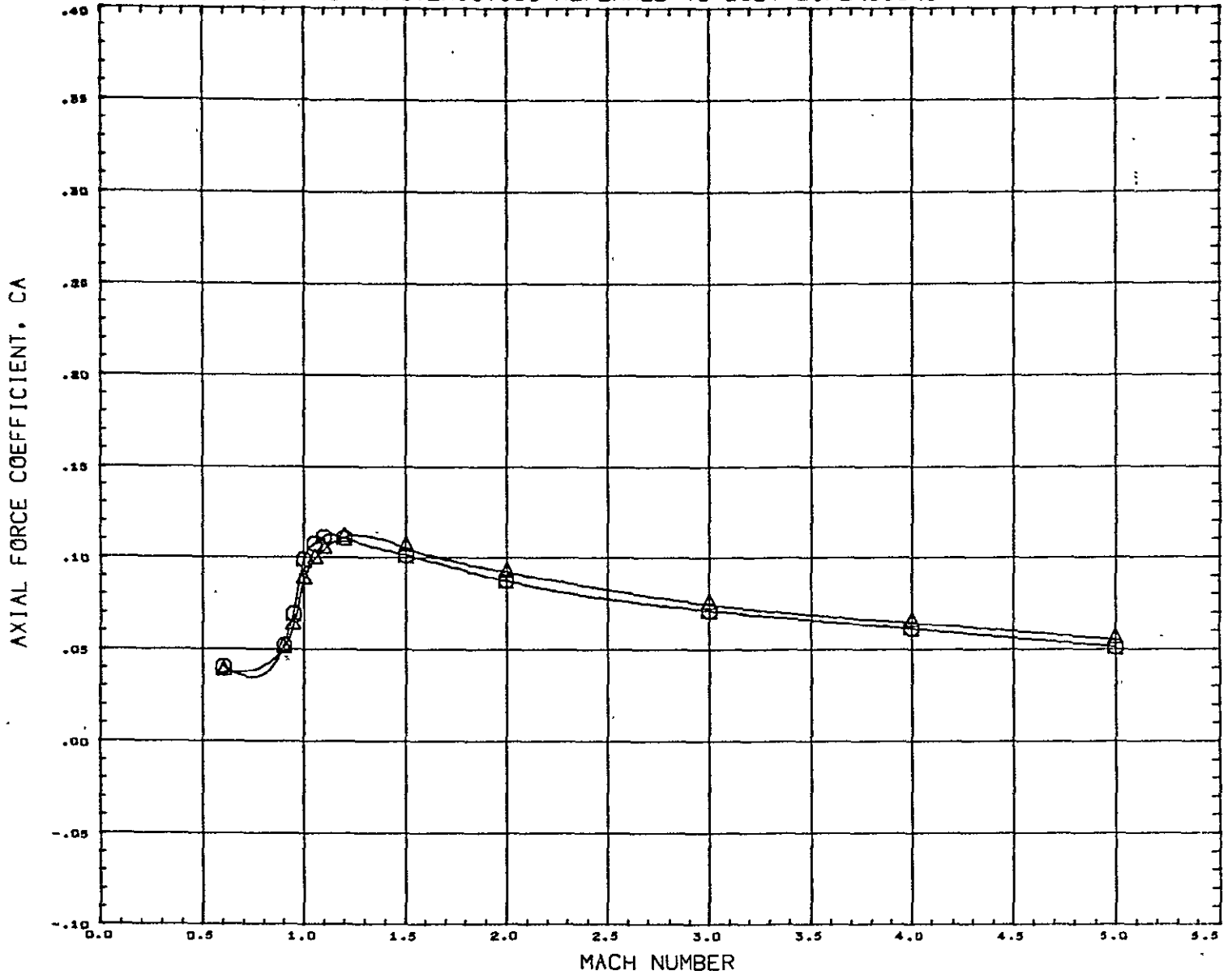


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	
○	10.000		0.000	RUDDER 0.000
△	20.000			

REFERENCE INFORMATION		
SREF	12.5010	50. IN.
LREF	9.7340	IN.
BREF	1.3560	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E18

BODY LONGITUDINAL CHARACTERISTICS REFERRED TO BODY DIMENSIONS

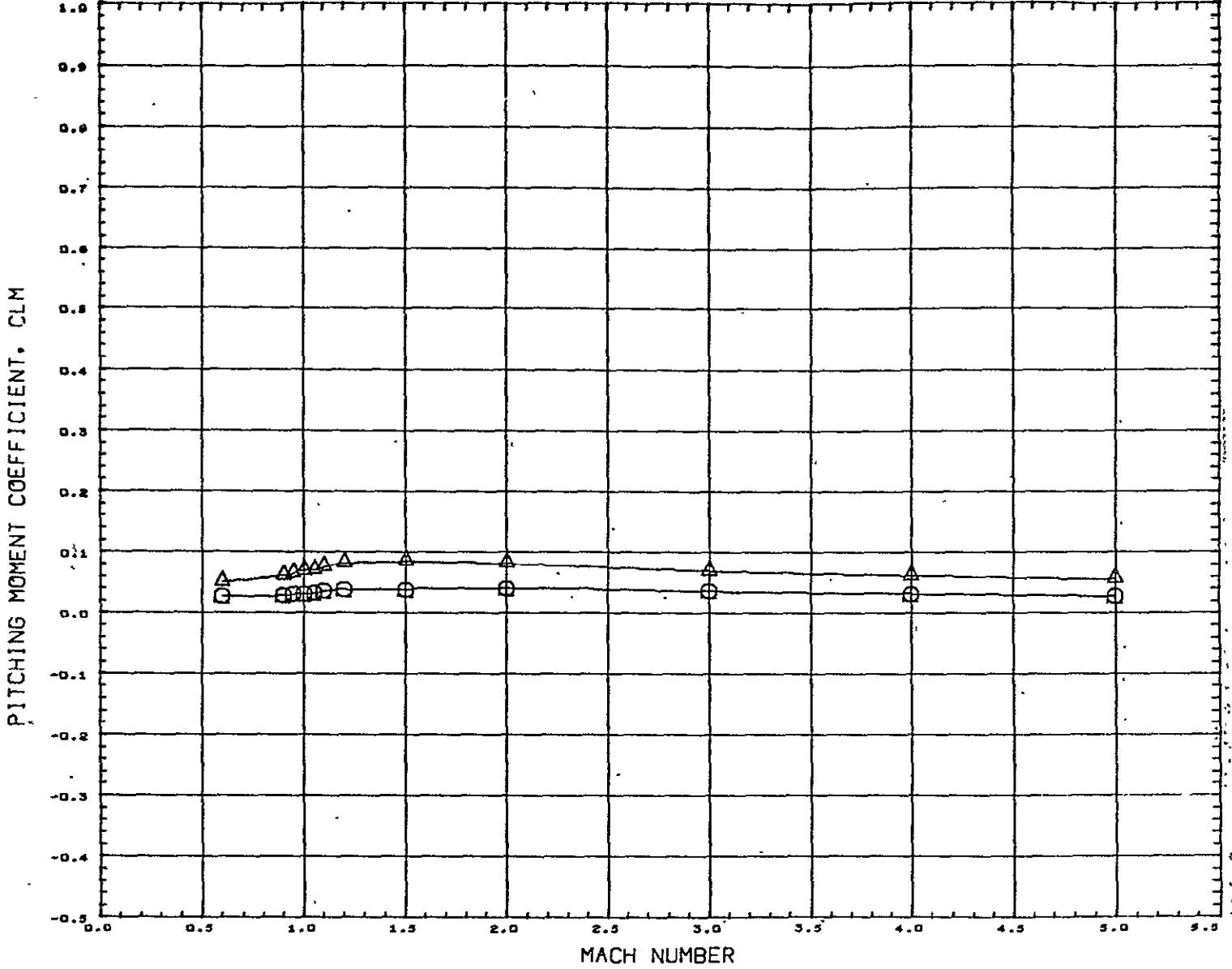


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	RUDDER	0.000
△	20.000				

REFERENCE INFORMATION		
SREF	12.5010	SQ. IN.
LREF	9.7340	IN.
BREF	1.3560	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*E15

BODY LONGITUDINAL CHARACTERISTICS REFERRED TO BODY DIMENSIONS

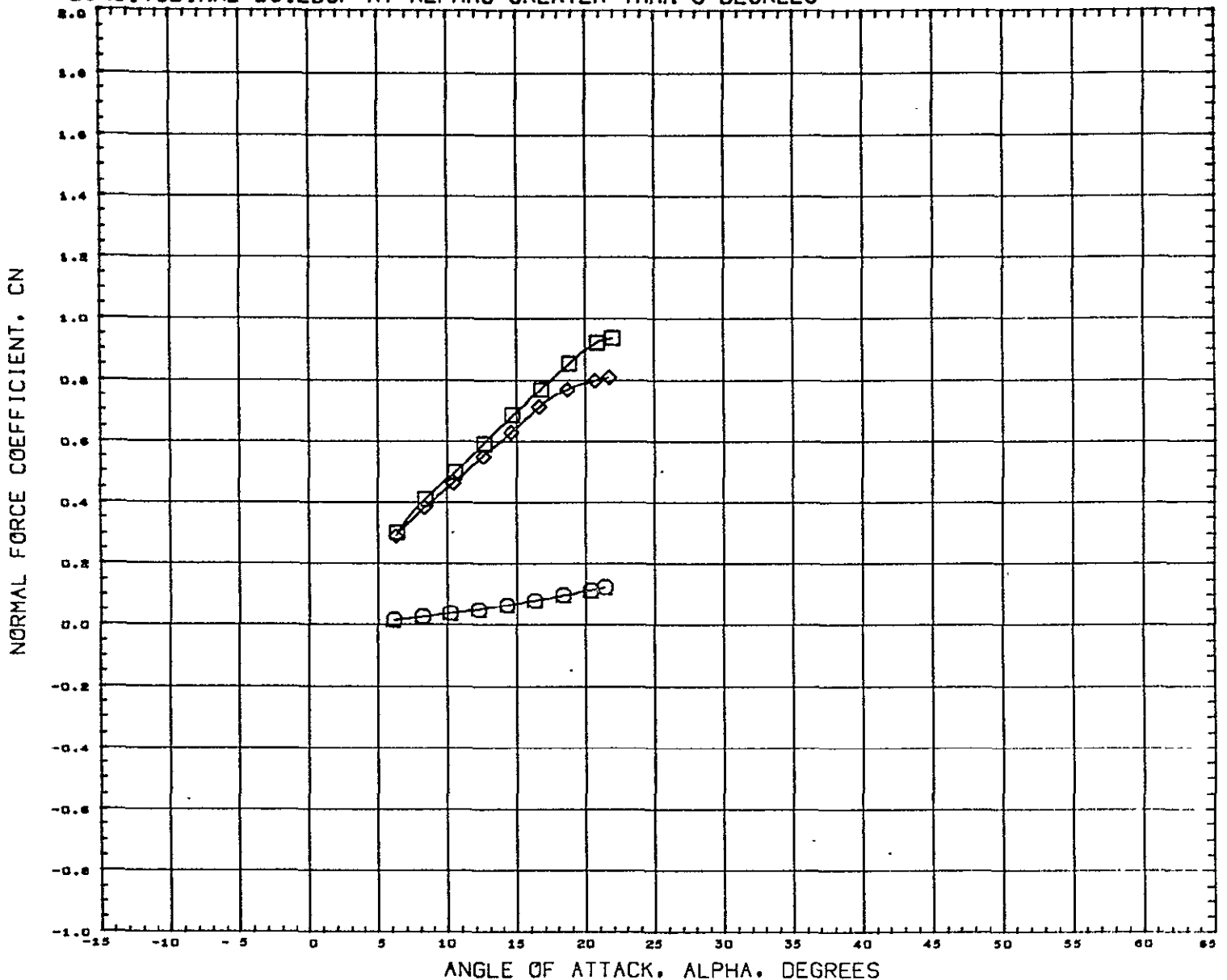


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	RUDDER
○	10.000	0.000		0.000
△	20.000	0.000		0.000

REFERENCE INFORMATION		
SREF	12.5010	SQ. IN.
LREF	9.7340	IN.
BREF	1.3560	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EIS

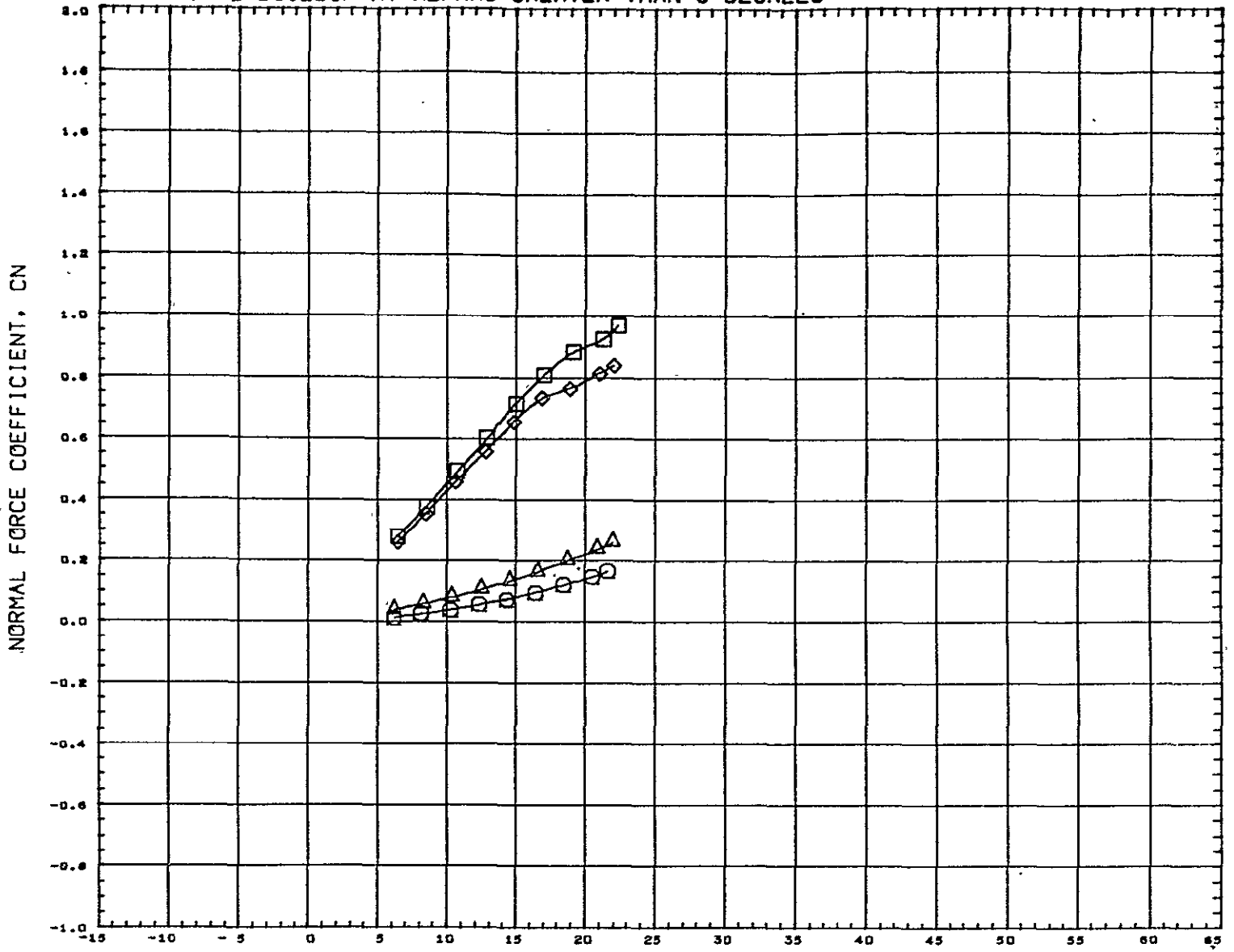
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C20013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C20009)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES

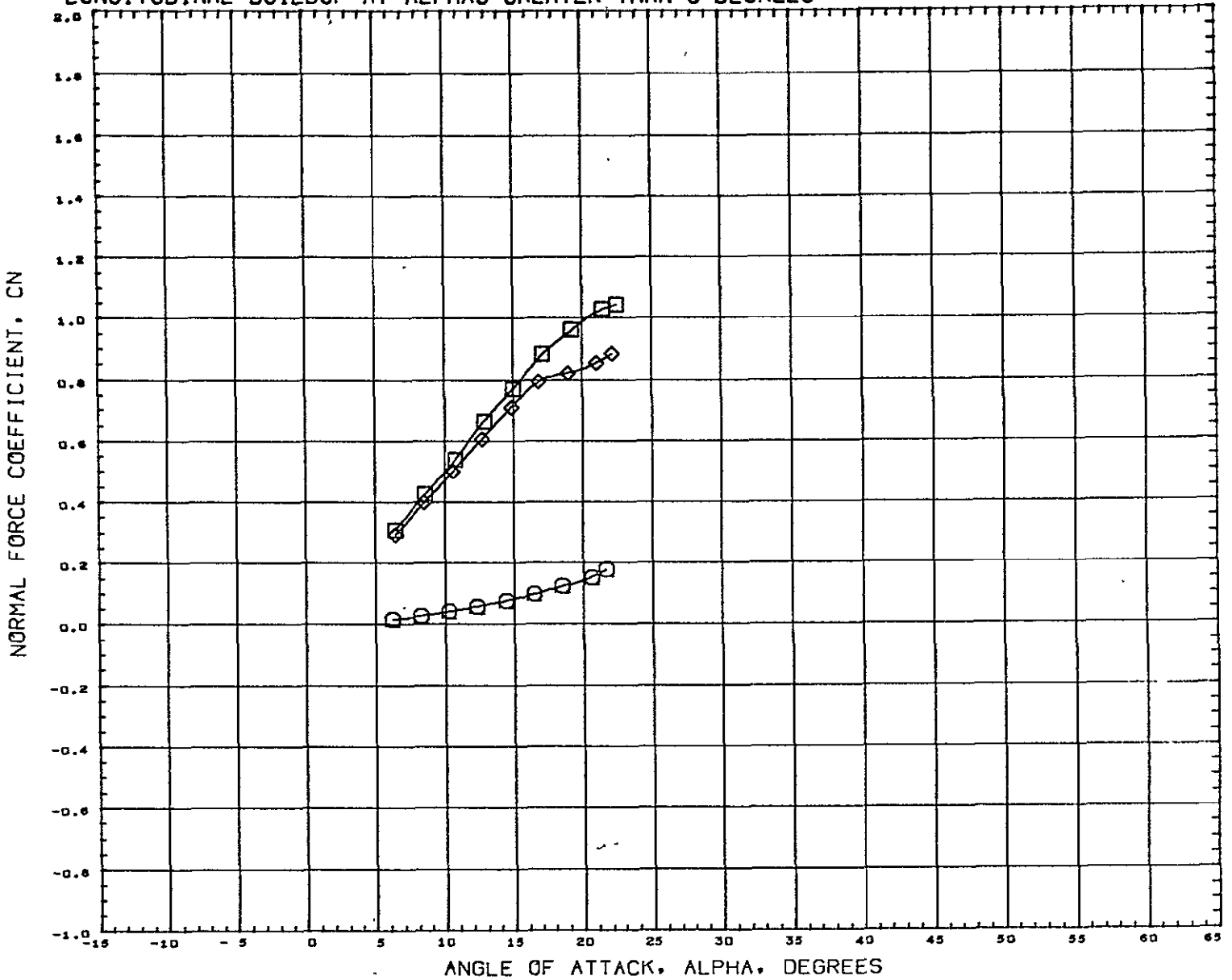


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C (BOOSTER) B19V7				0.000	SREF 15.6560 Sq. IN.
(C28013)	△	MSFC481 GD/C (BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.907

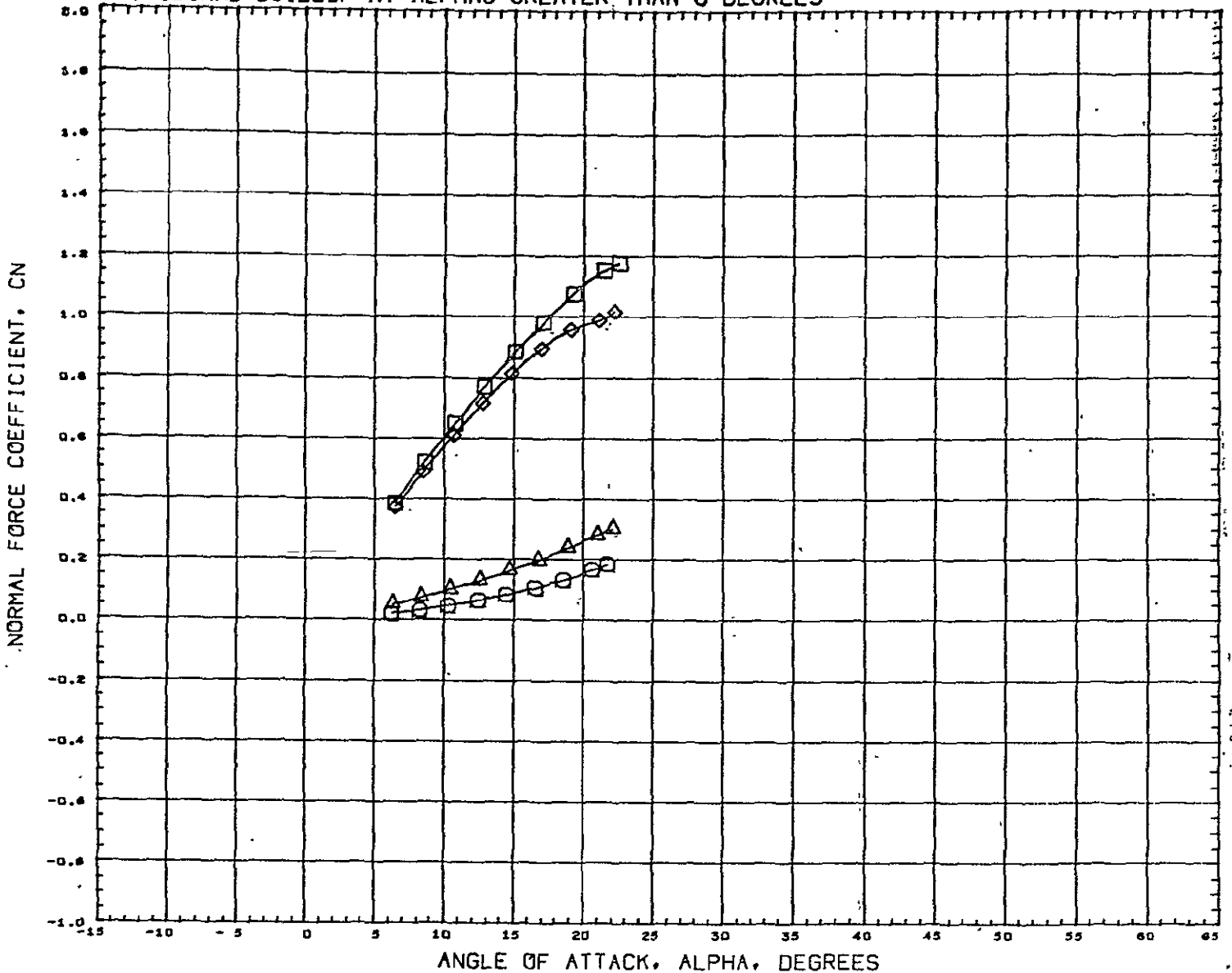
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000	LREF 3.0930 IN.
(C28009)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.937

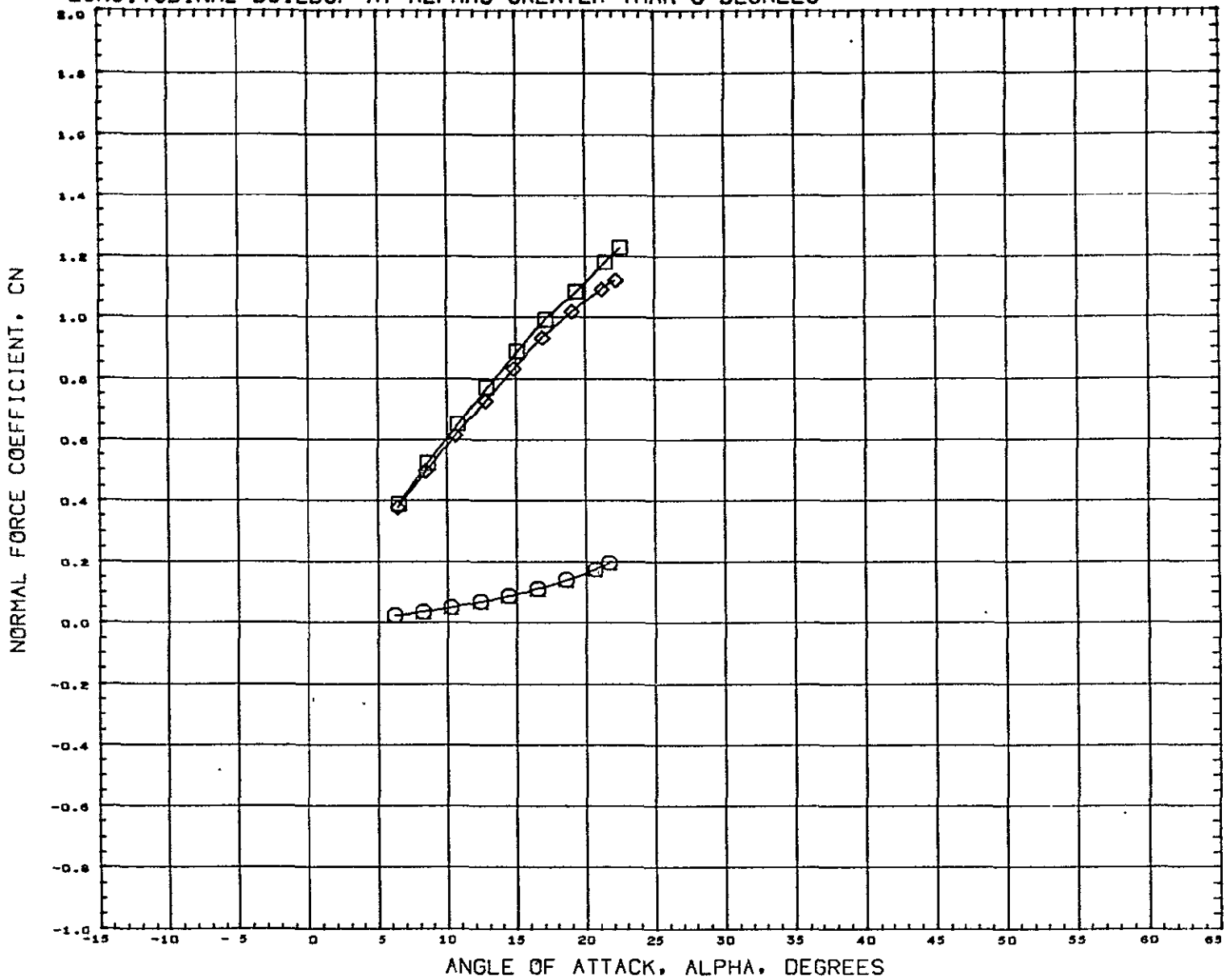
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION	
(C28004)	○	MSFC481 GD/C (BOOSTER) B19V7	0.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(C28013)	△	MSFC481 GD/C (BOOSTER) B19C4AV7	0.000	0.000	0.000	0.000	LREF	3.0950 IN.
(C28005)	◇	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF	6.0990 IN.
(C28001)	□	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 1.005

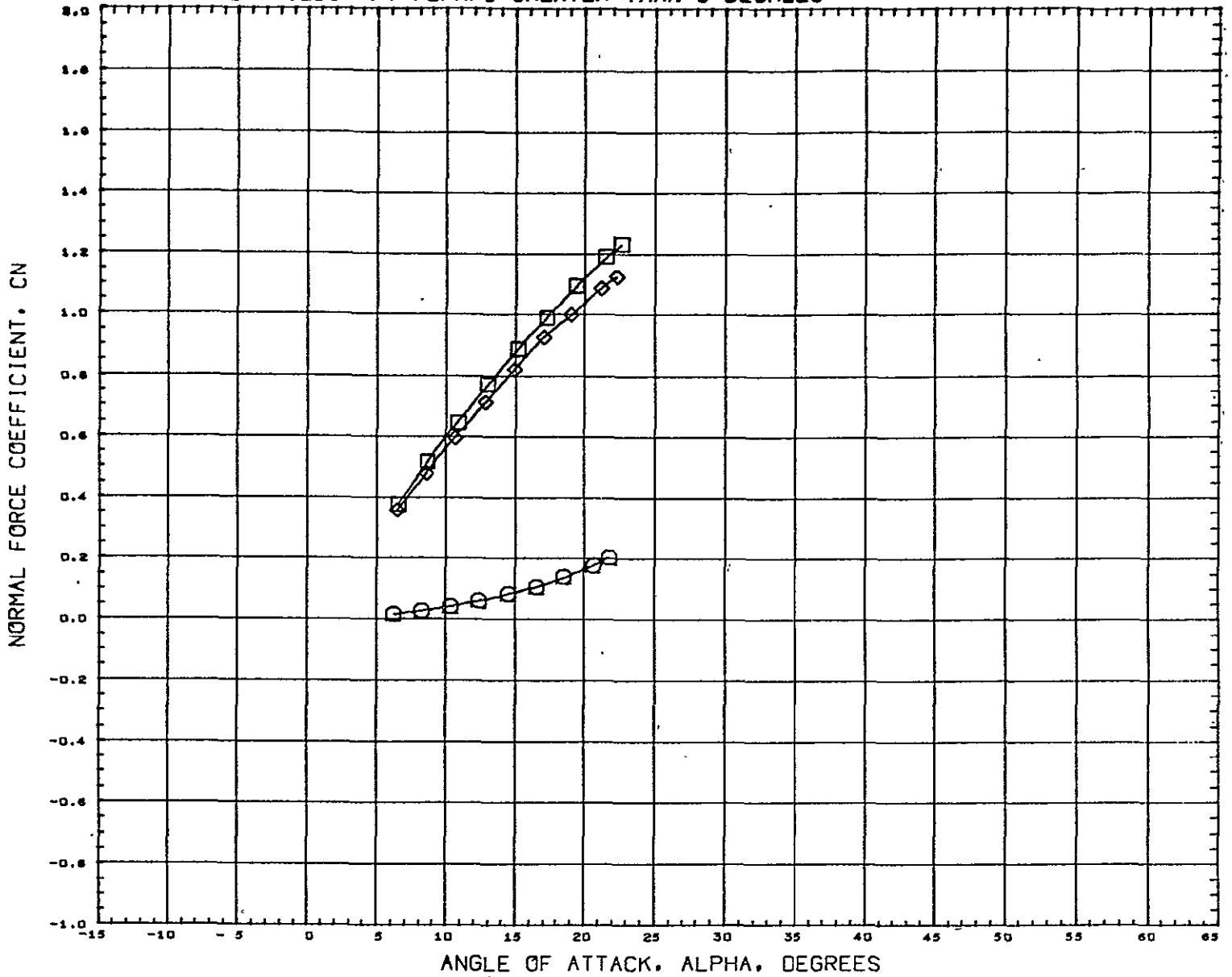
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7	0.000	0.000	0.000	0.000	3REF 15.6360 Sq. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.054

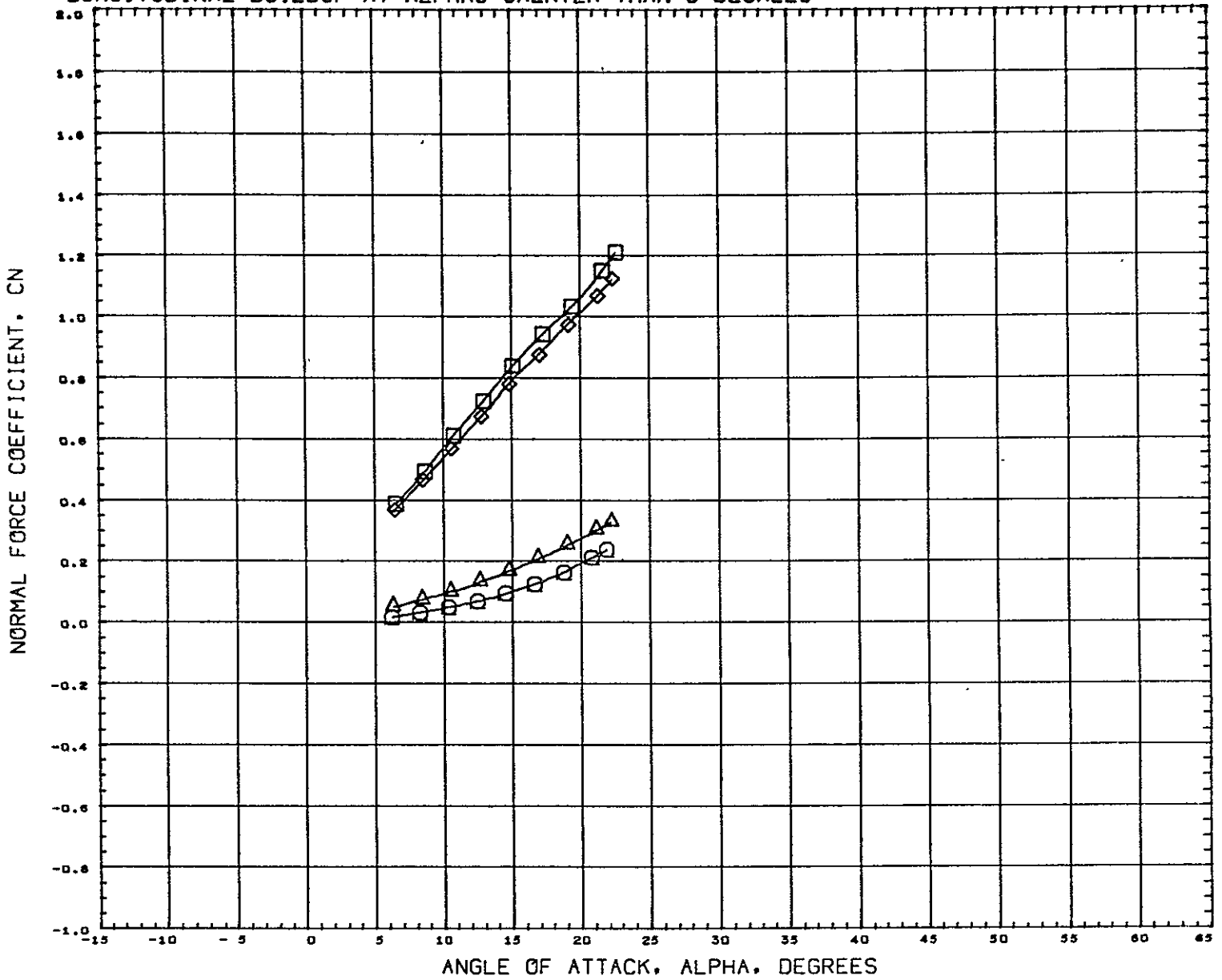
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4V7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.100

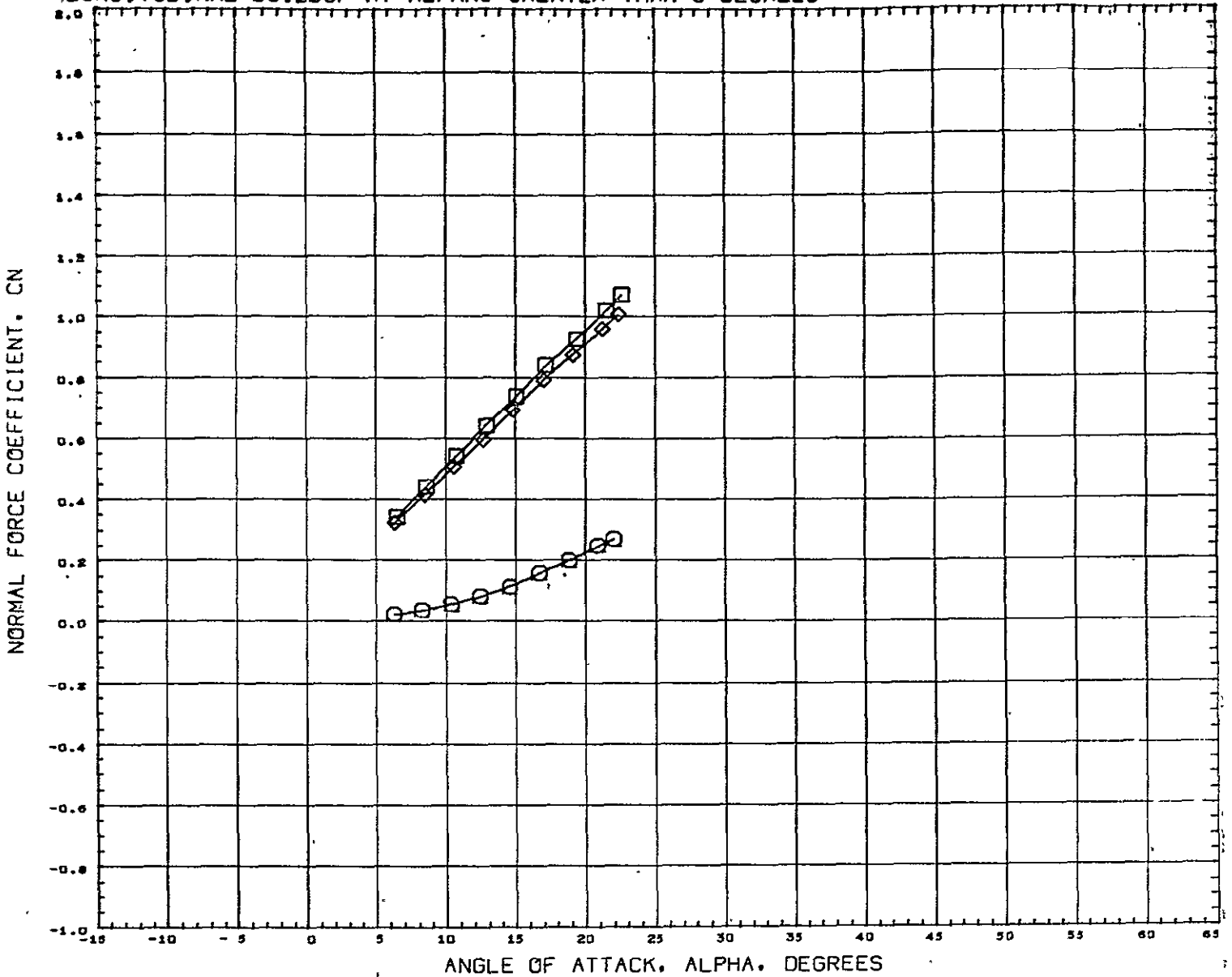
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER) B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	MSFC481 GD/C(BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER) B19W14V7	0.000	0.000		0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.198

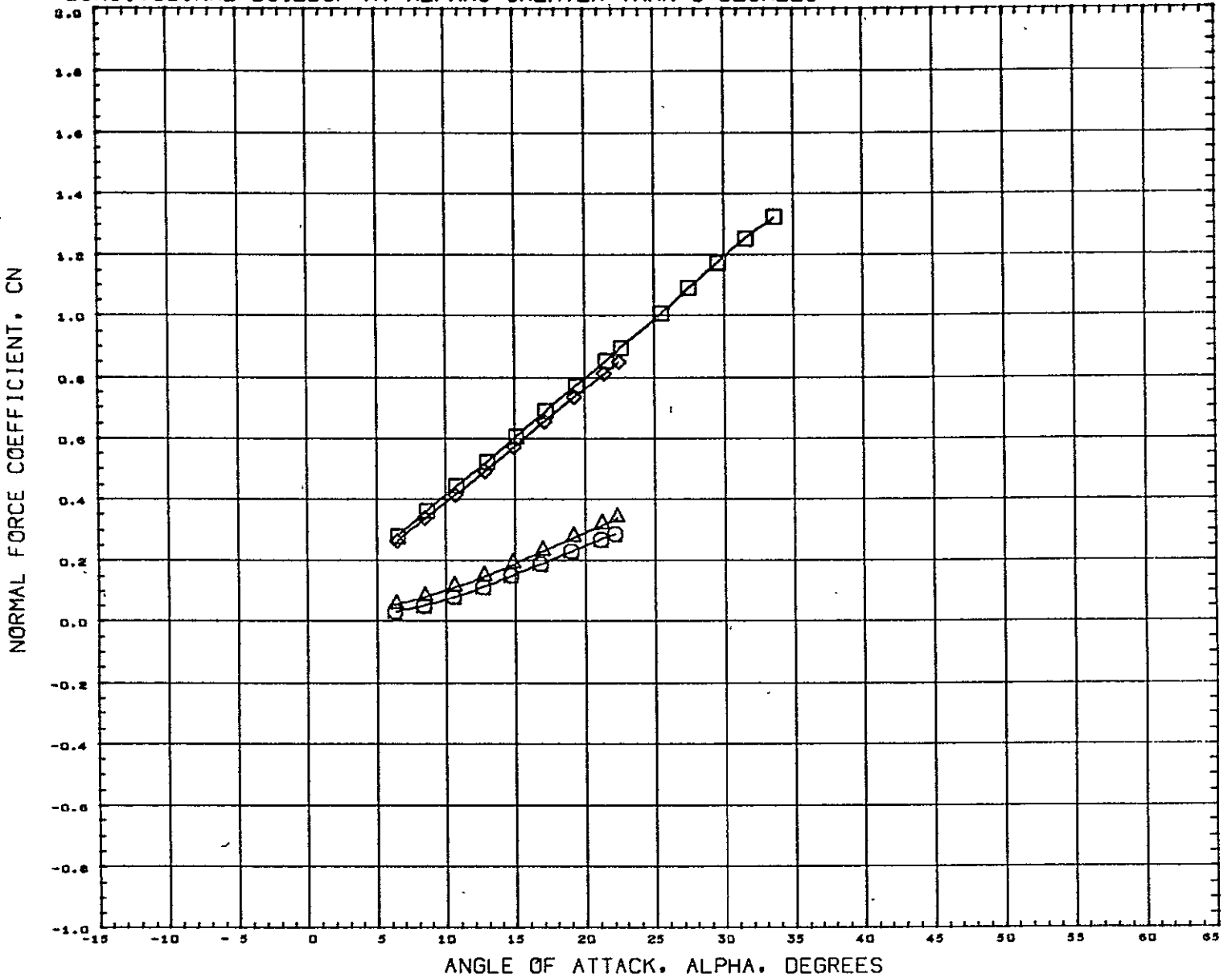
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.463

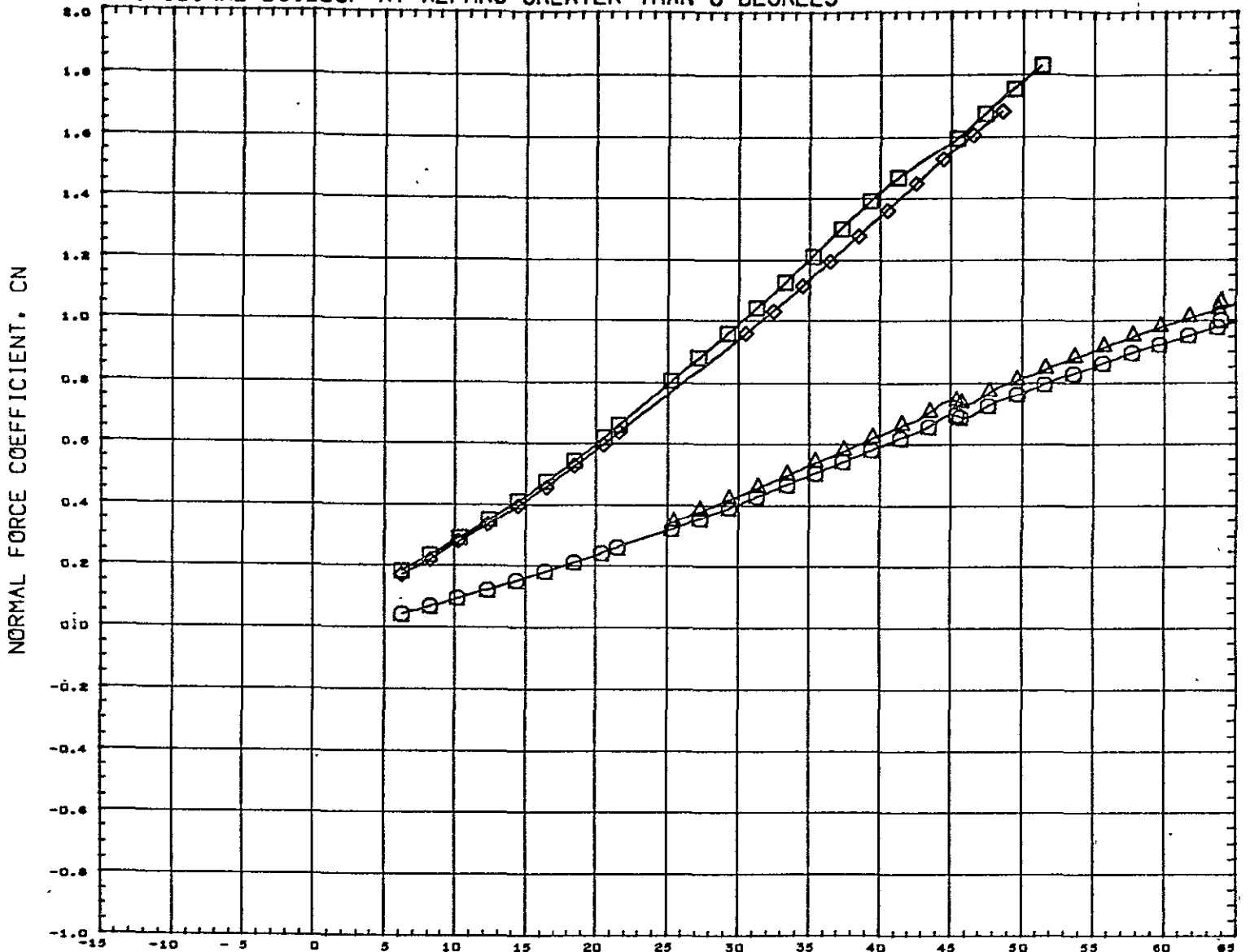
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C(BOOSTER)B19V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	△	MSFC481 GD/C(BOOSTER)B19C4AV7	0.000	0.000	0.000	0.000	LREF 3.0950 IN.
(C28005)	△	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.966

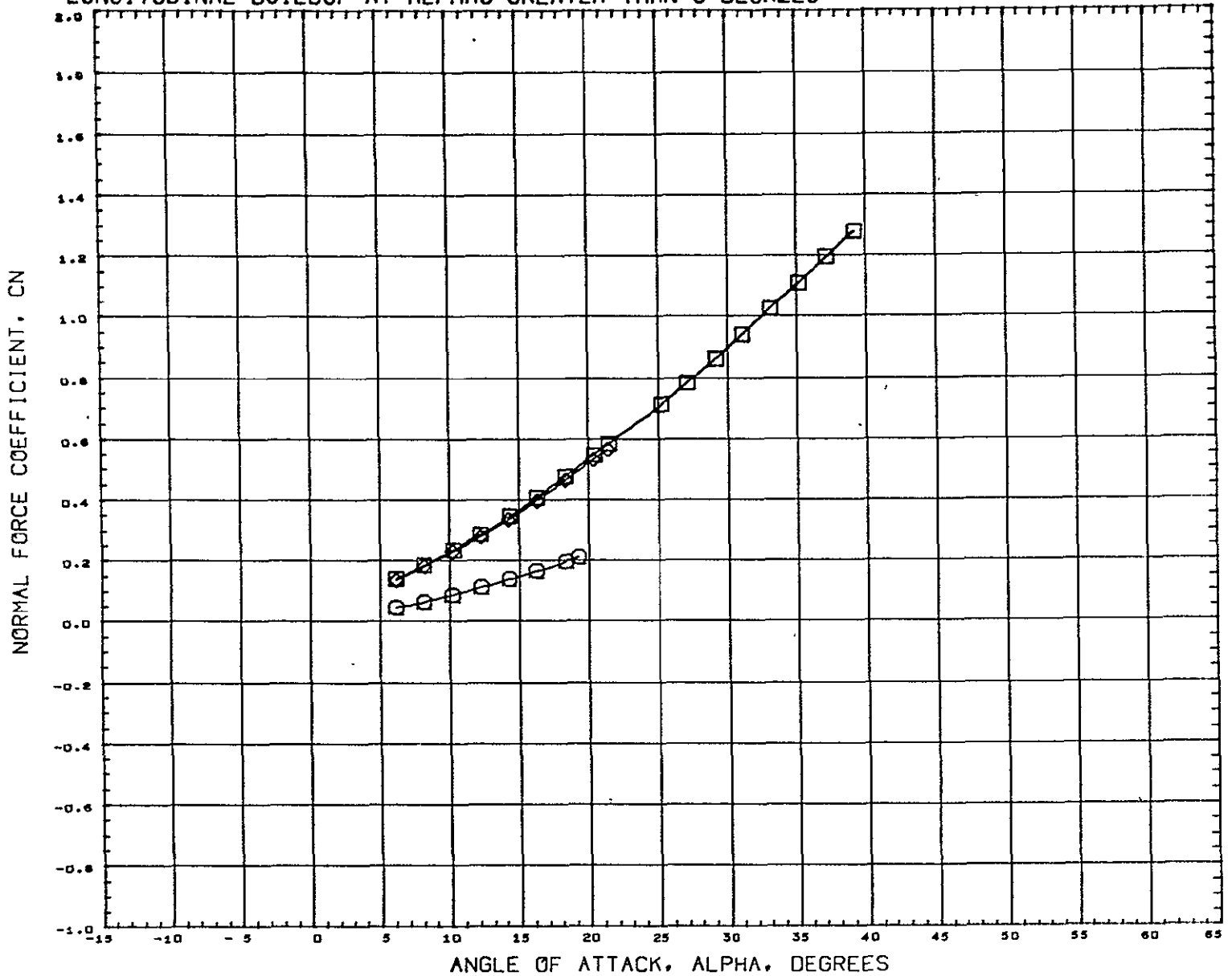
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION	
(C28004)	○	HSFC481 GD/C(BOOSTER)B19V7				0.000	SREF	15.6560 SQ. IN.
(C28013)	△	HSFC481 GD/C(BOOSTER)B19C4AV7				0.000	LREF	3.0950 IN.
(C28005)	◇	HSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF	6.0990 IN.
(C28001)	□	HSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 2.990

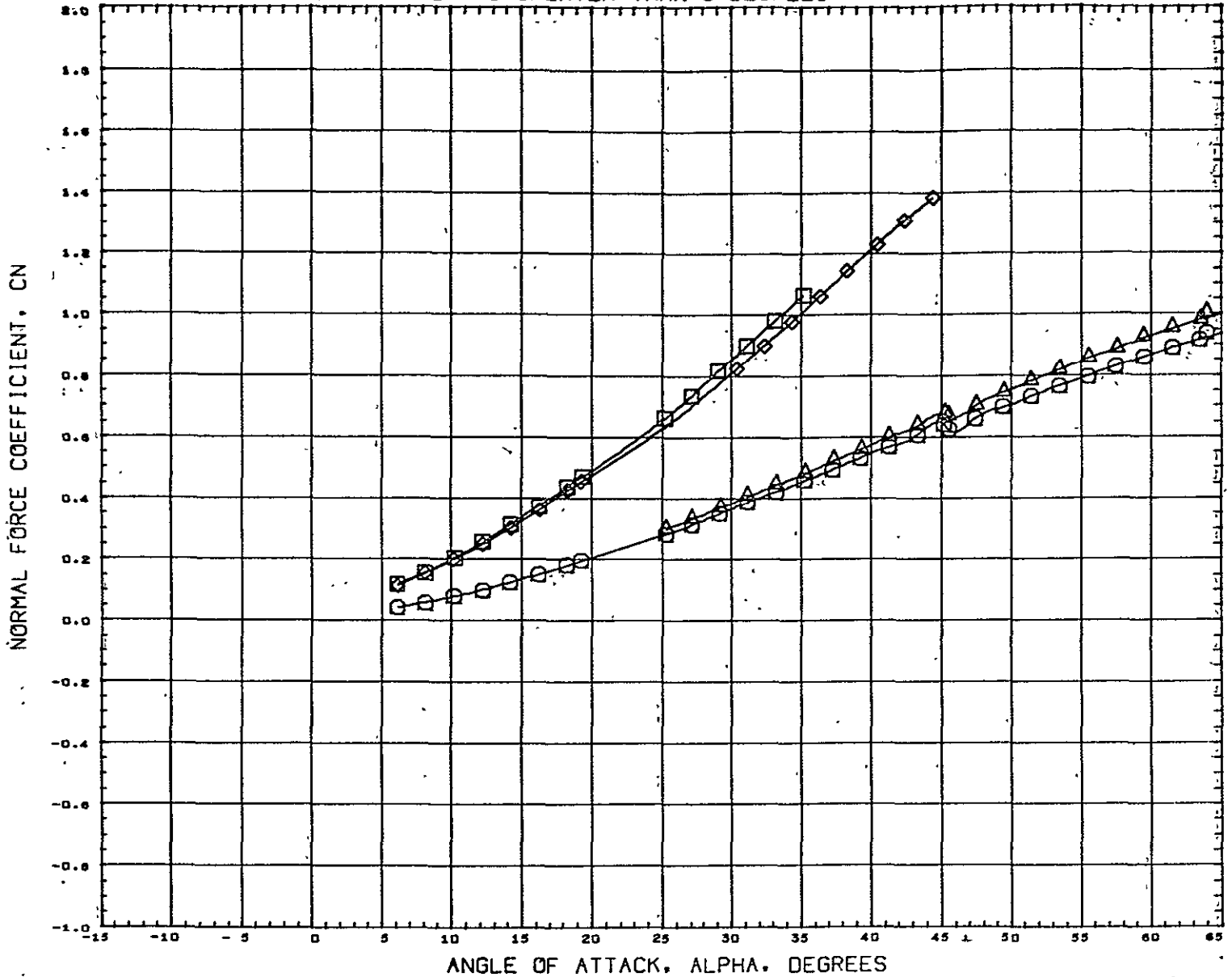
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.000

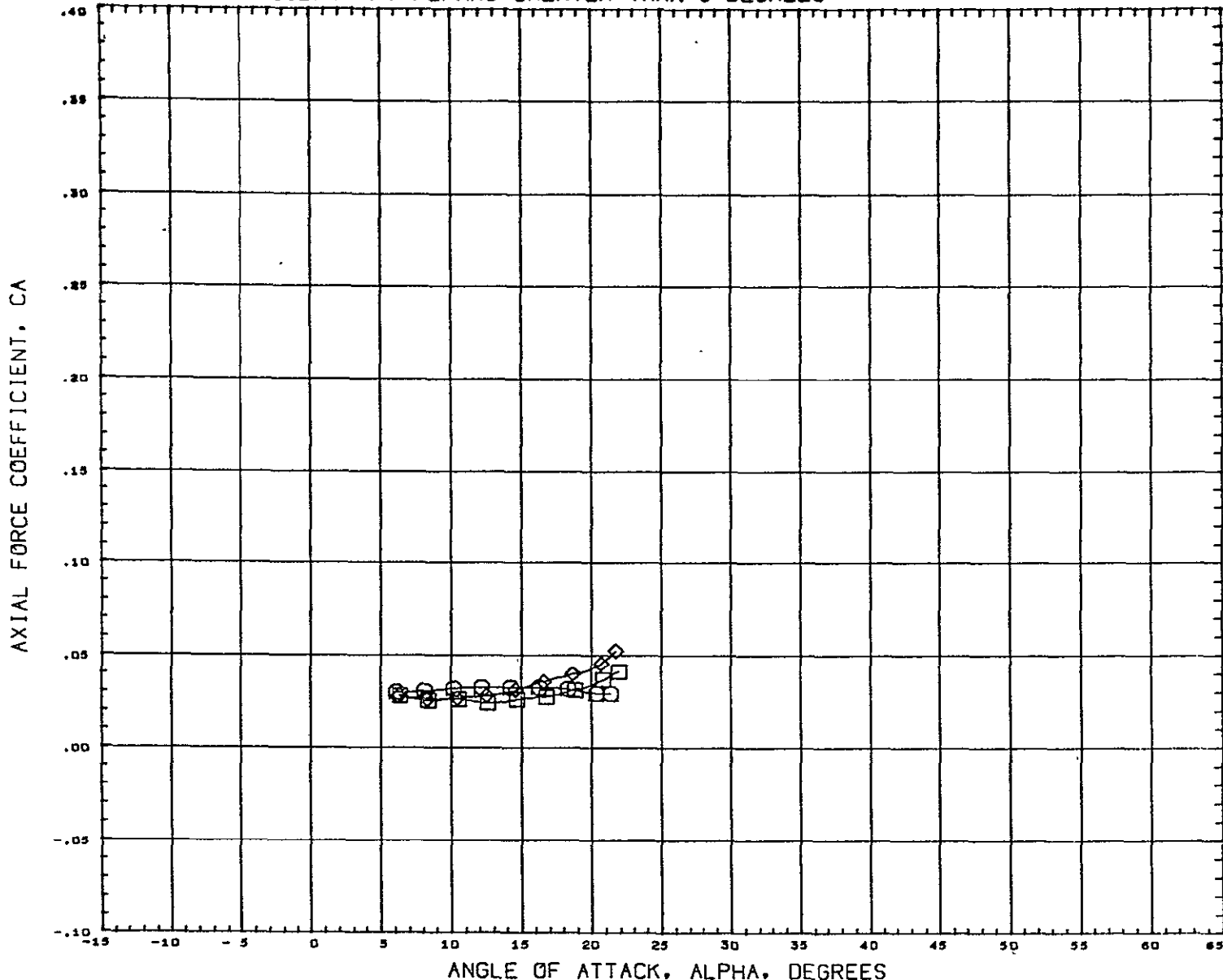
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	MSFC481 GD/C(BOOSTER)B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 4.960

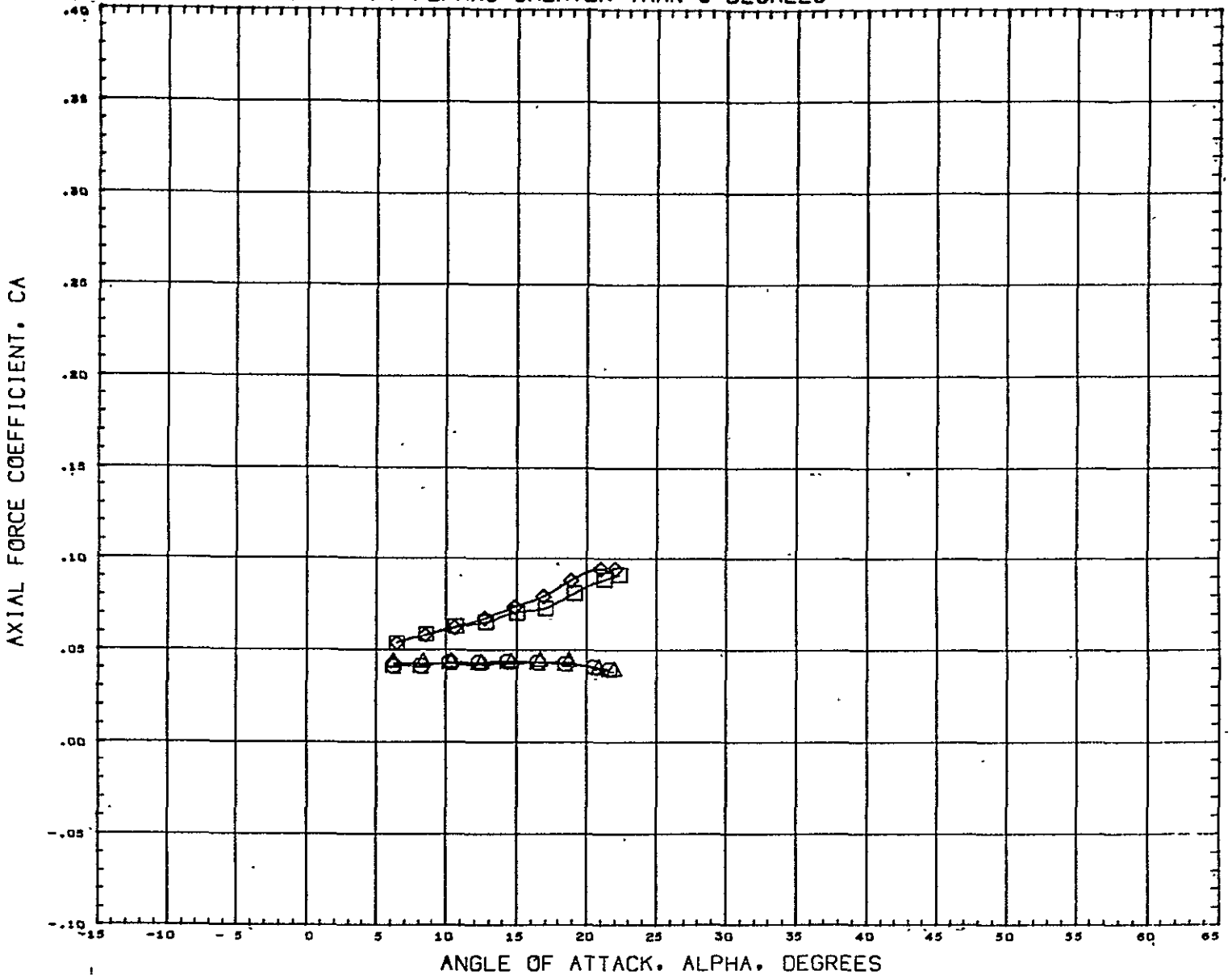
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20004)	M3FC481 GD/C(BOOSTER) B19V7				0.000	SREF 15.6560 SQ. IN.
(C20013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C20005)	M3FC481 GD/C(BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C20001)	M3FC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.607

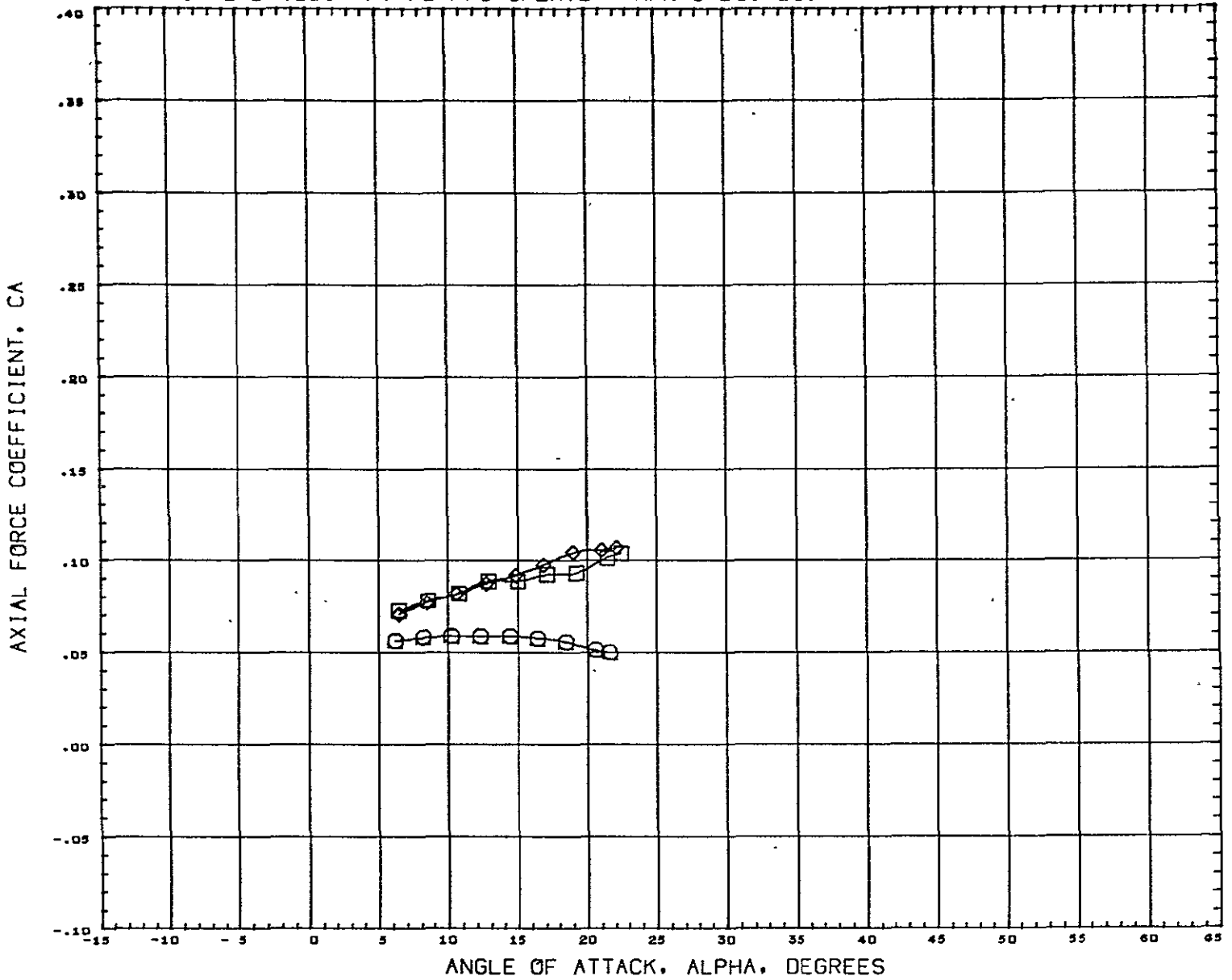
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C (BOOSTER) B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	△	MSFC481 GD/C (BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 0.907

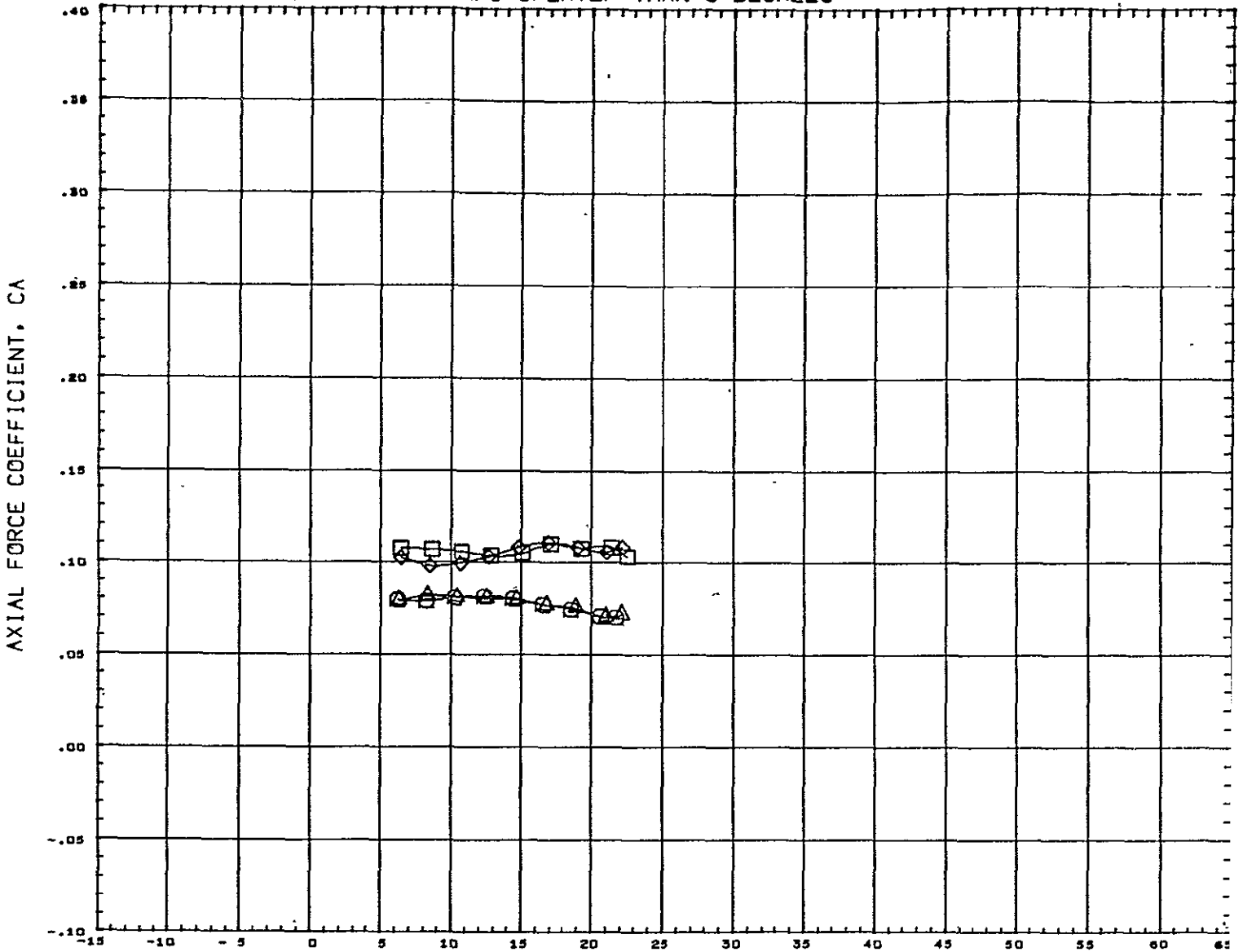
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ.IN.
(C26013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C26005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 0.957

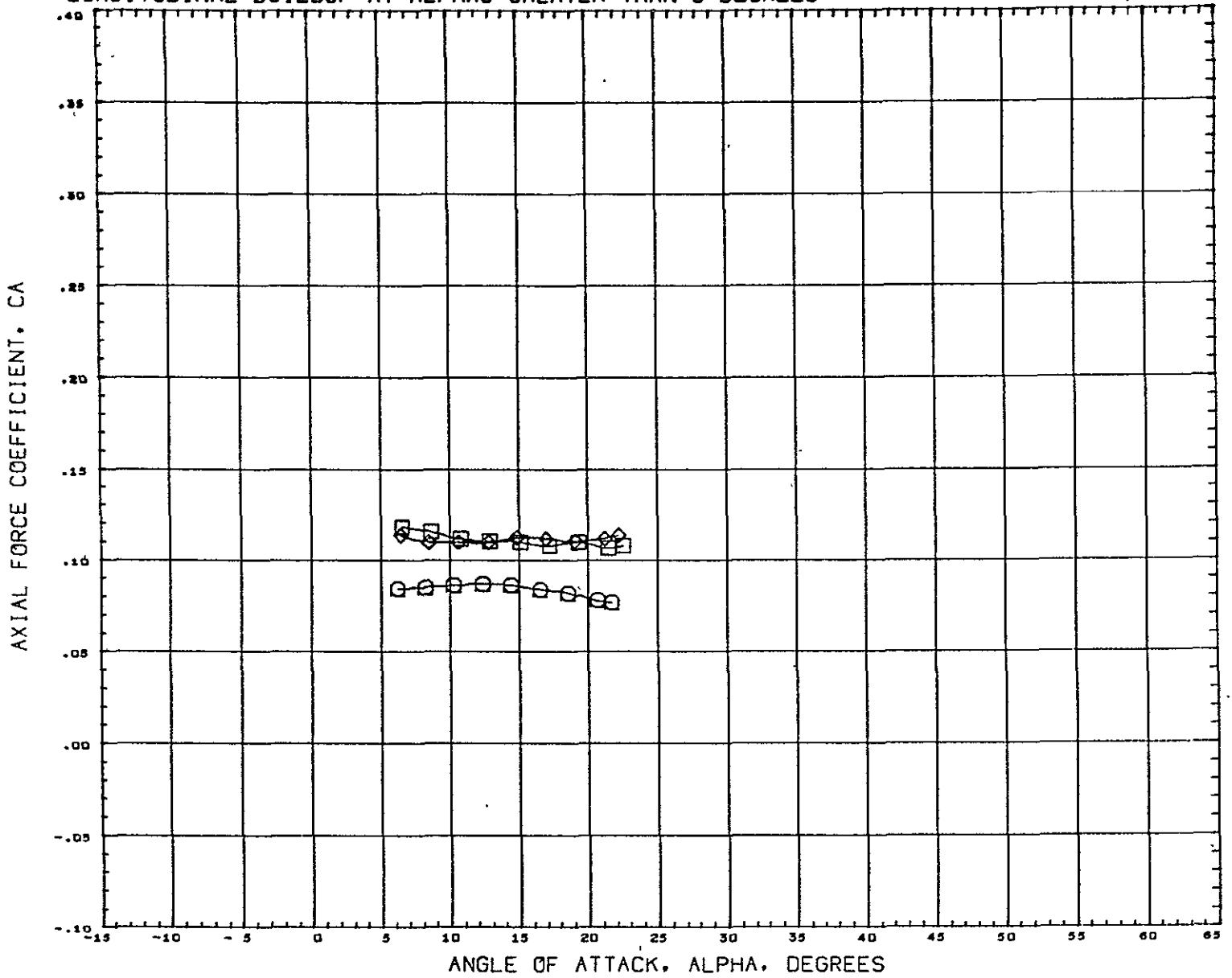
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER) B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	MSFC481 GD/C(BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER) B19W14V7	0.000	0.000		0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XNRP 6.7100 IN. YMRP 0.0008 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.005

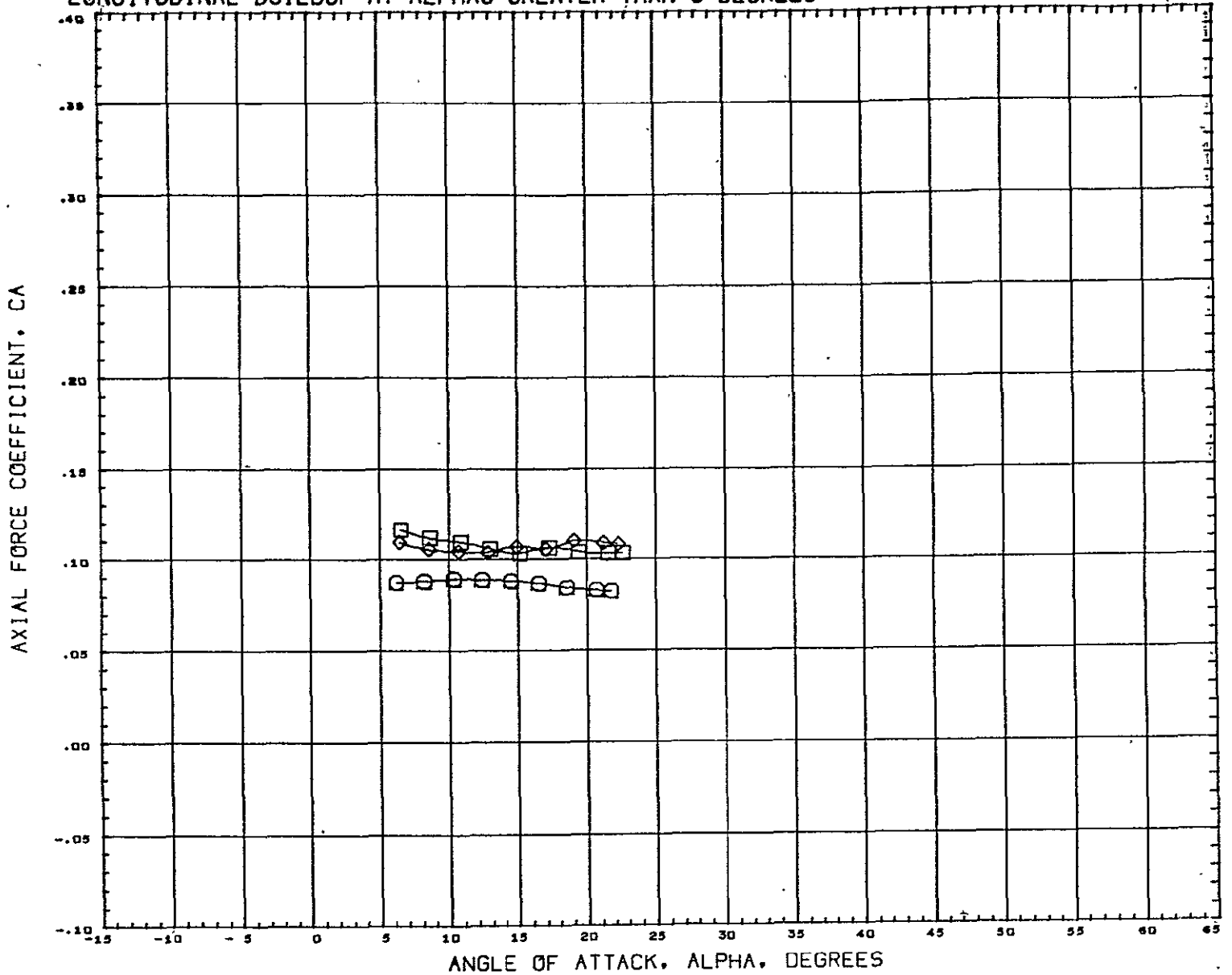
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C20004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C20013)	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF 3.0950 IN.
(C20005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000		0.000	BREF 6.0990 IN.
(C20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.054

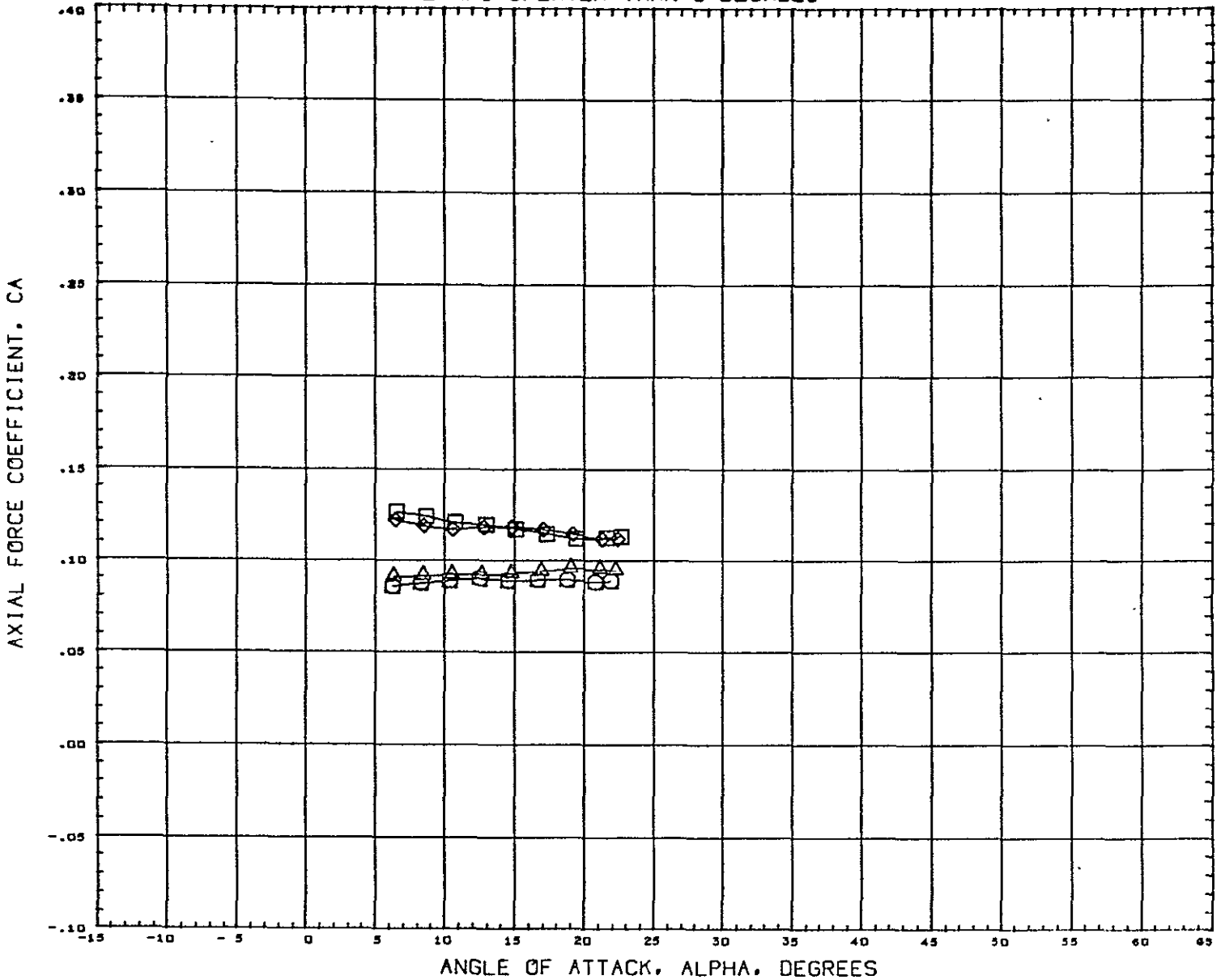
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	H3FC481 GD/C(BOOSTER)B19V7			0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	H3FC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	H3FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.100

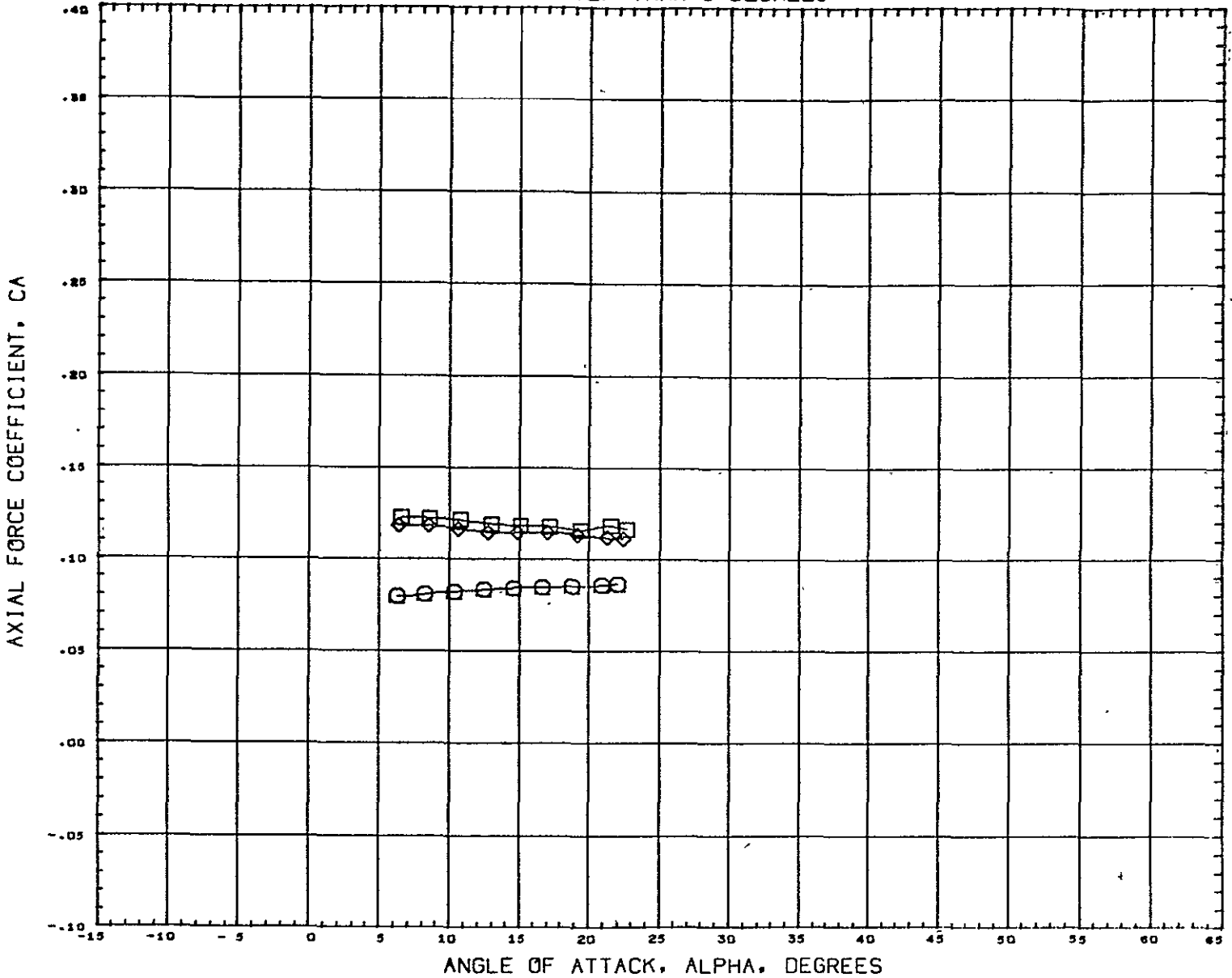
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C (BOOSTER) B19V7				0.000	SREF 15.6560 30 IN.
(C28013)	△	MSFC481 GD/C (BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000		0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0033

MACH 1.190

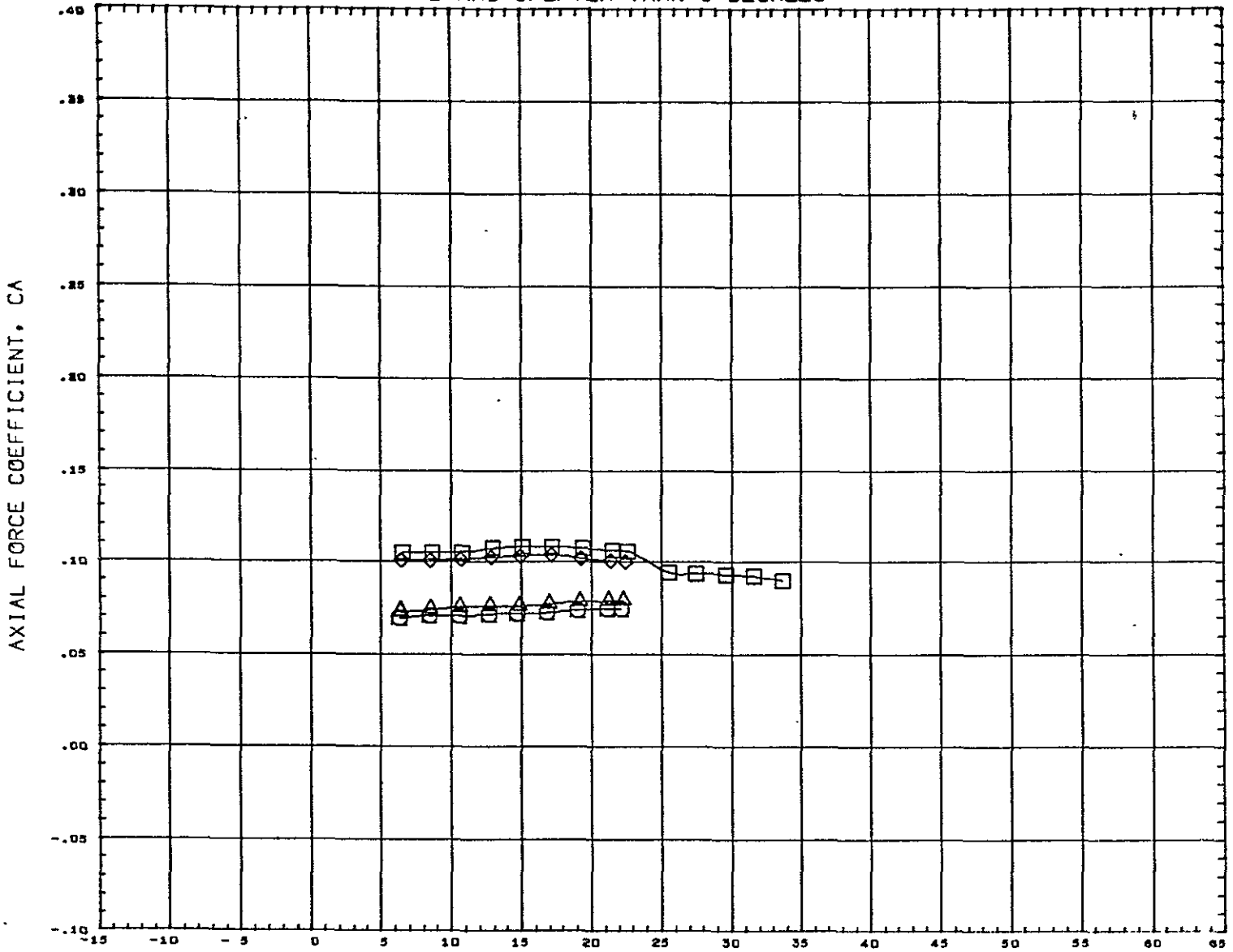
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 13.6560 SQ. IN.
(C28013)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.463

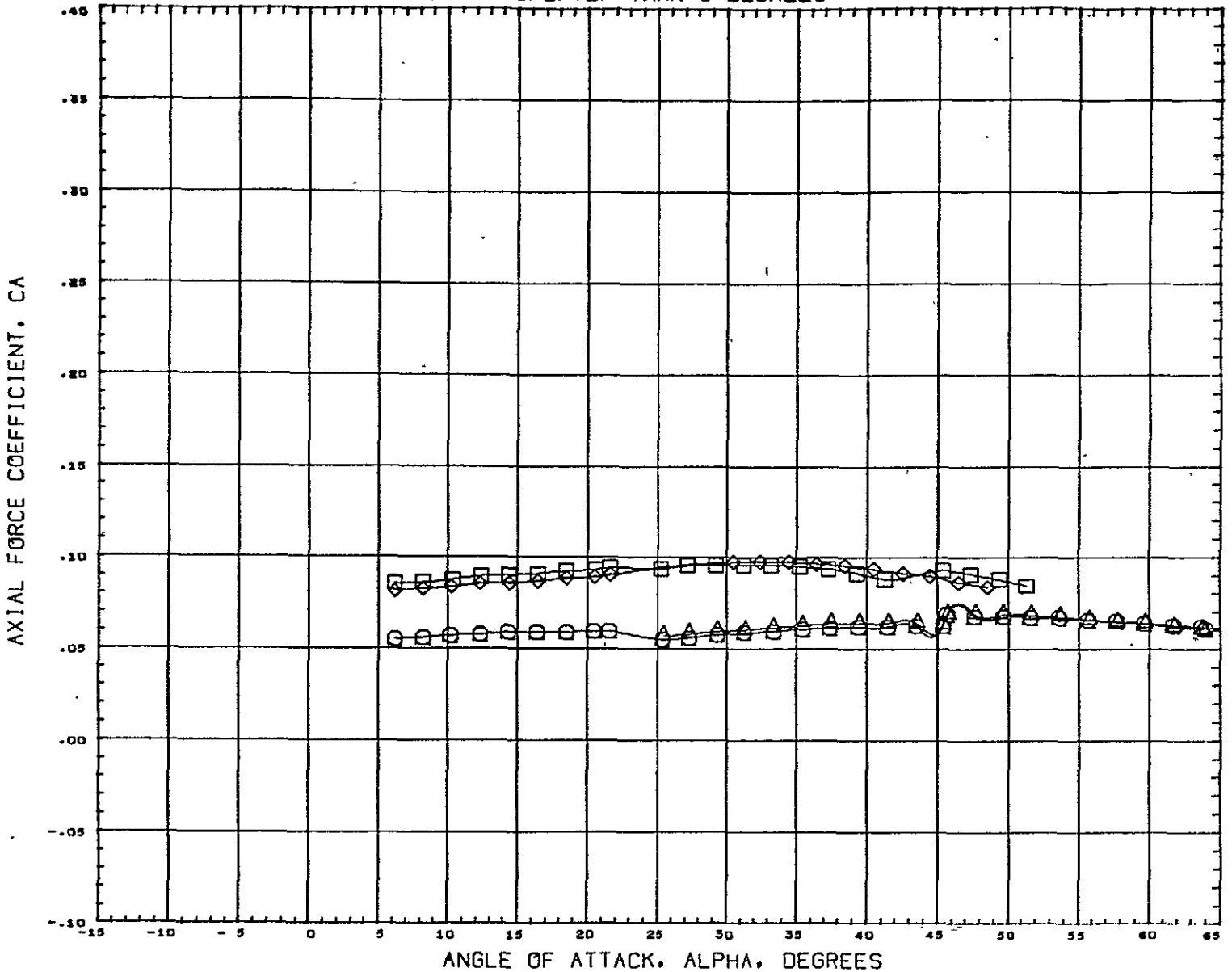
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	□	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ.IN.
(C28013)	△	MSFC481 GD/C(BOOSTER)B19C4AV7				0.000	LREF 3.0990 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.966

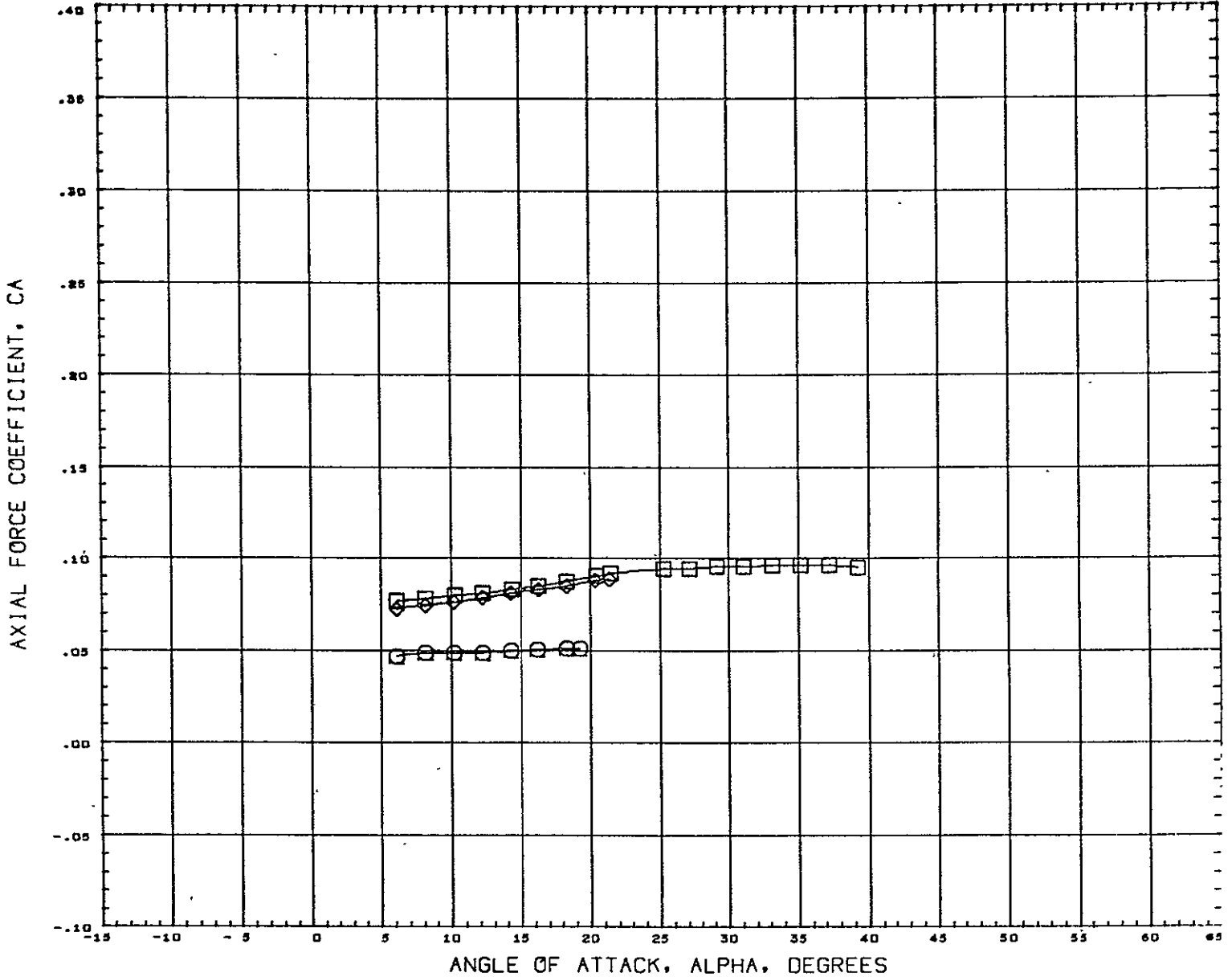
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C (BOOSTER) B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	MSFC481 GD/C (BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 2.990

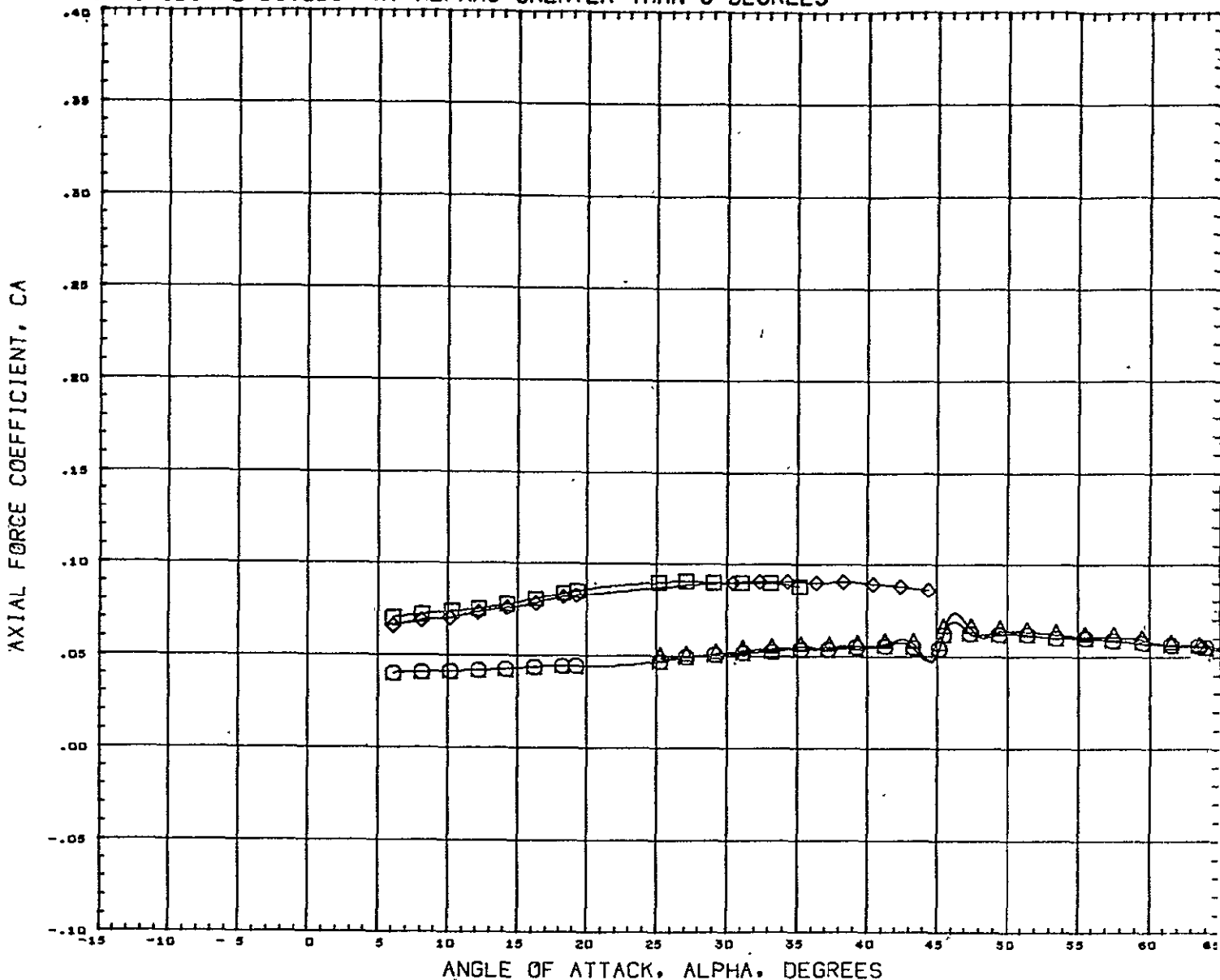
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ.IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000		0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

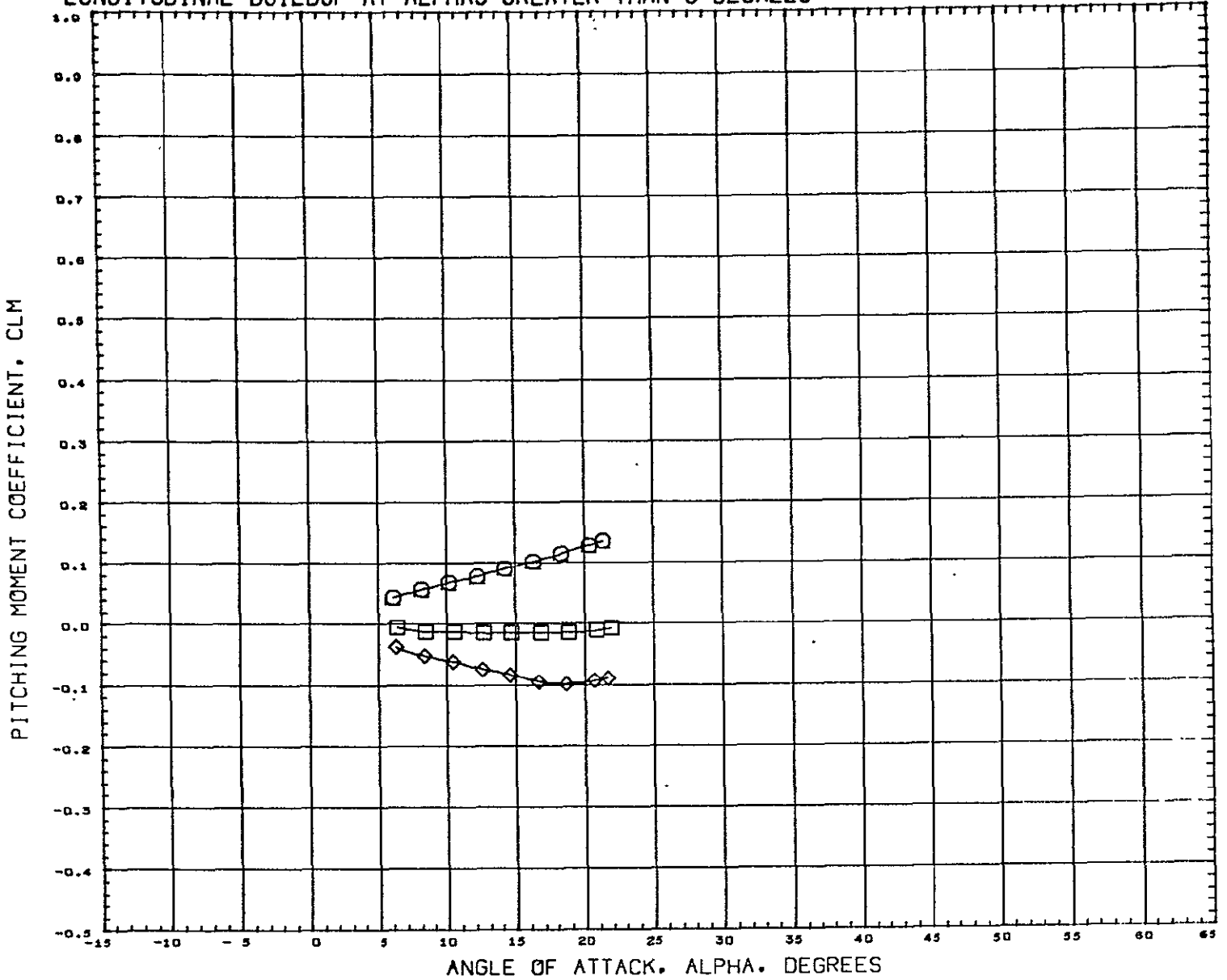
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C (BOOSTER) B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	MSFC481 GD/C (BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000		0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.960

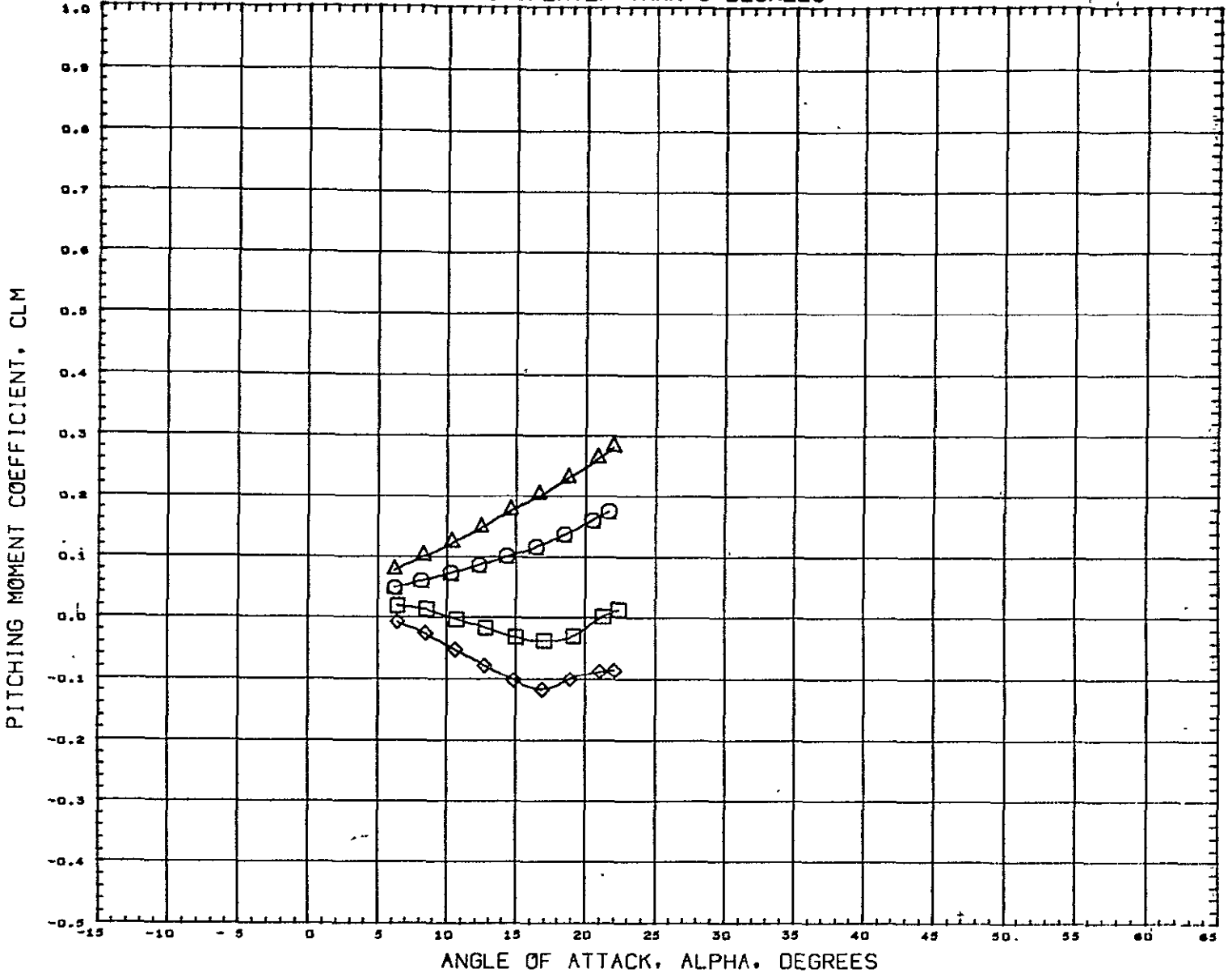
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION	
(C28004)	○	MSFC481 GD/C(BOOSTER)B19V7			0.000	0.000	SREF	15.6560 SQ. IN.
(C28013)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF	3.0950 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF	6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 0.607

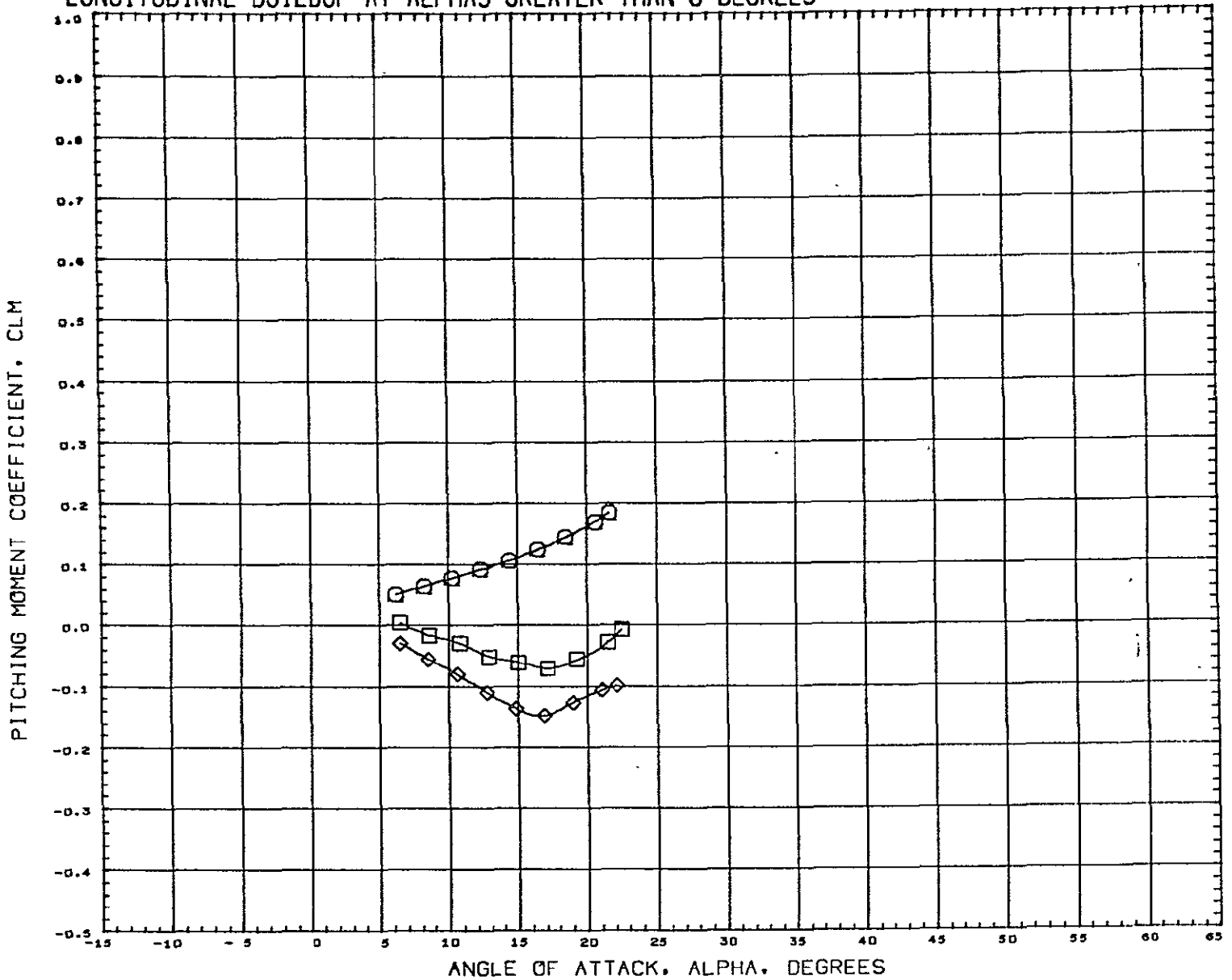
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION	
(C28004)	△	MSFC481 GD/C(BOOSTER)B19V7			0.000	0.000	SREF	15.6560 SQ. IN.
(C28013)	○	MSFC481 GD/C(BOOSTER)B19C4AV7			0.000	0.000	LREF	3.0950 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF	6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 0.907

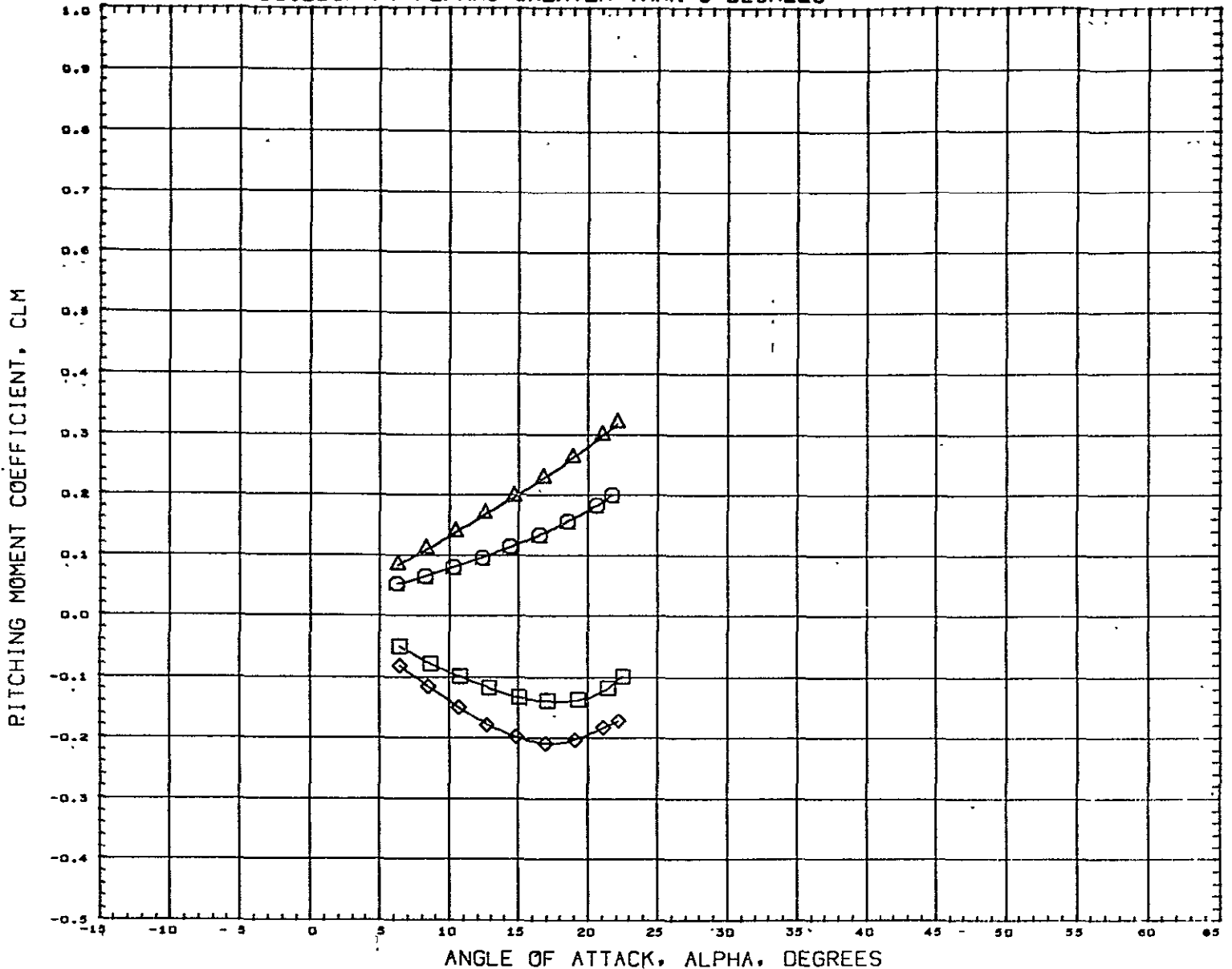
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000		0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRF 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0033

MACH 0.957

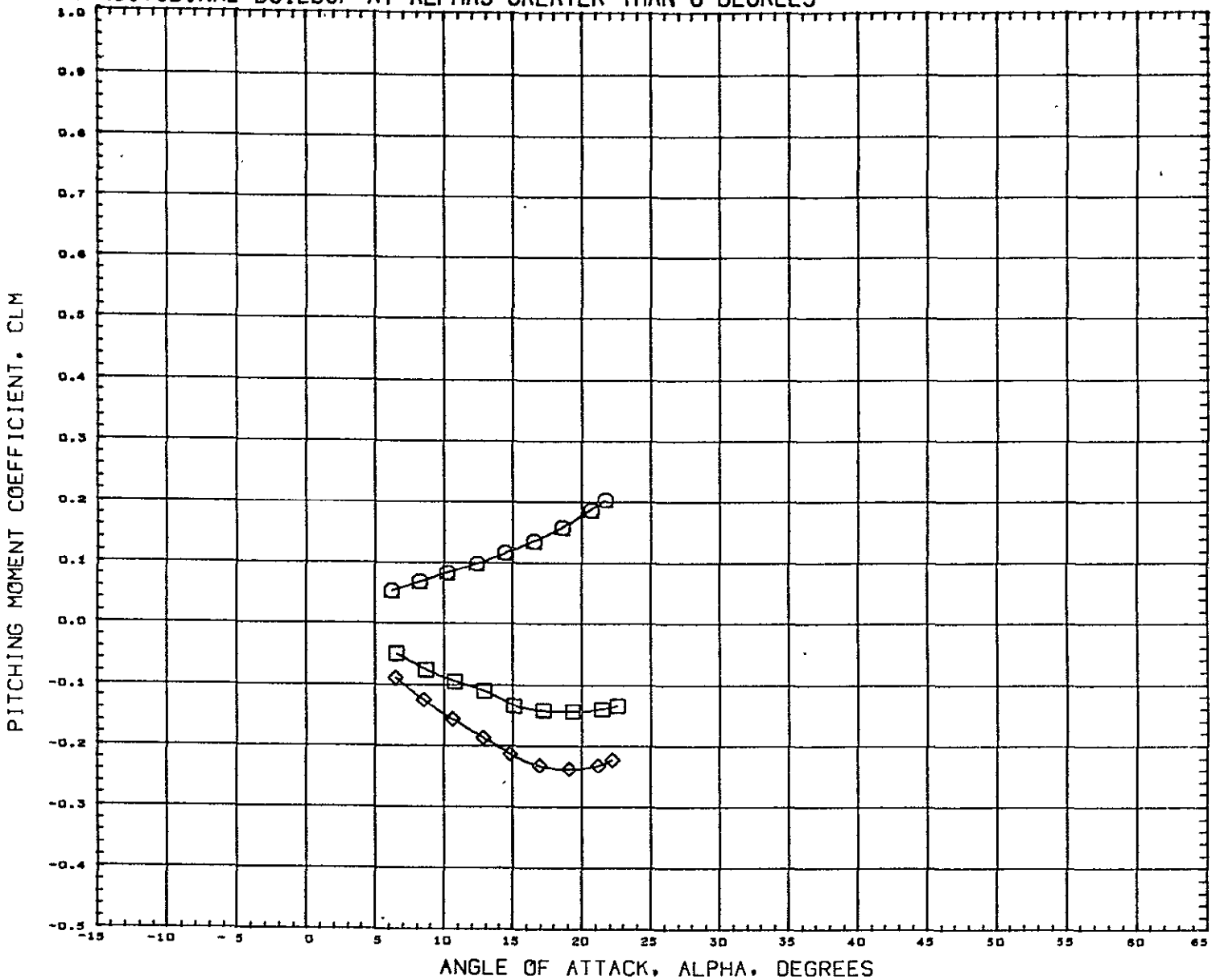
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 Sq. IN.
(C28013)	△	MSFC481 GD/C(BOOSTER)B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.005

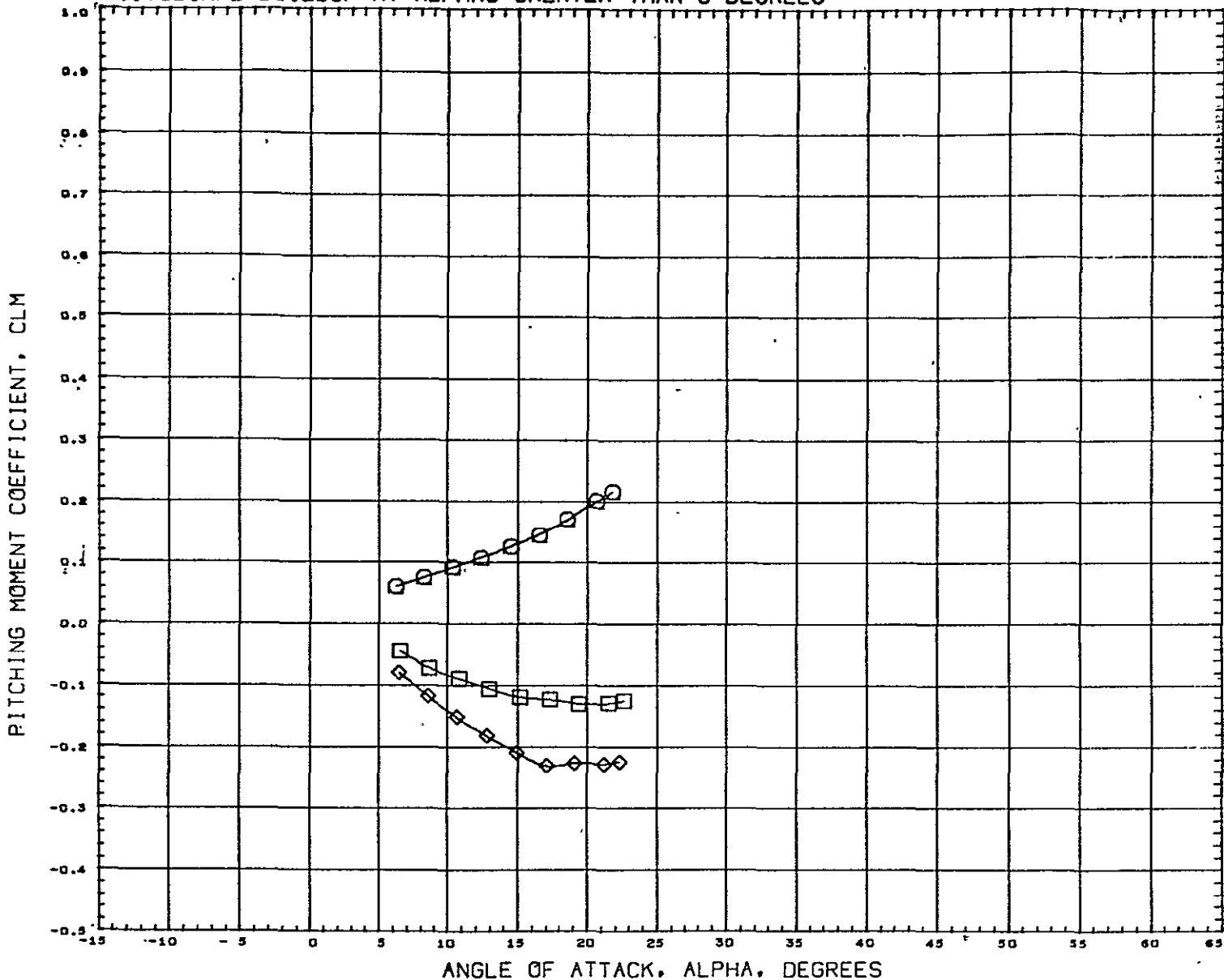
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.054

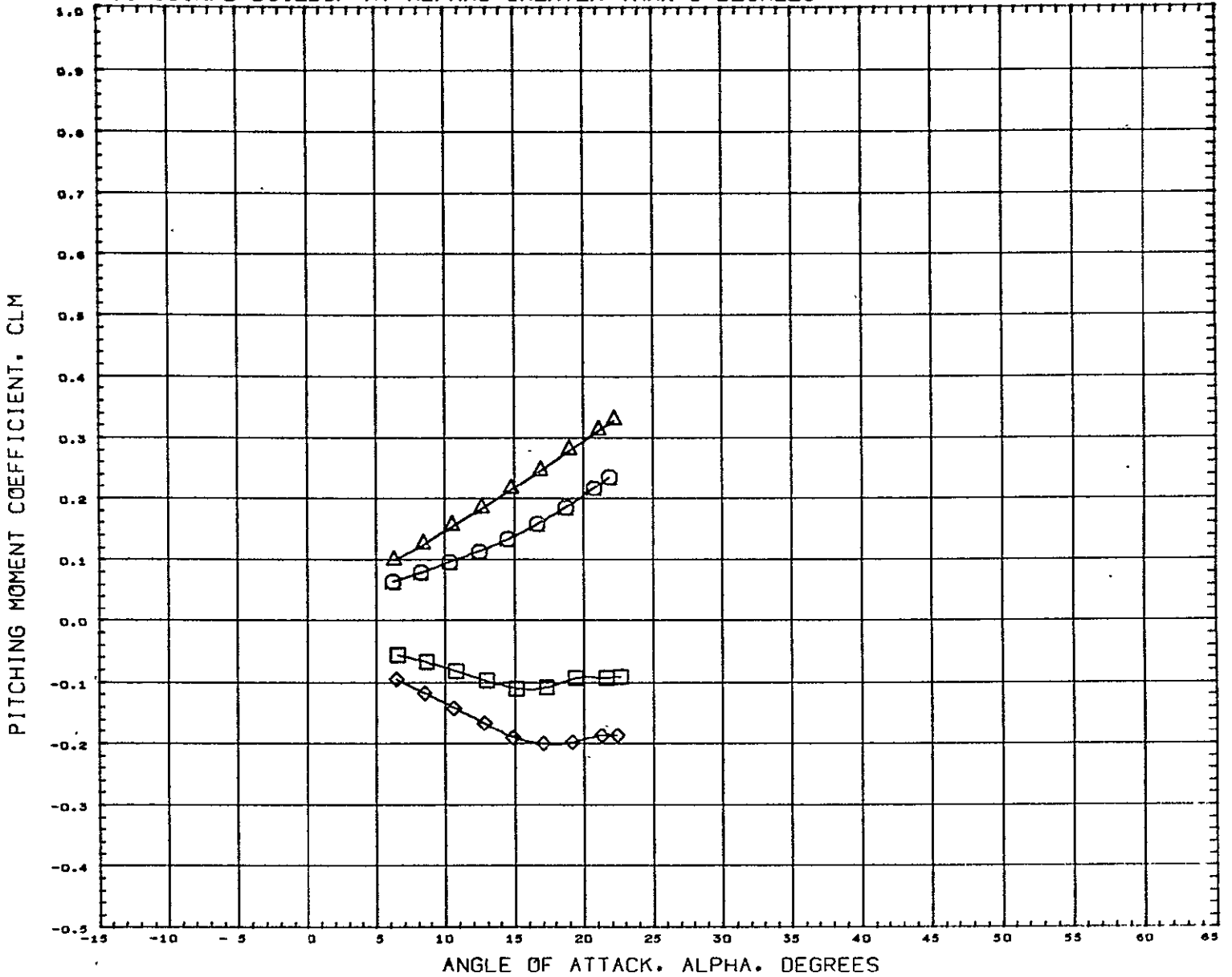
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7	0.000	0.000	0.000	0.000	SREF 18.6560 SQ. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.100

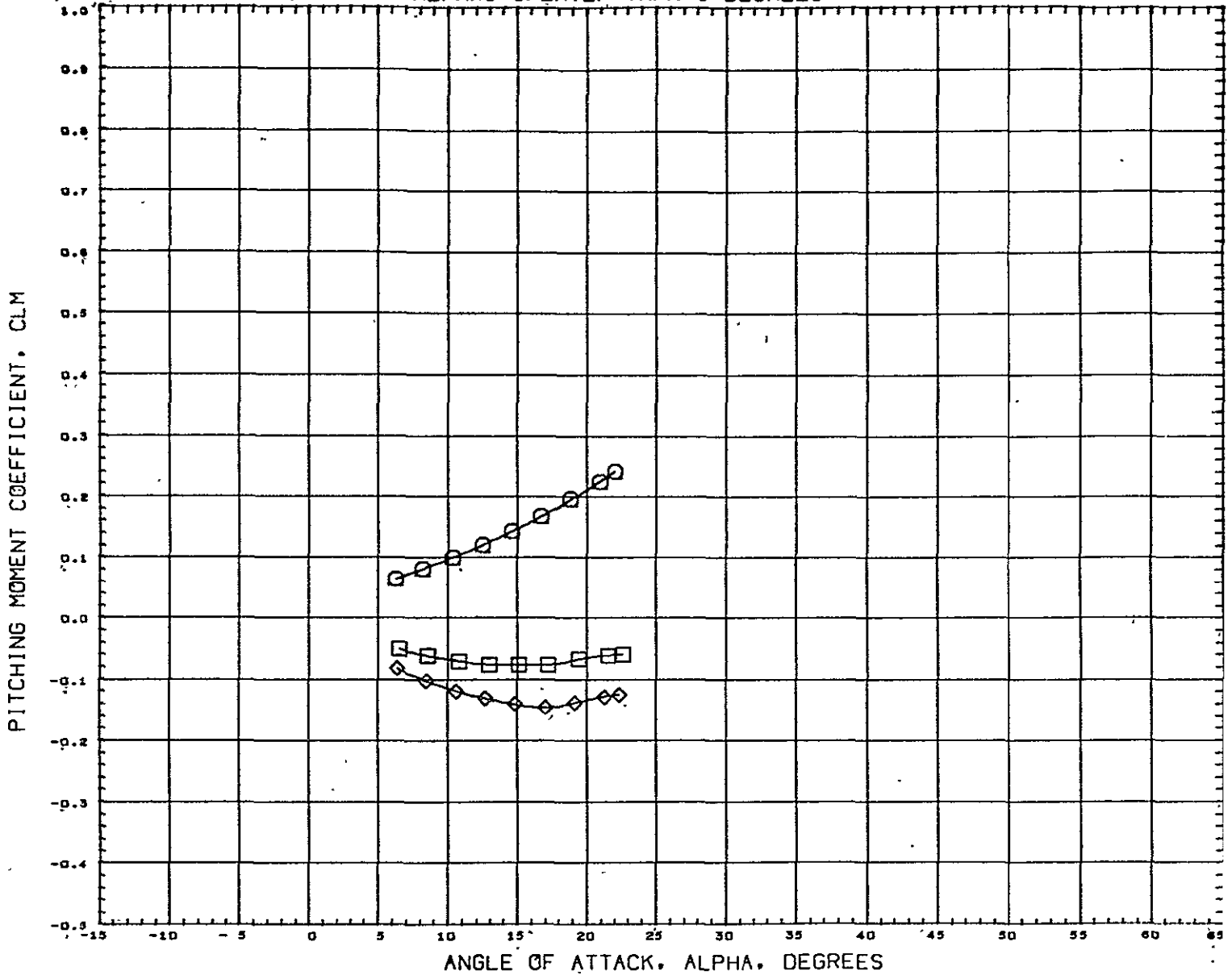
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C (BOOSTER) B19V7			0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	△	MSFC481 GD/C (BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
							YMRP 0.0000 IN.
							ZMRP 0.0000 IN.
							SCALE 0.0035

MACH 1.198

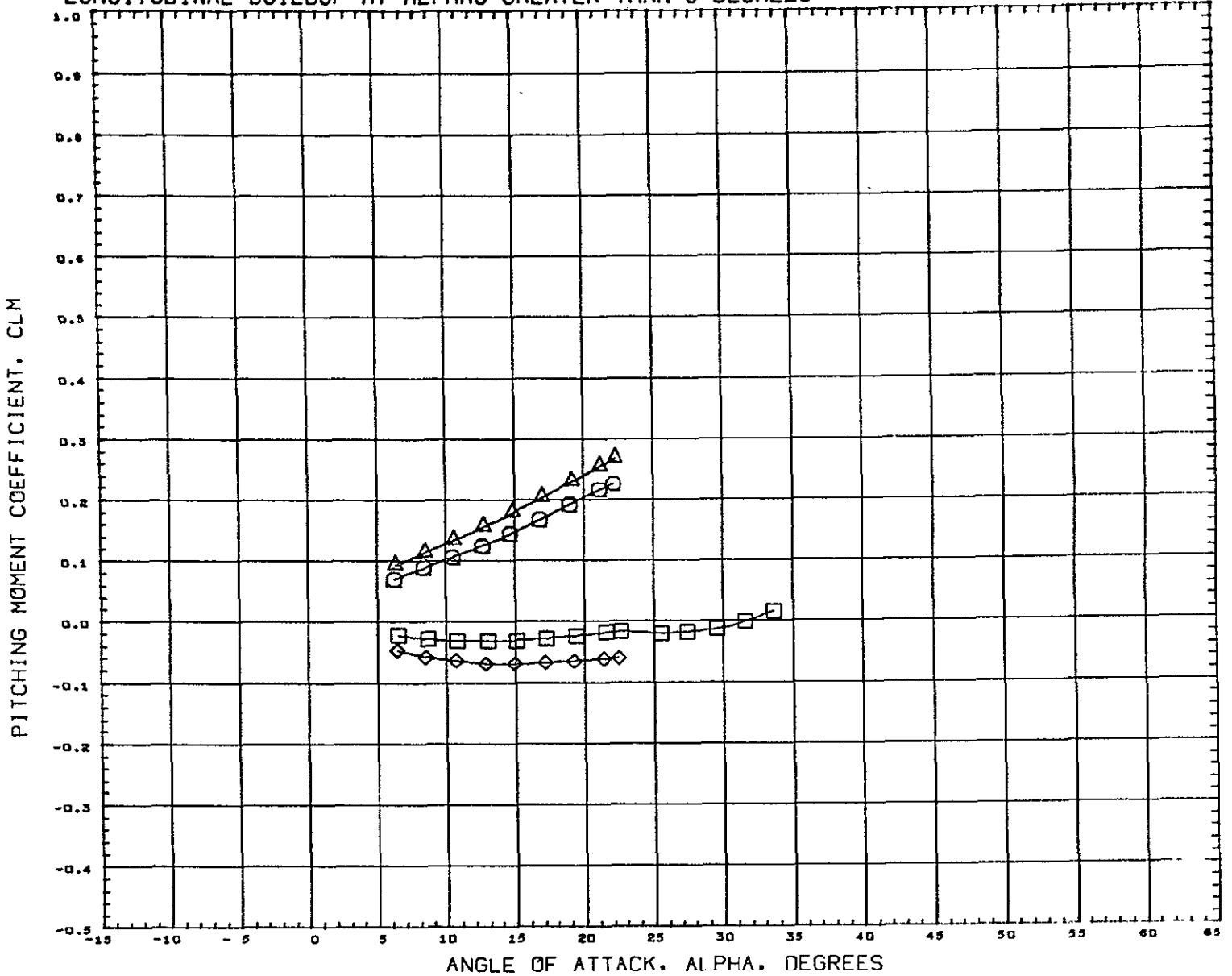
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26004)	MSFC481 GD/C(BOOSTER) B19V7	0.000	0.000	0.000	0.000	SREF. 15.6560 SQ. IN.
(C26013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF. 3.0950 IN.
(C26005)	MSFC481 GD/C(BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF. 6.0990 IN.
(C26001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.463

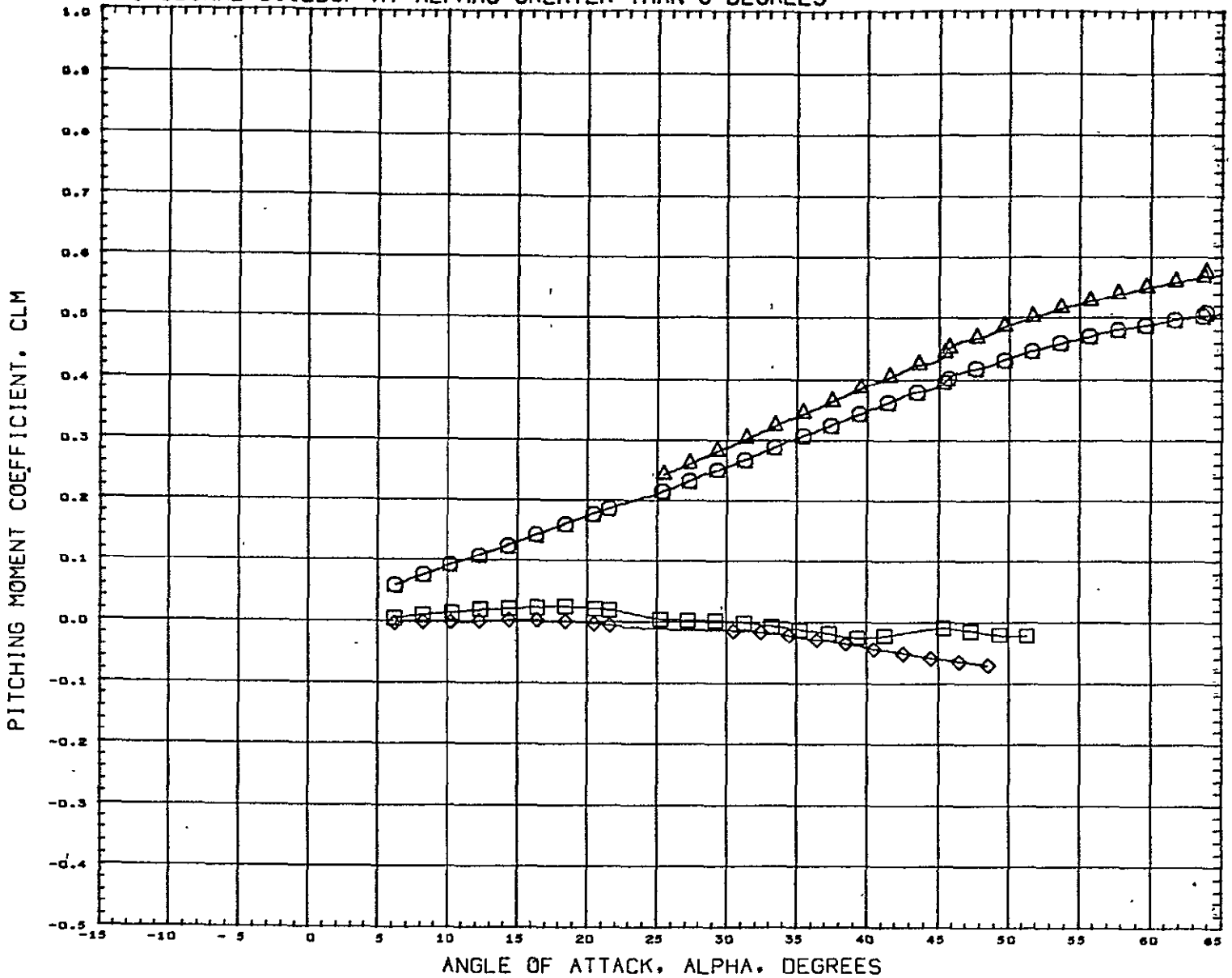
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION	
(C26004)	MSFC481 GD/C(BOOSTER) B19V7				0.000	SREF	15.6560 SQ. IN.
(C26013)	MSFC481 GD/C(BOOSTER) B19C4AV7			0.000	0.000	LREF	3.0950 IN.
(C26005)	MSFC481 GD/C(BOOSTER) B19W14V7	0.000	0.000		0.000	BREF	6.0990 IN.
(C26001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.966

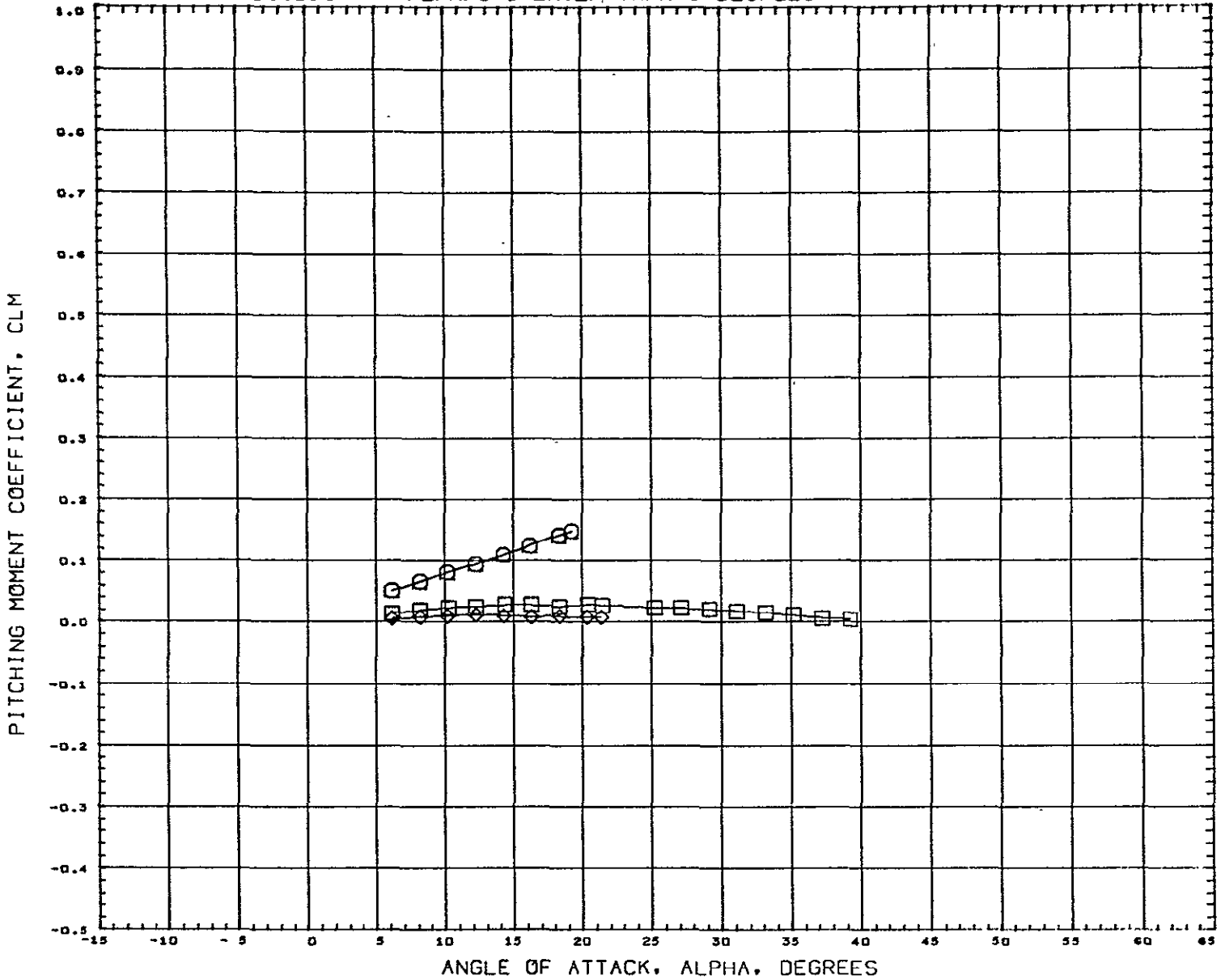
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION	
(C28004)	○	MSFC481 GD/C (BOOSTER) B19V7	0.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(C28013)	○	MSFC481 GD/C (BOOSTER) B19C4AV7	0.000	0.000	0.000	0.000	LREF	3.0990 IN.
(C28005)	◇	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF	6.0990 IN.
(C28001)	□	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP	6.7100 IN.
							YHRP	0.0000 IN.
							ZHRP	0.0000 IN.
							SCALE	0.0035

MACH 2.990

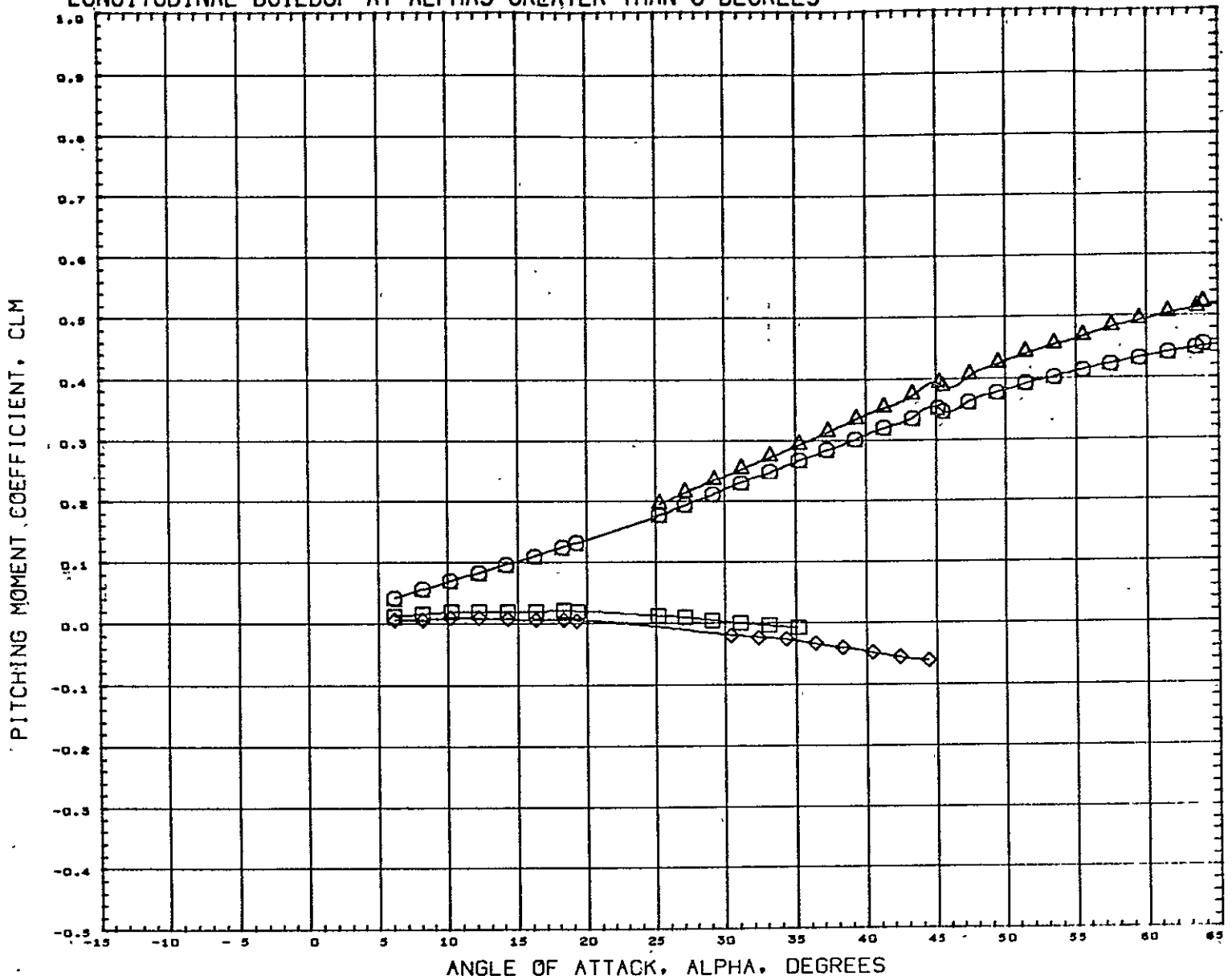
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 50. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0055

MACH 4.000

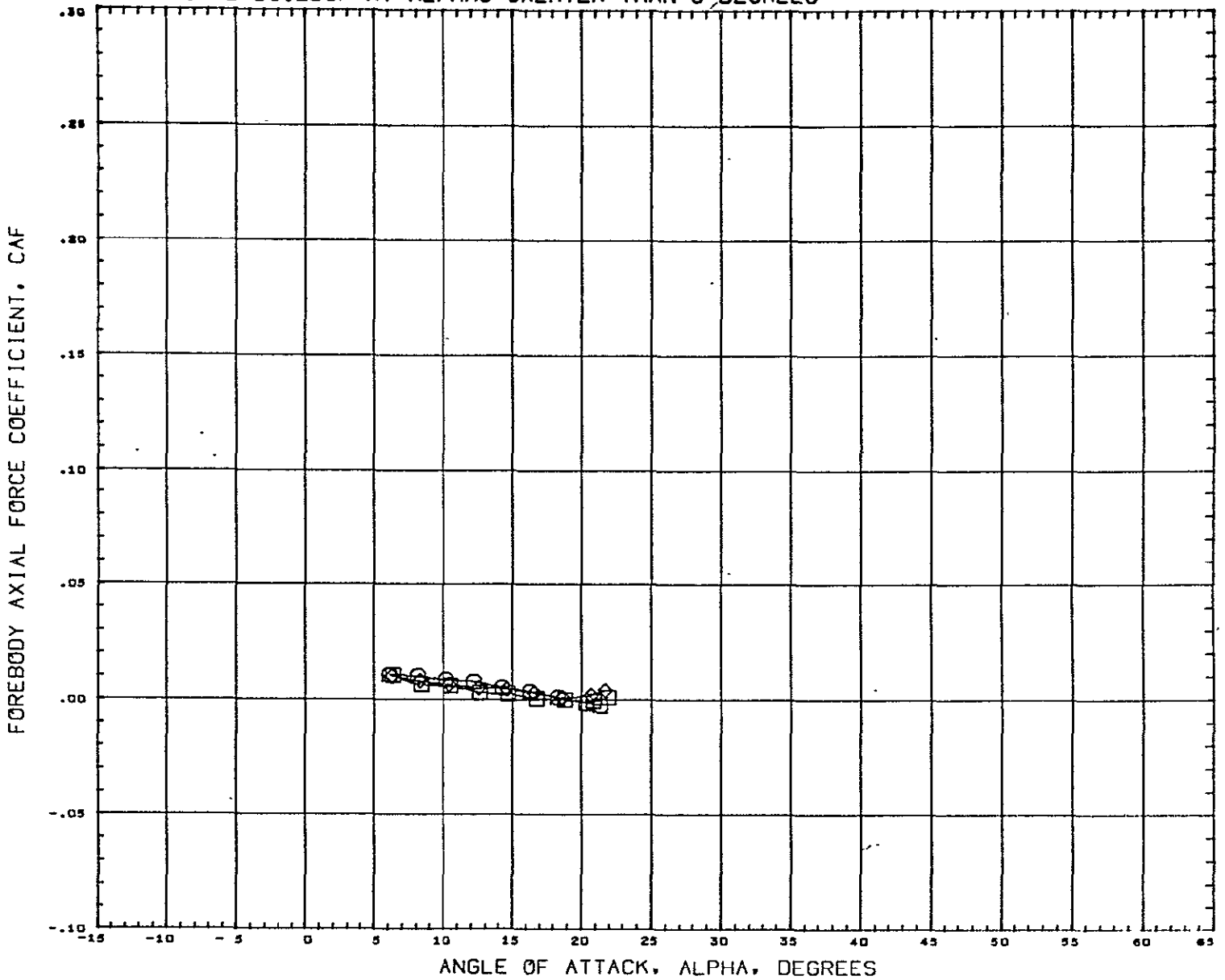
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION	
(C28004)	○	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF	15.6560 SQ. IN.
(C28013)	△	MSFC481 GD/C(BOOSTER)B19C4AV7			0.000	0.000	LREF	3.0950 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000		0.000	BREF	6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 4.960

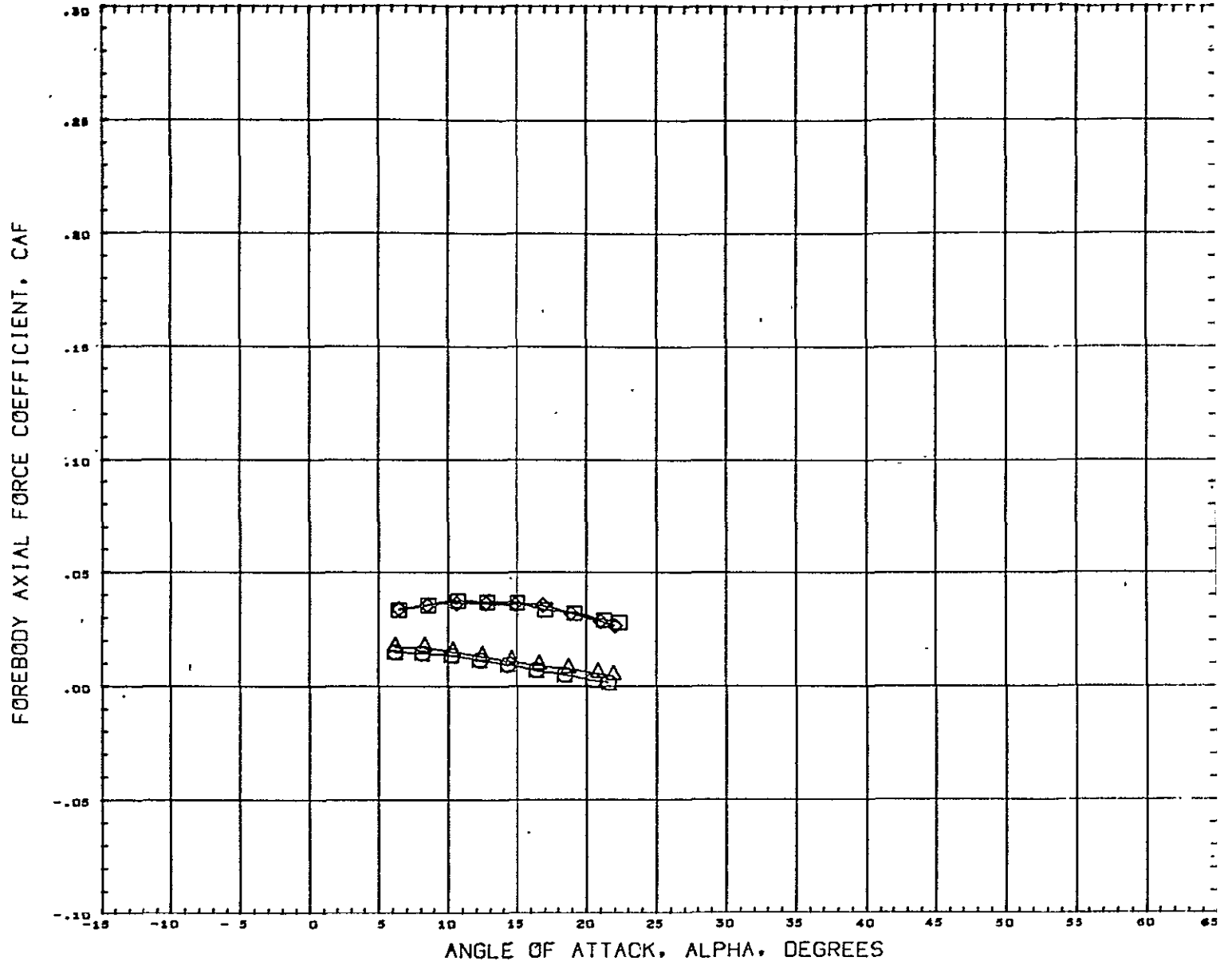
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS			0.000	0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

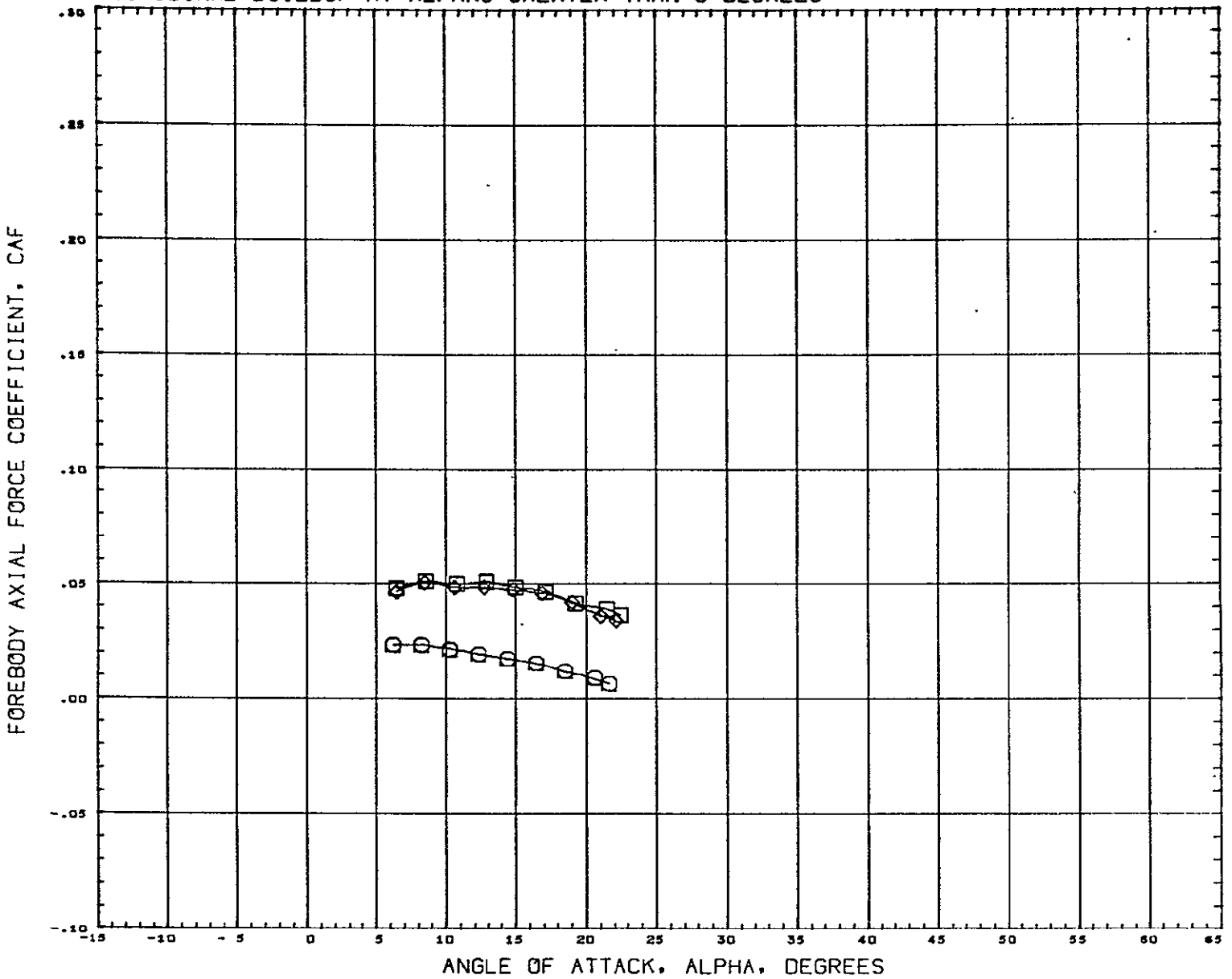
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26004)	MSFC481 GD/C(BOOSTER) B19V7				0.000	SREF 15.6560 SQ. IN.
(C26013)	MSFC481 GD/C(BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C26005)	MSFC481 GD/C(BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.907

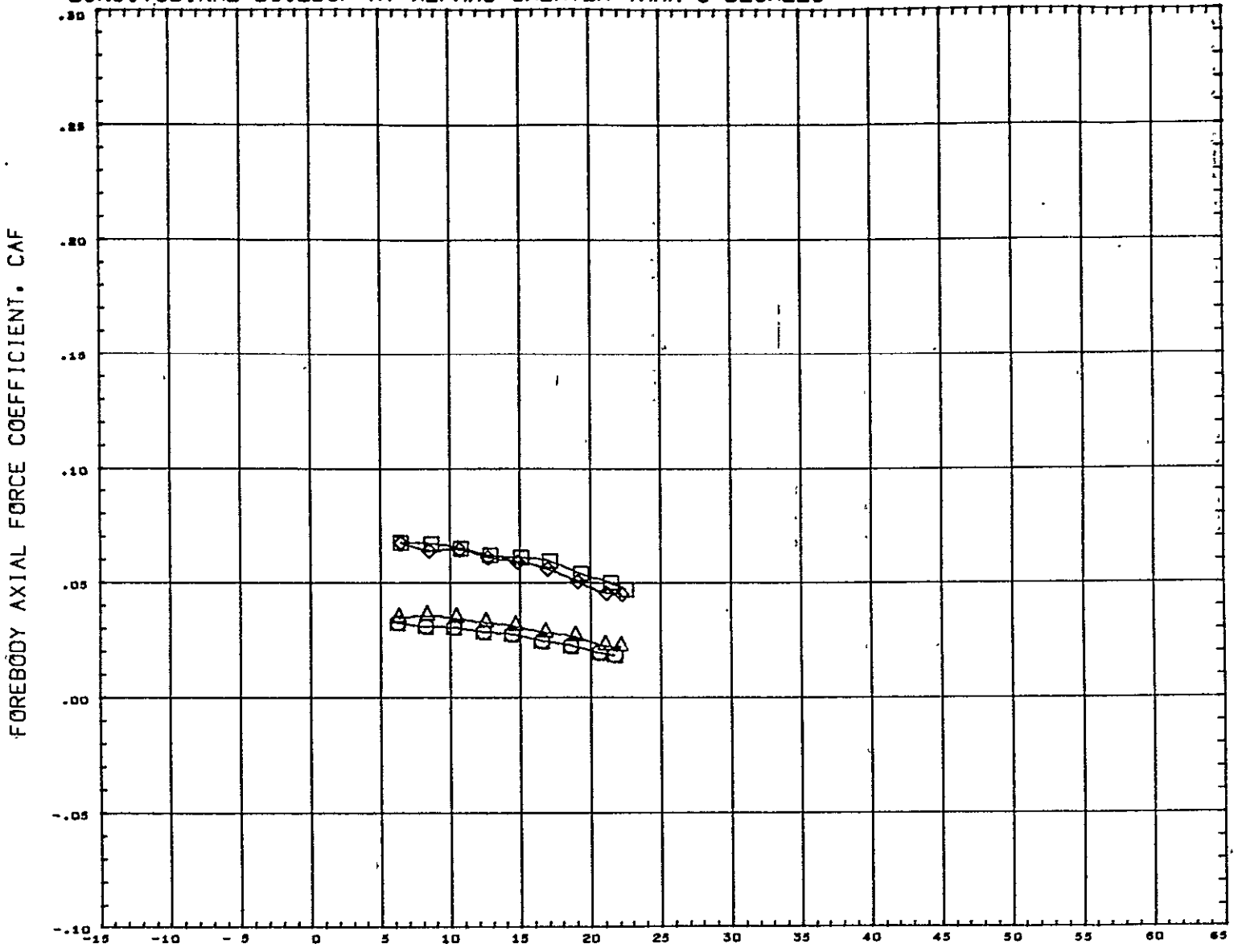
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 0.957

LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES

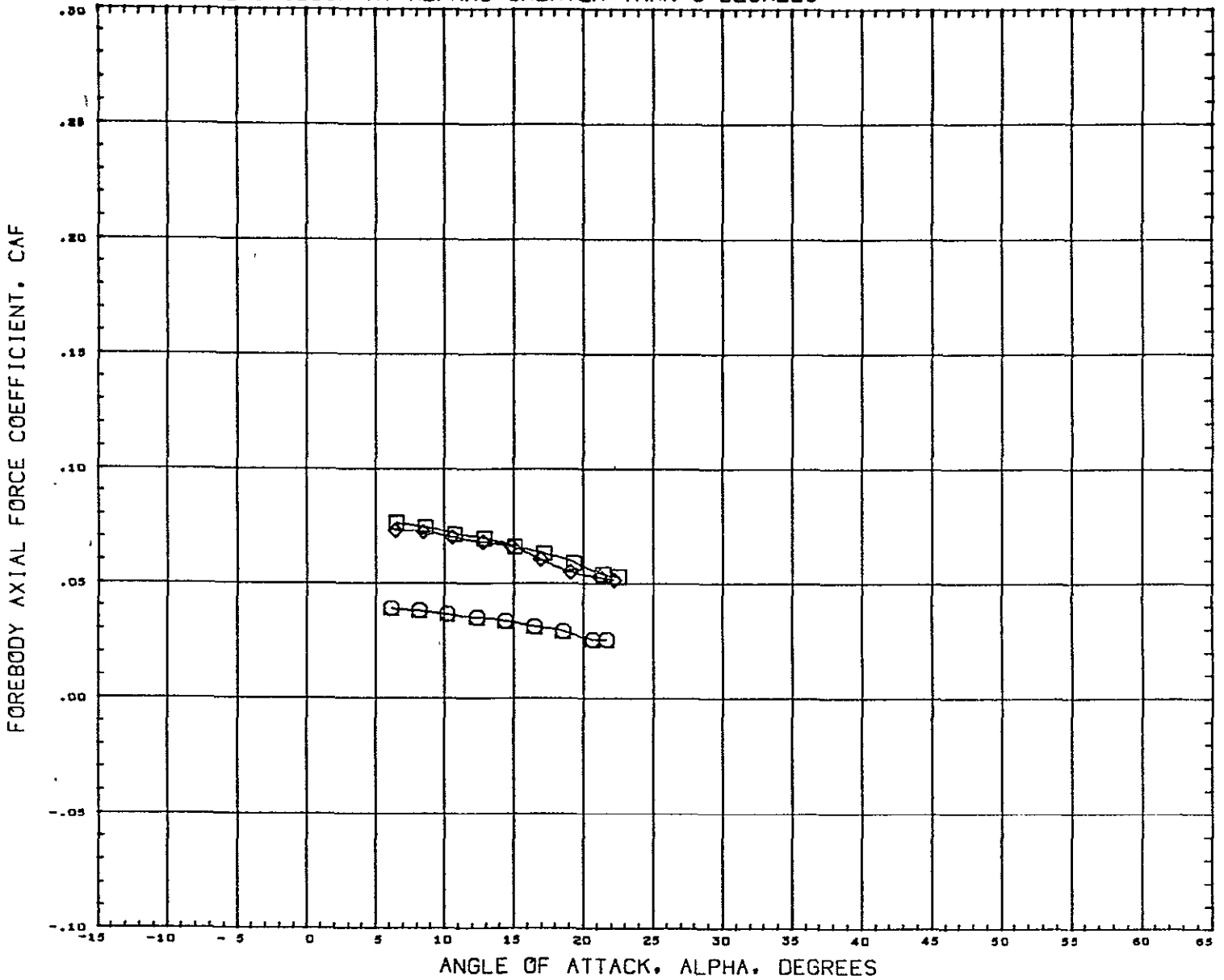


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C (BOOSTER) B19V7				0.000	SREF 15.6560 SQ. IN.
(C28013)	◇	MSFC481 GD/C (BOOSTER) B19C4AV7			0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000		0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.005

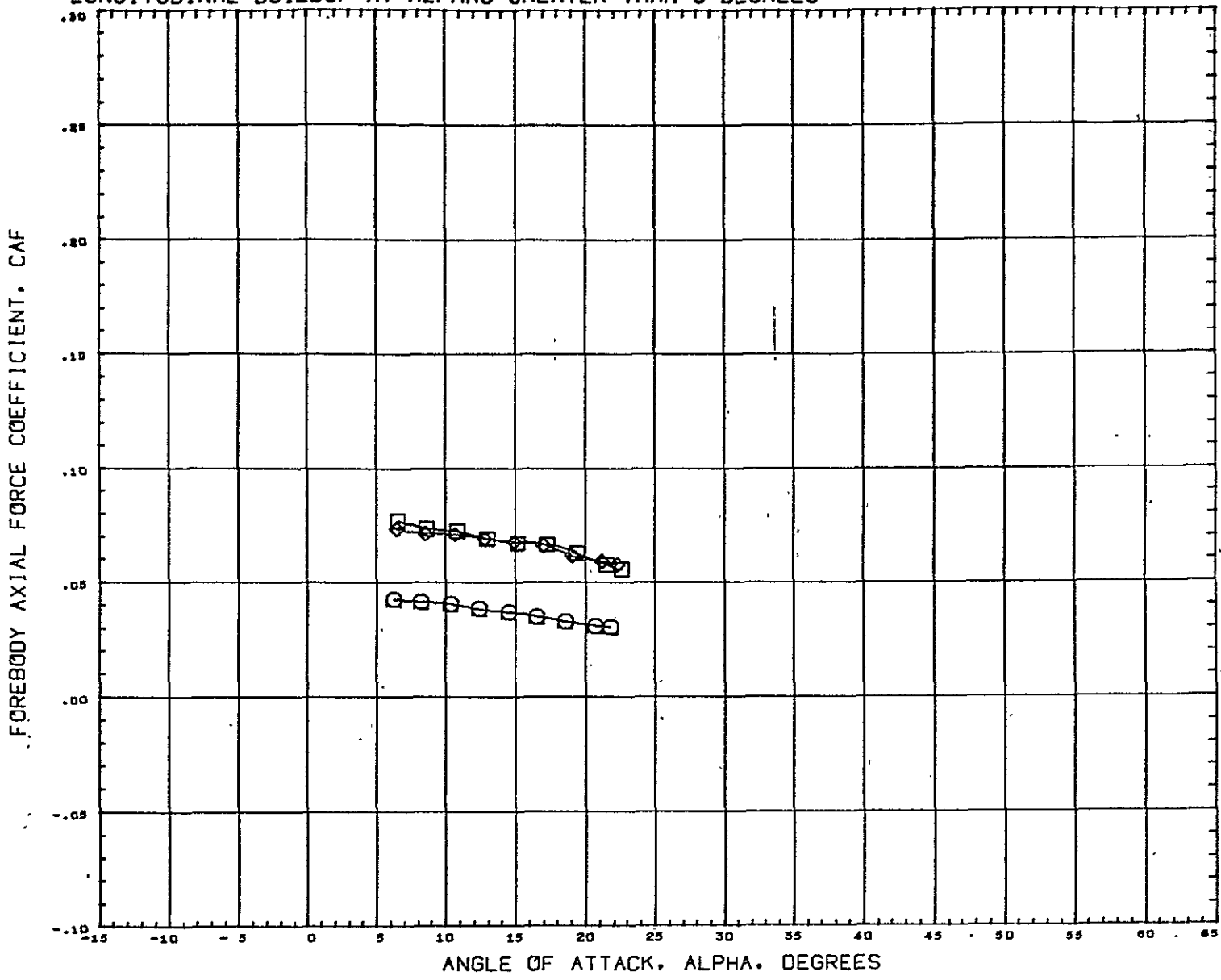
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER) B19V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.054

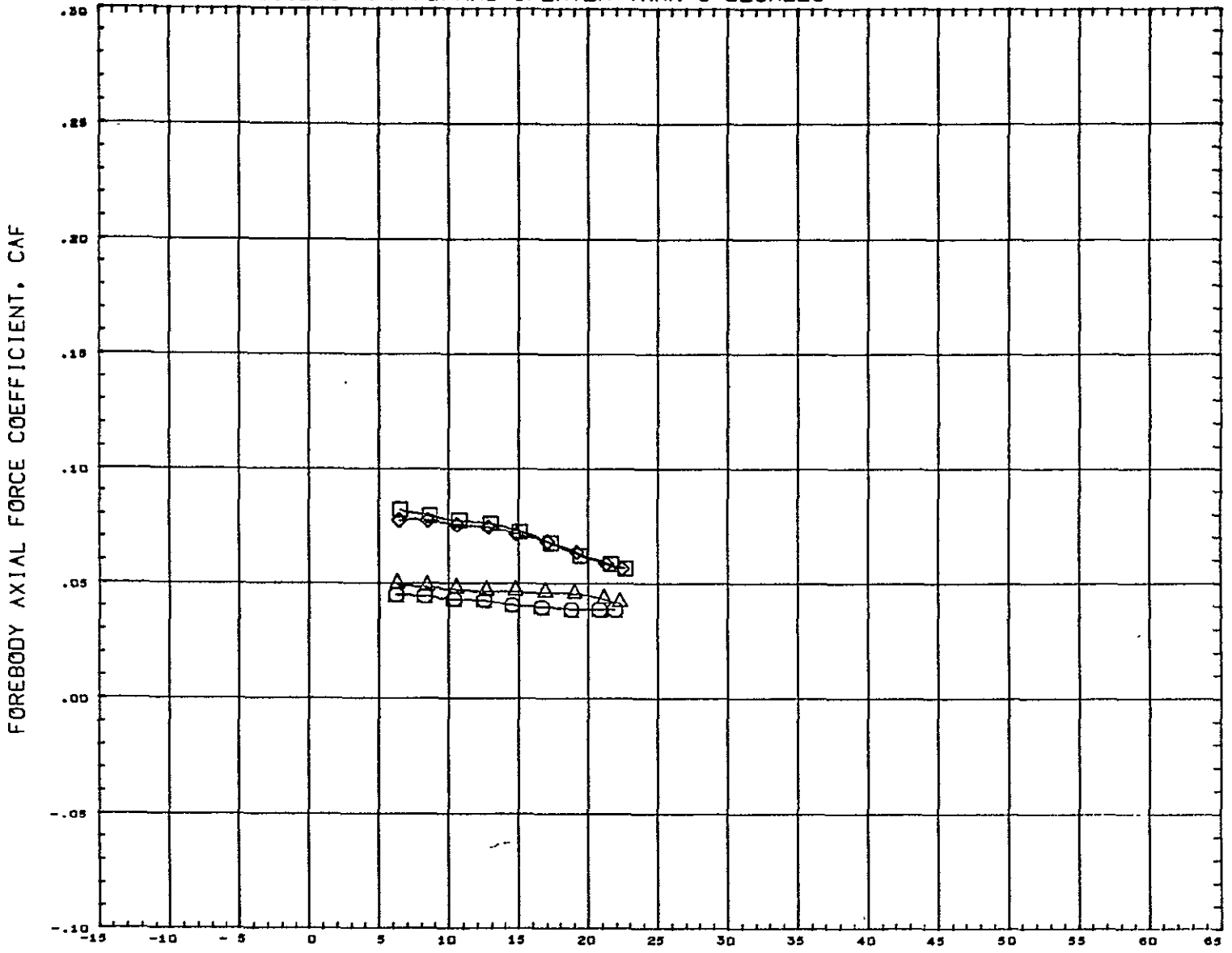
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER)B19V7	0.000	0.000	0.000	0.000	SREF 15.6560 50.IN.
(C28013)	DATA NOT AVAILABLE FOR ALL CONDITIONS					LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.100

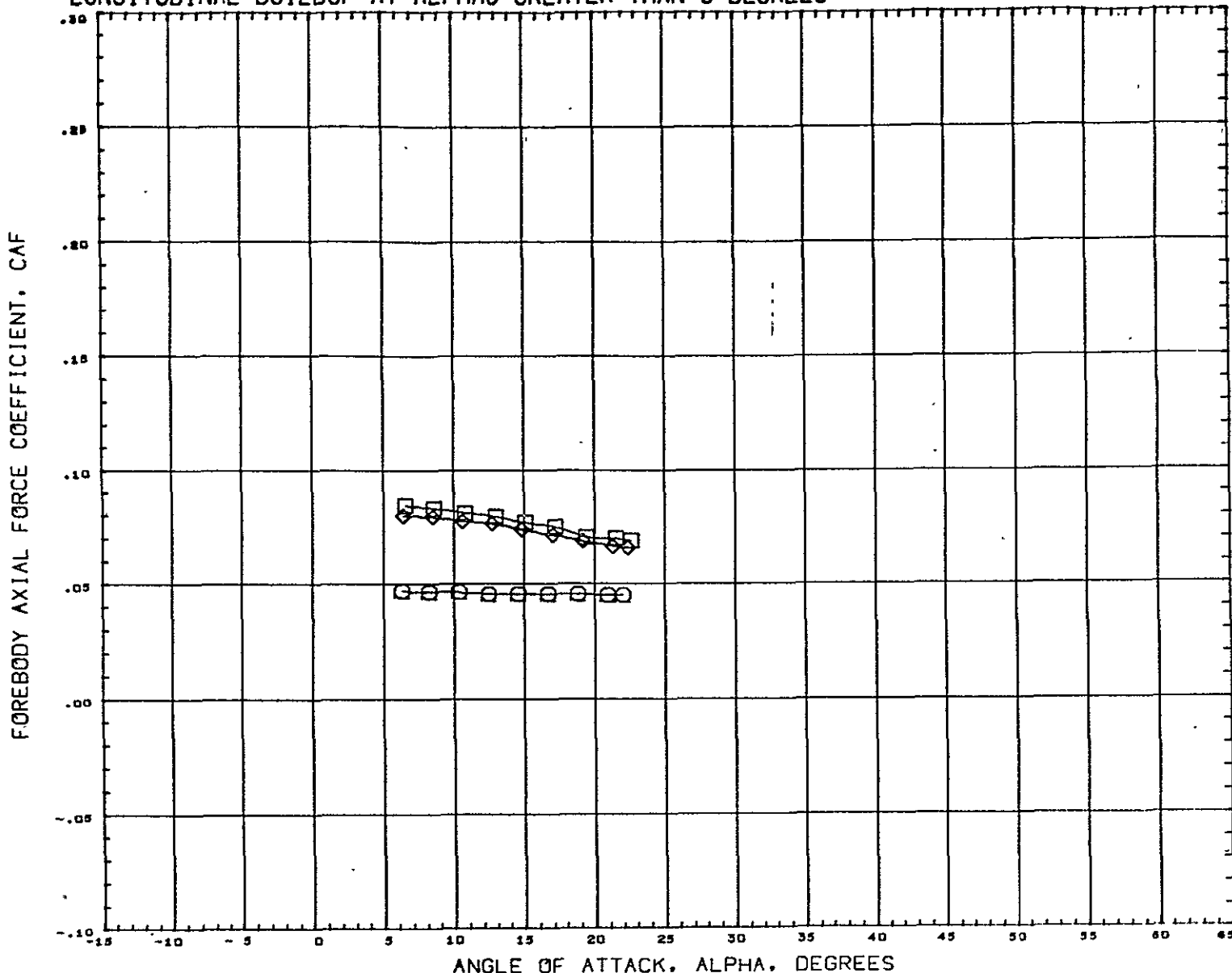
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	□	MSFC481 GD/C (BOOSTER) B19V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	△	MSFC481 GD/C (BOOSTER) B19C4AV7	0.000	0.000	0.000	0.000	LREF 3.0950 IN.
(C28005)	○	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0950 IN.
(C28001)	◇	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XNRP 6.7100 IN. YNRP 0.0000 IN. ZNRP 0.0000 IN. SCALE 0.0035

MACH 1.196

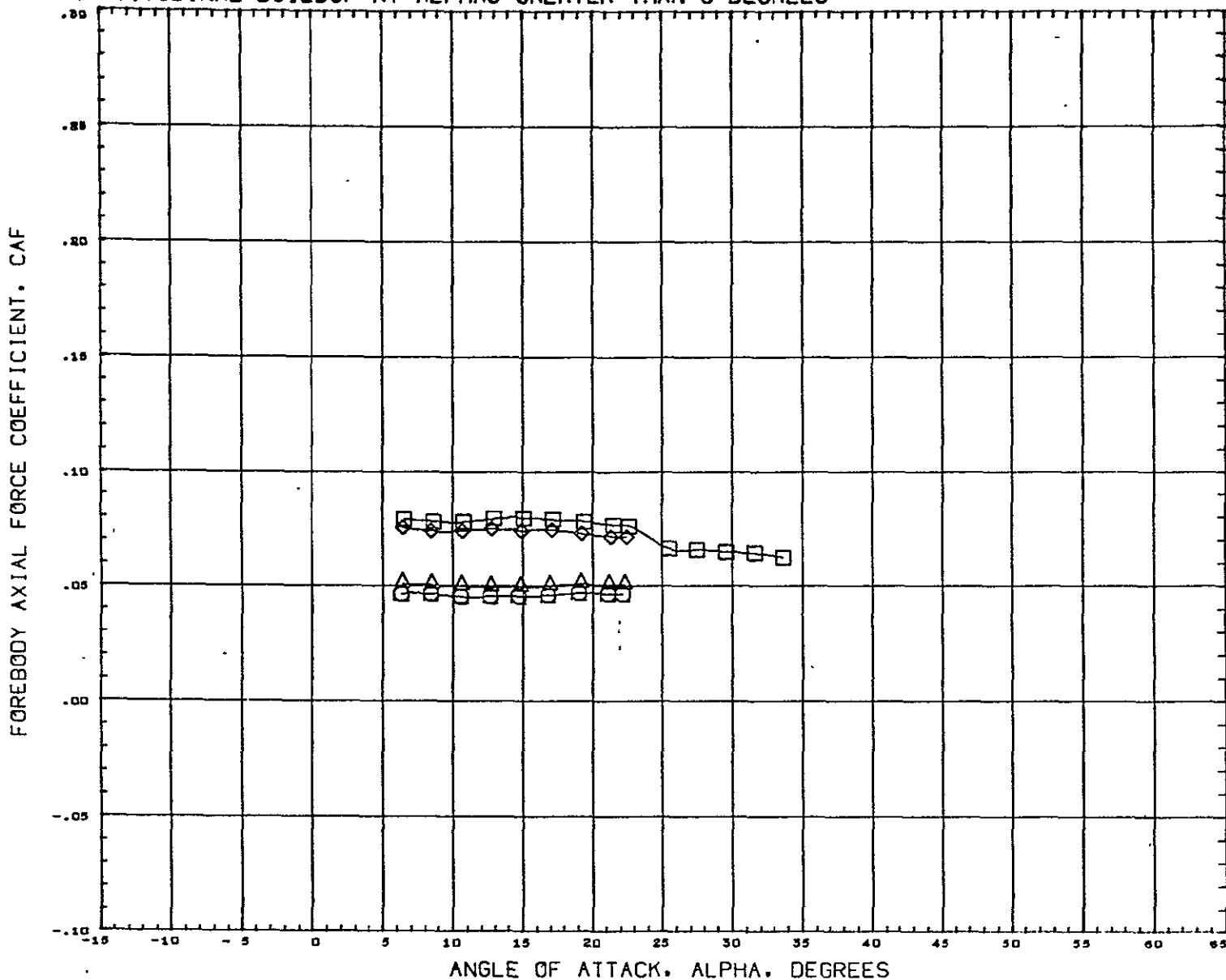
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	MSFC481 GD/C(BOOSTER) B19V7			0.000	0.000	SREF 15.0560 SQ. IN.
(C28015)	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	MSFC481 GD/C(BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XHRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.463

LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES

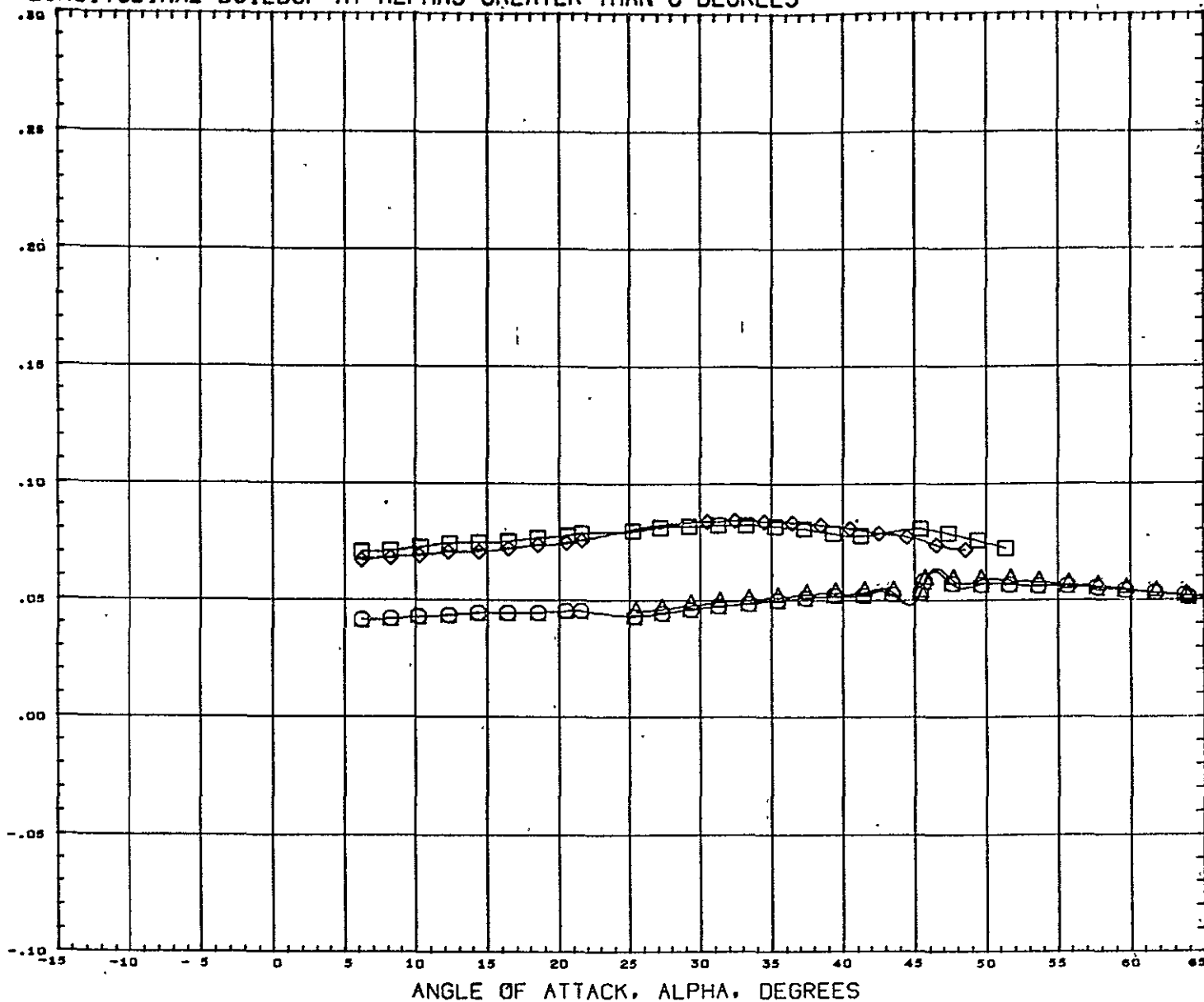


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	MSFC481 GD/C(BOOSTER)B19V7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(C28013)	△	MSFC481 GD/C(BOOSTER)B19C4AV7	0.000	0.000	0.000	0.000	LREF 3.0950 IN.
(C28005)	◇	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.966

LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES

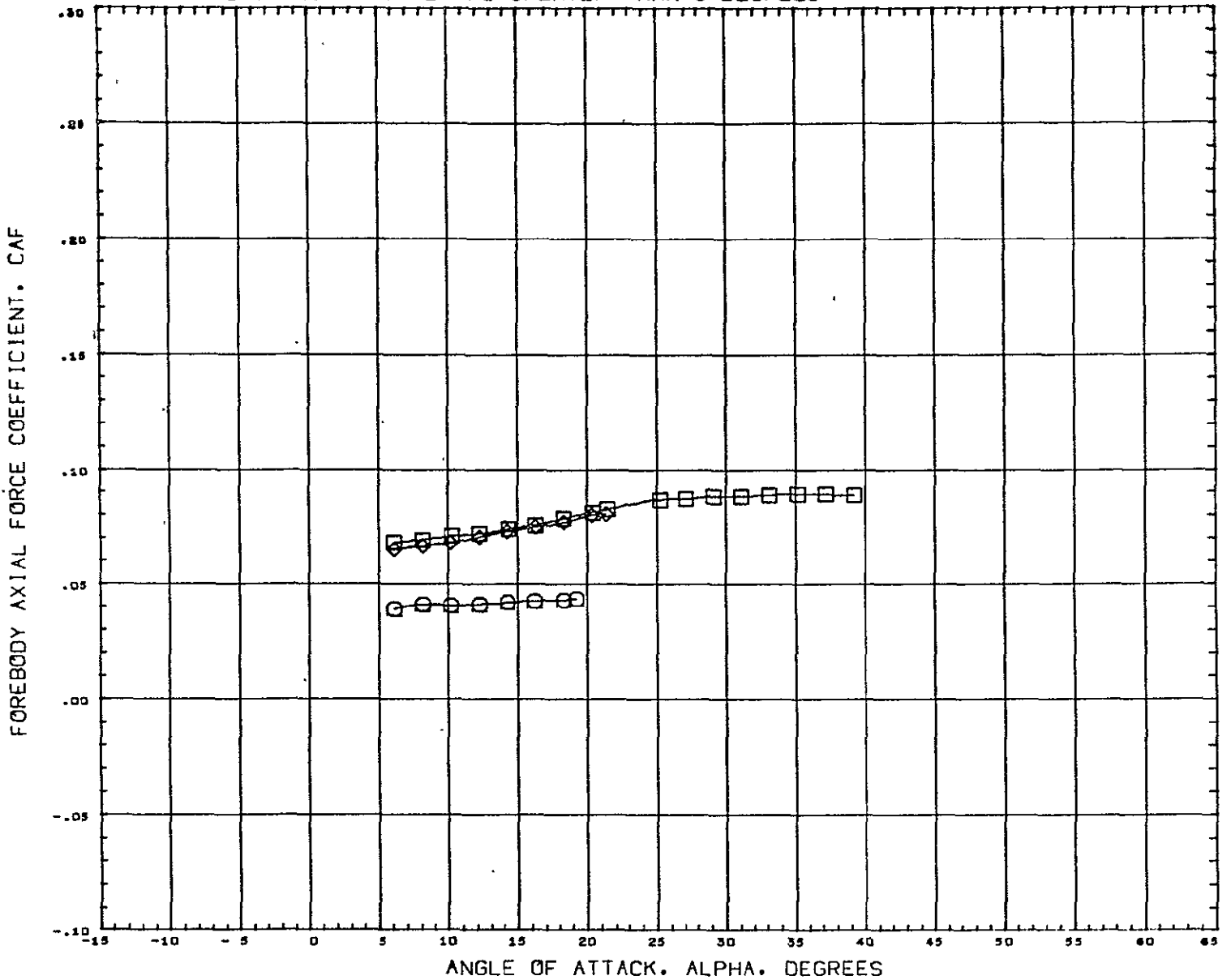
FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C26004)	MSFC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 SQ. IN.
(C26013)	MSFC481 GD/C(BOOSTER)B19C4AV7				0.000	LREF 3.0950 IN.
(C26005)	MSFC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C26001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 2.990

LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES

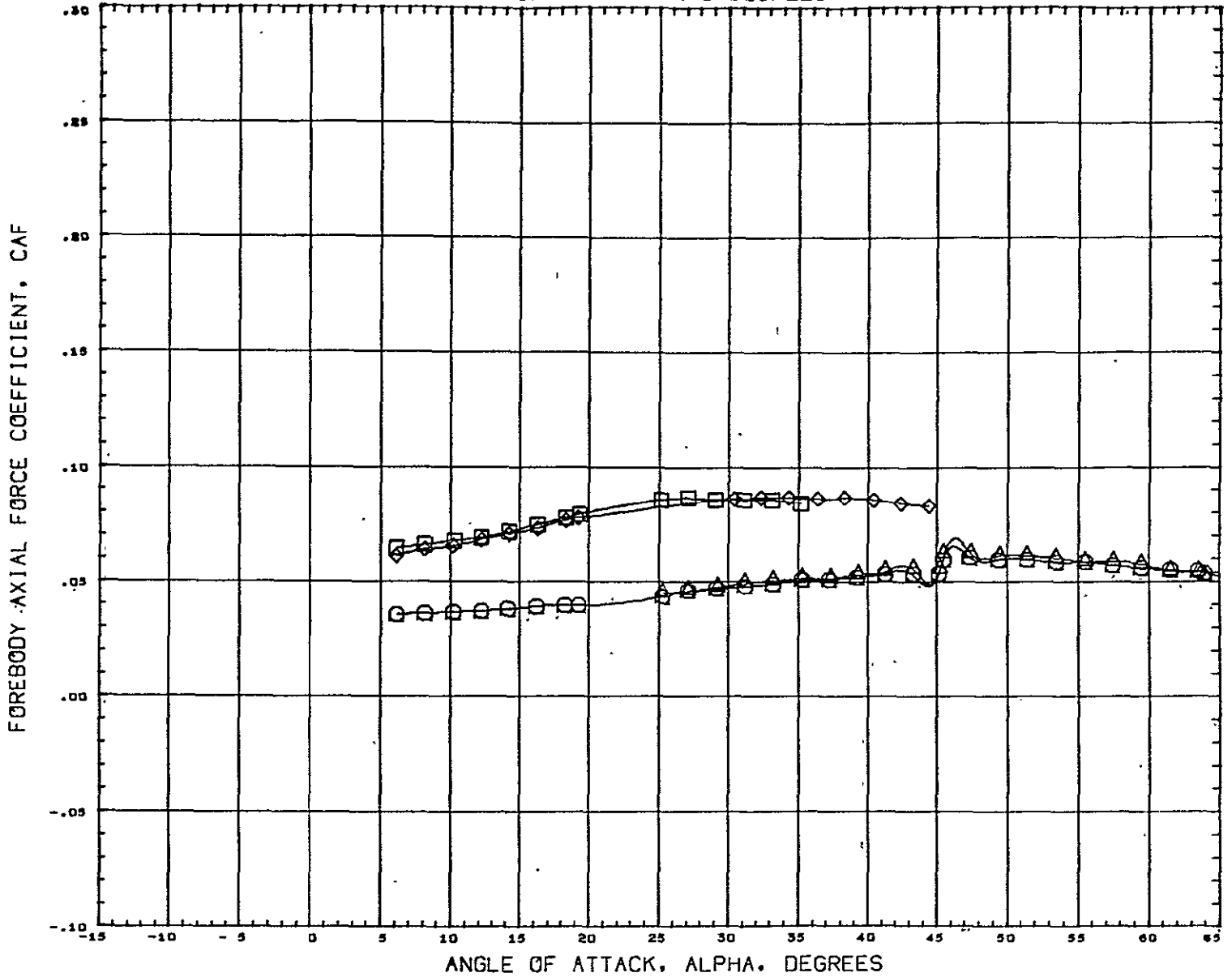


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION
(C28004)	○	H3FC481 GD/C(BOOSTER)B19V7				0.000	SREF 15.6560 sq.in.
(C28013)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS				0.000	LREF 3.0950 IN.
(C28005)	◇	H3FC481 GD/C(BOOSTER)B19W14V7	0.000	0.000	0.000	0.000	BREF 6.0990 IN.
(C28001)	□	H3FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.000

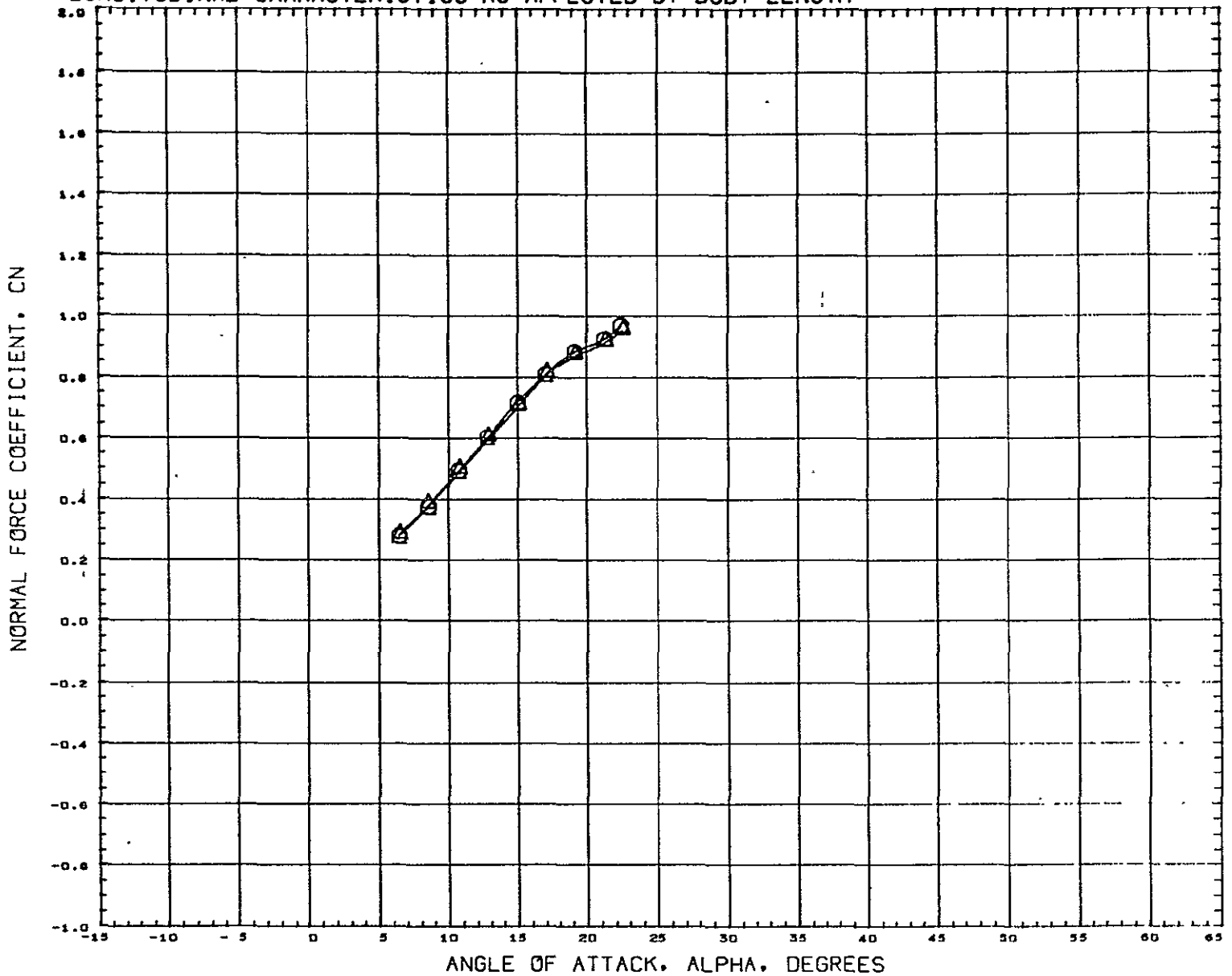
LONGITUDINAL BUILDUP AT ALPHAS GREATER THAN 6 DEGREES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ELEVON	AILRON	CANARD	BETA	REFERENCE INFORMATION	
(C26004)	MSFC481 GD/C (BOOSTER) B19V7				0.000	SREF	15.6560 SQ. IN.
(C26013)	MSFC481 GD/C (BOOSTER) B19C4AV7			0.000	0.000	LREF	3.0950 IN.
(C26005)	MSFC481 GD/C (BOOSTER) B19W14V7	0.000	0.000	0.000	0.000	BREF	6.0990 IN.
(C26001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 4.960

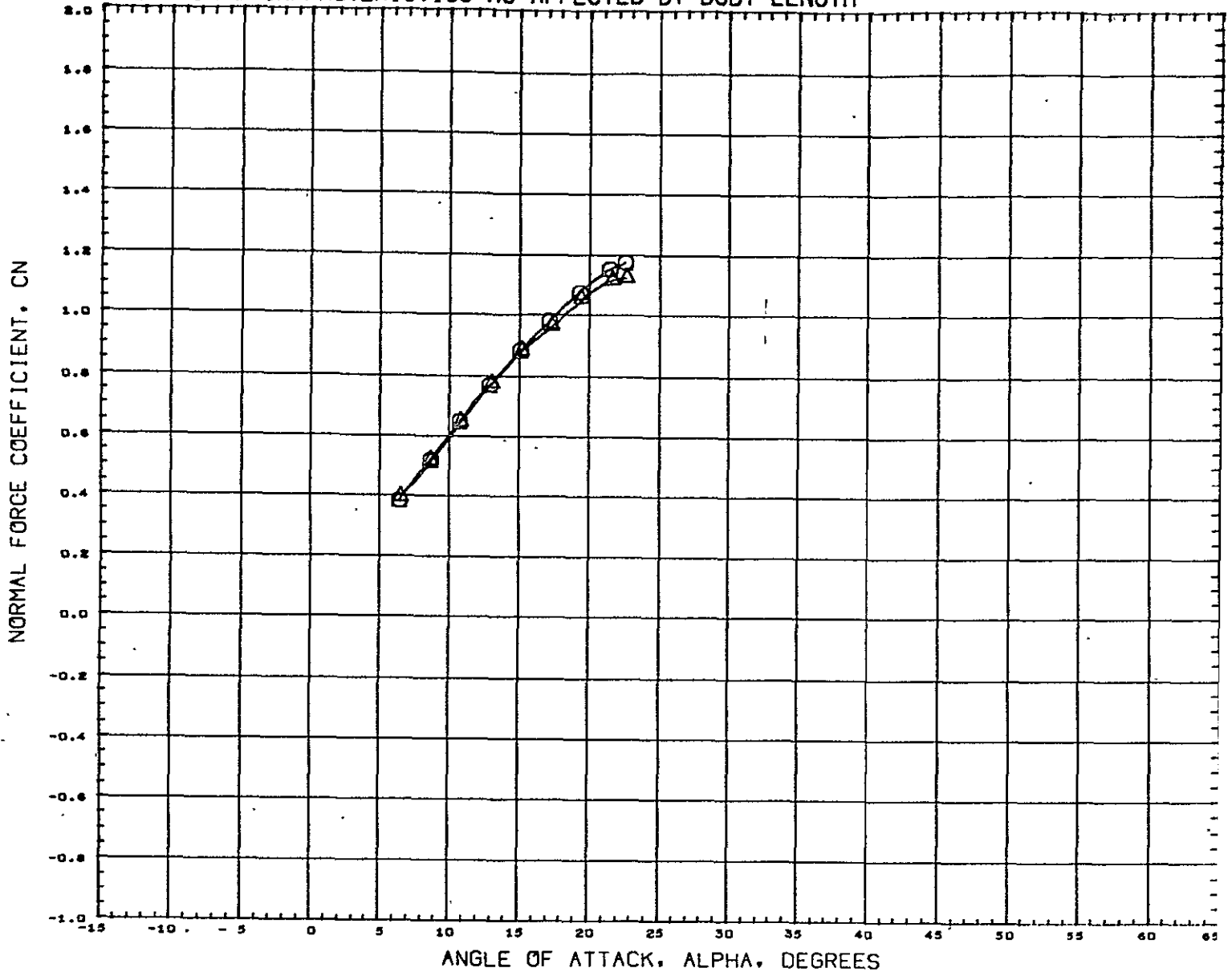
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C28021)	MSFC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

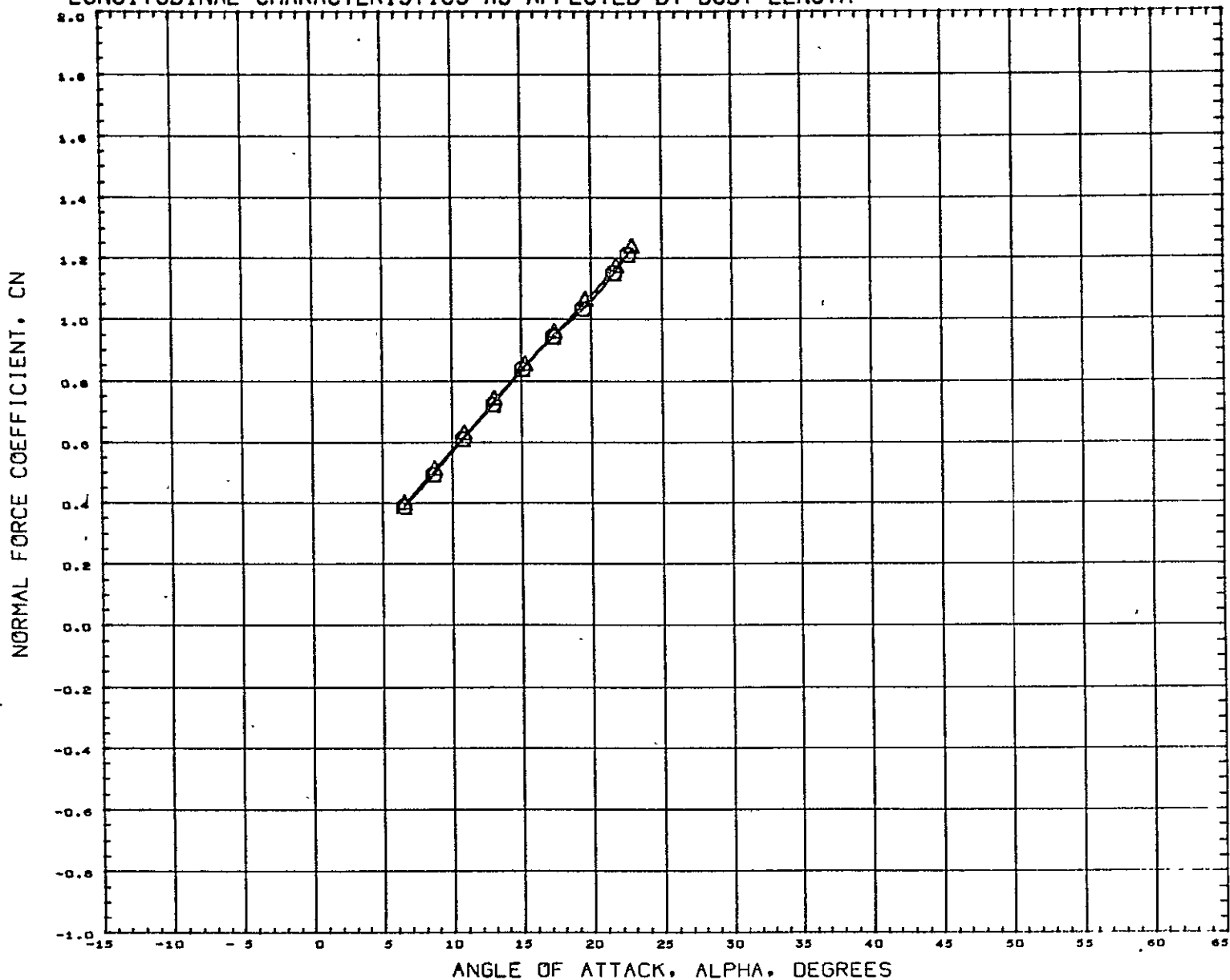
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	○	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 IN.
(C28021)	△	MSFC481 GD/C (BOOSTER) B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
							BREF 6.0990 IN.
							XHRP 6.7100 IN.
							YHRP 0.0000 IN.
							ZHRP 0.0000 IN.
							SCALE 0.0039

MACH 1.007

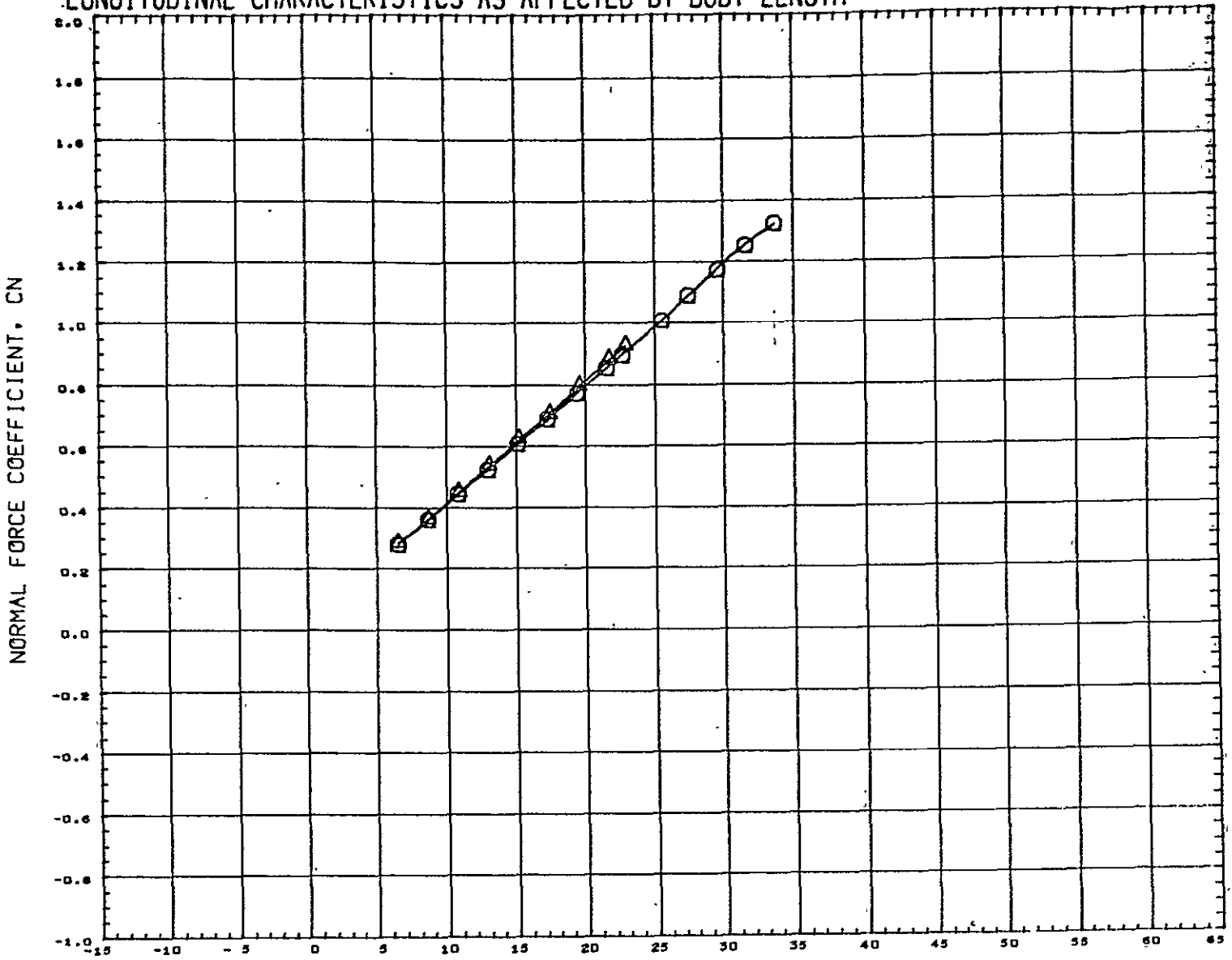
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C28021)	MSFC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

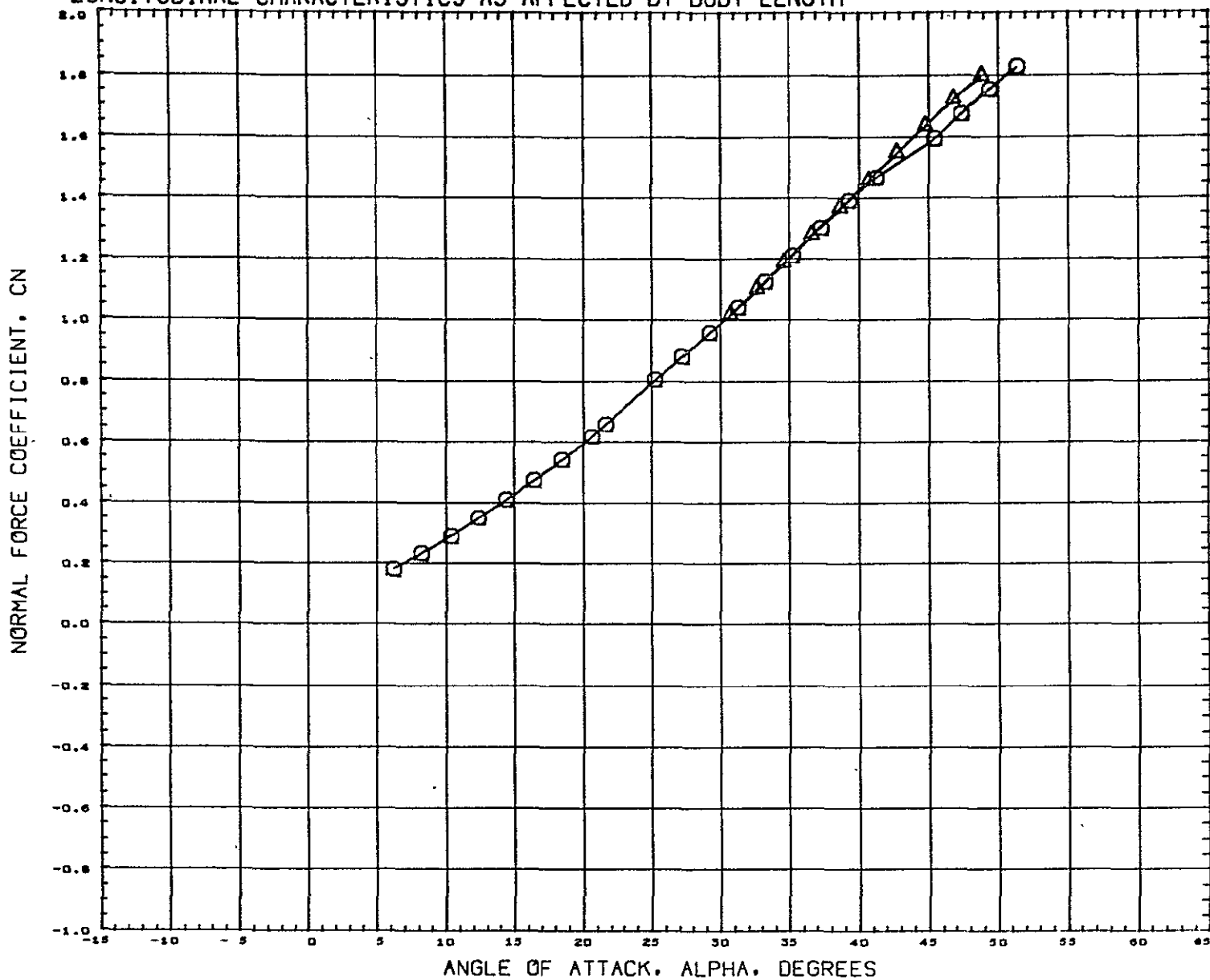
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 32 IN.
(C28021)	MSFC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

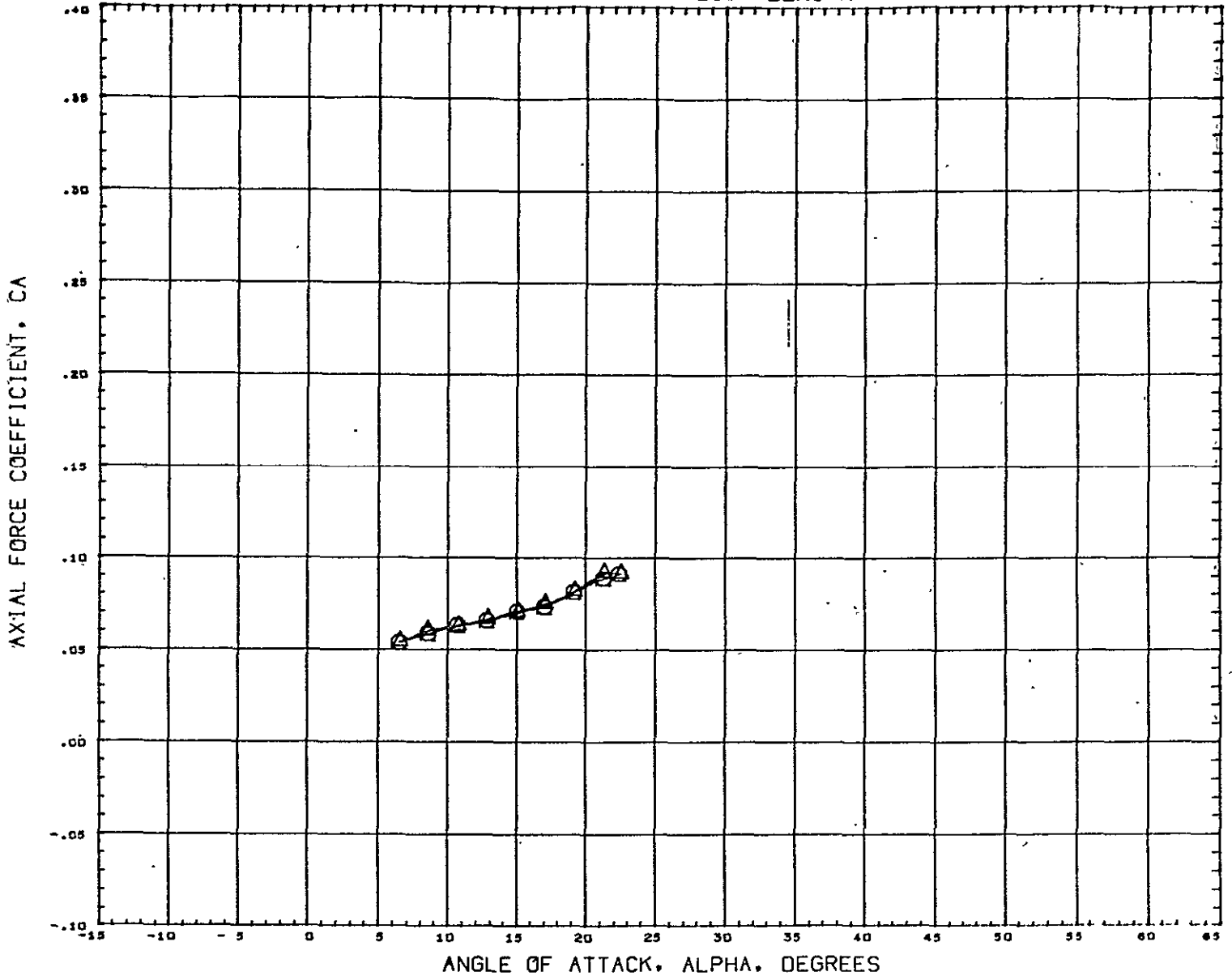
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F20001)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C20021)	MSFC401 GD/C(BOOSTER) B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						SREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

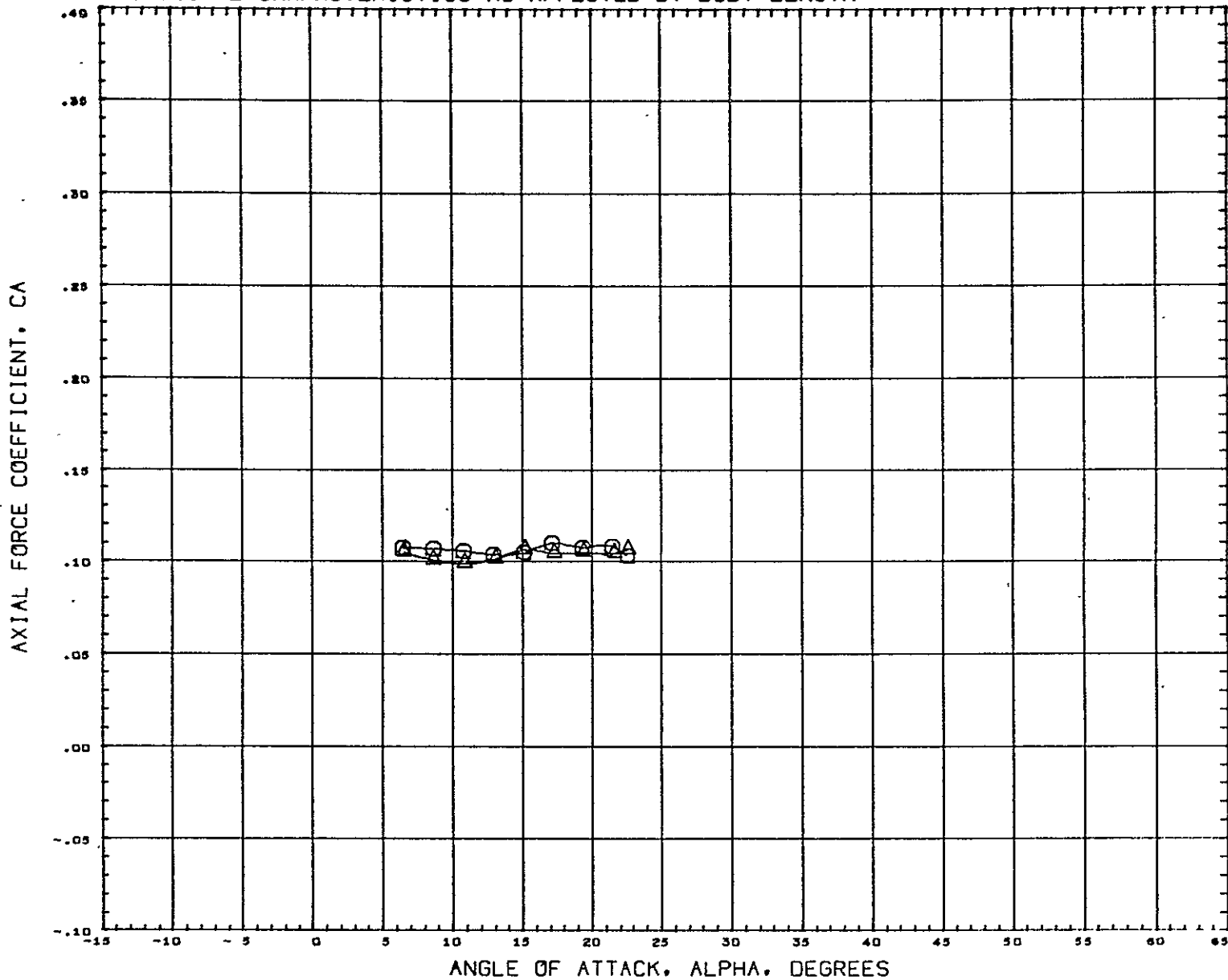
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F20001)	M3FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 50.1N.
(C20021)	M3FC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0900 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH

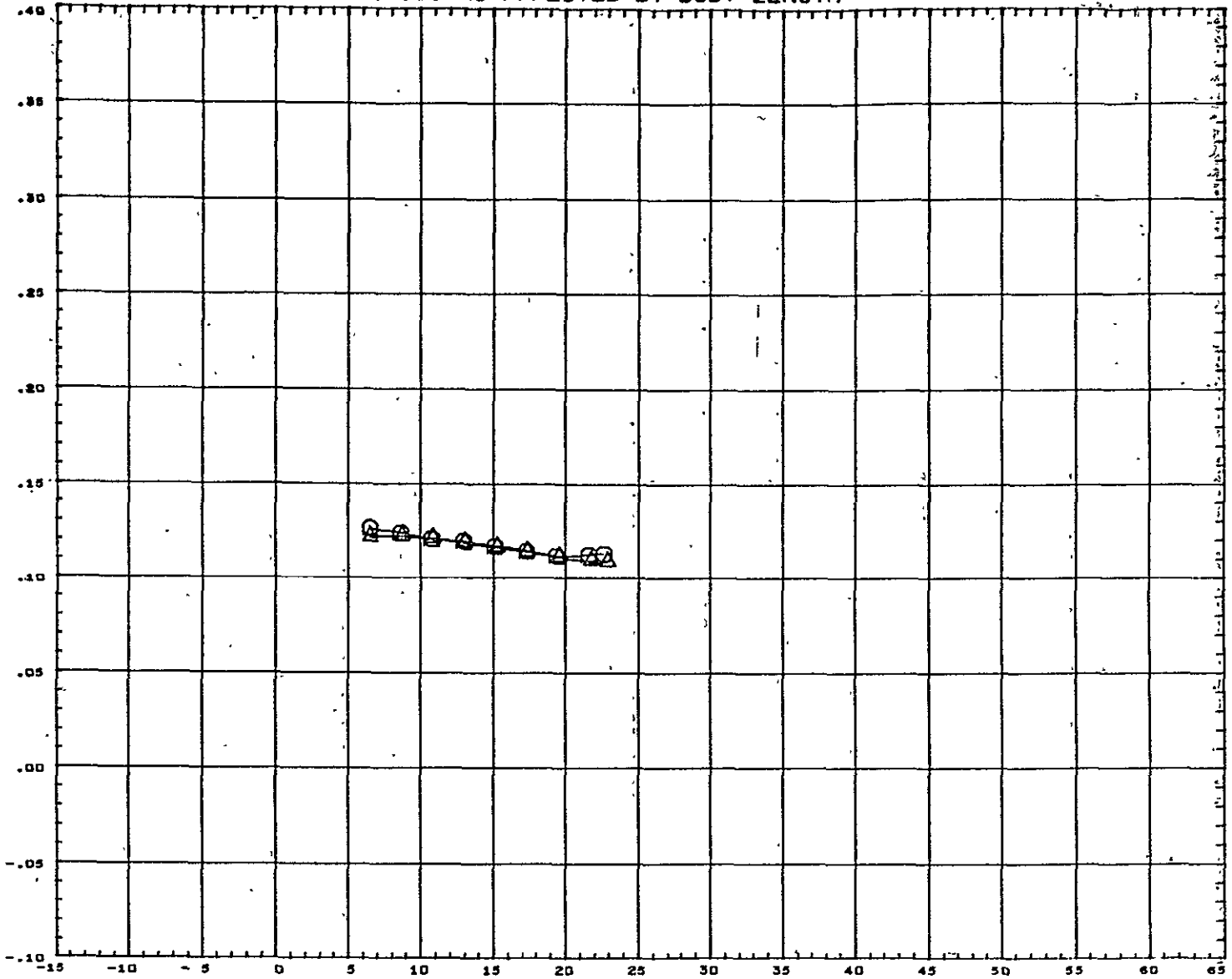


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C28021)	MSFC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH

AXIAL FORCE COEFFICIENT, CA

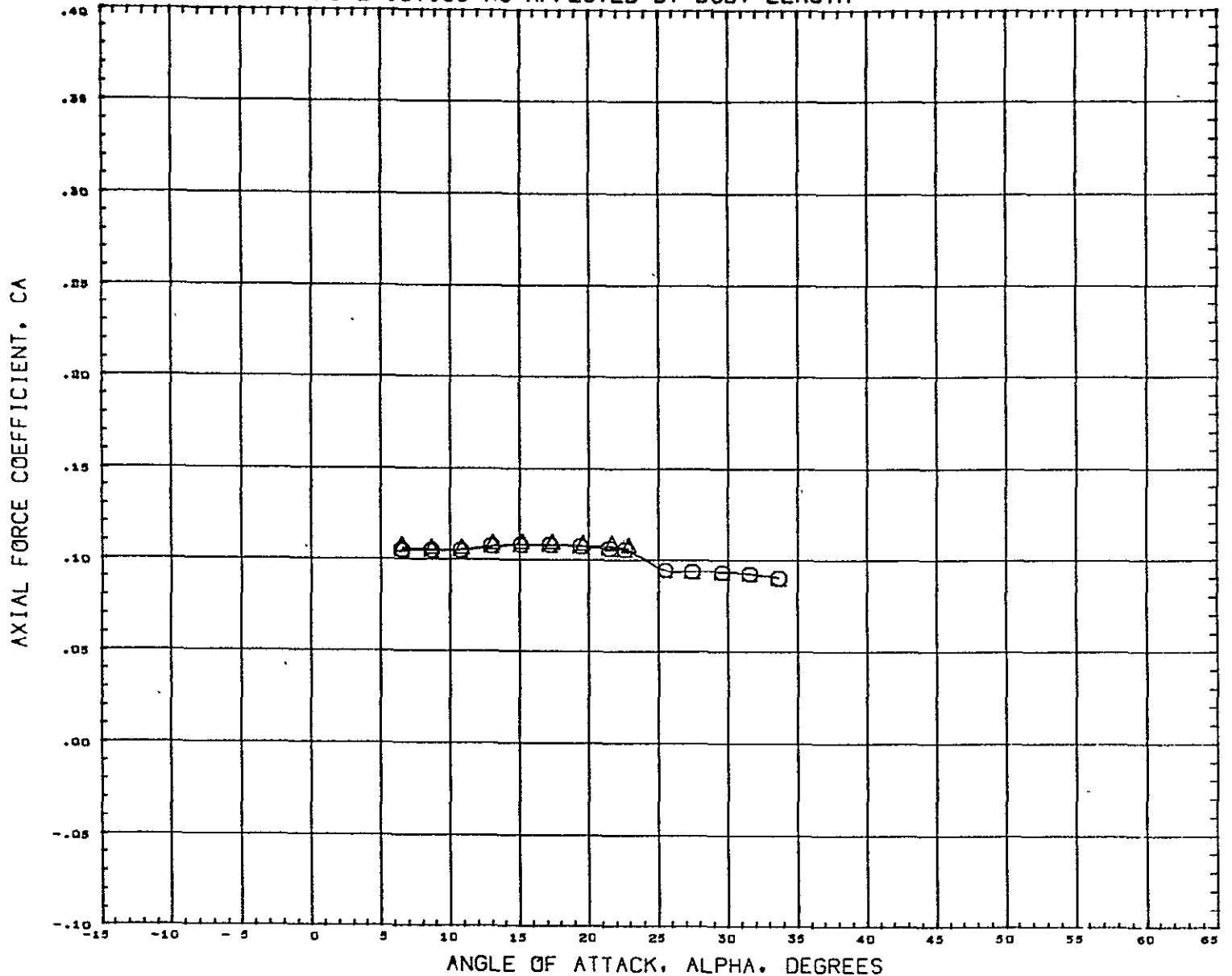


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(F28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 50 IN.
(C28021)	MSFC481 GD/C (BOOSTER) B20W14C4BV7	0.000	0.000	0.000		LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.201

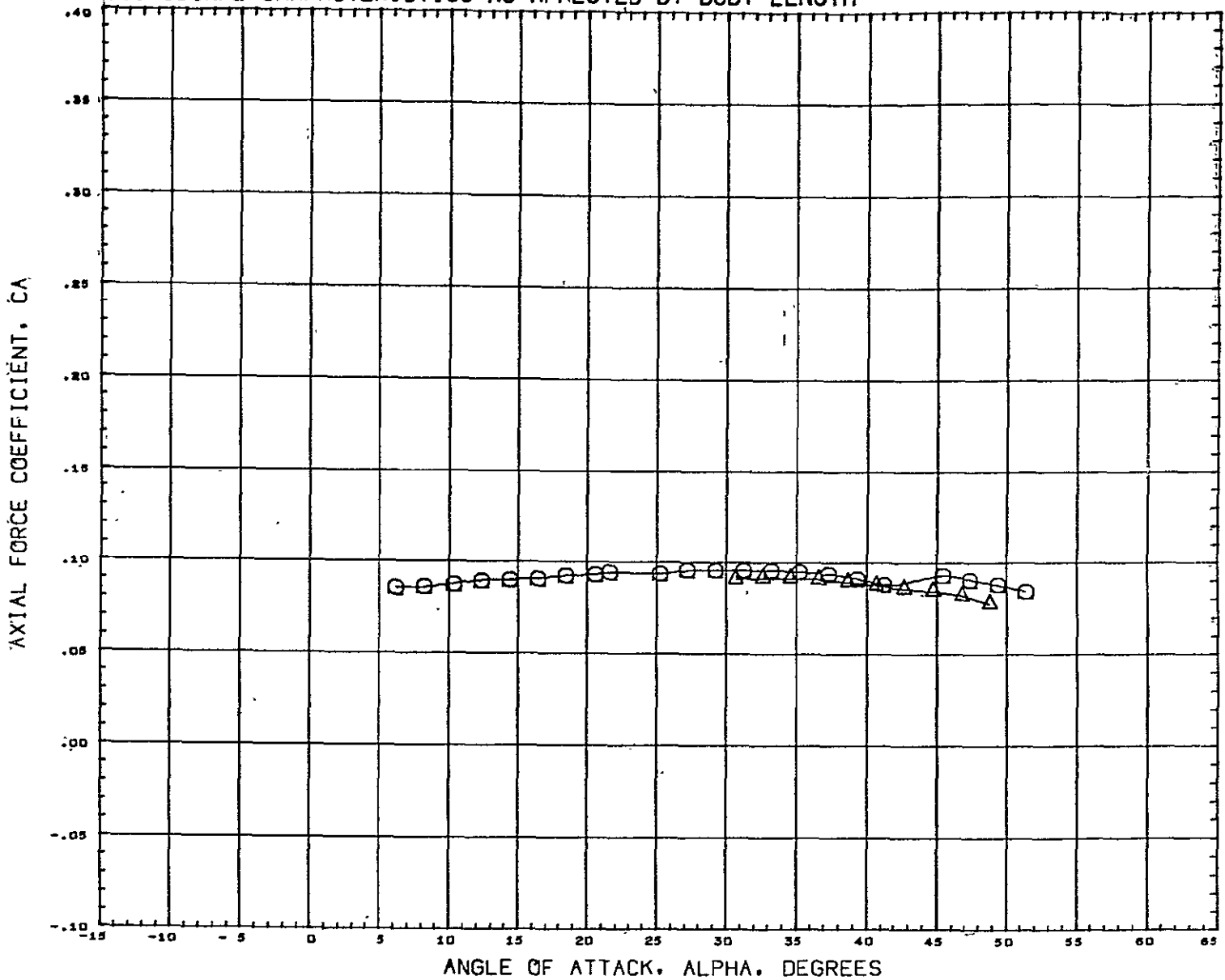
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C28021)	MSFC481 GD/C (BOOSTER) B29W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

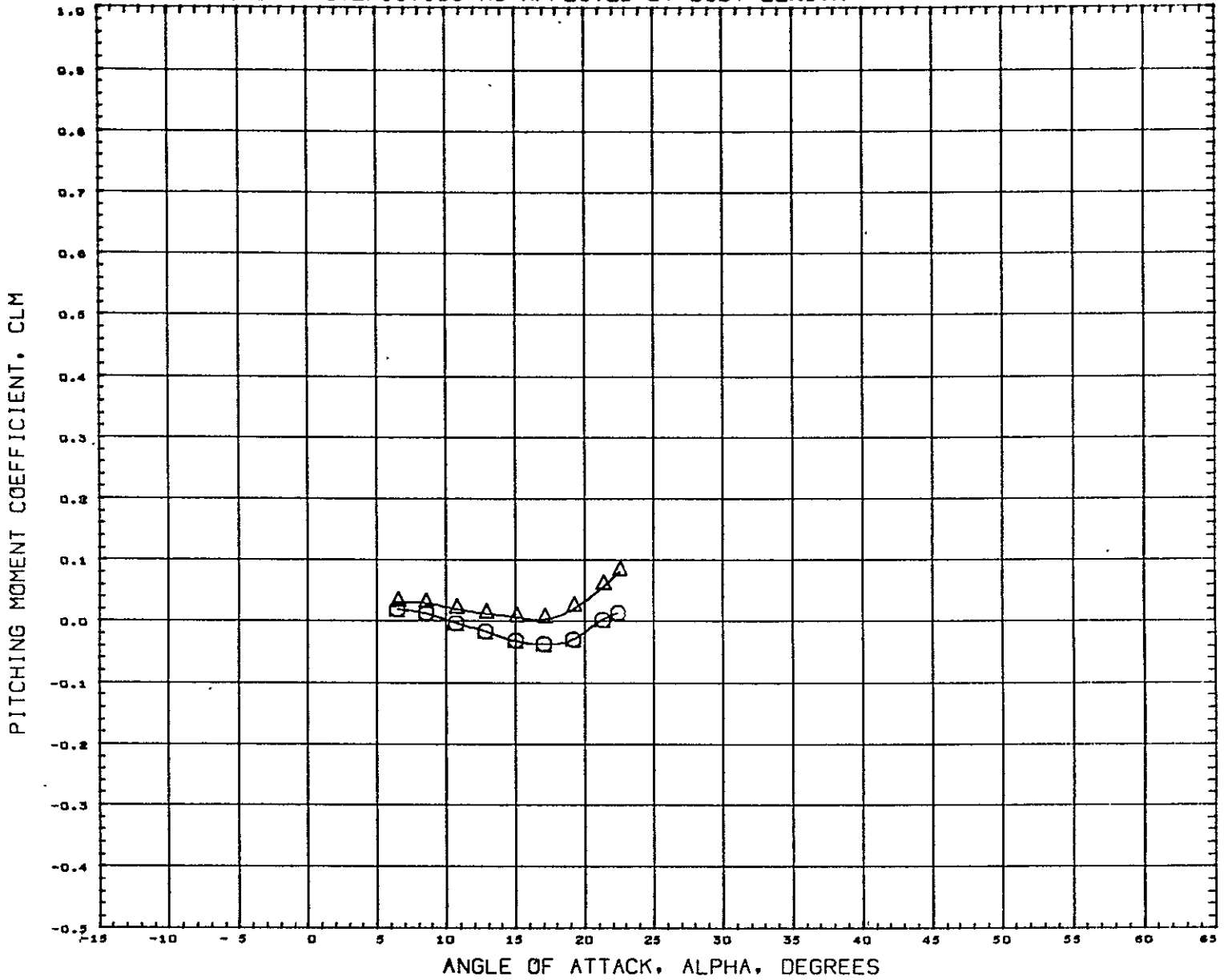
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 50. IN.
(C28021)	MSFC481 GD/C(BOOSTER) B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



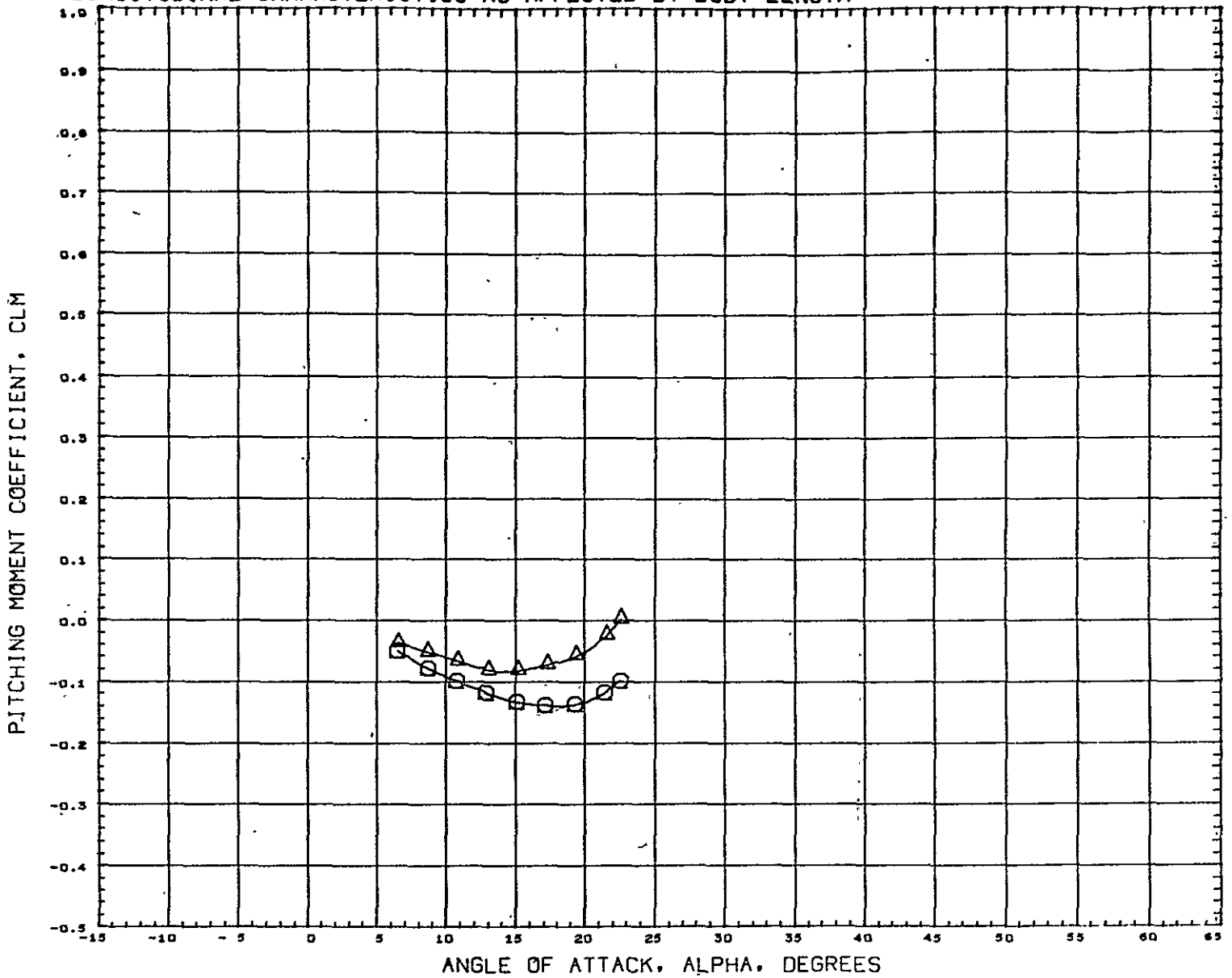
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F28001) M3FC481 GD/C(BOOSTER)B19W14C4AV7
 (C28021) M3FC481 GD/C(BOOSTER)B20W14C4BV7

BETA ELEVON CANARD RUDDER
 0.000 0.000 0.000
 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

MACH 0.900

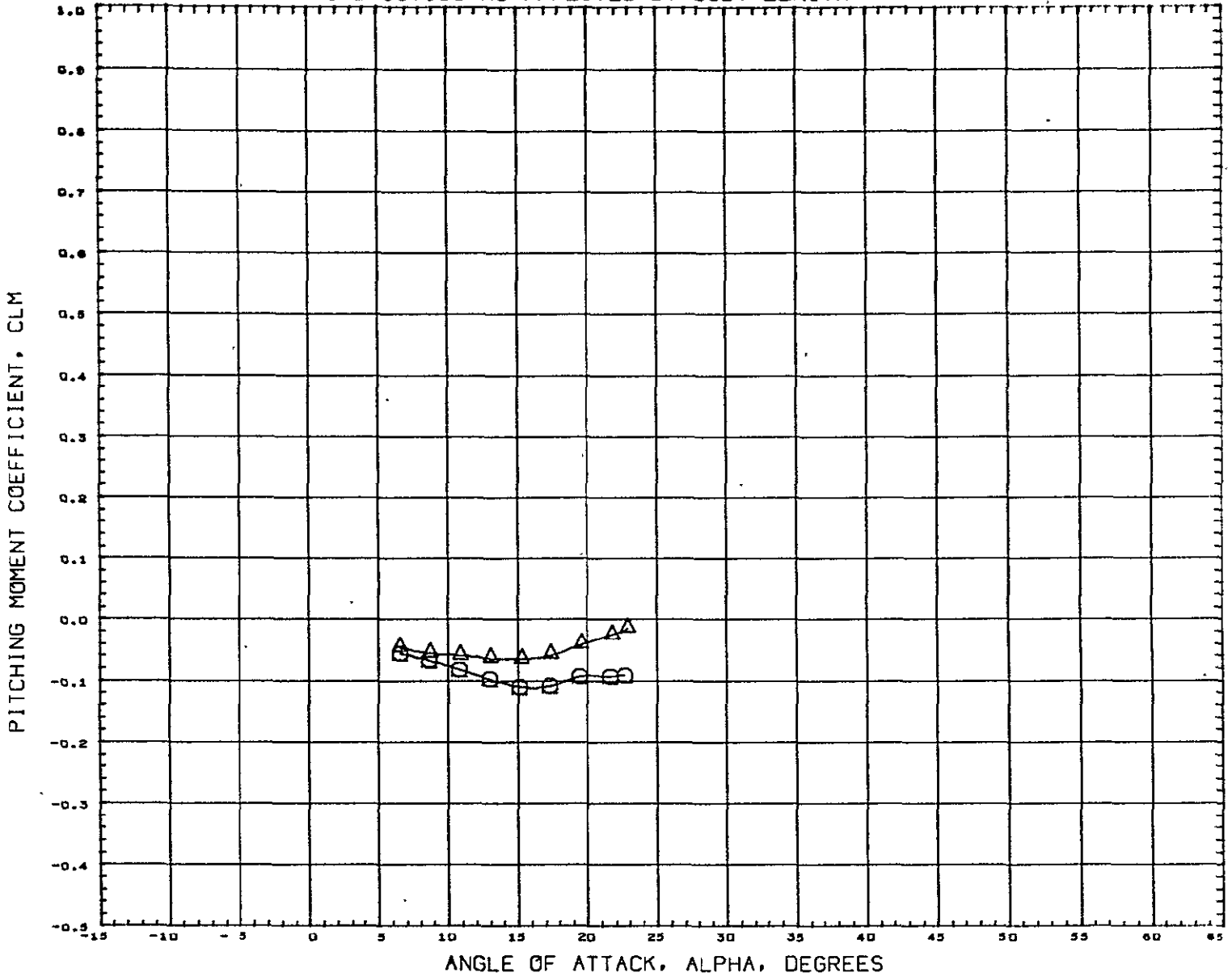
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(P20001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 IN.
(C20021)	MSFC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.007

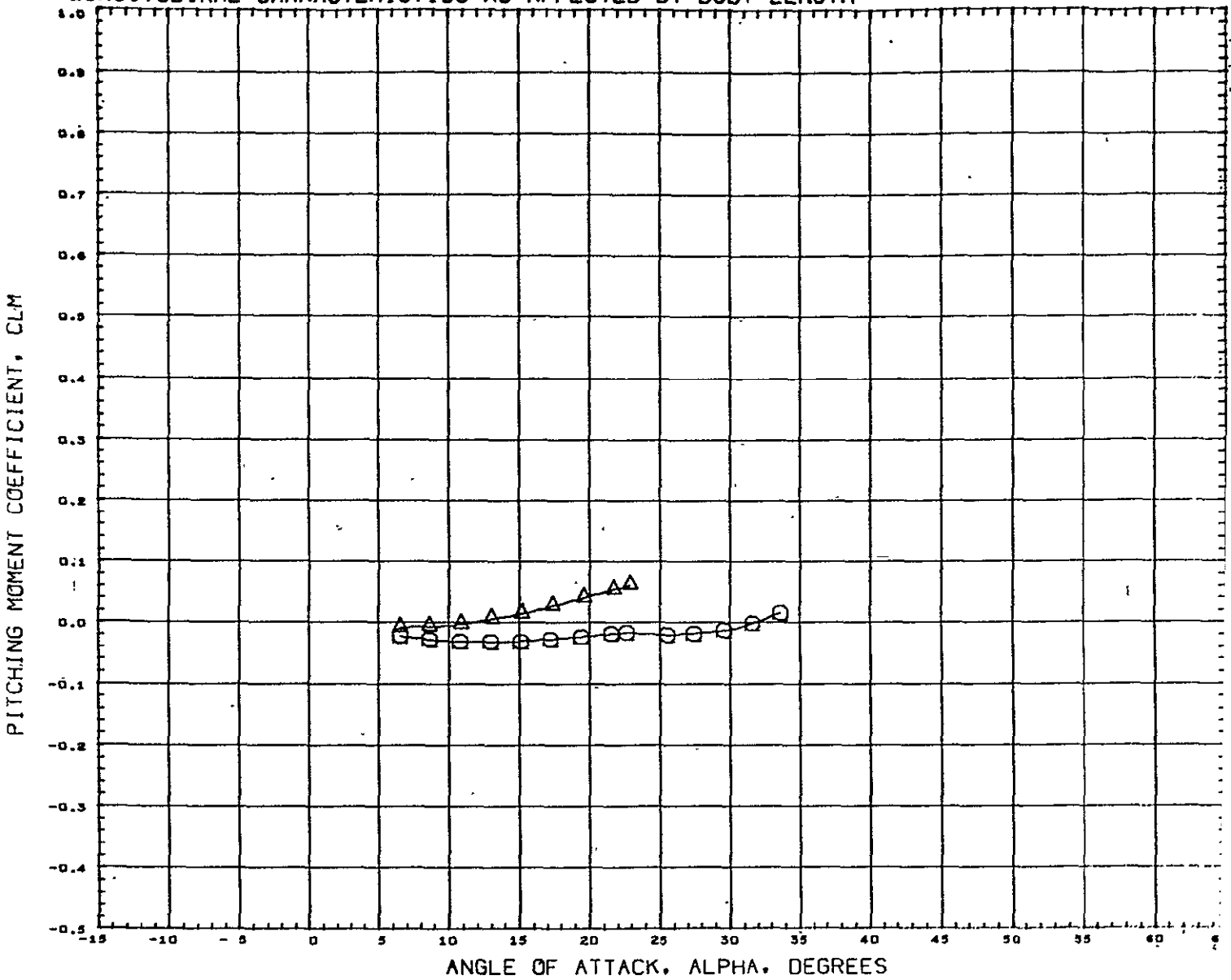
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F20001)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C20021)	MSFC481 GD/C(BOOSTER) B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

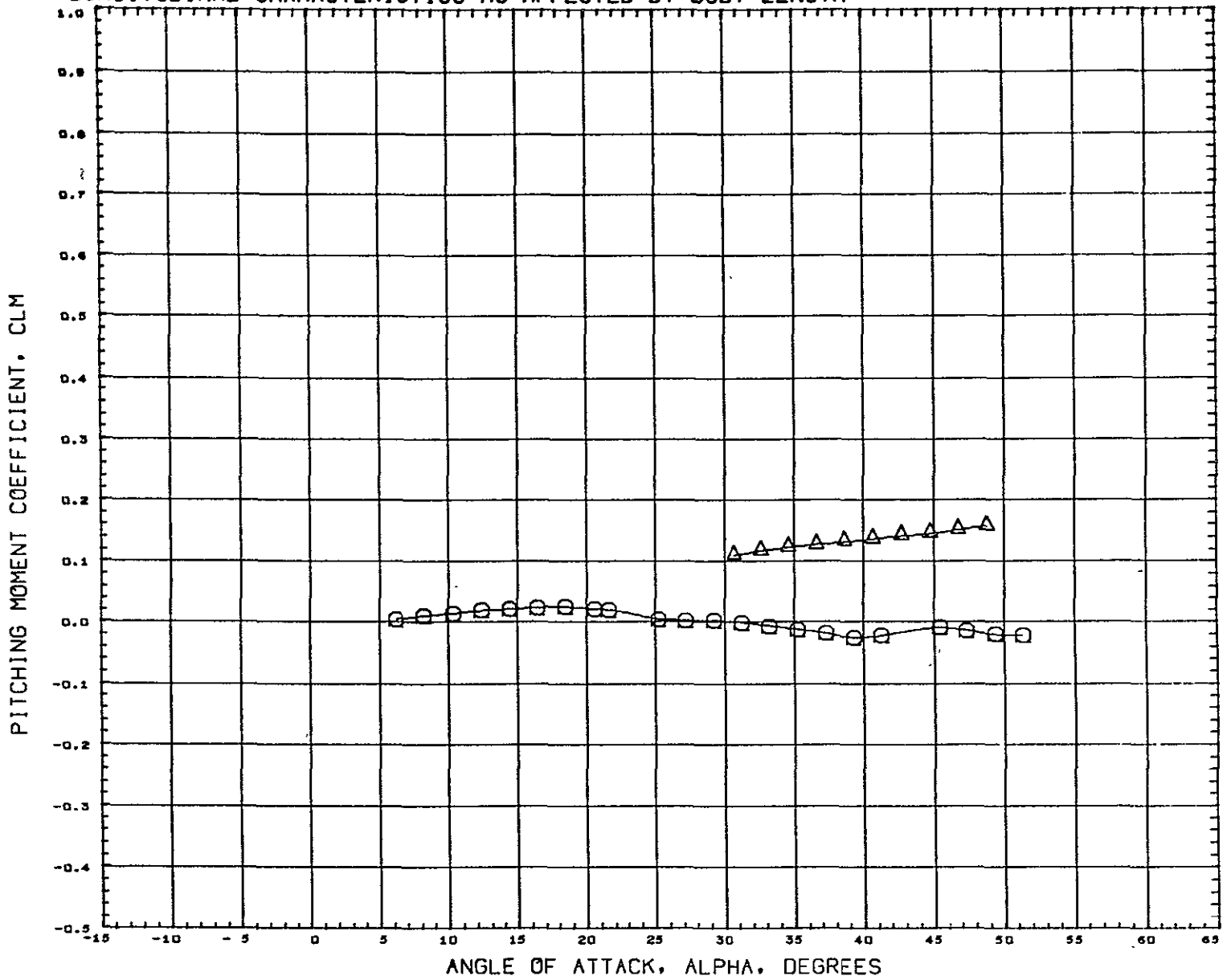
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	M3FC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 50 IN.
(C28021)	M3FC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0033

MACH 1.958

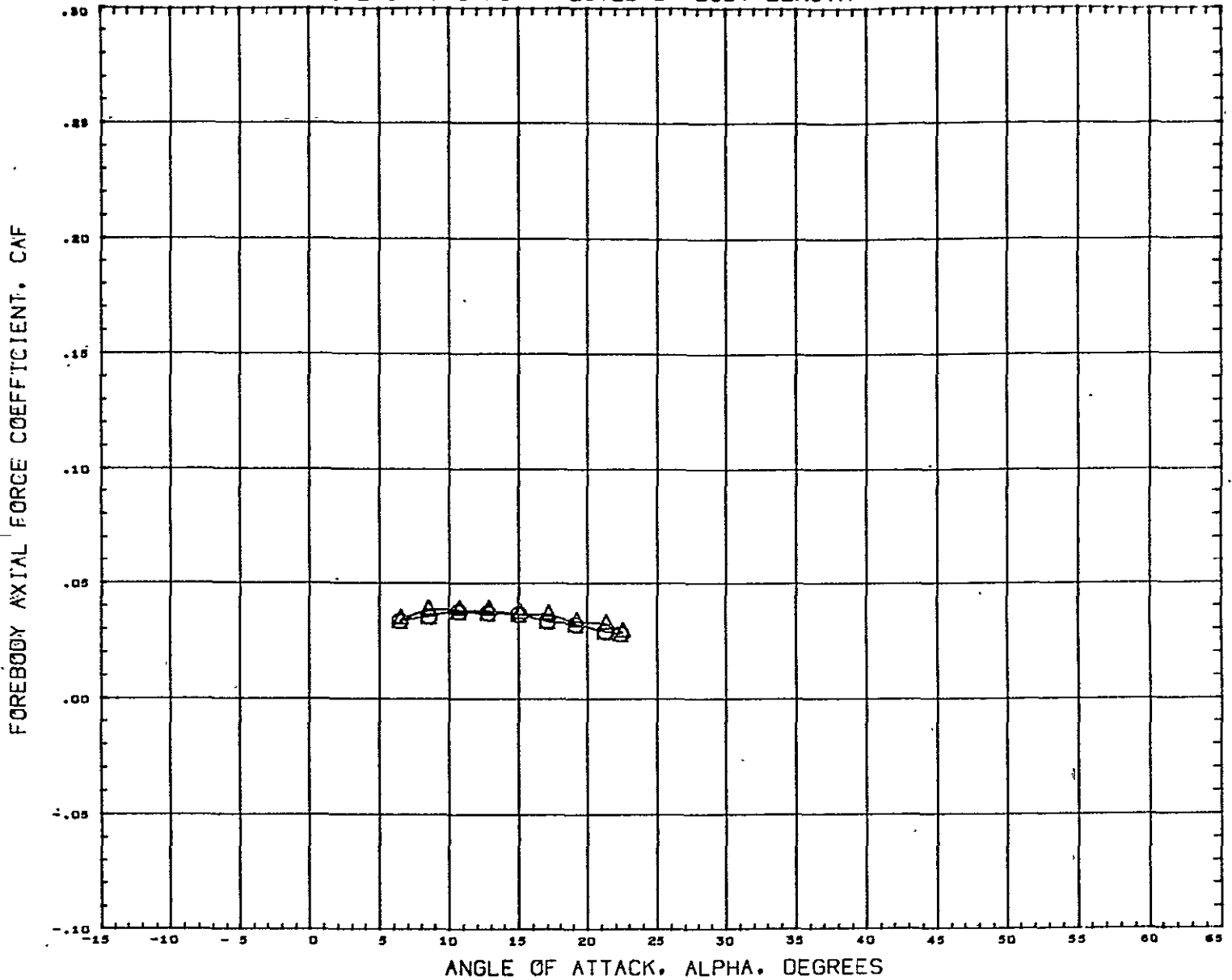
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F20001)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(C20021)	MSFC481 GD/C (BOOSTER) B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

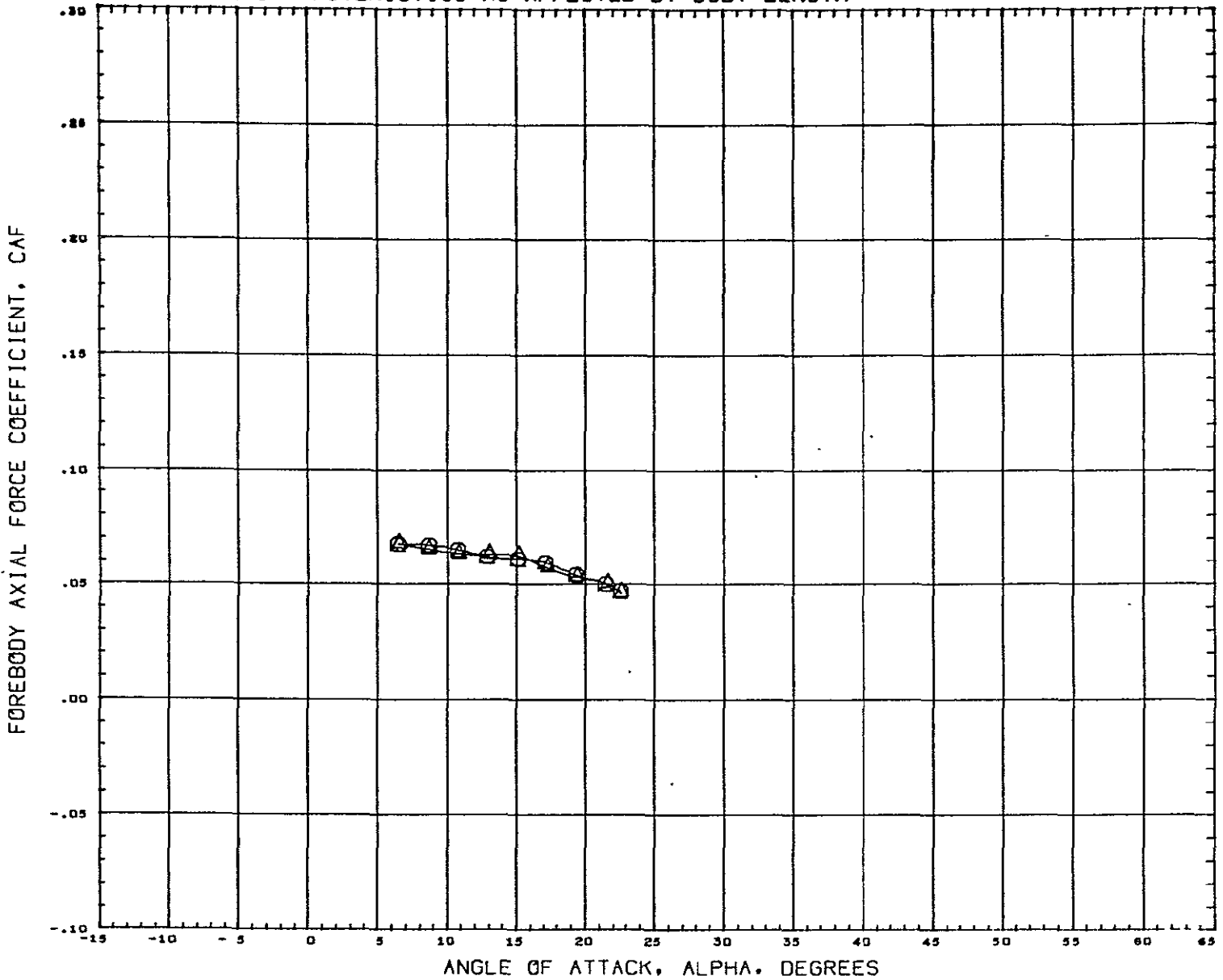
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F20001)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C20021)	MSFC461 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 5.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

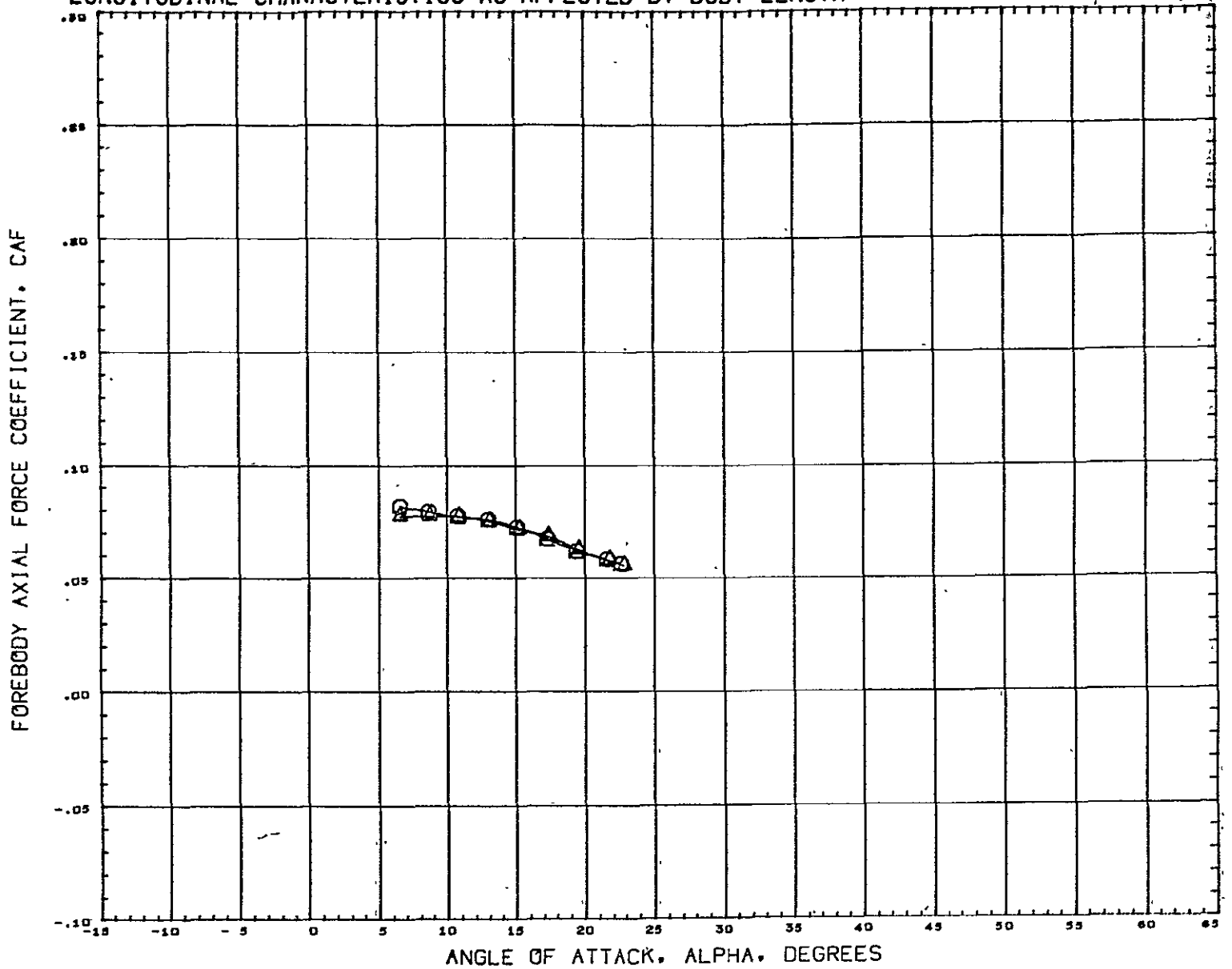
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	MSFC481 GD/C(BOOSTER)B19W14C4AY7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C28021)	MSFC481 GD/C(BOOSTER)B20W14C4BY7	0.000	0.000	0.000		LREF 3.0940 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 1.007

LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



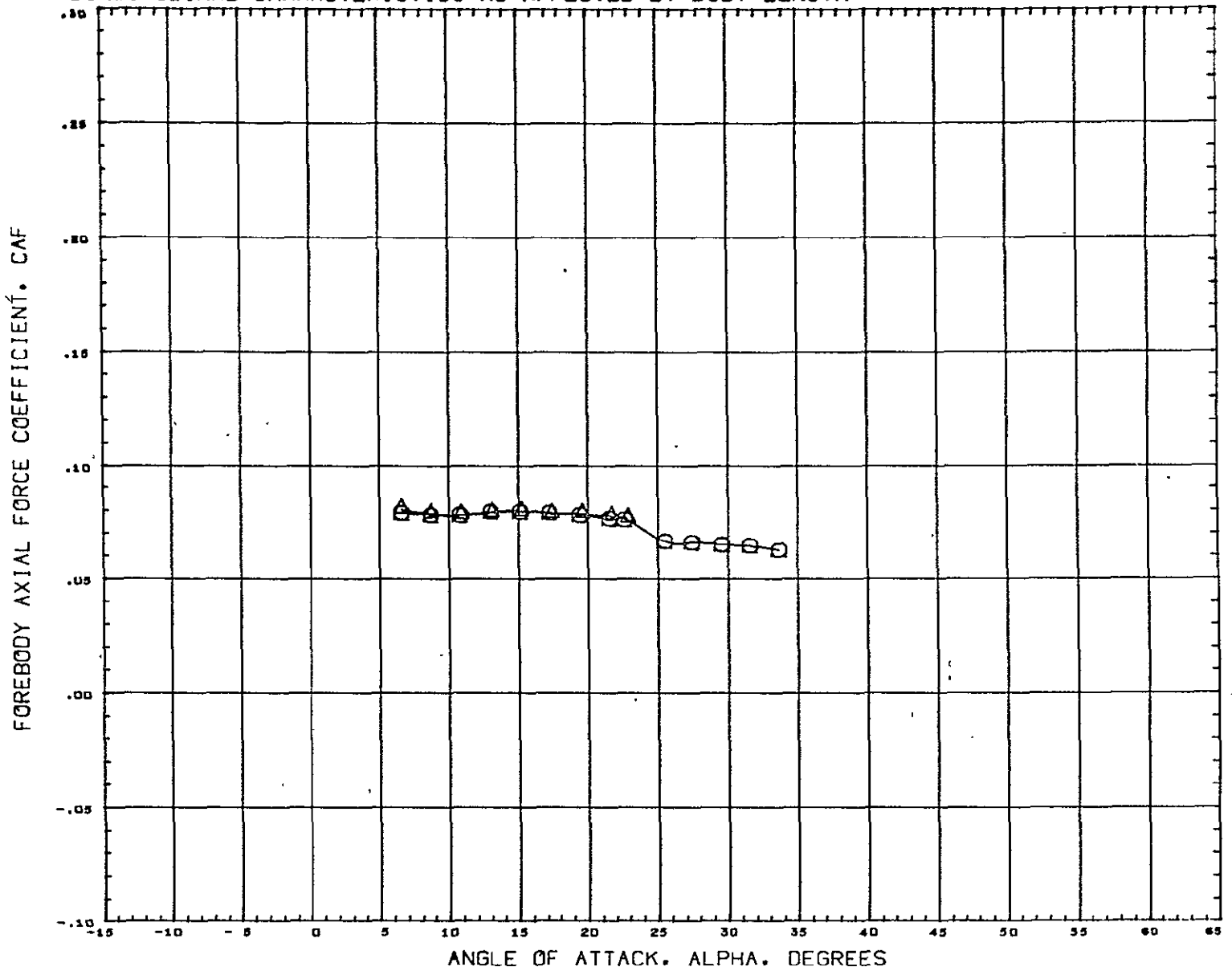
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F2#001)	M5FC481 GD/C (BOOSTER) B19W14C4AV7
(C2#021)	M5FC481 GD/C (BOOSTER) B20W14C4BV7

BETA	ELEVON	CANARD	RUDDER
0.000	0.000	0.000	
0.000	0.000	0.000	

REFERENCE INFORMATION	
SREF	19.6560 30. IN.
LREF	3.0950 IN.
BREF	0.0990 IN.
XMRP	0.7100 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0035

MACH 1.201

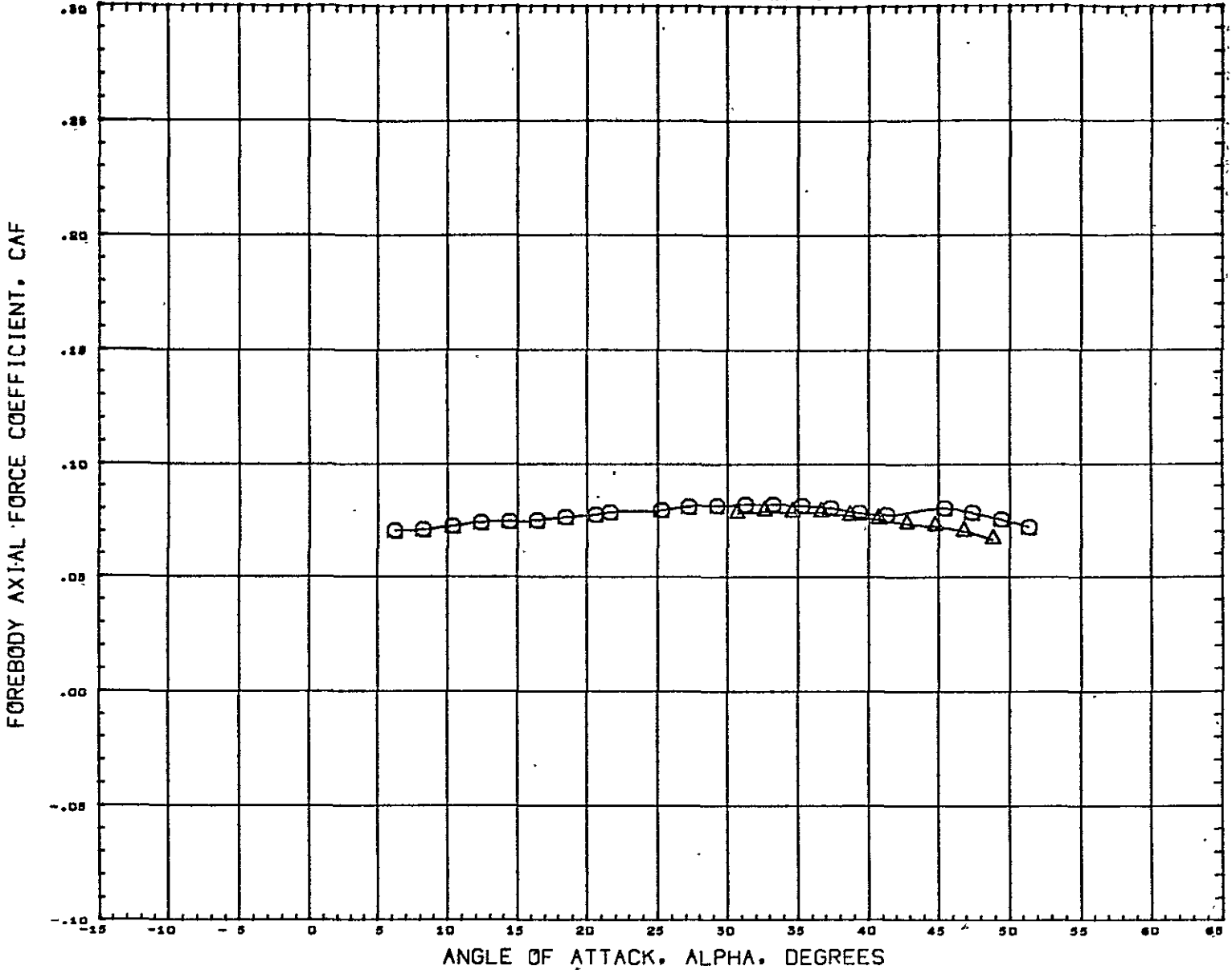
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(C28021)	MSFC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.956

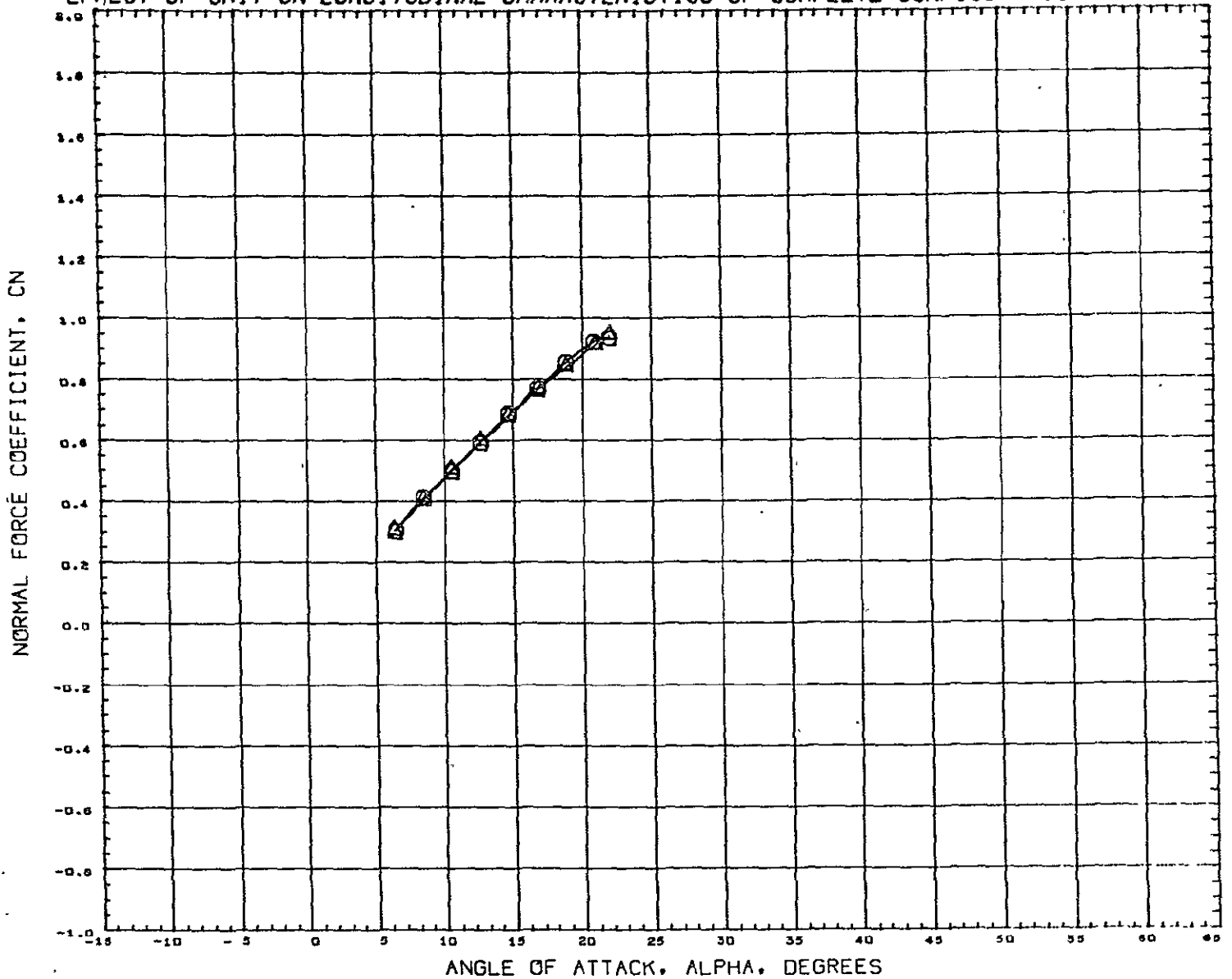
LONGITUDINAL CHARACTERISTICS AS AFFECTED BY BODY LENGTH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(F28001)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.0560 SQ. IN.
(C28021)	HSFC481 GD/C(BOOSTER)B20W14C4BV7	0.000	0.000	0.000		LREF 3.0950 IN.
						BREF 0.0890 IN.
						XMRP 0.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

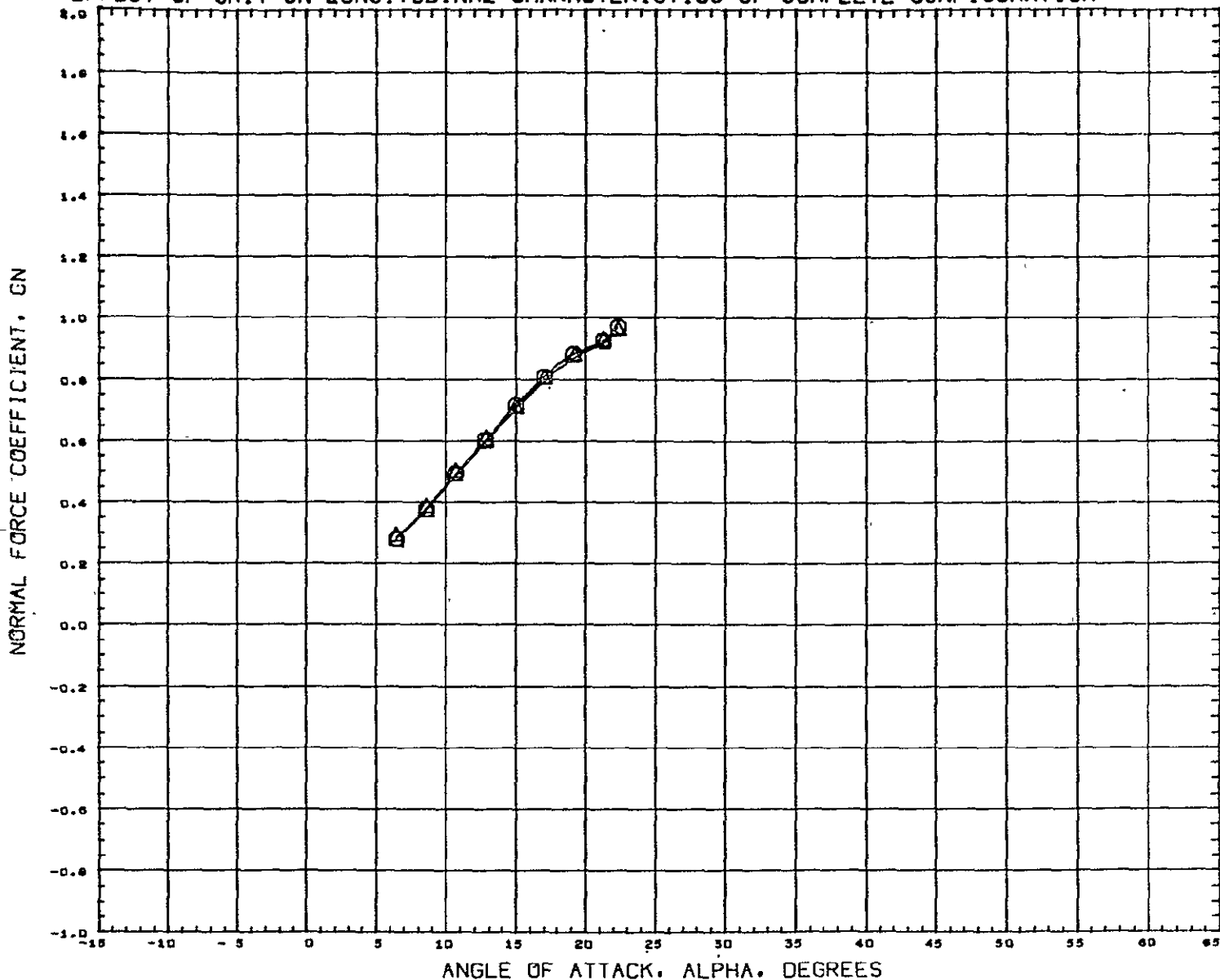
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

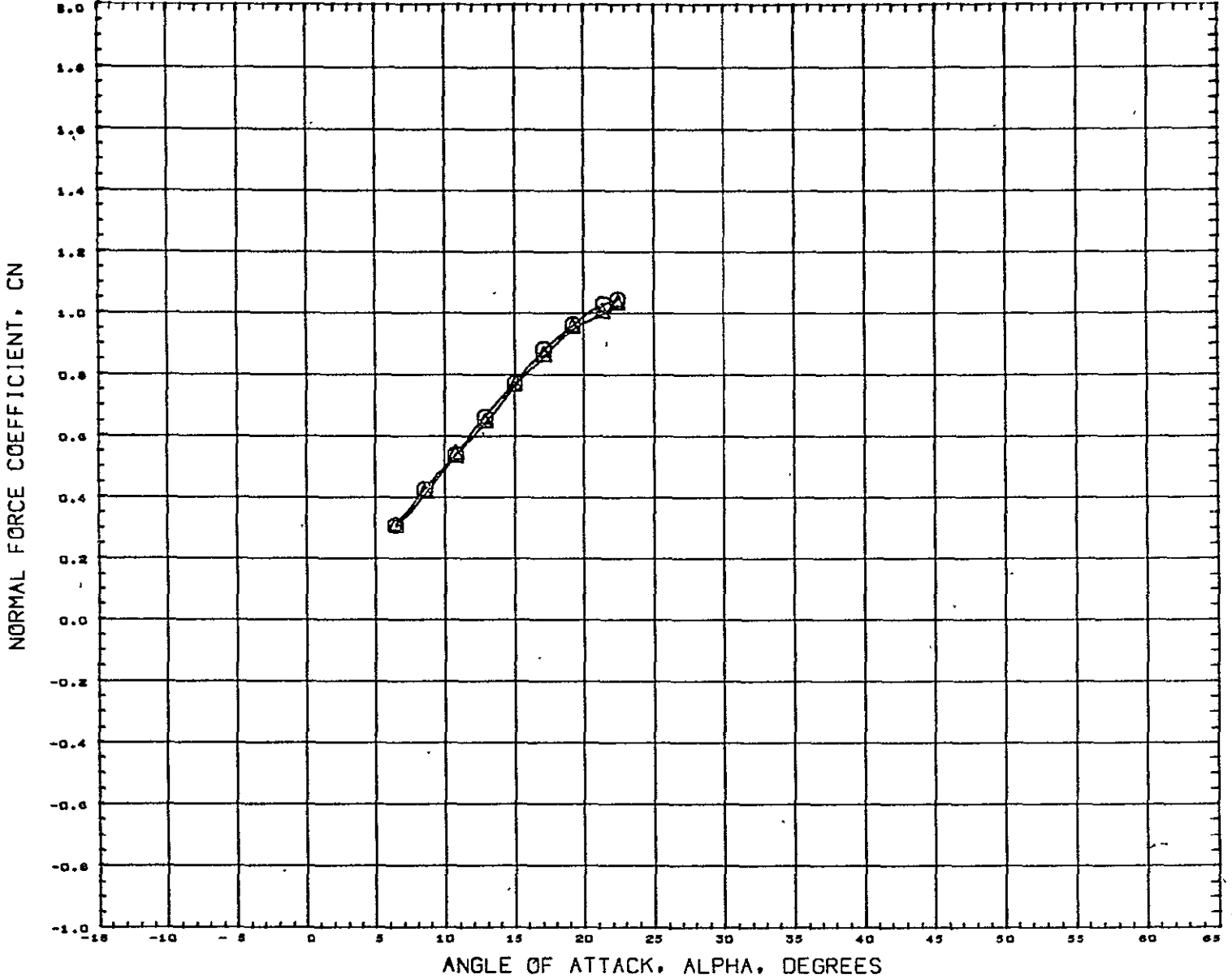
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

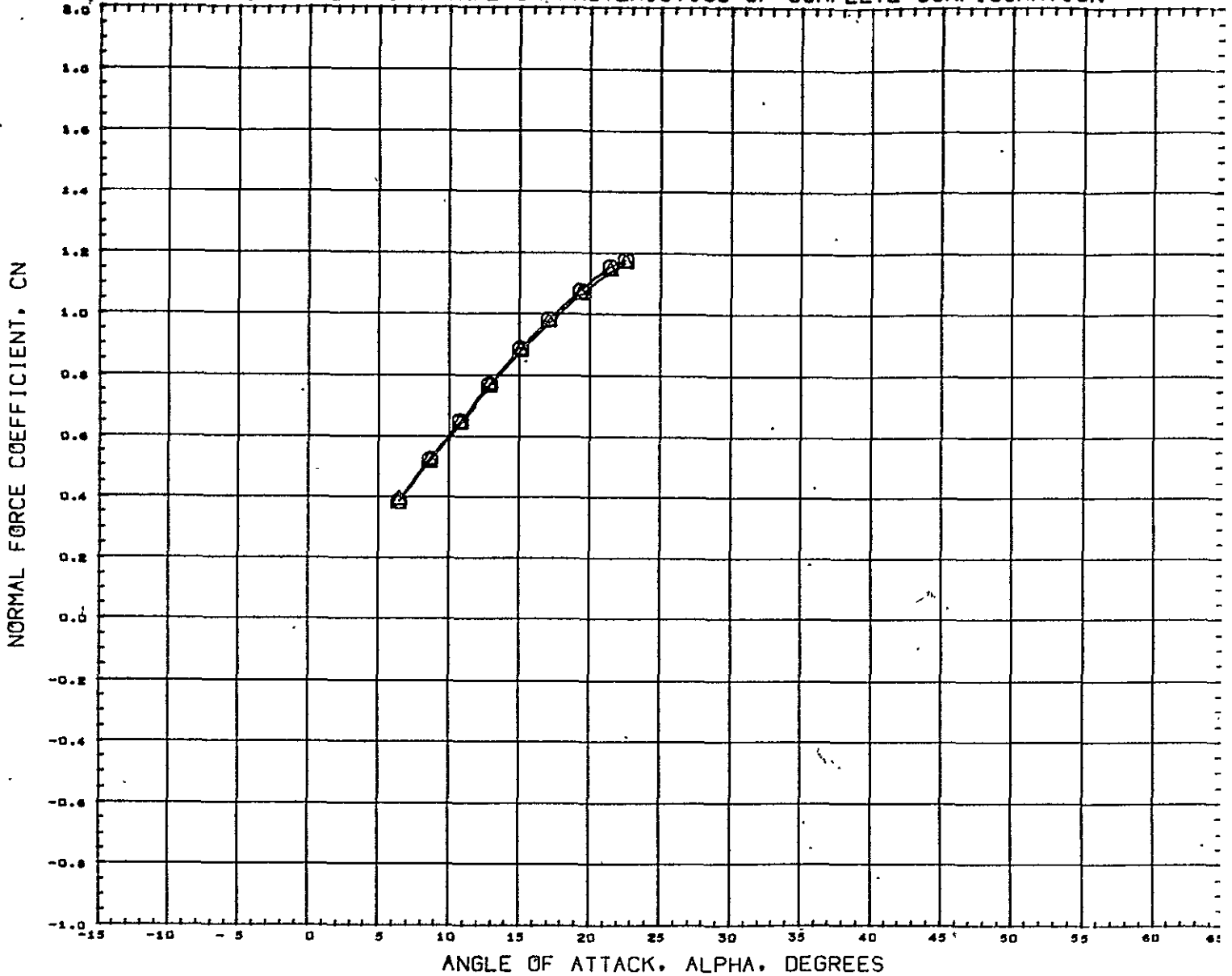
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28331)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 30 IN.
(E28601)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 0.954

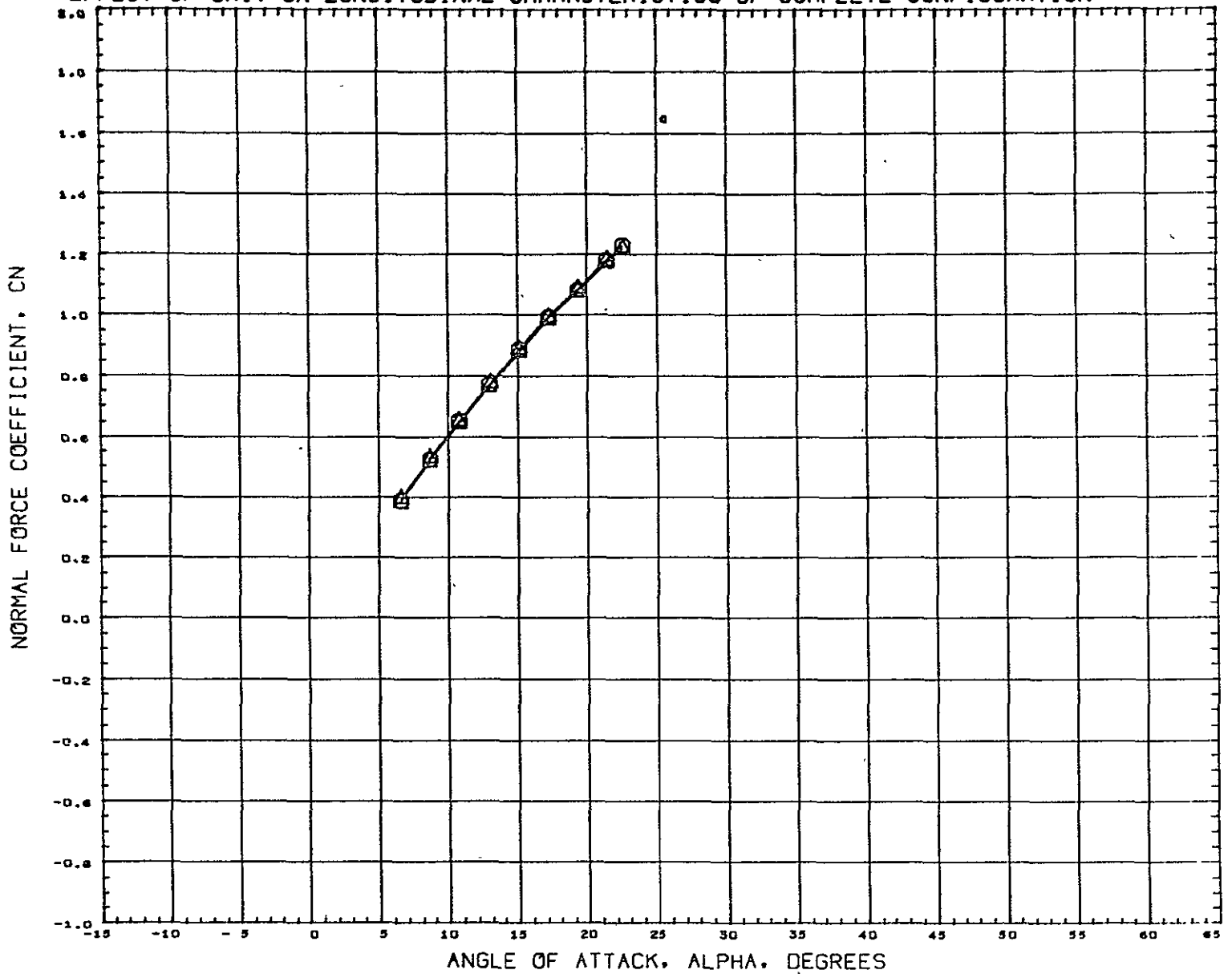
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E26B31)	MSFC481 GD/C(BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 50. IN.
(E26GU1)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



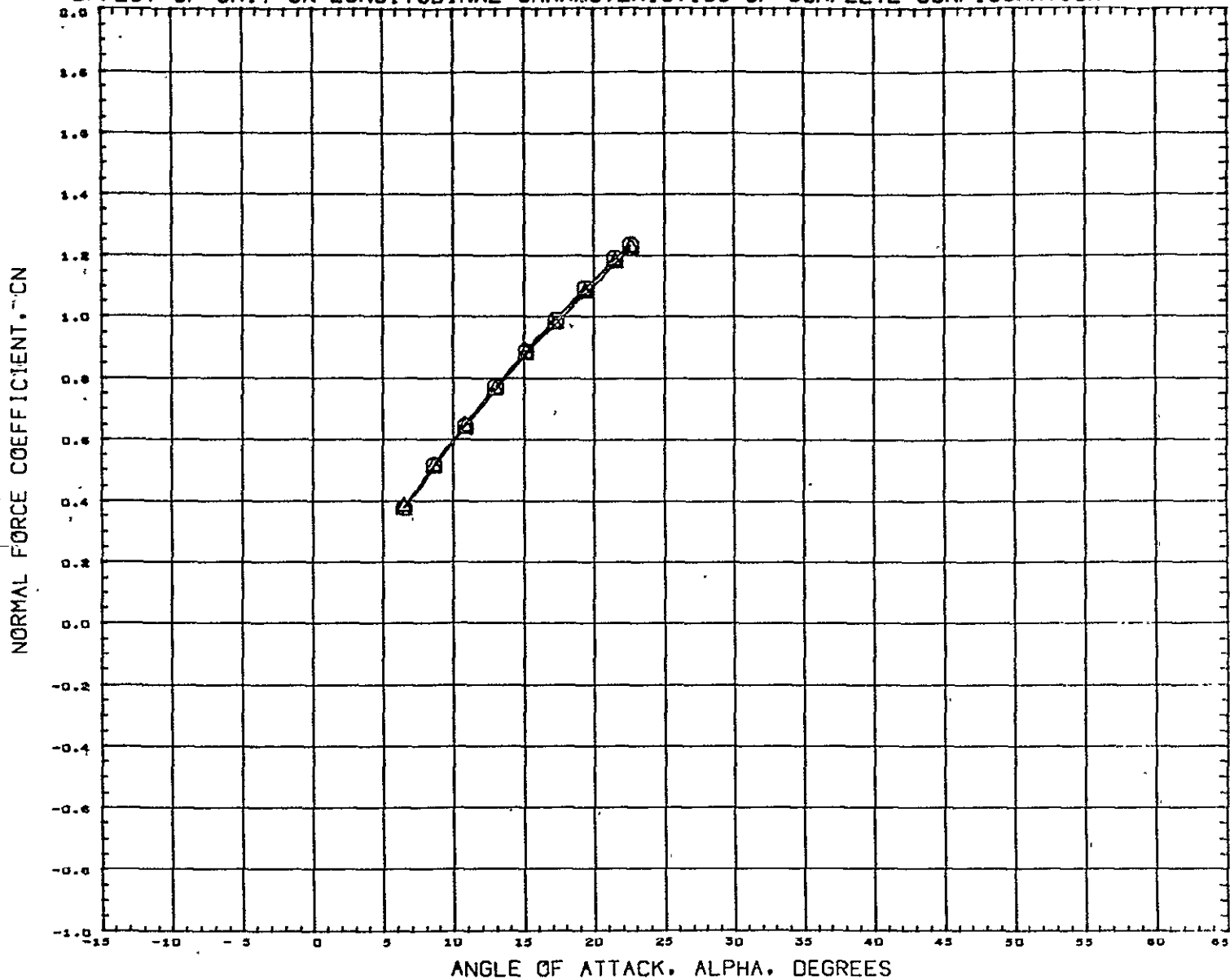
ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E26B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ.IN.
(E26G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

18 (A)

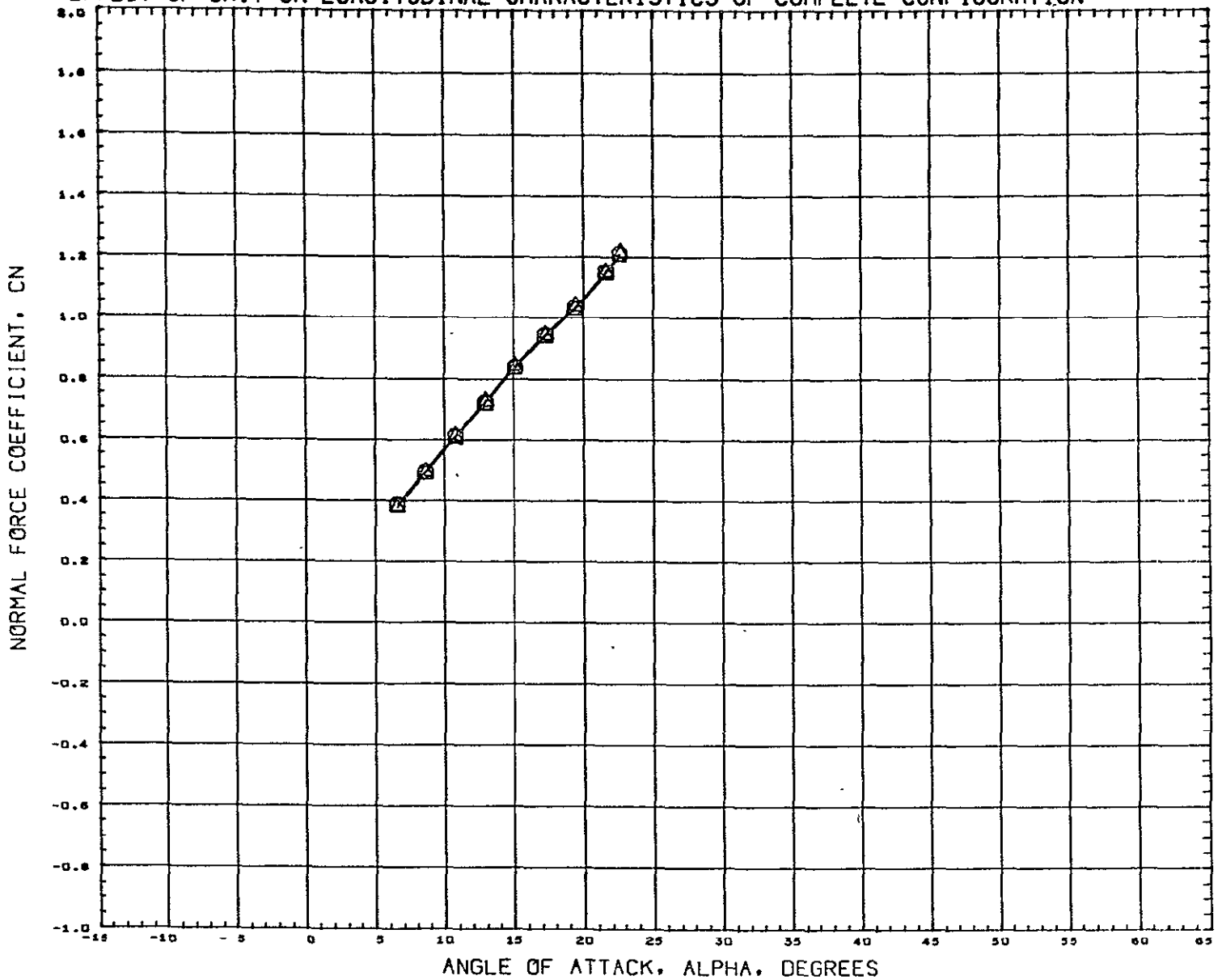
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E2#B31)	MSFC481 GD/C (BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6500 30. IN.
(E2#G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

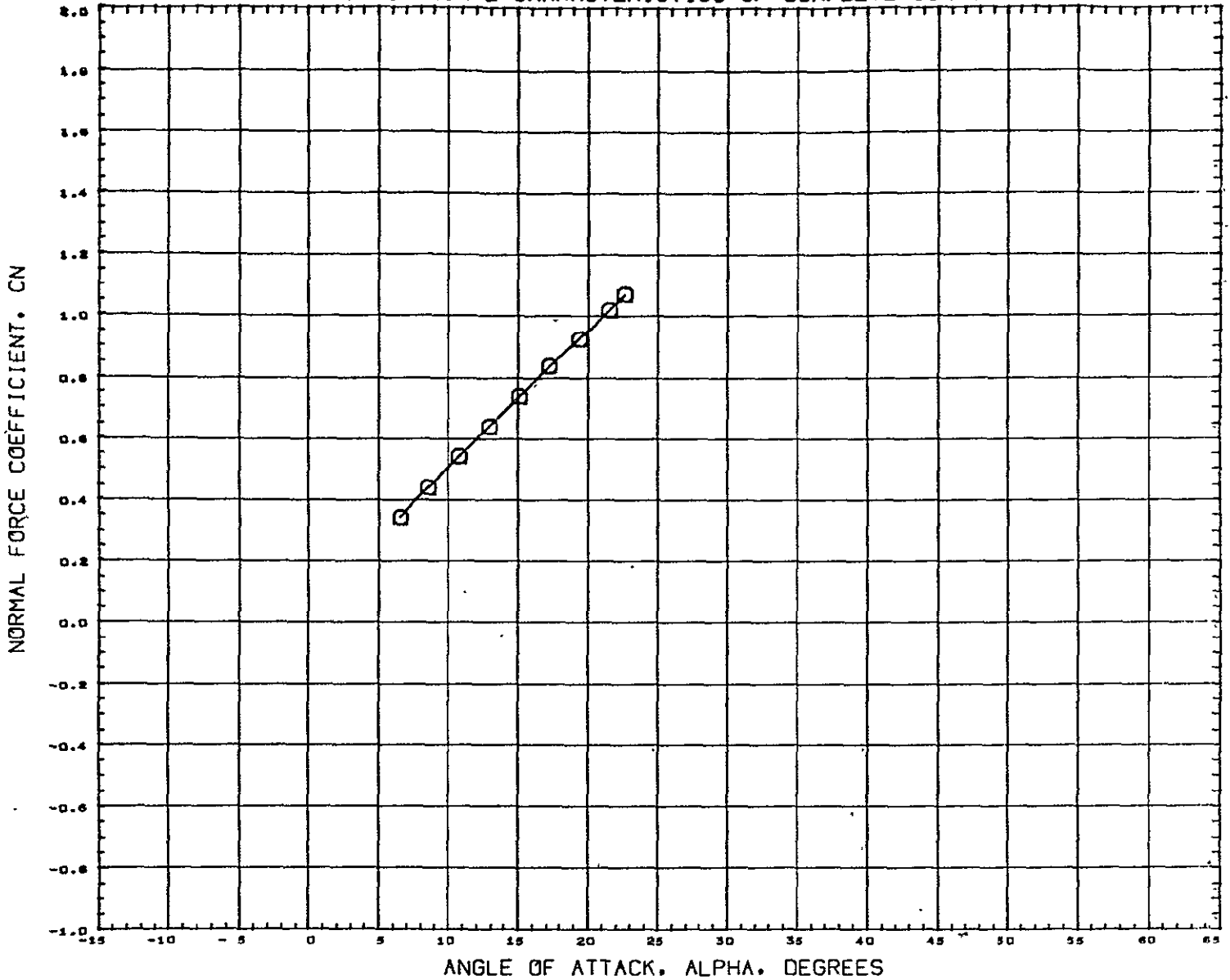
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	M3FC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	M3FC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XNRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

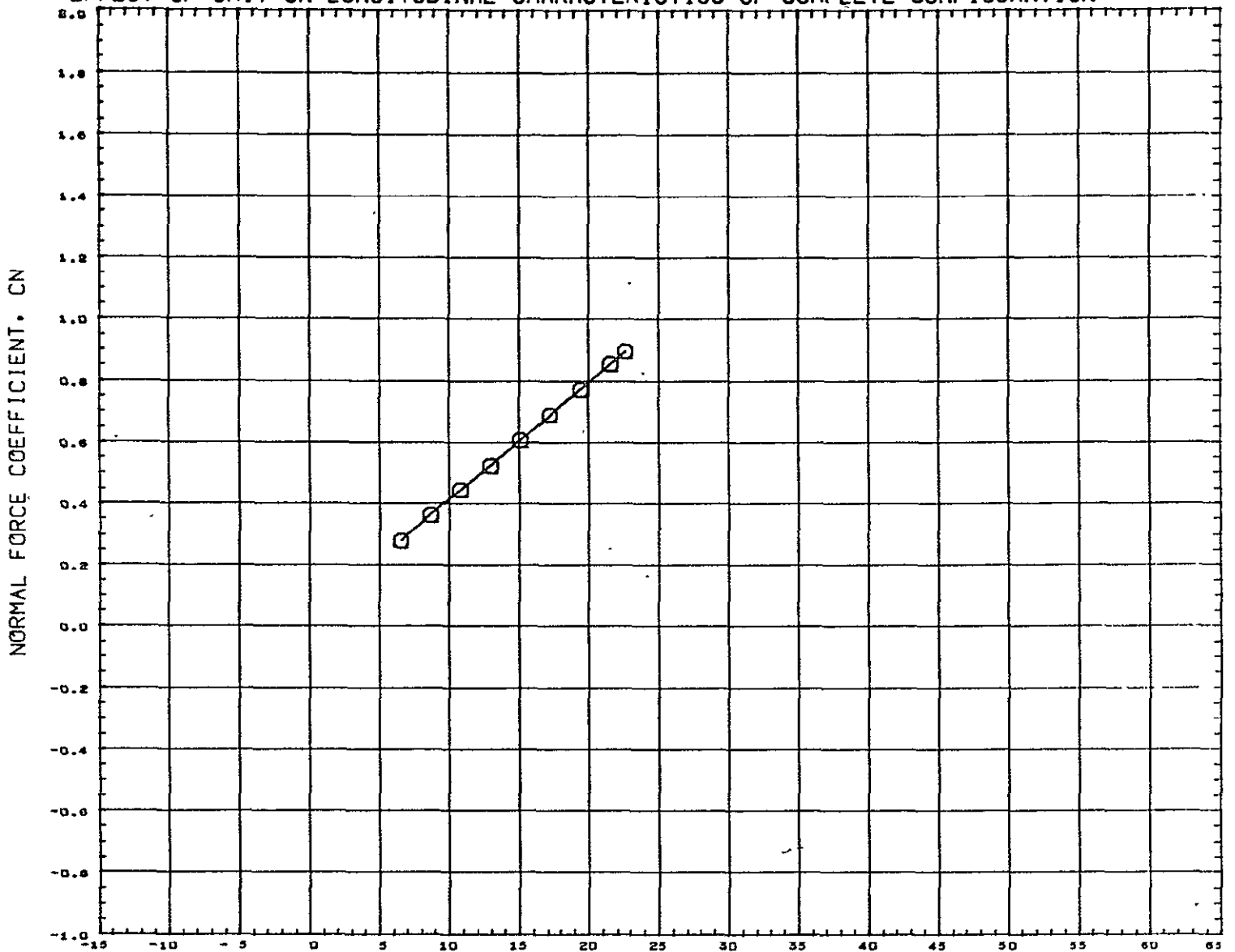
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E26B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	120.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E26GD1)	DATA NOT AVAILABLE FOR ALL CONDITIONS					LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.462

EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION

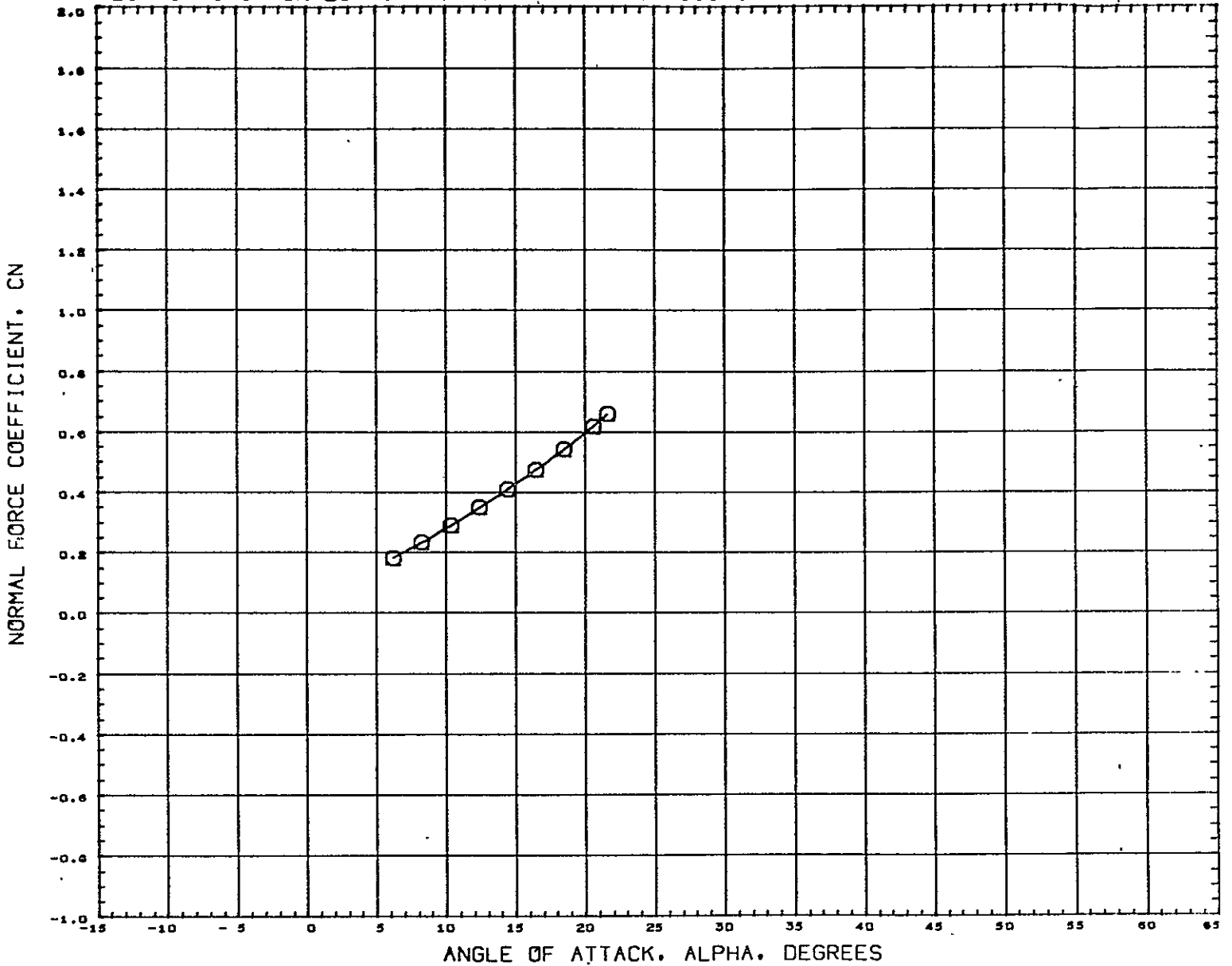


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E28B31)	MSFC481 GD/C(BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E28G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF	3.0990 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.958

EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION

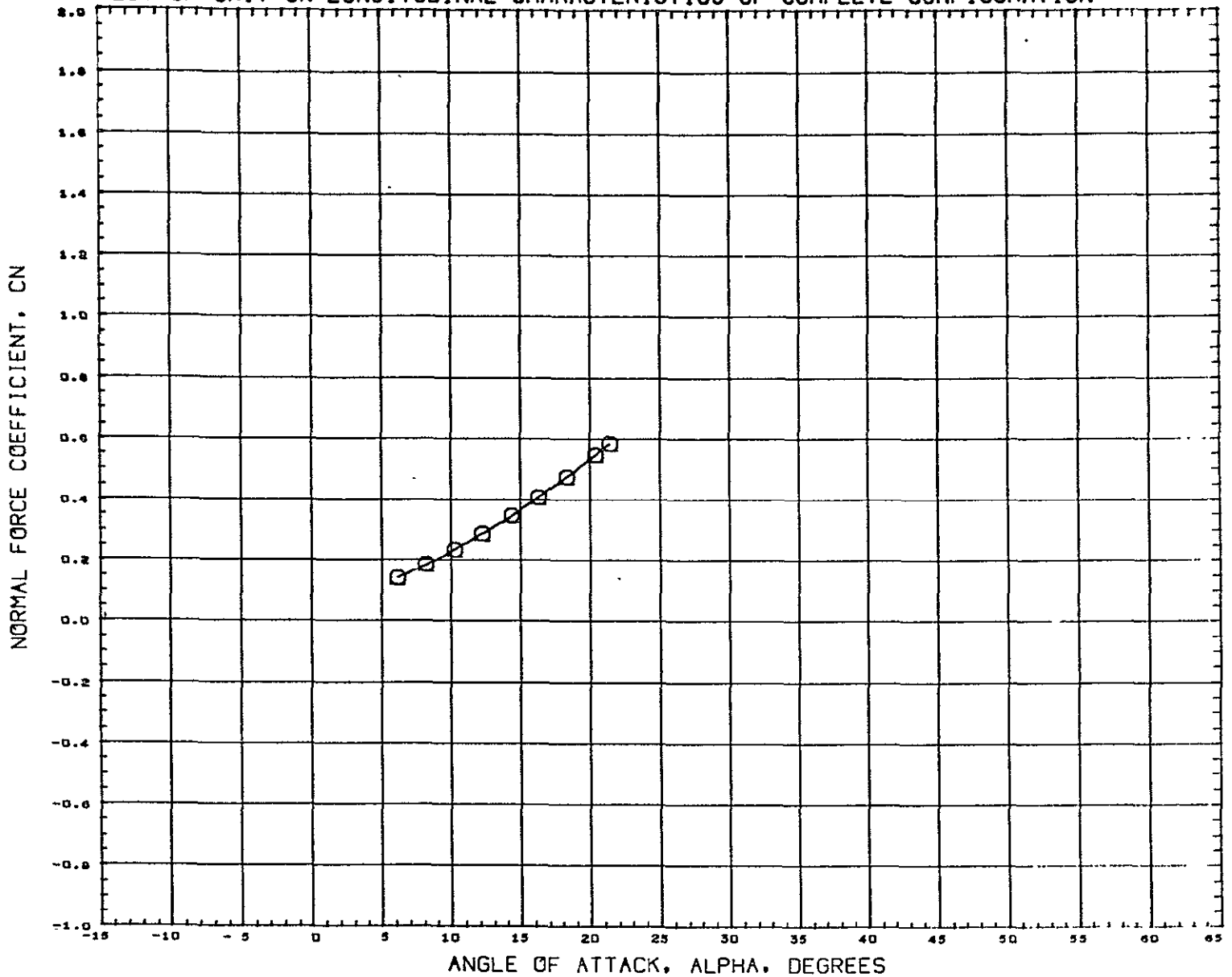


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28601)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

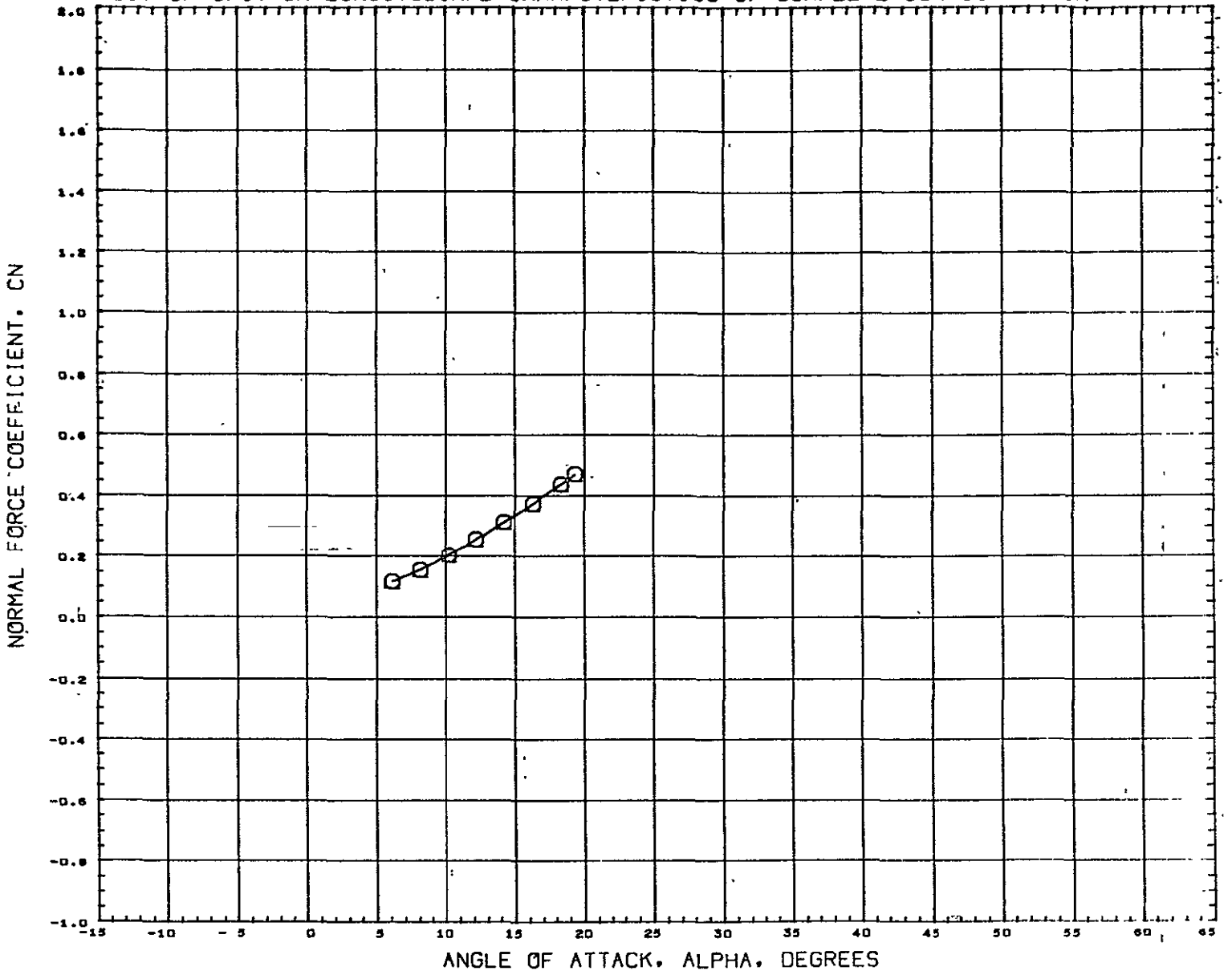
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 4.000

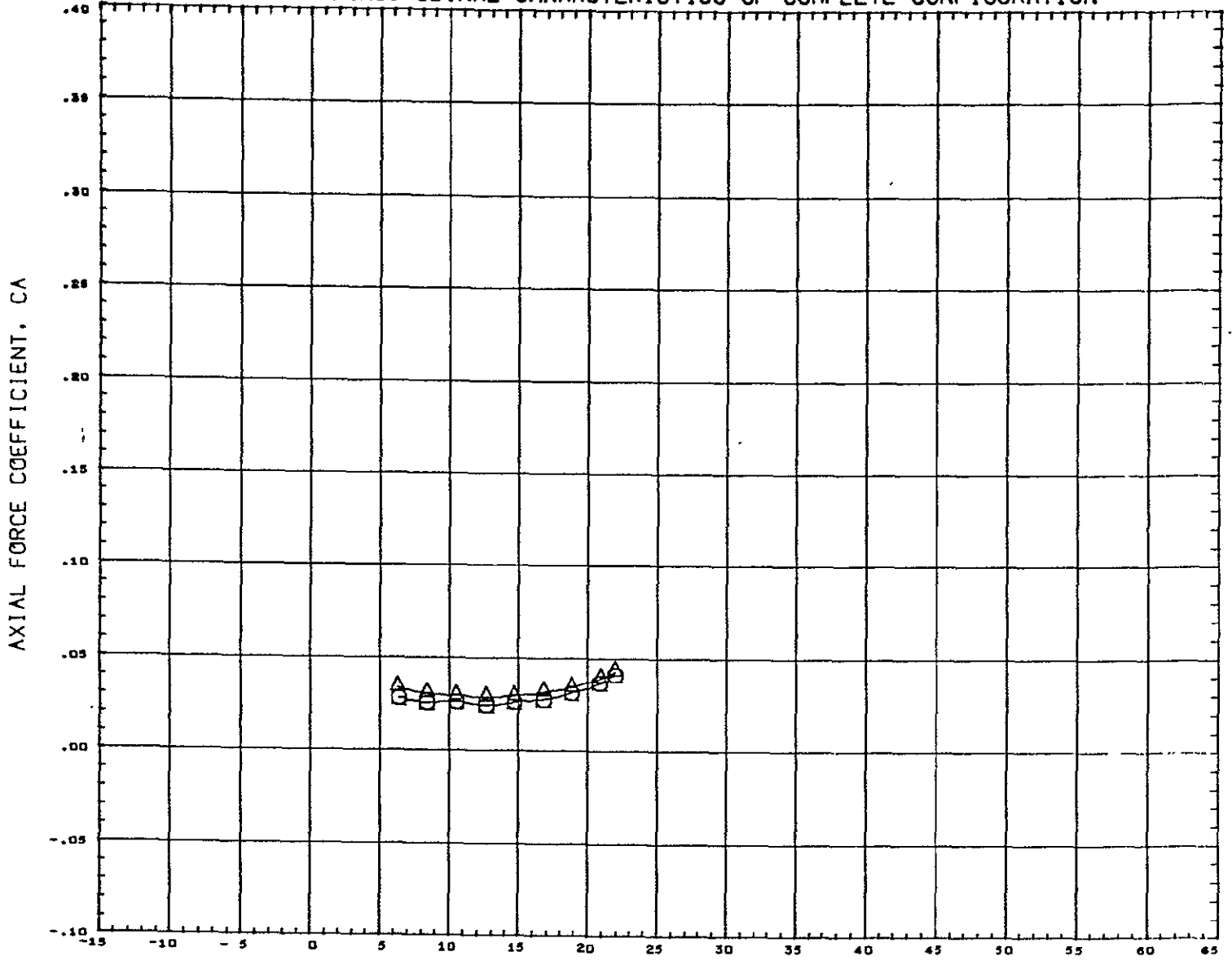
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28601)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRF 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.960

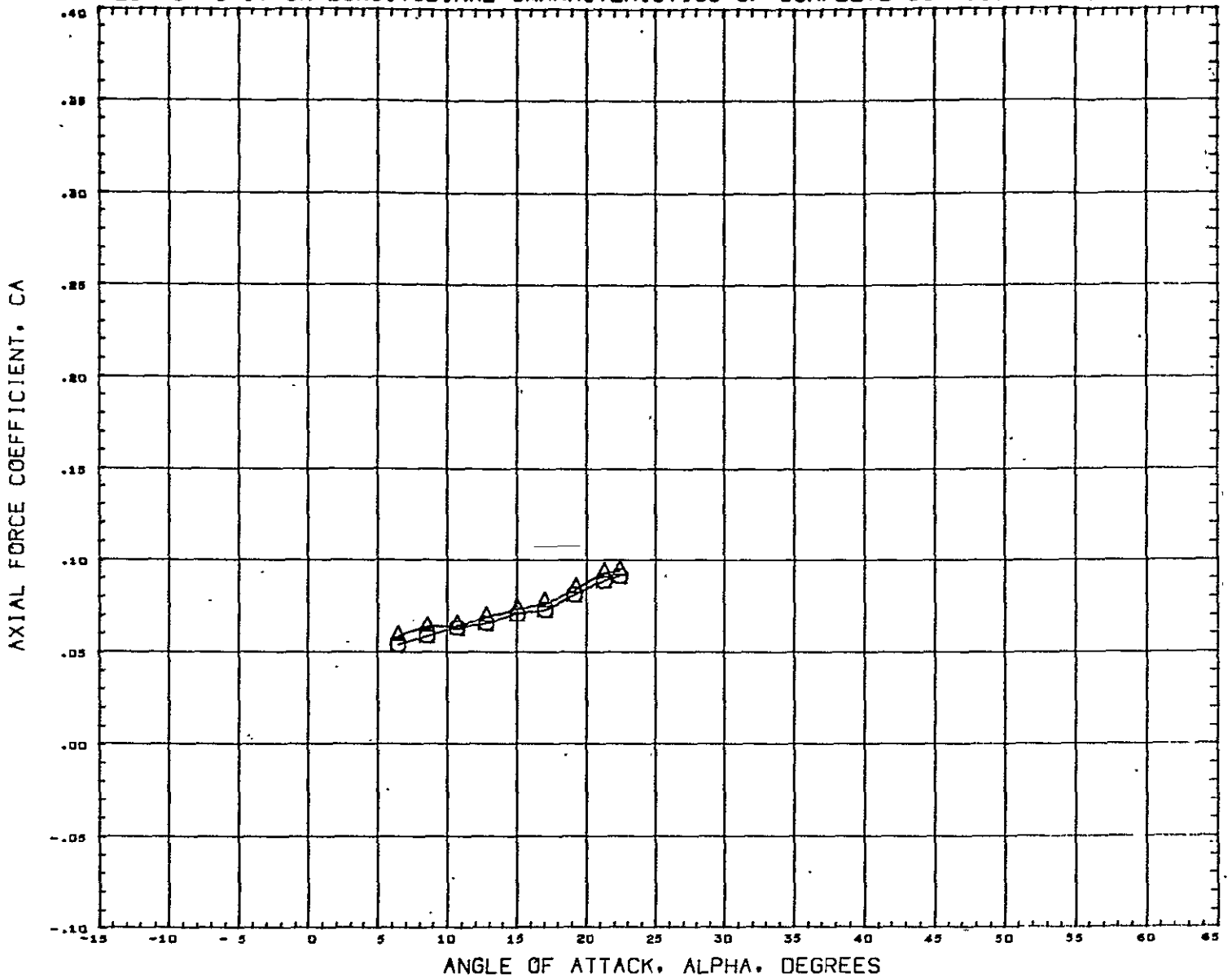
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E28B31)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E28GD1)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 0.607

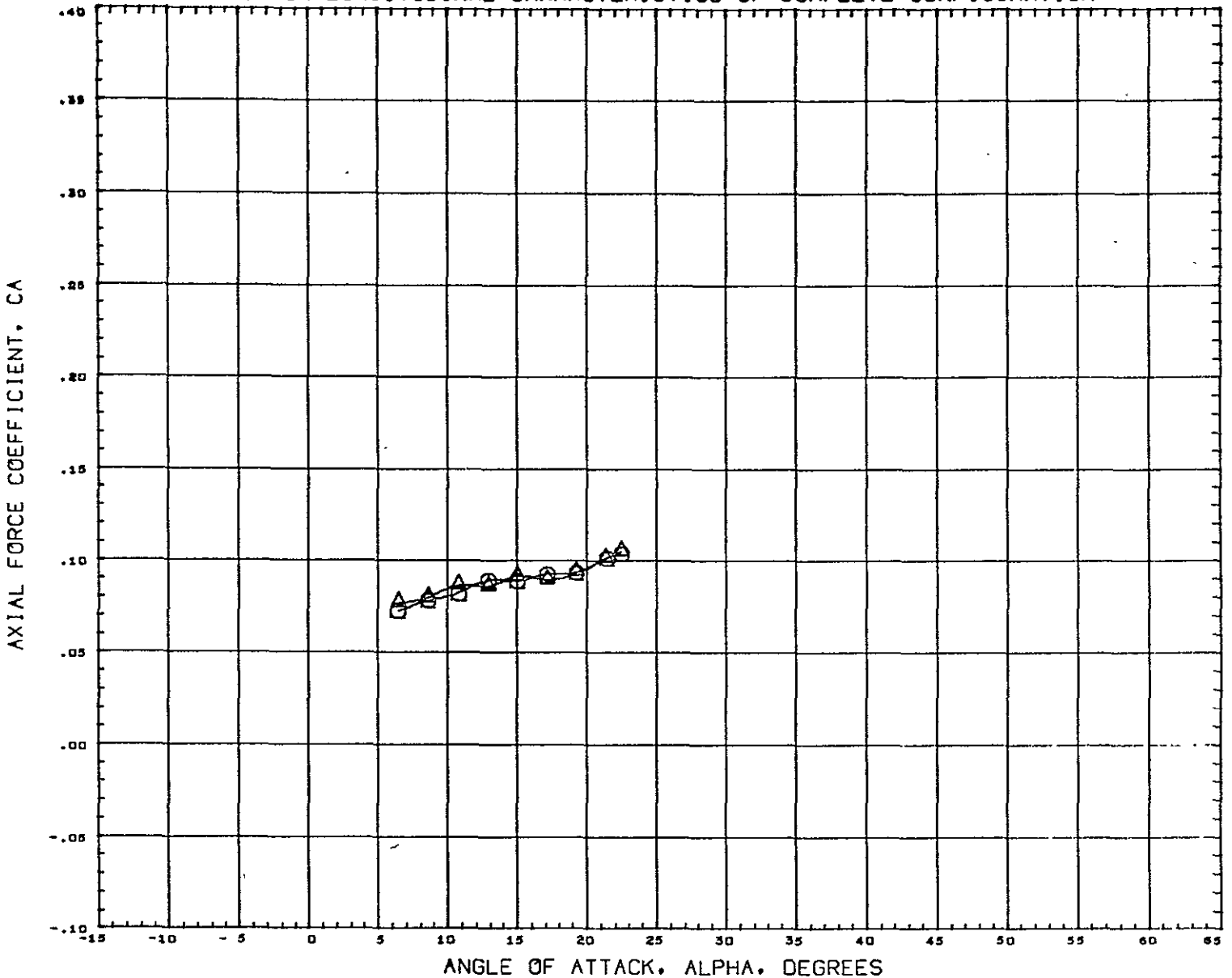
EFFECT OF ORBIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E26831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E26801)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF	3.0990 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 0.900

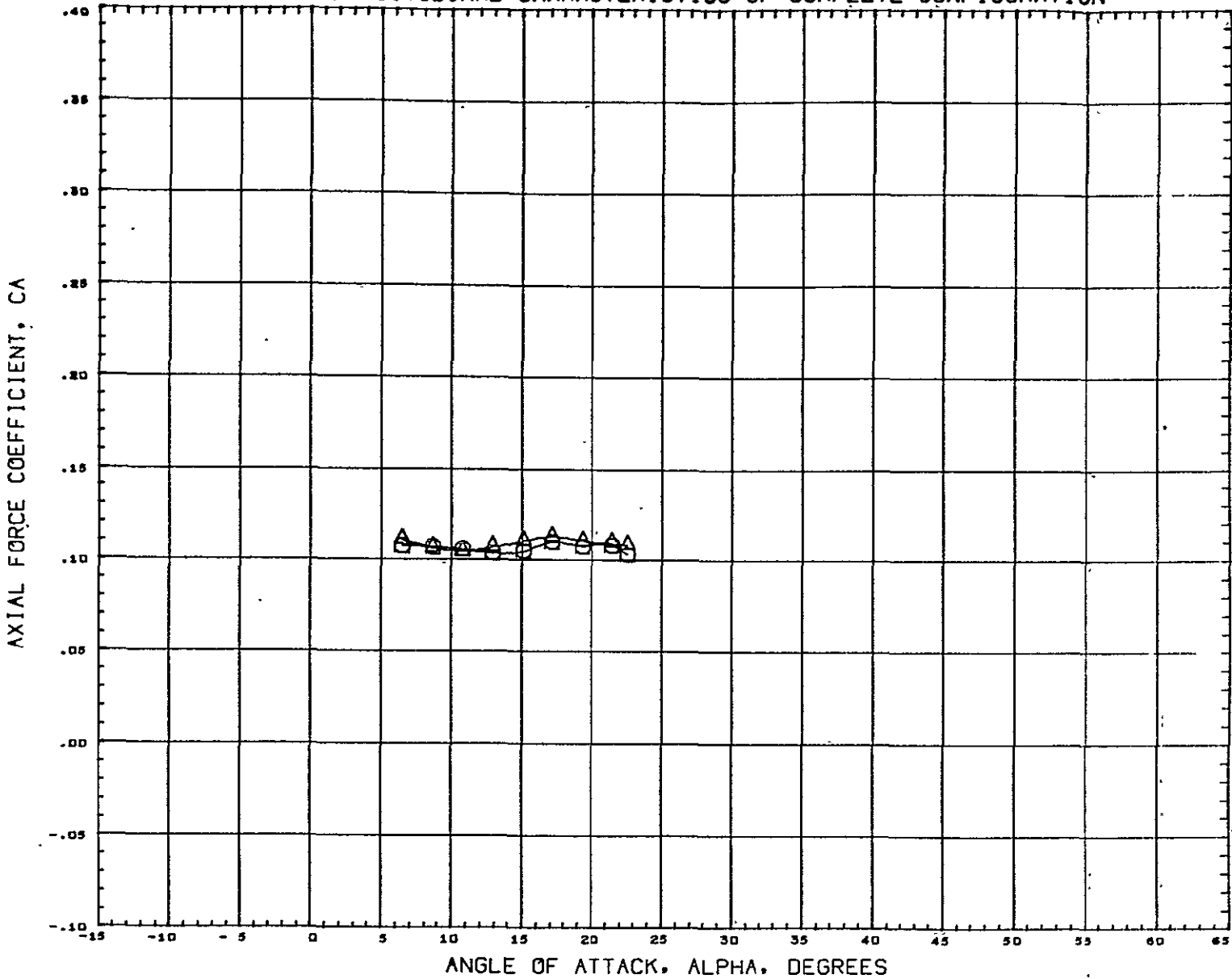
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28GD1)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

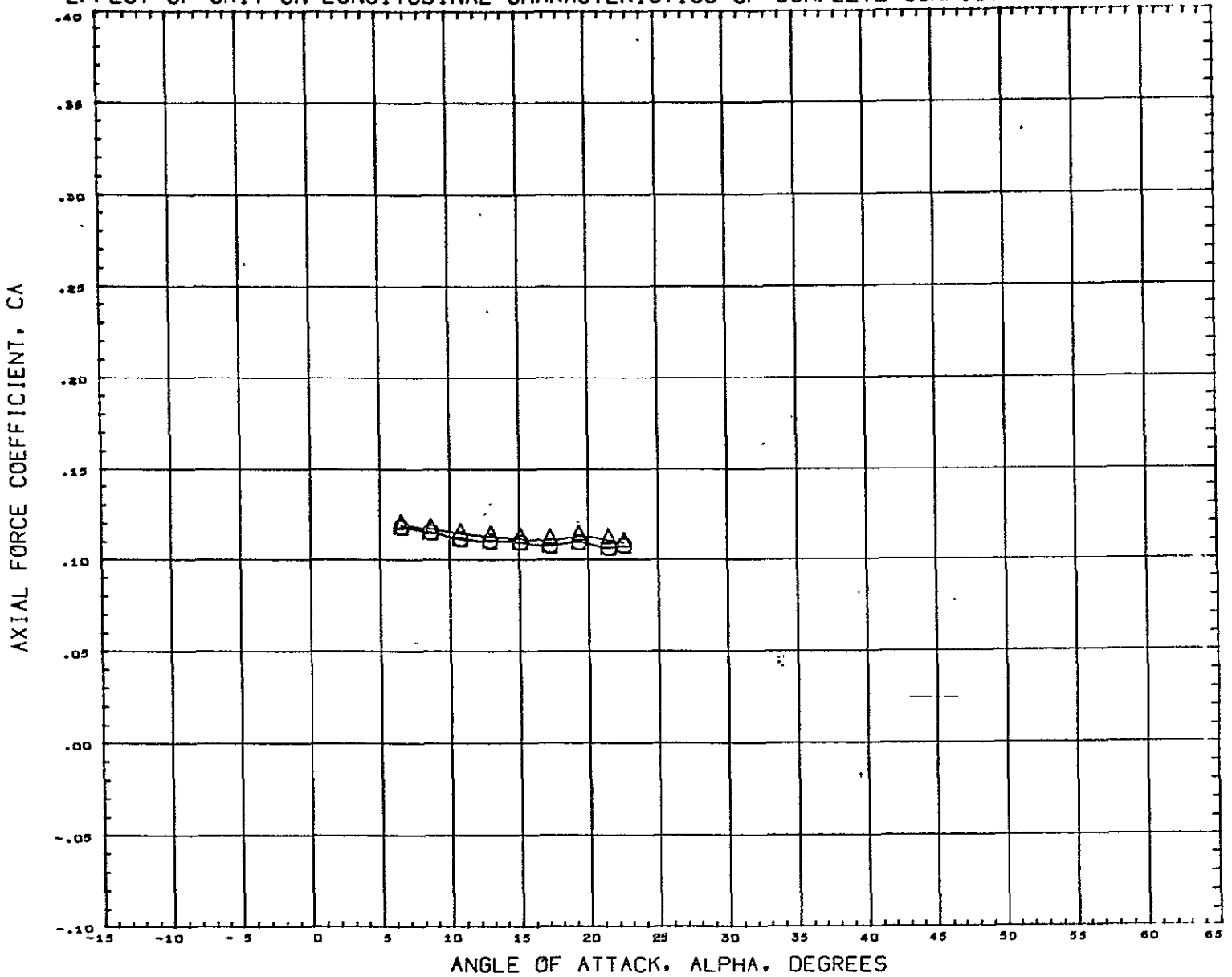
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28831)	MSFC481 GD/C(BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E286D1)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

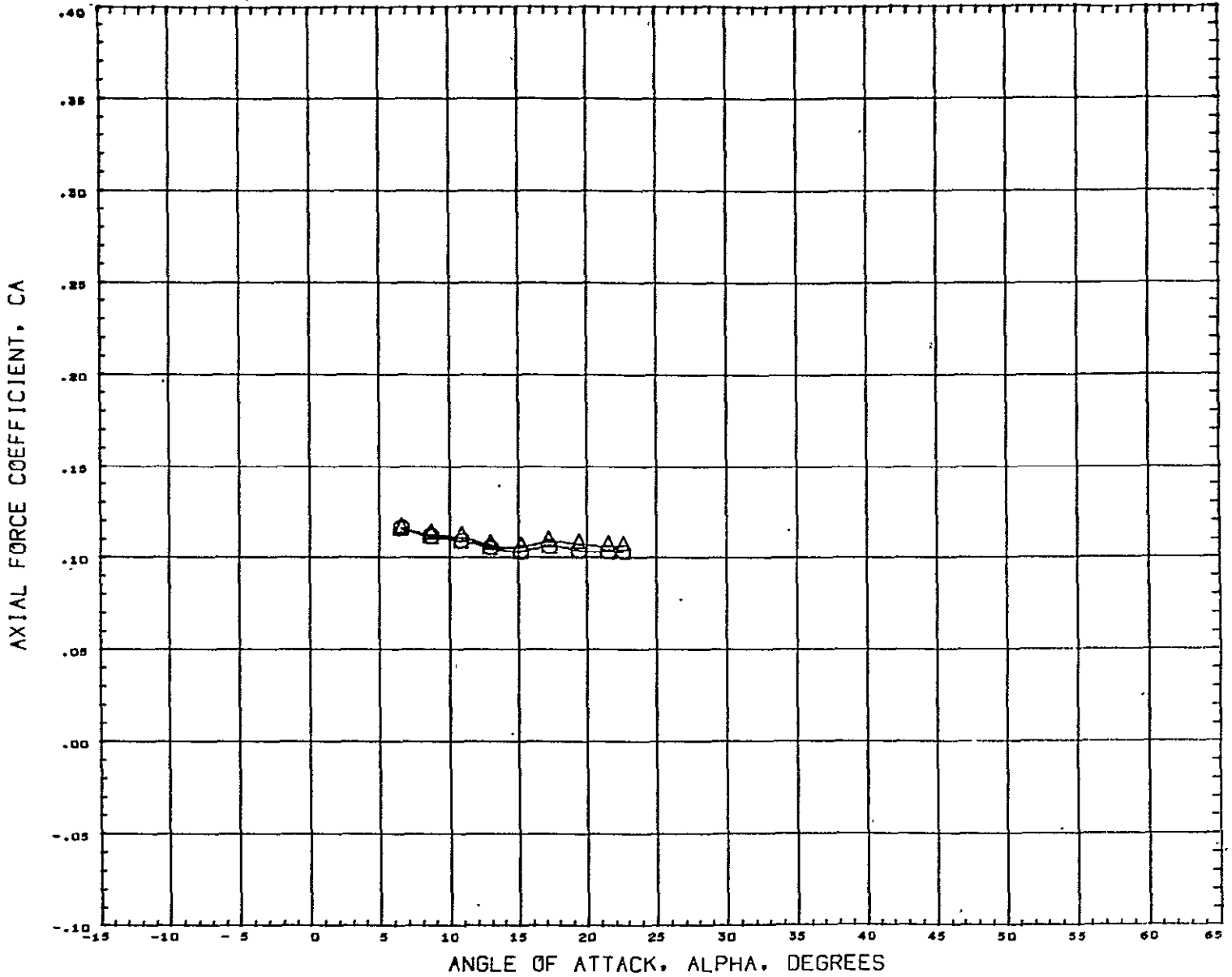
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C (BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 12.6560 34. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XNRP 6.7100 IN.
						YNRP 0.0000 IN.
						ZNRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

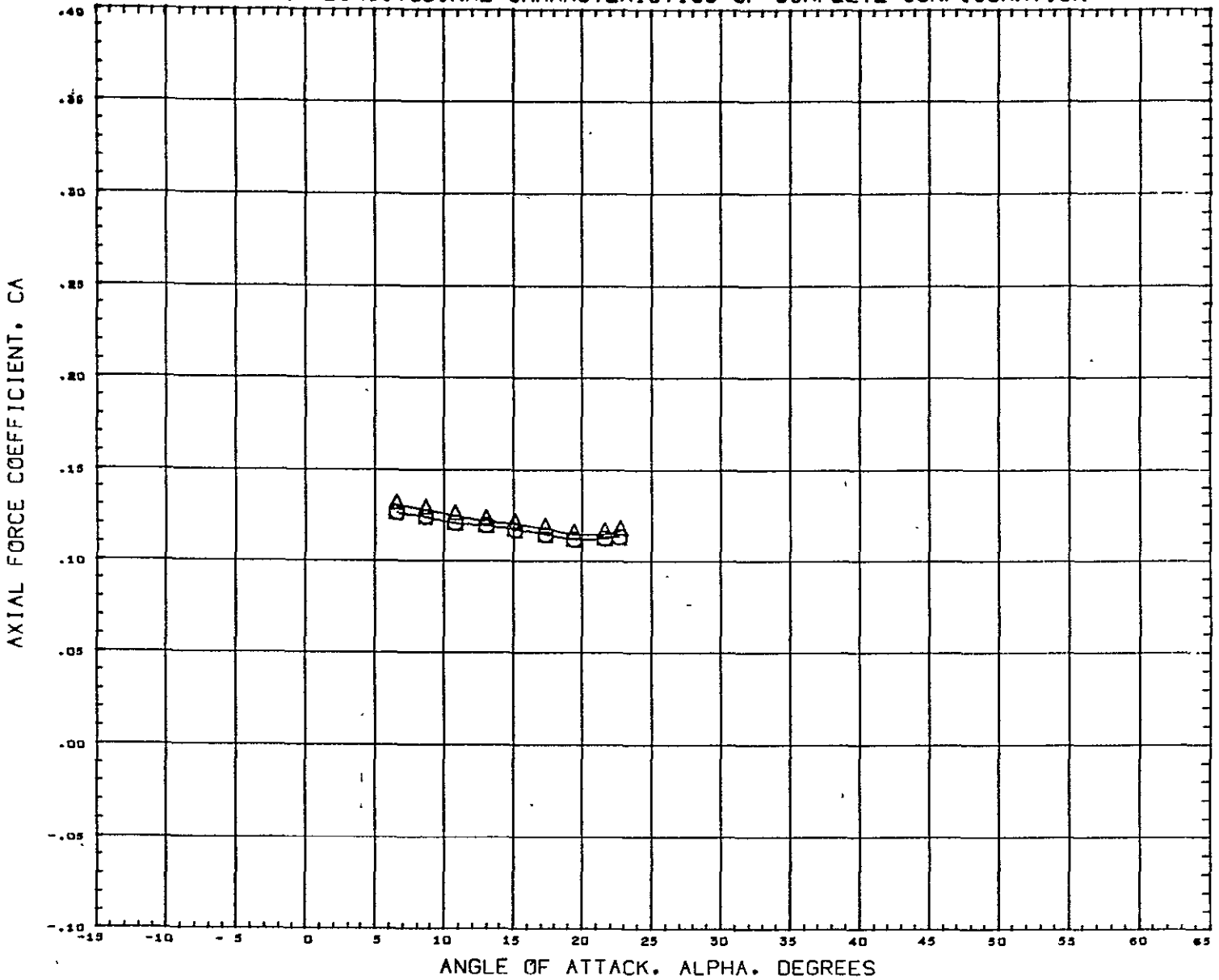
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E20B31)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E20G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.105

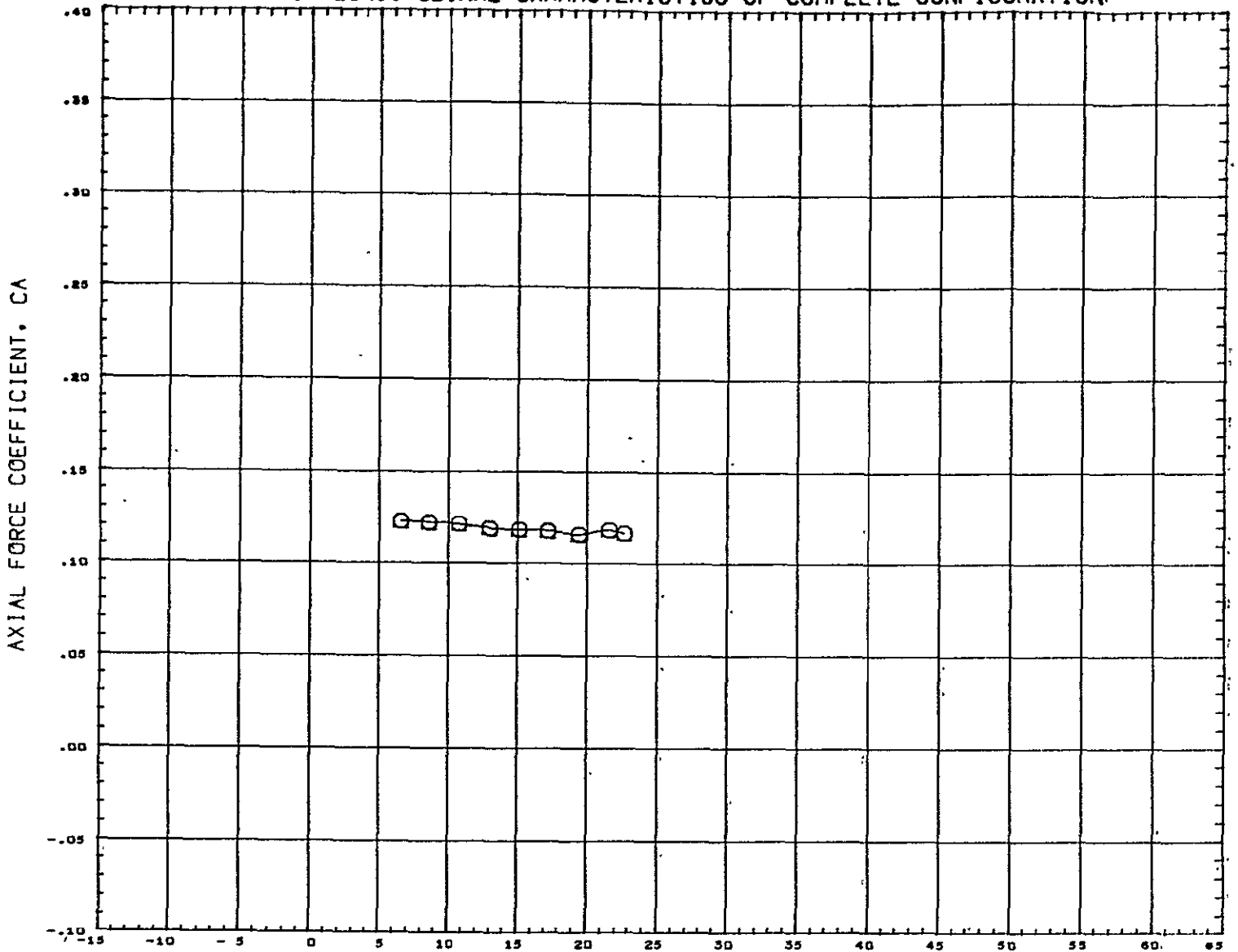
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 90.IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.201

EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION.

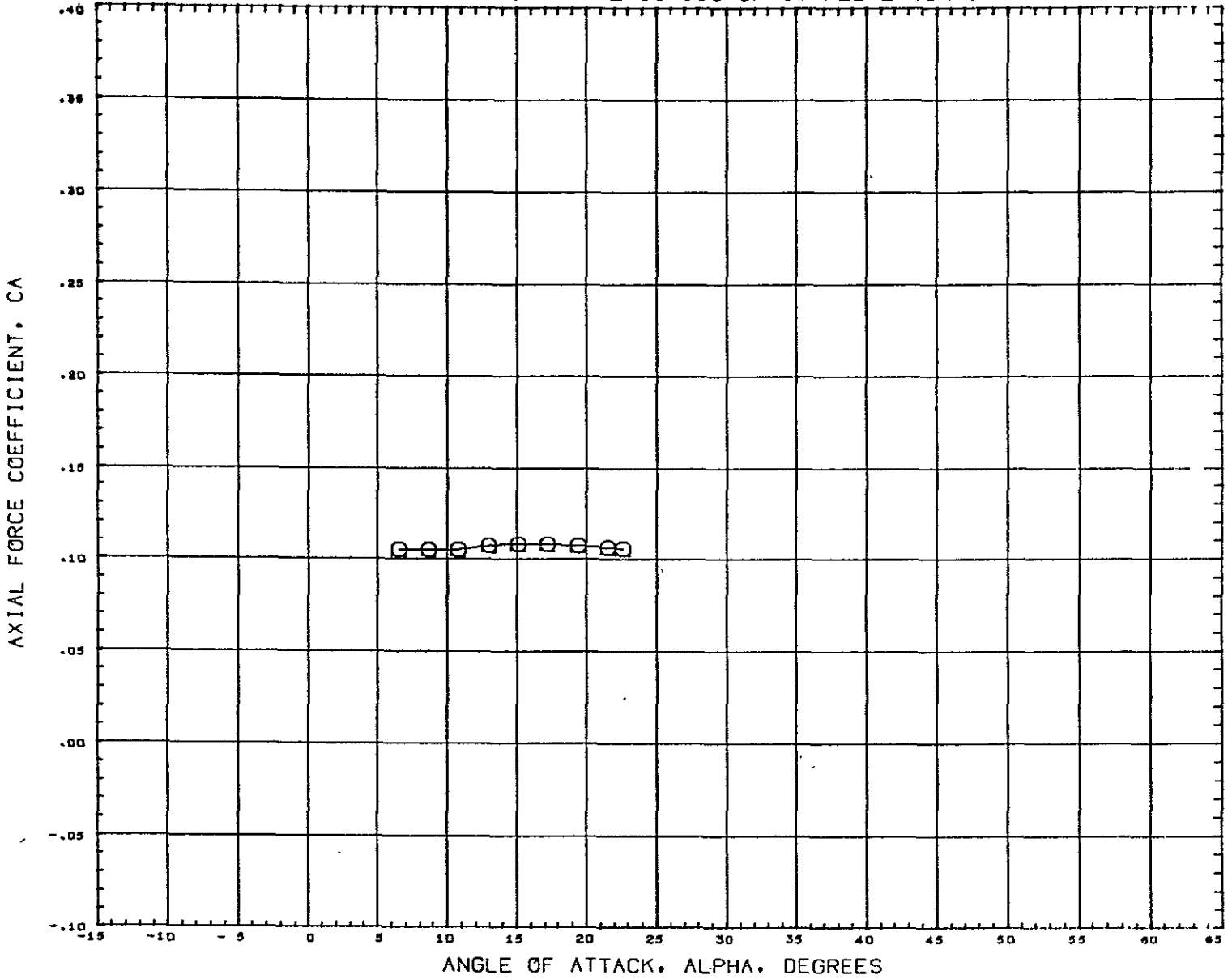


ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28831)	MSFC481 60/C(BOOSTER) B19W14C4V7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28601)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF 5.0990 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.462

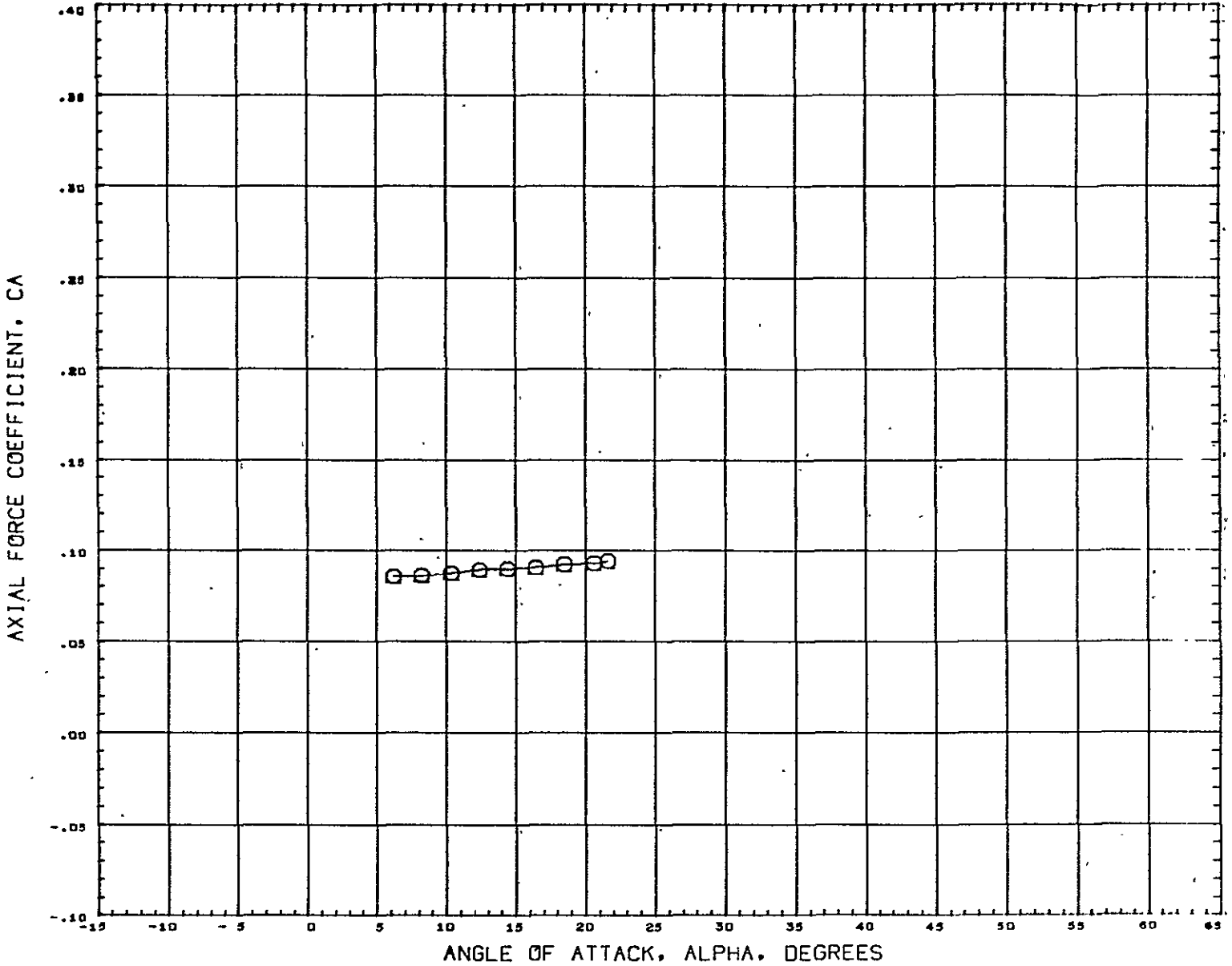
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E28B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN
(E28G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.956

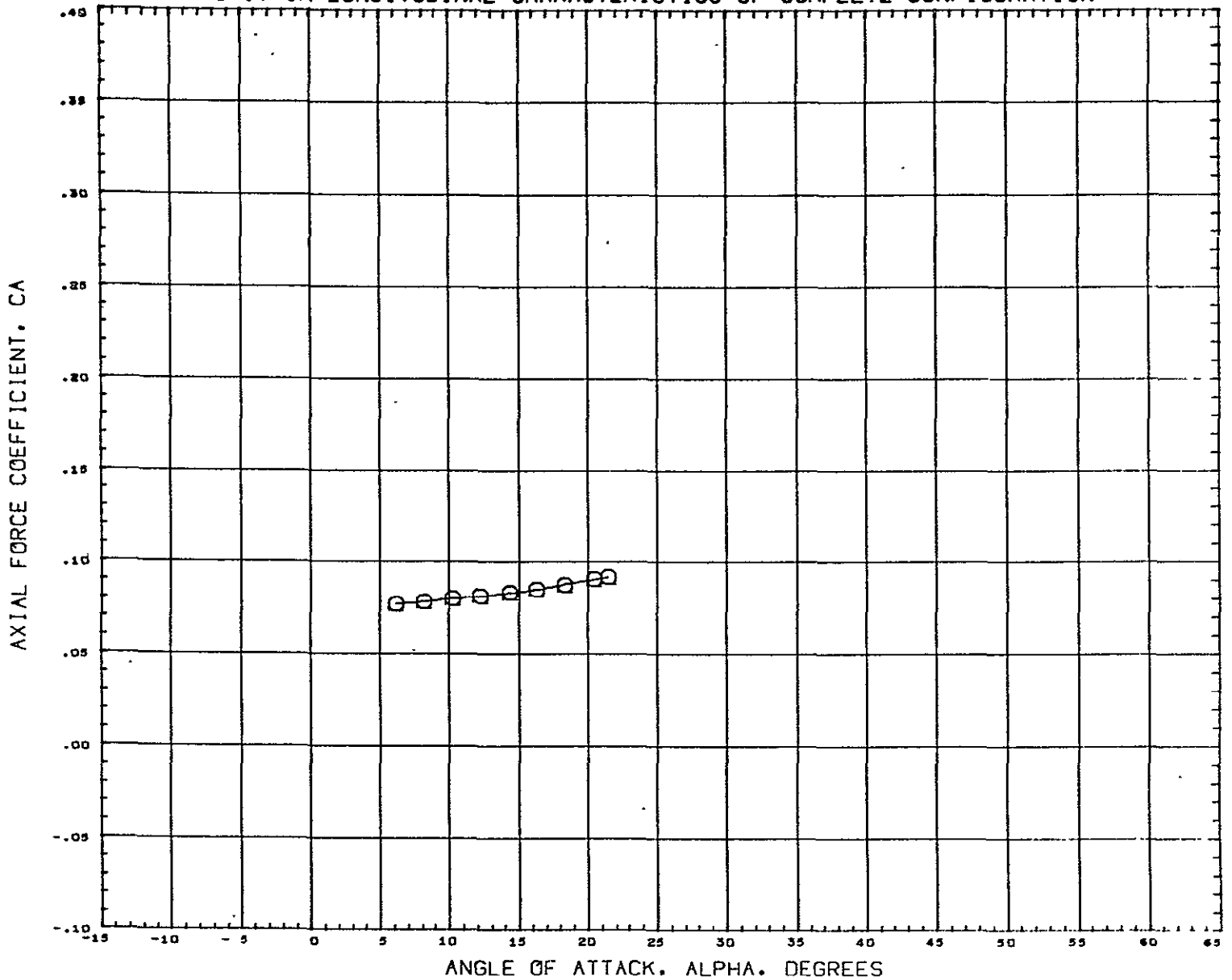
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E20B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 50. IN.
(E20G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

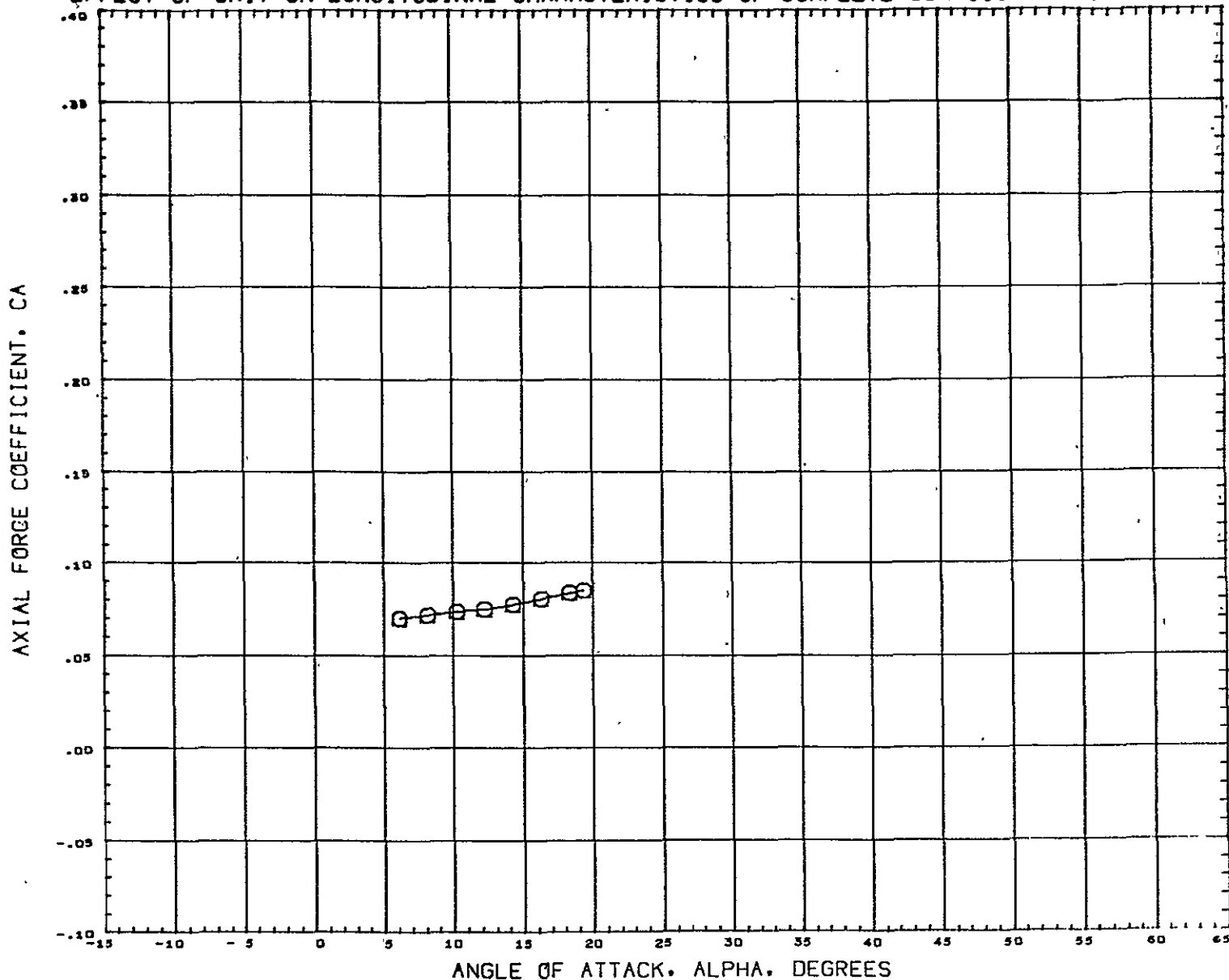
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E28831)	MSFC481 GD/C (BOOSTER) B19W14C4V7	120.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E28601)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 4.000

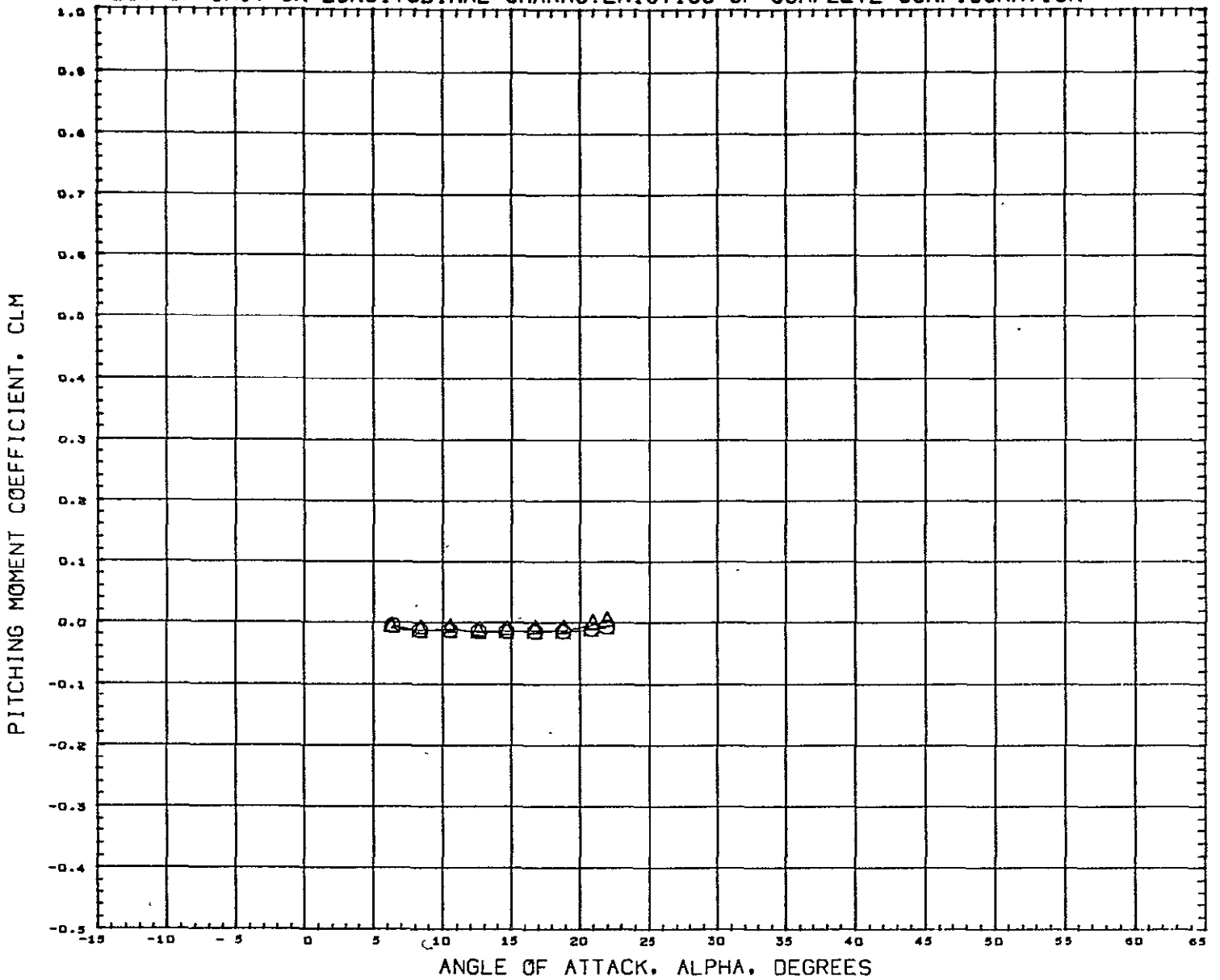
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.960

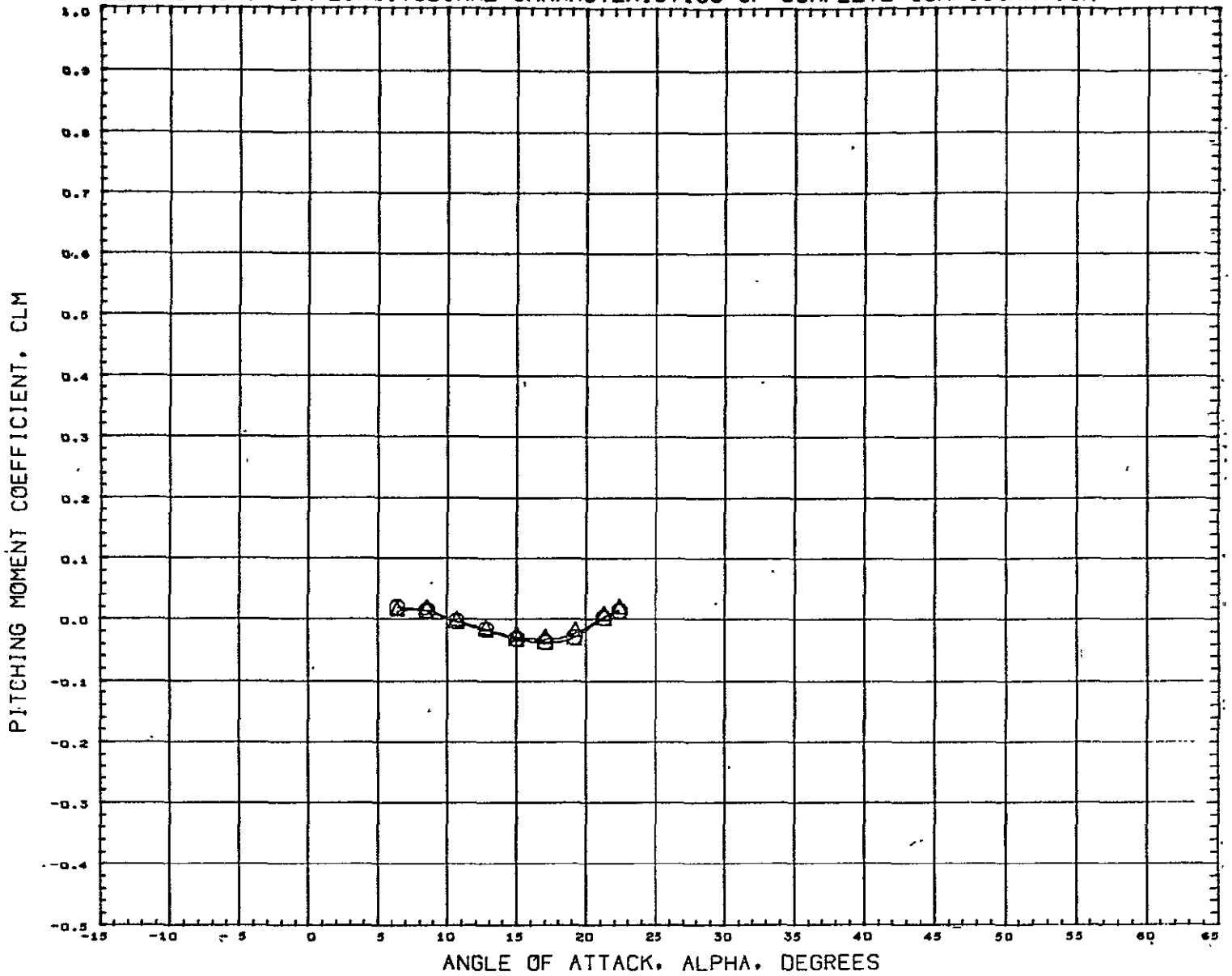
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	3REF 15.6560 SQ. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

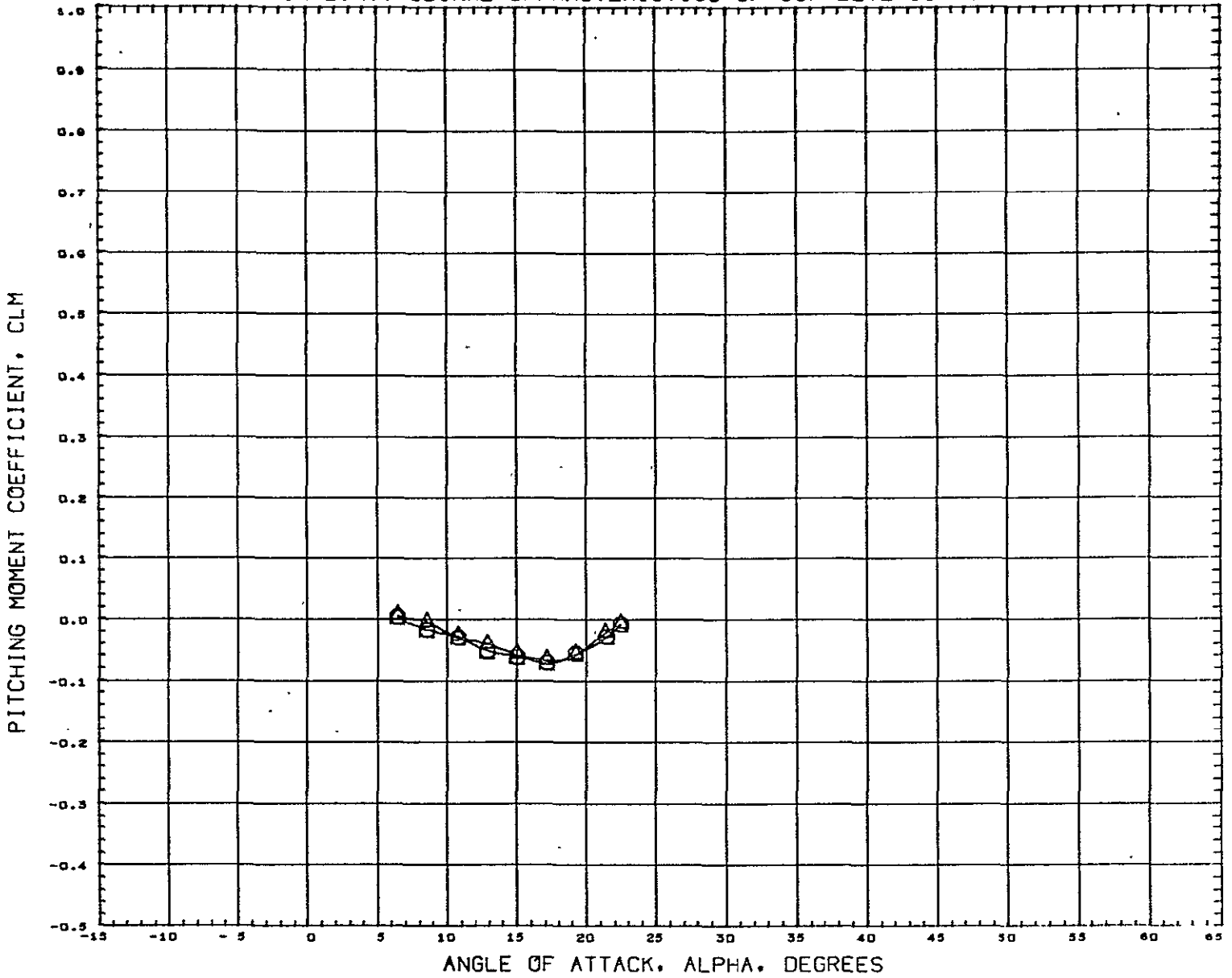
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28601)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.900

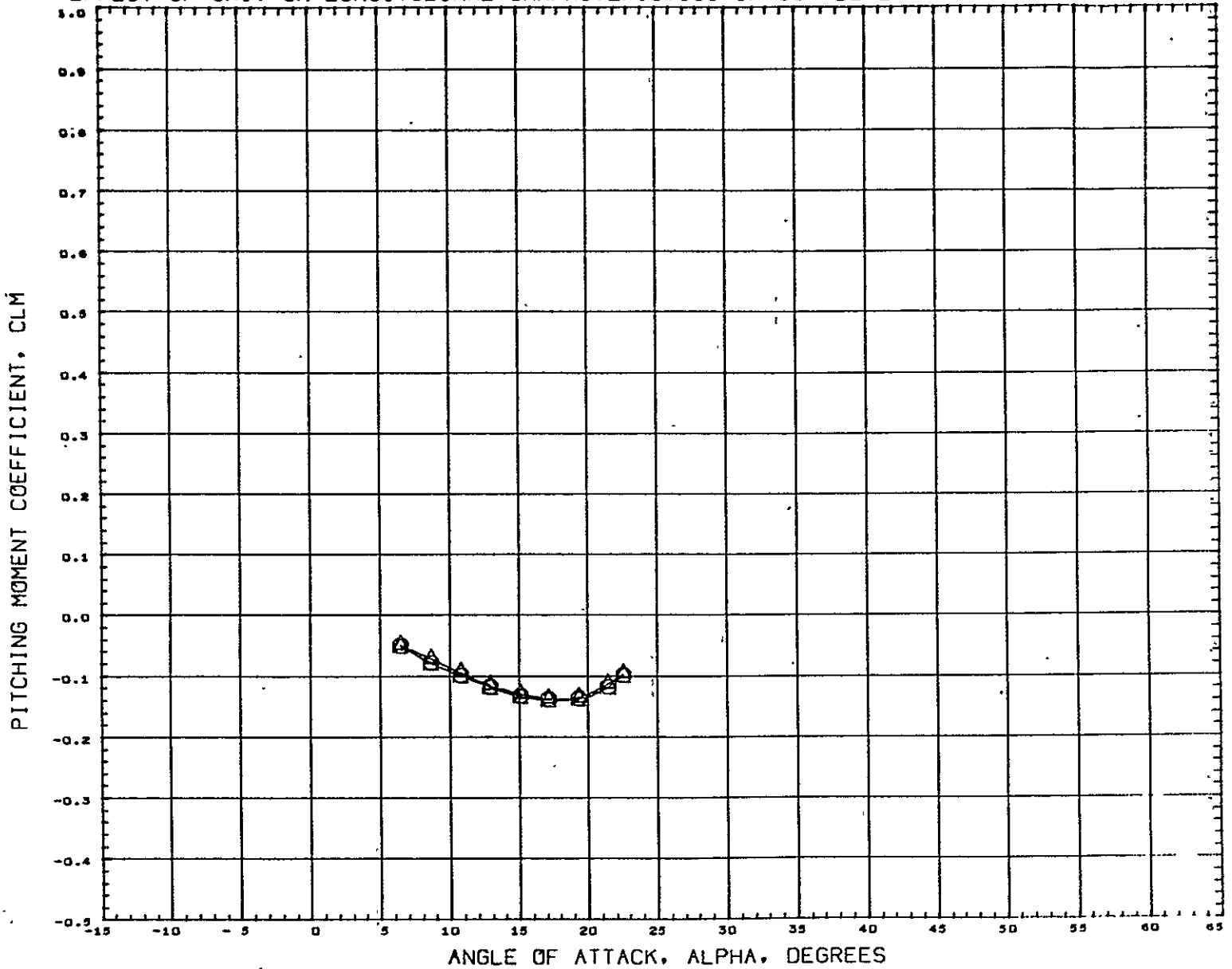
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E26B31)	MSFC481 GD/C(BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E26G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

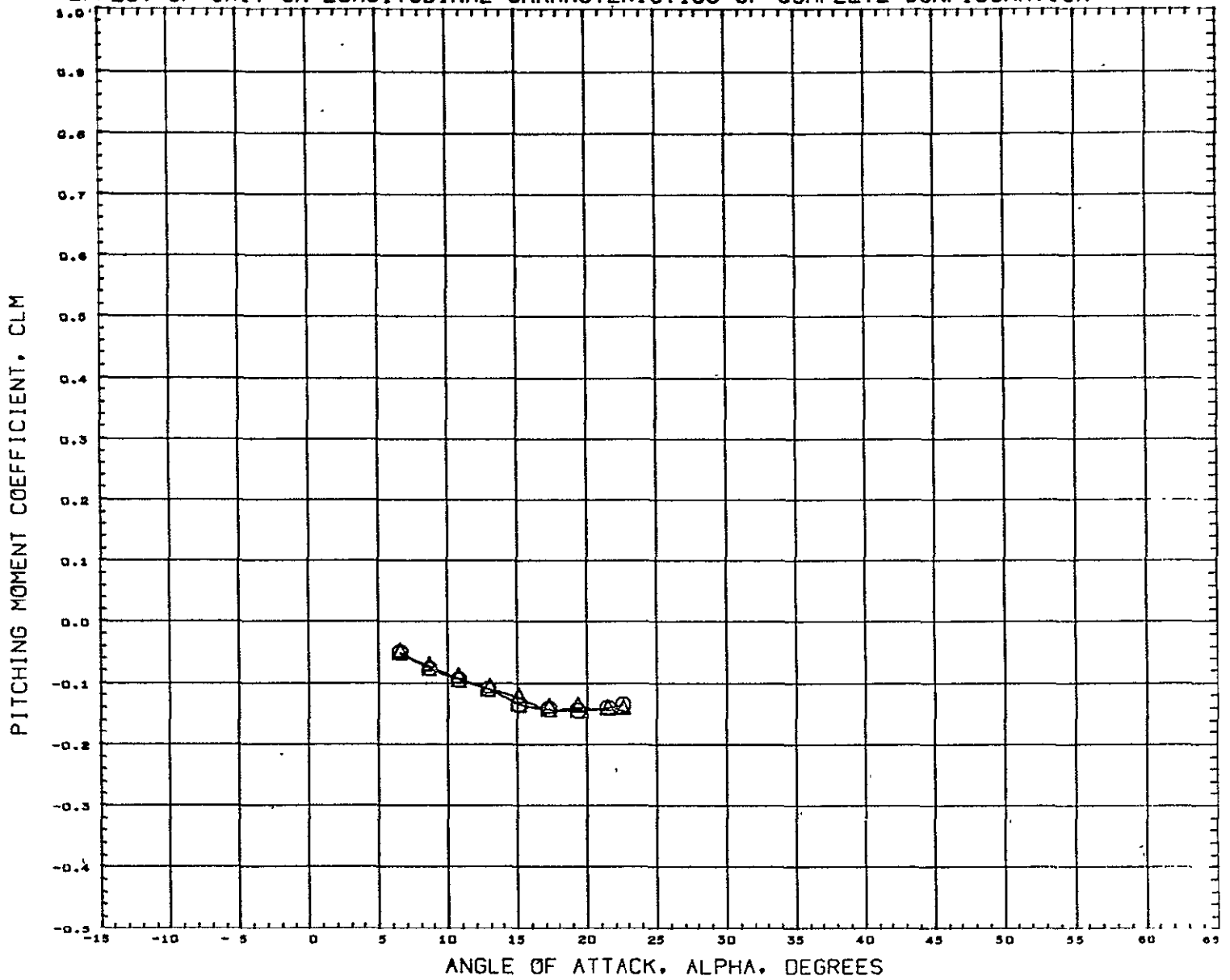
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E28B31)	MSFC481 GD/C (BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E28C01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.007

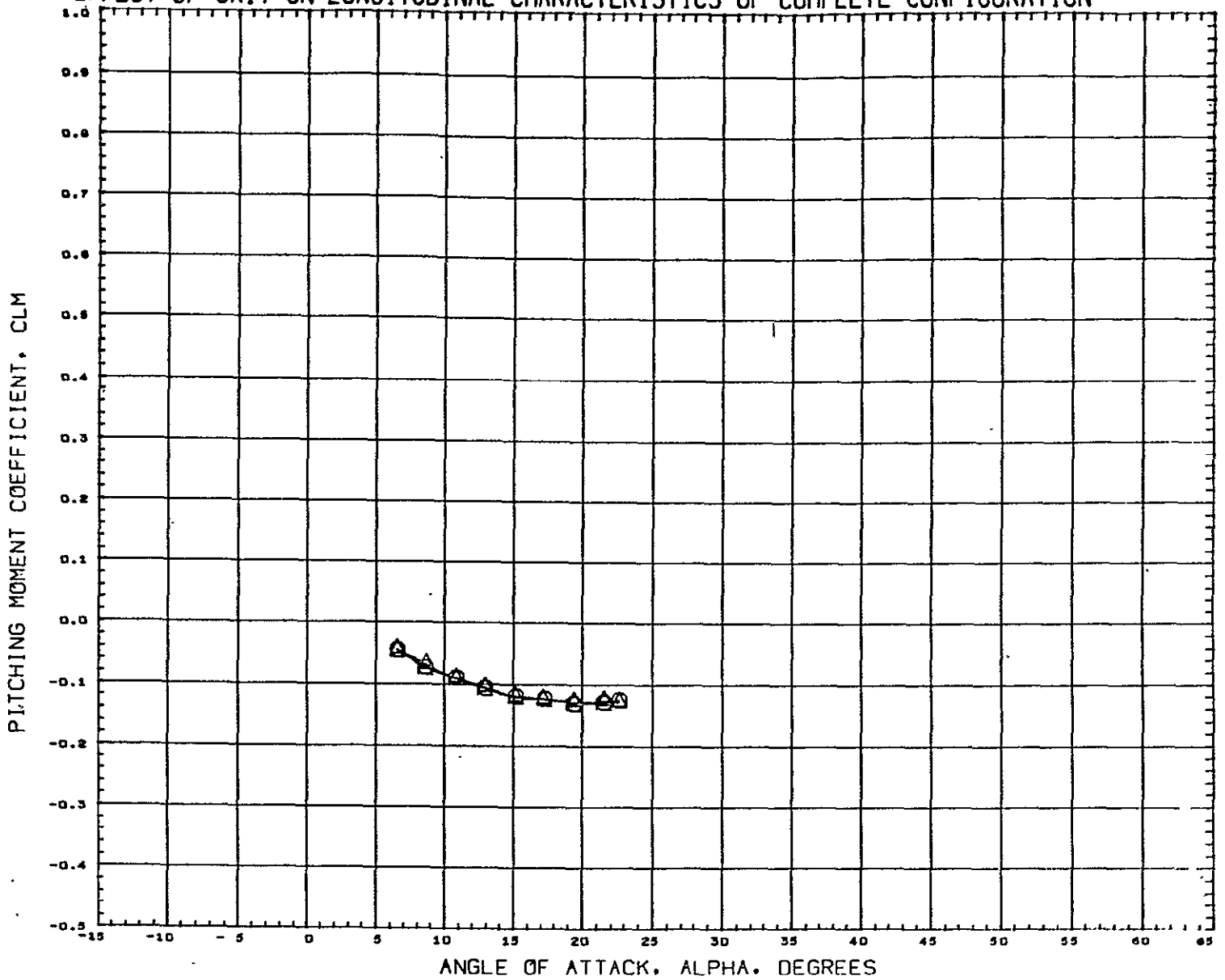
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E20B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E20GD1)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

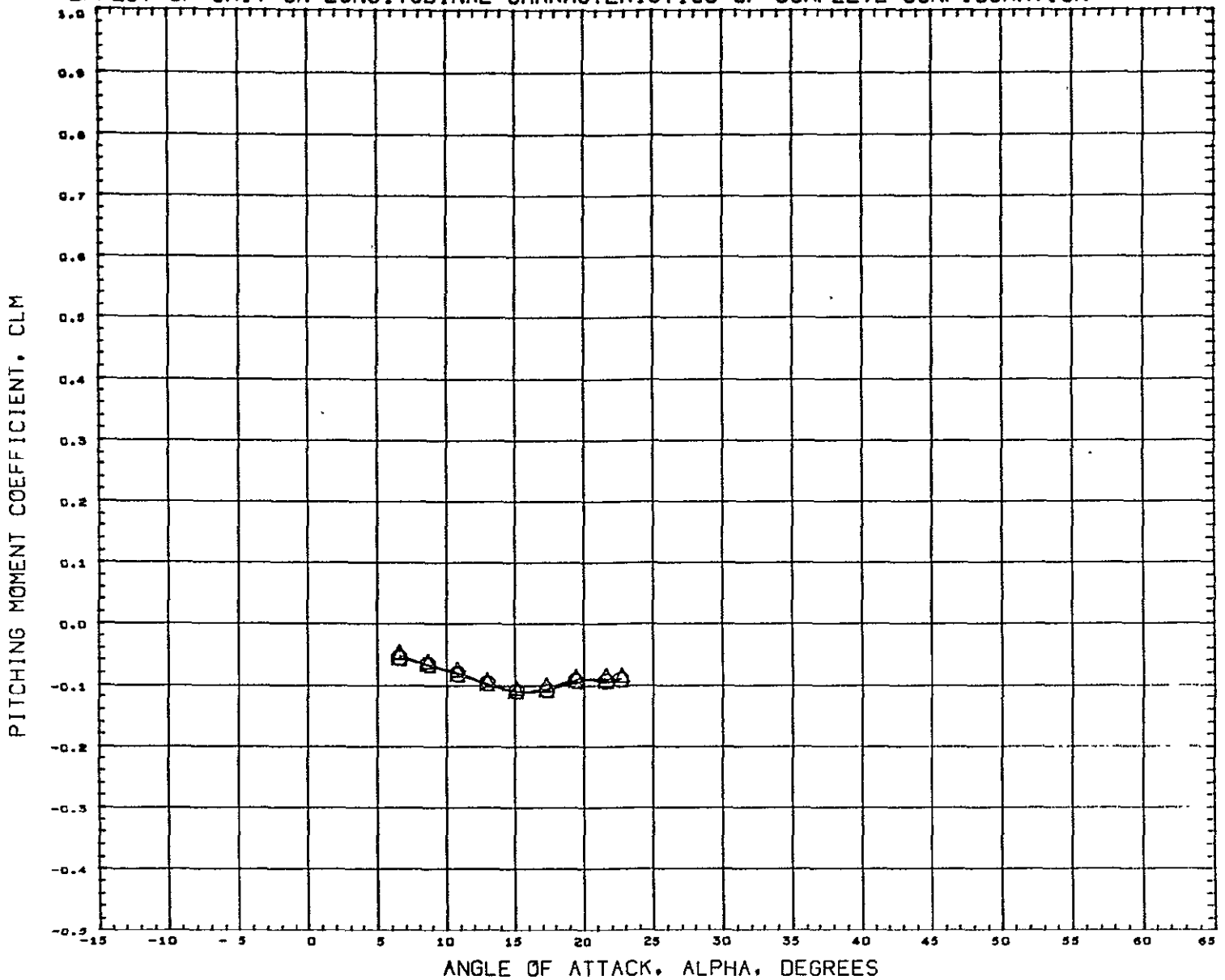
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E20B31)	MSFC481 GD/C (BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E20GD1)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

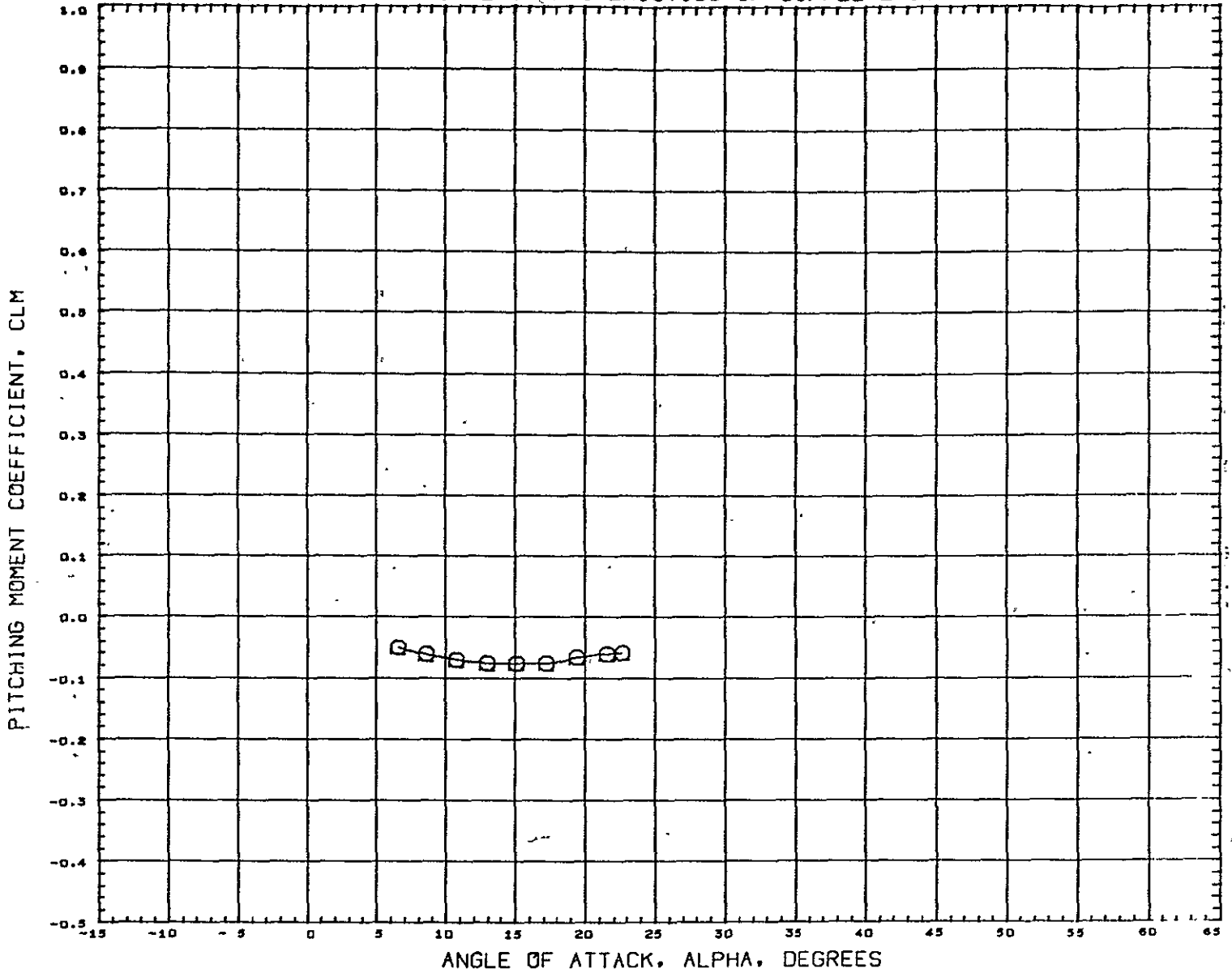
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

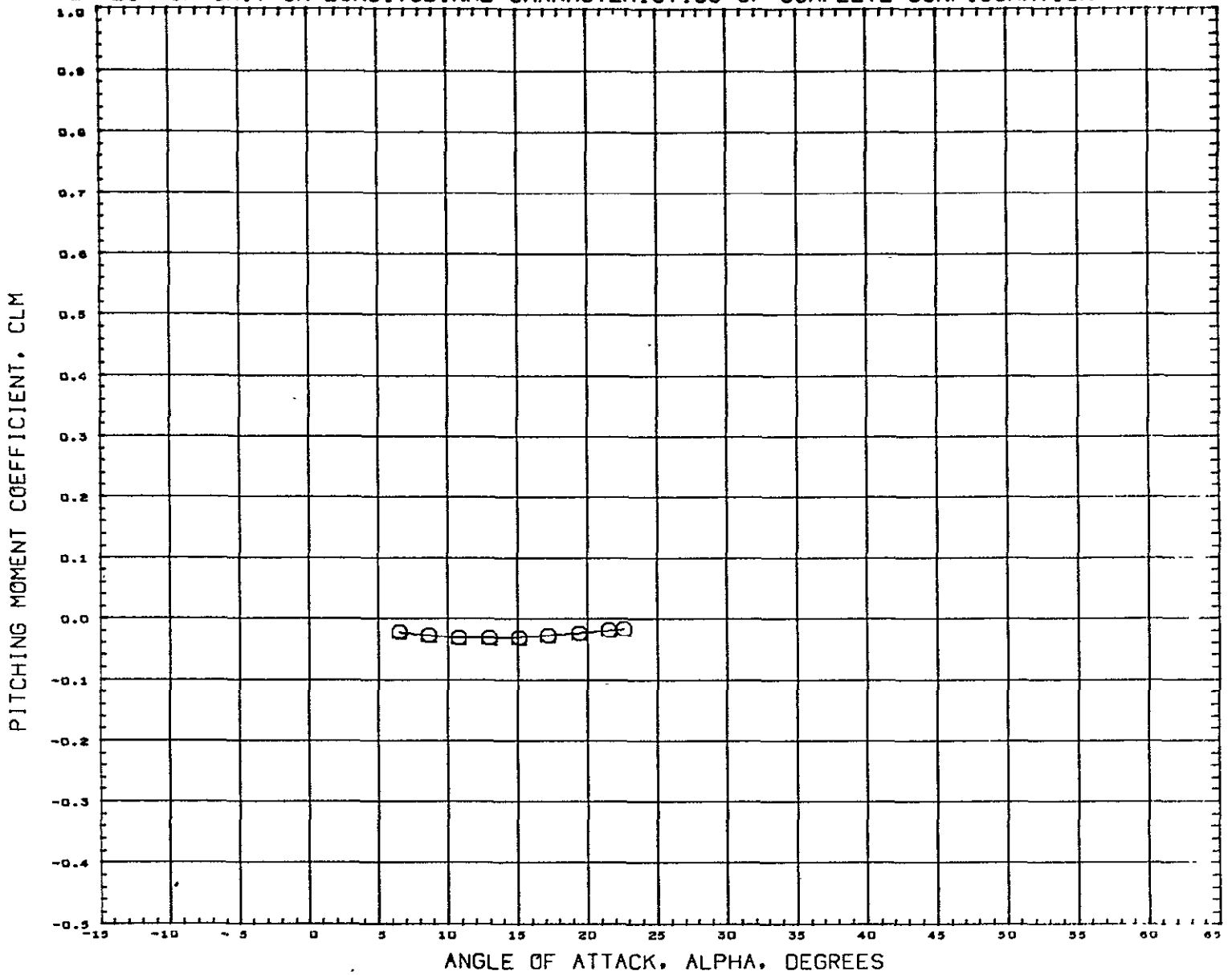
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET-SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E28B31)	MSFC481 GD/C(BOOSTER)B:9W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E28G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.462

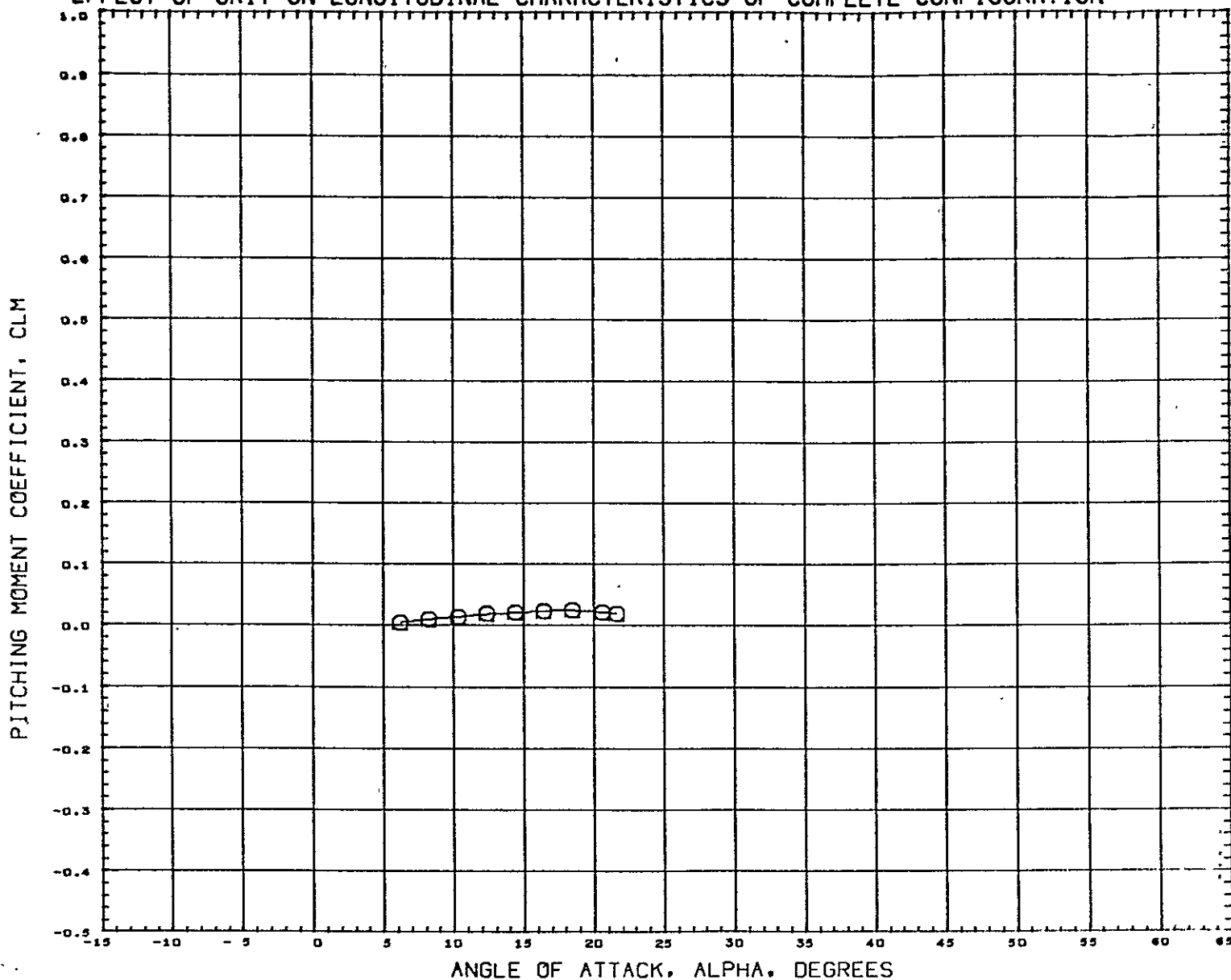
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28801)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

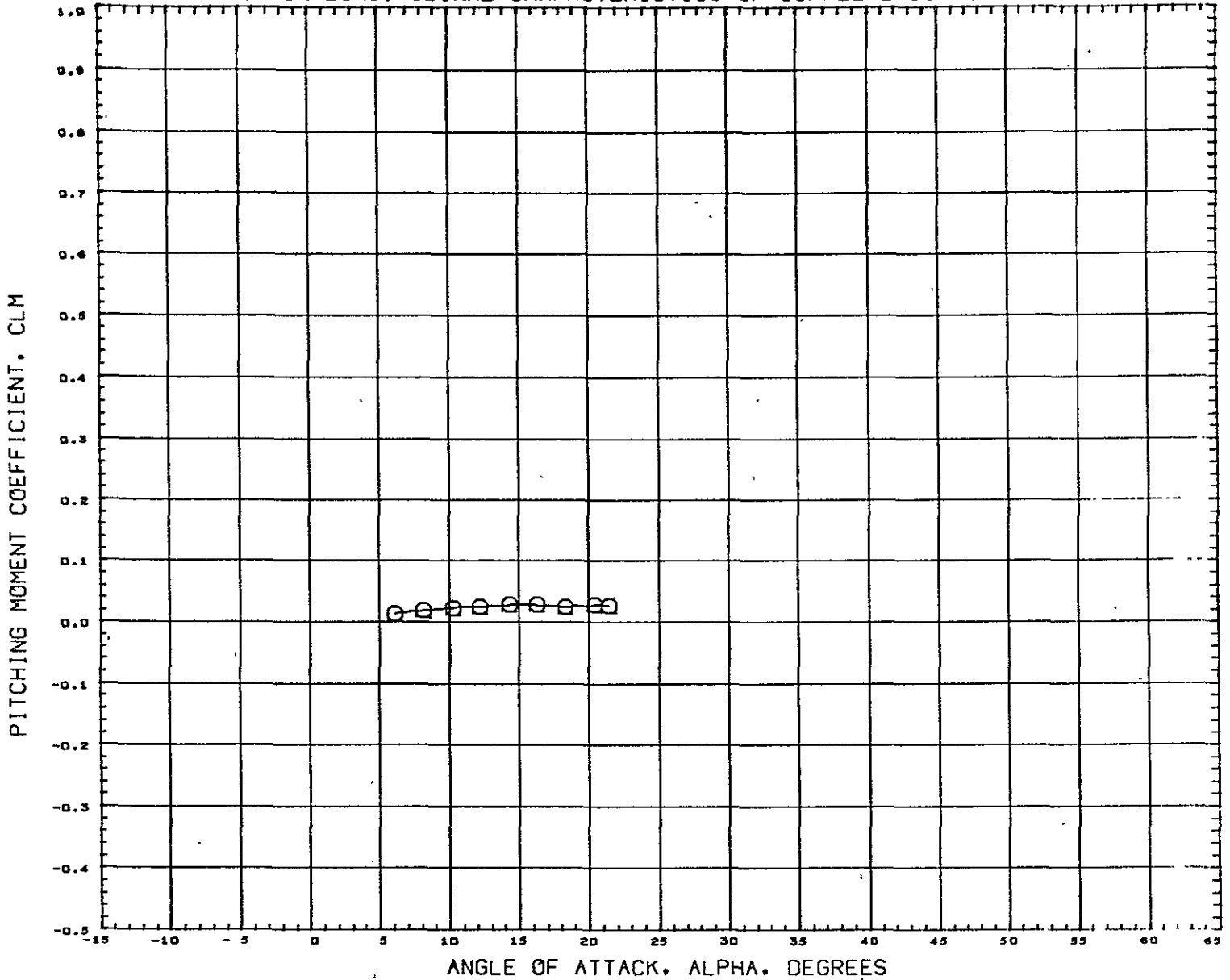
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E20B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	120.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E26G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS					LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

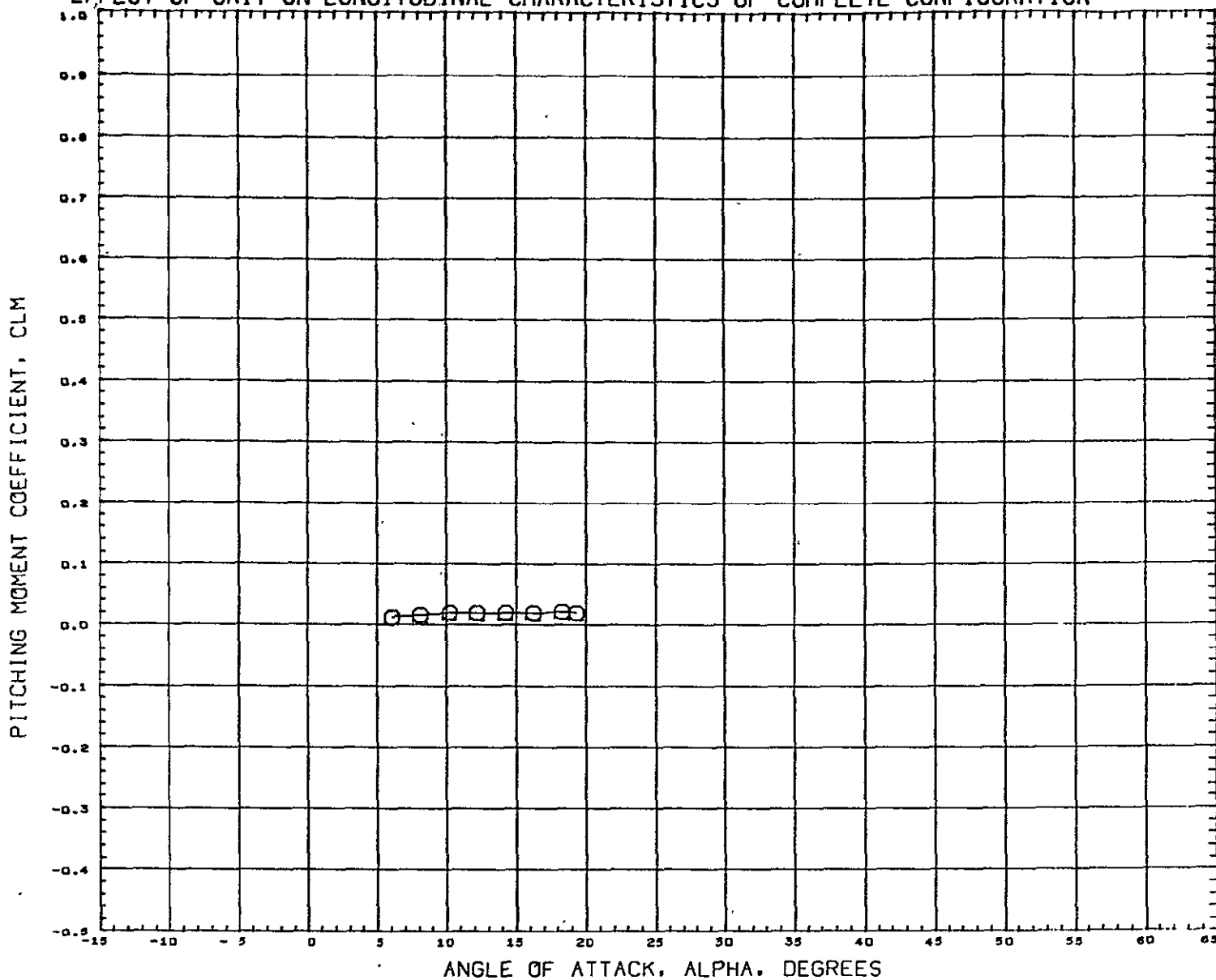
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION





DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	120.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS					LREF 3.0950 IN.
						BREF 5.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 4.000

EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



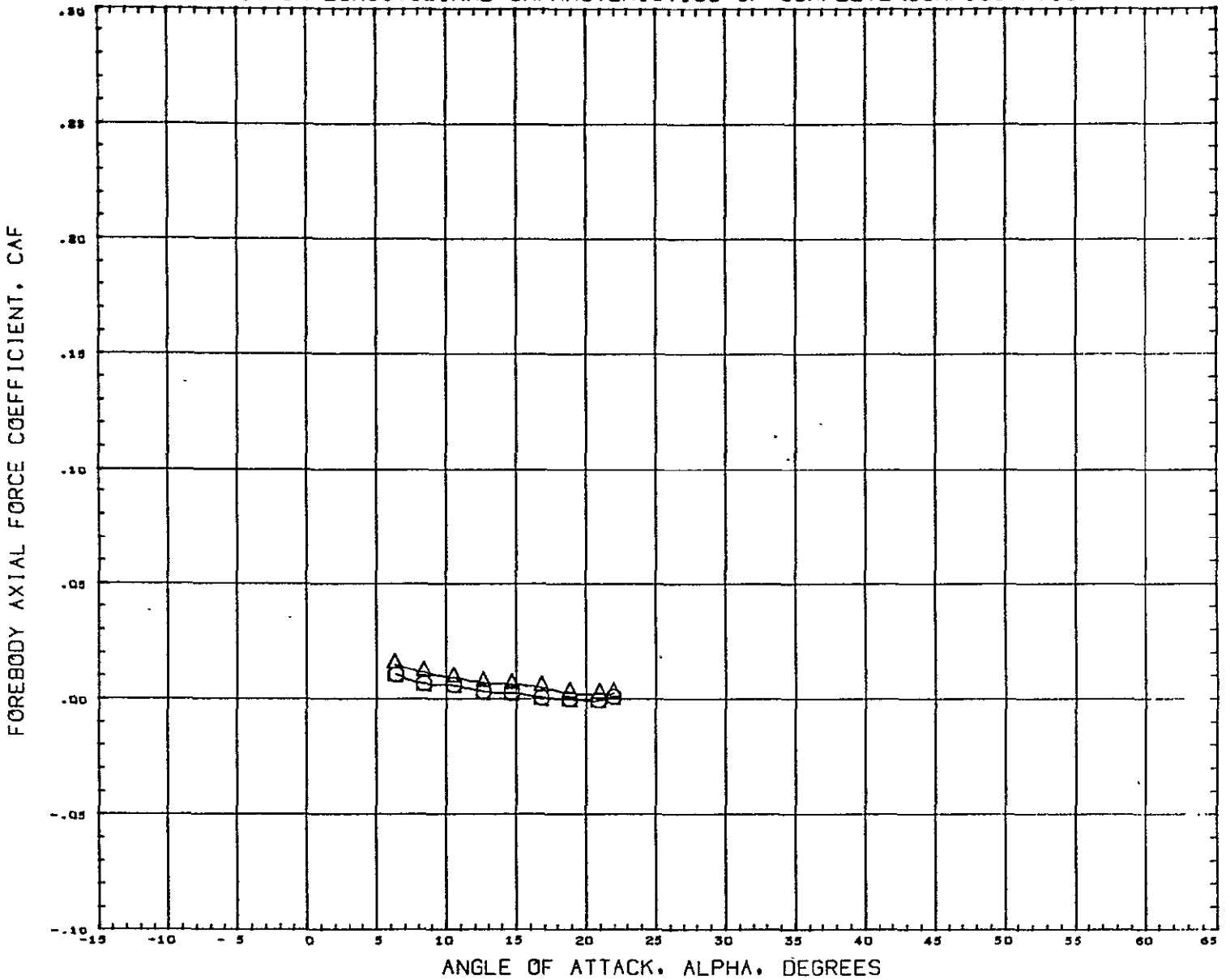
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E28B31)  MSFC481 GD/C(BOOSTER)B19W14C4AY7
 (E28G01)  DATA NOT AVAILABLE FOR ALL CONDITIONS

GRIT BETA ELEVON CANARD
 120.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 15.6560 30. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

MACH 4.960

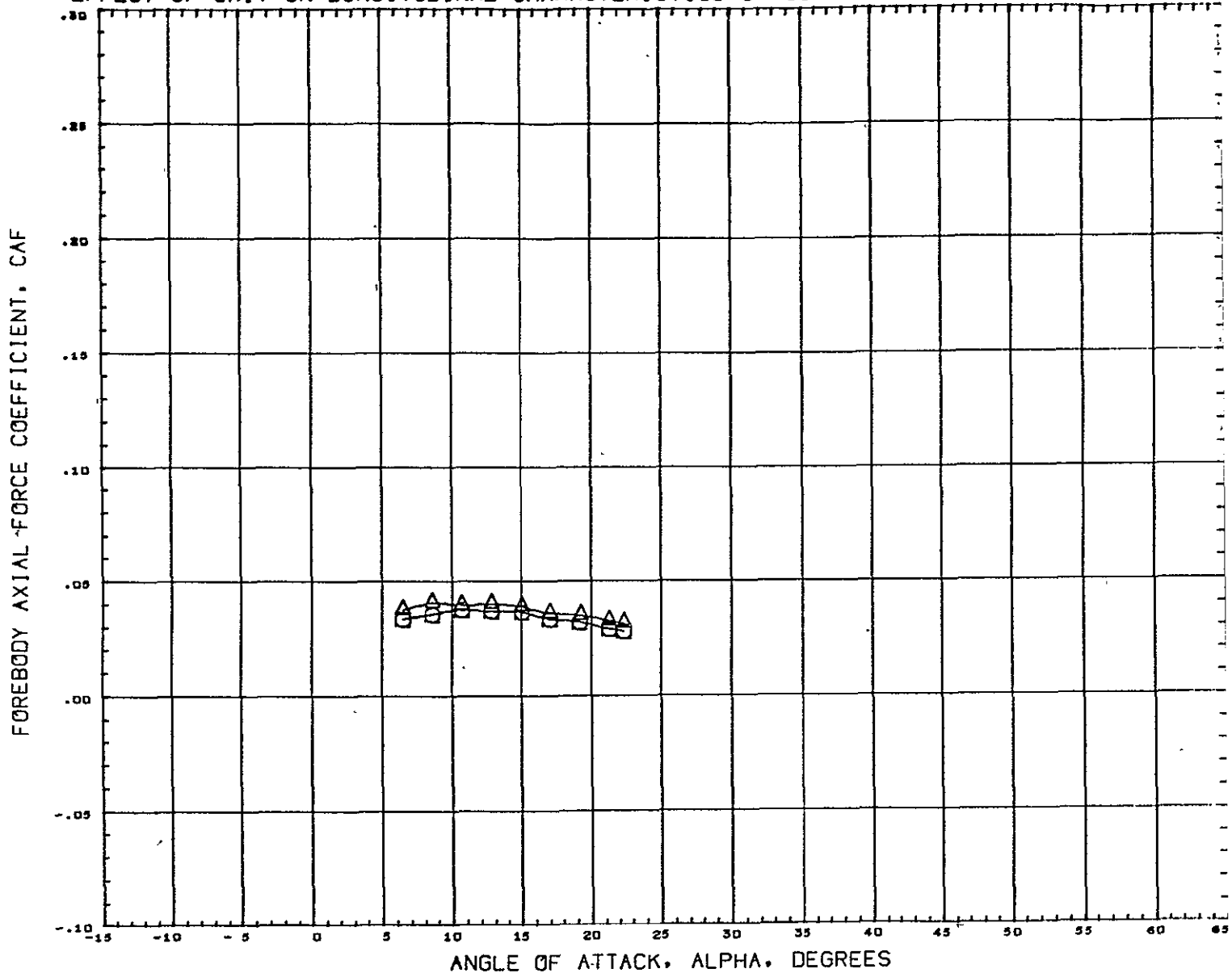
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

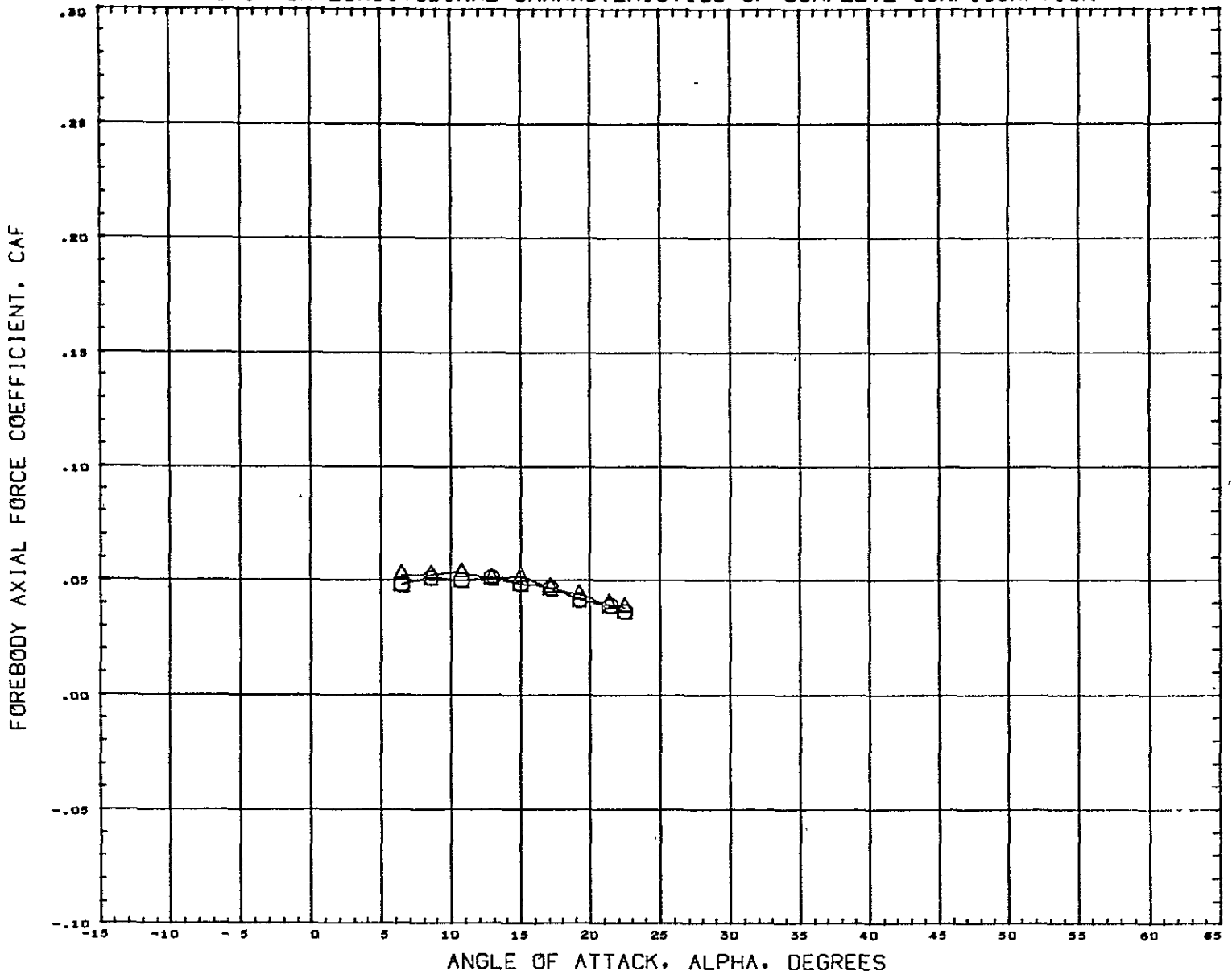
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E26B31)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 0.900

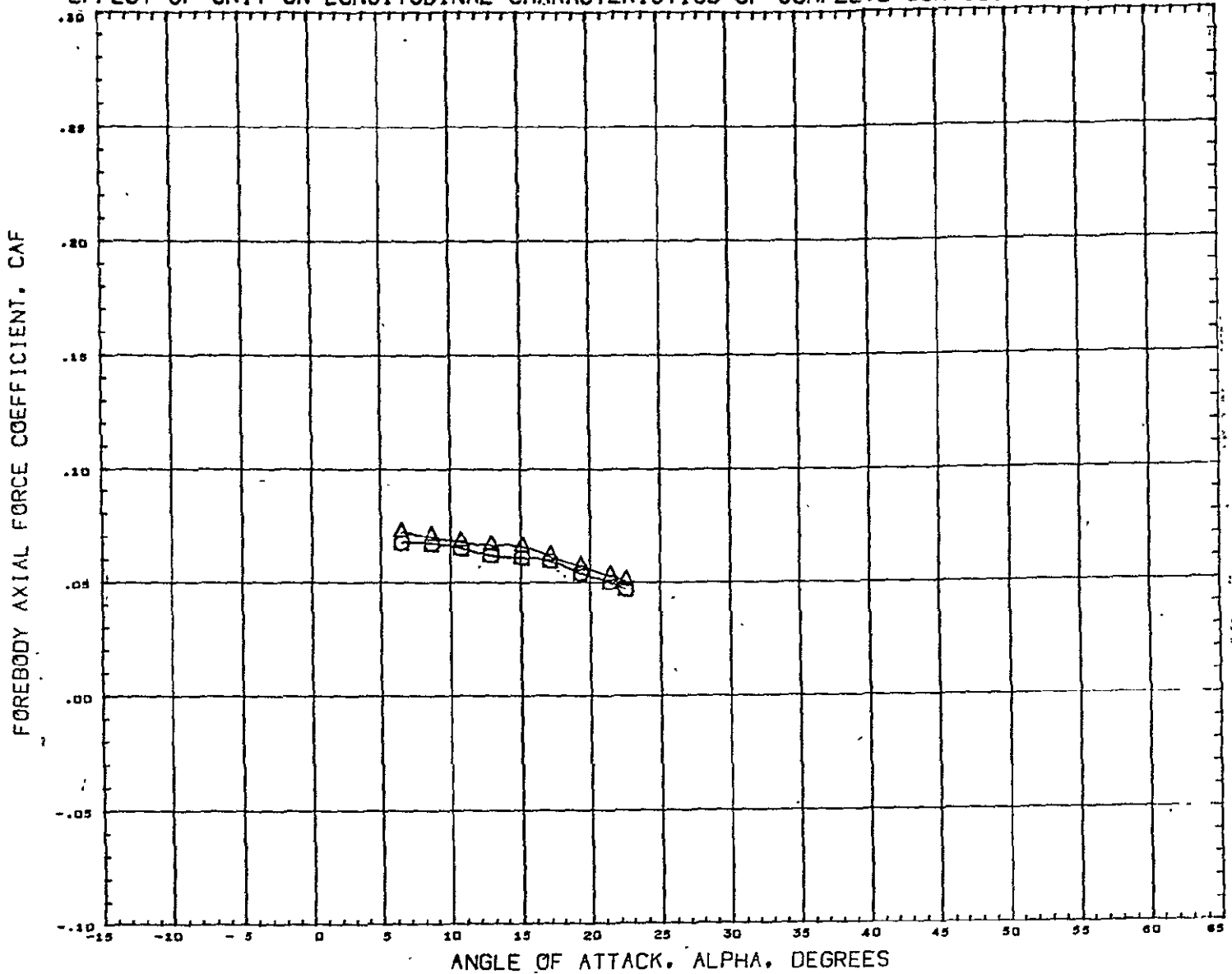
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6960 SQ. IN.
(E28801)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.954

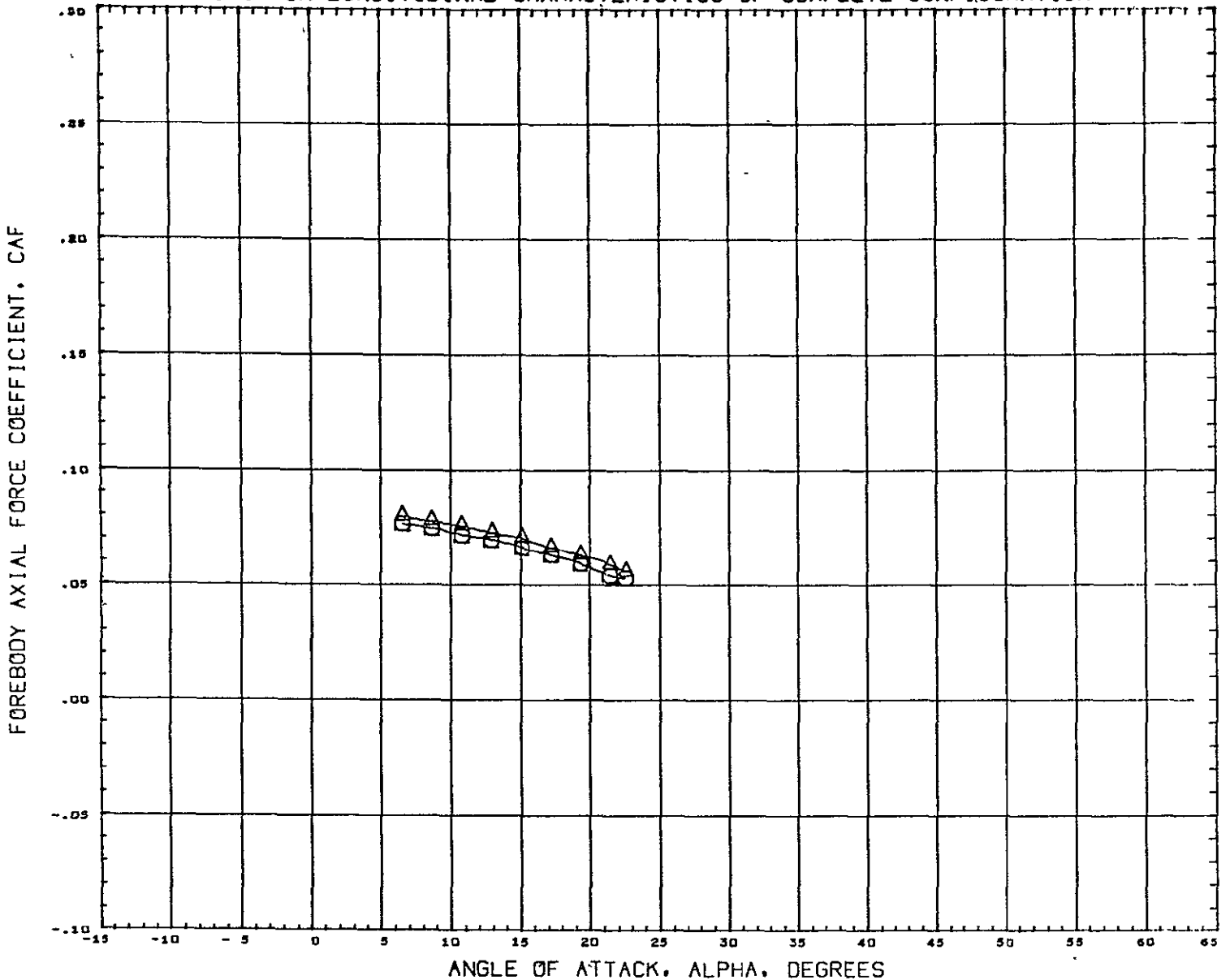
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28031)	MSFC481 GD/C(BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28601)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.007

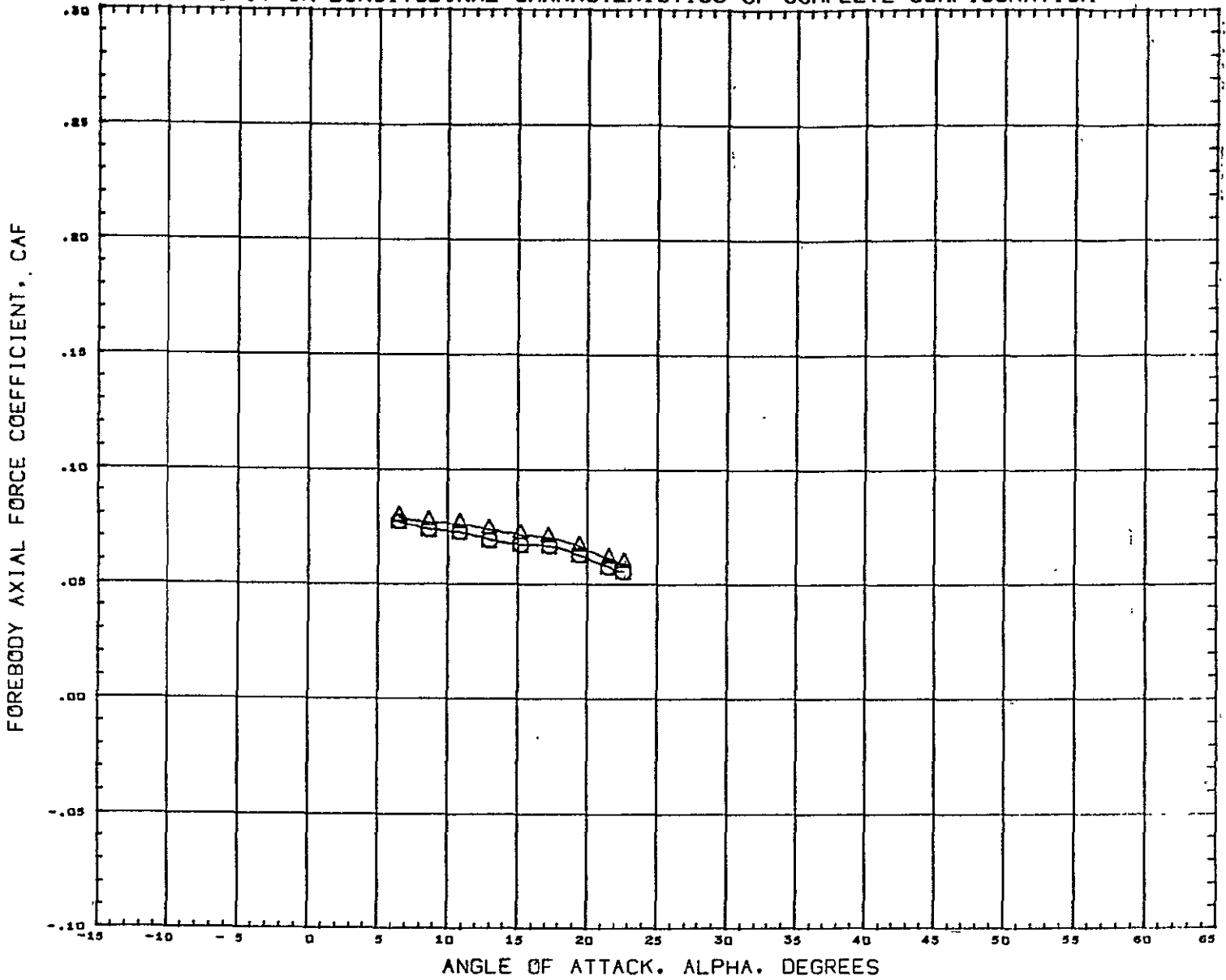
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

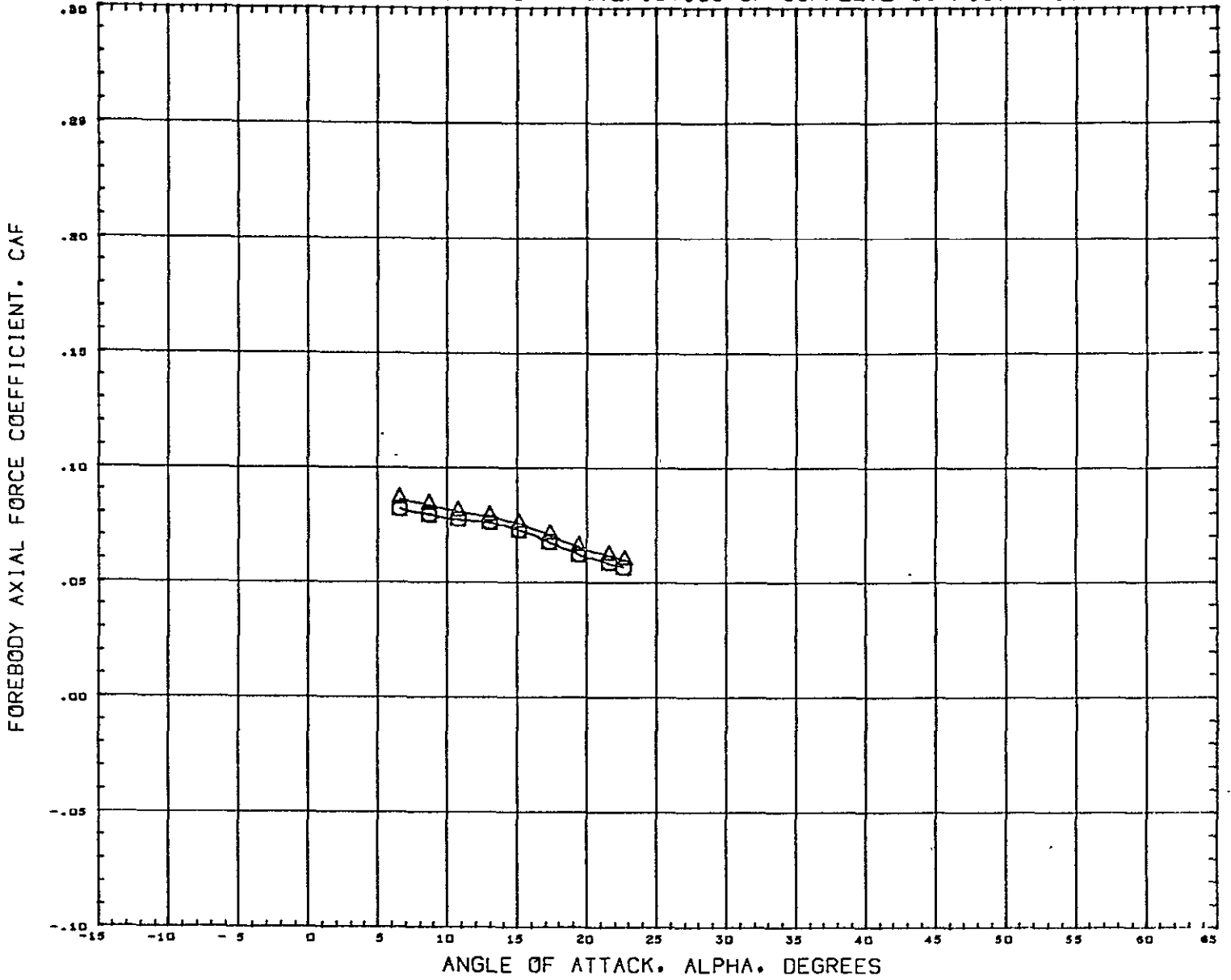
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E26B31)	MSFC481 GD/C(BOOSTER) B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E26GD1)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

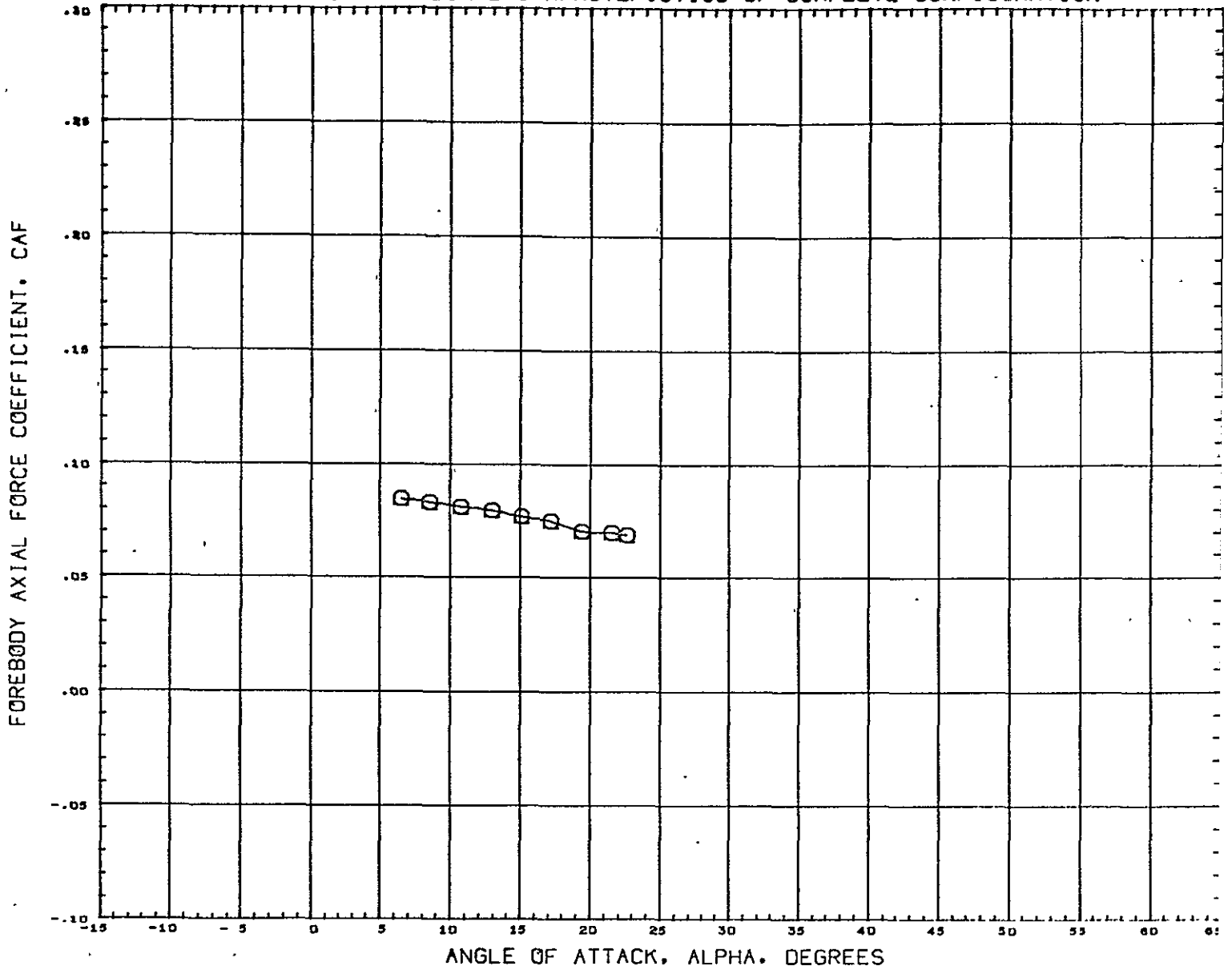
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION




DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E28B31)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E28G01)	MSFC 481 GD/C BOOSTER B19W14C4AV7	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.201

EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



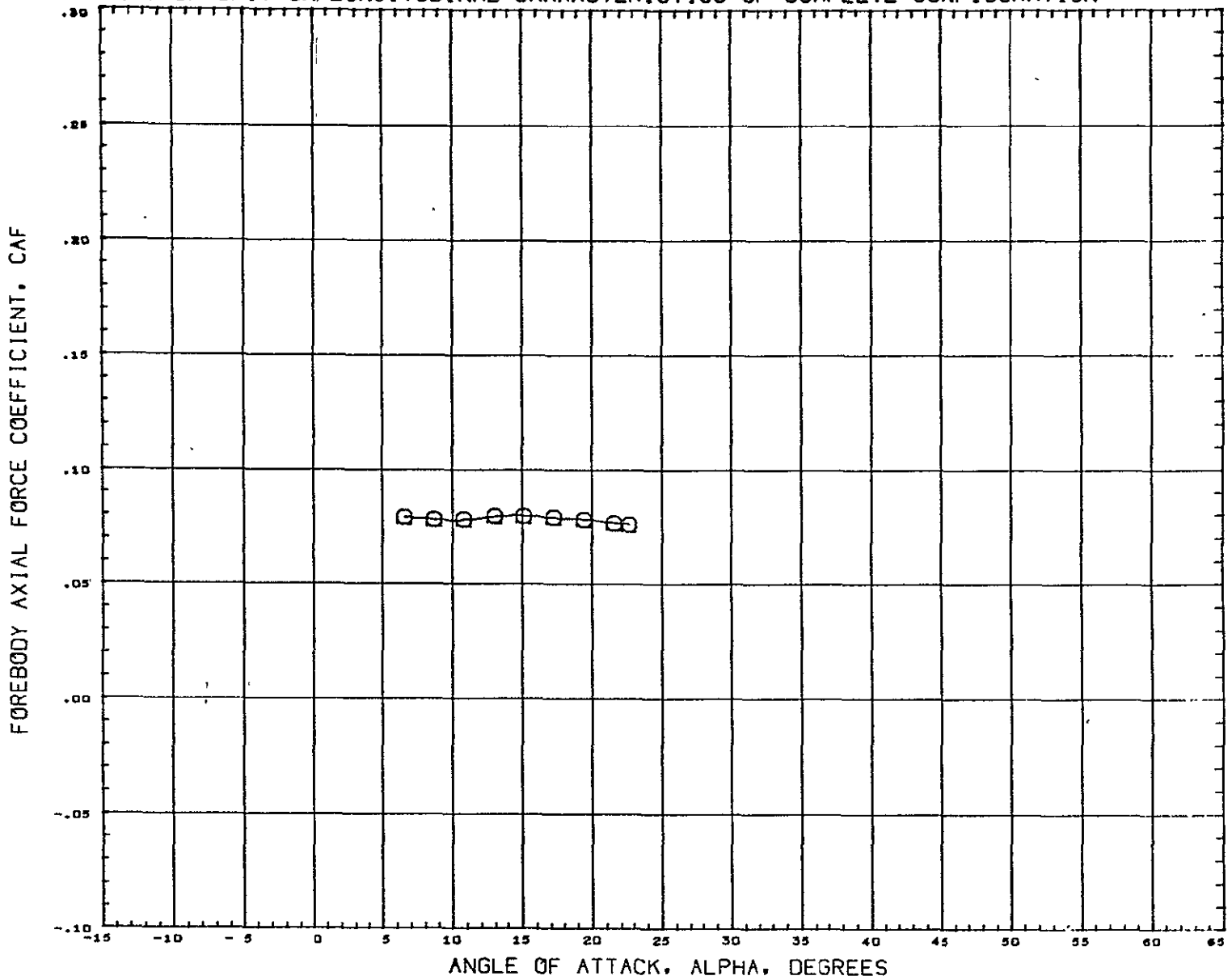
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E28B31)  MSFC481 GD/C(BOOSTER)B19W14C4AV7
 (E28G01) DATA NOT AVAILABLE FOR ALL CONDITIONS

GRIT BETA ELEVON CANARD
 120.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

MACH 1.462

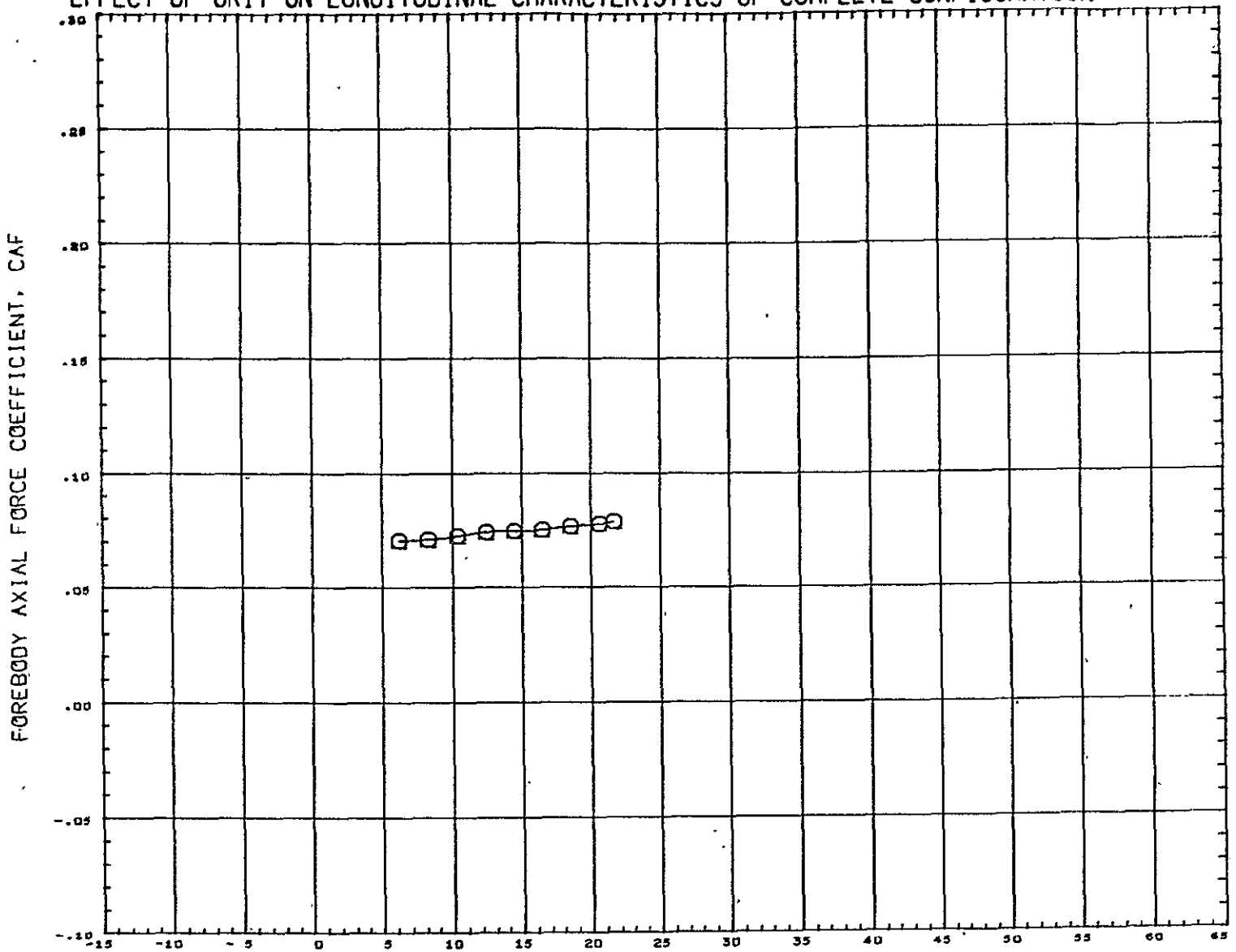
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E20831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(E20601)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

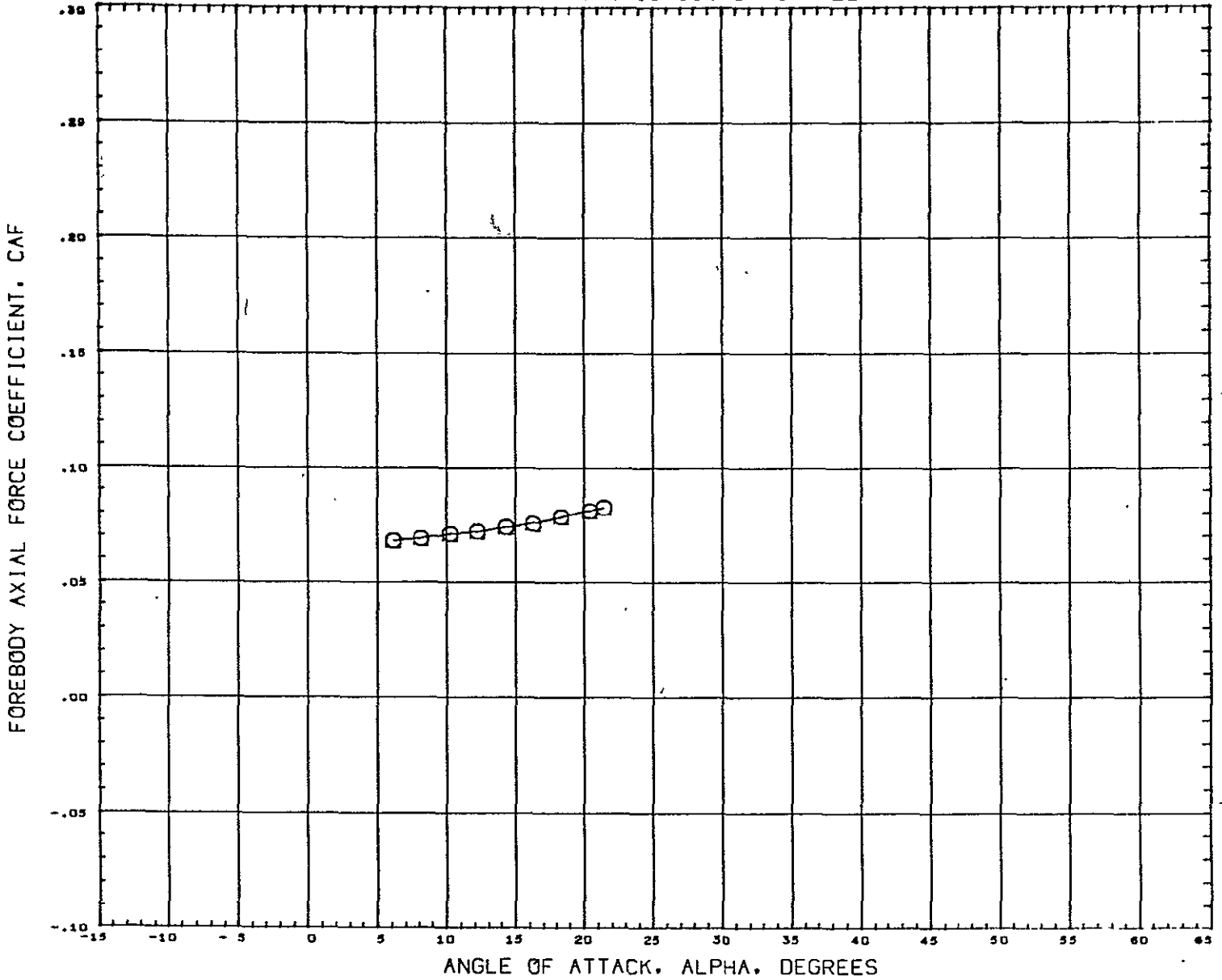
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION
(E26831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	120.000	0.000	0.000	0.000	SREF 15.6560 50. IN.
(E26601)	DATA NOT AVAILABLE FOR ALL CONDITIONS					LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

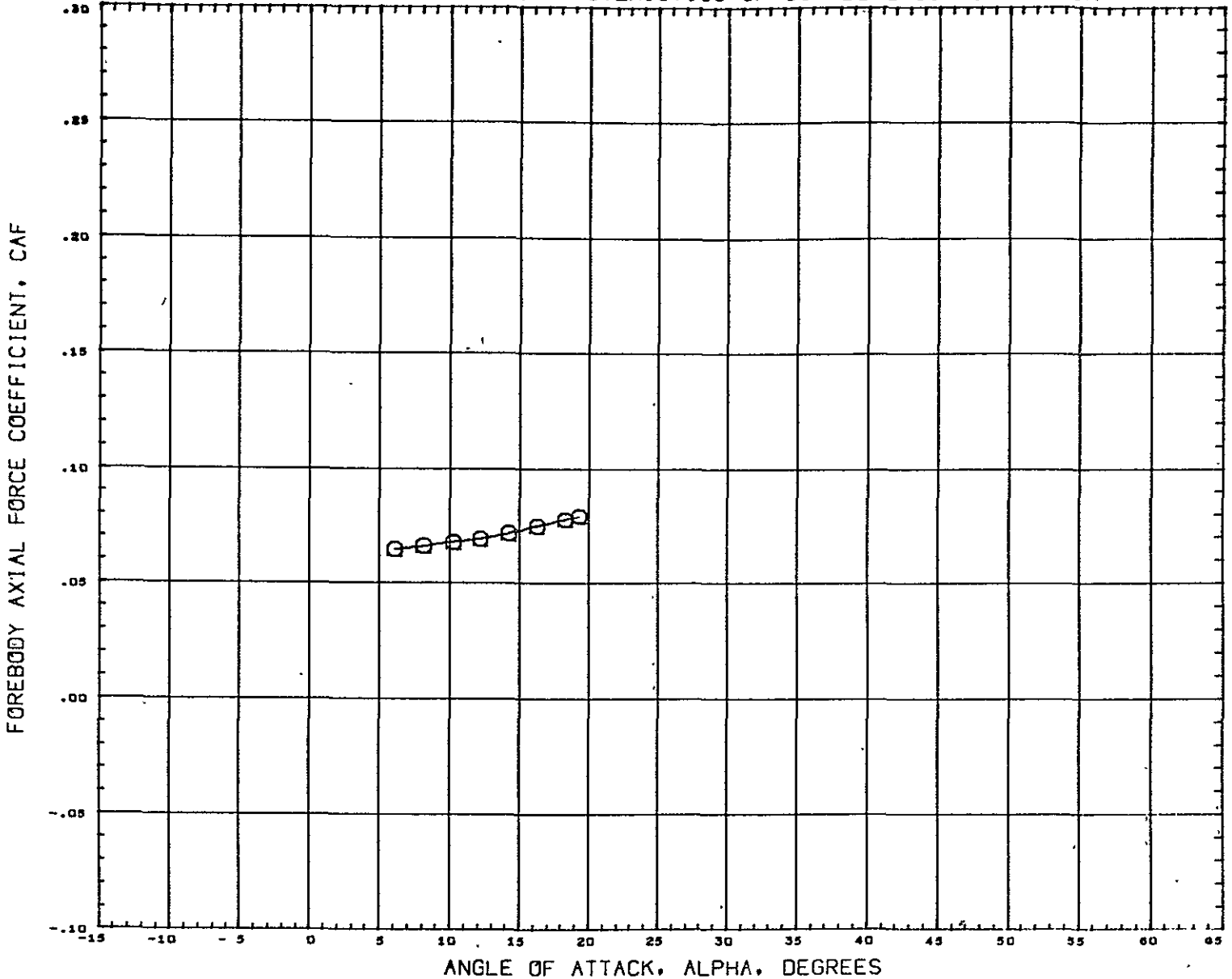
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E26B51)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E26G01)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 4.000

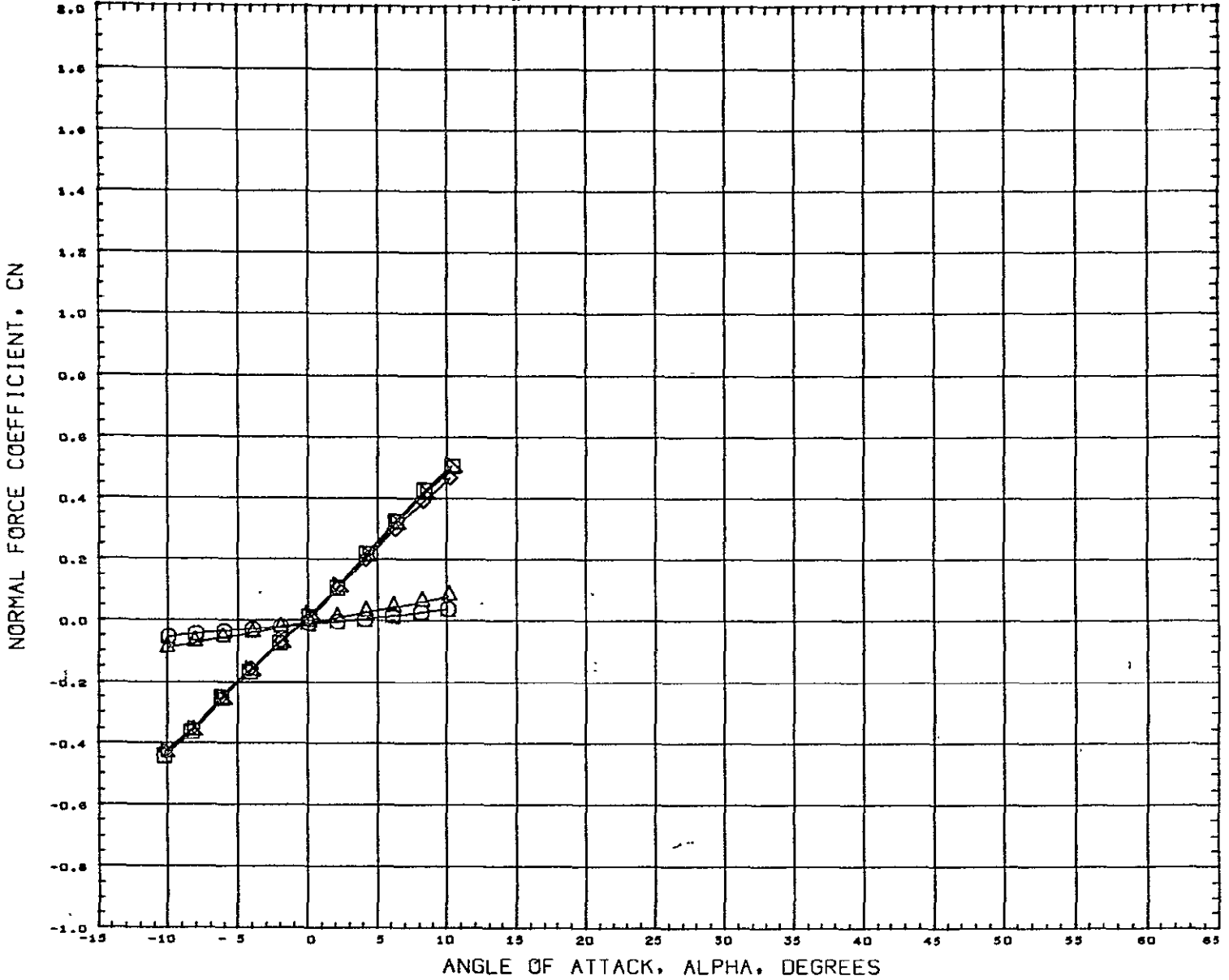
EFFECT OF GRIT ON LONGITUDINAL CHARACTERISTICS OF COMPLETE CONFIGURATION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	GRIT	BETA	ELEVON	CANARD	REFERENCE INFORMATION	
(E28831)	MSFC481 GD/C(BOOSTER)B19W14C4AV7		0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(E28601)	DATA NOT AVAILABLE FOR ALL CONDITIONS	120.000	0.000	0.000	0.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 4.960

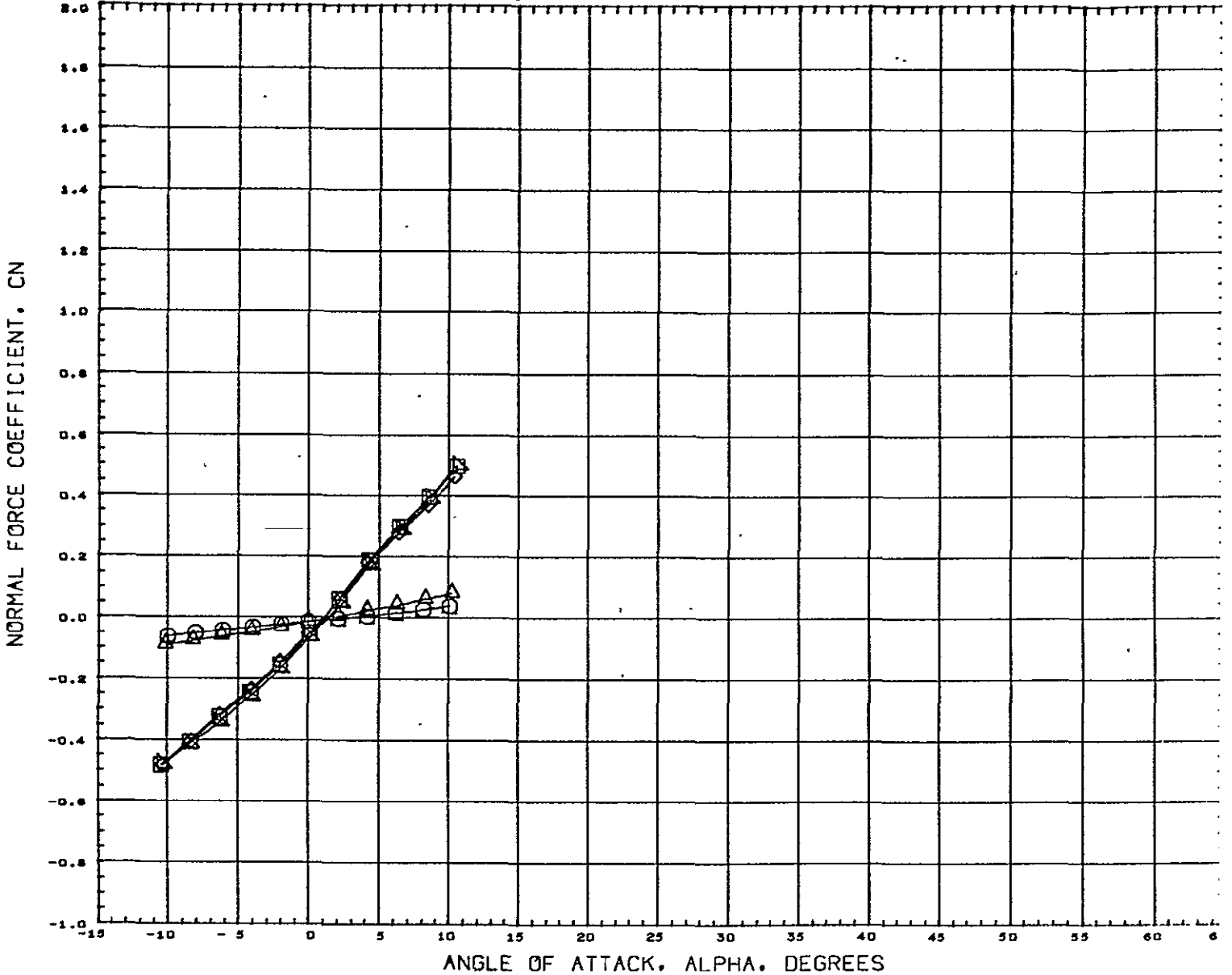
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B14)	MSFC 481 GD/C (BOOSTER) B19	0.000				SREF 15.6560 SQ. IN.
(E20B15)	MSFC 481 GD/C (BOOSTER) B19C4A	0.000		0.000		LREF 3.0950 IN.
(E20B16)	MSFC 481 GD/C (BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E20B17)	MSFC 481 GD/C (BOOSTER) B19W14C4A	0.000	0.000	0.000		XHRP 6.7100 IN.
(E20B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 0.810

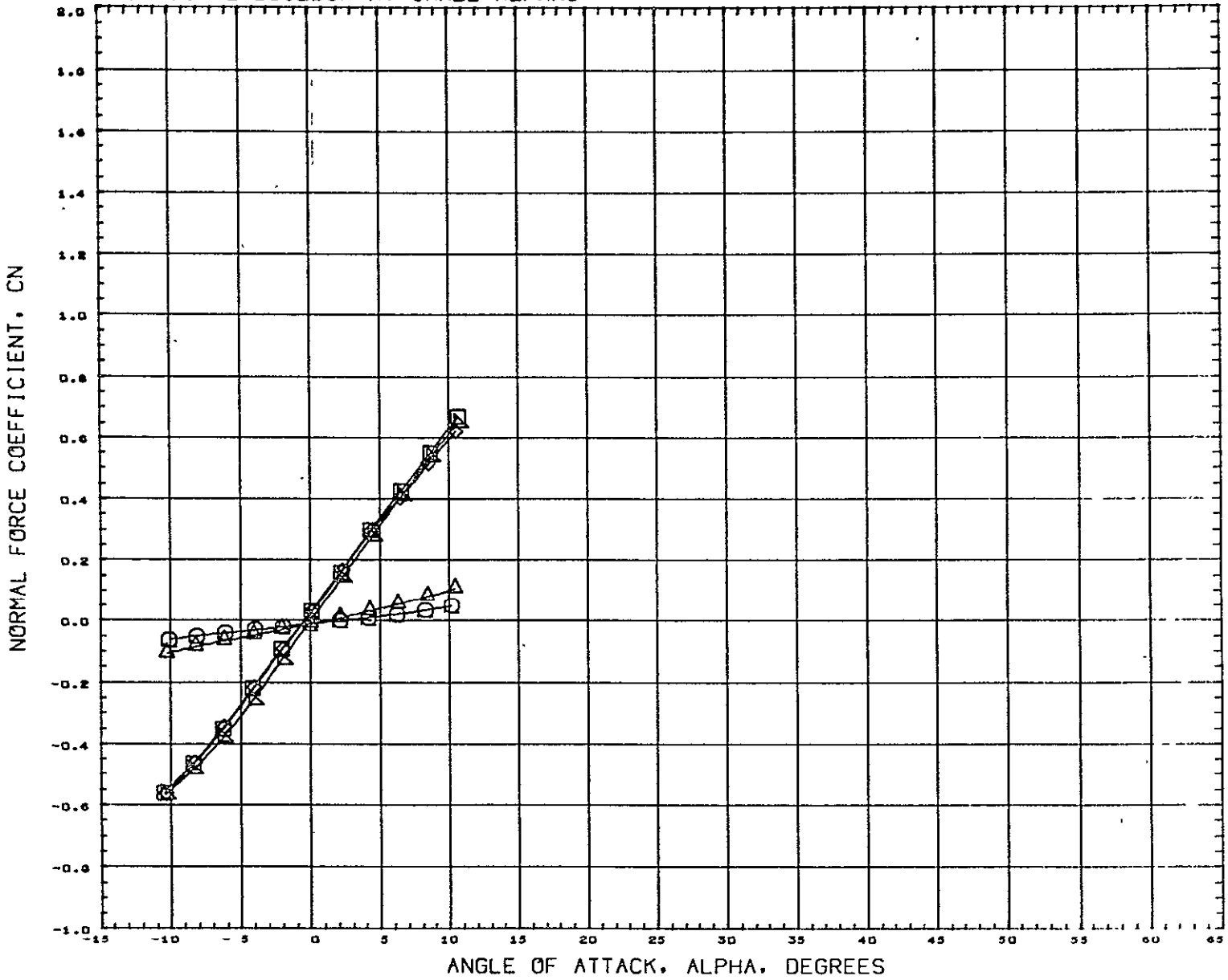
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B14)	MSFC 481 GD/C (BOOSTER) B19	0.000				SREF 15.6560 SQ. IN.
(E20B15)	MSFC 481 GD/C (BOOSTER) B19C4A	0.000		0.000		LREF 3.0950 IN.
(E20B16)	MSFC 481 GD/C (BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E20B17)	MSFC 481 GD/C (BOOSTER) B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E20B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.901

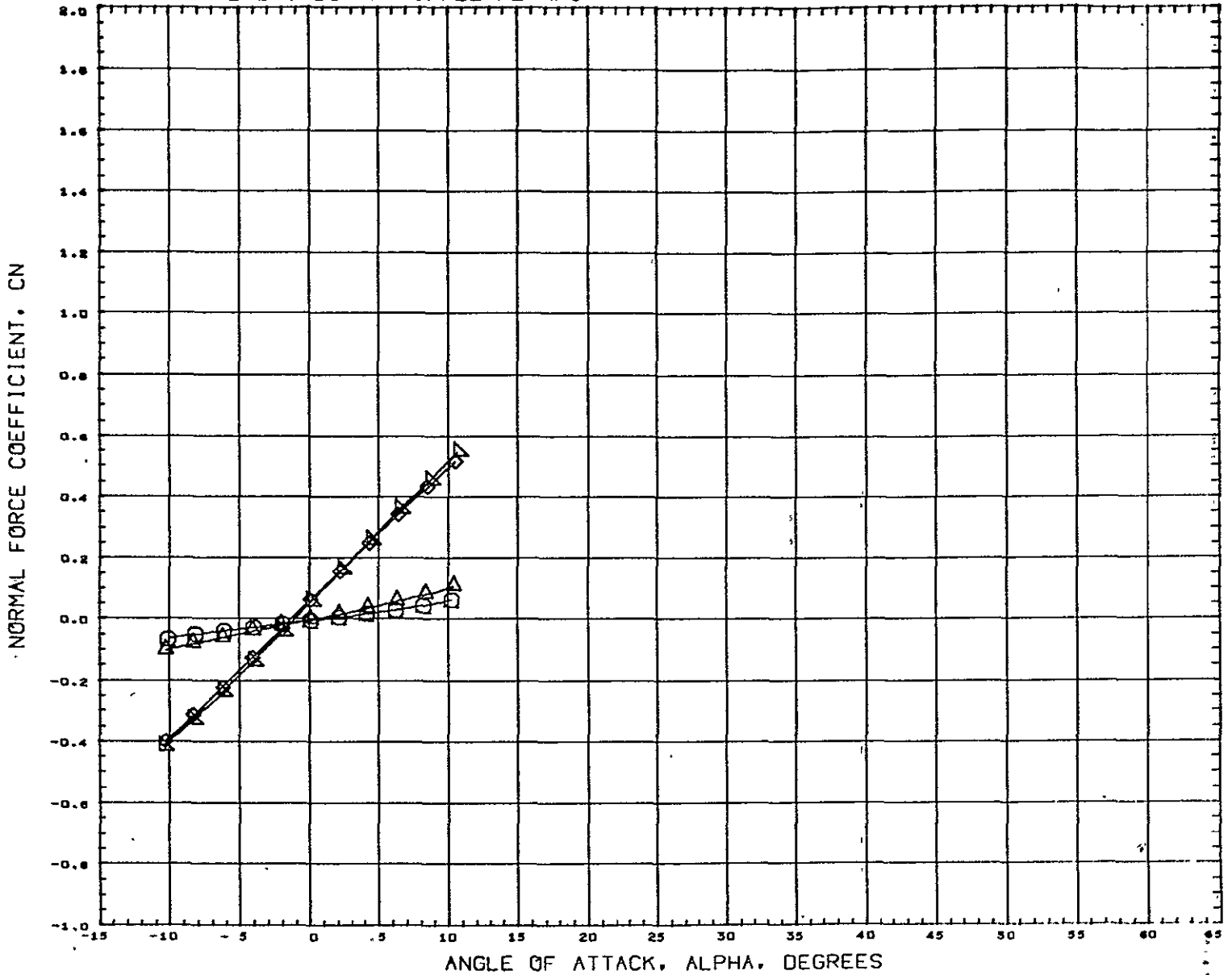
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B14)	MSFC 481 GD/C(BOOSTER) B19	0.000				SREF 15.6560 SQ. IN.
(E20B15)	MSFC 481 GD/C(BOOSTER) B19C4A	0.000				LREF 3.0950 IN.
(E20B16)	MSFC 481 GD/C(BOOSTER) B19W14	0.000	0.000	0.000		BREF 6.0990 IN.
(E20B17)	MSFC 481 GD/C(BOOSTER) B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E20B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.105

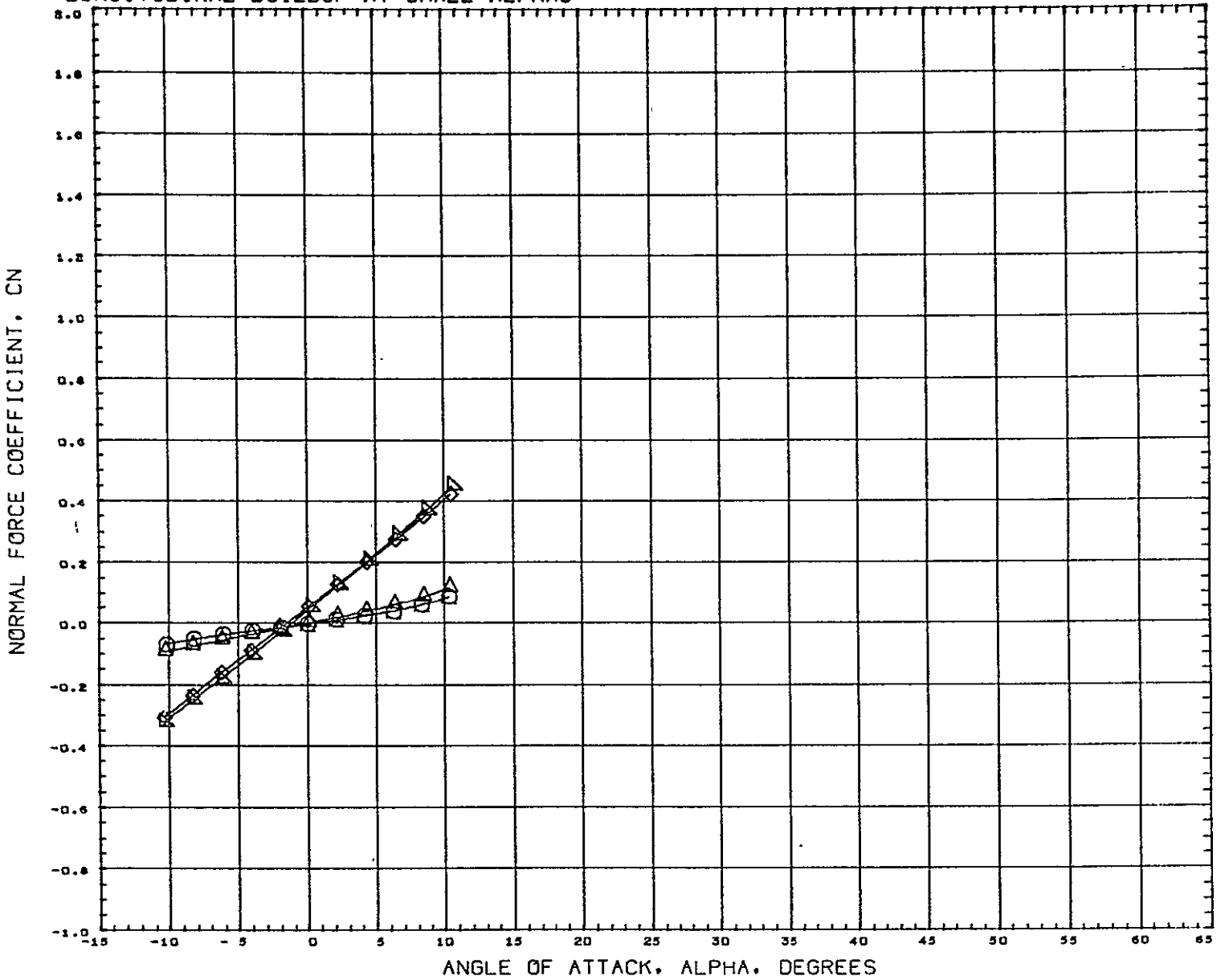
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B14)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 15.6560 SQ. IN.
(E20B15)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E20B16)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000			BREF 6.0990 IN.
(E20B17)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		XMRP 6.7100 IN.
(E20B20)	MSFC 481 GD/C(BOOSTER)B19W14C4A V7	0.000	0.000	0.000		YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.461

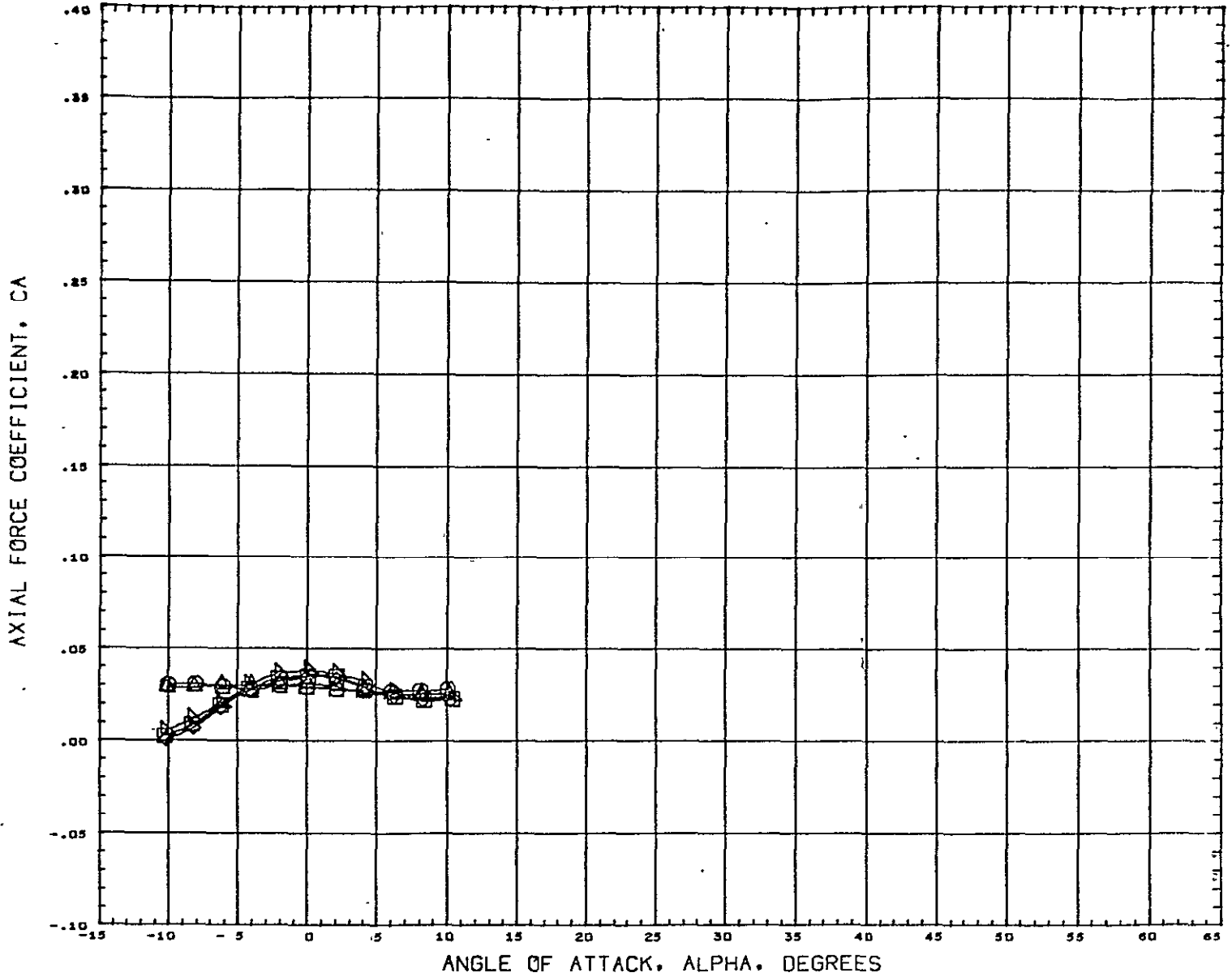
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E24B14)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 15.6560 SQ.IN.
(E24B15)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E24B16)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000			BREF 6.0990 IN.
(E24B17)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		XHRP 6.7100 IN.
(E24B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.966

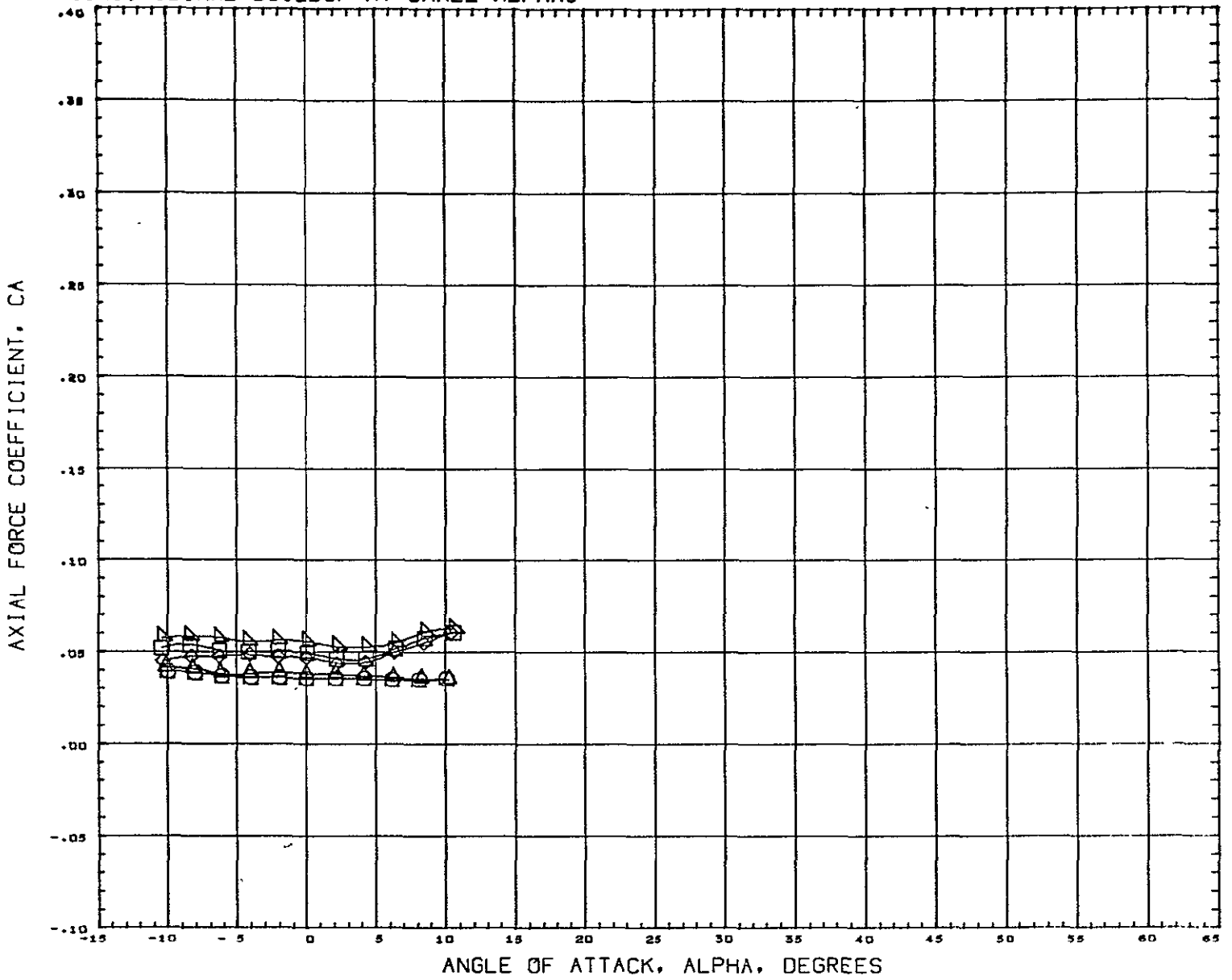
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C(BOOSTER) B19	0.000				SREF 15.6560 SQ. IN.
(E28B15)	MSFC 481 GD/C(BOOSTER) B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C(BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	MSFC 481 GD/C(BOOSTER) B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E28B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.610

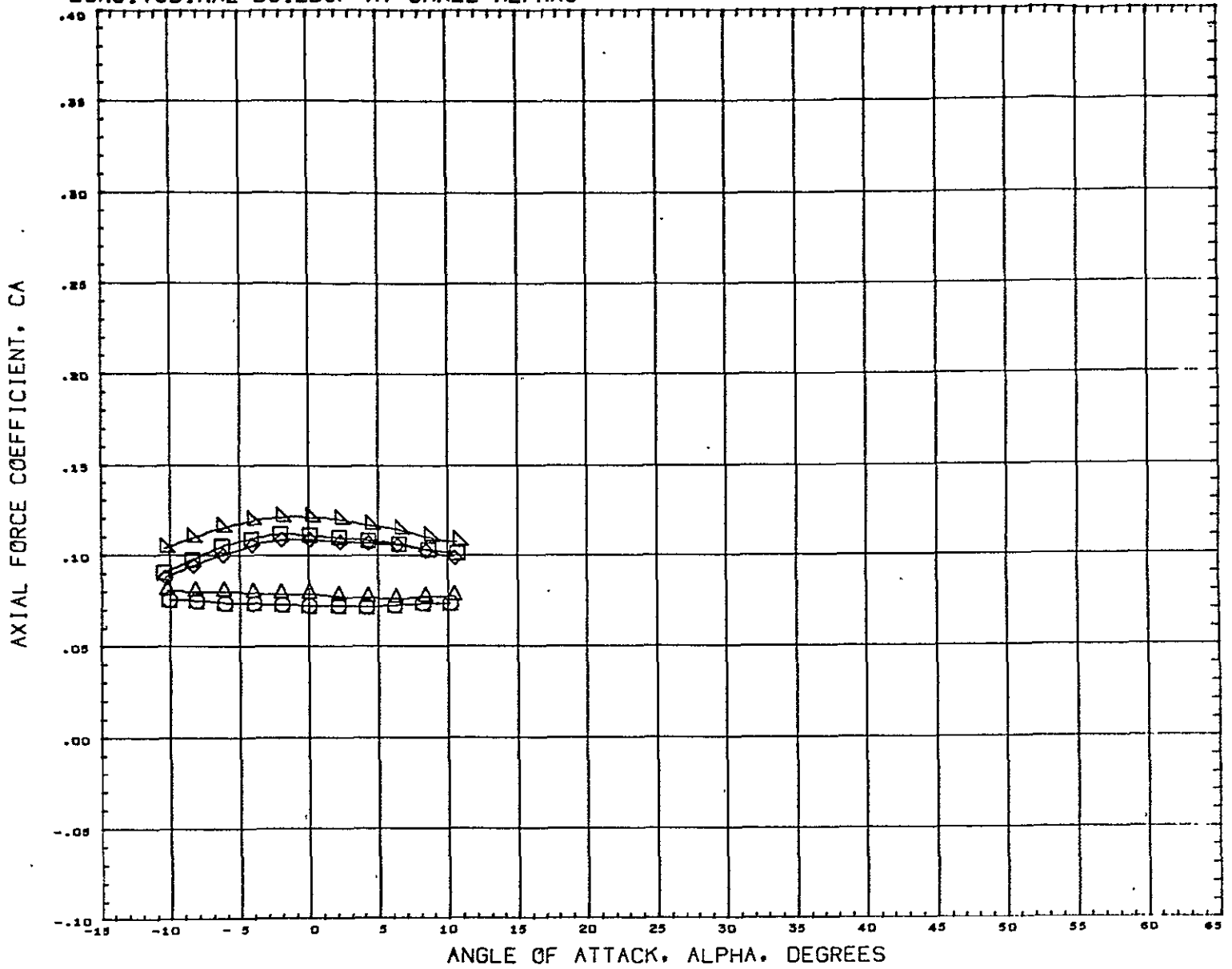
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C(BOOSTER) B19	0.000				SREF 15.6560 SQ. IN.
(E28B15)	MSFC 481 GD/C(BOOSTER) B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C(BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	MSFC 481 GD/C(BOOSTER) B19W14C4A	0.000	0.000	0.000		XHRP 6.7100 IN.
(E28B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 0.901

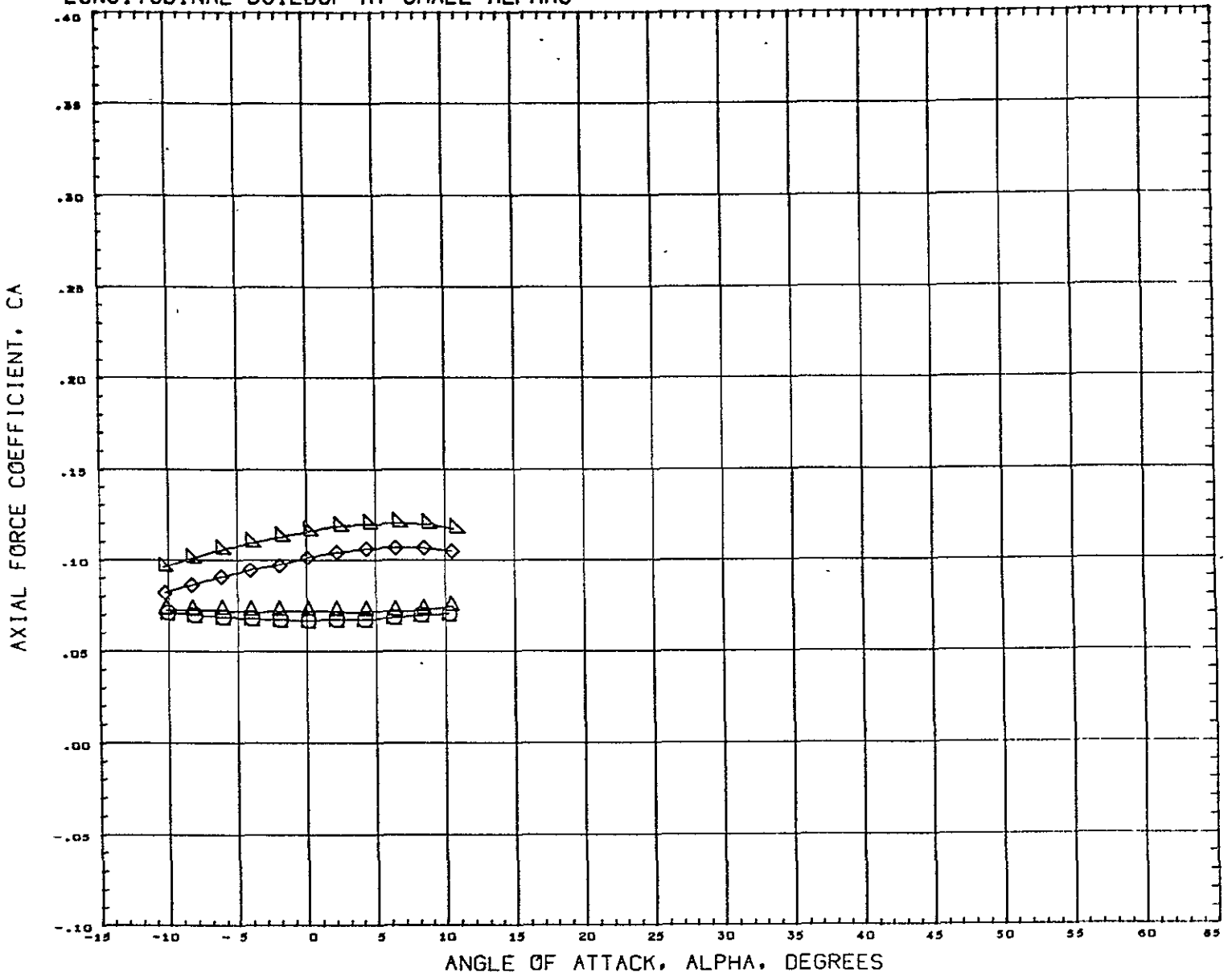
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C (BOOSTER) B19	0.000				SREF 15.6560 SQ. IN.
(E28B15)	MSFC 481 GD/C (BOOSTER) B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C (BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	MSFC 481 GD/C (BOOSTER) B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E28B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.105

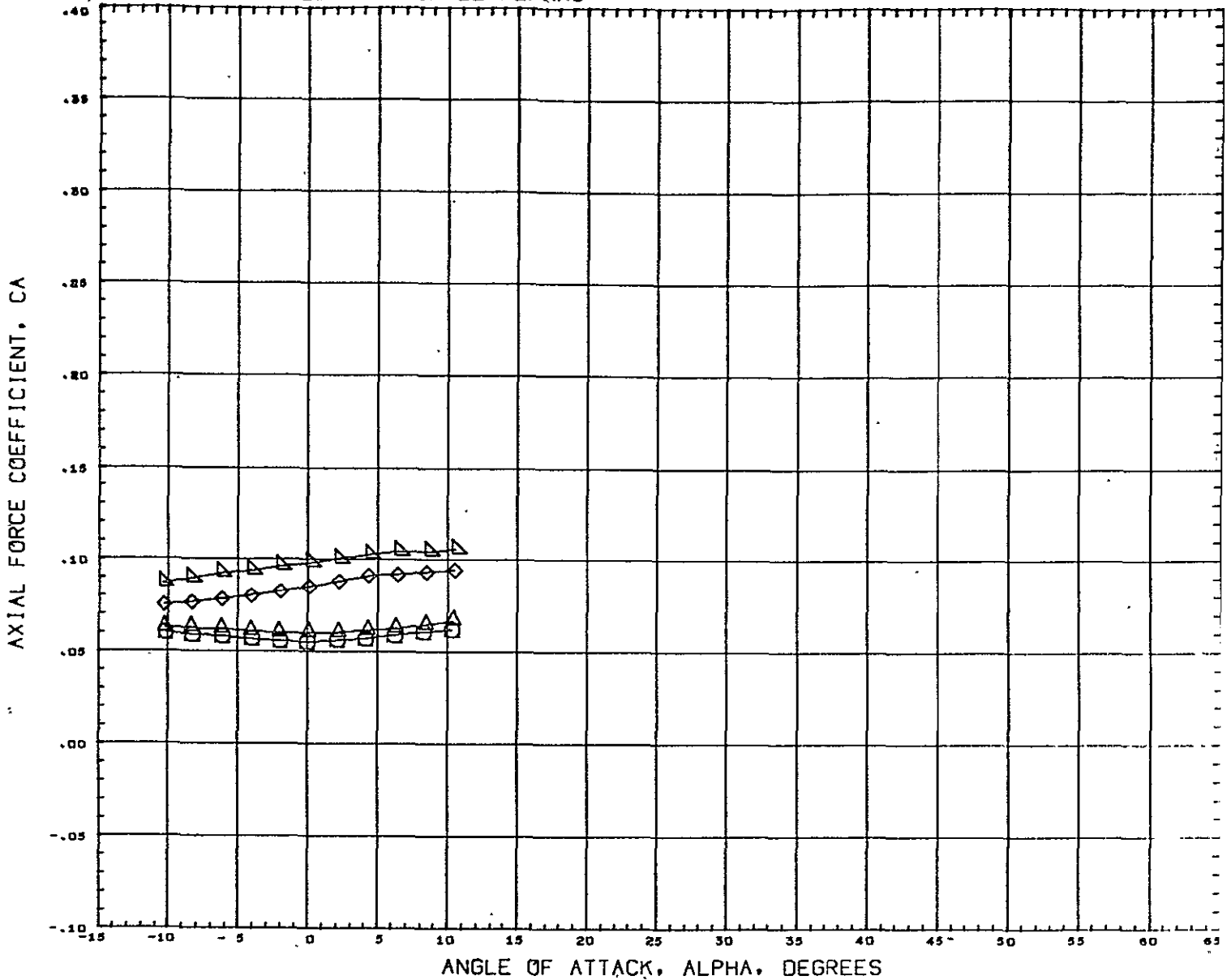
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28814)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 15.6560 SQ. IN.
(E28815)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28816)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000			BREF 6.0990 IN.
(E28817)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		XMRP 6.7100 IN.
(E28820)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.461

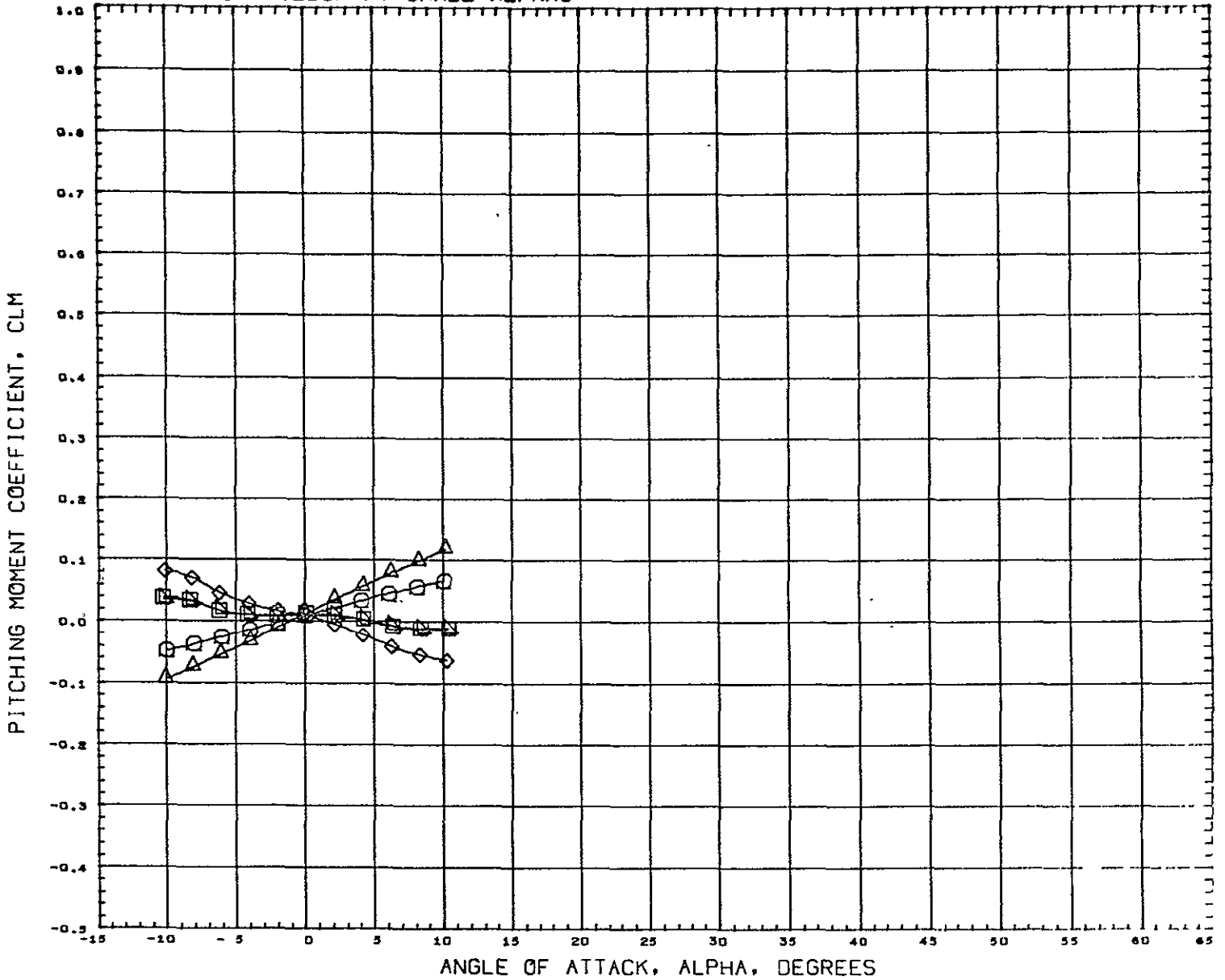
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 15.6560 SQ. IN.
(E28B15)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000	0.000		BREF 6.0990 IN.
(E28B17)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		XMRP 6.7100 IN.
(E28B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.966

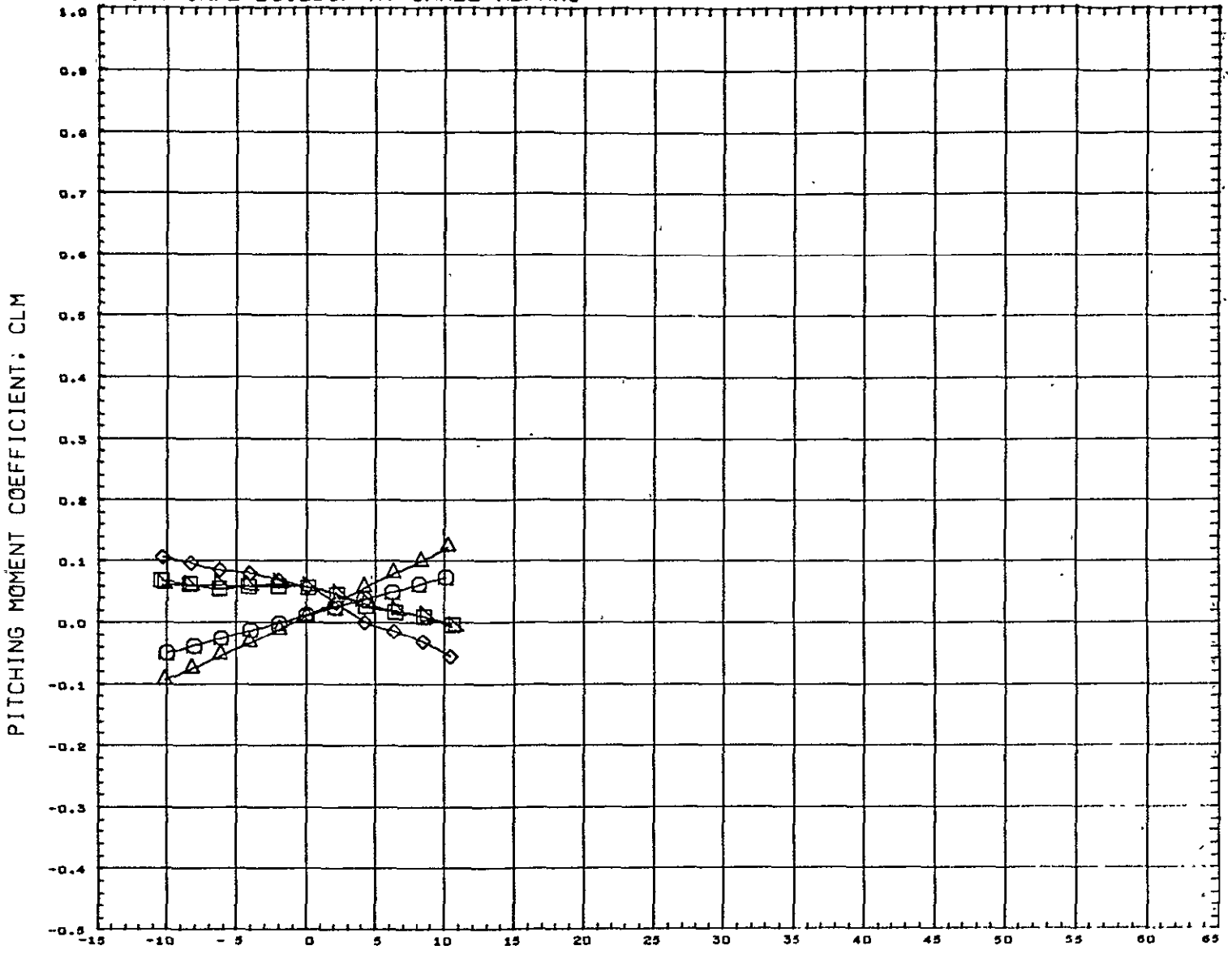
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 15.8560 SQ.IN.
(E28B15)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	MSFC 481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		XHRP 6.7100 IN.
(E28B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 0.610

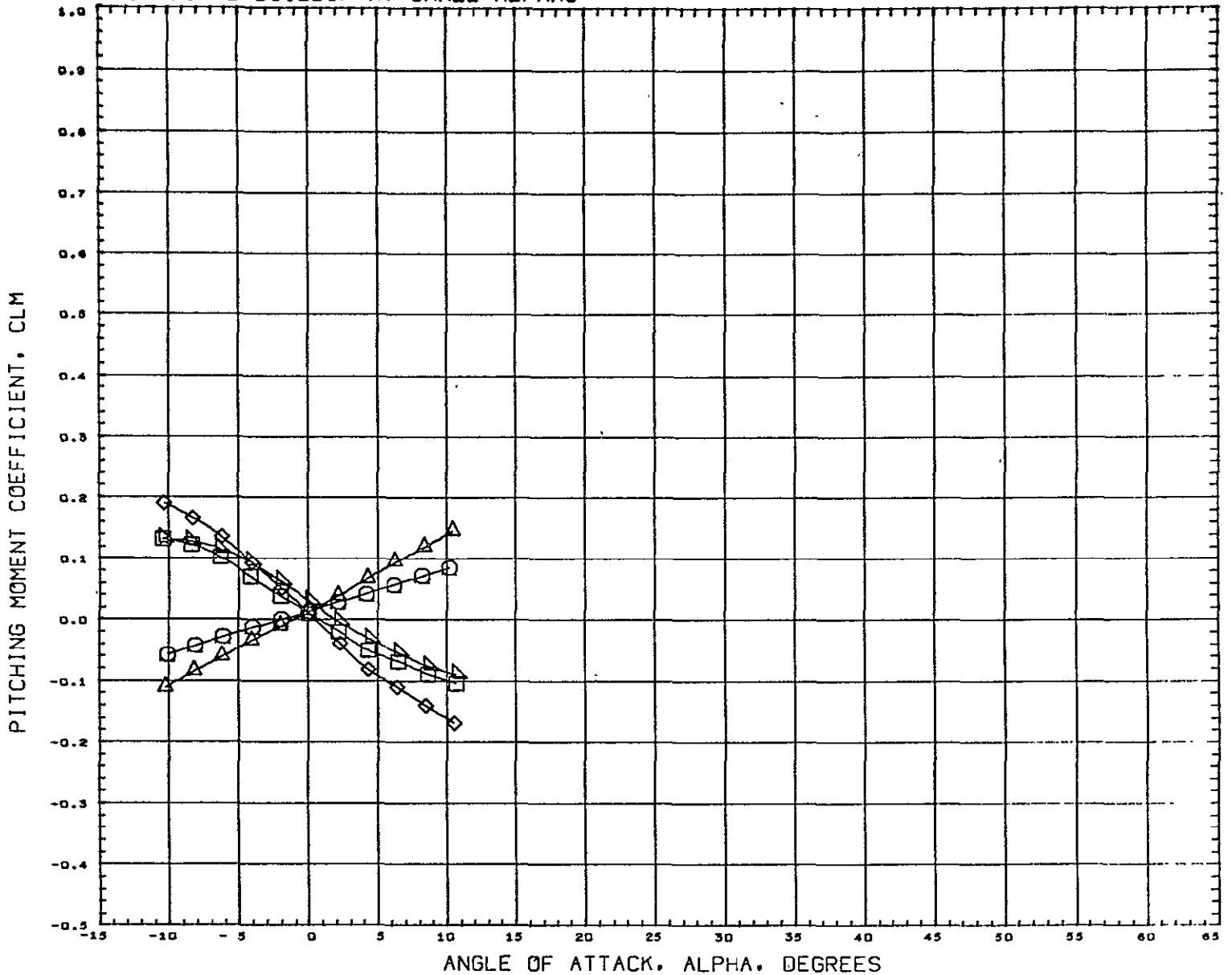
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 15.6560 SQ. IN.
(E28B15)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	MSFC 481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E28B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV?	0.000	0.000	0.000		YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.901

LONGITUDINAL BUILDUP AT SMALL ALPHAS

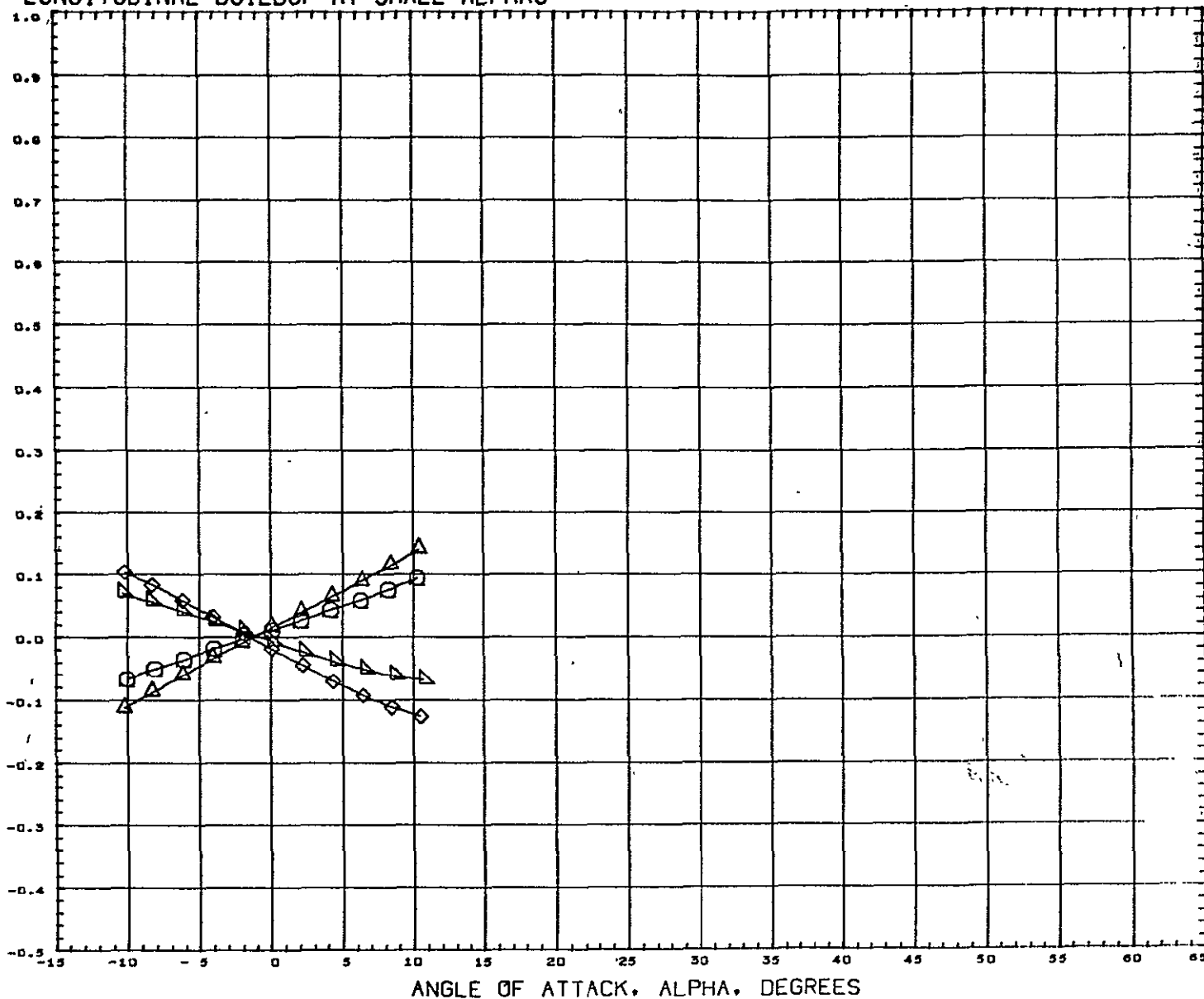


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	HSFC 401 GD/C(BOOSTER)B19	0.000				SREF 15.6560 SQ. IN.
(E28B15)	HSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	HSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	HSFC 481 GD/C(BOOSTER)B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E28B20)	HSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.105

CONSTITUTIONAL BULLETIN AT SMALL ANGLES

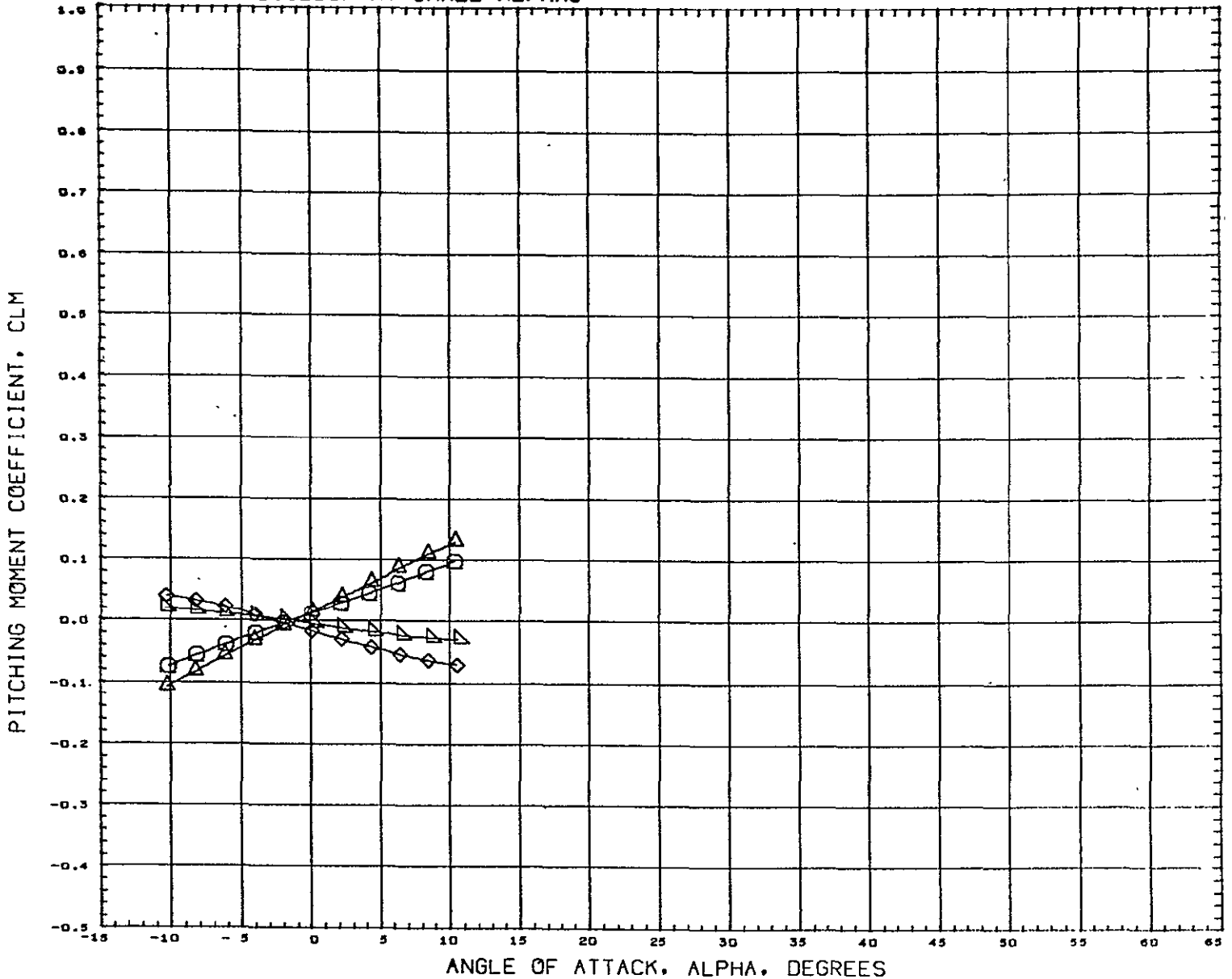
PITCHING MOMENT COEFFICIENT, CLM



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 15.6560 SQ.IN.
(E28B15)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		XHRP 6.7100 IN.
(E28B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0039

MACH 1.461

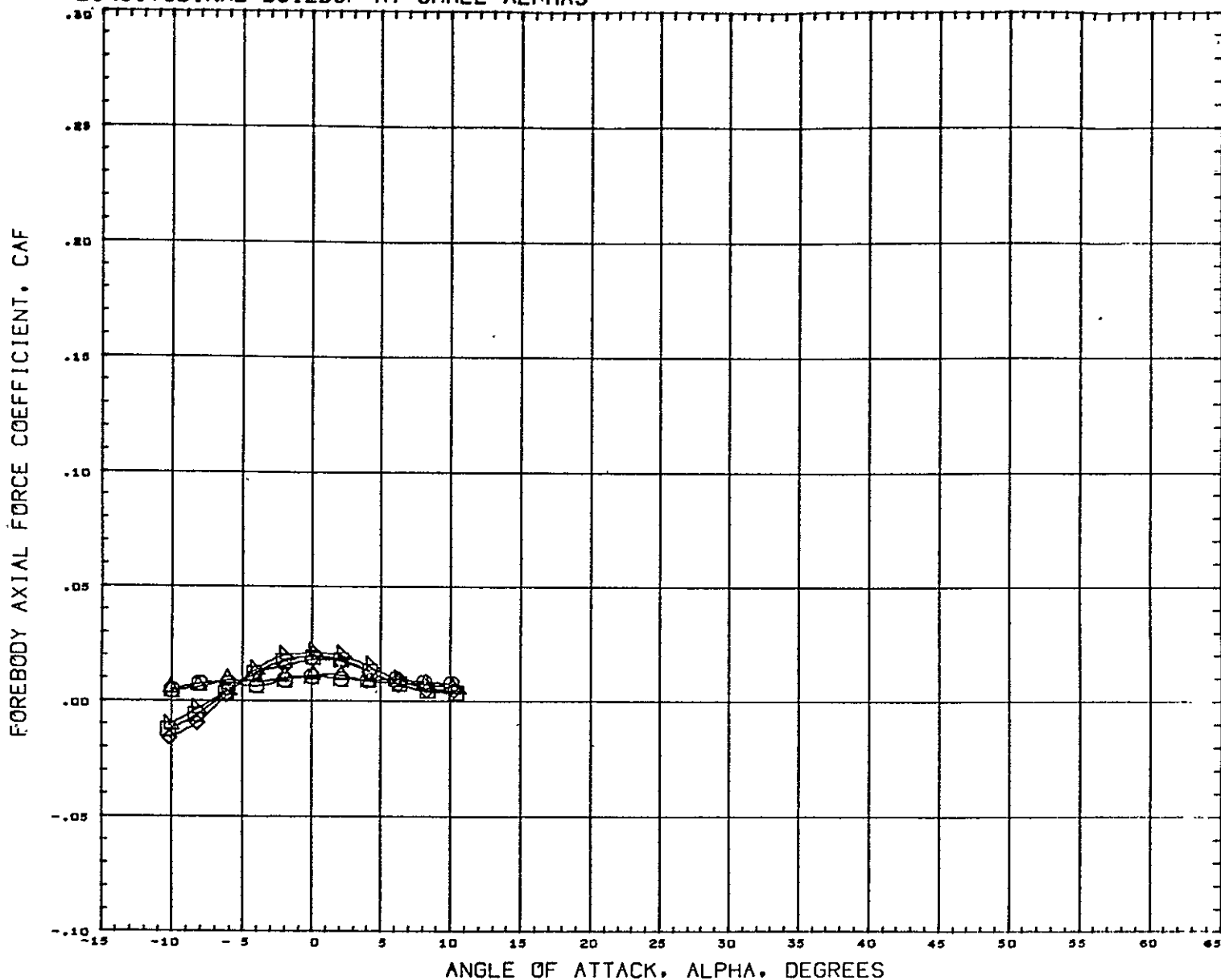
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 15.6560 SQ. IN.
(E28B15)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		XHRF 6.7100 IN.
(E28B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		YHRF 0.0000 IN.
						ZHRF 0.0000 IN.
						SCALE 0.0035

MACH 1.966

LONGITUDINAL BUILDUP AT SMALL ALPHAS

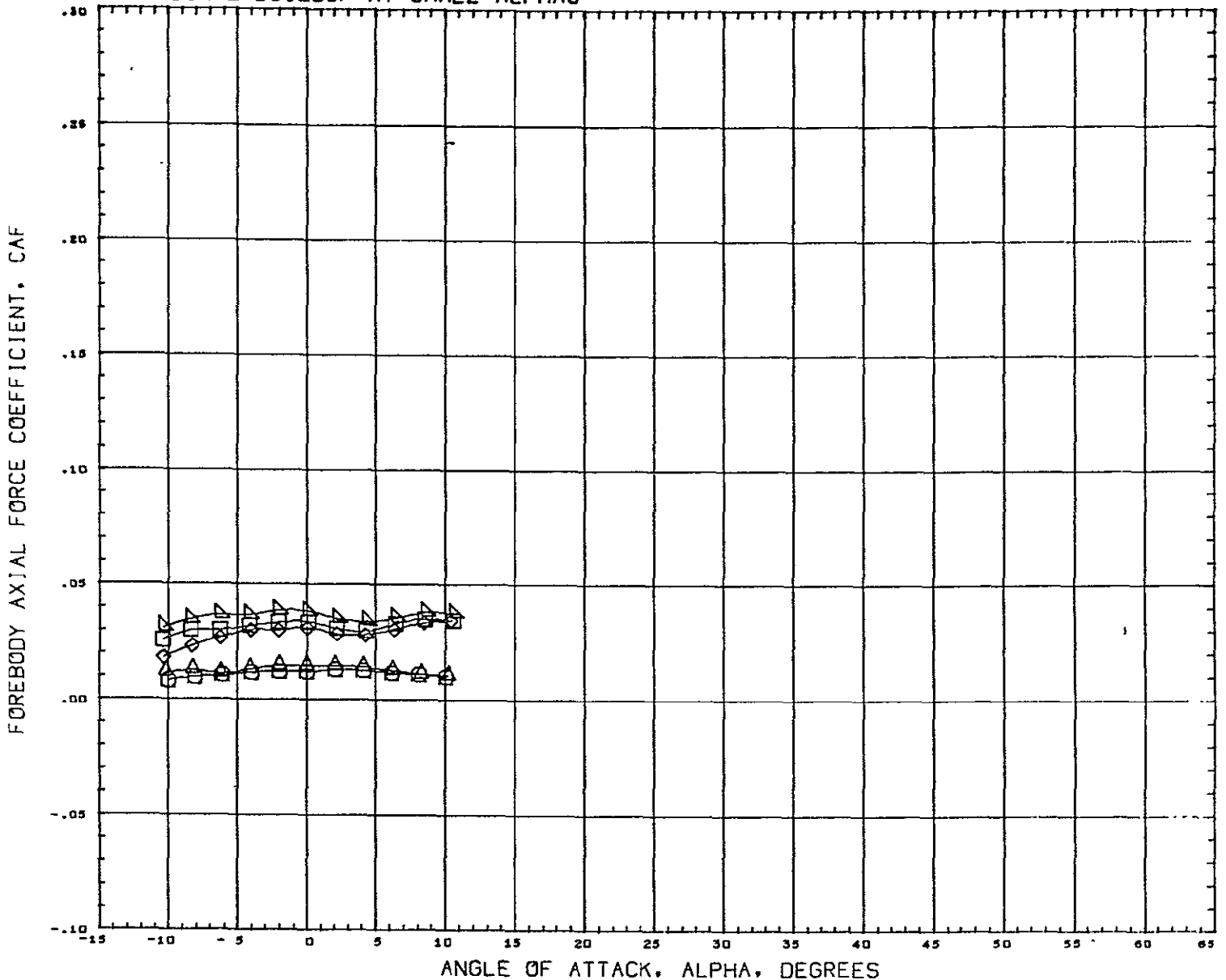


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B14)	MSFC 481 GD/C(BOOSTER) B19	0.000				SREF 15.6560 3Q. IN.
(E20B15)	MSFC 481 GD/C(BOOSTER) B19C4A	0.000		0.000		LREF 3.0950 IN.
(E20B16)	MSFC 481 GD/C(BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E20B17)	MSFC 481 GD/C(BOOSTER) B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E20B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.610

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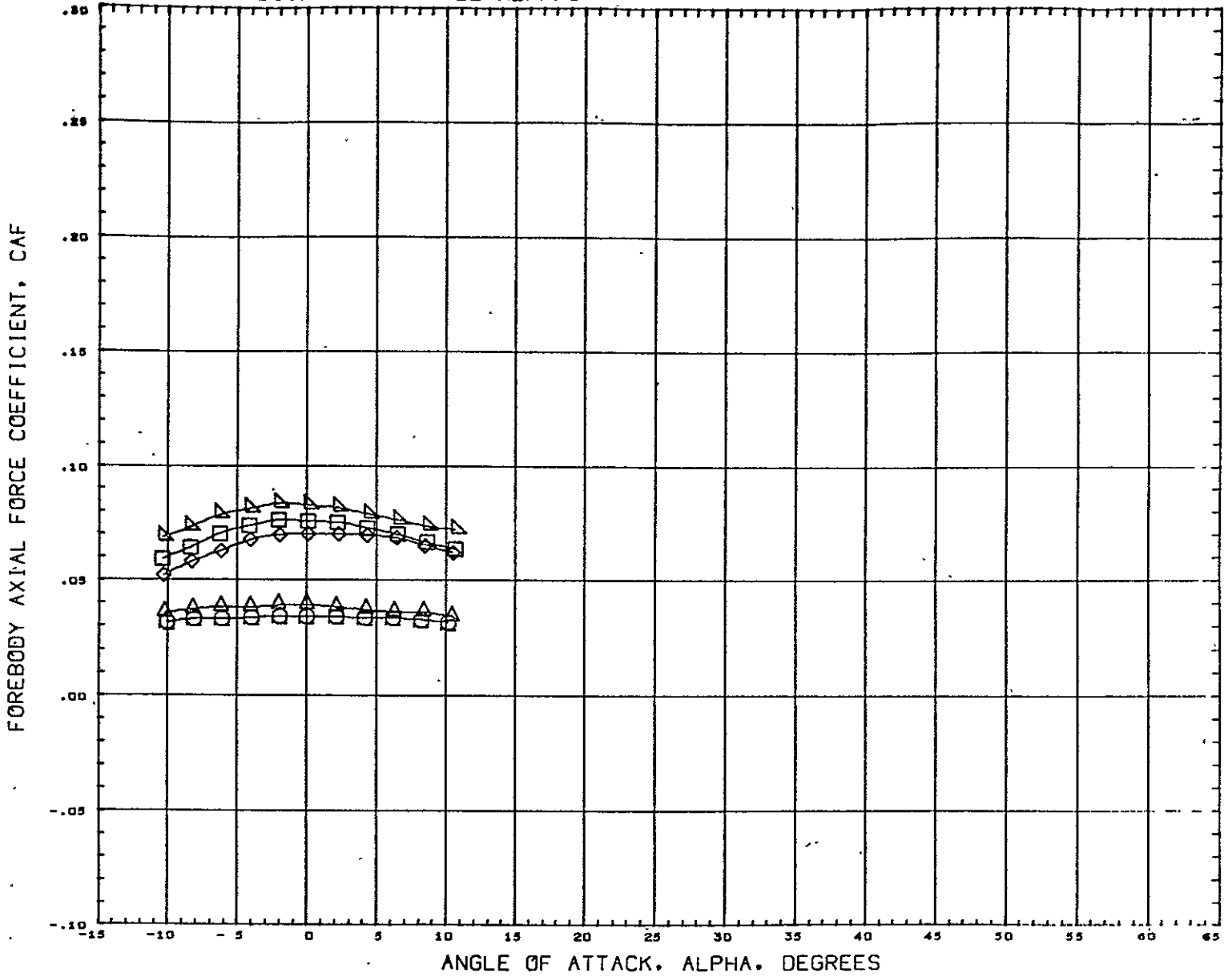
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B14)	MSFC 481 GD/C (BOOSTER) B19	0.000				SREF 15.6560 SQ. IN.
(E20B15)	MSFC 481 GD/C (BOOSTER) B19C4A	0.000				LREF 3.0950 IN.
(E20B16)	MSFC 481 GD/C (BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E20B17)	MSFC 481 GD/C (BOOSTER) B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E20B20)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.901

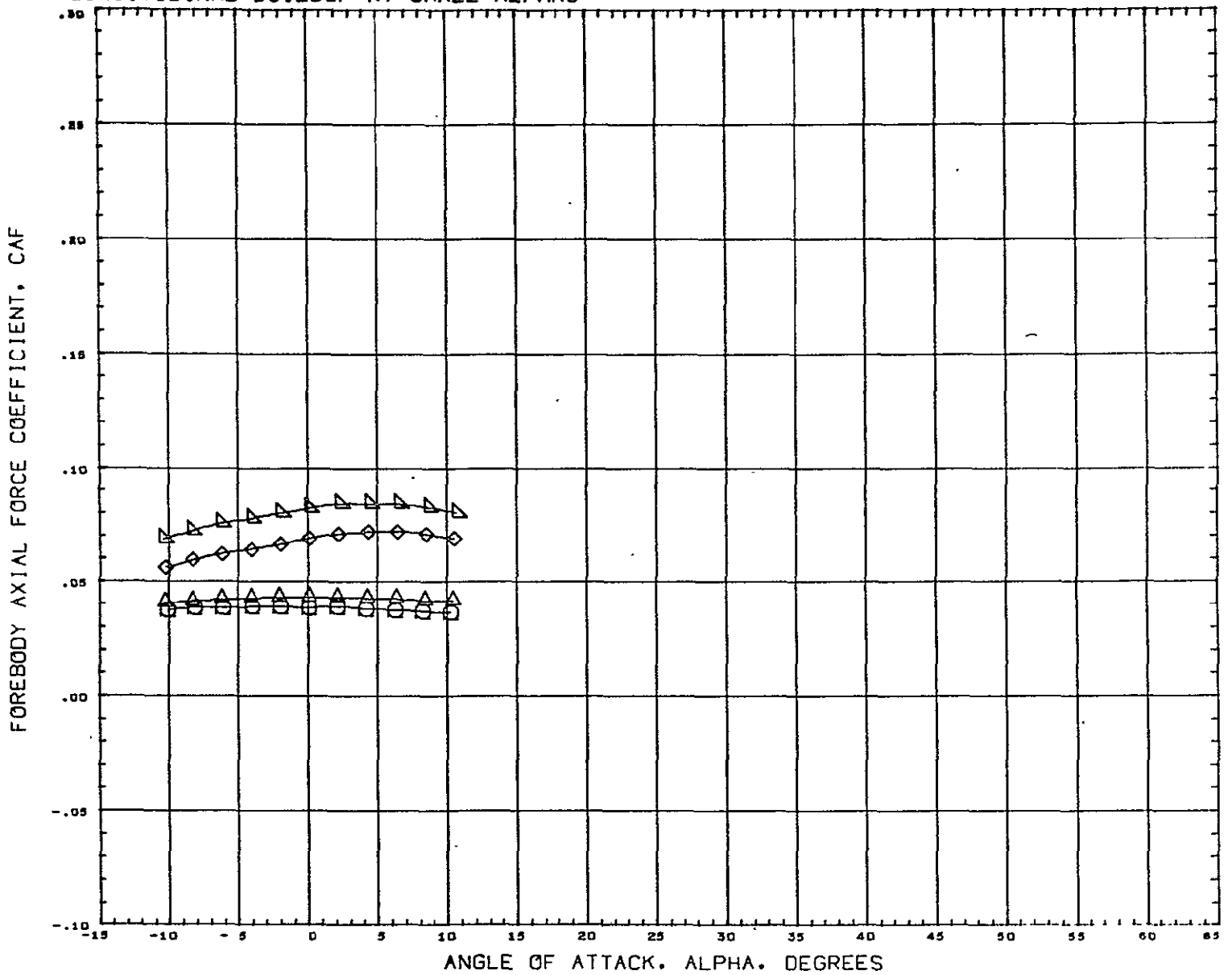
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B14)	MSFC 481 GD/C(BOOSTER) B19	0.000				SREF 15.6560 SQ. IN.
(E28B15)	MSFC 481 GD/C(BOOSTER) B19C4A	0.000		0.000		LREF 3.0950 IN.
(E28B16)	MSFC 481 GD/C(BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E28B17)	MSFC 481 GD/C(BOOSTER) B19W14C4A	0.000	0.000	0.000		XMRP 6.7100 IN.
(E28B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.105

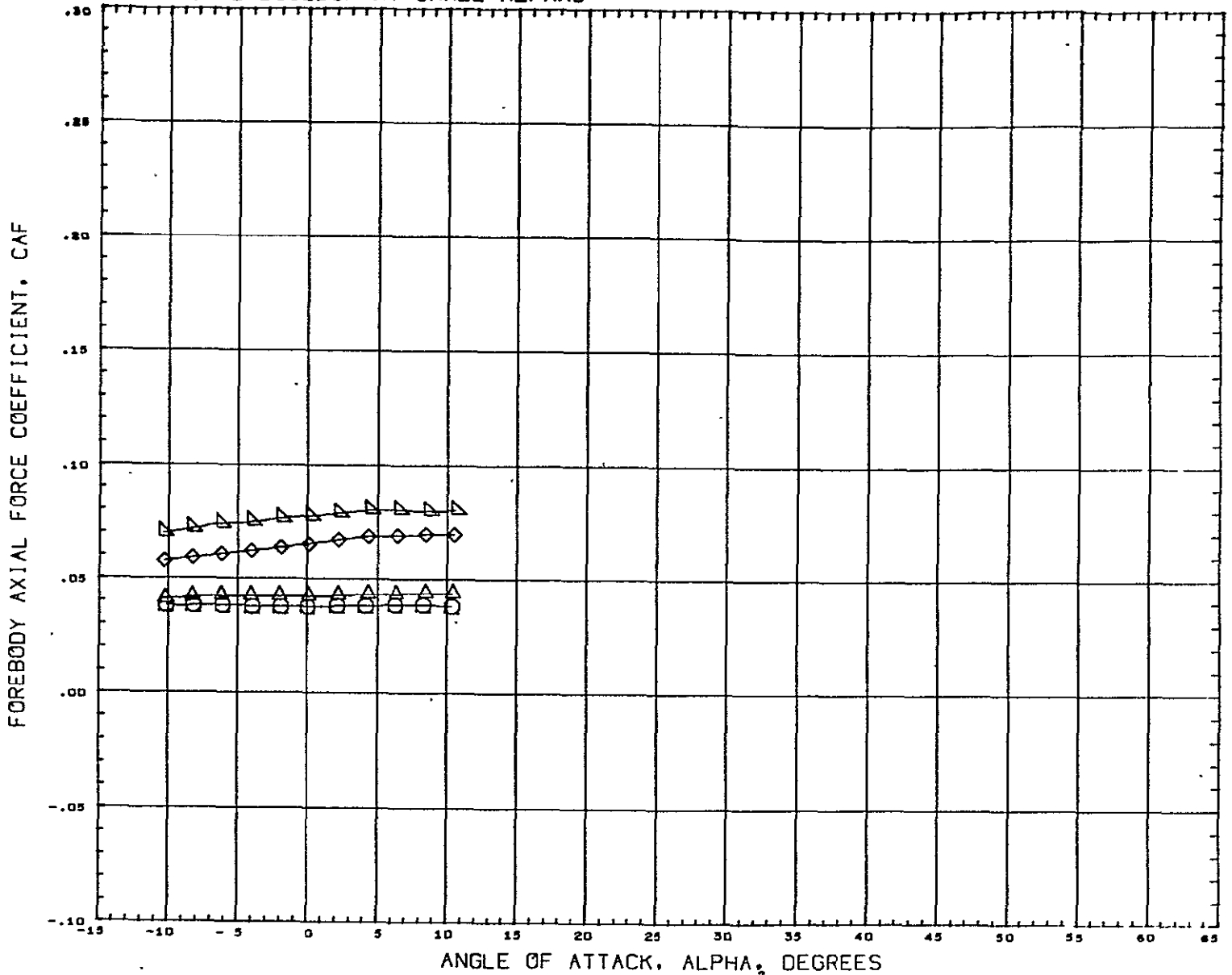
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B14)	MSFC 481 GD/C(BOOSTER) B19	0.000				SREF 15.8560 SQ. IN
(E20B15)	MSFC 481 GD/C(BOOSTER) B19C4A	0.000		0.000		LREF 3.0950 IN.
(E20B16)	MSFC 481 GD/C(BOOSTER) B19W14	0.000	0.000			BREF 6.0990 IN.
(E20B17)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		XMRP 6.7100 IN.
(E20B20)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.461

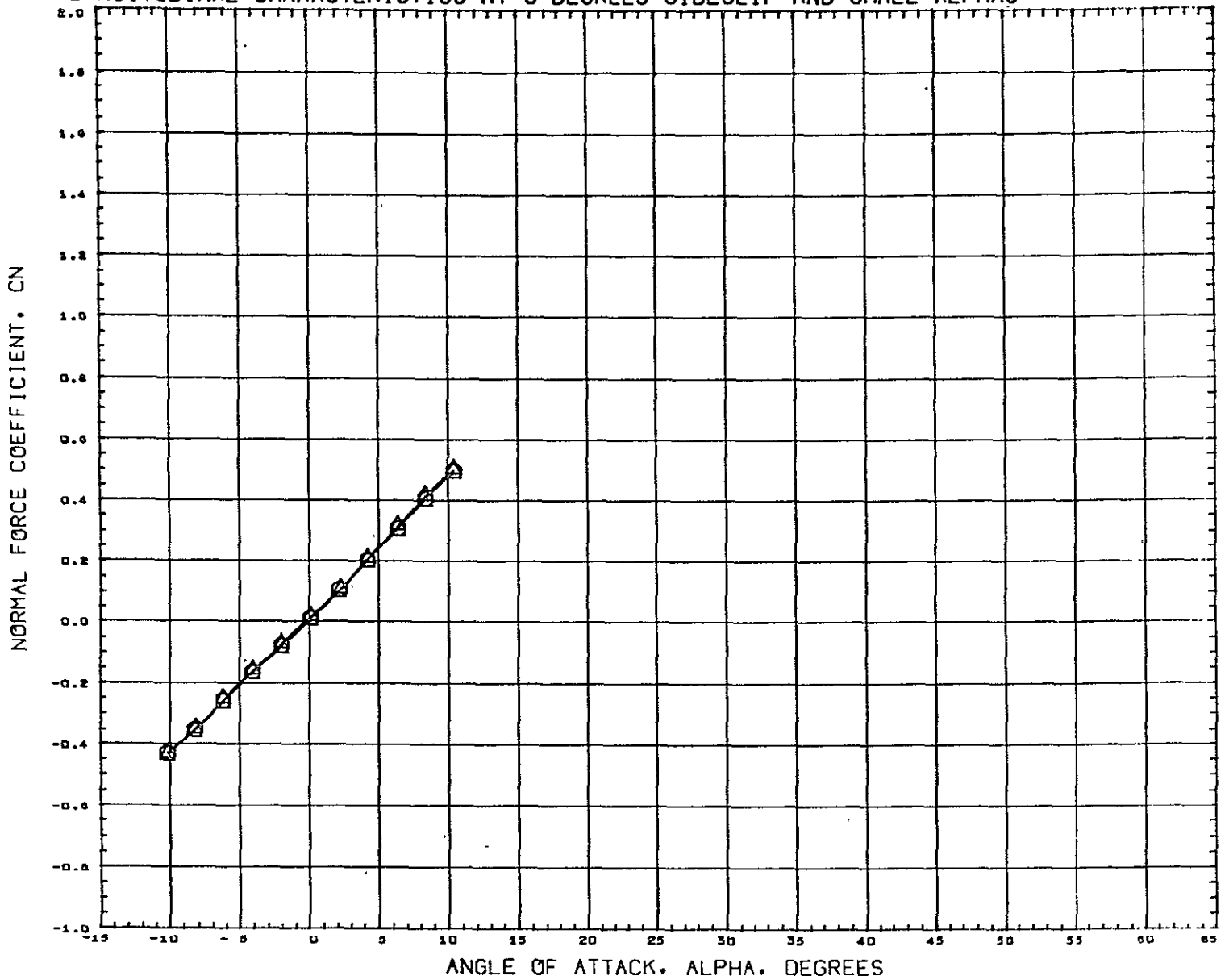
LONGITUDINAL BUILDUP AT SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E26B14)	MSFC 481 GD/C(BOOSTER)B19	0.000				SREF 13.6360 SQ. IN.
(E26B15)	MSFC 481 GD/C(BOOSTER)B19C4A	0.000		0.000		LREF 3.0950 IN.
(E26B16)	MSFC 481 GD/C(BOOSTER)B19W14	0.000	0.000	0.000		BREF 6.0990 IN.
(E26B17)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		XMRP 6.7100 IN.
(E26B20)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.966

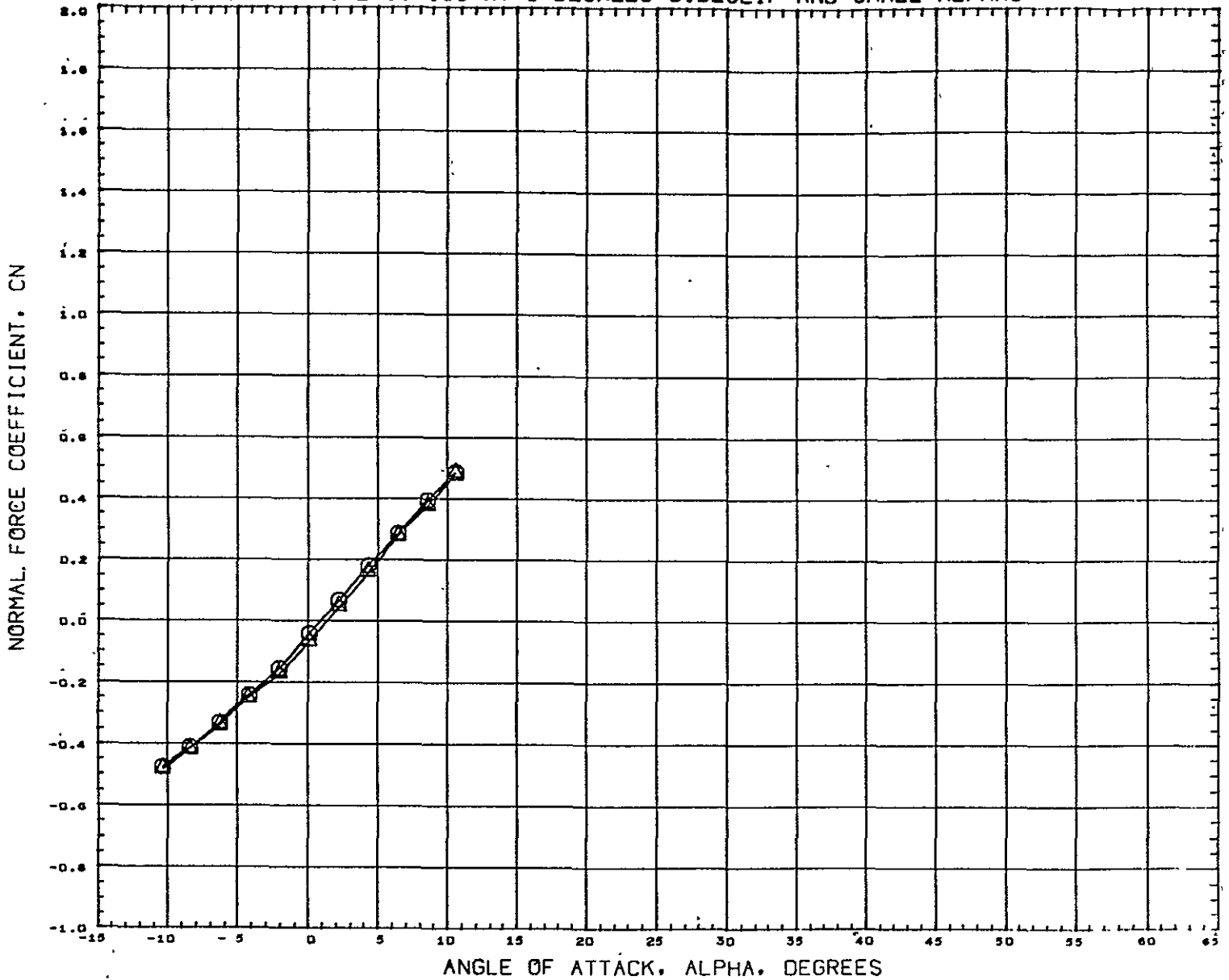
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET;SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B18)	MSFC 481 GD/C (BOOSTER) B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B19)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.609

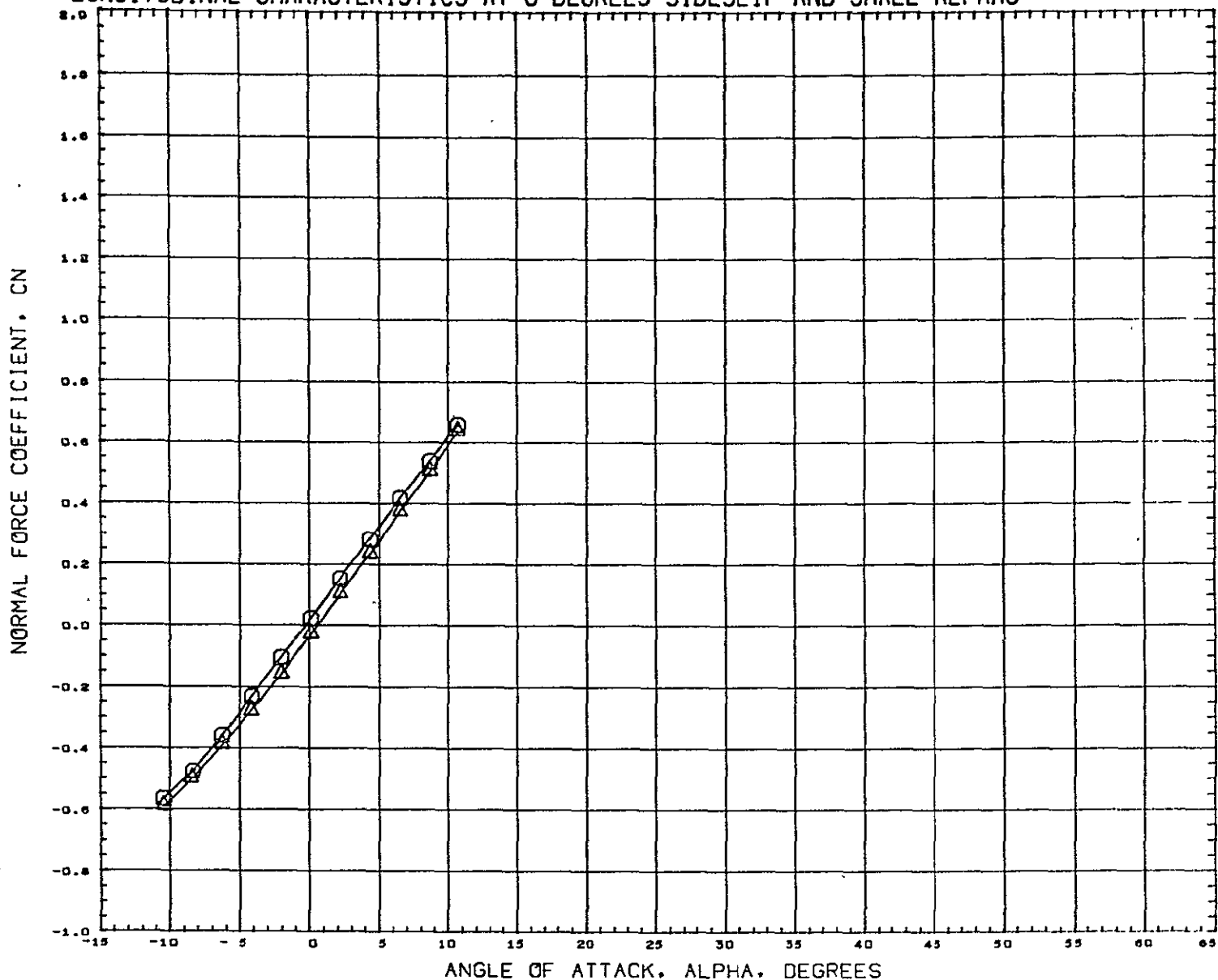
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(E28B18)	○	MSFC 481 GD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF	15.6560 SQ. IN.
(E28B19)	△	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF	3.0950 IN.
							BREF	6.0990 IN.
							XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 0.906

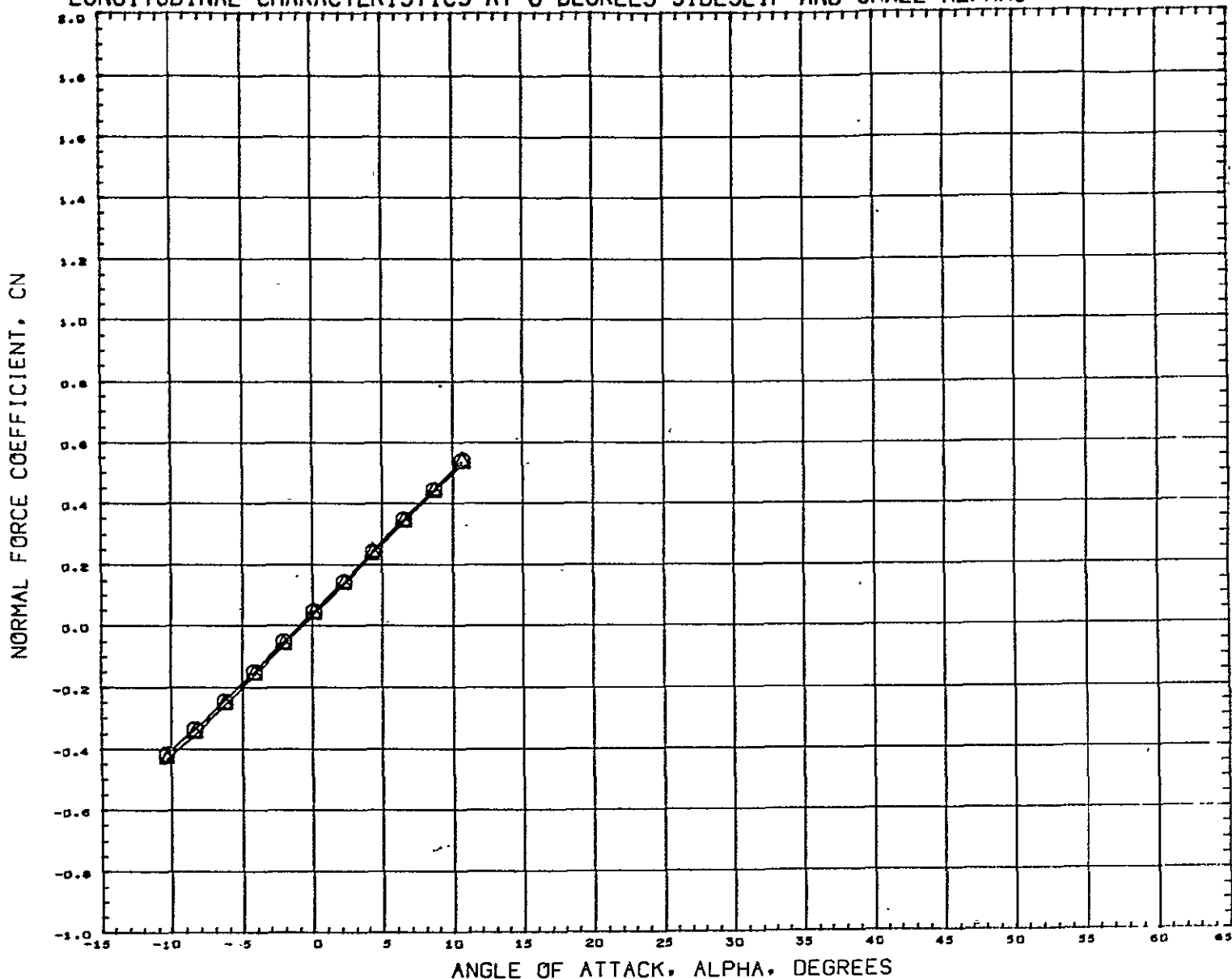
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28818)	MSFC 481 GD/C (BOOSTER) B19W14C4A	6.000	0.000	0.000		SREF 15.6500 SQ. IN.
(E28819)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XHRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.103

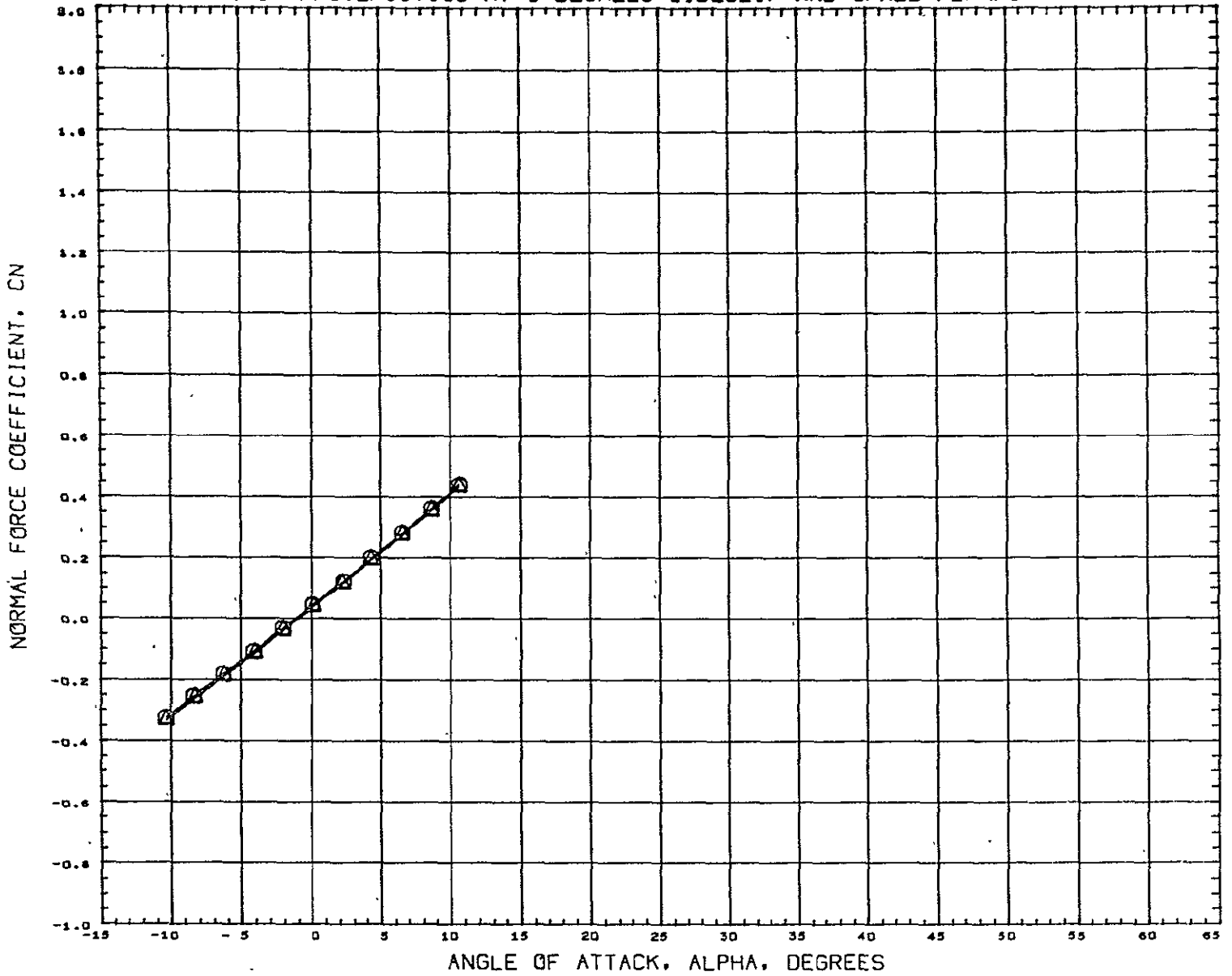
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION	
(E28B18)	MSFC 481 CD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF	15.6560 SQ. IN.
(E28B19)	MSFC 481 CD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.463

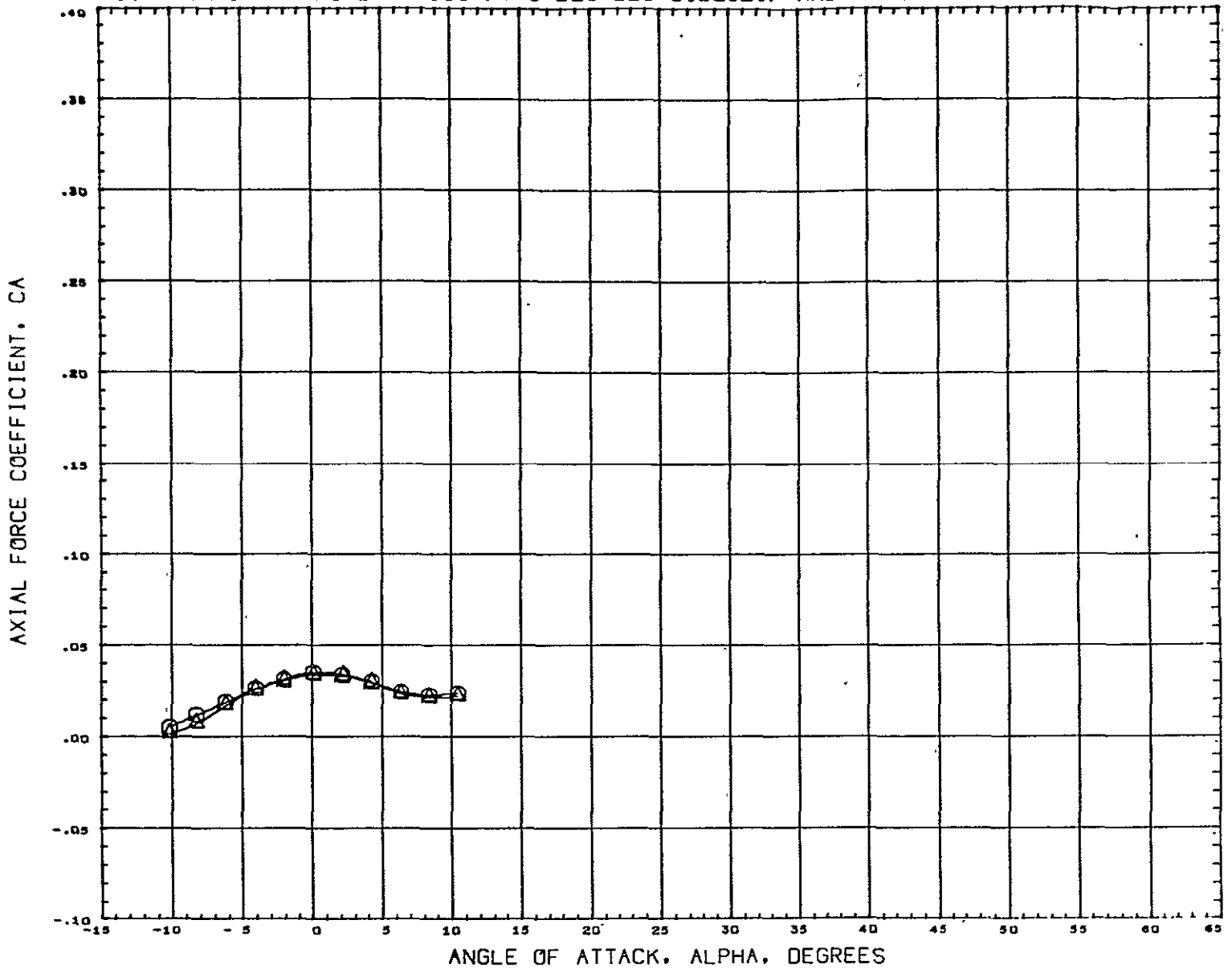
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28818)	MSFC 481 GD/C(BOOSTER) B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28819)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.971

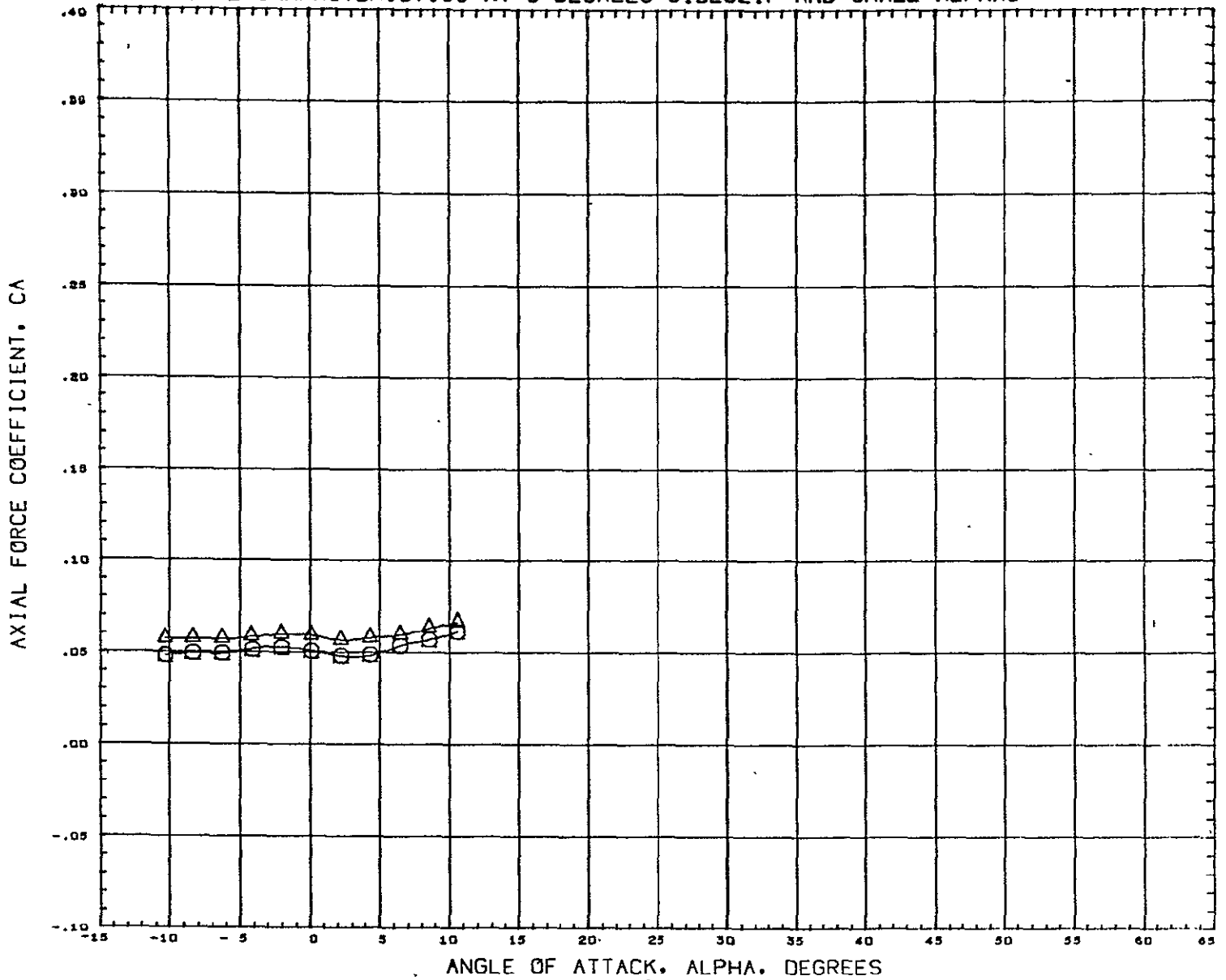
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B16)	MSFC 401 GD/C (BOOSTER) B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E20B19)	MSFC 401 GD/C (BOOSTER) B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.609

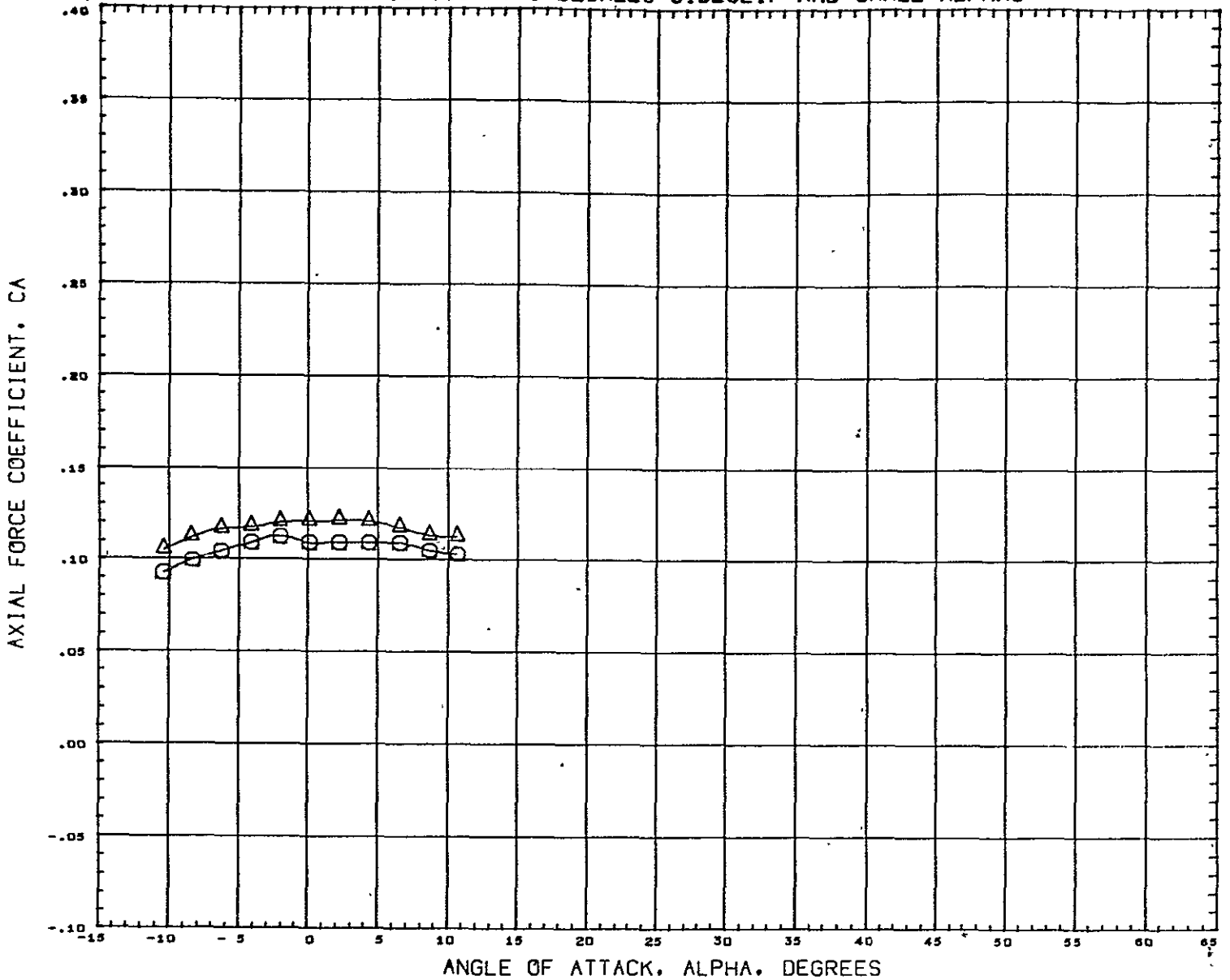
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B18)	MSFC 481 GD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ.IN.
(E28B19)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF 3.0930 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.906

LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



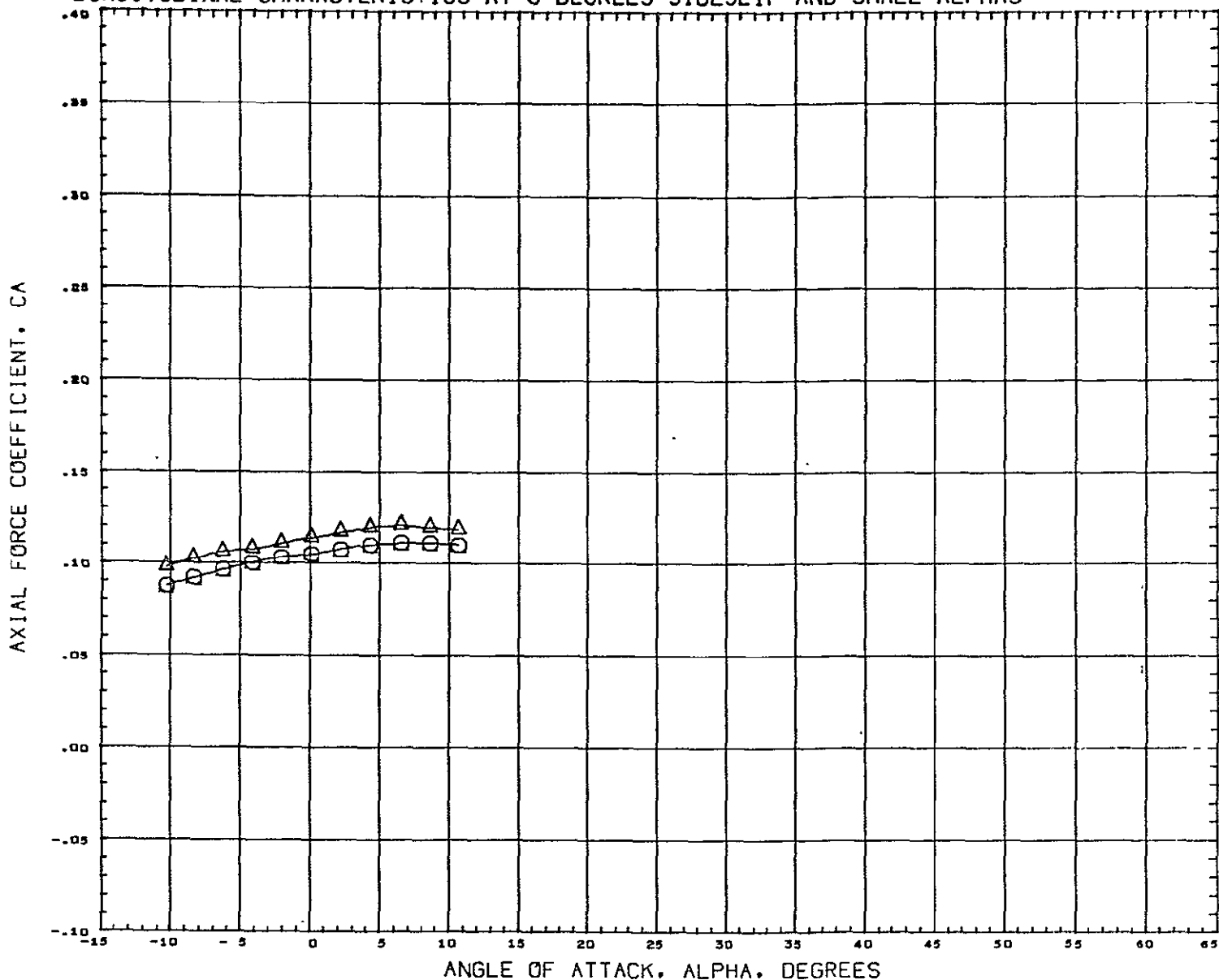
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E28B18) ○ MSFC 481 GD/C(BOOSTER)B19W14C4A
 (E28B19) △ MSFC 481 GD/C(BOOSTER)B19W14C4AV7

BETA ELEVON CANARD RUDDER
 6.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

MACH 1.103

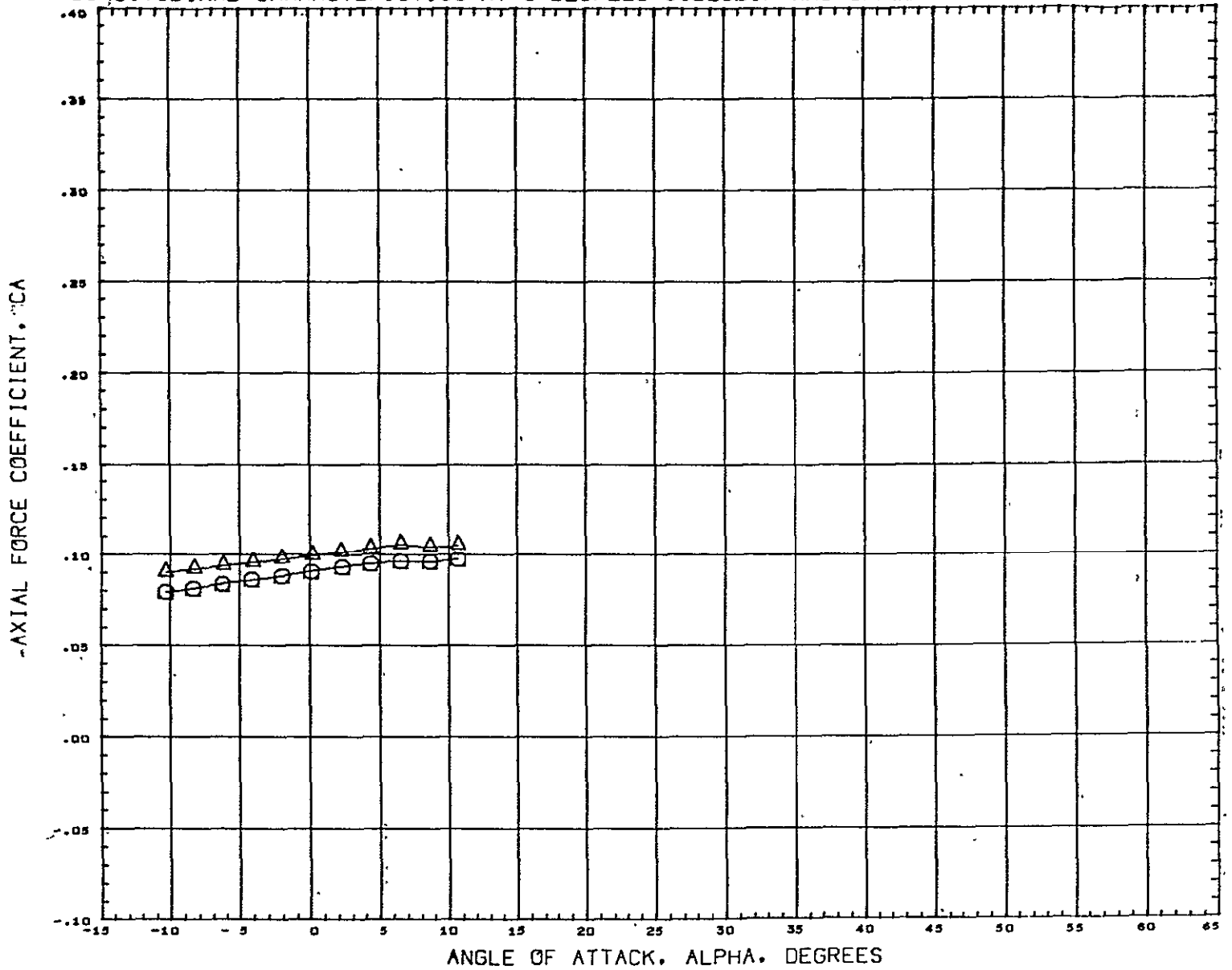
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B18)	○	HSFC 481 GD/C (BOOSTER) B19W14C4A	6.000	0.000	0.000		SREF 13.6550 SQ. IN.
(E28B19)	△	HSFC 481 GD/C (BOOSTER) B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
							BREF 6.0990 IN.
							XMRP 6.7100 IN.
							YMRP 0.0000 IN.
							ZMRP 0.0000 IN.
							SCALE 0.0035

MACH 1.463

LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



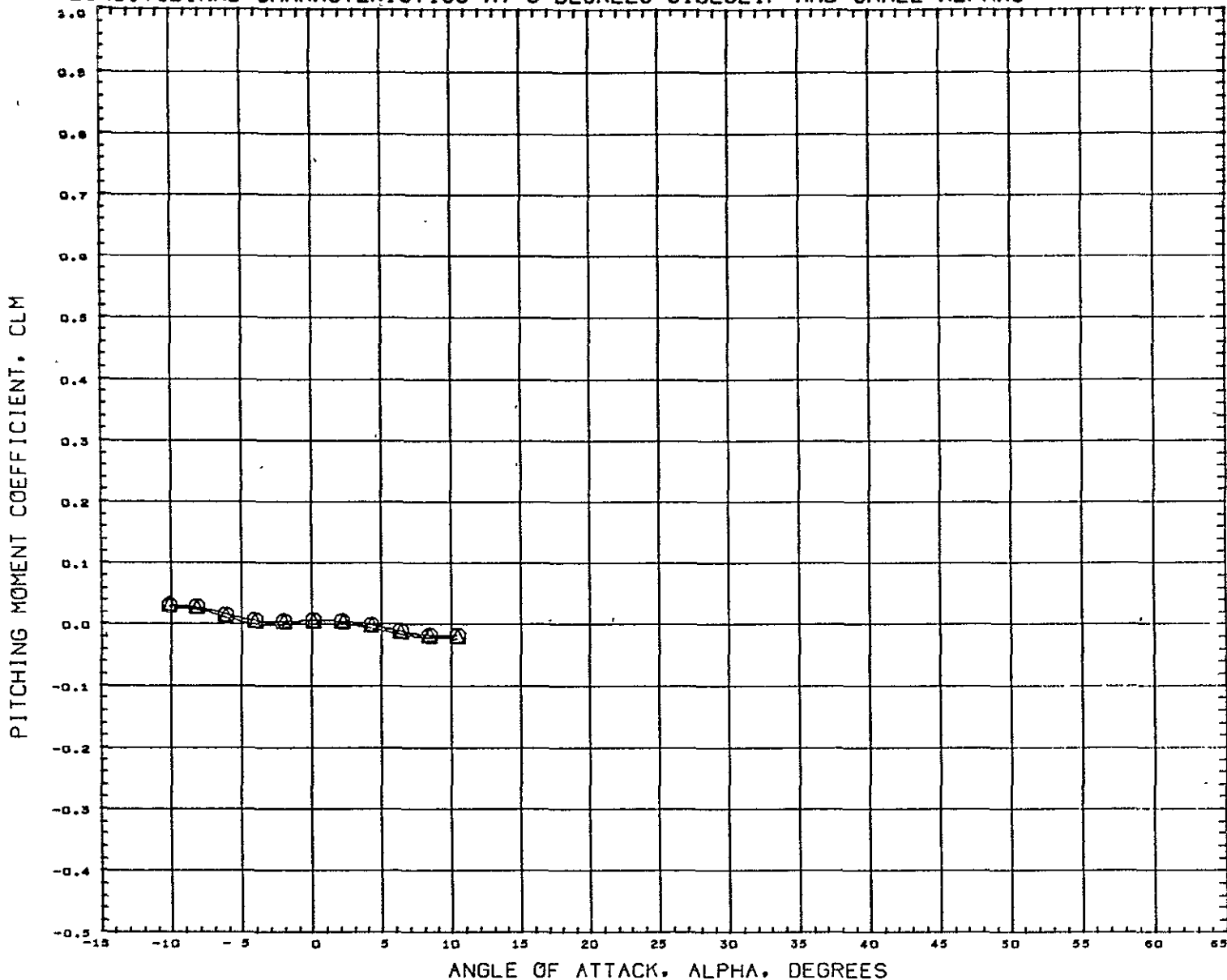
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(E28B18)	MSFC 481 GD/C(BOOSTER)B19W14C4A
(E28B19)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7

BETA	ELEVON	CANARD	RUDDER
6.000	0.000	0.000	
6.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	39. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MACH 1.971

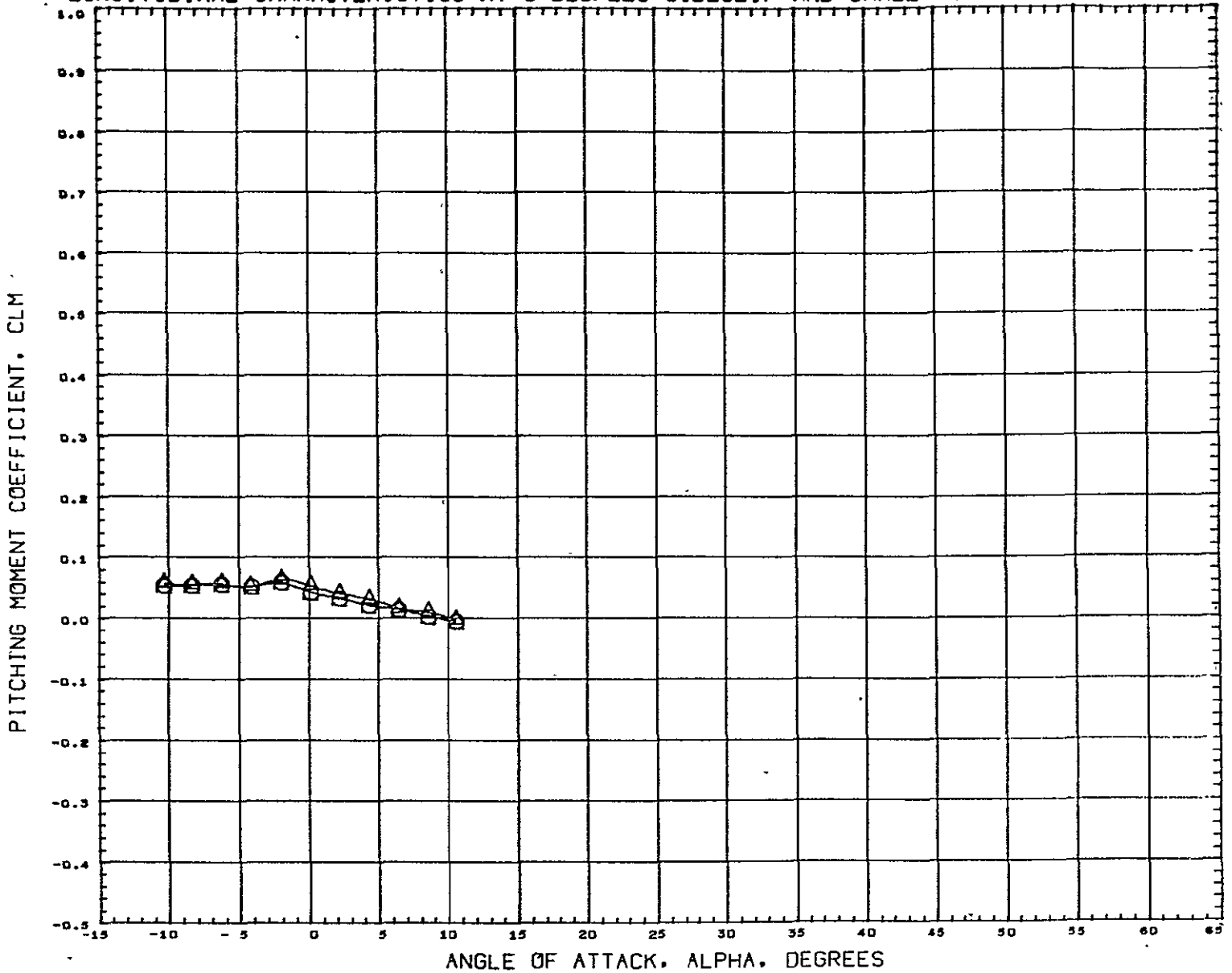
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28818)	MSFC 481 GD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28819)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.609

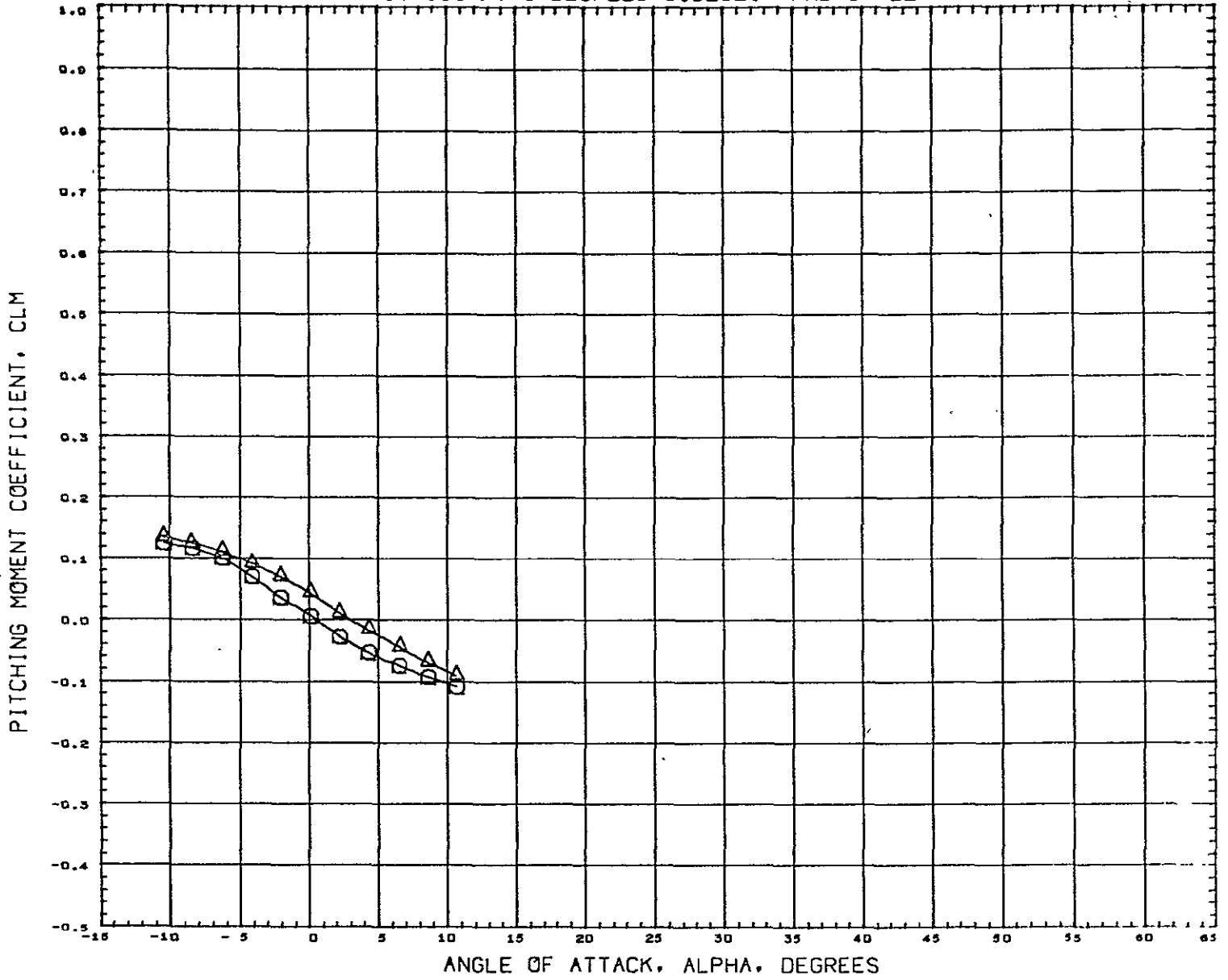
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B18)	MSFC 481 GD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF 15.6560 30.IN.
(E28B19)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.906

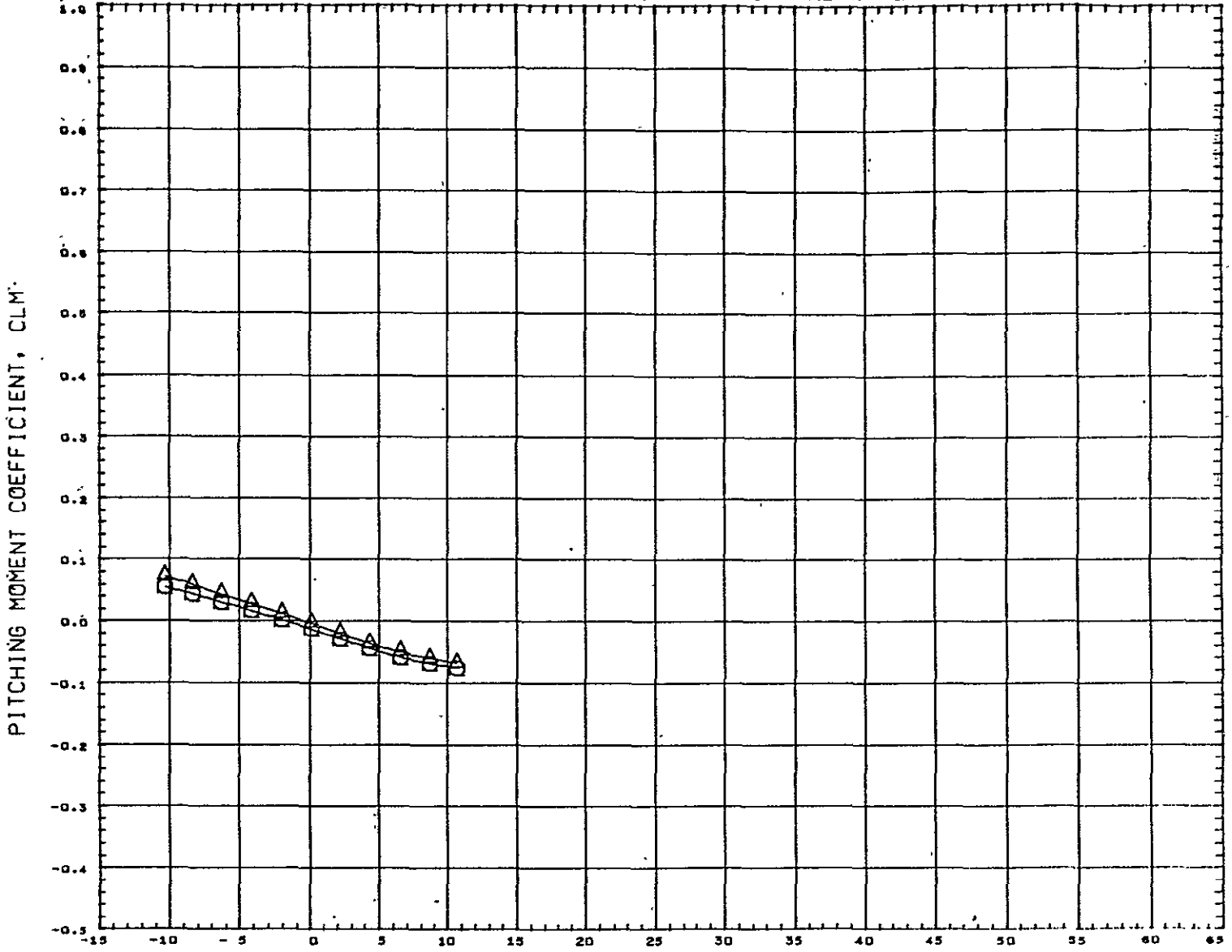
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E26B18)	MSFC 461 GD/C(BOOSTER) B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E26B19)	MSFC 461 GD/C(BOOSTER) B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.103

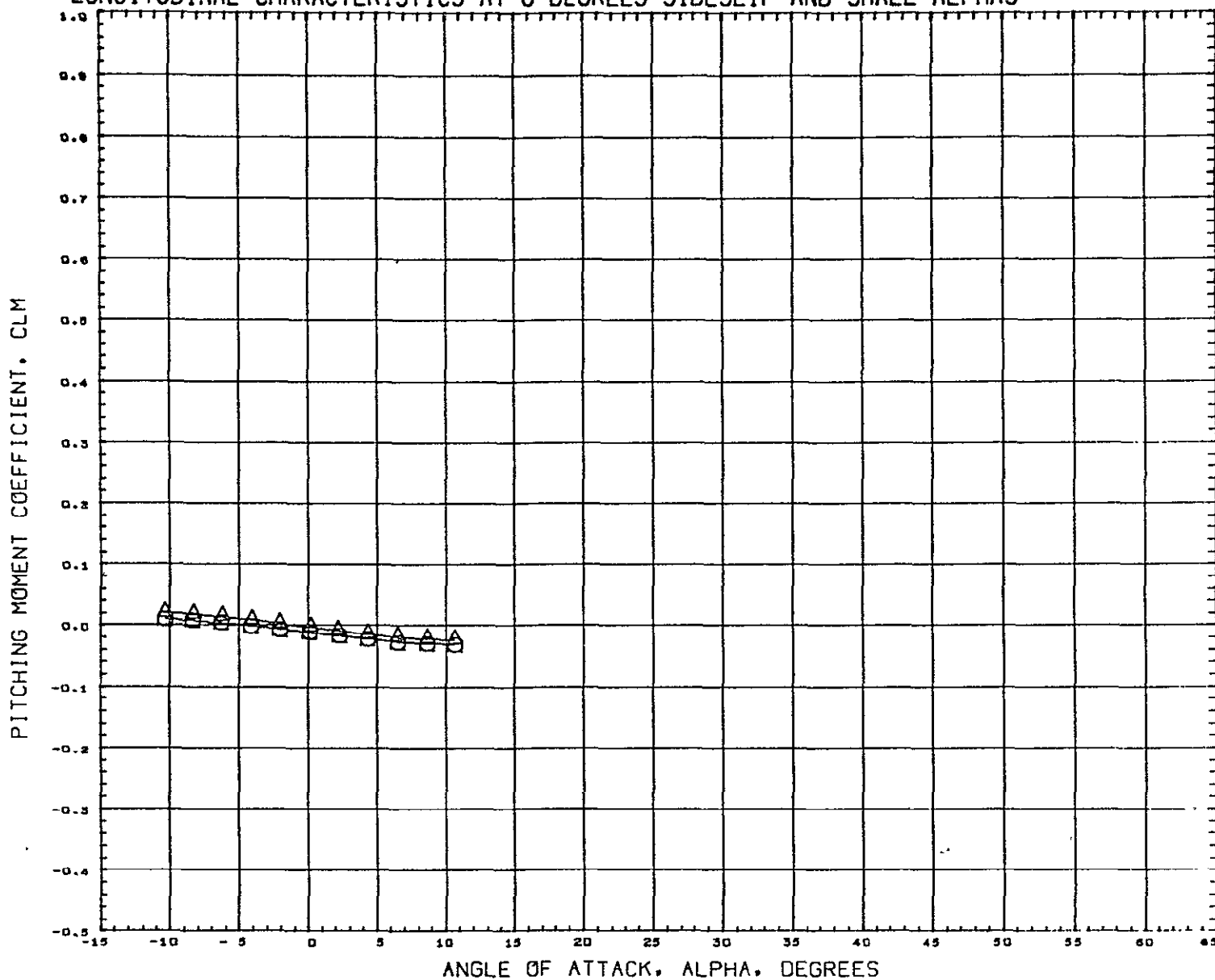
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20810)	MSFC 481 GD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF 15.6560 50. IN.
(E20819)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.465

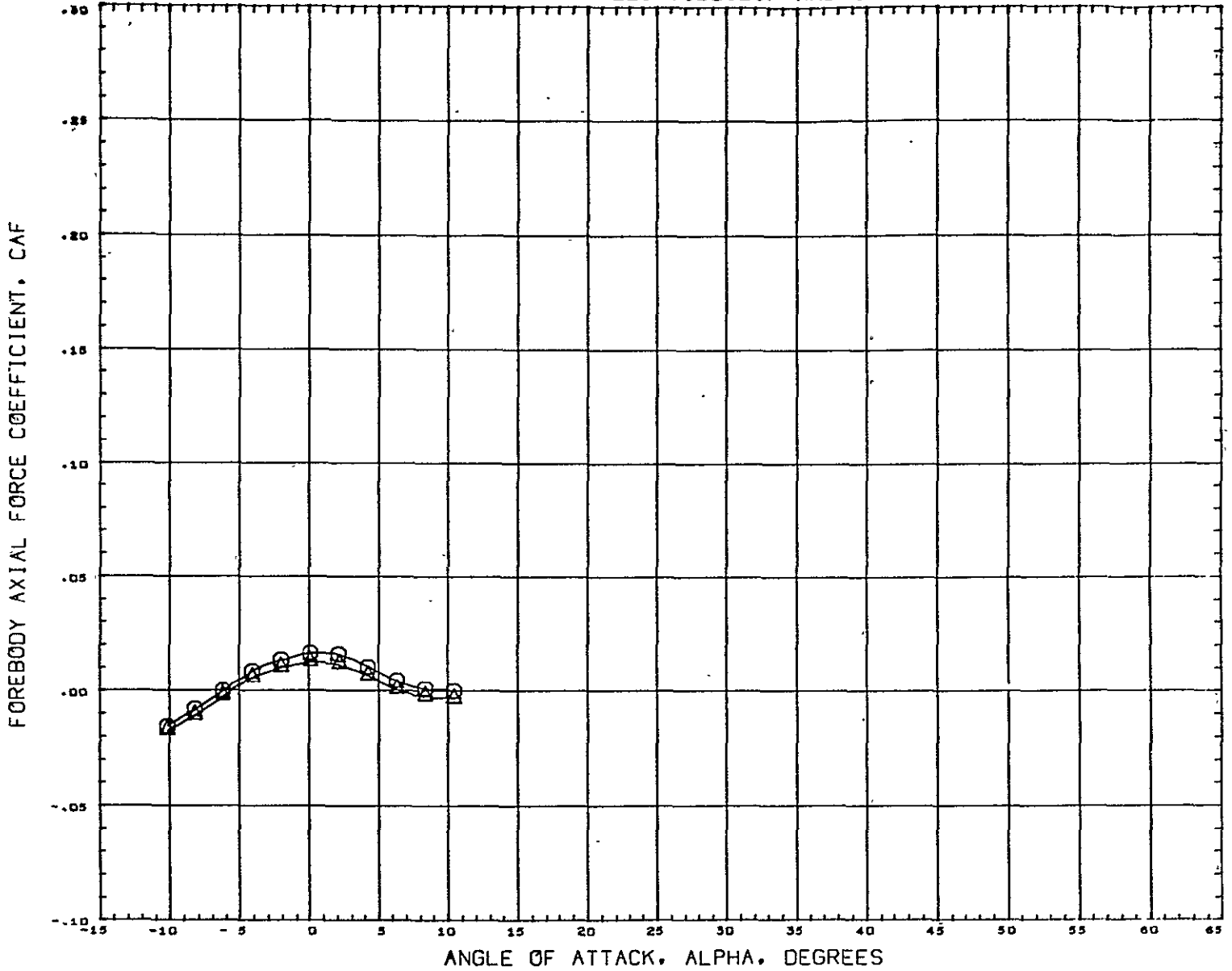
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B18)	MSFC 481 GD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B19)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.971

LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



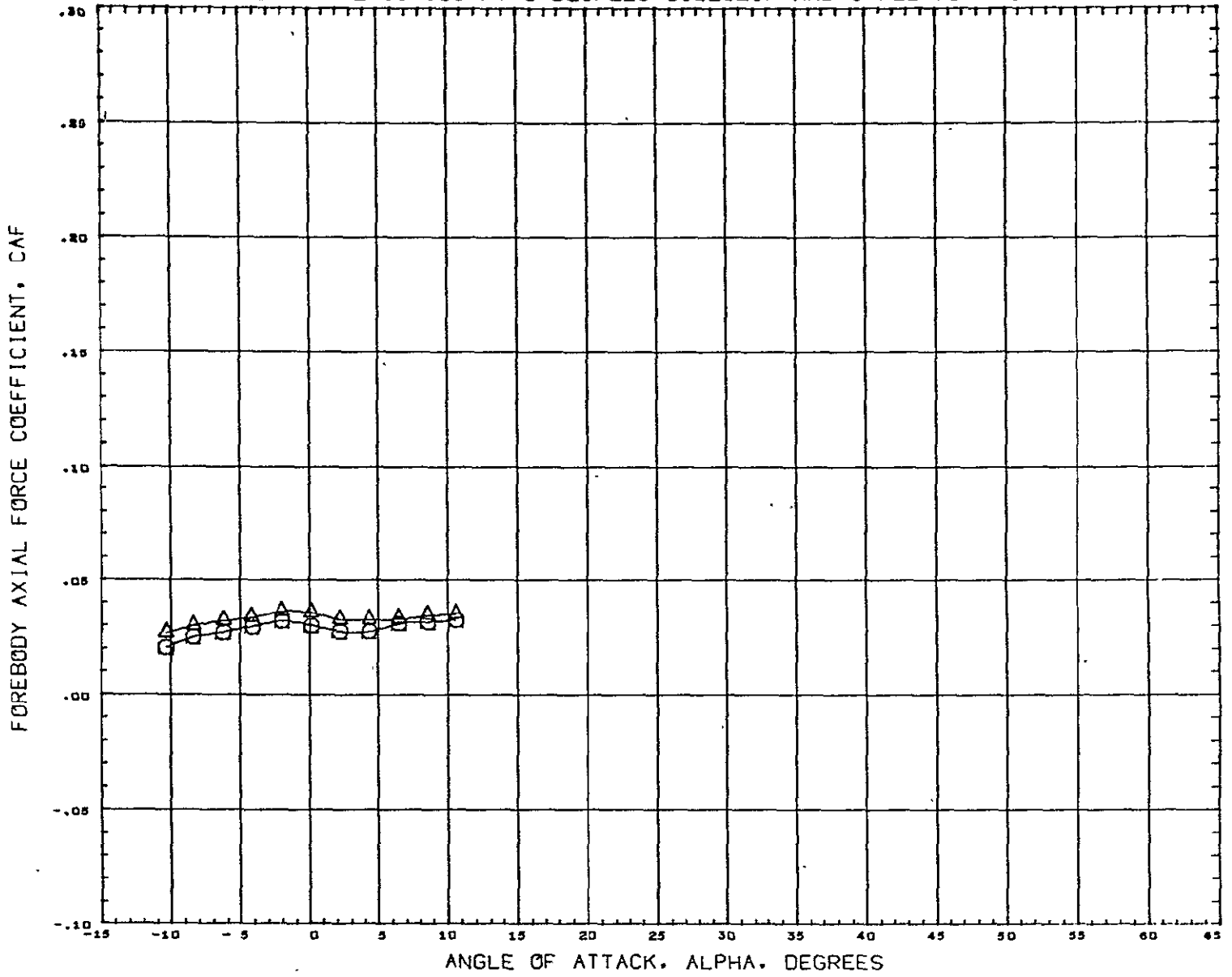
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(E20B18)	M5FC 461 GD/C(BOOSTER) B19W14C4A
(E20B19)	M5FC 461 GD/C(BOOSTER) B19W14C4AV7

BETA	ELEVON	CANARD	RUDDER
6.000	0.000	0.000	
6.000	0.000	0.000	

REFERENCE INFORMATION	
SREF	15.6560 SQ. IN.
LREF	3.0950 IN.
BREF	6.0990 IN.
XMRP	6.7100 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0035

MACH 0.609

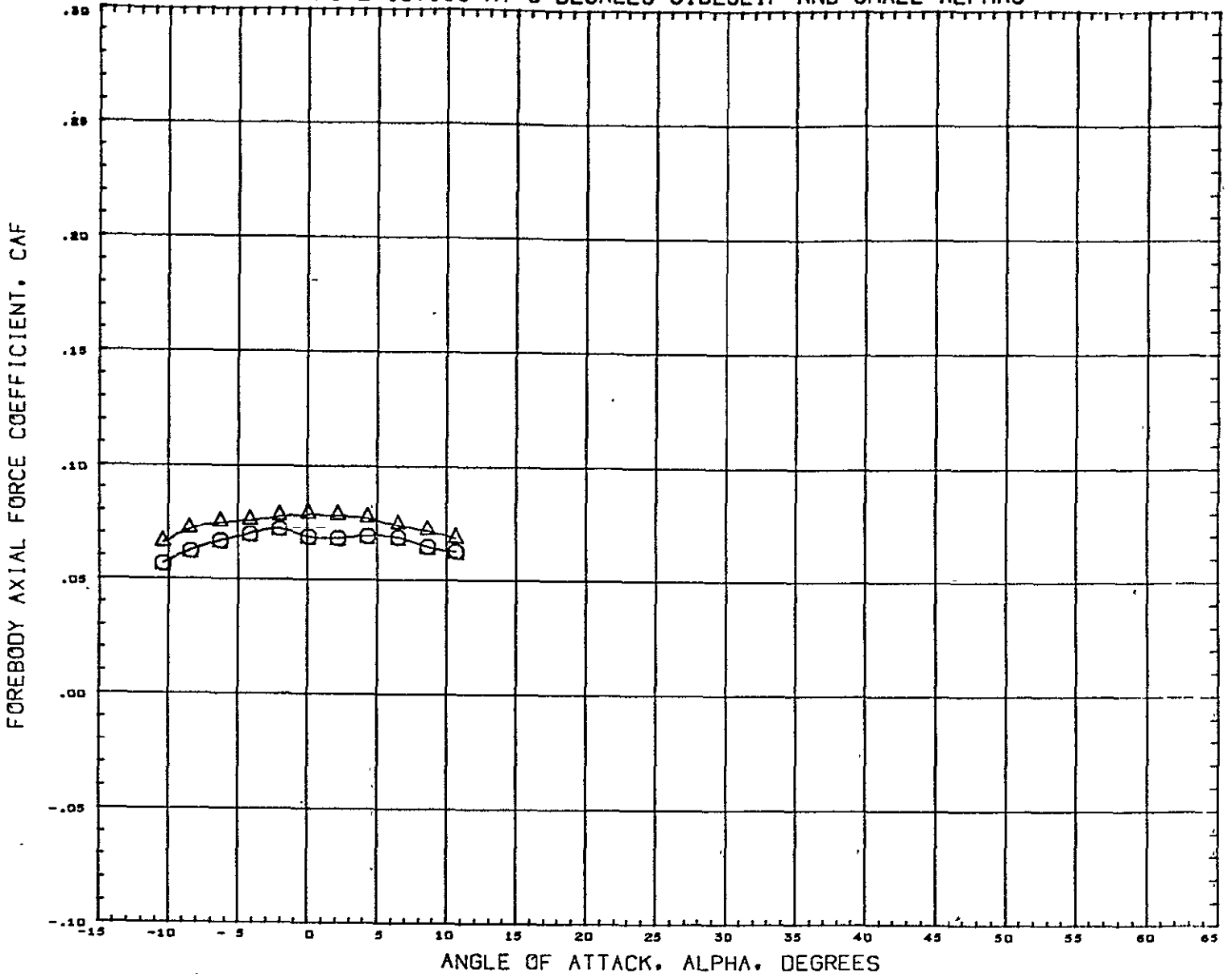
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28B18)	MSFC 481 GD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28B19)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.906

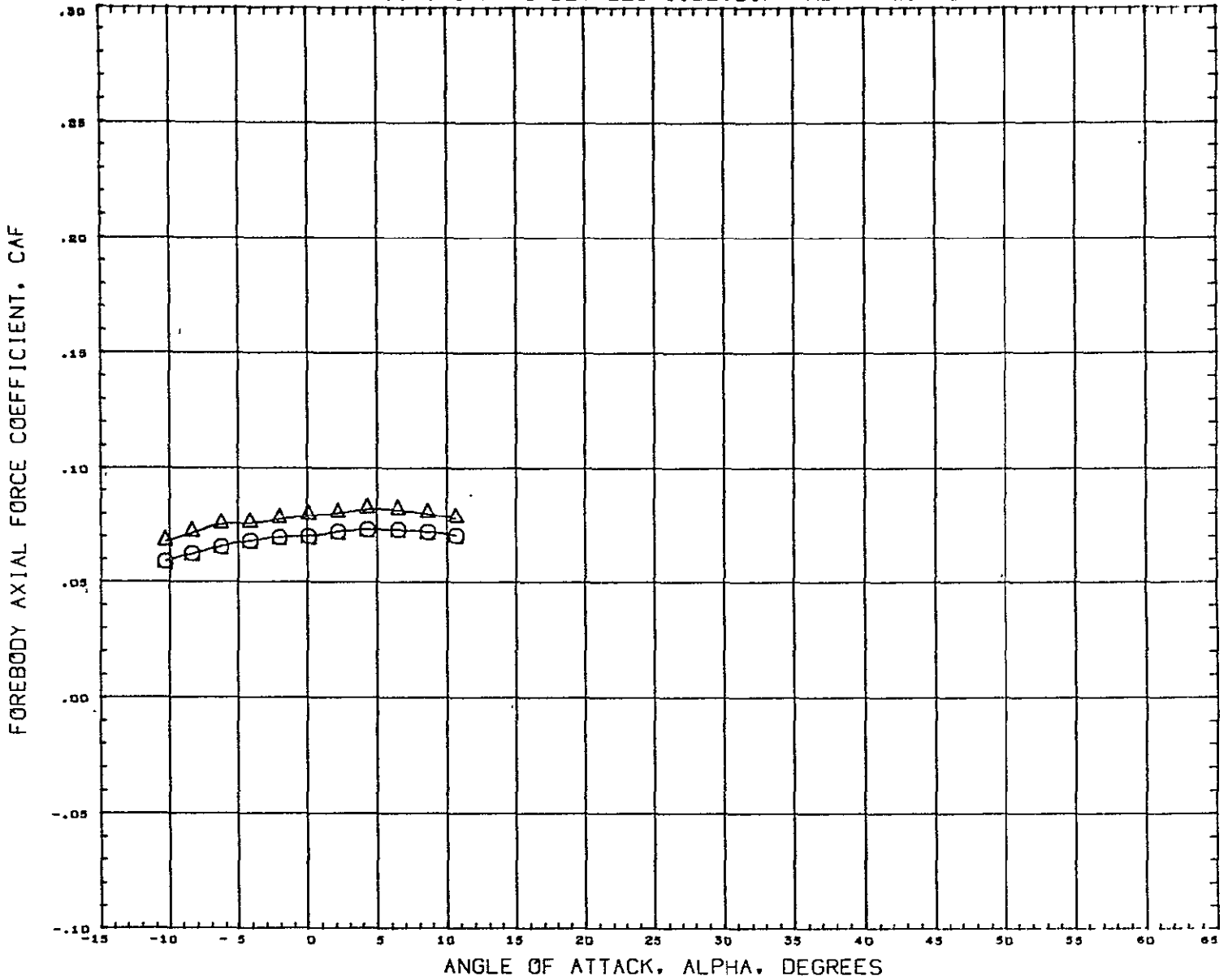
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B18)	MSFC 481 GD/C(BOOSTER) B19W14C4A	6.000	0.000	0.000		SREF 15.6560 54. IN.
(E20B19)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	6.000	0.000	0.000		LREF 3.0930 IN.
						BREF 6.0930 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.103

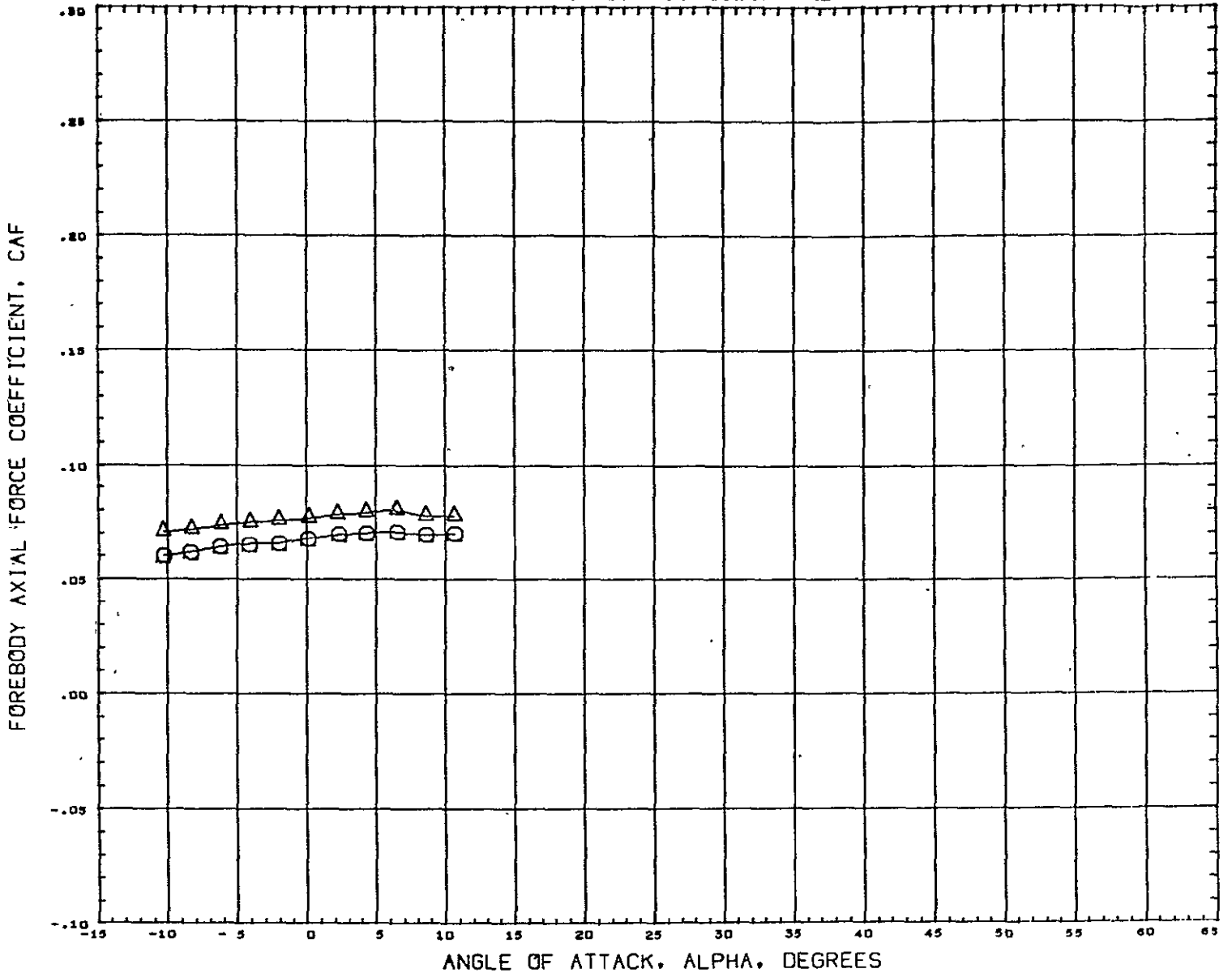
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E28818)	MSFC 481 GD/C(BOOSTER)B19W14C4A	6.000	0.000	0.000		SREF 15.6560 SQ. IN.
(E28819)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.463

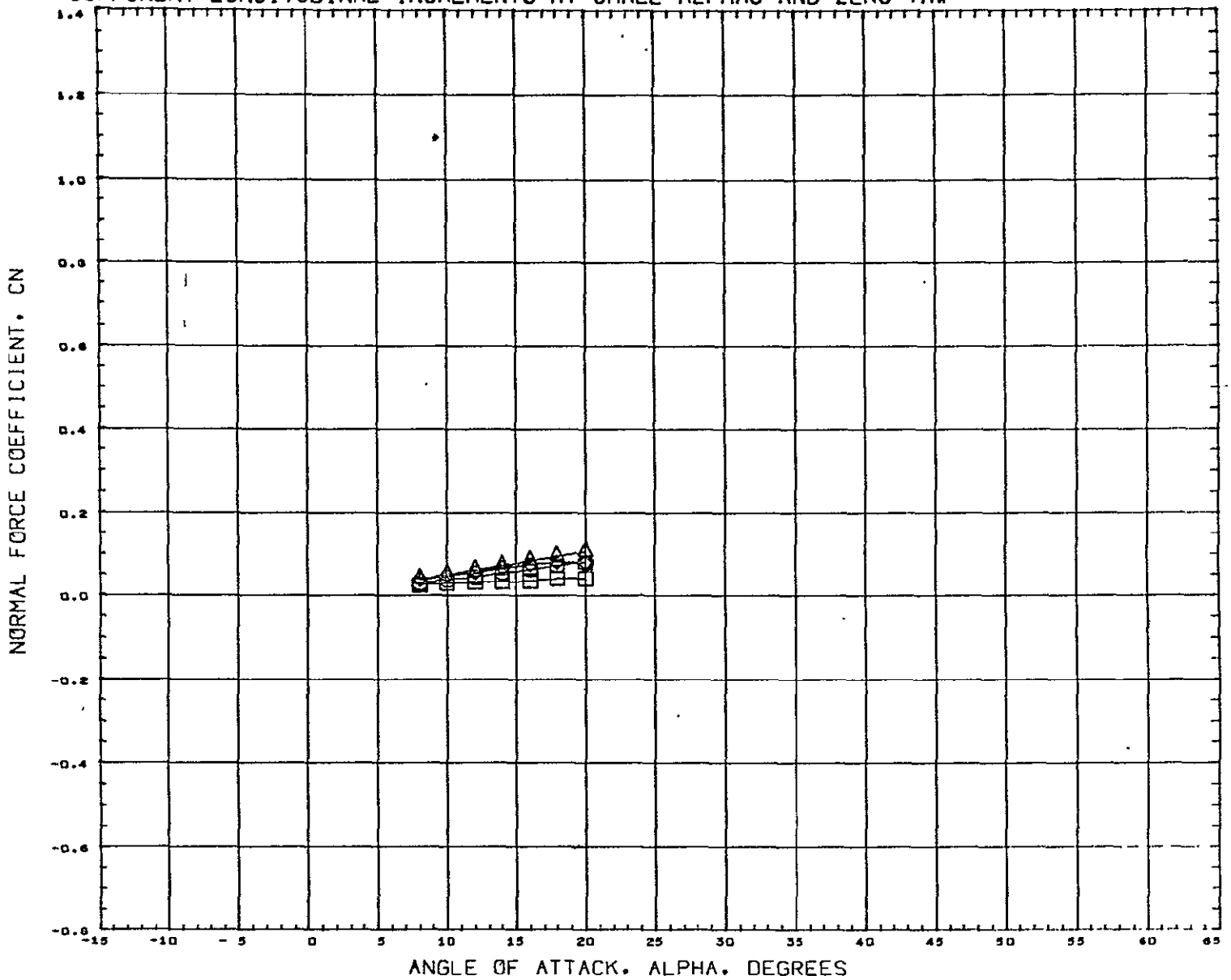
LONGITUDINAL CHARACTERISTICS AT 6 DEGREES SIDESLIP AND SMALL ALPHAS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVON	CANARD	RUDDER	REFERENCE INFORMATION
(E20B18)	MSFC 481 GD/C(BOOSTER) B19W14C4A	6.000	0.000	0.000		SREF 15.6560 sq. in.
(E20B19)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	6.000	0.000	0.000		LREF 3.0950 in.
						BREF 6.0990 in.
						XHRP 6.7100 in.
						YHRP 0.0000 in.
						ZHRP 0.0000 in.
						SCALE 0.0035

MACH 1.971

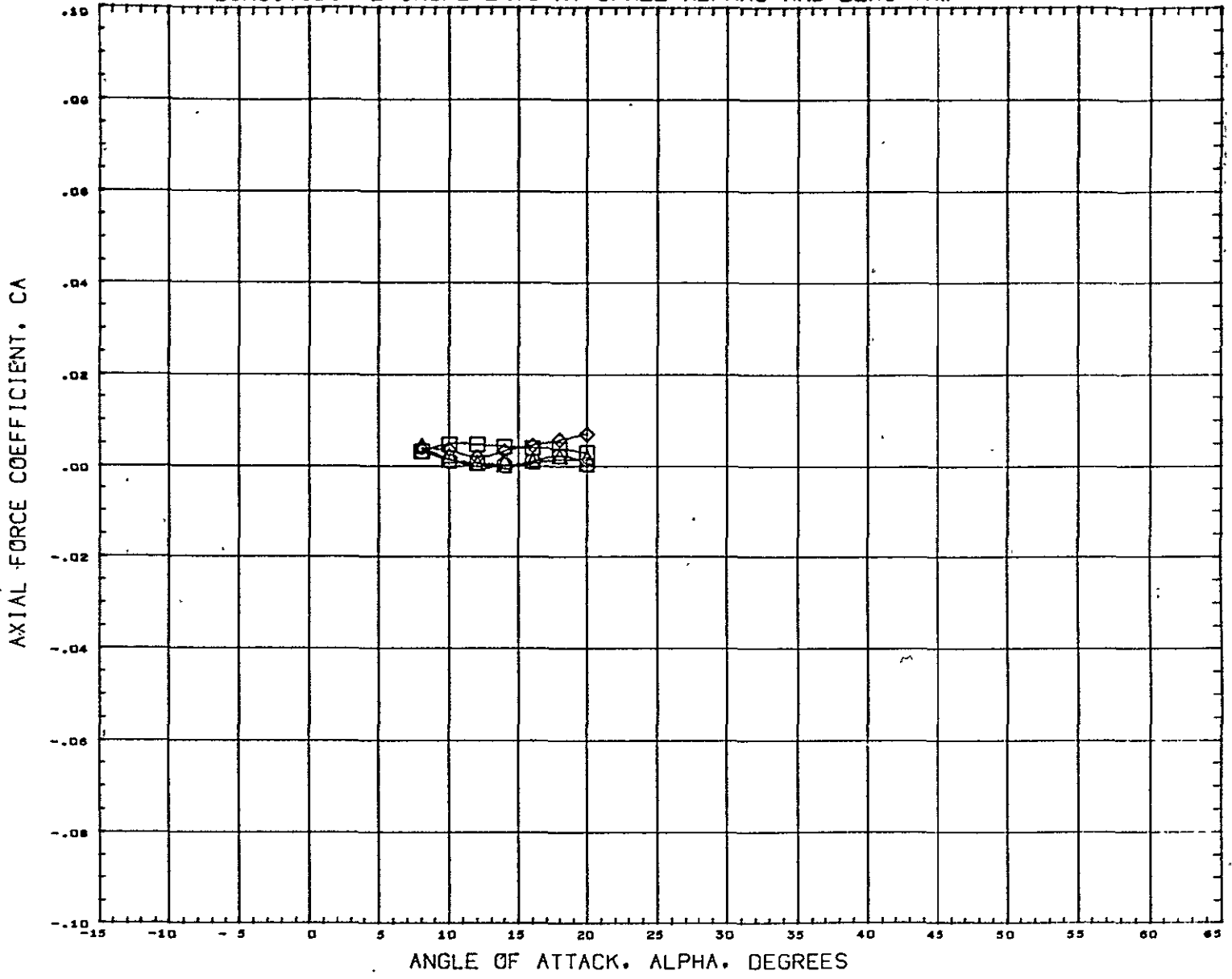
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL		MACH	PARAMETRIC VALUES		REFERENCE INFORMATION		
○		0.900	BETA	0.000	SREF	15.6560	30. IN.
◇		1.000			LREF	3.0950	IN.
△		1.200			BREF	6.0990	IN.
□		2.000			XMRP	6.7100	IN.
					YMRP	0.0000	IN.
					ZMRP	0.0000	IN.
					SCALE	0.0035	

DATA MIST. CODE MVR*E1*C

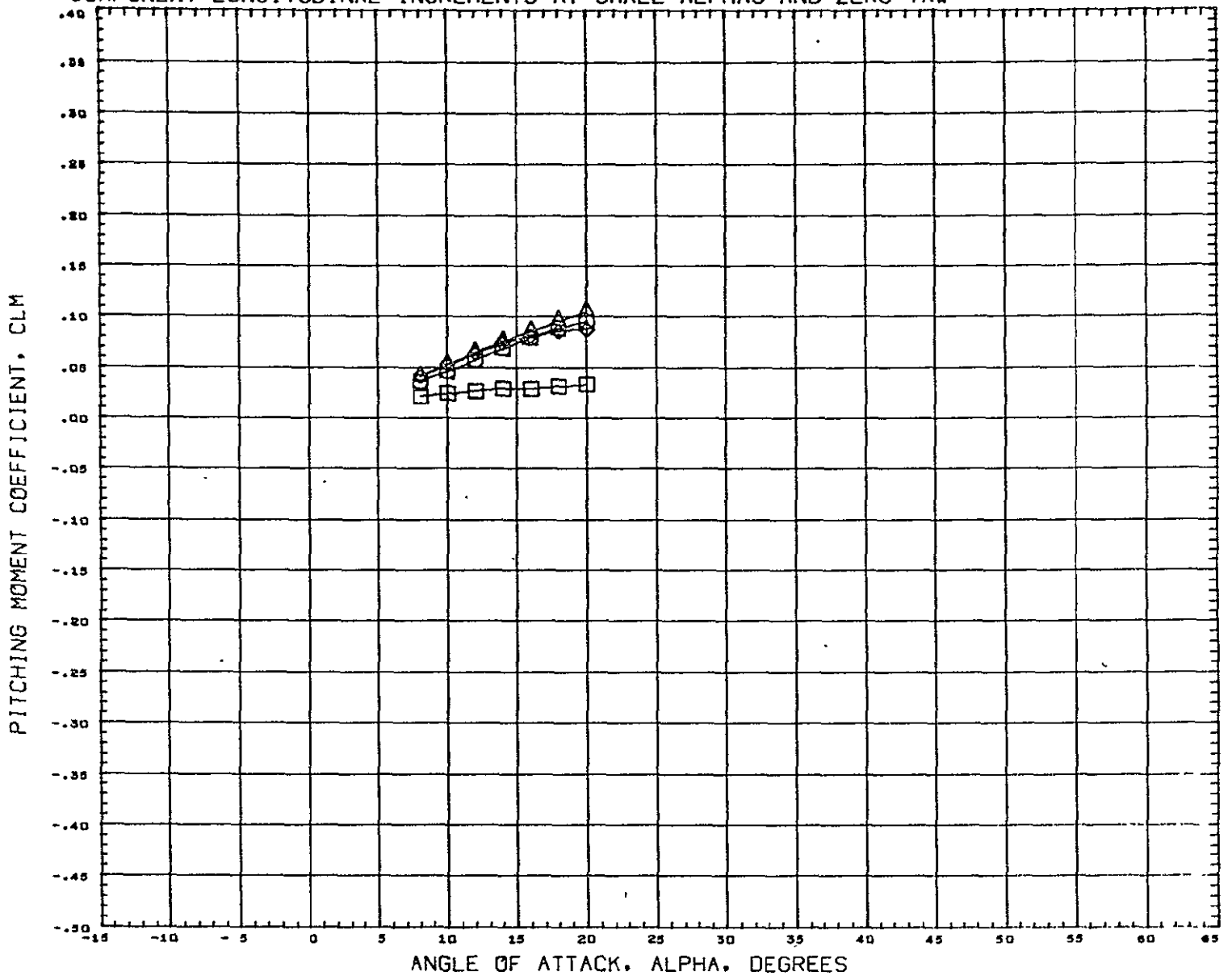
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION		
○	0.900		0.000	SREF	15.6560	SQ. IN.
△	1.000			LREF	3.0950	IN.
◇	1.200			BREF	6.0990	IN.
□	2.000			XMRP	6.7100	IN.
				YMRP	0.0000	IN.
				ZMRP	0.0000	IN.
				SCALE	0.0035	

DATA HIST. CODE MVR*EI*C

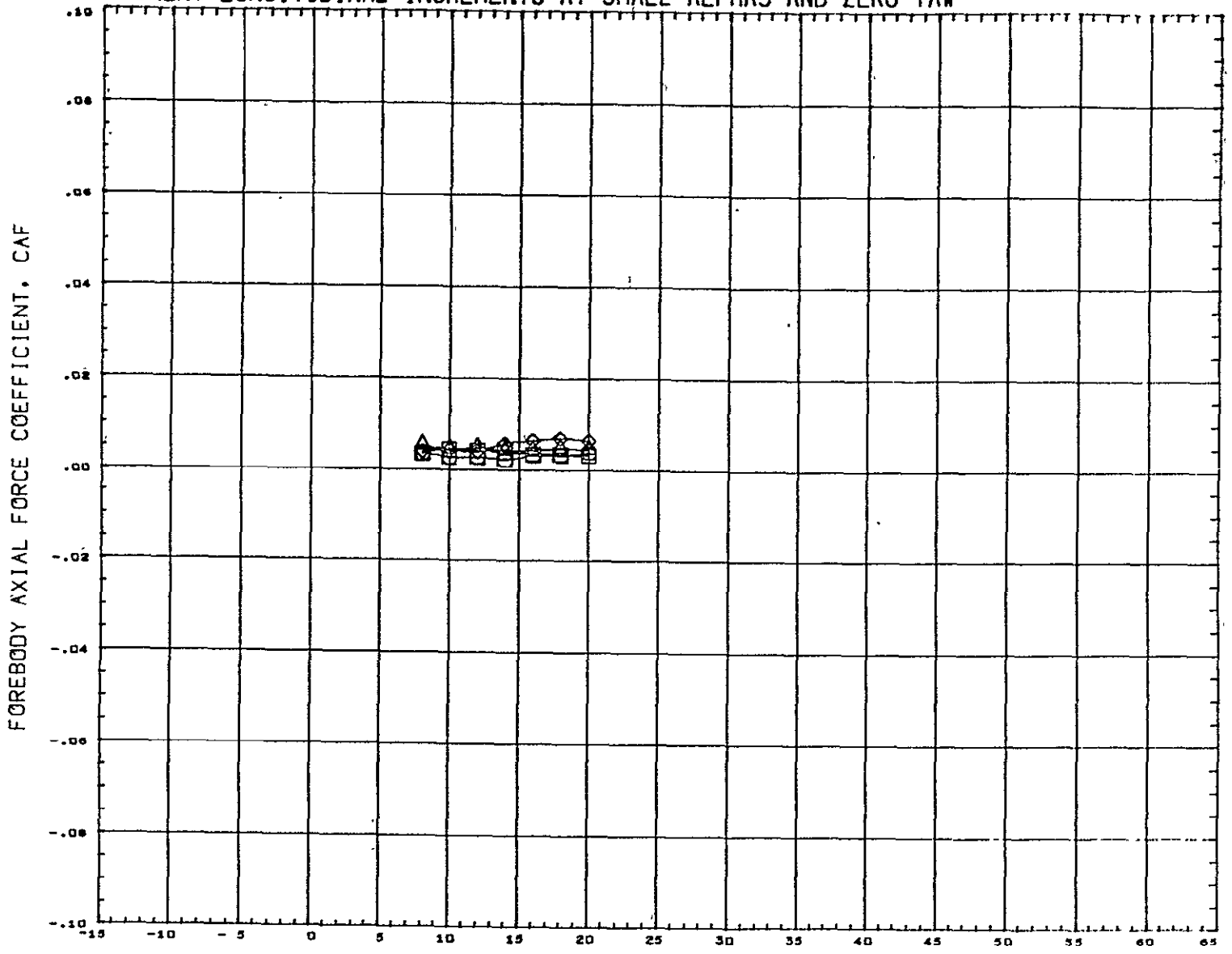
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION		
○	0.900	0.000	0.000	SREF	15.6560	34. IN.
△	1.000			LREF	3.0950	IN.
◇	1.200			BREF	6.0990	IN.
□	2.000			XMRP	6.7100	IN.
				YMRP	0.0000	IN.
				ZMRP	0.0000	IN.
				SCALE	0.0035	

DATA HIST. CODE NVR*EI*C

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



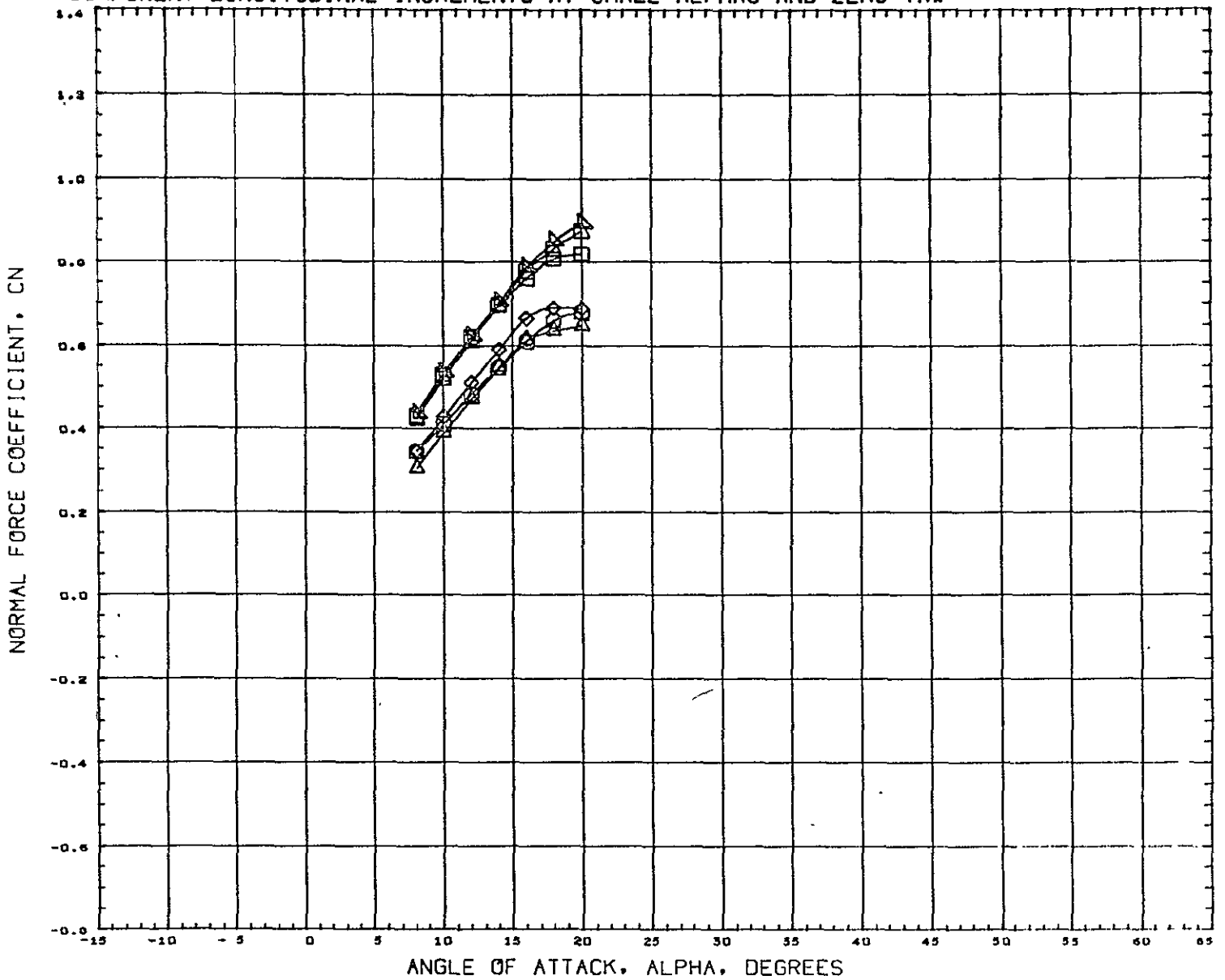
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	0.900		0.000
◇	1.000		
△	1.200		
□	2.000		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

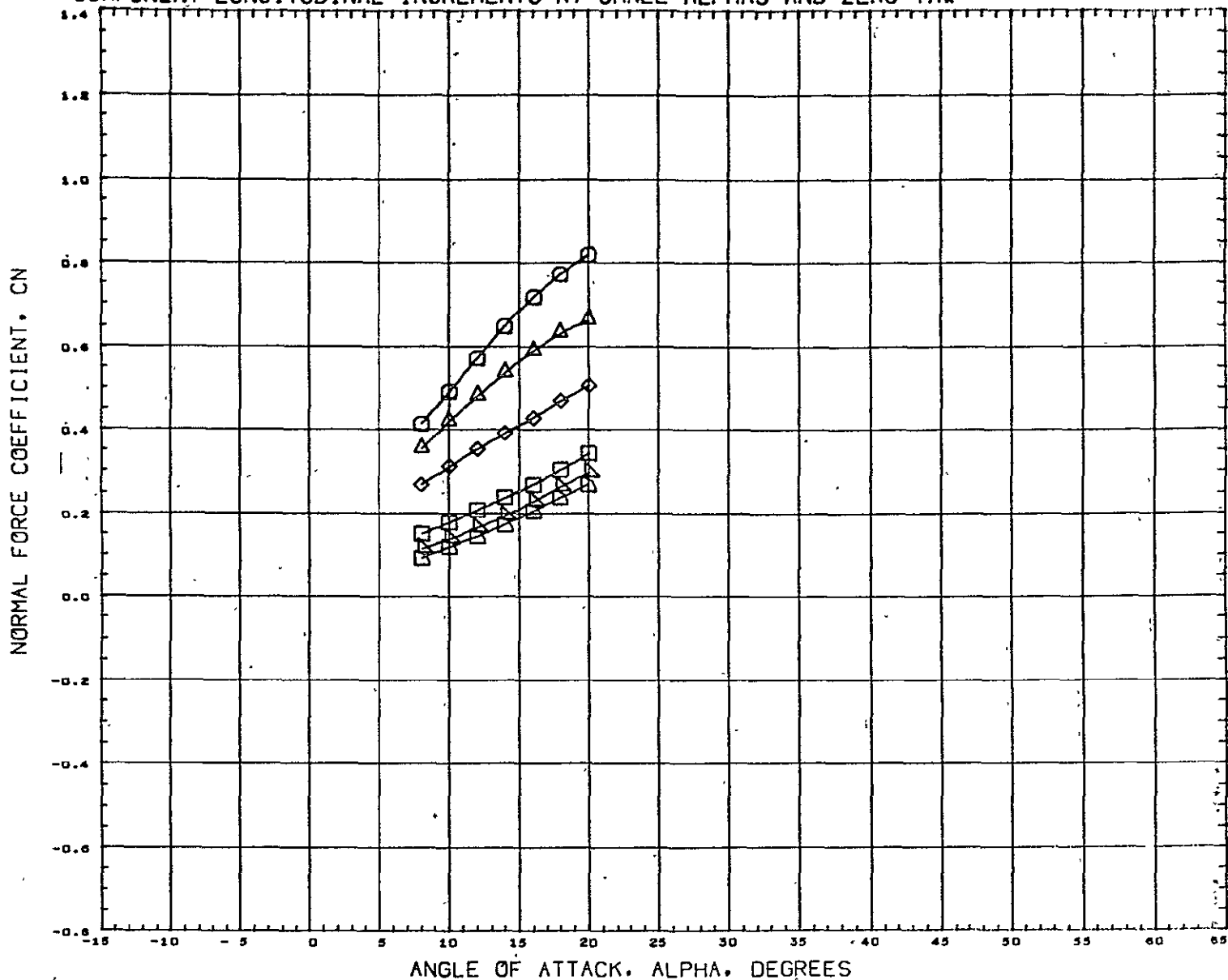
DATA HIST. CODE MVR*EI*C

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
		BETA	RUDDER		SREF	IN.	SQ. IN.
○	0.600	0.000	0.000	0.000	15.6560	IN.	59. IN.
◇	0.900				3.0950	IN.	
◻	0.950				6.0990	IN.	
△	1.000				6.7100	IN.	
▽	1.050				0.0000	IN.	
◊	1.100				0.0000	IN.	
		DATA HIST. CODE	MVR#E1*C		SCALE		0.0035

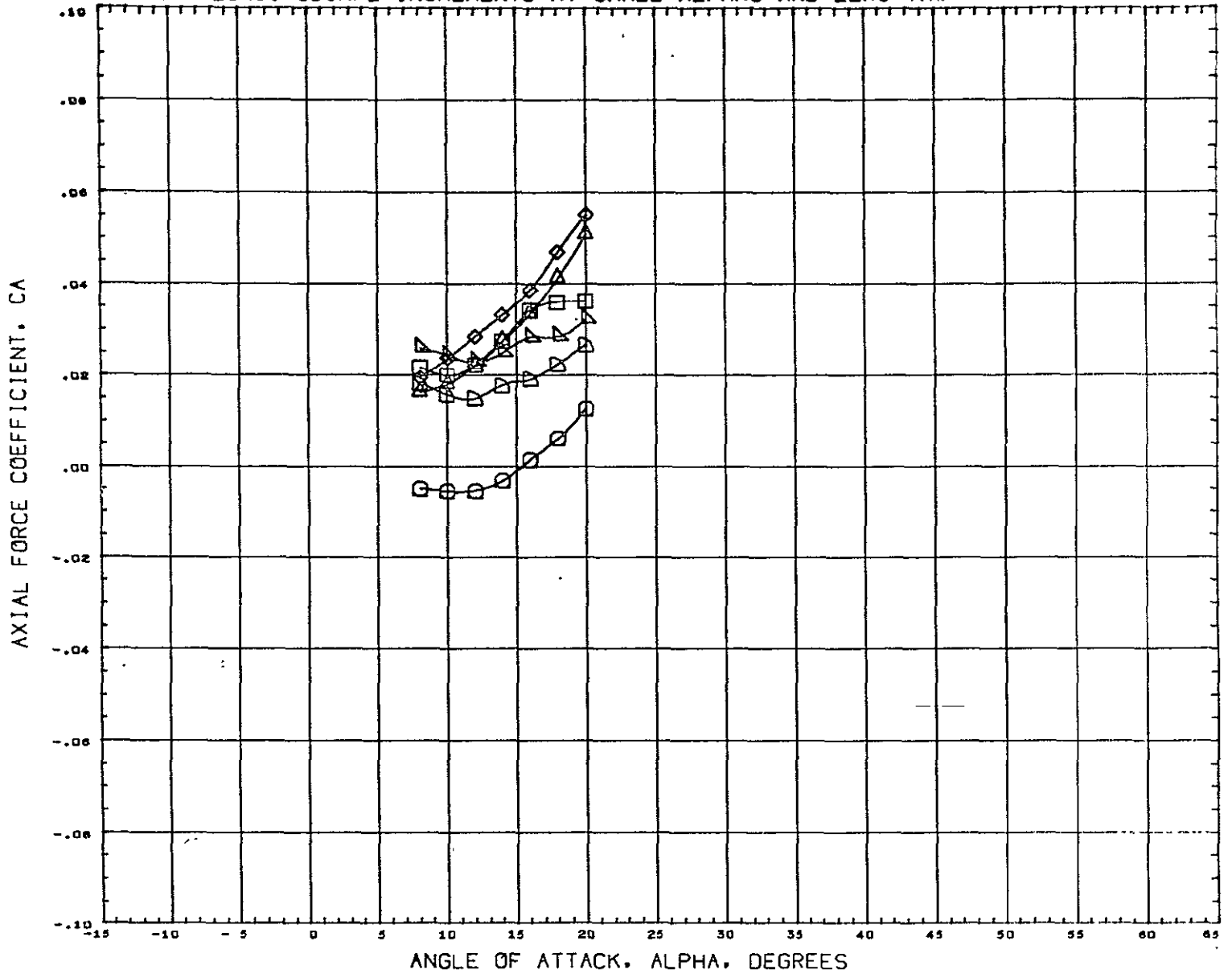
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	PARAMETRIC VALUES		
○	1.200	BETA	0.000	RUDDER 0.000
◇	1.500			
△	2.000			
□	3.000			
▽	4.000			
◇	5.000	DATA HIST. CODE	MVR#EI#C	

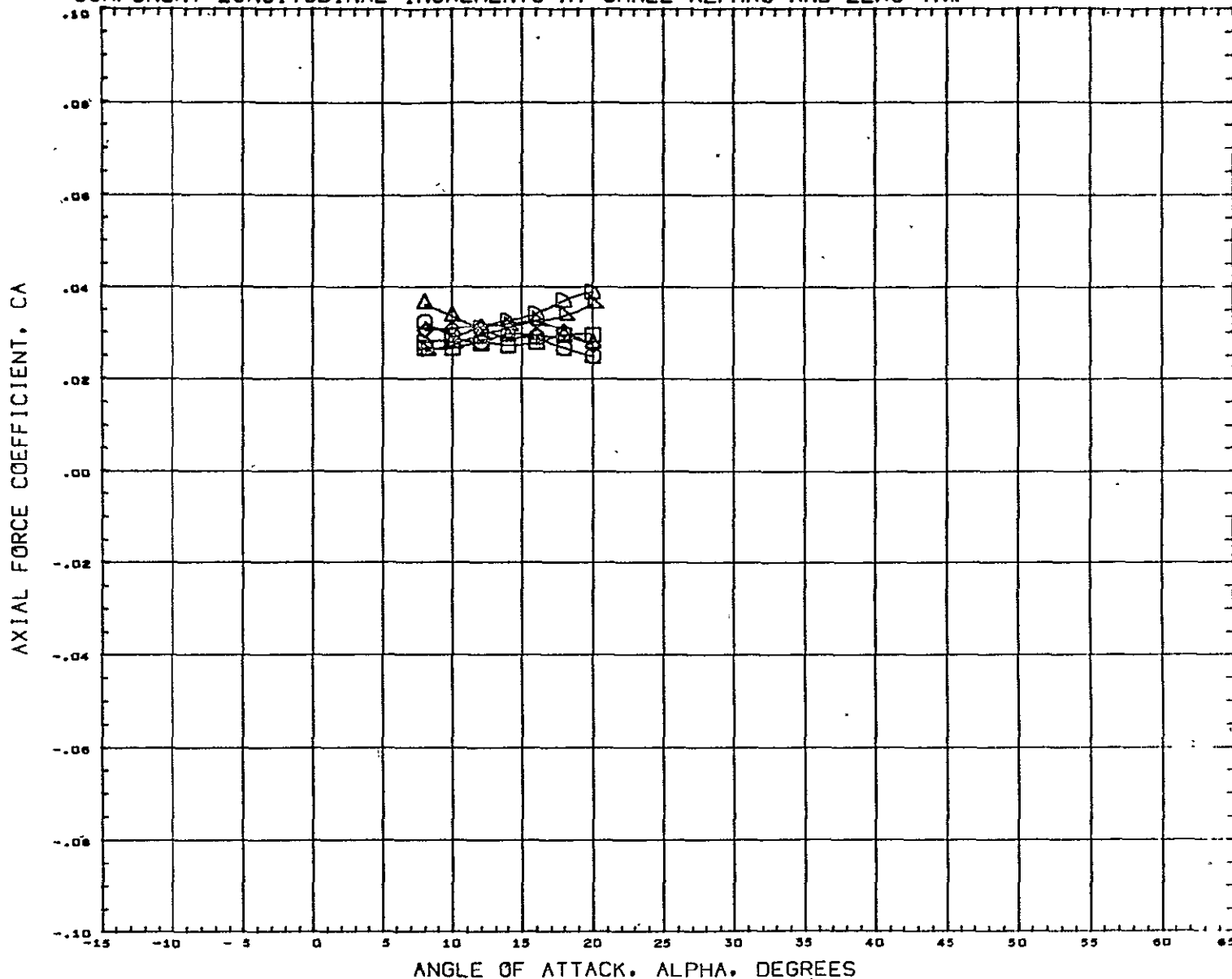
REFERENCE INFORMATION		
SREF	15.6560	90. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



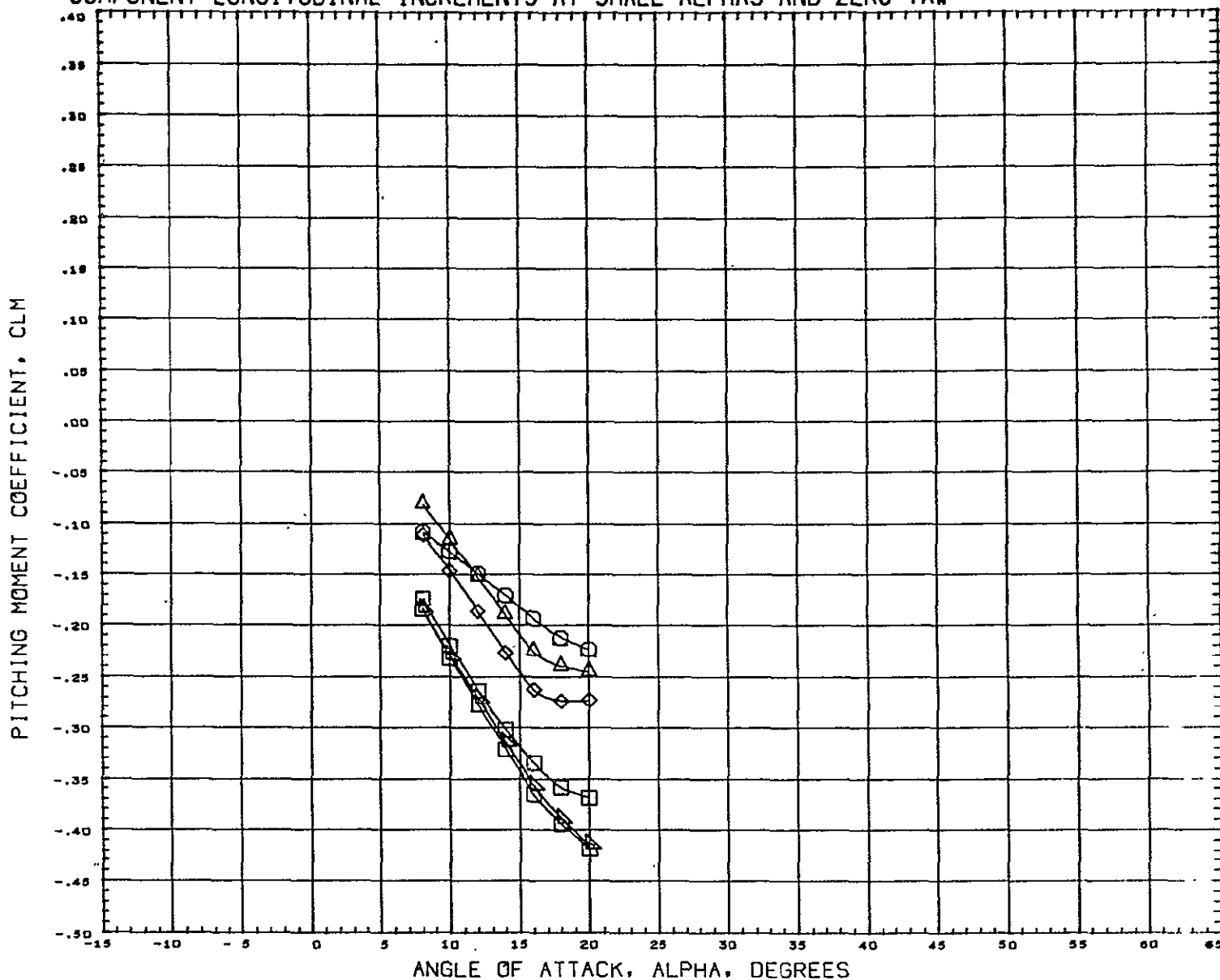
SYMBOL	MACH	BETA	PARAMETRIC VALUES			REFERENCE INFORMATION		
○	0.600	0.000	0.000	RUDDER	0.000	SREF	15.6560	SQ. IN.
◇	0.900					LREF	3.0950	IN.
△	0.950					BREF	6.0990	IN.
□	1.000					XMRP	6.7100	IN.
▽	1.050					YMRP	0.0000	IN.
◇	1.100					ZMRP	0.0000	IN.
		DATA HIST. CODE	MVR*E1+C			SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



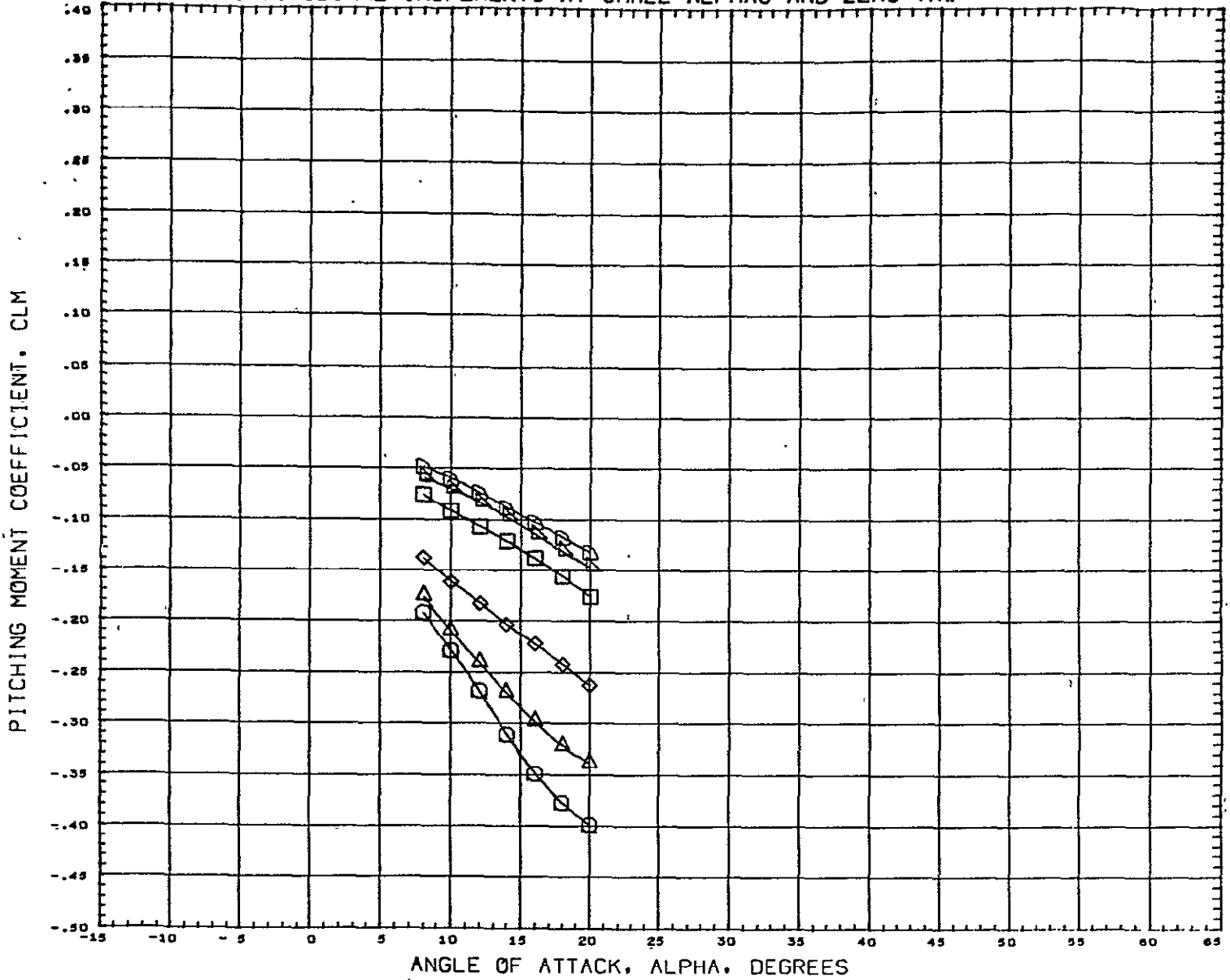
SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
		BETA	RUDDER		SREF	SQ. IN.	
□	1.200	0.000	0.000		15.6560	SQ. IN.	
◇	1.500				3.0950	IN.	
◇	2.000				6.0990	IN.	
◇	3.000				6.7100	IN.	
◇	4.000				0.0000	IN.	
◇	5.000				0.0000	IN.	
		DATA HIST. CODE	MVR*E1*C		SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL		PARAMETRIC VALUES			REFERENCE INFORMATION			
○	0.600	BETA	0.000	RUDDER	0.000	SREF	15.6560	Sq. IN.
△	0.900					LREF	3.0950	IN.
◇	0.950					BREF	6.0990	IN.
□	1.000					XMRP	6.7100	IN.
▽	1.050					YMRP	0.0000	IN.
◇	1.100	DATA HIST. CODE	MVR#E1#C			ZMRP	0.0000	IN.
						SCALE	0.0035	

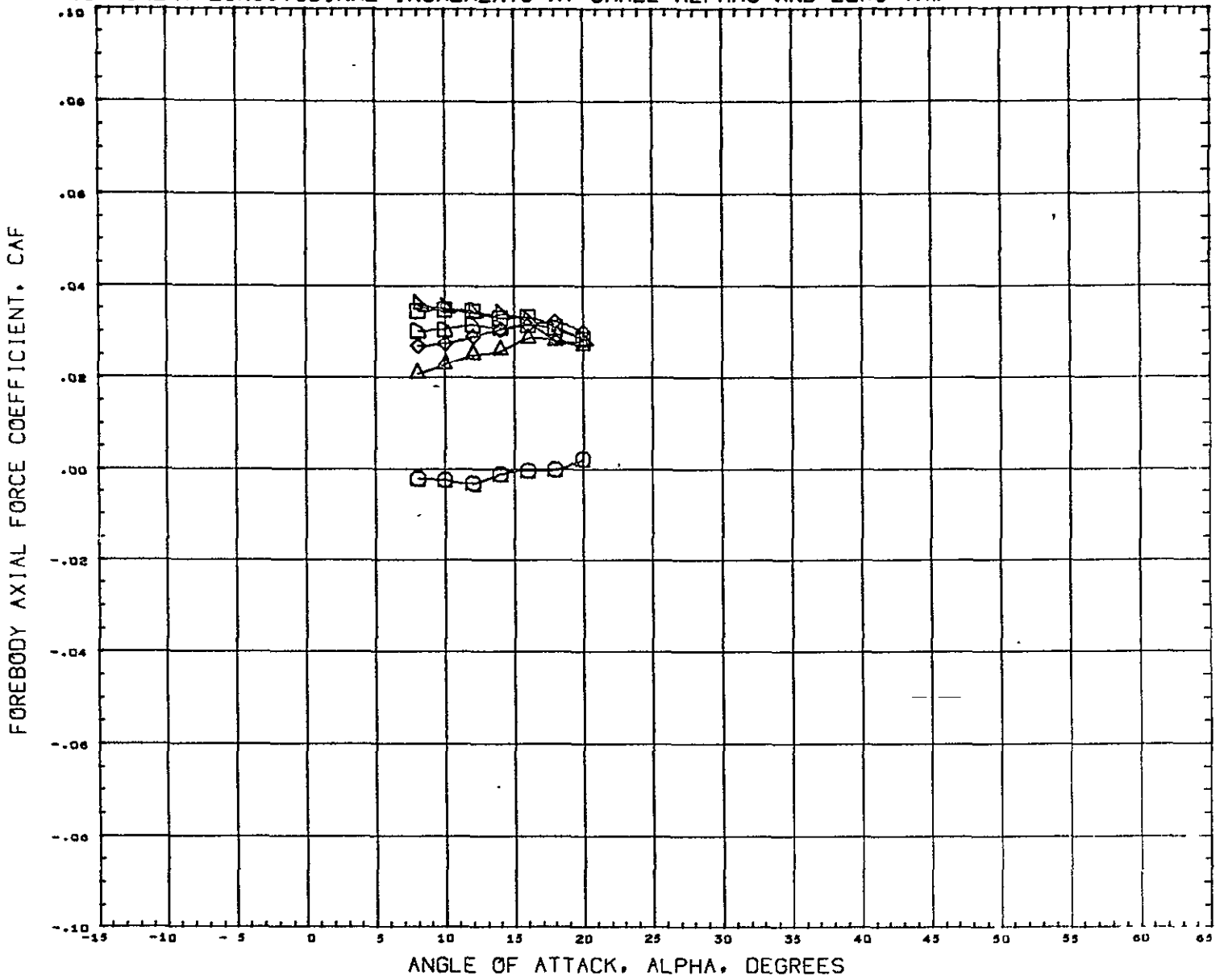
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL MACH
 1.200 BETA 0.000 RUDDER 0.000
 1.500
 2.000
 3.000
 4.000
 5.000 DATA HIST. CODE MVR*EI*C

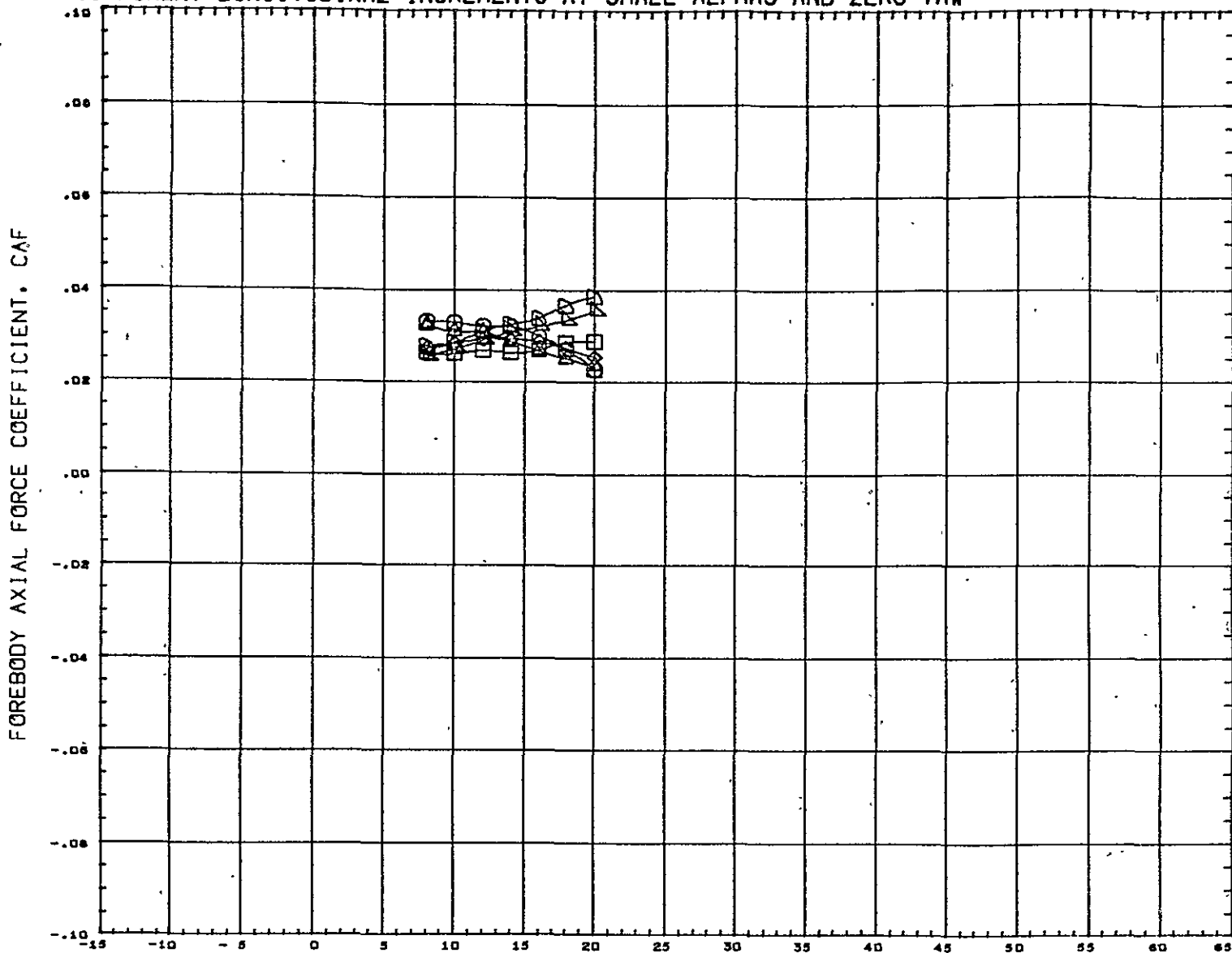
REFERENCE INFORMATION
 SREF 15.6560 50 IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
		BETA	RUDDER		SREF	IN.	
○	0.600	0.000	0.000		15.6560	30. IN.	
△	0.900				3.0950	IN.	
◇	0.950				6.0990	IN.	
□	1.000				6.7100	IN.	
▽	1.050				YMRP	0.0000 IN.	
◇	1.100				ZMRP	0.0000 IN.	
		DATA HIST. CODE	MVR#EI+C		SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

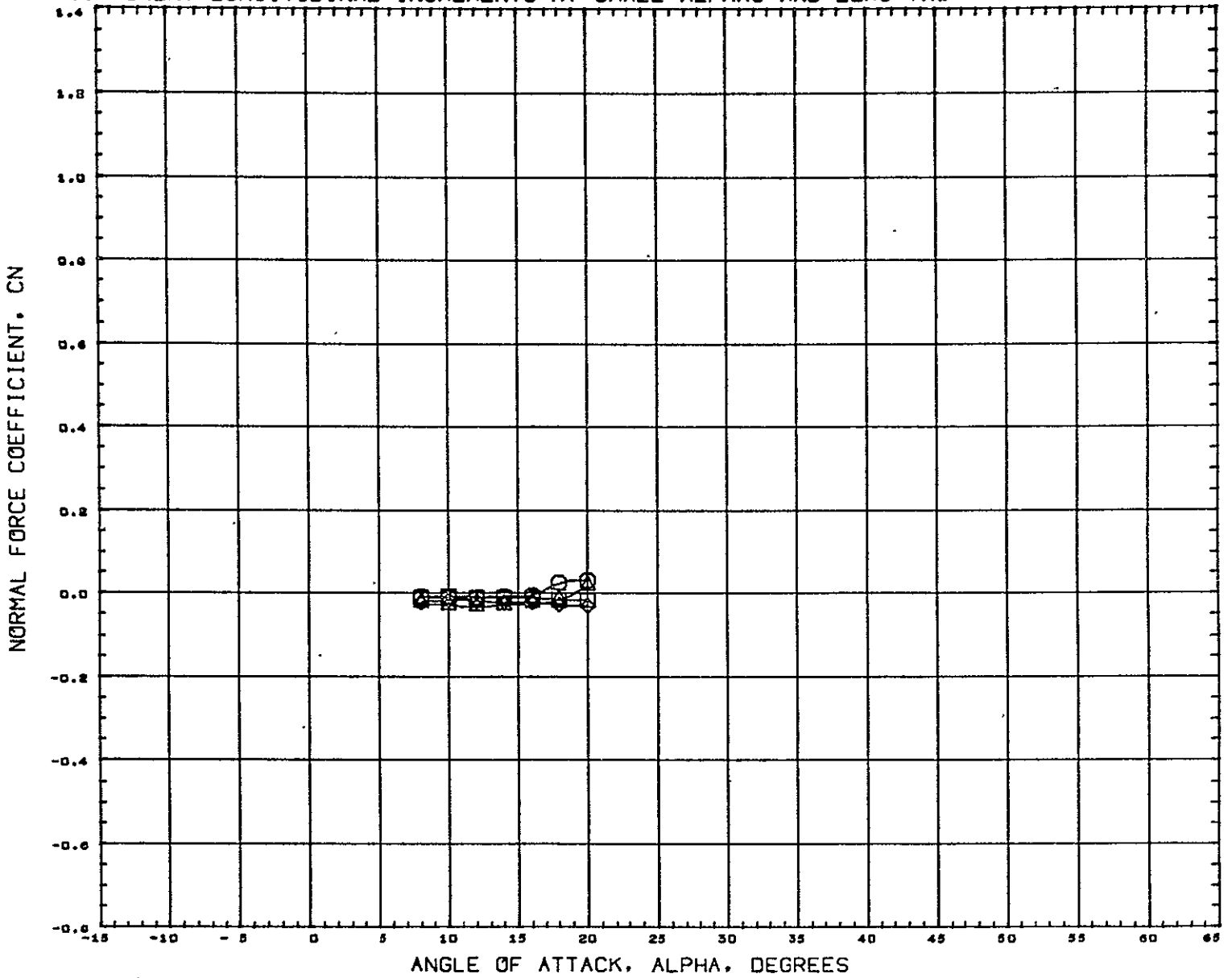


ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES		
○	1.200	BETA	0.000	RUDDER 0.000
◇	1.500			
◇	2.000			
□	3.000			
▽	4.000			
◇	5.000	DATA HIST. CODE	MVR*EI*C	

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

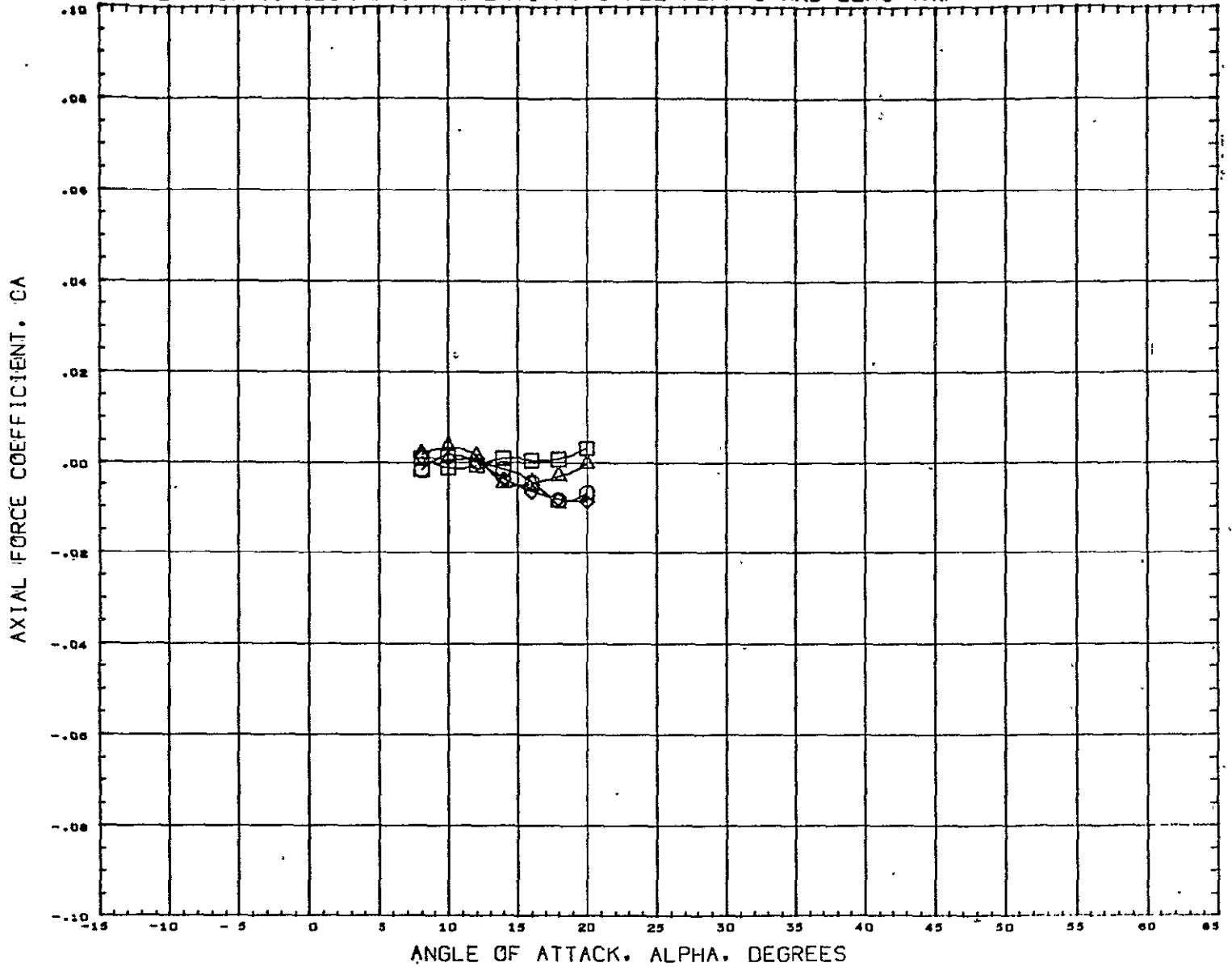


SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	0.900	0.000	
△	1.000	0.000	
◇	1.200	0.000	
□	2.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EI*C

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

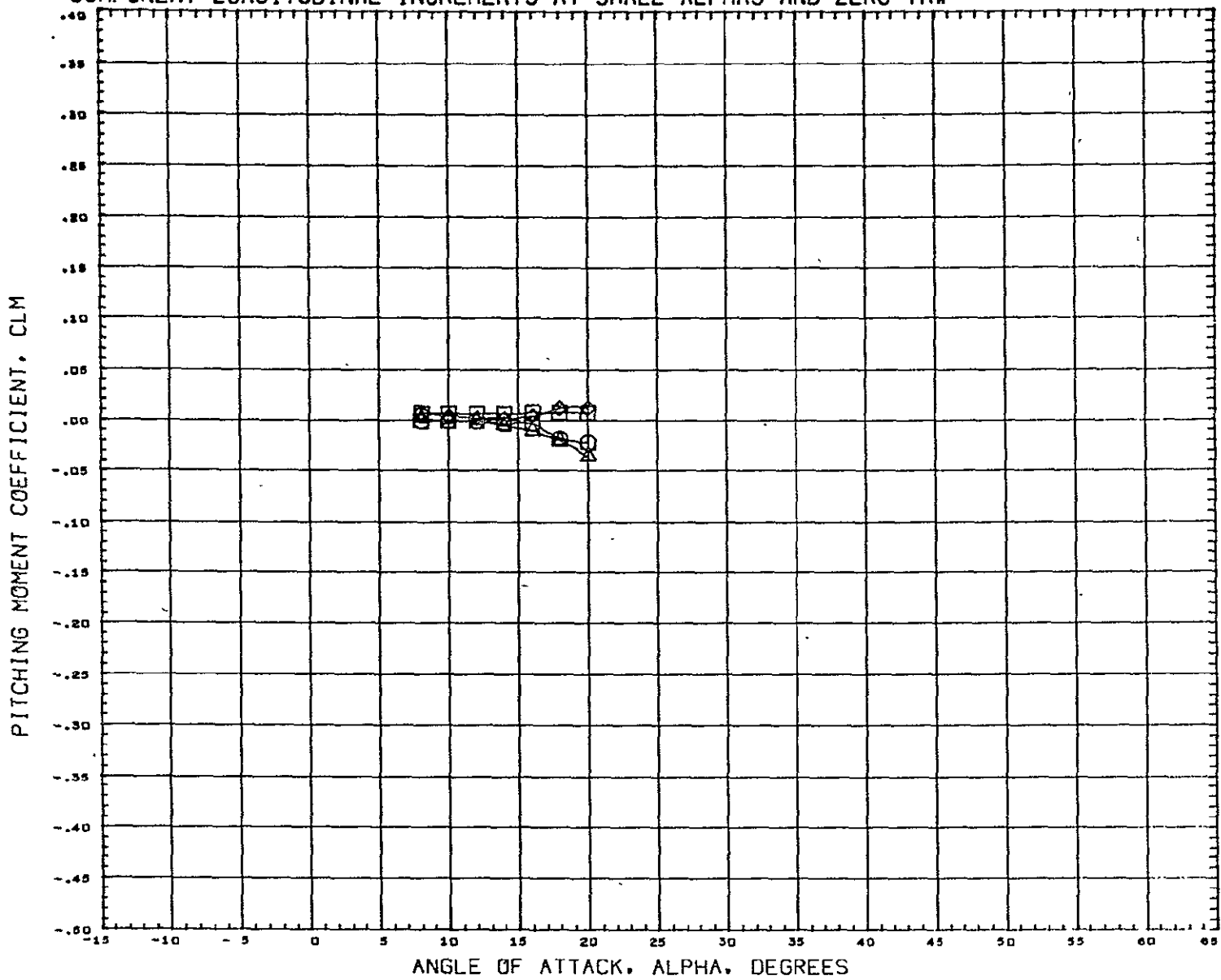


SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	0.900		0.000
△	1.000		
◇	1.200		
□	2.000		

DATA HIST. CODE MVR#EI*C

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

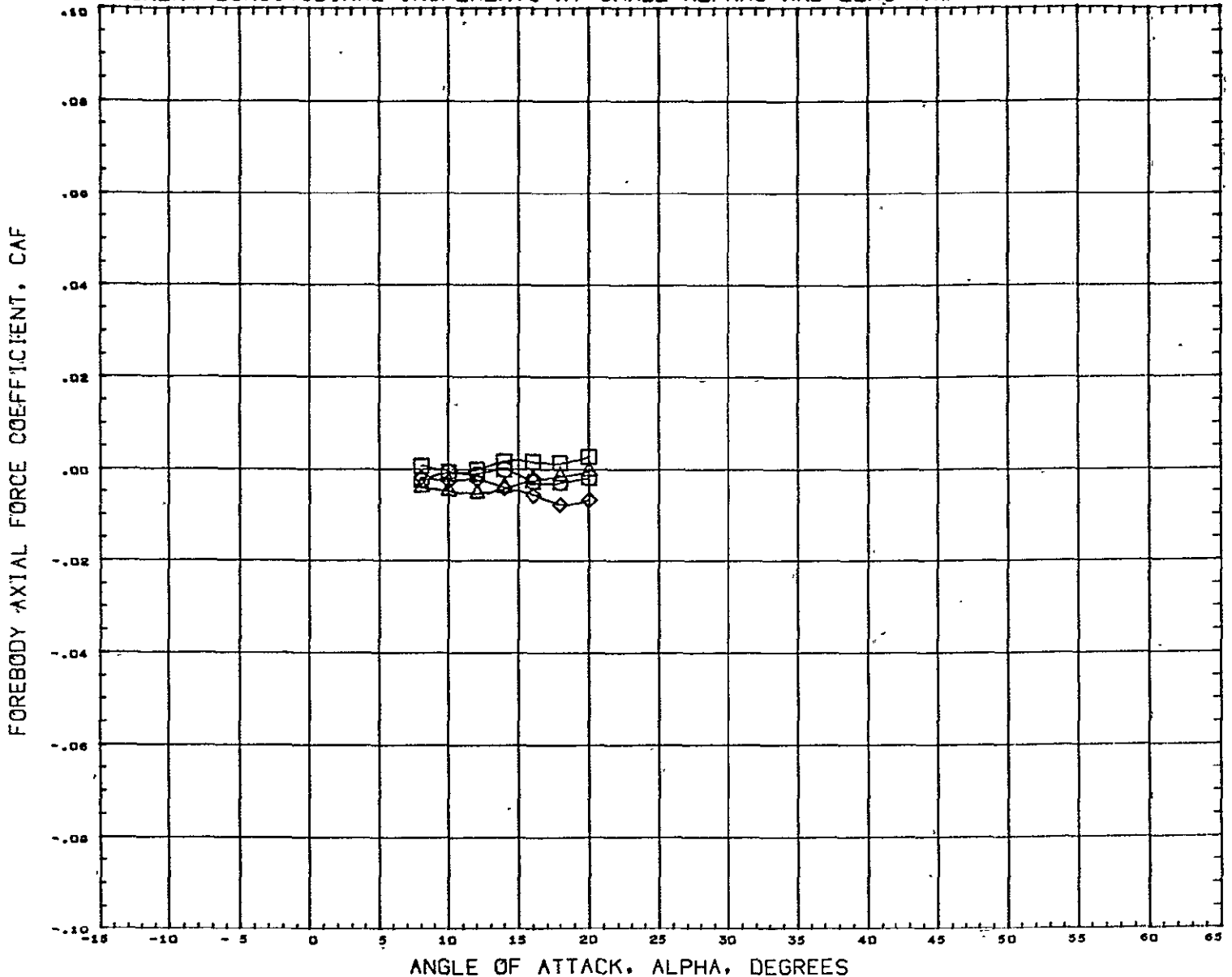


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.900
 △ 1.000
 ◇ 1.200
 □ 2.000

DATA HIST. CODE MVR#E1*C

REFERENCE INFORMATION
 SREF 15.6560 30. IN.
 LREF 3.0930 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

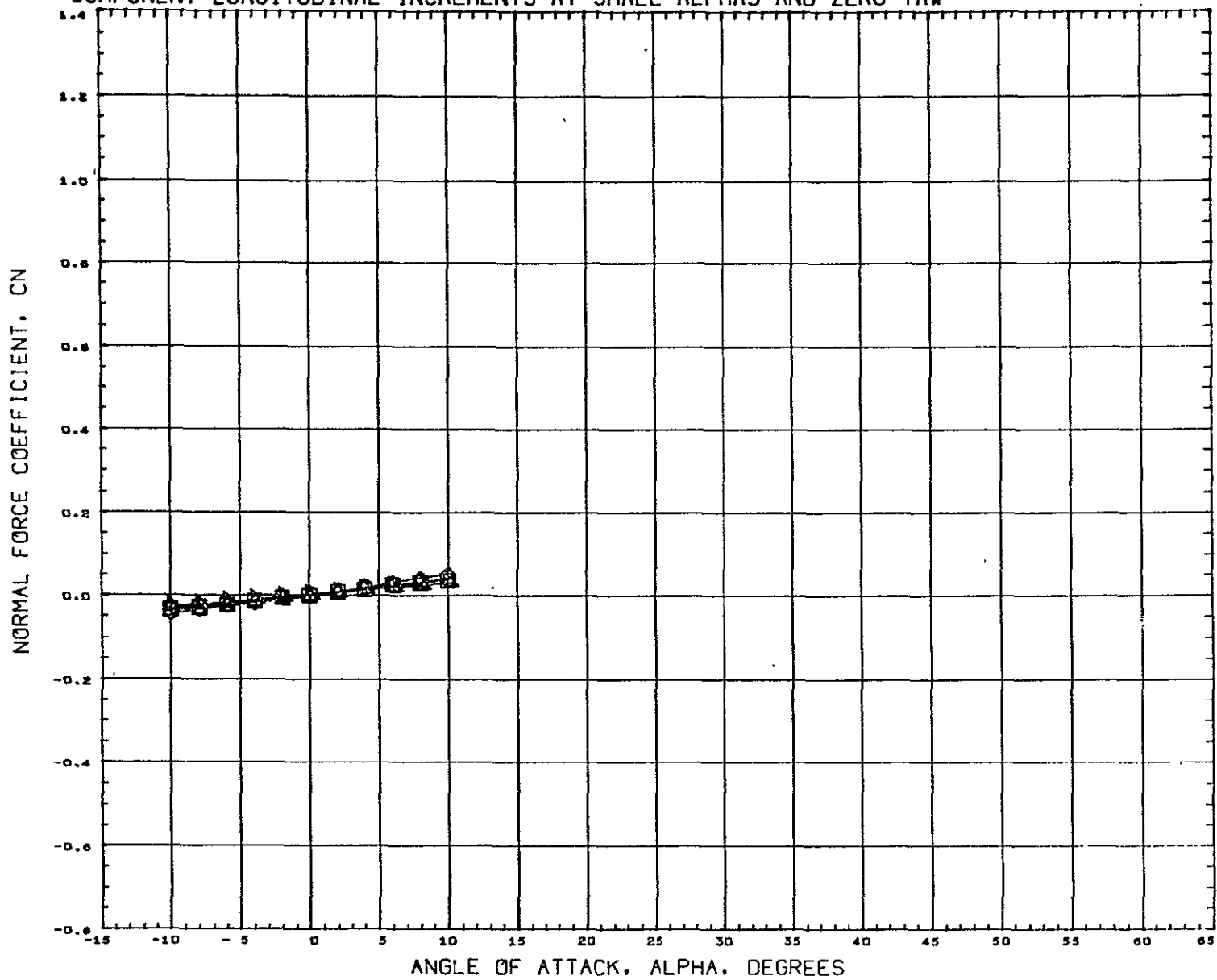


SYMBOL **MACH** **PARAMETRIC VALUES**
 ○ 0.900 BETA 0.000
 △ 1.000
 ◇ 1.200
 □ 2.000

 DATA HIST. CODE MVR#E1*C

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0033

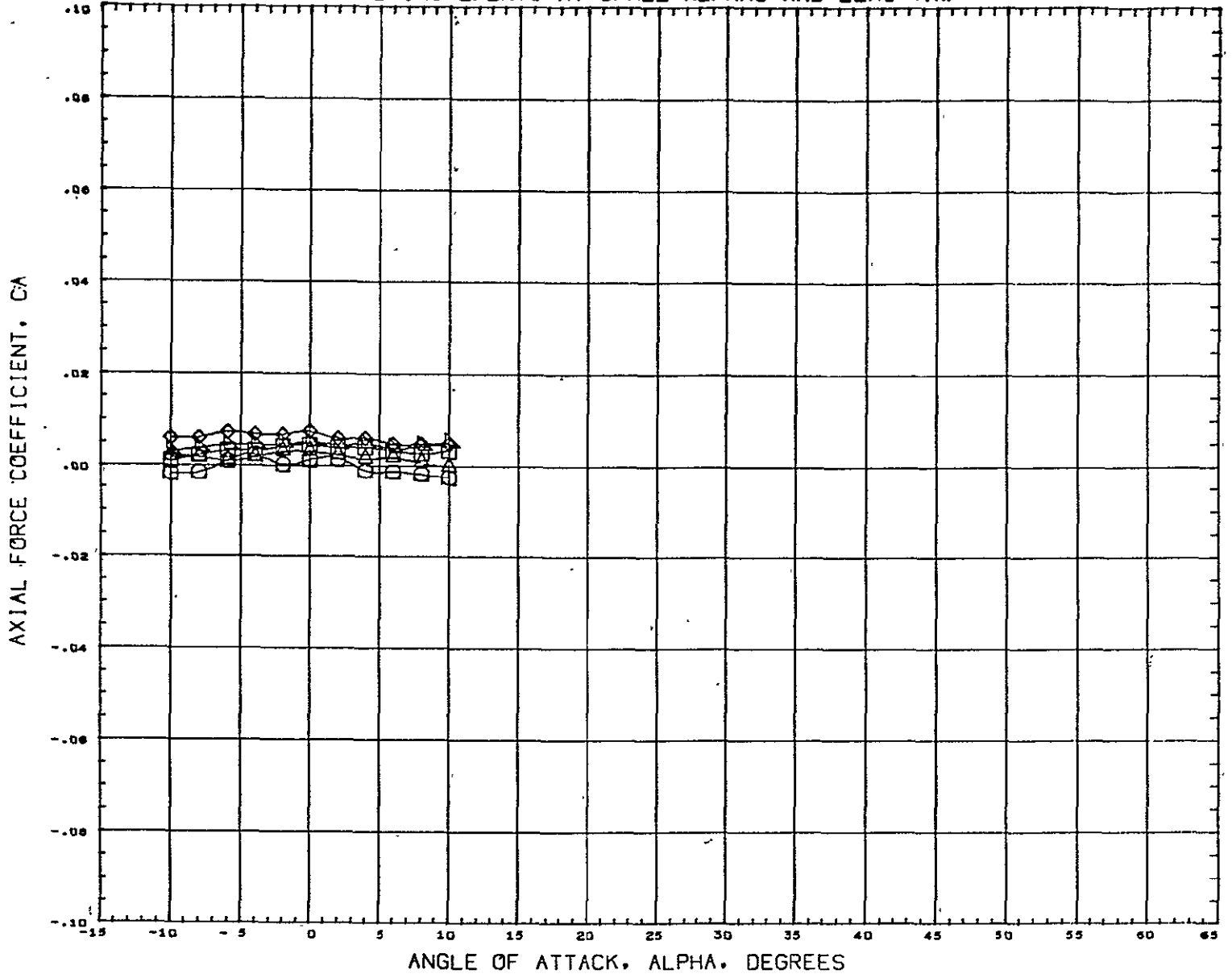
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
◇	0.600	0.000		SREF 15.6560 SQ. IN.
△	0.900			LREF 3.0950 IN.
◇	1.100			BREF 6.0990 IN.
◇	1.500			XHRP 6.7100 IN.
◇	2.000			YNRP 0.0000 IN.
				ZNRP 0.0000 IN.
				SCALE 0.0035

DATA HIST. CODE MVR*EI*C

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

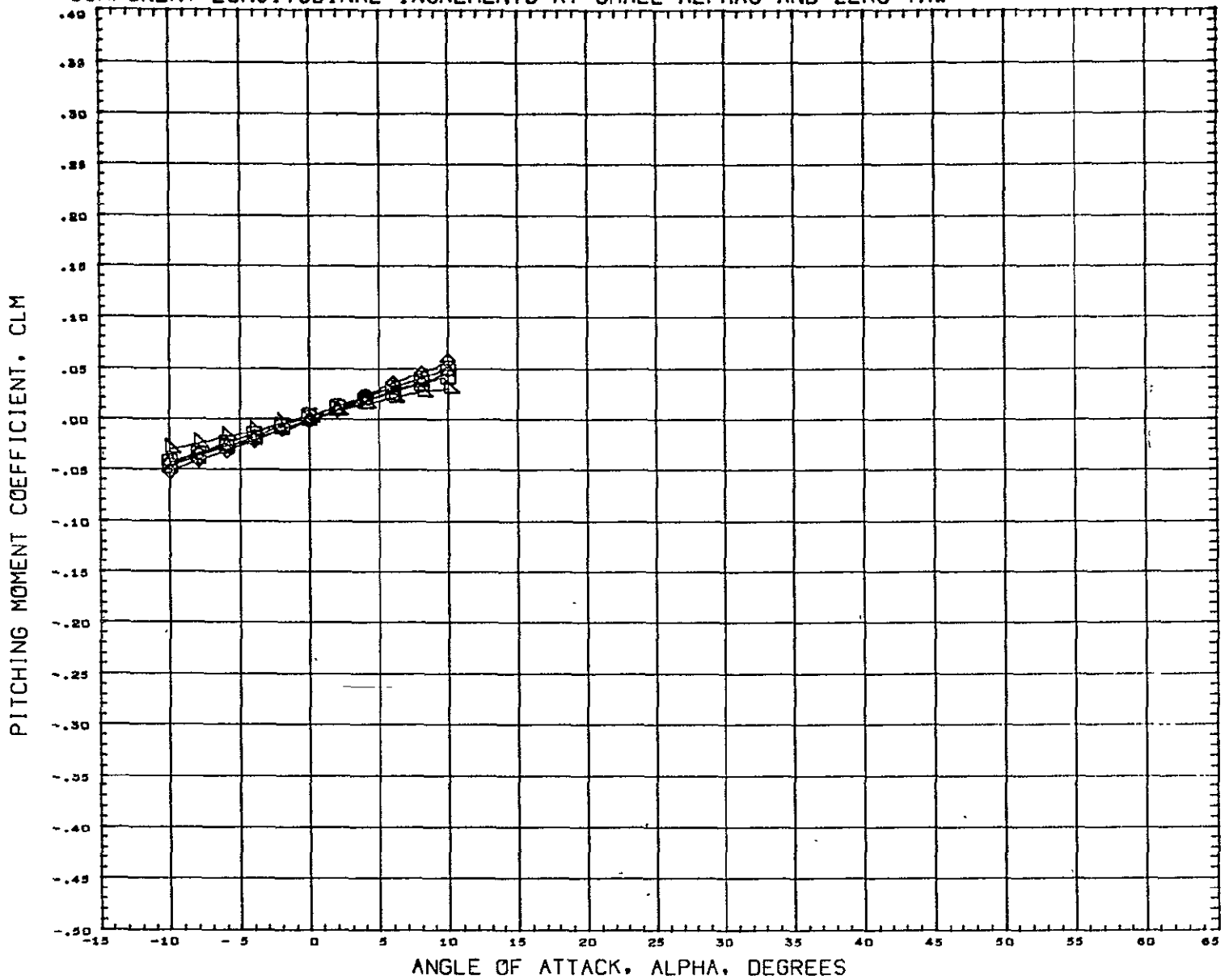


SYMBOL	MACH	BETA	PARAMETRIC VALUES
◇	0.600		0.000
◇	0.900		
◇	1.100		
◇	1.500		
◇	2.000		

DATA HIST. CODE MVR*E1*C

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO TAB

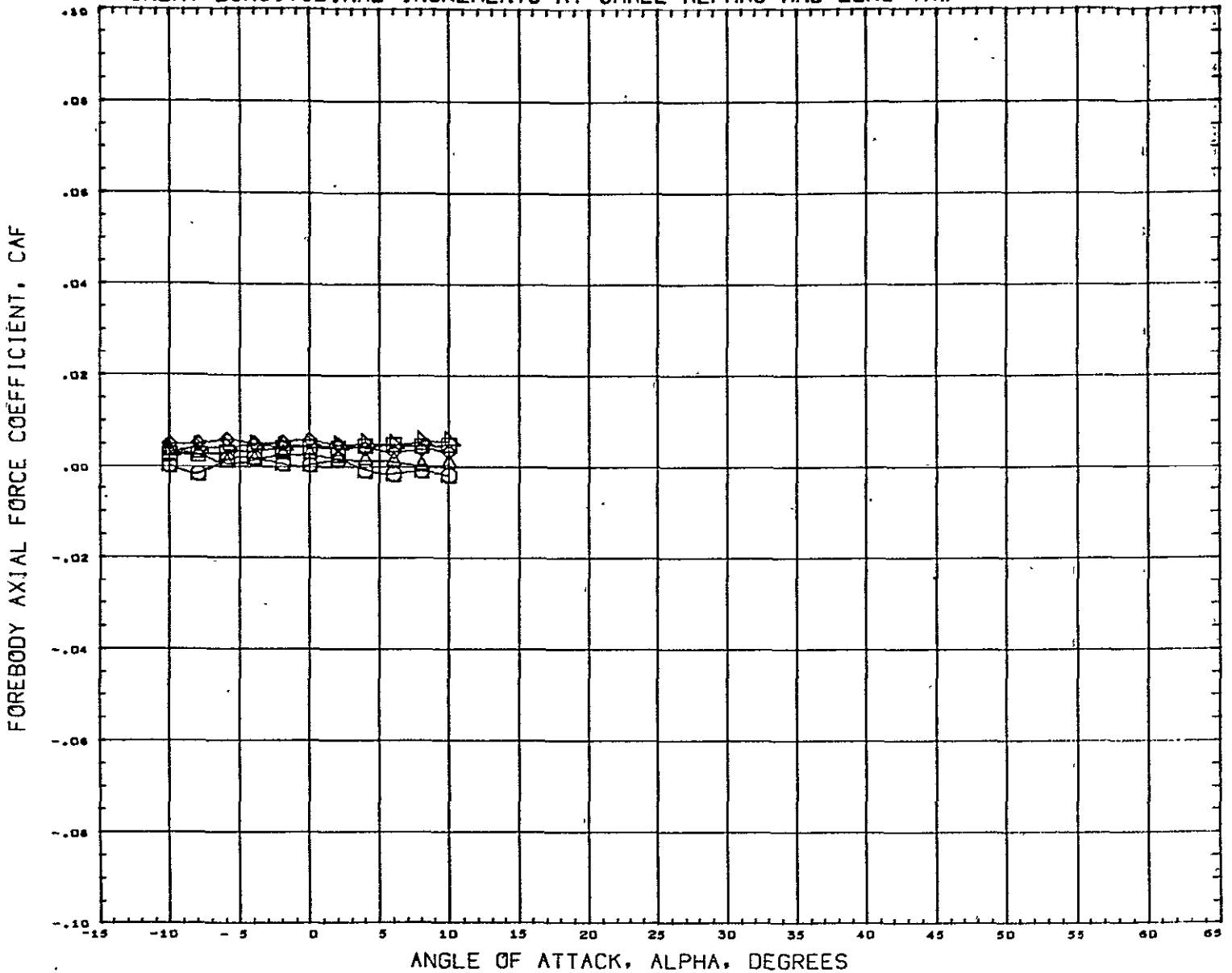


SYMBOL	MACH	BETA	PARAMETRIC VALUES
□	0.600		0.000
◇	0.900		
△	1.100		
○	1.500		
×	2.000		

DATA HIST. CODE MVR#E1*C

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XHRP	6.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

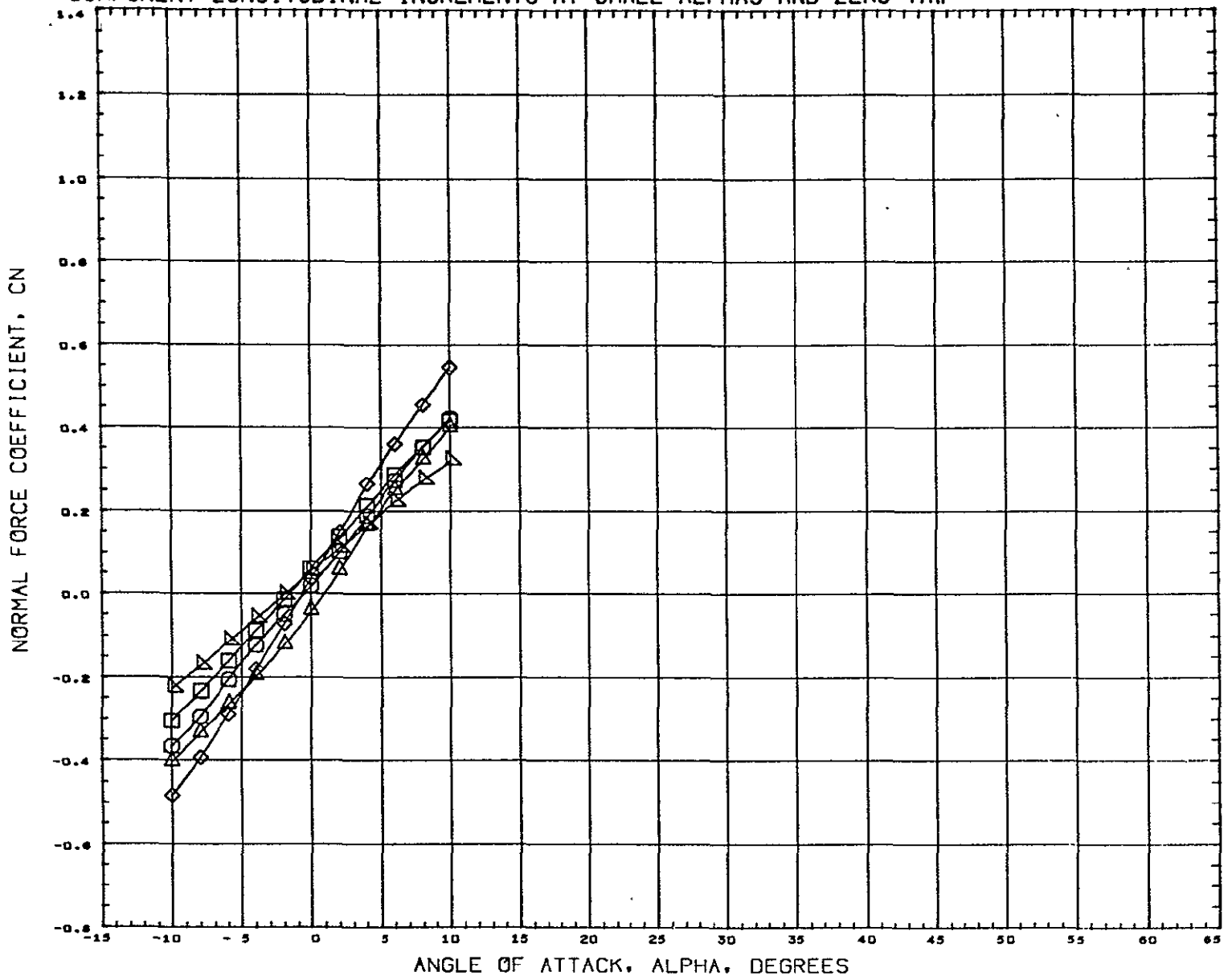
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
□	0.600	0.000	0.000	SREF 15.6560 SQ.IN.
◇	0.900			LREF 3.0950 IN.
◇	1.100			BREF 6.0990 IN.
◇	1.500			XMRP 6.7100 IN.
◇	2.000			YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

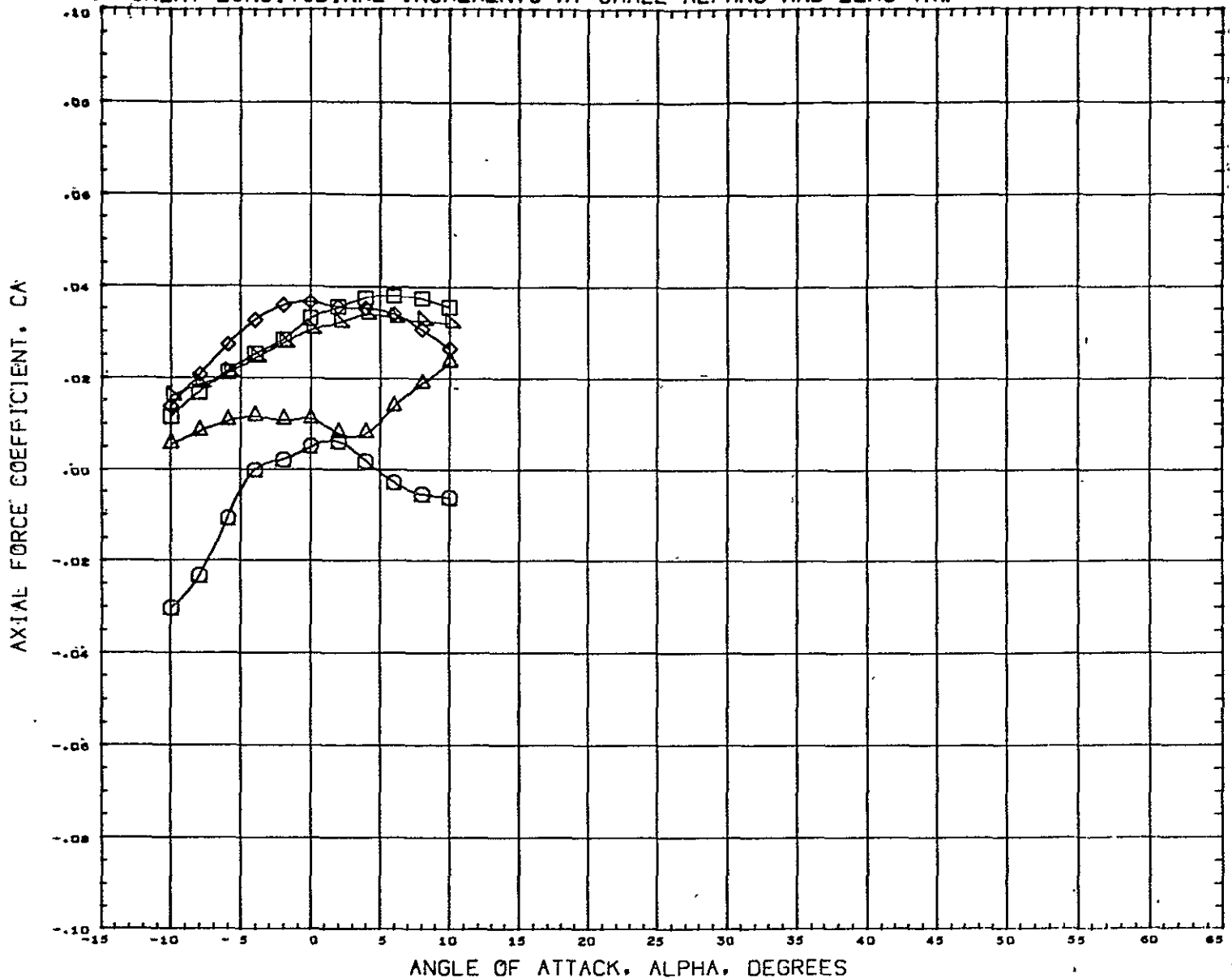
DATA HIST. CODE MVR#E1#C

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	0.600	0.000	0.000	SREF 15.6560 SQ. IN.
△	0.900			LREF 3.0950 IN.
◇	1.100			BREF 6.0990 IN.
□	1.500			XHRP 6.7100 IN.
▽	2.000			YHRP 0.0000 IN.
				ZHRP 0.0000 IN.
				SCALE 0.0035

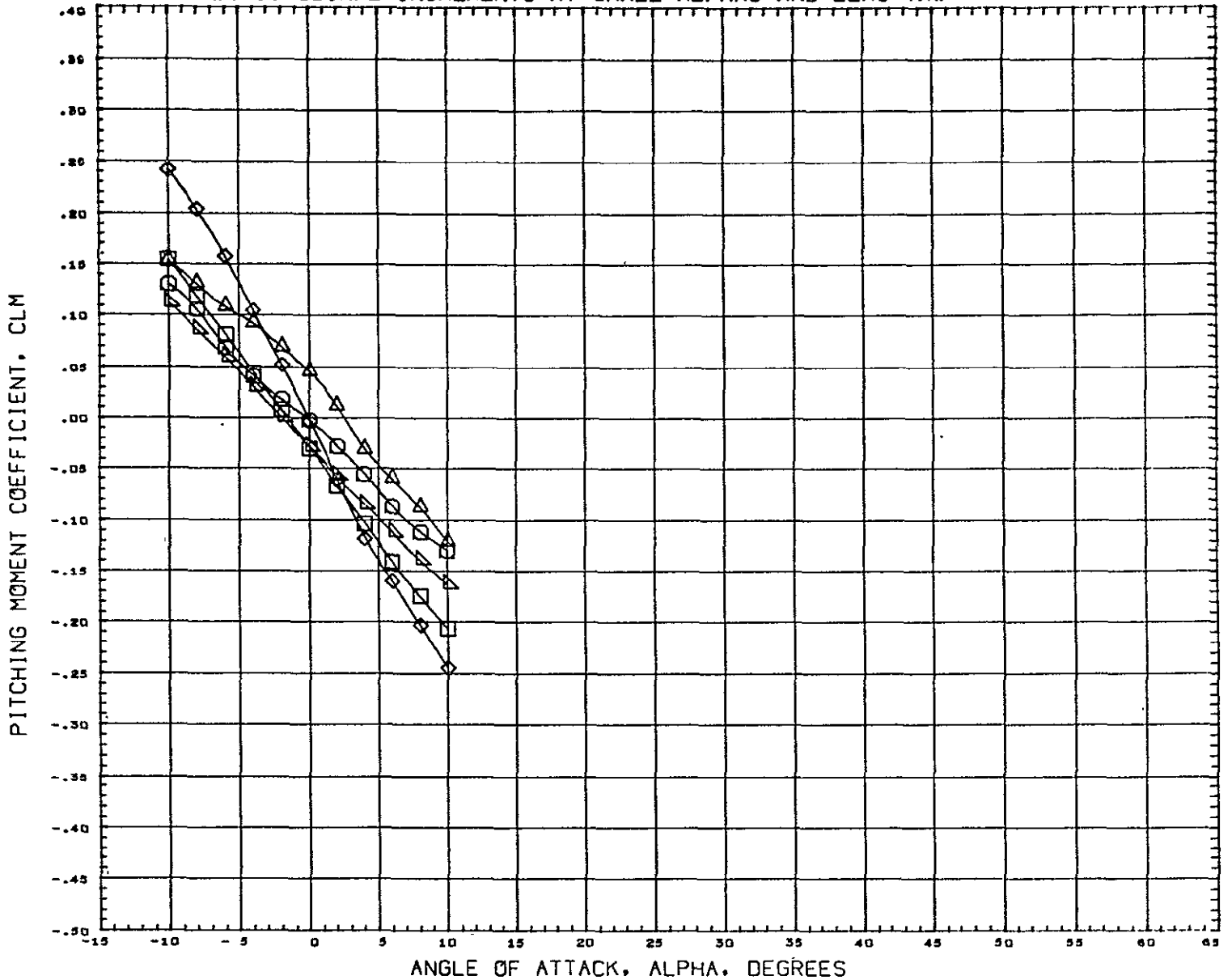
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	0.600	0.000	0.000	SREF 15.6560 SQ. IN.
△	0.900			LREF 3.0950 IN.
◇	1.100			BREF 6.0990 IN.
□	1.500			XMRP 6.7100 IN.
▽	2.000			YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

DATA HIST. CODE MVR#E1#C

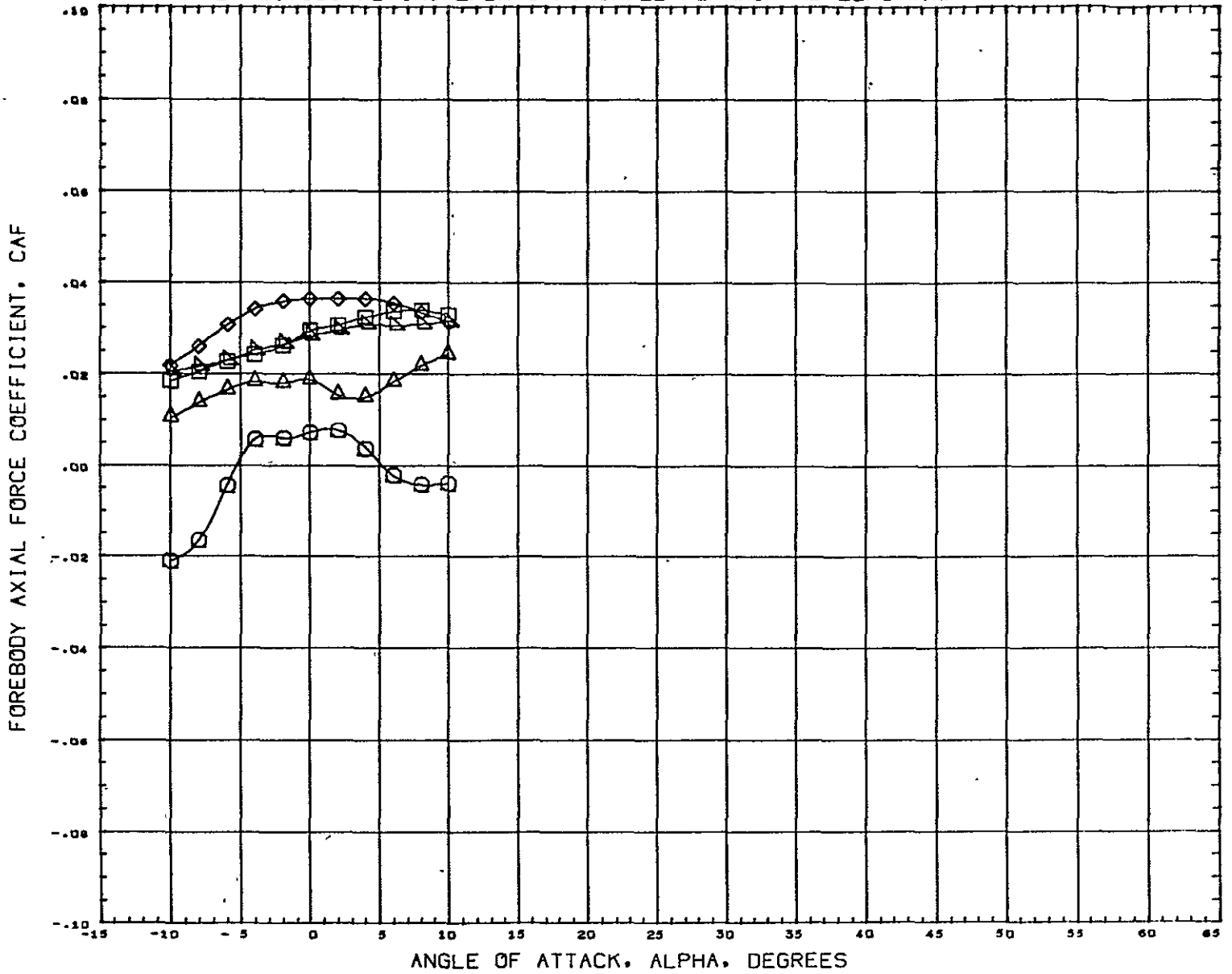
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION		
○	0.600	0.000	0.000	SREF	15.6560	50. IN.
△	0.900			LREF	3.0950	IN.
□	1.100			BREF	6.0990	IN.
◇	1.500			XMRP	6.7100	IN.
▽	2.000			YMRP	0.0000	IN.
				ZMRP	0.0000	IN.
				SCALE	0.0035	

DATA HIST. CODE MVR*E1*C

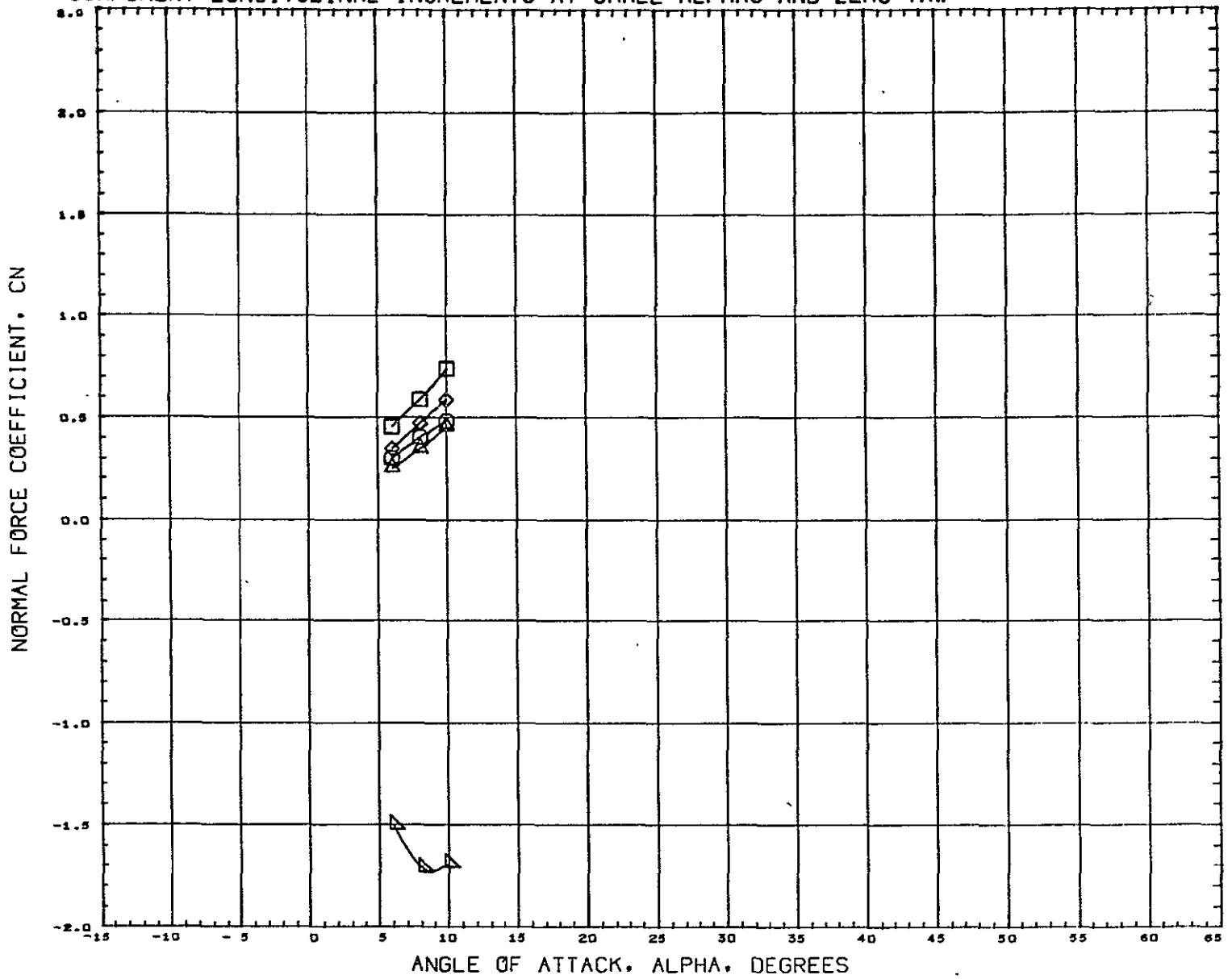
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION
○	0.600		0.000	SREF 15.6560 SQ. IN.
◇	0.900			LREF 3.0950 IN.
△	1.100			BREF 6.0990 IN.
□	1.500			XMRP 6.7100 IN.
◇	2.000			YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

DATA HIST. CODE MVR=E1+C

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

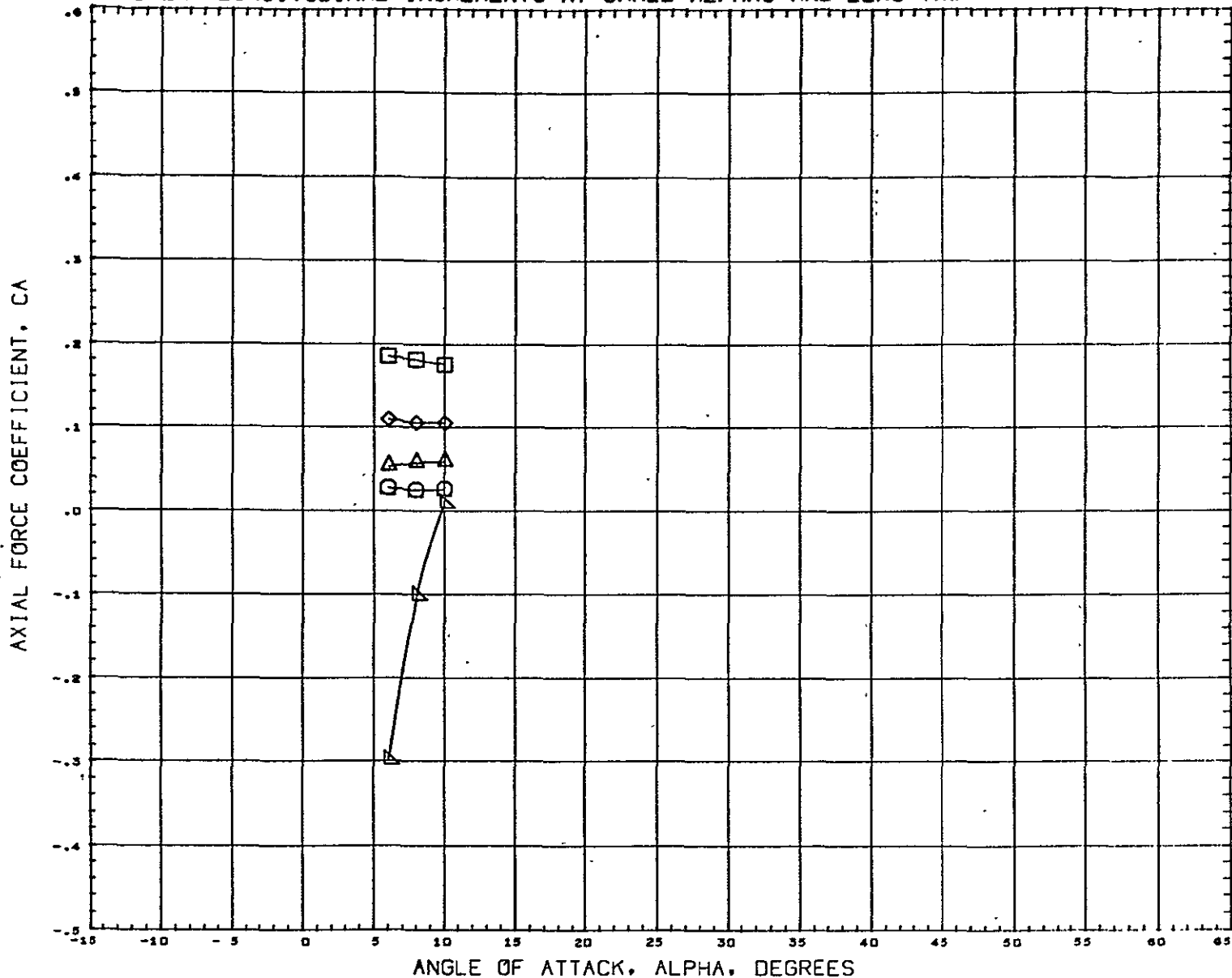


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0.000	DEL	0.000
◇	0.900	DER	0.000	ELEVON	0.000
△	1.100	AILRON	0.000		
□	1.500				
▽	2.000				

DATA HIST. CODE MVR#E1*C

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

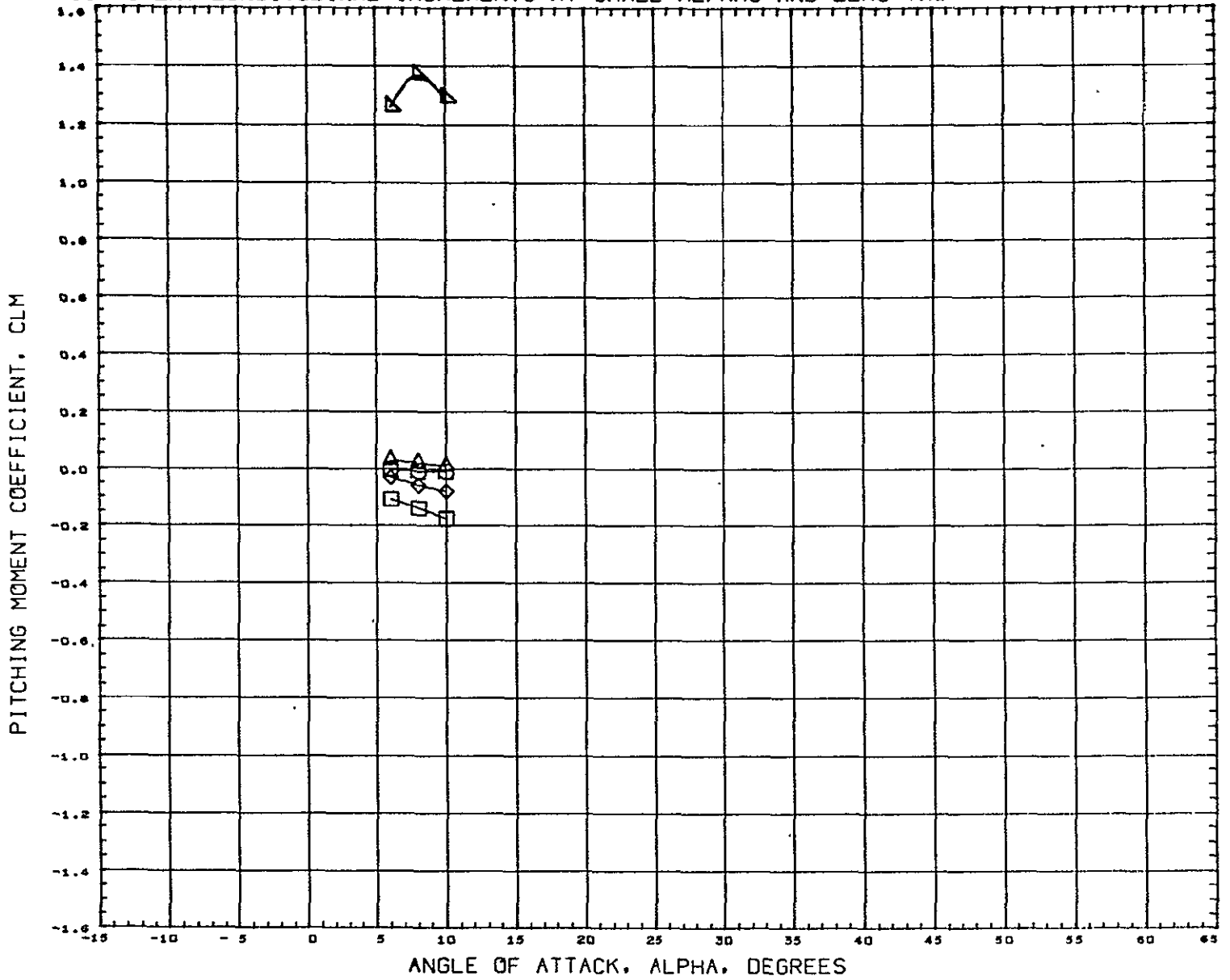


SYMBOL	MACH	PARAMETRIC VALUES			
		BETA	DEL	ELEVON	
□	0.600	0.000	0.000	0.000	
◇	0.900	0.000	0.000	0.000	
△	1.100	0.000	0.000	0.000	
○	1.500	0.000	0.000	0.000	
○	2.000	0.000	0.000	0.000	

DATA HIST. CODE MVR*E1*C

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

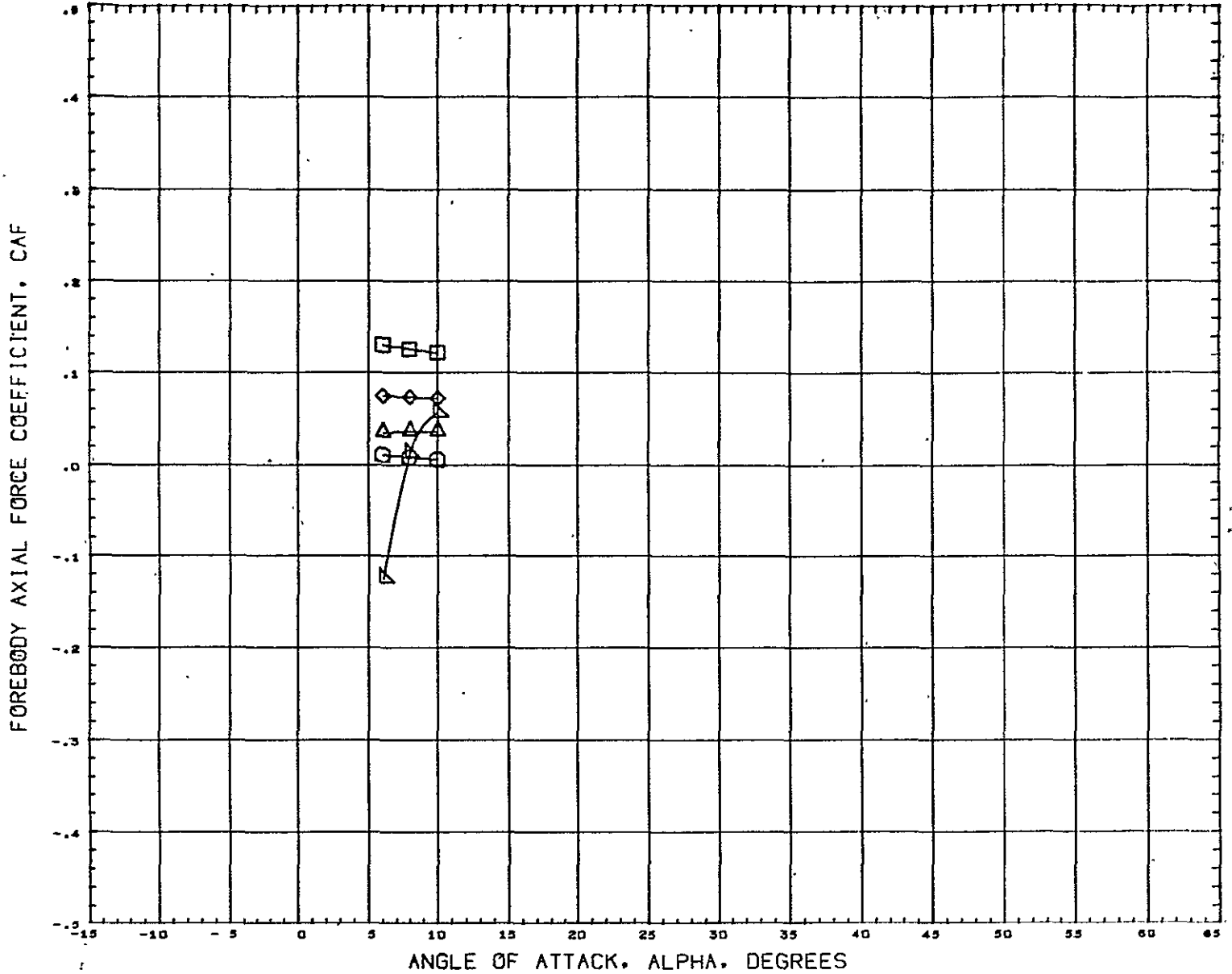
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO TAB



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION			
△	0.600	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
◇	0.900	DER	0.000	ELEVON	0.000	LREF	3.0950	IN.
◇	1.100	AILRON	0.000			BREF	6.0990	IN.
◇	1.500					XHRP	6.7100	IN.
◇	2.000					YHRP	0.0000	IN.
□						ZHRP	0.0000	IN.
						SCALE	0.0035	

DATA HIST. CODE MVR*E1*C

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW

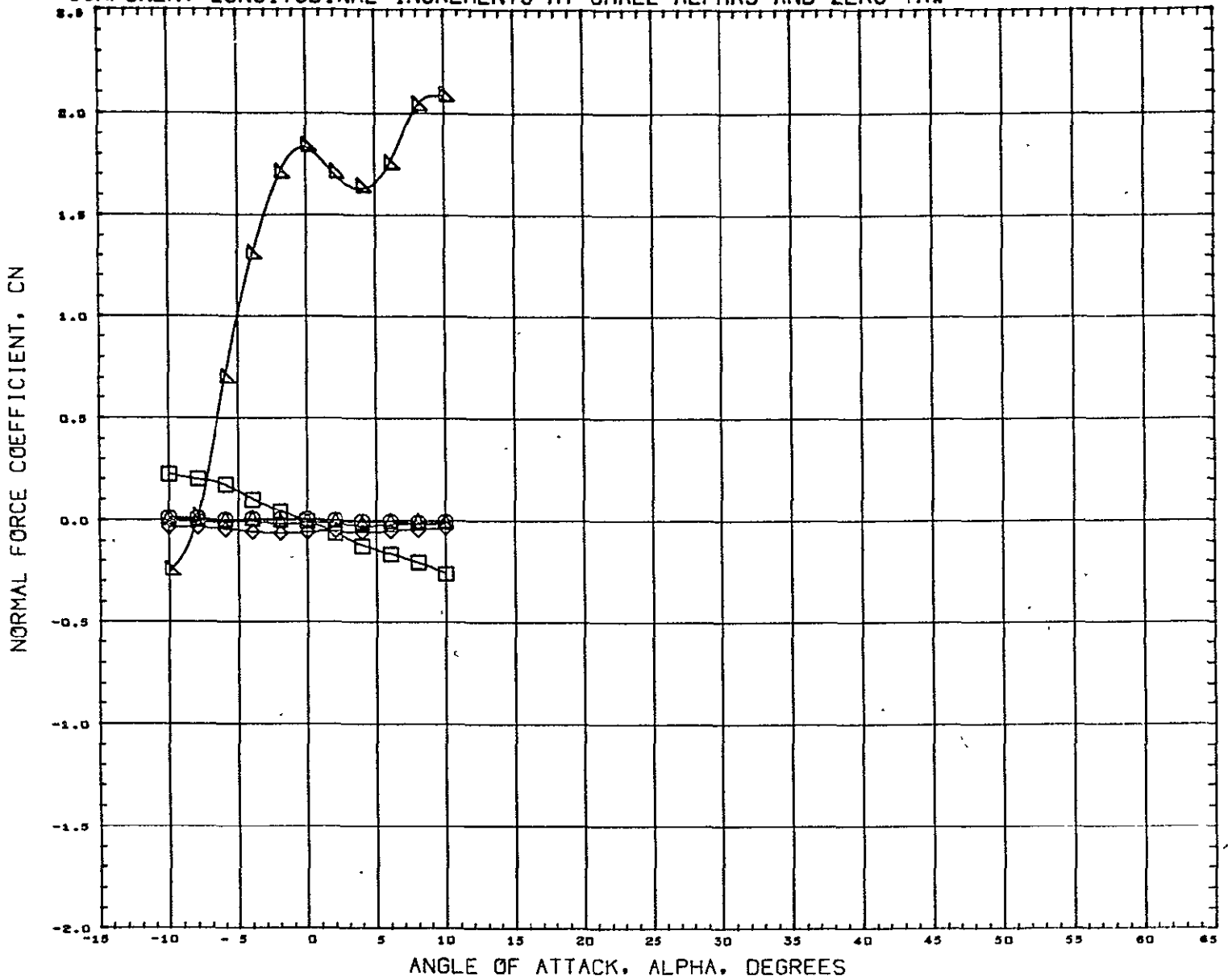


SYMBOL	MACH	PARAMETRIC VALUES			
		BETA	DEL	ELEVON	
□	0.600	0.000	0.000	0.000	
◇	0.900	0.000	0.000	0.000	
△	1.100	0.000	0.000	0.000	
○	1.500	0.000	0.000	0.000	
▽	2.000	0.000	0.000	0.000	

DATA HIST. CODE MVR#E1#C

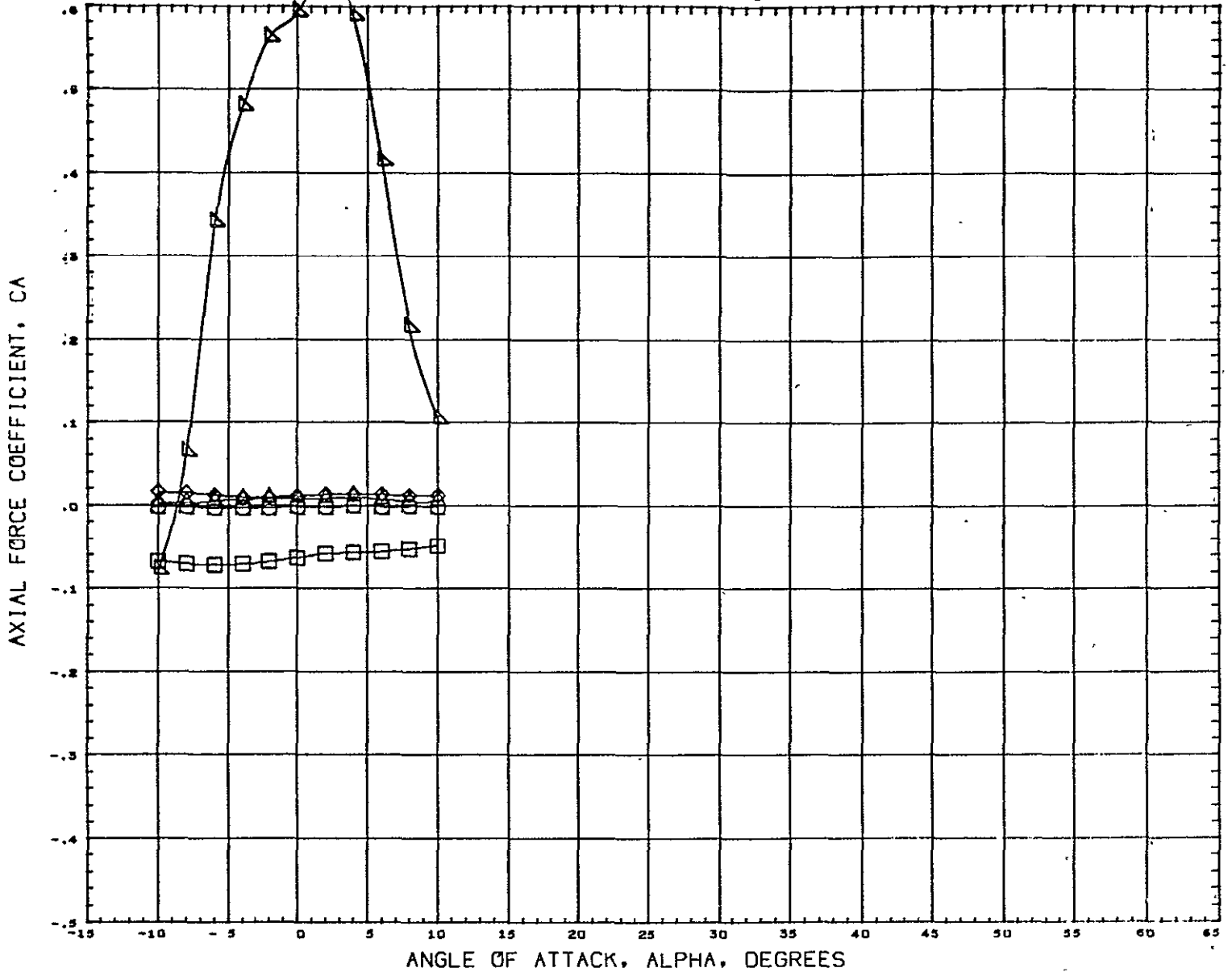
REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO TAW



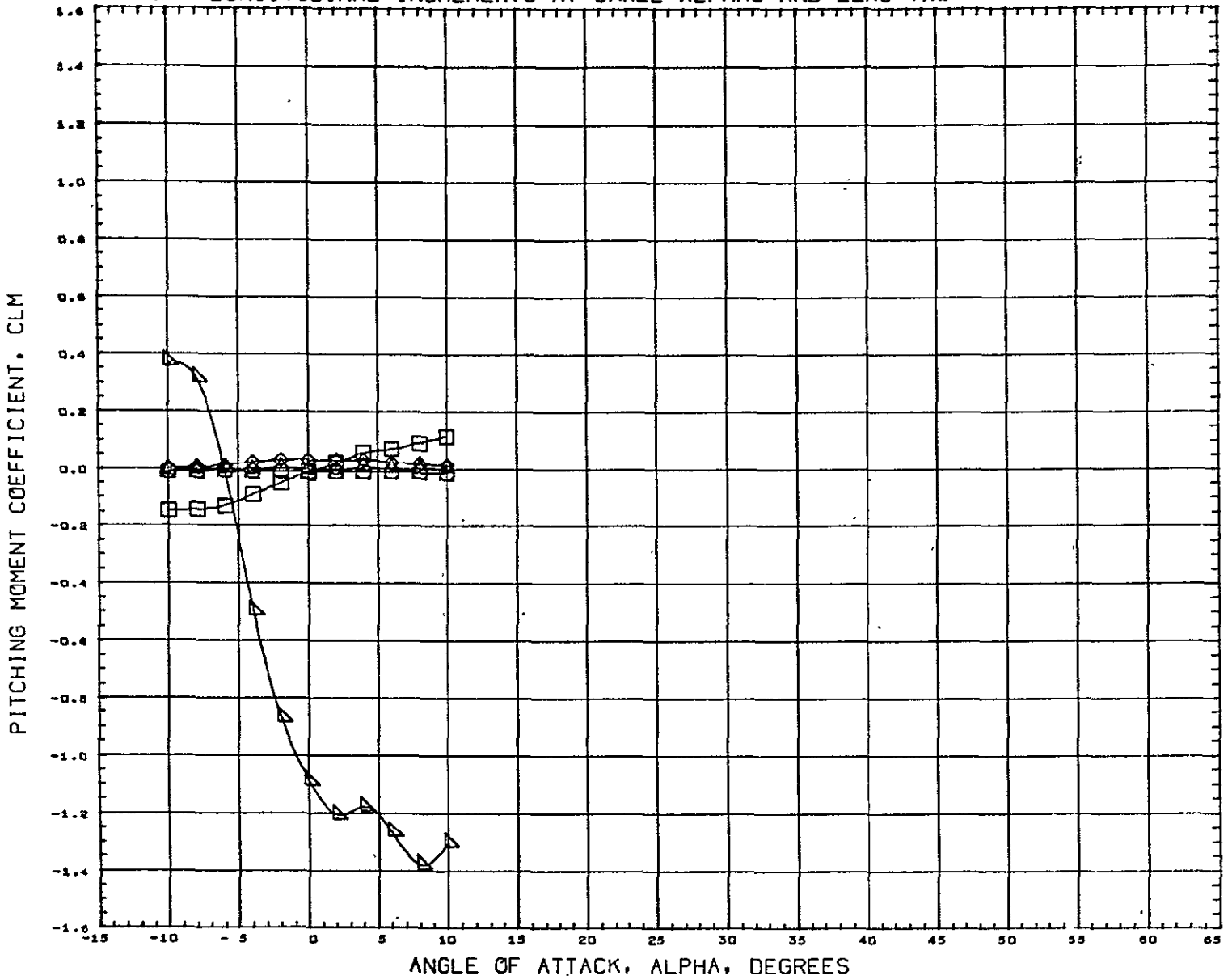
SYMBOL	MACH	PARAMETRIC VALUES					REFERENCE INFORMATION		
◇	0.600	DEL	0.000	DER	0.000	SREF	15.6560	30. IN.	
△	0.900	DCL	0.000	DCR	0.000	LREF	3.0950	IN.	
□	1.100	ELEVON	0.000	CANARD	0.000	BREF	6.0990	IN.	
◇	1.500	AILRON	0.000			XMRP	6.7100	IN.	
◇	2.000					YMRP	0.0000	IN.	
						ZMRP	0.0000	IN.	
						SCALE	0.0055		
		DATA HIST. CODE	MVR*EI#C						

COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
△	0.600	DEL	0.000	DER	0.000	SREF	15.6560	SQ. IN.
◇	0.900	DCL	0.000	DCR	0.000	LREF	3.0950	IN.
◇	1.100	ELEVON	0.000	CANARD	0.000	BREF	6.0990	IN.
□	1.500	AILRON	0.000			XMRP	6.7100	IN.
□	2.000					YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#EI#C					

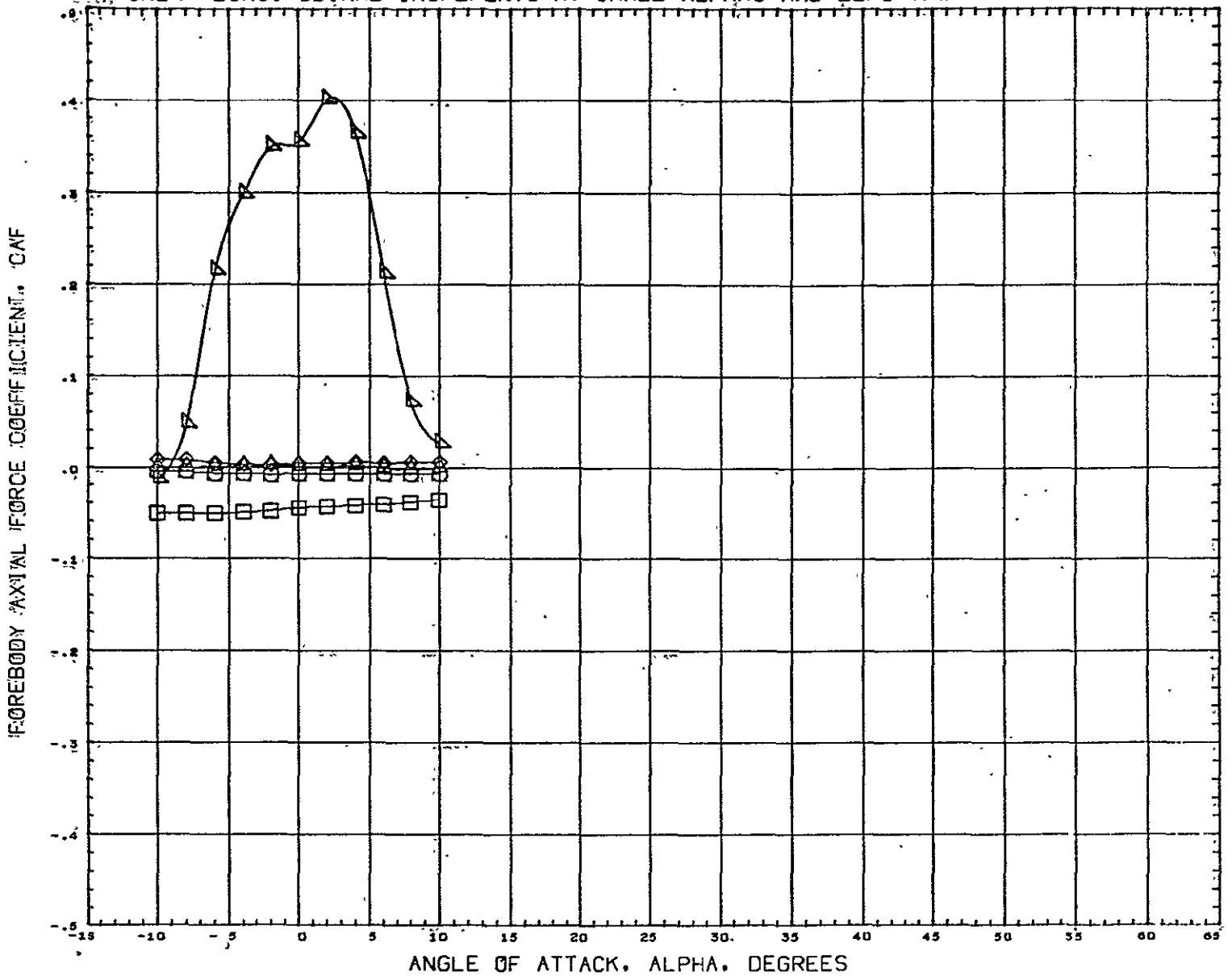
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION	
○	0.600	DEL	0.000	DER	0.000	SREF	15.6560 SQ. IN.
△	0.900	DCL	0.000	DCR	0.000	LREF	3.0950 IN.
◇	1.100	ELEVON	0.000	CANARD	0.000	BREF	6.0990 IN.
□	1.500	AILRON	0.000			XHRP	6.7100 IN.
▽	2.000					YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0035

DATA HIST. CODE MVR#E1%C

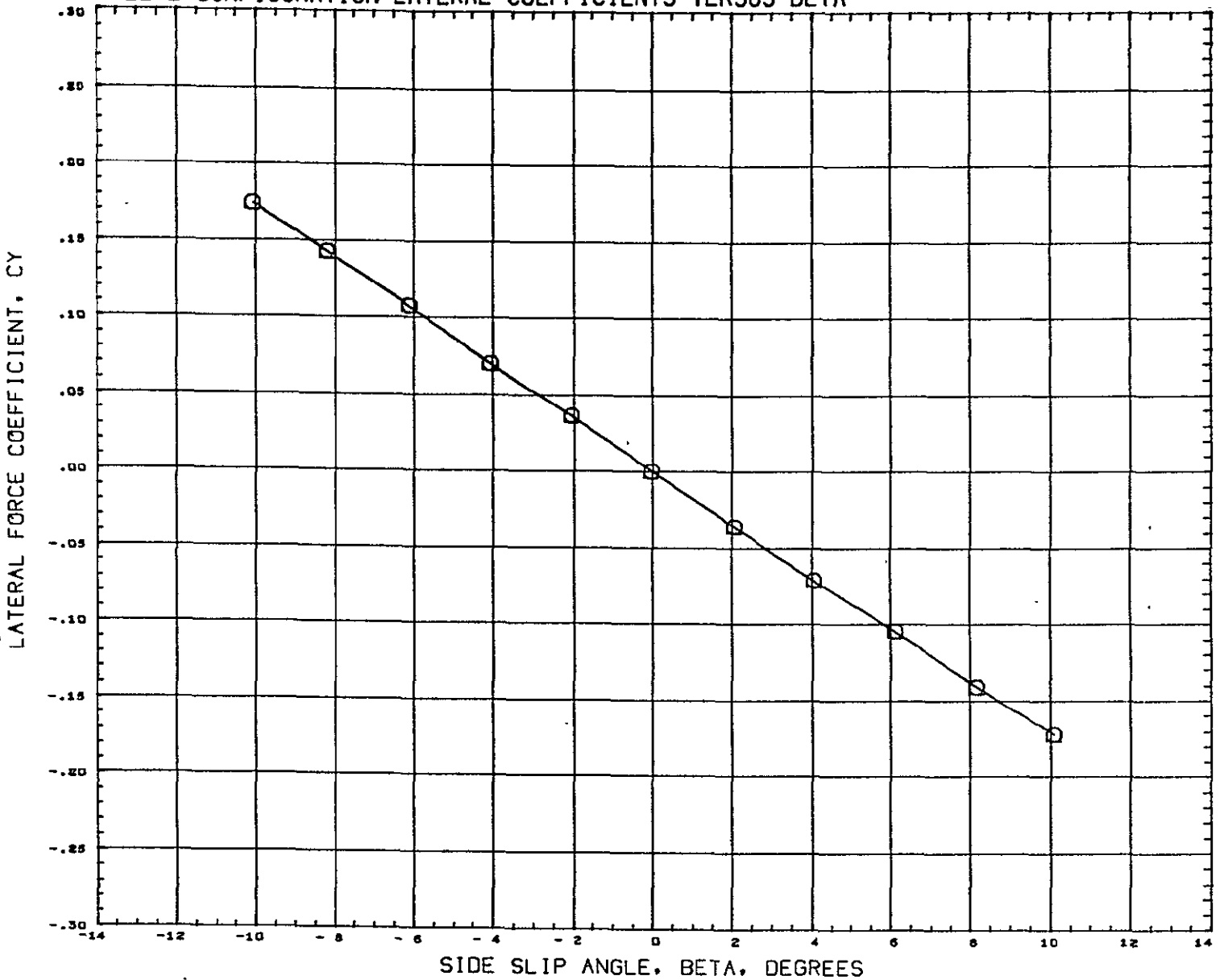
COMPONENT LONGITUDINAL INCREMENTS AT SMALL ALPHAS AND ZERO YAW



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		DEL	DER	DCR	CANARD	SREF	IN.	SQ. IN.
△	0.800	0.000	0.000	0.000	0.000	15.6560	30.	IN.
◇	0.900	0.000	0.000	0.000	0.000	3.0950	IN.	
◊	1.100	0.000	0.000	0.000	0.000	6.0990	IN.	
◻	1.500	0.000	0.000	0.000	0.000	6.7100	IN.	
◻	2.000	0.000	0.000	0.000	0.000	0.0000	IN.	
						ZMRP	0.0000	IN.
						SCALE	0.0055	

DATA HIST. CODE MVR*E1*C

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

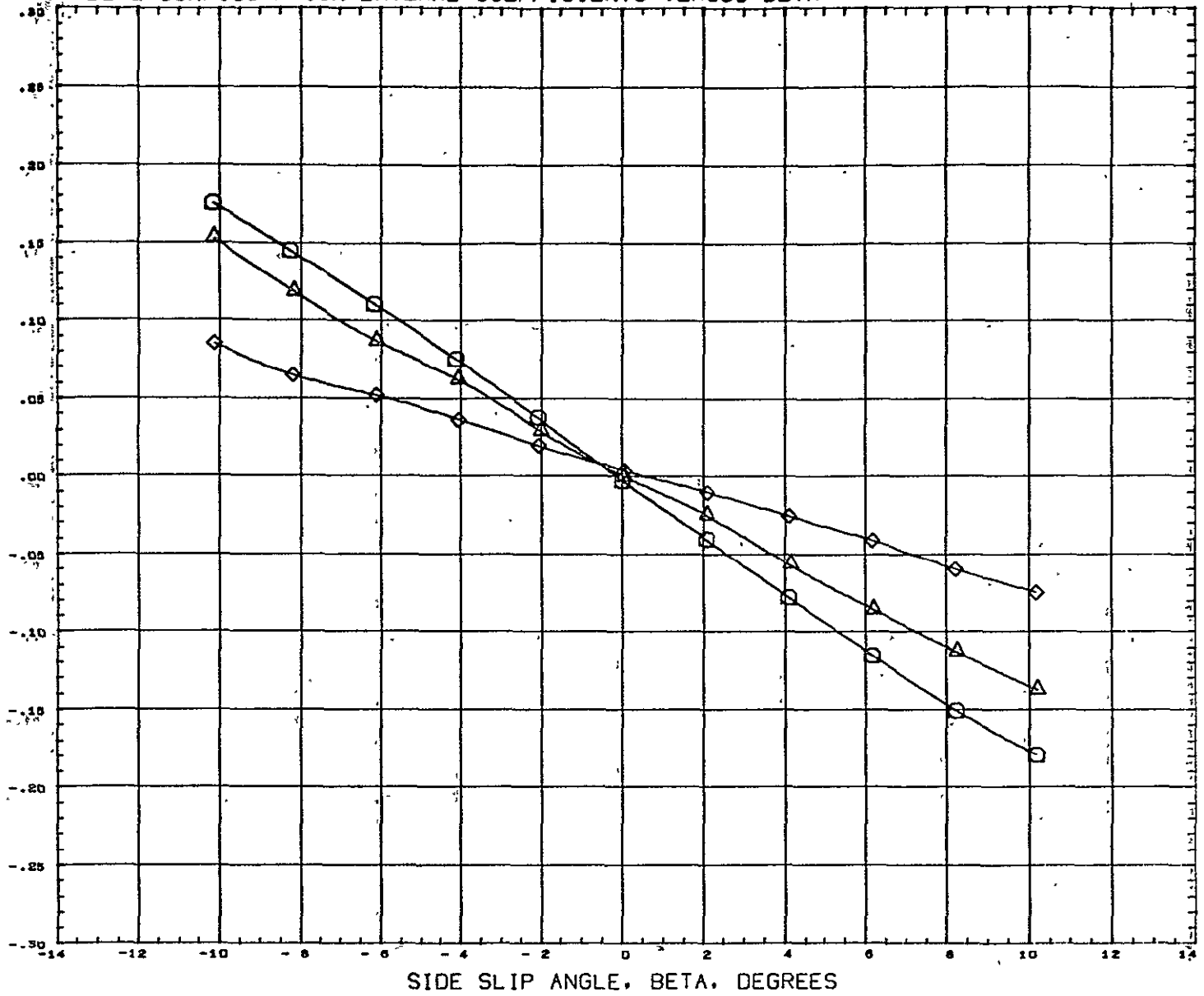


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ.IN.
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

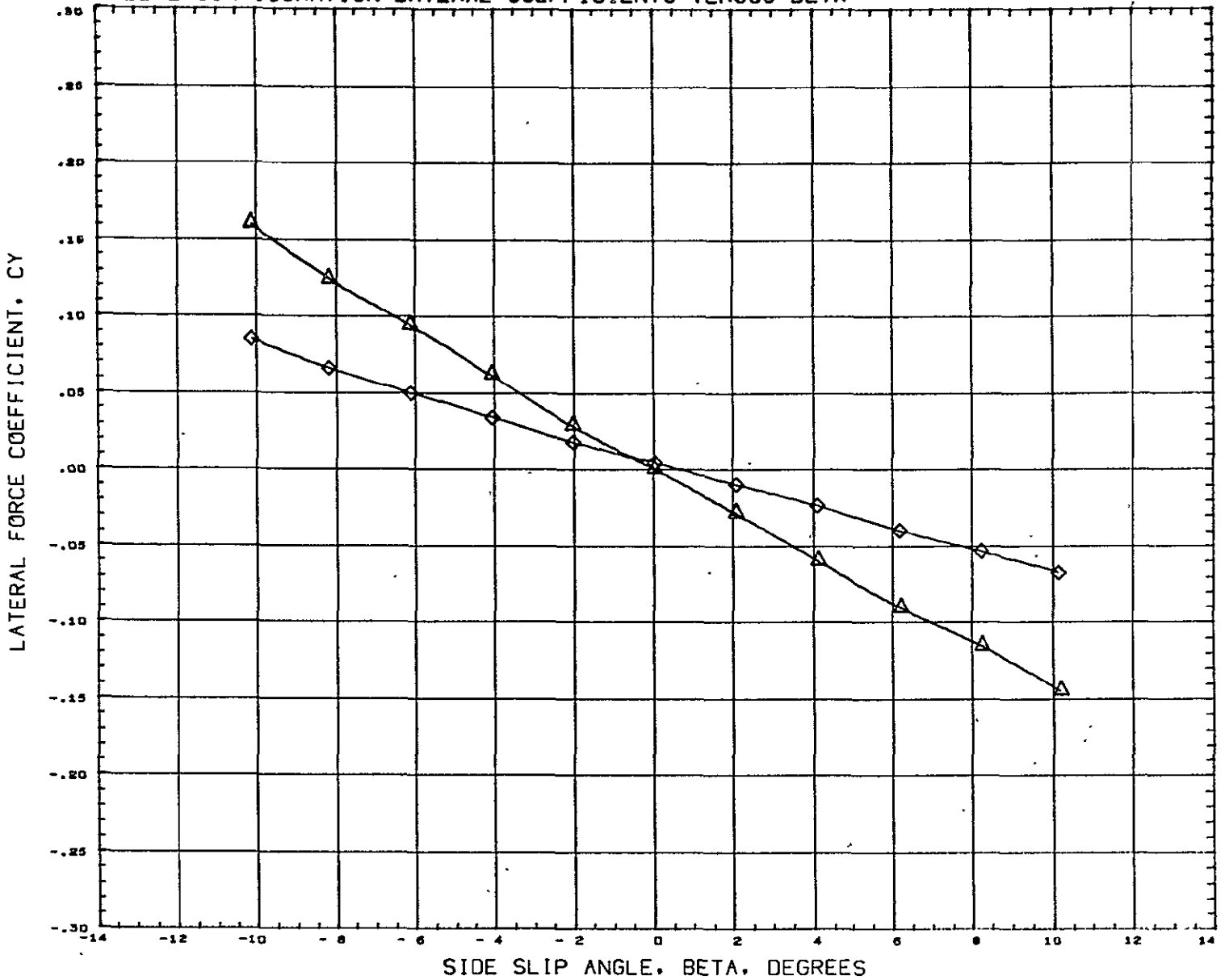
LATERAL FORCE COEFFICIENT, CY



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.904

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

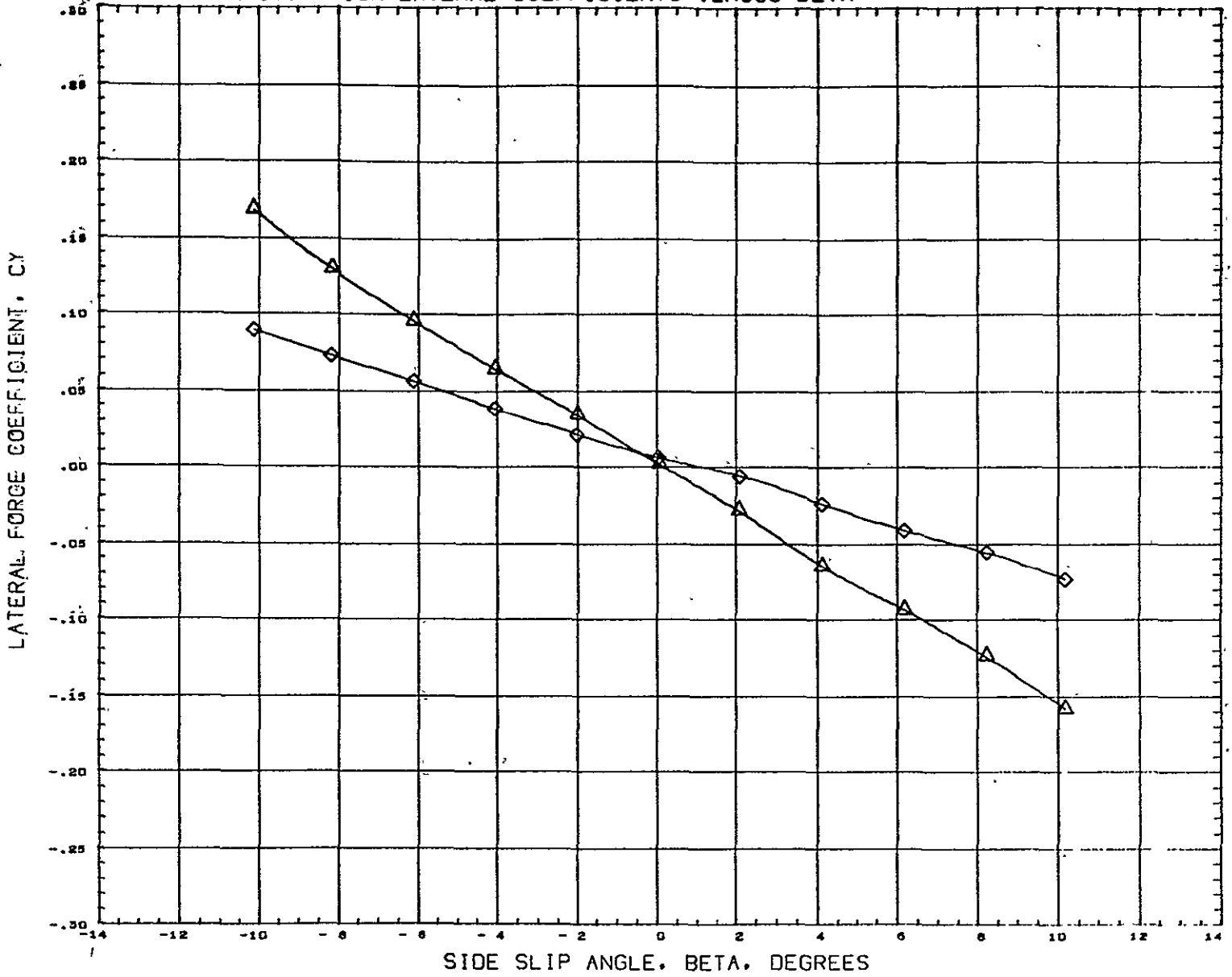


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	HSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	HSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.955

20A

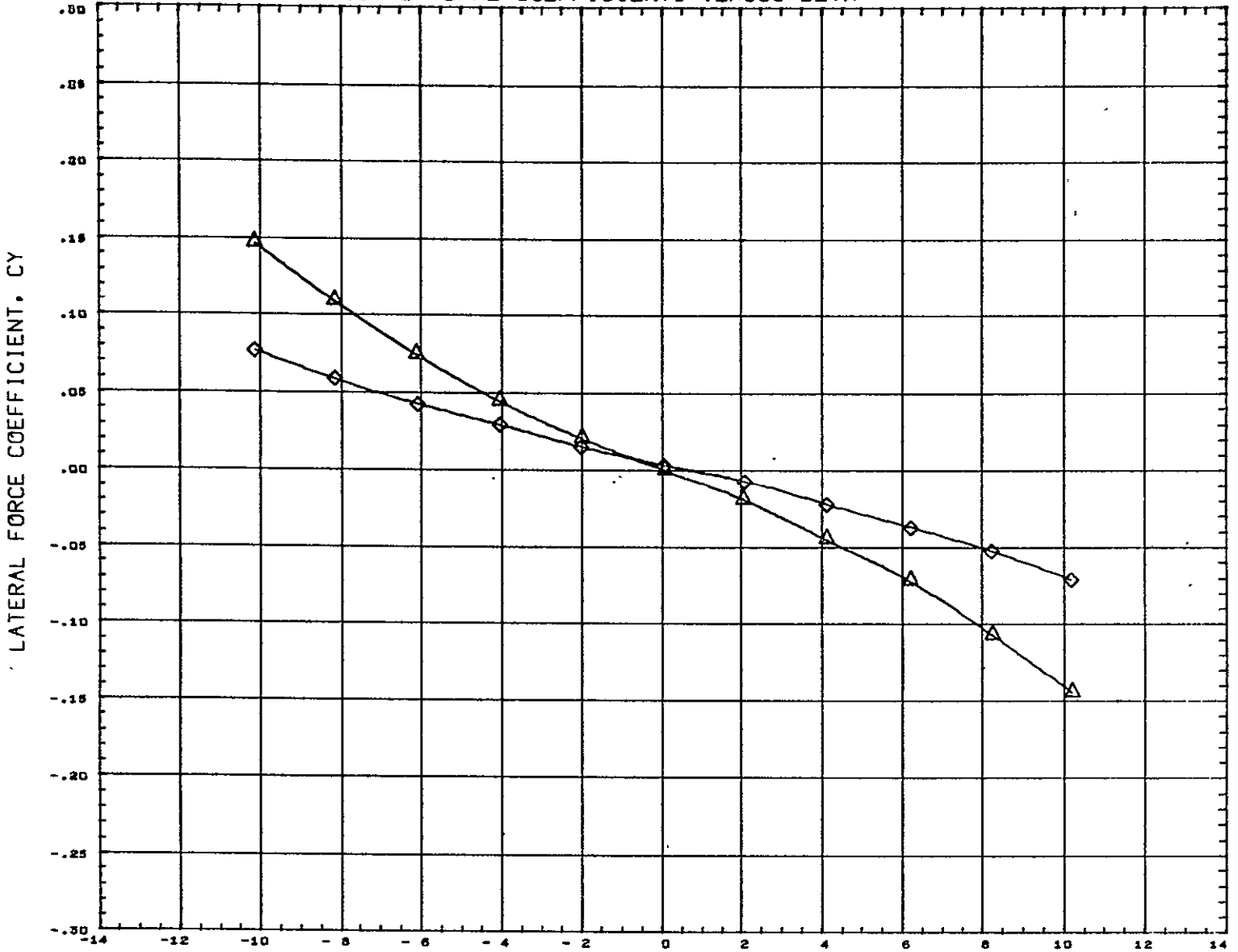
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F26Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF	15.6560 SQ.IN.
(F26Y21)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F26Y31)	HSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		DREF	6.0990 IN.
(F26Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0035

MACH 1.000

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

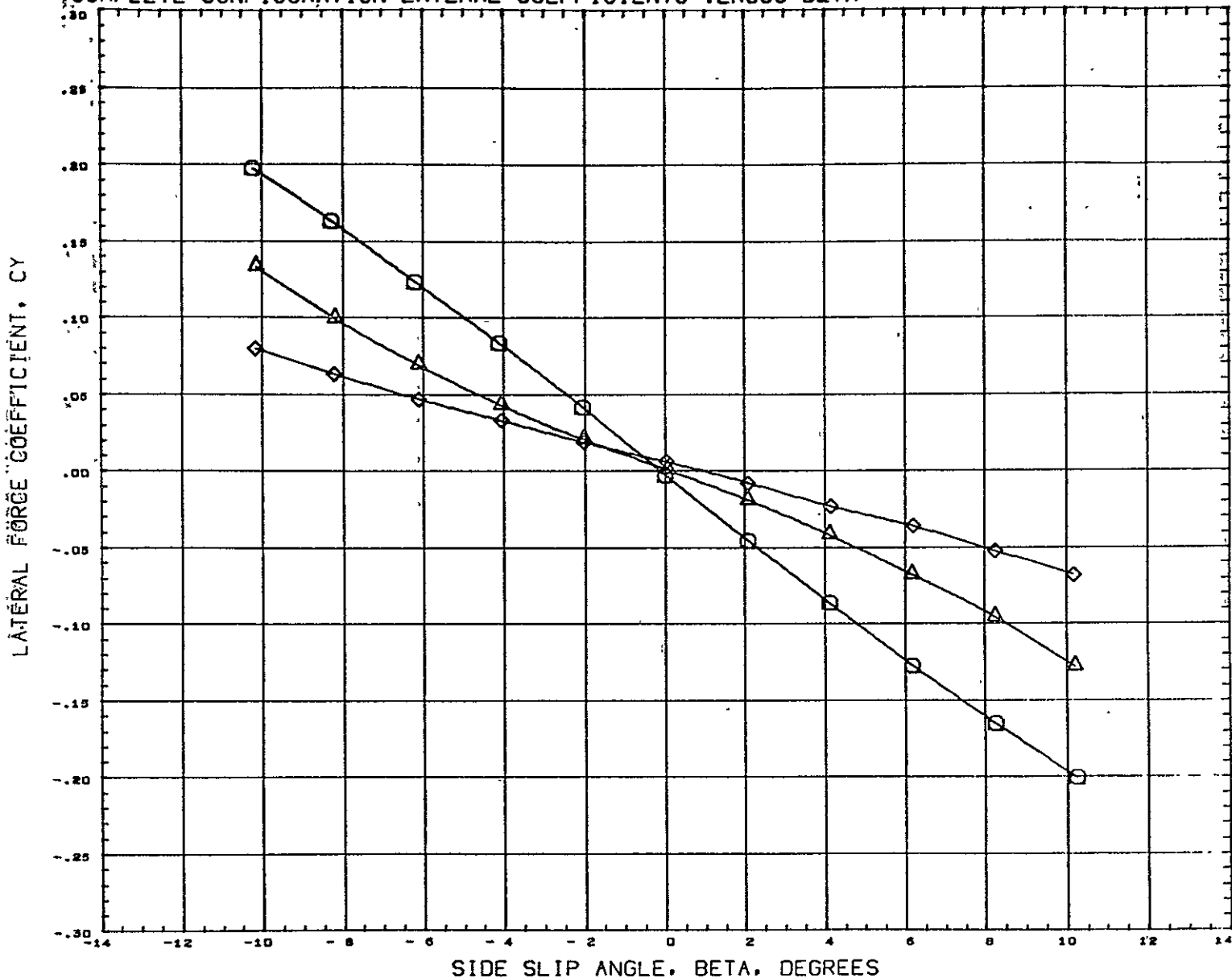


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000		SREF	15.6560 SQ. IN.
15.000	0.000	0.000	0.000	LREF	3.0950 IN.
15.000	0.000	0.000		BREF	6.0990 IN.
35.000	0.000	0.000		XMRP	6.7100 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0035

MACH 1.051

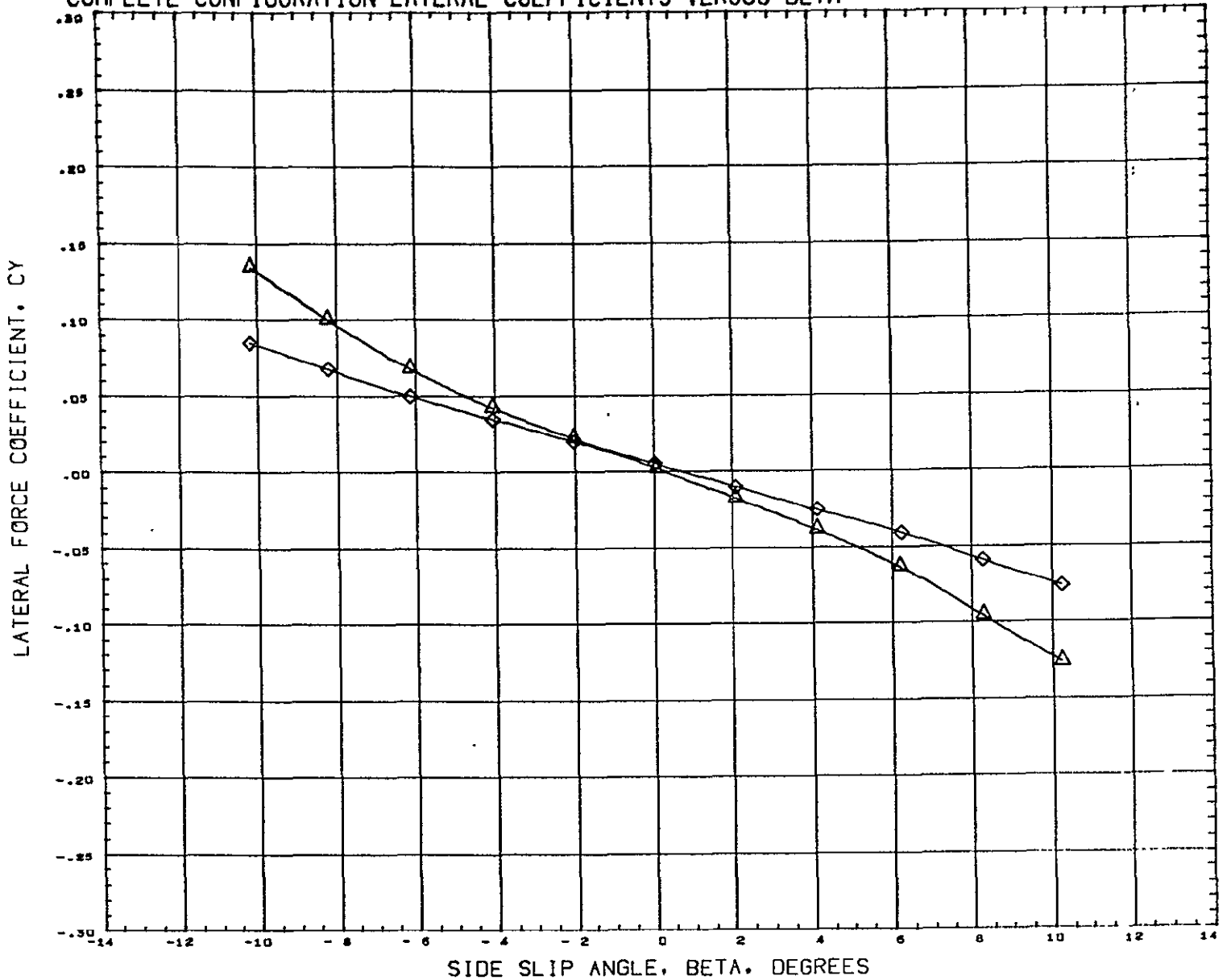
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y53)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF	6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.101

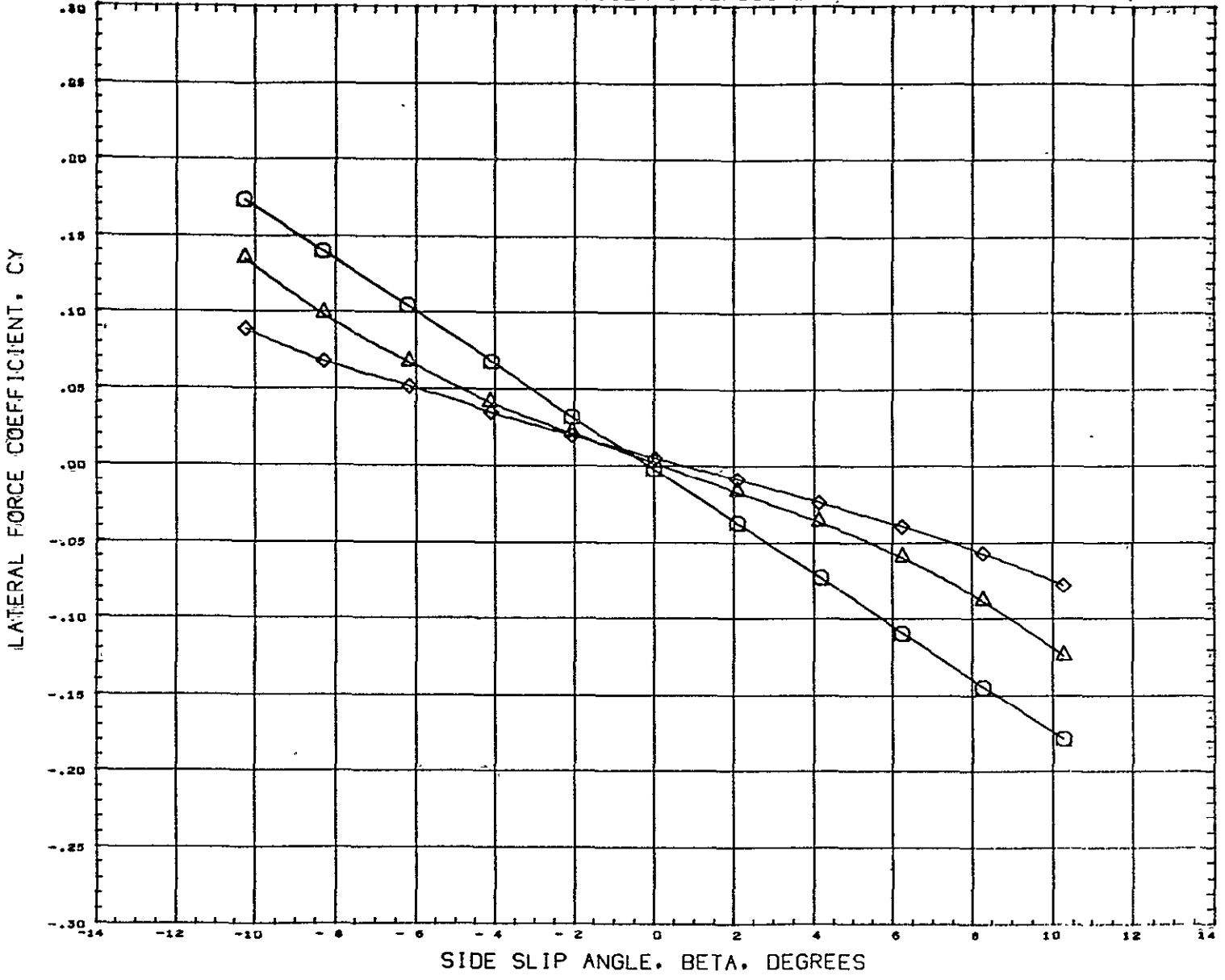
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	△	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	◇	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
							YMRP 0.0000 IN.
							ZMRP 0.0000 IN.
							SCALE 0.0035

MACH 1.202

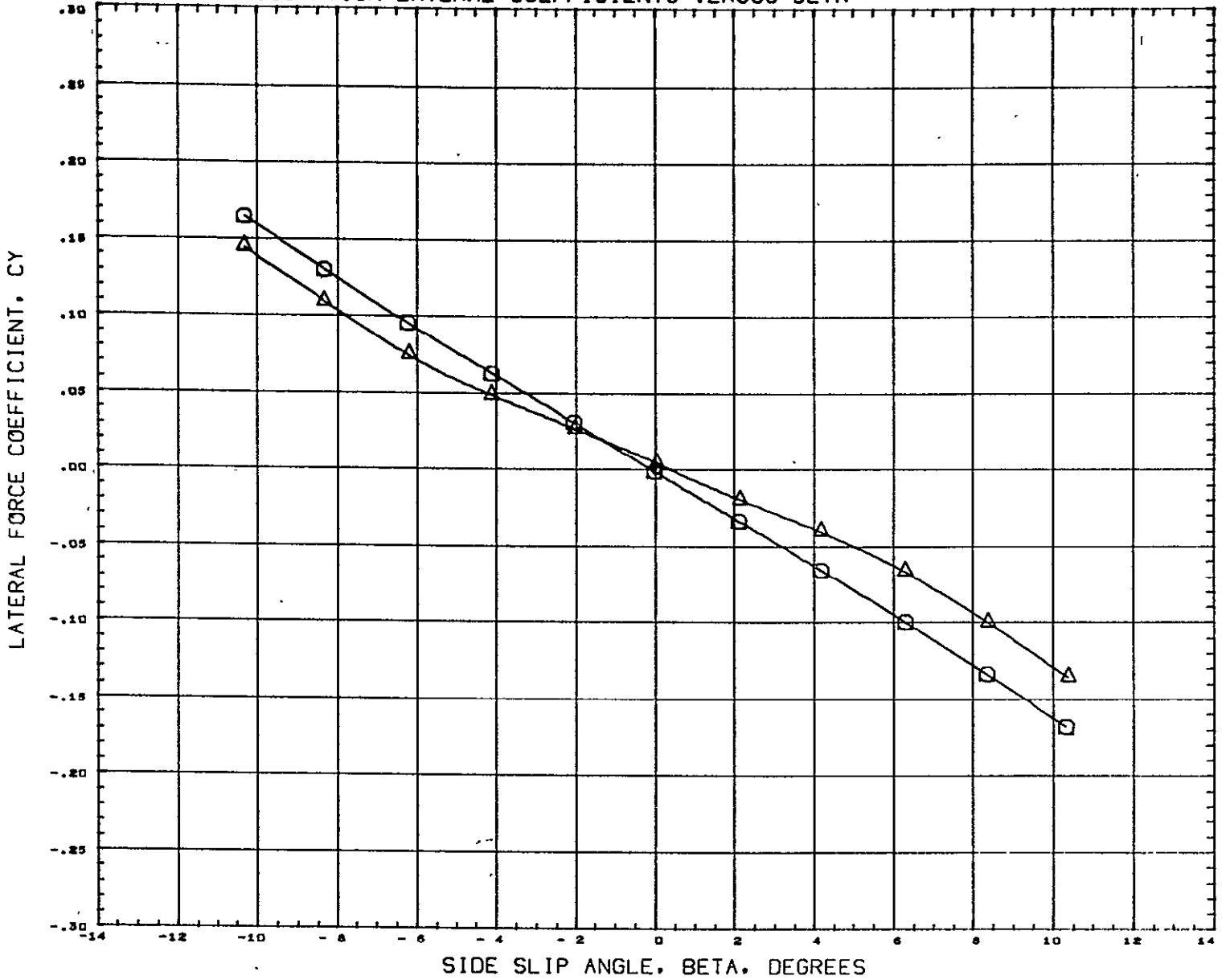
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 90. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.461

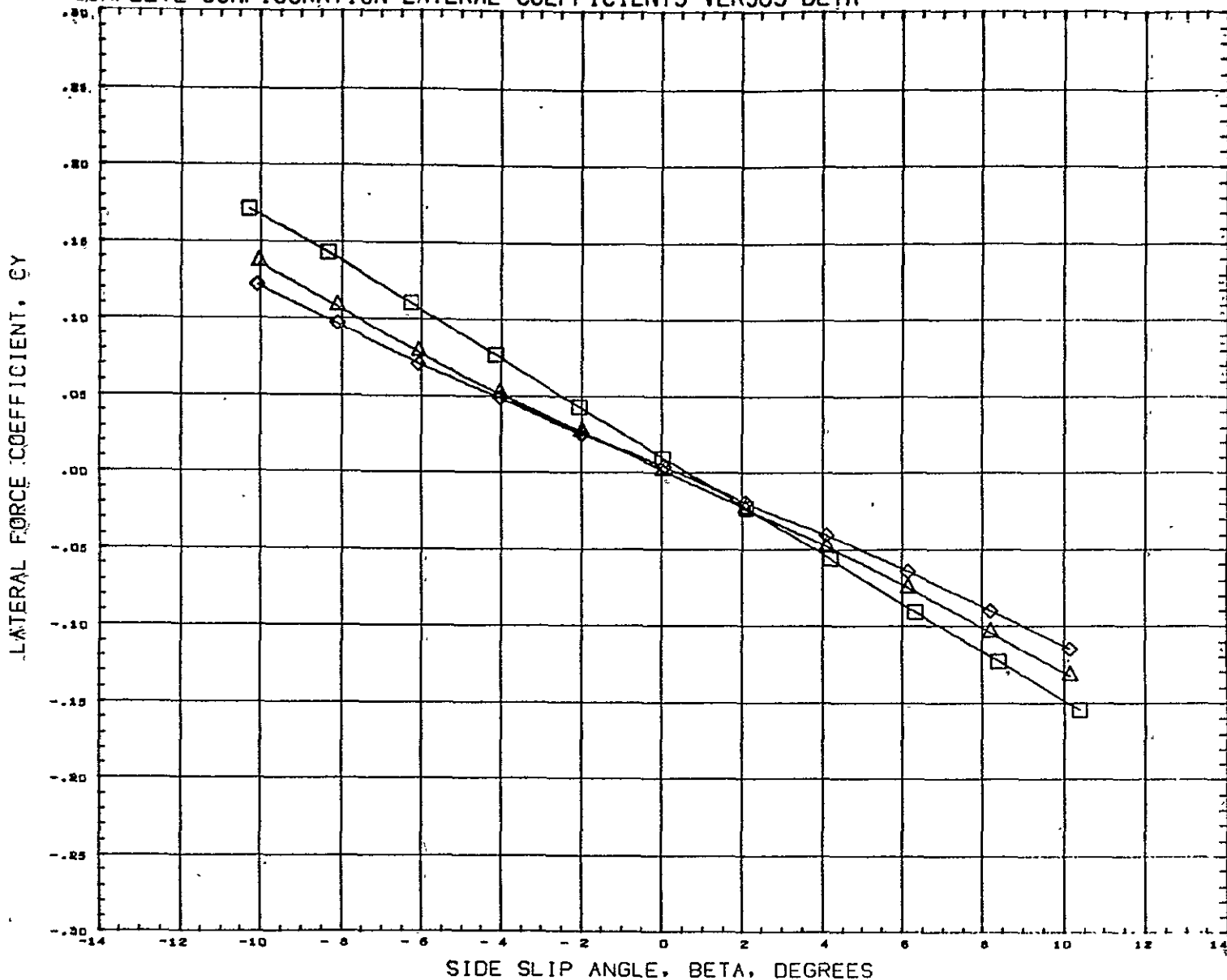
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	○	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	△	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	◇	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	55.000	0.000	0.000		XHRP 6.7100 IN.
							YHRP 0.0000 IN.
							ZHRP 0.0000 IN.
							SCALE 0.0035

MACH 1.956

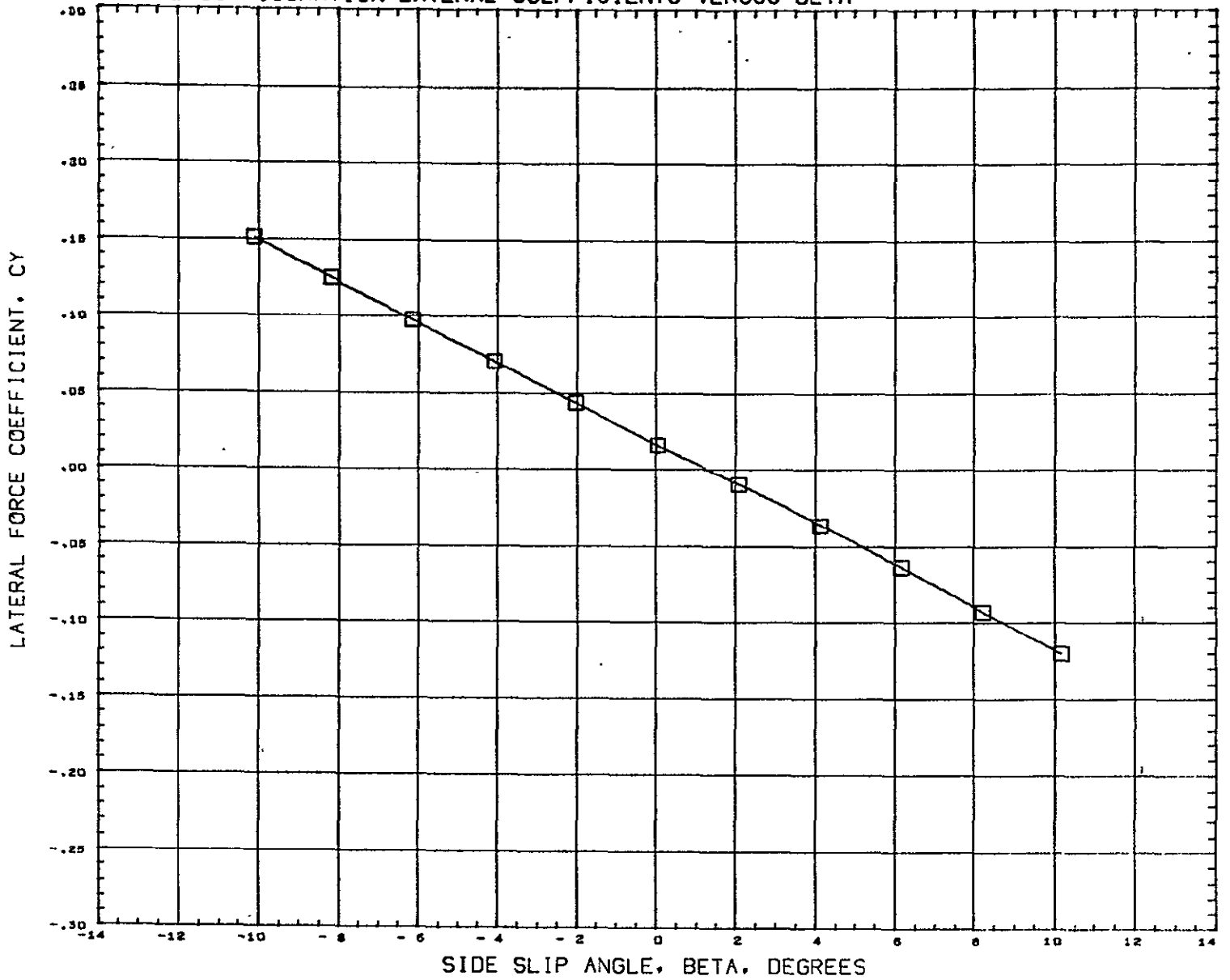
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0990 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	MSFC481 GD/C (BOOSTER) B19W14C4A	35.000	0.000	0.000		XHRP 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0033

MACH 2.990

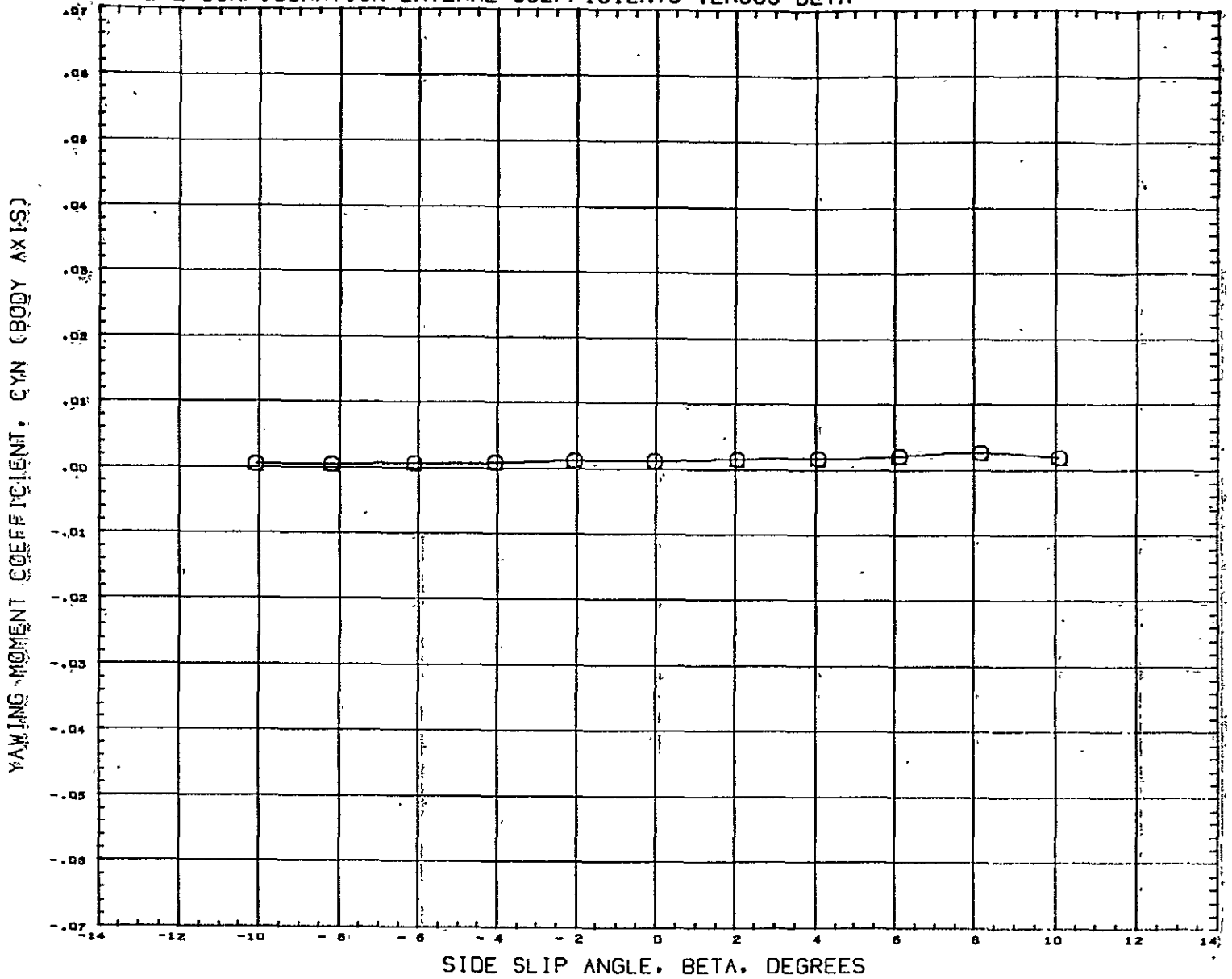
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F20Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 50.1N.
(F20Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F20Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F20Y41)	MSFC481 GD/C(BOOSTER) B19W14C4A	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.959

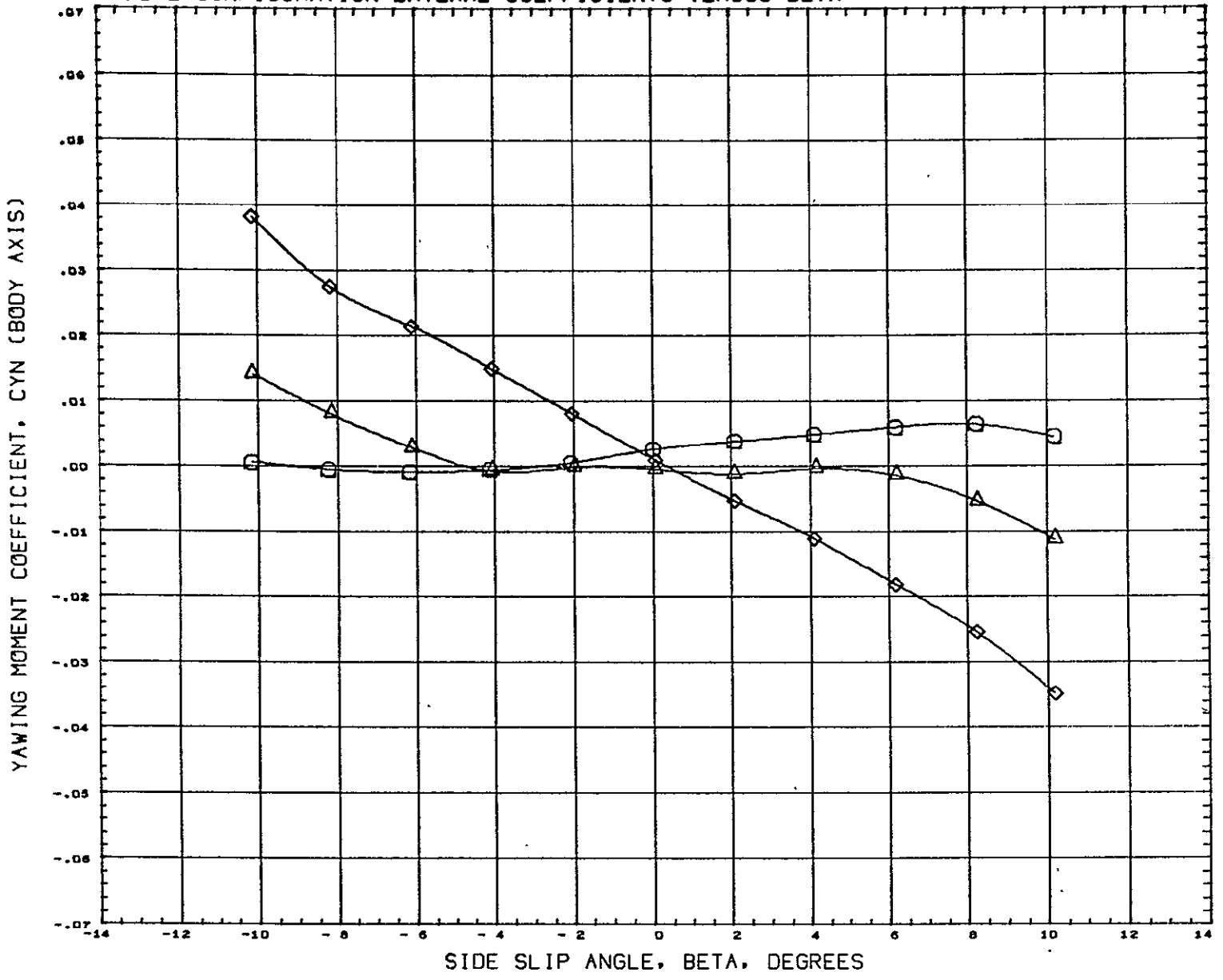
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

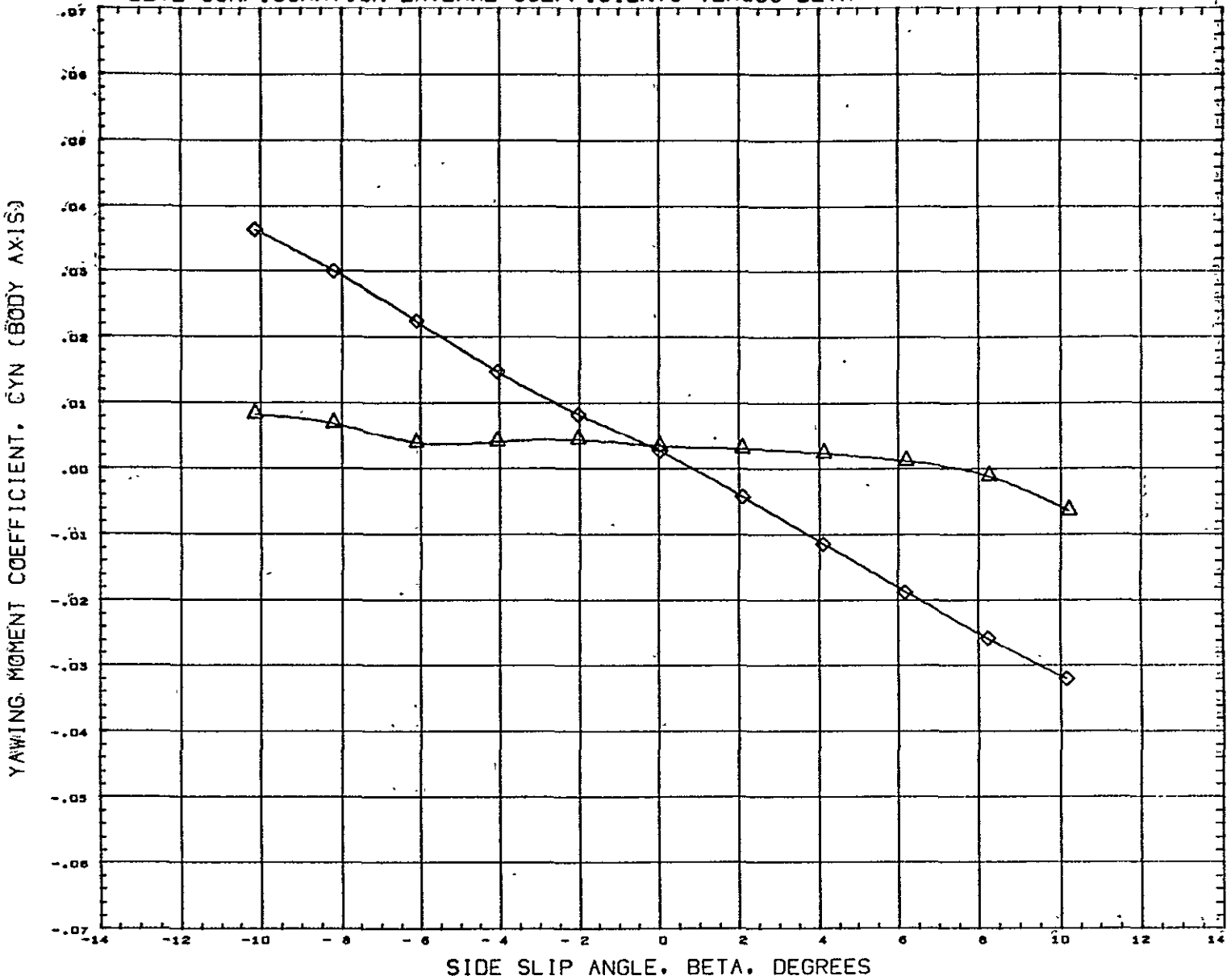
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ.IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.904

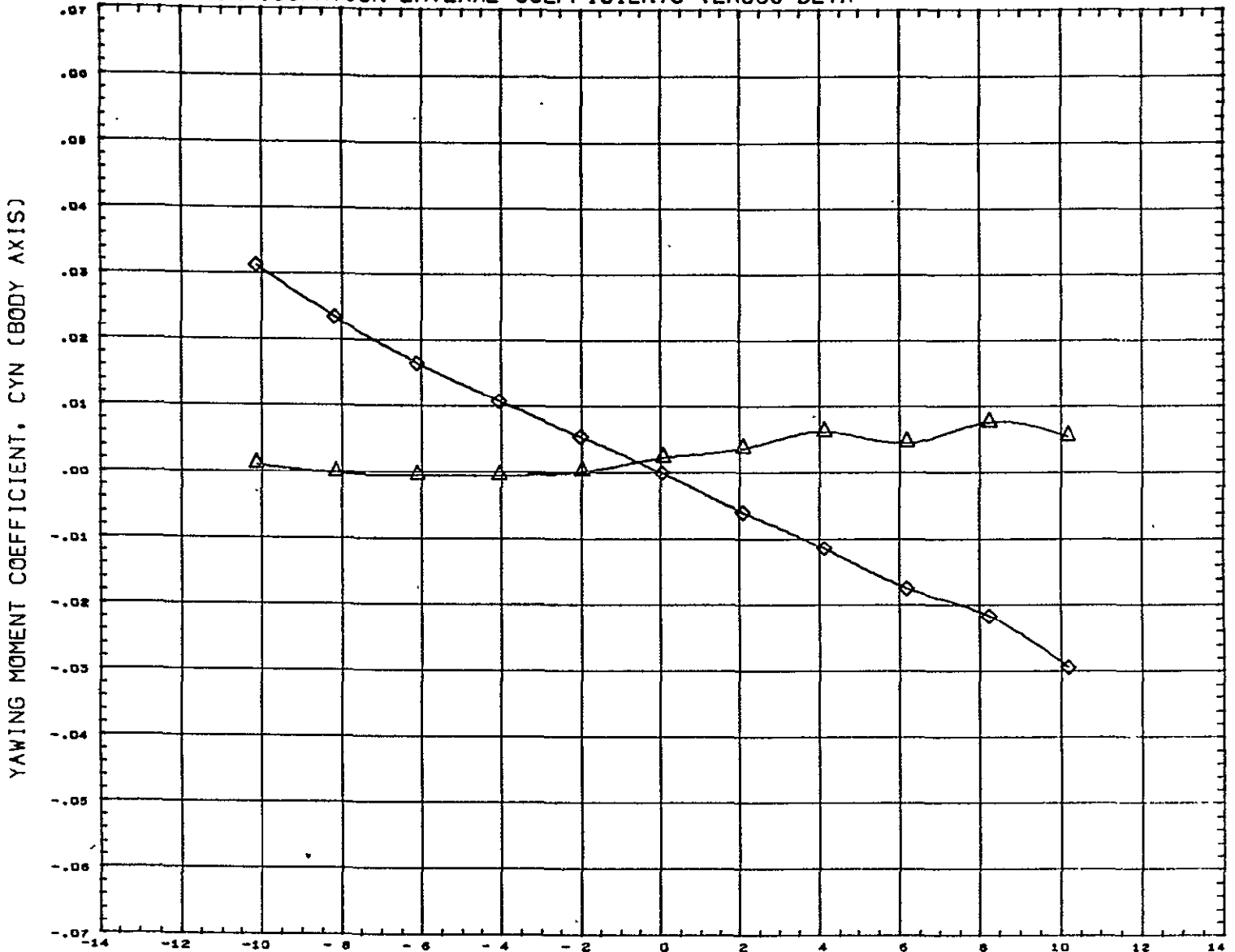
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F20Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F20Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F20Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F20Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

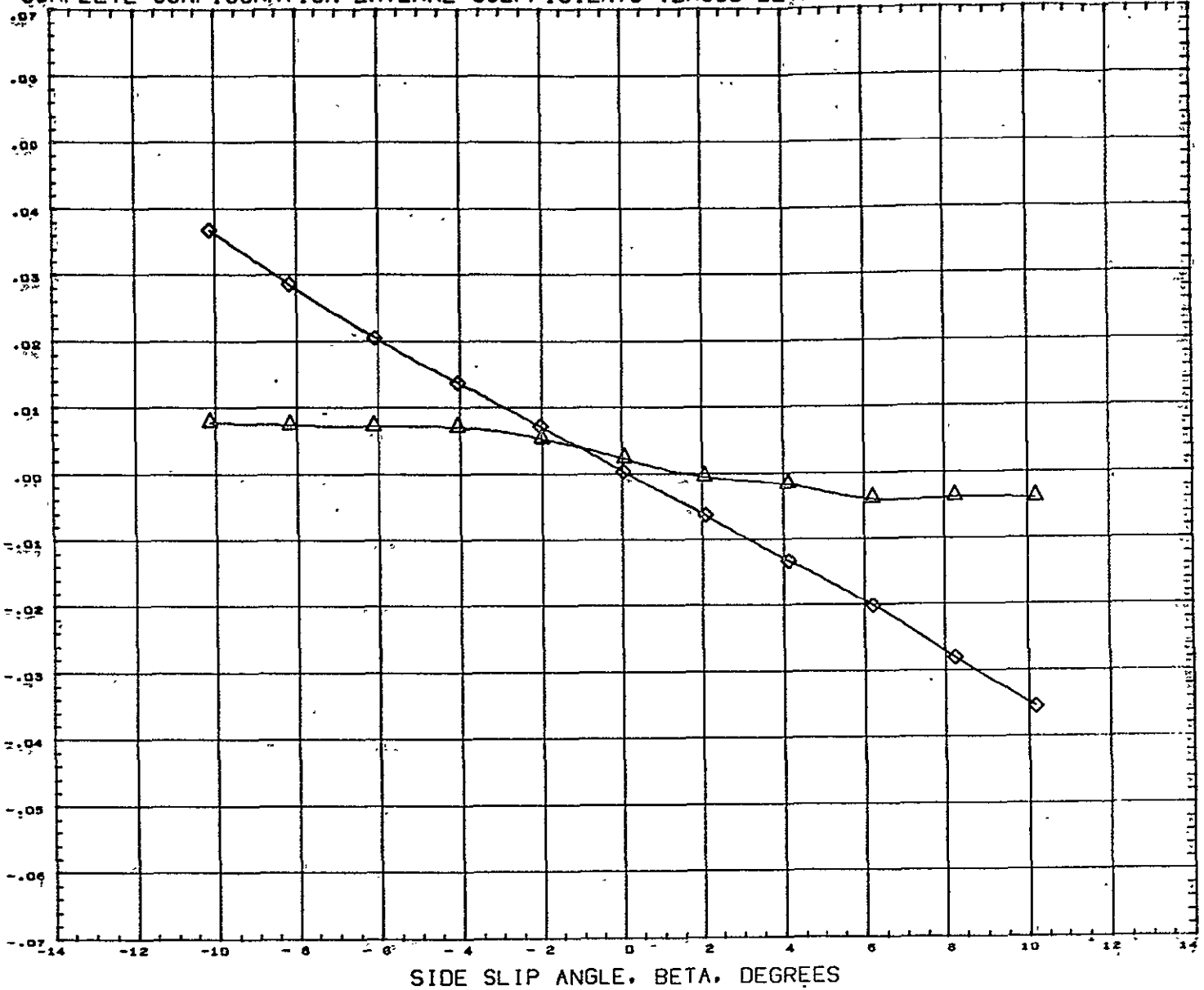


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y33)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.000

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

YAWING MOMENT COEFFICIENT, (CYN BODY AXIS)



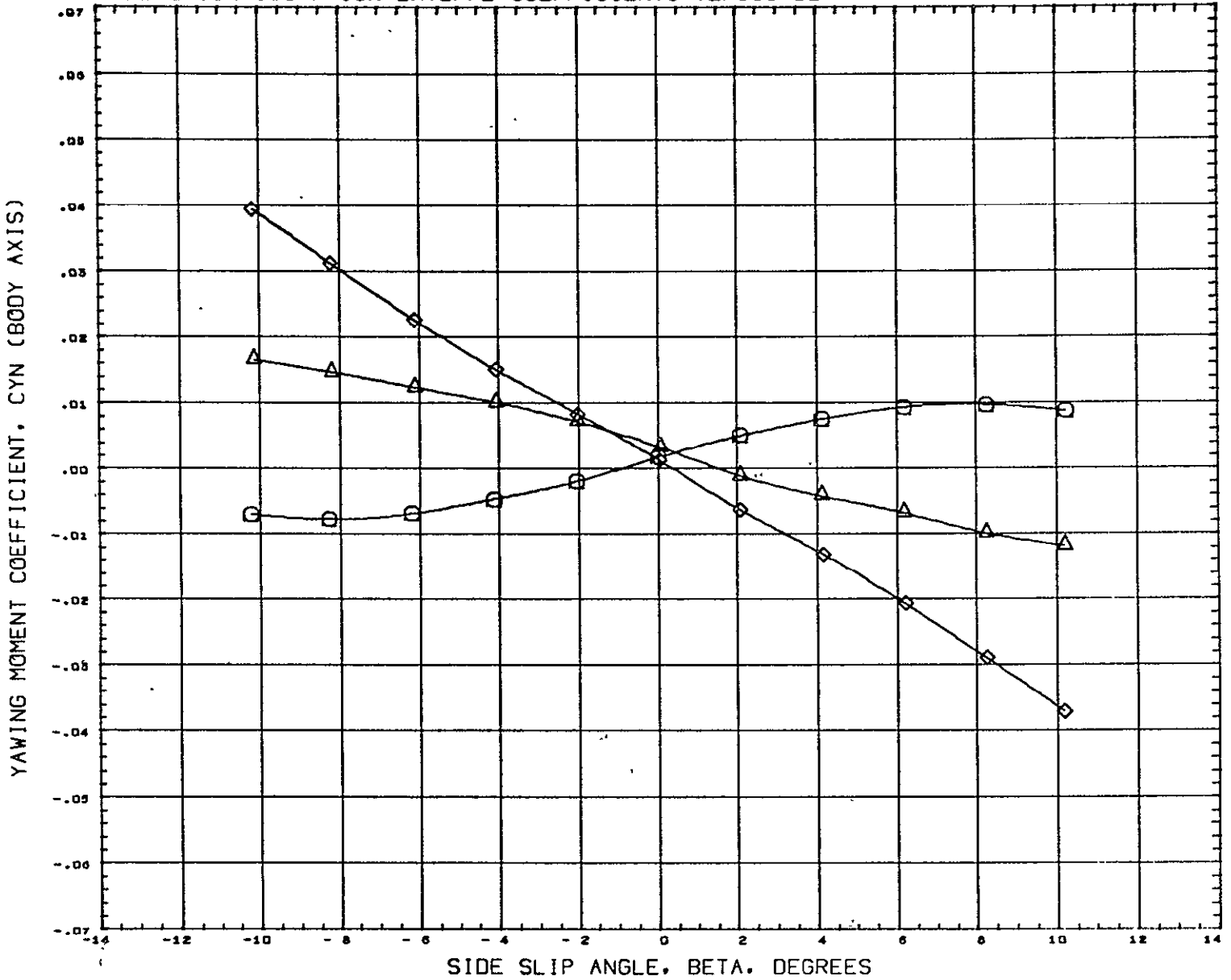
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER
0.000	0.000	0.000	
15.000	0.000	0.000	0.000
15.000	0.000	0.000	
35.000	0.000	0.000	

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0920	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0033	

MACH 1.051

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

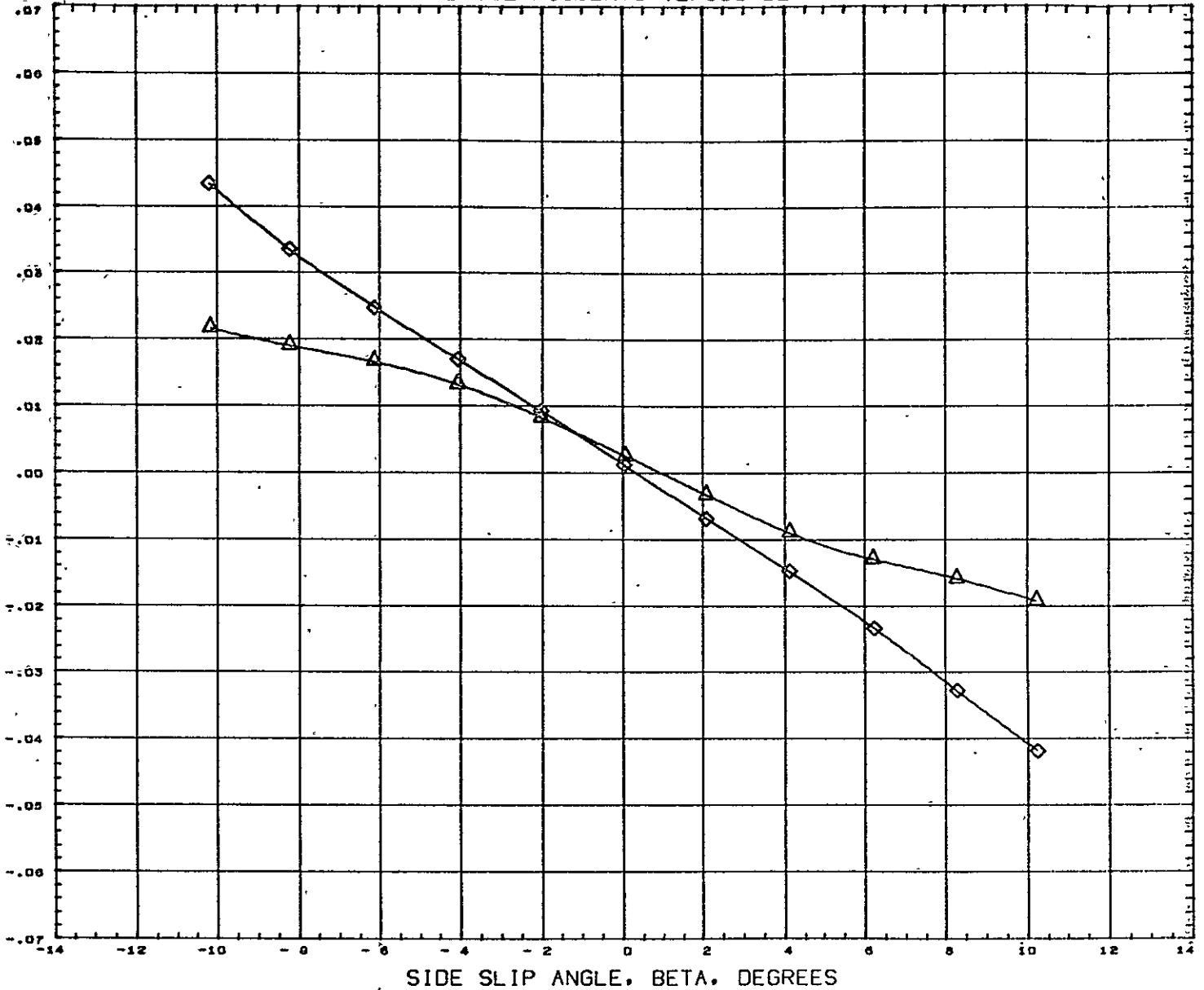


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y33)	◇	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 39. IN.
(F28Y21)	△	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	◇	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
							YMRP 0.0000 IN.
							ZMRP 0.0000 IN.
							SCALE 0.0039

MACH 1.101

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

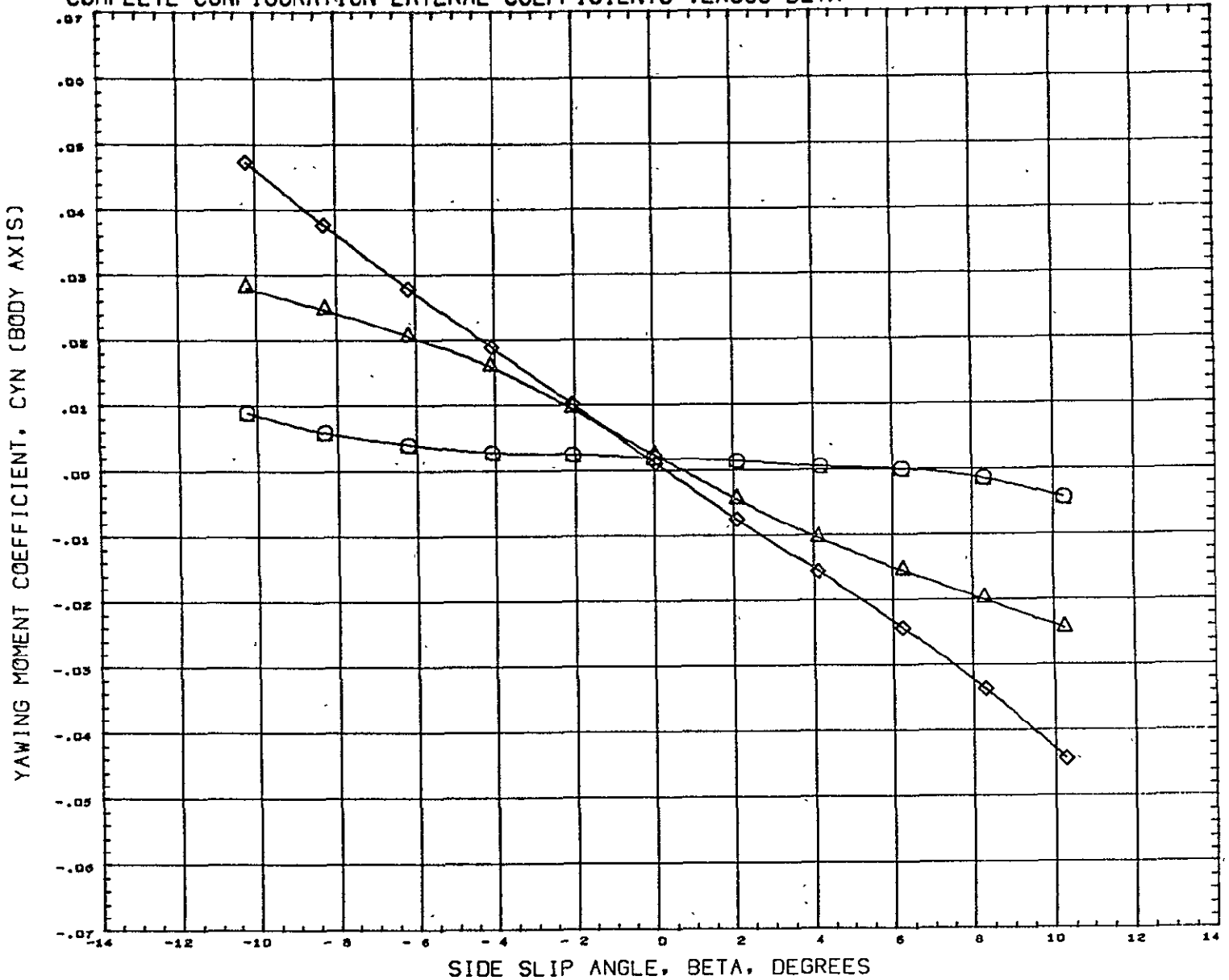
YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF	6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0033

MACH 1.202

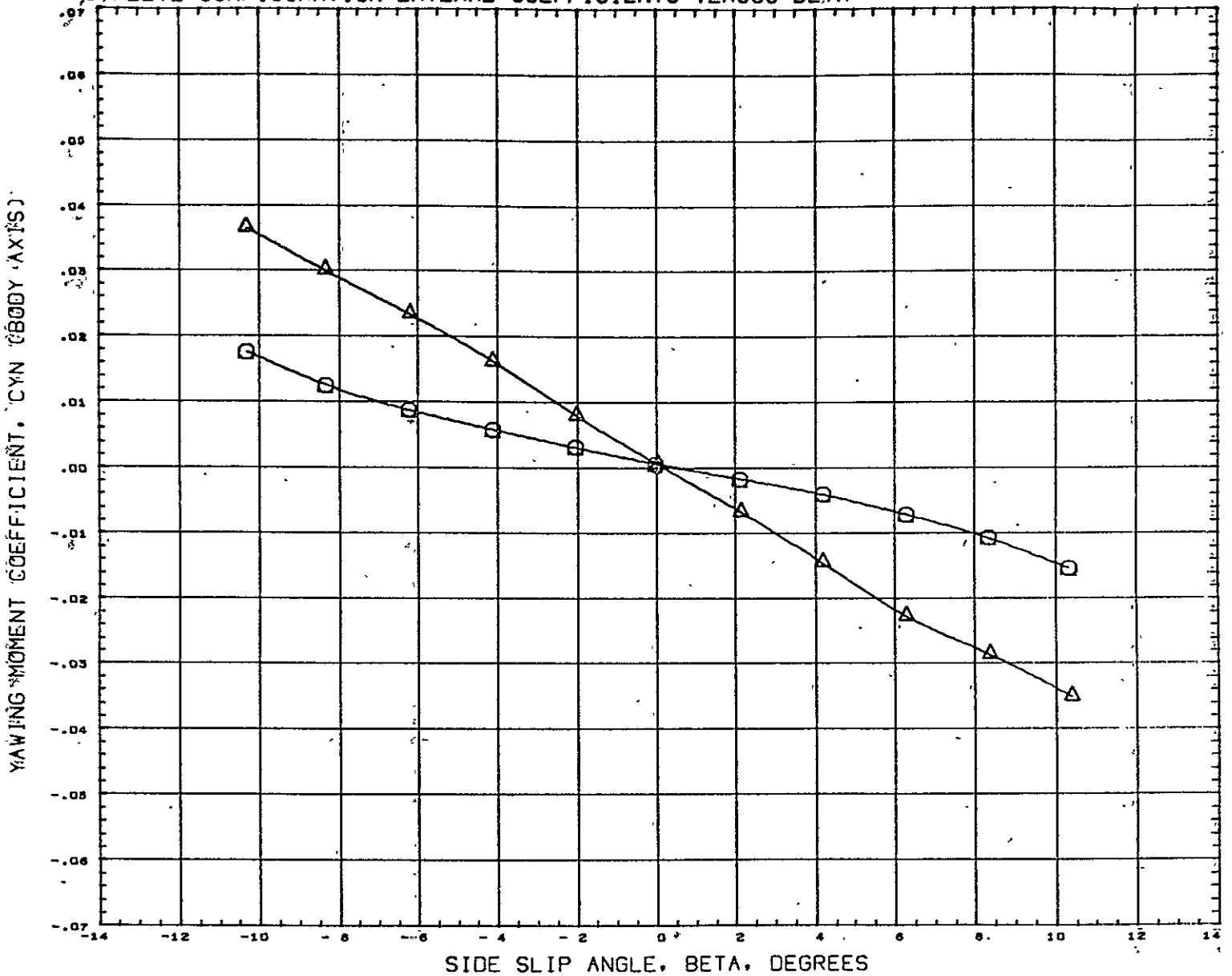
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.461

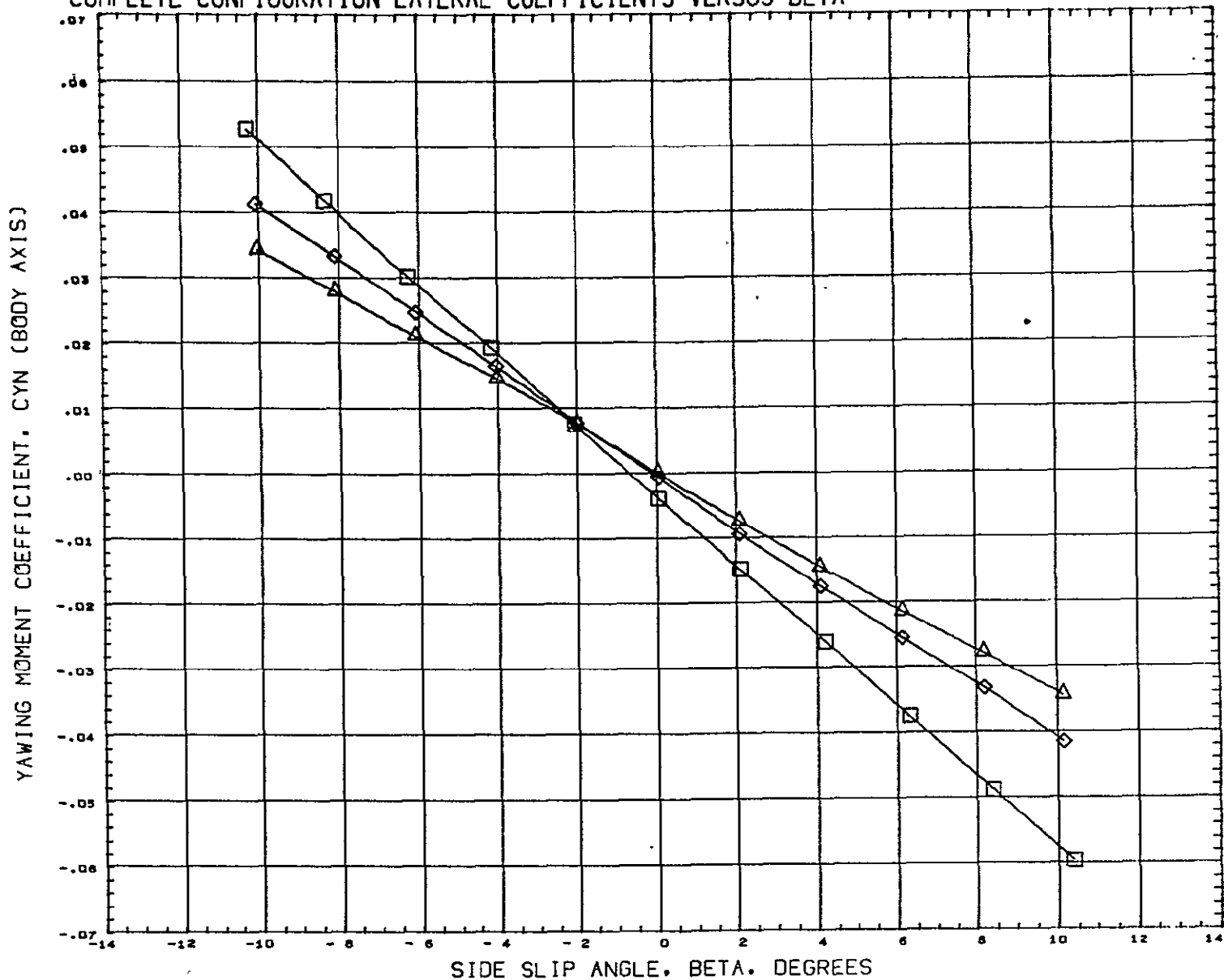
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 5.0950 IN.
(F28Y31)	MSFC 481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.956

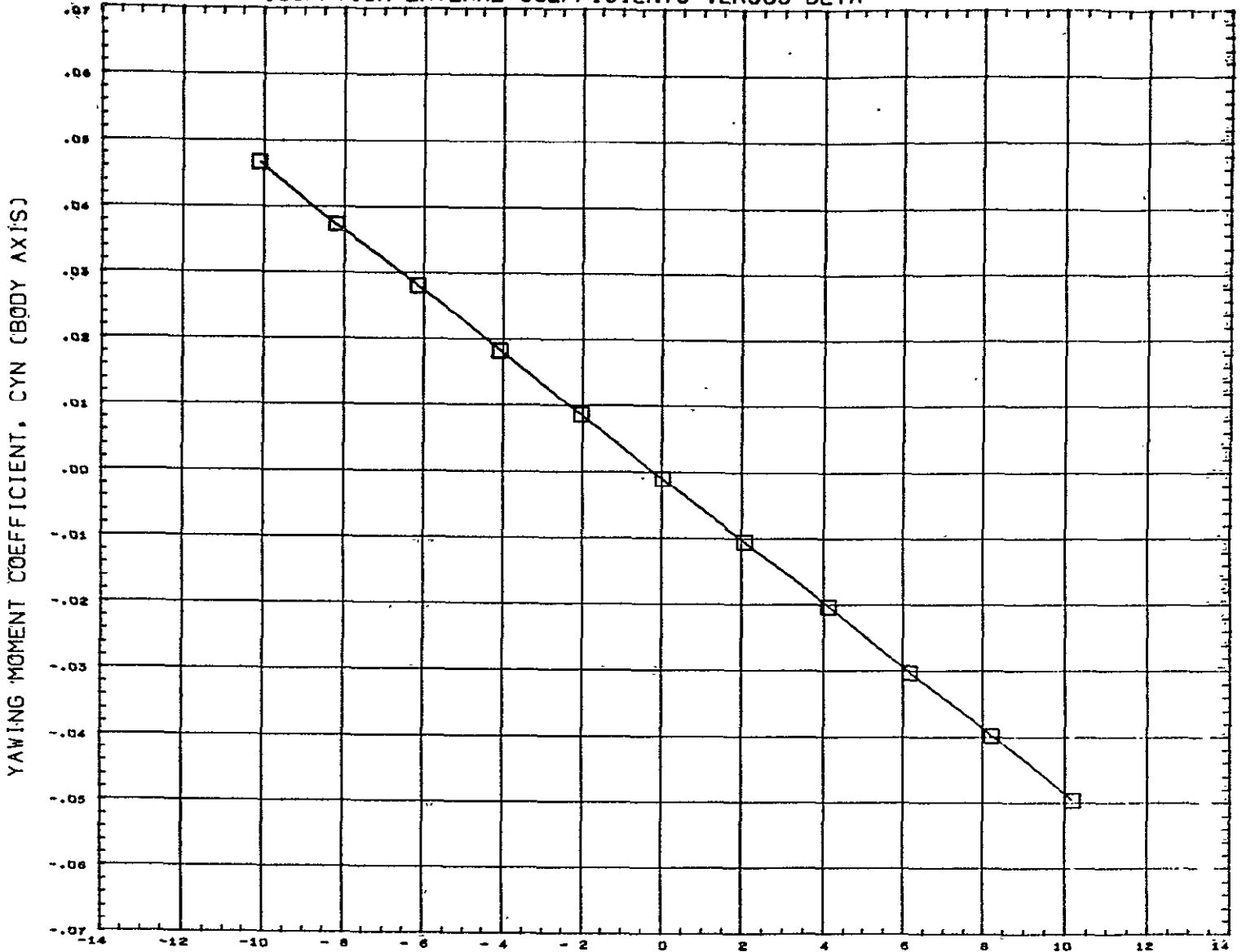
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	HSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	HSFC481 GD/C(BOOSTER)B19W14C4A	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

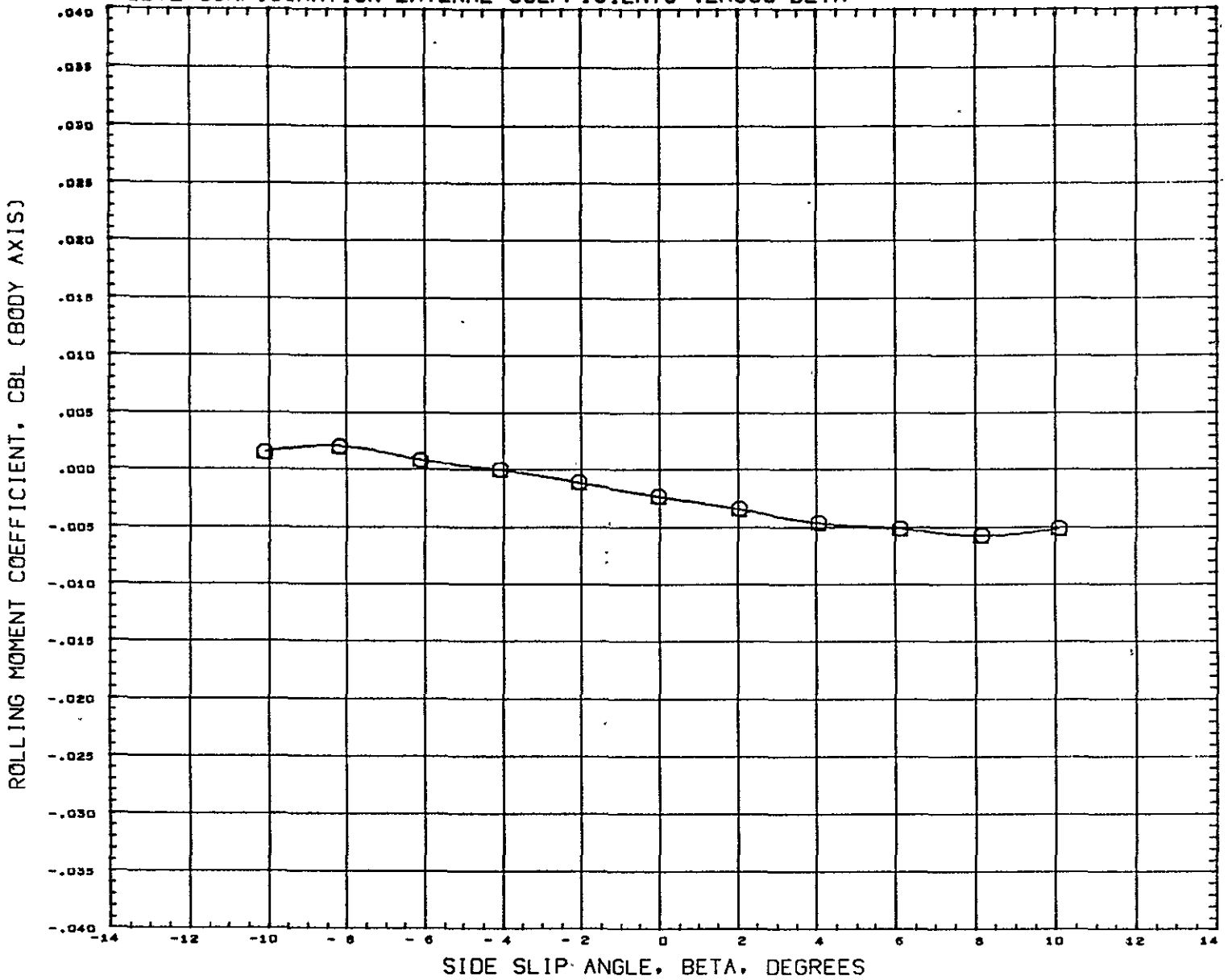
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y55)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	□	MSFC481 GD/C(BOOSTER) B19W14C4A	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.959

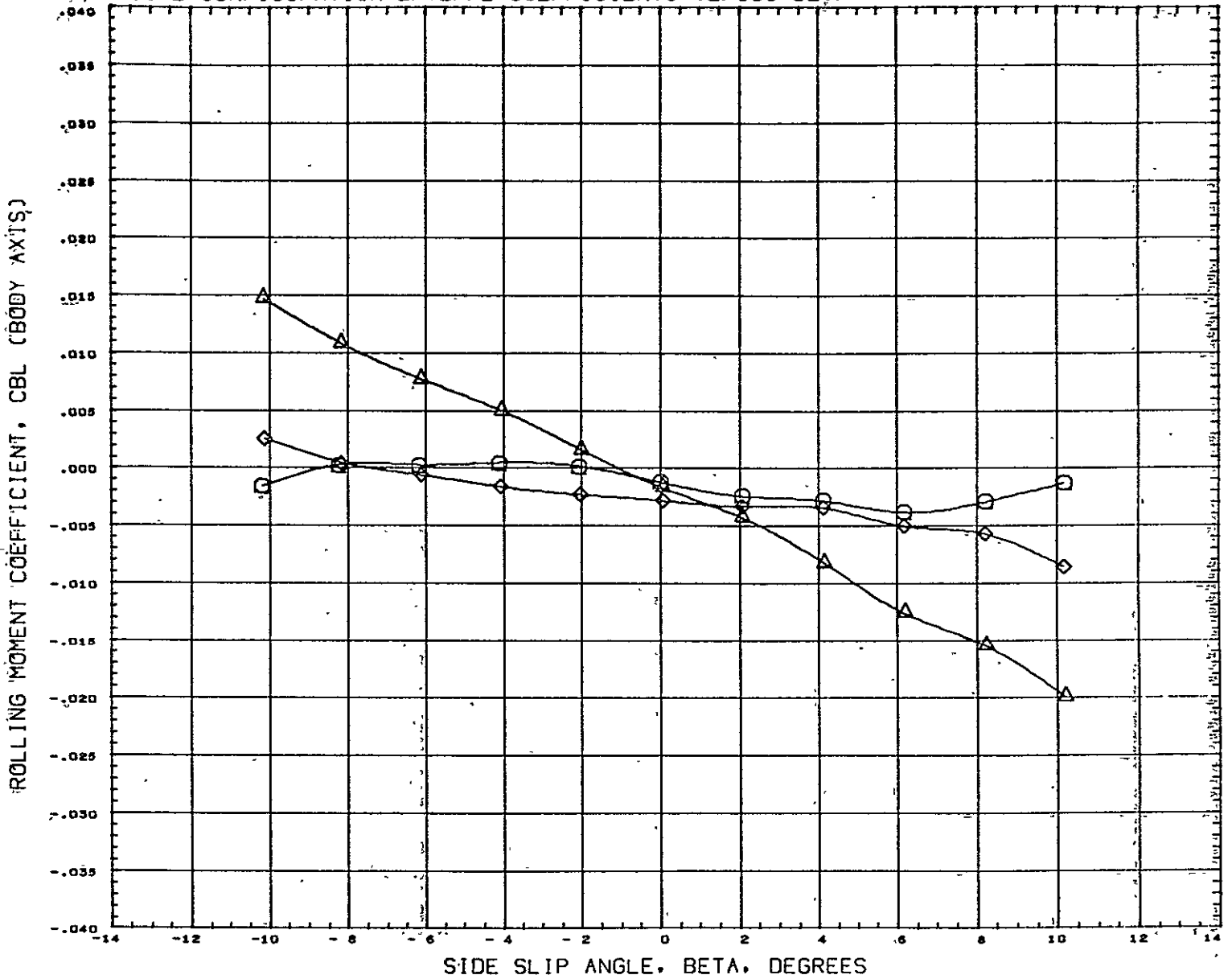
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

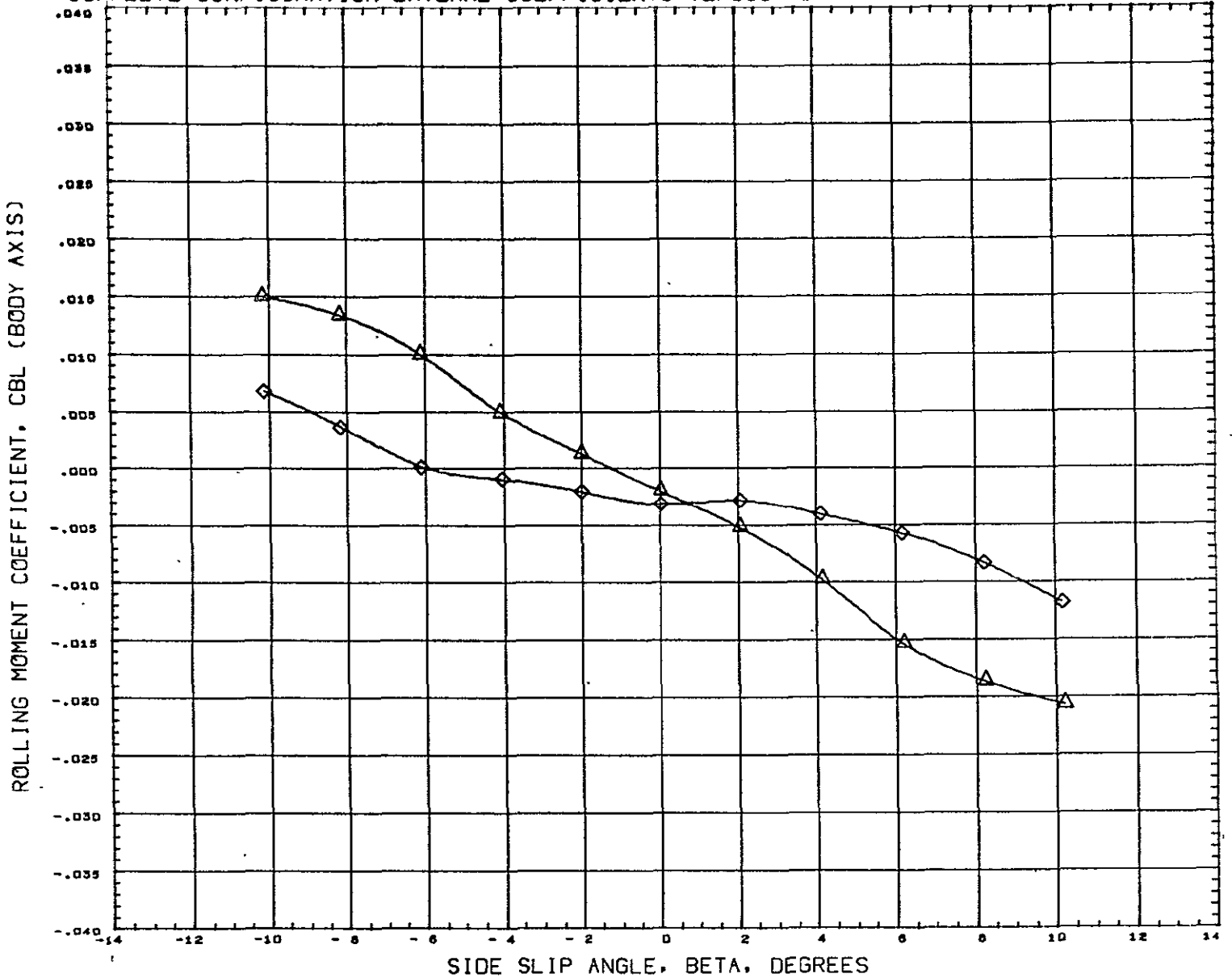
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(F28Y21)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F28Y31)	MSFC 481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF	6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP	6.7100 IN.
						ZMRP	0.0000 IN.
						YMRP	0.0000 IN.
						SCALE	0.0033

MACH 0.904

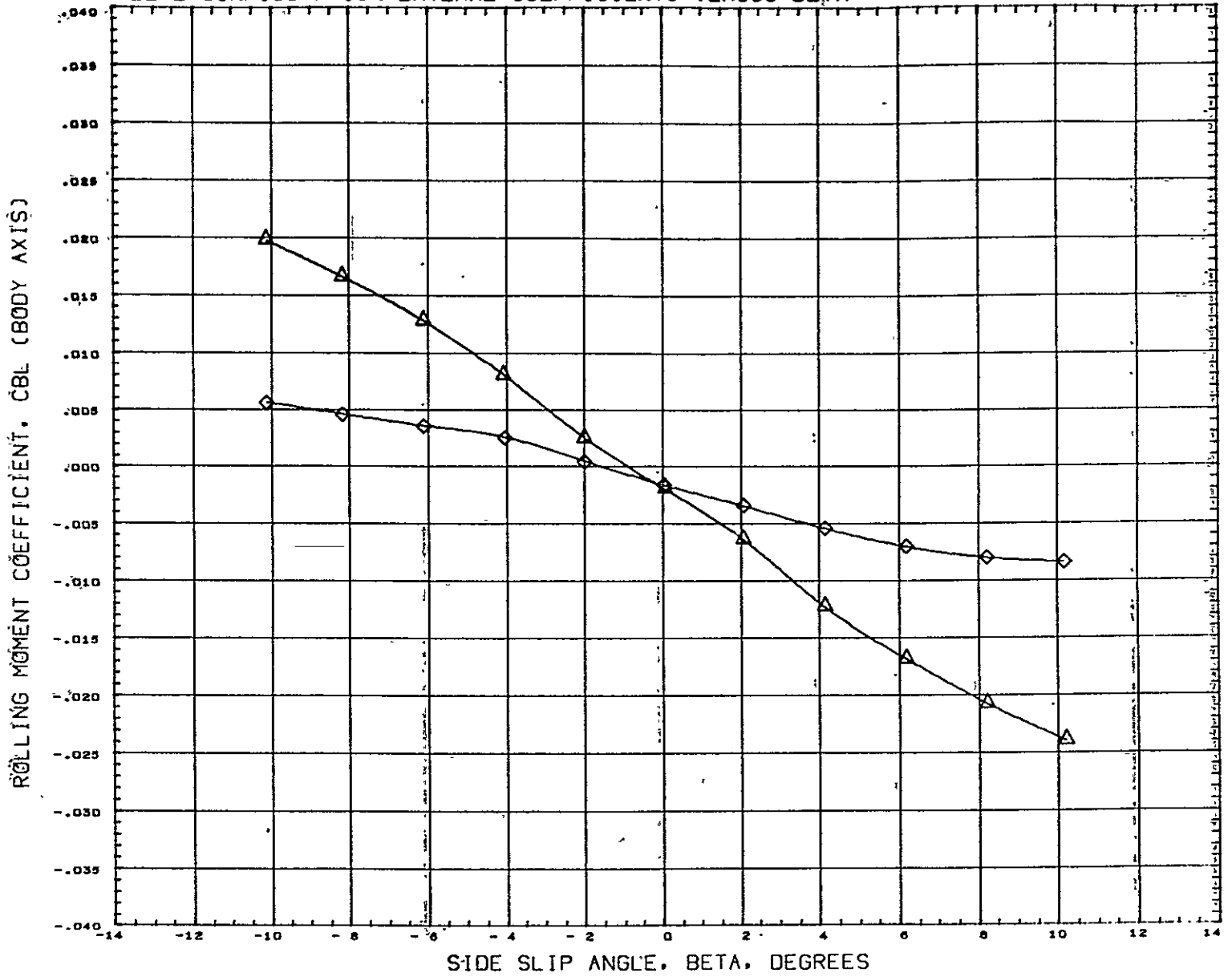
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6500, 50. IN.
(F28Y21)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	HSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

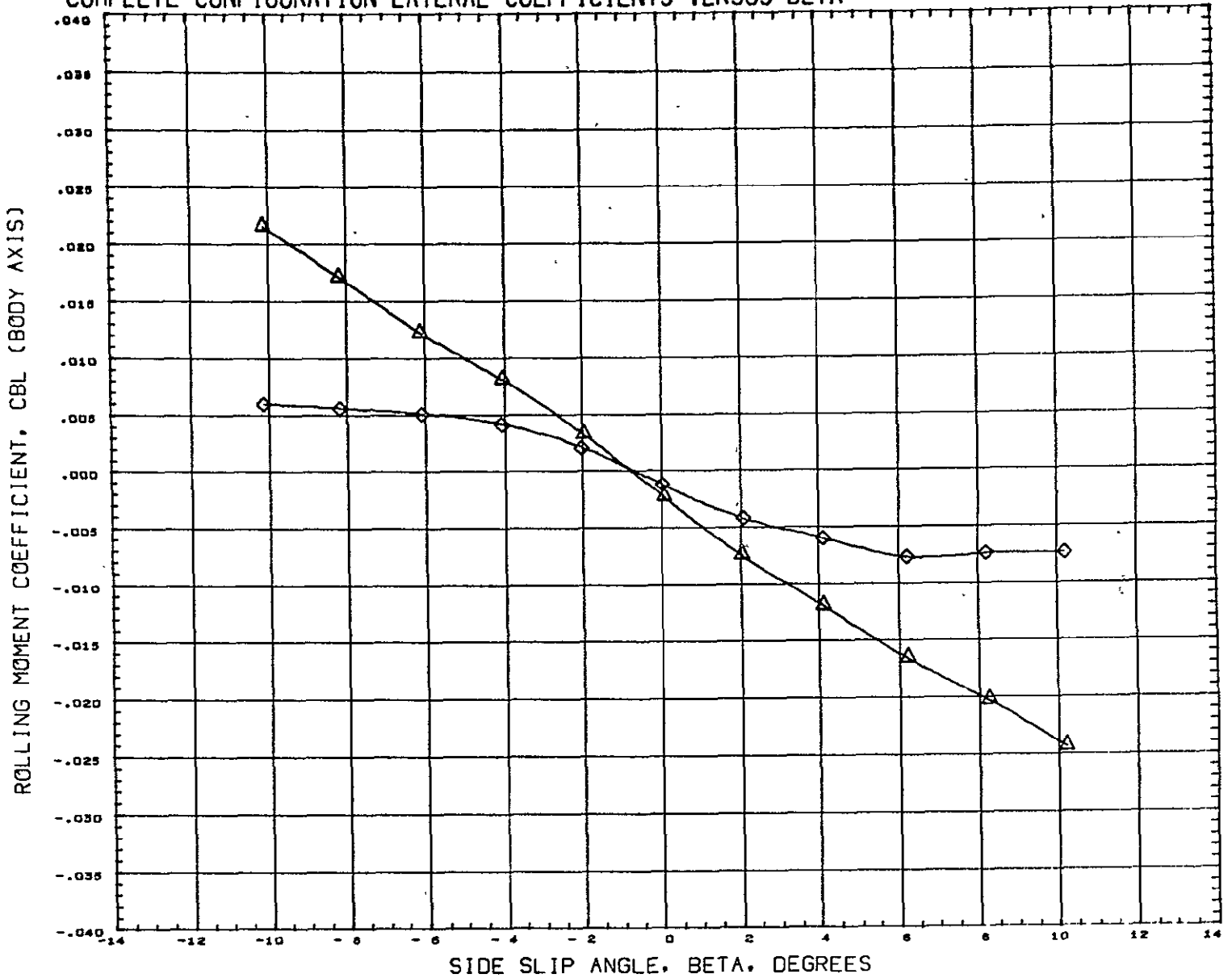


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y55)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ-IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0025

MACH 1.000

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

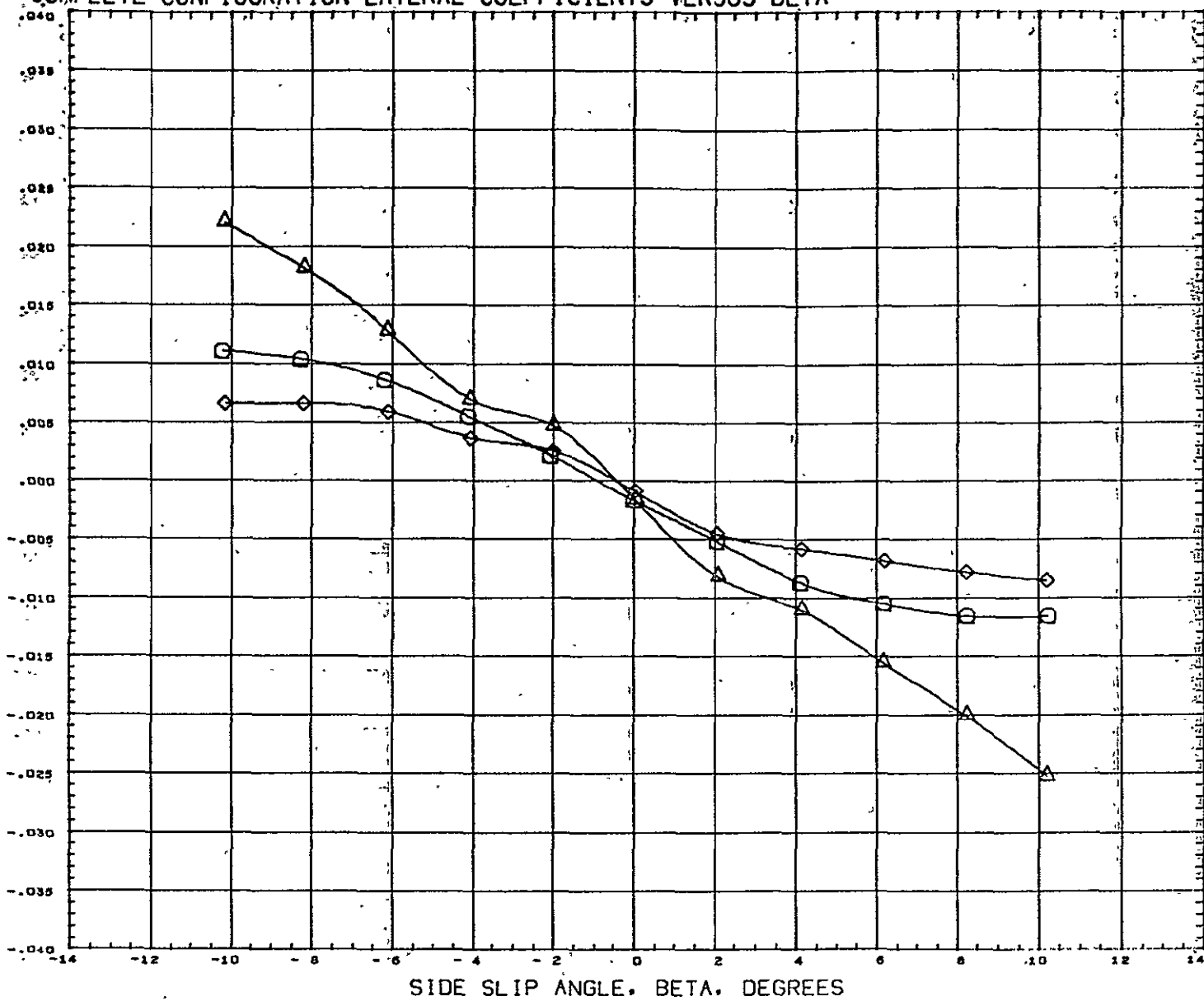


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

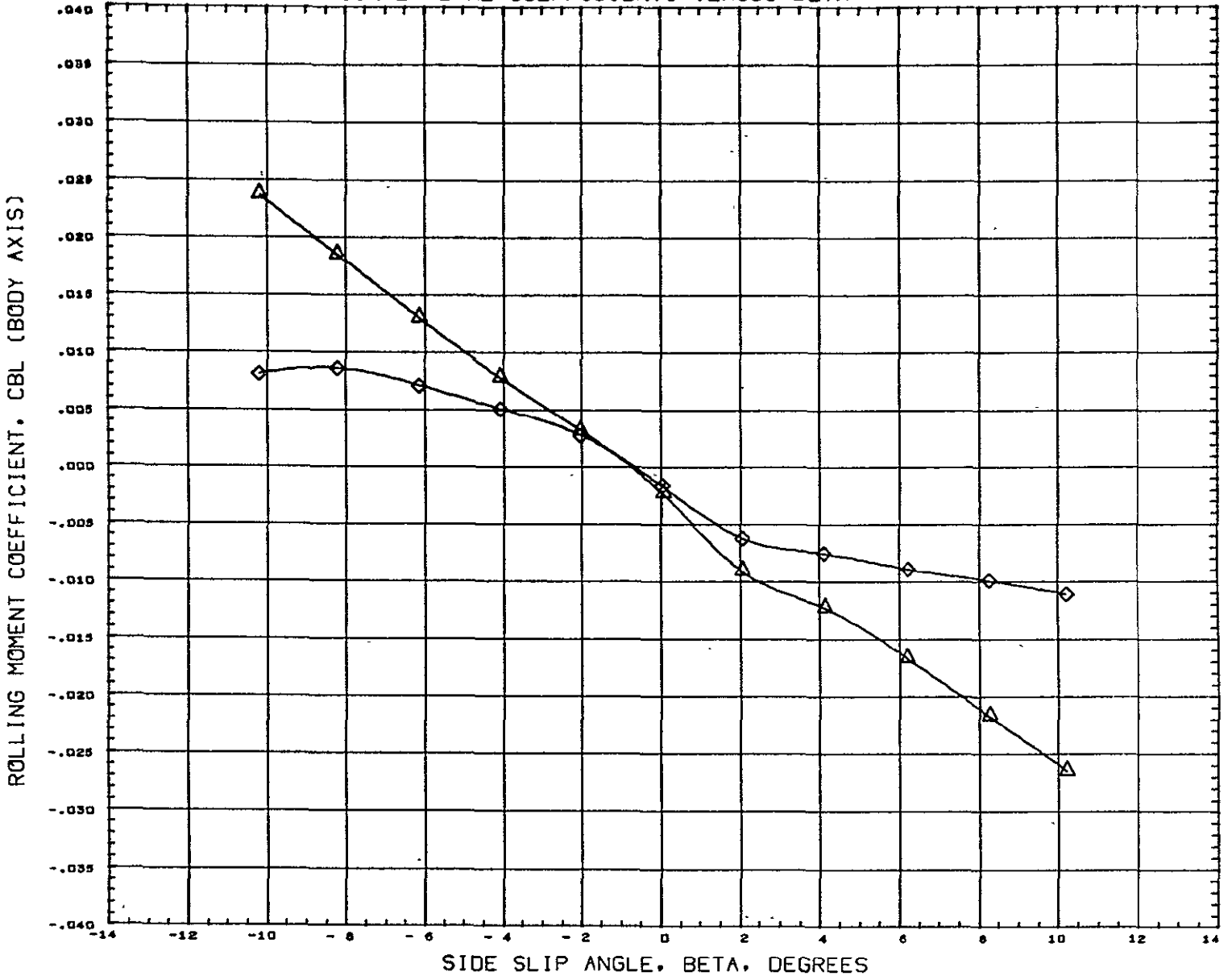
ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ.IN.
(F26Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F26Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F26Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0:0035

MACH 1.101

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

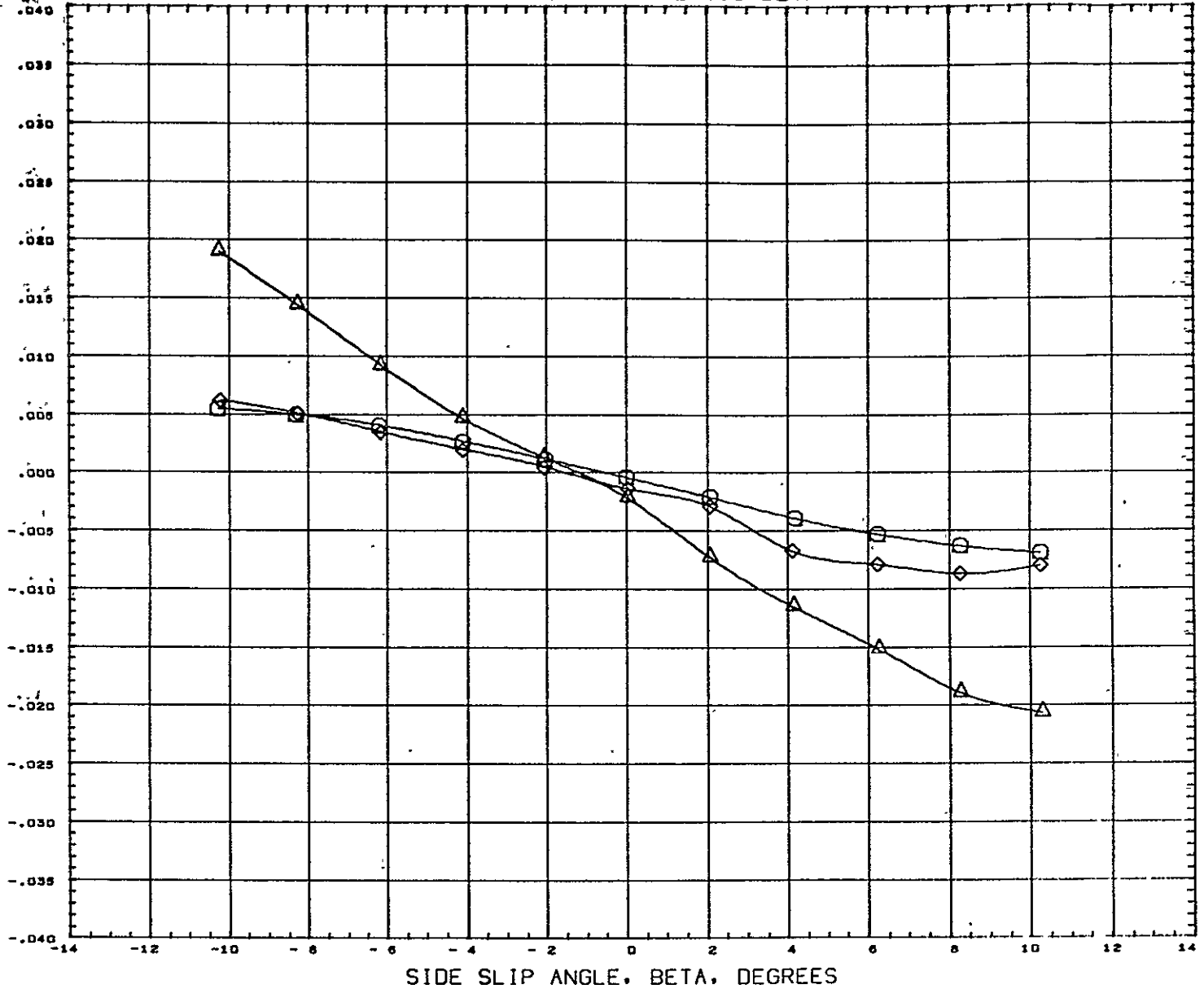


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 50.IN.
(F28Y21)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0990 IN.
(F28Y31)	MSFC461 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.202

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

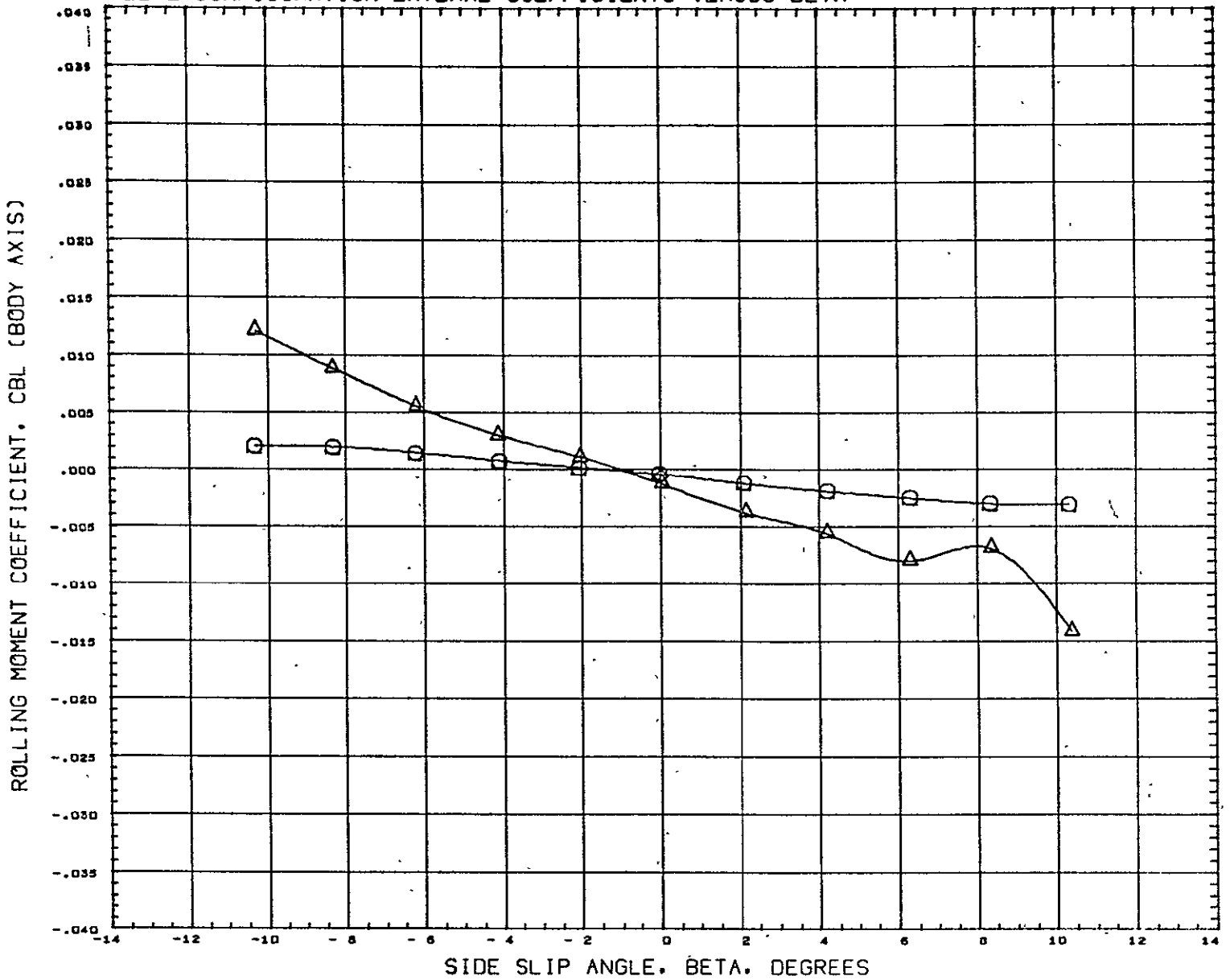
ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(F28Y21)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0990 IN.
(F28Y31)	MSFC 481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.461

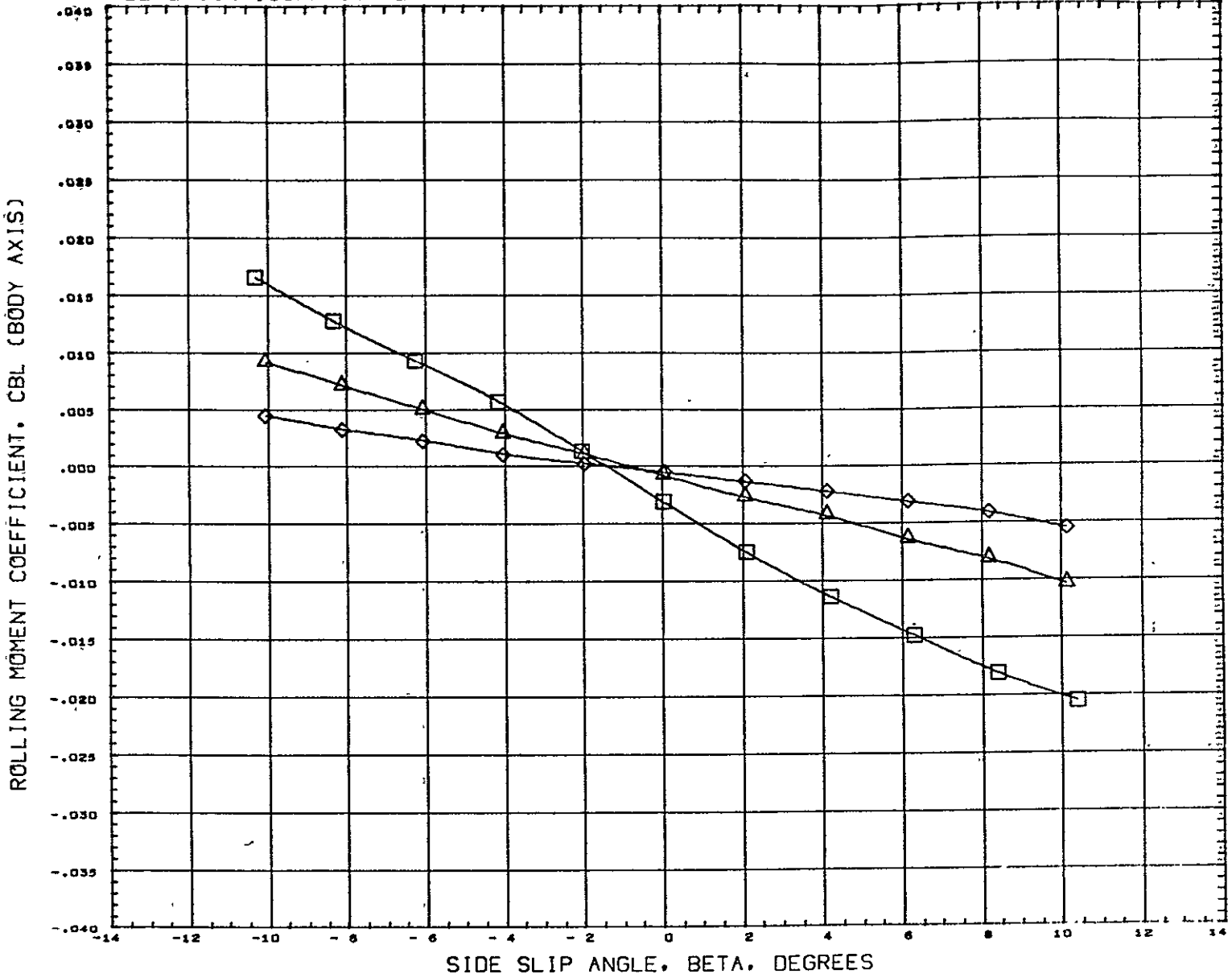
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ.IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0390 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.956

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

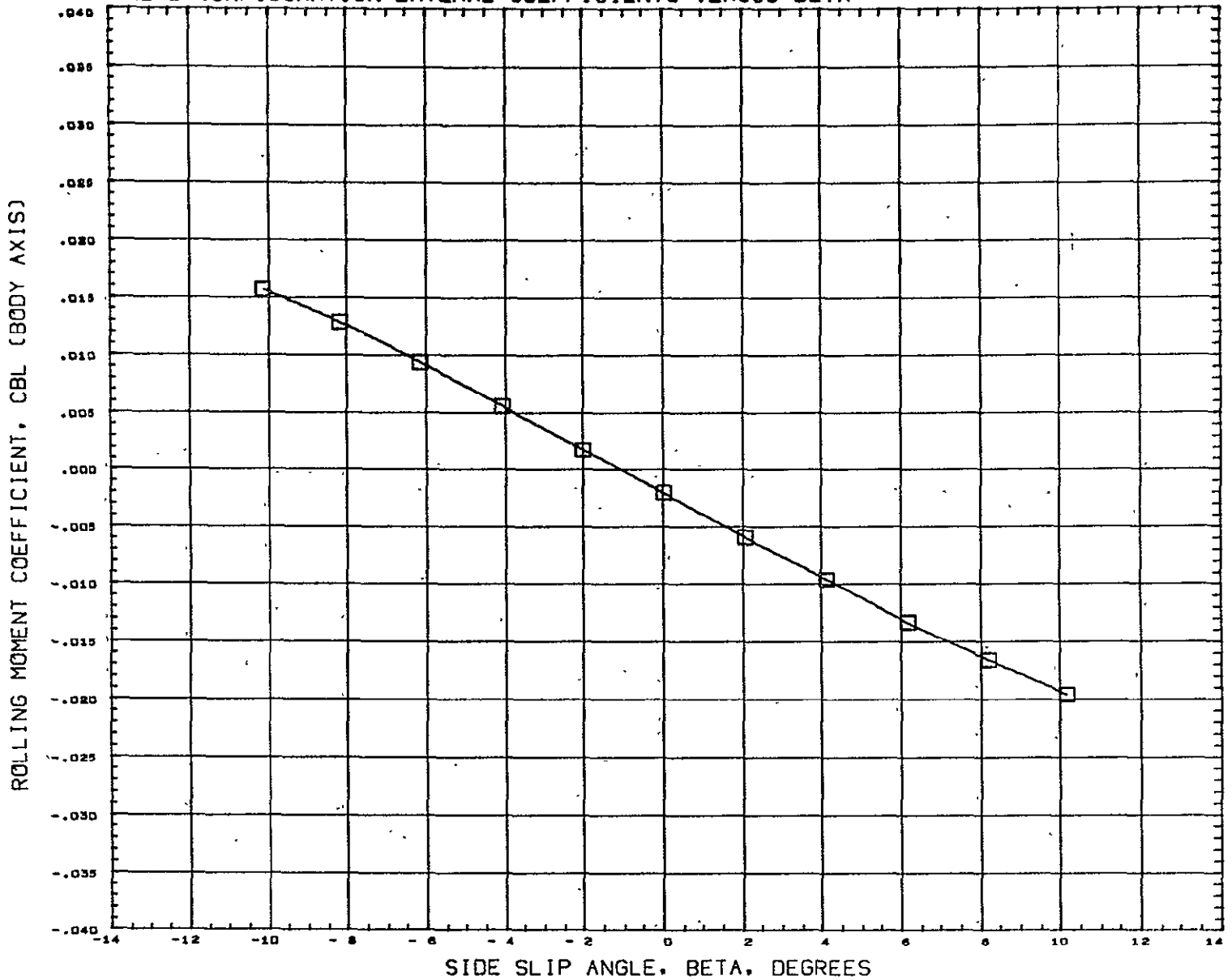


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(F28Y21)	HSFC481 GD/C (BOOSTER) B19W14C4AV7
(F28Y31)	HSFC481 GD/C (BOOSTER) B19W14C4A
(F28Y41)	HSFC481 GD/C (BOOSTER) B19W14C4A

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6560 SQ. IN.
15.000	0.000	0.000	0.000	LREF 3.0950 IN.
15.000	0.000	0.000		BREF 6.0990 IN.
35.000	0.000	0.000		XHRP 6.7100 IN.
				YHRP 0.0000 IN.
				ZHRP 0.0000 IN.
				SCALE 0.0035

MACH 2.990

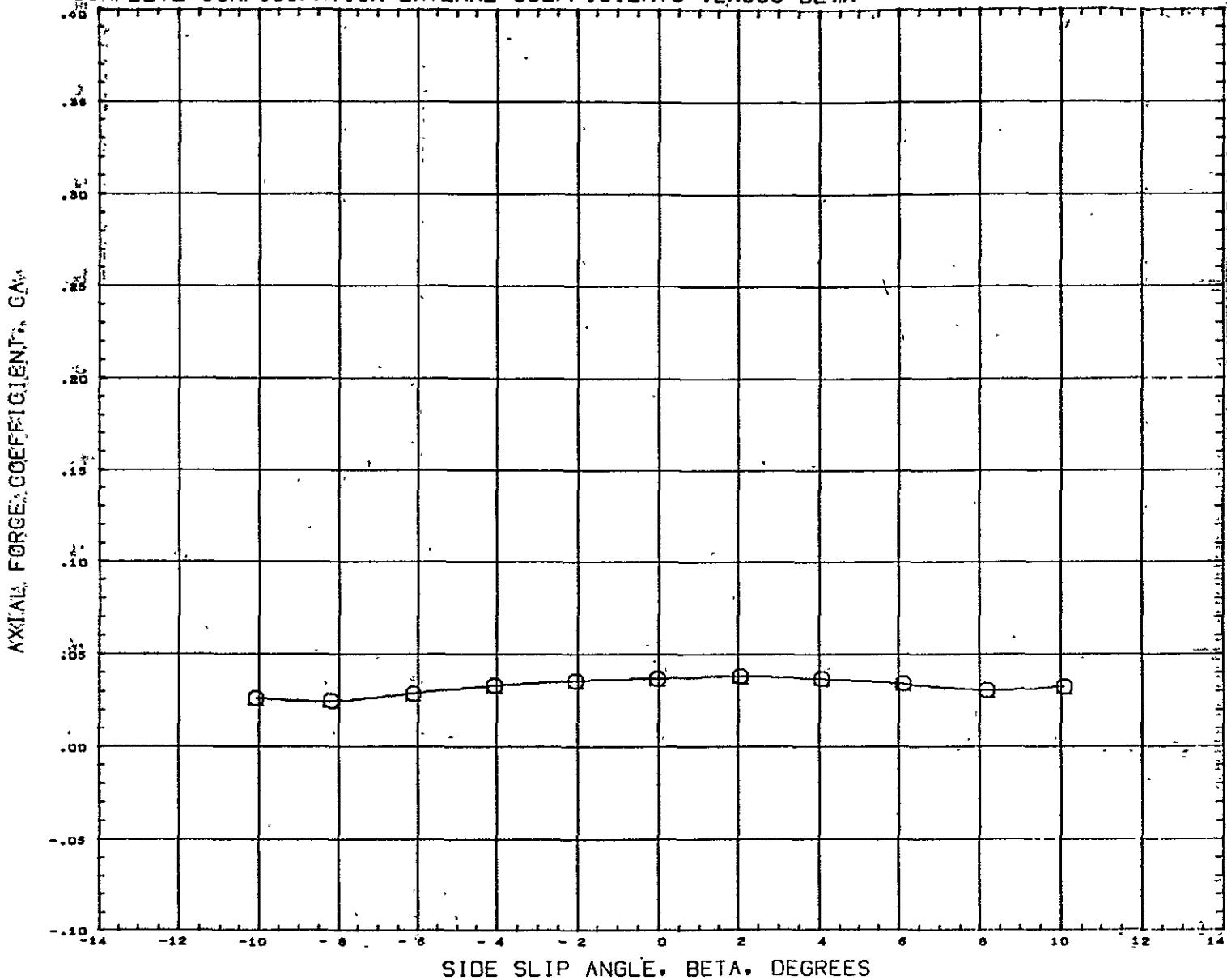
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F20Y23)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F20Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F20Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F20Y41)	MSFC481 GD/C(BOOSTER)B19W14C4A	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.959

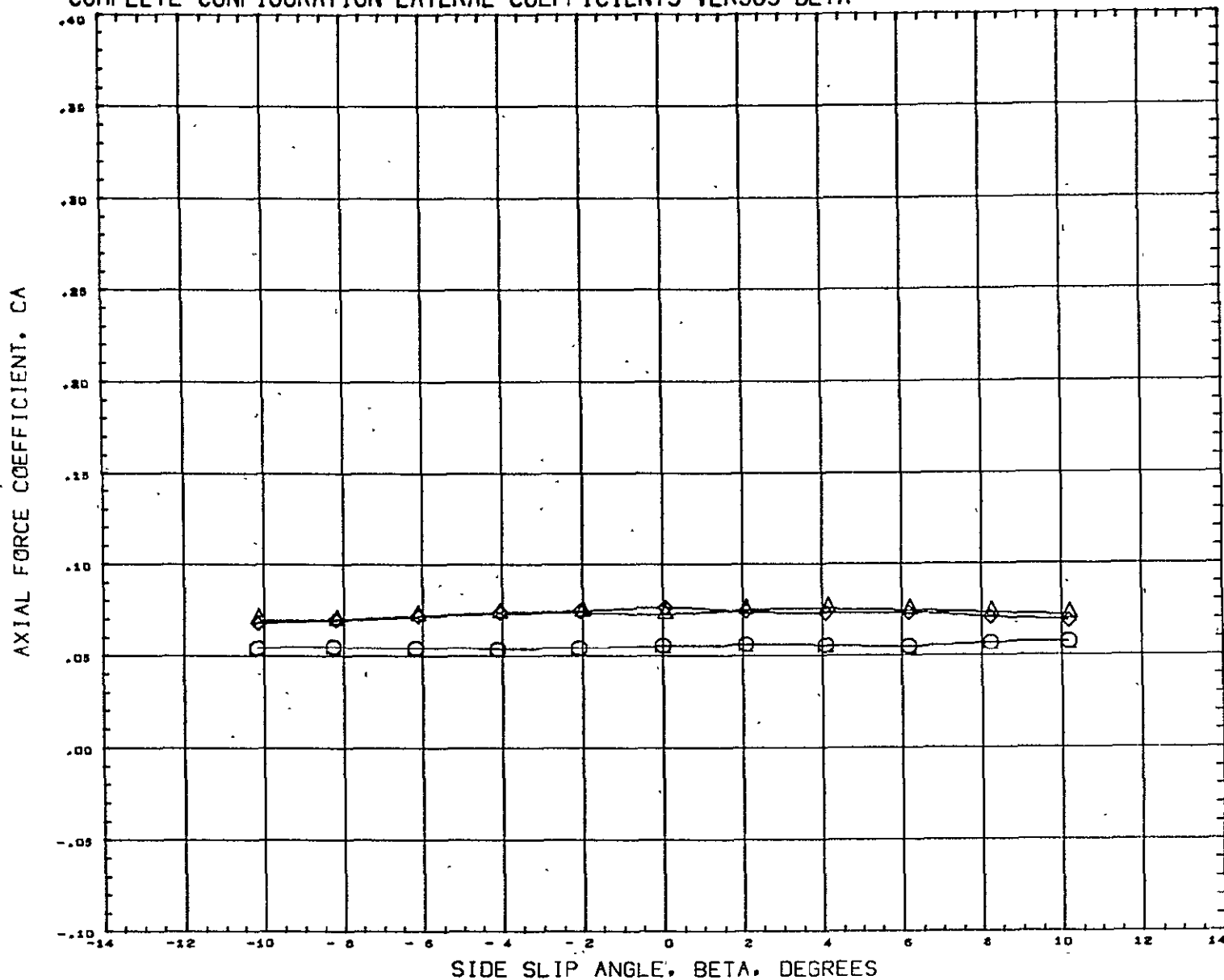
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000	-	SREF 15.6560 30.1W
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0033

MACH 0.607

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

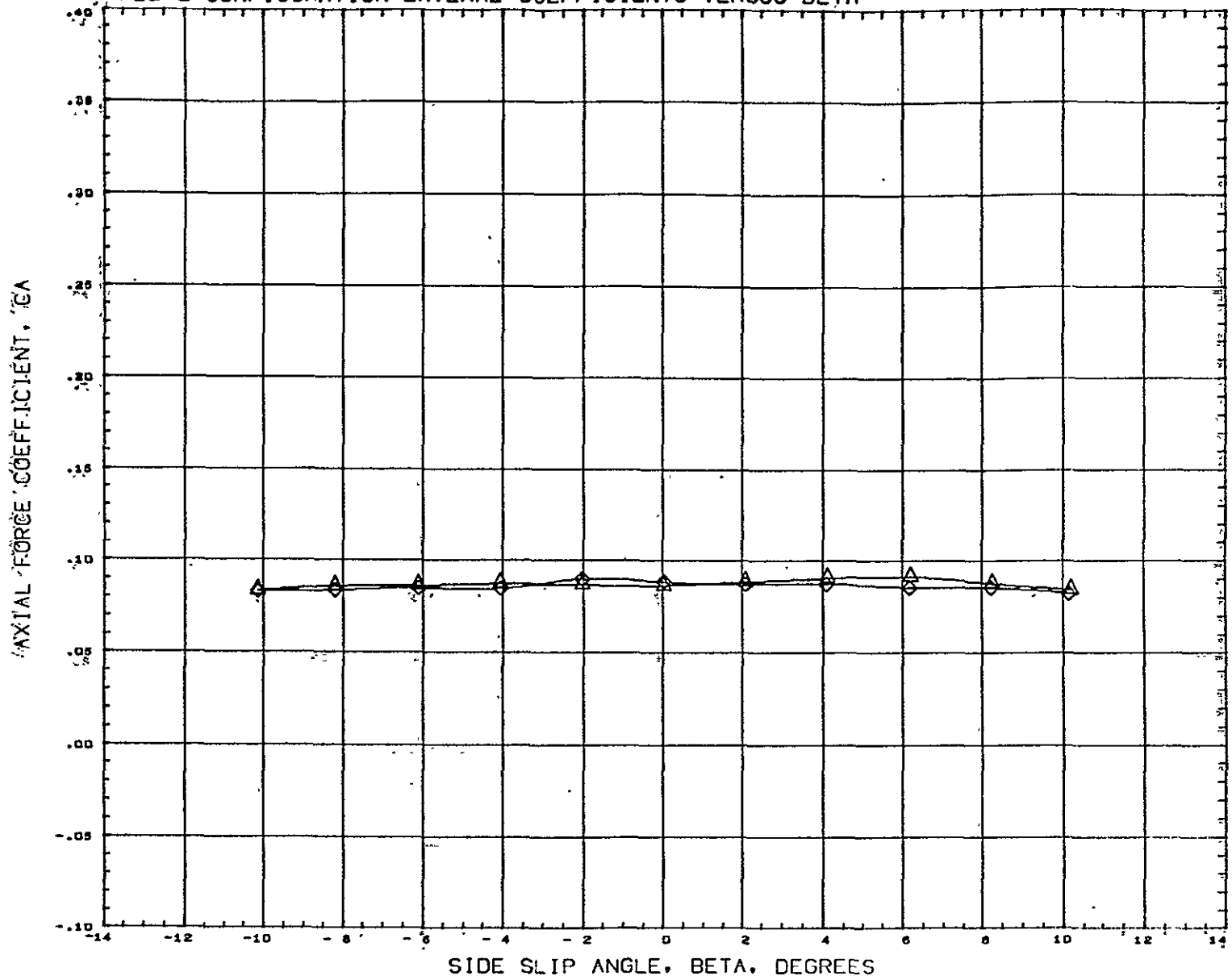


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	-0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.904

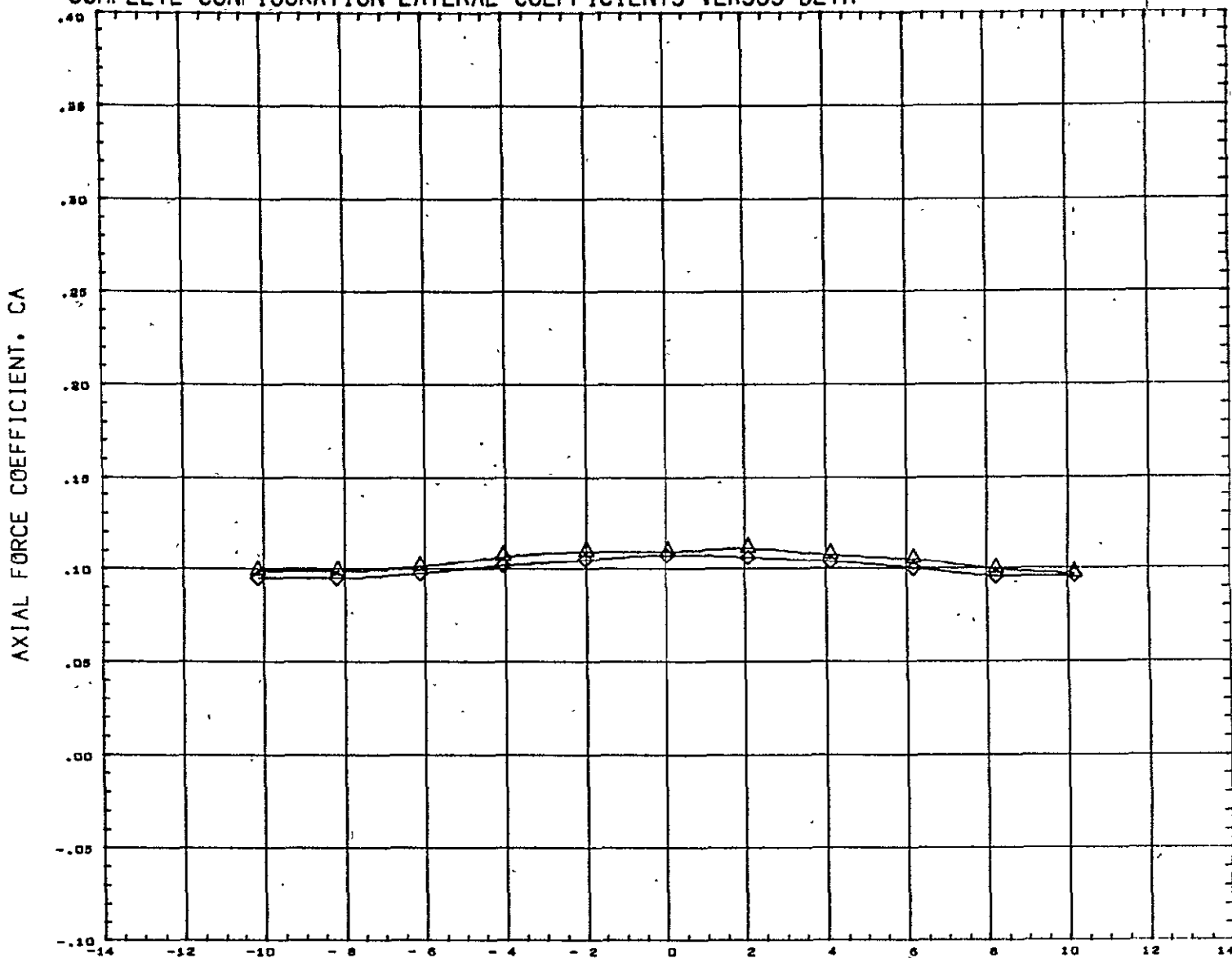
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y33)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	HSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	HSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

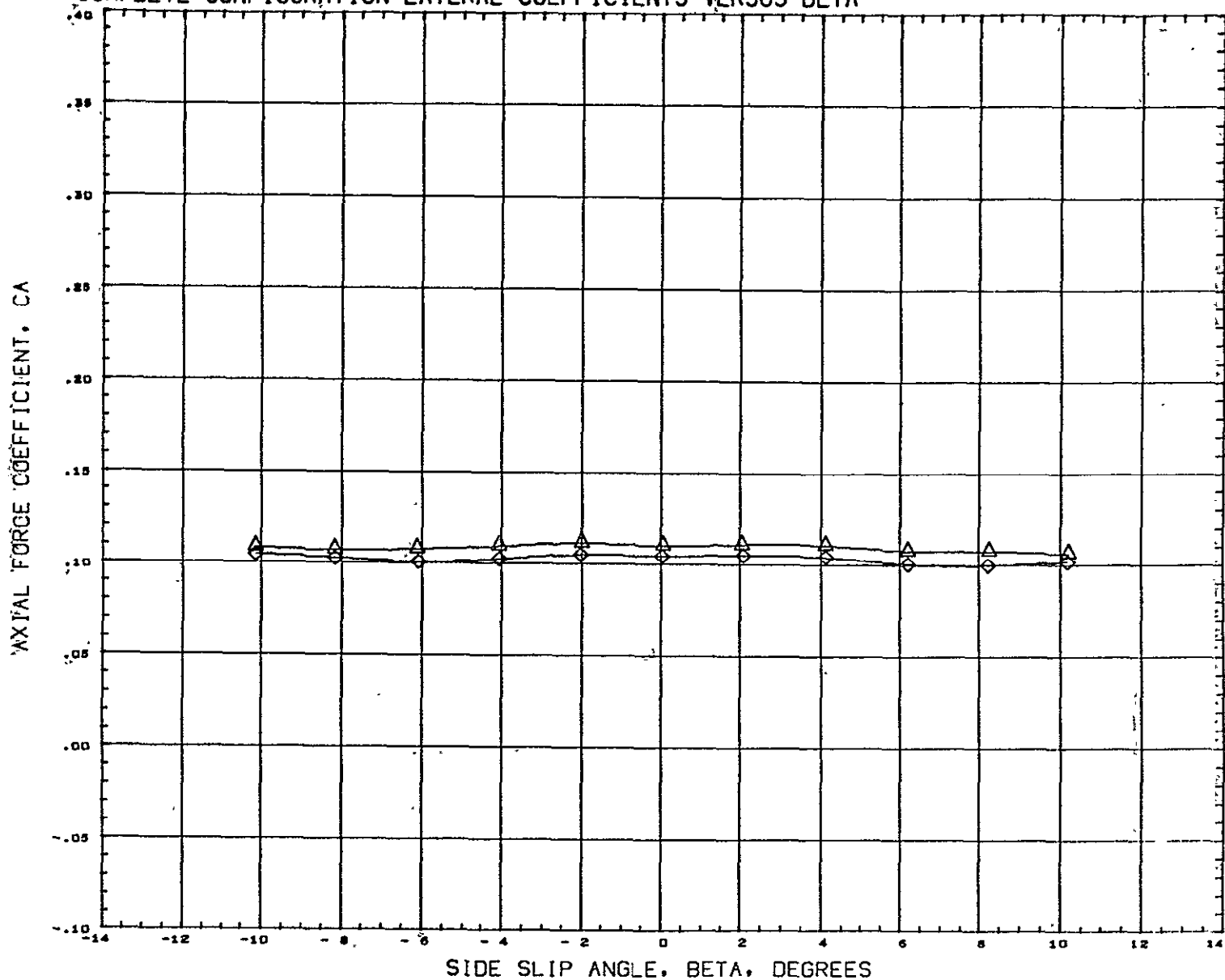


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F20Y33)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F20Y21)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F20Y31)	MSFC461 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 8.0990 IN.
(F20Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.000

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

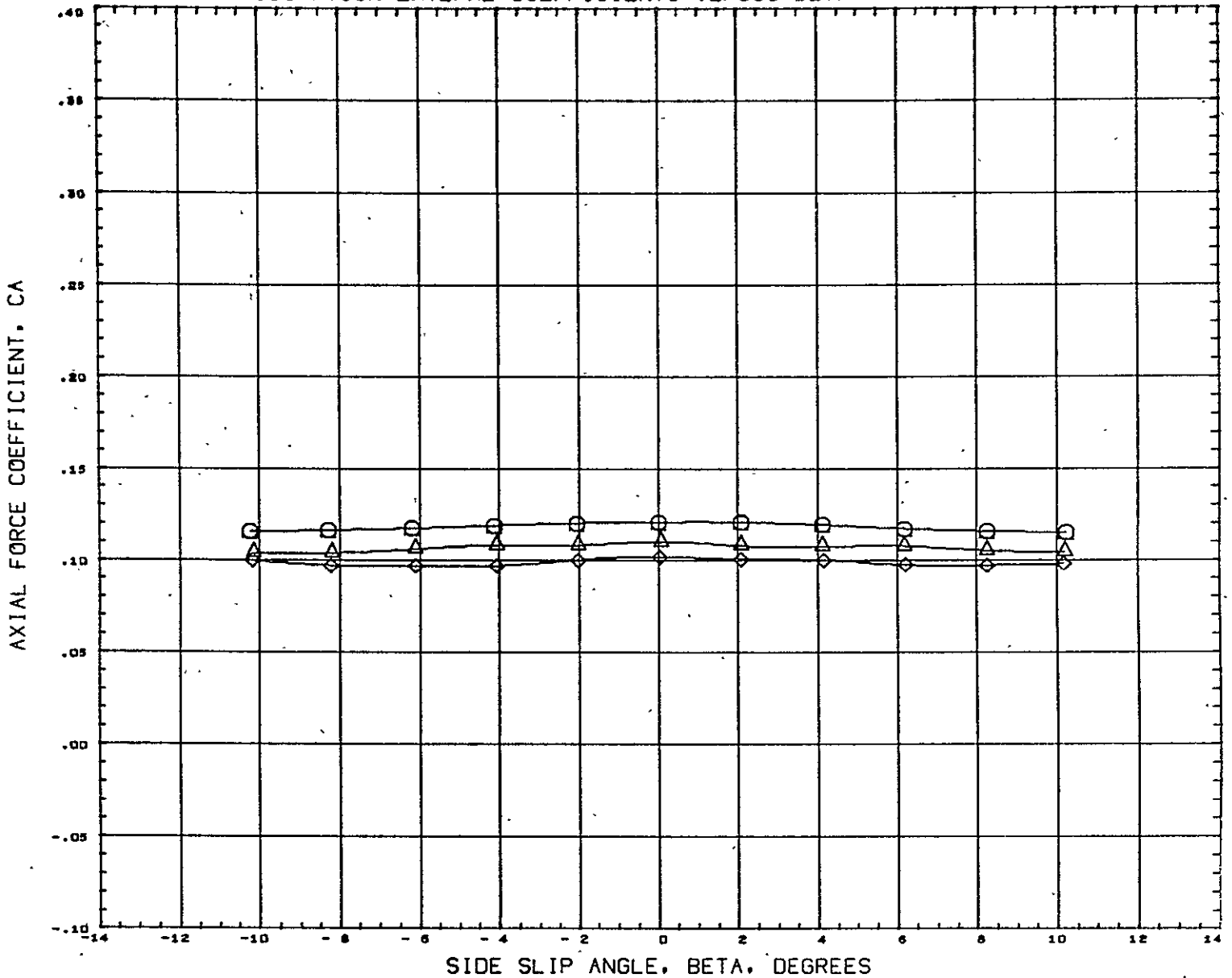


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7
(F28Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6360 SQ. IN.
15.000	0.000	0.000	0.000	LREF 3.0950 IN.
15.000	0.000	0.000		BREF 6.0990 IN.
35.000	0.000	0.000		XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 1.051

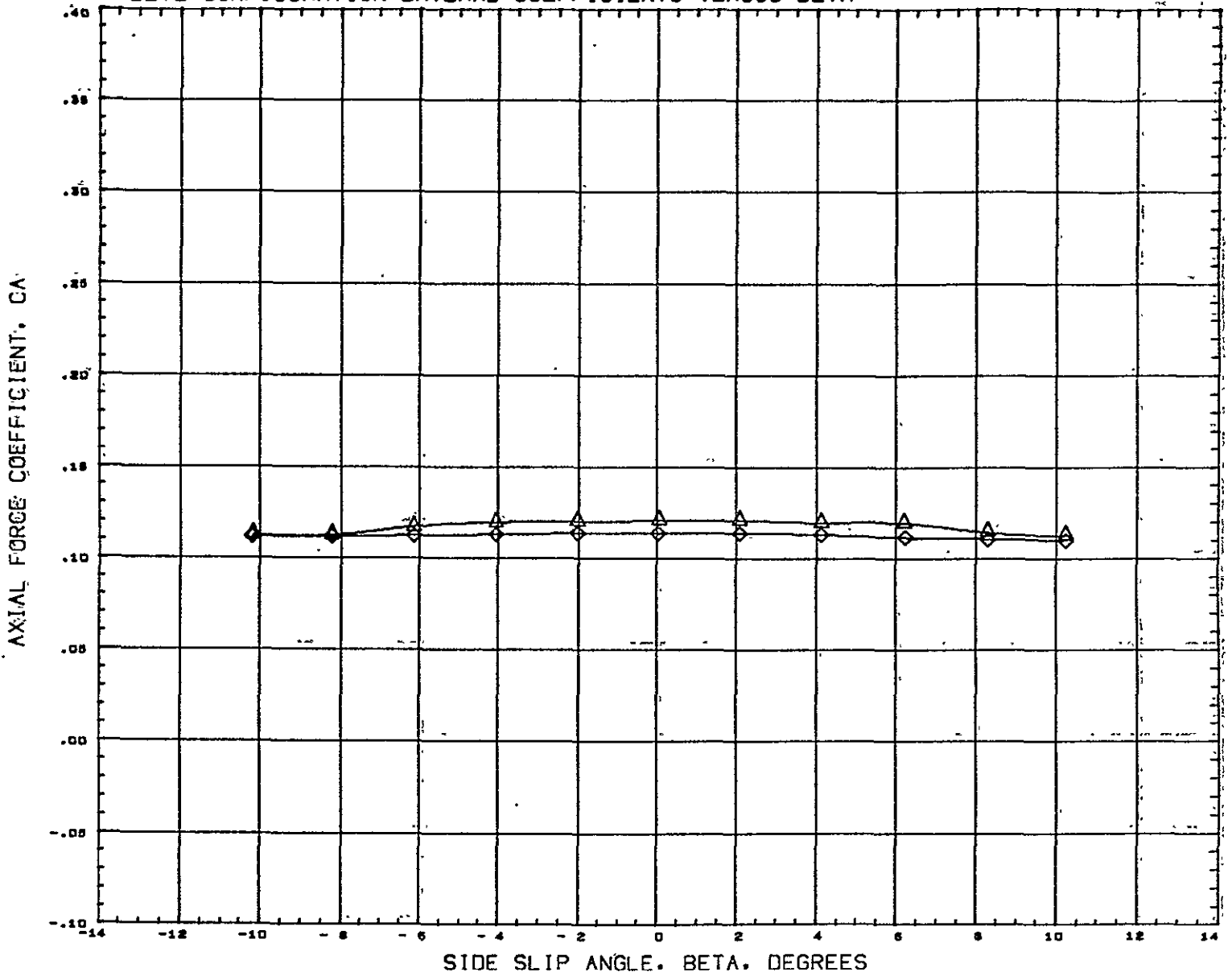
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF	6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.101

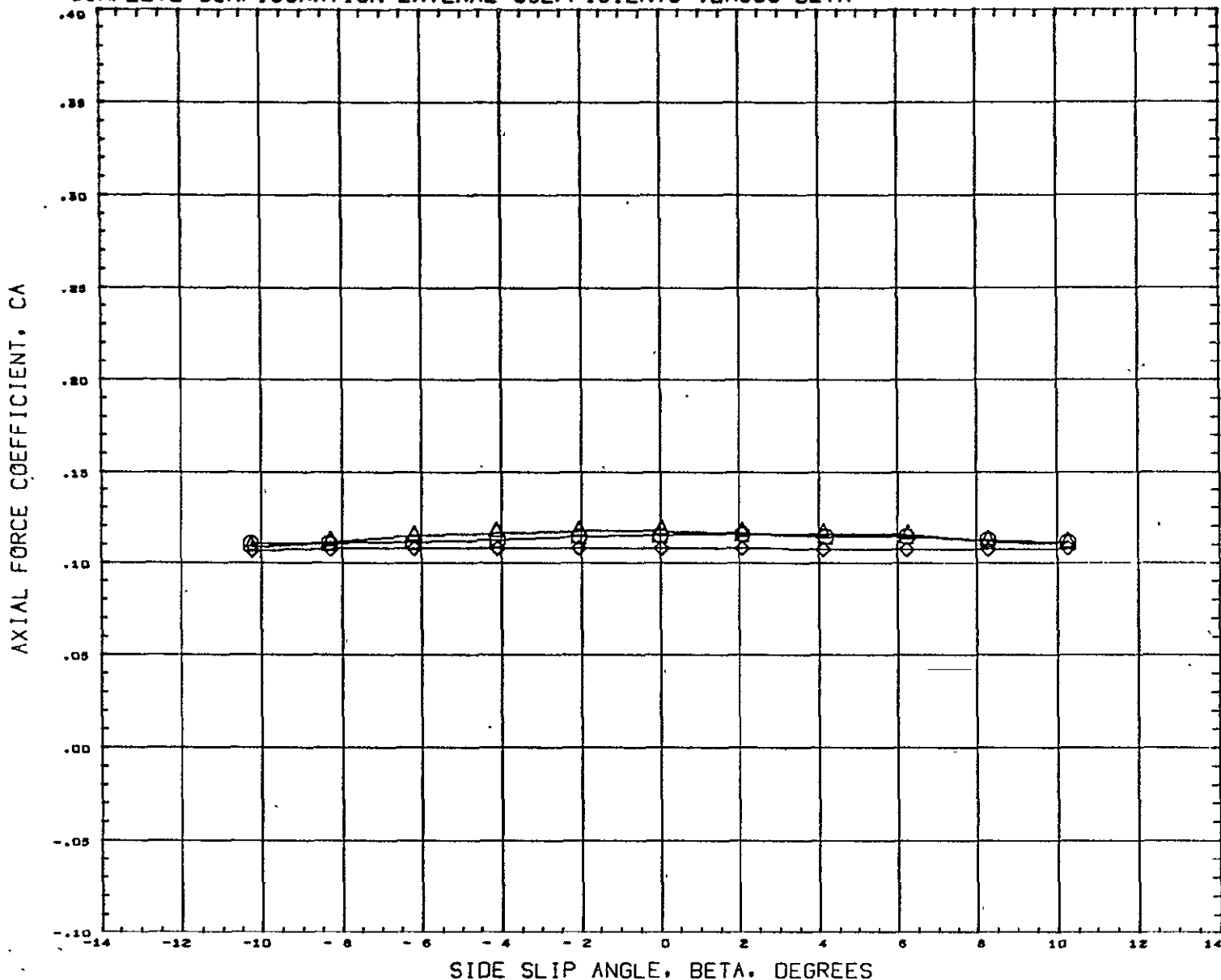
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y33)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 30. IN.
(F28Y21)	HSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	HSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XNRP 6.7100 IN.
						YNRP 0.0000 IN.
						ZNRP 0.0000 IN.
						SCALE 0.0035

MACH 1.202

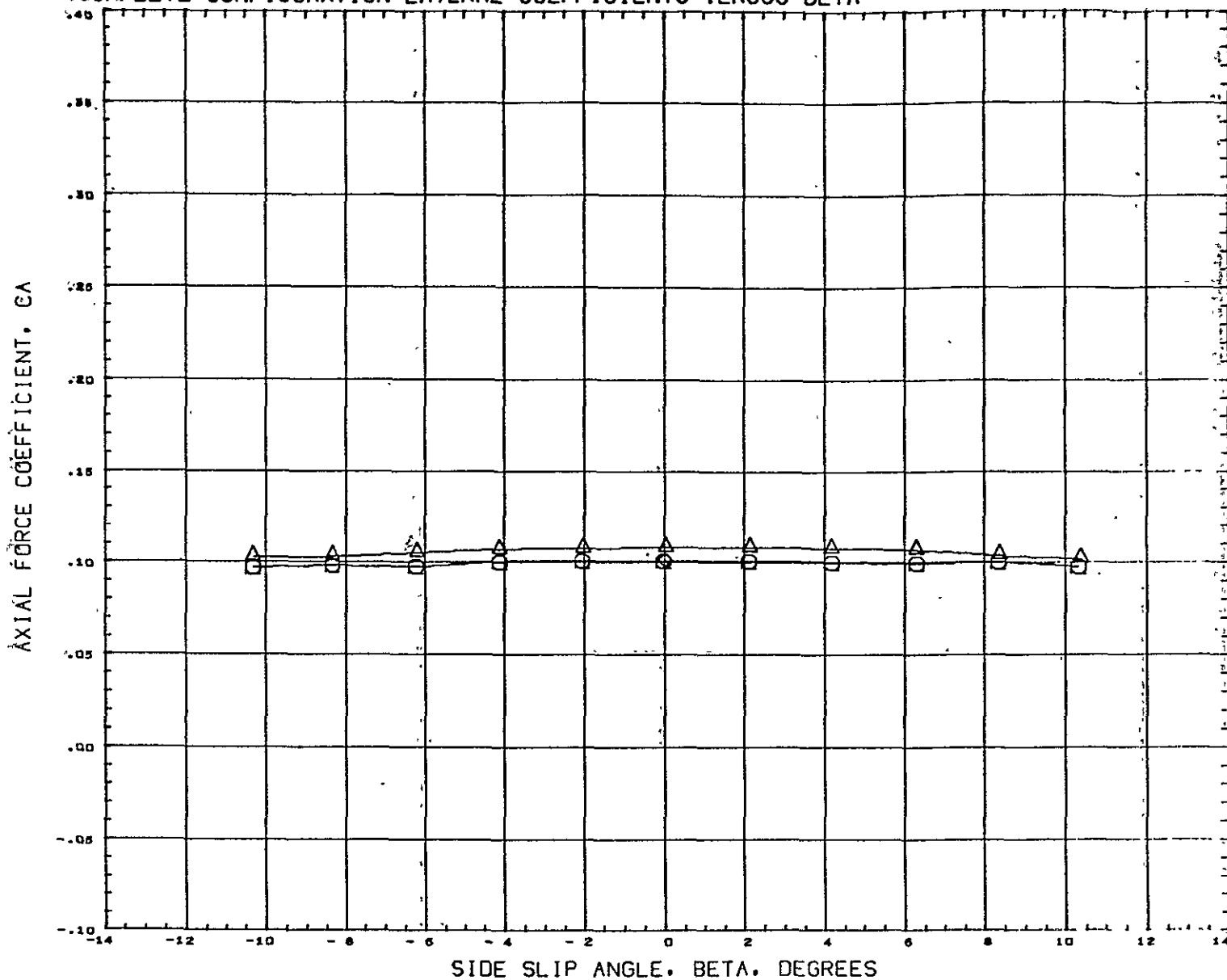
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 59. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.461

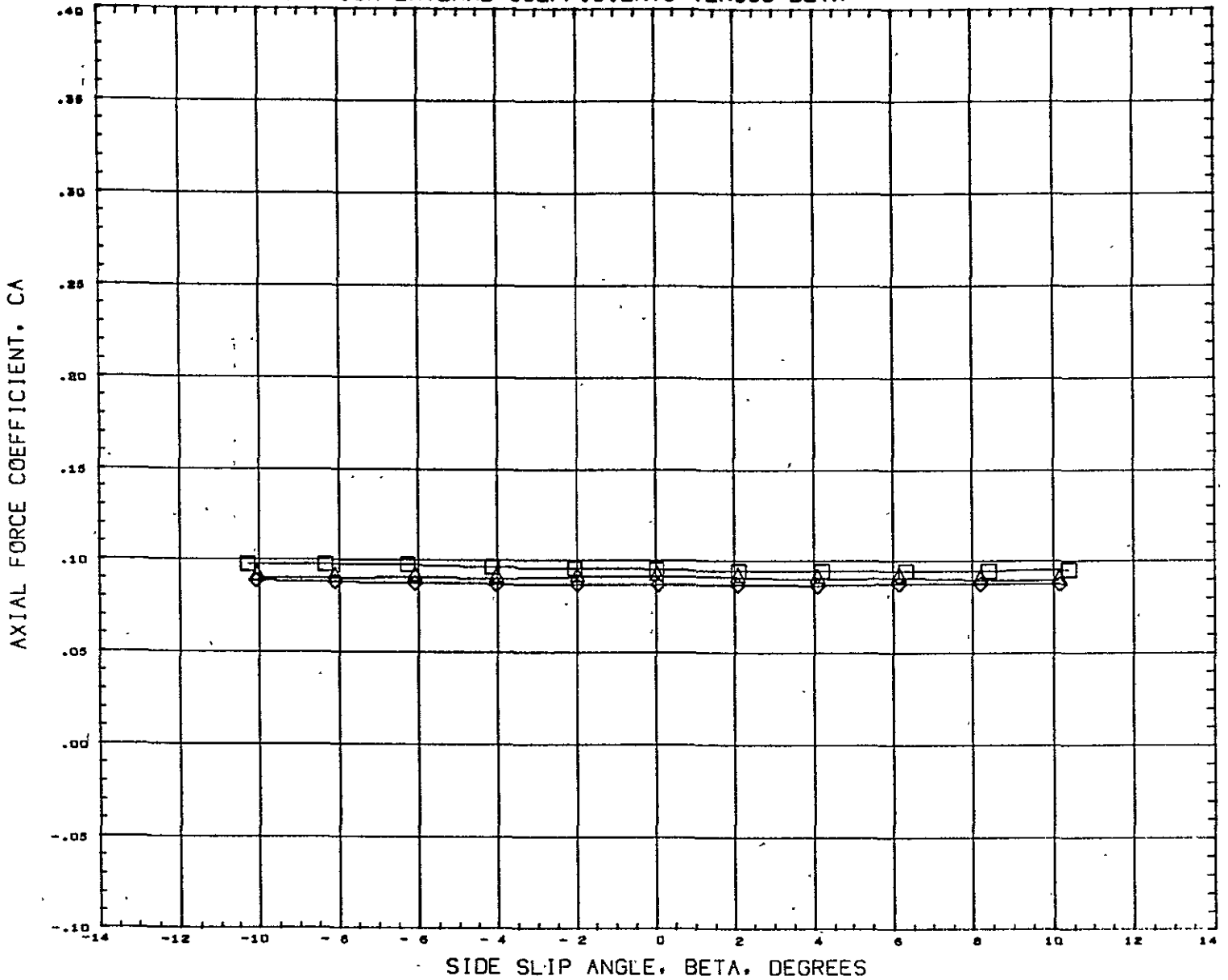
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y53)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF	6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0035

MACH 1.956

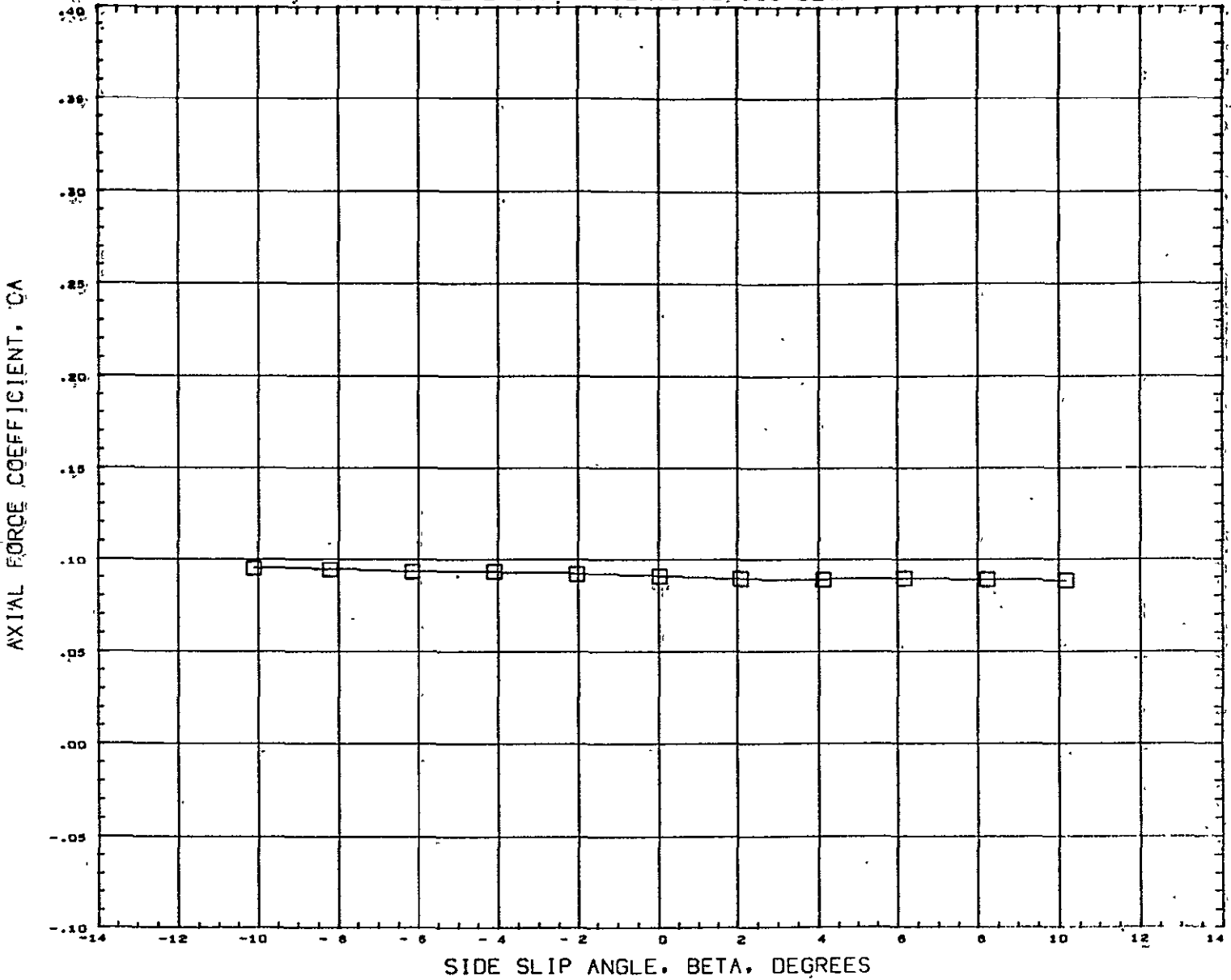
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	△	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 5.0950 IN.
(F28Y31)	◇	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	□	MSFC481 GD/C (BOOSTER) B19W14C4A	35.000	0.000	0.000		XHRP 6.7100 IN.
							YHRP 0.0000 IN.
							ZHRP 0.0000 IN.
							SCALE 0.0035

MACH 2.990

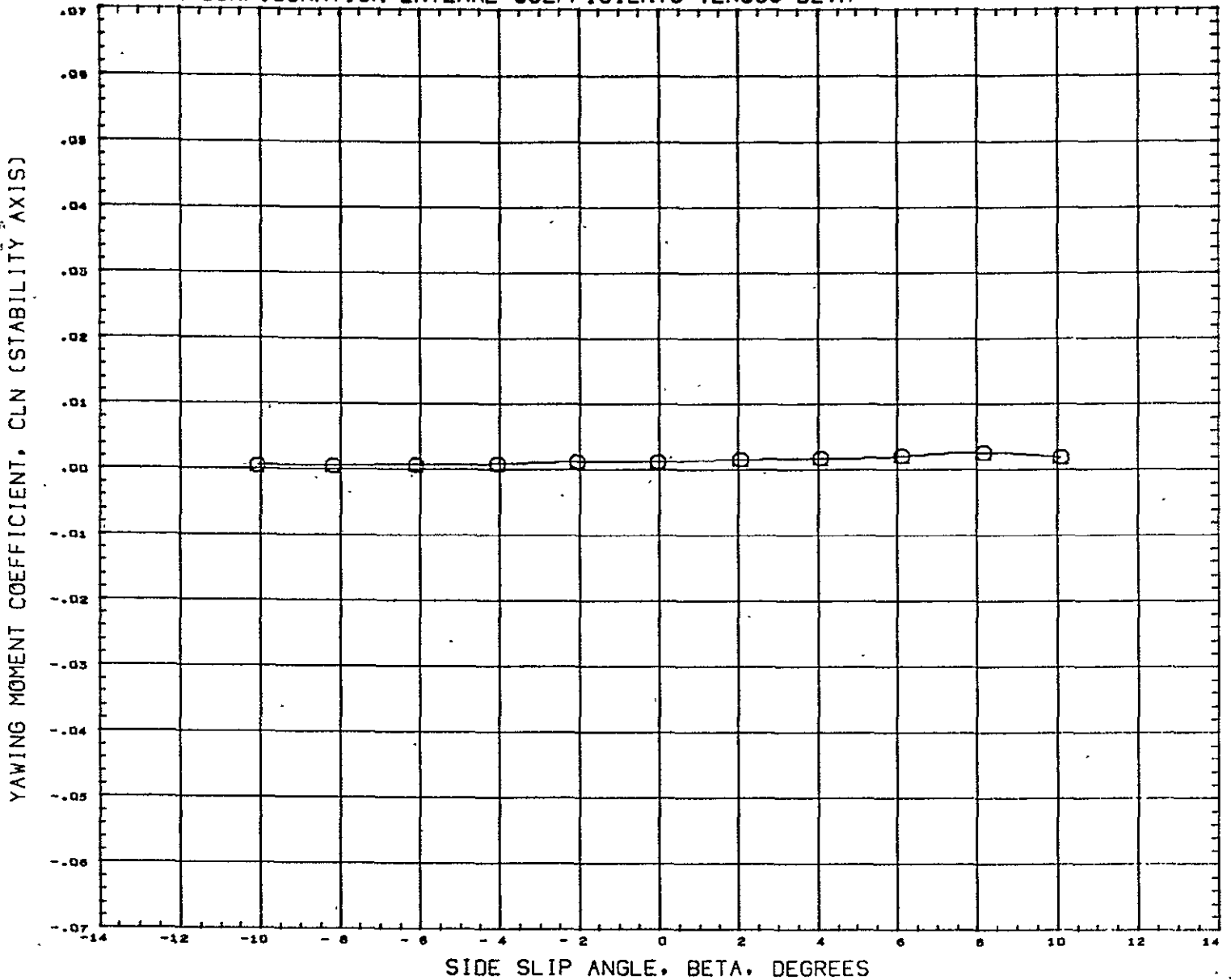
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 30. IN.
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	HSFC481 GD/C(BOOSTER)B19W14C4A	35.000	0.000	0.000		XHRF 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 4.959

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

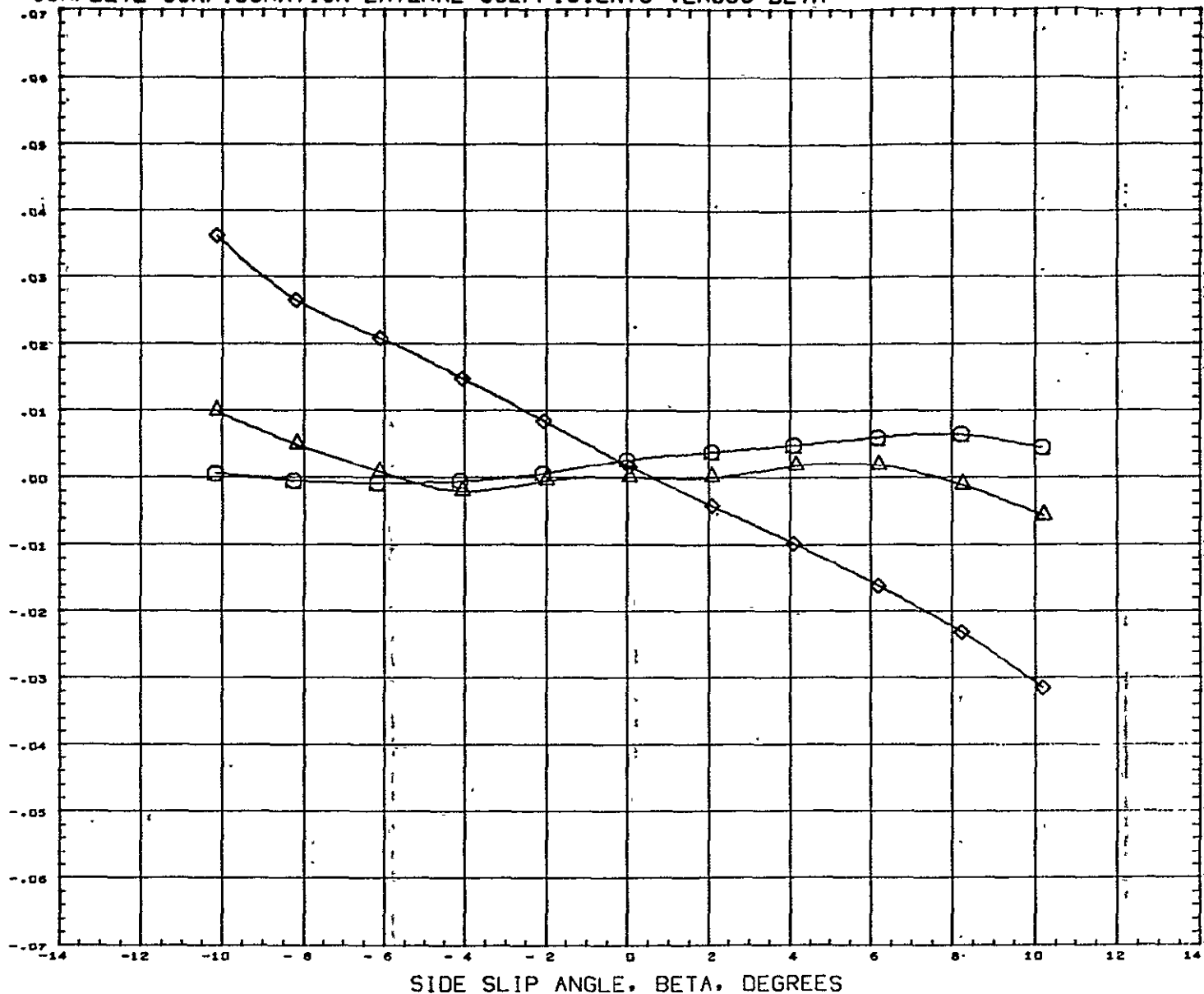


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

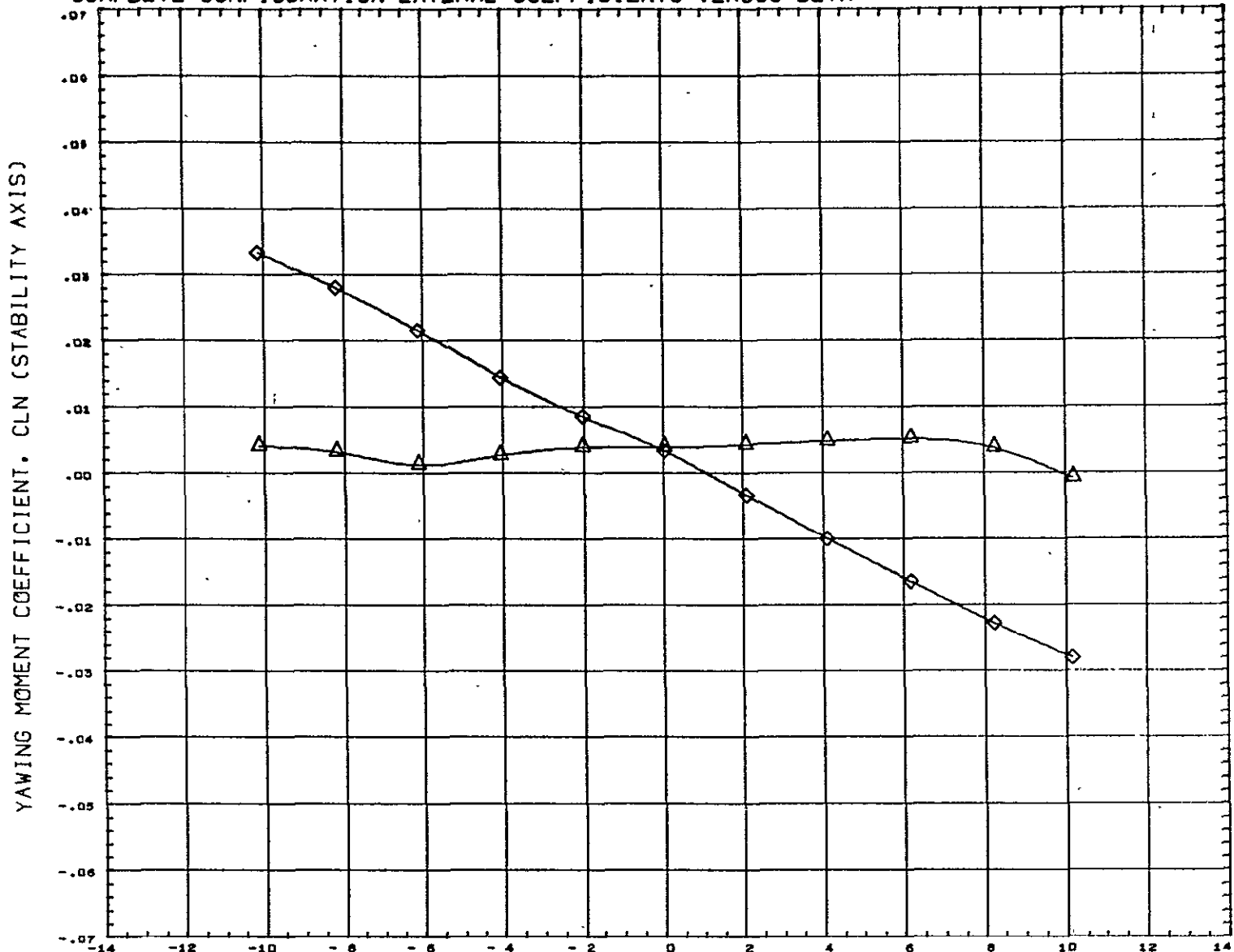
YAWING MOMENT COEFFICIENT, CLN (STABILITY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y33)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.904

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



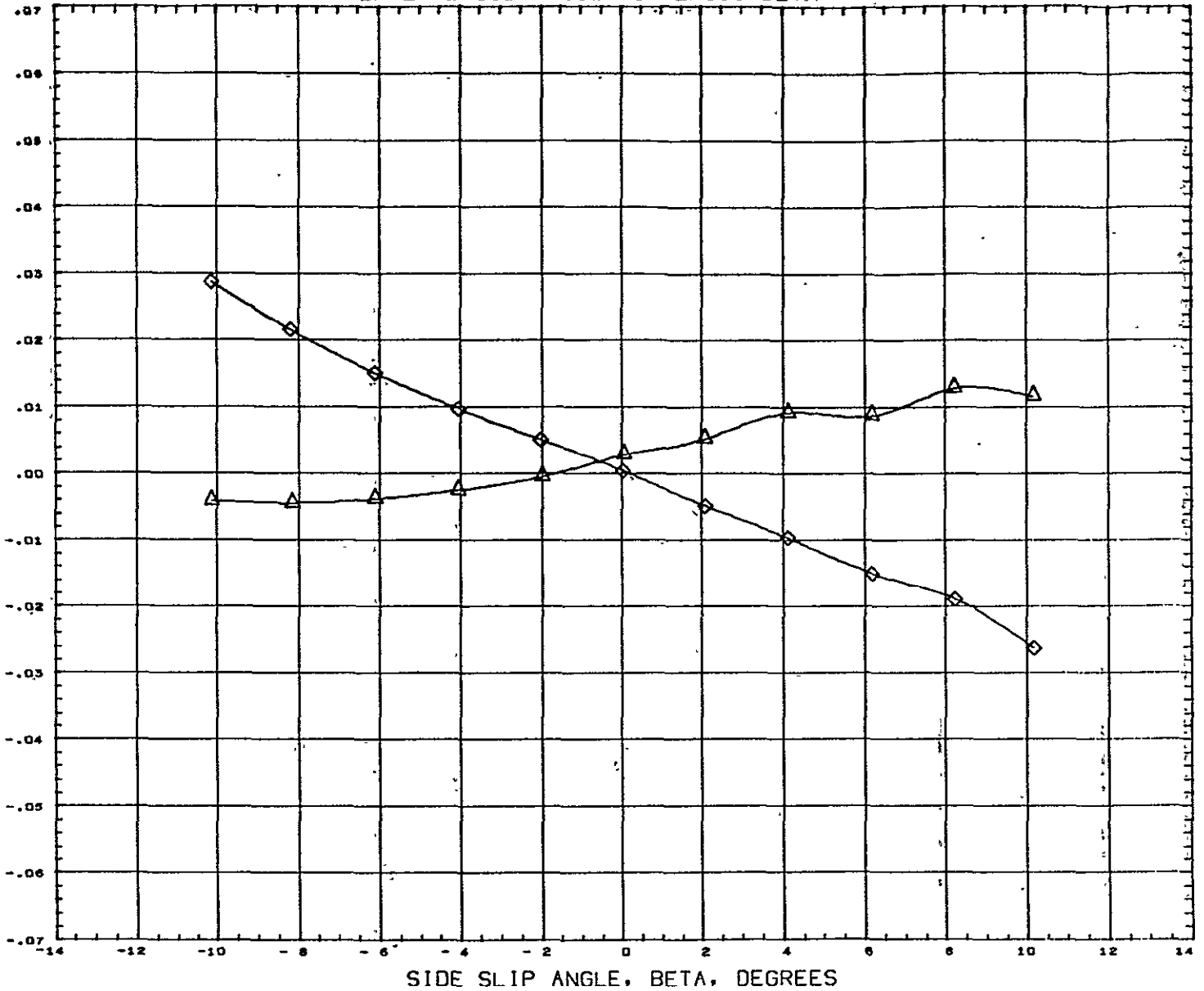
SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 sq. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

YAWING MOMENT COEFFICIENT, 'CLN (STABILITY AXIS)'

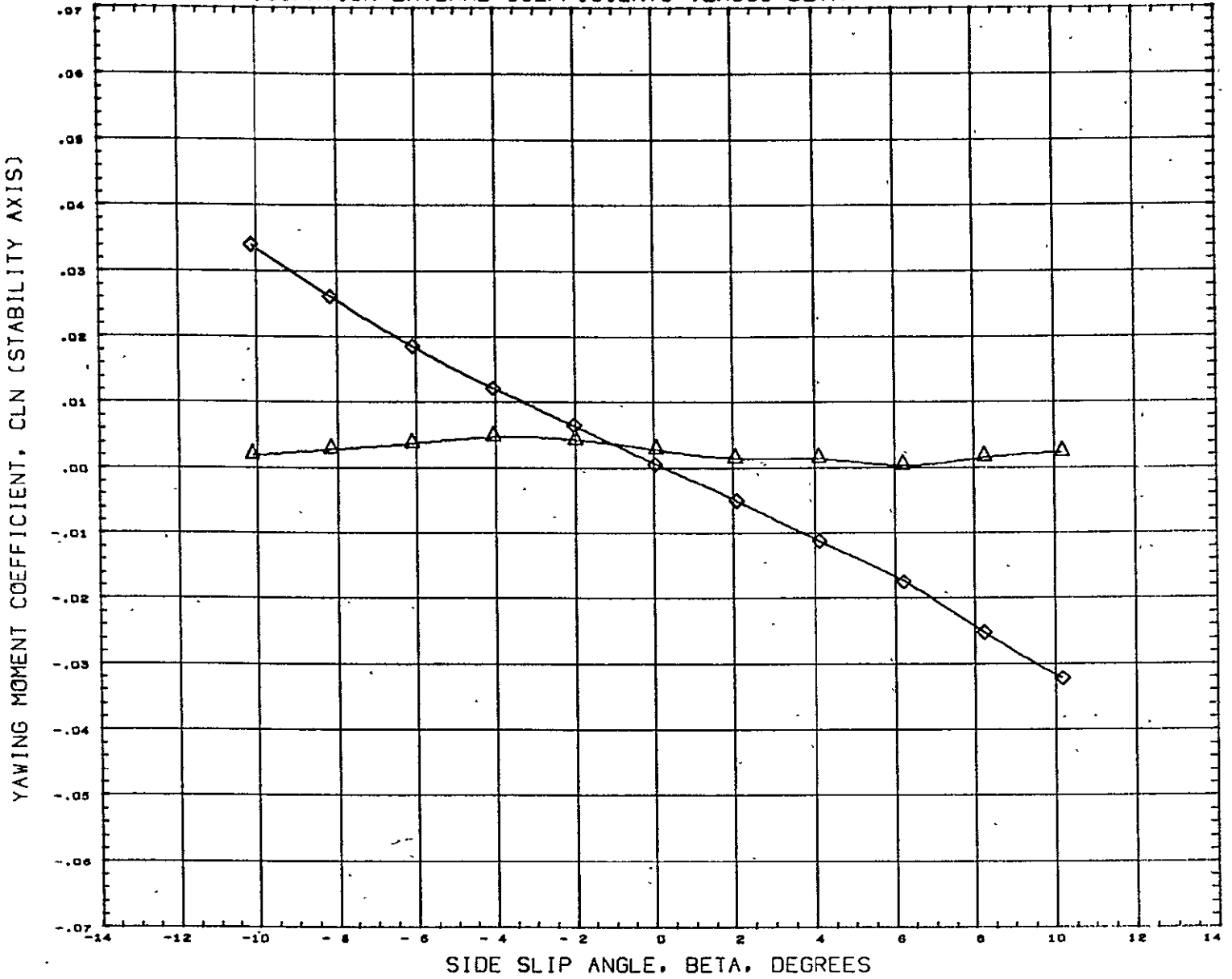


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(F28Y55)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS
(F28Y21)	△	MSFC481 GD/C(BOOSTER)B19W14CAV7
(F28Y31)	◇	MSFC481 GD/C(BOOSTER)B19W14CAA
(F28Y41)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000		SREF 15.6560 30. IN.
15.000	0.000	0.000	0.000	LREF 3.0950 IN.
15.000	0.000	0.000		BREF 6.0990 IN.
35.000	0.000	0.000		XHRP 6.7100 IN.
				YHRP 0.0000 IN.
				ZHRP 0.0000 IN.
				SCALE 0.003%

MACH 1.000

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

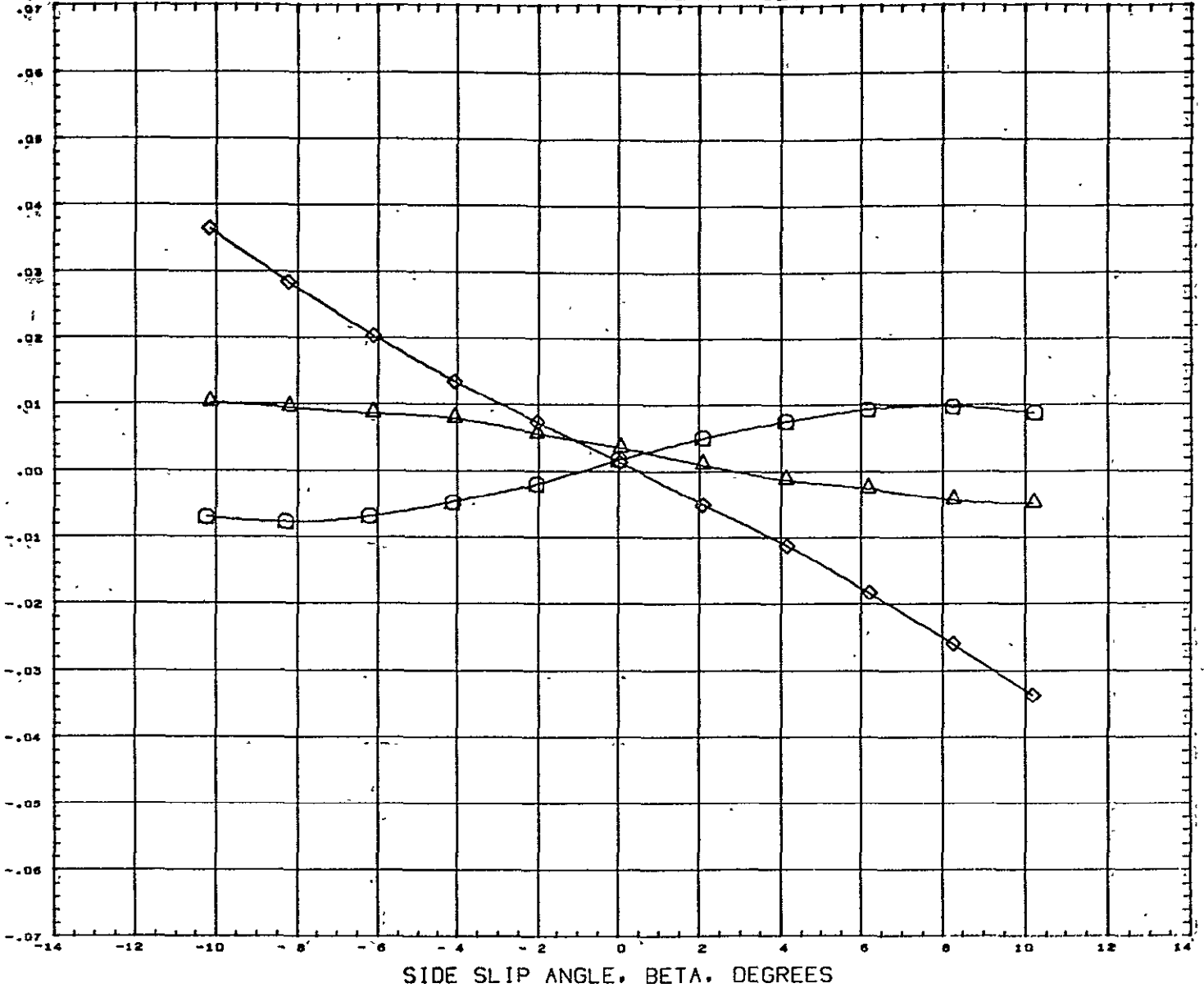


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

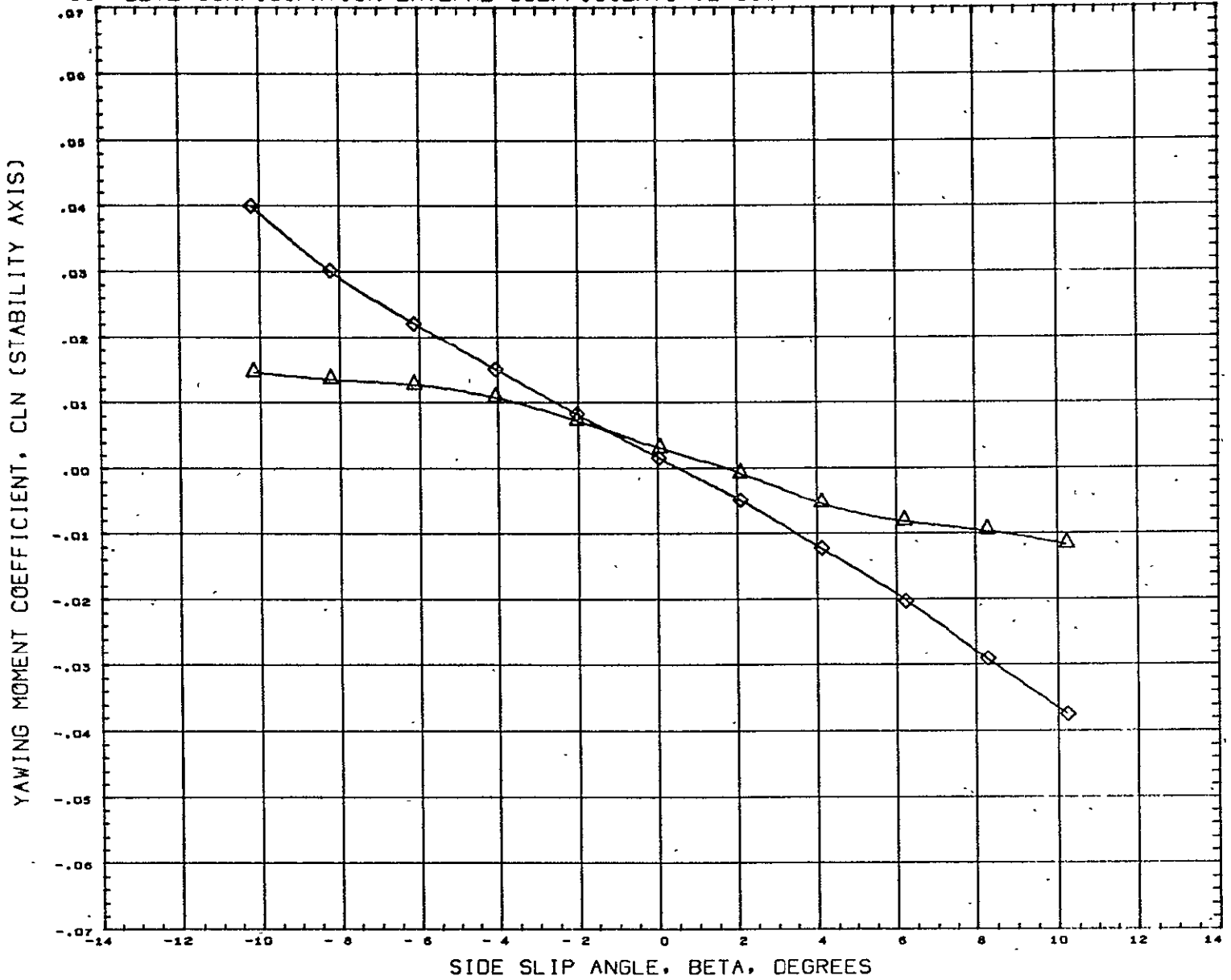
YAWING-MOMENT COEFFICIENT, CLN (STABILITY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y33)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.101

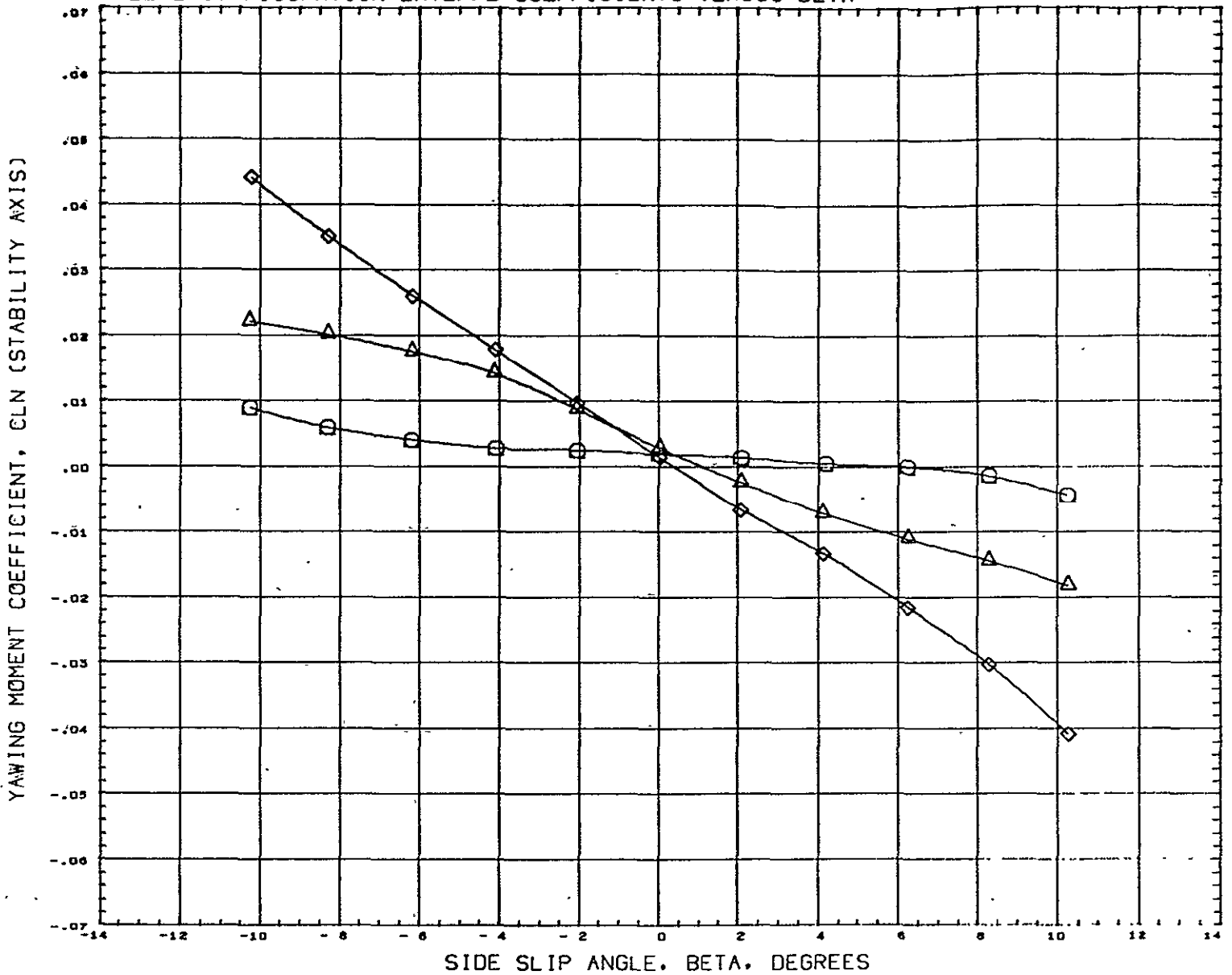
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

HACH 1.202

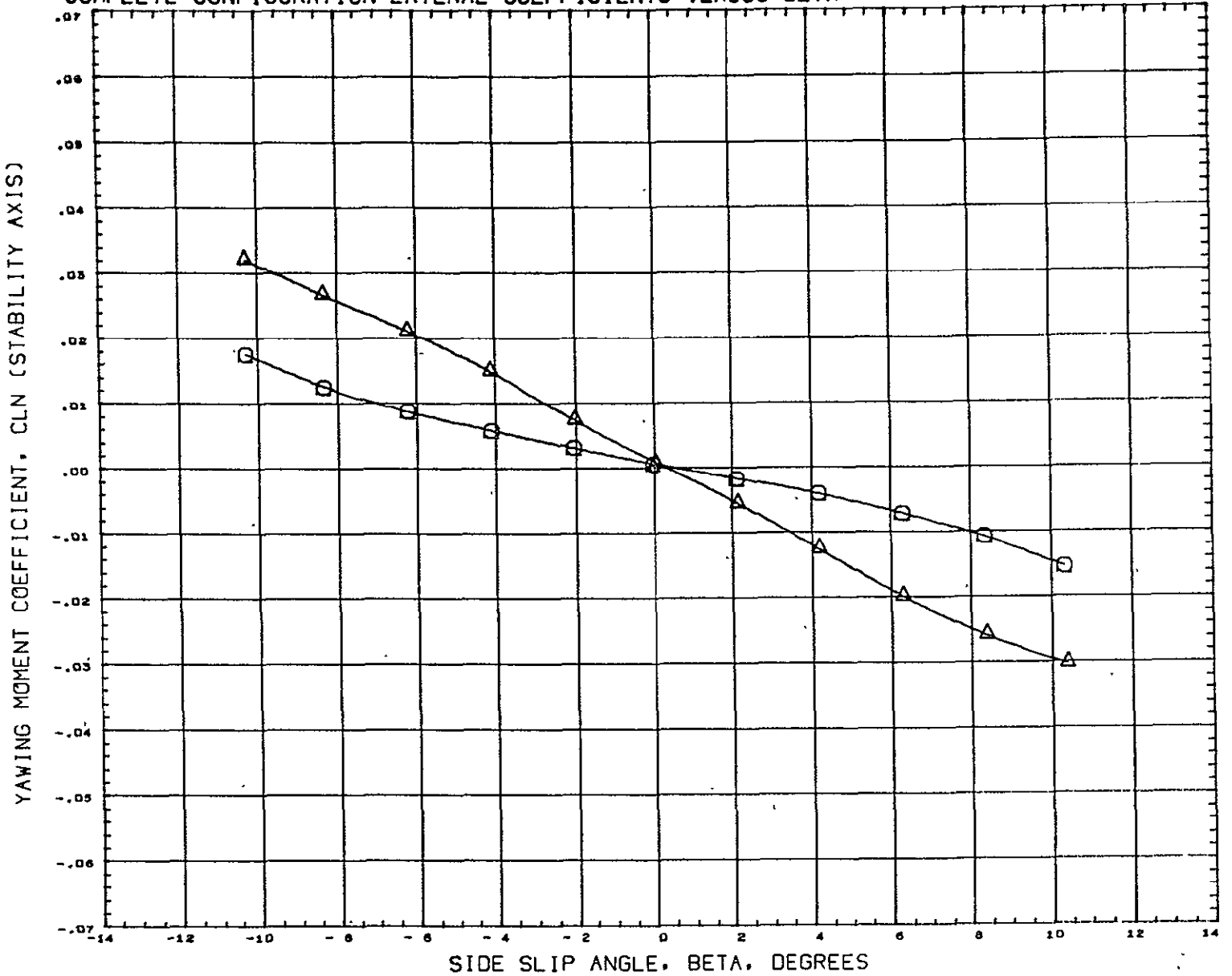
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 sq. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 2.461

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

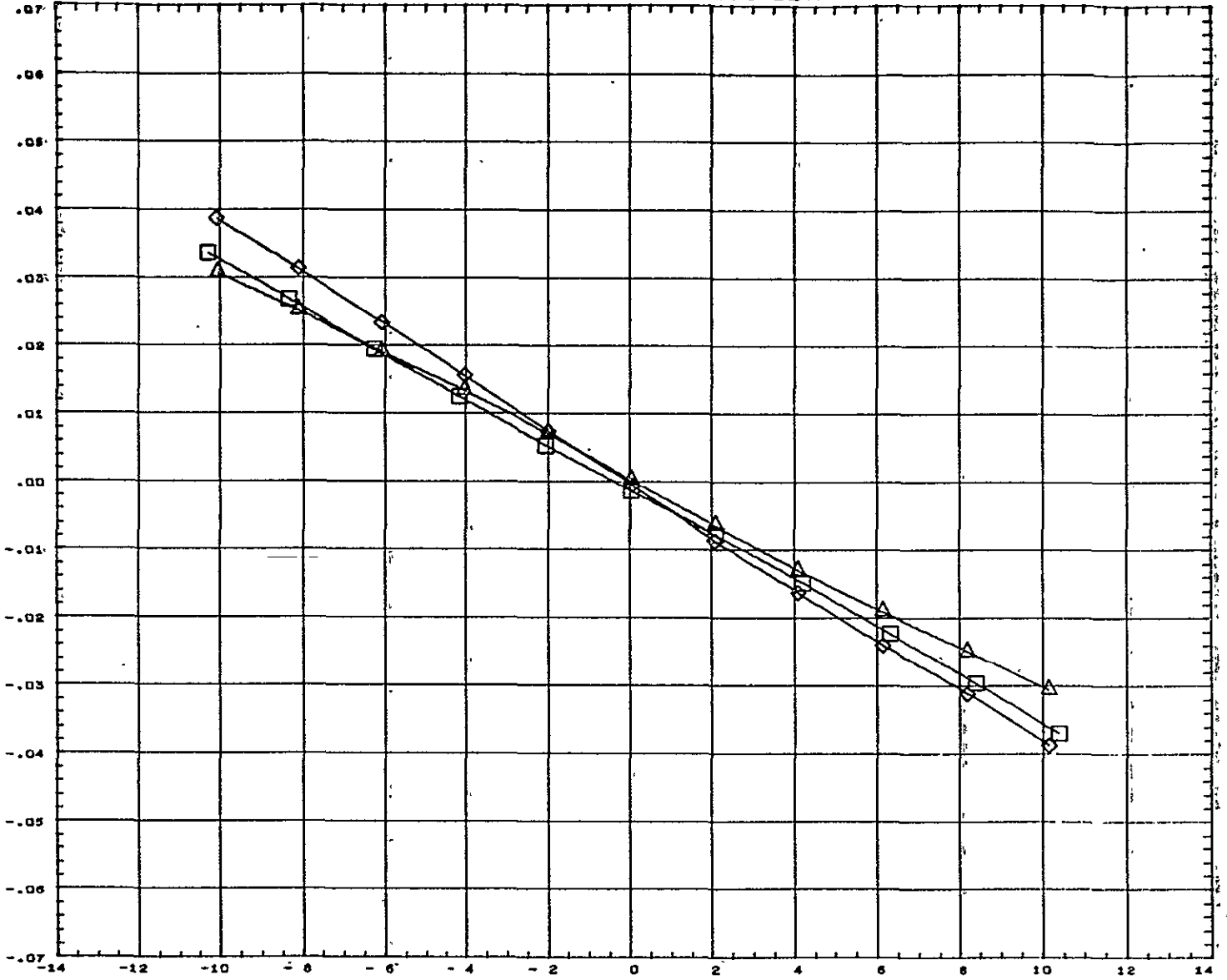


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.958

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

YAWING MOMENT COEFFICIENT, CLN (STABILITY AXIS)

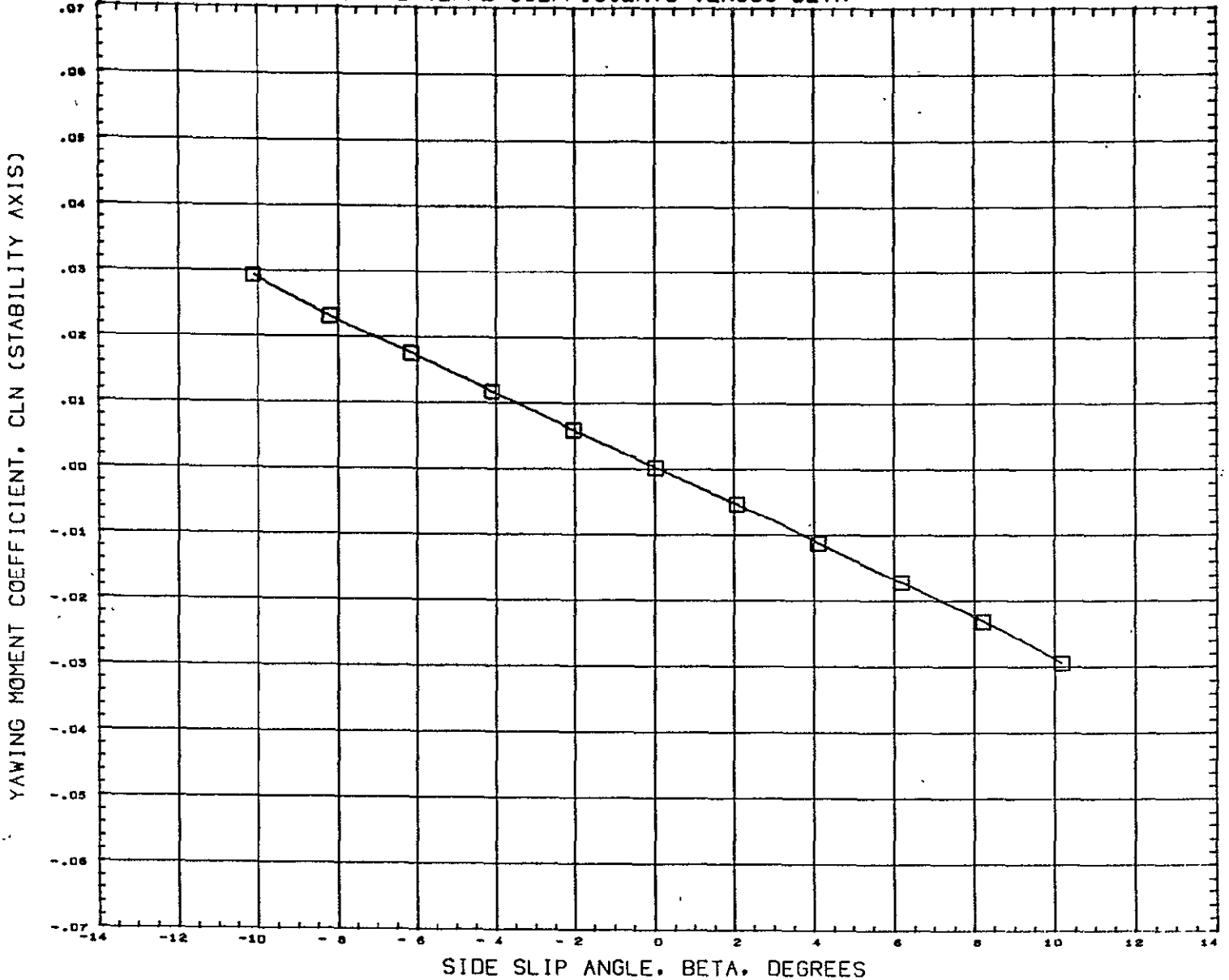


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	MSFC481 GD/C (BOOSTER) B19W14C4A	35.000	0.000	0.000		XHRP 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 2.990

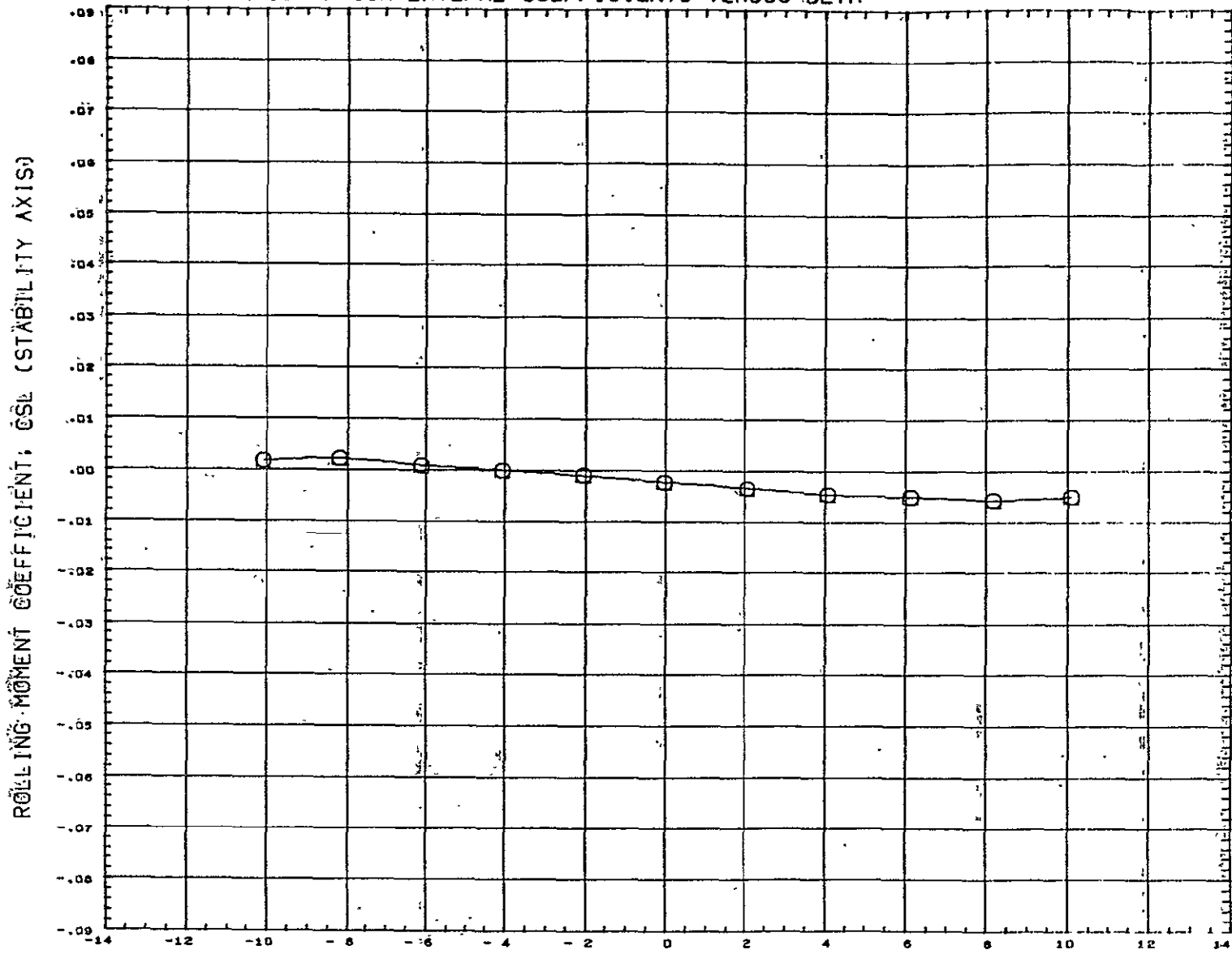
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF	6.0990 IN.
(F28Y41)	MSFC481 GD/C(BOOSTER)B19W14C4A	35.000	0.000	0.000		XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0035

MACH 4.959

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

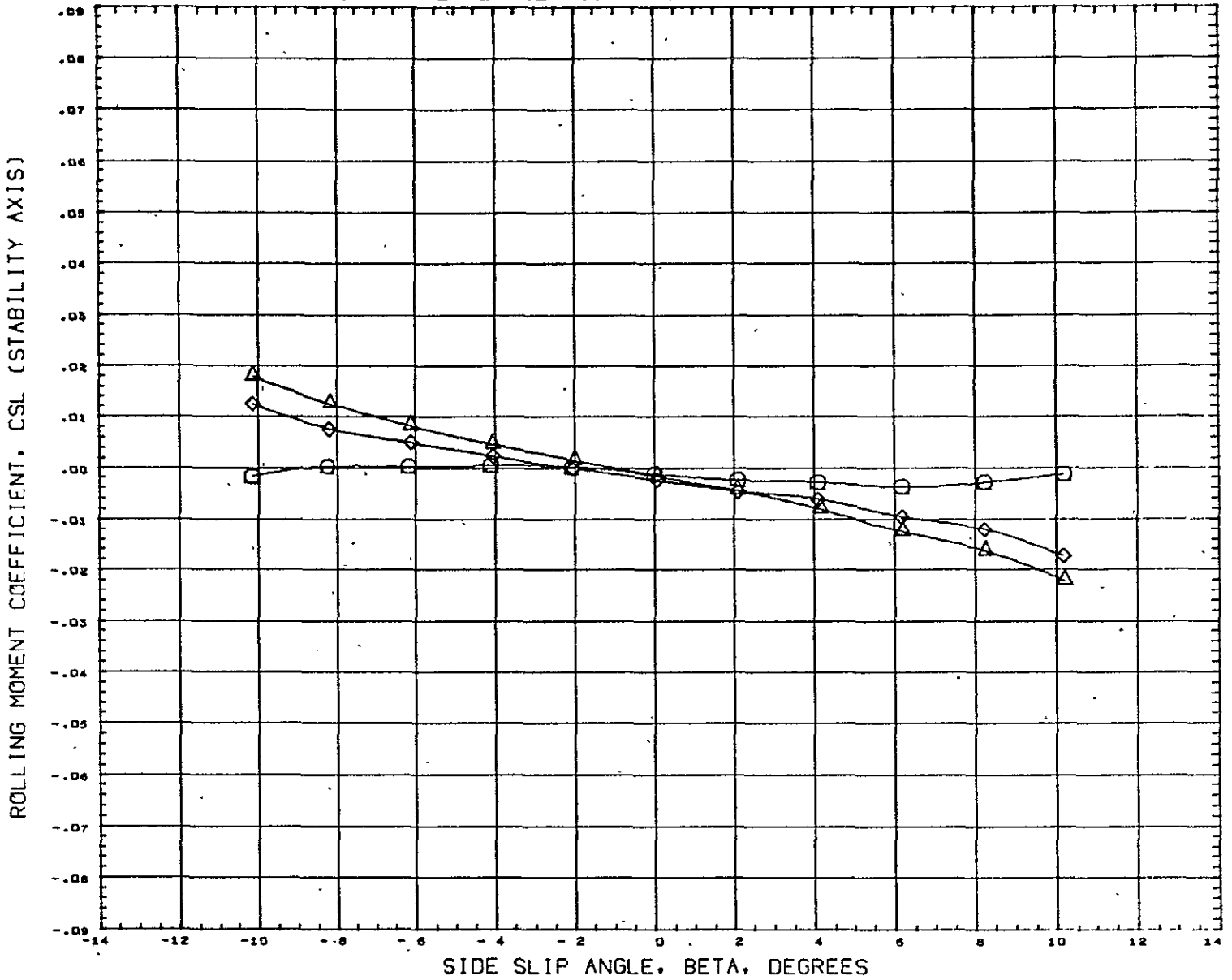


SIDE SLIP ANGLE, 'BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	HSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 54. IN.
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0930 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



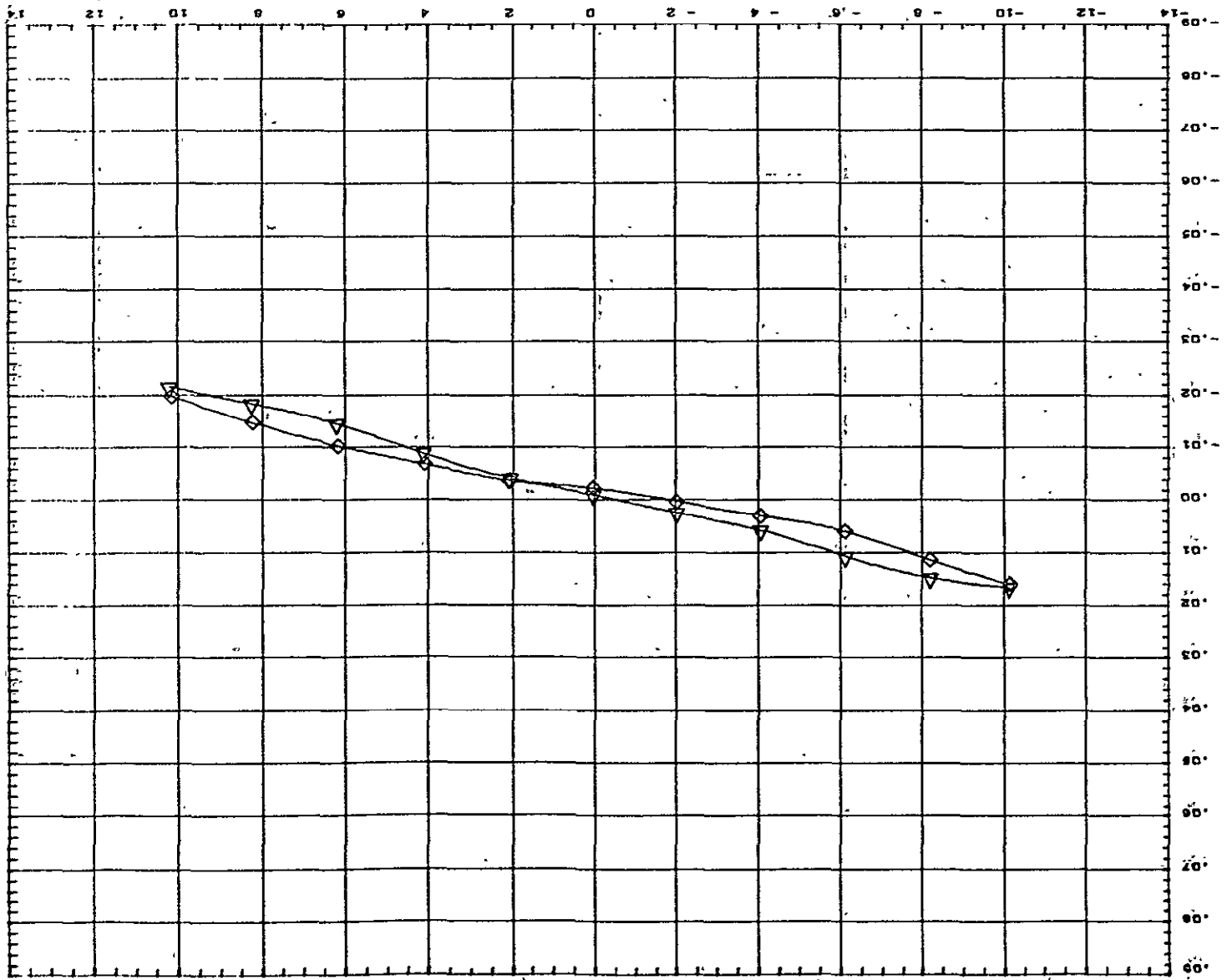
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.904

MACH 0.953

REFERENCE INFORMATION	SREF	LREF	BREF	XMRP	YMRP	ZMRP	SCALE
SA IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000
IN.	15.6560	3.0950	6.0990	6.7100	0.0000	0.0000	0.0000

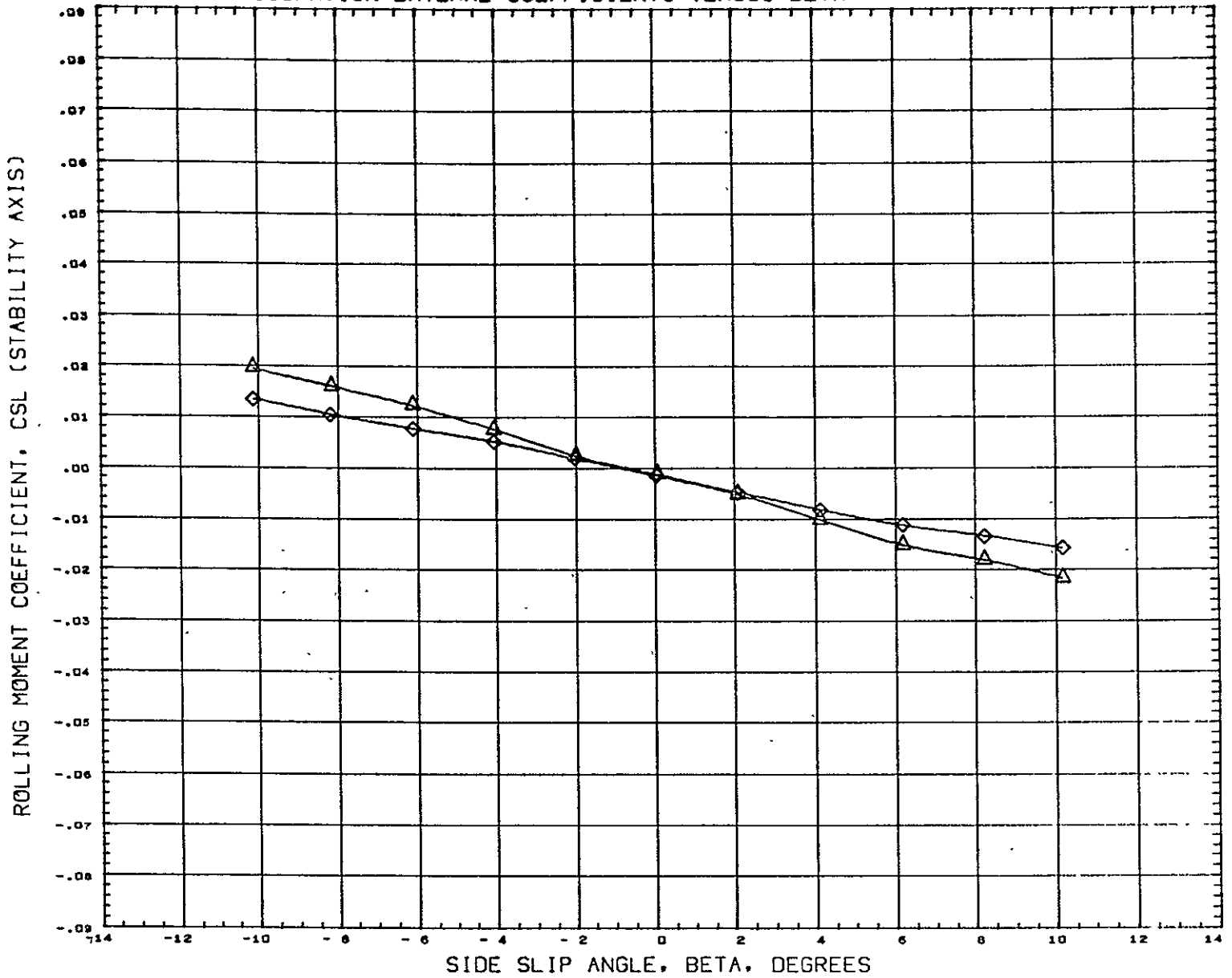
CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER
(F28Y53)	0.000	0.000	0.000	0.000
(F28Y52)	0.000	0.000	0.000	0.000
(F28Y51)	0.000	0.000	0.000	0.000
(F28Y41)	0.000	0.000	0.000	0.000
(F28Y42)	0.000	0.000	0.000	0.000
(F28Y43)	0.000	0.000	0.000	0.000
(F28Y44)	0.000	0.000	0.000	0.000
(F28Y45)	0.000	0.000	0.000	0.000
(F28Y46)	0.000	0.000	0.000	0.000
(F28Y47)	0.000	0.000	0.000	0.000
(F28Y48)	0.000	0.000	0.000	0.000
(F28Y49)	0.000	0.000	0.000	0.000
(F28Y50)	0.000	0.000	0.000	0.000
(F28Y51)	0.000	0.000	0.000	0.000
(F28Y52)	0.000	0.000	0.000	0.000
(F28Y53)	0.000	0.000	0.000	0.000
(F28Y54)	0.000	0.000	0.000	0.000
(F28Y55)	0.000	0.000	0.000	0.000
(F28Y56)	0.000	0.000	0.000	0.000
(F28Y57)	0.000	0.000	0.000	0.000
(F28Y58)	0.000	0.000	0.000	0.000
(F28Y59)	0.000	0.000	0.000	0.000
(F28Y60)	0.000	0.000	0.000	0.000
(F28Y61)	0.000	0.000	0.000	0.000
(F28Y62)	0.000	0.000	0.000	0.000
(F28Y63)	0.000	0.000	0.000	0.000
(F28Y64)	0.000	0.000	0.000	0.000
(F28Y65)	0.000	0.000	0.000	0.000
(F28Y66)	0.000	0.000	0.000	0.000
(F28Y67)	0.000	0.000	0.000	0.000
(F28Y68)	0.000	0.000	0.000	0.000
(F28Y69)	0.000	0.000	0.000	0.000
(F28Y70)	0.000	0.000	0.000	0.000
(F28Y71)	0.000	0.000	0.000	0.000
(F28Y72)	0.000	0.000	0.000	0.000
(F28Y73)	0.000	0.000	0.000	0.000
(F28Y74)	0.000	0.000	0.000	0.000
(F28Y75)	0.000	0.000	0.000	0.000
(F28Y76)	0.000	0.000	0.000	0.000
(F28Y77)	0.000	0.000	0.000	0.000
(F28Y78)	0.000	0.000	0.000	0.000
(F28Y79)	0.000	0.000	0.000	0.000
(F28Y80)	0.000	0.000	0.000	0.000
(F28Y81)	0.000	0.000	0.000	0.000
(F28Y82)	0.000	0.000	0.000	0.000
(F28Y83)	0.000	0.000	0.000	0.000
(F28Y84)	0.000	0.000	0.000	0.000
(F28Y85)	0.000	0.000	0.000	0.000
(F28Y86)	0.000	0.000	0.000	0.000
(F28Y87)	0.000	0.000	0.000	0.000
(F28Y88)	0.000	0.000	0.000	0.000
(F28Y89)	0.000	0.000	0.000	0.000
(F28Y90)	0.000	0.000	0.000	0.000
(F28Y91)	0.000	0.000	0.000	0.000
(F28Y92)	0.000	0.000	0.000	0.000
(F28Y93)	0.000	0.000	0.000	0.000
(F28Y94)	0.000	0.000	0.000	0.000
(F28Y95)	0.000	0.000	0.000	0.000
(F28Y96)	0.000	0.000	0.000	0.000
(F28Y97)	0.000	0.000	0.000	0.000
(F28Y98)	0.000	0.000	0.000	0.000
(F28Y99)	0.000	0.000	0.000	0.000
(F28Y00)	0.000	0.000	0.000	0.000



COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

ROLLING MOMENT COEFFICIENT, C_{sl} (STABILITY AXIS)

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

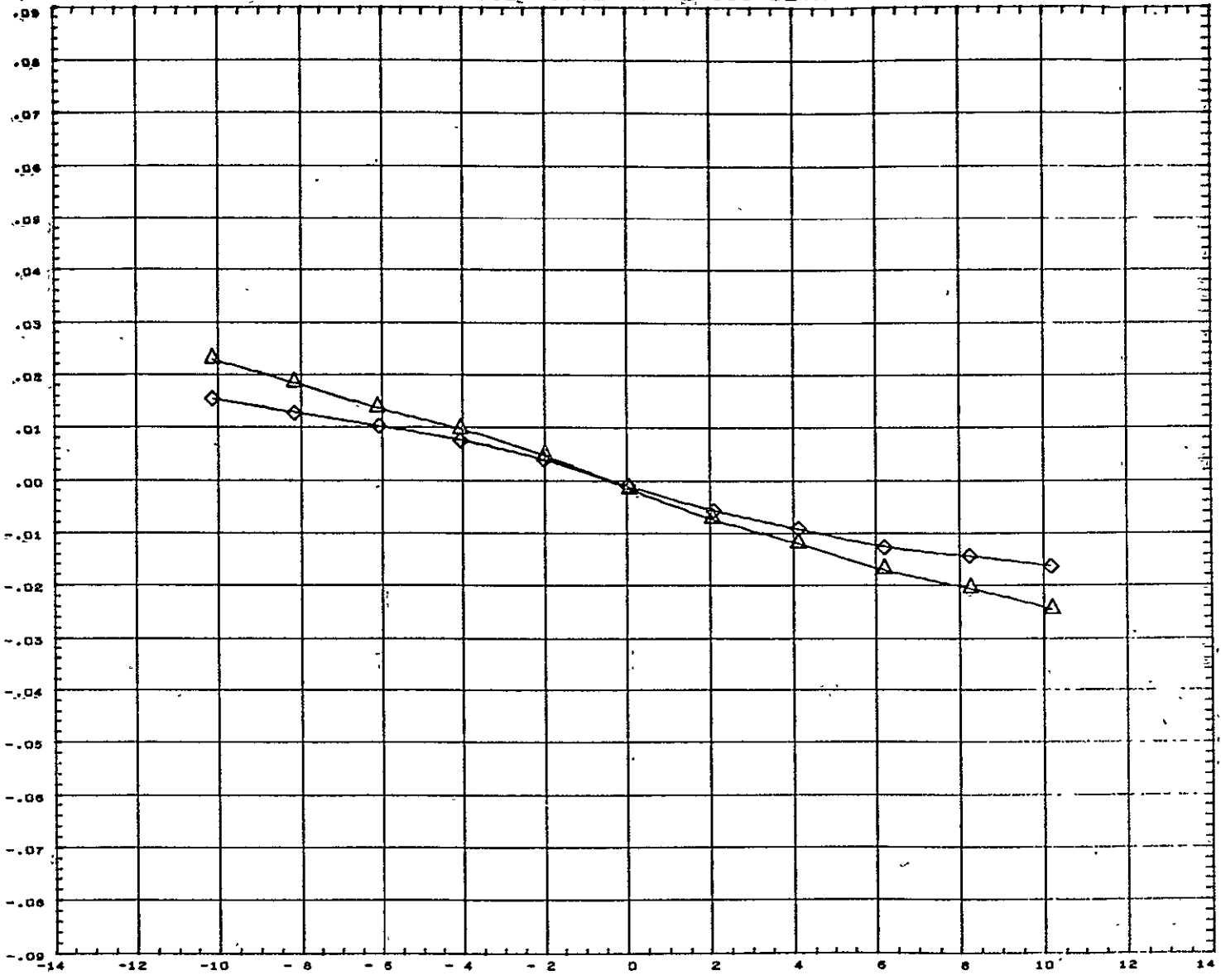


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	HSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.000

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)

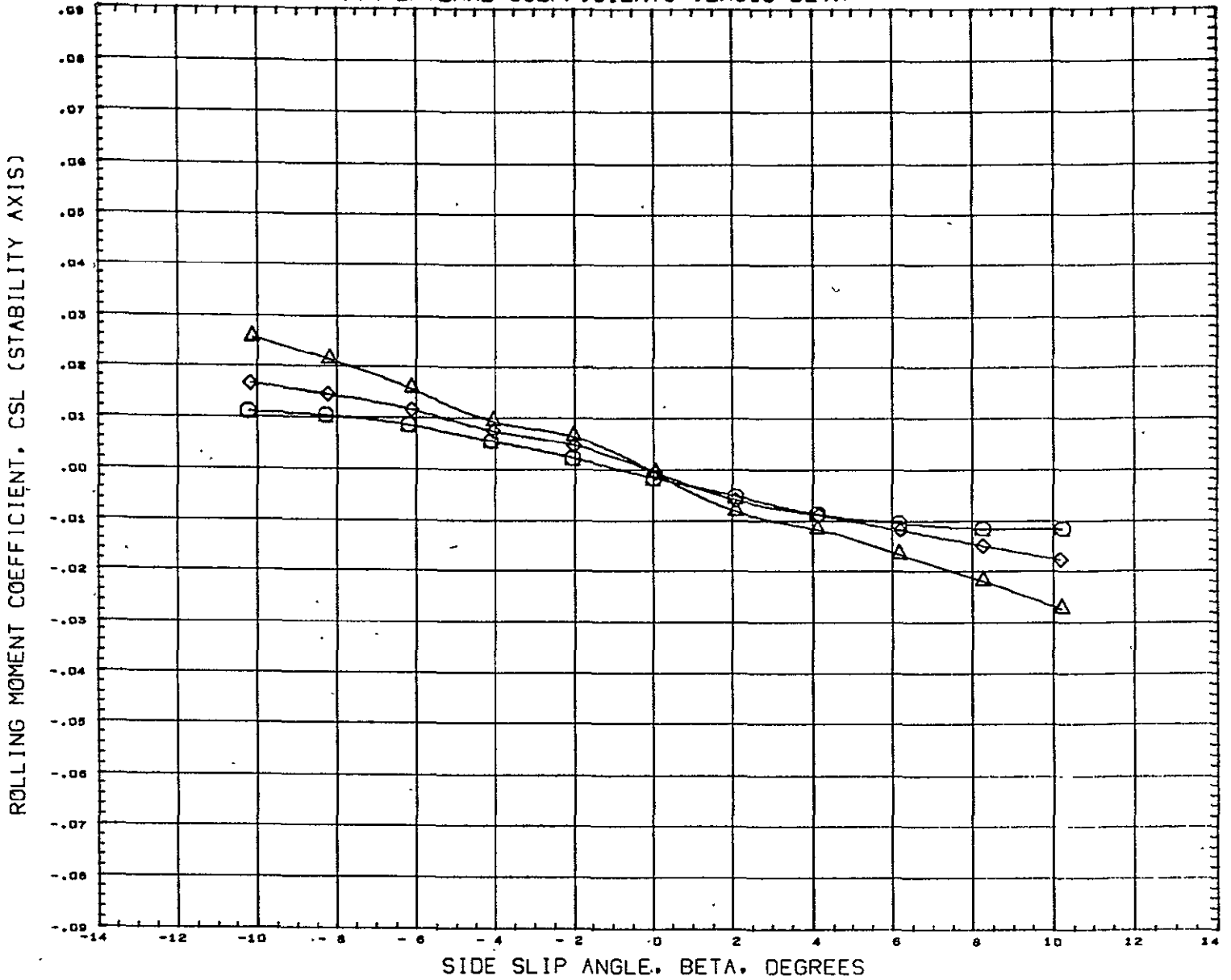


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F26Y21)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F26Y31)	MSFC461 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F26Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



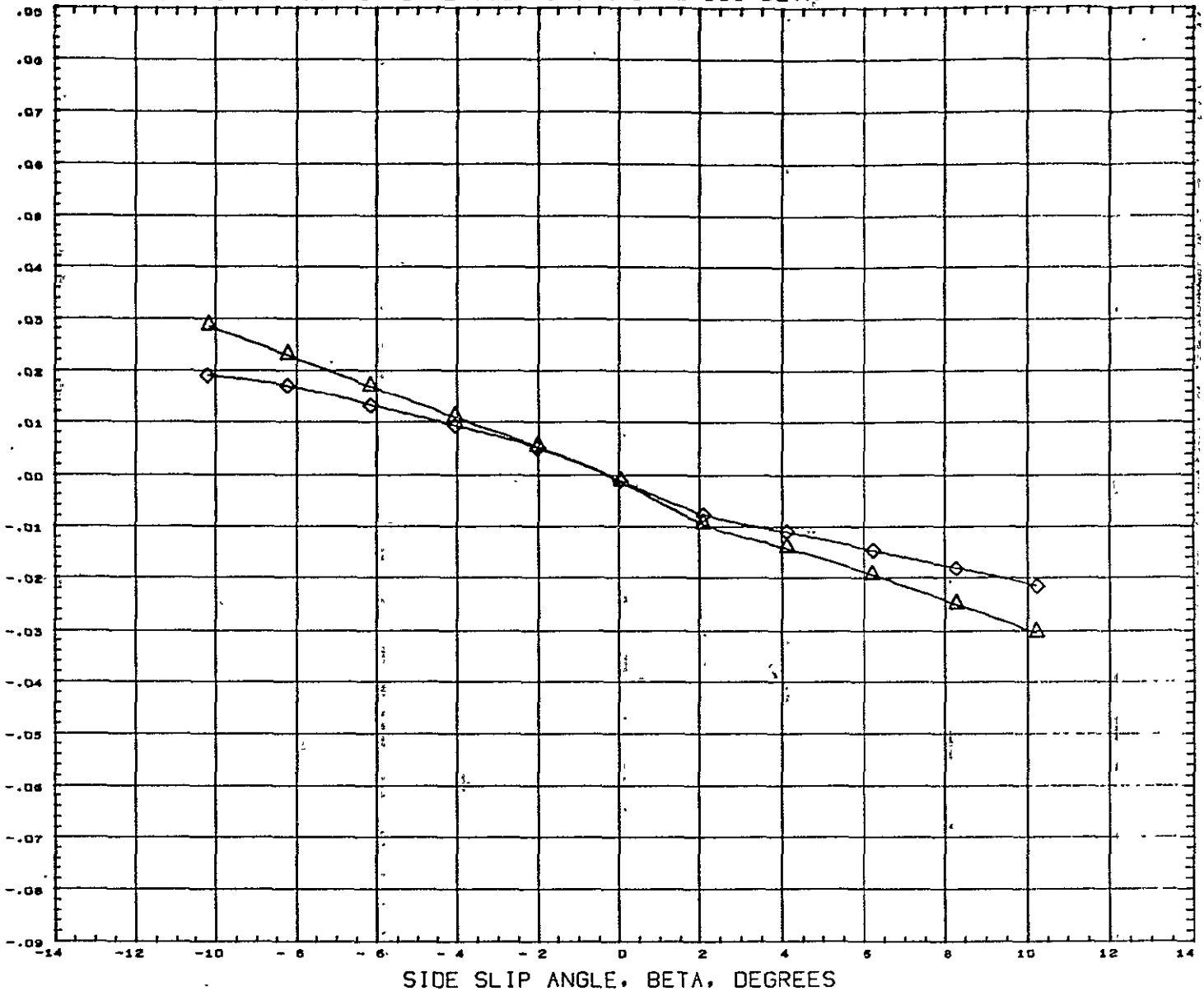
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7
(F28Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
15.000	0.000	0.000	0.000	LREF 3.0950 IN.
15.000	0.000	0.000	0.000	BREF 6.0990 IN.
35.000	0.000	0.000	0.000	XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 1.101

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)

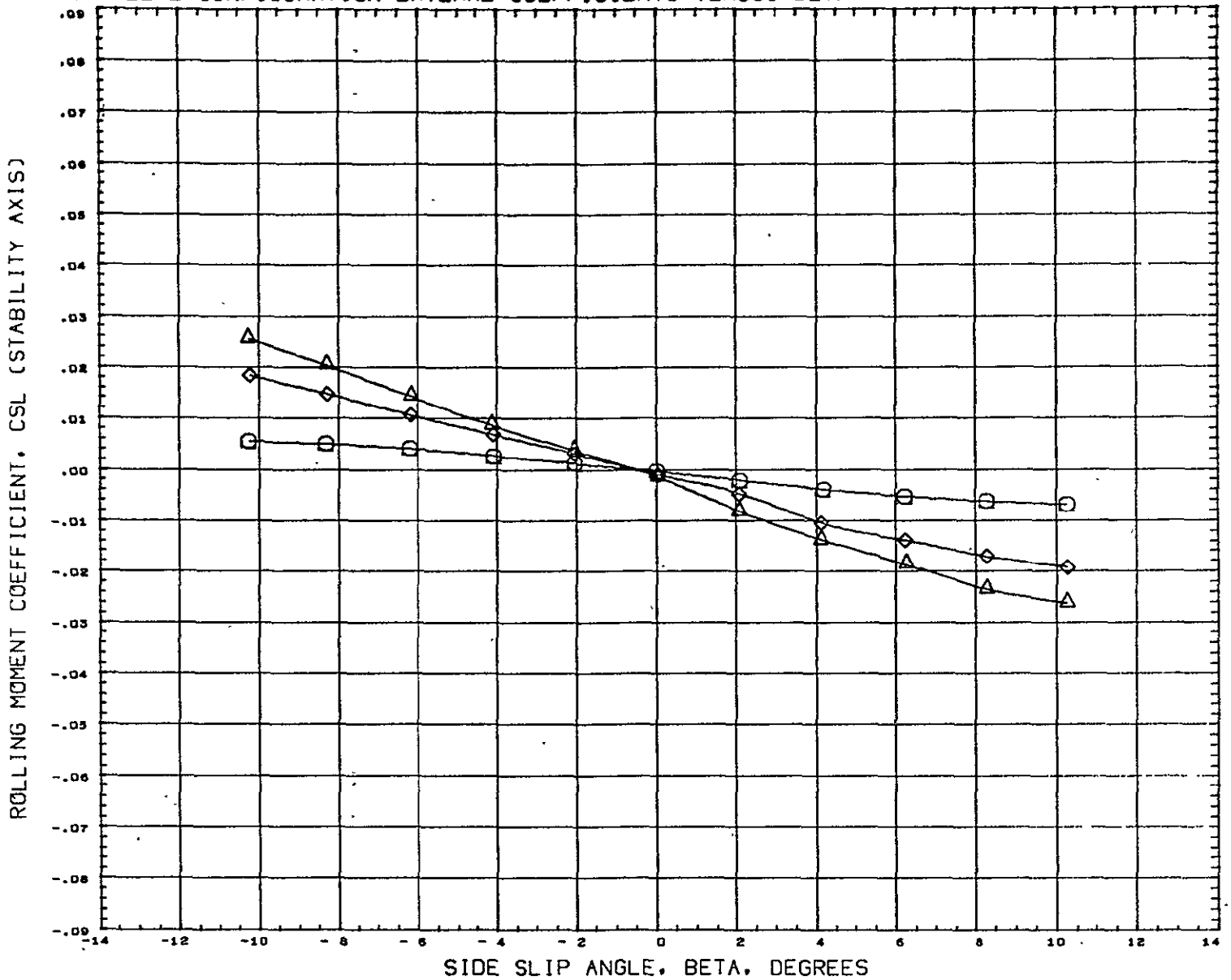


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y33)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF	15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F28Y31)	MSFC482 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF	6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0033

MACH 1.202

21 ⊕

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

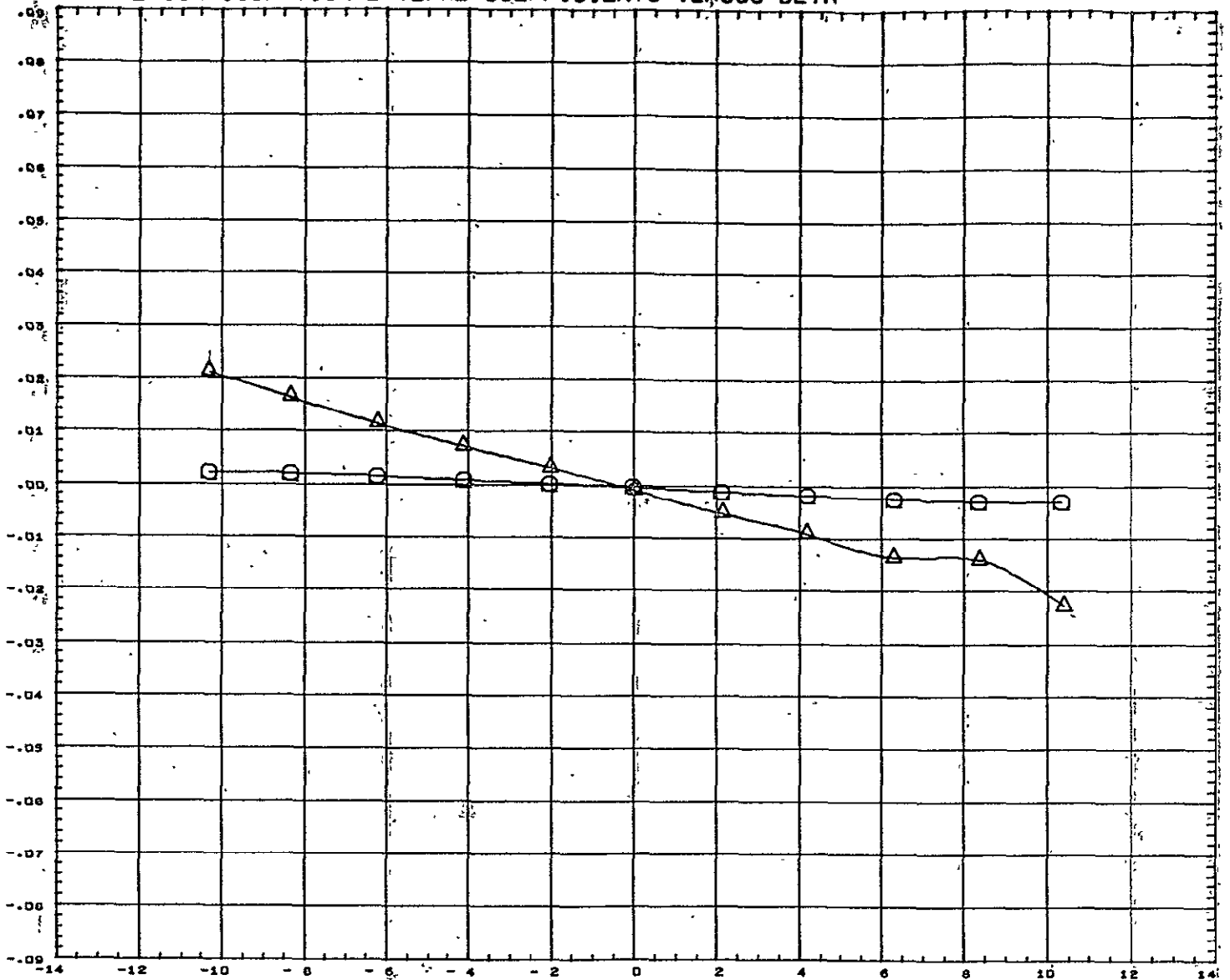


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.481

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

ROLLING MOMENT COEFFICIENT, C_{SR} (STABILITY AXIS)



SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y33)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7
(F28Y21)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7
(F28Y31)	MSFC 481 GD/C(BOOSTER) B19W14C4A
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS

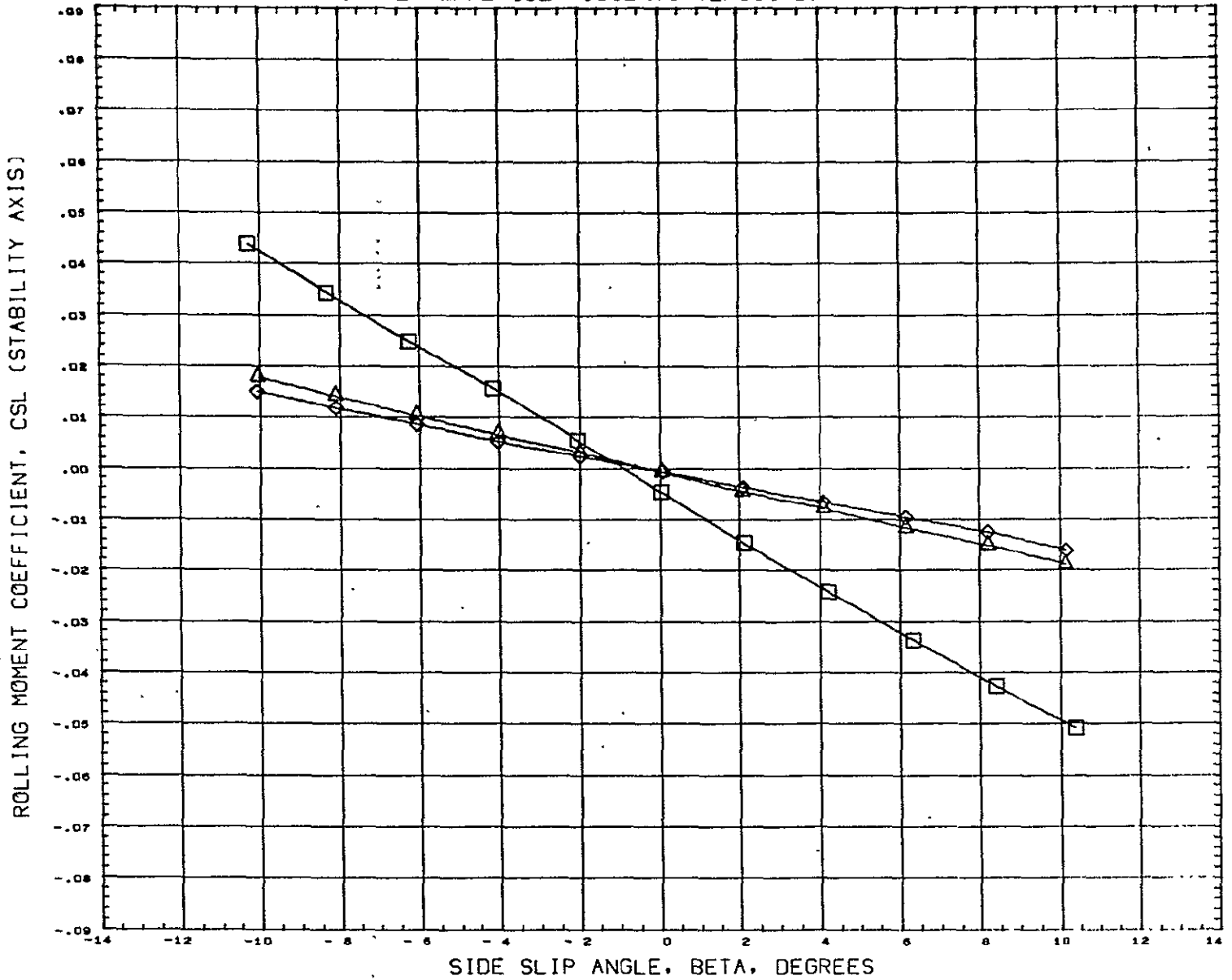
ALPHA	CANARD	ELEVON
0.000	0.000	0.000
15.000	0.000	0.000
15.000	0.000	0.000
35.000	0.000	0.000

RUDDER
0.000

REFERENCE INFORMATION	
SREF	15.6560 SQ. IN.
LREF	3.0990 IN.
BREF	6.0990 IN.
XMRP	6.7100 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0035

MACH 1.956

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

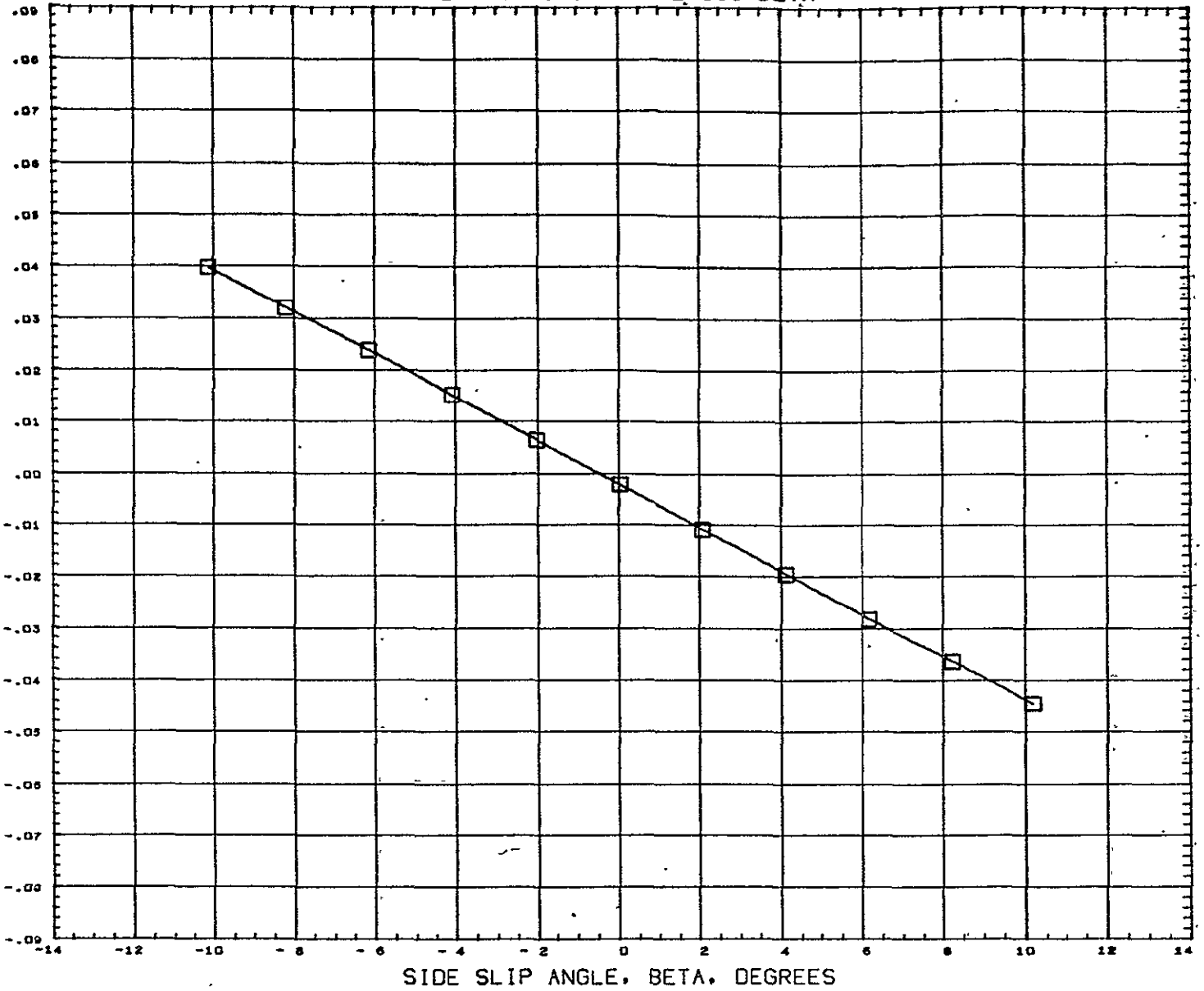


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	△	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	◇	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	□	MSFC481 GD/C(BOOSTER)B19W14C4A	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 2.990

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

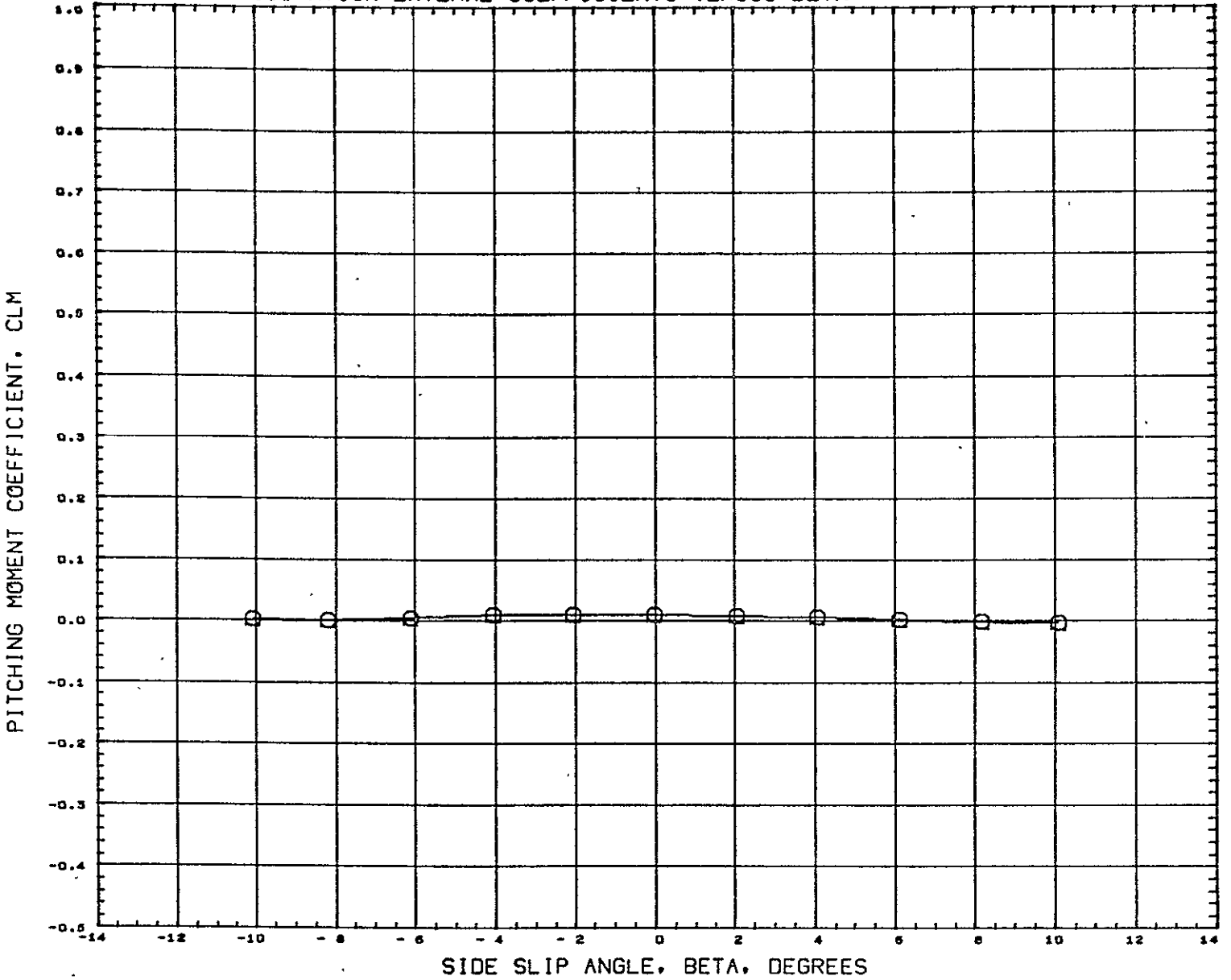
ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F26Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F26Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F26Y41)	H5FC461 GD/C(BOOSTER)B19W14C4A	35.000	0.000	0.000		XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 4.950

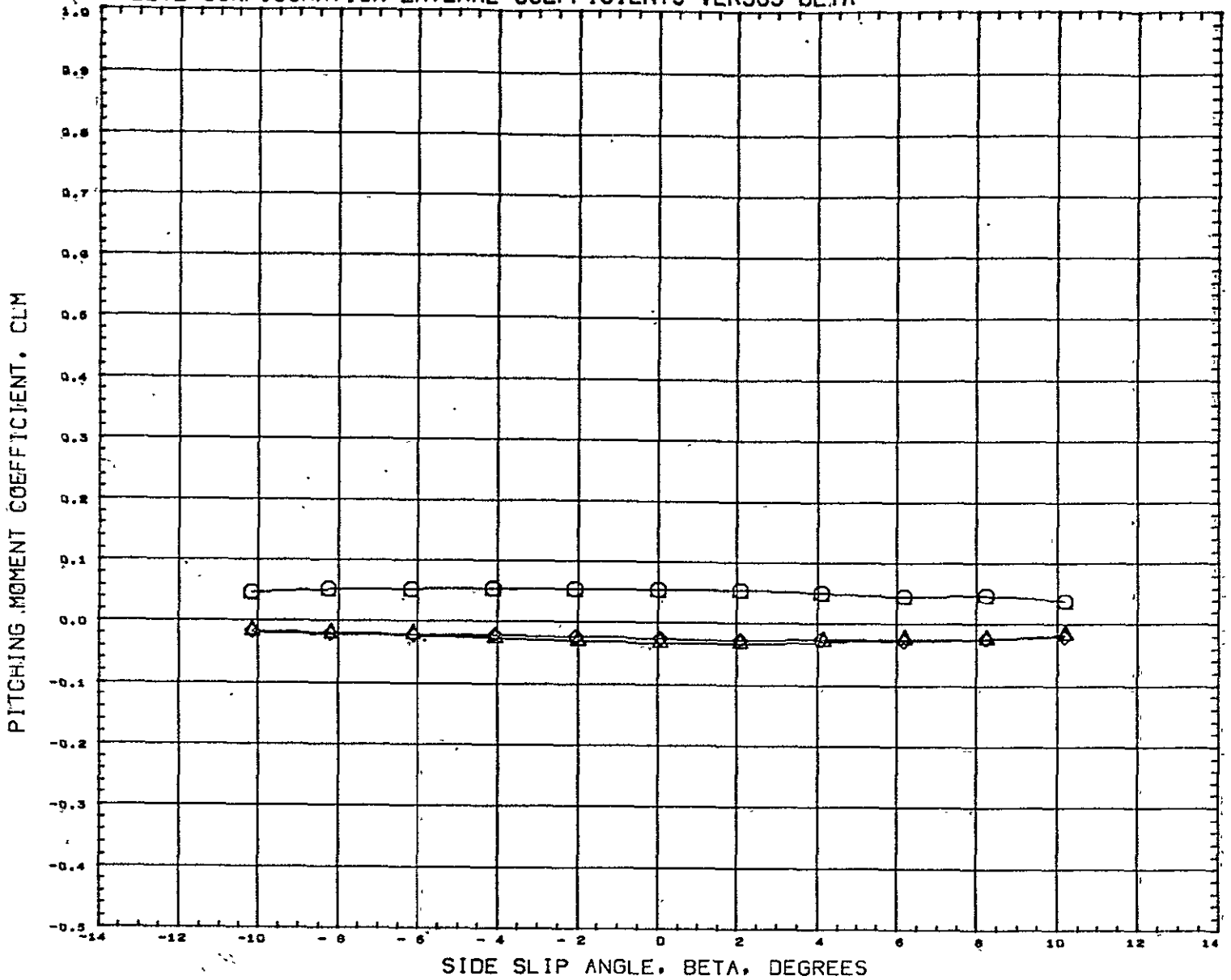
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6500 SQ.IN.
(F28Y21)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.607

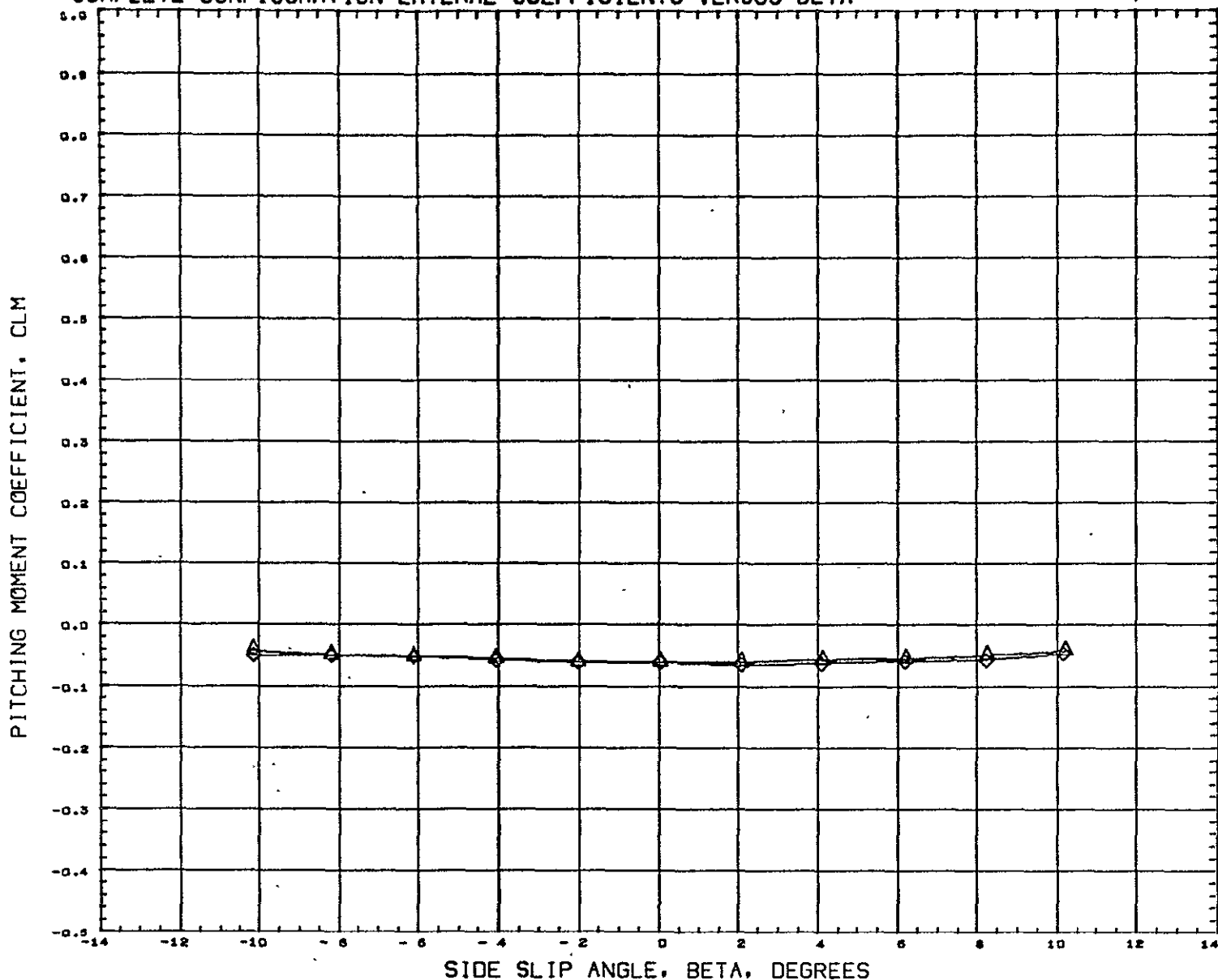
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F20Y53)	MSFC 401 GD/C(BOOSTER)B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 30. IN.
(F20Y21)	MSFC401 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F20Y31)	MSFC401 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F20Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.904

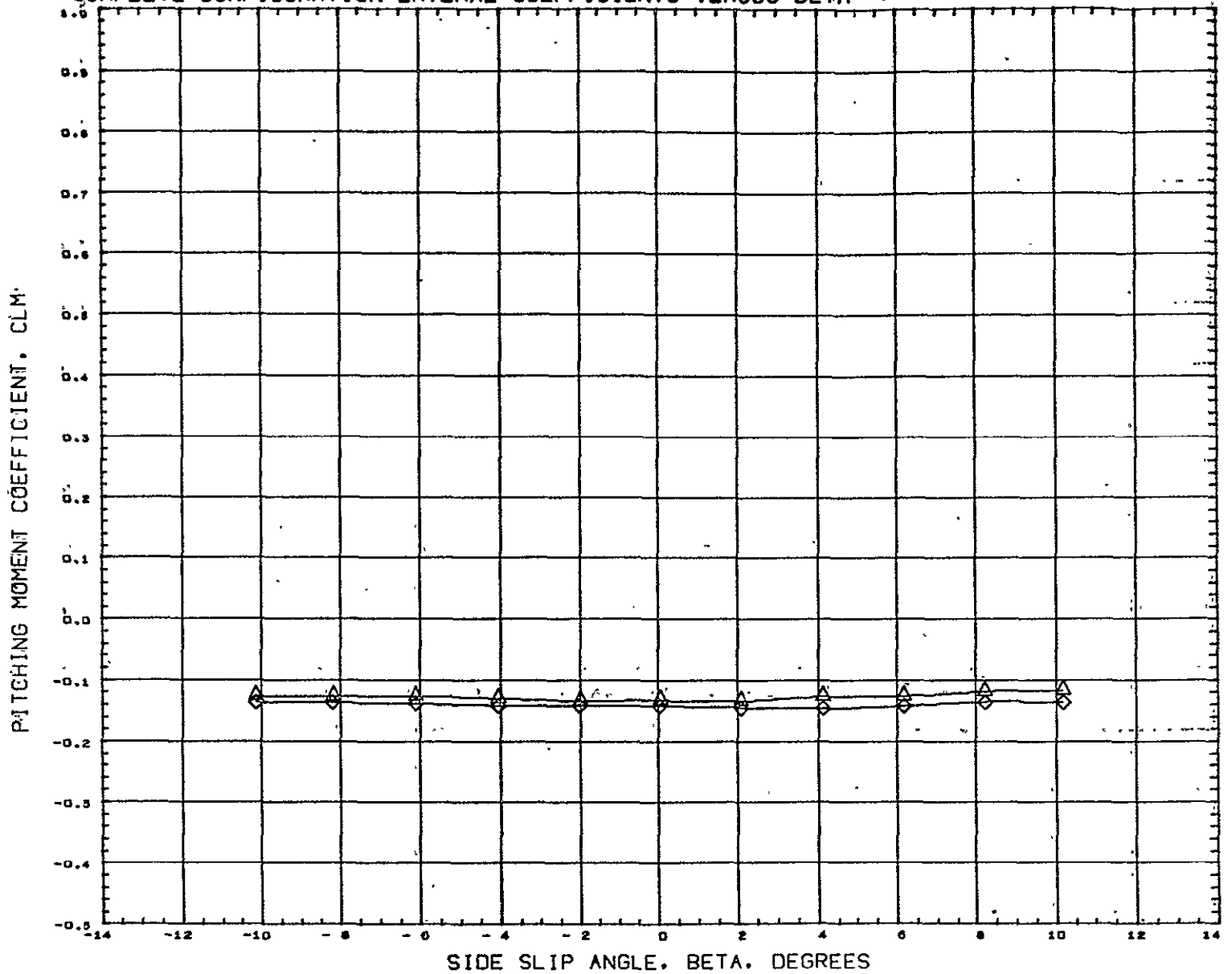
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6580 SQ. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

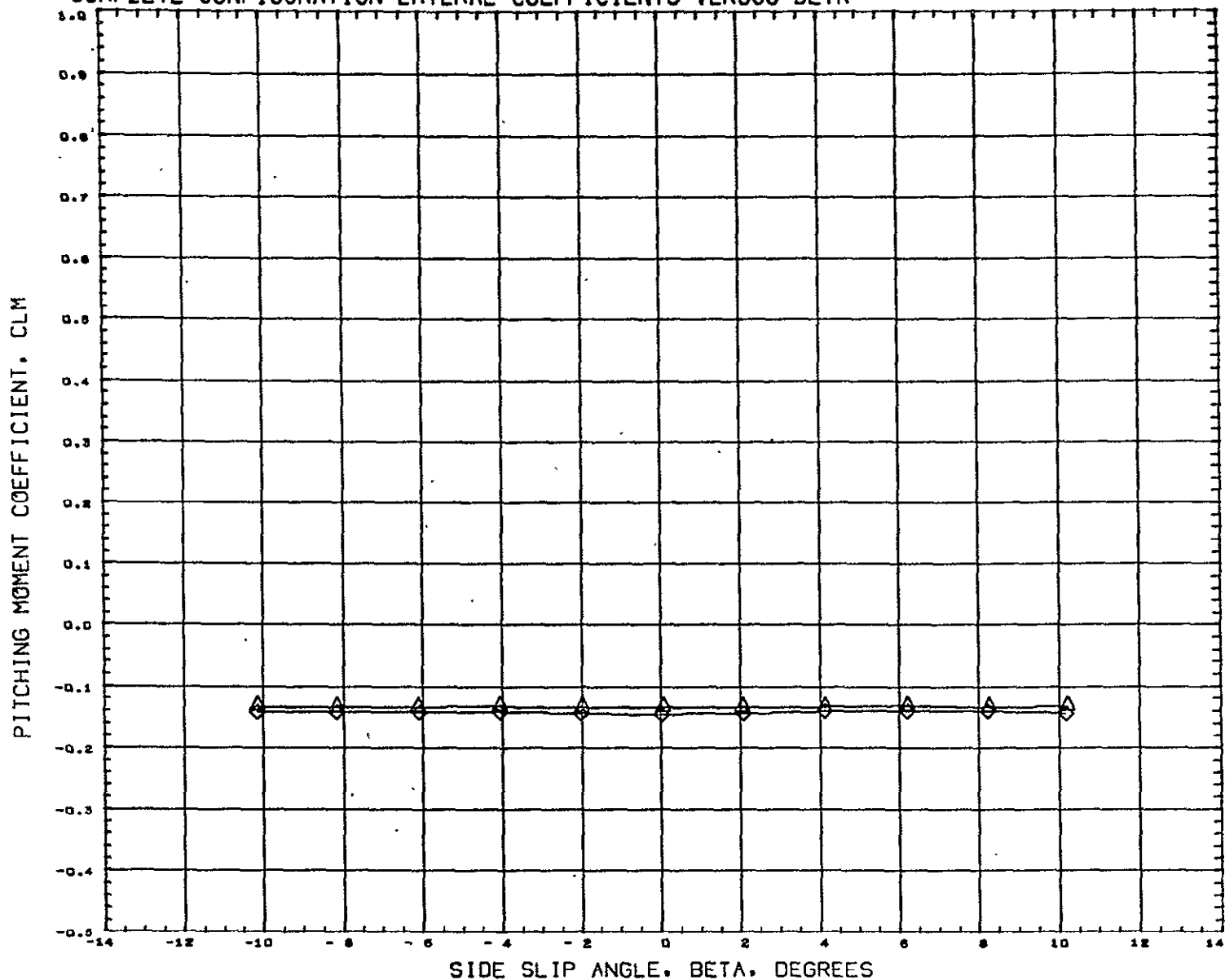
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F26Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F26Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F26Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 0.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.000

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

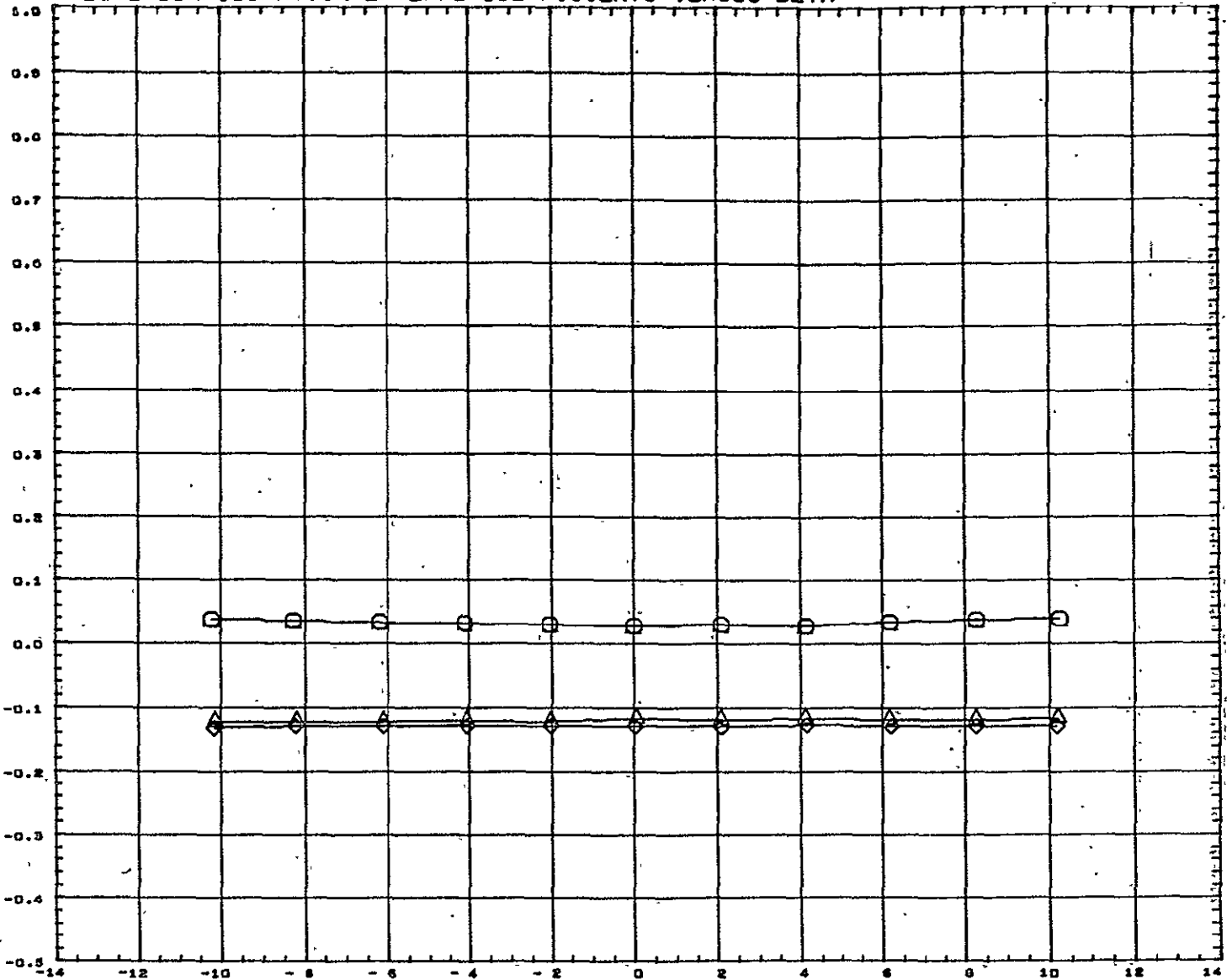


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y33)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YNRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA

PITCHING MOMENT COEFFICIENT, CLM

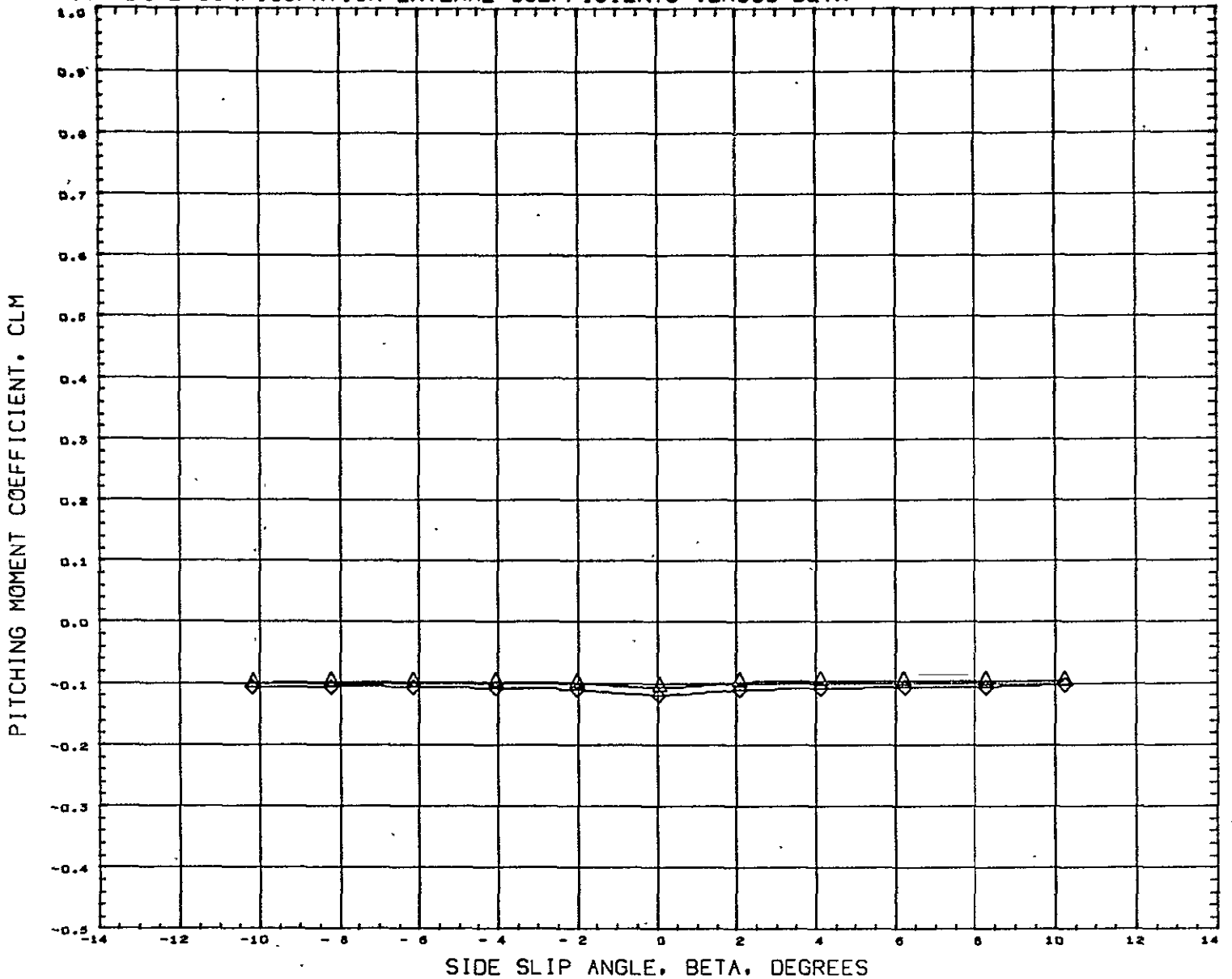


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C (BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 59. IN.
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y42)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.101

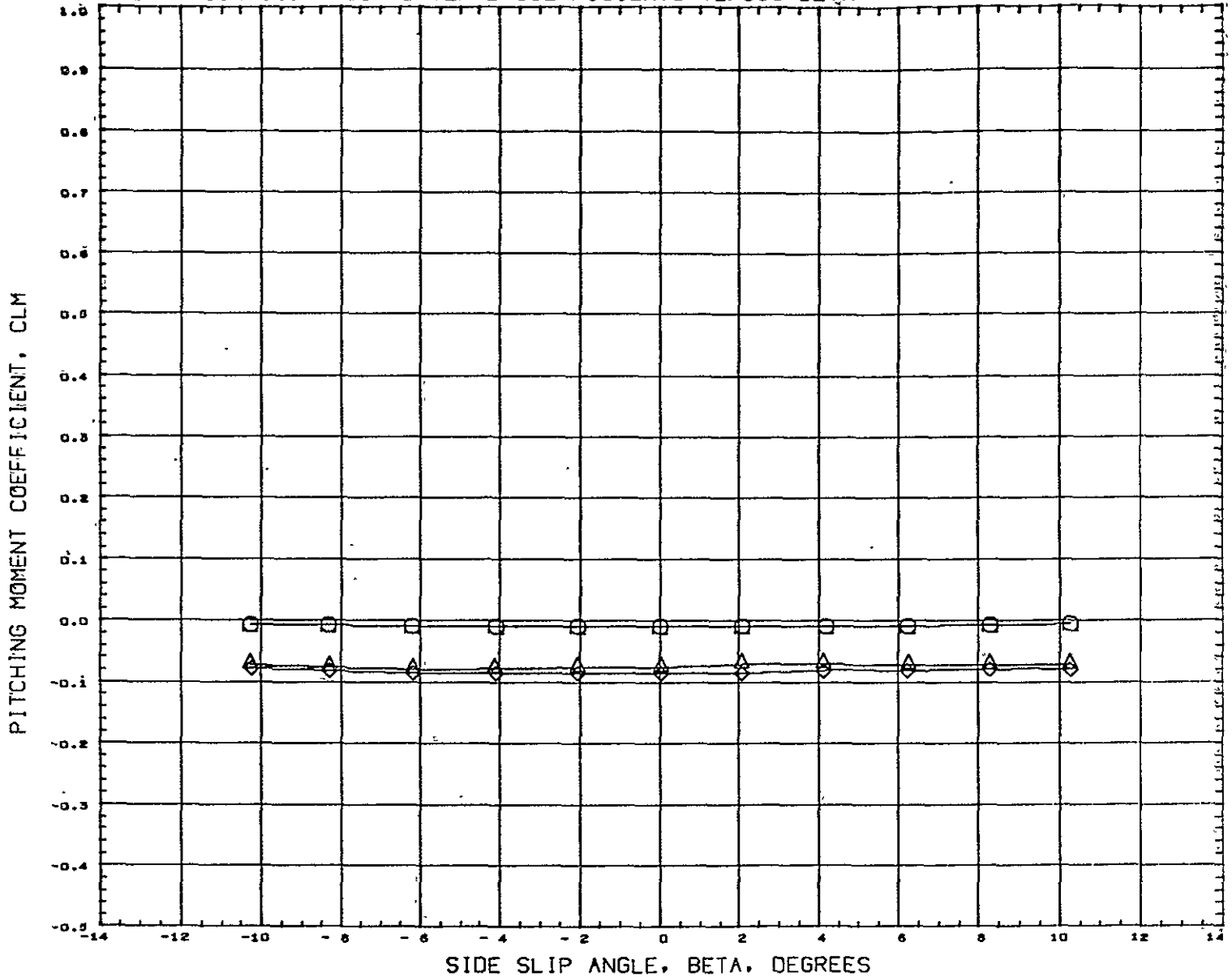
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER)B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.202

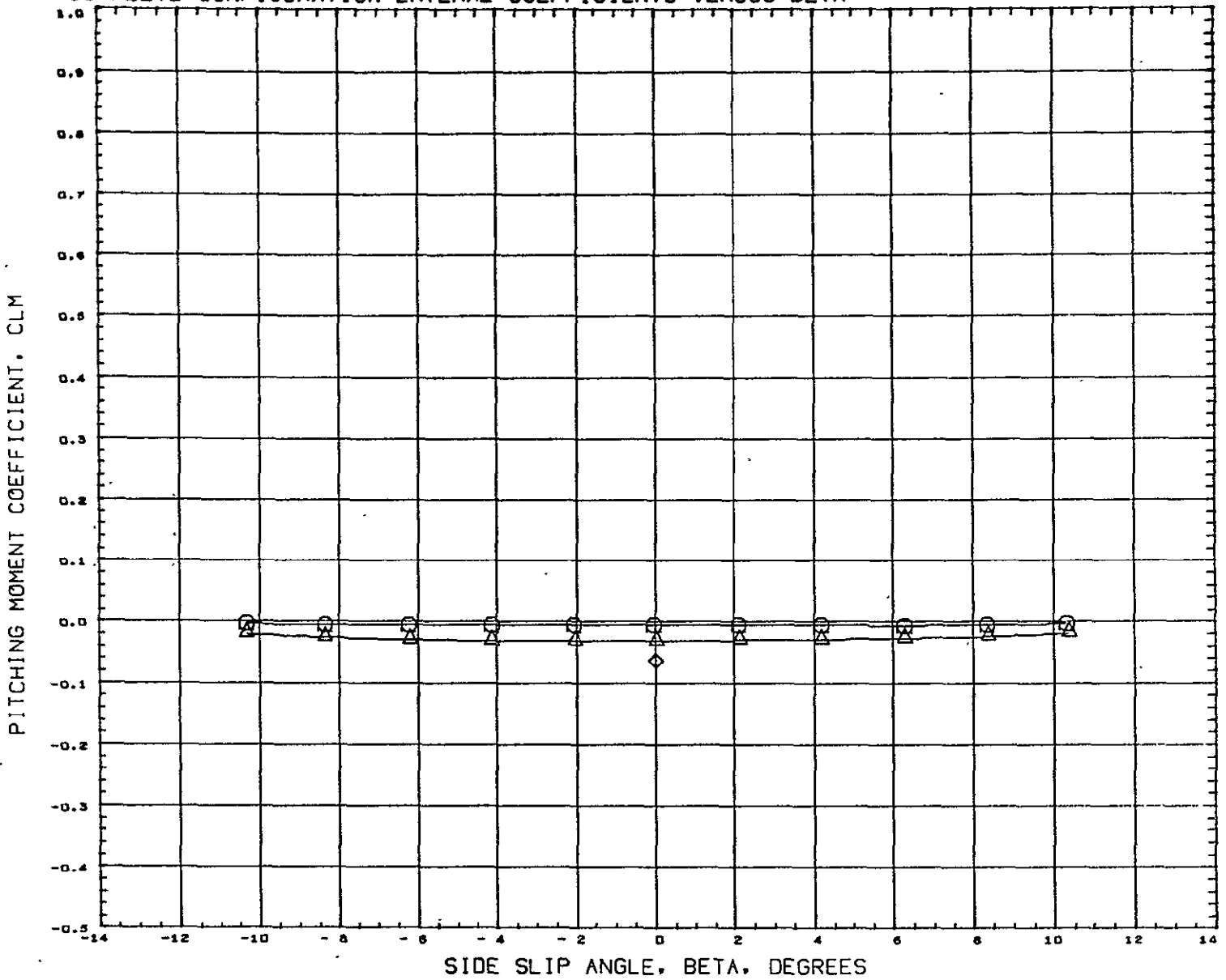
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 SQ. IN.
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F28Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F28Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0:0035

MACH 1.461

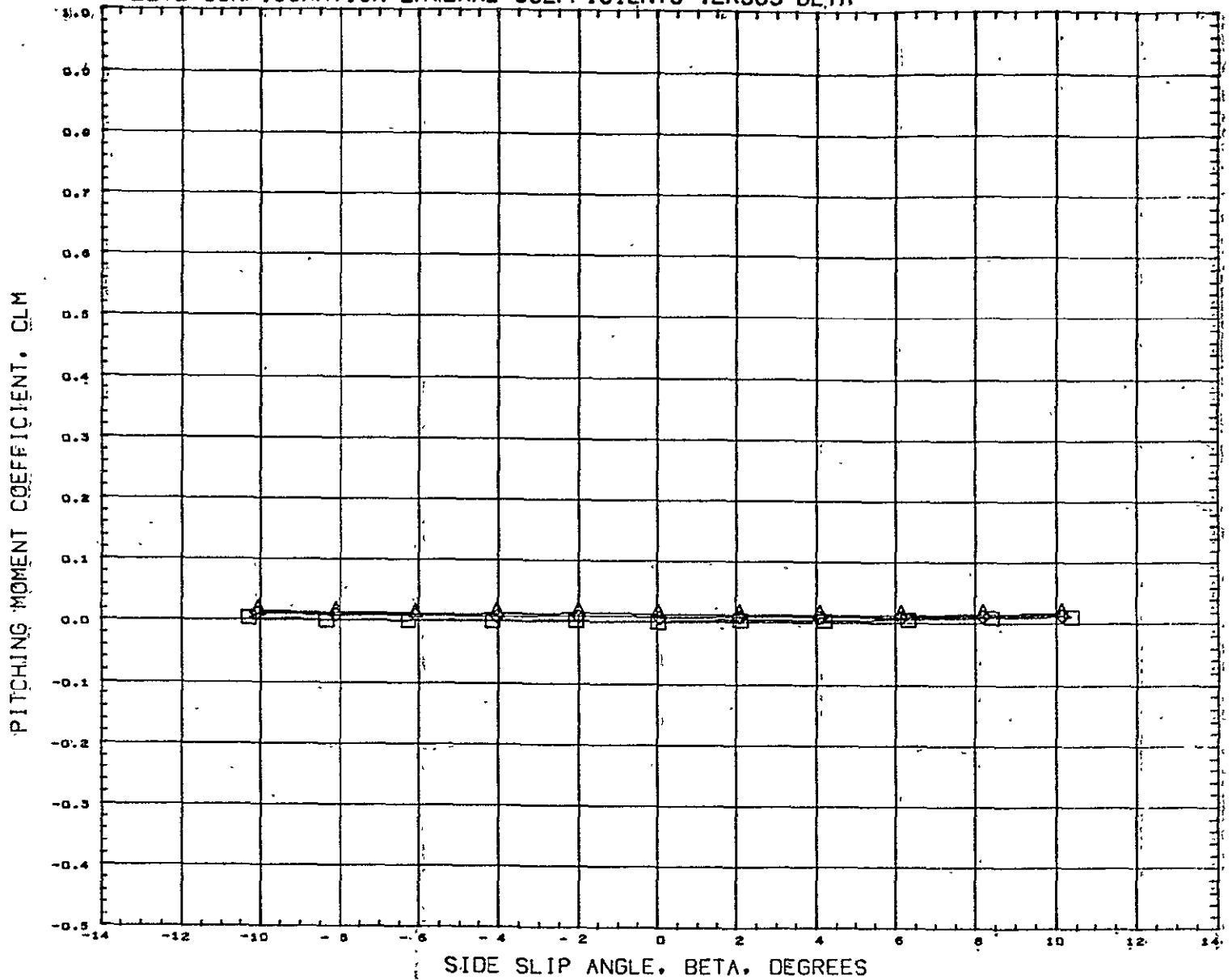
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y53)	MSFC 481 GD/C(BOOSTER) B19W14C4AV7	0.000	0.000	0.000		SREF 15.6560 Sq. IN.
(F26Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	LREF 3.0950 IN.
(F26Y31)	MSFC481 GD/C(BOOSTER) B19W14C4A	15.000	0.000	0.000		BREF 6.0990 IN.
(F26Y41)	DATA NOT AVAILABLE FOR ALL CONDITIONS	35.000	0.000	0.000		XHRP 6.7100 IN. YHRP 0.0000 IN. ZHRP 0.0000 IN. SCALE 0.0035

MACH 1.956

COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



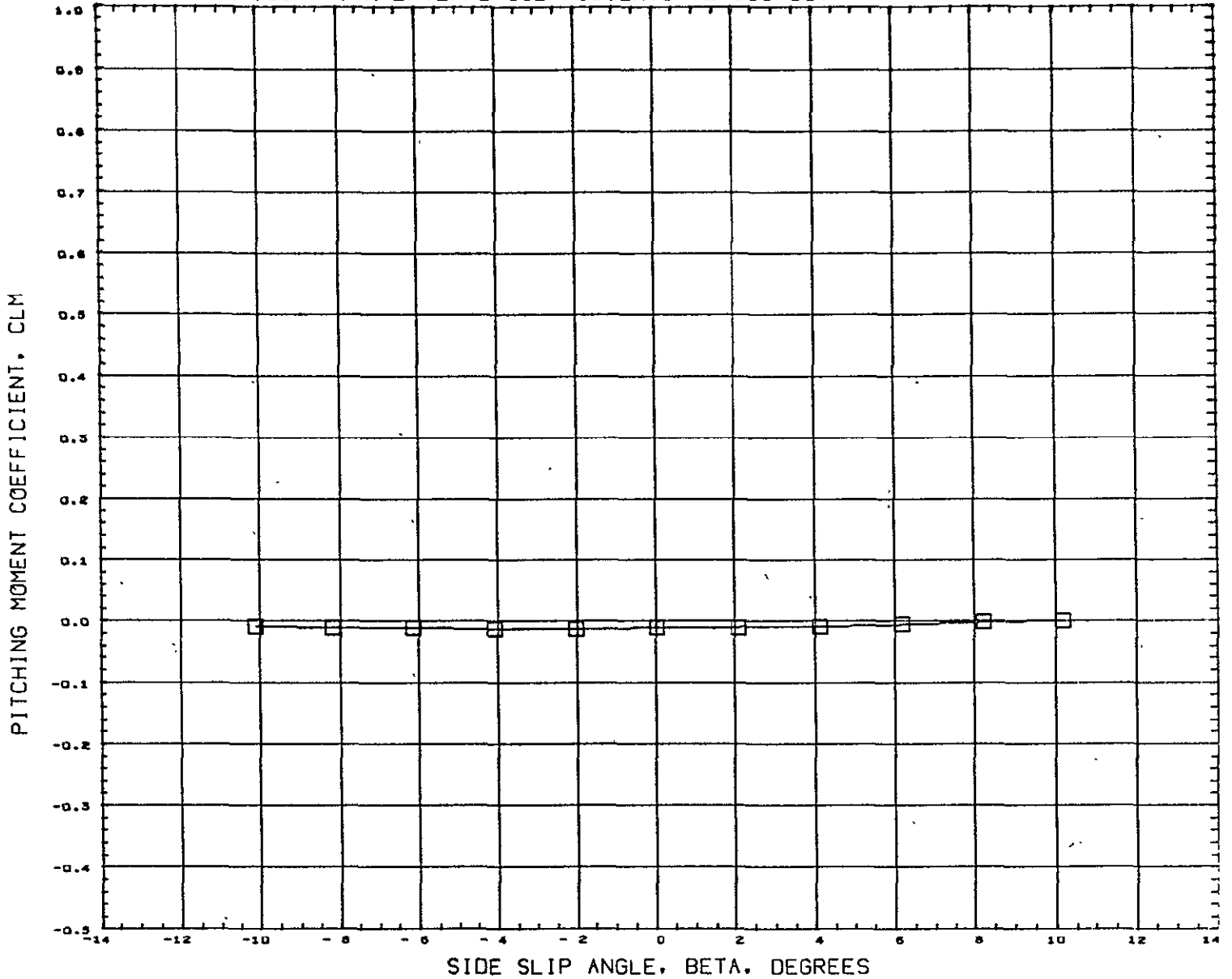
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y53)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4A V7
(F28Y31)	MSFC481 GD/C (BOOSTER) B19W14C4A
(F28Y41)	MSFC481, GD/C (BOOSTER) B19W14C4A

ALPHA	CANARD	ELEVON	RUDDER
0.000	0.000	0.000	0.000
15.000	0.000	0.000	0.000
15.000	0.000	0.000	0.000
35.000	0.000	0.000	0.000

REFERENCE INFORMATION	
SREF	15.6560 SQ. IN.
LREF	3.0950 IN.
BREF	6.0990 IN.
XHRP	6.7100 IN.
YHRP	0.0000 IN.
ZHRP	0.0000 IN.
SCALE	0.0032

MACH 2.990

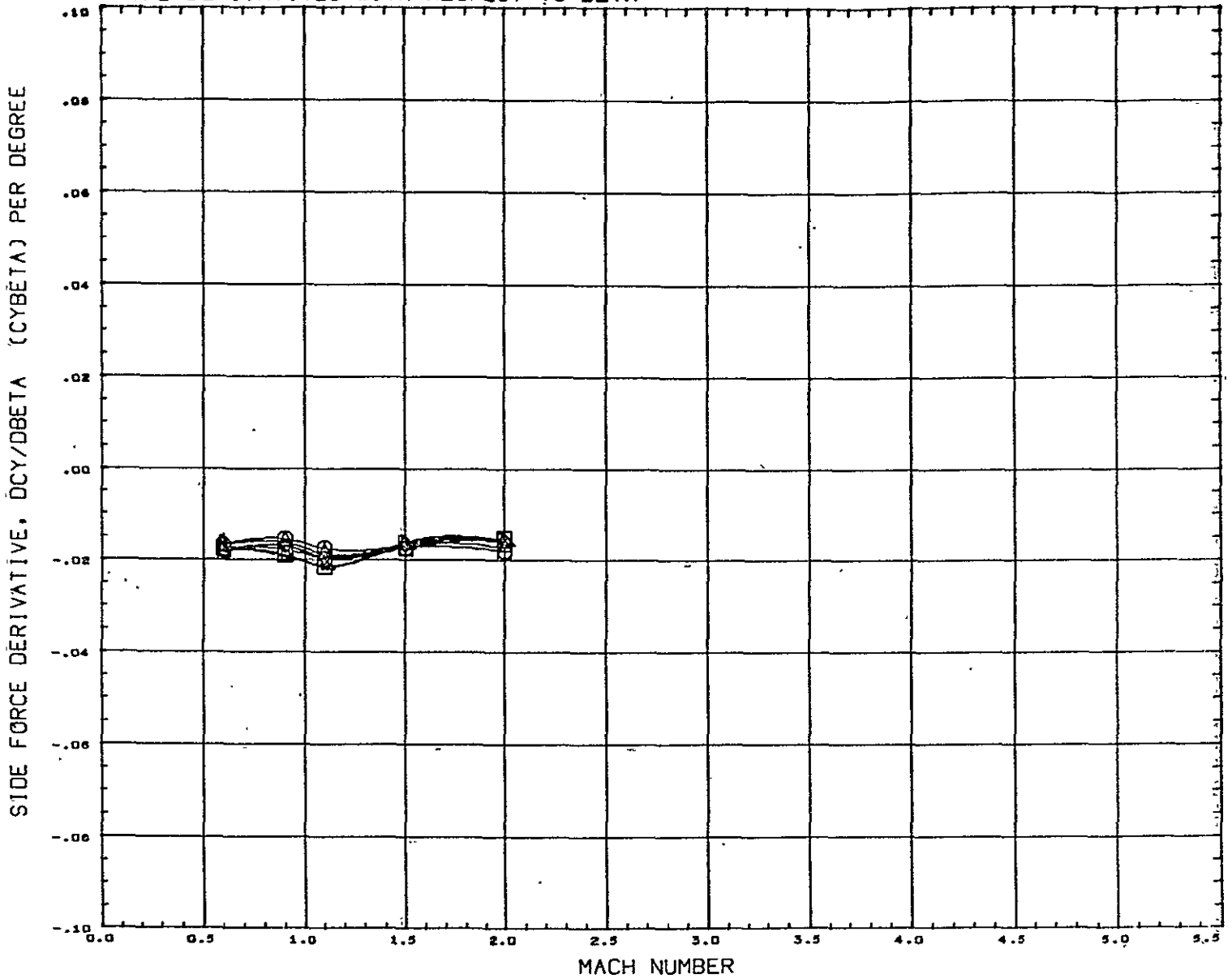
COMPLETE CONFIGURATION LATERAL COEFFICIENTS VERSUS BETA



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y53)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000		SREF	19.6360 SQ. IN.
(F28Y21)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	0.000	LREF	3.0950 IN.
(F28Y31)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000		BREF	6.0990 IN.
(F28Y41)	□	MSFC481 GD/C(BOOSTER)B19W14C4A	35.000	0.000	0.000		XMRP	6.7100 IN.
							YMRP	0.0000 IN.
							ZMRP	0.0000 IN.
							SCALE	0.0035

MACH 4.959

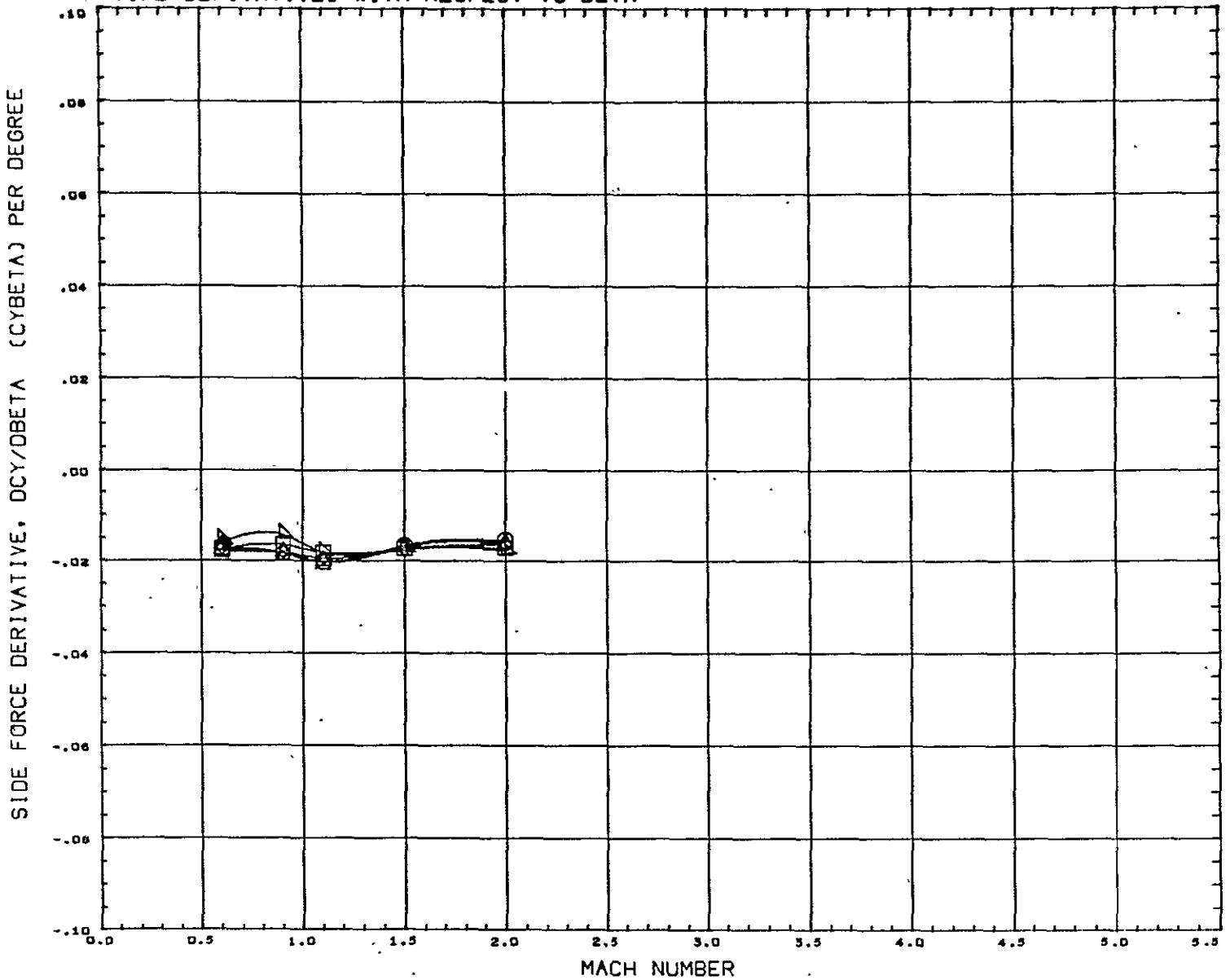
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
○	10.000	ALPHA	0.000	DEL	0.000
◇	8.000	DER	0.000	DCL	0.000
◇	6.000	DCR	0.000	ELEVON	0.000
◇	4.000	CANARD	0.000	AILRON	0.000
◇	2.000				
◇	0.000	DATA HIST. CODE	MVR#EG1		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA

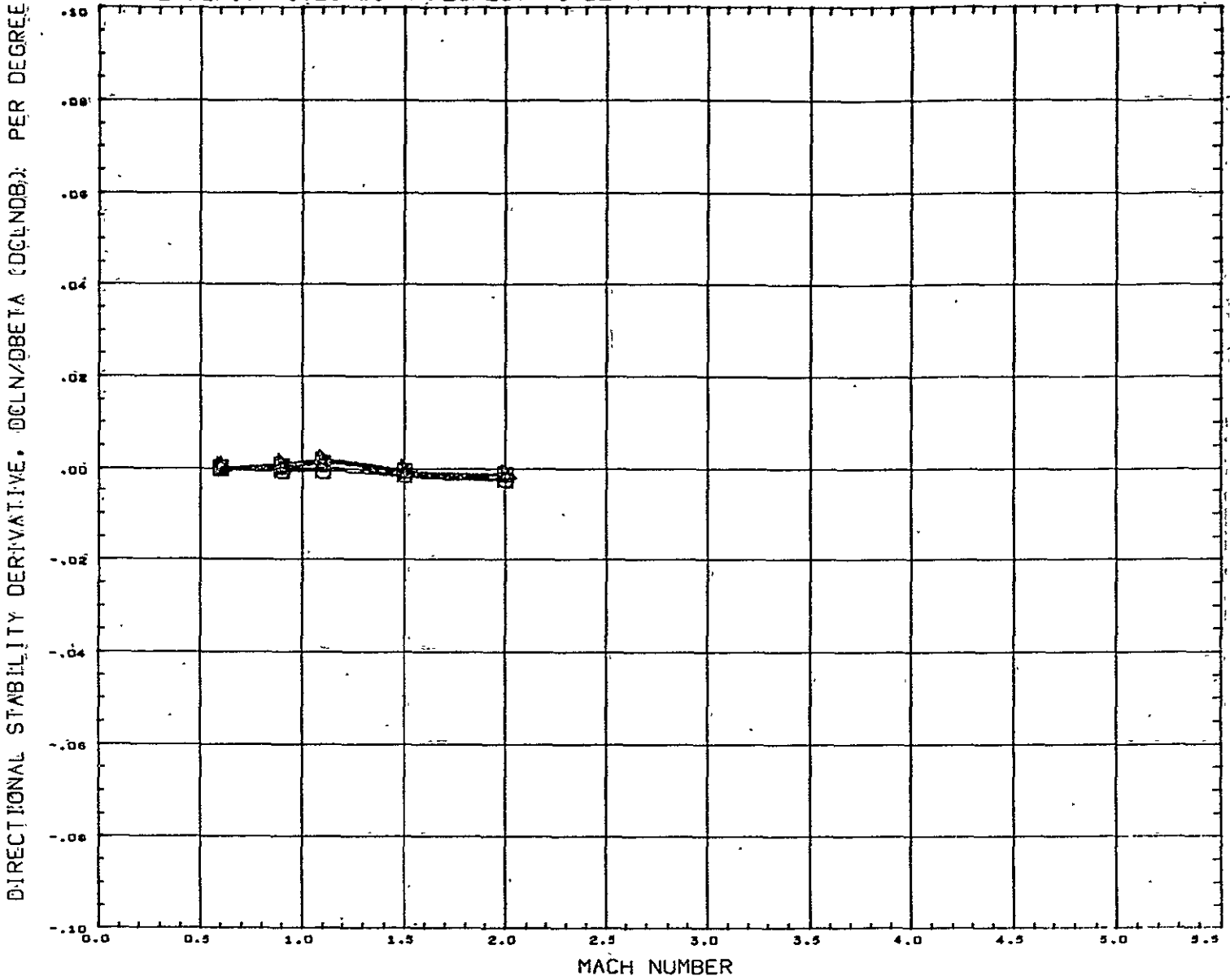


SYMBOL	BETA	PARAMETRIC VALUES			
◇	2.000	ALPHA	0.000	DEL	0.000
◇	4.000	DER	0.000	DCL	0.000
◇	6.000	DCR	0.000	ELEVON	0.000
◇	8.000	CANARD	0.000	AILRON	0.000
◇	10.000				

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
ΔMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#EGI

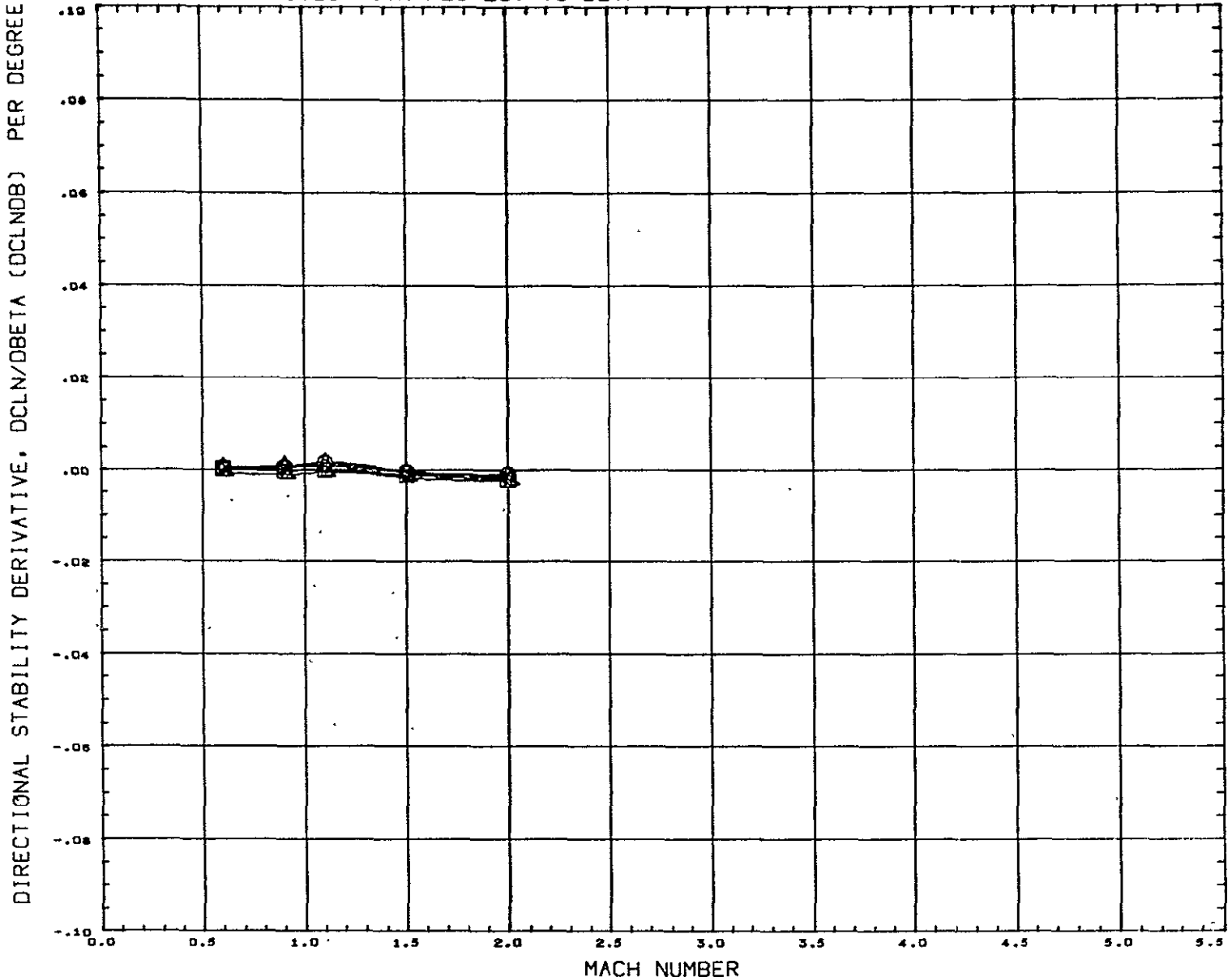
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
□	- 10.000	ALPHA	0.000	DEL	0.000
◇	- 8.000	DER	0.000	DCL	0.000
◇	- 6.000	DCR	0.000	ELEVON	0.000
◇	- 4.000	CANARD	0.000	AILRON	0.000
◇	- 2.000				
◇	0.000	DATA HIST. CODE	MVR#EG1		

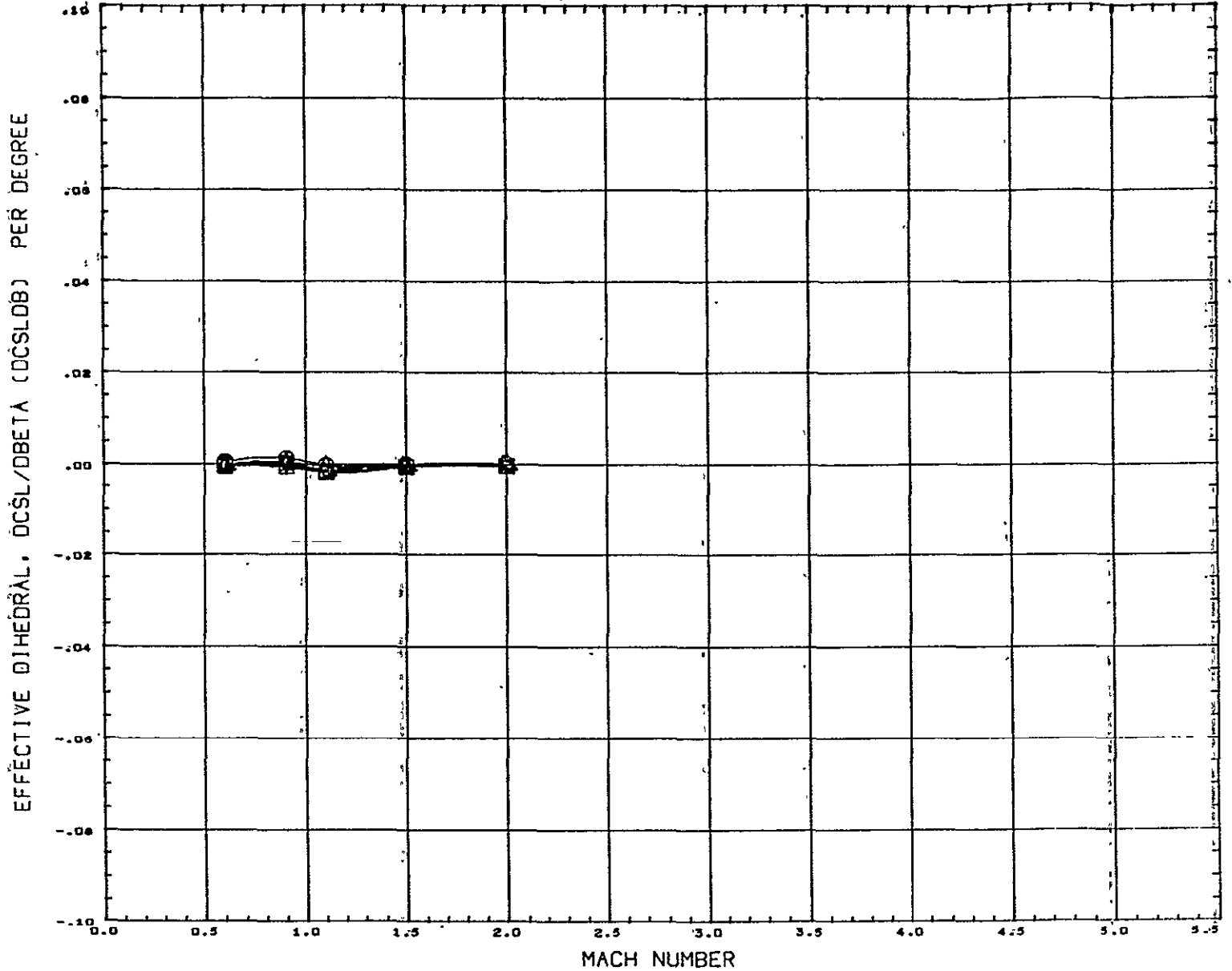
REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES				REFERENCE INFORMATION		
□	2.000	ALPHA	0.000	DEL	0.000	SREF	15.6560	50. IN.
◇	4.000	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	6.000	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
◇	8.000	CANARD	0.000	AILRON	0.000	XMRP	6.7100	IN.
◇	10.000					YMRP	0.0000	IN.
						ZMRP	0.0000	IN.
						SCALE	0.0035	
		DATA HIST. CODE	MVR*EG1					

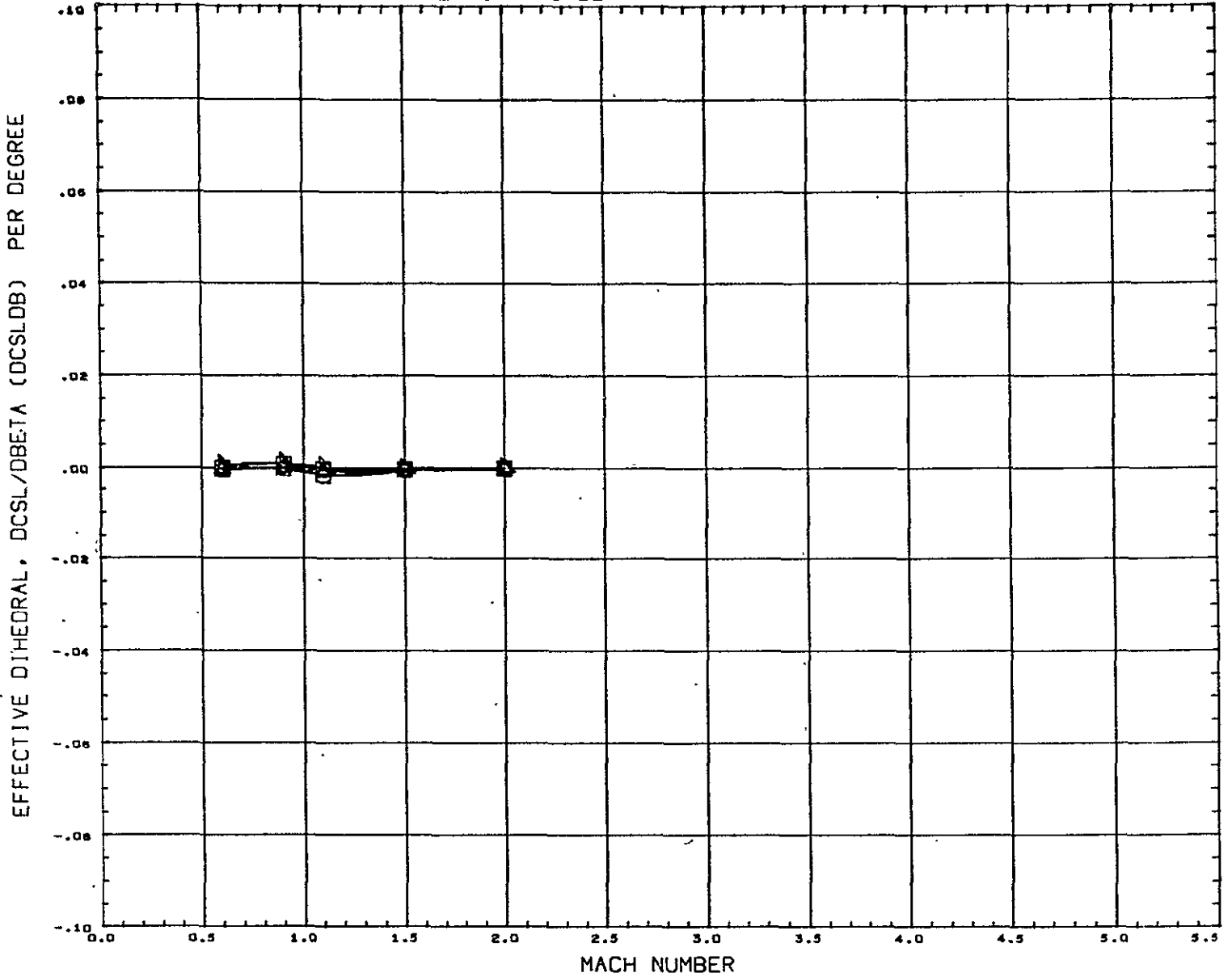
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
○	10.000	ALPHA	0.000	DEL	0.000
○	6.000	DER	0.000	DCL	0.000
○	6.000	DCR	0.000	ELEVON	0.000
○	4.000	CANARD	0.000	AILRON	0.000
○	2.000				
○	0.000	DATA HIST. CODE	HVR#EGI		

REFERENCE INFORMATION		
SREF	15.6560	30 IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA

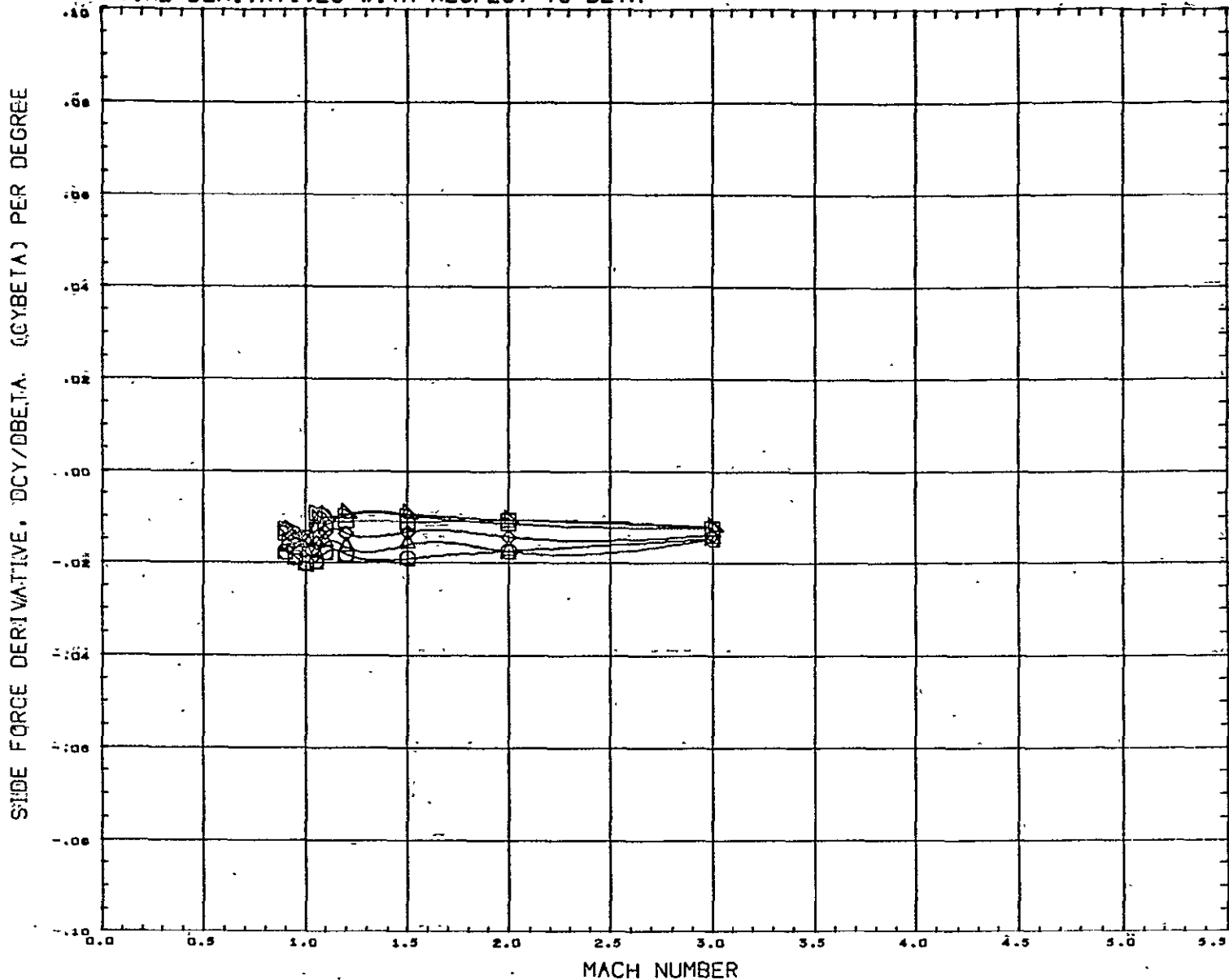


SYMBOL	BETA	PARAMETRIC VALUES			
□	2.000	ALPHA	0.000	DEL	0.000
◇	4.000	DER	0.000	DCL	0.000
△	6.000	DCR	0.000	ELEVON	0.000
○	8.000	CANARD	0.000	AILRON	0.000
◇	10.000				

DATA HIST. CODE NVR#EG1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0930	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA

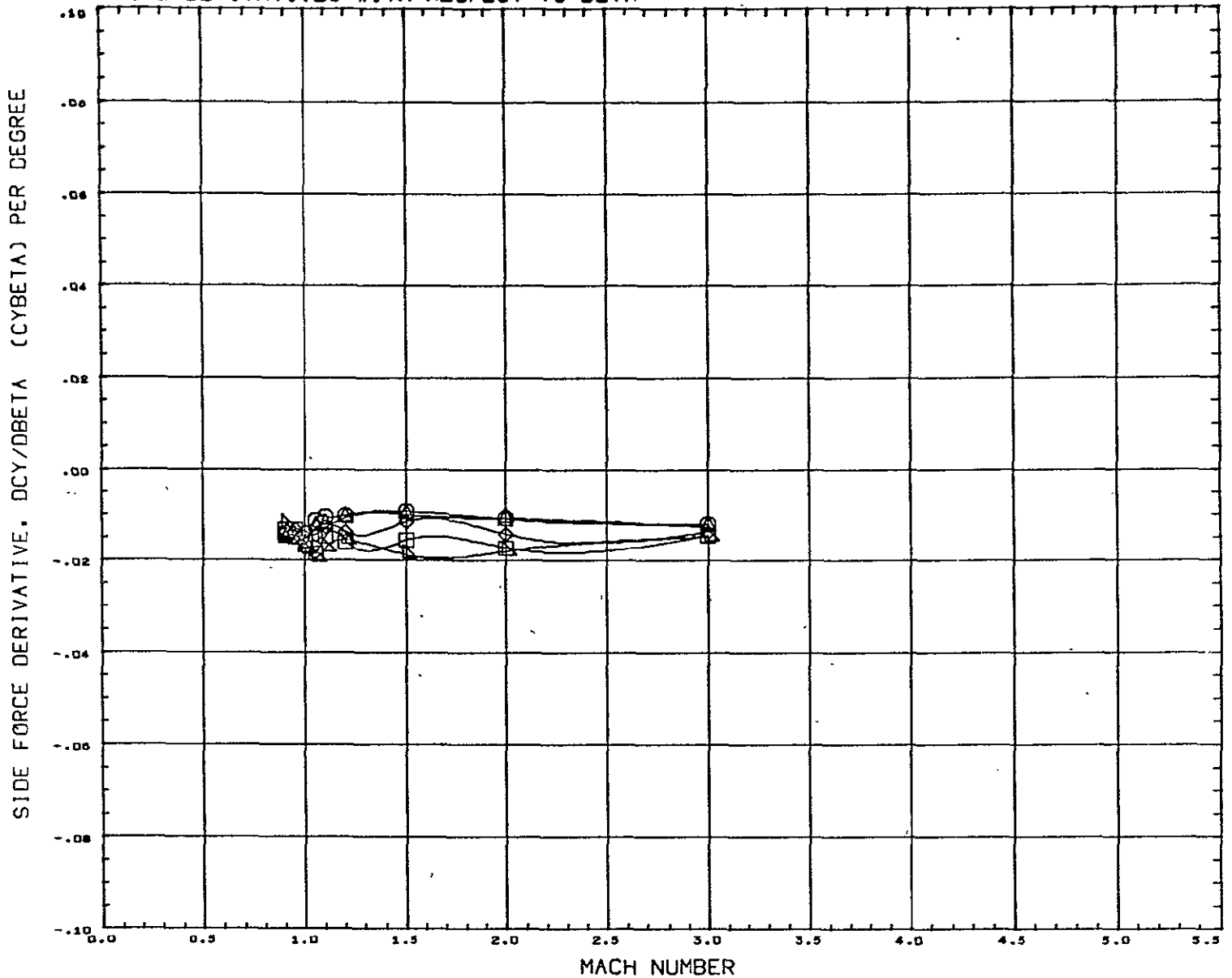


SYMBOL	BETA	PARAMETRIC VALUES
○	10.000	ALPHA 15.000 DEL 0.000
◇	8.000	DER 0.000 DCL 0.000
◇	6.000	DCR 0.000 ELEVON 0.000
◇	4.000	CANARD 0.000 RÜDDER 0.000
◇	2.000	AILRON 0.000
◇	0.000	DATA HIST. CODE MVR#EGI

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

MSFC481 GD/C(BOOSTER)B19W14C4AV7

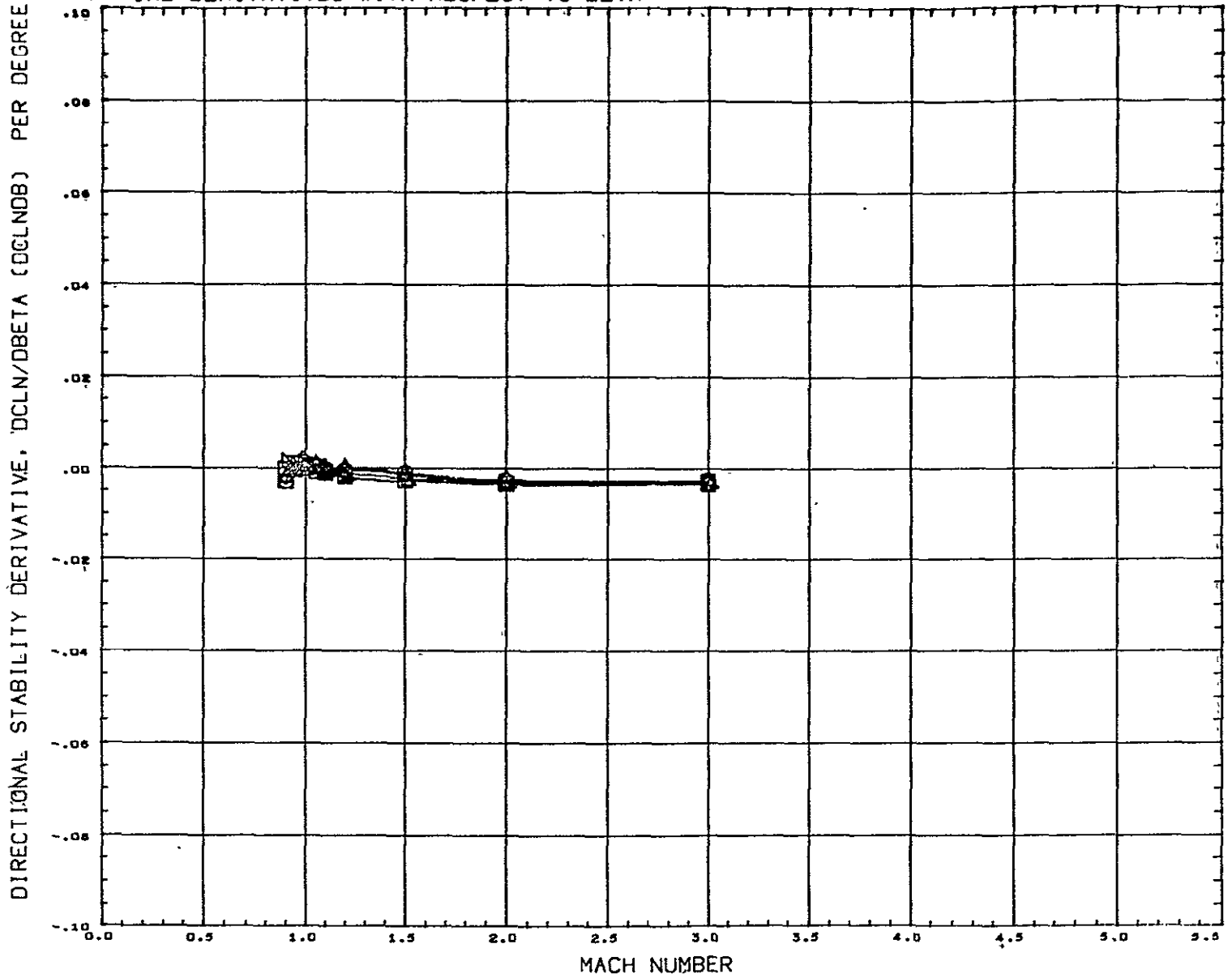
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
○	2.000	ALPHA	15.000	DEL	0.000
◇	4.000	DER	0.000	DCL	0.000
△	6.000	DCR	0.000	ELEVON	0.000
□	8.000	CANARD	0.000	RUDDER	0.000
◇	10.000	AILRON	0.000		
		DATA HIST. CODE	MVR*EG1		

REFERENCE INFORMATION		
SREF	15.6360	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

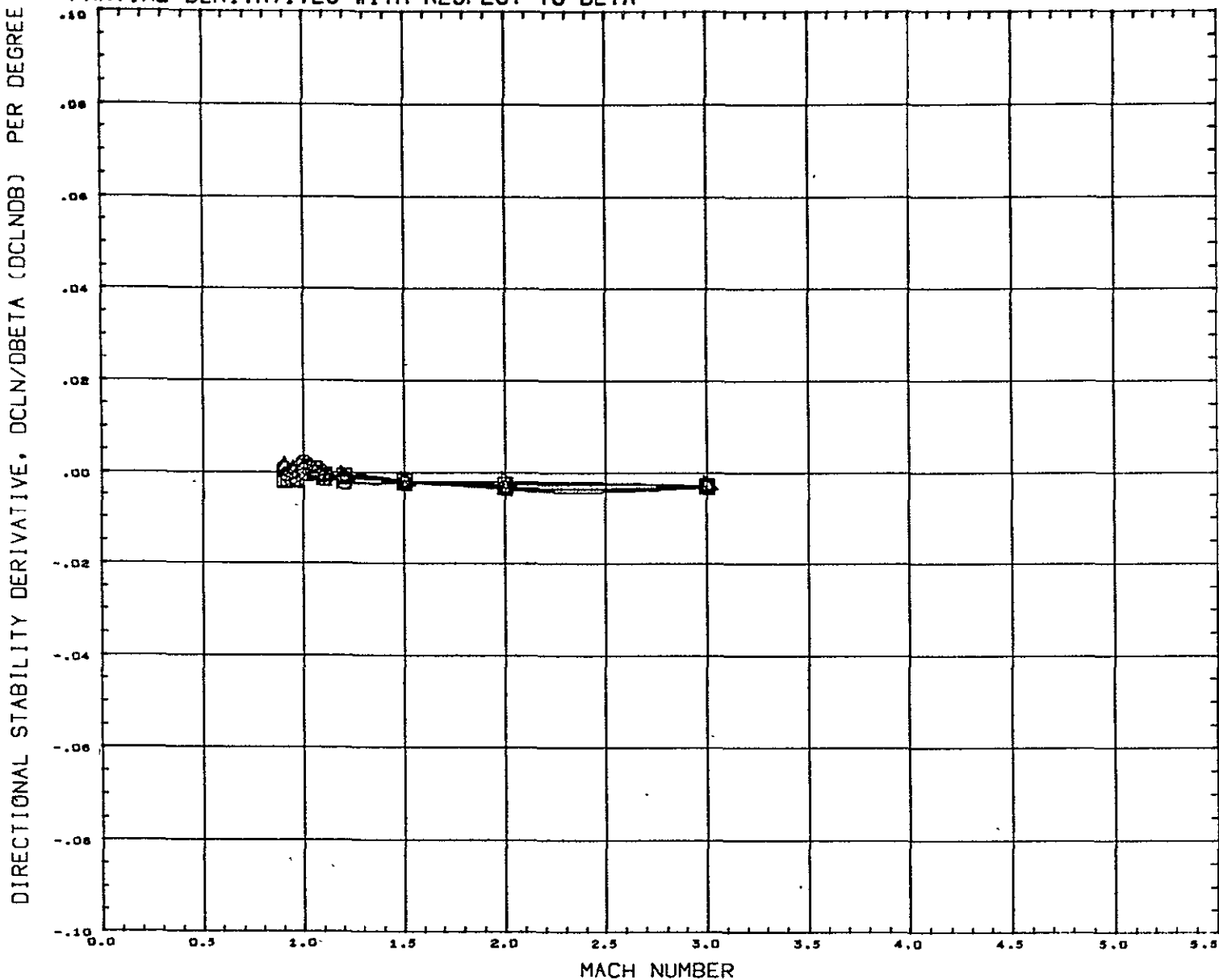
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
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△	8.000	DER	0.000	DCL	0.000
□	6.000	DCR	0.000	ELEVON	0.000
◇	4.000	CANARD	0.000	RUDDER	0.000
△	2.000	AILRON	0.000		
◇	0.000	DATA HIST. CODE	MVR*EG1		

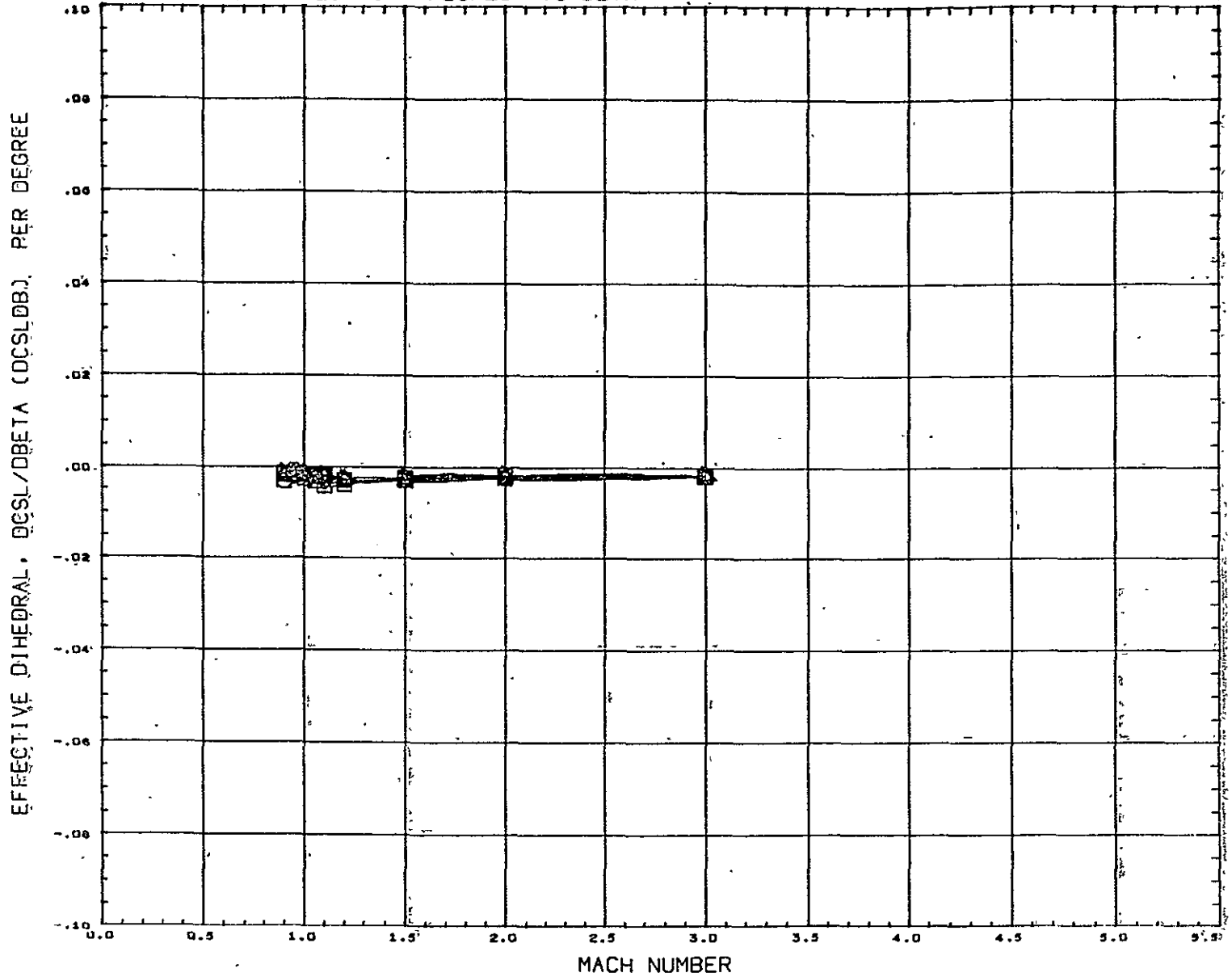
REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES				REFERENCE INFORMATION		
◇	2.000	ALPHA	15.000	DEL	0.000	SREF	15.6560	30. IN.
◇	4.000	DER	0.000	DCL	0.000	LREF	3.0990	IN.
◇	6.000	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
◇	8.000	CANARD	0.000	RUDDER	0.000	XMRP	6.7100	IN.
◇	10.000	AILRON	0.000			YMRP	0.0000	IN.
		DATA HIST. CODE	HVR#EG1			ZMRP	0.0000	IN.
						SCALE	0.0035	

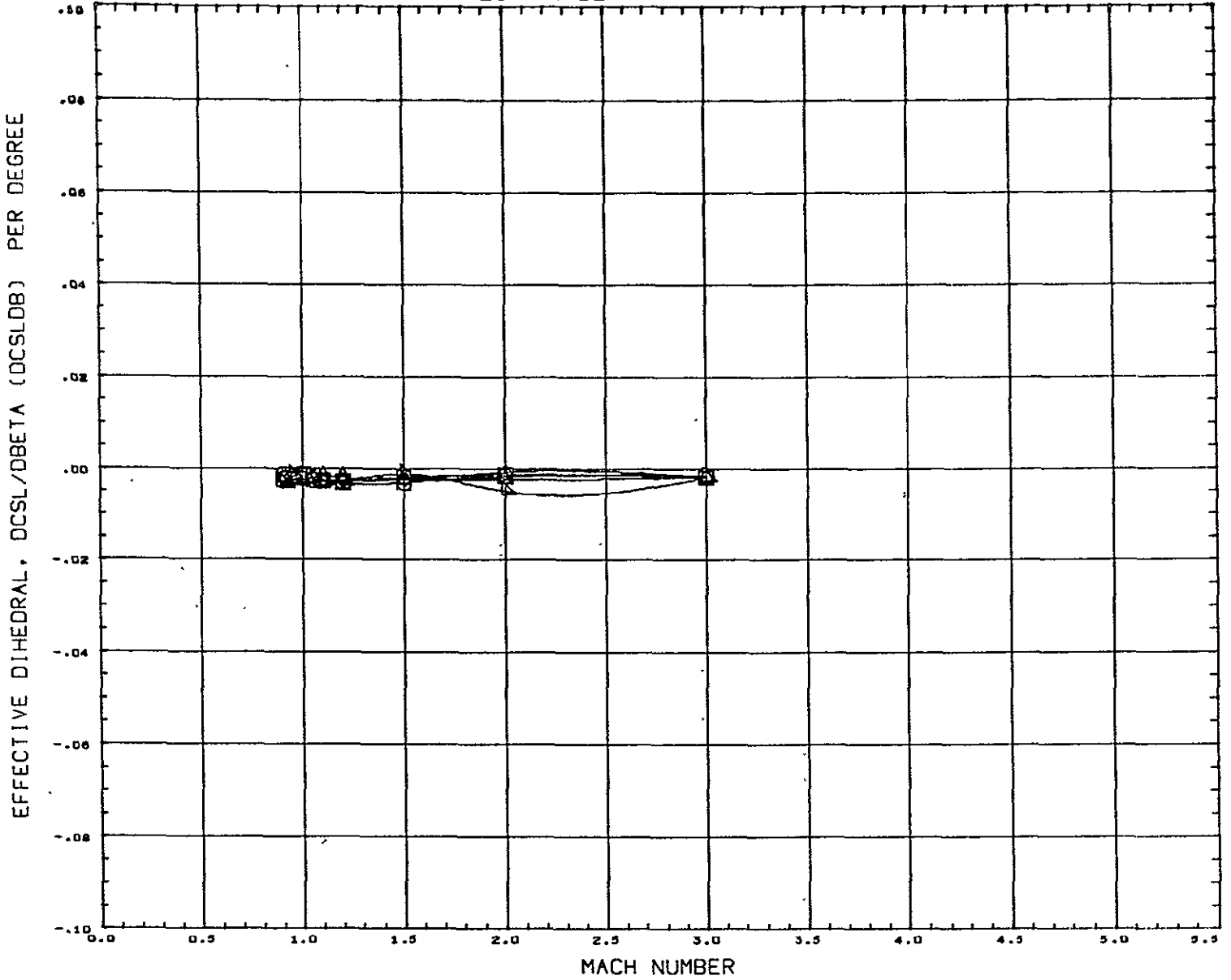
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
◇	- 10.000	ALPHA	15.000	DEL	0.000
◇	- 8.000	DER	0.000	DCL	0.000
◇	- 6.000	DCR	0.000	ELEVON	0.000
◇	- 4.000	CANARD	0.000	RUDDER	0.000
◇	- 2.000	AILRON	0.000		
◇	0.000	DATA HIST. CODE	HVR#EG1		

REFERENCE INFORMATION		
SREF	15.6560	30. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

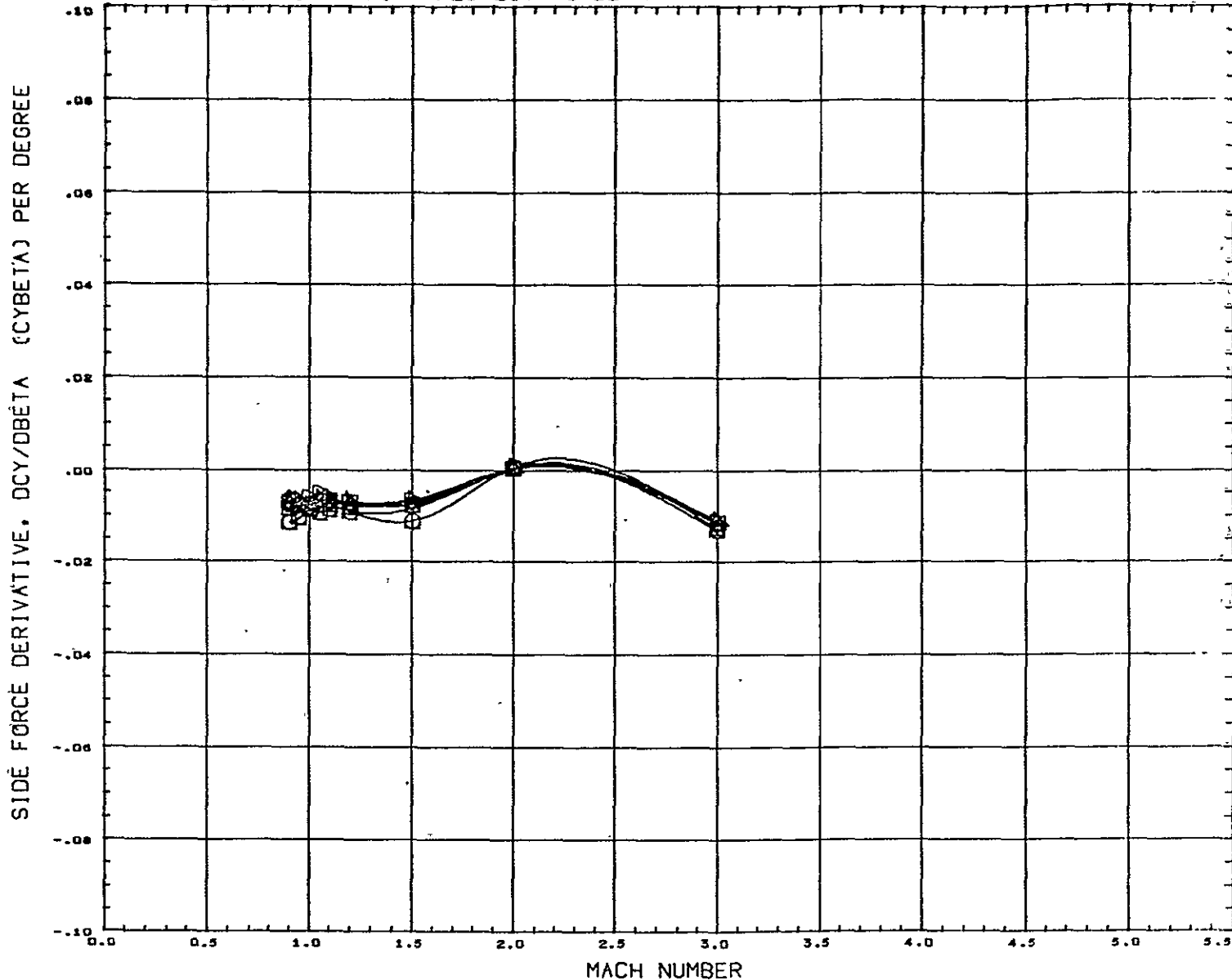
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
◇	2.000	ALPHA	15.000	DEL	0.000
◇	4.000	DER	0.000	DCL	0.000
◇	6.000	DCR	0.000	ELEVON	0.000
◇	8.000	CANARD	0.000	RUDDER	0.000
◇	10.000	AILRON	0.000		
		DATA HIST. CODE	HVR#E0I		

REFERENCE INFORMATION		
SREF	15.6560	50.IN.
LREF	3.0930	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

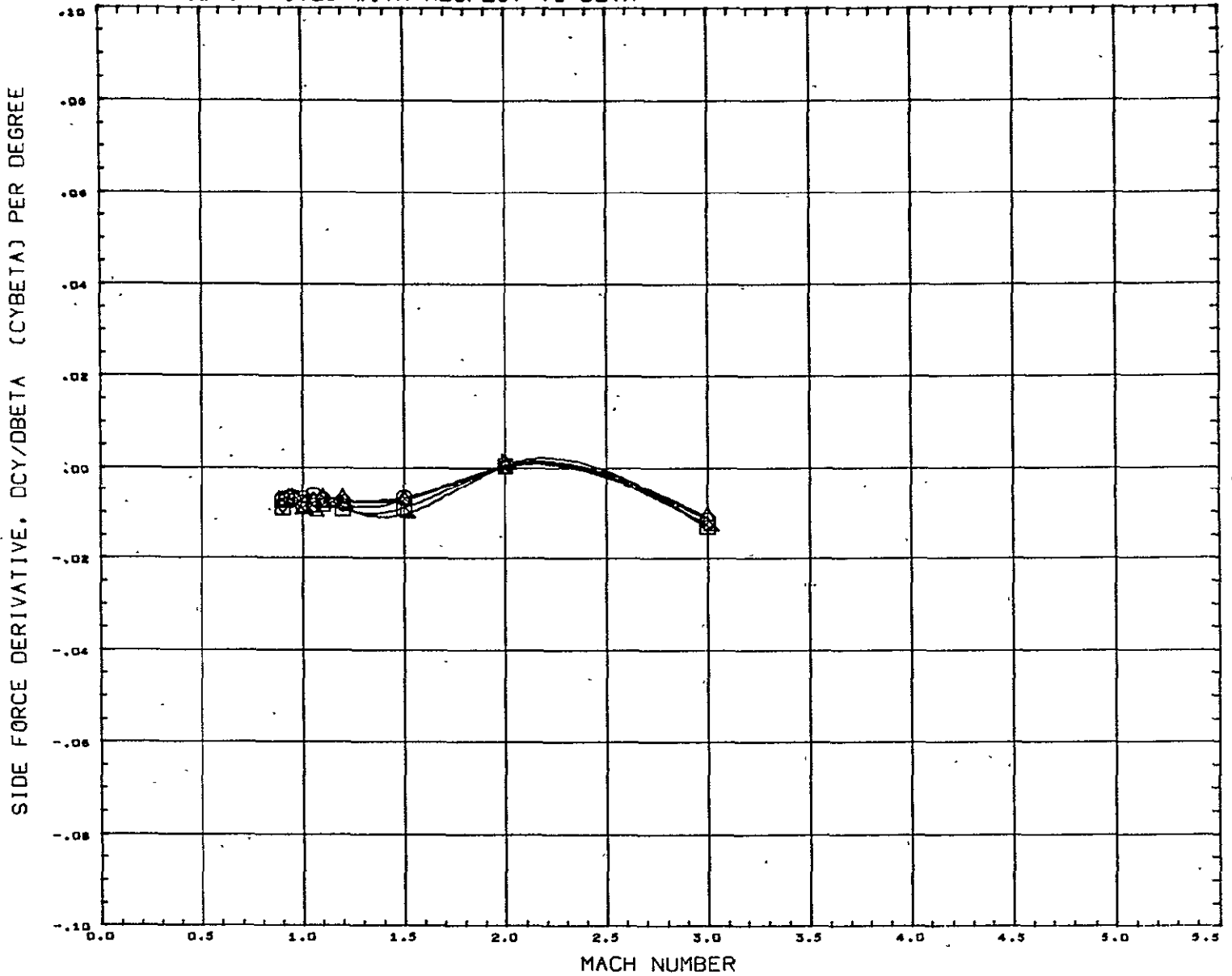
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
◇	- 10.000	ALPHA	15.000	DEL	0.000
◇	- 8.000	DER	0.000	DCL	0.000
◇	- 6.000	DCR	0.000	ELEVON	0.000
◇	- 4.000	CANARD	0.000	AILRON	0.000
◇	- 2.000				
◇	0.000	DATA HIST. CODE	MVR#E61		

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA

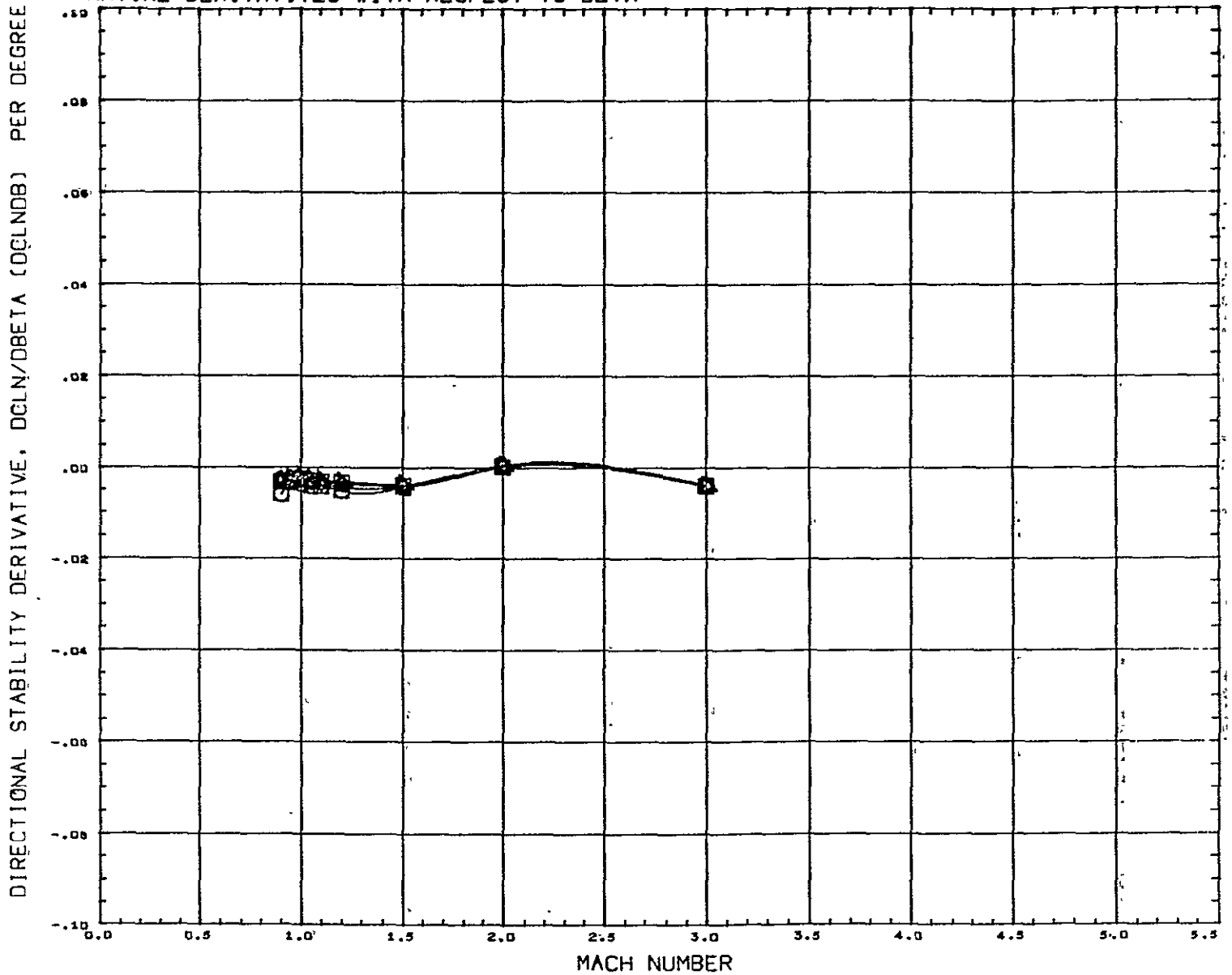


SYMBOL	BETA	PARAMETRIC VALUES			
◇	2.000	ALPHA	15.000	DEL	0.000
◇	4.000	DER	0.000	DCL	0.000
◇	6.000	DCR	0.000	ELEVON	0.000
◇	8.000	CANARD	0.000	AILRON	0.000
◇	10.000				

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0930	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EGI

PARTIAL DERIVATIVES WITH RESPECT TO BETA



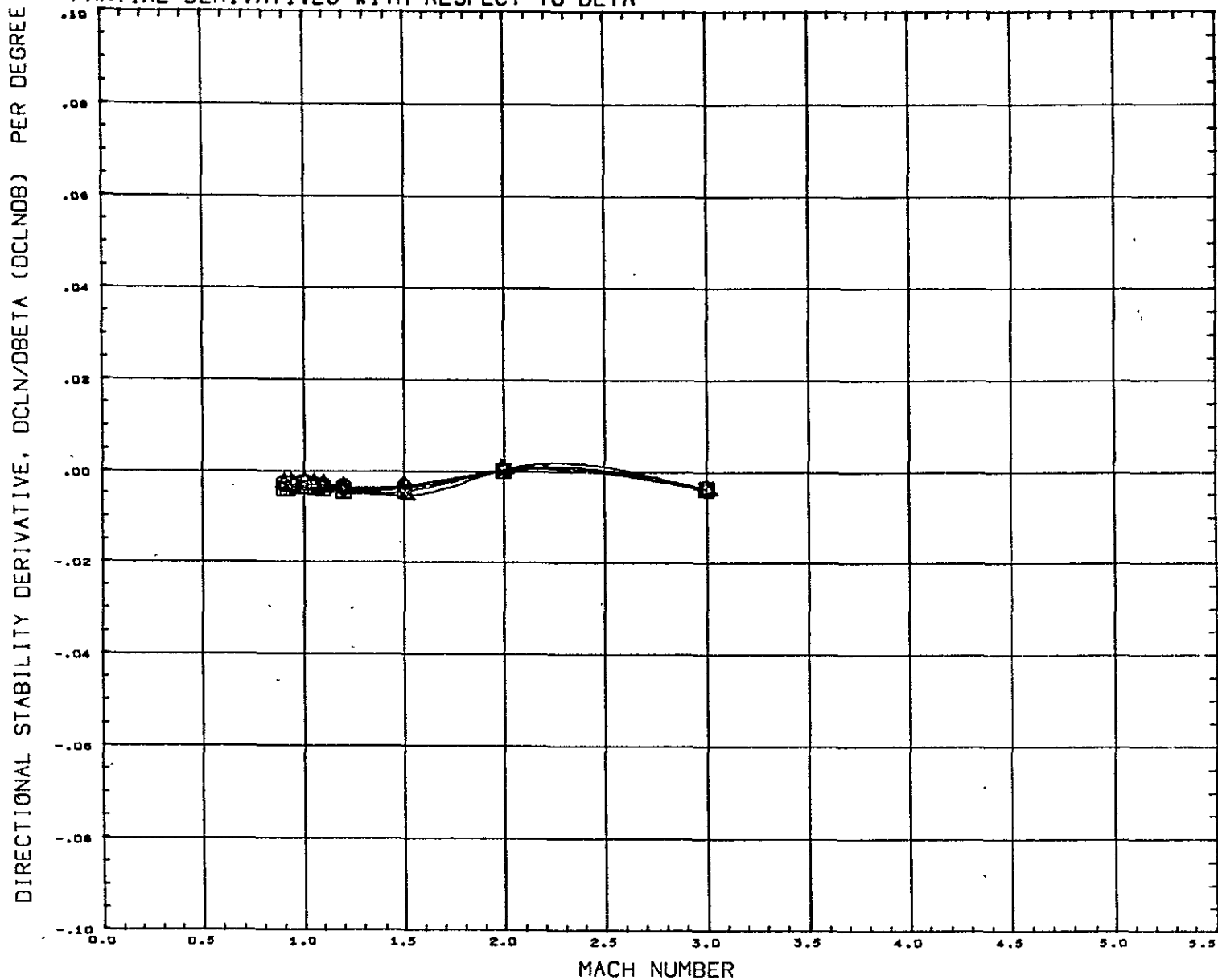
SYMBOL	BETA	PARAMETRIC VALUES			
□	10.000	ALPHA	15.000	DEL	0.000
◇	8.000	DER	0.000	DCL	0.000
◇	6.000	DCR	0.000	ELEVON	0.000
◇	4.000	CANARD	0.000	AILRON	0.000
◇	2.000				
◇	0.000	DATA HIST. CODE	MVR#EG1		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

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PARTIAL DERIVATIVES WITH RESPECT TO BETA

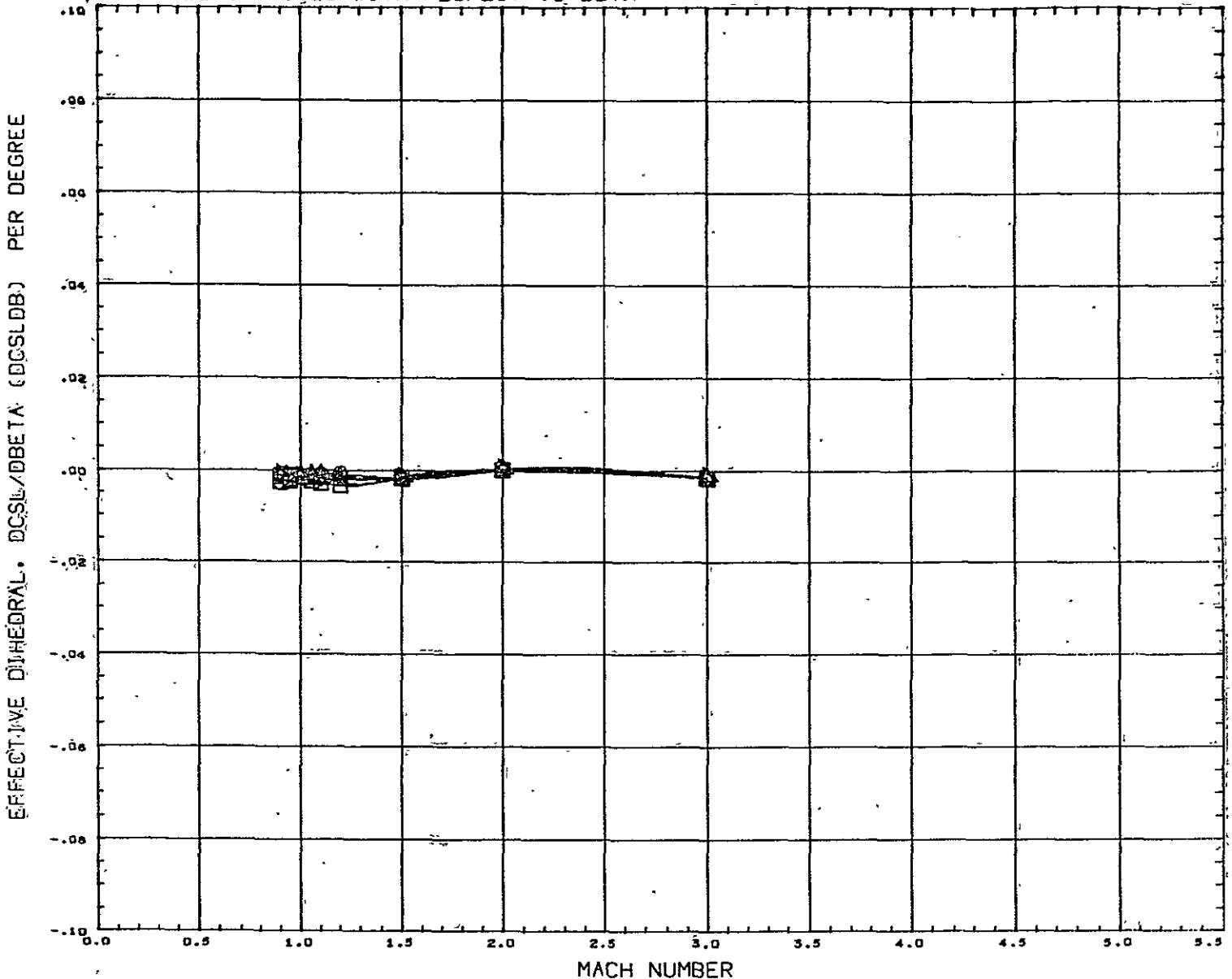


SYMBOL	BETA	PARAMETRIC VALUES			
○	2.000	ALPHA	15.000	DEL	0.000
◇	4.000	DER	0.000	DCL	0.000
□	6.000	DCR	0.000	ELEVON	0.000
◇	6.000	CANARD	0.000	AILRON	0.000
◇	10.000				

REFERENCE INFORMATION		
SREF	15.6560	SQ-IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*EGI

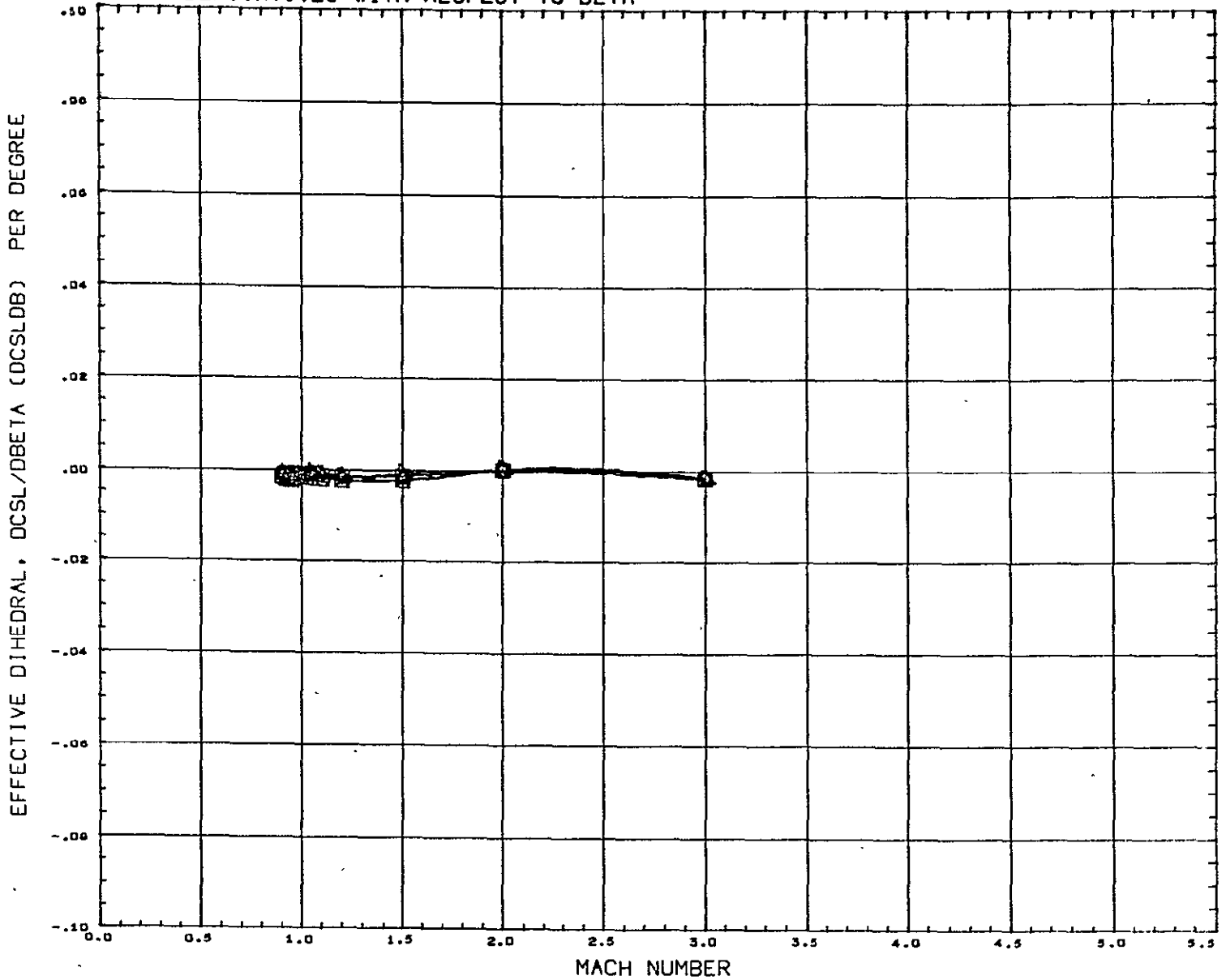
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
○	10.000	ALPHA	15.000	DEL	0.000
◇	8.000	DER	0.000	DCL	0.000
◊	6.000	OCR	0.000	ELEVON	0.000
◻	4.000	CANARD	0.000	AILRON	0.000
◼	2.000				
□	0.000	DATA HIST. CODE	MVR#EG1		

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA

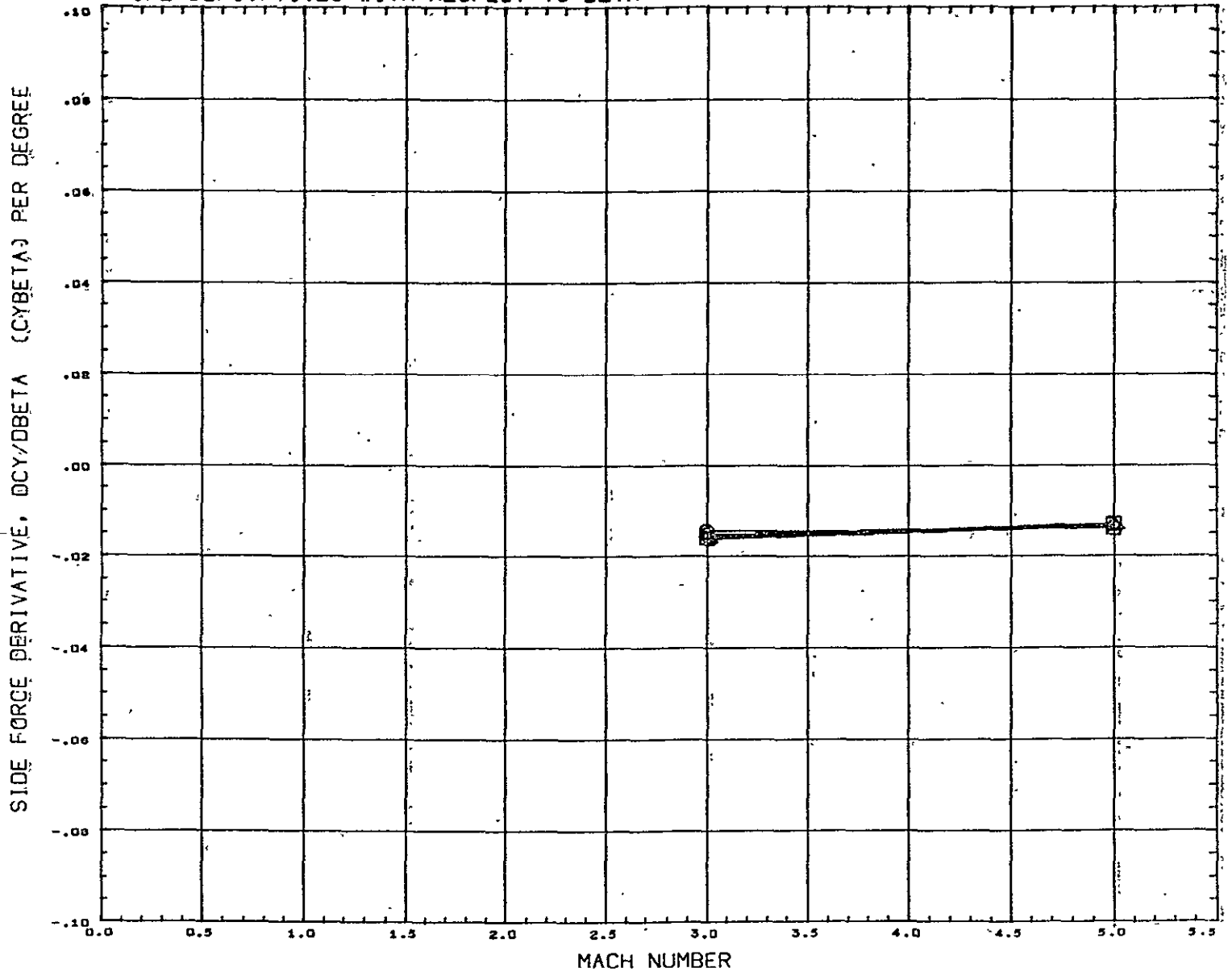


SYMBOL	BETA	PARAMETRIC VALUES			
◇	2.000	ALPHA	15.000	DEL	0.000
◇	4.000	DER	0.000	DCL	0.000
◇	6.000	DCR	0.000	ELEVON	0.000
◇	8.000	CANARD	0.000	AILRON	0.000
◇	10.000				

DATA HIST. CODE MVR#EGI

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMNP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

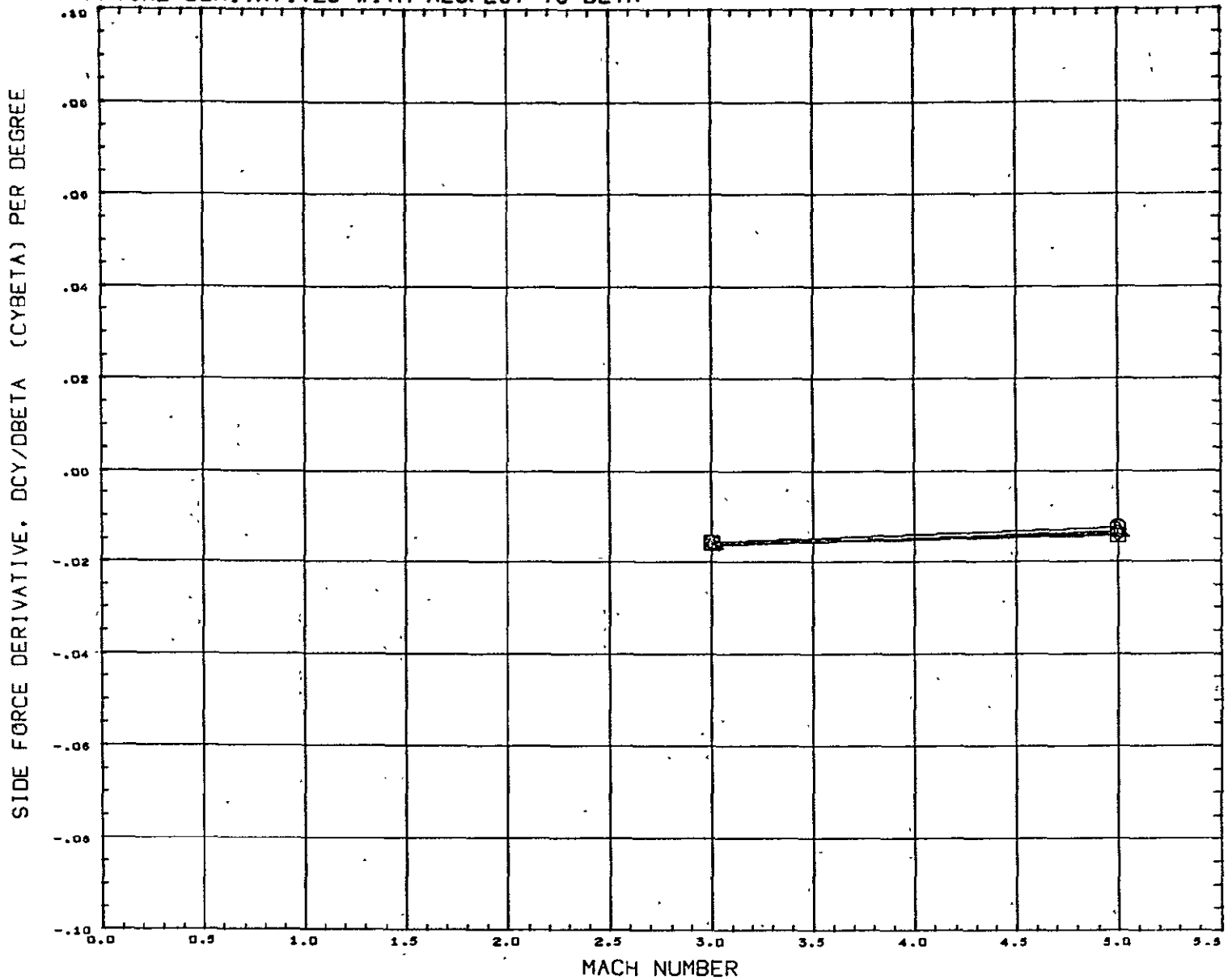
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES			
▷	- 10.000	ALPHA	35.000	DEL	0.000
◊	- 8.000	DER	0.000	DCL	0.000
◊	- 6.000	DCR	0.000	ELEVON	0.000
◊	- 4.000	CANARD	0.000	AILRON	0.000
◊	- 2.000				
▷	0.000	DATA HIST. CODE	MVR#EG		

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0800	IN.
ZMRP	0.0000	IN.
SCALE	0.0055	

PARTIAL DERIVATIVES WITH RESPECT TO BETA

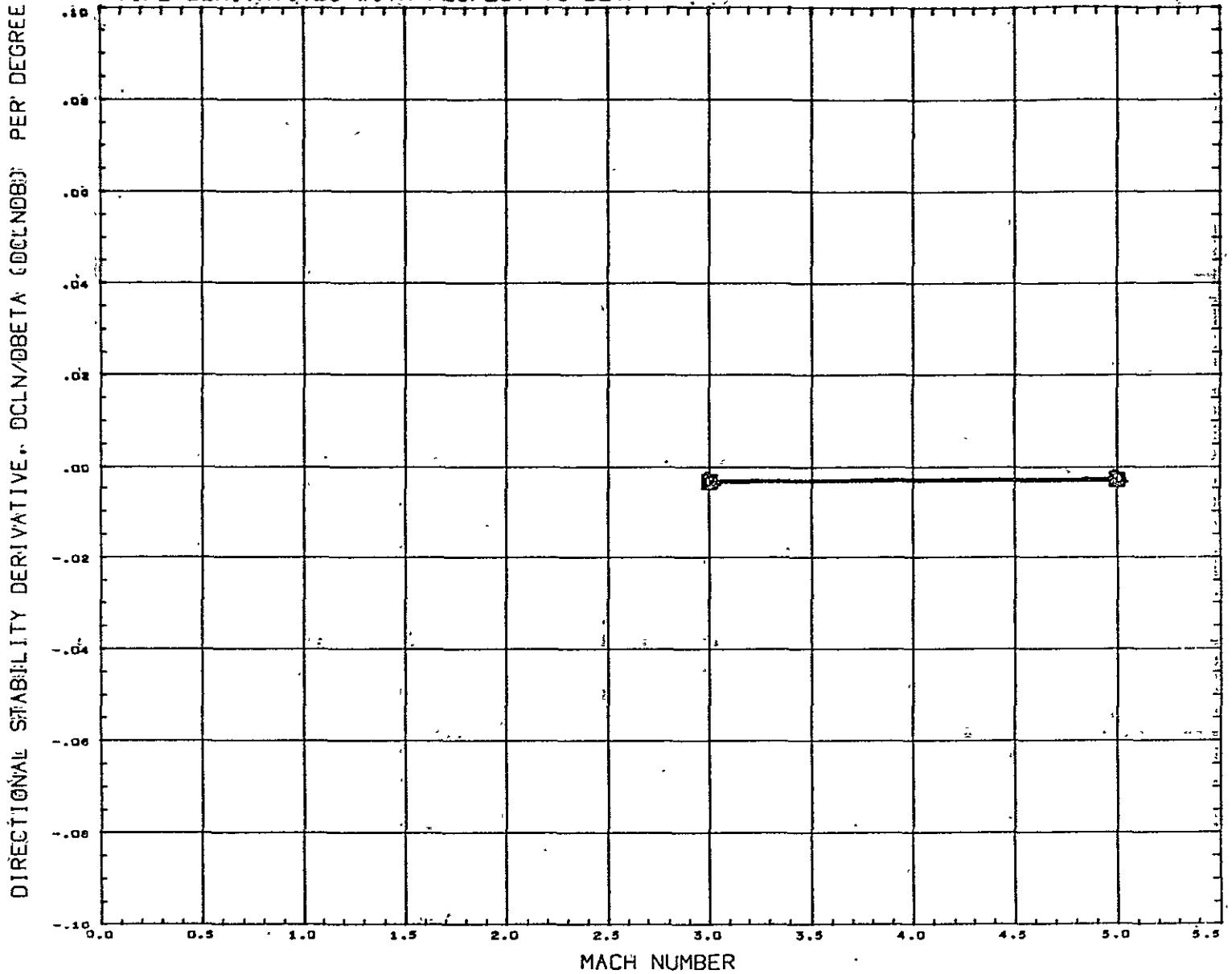


SYMBOL	BETA	PARAMETRIC VALUES
∞	2.000	ALPHA 35.000 DEL 0.000
◇	4.000	DER 0.000 DCL 0.000
◇	6.000	DCR 0.000 ELEVON 0.000
◇	8.000	CANARD 0.000 AILRON 0.000
◇	10.000	

DATA HIST. CODE MVR#61

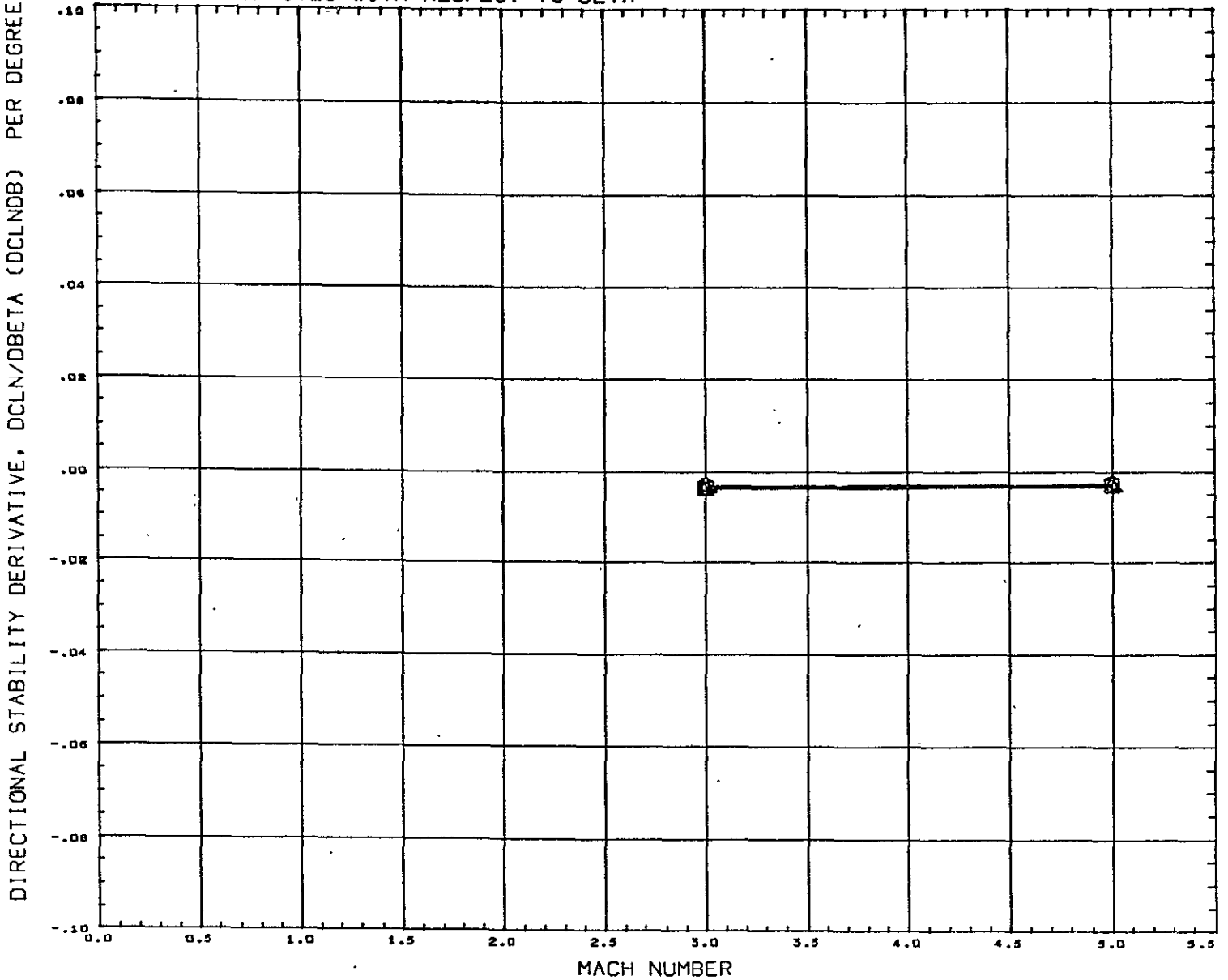
REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	- 10.000	ALPHA	35.000	DEL	0.000	SREF	15.6560	30. IN.
◇	- 8.000	DER	0.000	DCL	0.000	LREF	3.0950	IN.
◇	- 6.000	DCR	0.000	ELEVON	0.000	BREF	6.0990	IN.
◇	- 4.000	CANARD	0.000	AILERON	0.000	XMRP	6.7100	IN.
◇	- 2.000					YMRP	0.0000	IN.
◇	0.000	DATA HIST. CODE	MVR#E01			ZMRP	0.0000	IN.
						SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO BETA

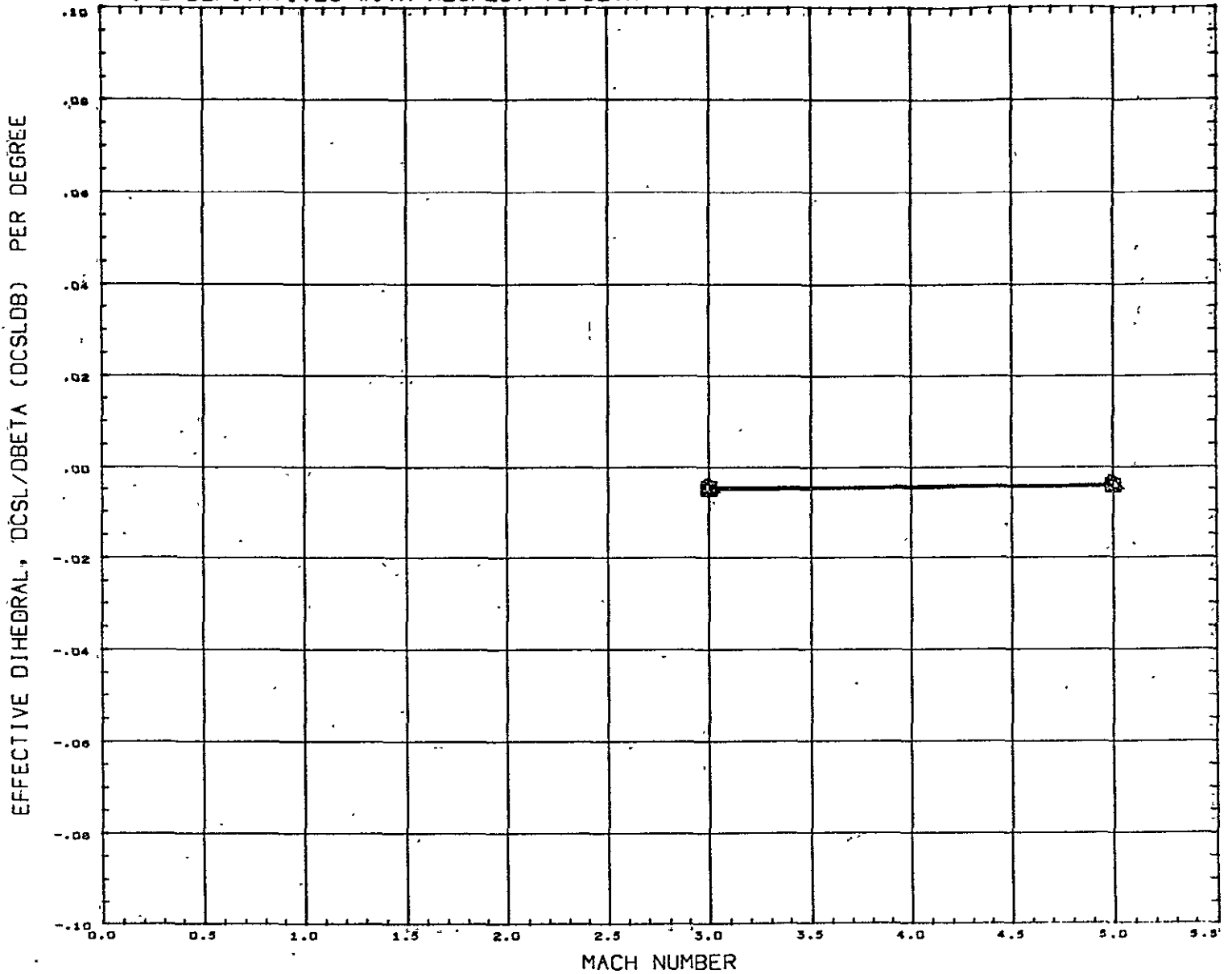


SYMBOL	BETA	PARAMETRIC VALUES			
◇	2.000	ALPHA	35.000	DEL	0.000
◇	4.000	DER	0.000	DCL	0.000
◇	6.000	DCR	0.000	ELEVON	0.000
◇	8.000	CANARD	0.000	AILRON	0.000
◇	10.000				

DATA HIST. CODE MVR*EG1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XHRP	0.7100	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0035	

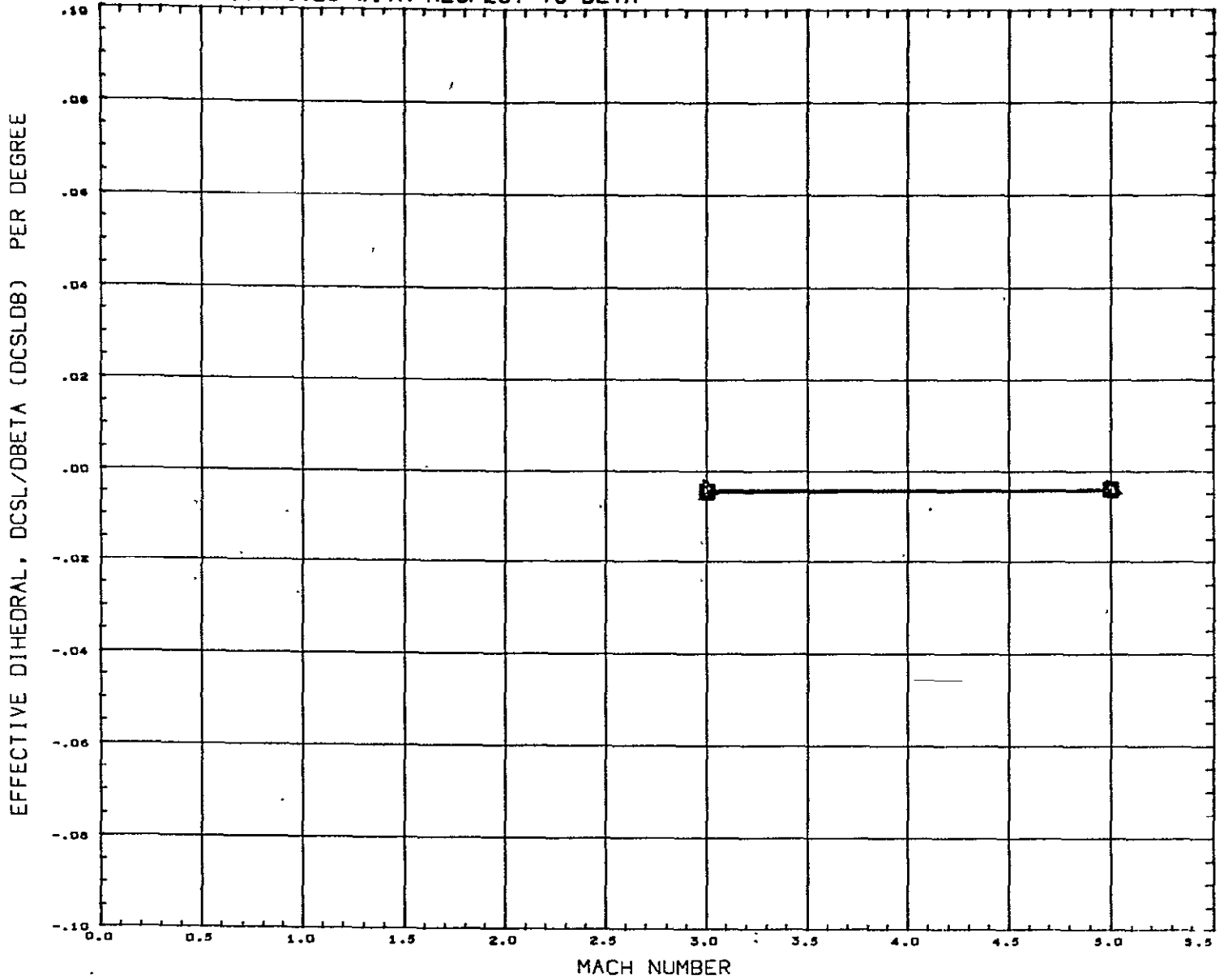
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	BETA	PARAMETRIC VALUES
◇	- 10.000	ALPHA 35.000 DEL 0.000
◇	- 8.000	DER 0.000 DCL 0.000
◇	- 6.000	DCR 0.000 ELEVON 0.000
◇	- 4.000	CANARD 0.000 AILRON 0.000
◇	- 2.000	
◇	0.000	DATA HIST. CODE MVR#EG1

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

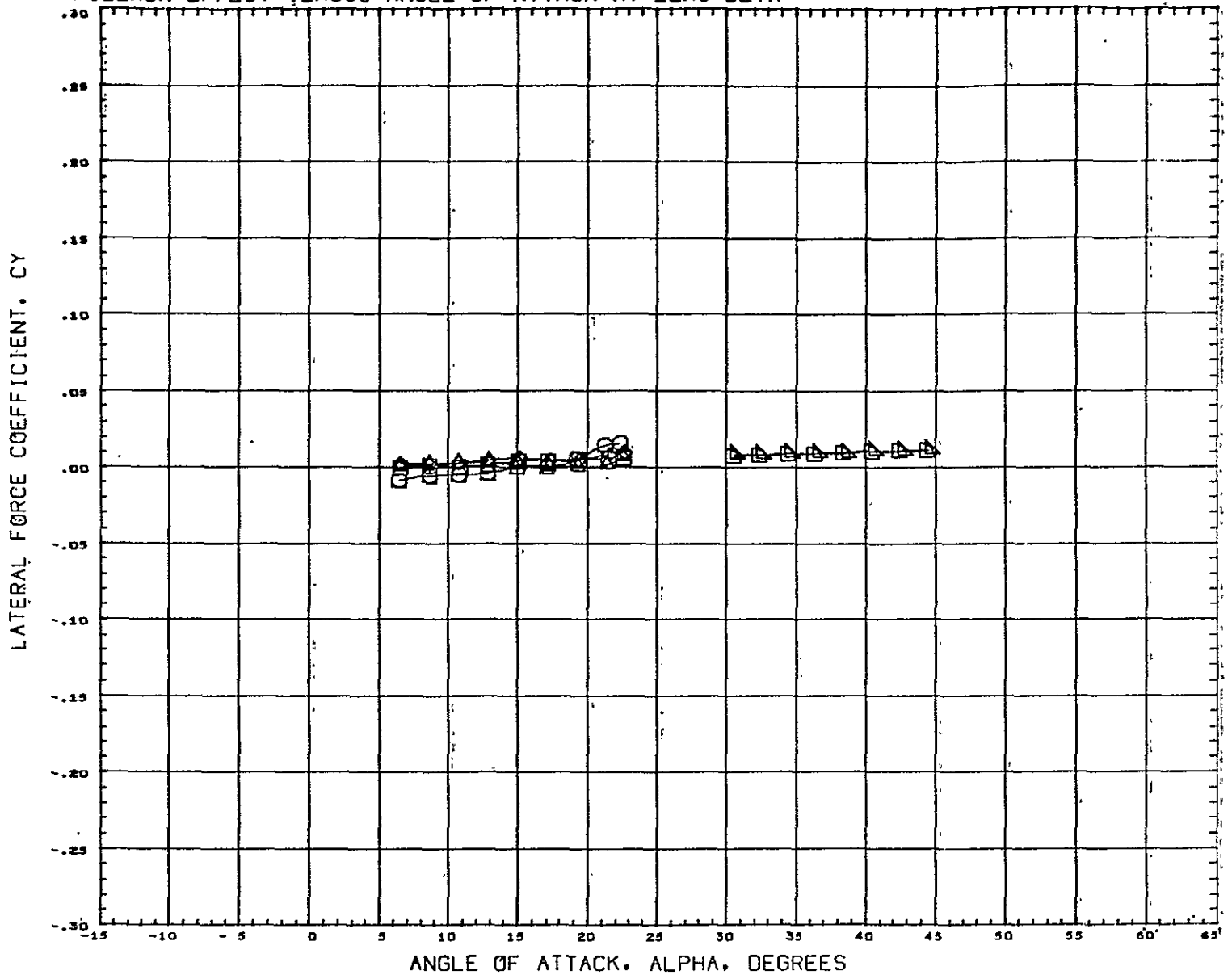
PARTIAL DERIVATIVES WITH RESPECT TO BETA



SYMBOL	PARAMETRIC VALUES				REFERENCE INFORMATION		
	BETA	ALPHA	DEL	DCL	SREF	SQ-IN.	
◇	2.000	35.000	0.000	0.000	15.6560	50.1N.	
◇	4.000	0.000	0.000	0.000	3.0950	IN.	
◇	6.000	0.000	0.000	0.000	6.0990	IN.	
◇	8.000	0.000	0.000	0.000	6.7100	IN.	
◇	10.000	0.000	0.000	0.000	0.0000	IN.	
					ZMRP	0.0000	
					SCALE	0.0035	

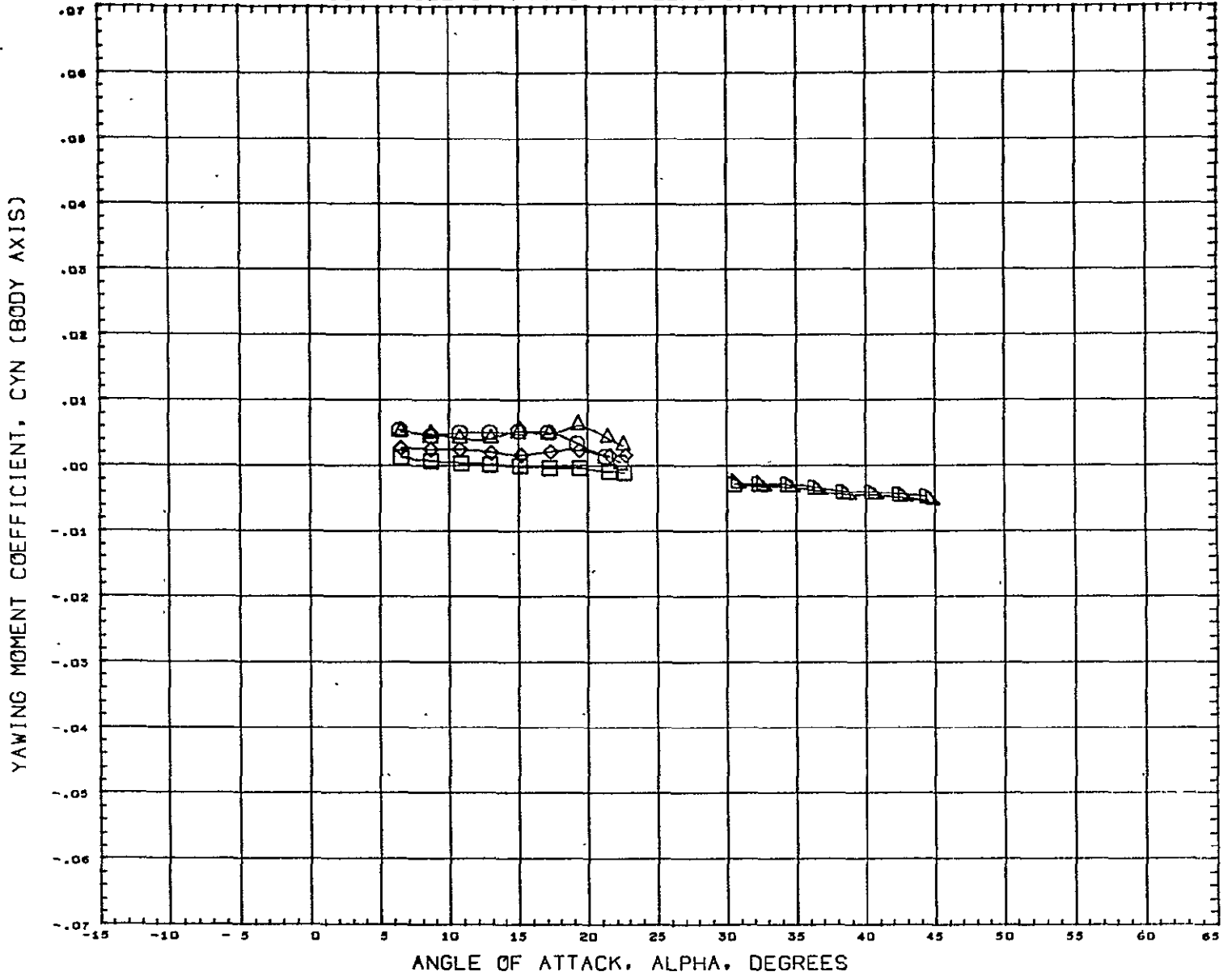
DATA HIST. CODE MVR#EG1

AILERON EFFECT VERSUS ANGLE OF ATTACK AT ZERO BETA



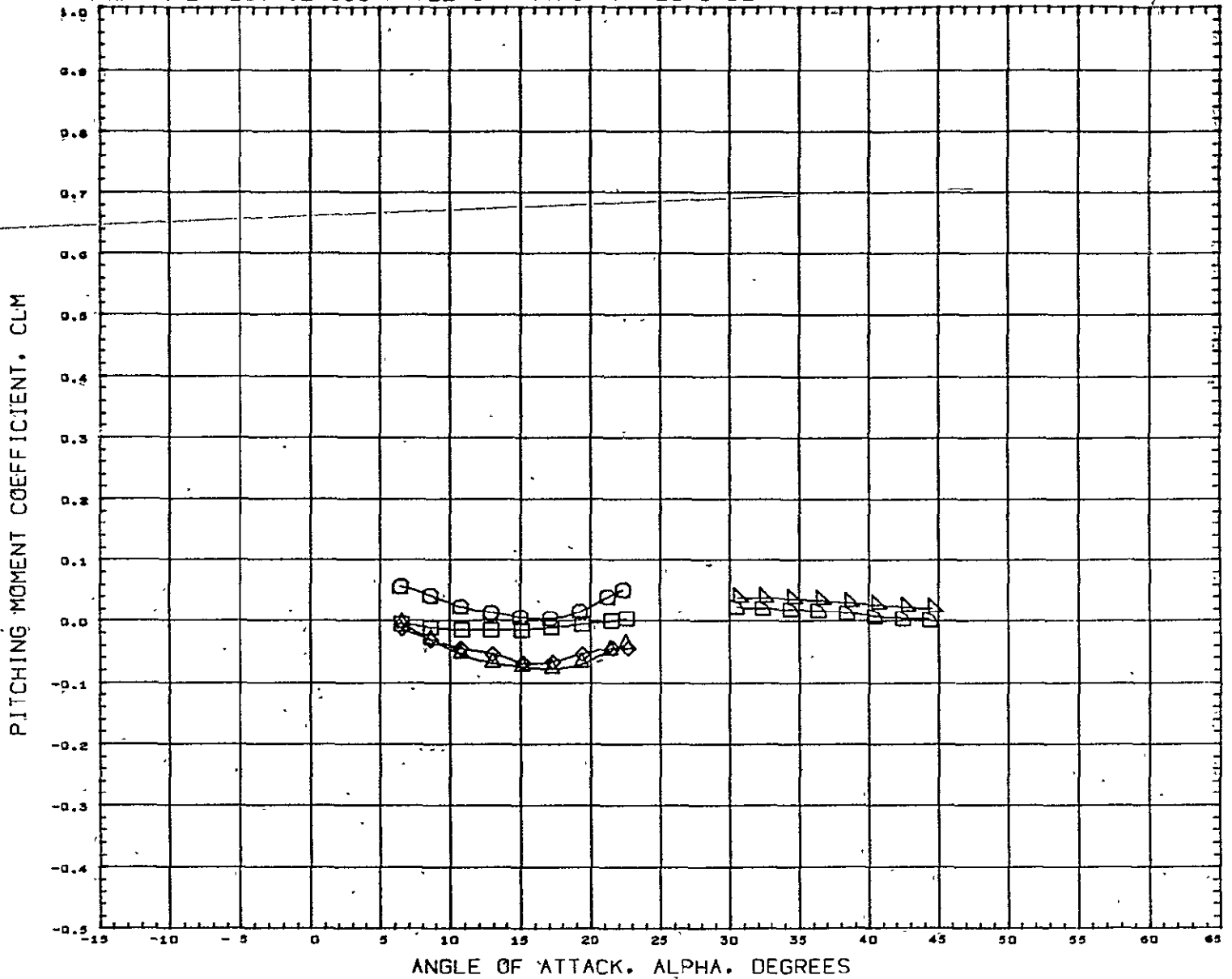
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION							
		BETA	DEL	DCL	ELEVON	AILRON	SREF	LREF	BREF	XMRP	YMRP	ZMRP	SCALE
○	0.900	0.000	0.000	0.000	0.000								
◇	1.000	DER	- 20.000	0.000	0.000								
◇	1.206	OCR	0.000	ELEVON	- 10.000								
◇	1.960	CANARD	0.000	AILRON	10.000								
◇	2.990												
◇	4.960	DATA HIST. CODE		MVR#E*G									

AILERON EFFECT VERSUS ANGLE OF ATTACK AT ZERO BETA



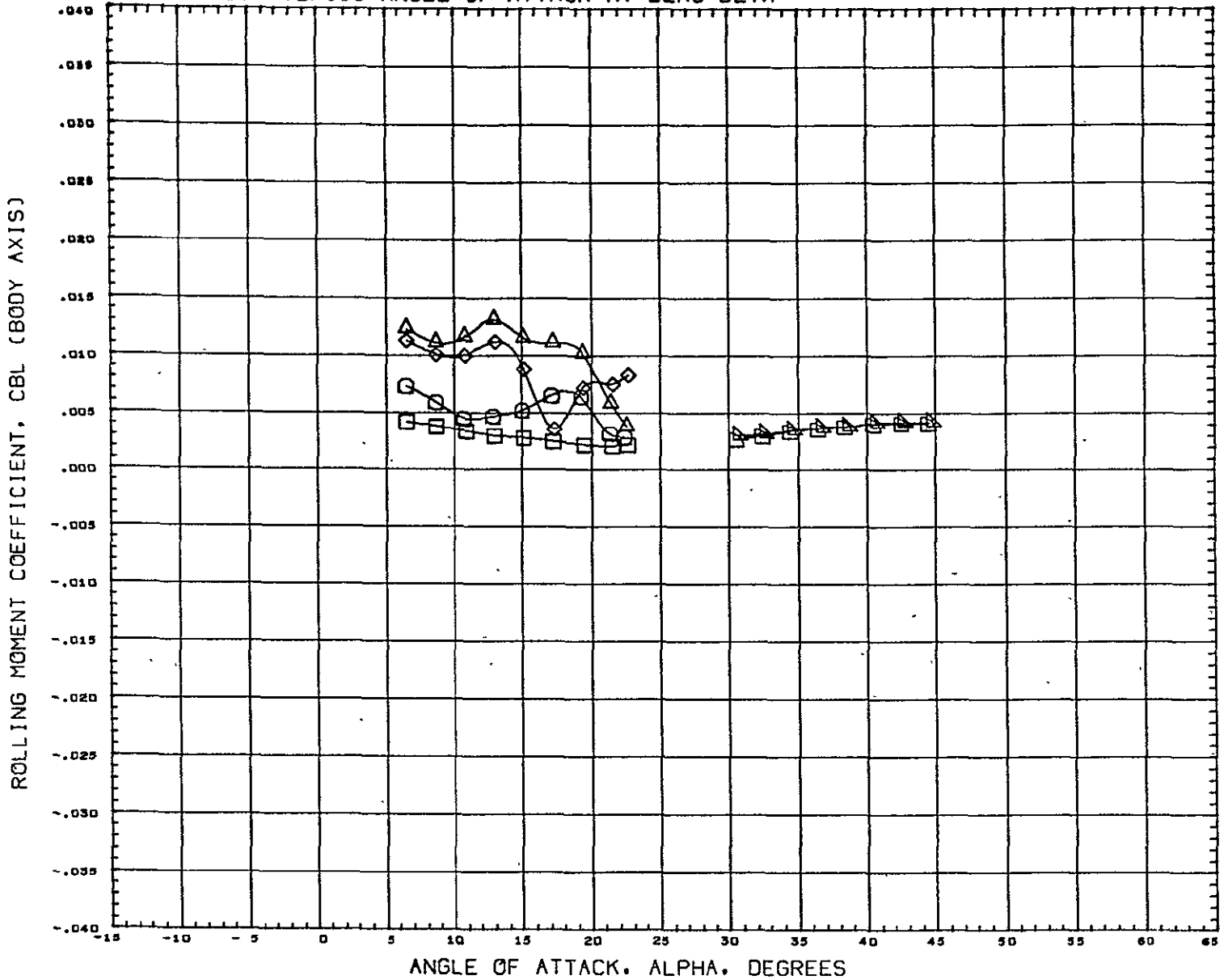
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
◇	1.000	DER	-20.000	DCL	0.000	LREF	3.0950	IN.
◇	1.206	DCR	0.000	ELEVON	-10.000	BREF	6.0990	IN.
◇	1.960	CANARD	0.000	AILRON	10.000	XMRP	6.7100	IN.
◇	2.990					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE		MVR#E#G		ZMRP	0.0000	IN.
						SCALE	0.0035	

AILERON EFFECT VERSUS ANGLE OF ATTACK AT ZERO BETA



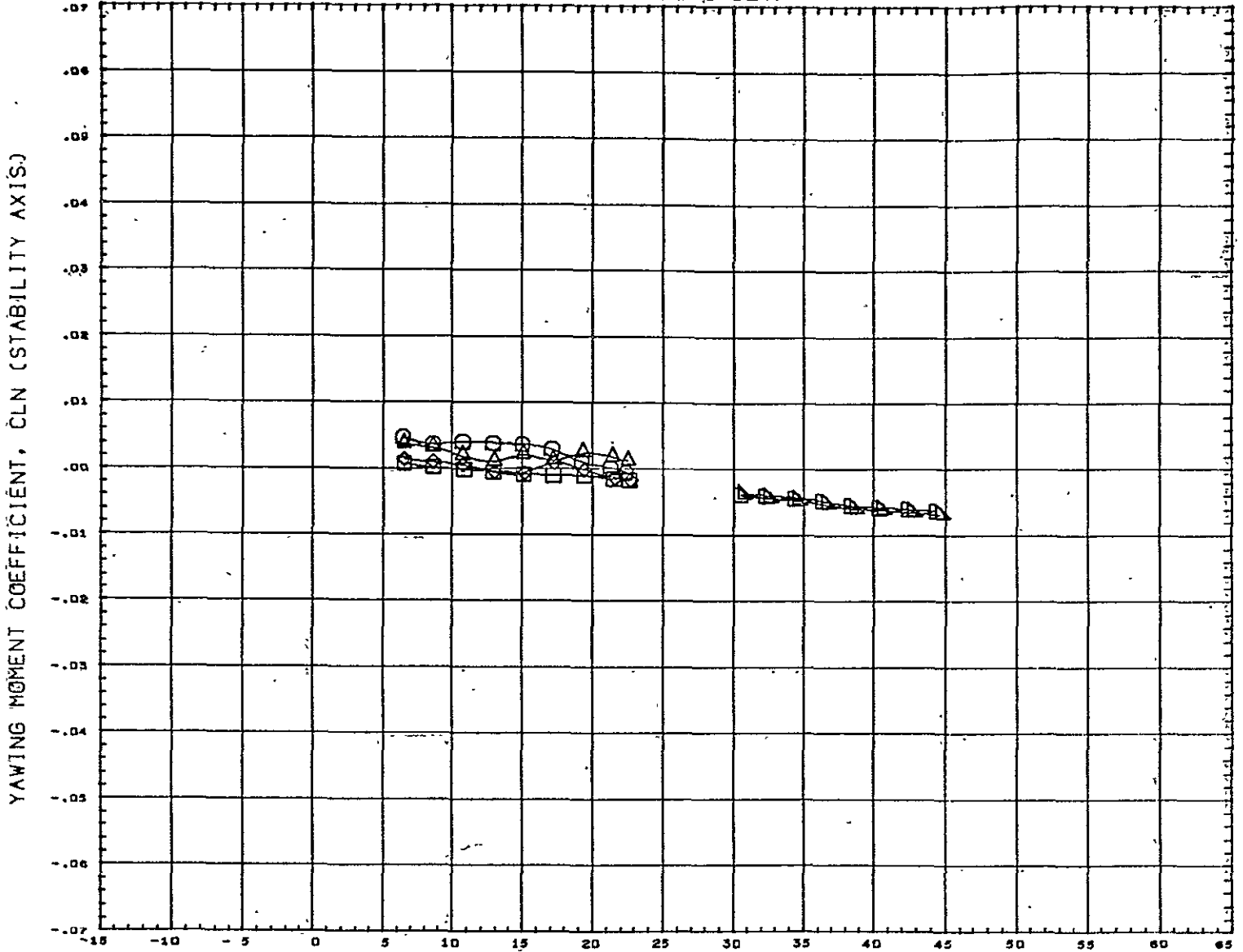
SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	SREF	15.6560	50. IN.
◇	1.000	DER	-20.000	DCL	0.000	LREF	3.0950	IN.
◇	1.206	DCR	0.000	ELEYON	-10.000	BREF	6.0990	IN.
◇	1.900	CANARD	0.000	AILRON	10.000	XMRP	6.7100	IN.
◇	2.990					YMRP	0.0000	IN.
◇	4.960	DATA HIST. CODE		MVR#E*6		ZMRP	0.0000	IN.
						SCALE	0.0035	

AILERON EFFECT VERSUS ANGLE OF ATTACK AT ZERO BETA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	SRF	IN.	IN.
△	0.900	0.000	0.000	0.000	35.6560	30.	IN.	
◇	1.000	20.000	0.000	0.000	3.0950	IN.		
□	1.206	0.000	0.000	-10.000	6.0990	IN.		
○	1.990	CANARD	0.000	AILERON 10.000	6.7100	IN.		
	2.990				0.0000	IN.		
	4.990	DATA HIST. CODE	MVR#E*G		SCALE	0.0035		

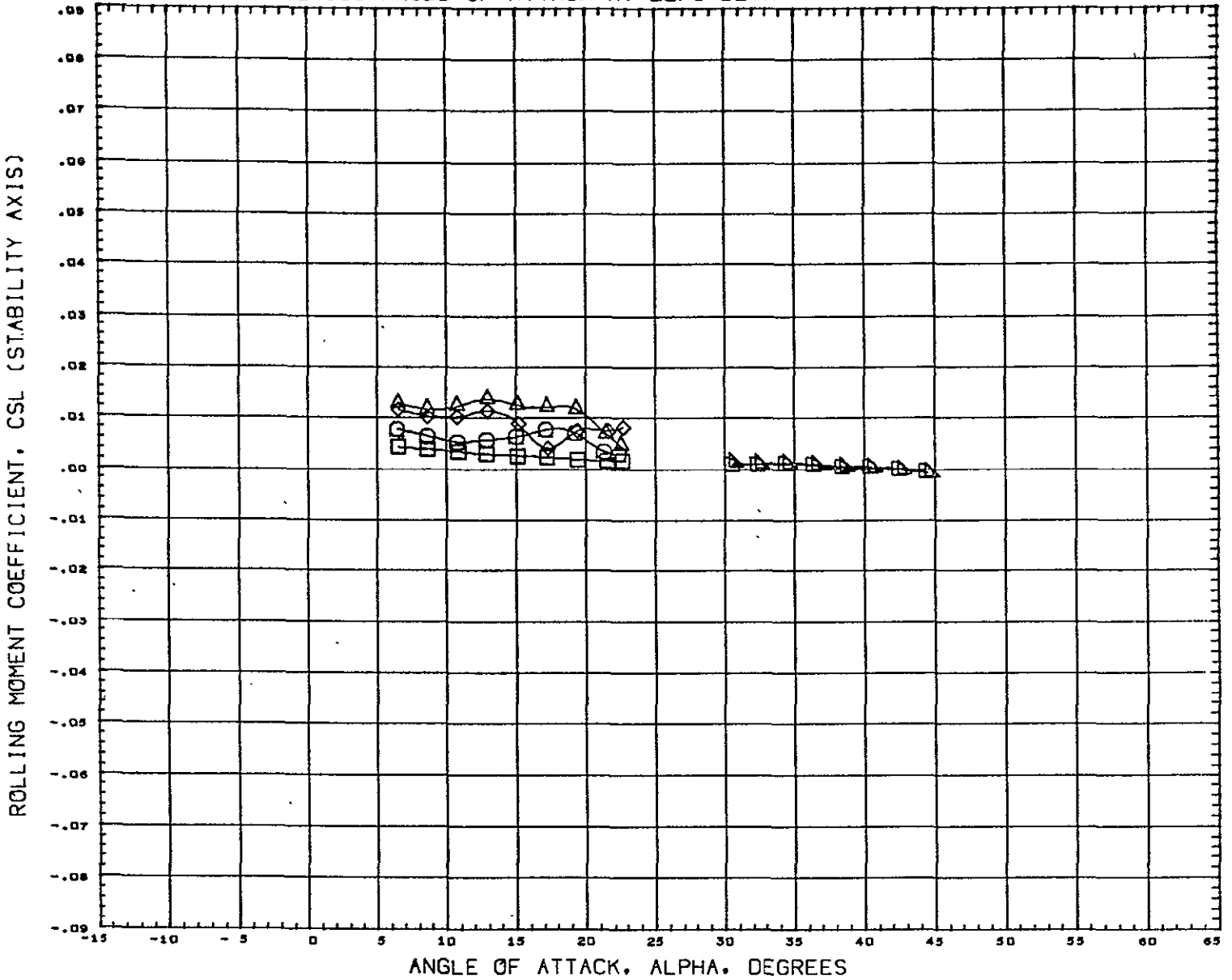
AILERON EFFECT VERSUS ANGLE OF ATTACK AT ZERO BETA



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.900	BETA	0.000	DEL	0.000	SREF	15.6560	sq. IN.
□	1.000	DER	- 20.000	DCL	0.000	LREF	3.0950	IN.
◇	1.206	DCR	0.000	ELEYON	- 10.000	BREF	6.0990	IN.
△	1.960	CANARD	0.000	AILRON	10.000	XMRP	6.7100	IN.
	2.990					YMRP	0.0000	IN.
	4.960	DATA HIST. CODE	MVR*E*G			ZMRP	0.0000	IN.
						SCALE	0.0035	

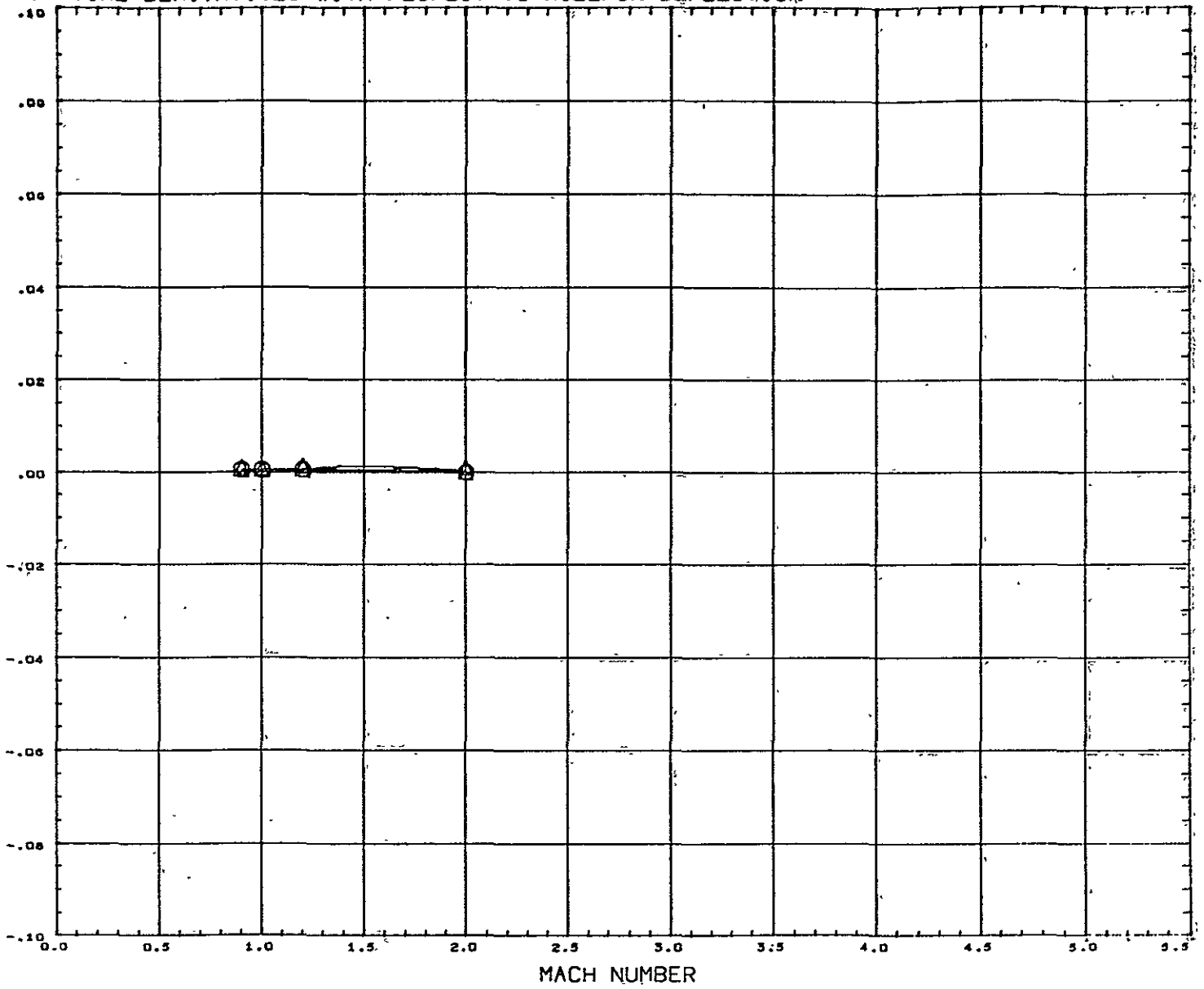
AILERON EFFECT VERSUS ANGLE OF ATTACK AT ZERO BETA



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
		BETA	DEL	DCL	ELEVON	SREF	IN.	SQ.IN.
○	0.900	0.000	0.000	0.000	0.000	15.6560	39.1N.	
◇	1.000	-20.000	0.000	0.000	0.000	3.0950	IN.	
◇	1.206	0.000	0.000	-10.000	0.000	6.0990	IN.	
□	1.960	0.000	0.000	10.000	0.000	6.7100	IN.	
◇	2.990	0.000	0.000	0.000	0.000	0.0000	IN.	
◇	4.960	0.000	0.000	0.000	0.000	0.0000	IN.	
	4.960	DATA HIST. CODE	MVR#E*G			SCALE	0.0035	

PARTIAL DERIVATIVES WITH RESPECT TO AILERON DEFLECTION

SIDE FORCE RATE DUE TO AILERON, DCY/DAILERON (DCY/DA) PER DEGREE



SYMBOL ∞	ALPHA	PARAMETRIC VALUES			
	10.000	BETA	0.000	DEL	0.000
	20.000	DCL	0.000	DCR	0.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0930	IN.
BREF	6.0930	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

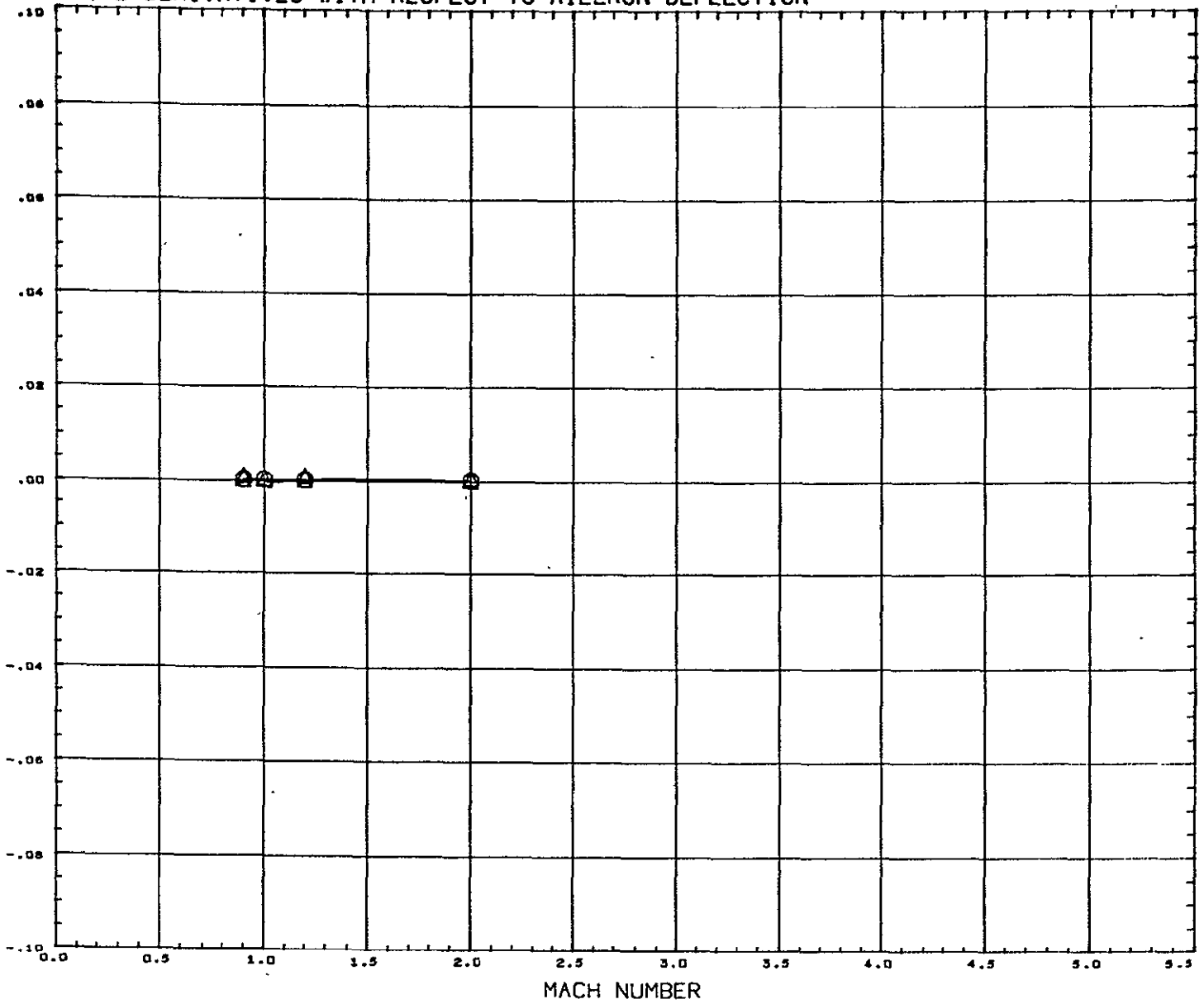
DATA HIST. CODE MVR#E1#P

MSFC481 GD/C(B00STER)B19W14C4AV7

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PARTIAL DERIVATIVES WITH RESPECT TO AILERON DEFLECTION

YAWING MOMENT RATE DUE TO AILERON, DCYN/AILERON (DCYNDA) PER DEGREE



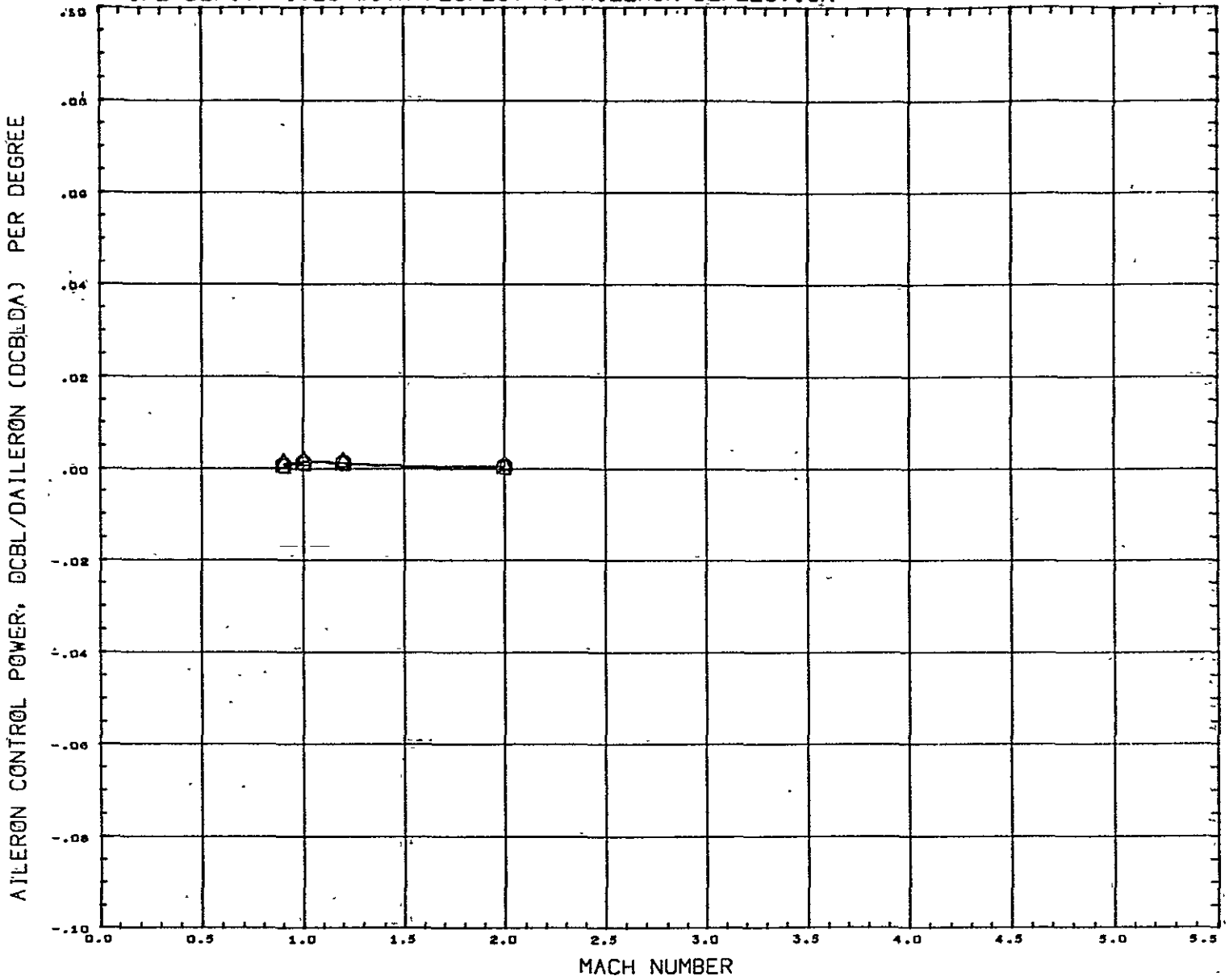
MACH NUMBER

SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
∞	10.000		0.000	DEL	0.000
	20.000	DCL	0.000	DCR	0.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	SQ.IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#P

PARTIAL DERIVATIVES WITH RESPECT TO AILERON DEFLECTION

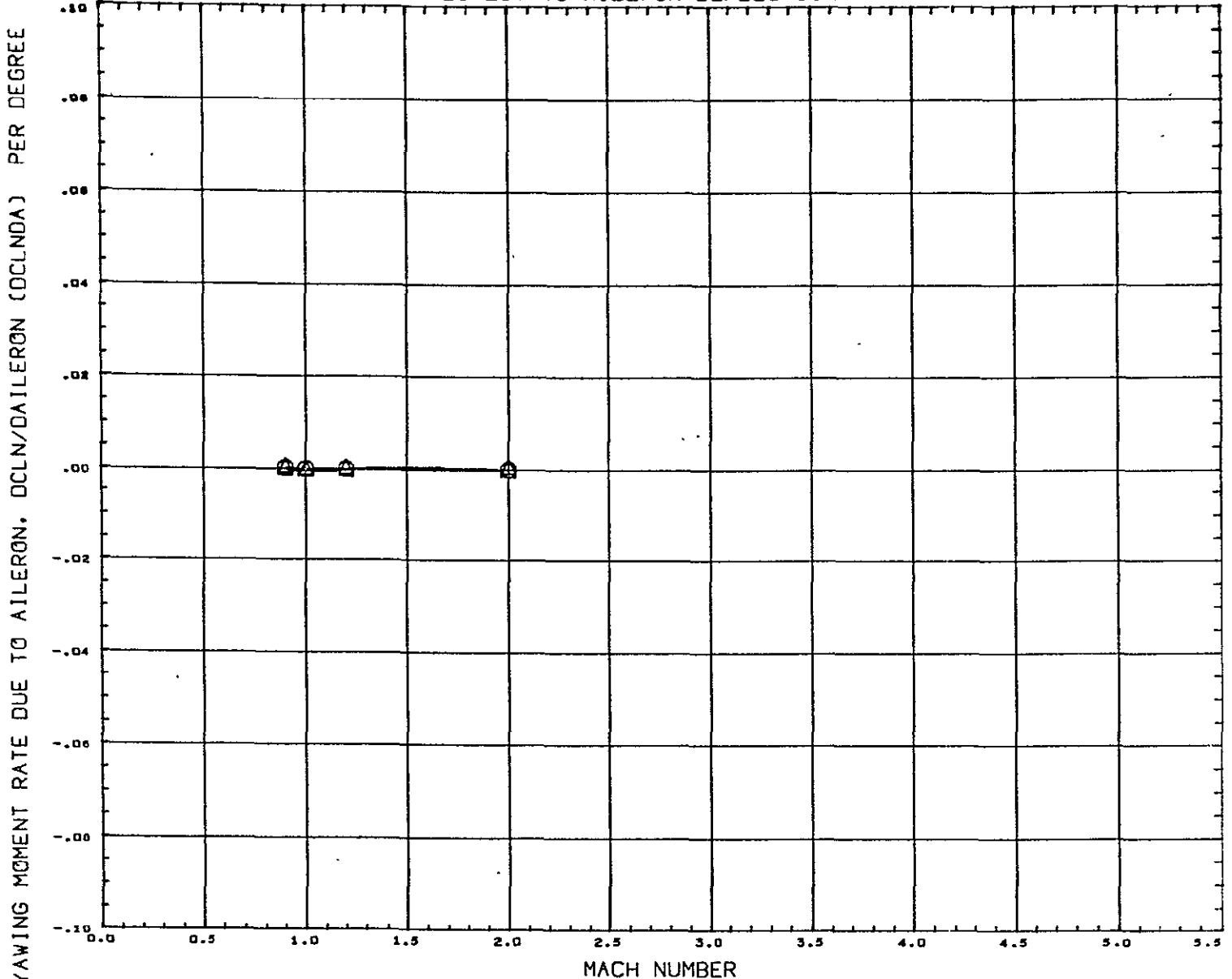


SYMBOL	ALPHA	PARAMETRIC VALUES			
○	10.000	BETA	0.000	DEL	0.000
△	20.000	DCL	0.000	DCR	0.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	0.0990	IN.
XMRP	0.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE HVR*E1*P

PARTIAL DERIVATIVES WITH RESPECT TO AILERON DEFLECTION

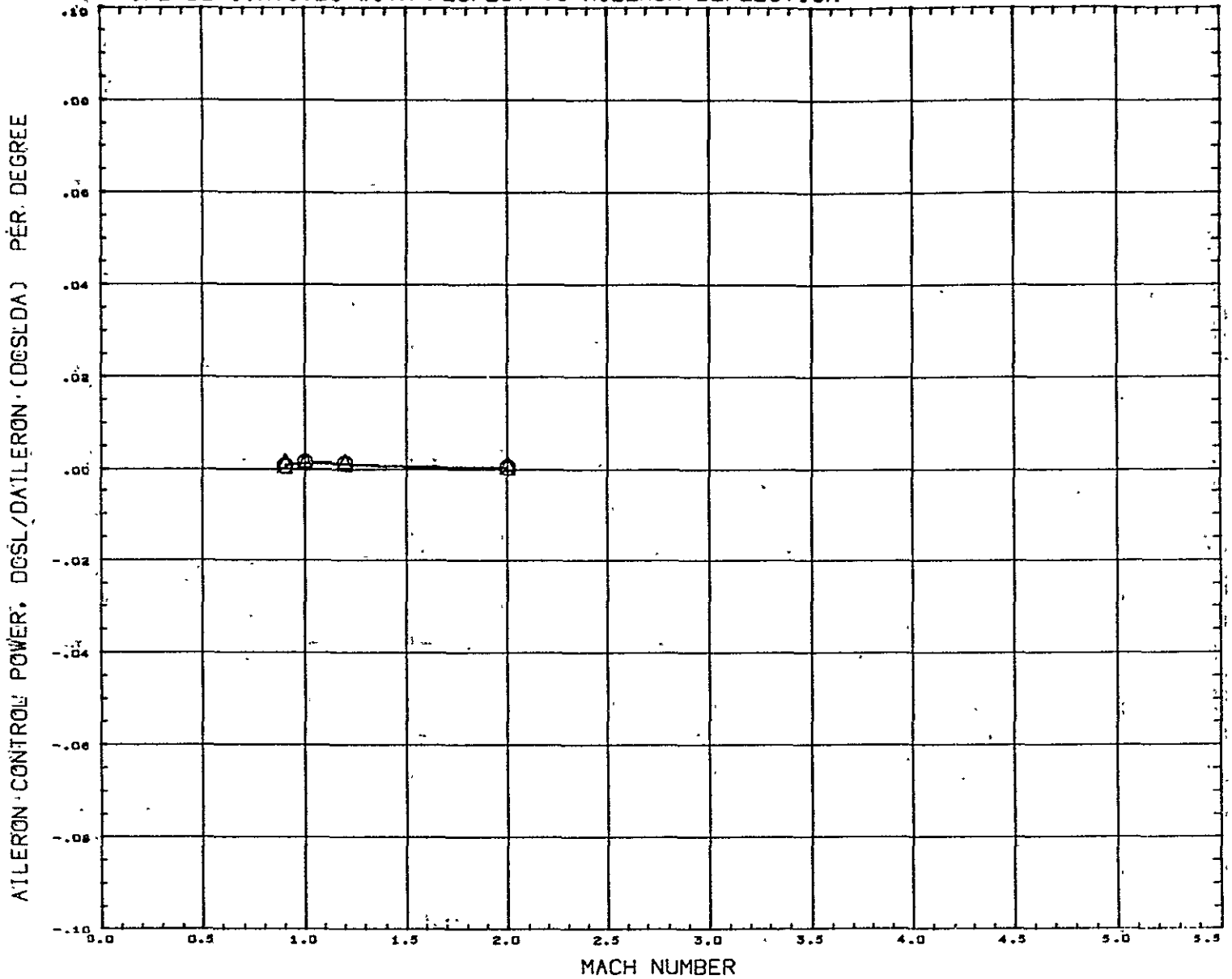


SYMBOL △	ALPHA	PARAMETRIC VALUES			
	10.000	BETA	0.000	DEL	0.000
	20.000	DCL	0.000	DCR	0.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
SREF	19.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR*E1*P

PARTIAL DERIVATIVES WITH RESPECT TO AILERON DEFLECTION

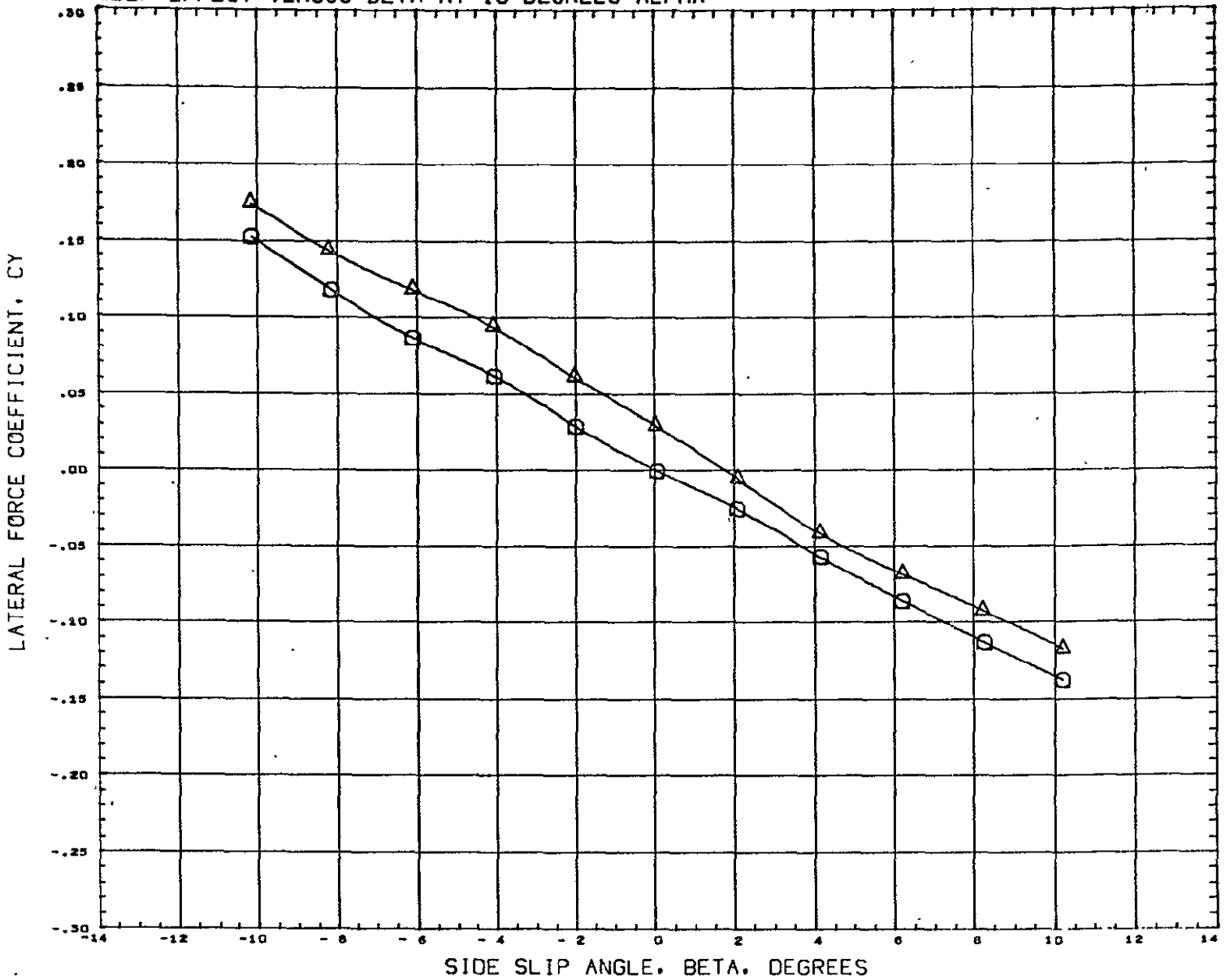


SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		
○	10.000		0.000	DEL	0.000
△	20.000	DCL	0.000	DCR	0.000
		CANARD	0.000	AILRON	10.000

REFERENCE INFORMATION		
BREF	15.6560	SQ. IN.
LREF	3.0950	IN.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0035	

DATA HIST. CODE MVR#E1#P

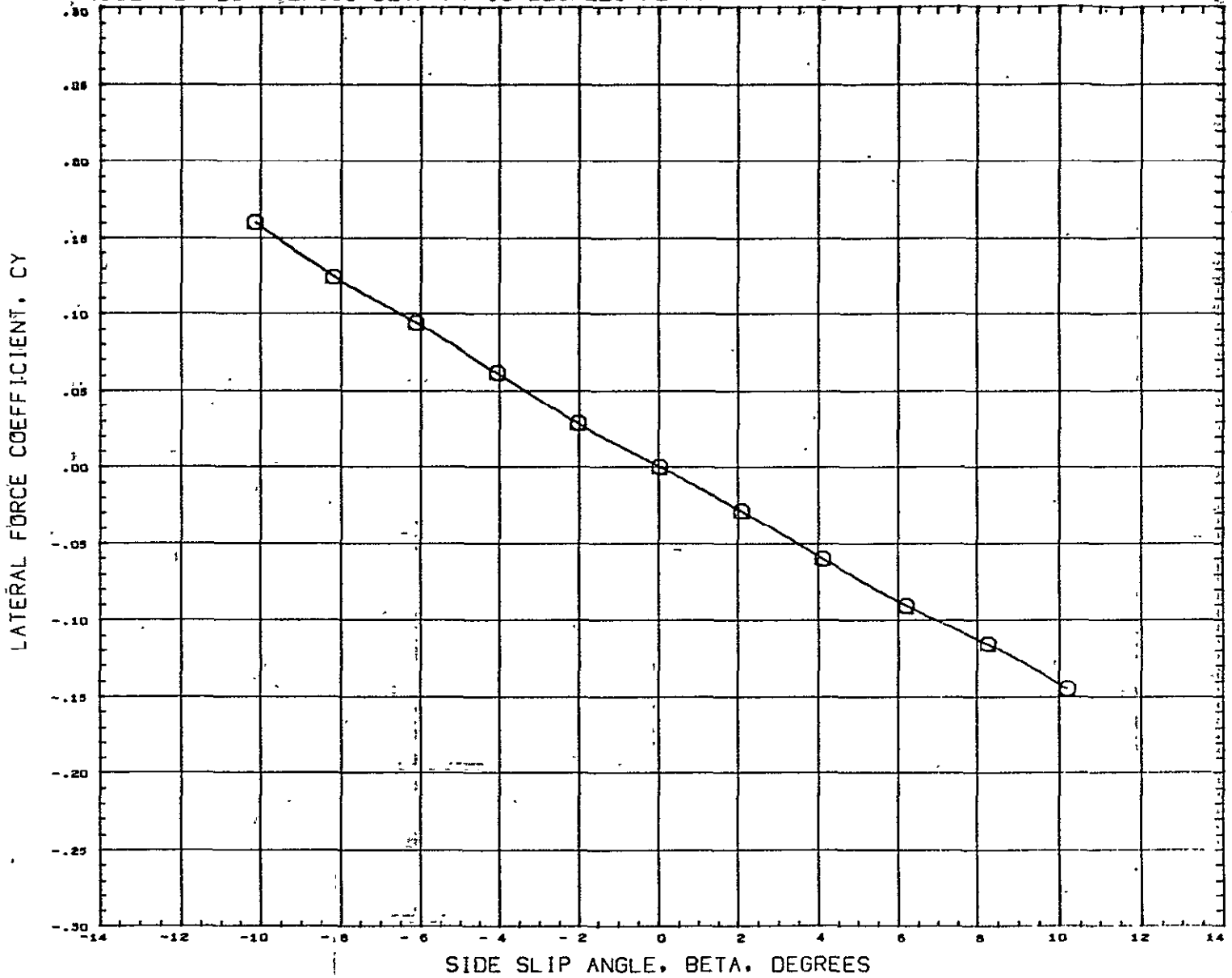
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ.IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0990 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.904

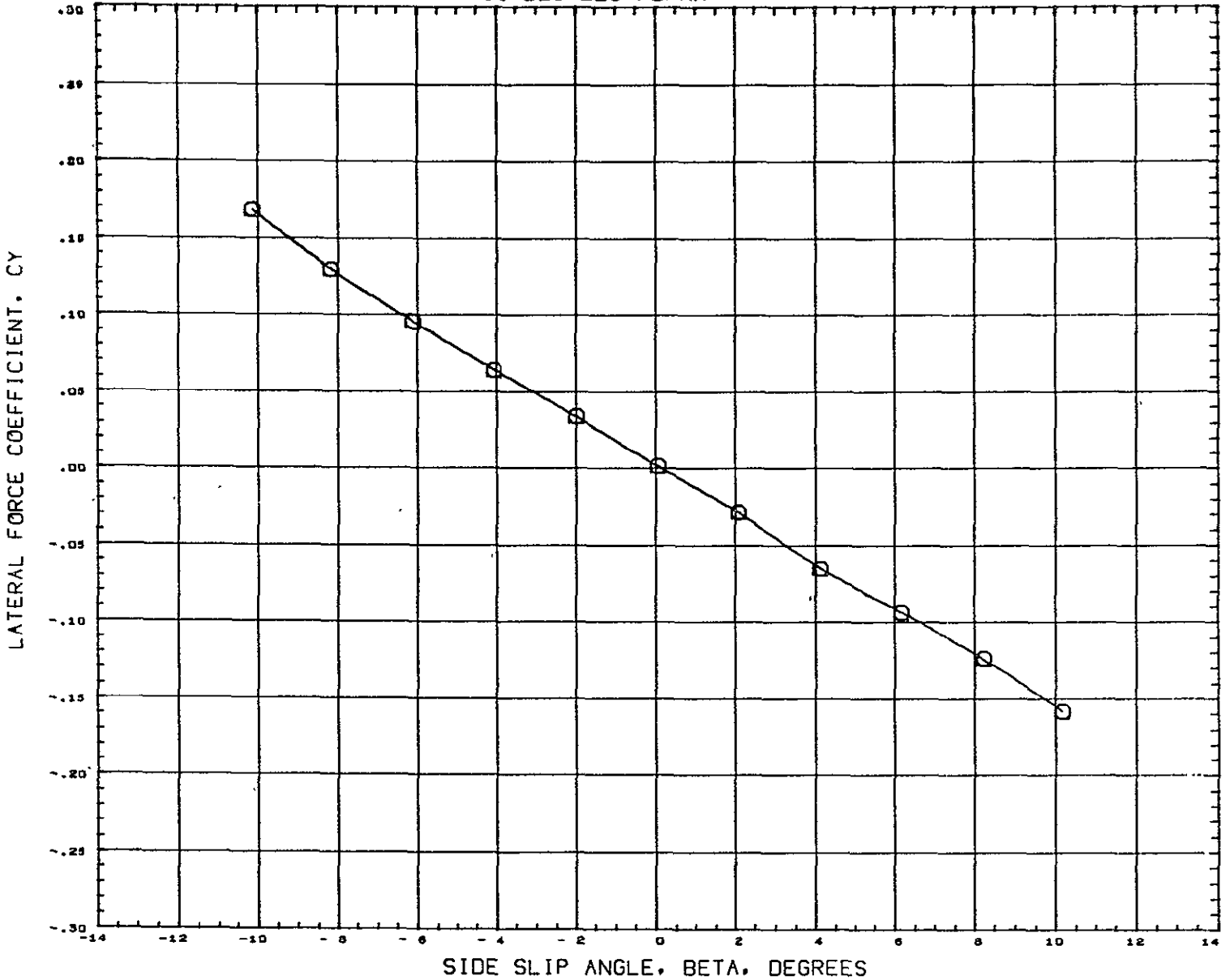
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F20Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F20Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 0.953

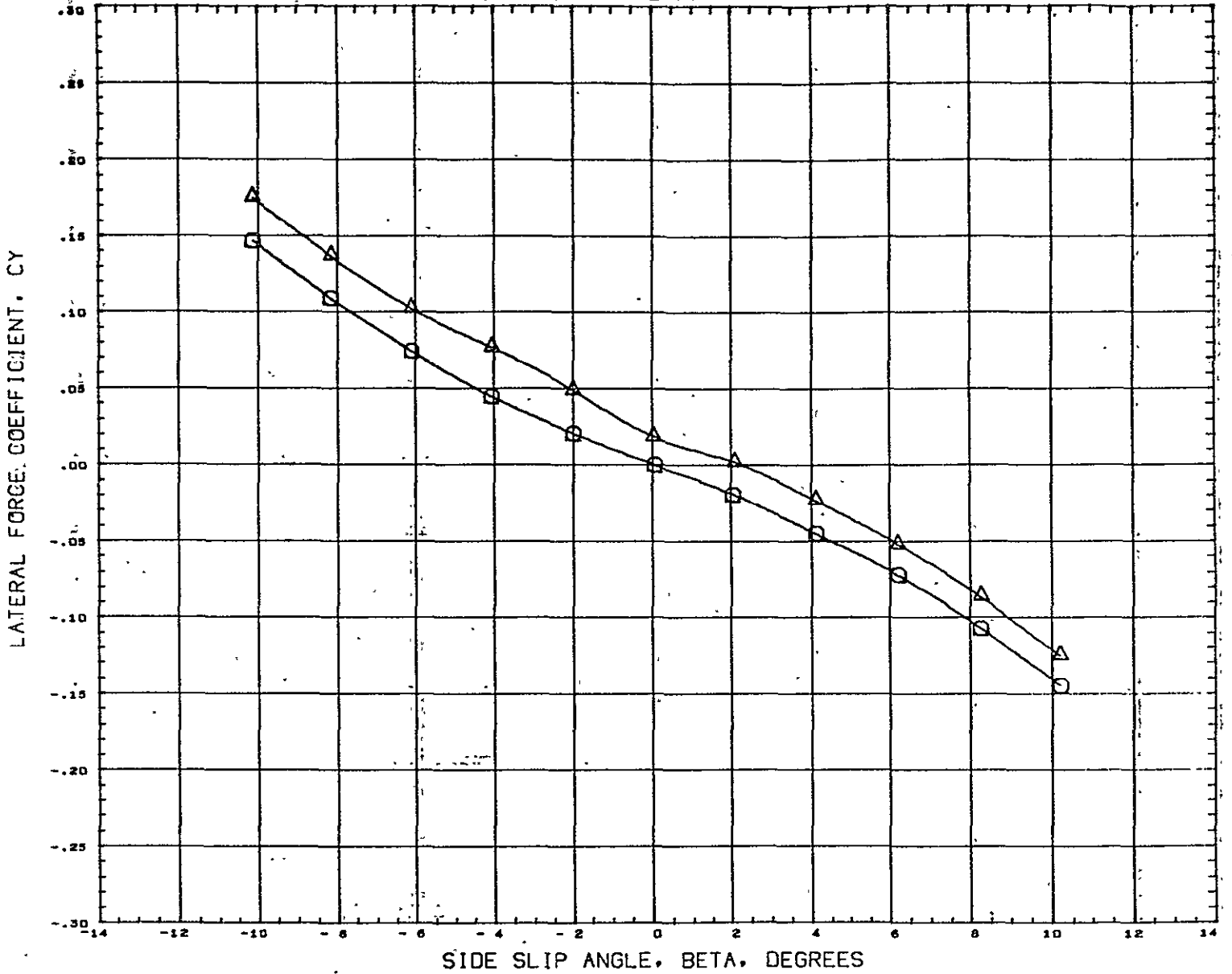
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.000

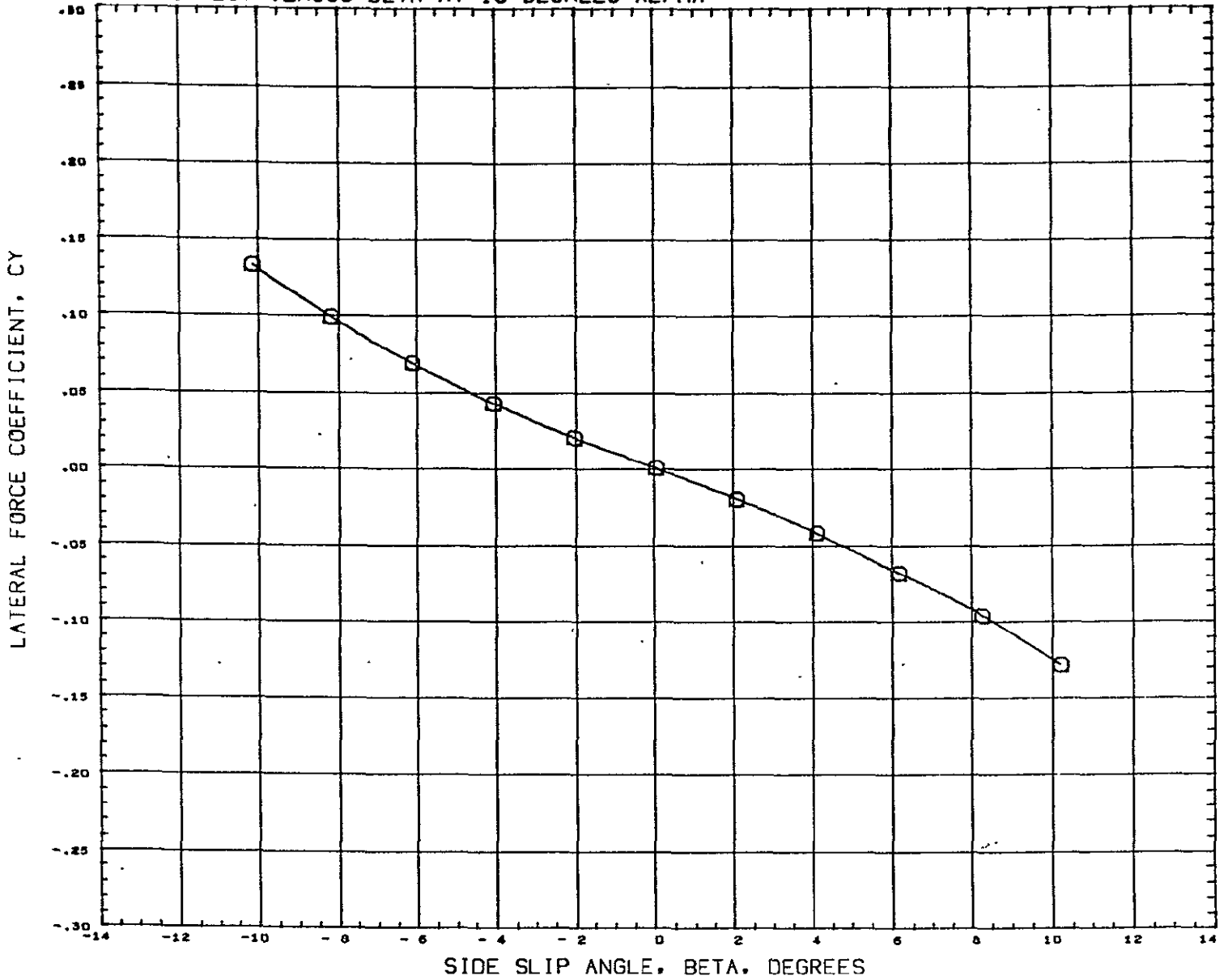
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0055

MACH 1.051

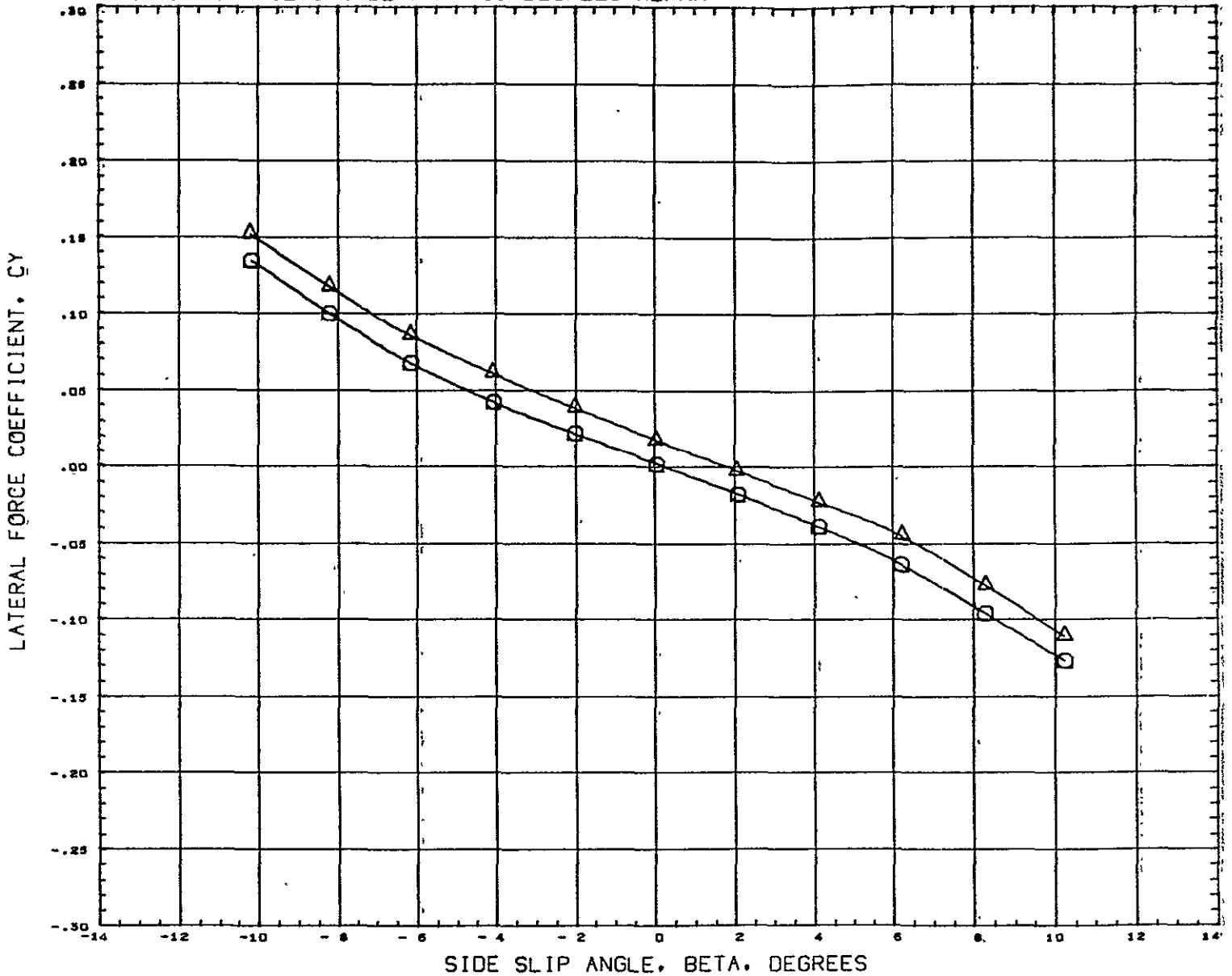
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.098

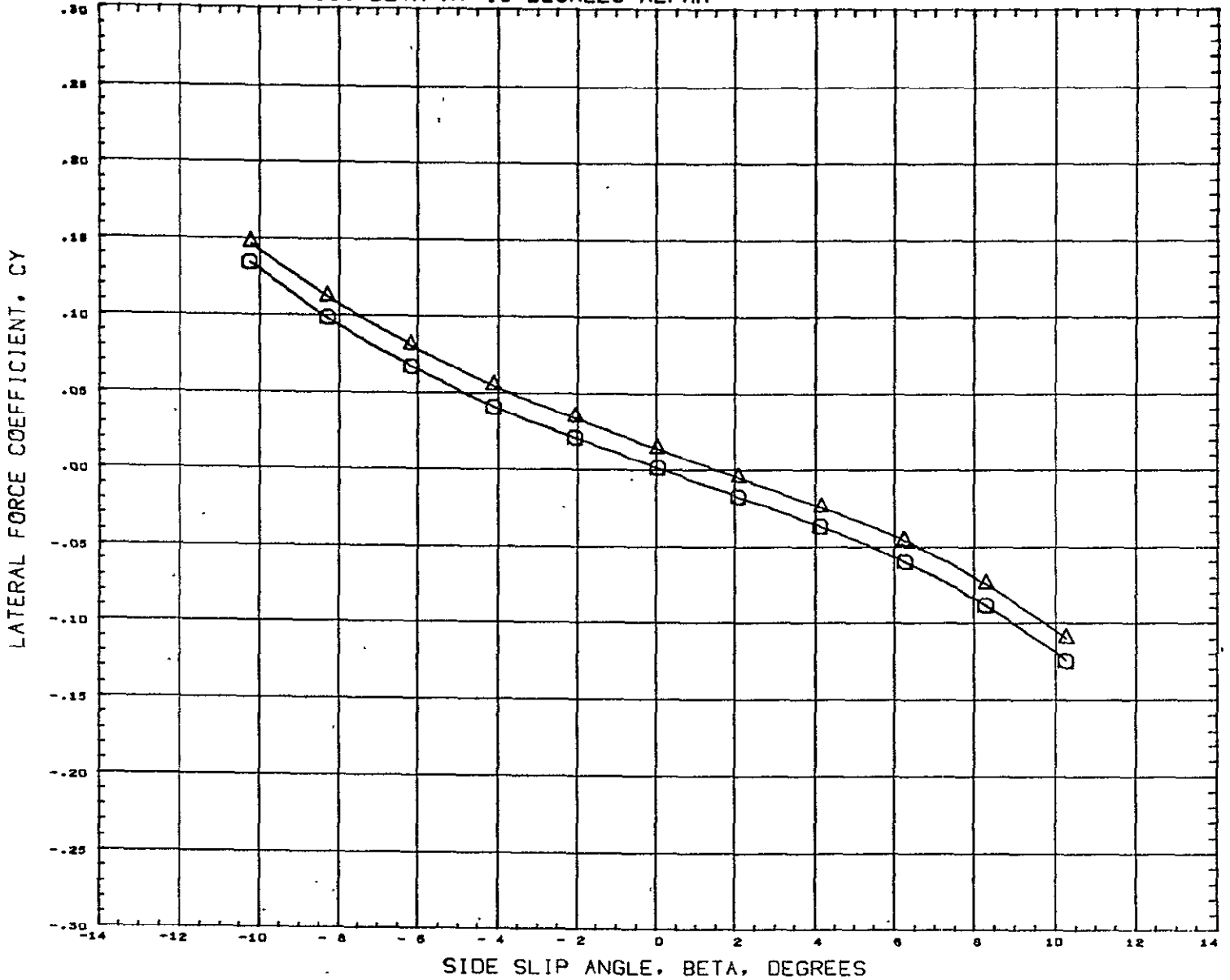
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F20Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ.IN.
(F20Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0039

MACH 1.202

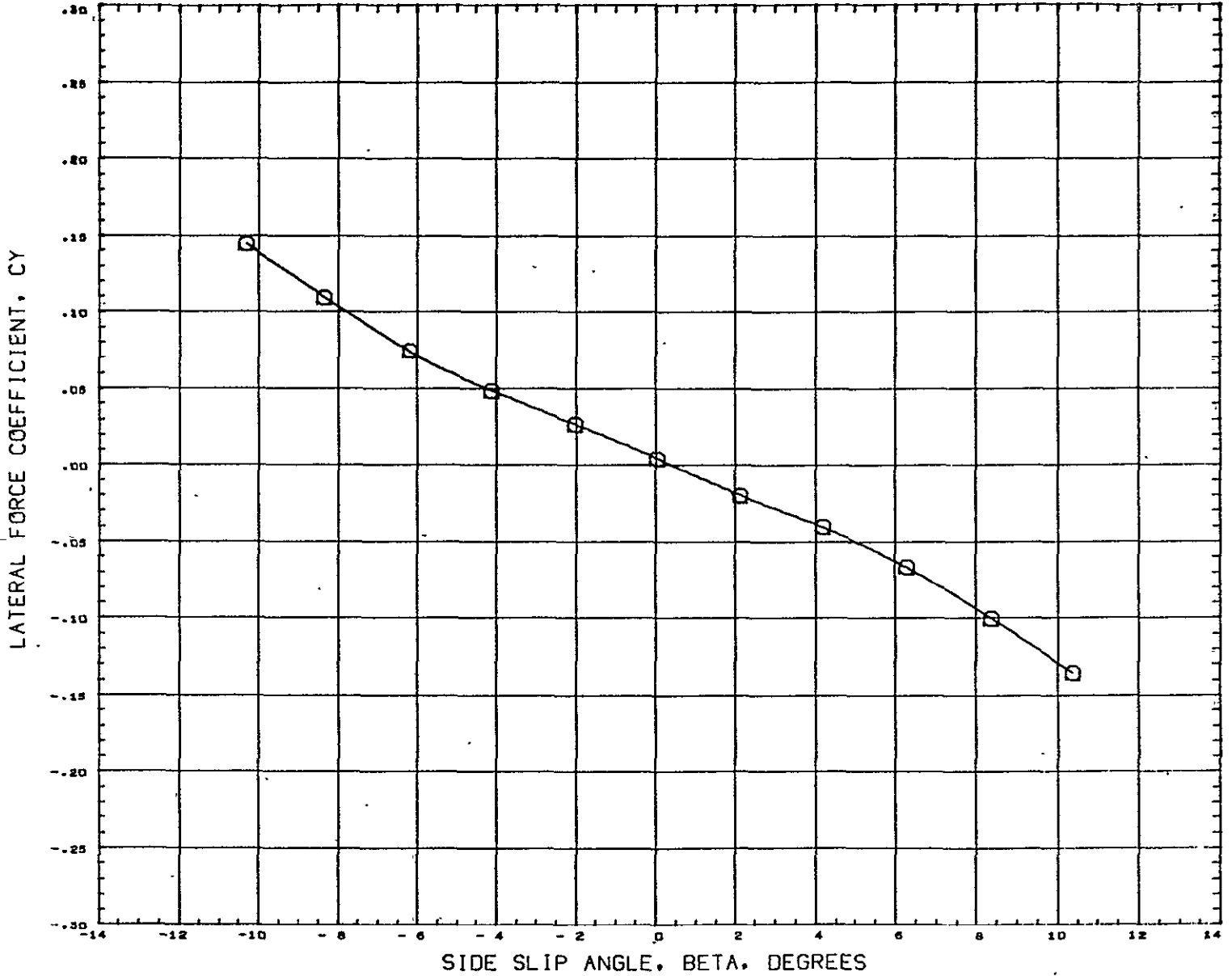
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F2BY21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 30. IN.
(F2BY22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.468

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

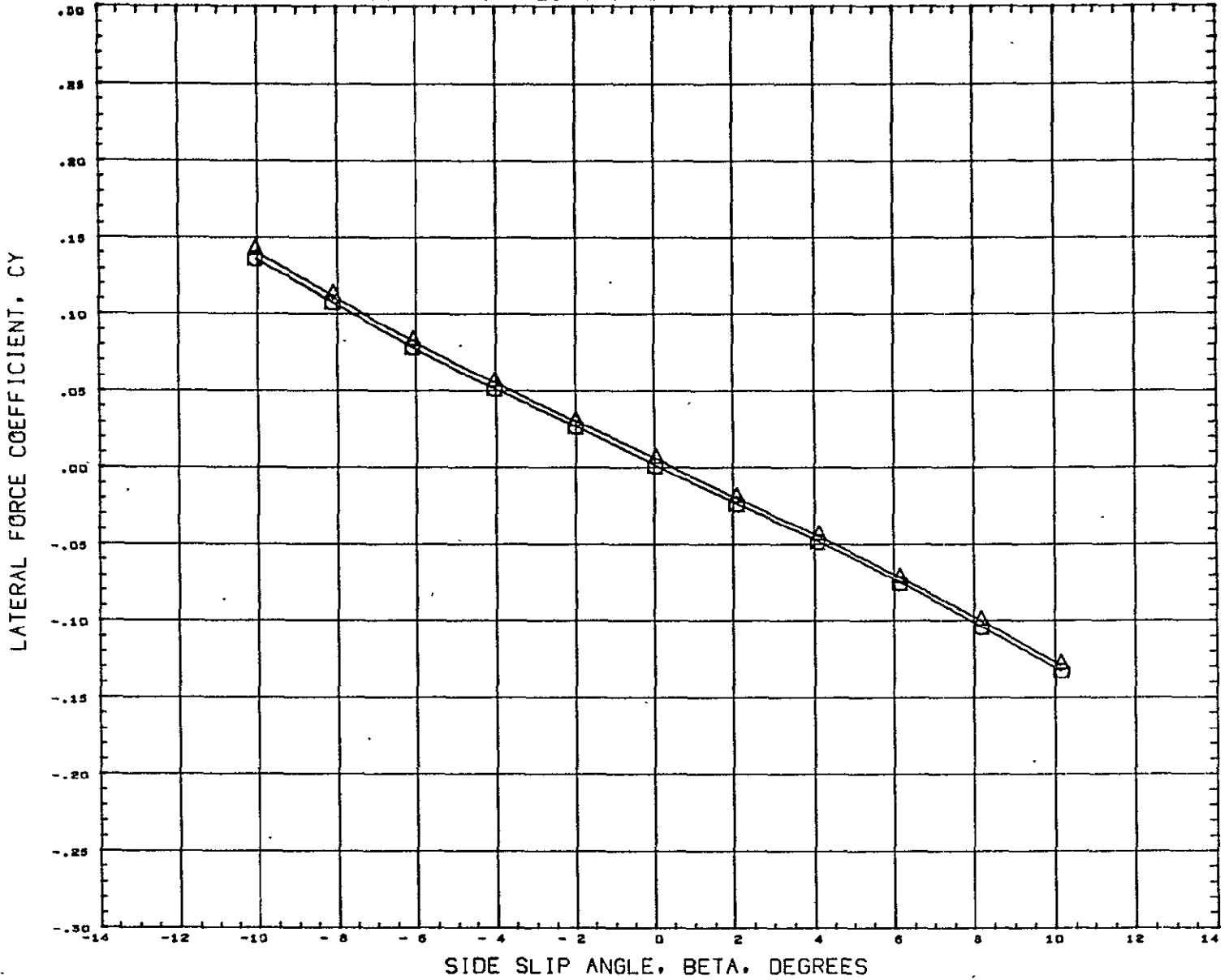


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F28Y21) MSFC461 GD/C(BOOSTER)B19W14C4AV7
 (F28Y22) DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
15.000	0.000	0.000	10.000	LREF	3.0950 IN.
				BREF	6.0990 IN.
				XMRP	6.7100 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0035

MACH 1.966

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

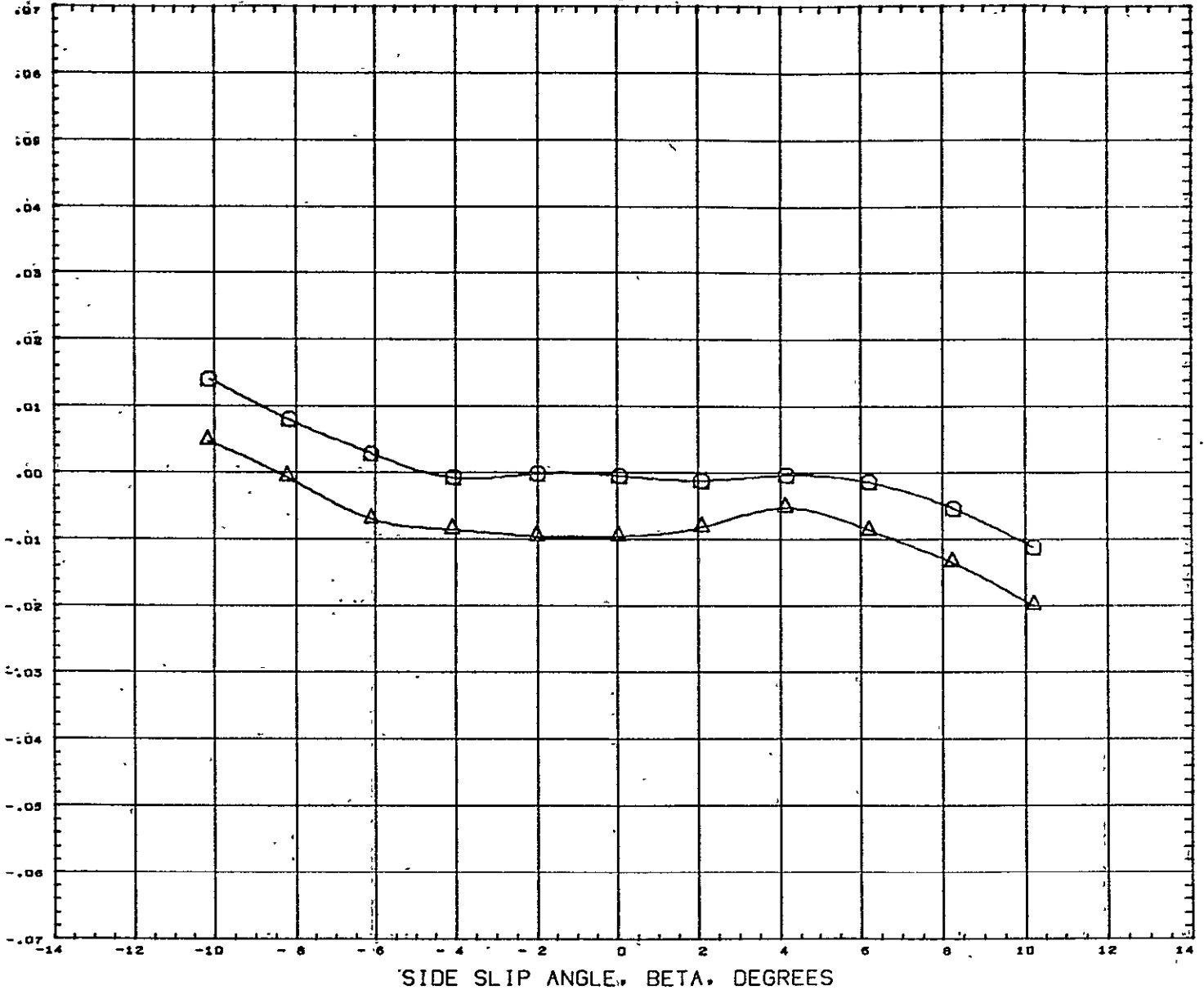


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F26Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

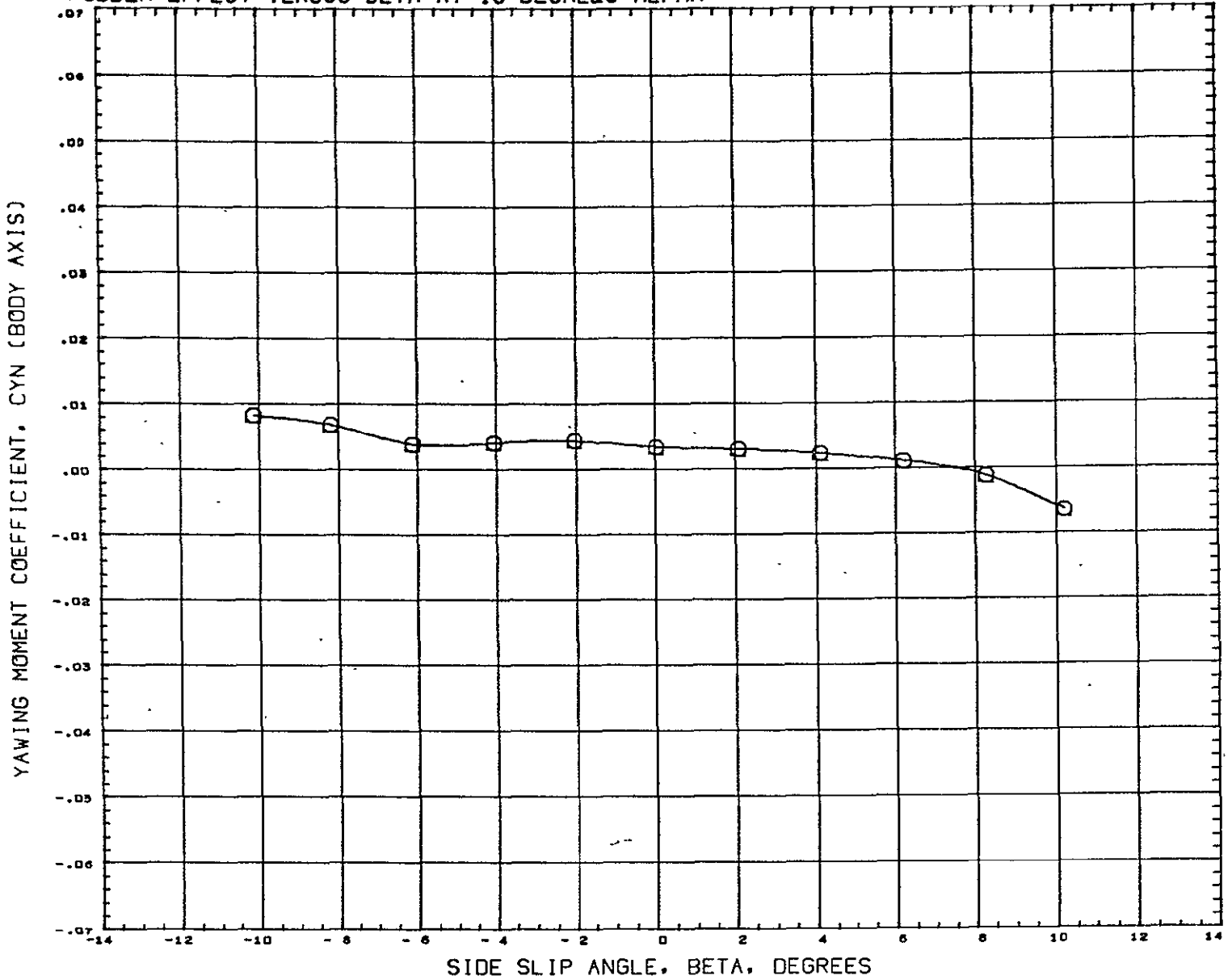
YAWING MOMENT COEFFICIENT, CYN. (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F26Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F26Y22)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0033

MACH 0.904

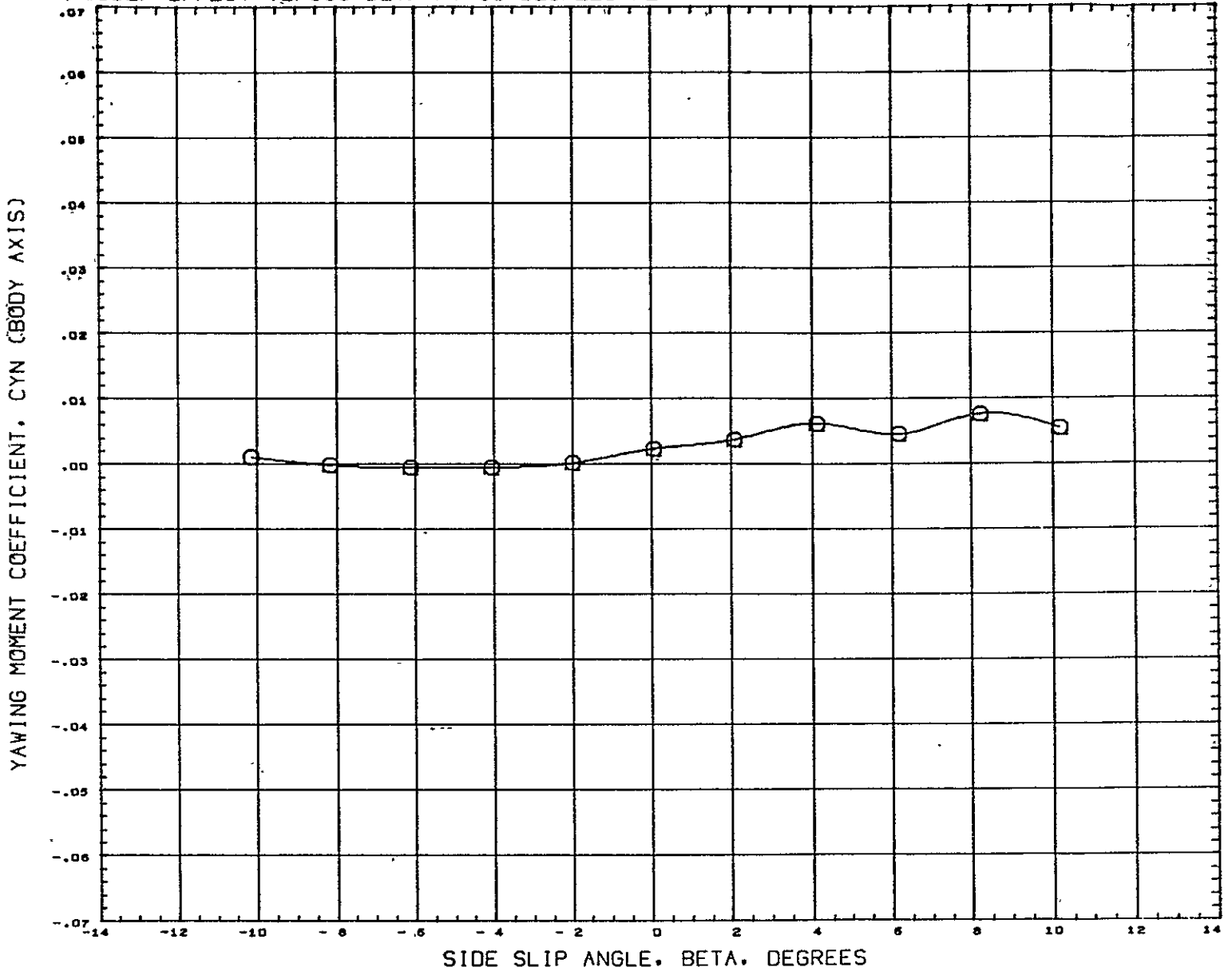
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y21)	NSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F26Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

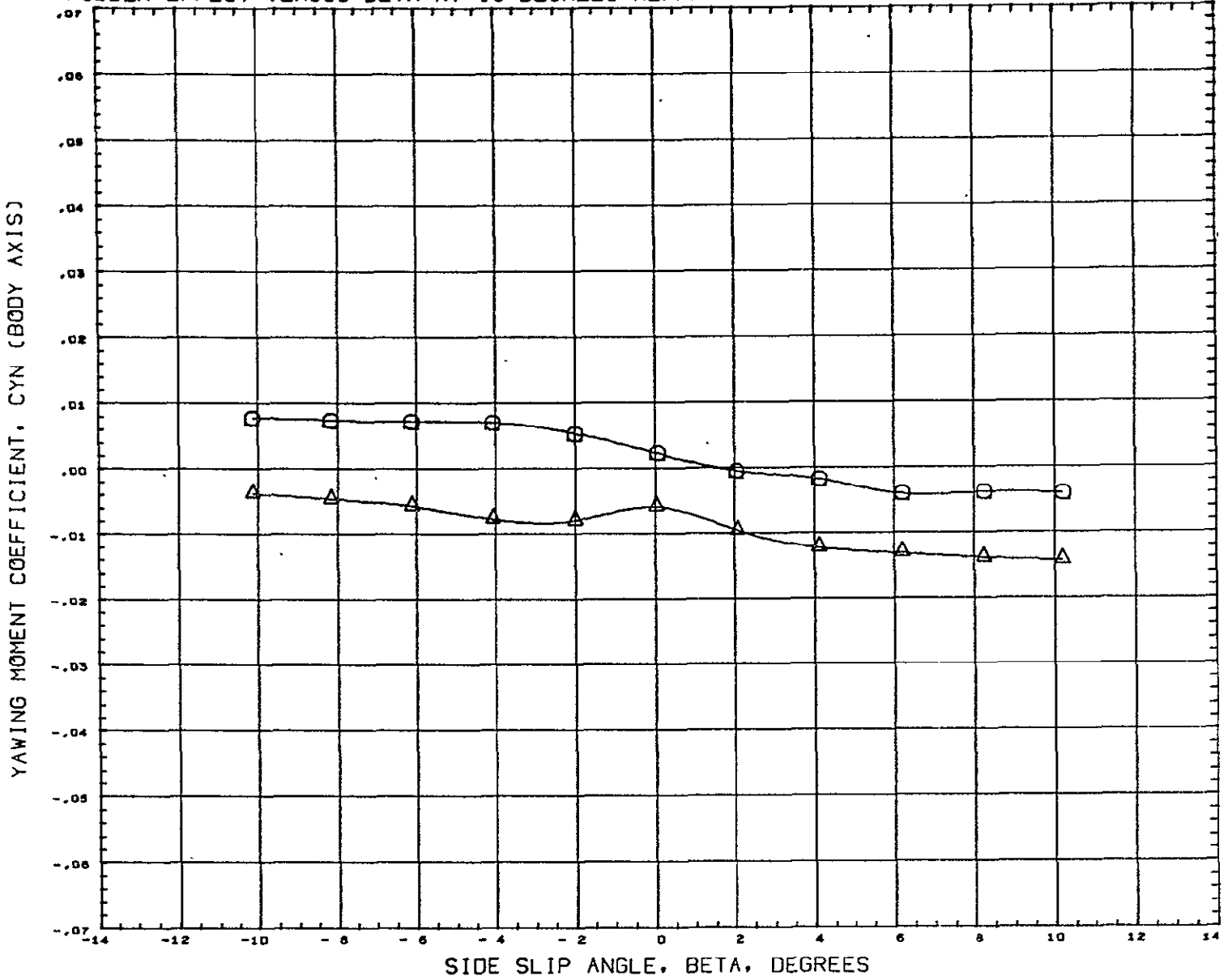
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.000

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

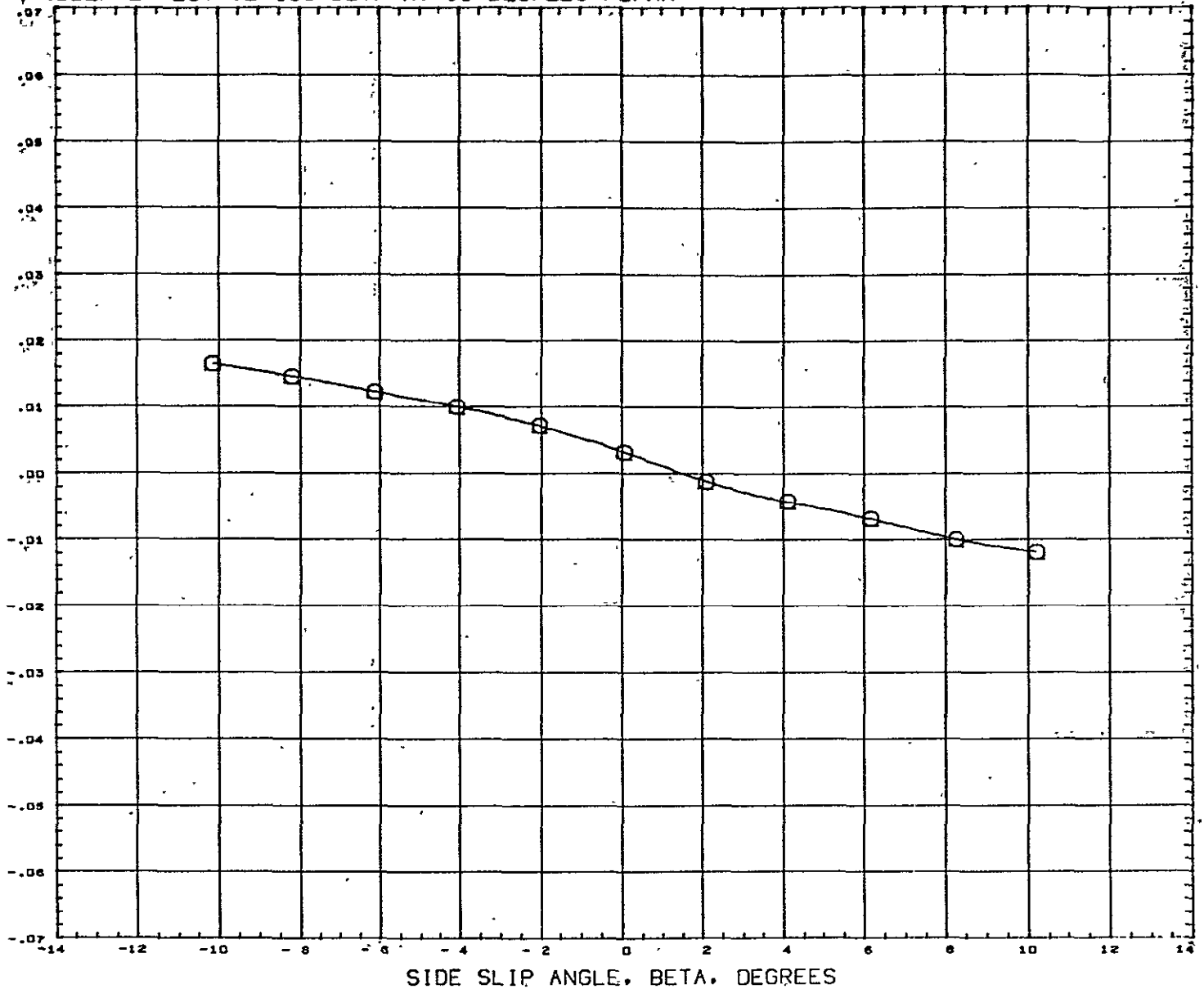


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

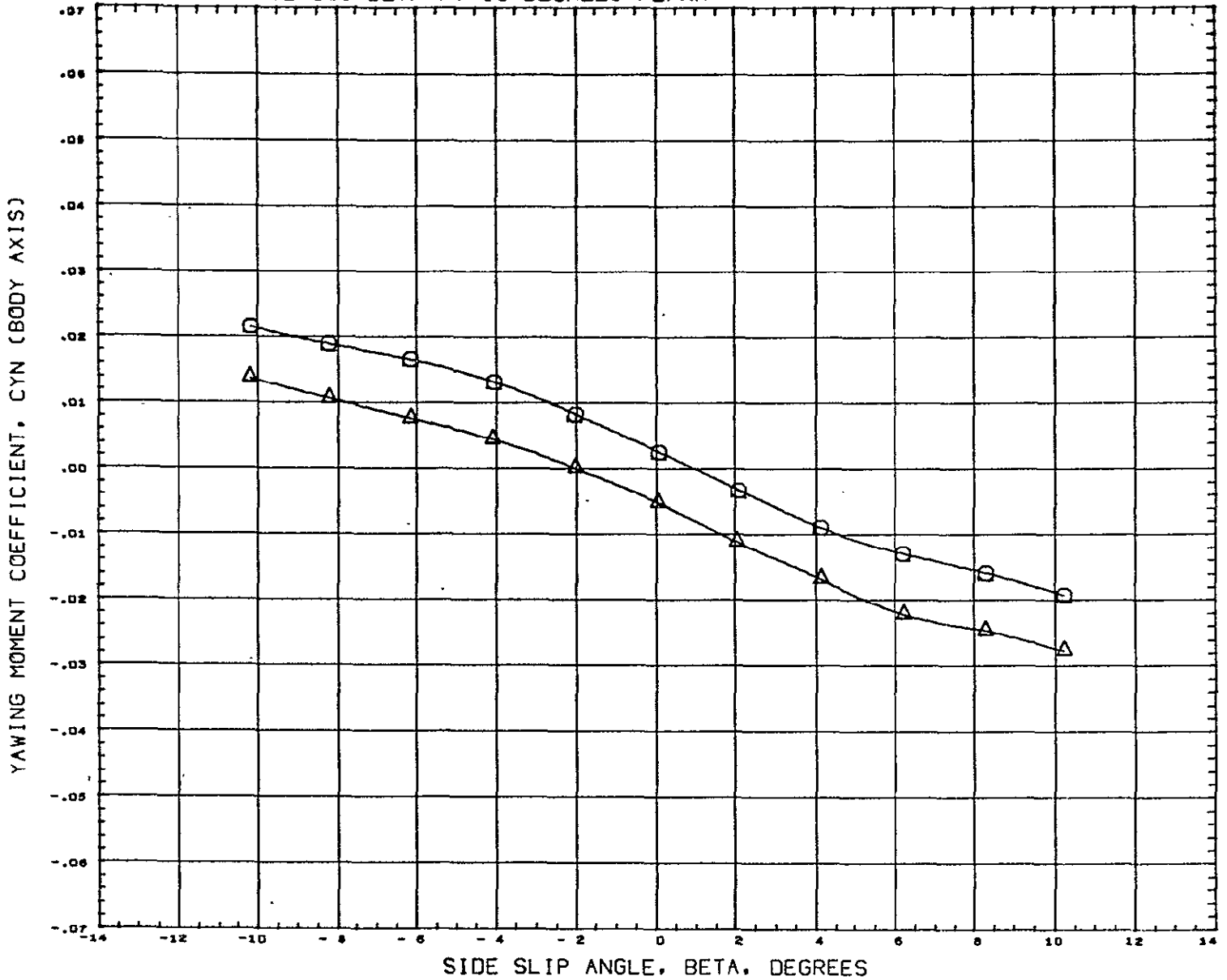


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
15.000	0.000	0.000	0.000	SREF 15.6560 50. IN.
15.000	0.000	0.000	10.000	LREF 3.0950 IN.
				BREF 6.0990 IN.
				XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 1.098

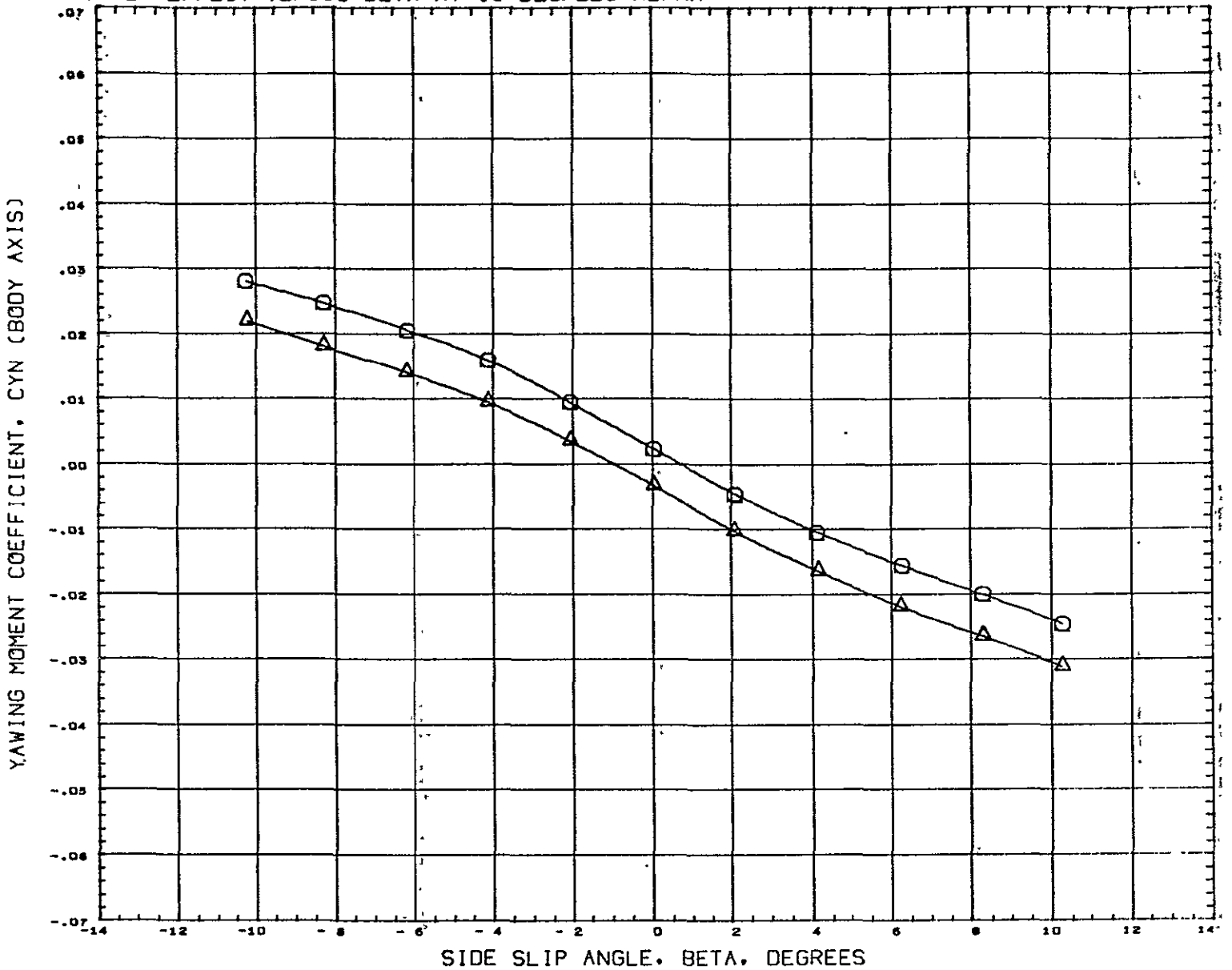
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.202

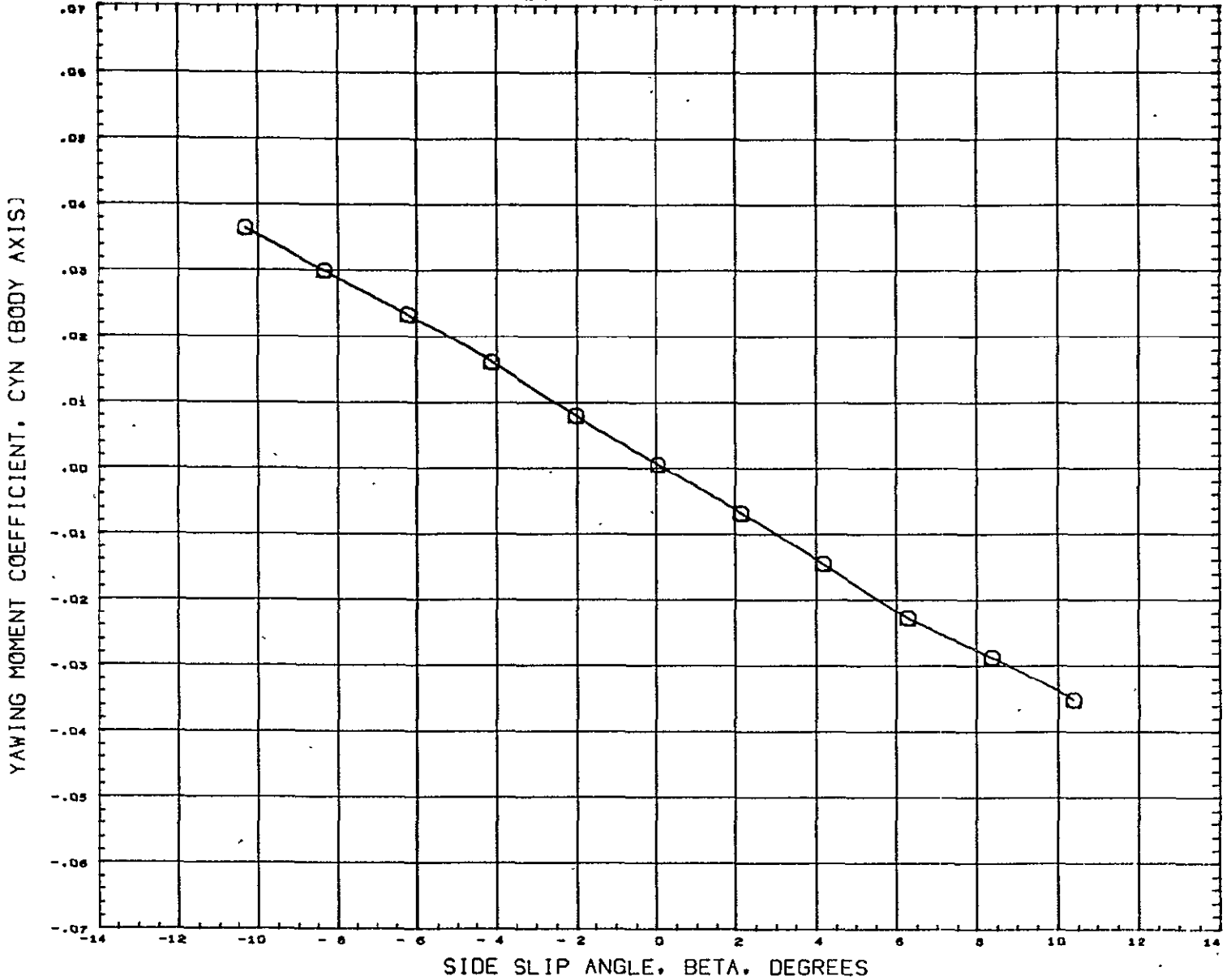
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y21)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 39. IN.
(F26Y22)	MSFC461 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.466

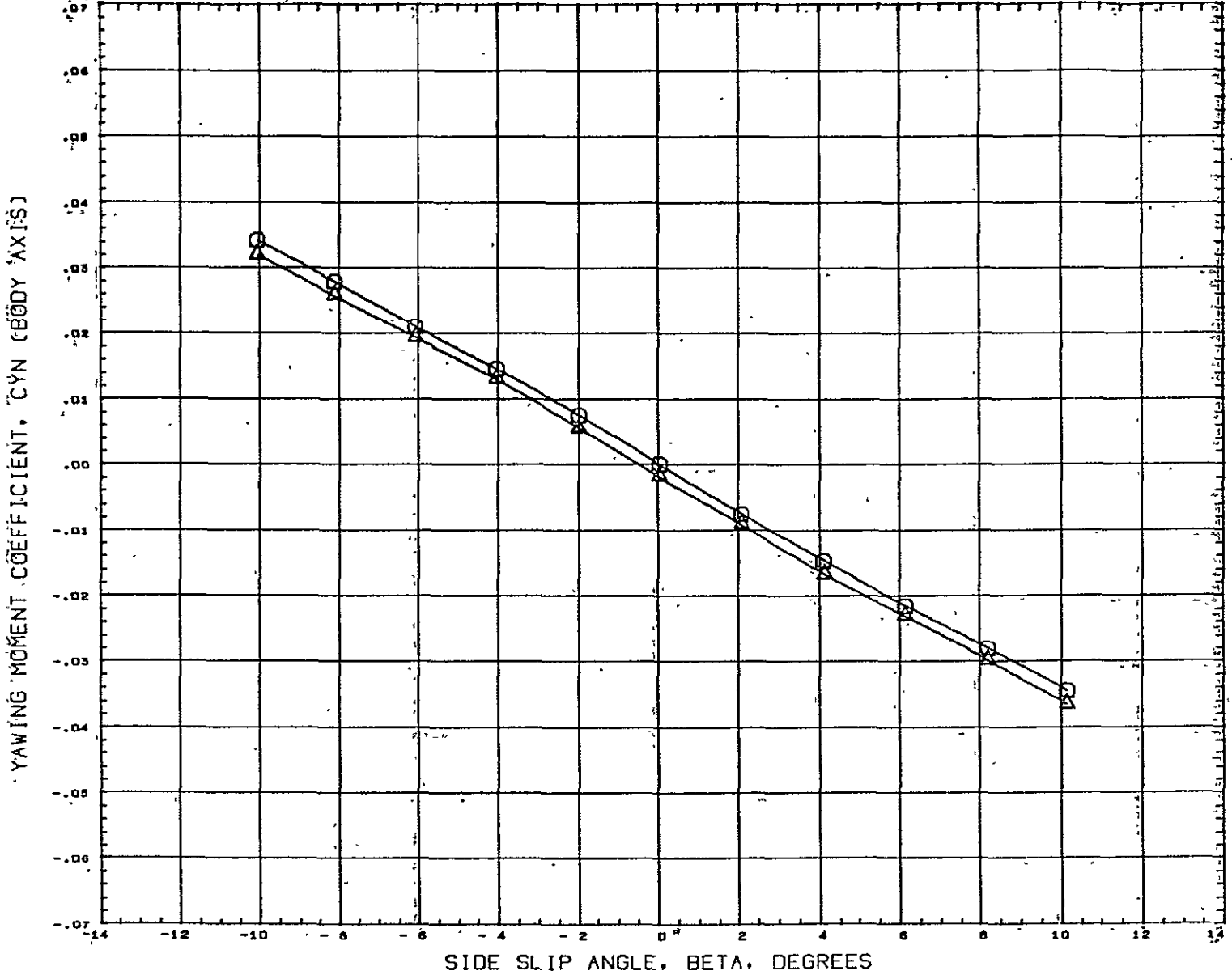
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.966

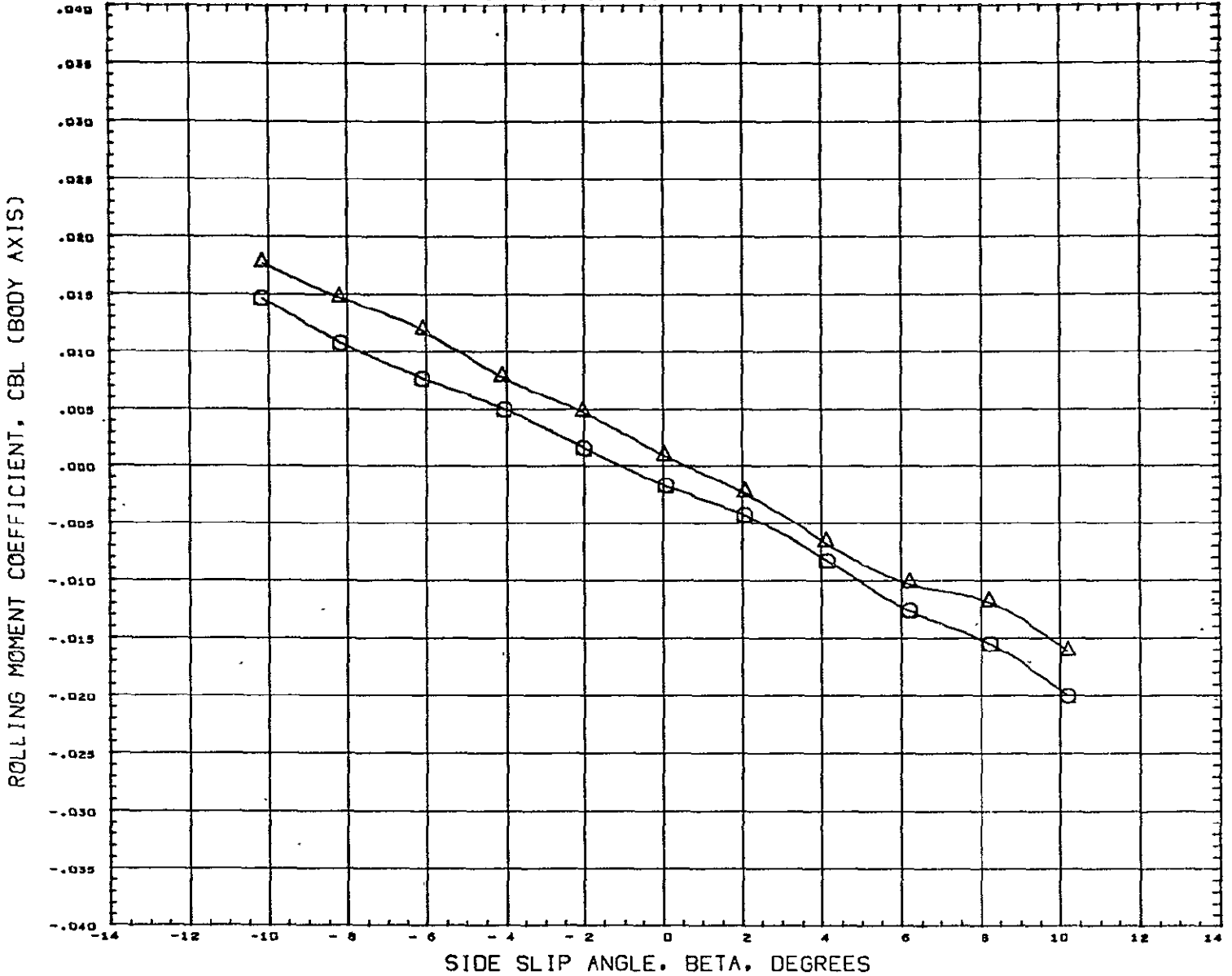
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F20Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F20Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0035

MACH 2.990

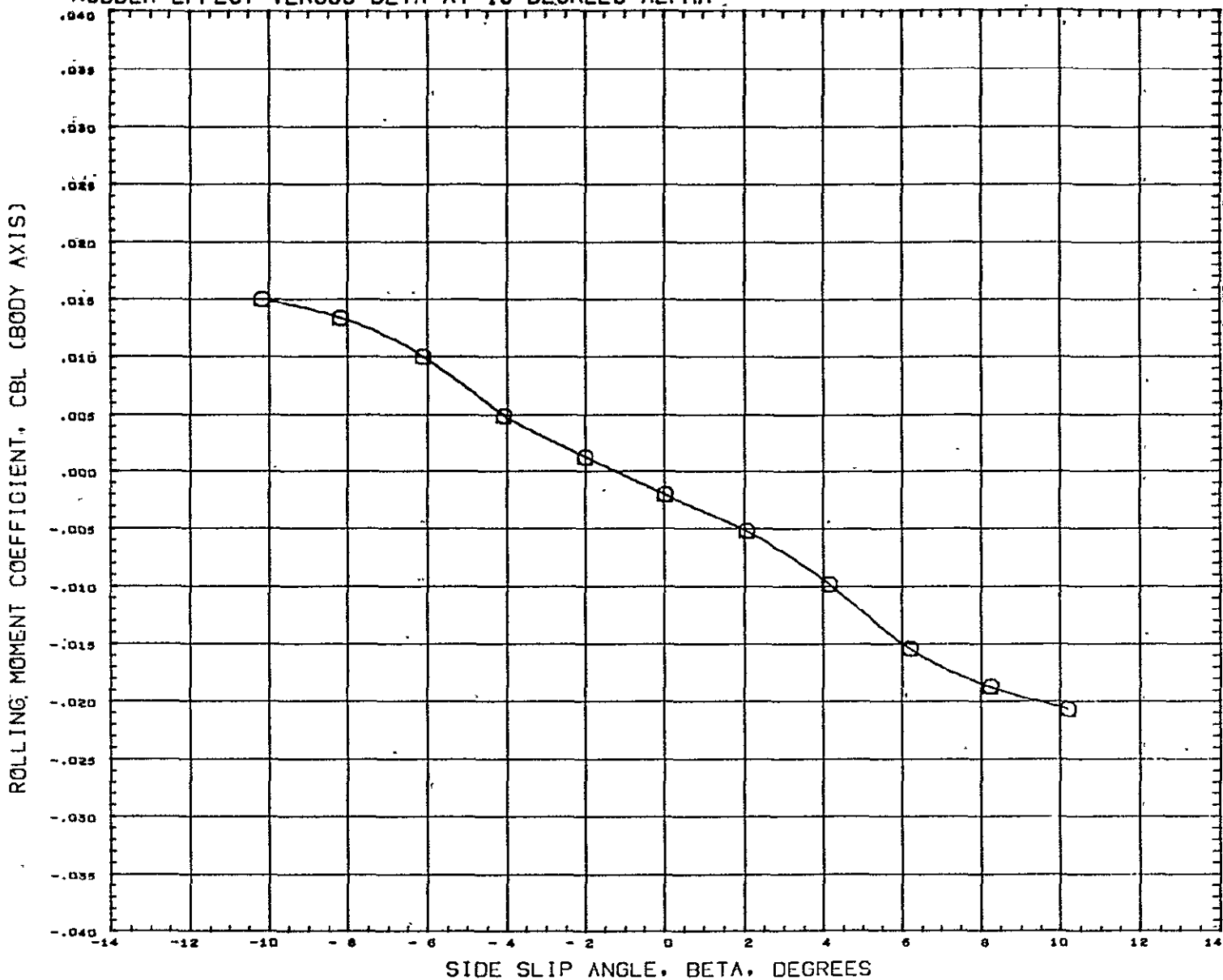
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC461 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC461 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.904

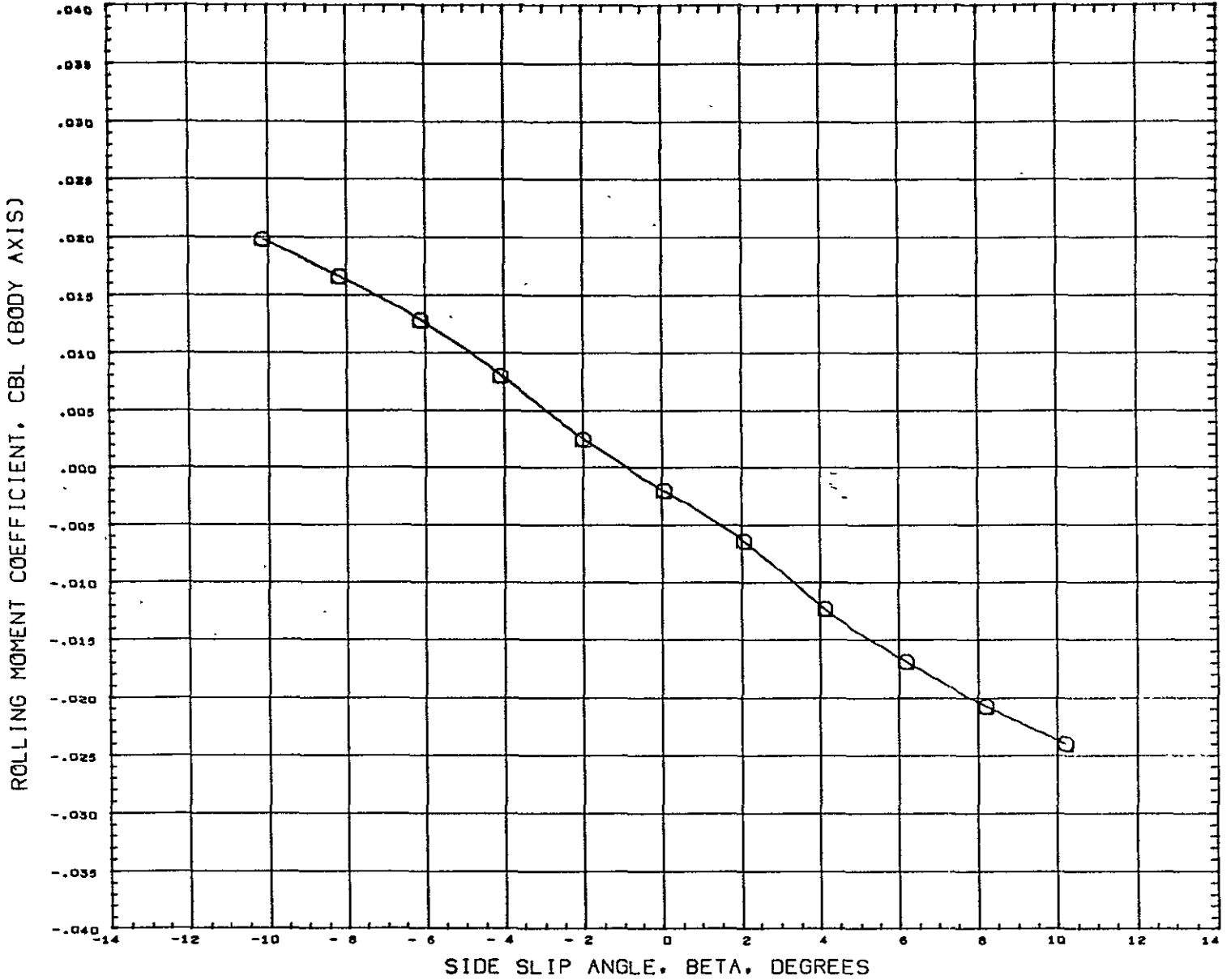
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F26Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

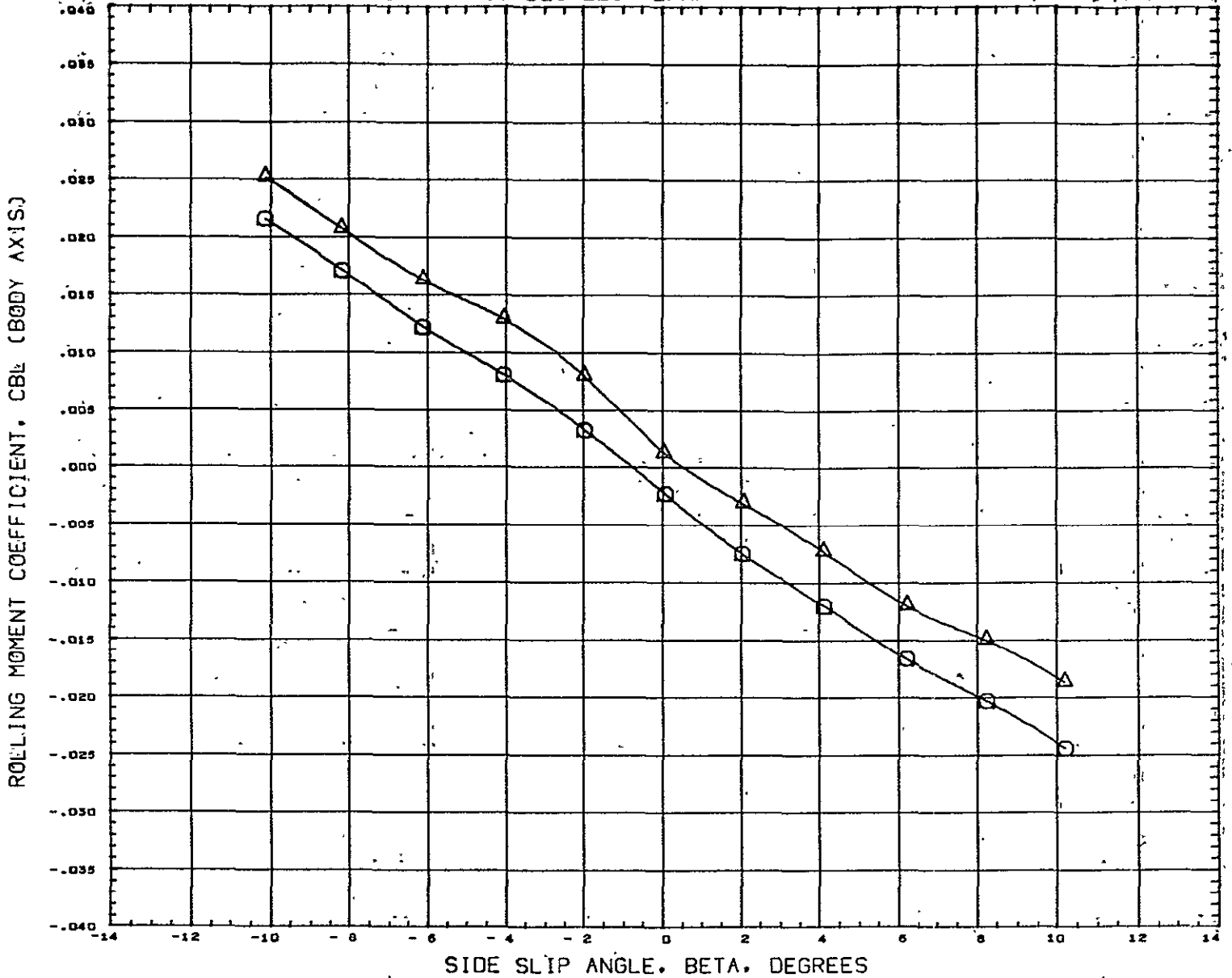


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F28Y21) ○ MSFC481 GD/C(BOOSTER)B19W14C4AV7
 (F28Y22) △ DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
15.000	0.000	0.000	10.000	LREF	3.0950 IN.
				BREF	6.0990 IN.
				XMRP	6.7100 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0035

MACH 1.000

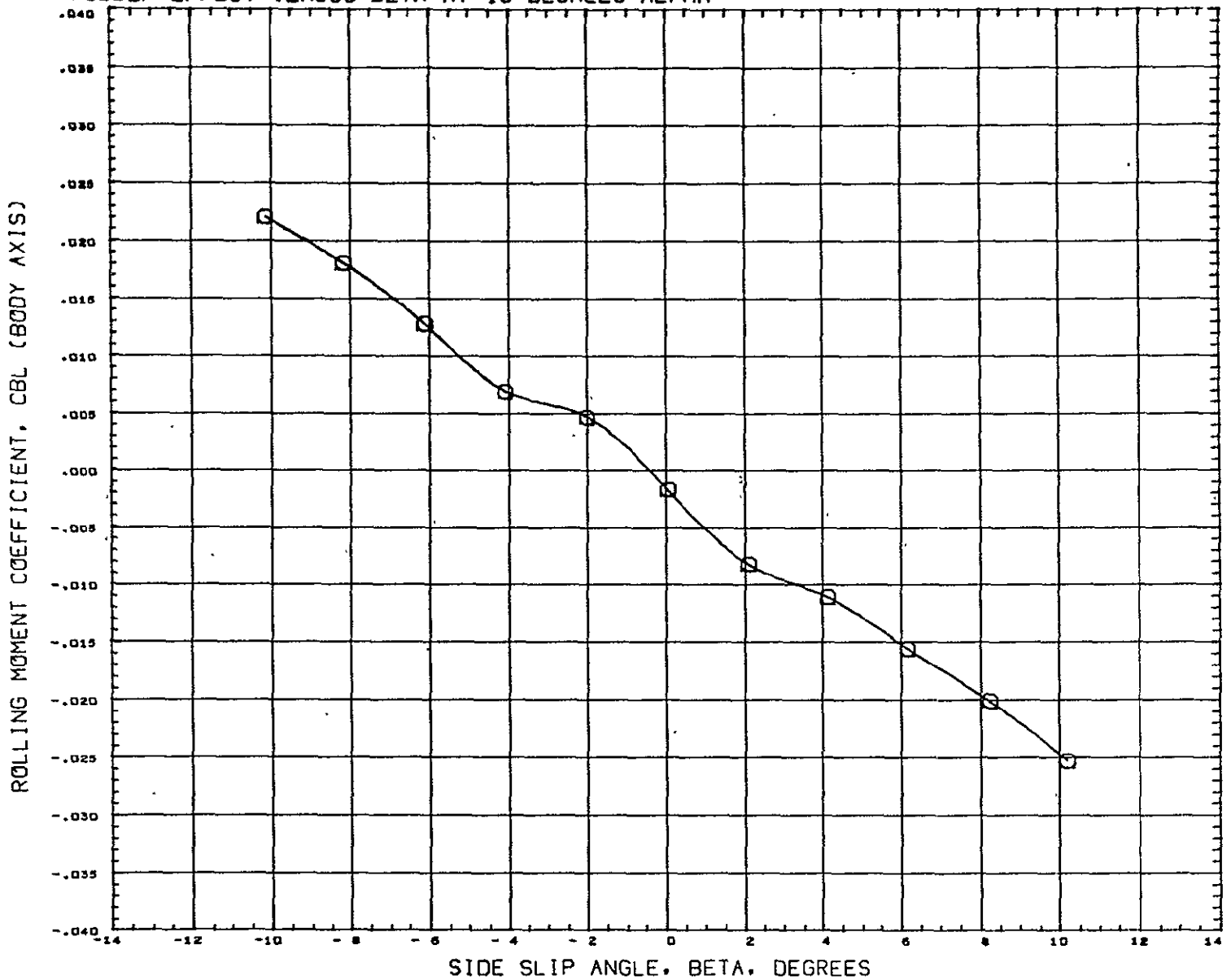
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0033

MACH 1.051

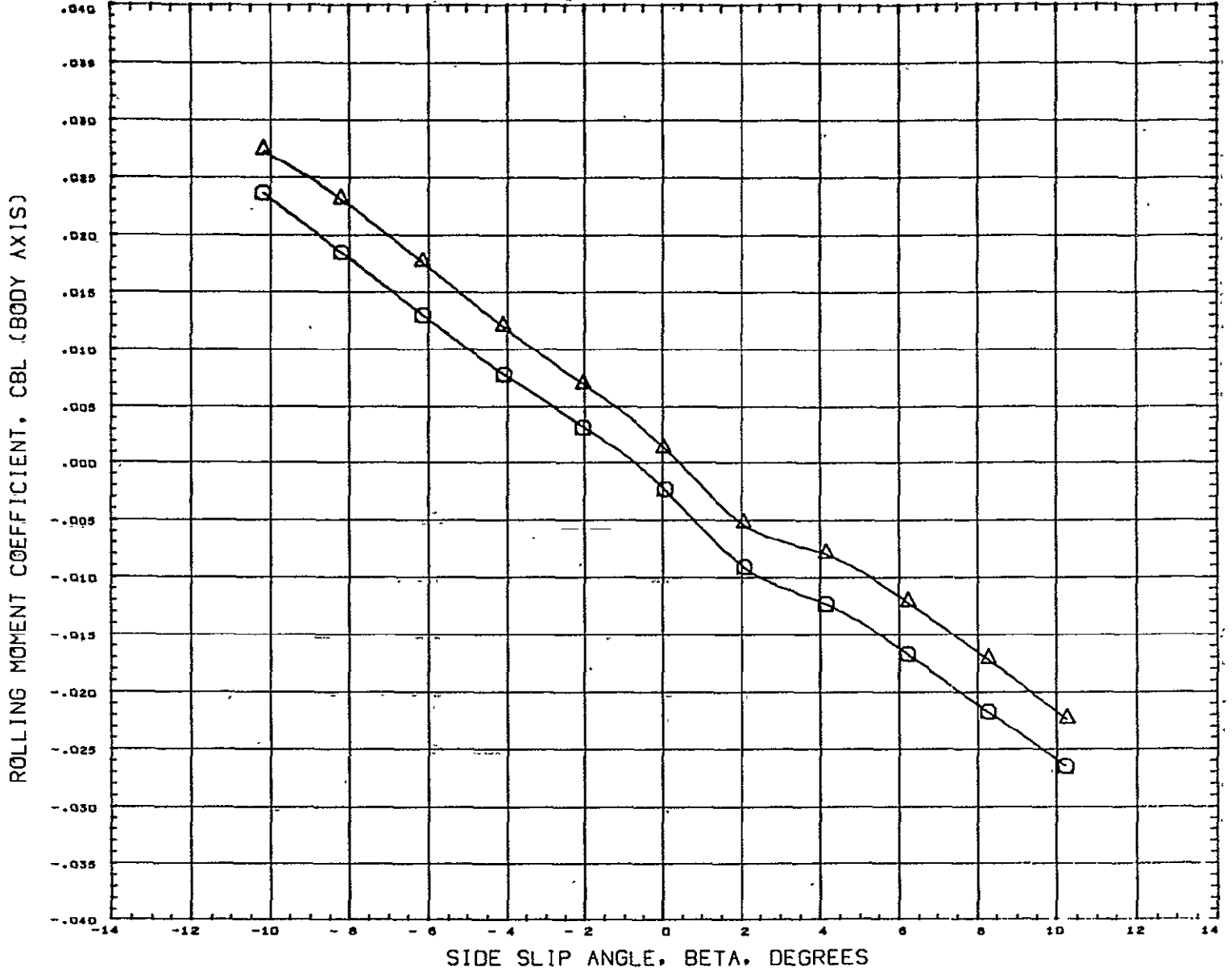
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						SRF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.098

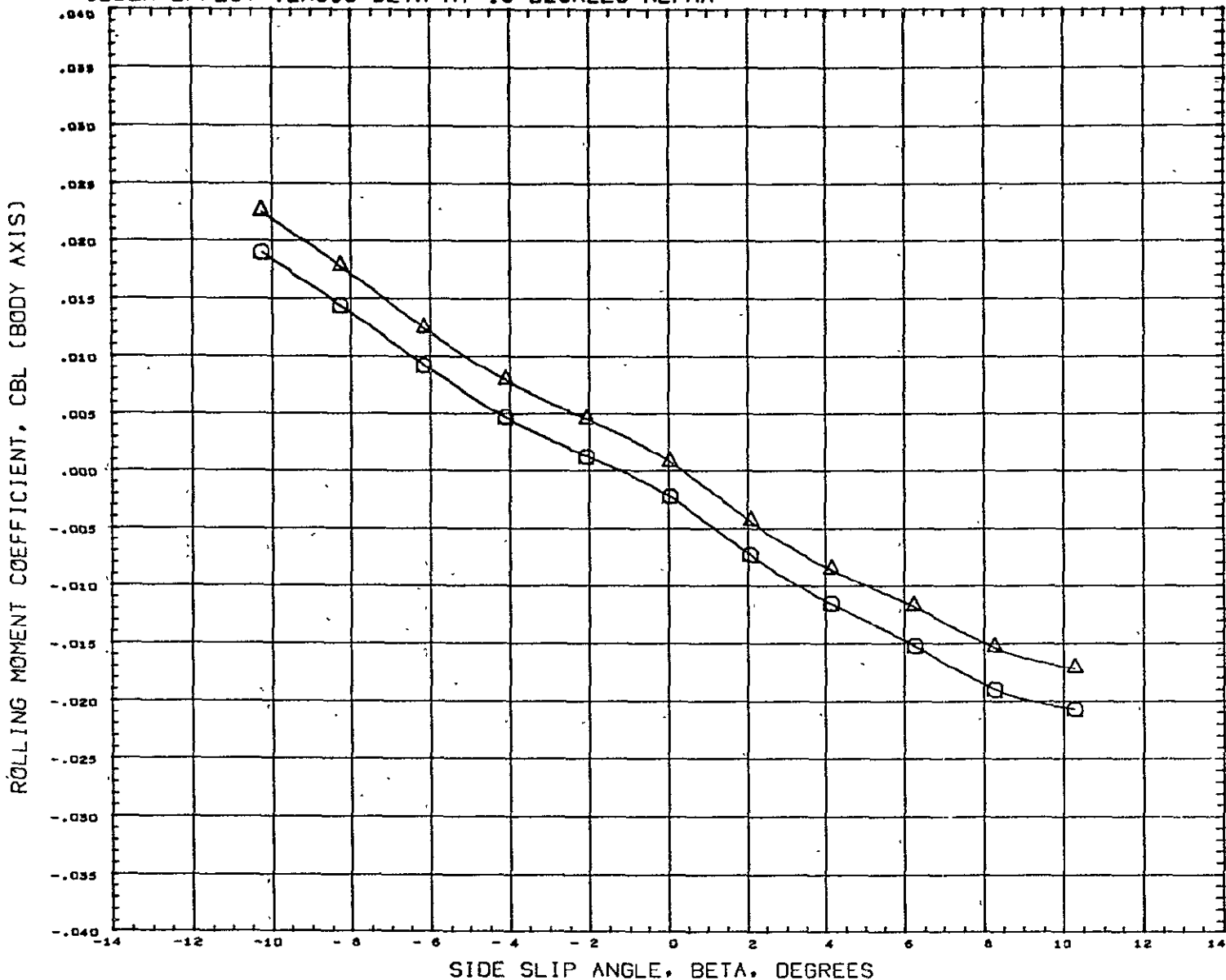
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F20Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F20Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0990 IN.
						BREF	6.0990 IN.
						XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0035

MACH 1.202

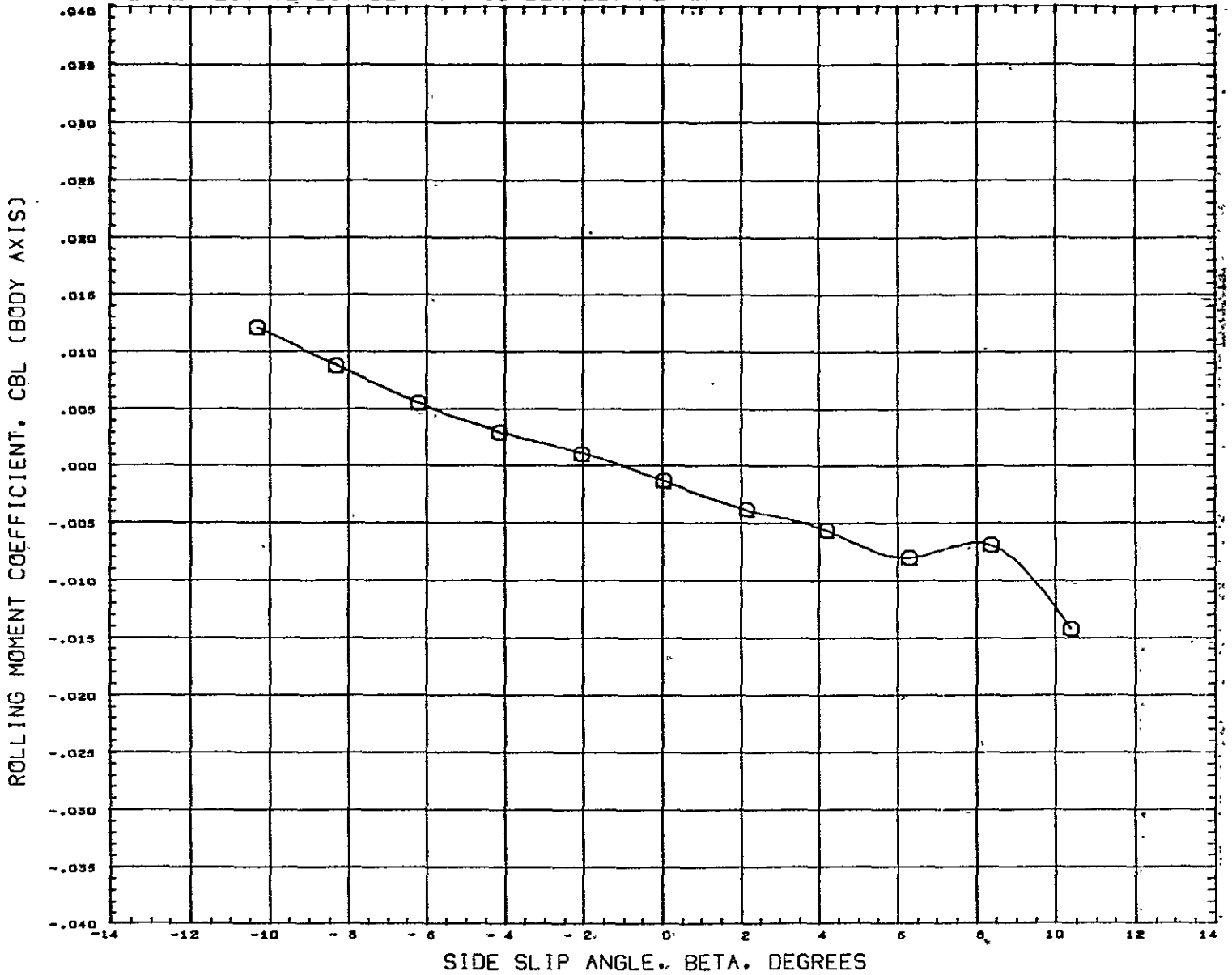
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6360 sq. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.466

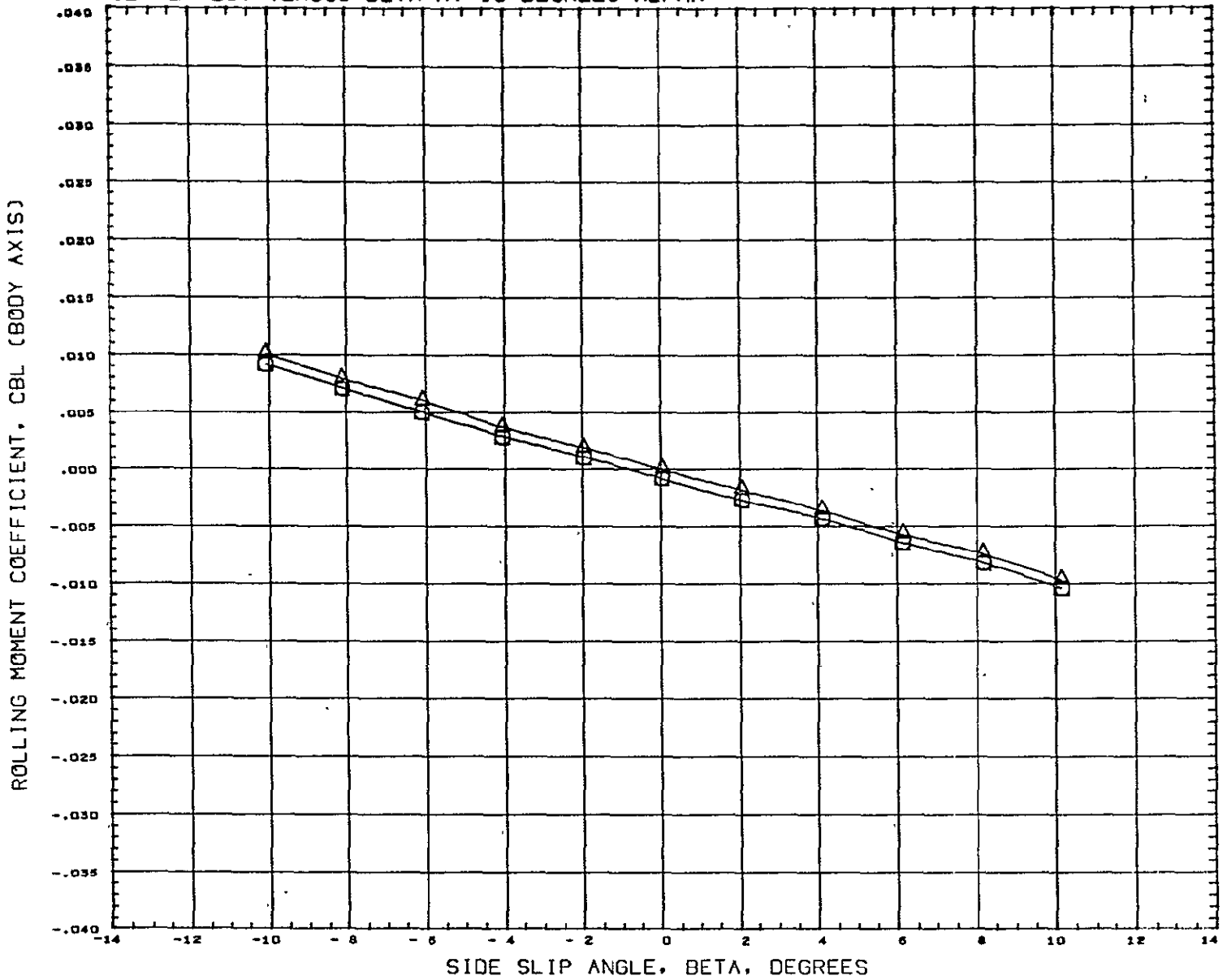
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F20Y21)	NSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F20Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.966

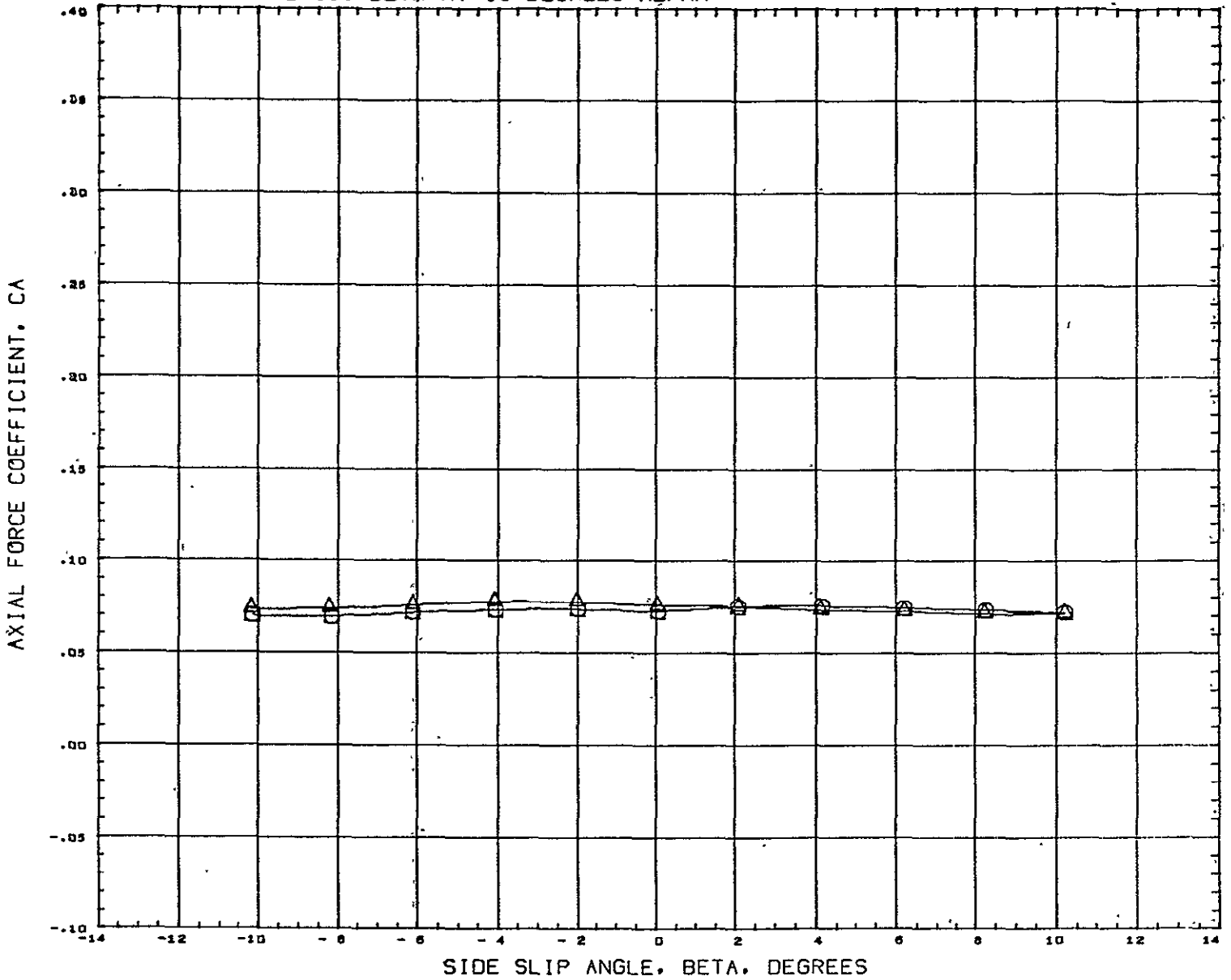
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F20Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F20Y22)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XNRP 6.7100 IN.
						YNRP 0.0000 IN.
						ZNRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

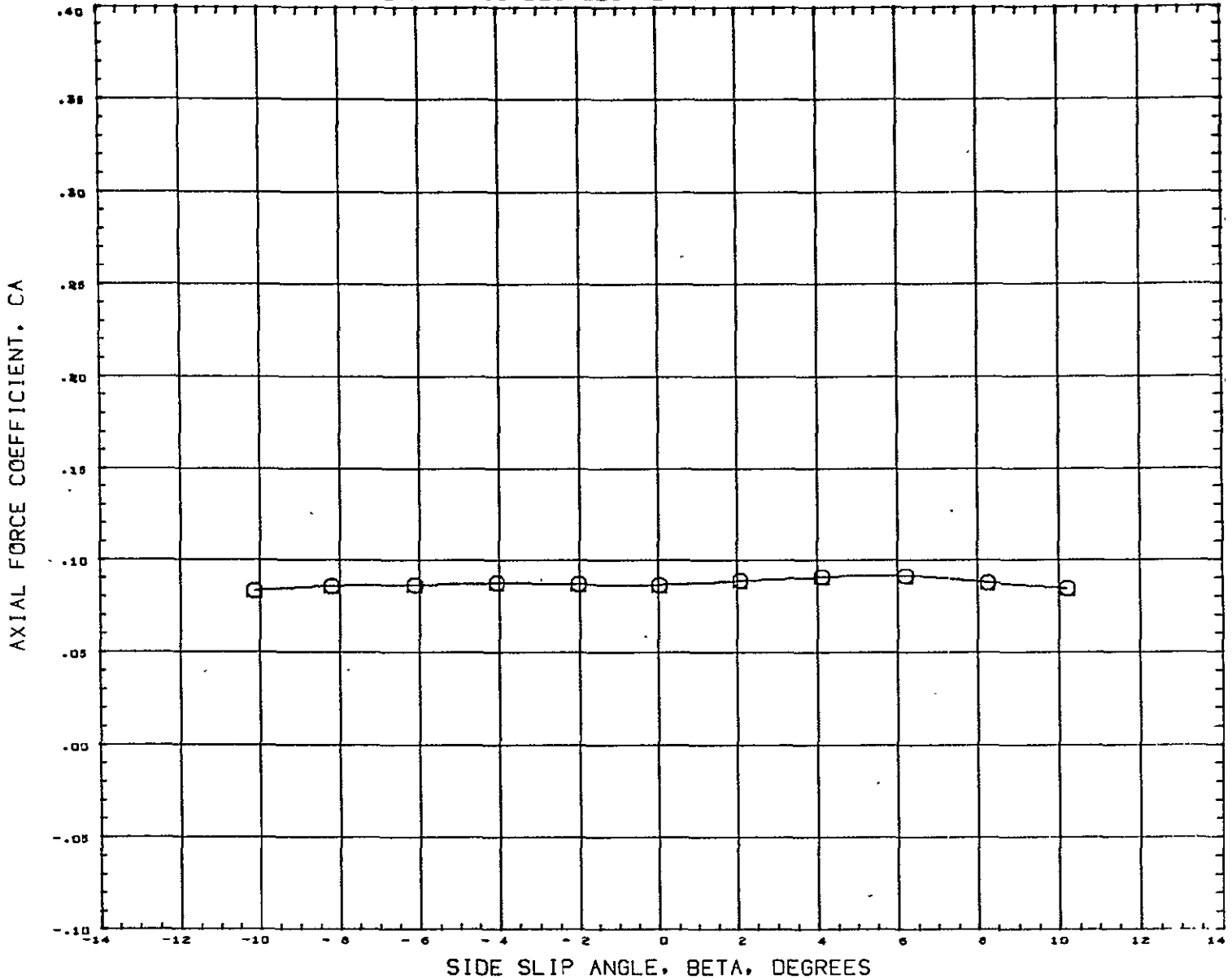
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.904

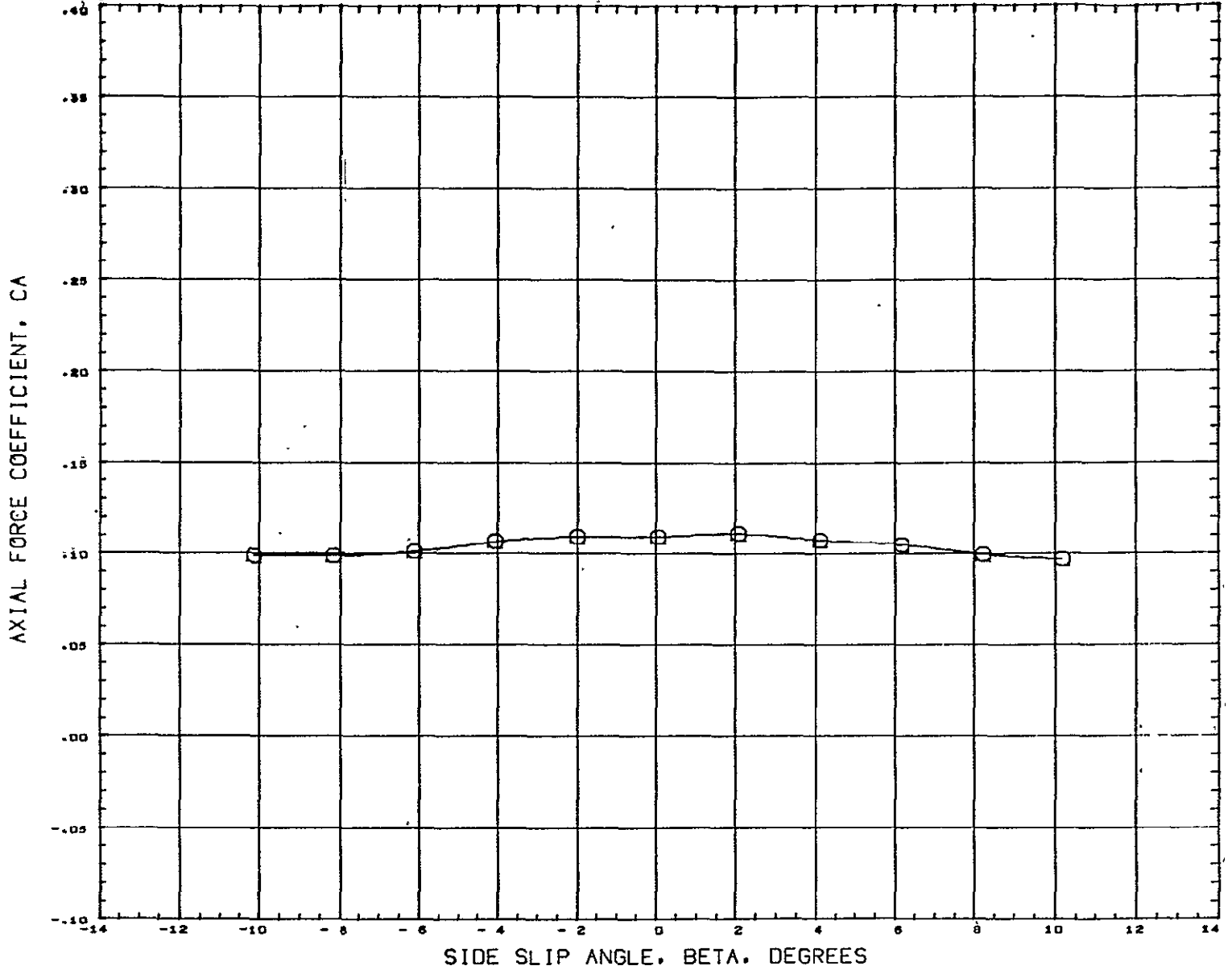
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



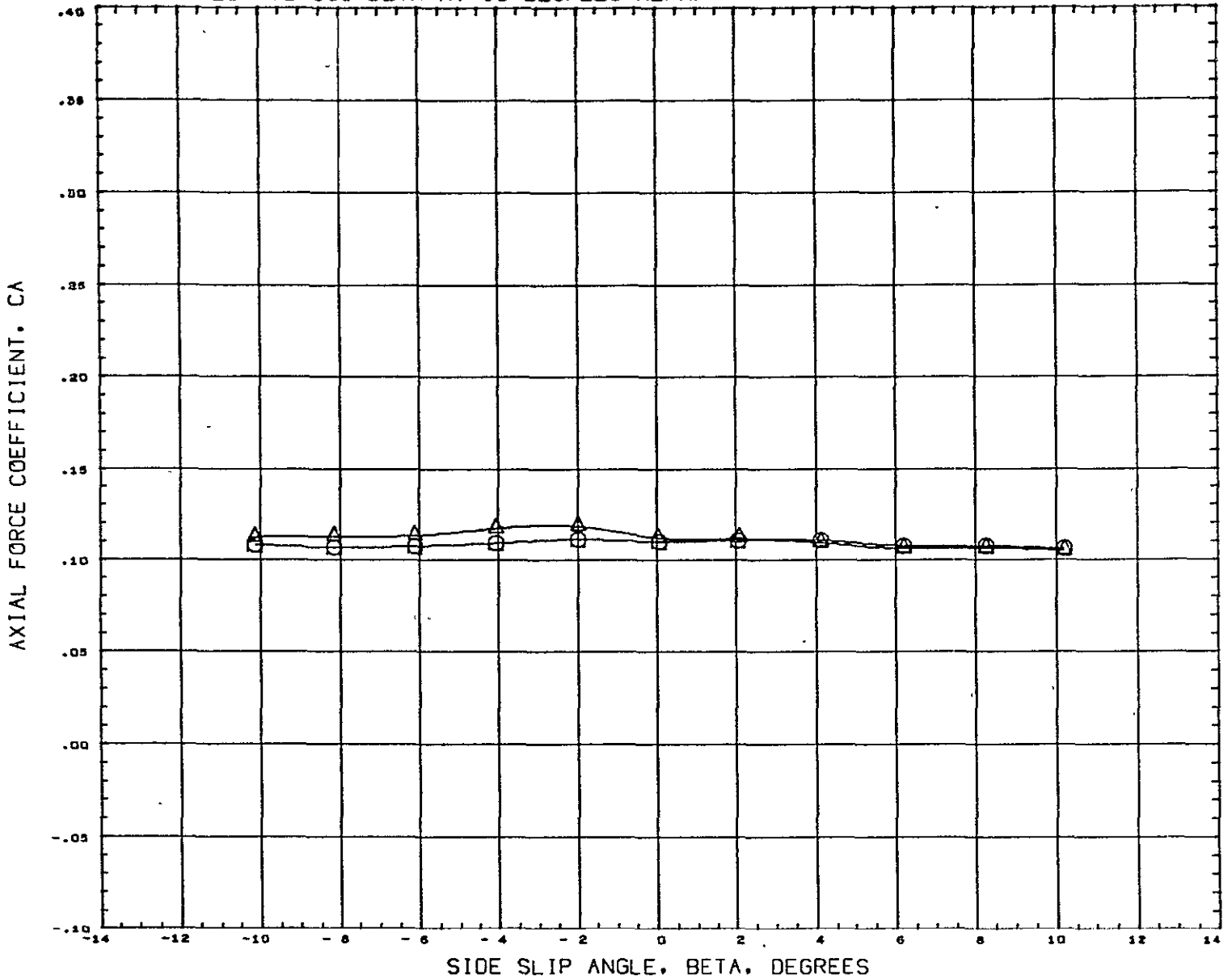
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F28Y21) MSFC481 GD/C(BOOSTER)B19W14C4AV7
 (F28Y22) DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA CANARD ELEVON RUDDER
 15.000 0.000 0.000 0.000
 15.000 0.000 0.000 10.000

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

MACH 1.000

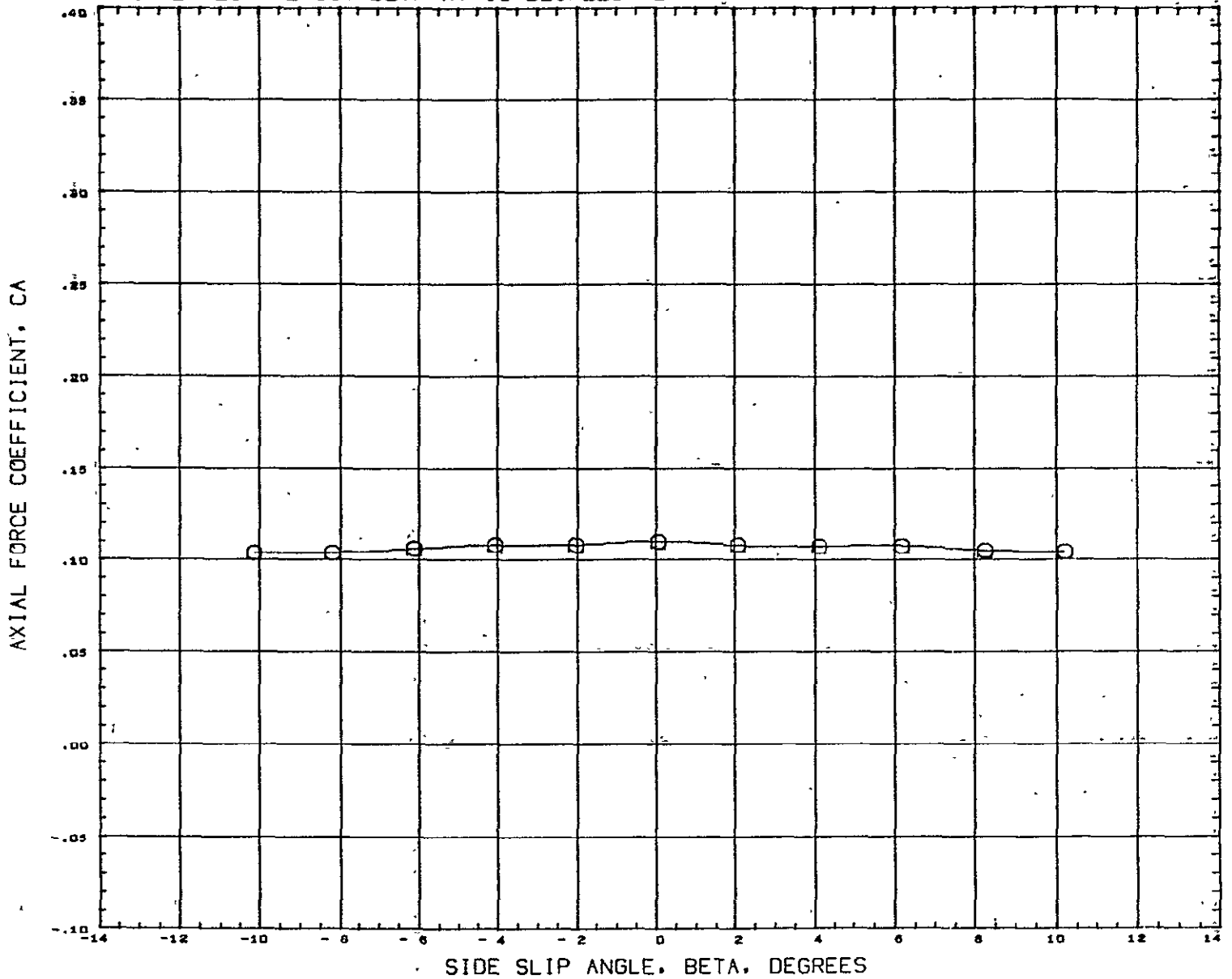
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F20Y21)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F20Y22)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0055

MACH 1.051

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



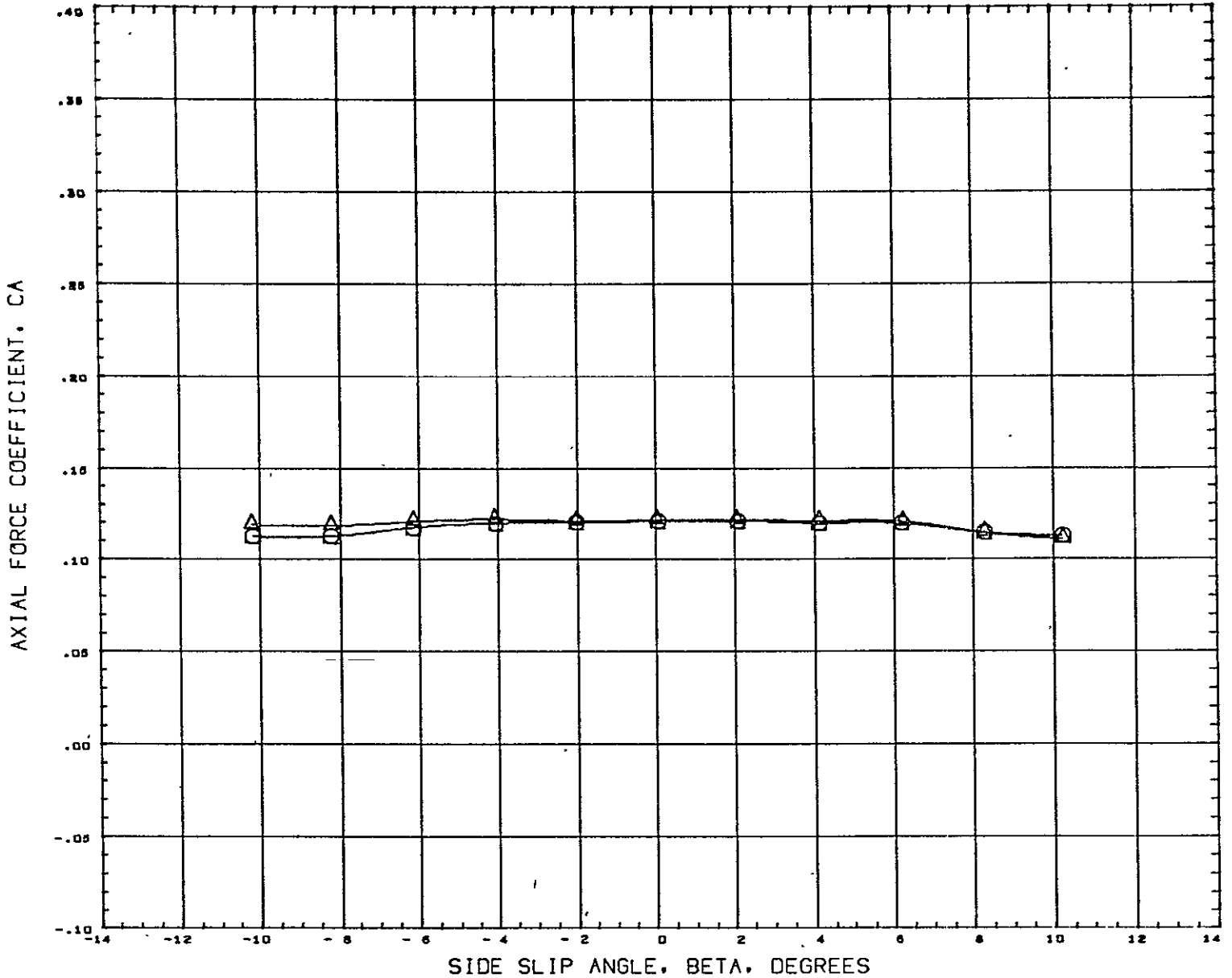
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F20Y21) MSFC481 GD/C(BOOSTER)B19W14C4V7
 (F20Y22) DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA CANARD ELEVON RUDDER
 15.000 0.000 0.000 0.000
 15.000 0.000 0.000 10.000

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 IN.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0035

MACH 1.098

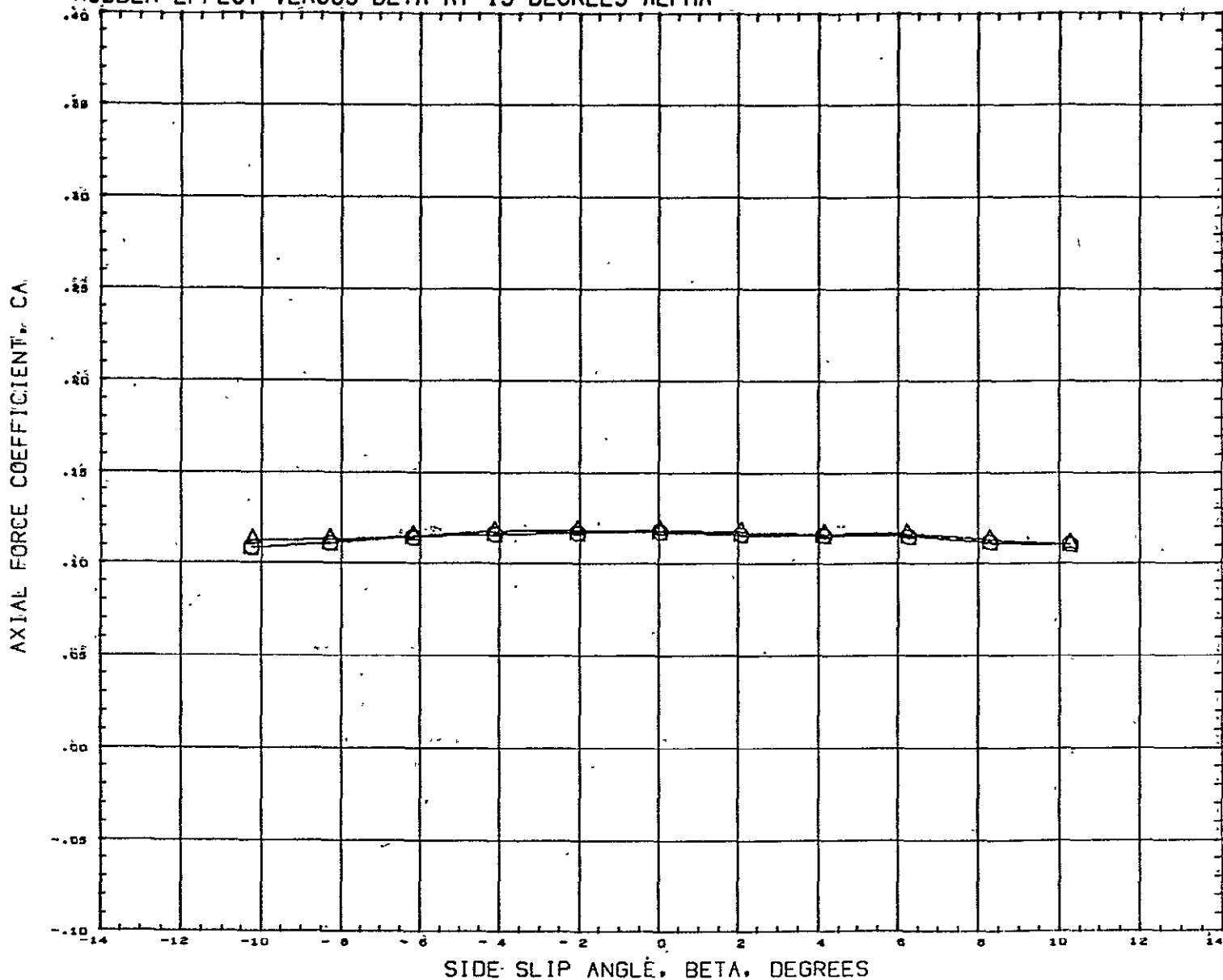
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.202

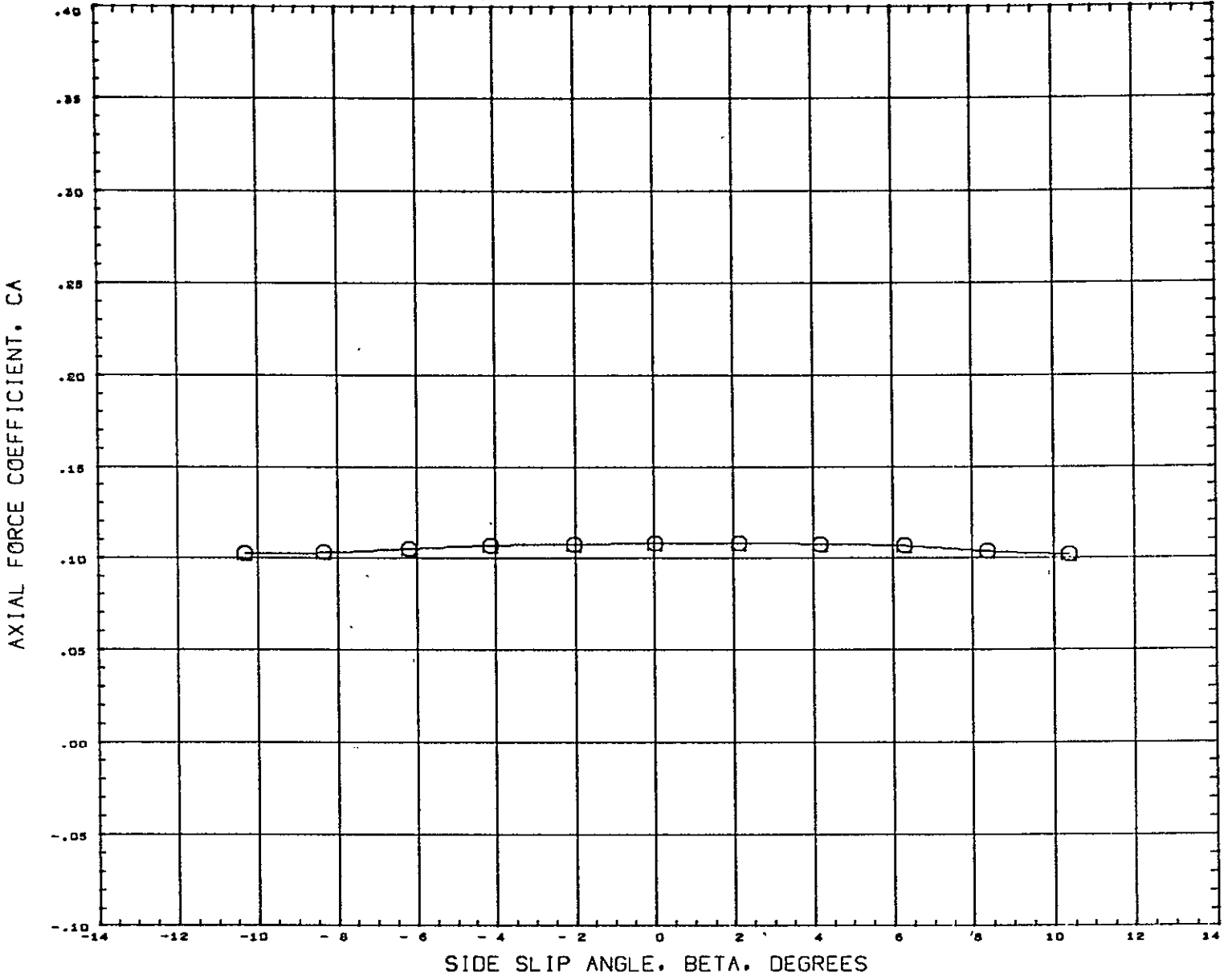
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0250 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.466

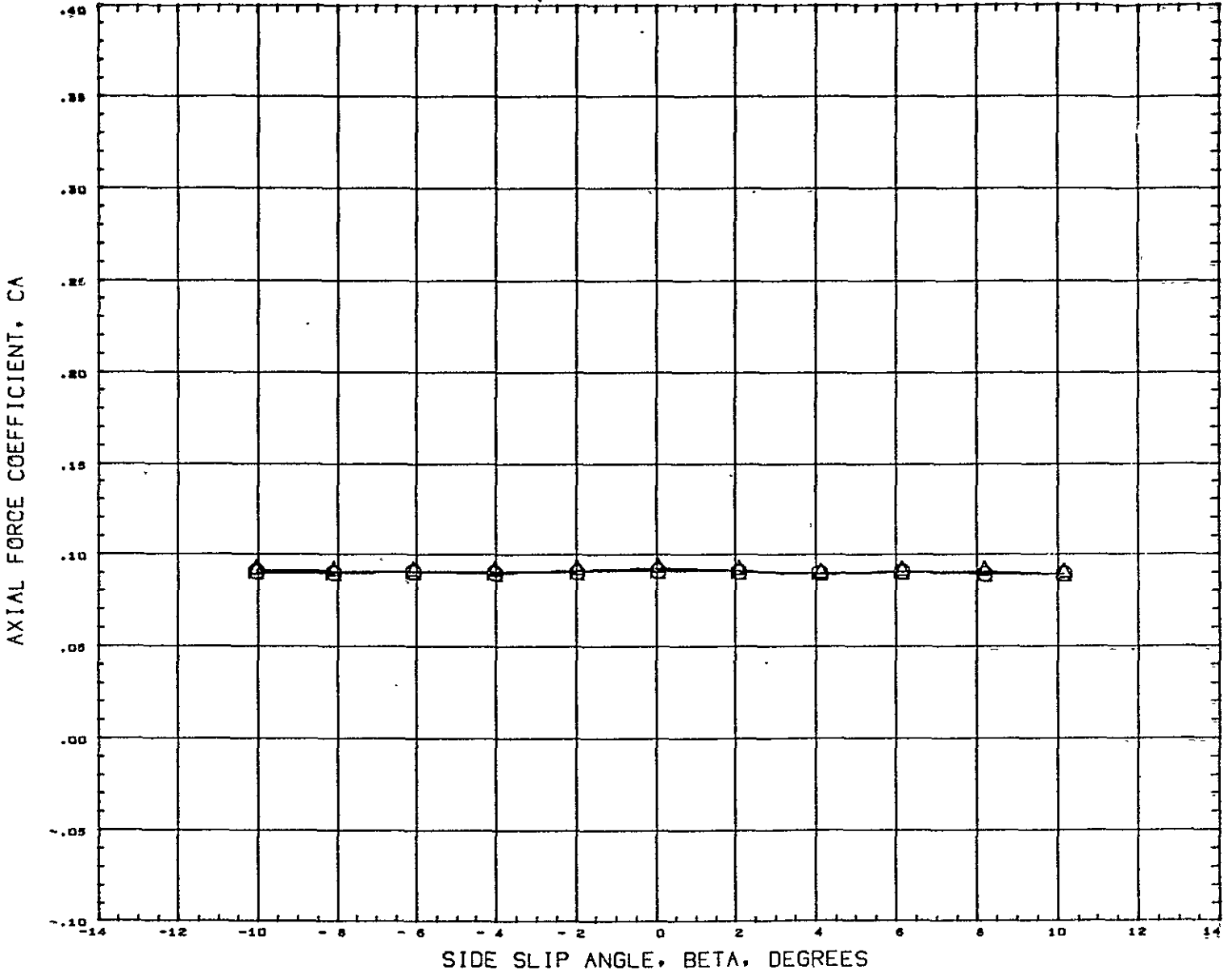
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F20Y21)	MSFC401 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F20Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.966

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

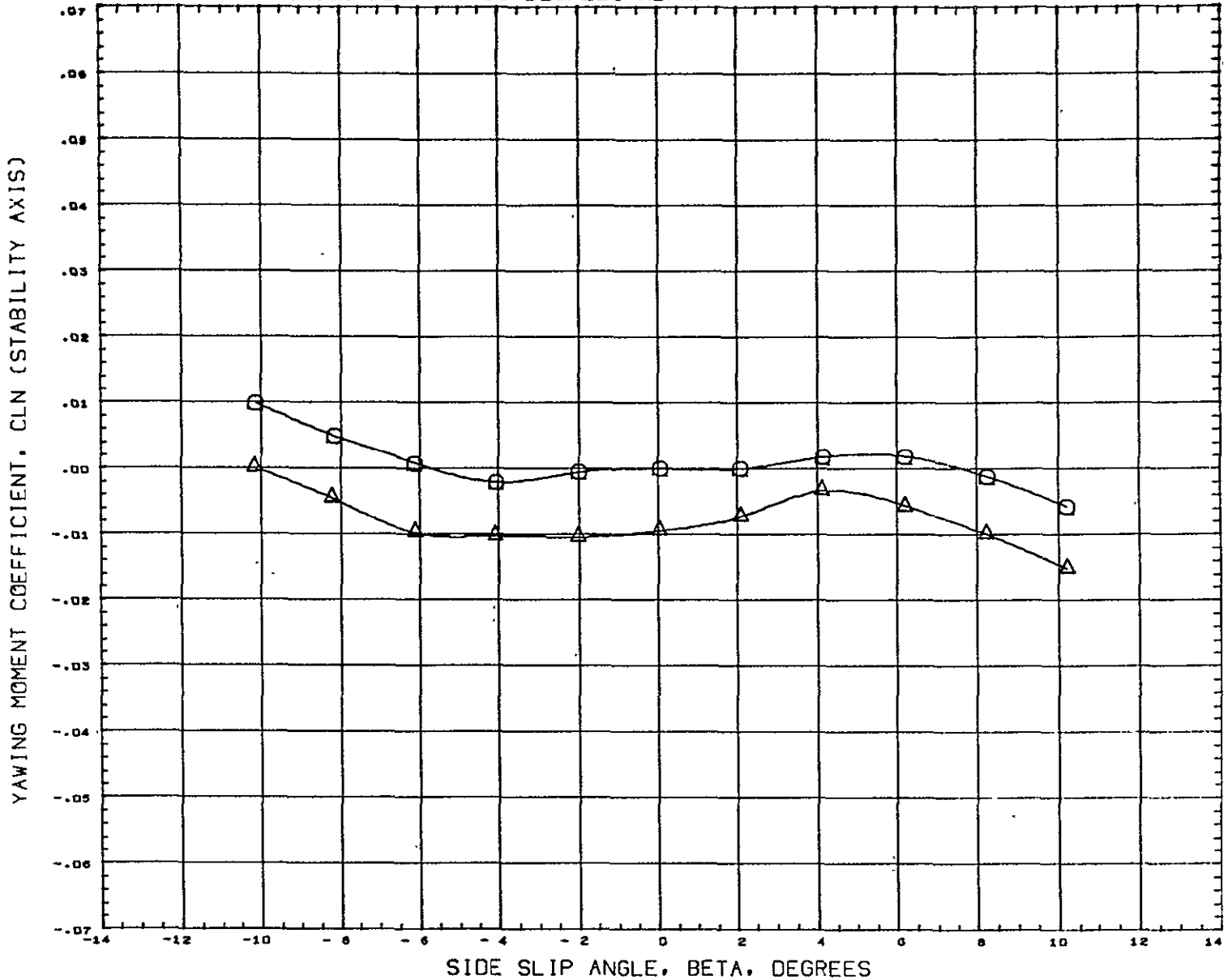


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F28Y21) □ MSFC481 GD/C(BOOSTER) B19W14C4AV7
 (F28Y22) △ MSFC481 GD/C(BOOSTER) B19W14C4AV7

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
15.000	0.000	0.000	0.000	SREF	15.6560 90 IN.
15.000	0.000	0.000	10.000	LREF	3.0950 IN.
				BREF	6.0990 IN.
				XMRP	6.7100 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0035

MACH 2.990

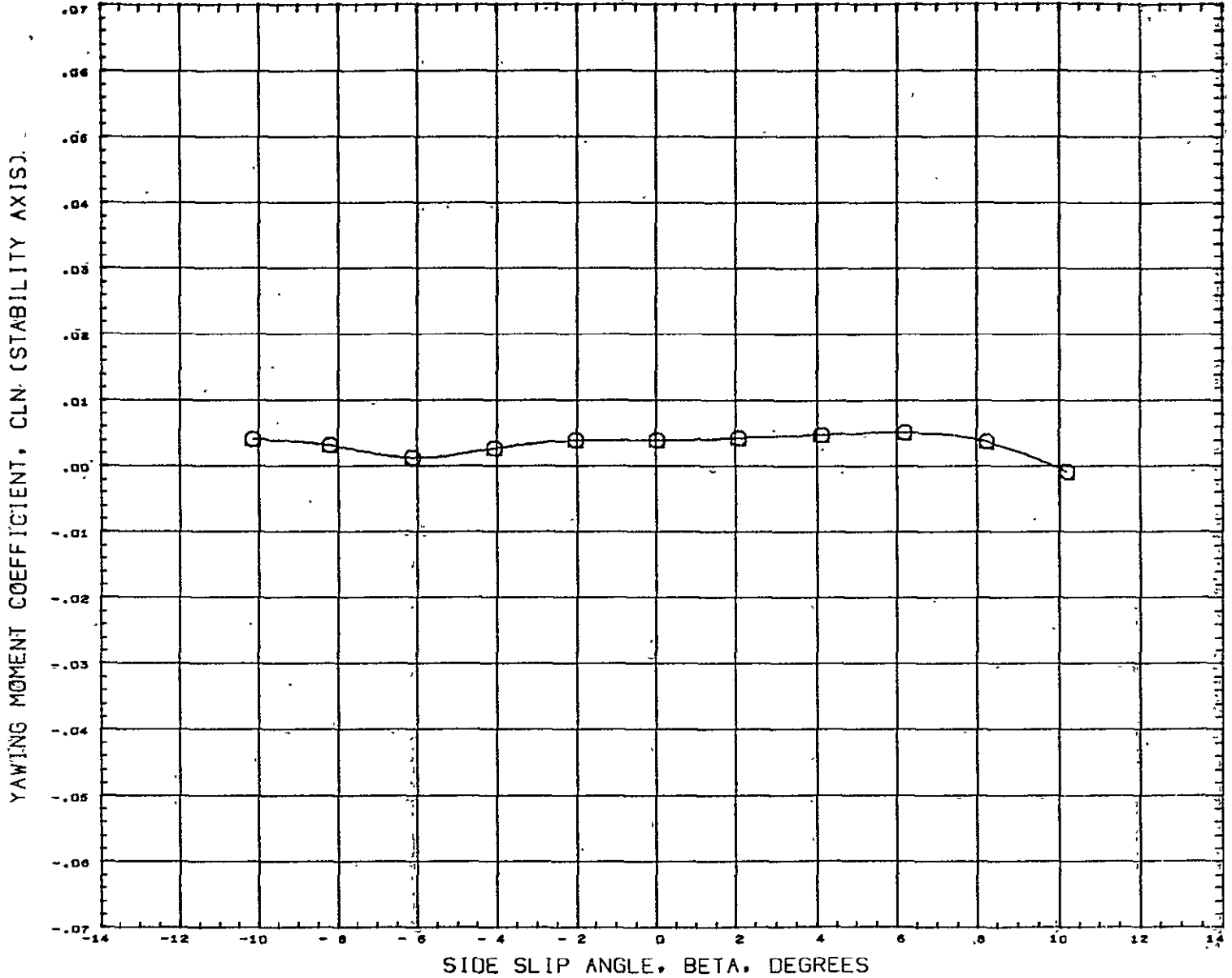
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 0.904

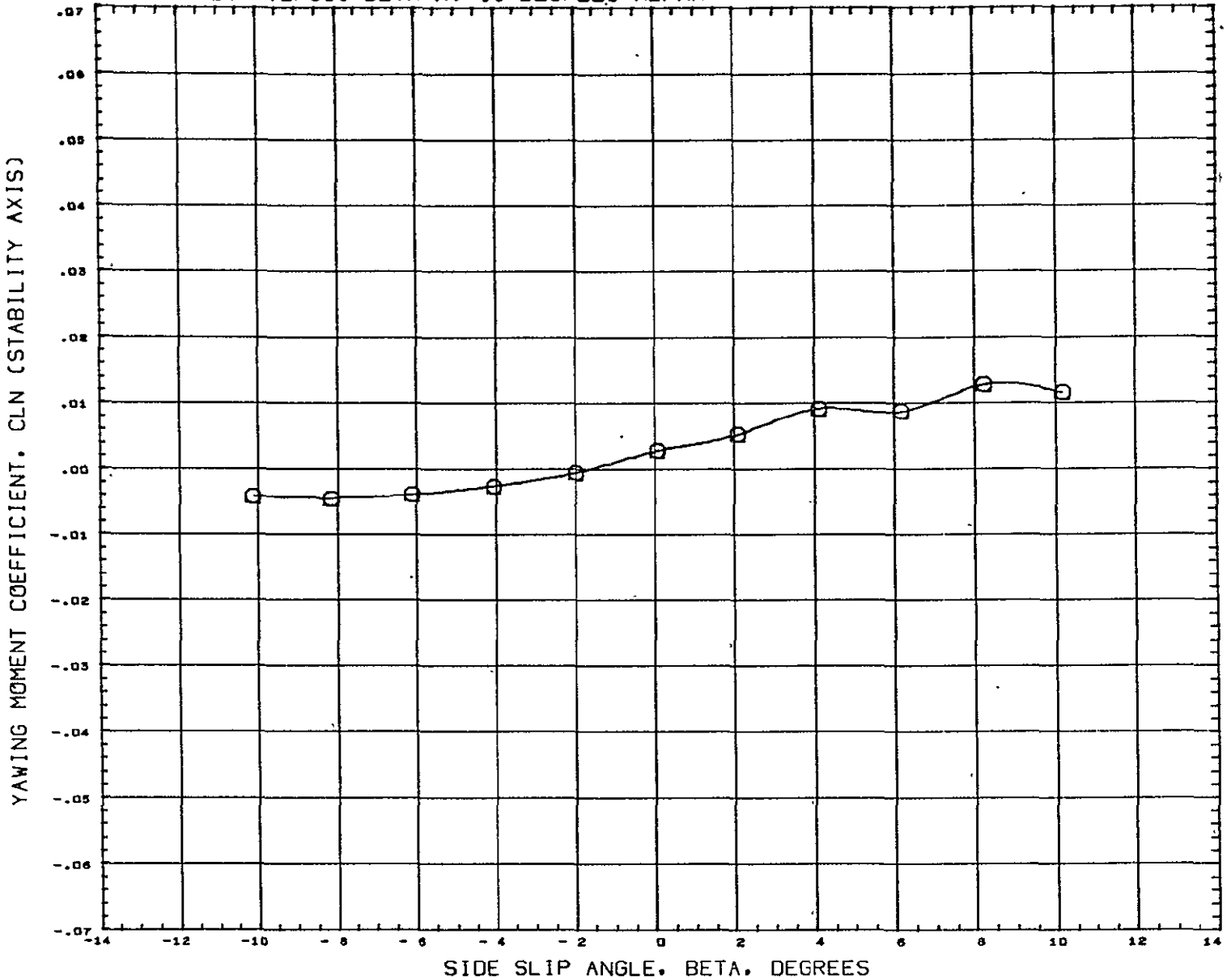
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4A7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 0.953

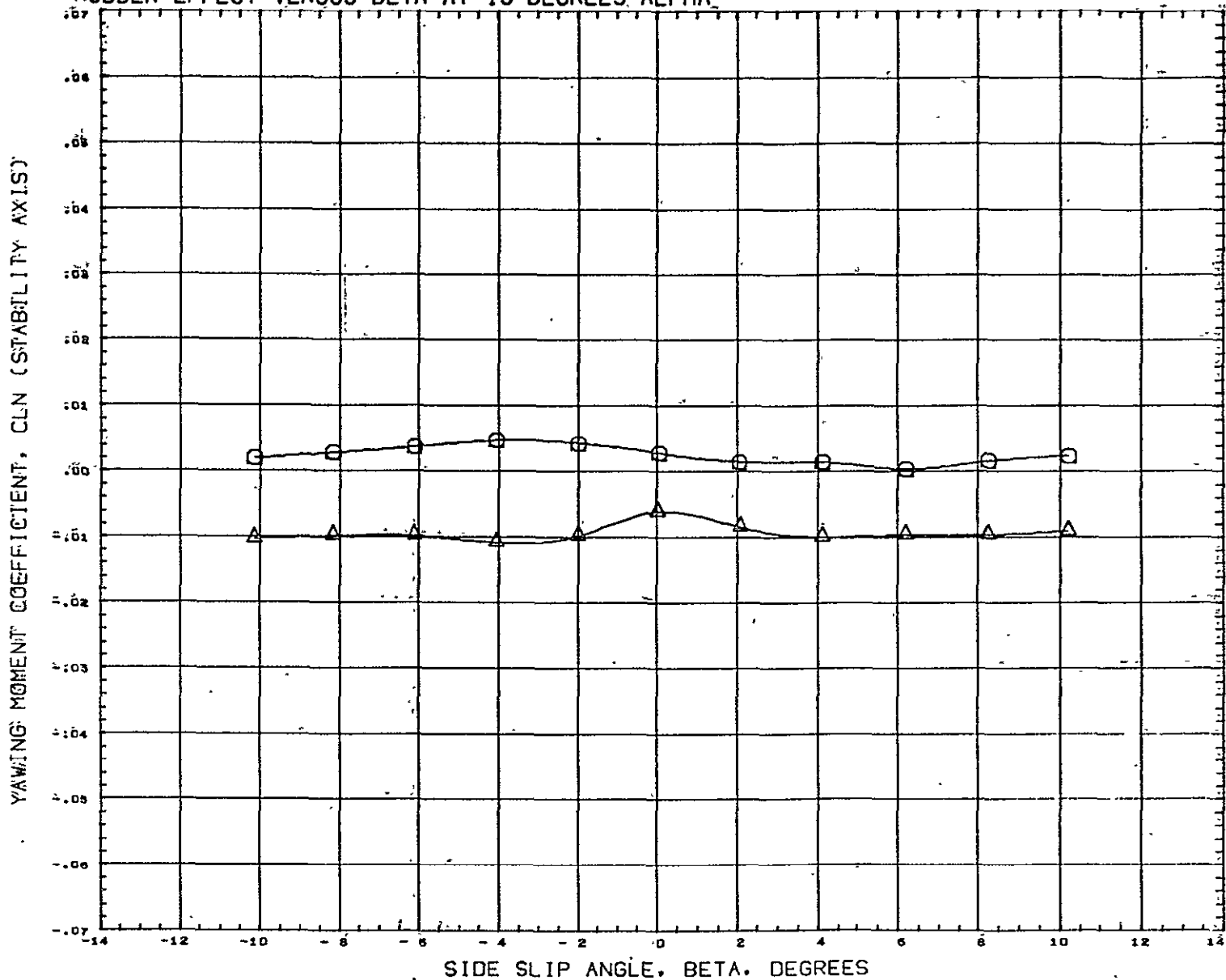
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0980 IN.
						XHRP 6.7100 IN.
						YHRP 0.0000 IN.
						ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 1.000

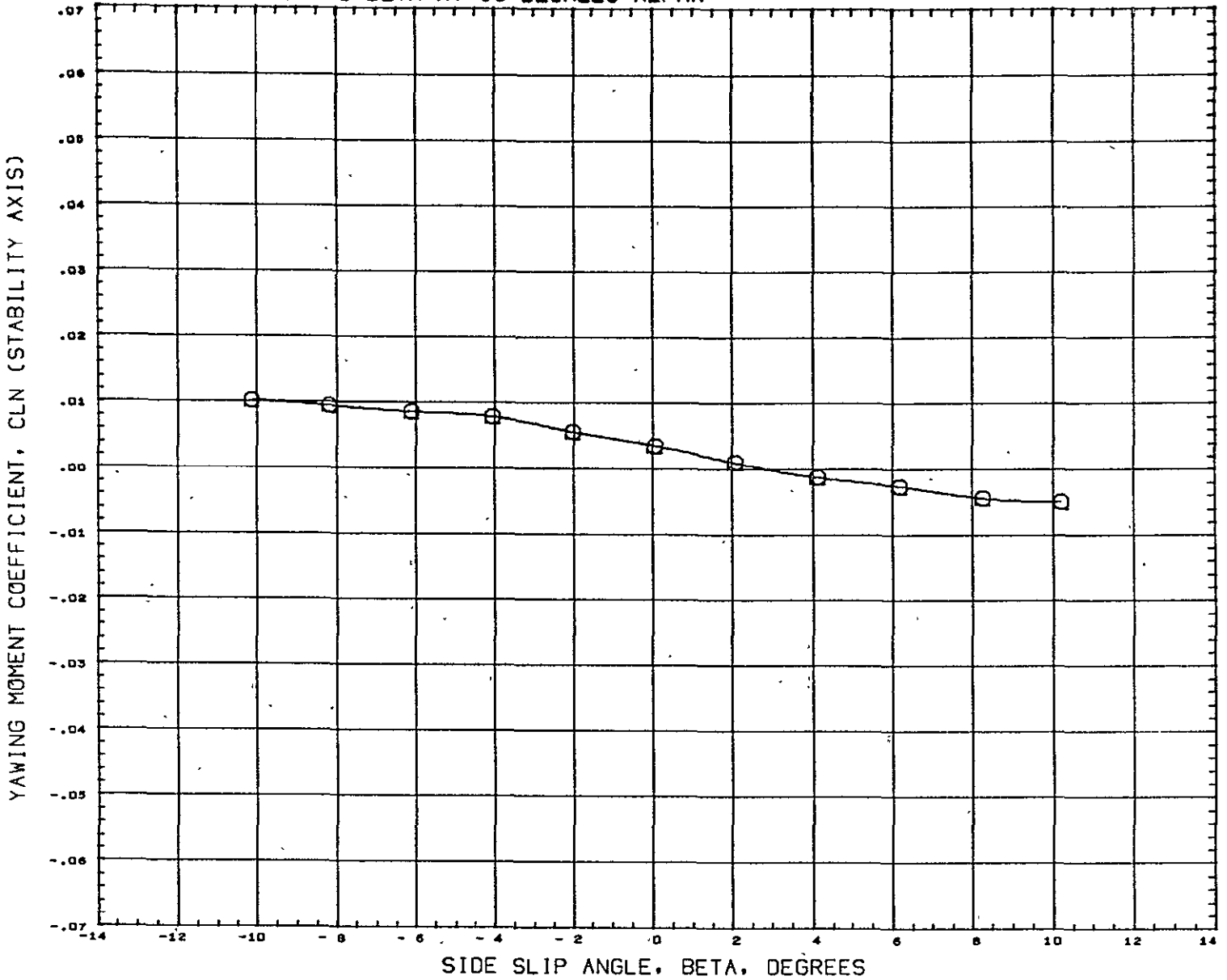
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.051

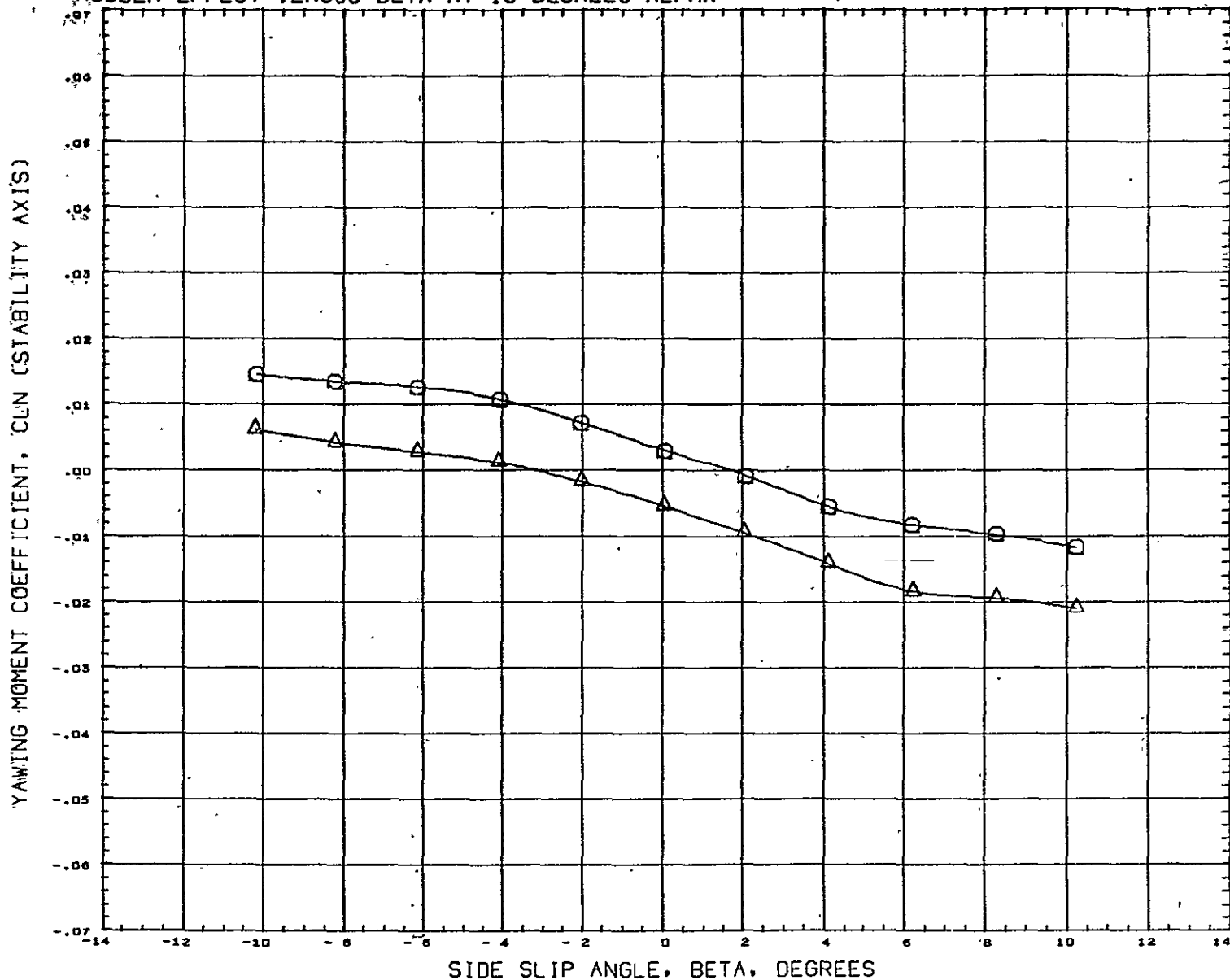
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.098

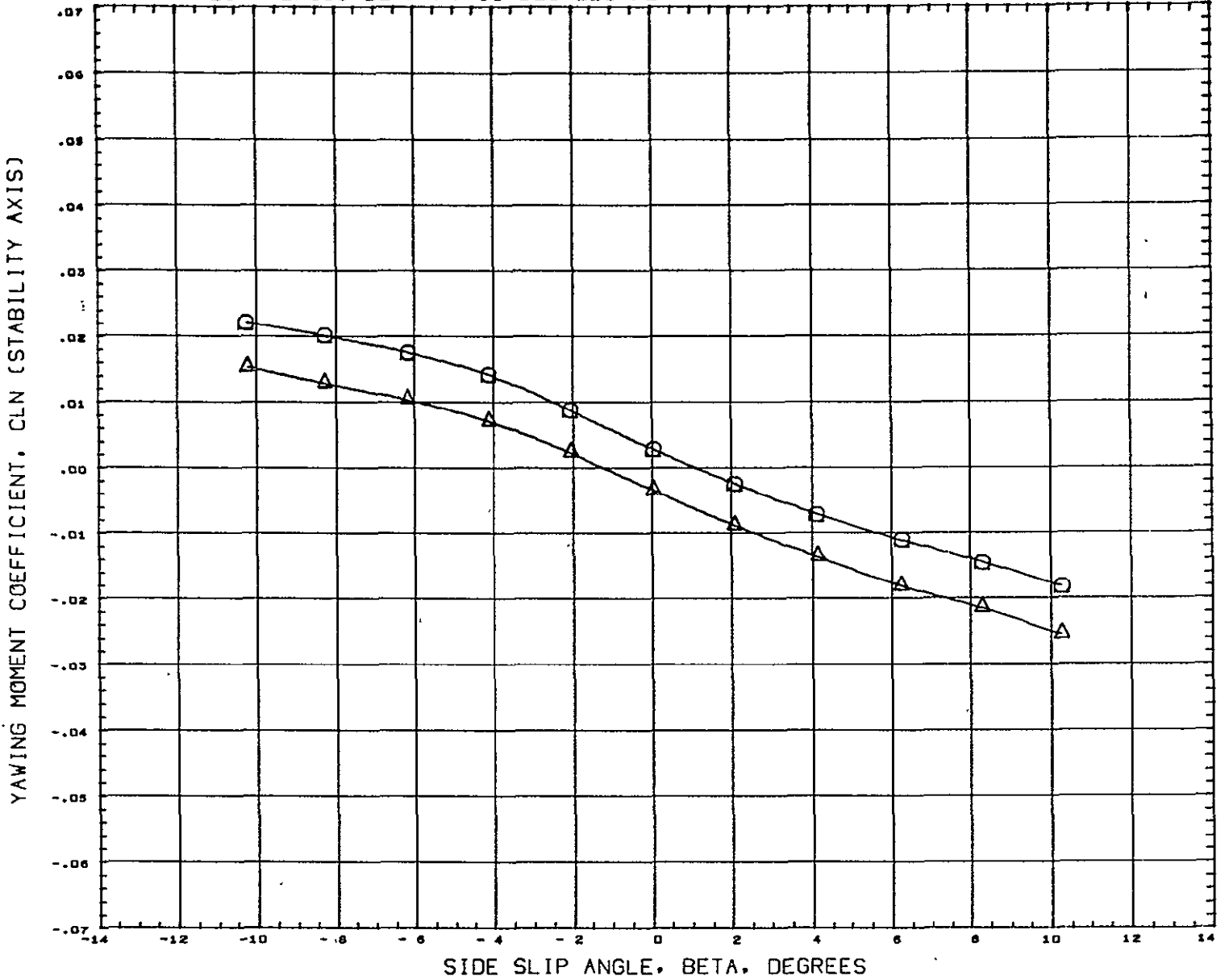
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	○	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	△	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.202

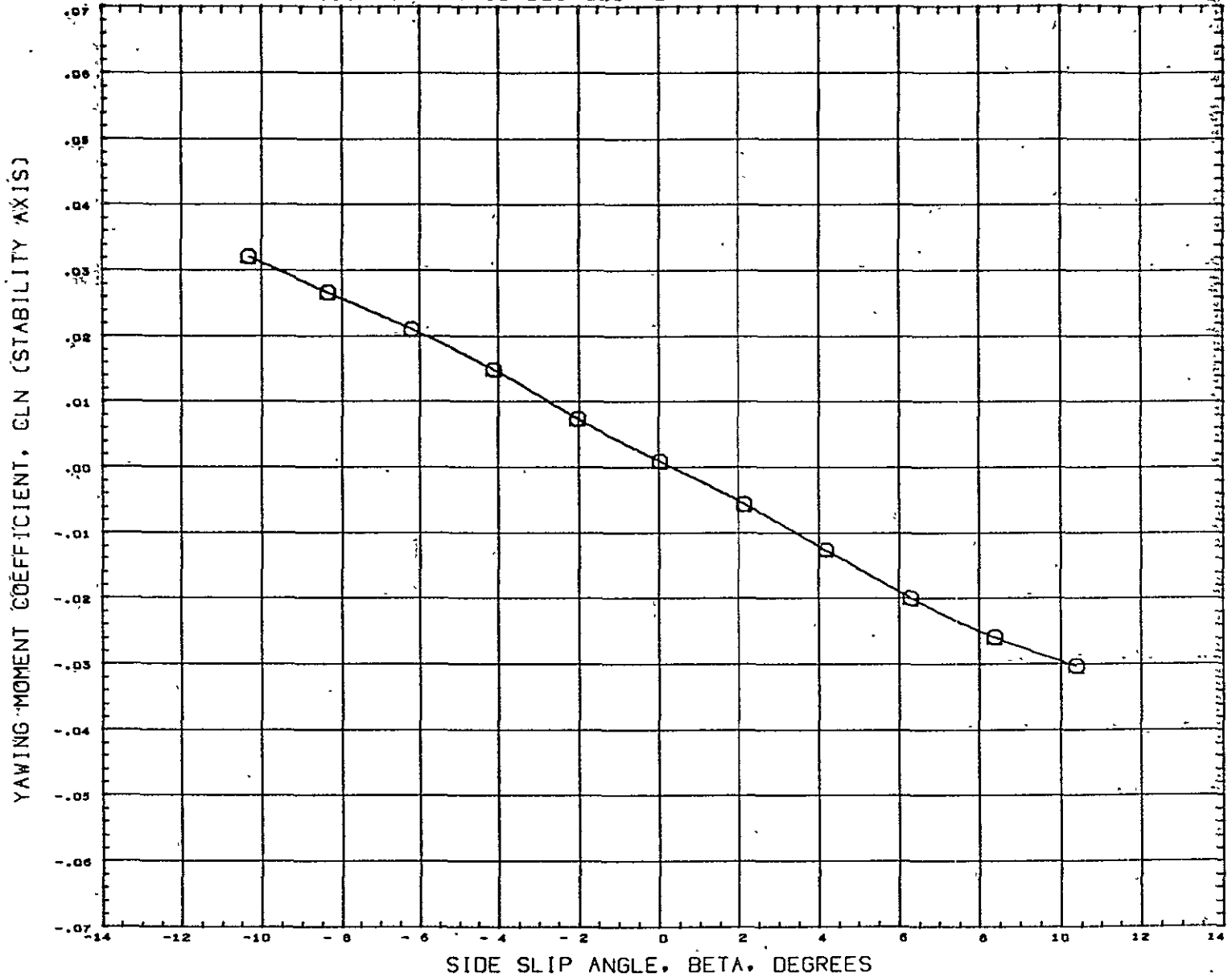
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 30.IN.
(F28Y22)	HSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.468

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

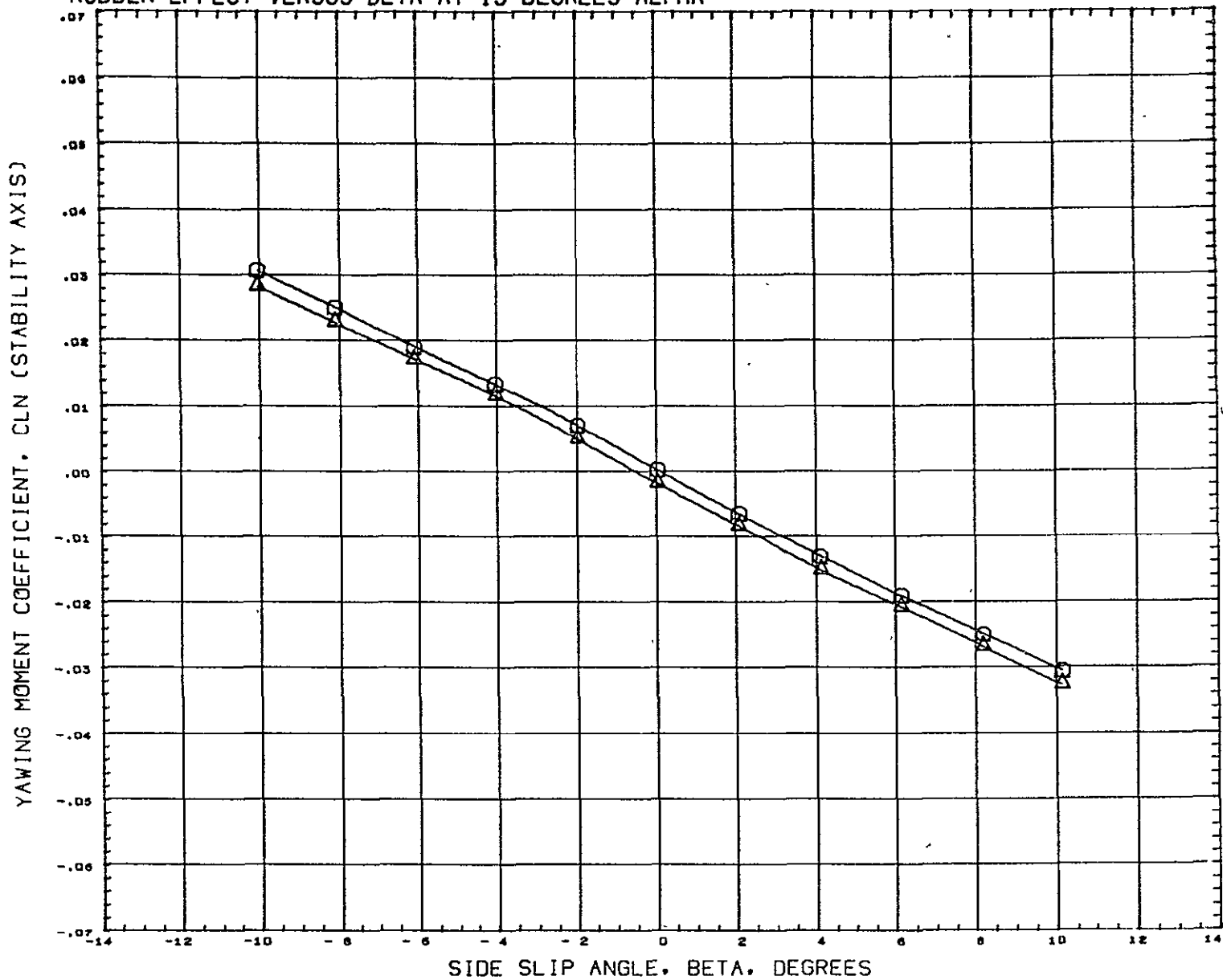


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F28Y21) HSFC481 GD/C(BOOSTER)B19W14C4AV7
 (F28Y22) DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
15.000	0.000	0.000	10.000	LREF	3.0950 IN.
				BREF	6.0990 IN.
				XHRP	6.7100 IN.
				YHRP	0.0000 IN.
				ZHRP	0.0000 IN.
				SCALE	0.0035

MACH 1.966

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

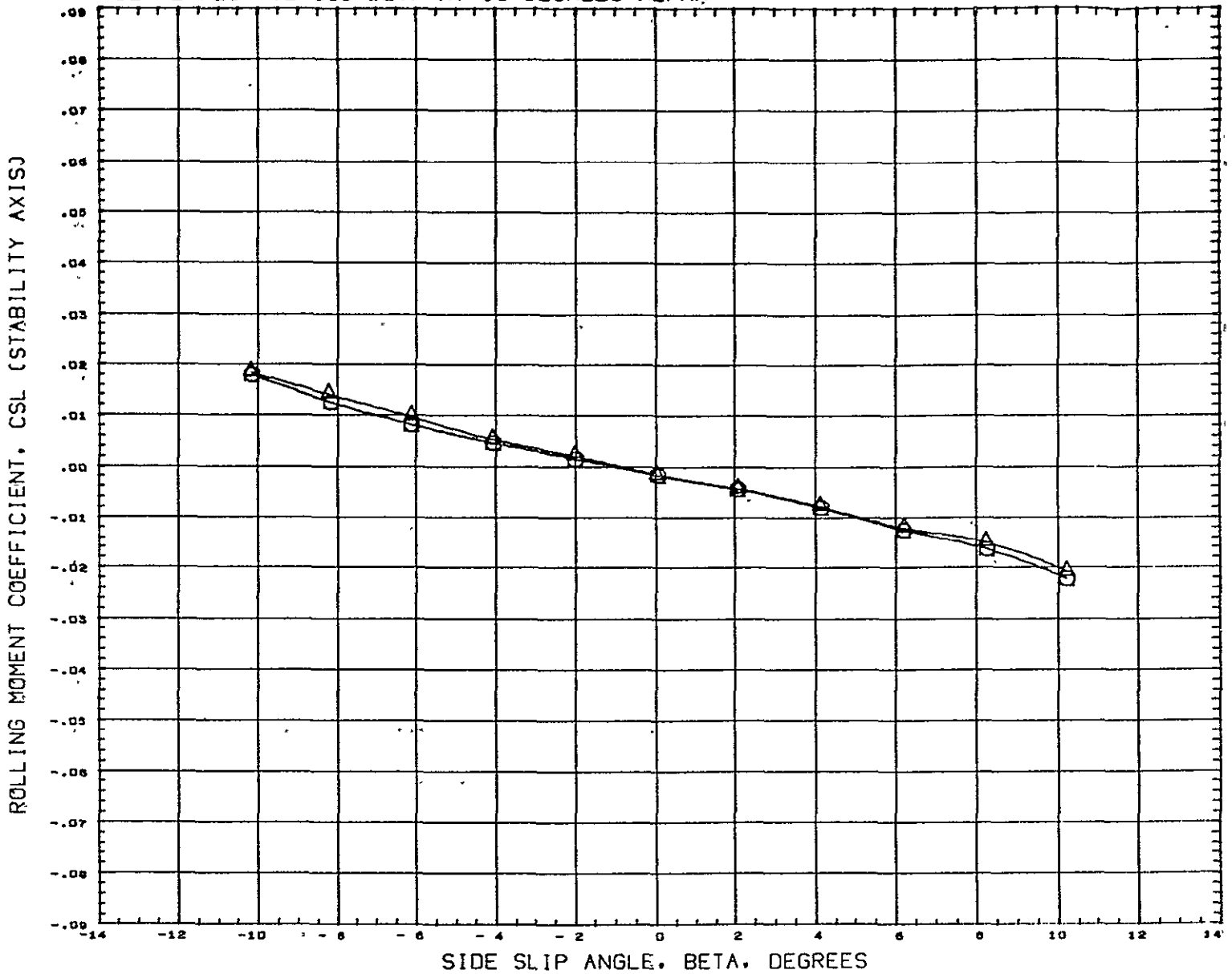


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6360 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 2.990

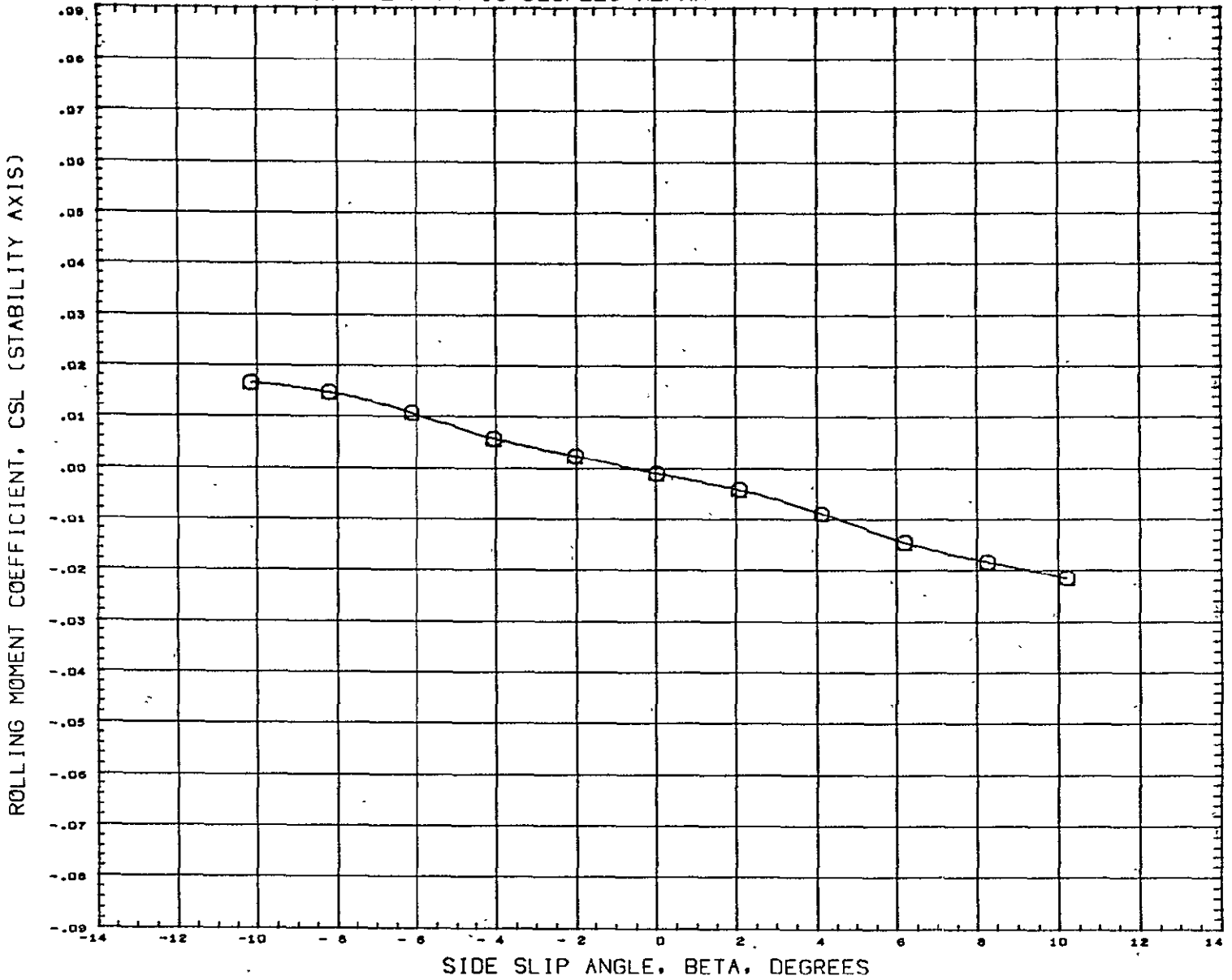
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.904

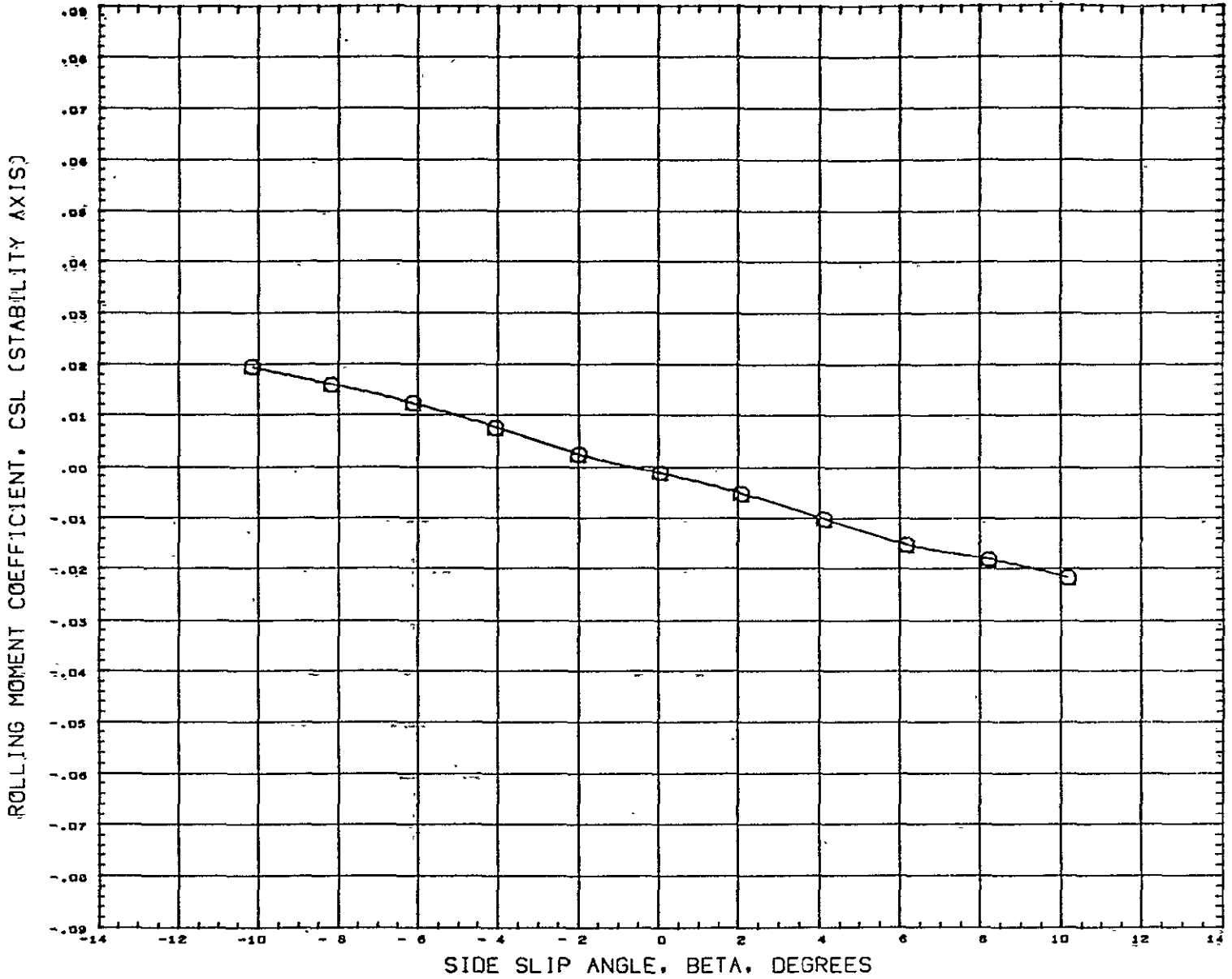
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 0.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.953

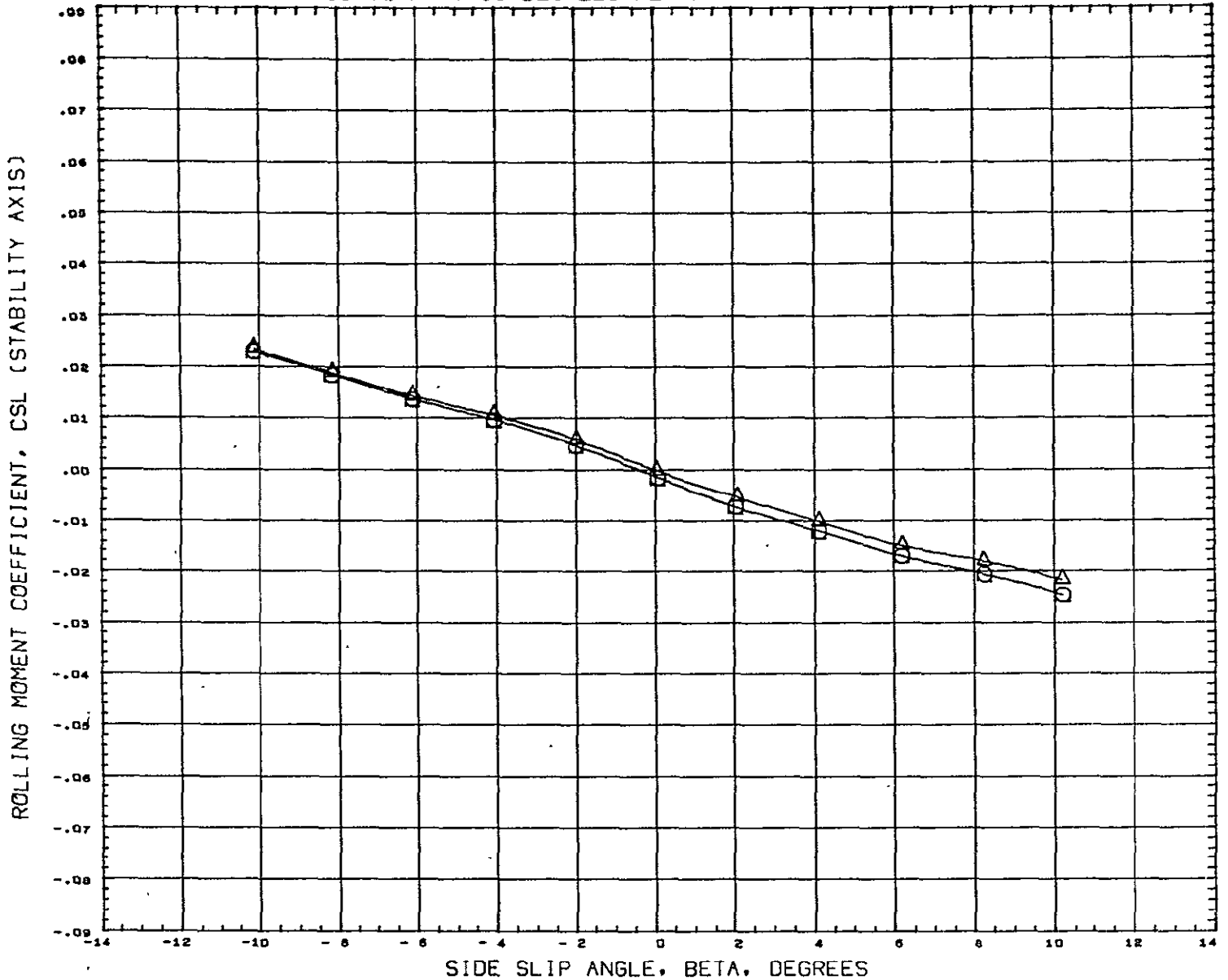
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F26Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.000

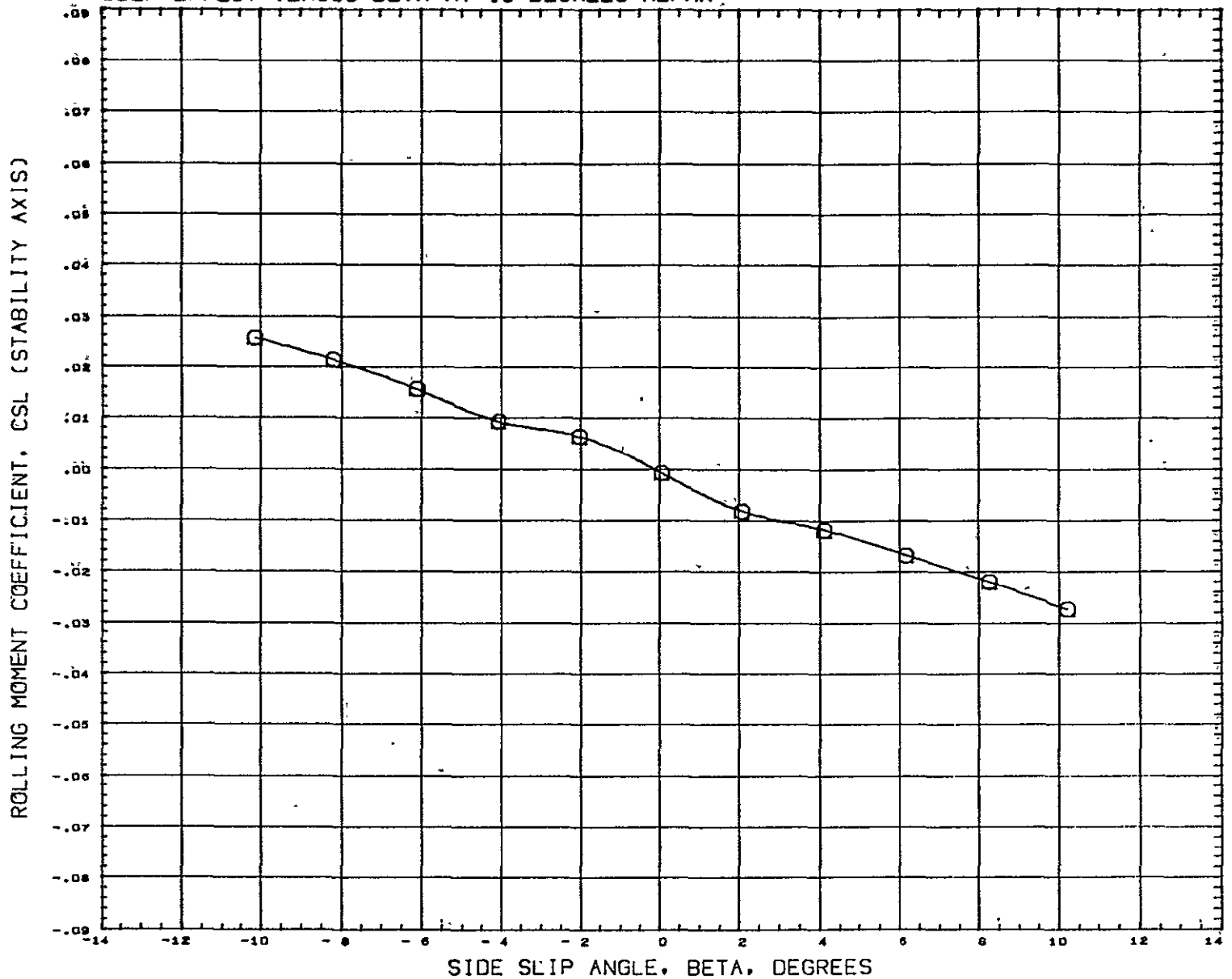
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F24Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.051

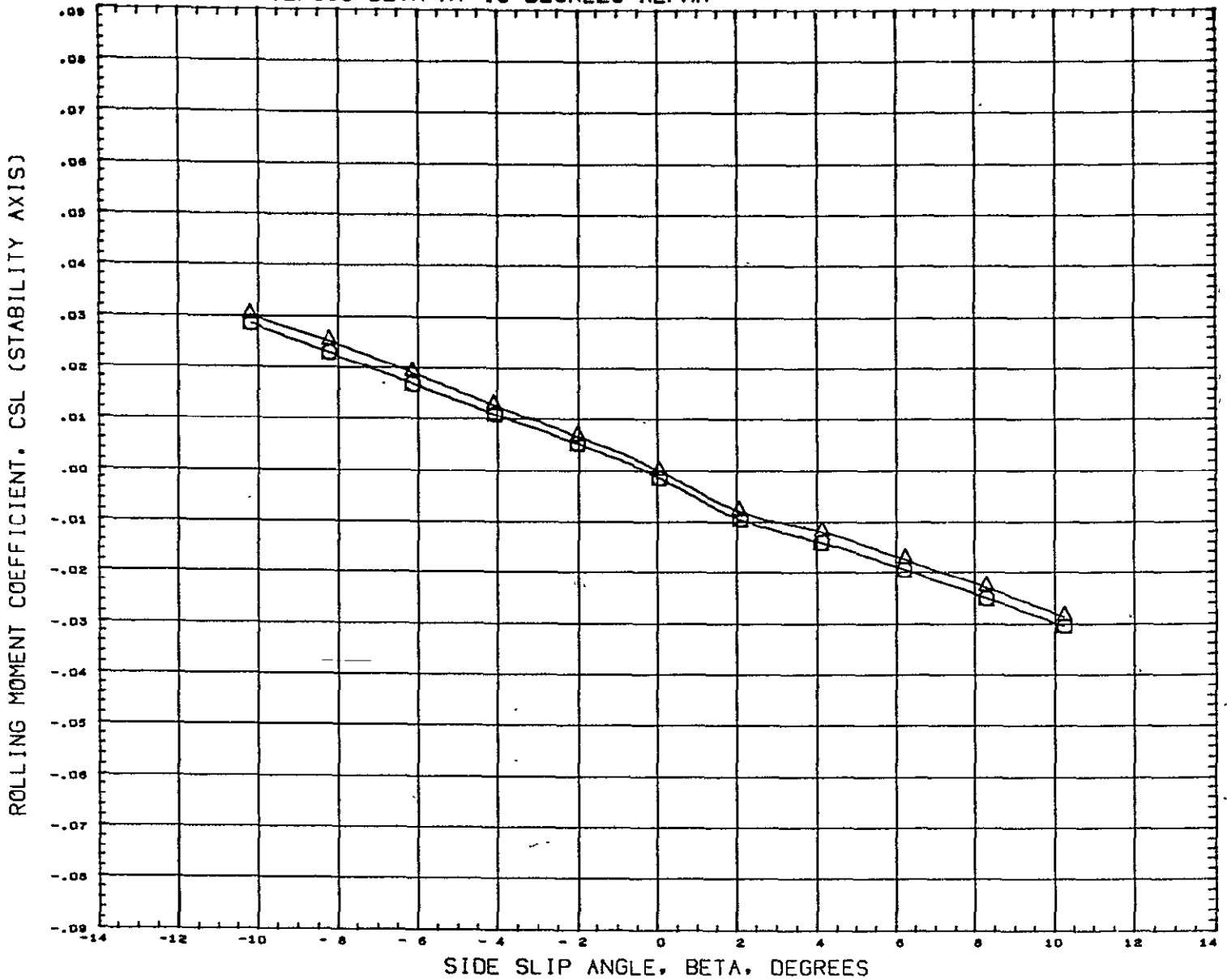
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.096

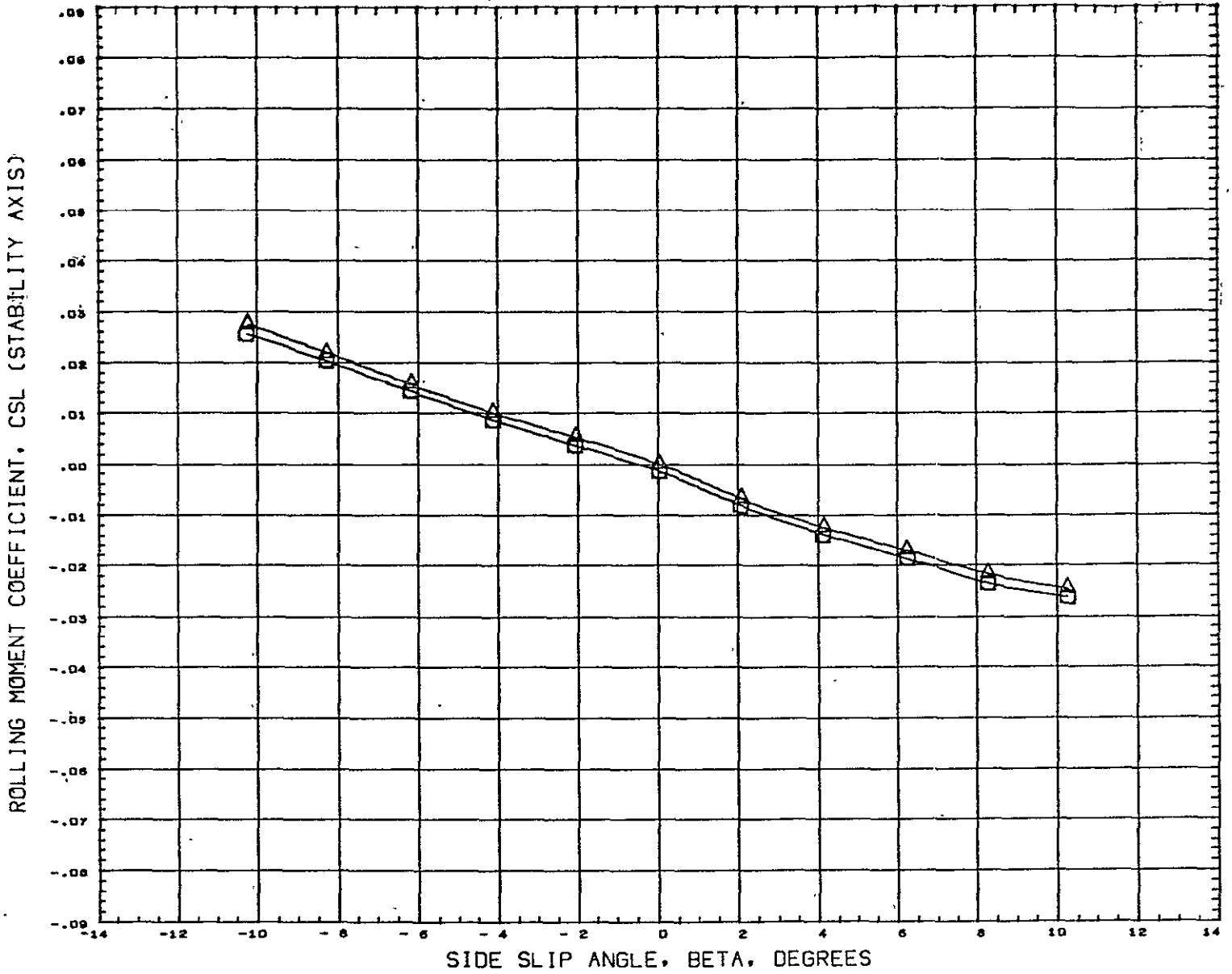
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(P20Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ.IN.
(P20Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.202

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

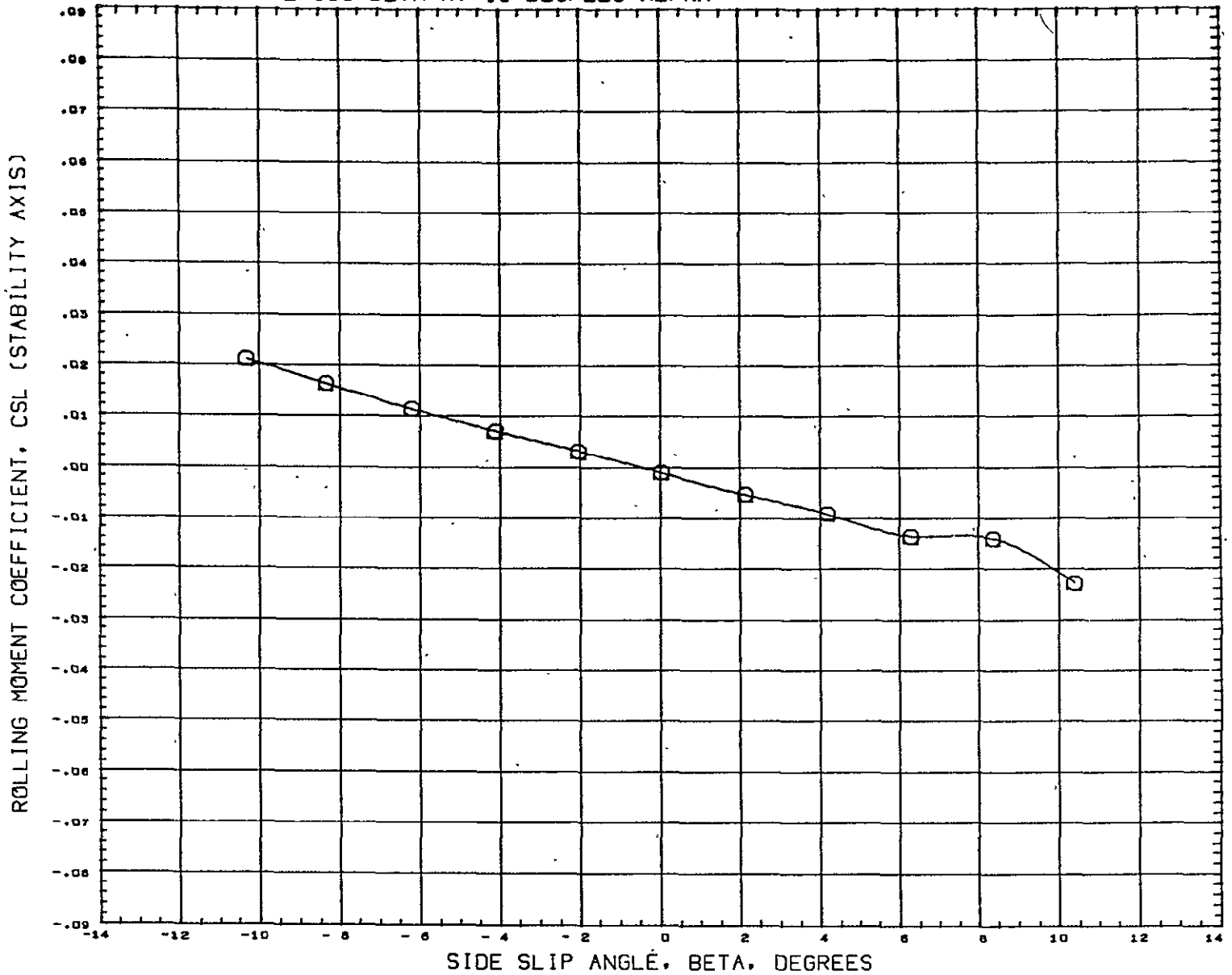


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
15.000	0.000	0.000	10.000	LREF 3.0950 IN.
				BREF 6.0990 IN.
				XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 1.466

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

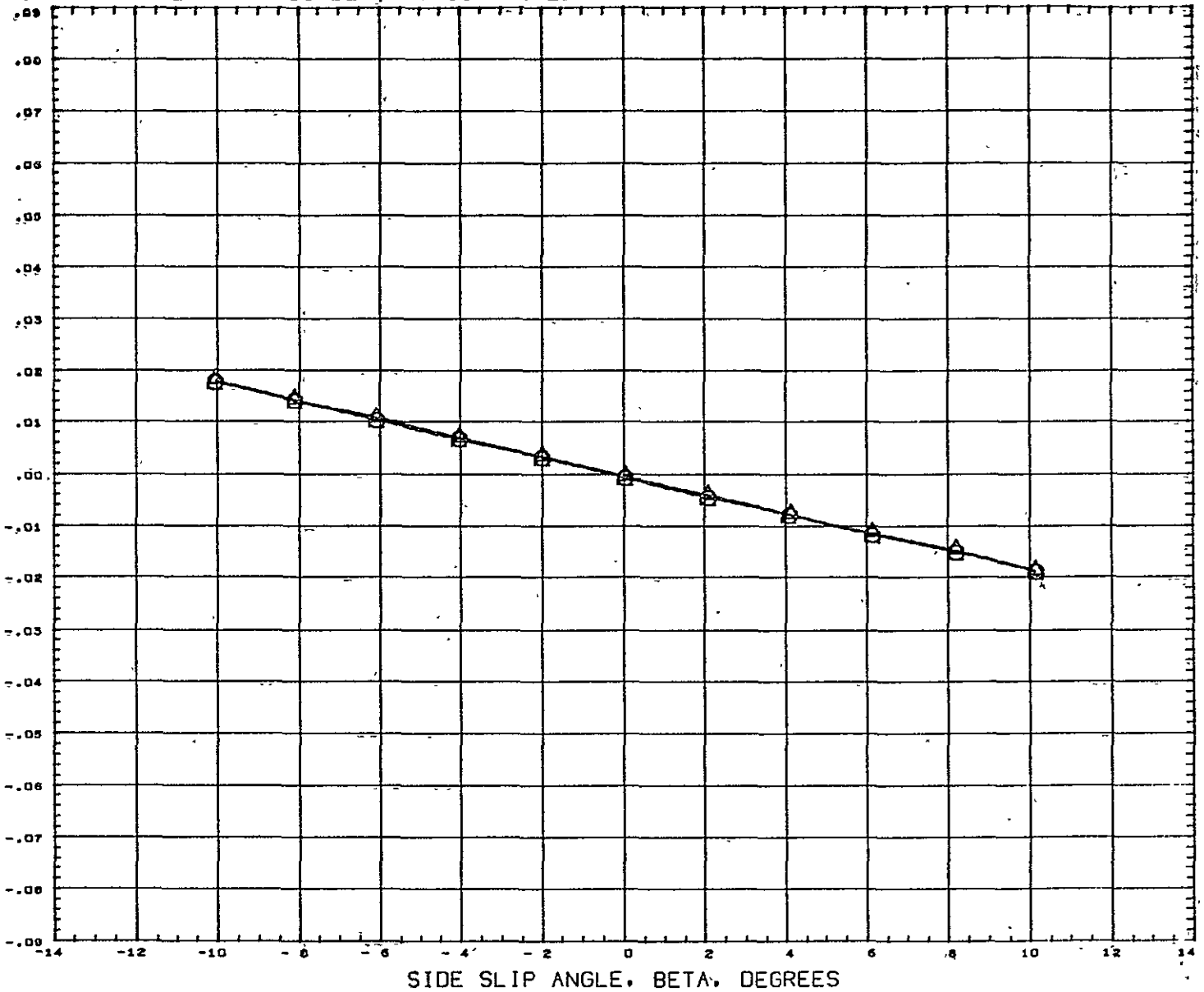


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y21)	HSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 99. IN.
(F26Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN. BREF 6.0990 IN. XMRP 6.7100 IN. YMRP 0.0000 IN. ZMRP 0.0000 IN. SCALE 0.0035

MACH 1.966

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

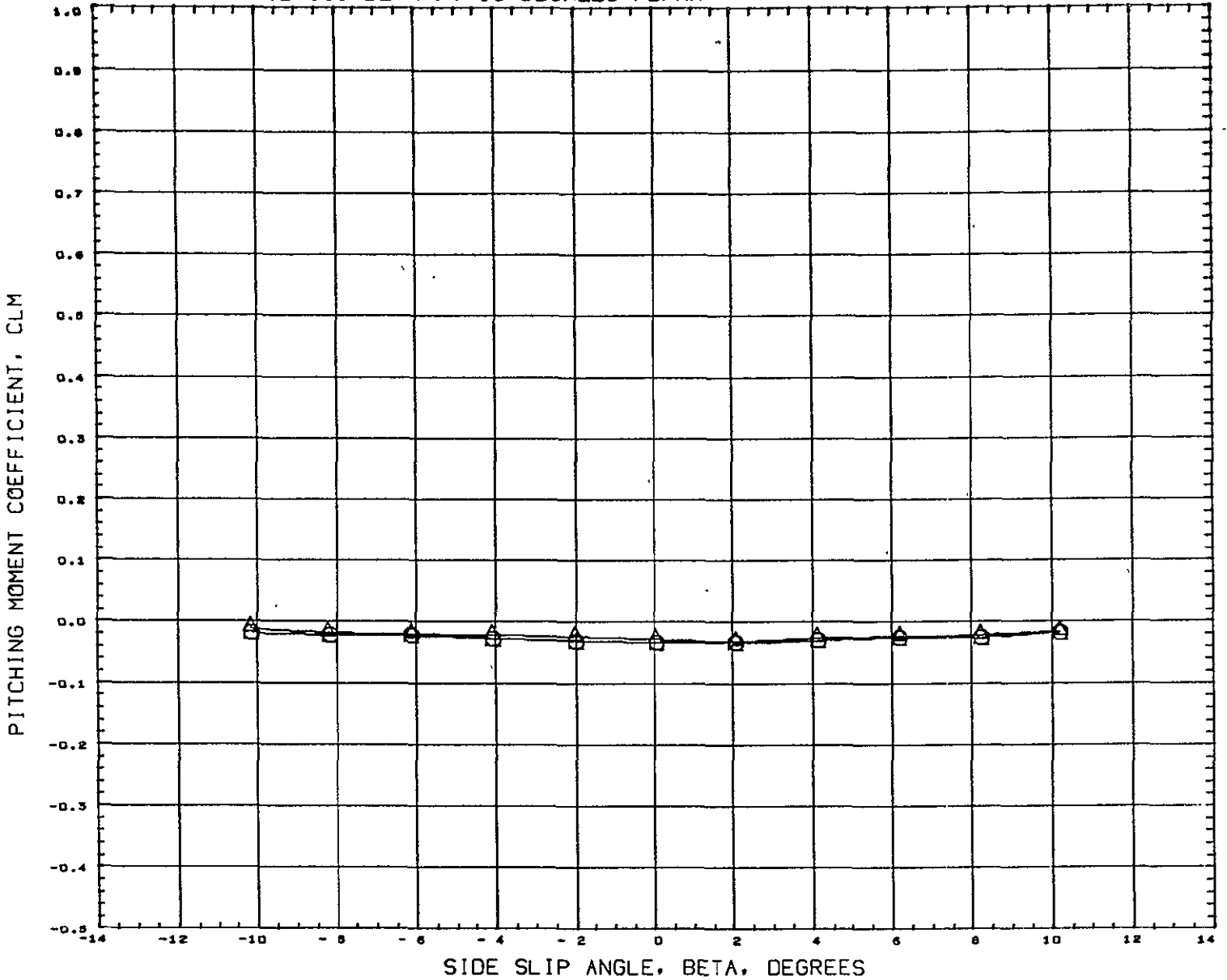
ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F26Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F26Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 5.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

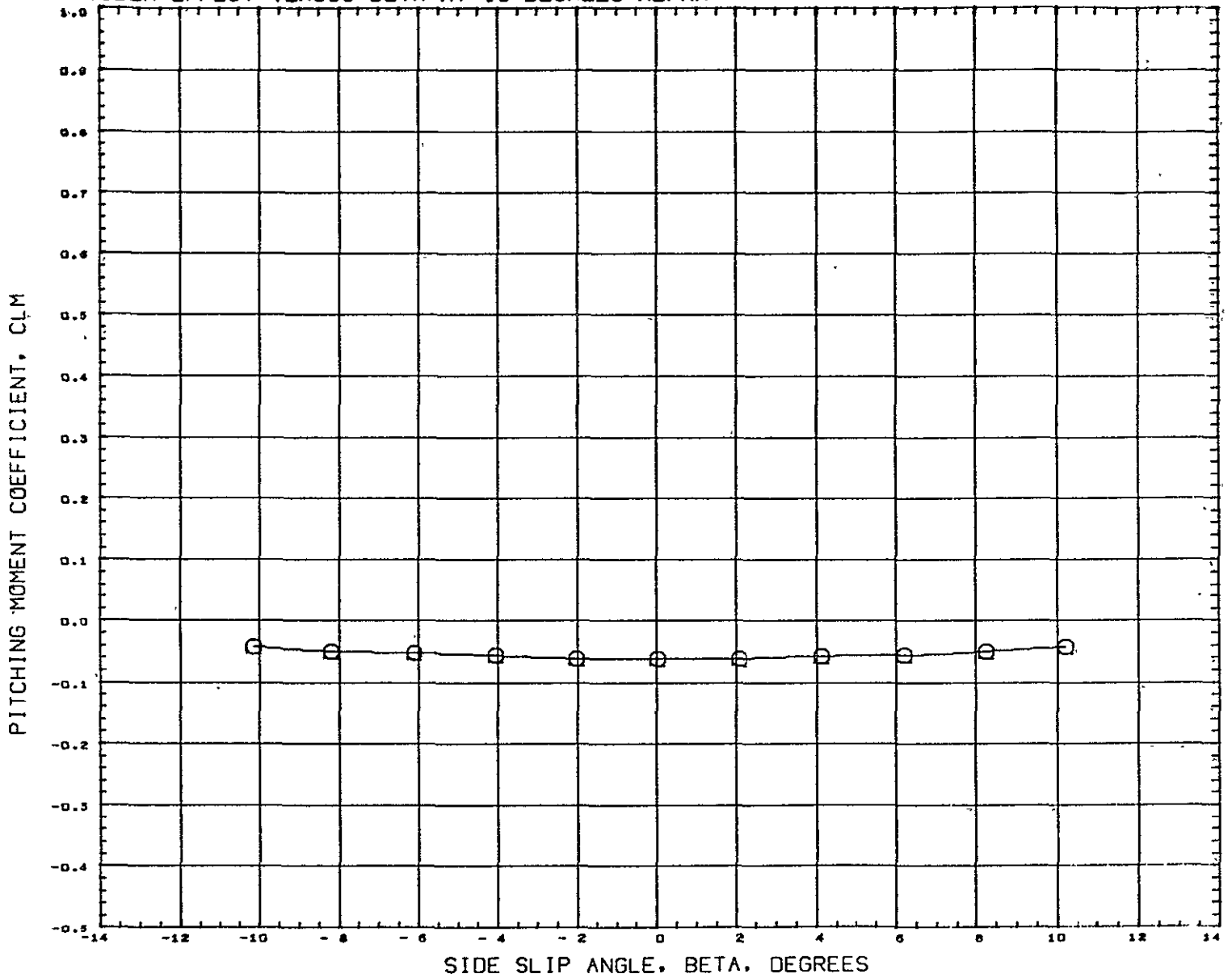
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 0.904

RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA

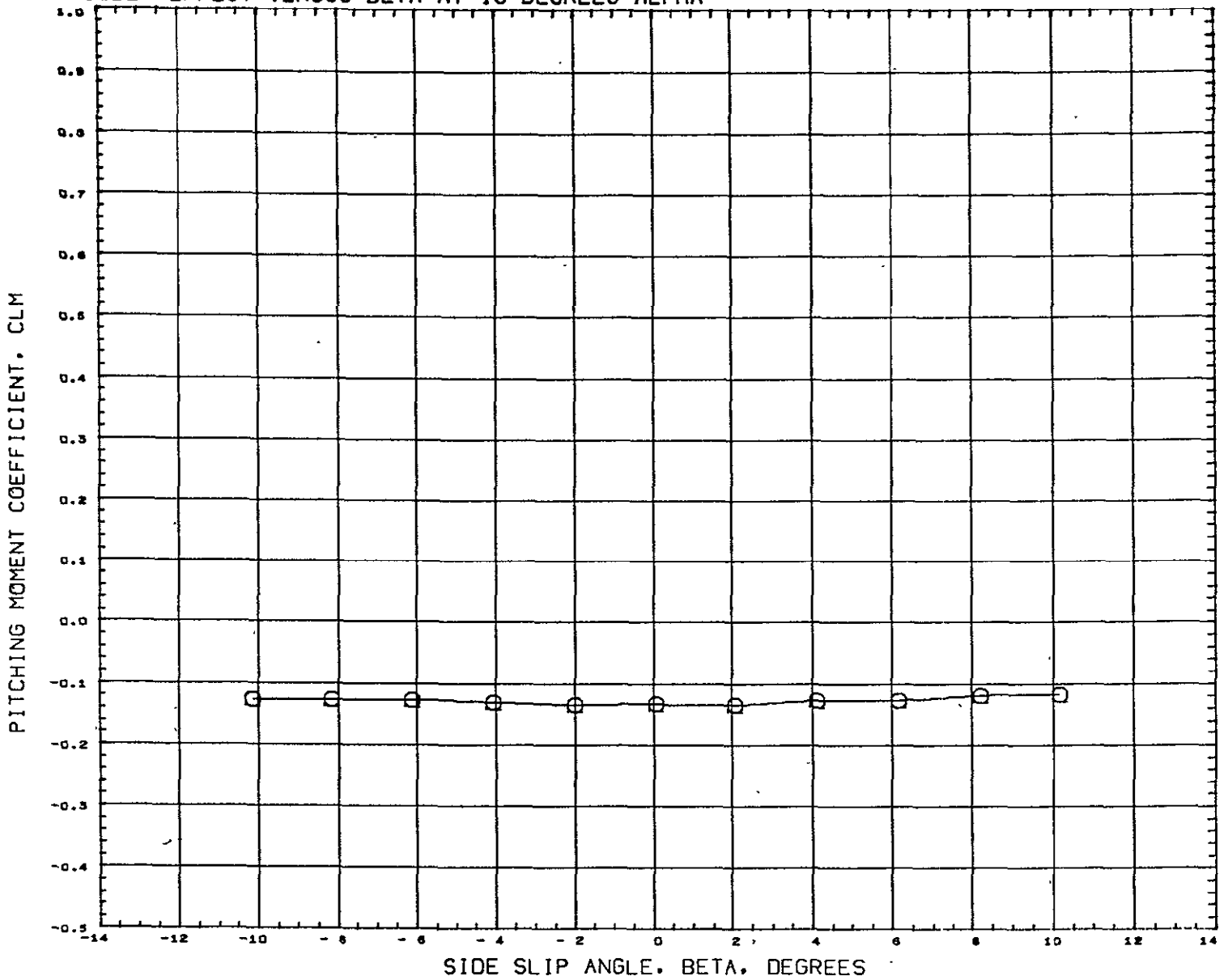


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F28Y21) □ MSFC481 GD/C(BOOSTER)B19W14C4AV7
 (F28Y22) △ DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
15.000	0.000	0.000	10.000	LREF 3.0950 IN.
				BREF 6.0990 IN.
				XMRP 6.7100 IN.
				YMRP 0.0000 IN.
				ZMRP 0.0000 IN.
				SCALE 0.0035

MACH 0.953

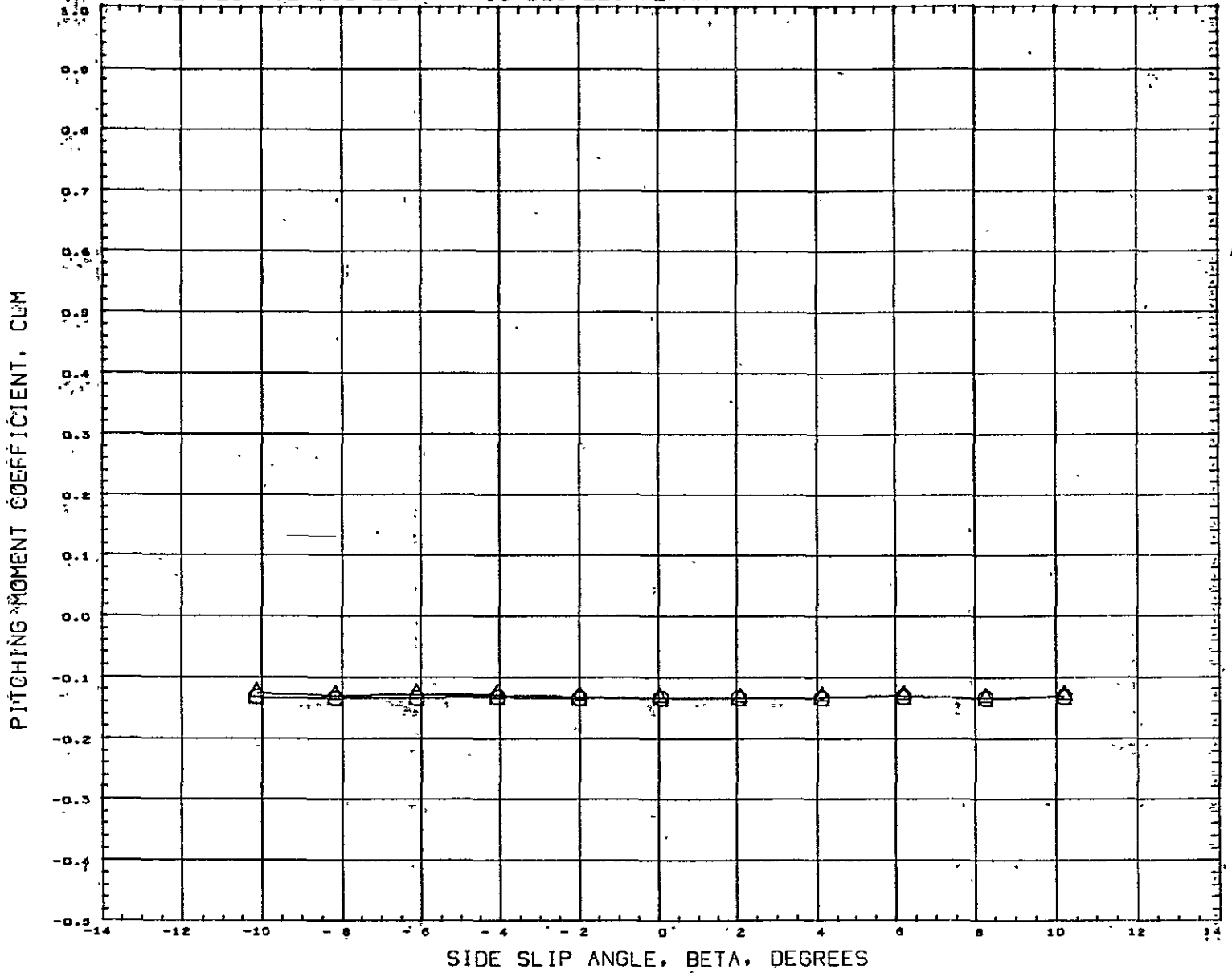
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.710J IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0055

MACH 1.000

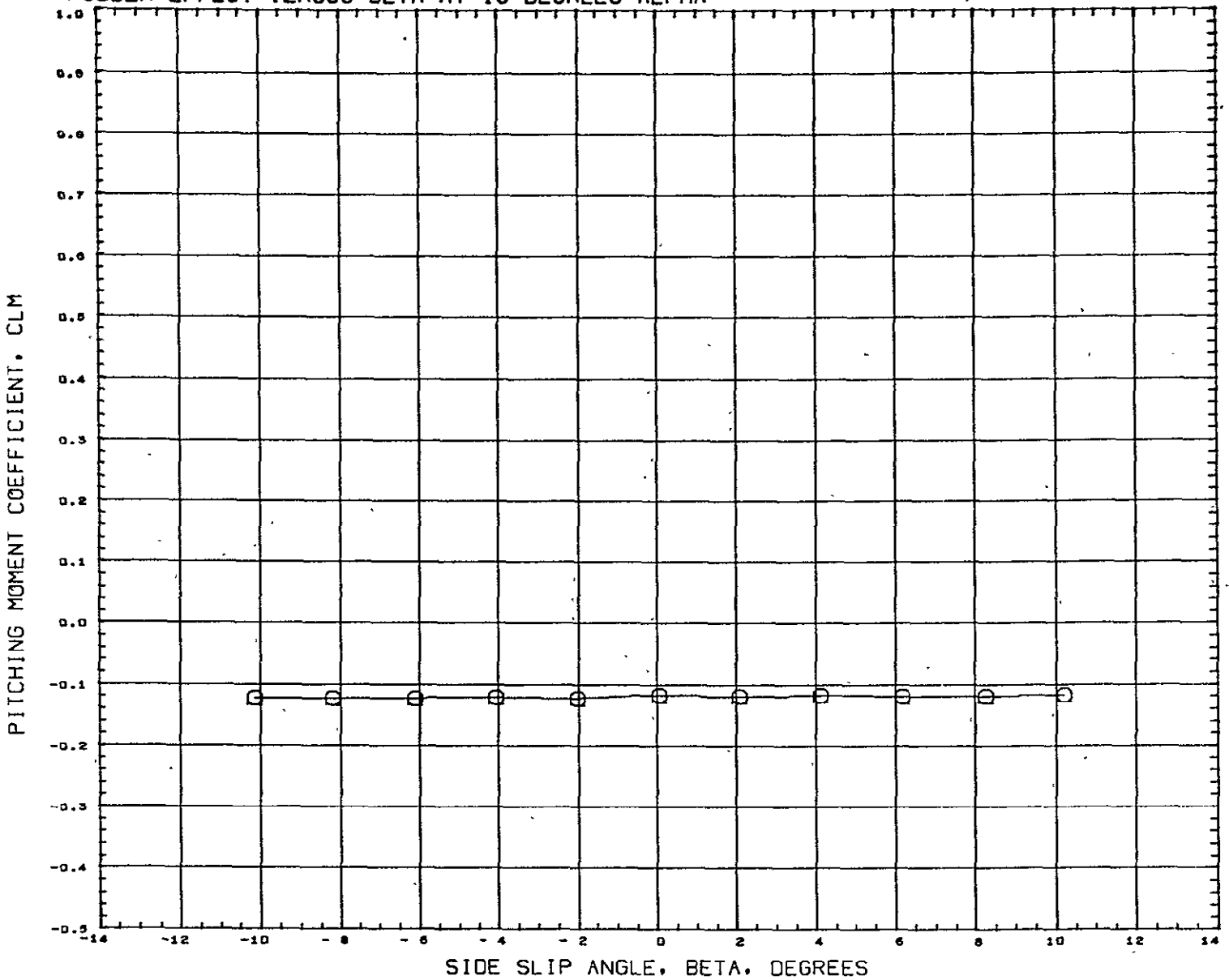
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 5.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0033

MACH 1.051

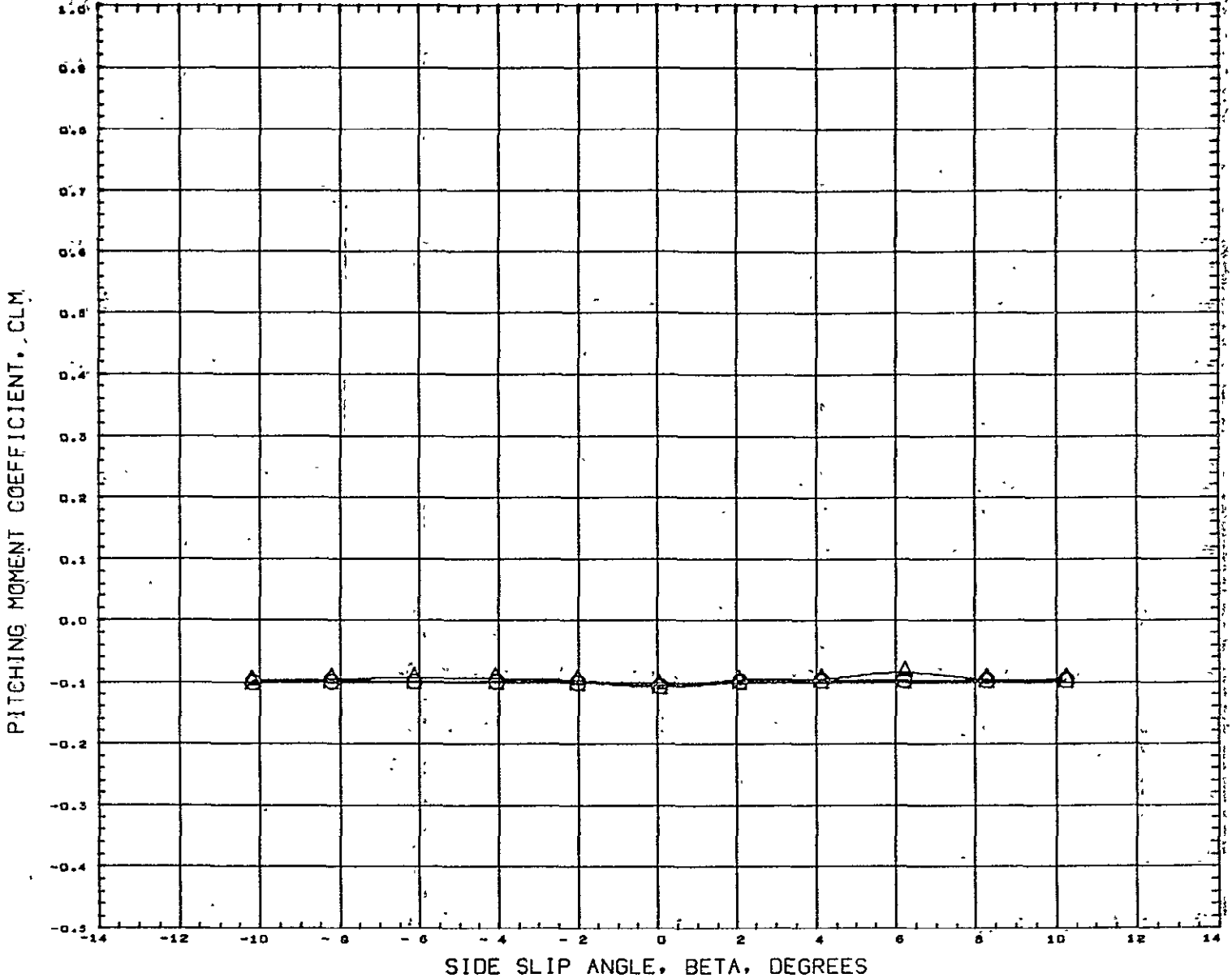
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F28Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XMRP	6.7100 IN.
						YMRP	0.0000 IN.
						ZMRP	0.0000 IN.
						SCALE	0.0035

MACH 1.098

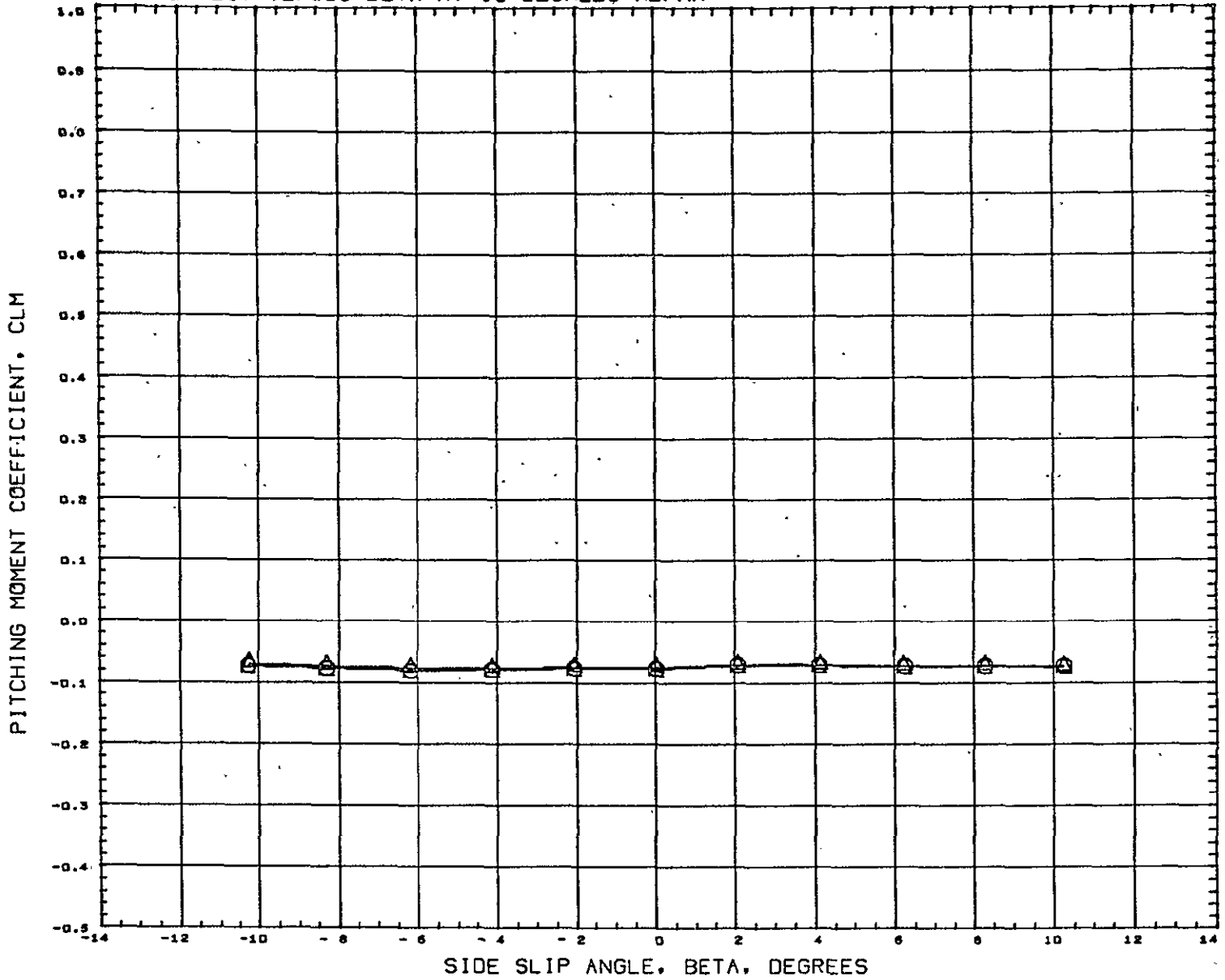
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.202

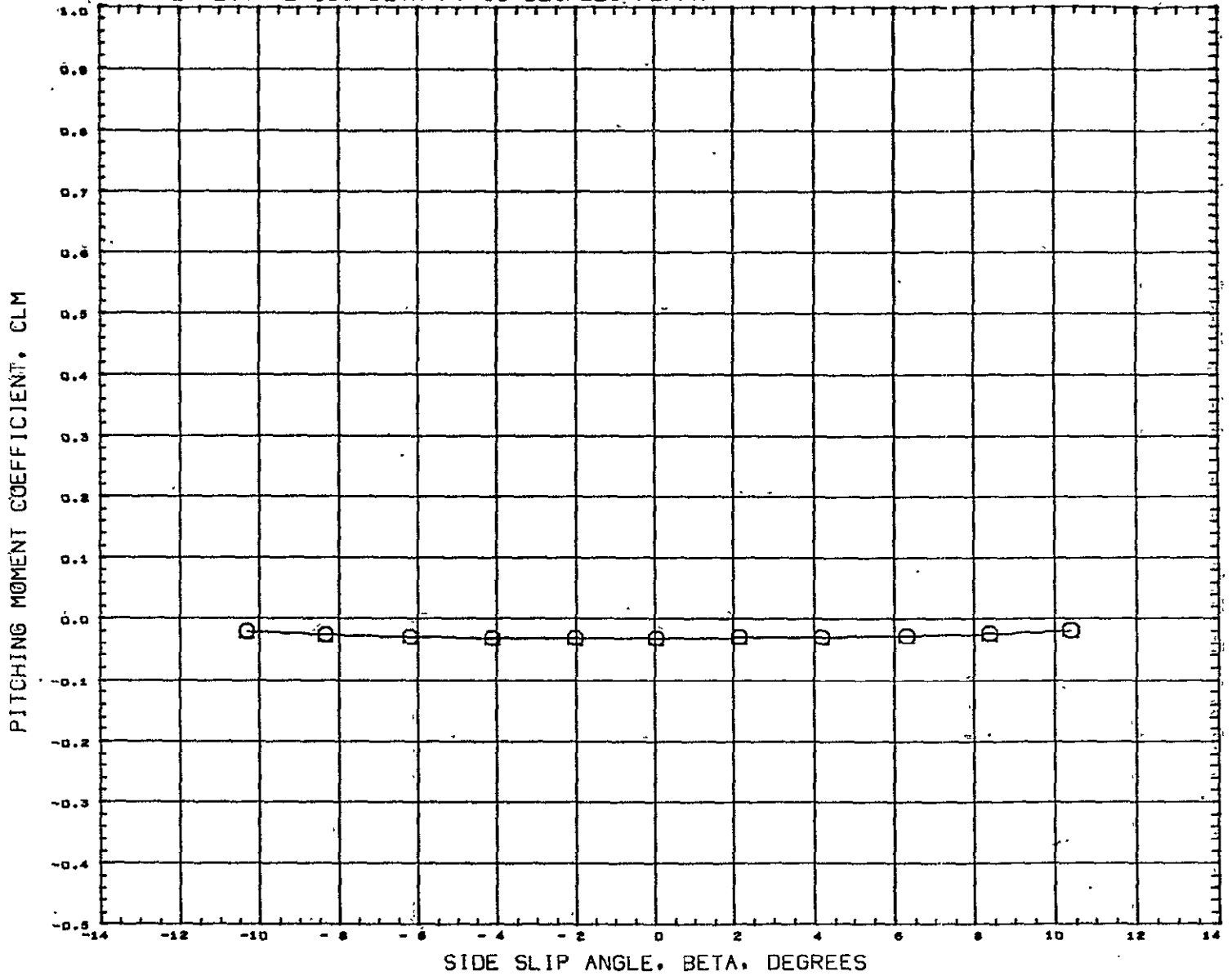
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6560 SQ. IN.
(F28Y22)	MSFC481 GD/C(BOOSTER)B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 1.408

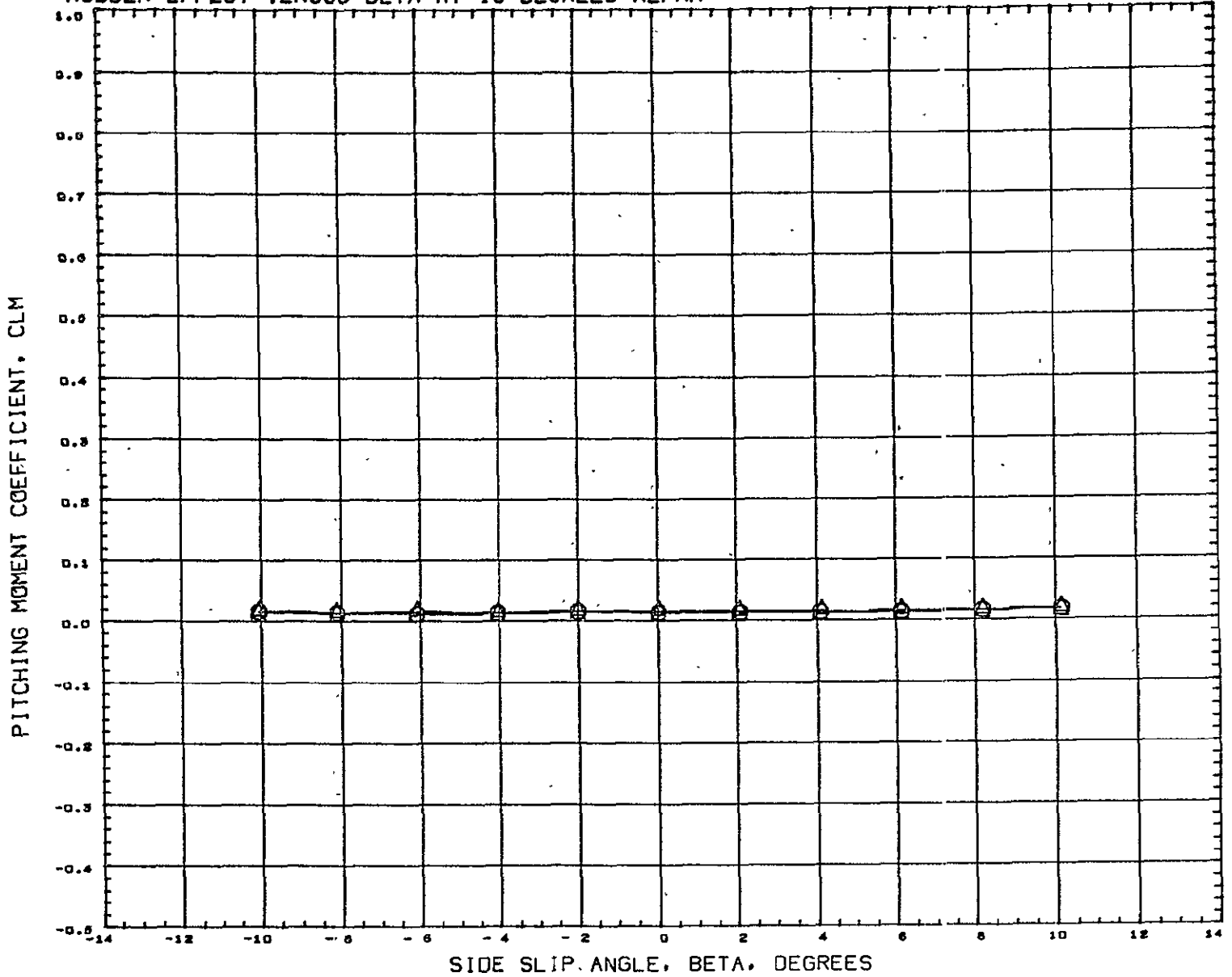
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION	
(F24Y21)	M8FC481 GD/C(BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF	15.6560 SQ. IN.
(F24Y22)	DATA NOT AVAILABLE FOR ALL CONDITIONS	15.000	0.000	0.000	10.000	LREF	3.0950 IN.
						BREF	6.0990 IN.
						XHRP	6.7100 IN.
						YHRP	0.0000 IN.
						ZHRP	0.0000 IN.
						SCALE	0.0033

MACH 1.966

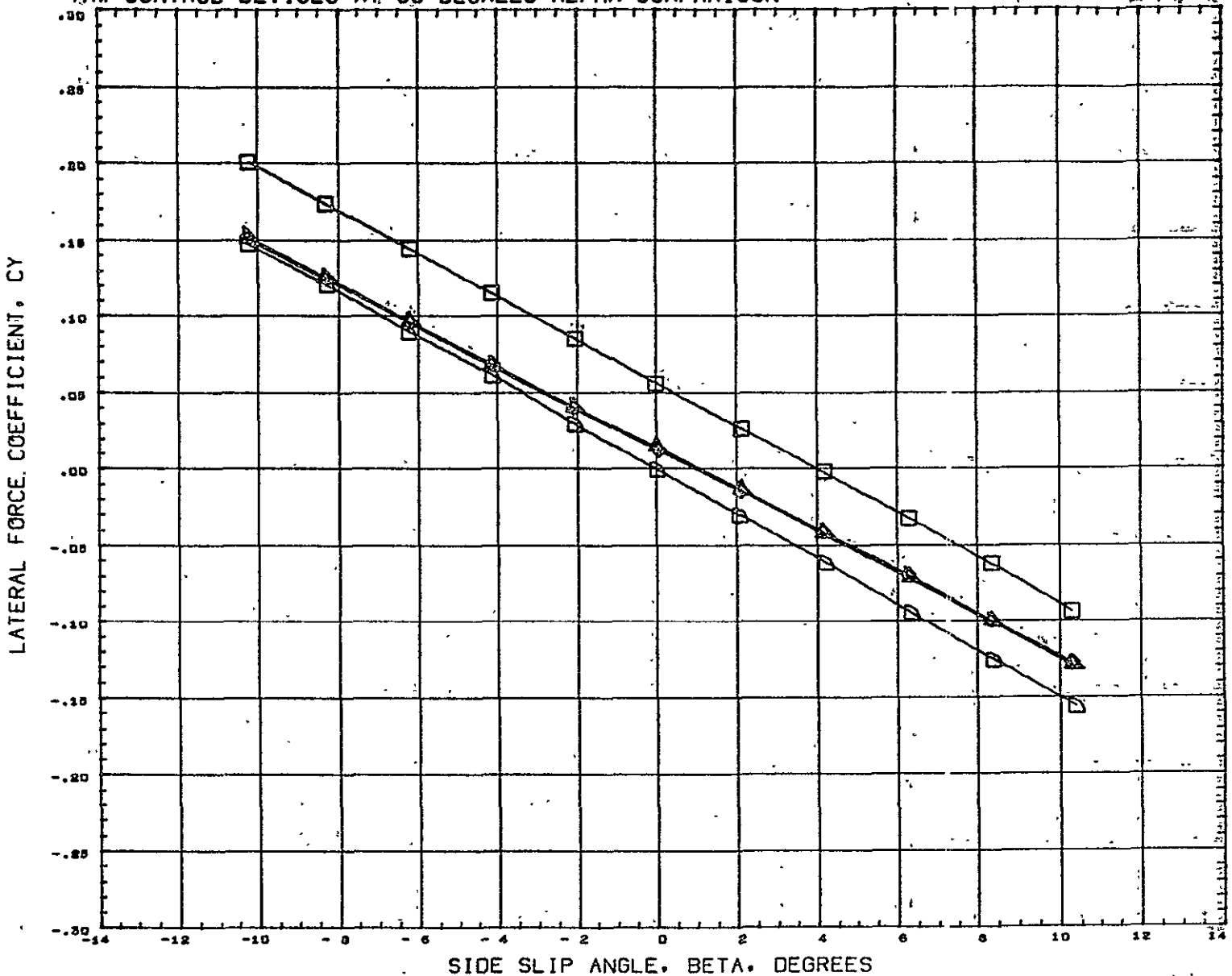
RUDDER EFFECT VERSUS BETA AT 15 DEGREES ALPHA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	CANARD	ELEVON	RUDDER	REFERENCE INFORMATION
(F28Y21)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	0.000	SREF 15.6300 SQ. IN.
(F28Y22)	MSFC481 GD/C (BOOSTER) B19W14C4AV7	15.000	0.000	0.000	10.000	LREF 3.0950 IN.
						BREF 6.0990 IN.
						XMRP 6.7100 IN.
						YMRP 0.0000 IN.
						ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

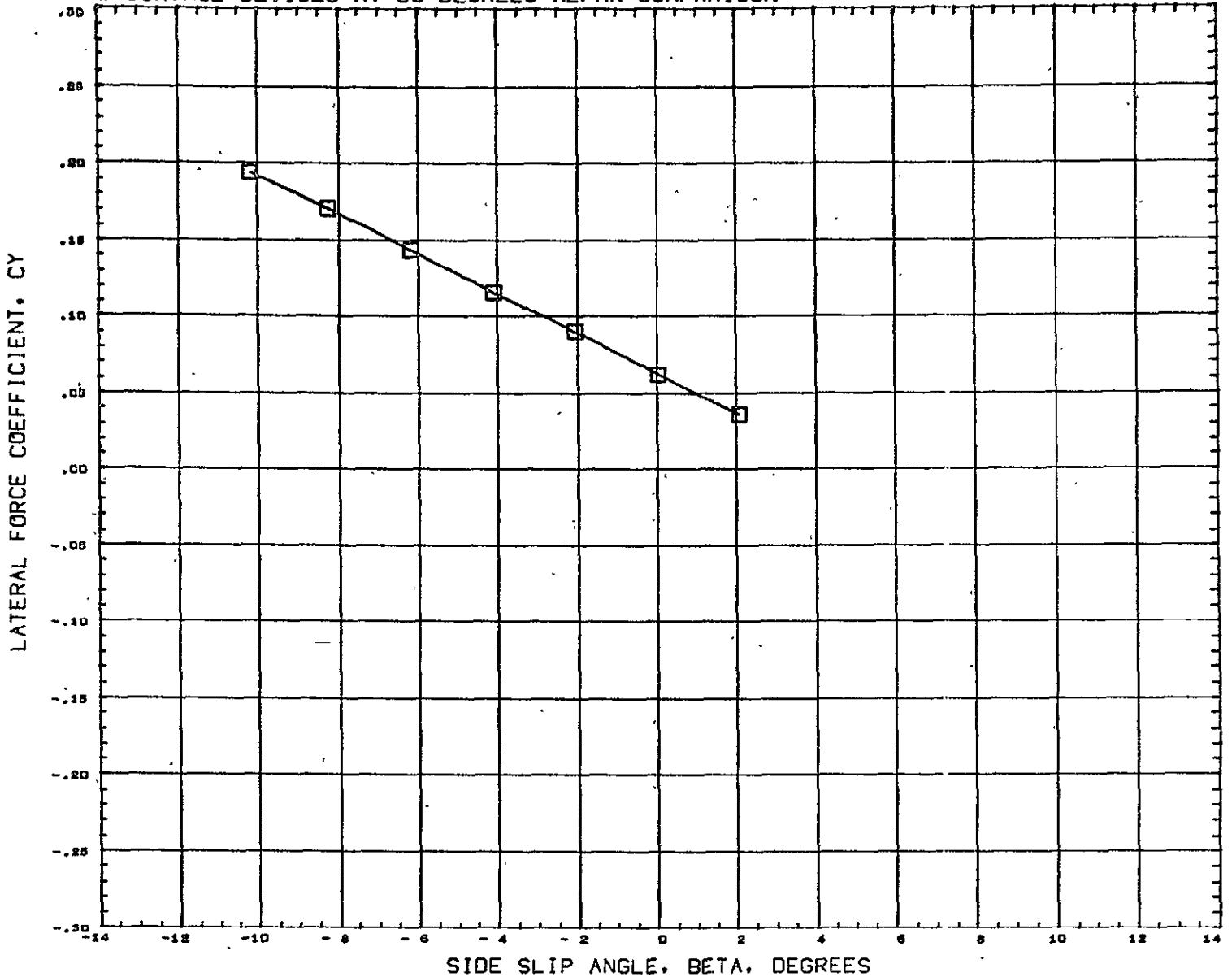
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 sq. in.
(F28Y62)	M8FC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	M8FC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	M8FC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	M8FC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	M8FC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

HACH 2.990

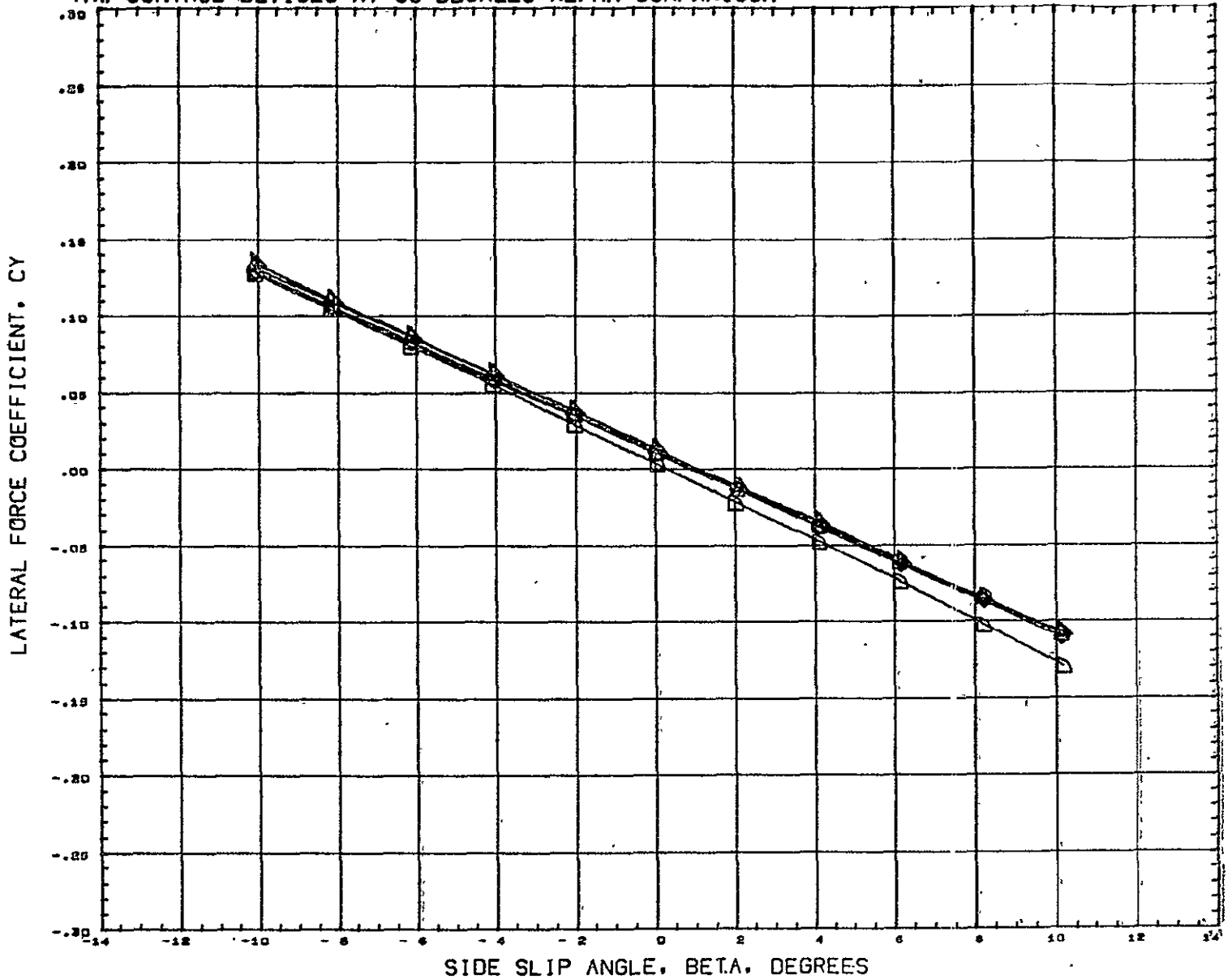
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ.IN.
(F28Y62)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.450

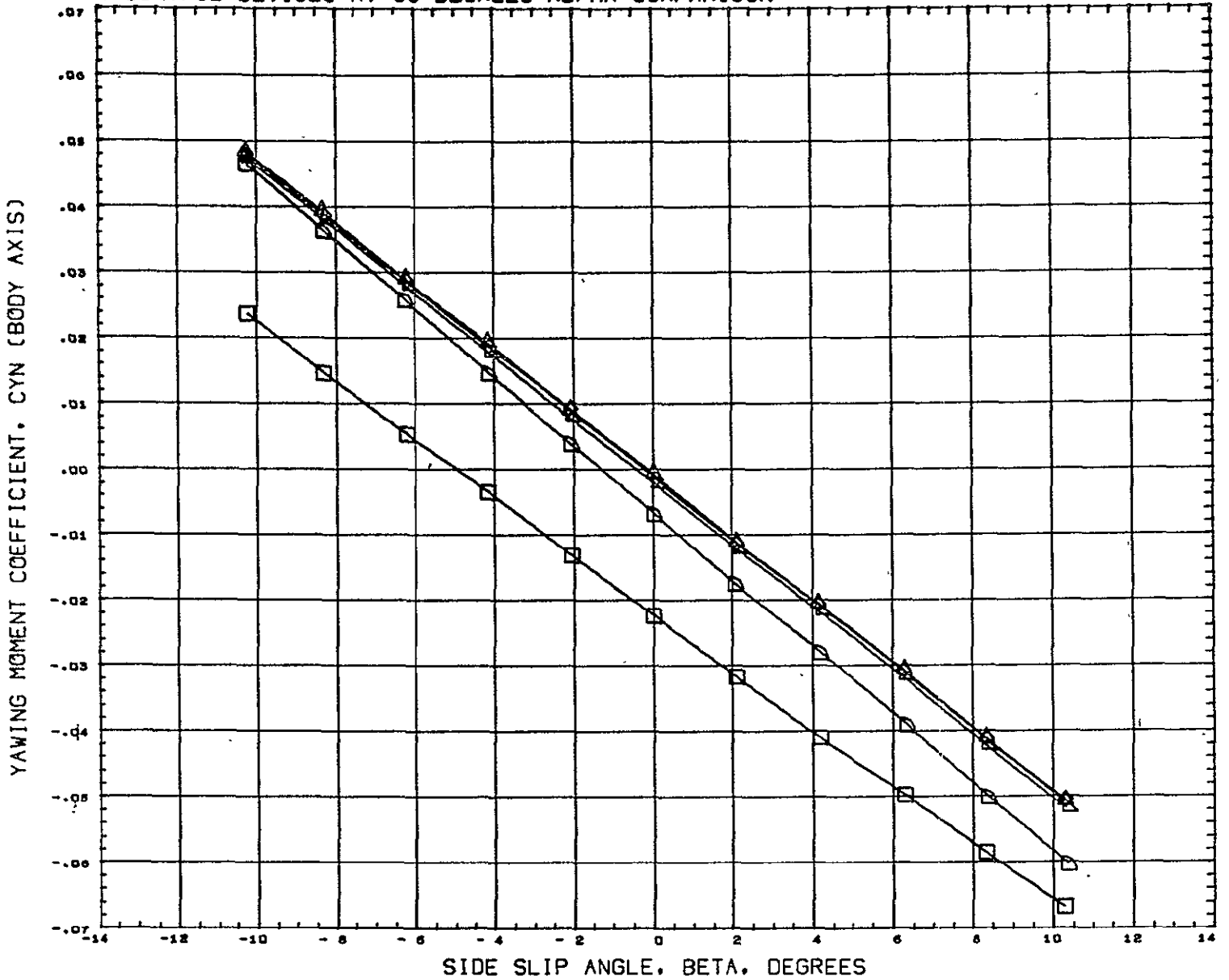
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F20Y01)	M5FC401 GD/C(BOOSTER)B19W14C4A	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ.IN.
(F20Y02)	M5FC401 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0990 IN.
(F20Y03)	M5FC401 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F20Y04)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	XMRP 0.7100 IN.
(F20Y05)	M5FC401 GD/C(BOOSTER)B19W14C4S	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F20Y44)	M5FC401 GD/C(BOOSTER)B19W14C4A	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.959

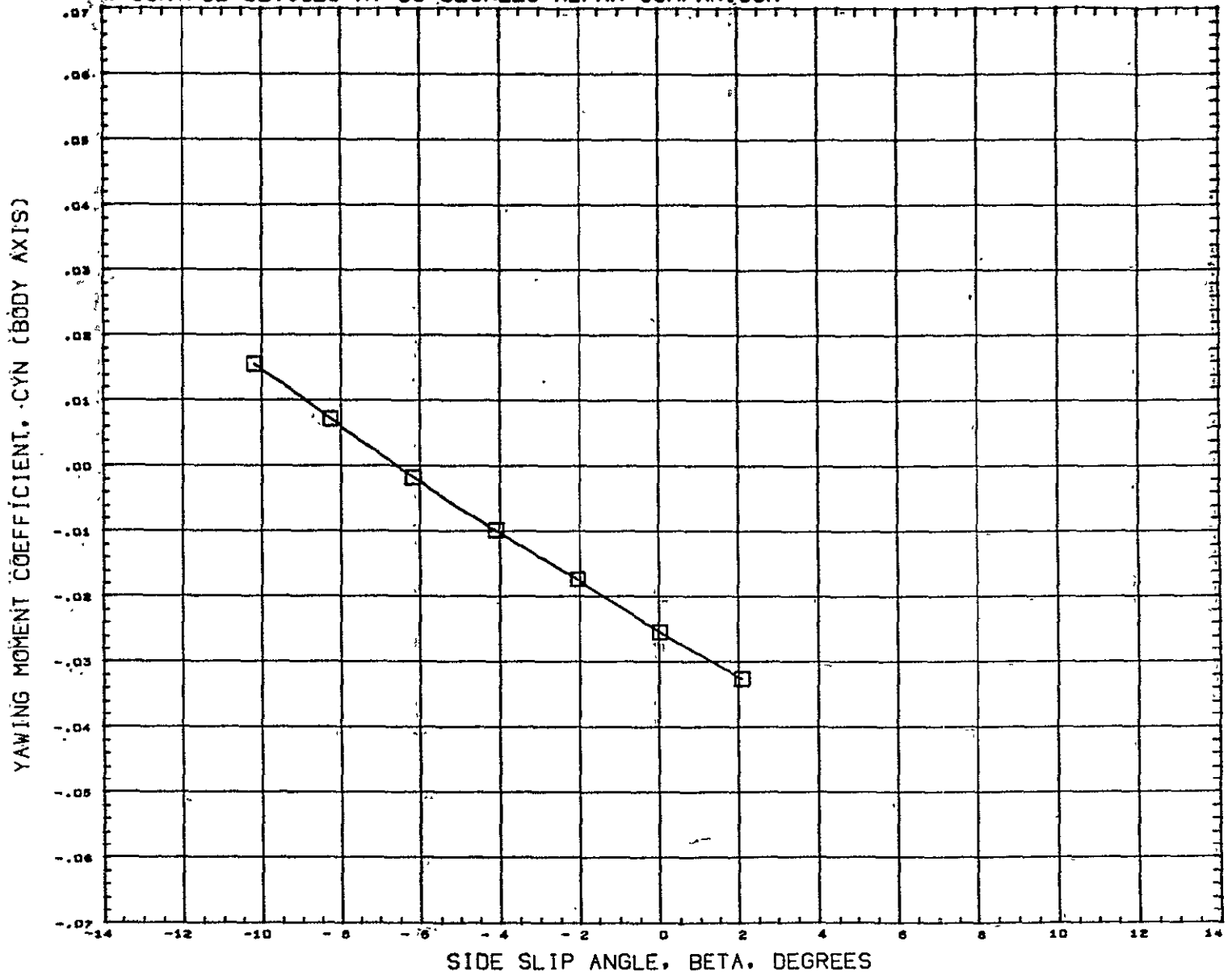
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 Sq. IN.
(F28Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	MSFC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN. SCALE 0.0035

MACH 2.990

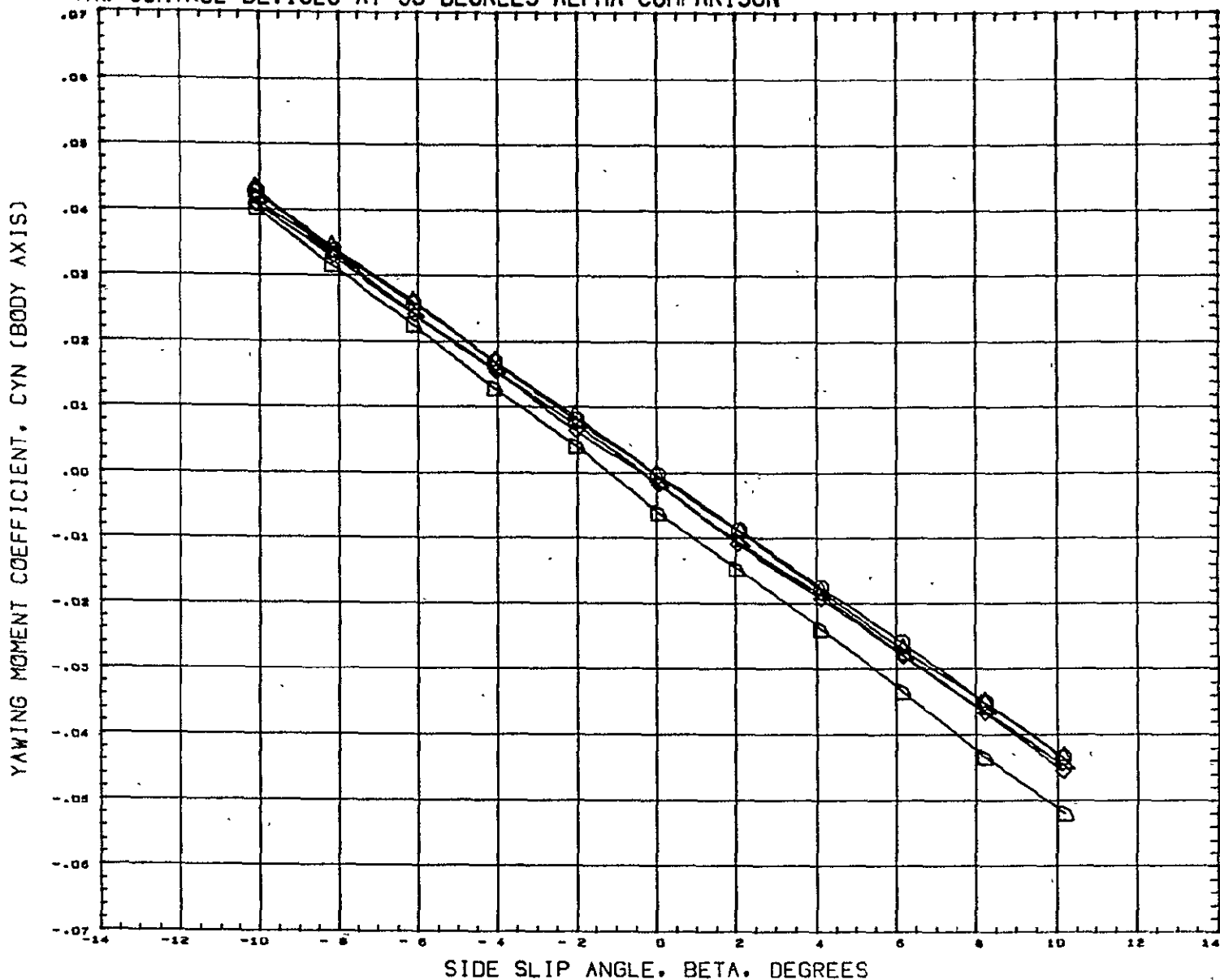
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ. IN.
(F28Y62)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	LREF 3.0990 IN.
(F28Y63)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C (BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.450

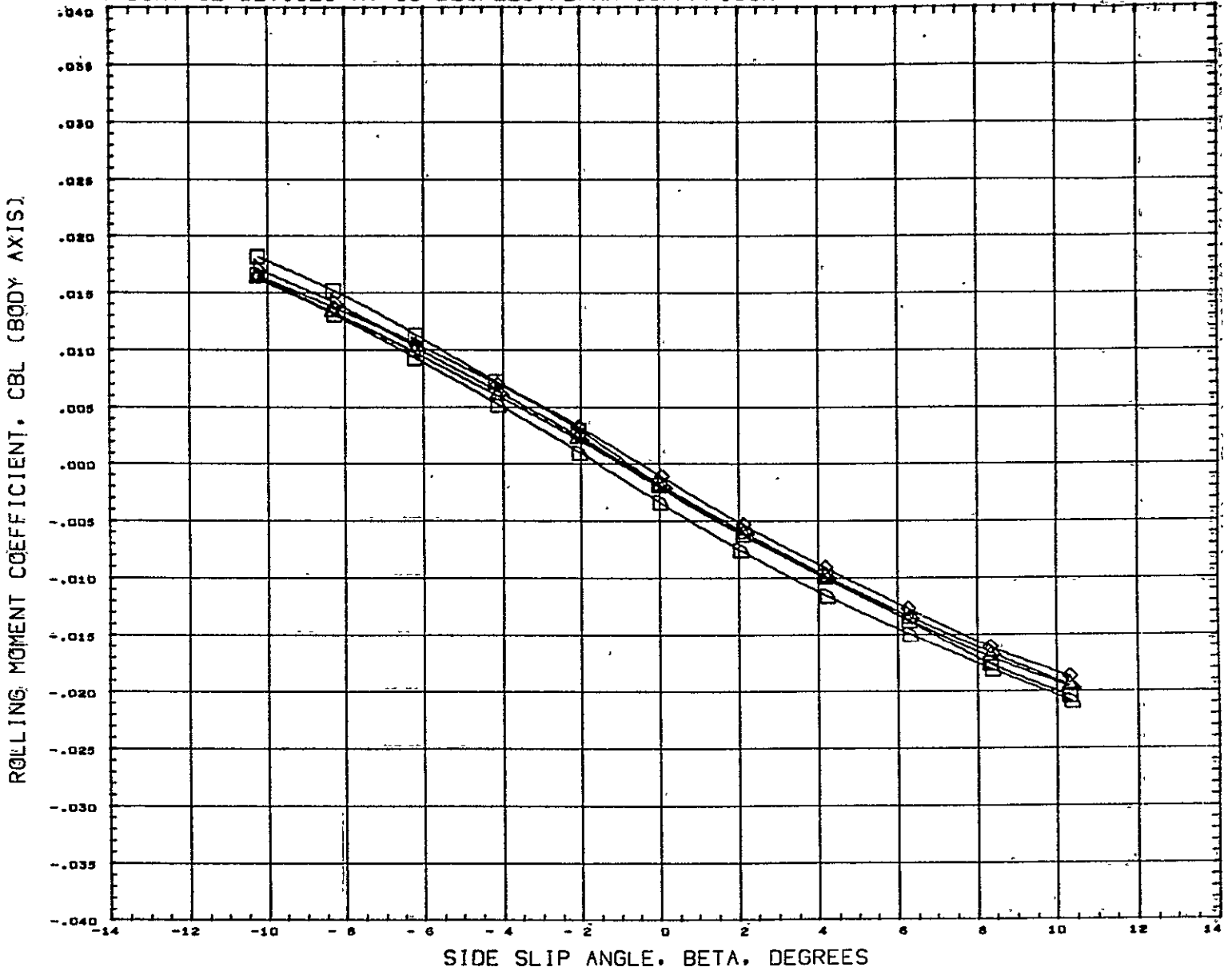
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	OCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	MSFC481 GD/C(BOOSTER)B19W14C4A	-45.000	-45.000	-45.000	35.000	SREF 15.6560 Sq. IN.
(F28Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	MSFC481 GD/C(BOOSTER)B19W14C4S	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER)B19W14C4A	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.950

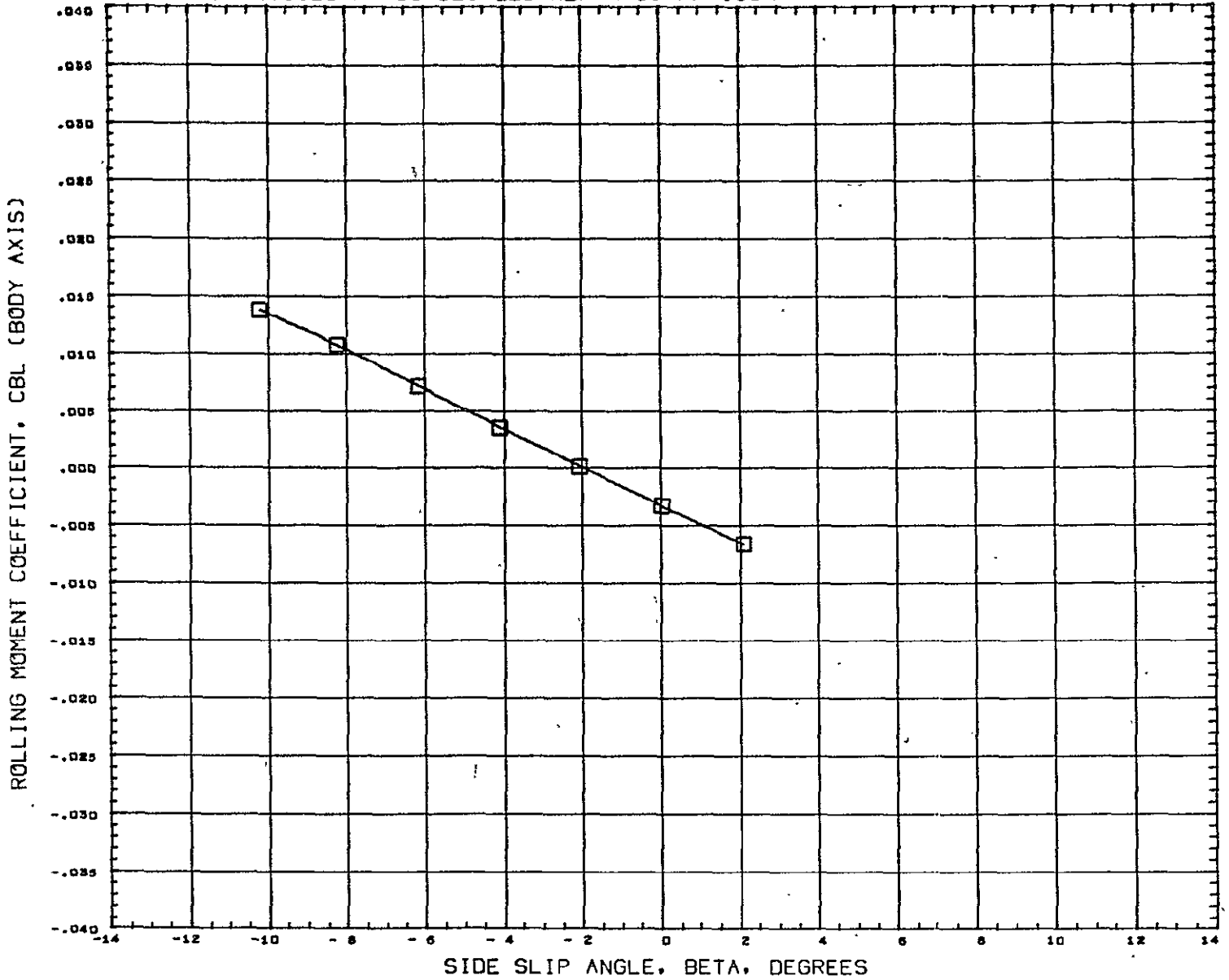
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 50. IN.
(F28Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XHRP 6.7100 IN.
(F28Y65)	MSFC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YHRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZHRP 0.0000 IN.
						SCALE 0.0033

MACH 2.990

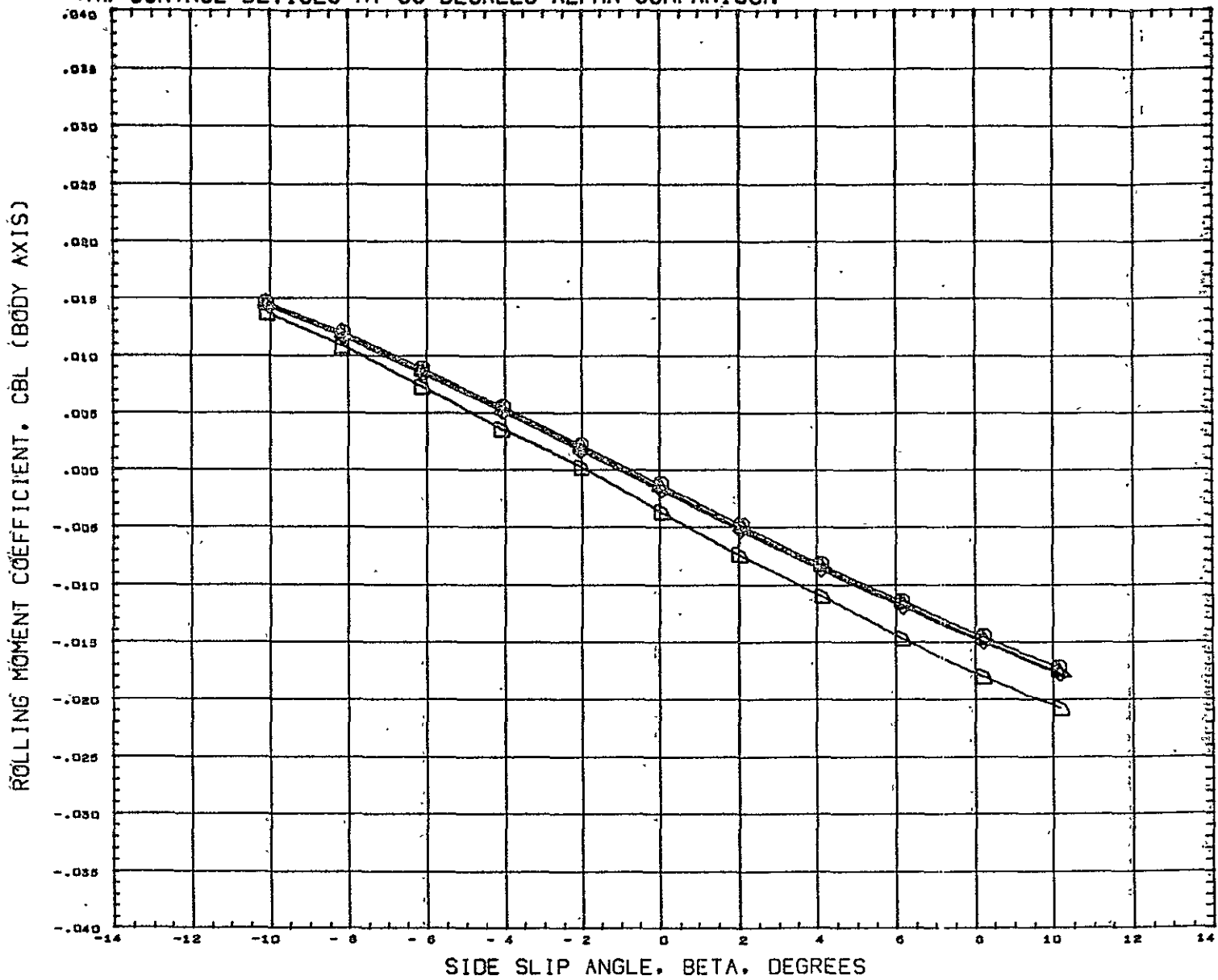
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y81)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 18.6560 SQ. IN.
(F28Y82)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	LREF 3.0980 IN.
(F28Y83)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y84)	MSFC481 GD/C(BOOSTER) B19W14C4AF8	-45.000	-45.000	-45.000	35.000	XHRP 6.7100 IN.
(F28Y85)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	YHRP 0.0000 IN.
(F28Y44)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	-15.000	35.000	ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 4.450

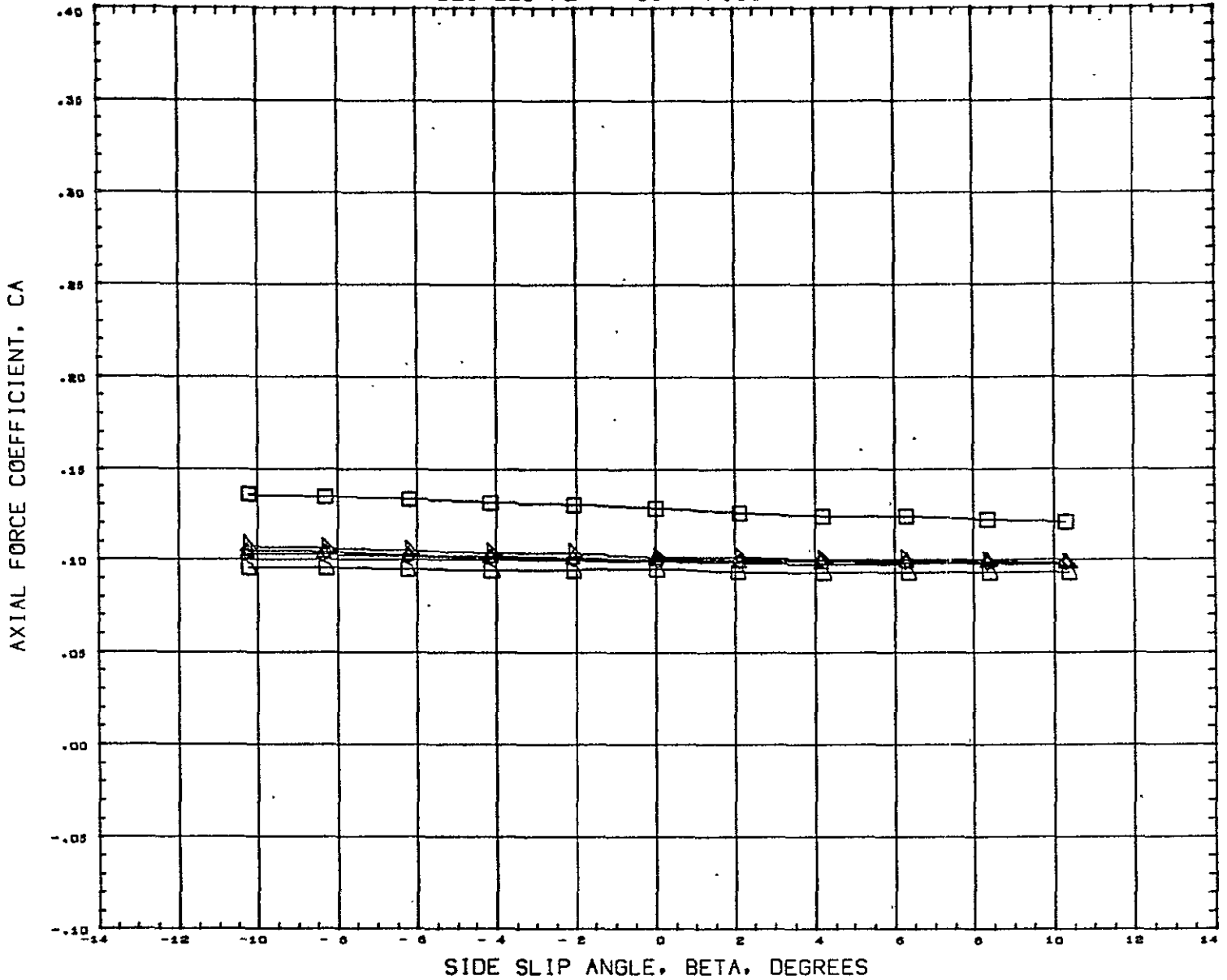
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	MSFC481 GD/C(BOOSTER) B19W14C4A	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ. IN.
(F28Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	MSFC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.959

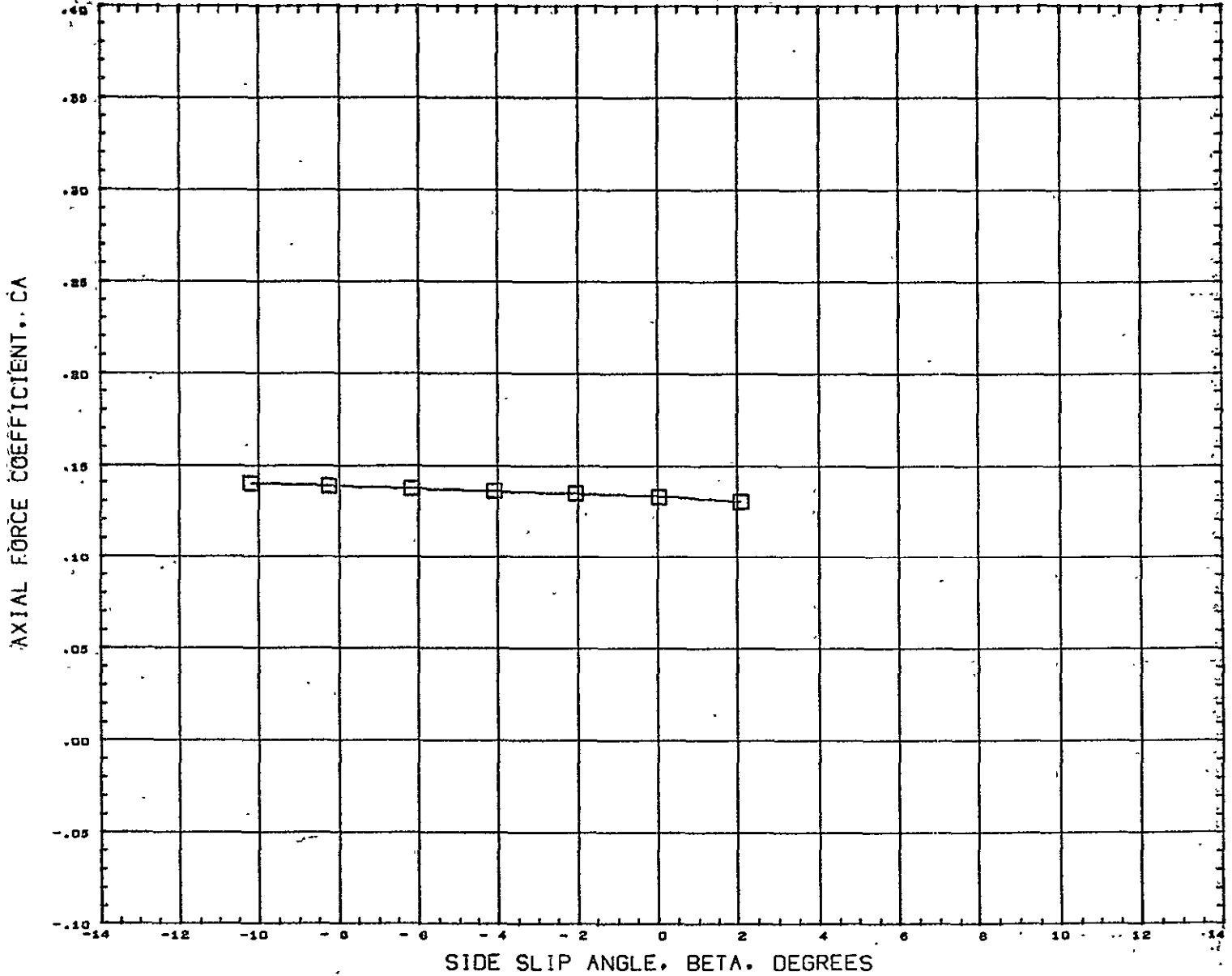
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ. IN.
(F28Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	MSFC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

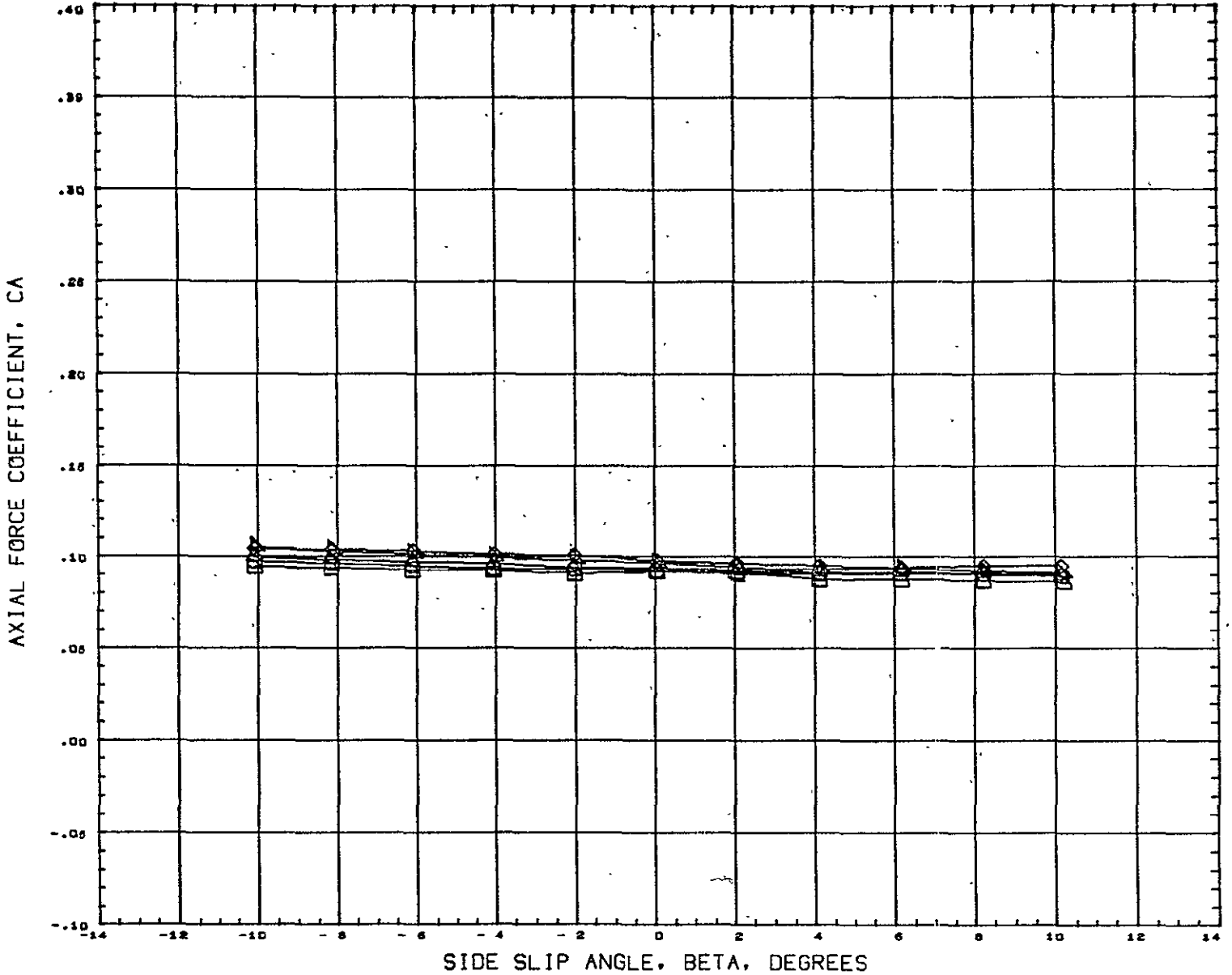
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ. IN.
(F28Y62)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	LREF 3.0960 IN.
(F28Y63)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	H3FC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.450

YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON

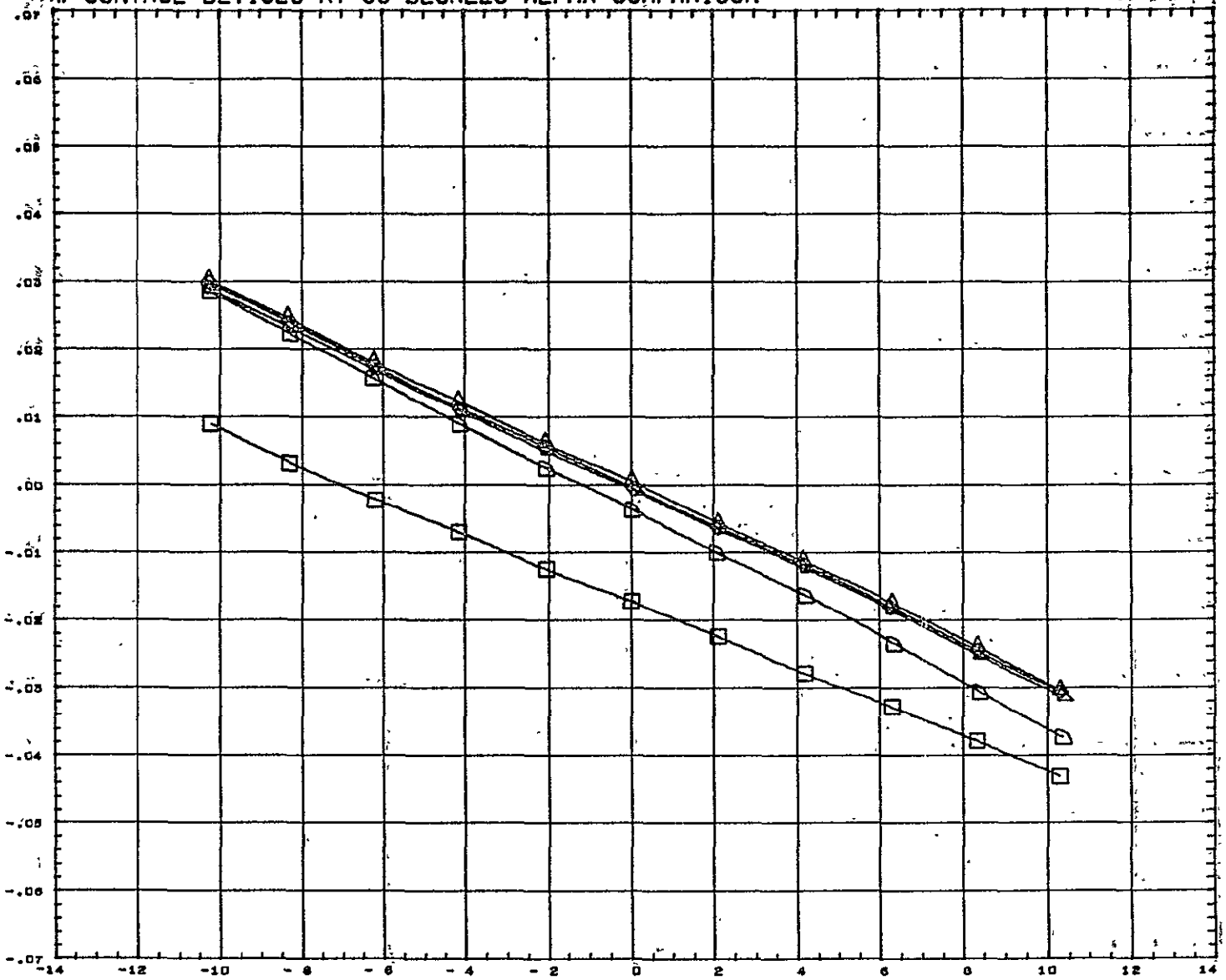


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y01)	MSFC481 GD/C(BOOSTER) B19W14C4A	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ. IN.
(F28Y02)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y03)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y04)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	XNRP 6.7100 IN.
(F28Y05)	MSFC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YNRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZNRP 0.0000 IN.
						SCALE 0.0035

MACH 4.959

YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON

YAWING MOMENT COEFFICIENT, $C_{N\dot{\beta}}$ (STABILITY AXIS)

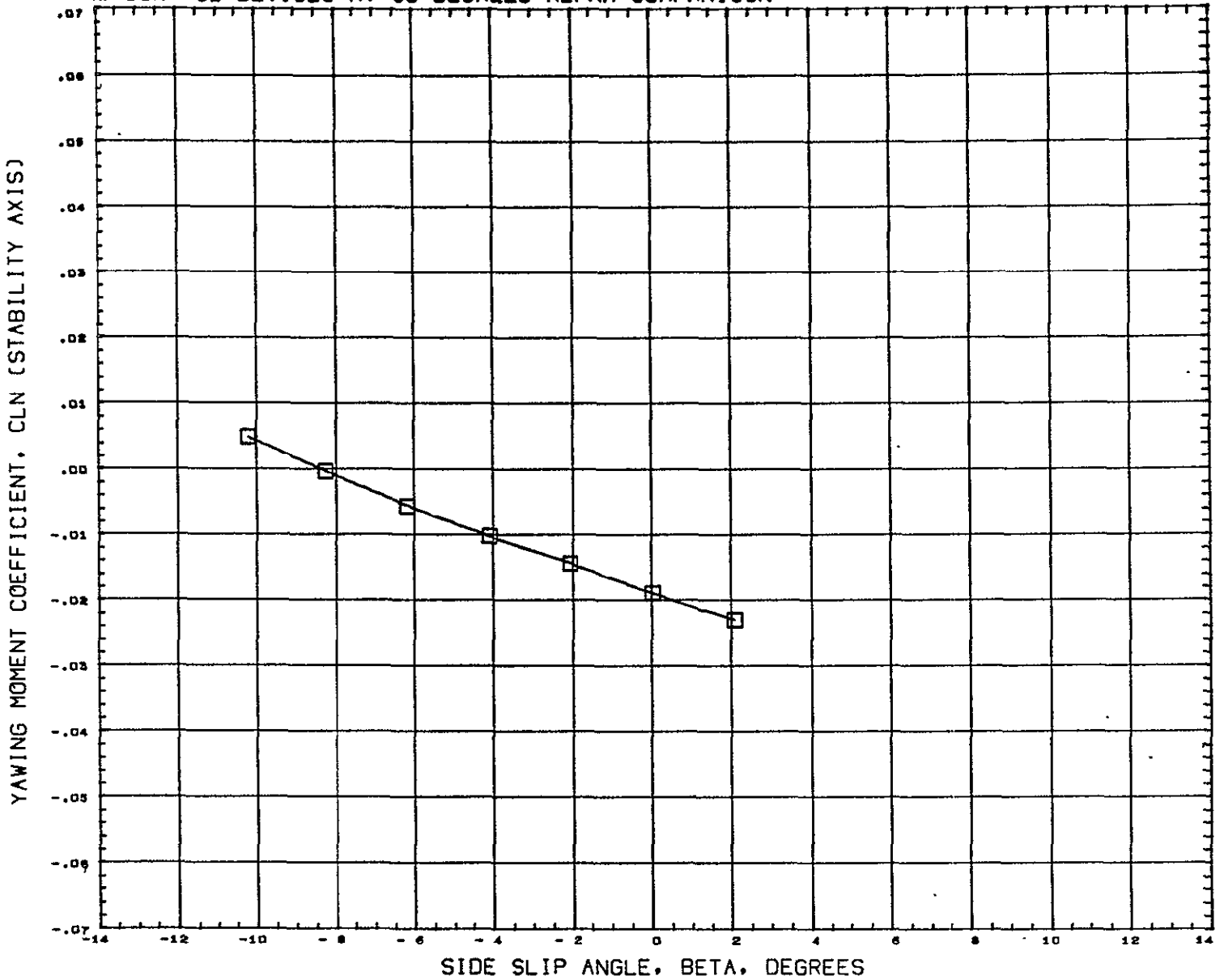


SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 50. IN.
(F28Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	MSFC481 GD/C(BOOSTER) B19W14C4A8	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 2.990

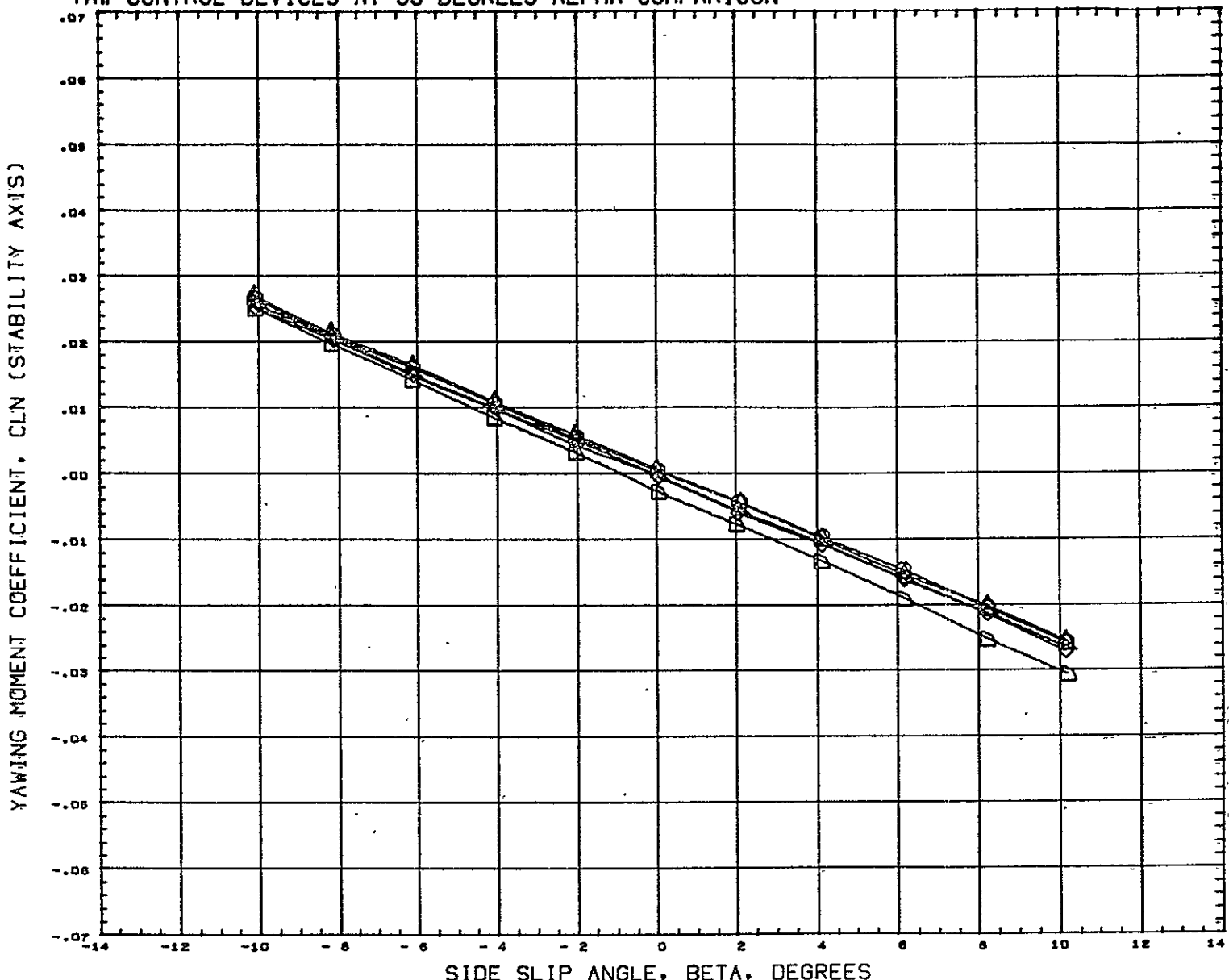
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ. IN.
(F28Y62)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F28Y65)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F28Y44)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.450

YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON

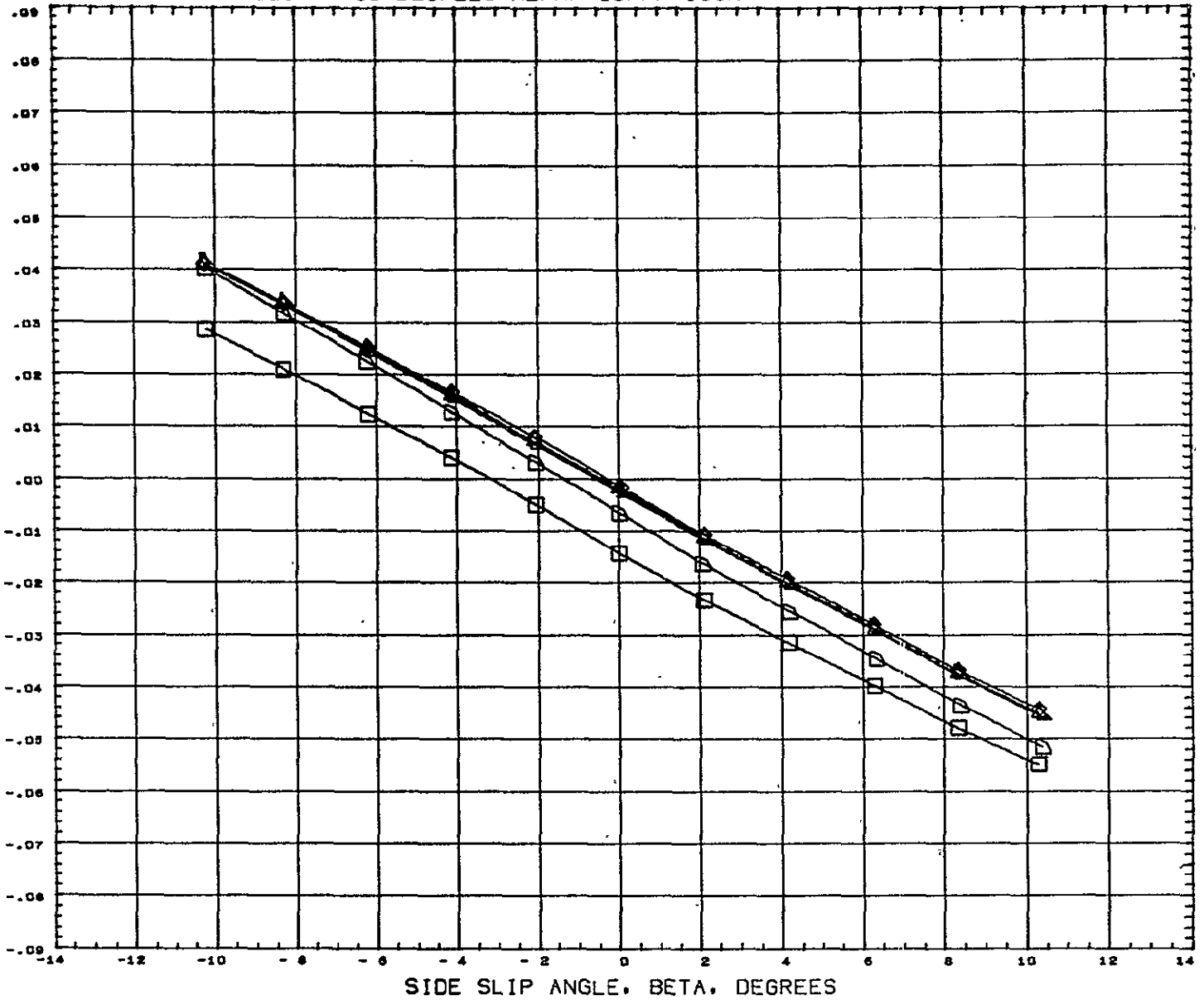


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F20Y61)	MSFC481 GD/C(BOOSTER) B19W14C4A	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ. IN.
(F20Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F20Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F20Y64)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	XMRP 6.7100 IN.
(F20Y65)	MSFC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YMRP 0.0000 IN.
(F20Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZMRP 0.0000 IN.
						SCALE 0.0035

MACH 4.959

YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON

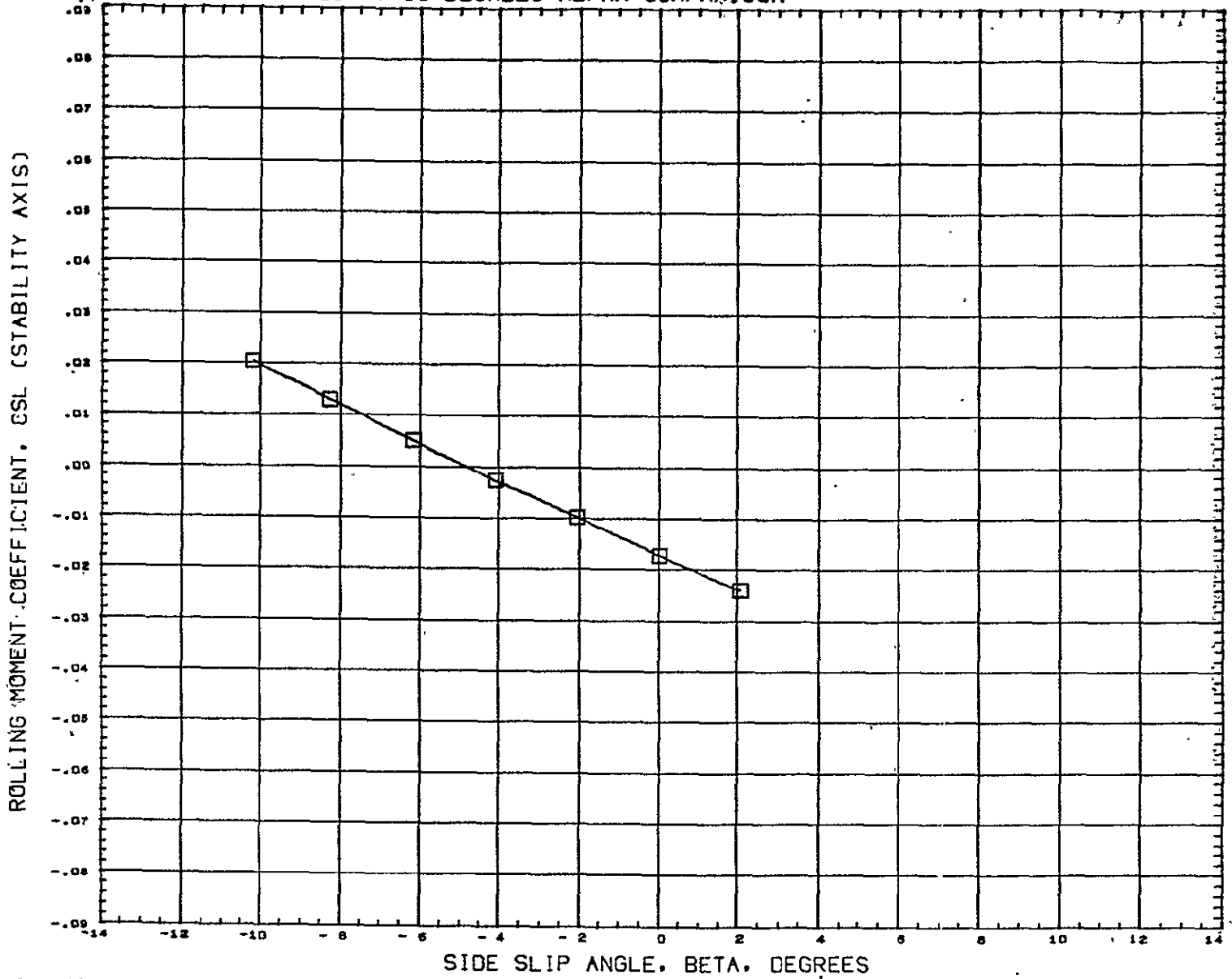
ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION	
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF	15.6560 SQ. IN.
(F28Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF	3.0950 IN.
(F28Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF	6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XHRP	6.7100 IN.
(F28Y65)	MSFC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YHRP	0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZHRP	0.0000 IN.
						SCALE	0.0035

MACH 2.990

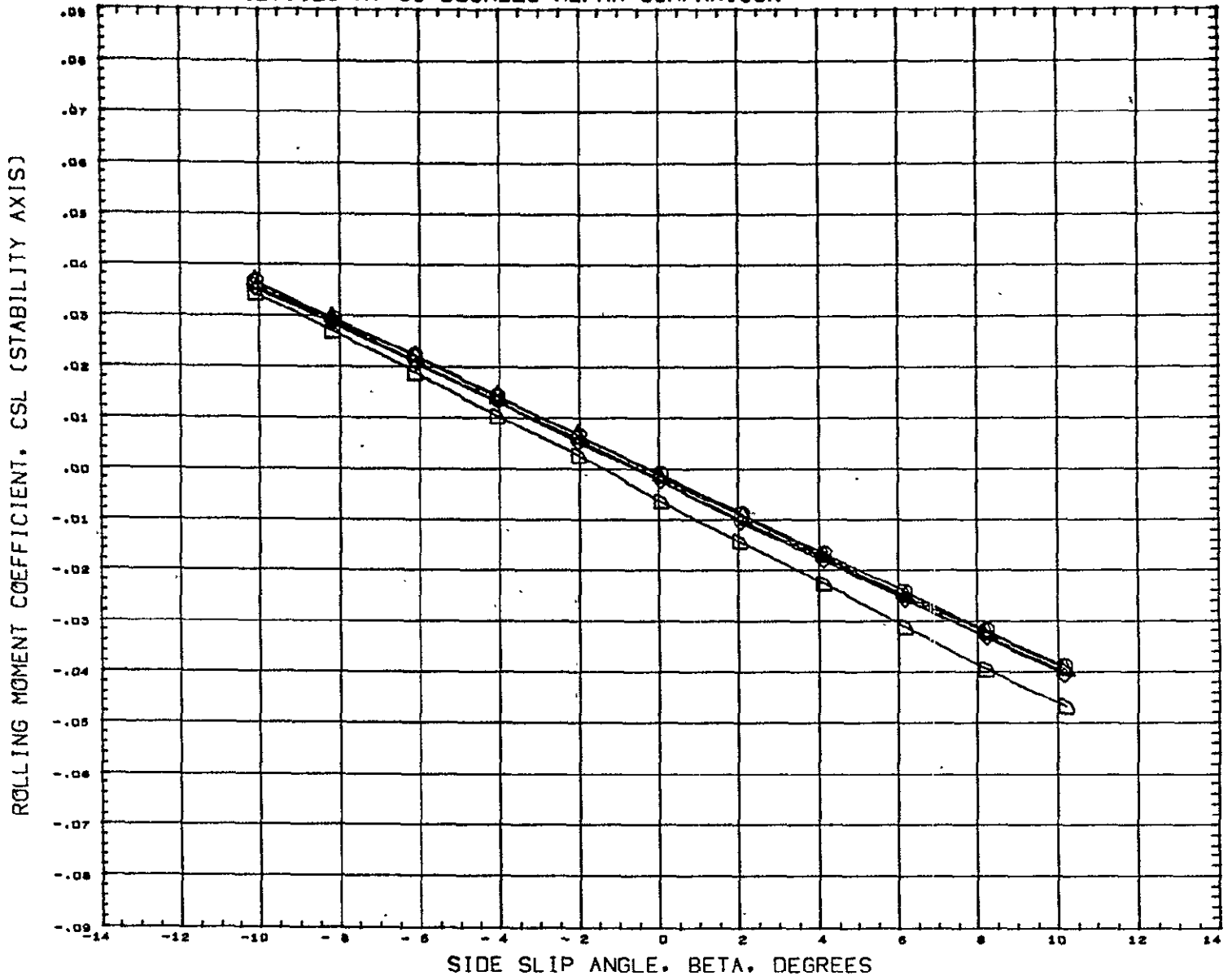
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 90 IN.
(F28Y62)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	H8FC461 60/C (BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XHRP 6.7100 IN.
(F28Y65)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	YHRP 0.0000 IN.
(F28Y44)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	-15.000	35.000	ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 4.450

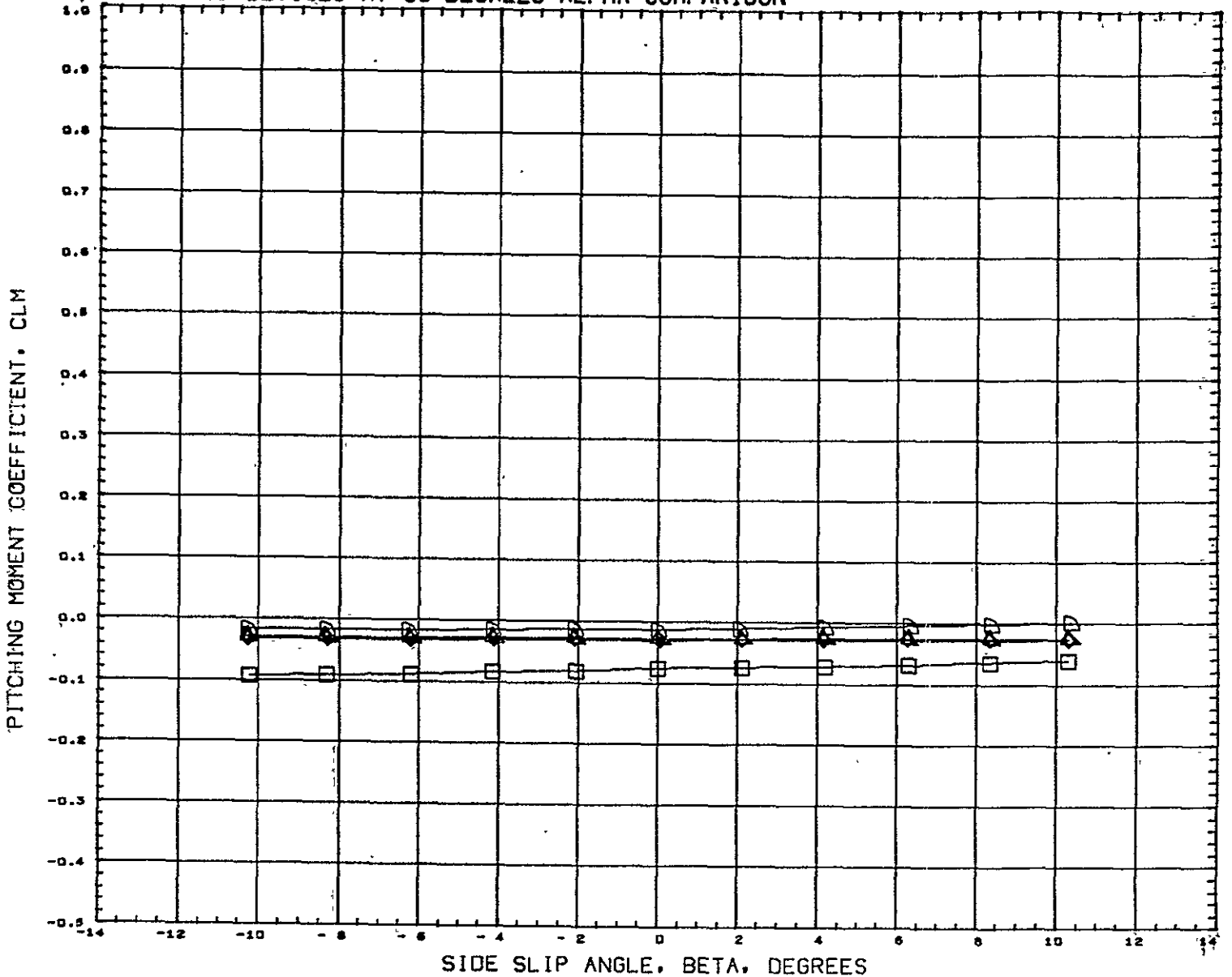
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F20Y61)	MSFC481 GD/C(BOOSTER) B19W14C4A	-45.000	-45.000	-45.000	35.000	SREF 15.6560 sq. IN.
(F20Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F20Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F20Y64)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	XHRP 6.7100 IN.
(F20Y65)	MSFC481 GD/C(BOOSTER) B19W14C4S	-45.000	-45.000	-45.000	35.000	YHRP 0.0000 IN.
(F20Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZHRP 0.0000 IN.
						SCALE 0.0035

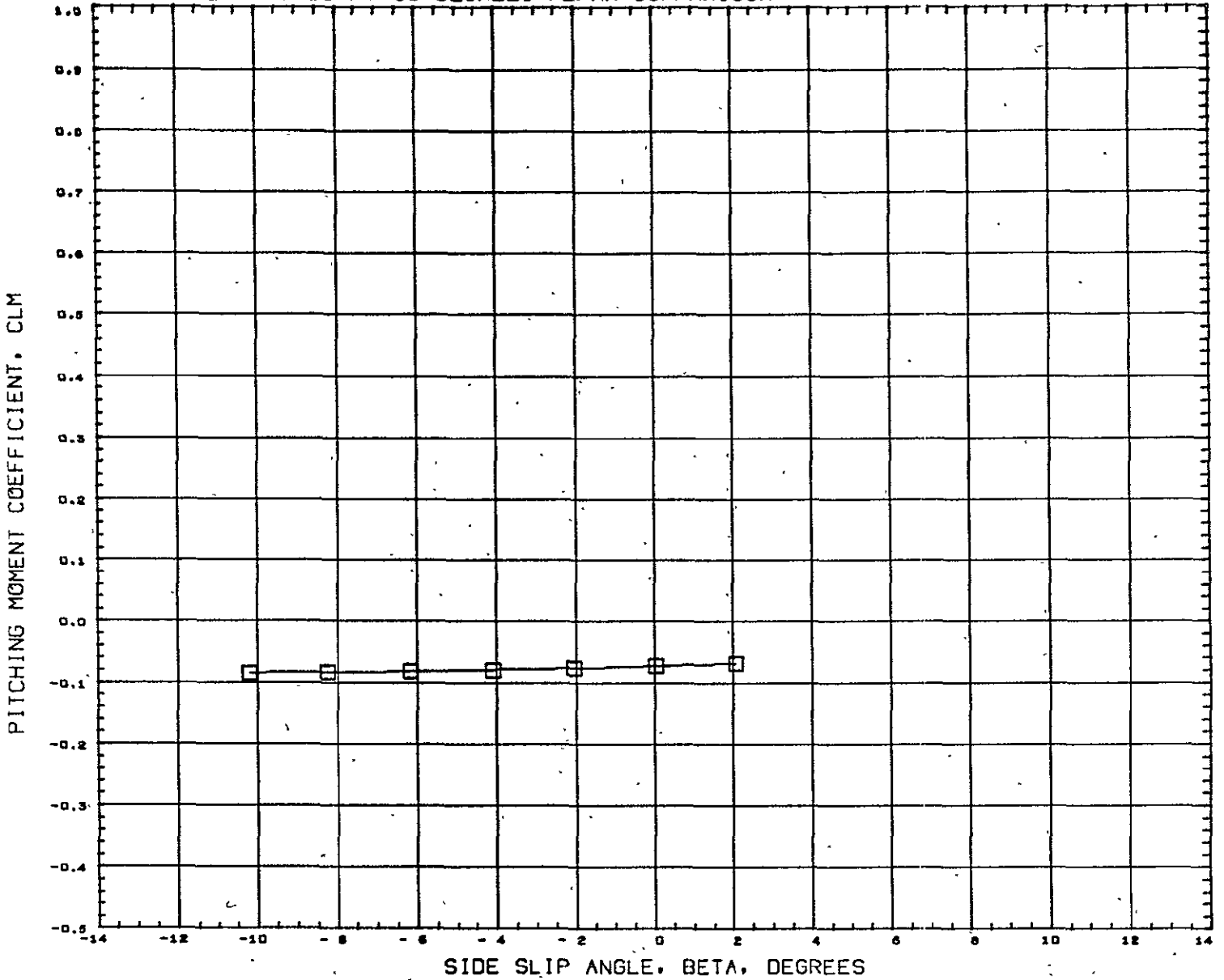
MACH 4.959

YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 30. IN.
(F28Y62)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XHRP 6.7100 IN.
(F28Y65)	MSFC481 GD/C(BOOSTER) B19W14C45	-45.000	-45.000	-45.000	35.000	YHRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER) B19W14C4A	-30.000	0.000	-15.000	35.000	ZHRP 0.0000 IN.
	MACH 2.990					SCALE 0.0035

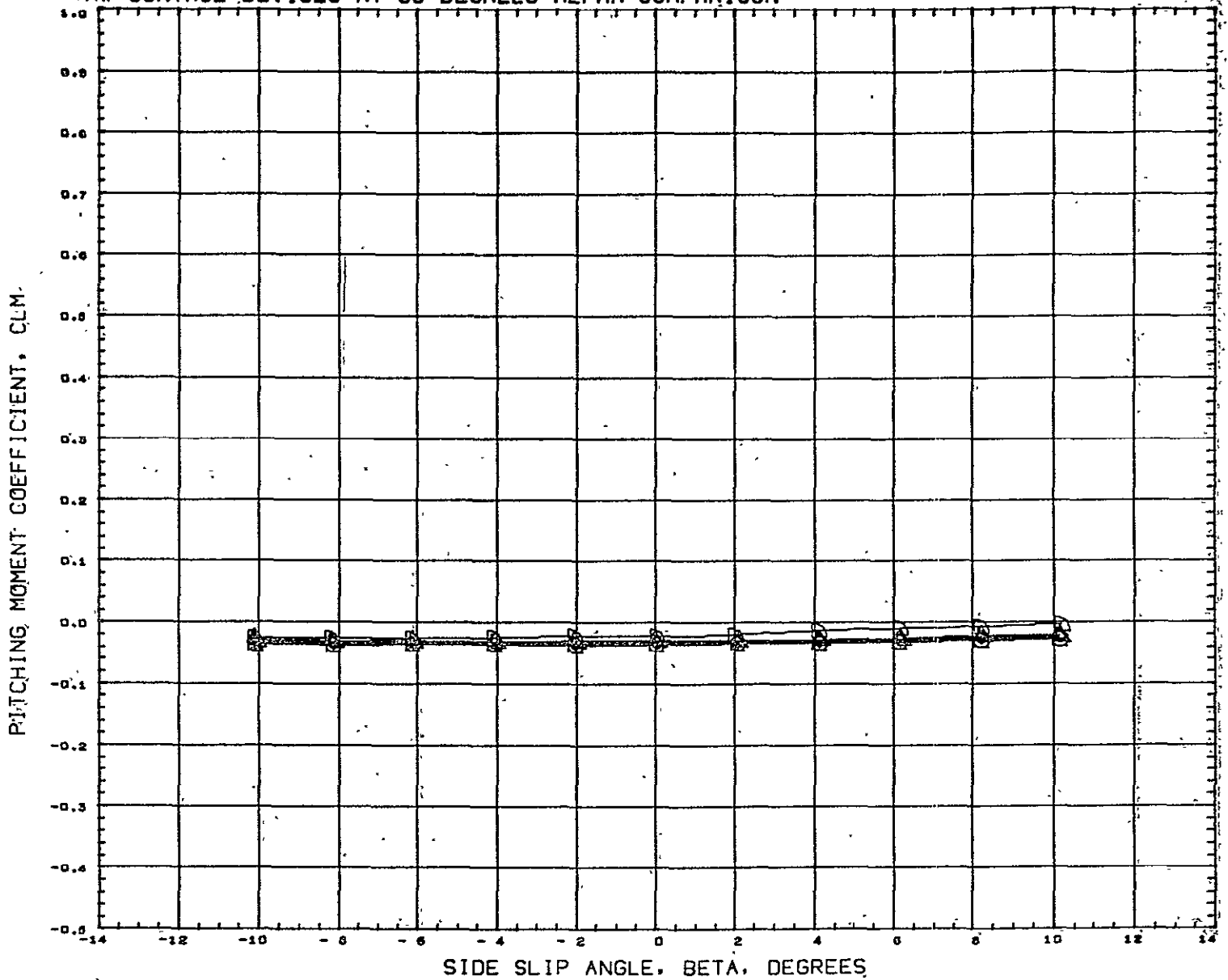
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y61)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	SREF 15.6560 SQ. IN.
(F28Y62)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y63)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y64)	MSFC481 GD/C(BOOSTER) B19W14C4AF6	-45.000	-45.000	-45.000	35.000	XHRP 6.7100 IN.
(F28Y65)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	YHRP 0.0000 IN.
(F28Y44)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-30.000	0.000	-15.000	35.000	ZHRP 0.0000 IN.
						SCALE 0.0035

MACH 4.450

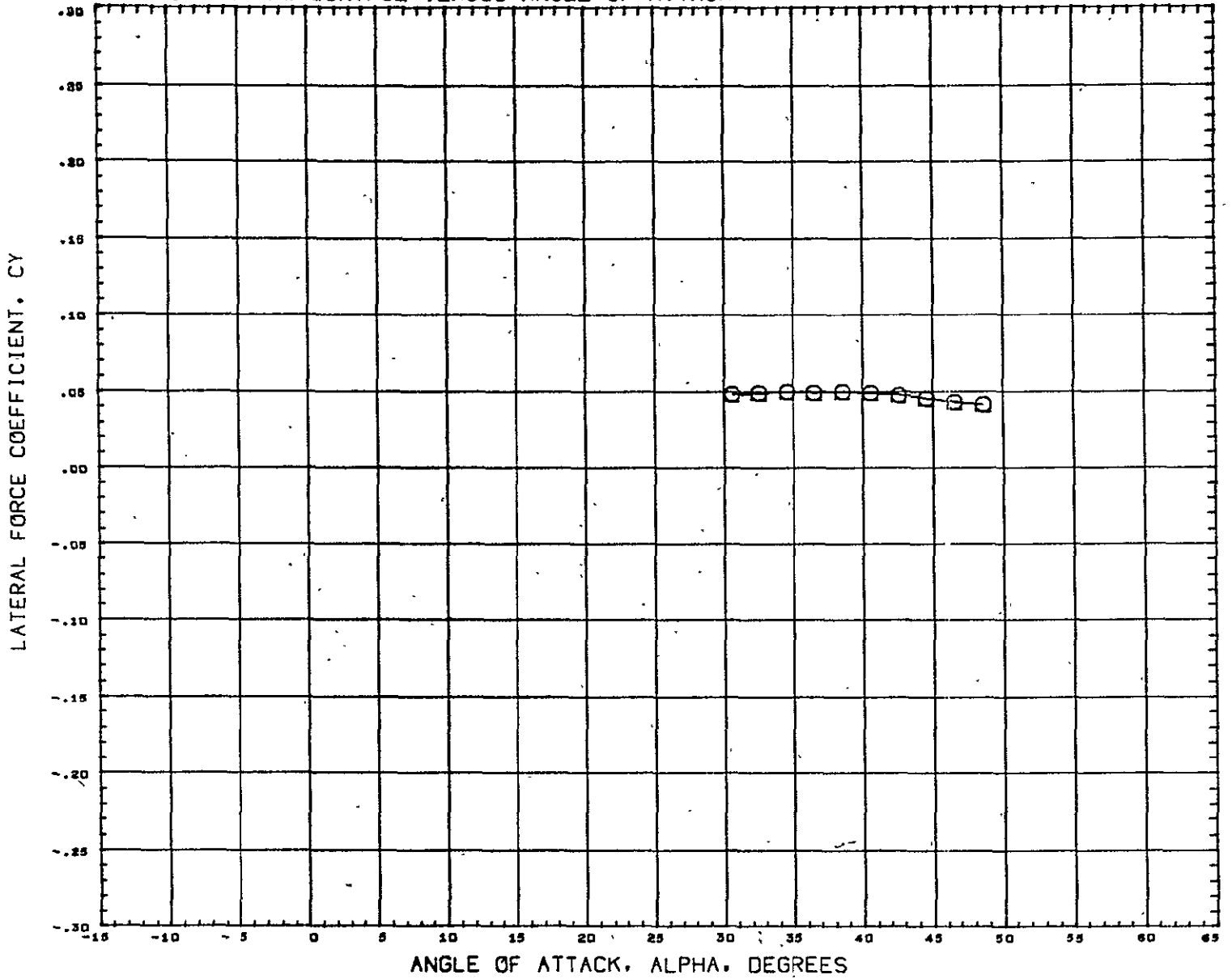
YAW CONTROL DEVICES AT 35 DEGREES ALPHA COMPARISON



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DCL	DCR	CANARD	ALPHA	REFERENCE INFORMATION
(F28Y41)	MSFC481 GD/C(BOOSTER)B19W14C4A	-45.000	-45.000	-45.000	35.000	SREF 15.6560 50.IN.
(F28Y42)	MSFC481 GD/C(BOOSTER) B19W14C4AF4	-45.000	-45.000	-45.000	35.000	LREF 3.0950 IN.
(F28Y43)	MSFC481 GD/C(BOOSTER) B19W14C4AF5	-45.000	-45.000	-45.000	35.000	BREF 6.0990 IN.
(F28Y44)	DATA NOT AVAILABLE FOR ALL CONDITIONS	-45.000	-45.000	-45.000	35.000	XHRP 6.7100 IN.
(F28Y45)	MSFC481 GD/C(BOOSTER)B19W14C4S	-45.000	-45.000	-45.000	35.000	YHRP 0.0000 IN.
(F28Y44)	MSFC481 GD/C(BOOSTER)B19W14C4A	-30.000	0.000	-15.000	35.000	ZHRP 0.0000 IN.
						SCALE 0.0035

NACH 4.059

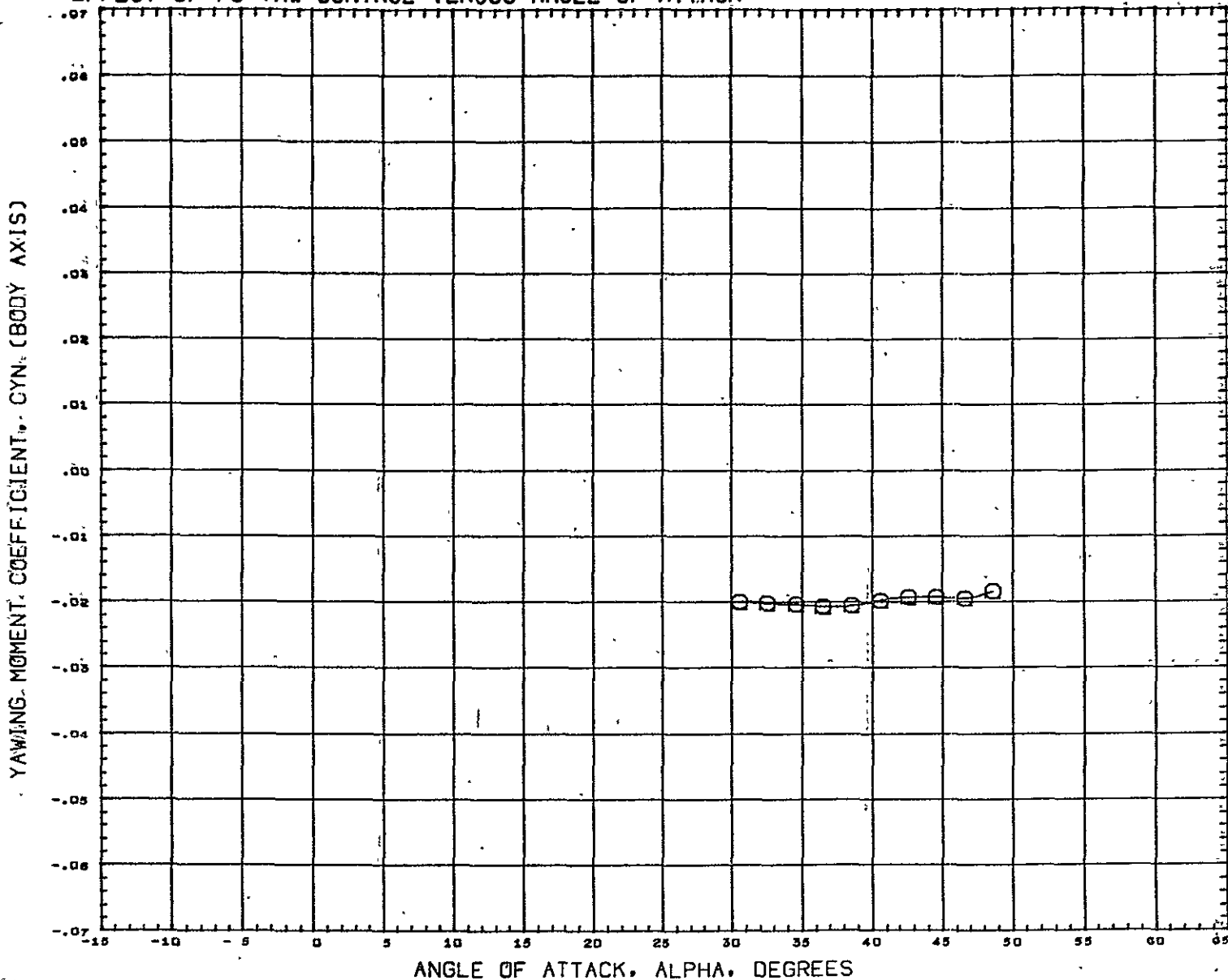
EFFECT OF F6 YAW CONTROL VERSUS ANGLE OF ATTACK



SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	- 40.000
		DER	- 40.000	OCL	15.000
		OCR	15.000	ELEVON	- 40.000
		CANARD	15.000	AILRON	0.000
		DATA HIST. CODE	MVR#E		

REFERENCE INFORMATION		
SREF	15.6560	SQ. IN.
LREF	3.0950	2N.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	2N.
SCALE	0.0035	

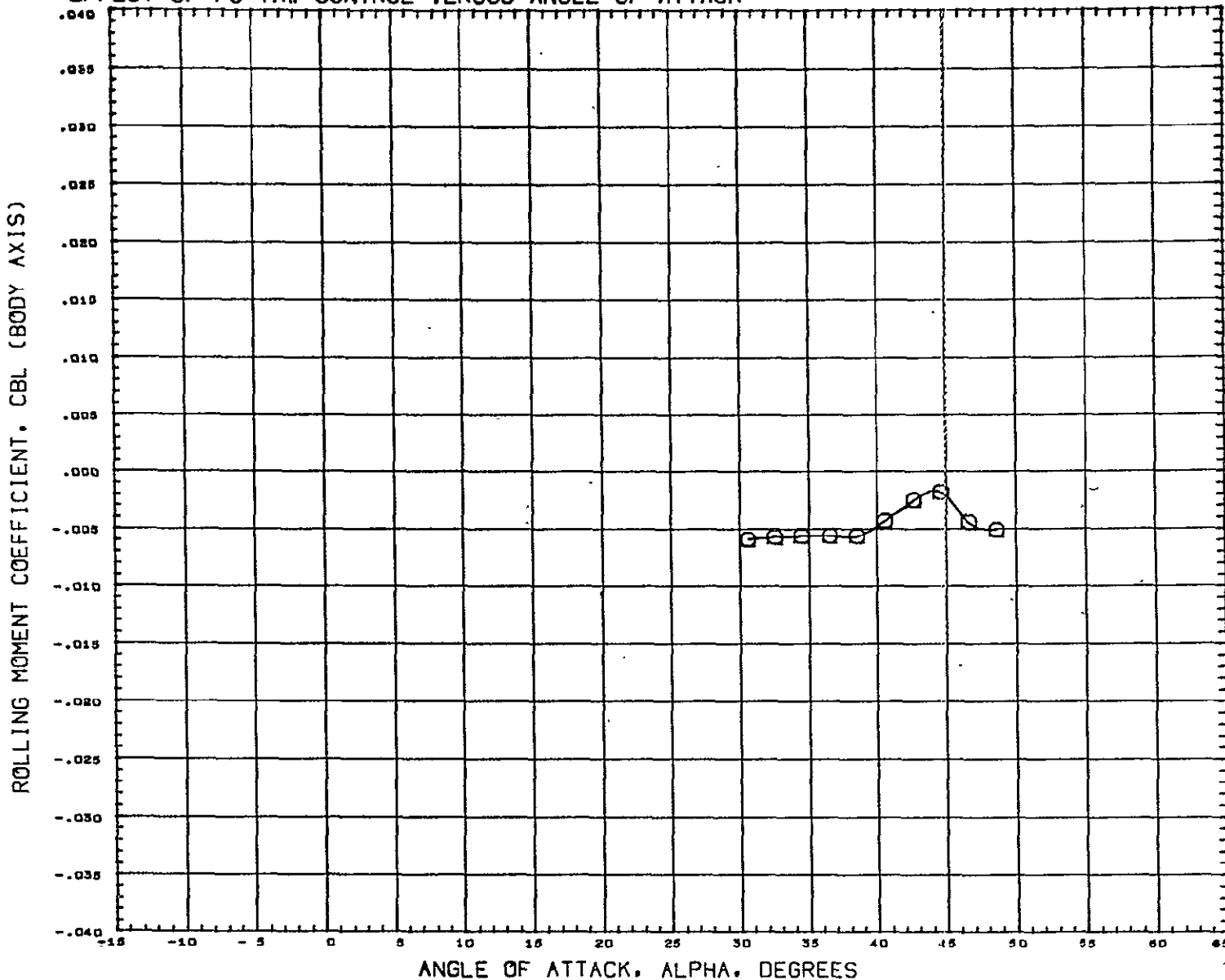
EFFECT OF F6 YAW CONTROL VERSUS ANGLE OF ATTACK



SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	- 40.000
		DER	- 40.000	DCL	15.000
		DCR	15.000	ELEVON	- 40.000
		CANARD	15.000	AILRON	0.000
		DATA HIST. CODE	MVR#E		

REFERENCE INFORMATION		
SREF	15.6560	50. IN.
LREF	5.0950	2N.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	2N.
SCALE	0.0035	

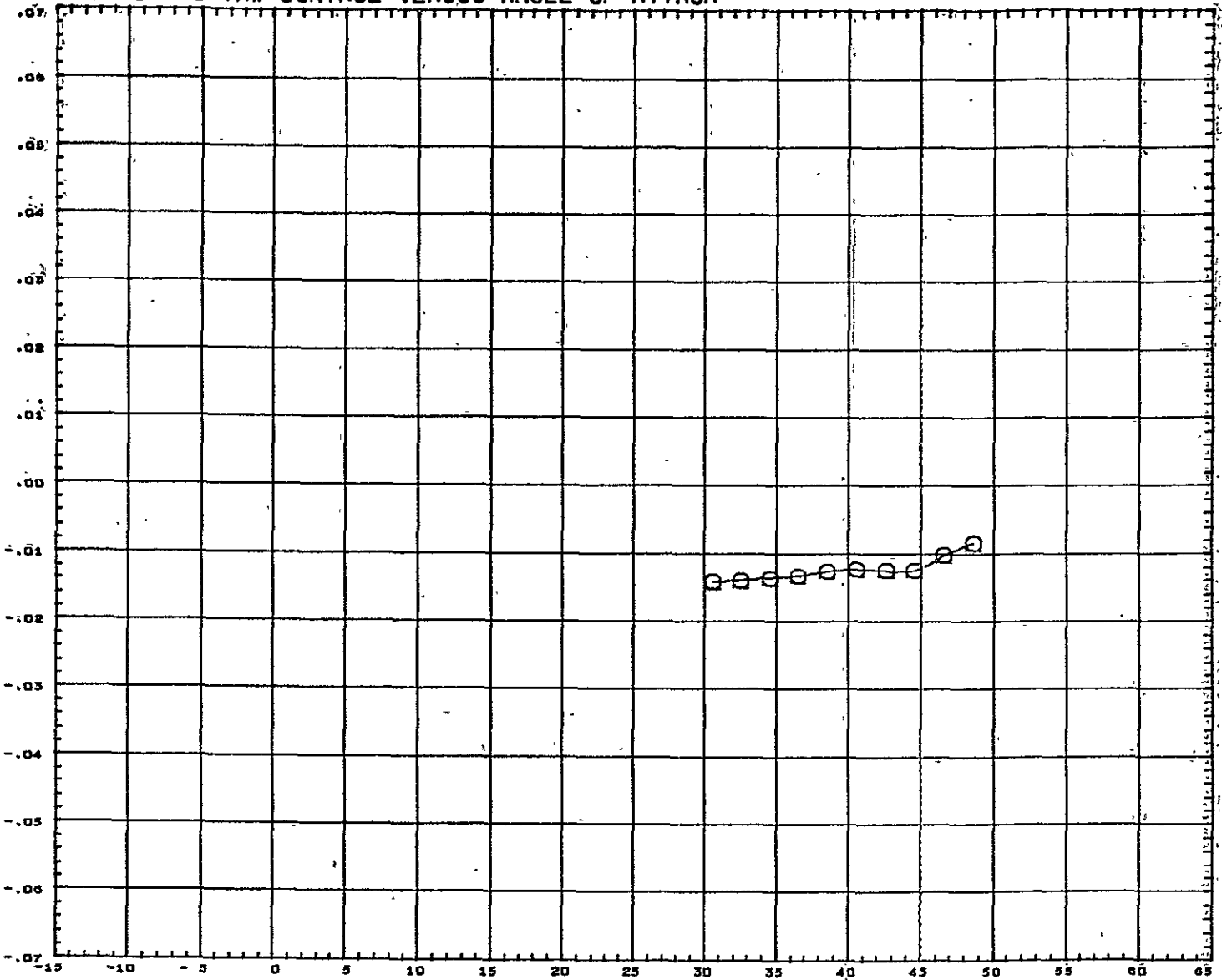
EFFECT OF F6 YAW CONTROL VERSUS ANGLE OF ATTACK



SYMBOL □	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
	2.990	BETA	0.000	DEL	- 40.000	SREF	15.6560	SQ. IN.
		DER	- 40.000	DCL	15.000	LREF	3.0990	2N.
		DCR	15.000	ELEVON	- 40.000	BREF	6.0990	IN.
		CANARD	15.000	AILRON	0.000	XMRP	6.7100	IN.
	DATA HIST. CODE	MVR#E			YMRP	0.0000	IN.	
					ZMRP	0.0000	2N.	
					SCALE	0.0035		

EFFECT OF F6 YAW CONTROL VERSUS ANGLE OF ATTACK

YAWING MOMENT COEFFICIENT, C_{YN} (STABILITY AXIS)



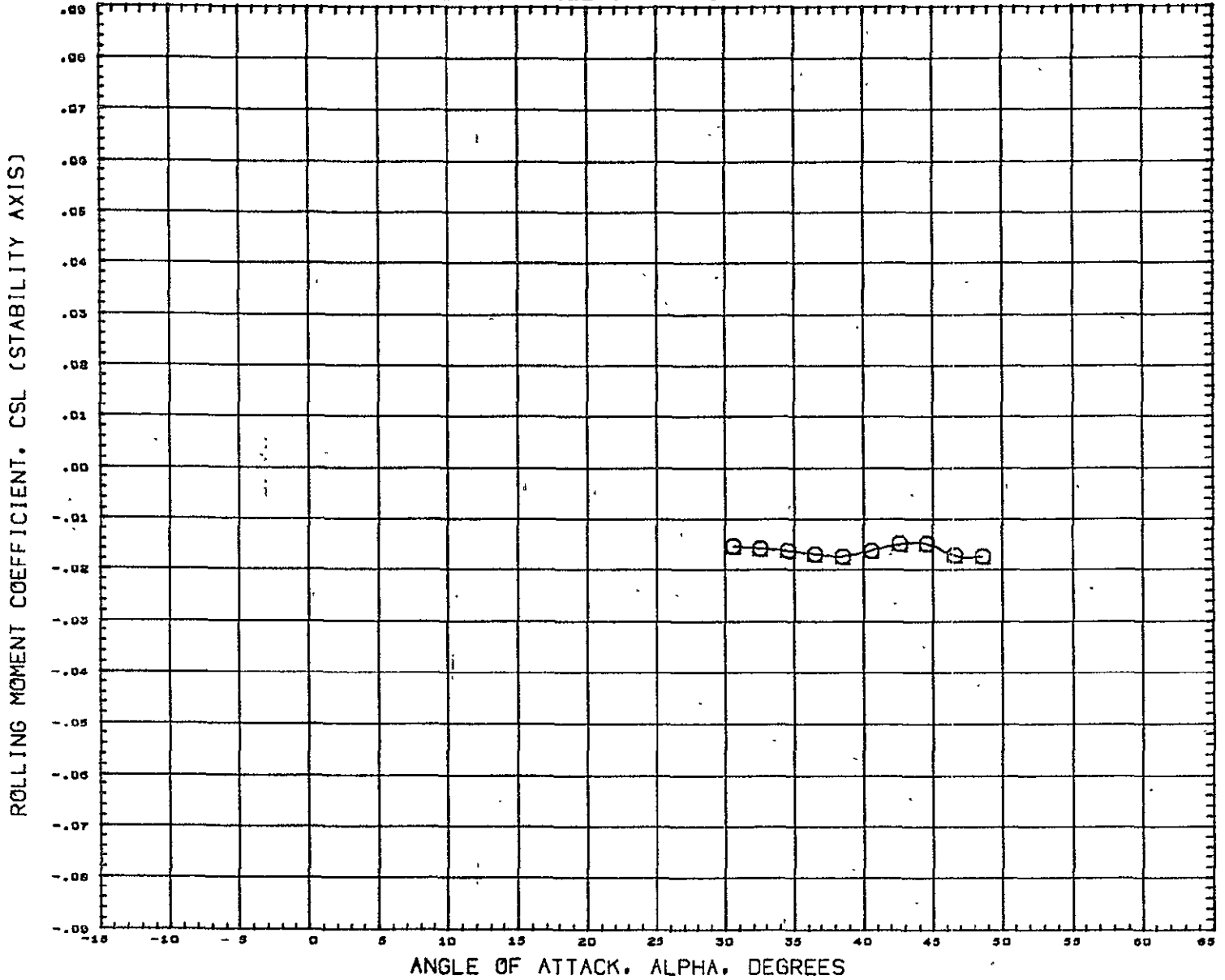
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	MACH	PARAMETRIC VALUES			
○	2.990	BETA	0.000	DEL	- 40.000
		DER	- 40.000	OCL	15.000
		DCR	15.000	ELEVON	- 40.000
		CANARD	15.000	AILRON	0.000

DATA HIST. CODE MVR#E

REFERENCE INFORMATION		
SREF	15.6560	59. IN.
LREF	3.0950	2N.
BREF	6.0990	IN.
XMRP	6.7100	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	2N.
SCALE	0.0035	

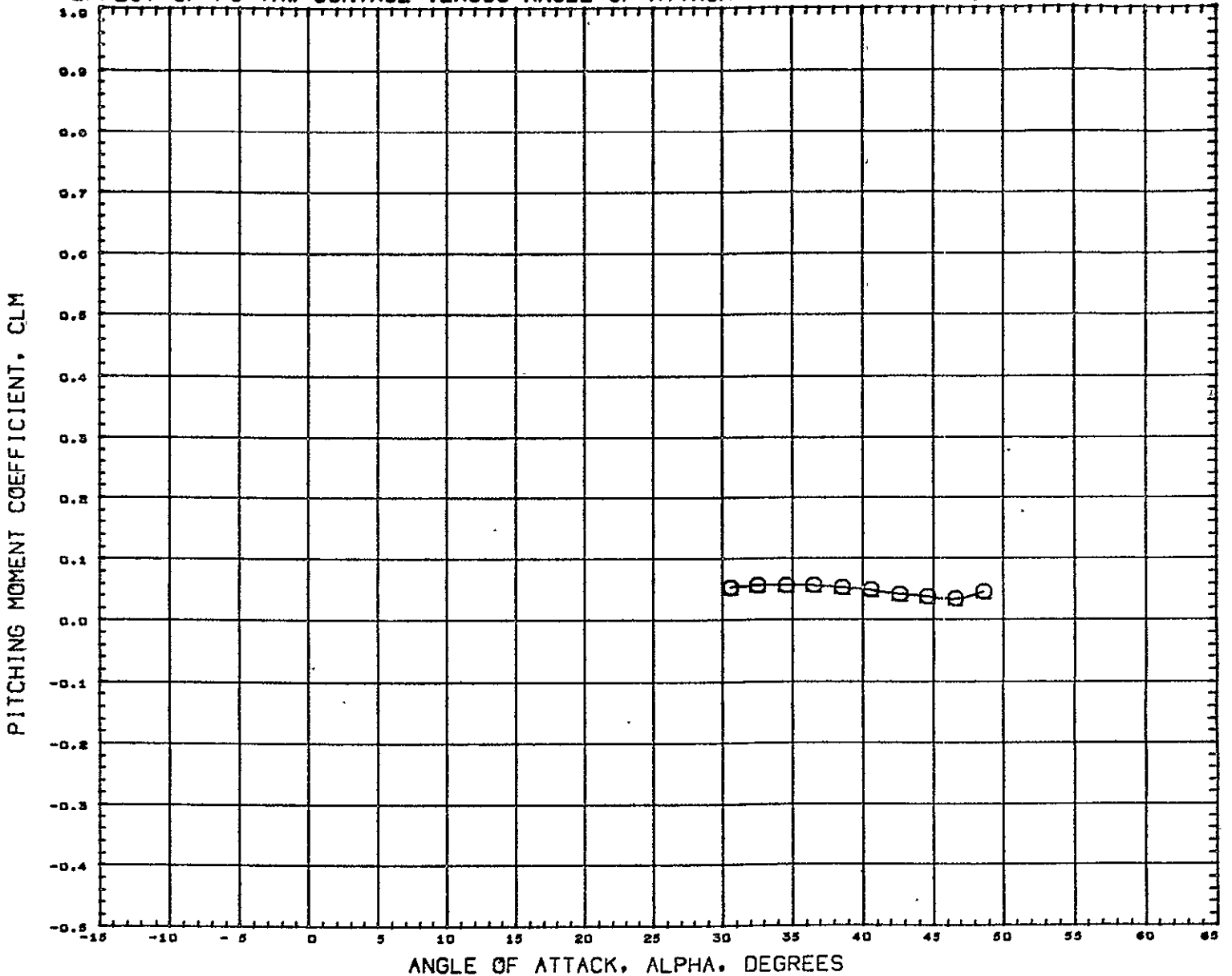
EFFECT OF F6 YAW CONTROL VERSUS ANGLE OF ATTACK



SYMBOL \circ MACH 2.990
 BETA 0.000 DEL - 40.000
 DER - 40.000 DCL 15.000
 DCR 15.000 ELEVON - 40.000
 CANARD 15.000 AILRON 0.000
 DATA HIST. CODE MVR*E

REFERENCE INFORMATION
 SREF 15.6560 SQ. IN.
 LREF 3.0950 2N.
 BREF 6.0990 IN.
 XMRP 6.7100 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 2N.
 SCALE 0.0055

EFFECT OF F6 YAW CONTROL VERSUS ANGLE OF ATTACK



SYMBOL	MACH	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	2.990	BETA	0.000	DEL	- 40.000	SREF	15.6560	Sq. IN.
		DER	- 40.000	DCL	15.000	LREF	3.0950	2N.
		DCR	15.000	ELEVON	- 40.000	BREF	6.0990	IN.
		CANARD	15.000	AILRON	0.000	XMRP	6.7100	IN.
						YMRP	0.0000	IN.
						ZMRP	0.0000	2N.
						SCALE	0.0035	
		DATA HIST. CODE	MVR#E					