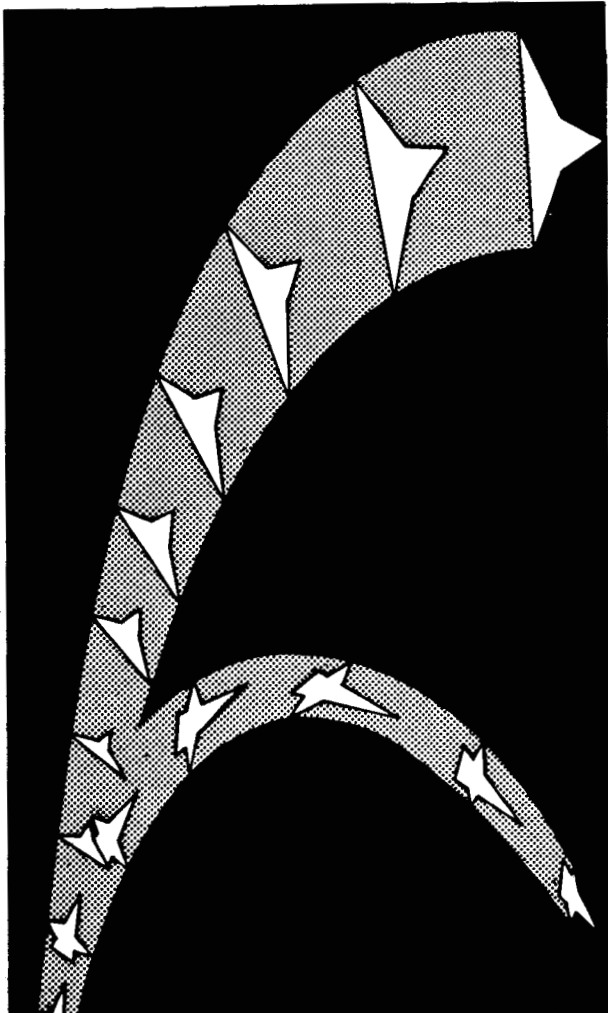


—SPACE SHUTTLE—

**AERODYNAMIC CHARACTERISTICS
OF SEVERAL LAUNCH
CONFIGURATIONS UTILIZING THE
TITAN III L BOOSTER AND MMC
DTO-7 ORBITER**

by

D.J. Michna, MMC



MSFC 14-INCH TRISONIC

N72-18865

Unclas

CSCS 22B G3/31 16406

Space
Flight Center

(NASA-CR-120011) AERODYNAMIC
CHARACTERISTICS OF SEVERAL LAUNCH
CONFIGURATIONS UTILIZING THE TITAN 3 L
BOOSTER AND MMC DTO-7 ORBITER D.J. Michna
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SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM

CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER



N A S A

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DMS-DR-1182
January, 1972

SADSAC/SPACE SHUTTLE
WIND TUNNEL TEST DATA REPORT

CONFIGURATION: MMC-TITAN III L Booster and DTO-7 Orbiter

TEST PURPOSE: To Determine the Aerodynamic Characteristics of Several
Launch Configurations Which Utilize the TITAN III L Booster
and MMC DTO-7 Orbiter.

TEST FACILITY: NASA/MSFC 14 x 14 Inch Transonic Wind Tunnel

TESTING AGENCY: Martin Marietta Corporation, Denver Division

TEST NO. & DATE: MSFC TWT 505; 9-15 September, 1971 (68 Test Hours)

FACILITY COORDINATOR: Mr. J. Weaver - MSFC

PROJECT ENGINEER(S): Mr. D. J. Michna - MMC

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Aero Thermo Data Group

CONTRACT NAS 8-4016

AMENDMENT 153

DRL 184-58

This report has been prepared by Chrysler Corporation Space Division under a Data Management Contract to the NASA. Chrysler assumes no responsibility for the data presented herein other than its display characteristics.

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A B S T R A C T

The Martin Marietta Corporation .00429 scale model Titan III booster was mated with the D10-7 space shuttle orbiter with drop tanks and tested for aerodynamic performance in the NASA/MSFC 14 x 14 inch Trisonic Wind Tunnel. Six component aerodynamic force and moment data were measured on several variations of the above component in a launch configuration over a Mach number range from 0.6 to 3.48. Angle of attack ranged from -12° to 12° at 0° and -6° sideslip angle and sideslip angle ranged from -12° to $+12^{\circ}$ at 0° angle of attack. Data are presented in plotted form in both the stability and body axis system.

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I N T R O D U C T I O N

Experimental aerodynamic investigations were conducted during early September, 1971 on a .00429 scale model of the Martin Marietta Corporation Titan III L booster and the DTO-7 space shuttle orbiter in the NASA/MSFC 14 x 14 inch Tri-sonic Wind Tunnel. The orbiter model was tested alone (figure 2) to obtain the reentry configuration data; with drop tanks (figure 5) to obtain the ascent configuration data; and with drop tanks and booster (figure 3) to obtain launch configuration data. Two mounting positions for the orbiter were investigated (figures 6 and 7). The tandem mated drop tanks and booster were also tested at the higher Mach number only to obtain data on the separated configuration. The Mach number range tested was from 0.6 to 3.48 with angle of attack varying from -12° to 12° at 0° and -6° sideslip and sideslip angle varying from -12° to 12° at 0° angle of attack. Reynolds number was a nominal 7.0×10^6 per foot over the Mach number range.

CONFIGURATIONS INVESTIGATED

The following model components were investigated during this test:

O ₁	-	DTO-7 orbiter (B ₁ W ₁ V ₁), (see figure 2)
D ₁	-	Orbiter drop tanks mounted in pairs, one on each side of the orbiter body (see figure 13)
D ₂	-	Orbiter drop tanks mounted in tandem with booster core (see figure 14)
L ₂	-	5 segment launch booster consisting of A ₁ C ₁ S ₁ (see figure 6)
L ₄	-	7 segment launch booster consisting of A ₂ C ₂ S ₂ (see figure 7)
B ₁	-	Orbiter body (see figure 8)
W ₁	-	Orbiter delta wing (see figure 9)
V ₁	-	Orbiter center line vertical tail (see figure 10)
A ₁	-	5 segment booster - drop tank adapter, (see figure 11)
A ₂	-	7 segment booster - drop tank adapter, (see figure 12)
C ₁	-	Core for 5 segment SRM (S ₁)
C ₂	-	Core for 7 segment SRM (S ₂)
S ₁	-	5 segment solid rocket motor (see figure 15)
S ₂	-	7 segment solid rocket motor (see figure 16)

Pertinent dimensional information for each of the above components is given in the Model Component Description Sheets which follow the figures. The Dataset Collation Sheet gives a complete summary of the test configurations.

TEST WSFC TWI # 505 DATA SET COLLATION SHEET

PRETEST
 POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)																																																																																													
		a	B			0.6	0.9	1.0	1.1	1.2	1.46	1.96	2.74	3.48																																																																																					
R47001	01	A	0		8	046	045	044	043	042	041	040	039	038	037	036	035	034	033	032	031	030	029	028	027	026	025	024	023	022	021	020	019	018	017	016	015	014	013	012	011	010	009	008	007	006	005	004	003	002	001	000																																															
002	Y	A	-6		4	052	051	050	049	048	047	046	045	044	043	042	041	040	039	038	037	036	035	034	033	032	031	030	029	028	027	026	025	024	023	022	021	020	019	018	017	016	015	014	013	012	011	010	009	008	007	006	005	004	003	002	001	000																																									
003	Y	0	B		8	051	050	049	048	047	046	045	044	043	042	041	040	039	038	037	036	035	034	033	032	031	030	029	028	027	026	025	024	023	022	021	020	019	018	017	016	015	014	013	012	011	010	009	008	007	006	005	004	003	002	001	000																																										
004	D1 D1	A	0		7	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100																				
005	Y	0	B		7	036	035	034	033	032	031	030	029	028	027	026	025	024	023	022	021	020	019	018	017	016	015	014	013	012	011	010	009	008	007	006	005	004	003	002	001	000																																																									
006	01 D1 L2	A	0		9	026	025	024	023	022	021	020	019	018	017	016	015	014	013	012	011	010	009	008	007	006	005	004	003	002	001	000																																																																			
007	Y	0	B		9	017	018	019	020	021	022	023	024	025	026	027	028	029	030	031	032	033	034	035	036	037	038	039	040	041	042	043	044	045	046	047	048	049	050	051	052	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100										
008	01 D2 L4	A	0		9	053	054	055	056	057	058	059	060	061	062	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100																																														
009	Y	A	-6		5	093	092	091	090	089	088	087	086	085	084	083	082	081	080	079	078	077	076	075	074	073	072	071	070	069	068	067	066	065	064	063	062	061	060	059	058	057	056	055	054	053	052	051	050	049	048	047	046	045	044	043	042	041	040	039	038	037	036	035	034	033	032	031	030	029	028	027	026	025	024	023	022	021	020	019	018	017	016	015	014	013	012	011	010	009	008	007	006	005	004	003	002	001	000
010	Y	0	B		9	062	061	060	059	058	057	056	055	054	053	052	051	050	049	048	047	046	045	044	043	042	041	040	039	038	037	036	035	034	033	032	031	030	029	028	027	026	025	024	023	022	021	020	019	018	017	016	015	014	013	012	011	010	009	008	007	006	005	004	003	002	001	000																															
011	01 D2	A	0		8	012	011	010	009	008	007	006	005	004	003	002	001	000																																																																																	
012	Y	0	B		8	063	064	065	066	067	068	069	070	071	072	073	074	075	076	077	078	079	080	081	082	083	084	085	086	087	088	089	090	091	092	093	094	095	096	097	098	099	100																																																								
013	D2 L2	A	0		2	083	082	081	080	079	078	077	076	075	074	073	072	071	070	069	068	067	066	065	064	063	062	061	060	059	058	057	056	055	054	053	052	051	050	049	048	047	046	045	044	043	042	041	040	039	038	037	036	035	034	033	032	031	030	029	028	027	026	025	024	023	022	021	020	019	018	017	016	015	014	013	012	011	010	009	008	007	006	005	004	003	002	001	000										

1 7 13 19 25 31 37 43 49 55 61 67 7576
 CLM. ICM. JCM. KCM. LCM. MCM. NCM. OCM. PCM. QCM. RCM. SCM. TCM. UCM. VCM. WCM. XCM. YCM. ZCM.
 COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

a or B SCHEDULES
 E1: -12, -10, -8, -6, -4, -2, 0, 2, 4, 6, 8, 10, 12
 E2: -12, -10, -8, -6, -4, -2, 0, 2, 4, 6, 8, 10, 12
 NASA-MSFC-MAF

TEST FACILITY DESCRIPTION

The Marshall Space Flight Center 14" x 14" Transonic Wind Tunnel is an intermittent blowdown tunnel which operates by high pressure air flowing from storage to either vacuum or atmospheric conditions. A Mach number range from .2 to 5.85 is covered by utilizing two interchangeable test sections. The transonic section permits testing at Mach 0.20 through 2.50, and the supersonic section permits testing at Mach 2.74 through 5.85. Mach numbers between .2 and .9 are obtained by using a controllable diffuser. The range from .95 to 1.3 is achieved through the use of plenum suction and perforated walls. Mach numbers of 1.44, 1.93 and 2.50 are produced by interchangeable sets of fixed contour nozzle blocks. Above Mach 2.50 a set of fixed contour nozzle blocks are tilted and translated automatically to produce any desired Mach number in .25 increments.

Air is supplied to a 6000 cubic foot storage tank at approximately -40°F dew point and 500 psi. The compressor is a three-stage reciprocating unit driven by a 1500 hp motor.

The tunnel flow is established and controlled with a servo actuated gate valve. The controlled air flows through the valve diffuser into the stilling chamber and heat exchanger where the air temperature can be controlled from ambient to approximately 180°F . The air then passes through the test section which contains the nozzle blocks and test region.

Downstream of the test section is a hydraulically controlled pitch sector that provides a total angle of attack range of 20° ($\pm 10^{\circ}$). Sting offsets are available for obtaining various maximum angles of attack up to 25° .

TEST CONDITIONS

Table I shows the average conditions which prevailed in the tunnel during the test and gives an estimate of the data accuracy.

TABLE I.

TEST CONDITIONS
TEST MSFC 505

MACH NUMBER	REYNOLDS NUMBER per unit length	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
.6	5.0×10^6 1/ft	4.4	99
.9	6.3	7.3	99
1.0	6.5	8.1	99
1.1	6.7	8.7	99
1.2	6.7	9.2	99
1.46	7.4	10.8	99
1.96	7.6	11.0	99
2.74	7.7	9.6	107
3.48	7.0	6.9	107

BALANCE UTILIZED: #201 and #232

CAPACITY:		ACCURACY:		COEFFICIENT TOLERANCE:	
	#201	#232	#201	#232	
NF	60 lb	150 lb	±.2 lb.	± .5 lb.	+0.3%
SF	20 lb	50 lb	±.1 lb.	± .5 lb.	_____
AF	30 lb	50 lb	±.1 lb.	± .5 lb.	_____
PM	60 in.LB	in.LB	±.2 in.lb.	±1.5 in.lb.	_____
YM	20 in.LB	in.LB	±.1 in.lb.	±1.0 in.lb.	_____
RM	25 in.LB	100in.LB	±.1 in.lb.	± .5 in.lb.	_____

COMMENTS:

No satisfactory method is known for determining the absolute accuracy of the final coefficients. However, the range of estimated uncertainty established from hanging weights and checking data repeatability are shown above.

DATA REDUCTION

The six component balance force and moment data were reduced to coefficient form by standard reduction equations. The reduction method used a body axis system orientation.

The force and moment data were referenced to the model booster core cross section area. In addition all moment coefficients were referenced to the booster core diameter. The moment reference point (MRP) was the same for all configurations and was located on the booster centerline at full scale station 678.34. Specifically, the full scale and corresponding model reference dimensions are:

$$S_{ref} = 201 \text{ ft}^2 = .534 \text{ in}^2 \text{ model scale}$$

$$d_{ref} = 16 \text{ ft} = .824 \text{ in. model scale}$$

$$\text{MRP} = 300 \text{ in. aft orbiter base (1.29 in. model scale) and core centerline. NOTE: on the tandem configurations this corresponds to TIIIL sta 678.34.}$$

Axial force measurements were corrected to reflect ambient base pressures. The measured base pressures were converted to coefficient form; $C_{P_x} = \frac{P_x - P_o}{q_o}$ and

then were used to provide an axial force coefficient increment as follows:

$$C_{AF} = C_{AT} - C_{AB_o} - C_{AB_c} - C_{AB_s}$$

$$C_{AB_o} = \text{Orbiter base axial force coefficient}$$

$$C_{AB_c} = \text{Core base axial force coefficient}$$

$$C_{AB_s} = \text{SRM base axial force coefficient}$$

$$\text{where: } C_{AB} = C_p \frac{\text{BASE AREA}}{\text{BASE REFERENCE AREA}}$$

DATA REDUCTION
(Continued)

The base areas used in calculation of the base axial force coefficients were as follows:

$$\begin{aligned} \text{Booster Core} &= .439 \text{ in.}^2 \\ \text{SRM} &\left\{ \begin{aligned} &= .1580 \text{ in.}^2 \text{ each} \\ &= .632 \text{ in.}^2 \text{ total (all 4)} \end{aligned} \right. \\ \text{Orbiter} &= 1.180 \text{ in.}^2 \end{aligned}$$

For configurations $O_1D_1L_2$, $O_1D_1L_3$, $O_1D_2L_4$, and D_2L_4 orbiter base area = 0, therefore, the orbiter base drag, if any, is included in C_{AF} for these configurations.

For configurations O_1 , O_1D_1 , and O_1D_2 the orbiter base axial force was computed using orbiter base plus cavity area = 1.180 in.^2

For configurations $O_1D_1L_2$, $O_1D_1L_3$, $O_1D_2L_4$ and D_2L_4 the SRM base axial force was computed using a total SRM base area = $.632 \text{ in.}^2$

In this test there was insufficient clearance between the sting and model to run a cavity pressure line; therefore, cavity pressure was taken as equal to model base pressure measured adjacent to the sting.

It should also be noted that in all cases the drop tank base drag is included in C_{AF} as well as in C_{AT} .

SUMMARY DATA PLOT INDEX

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Configuration Buildup Aerodynamic Characteristics	A, B	Configuration	1-144
Effect of Downwash on Booster at Supersonic Speeds	A	Configuration	145-152
Longitudinal Aerodynamic Characteristics at Beta = 0. Deg.	C, D		153-557
Effect of Sideslip On Longitudinal Characteristics, Beta = 0. and -6. Deg.	A	Beta	558-593
Lateral-Directional Characteristics at Alpha = 0. Deg.	B		594-661
Variation of Lateral-Directional Characteristics at Beta = -6. With Alpha	E		662-688

PLOTTED COEFFICIENTS SCHEDULE:

- (A) CN, CIM, CAF vs. ALPHA
 CIM vs. CN
- (B) CY, CYN, CBL vs. BETA
 CYN vs. CY
- (C) CN, CIM, CAF, CABO, CL, CD, L/D vs. ALPHA
 CIM vs. CN, CD vs. CL^2
- (D) CN, CIM, CAF, CABO, CABS, CL, CD, L/D
 vs. ALPHA, CIM vs. CN, CD vs. CL^2
- (E) CY, CYN, CBL vs. ALPHA

T A B L E II.

SUMMARY OF SADSAC NOMENCLATURE - AERODYNAMIC FORCE AND MOMENT COEFFICIENTS

COEFFICIENT	COEFFICIENT NAME	SADSAC NOMENCLATURE		
		BODY AXIS	STABILITY AXIS	WIND AXIS
CA	Total Axial Force	CA	-	-
CAB	Base Axial Force	CAB	--	-
CAF	Forebody Axial Force	CAF	-	-
CD	Total Drag Force	-	CD	CDTOTL
CDB	Base Drag Force	-	CDB	CDBASE
CDF	Forebody Drag Force	-	CDF	CDFORE
CL	Lift Force	-	CL	CL
CN	Normal Force	CN	-	-
CY	Side Force	CY	CY	CC
C _l	Rolling Moment	CBL	CSL	CWL
C _m	Pitching Moment	CLM	CLM	CPM
C _n	Yawing Moment	CYN	CLN	CIN
L/D	Lift-To-Drag Force Ratio	-	L/D	CL/CD
L/D	Lift-To-Forebody Drag Force Ratio	-	L/DF	CL/CDF
N/A	Normal-To-Axial Force Ratio	N/A	-	-
N/A	Normal-To-Forebody Axial Force Ratio	CN/CAF	-	-

FIGURES

- 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.

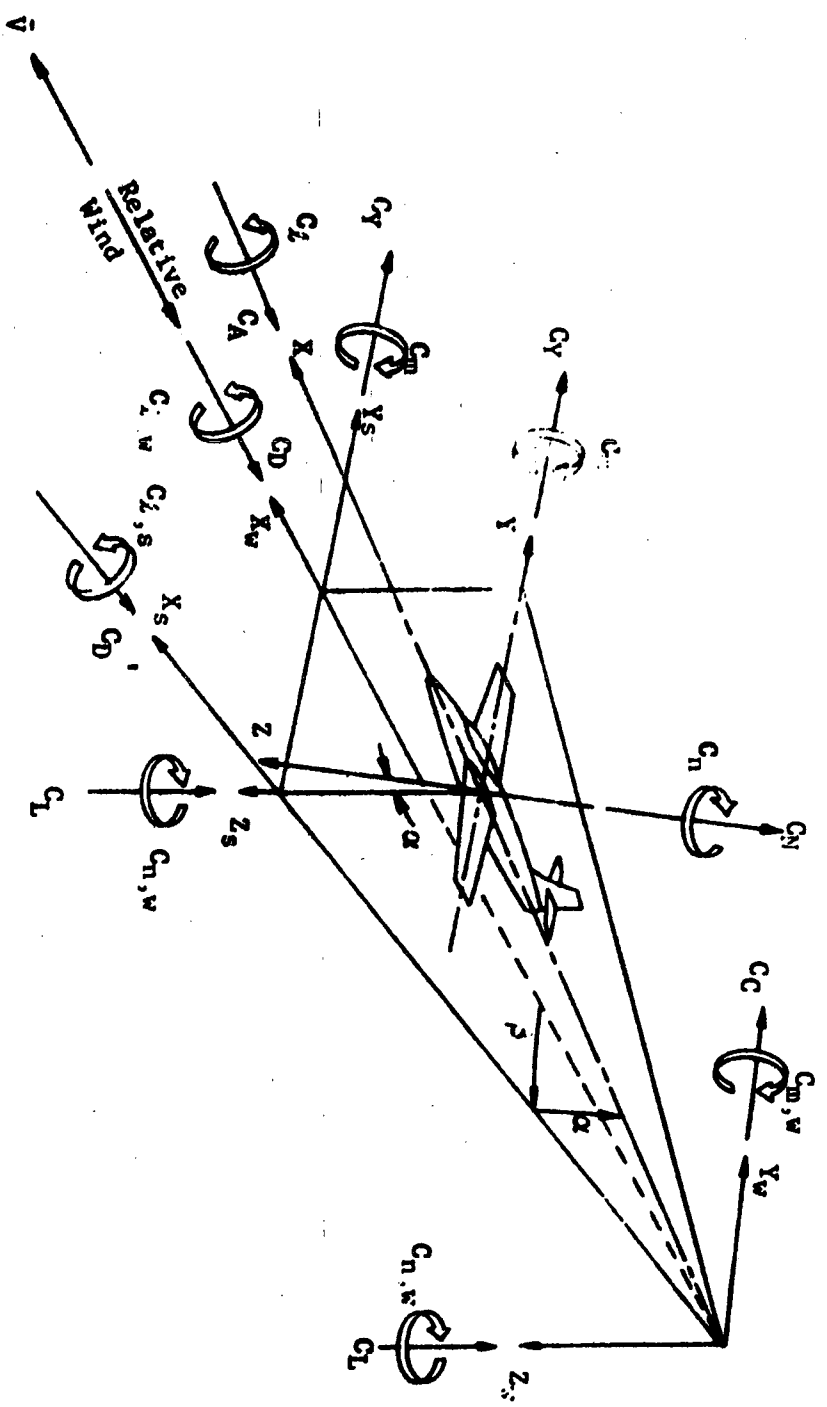


Figure 1. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

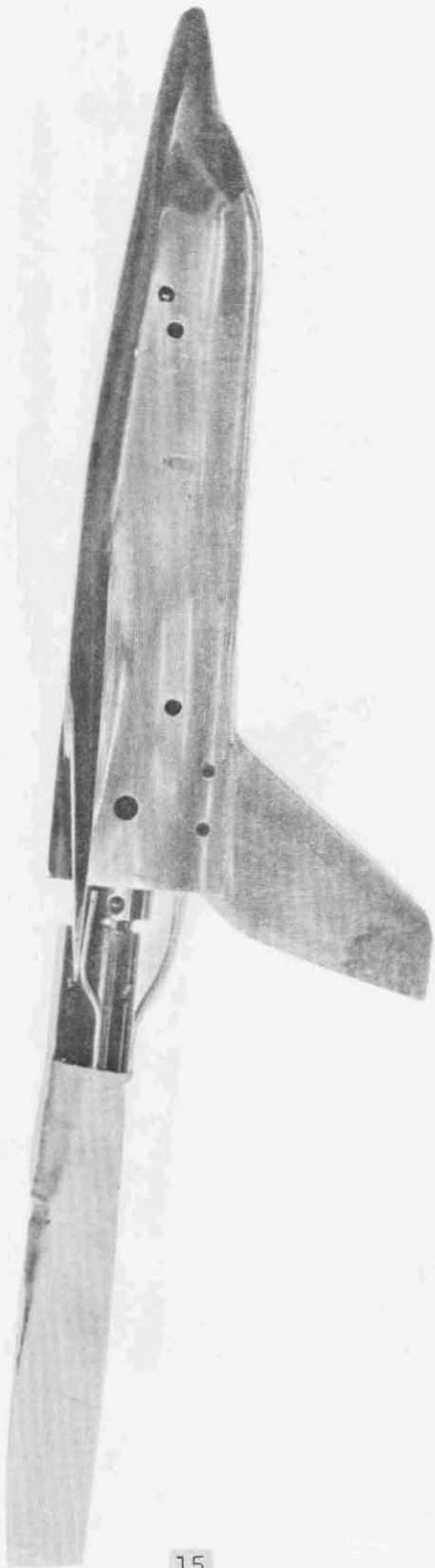


FIGURE 2. SIDE VIEW PHOTOGRAPH OF ORBITER, 01

MSFC TWT 505
SEPT 13 1971
CONFIG

0
1





MSFC TWT 505
SEPT 10 1971
CONFIG
0 D L
1 D L 2



FIGURE 3. SIDE VIEW PHOTOGRAPH OF LAUNCH CONFIGURATION,
01 D1 L2

FIGURE 4. DTO-7 ORBITER REENTRY CONFIGURATION, 01

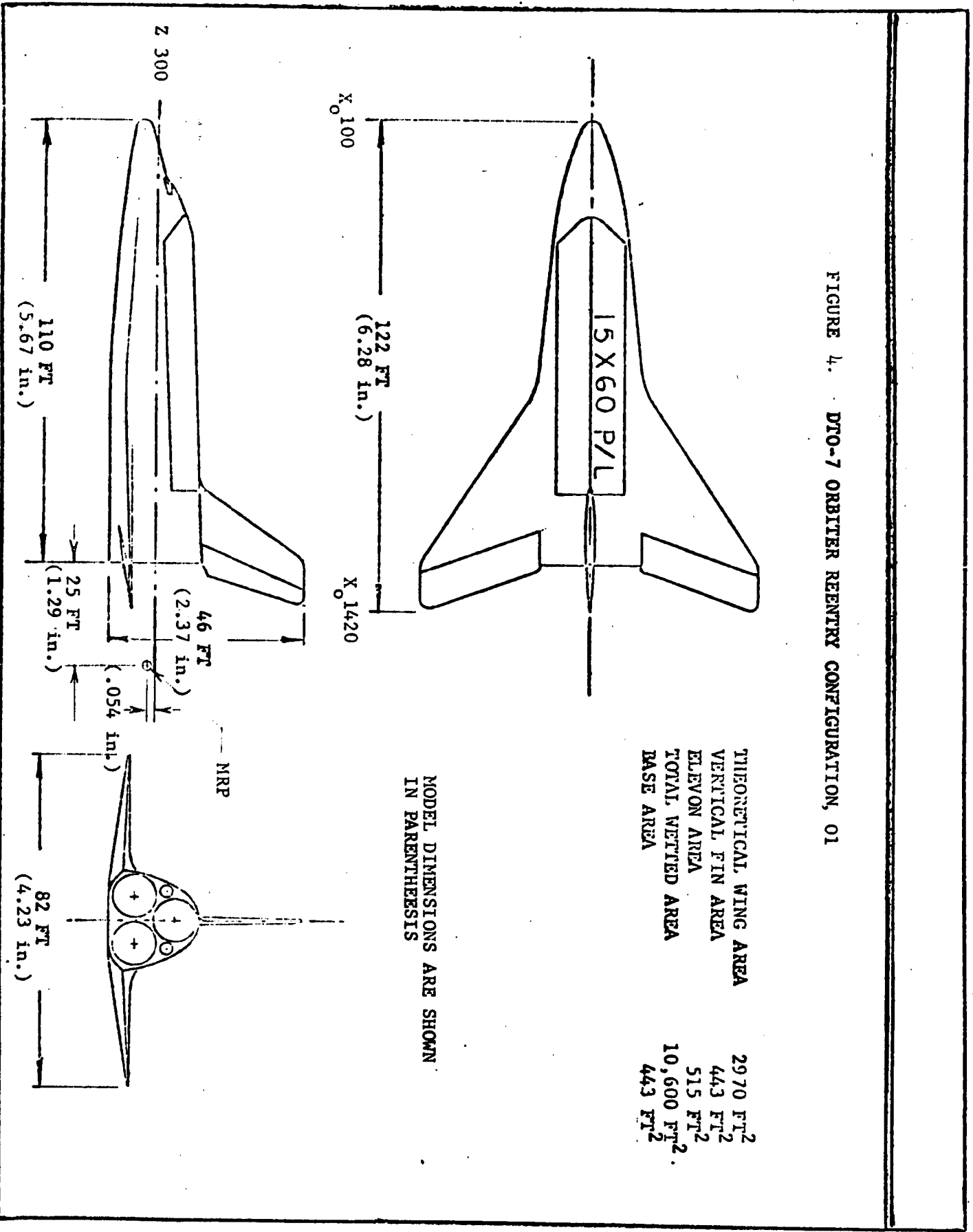


FIGURE 5. D70-7 ORBITER ASCENT CONFIGURATION, 101 D1

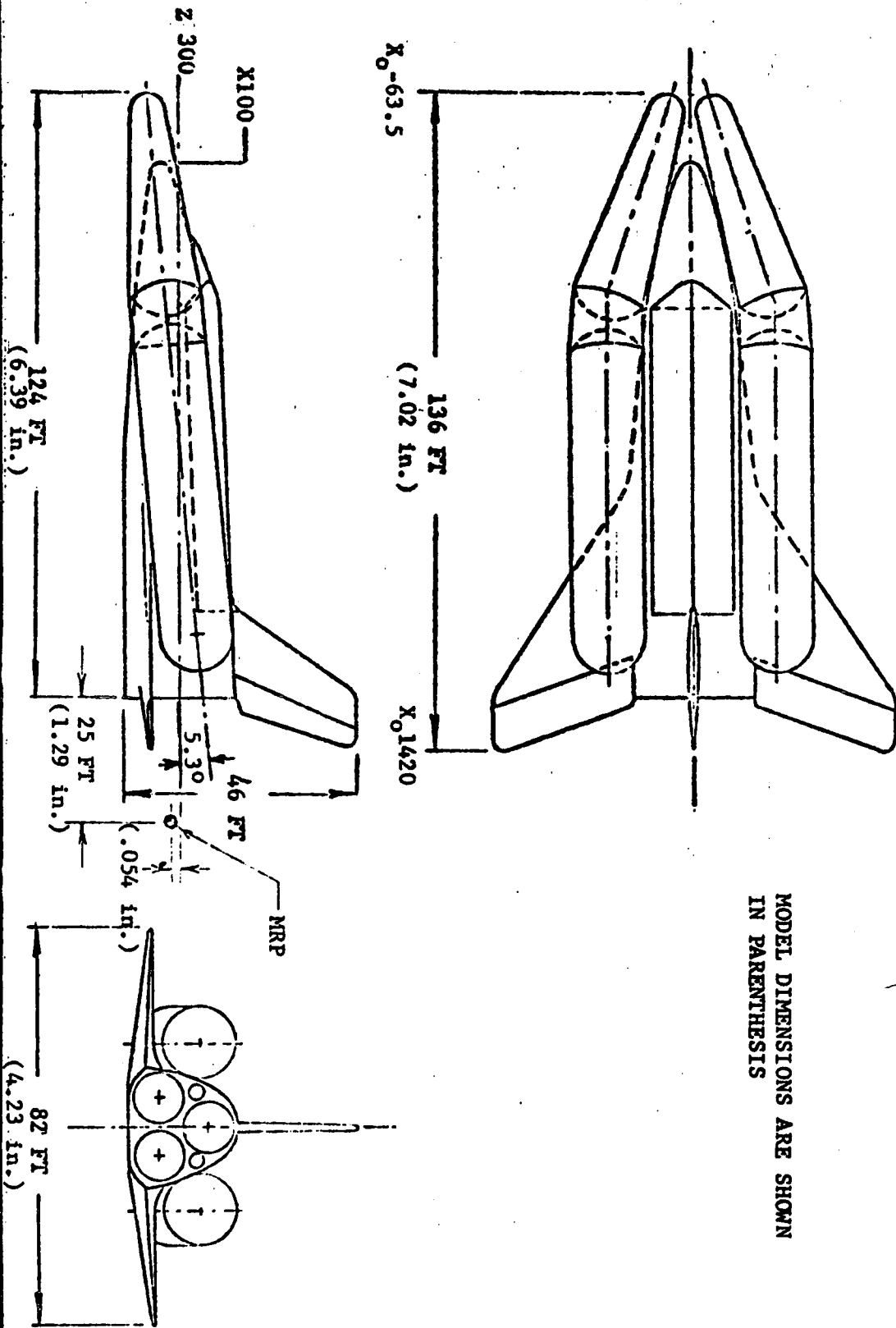


FIGURE 6. DTG-7/1205-4 OEL LAUNCH CONFIGURATION 01 D1 L2

MODEL DIMENSIONS ARE SHOWN IN PARENTHESES

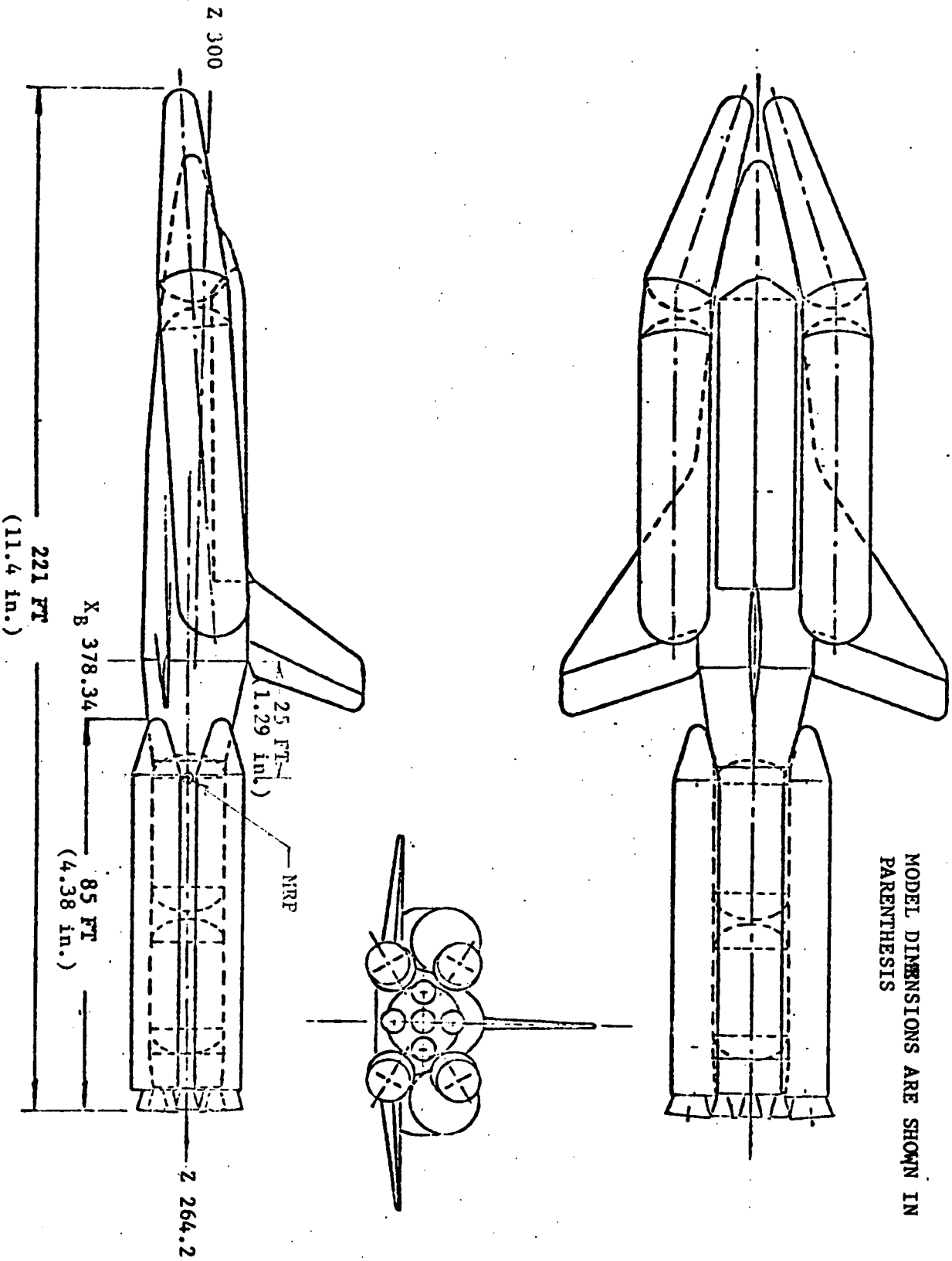


Figure 7. DTO-7/1207-4 TEL LAUNCH CONFIGURATION, O1D2L4

MODEL DIMENSIONS ARE SHOWN
IN PARENTHESES

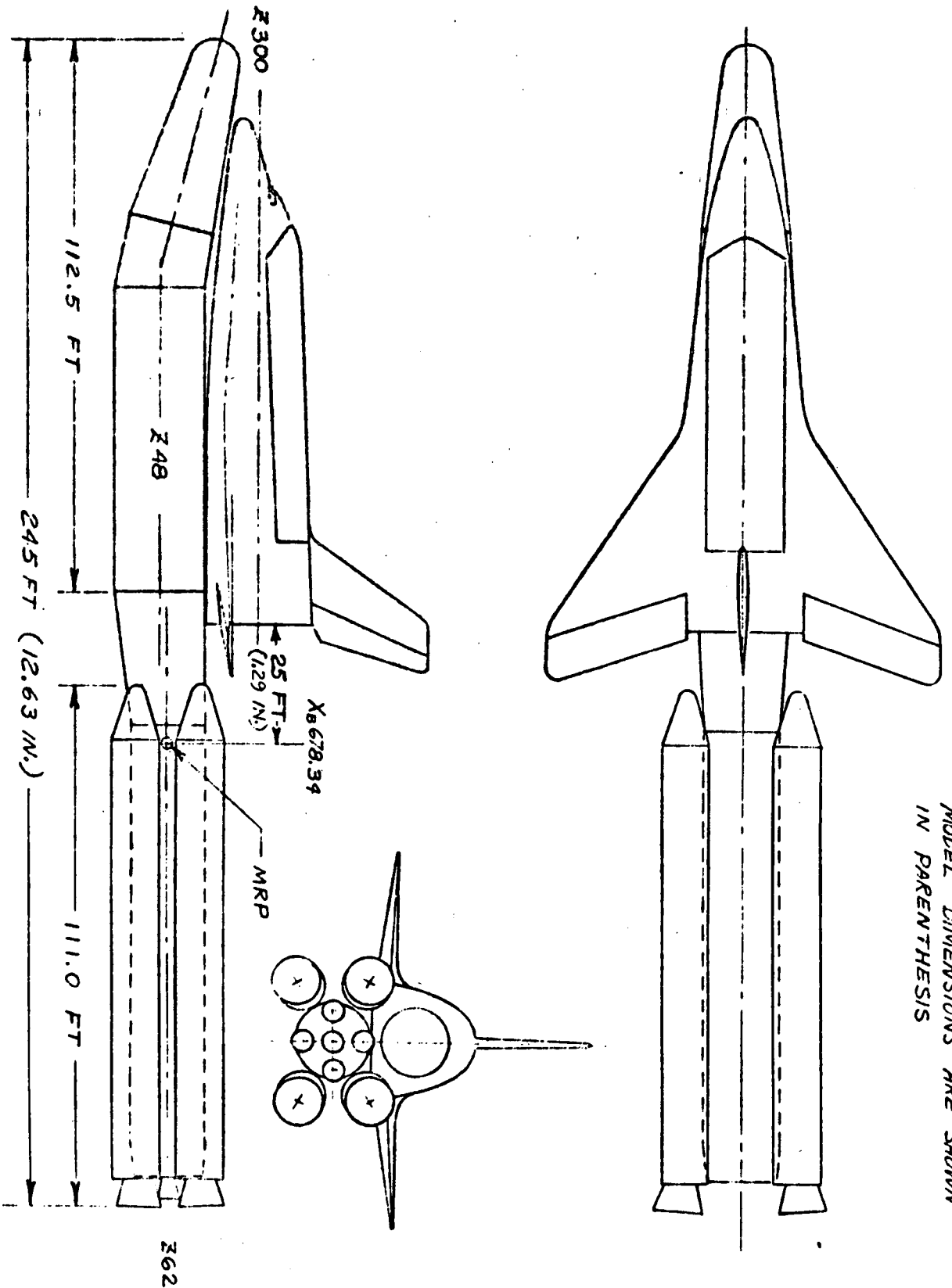
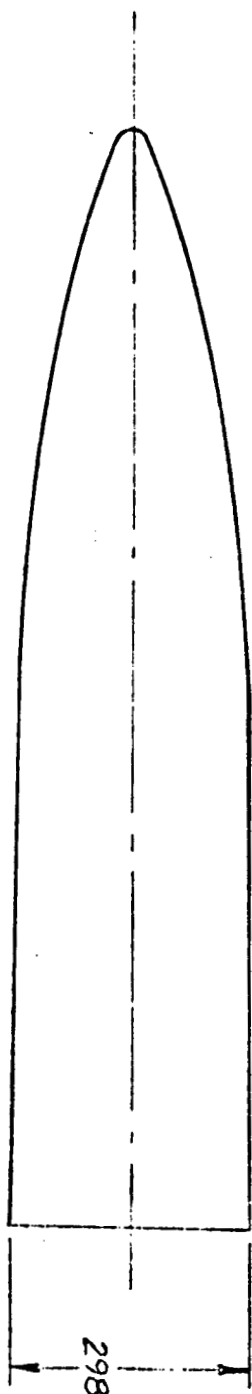


FIGURE 8. ORBITER BODY ~ B1



- NOTES
- 1. ALL DIMENSIONS ARE IN INCHES.
 - 2. MODEL VALUES ARE SHOWN IN PARENTHESES.

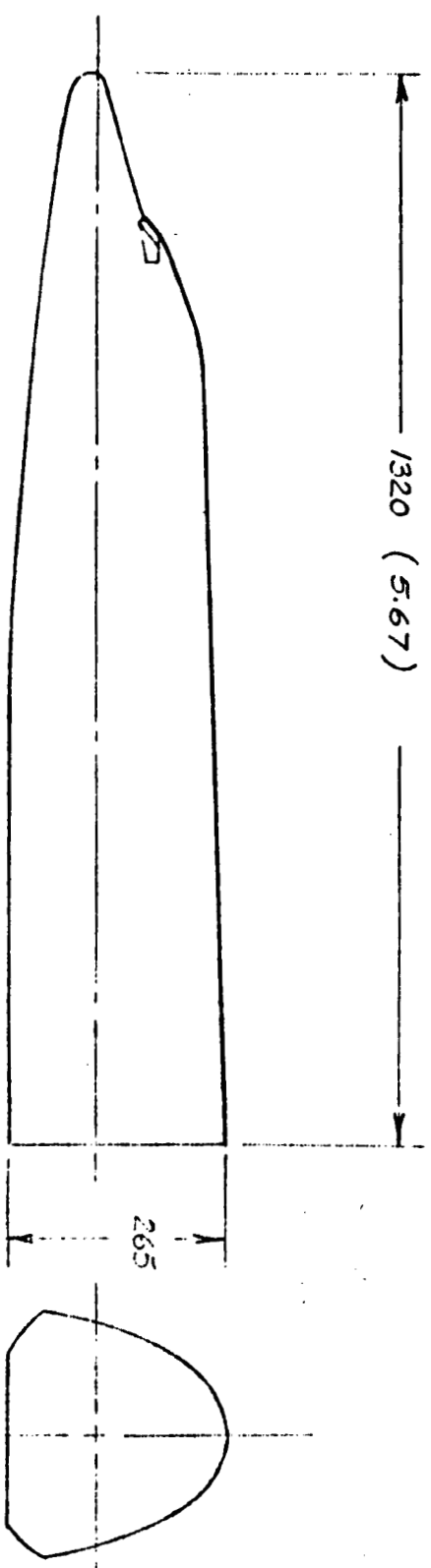


FIGURE 9. ORBITER WING ~ W1

1. ALL DIMENSIONS ARE IN INCHES.
2. MODEL VALUES ARE SHOWN IN PARENTHESIS.

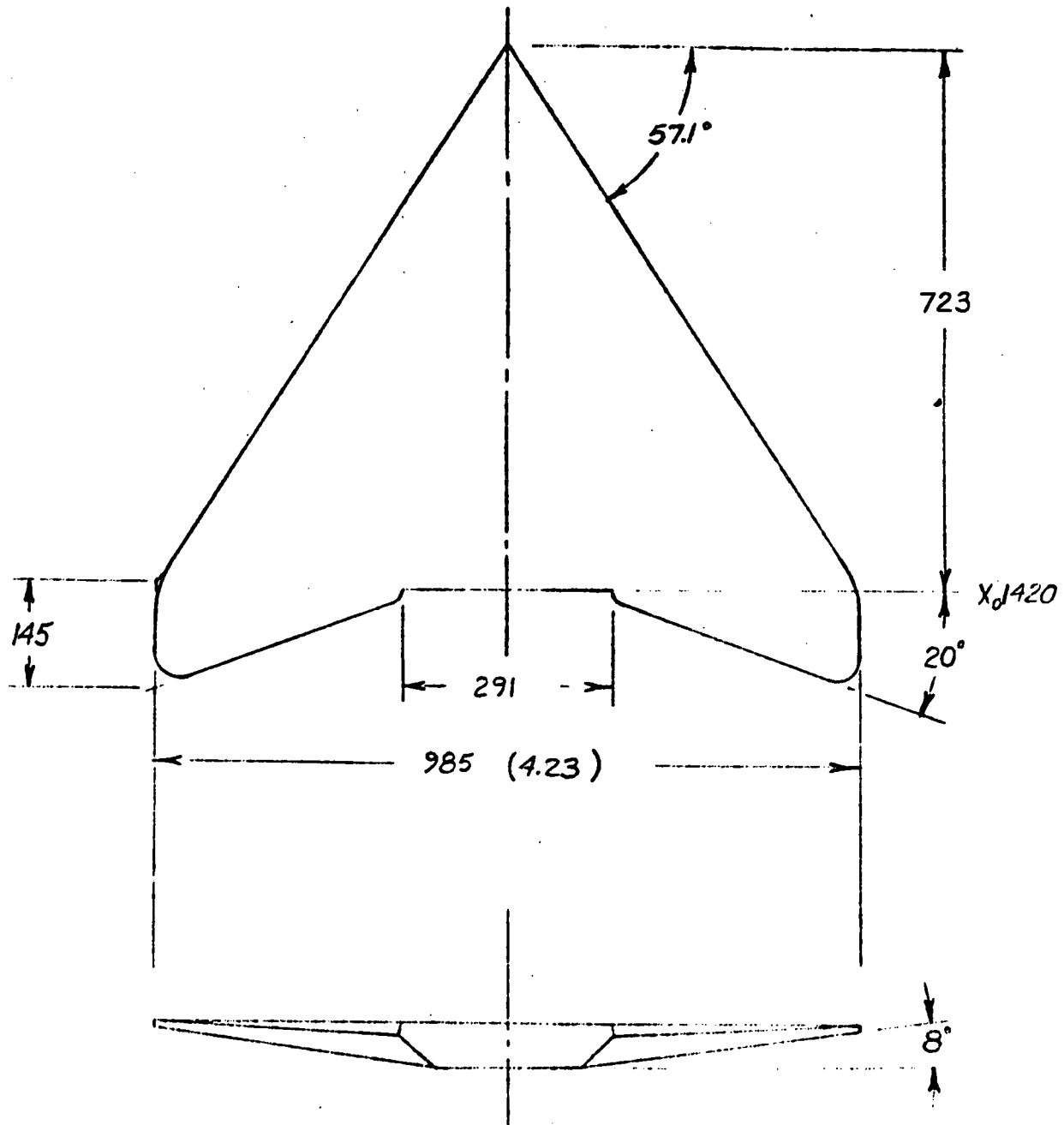


FIGURE 10. ORBITER VERTICAL FIN ~ VI

1. ALL DIMENSIONS ARE IN INCHES.
2. MODEL VALUES ARE SHOWN IN PARENTHESIS.

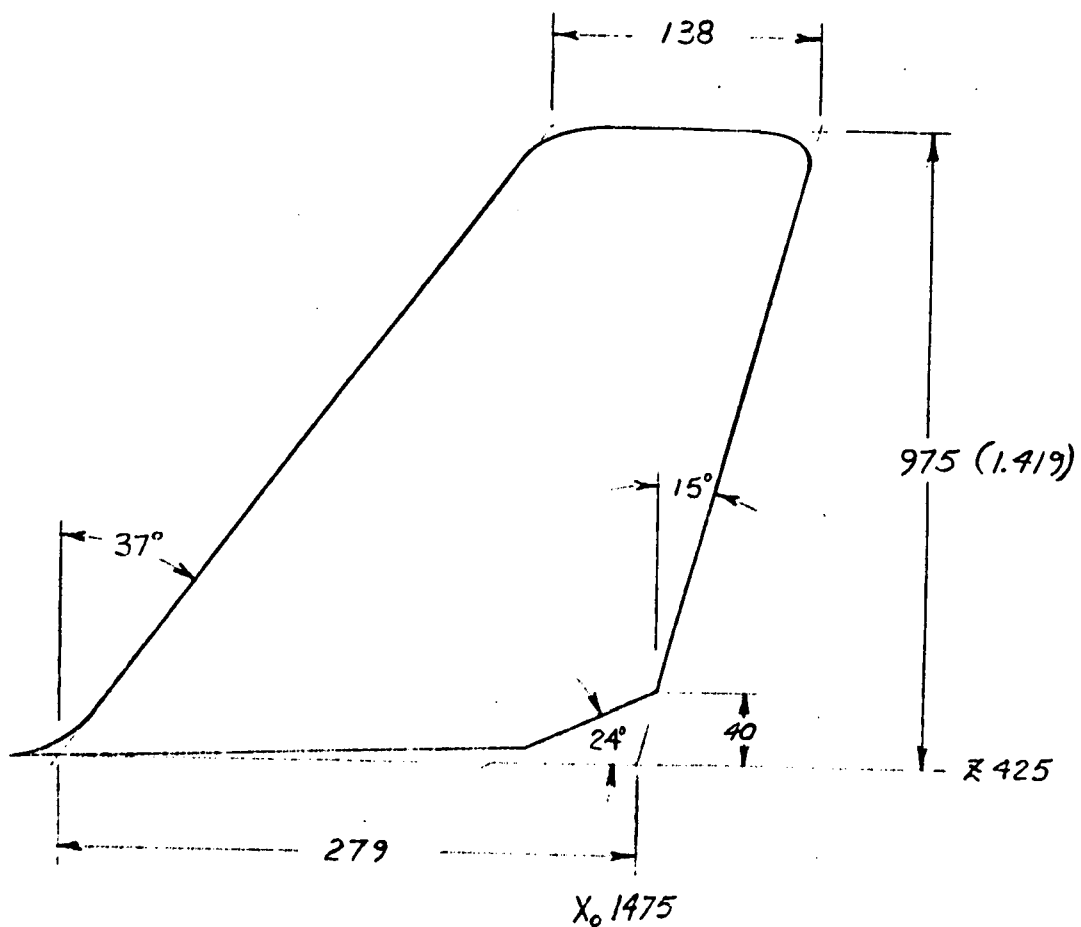
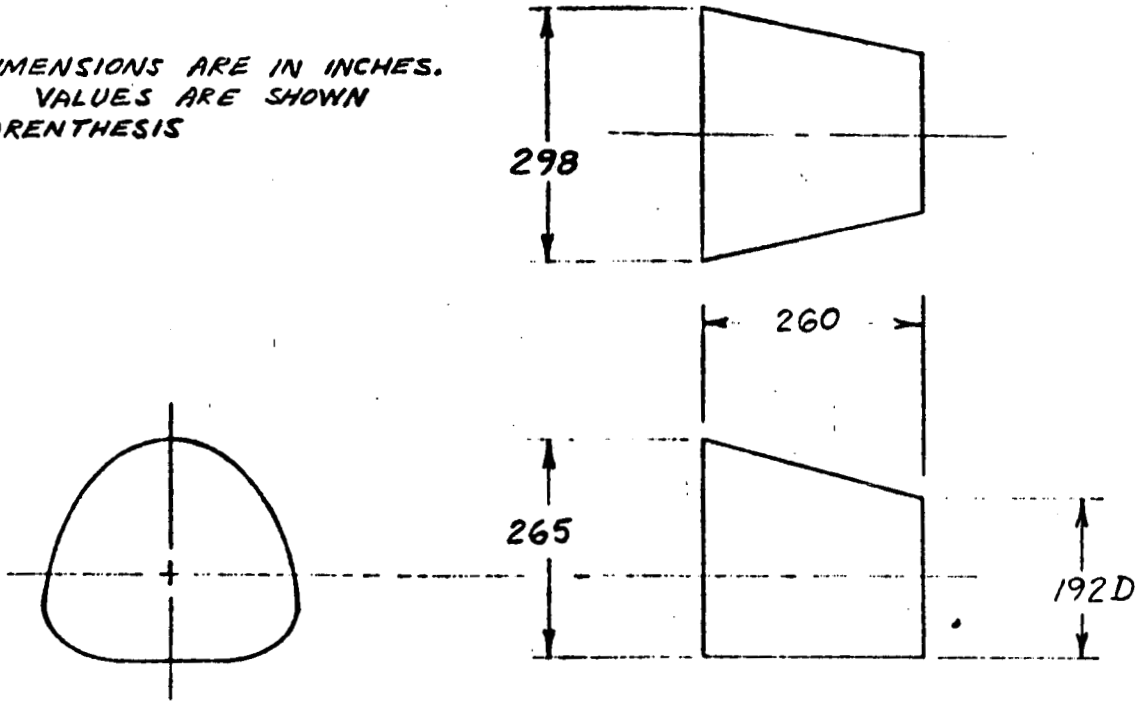


FIGURE 11. ADAPTER ~ A1

NOTES

- 1. ALL DIMENSIONS ARE IN INCHES.
- 2. MODEL VALUES ARE SHOWN IN PARENTHESIS



BOOSTER CORE ~ C1

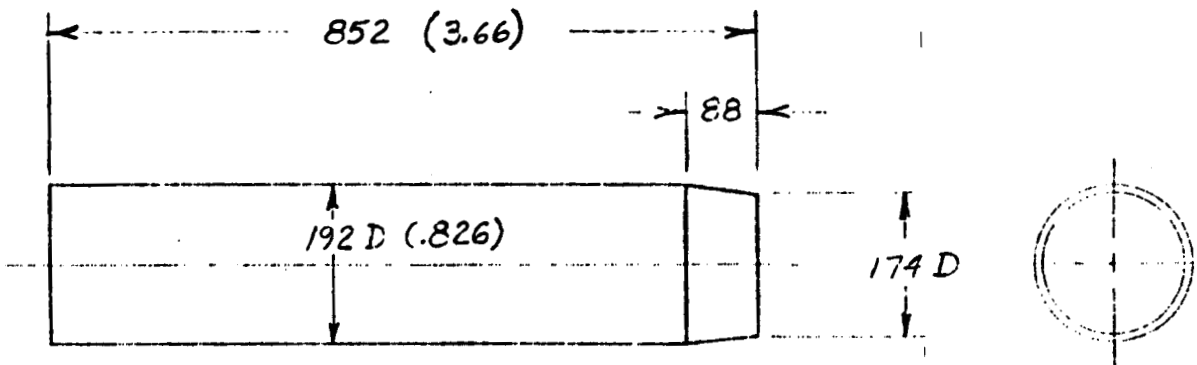
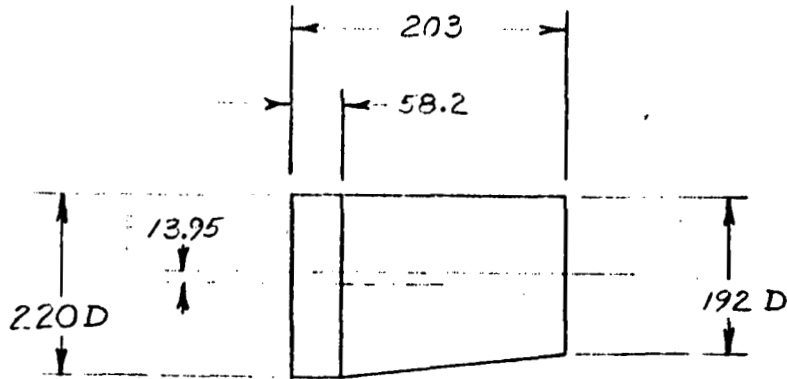


FIGURE 12. ADAPTOR ~ A2



ALL DIMENSION ARE FOR
FULL SCALE IN INCHES

BOOSTER CORE ~ C2

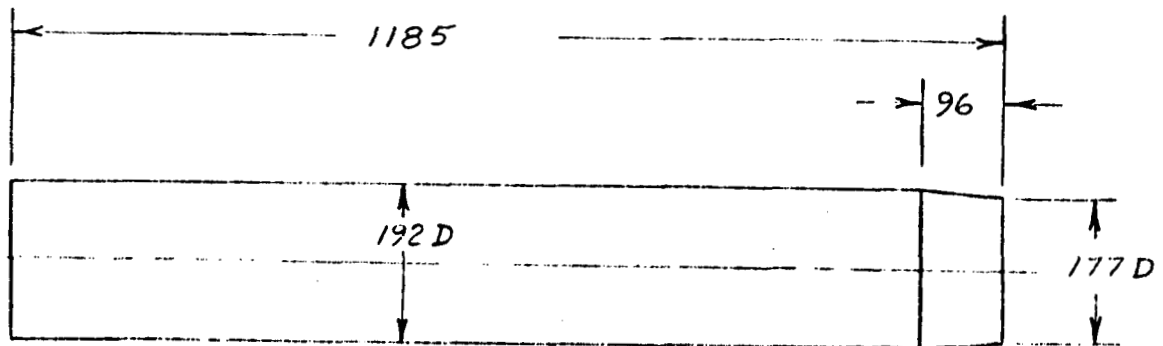
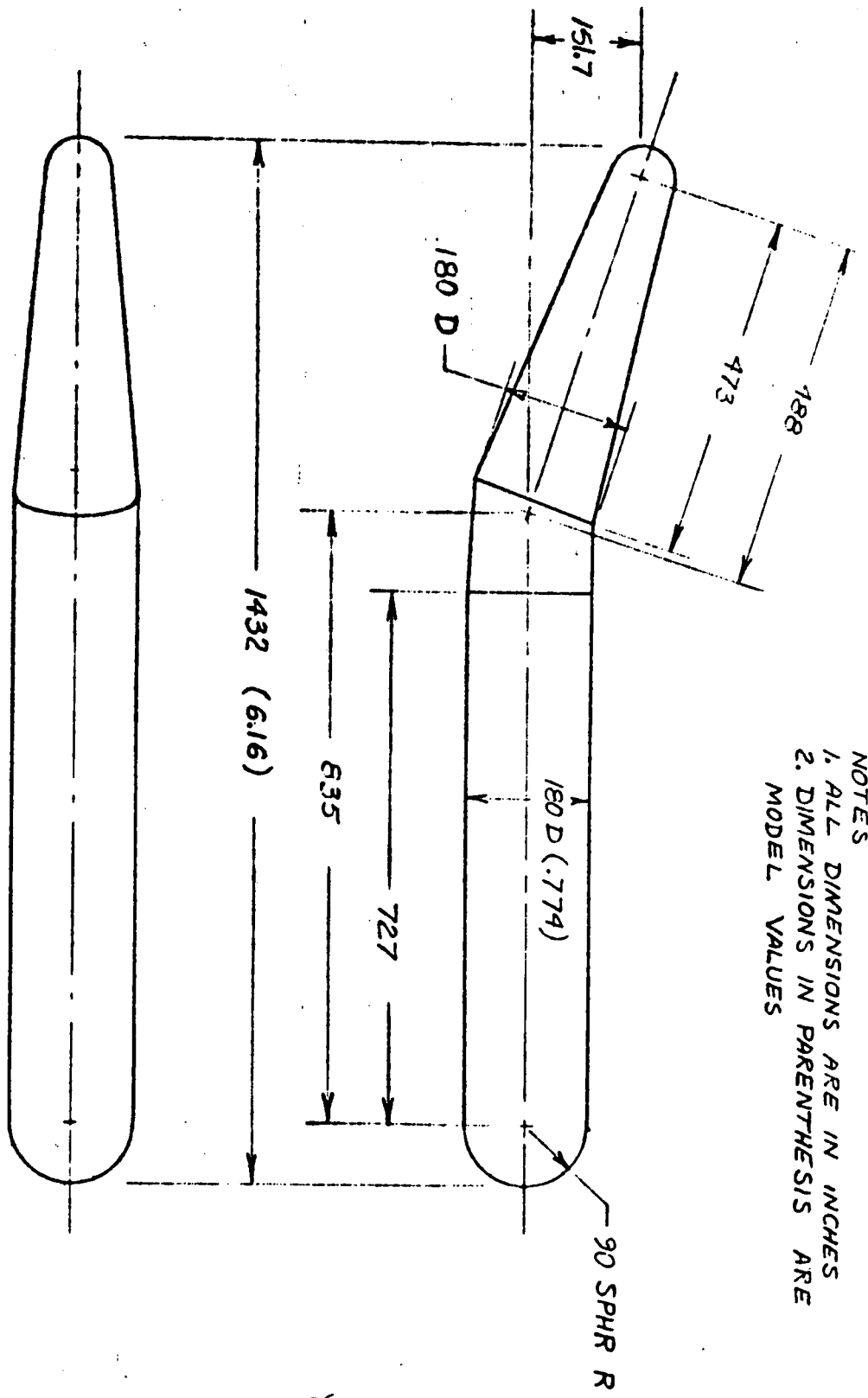


FIGURE 13. DROP TANK ~ D1



NOTES
1. ALL DIMENSIONS ARE IN INCHES
2. DIMENSIONS IN PARENTHESIS ARE
MODEL VALUES

FIGURE 14. DROP TANK ~ D2

- NOTES
1. ALL DIMENSIONS ARE INCHES
 2. DIMENSIONS IN PARENTHESIS ARE MODEL VALUES

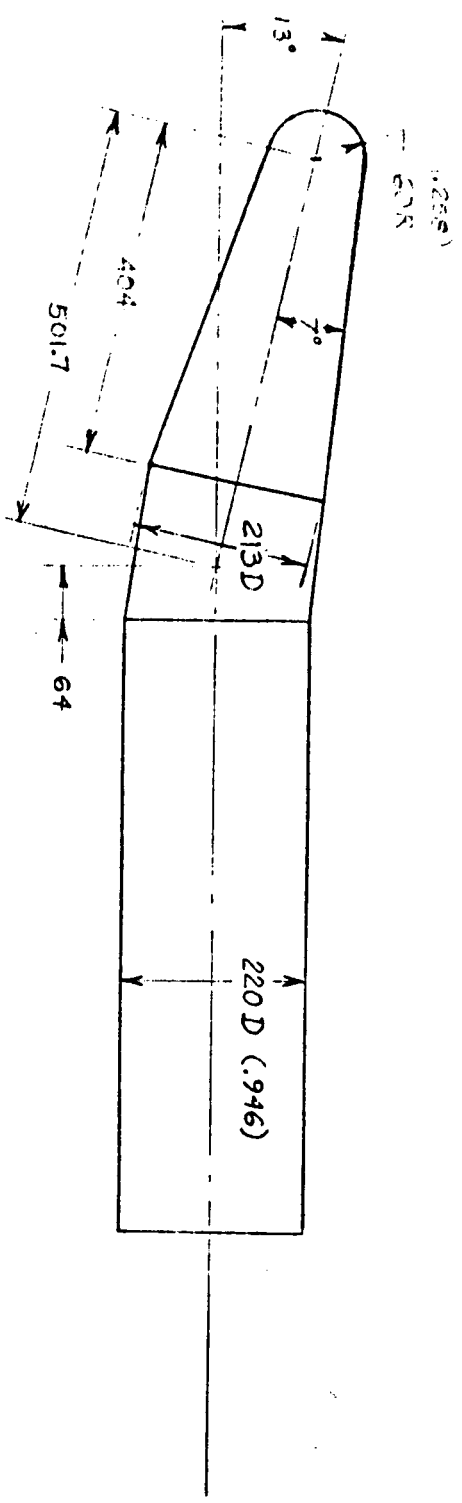
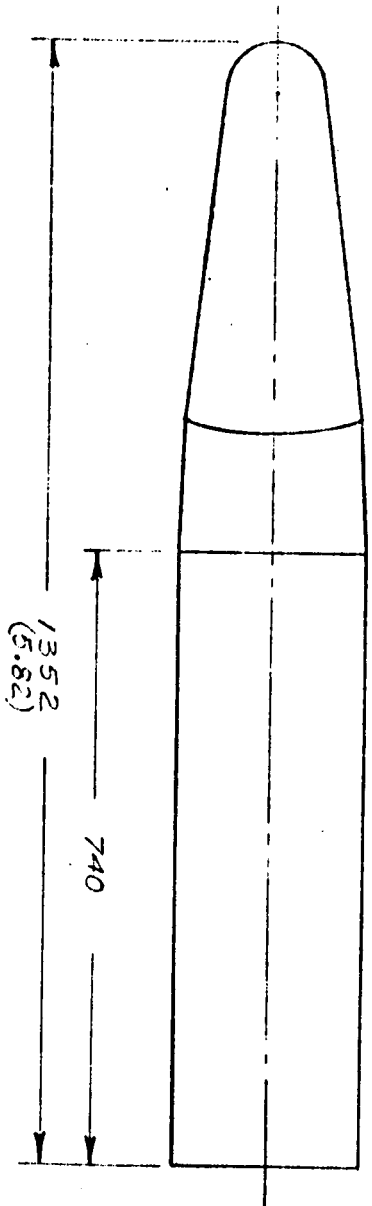


FIGURE 15. 5 SEGMENT SOLID ROCKET MOTOR (SRM) ~ S1

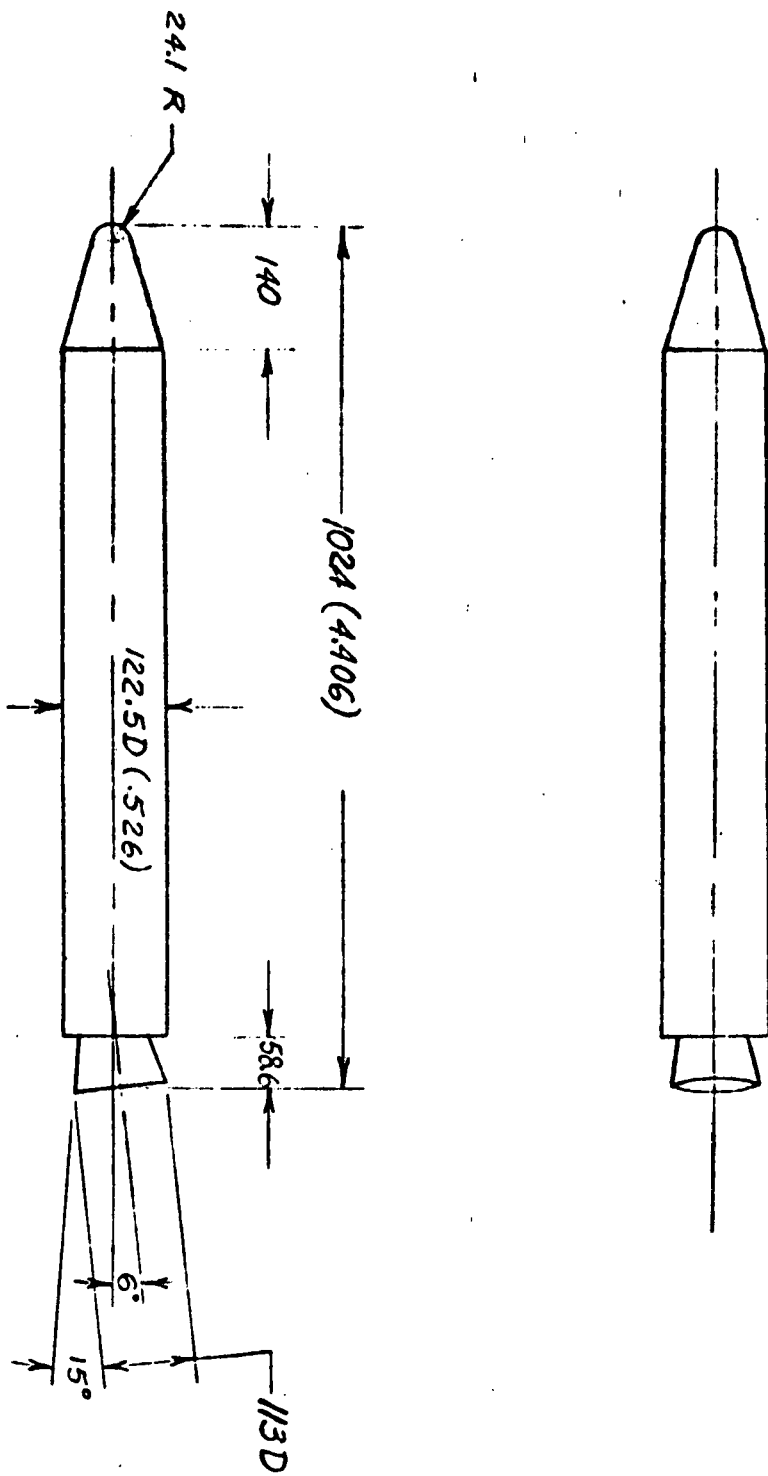
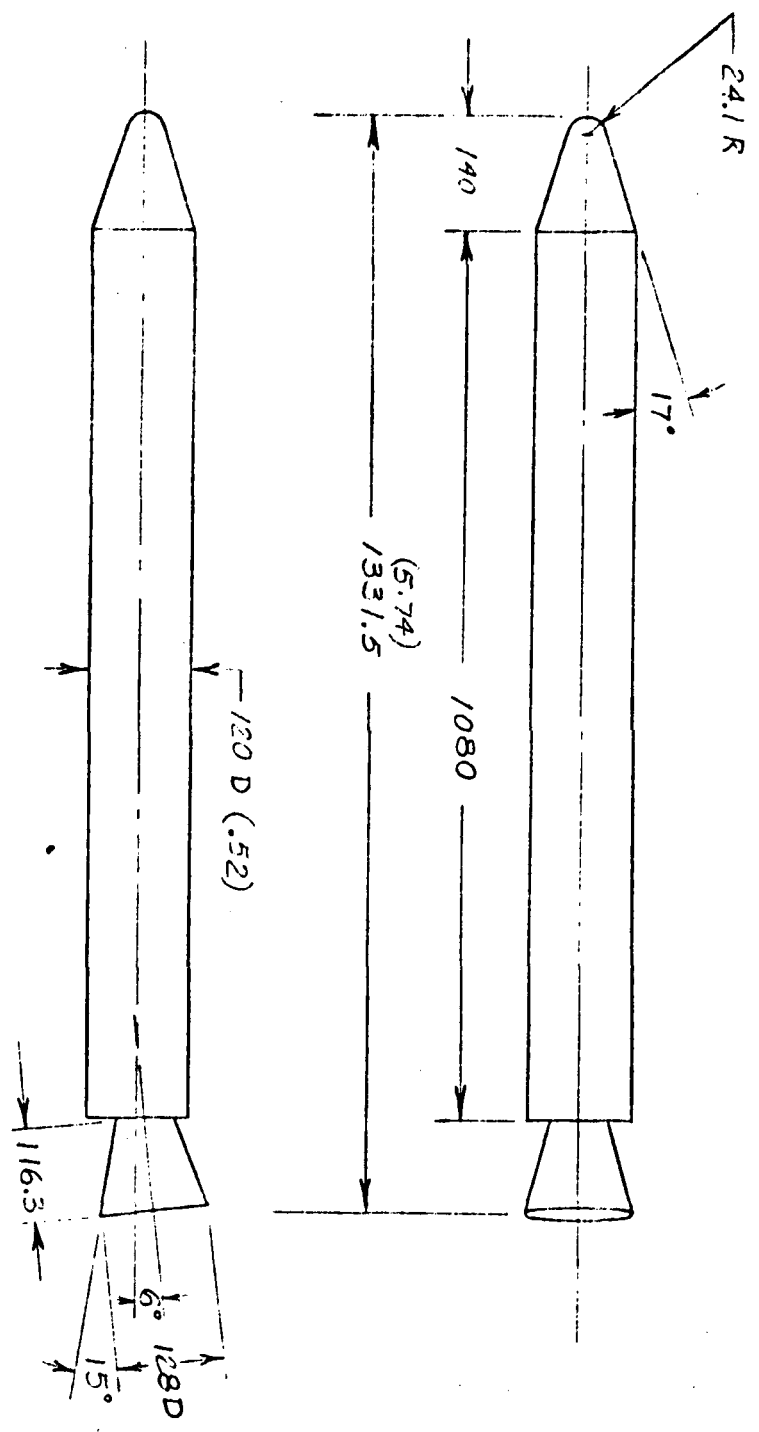


FIGURE 16 Z SEGMENT SOLID ROCKET MOTOR (SRM) ~ S2

NOTES
 1. ALL DIMENSIONS ARE IN INCHES
 2. DIMENSIONS IN PARENTHESIS ARE
 MODEL VALUES



MODEL COMPONENT DESCRIPTION SHEETS

MODEL COMPONENT: BODY - B1

GENERAL DESCRIPTION: Body for DTO-7 Orbiter

DRAWING NUMBER: WT 7110002

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, inch	<u>1320.</u>	<u>5.68</u>
Max. Width, inch	<u>298.</u>	<u>1.28</u>
Max. Depth, inch	<u>265.</u>	<u>1.14</u>
Fineness Ratio	<u>5.08</u>	<u>5.08</u>
Area		
Max. Cross-Sectional	<u>443 ft.²</u>	<u>1.18 in.²</u>
Planform	<u>2177 ft.²</u>	<u>5.80 in.²</u>
Wetted	<u>6650 ft.²</u>	<u>17.71 in.²</u>
Base	<u>443 ft.²</u>	<u>1.18 in.²</u>

MODEL COMPONENT: Orbiter Wing - W1

GENERAL DESCRIPTION: Clipped Arrow Planform

DRAWING NUMBER:

WT 7110002

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area		
Planform	2970 ft ²	7.90 in. ²
Wetted	3166 ft ²	8.42 in. ²
Span (equivalent), inch	985	4.24
Aspect Ratio	1.49	1.49
Rate of Taper	--	--
Taper Ratio	.20	.20
Diehedral Angle, degrees	8.0	8.0
Incidence Angle, degrees	0	0
Aerodynamic Twist, degrees	0	0
Toe-In Angle	--	--
Cant Angle	--	--
Sweep Back Angles, degrees		
Leading Edge	57.1	57.1
Trailing Edge	20.0	20.0
0.25 Element Line	51.3	51.3
Chords:		
Root (Wing Sta. 0.0), inch	723.	3.11
Tip, (equivalent), inch	145.	.62
MAC, inch	498.	2.14
Fus. Sta. of .25 MAC	1078.	--
W.P. of .25 MAC	215.	--
B.L. of .25 MAC	192	--
Airfoil Section		
Root	<u>MMC Design</u>	<u>MMC Design</u>
Tip	<u>MMC Design</u>	<u>MMC Design</u>

EXPOSED DATA

Area	1644. ft ²	4.37 in. ²
Span, (equivalent), inch	684.	2.94
Aspect Ratio	1.975	.0085
Taper Ratio	.265	.0011
Chords, inch		
Root	547.	235
Tip	145.	.62
MAC	385.	1.66
Fus. Sta. of .25 MAC	1198.6	--
W.P. of .25 MAC	220.	--
B.L. of .25 MAC	288.	--

MODEL COMPONENT: Orbiter Vertical Fin - V1

GENERAL DESCRIPTION: _____

DRAWING NUMBER: WT 7110002

DIMENSIONS: FULL-SCALE MODEL SCALE

TOTAL DATA

Area		
Planform	481. ft ²	1.28 in. ²
Wetted	962. ft ²	2.56 in. ²
Span (equivalent), inch	321.	1.28
Aspect Ratio	1.49	.0064
Rate of Taper	--	--
Taper Ratio	.47	.47
Diehedral Angle, degrees	--	--
Incidence Angle, degrees	0	0
Aerodynamic Twist, degrees	0	0
Toe-In Angle	0	0
Cant Angle	0	0
Sweep Back Angles, degrees		
Leading Edge	37.	37.
Trailing Edge	15.	15.
0.25 Element Line	32.3	
Chords:		
Root, inch	294.	1.2642
Tip, (equivalent), inch	138.	.59
MAC, inch	225.	.968
Fus. Sta. of .25 MAC	X ₀ = 1342.7	--
W.P. of .25 MAC	Z ₀ = 566.	--
B.L. of .25 MAC		
Airfoil Section		
Root	NACA 64A-009	NACA 64A-009
Tip	NACA 64A-009	NACA 64A-009

EXPOSED DATA

Area	}	Same as above	_____	_____
Span, (equivalent)			_____	_____
Aspect Ratio			_____	_____
Taper Ratio			_____	_____
Chords			_____	_____
Root			_____	_____
Tip			_____	_____
MAC			_____	_____
Fus. Sta. of .25 MAC			_____	_____
W.P. of .25 MAC			_____	_____
B.L. of .25 MAC	_____	_____		

MODEL COMPONENT: BODY - D1

GENERAL DESCRIPTION: Drop Tank: mounted in pairs, one on each side of
orbiter body. Tank has canted, hemisphere blunted, conical nose.

DRAWING NUMBER: WT 7110002

DIMENSIONS: (For One Tank)

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, inch	<u>1432.</u>	<u>6.16</u>
Max. Dia., inch	<u>180.</u>	<u>.77</u>
Nose Rad., inch	<u>42.</u>	<u>.18</u>
Fineness Ratio	<u>8.82</u>	<u>8.82</u>
Area		
Max. Cross-Sectional	<u>177. ft²</u>	<u>.47 in.²</u>
Planform	<u>1615. ft²</u>	<u>4.30 in.²</u>
Wetted	<u>5720. ft²</u>	<u>15.23 in.²</u>
Base (90" Sphr. R)	<u>177. ft²</u>	<u>.47 in.²</u>

MODEL COMPONENT: BODY - D2

GENERAL DESCRIPTION: Drop Tank; mounted in tandem with booster core.

Orbiter mounted in parallel on tank. Tank has canted, hemisphere blunted,
conical nose.

DRAWING NUMBER: WT 7110005

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, inch	<u>1354.</u>	<u>5.82</u>
Max. Dia, inch	<u>220.</u>	<u>.95</u>
Nose Rad., inch	<u>60.</u>	<u>.26</u>
Fineness Ratio	<u>6.74</u>	<u>6.74</u>
Area		
Max. Cross-Sectional	<u>264. ft²</u>	<u>.70 in.²</u>
Planform	<u>1893. ft²</u>	<u>5.04 in.²</u>
Wetted	<u>5874. ft²</u>	<u>15.64 in.²</u>
Base	<u>264. ft²</u>	<u>.70 in.²</u>

MODEL COMPONENT: BODY - A₁

GENERAL DESCRIPTION: Adapter between orbiter and booster core, fairings
from core cylindrical shape to shape of orbiter body base

DRAWING NUMBER: WT 7110003

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, inch	<u>260.</u>	<u>1.12</u>
Max. Width, inch	<u>298.</u>	<u>1.28</u>
Max. Depth, inch	<u>265.</u>	<u>1.14</u>
Fineness Ratio	<u>--</u>	<u>--</u>
Area		
Max. Cross-Sectional	<u>443 ft²</u>	<u>1.18 in.²</u>
Planform	<u>442 ft²</u>	<u>1.18 in.²</u>
Wetted	<u>1410 ft²</u>	<u>3.75 in.²</u>
Base	<u>201 ft²</u>	<u>.54 in.²</u>

MODEL COMPONENT: BODY - A2

GENERAL DESCRIPTION: Adapter between 7 segment core and end loaded drop tank. fairs from core cylinder to drop tank cylinder.

DRAWING NUMBER: WT 7110005

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length , inch	<u>203.</u>	<u>.87</u>
Fwd Dia., inch	<u>220.</u>	<u>.95</u>
Aft Dia., inch	<u>192.</u>	<u>.83</u>
Fineness Ratio	<u>—</u>	<u>—</u>
Area		
Max. Cross-Sectional	<u>264. ft²</u>	<u>.70 in.²</u>
Planform	<u>290. ft²</u>	<u>.77 in.²</u>
Wetted	<u>912. ft²</u>	<u>2.43 in.²</u>
Base	<u>201. ft²</u>	<u>.54 in.²</u>

MODEL COMPONENT: BODY - C1

GENERAL DESCRIPTION: Booster Core for 5 segment SRM's.

DRAWING NUMBER:

WT 7110003

DIMENSIONS:

FULL-SCALE

MODEL SCALE

Length, excluding engine nozzles

850.5 in.

3.66 in.

Max.

192.0 in.

.83 in.

Fineness Ratio

4.42

4.42

Area

Max. Cross-Sectional

201. ft.²

.54 in.²

Planform

1128. ft.²

3.00 in.²

Wetted

3540. ft.²

9.43 in.²

Base (174 inch dia.)

165.2 ft.²

.44 in.²

MODEL COMPONENT: BODY - C₂

GENERAL DESCRIPTION: Booster Core for 7 segment SRM's

DRAWING NUMBER: WT 7110005

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length , excluding engine nozzles	<u>1150.3 in.</u>	<u>4.95 in.</u>
Max. Dia.	<u>192.0 in.</u>	<u>.83 in.</u>
Fineness Ratio	<u>5.98</u>	<u>5.98</u>
Area		
Max. Cross-Sectional	<u>201. ft.²</u>	<u>.54 in.²</u>
Planform	<u>1535. ft.²</u>	<u>4.09 in.²</u>
Wetted	<u>4820. ft.²</u>	<u>12.83 in.²</u>
Base (174 in. dia.)	<u>165.2 ft.²</u>	<u>.42 in.²</u>

MODEL COMPONENT: BODY - S₁

GENERAL DESCRIPTION: 5 segment solid rocket motor (SRM).

Has 17° conical nose blunted with a 24.1 in. spherical radius.

DRAWING NUMBER: WT 7110003

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1015.8 in.</u>	<u>4.37</u>
Max. Dia.	<u>122.3 in.</u>	<u>.53</u>
Max. Depth	<u>—</u>	<u>—</u>
Fineness Ratio	<u>8.31</u>	<u>8.31</u>
Area		
Max. Cross-Sectional	<u>81.6 ft.²</u>	<u>.22 in.²</u>
Planform	<u>813. ft.²</u>	<u>2.16 in.²</u>
Wetted	<u>2550. ft.²</u>	<u>6.79 in.²</u>
Base	<u>85.5 ft.²</u>	<u>.23 in.²</u>
Rocket Nozzle (each)		
Length	<u>49.8 in.</u>	<u>.21 in.</u>
Exit Dia.	<u>113.2 in.</u>	<u>.49 in.</u>
Cant Angle; Deg	<u>6</u>	<u>6</u>

MODEL COMPONENT: BODY - S₂

GENERAL DESCRIPTION: 7 Segment solid rocket motor (SRM).

Has 17° half angle conical nose blunted with a 24.1 in. spherical radius.

DRAWING NUMBER: WT 7110005

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, including nozzles	<u>1331.5 in.</u>	<u>5.73 in.</u>
Max. Dia.	<u>120. in.</u>	<u>.52 in.</u>
Max. Depth	<u>—</u>	<u>—</u>
Fineness Ratio	<u>11.1</u>	<u>11.1</u>
Area		
Max. Cross-Sectional	<u>78.5 ft.²</u>	<u>.21 in.²</u>
Planform	<u>1050. ft.²</u>	<u>2.80 in.²</u>
Wetted	<u>3300. ft.²</u>	<u>8.79 in.²</u>
Base	<u>96.8 ft.²</u>	<u>.26 in.²</u>
Rocket Nozzle (each)		
Length	<u>112.3 in.</u>	<u>.48 in.</u>
Exit Dia.	<u>128. in.</u>	<u>.55 in.</u>
Cant angle, deg.	<u>6</u>	<u>6</u>

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 & C. 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

SYMBOL

DEFINITION

F

force; F, lbs

M

moment; M, in-lb

Subscript

Definition

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; $\begin{bmatrix} -1 \\ -1 \end{bmatrix} \begin{bmatrix} (p_b - p_\infty)/q \\ (A_b/S) \end{bmatrix}$
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	CLM	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>
1t	HORIZT	horizontal tail incidence; positive when trailing edge down; degrees
δ		symmetrical surface deflection angle; degrees; positive deflections are:
	AILRON	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
	SPOILR	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

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

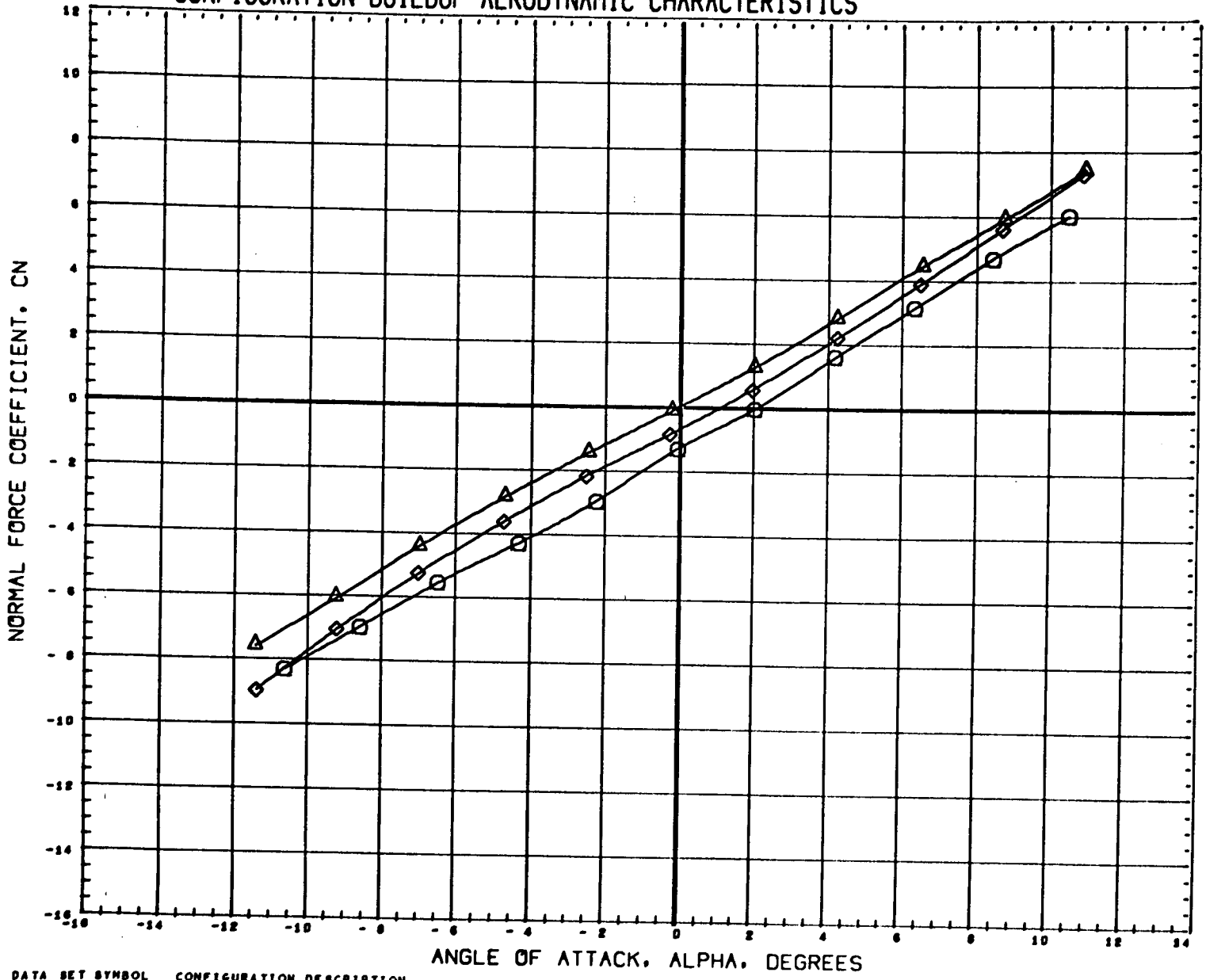
If copies of this listing are desired, please contact the above or the cognizant SADSAC personnel who, for this data, is:

Miss B. J. Fricken
Department 2780
Chrysler Corporation Space Division
New Orleans, La. 70129

(504) 255-2304

P L O T T E D D A T A

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



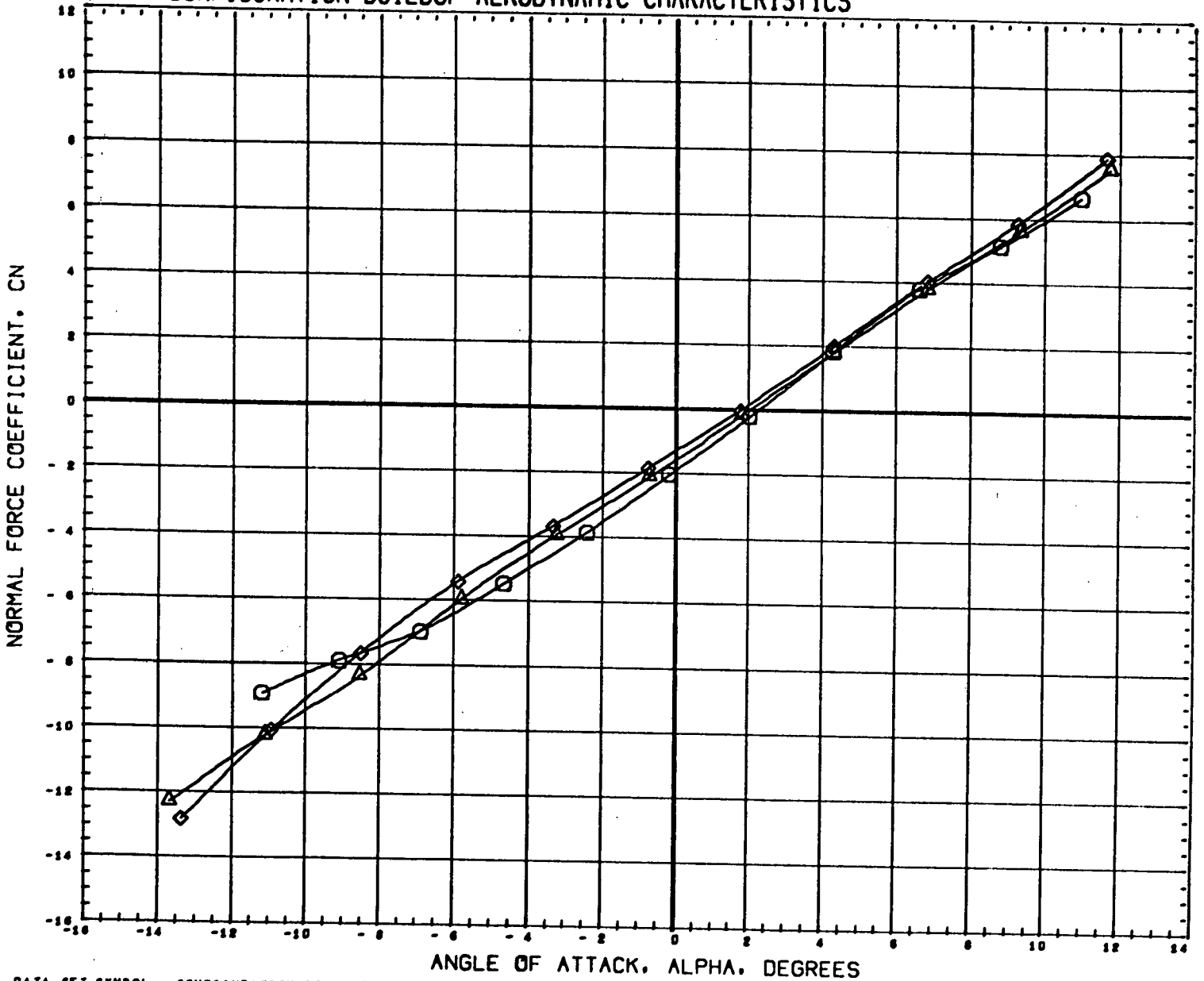
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	NSFC TWT 505 T111L/DT07
(B47004)	NSFC TWT 505 T111L/DT07
(B47006)	NSFC TWT 505 T111L/DT07

BETA
01
01D1
01D1L2

REFERENCE INFORMATION		
SRFP	0.9340	80 INC
LRFP	0.8240	INCHES
BRFP	0.8240	INCHES
XNRP	2.9170	IN T11
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.599

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047001)	MSFC TWT 505 T111L/D107
(047004)	MSFC TWT 505 T111L/D107
(047006)	MSFC TWT 505 T111L/D107

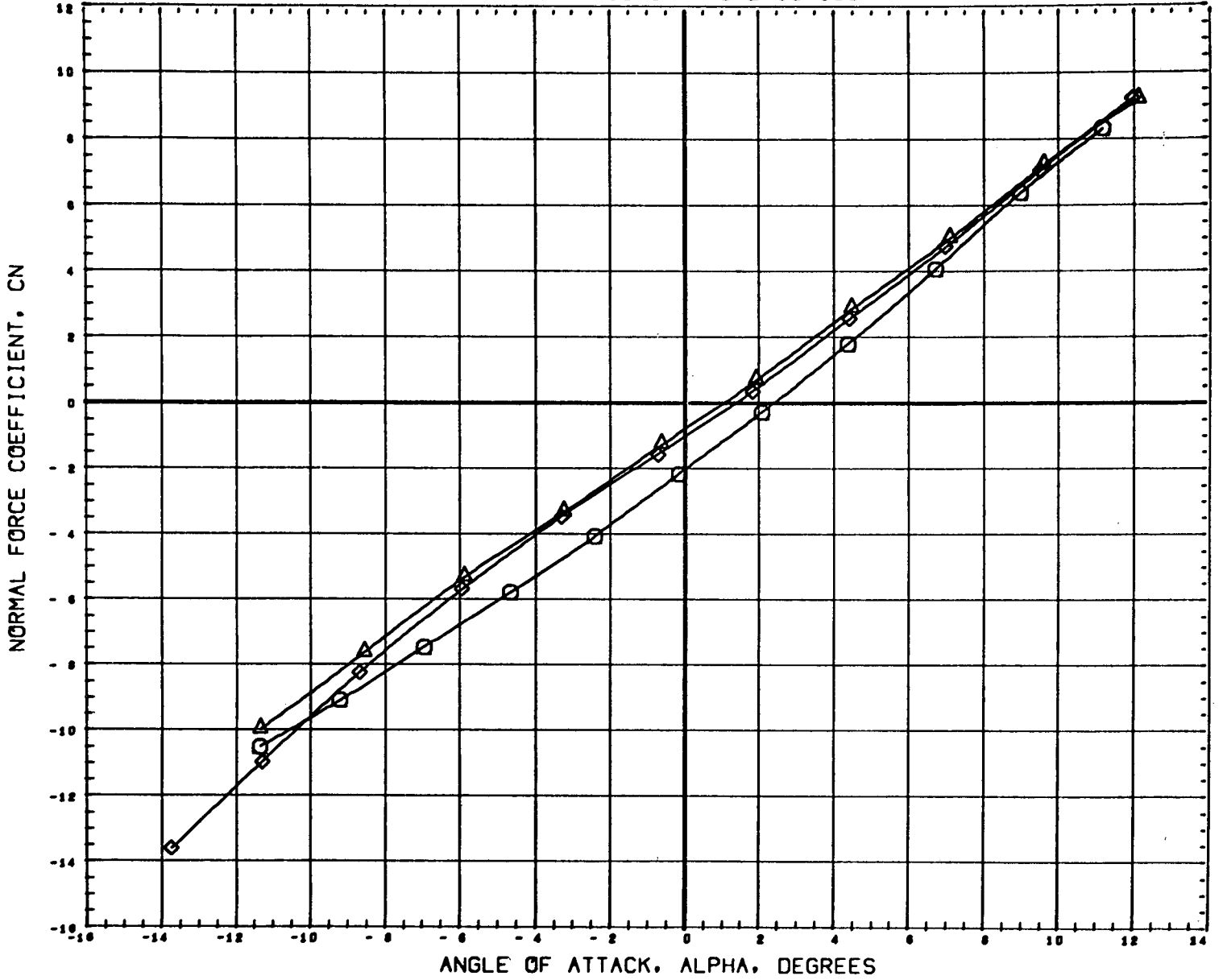
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
01
0101
0101L2

REFERENCE INFORMATION		
SREF	0.5340	SQ INC
LREF	0.6240	INCHES
BREF	0.6240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.901

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



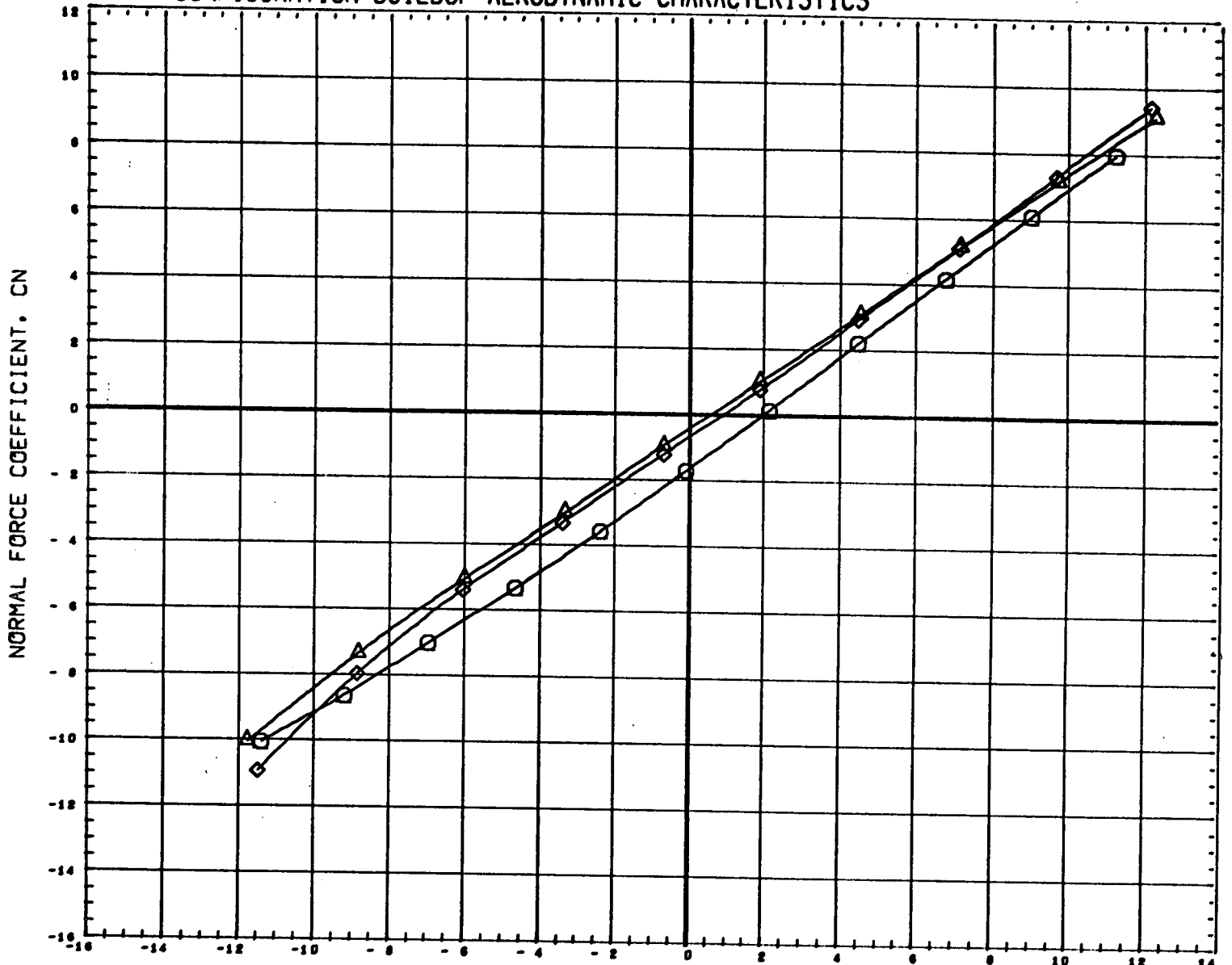
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(B47004)	HSFC TWT 505 T111L/DT07
(B47006)	HSFC TWT 505 T111L/DT07

BETA
01
01D1
01D1L2

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.6240	INCHES
BREF	0.6240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.999

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



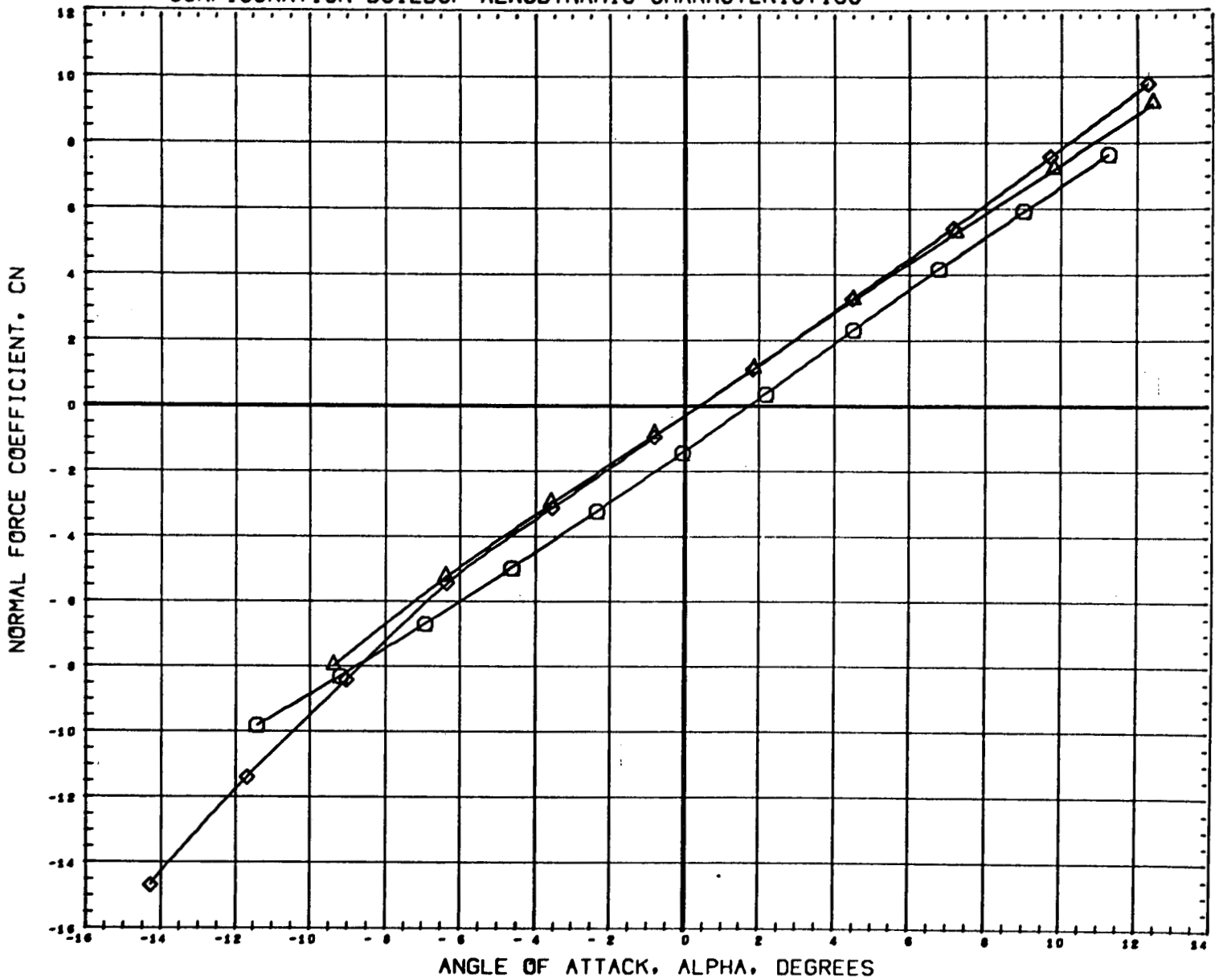
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47003)	MSFC TWT 505 T111L/DT07	01
(B47004)	MSFC TWT 505 T111L/DT07	0101
(B47006)	MSFC TWT 505 T111L/DT07	0101L2

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN Y11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.000

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047003)	MBFC TWT 505 T111L/DT07
(047004)	MBFC TWT 505 T111L/DT07
(047006)	MBFC TWT 505 T111L/DT07

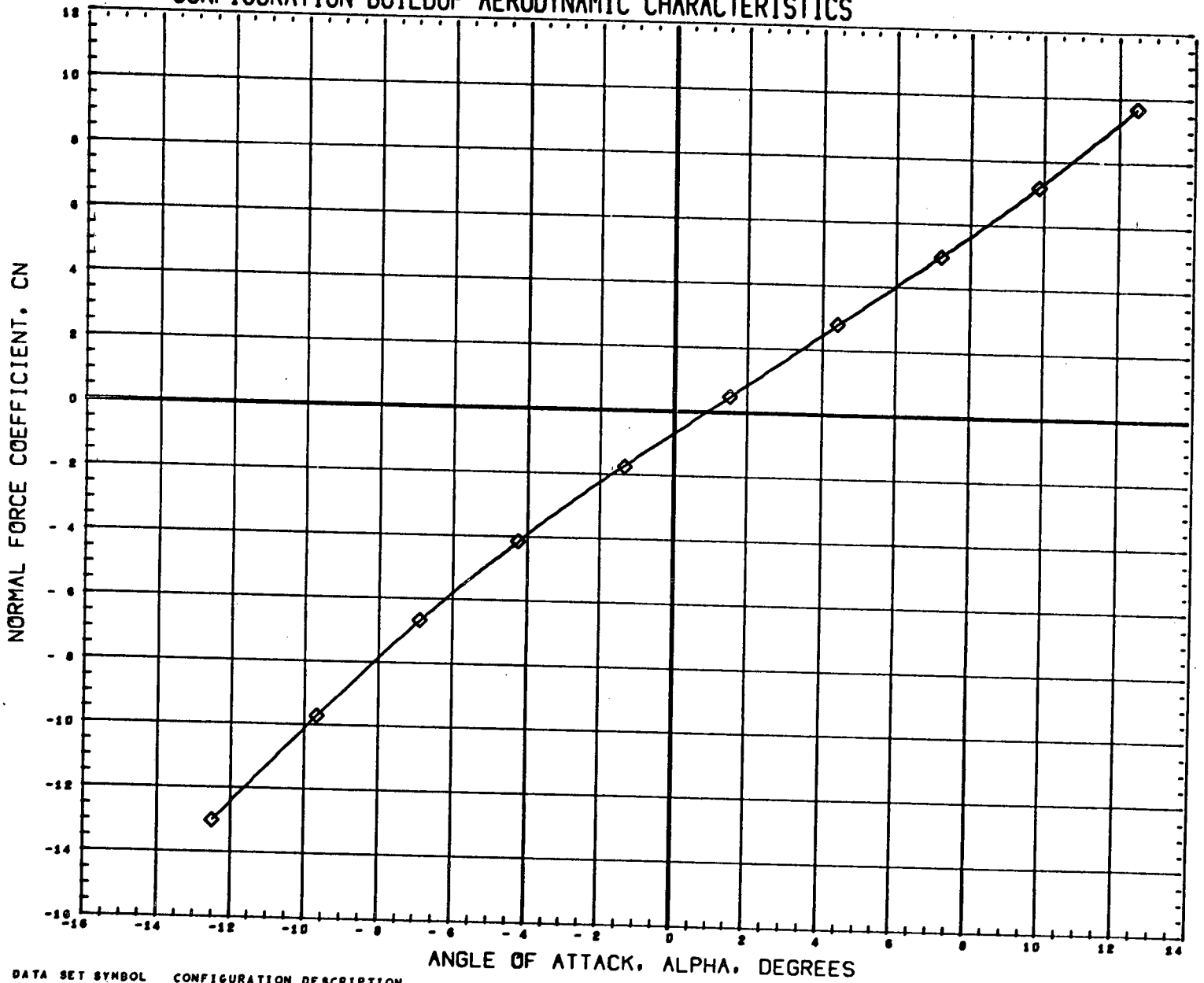
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
01
0101
0101L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
ORF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.198

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



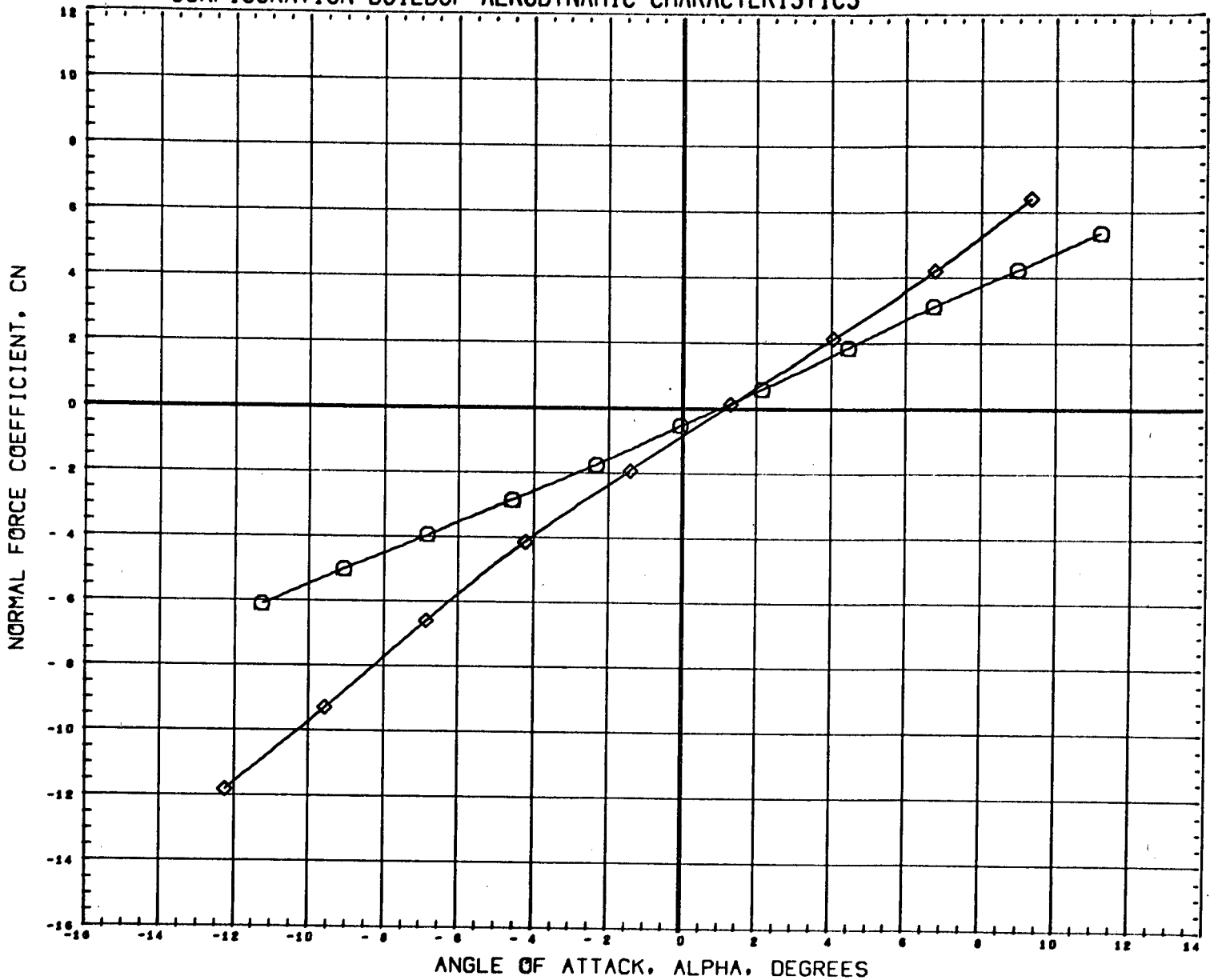
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (B47001) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (B47004) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (B47006) WSFC TWT 305 T111L/DT07 01D1L2

BETA
 0.000
 0.000
 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.450

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



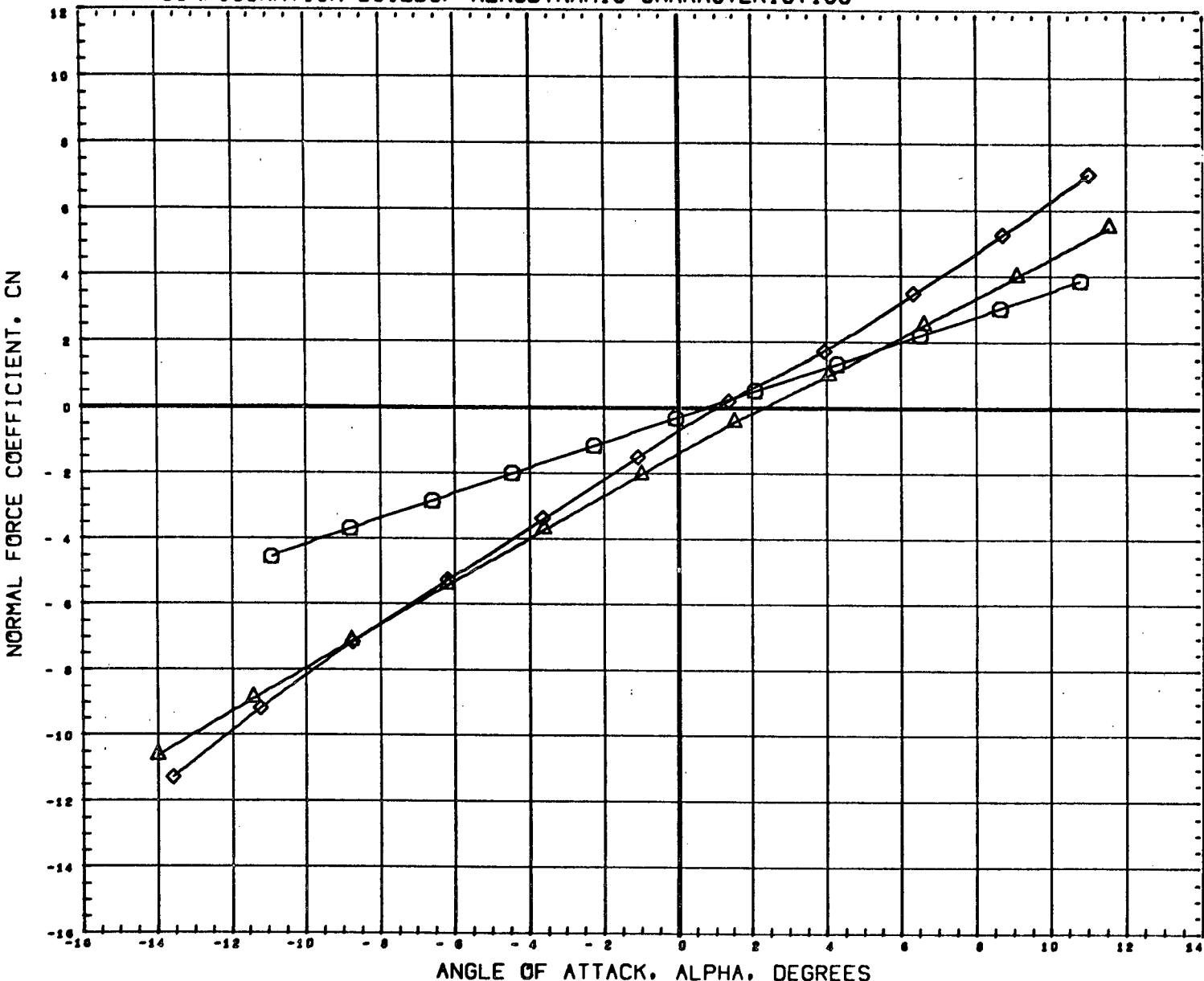
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47001) ○	MSFC TWT 505 T111L/DT07 01	0.000
(B47004) △	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(B47008) ◇	MSFC TWT 505 T111L/DT07 01D1L2	0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.955

20

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



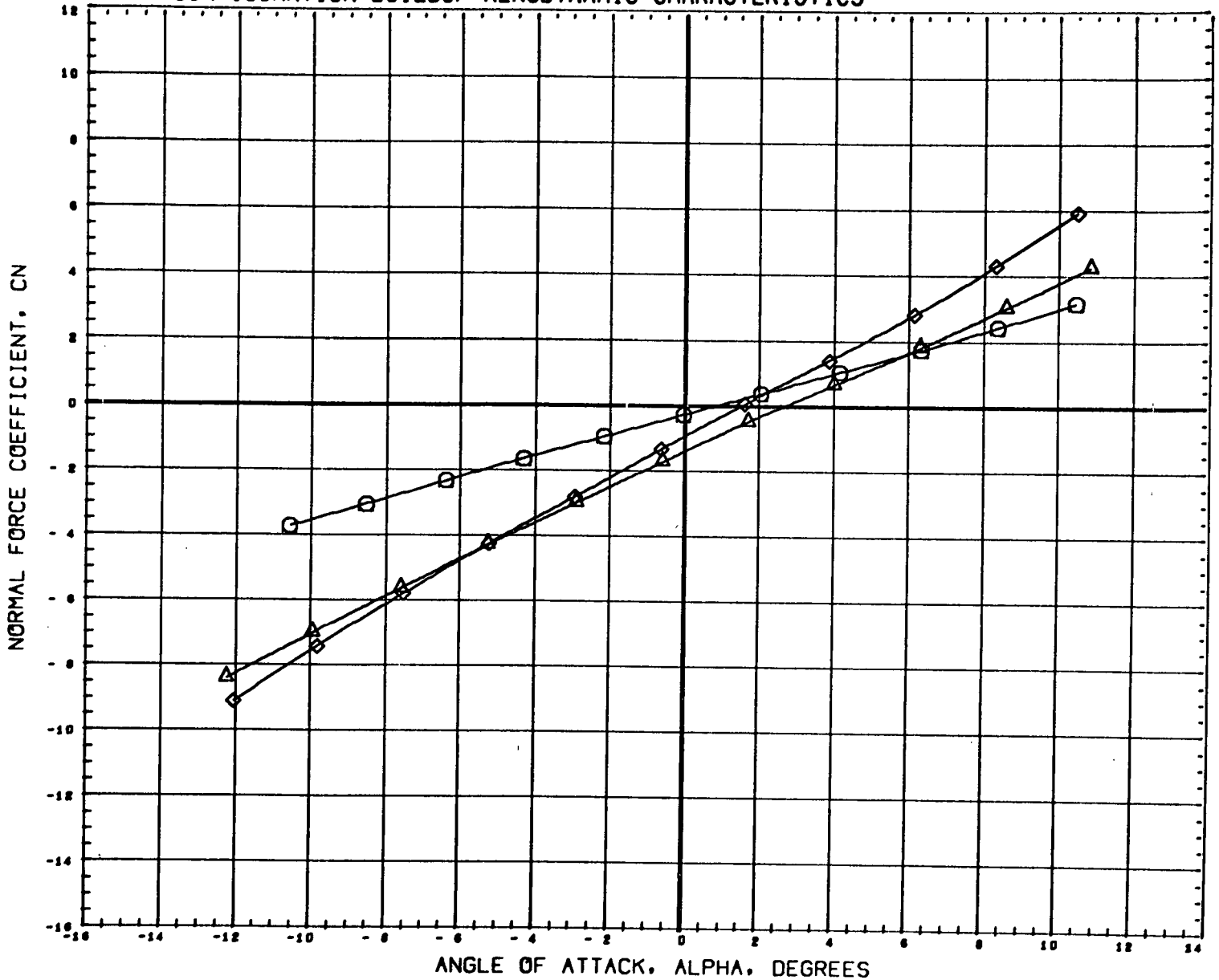
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	MSFC TWT 505 T111L/DT07
(B47004)	MSFC TWT 505 T111L/DT07
(B47006)	MSFC TWT 505 T111L/DT07

BETA
01
01D1
01D1L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN T11
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



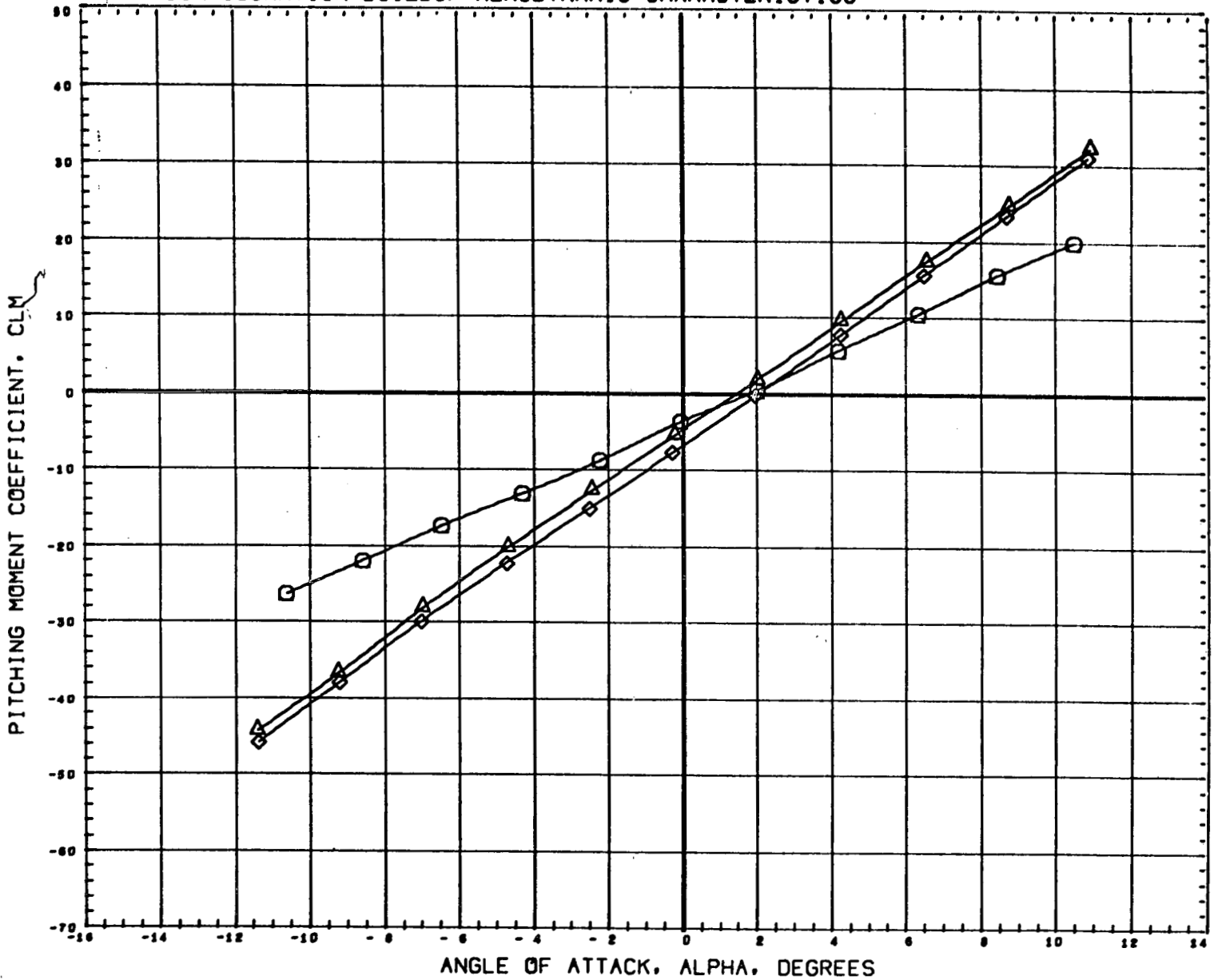
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	MSFC TWT 505 T111L/DT07
(B47004)	MSFC TWT 505 T111L/DT07
(B47006)	MSFC TWT 505 T111L/DT07

BETA
01
01D1
01D1L2

REFERENCE INFORMATION		
BREF	0.9340	30 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.480

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	NSFC TWT 505 T111L/DT07
(B47004)	NSFC TWT 505 T111L/DT07
(B47008)	NSFC TWT 505 T111L/DT07

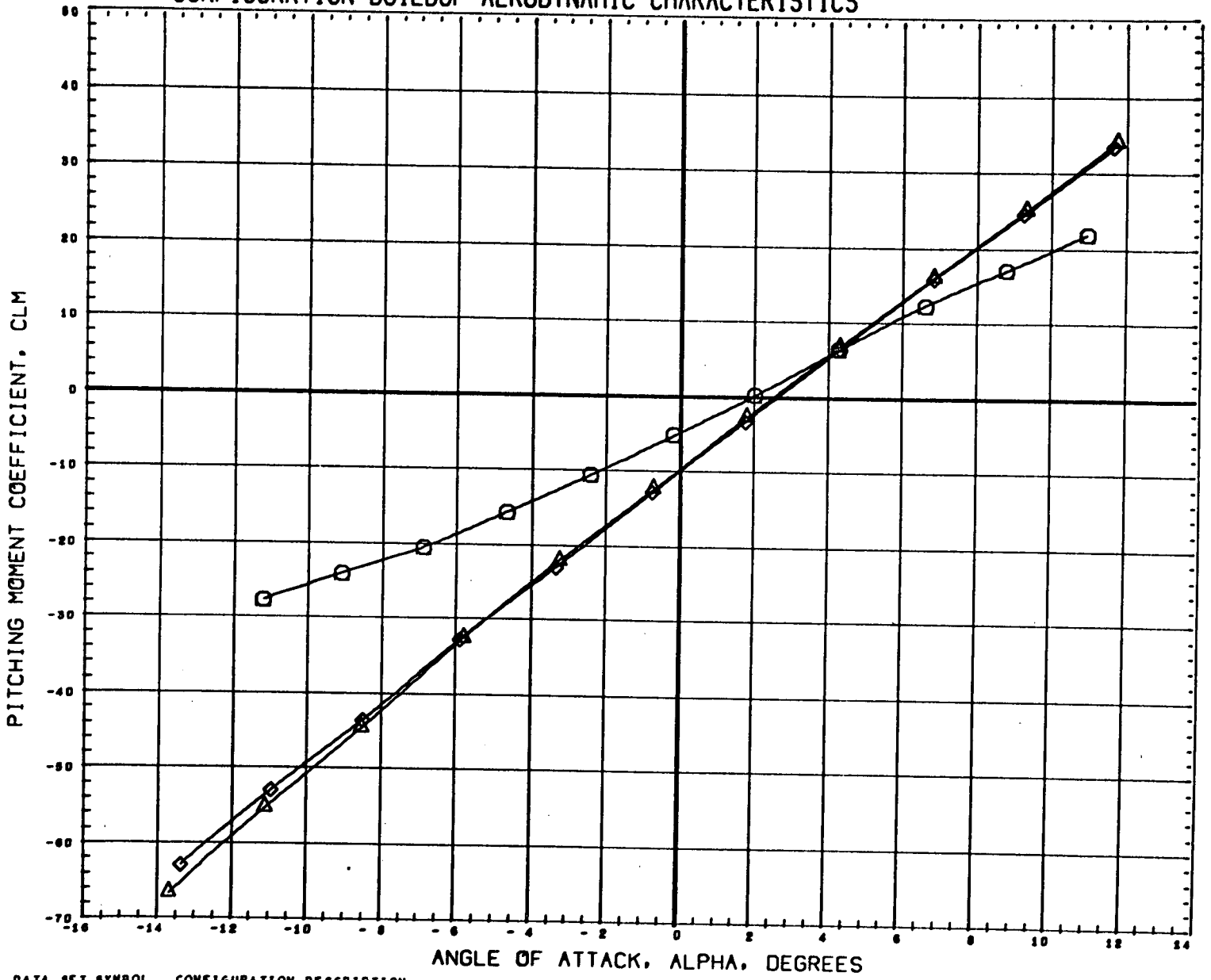
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
01
0101
0101L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.999

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



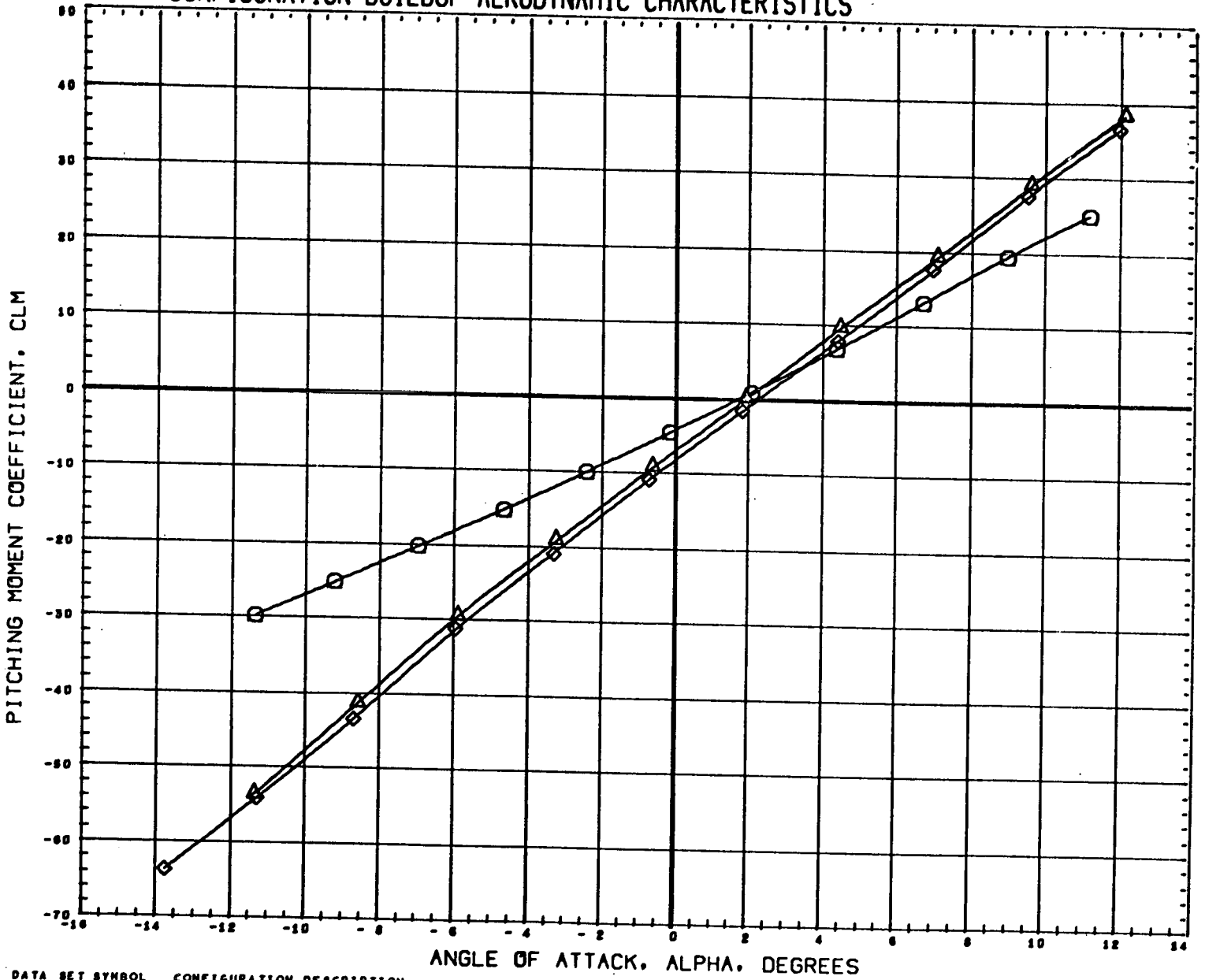
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	MSFC TWT 505 T111L/D107
(B47004)	MSFC TWT 505 T111L/D107
(B47006)	MSFC TWT 505 T111L/D107

BETA	0.000
01D1	0.000
01D1L2	0.000

REFERENCE INFORMATION	
SREF	0.5340 50 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XHRP	2.9170 IN TII
YHRP	0.0000 CORE C
ZHRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 0.901

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	NSFC TWT 505 T111L/DT07
(B47004)	NSFC TWT 505 T111L/DT07
(B47006)	NSFC TWT 505 T111L/DT07

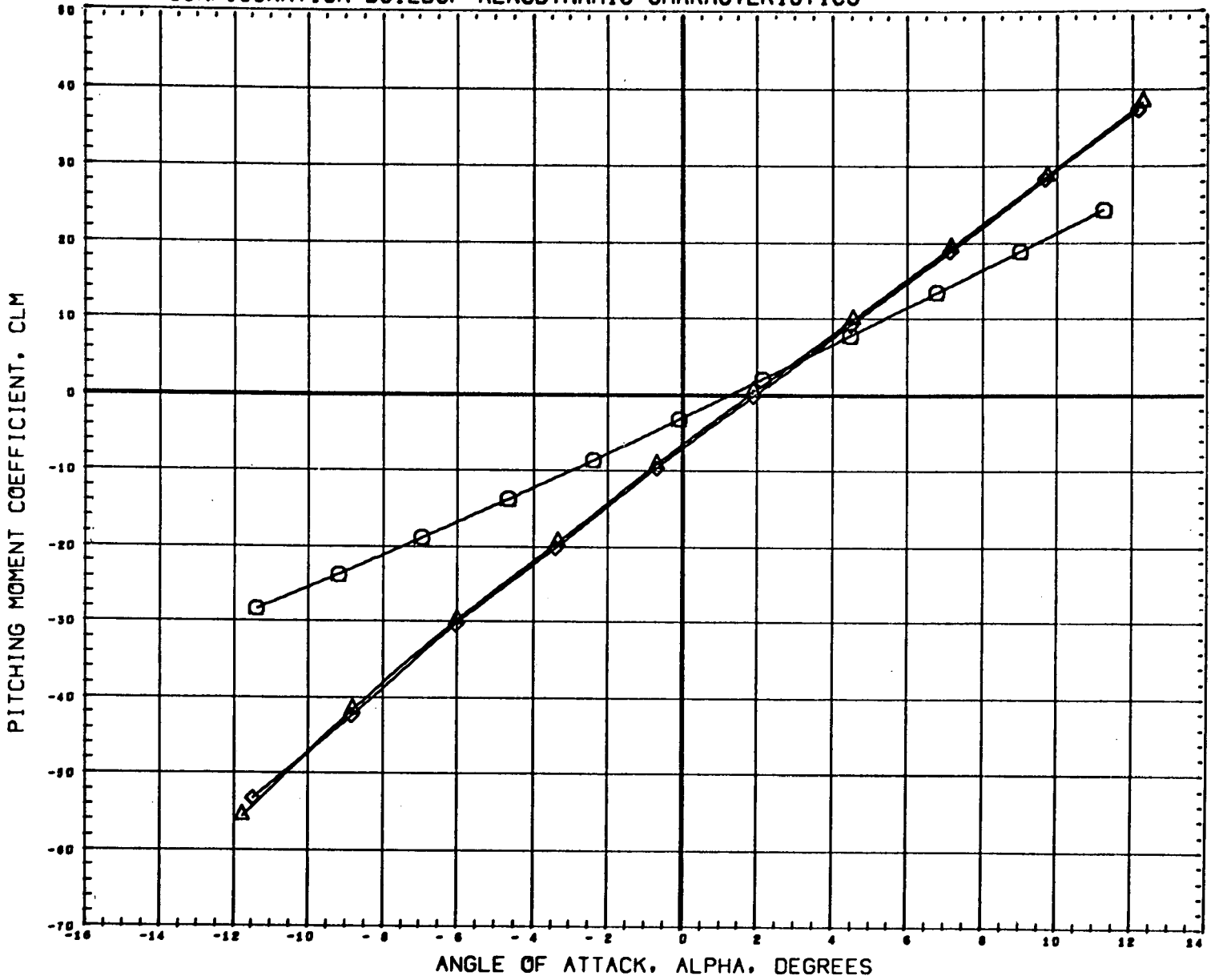
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
01
0101
0101L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XNRP	2.9170	IN T11
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.999

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47003)	MSFC TWT 505 T111L/D107
(B47004)	MSFC TWT 505 T111L/D107
(B47006)	MSFC TWT 505 T111L/D107

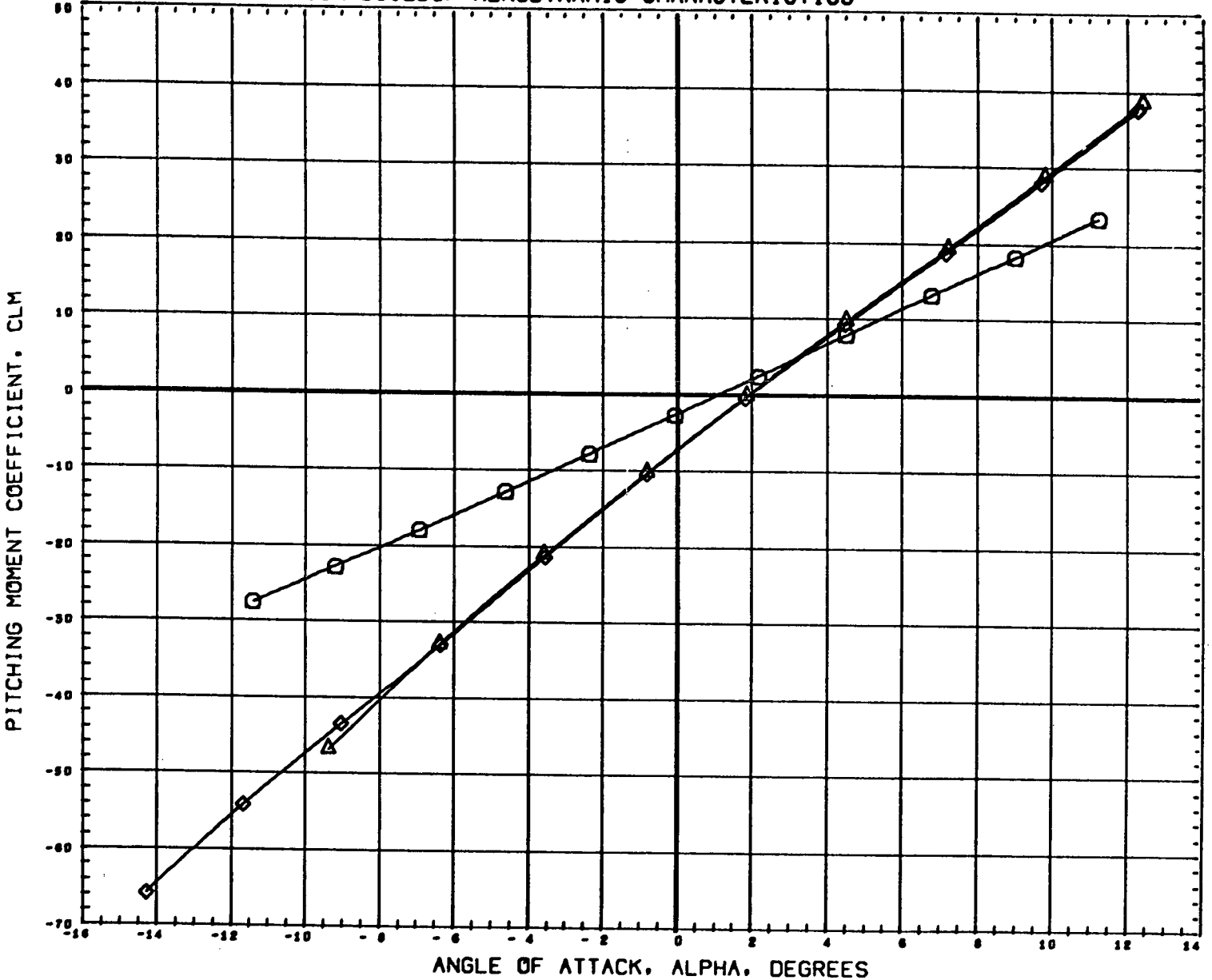
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
01
01D1
01D1L2

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN T11
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.099

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



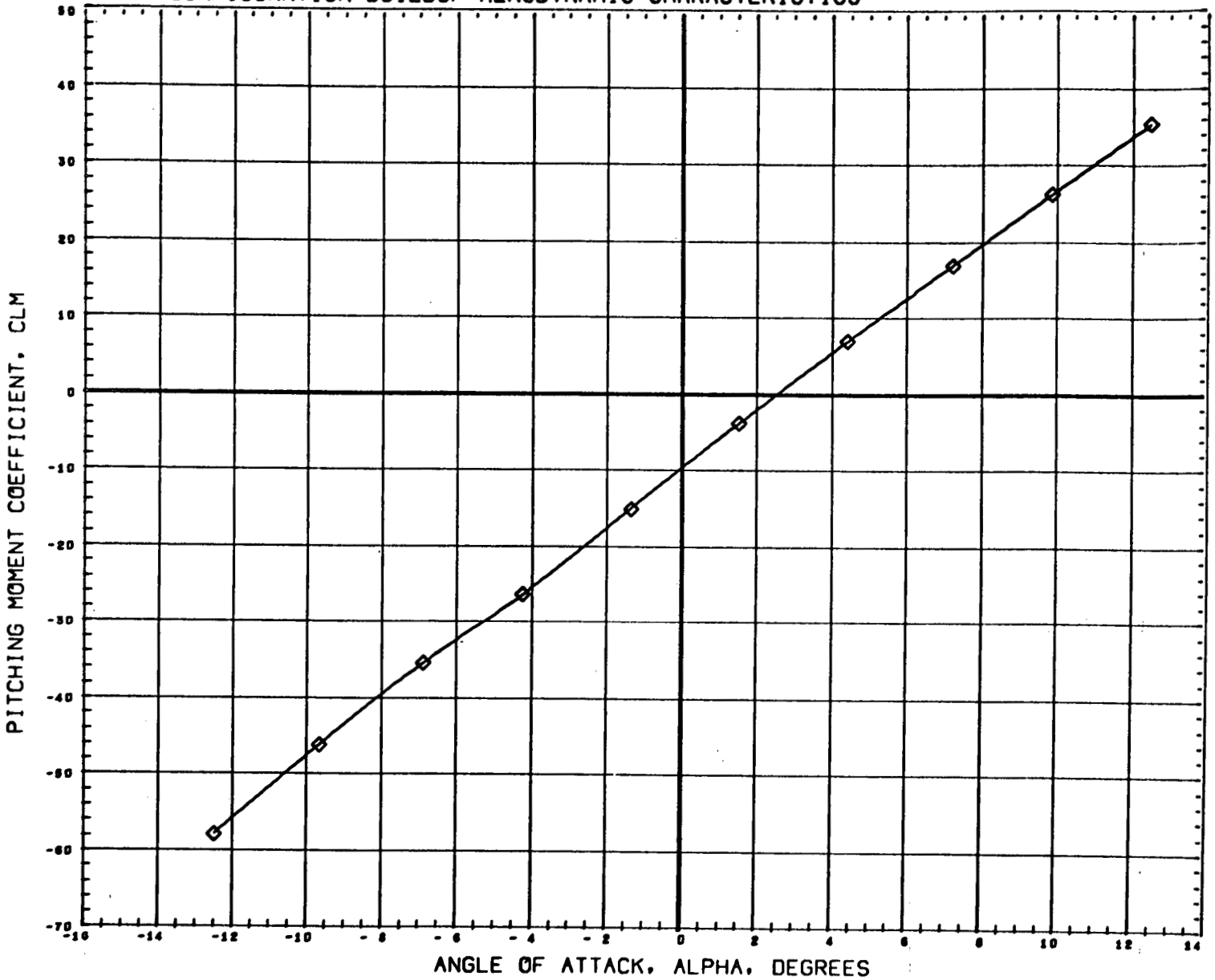
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001) \square	MSFC TWT 505 T111L/DY07
(B47004) \square	MSFC TWT 505 T111L/DY07
(B47008) \triangle	MSFC TWT 505 T111L/DY07

BETA
01
0101
0101L2

REFERENCE INFORMATION		
SREF	0.9340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.190

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



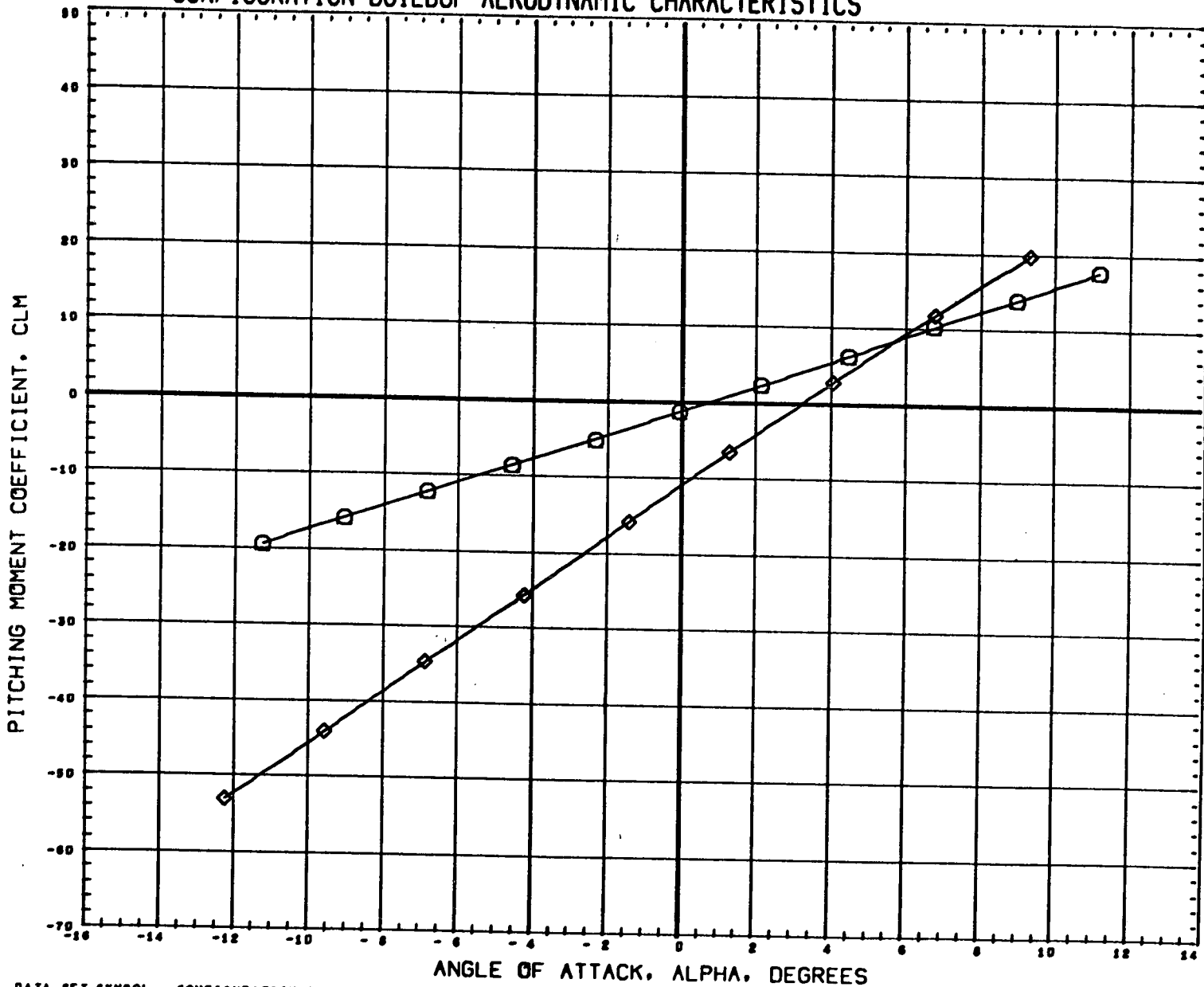
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(B47004)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(B47006)	MSFC TWT 505 TISSIL/DY07 01D1L2

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.436

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

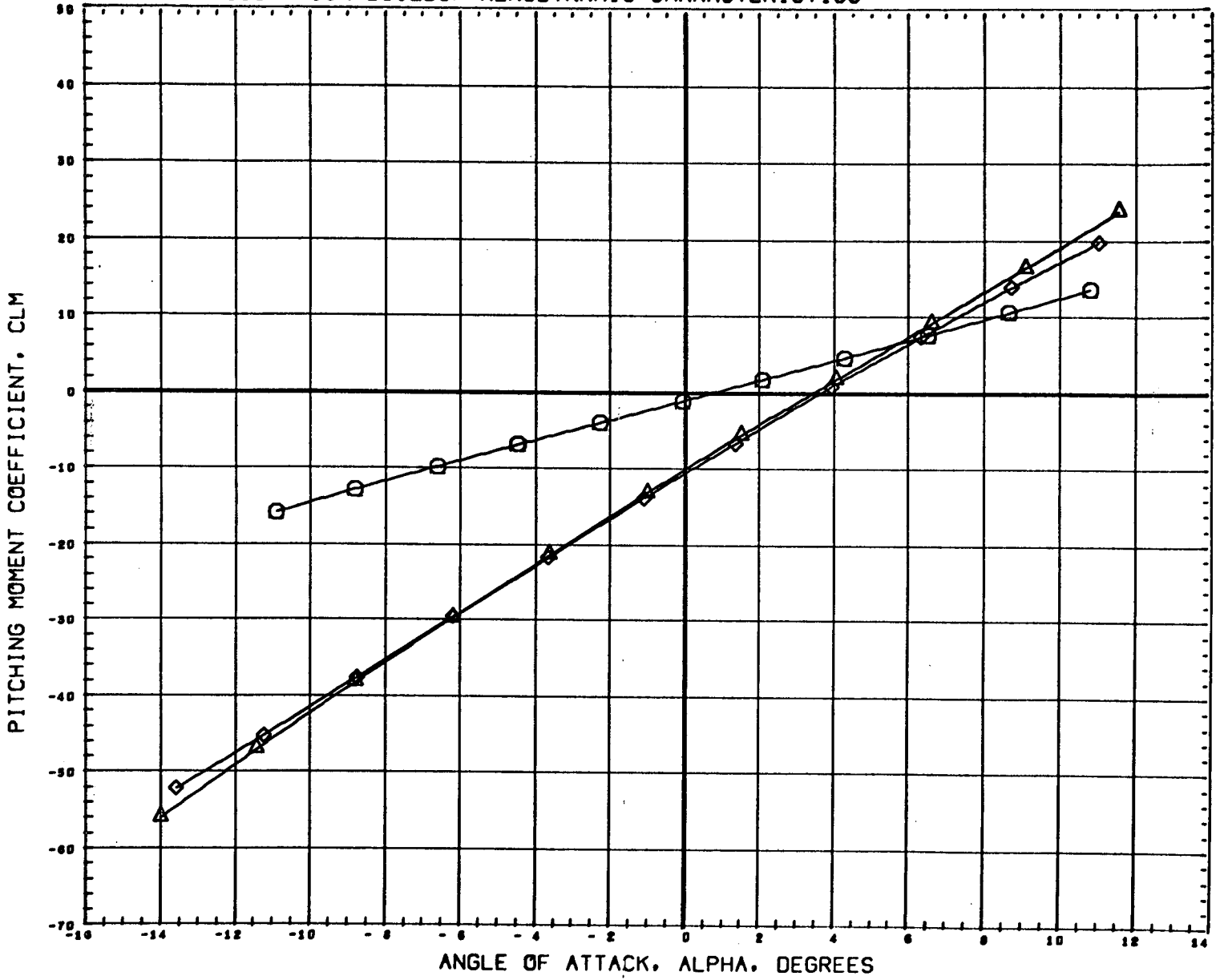


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47001)	MSFC TWT 905 T111L/DYD7 01	0.000
(B47004)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(B47006)	MSFC TWT 905 T111L/DYD7 0101L2	0.000

REFERENCE INFORMATION		
SREF	0.9340	90 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TIL
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.999

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(B47003)	○	MSFC TWT 305 T111L/DT07
(B47004)	△	MSFC TWT 305 T111L/DT07
(B47006)	◇	MSFC TWT 305 T111L/DT07

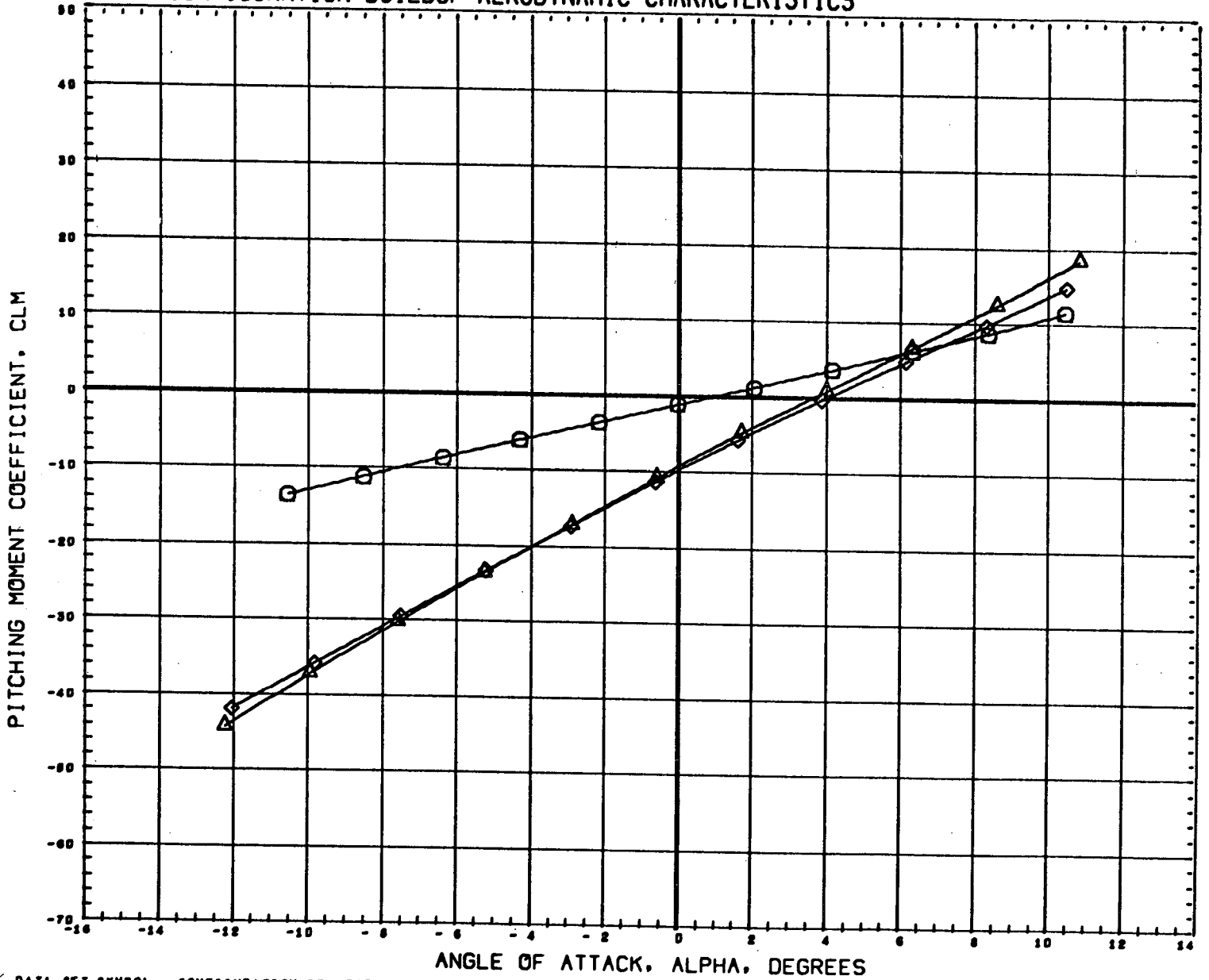
BETA
01
01D1
01D1L2

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	NSFC TWT 505 T111L/DT07
(B47004)	NSFC TWT 505 T111L/DT07
(B47006)	NSFC TWT 505 T111L/DT07

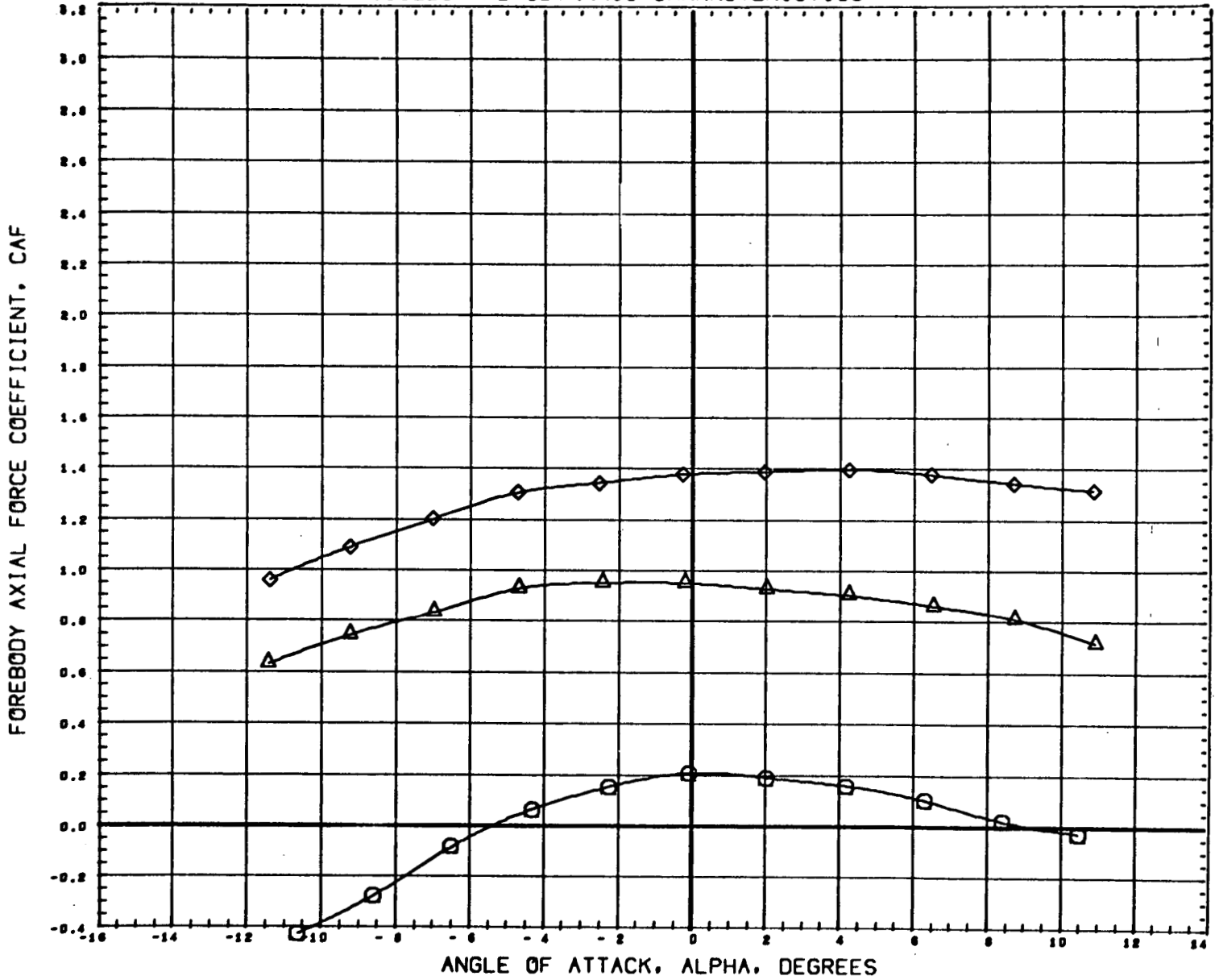
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
01
01D1
01D1L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.400

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	MSFC TWT 505 T111L/DT07
(B47004)	MSFC TWT 505 T111L/DT07
(B47006)	MSFC TWT 505 T111L/DT07

BETA
01
01D1
01D1L2

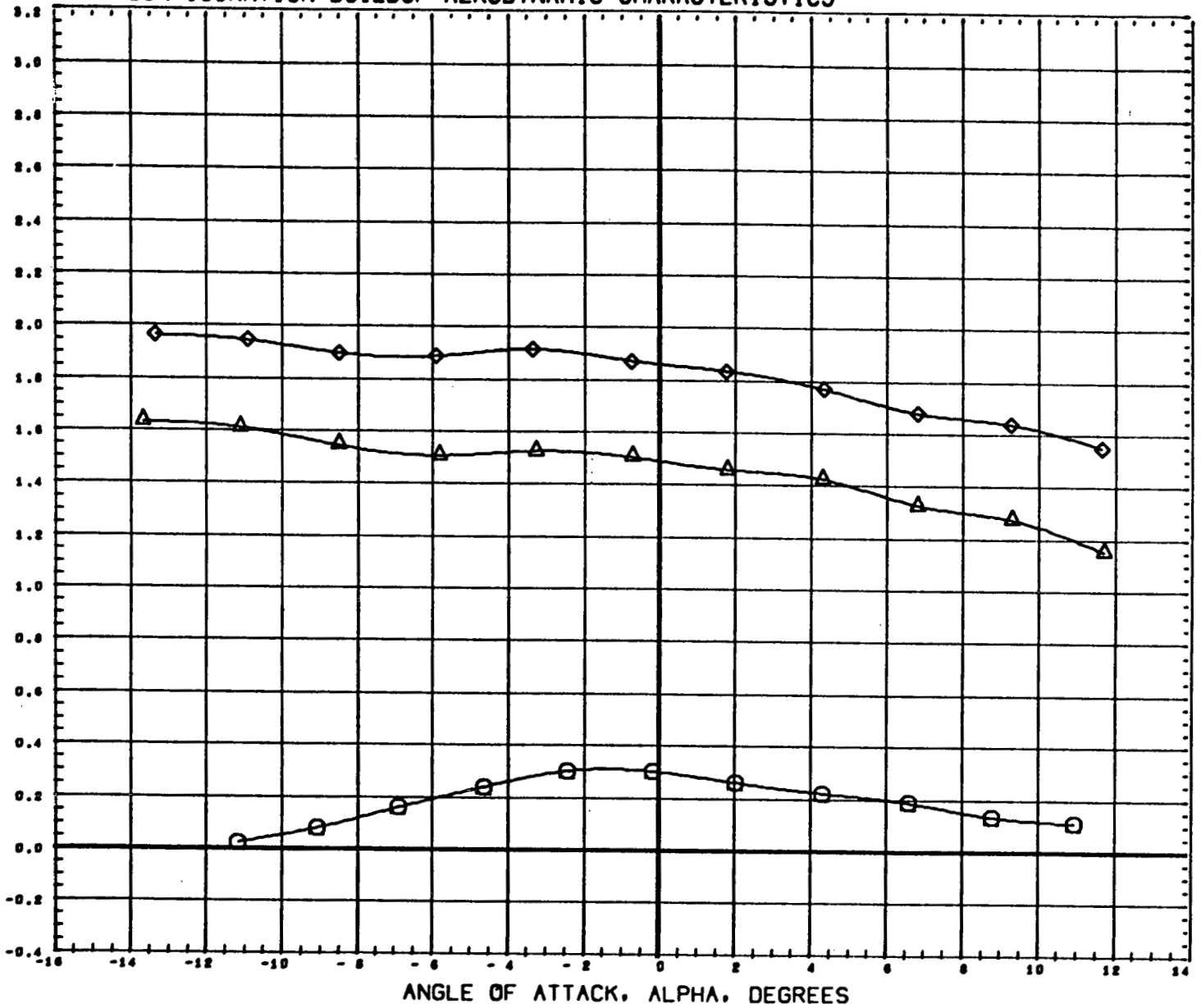
BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.599

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

FOREBODY AXIAL FORCE COEFFICIENT, CAF



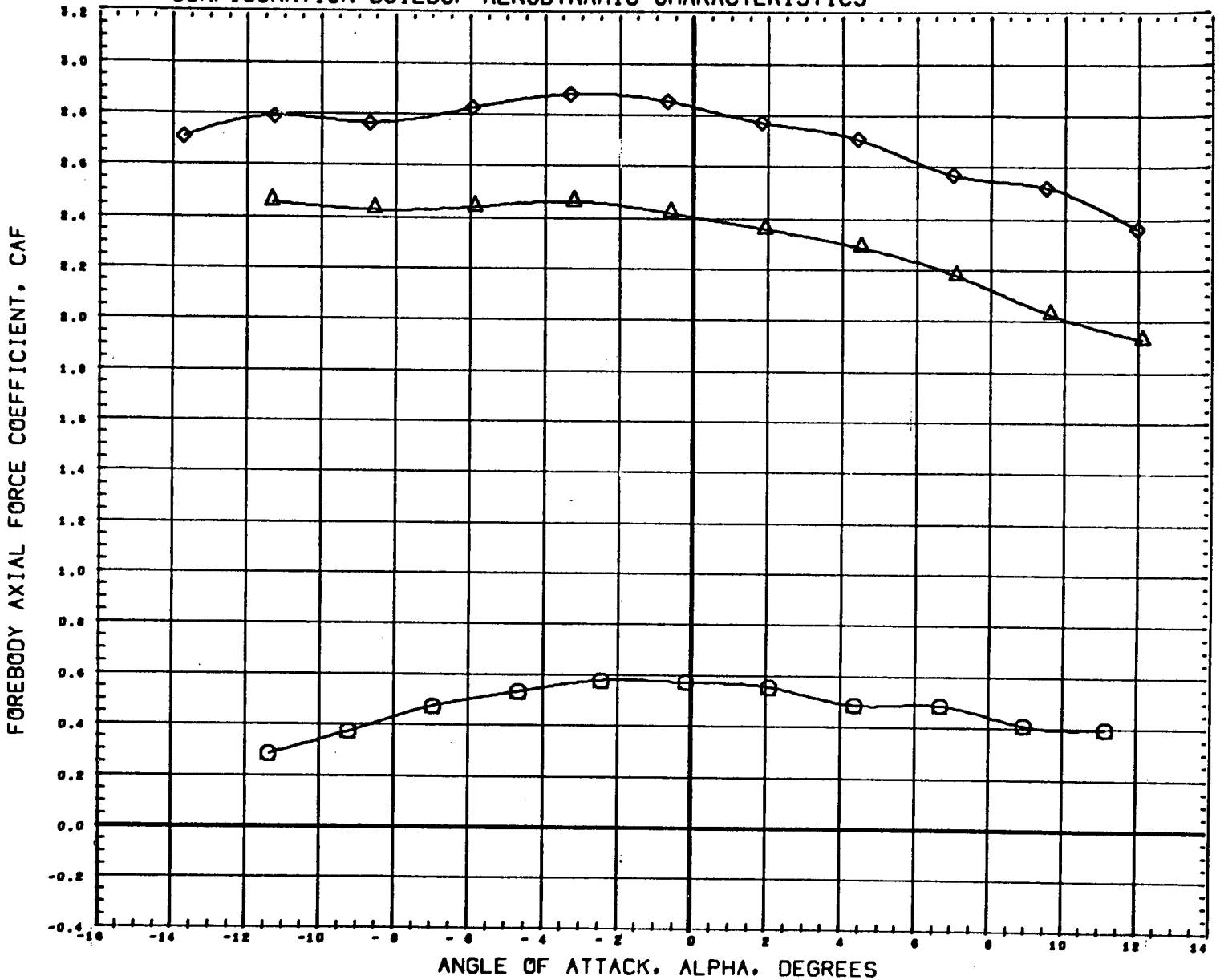
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47001)	NSFC TWT 505 T111L/D107	01
(B47004)	NSFC TWT 505 T111L/D107	0101
(B47006)	NSFC TWT 505 T111L/D107	0101L2

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.8240	INCNES
BREF	0.8240	INCNES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCEN

MACH 0.901

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



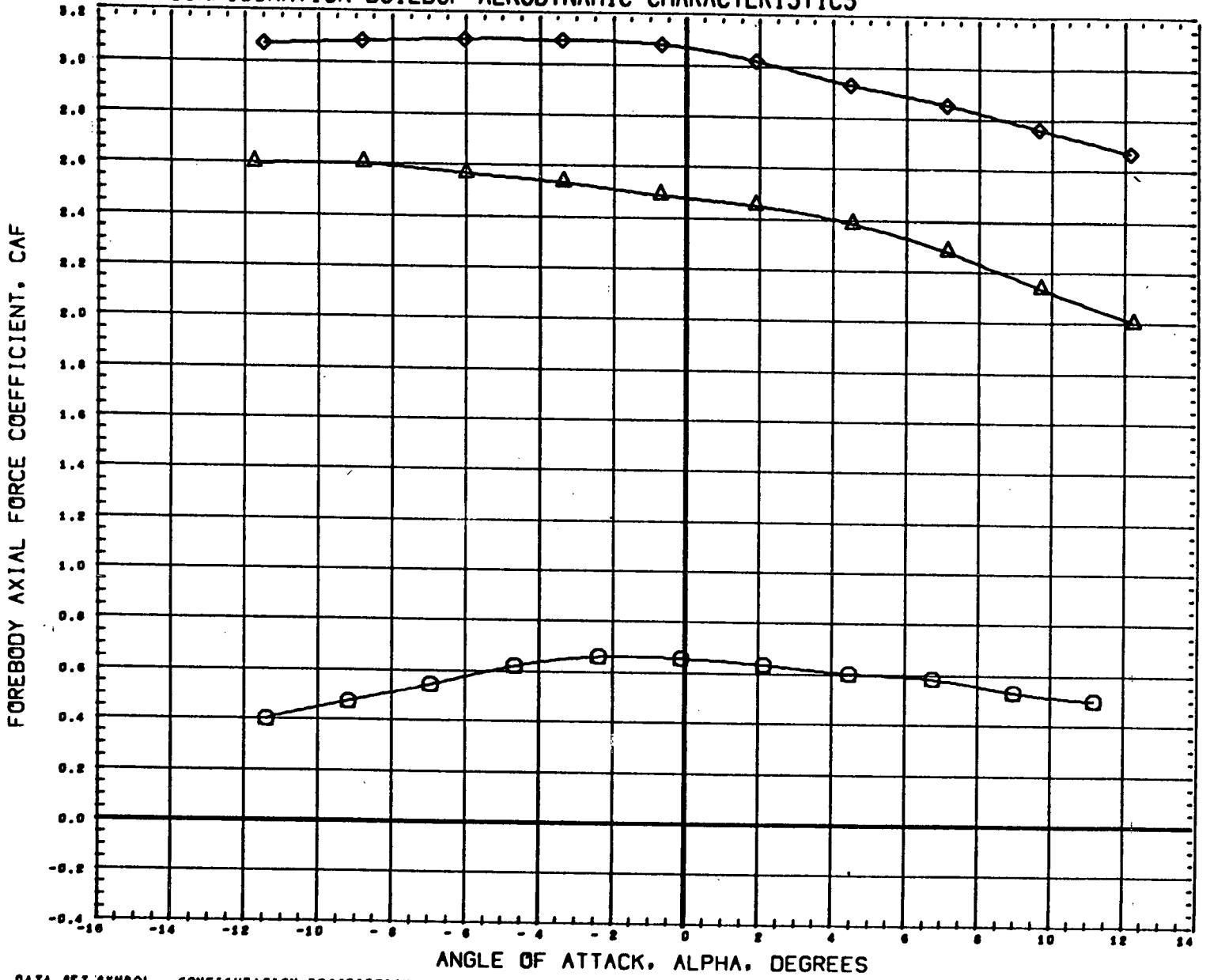
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001) ○	MSFC TWT 305 T111L/DT07
(B47004) ◇	MSFC TWT 305 T111L/DT07
(B47006) △	MSFC TWT 305 T111L/DT07

BETA
01
01D1
01D1L2

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

NACH 0.999

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001) ○	NSFC TWT 505 T111L/D107
(B47004) △	NSFC TWT 505 T111L/D107
(B47006) ◇	NSFC TWT 505 T111L/D107

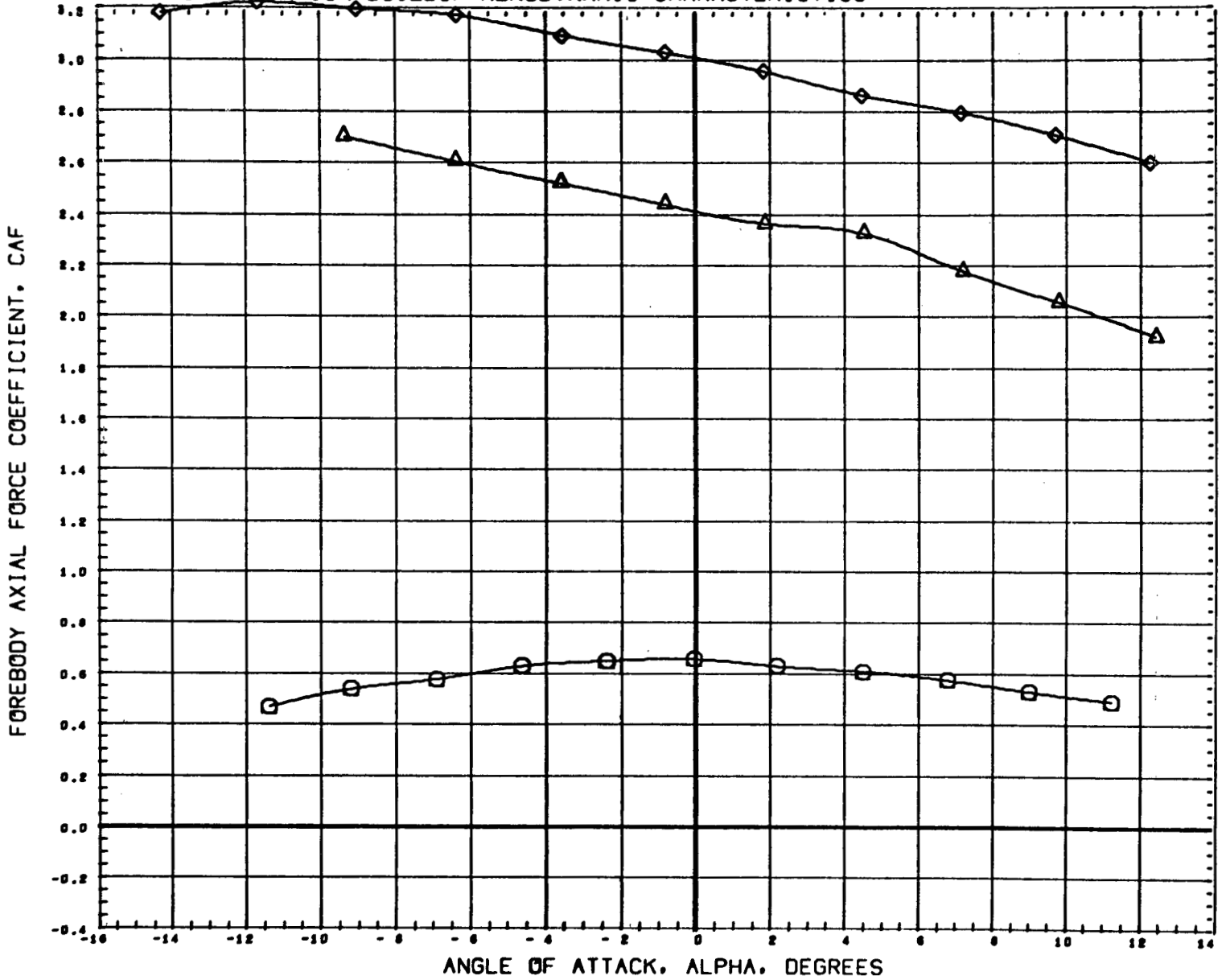
ANGLE OF ATTACK, ALPHA, DEGREES

BETA	
01	0.000
0101	0.000
0101L2	0.000

REFERENCE INFORMATION	
SREF	0.5340 80 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XNRP	2.9170 IN T11
YNRP	0.0000 CORE C
ZNRP	0.0000 CORE C
SCALE	0.4300 PERCENT

NACH 1.099

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	NSFC TWT 505 T111L/DT07
(B47004)	NSFC TWT 505 T111L/DT07
(B47006)	NSFC TWT 505 T111L/DT07

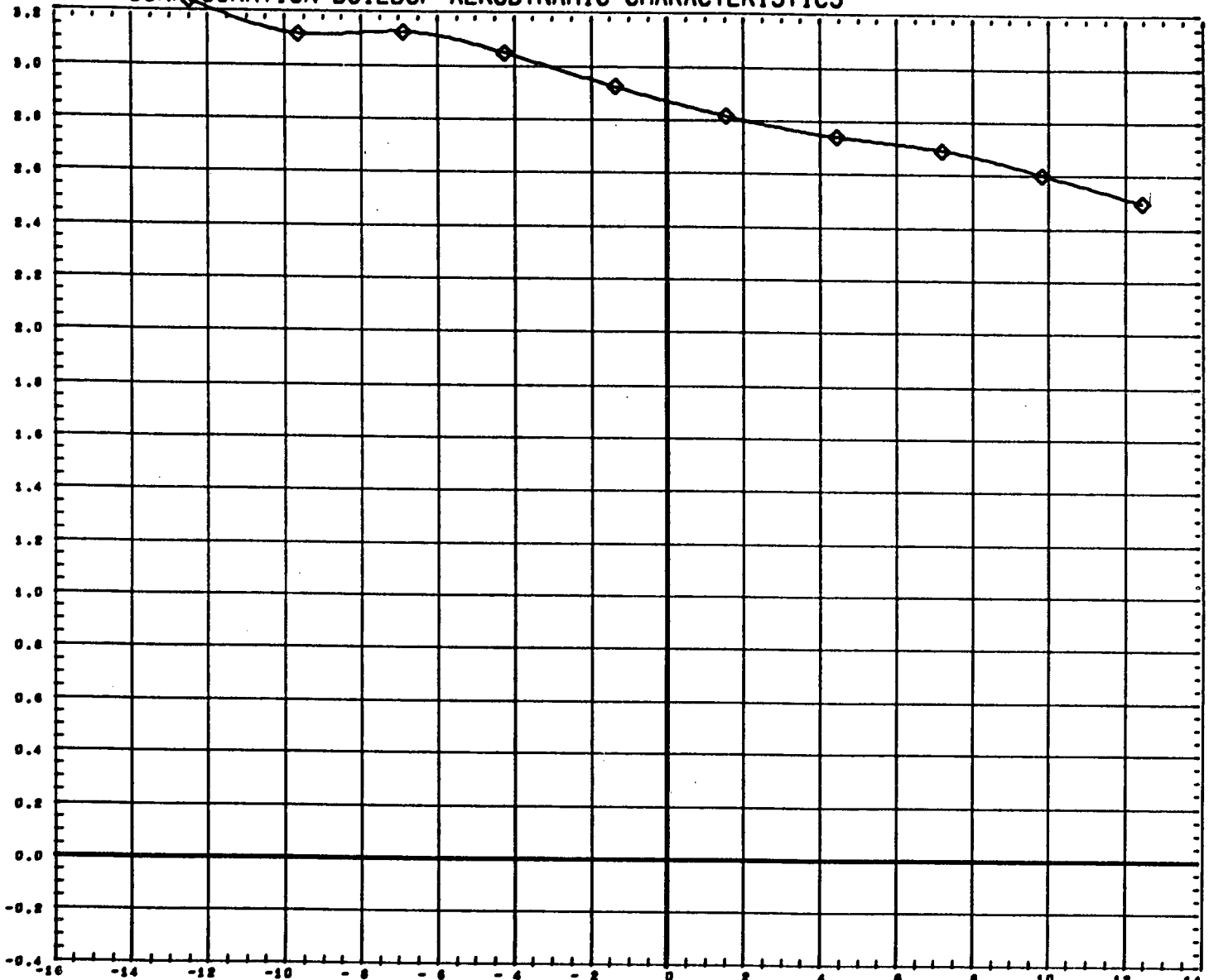
BETA
01
01D1
01D1L2

REFERENCE INFORMATION	
BREF	0.5340 80 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XMRP	2.9170 IN T11
YMRP	0.0000 CORE C
ZMRP	0.0000 CORE C
SCALE	0.4300 PERCENT

NACH 1.198

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

FOREBODY AXIAL FORCE COEFFICIENT, CAF



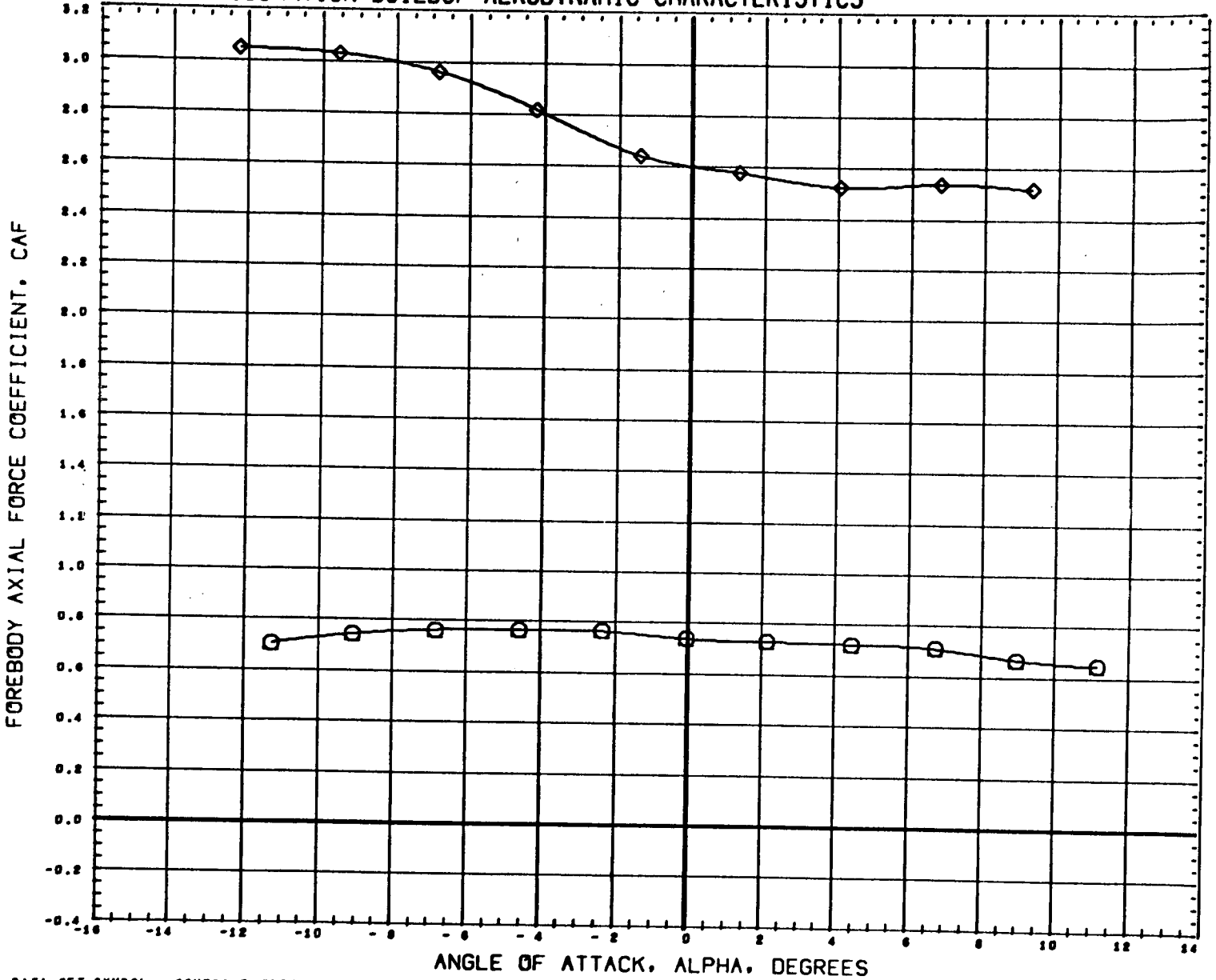
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(B47004)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(B47006)	MSFC TWT 905 T111L/DT07 01D1L2

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
OREF	0.8240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

NACN 1.436

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

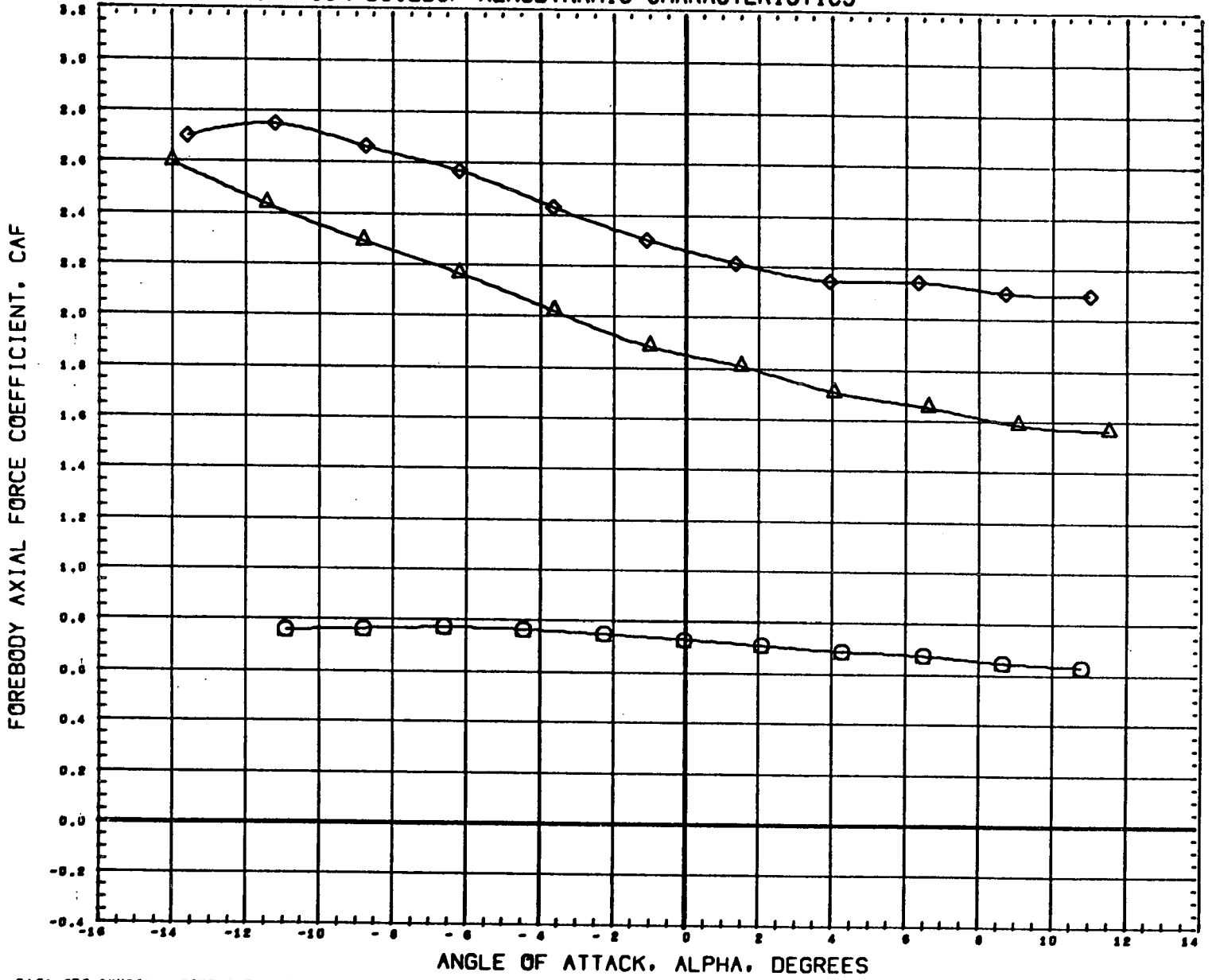


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47001)	MSFC TWT 505 T111L/DT07 01	0.000
(B47004)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(B47006)	MSFC TWT 505 T111L/DT07 01D1L2	0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN T11
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.933

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



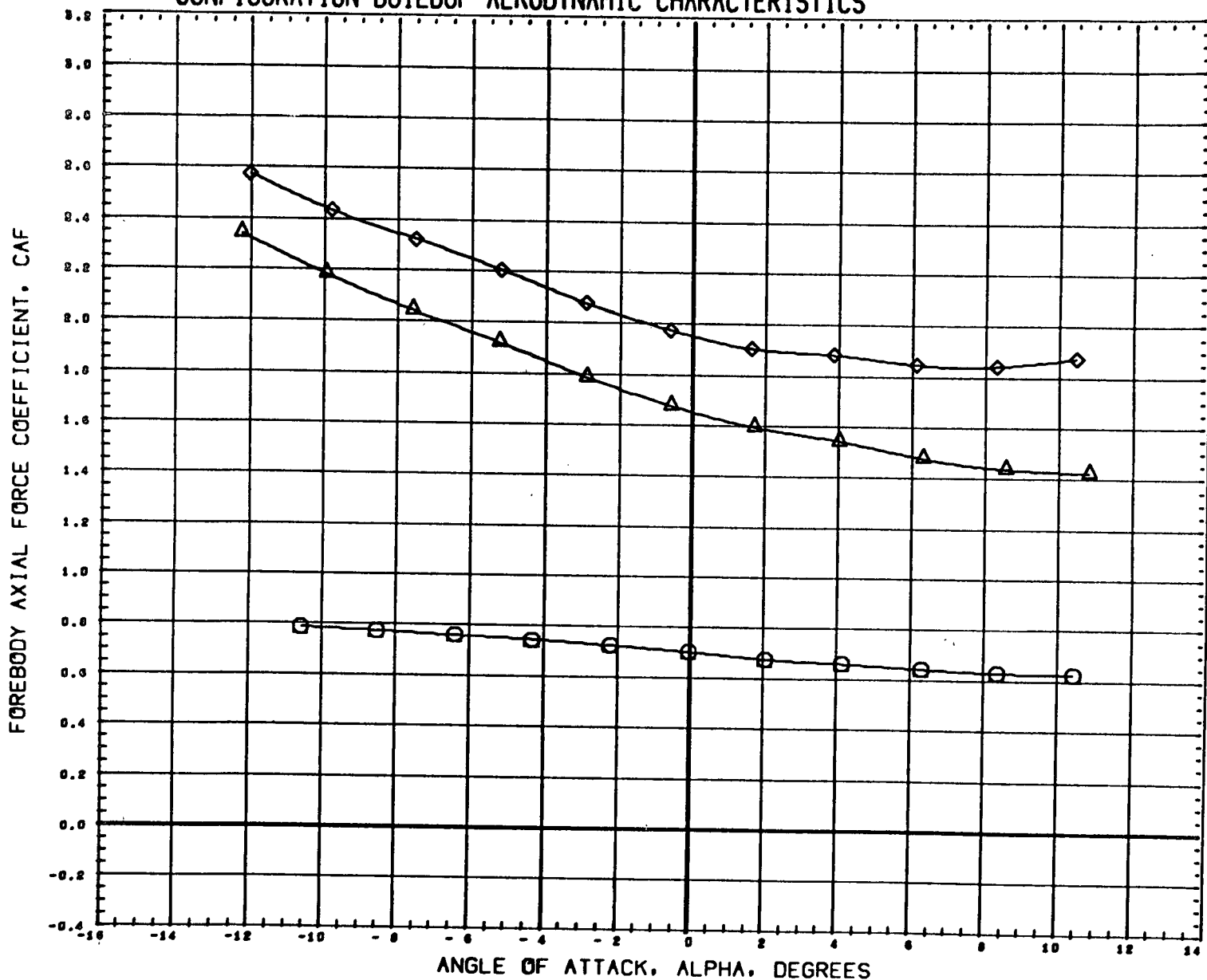
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	NSFC TWT 505 T111L/D107
(B47004)	NSFC TWT 505 T111L/D107
(B47006)	NSFC TWT 505 T111L/D107

BETA
01
0101
0101L2
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.0170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(B47003)	○	MSFC TWT 305 T111L/DT07
(B47004)	△	MSFC TWT 305 T111L/DT07
(B47006)	◇	MSFC TWT 305 T111L/DT07

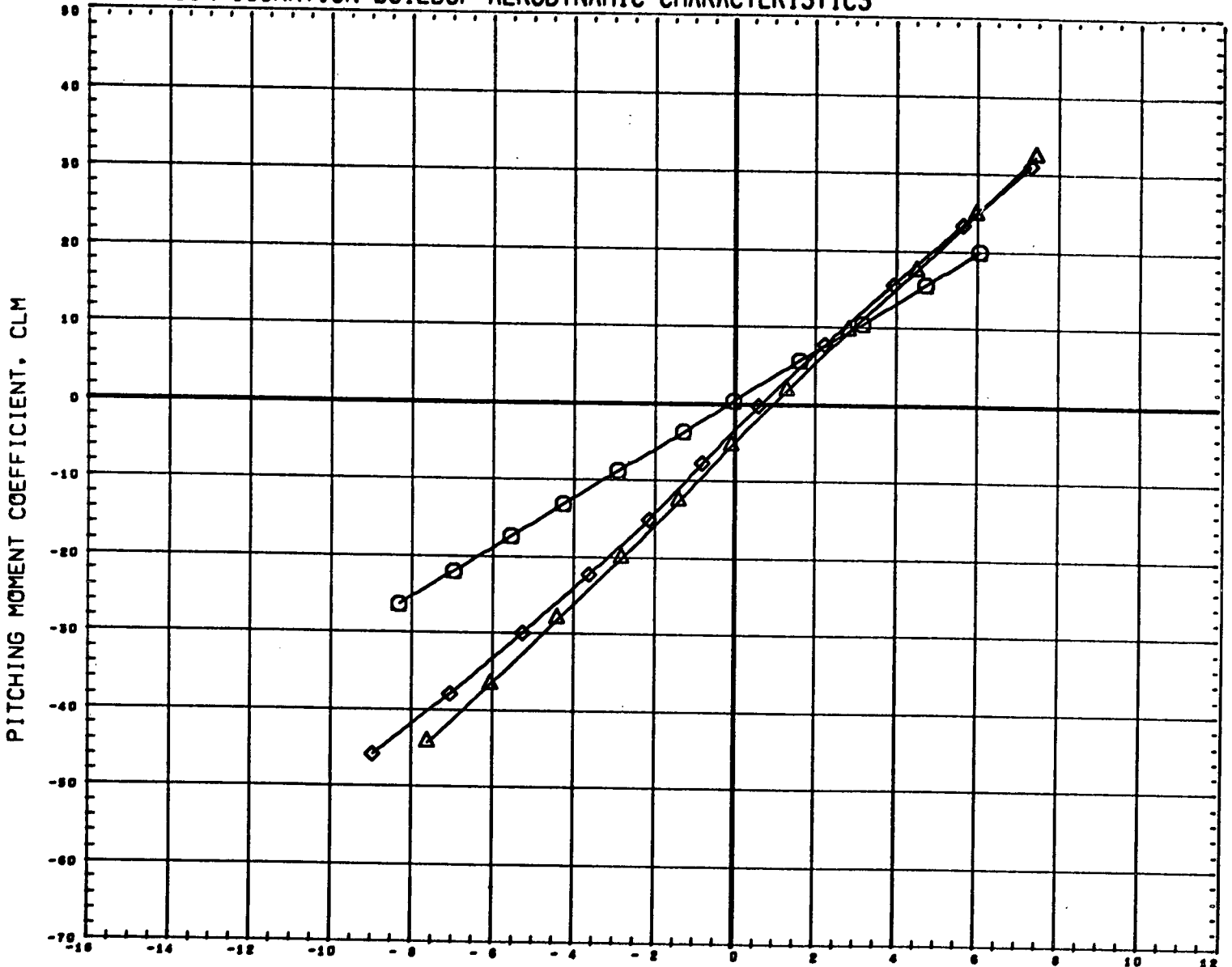
ANGLE OF ATTACK, ALPHA, DEGREES

	BETA
01	0.000
01D1	0.000
01D1L2	0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.400

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



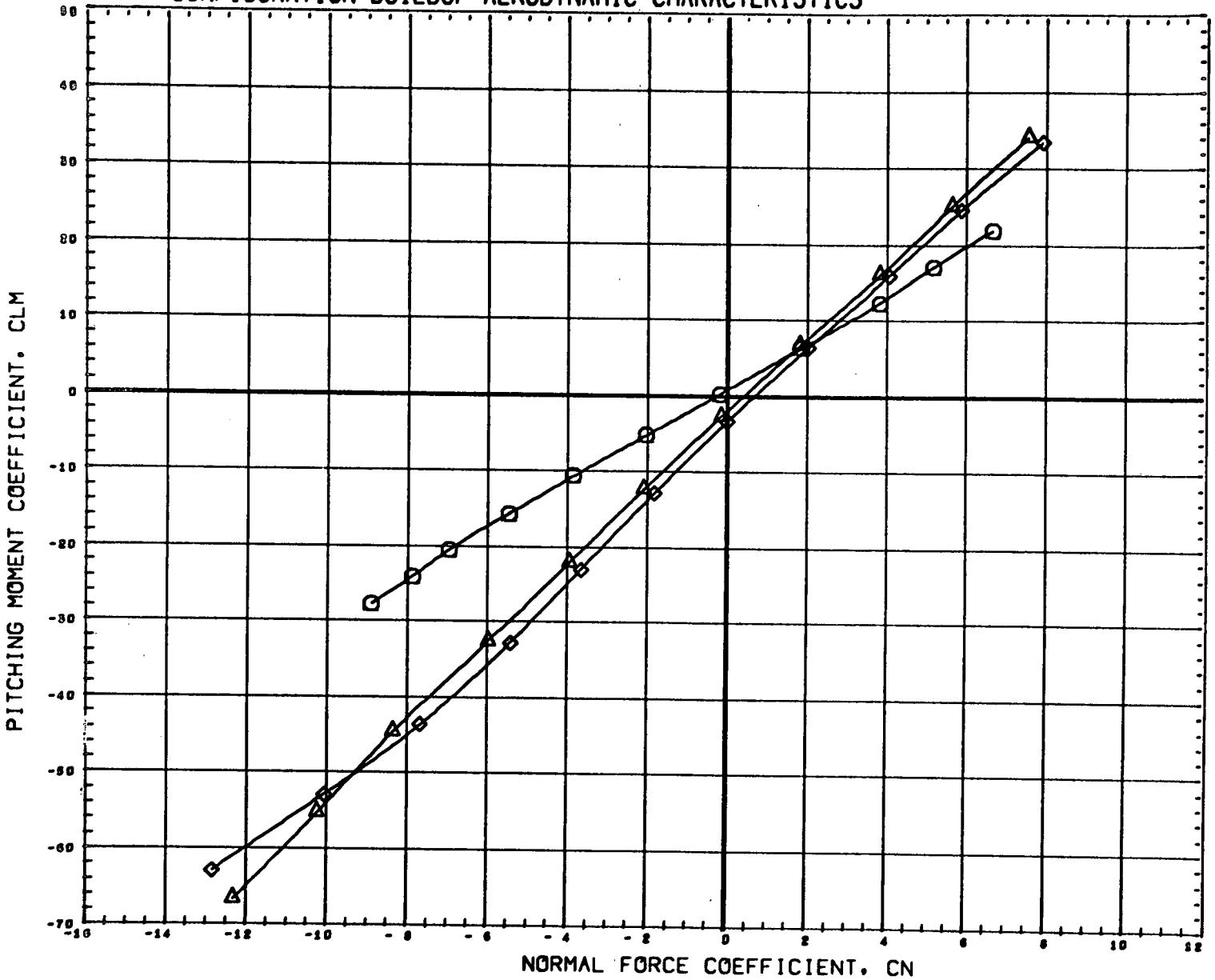
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	MSFC TWT 505 T111L/D107
(B47004)	MSFC TWT 505 T111L/D107
(B47006)	MSFC TWT 505 T111L/D107

BETA
01
0101
0101L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.599

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	MSFC TWT 505 T111L/DT07
(B47004)	MSFC TWT 505 T111L/DT07
(B47006)	MSFC TWT 505 T111L/DT07

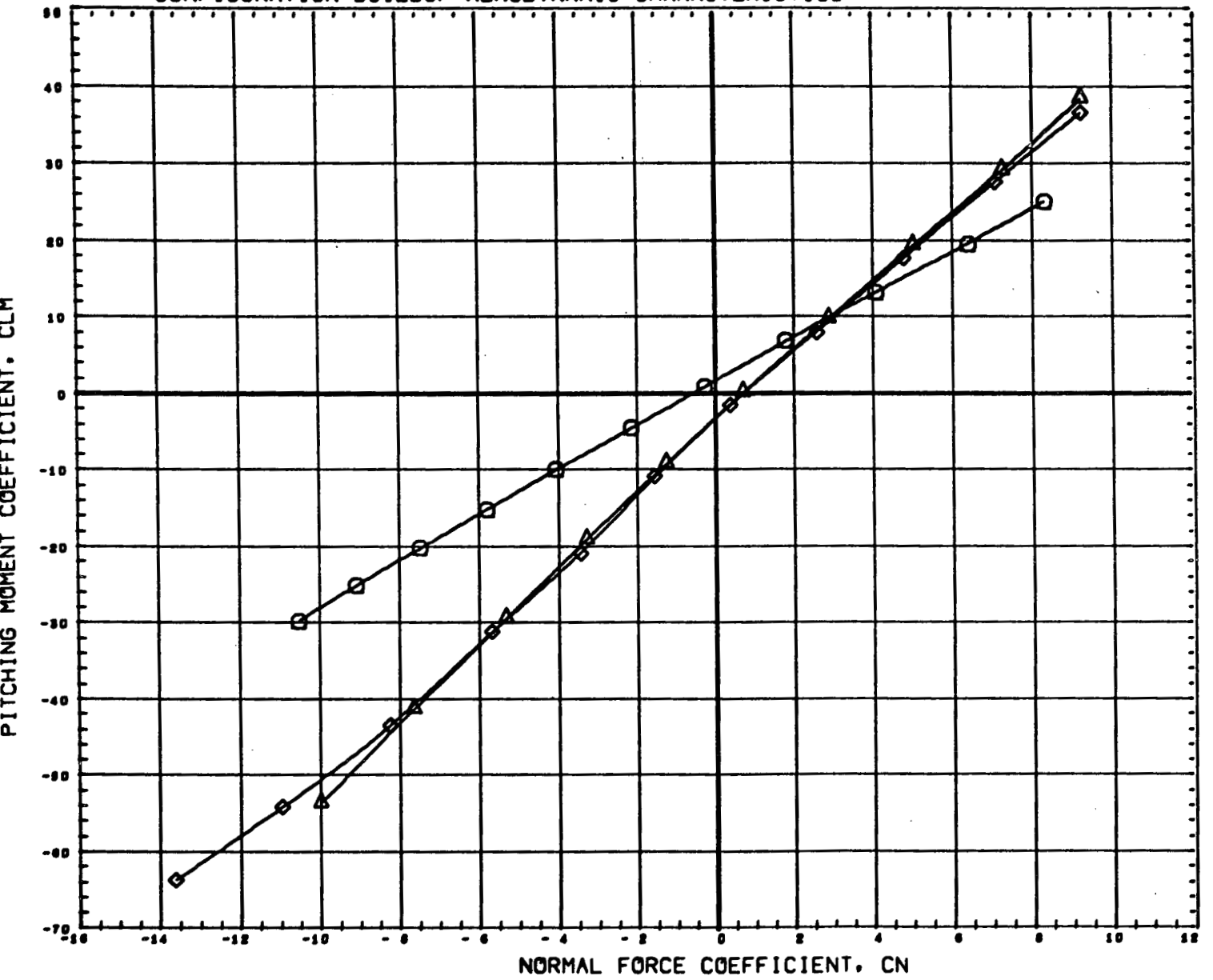
01
0101
0101L2

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.901

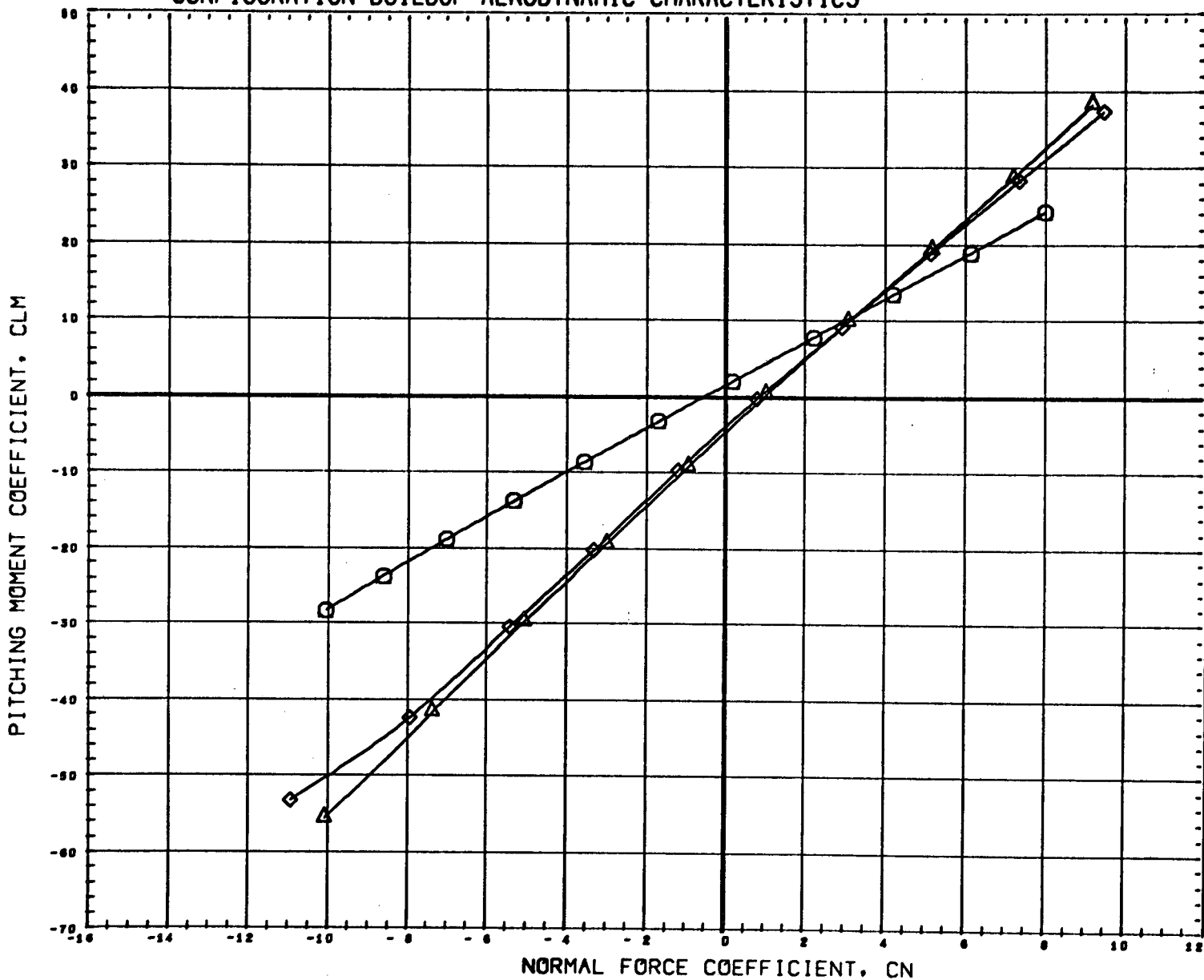
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(B47001)	MSFC TWT 505 T111L/DT07	01	BREF 0.3340 80 INC
(B47004)	MSFC TWT 505 T111L/DT07	01D1	LREF 0.8240 INCHES
(B47006)	MSFC TWT 505 T111L/DT07	01D1L2	BREF 0.8240 INCHES
			XNRP 2.9170 IN TII
			YNRP 0.0000 CORE C
			ZNRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 0.999

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



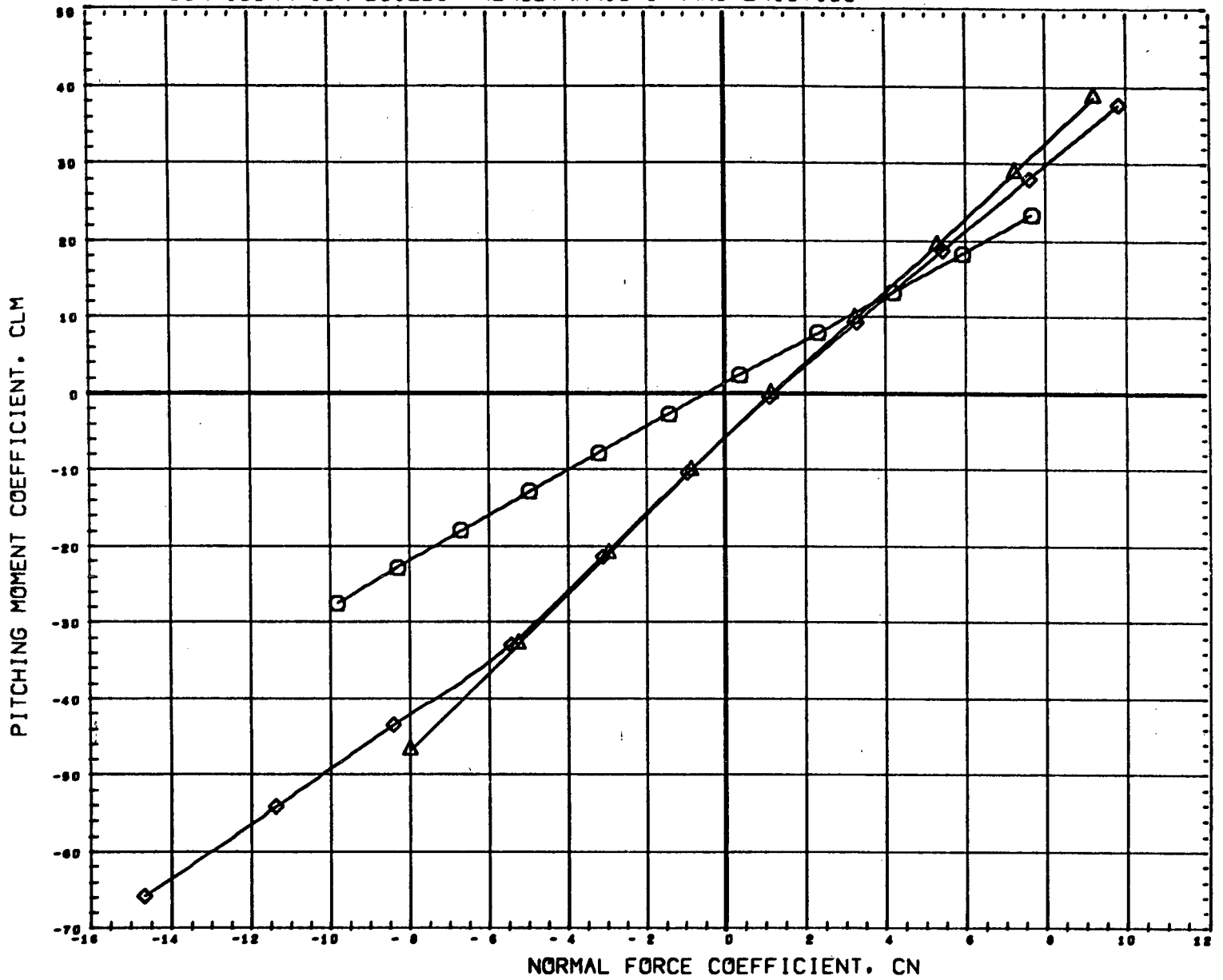
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	○	NSFC TWT 505 T111L/DT07
(B47004)	△	NSFC TWT 505 T111L/DT07
(B47006)	◇	NSFC TWT 505 T111L/DT07

IDENTIFIER	BETA
01	0.000
01D1	0.000
01D1L2	0.000

REFERENCE INFORMATION		
BREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XWRP	2.9170	IN TII
YWRP	0.0000	CORE C
ZWRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.099

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



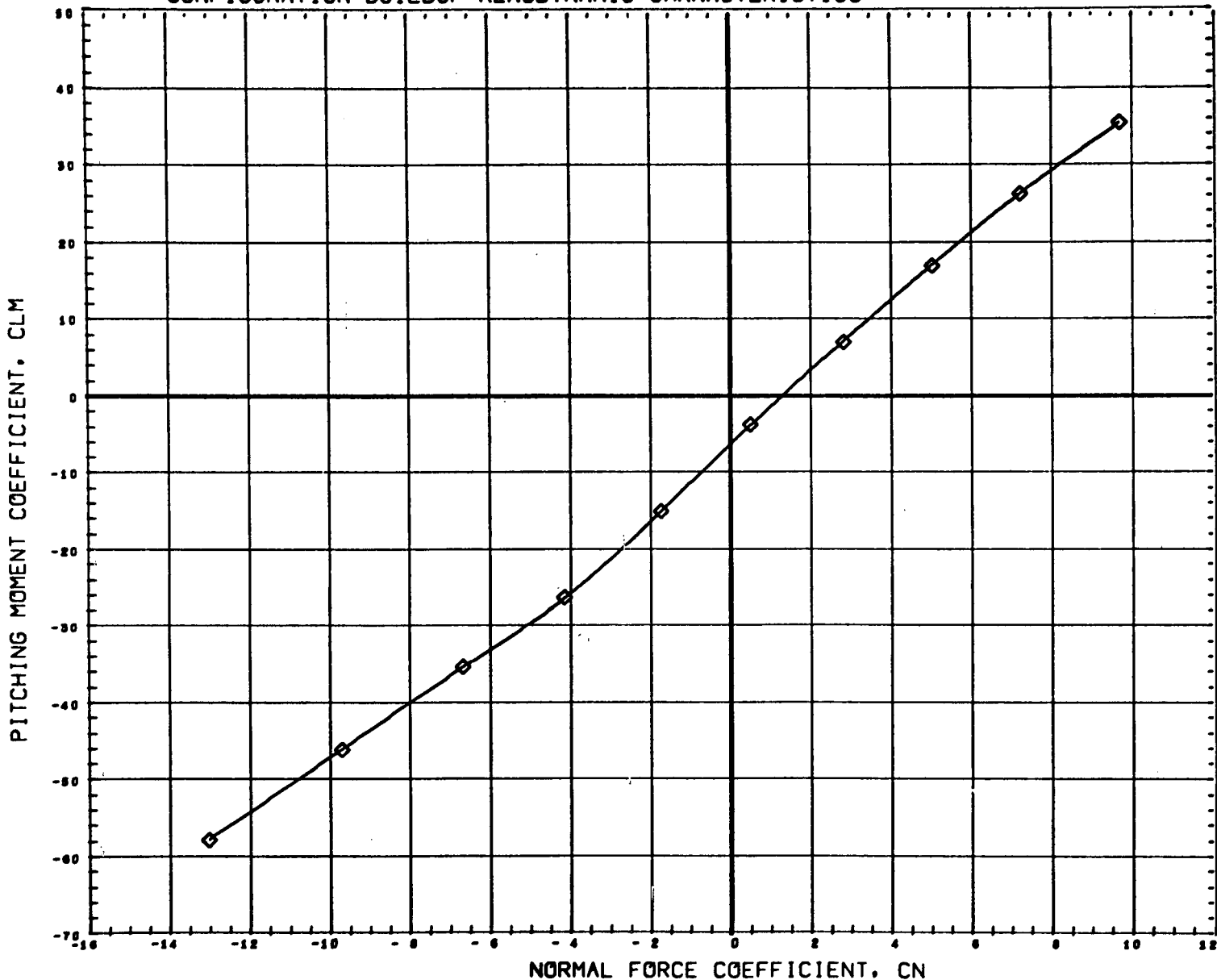
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	NSFC TWT 505 T111L/D107
(B47004)	NSFC TWT 505 T111L/D107
(B47006)	NSFC TWT 505 T111L/D107

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.9240	INCHES
BREF	0.9240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.198

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



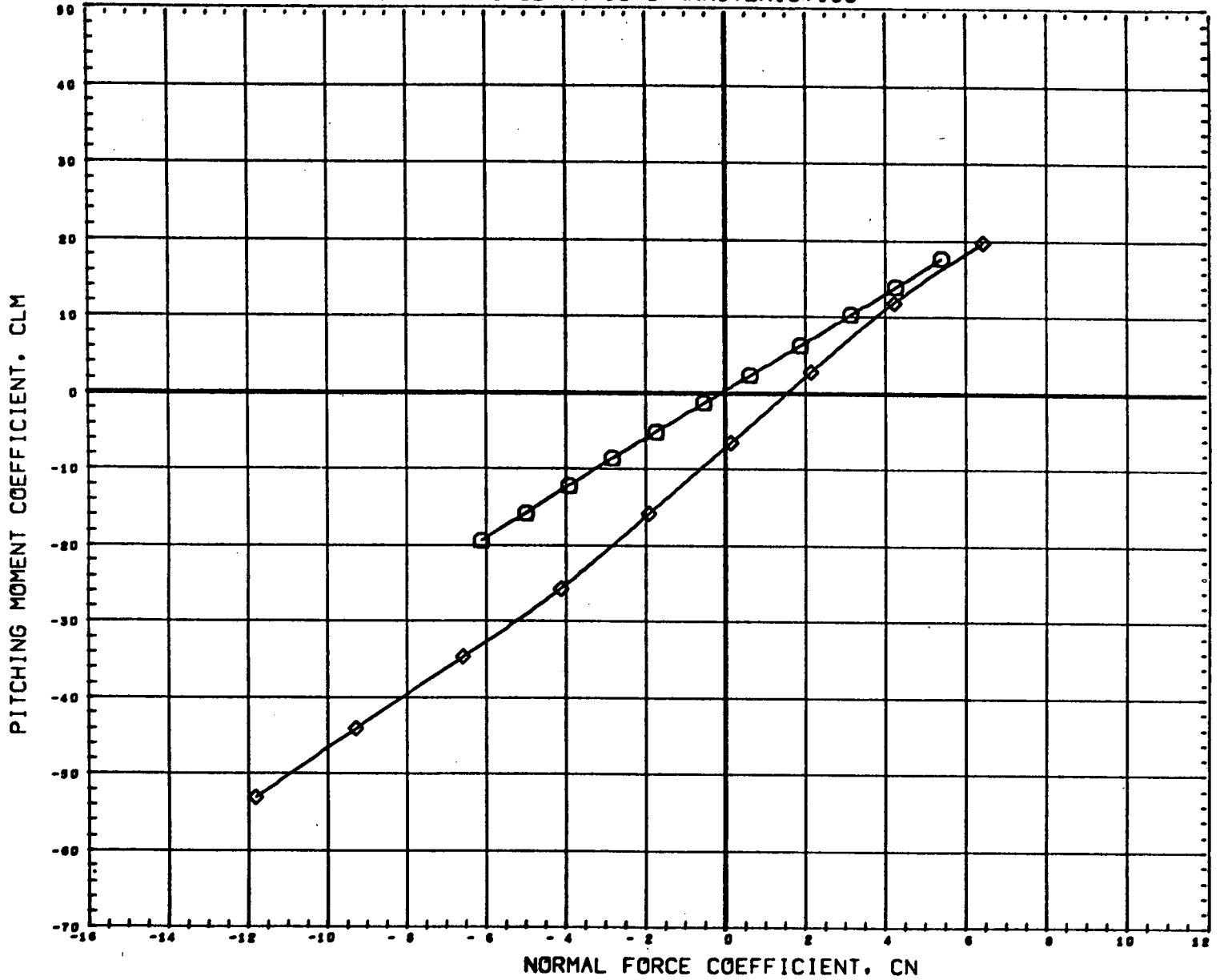
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(B47004)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(B47006)	MSFC TWT 303 TAIL/DTD7 0101L2

BETA
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	0.9340 50 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XMRP	2.9170 IN TII
YMRP	0.0000 CORE C
ZMRP	0.0000 CORE C
SCALE	0.4300 PERCENT

NACN 1.456

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

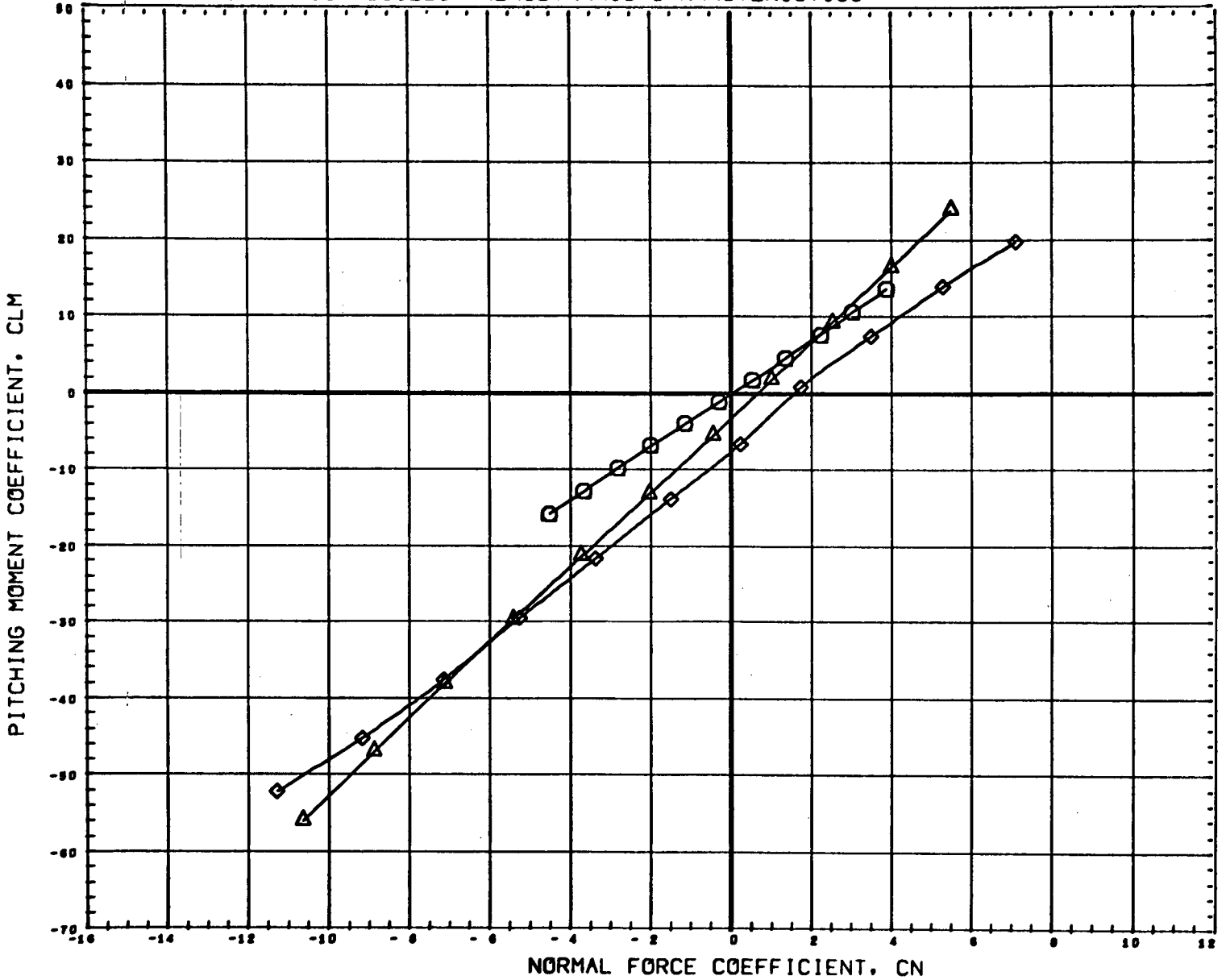


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47001)	MSFC TWT 305 T111L/DT07 01	0.000
(B47004)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(B47006)	MSFC TWT 305 T111L/DT07 01D1L2	0.000

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
VMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.955

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



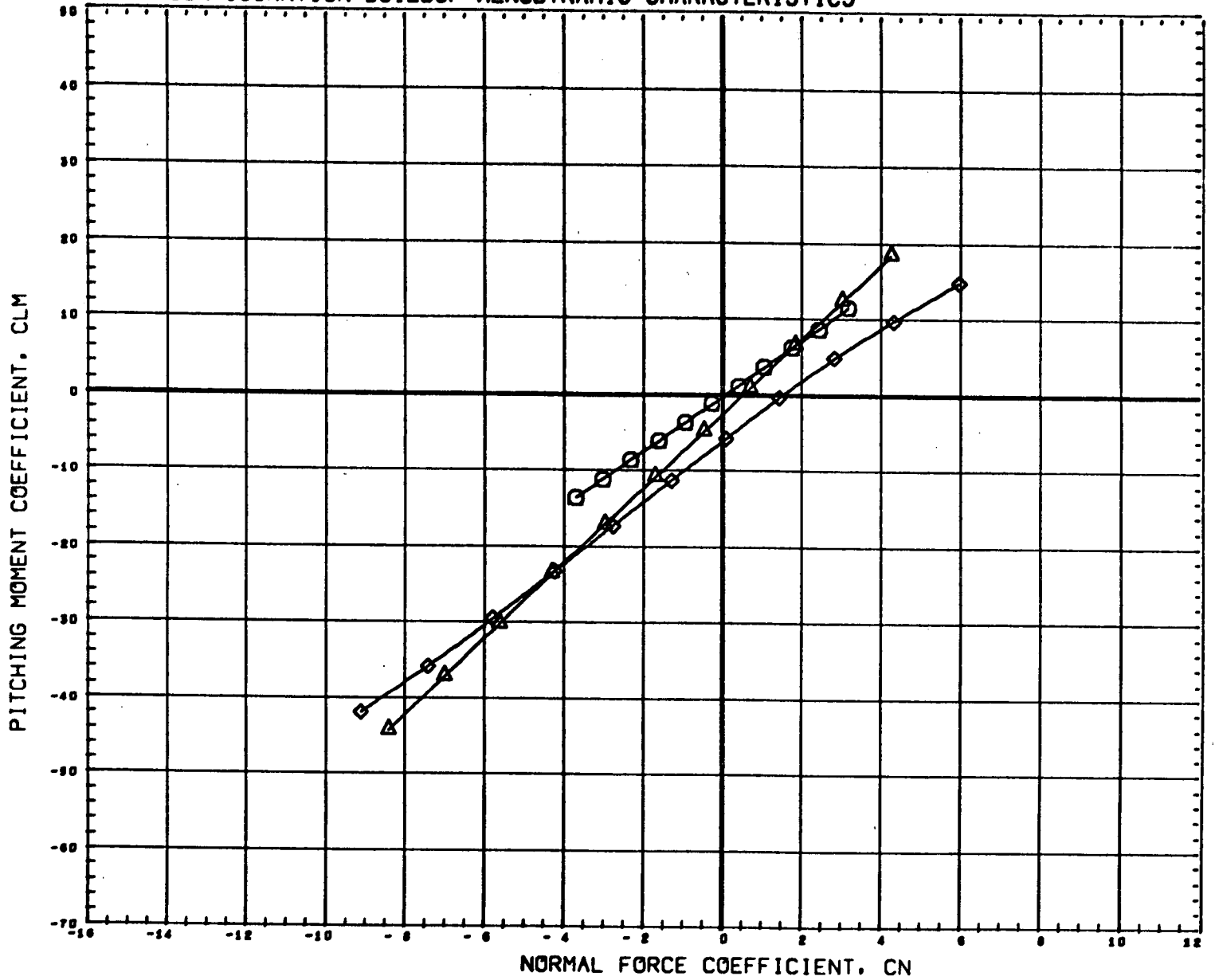
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47001)	NSFC TWT 505 T111L/D107
(B47004)	NSFC TWT 505 T111L/D107
(B47006)	NSFC TWT 505 T111L/D107

BETA
01
01D1
01D1L2

REFERENCE INFORMATION	
SREF	0.9340 80 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XMRP	2.9170 IN T11
YMRP	0.0000 CORE C
ZMRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47003)	MSFC TWT 505 T111L/DY07
(B47004)	MSFC TWT 505 T111L/DY07
(B47006)	MSFC TWT 505 T111L/DY07

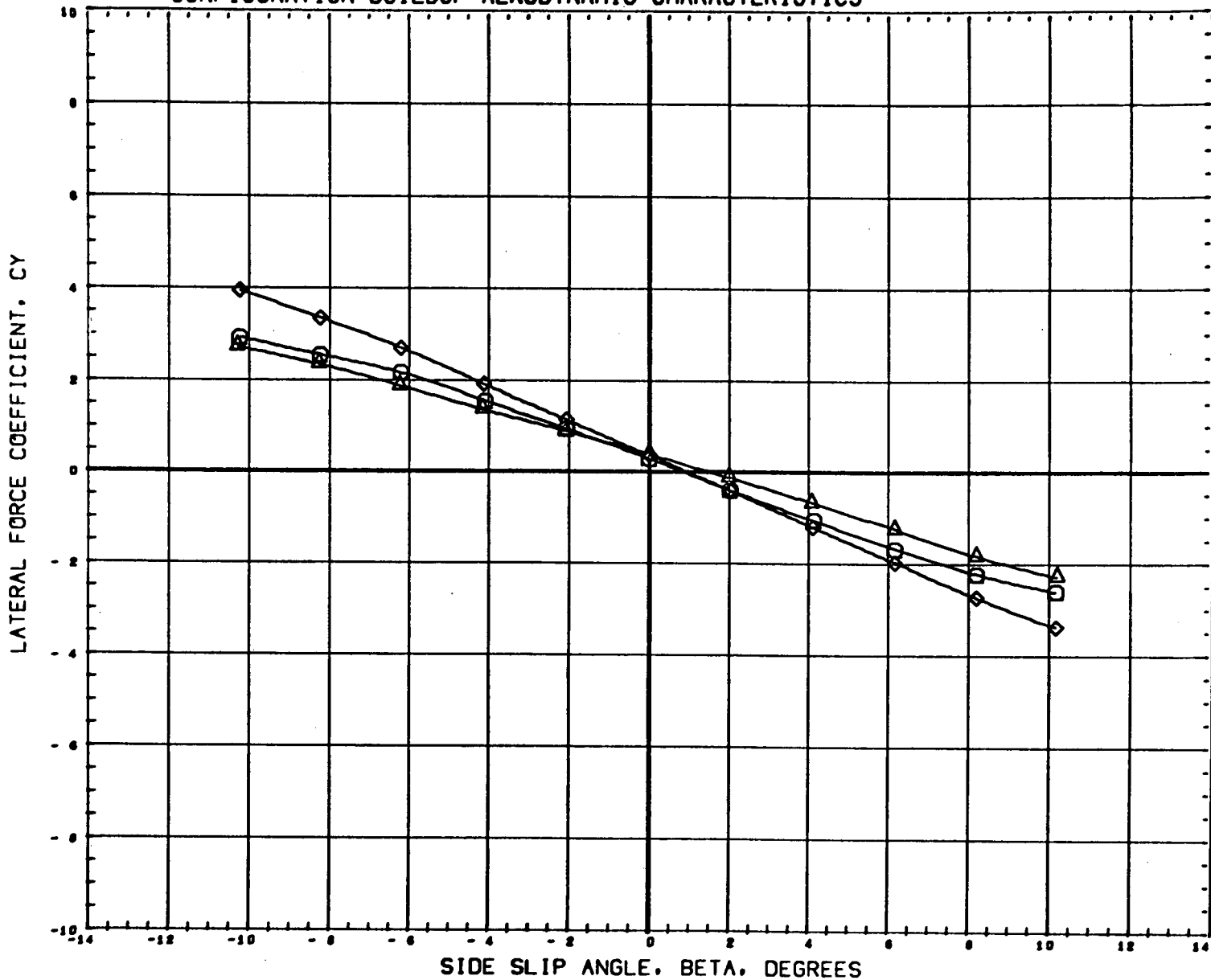
01
0101
0101L2

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.480

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



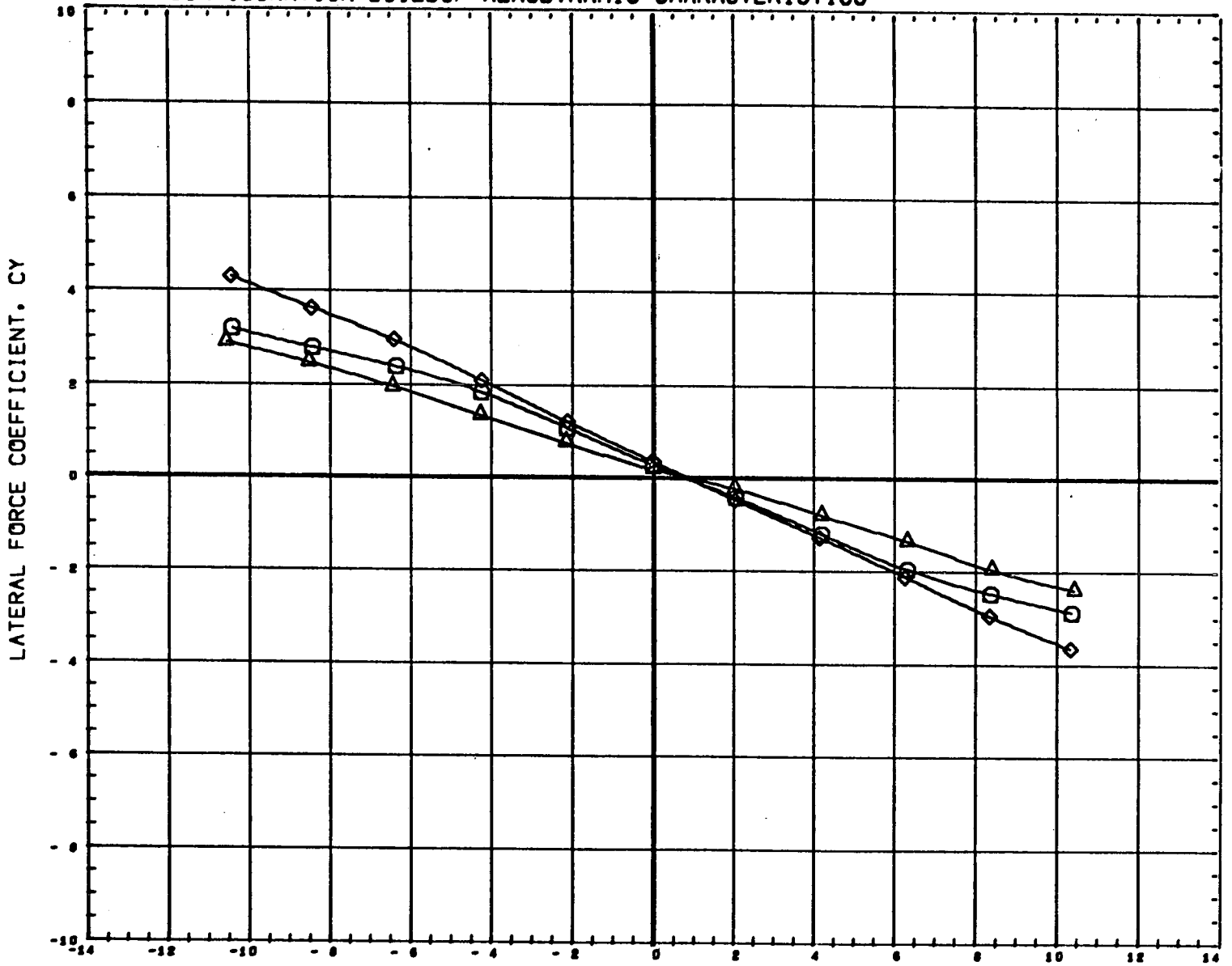
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47005)	NSFC TMT 505 T111L/D107
(R47006)	NSFC TMT 505 T111L/D107
(R47007)	NSFC TMT 505 T111L/D107

01	ALPHA	0.000
0101		0.000
0101L2		0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.0170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.001

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003) ○	NSFC TWT S03 T111L/D107
(R47005) △	NSFC TWT S03 T111L/D107
(R47007) ◇	NSFC TWT S03 T111L/D107

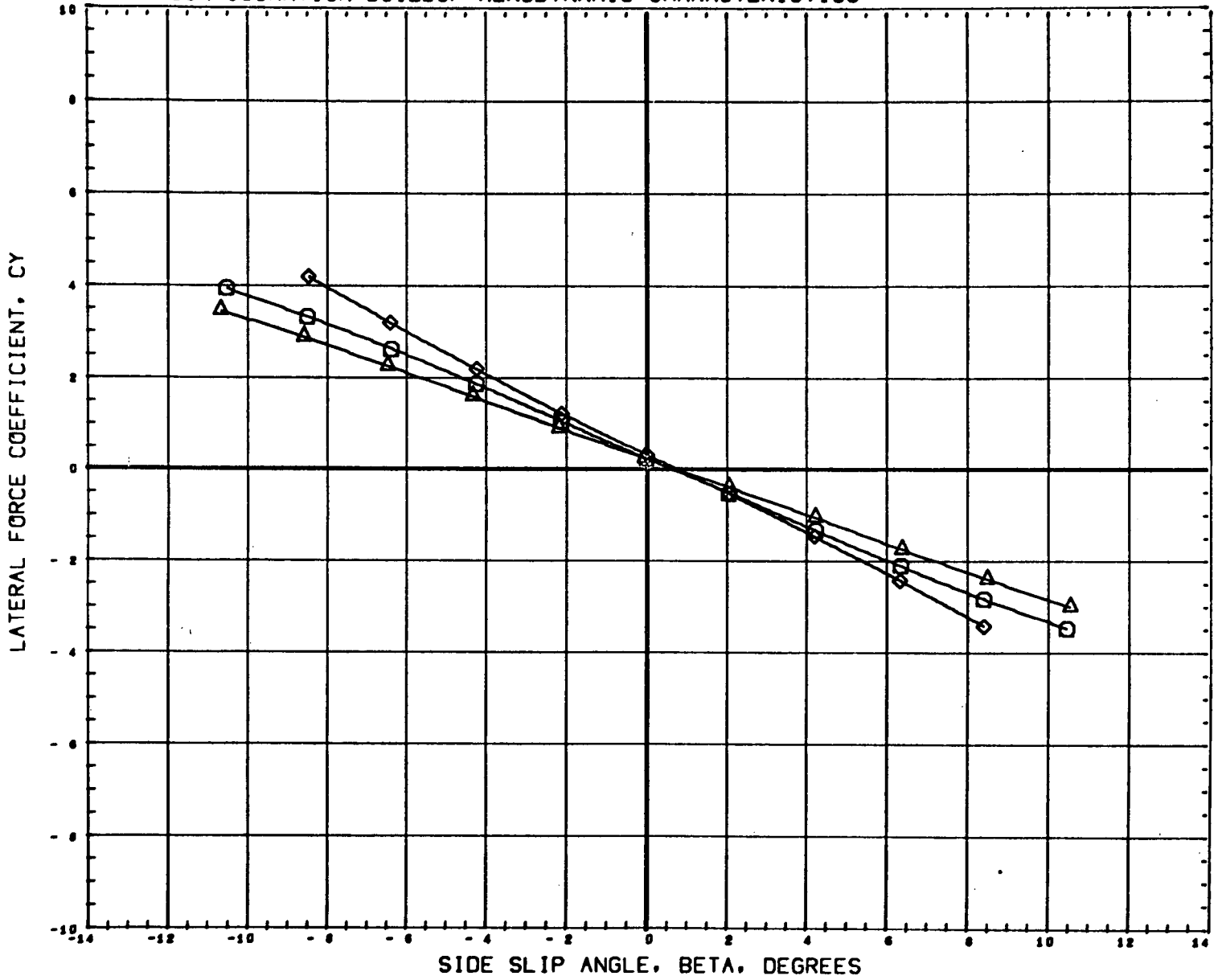
SIDE SLIP ANGLE, BETA, DEGREES

ALPHA
01
0101
0101L2

REFERENCE INFORMATION		
SREF	0.8340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.900

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



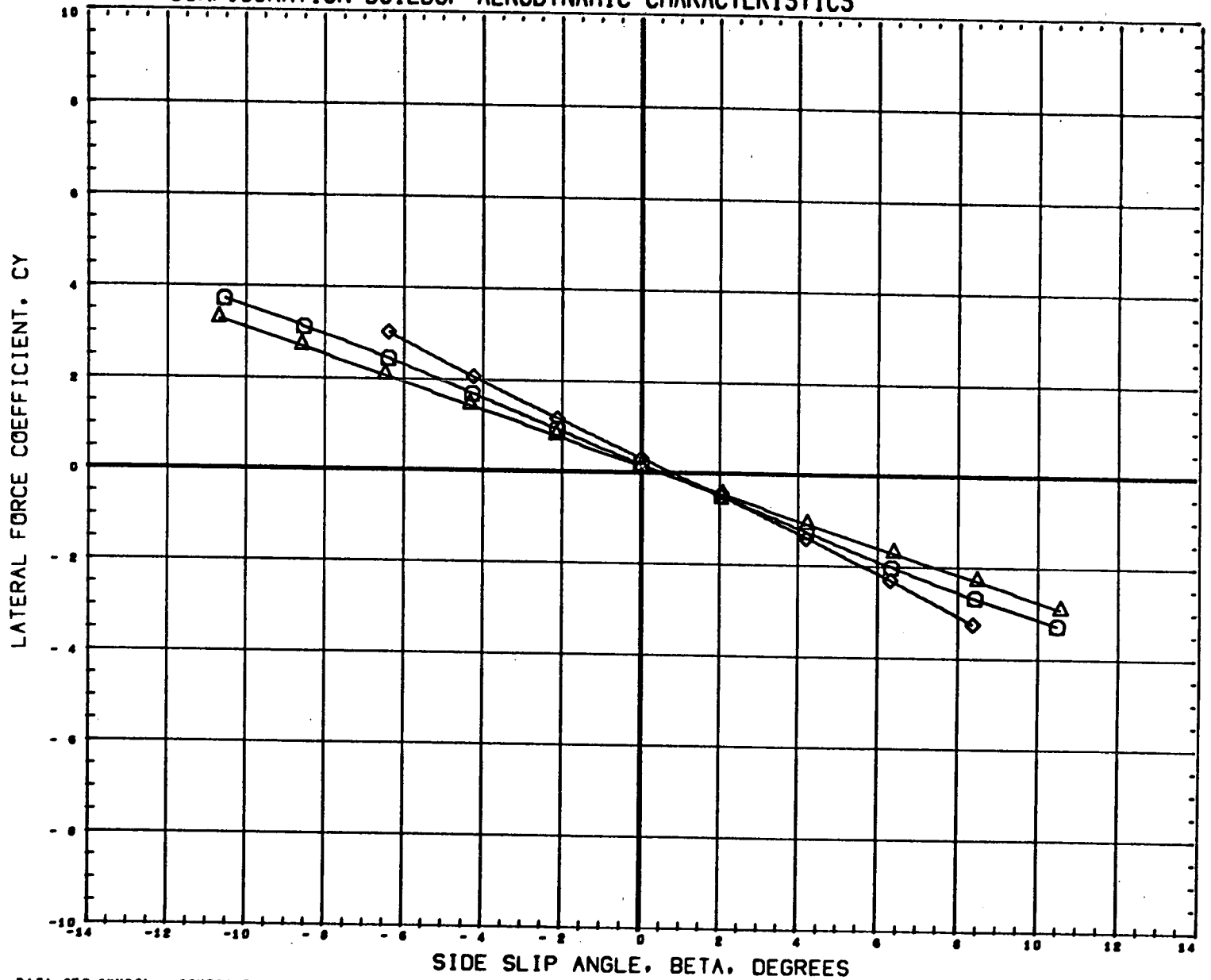
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 305 T111L/DT07
(R47005)	MSFC TWT 305 T111L/DT07
(R47007)	MSFC TWT 305 T111L/DT07

ALPHA
01
0101
0101L2

REFERENCE INFORMATION		
SRFP	0.5340	30 INC
LRFP	0.0240	INCHES
DRFP	0.0240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.001

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47005) ○	NSFC TWT 505 T111L/D107
(R47005) △	NSFC TWT 505 T111L/D107
(R47007) ◇	NSFC TWT 505 T111L/D107

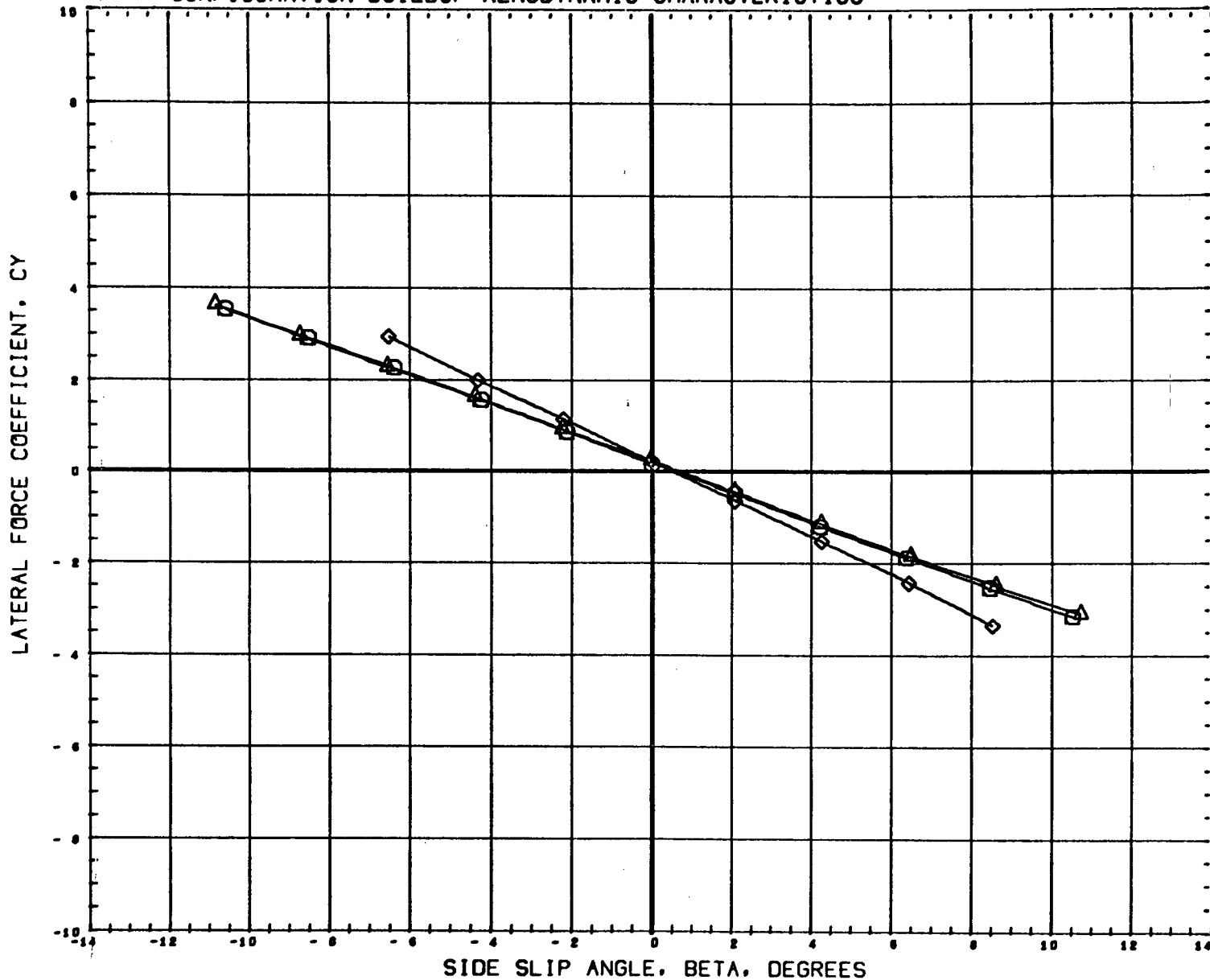
SIDE SLIP ANGLE, BETA, DEGREES

	ALPHA
D1	0.000
D1D1	0.000
D1D1L2	0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.100

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



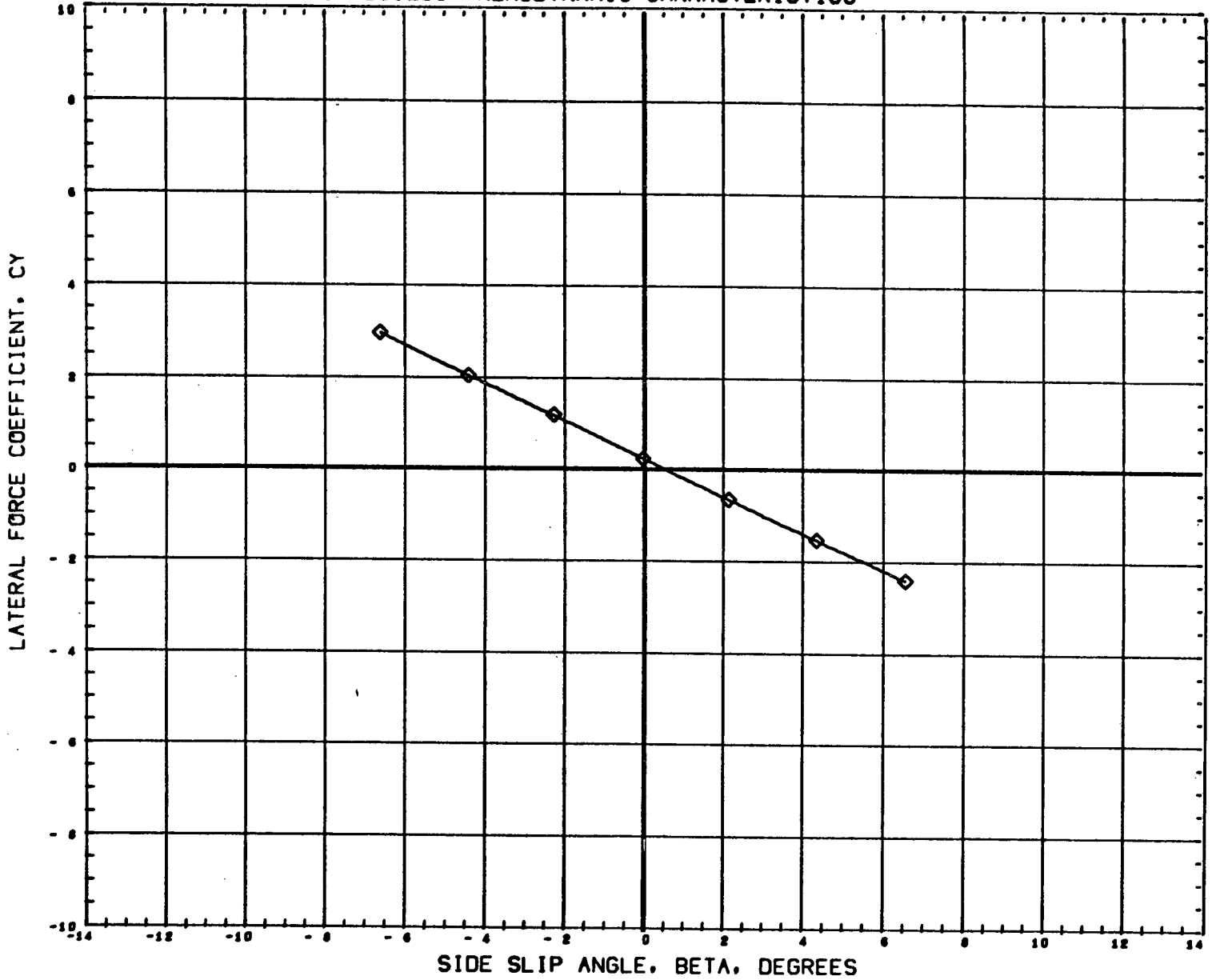
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/D107
(R47005)	MSFC TWT 505 T111L/D107
(R47007)	MSFC TWT 505 T111L/D107

ALPHA
01
0101
0101L2
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.207

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



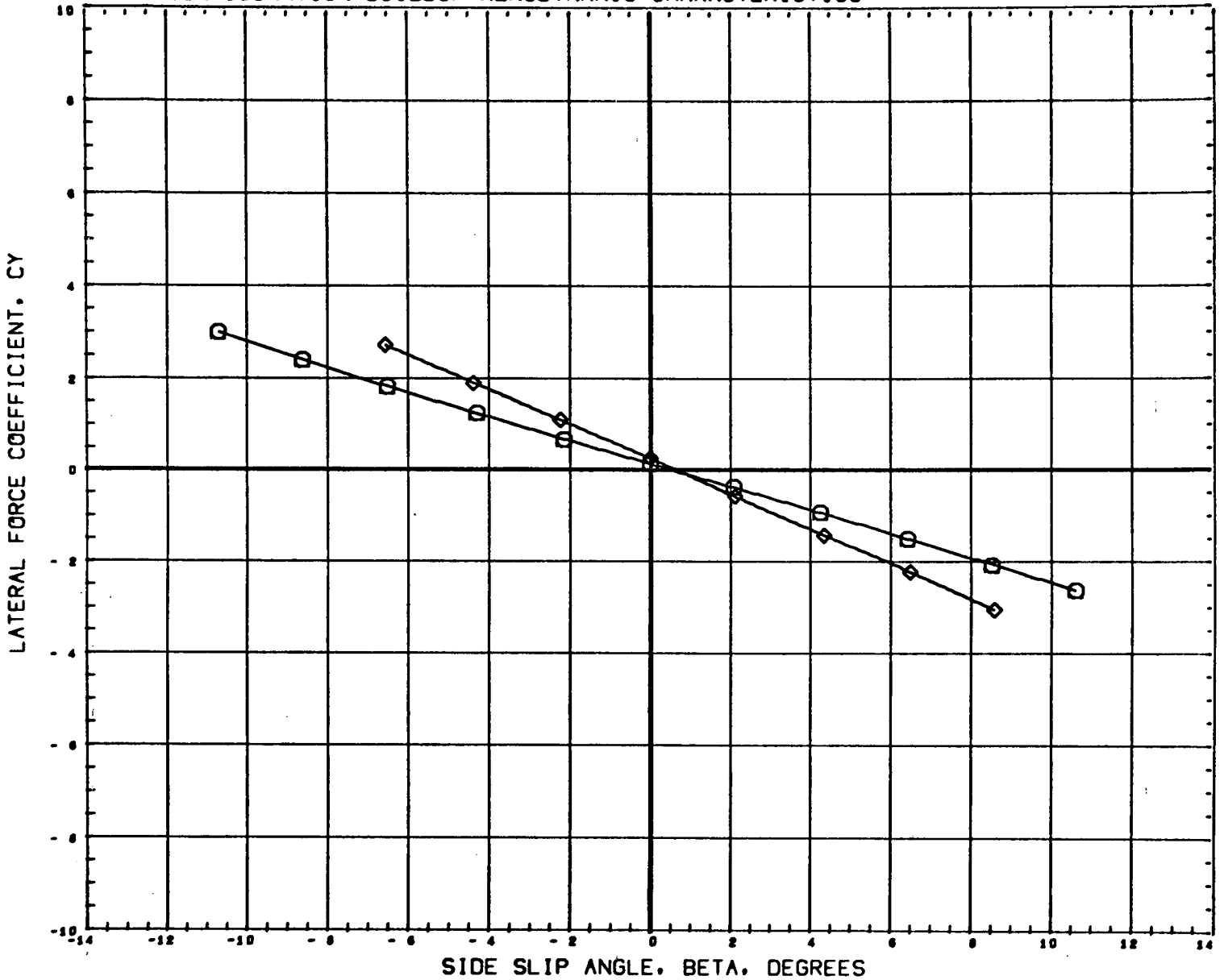
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(R47005)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(R47007)	MSFC TWT 503 T111L/D107 0101LZ

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREP	0.3340	80 INC
LREP	0.0240	INCHES
BREP	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.460

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

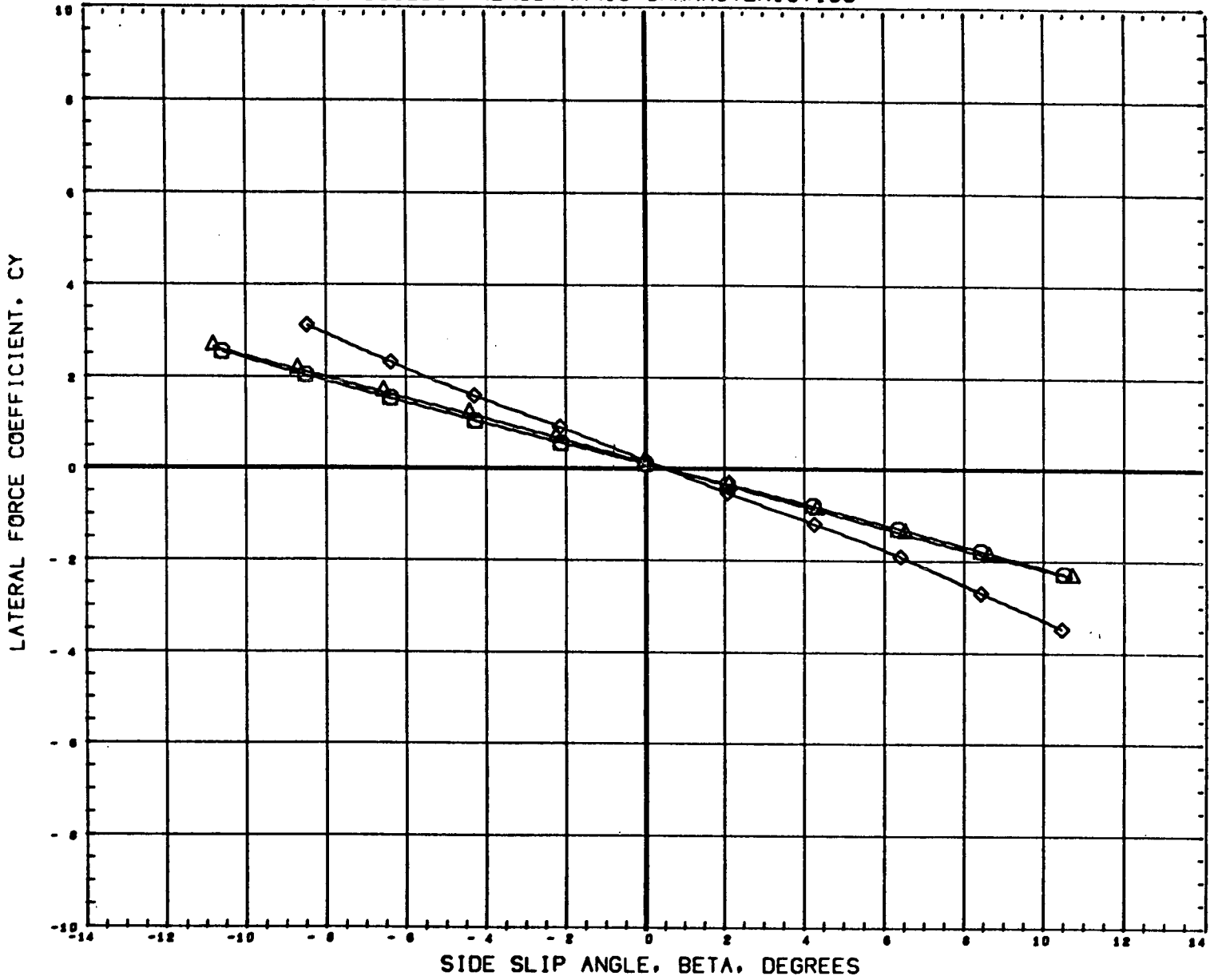


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47003)	MSFC TWT 305 T111L/DT07 01	0.000
(R47005)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(R47007)	MSFC TWT 305 T111L/DT07 01D1L2	0.000

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XHRP	2.9170	IN T11
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.965

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 503 T111L/D1D7
(R47005)	MSFC TWT 503 T111L/D1D7
(R47007)	MSFC TWT 503 T111L/D1D7

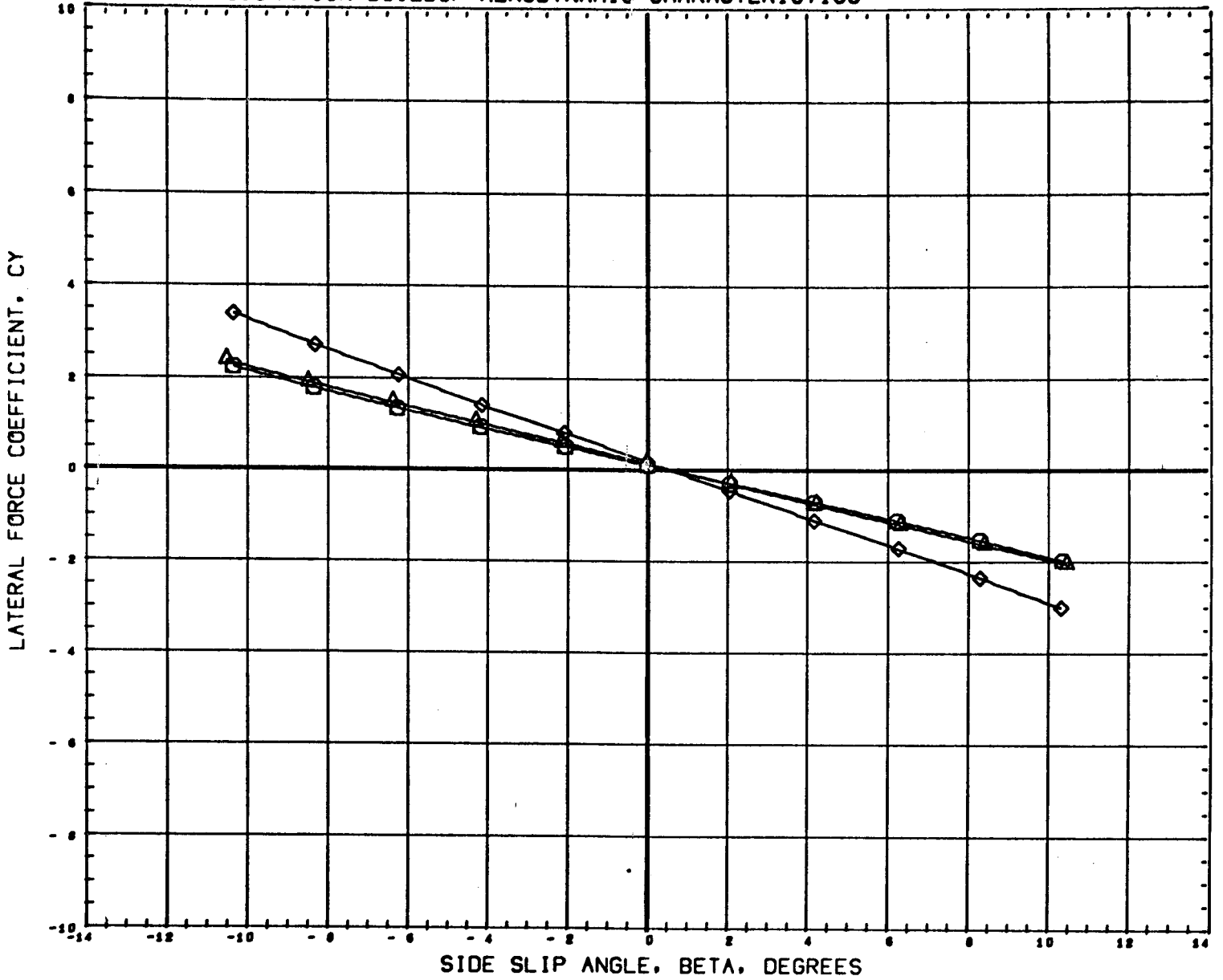
SIDE SLIP ANGLE, BETA, DEGREES

ALPHA
01
01D1
01D1L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



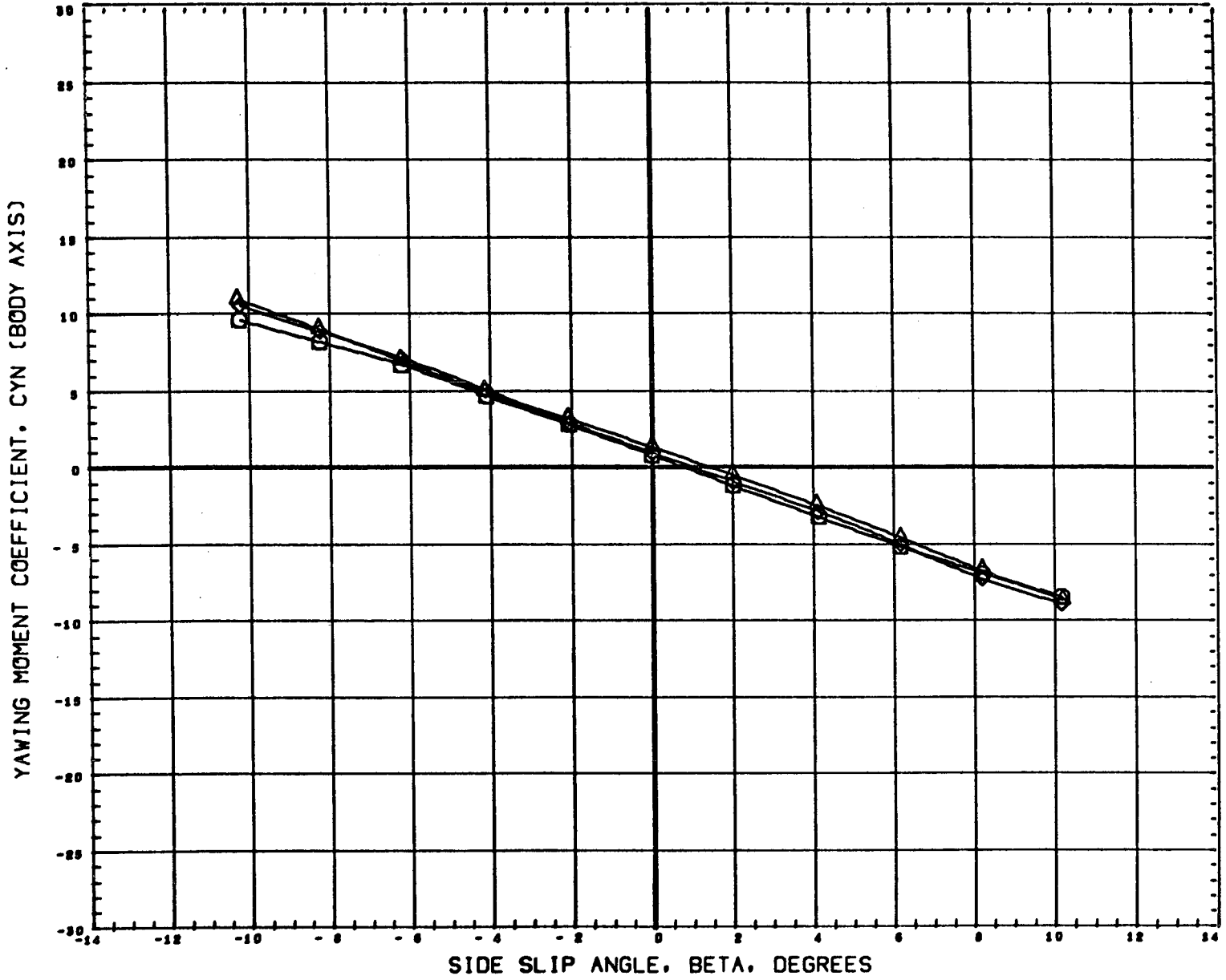
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	NSFC TWT 505 T111L/D107
(R47005)	NSFC TWT 505 T111L/D107
(R47007)	NSFC TWT 505 T111L/D107

ALPHA
01
01D1
01D1L2
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.460

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



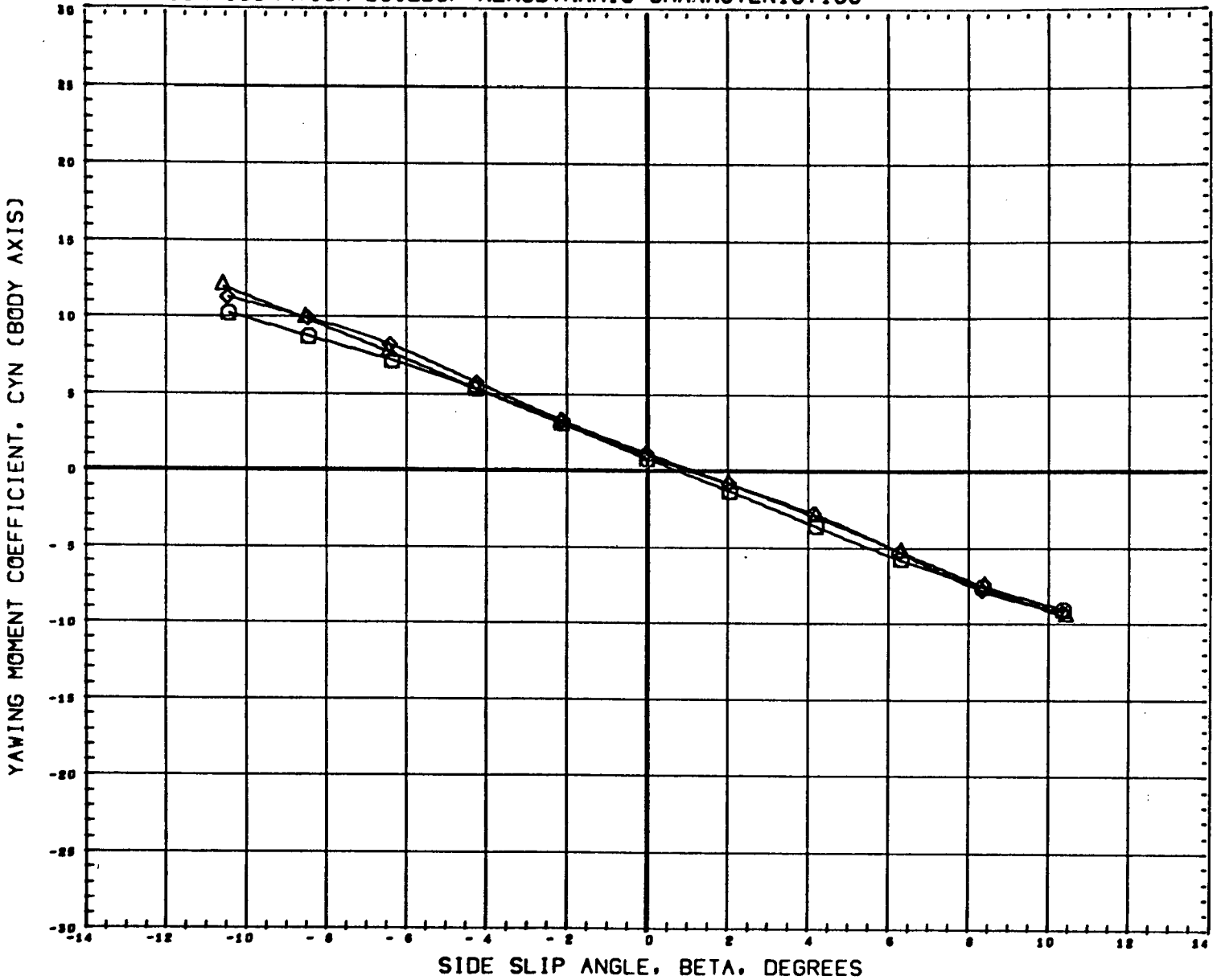
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	NSFC TWT 505 T111L/DT07
(R47005)	NSFC TWT 505 T111L/DT07
(R47007)	NSFC TWT 505 T111L/DT07

ALPHA
01
03D1
03D1L2

REFERENCE INFORMATION		
SREF	0.3340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	8.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.001

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



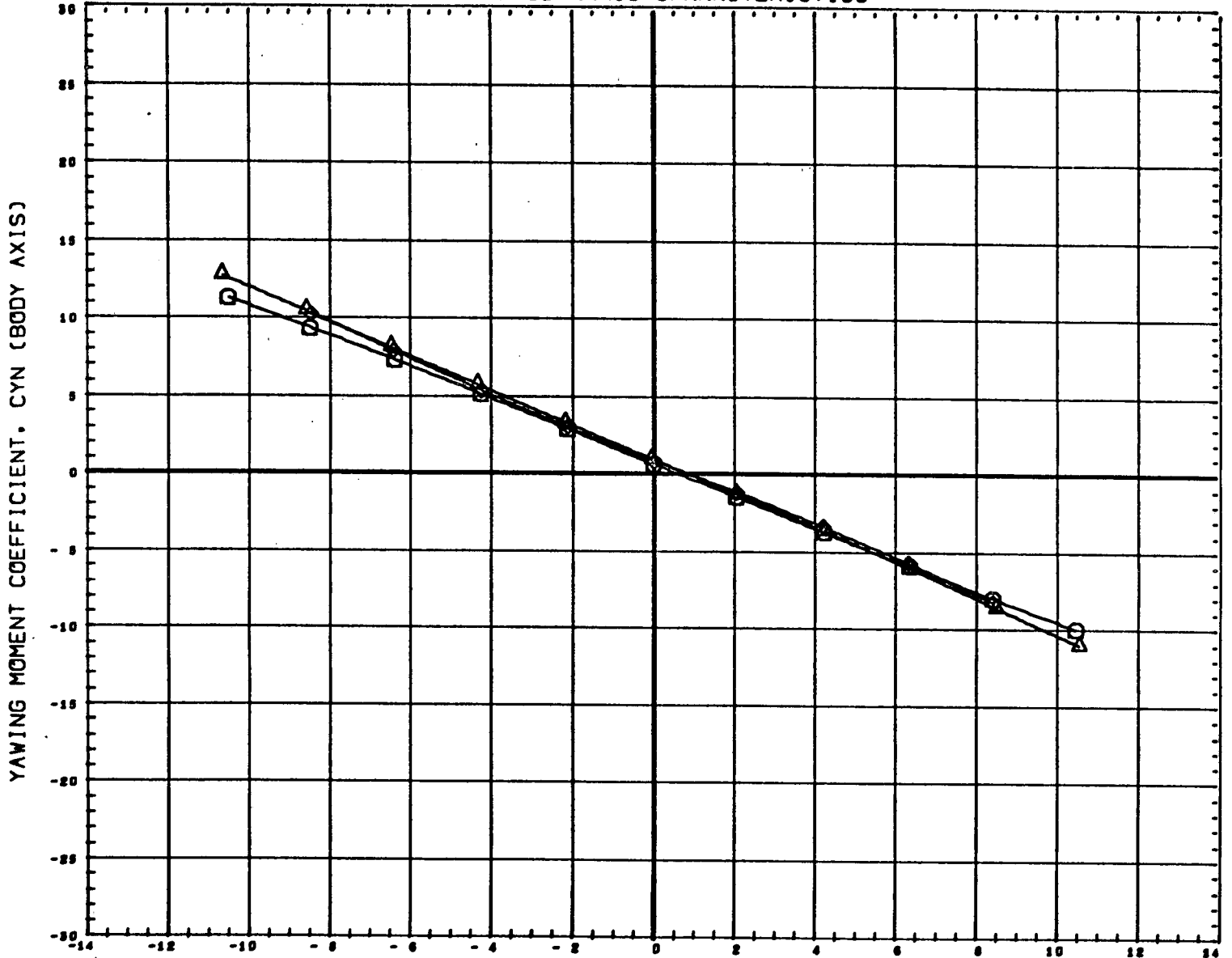
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003) □	MSFC TWT 505 T111L/D1D7
(R47005) △	MSFC TWT 505 T111L/D1D7
(R47007) ◇	MSFC TWT 505 T111L/D1D7

	ALPHA
□	0.000
△	0.000
◇	0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.900

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	NSFC TMT 505 T111L/D107
(R47005)	NSFC TMT 505 T111L/D107
(R47007)	NSFC TMT 505 T111L/D107

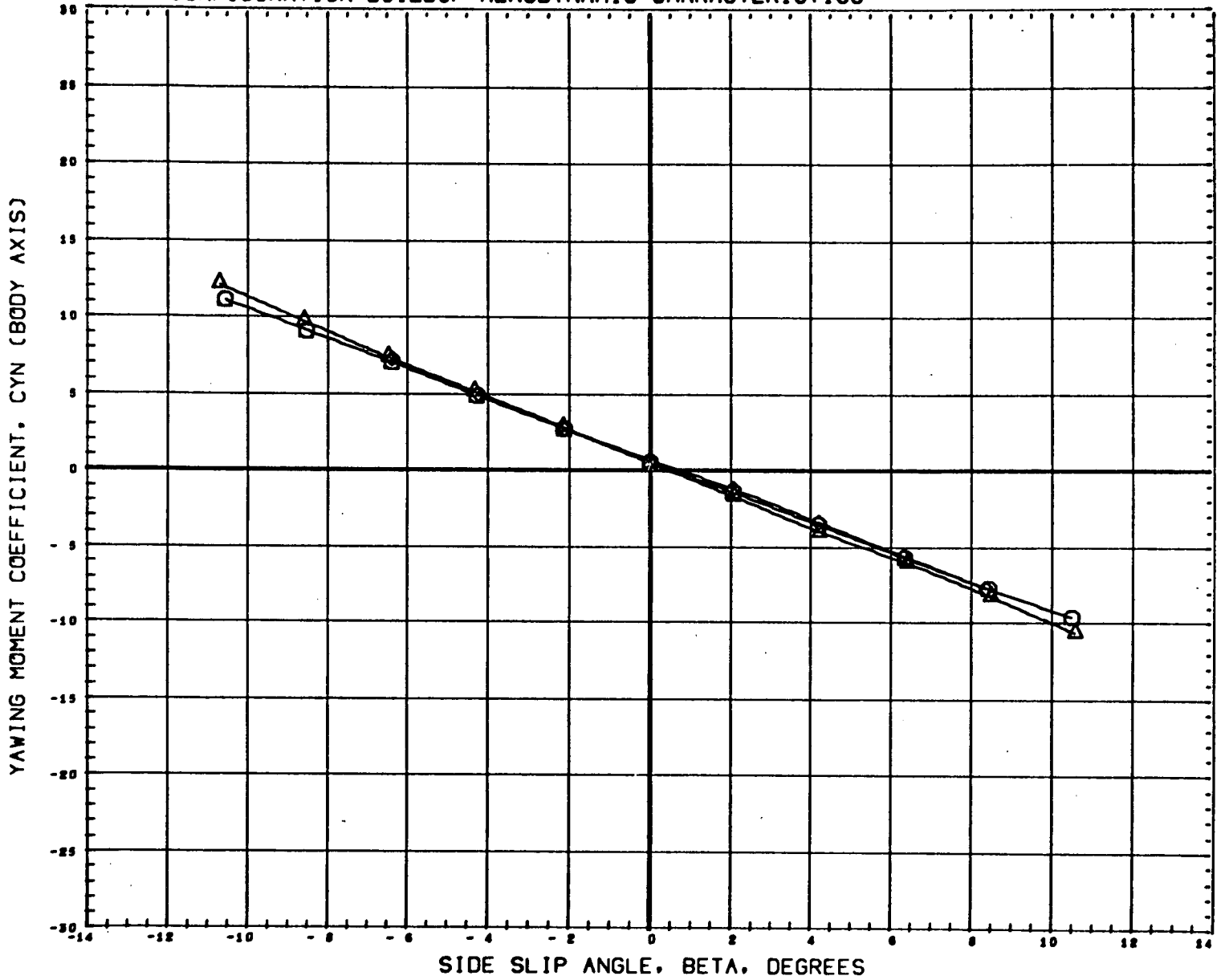
SIDE SLIP ANGLE, BETA, DEGREES

ALPHA
01
0101
0101E

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.001

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



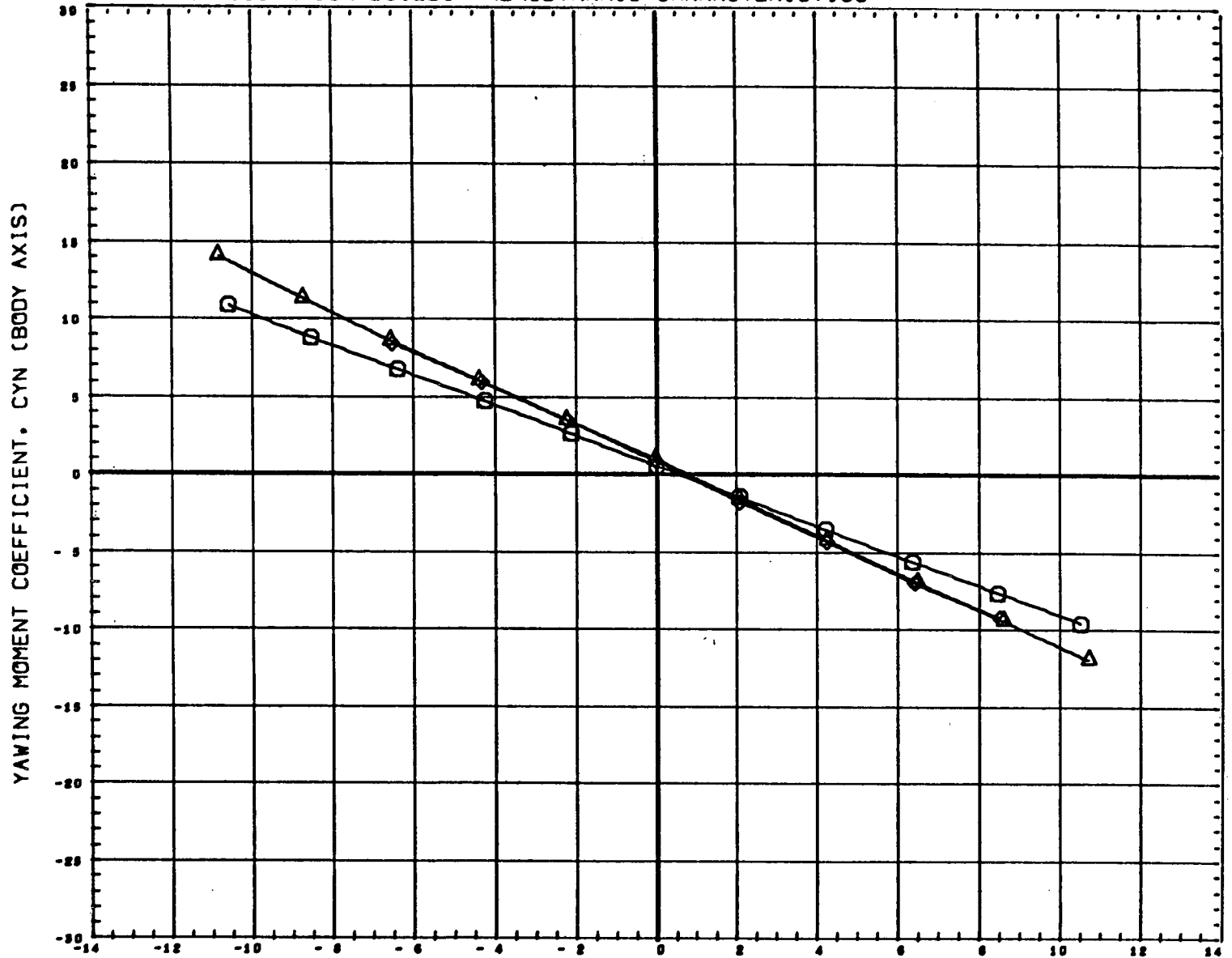
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/DT07
(R47005)	MSFC TWT 505 T111L/DT07
(R47007)	MSFC TWT 505 T111L/DT07

ALPHA
01
01D1
01D1L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.100

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



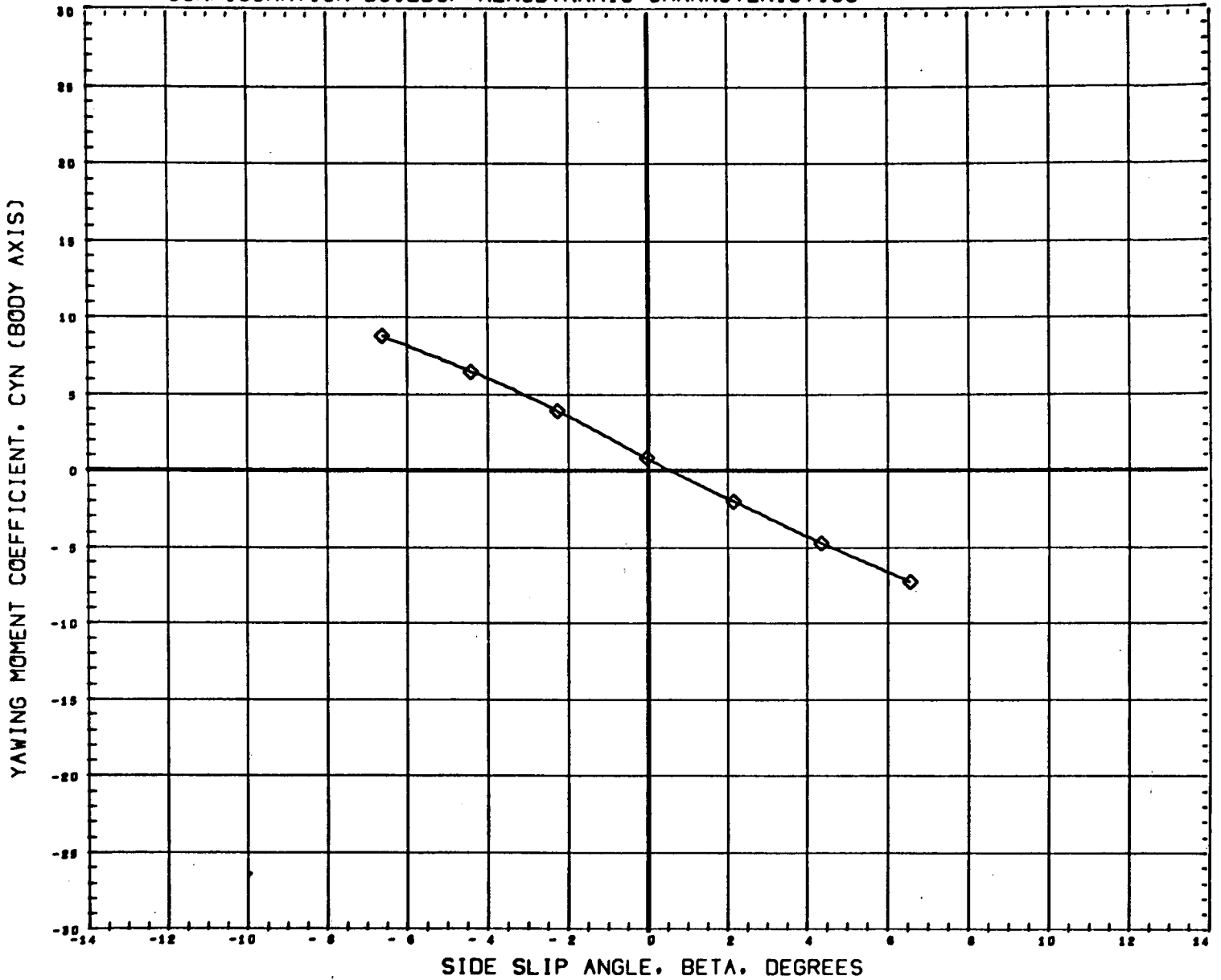
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/D107
(R47005)	MSFC TWT 505 T111L/D107
(R47007)	MSFC TWT 505 T111L/D107

Symbol	ALPHA
○	0.000
△	0.000
◇	0.000

REFERENCE INFORMATION		
SREF	0.5340	90 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

NACM 1.207

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(R47005)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(R47007)	MSFC TWT 505 T111L/DT07 0101L2

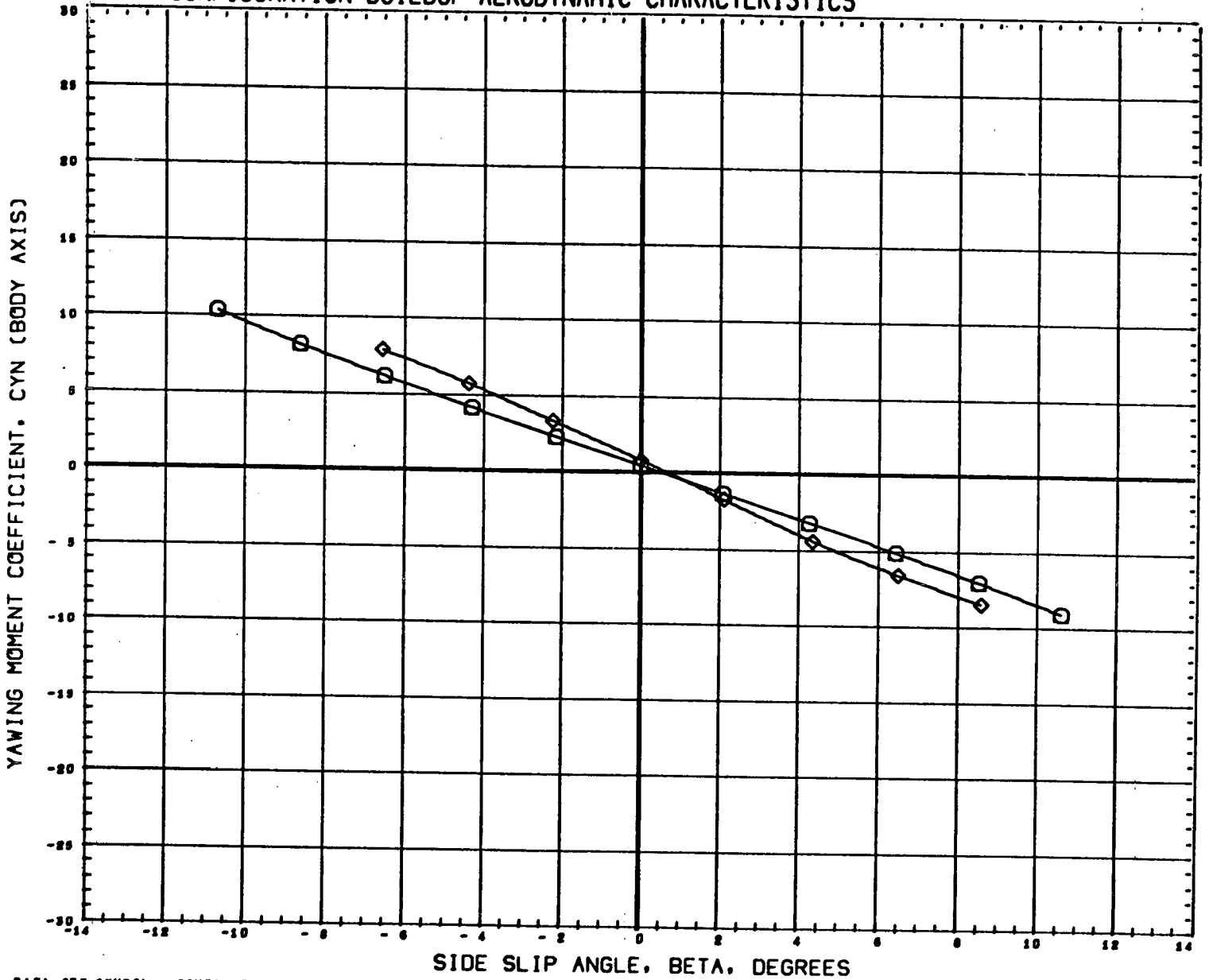
ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN YII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.460

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47003)	MSFC TWT 505 T111L/DT07	01
(R47005)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(R47007)	MSFC TWT 505 T111L/DT07	01D1L2

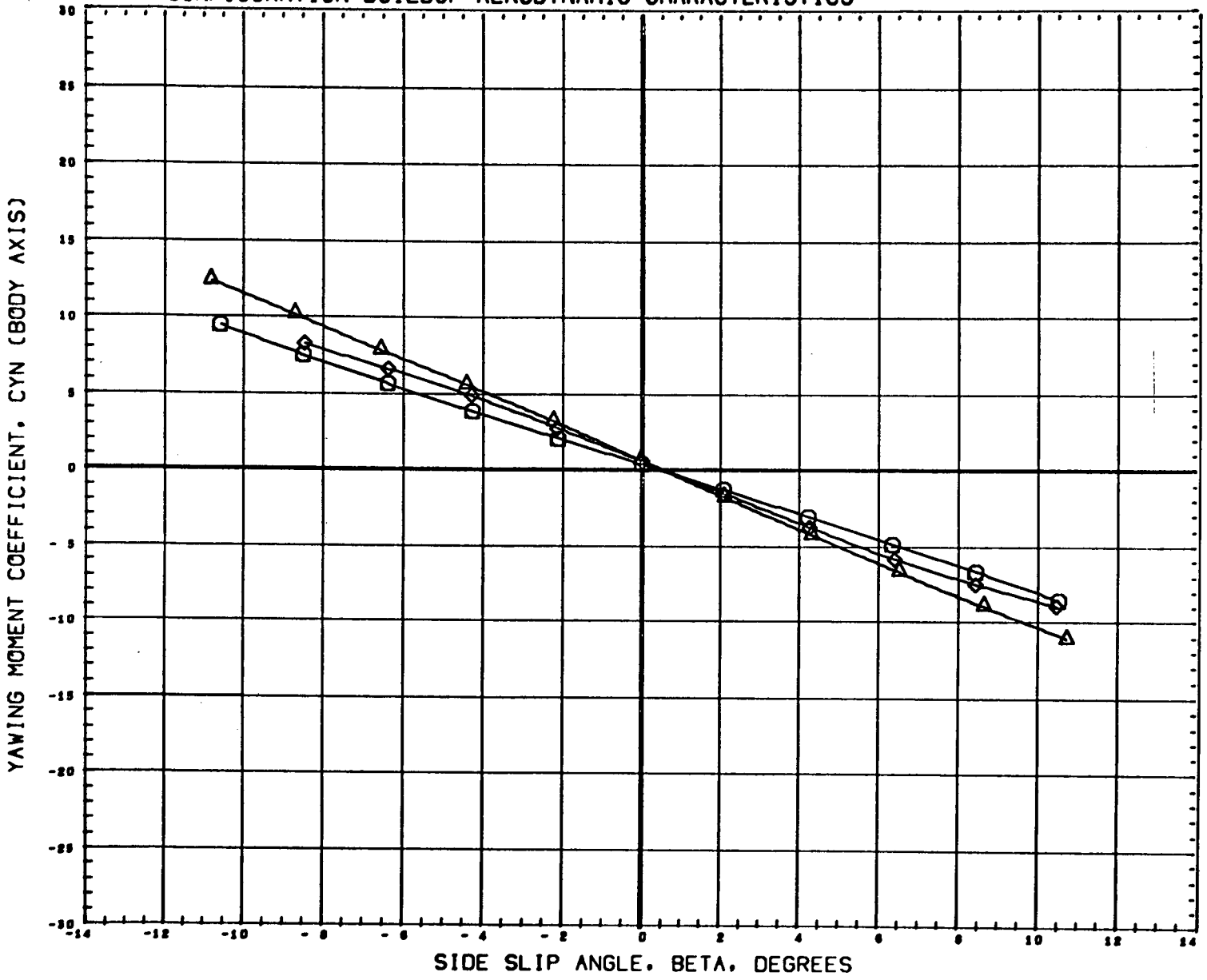
ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION

SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4500	PERCENT

MACH 1.985

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	○	MSFC TWT 505 T111L/DY07
(R47005)	□	MSFC TWT 505 T111L/DY07
(R47007)	△	MSFC TWT 505 T111L/DY07

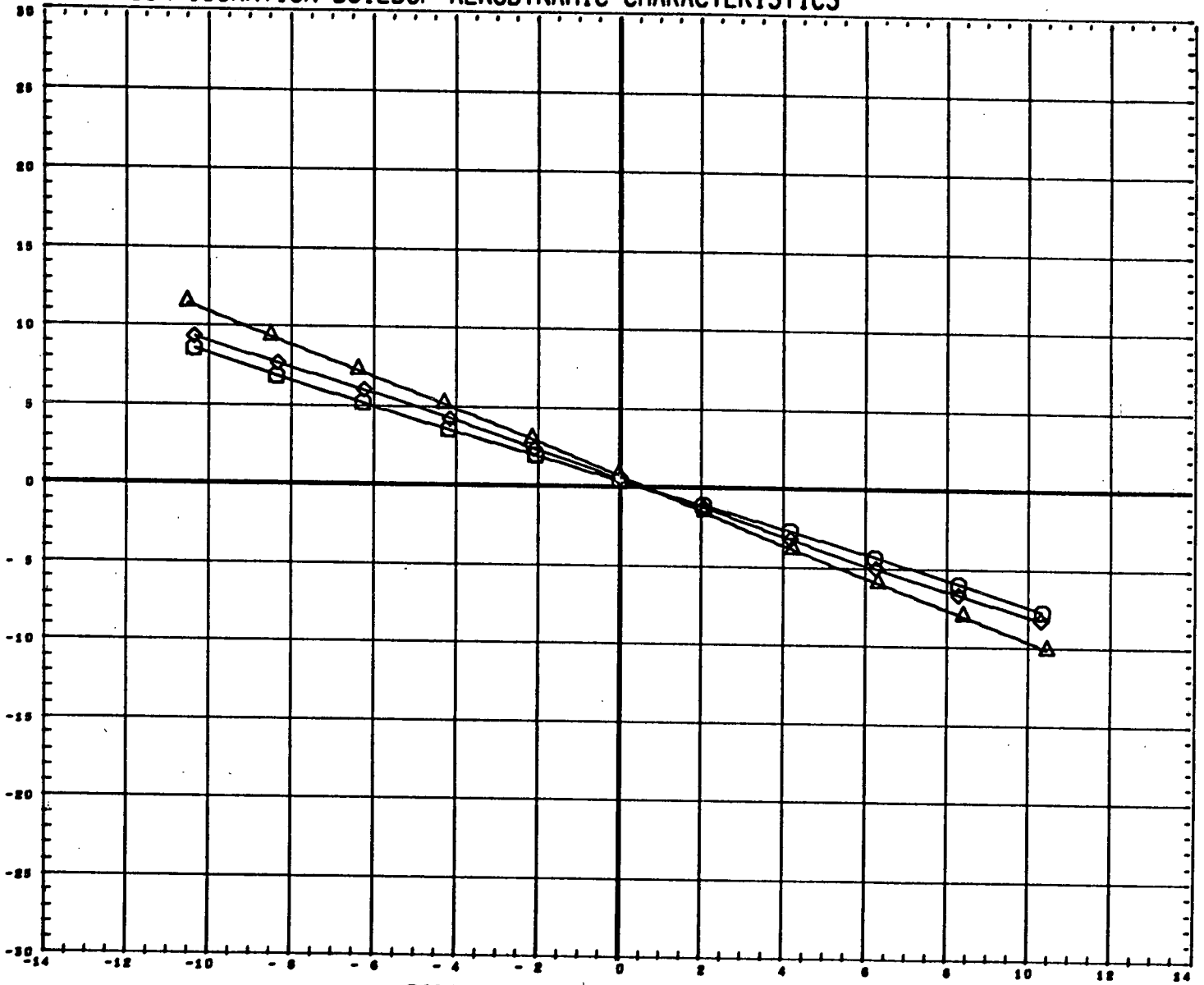
ALPHA
01
0101
0101L2
0.000
0.000
0.000

REFERENCE INFORMATION		
SRFP	0.5340	80 INC
LRFP	0.6240	INCHES
DRFP	0.6240	INCHES
XNRP	2.9170	IN T11
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003) □	MSFC TWT 505 T111L/D107
(R47005) △	MSFC TWT 505 T111L/D107
(R47007) ◇	MSFC TWT 505 T111L/D107

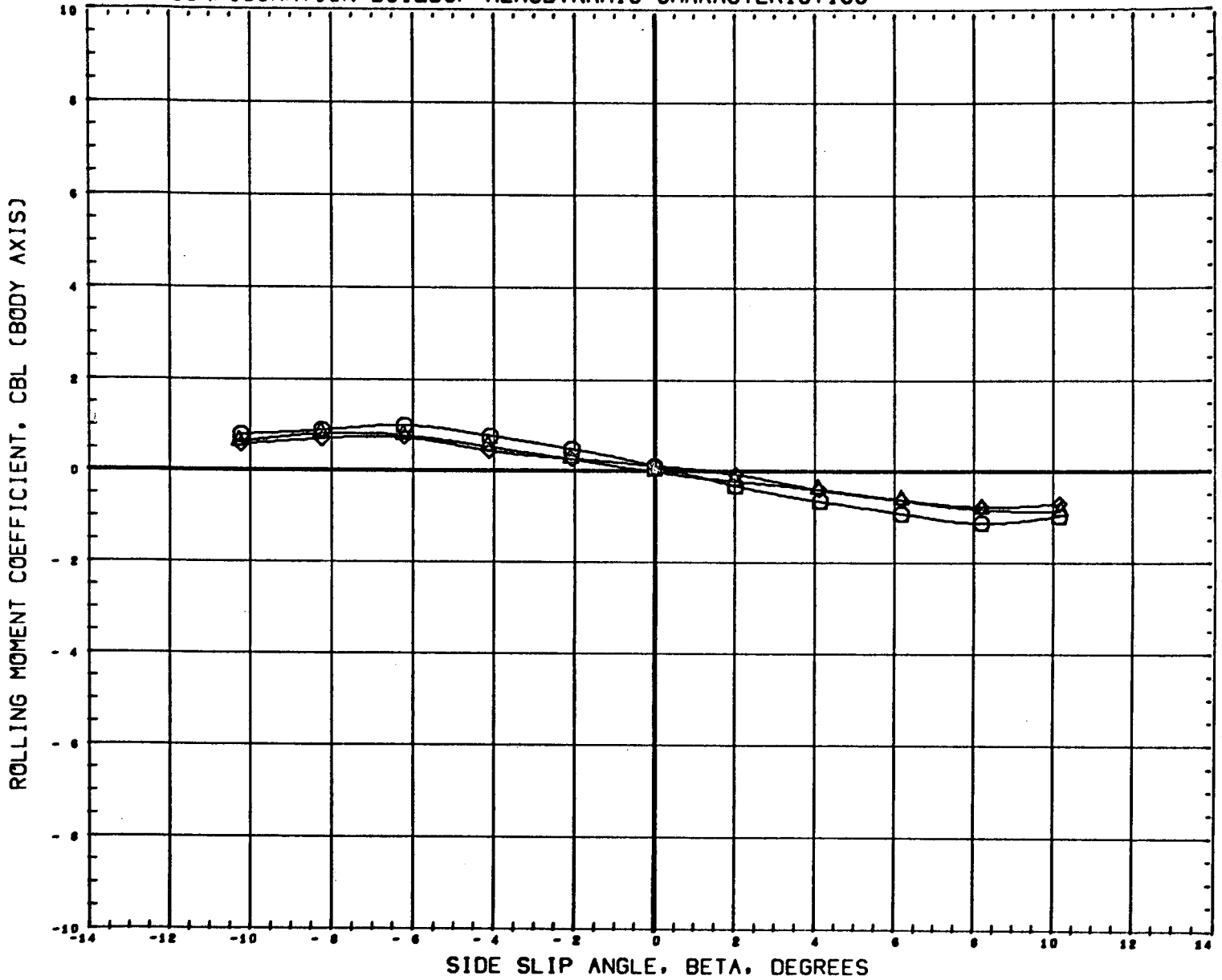
01
01D1
01D1L2

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.480

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



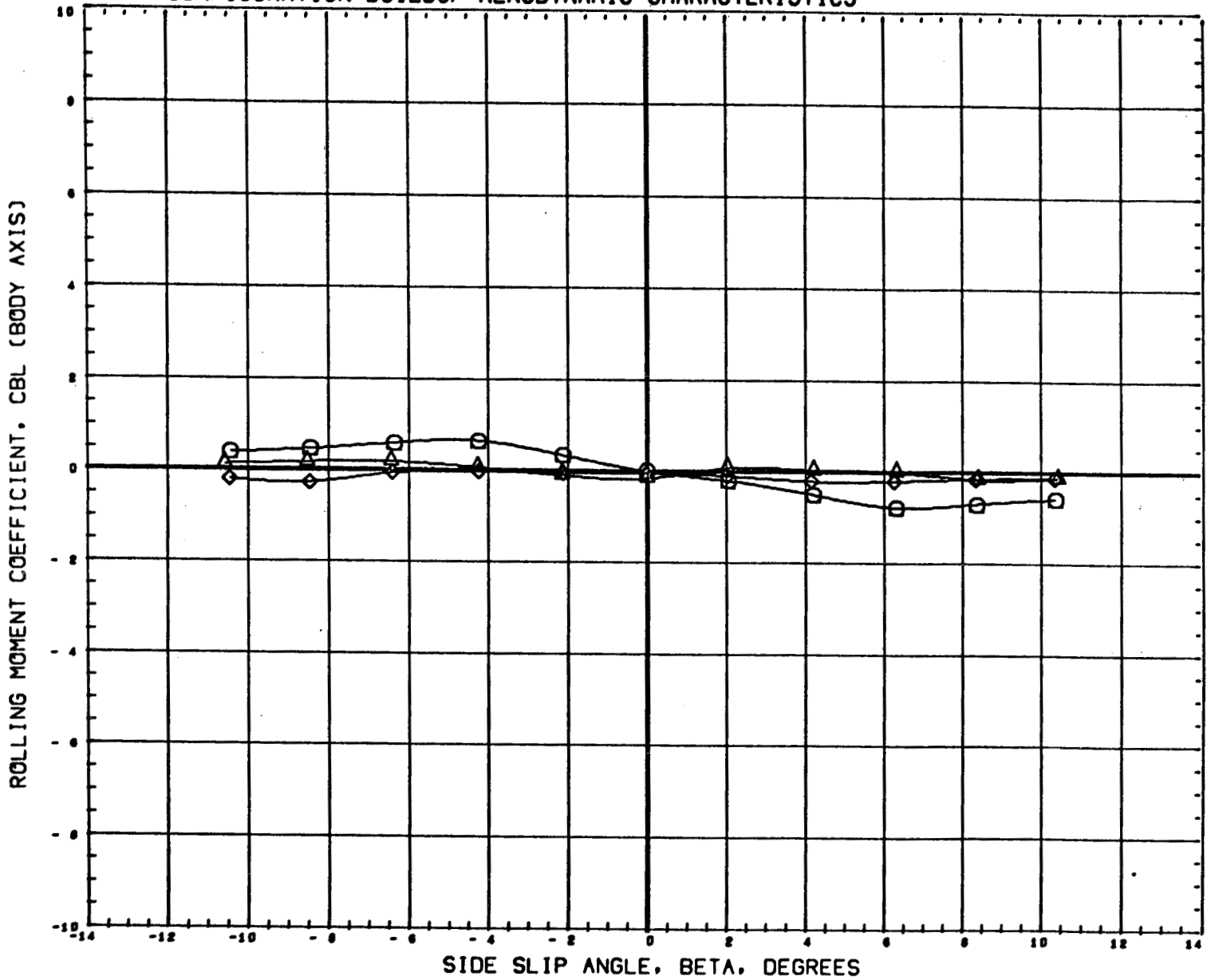
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/DT07
(R47005)	MSFC TWT 505 T111L/DT07
(R47007)	MSFC TWT 505 T111L/DT07

ALPHA
01
01D1
01D1L2
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.601

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



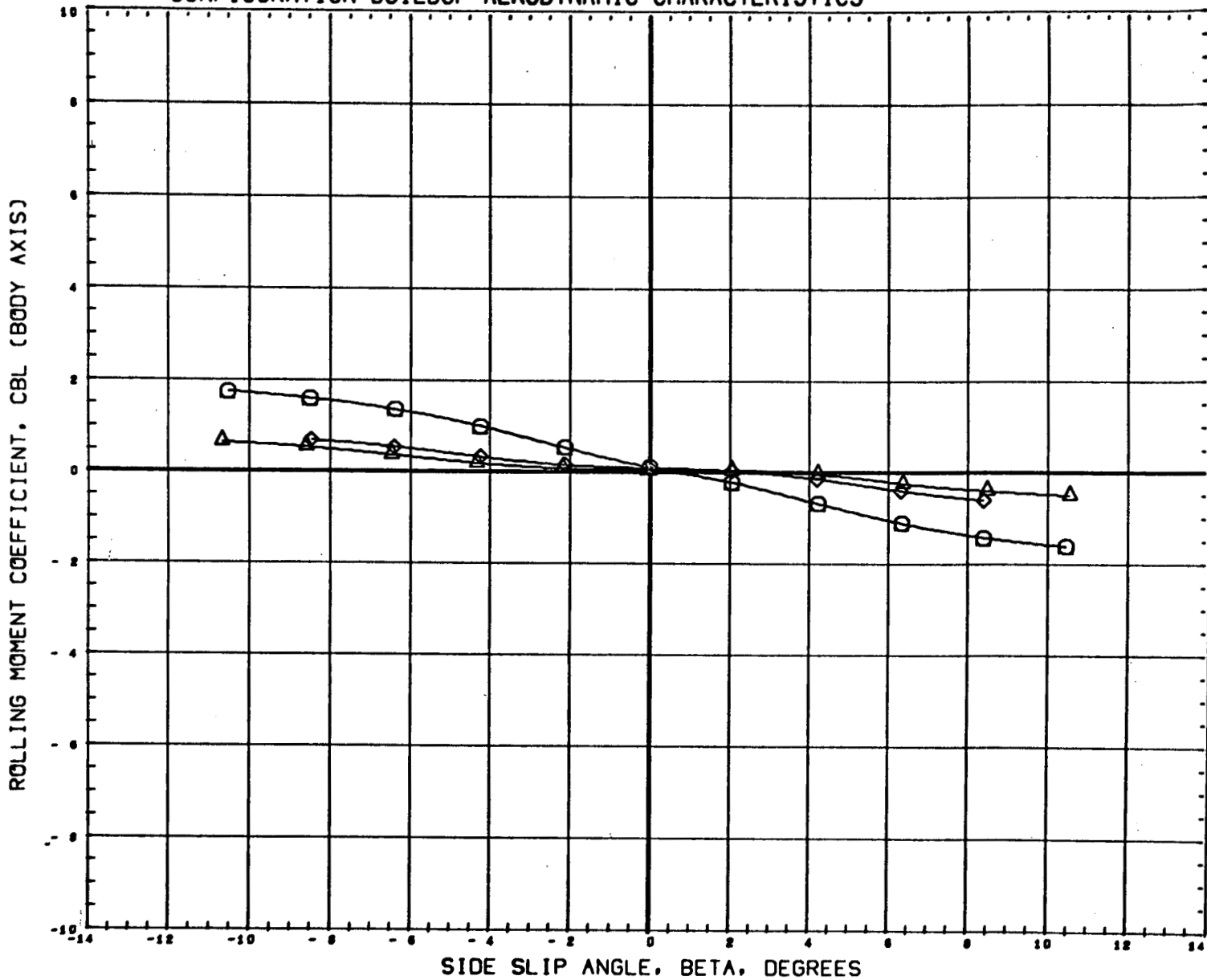
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	NSFC TWT 505 T111L/D107
(R47005)	NSFC TWT 505 T111L/D107
(R47007)	NSFC TWT 505 T111L/D107

	ALPHA
01	0.000
01D1	0.000
01D1L2	0.000

REFERENCE INFORMATION		
BREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.900

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	NSFC TWT 505 T111L/D107
(R47005)	NSFC TWT 505 T111L/D107
(R47007)	NSFC TWT 505 T111L/D107

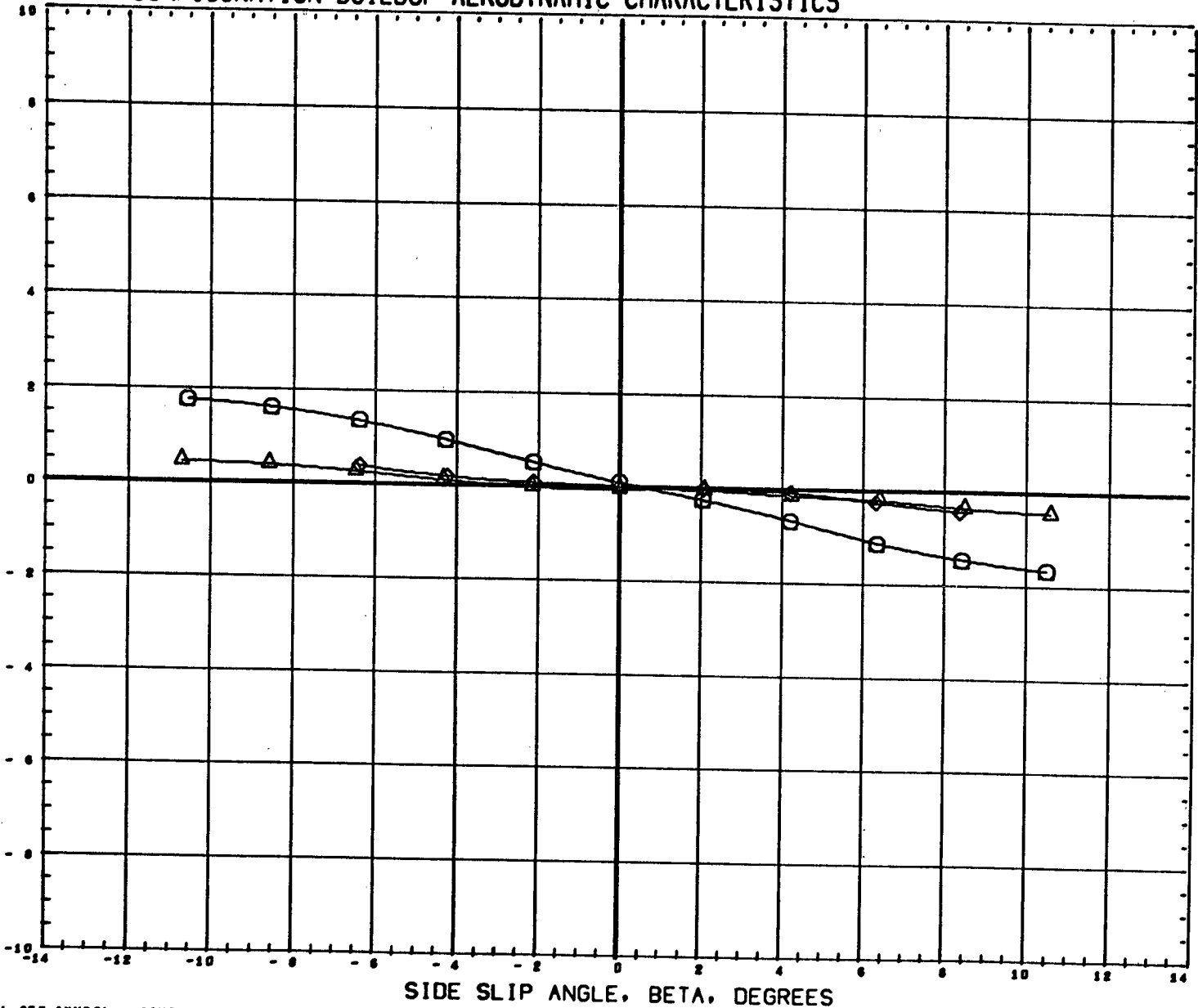
	ALPHA
01	0.000
0101	0.000
0101L2	0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4800	PERCENT

MACH 1.001

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



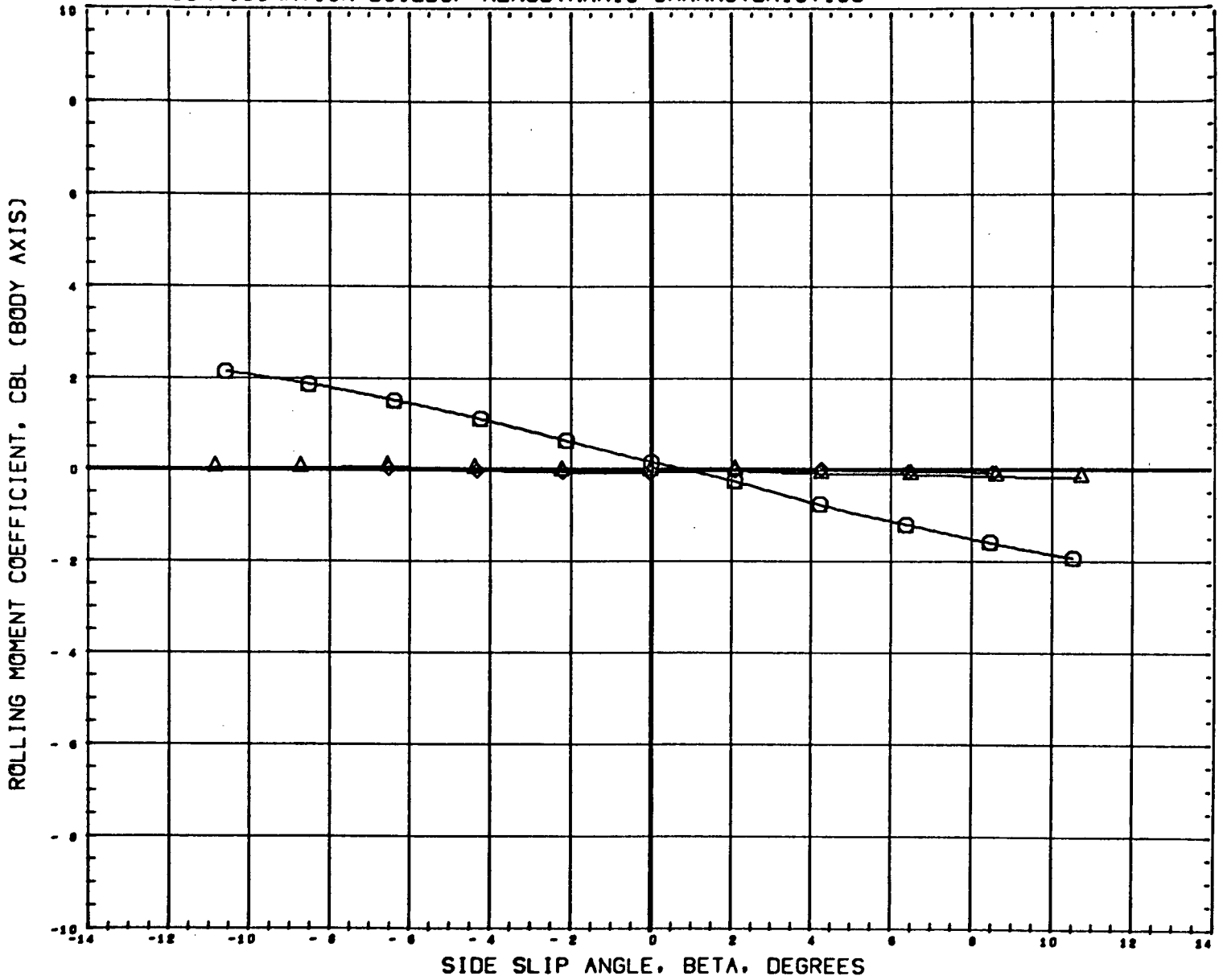
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/D107
(R47005)	MSFC TWT 505 T111L/D107
(R47007)	MSFC TWT 505 T111L/D107

	ALPHA
01	0.000
0101	0.000
0101Z	0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.100

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/D107
(R47005)	MSFC TWT 505 T111L/D107
(R47007)	MSFC TWT 505 T111L/D107

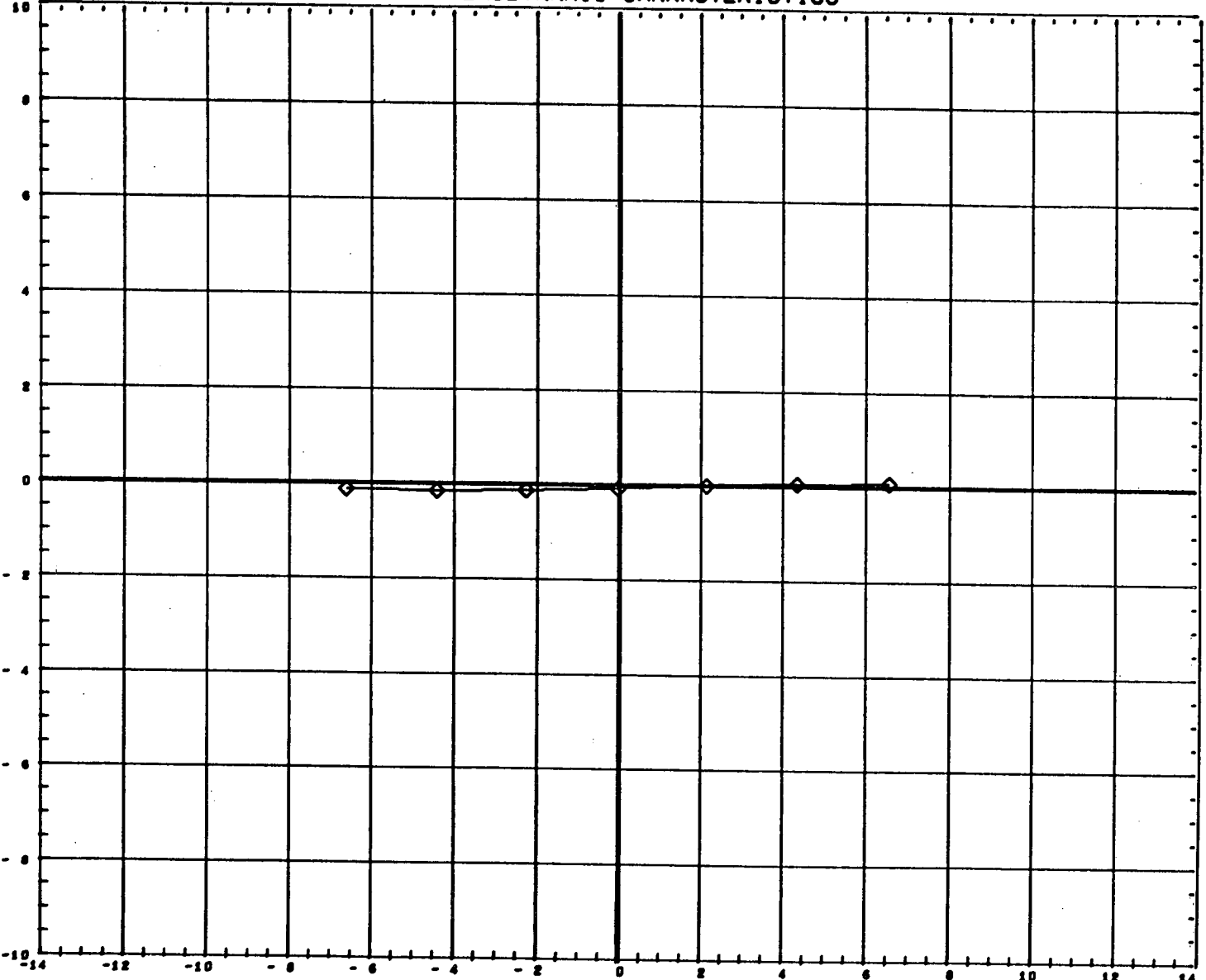
ALPHA
01
0101
0101L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XNRP	2.9170	IN T11
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.207

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



SIDE SLIP ANGLE, BETA, DEGREES

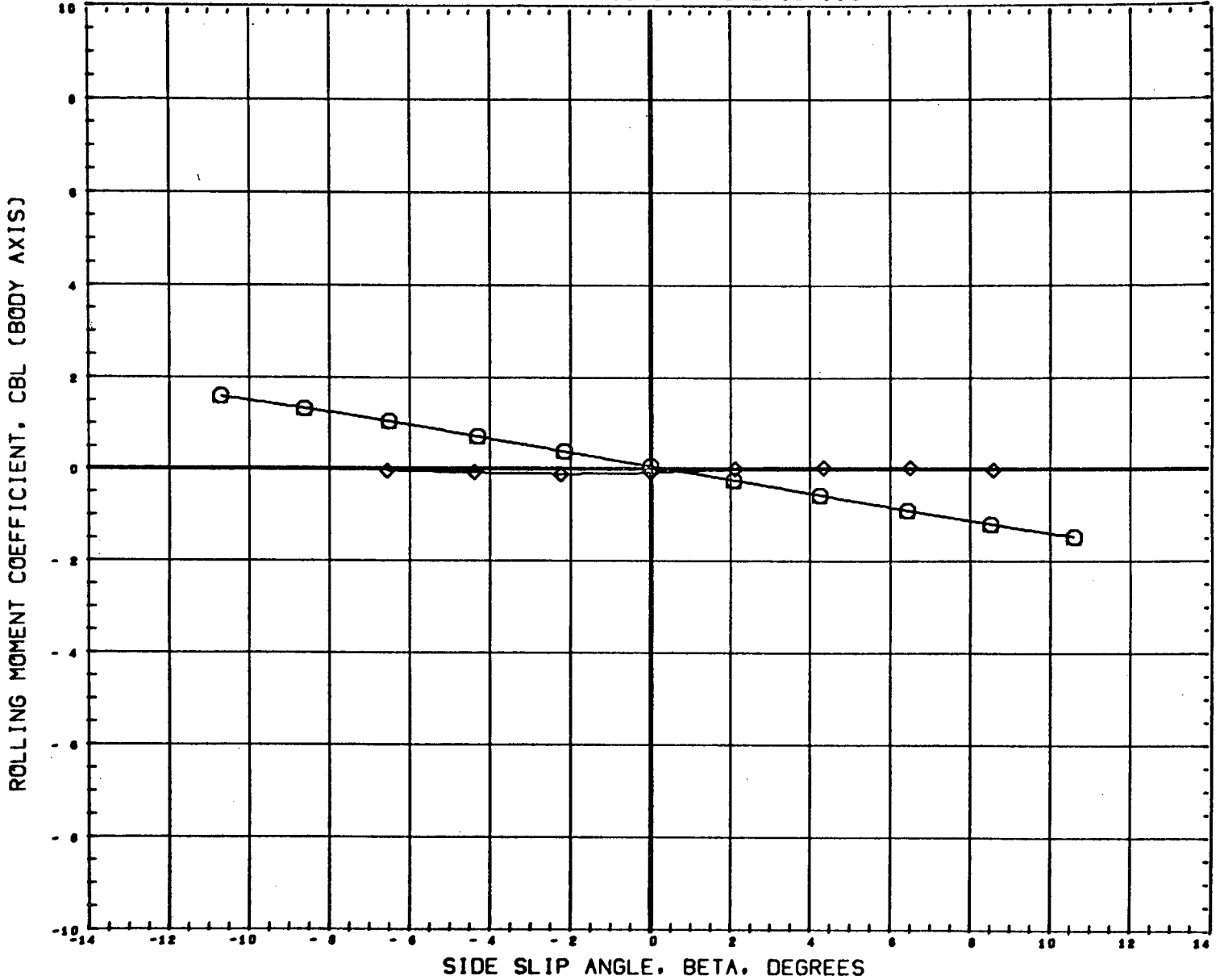
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(R47005)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(R47007)	NSFC TWT 505 T111L/DT07 01D1LZ

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.8170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.460

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



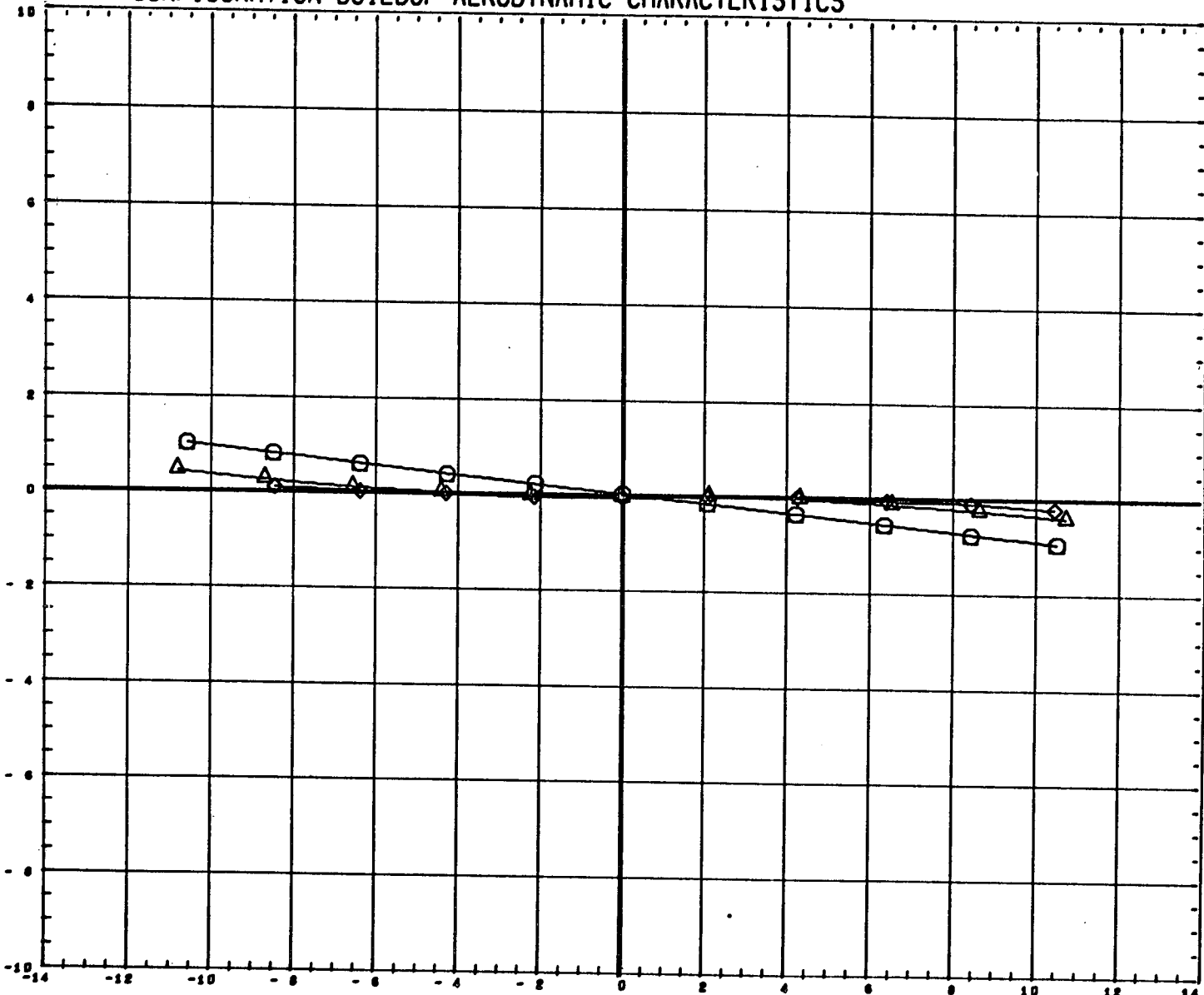
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47003) ○	MSFC TWT 505 T111L/DT07 01	0.000
(R47005) △	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(R47007) ◇	MSFC TWT 505 T111L/DT07 01D1L2	0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.965

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



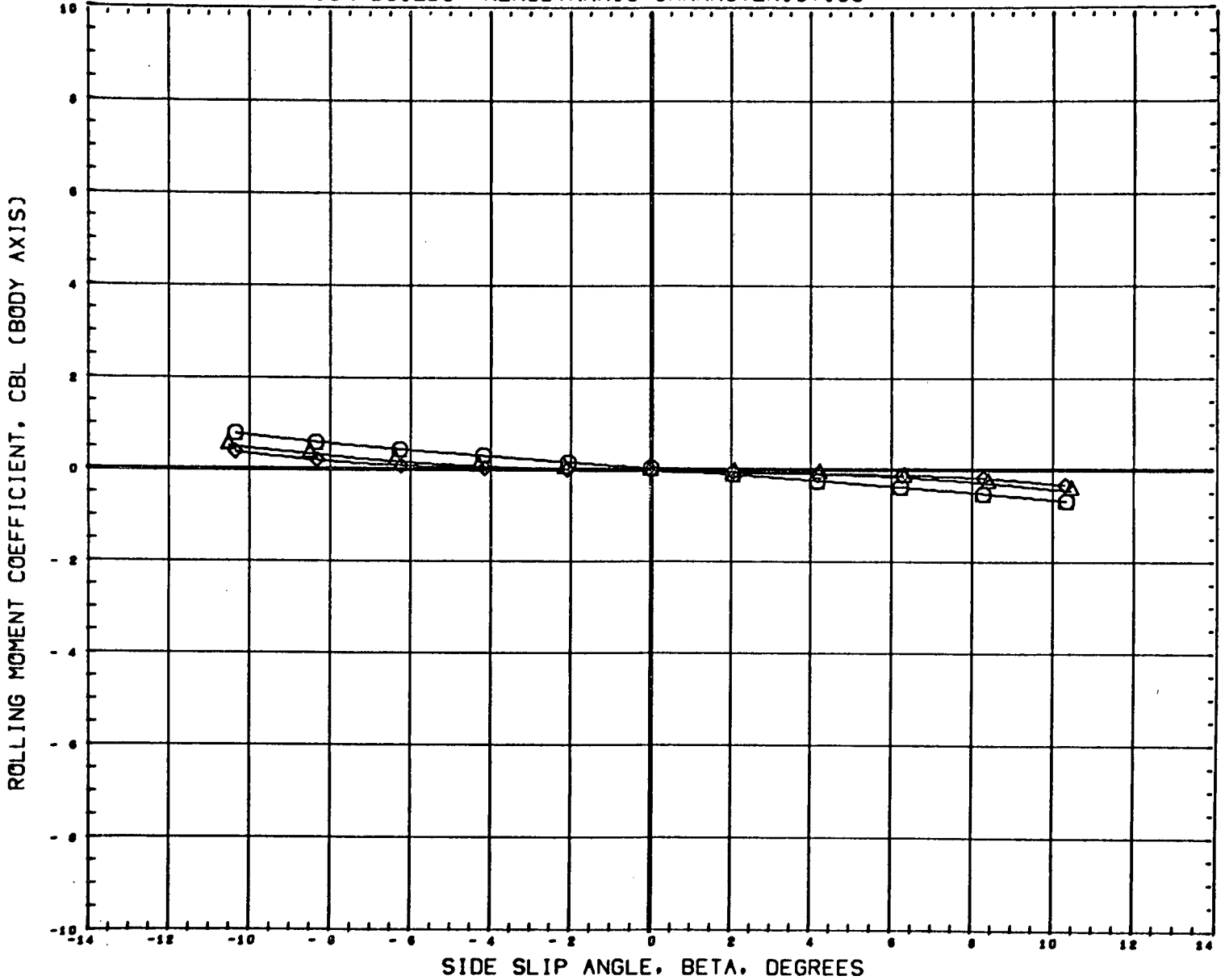
SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47003)	MSFC TWT 305 T111L/D707	01
(R47005)	MSFC TWT 305 T111L/D707	0101
(R47007)	MSFC TWT 305 T111L/D707	0101L2

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XNRP	2.9170	IN YII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



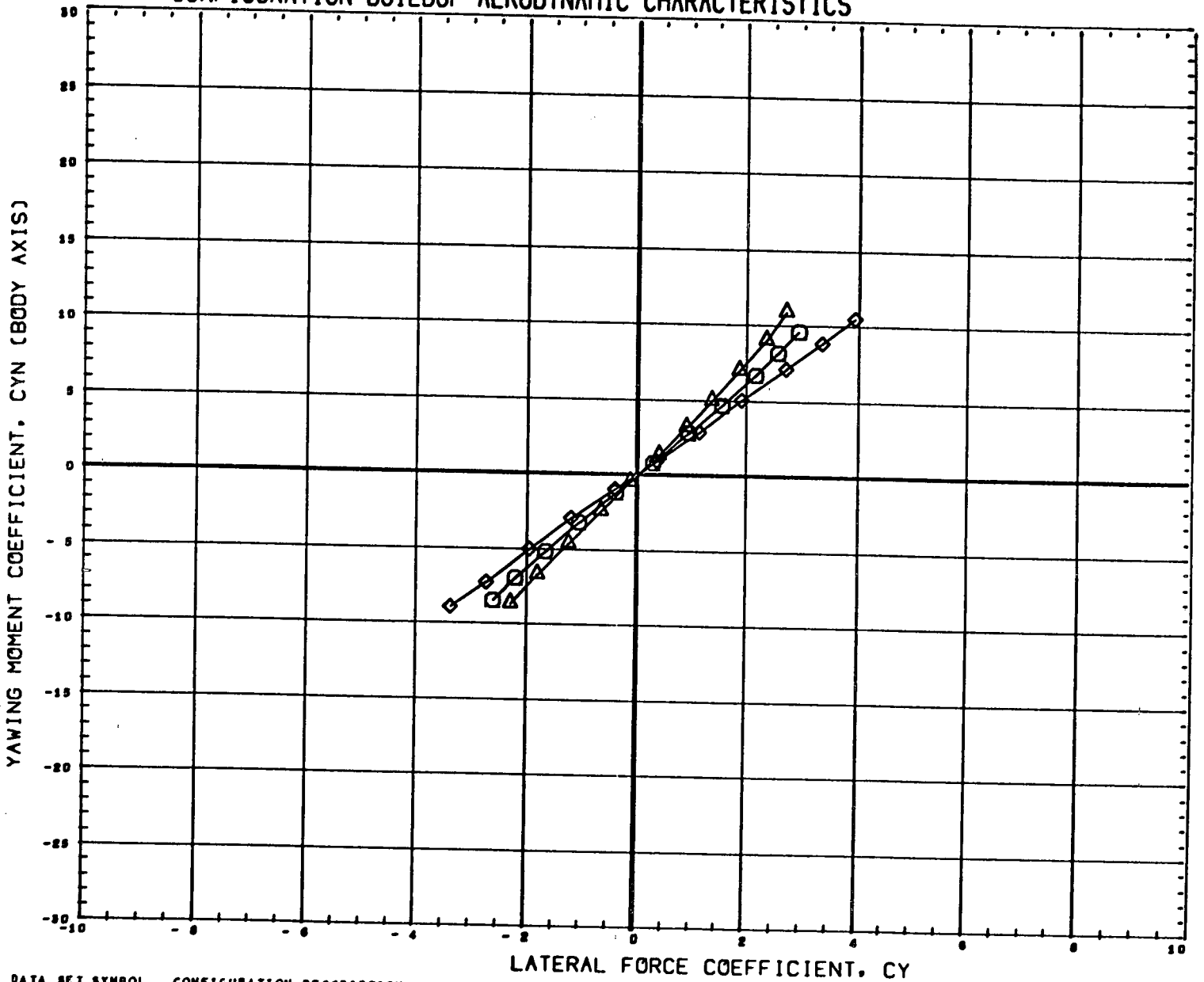
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47003)	MSFC TWT 505 T111L/D107	01
(R47005)	MSFC TWT 505 T111L/D107	0101
(R47007)	MSFC TWT 505 T111L/D107	0101L2

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.400

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/D107
(R47005)	MSFC TWT 505 T111L/D107
(R47007)	MSFC TWT 505 T111L/D107

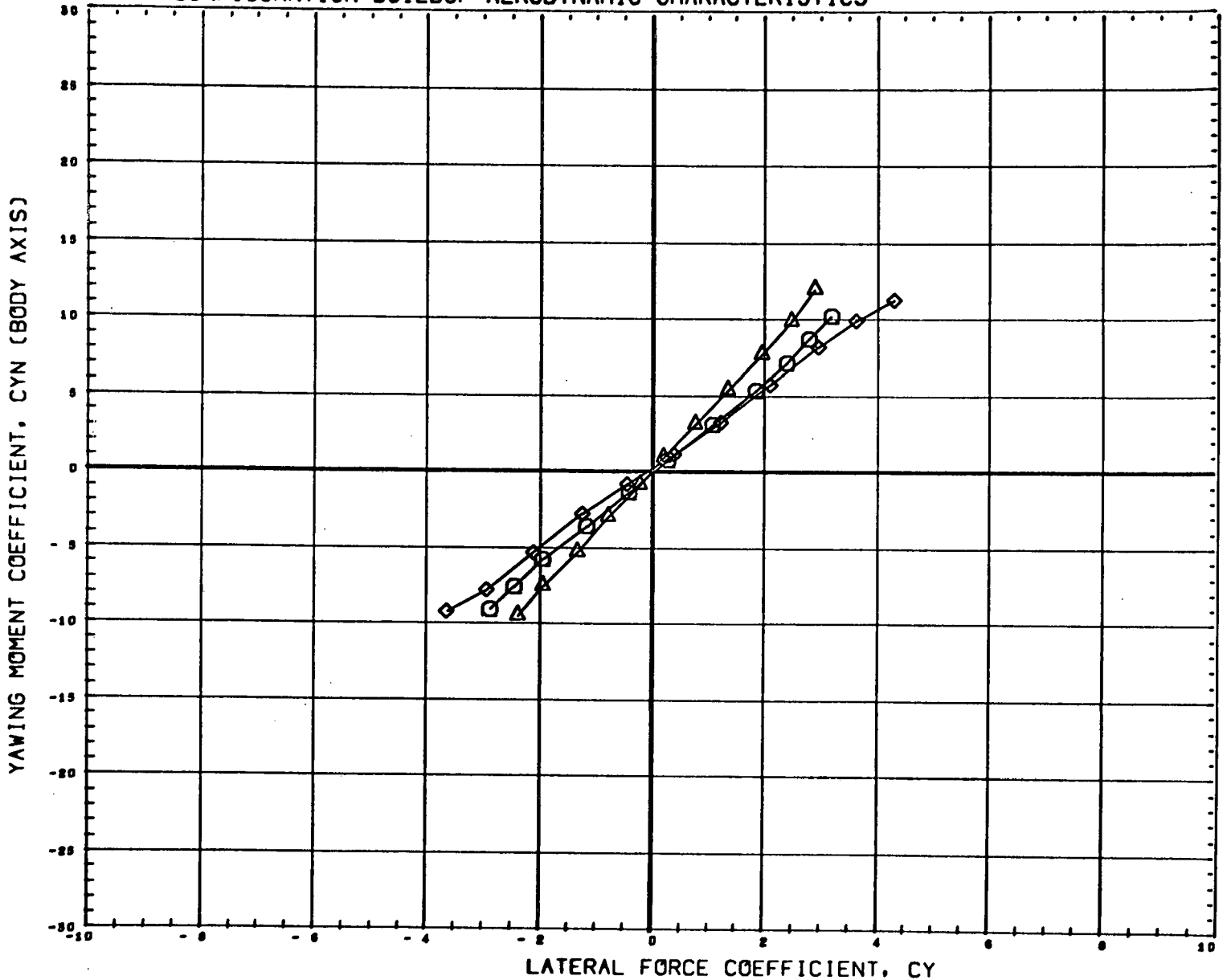
01
0101
0101L2

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.601

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/D107
(R47005)	MSFC TWT 505 T111L/D107
(R47007)	MSFC TWT 505 T111L/D107

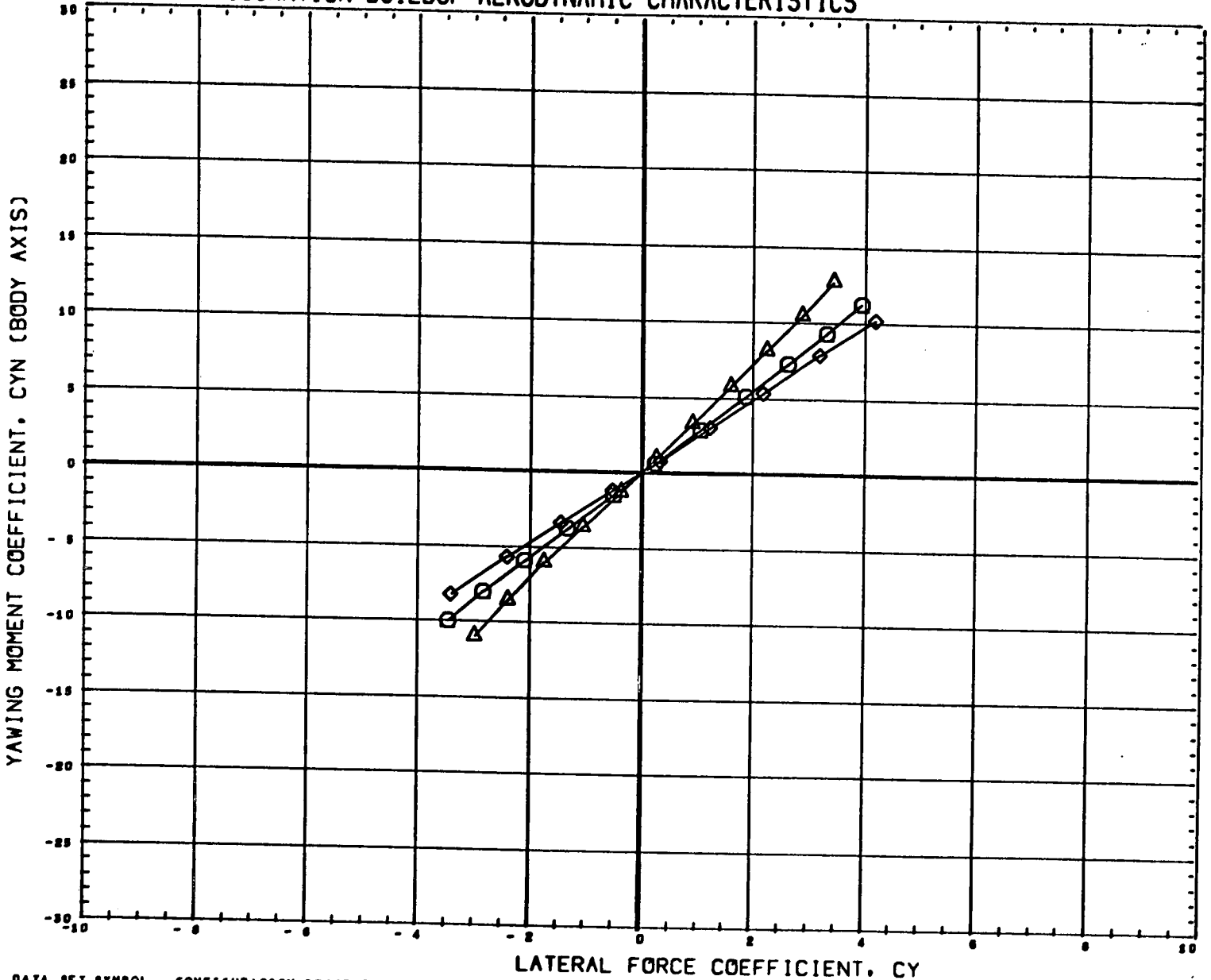
01
01D1
01D1L2

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XNRP	2.9170	IN T11
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4500	PERCENT

MACH 0.900

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TWT 505 T111L/D107
(R47005)	MSFC TWT 505 T111L/D107
(R47007)	MSFC TWT 505 T111L/D107

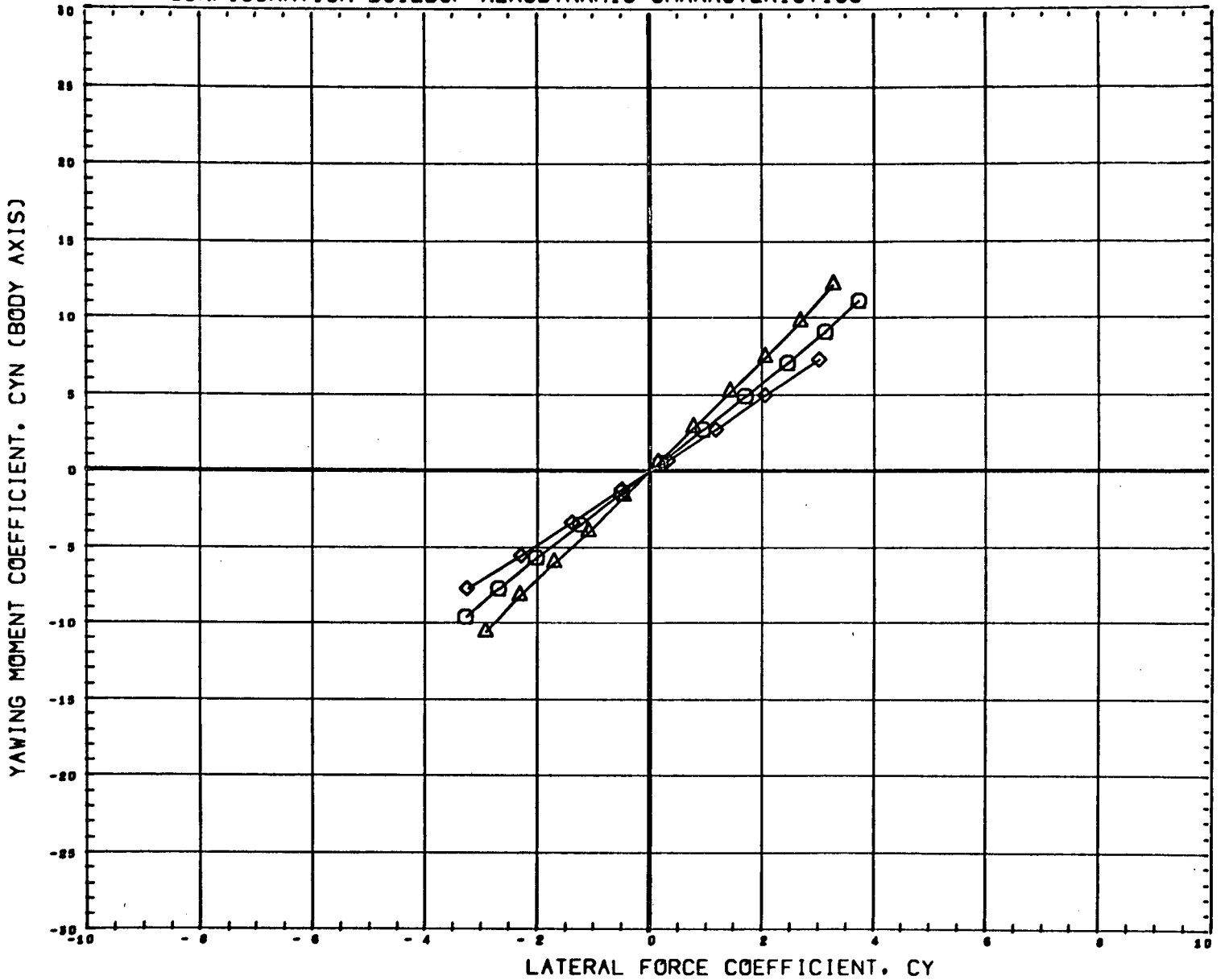
01
0101
01012

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	90 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.001

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	○	MSFC TWT 505 T111L/D107
(R47005)	△	MSFC TWT 505 T111L/D107
(R47007)	◇	MSFC TWT 505 T111L/D107

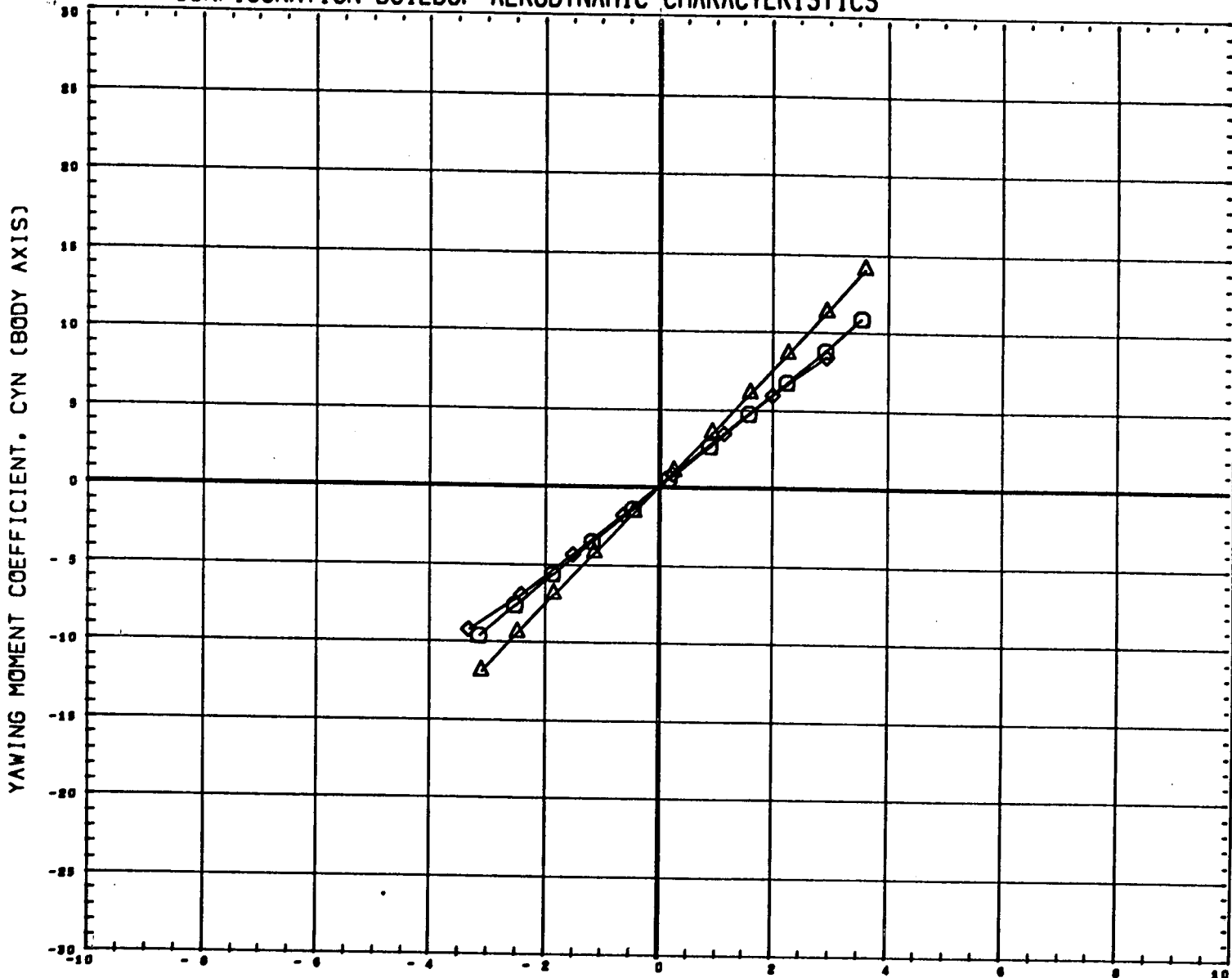
01
0101
0101L2

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.3340	90 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4500	PERCENT

MACH 1.100

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	MSFC TMT 505 T111L/D107
(R47005)	MSFC TMT 505 T111L/D107
(R47007)	MSFC TMT 505 T111L/D107

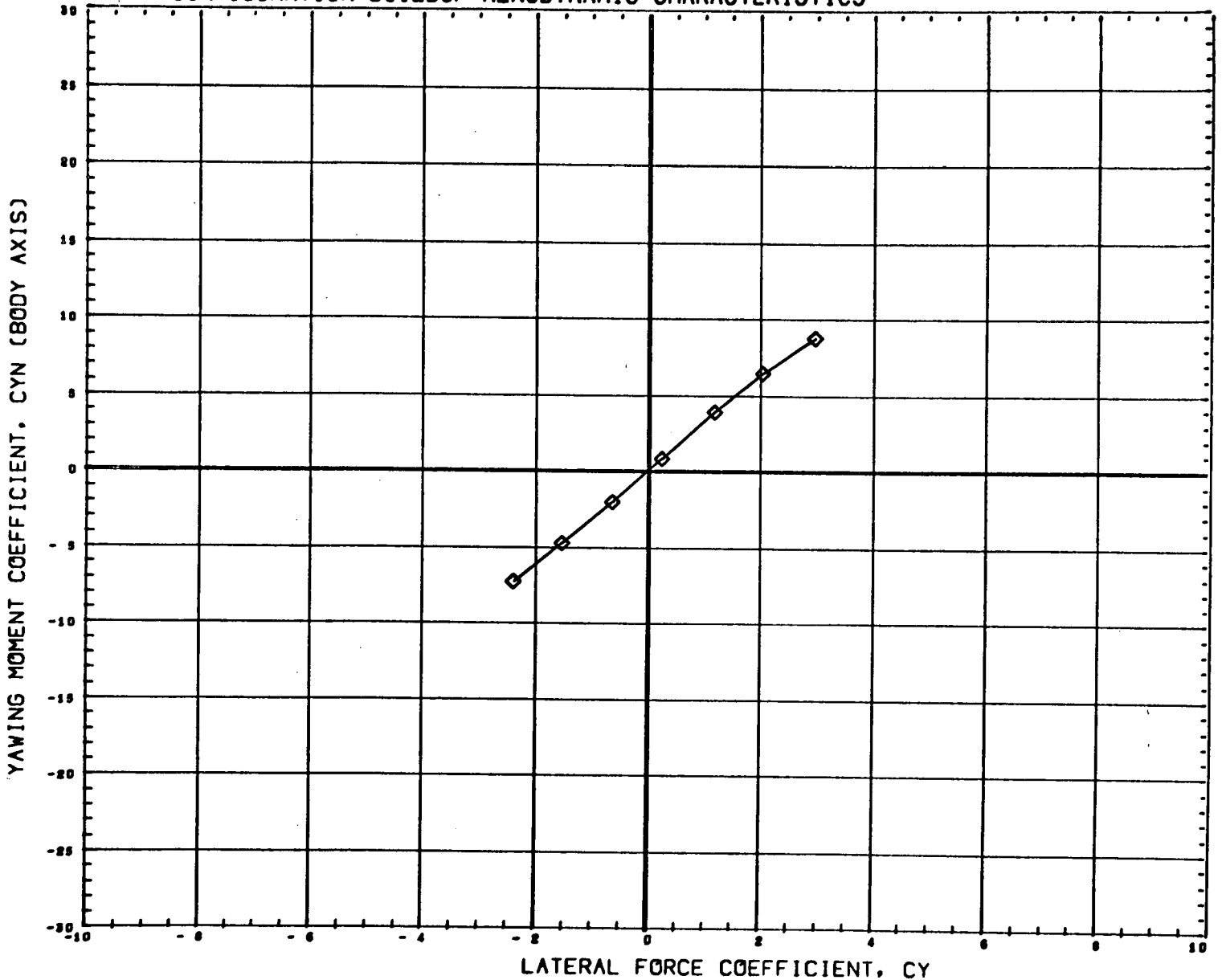
01
0101
0101L2

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.207

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET: SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(R47005)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(R47007)	NSFC TWT 505 T111L/0707 D1D1L2

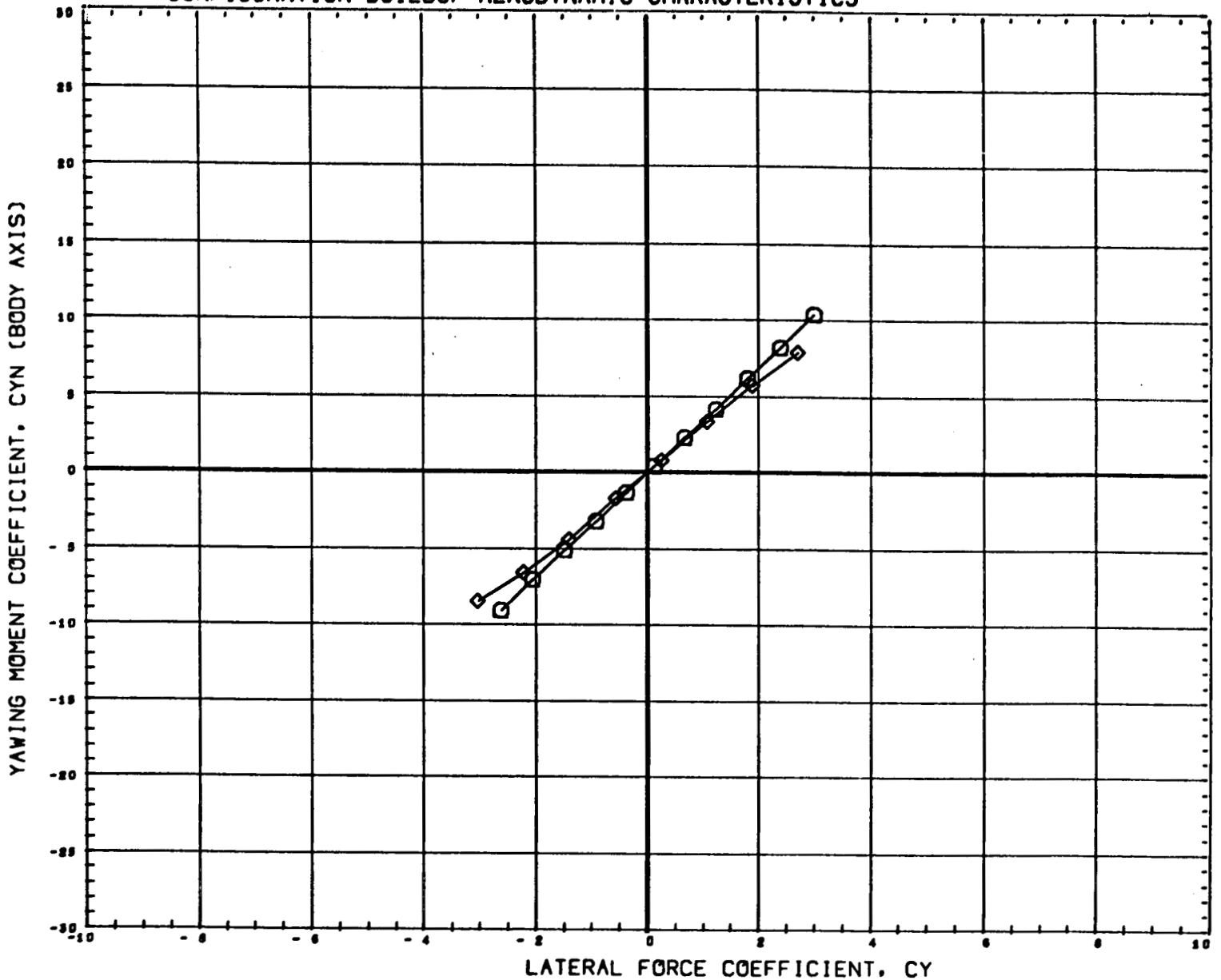
ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION

SREF	0.5340	90 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.0170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.460

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

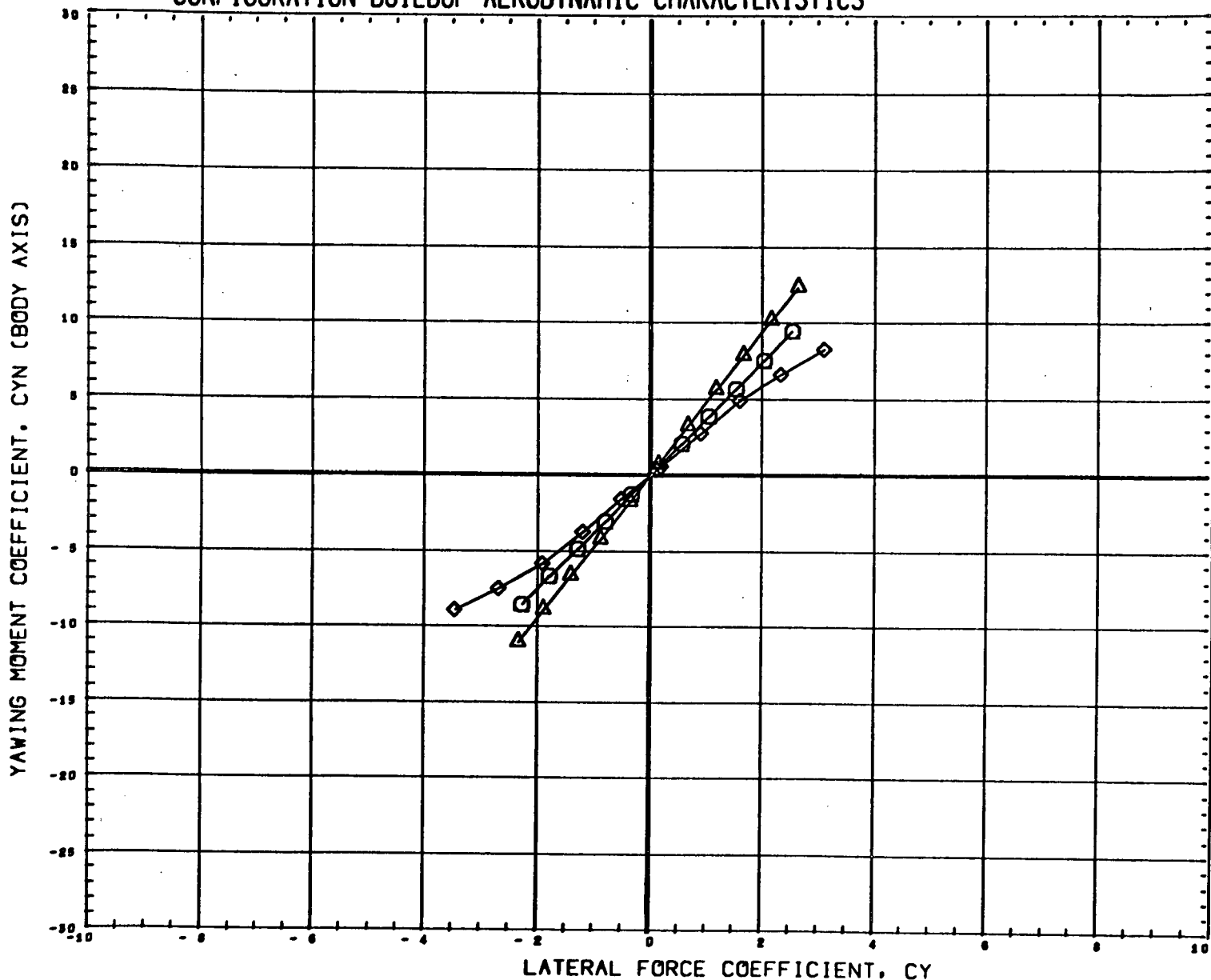


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47003) ○	NSFC TWT 503 T111L/DT07 01	0.000
(R47005) △	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(R47007) ◇	NSFC TWT 503 T111L/DT07 0101L2	0.000

REFERENCE INFORMATION		
SREF	0.3340	30 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

NACN 1.969

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003) ○	MSFC TWT 505 T111L/D107
(R47005) △	MSFC TWT 505 T111L/D107
(R47007) ◇	MSFC TWT 505 T111L/D107

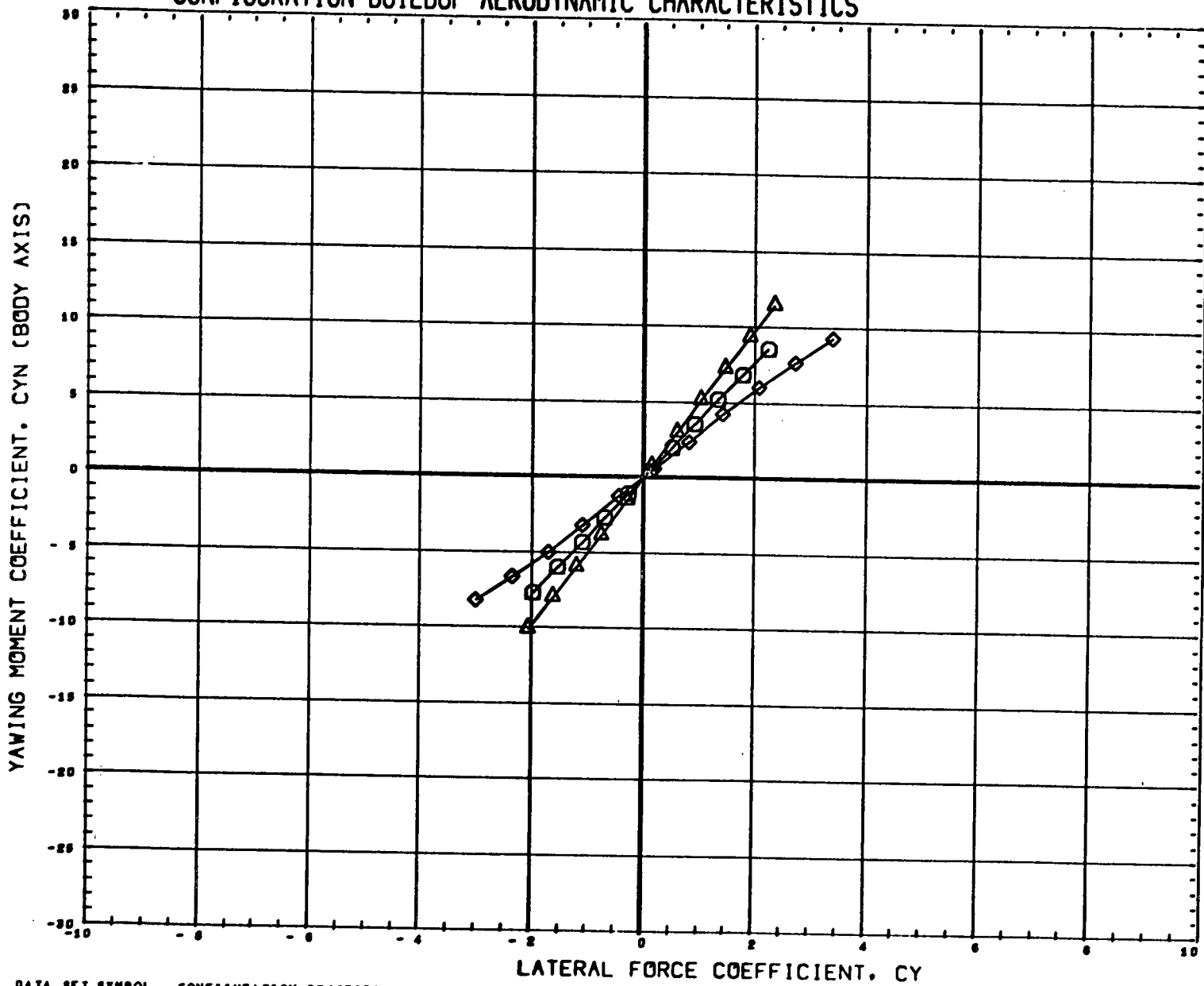
01
0101
01D1L2

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



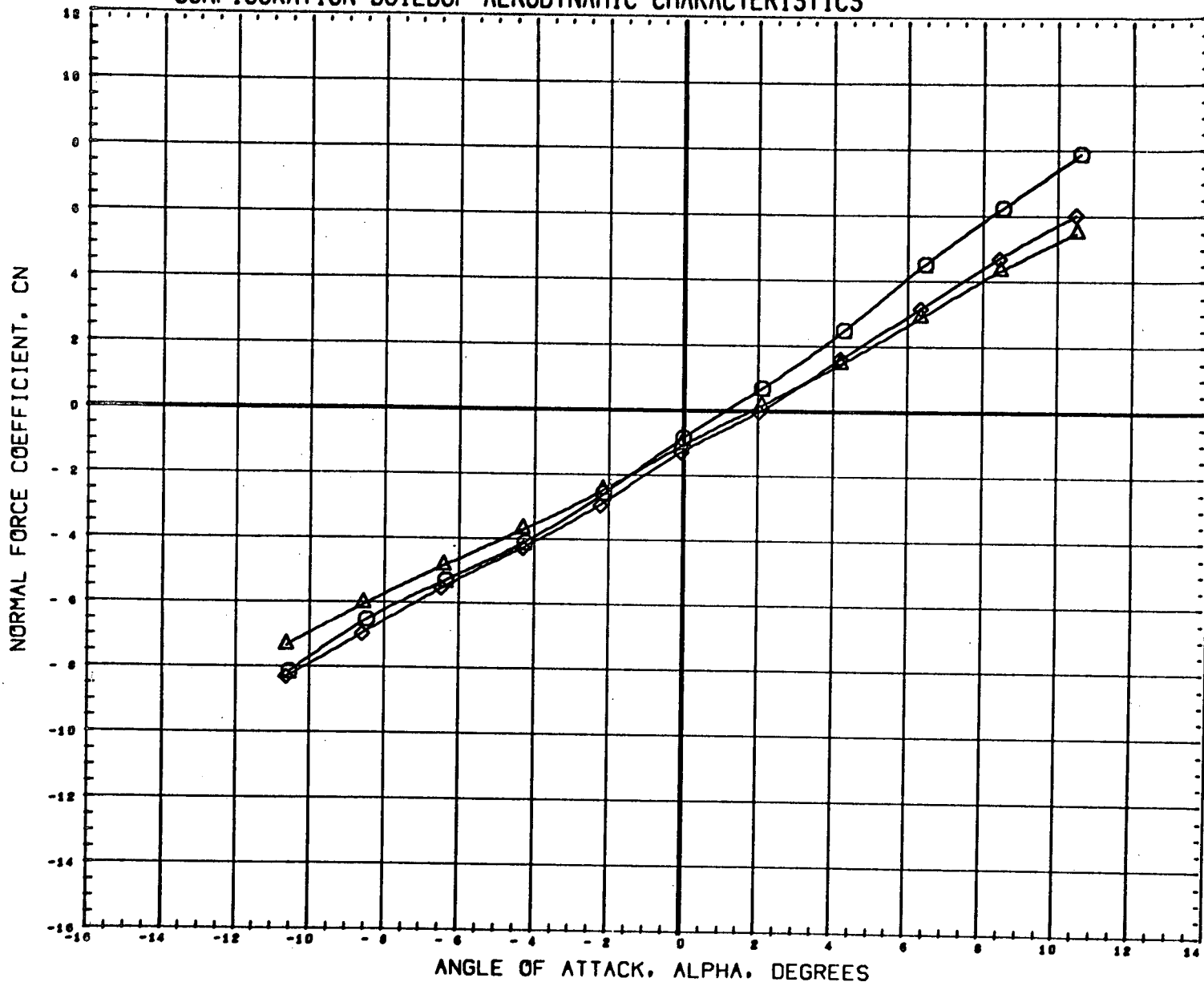
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47003)	NSFC TMT 505 T111L/DY07
(R47005)	NSFC TMT 505 T111L/DY07
(R47007)	NSFC TMT 505 T111L/DY07

ALPHA
01
01D1
01D1L2
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.480

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047000)	MSFC TWT 505 T111L/DT07
(047011)	MSFC TWT 505 T111L/DT07
(047001)	MSFC TWT 505 T111L/DT07

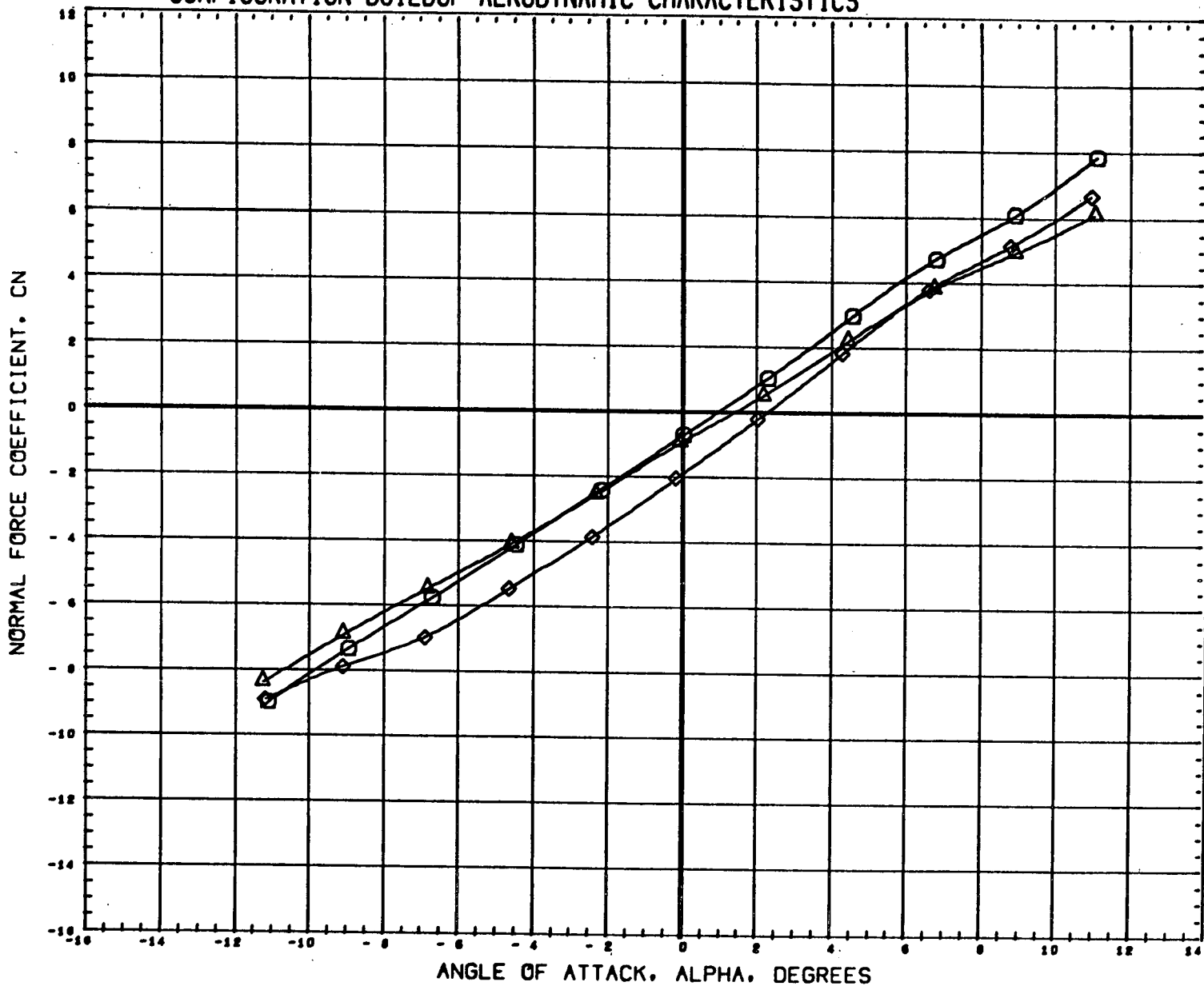
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.3340	88 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

HACH 0.590

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	MSFC TWT 505 T111L/DT07
(B47011)	MSFC TWT 505 T111L/DT07
(B47001)	MSFC TWT 505 T111L/DT07

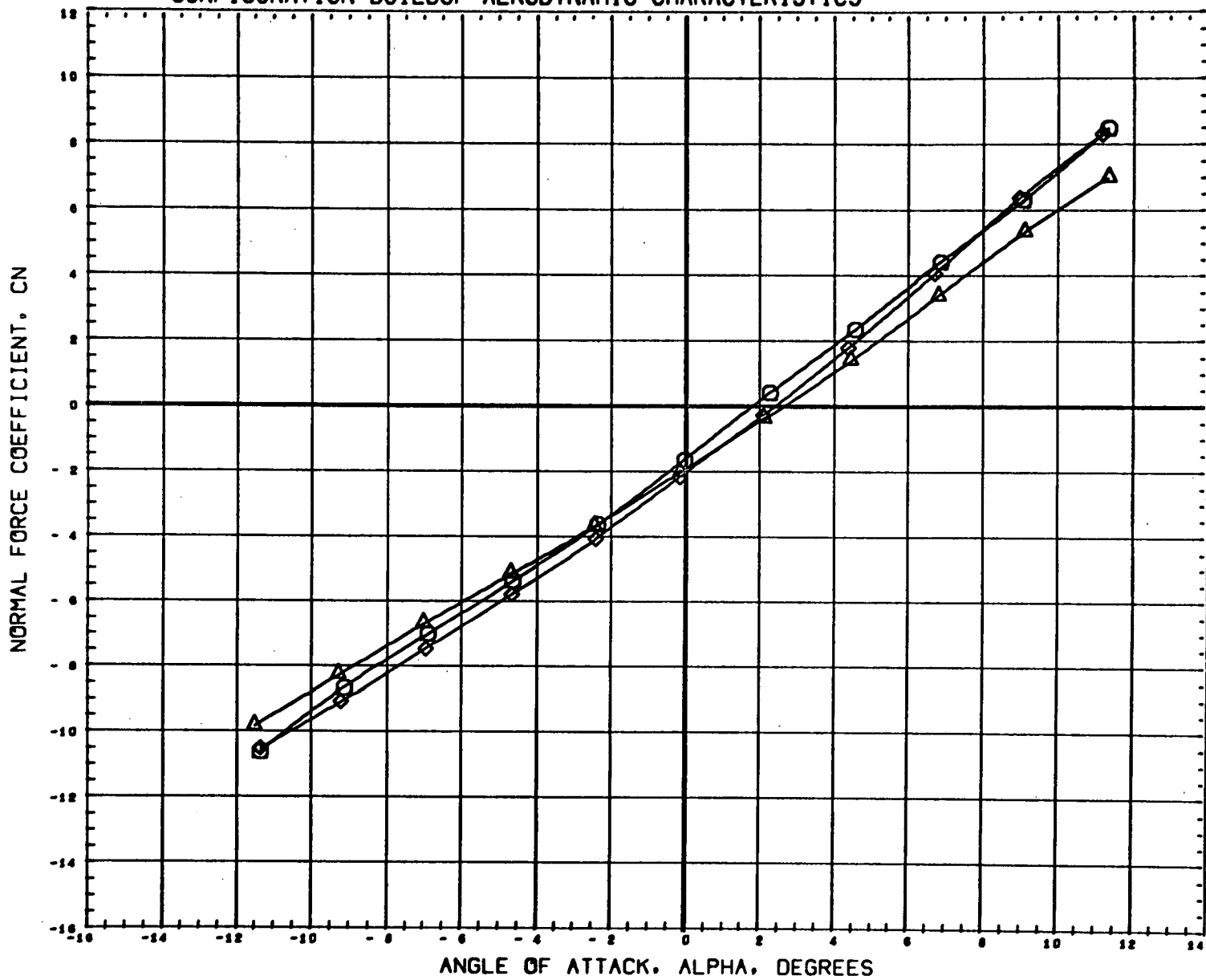
01D2L4
0101
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.901

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	MSFC TWT 505 T111L/DT07
(B47011)	MSFC TWT 505 T111L/DT07
(B47001)	MSFC TWT 505 T111L/DT07

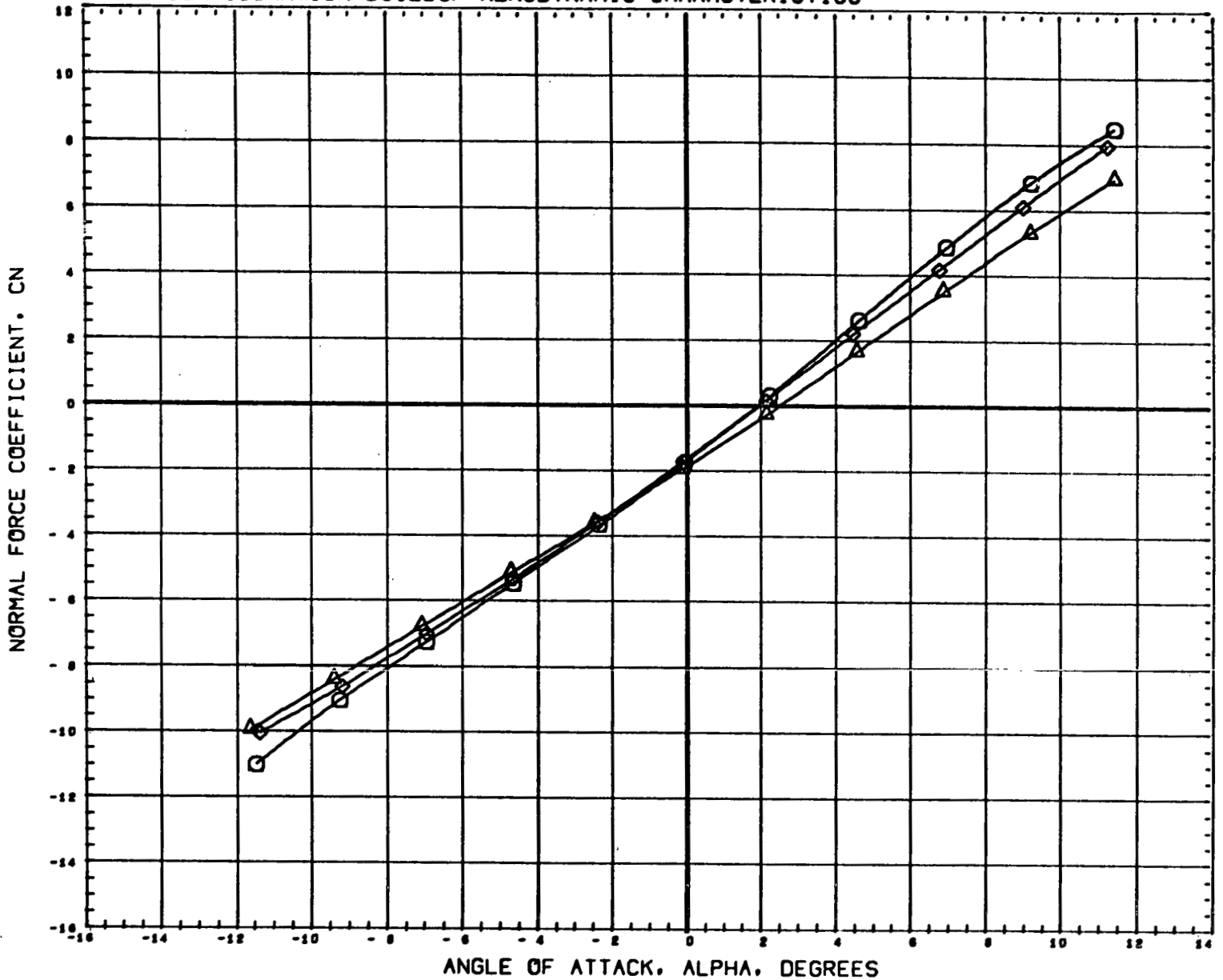
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
0102L4
0101
01

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.6840	INCHES
BREF	0.6840	INCHES
XNRP	2.9170	IN T11
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.995

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47008)	NSFC TWT 505 T111L/D107
(B47011)	NSFC TWT 505 T111L/D107
(B47001)	NSFC TWT 505 T111L/D107

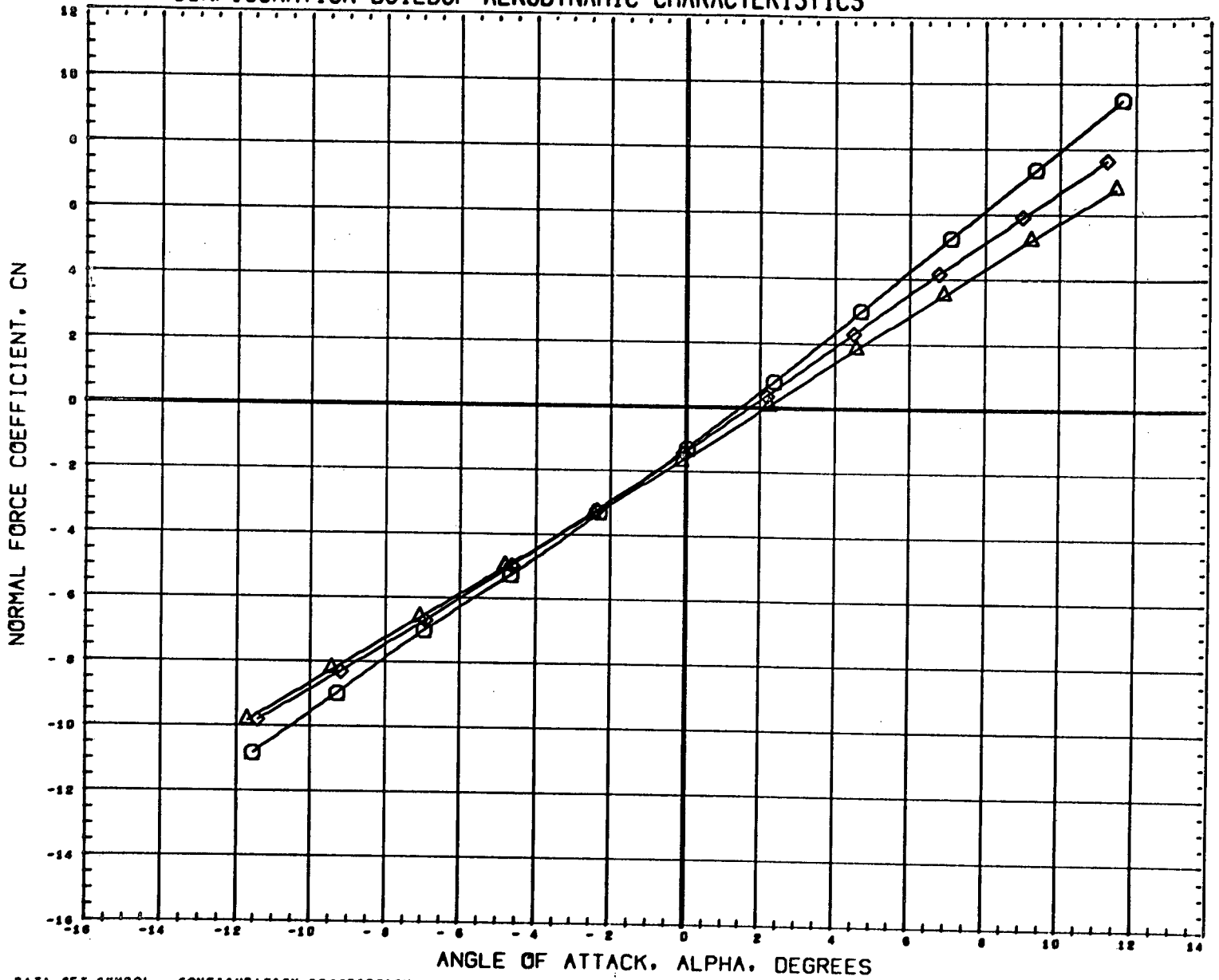
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
0102L4
0101
01

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4390	PERCENT

NACH 1.101

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



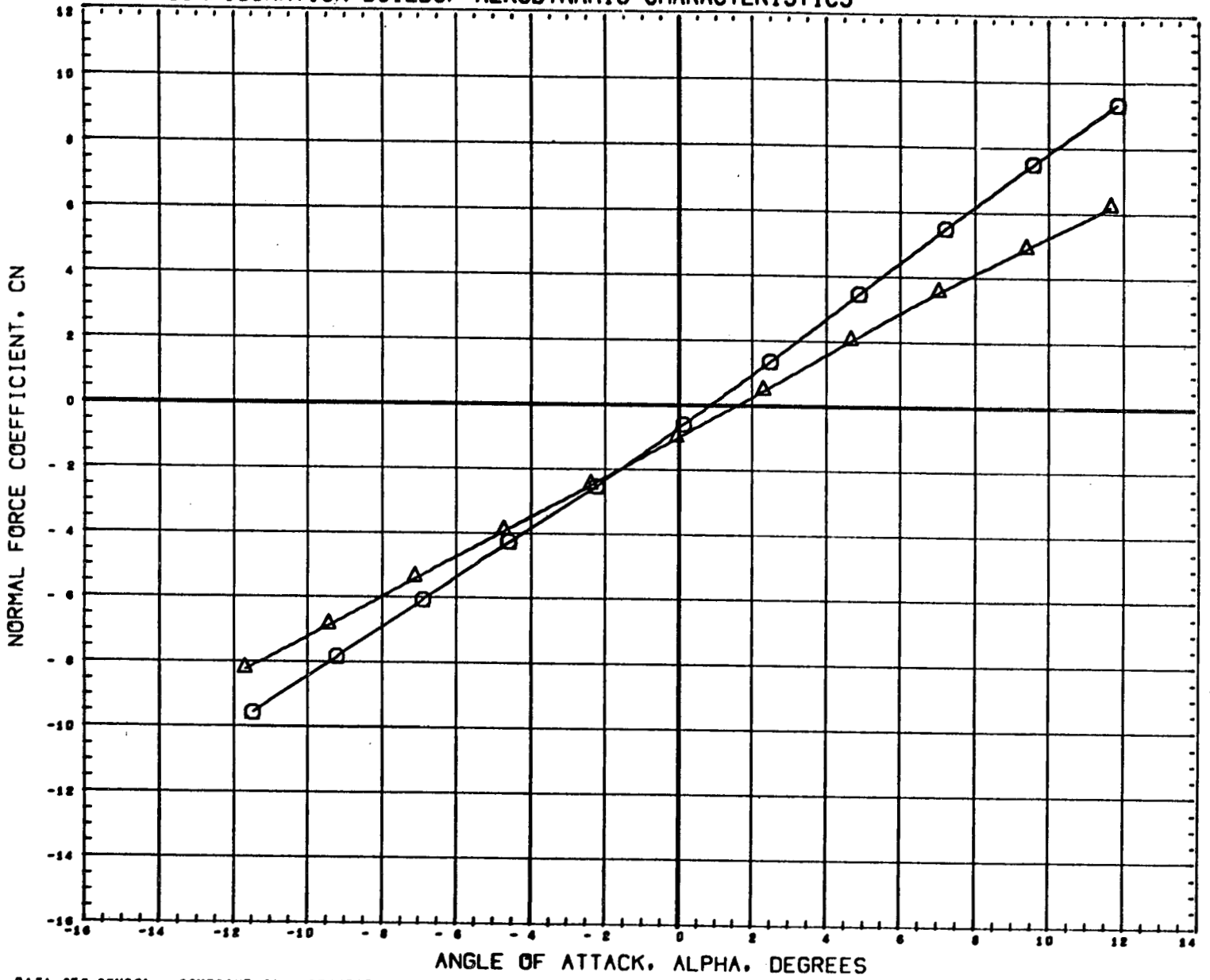
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(847000) □	MSFC TWT 505 T111L/D107
(847011) △	MSFC TWT 505 T111L/D107
(847003) ◇	MSFC TWT 505 T111L/D107

BETA
0102L4
0101
01
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.202

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

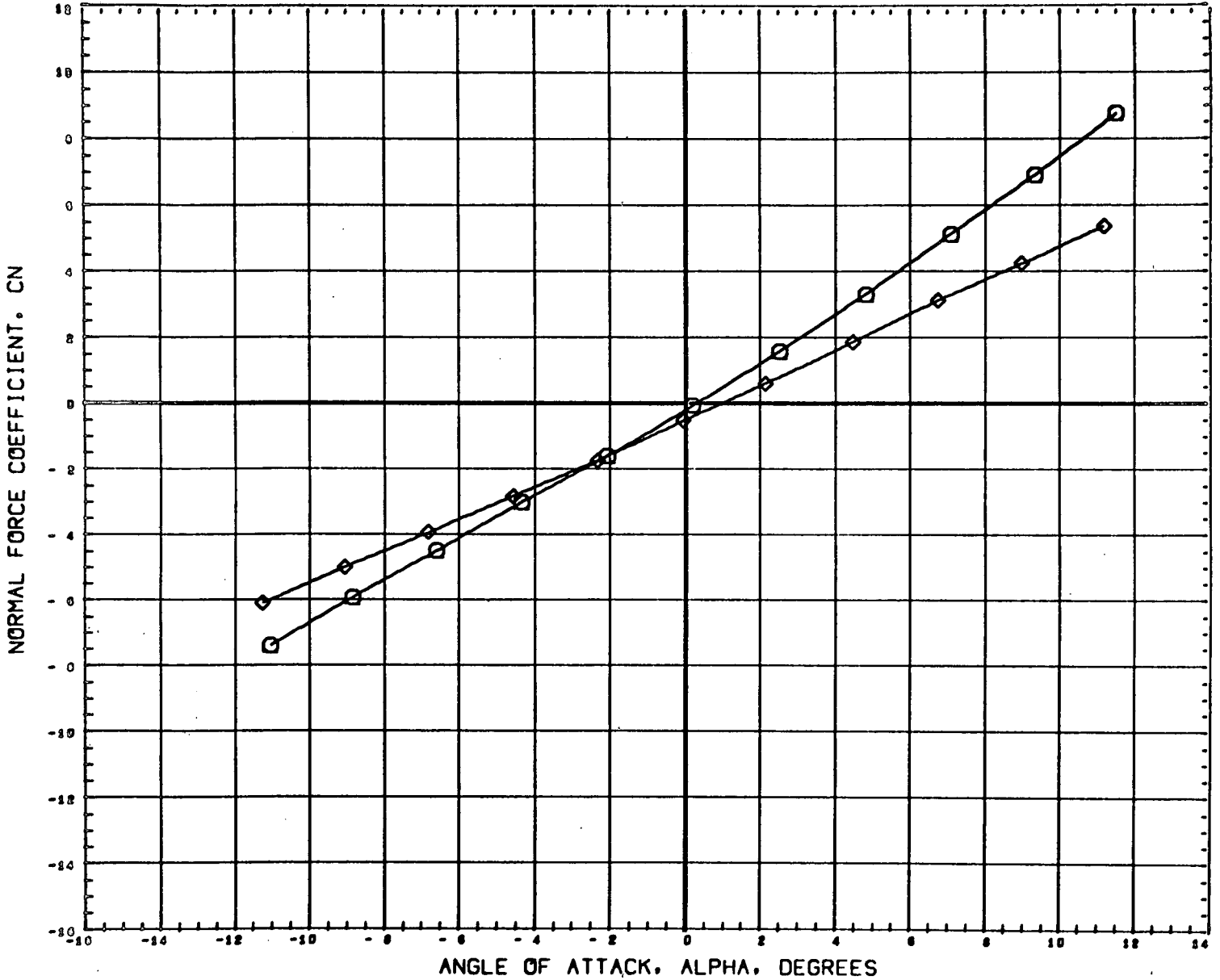


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47006)	NSFC TWT 505 T111L/DY07 0102L4	0.000
(B47011)	NSFC TWT 505 T111L/DY07 0101	0.000
(B47001)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
SREF	0.0240	INCHES
XMRP	2.0170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.463

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

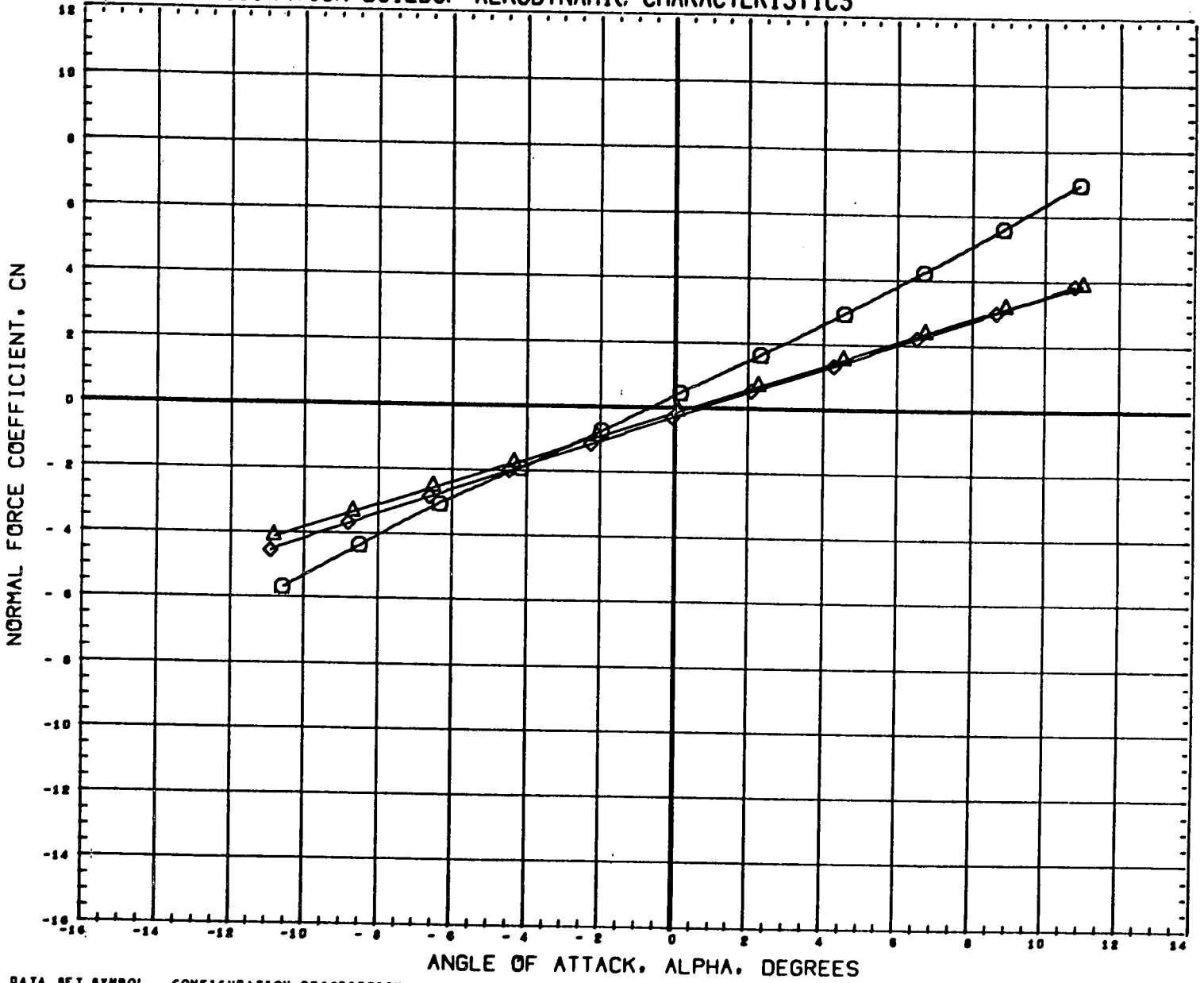


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(D07000)	HSFC TWT 303 T111L/DT07 D102L4	0.000
(D07011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(D07003)	HSFC TWT 303 T111L/DT07 01	0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.0170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MOCH 1.984

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(847008) ○	MSFC TWT 505 T111L/D107
(847011) △	MSFC TWT 505 T111L/D107
(847005) ◇	MSFC TWT 505 T111L/D107

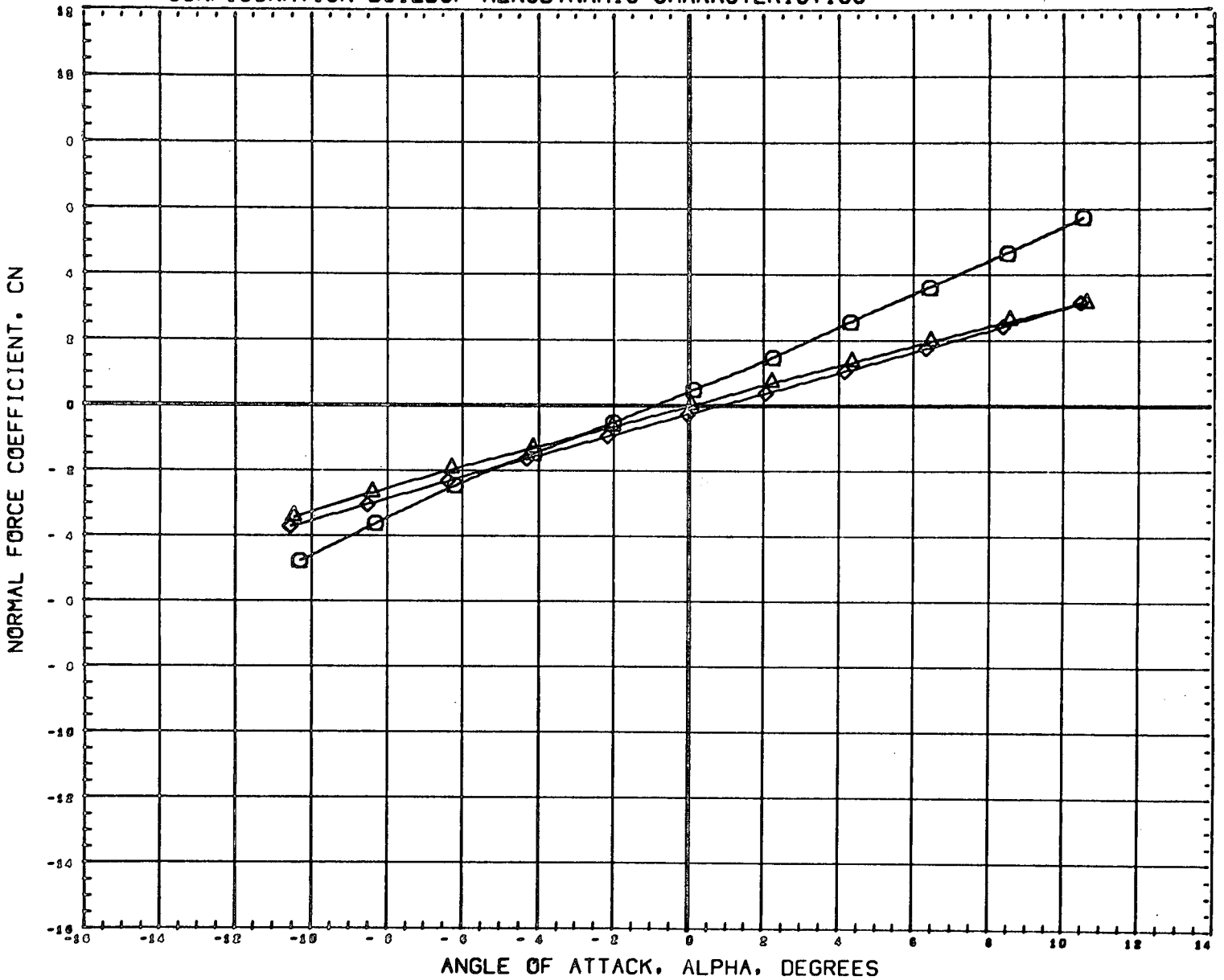
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SRFP	0.5340	80 INC
LRFP	0.6240	INCHES
BRFP	0.6240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

BACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	HSFC TWT 505 T111L/D107
(B47011)	HSFC TWT 505 T111L/D107
(B47001)	HSFC TWT 505 T111L/D107

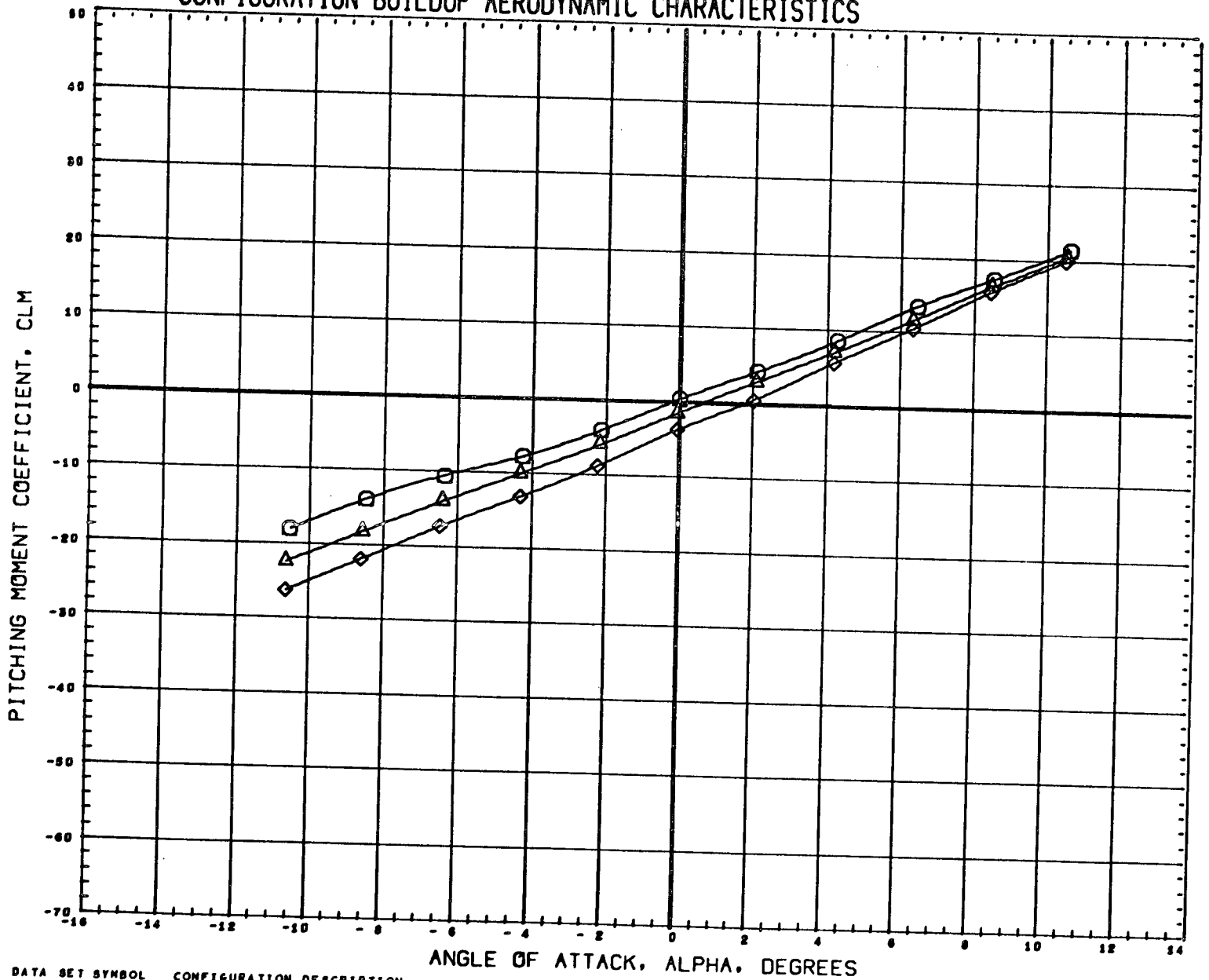
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.3340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 5.480

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



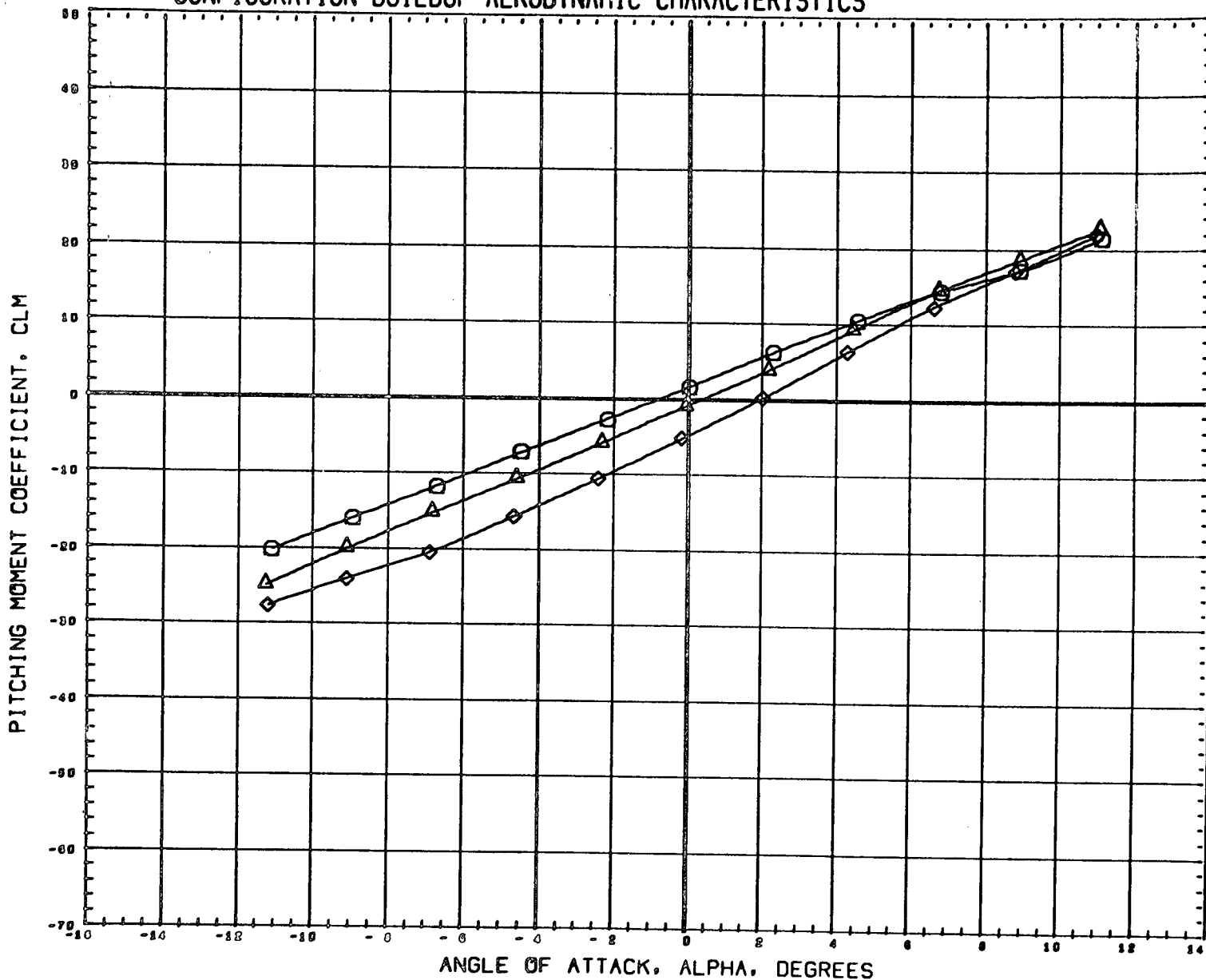
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47009)	MSFC TWT 505 T111L/D107
(B47011)	MSFC TWT 505 T111L/D107
(B47001)	MSFC TWT 505 T111L/D107

0102L4	BETA
0101	0.000
01	0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.998

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047000)	MSFC TWT 305 T111L/D107
(047011)	MSFC TWT 305 T111L/D107
(047001)	MSFC TWT 305 T111L/D107

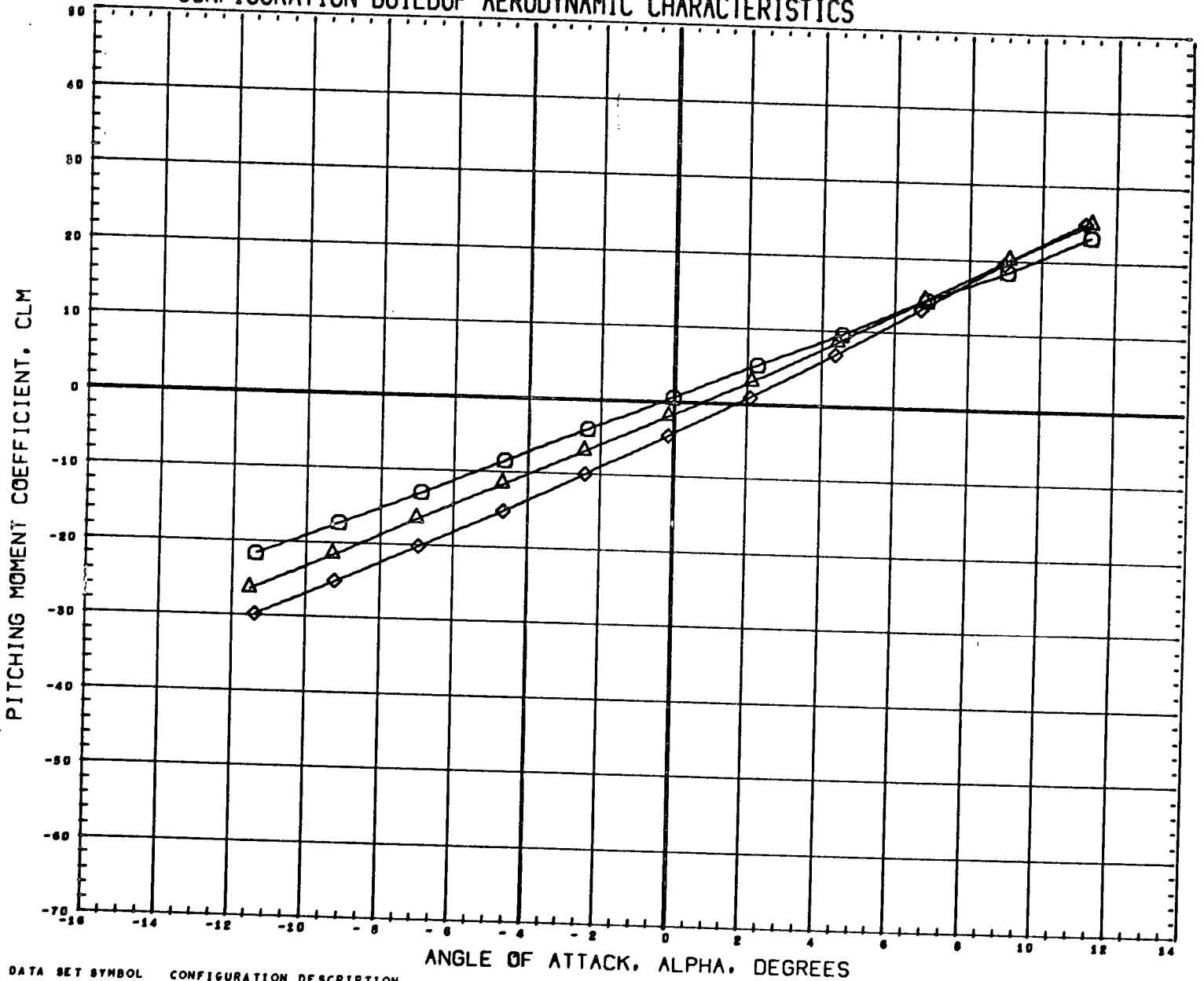
01D2L4
01D1
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.901

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



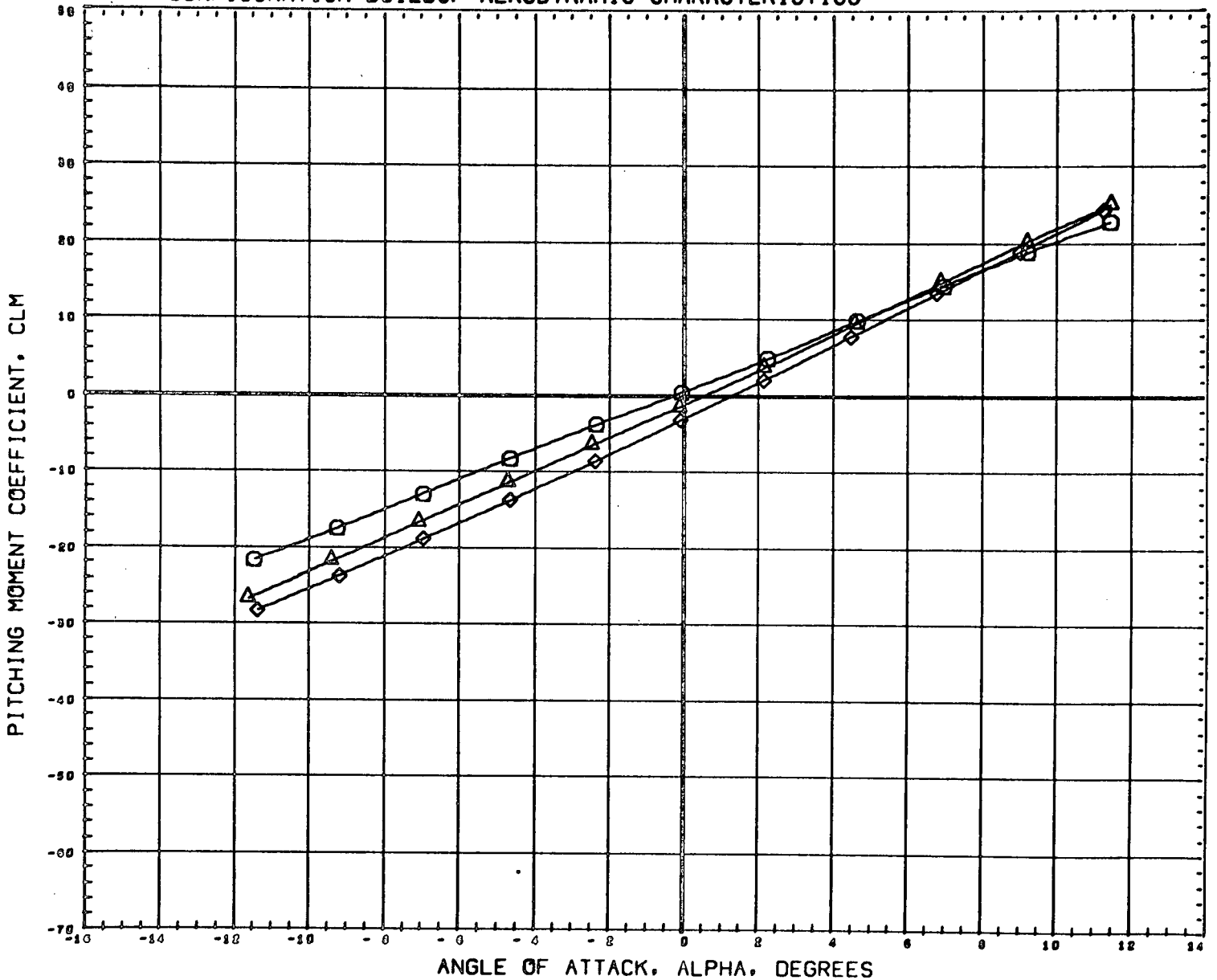
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47008)	MSFC TWT 505 T111L/D107
(B47011)	MSFC TWT 505 T111L/D107
(B47001)	MSFC TWT 505 T111L/D107

01D2L4	BETA
01D1	0.000
01	0.000

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.995

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047000)	MSFC TWT 905 T111L/DT07
(047011)	MSFC TWT 905 T111L/DT07
(047001)	MSFC TWT 905 T111L/DT07

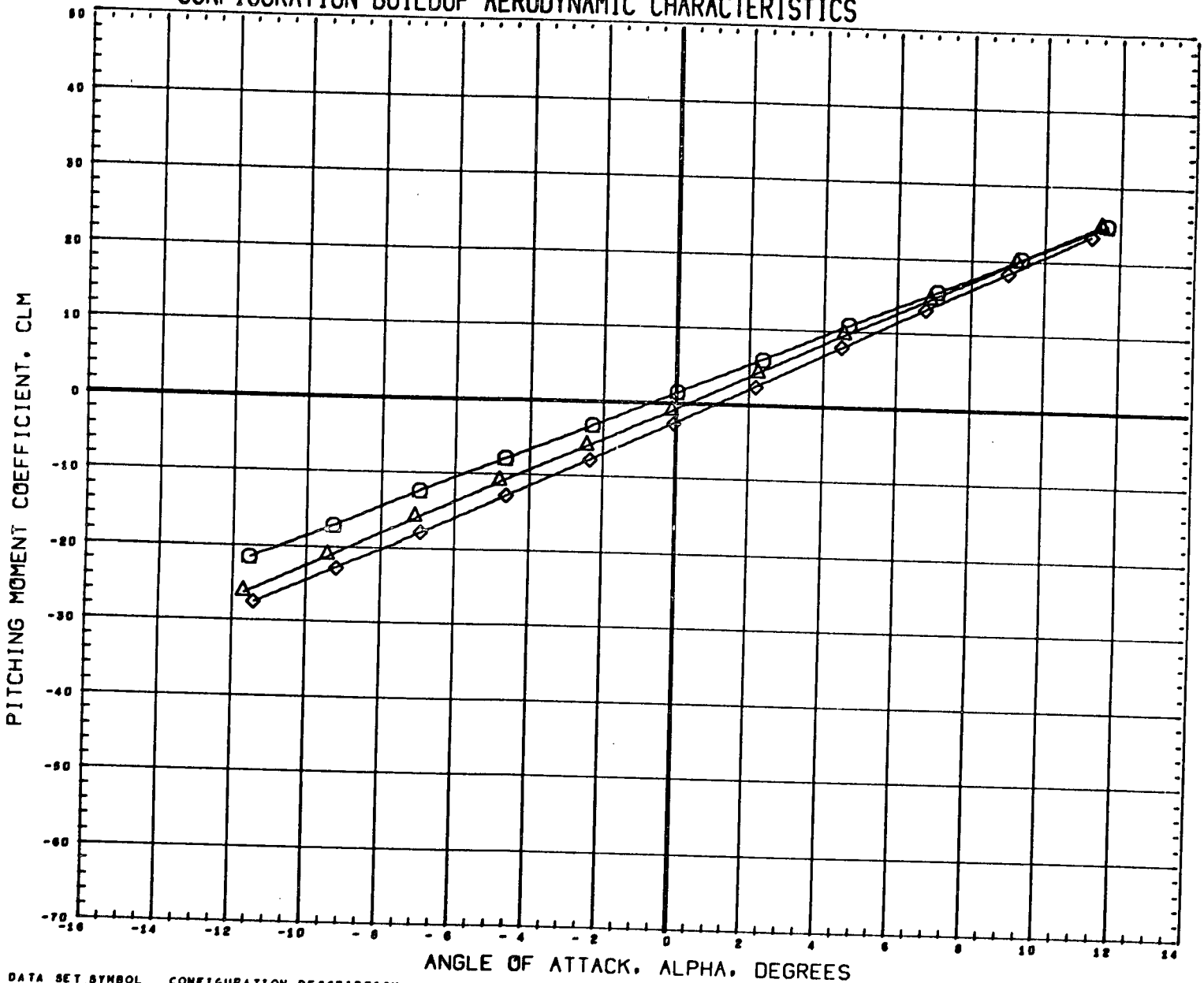
0102L4
01D1
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.101

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	N8FC TWT 503 T111L/D107
(B47011)	N8FC TWT 503 T111L/D107
(B47001)	N8FC TWT 503 T111L/D107

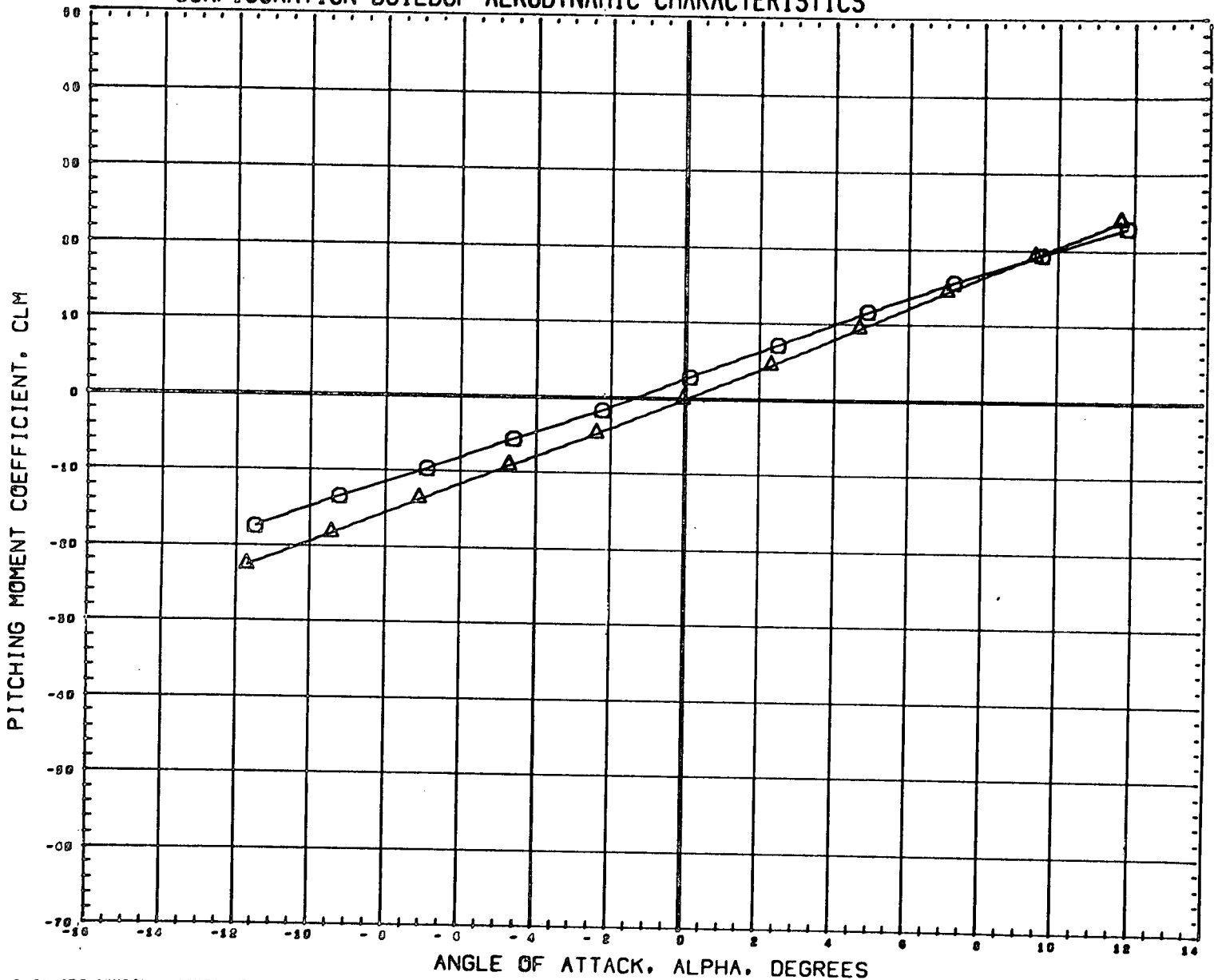
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
01D2L4
01D1
01
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.3340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.202

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

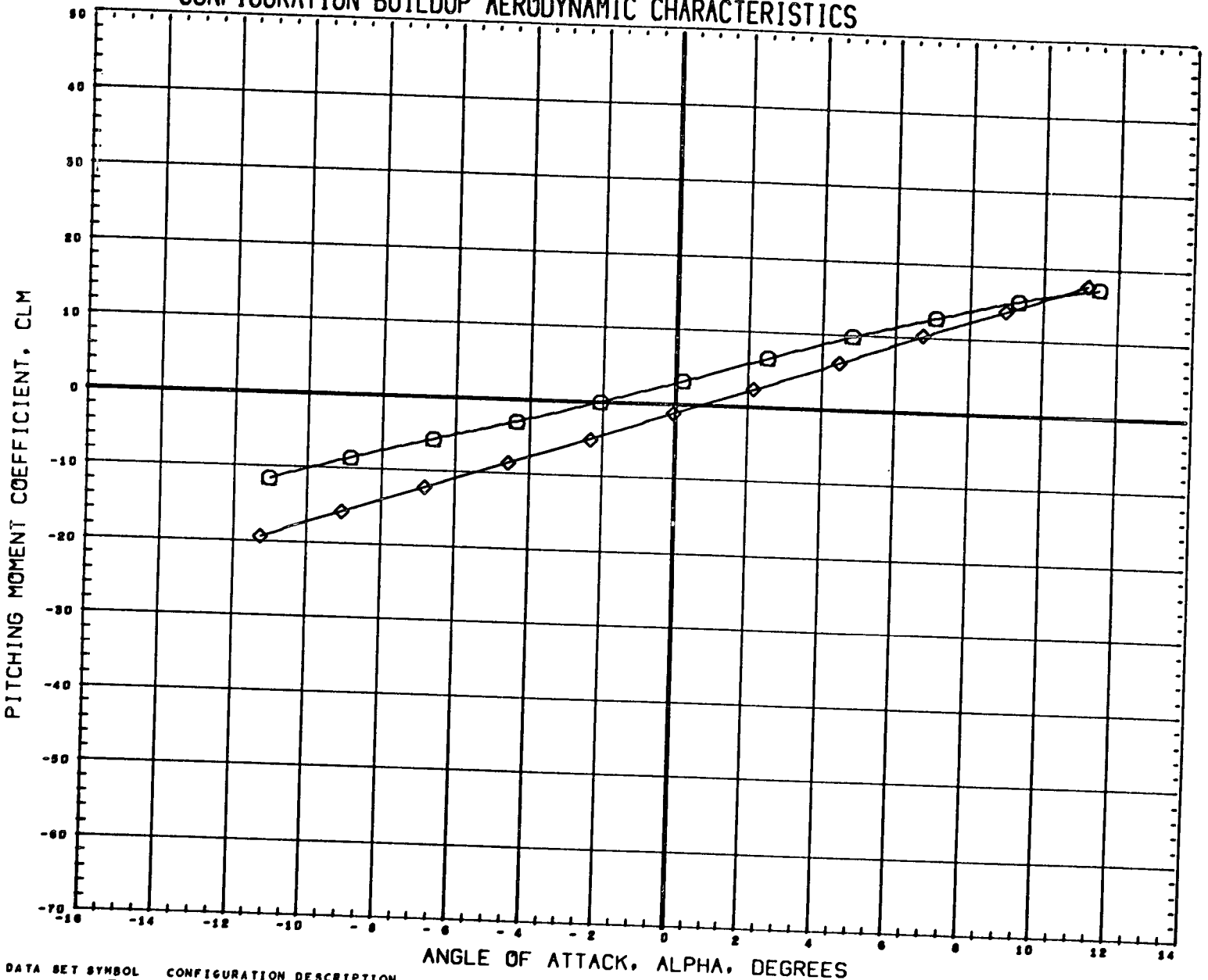


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(047000)	HSFC TWT 909 T111L/DT07 0102L4	0.000
(047011)	HSFC TWT 909 T111L/DT07 0101	0.000
(047002)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000

MACH 2.603

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.0170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

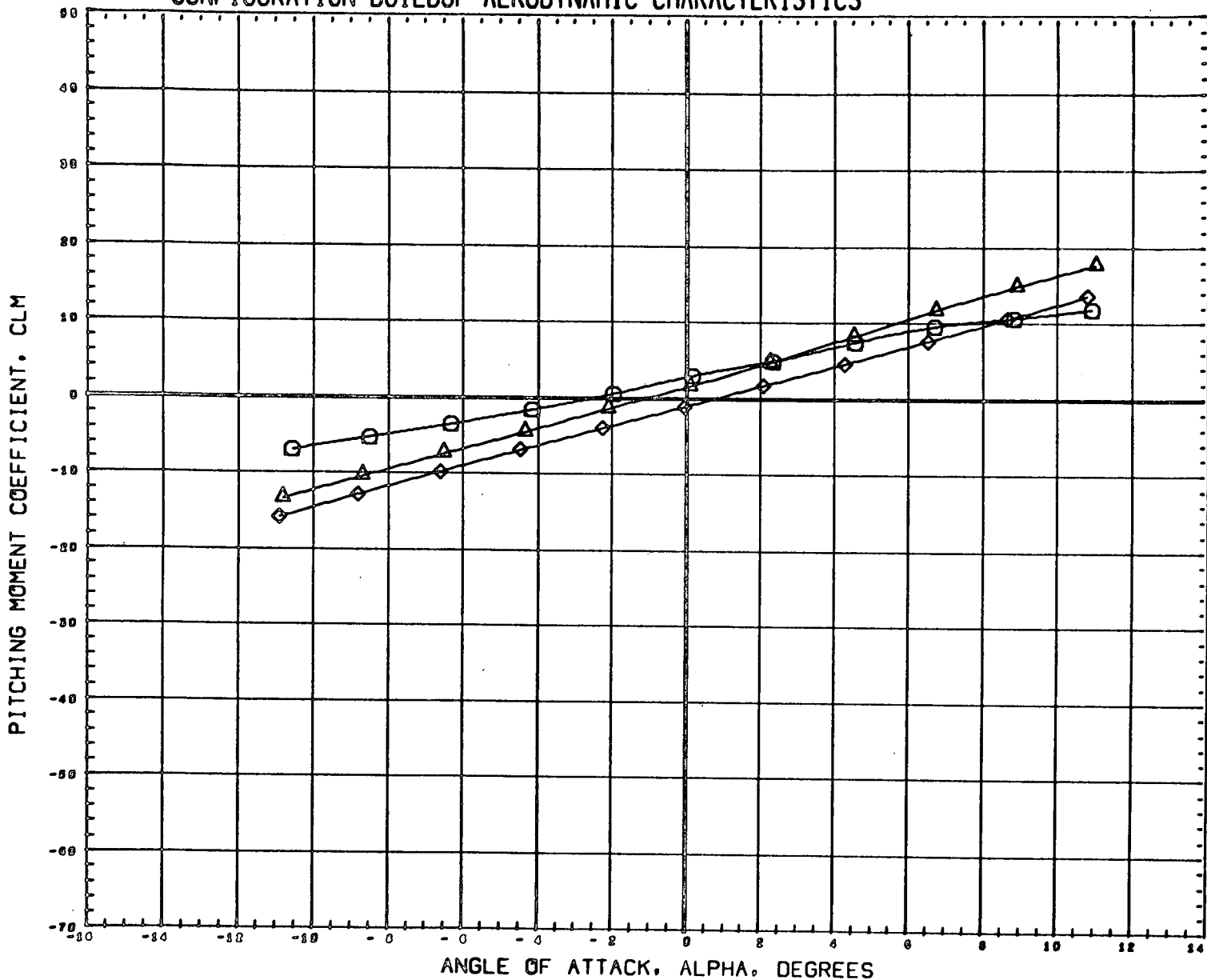


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47006)	NSFC TWT 505 T111L/DT07	0.000
(B47011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(B47001)	NSFC TWT 505 T111L/DT07	0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

NACH 1.964

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047000)	HSPC TWT 909 T111L/D107
(047011)	HSPC TWT 909 T111L/D107
(047003)	HSPC TWT 909 T111L/D107

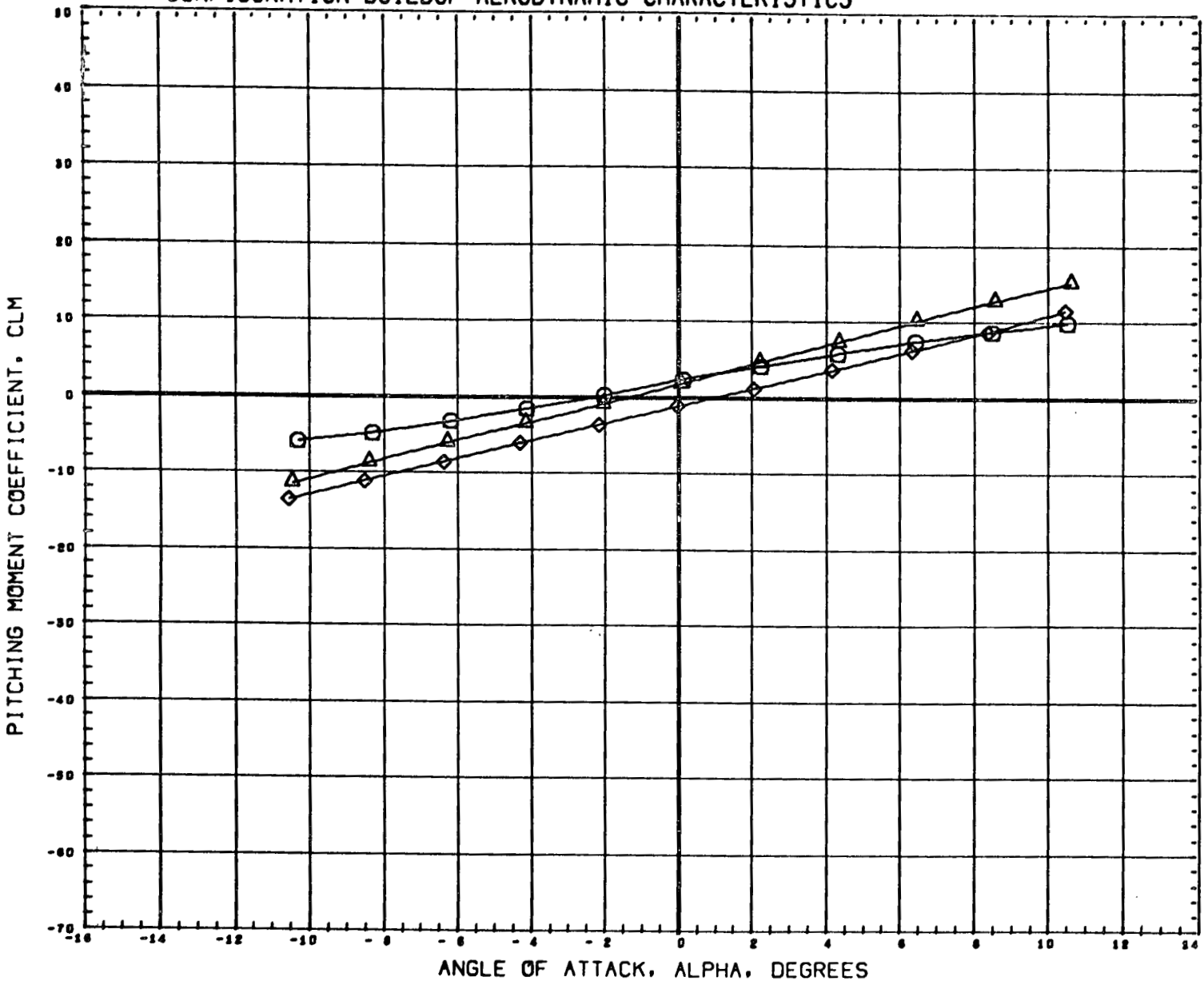
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



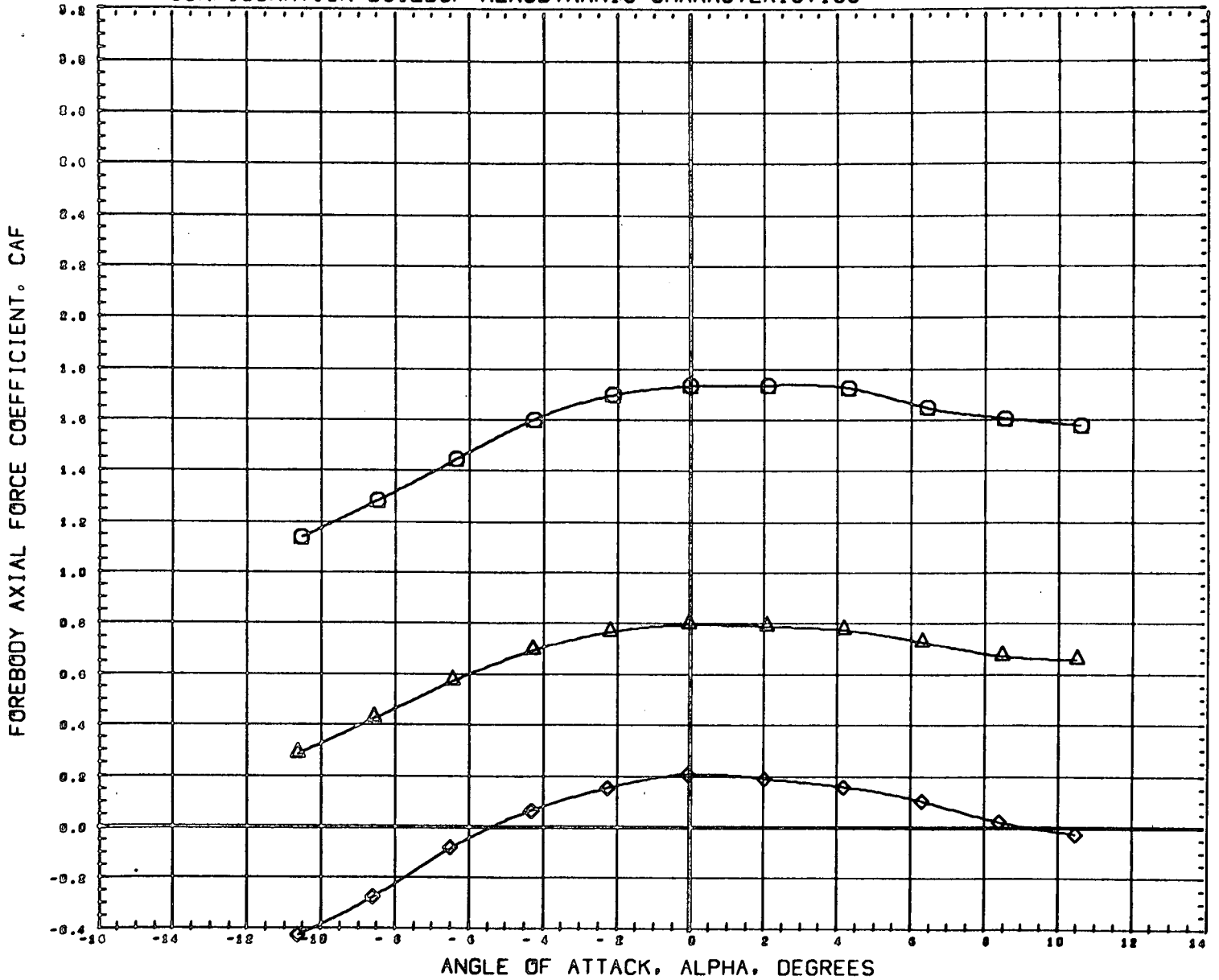
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47008)	NSFC TWT 505 T111L/D707
(B47011)	NSFC TWT 505 T111L/D707
(B47001)	NSFC TWT 505 T111L/D707

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	90 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.480

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	MSFC THT 909 T111L/DT07
(B47011)	MSFC THT 909 T111L/DT07
(B47001)	MSFC THT 909 T111L/DT07

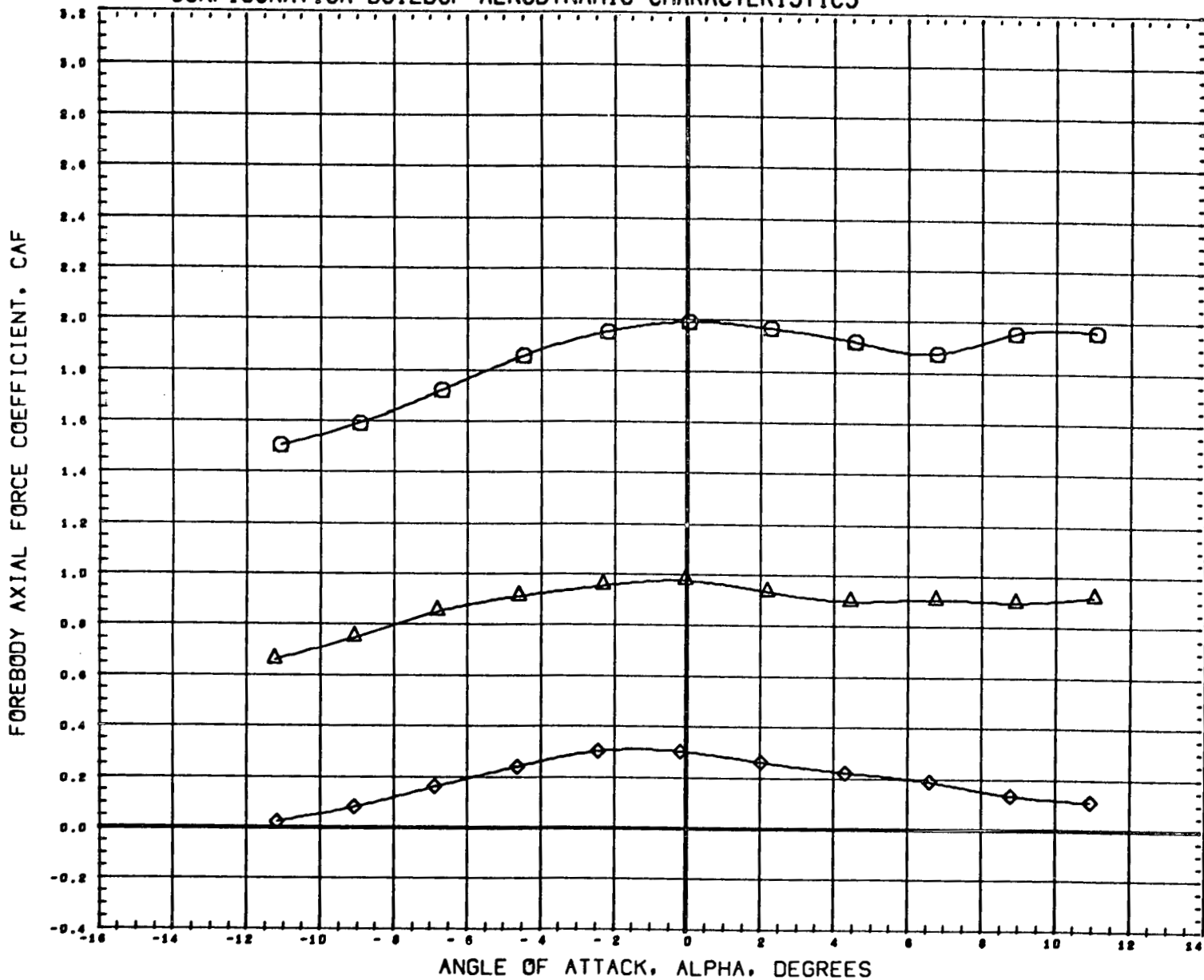
01D2L4
01D1
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	90 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	0.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.990

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



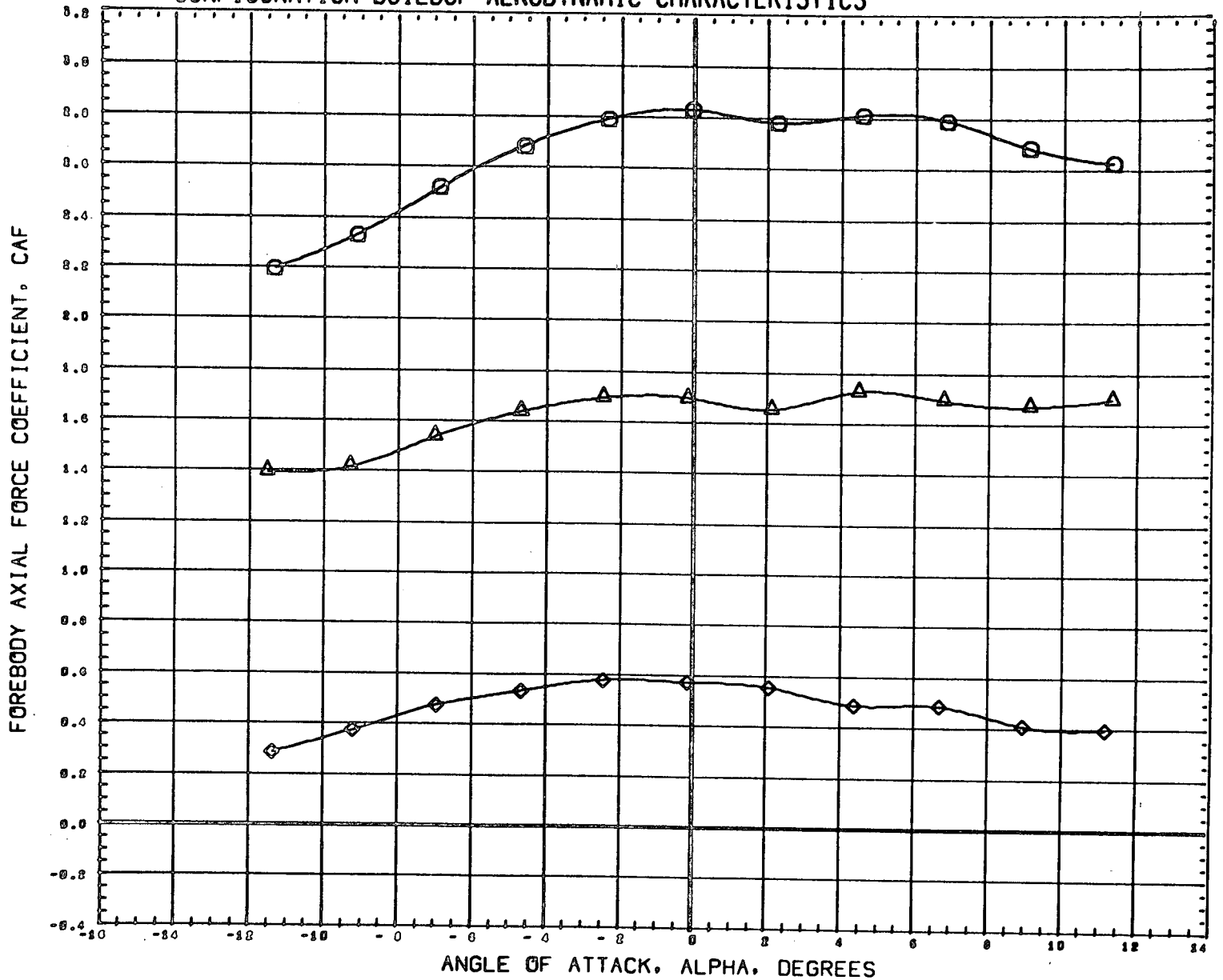
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47008)	MSFC TWT 505 T111L/DT07
(B47011)	MSFC TWT 505 T111L/DT07
(B47001)	MSFC TWT 505 T111L/DT07

BETA
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 0.5340 80 INC
LREF 0.8240 INCHES
BREF 0.8240 INCHES
XMRP 2.9170 IN T11
YMRP 0.0000 CORE C
ZMRP 0.0000 CORE C
SCALE 0.4300 PERCENT

MACH 0.901

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047000)	HSPC TWT 909 T111L/DT07
(047011)	HSPC TWT 909 T111L/DT07
(047001)	HSPC TWT 909 T111L/DT07

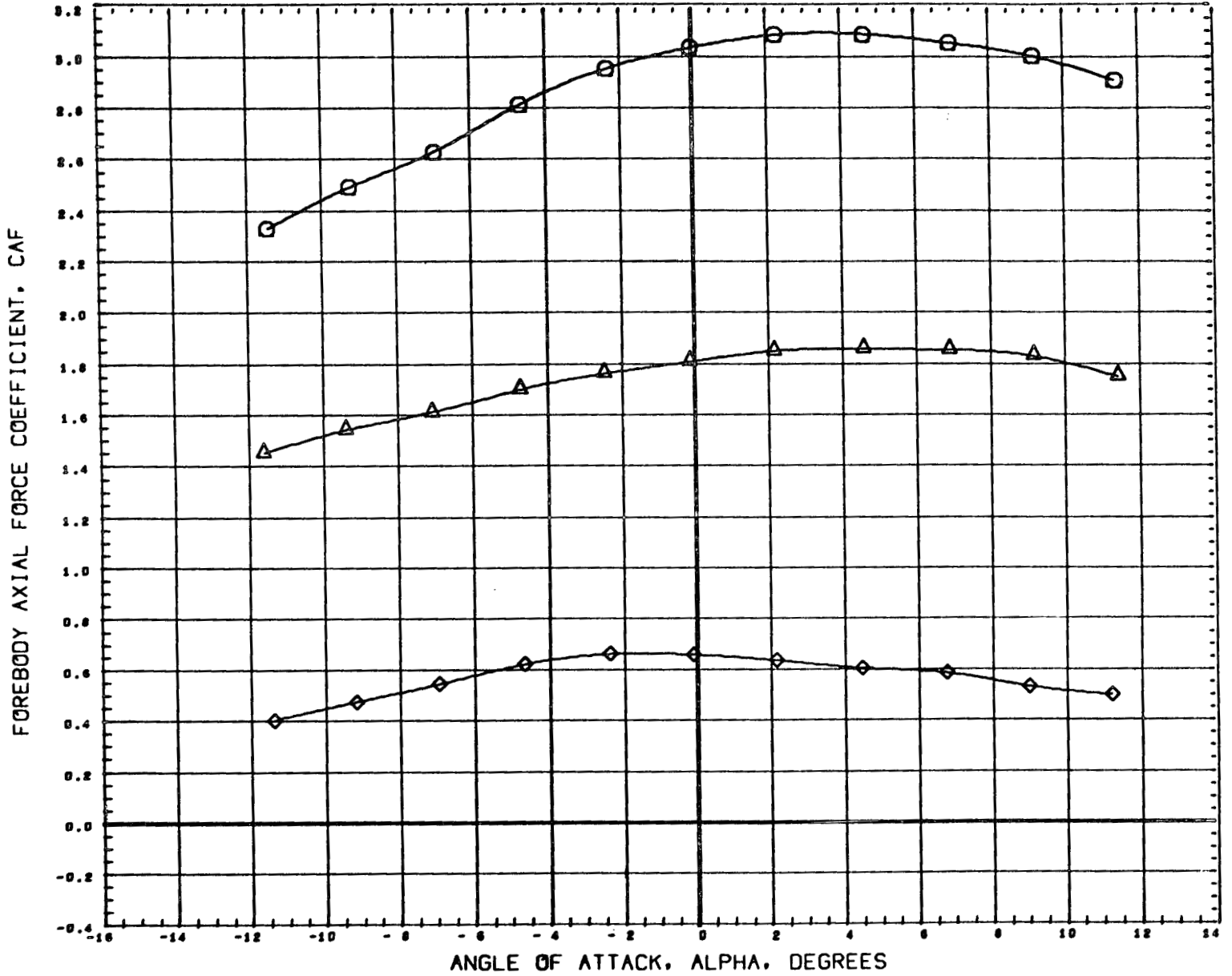
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	8.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.009

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047008)	MSFC TWT 505 T111L/DT07
(047011)	MSFC TWT 505 T111L/DT07
(047001)	MSFC TWT 505 T111L/DT07

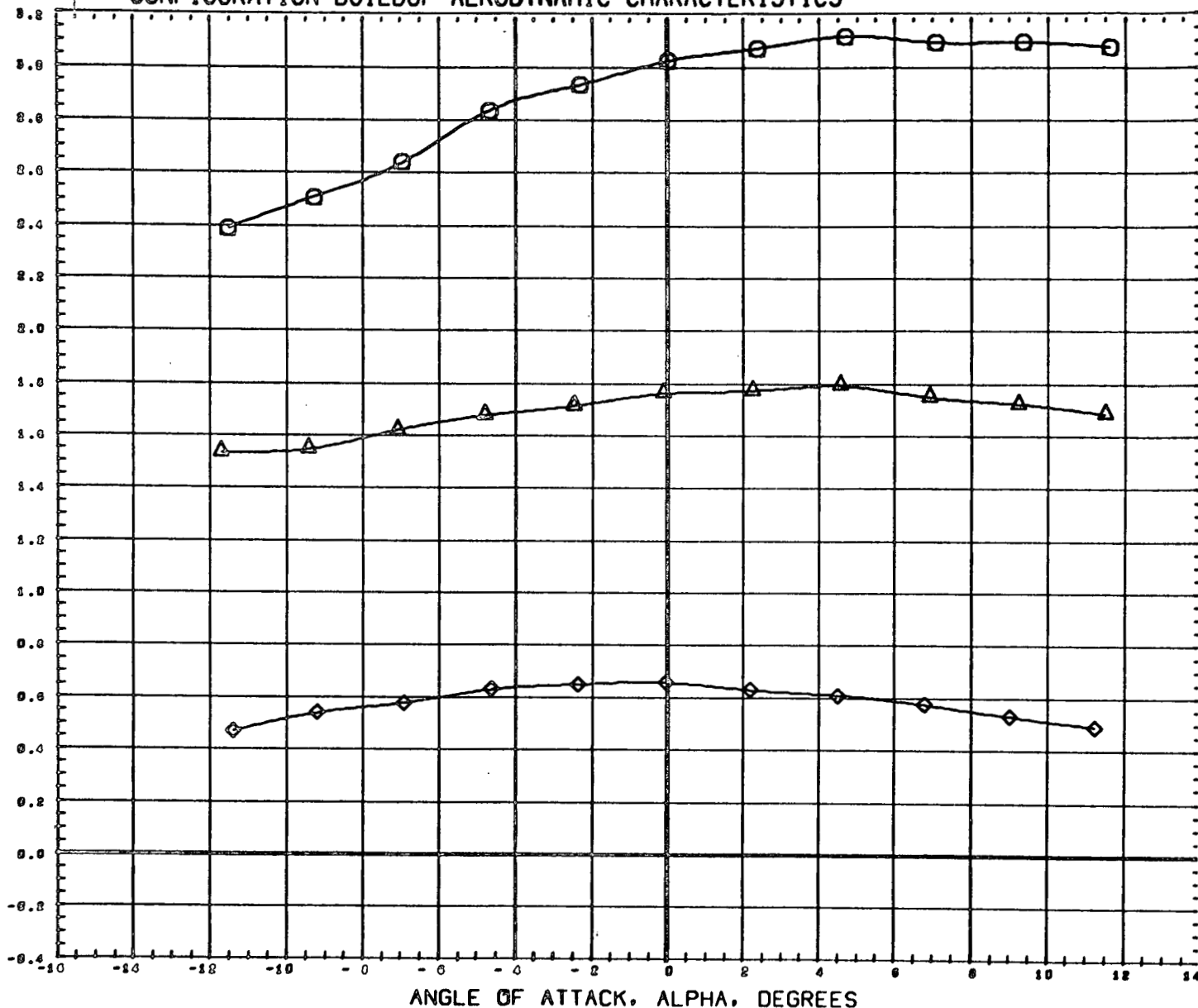
BETA
01D2L4
01D1
01

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.0170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

NACH 1.101

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047000) ○	MBFC TWT 909 T111L/D107
(047001) △	MBFC TWT 909 T111L/D107
(047002) ◇	MBFC TWT 909 T111L/D107

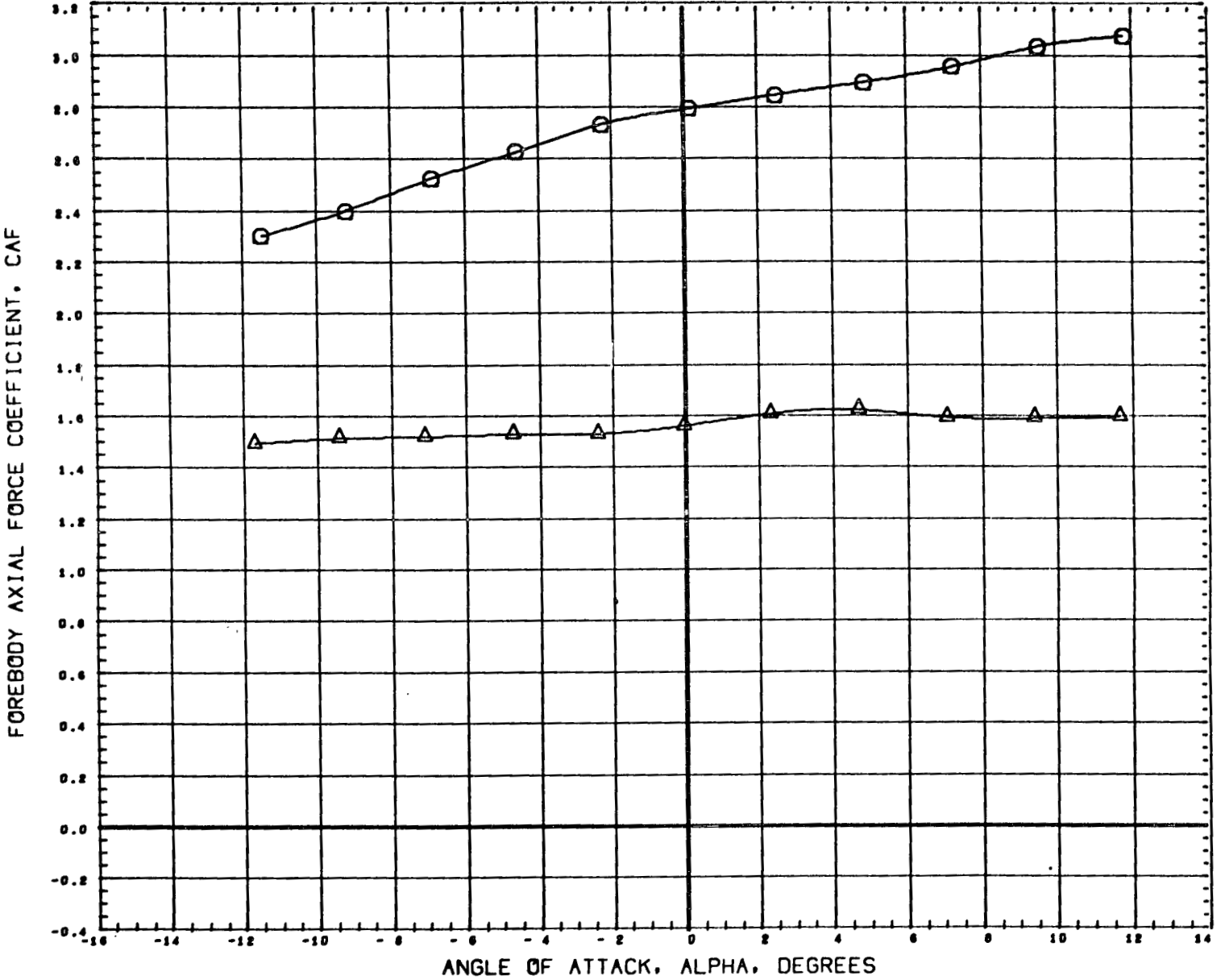
ANGLE OF ATTACK, ALPHA, DEGREES

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.6240	INCHES
BREF	0.6240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.202

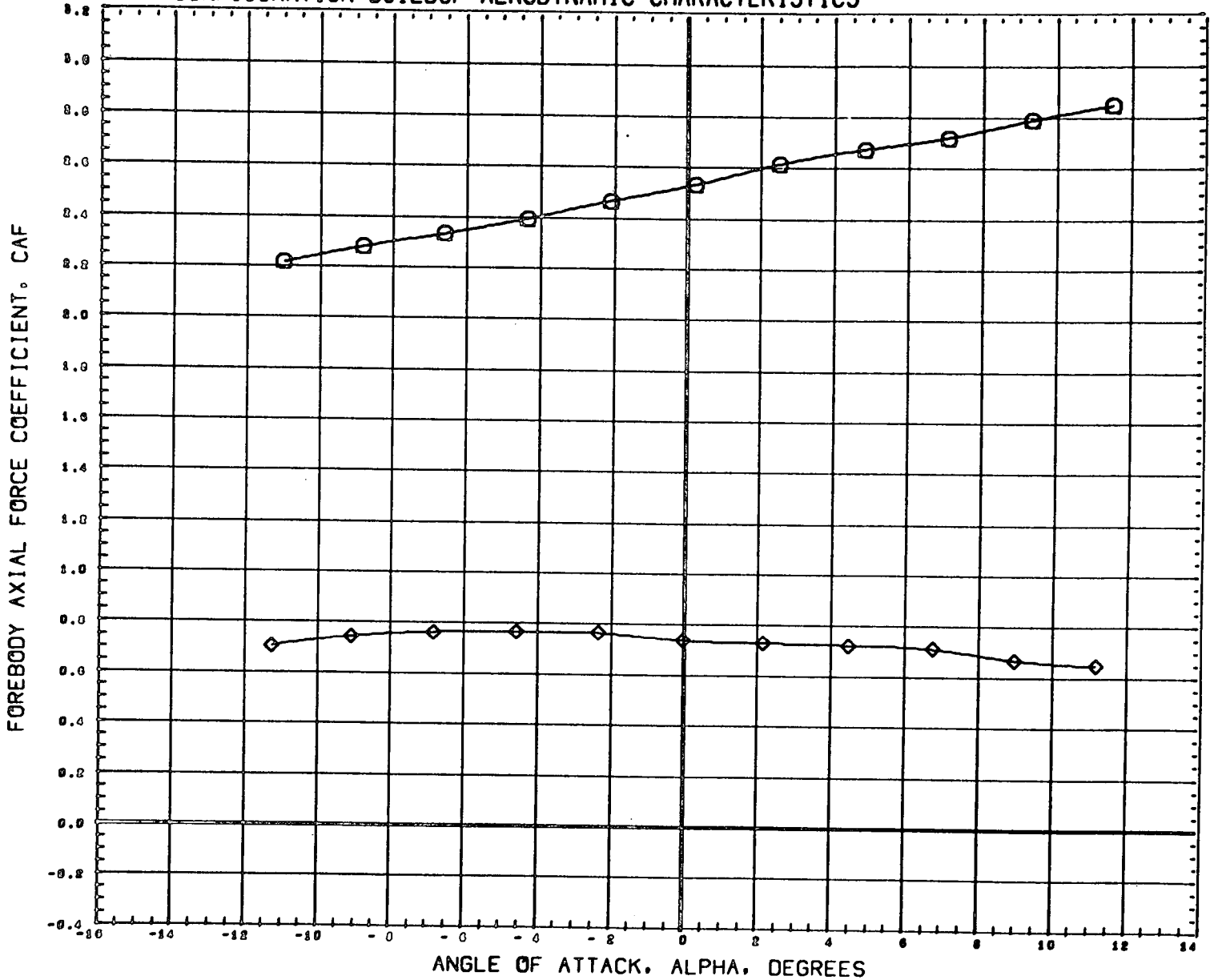
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(B47008) ○	WSFC TWT 505 T111L/D107 01D2L4	0.000	SREF 0.5340 80 INC
(B47011) △	WSFC TWT 505 T111L/D107 01D1	0.000	LREF 0.8240 INCHES
(B47001) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	BREF 0.8240 INCHES
			XMRP 2.9170 IN T11
			YMRP 0.0000 CORE C
			ZMRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 1.463

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

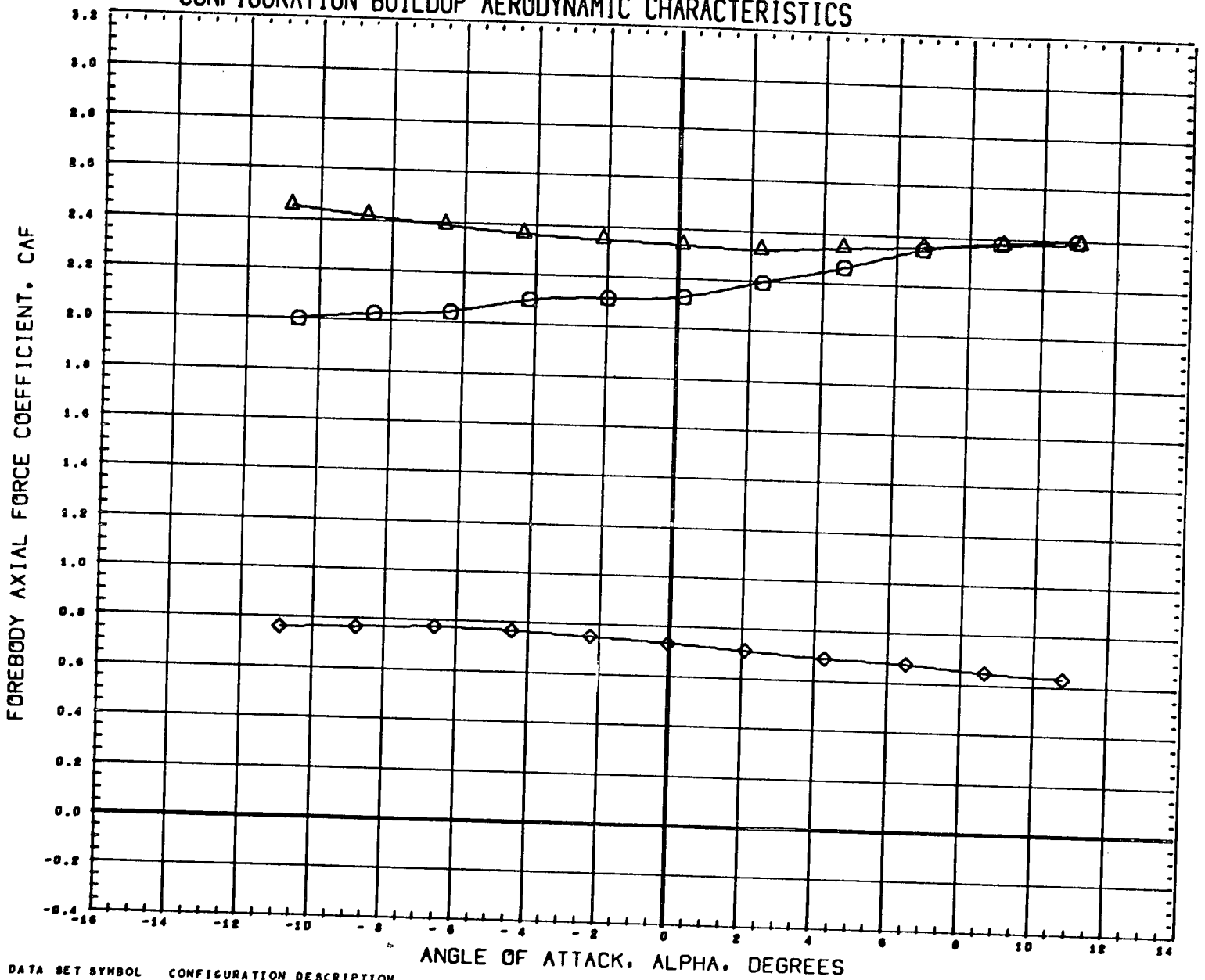


DATA KEY SYMBOL	CONFIGURATION DESCRIPTION	BETA
(047000) ○	MOFC TWT 905 T111L/D107 0102L4	0.000
(047011) △	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(047001) ◇	MOFC TWT 905 T111L/D107 01	0.000

REFERENCE INFORMATION		
SRFP	0.5340	50 INC
LRFP	0.8240	INCHES
BRFP	0.8240	INCHES
YMRP	2.9170	IN TII
ZMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.004

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



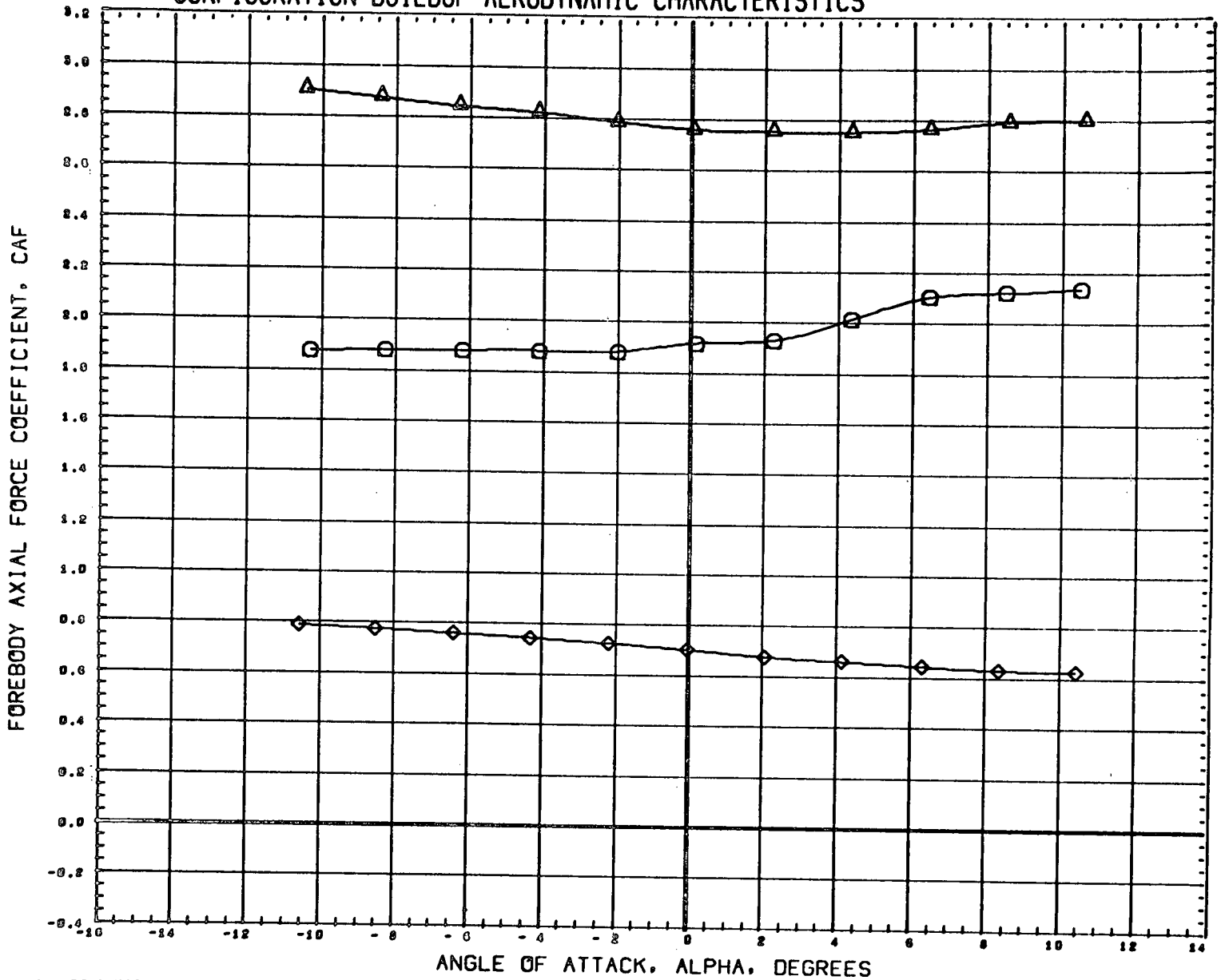
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (B47006) \triangle MSFC TWT 505 T111L/DT07
 (B47011) \circ MSFC TWT 505 T111L/DT07
 (B47001) \diamond MSFC TWT 505 T111L/DT07

BETA
 01D2L4 0.000
 03D1 0.000
 01 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XWRP 2.9170 IN T11
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	○	HSPC TWT 509 T111L/D107
(B47011)	△	HSPC TWT 509 T111L/D107
(B47001)	◇	HSPC TWT 509 T111L/D107

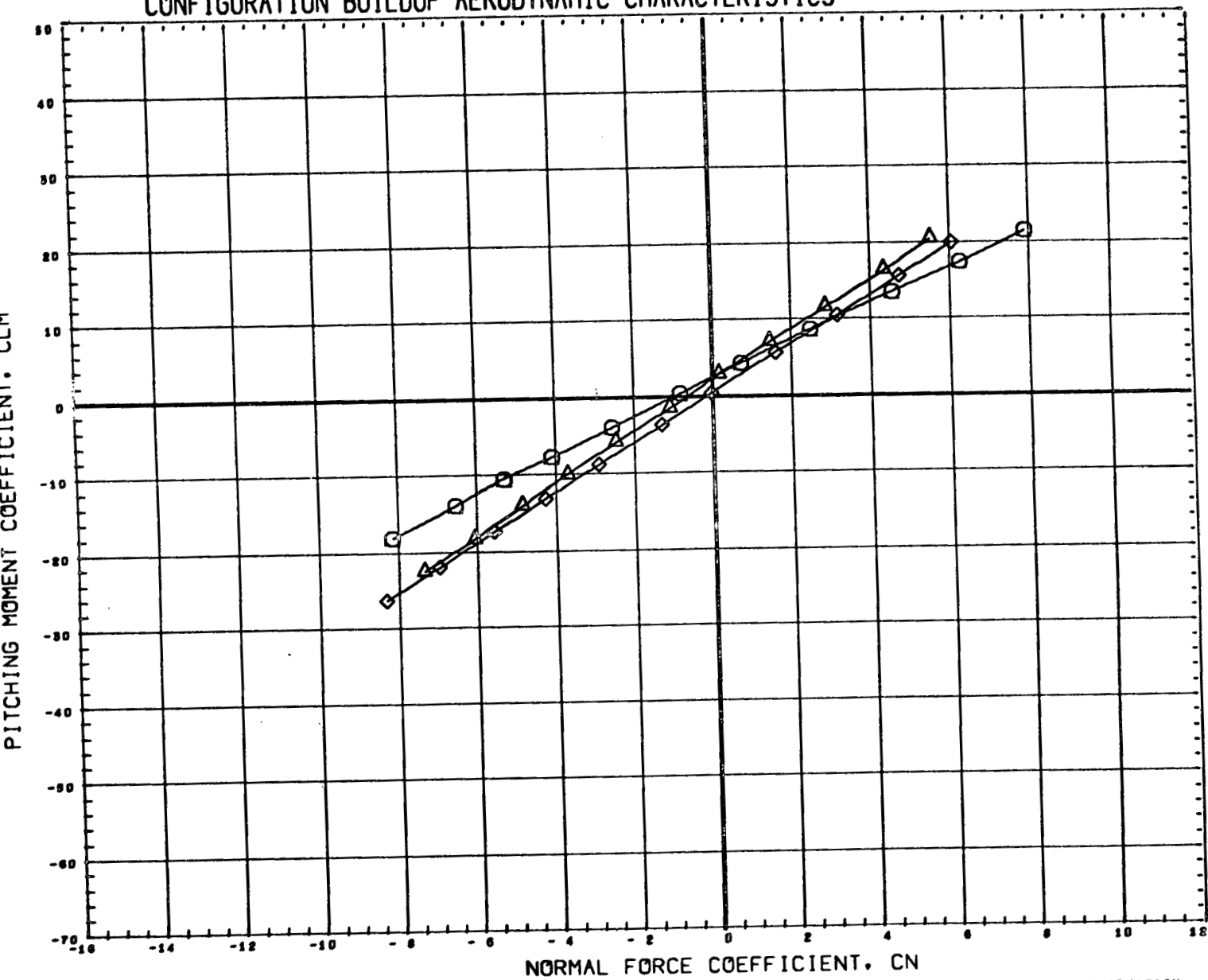
01D2L4
01D1
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.000

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



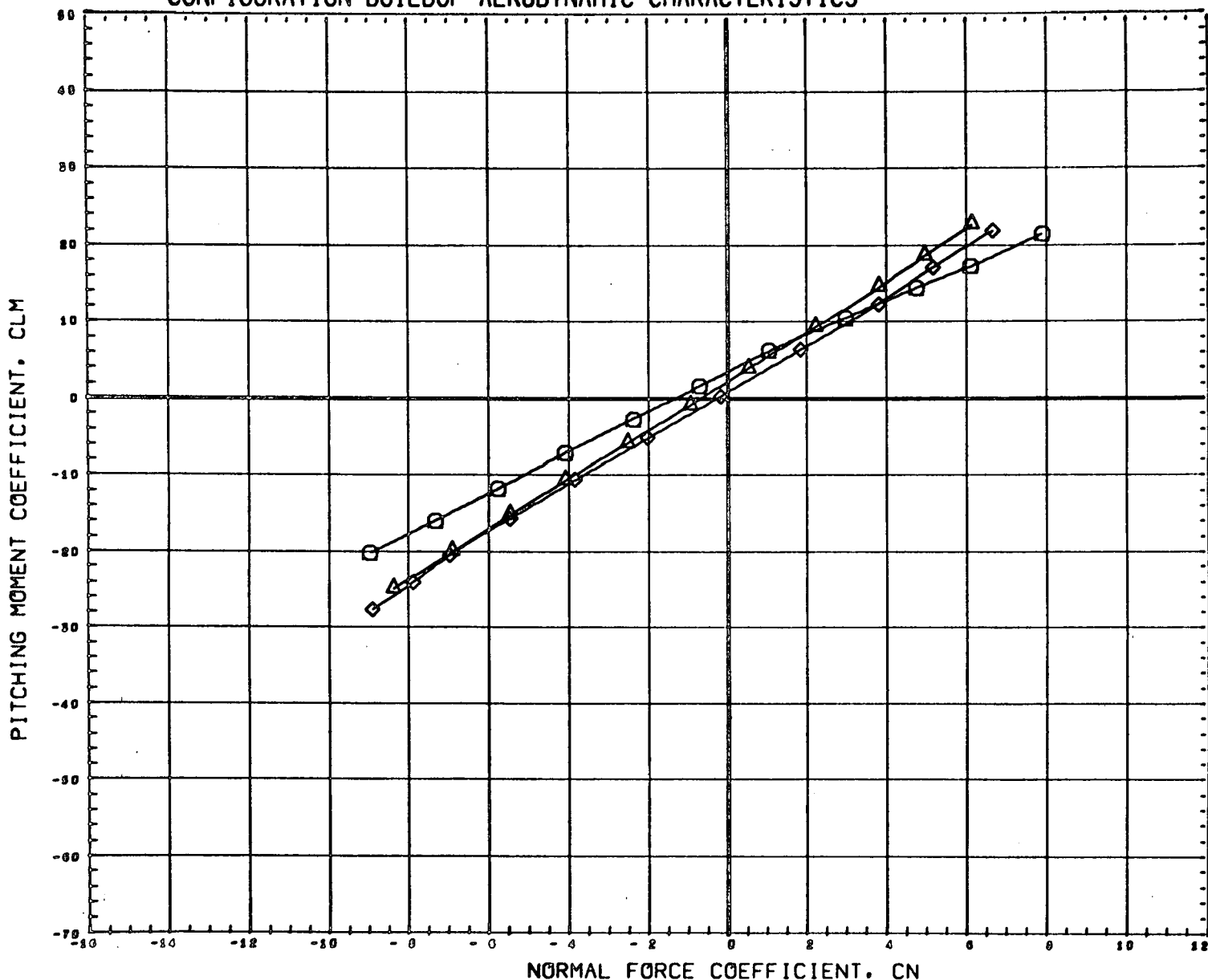
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	MSFC TWT 505 T111L/DT07
(B47011)	MSFC TWT 505 T111L/DT07
(B47001)	MSFC TWT 505 T111L/DT07

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.598

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(D47006)	HSFC TWT 905 T111L/D107
(D47011)	HSFC TWT 905 T111L/D107
(D47001)	HSFC TWT 905 T111L/D107

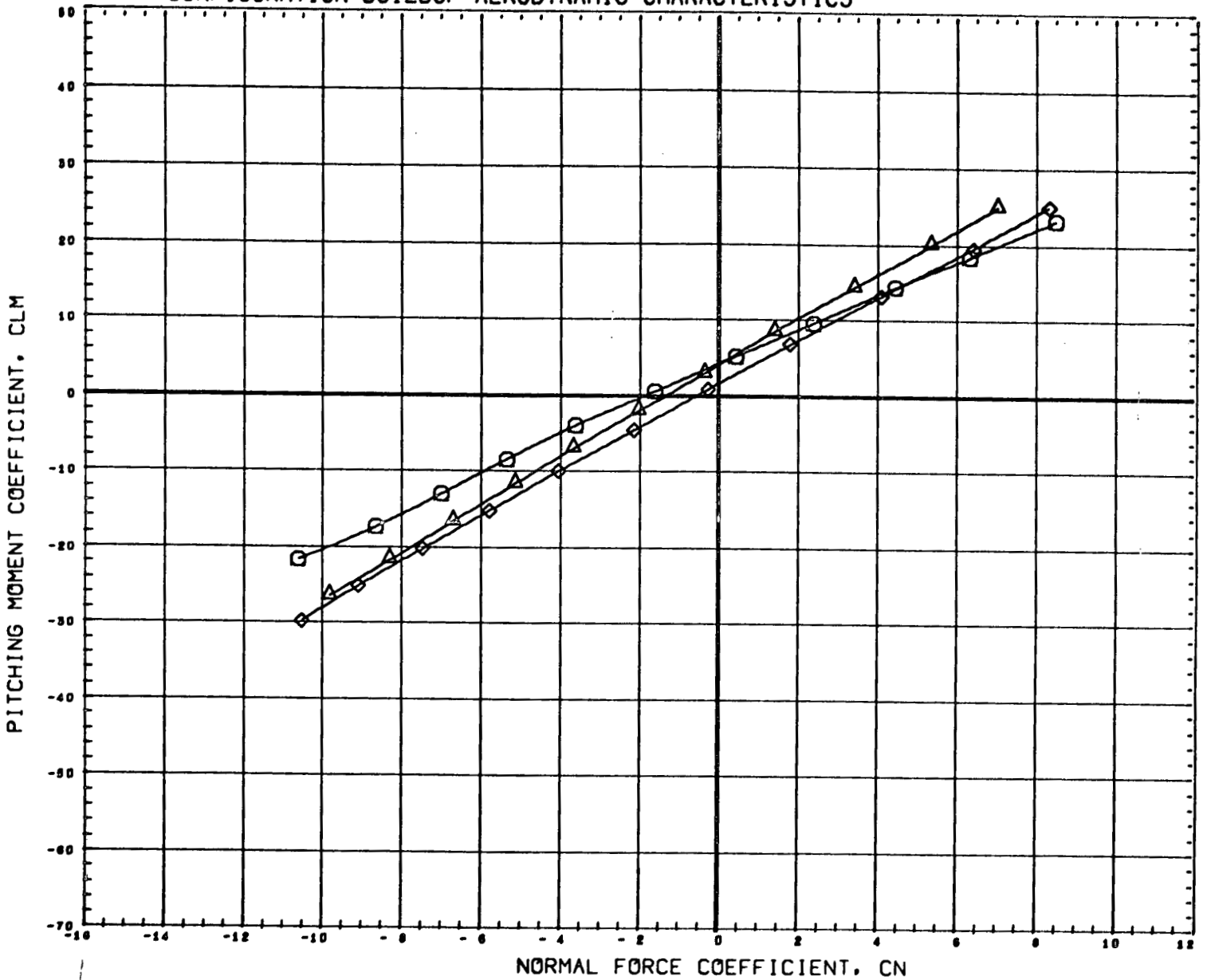
01D2L4
01D1
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.981

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47008)	M6FC TWT 505 T111L/D107
(B47011)	M6FC TWT 505 T111L/D107
(B47001)	M6FC TWT 505 T111L/D107

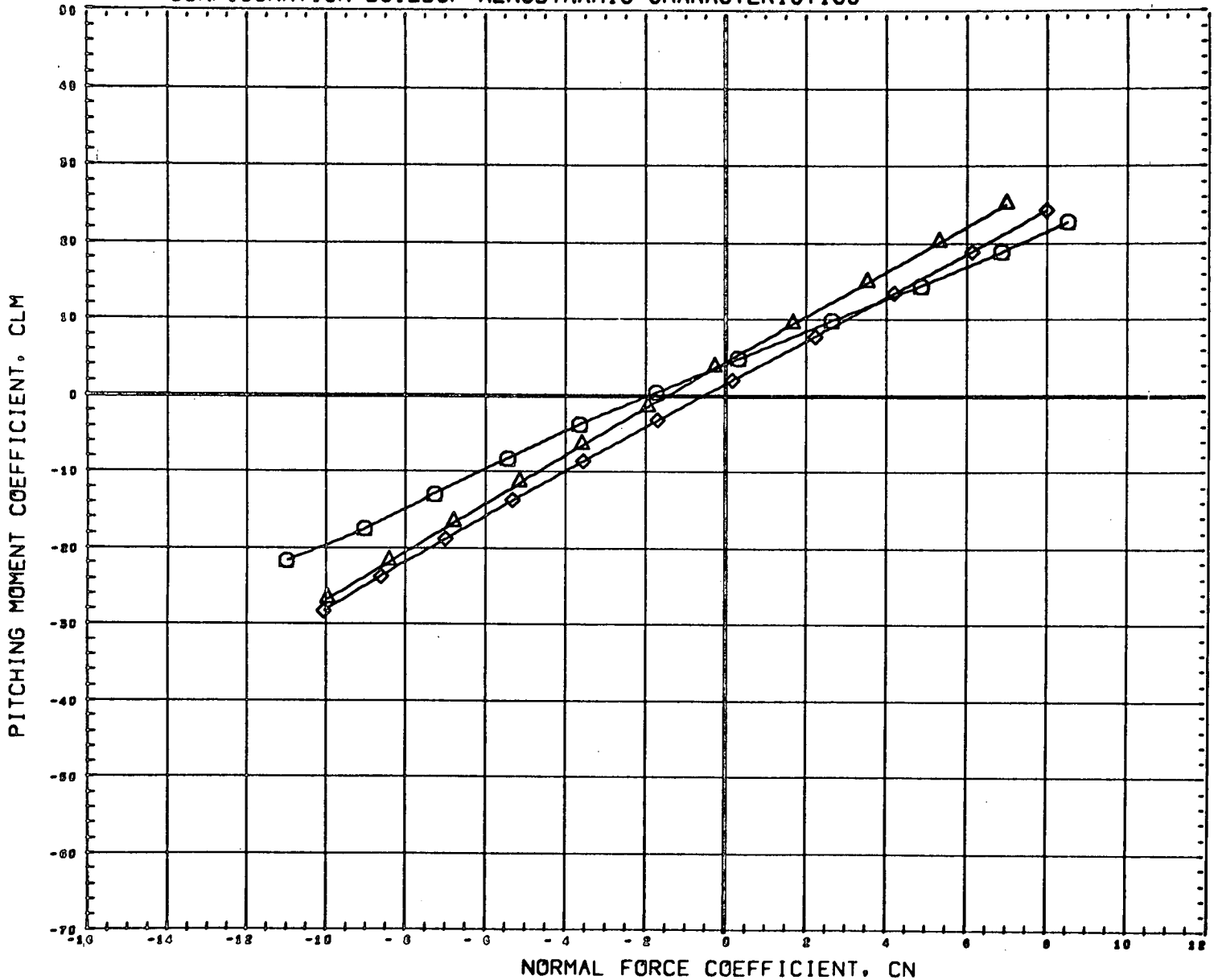
01D2L4
01D1
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	0.9340 90 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XMRP	2.9170 IN TII
YMRP	0.0000 CORE C
ZMRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 0.995

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

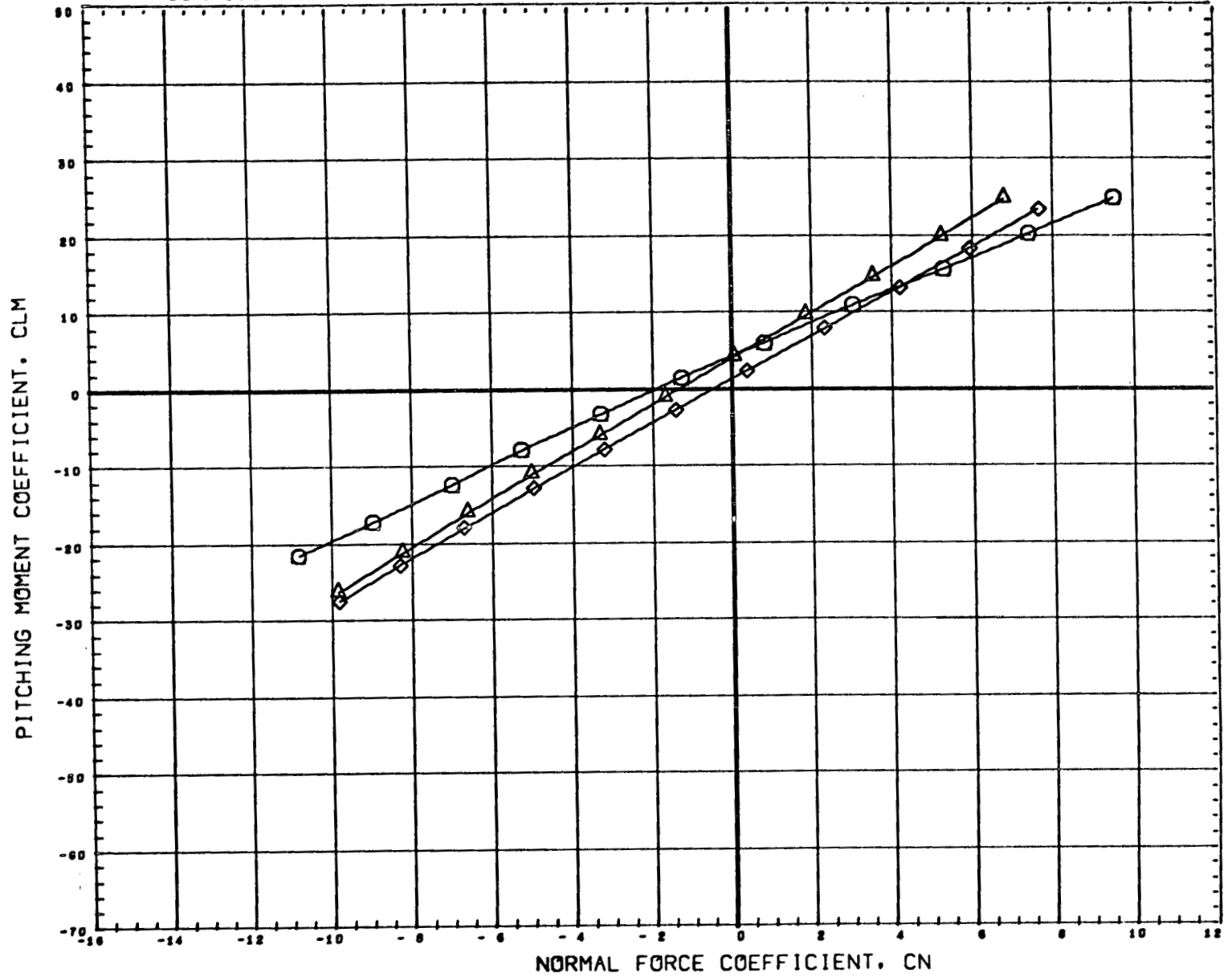


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(047000)	H5FC TWT 505 T111L/D107	0.000
(047011)	H5FC TWT 505 T111L/D107	0.000
(047001)	H5FC TWT 505 T111L/D107	0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

HACH 1.101

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47006)	NSFC TWT 505 T111L/D107
(B47011)	NSFC TWT 505 T111L/D107
(B47001)	NSFC TWT 505 T111L/D107

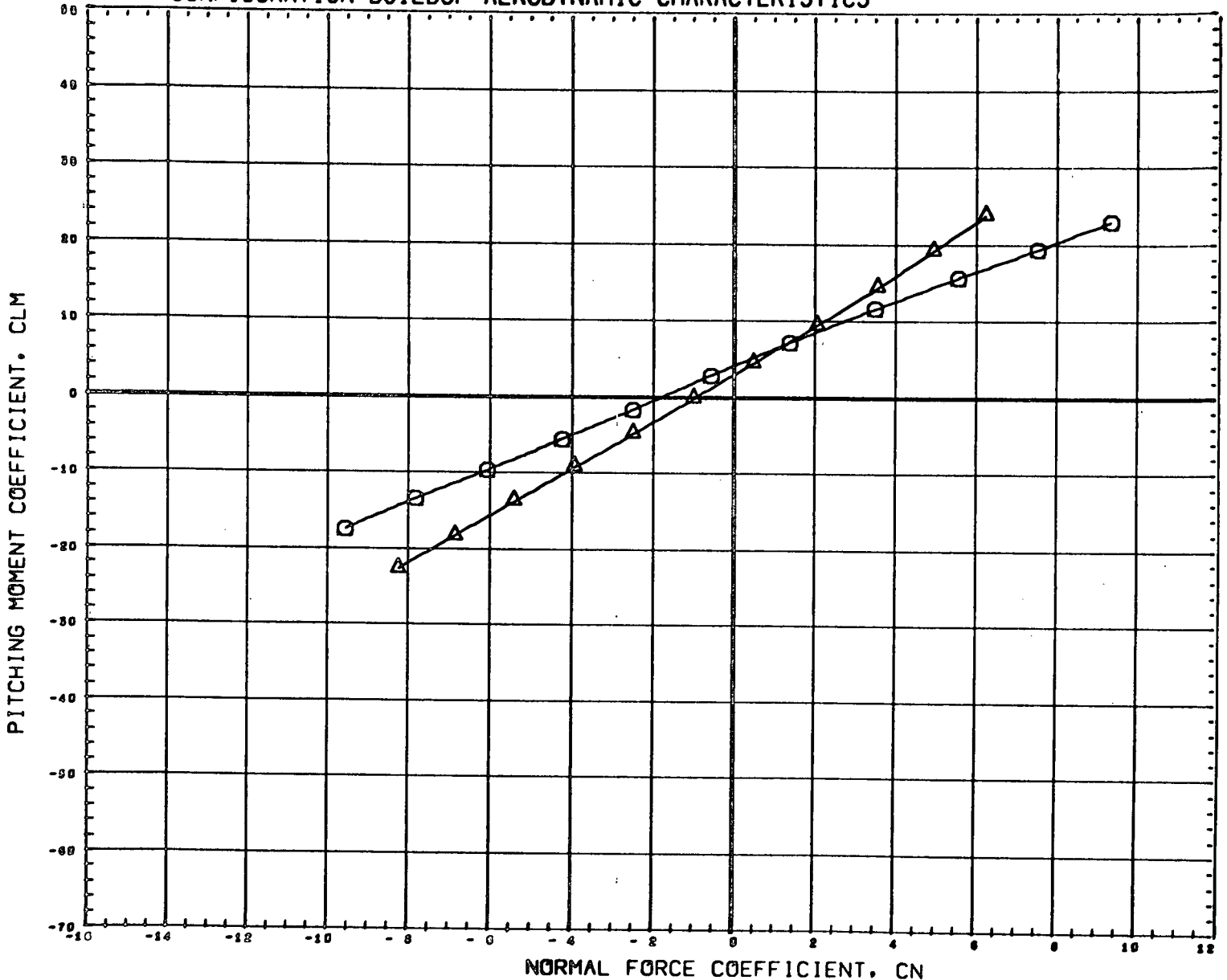
01D2L4
01D1
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

NACH 1.202

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	MSFC TWT 905 T111L/DT07 0102L4
(B47011)	MSFC TWT 905 T111L/DT07 0101
(B47001)	DATA NOT AVAILABLE FOR ALL CONDITIONS

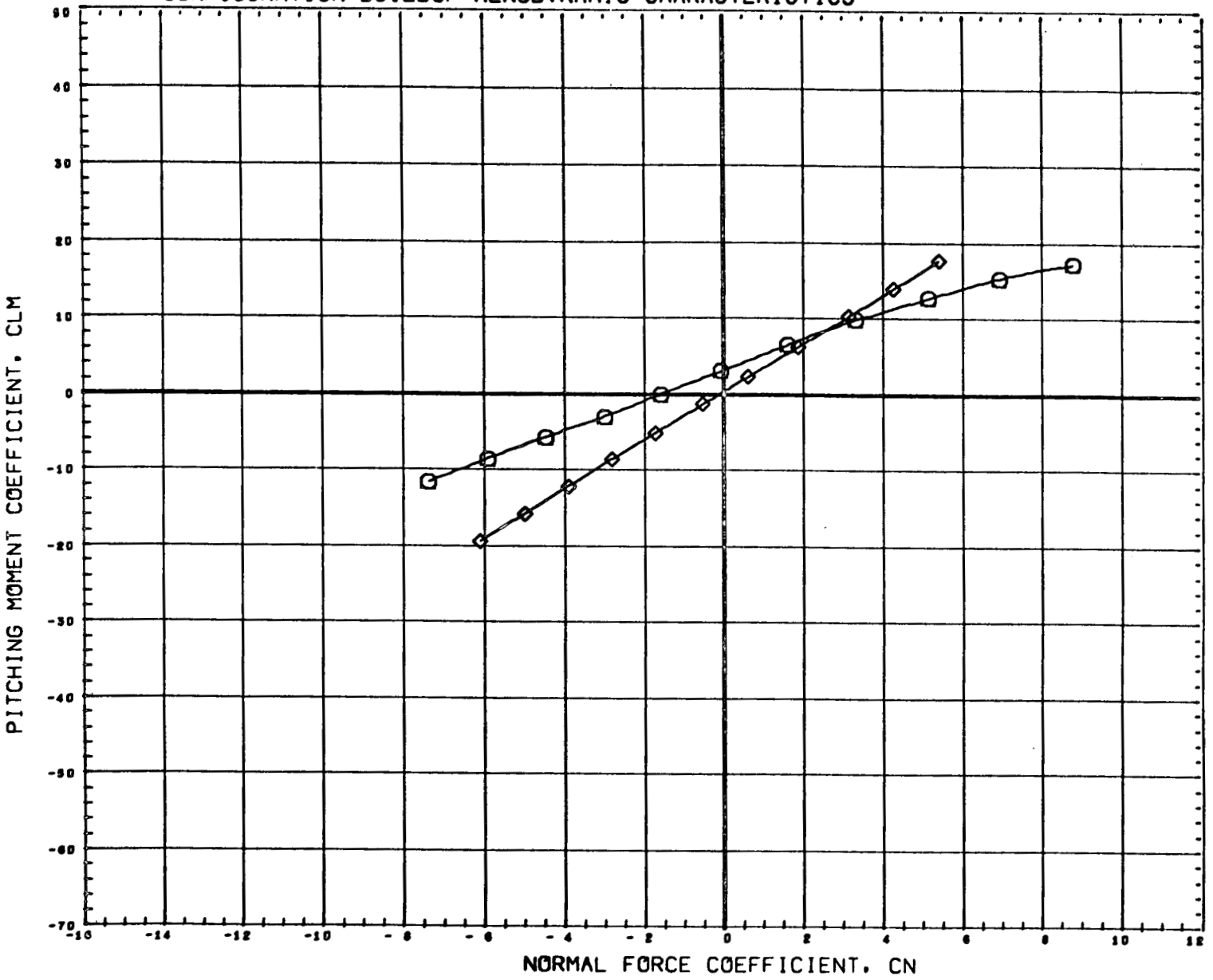
BETA
0.000
0.000
0.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.463

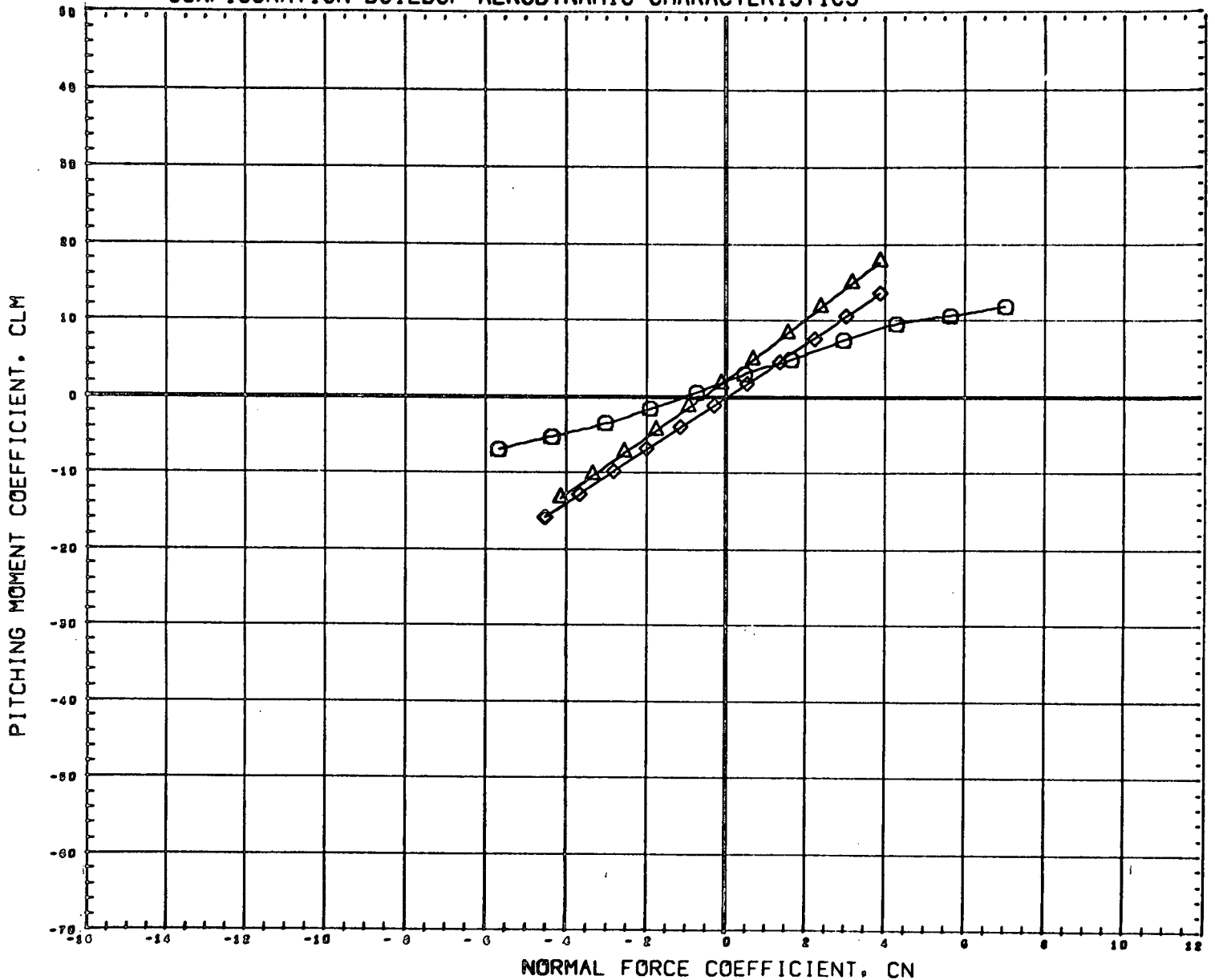
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(B47008)	MSFC TWT 305 T111L/DT07 01D2L4	0.000	SREF 0.9340 80 INC
(B47011)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	LREF 0.0240 INCHES
(B47001)	MSFC TWT 305 T111L/DT07 01	0.000	BREF 0.0240 INCHES
			XMRP 2.9170 IN TII
			YMRP 0.0000 CORE C
			ZMRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 1.984

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(B47000)	HSFC TWT 505 T111L/D707
(B47011)	HSFC TWT 505 T111L/D707
(B47001)	HSFC TWT 505 T111L/D707

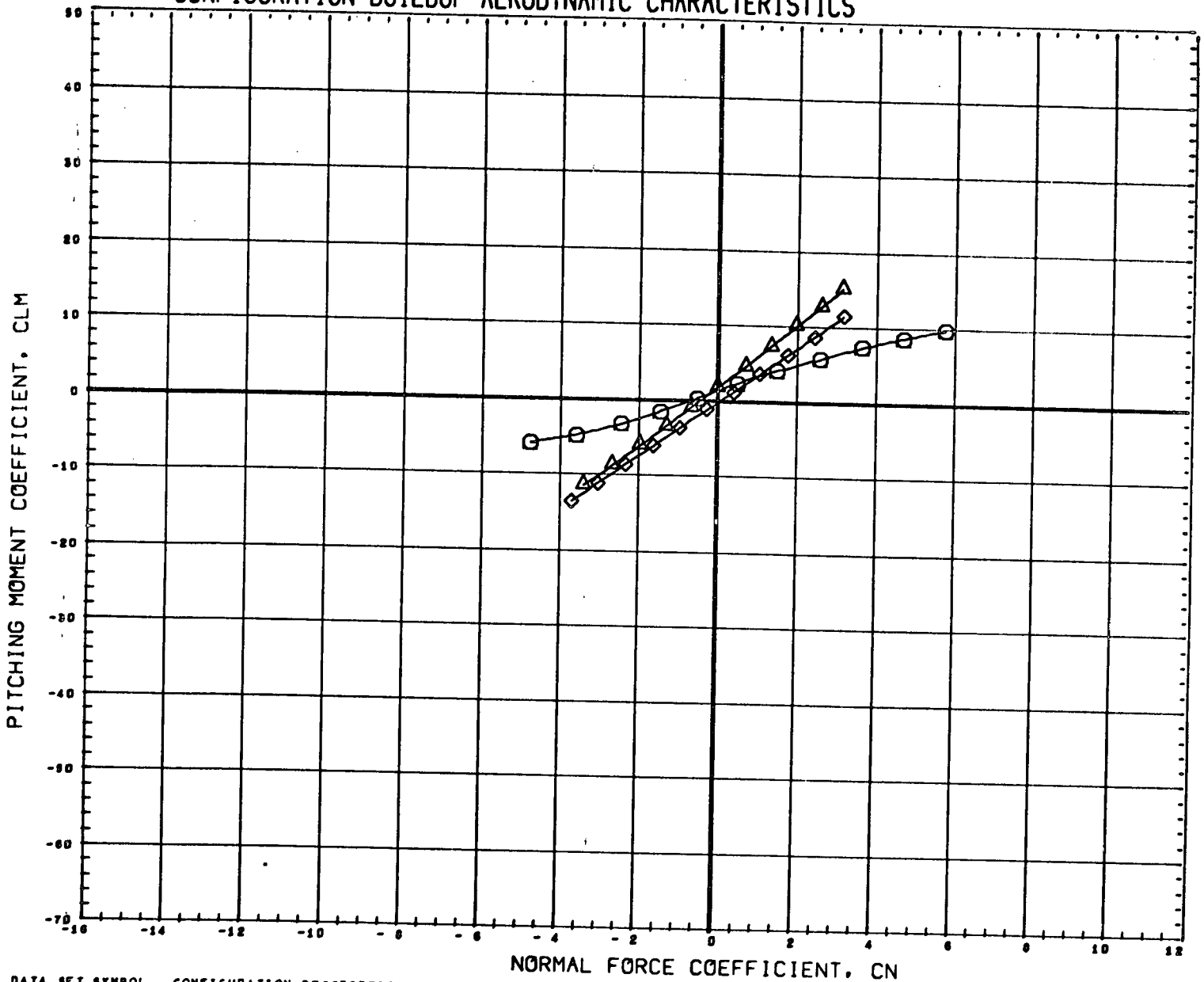
0102L4
0101
01

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



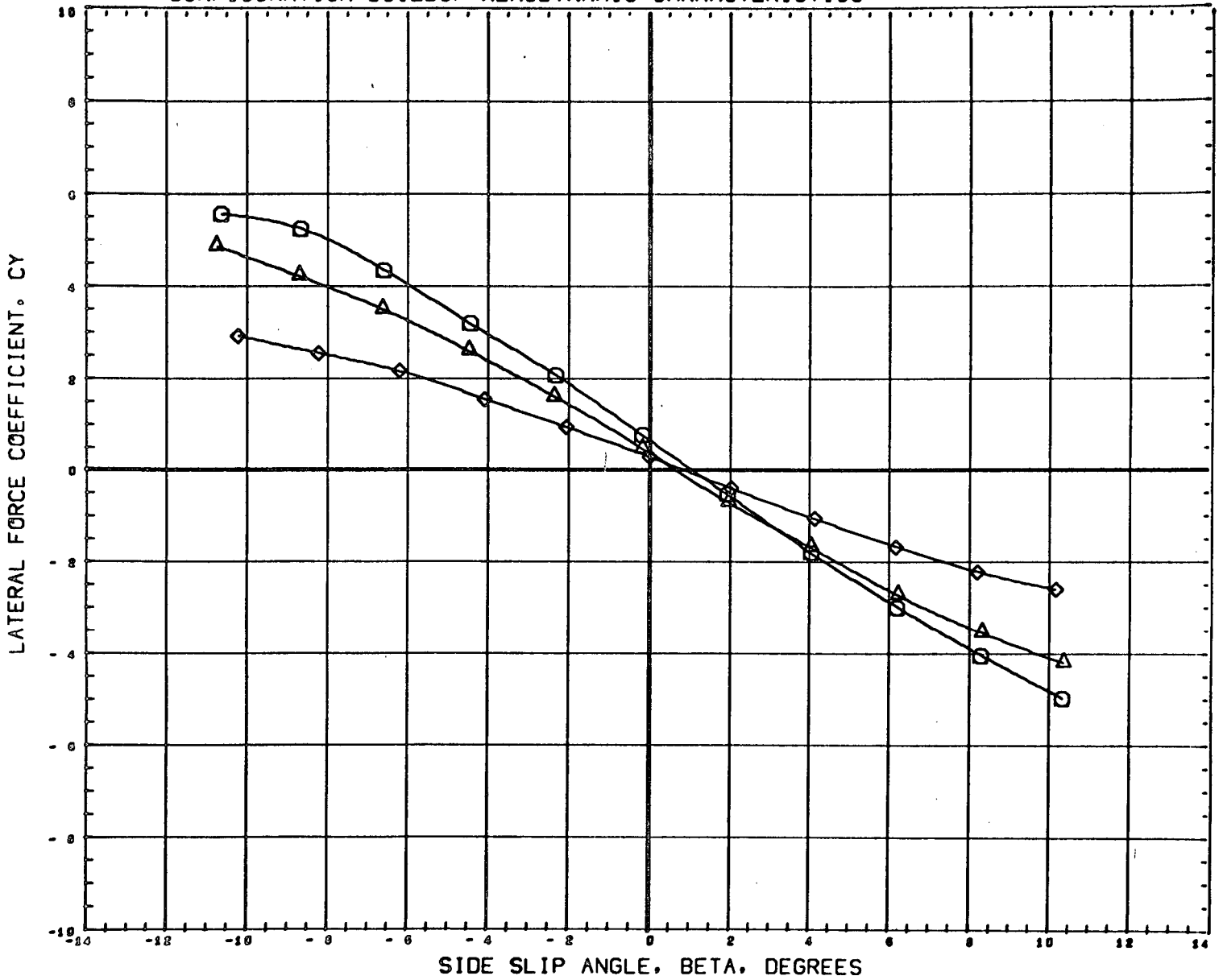
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(B47008)	MSFC TWT 505 T111L/D107	0.000
(B47011)	MSFC TWT 505 T111L/D107	0.000
(B47001)	MSFC TWT 505 T111L/D107	0.000

NORMAL FORCE COEFFICIENT, CN

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.480

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	MSFC TWT 505 T111L/DT07
(R47012)	MSFC TWT 505 T111L/DT07
(R47003)	MSFC TWT 505 T111L/DT07

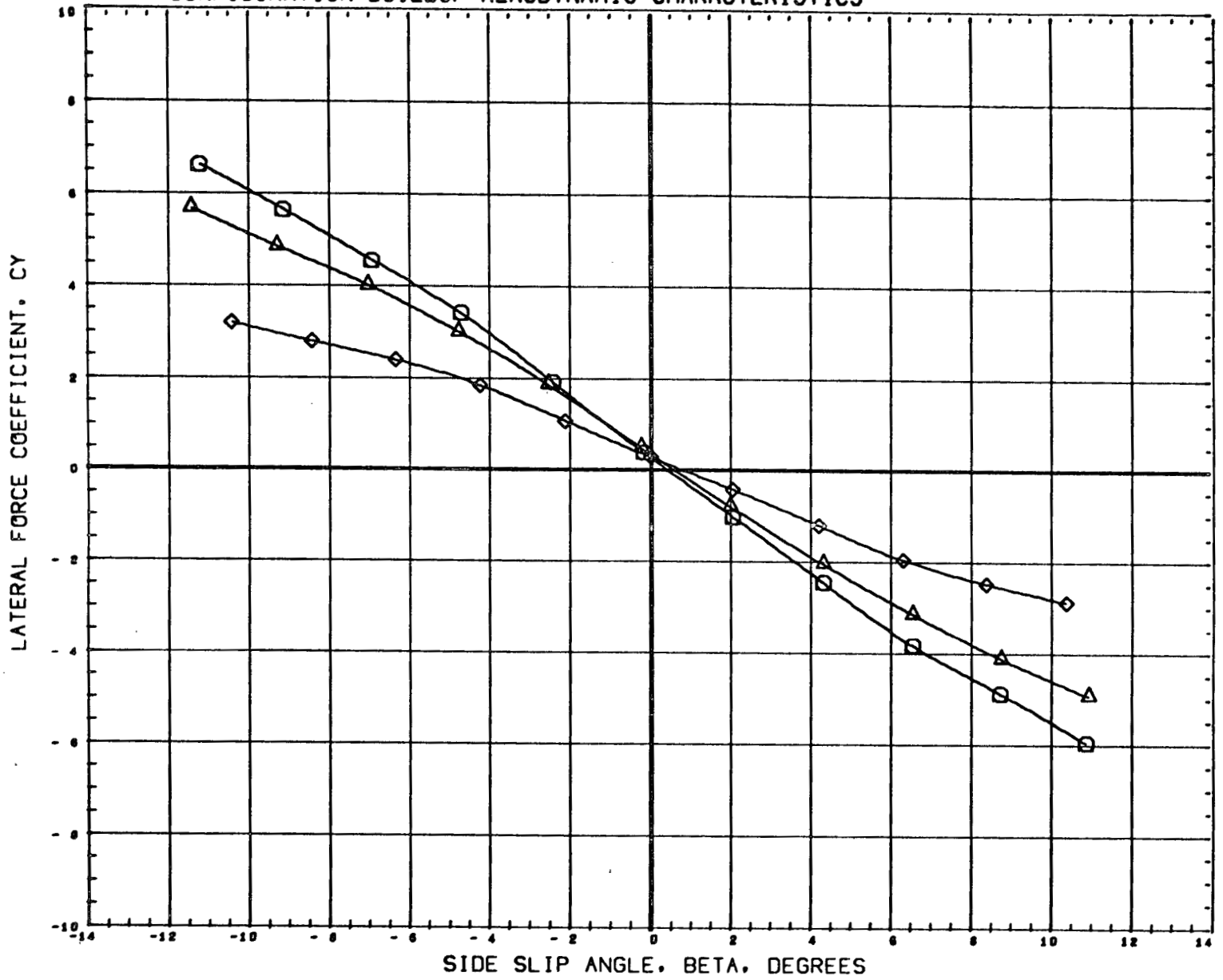
SIDE SLIP ANGLE, BETA, DEGREES

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.9340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
YMRP	2.0170	IN T11
ZMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.002

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



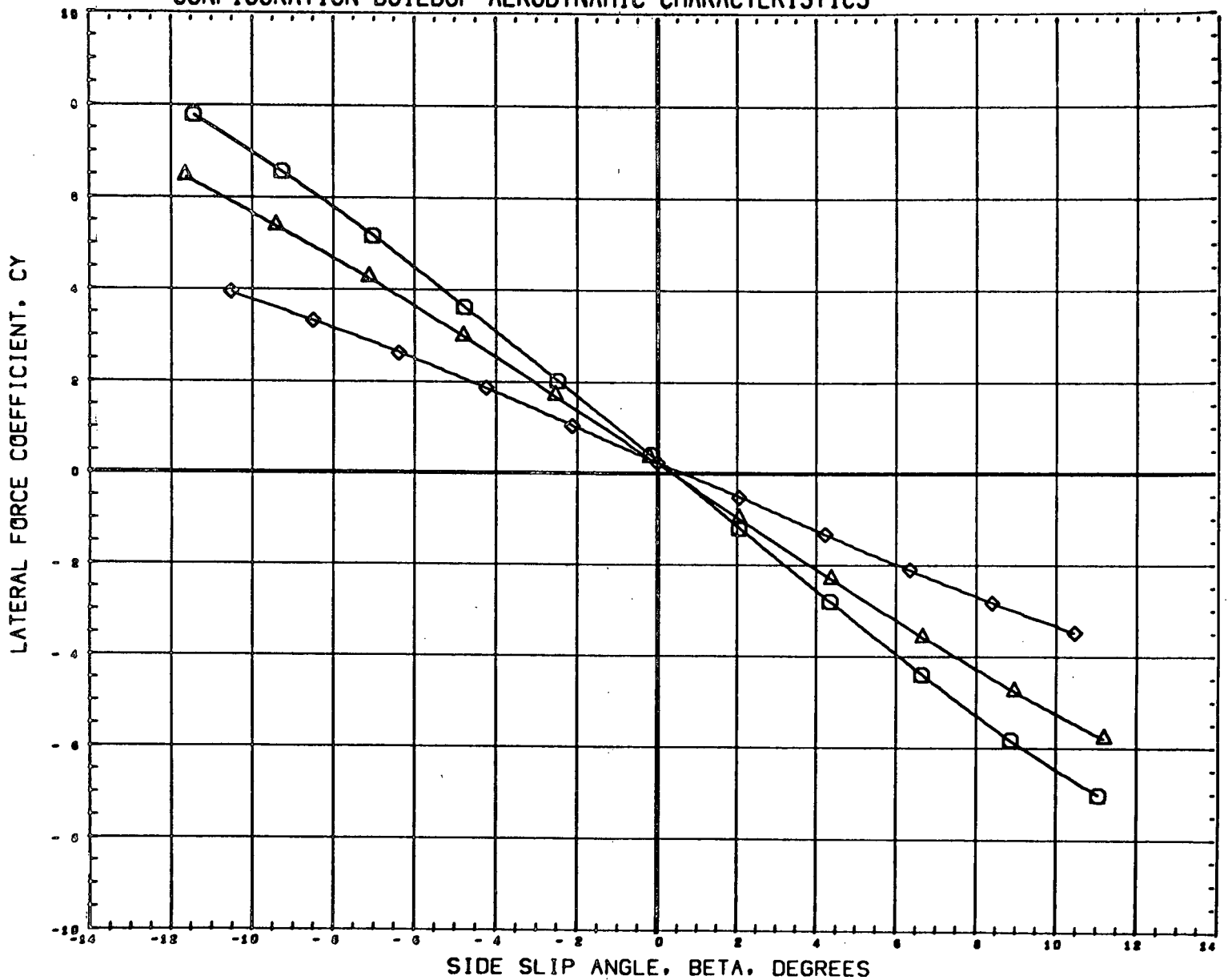
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	MSFC TWT 505 T111L/DT07
(R47012)	MSFC TWT 505 T111L/DT07
(R47003)	MSFC TWT 505 T111L/DT07

ALPHA
01D2L4
01D1
01

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.902

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	MBFC TWT 905 T111L/DT07
(R47012)	MBFC TWT 905 T111L/DT07
(R47003)	MBFC TWT 905 T111L/DT07

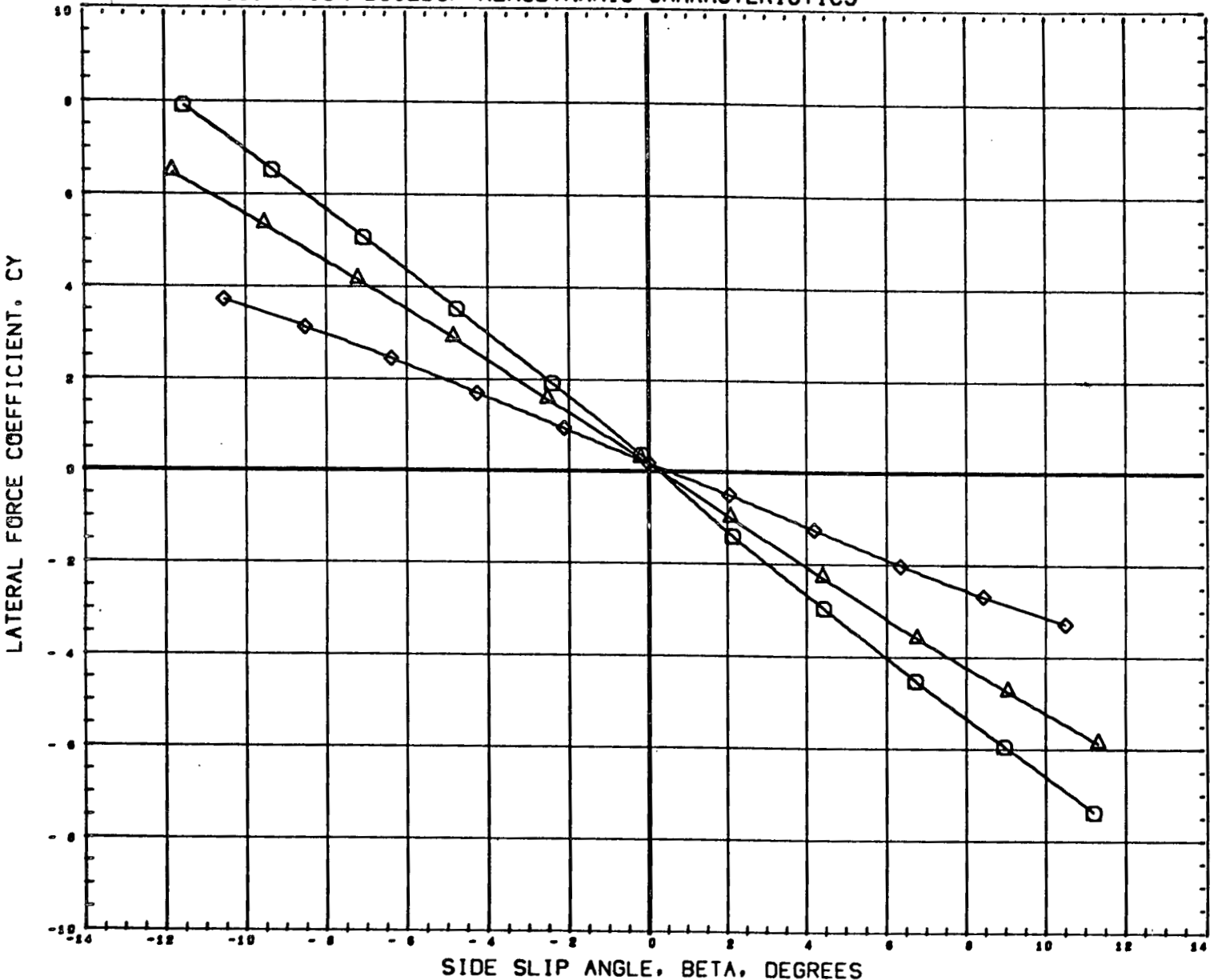
SIDE SLIP ANGLE, BETA, DEGREES

ALPHA
01D2L4
01D1
01

REFERENCE INFORMATION		
BREF	0.9340	80 INC
LREF	0.9240	INCHES
BREF	0.9240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.094

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



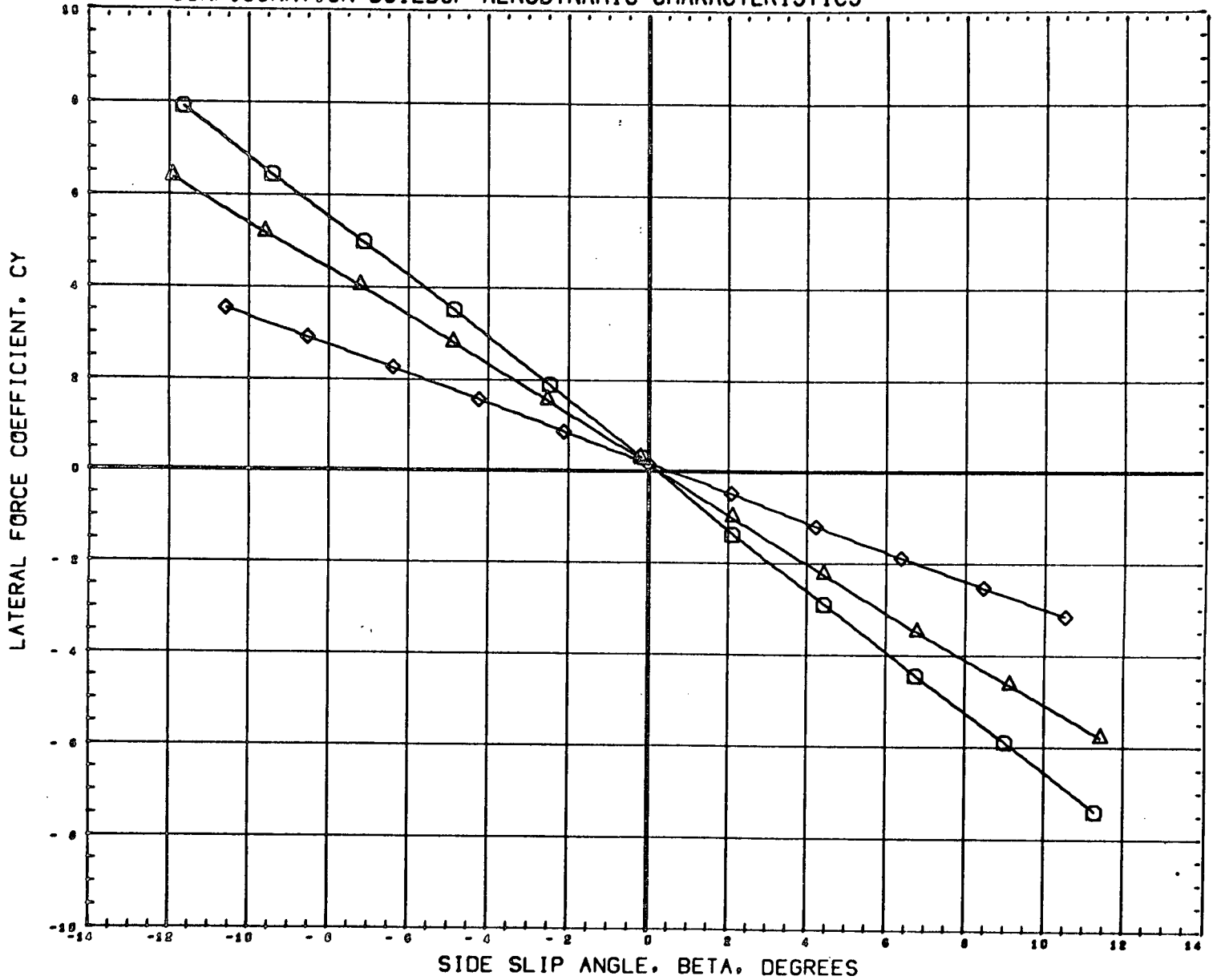
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	NSFC TWT 505 T111L/D707
(R47012)	NSFC TWT 505 T111L/D707
(R47003)	NSFC TWT 505 T111L/D707

ALPHA
01D2L4
01D1
01

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.100

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	H8FC TWT 503 T111L/OT07
(R47012)	H8FC TWT 503 T111L/OT07
(R47003)	H8FC TWT 503 T111L/OT07

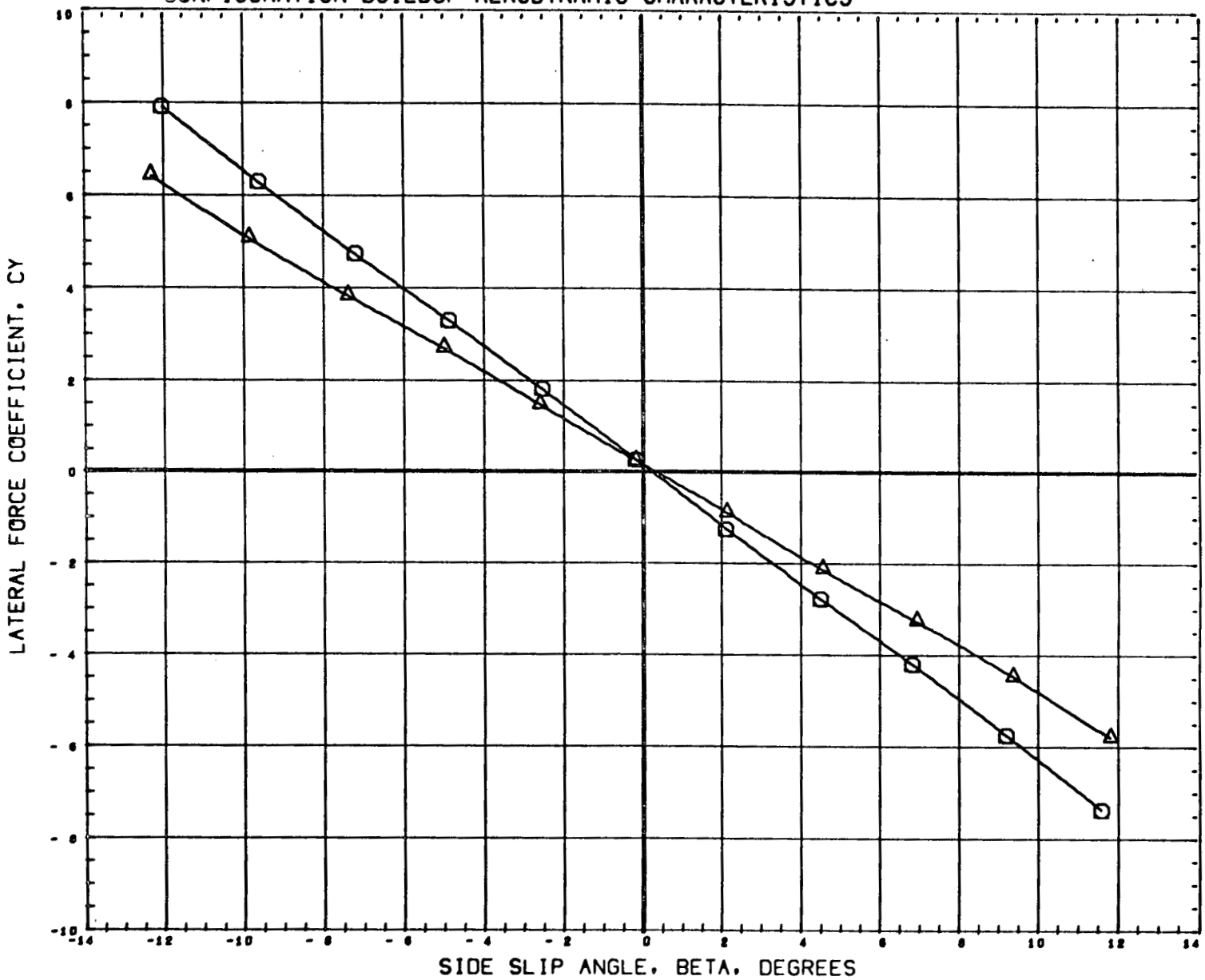
SIDE SLIP ANGLE, BETA, DEGREES

ALPHA
01D2L4
01D1
01

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.804

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

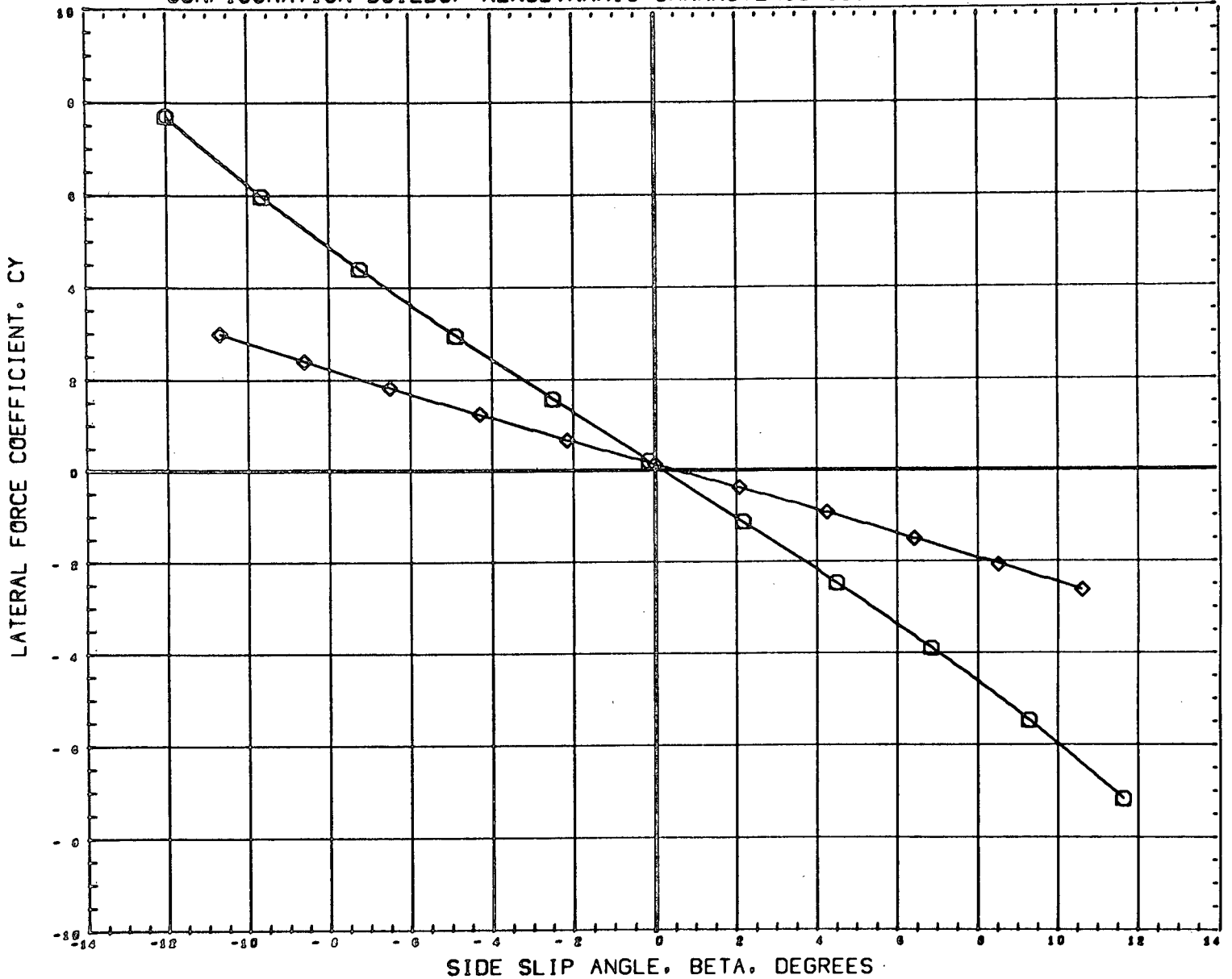


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47010) \square	MSFC TWT 505 T111L/D107 0102L4	0.000
(R47012) \triangle	MSFC TWT 505 T111L/D107 0101	0.000
(R47003) \diamond	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000

REFERENCE INFORMATION	
SREF	0.9340 80 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XMRP	2.9170 IN T11
YMRP	0.0000 CORE C
ZMRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 1.402

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

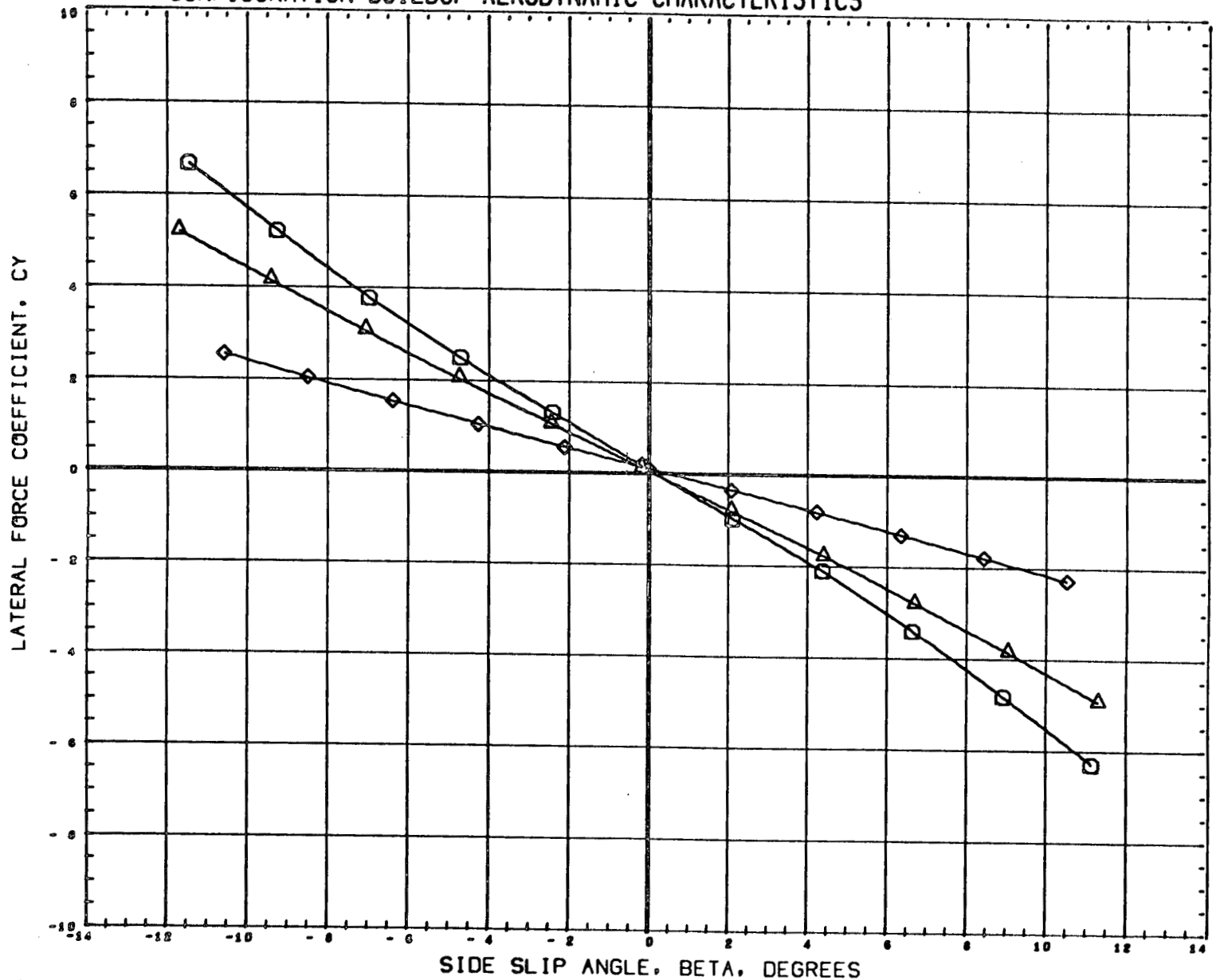


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47010)	□ HQPC TWT 509 T111L/DT07 0102L4	0.000
(R47018)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(R47003)	◇ HQPC TWT 509 T111L/DT07 01	0.000

REFERENCE INFORMATION		
OREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.002

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	MSFC TWT 505 T111L/DT07
(R47012)	MSFC TWT 505 T111L/DT07
(R47003)	MSFC TWT 505 T111L/DT07

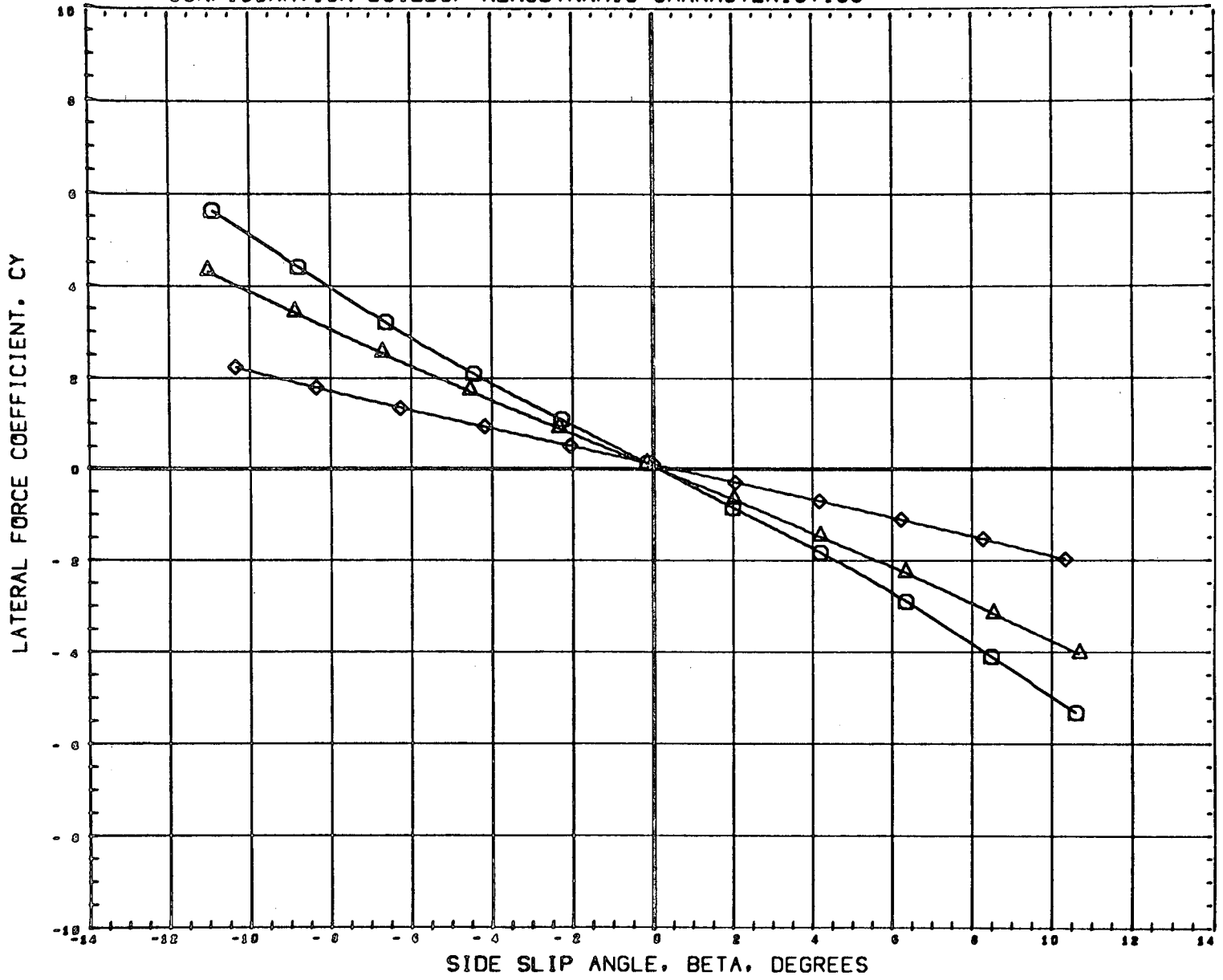
01D2L4
01D1
01

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	□ HBFC THT 905 T111L/DT07
(R47012)	△ HBFC THT 905 T111L/DT07
(R47003)	◇ HBFC THT 905 T111L/DT07

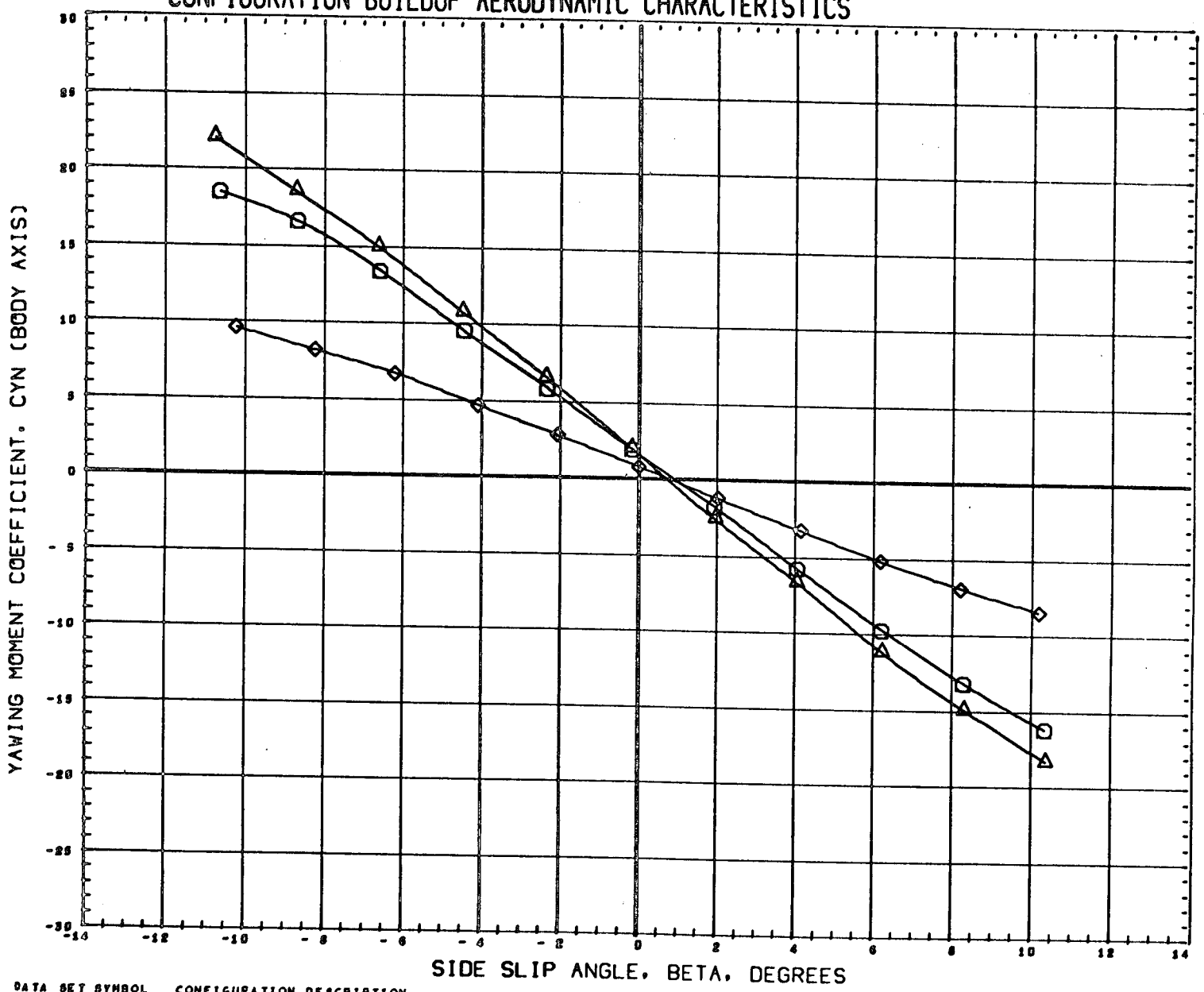
SIDE SLIP ANGLE, BETA, DEGREES

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.0240	INCHES
DBREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 9.400

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



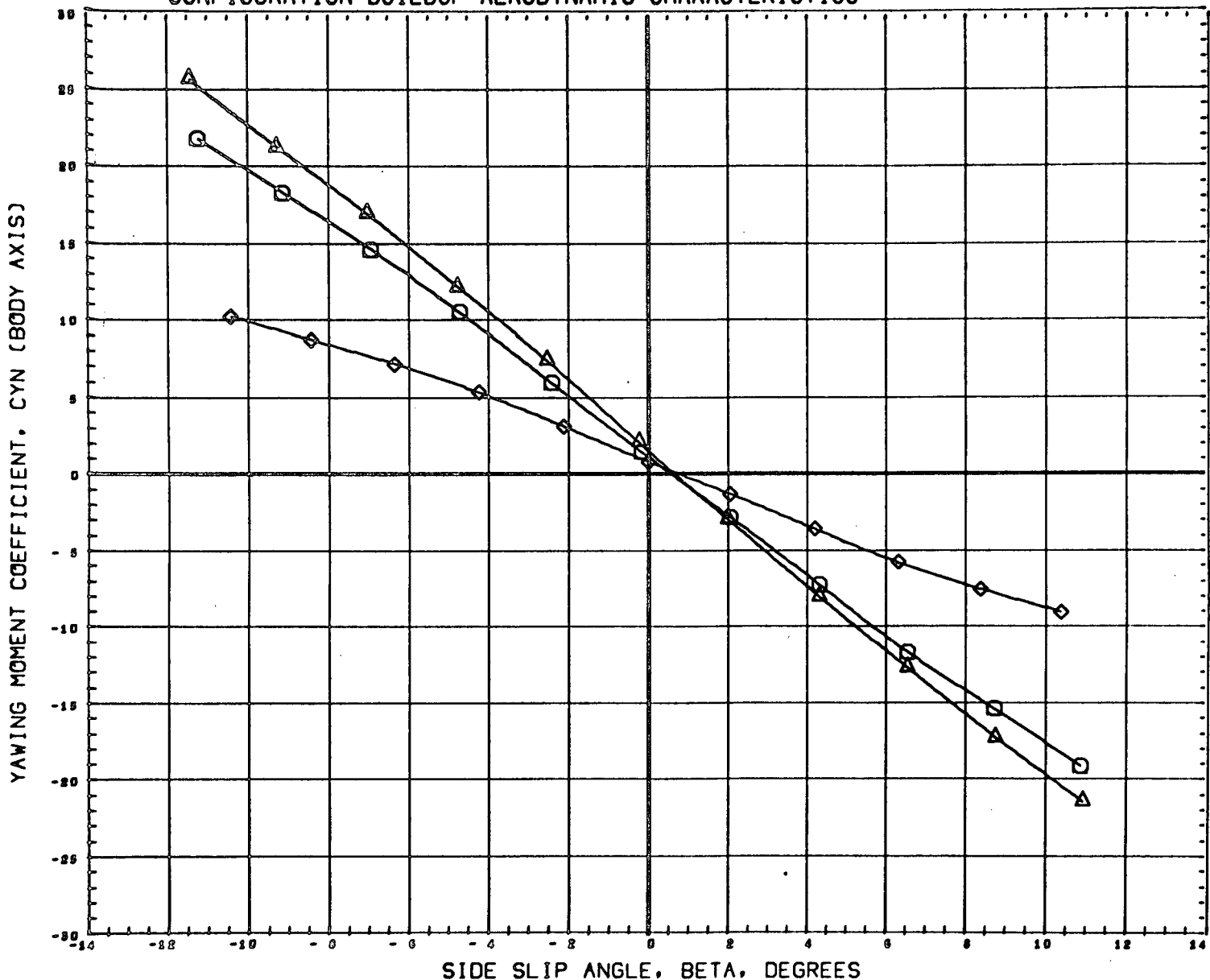
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	MSFC TWT 505 T111L/DT07
(R47012)	MSFC TWT 505 T111L/DT07
(R47003)	MSFC TWT 505 T111L/DT07

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4500	PERCENT

MACH 0.602

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	□	HDPC TWT 505 T111L/DT07
(R47012)	△	HDPC TWT 505 T111L/DT07
(R47003)	◇	HDPC TWT 505 T111L/DT07

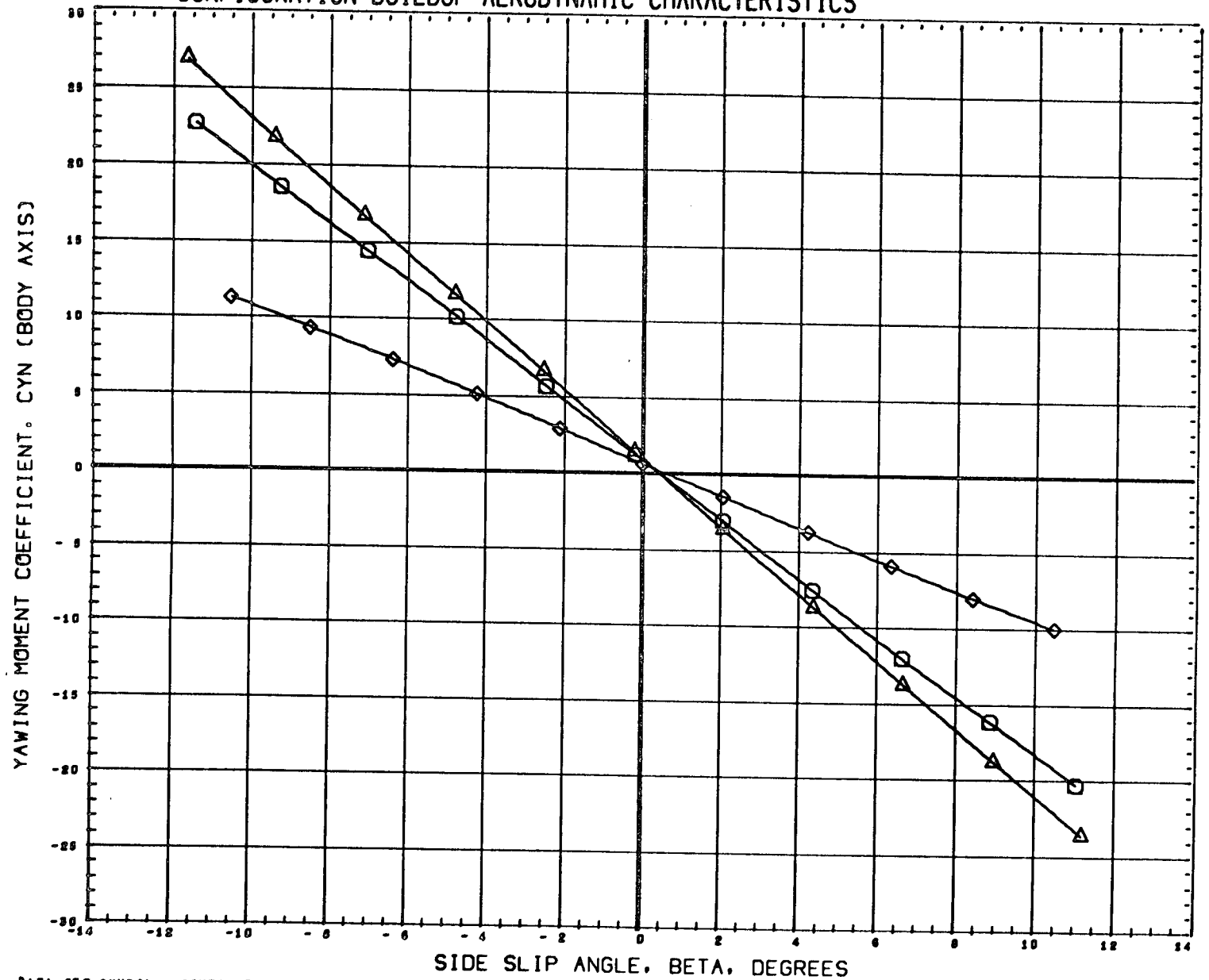
SIDE SLIP ANGLE, BETA, DEGREES

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
BREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XWRP	2.9170	IN TII
YWRP	0.0000	CORE C
ZWRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.902

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



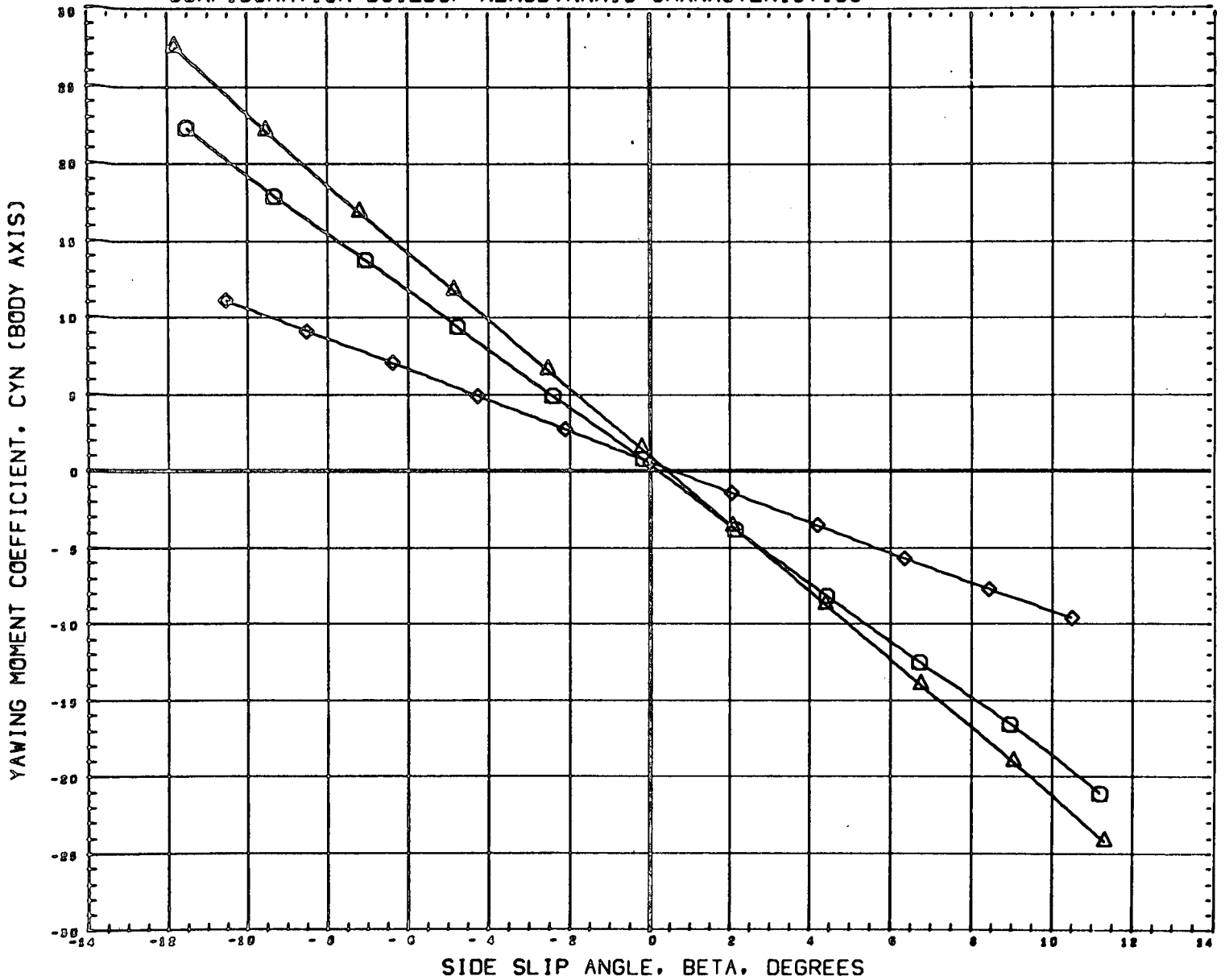
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	NSFC TWT 505 T111L/D107
(R47012)	NSFC TWT 505 T111L/D107
(R47003)	NSFC TWT 505 T111L/D107

ALPHA
01D2L4
01D1
01

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.994

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



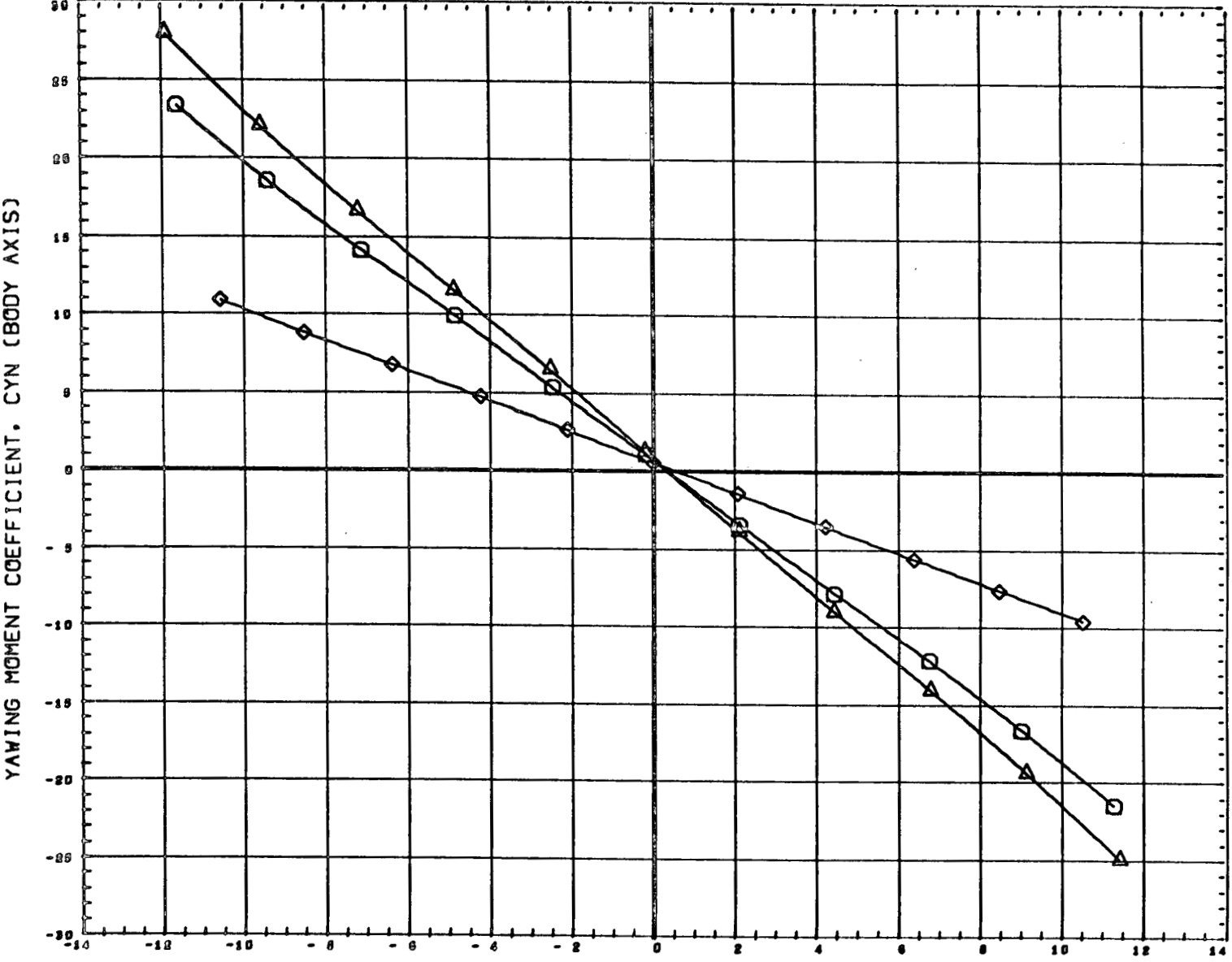
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47010)	HOPC TWT 909 T111L/D107	0.000
(R47012)	HOPC TWT 909 T111L/D107	0.000
(R47009)	HOPC TWT 909 T111L/D107	0.000

SYMBOL	ALPHA
△	0.000
□	0.000
◇	0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.100

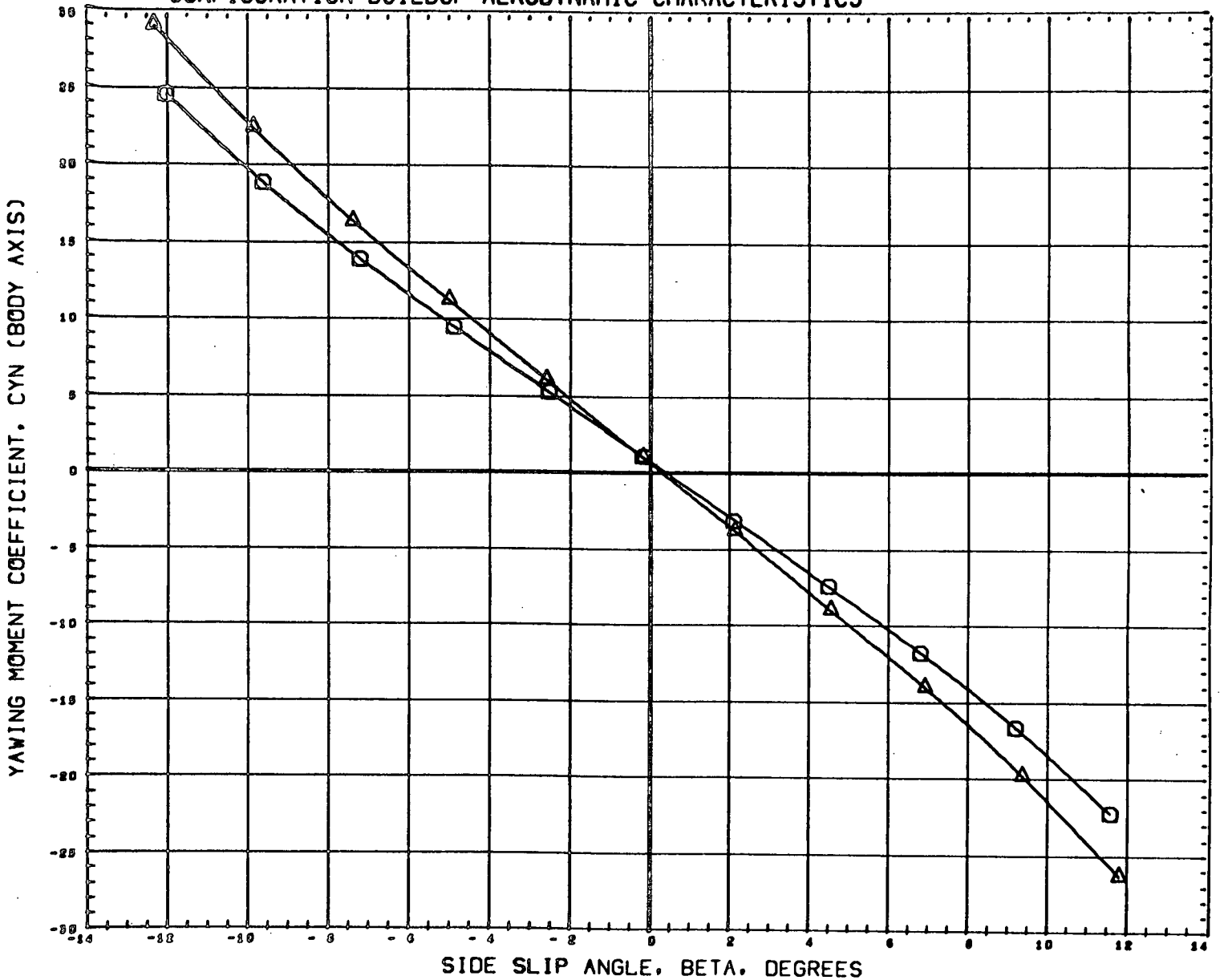
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(R47010) △	MSFC TWT 505 T111L/DT07	01D2L4	SREF 0.5340 SQ INC
(R47012) □	MSFC TWT 505 T111L/DT07	01D1	LREF 0.8240 INCHES
(R47003) ◇	MSFC TWT 505 T111L/DT07	01	BREF 0.8240 INCHES
			XMRP 2.9170 IN T11
			YMRP 0.0000 CORE C
			ZMRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 1.204

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

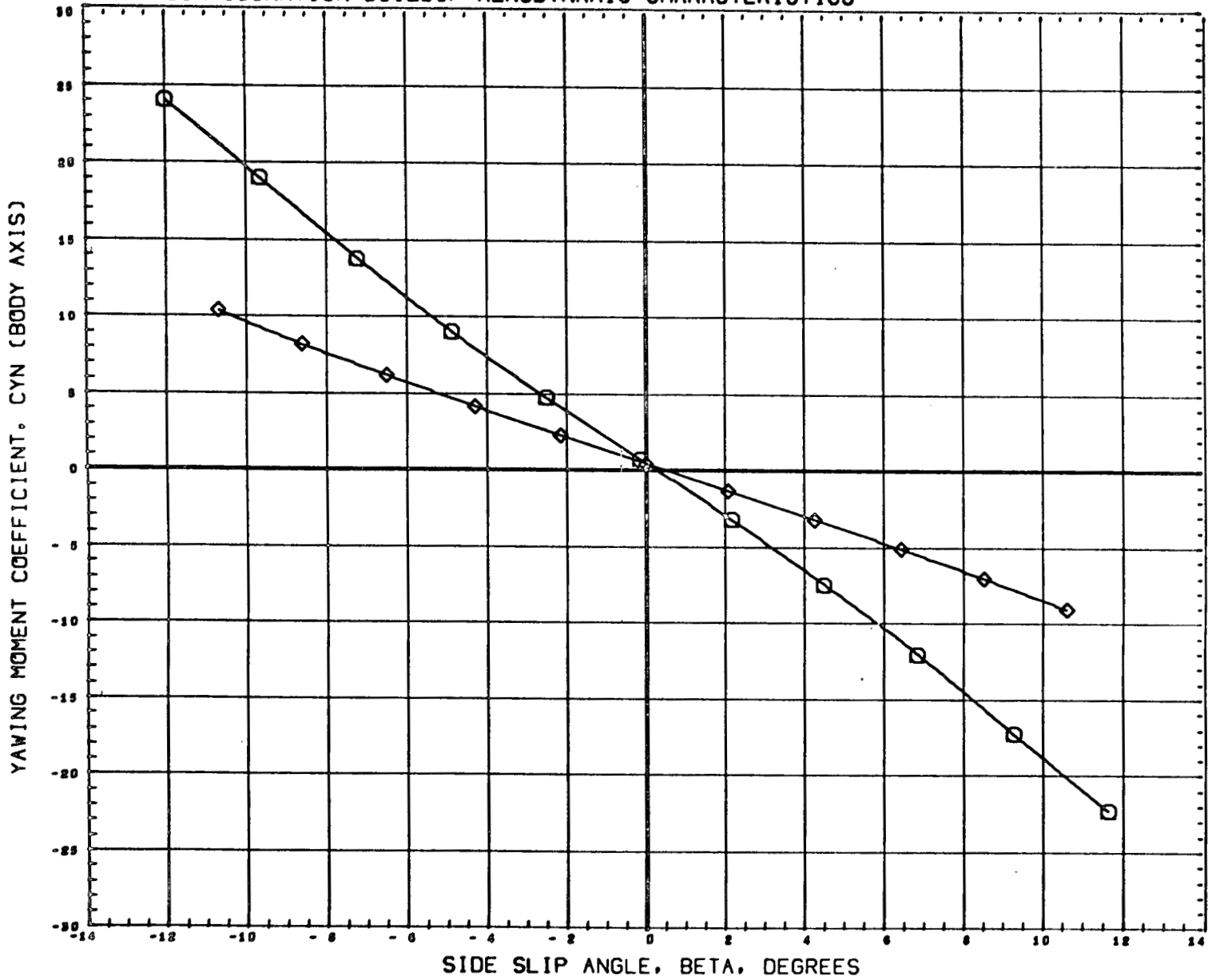


DATA SET BYHDOL	CONFIGURATION DESCRIPTION	ALPHA
(R47010)	HSFC TWT S05 T111L/D107 0102L4	0.000
(R47012)	HSFC TWT S05 T111L/D107 0101	0.000
(R47003)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000

REFERENCE INFORMATION		
SREF	0.9340	90 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.602

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

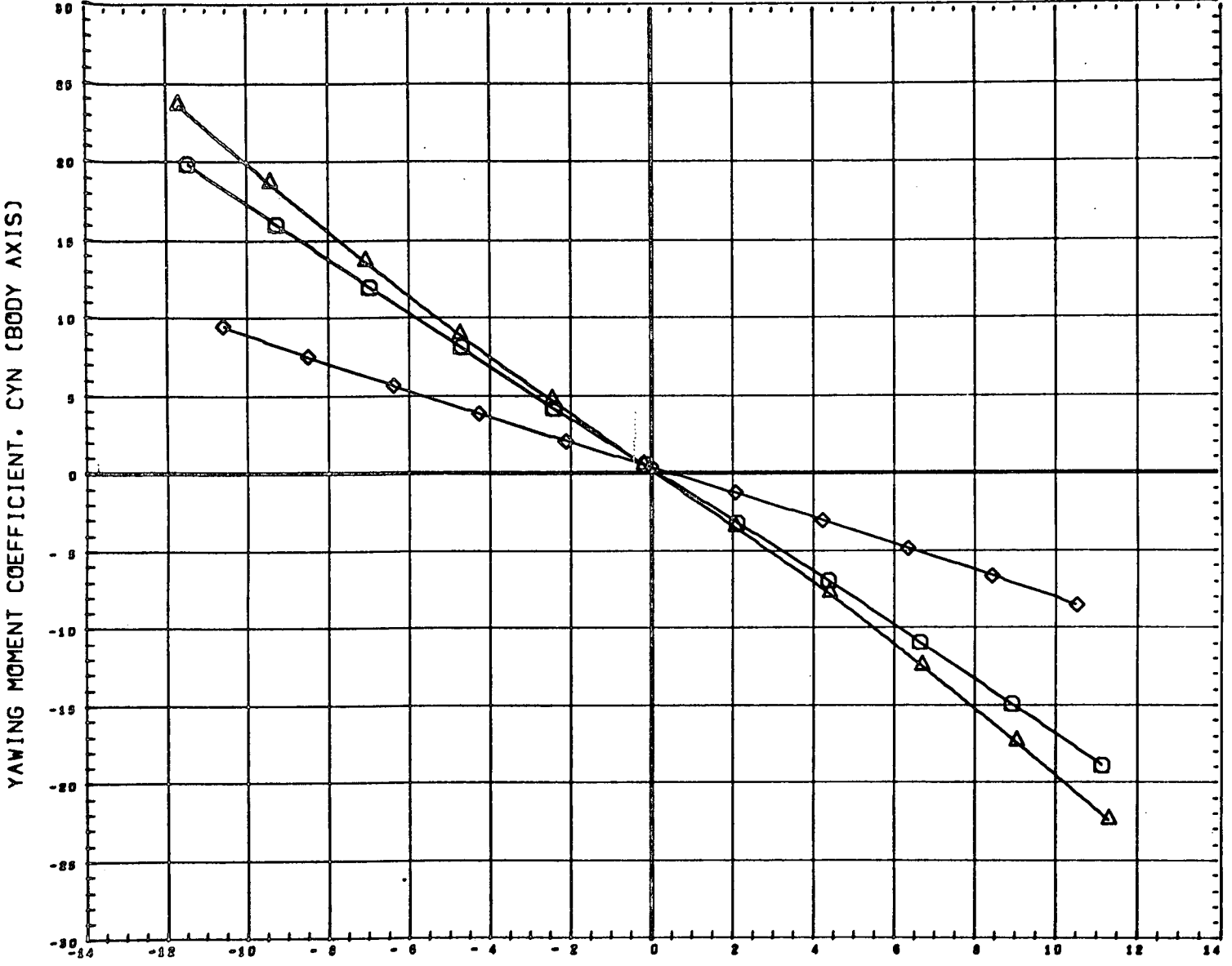


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47010)	MSFC TWT 505 T111L/DT07 D1D2L4	0.000
(R47012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000
(R47003)	MSFC TWT 505 T111L/DT07 01	0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN Y11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.982

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA
(R47010)	△	HSFC TWT 505 T111L/DT07	0.000
(R47012)	□	HSFC TWT 505 T111L/DT07	0.000
(R47003)	◇	HSFC TWT 505 T111L/DT07	0.000

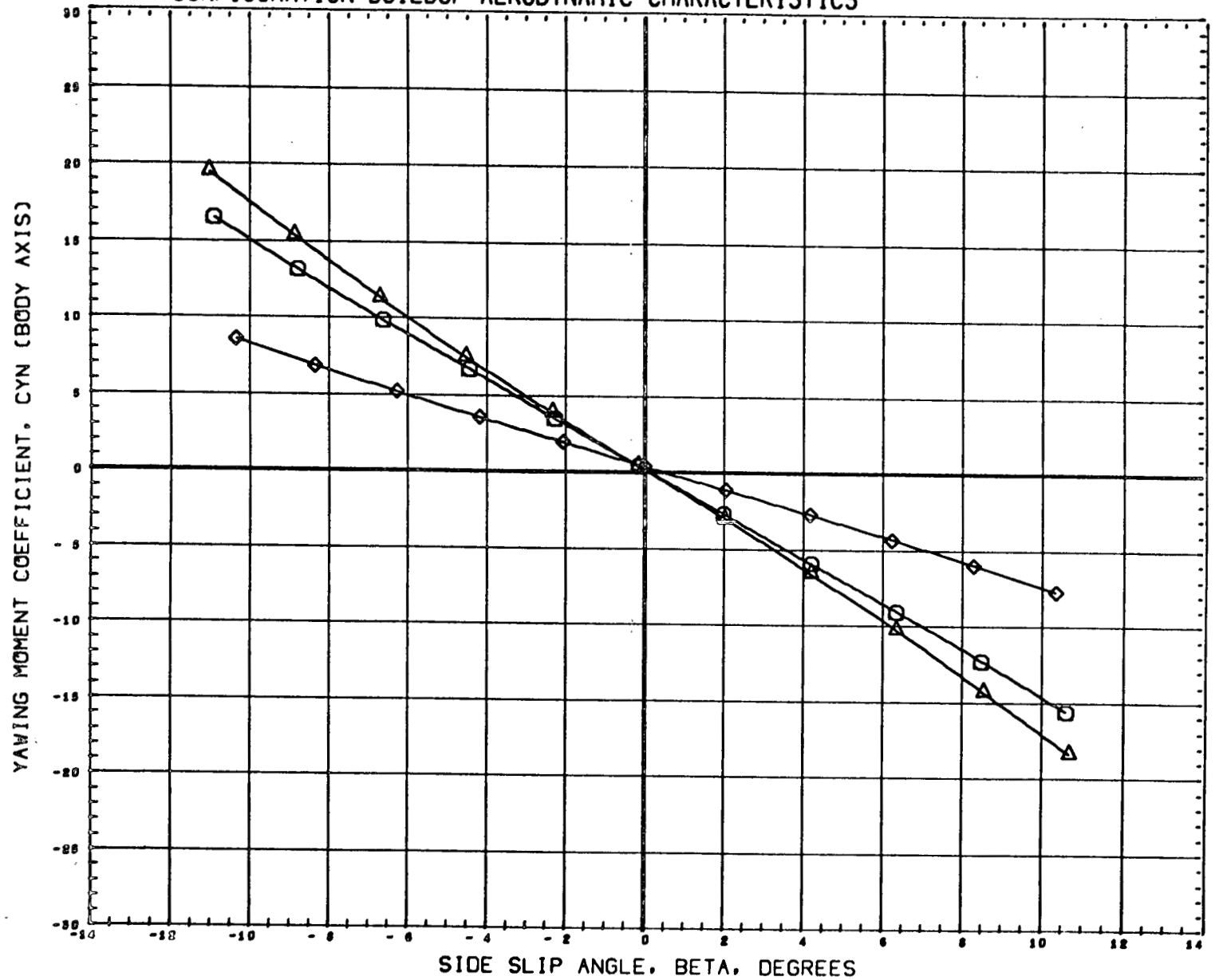
SIDE SLIP ANGLE, BETA, DEGREES

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

4 (7)

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



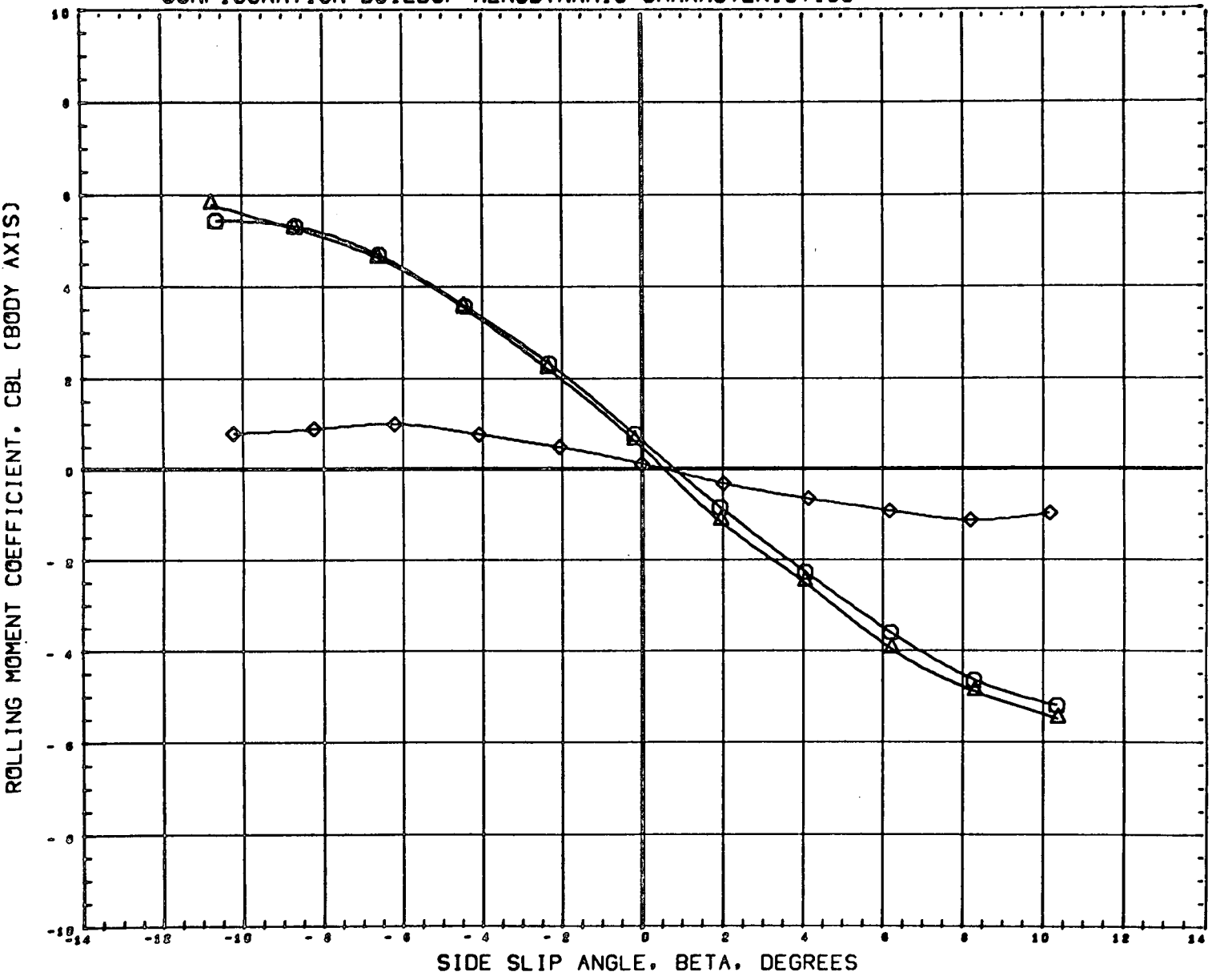
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	NSFC TWT 505 T111L/D707
(R47012)	NSFC TWT 505 T111L/D707
(R47009)	NSFC TWT 505 T111L/D707

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	8.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

RACW 3.480

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



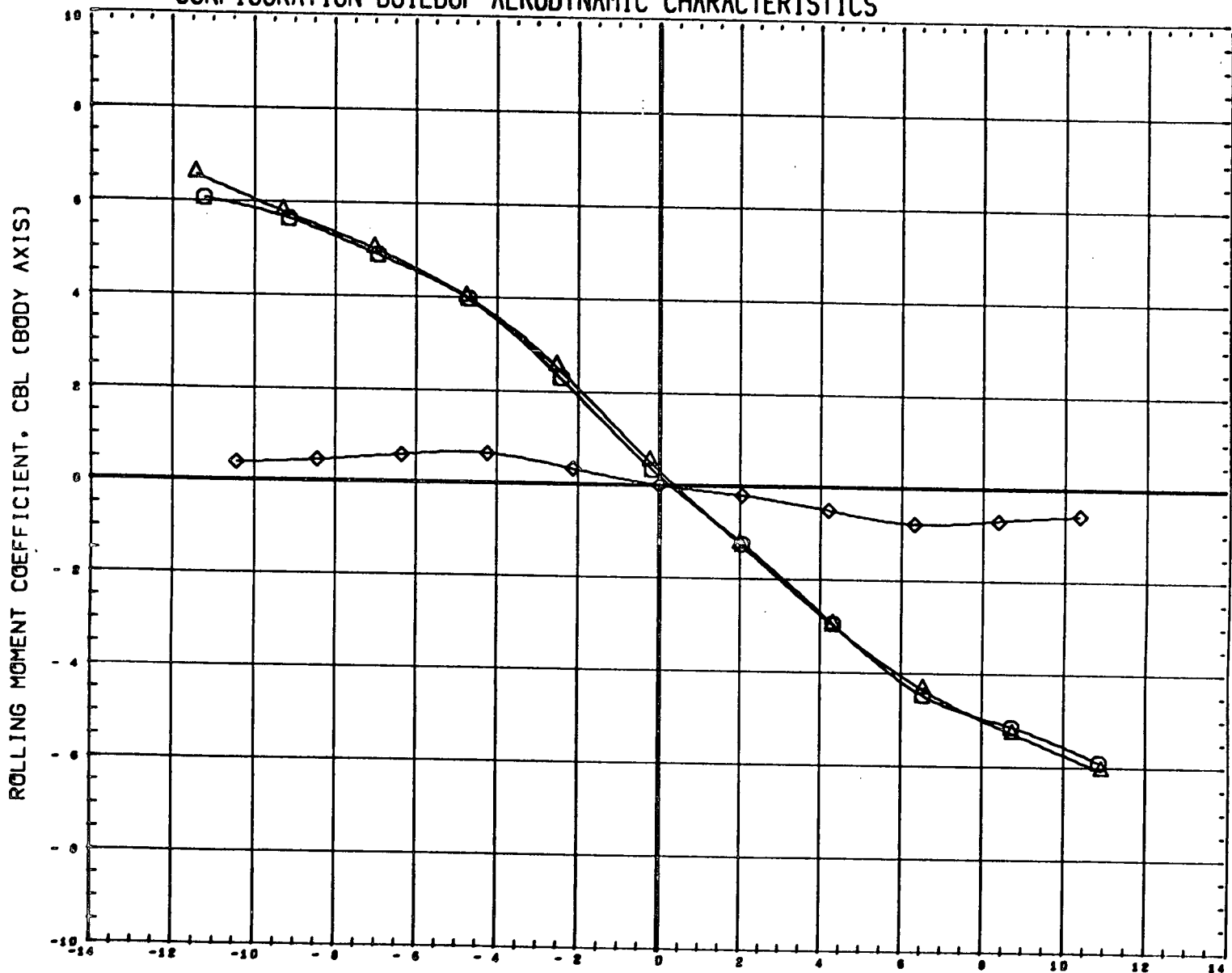
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	○	HSFC TWT 905 T111L/D107
(R47012)	△	HSFC TWT 905 T111L/D107
(R47003)	◇	HSFC TWT 905 T111L/D107

DESCRIPTION	ALPHA
01D2L4	0.000
01D1	0.000
01	0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.602

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



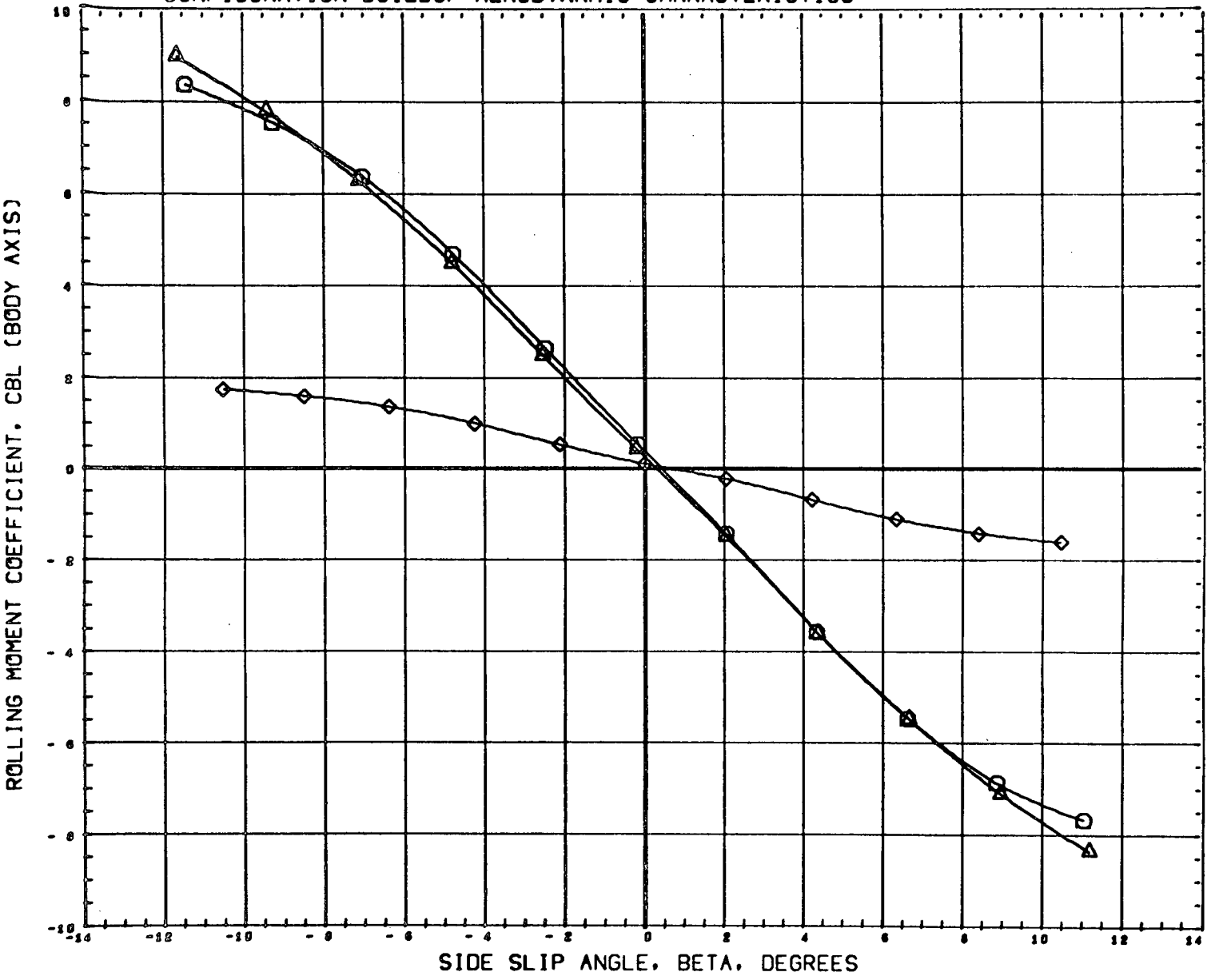
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	MSFC TWT 305 T111L/DT07
(R47012)	MSFC TWT 305 T111L/DT07
(R47003)	MSFC TWT 305 T111L/DT07

ALPHA
0102L4
0101
01

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.902

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



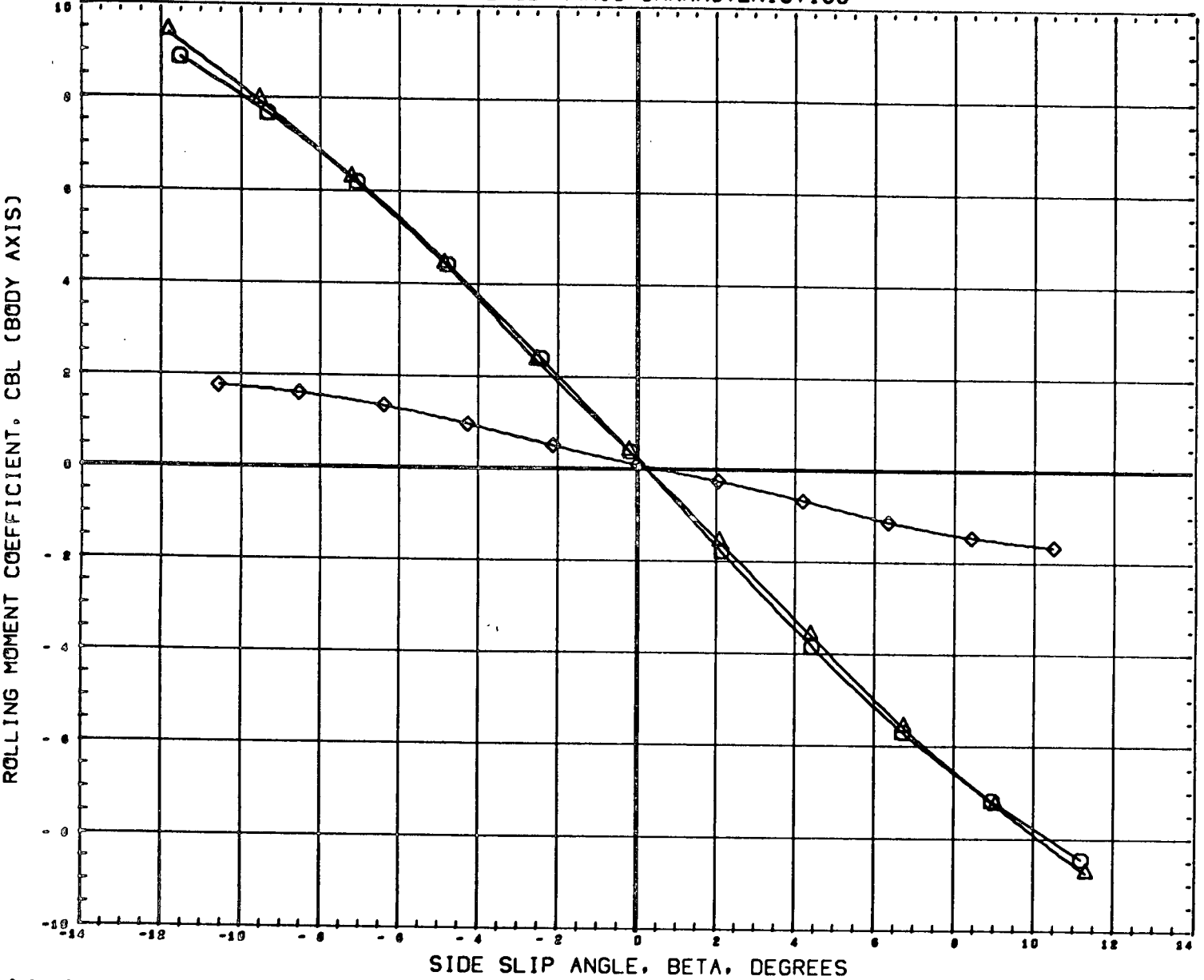
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	○	HSFC TWT 505 T111L/D107
(R47012)	△	HSFC TWT 505 T111L/D107
(R47003)	◇	HSFC TWT 505 T111L/D107

DESCRIPTION	ALPHA
01D2L4	0.000
01D1	0.000
01	0.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.994

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



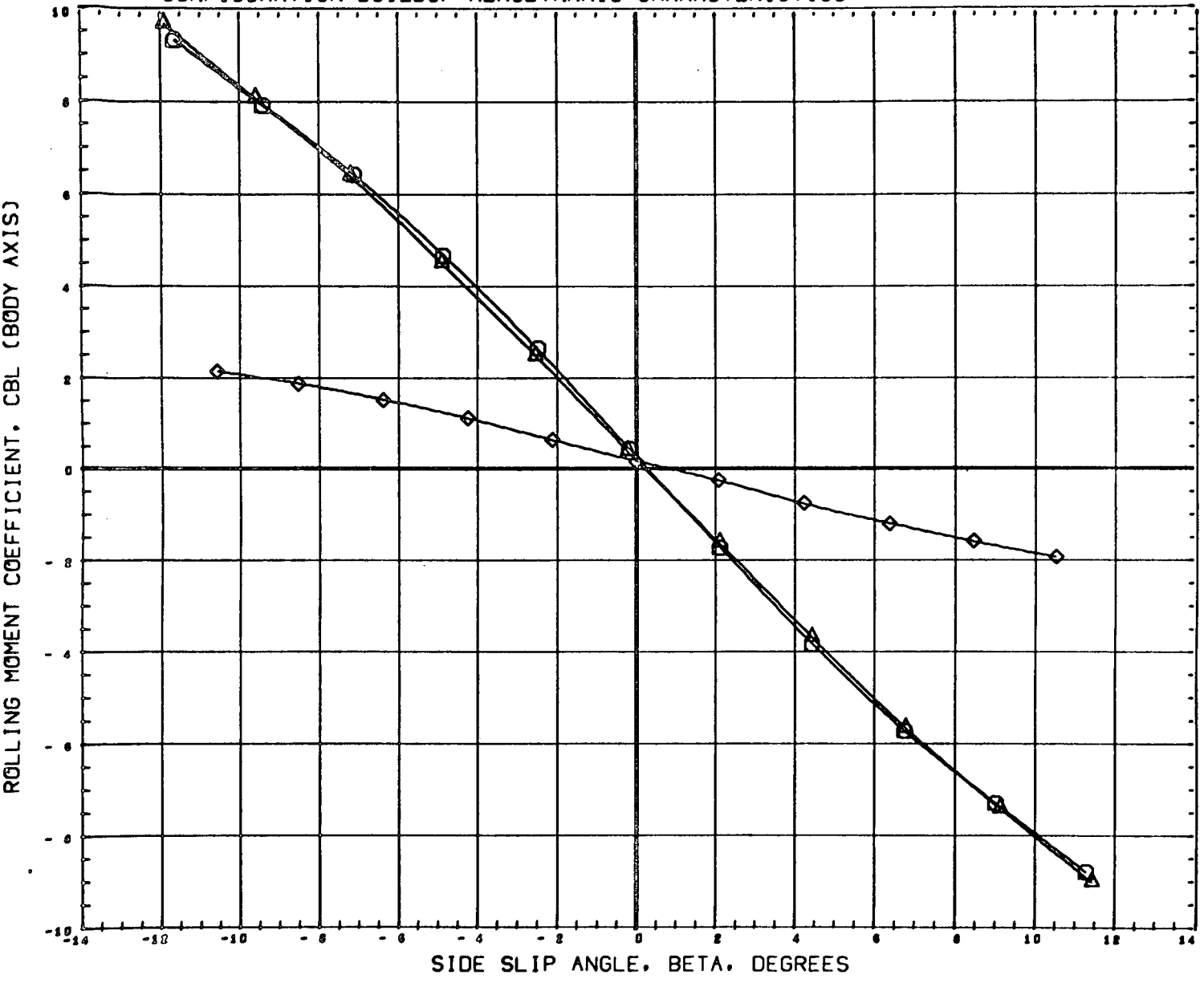
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	MSFC TWT 505 T111L/D107
(R47012)	MSFC TWT 505 T111L/D107
(R47005)	MSFC TWT 505 T111L/D107

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	0.9340 80 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XMRP	2.0170 IN YII
YMRP	0.0000 CORE C
ZMRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 1.100

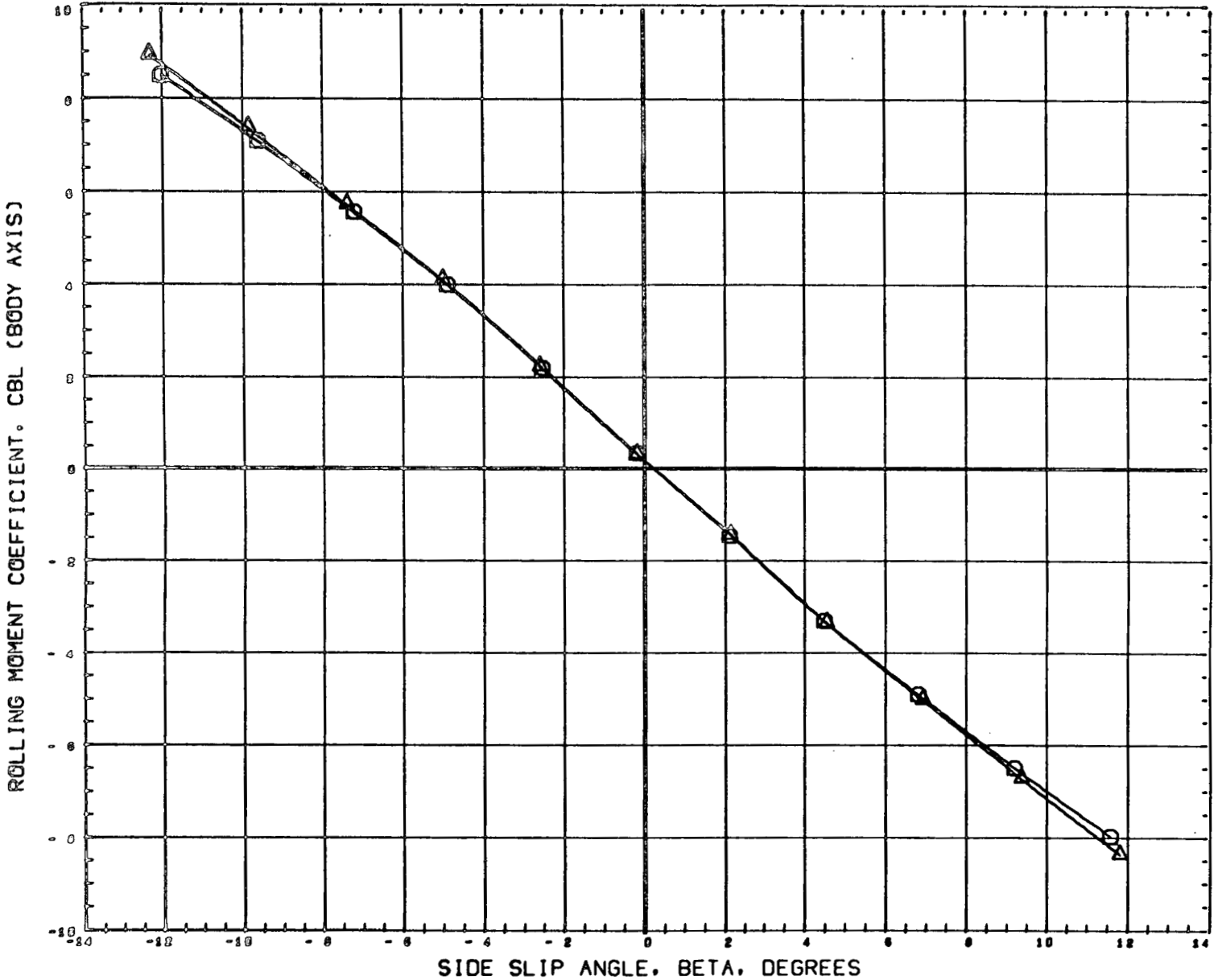
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(R47010) △	HBFC TWT 905 T111L/DT07 0102L4	0.000	SREF 0.9340 90 INC
(R47012) □	HBFC TWT 905 T111L/DT07 01D1	0.000	LREF 0.9240 INCHES
(R47003) ◇	HBFC TWT 905 T111L/DT07 01	0.000	BREF 0.9240 INCHES
			XMRP 2.9170 IN TII
			YMRP 0.0000 CORE C
			ZMRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 1.204

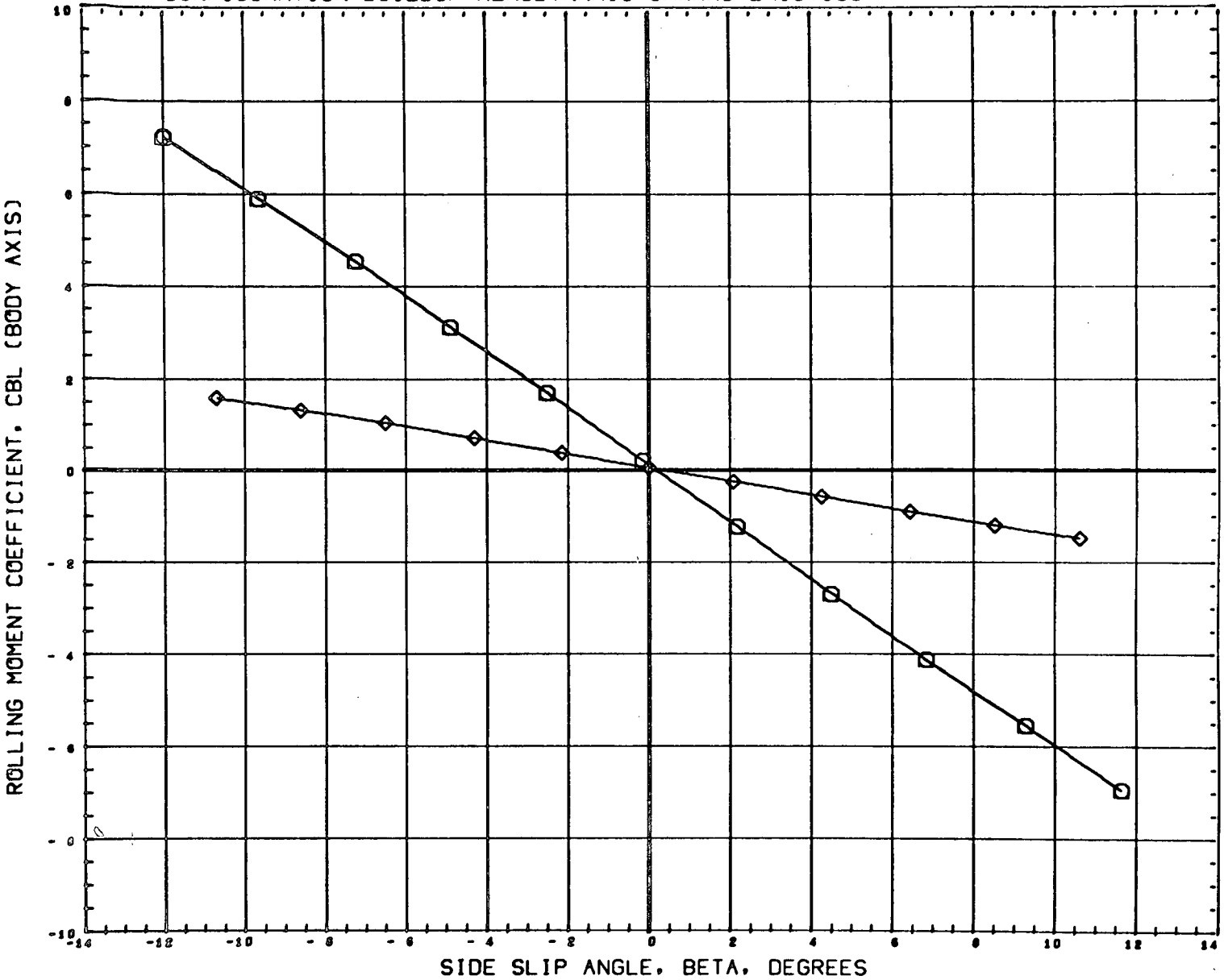
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(R47010)	NSPC TWT 905 T111L/D107 0102L4	0.000	SREF 0.5340 80 INC
(R47012)	NSPC TWT 905 T111L/D107 0101	0.000	LREF 0.8240 INCHES
(R47005)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	BREF 0.8240 INCHES
			XMRP 2.9170 IN T11
			YMRP 0.0000 CORE C
			ZMRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 1.462

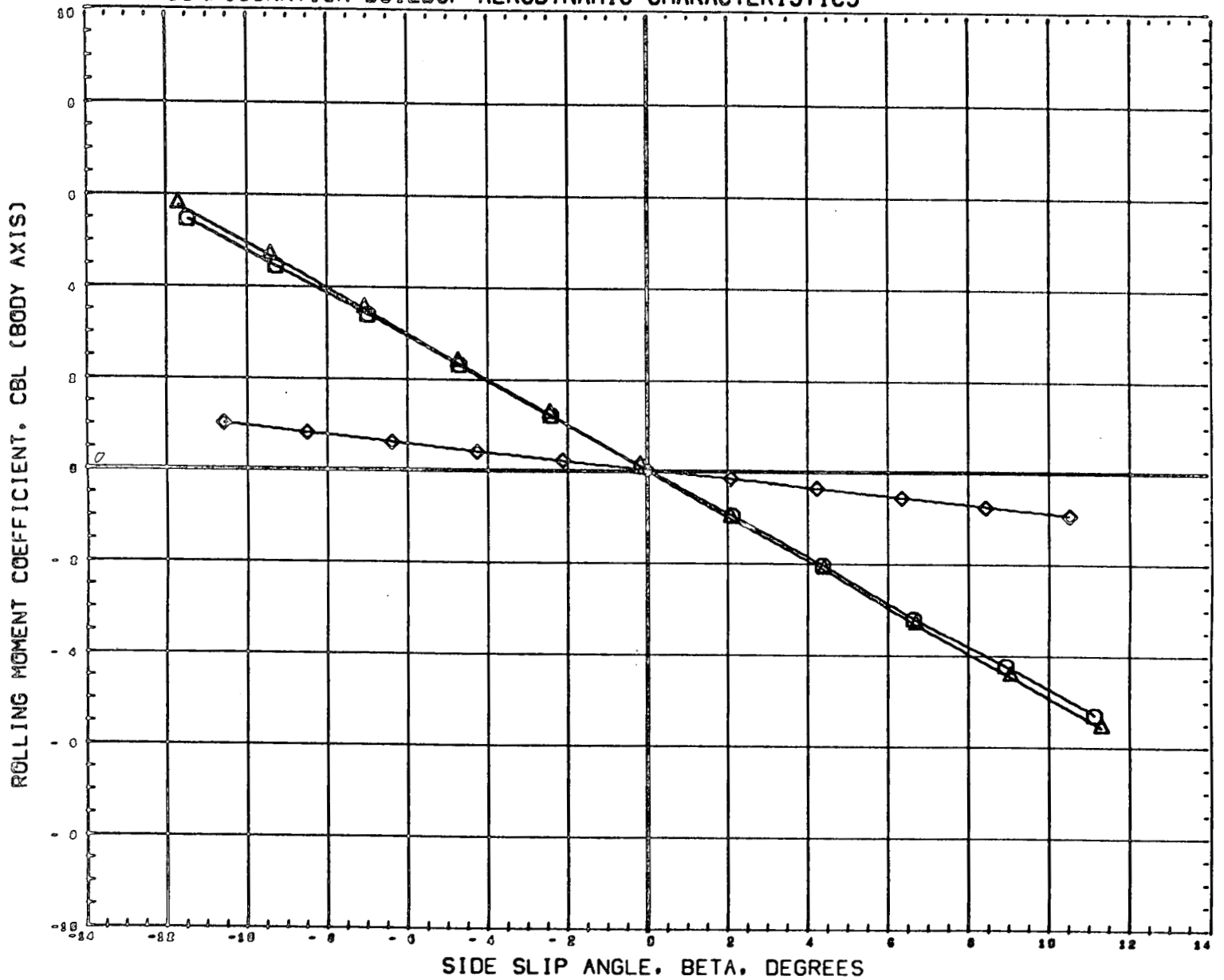
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(R47010)	MSFC TWT 905 T111L/DT07 0102L4	0.000	SREF 0.5340 80 INC
(R47012)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	LREF 0.8240 INCHES
(R47003)	MSFC TWT 905 T111L/DT07 01	0.000	SREF 0.8240 INCHES
			XMRP 2.9170 IN TII
			YMRP 0.0000 CORE C
			ZMRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

NACH 1.962

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	WBFC TWT 905 T111L/D107
(R47012)	WBFC TWT 905 T111L/D107
(R47009)	WBFC TWT 905 T111L/D107

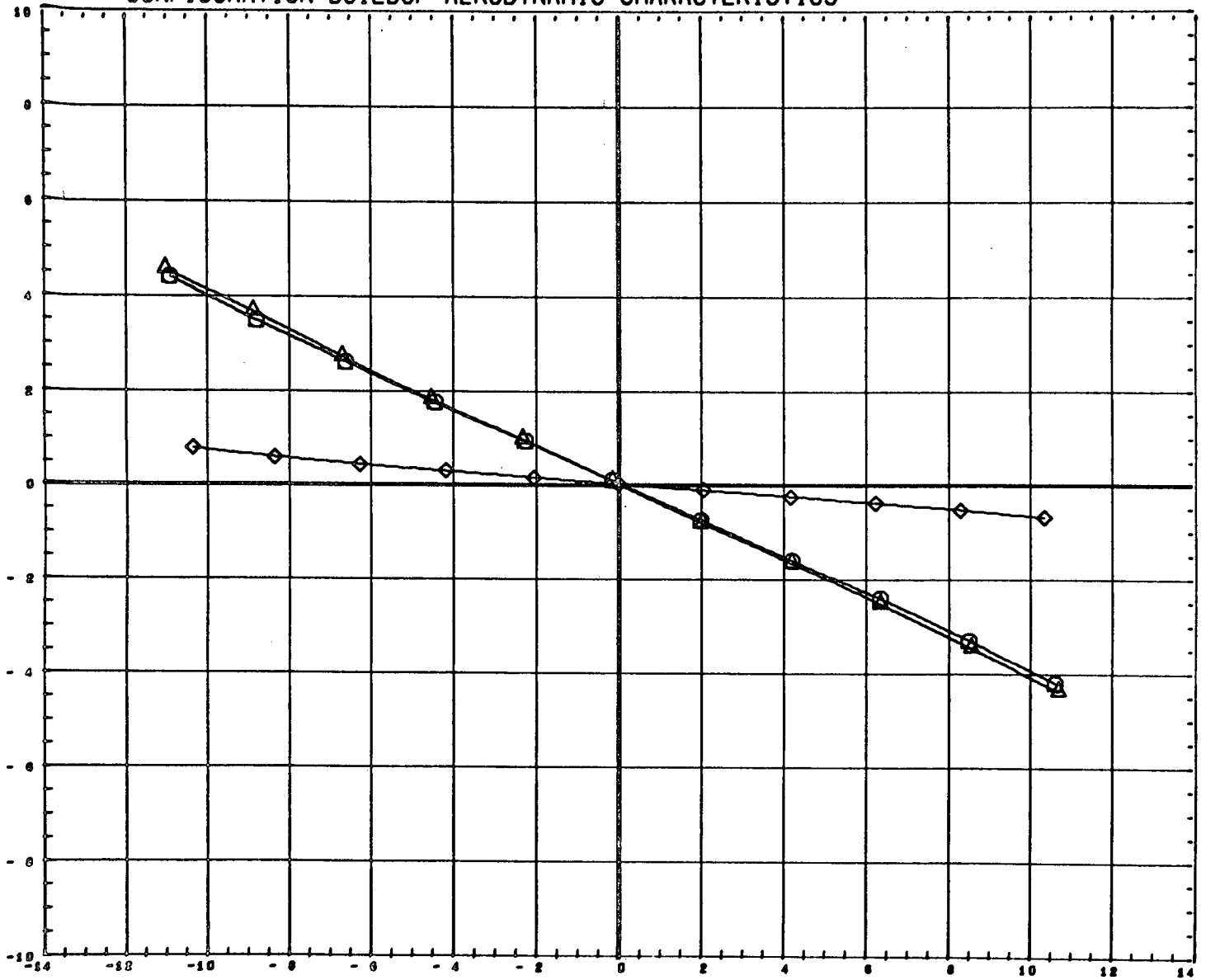
ALPHA
0102L4
01D1
01

REFERENCE INFORMATION		
SREF	0.9340	90 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XWRP	2.9170	IN TII
YWRP	0.0000	CORE C
ZWRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS

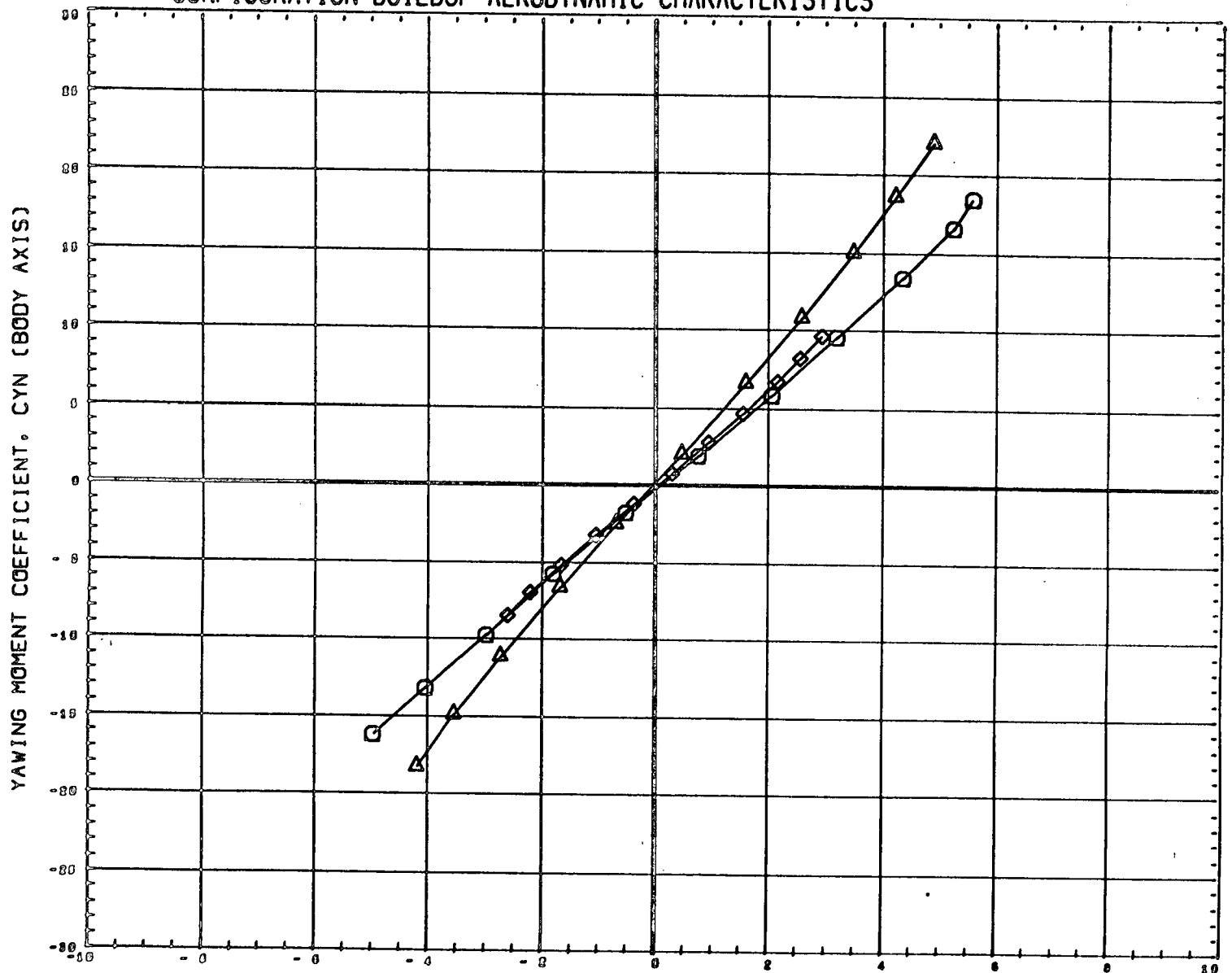
ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(R47010)	HSFC TWT 505 T111L/DT07	0.000	BREF 0.5340 80 INC
(R47012)	HSFC TWT 505 T111L/DT07	0.000	LREF 0.8240 INCHES
(R47005)	HSFC TWT 505 T111L/DT07	0.000	BREF 0.8240 INCHES
			XWRP 2.9170 IN T11
			YWRP 0.0000 CORE C
			ZWRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 3.400

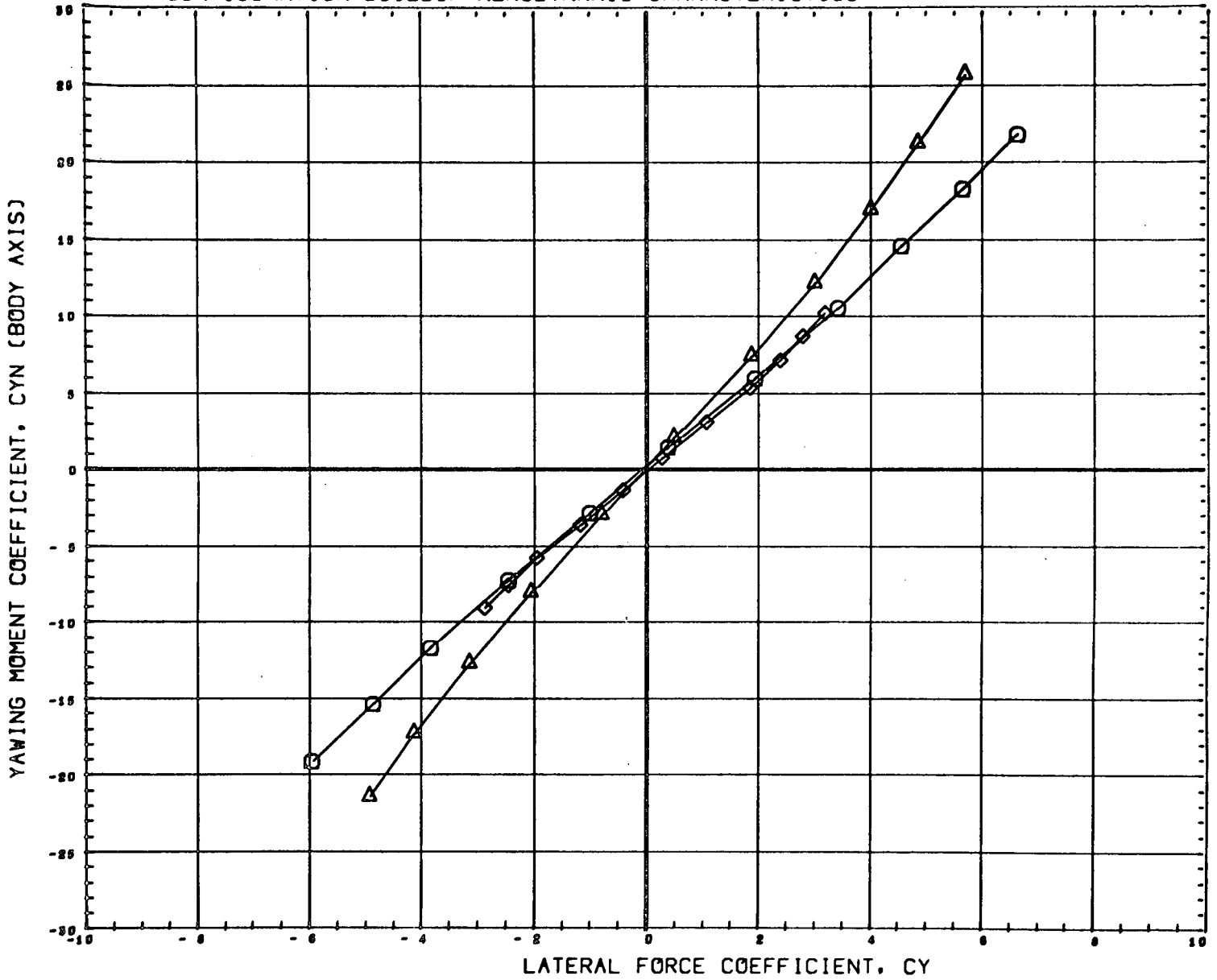
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(R47010)	○	MSFC TWT 505 T111L/DT07	0.000	SREF 0.5340 80 INC
(R47012)	△	MSFC TWT 505 T111L/DT07	0.000	LREF 0.8240 INCHES
(R47008)	◇	MSFC TWT 505 T111L/DT07	0.000	BREF 0.8240 INCHES
				XMRP 2.9170 IN TII
				YMRP 0.0000 CORE C
				ZMRP 0.0000 CORE C
				SCALE 0.4500 PERCENT

MACM 0.602

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010) ○	MSFC TWT 905 T111L/DT07
(R47012) △	MSFC TWT 905 T111L/DT07
(R47003) ◇	MSFC TWT 905 T111L/DT07

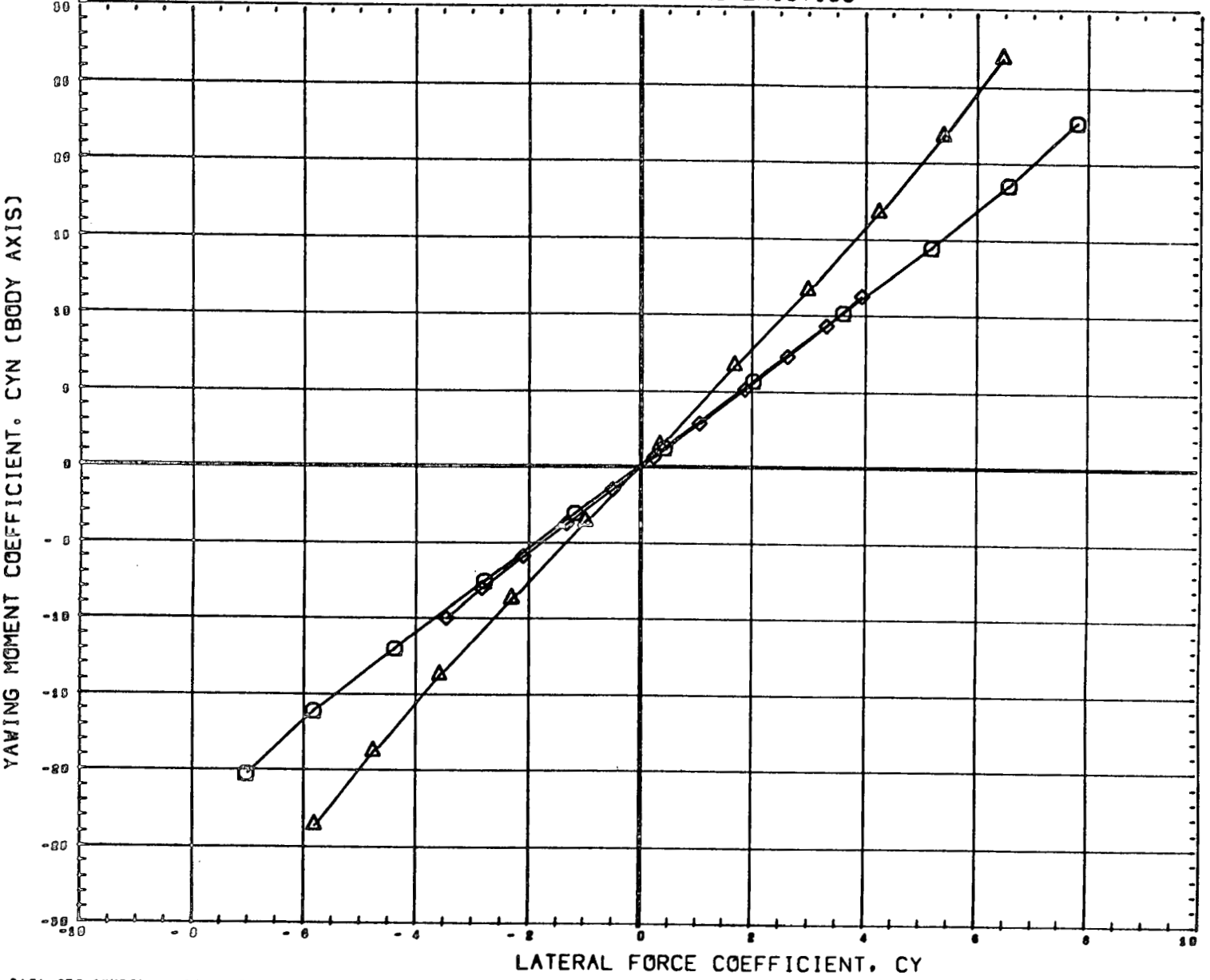
01D2L4
01D1
01

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION	
SRFP	0.5340 SQ INC
LRFP	0.0240 INCHES
BRFP	0.0240 INCHES
XNRP	2.9170 IN TII
YNRP	0.0000 CORE C
ZNRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 0.902

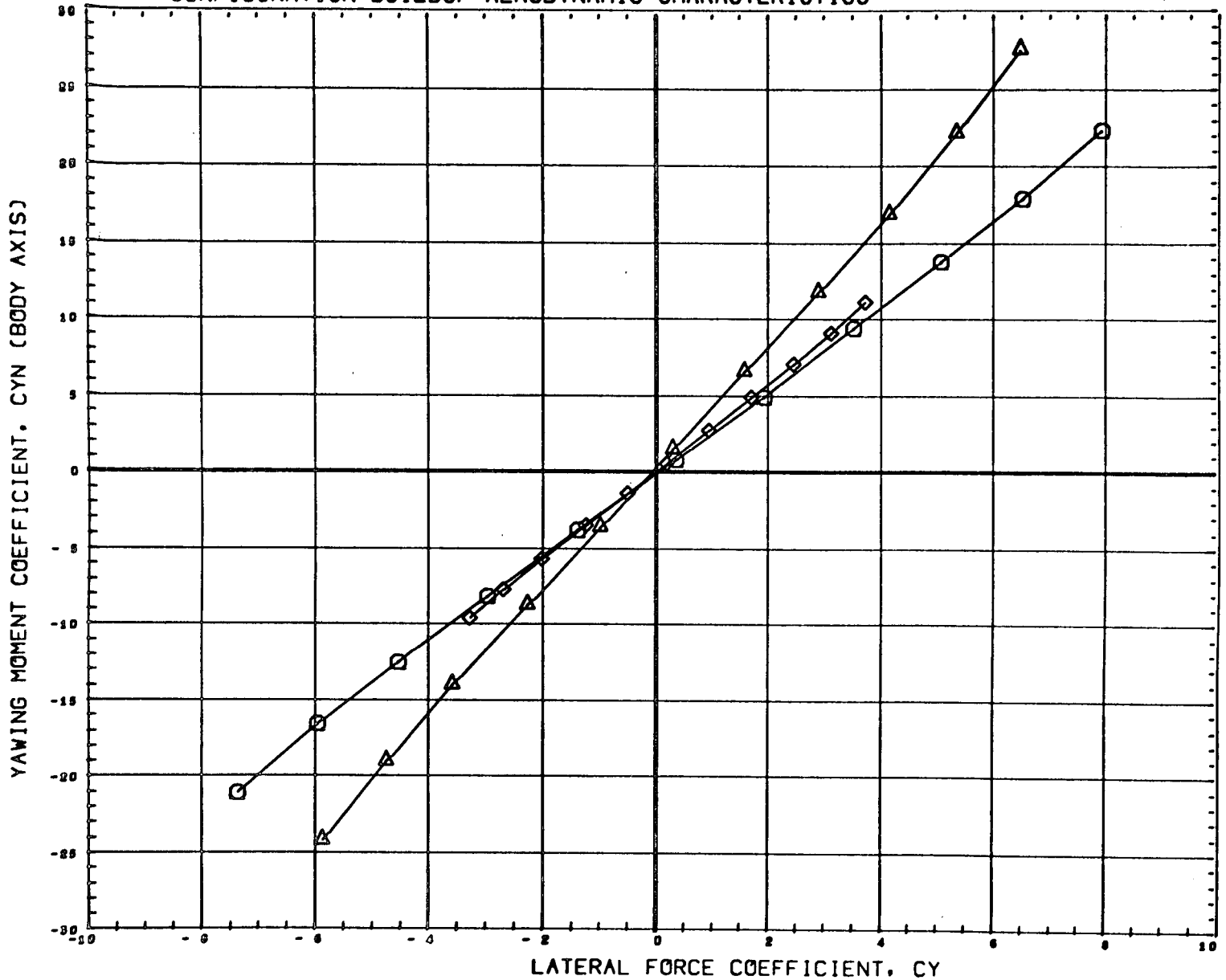
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(R47010)	MSFC TWT 505 T111L/D107	0.000	SREF 0.9340 80 INC
(R47012)	MSFC TWT 505 T111L/D107	0.000	LREF 0.8240 INCHES
(R47003)	MSFC TWT 505 T111L/D107	0.000	SREF 0.8240 INCHES
			XHRP 2.9170 IN TII
			YHRP 0.0000 CORE C
			ZHRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 0.994

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	HSFC TWT 509 T111L/D107
(R47012)	HSFC TWT 509 T111L/D107
(R47009)	HSFC TWT 509 T111L/D107

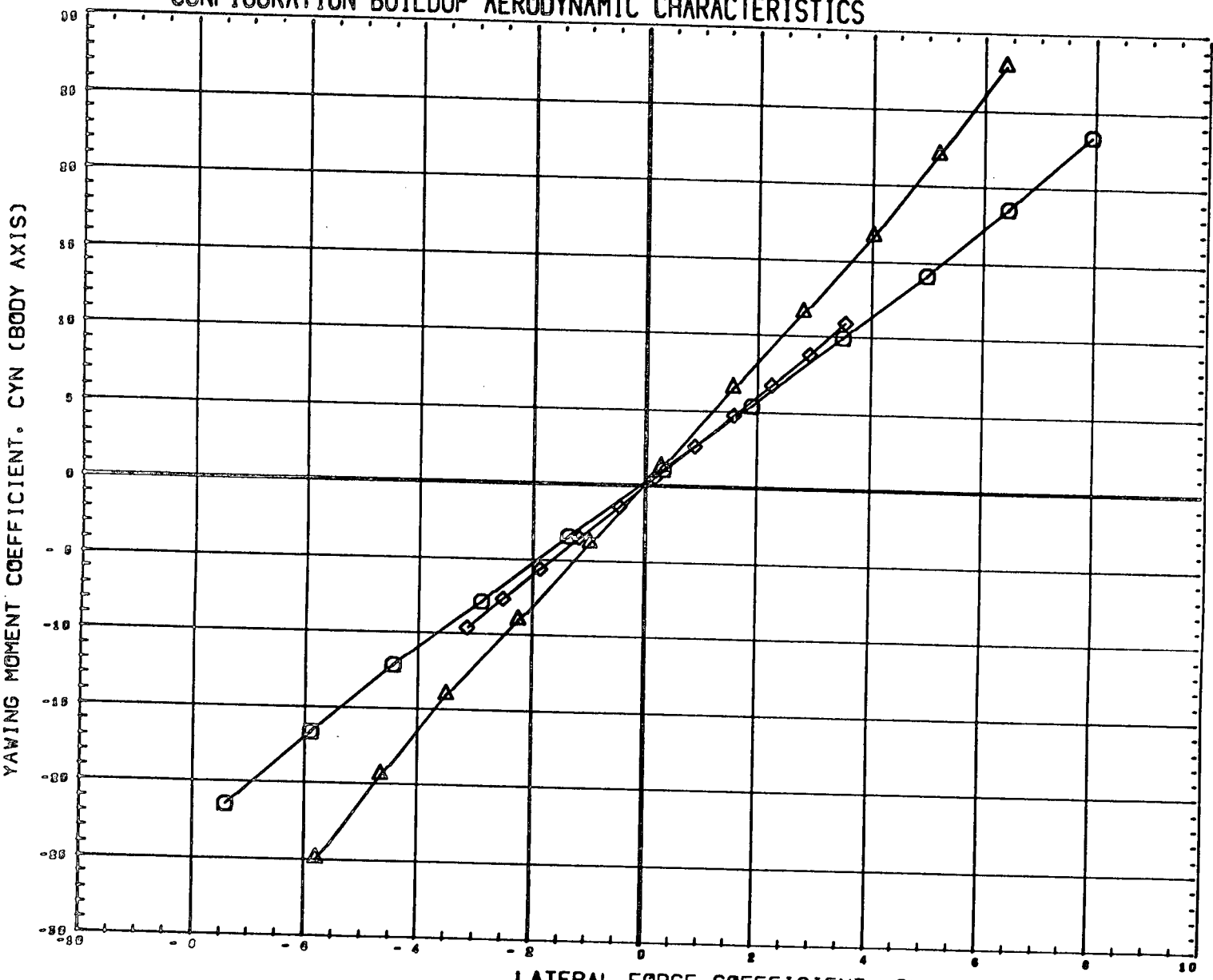
0102L4
0101
01

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.100

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	□	WSPC TWT 505 T111L/DT07
(R47012)	△	WSPC TWT 505 T111L/DT07
(R47009)	○	WSPC TWT 505 T111L/DT07

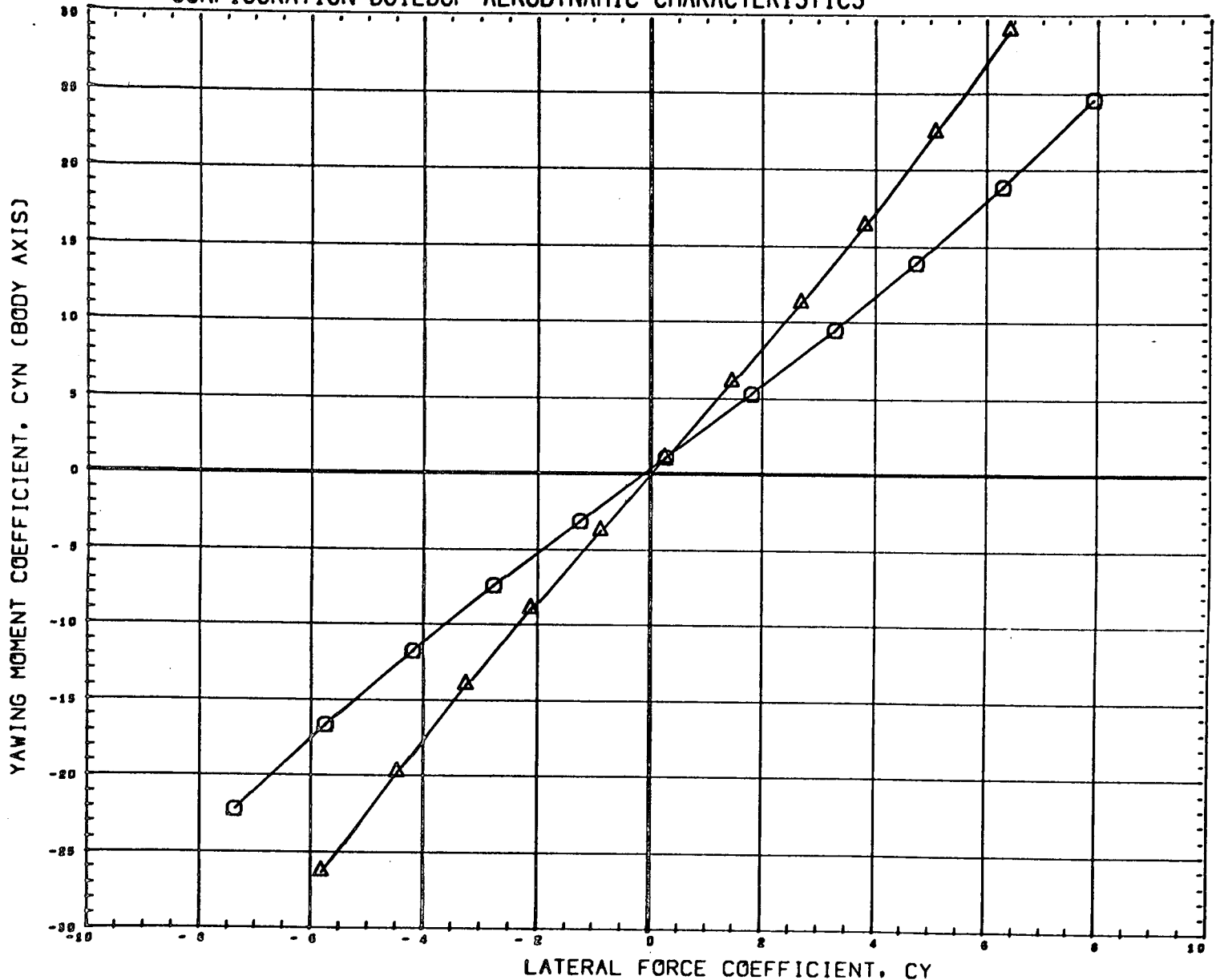
01D2L4
01D1
01

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.204

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



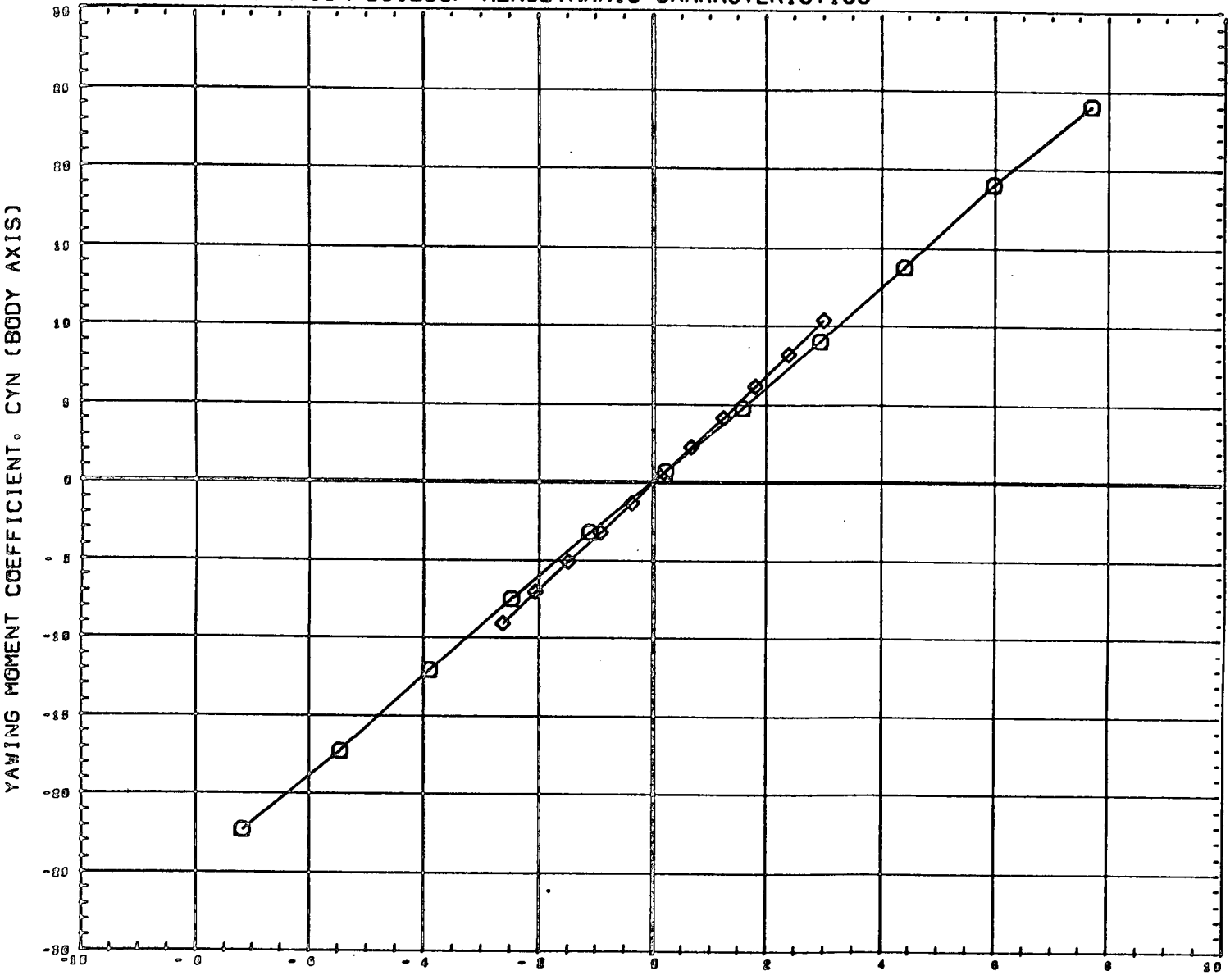
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47010) \square	HQFC TWT 503 T111L/D107 01D2L4
(R47012) \triangle	HQFC TWT 503 T111L/D107 0101
(R47003) \diamond	DATA NOT AVAILABLE FOR ALL CONDITIONS

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 0.5340 90 INC
LREF 0.8240 INCHE3
BREF 0.8240 INCHE3
XMRP 2.9170 IN T11
YMRP 0.0000 CORE C
ZMRP 0.0000 CORE C
SCALE 0.4300 PERCENT

MACH 1.462

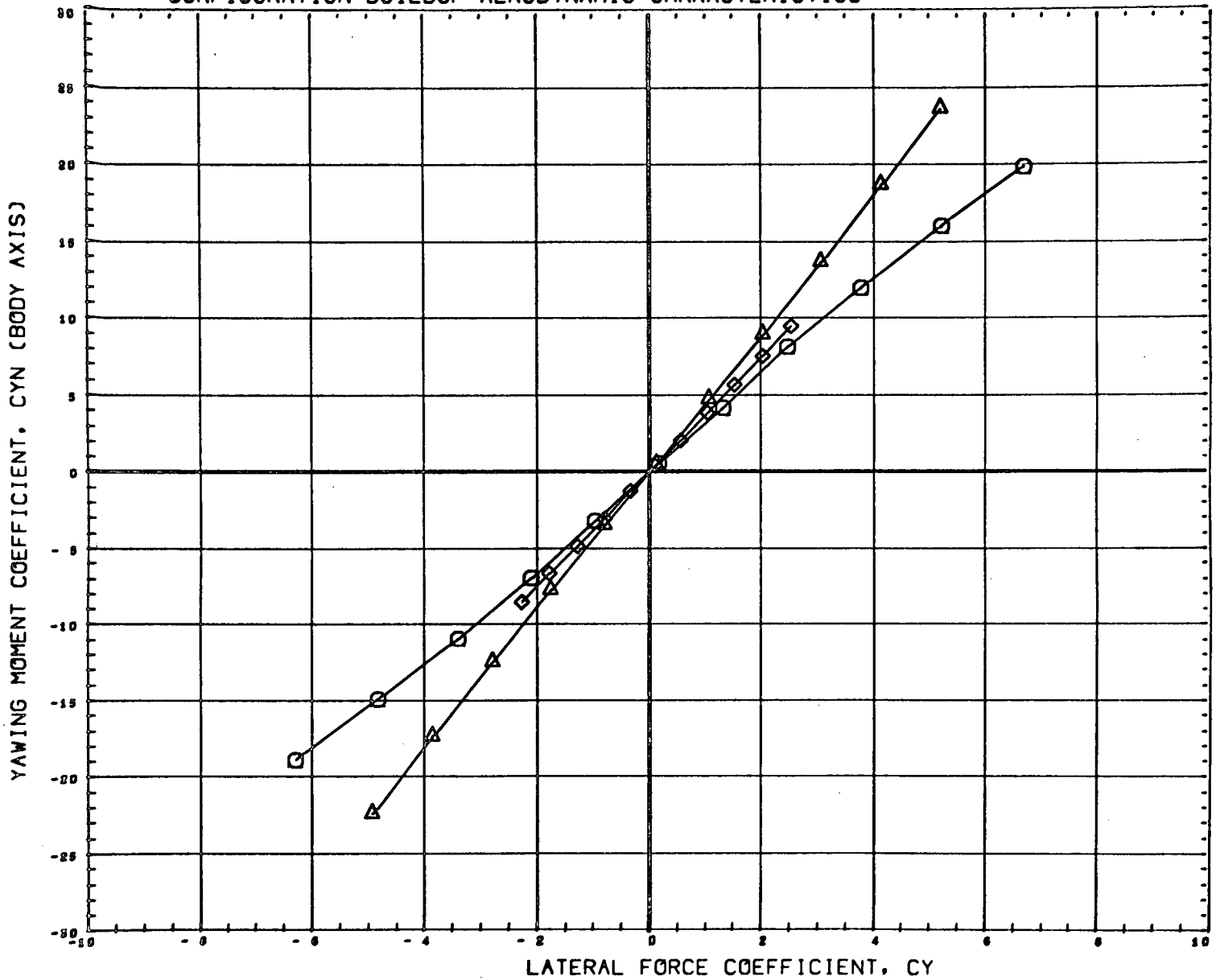
CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA BY DYHDOL (R47080) (R47082) (R47083)	CONFIGURATION DESCRIPTION □ MOPC TWT 505 T111L/DT07 D1D2L4 △ DATA NOT AVAILABLE FOR ALL CONDITIONS ◇ MOPC TWT 505 T111L/DT07 01	ALPHA 0.000 0.000 0.000	REFERENCE INFORMATION SREF 0.5340 80 INC LREF 0.8240 INCHES BREF 0.8240 INCHES XMRP 2.9170 IN T11 YMRP 0.0000 CORE C ZMRP 0.0000 CORE C SCALE 0.4300 PERCENT
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MACH 1.962

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(R47010)	○	MOFC TWT 909 T111L/DT07
(R47012)	△	MOFC TWT 905 T111L/DT07
(R47009)	◇	MOFC TWT 909 T111L/DT07

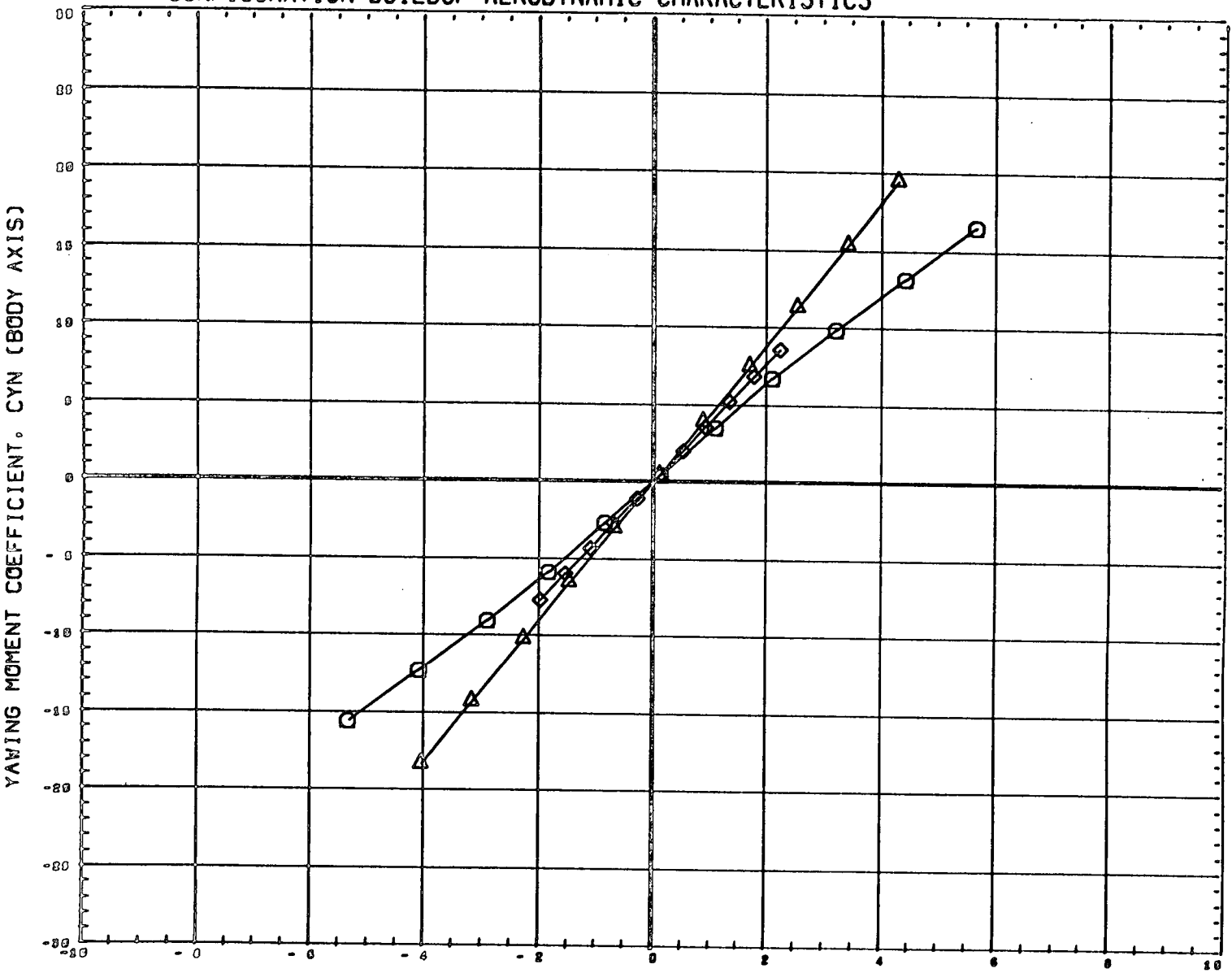
01D2L4
01D1
01

ALPHA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	60 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.0170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 8.740

CONFIGURATION BUILDUP AERODYNAMIC CHARACTERISTICS



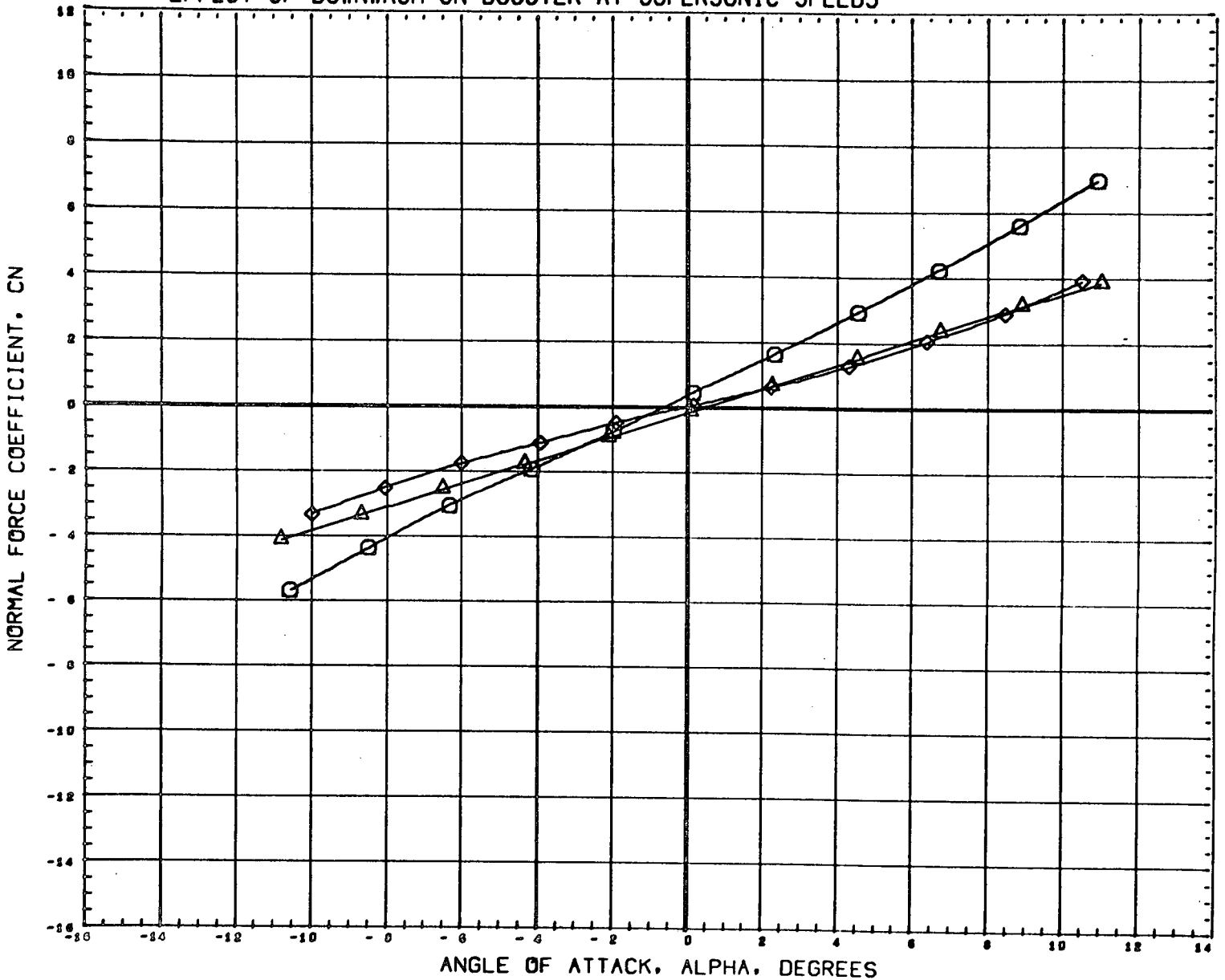
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R47080)	MSFC TWT 505 T111L/D107
(R47082)	MSFC TWT 505 T111L/D107
(R47083)	MSFC TWT 505 T111L/D107

ALPHA
0102L4
01D1
01
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	0.3340 80 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XNRP	2.9170 IN T11
YNRP	0.0000 CORE C
ZNRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 3.400

EFFECT OF DOWNWASH ON BOOSTER AT SUPERSONIC SPEEDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(F47000)	○ H3FC TWT 303 T111L/DT07
(F67011)	△ H3FC TWT 303 T111L/DT07
(B47013)	◇ H3FC TWT 303 T111L/DT07

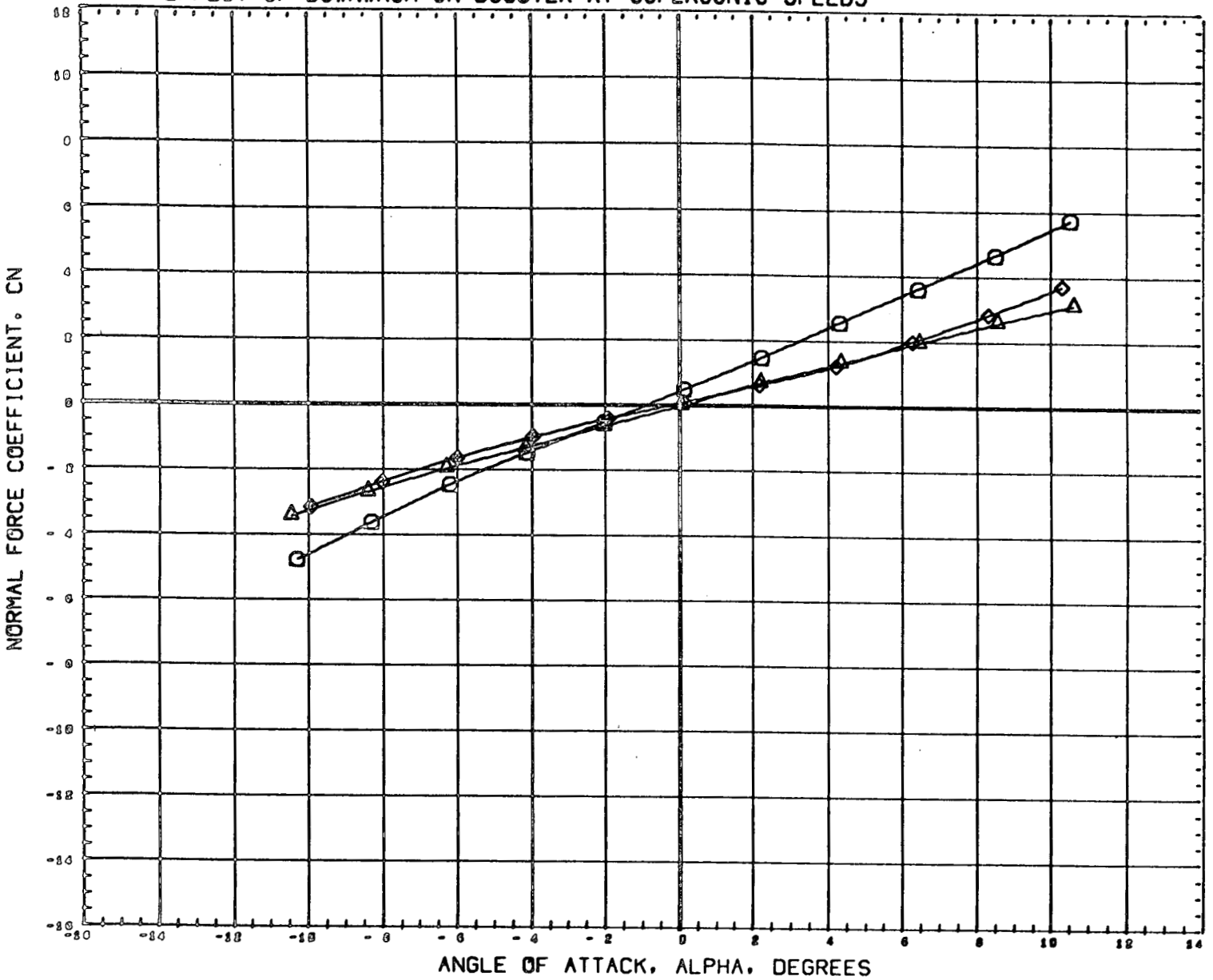
01D2L4
01D1
D2L4

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

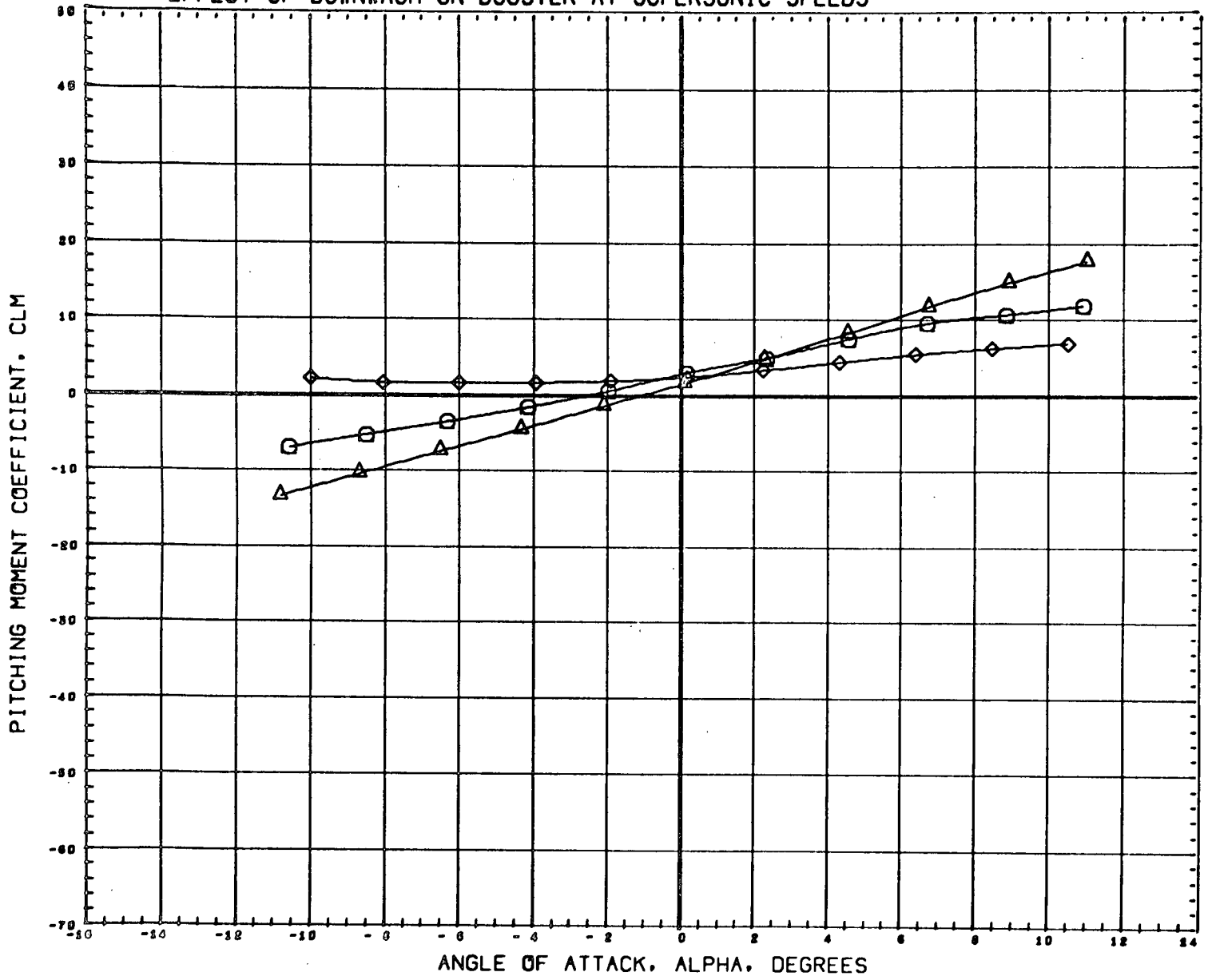
EFFECT OF DOWNWASH ON BOOSTER AT SUPERSONIC SPEEDS



DATA KEY SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(P47000)	WSFC TWT 505 T111L/D107	0.000	SREF 0.5340 50 INC
(P47010)	WSFC TWT 505 T111L/D107	0.000	LREF 0.8240 INCHES
(P47010)	WSFC TWT 505 T111L/D107	0.000	SREF 0.8240 INCHES
			XMRP 2.9170 IN T11
			YMRP 0.0000 CORE C
			ZMRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 3.060

EFFECT OF DOWNWASH ON BOOSTER AT SUPERSONIC SPEEDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(P47000)	HSFC TWT 505 T111L/D707
(P47011)	HSFC TWT 505 T111L/D707
(P47012)	HSFC TWT 505 T111L/D707

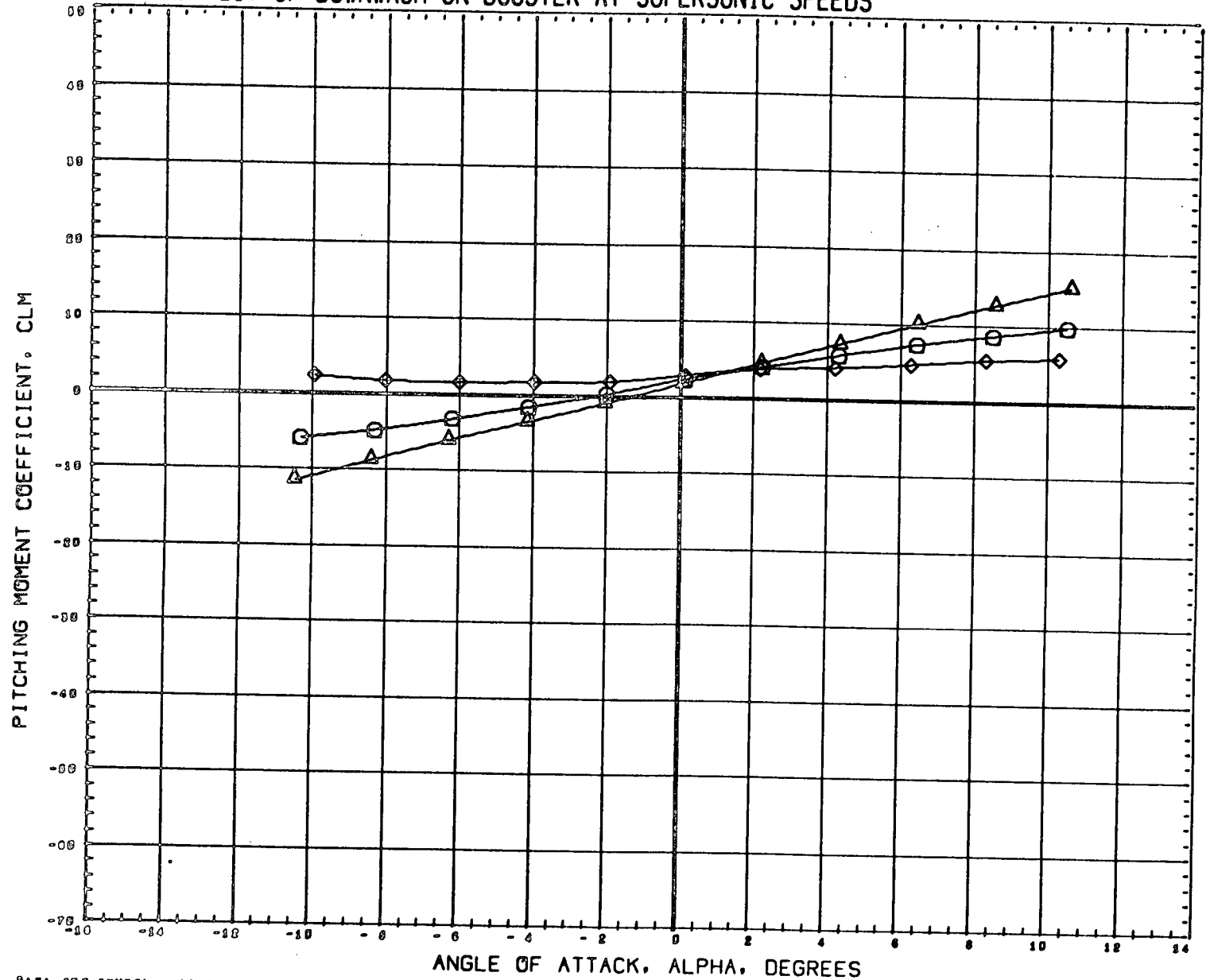
01D2L4
01D1
02L4

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
DREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

EFFECT OF DOWNWASH ON BOOSTER AT SUPERSONIC SPEEDS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(P47000) WSFC TWT 305 T111L/DT07 01D2L4

(P47011) WSFC TWT 305 T111L/DT07 01D1

(D47010) WSFC TWT 305 T111L/DT07 02L4

BETA
0.000
0.000
0.000

REFERENCE INFORMATION

SREF 0.5340 80 INC

LREF 0.8240 INCHES

BREF 0.8240 INCHES

XMRP 2.9170 IN TII

YMRP 0.0000 CORE C

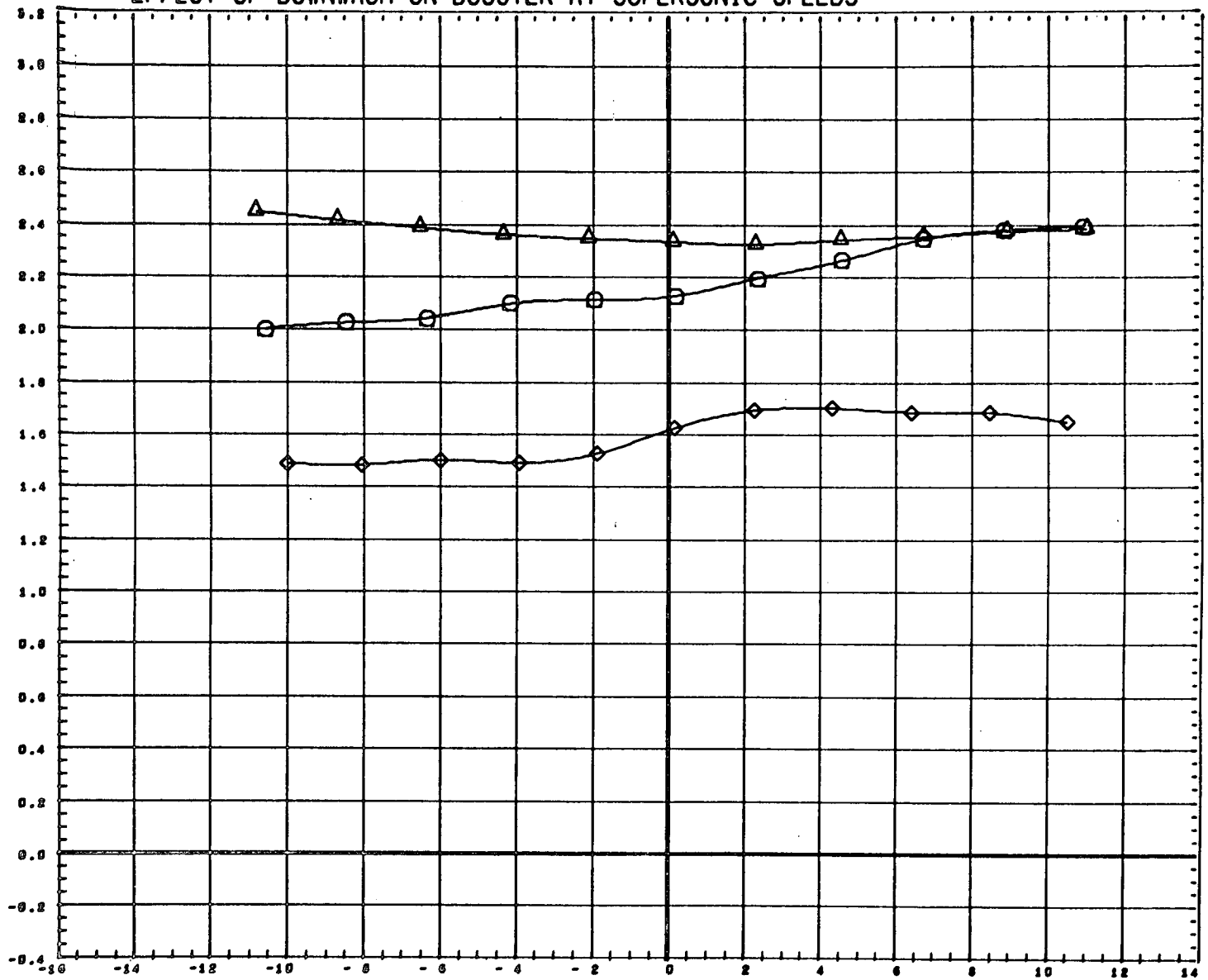
ZMRP 0.0000 CORE C

SCALE 0.4300 PERCENT

MACM 0.400

EFFECT OF DOWNWASH ON BOOSTER AT SUPERSONIC SPEEDS

FOREBODY AXIAL FORCE COEFFICIENT, CAF

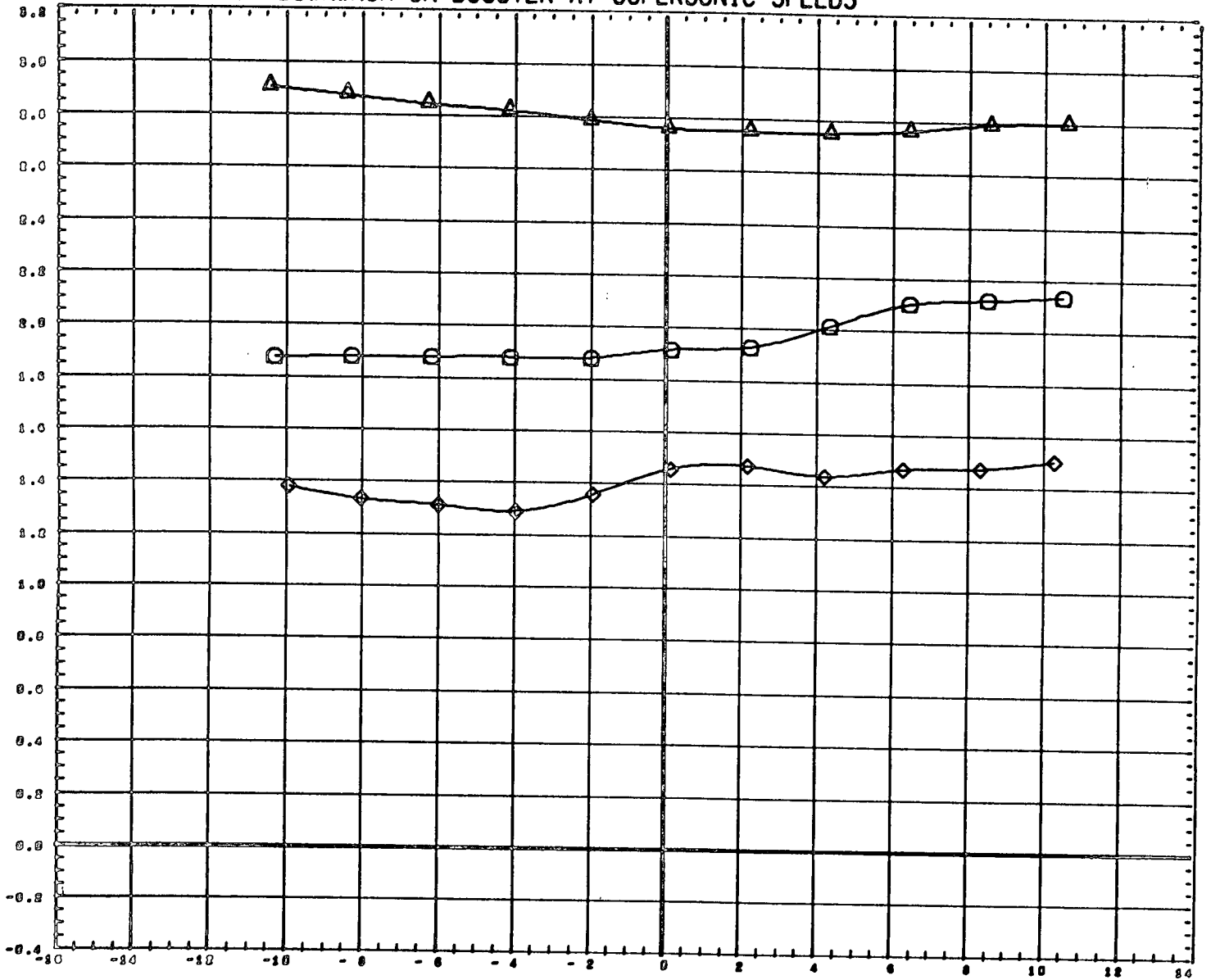


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(P47000)	HSFC TWT 305 T111L/DT07	0.000	BREF 0.5340 SQ INC
(P47011)	HSFC TWT 305 T111L/DT07	0.000	LREF 0.8240 INCHES
(D67013)	HSFC TWT 305 T111L/DT07	0.000	BREF 0.8240 INCHES
			XNRP 2.9170 IN T11
			YNRP 0.0000 CORE C
			ZNRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

MACH 2.740

EFFECT OF DOWNWASH ON BOOSTER AT SUPERSONIC SPEEDS

FOREBODY AXIAL FORCE COEFFICIENT, CAF



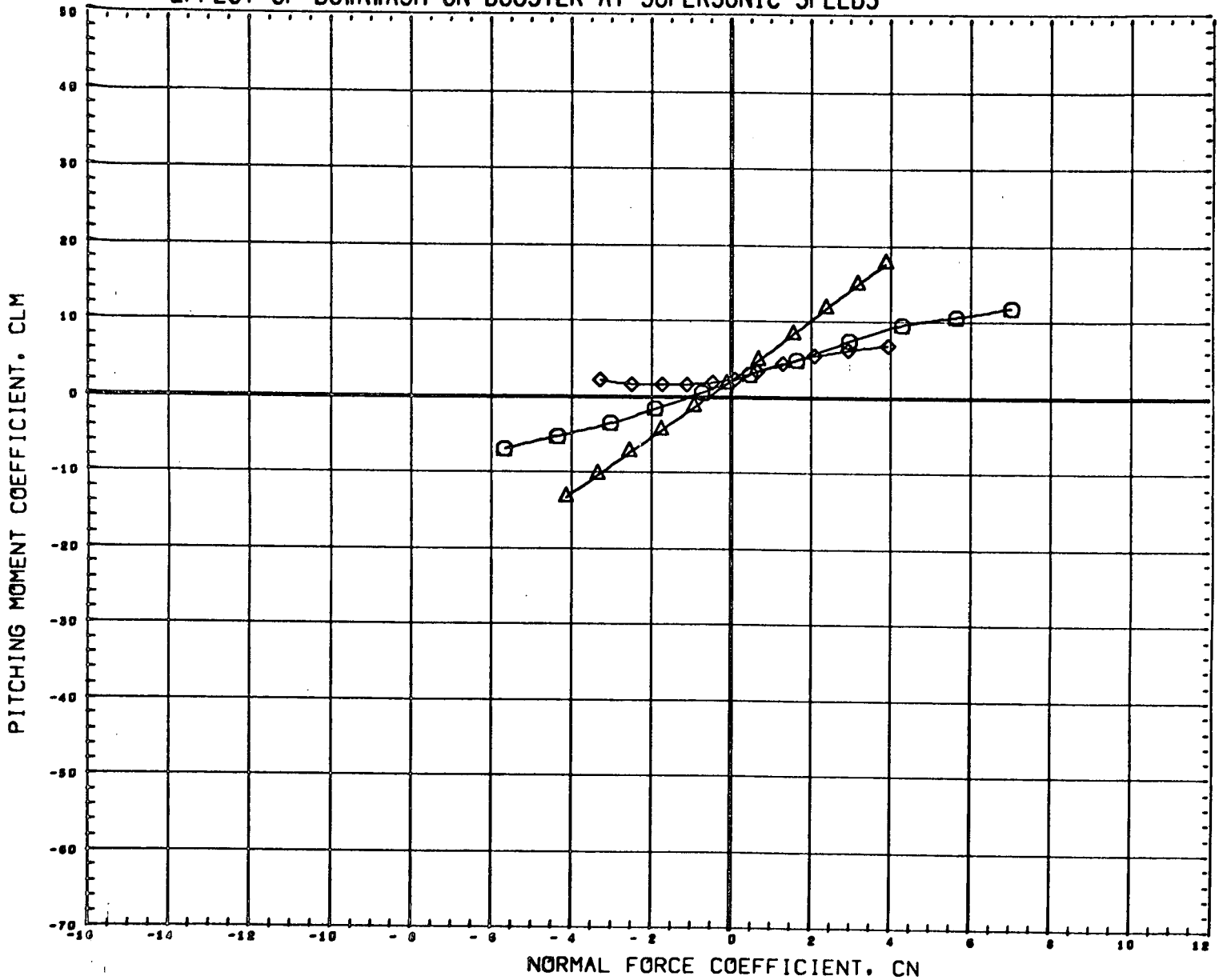
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(F47008)	○	MBFC TWT 905 T111L/DT07
(F47011)	△	MBFC TWT 905 T111L/DT07
(F47013)	◇	MBFC TWT 905 T111L/DT07

BETA
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	0.5340 50 INC
LREF	0.8240 INCHES
BREF	0.8240 INCHES
XHRP	2.9170 IN TII
YHRP	0.0000 CORE C
ZHRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 3.400

EFFECT OF DOWNWASH ON BOOSTER AT SUPERSONIC SPEEDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(F47008)	HBPC TWT 905 T111L/DT07	0.000
(F47013)	HBPC TWT 905 T111L/DT07	0.000
(B47013)	HBPC TWT 905 T111L/DT07	0.000

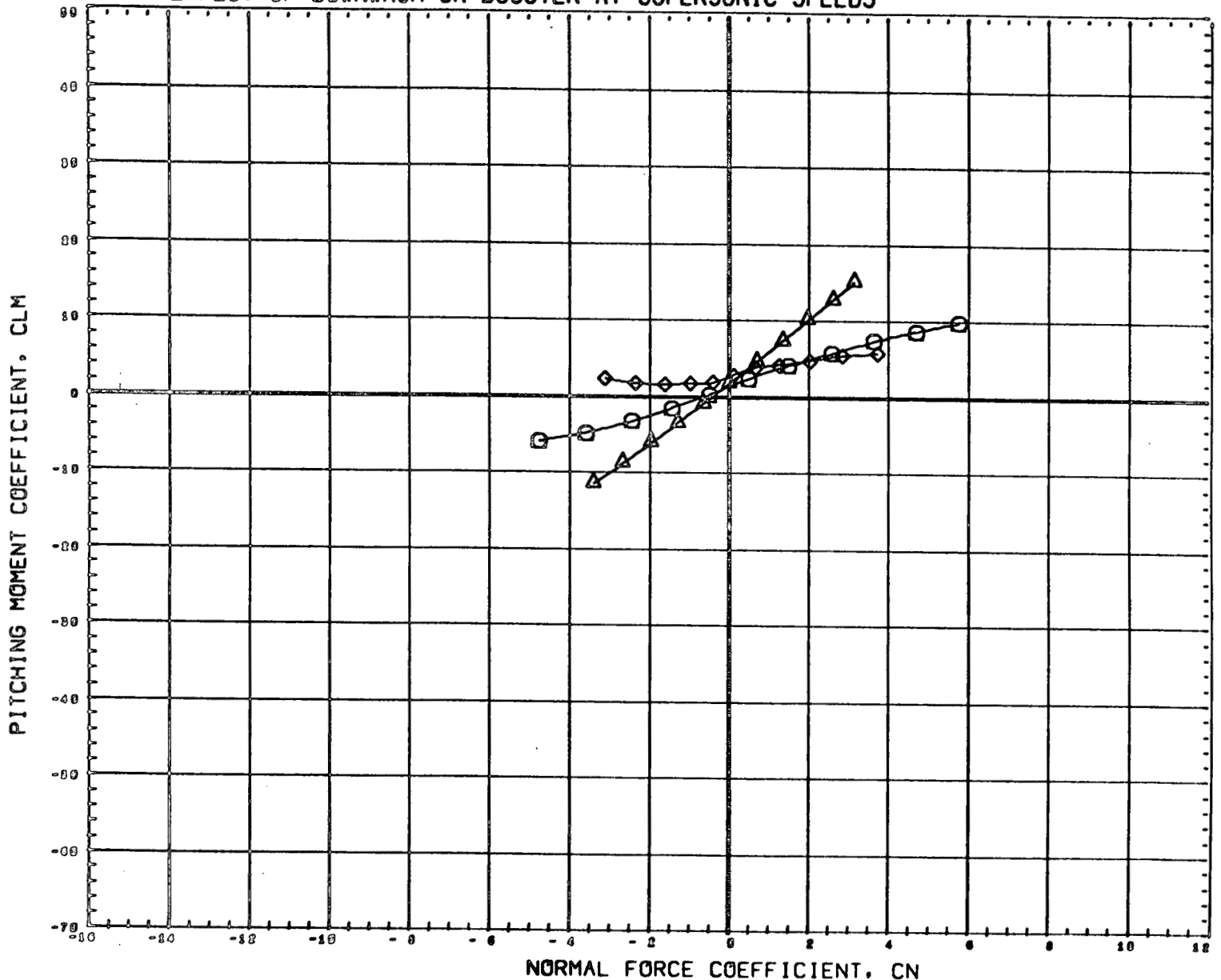
01D2L4
01D1
D2L4

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XHRP	2.9170	IN TIT
VHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 2.740

EFFECT OF DOWNWASH ON BOOSTER AT SUPERSONIC SPEEDS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(047000)	MSFC TWY 905 T111L/D107
(047011)	MSFC TWY 905 T111L/D107
(047012)	MSFC TWY 905 T111L/D107

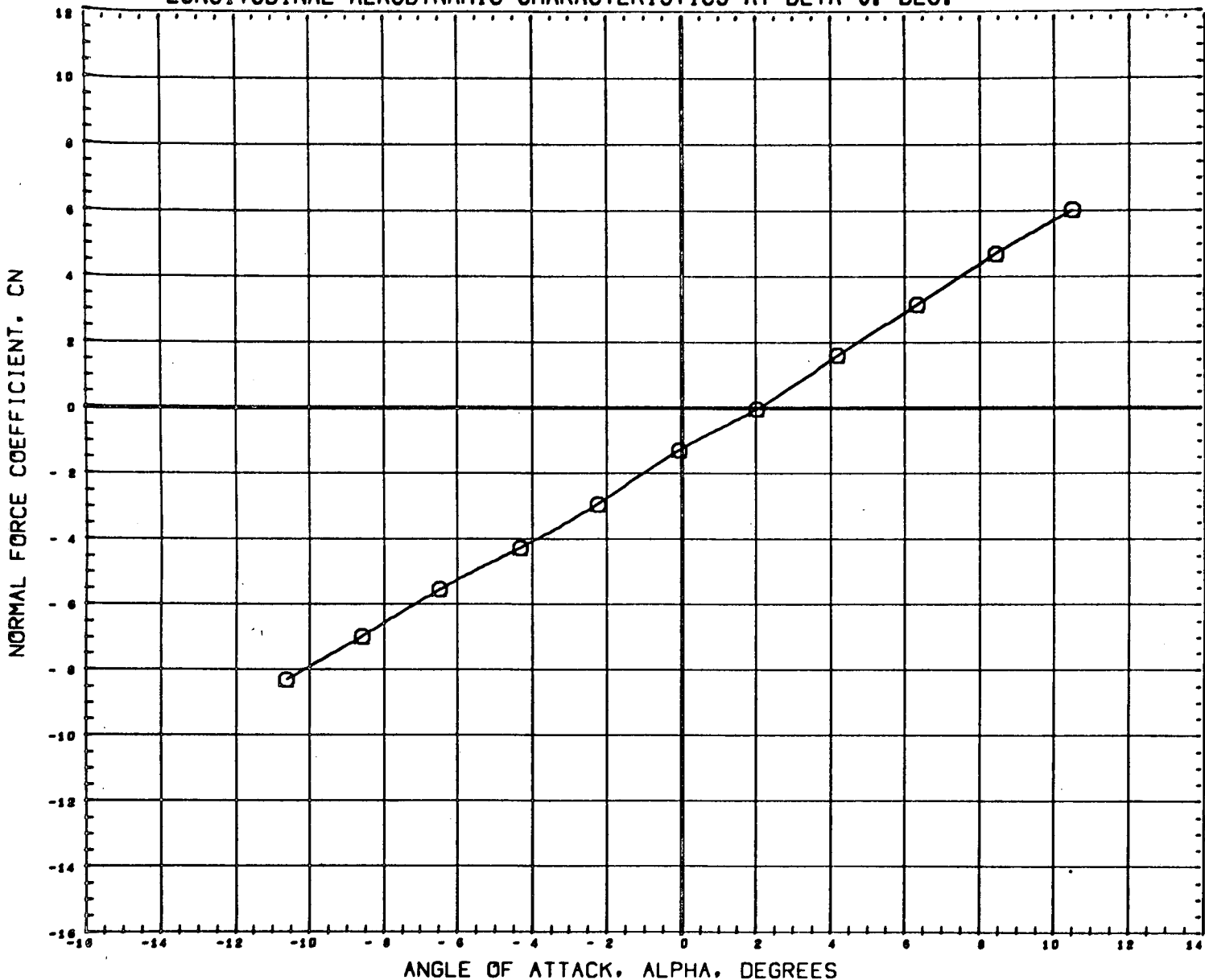
0102L4
0101
02L4

BETA
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.8000	CORE C
ZMRP	0.8000	CORE C
SCALE	0.4300	PERCENT

MACH 5.400

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

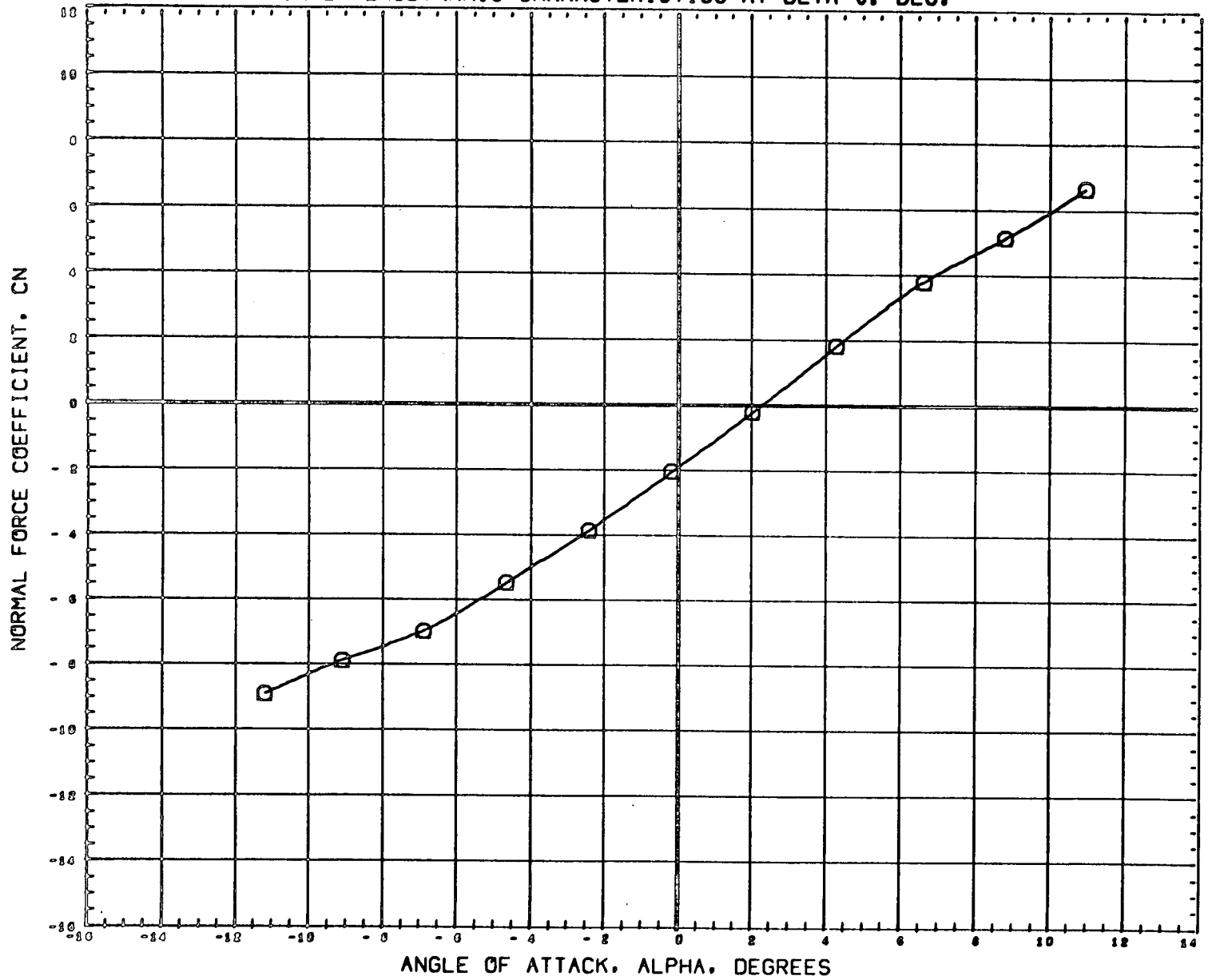


SYMBOL \circ MACH 0.500 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 OREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V02

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

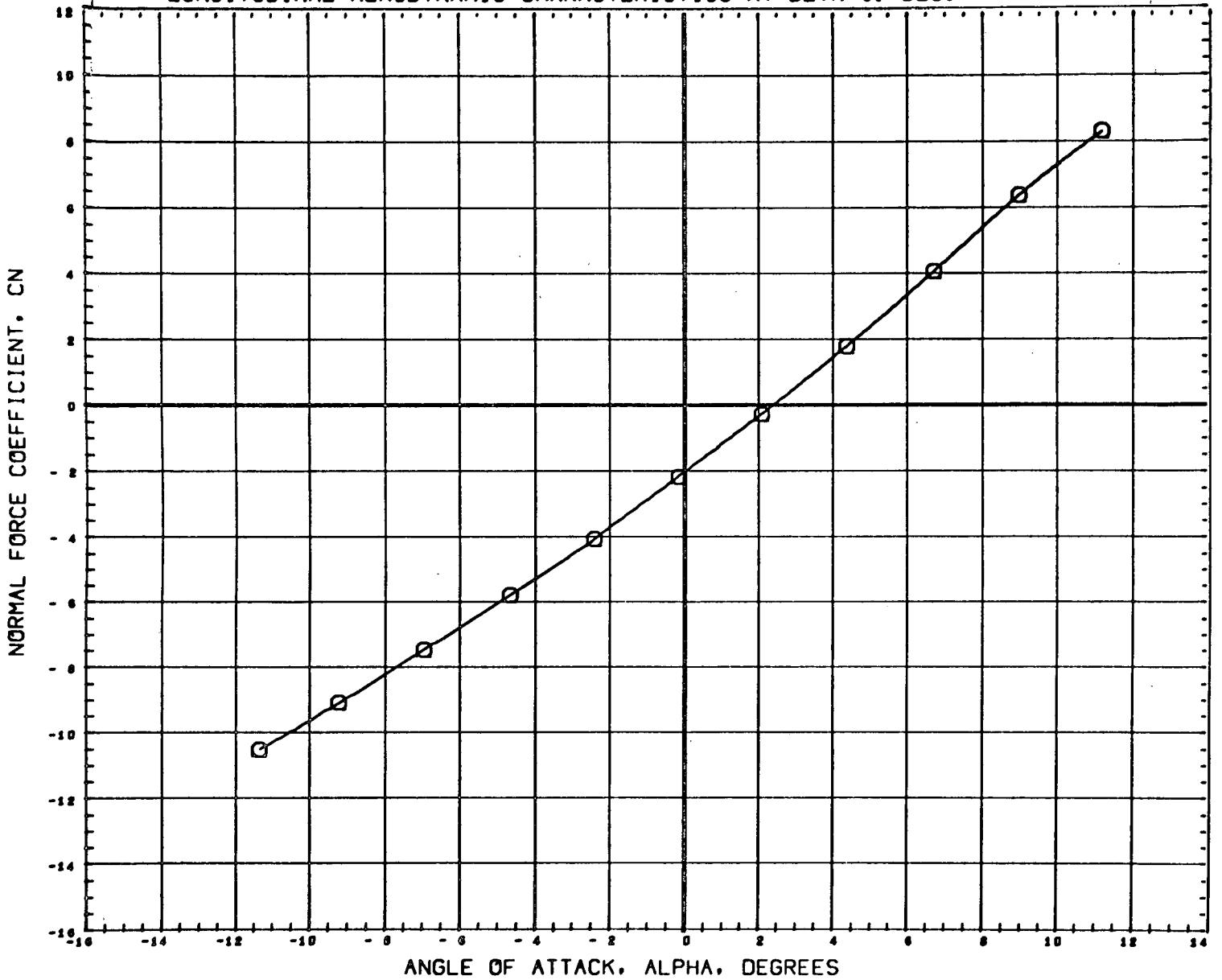


SYMBOL \bigcirc MACH 0.001 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 86 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA IDENT. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

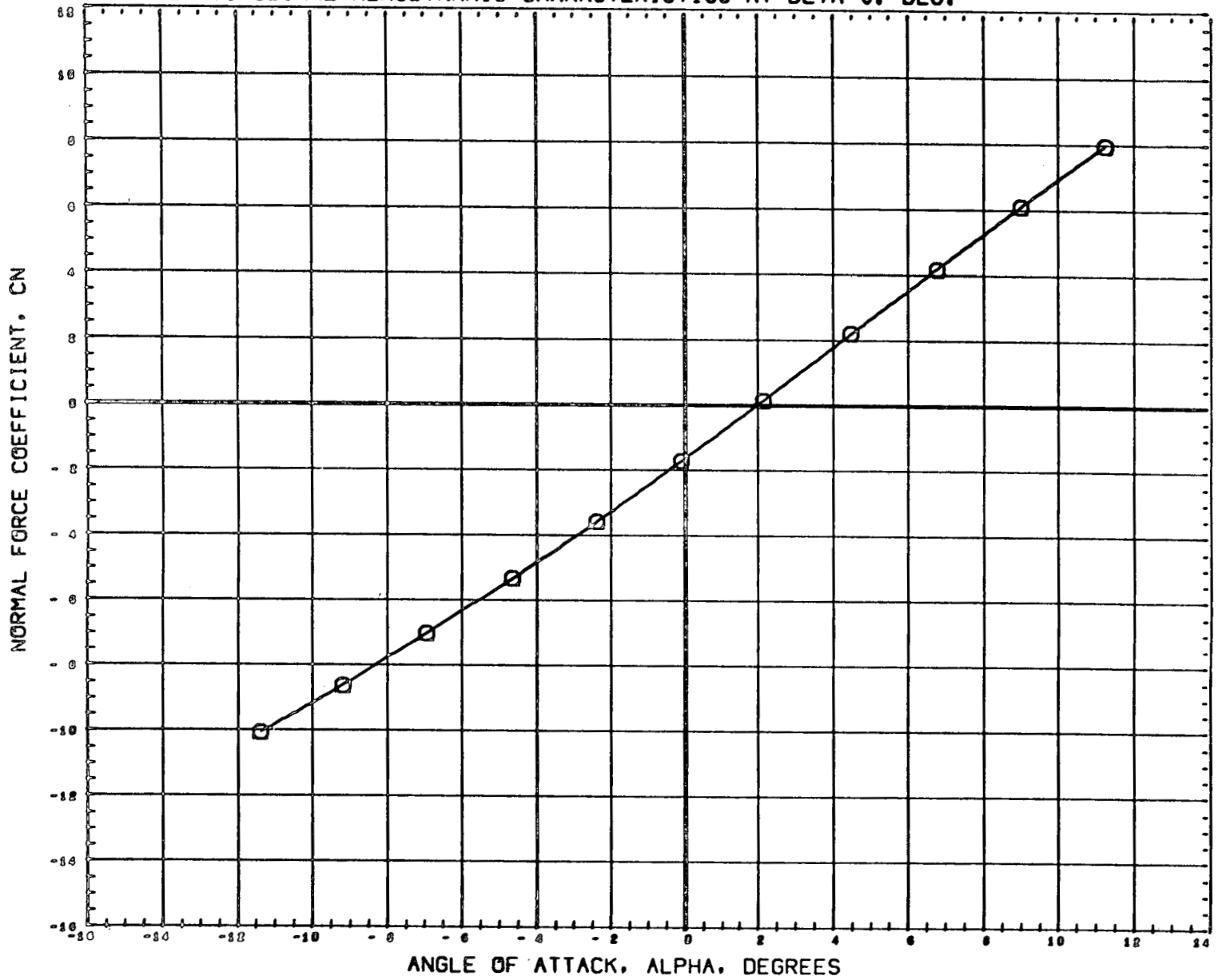


SYMBOL \circ MACH 0.999 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

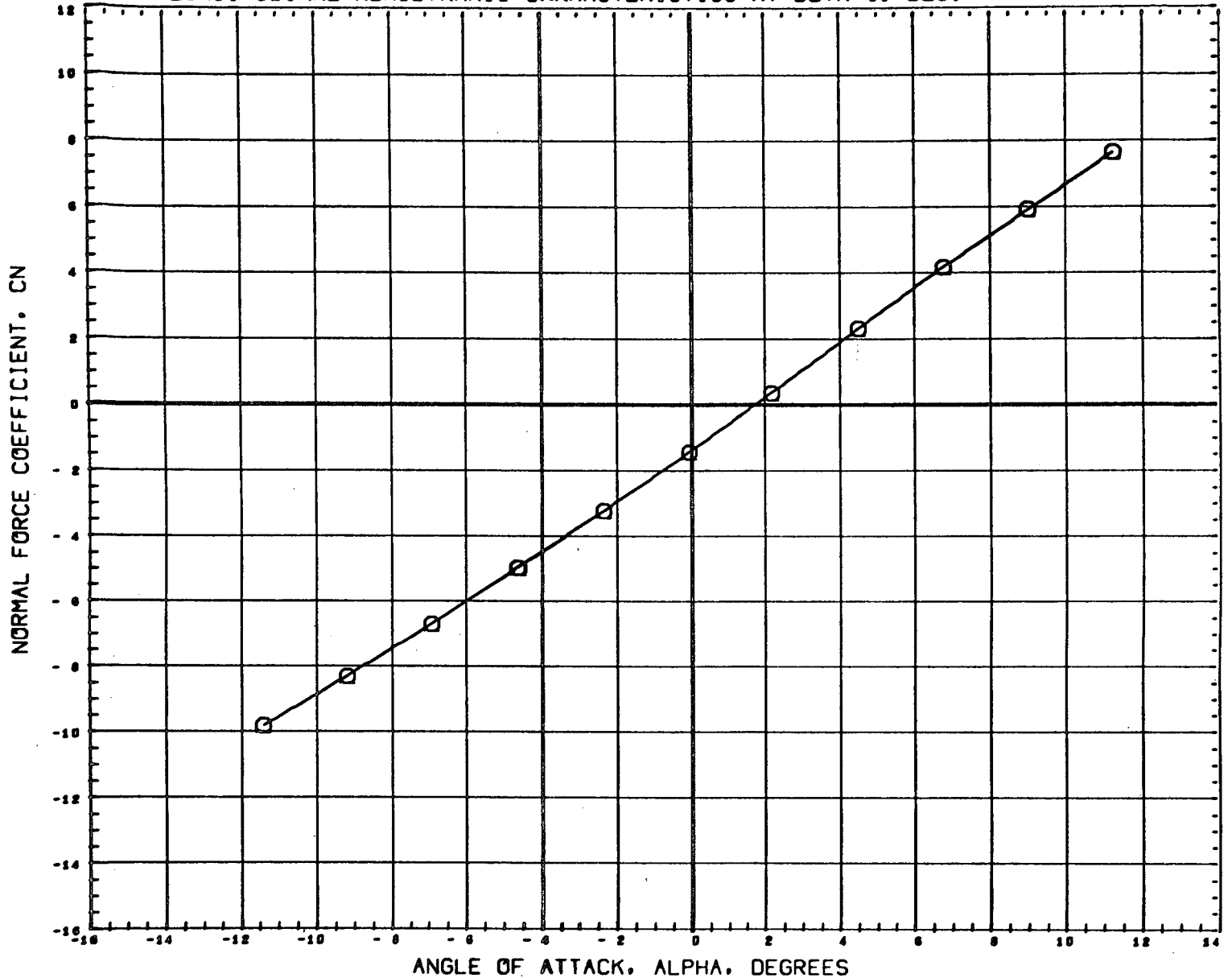


SYMBOL \bigcirc MACH 0.099 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

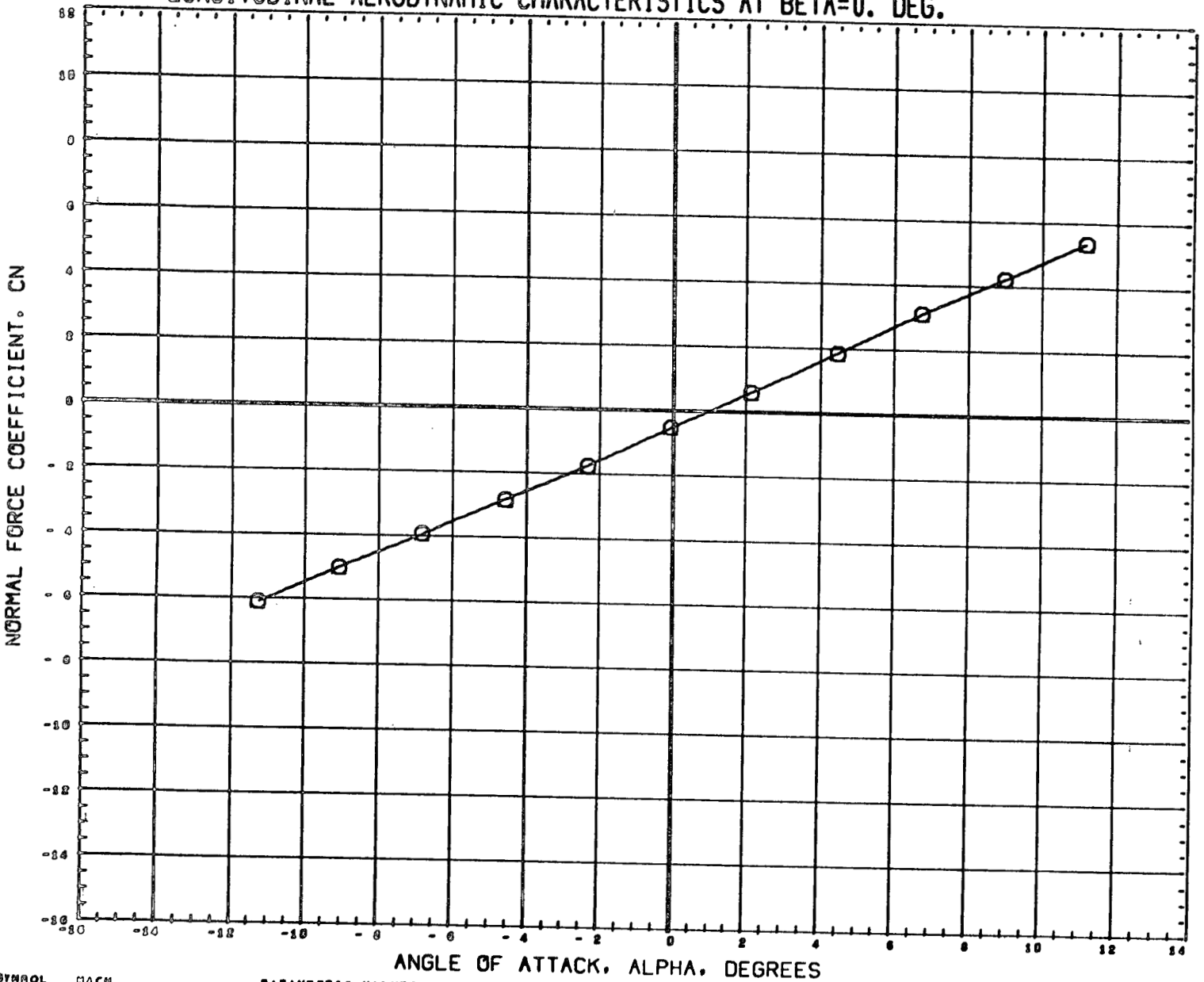


SYMBOL \square MACH 1.198 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XWRP 2.9170 IN TIT
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

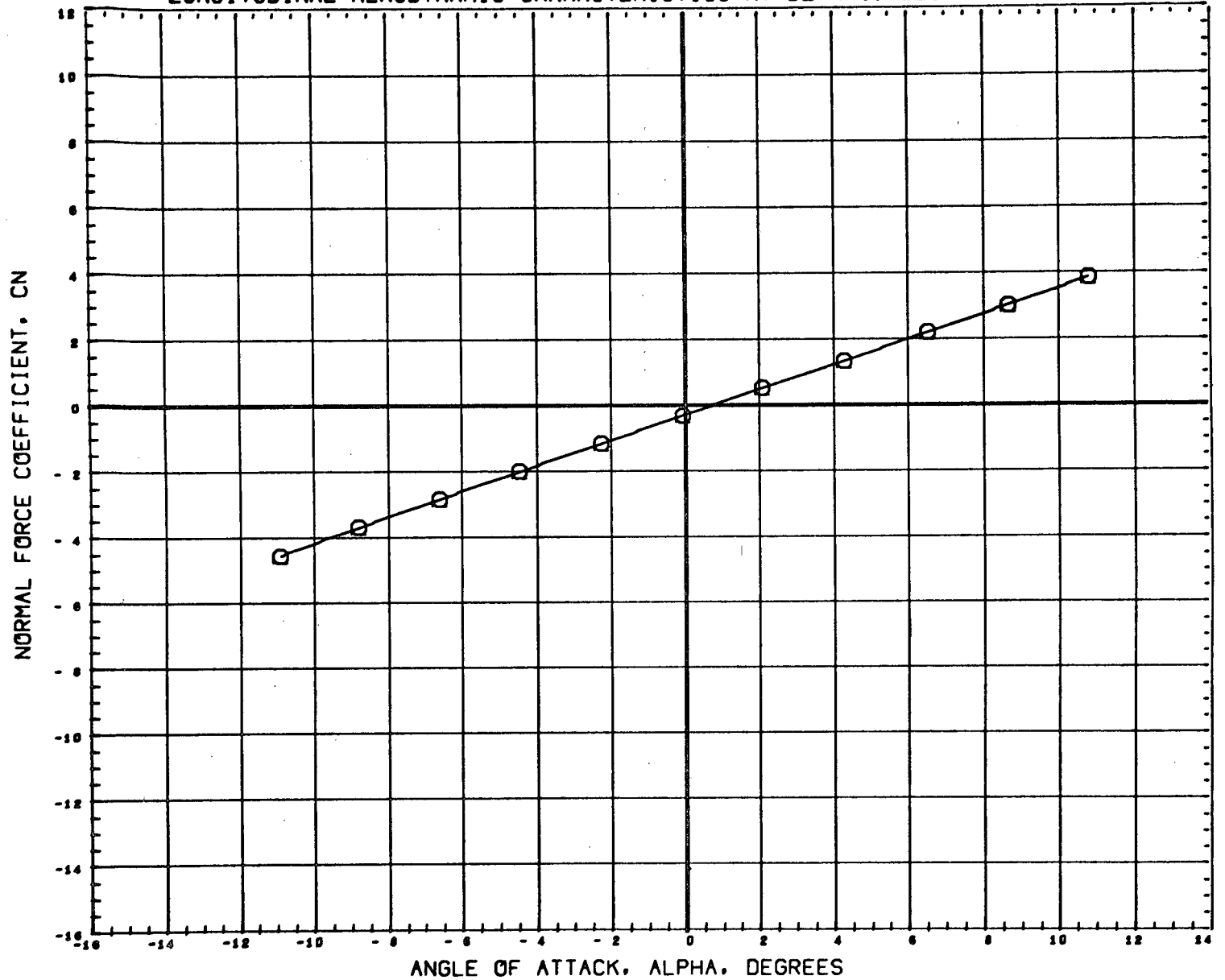


SYMBOL \circ MACH 1.085 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

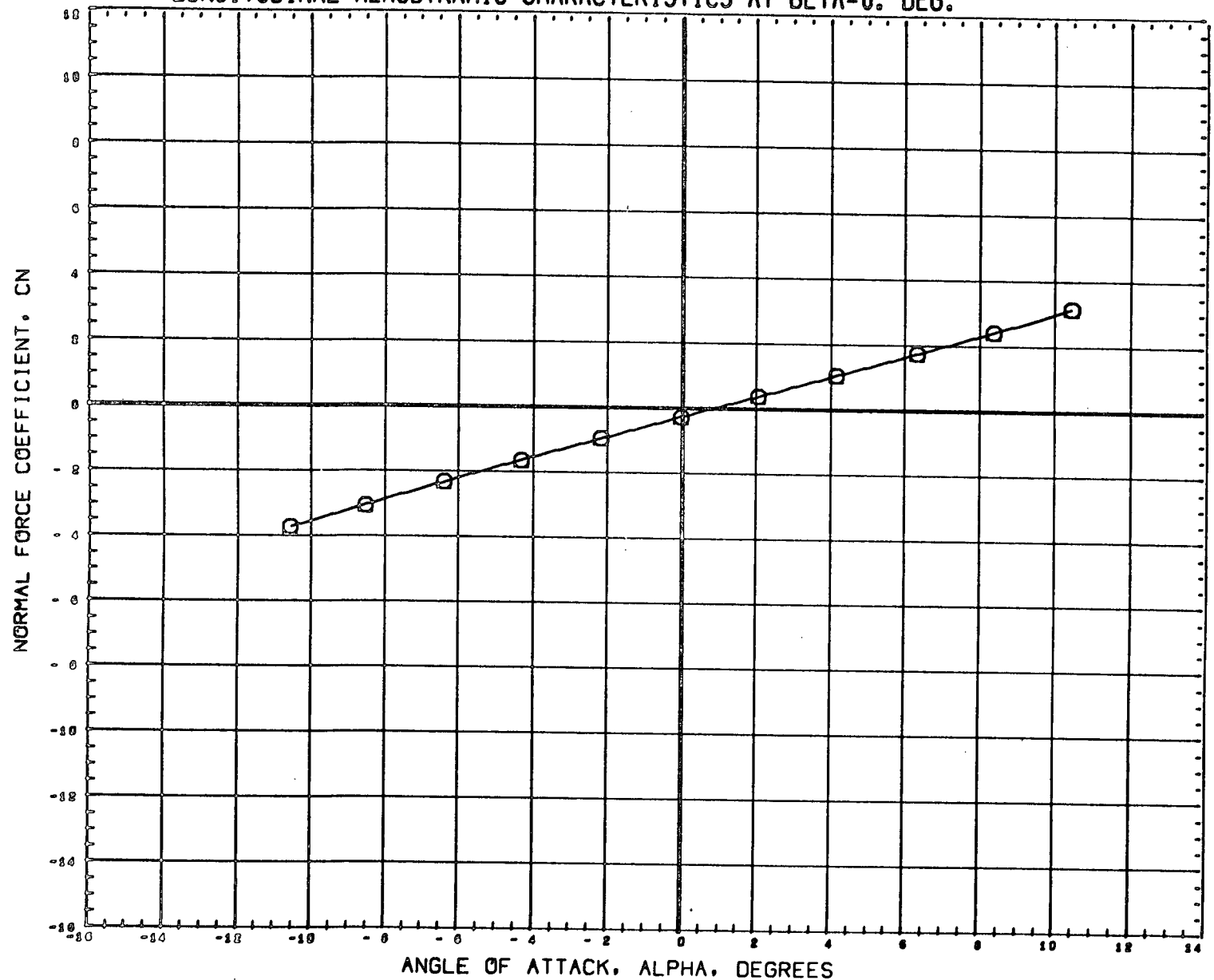
LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL	MACH	BETA	PARAMETRIC VALUES	REFERENCE INFORMATION		
○	2.740		0.000	SREF	0.9340	80 INC
				LREF	0.8240	INCHES
				BREF	0.8240	INCHES
				XMRP	2.9170	IN TII
				YMRP	0.0000	CORE C
				ZMRP	0.0000	CORE C
				SCALE	0.4300	PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

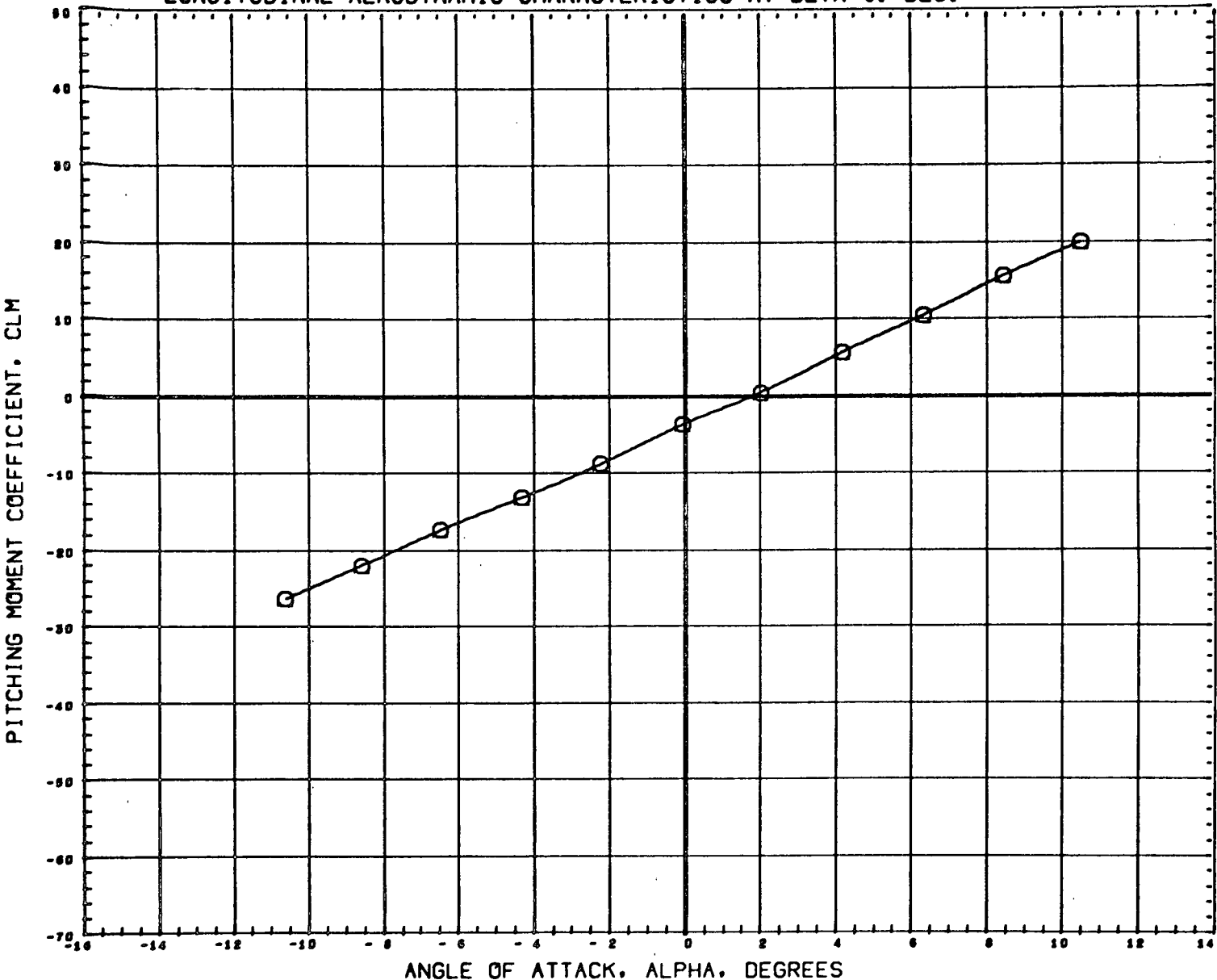


SYMBOL \bigcirc MACH 0.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

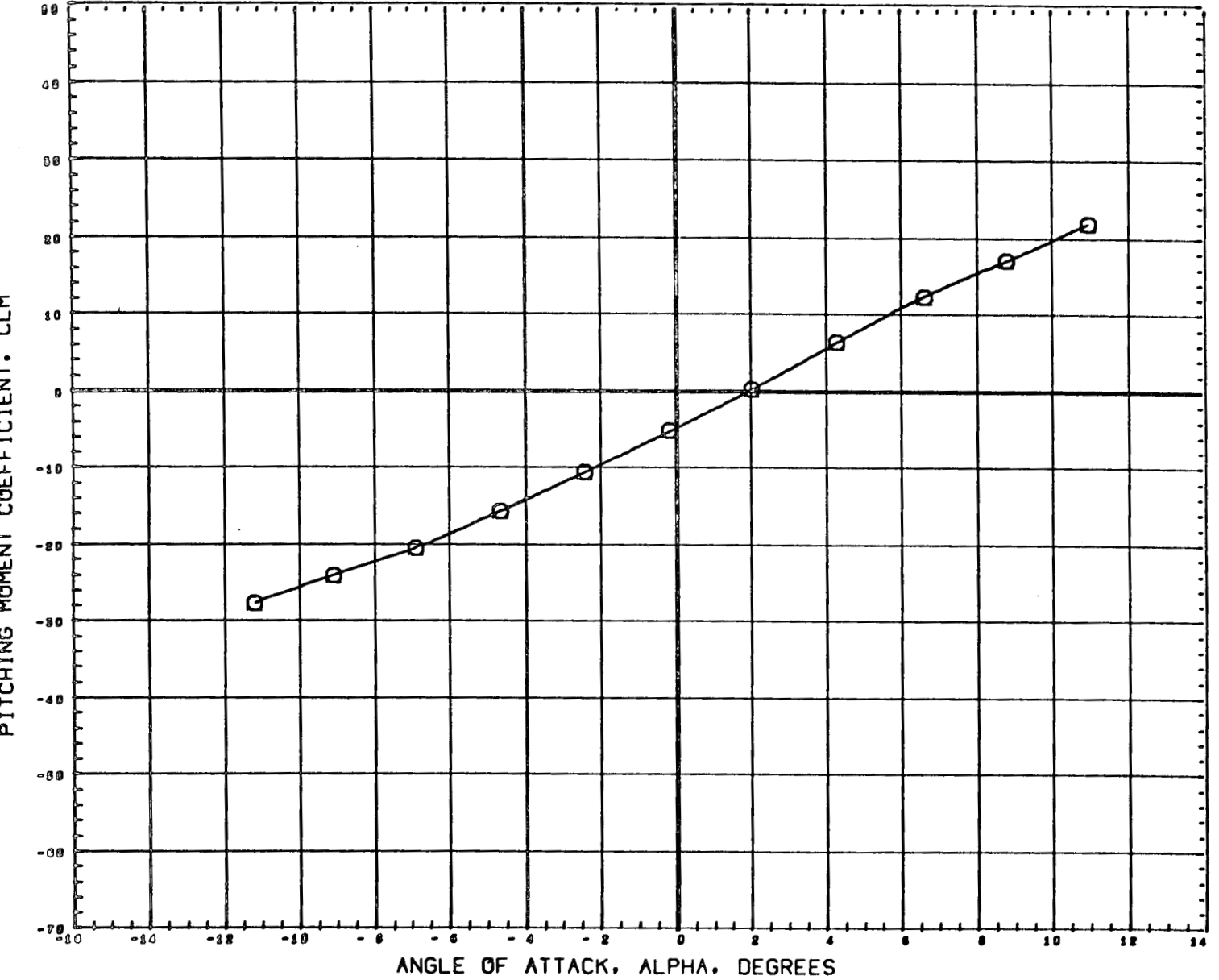


SYMBOL \circ MACH 0.999 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 30 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

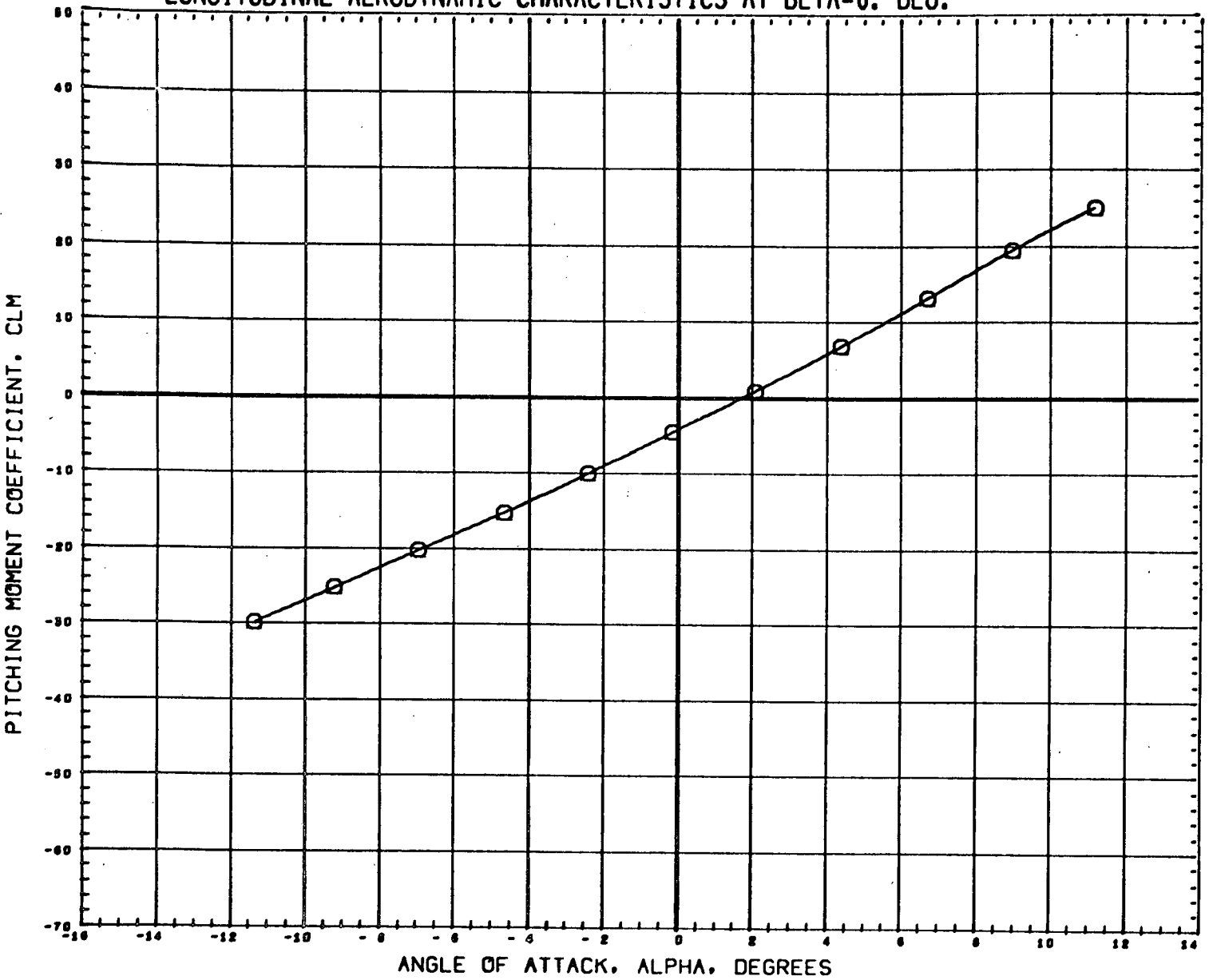


SYMBOL Q
 MACH 0.085
 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XWRP 2.9170 IN TII
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

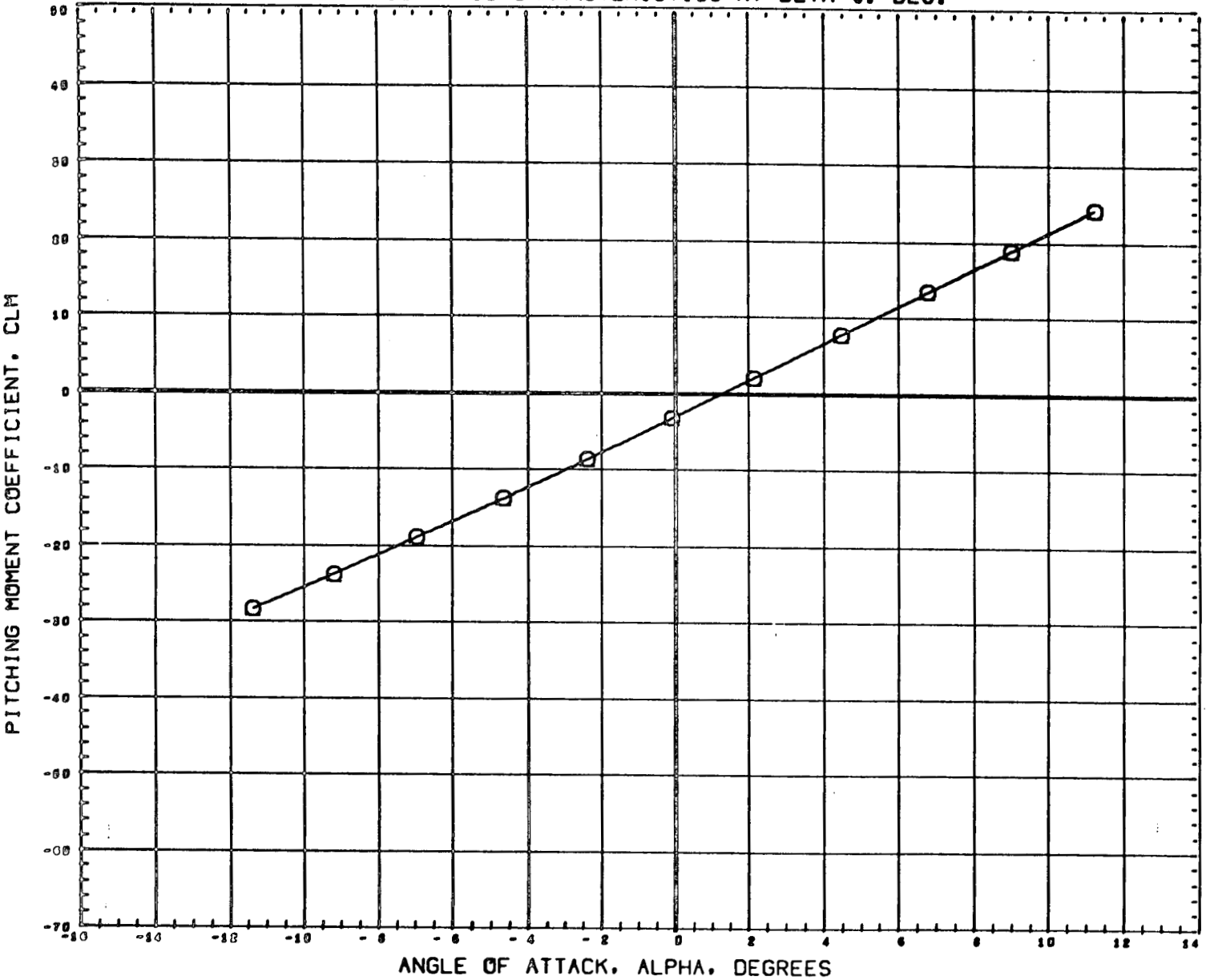


SYMBOL \square MACH 0.999 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

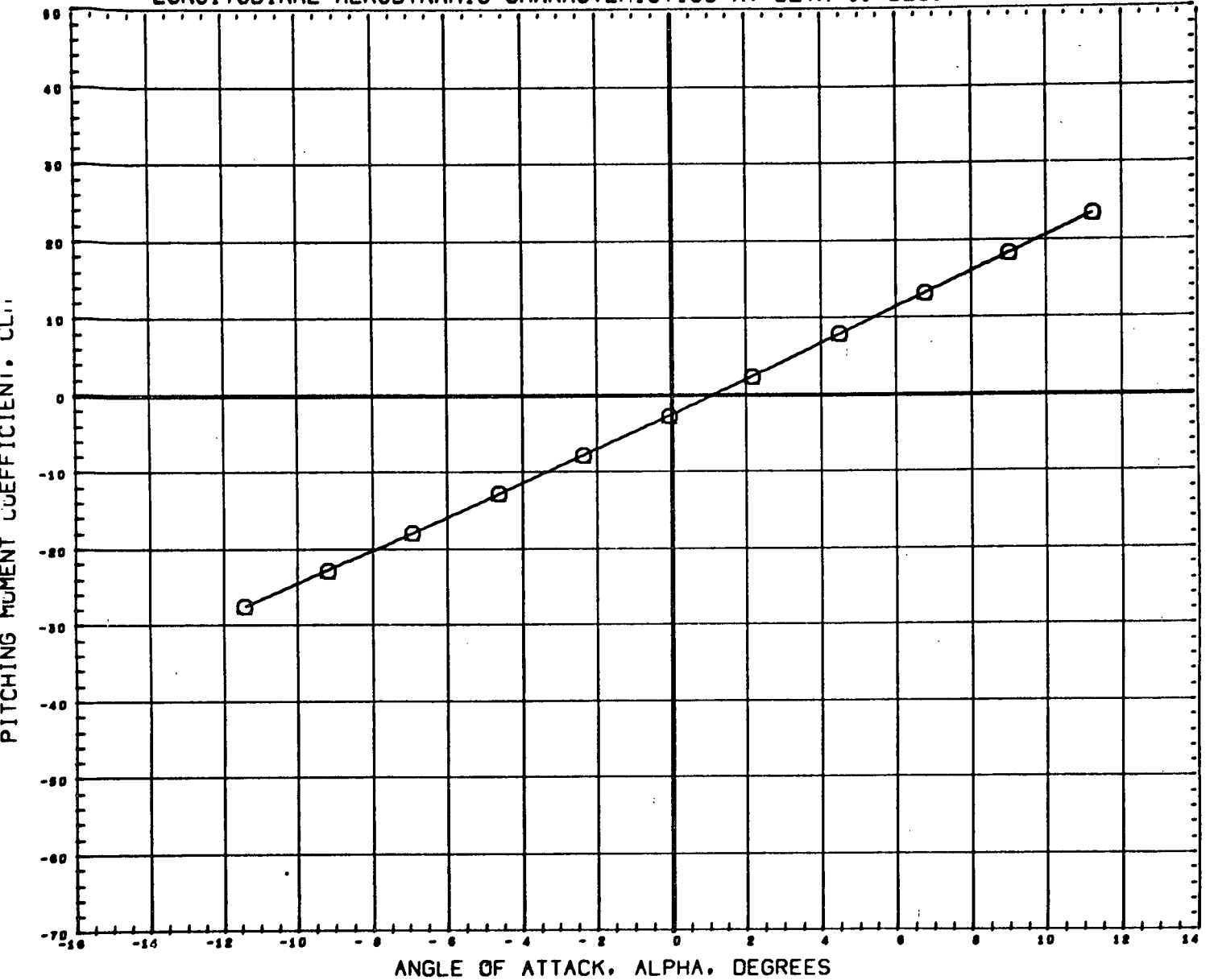


SYMBOL \circ MACH 0.099 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

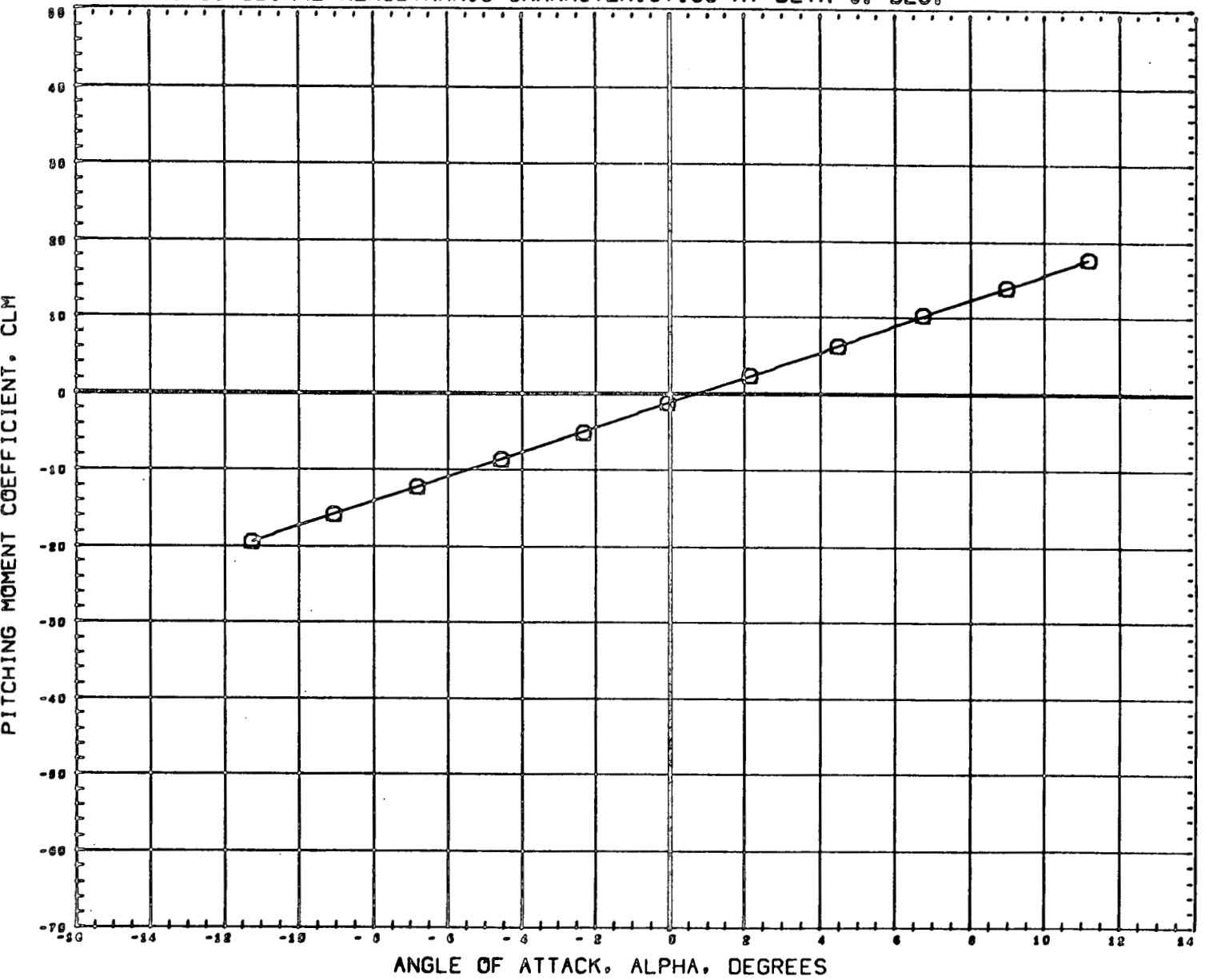


SYMBOL \circ MACH 1.100 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 98 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

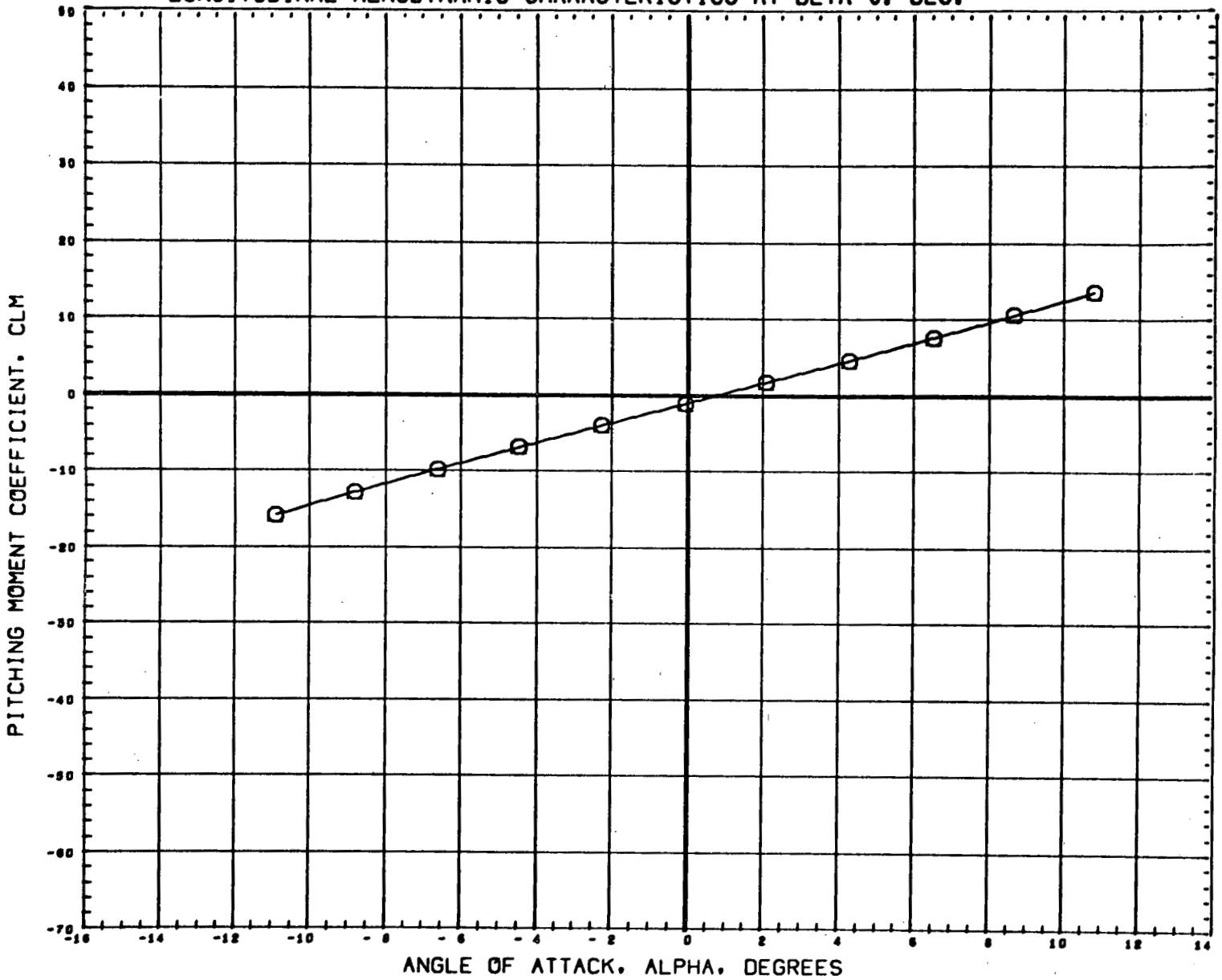


SYMBOL: O
 MACH: 3.955
 BETA: 0.000
 PARAMETRIC VALUES: 0.000

REFERENCE INFORMATION:
 SREF: 0.3340 80 INC
 LREF: 0.6240 INCHES
 DREF: 0.6240 INCHES
 XHRP: 2.9170 IN TII
 YHRP: 0.0000 CORE C
 ZHRP: 0.0000 CORE C
 SCALE: 0.4300 PERCENT

DATA INST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

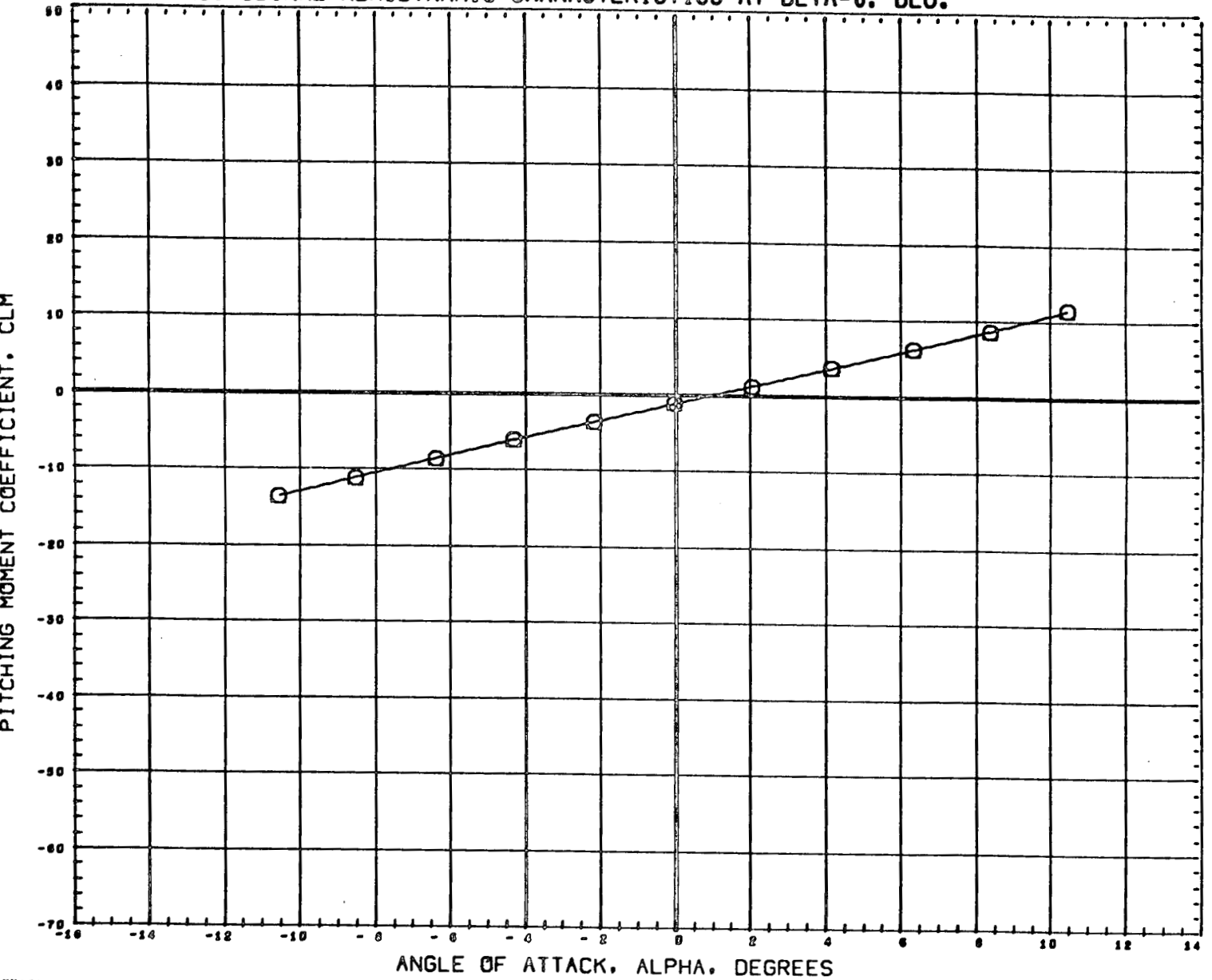


SYMBOL \circ MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH PARAMETRIC VALUES
 O 3.480 BETA 0.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

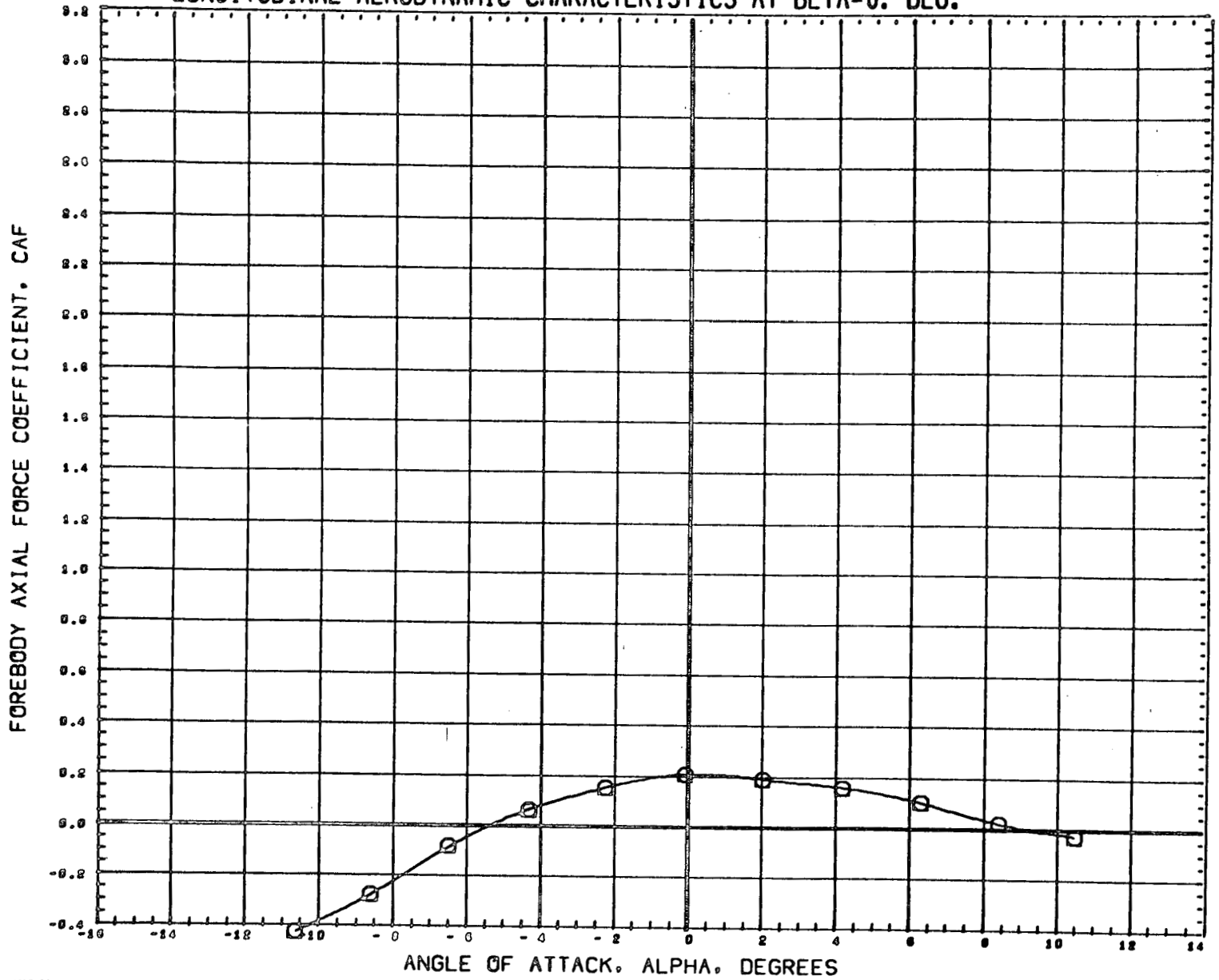
MSFC TWT 505 T111L/DT07

01

(E47001) 27 JAN 72

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

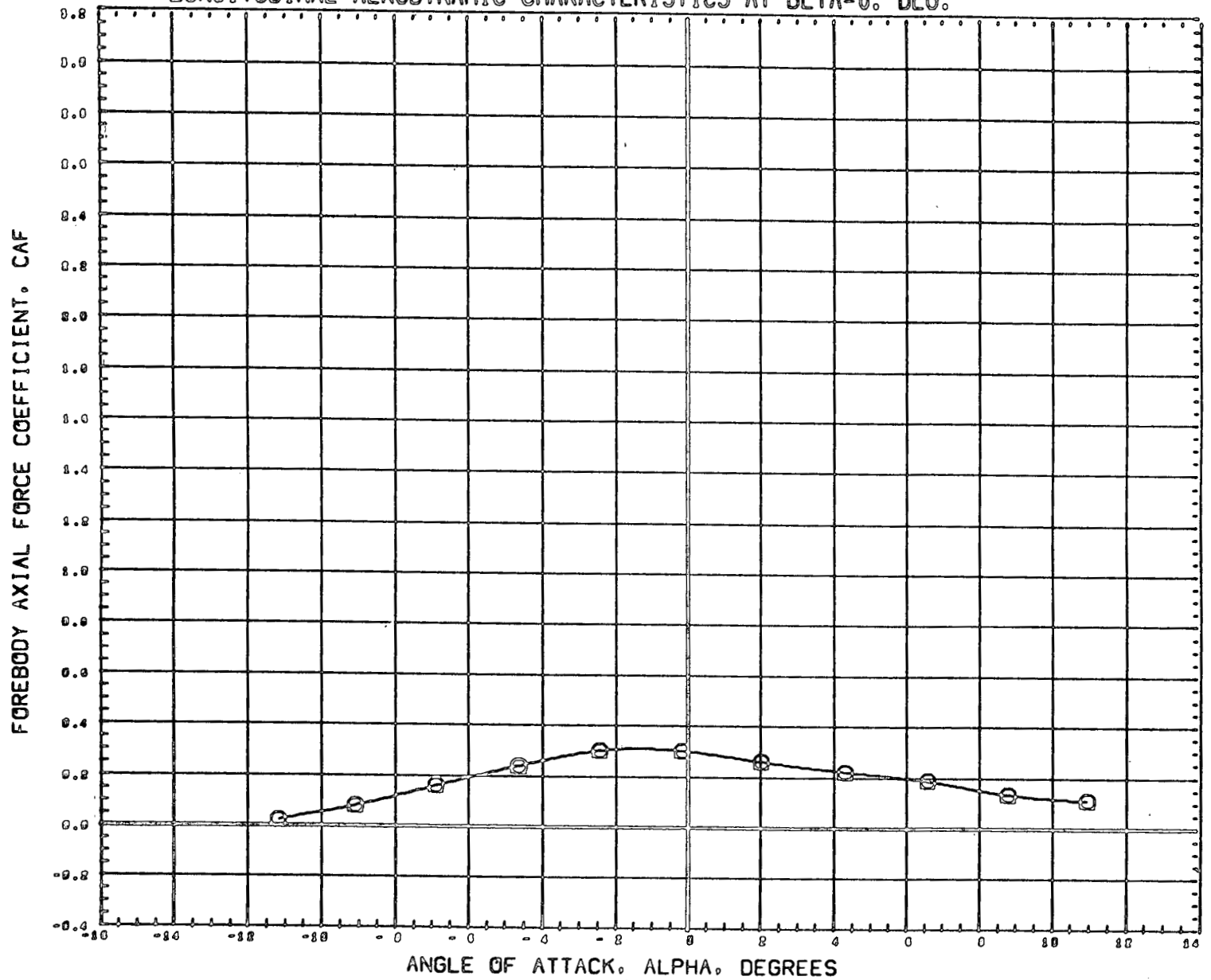


SYMBOL \bigcirc MACH 0.999 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 QREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V02

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

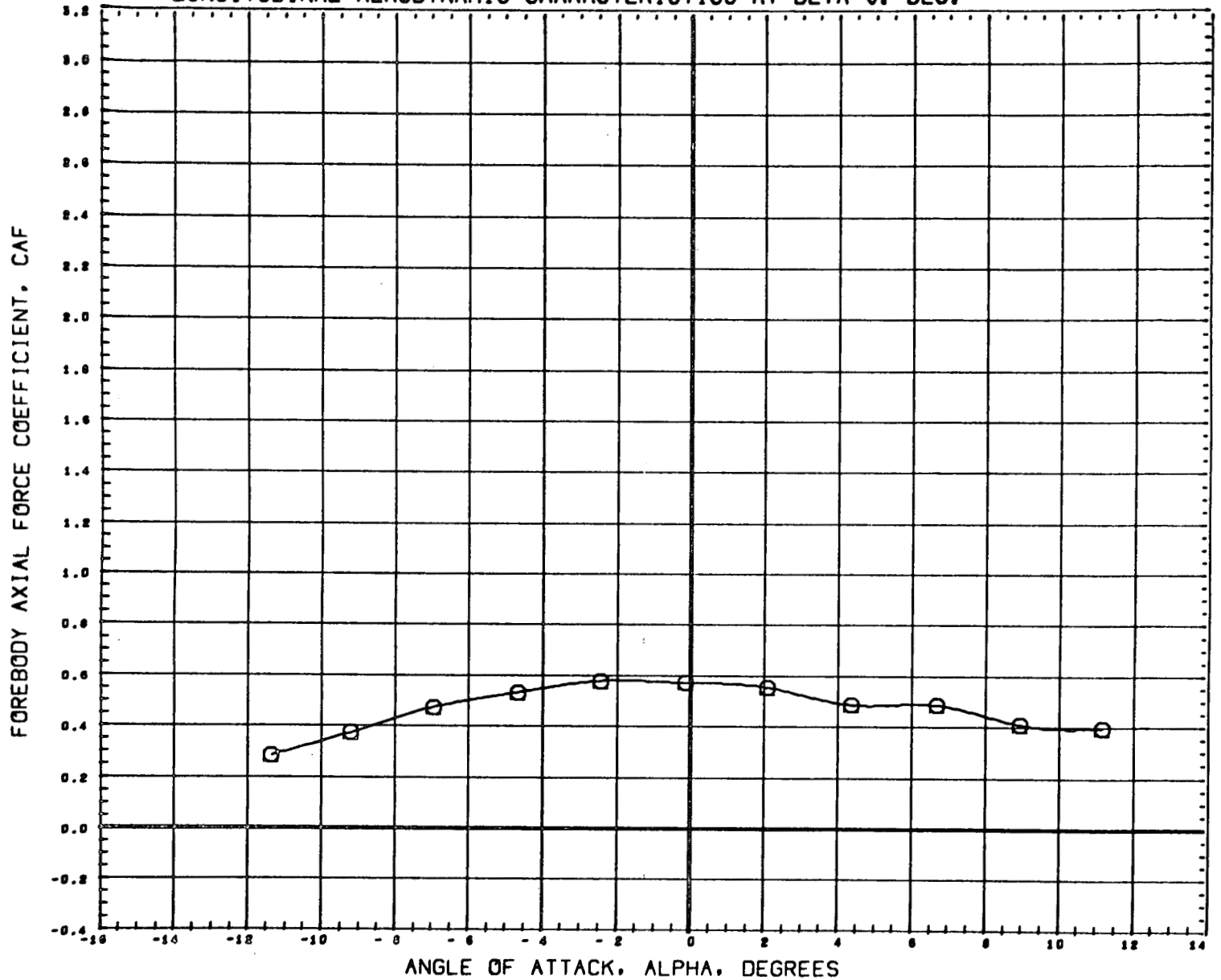


SYMBOL \bigcirc MACH 0.001 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.0170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE 008

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



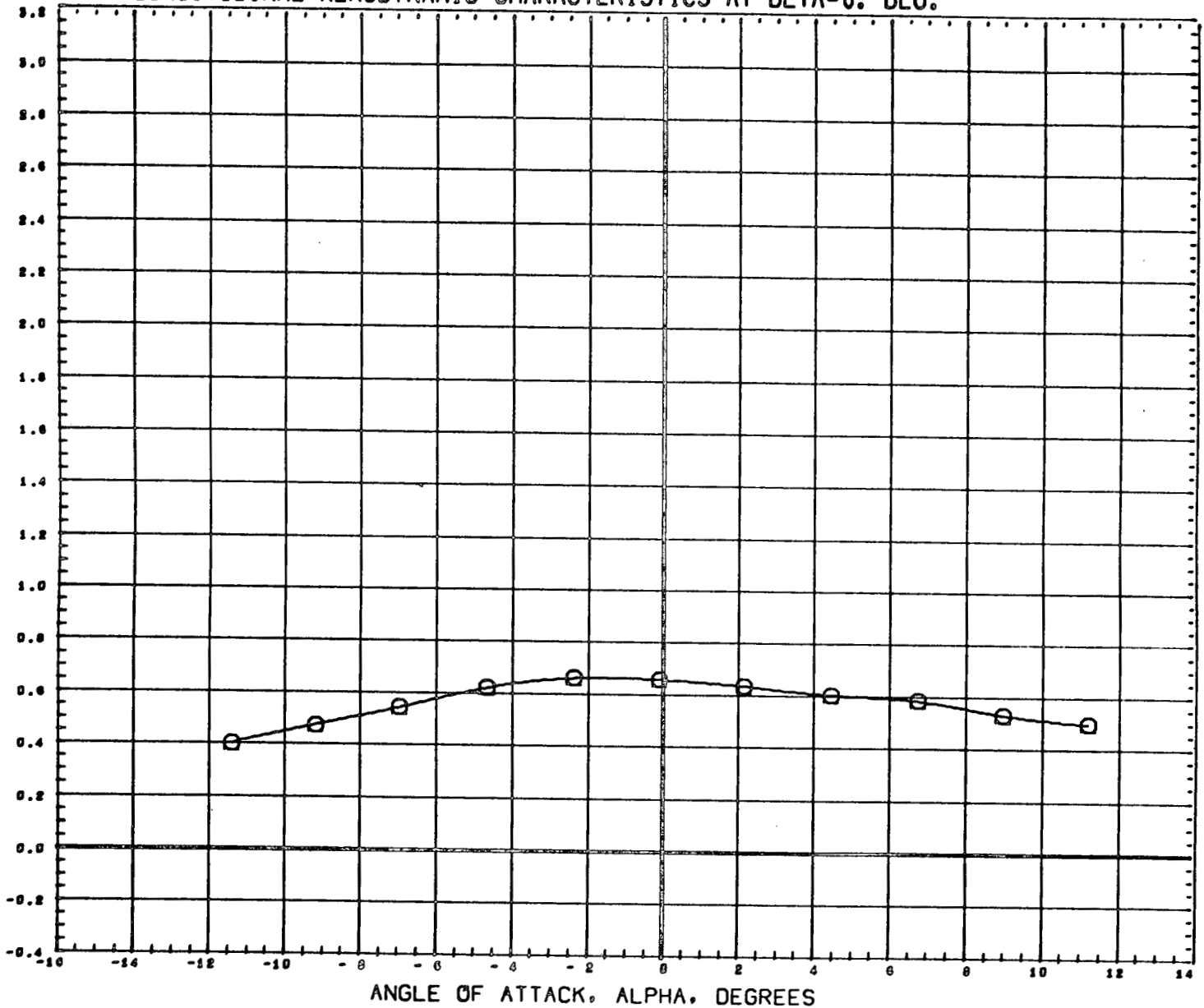
SYMBOL MACH BETA PARAMETRIC VALUES
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REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



ANGLE OF ATTACK, ALPHA, DEGREES

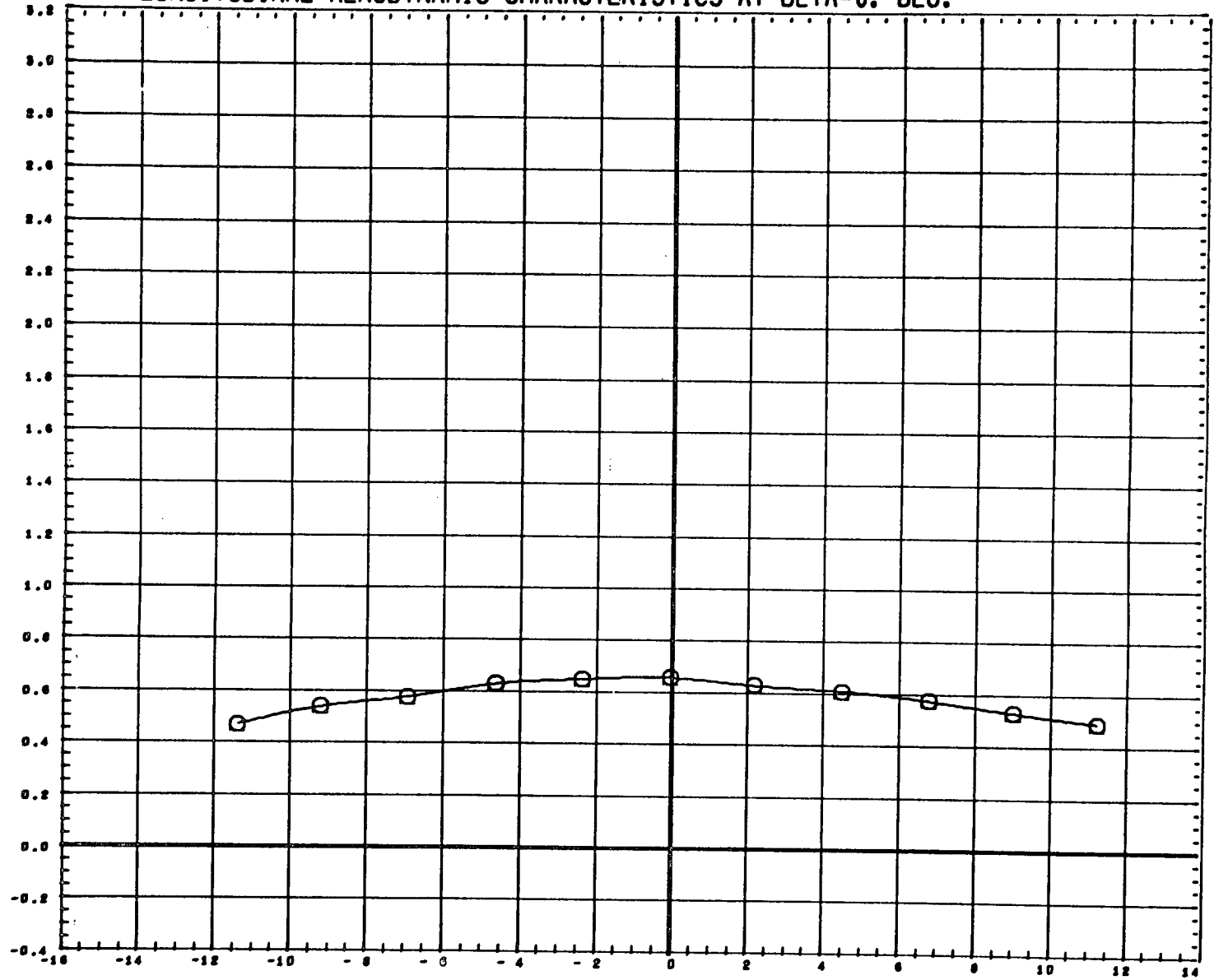
SYMBOL \circ MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4900 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.198 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
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 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

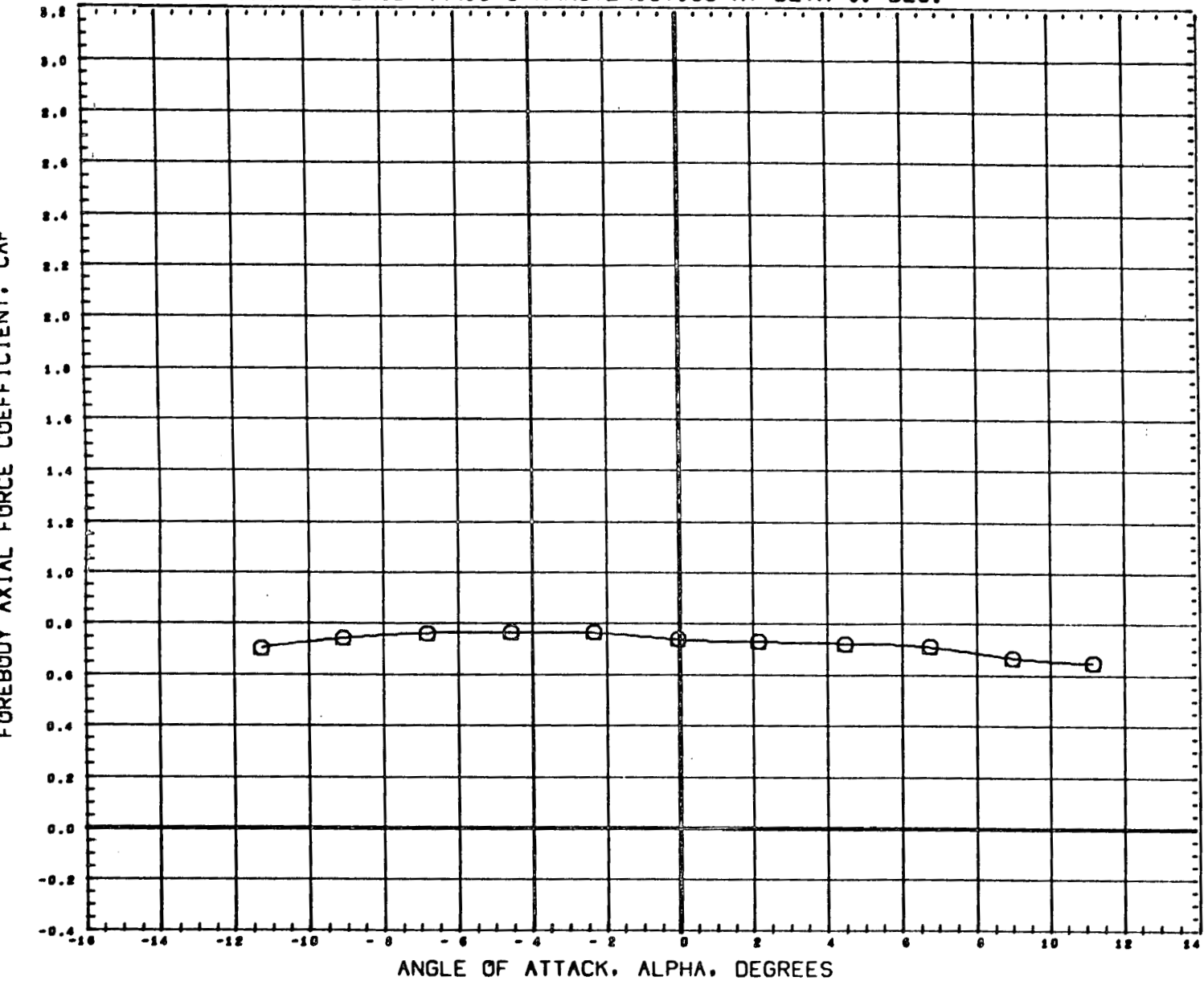
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

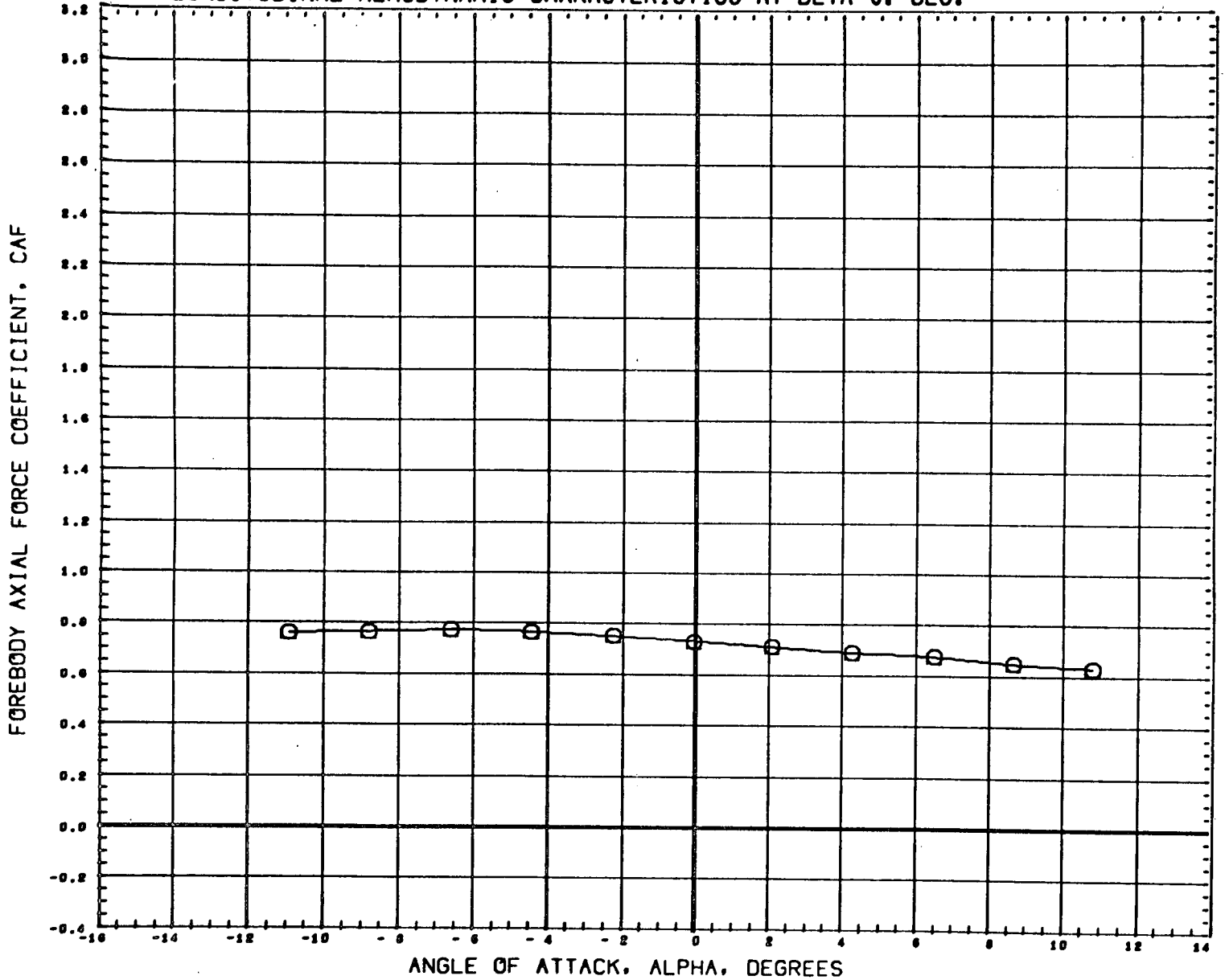


SYMBOL \circ MACH 1.955 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
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 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V+E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



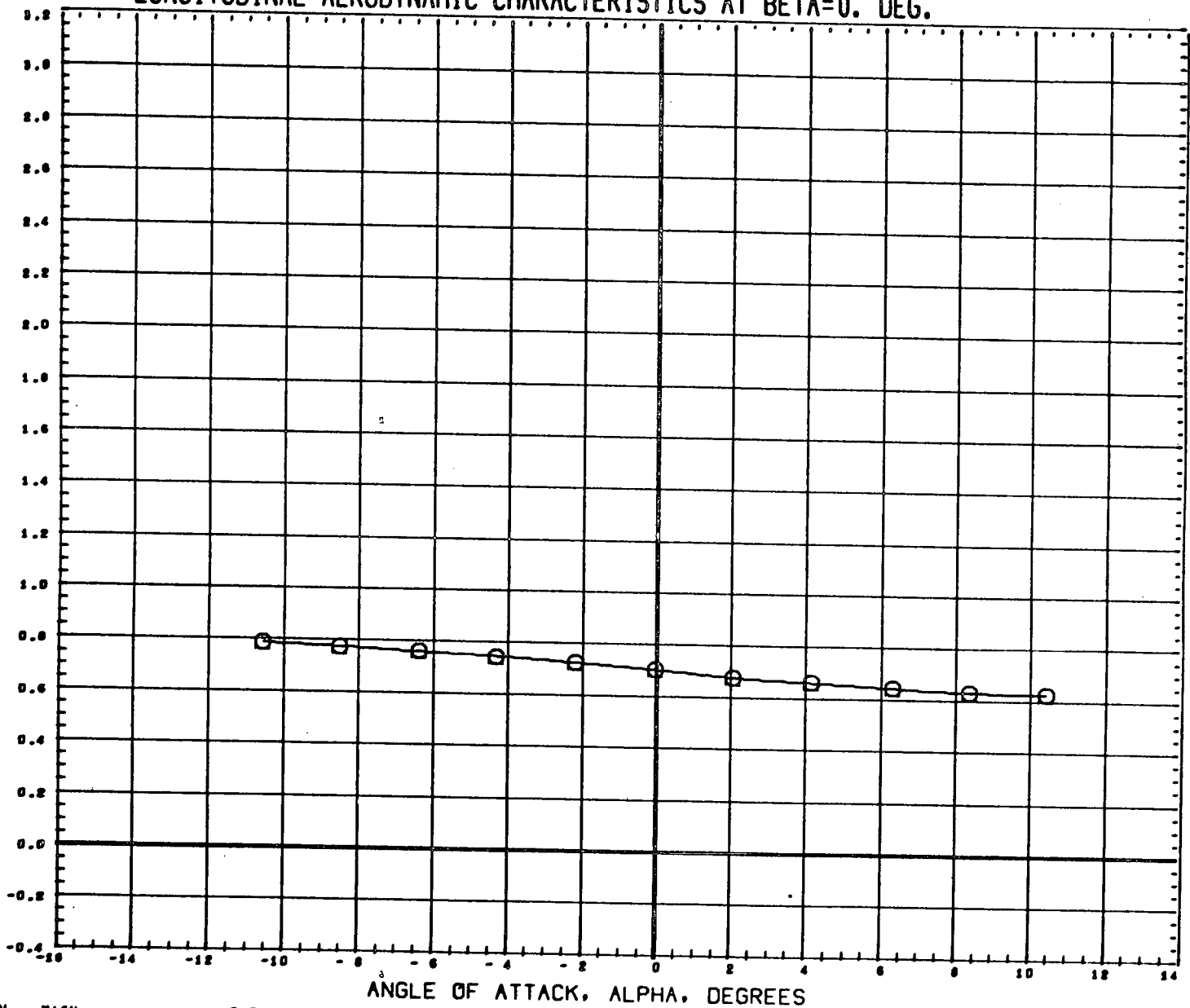
SYMBOL \circ MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
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 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



SYMBOL \bigcirc MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 DREF 0.5340 SQ INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

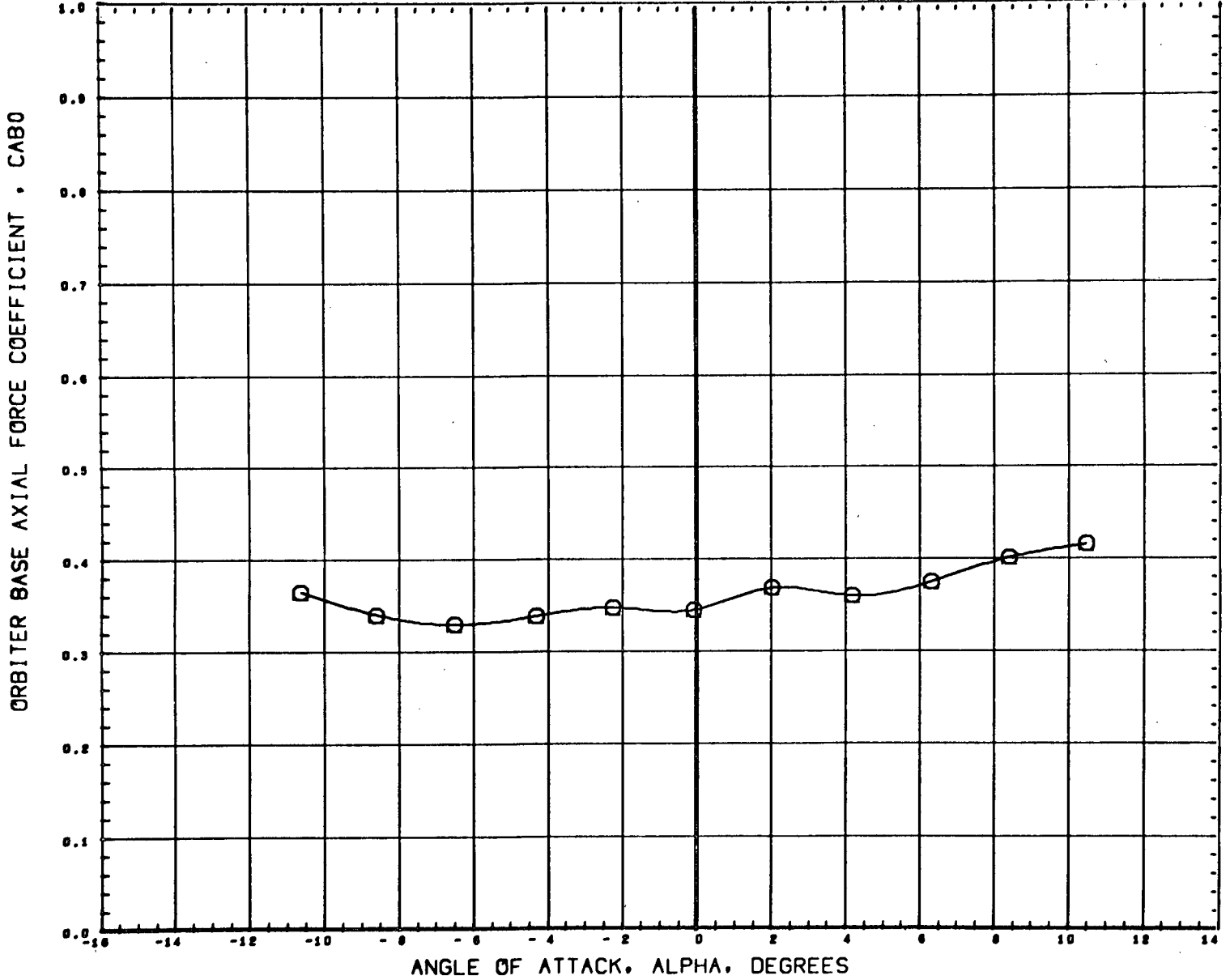
MSFC TWT 505 T111L/DT07

01

(E47001) 27 JAN 72

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



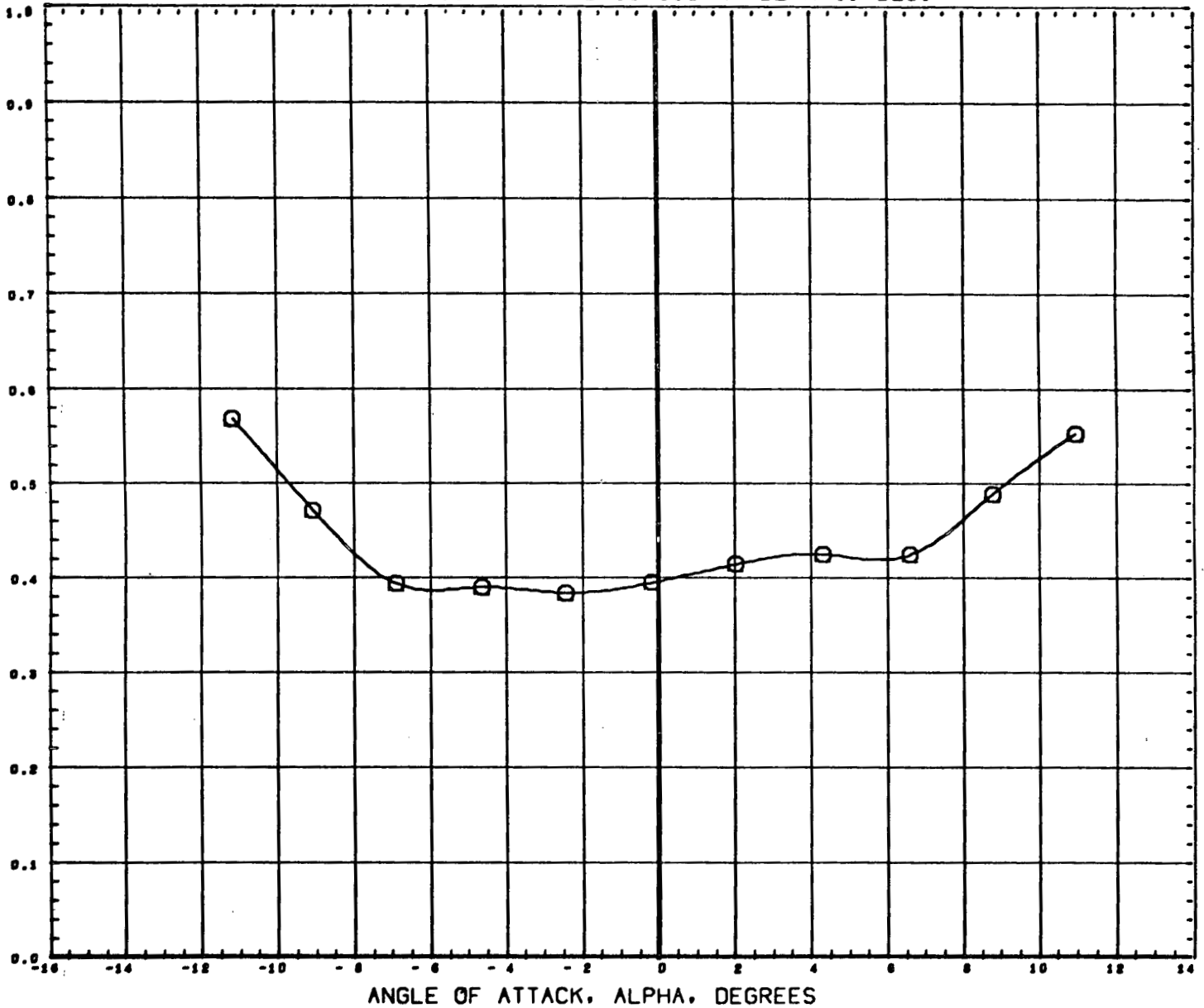
SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.999 0.000

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT, CAB0



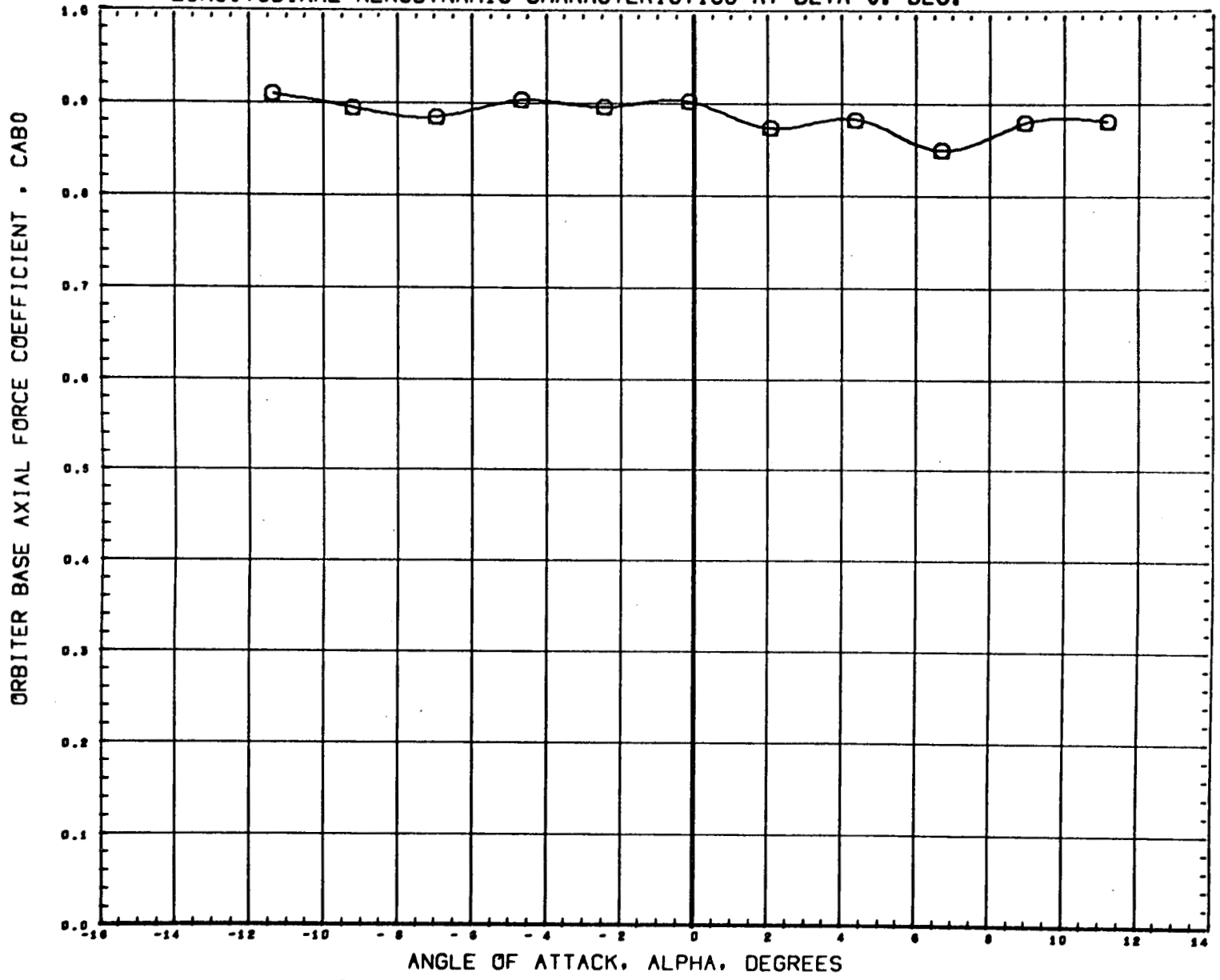
SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.901 0.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

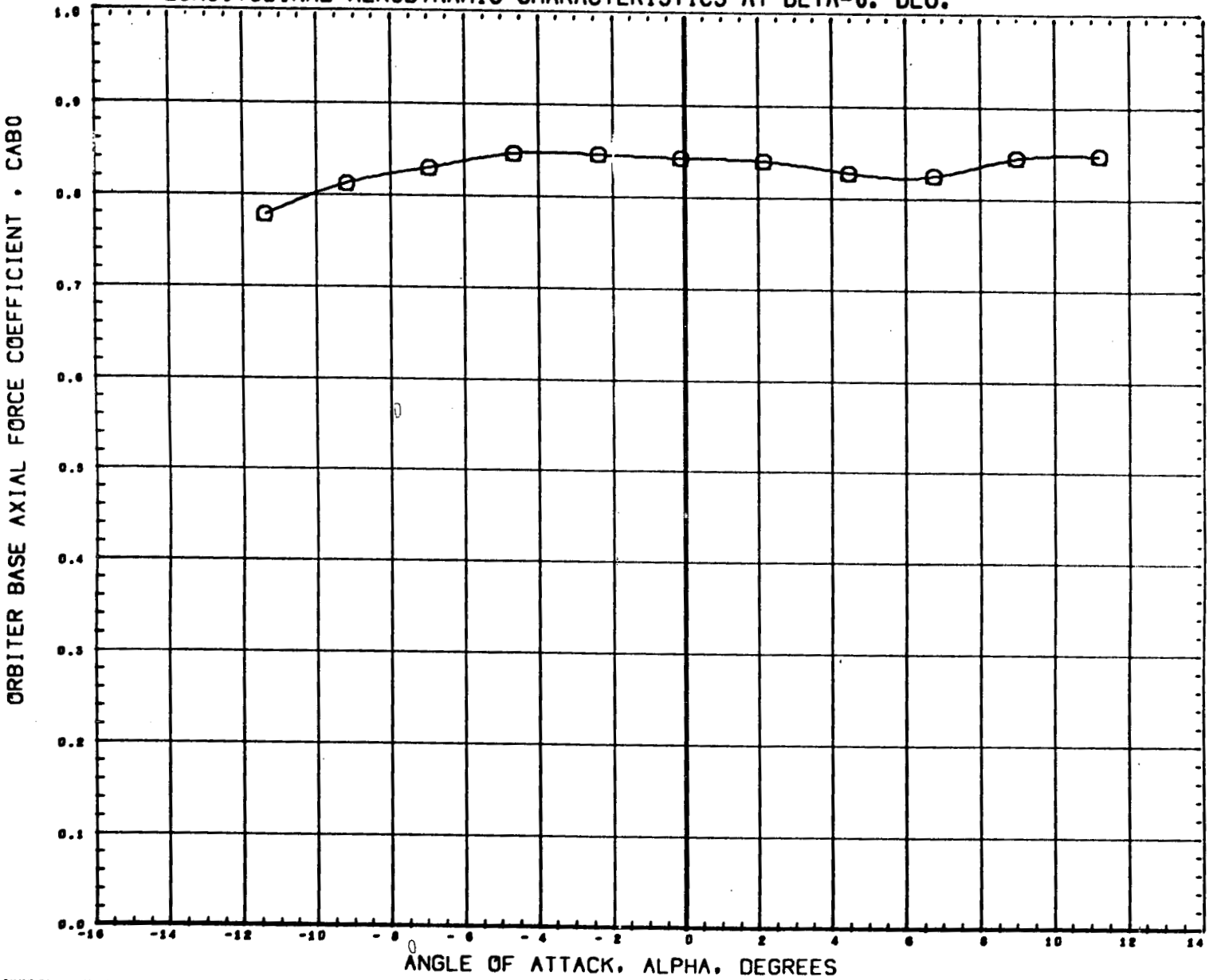


SYMBOL \square MACH 0.999 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

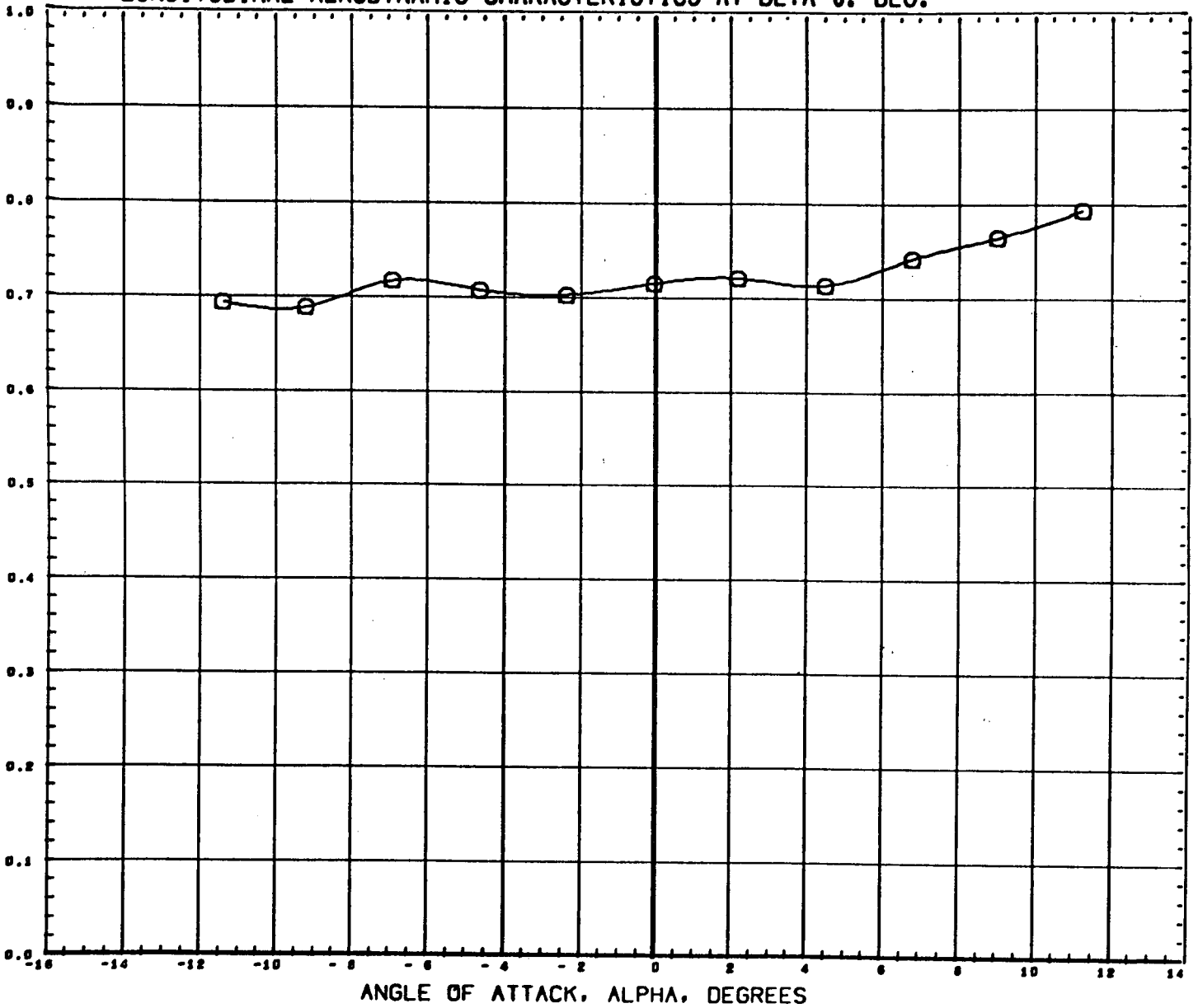


SYMBOL \circ MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



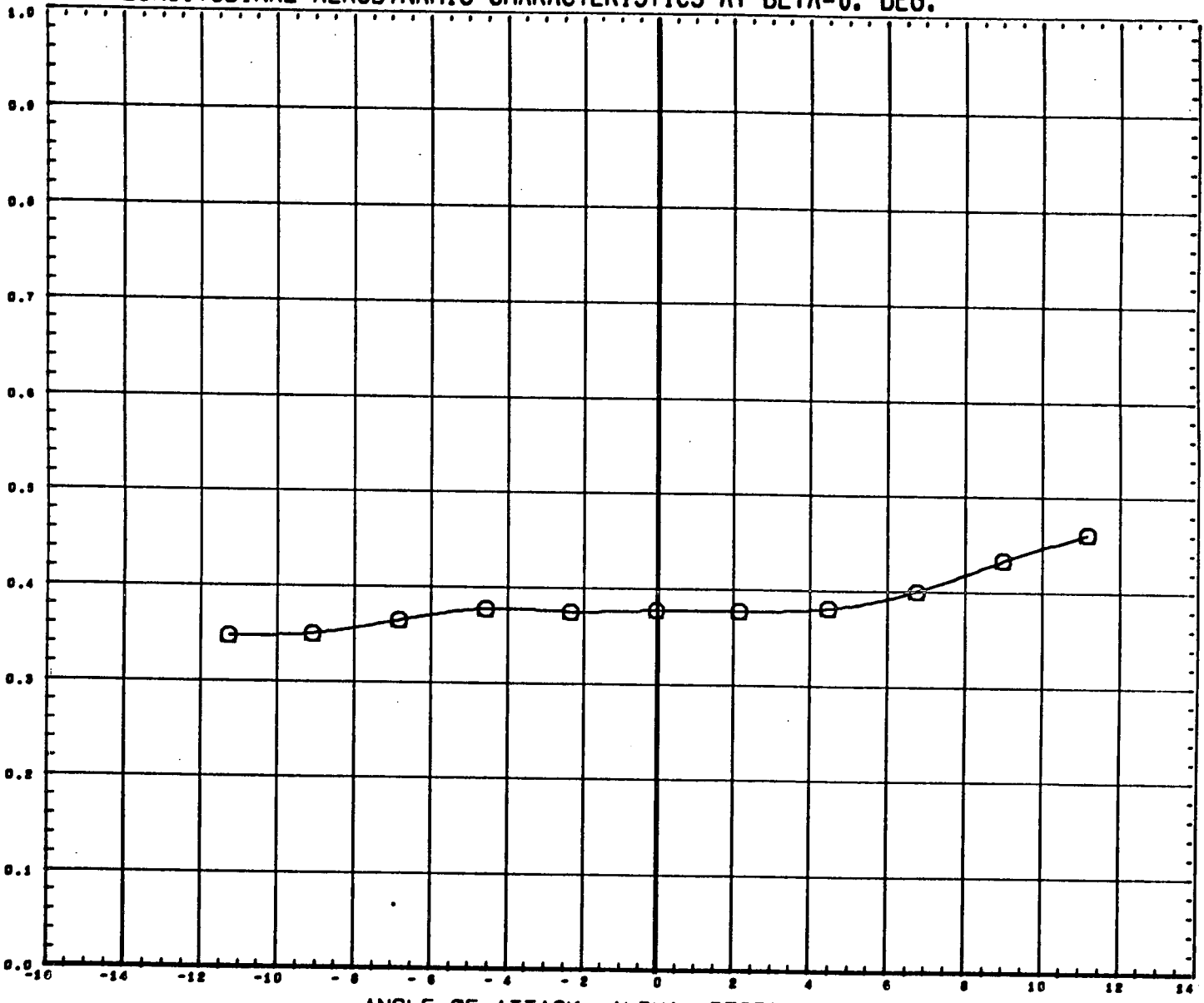
SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.198 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BRP 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V+E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT • CABO



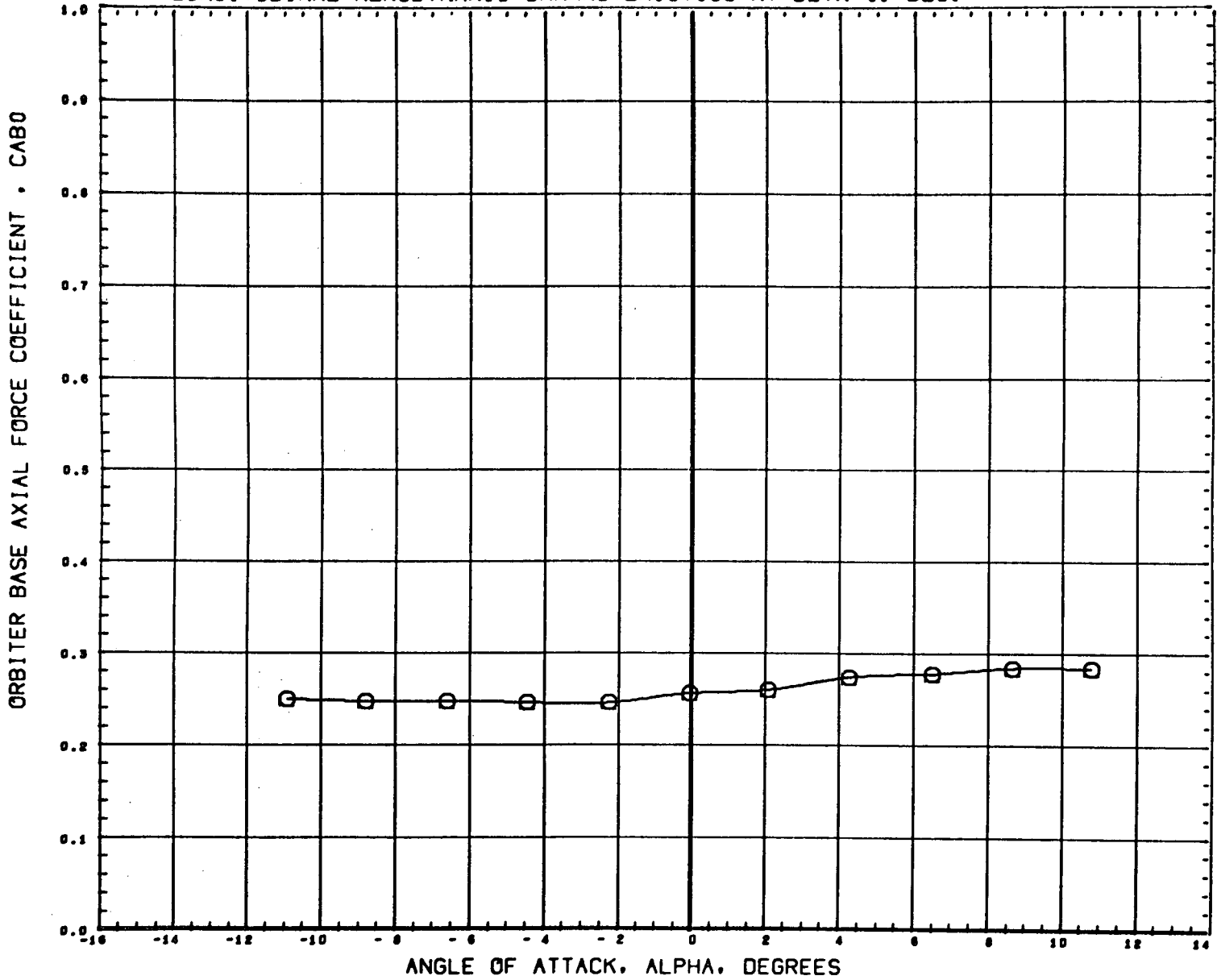
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL \bigcirc MACH 1.955 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



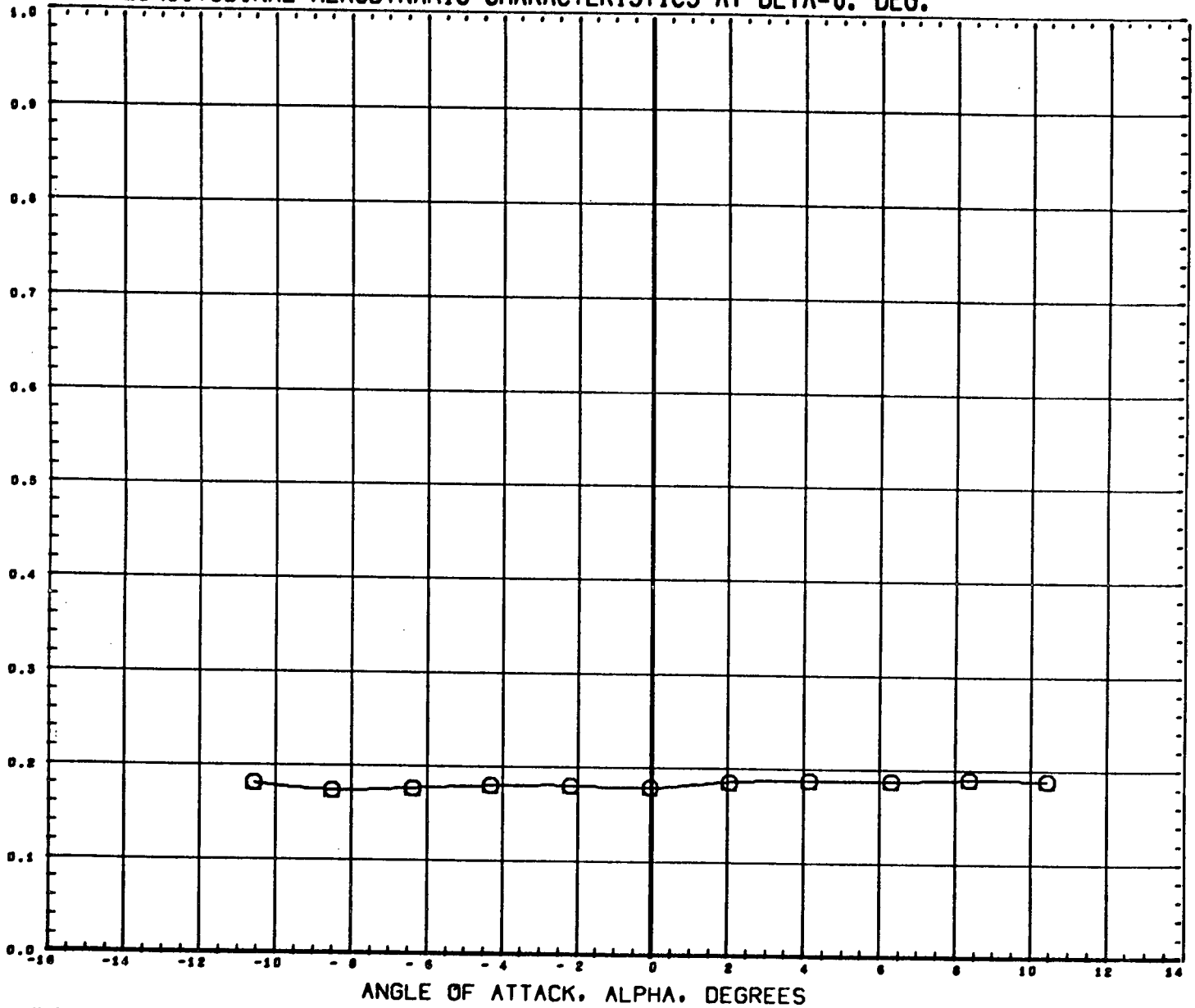
SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT, CABO



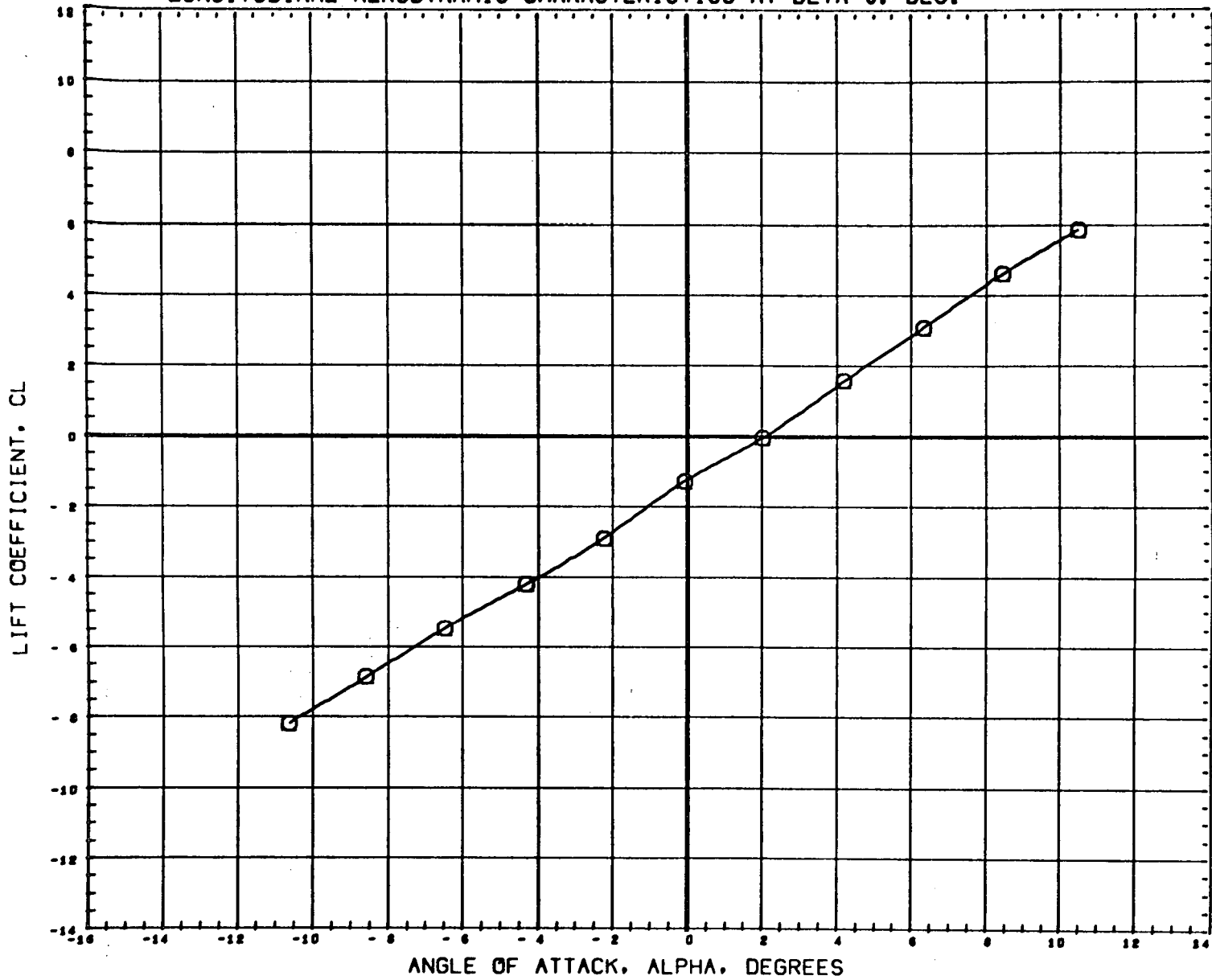
SYMBOL \bigcirc MACH 3.480 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

5 ⊕

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

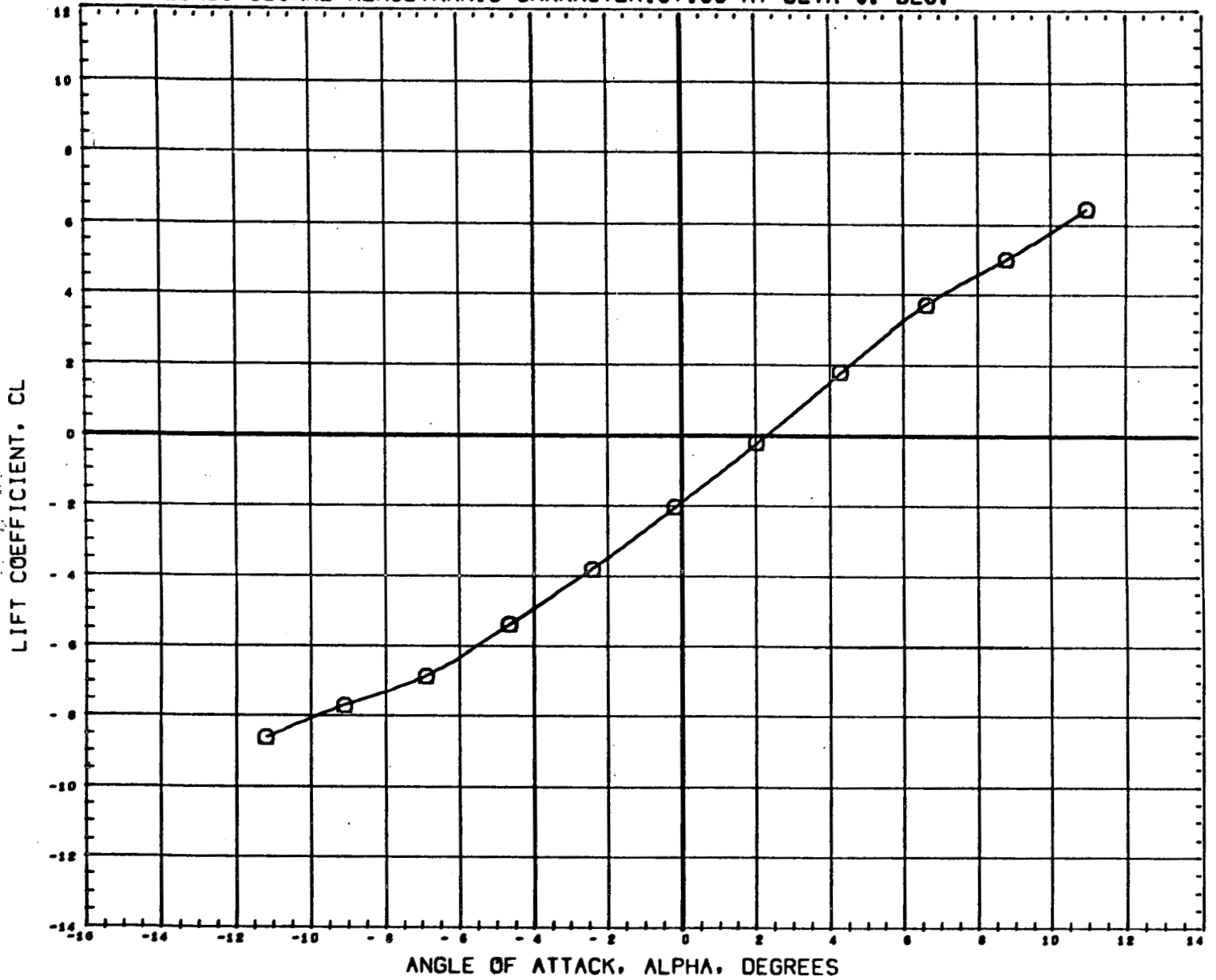


SYMBOL \bigcirc MACH 0.599 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

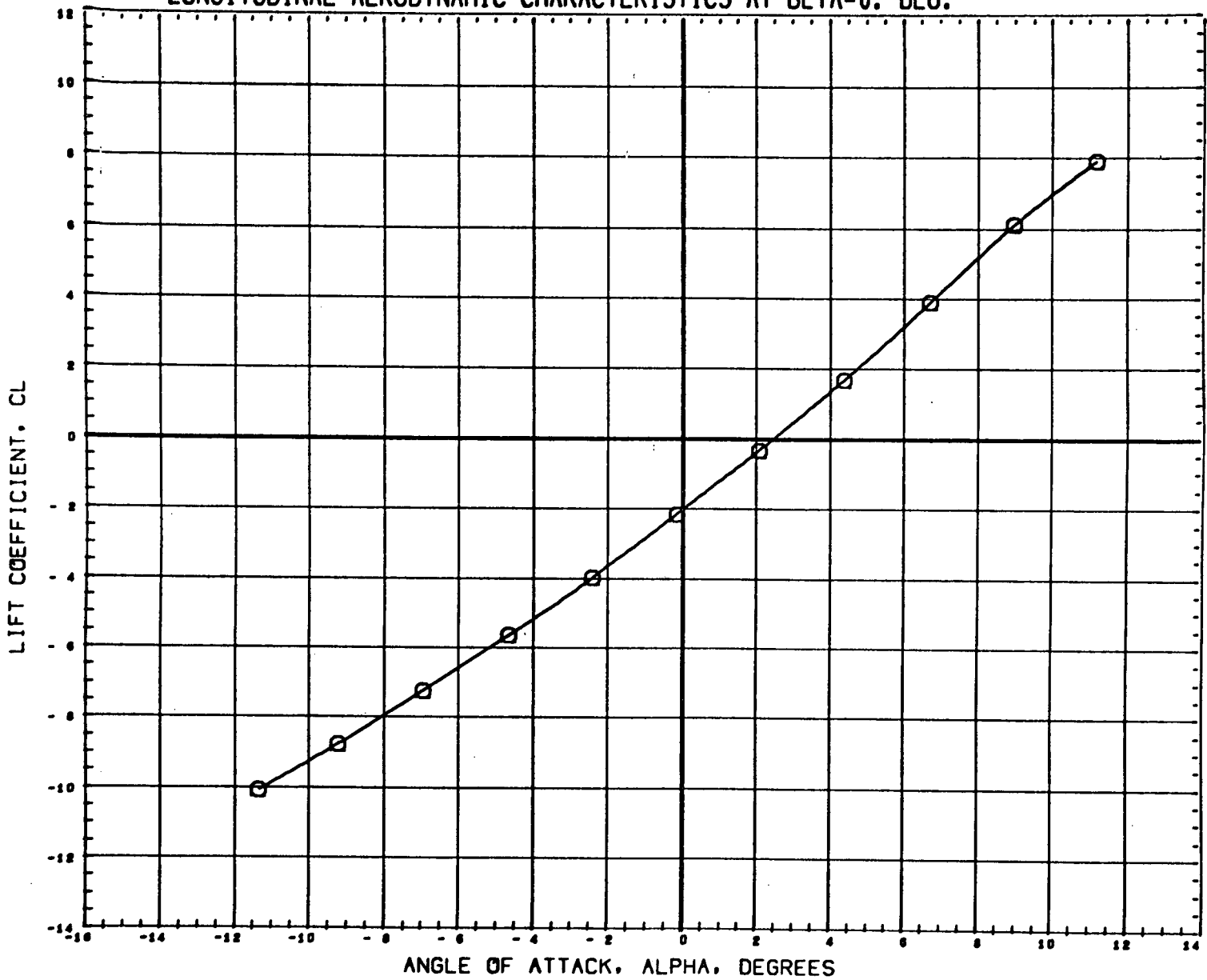


SYMBOL \circ MACH 0.901 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

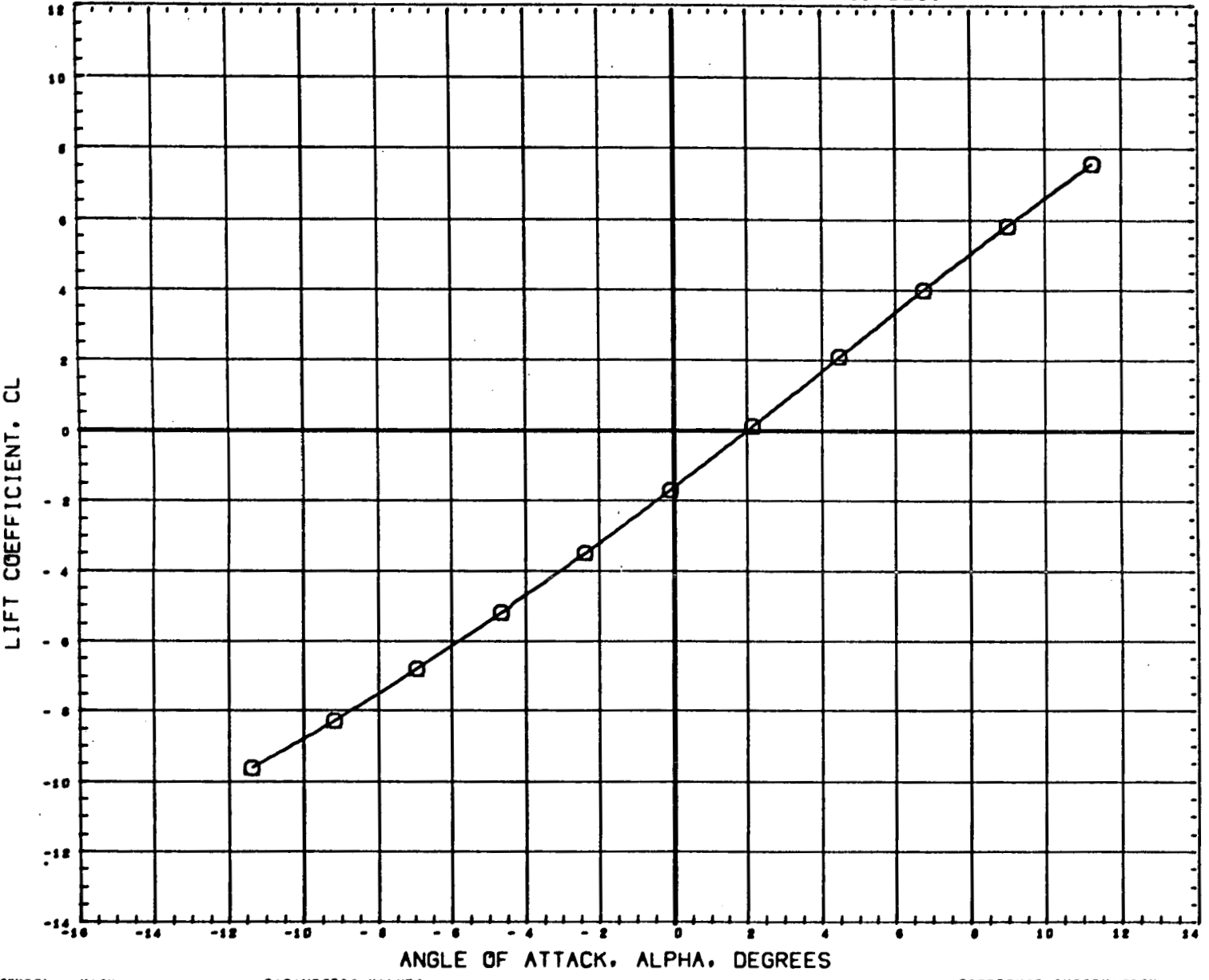


SYMBOL \circ MACH 0.999 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA INST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

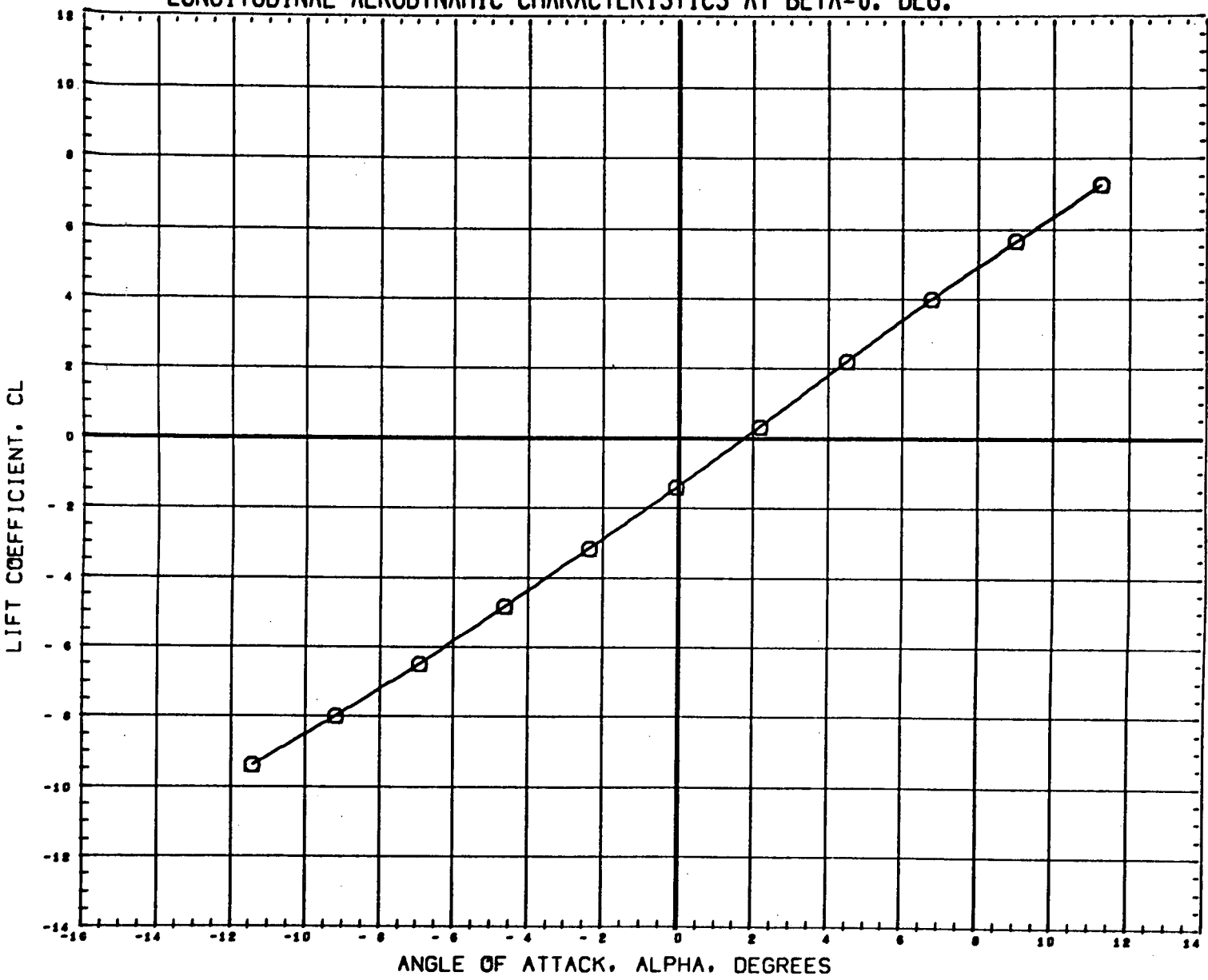


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.099 0.000 0.000

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN T1
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

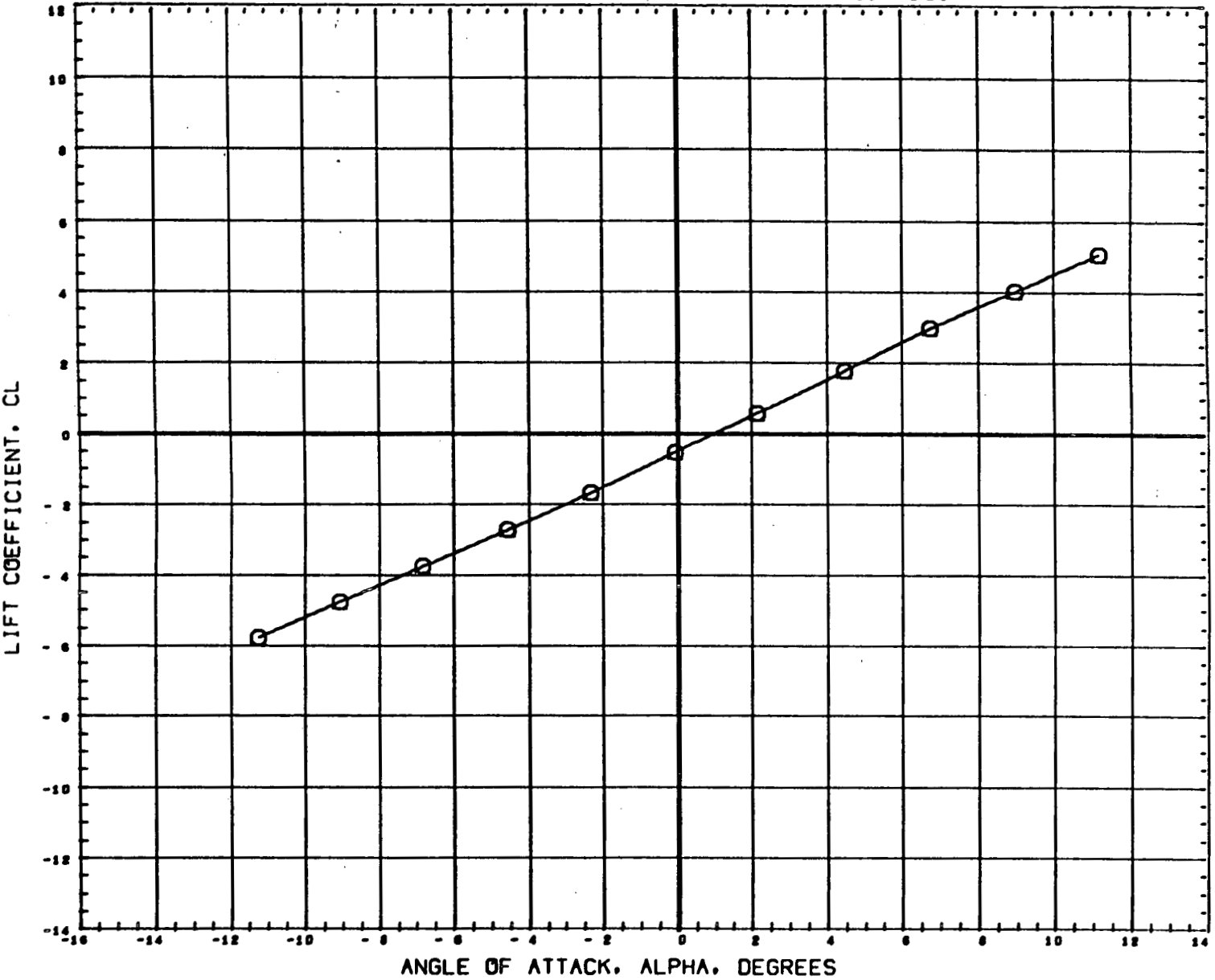


SYMBOL \circ MACH 1.198 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

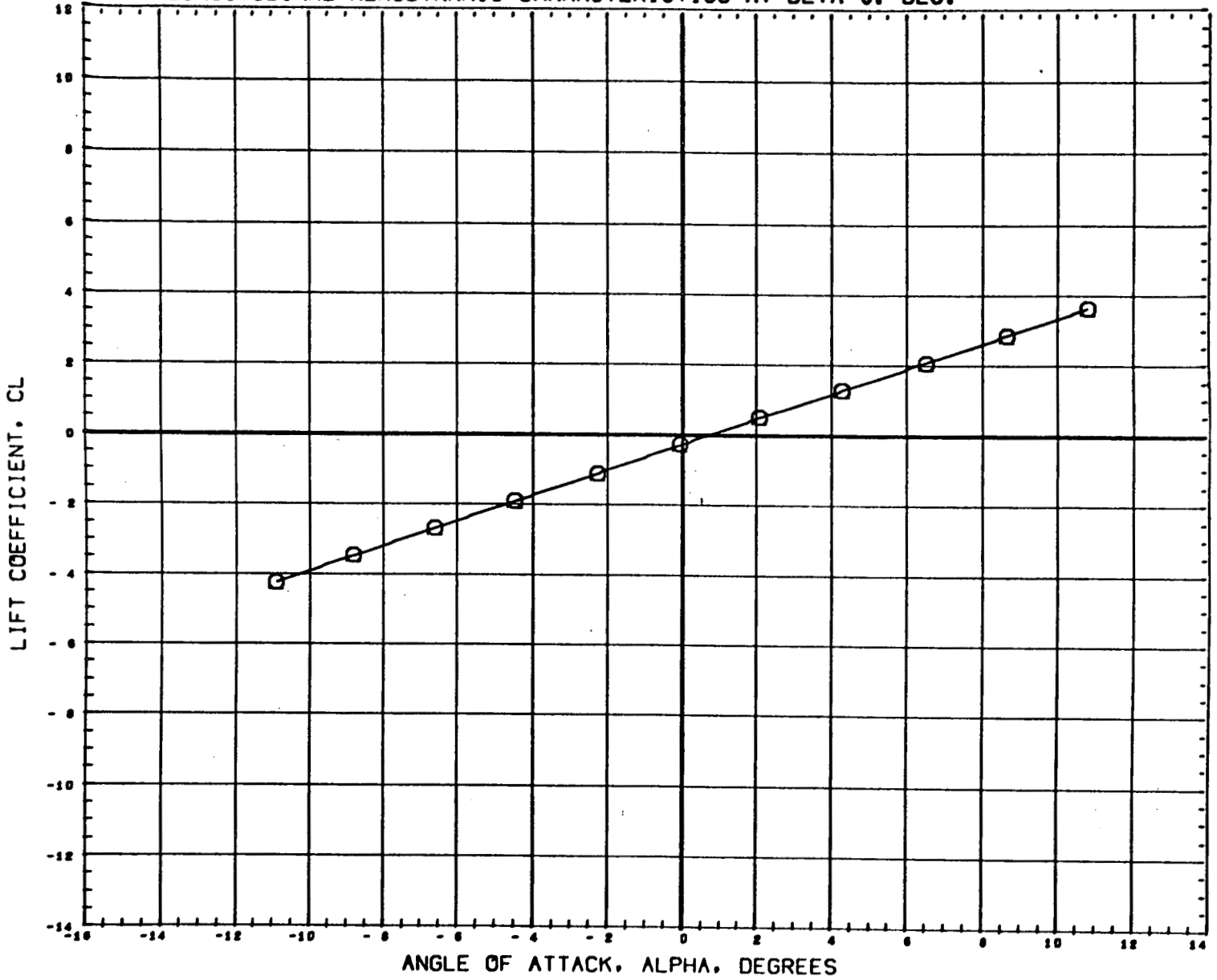


SYMBOL \circ MACH 1.955 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
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 YWRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

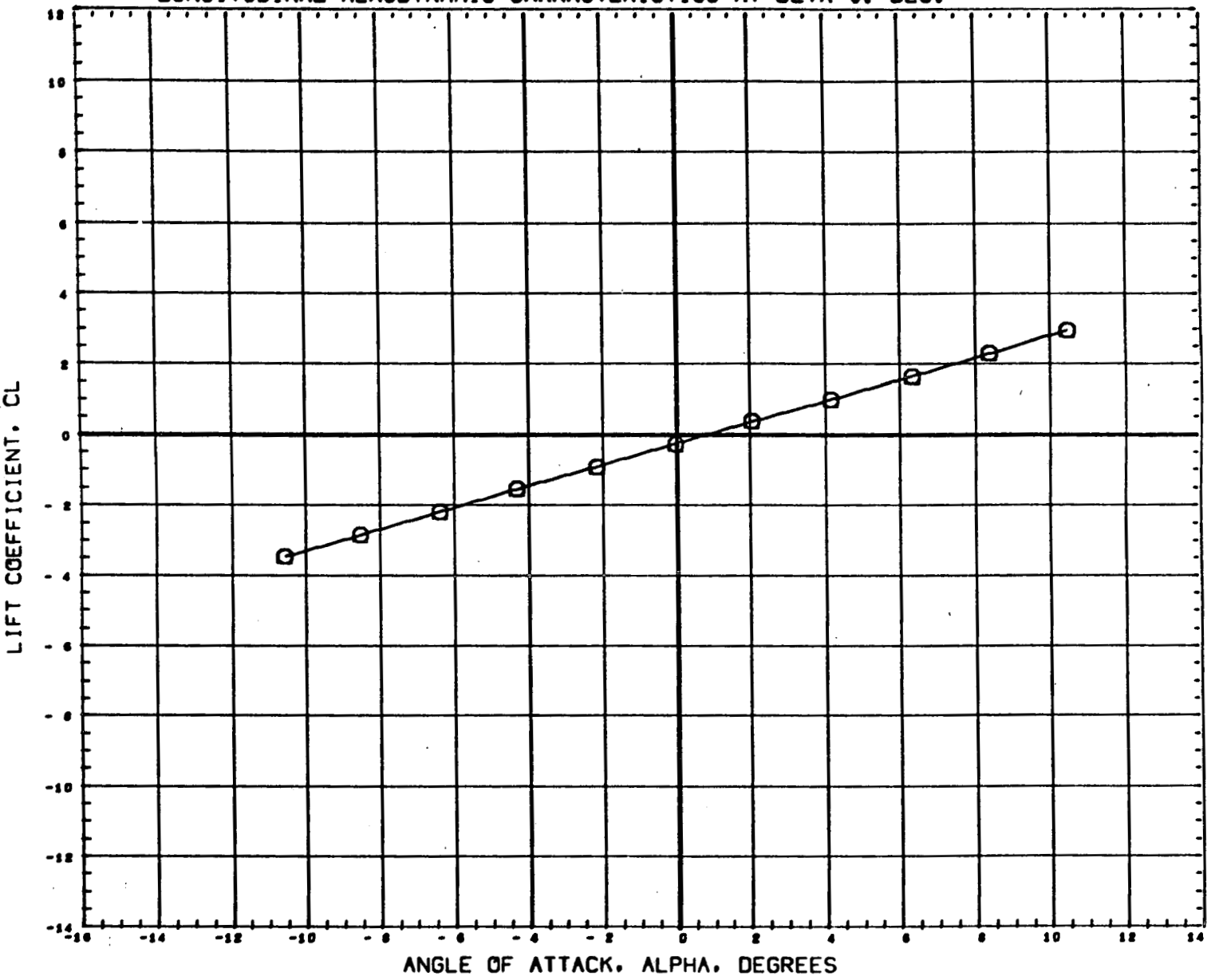


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
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 YNRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

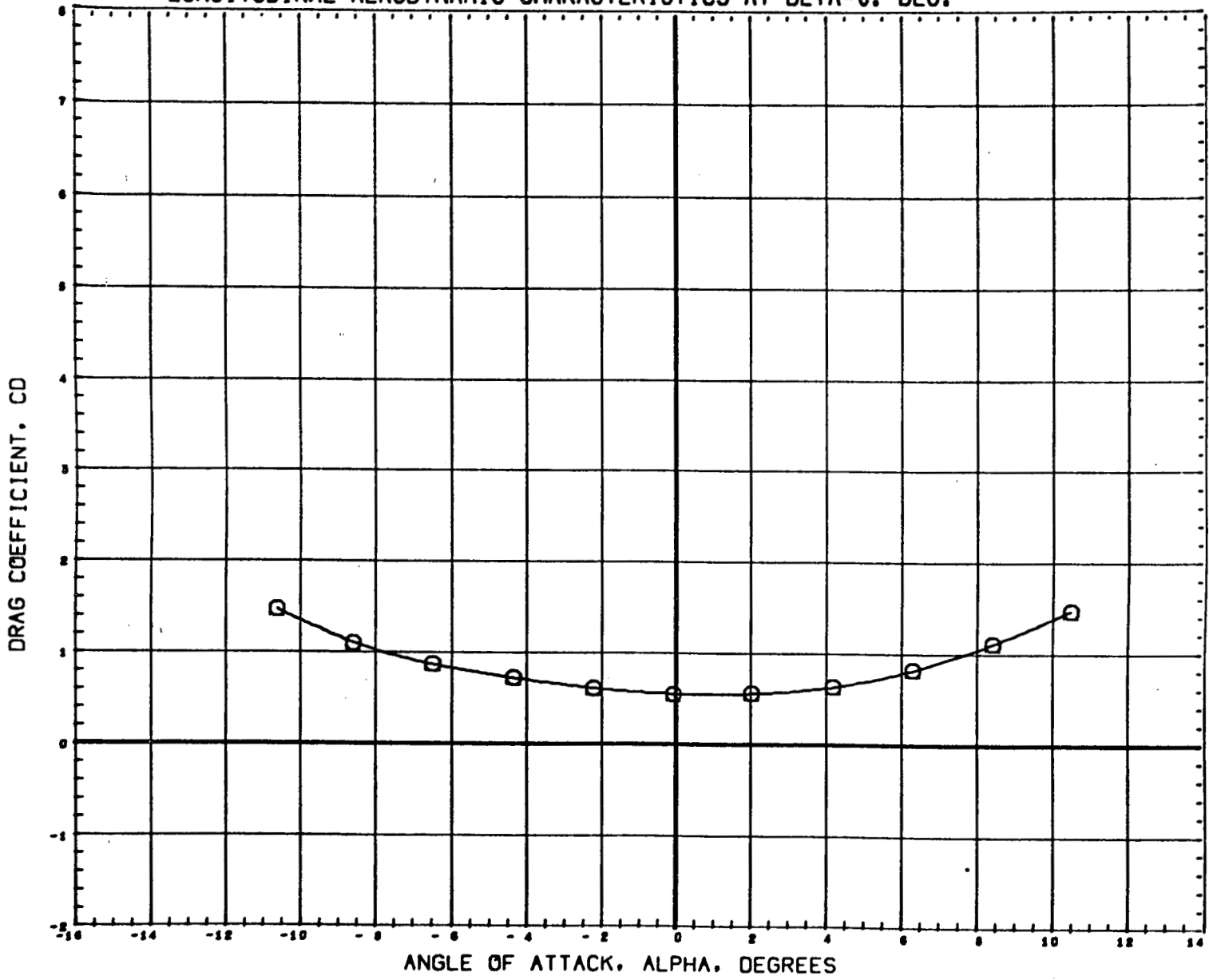


SYMBOL \bigcirc MACH 3.460 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

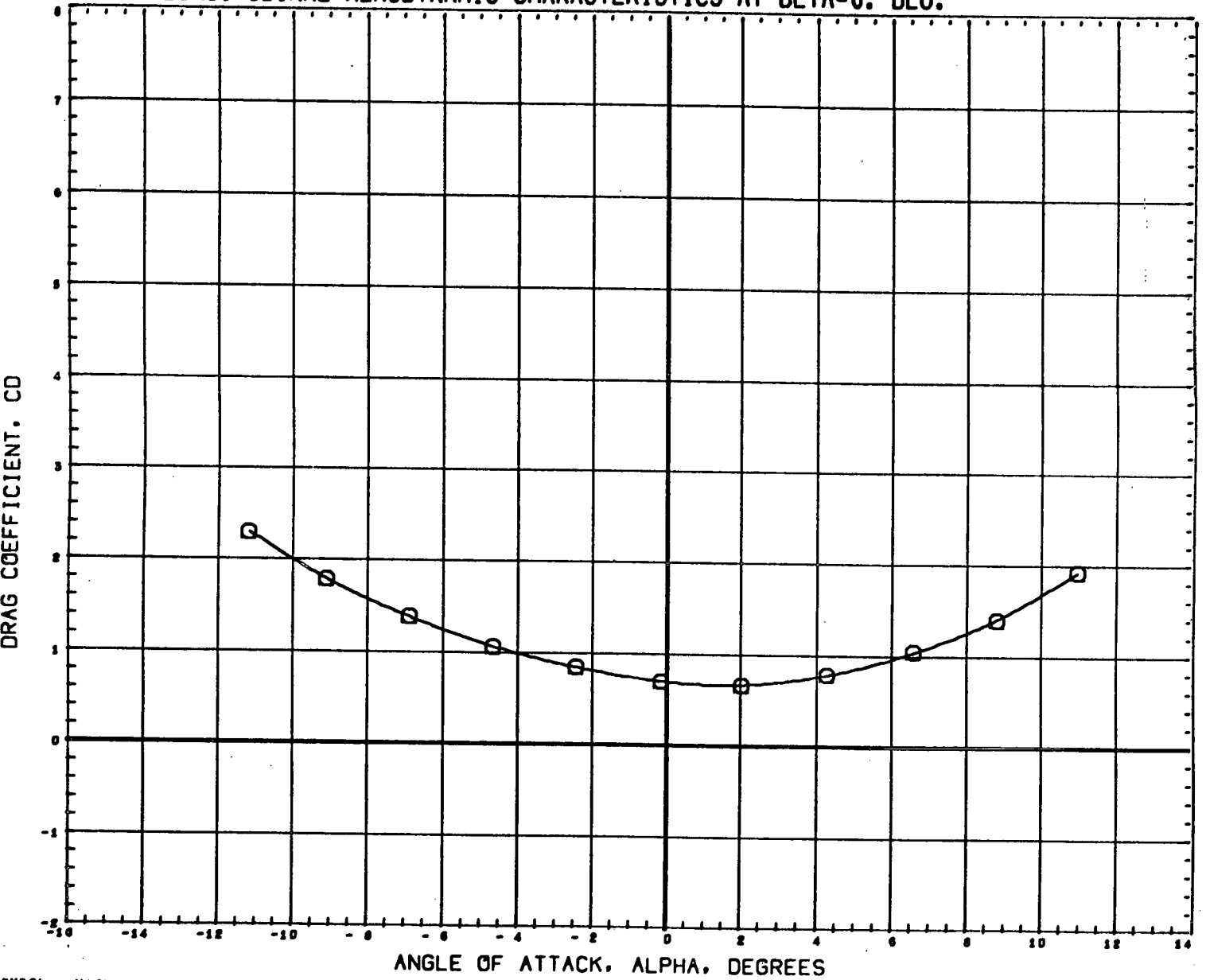


SYMBOL \square MACH 0.999 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

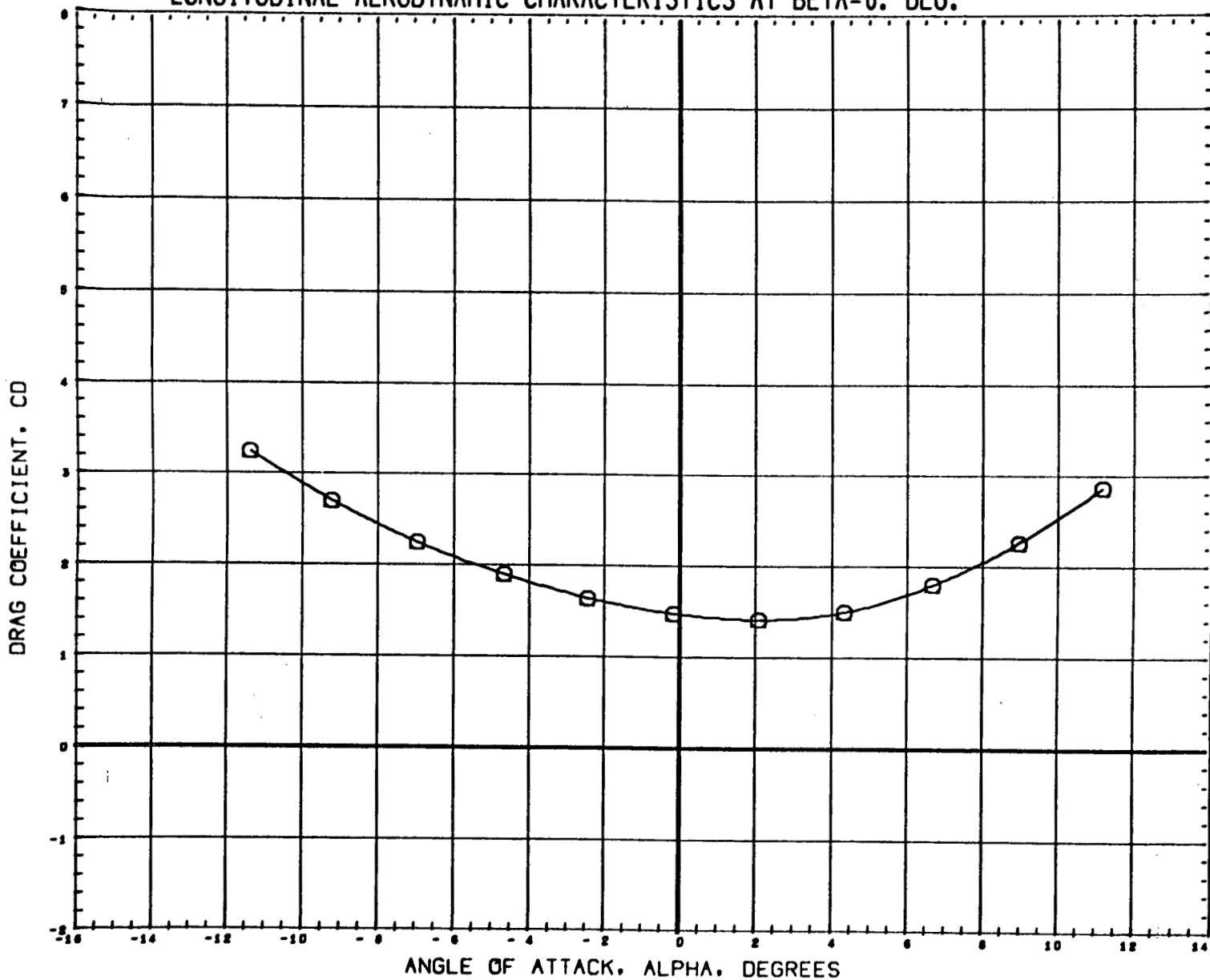


THBOL NACH 0.901 BETA 0.000
 O PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

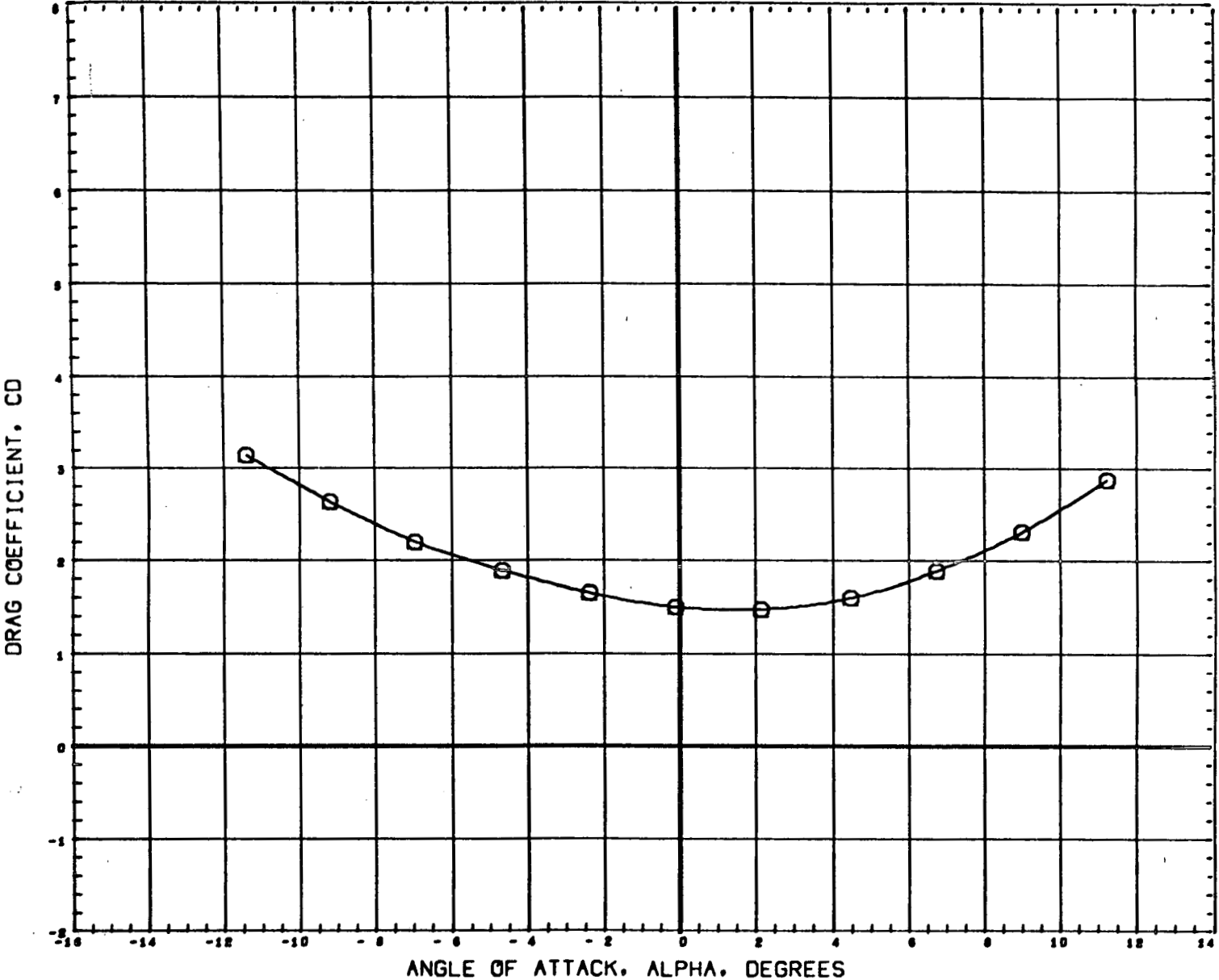


SYMBOL \circ MACH 0.999 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

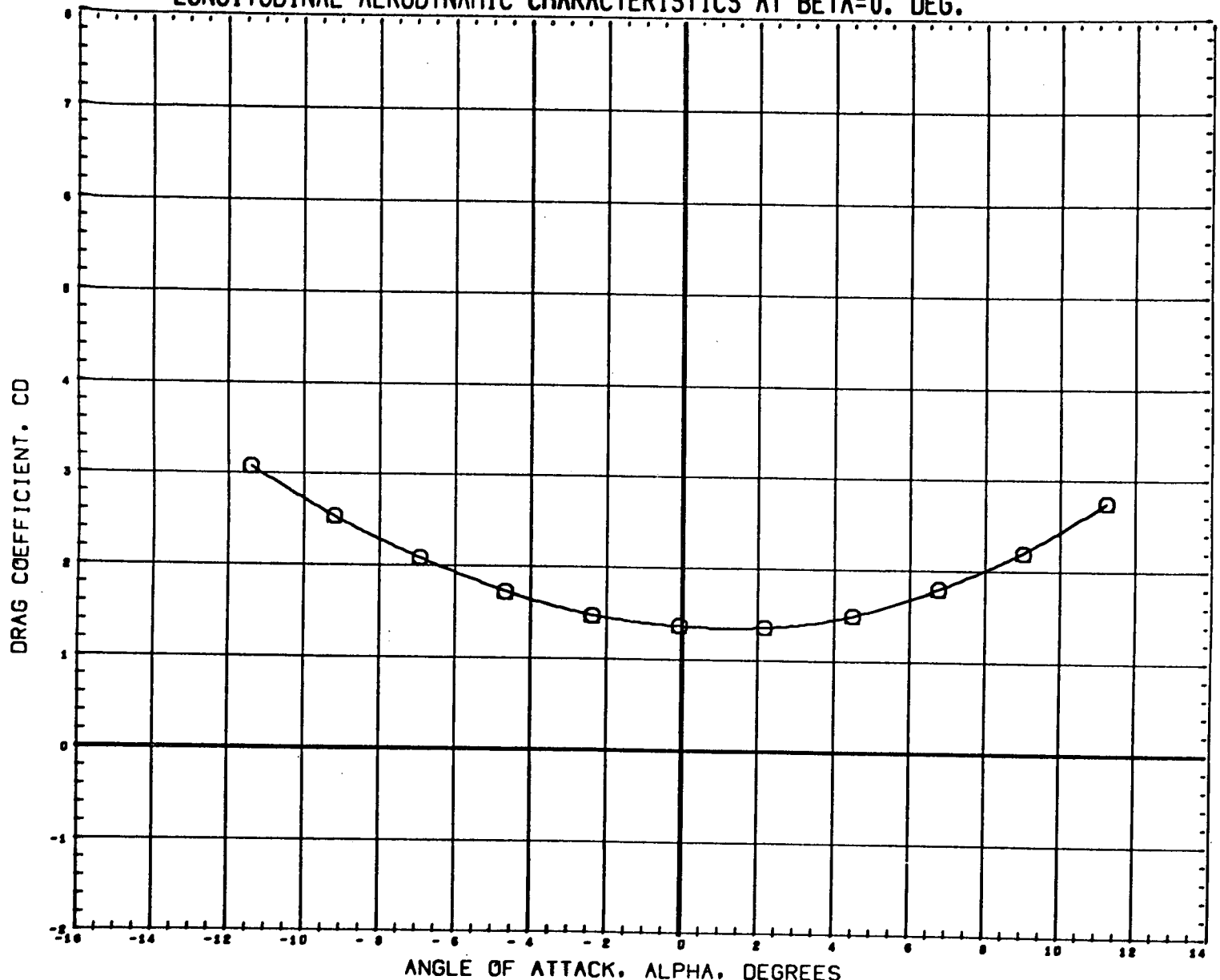


SYMBOL \circ MACH 1.000 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

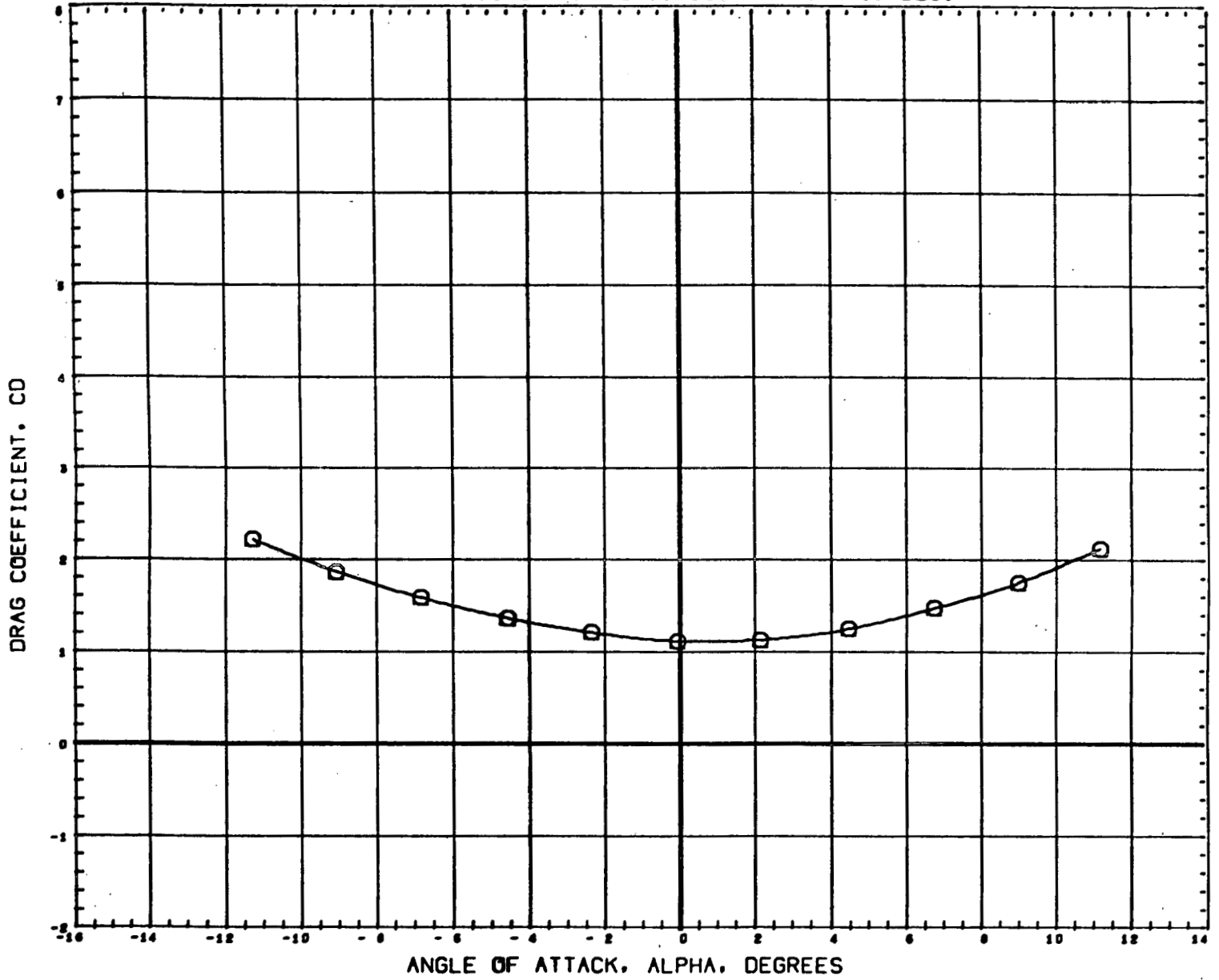


SYMBOL \bigcirc MACH 1.598 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
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DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

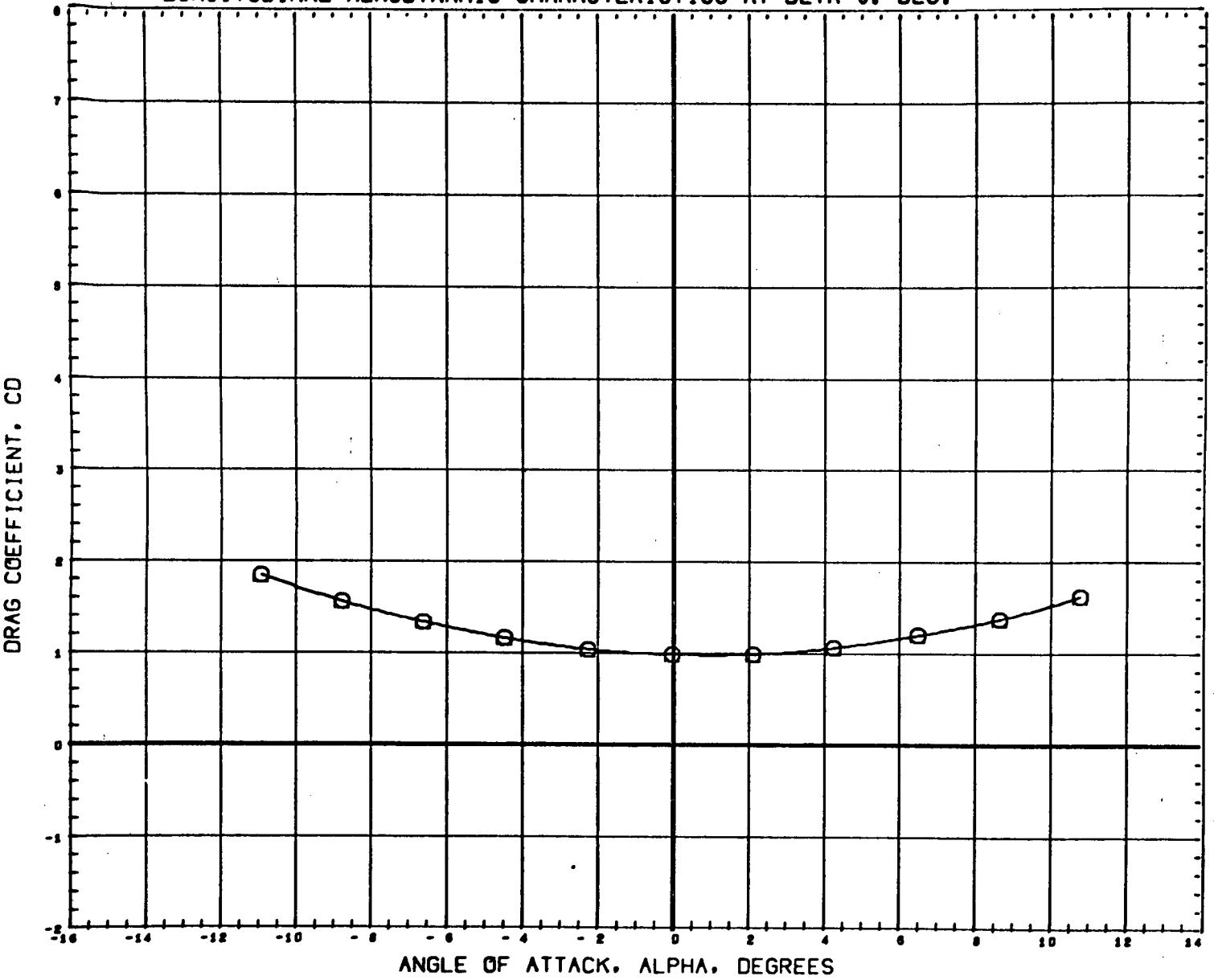


SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.955 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE VSE

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

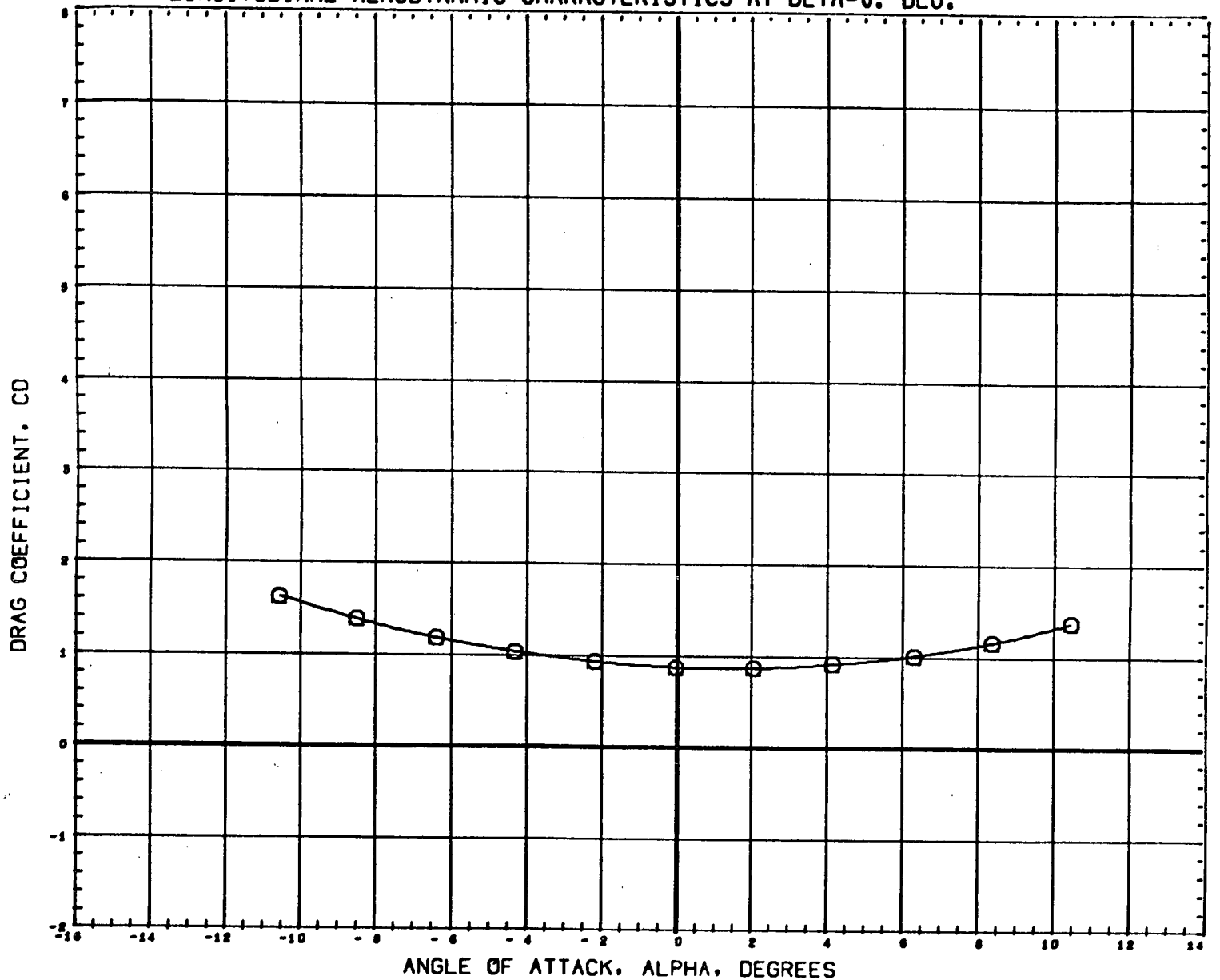


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XRRP 2.9170 IN TIT
 YRRP 0.0000 CORE C
 ZRRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

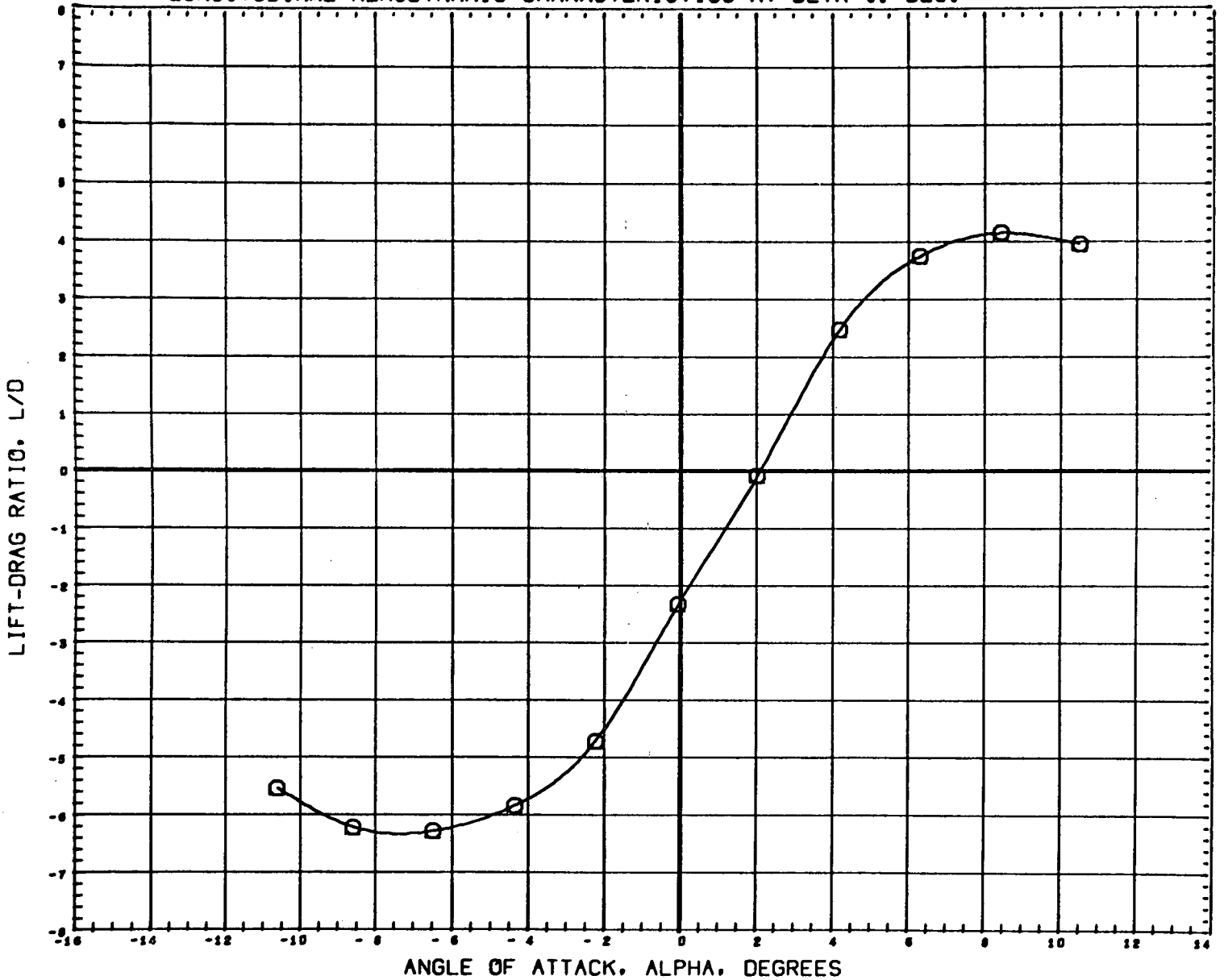


SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

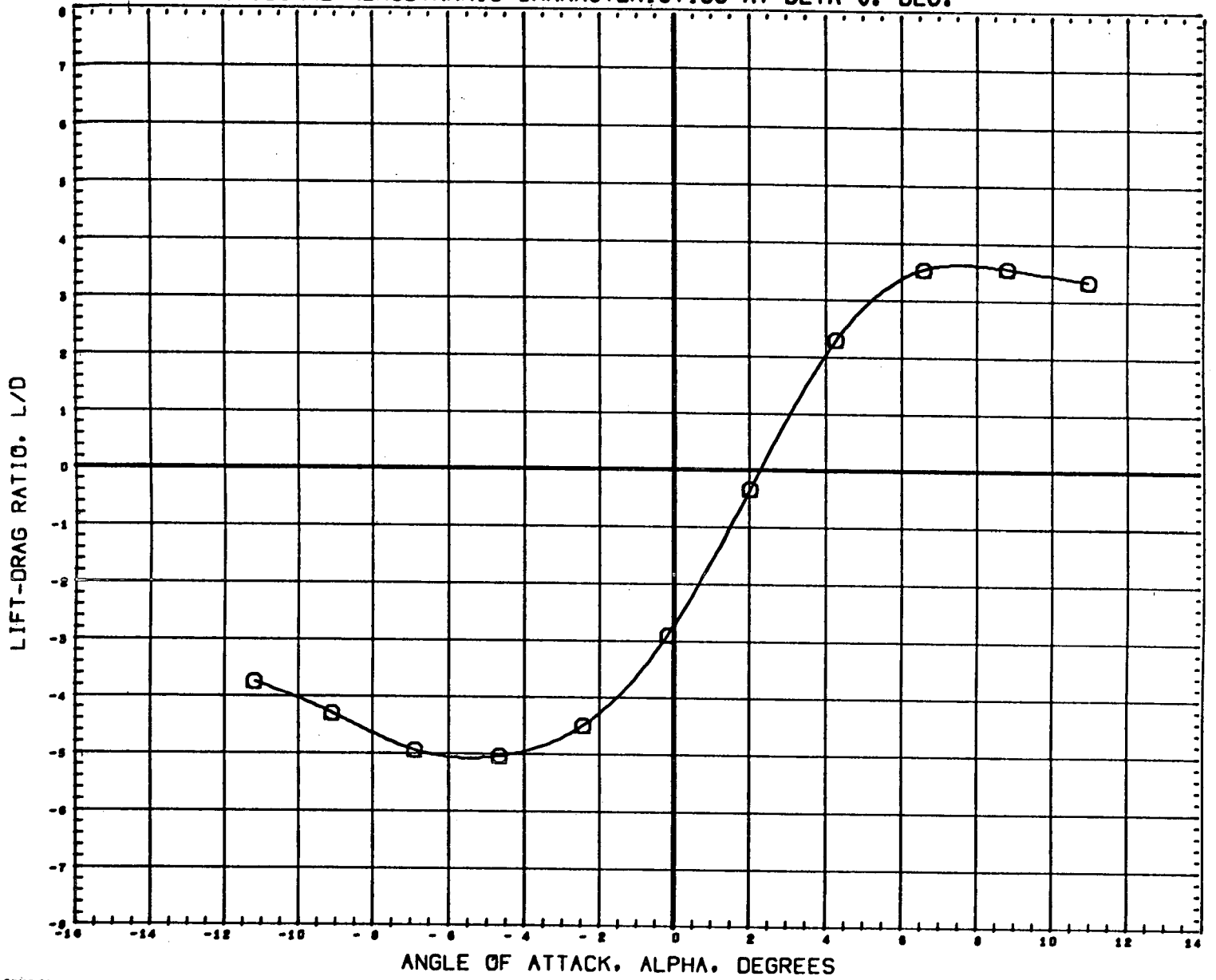


SYMBOL MACH PARAMETRIC VALUES
 O 0.599 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

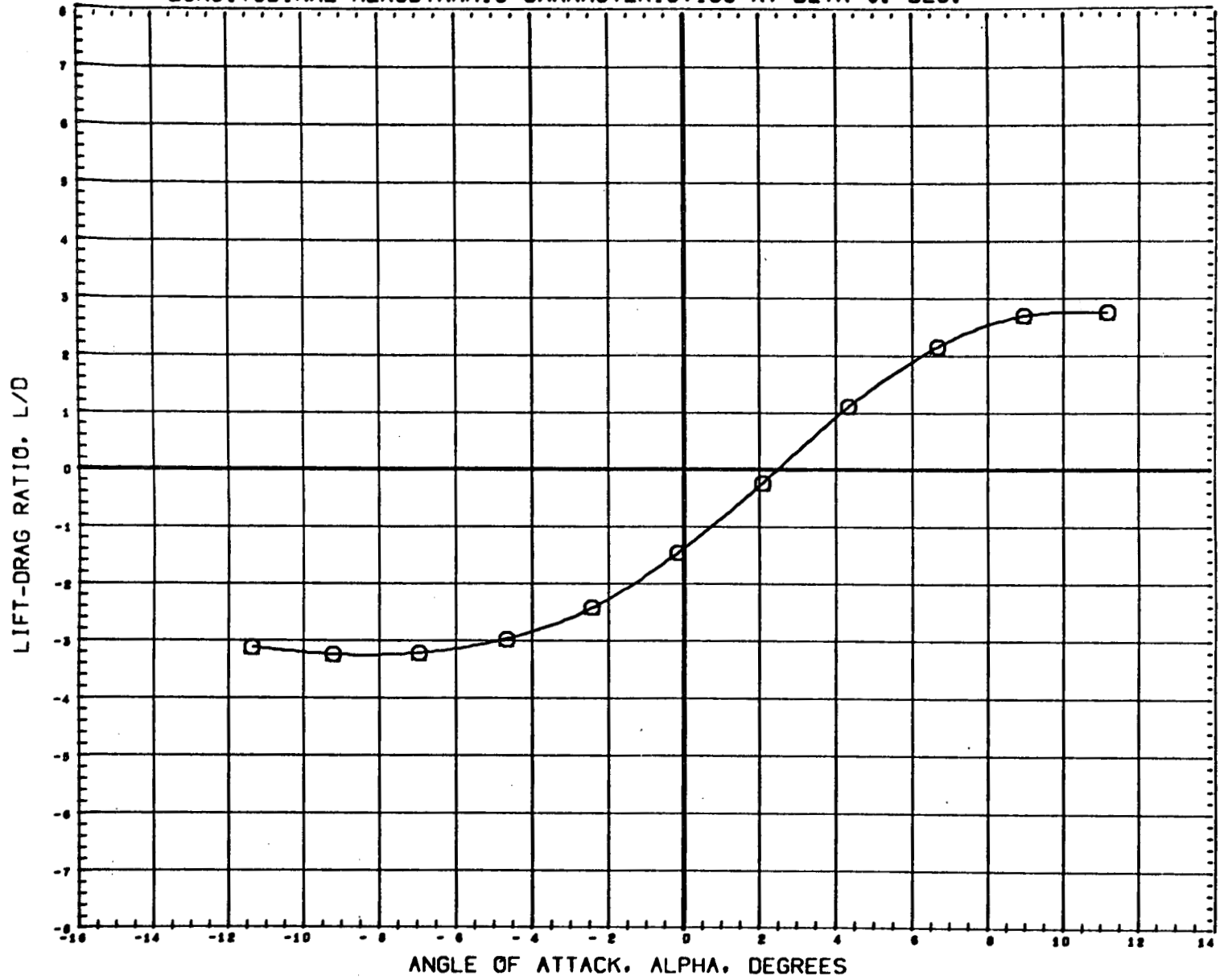


SYMBOL \circ MACH 0.901 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

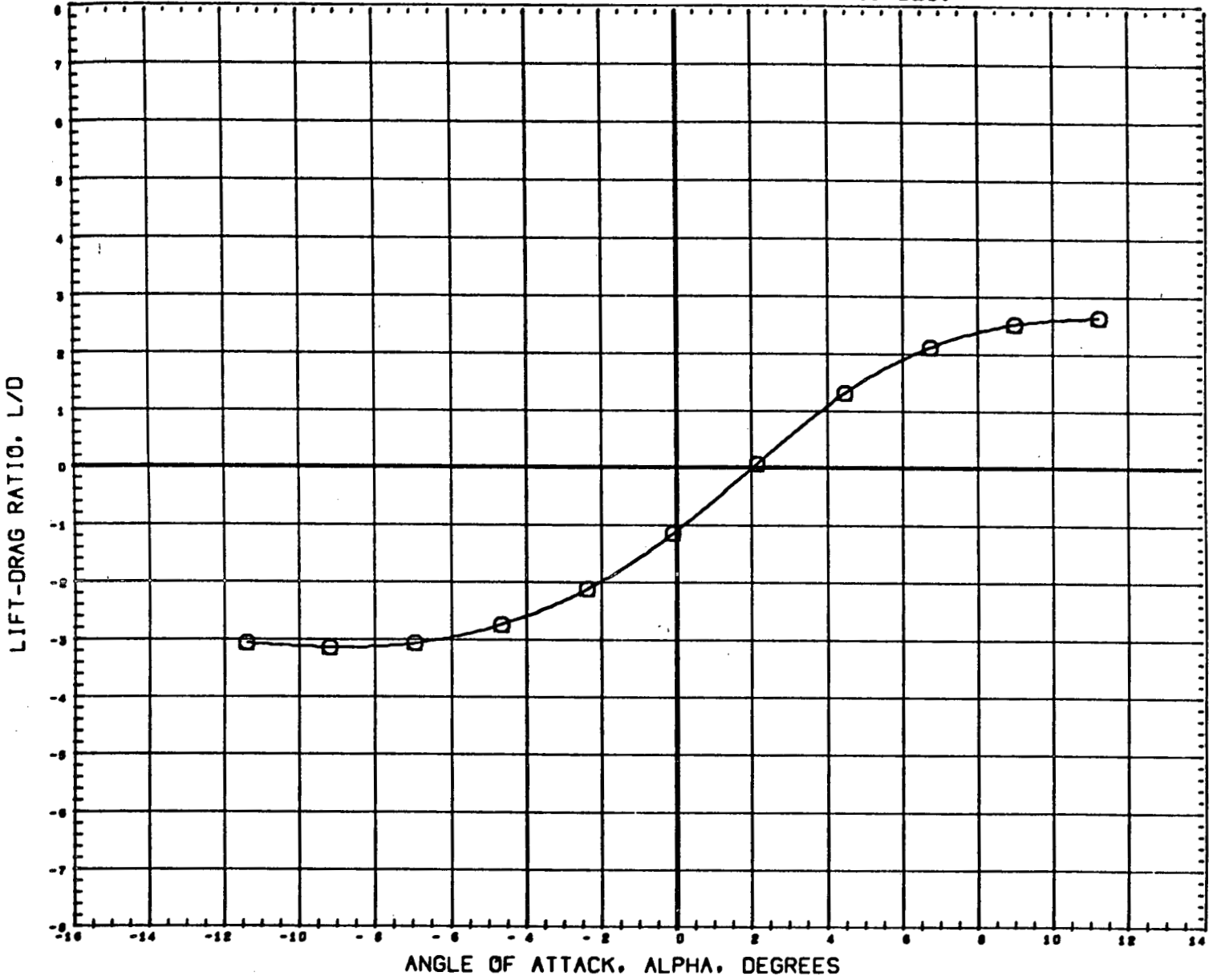


SYMBOL \square MACH 0.999 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XNRP 2.9170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

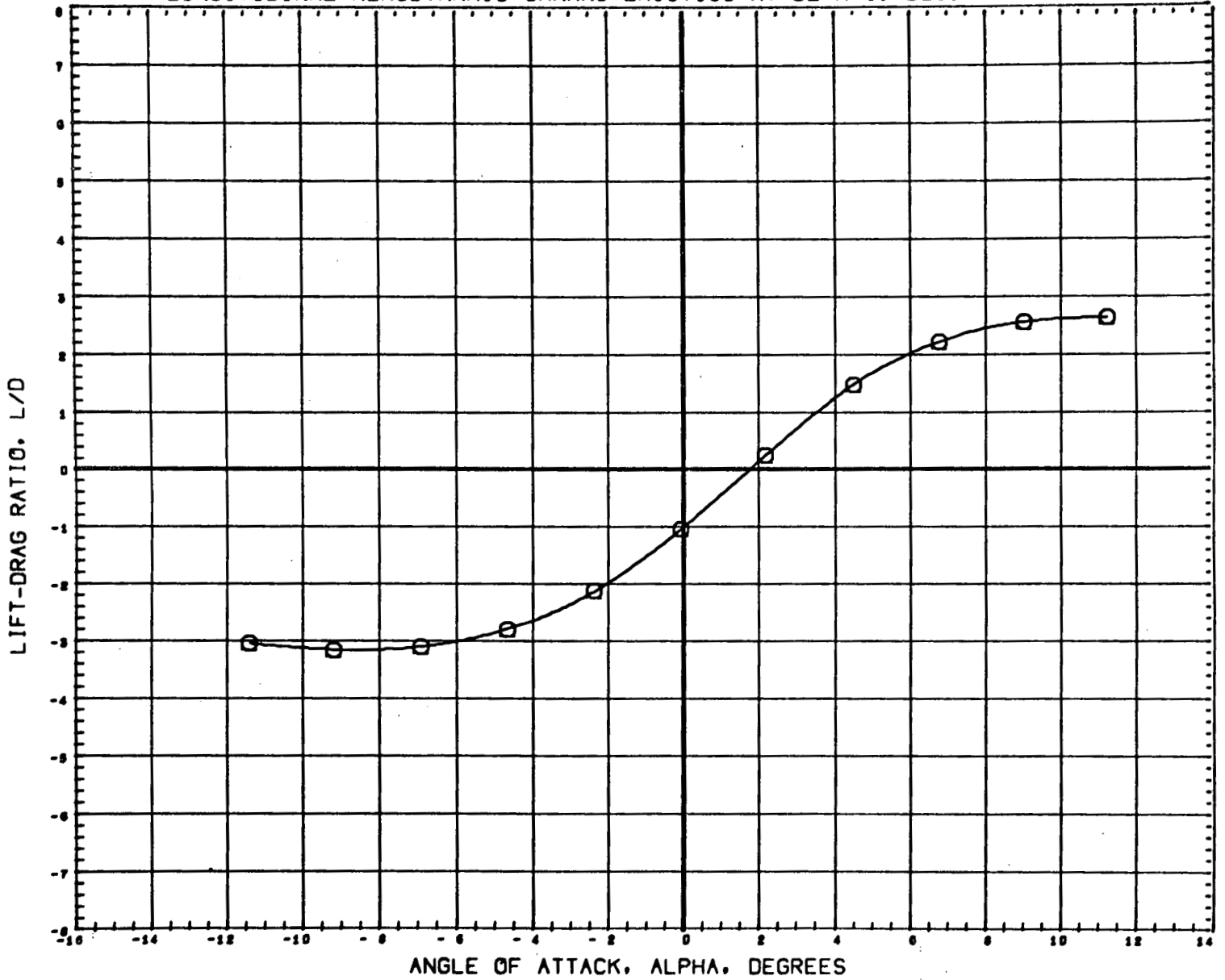


SYMBOL \bigcirc MACH 1.099 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

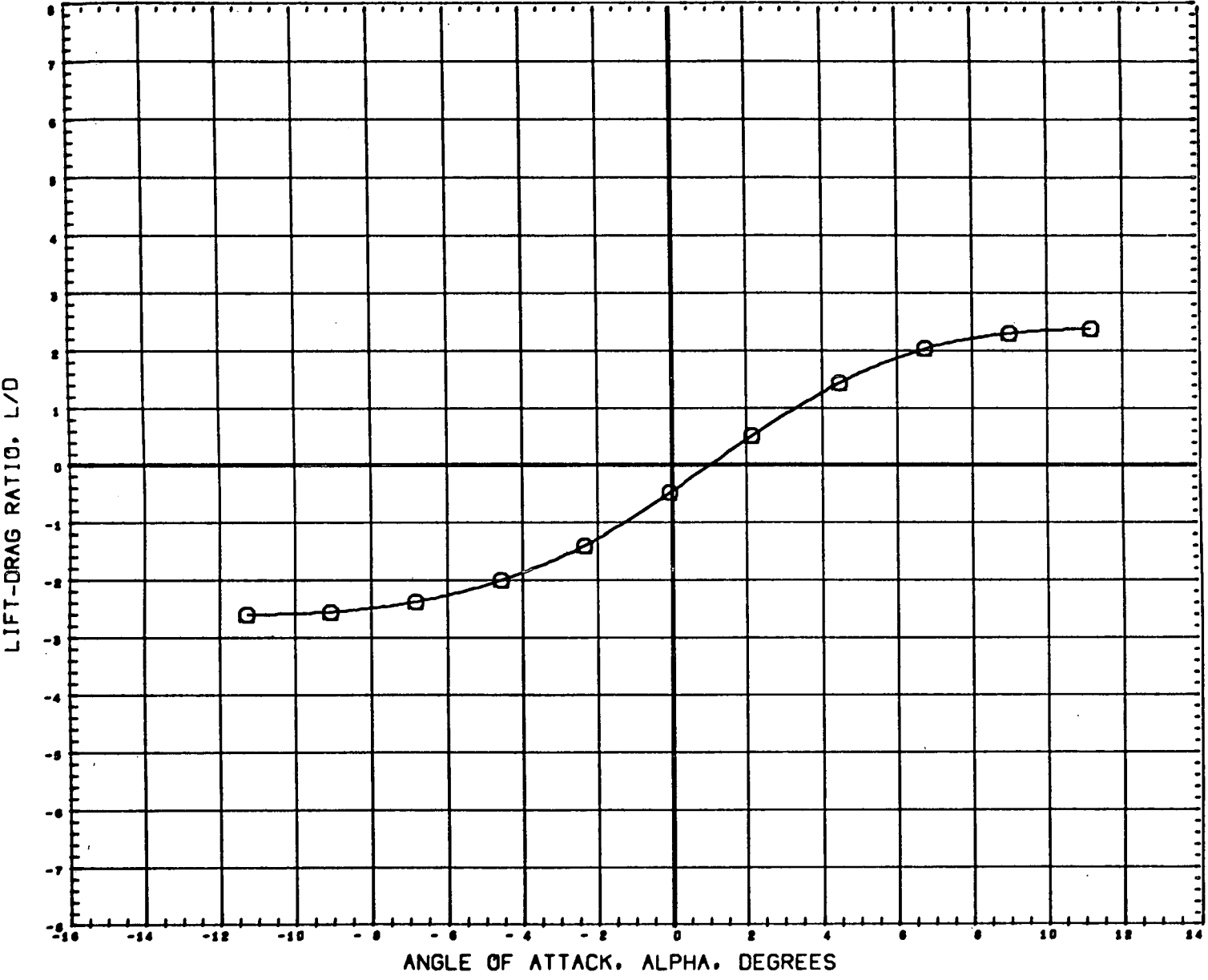


SYMBOL \circ MACH 1.198 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

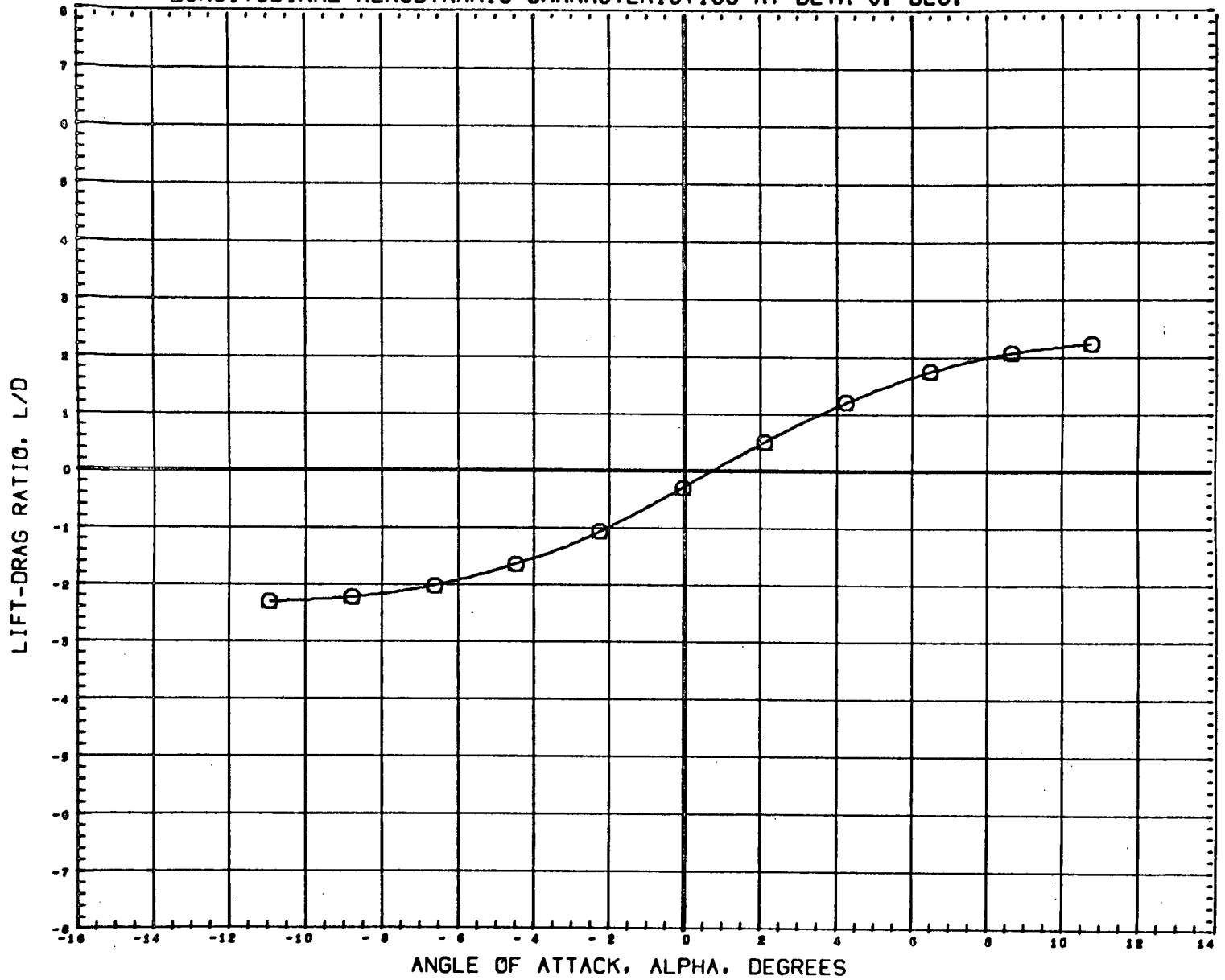


SYMBOL \square MACH 1.955 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIF
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

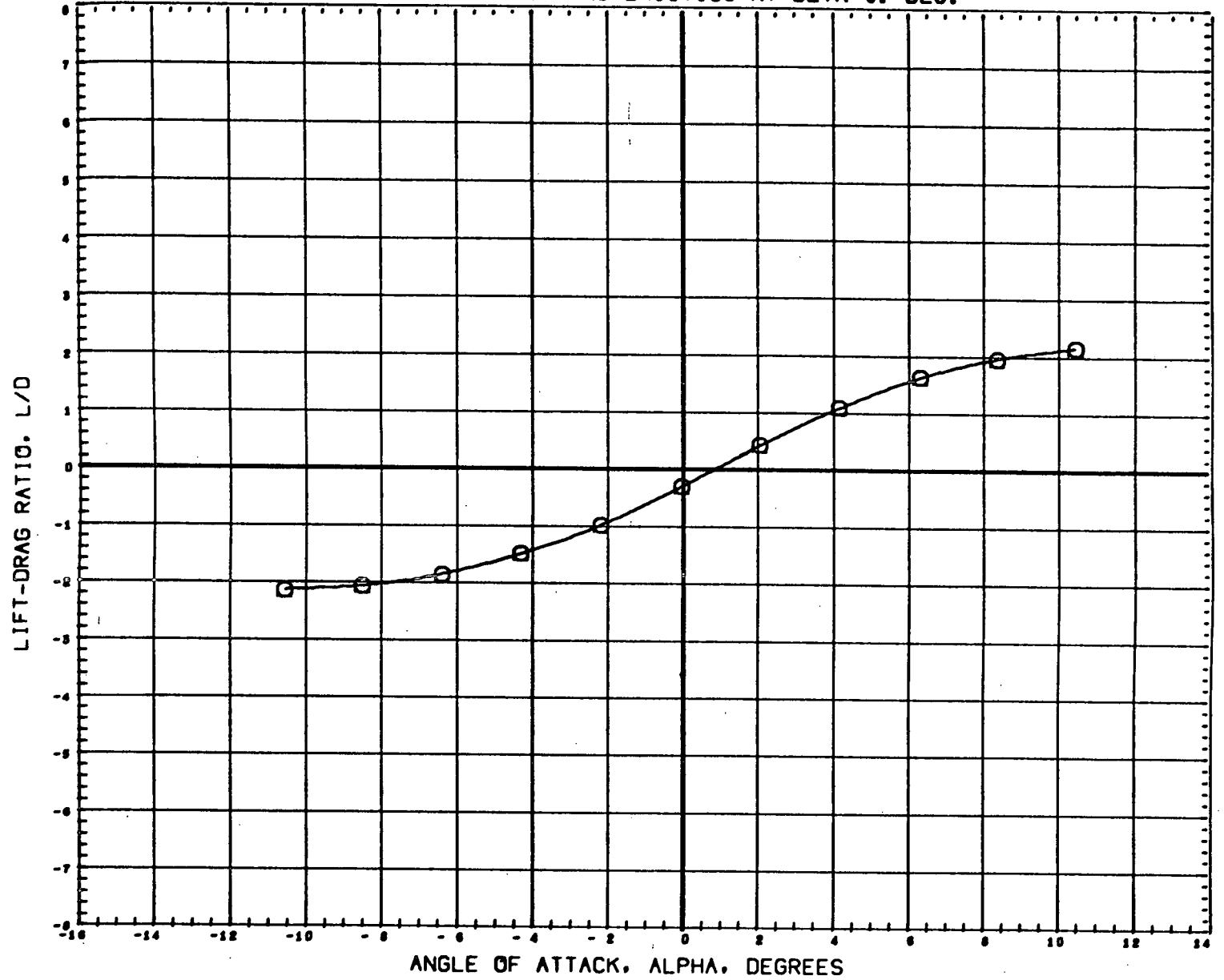


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 3.480 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V+E

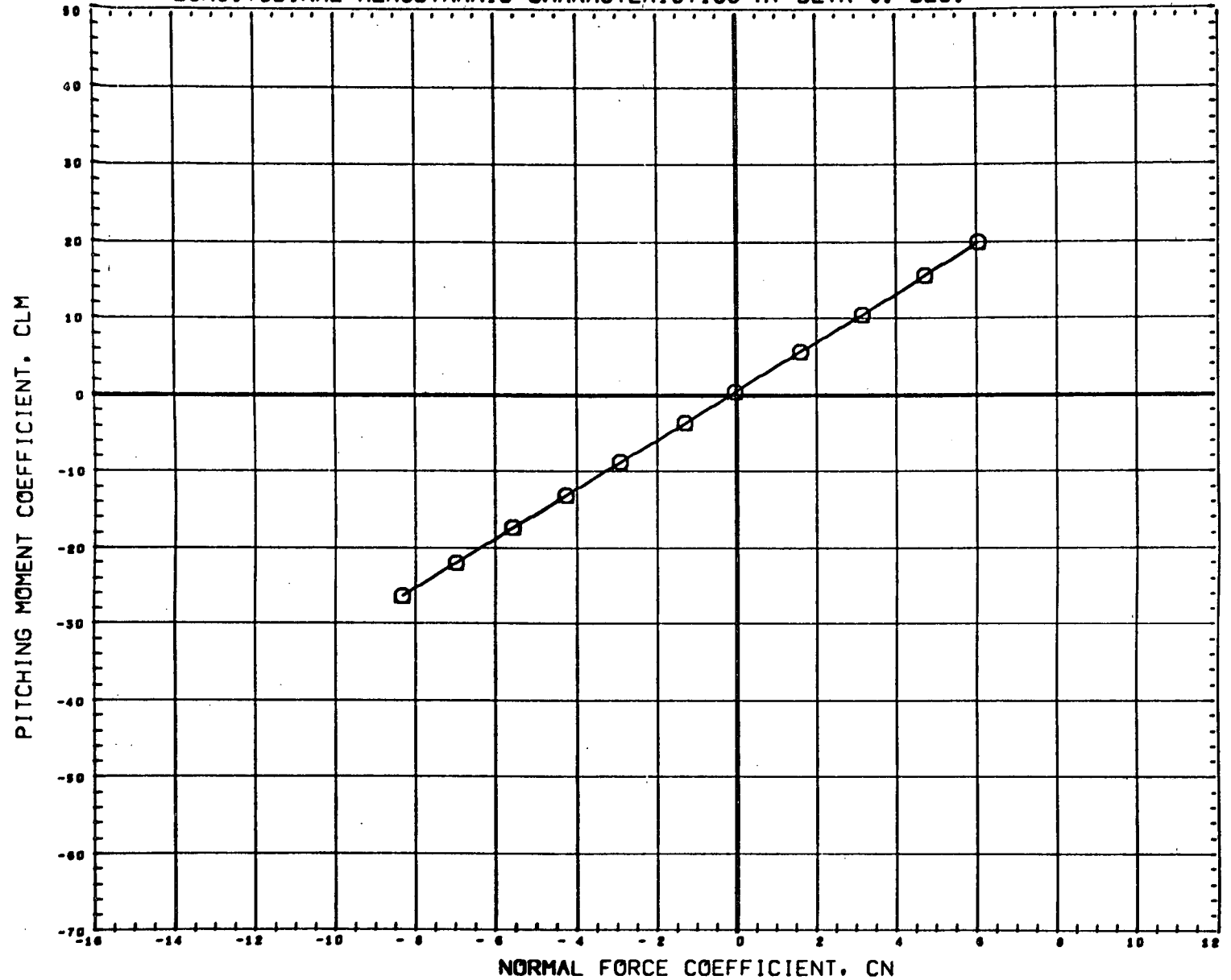
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

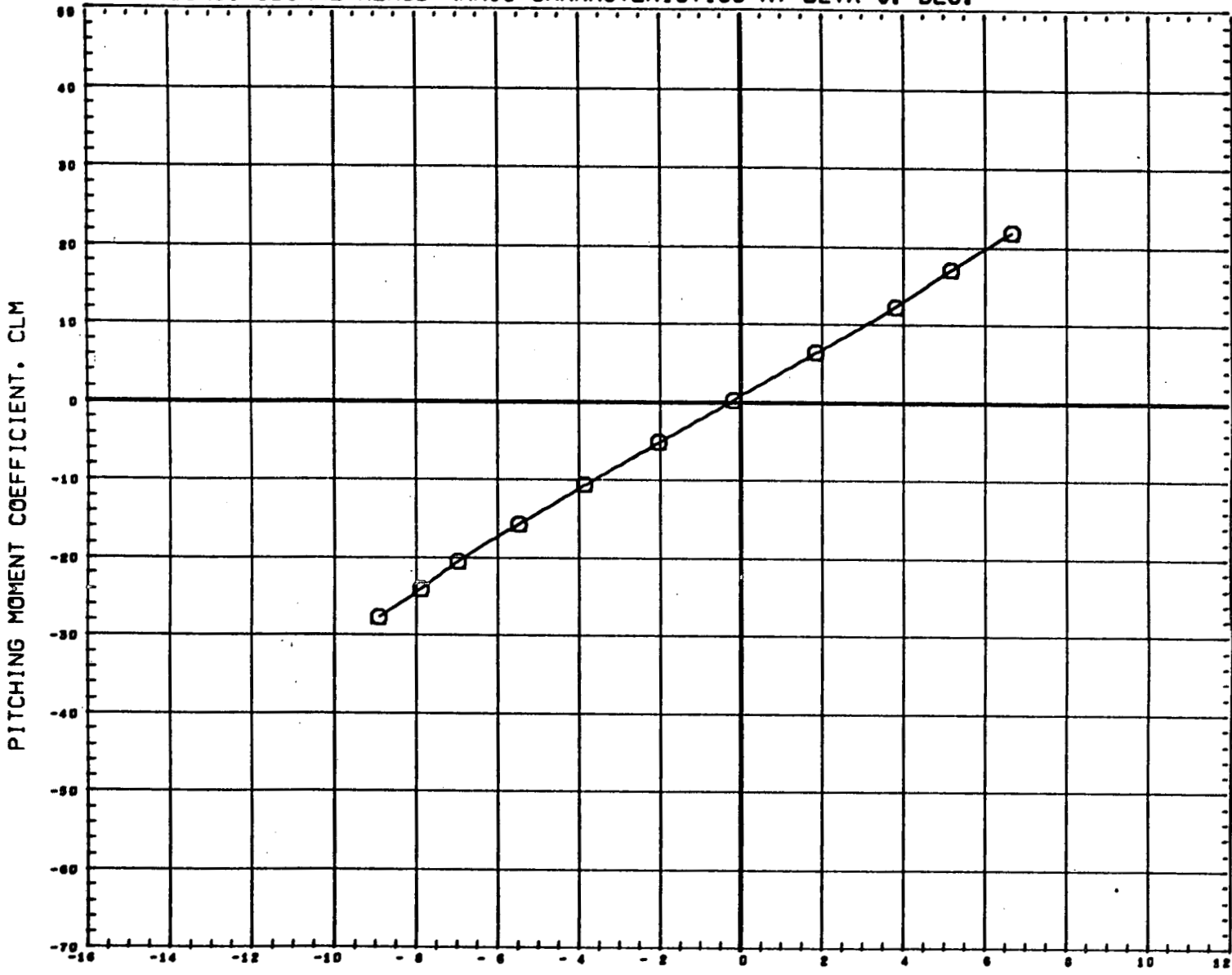


SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.599 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCNES
 DREF 0.8240 INCNES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

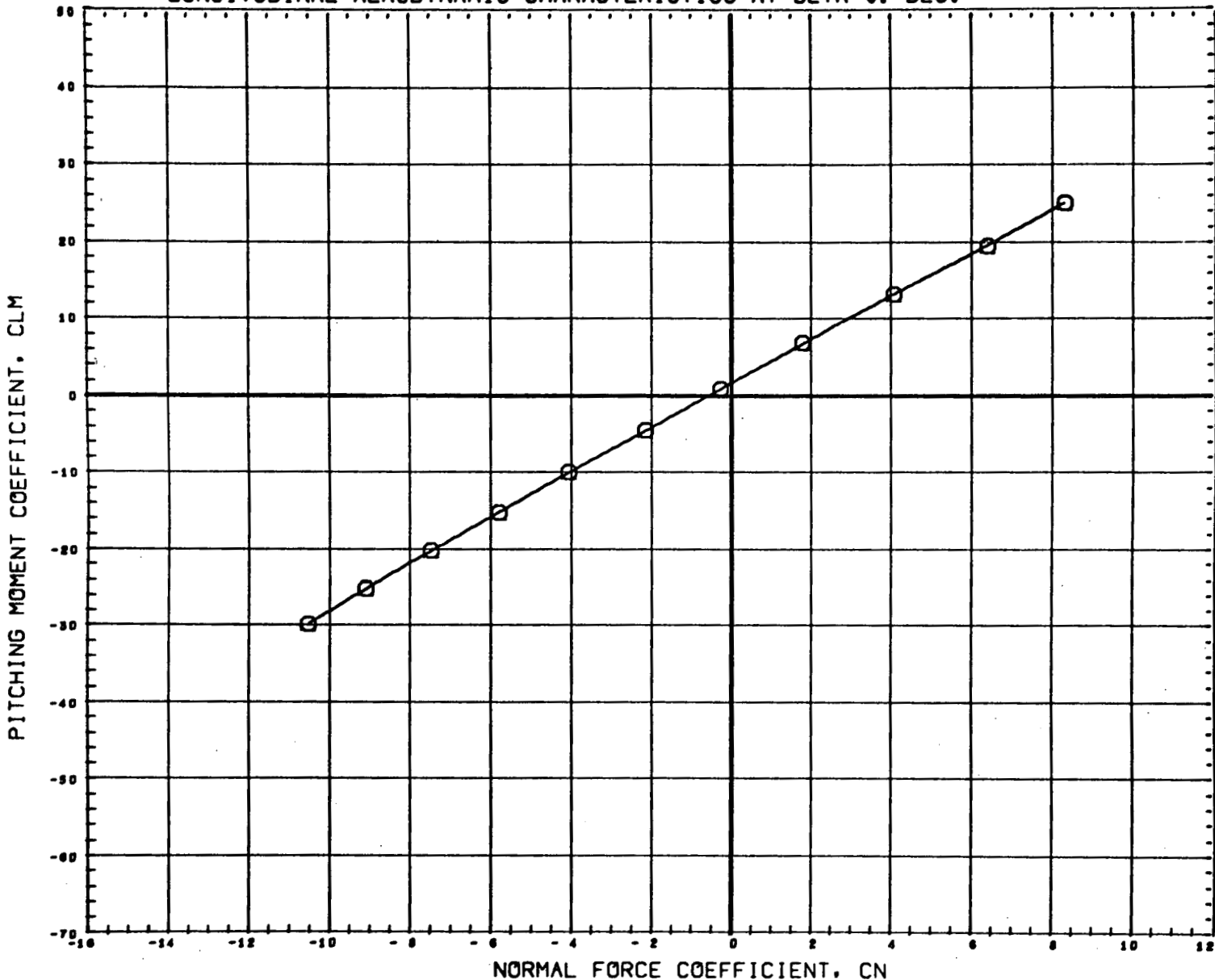


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.901 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

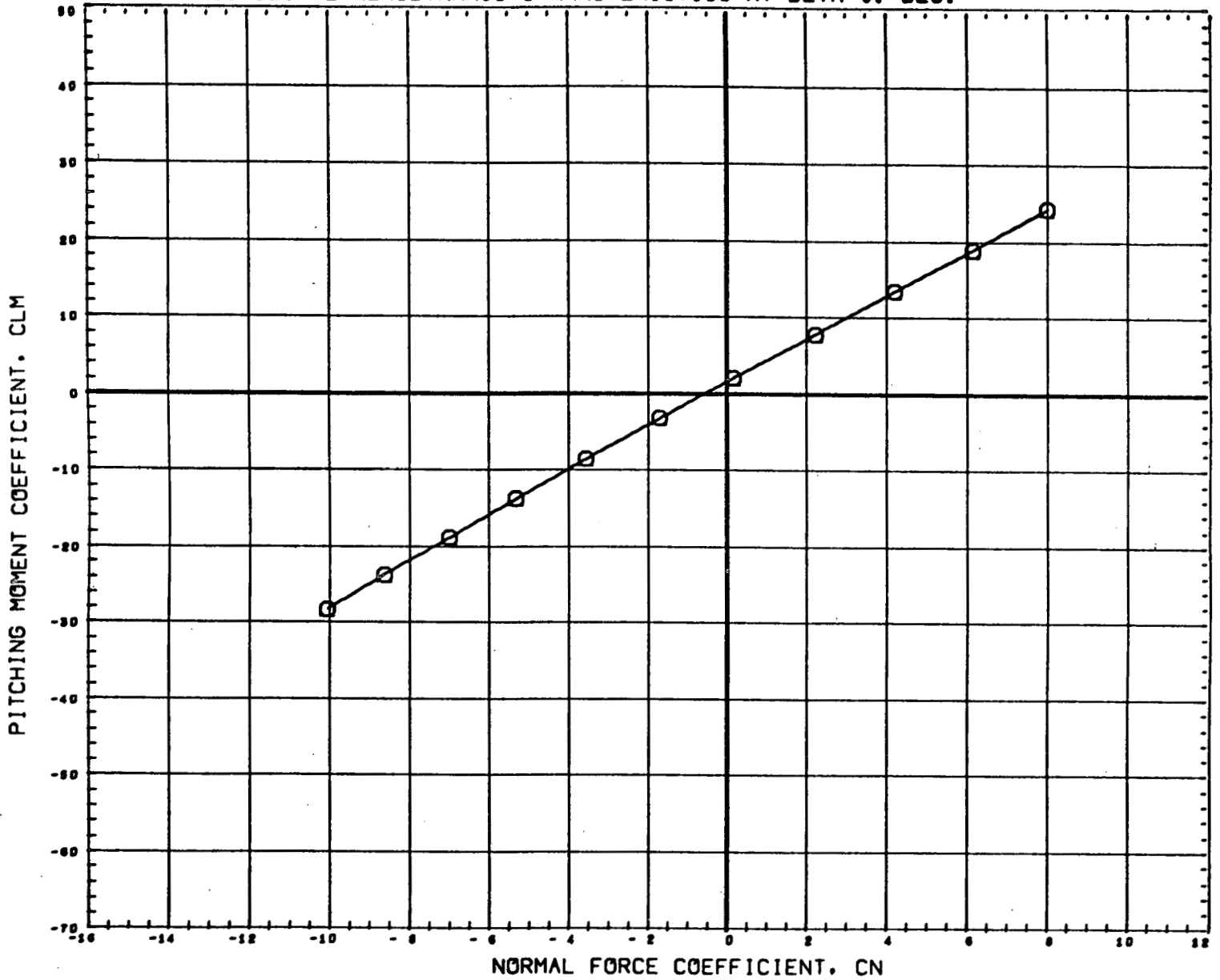


SYMBOL \bigcirc MACH 0.999 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 8.8170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

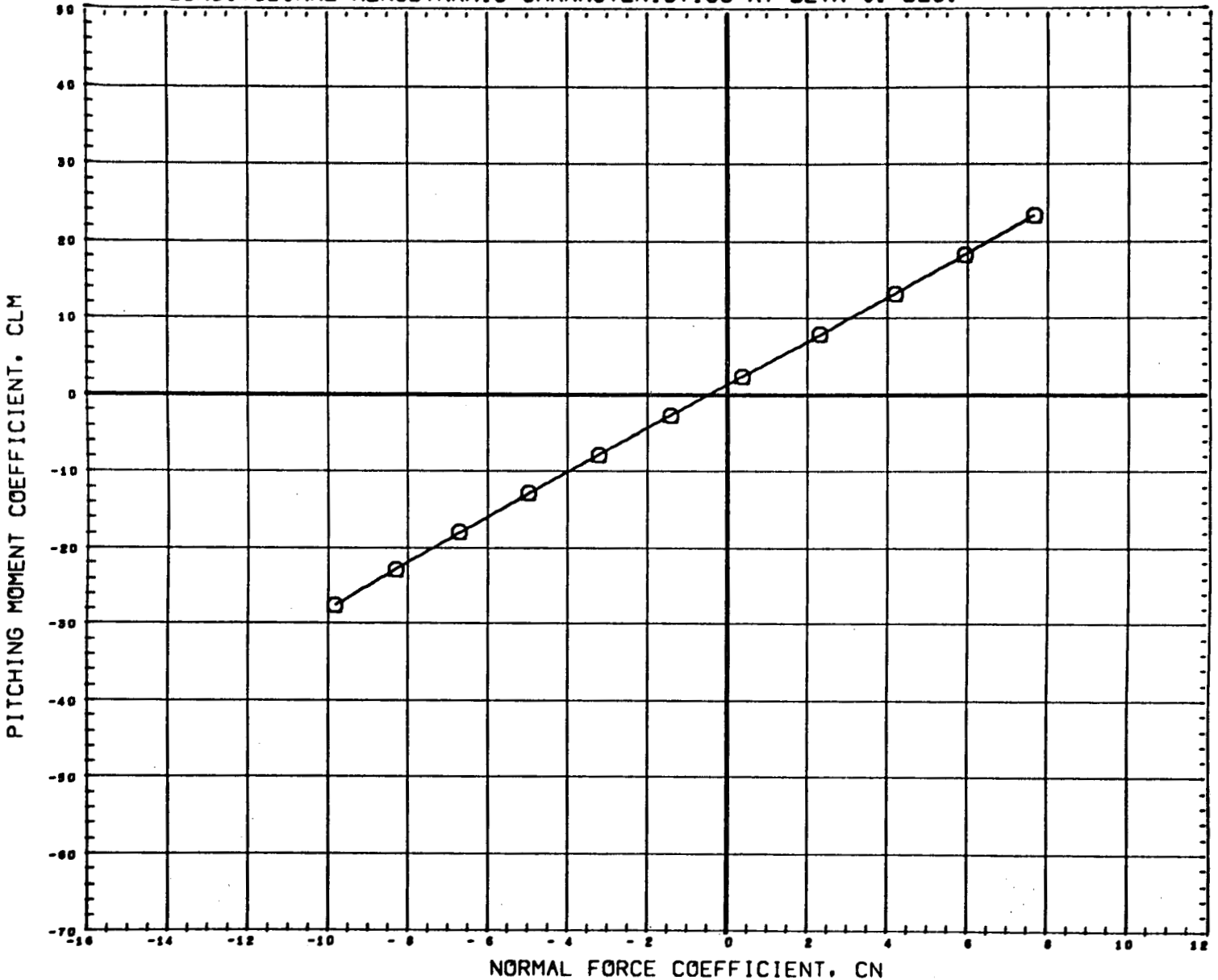


SYMBOL \circ MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 QREF 0.3340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XNRP 2.0170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

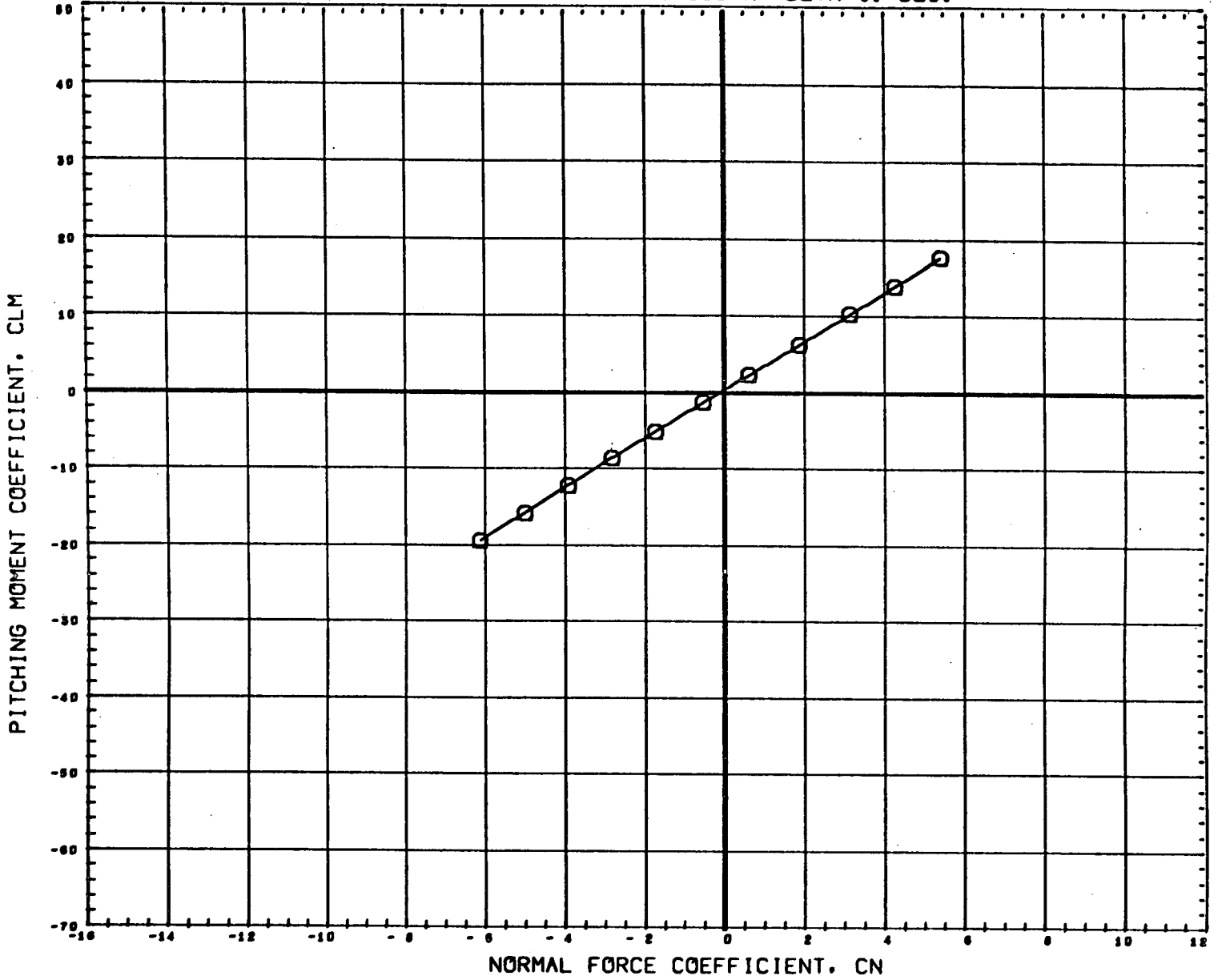


SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.100 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.995 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

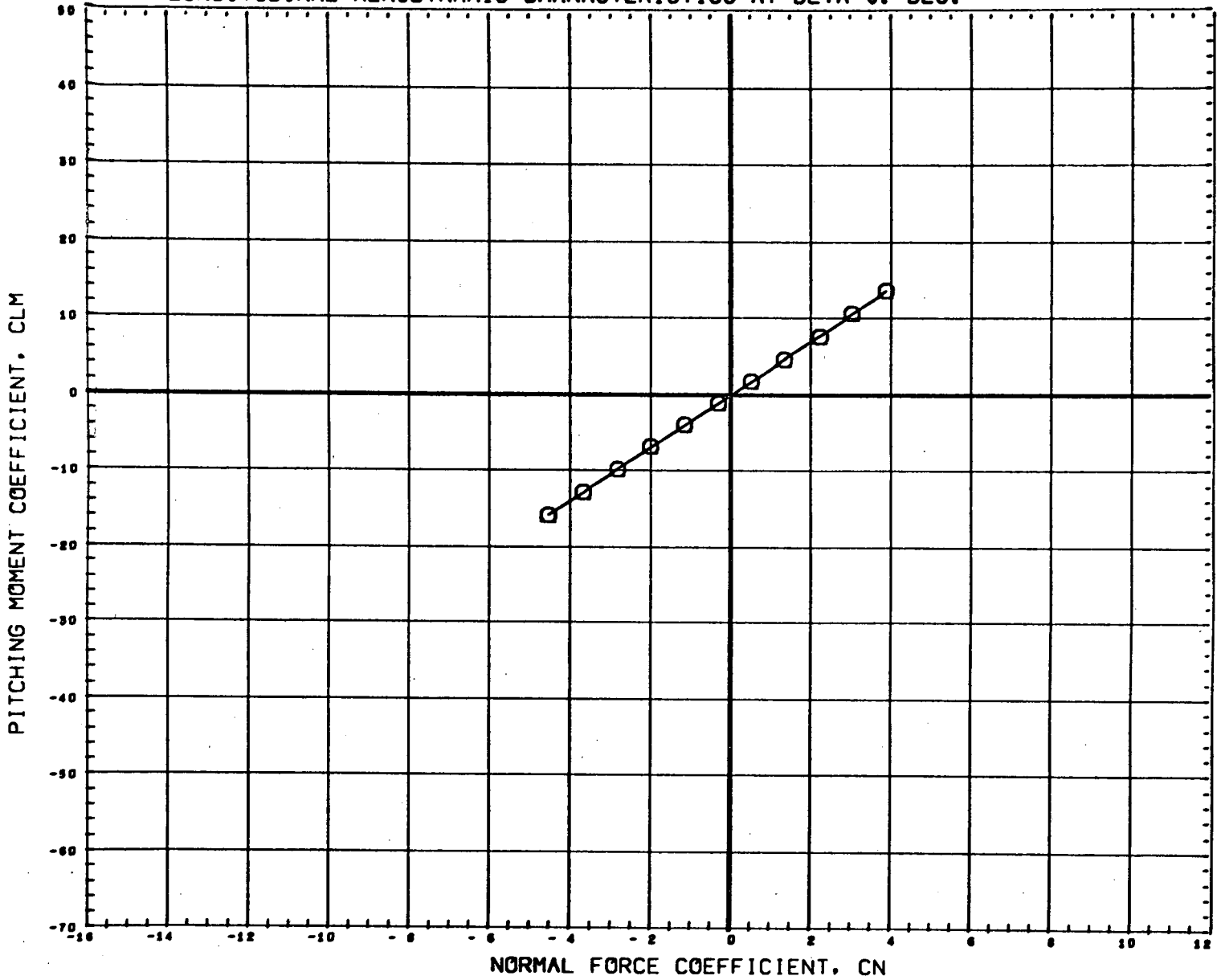
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

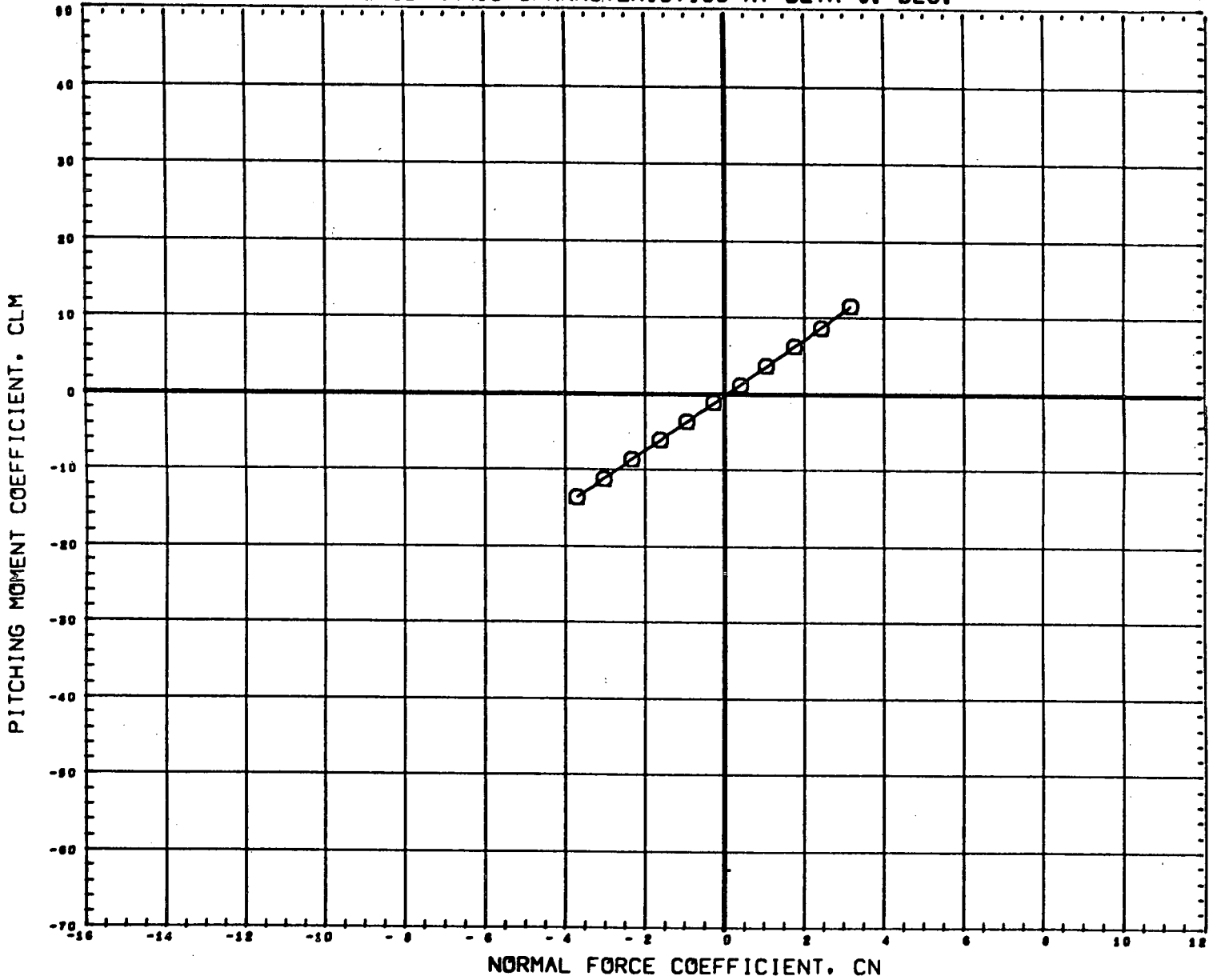


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 DREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

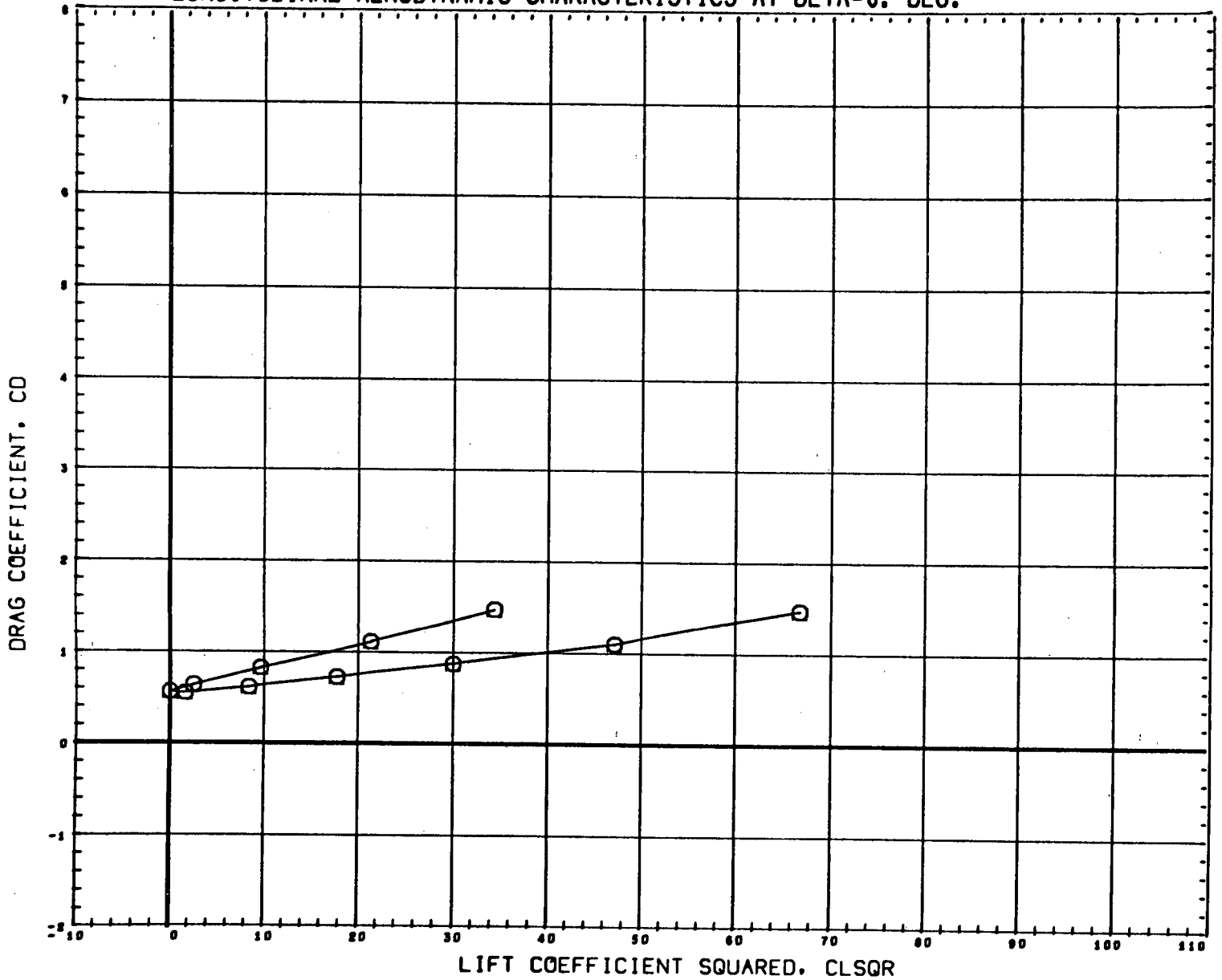


SYMBOL MACH BETA PARAMETRIC VALUES
 O 3.400 0.000

REFERENCE INFORMATION
 SREF 0.9340 90 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

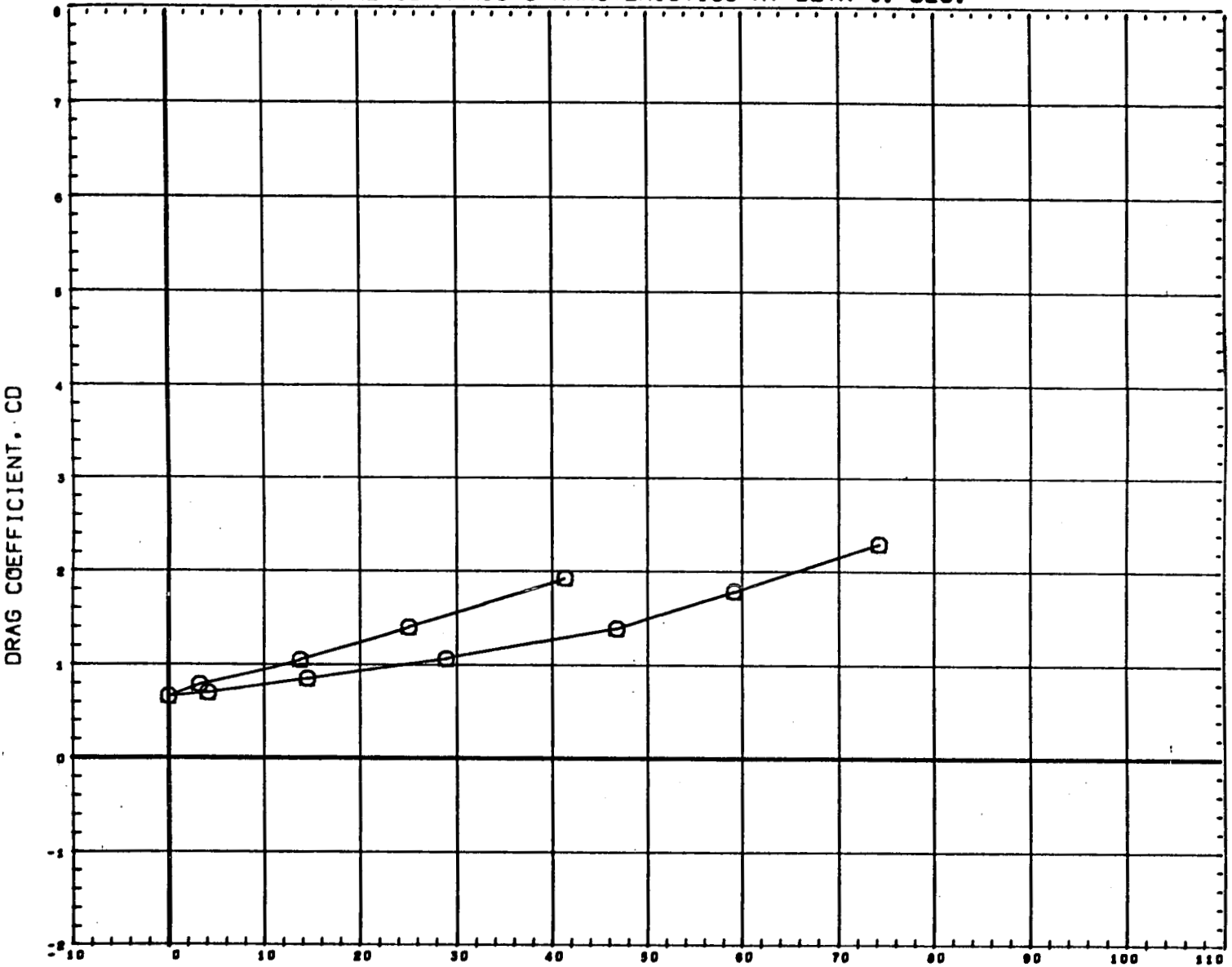


SYMBOL \circ MACH 0.999 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.901 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

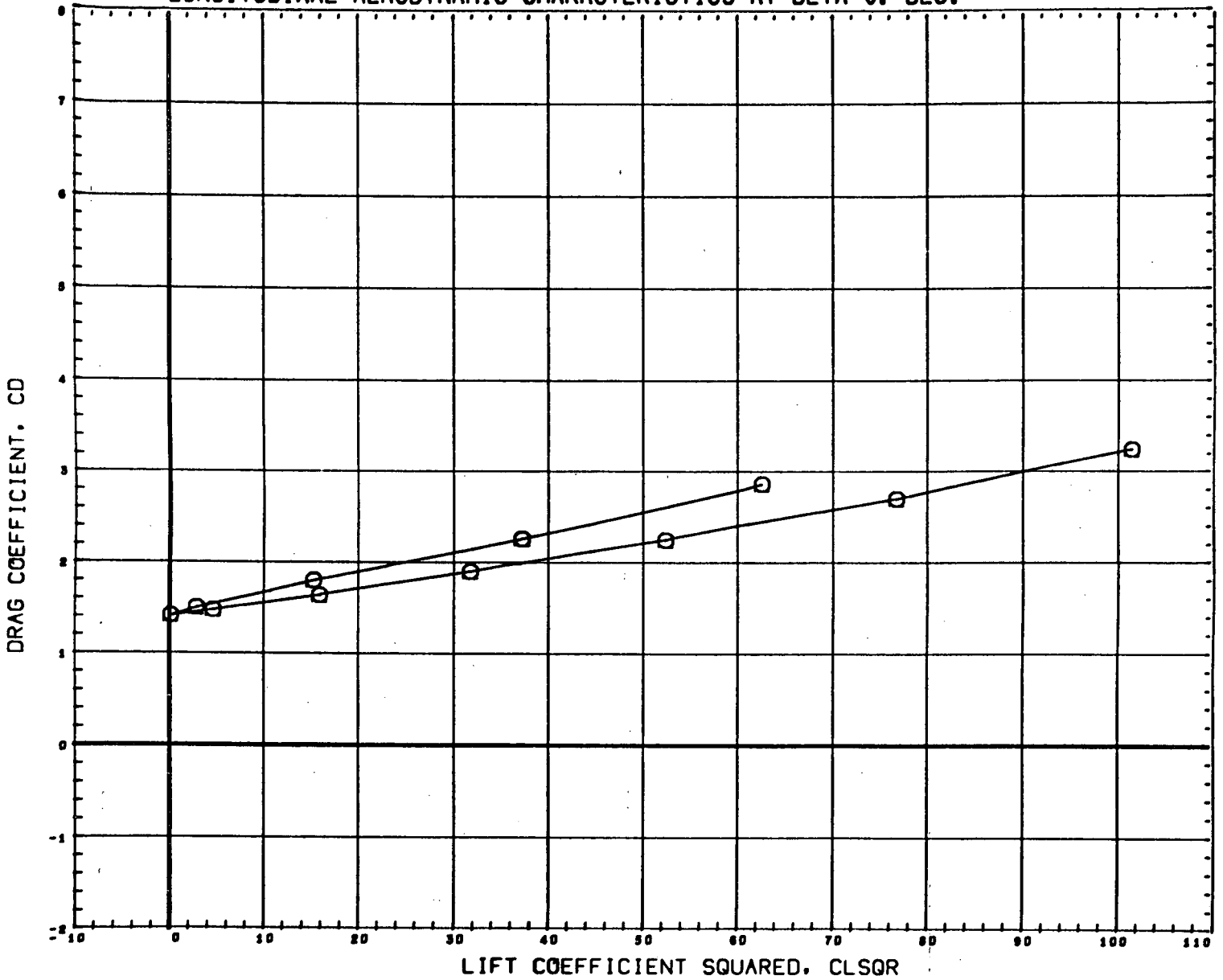
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

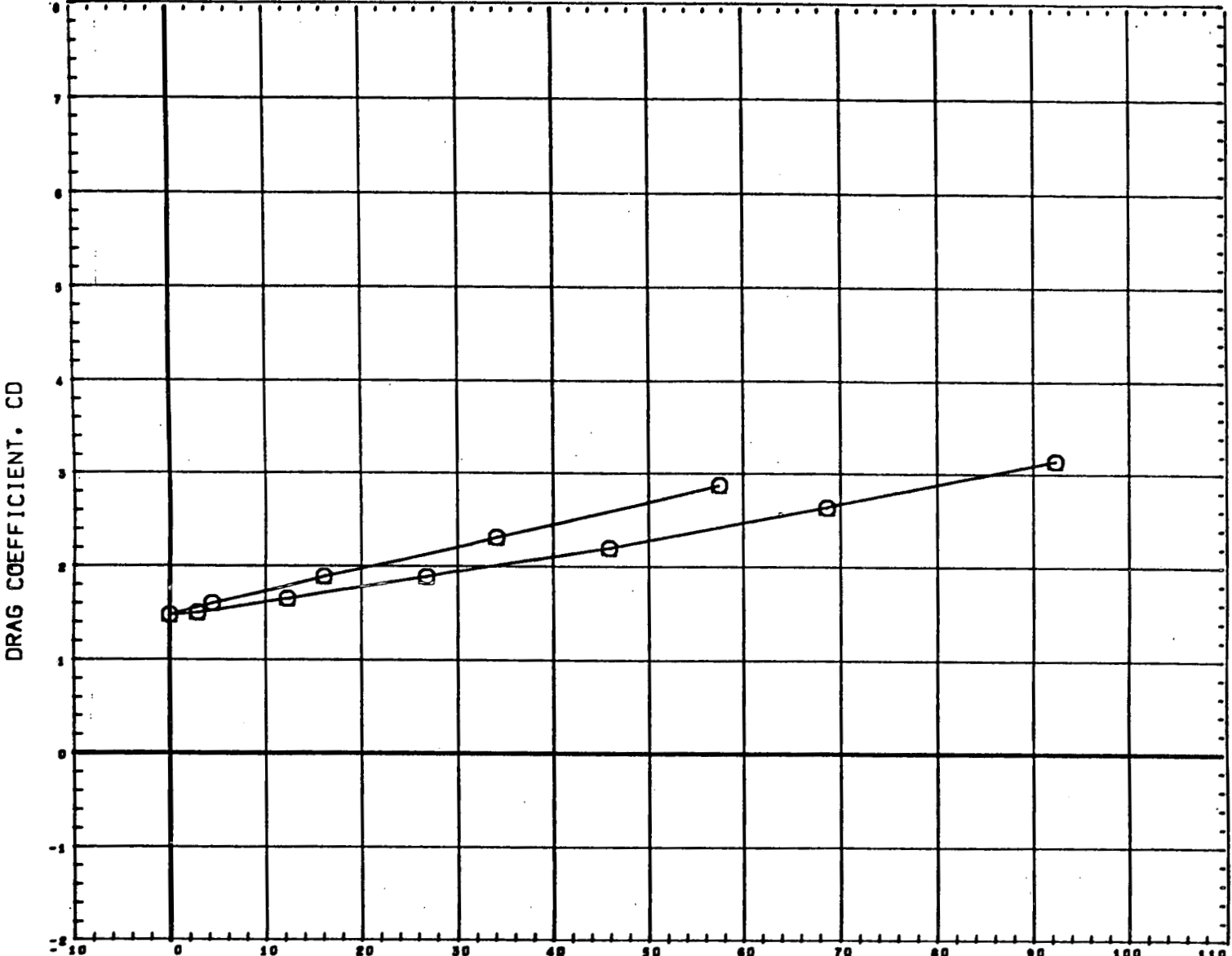


SYMBOL \bigcirc MACH 0.999 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 8.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

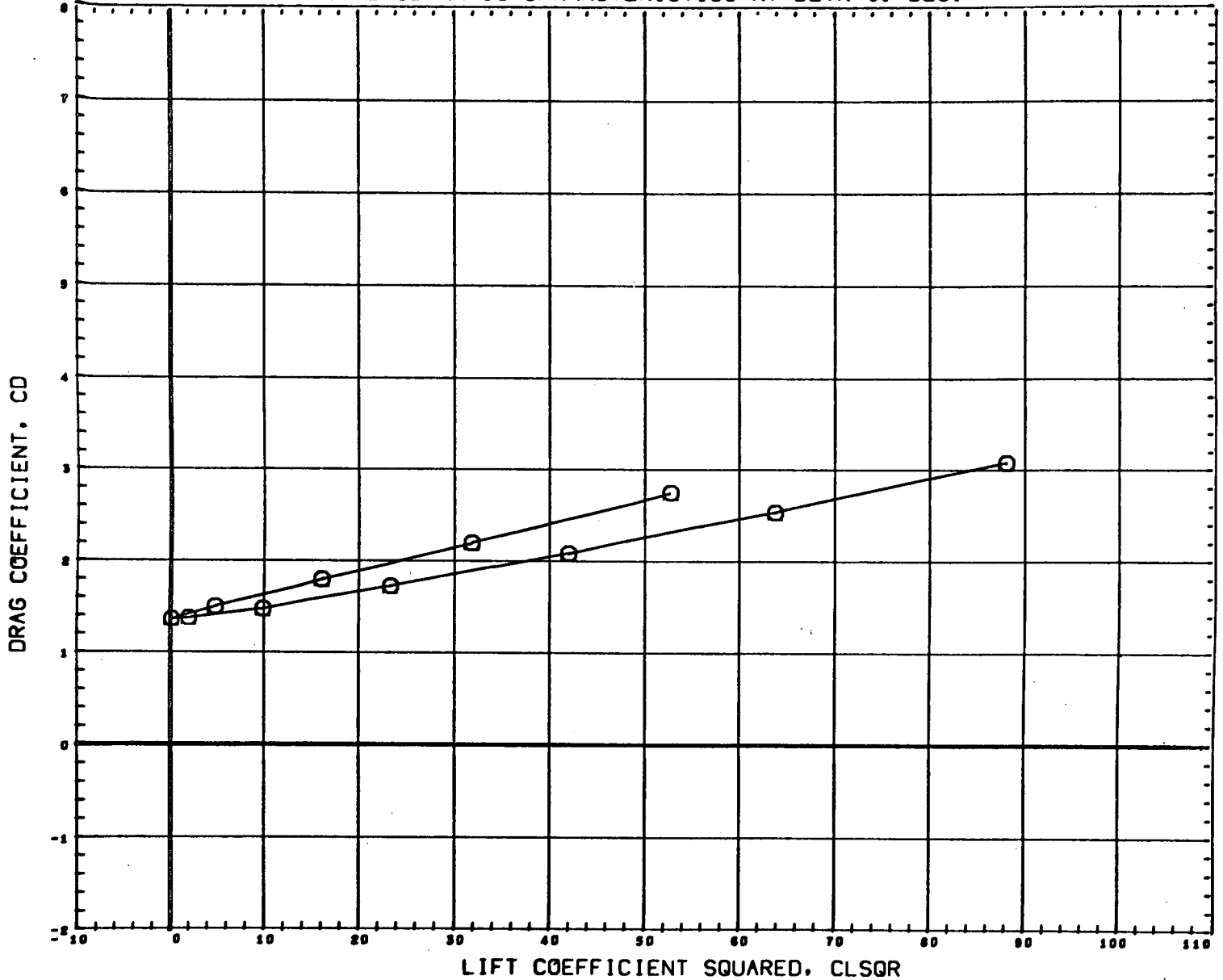


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.099 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

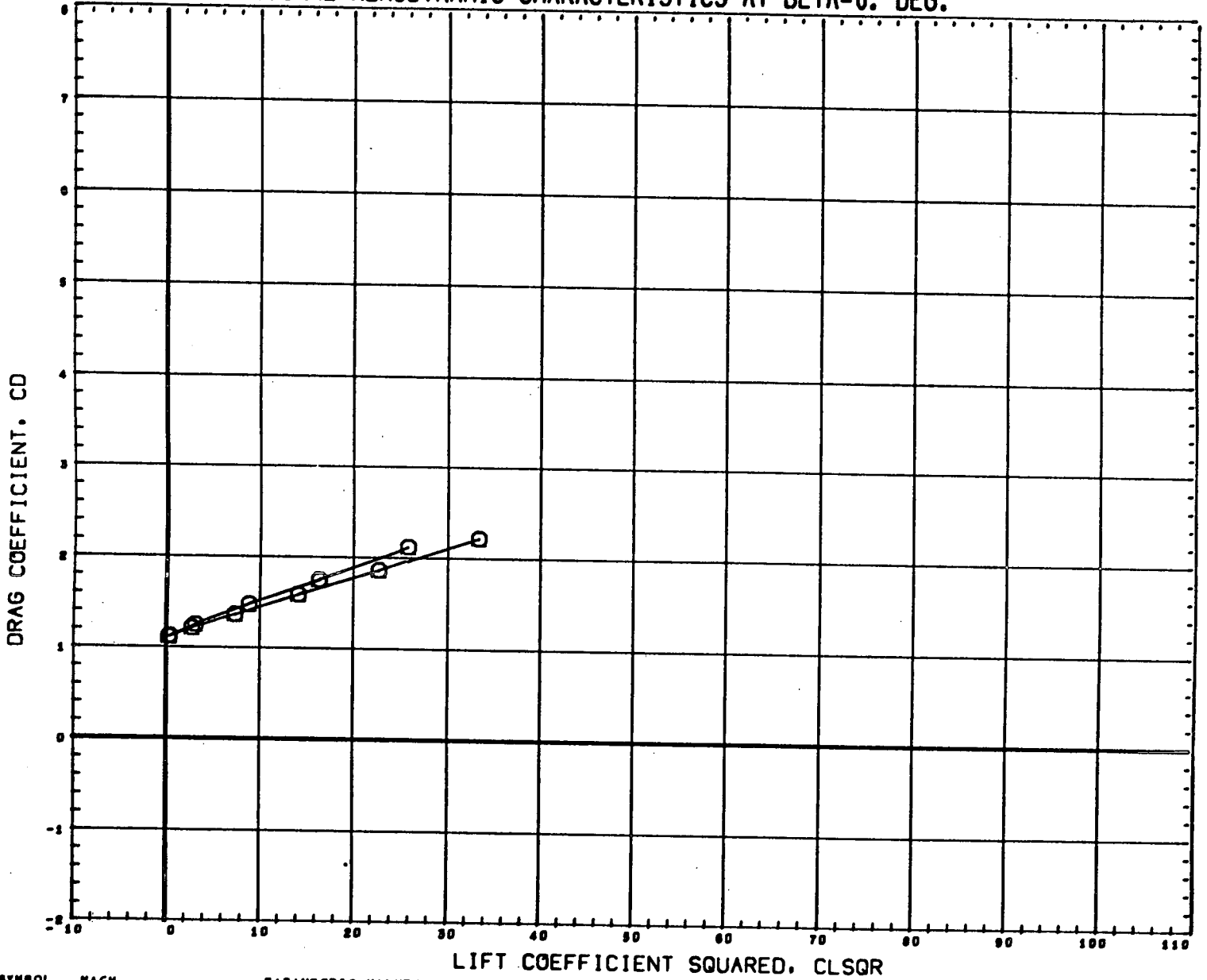


SYMBOL \circ MACH 1.198 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XWRP 2.9170 IN TII
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.955 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

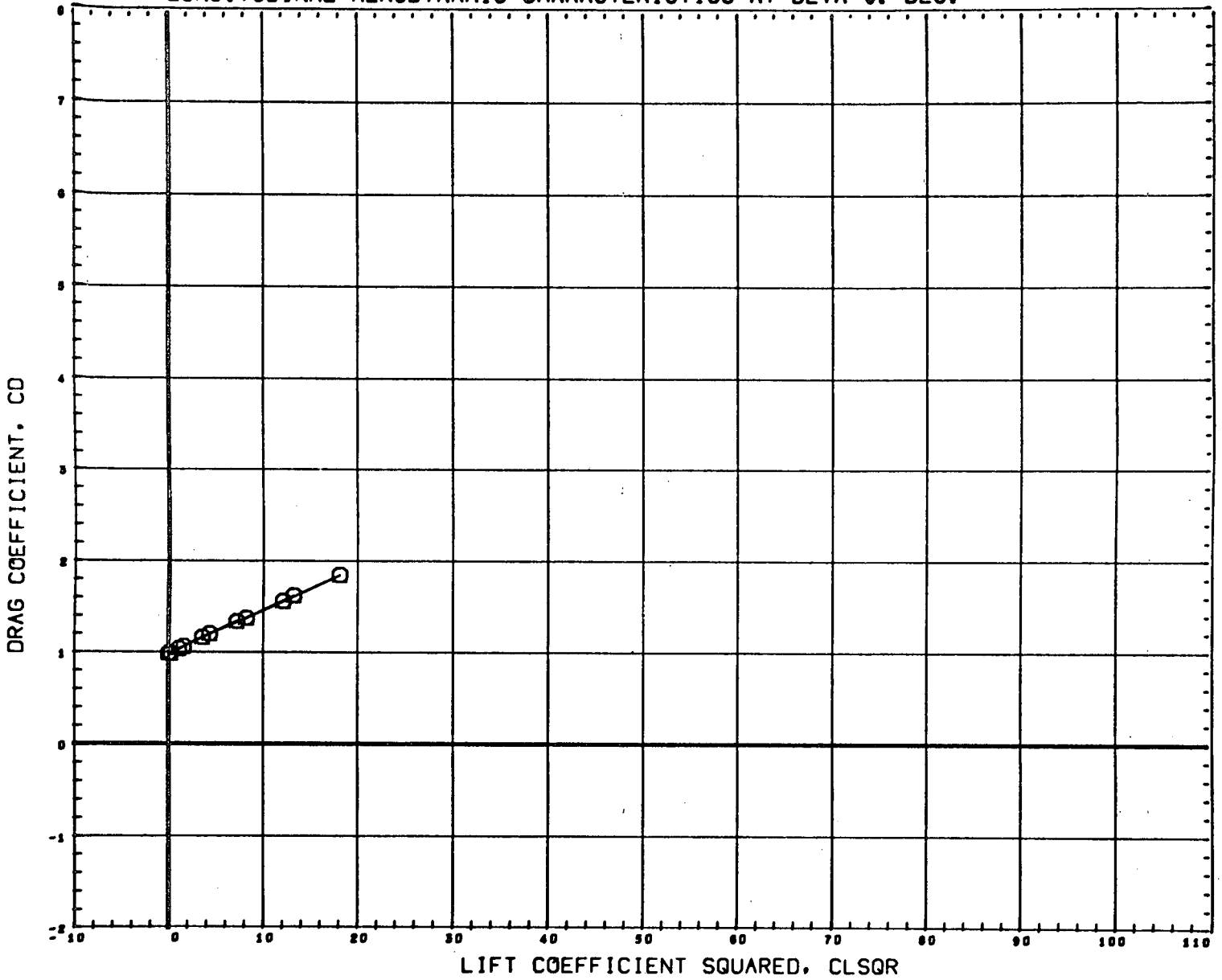
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

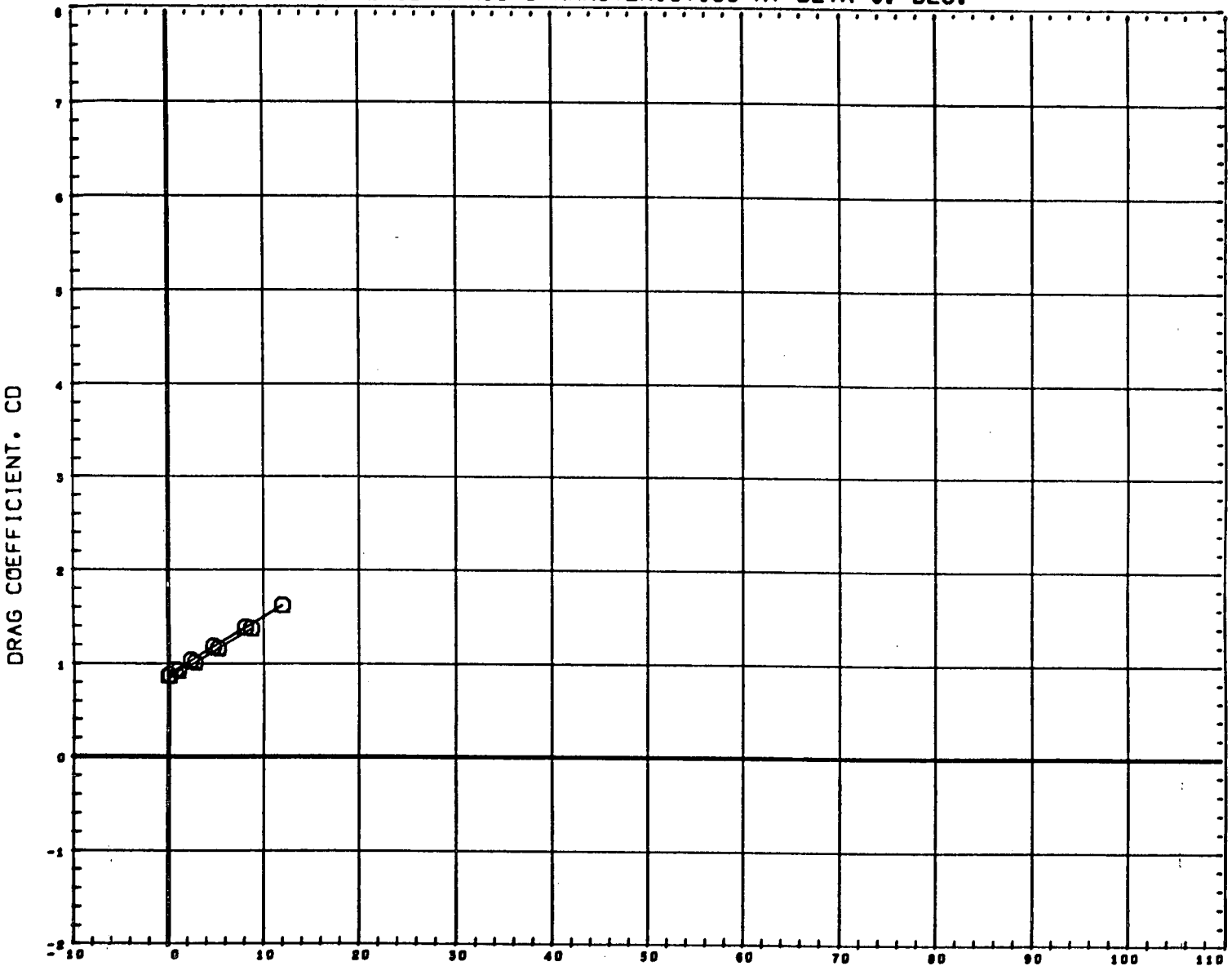


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 2.740 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

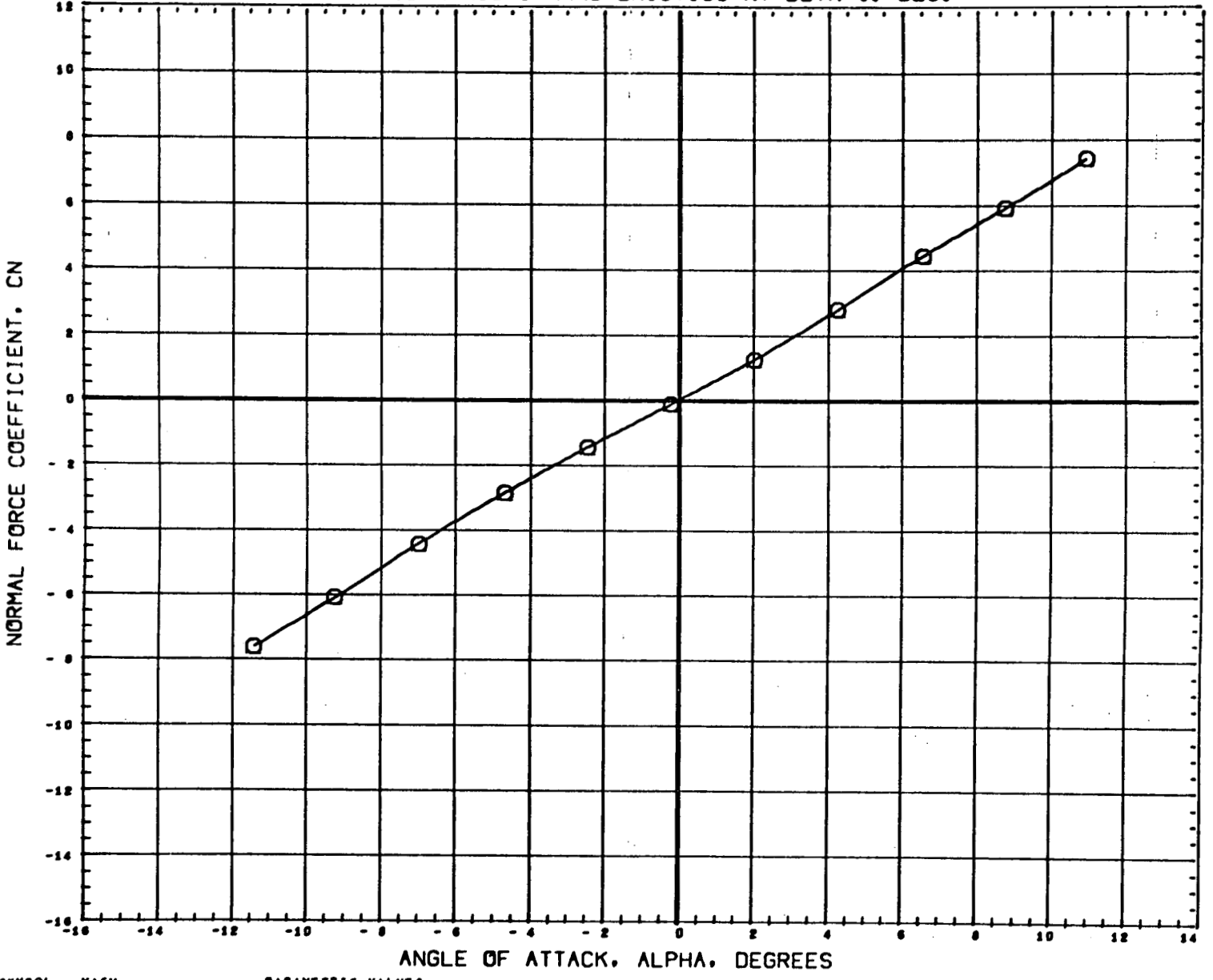


SYMBOL \circ MACH 9.400 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

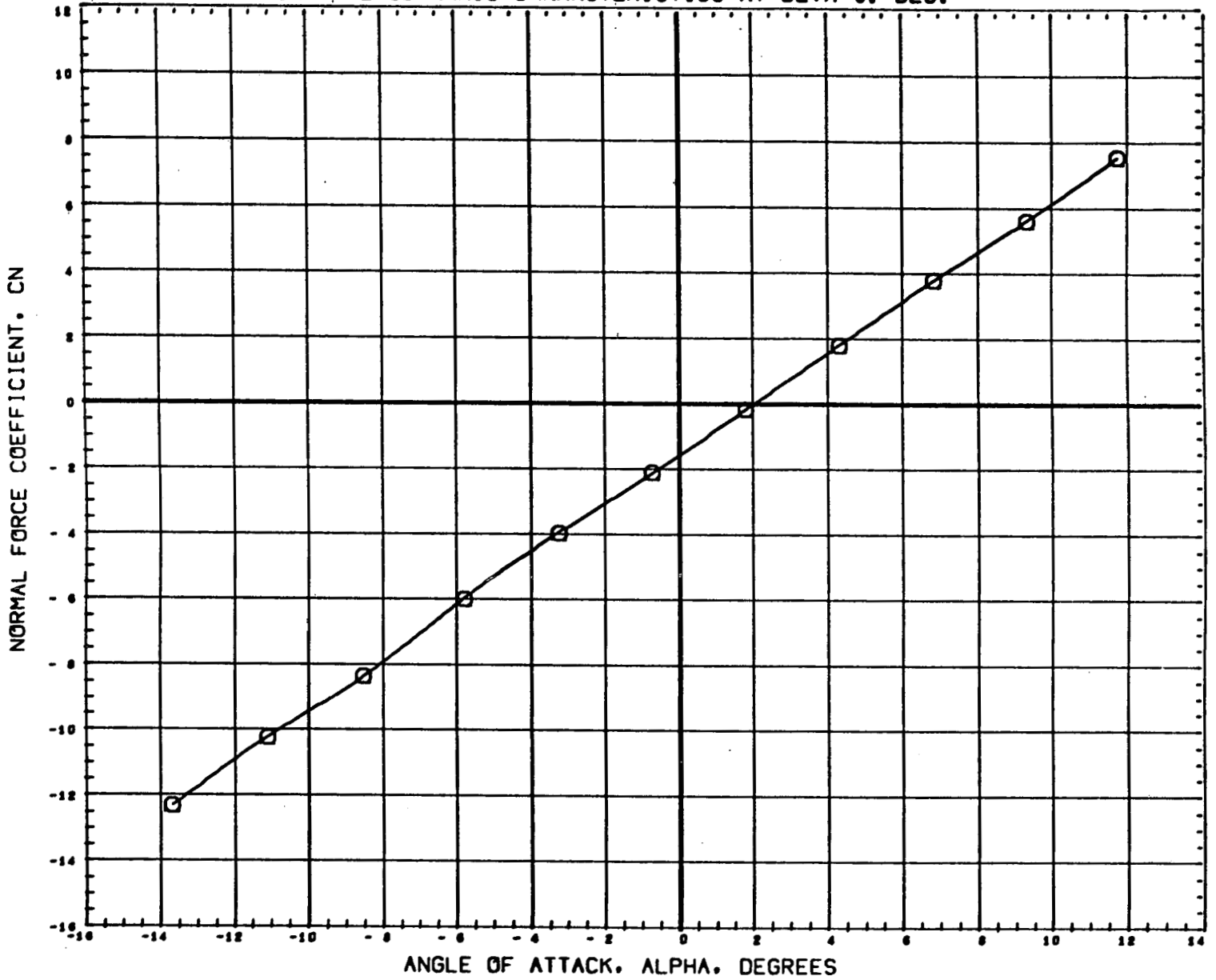


SYMBOL \bigcirc MACH 0.599 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN YII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.095 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

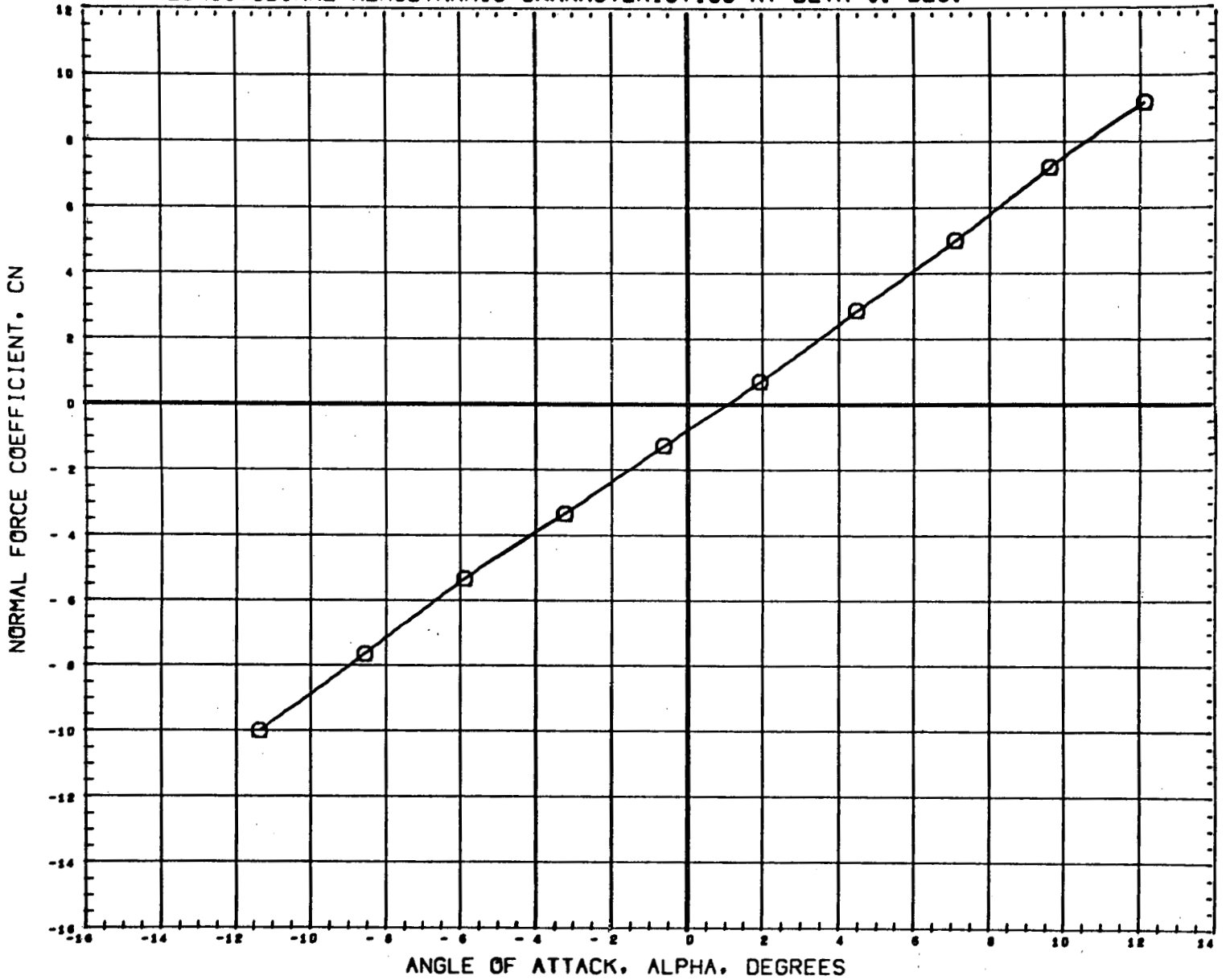
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.000 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

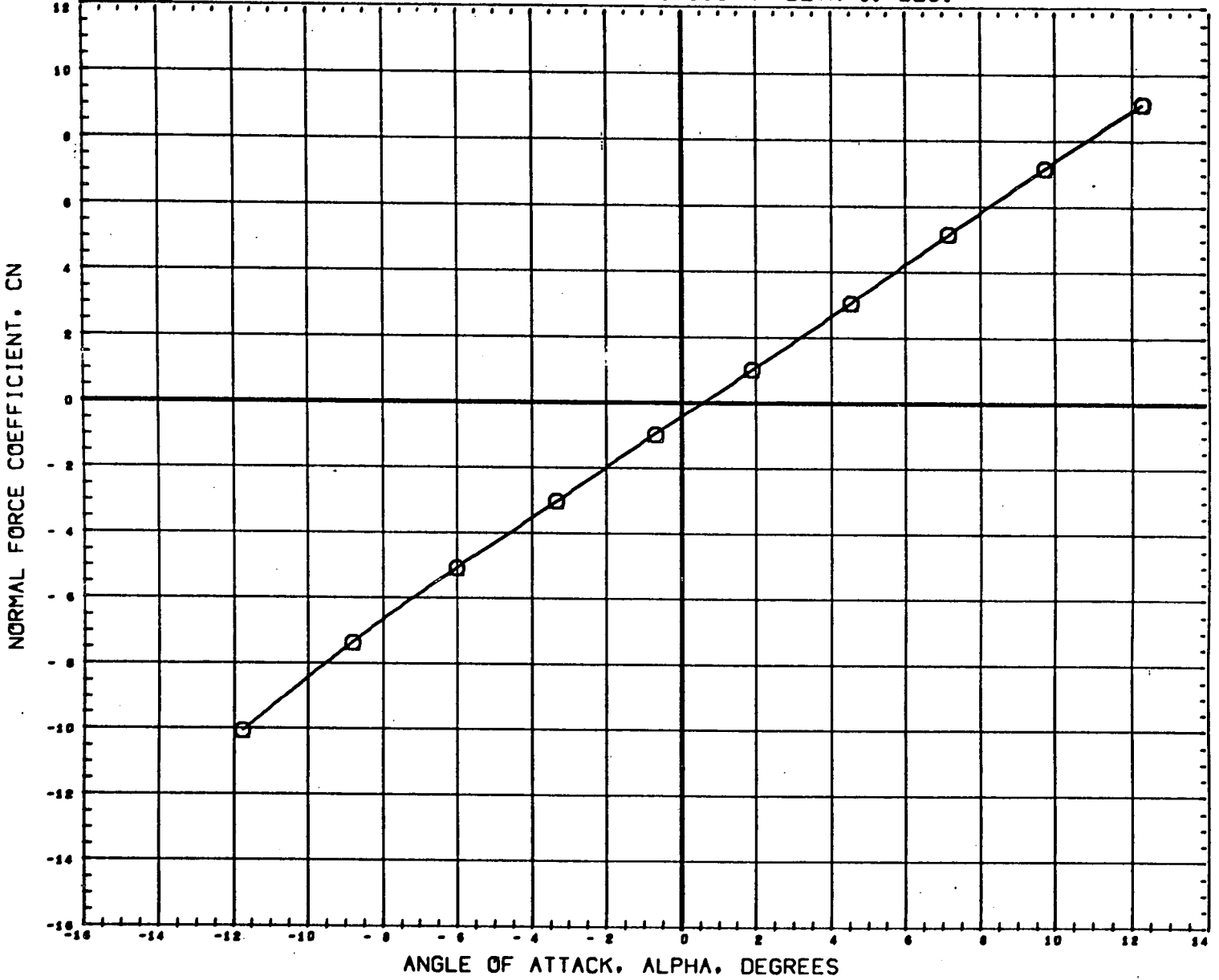
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.099 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

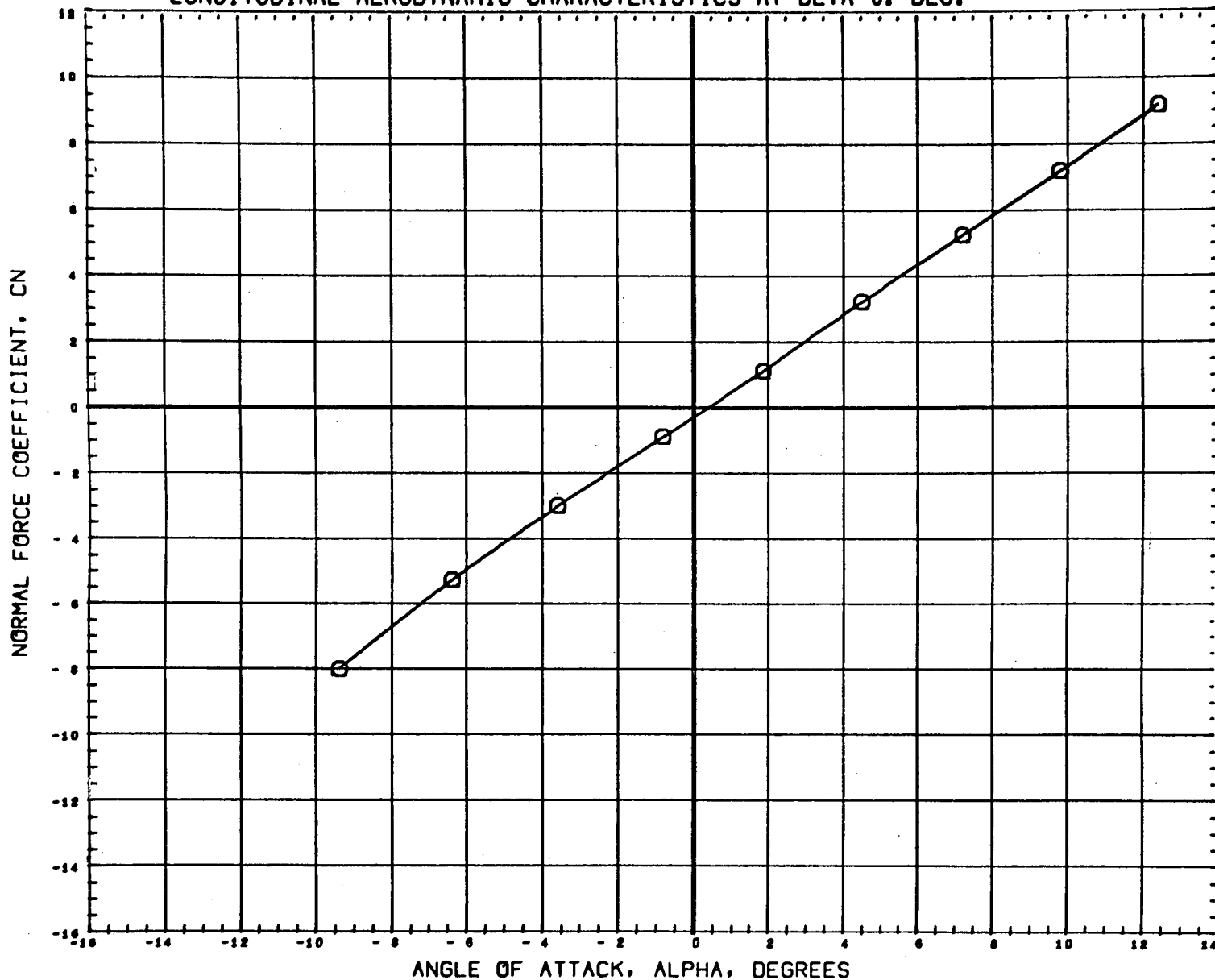
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.197 0.000

REFERENCE INFORMATION

SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

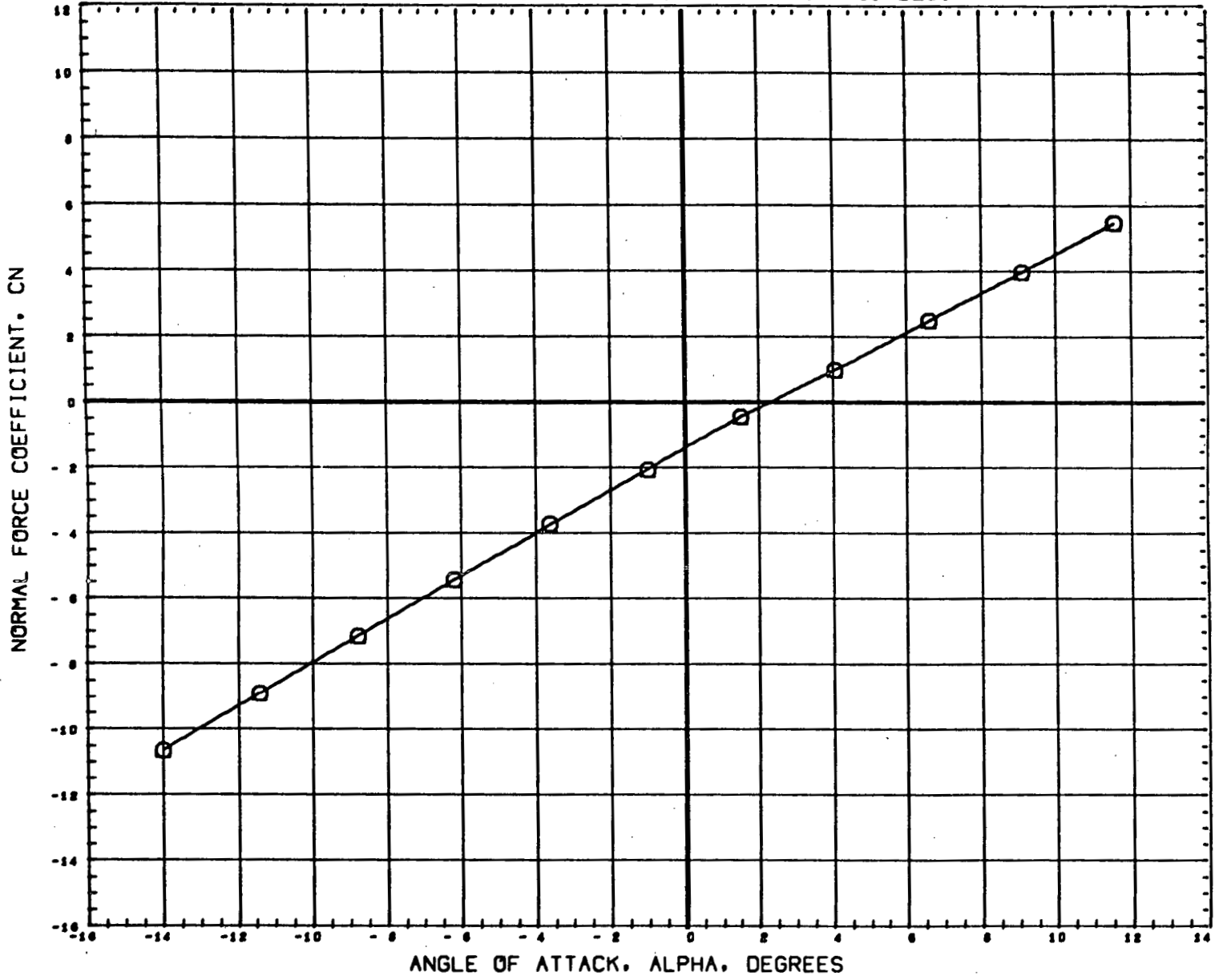
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

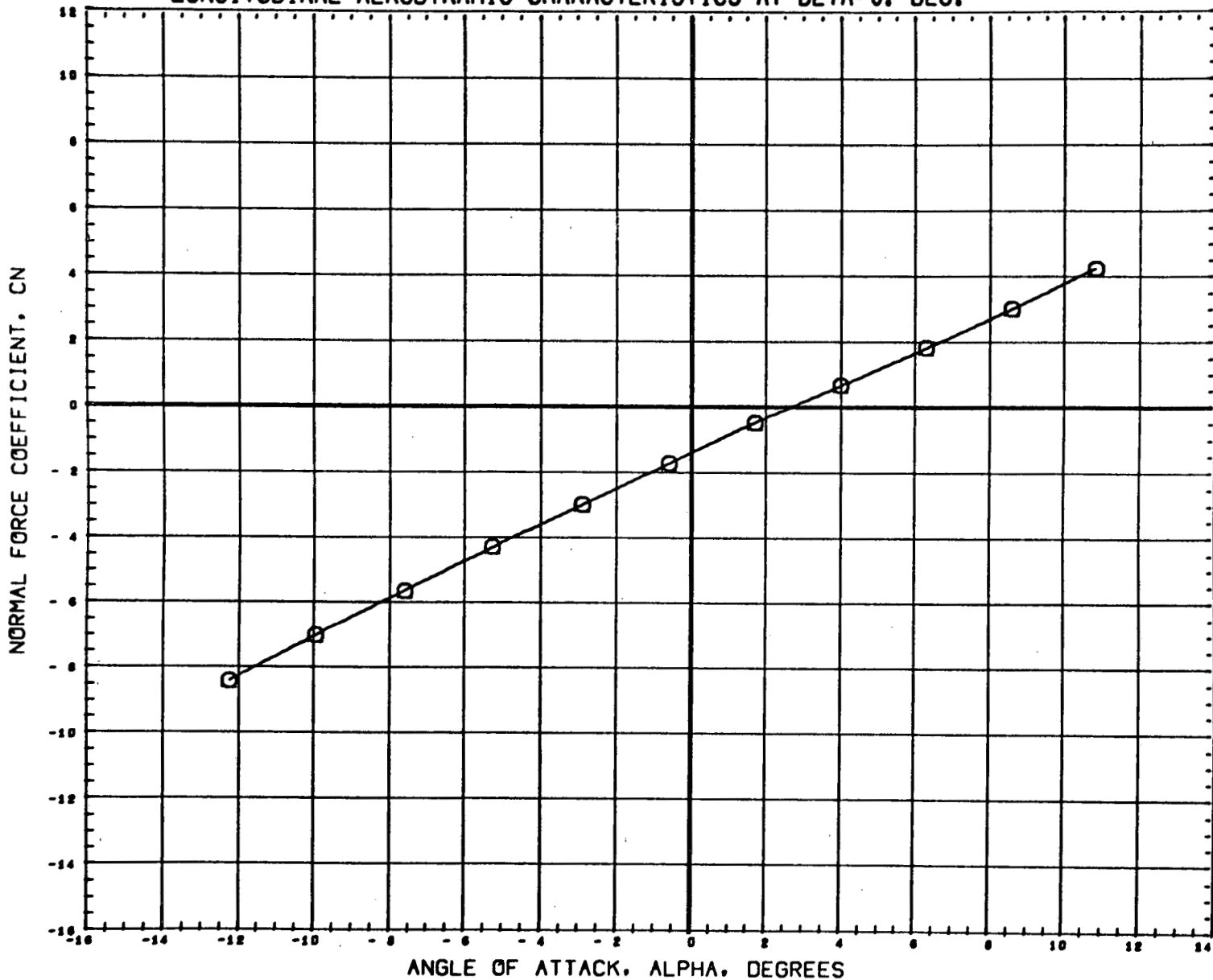


SYMBOL MACH PARAMETRIC VALUES
 O 2.740 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XWRP 2.9170 IN T11
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

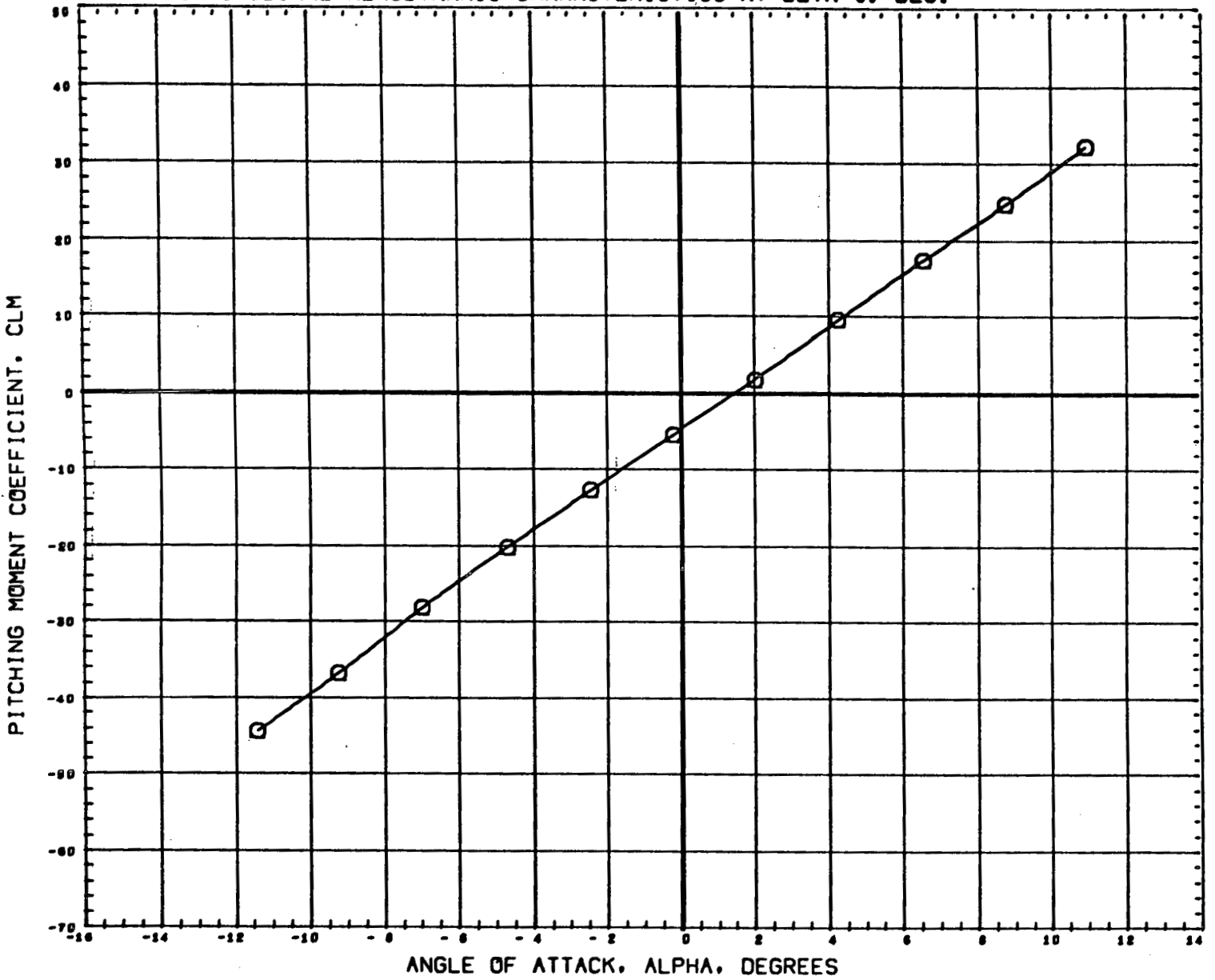


SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.5340	88. INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

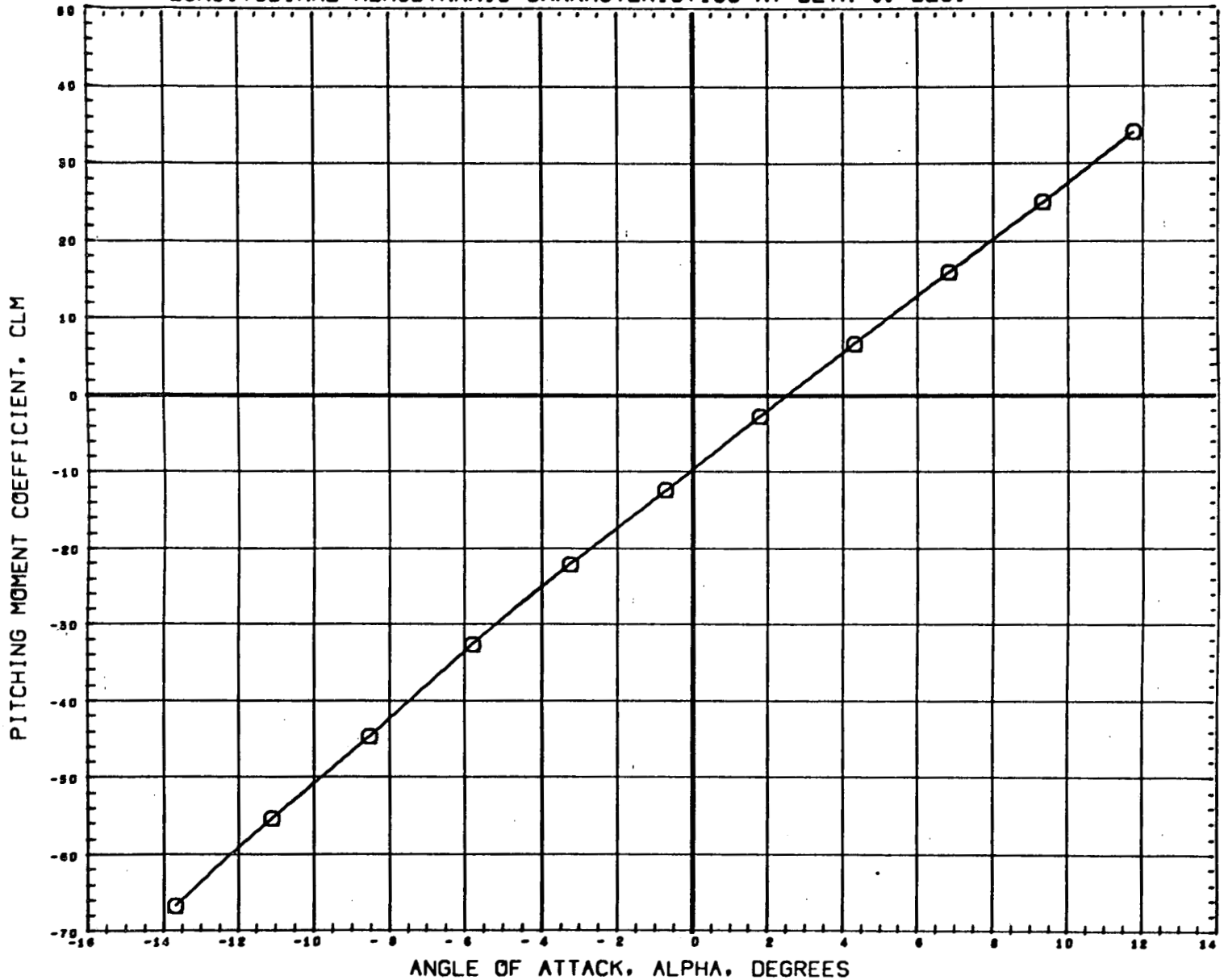


SYMBOL \circ MACH 0.999 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 90 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE VSE

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

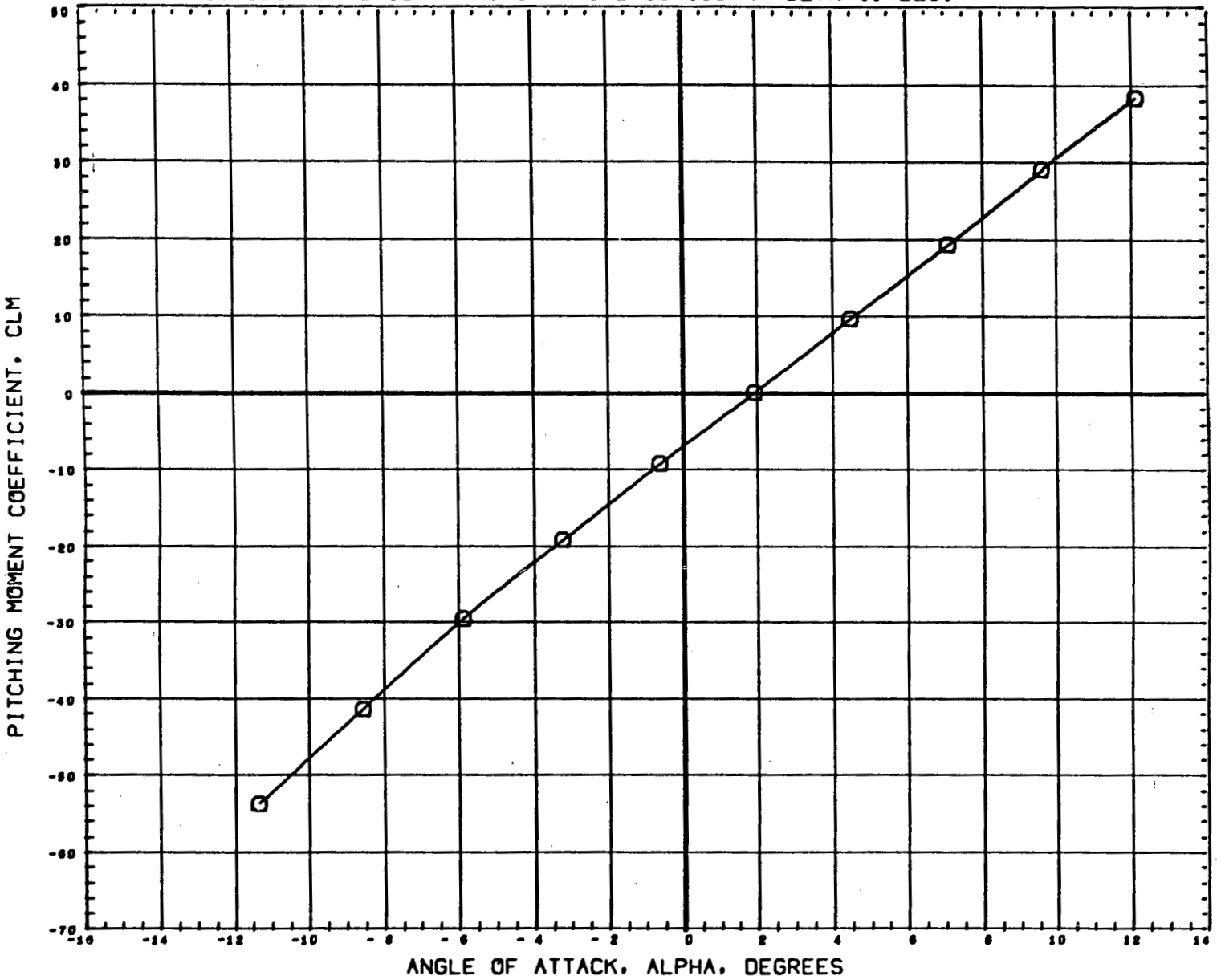


SYMBOL \circ MACH 0.095 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

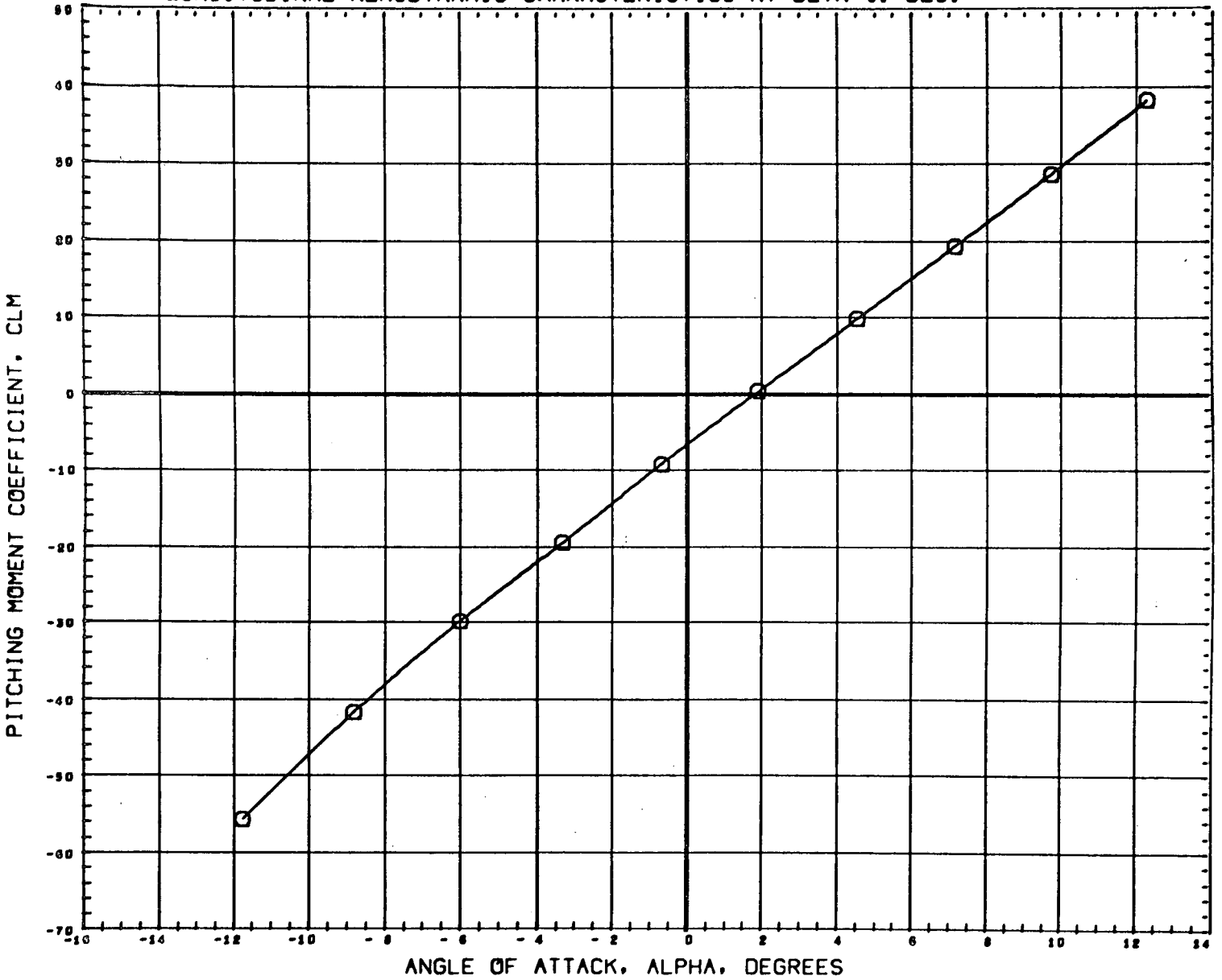


SYMBOL \circ MACH 1.000 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

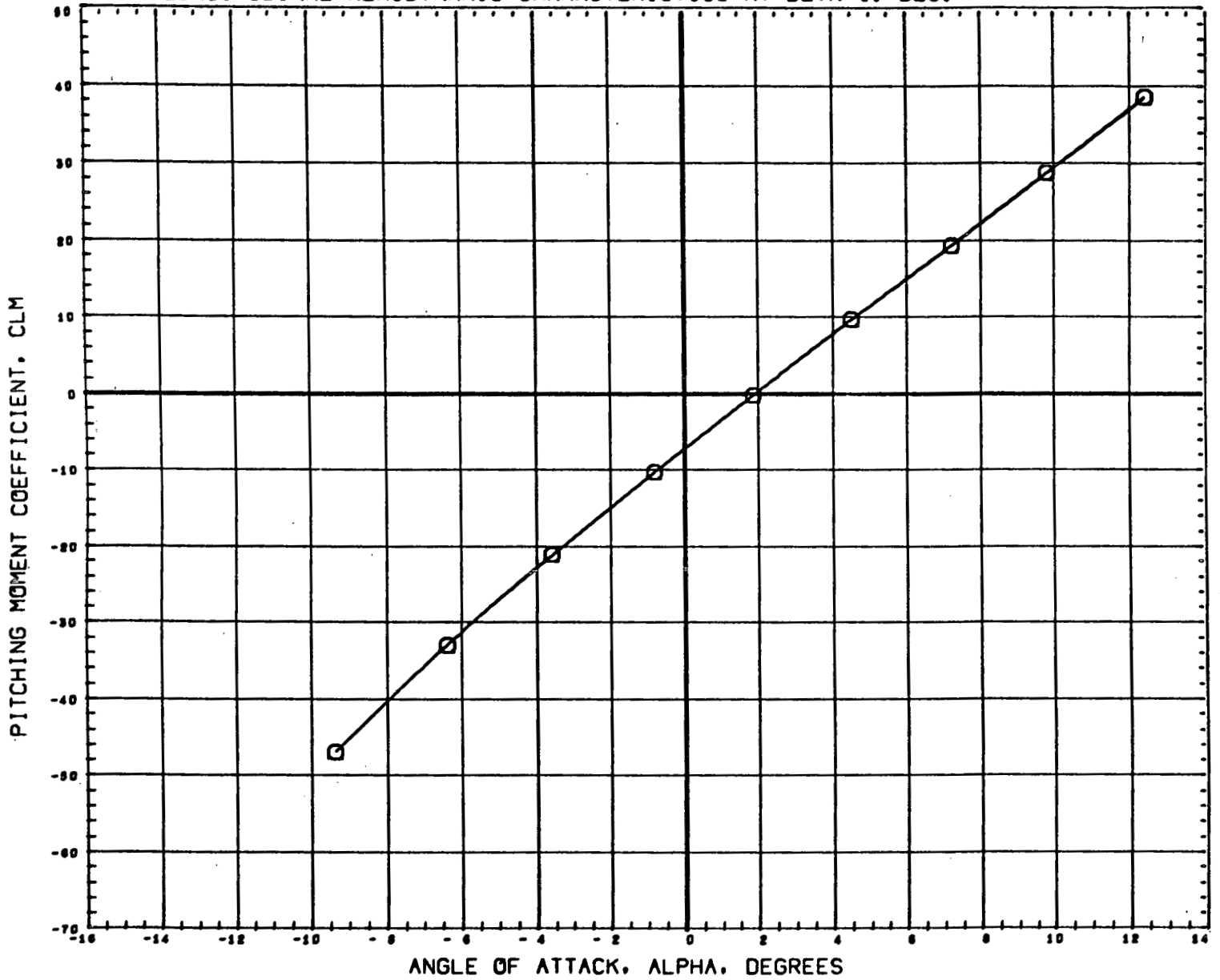


SYMBOL \circ MACH 1.090 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

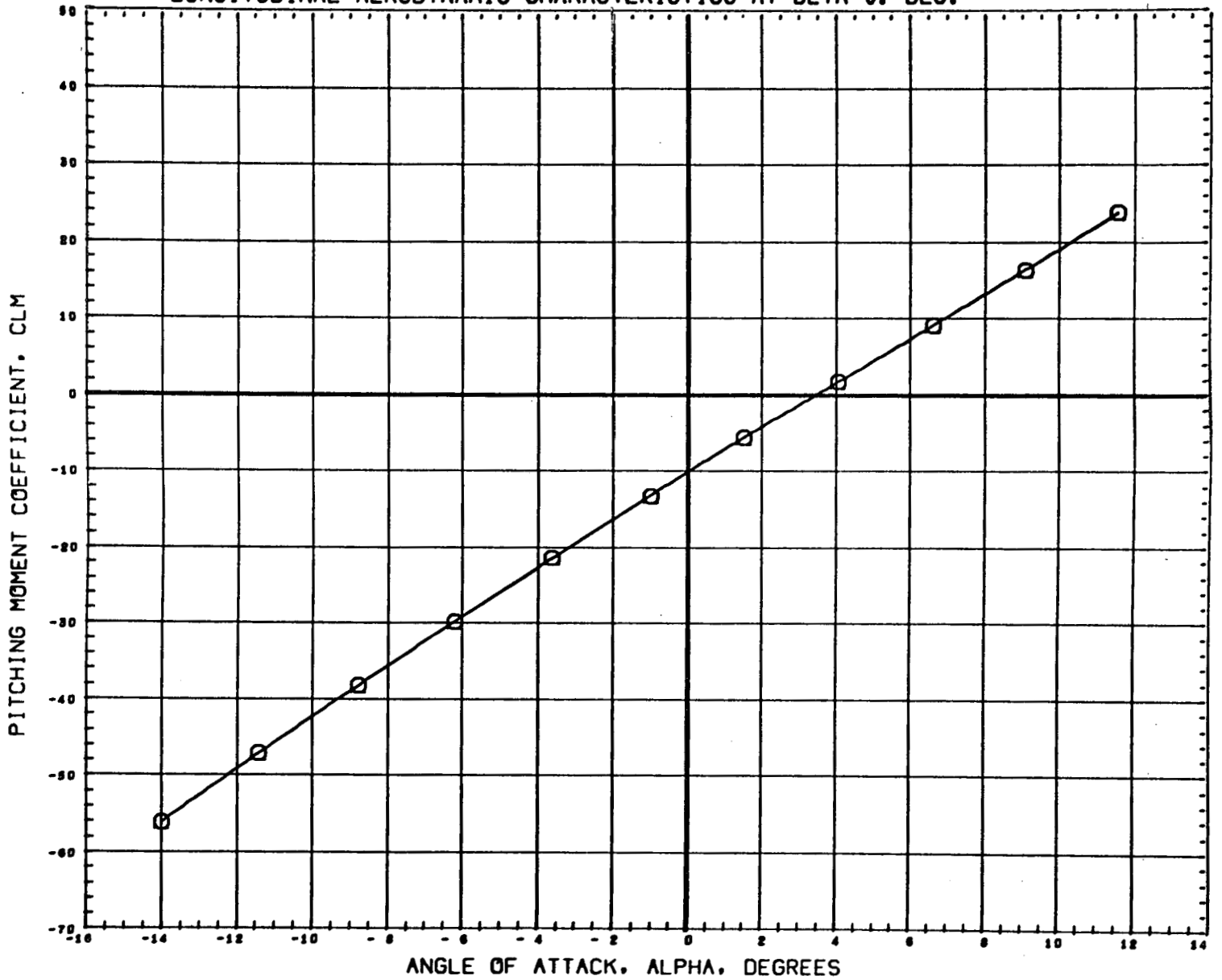


SYMBOL MACH PARAMETRIC VALUES
 O 1.197 BETA 0.000

REFERENCE INFORMATION
 SREF 0.3340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.3340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
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 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

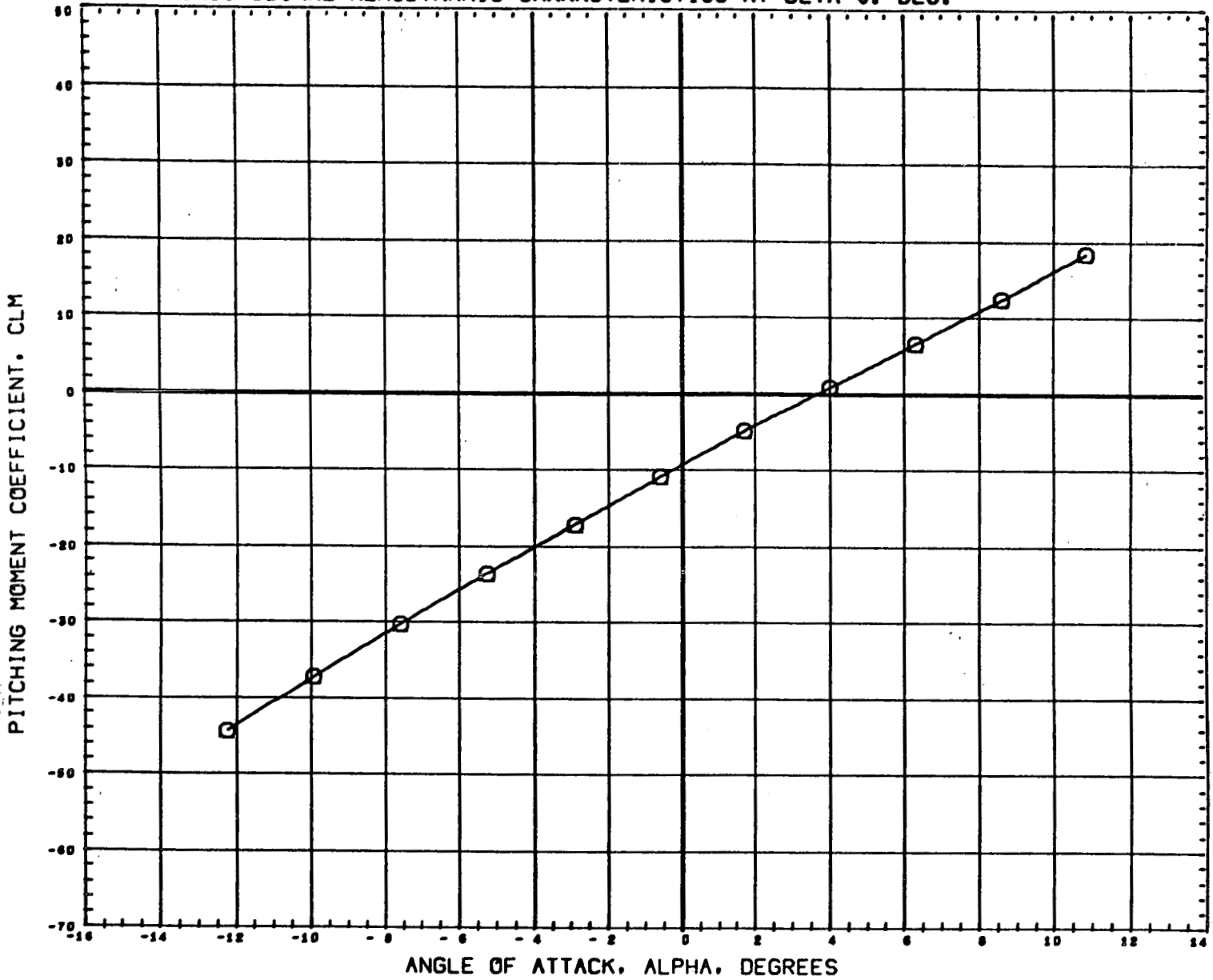
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

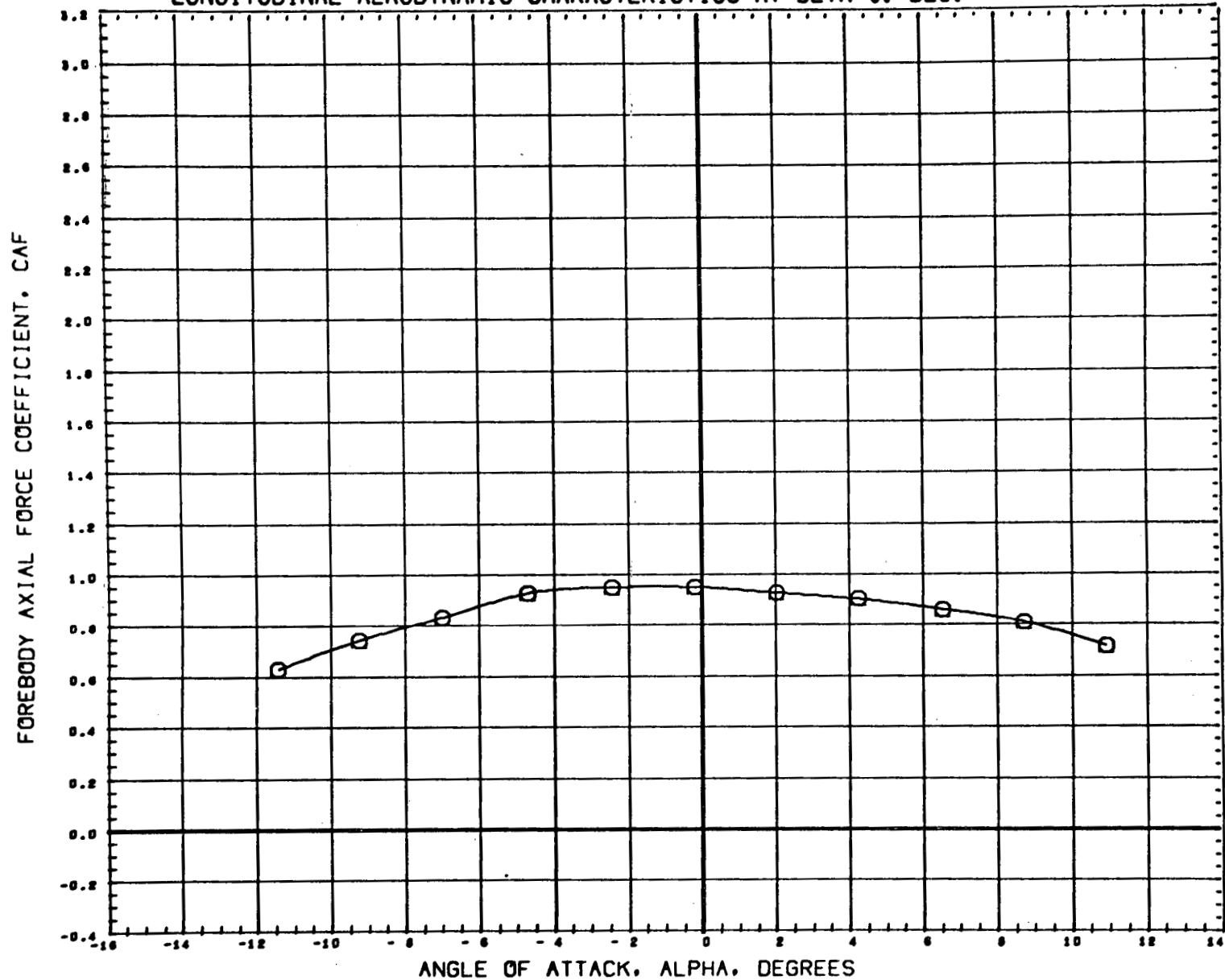


SYMBOL \circ MACH 3.480 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

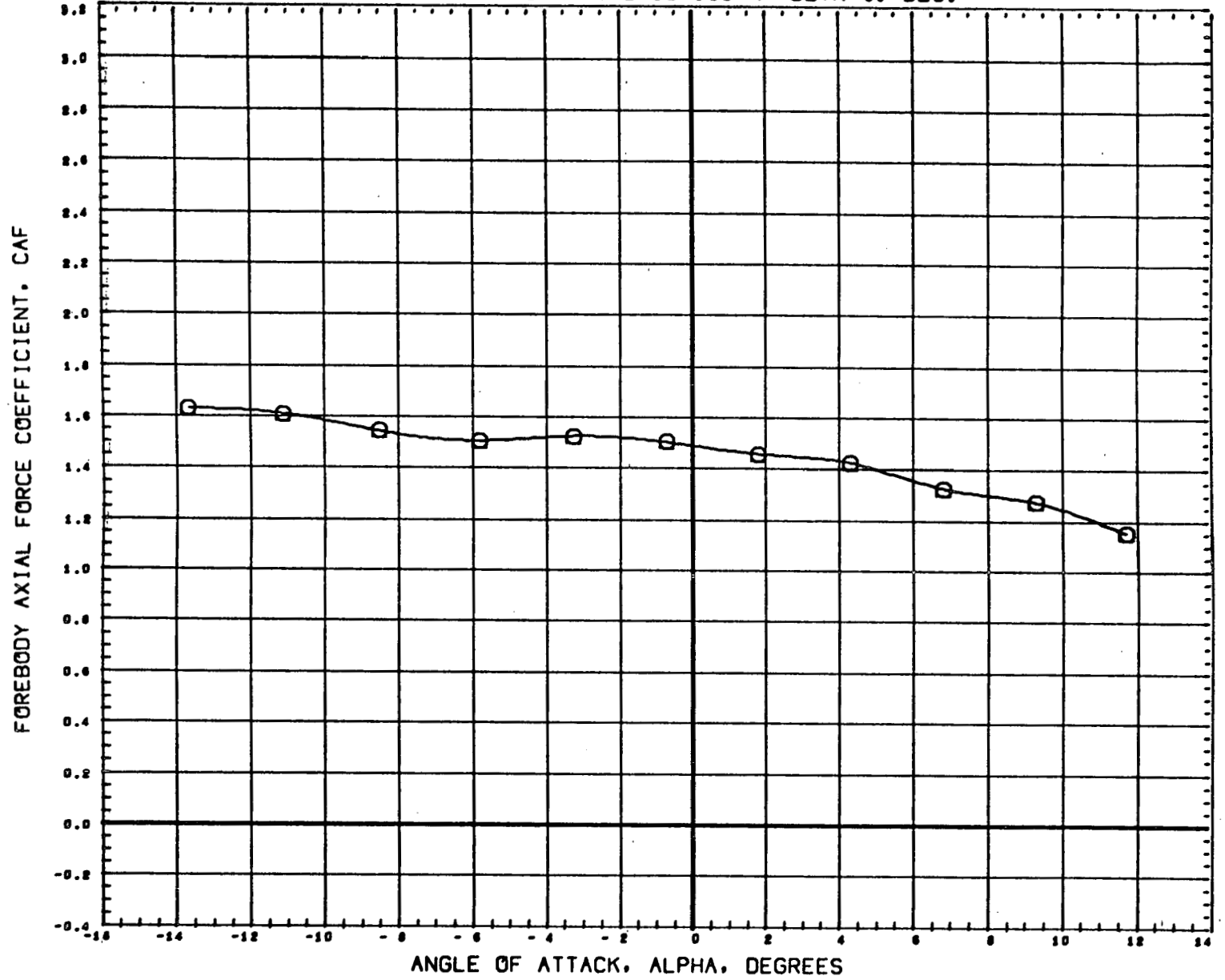


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.999 0.000 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

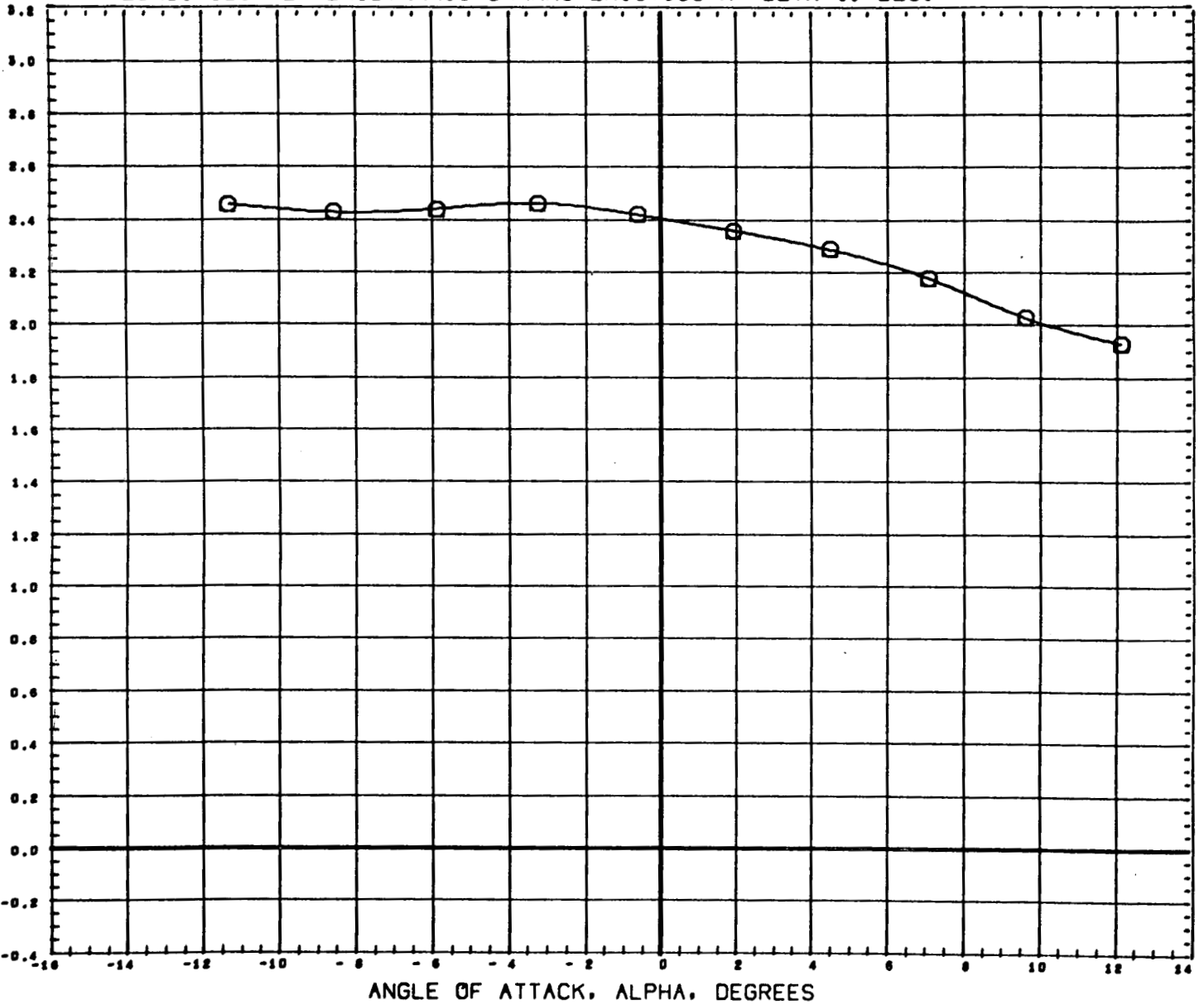


SYMBOL \bigcirc MACH 0.085 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



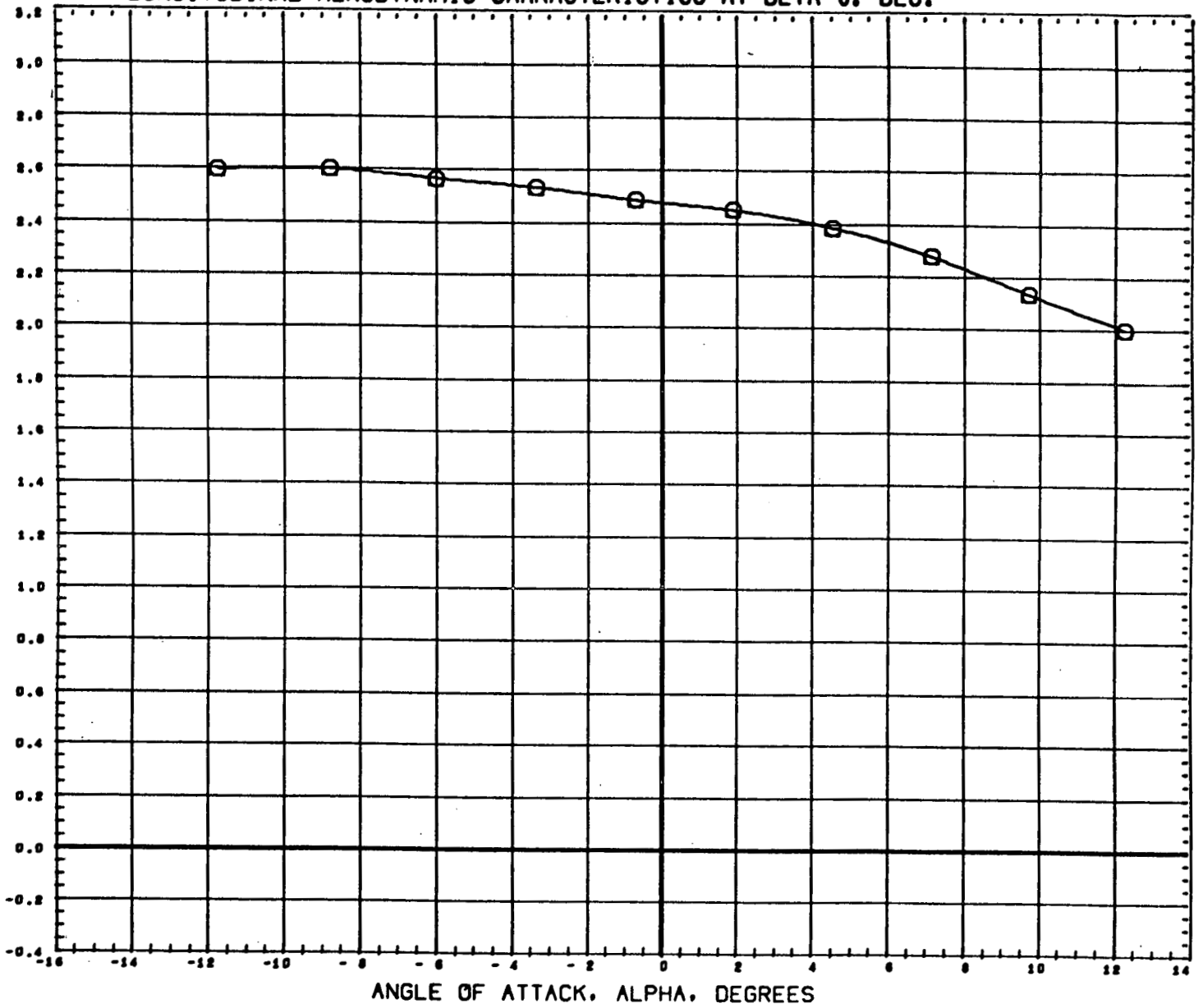
SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.000 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.099 0.000

REFERENCE INFORMATION

SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V9E

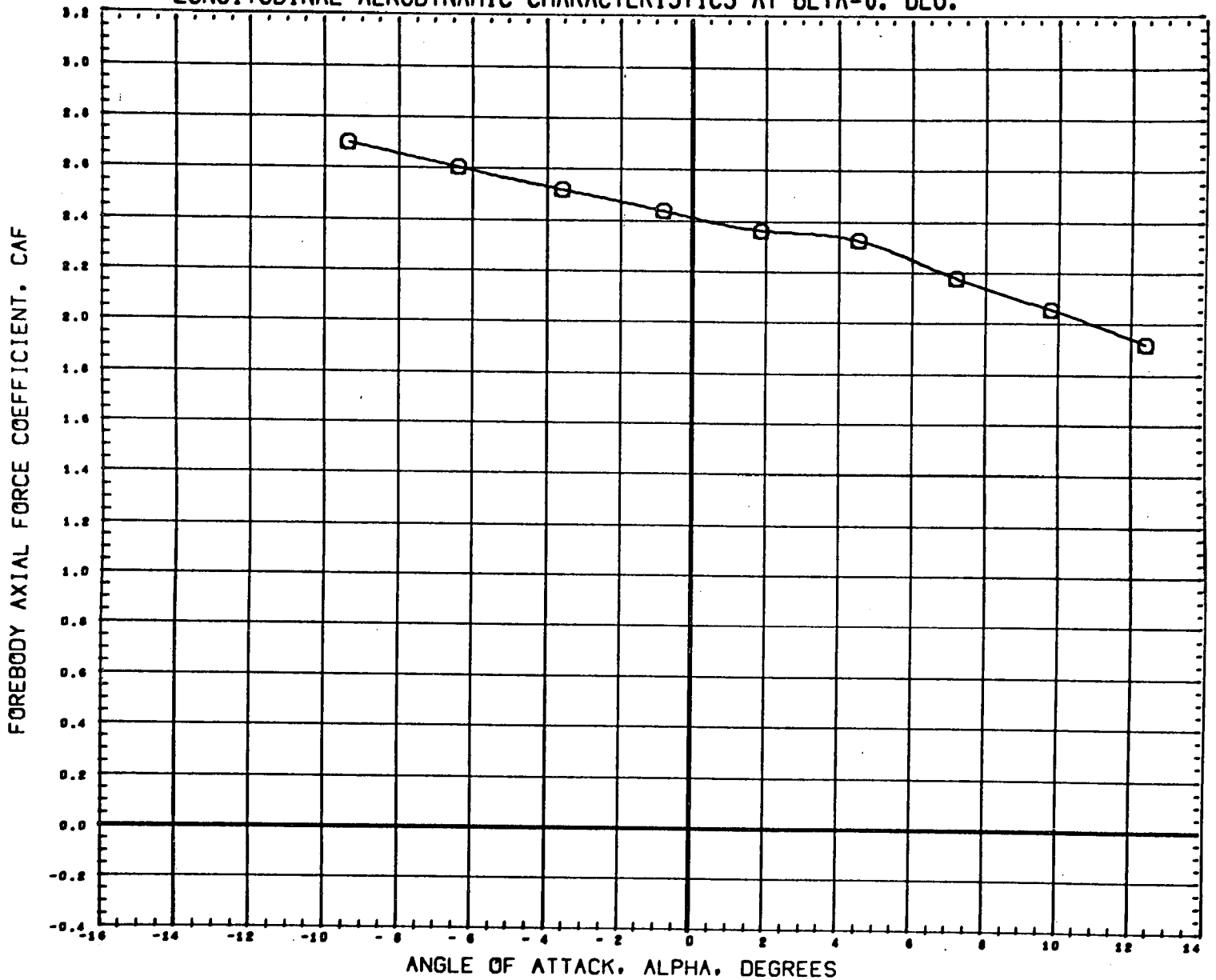
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.197 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XWRP 2.9170 IN TII
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

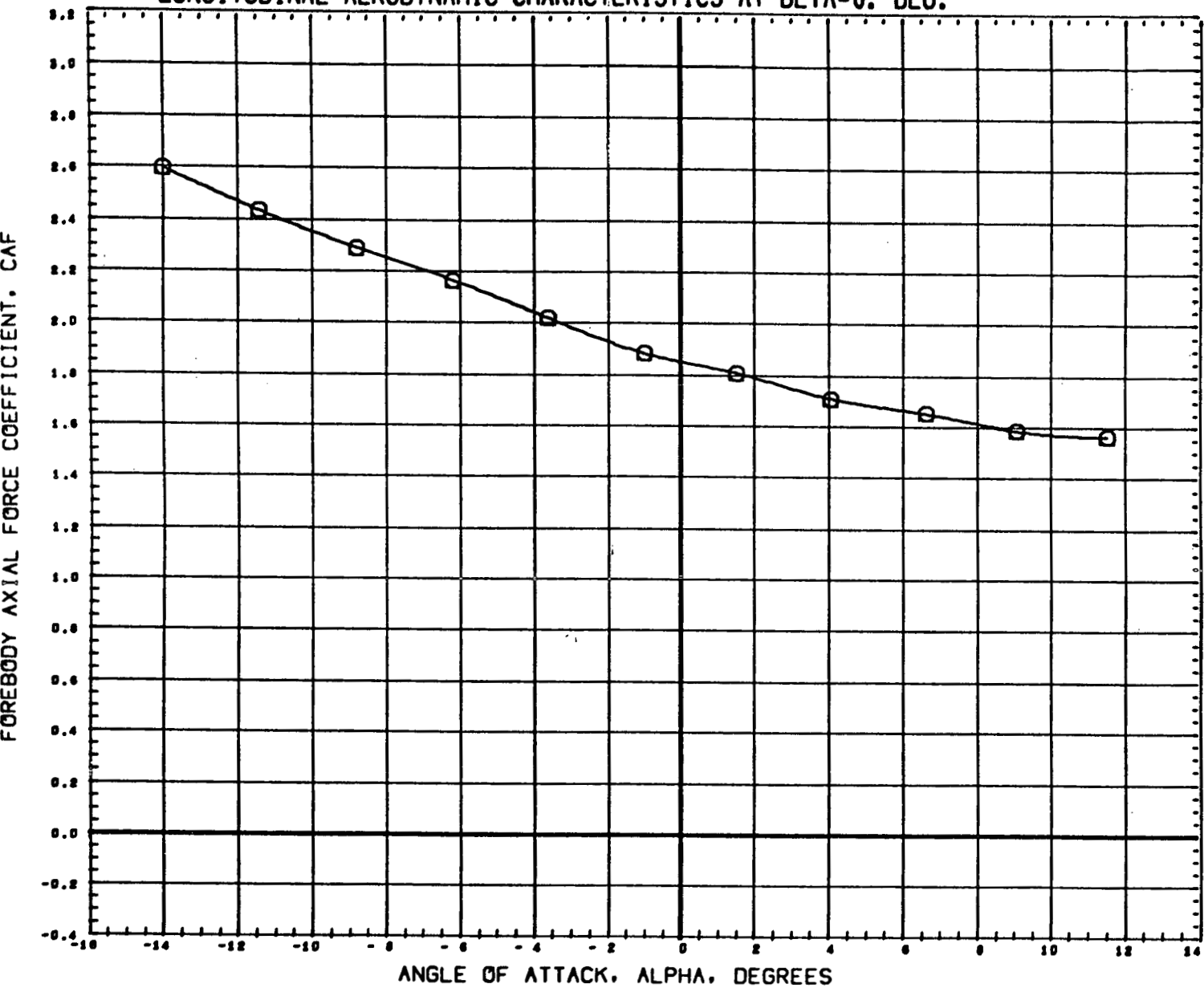
MSFC TWT 505 T111L/DT07

01D1

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

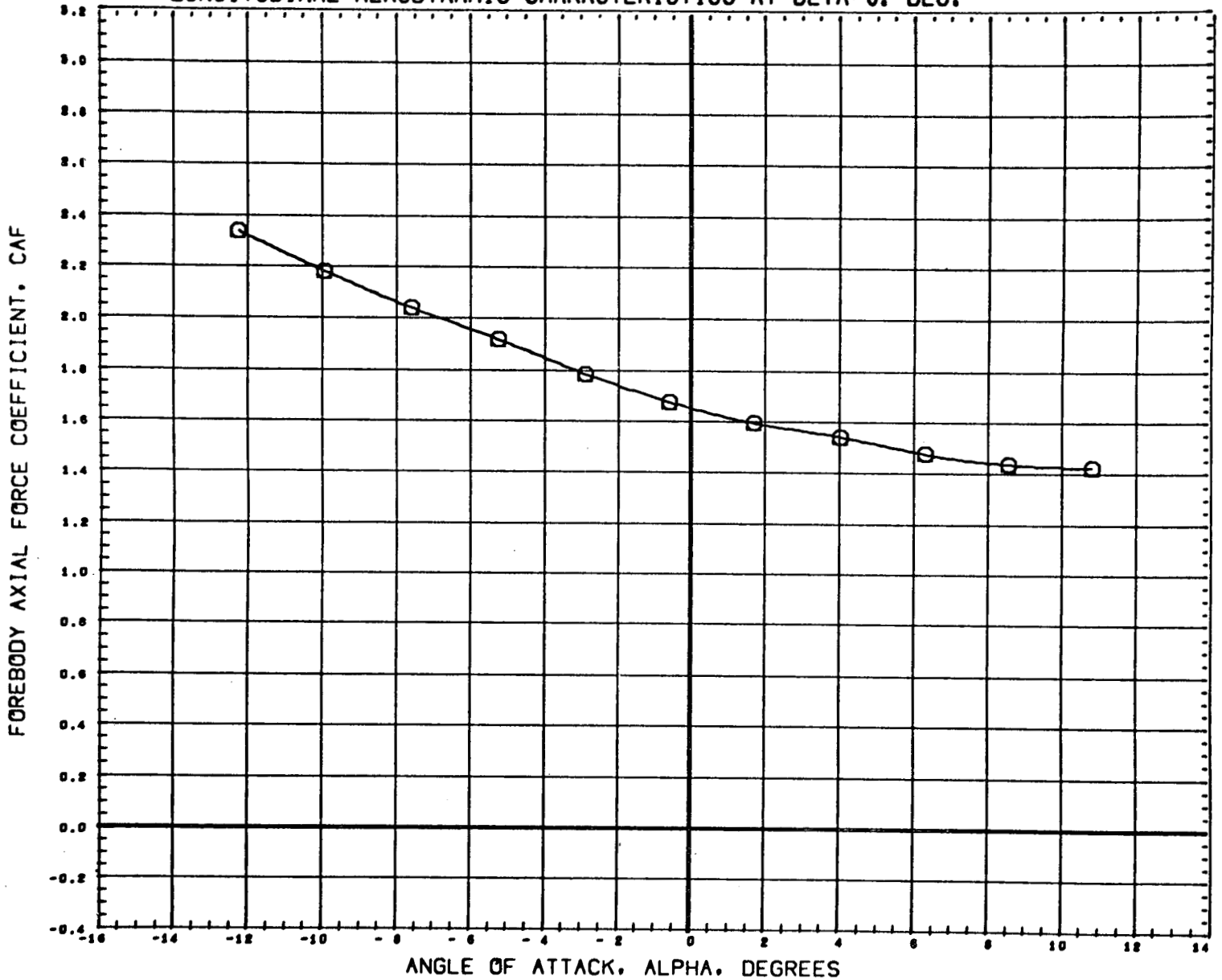


SYMBOL: O
 MACH: 2.740
 BETA: 0.000
 PARAMETRIC VALUES: 0.000

REFERENCE INFORMATION
 SREF: 0.5340 80 INC
 LREF: 0.8240 INCHES
 DREF: 0.8240 INCHES
 XMRP: 8.9170 IN TII
 YMRP: 0.0000 CORE C
 ZMRP: 0.0000 CORE C
 SCALE: 0.4300 PERCENT

DATA HIST. CODE: V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



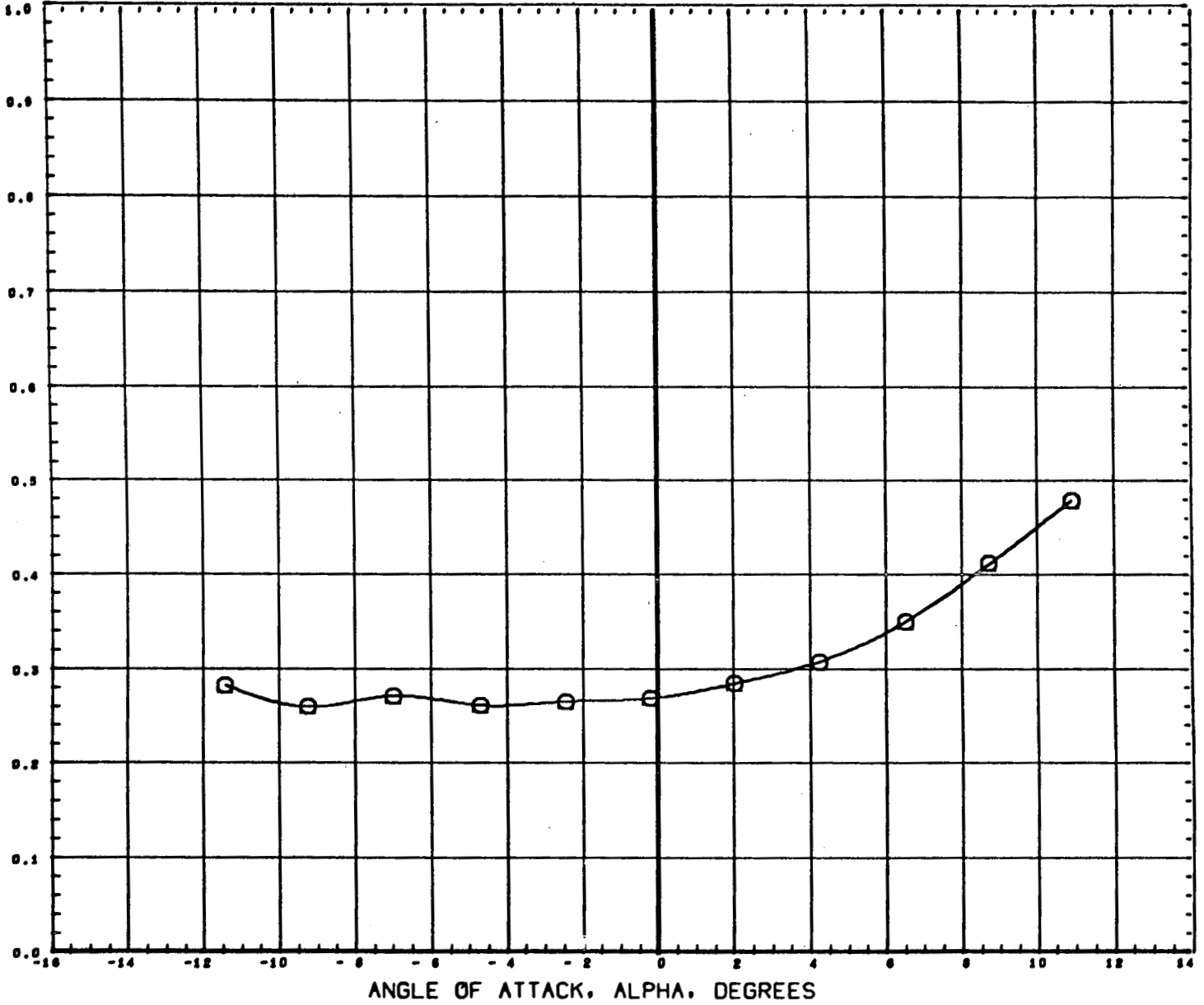
SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT • CAB0



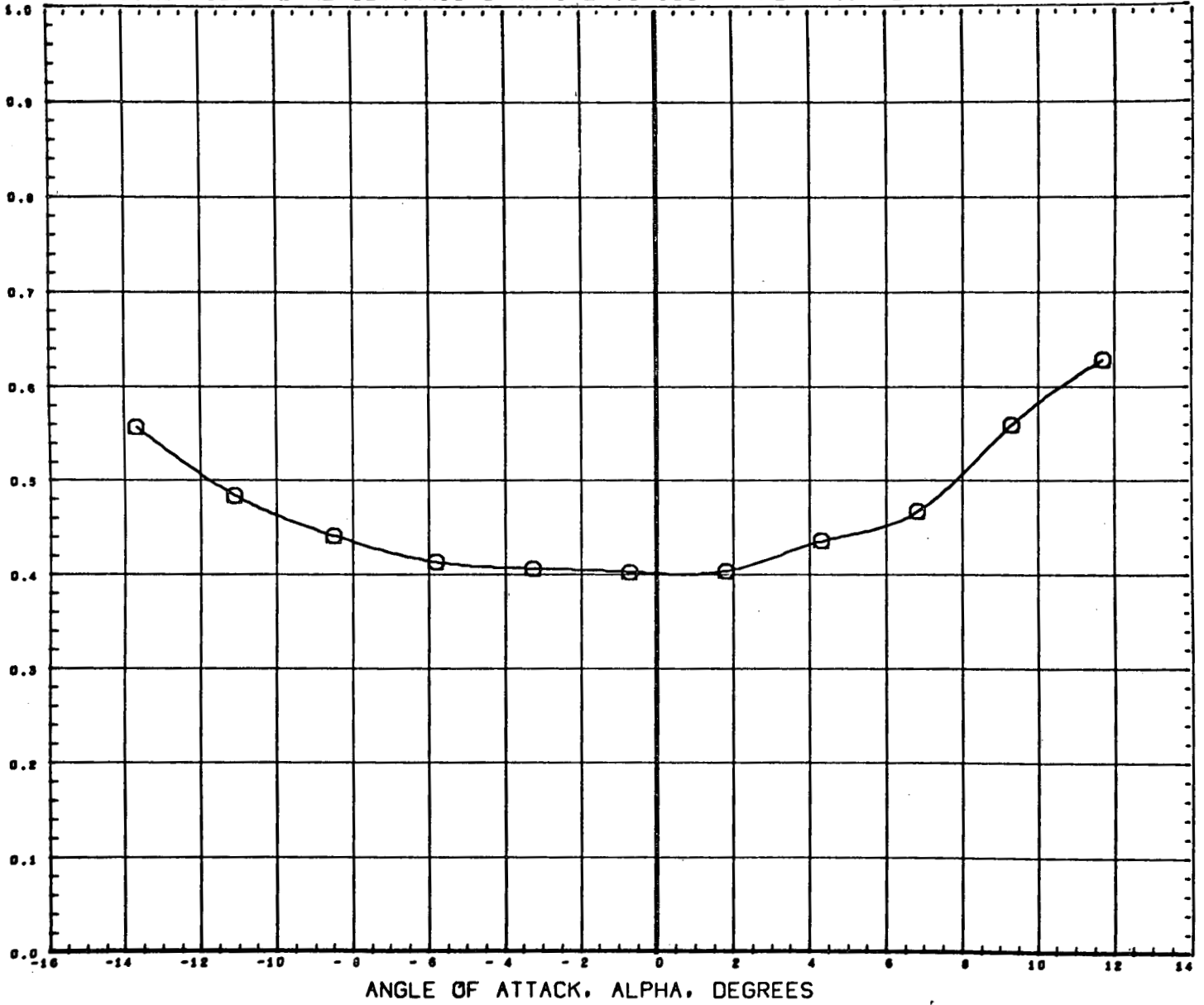
SYMBOL \bigcirc MACH 0.500 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT, CABO



SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.889 0.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

MSFC TWT 505 T111L/DT07

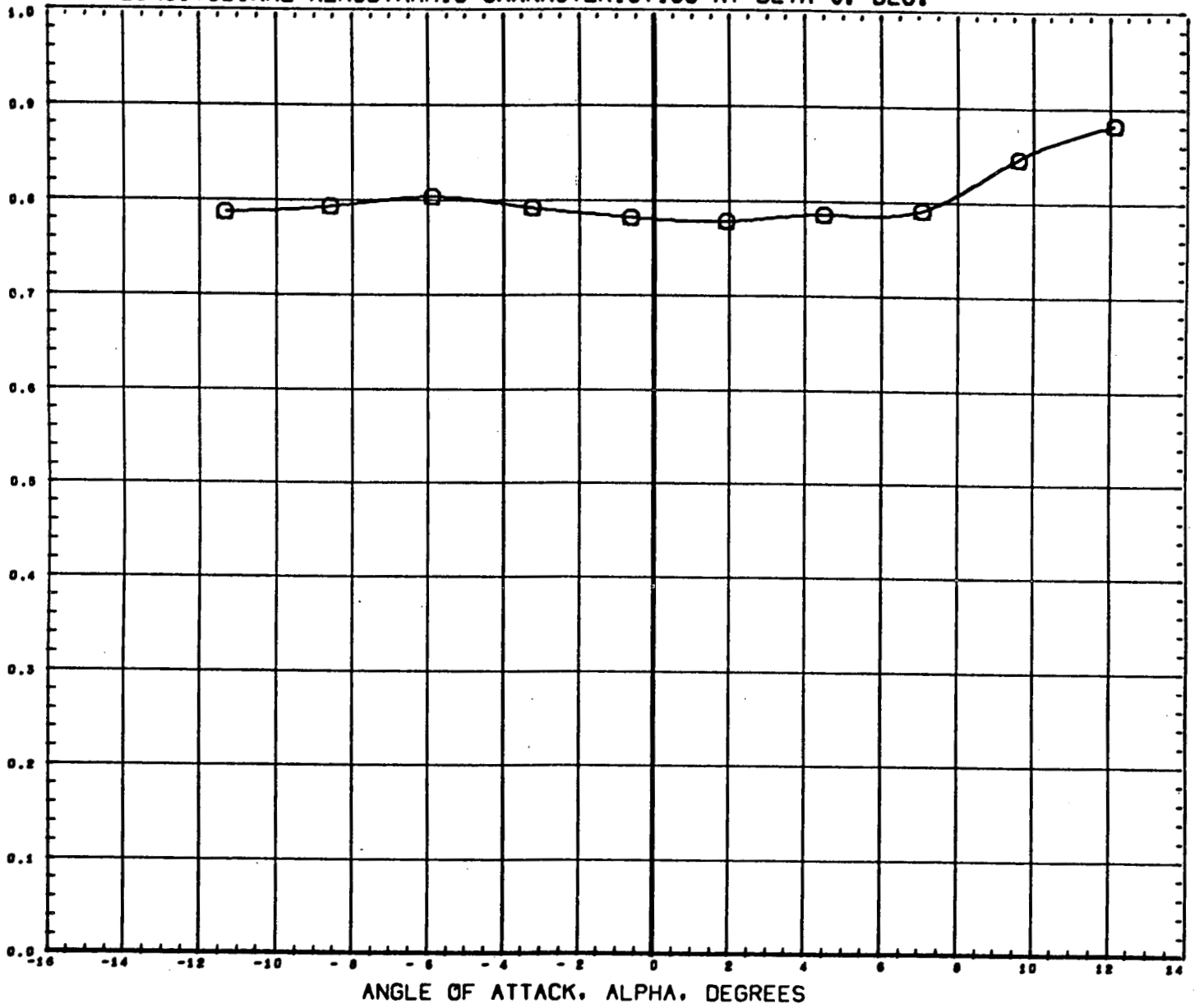
01D1

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT - CAB0



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.000 0.000

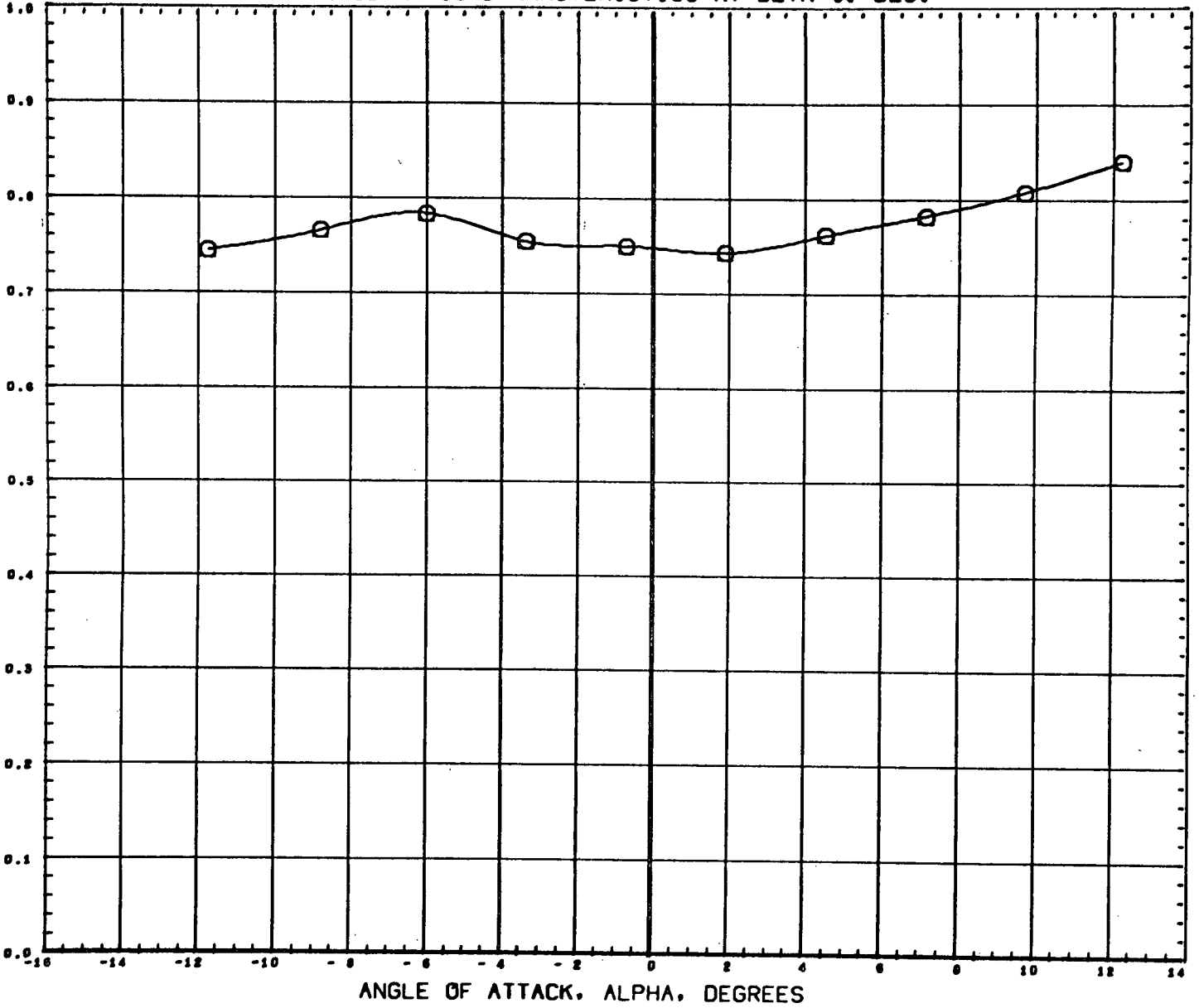
REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT • CAB0

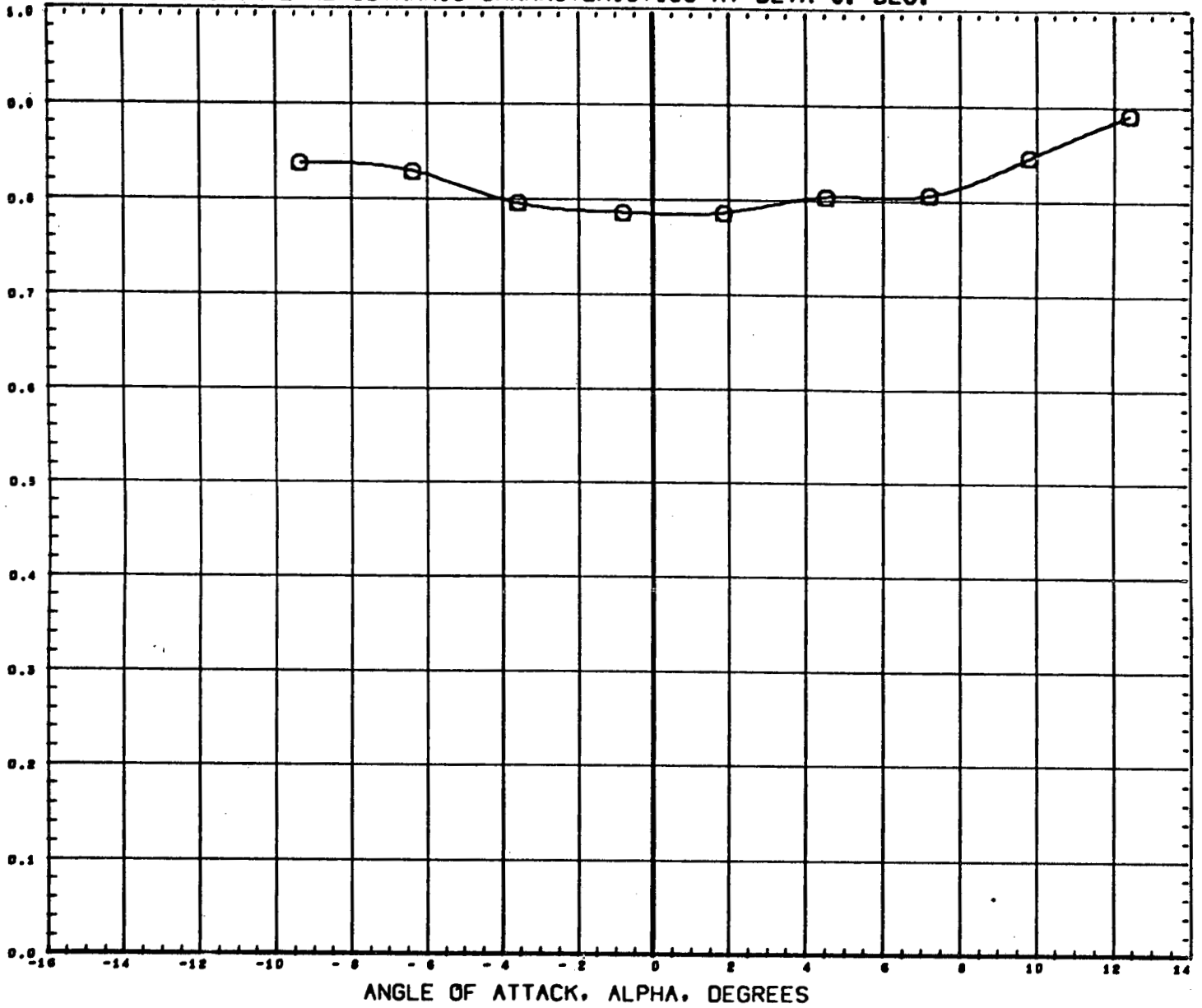


SYMBOL MACH PARAMETRIC VALUES
 O 1.099 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V+E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



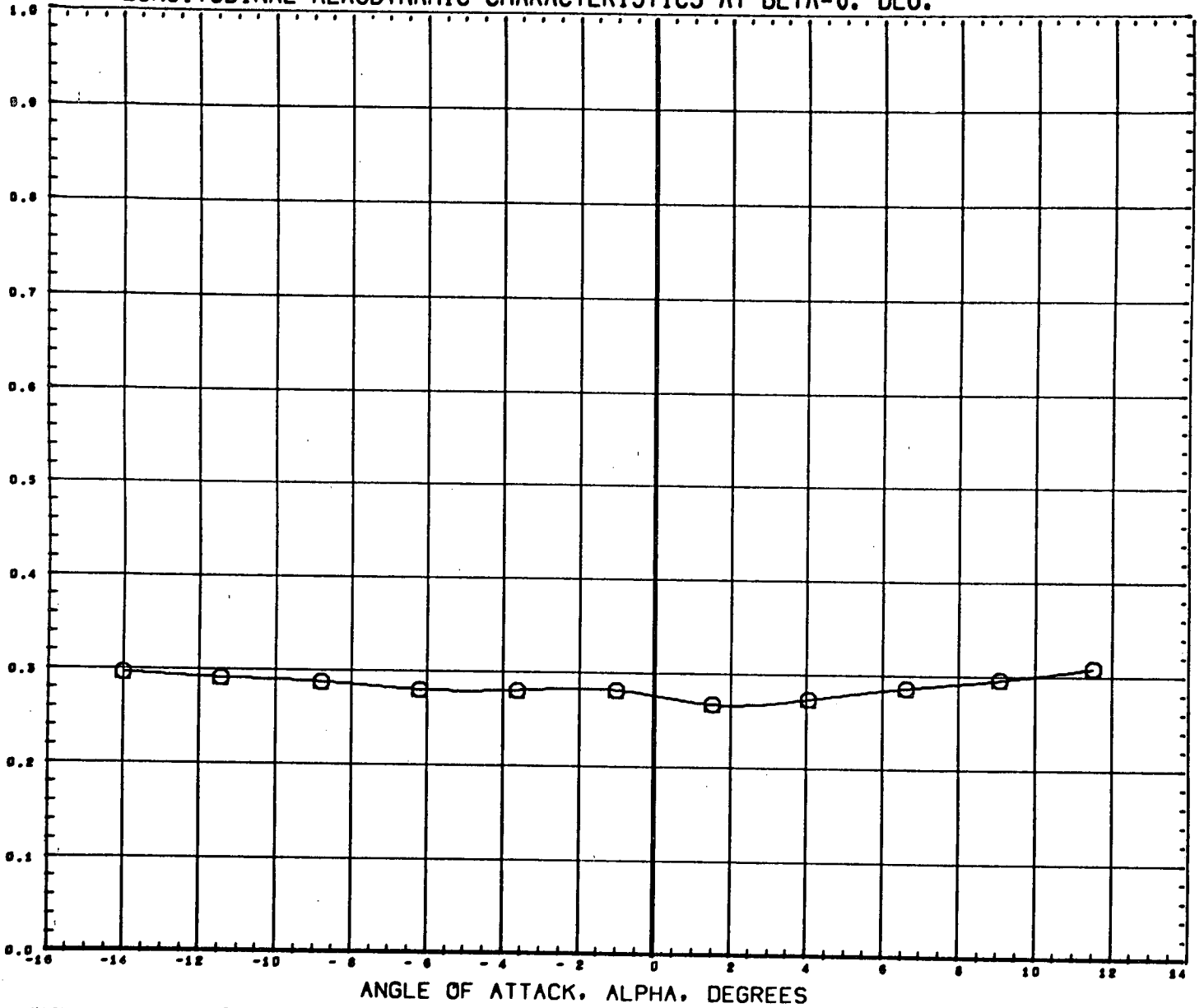
SYMBOL \circ MACH 1.197 BETA 0.000
 PARAMETRIC VALUES

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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.0170 IN YII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT · CABO



SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

MSFC TWT 505 T111L/DT07

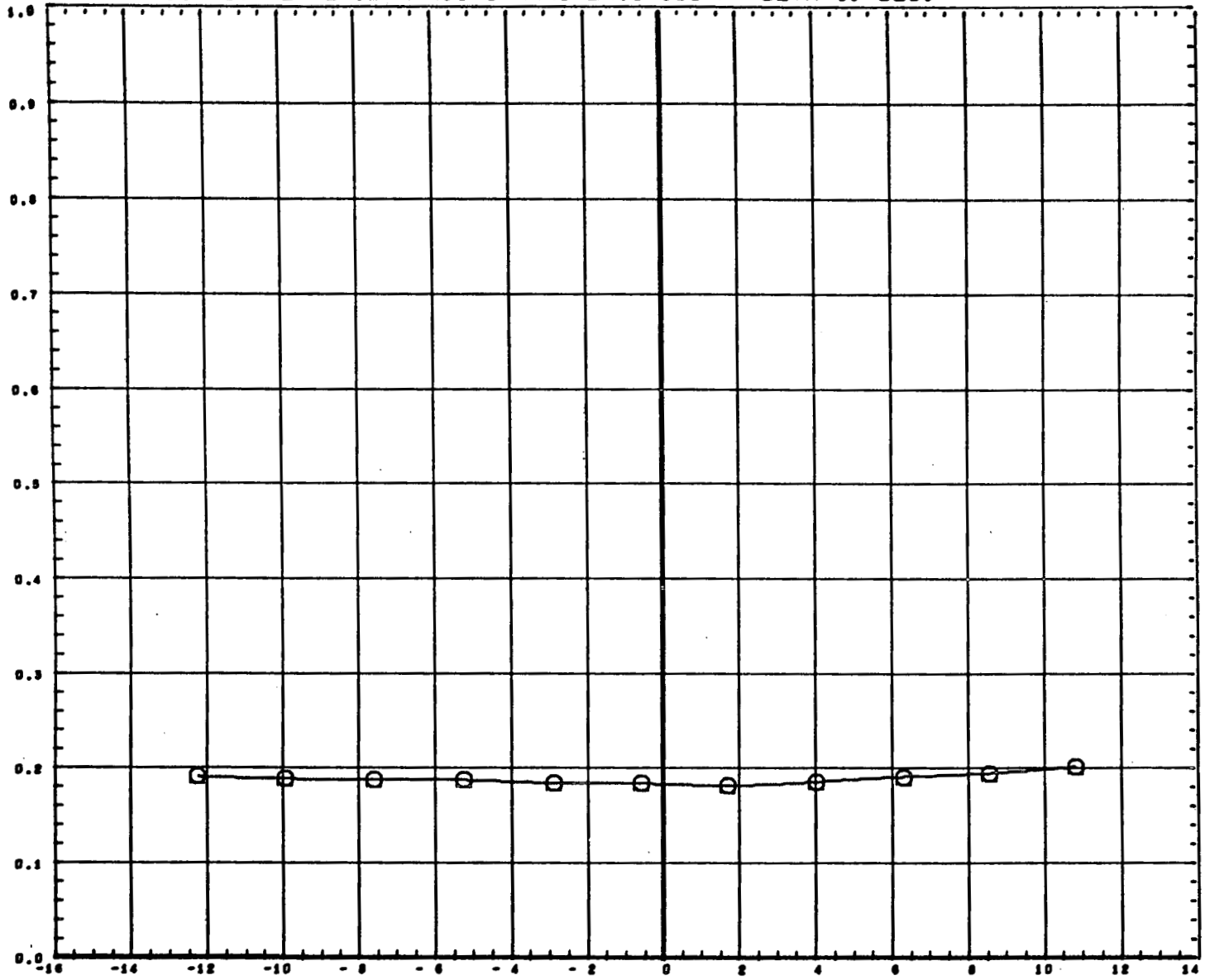
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT, CAB0



ANGLE OF ATTACK, ALPHA, DEGREES

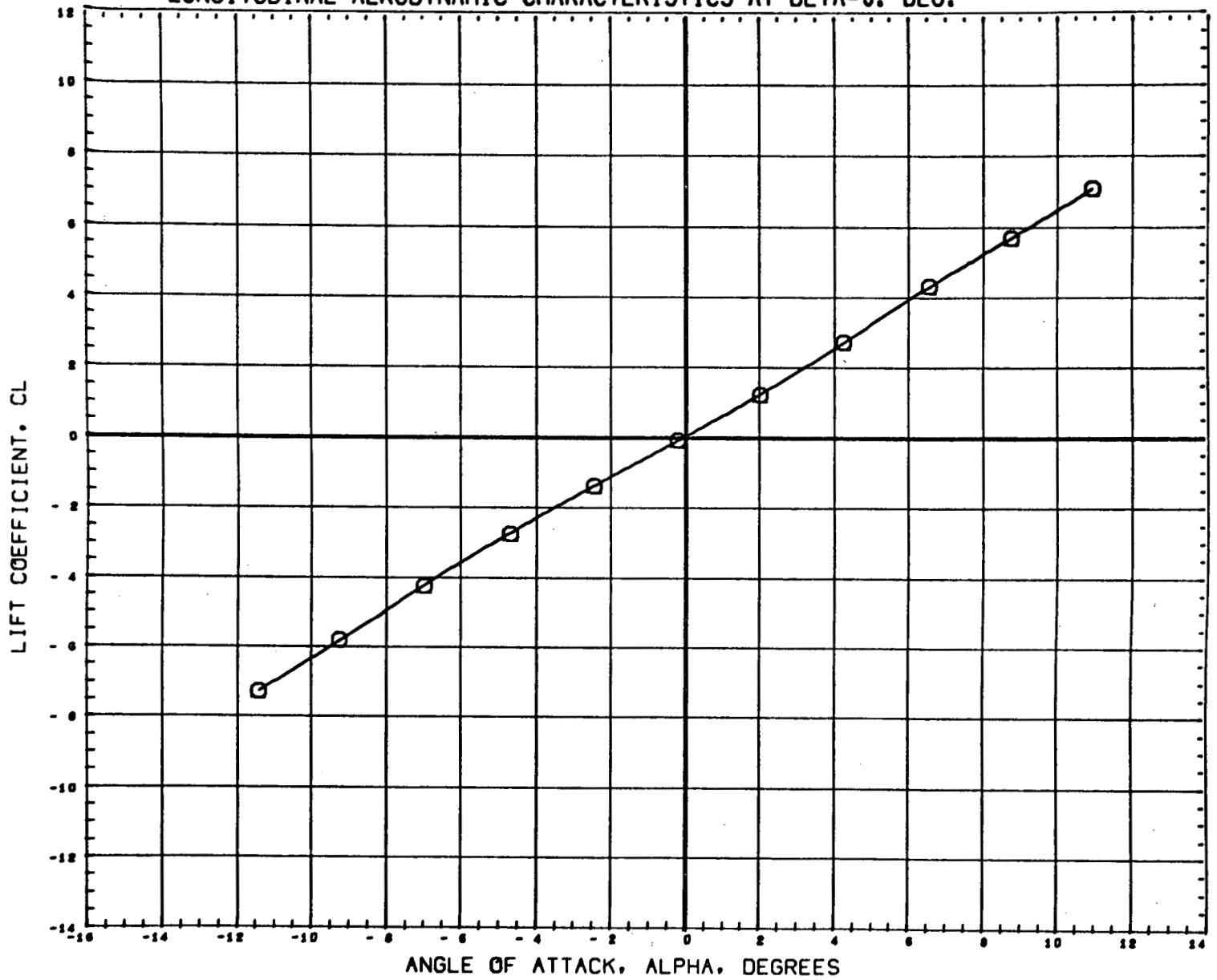
SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 3.400 0.000 0.000

REFERENCE INFORMATION

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LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
VMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

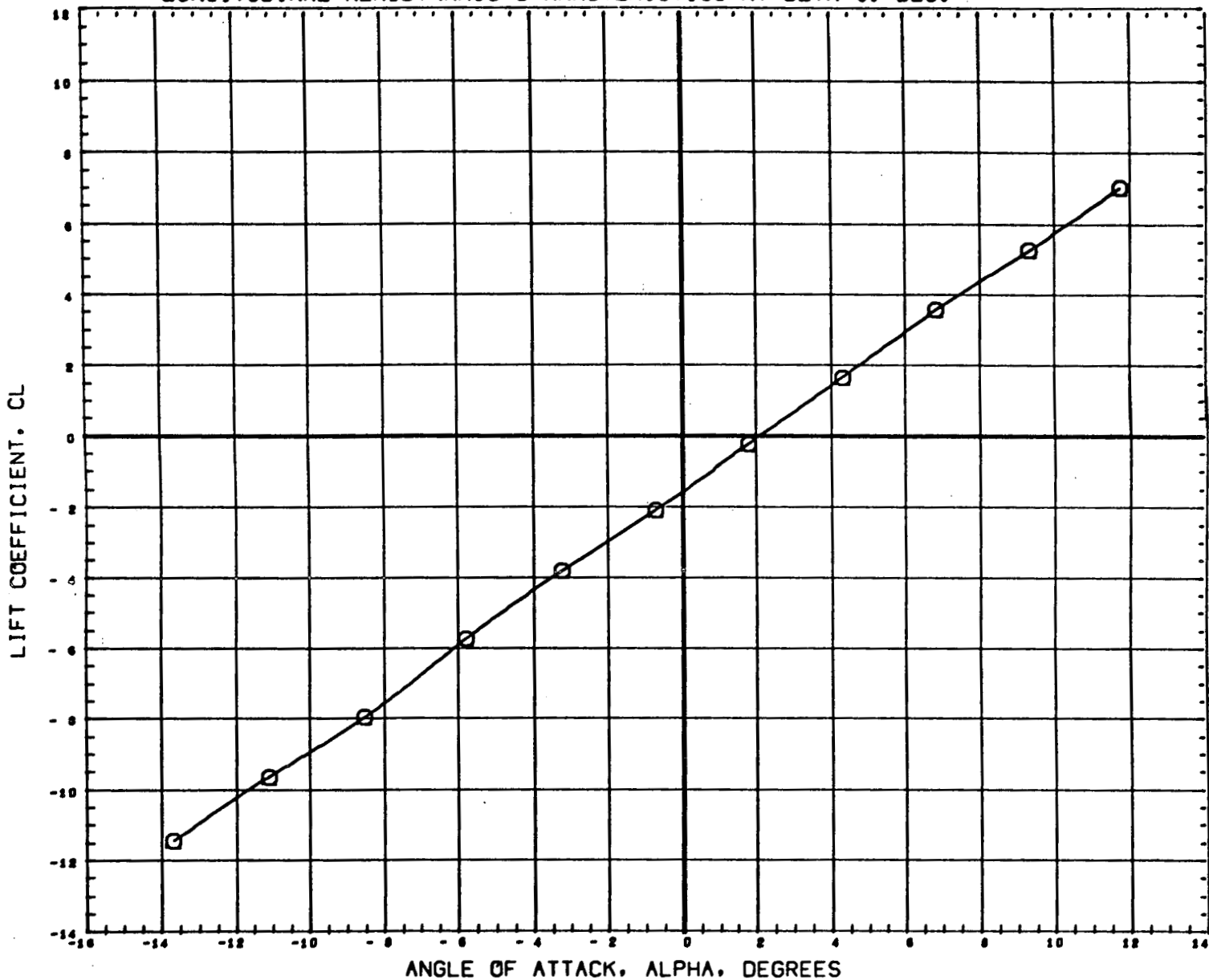


SYMBOL \circ MACH 0.599 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

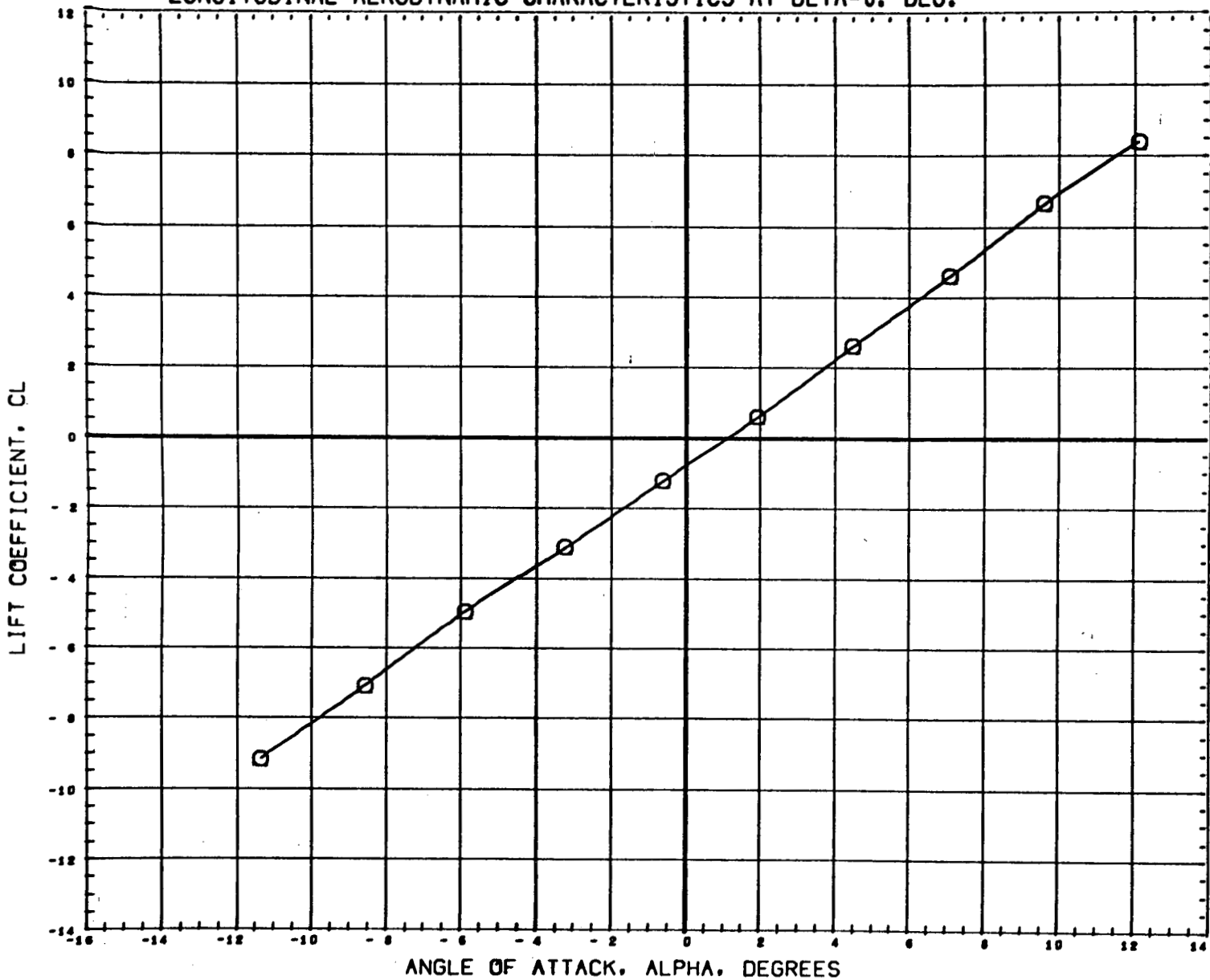


SYMBOL \circ MACH 0.995 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.9240 INCHES
 BREF 0.9240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

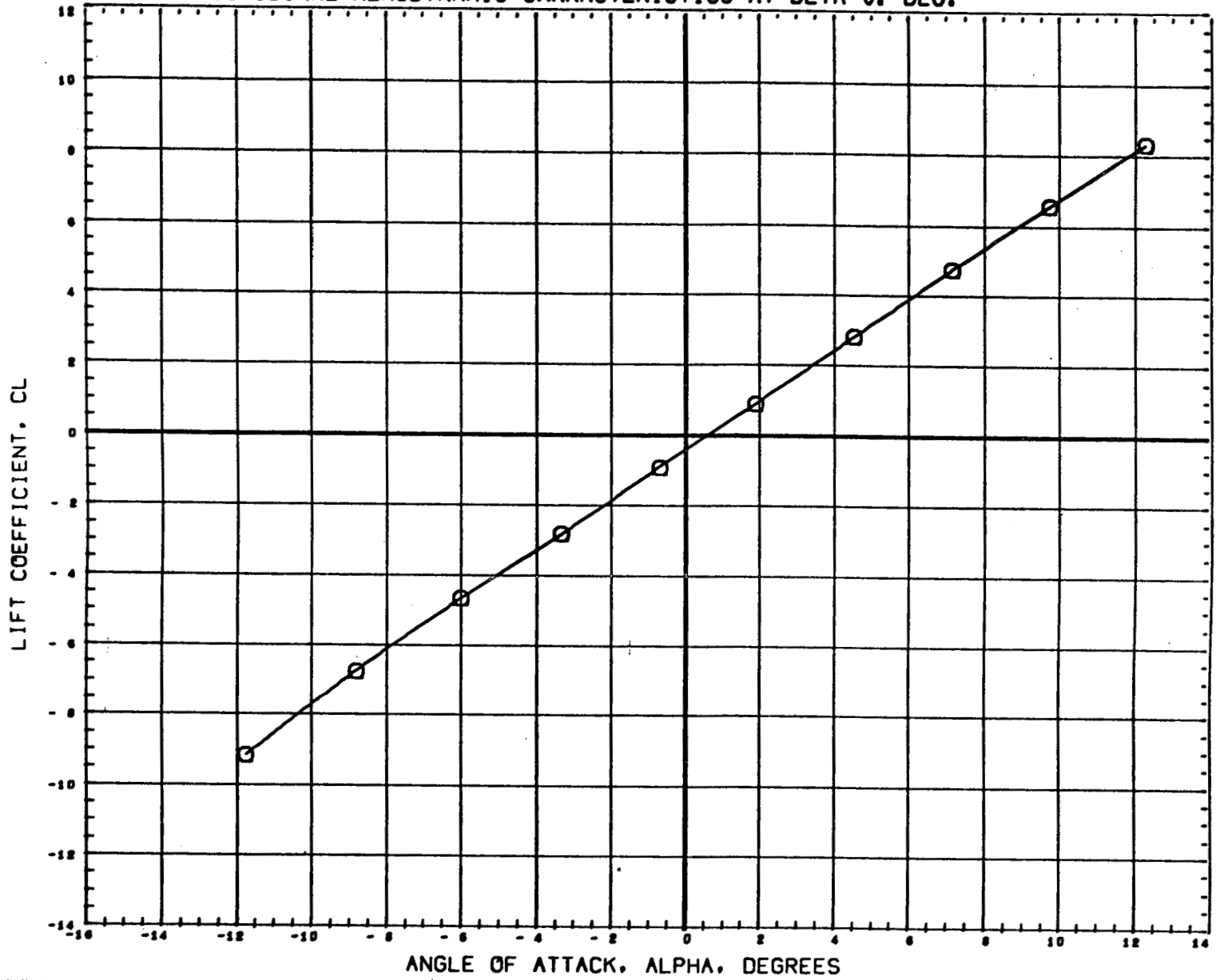


SYMBOL \circ MACH 1.000 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BRFP 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

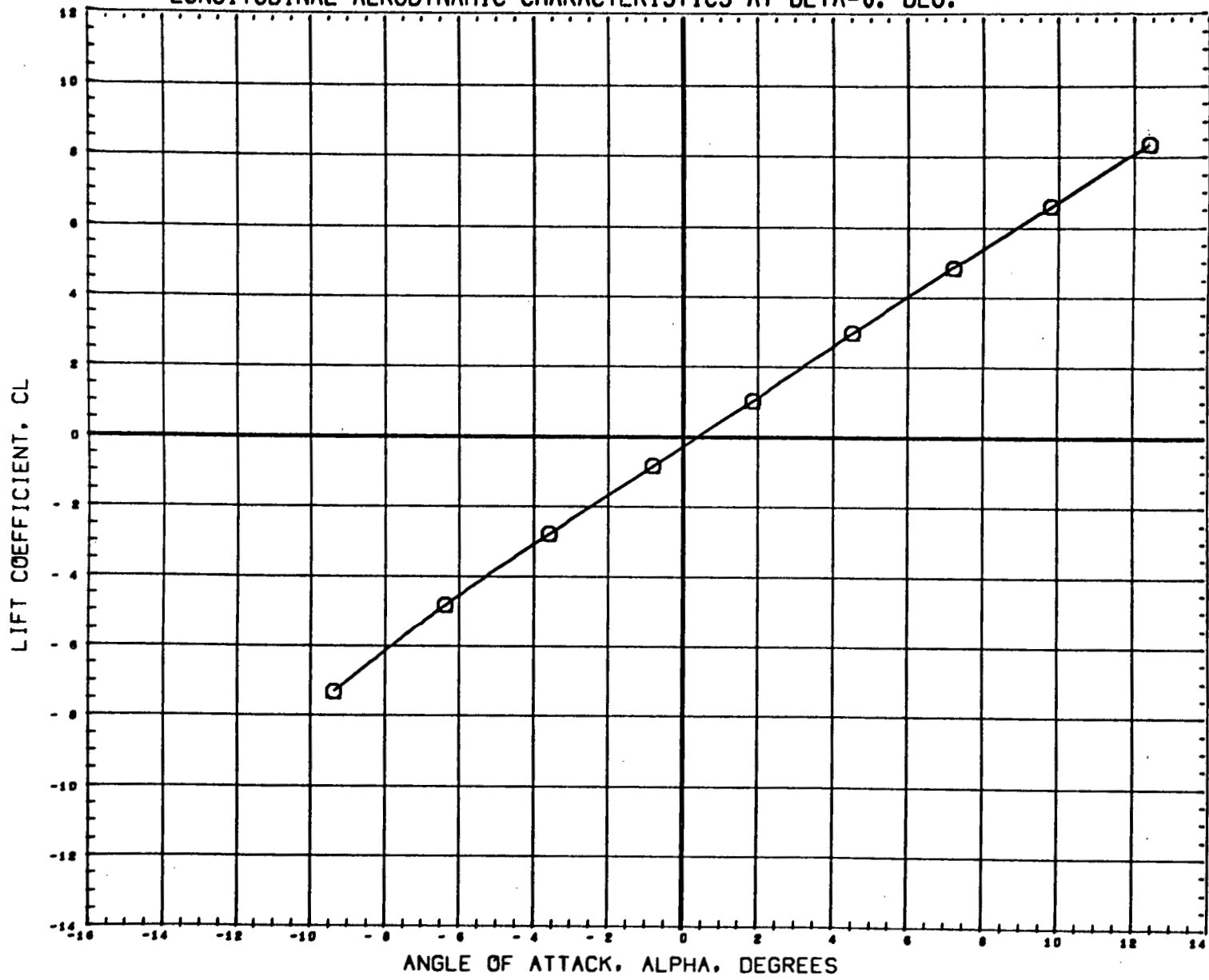


SYMBOL \circ MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TIT
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

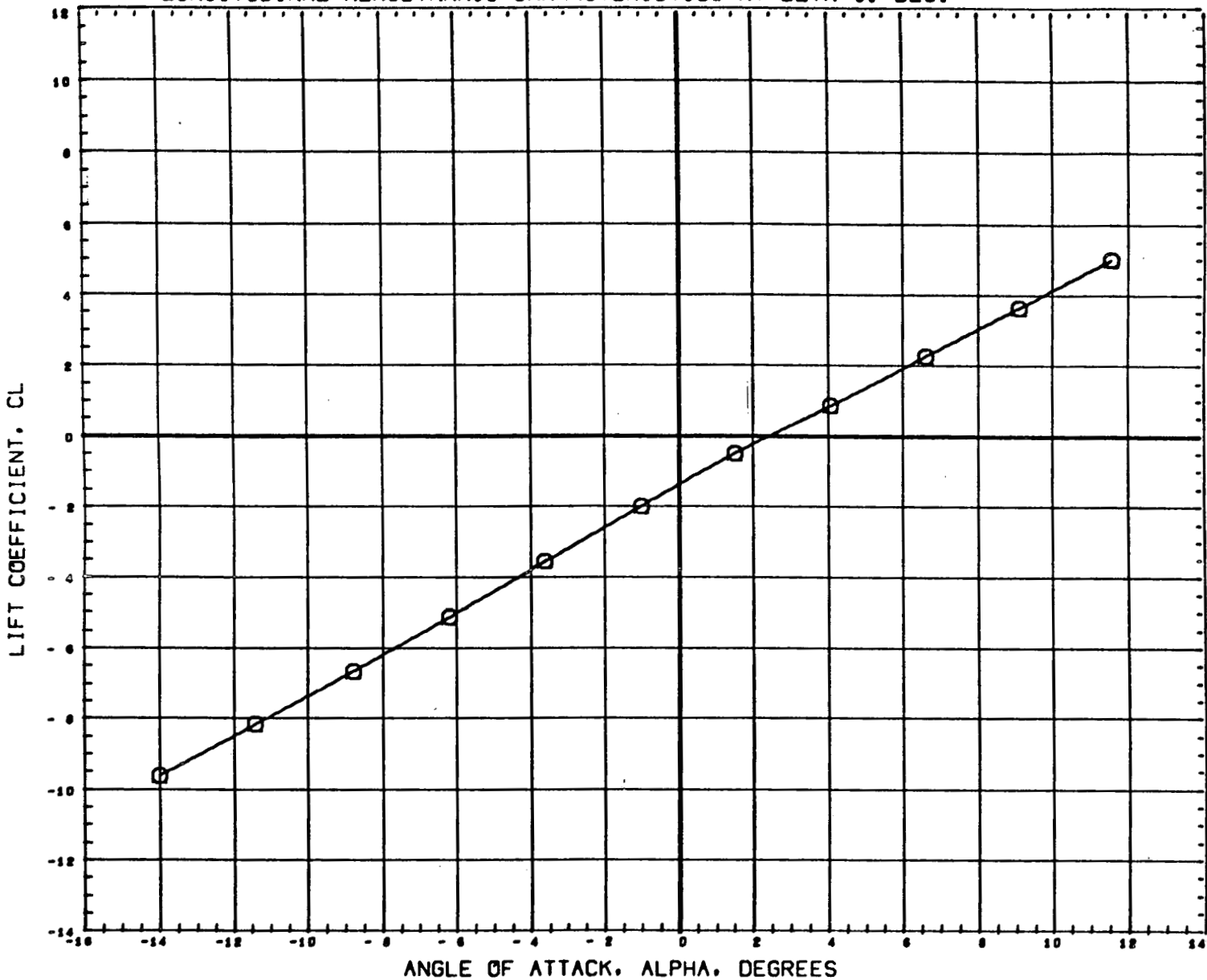


SYMBOL \circ MACH 1.197 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

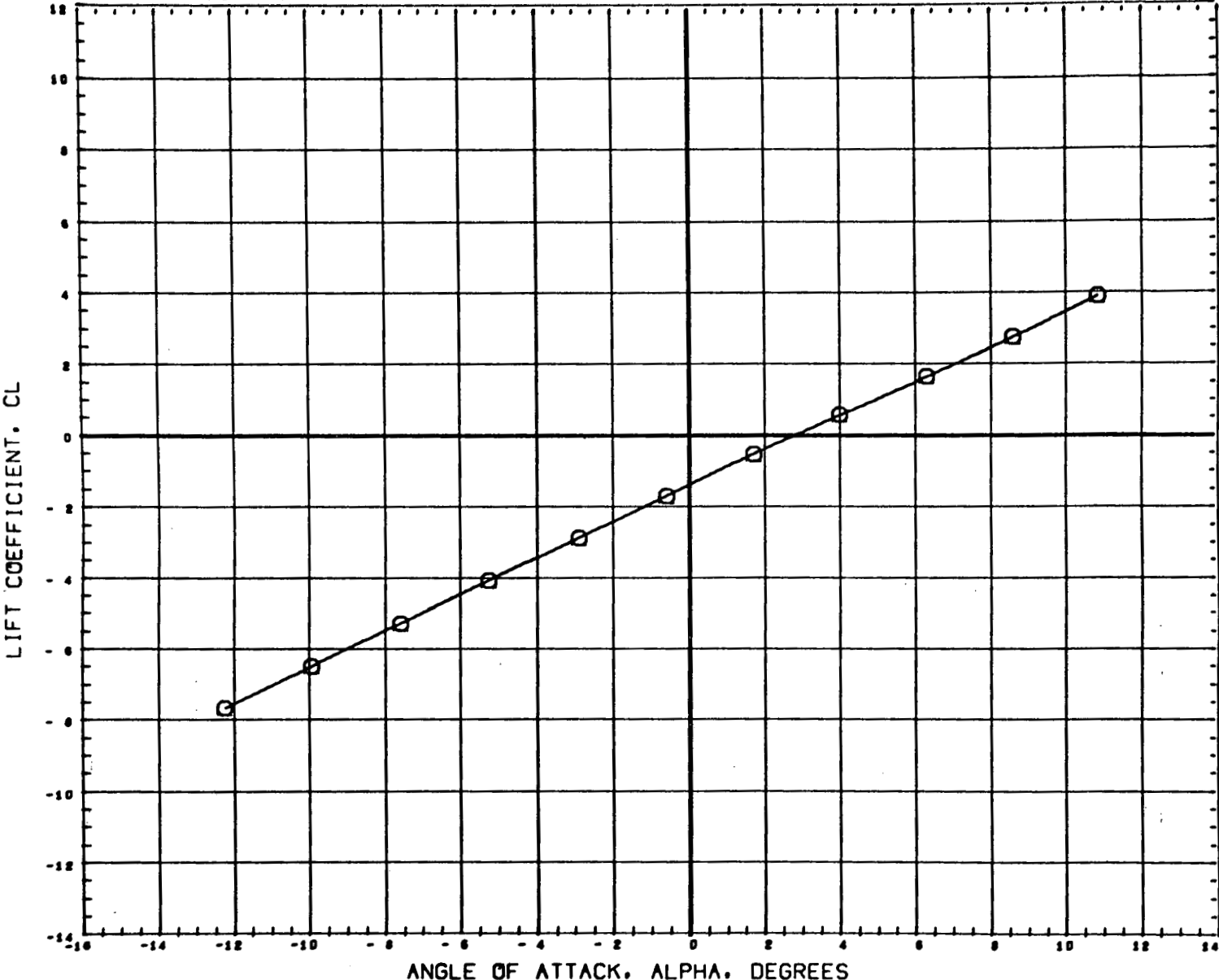


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 2.740 0.000

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

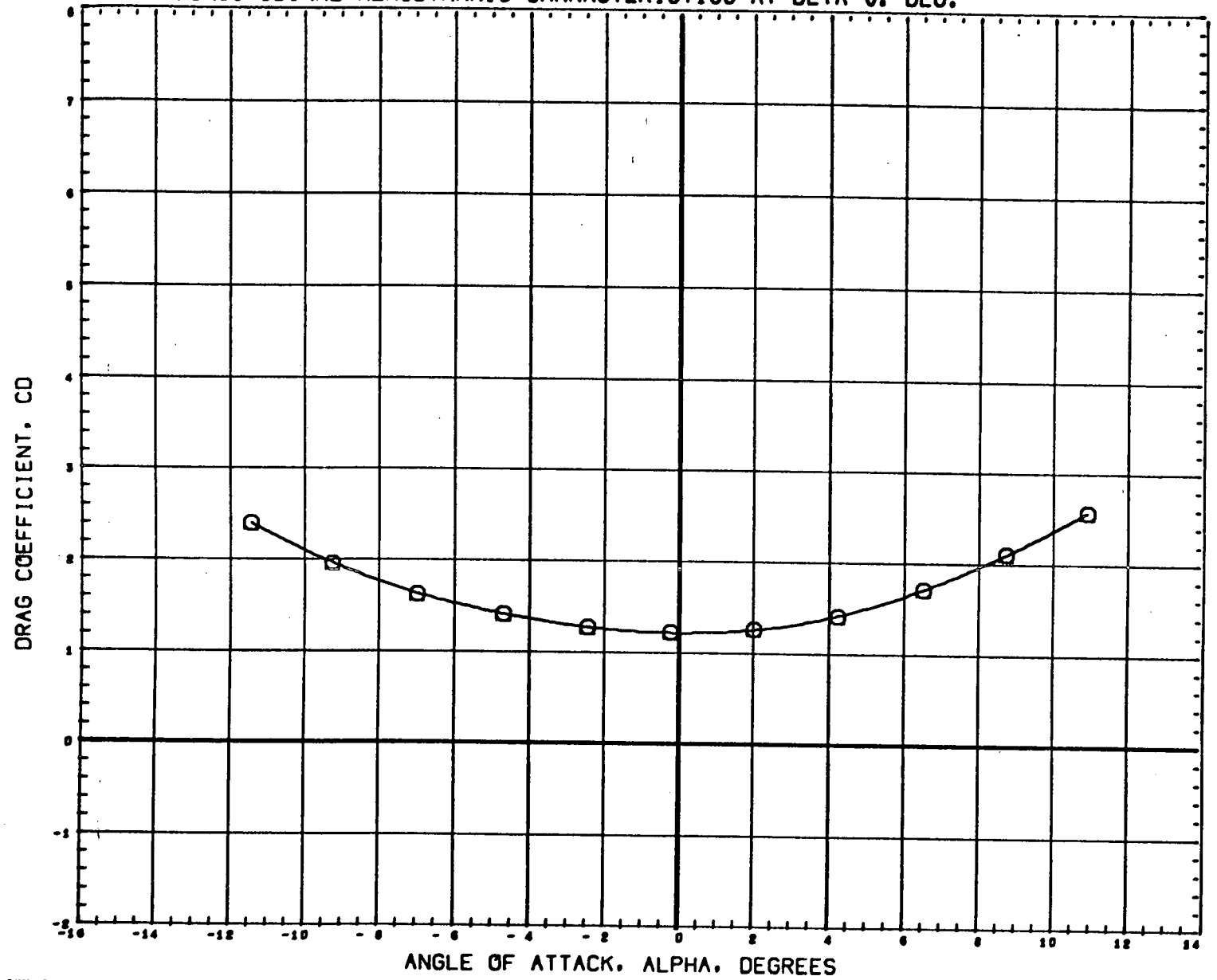


SYMBOL \circ MACH 3.460 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.0170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



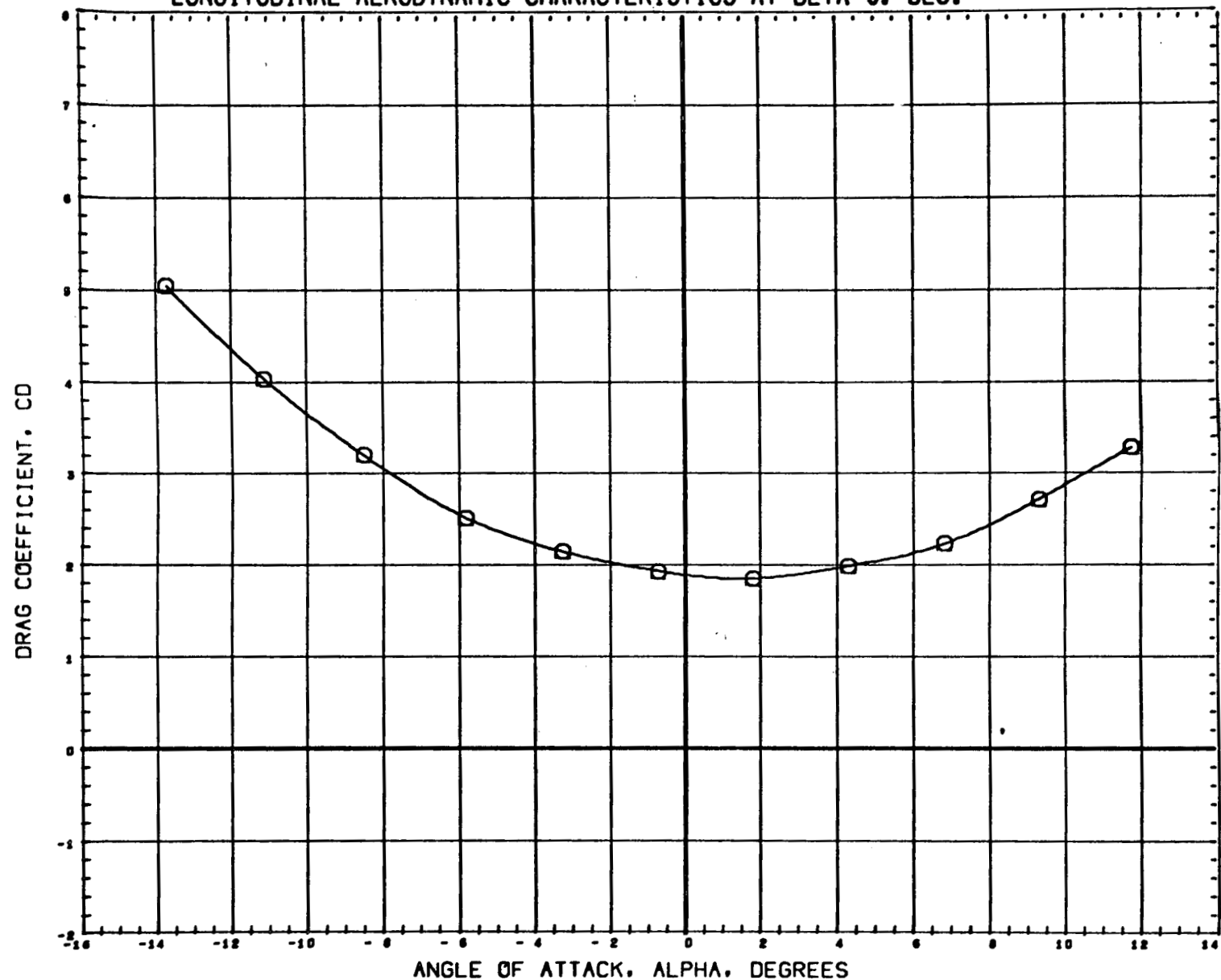
SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.999 0.000

REFERENCE INFORMATION

OREF	0.5340	80 INC
LREF	0.9240	INCHES
BREF	0.9240	INCHES
XHRP	8.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

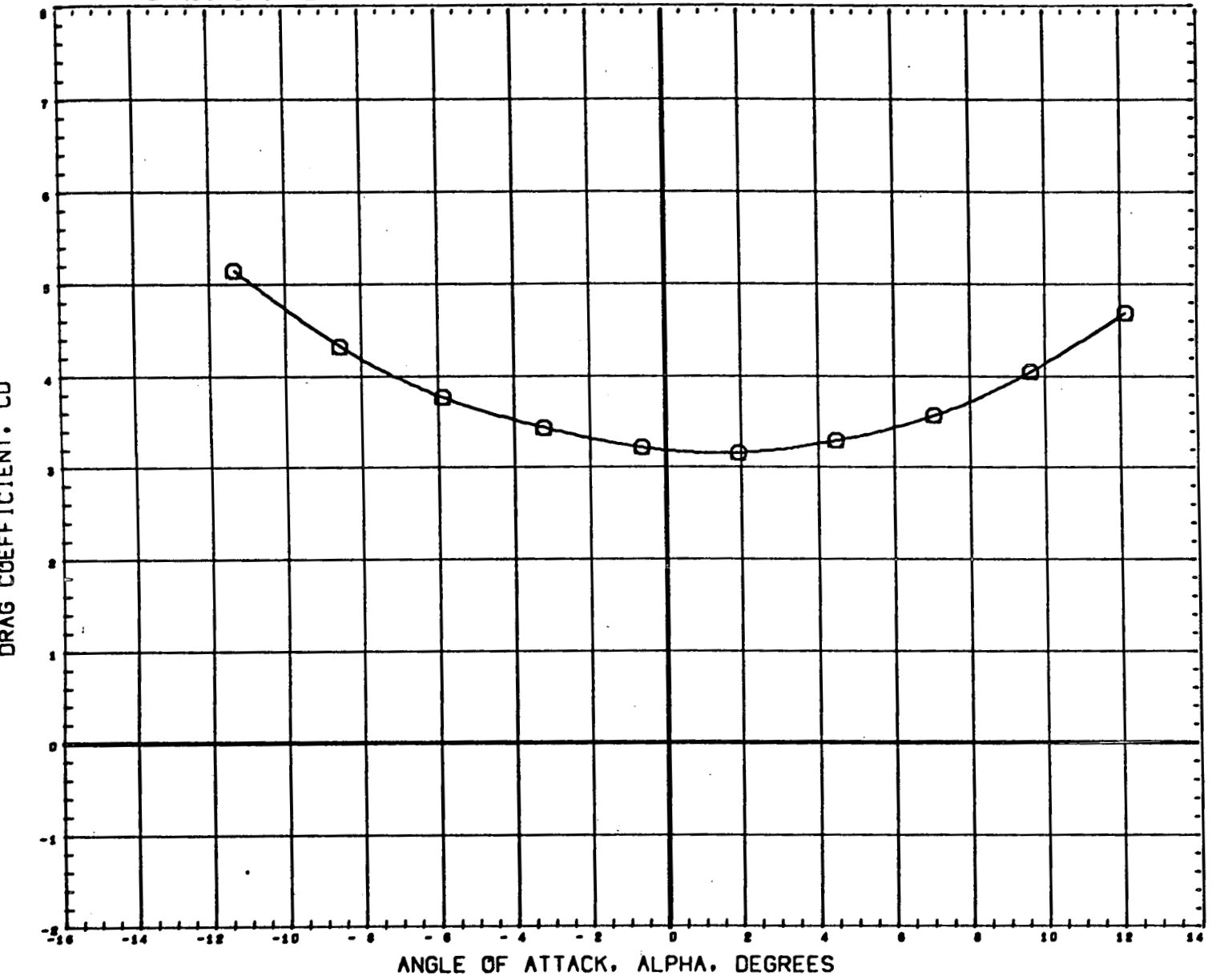


SYMBOL \circ MACH 0.895 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XWRP 2.9170 IN TIT
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

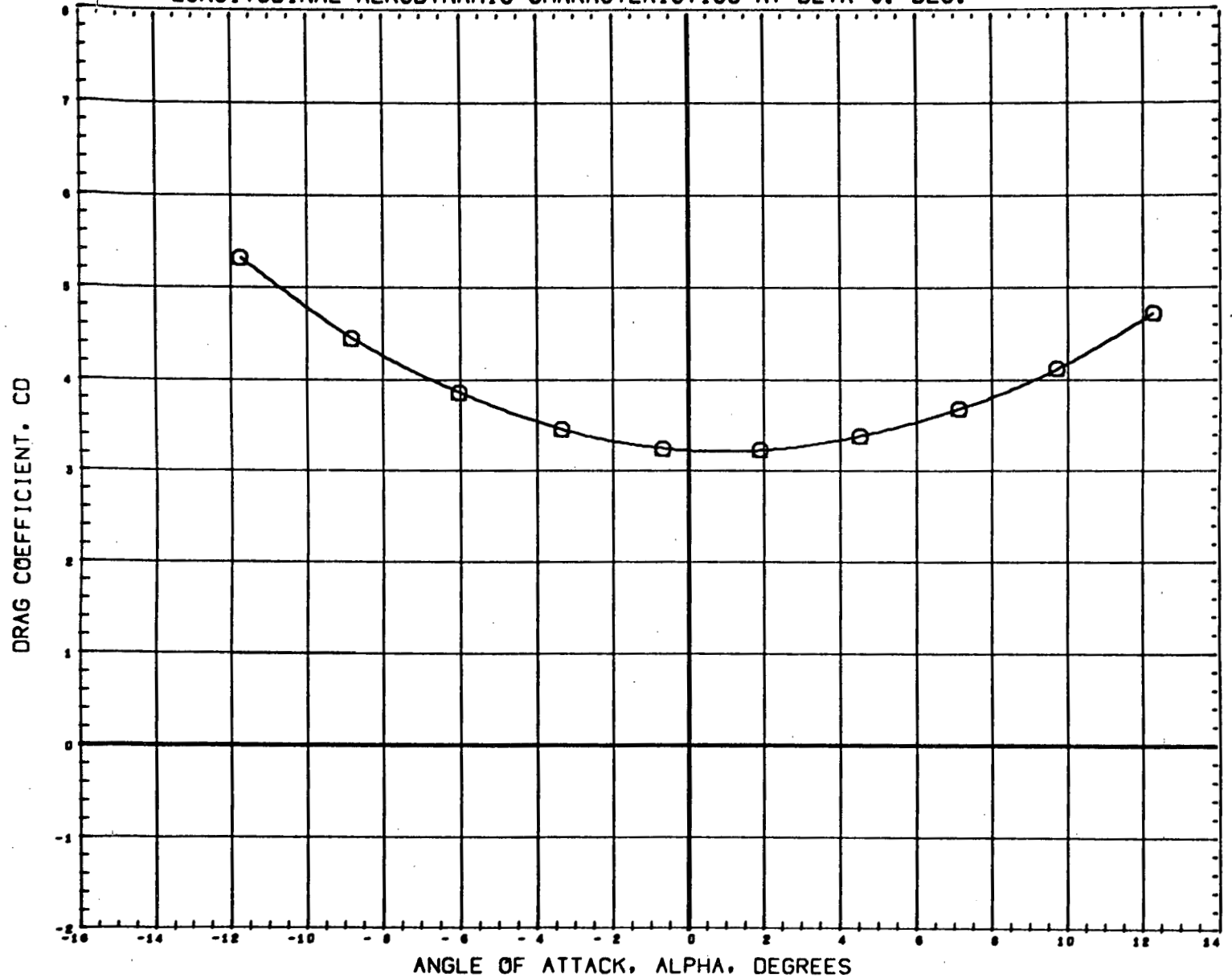


SYMBOL \circ MACH 1.000 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.4240 INCHES
 BREF 0.4240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

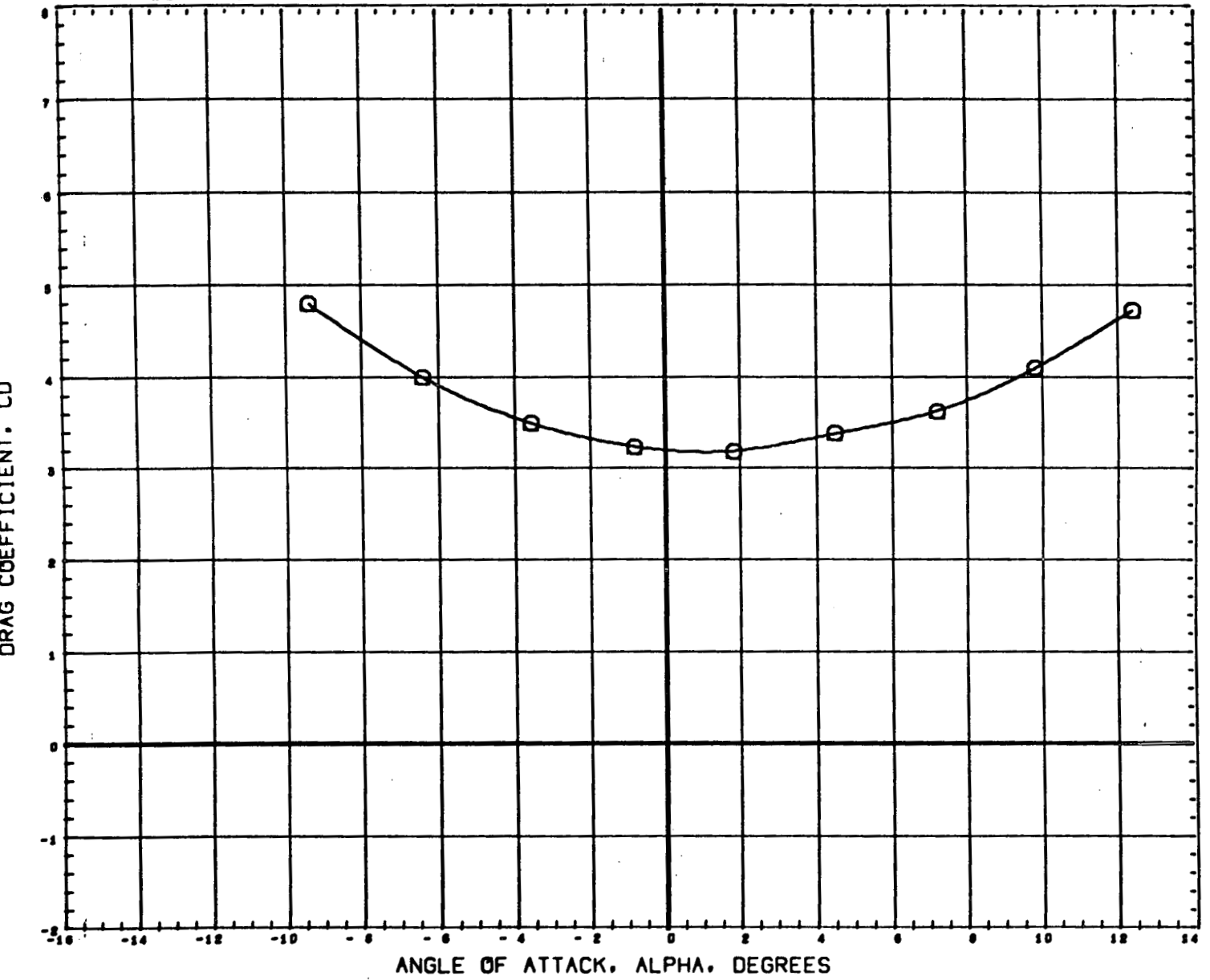


SYMBOL \circ MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

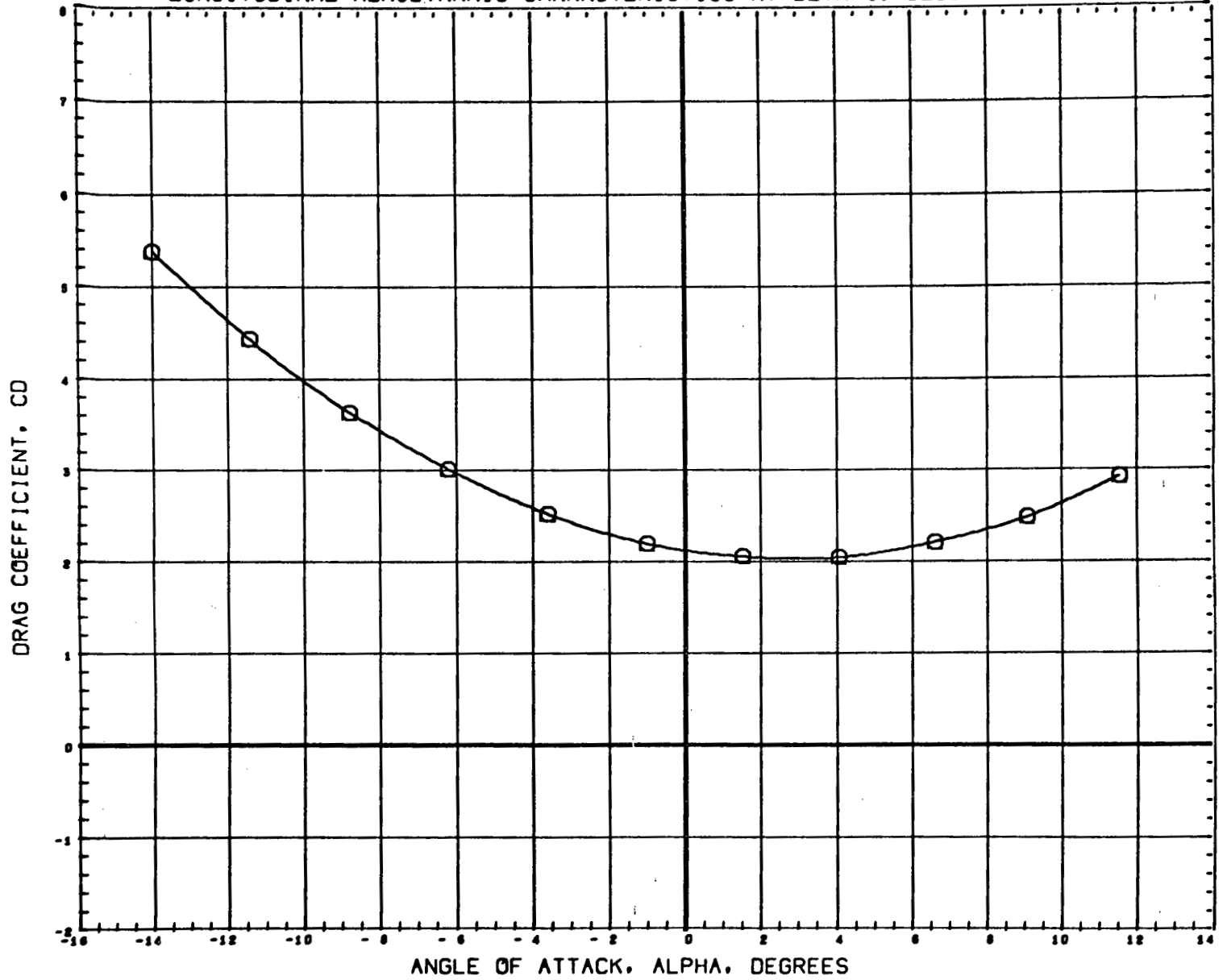


SYMBOL \circ MACH 1.197 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BRPF 0.8240 INCHES
 XHRP 8.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

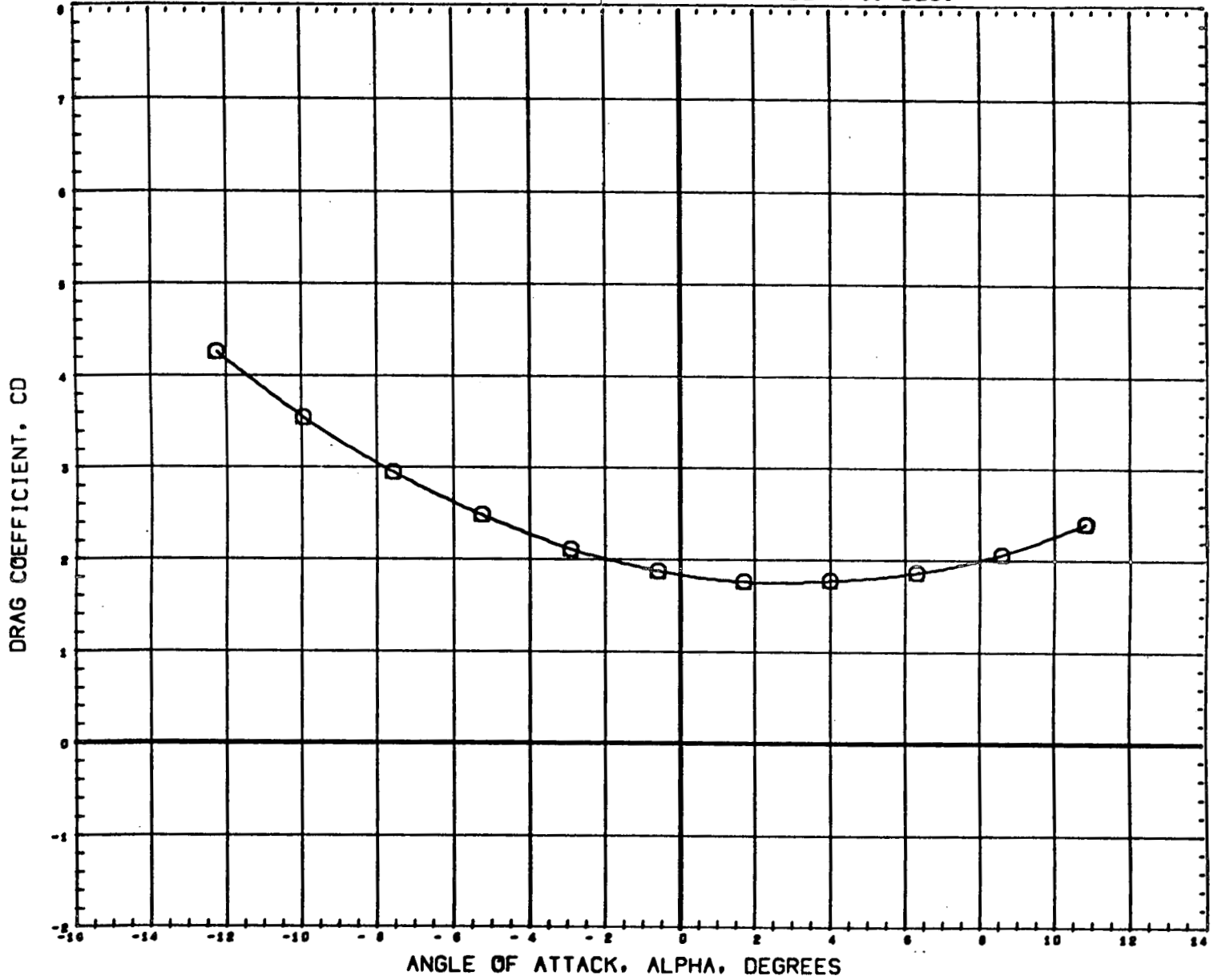


SYMBOL \square MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

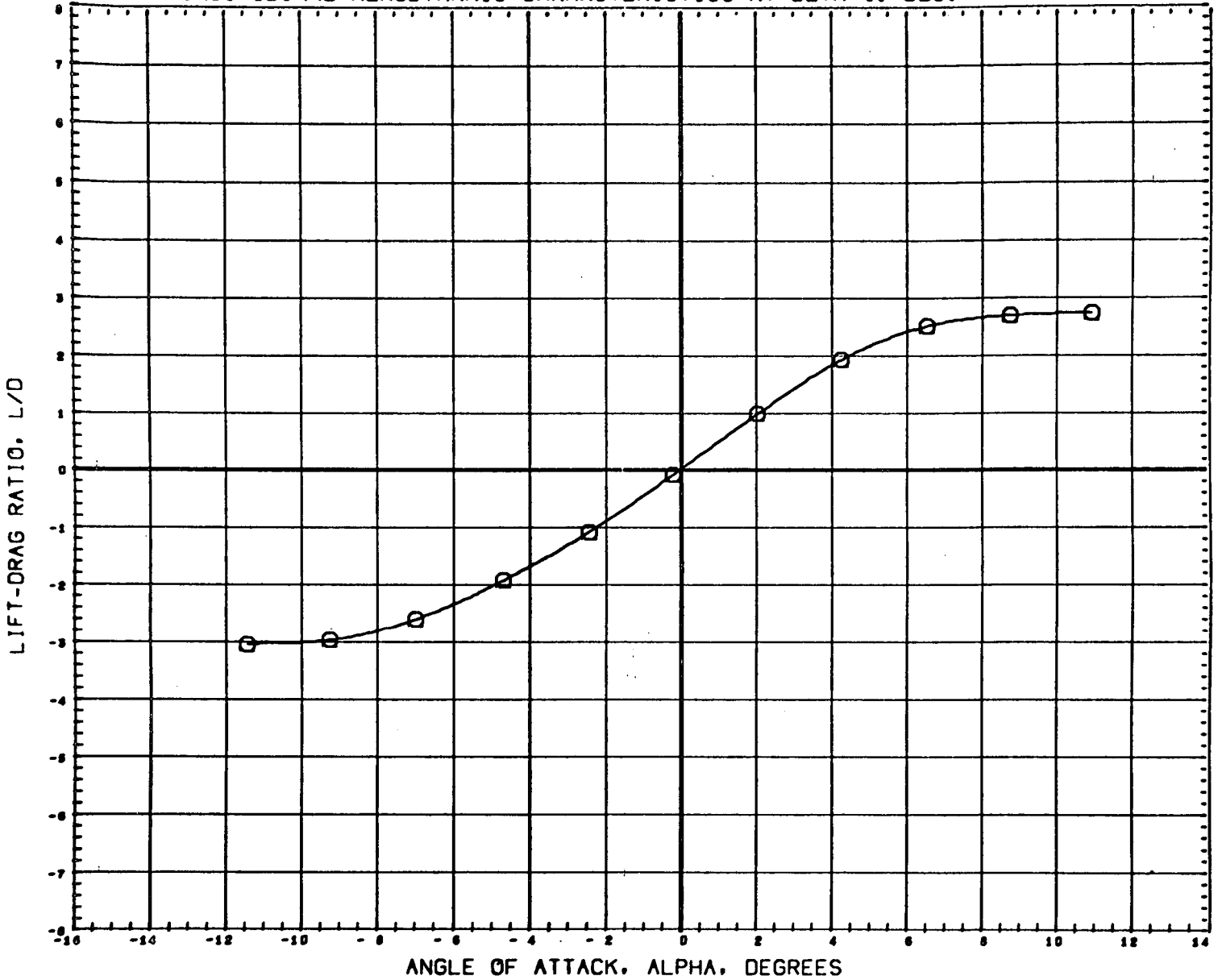


SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

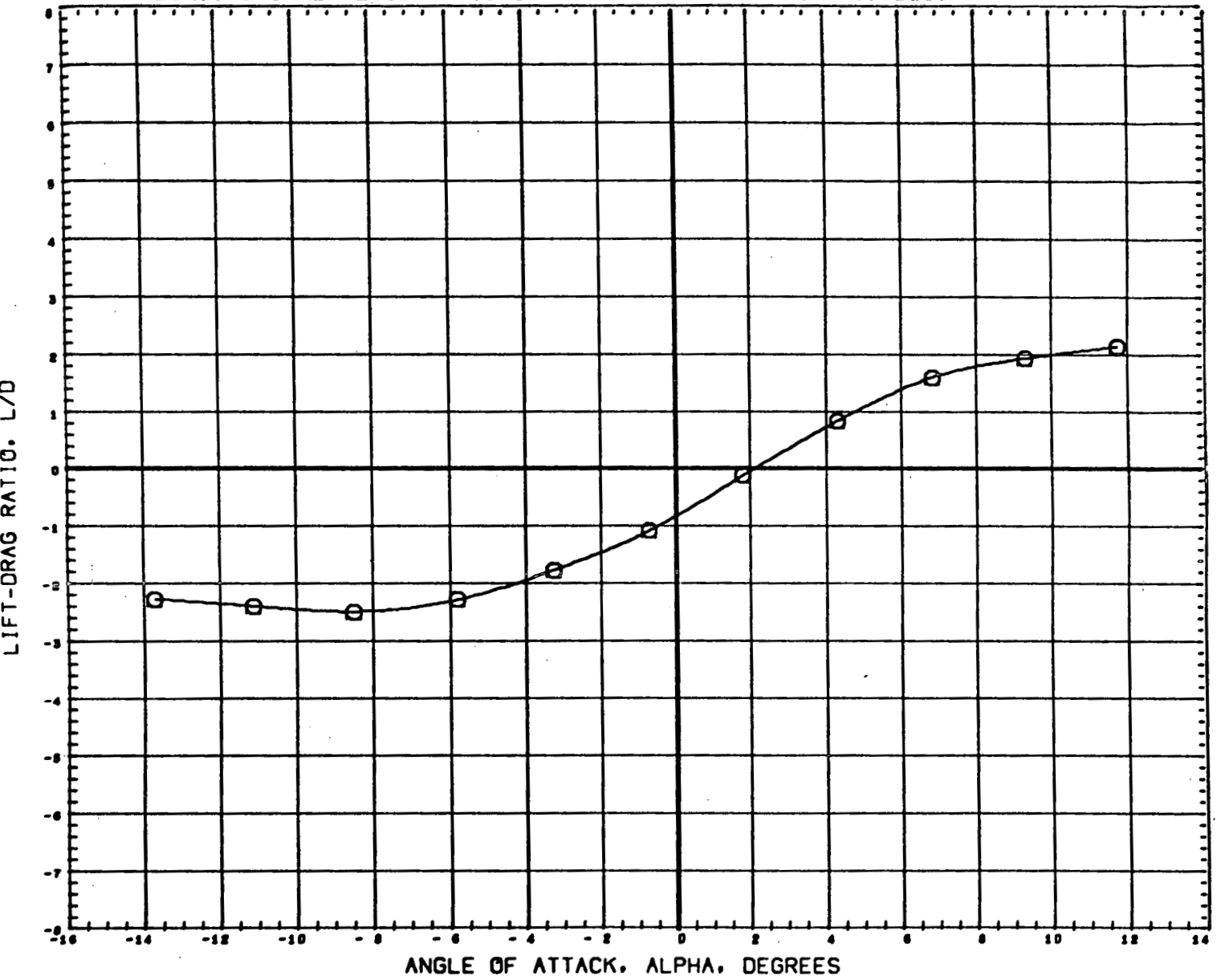


SYMBOL \circ MACH 0.999 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA MIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

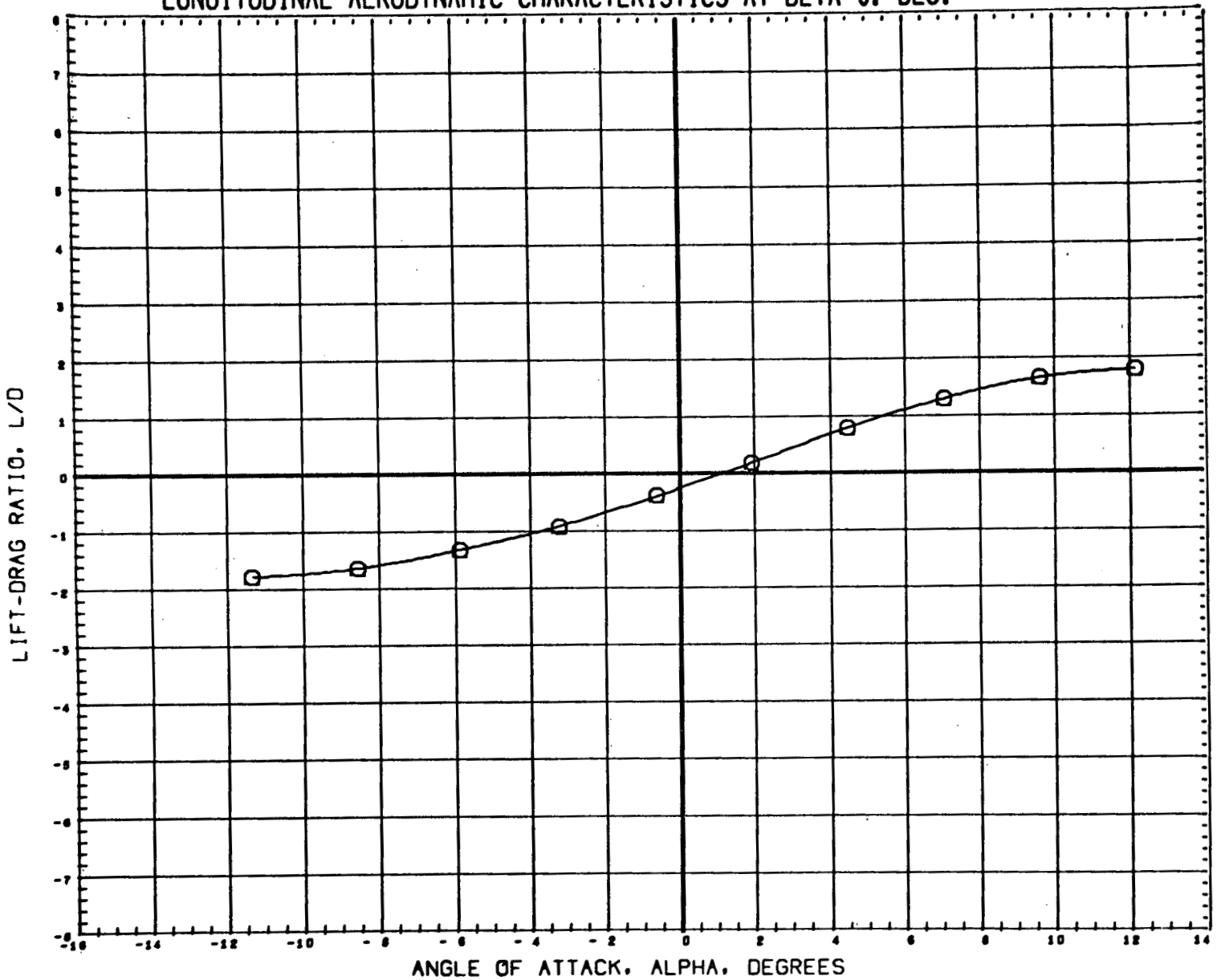


SYMBOL \circ MACH 0.099 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

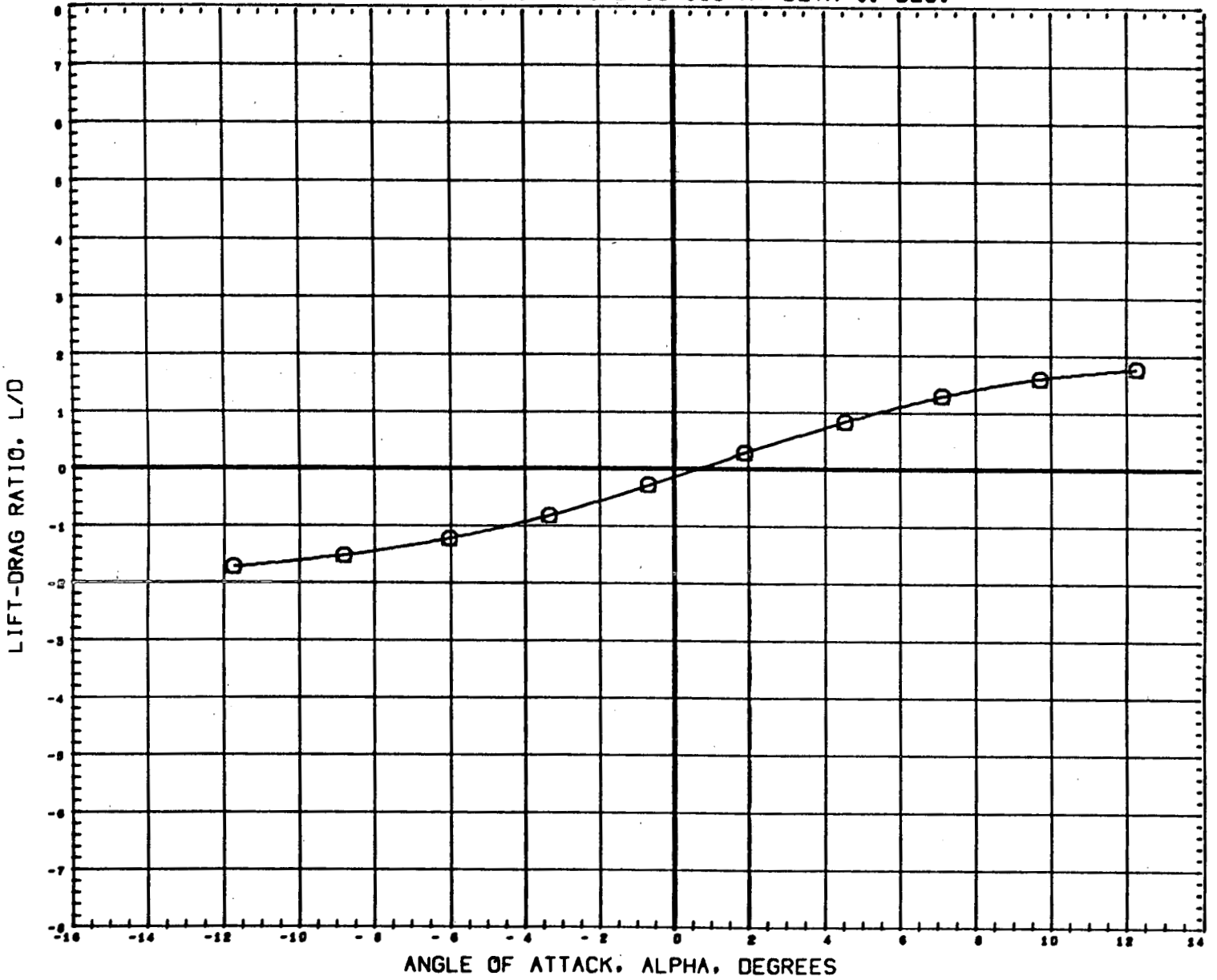


SYMBOL \circ MACH 1.000 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.099 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

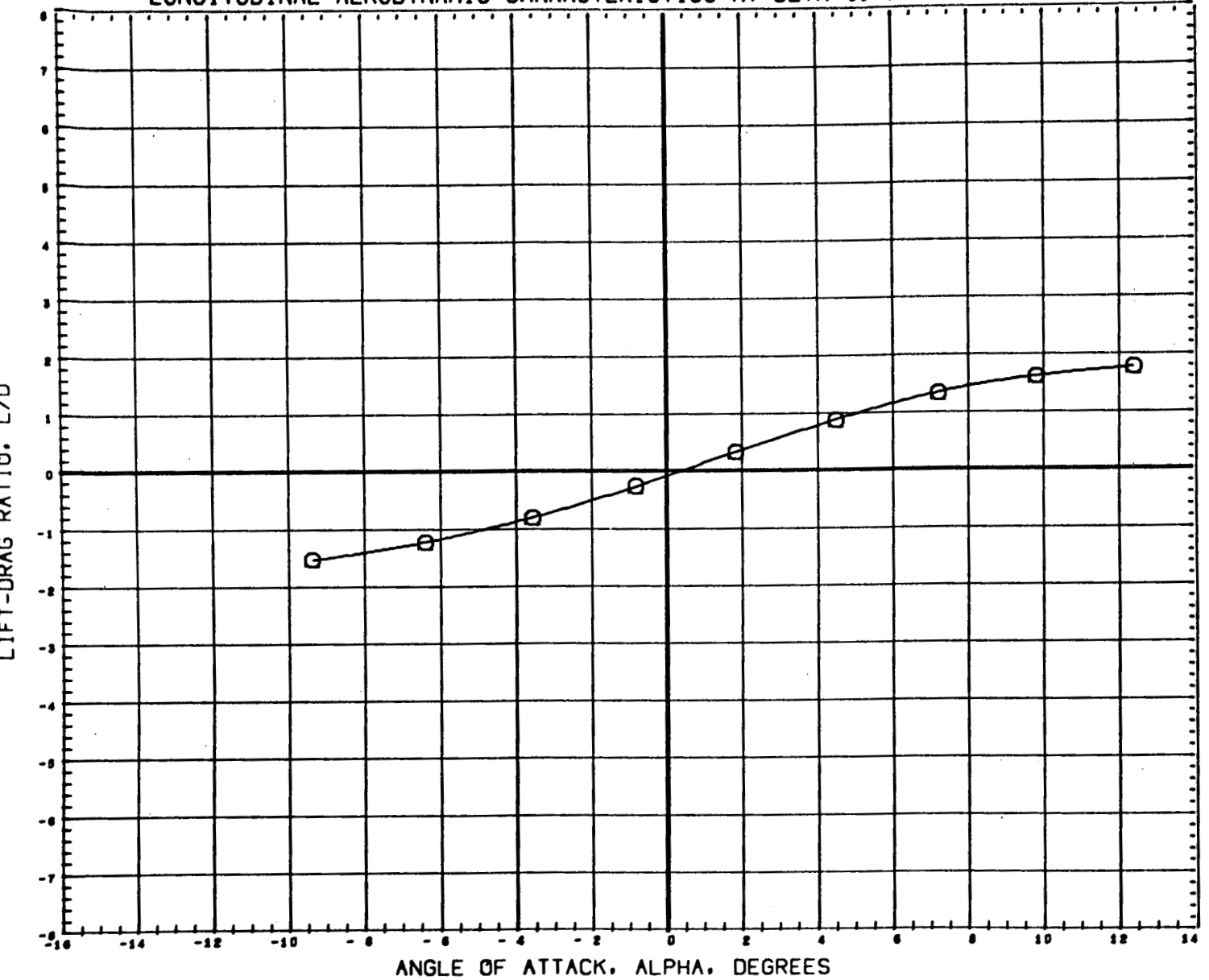
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

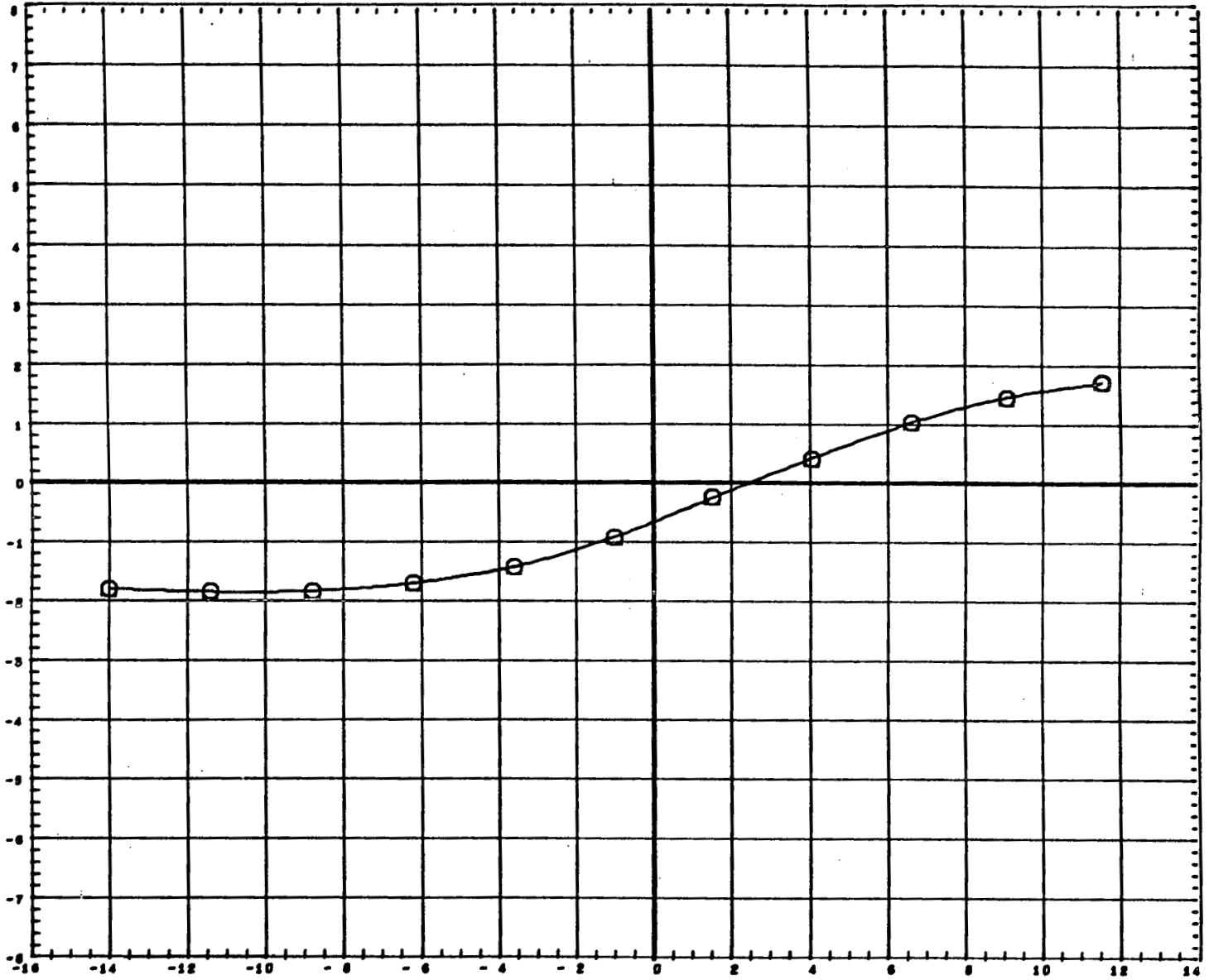


SYMBOL \circ MACH 1.197 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



ANGLE OF ATTACK, ALPHA, DEGREES

MBOL MACH PARAMETRIC VALUES
 0 2.740 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 86 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

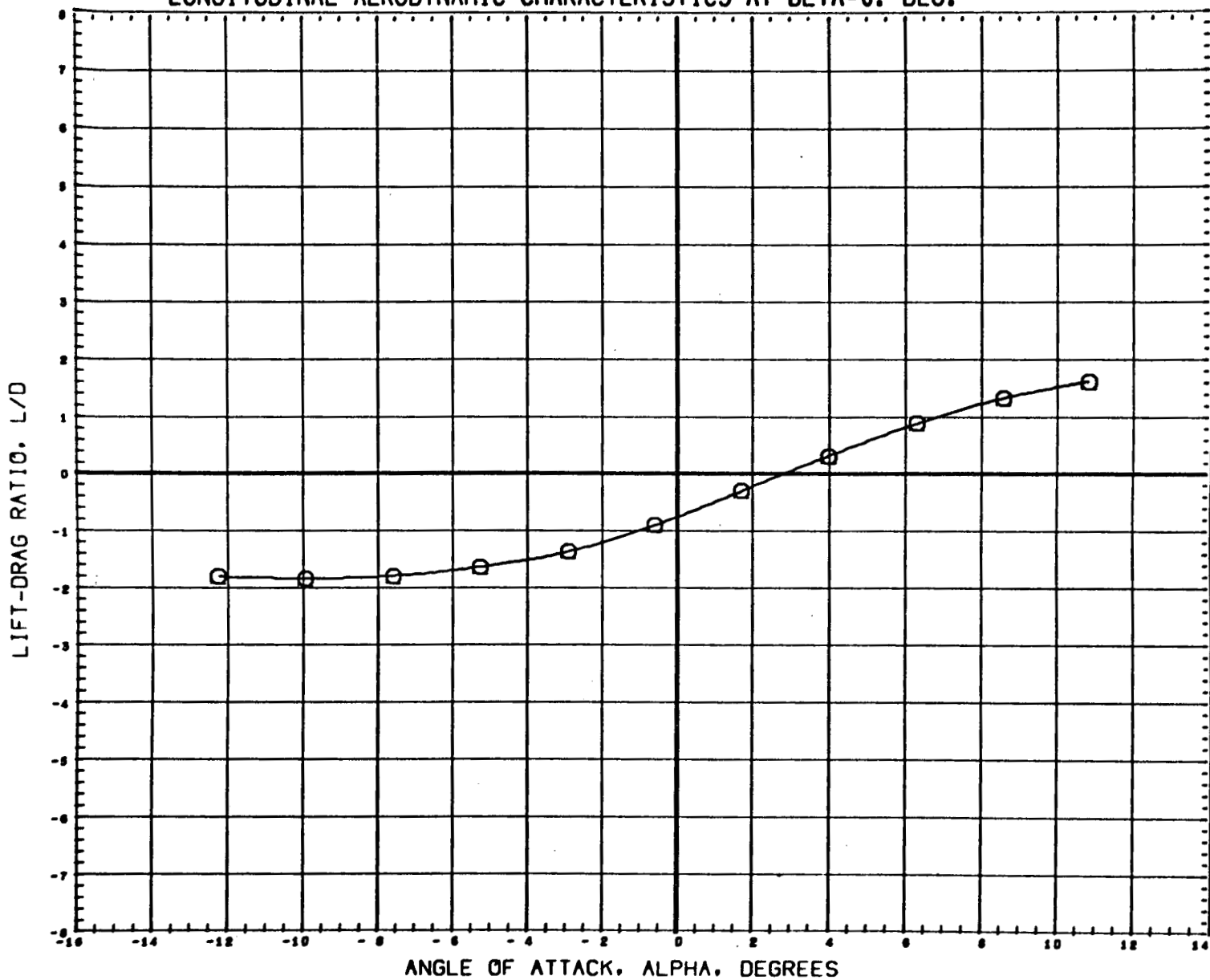
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

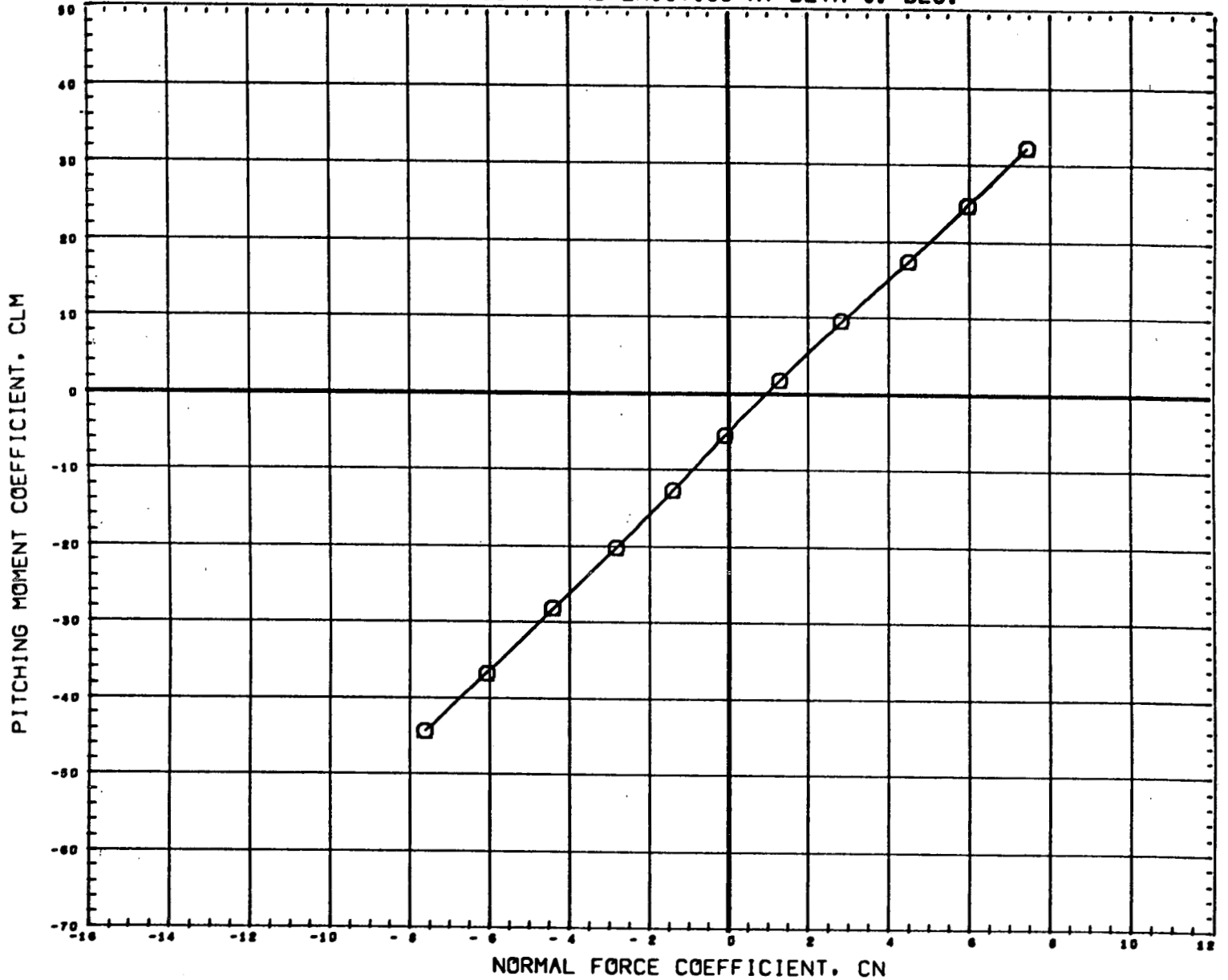


SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 0.999 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

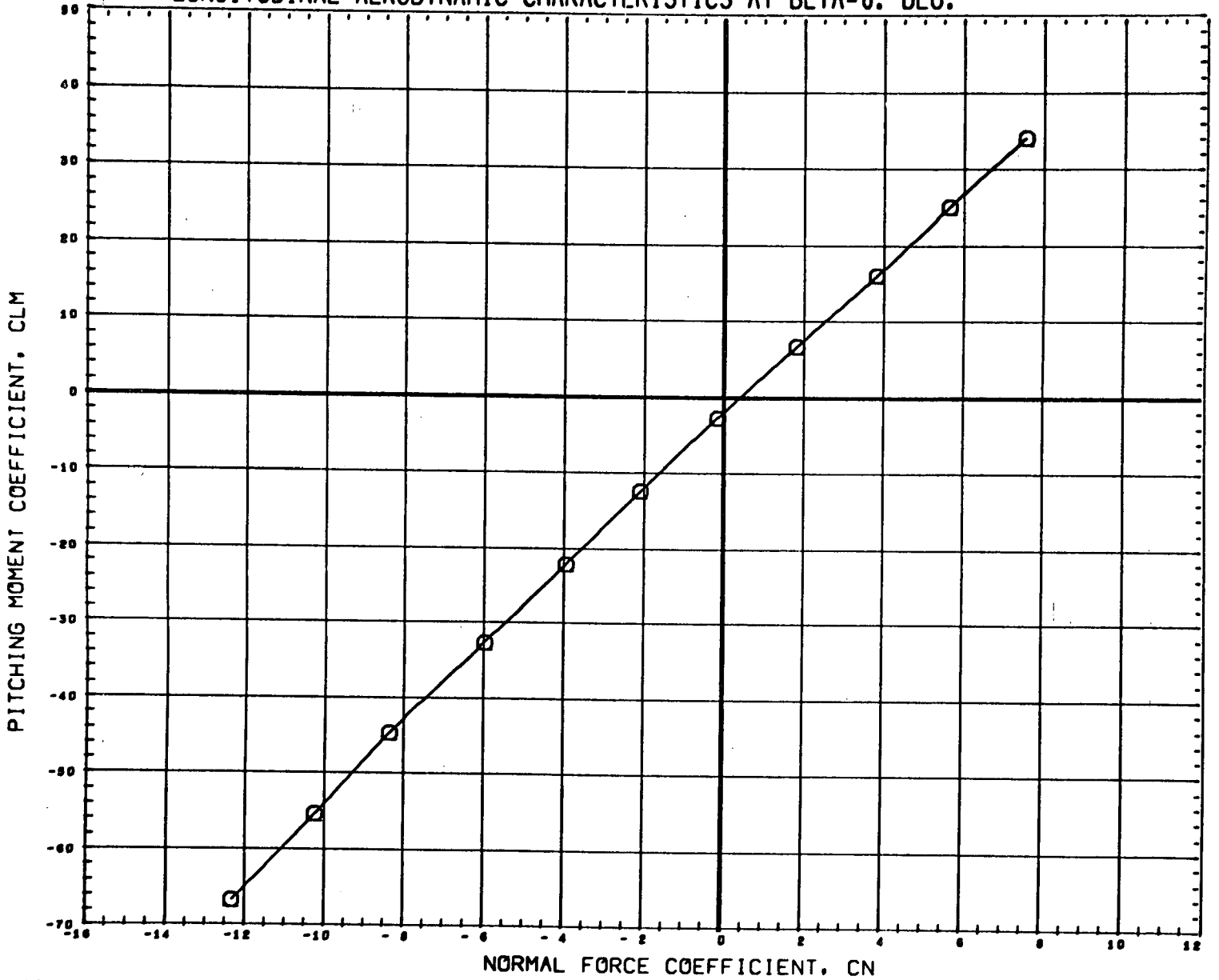
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

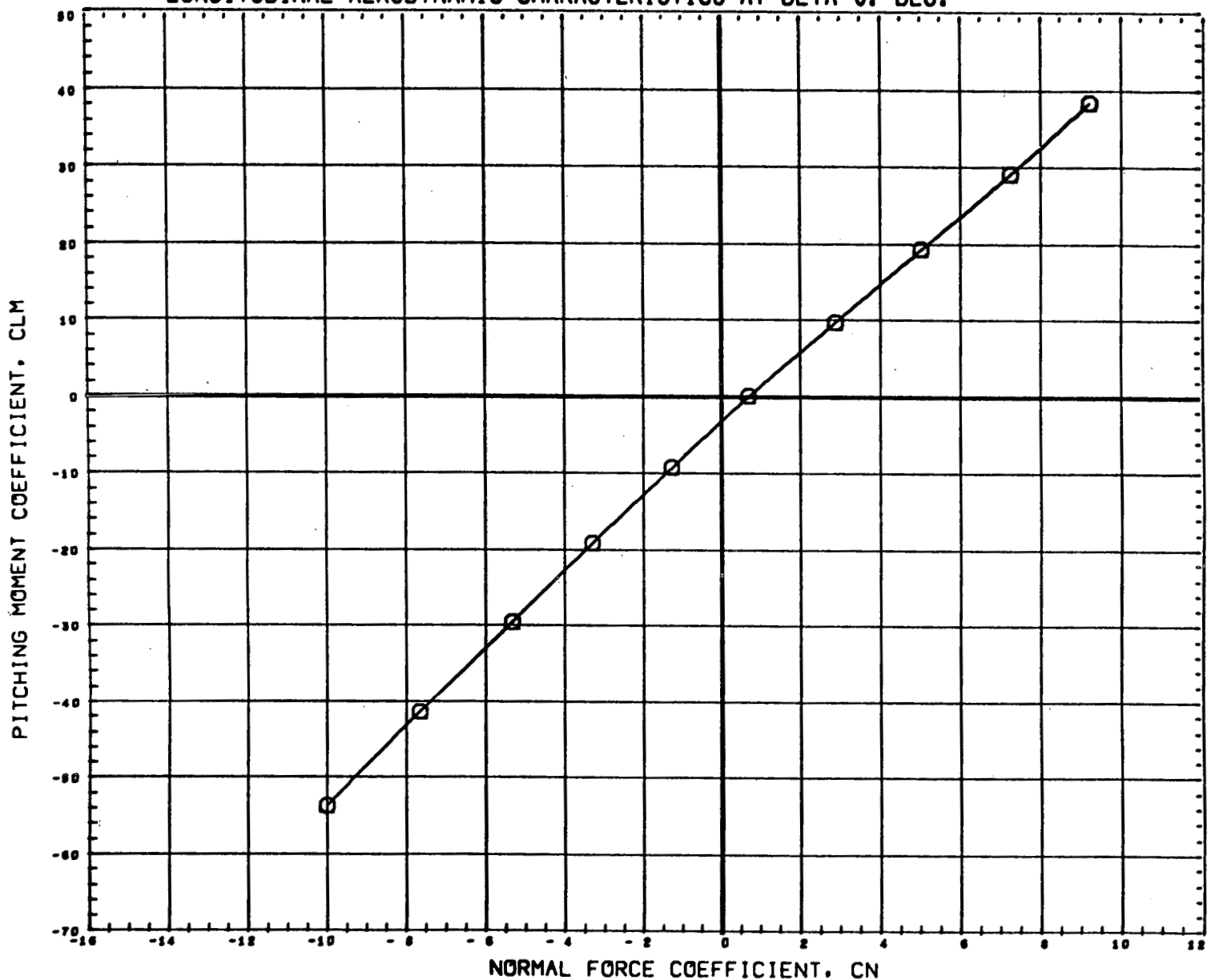


SYMBOL \circ MACH 0.895 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.000 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

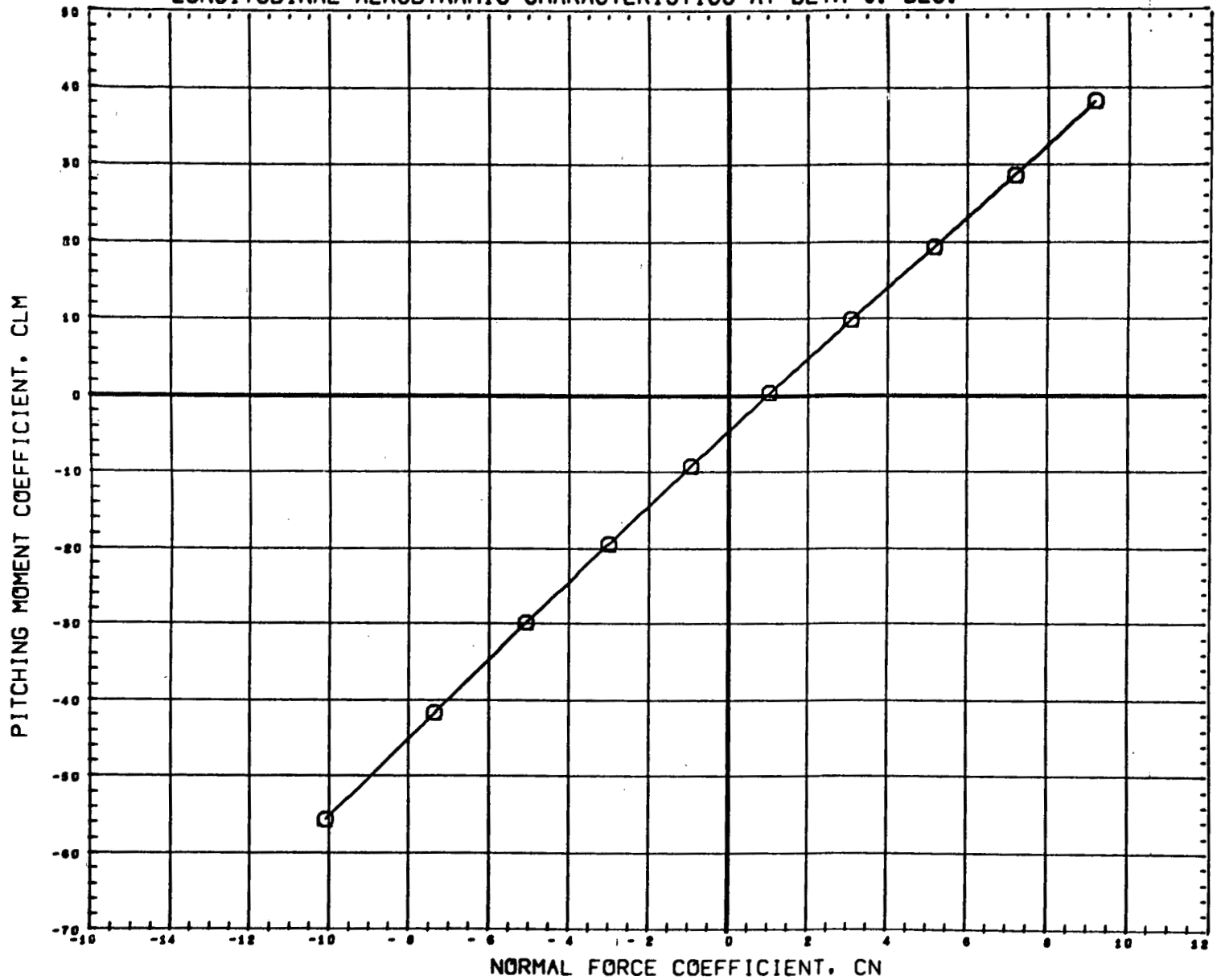
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

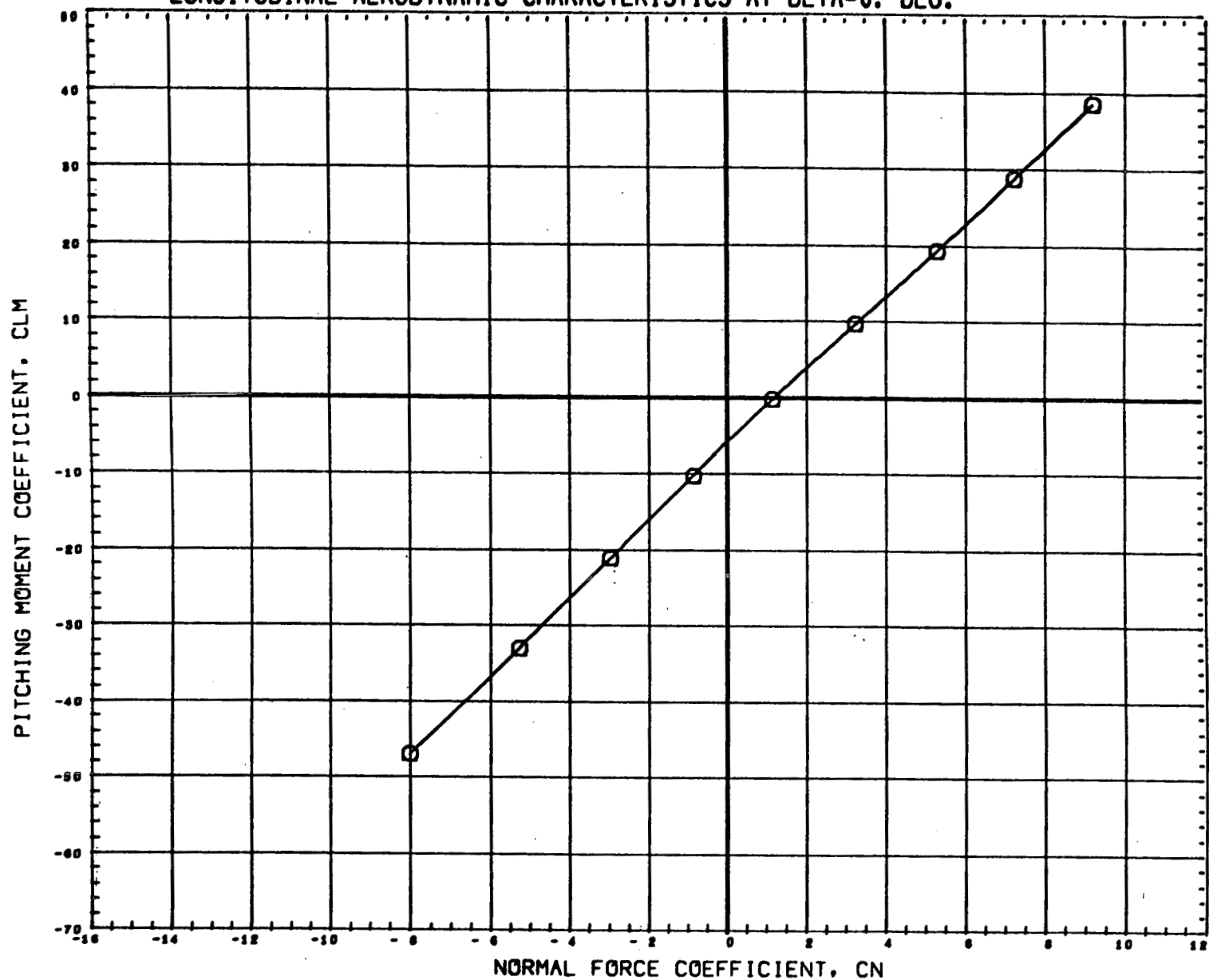


SYMBOL \bigcirc MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 1.197 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 SQ INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

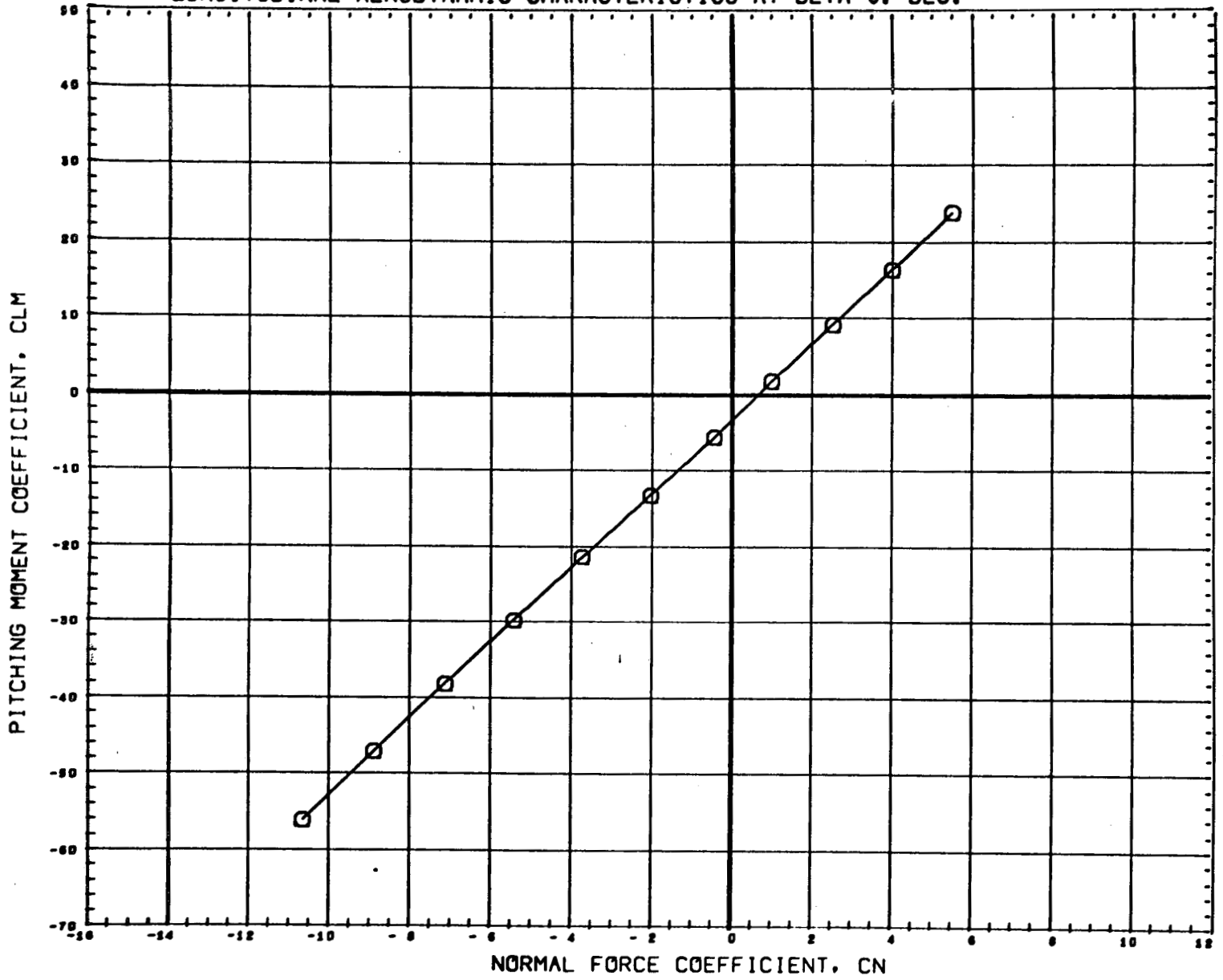
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

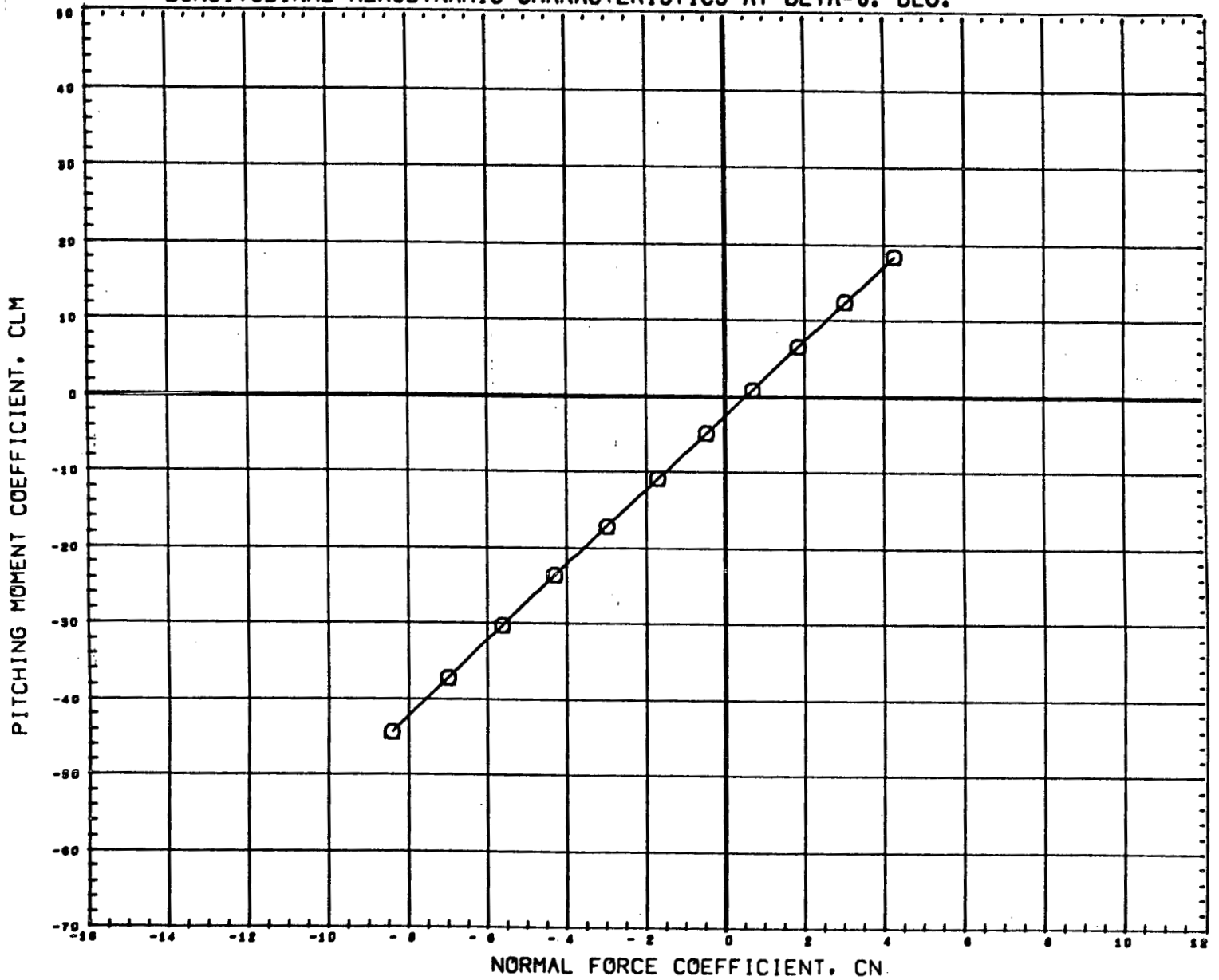


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 3.480 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 OREF 0.8240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

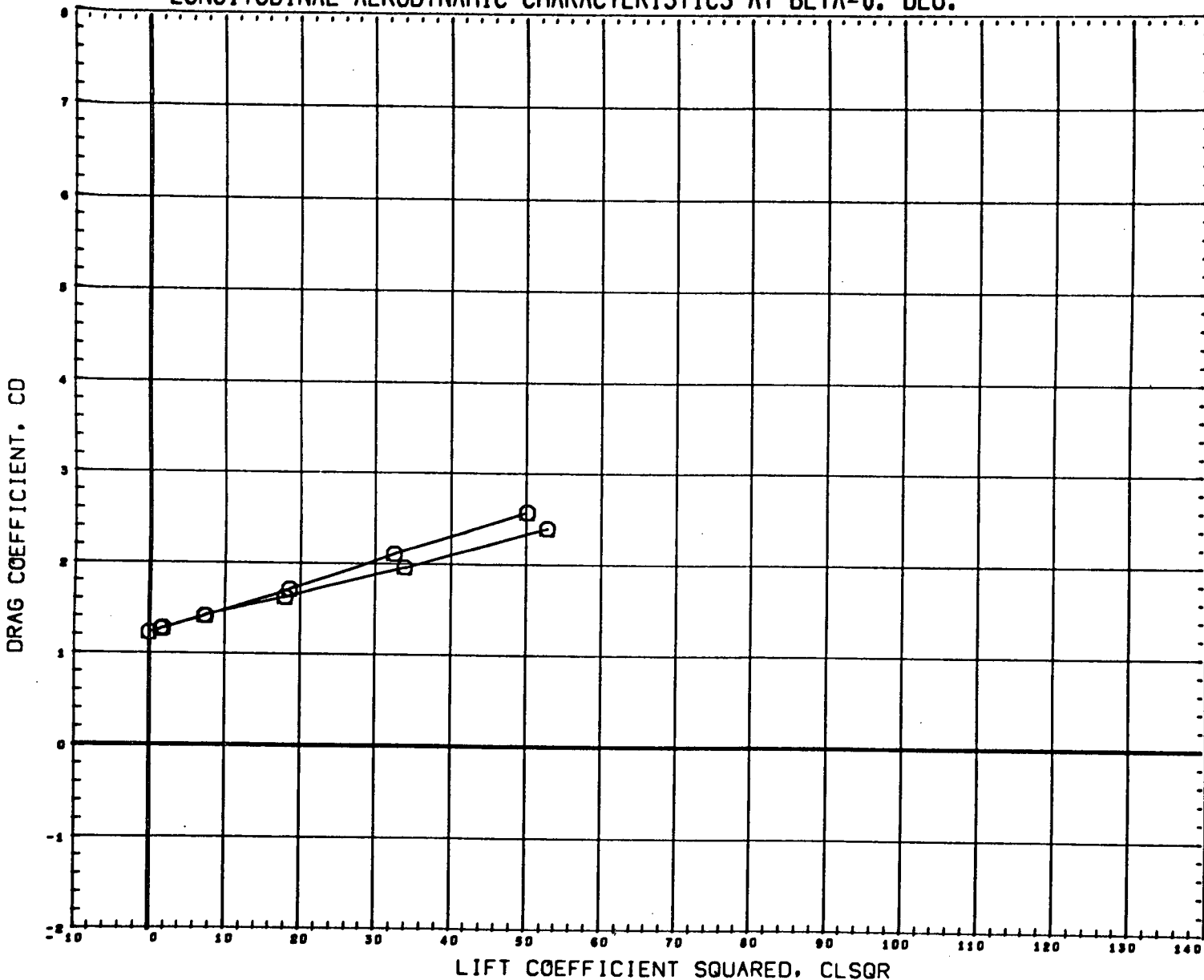
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

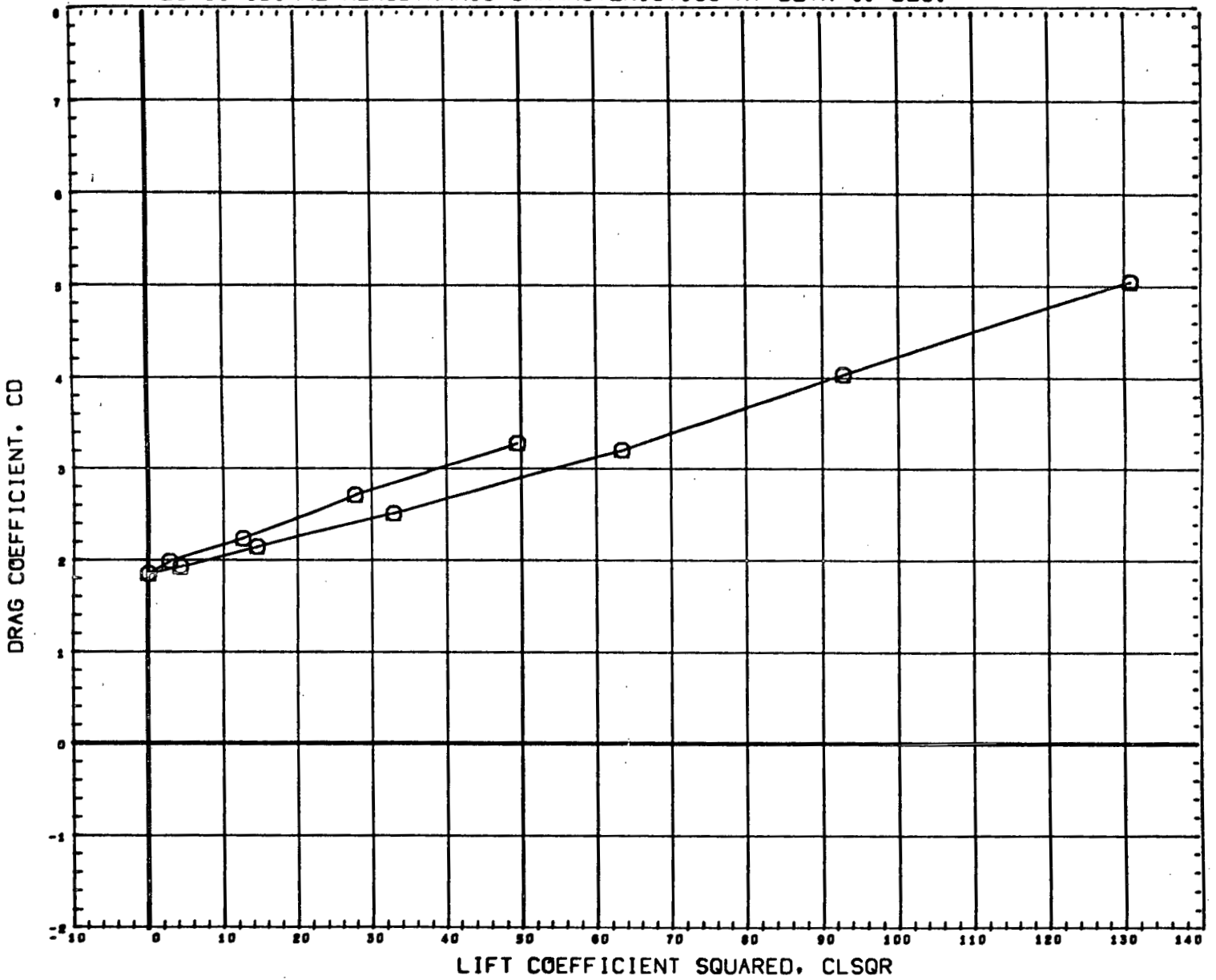


SYMBOL \bigcirc MACH 0.599 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

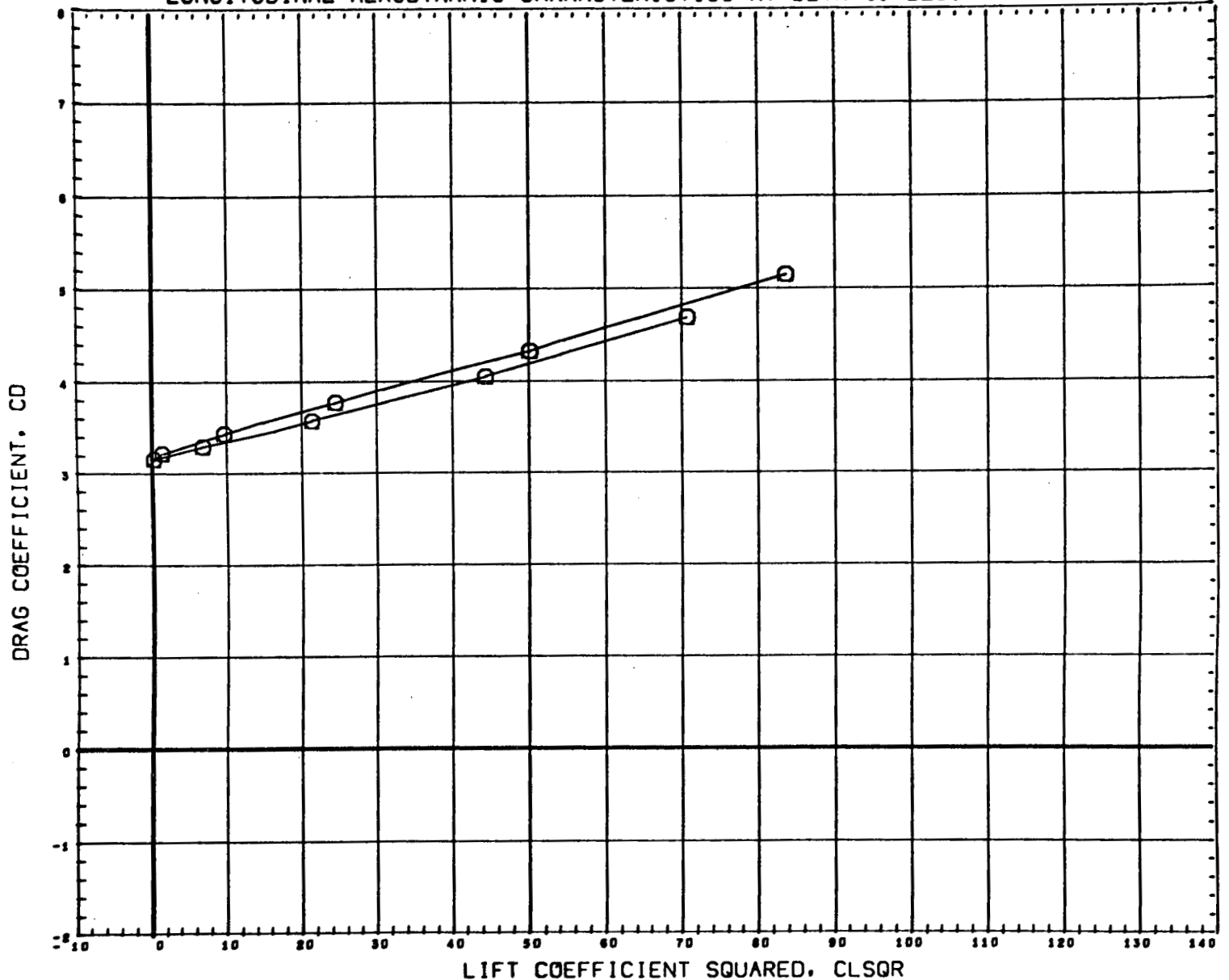


SYMBOL MACH PARAMETRIC VALUES
 O 0.095 BETA 0.000

REFERENCE INFORMATION
 SREP 0.9340 50 INC
 LREP 0.6240 INCHES
 BREP 0.6240 INCHES
 XMRP 8.0170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

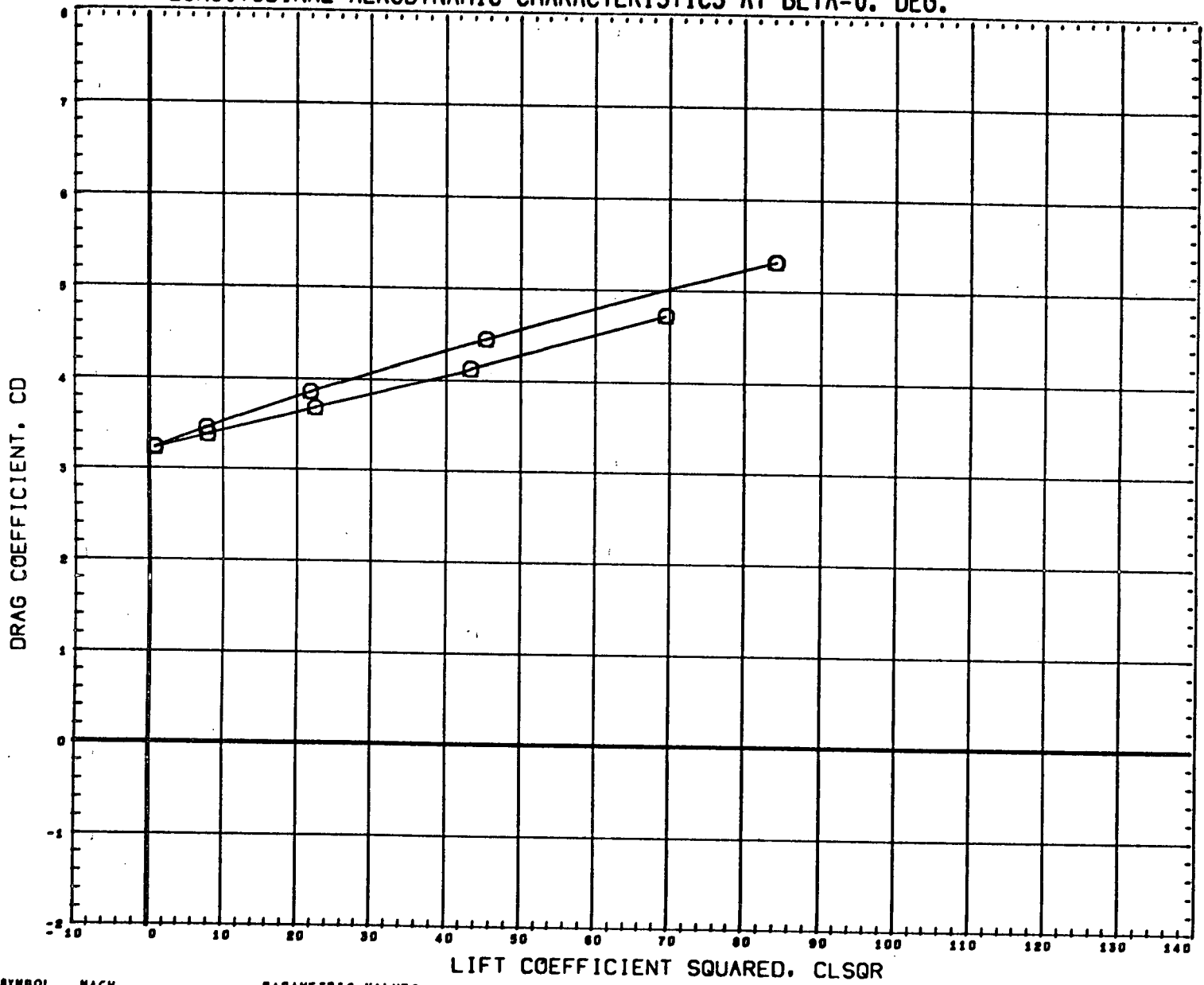


SYMBOL \circ MACH 1.000 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

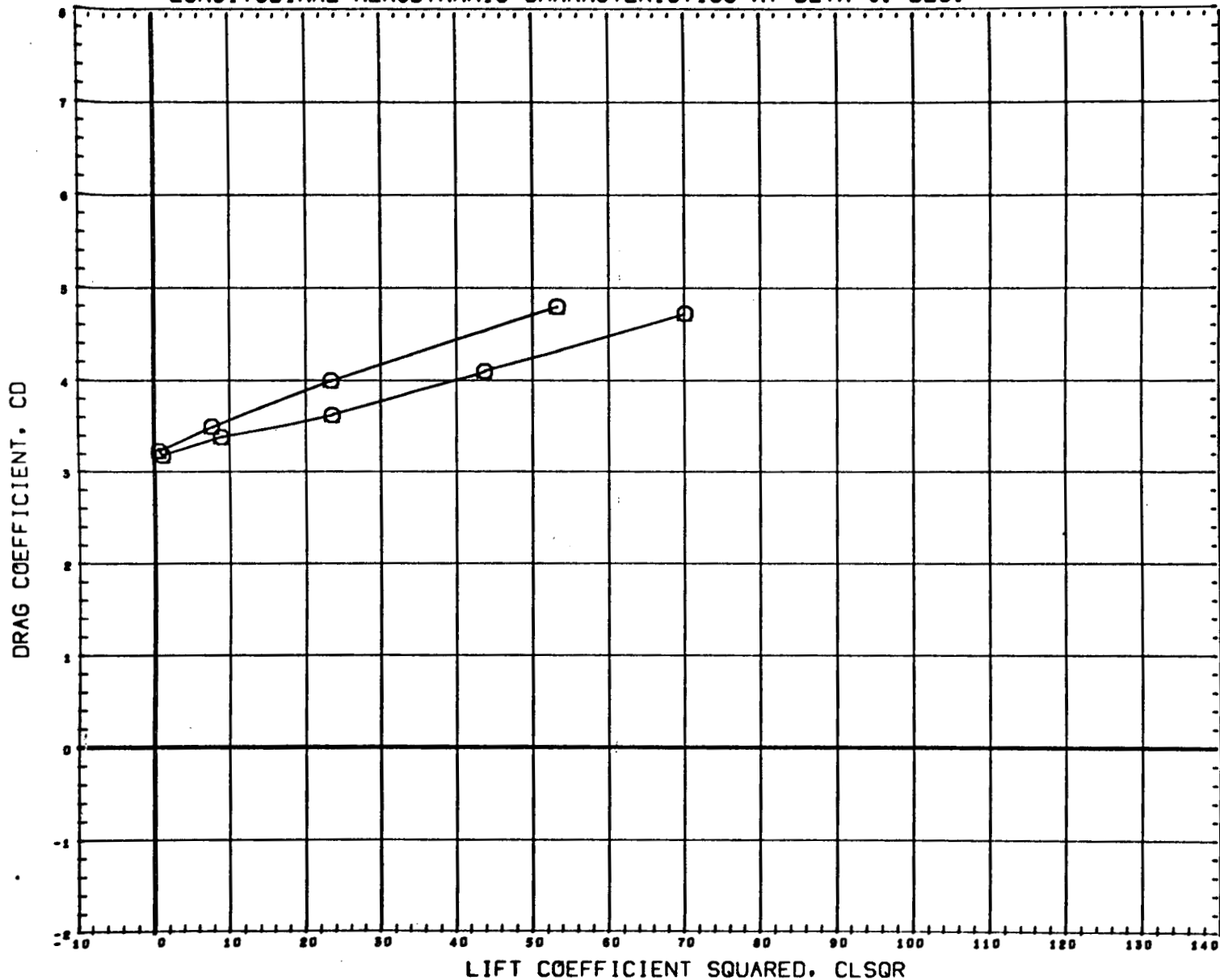


SYMBOL \bigcirc MACH 1.099 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4800 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

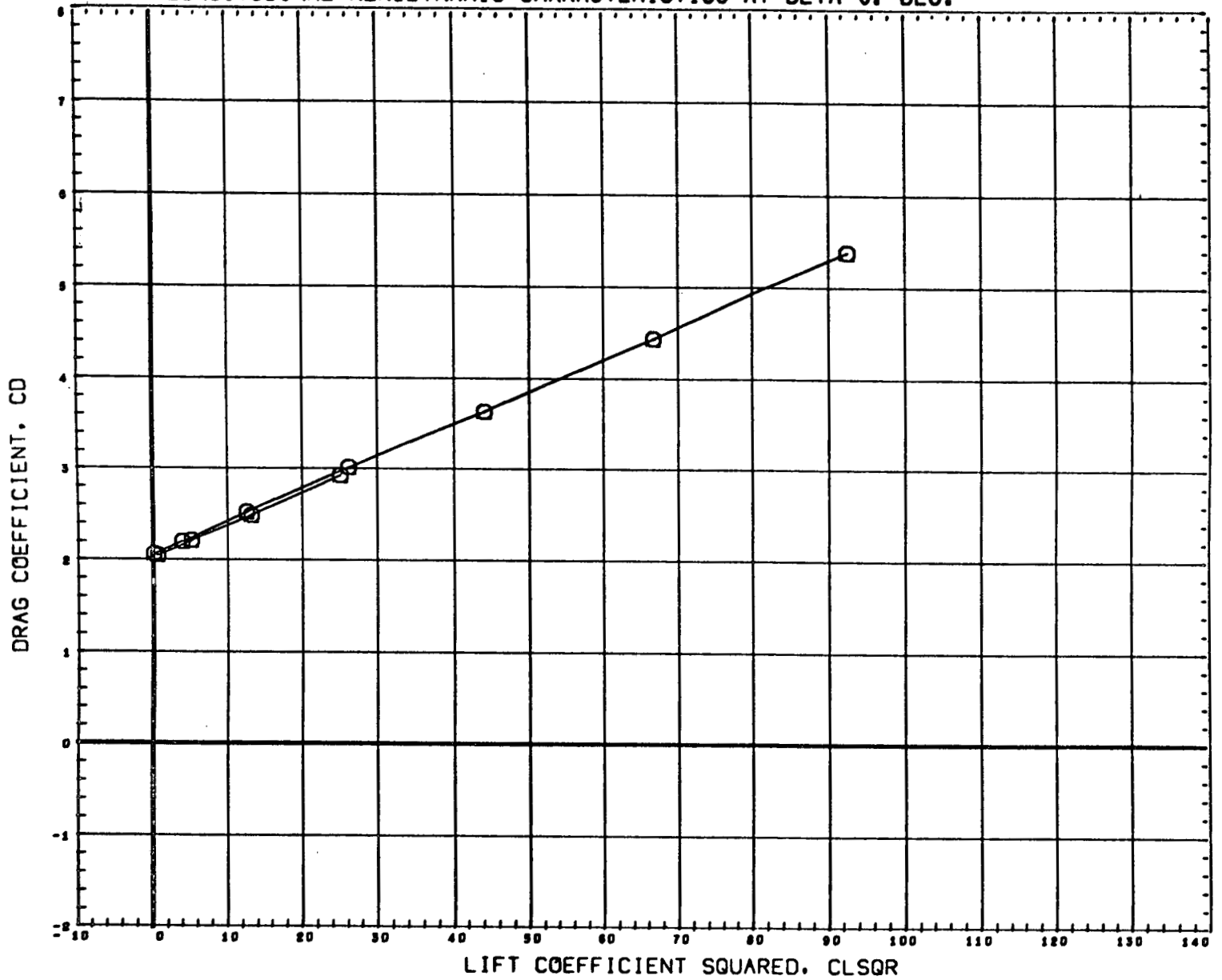


SYMBOL \bigcirc MACH 1.197 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

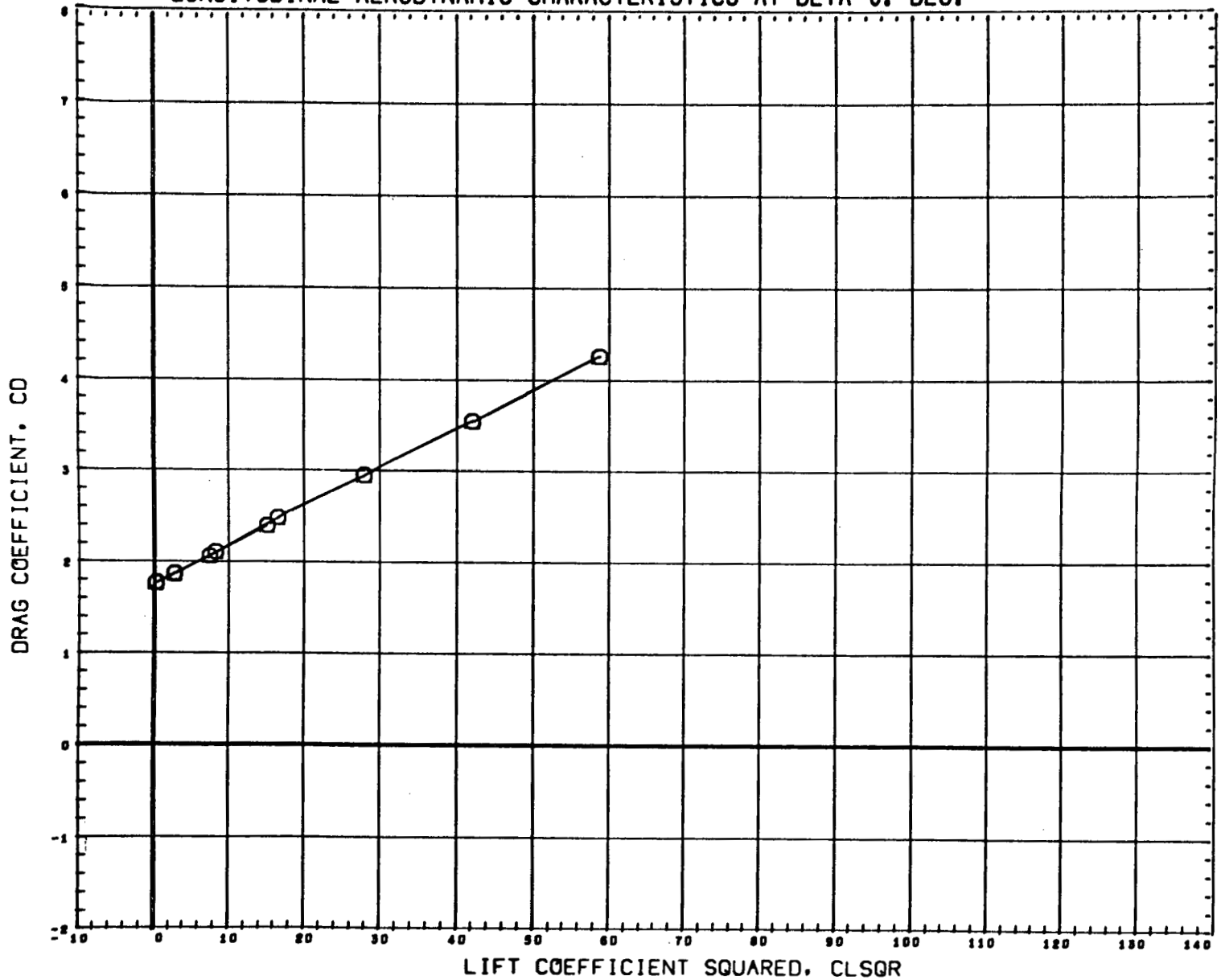


SYMBOL \square MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 88 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

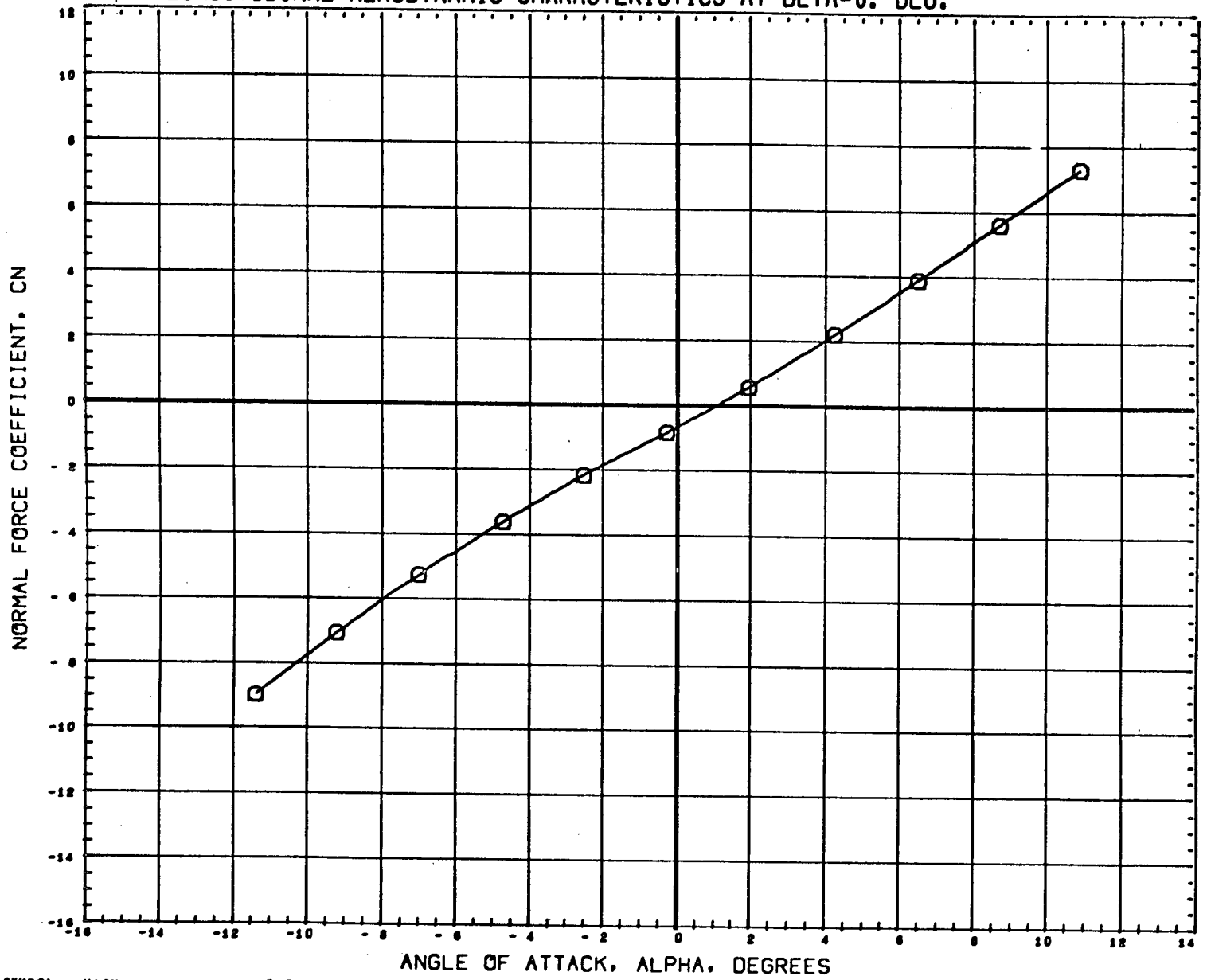


SYMBOL \bigcirc MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

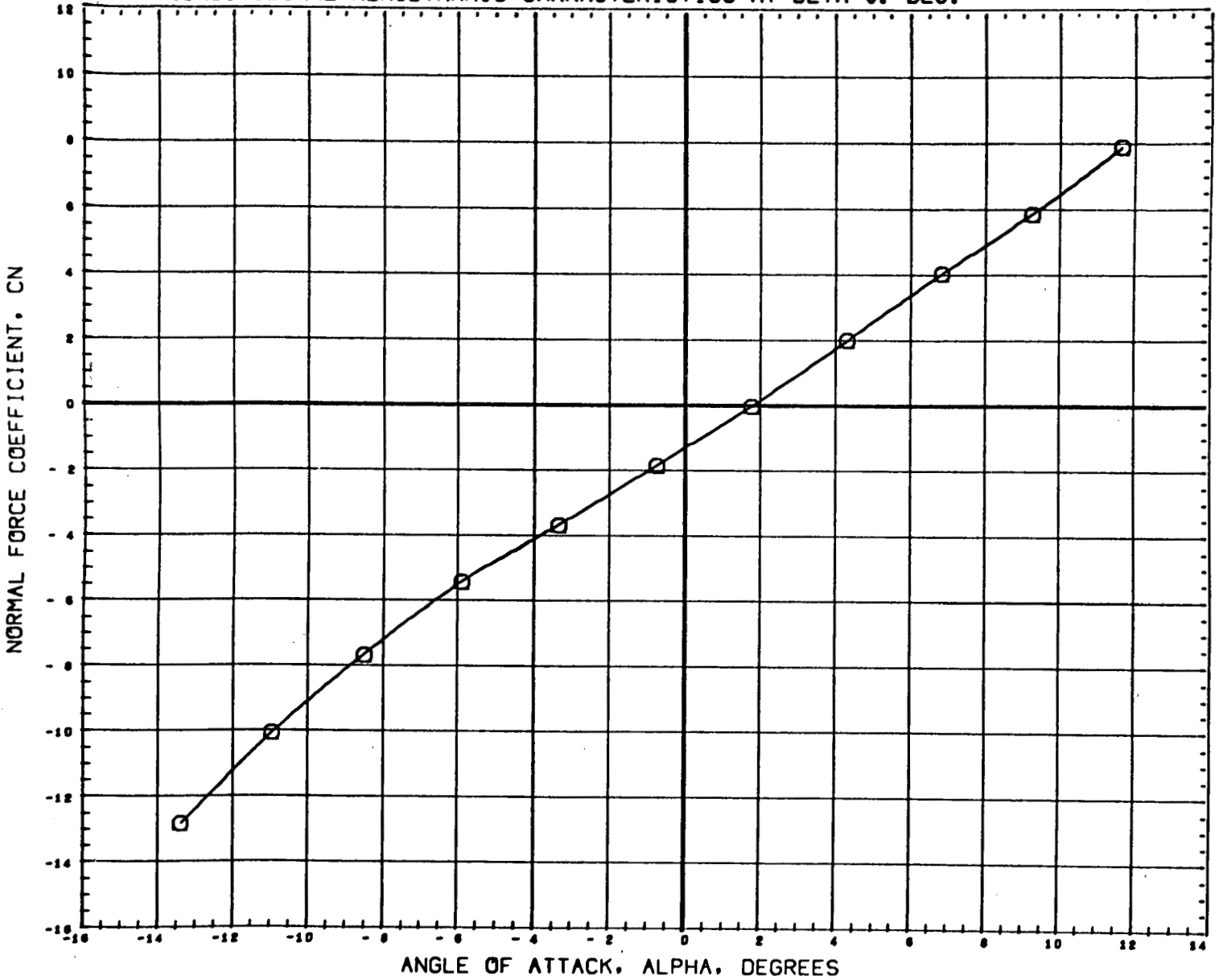


SYMBOL \circ MACH 0.992 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

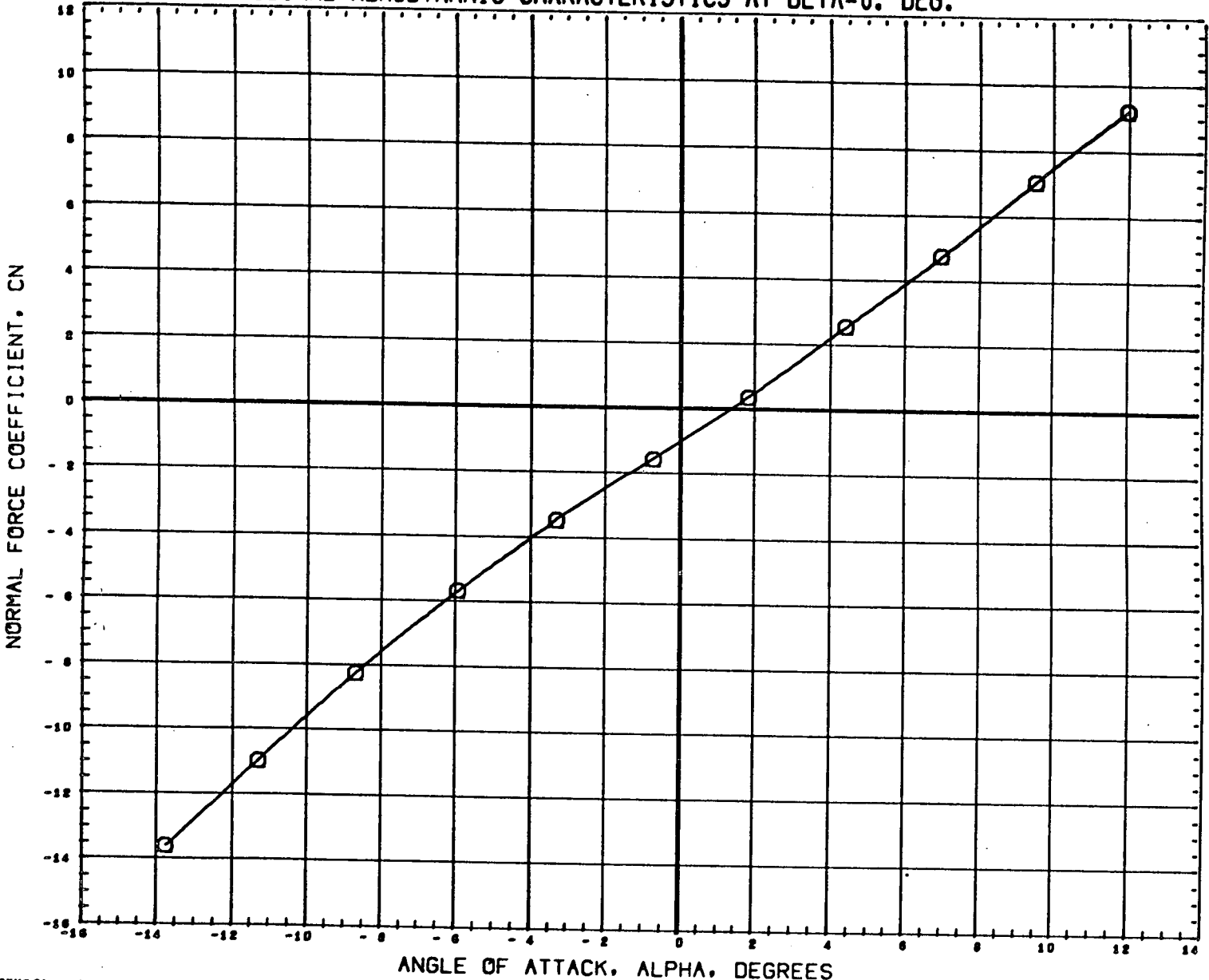


SYMBOL \circ MACH 0.894 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 SQ INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XNRP 8.9170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.994 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V&E

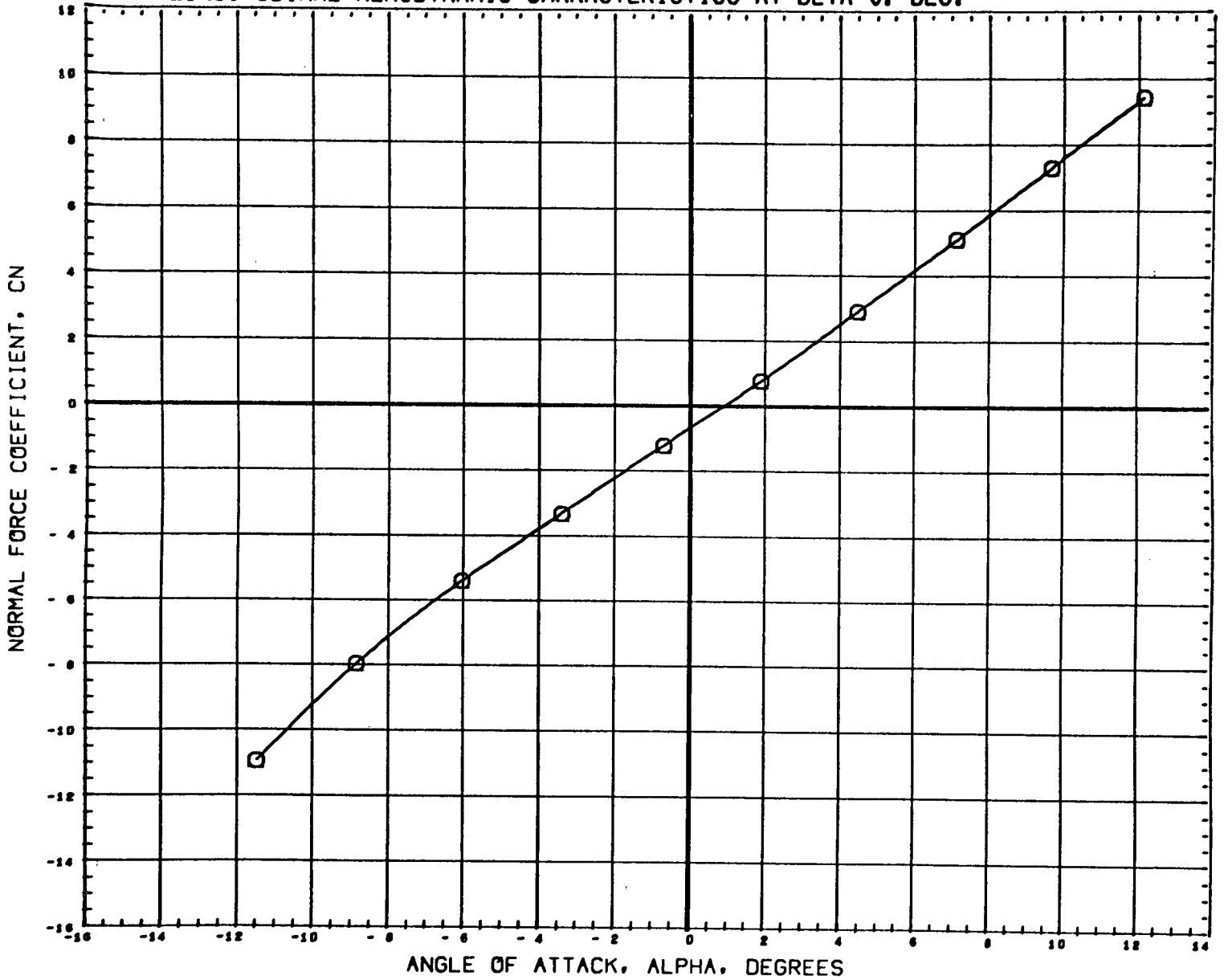
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

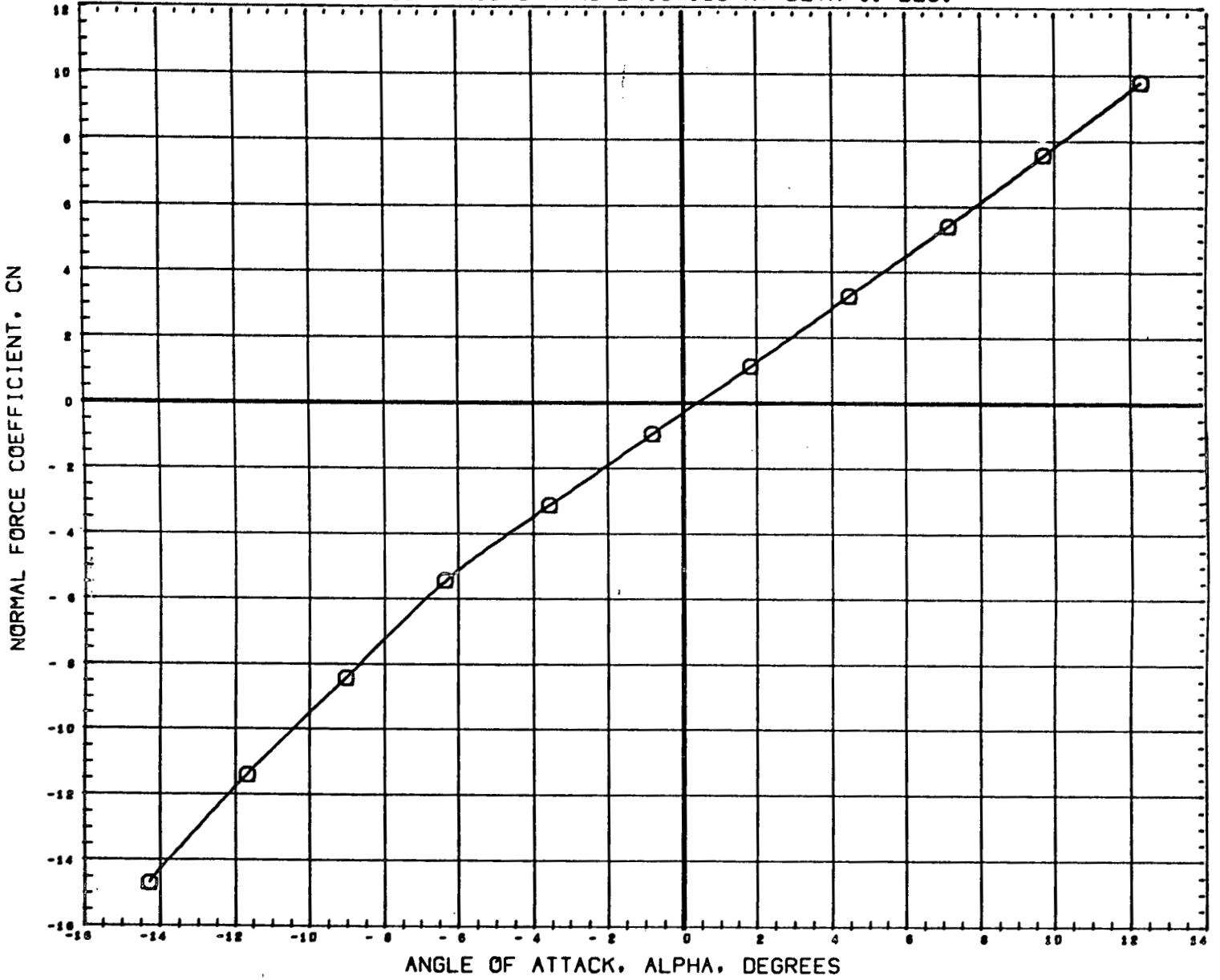


SYMBOL \circ MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

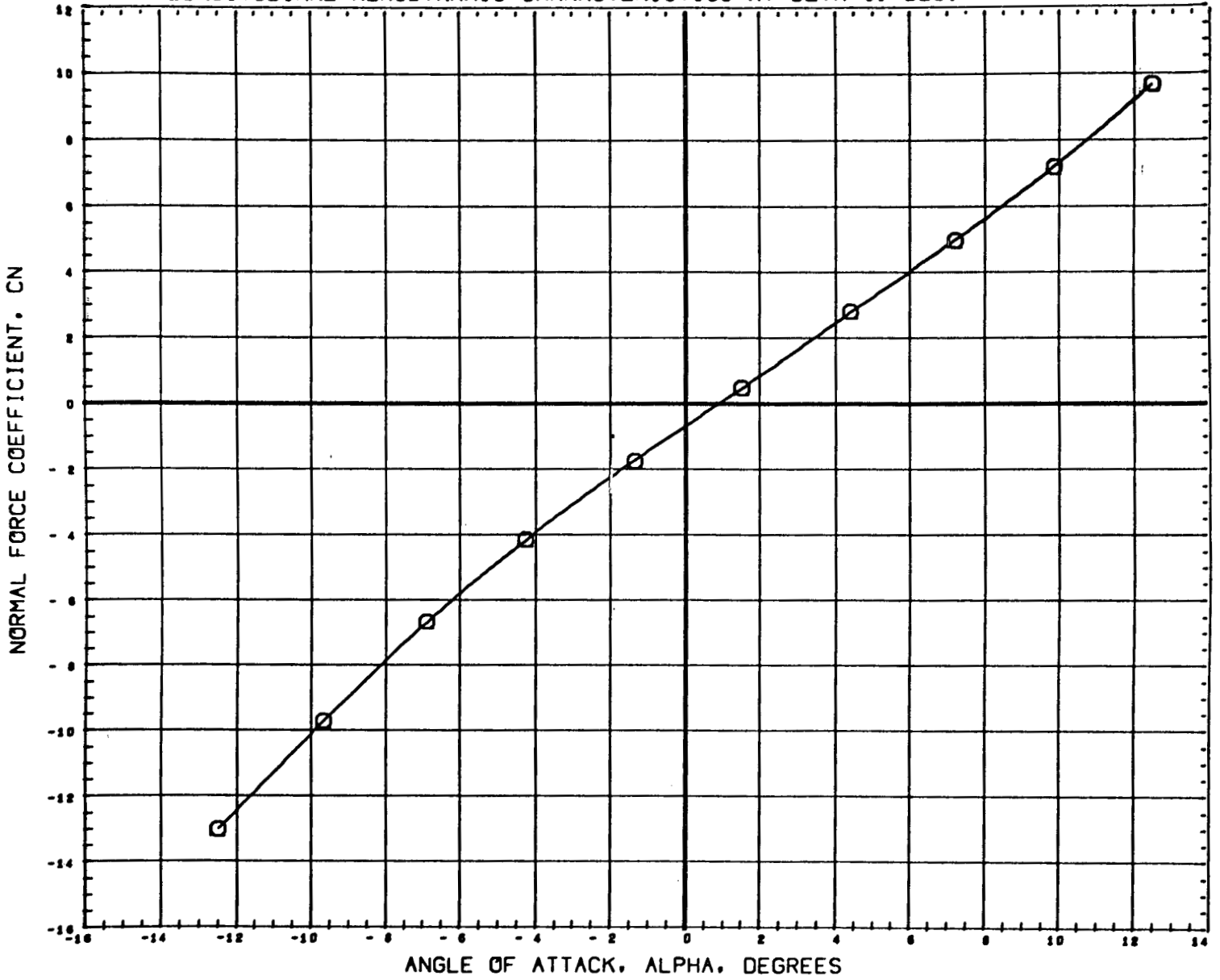


SYMBOL \circ MACH 1.202 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

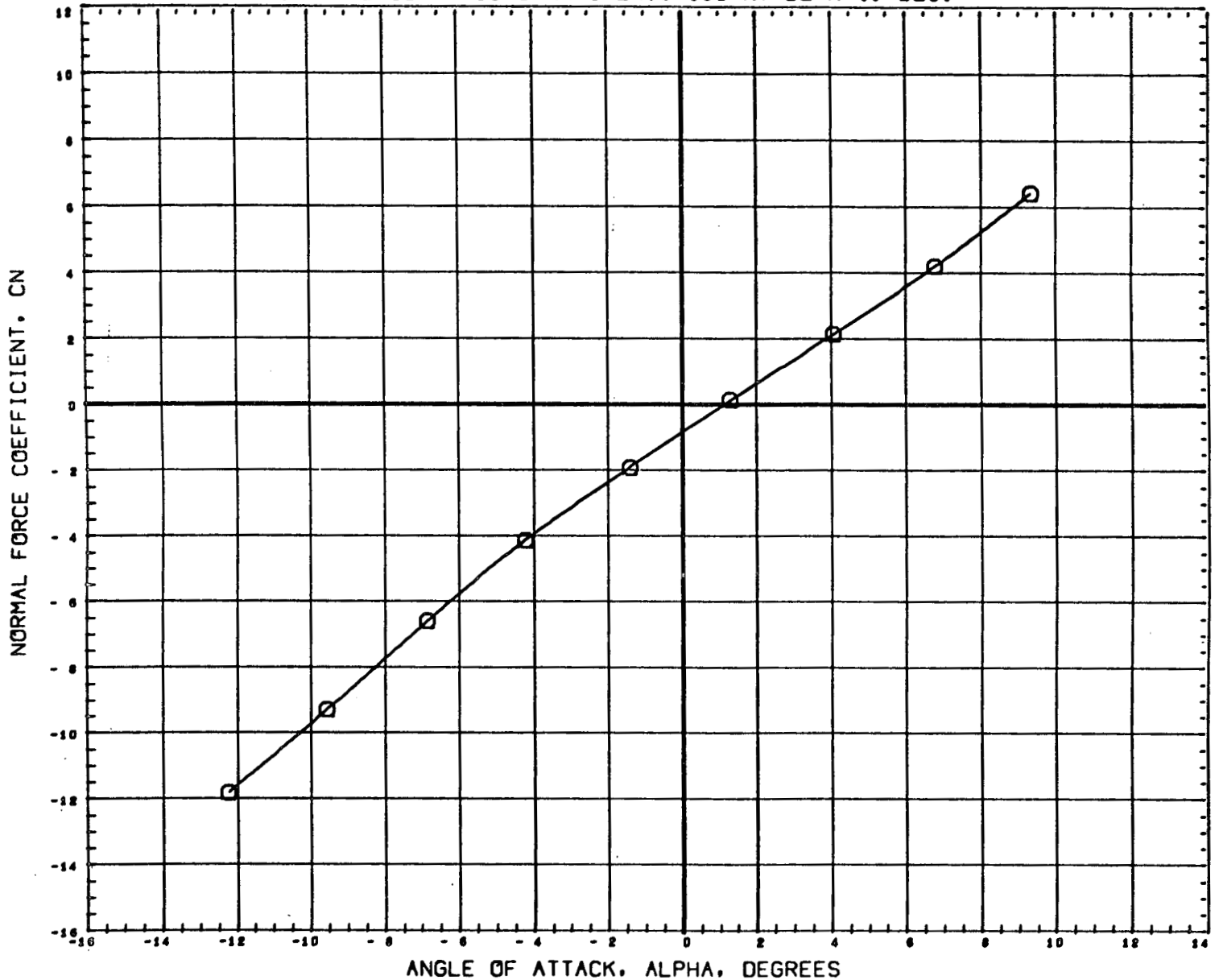


SYMBOL \circ MACH 1.456 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

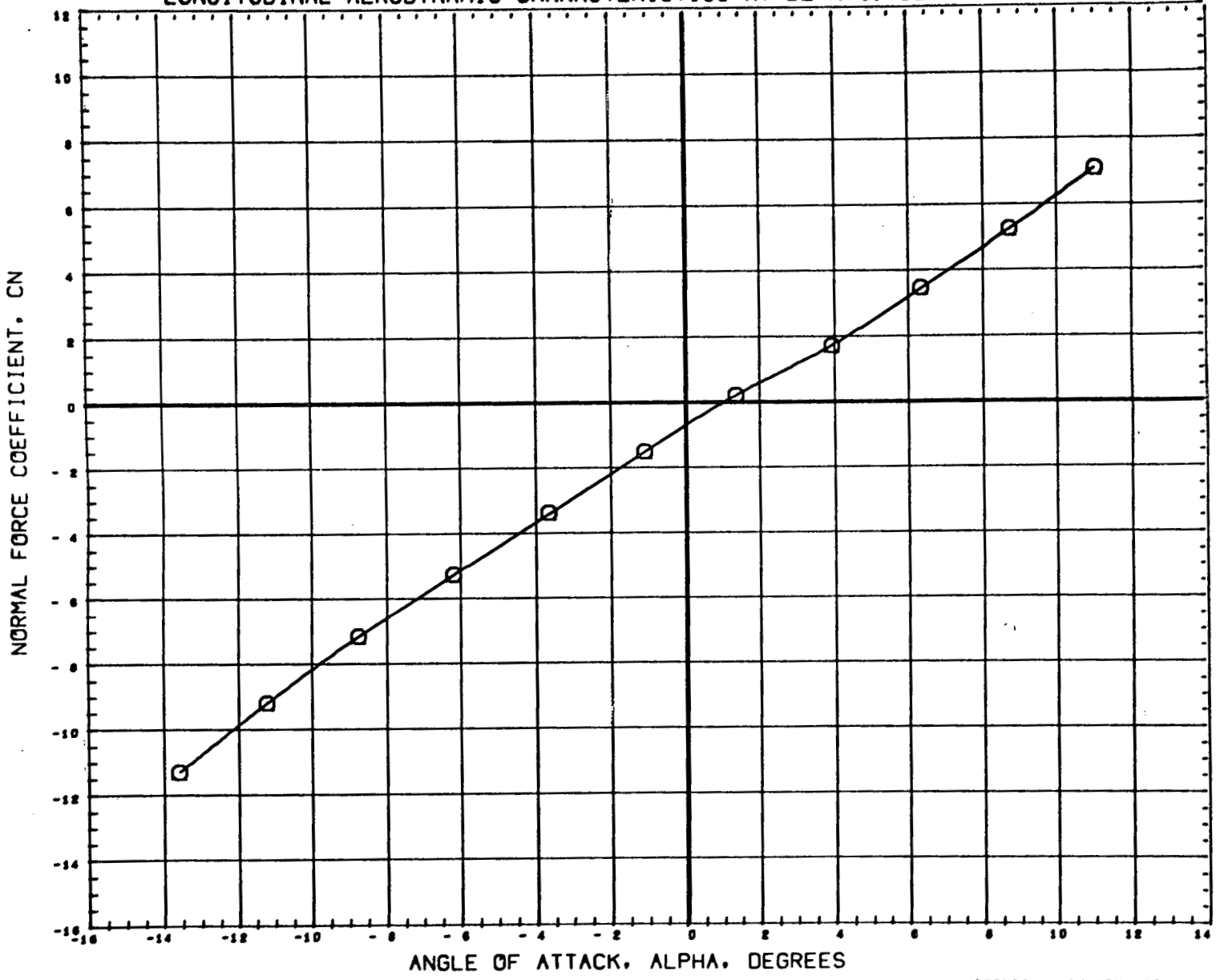


SYMBOL \square HACH 1.969 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

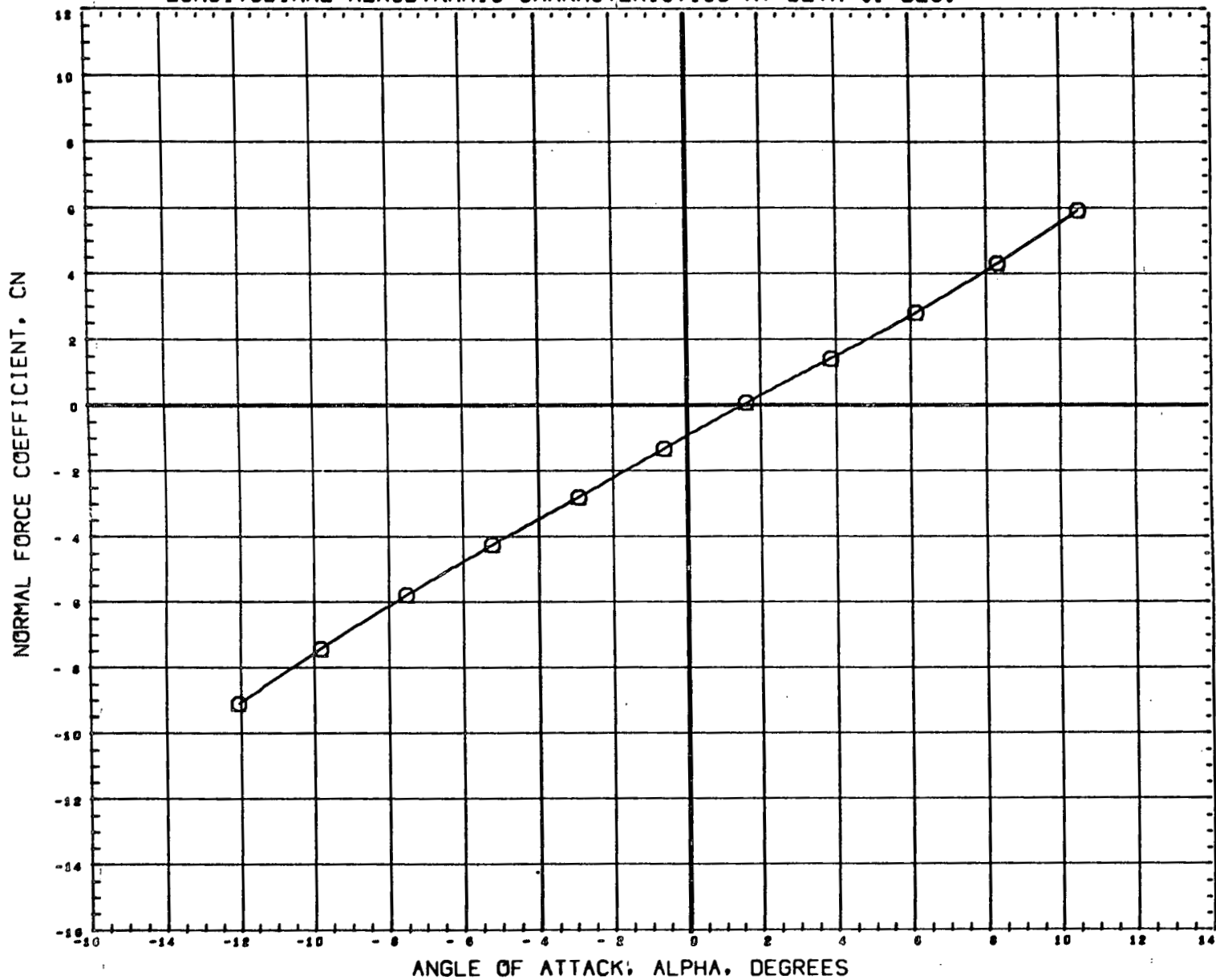


SYMBOL MACH BETA PARAMETRIC VALUES
 O 2.740 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

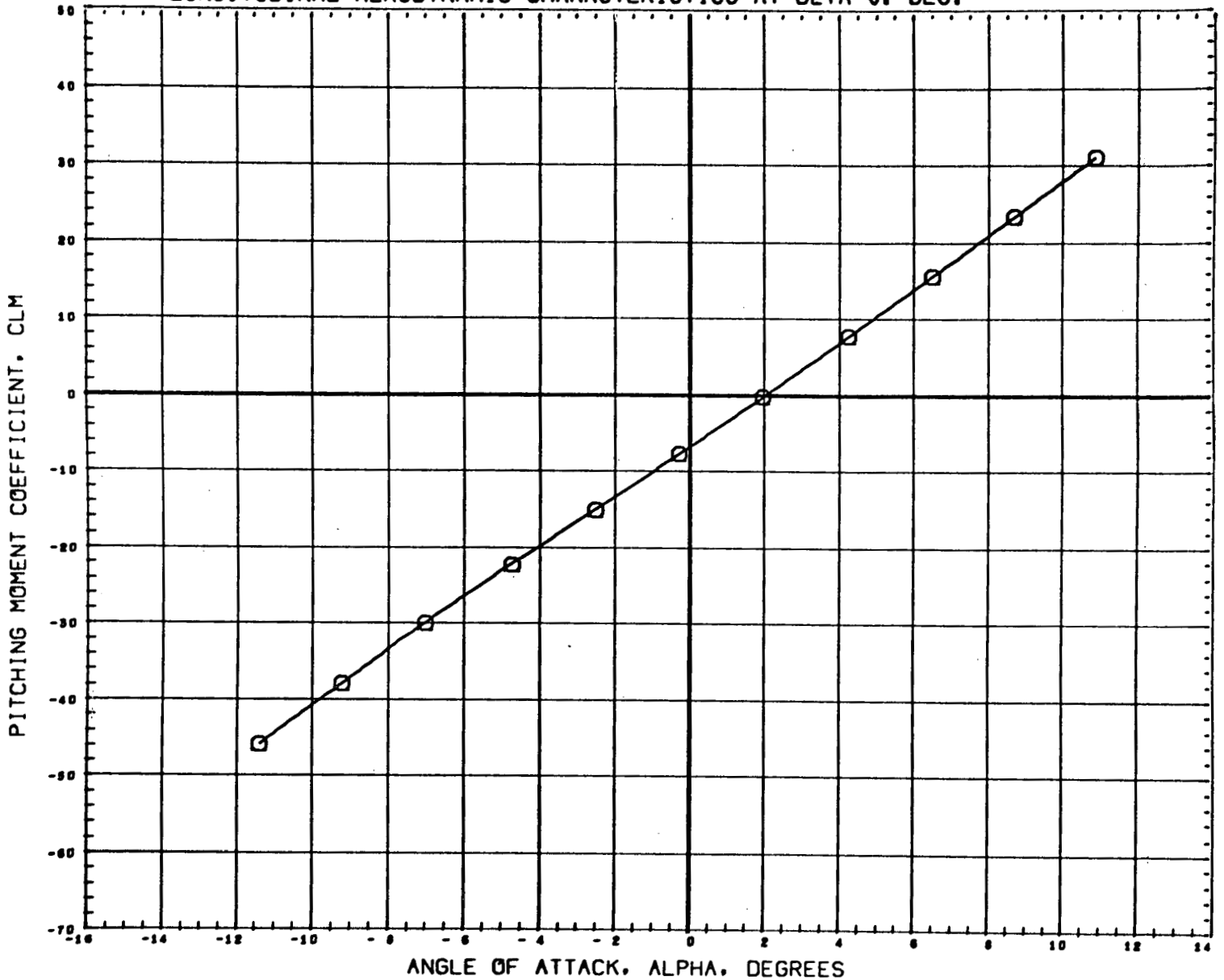


SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 90 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

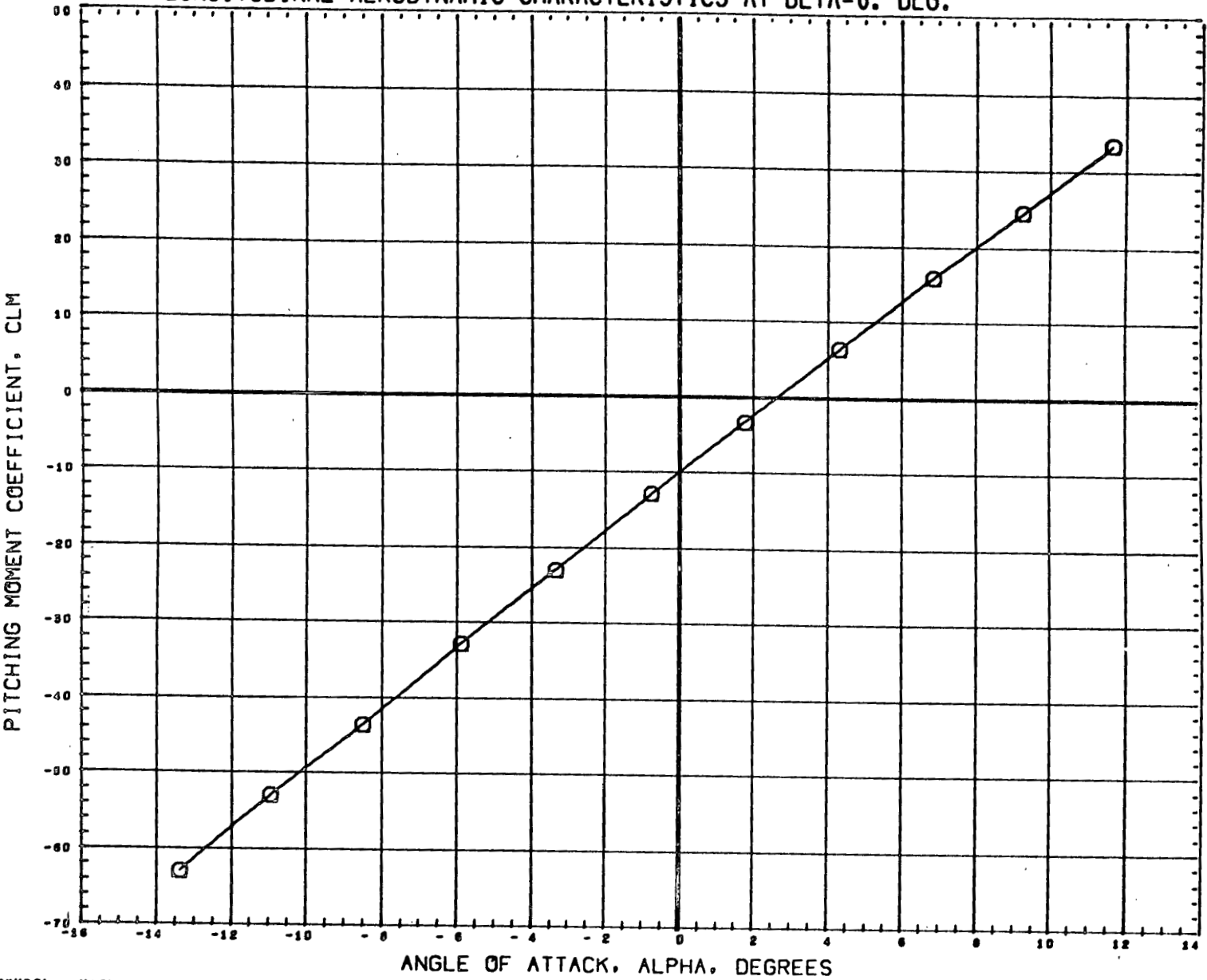


SYMBOL \circ MACH 0.592 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

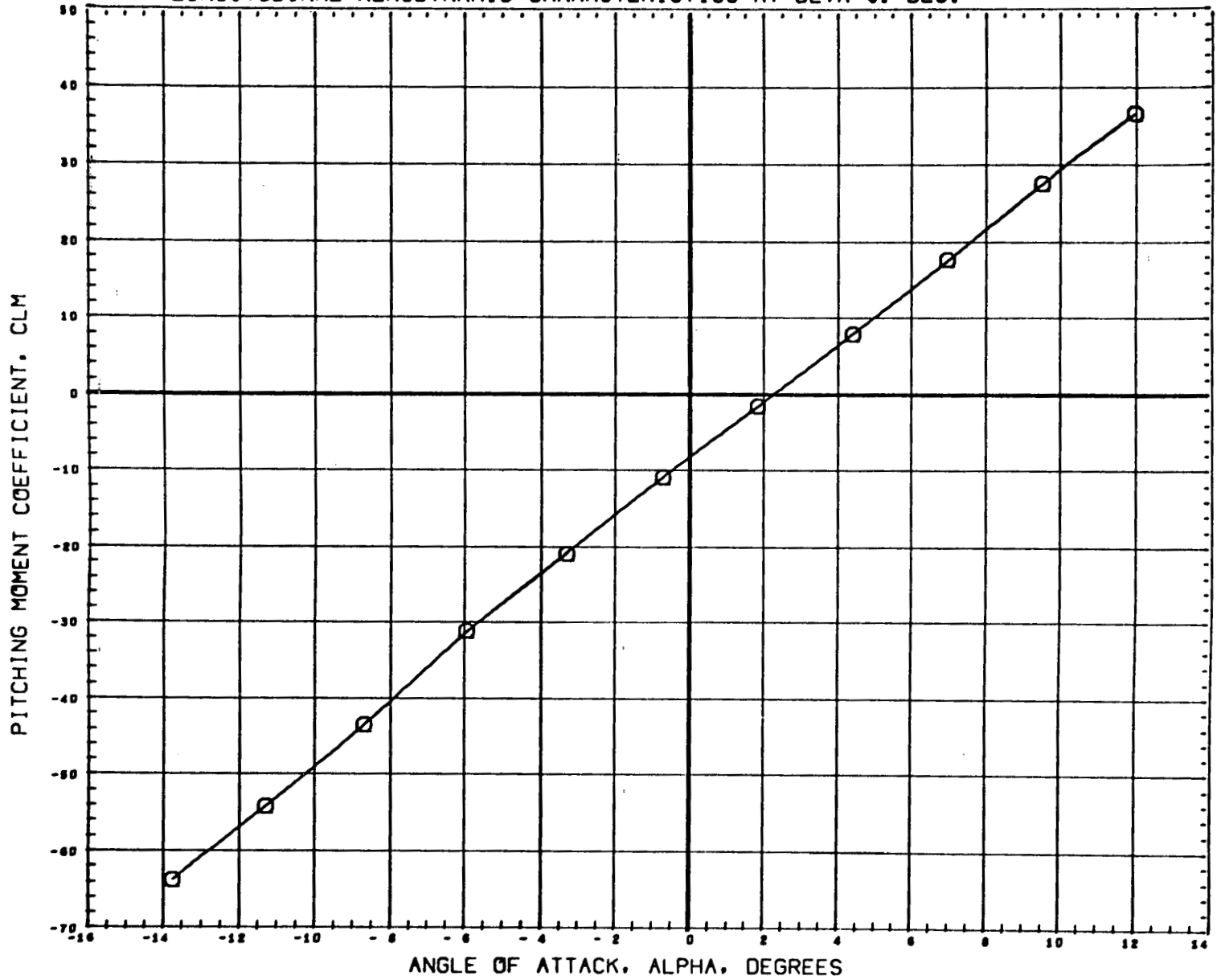


SYMBOL \square MACH 0.004 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

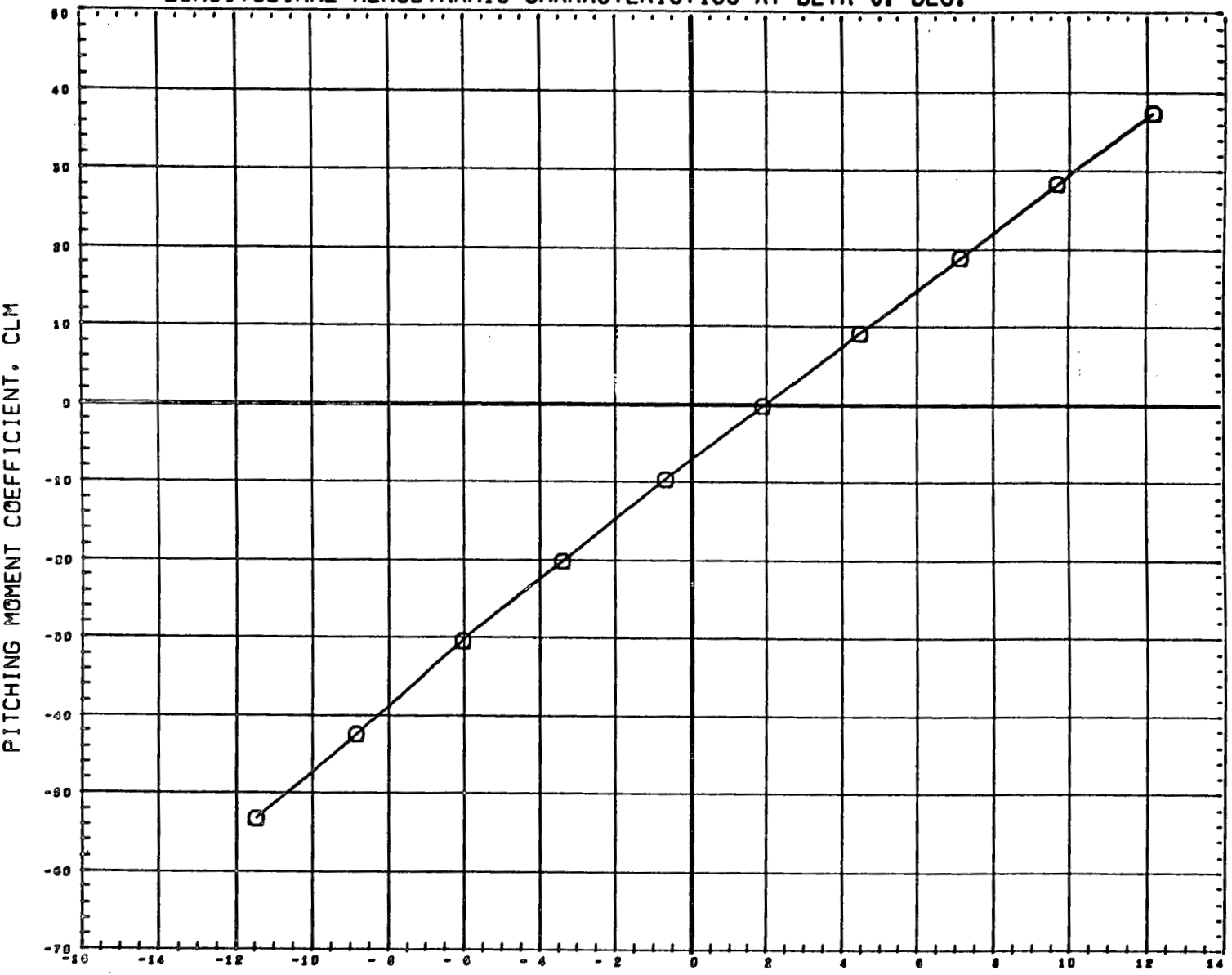


SYMBOL \square MACH 0.994 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.099 0.000 0.000

REFERENCE INFORMATION

BREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

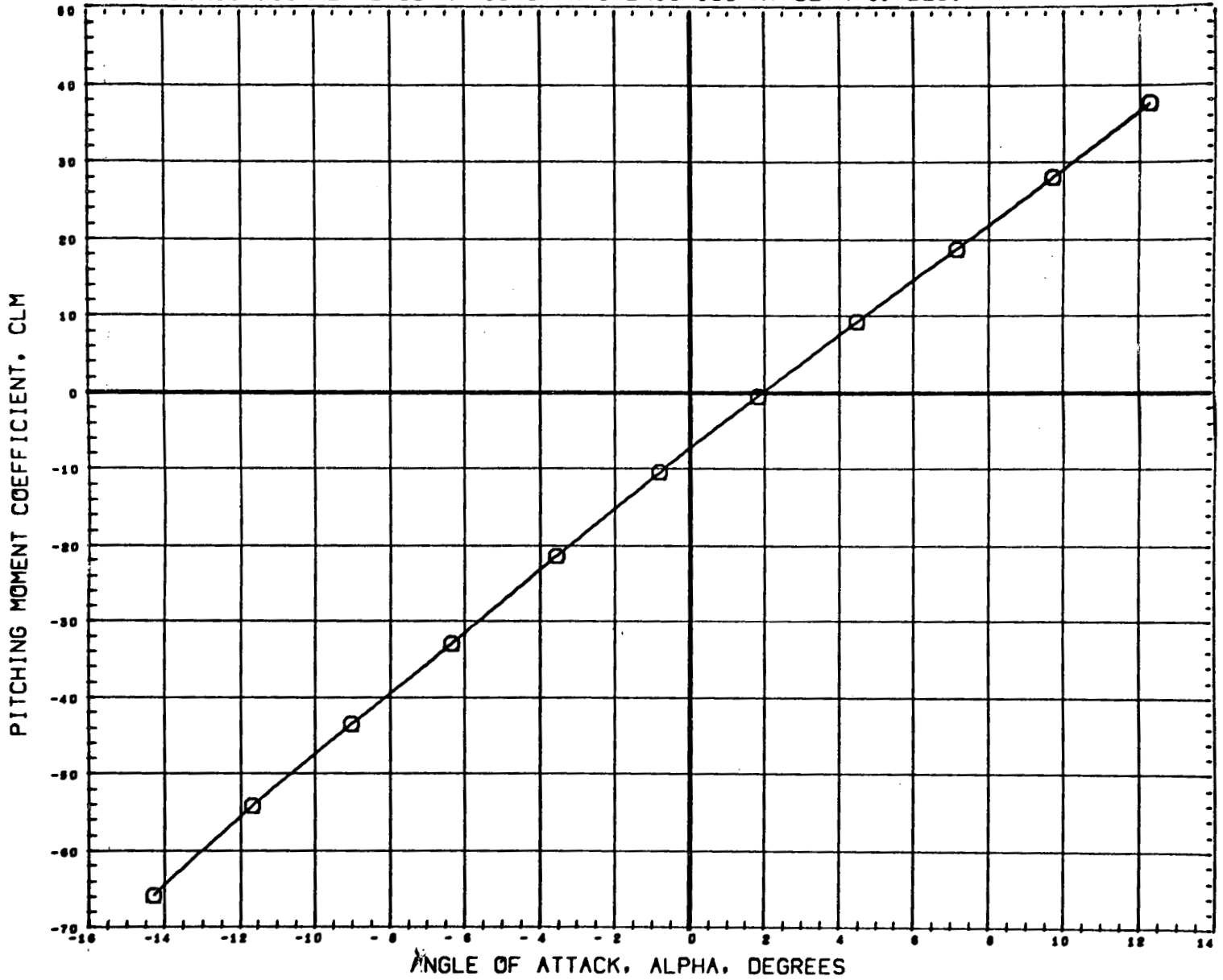
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 3.202 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

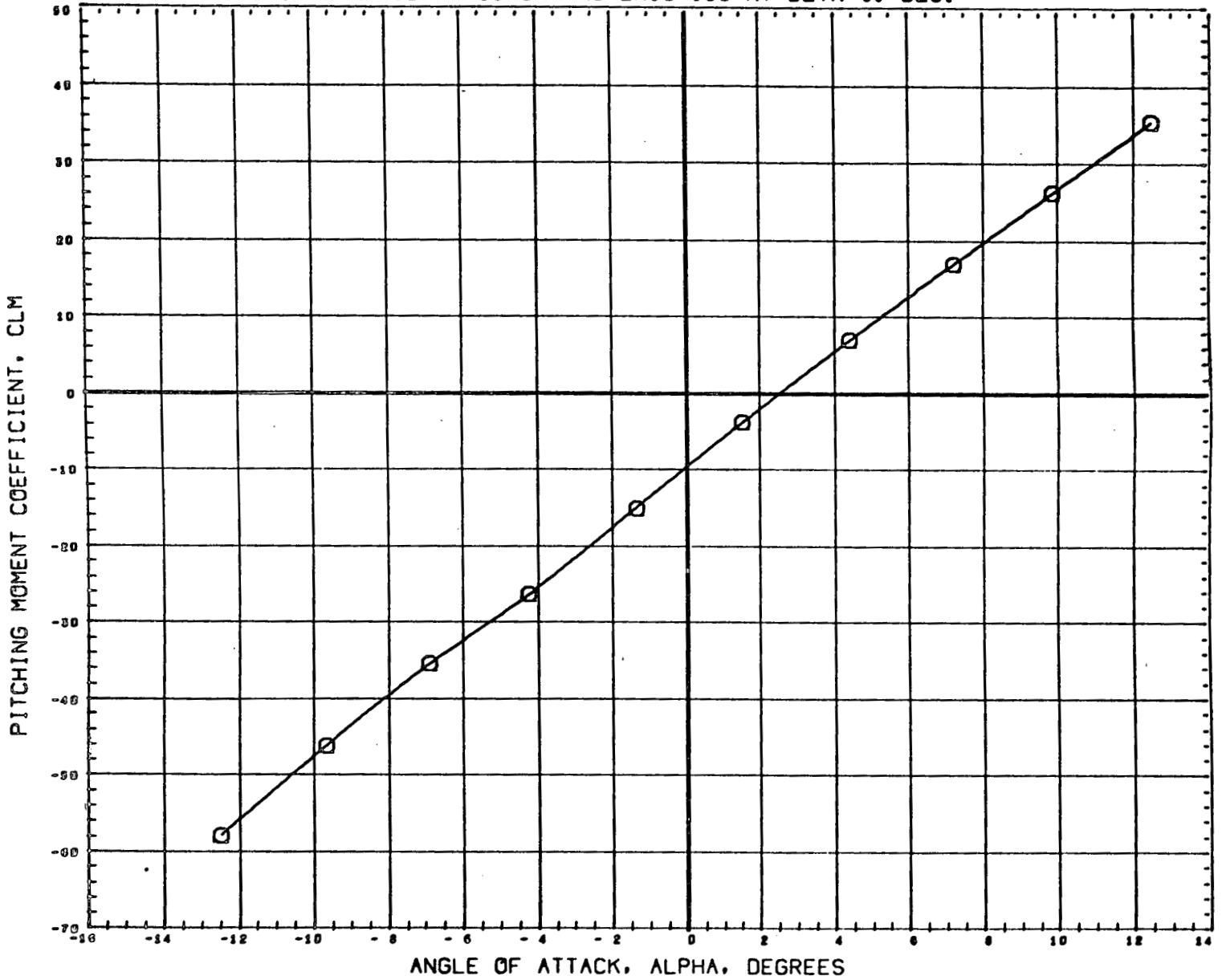
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

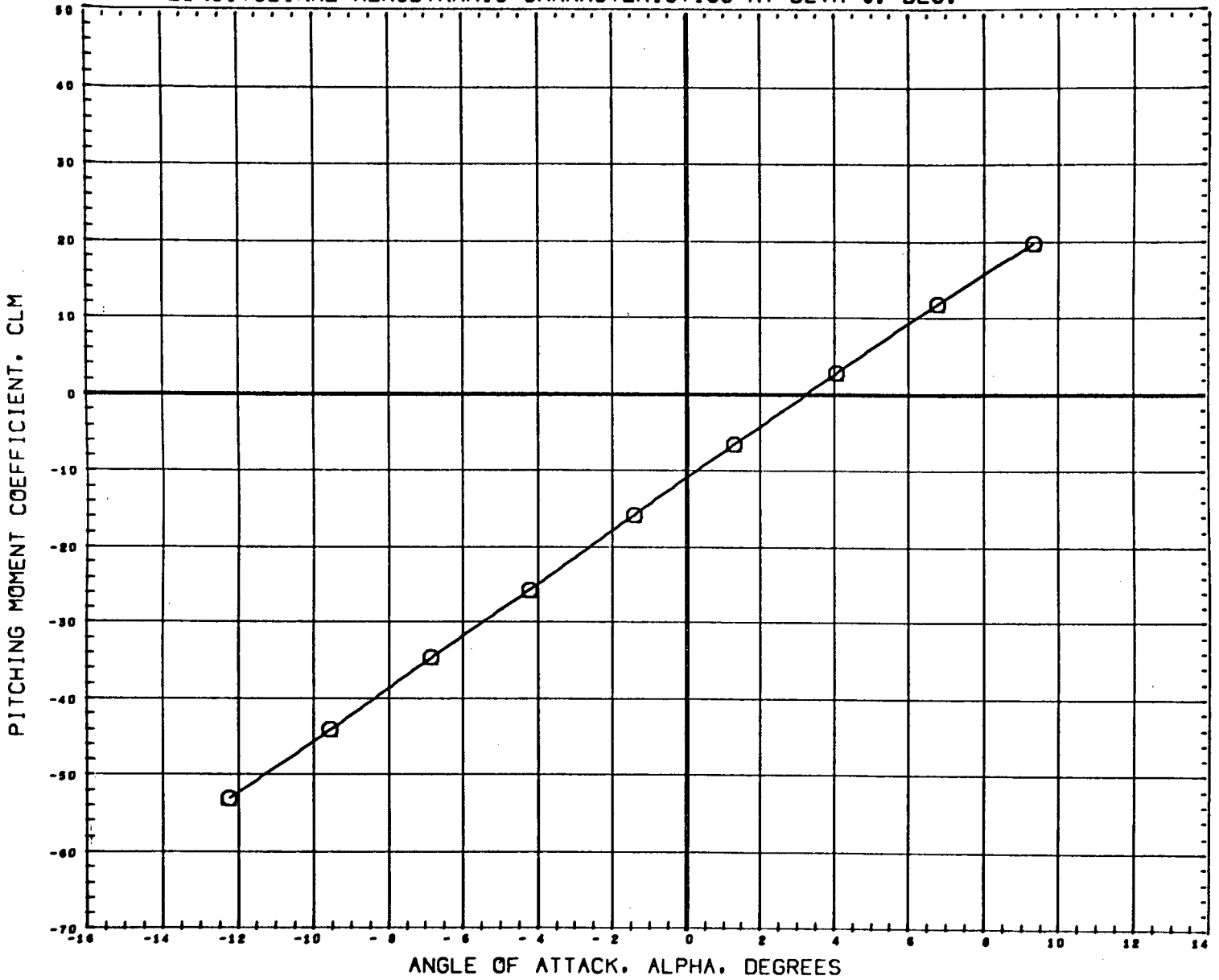


SYMBOL \square MACH 3.450 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE VCE

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

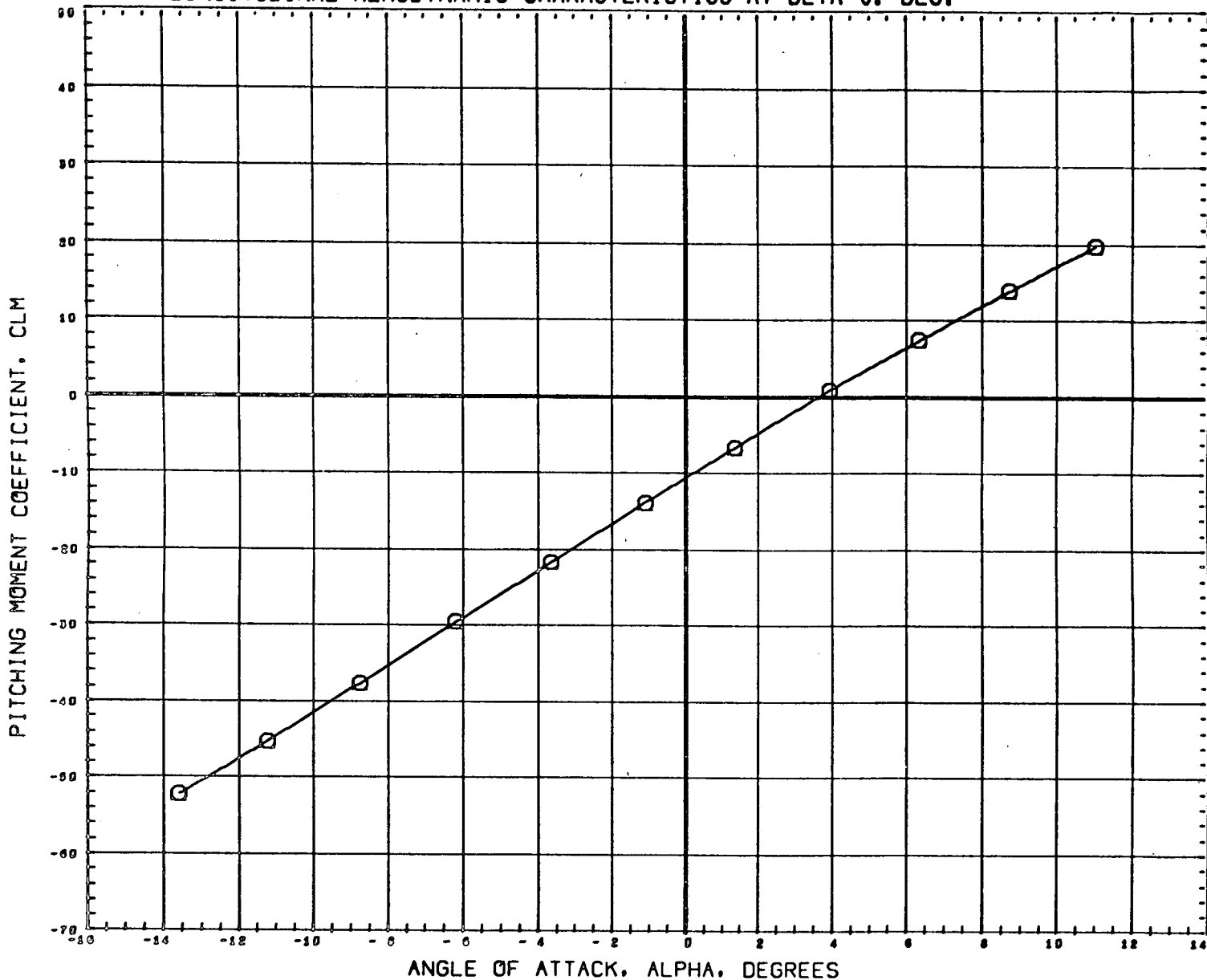


SYMBOL \square MACH 1.989 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

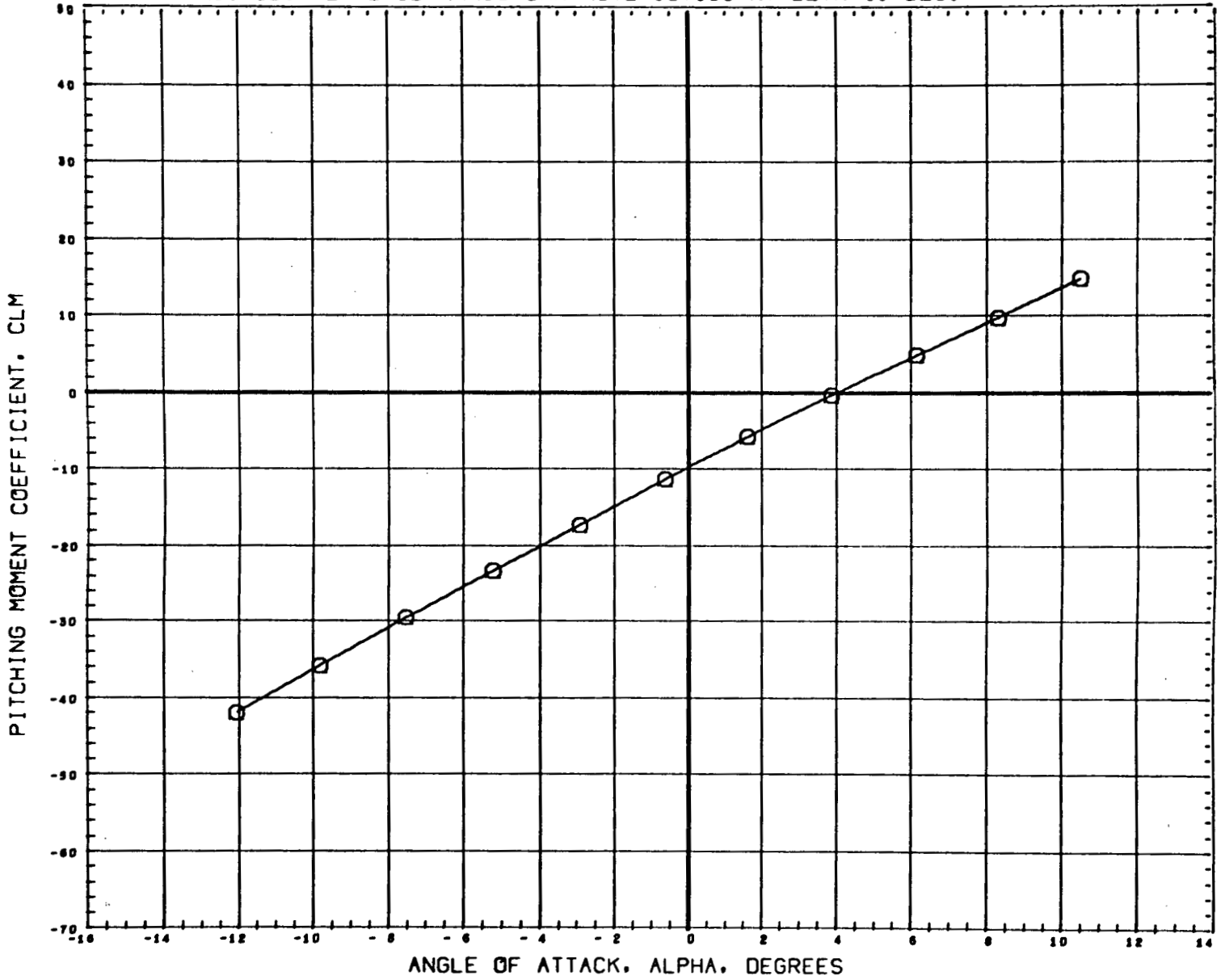


SYMBOL \circ MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 SQ INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4900 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



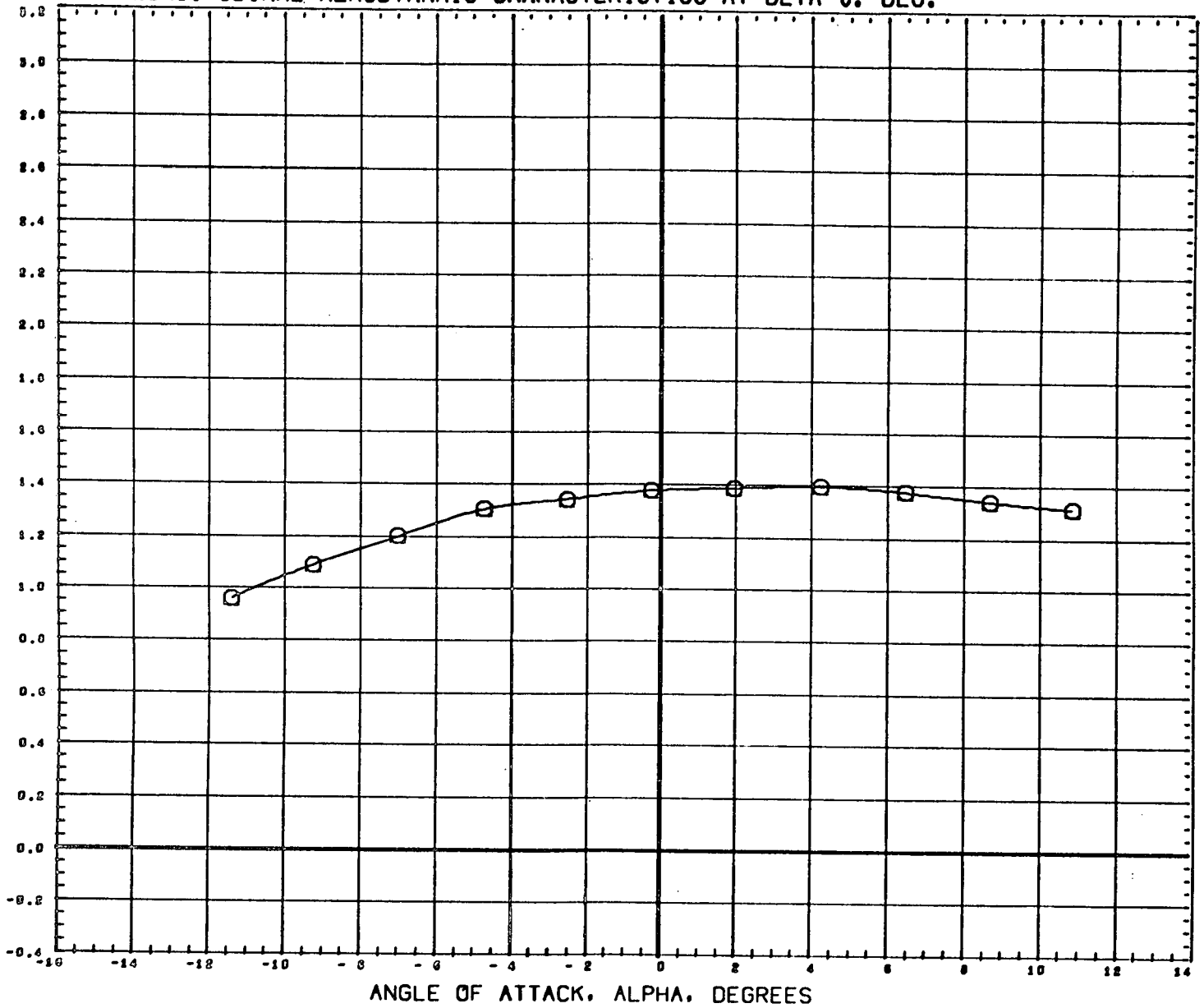
SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF

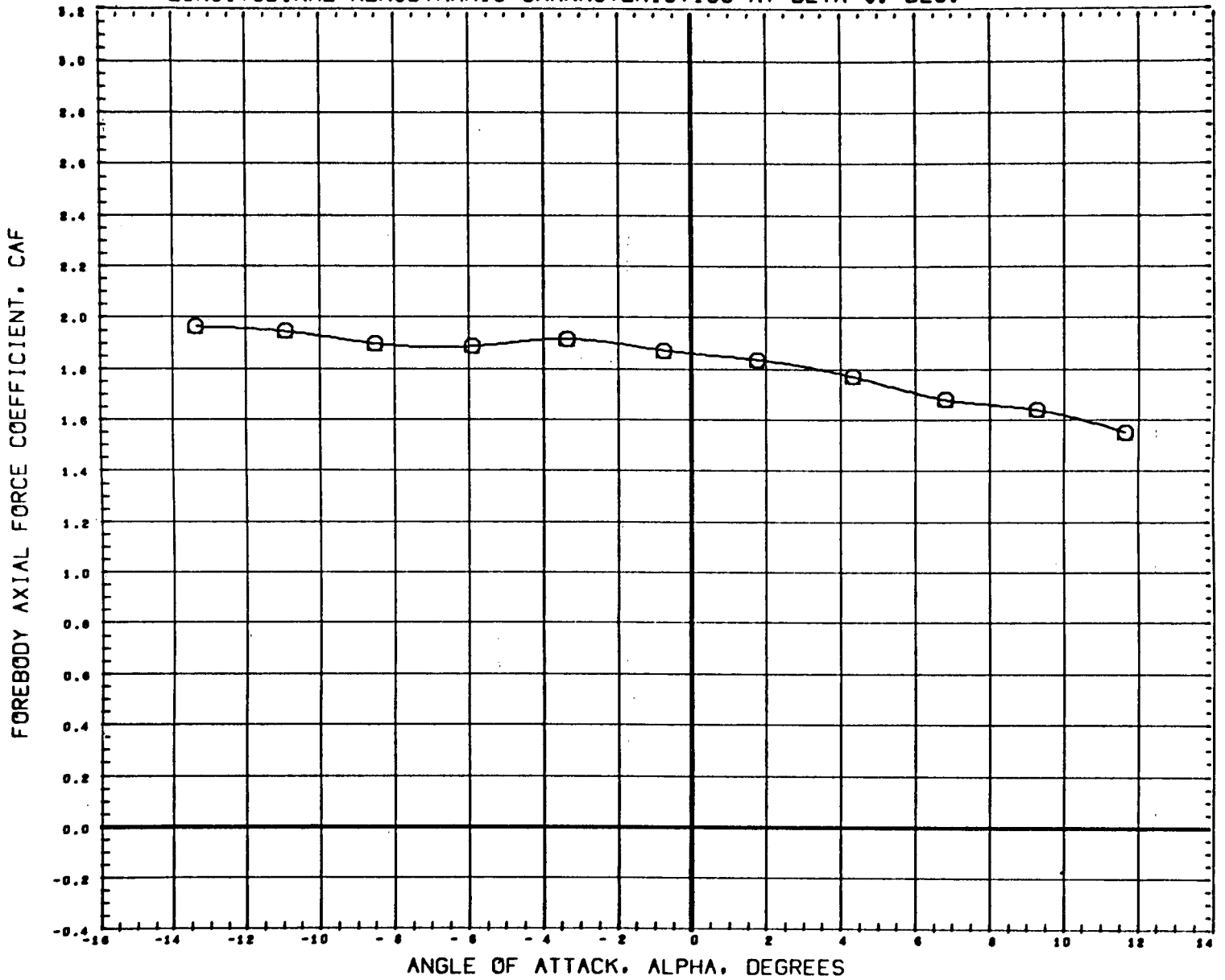


SYMBOL \circ MACH 0.592 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 SQ INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

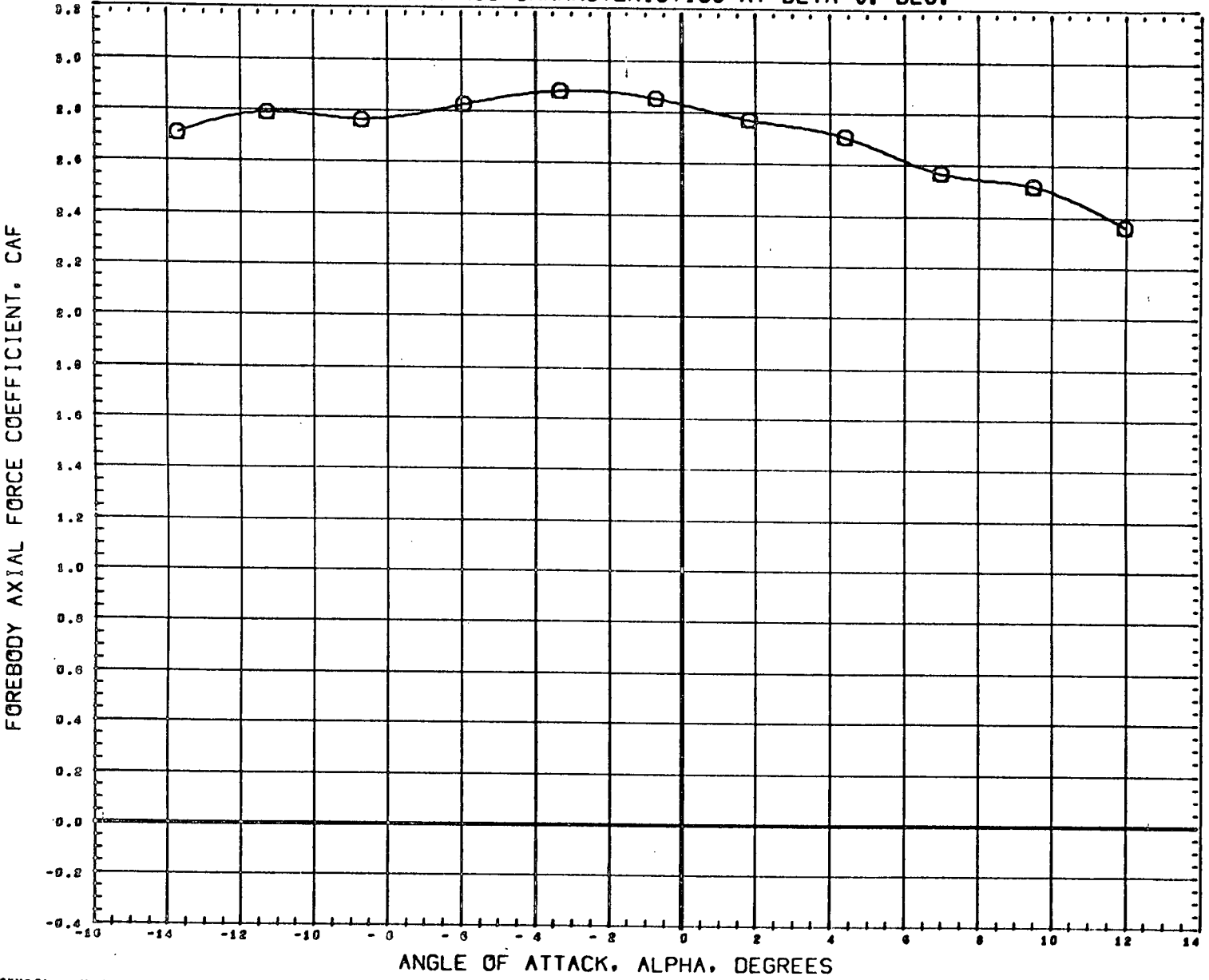


SYMBOL \circ MACH 0.894 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

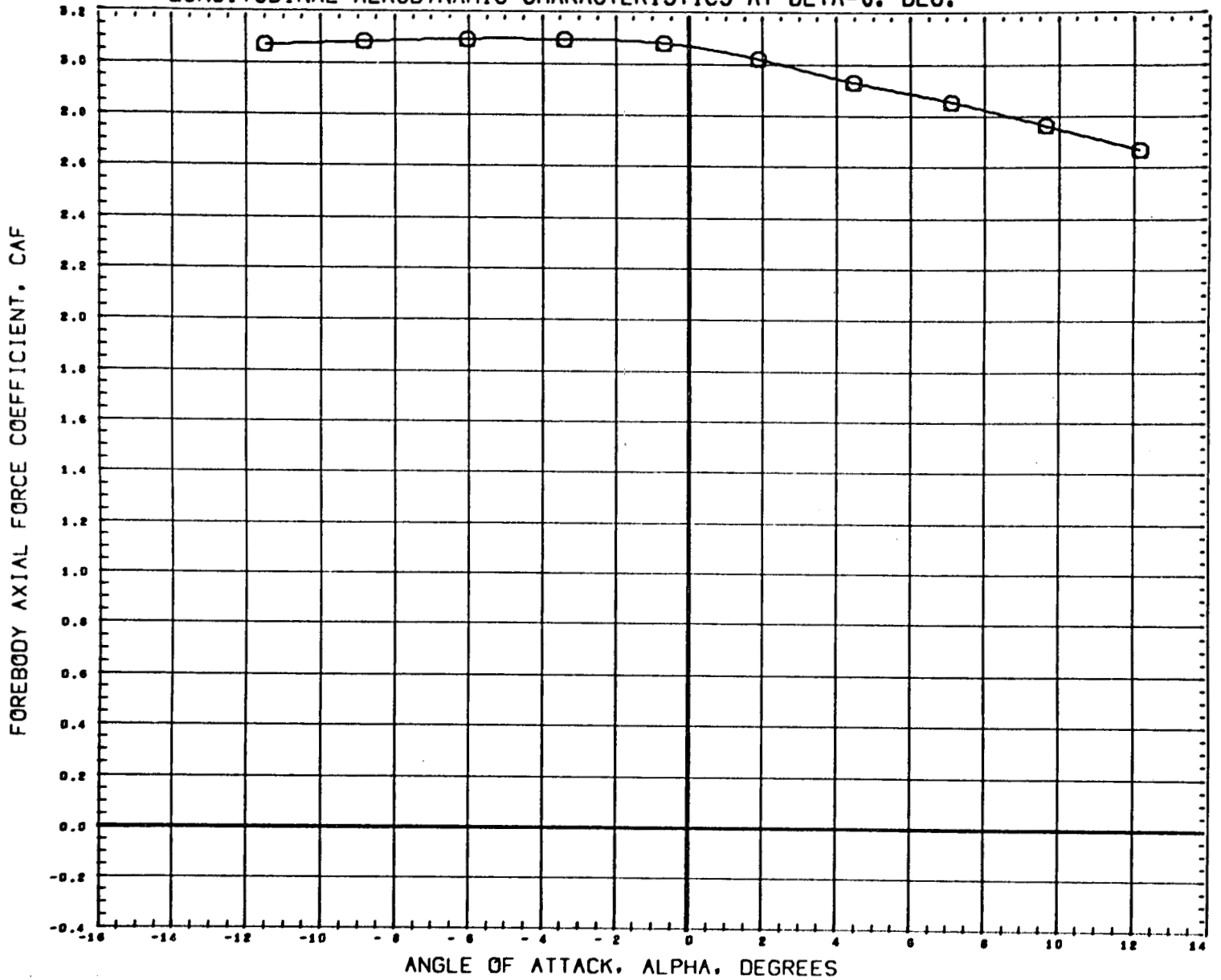


SYMBOL \circ MACH 0.994 BETA 0.000 PARAMETRIC VALUES

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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
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 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



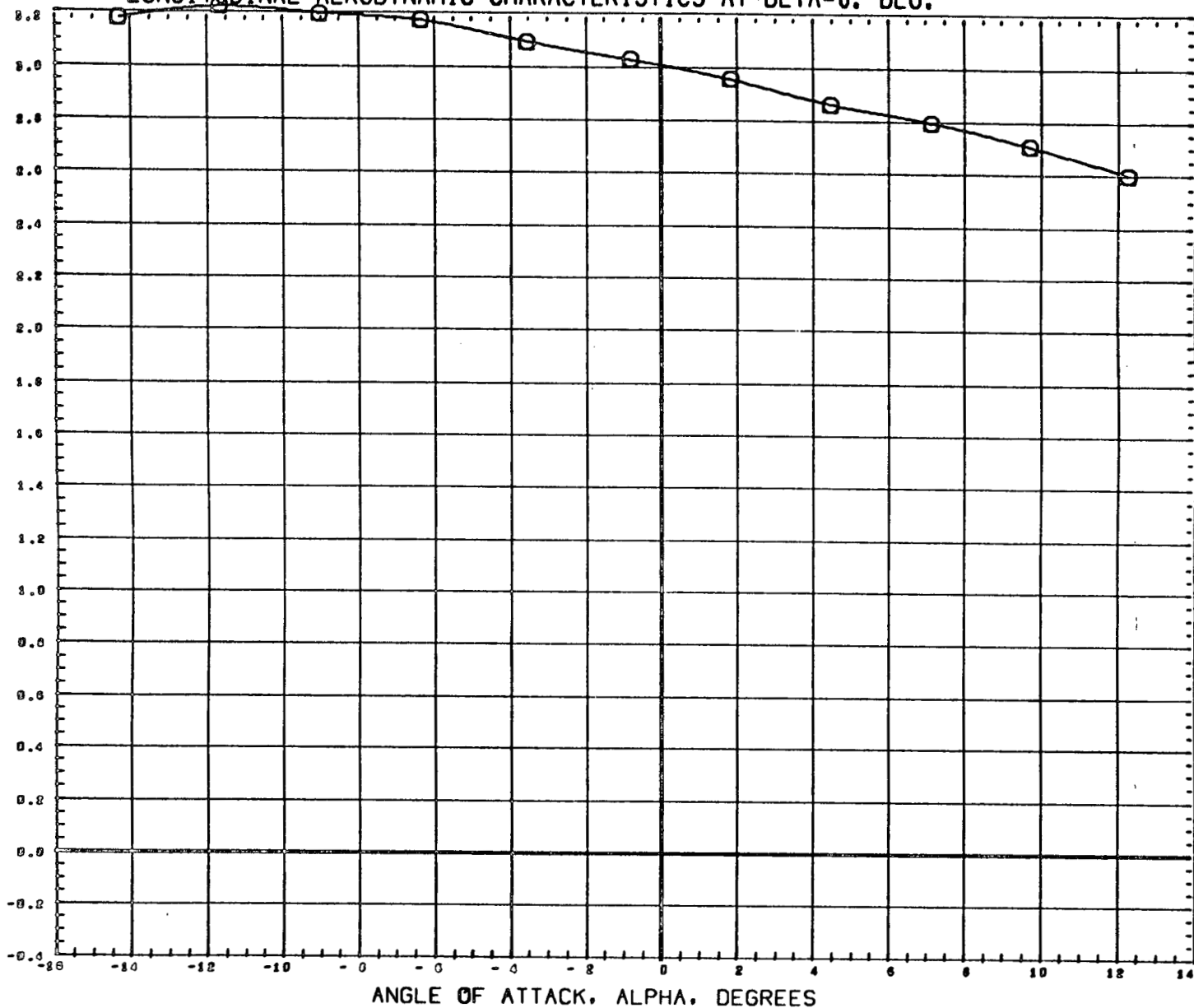
SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.099 0.000

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF

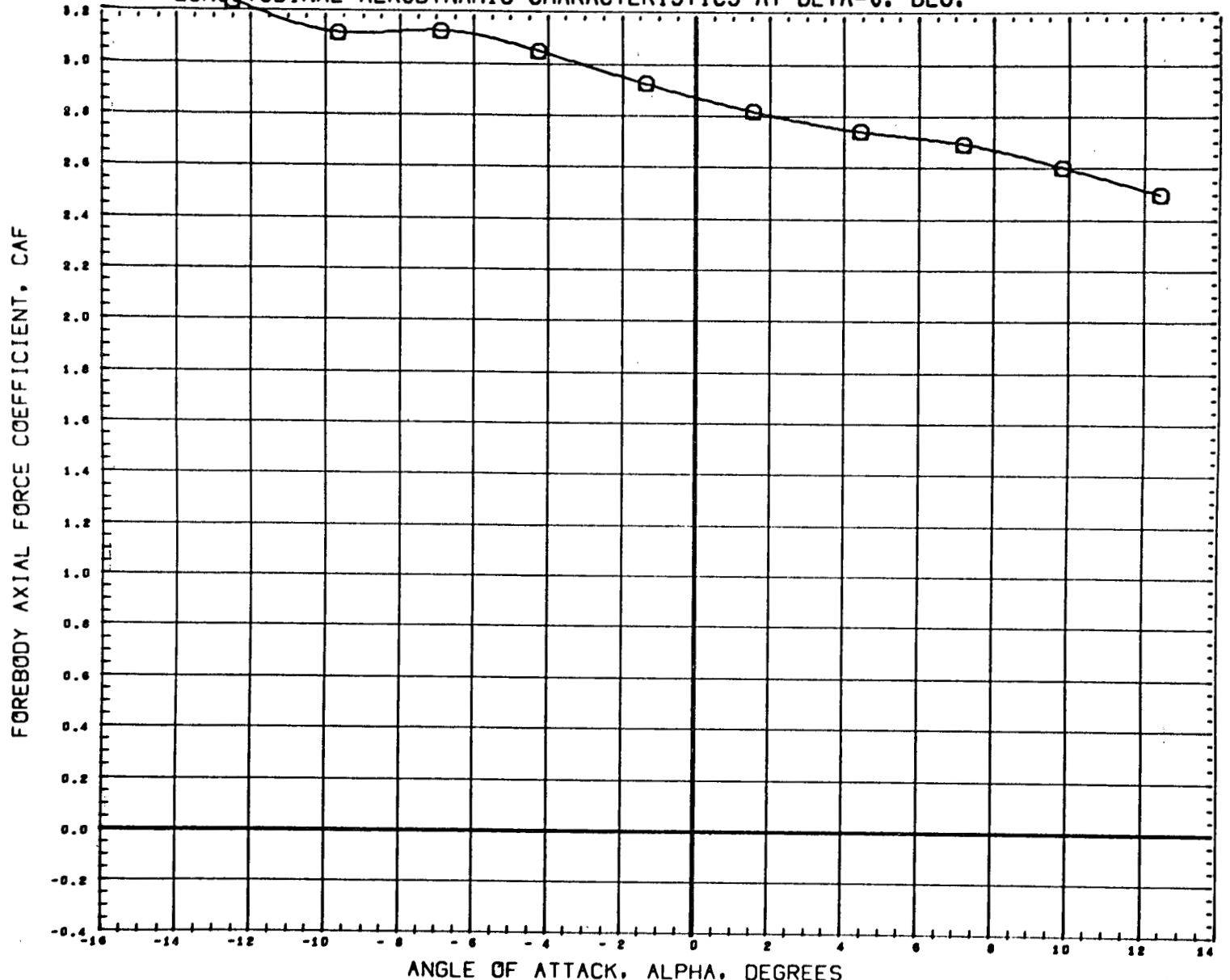


SYMBOL MACH PARAMETRIC VALUES
 O 3.202 BETA 0.000

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



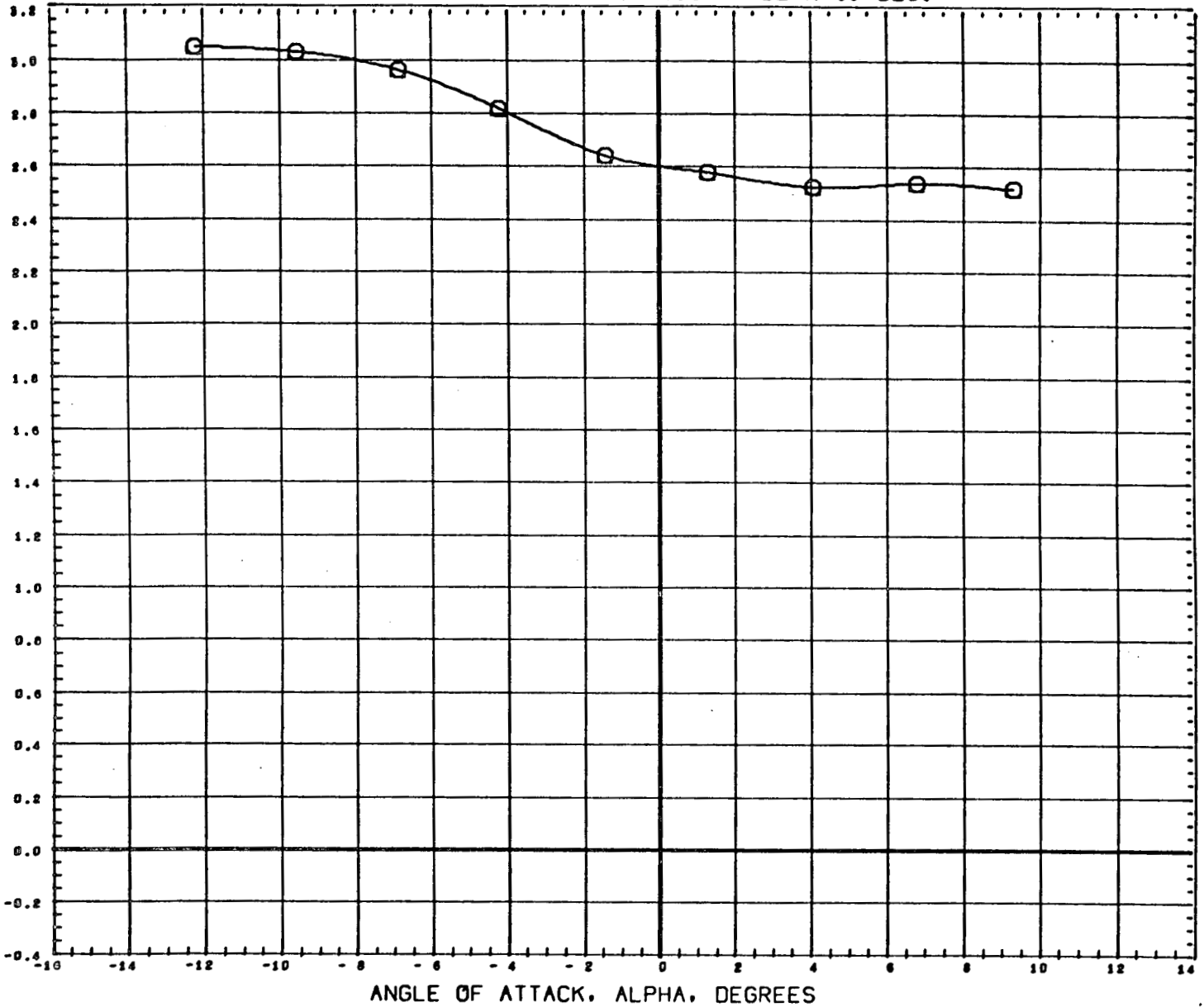
SYMBOL \circ MACH 1.456 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF

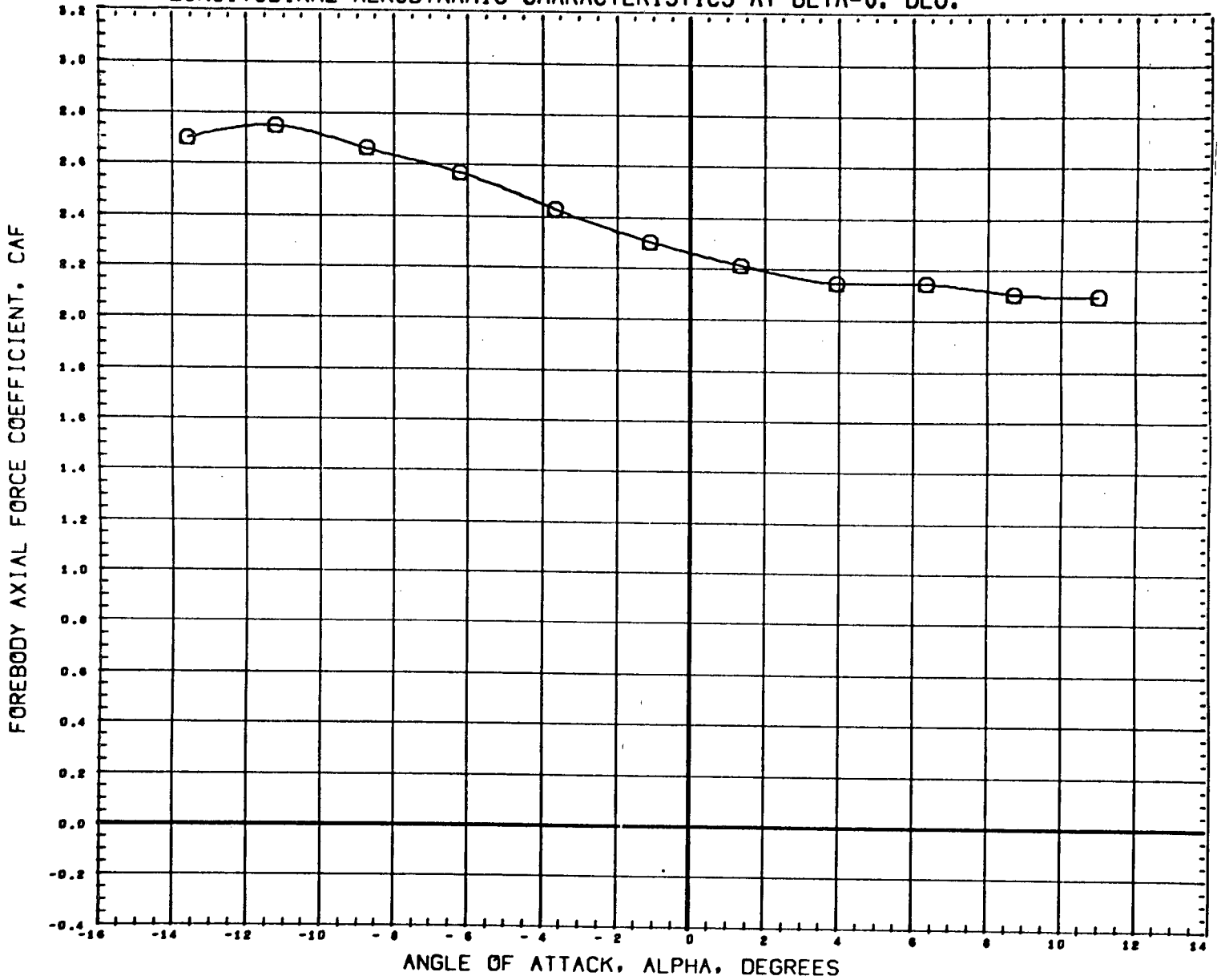


SYMBOL \circ MACH 1.089 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
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 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

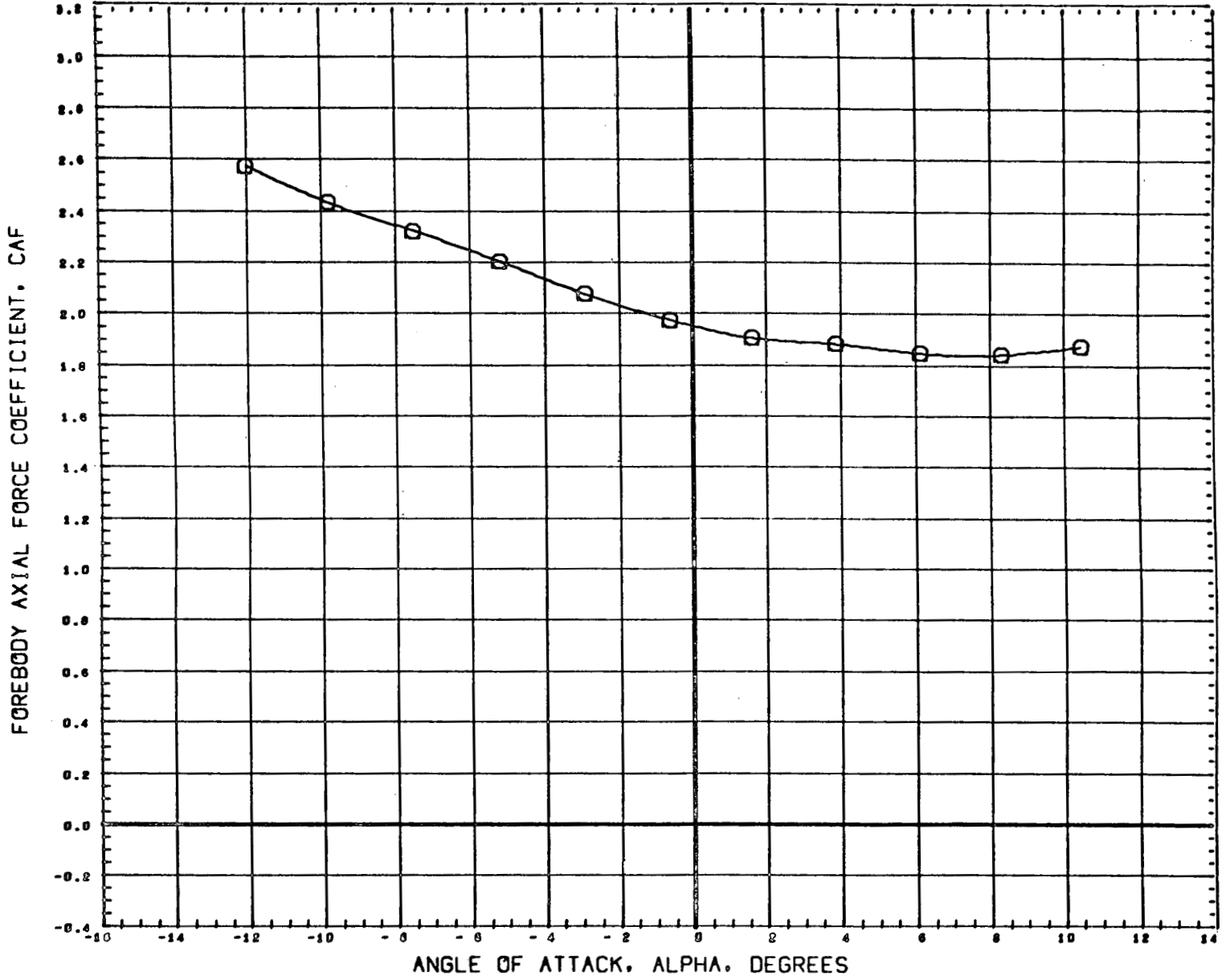


SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 SQ INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
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 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



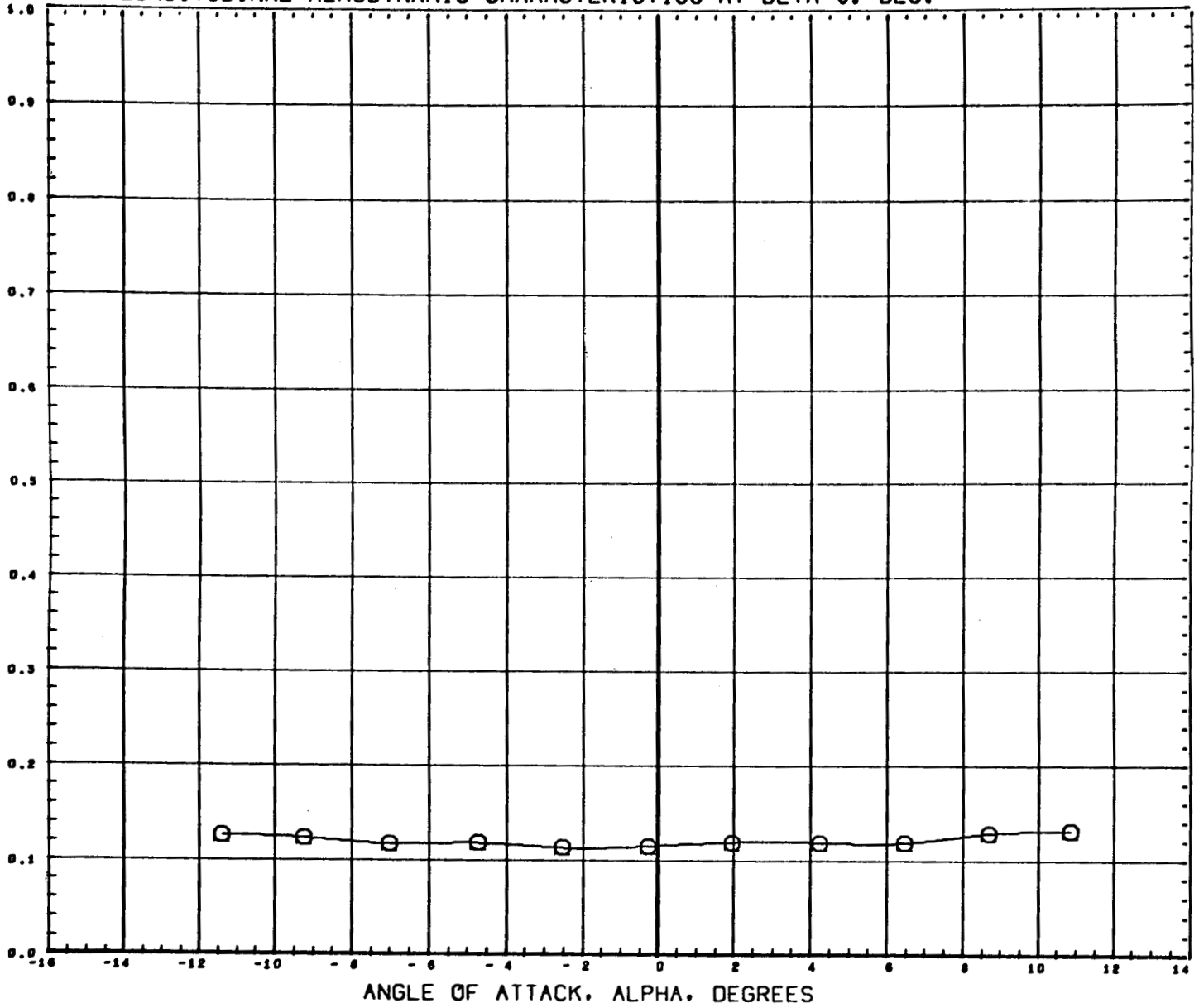
SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 3.480 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC

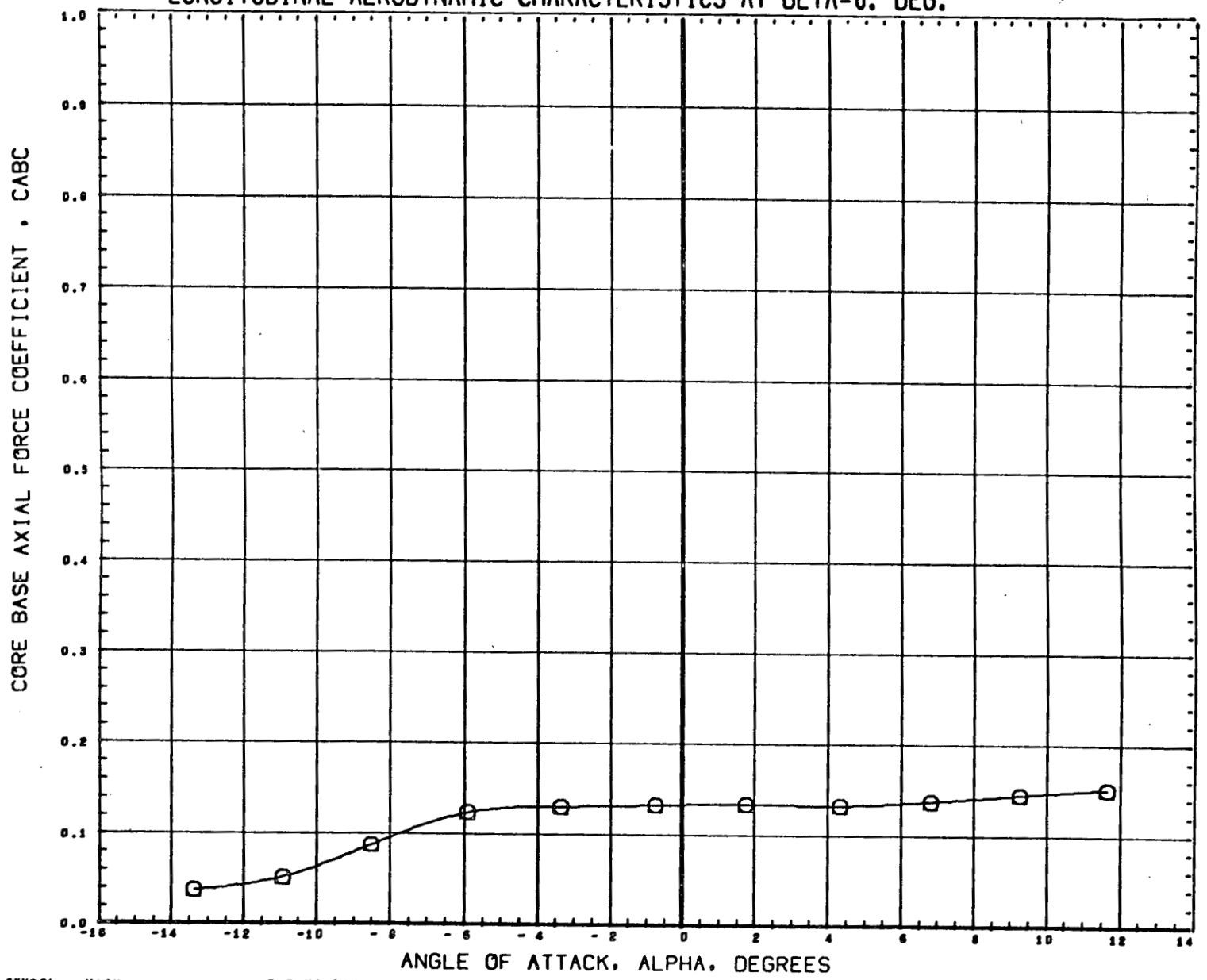


SYMBOL \circ MACH 0.992 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

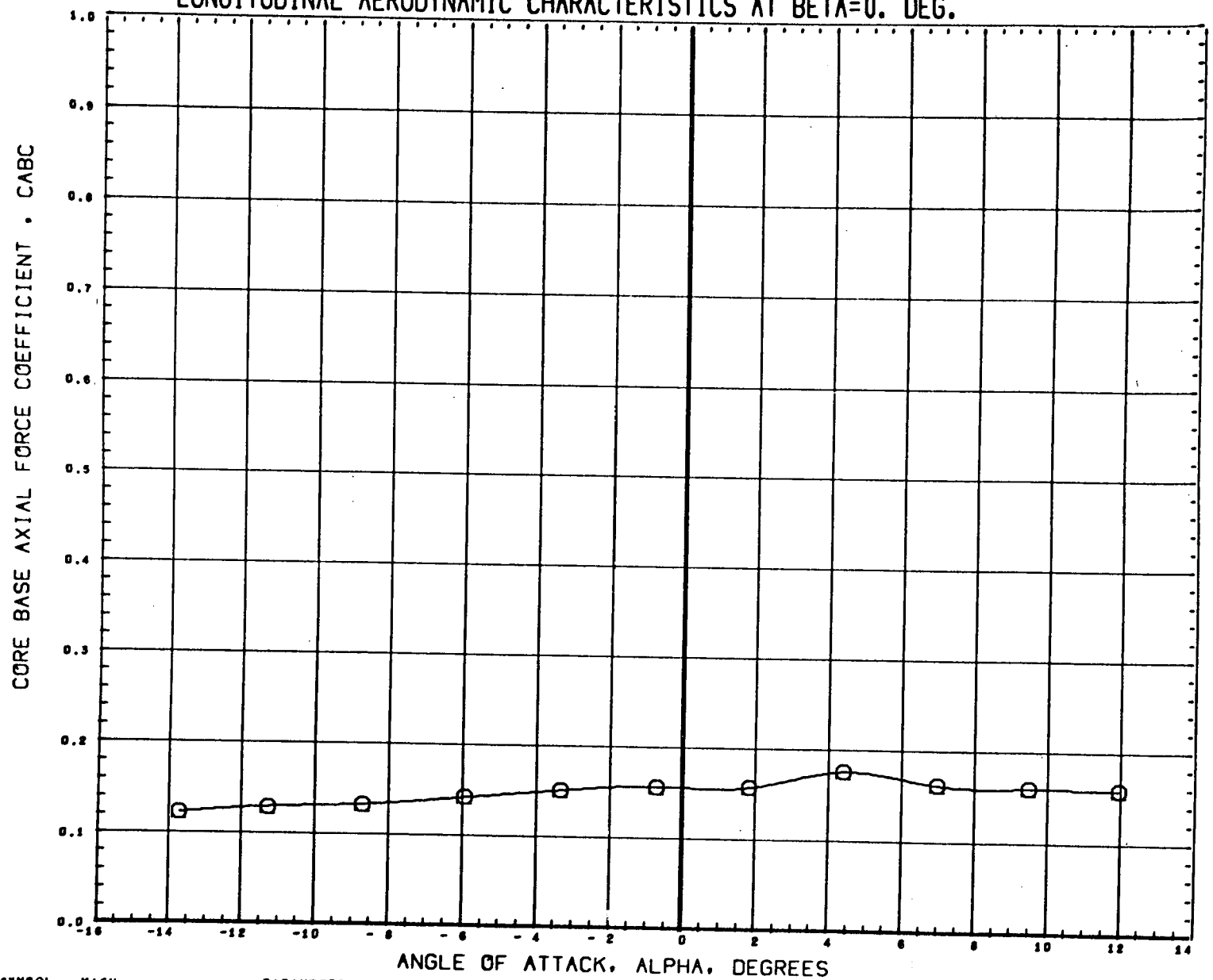


SYMBOL \circ MACH 0.894 DETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	8.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL: \circ MACH: 0.994 BETA: 0.000 PARAMETRIC VALUES: 0.000

REFERENCE INFORMATION
 SREF: 0.9340 80 INC
 LREF: 0.0240 INCHES
 BREF: 0.0240 INCHES
 XMRP: 2.9170 IN TII
 YMRP: 0.0000 CORE C
 ZMRP: 0.0000 CORE C
 SCALE: 0.4300 PERCENT

DATA HIST. CODE V#E

MSFC TWT 505 T111L/DT07

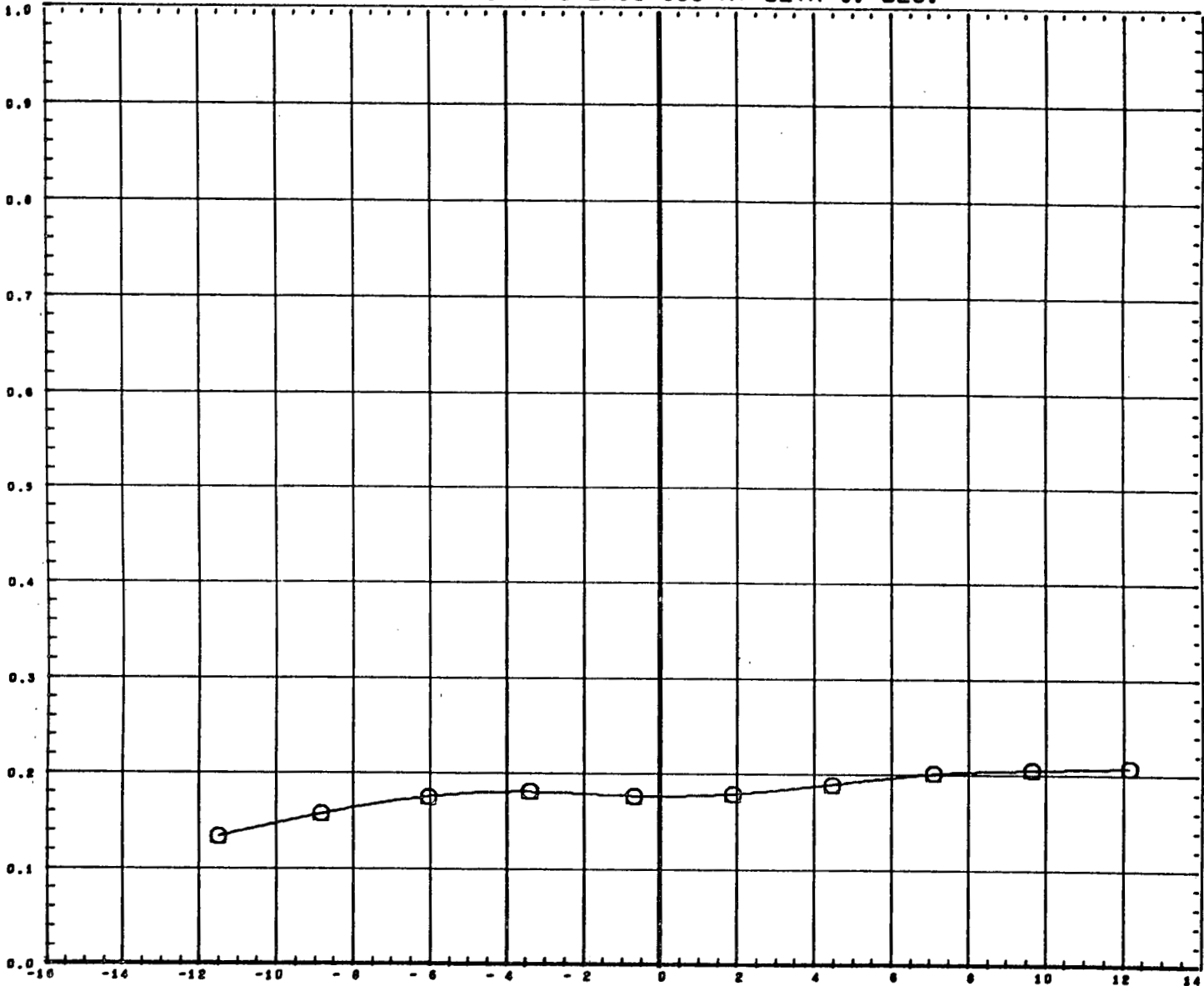
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT • CABC



ANGLE OF ATTACK, ALPHA, DEGREES

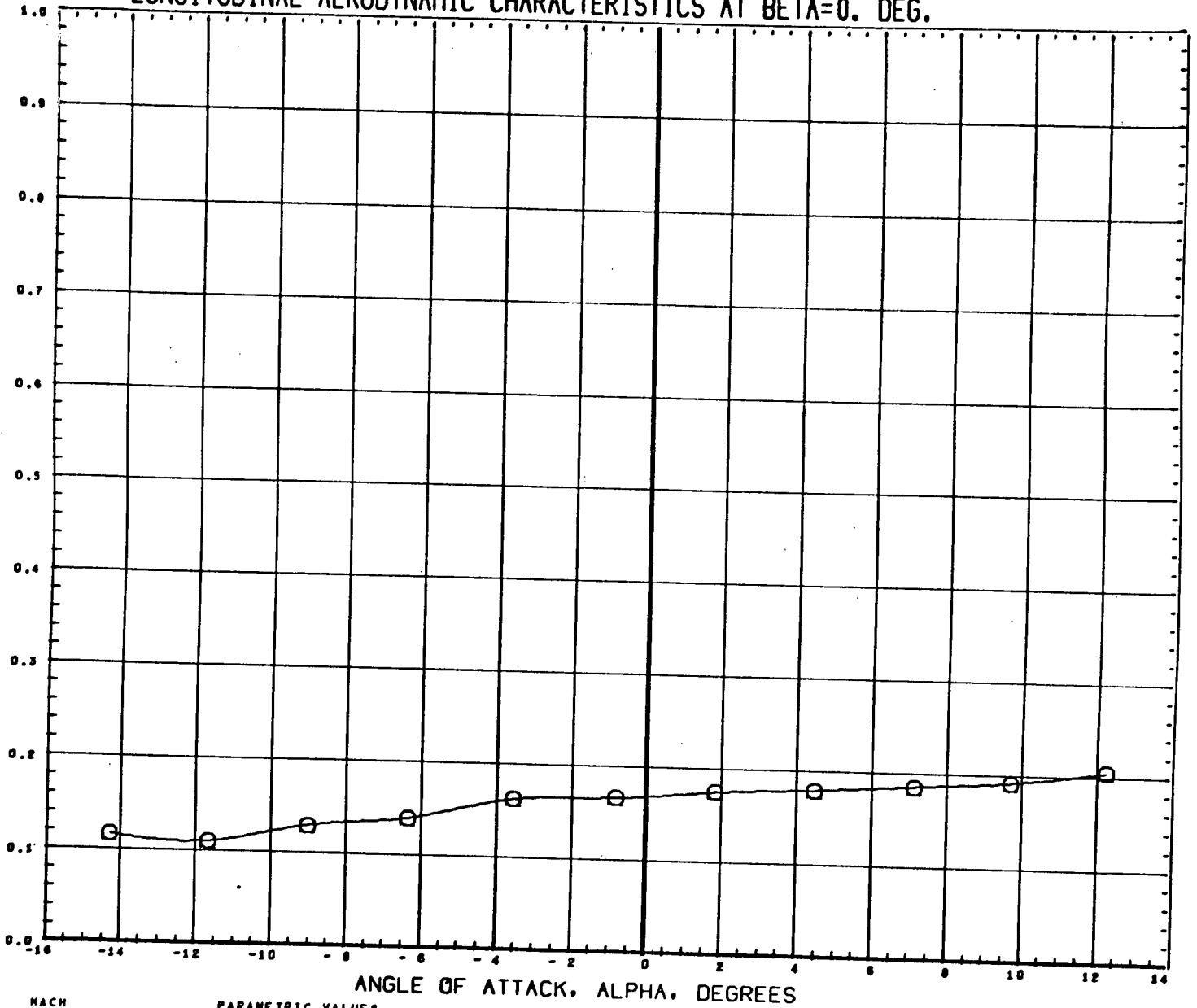
SYMBOL \bigcirc MACH 1.099 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC



SYMBOL \circ MACH 1.202 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
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 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

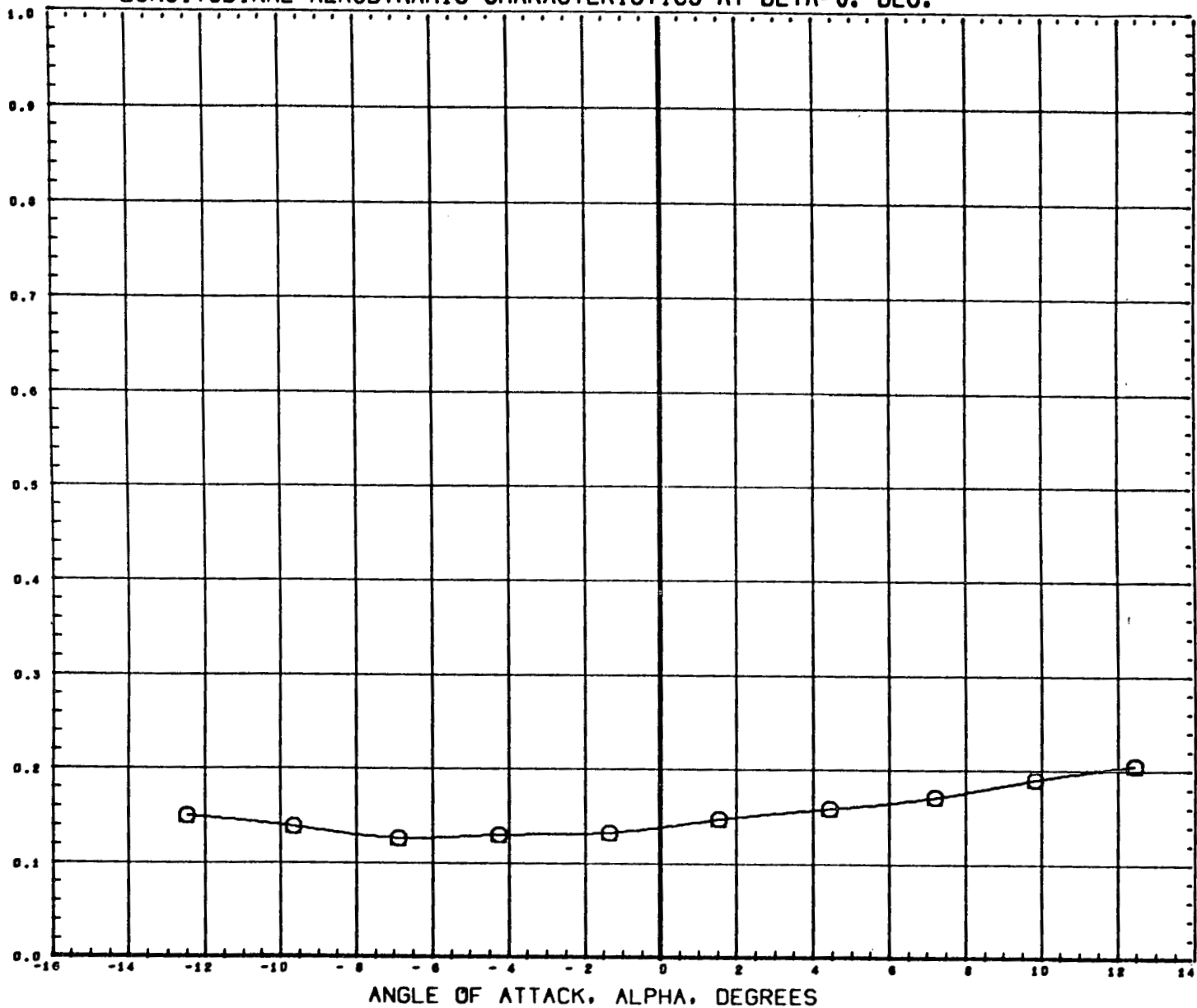
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC



ANGLE OF ATTACK, ALPHA, DEGREES

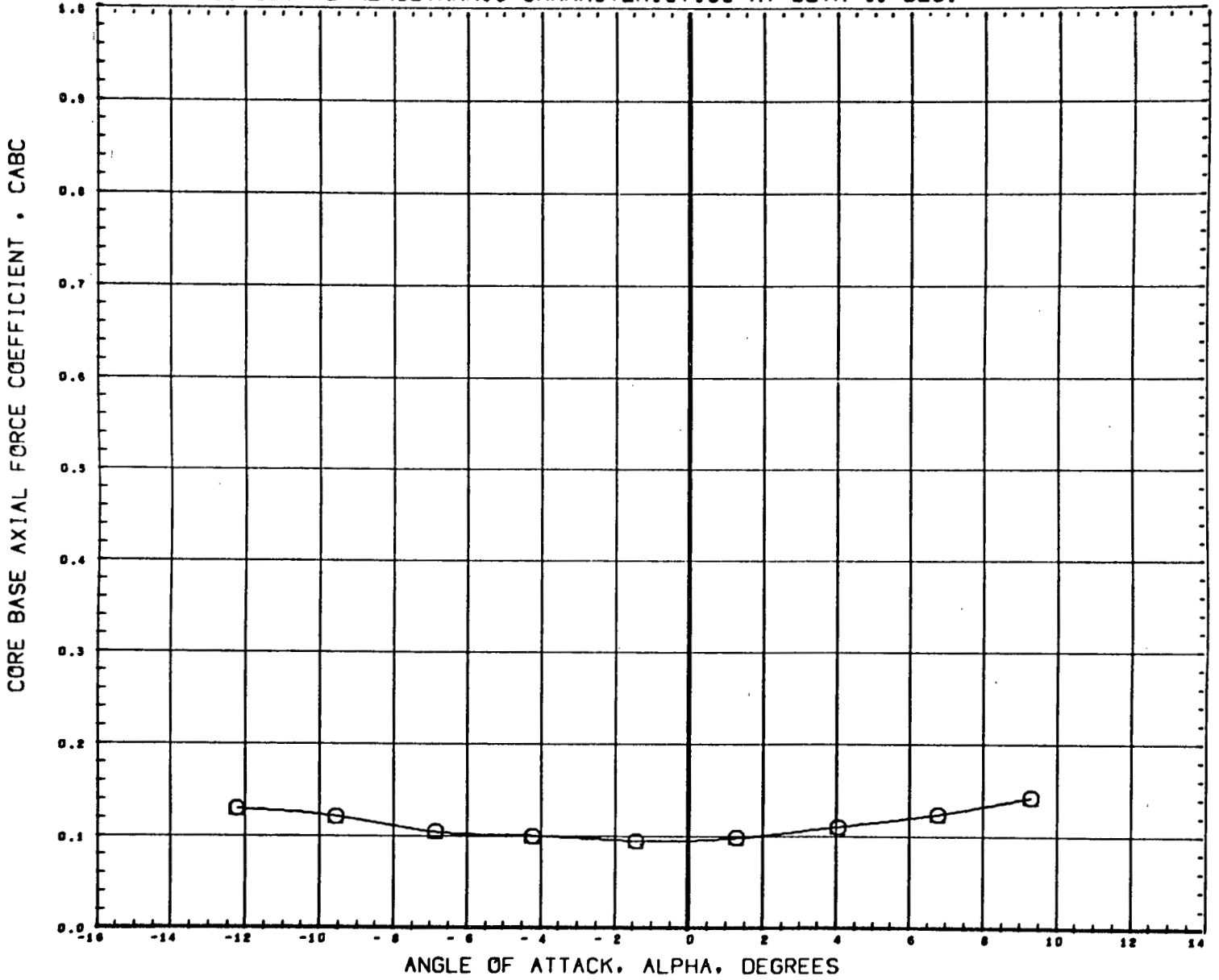
SYMBOL \square MACH 1.456 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION

SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



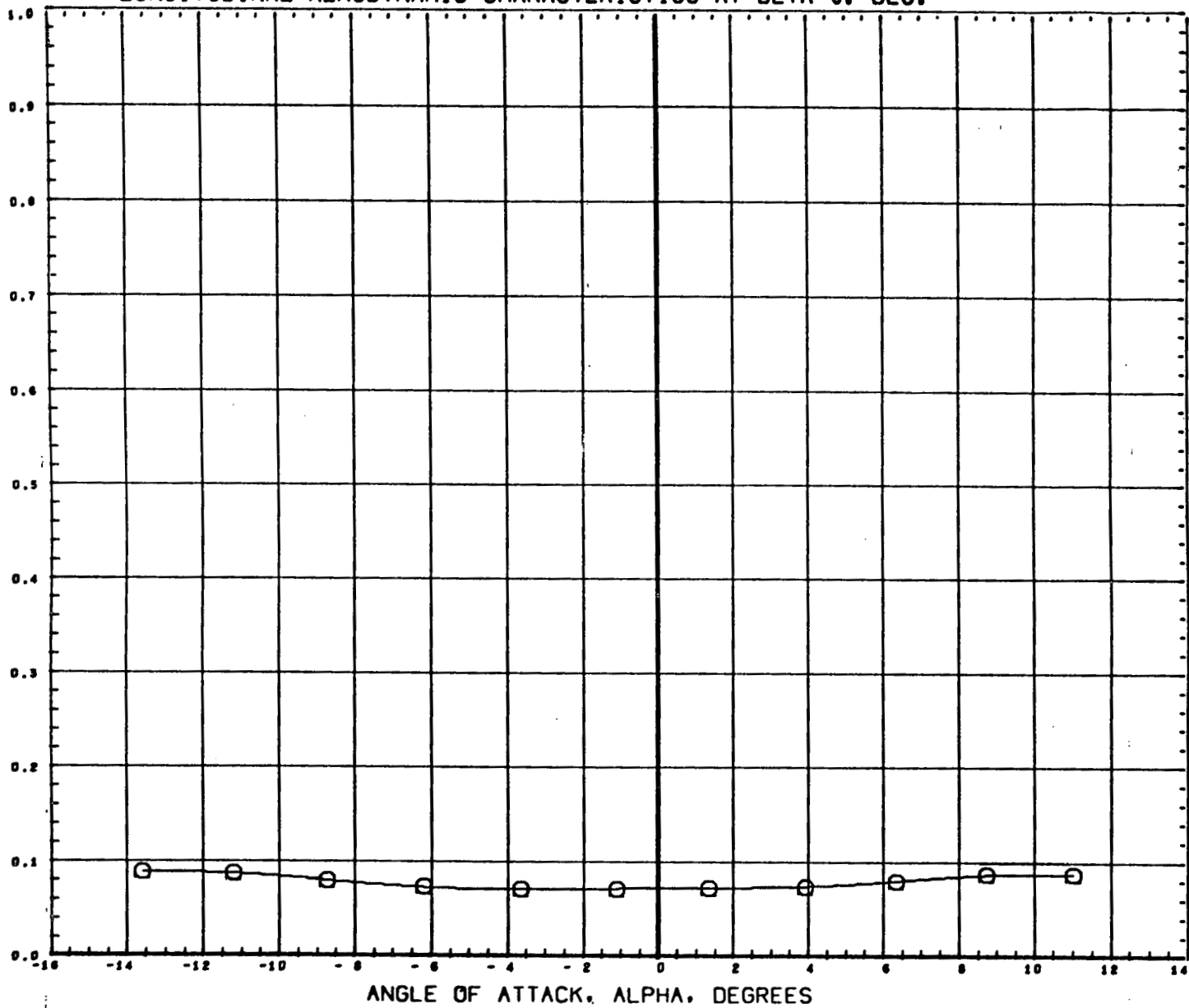
SYMBOL \square MACH 1.969 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC



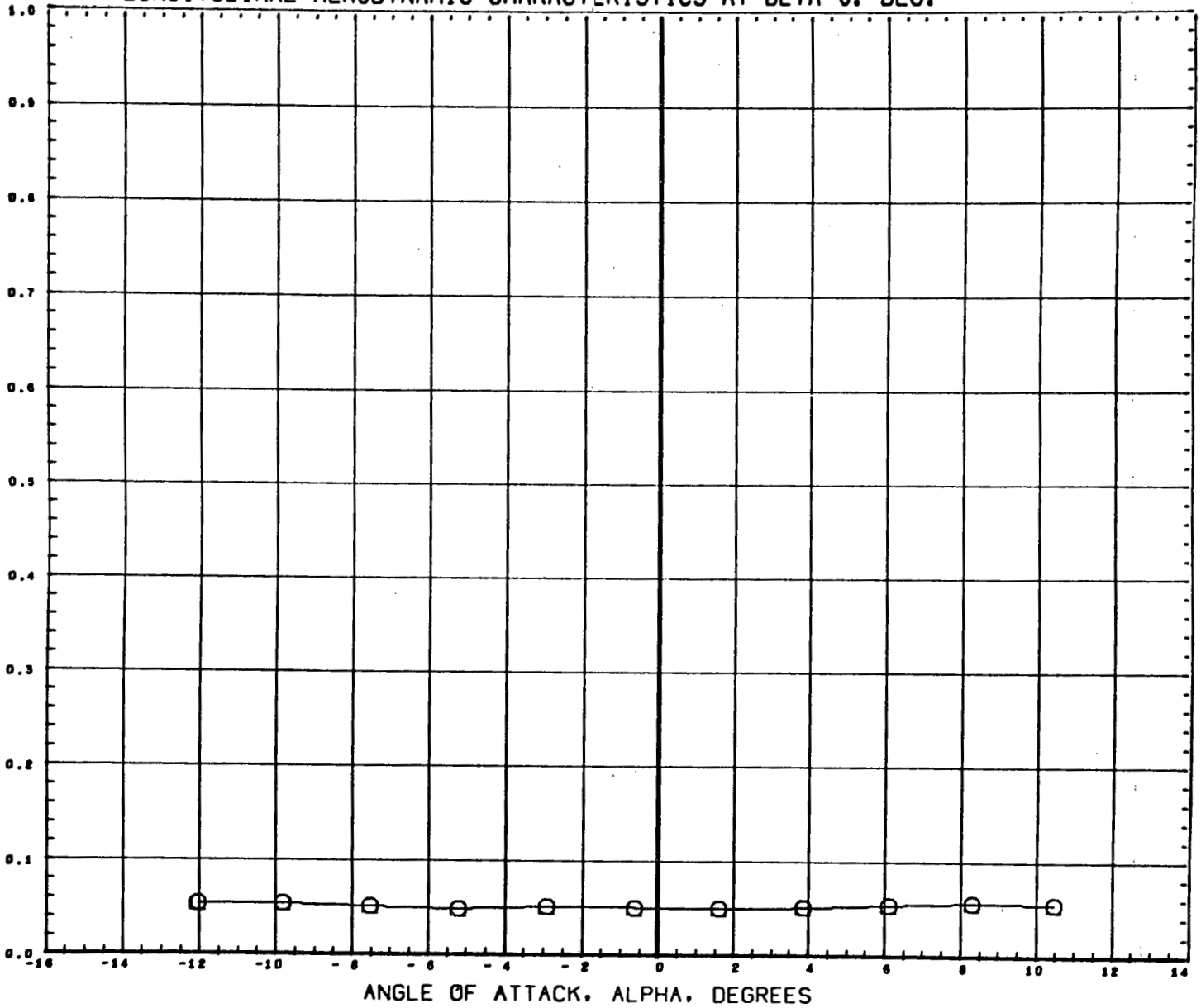
SYMBOL \circ MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION		
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LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC



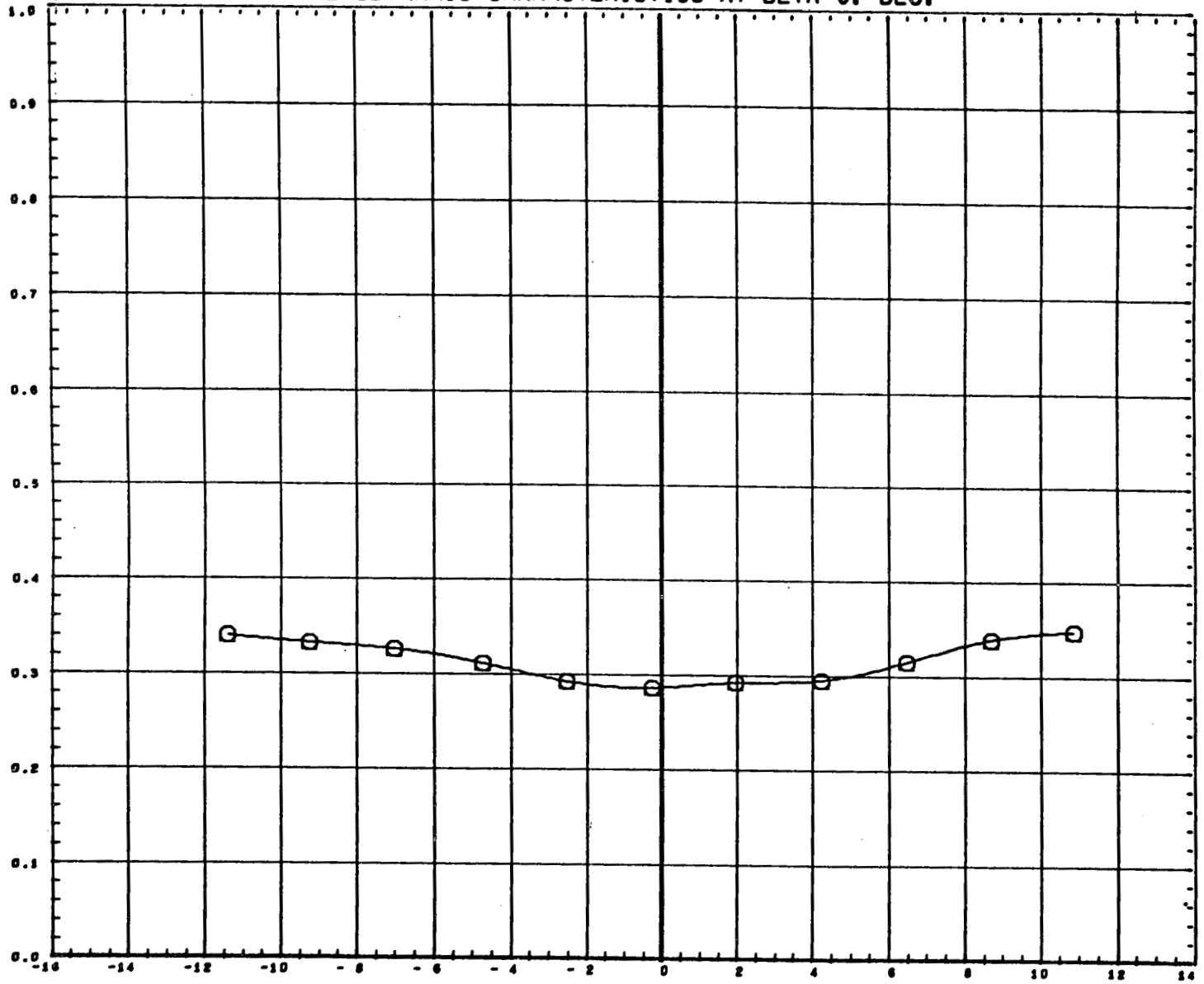
SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT, CABS



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.992 0.000 0.000

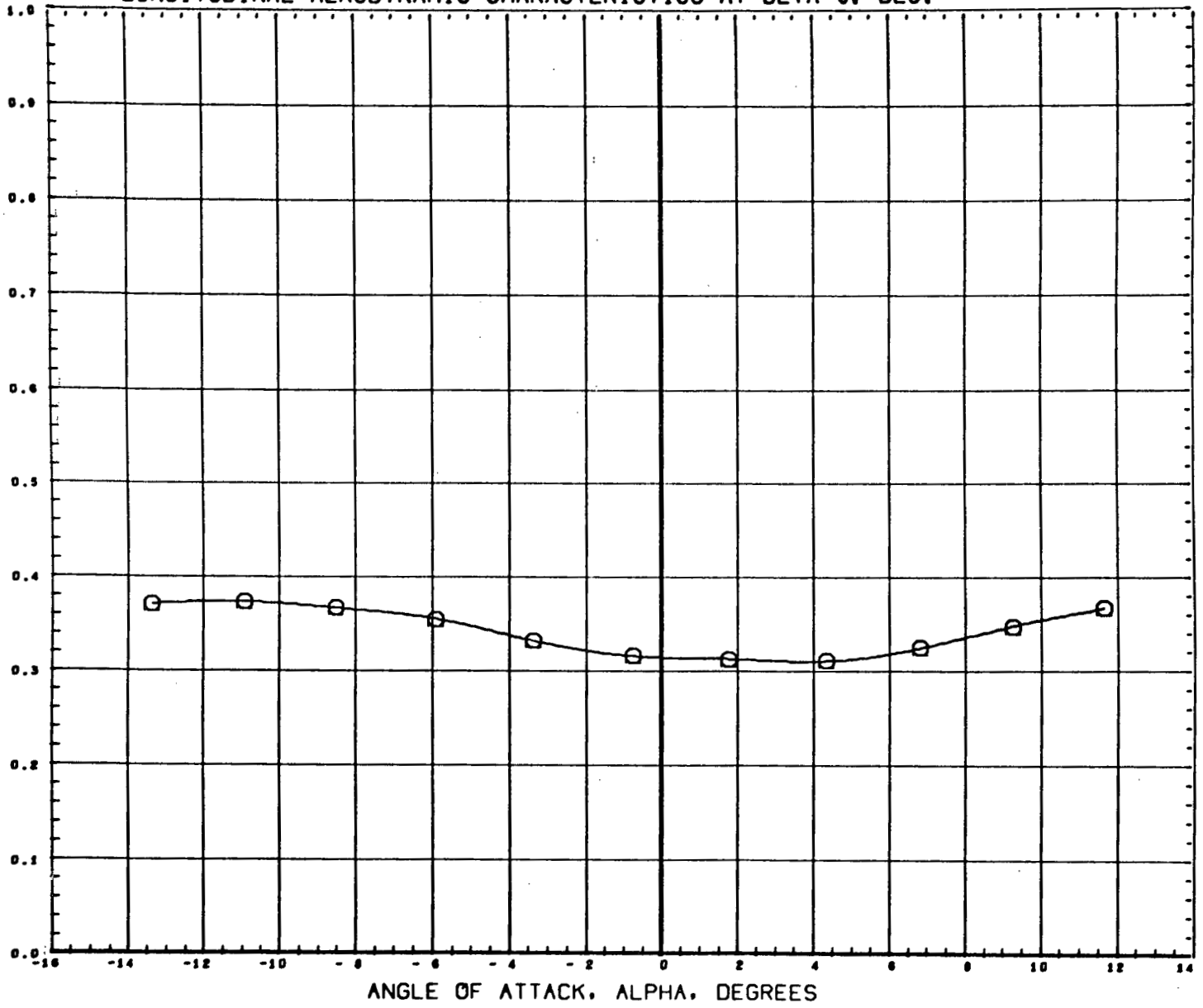
REFERENCE INFORMATION

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LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN T11
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT, CABS



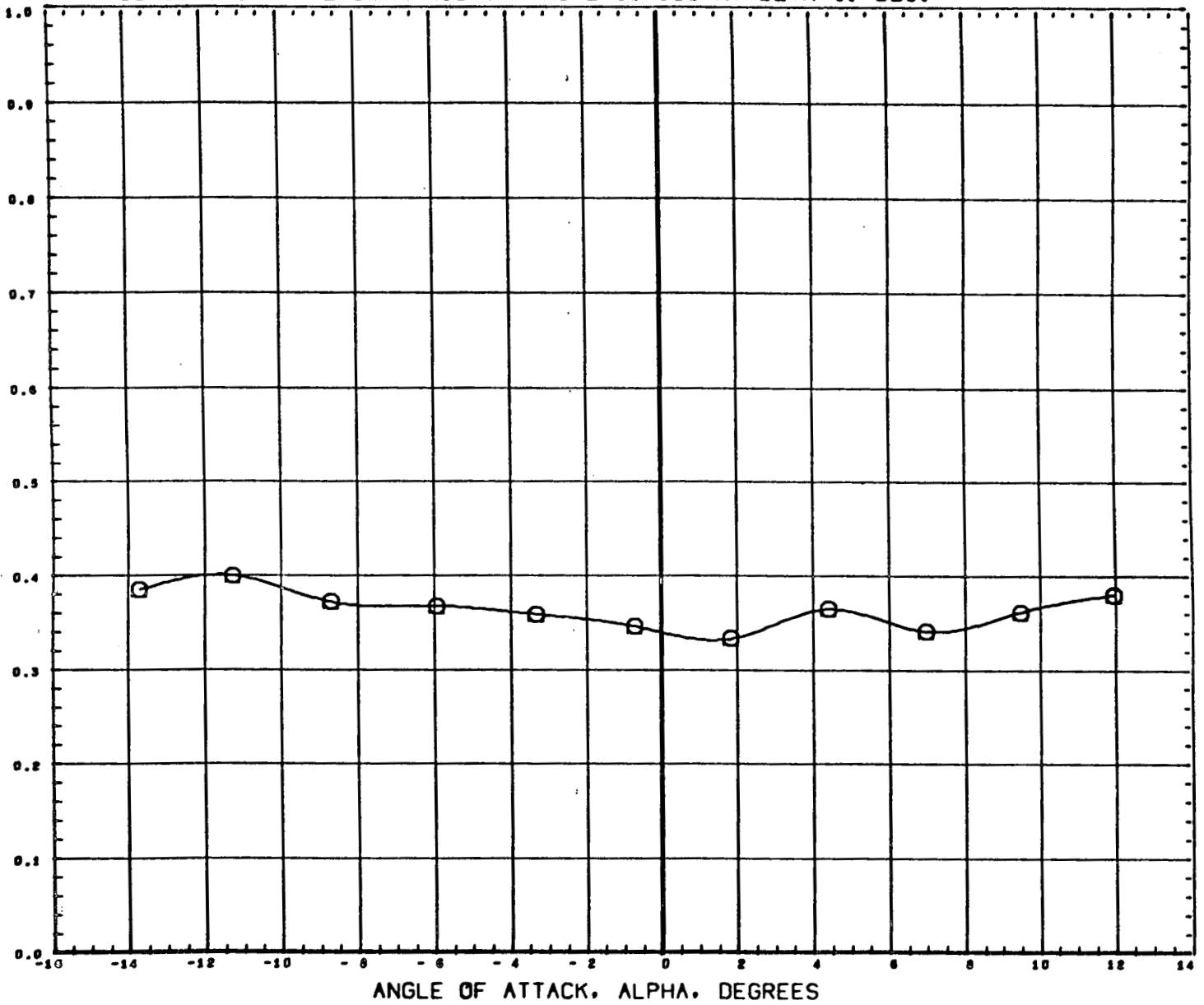
SYMBOL \circ MACH 0.994 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT .CABS



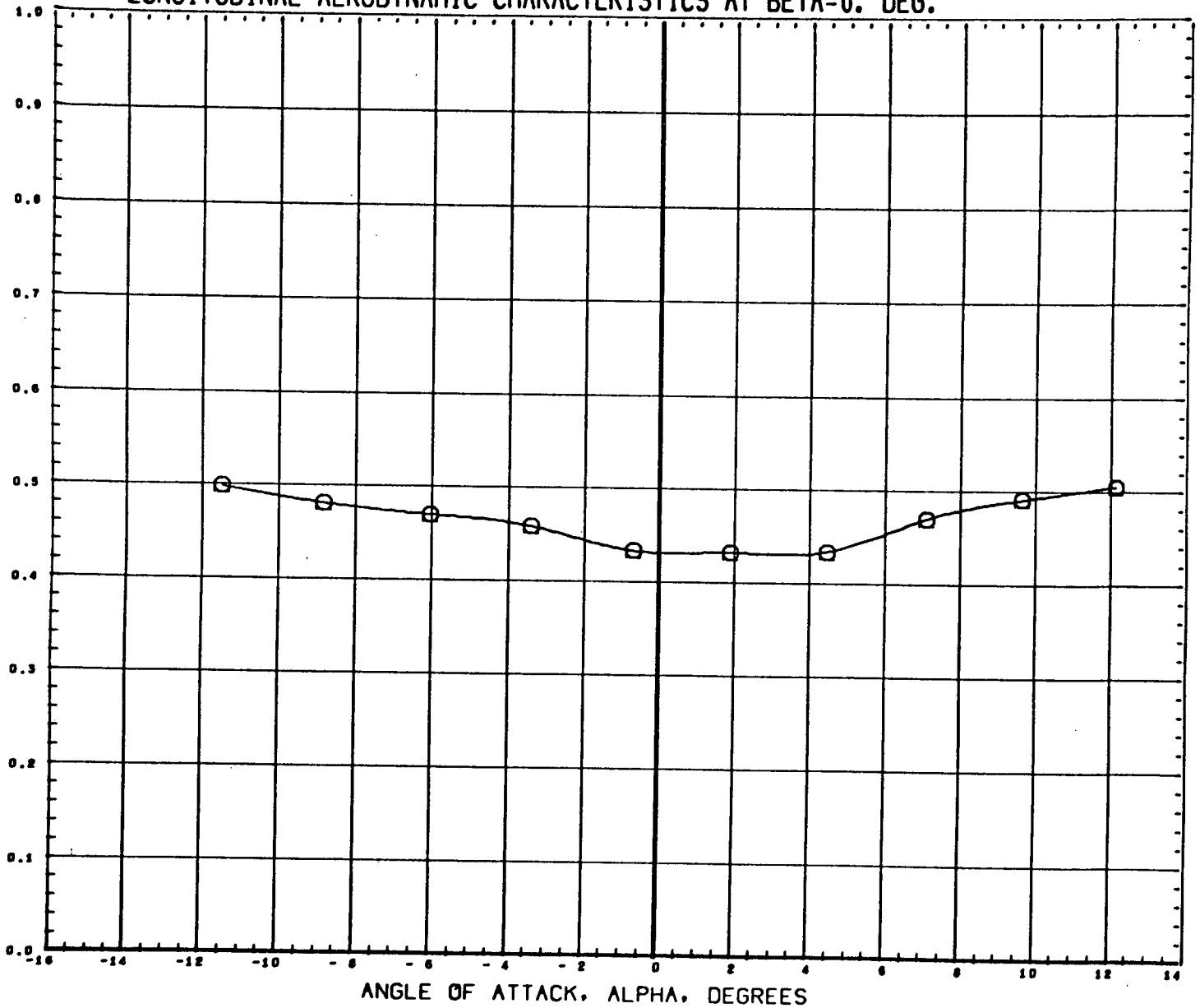
SYMBOL \bigcirc MACH 0.994 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LRFP 0.8240 INCHES
 DRFP 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT, CABS

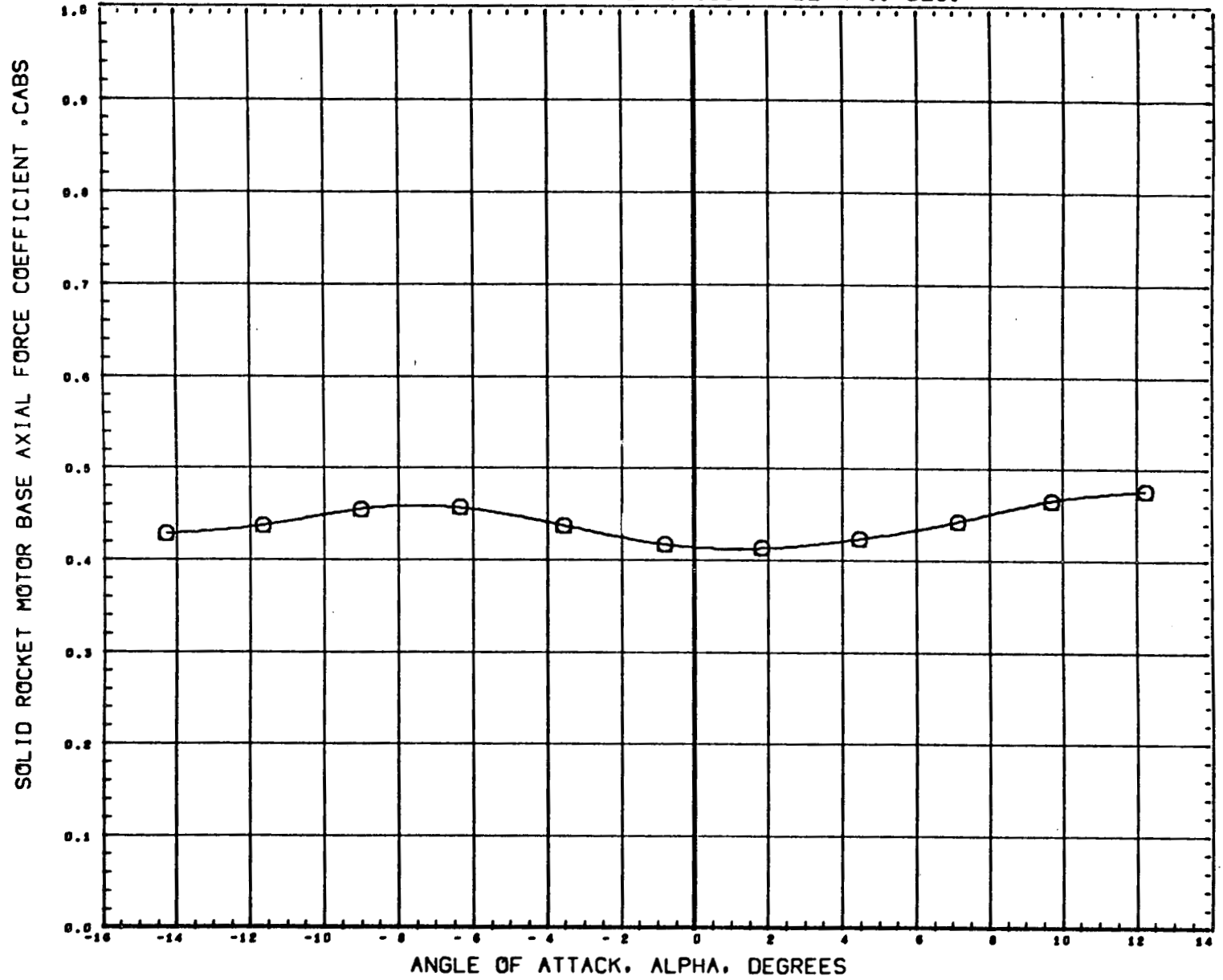


SYMBOL \bigcirc MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 88 INC
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 DREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.202 0.000

REFERENCE INFORMATION

SREF	0.9340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XWRP	2.9170	IN TII
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ZWRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V9E

MSFC TWT 505 T111L/DT07

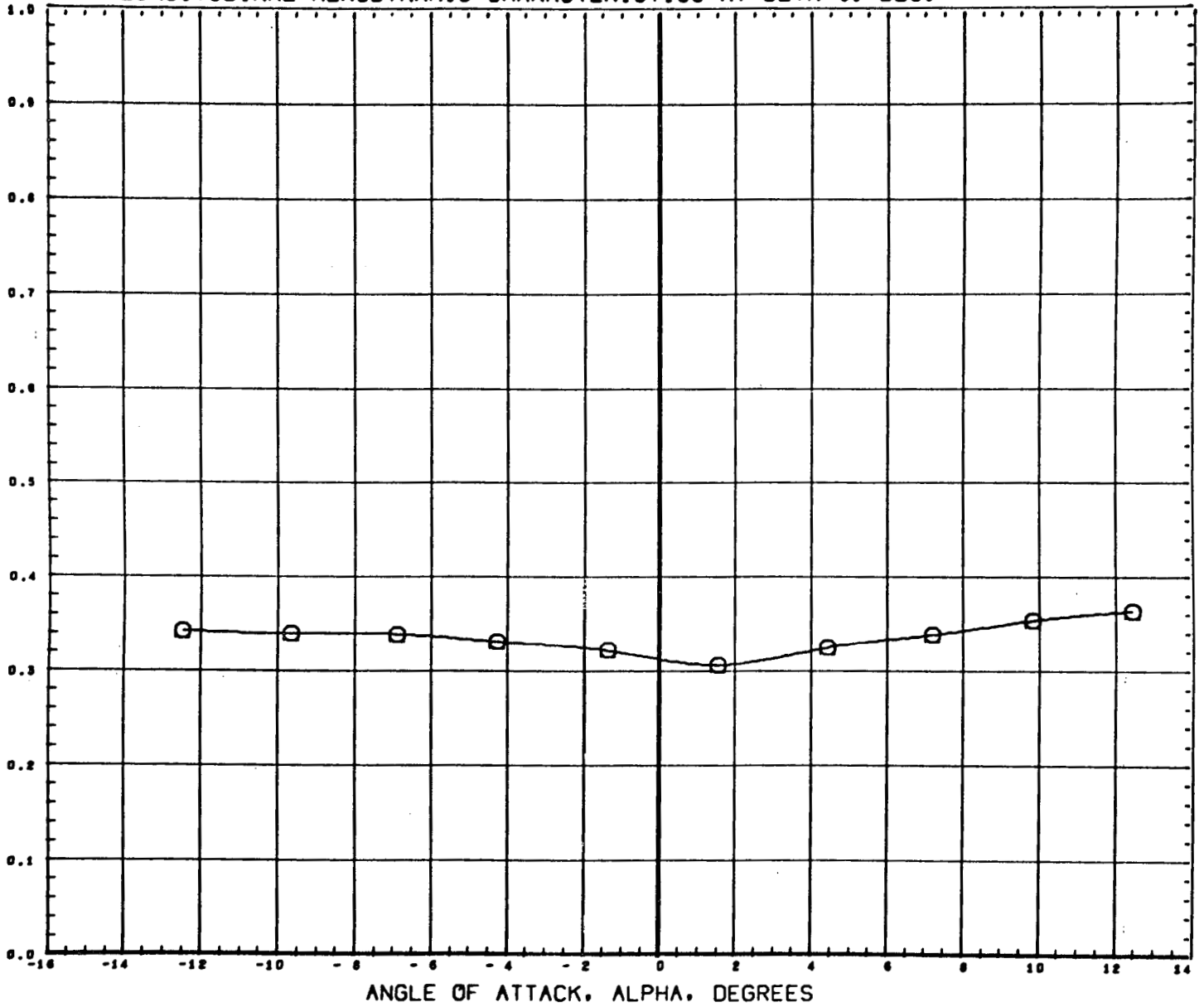
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT, CABS



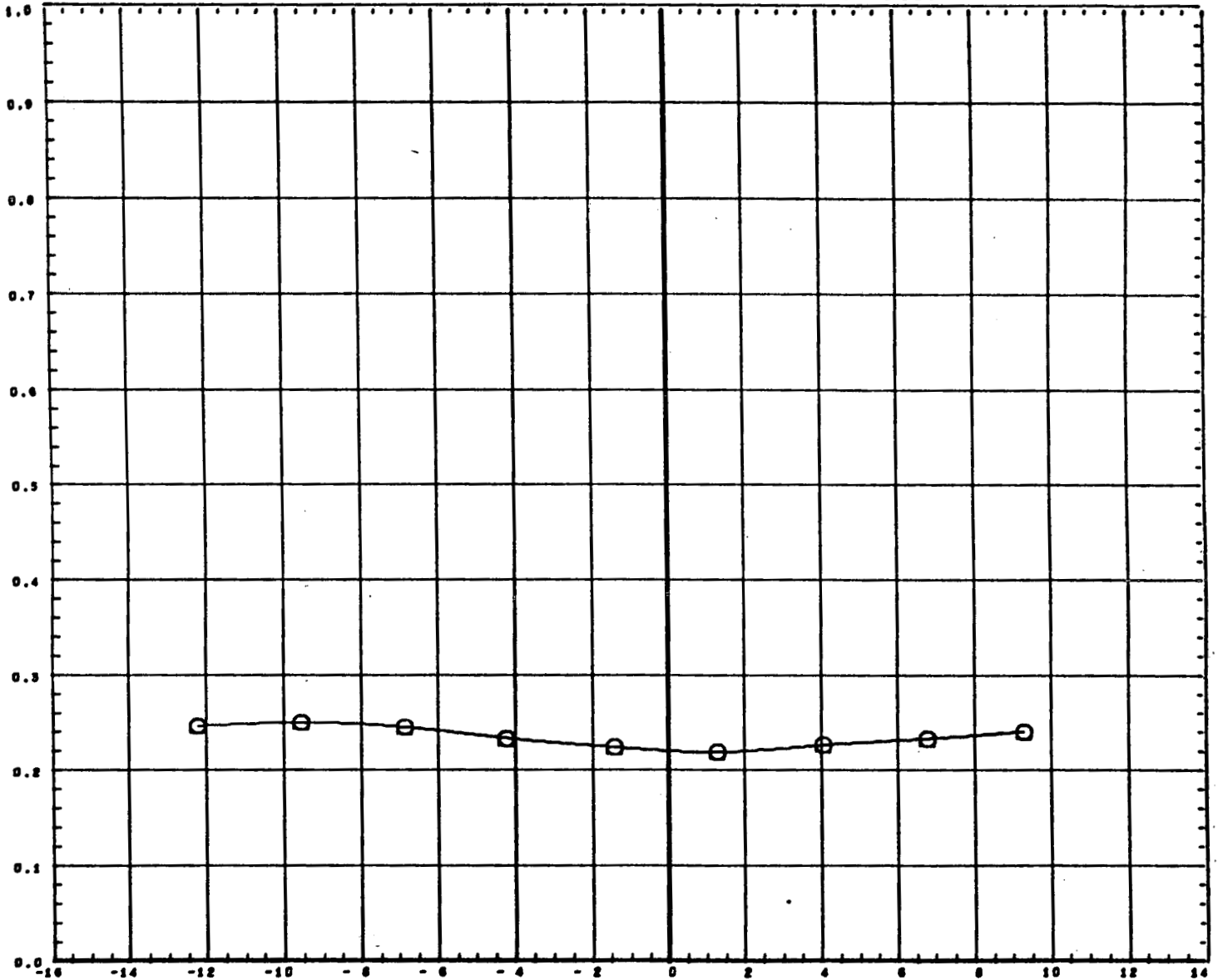
SYMBOL \bigcirc MACH 1.456 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT, CABS



ANGLE OF ATTACK, ALPHA, DEGREES

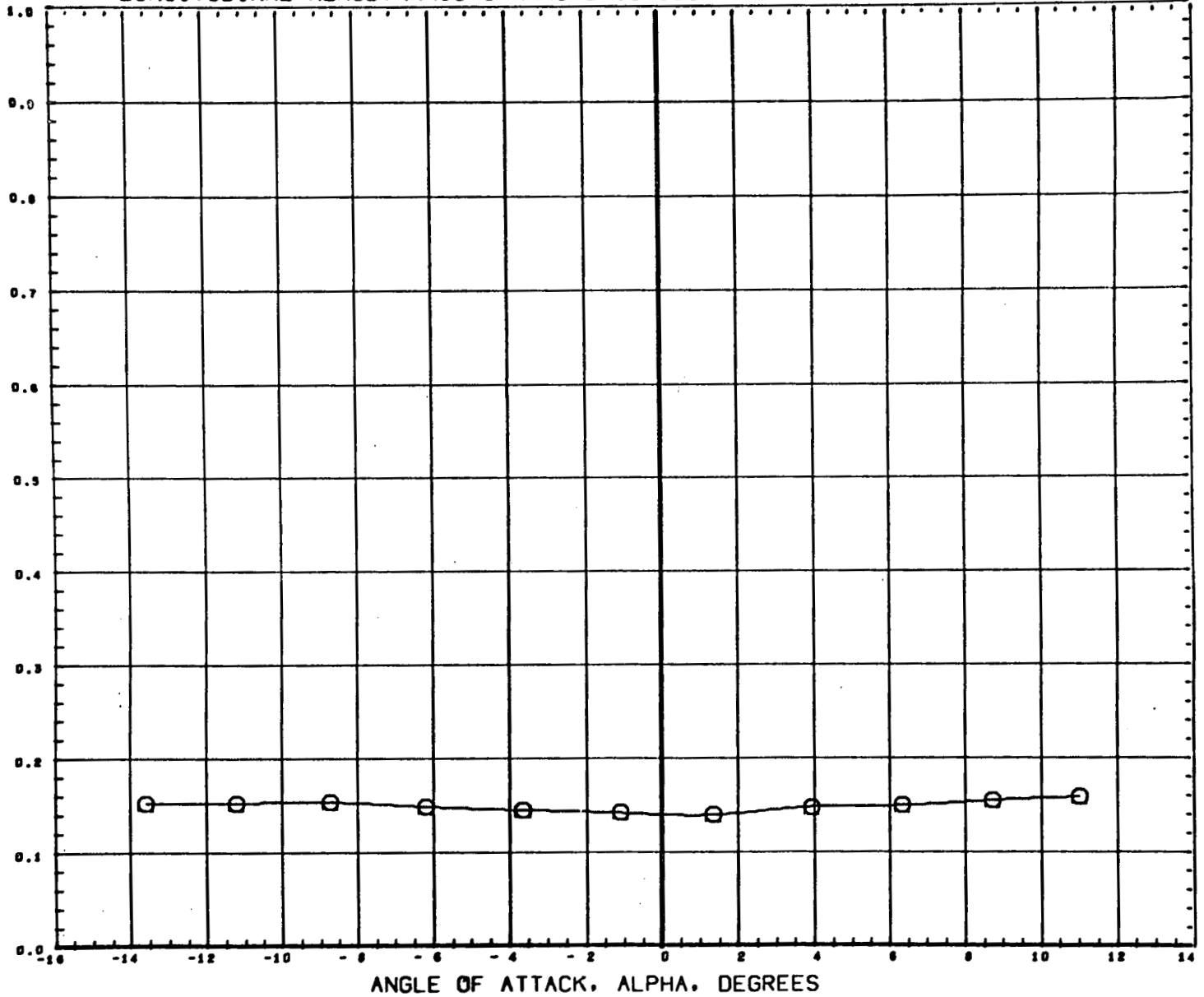
SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.969 0.000

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT C_{AB}



SYMBOL \bigcirc MACH 2.740 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

MSFC TWT 505 T111L/DT07

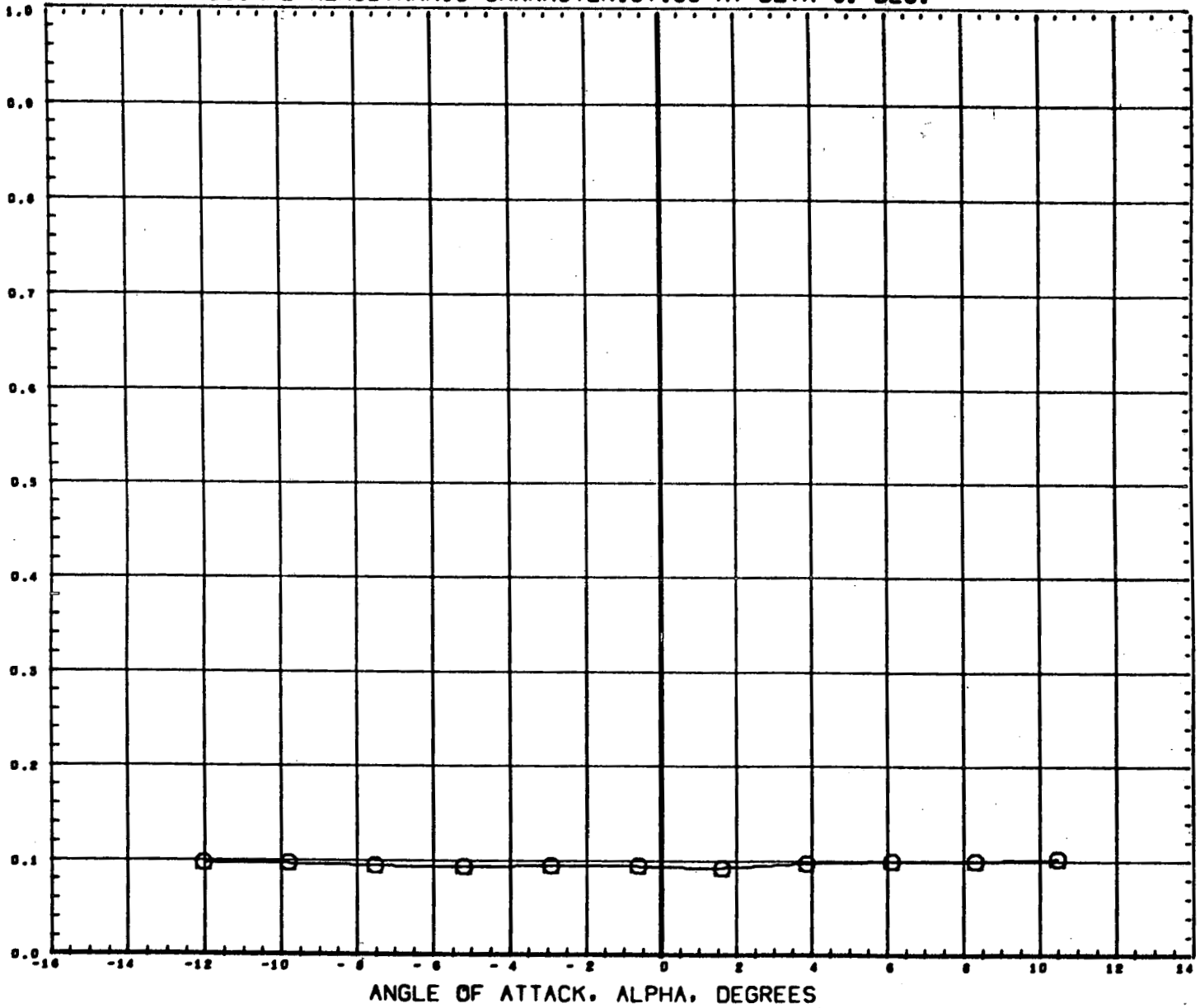
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT, CABS

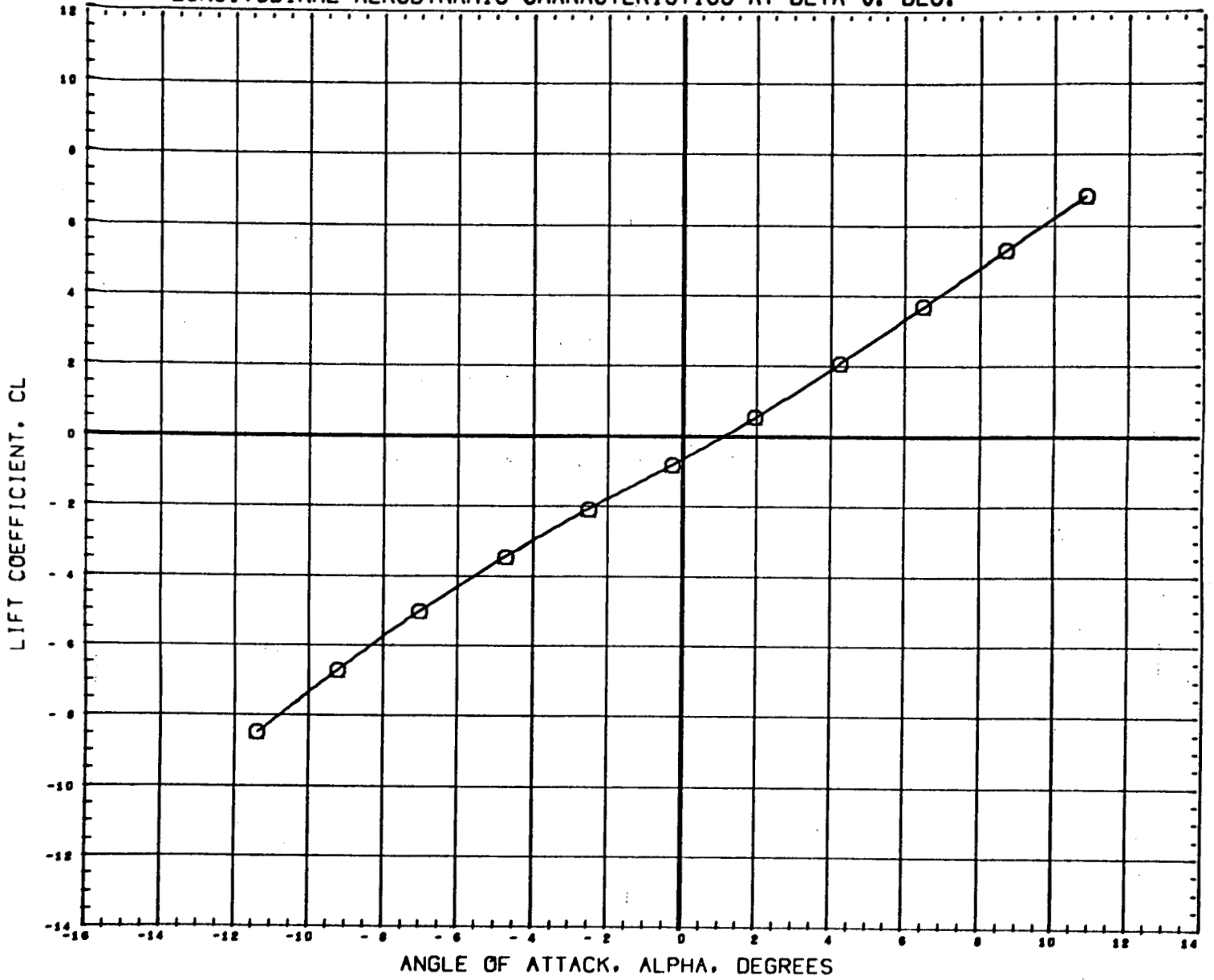


SYMBOL \circ MACH 3.400 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

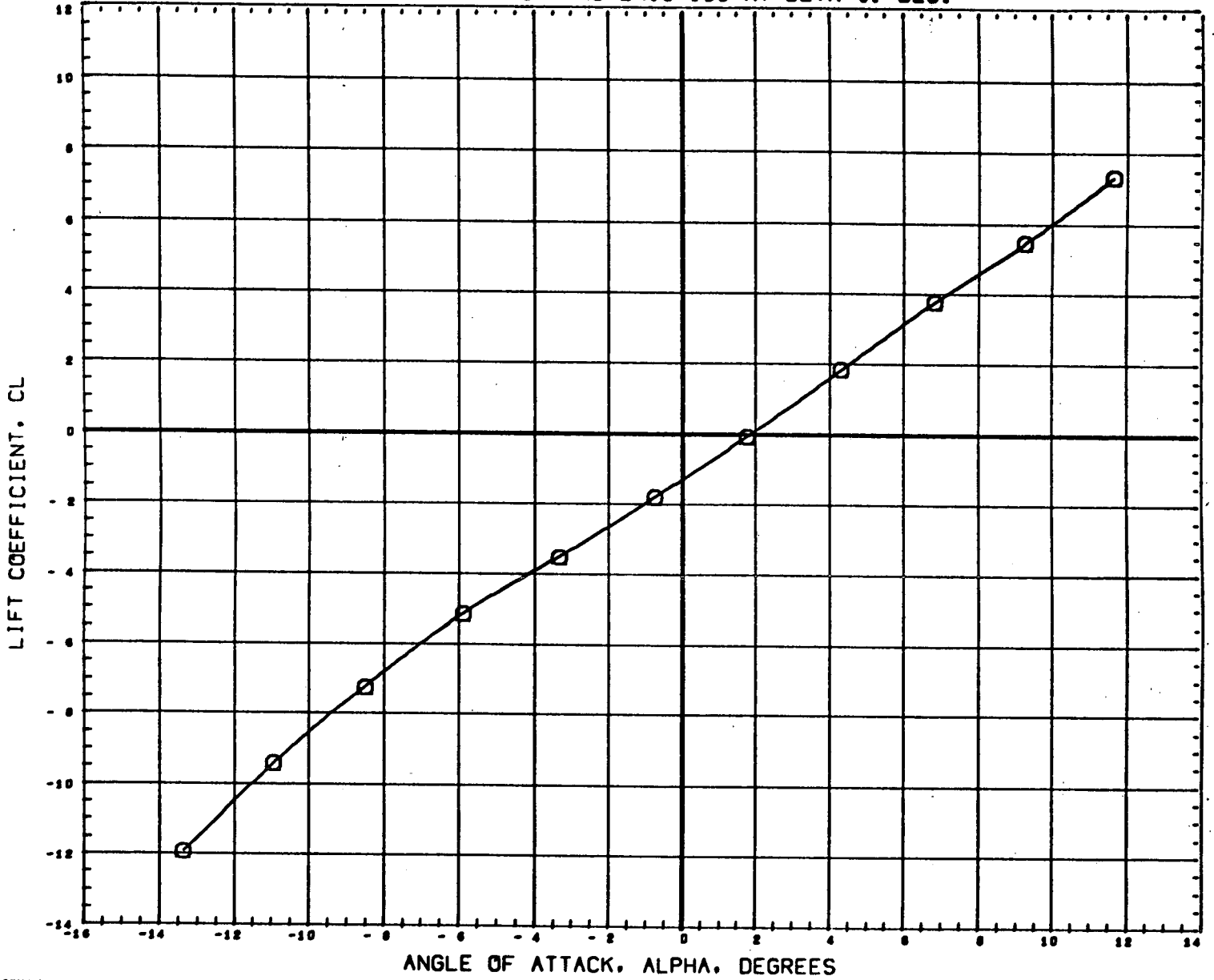


SYMBOL \square MACH 0.592 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

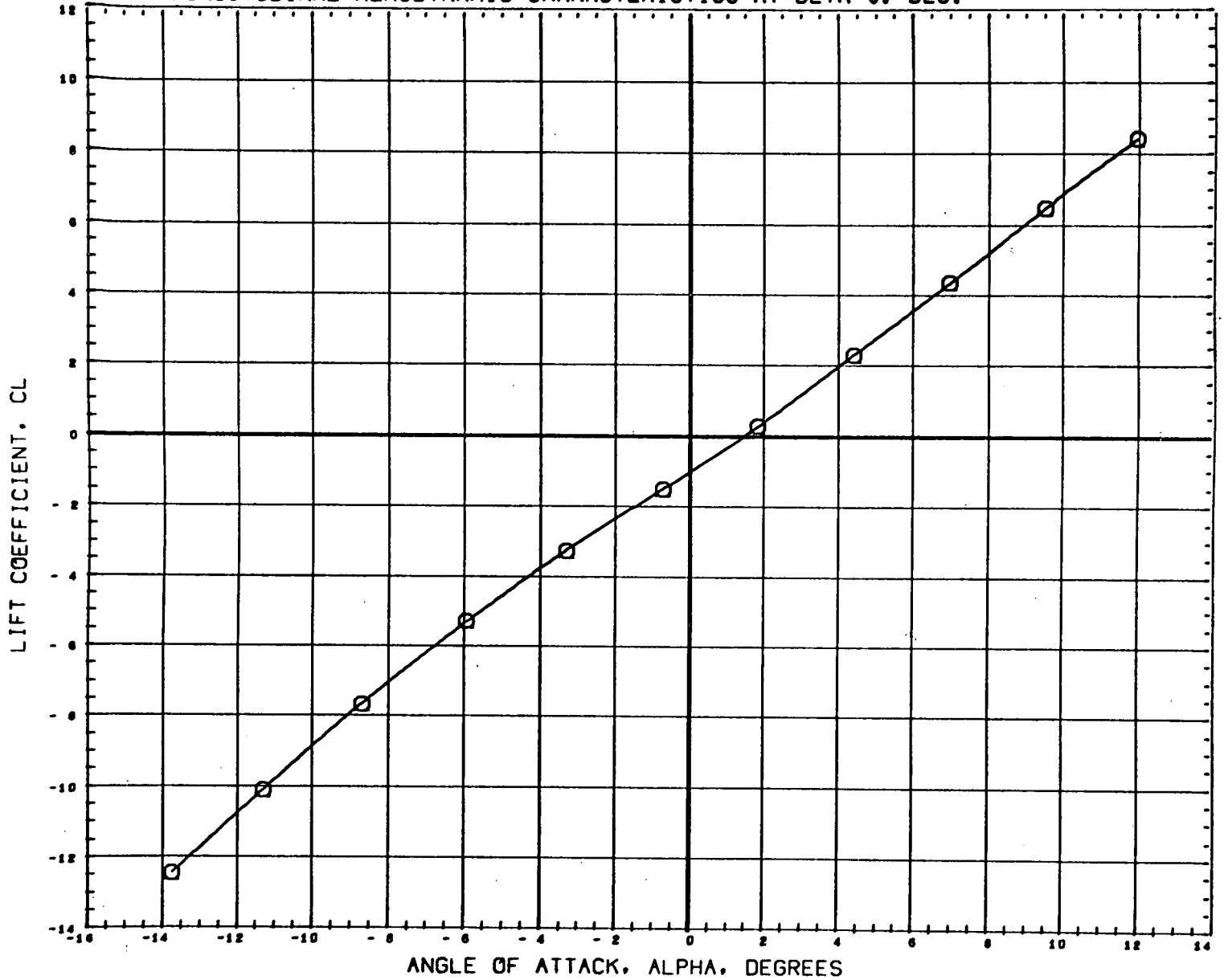


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.894 0.000 0.000

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

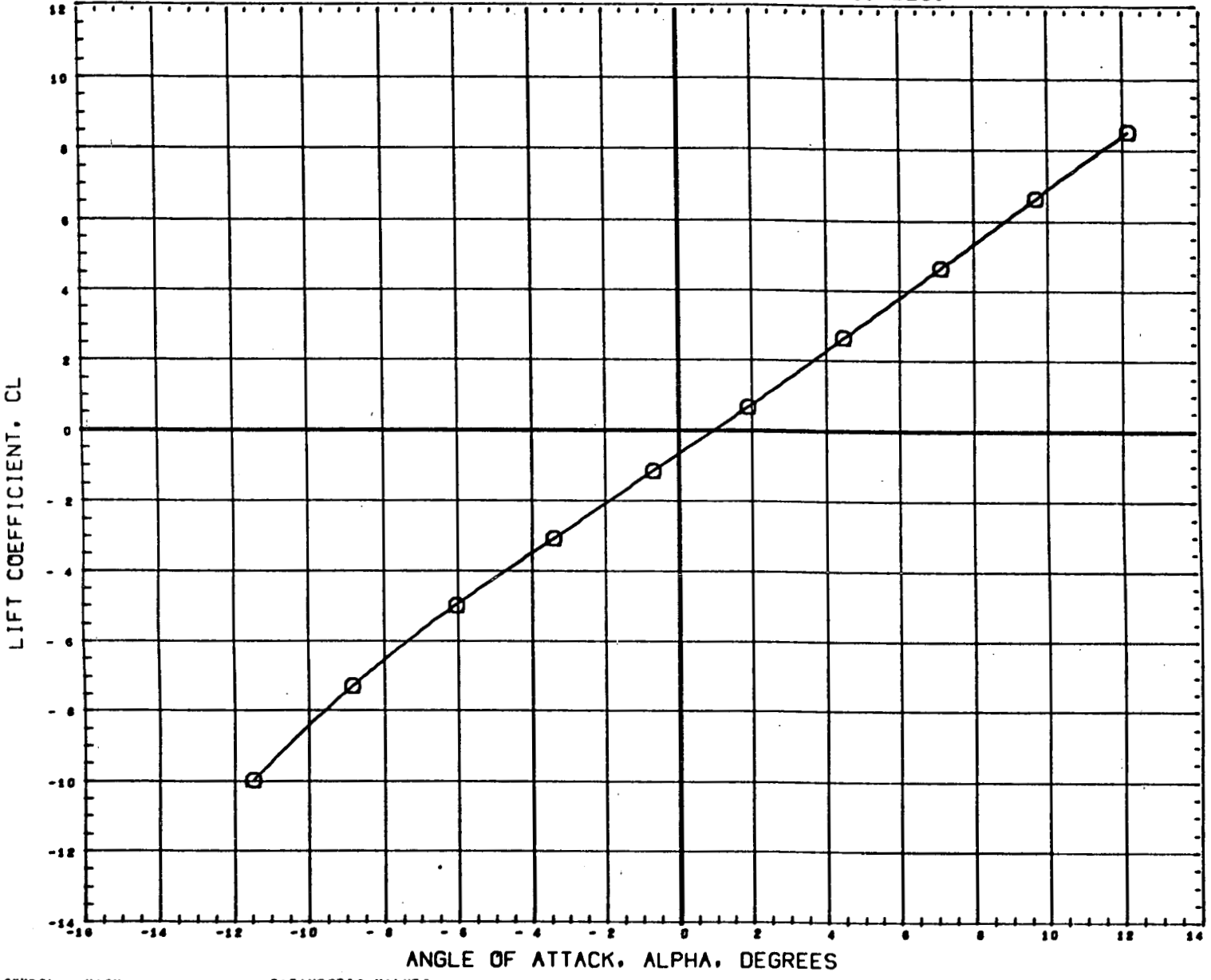


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.994 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

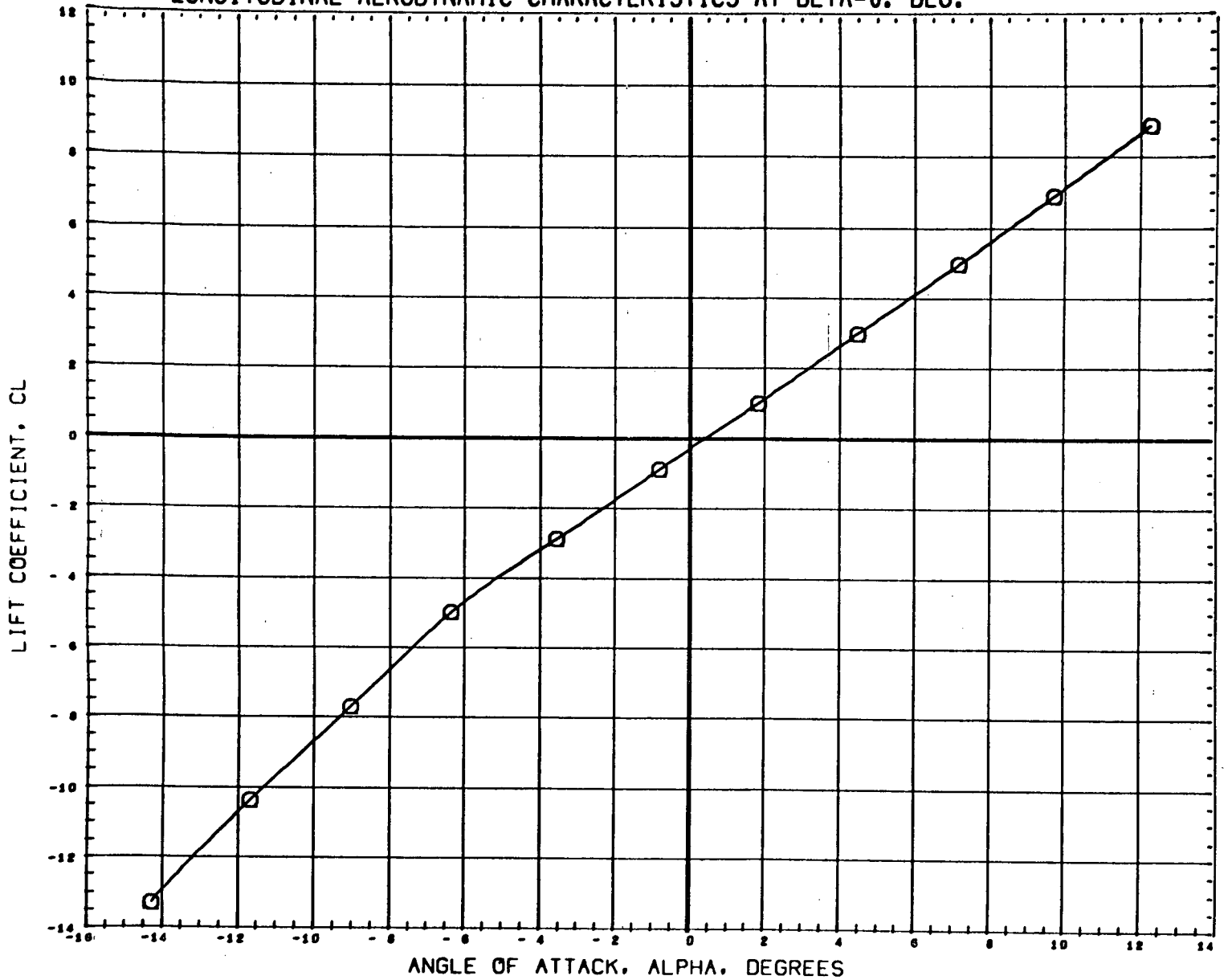


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.099 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

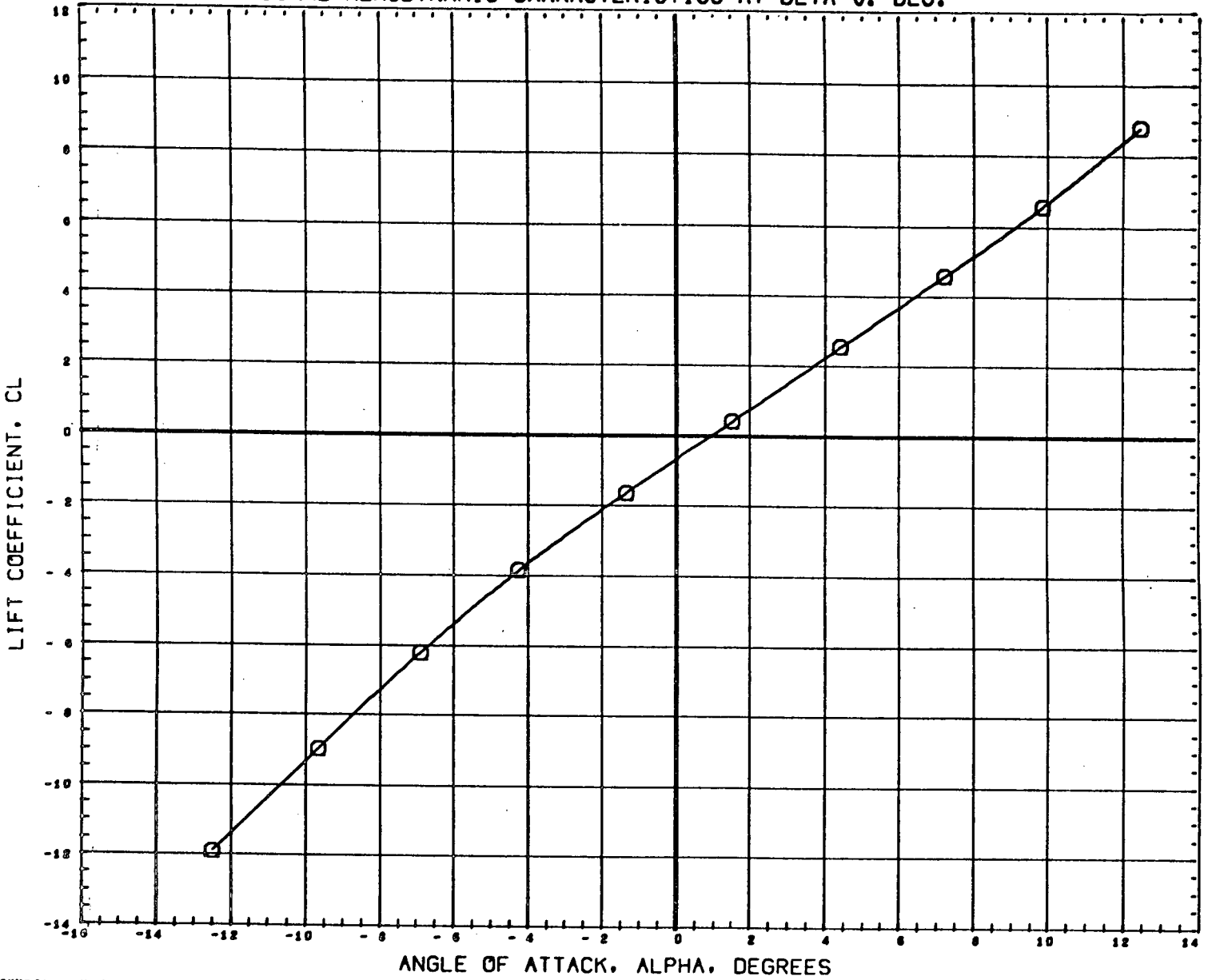


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.202 0.000

REFERENCE INFORMATION
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 BREF 0.6240 INCHES
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 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

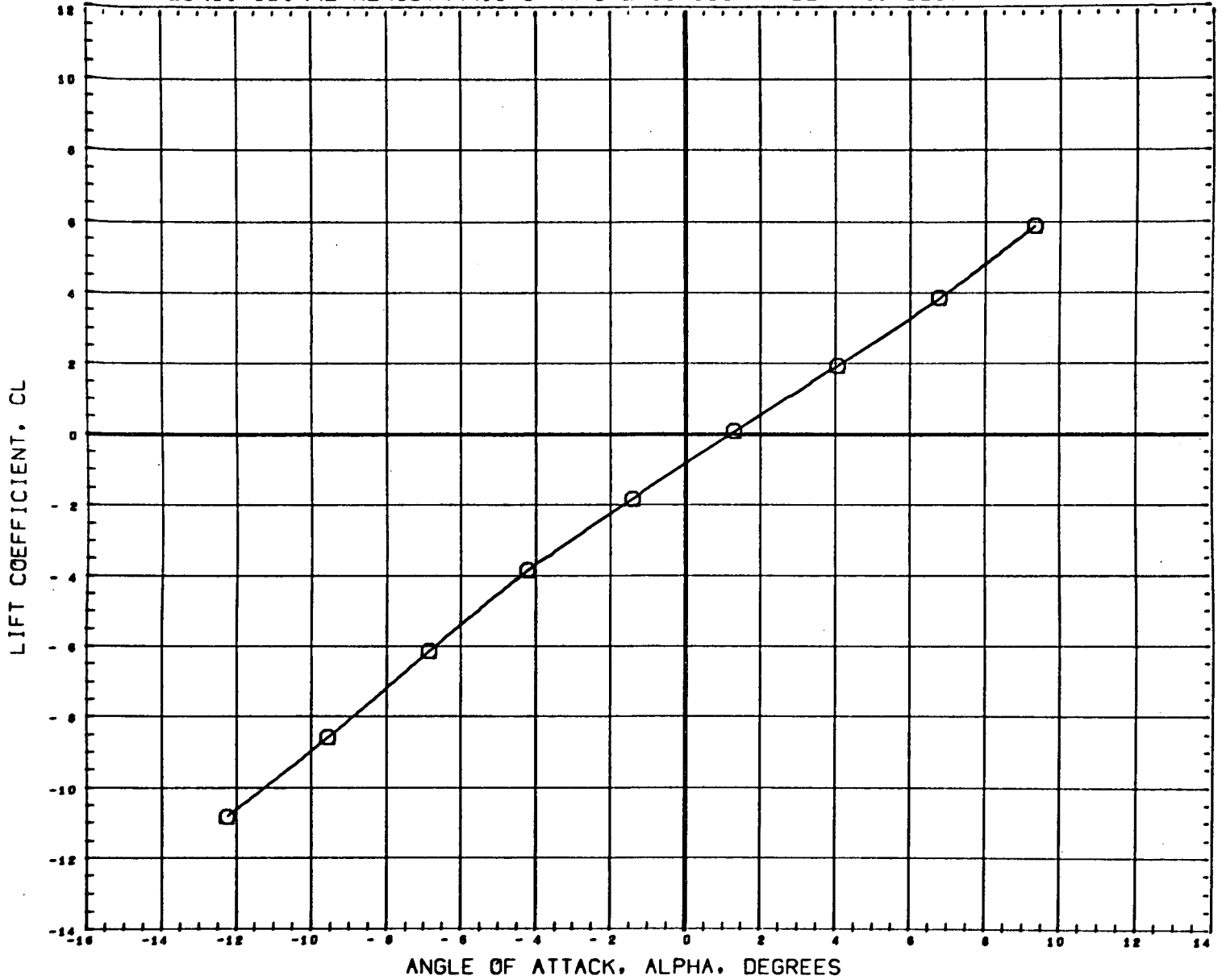


SYMBOL \circ MACH 1.456 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

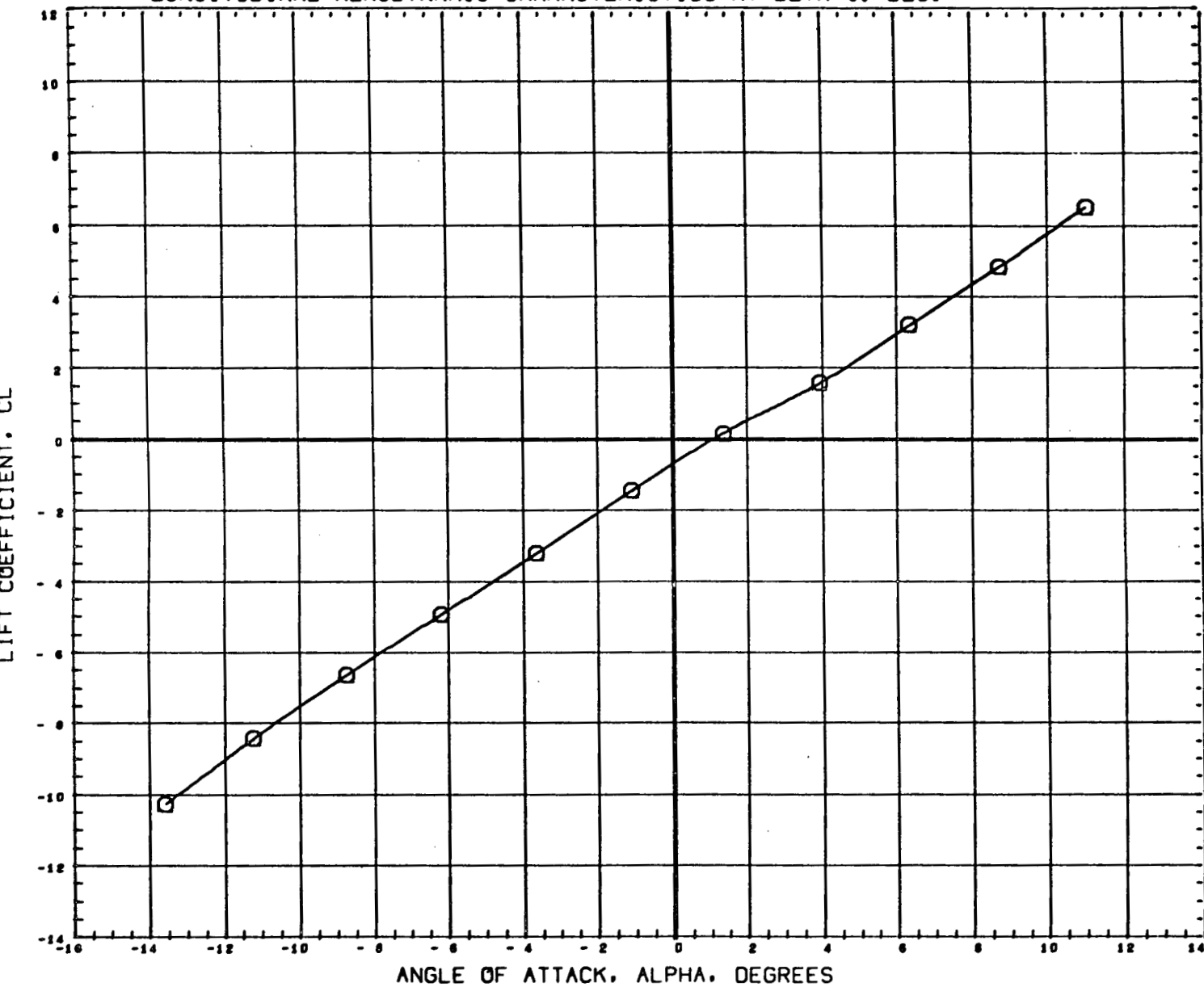


SYMBOL \circ MACH 1.969 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

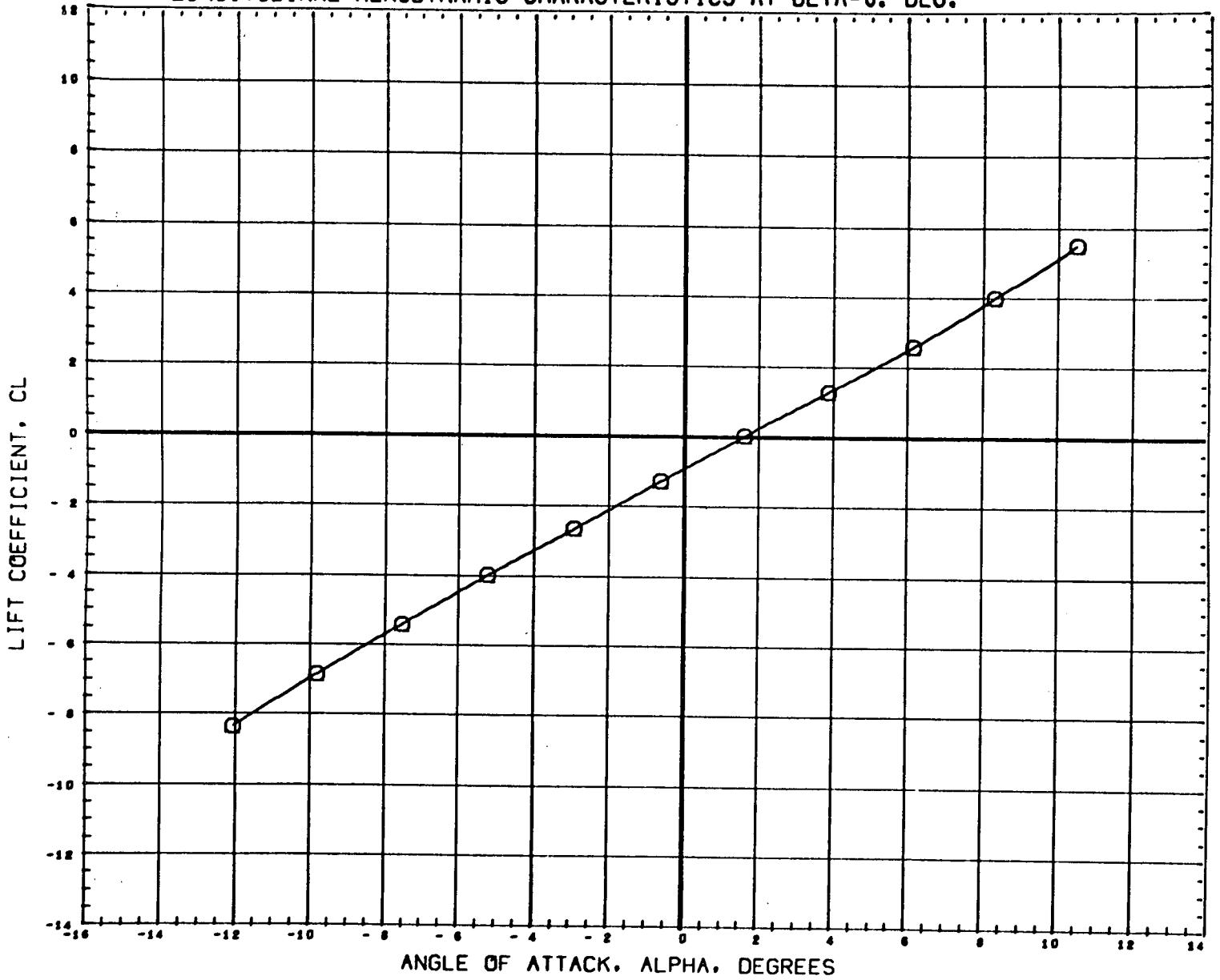


SYMBOL MACH BETA PARAMETRIC VALUES
 Q 2.740 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH PARAMETRIC VALUES
 ○ 3.480 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

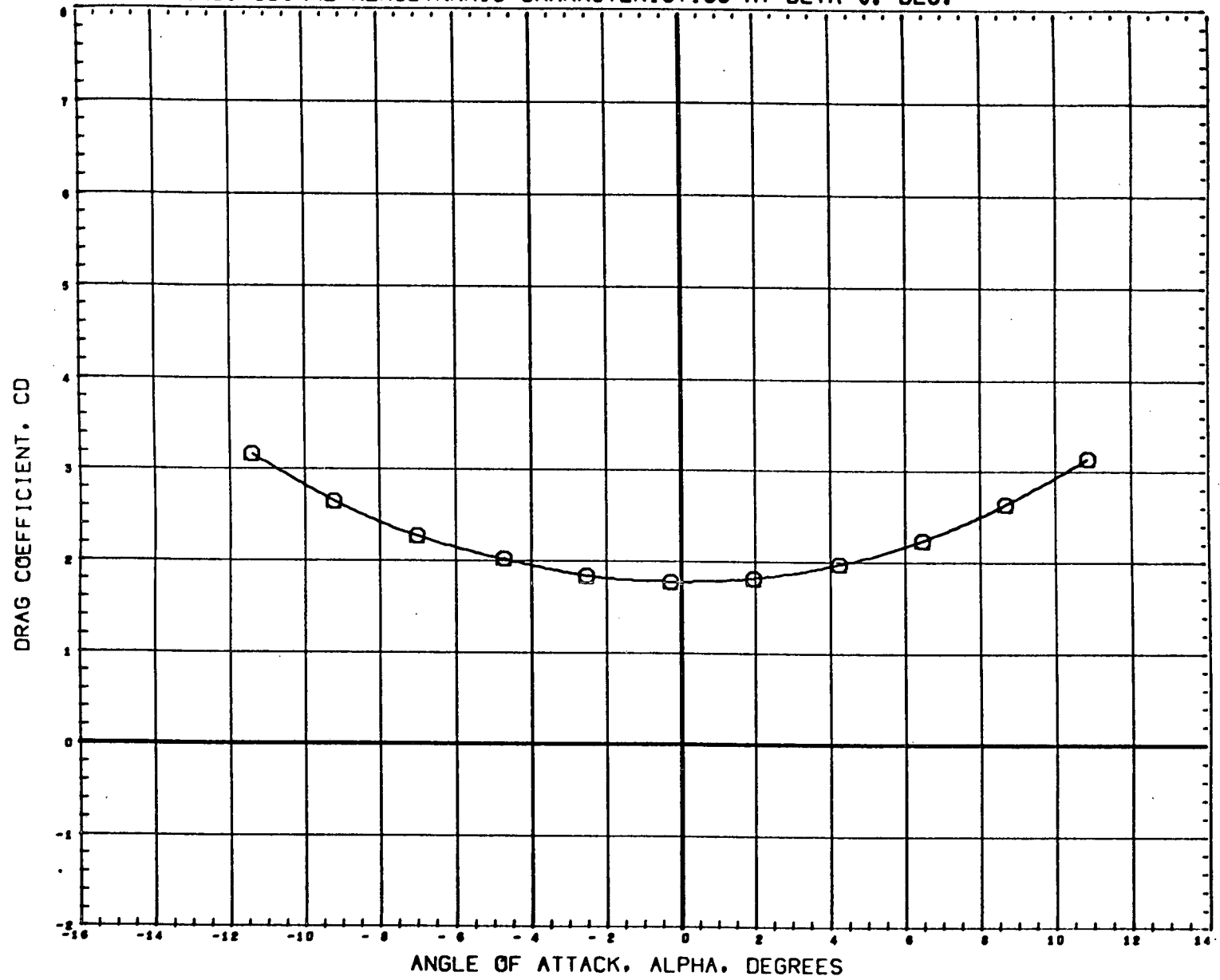
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

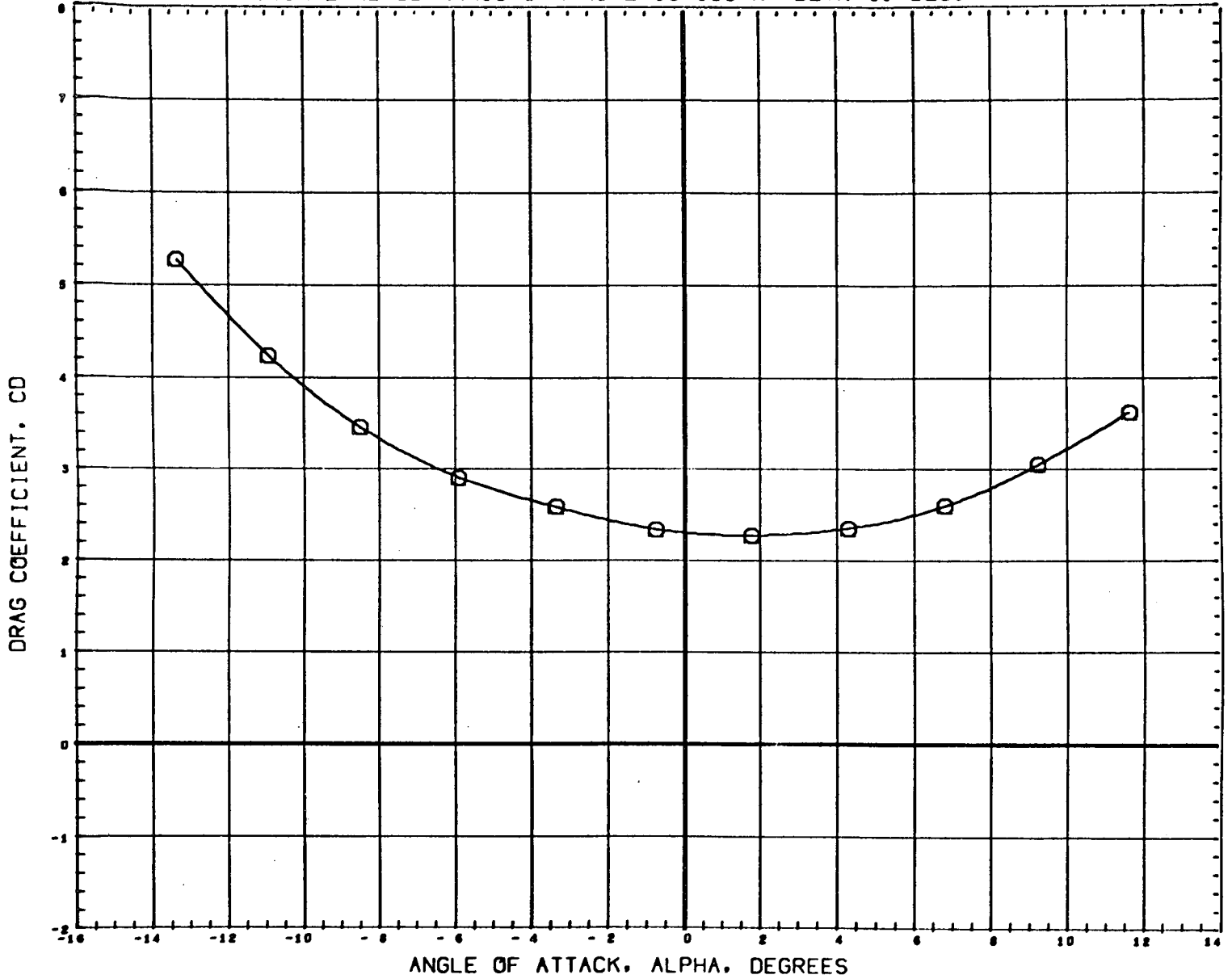


SYMBOL \circ MACH 0.592 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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 SCALE 0.4500 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

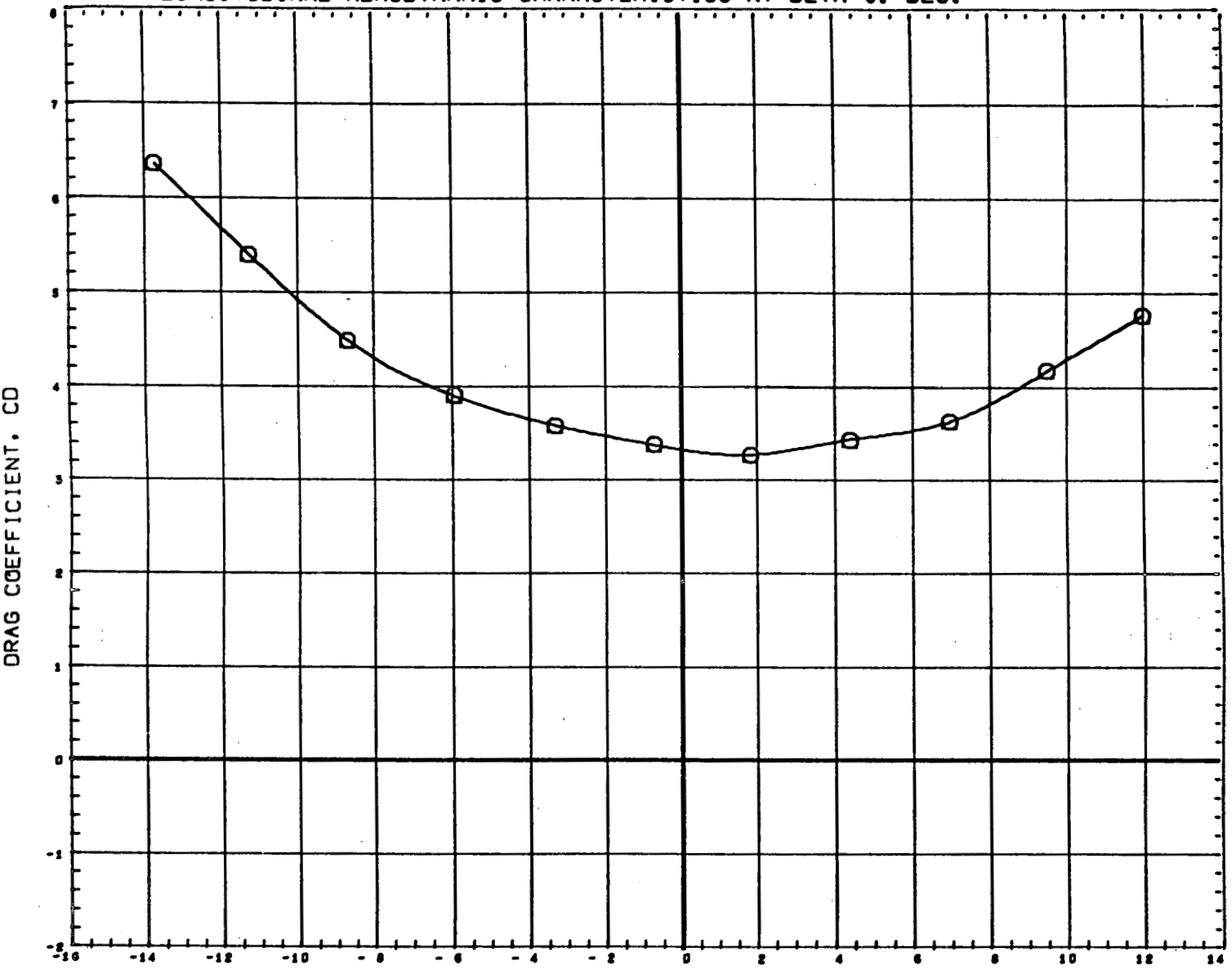


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.894 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

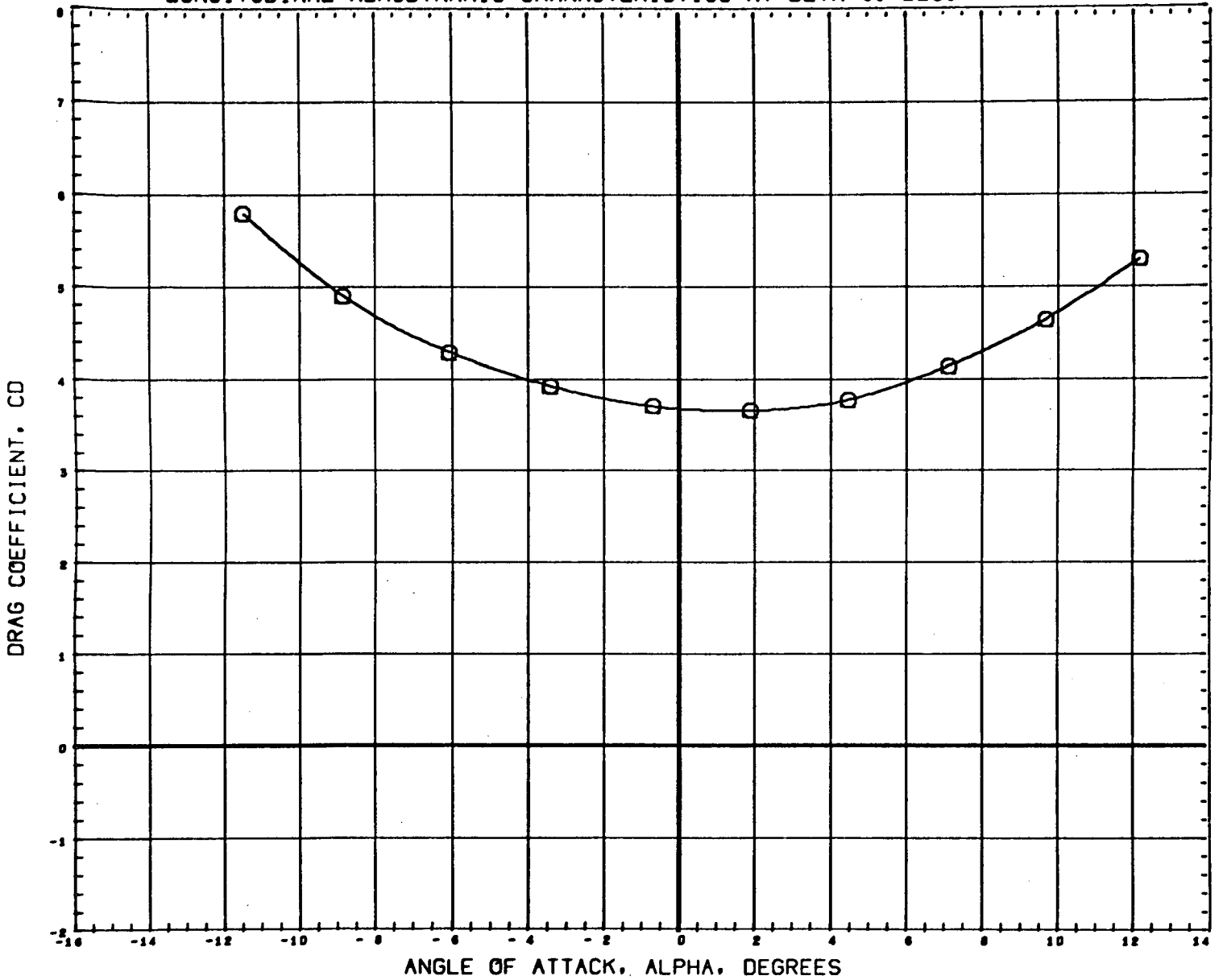


SYMBOL \square MACH 0.994 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

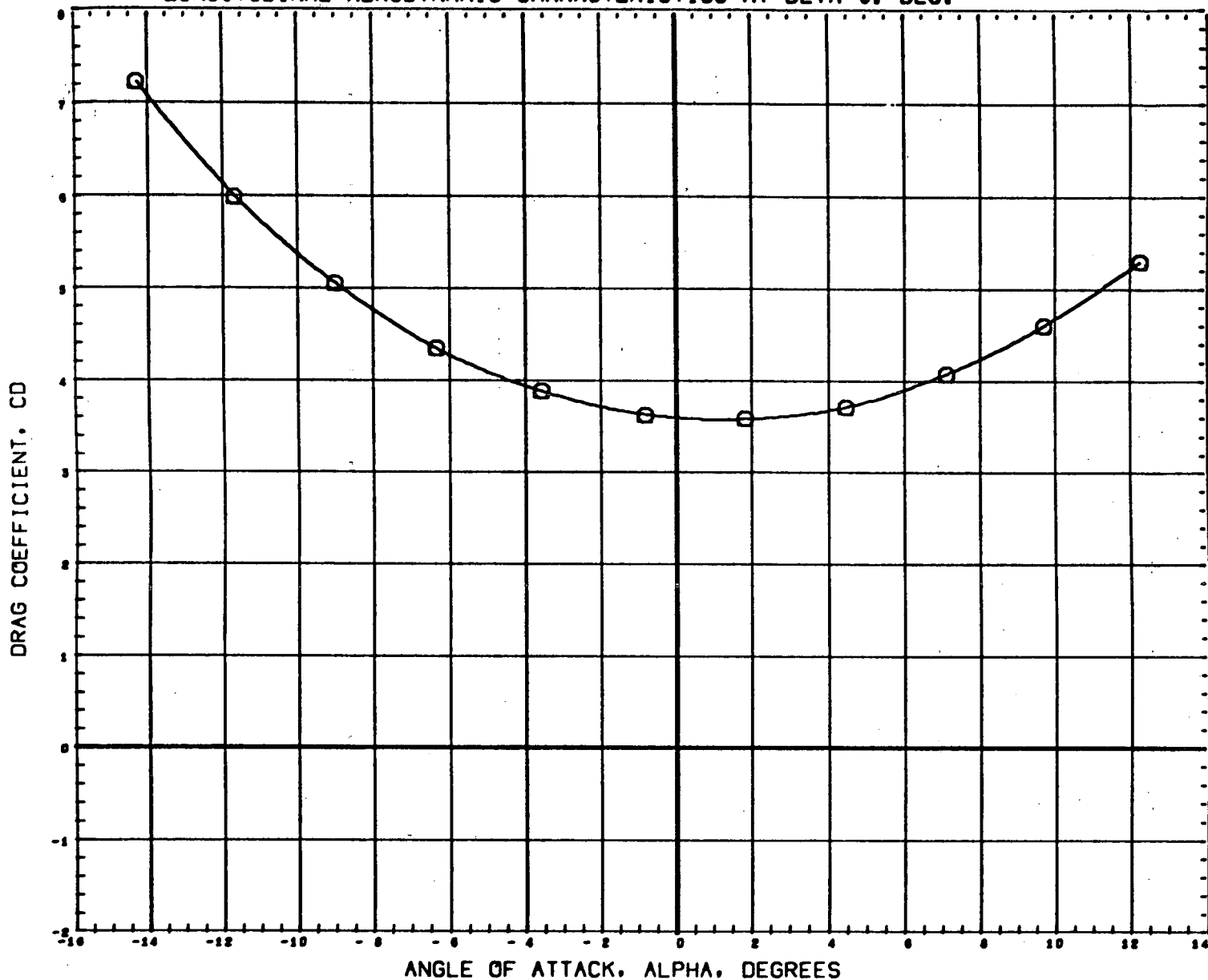


SYMBOL \square MACH 1.099 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

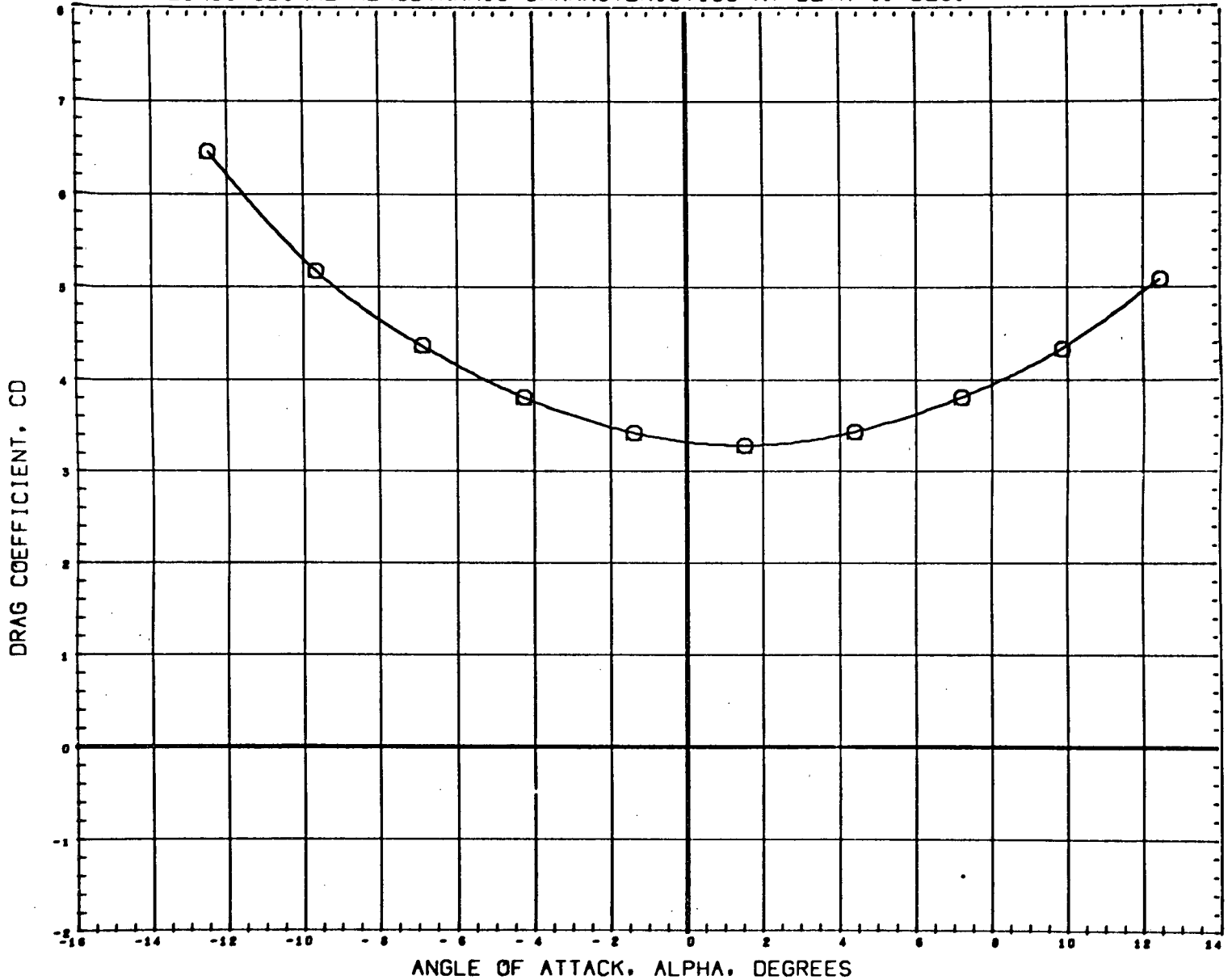


SYMBOL \bigcirc MACH 1.202 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.456 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

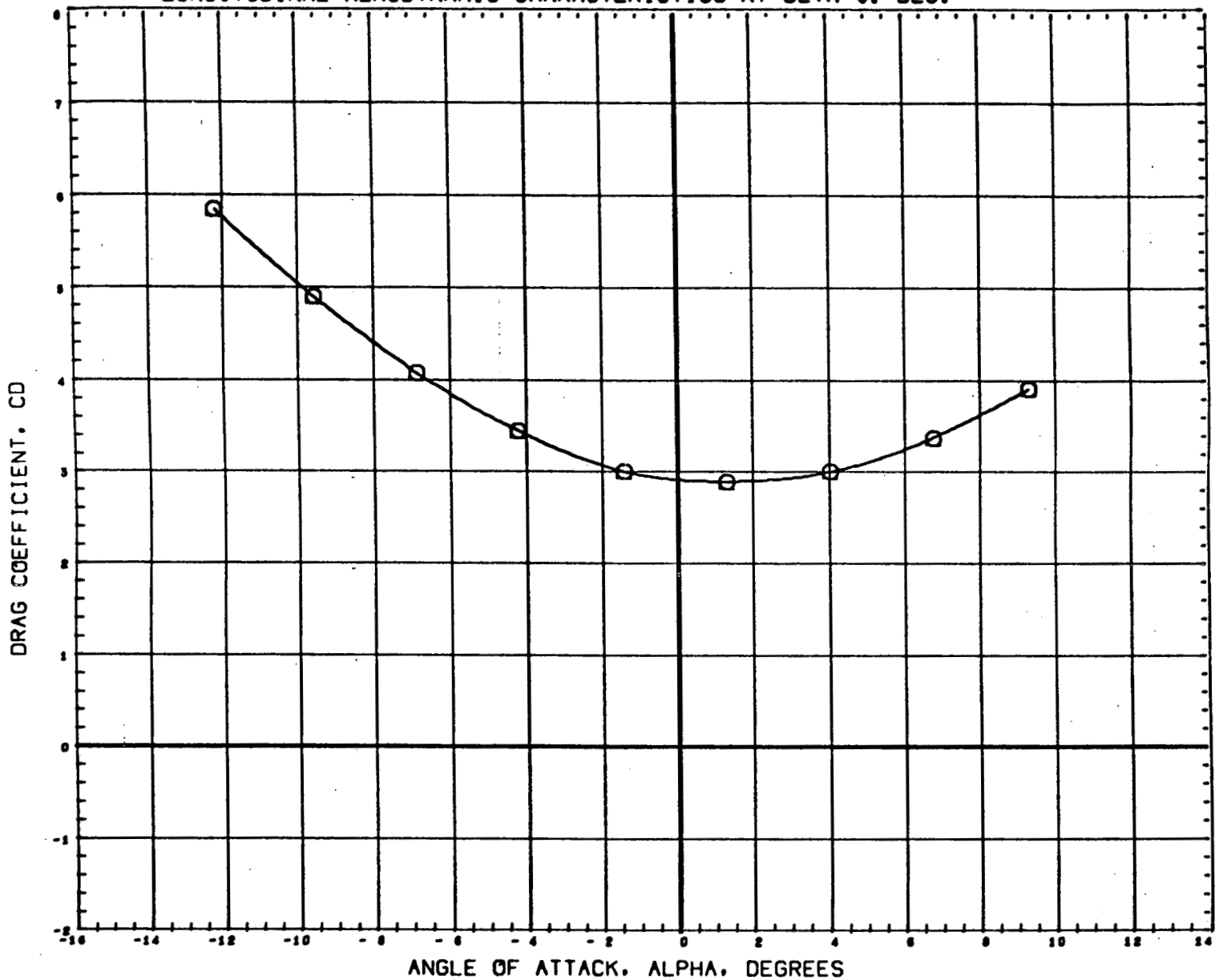
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

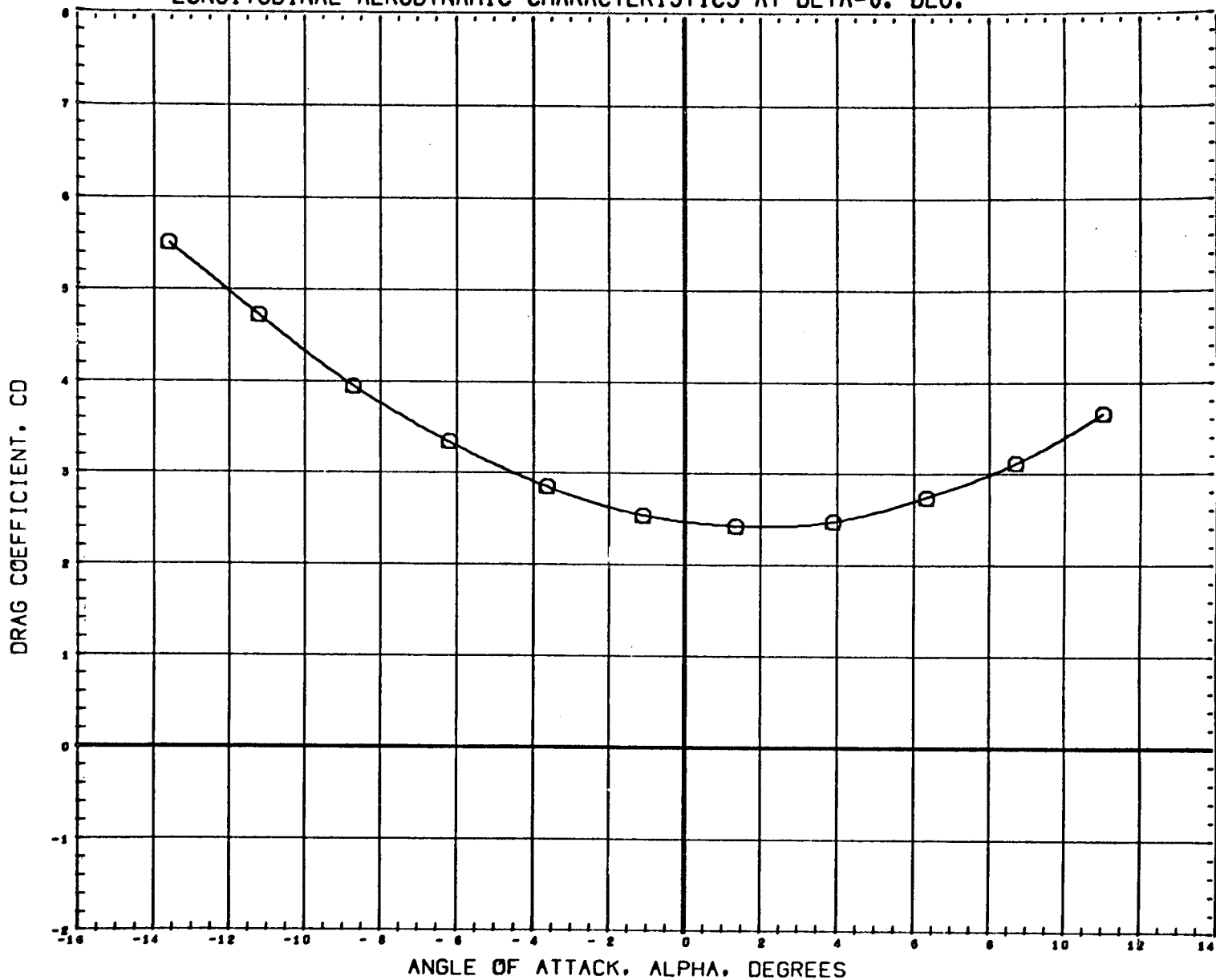


SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.969 0.000

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

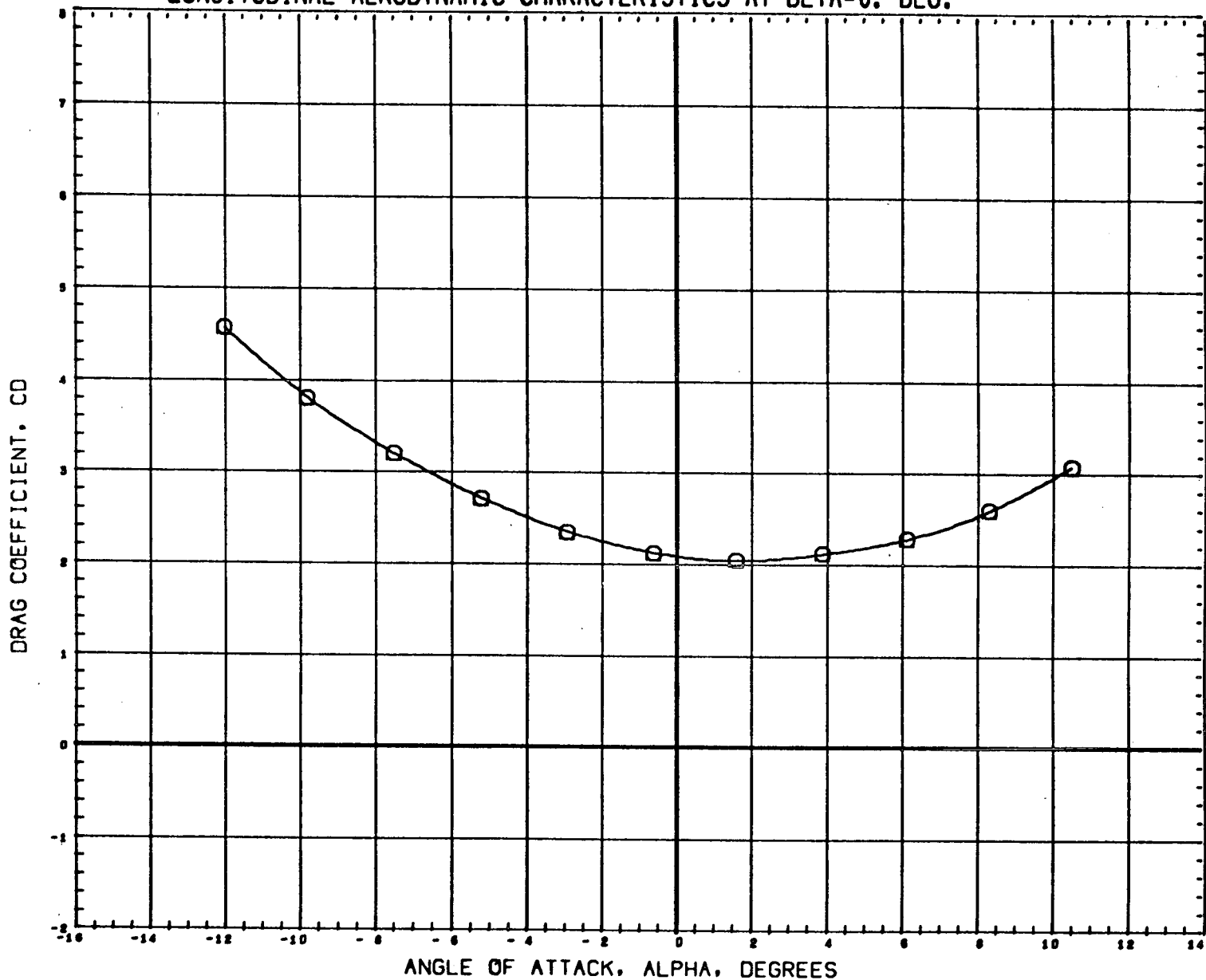


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 OREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 3.460 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
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 XHRP 8.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

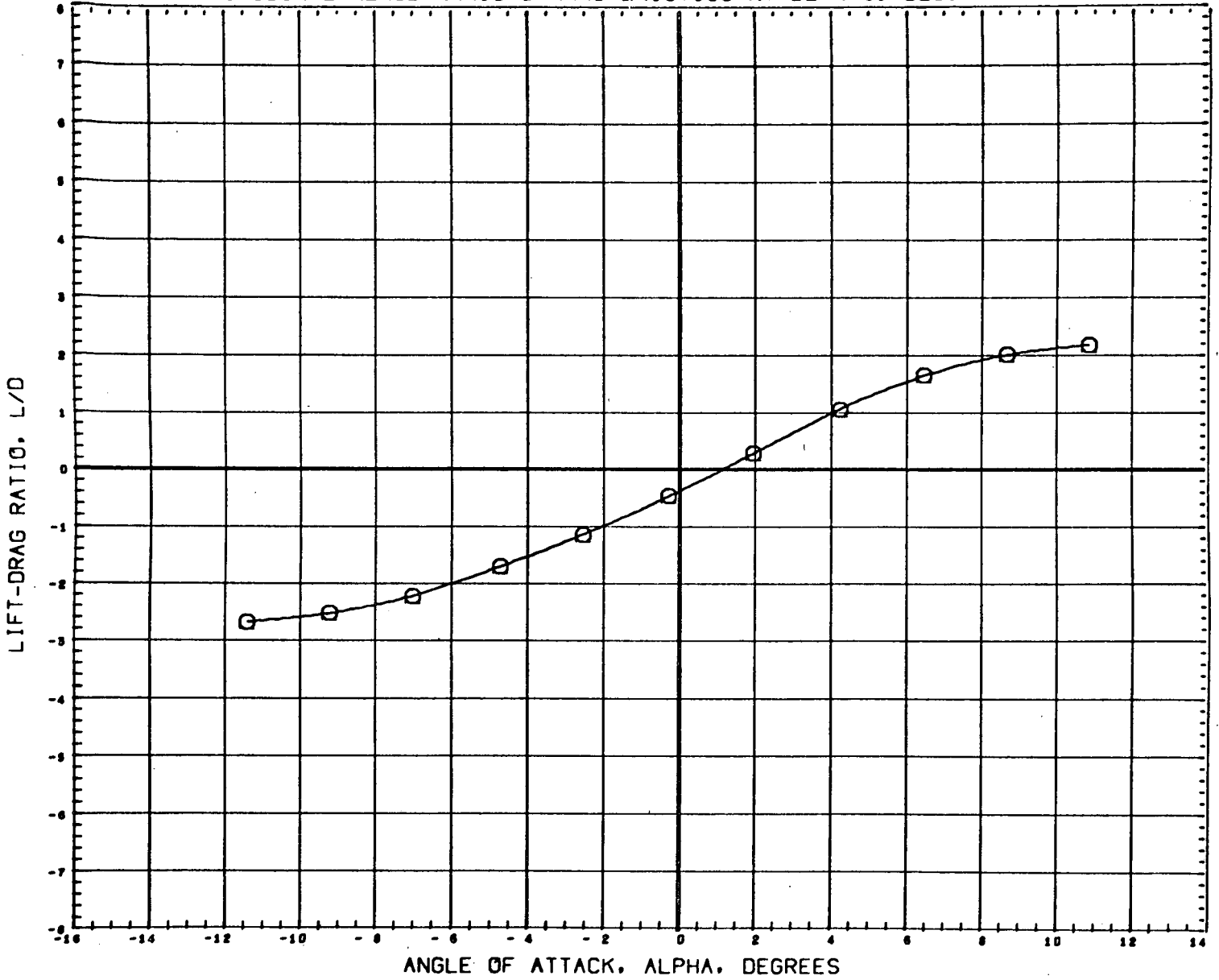
DATA HIST. CODE V#E

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

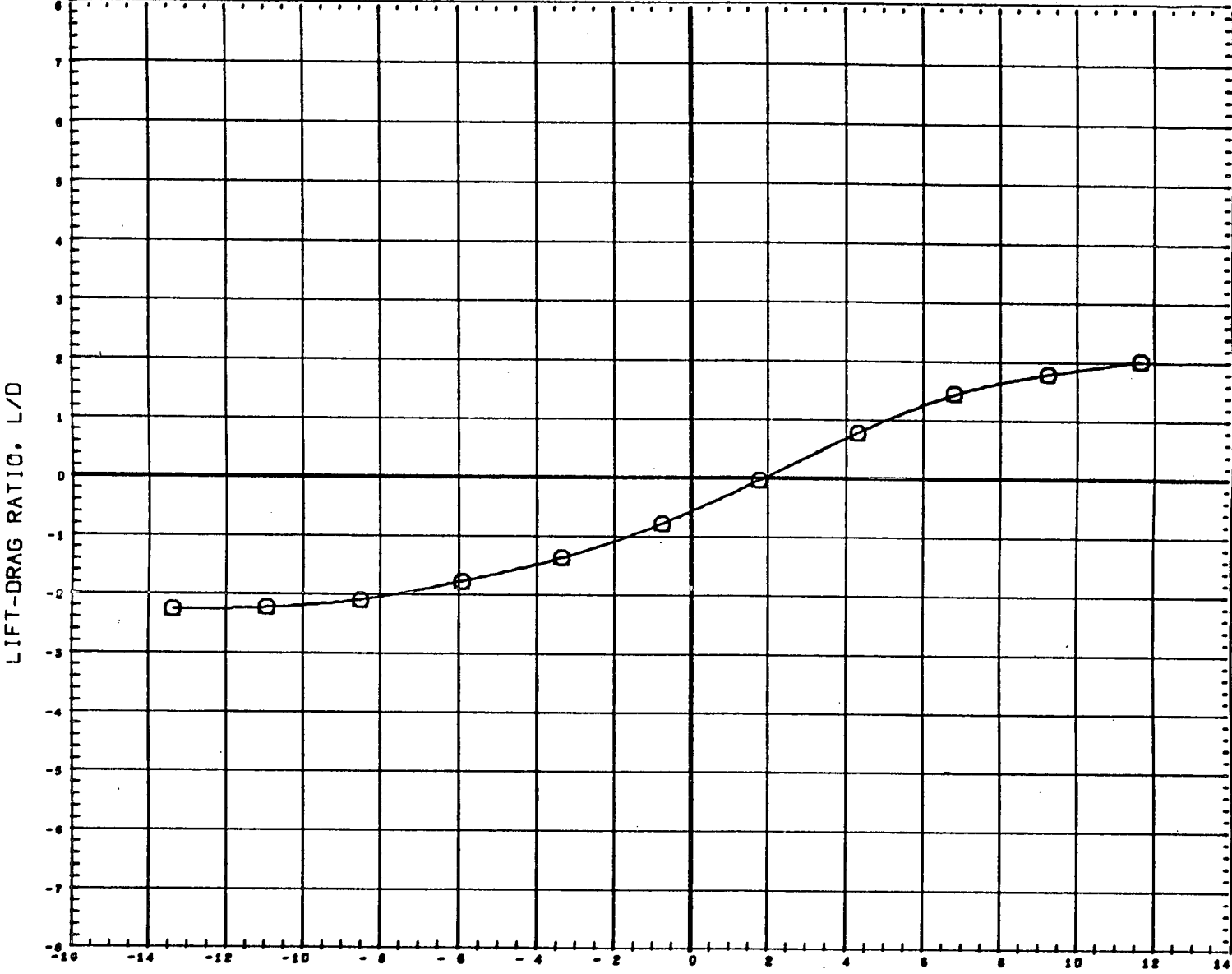


SYMBOL \circ MACH 0.592 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



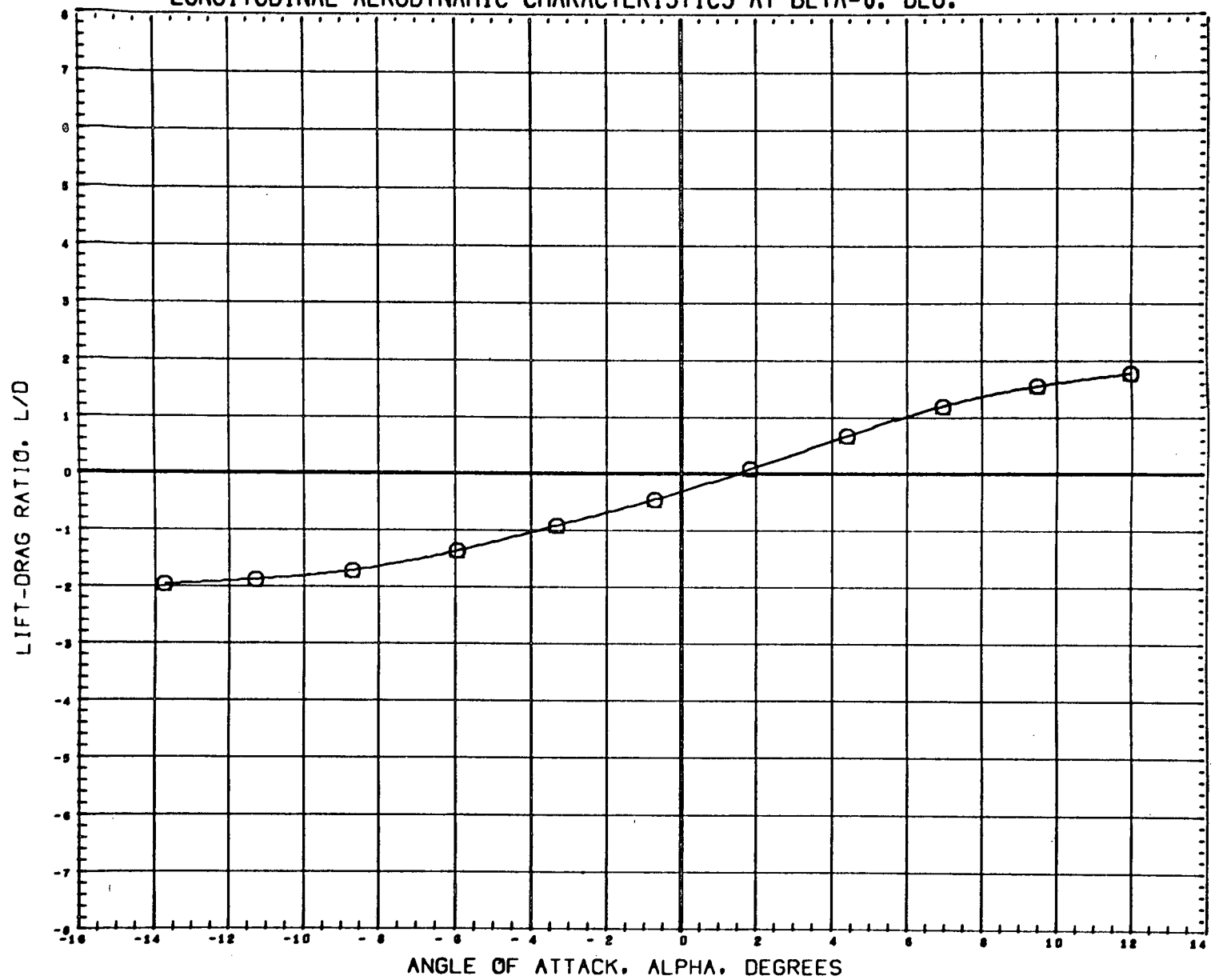
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL \bigcirc MACH 0.894 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V+E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

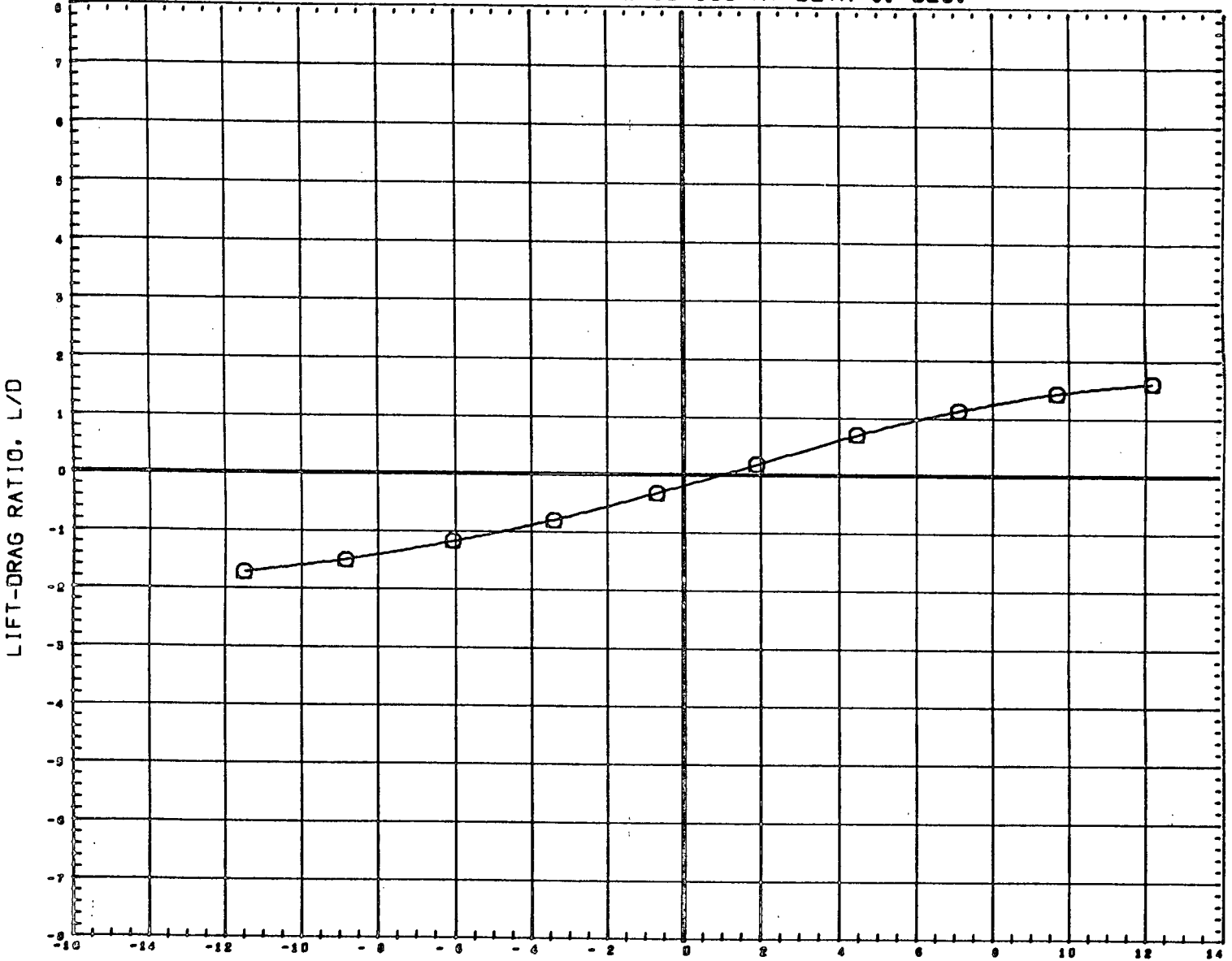


SYMBOL \bigcirc MACH 0.994 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL \bigcirc MACH 1.099 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 30 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

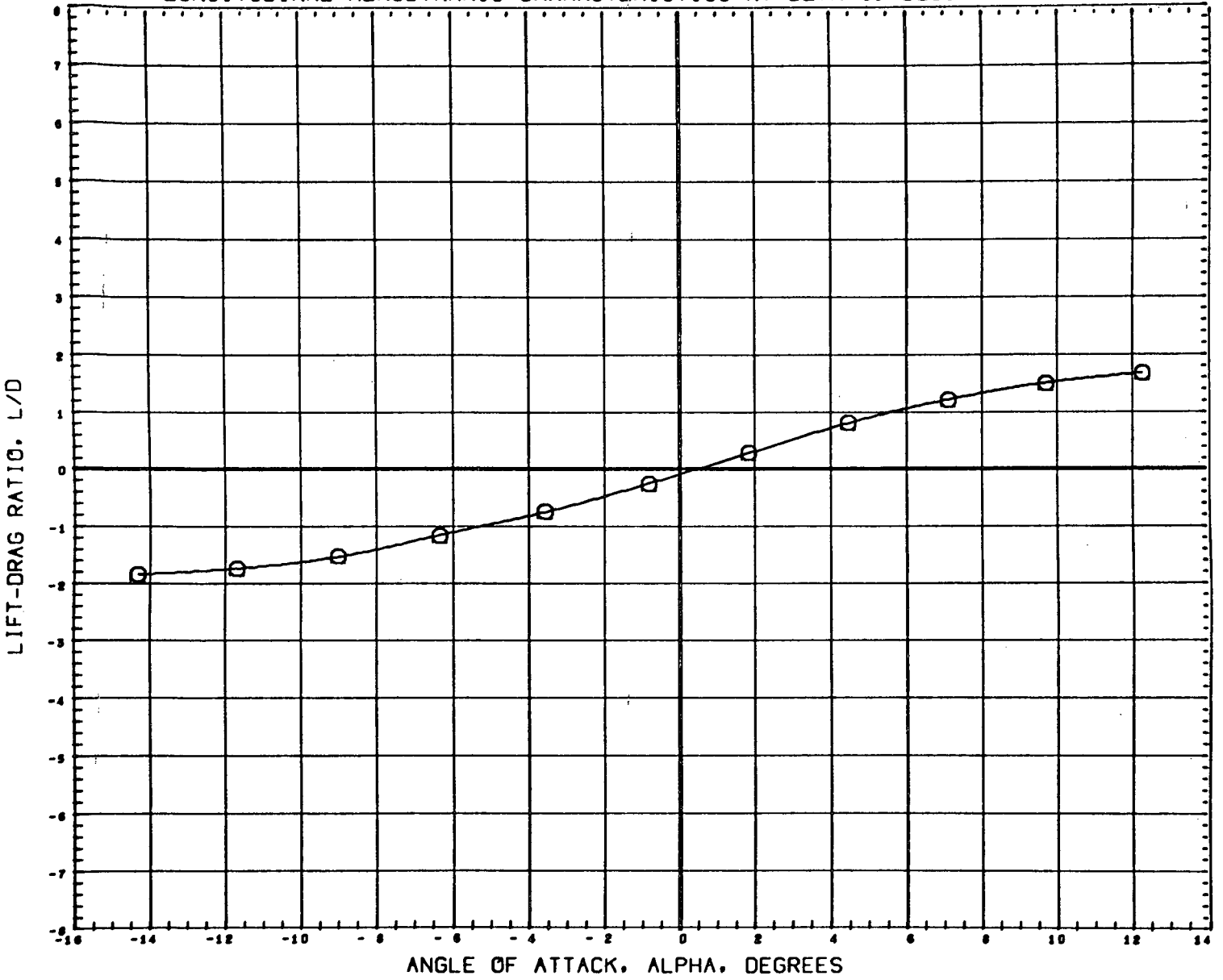
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

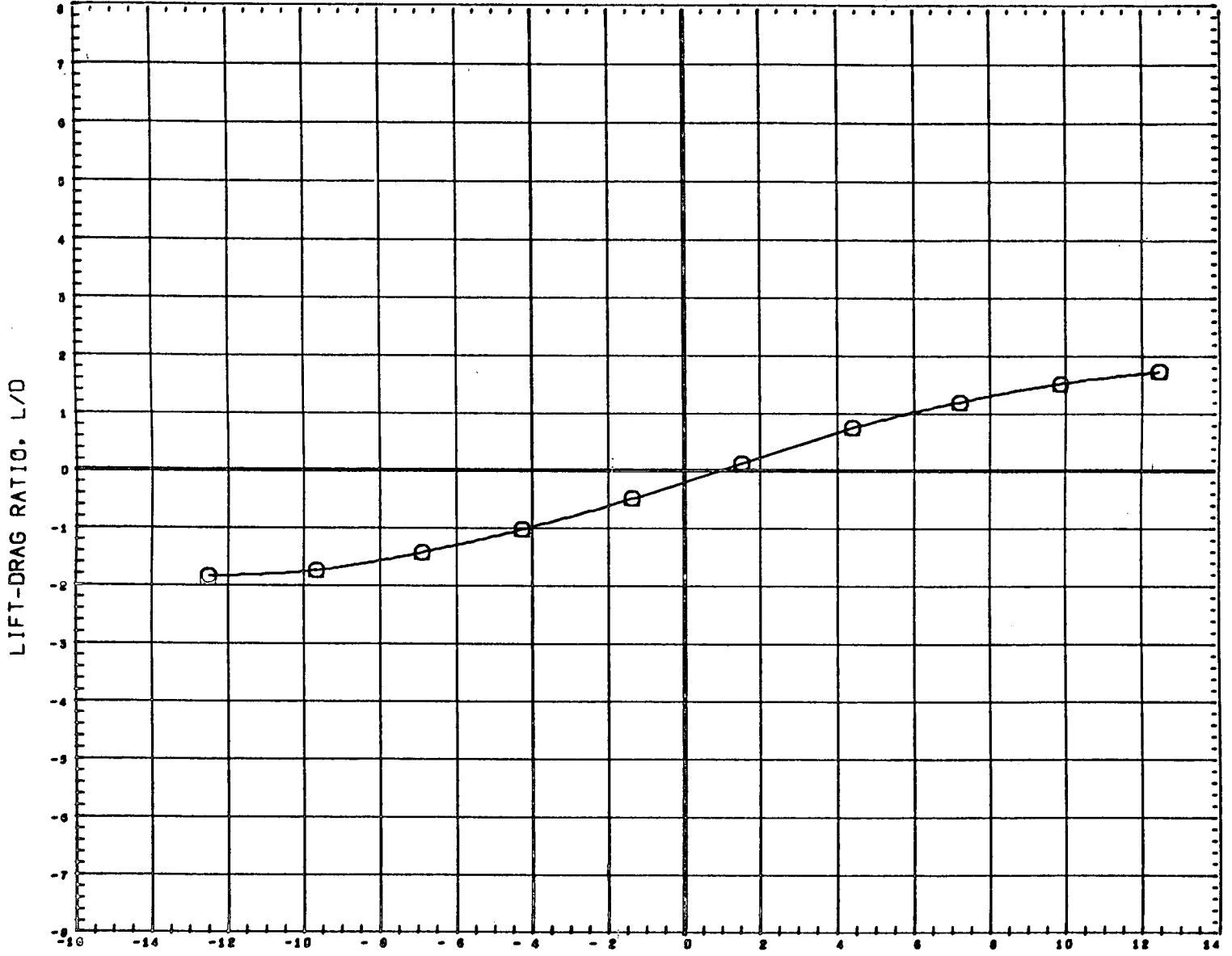


SYMBOL \circ MACH 1.202 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
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 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

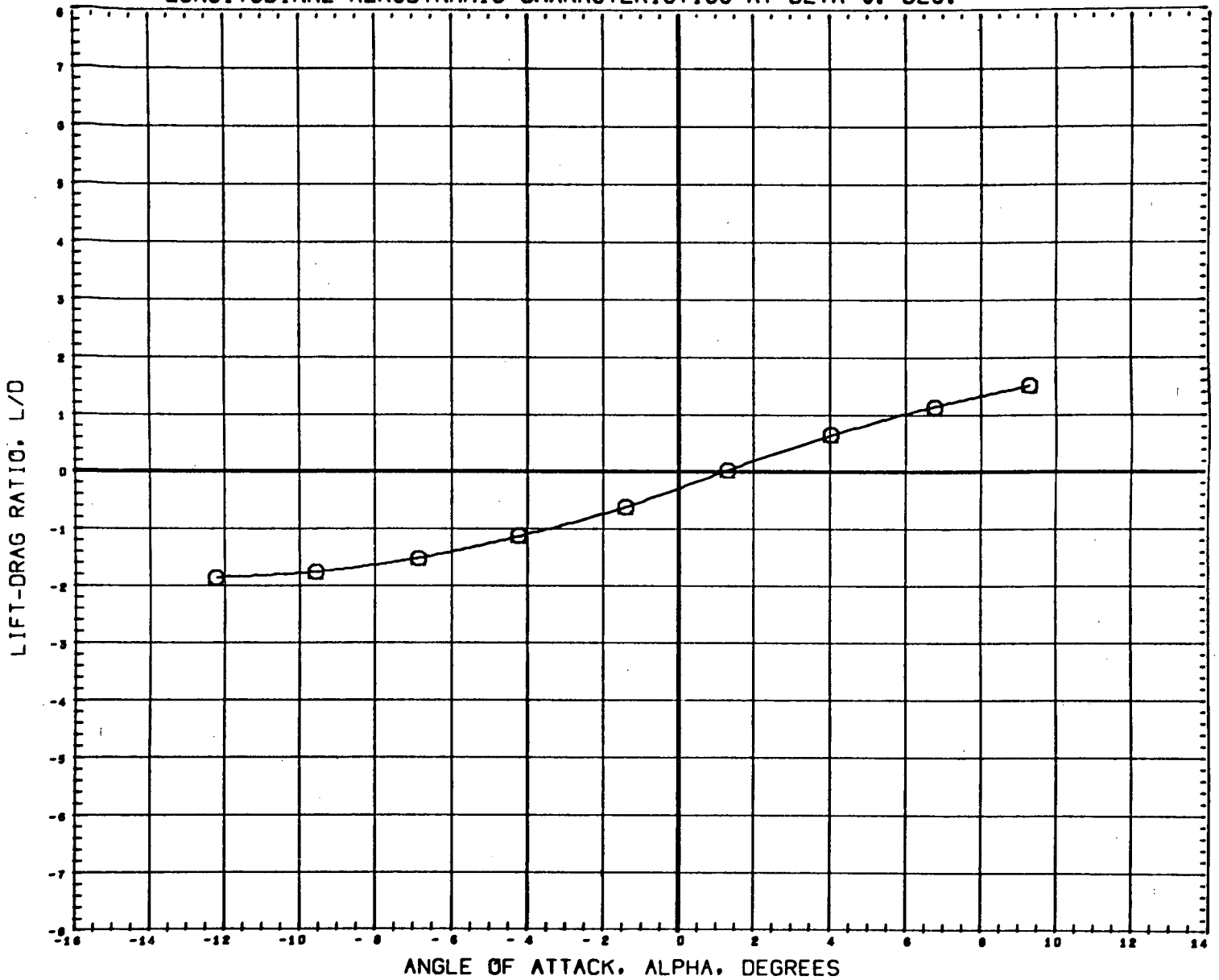
LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL ○	MACH 1.456	BETA 0.000	PARAMETRIC VALUES 0.000	REFERENCE INFORMATION SREF 0.5340 88 INC LREF 0.8240 INCHES BREF 0.8240 INCHES XMRP 2.9170 IN TIT YMRP 0.0000 CORE C ZMRP 0.0000 CORE C SCALE 0.4300 PERCENT
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DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

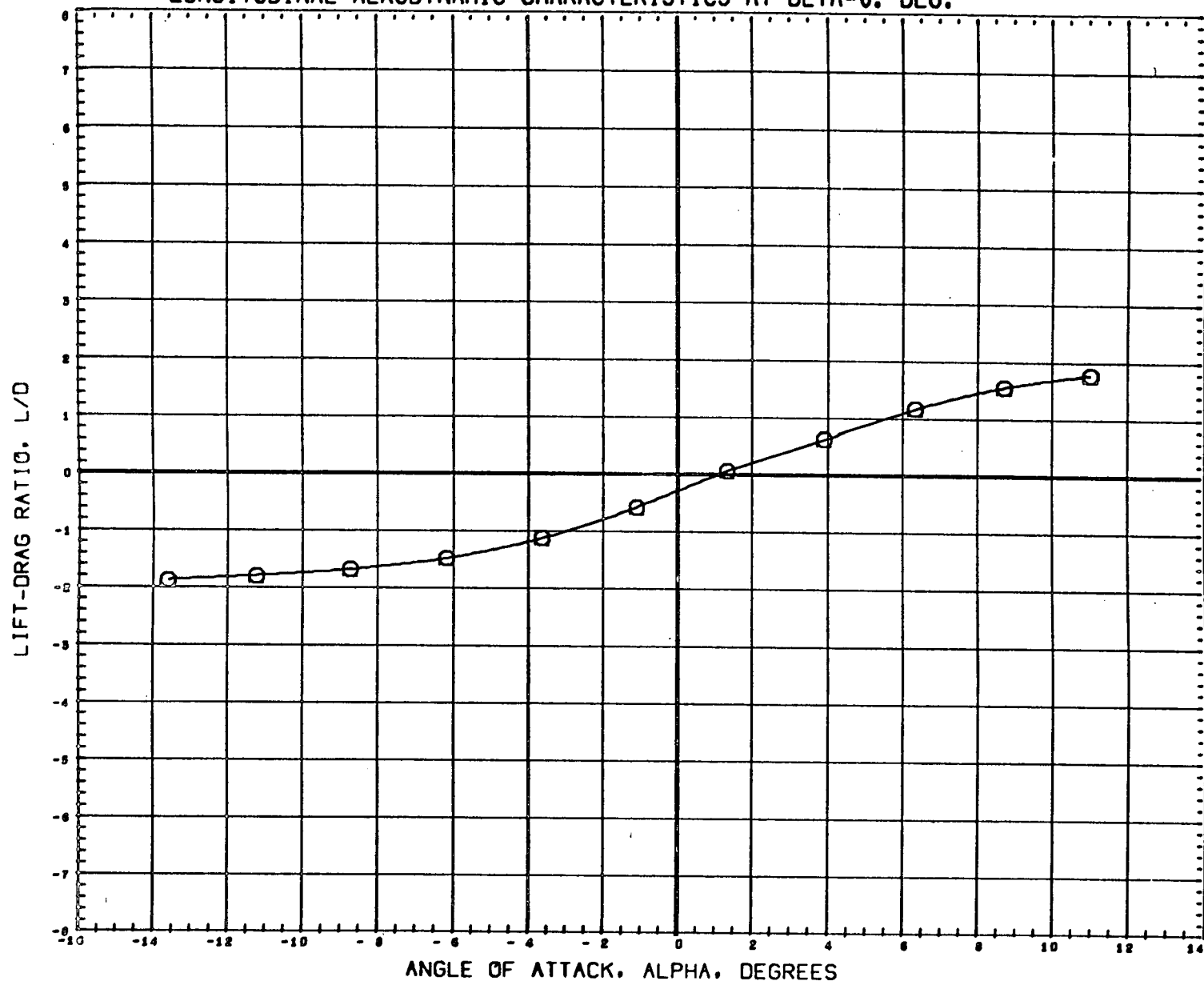


SYMBOL \circ MACH 1.989 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 SR INC
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 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
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 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

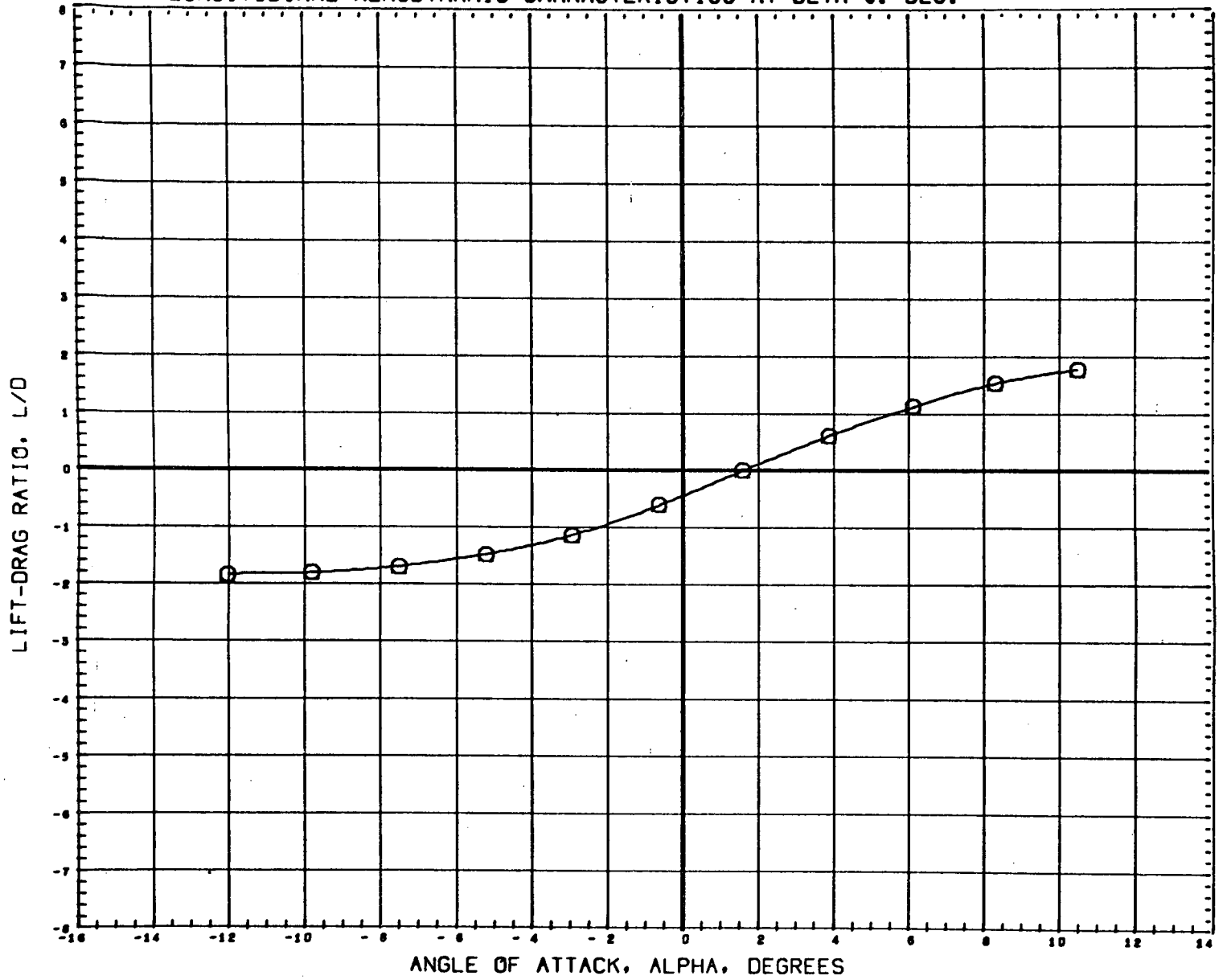
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

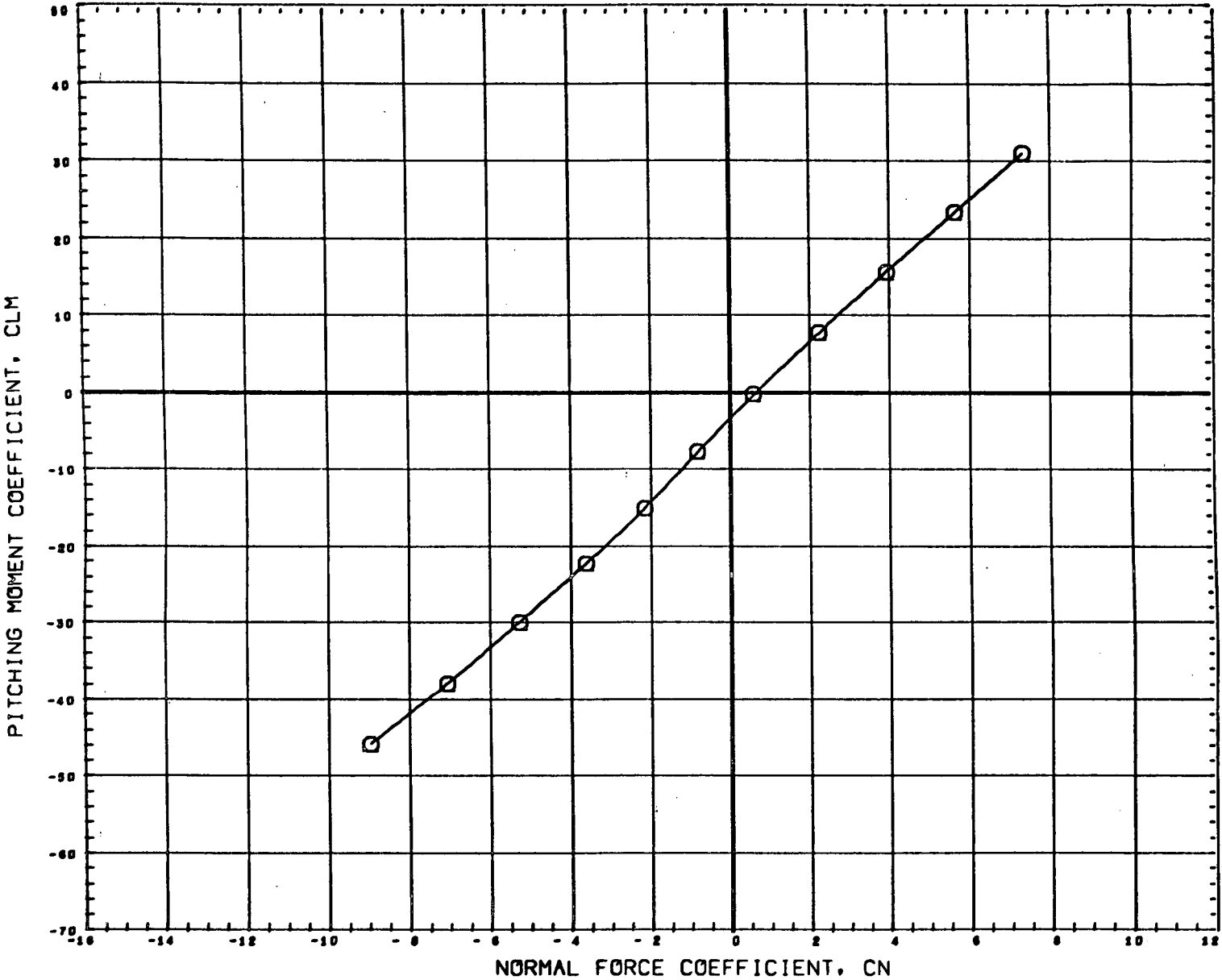


SYMBOL \bigcirc MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

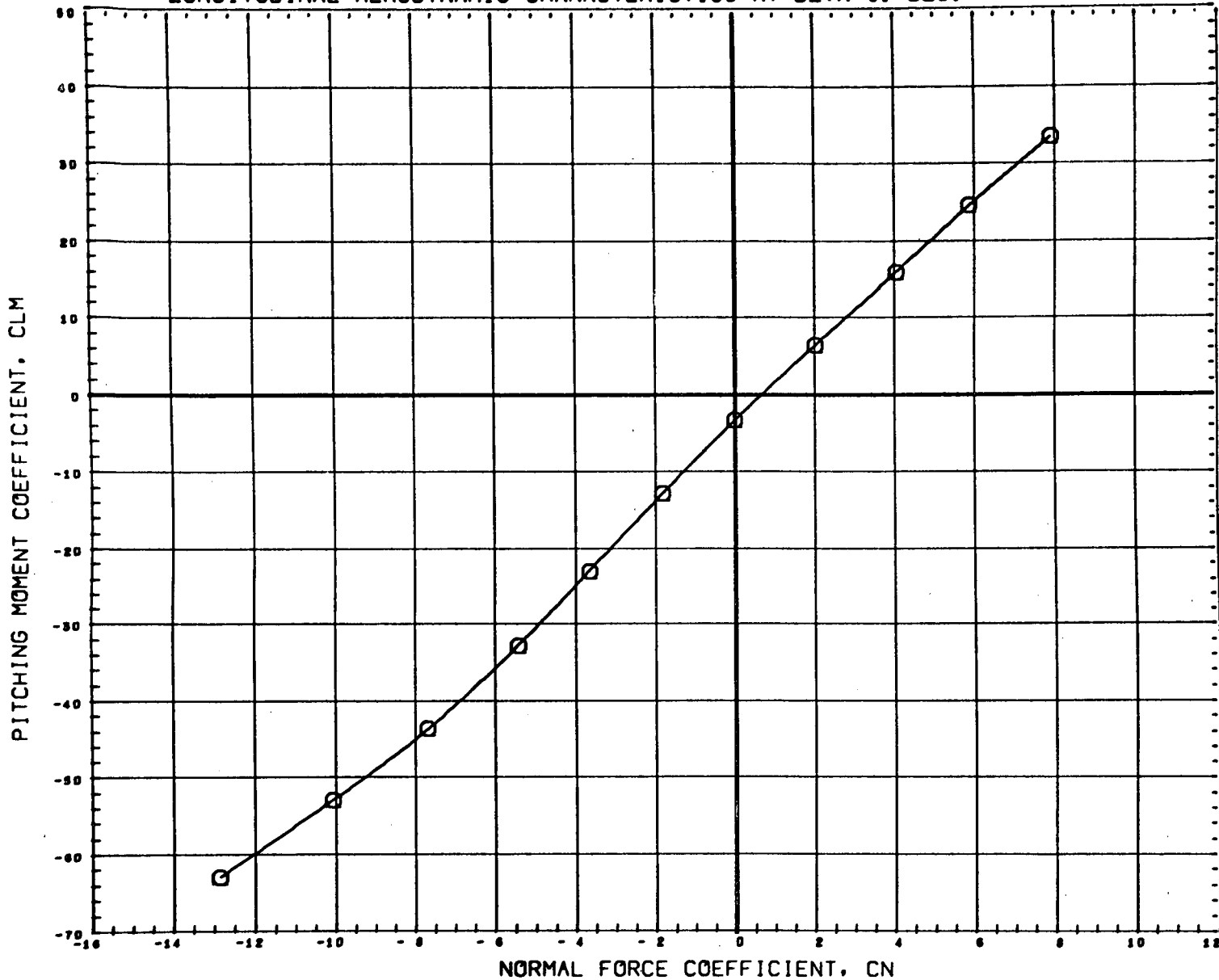


SYMBOL \circ MACH 0.992 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.894 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

MSFC TWT 505 T111L/DT07

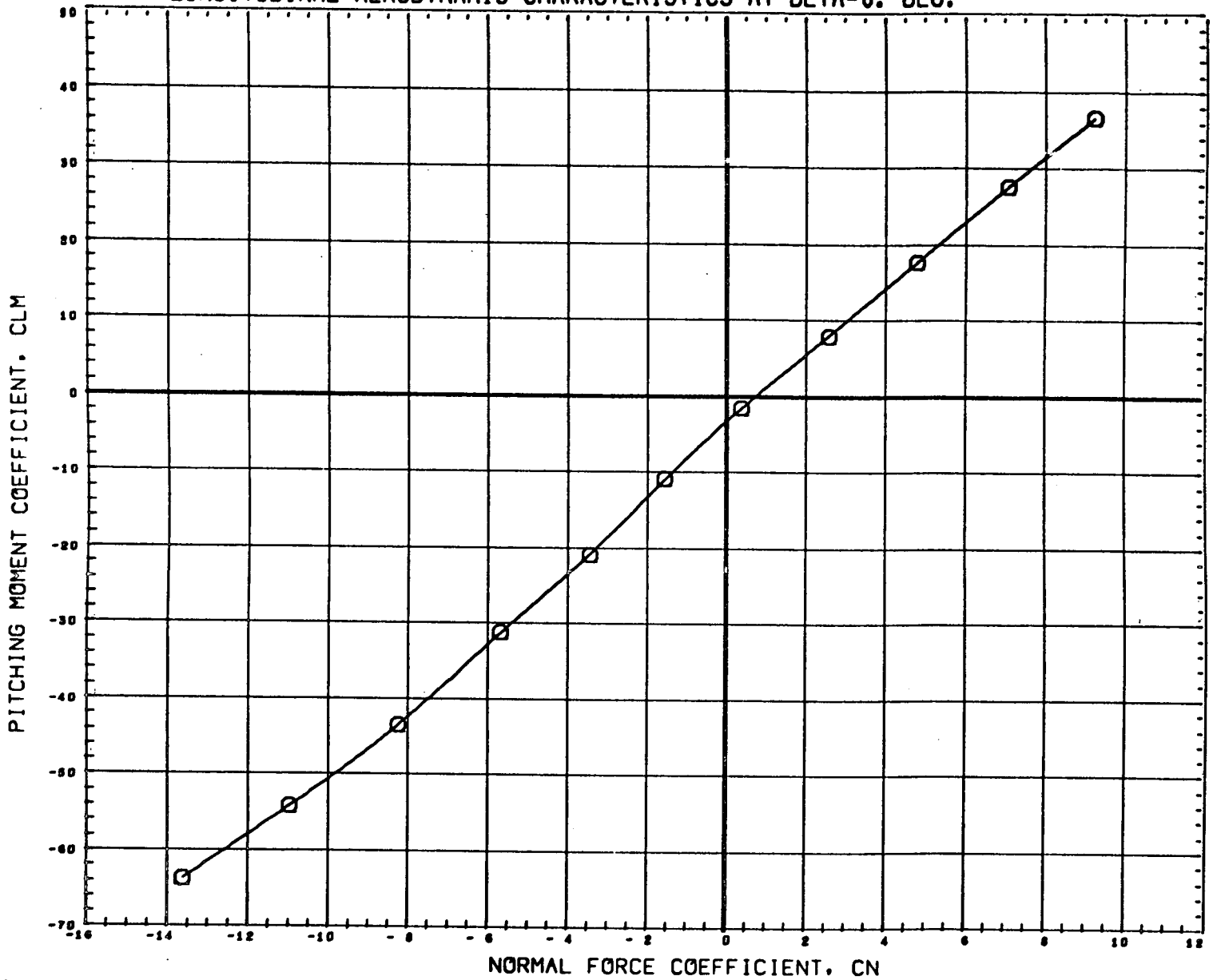
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

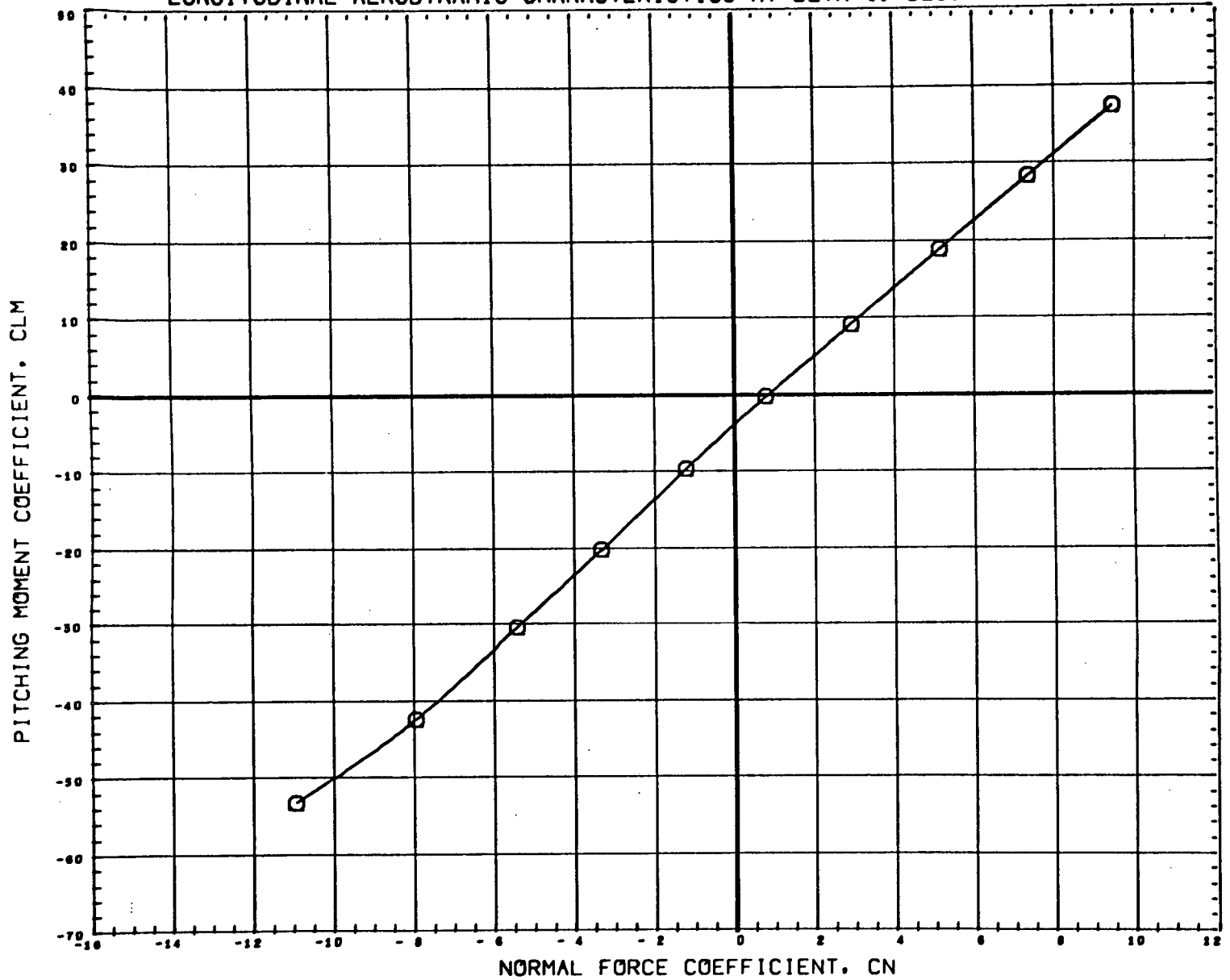


SYMBOL \circ MACH 0.994 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

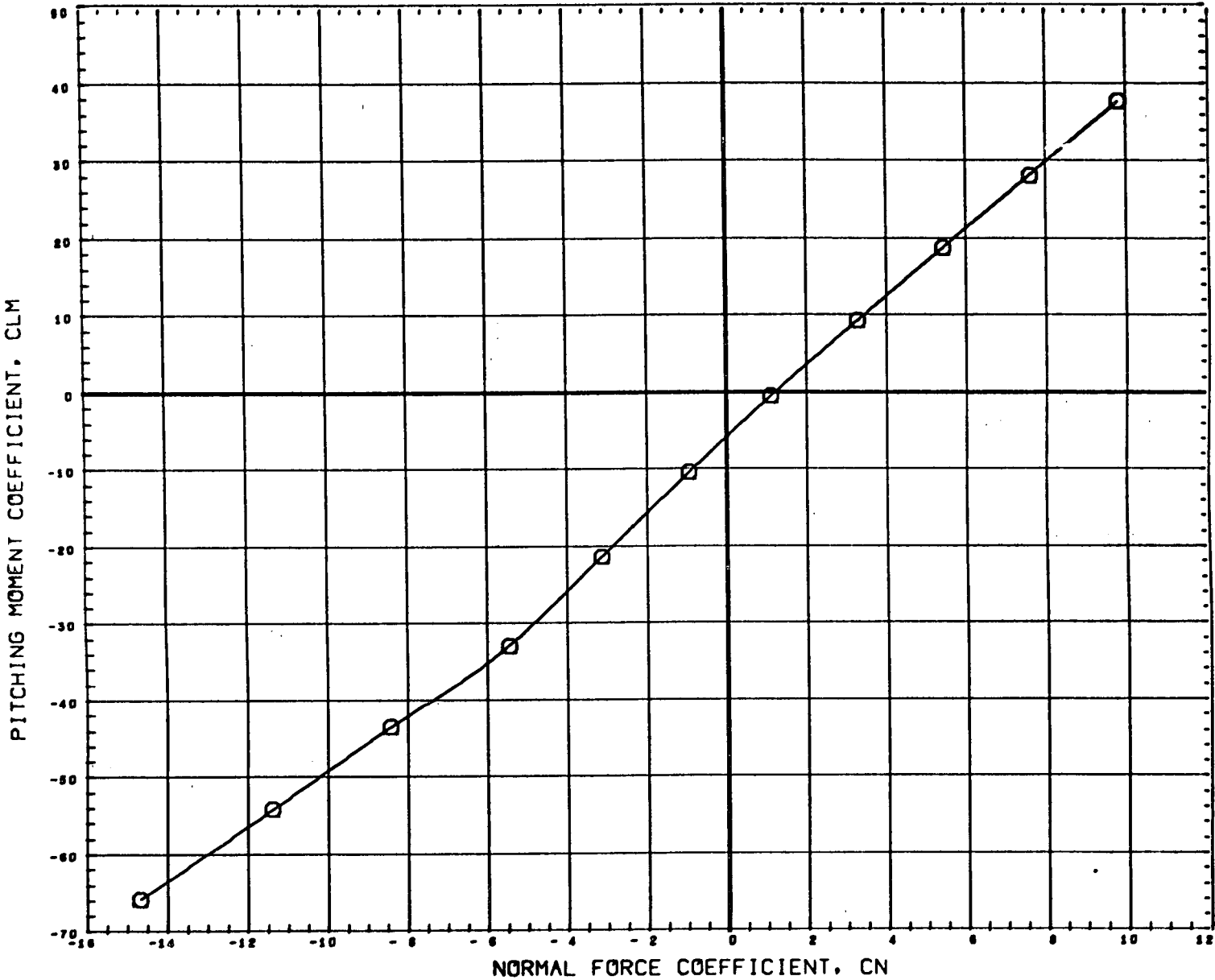


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.099 0.000 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

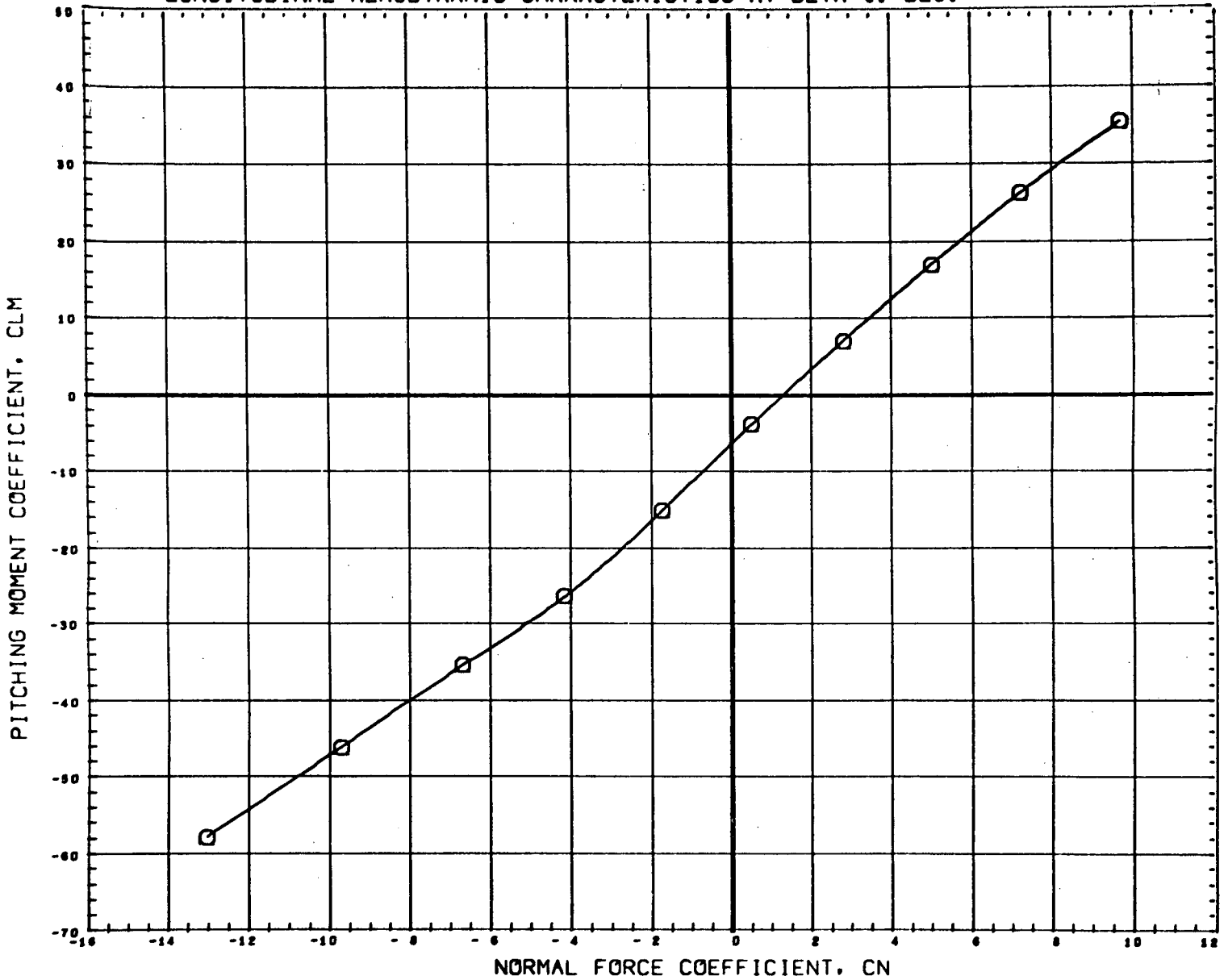


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.202 0.000

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 1.456 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

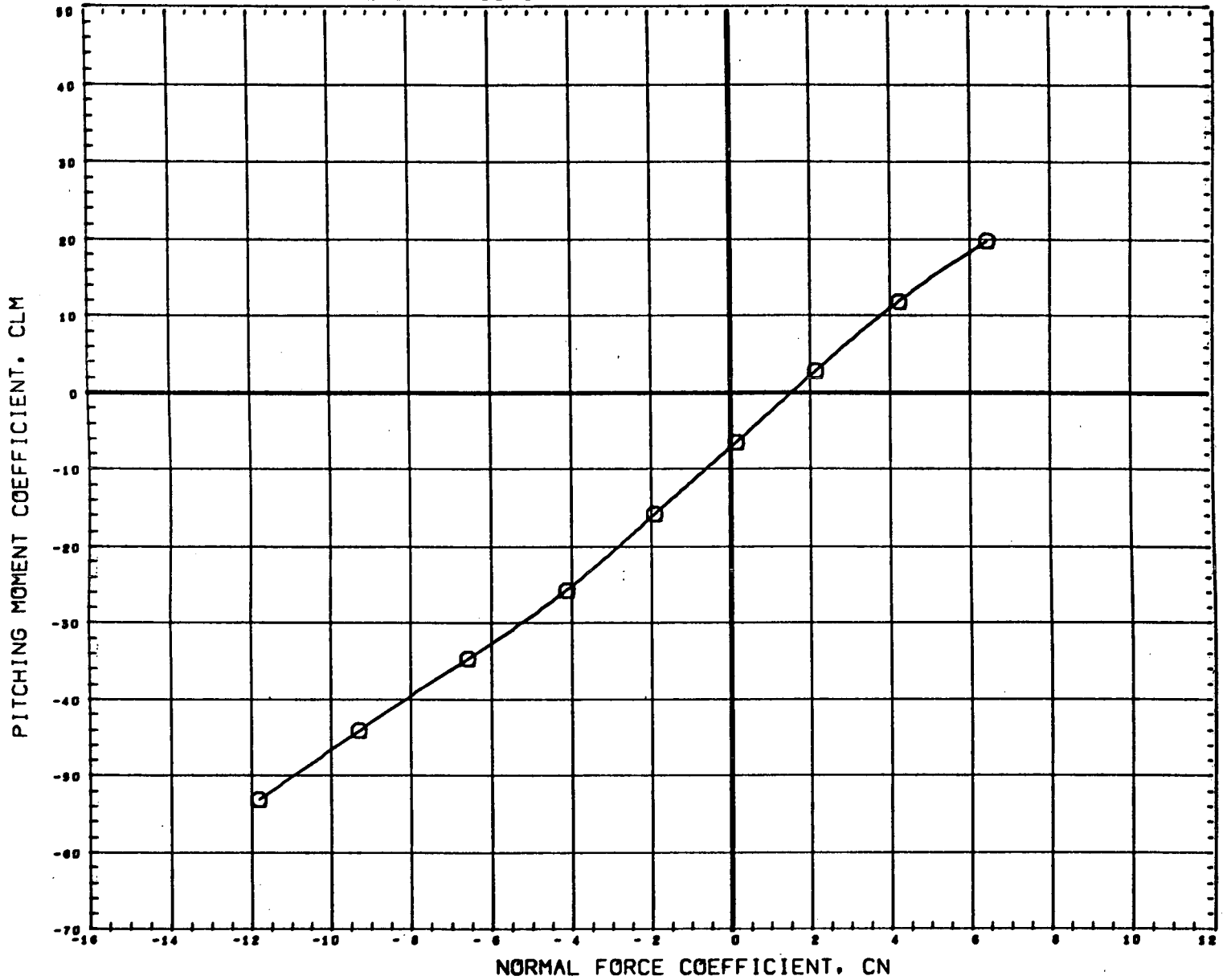
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

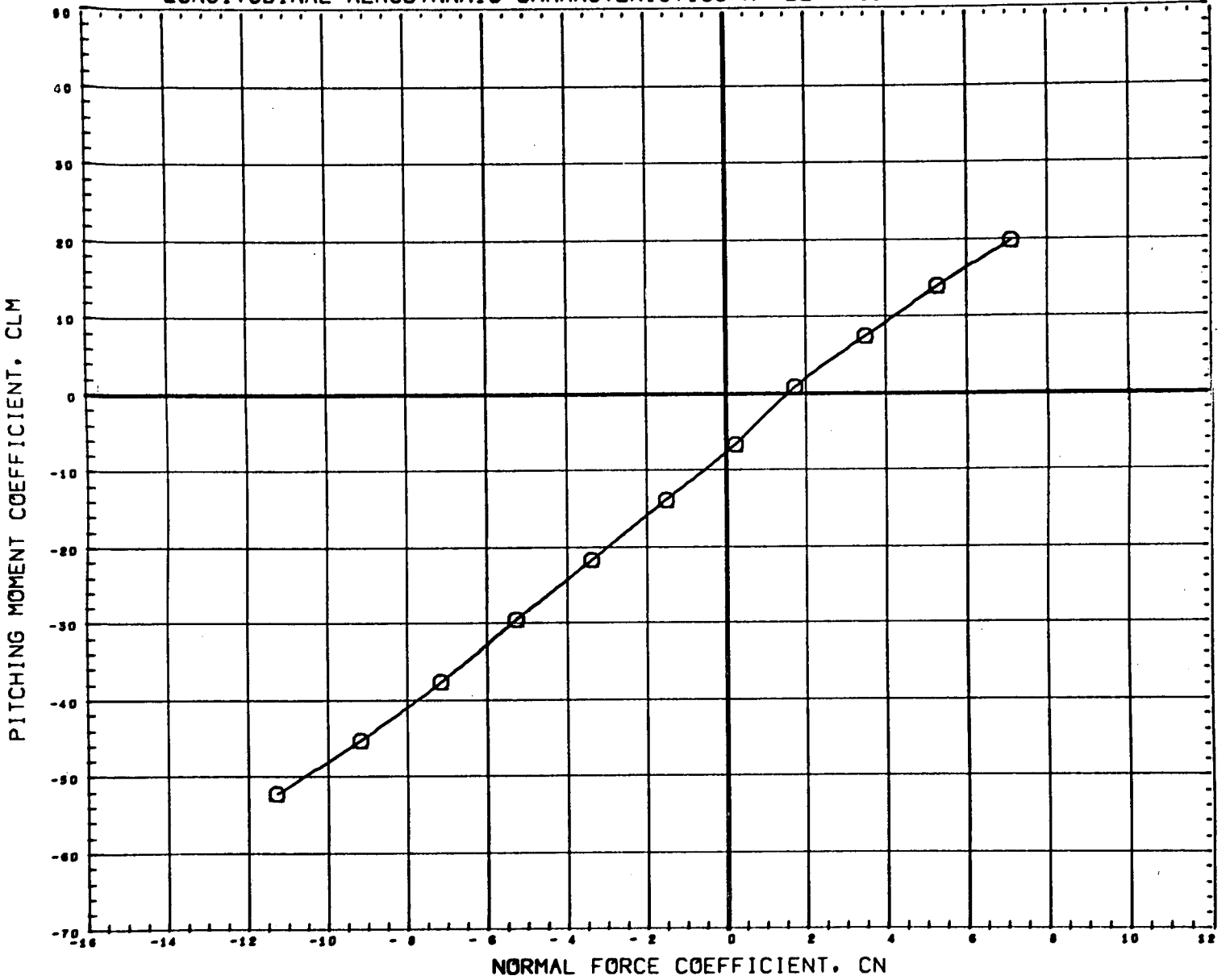


SYMBOL \bigcirc MACH 1.989 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

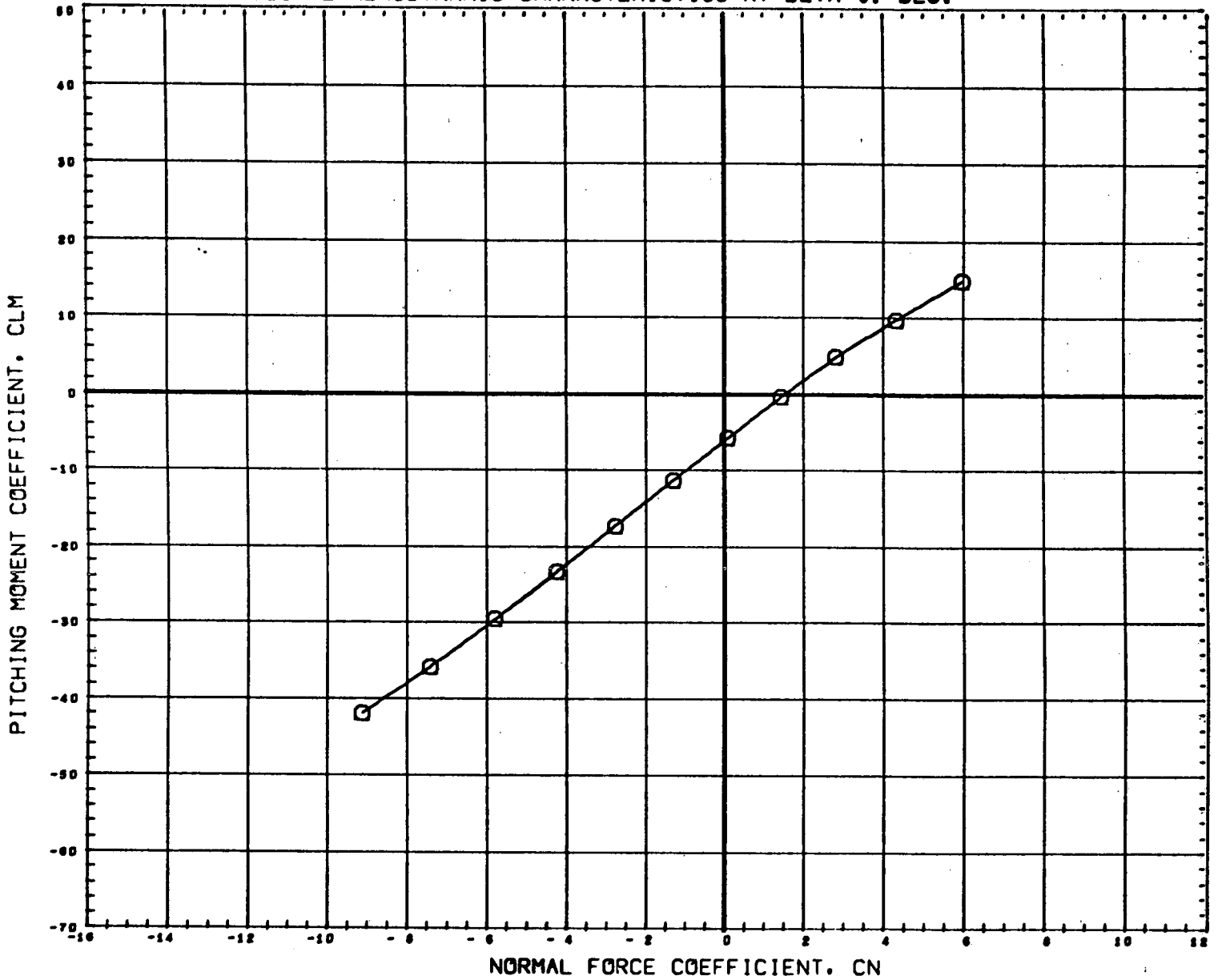


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 2.740 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

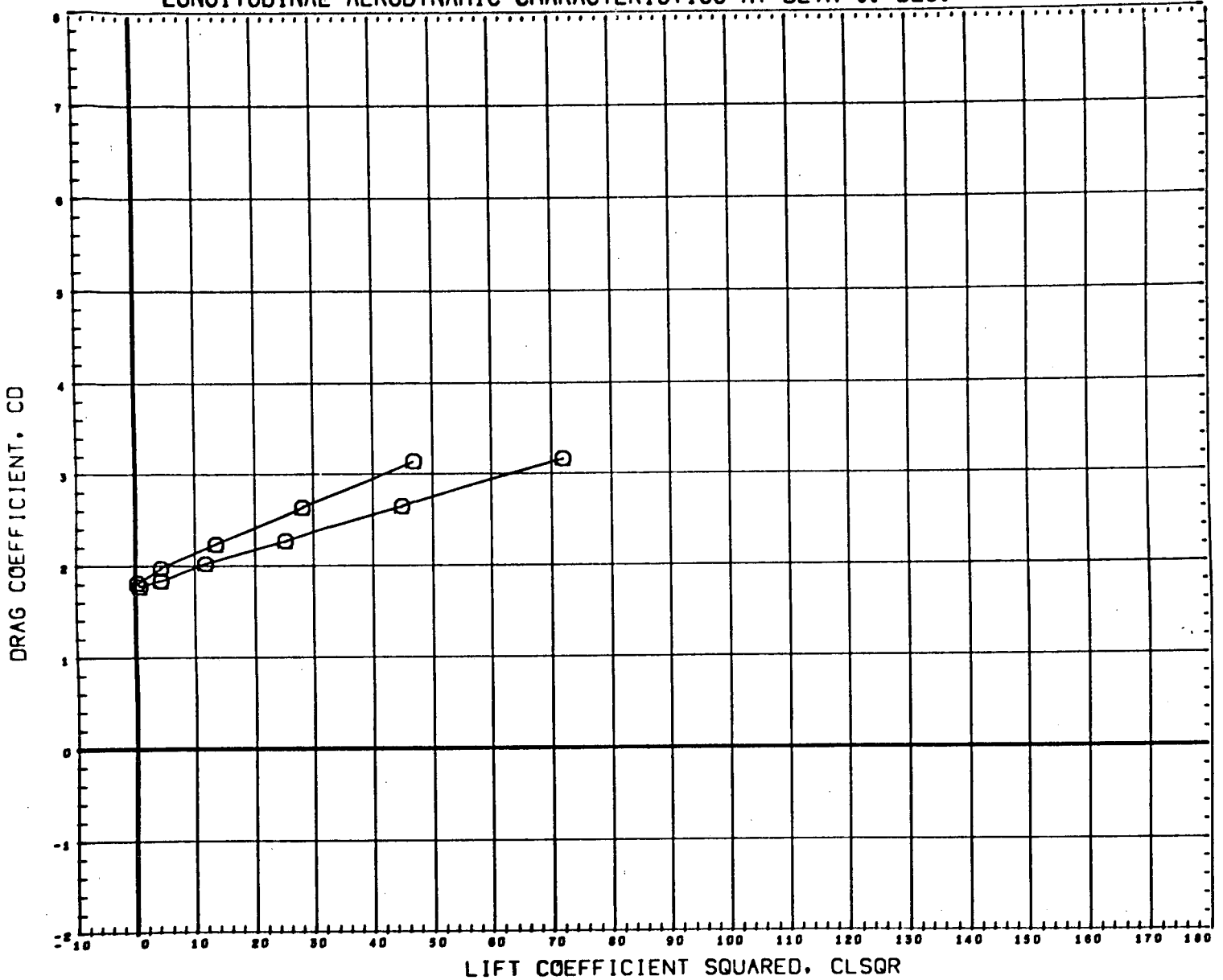


SYMBOL \circ MACH 3.400 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.0170 IN TII
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 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.592 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
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 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

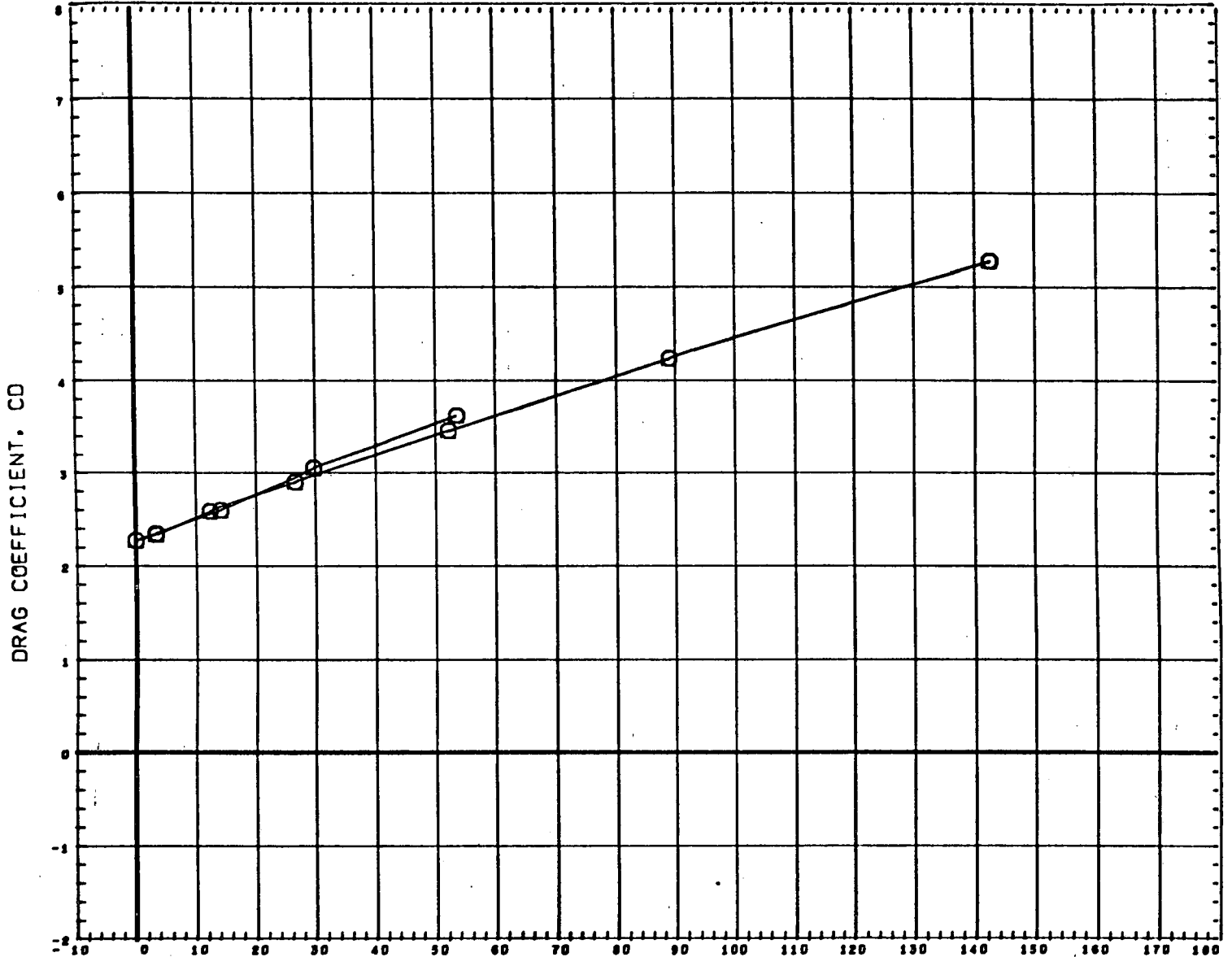
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



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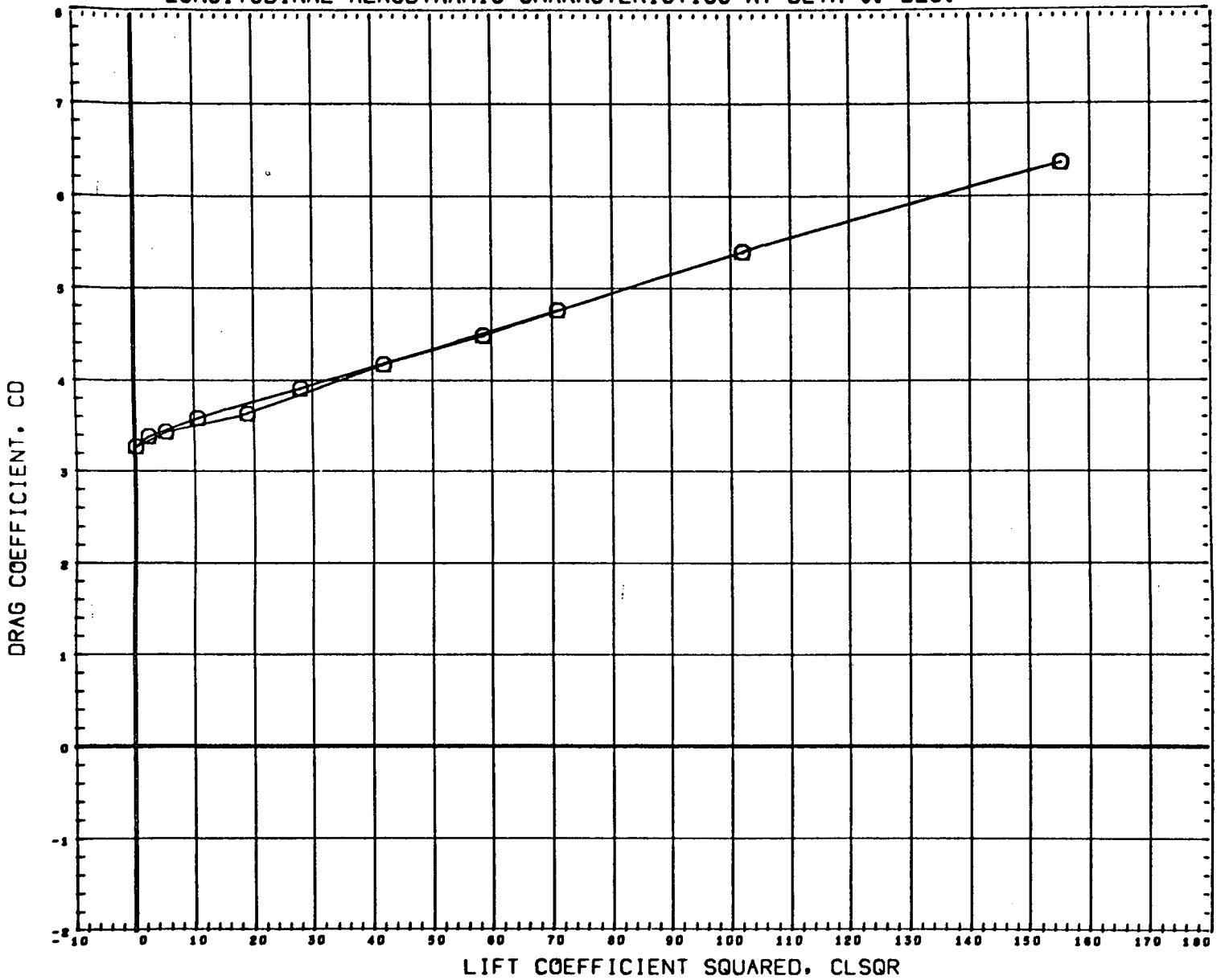
SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.894 0.000 0.000

REFERENCE INFORMATION

SREF	0.5340	58 INC
LREF	0.8240	INCHE3
OREP	0.8240	INCHE3
XNRP	2.9170	IN T11
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCEN

DATA HIST. CODE V+E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

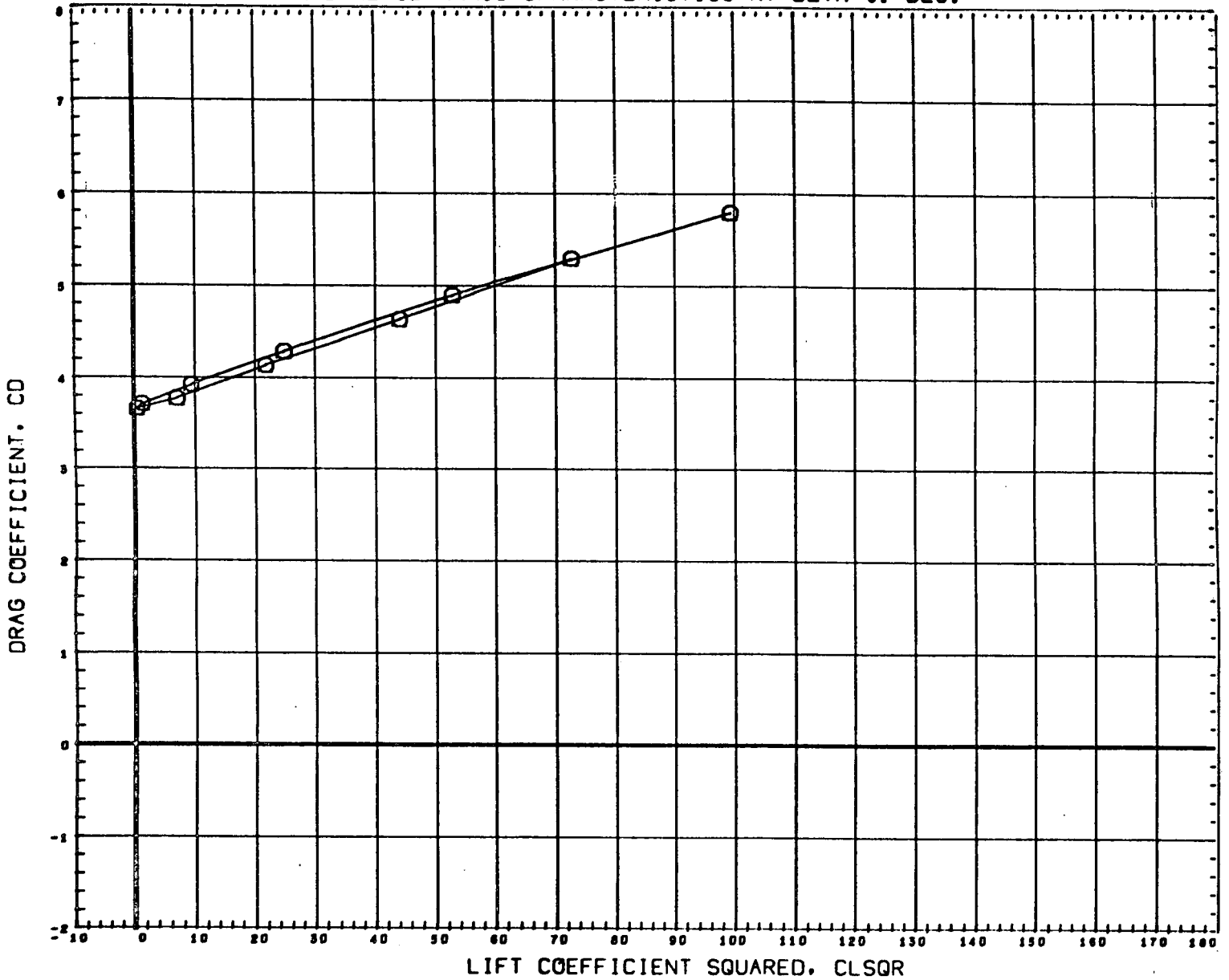


SYMBOL \circ MACH 0.994 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

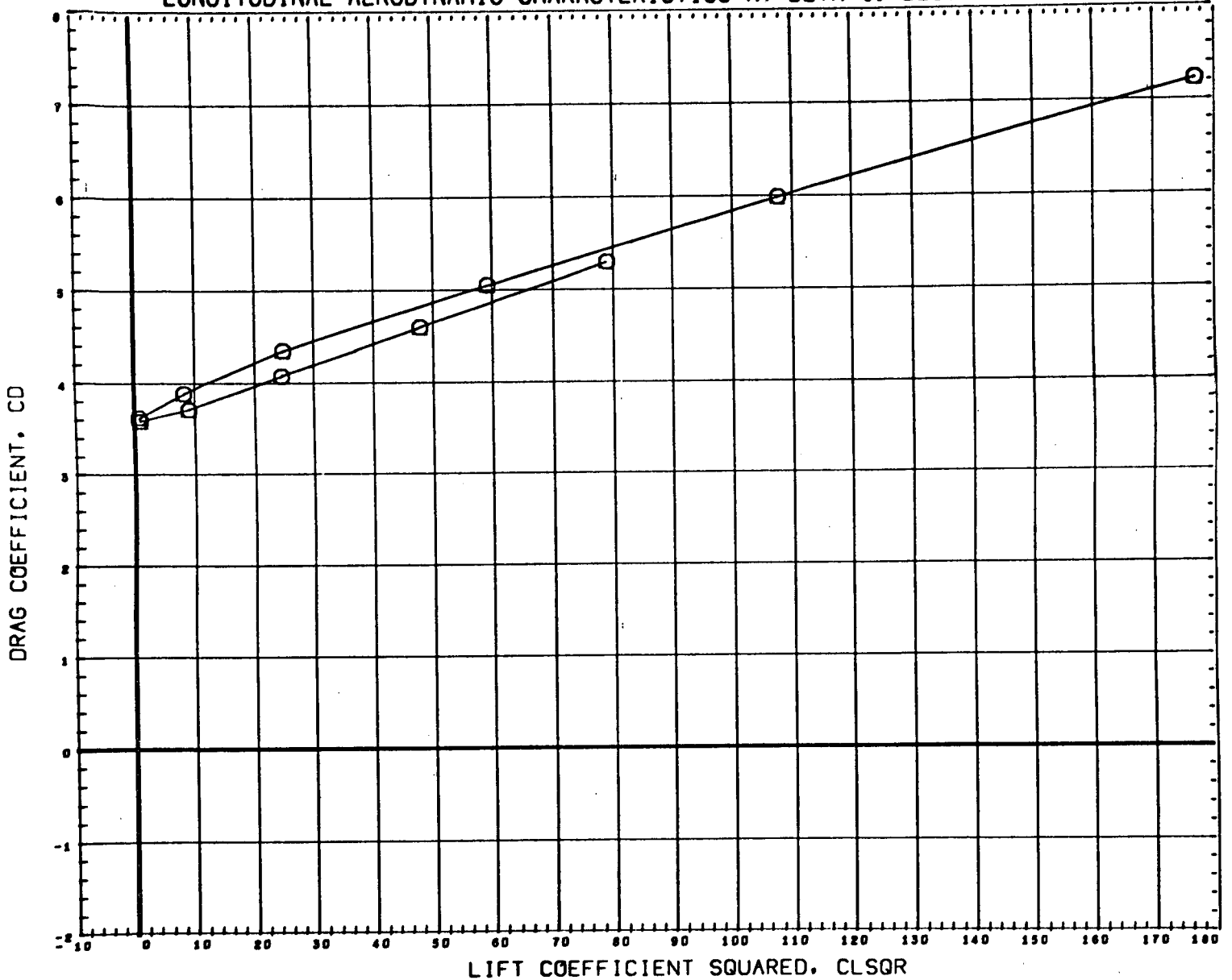


SYMBOL \circ MACH 1.099 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.0170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.202 0.000

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

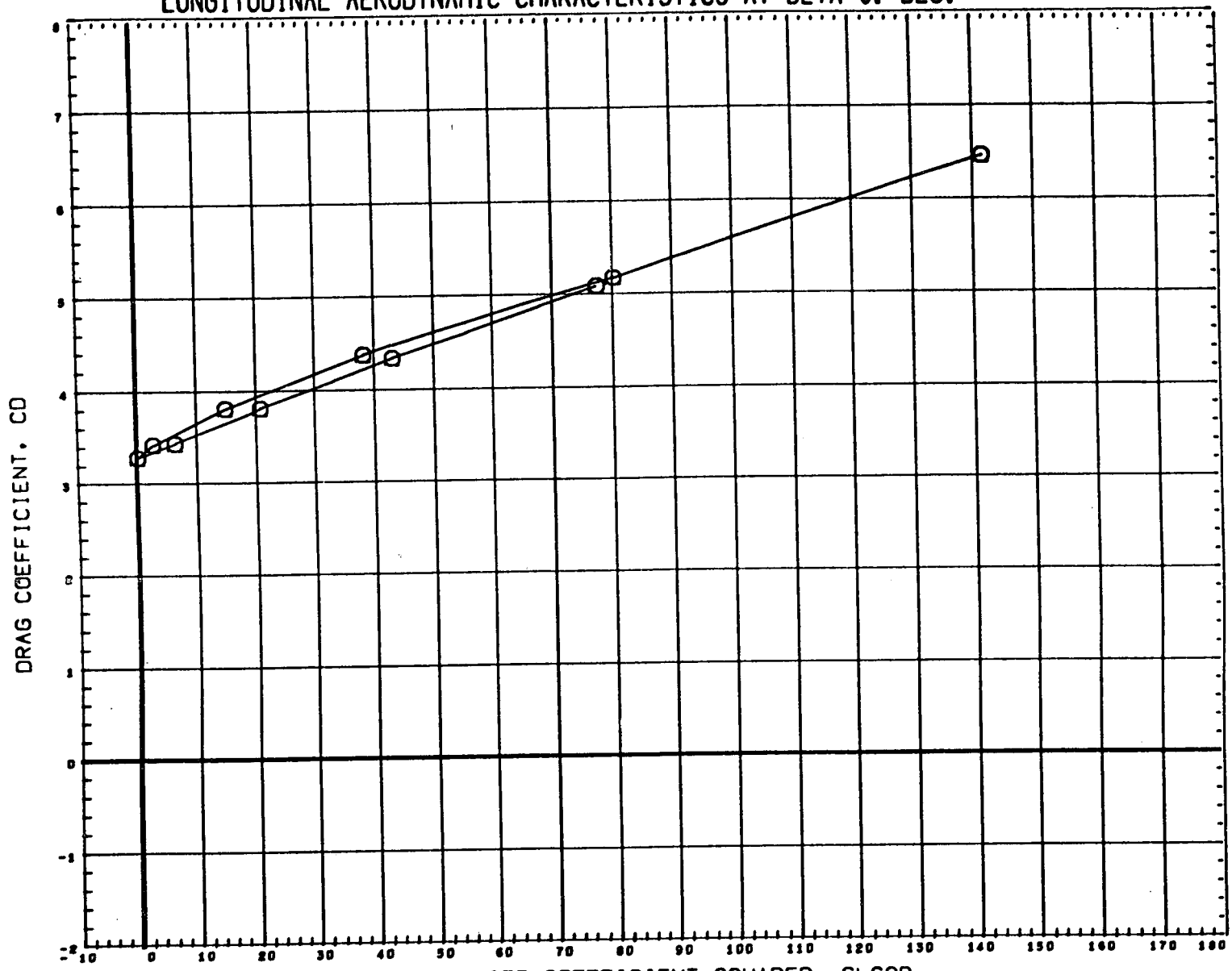
MSFC TWT 505 T111L/DT07

01D1L2

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.456 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 BREF 0.3340 80 INC
 LREF 0.6240 INCHES
 BREF 0.6240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

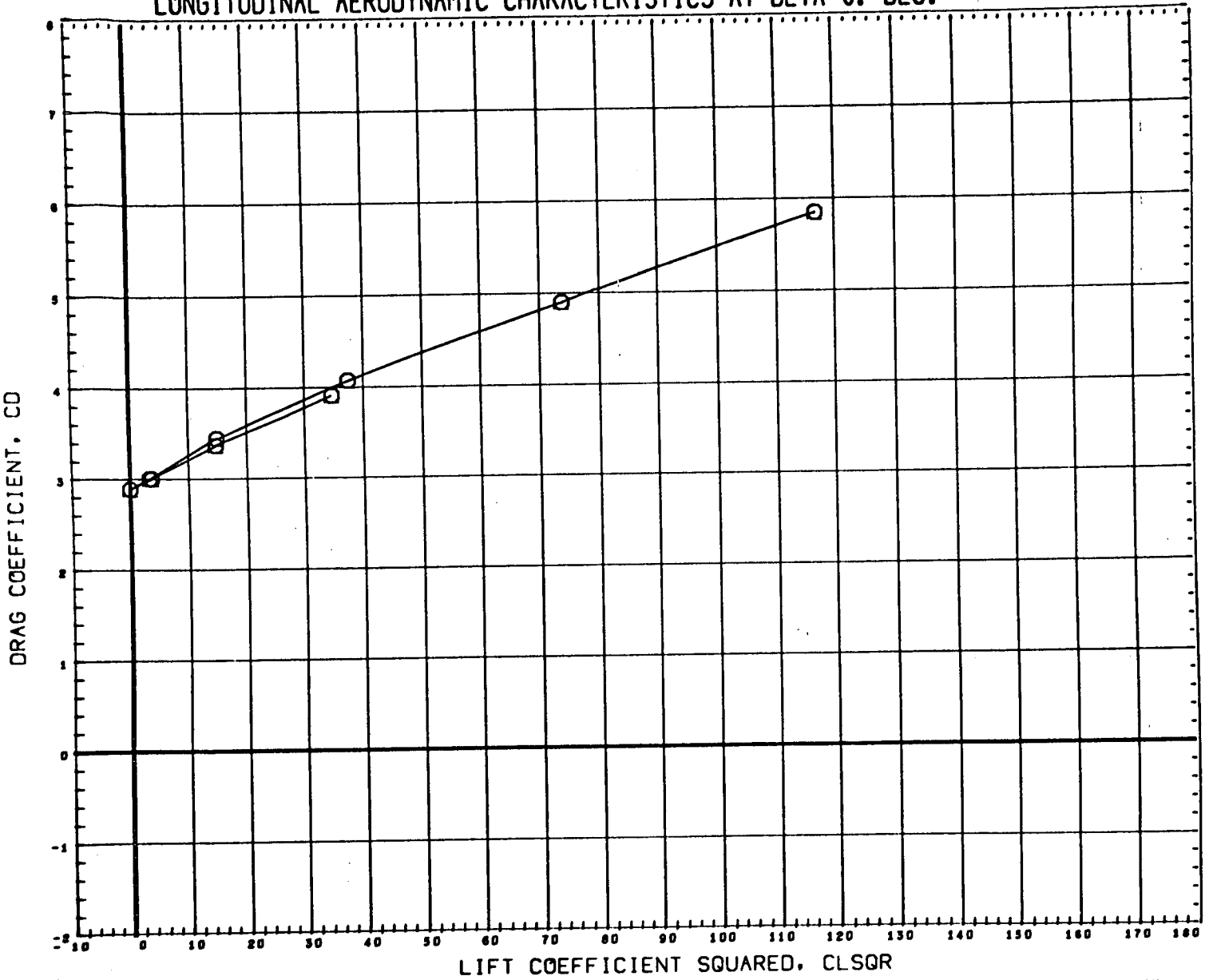
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL ○ MACH 1.989 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 DREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

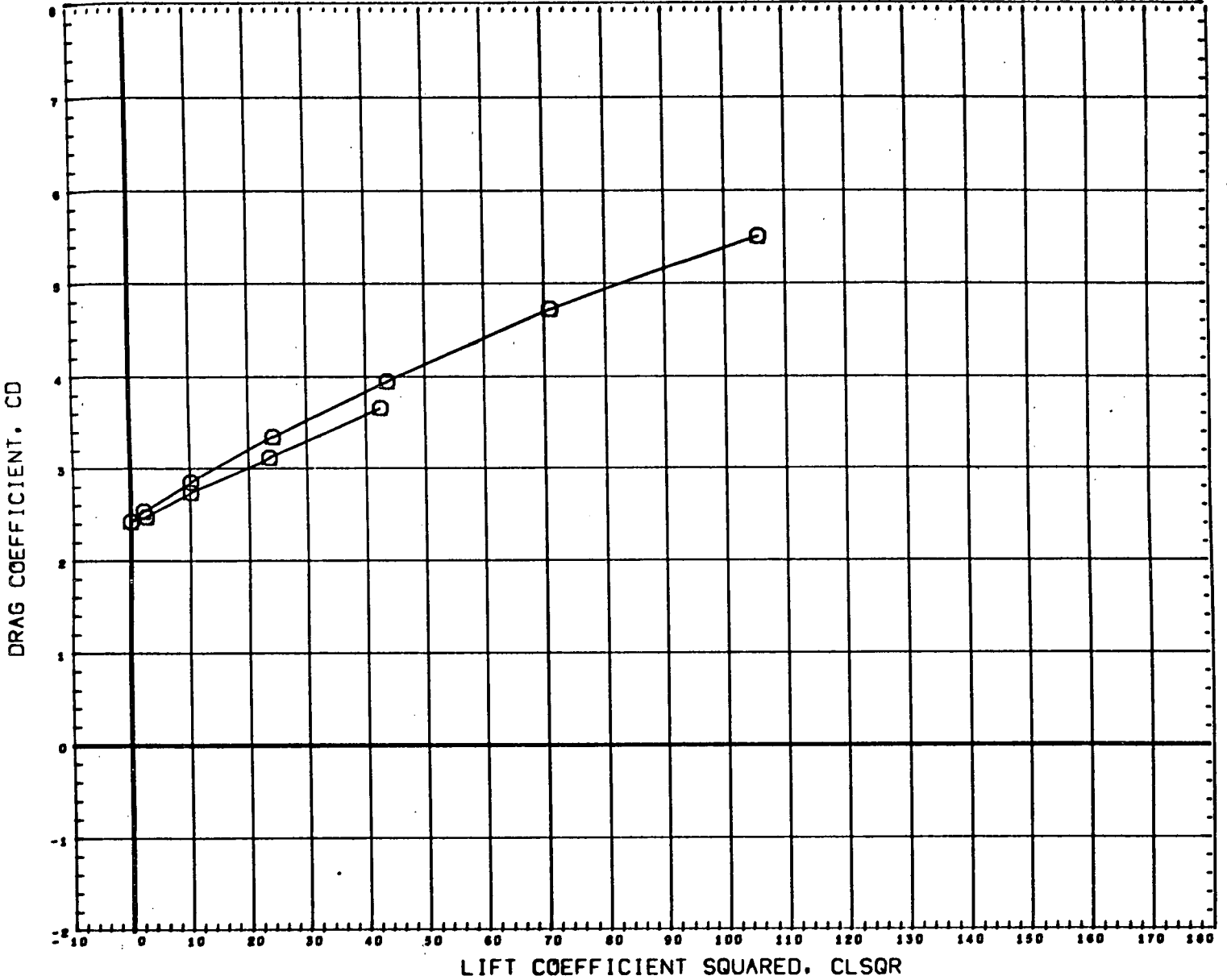
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

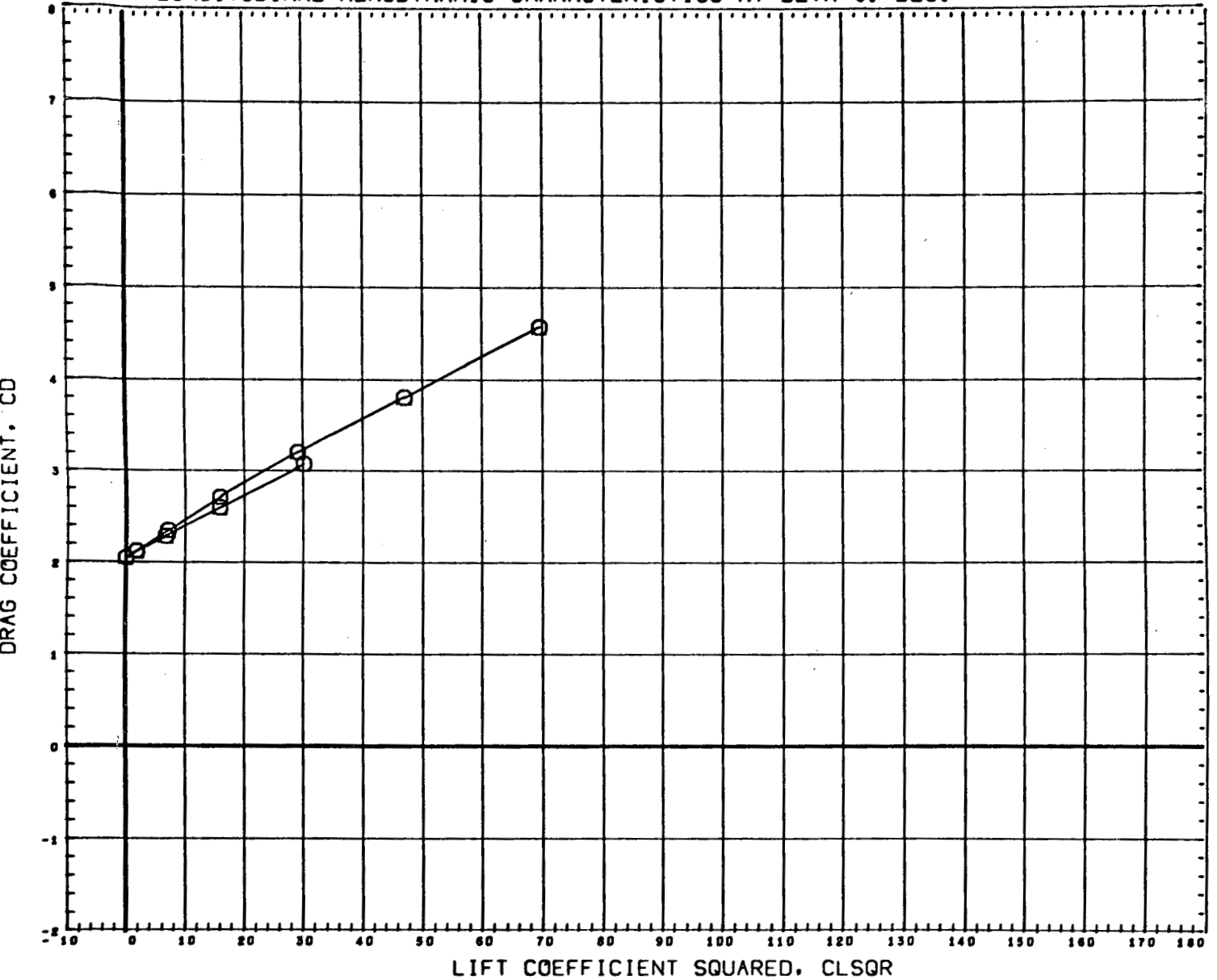


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 2.740 0.000

REFERENCE INFORMATION
 DREF 0.3340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA MIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

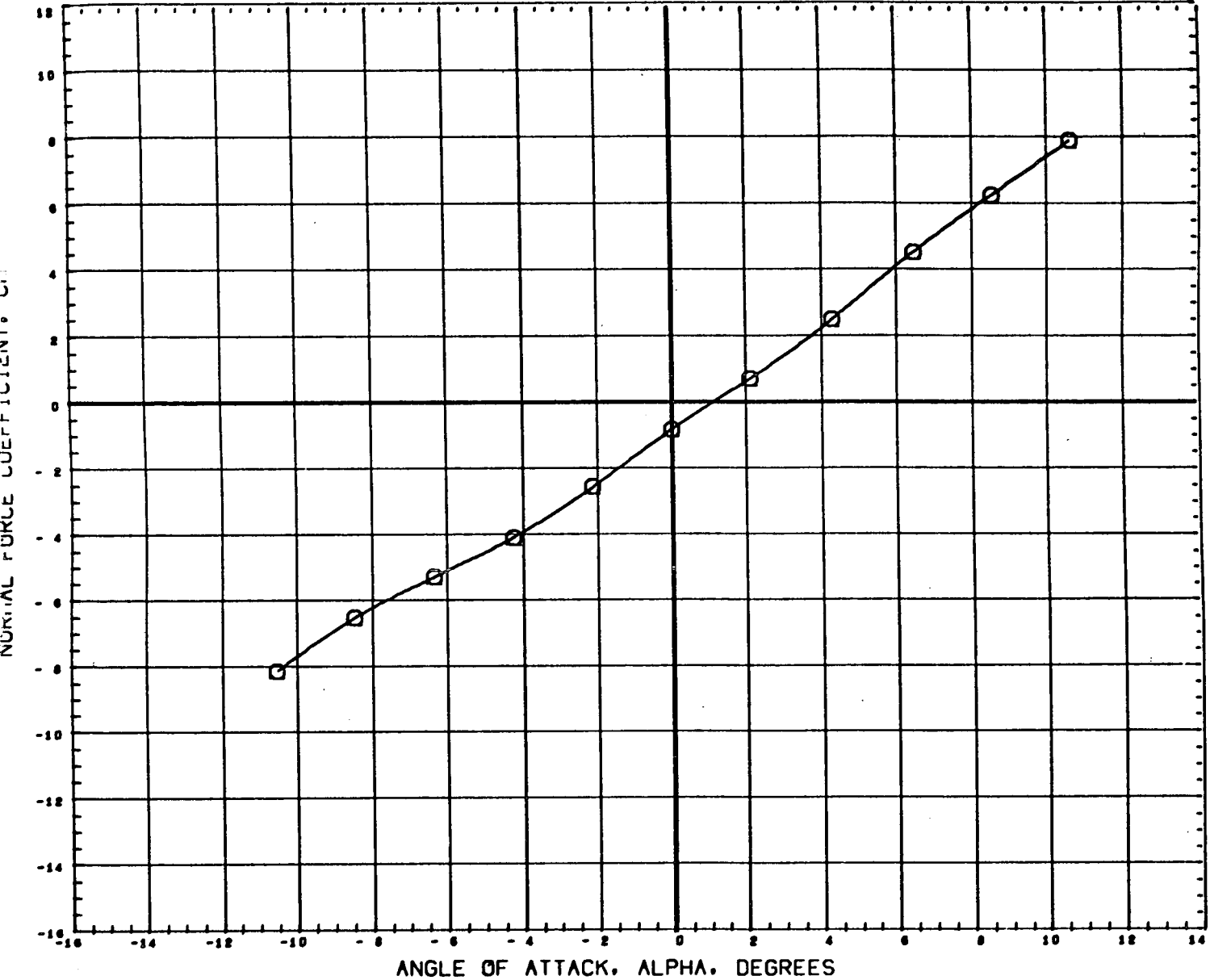


SYMBOL MACH BETA PARAMETRIC VALUES
 O 3.480 0.000

REFERENCE INFORMATION
 SREF 0.5340 SQ INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

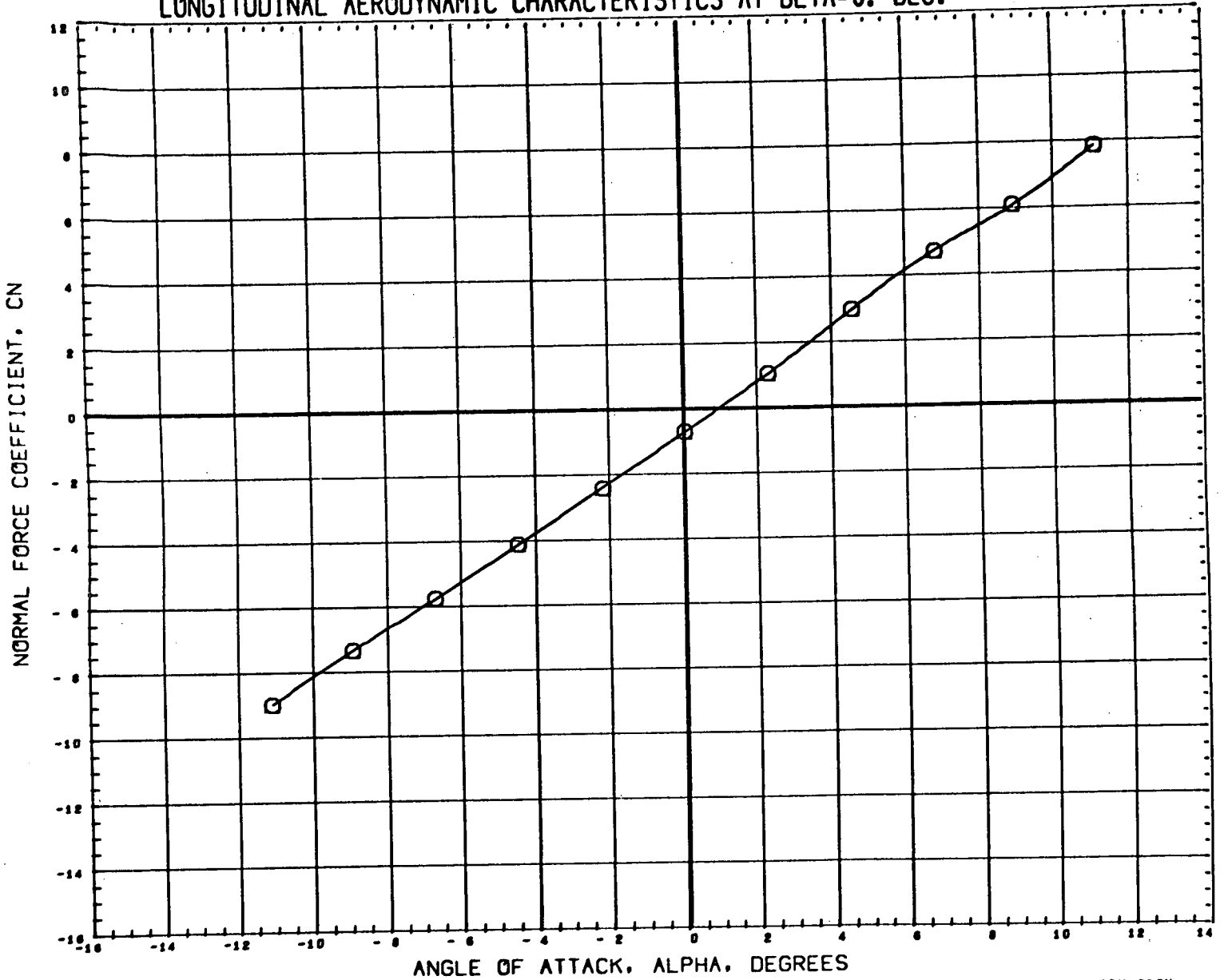


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.598 0.000 0.000

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

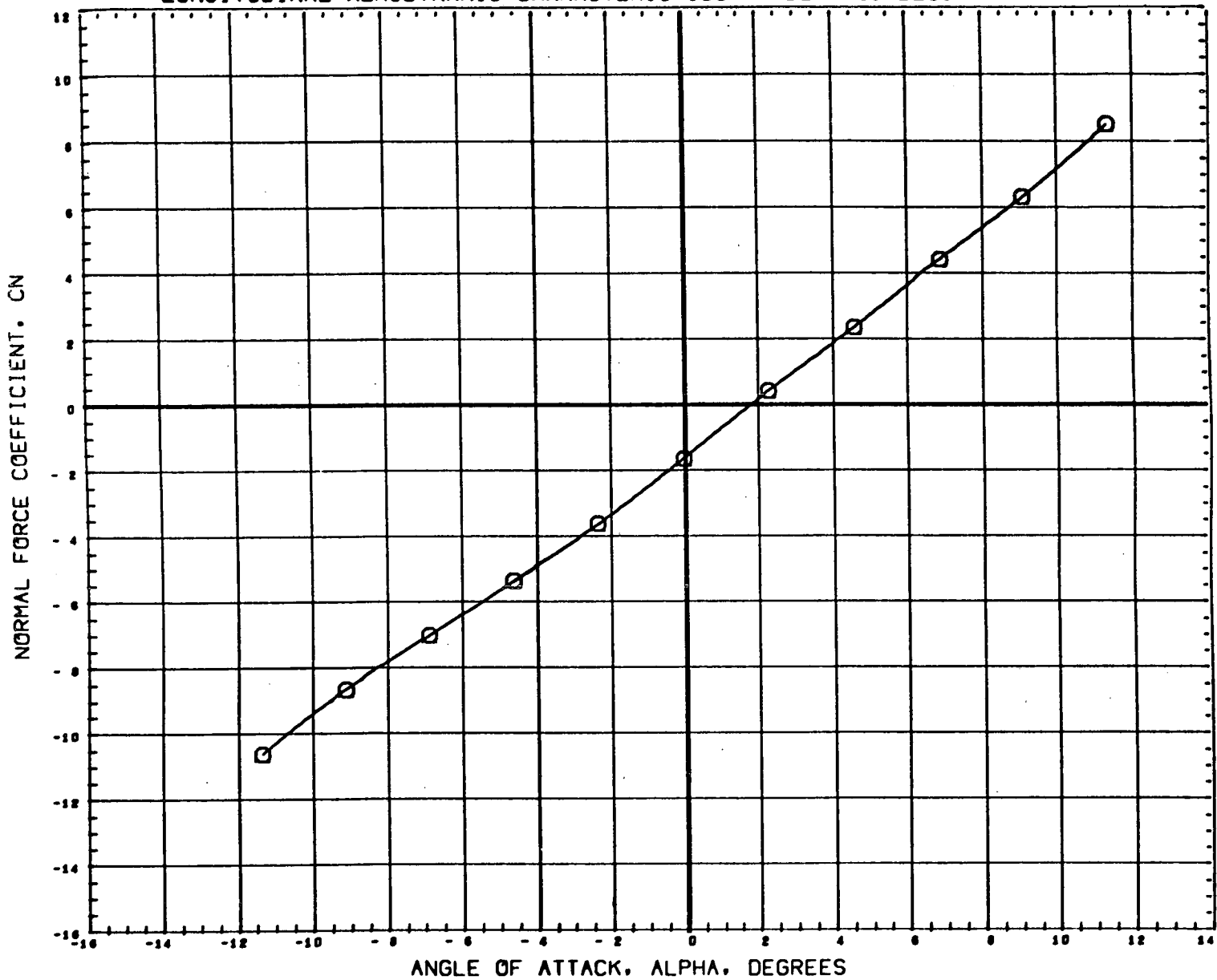


SYMBOL \circ MACH 0.901 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 38 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

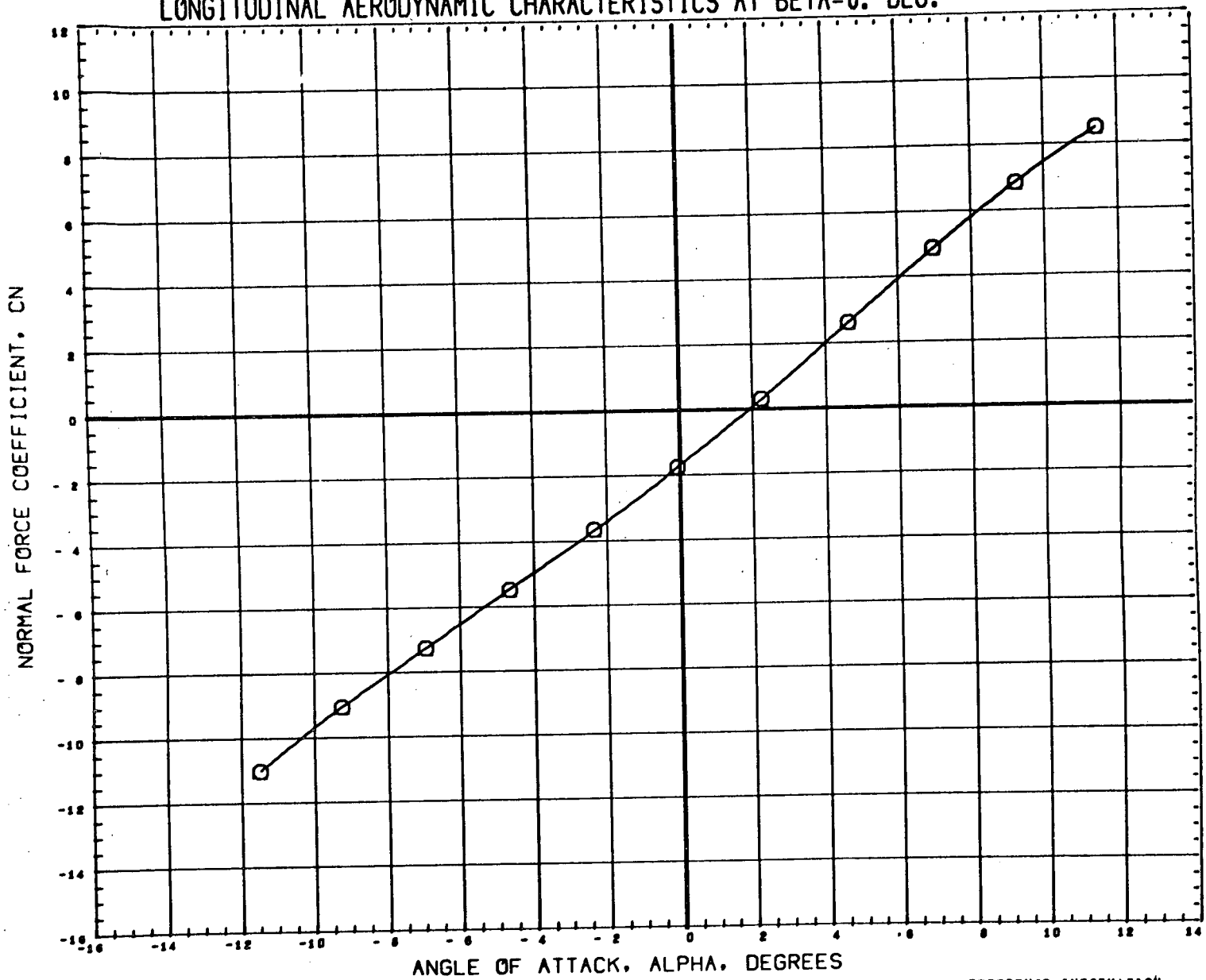


SYMBOL \bigcirc MACH 0.995 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

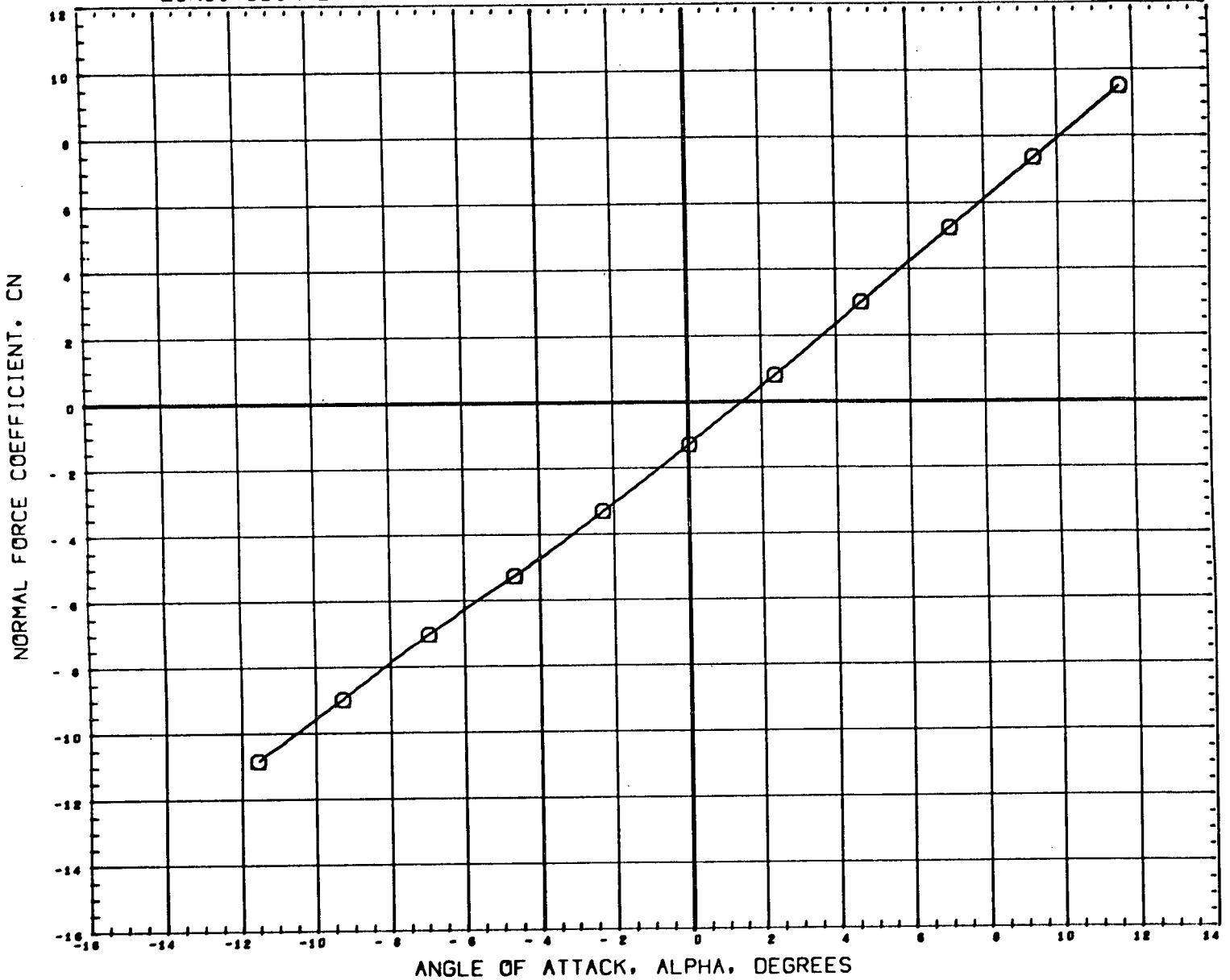


SYMBOL \circ MACH 1.301 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 1.202 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

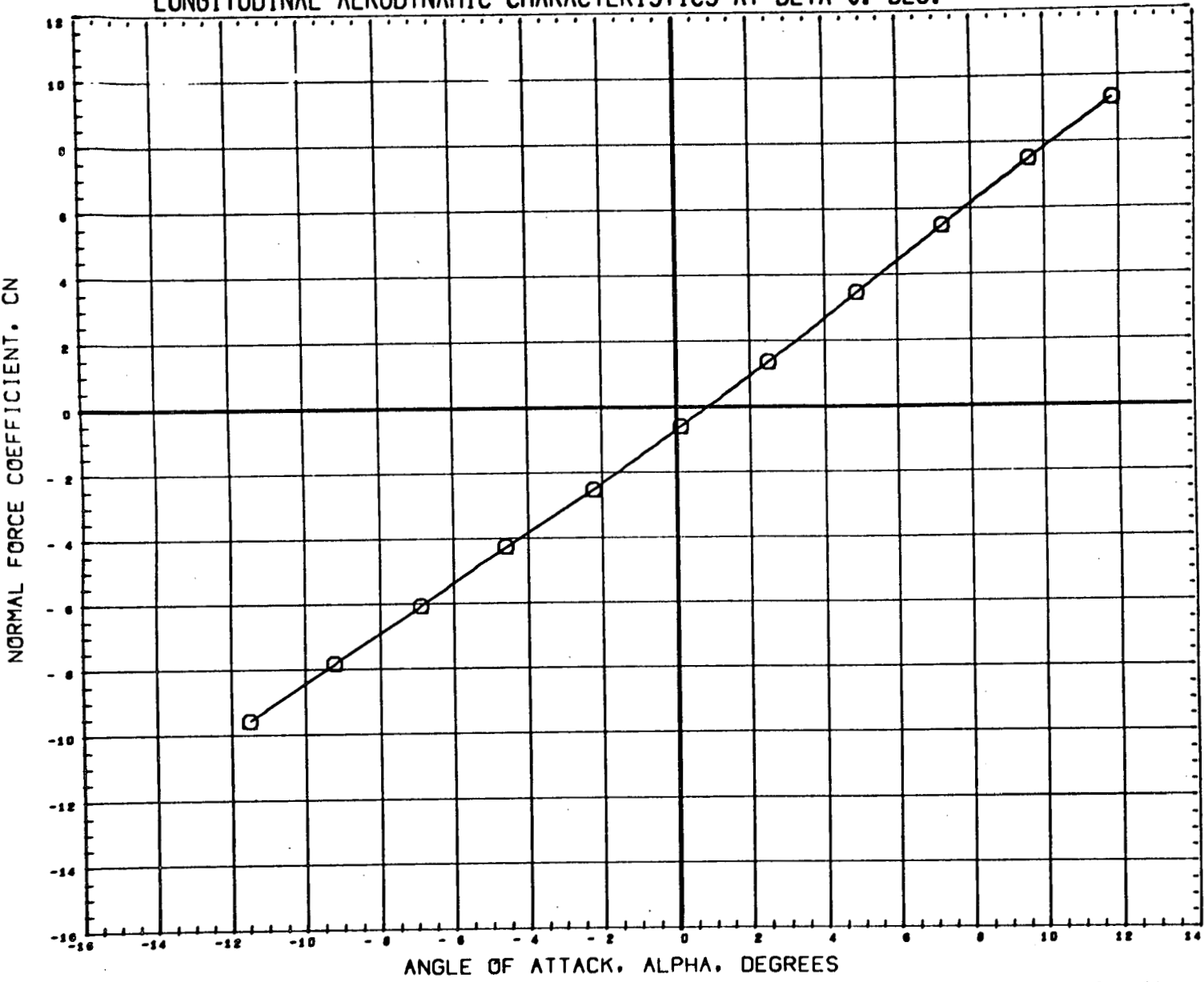
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

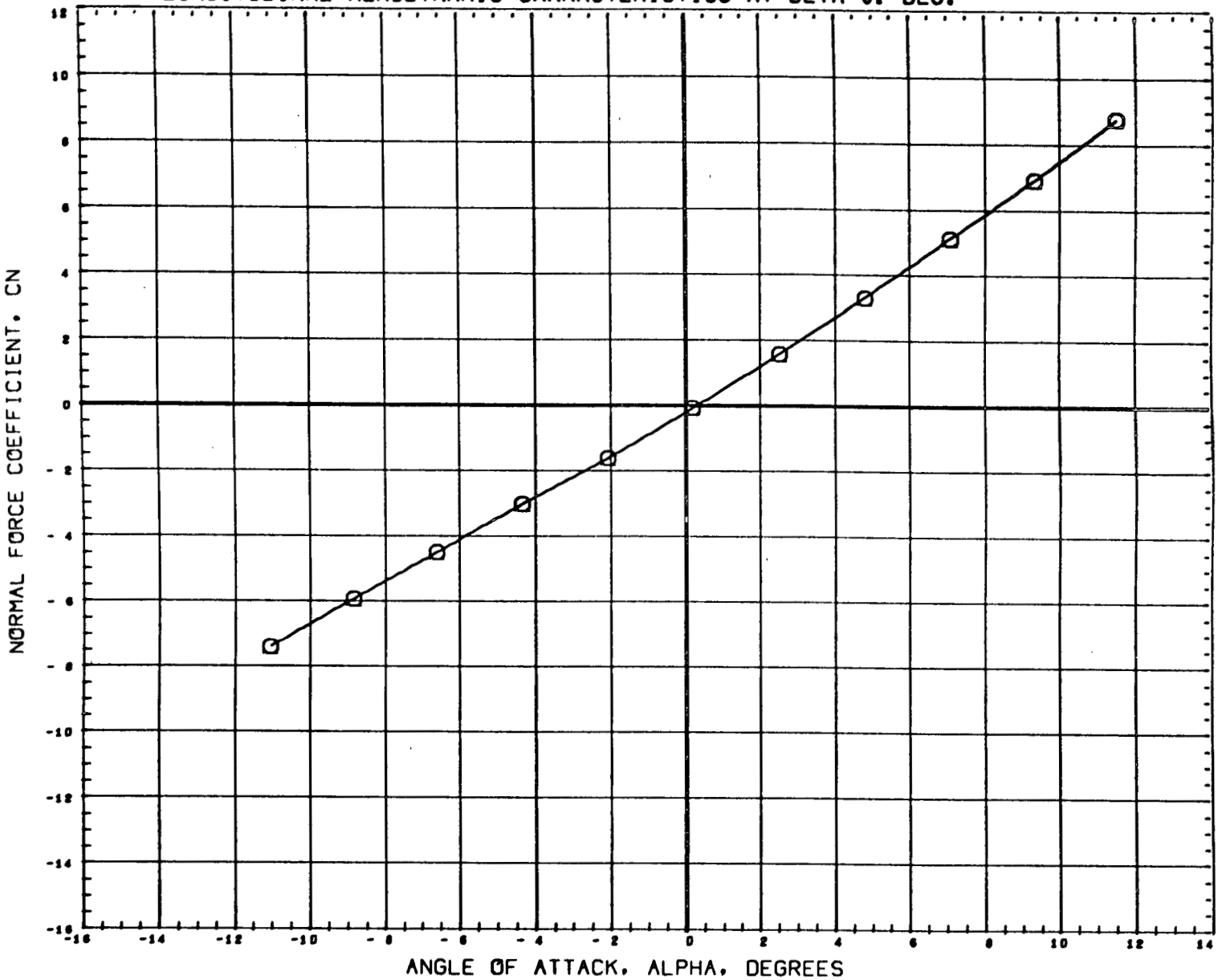


SYMBOL \circ MACH 1.463 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

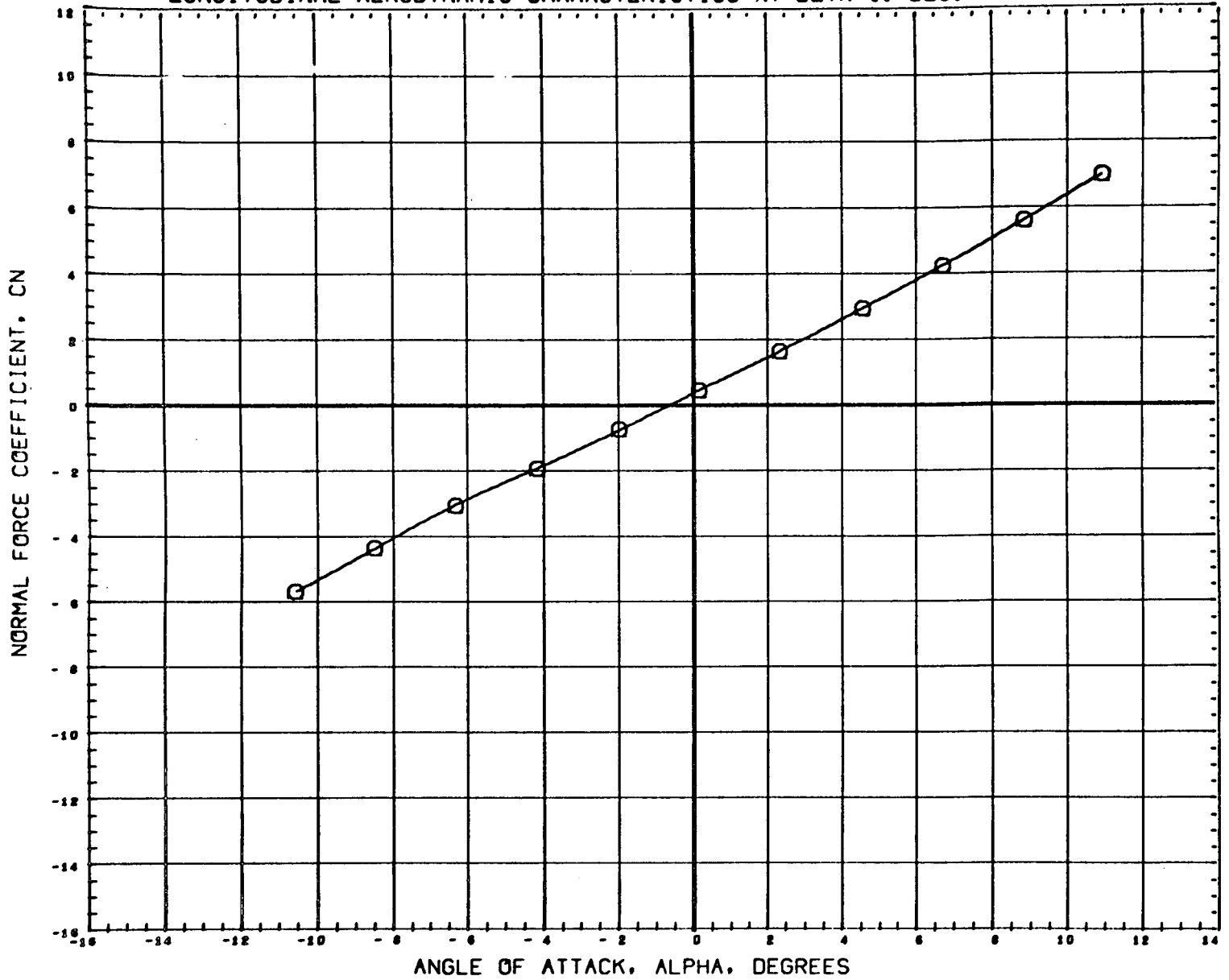


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.984 0.000

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XNRP 2.9170 IN YII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

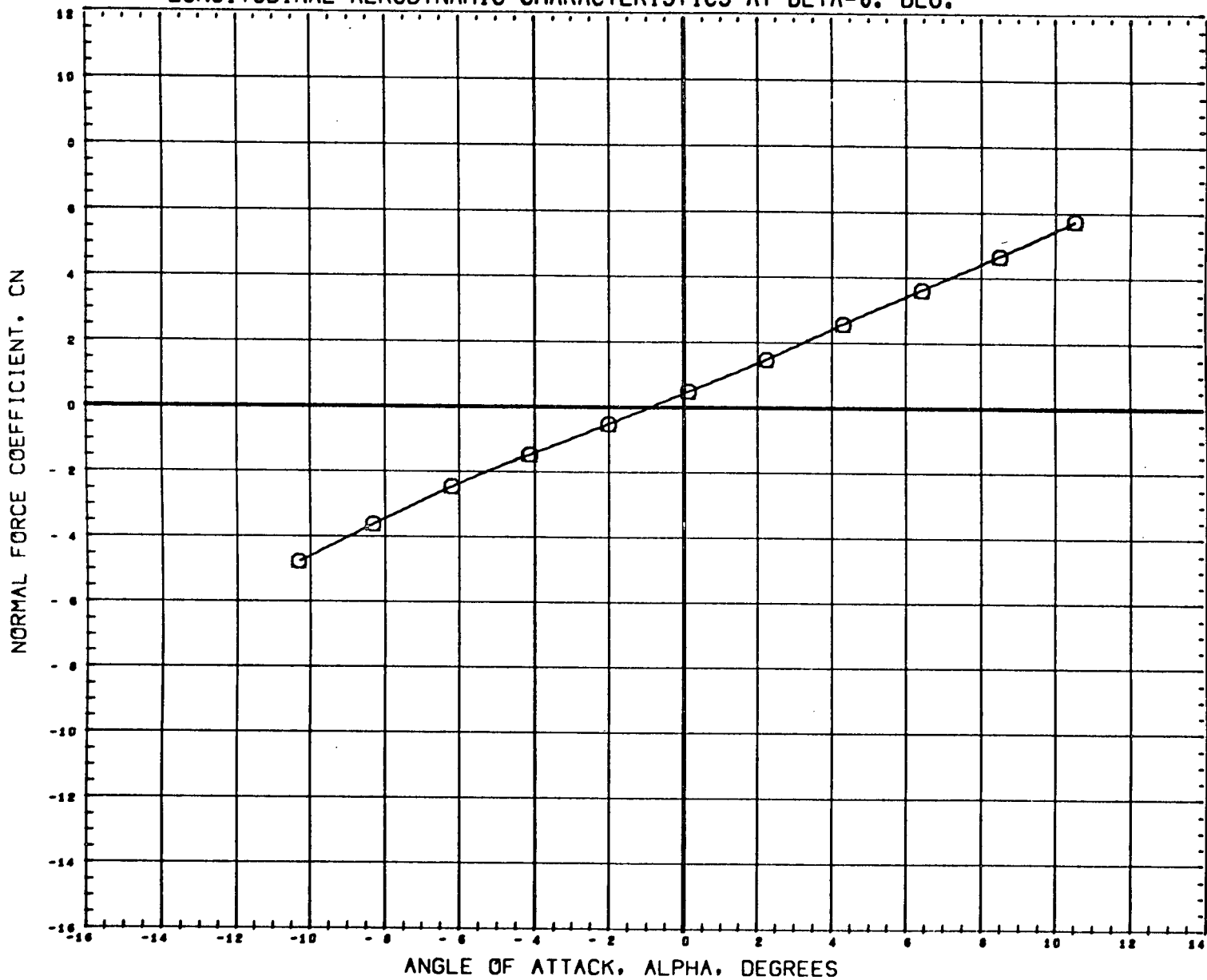


SYMBOL \bigcirc MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 3.400 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

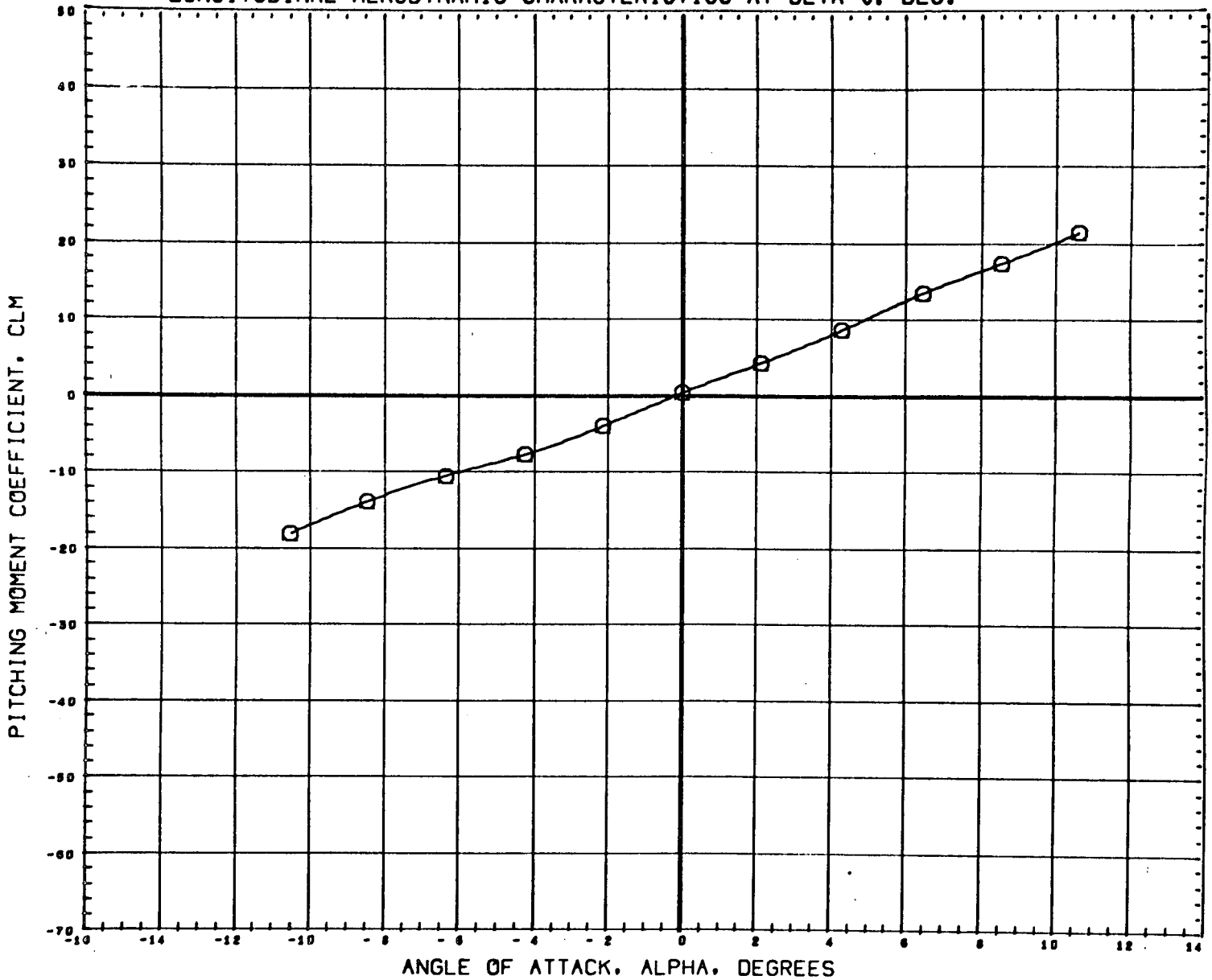
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 0.998 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 38 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

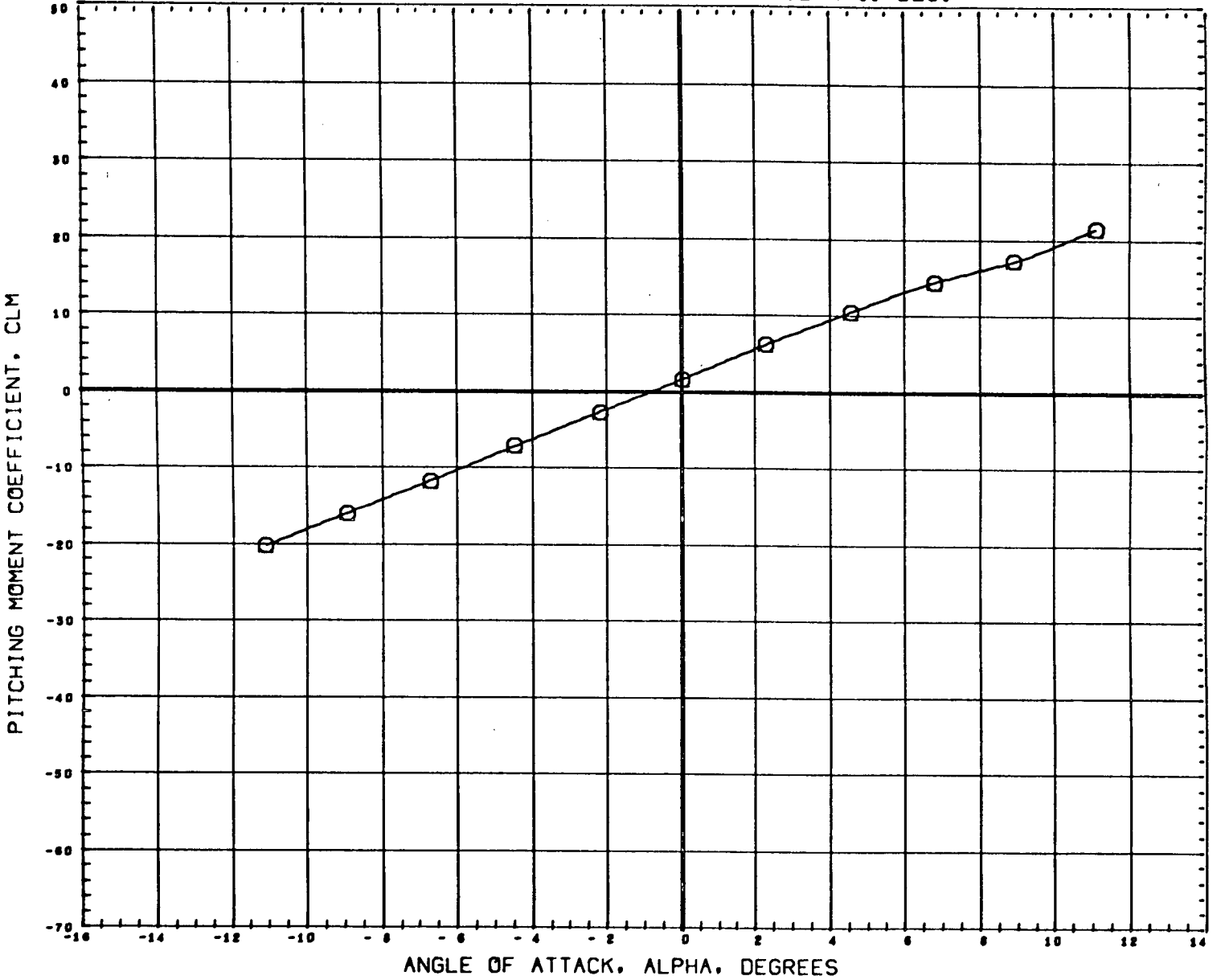
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

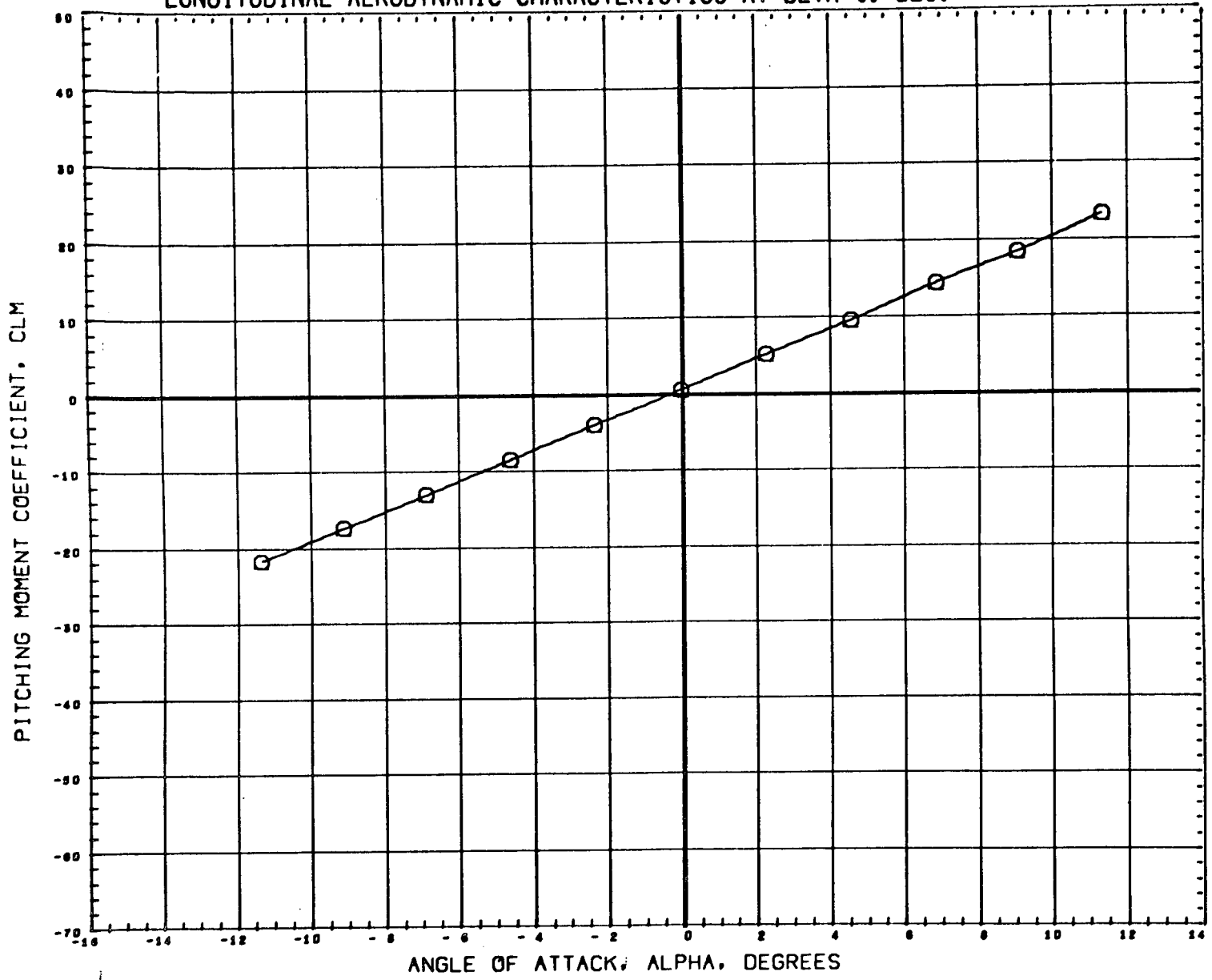


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.901 0.000 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

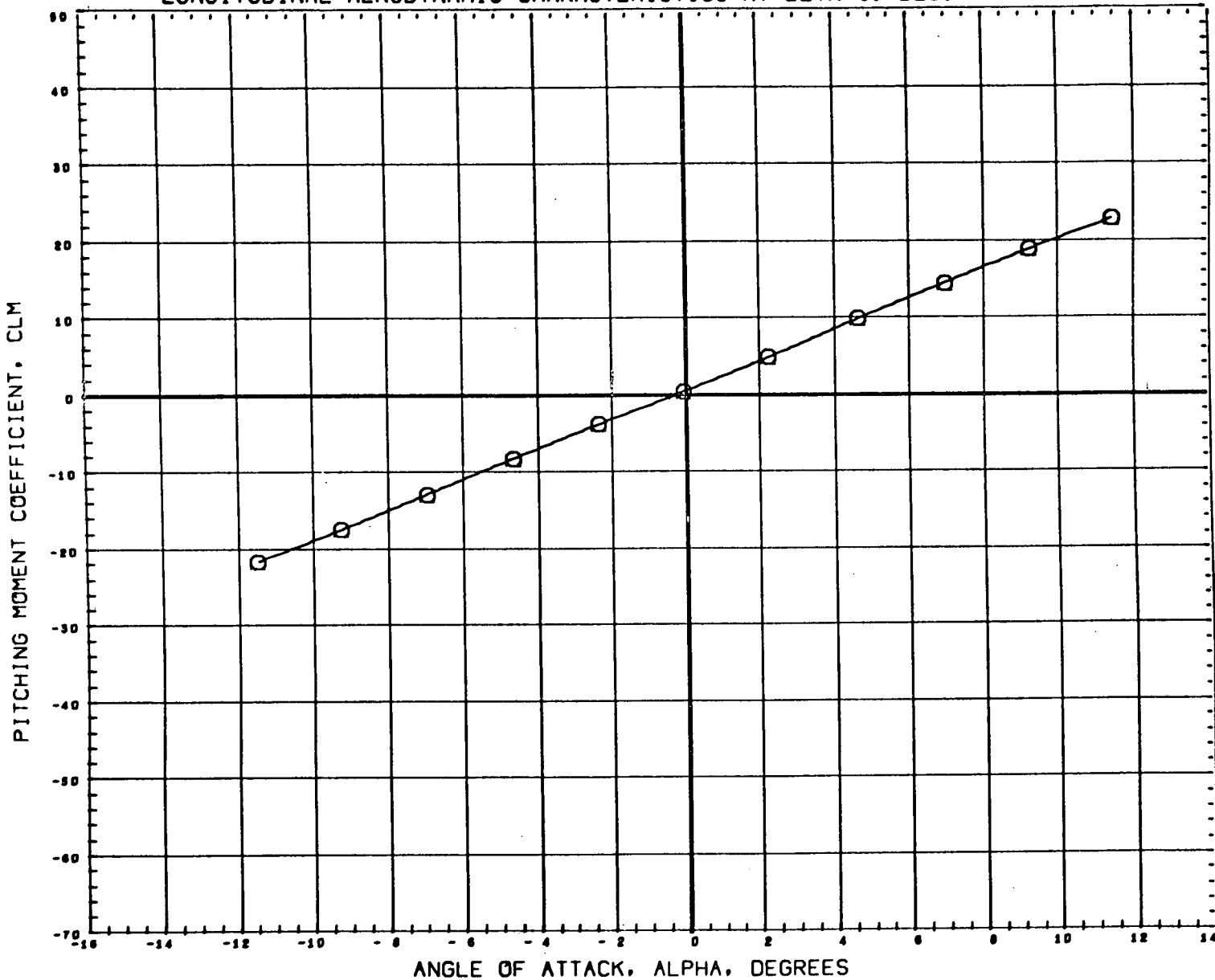


SYMBOL \bigcirc MACH 0.905 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.101 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

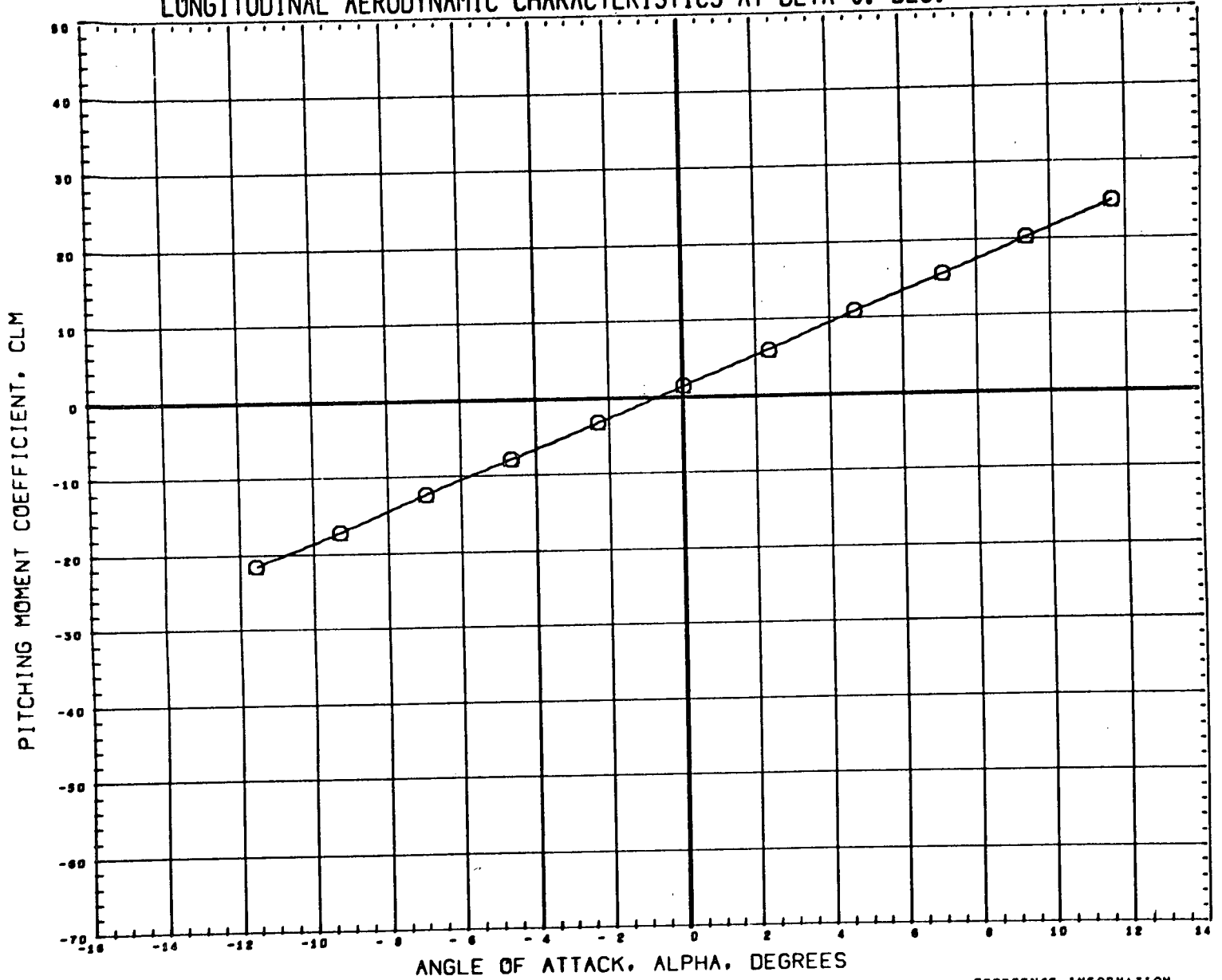
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.202 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

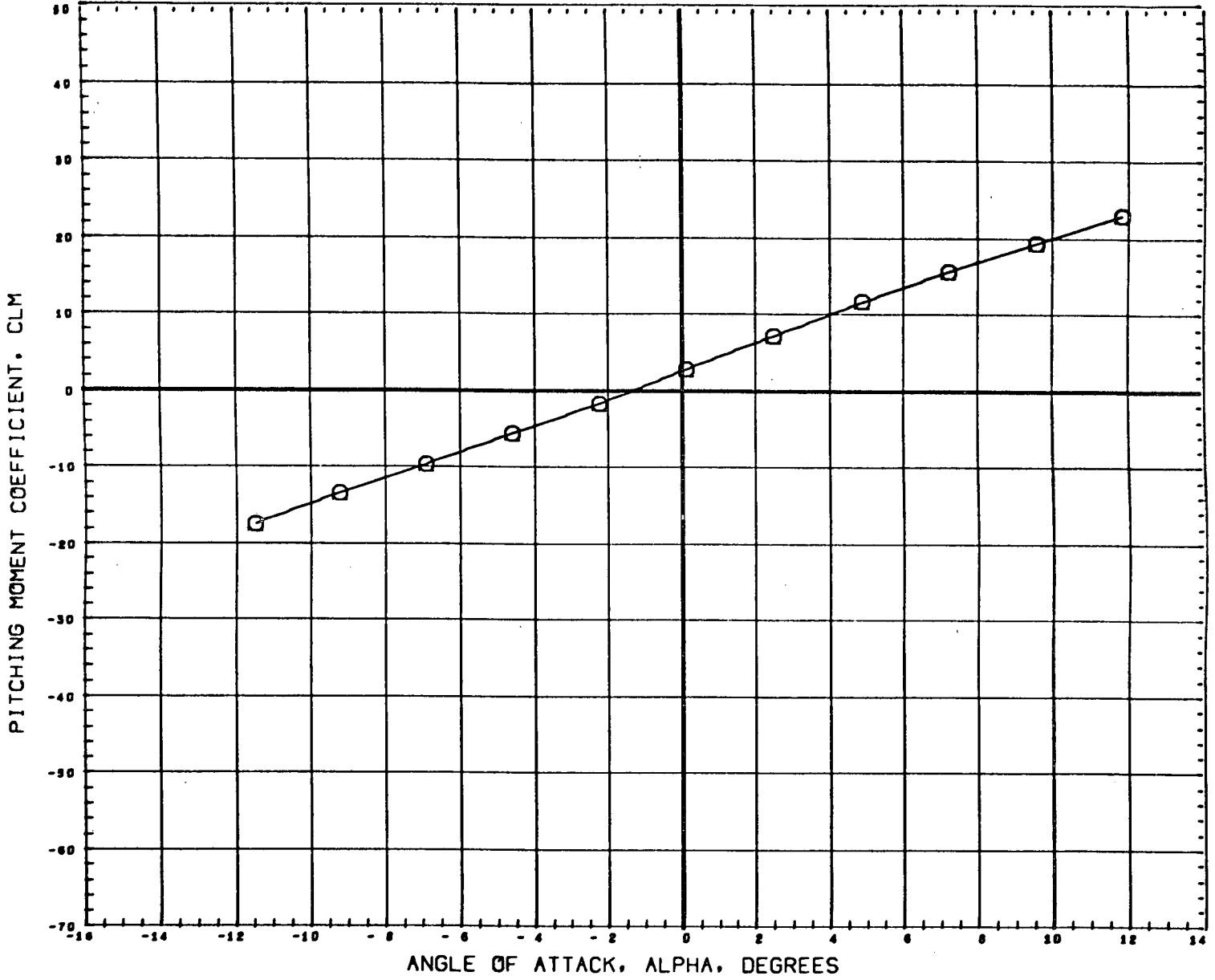
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

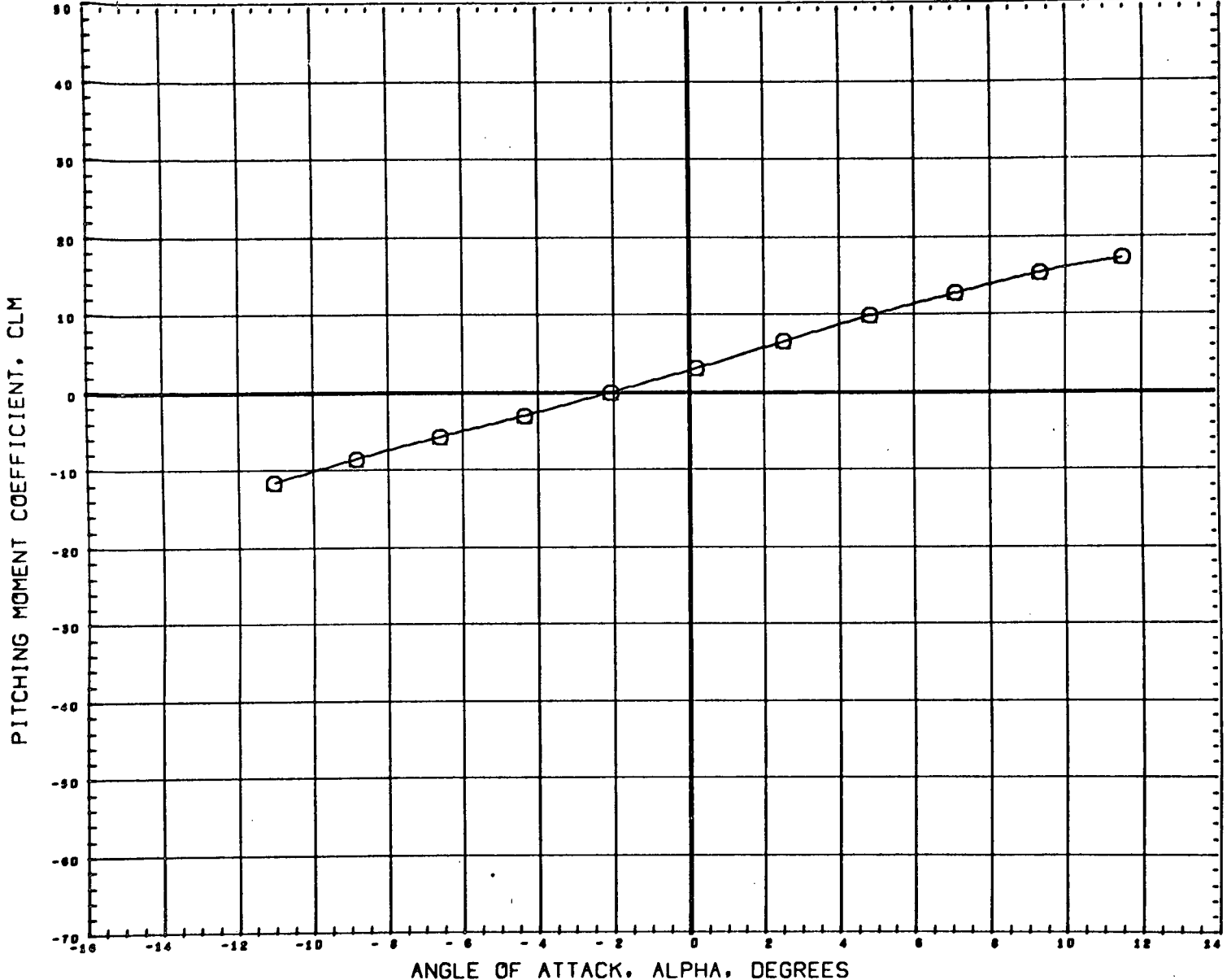


SYMBOL \circ MACH 1.463 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

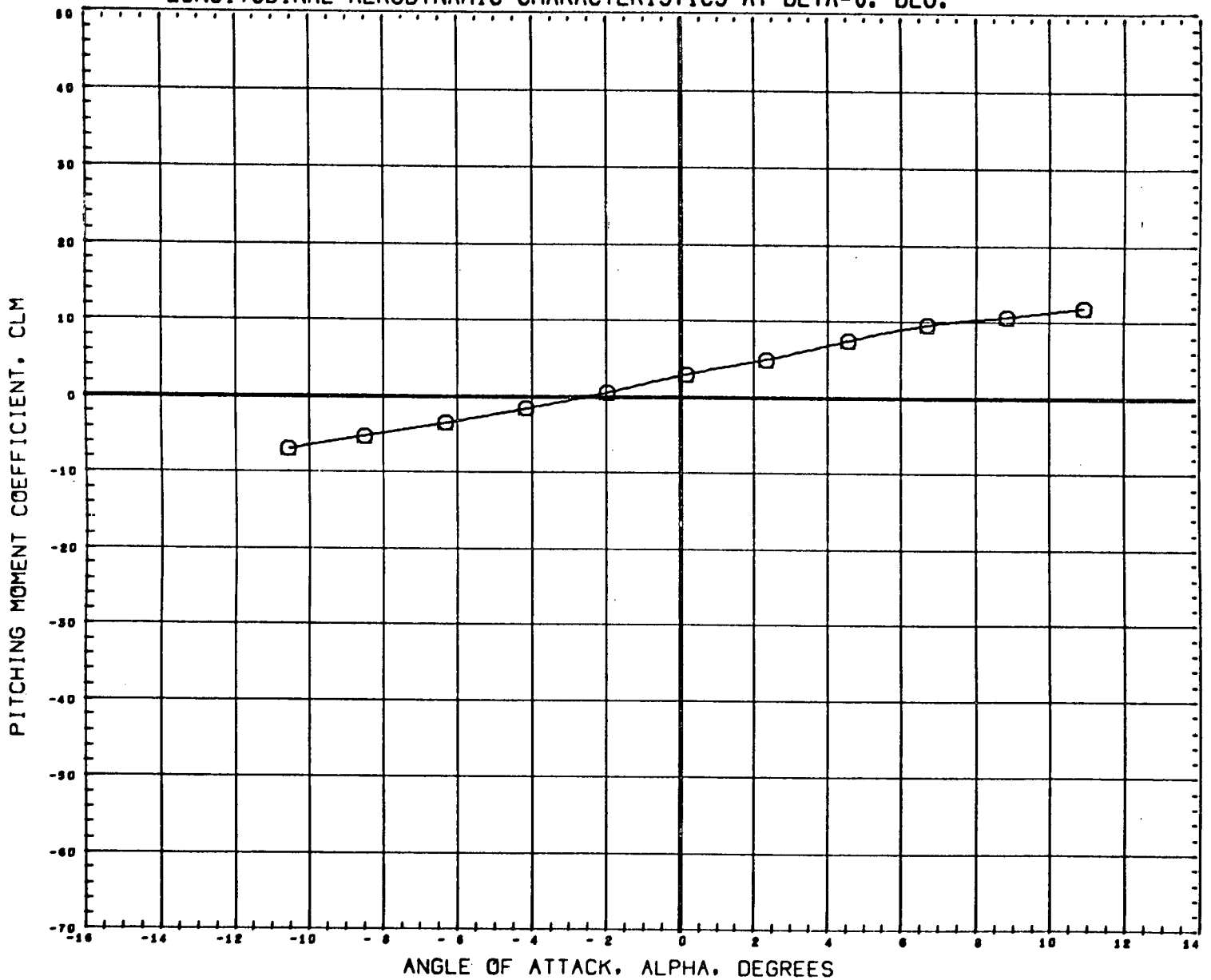


SYMBOL \circ MACH 3.984 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.9340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V4E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

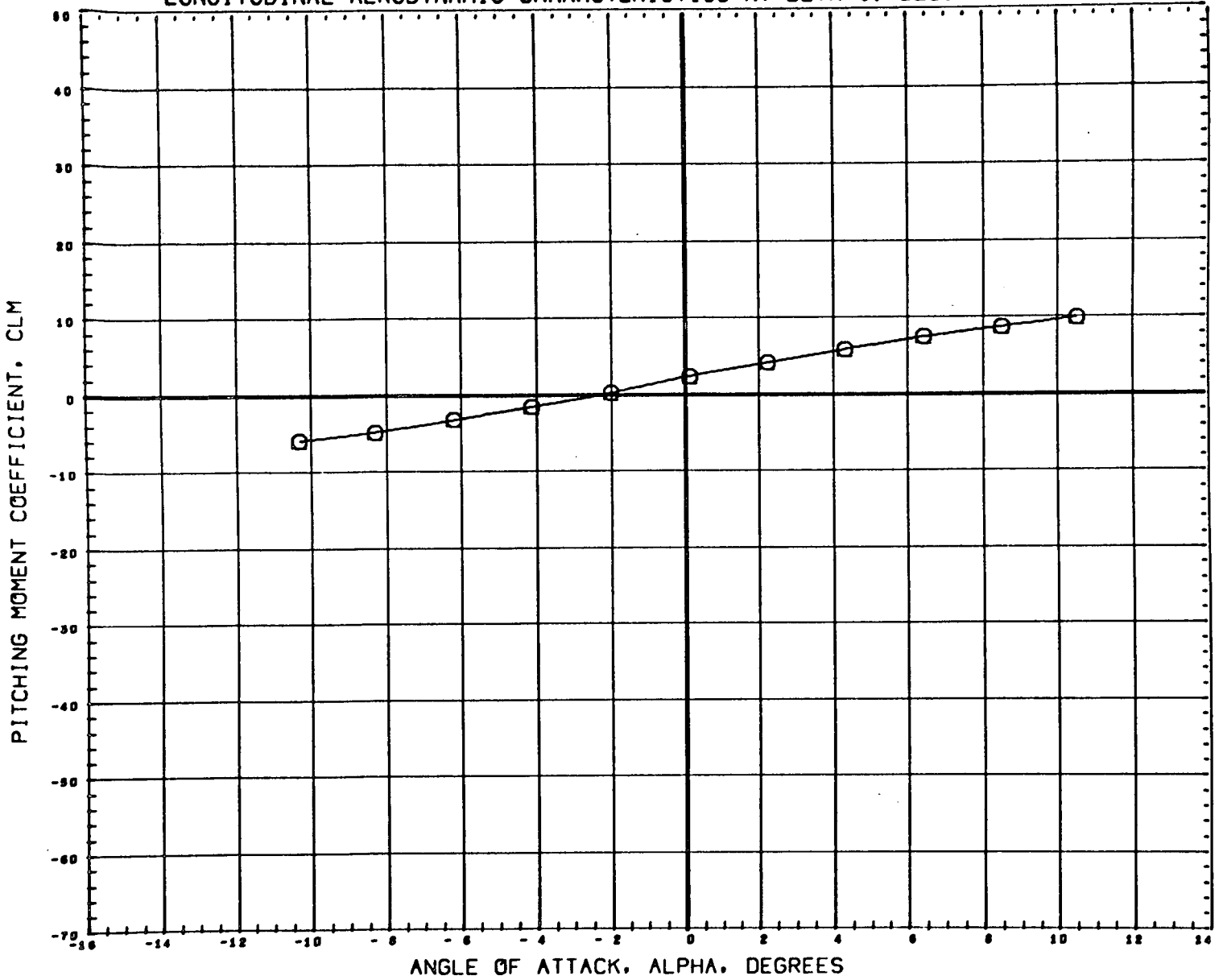


SYMBOL \bigcirc MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



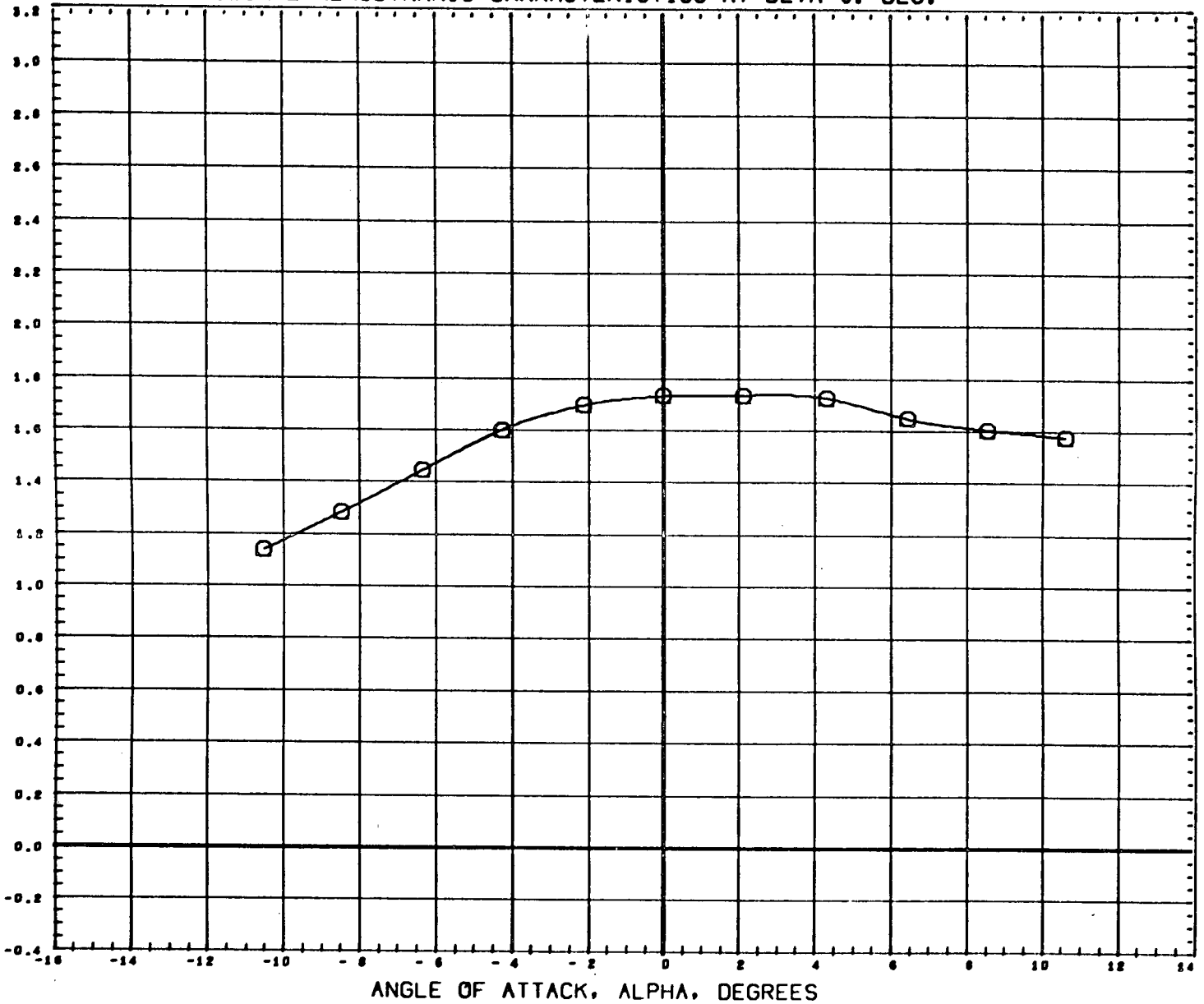
SYMBOL \bigcirc MACH 3.400 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



SYMBOL \square MACH 0.598 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

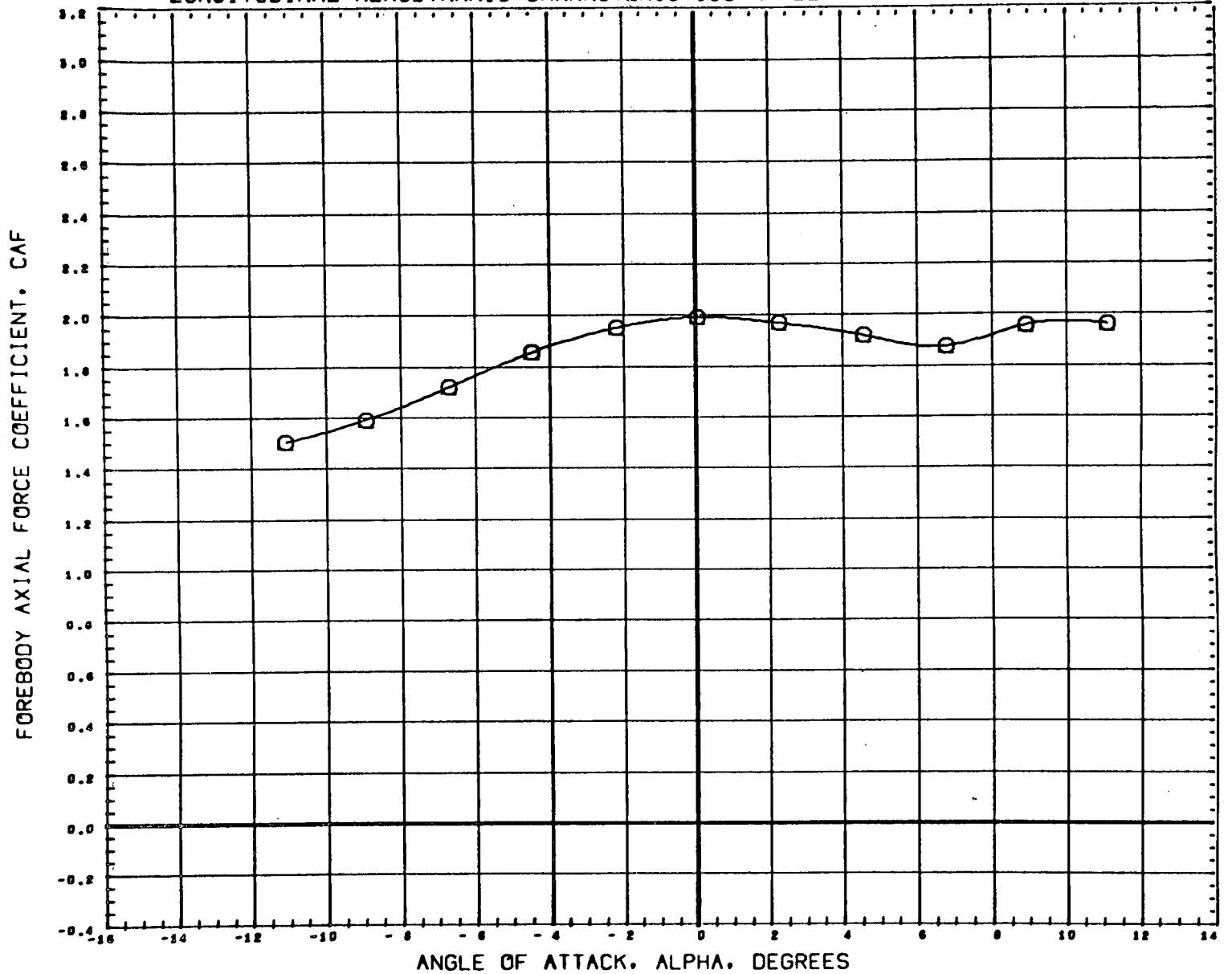
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

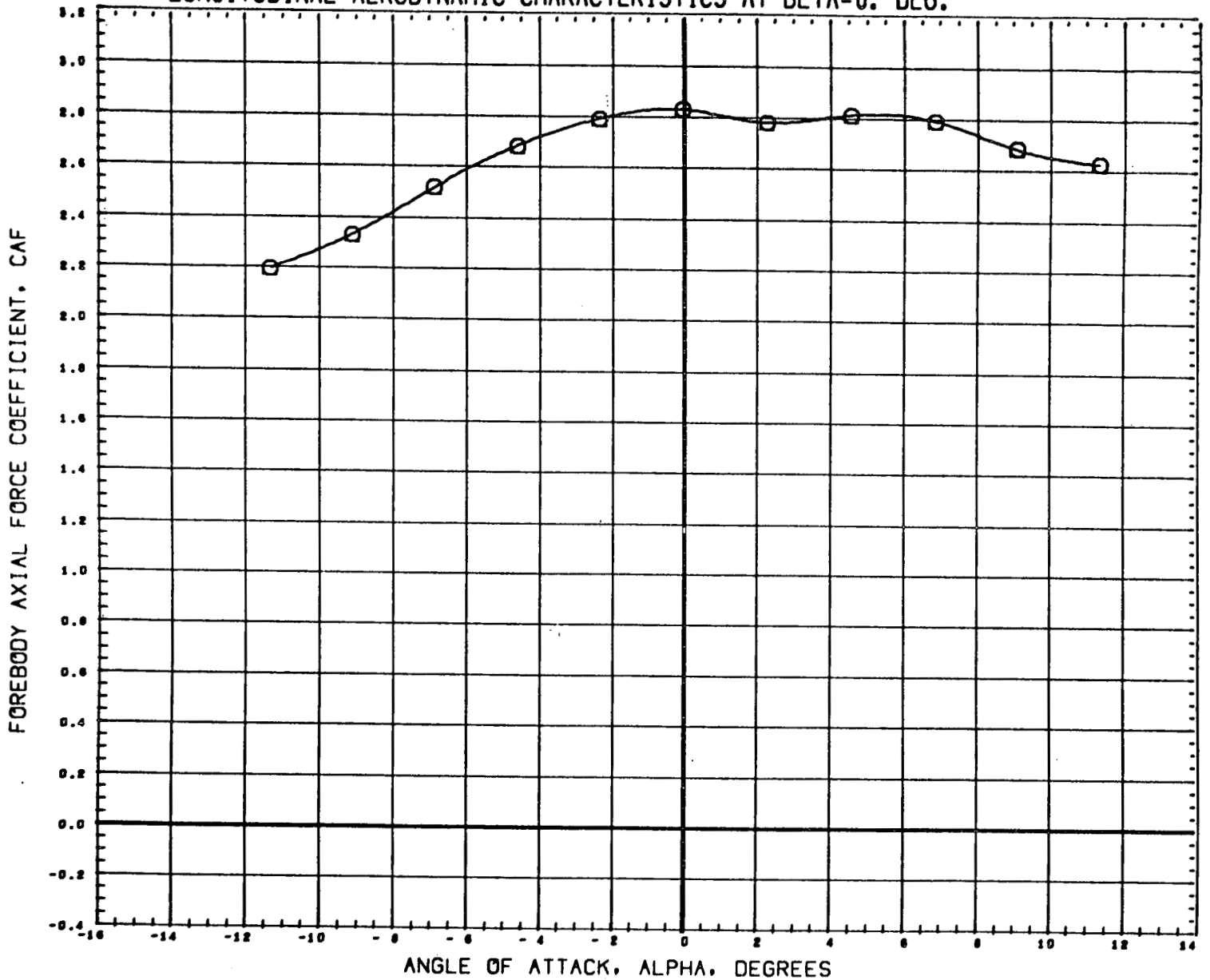


SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.901 0.000

REFERENCE INFORMATION
 SREF 0.9340 90 INC
 LREF 0.6240 INCHES
 BREF 0.6240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.995 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.9240 INCHES
 BREF 0.9240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

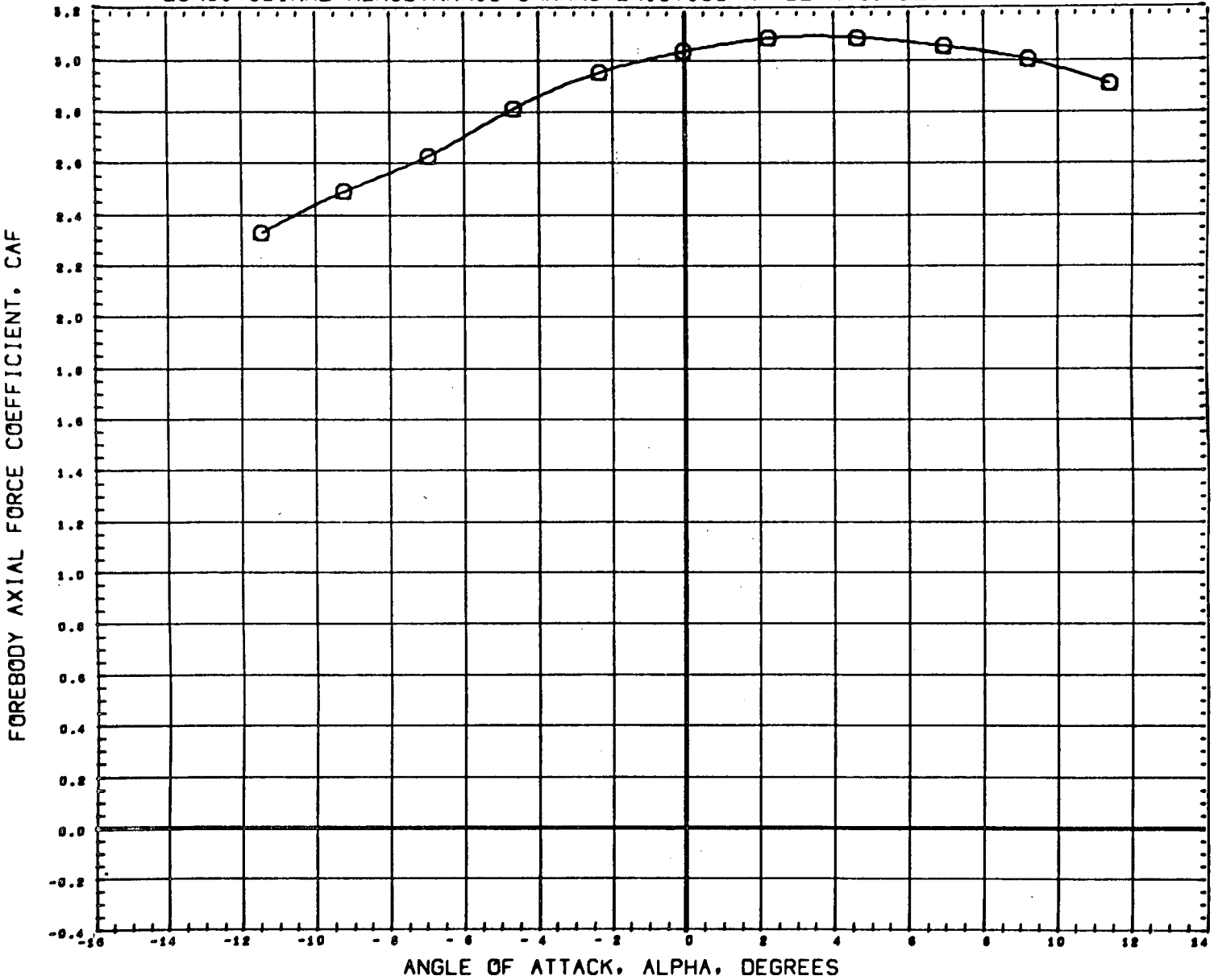
MSFC TWT 505 T111L/DT07

01D2L4

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

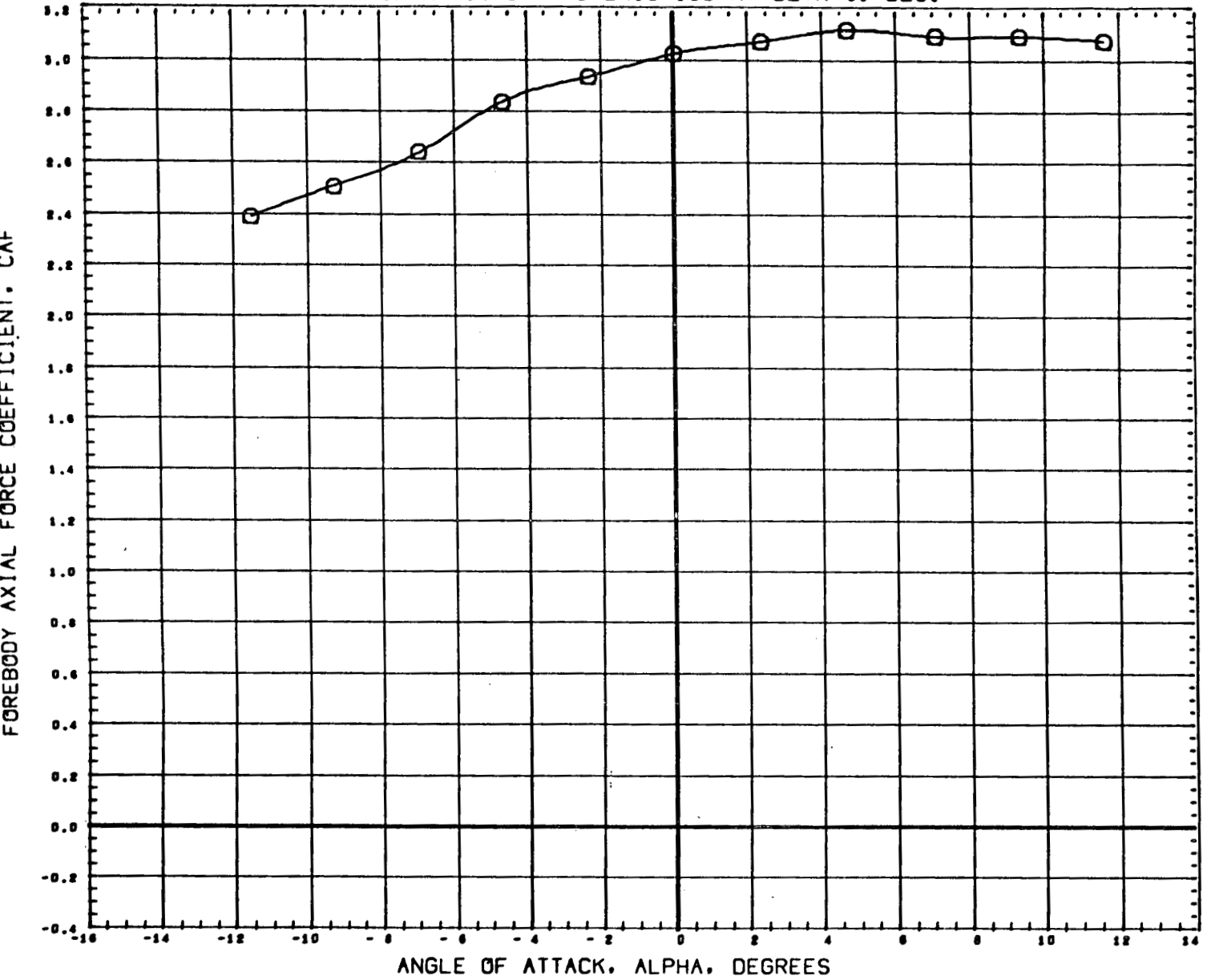


SYMBOL \circ MACH 1.101 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

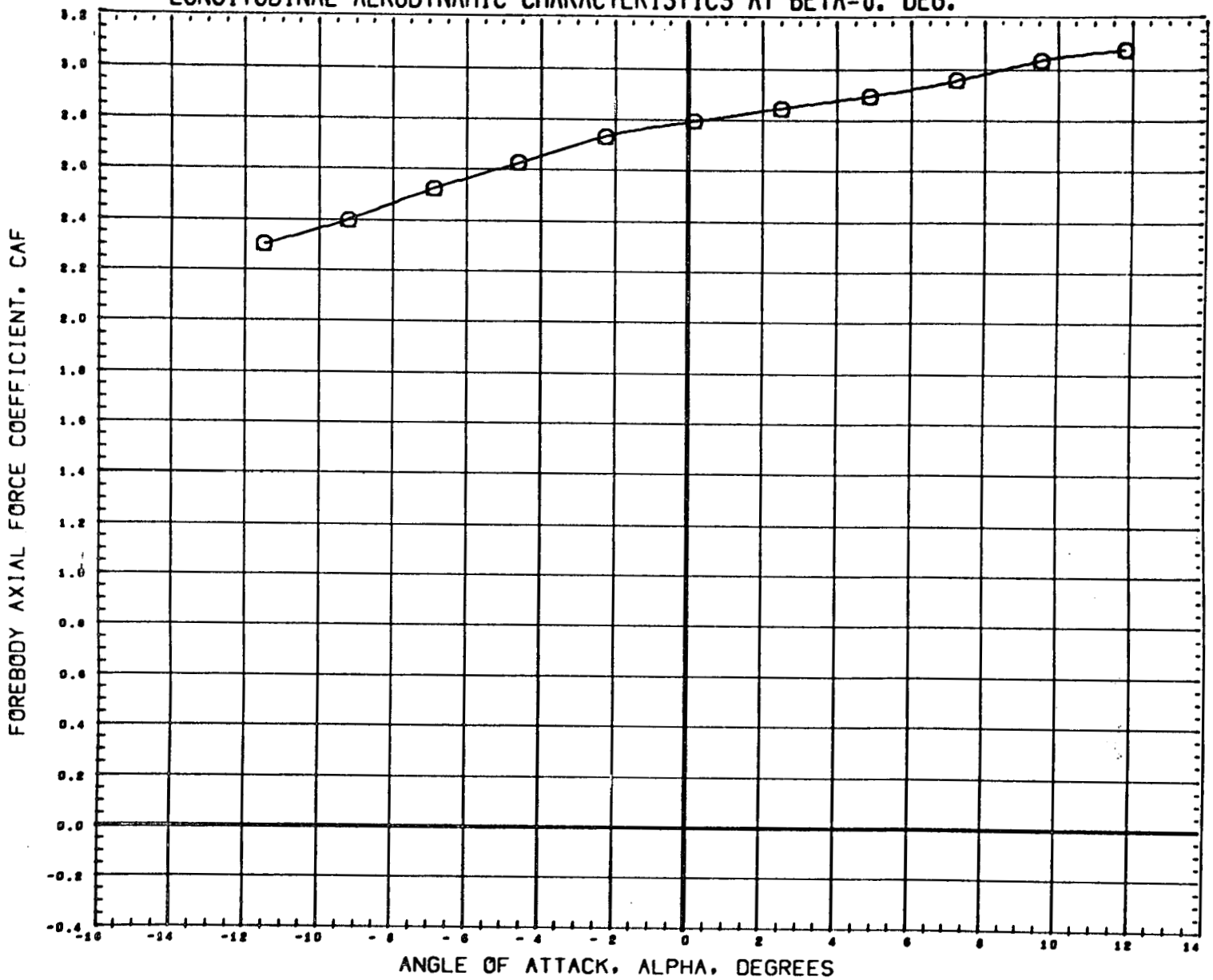


SYMBOL \circ MACH 1.202 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4900 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

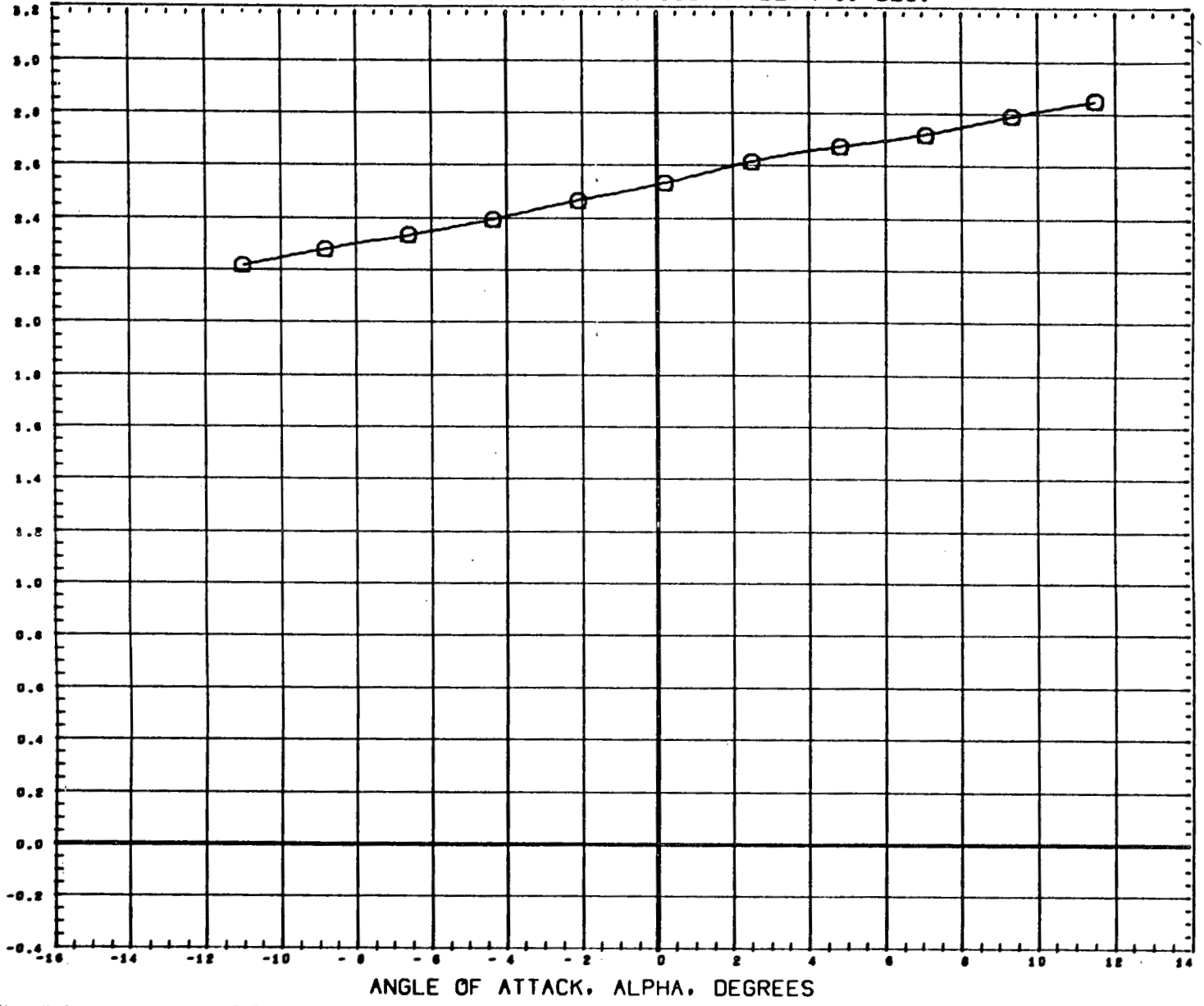


SYMBOL \circ MACH 1.463 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 DBEF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

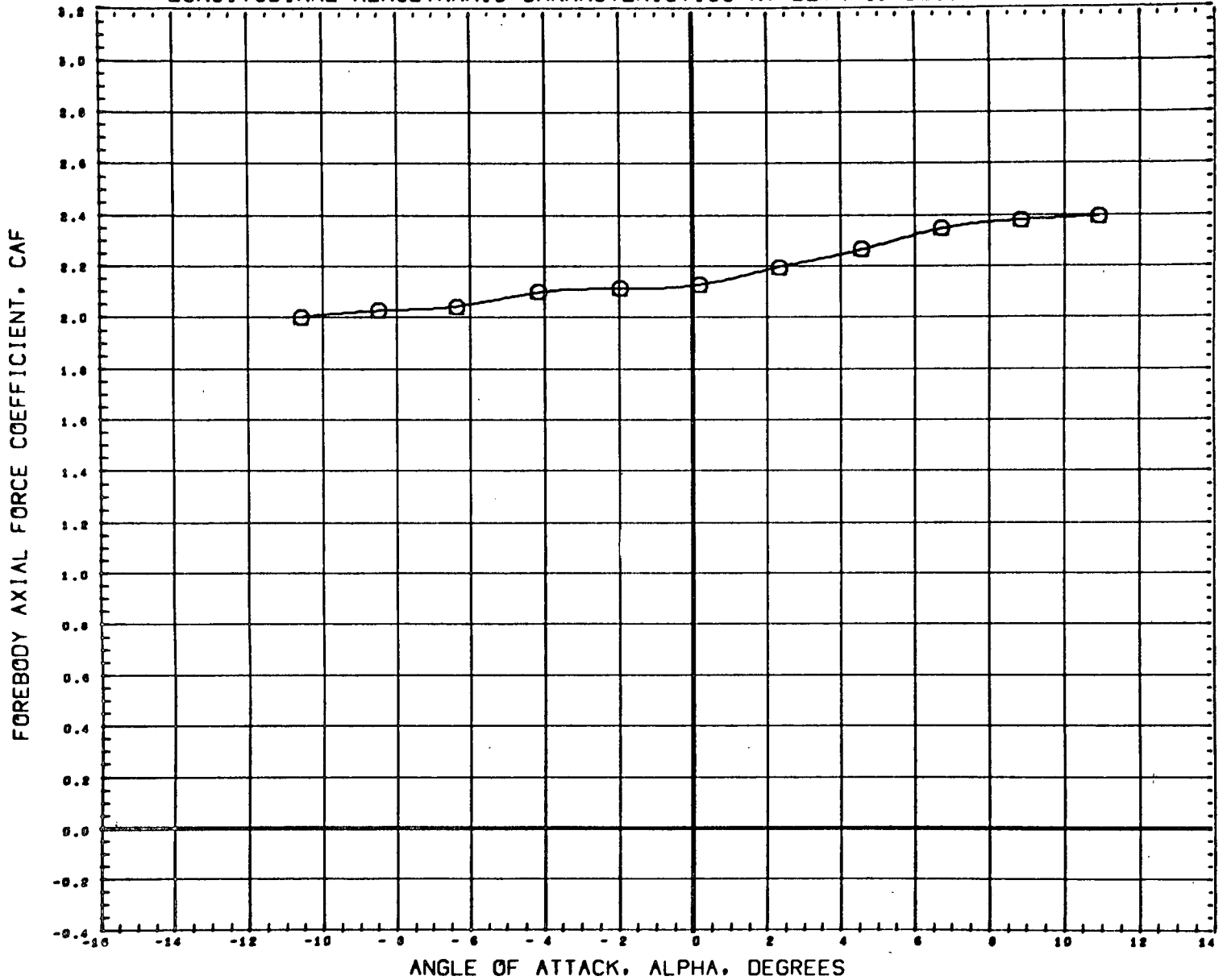


SYMBOL \bigcirc MACH 1.964 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 SQ INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

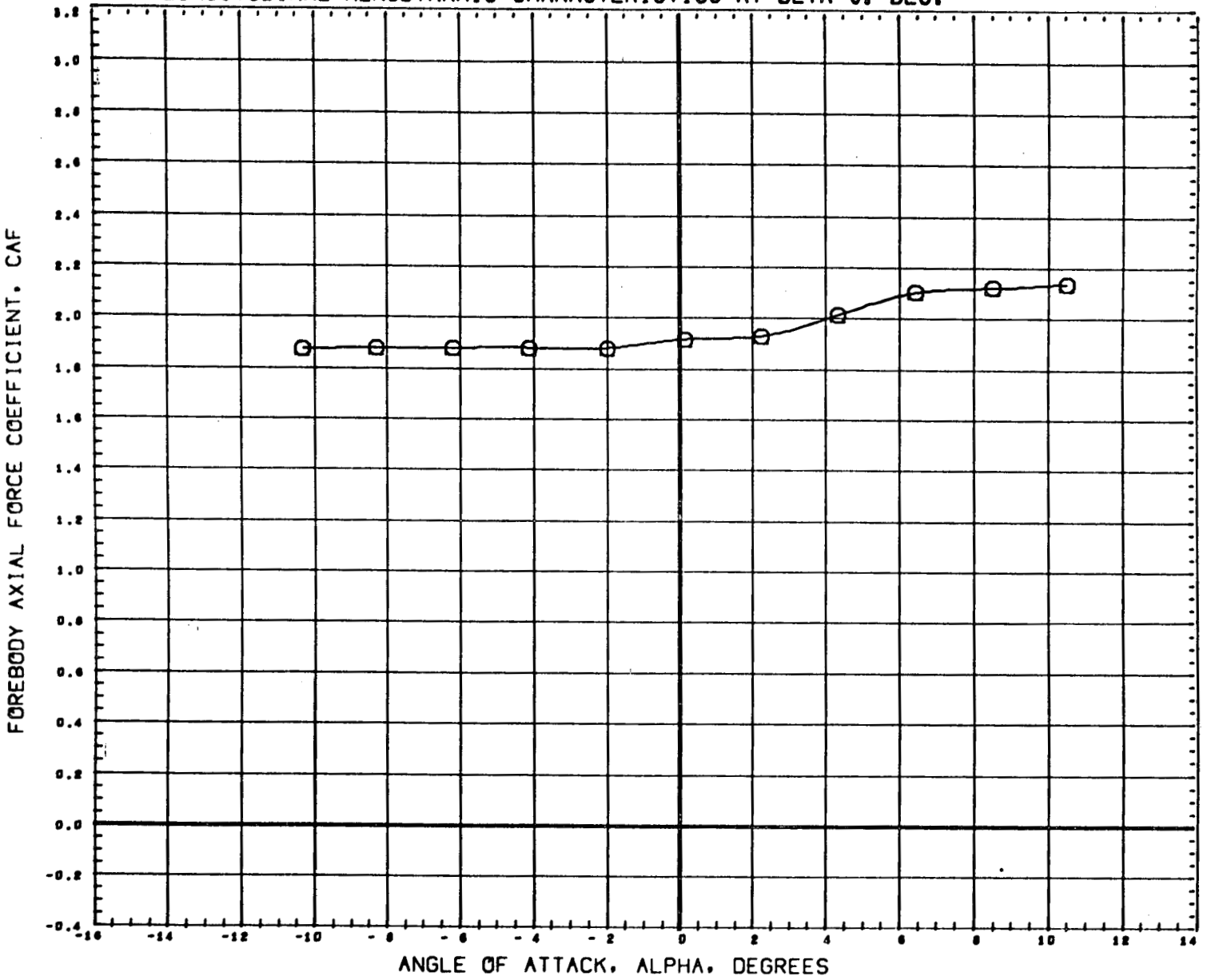


SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



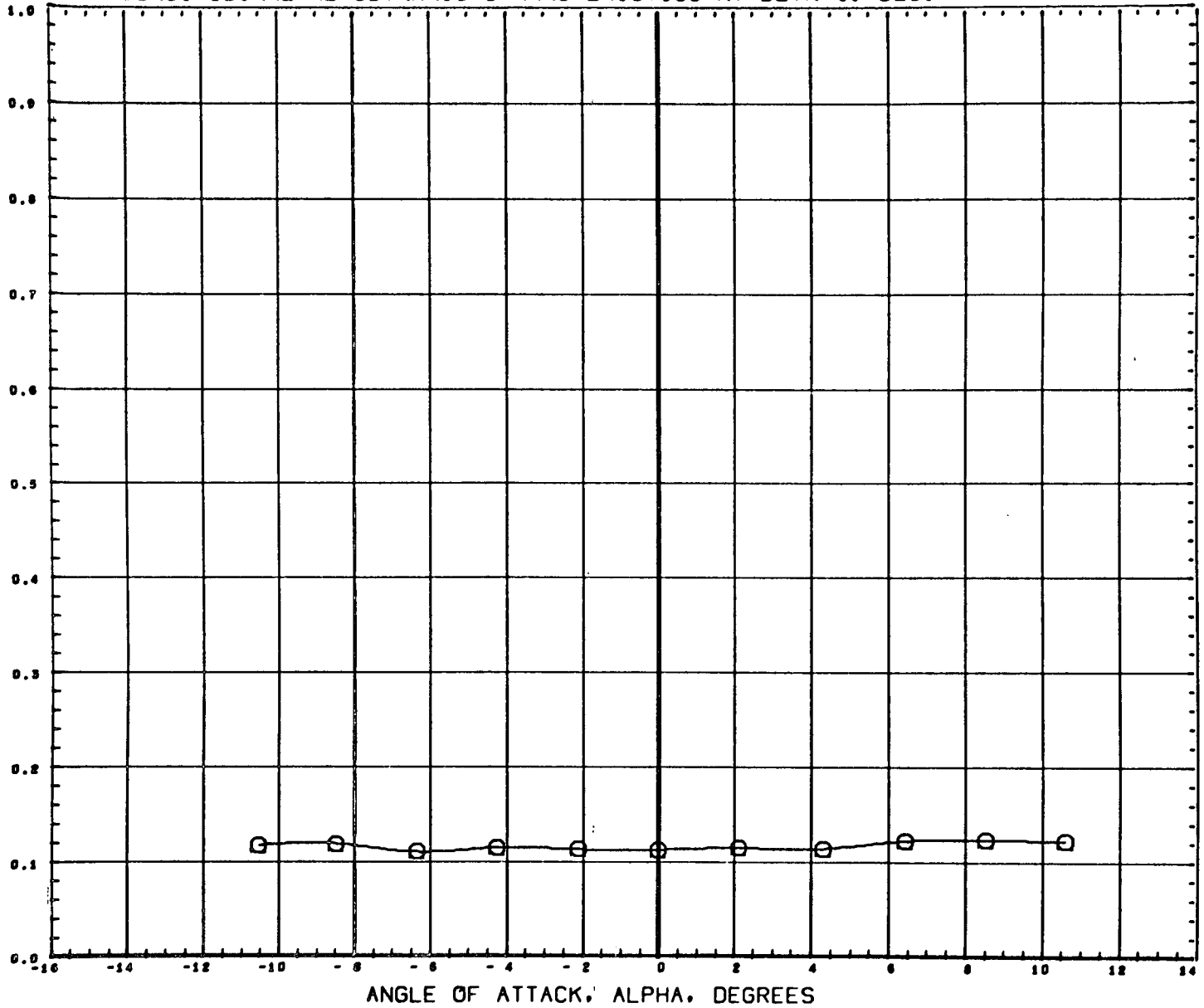
SYMBOL \circ MACH 5.480 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 88 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT • CABC



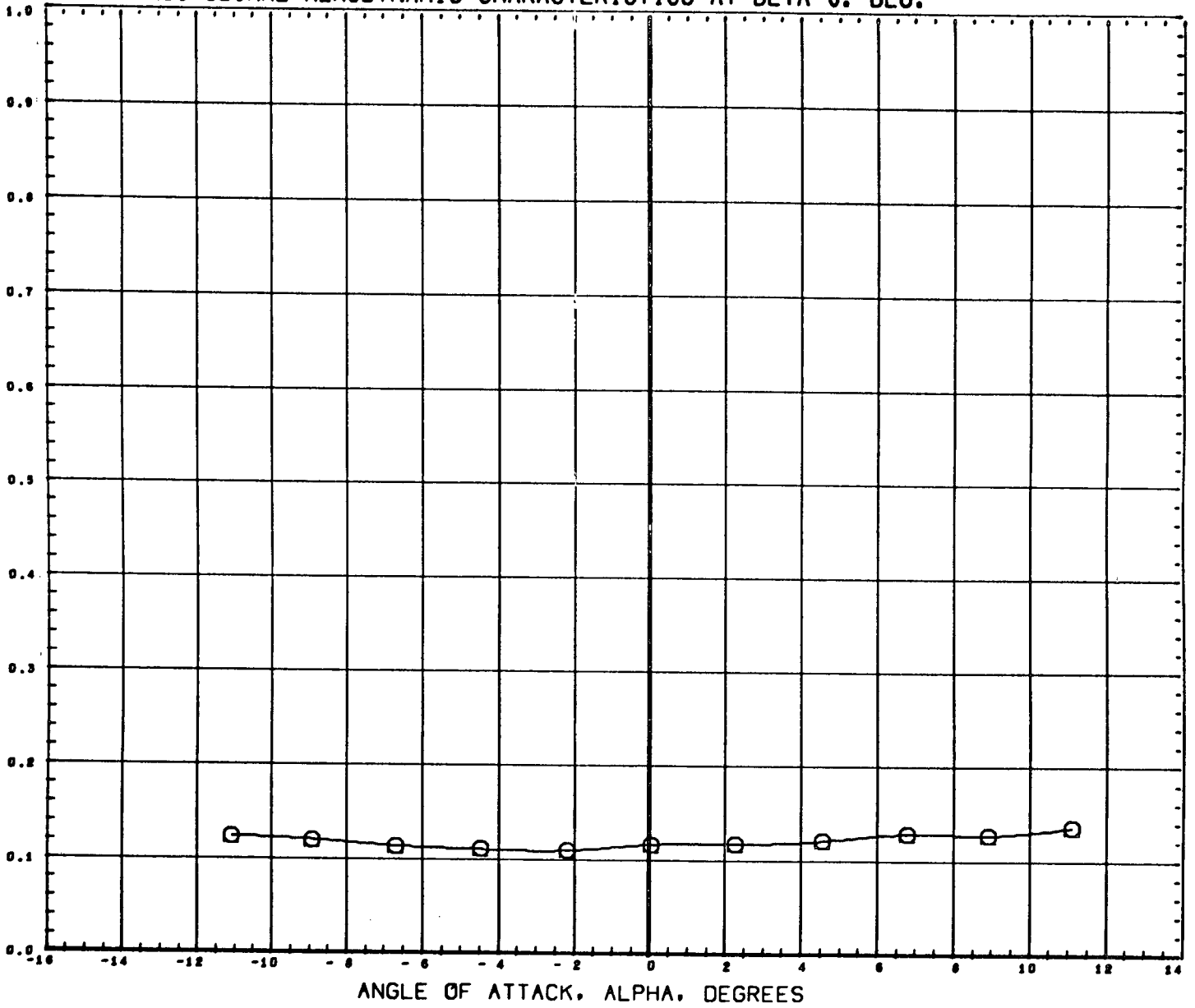
SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.598 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC

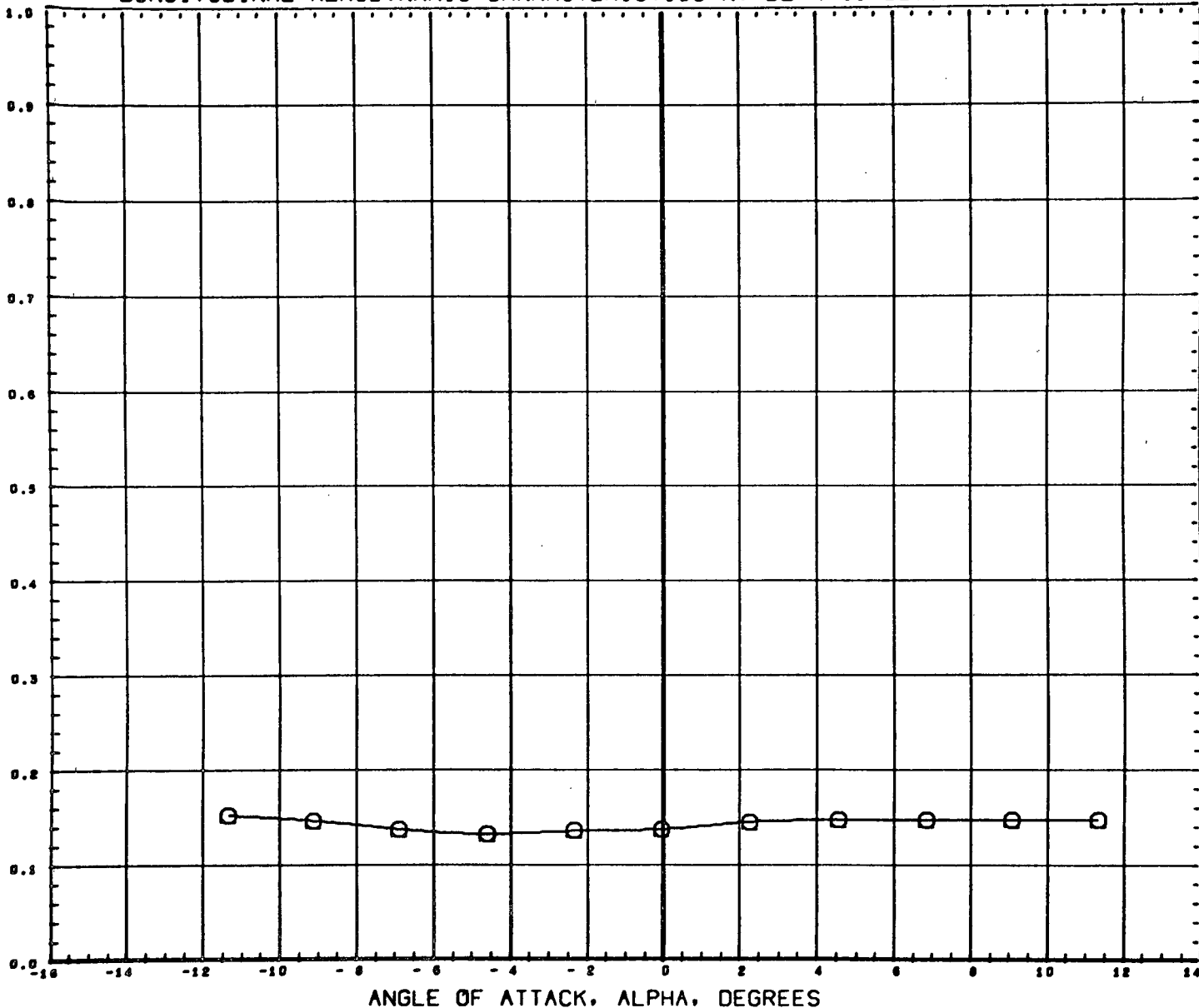


SYMBOL \bigcirc MACH 0.901 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

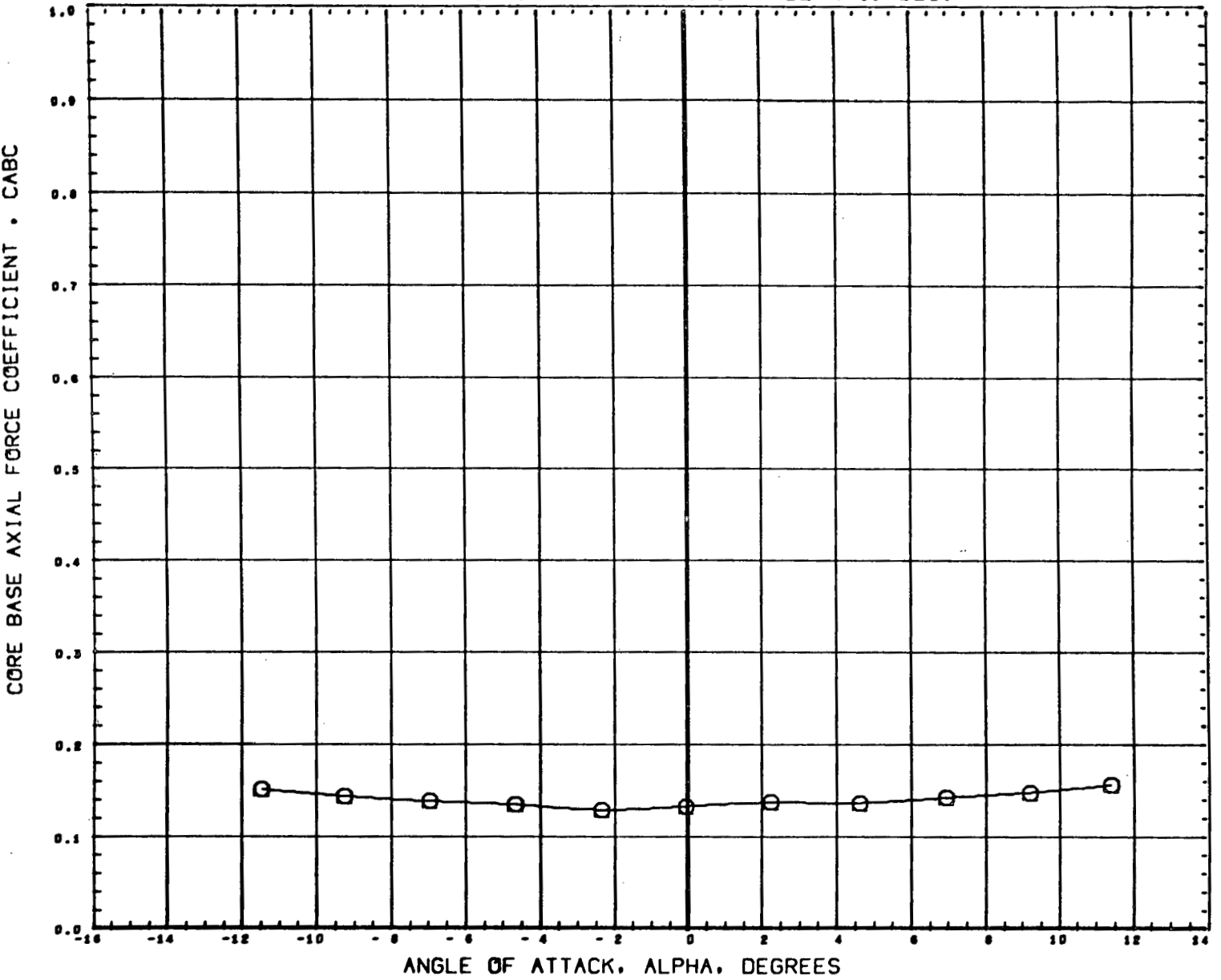


SYMBOL \bigcirc MACH 0.095 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.0170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



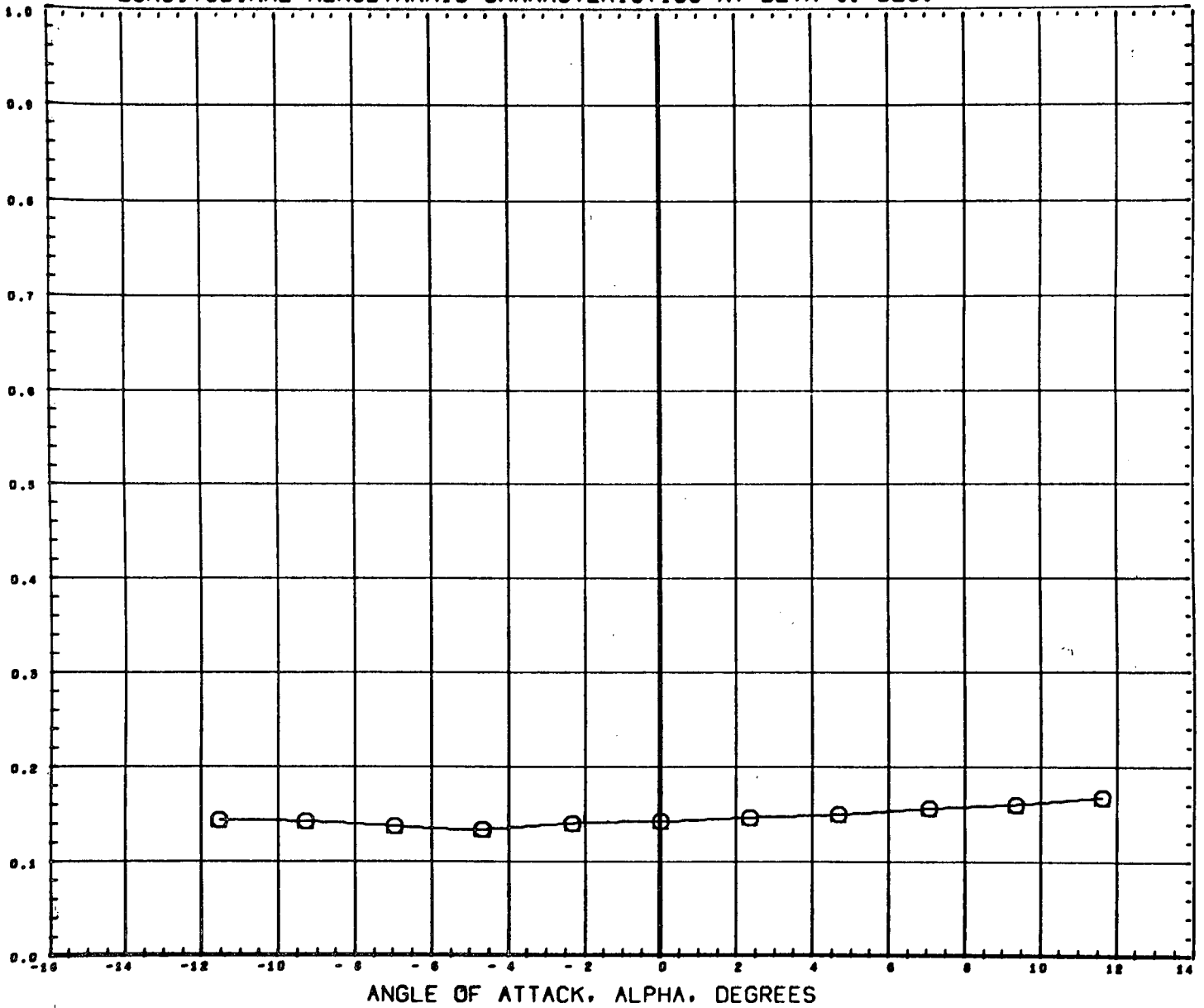
SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.101 0.000 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 8.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V+E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC



SYMBOL \circ MACH 1.202 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

MSFC TWT 505 T111L/DT07

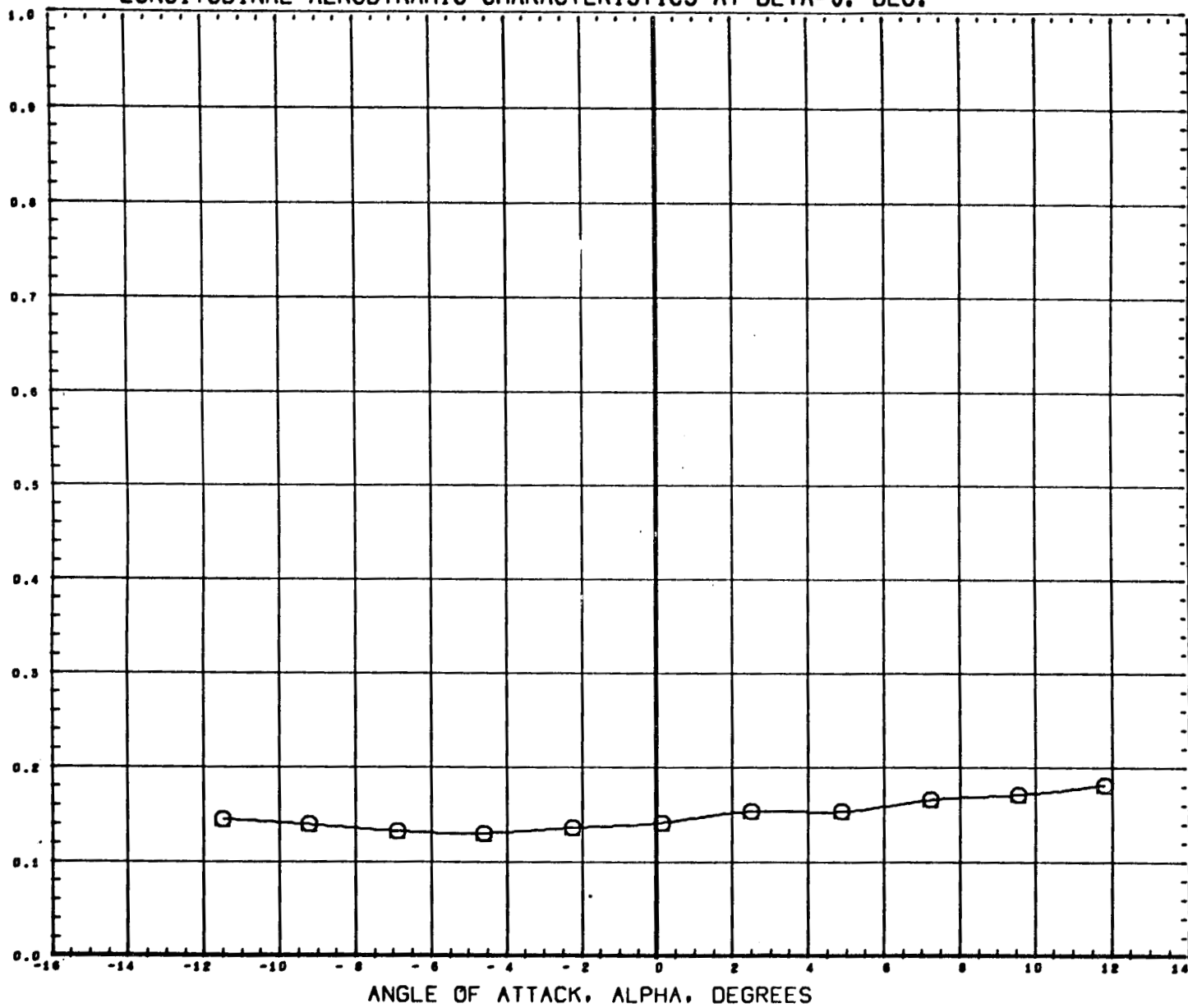
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC

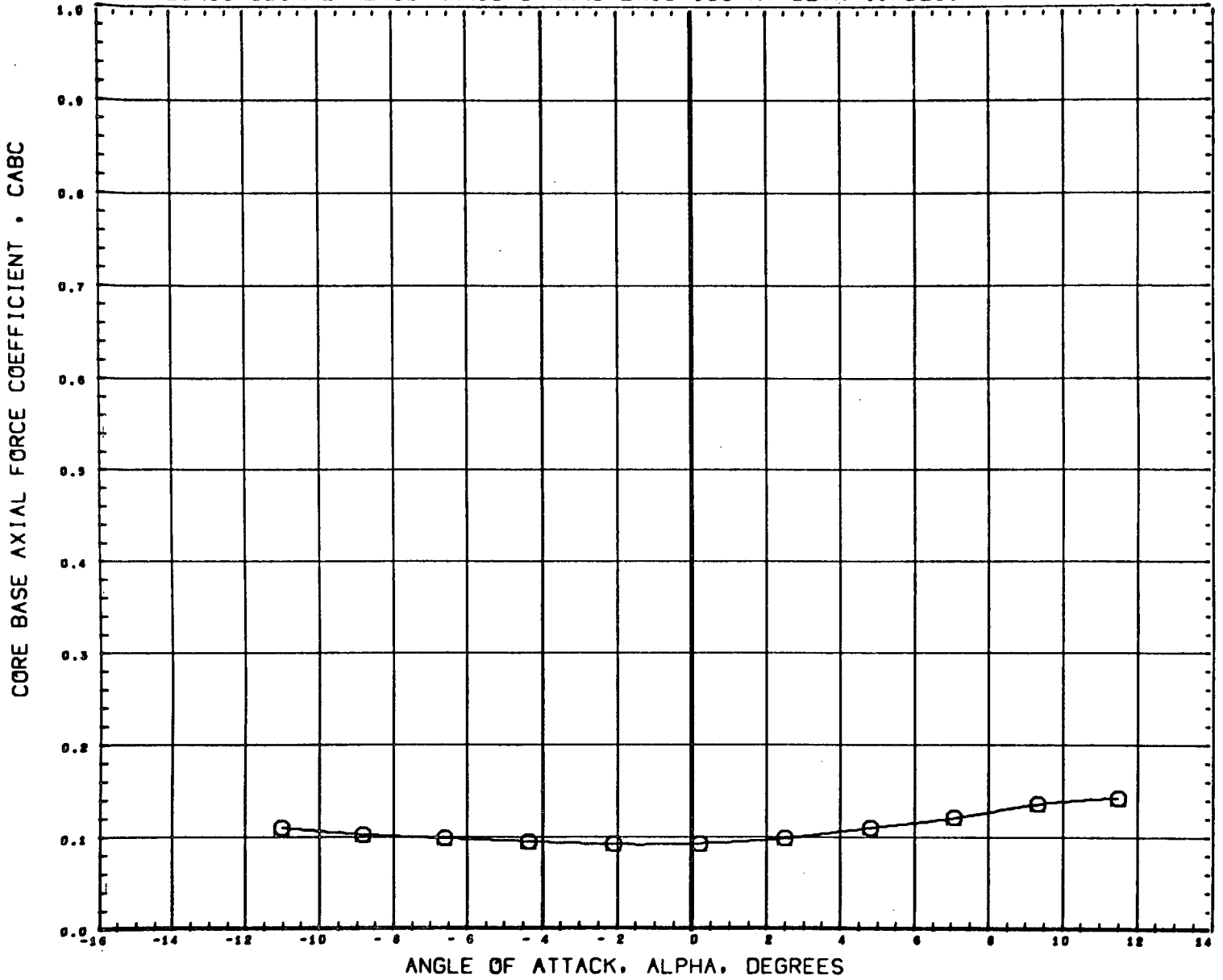


SYMBOL \circ MACH 1.465 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

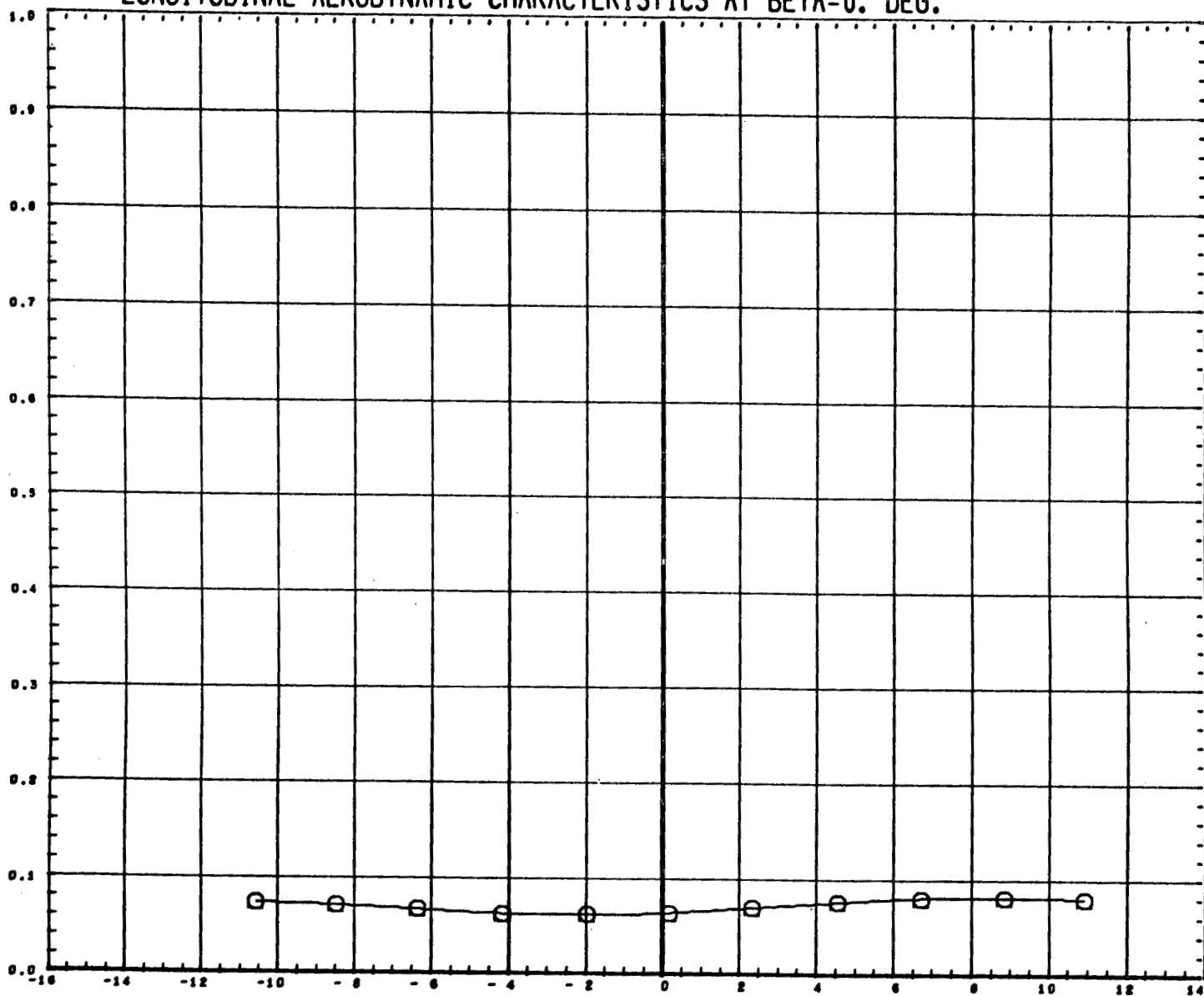


SYMBOL MACH PARAMETRIC VALUES
 O 1.984 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



ANGLE OF ATTACK, ALPHA, DEGREES

MACH 2.740
 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 30 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

ISFC TWT 505 T111L/DT07

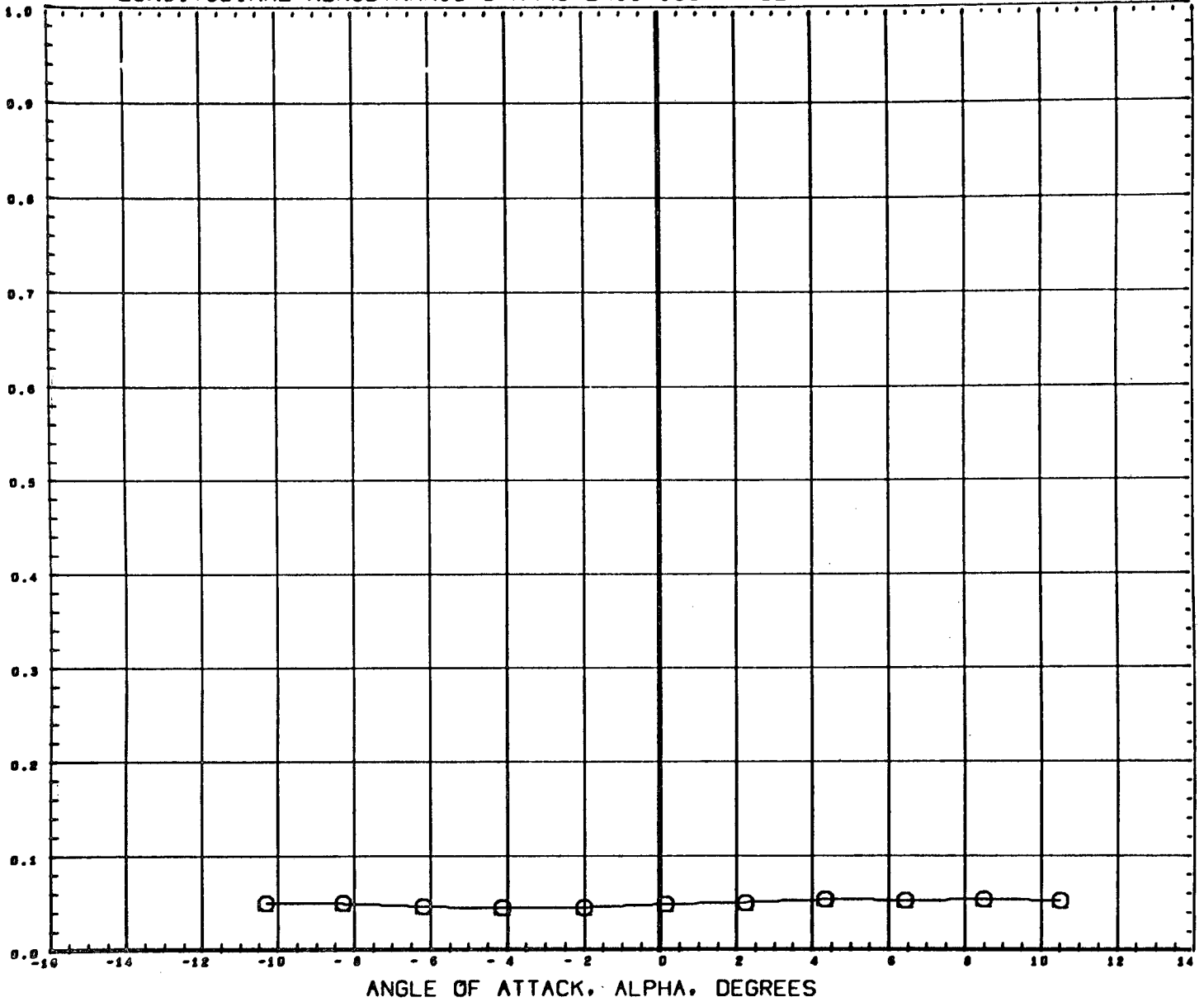
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

CORE BASE AXIAL FORCE COEFFICIENT, CABC



SYMBOL	MACH	BETA	PARAMETRIC VALUES
○	9.480		0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V9E

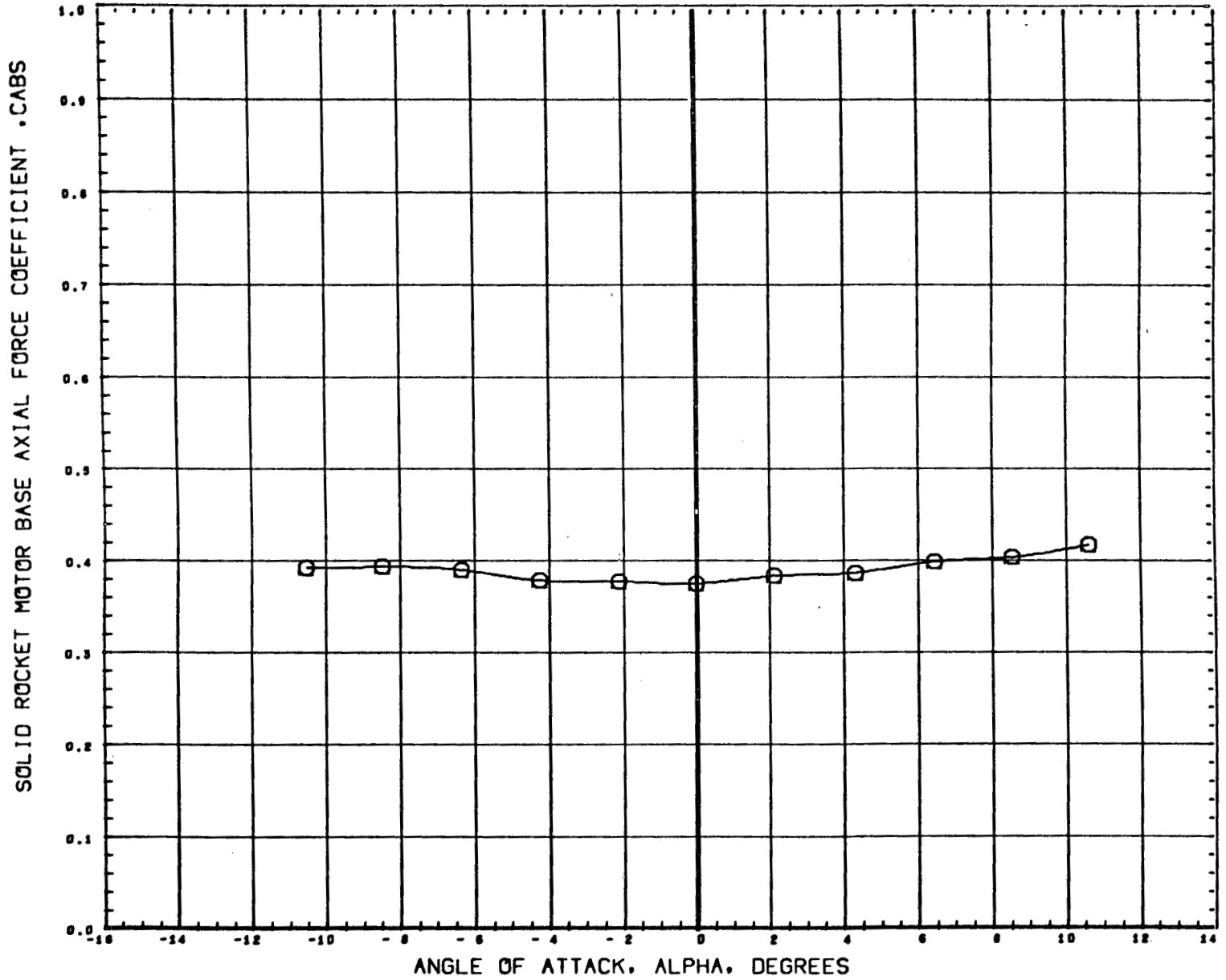
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

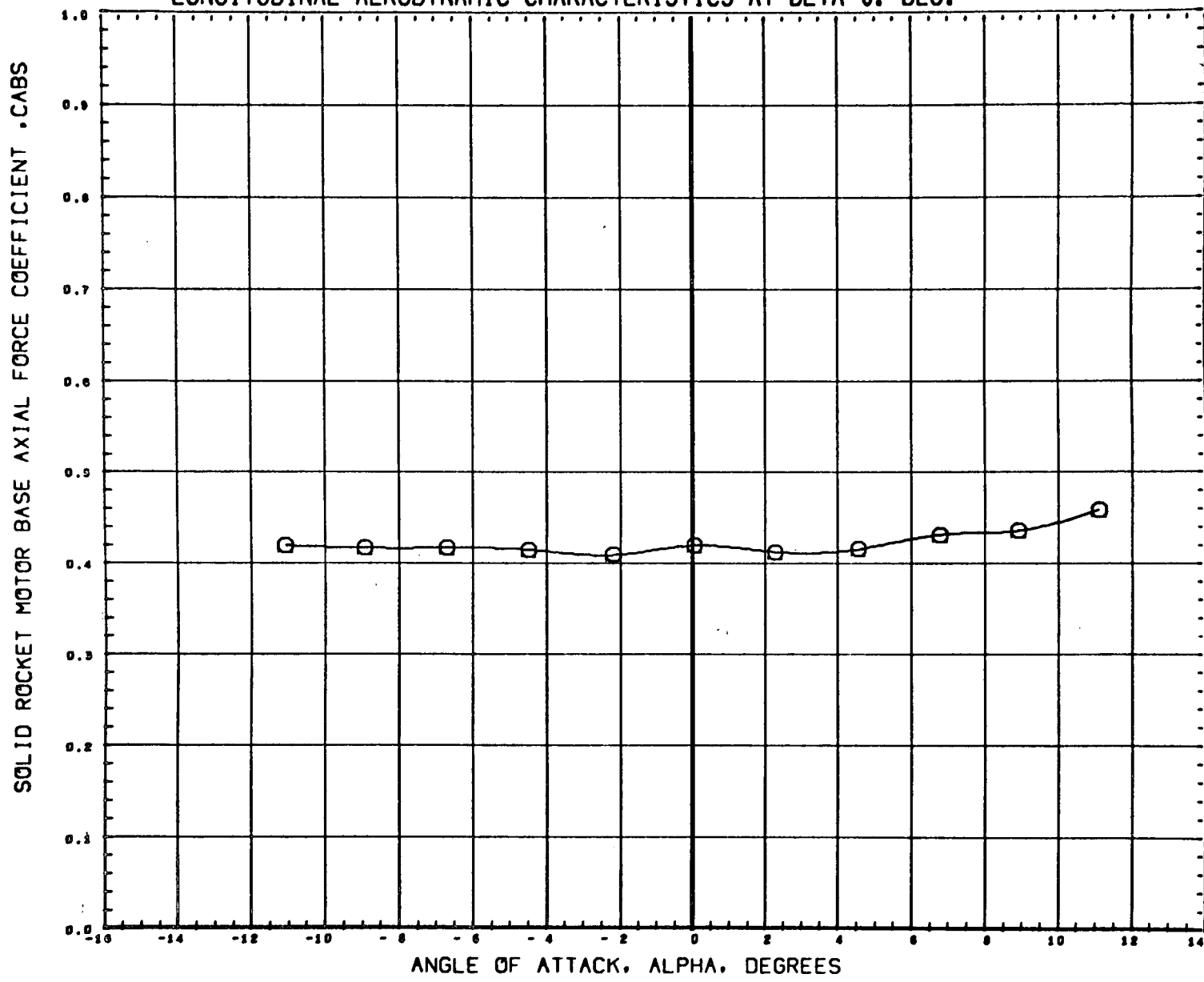


SYMBOL \square MACH 0.998 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.901 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.6240 INCHES
 BREF 0.6240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

MSFC TWT 505 T111L/DT07

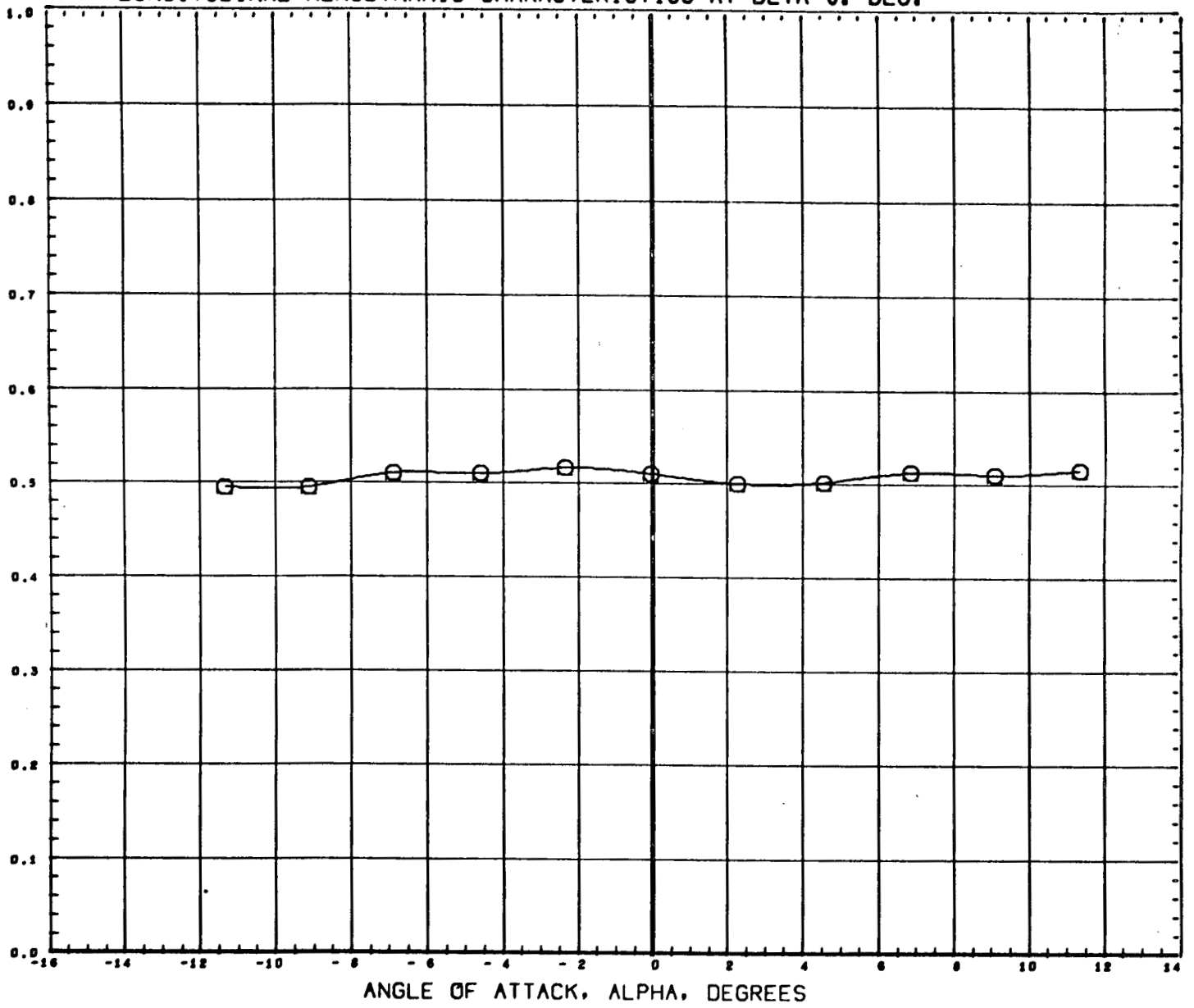
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT, CABS



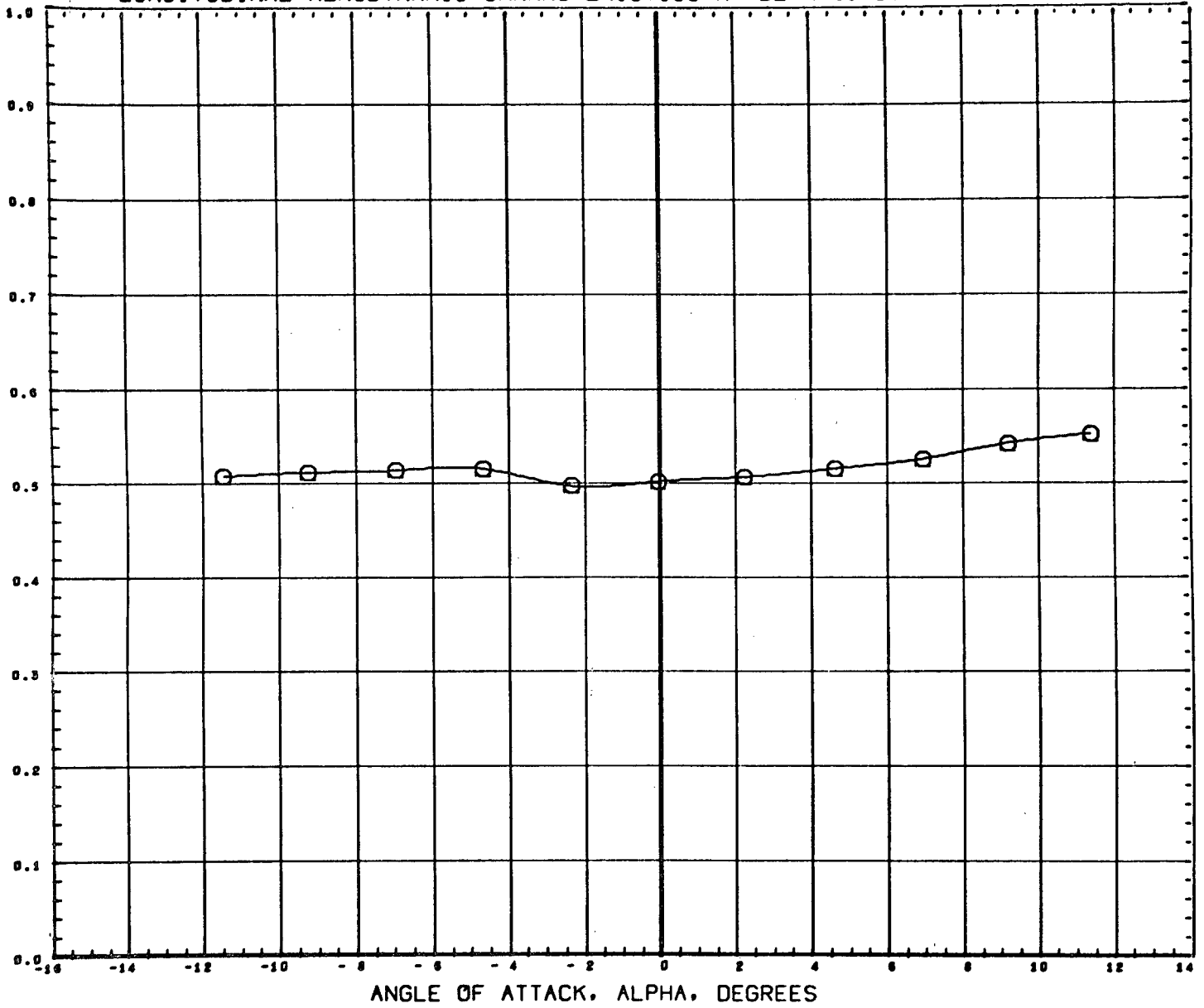
SYMBOL \bigcirc MACH 0.995 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT, CABS



SYMBOL \circ MACH 1.101 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

MSFC TWT 505 T111L/DT07

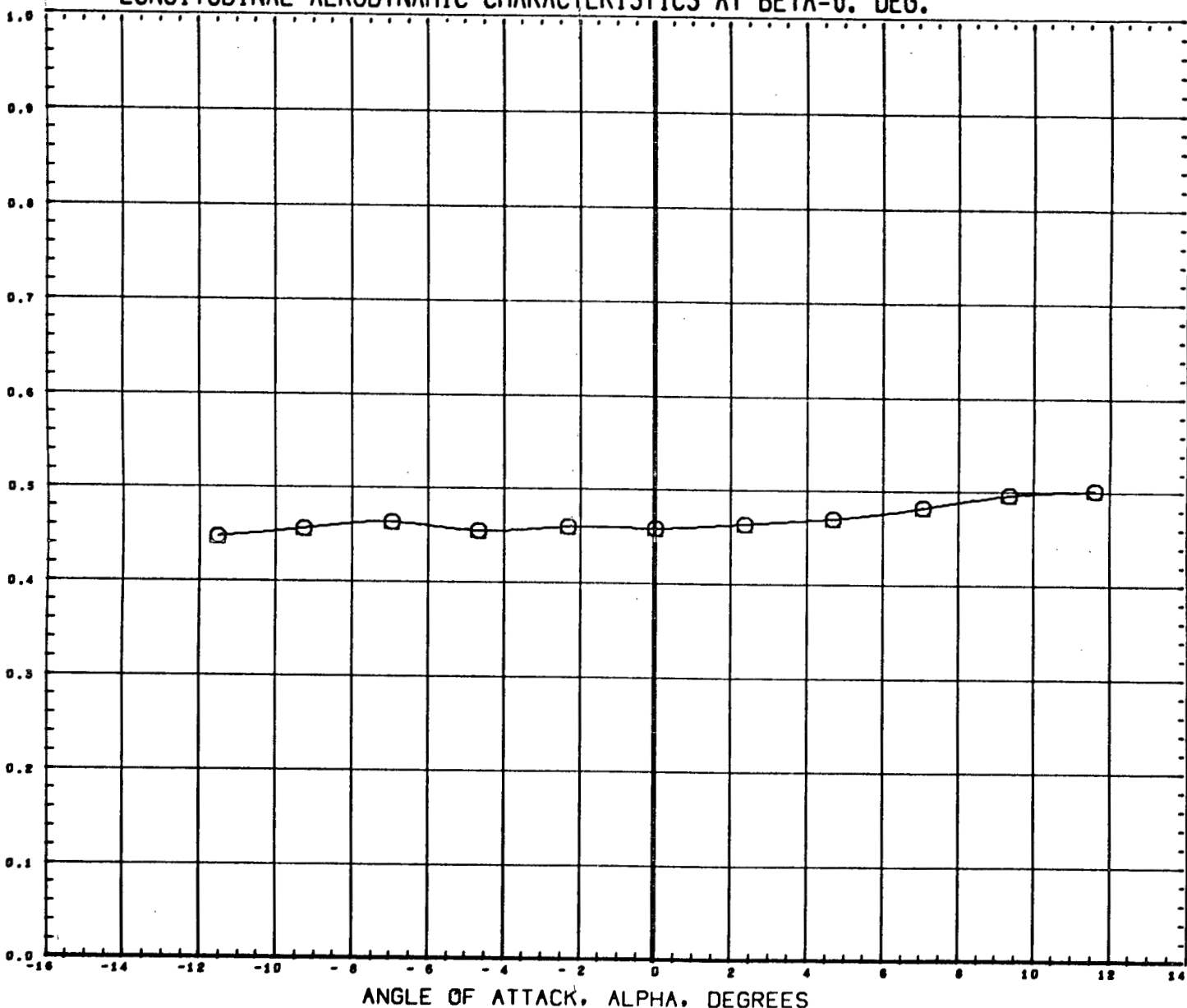
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT .CABS



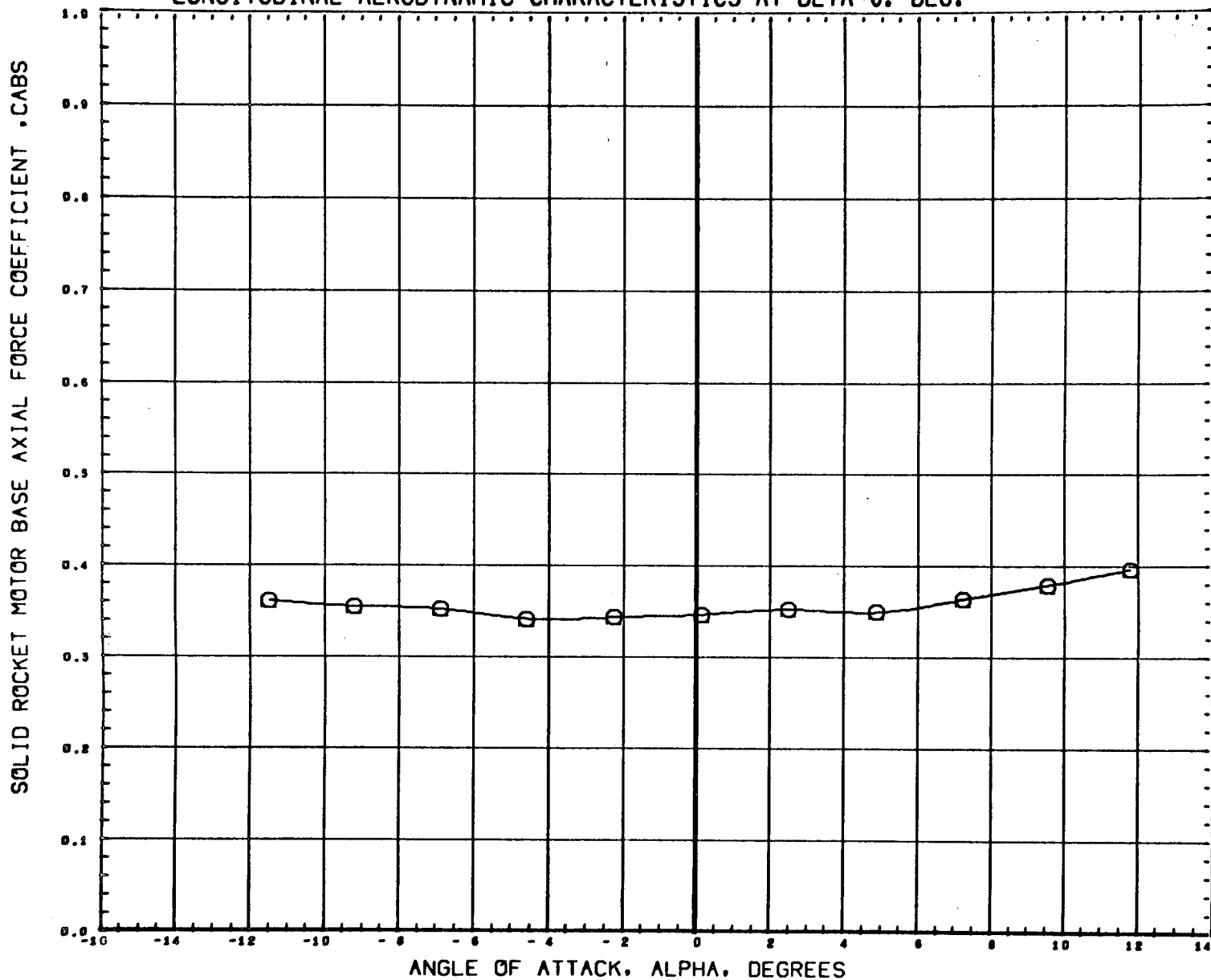
SYMBOL \square MACH 1.202 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION

SREF	0.5340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XWRP	2.9170	IN TII
YWRP	0.0000	CORE C
ZWRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 1.403 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

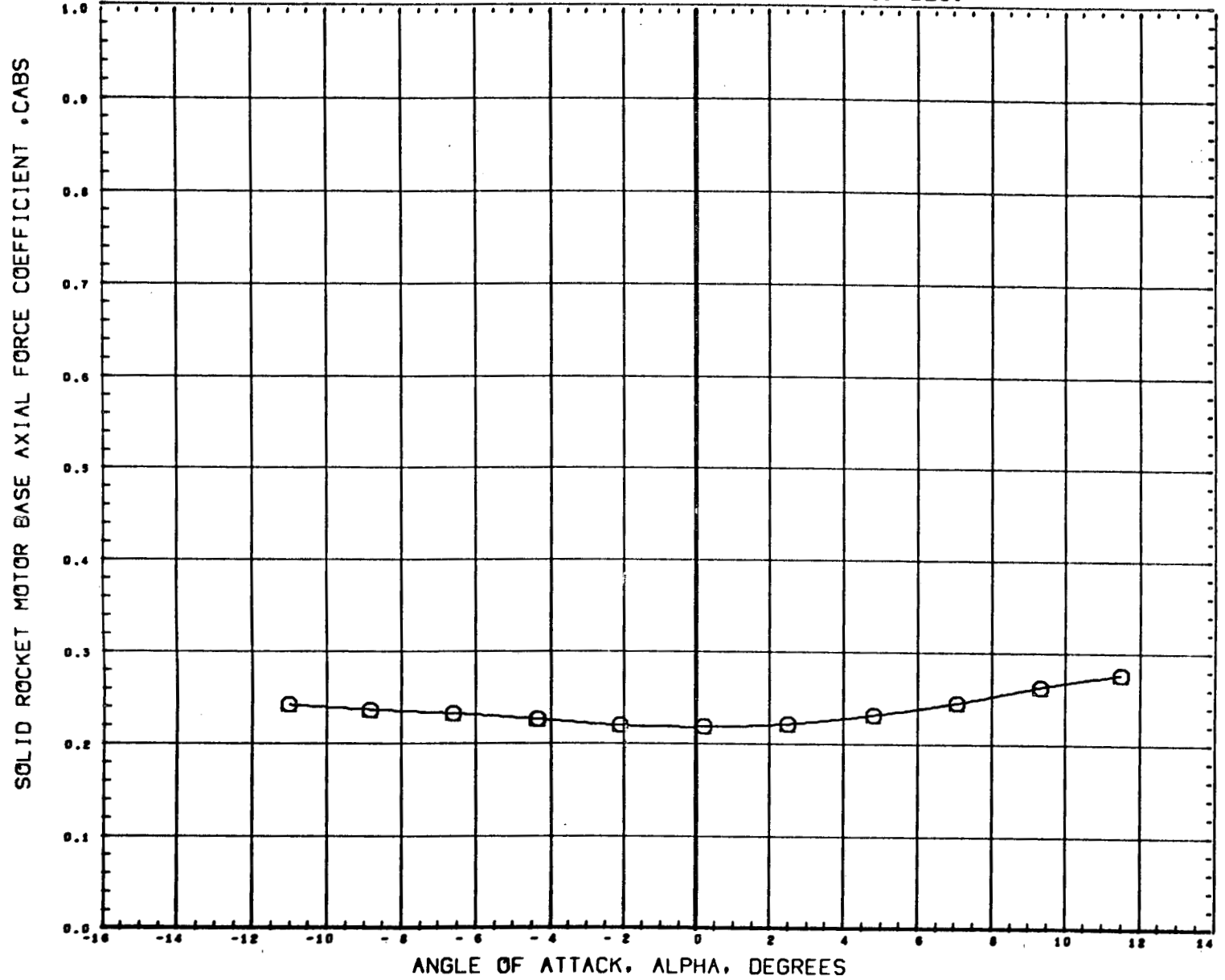
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



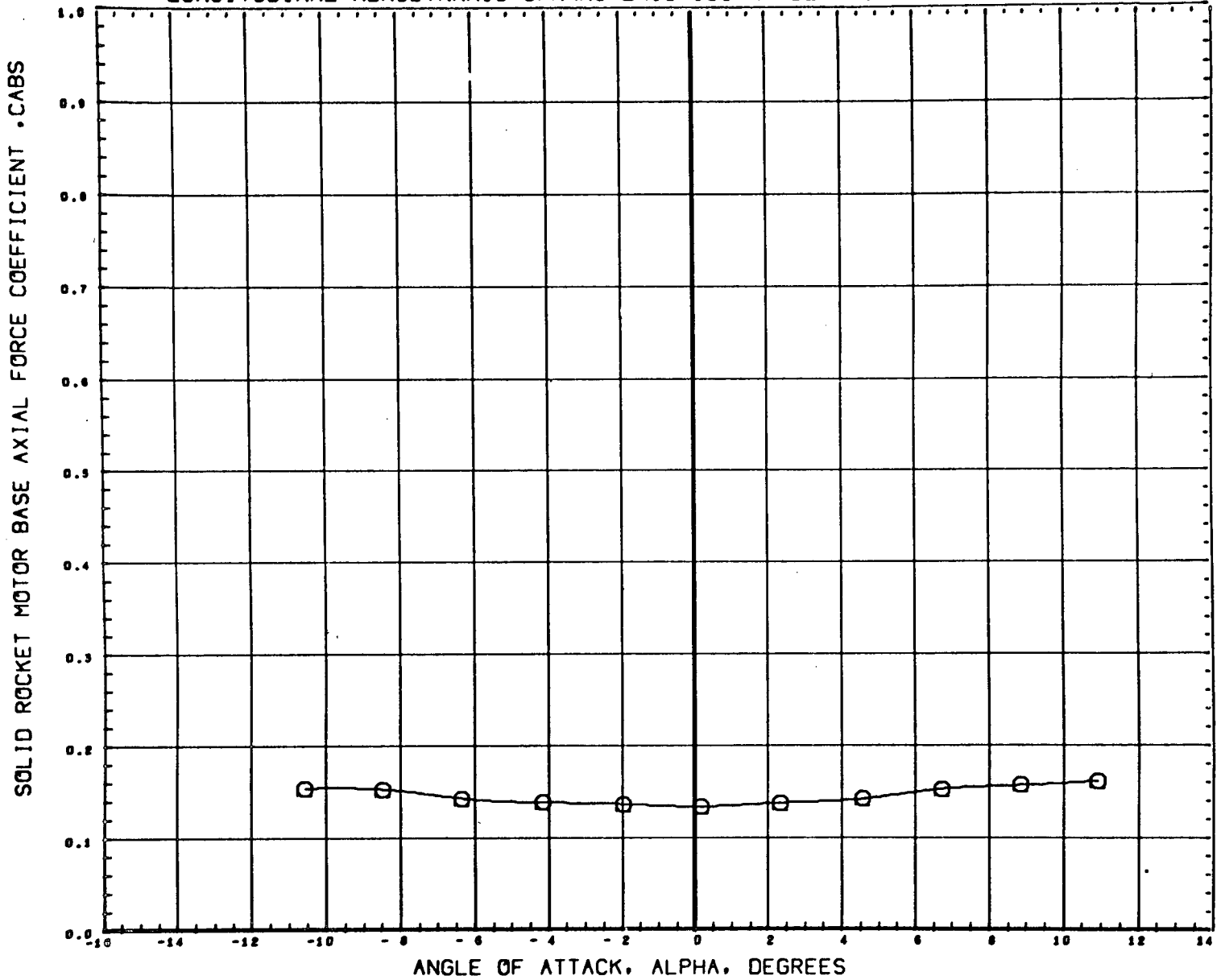
SYMBOL \circ MACH 1.964 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

90

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH PARAMETRIC VALUES
 O 2.740 DELTA 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V#E

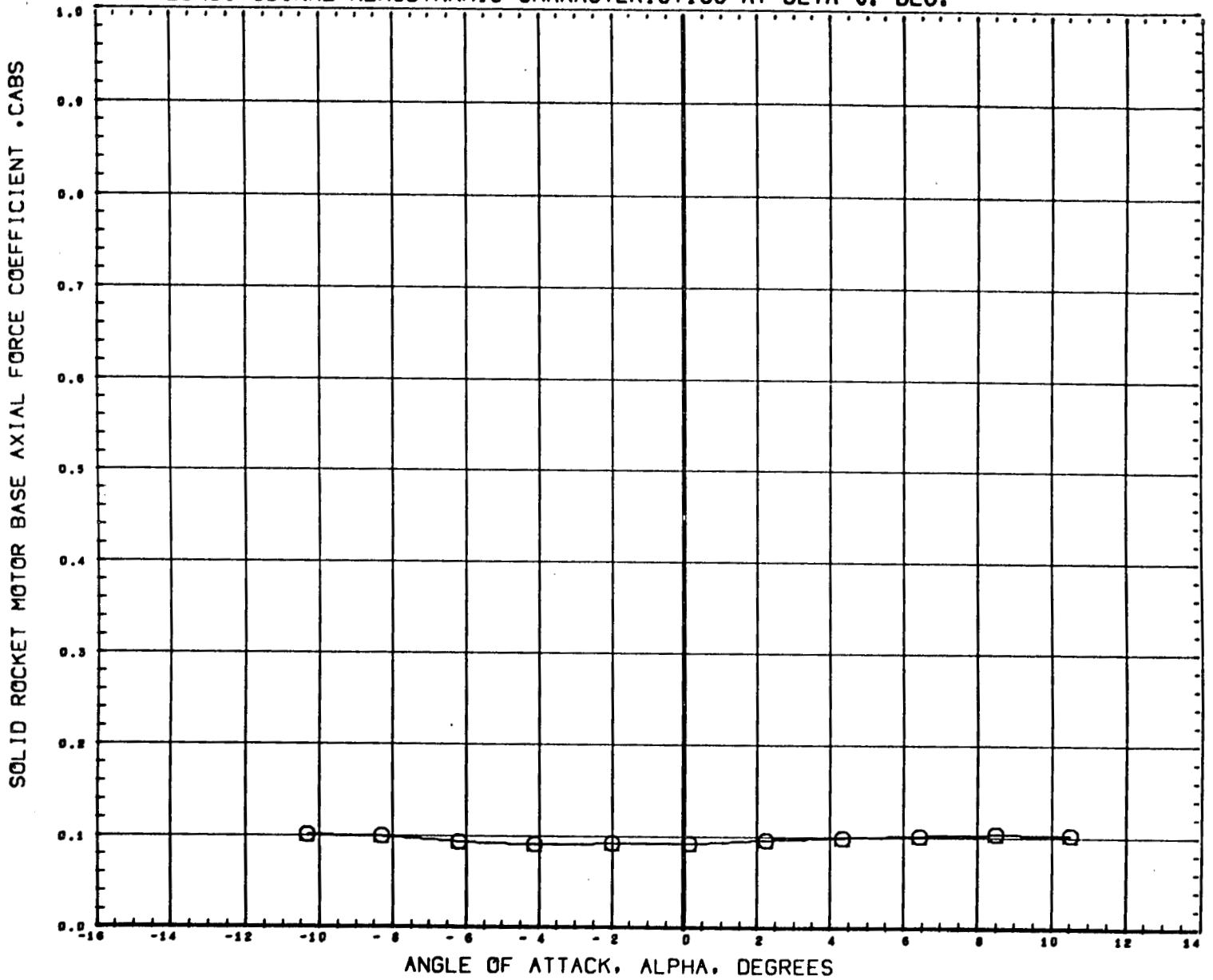
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

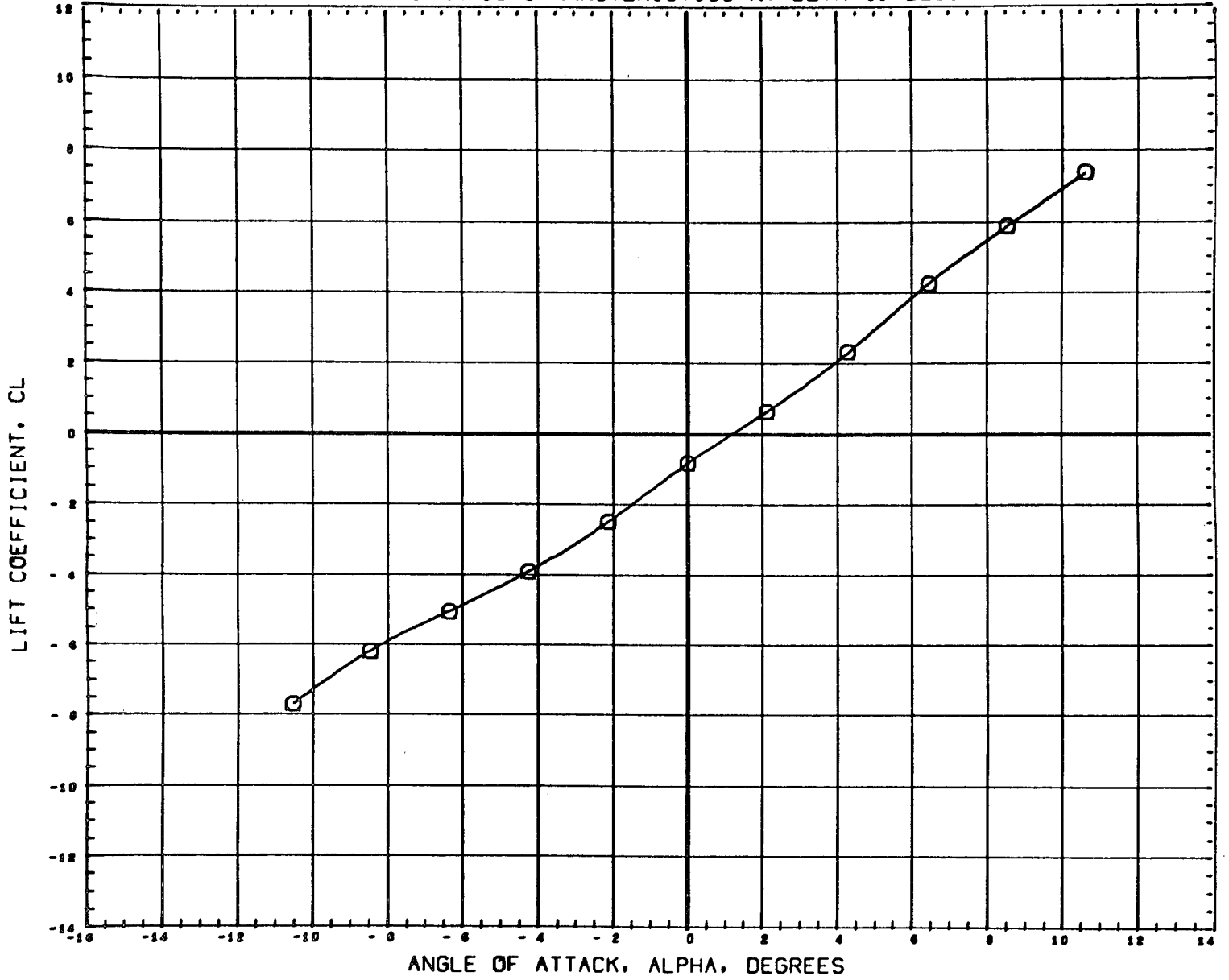


SYMBOL \circ MACH 3.480 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 90 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

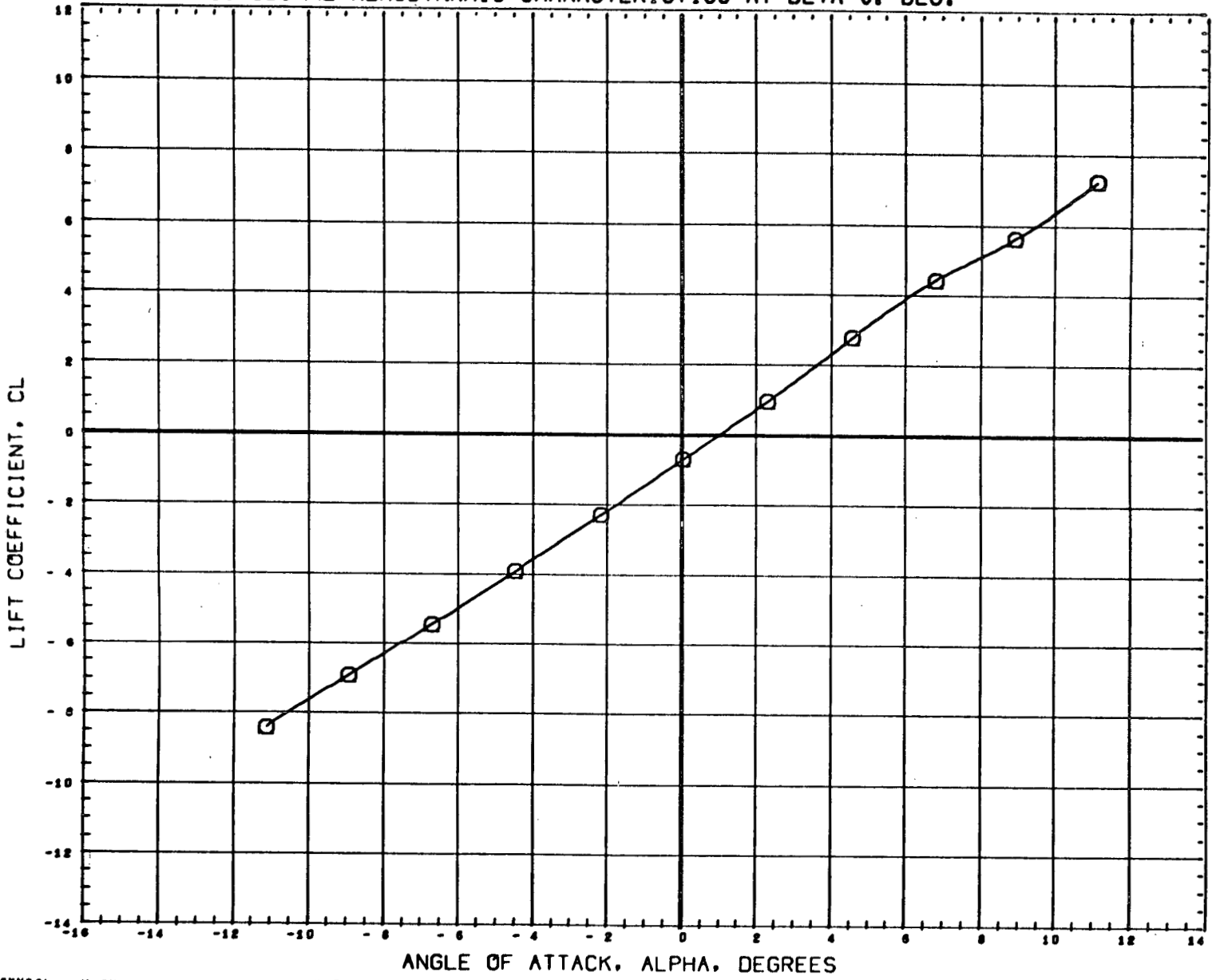


SYMBOL \circ MACH 0.598 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XWRP 2.9170 IN TII
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

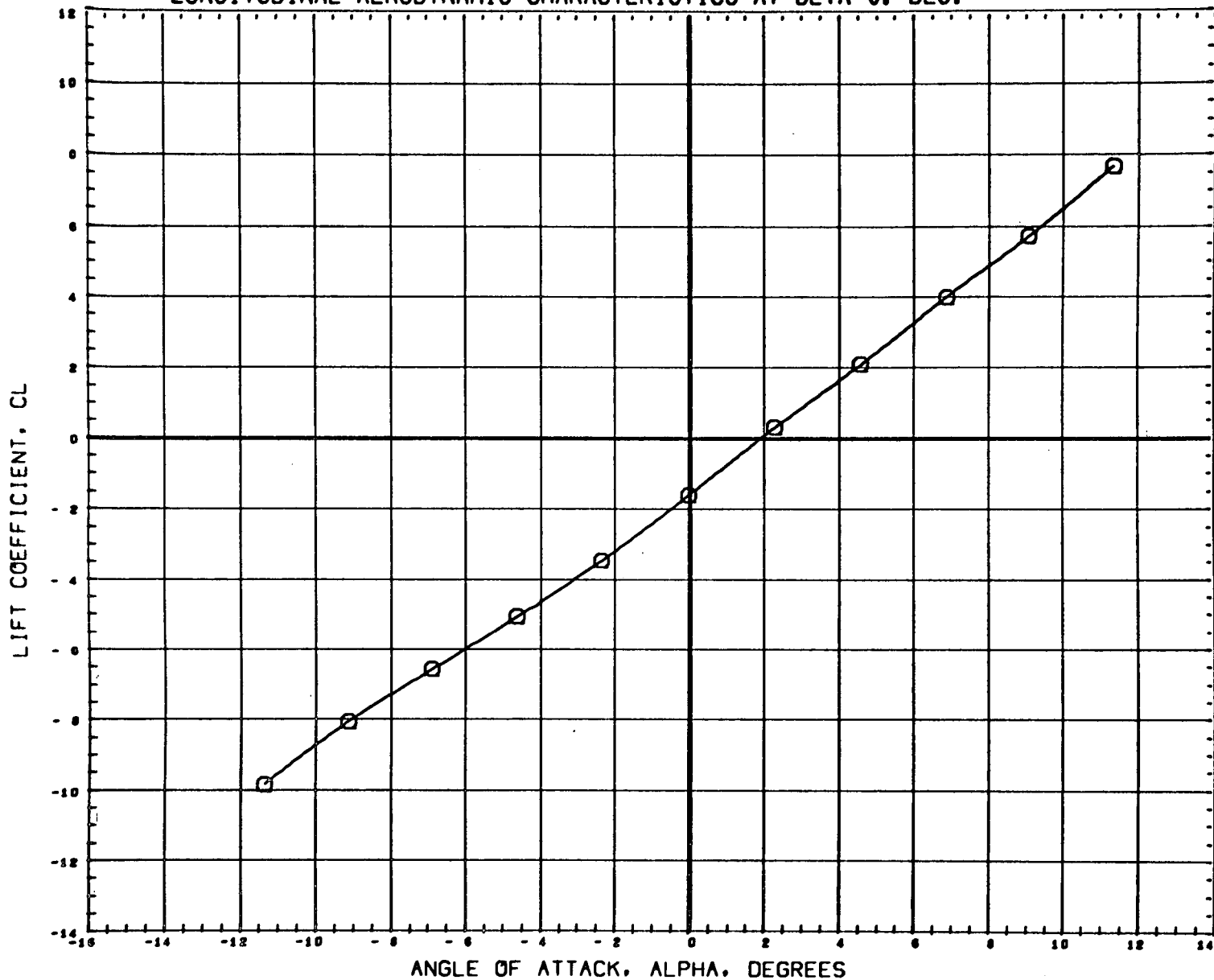


SYMBOL \square MACH 0.901 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.099 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

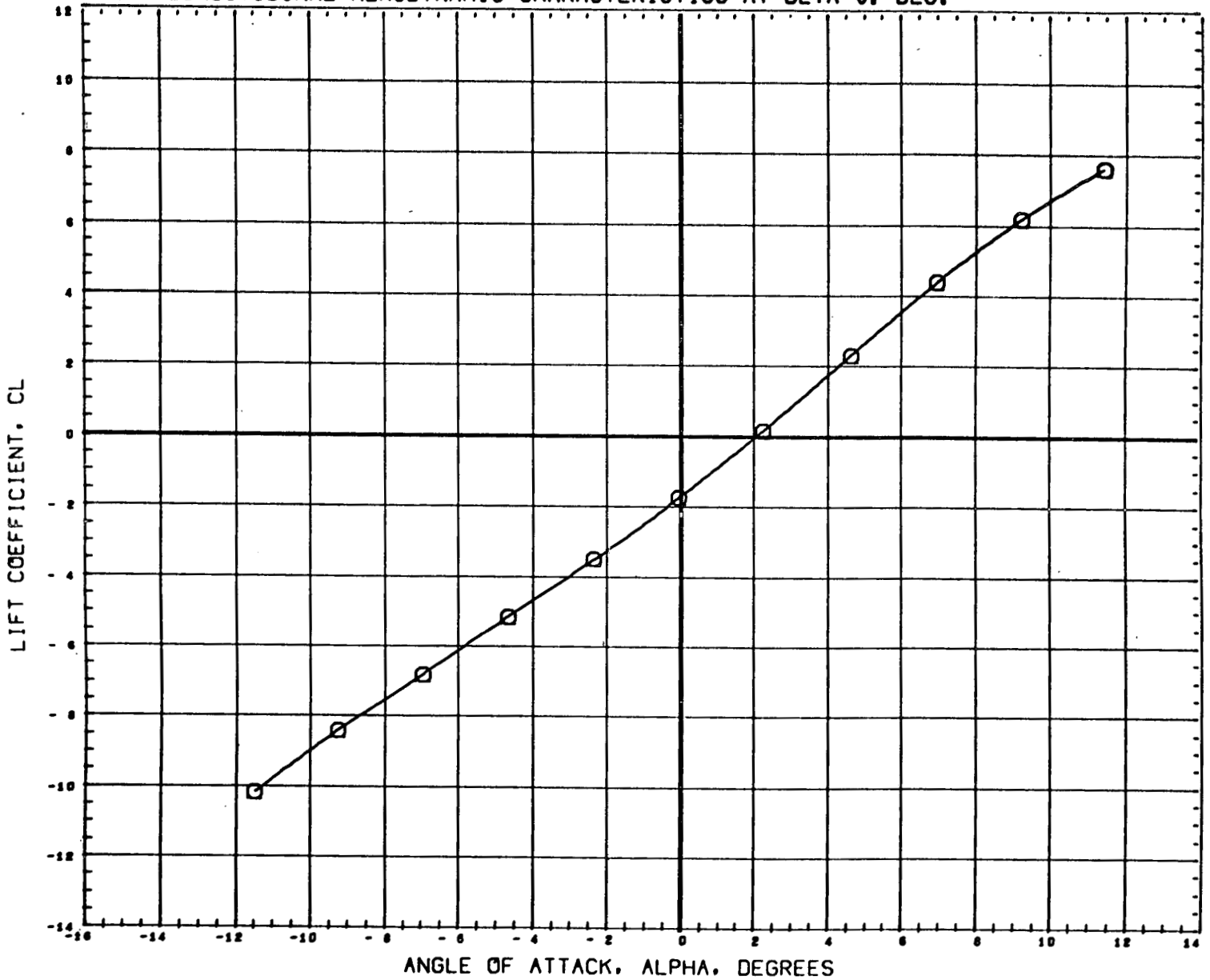
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

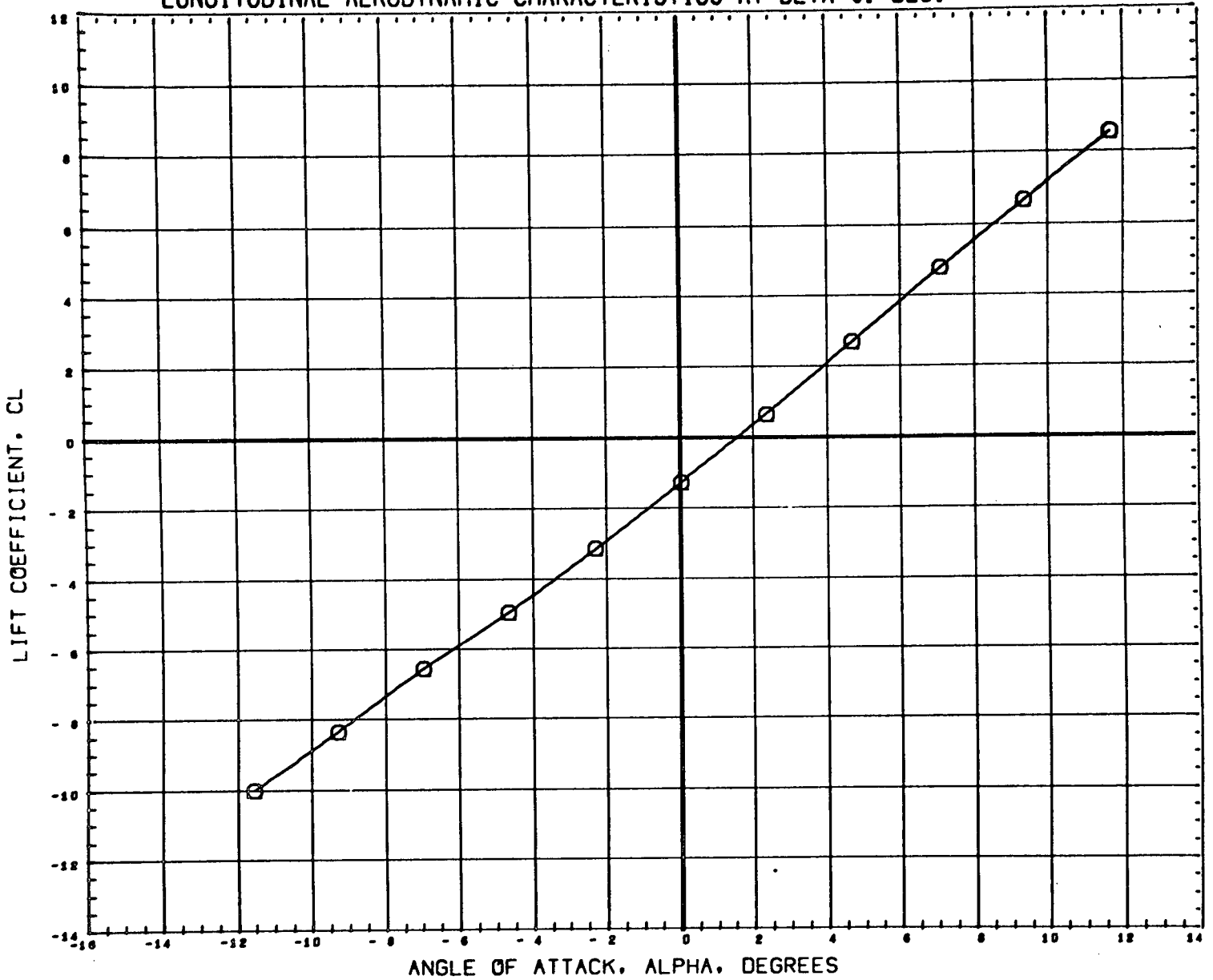


SYMBOL \square MACH 1.101 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TTI
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

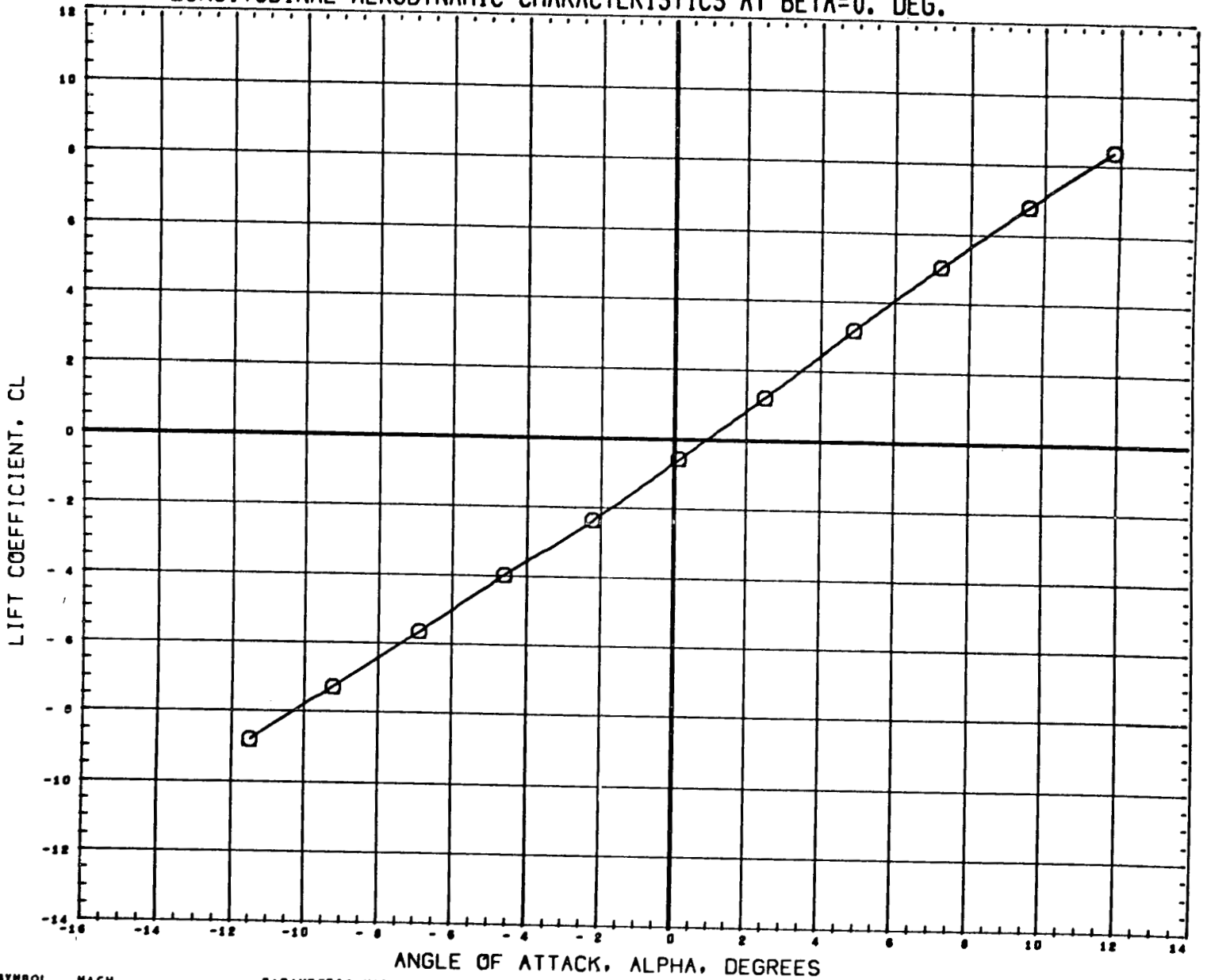


SYMBOL \circ MACH 1.202 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.463 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
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 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

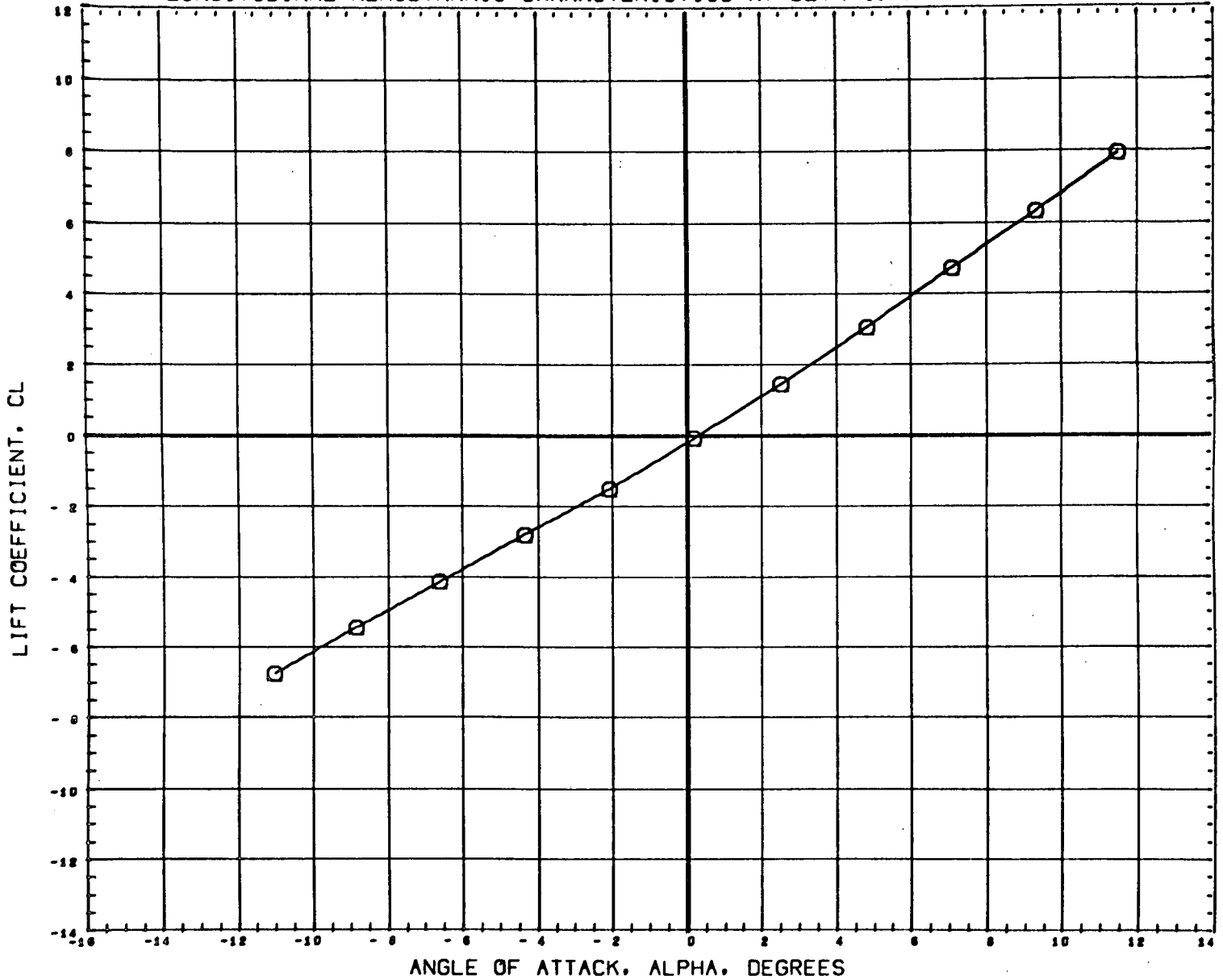
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

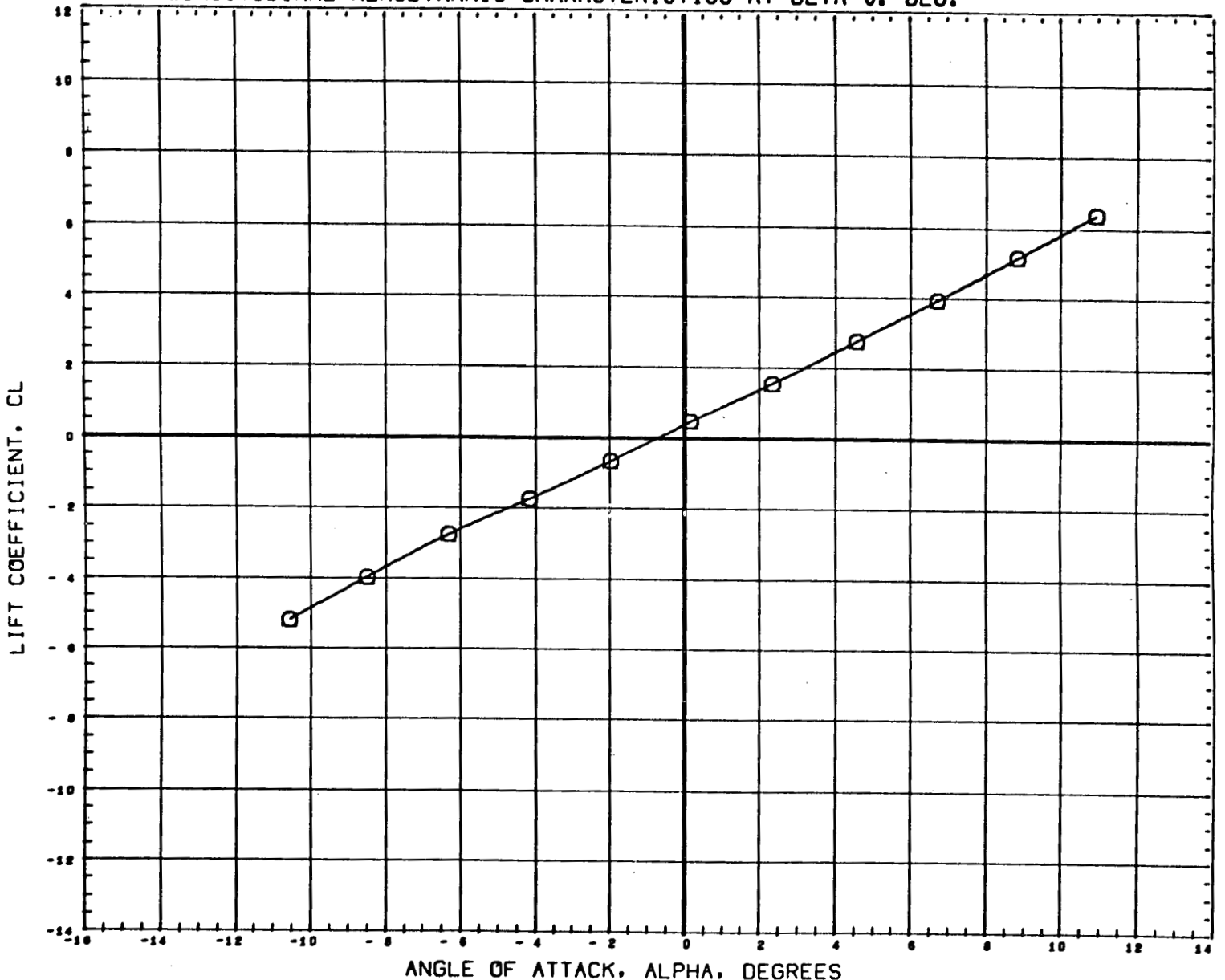


SYMBOL \square MACH 1.984 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

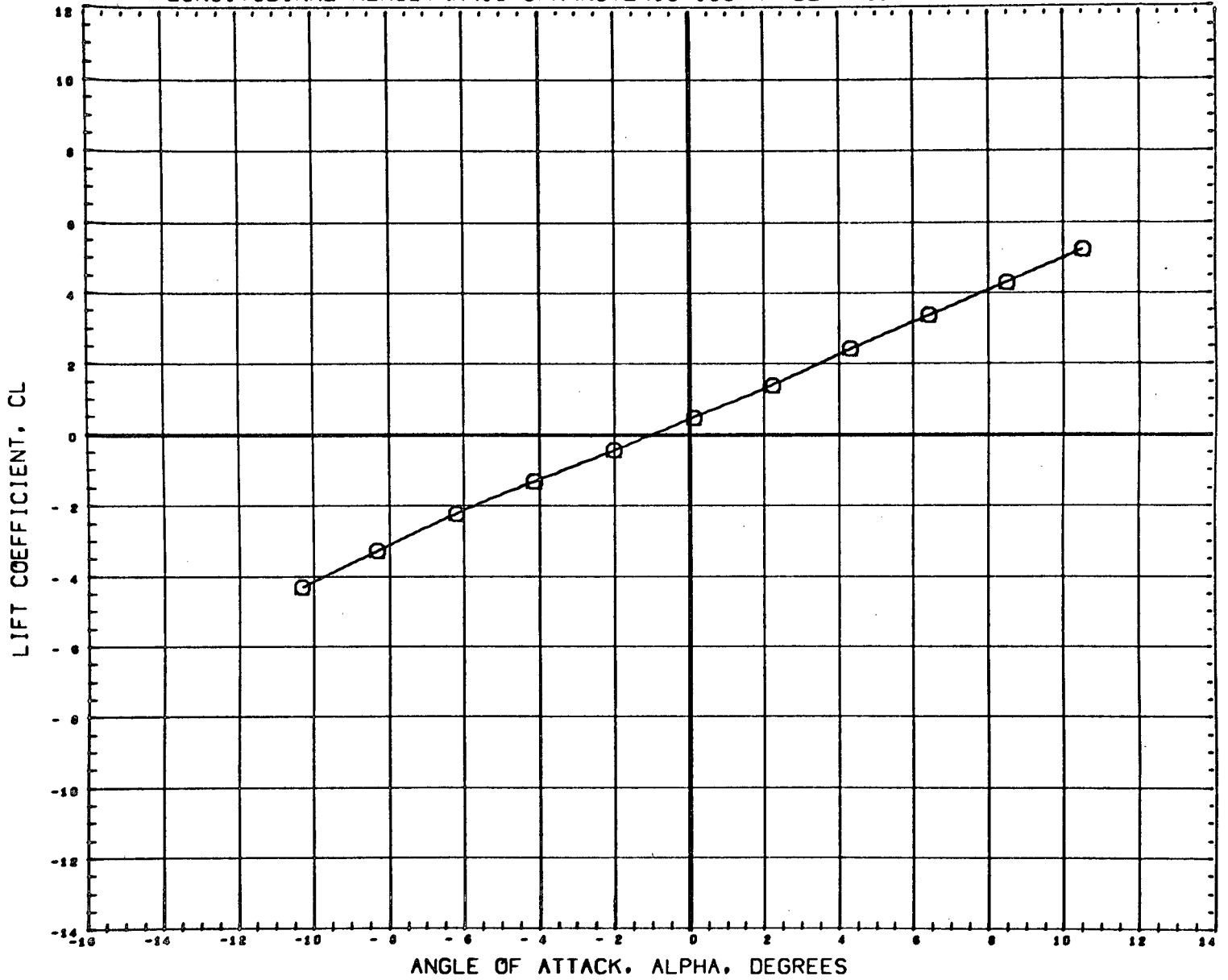


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

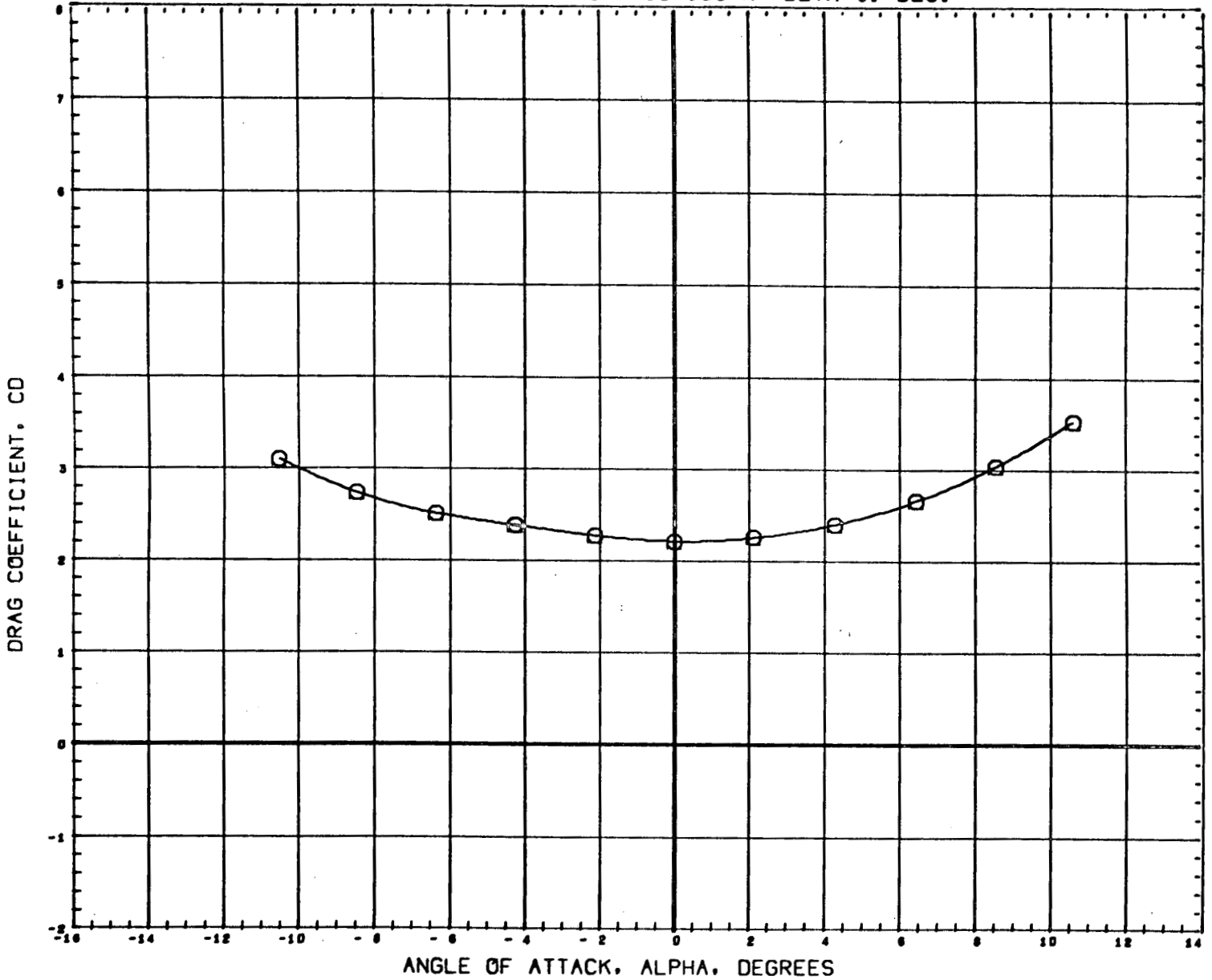
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

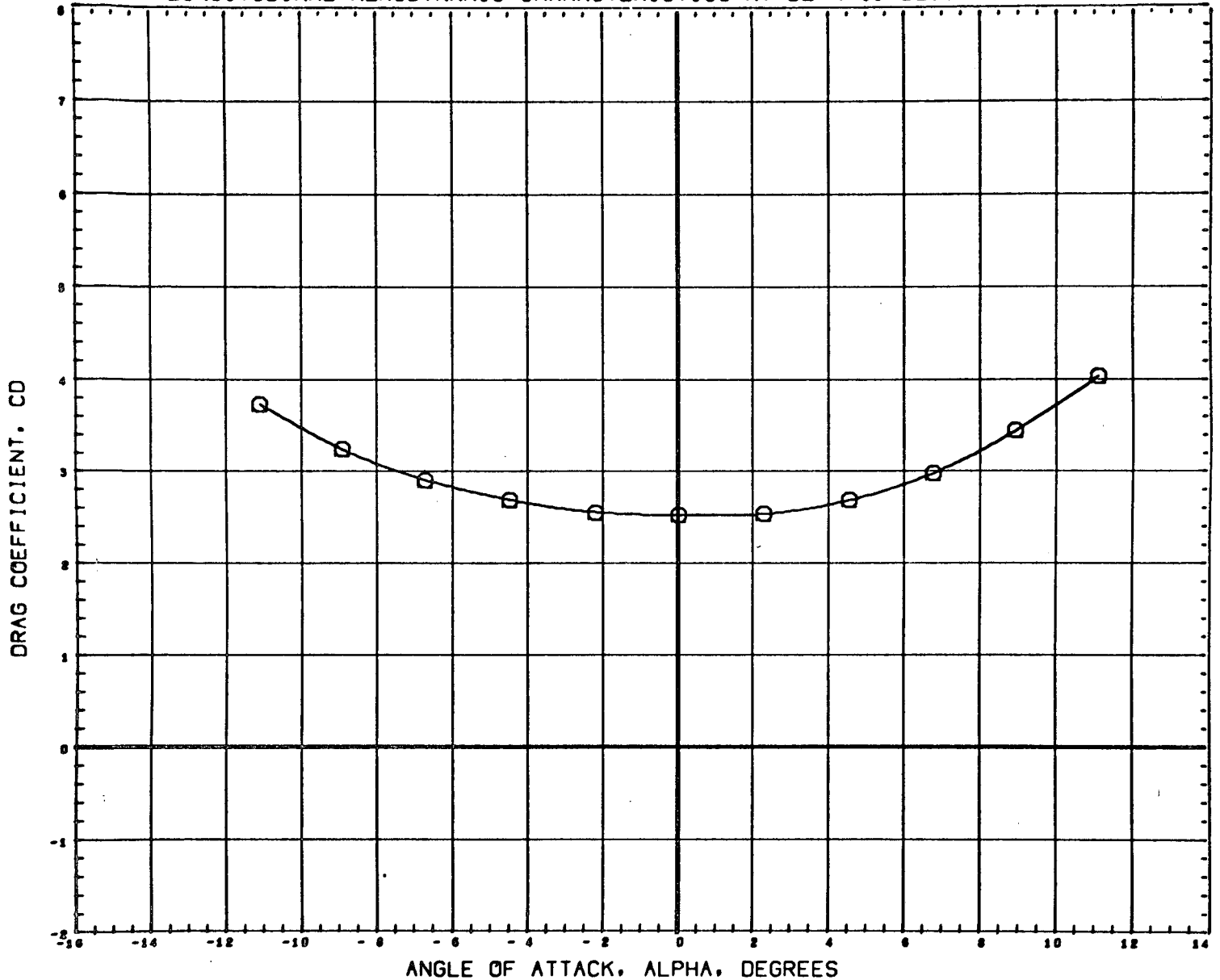


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.998 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0840 INCHES
 BREF 0.0840 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

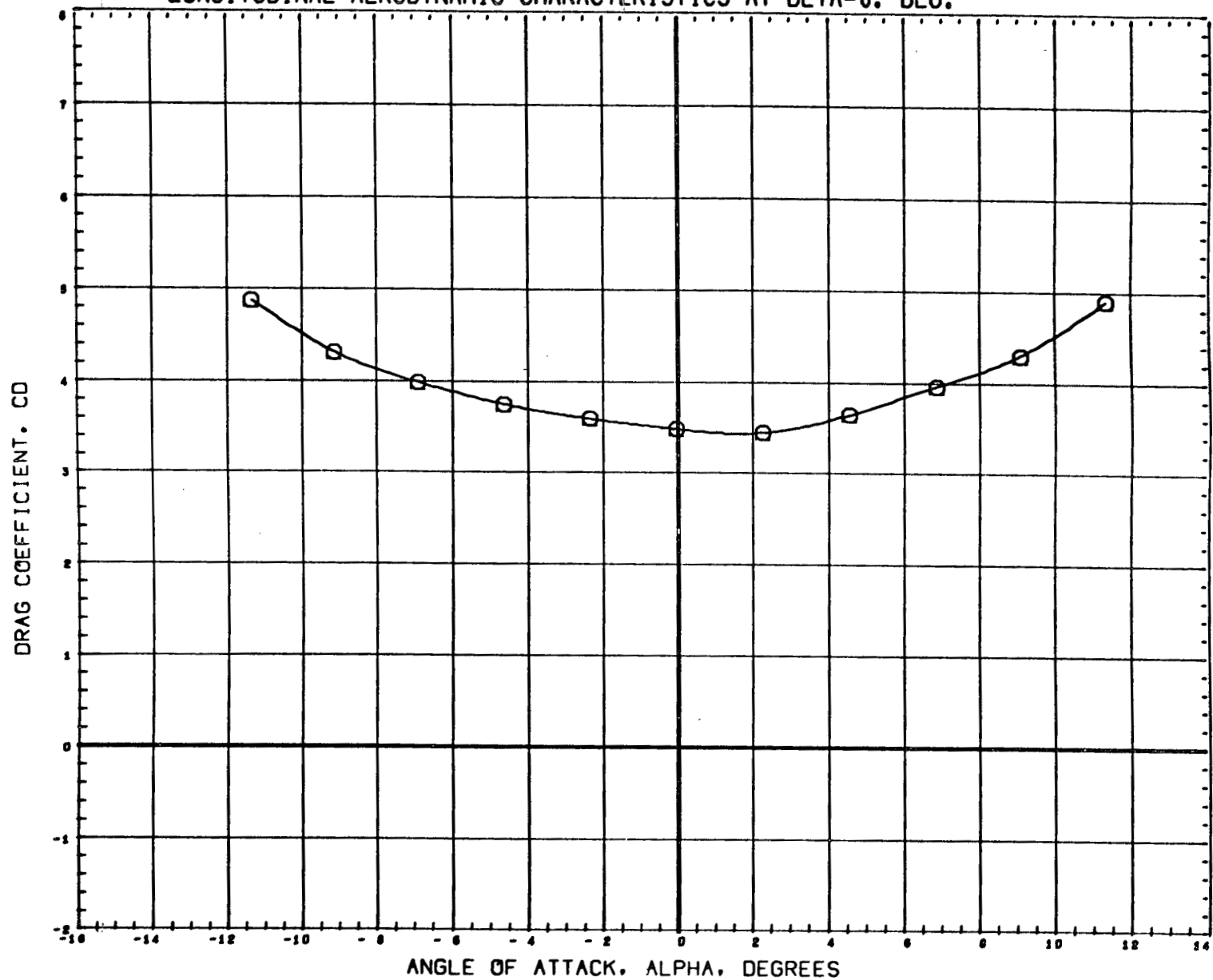


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.901 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE VGE

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

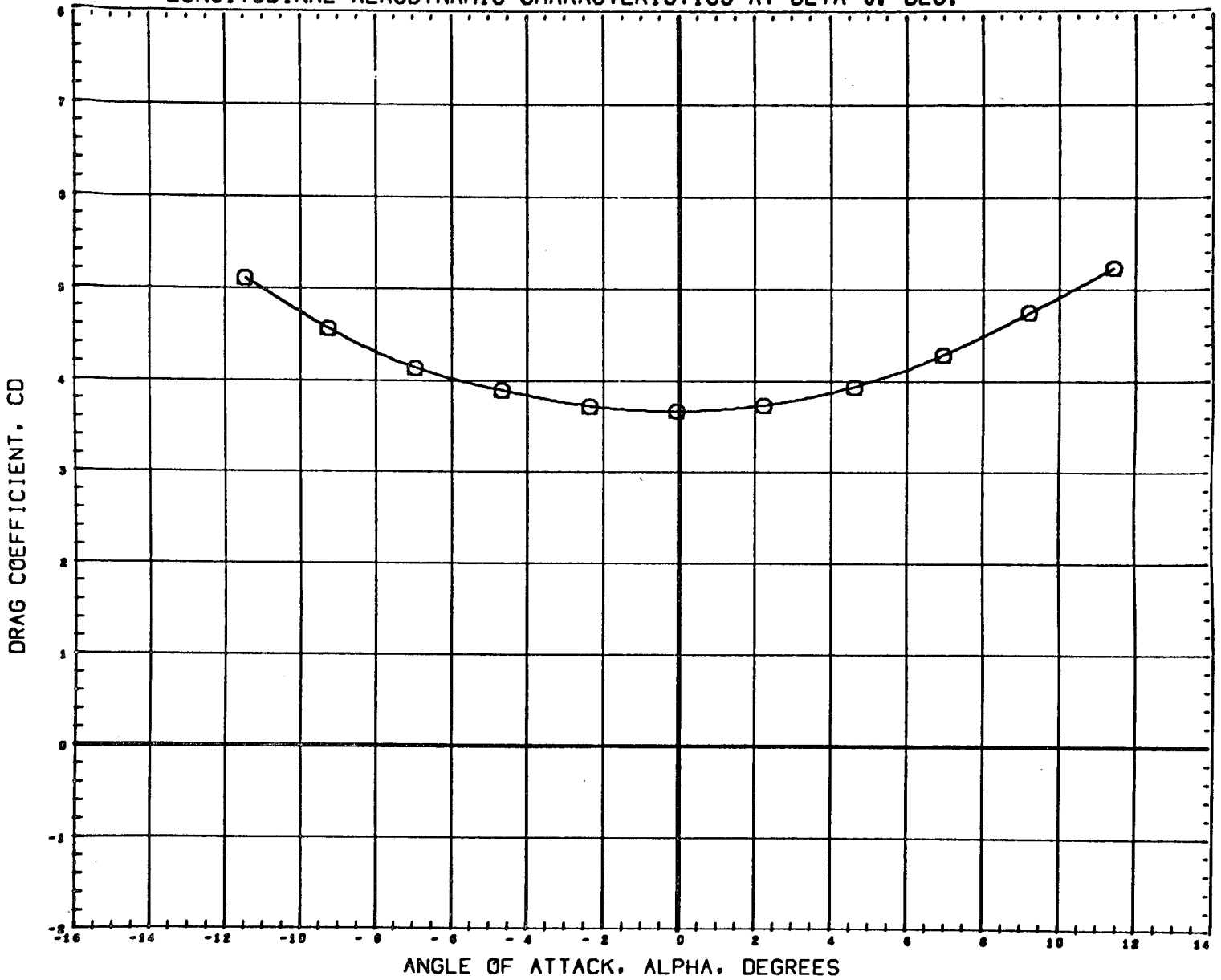


SYMBOL \circ MACH 0.995 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.501 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

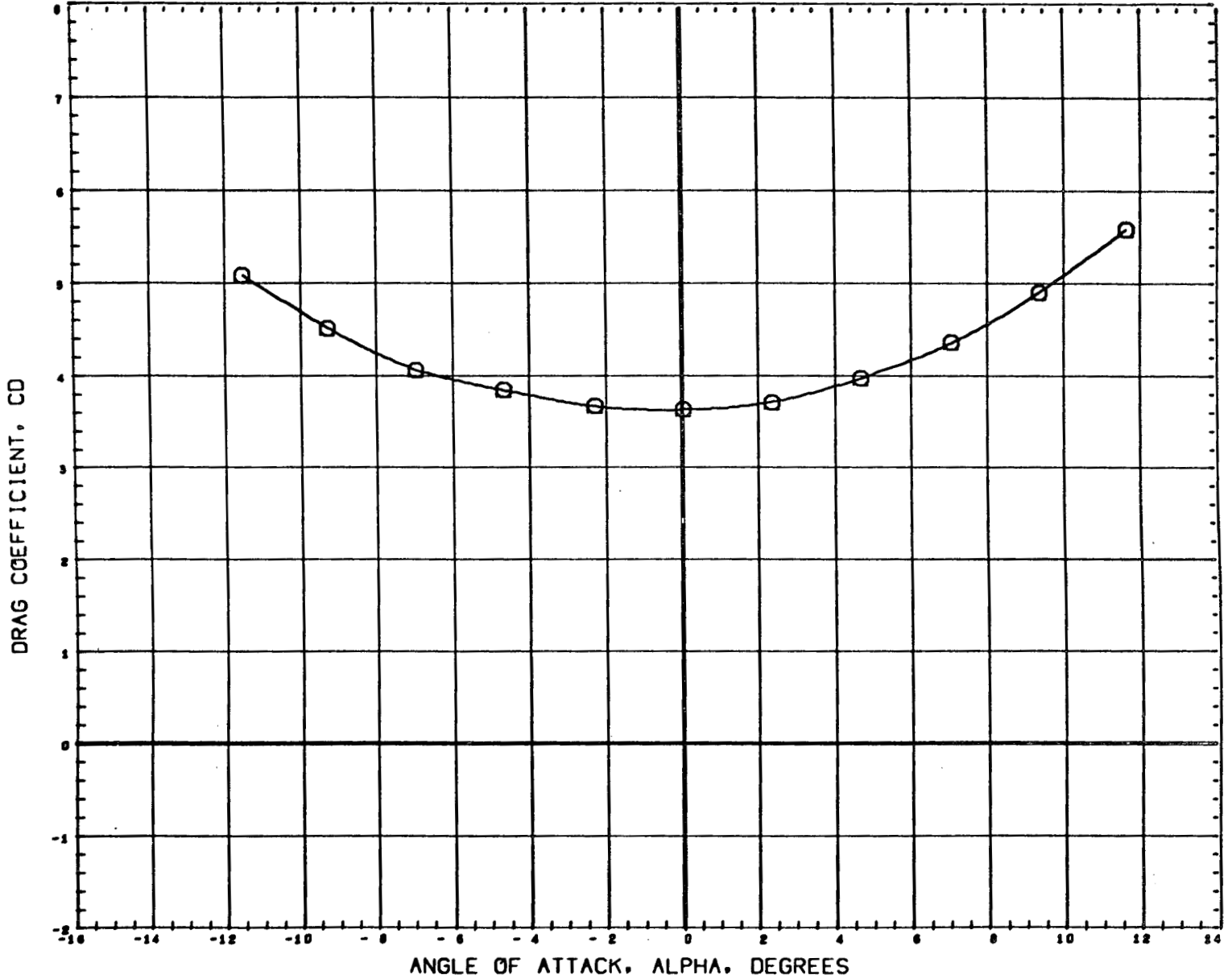
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.202 0.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.403 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

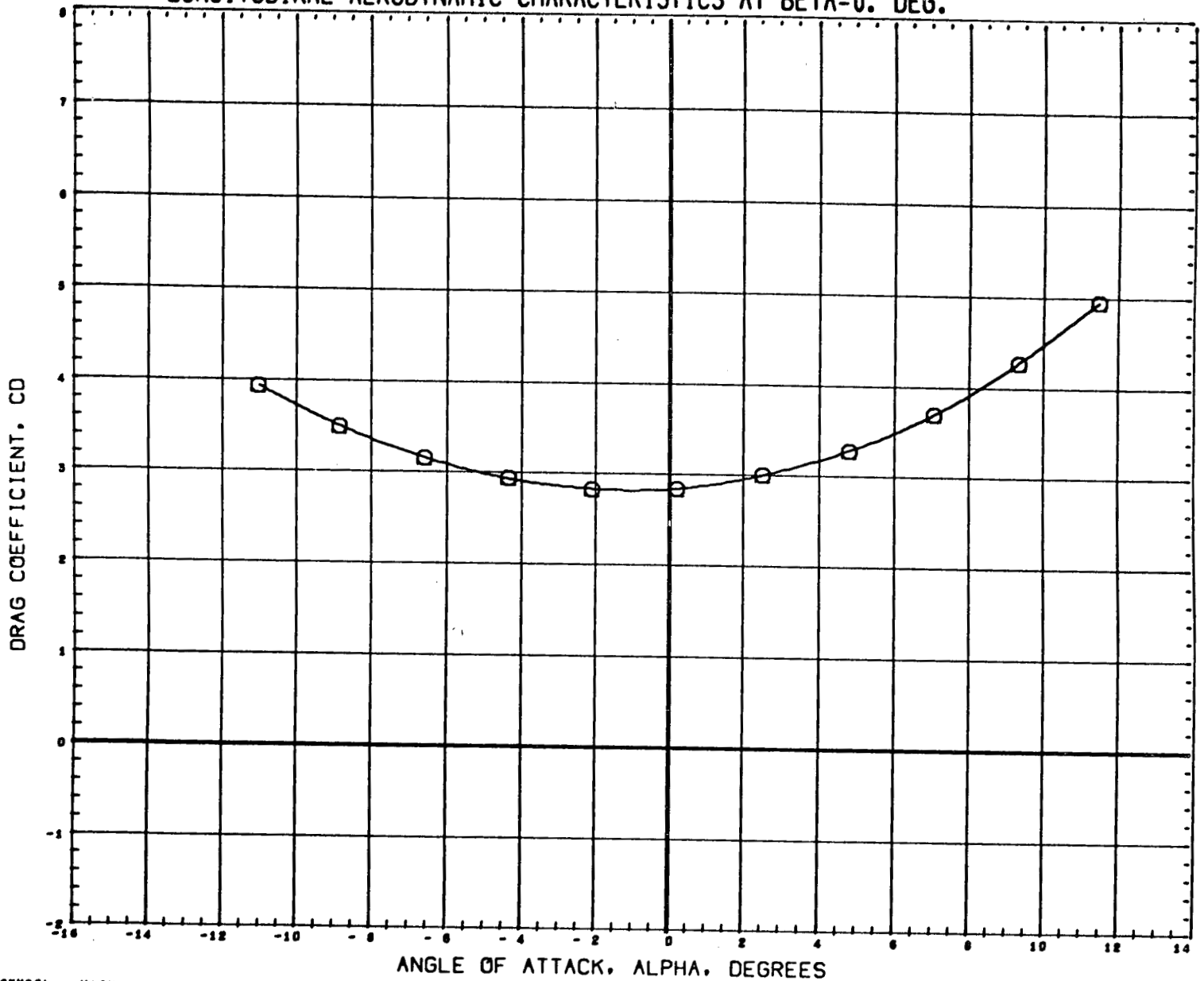
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MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

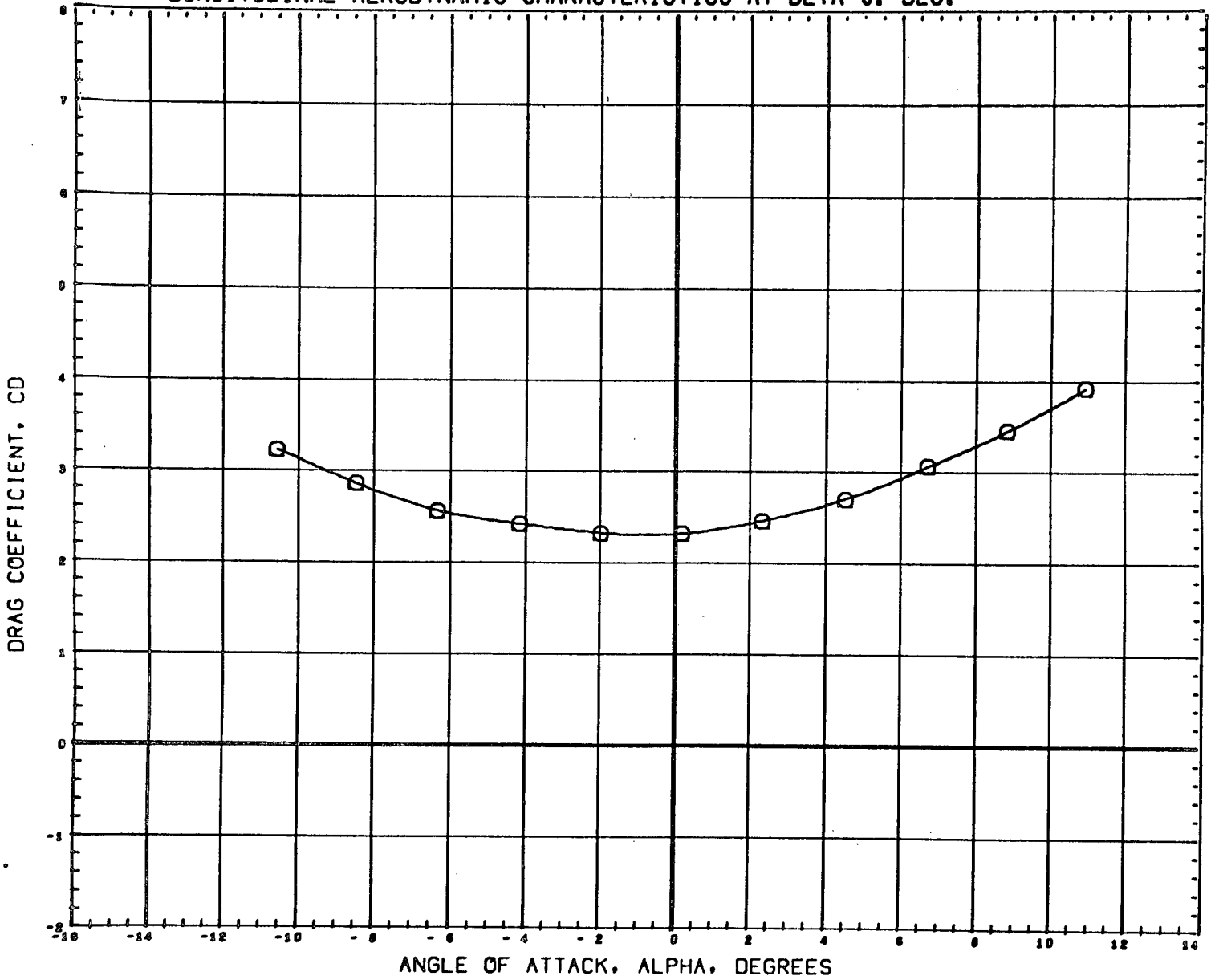


SYMBOL \circ MACH 1.964 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V8E

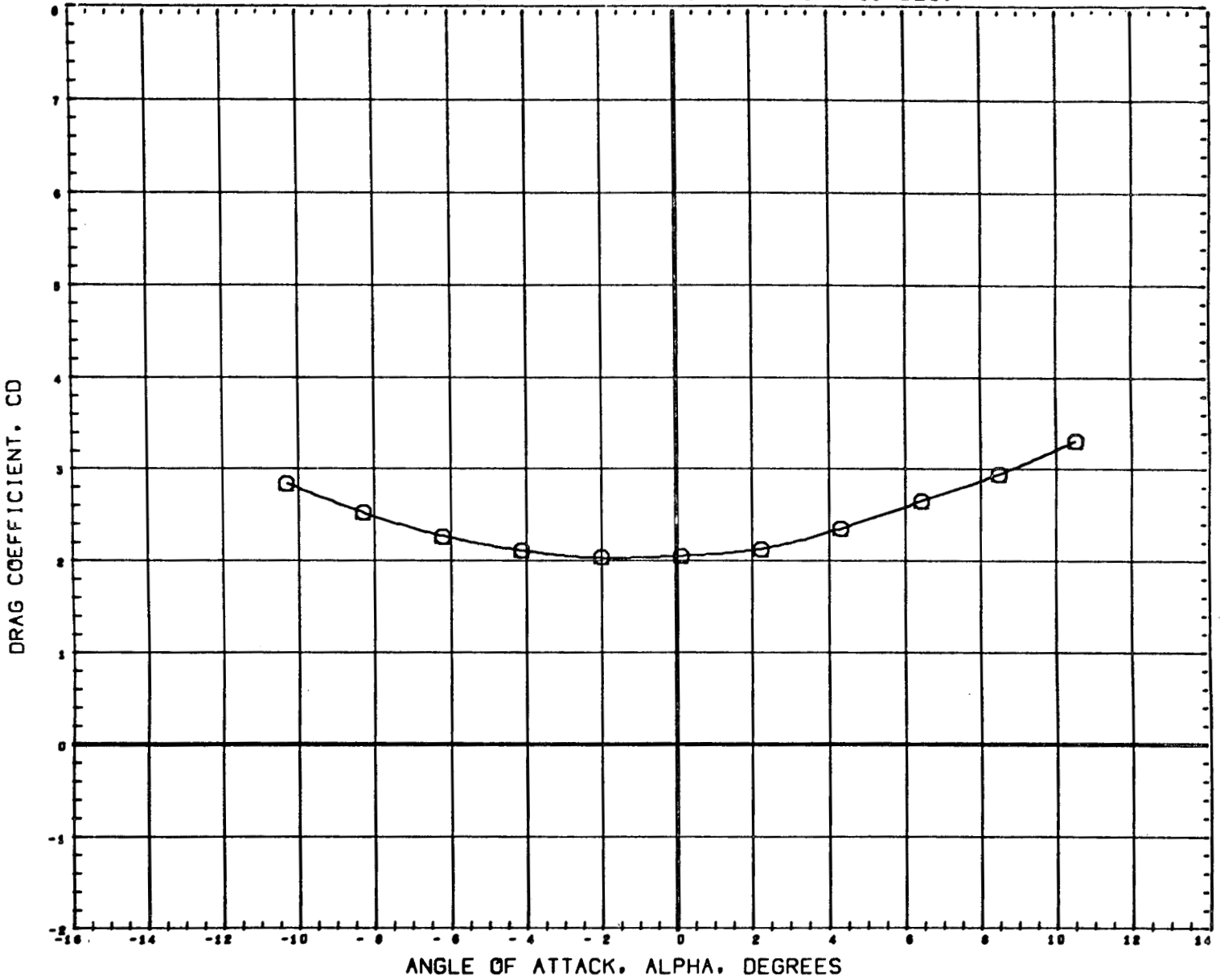
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

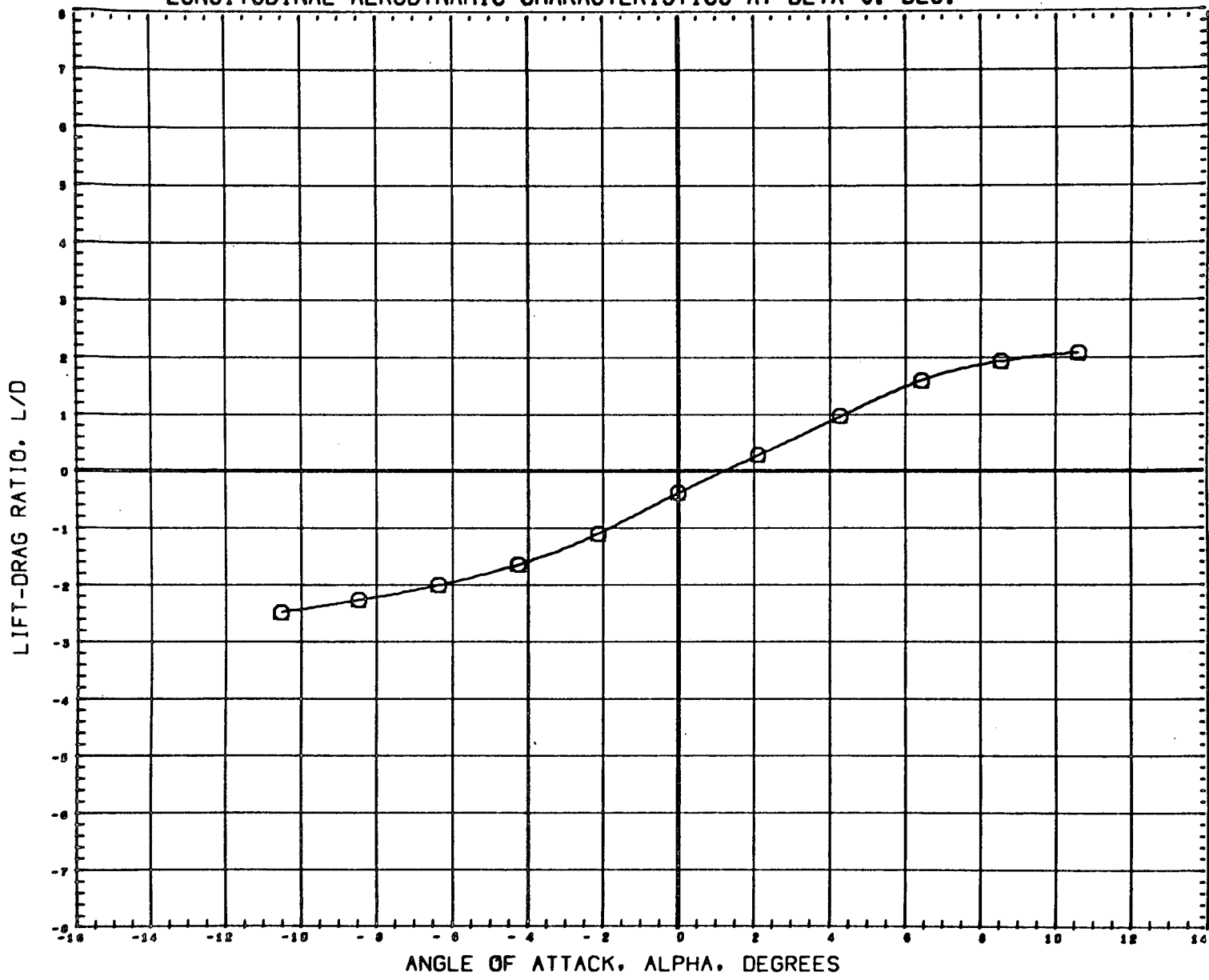


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 3.480 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.990 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

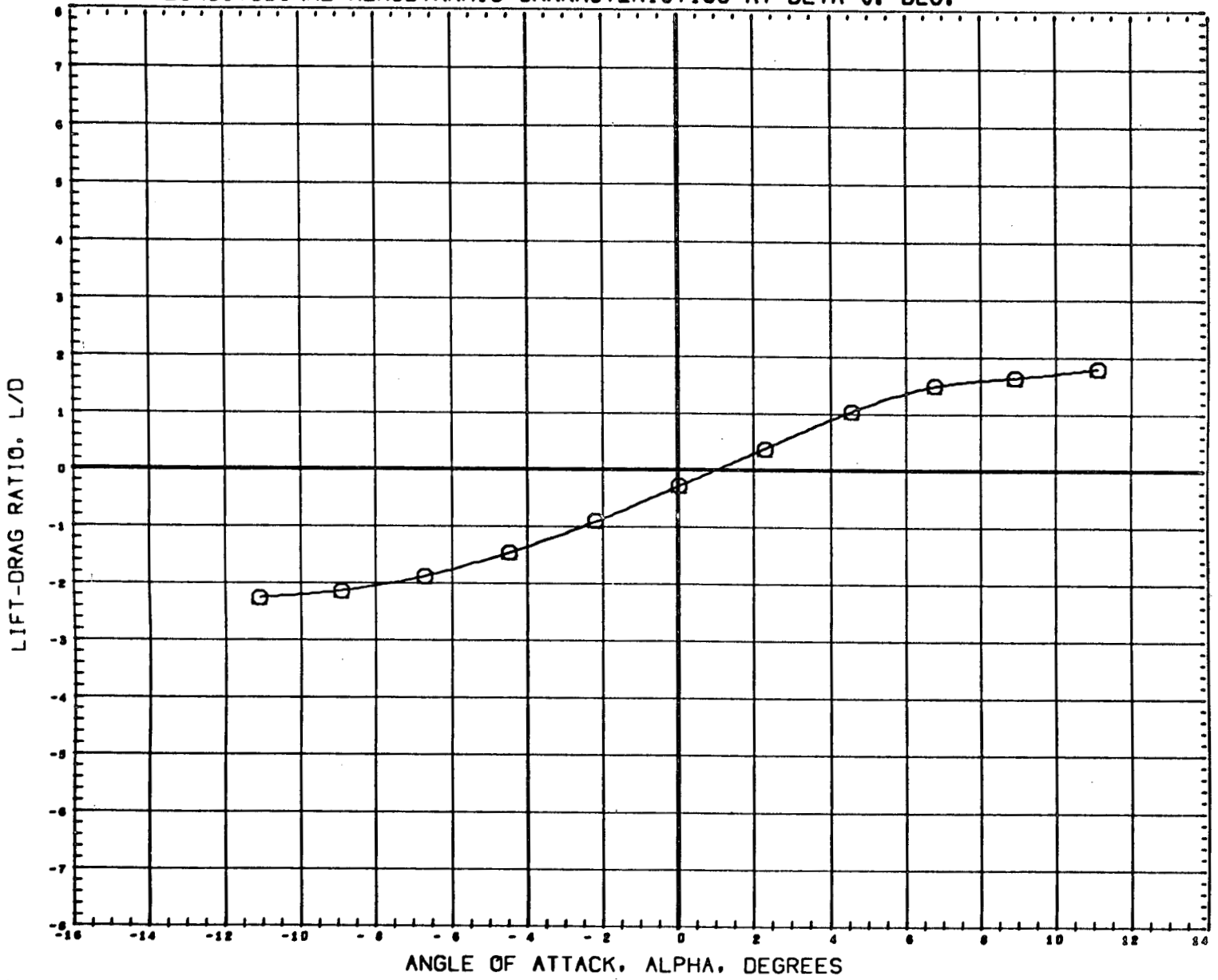
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.901 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

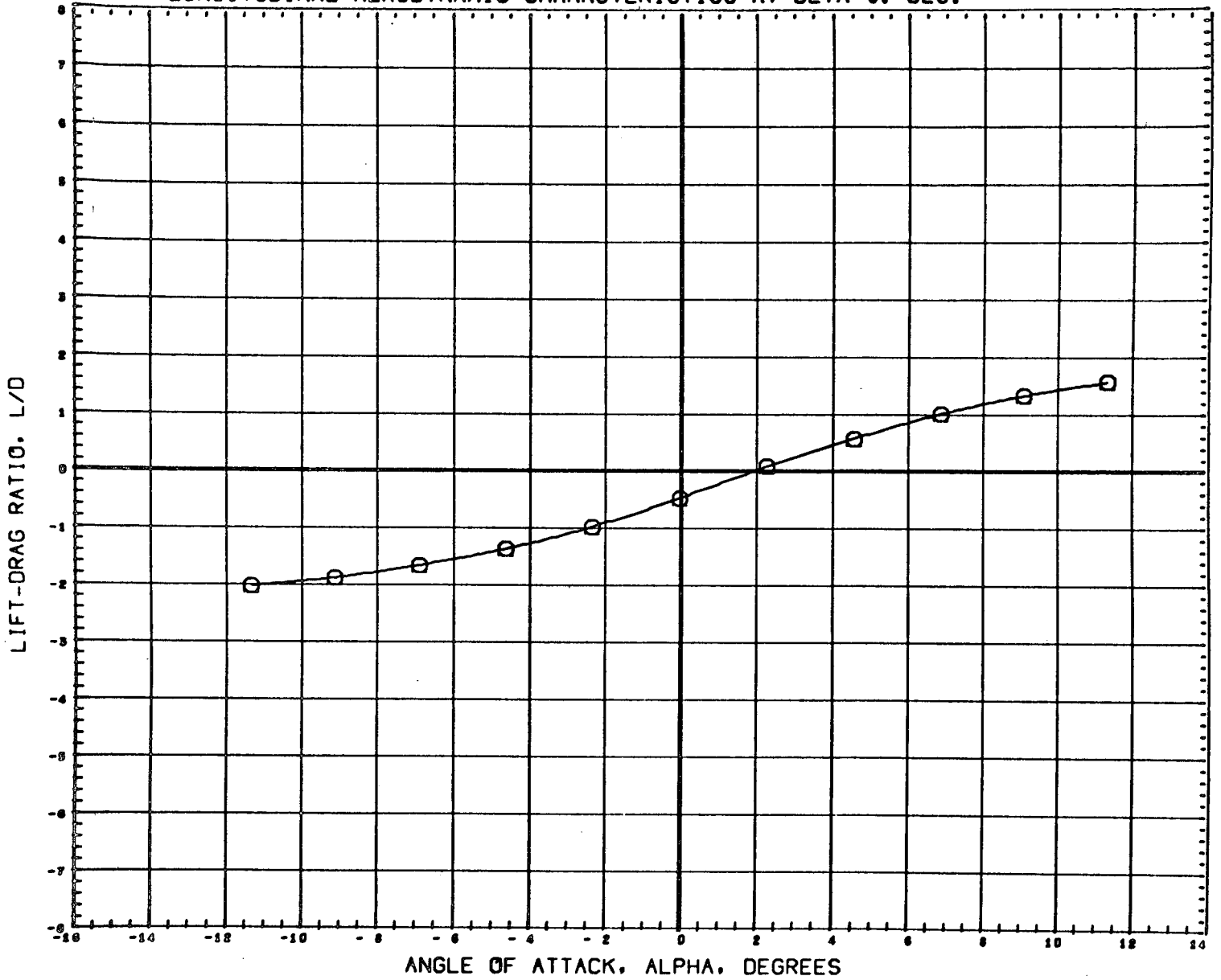
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 0.995 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.9240 INCHES
 DREF 0.9240 INCHES
 XMRP 8.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

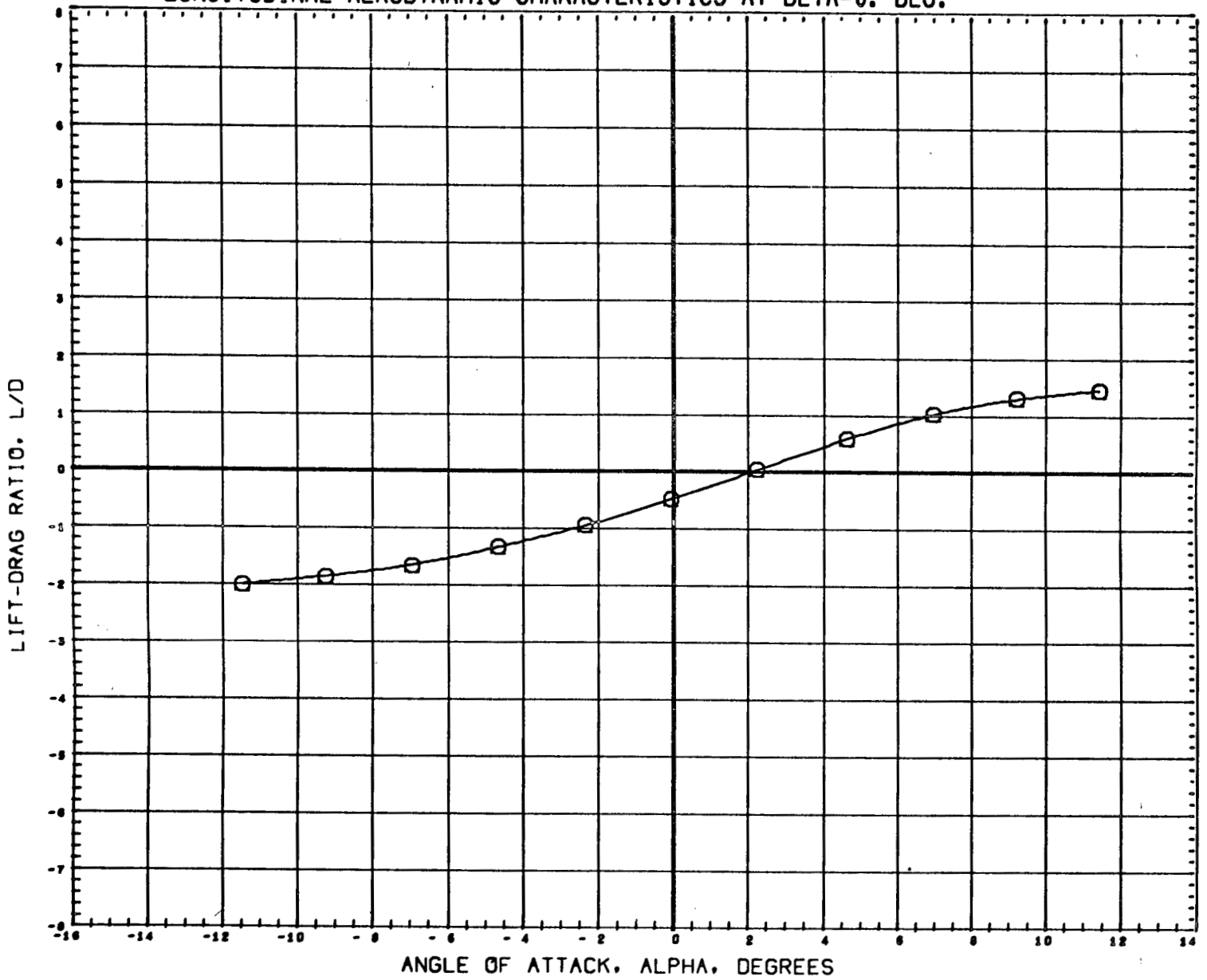
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.101 0.000 0.000

REFERENCE INFORMATION

SREF	0.9340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

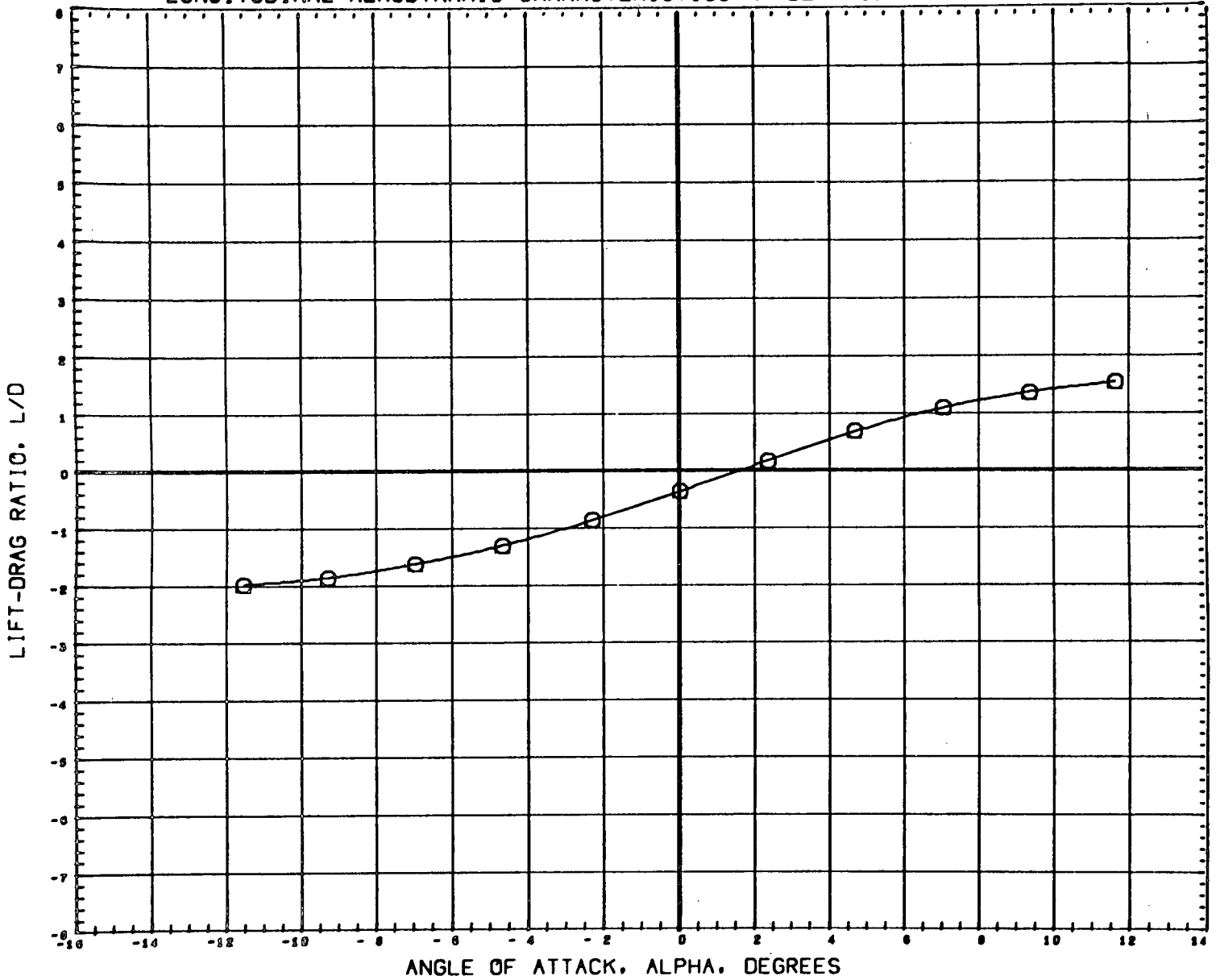
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

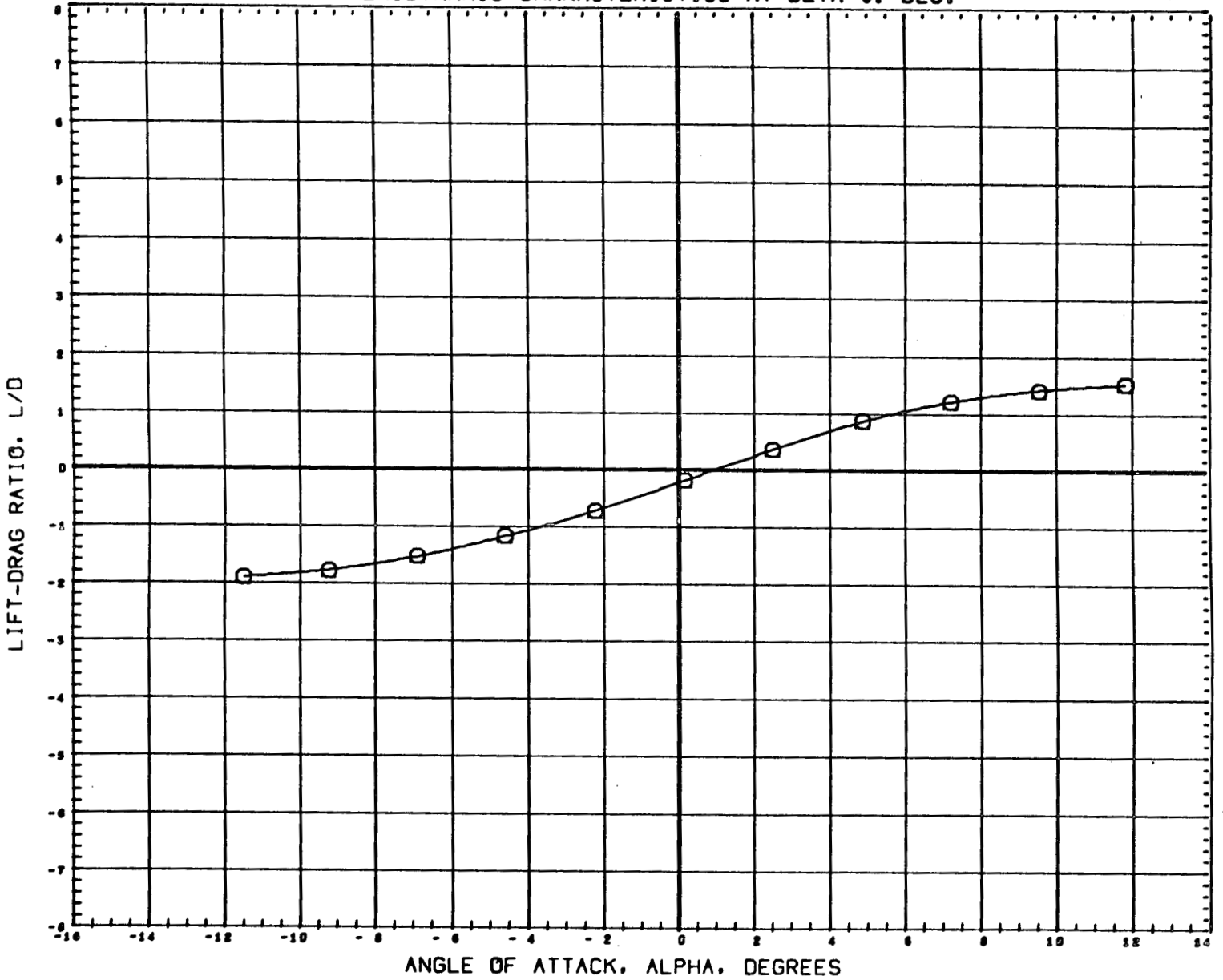


SYMBOL \circ MACH 1.202 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BRP 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

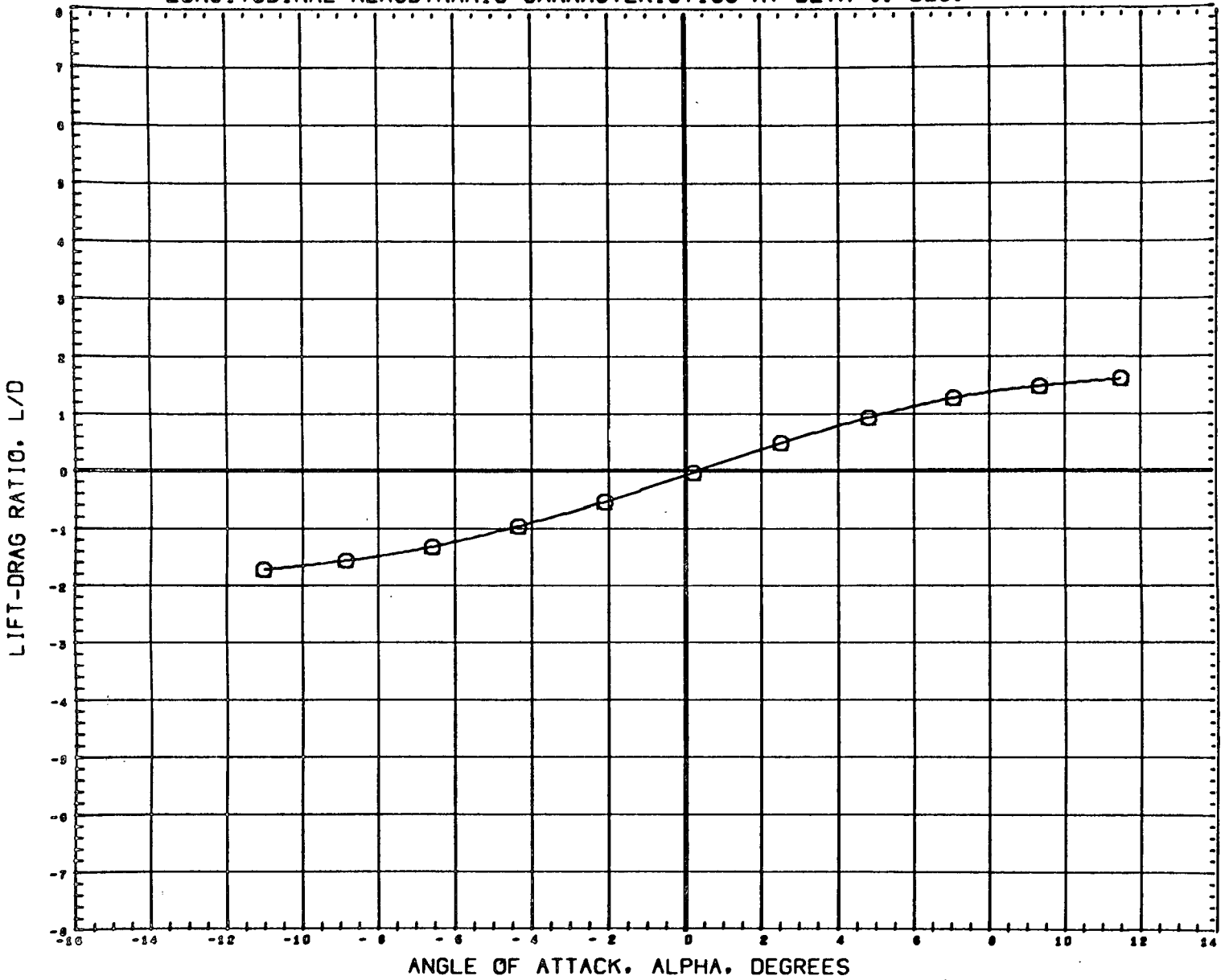


SYMBOL \circ MACH 1.463 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.004 0.000

REFERENCE INFORMATION
 DREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

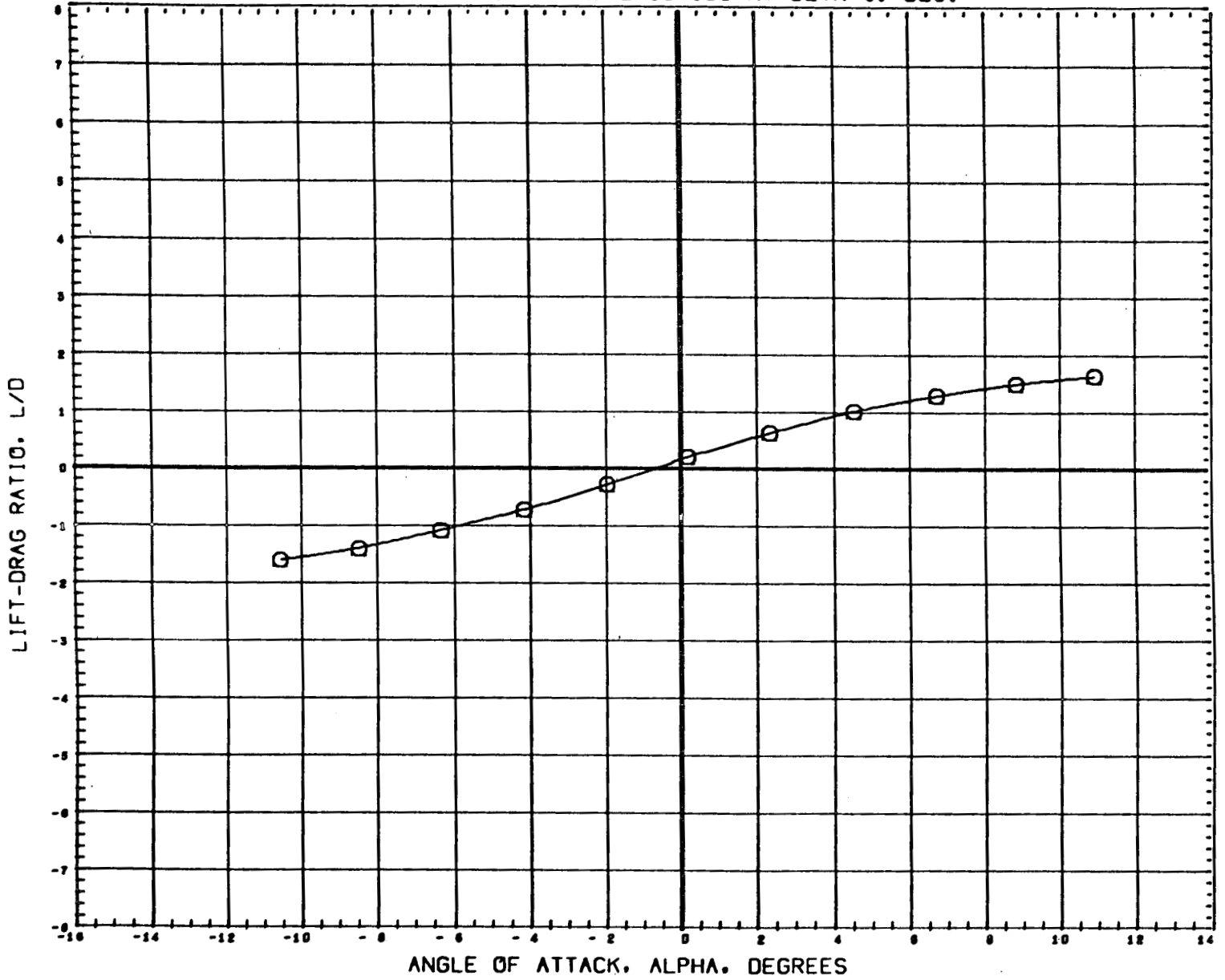
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

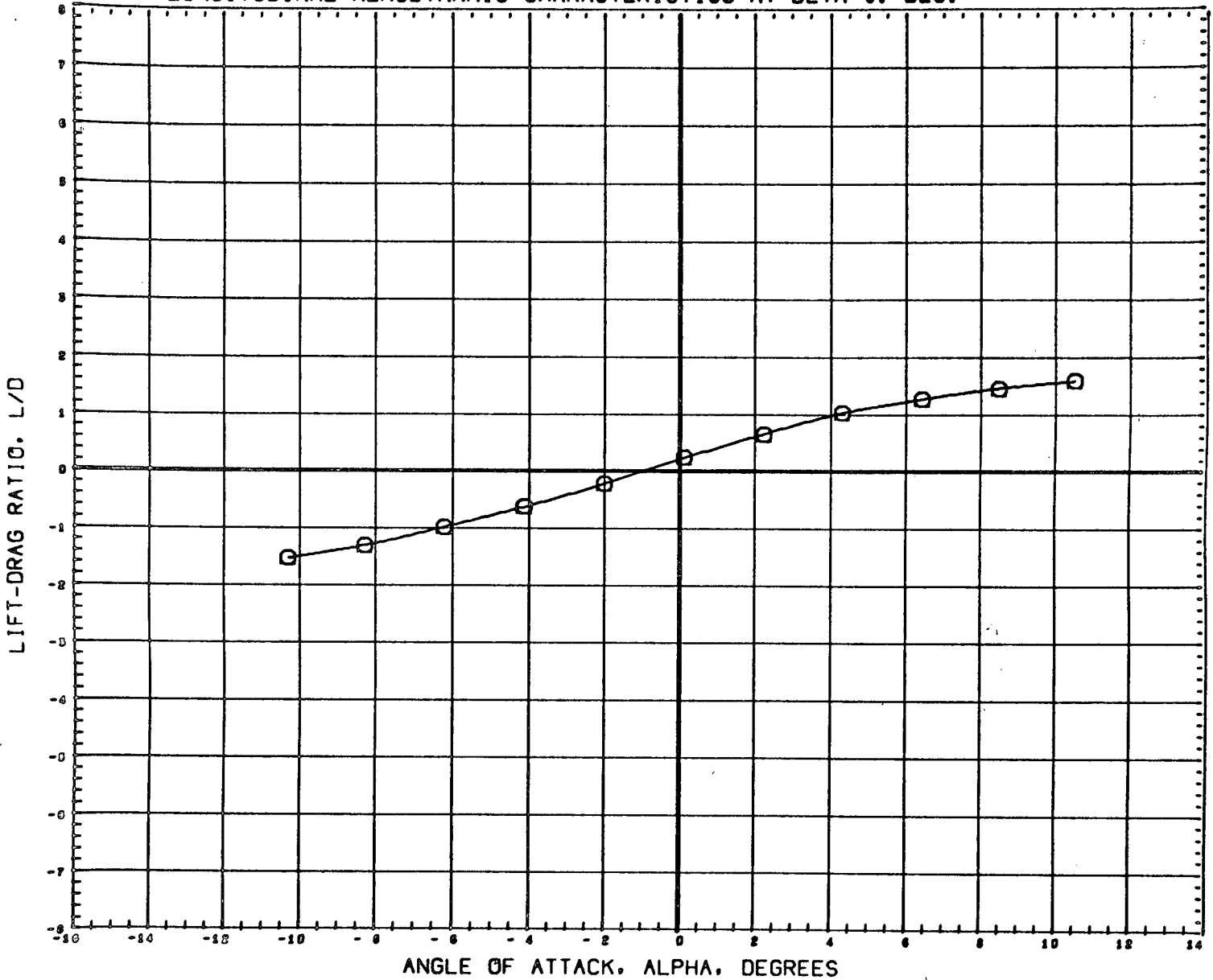


SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 90 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 9.400 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

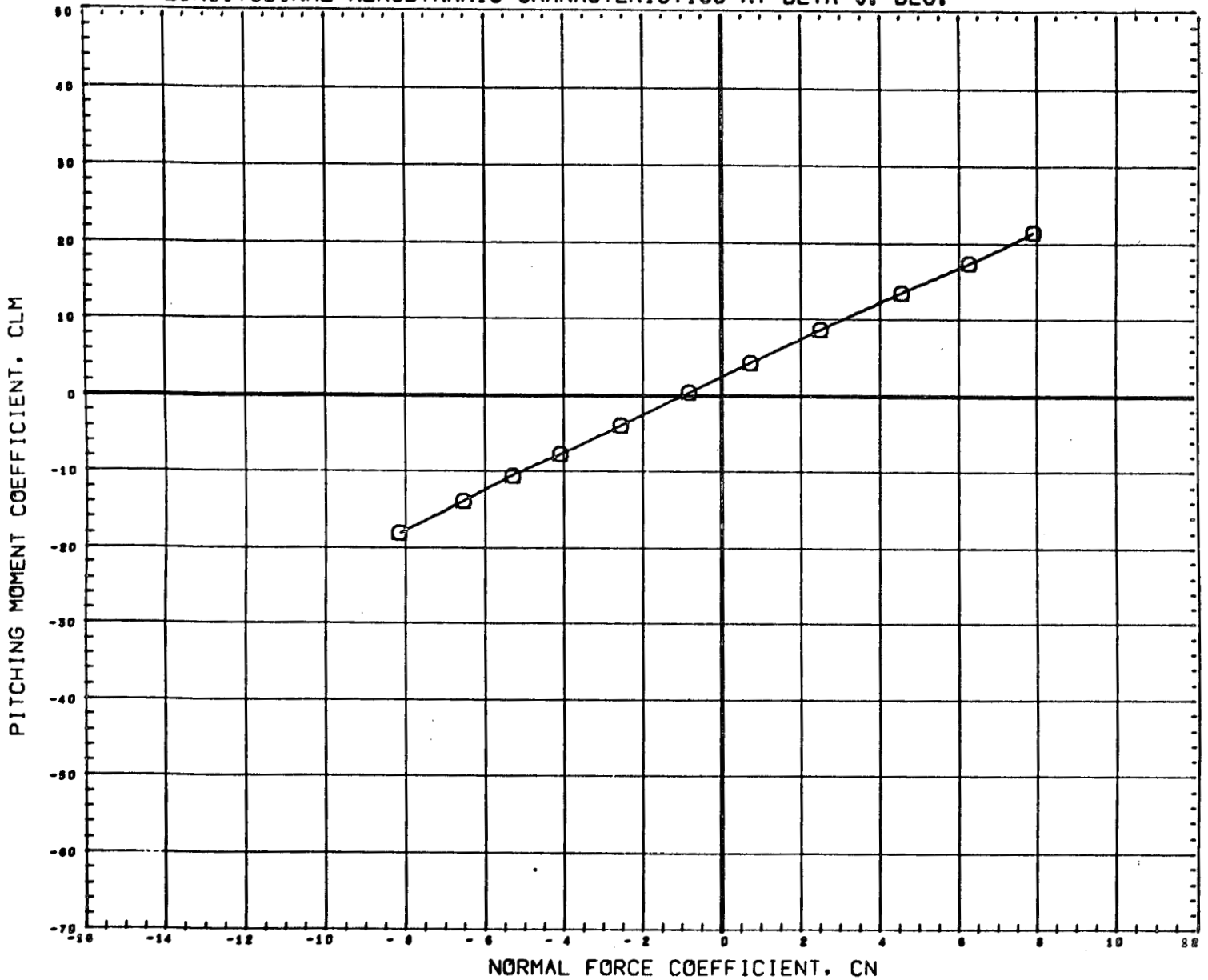
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

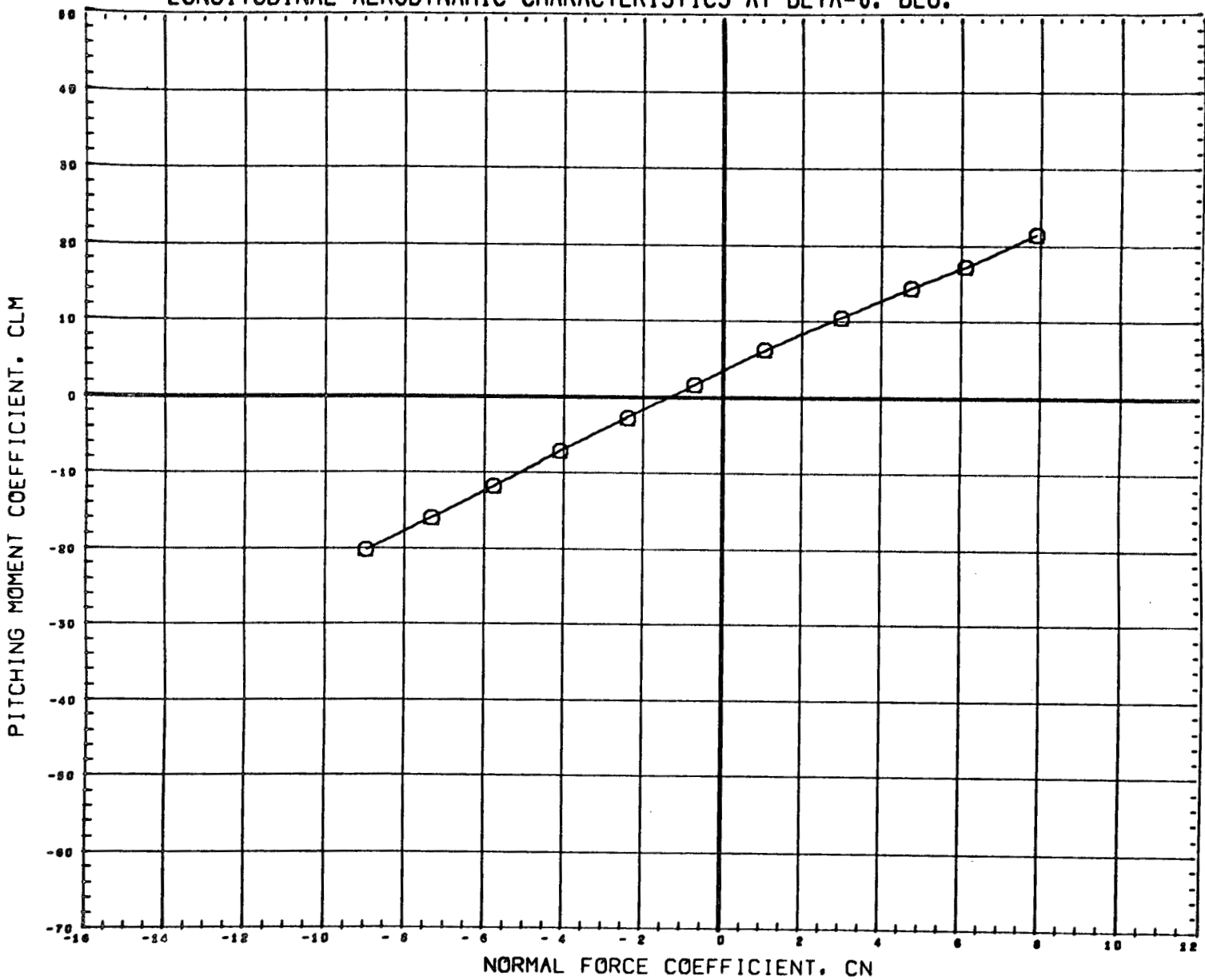


SYMBOL MACH PARAMETRIC VALUES
 ○ 0.598 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4900 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

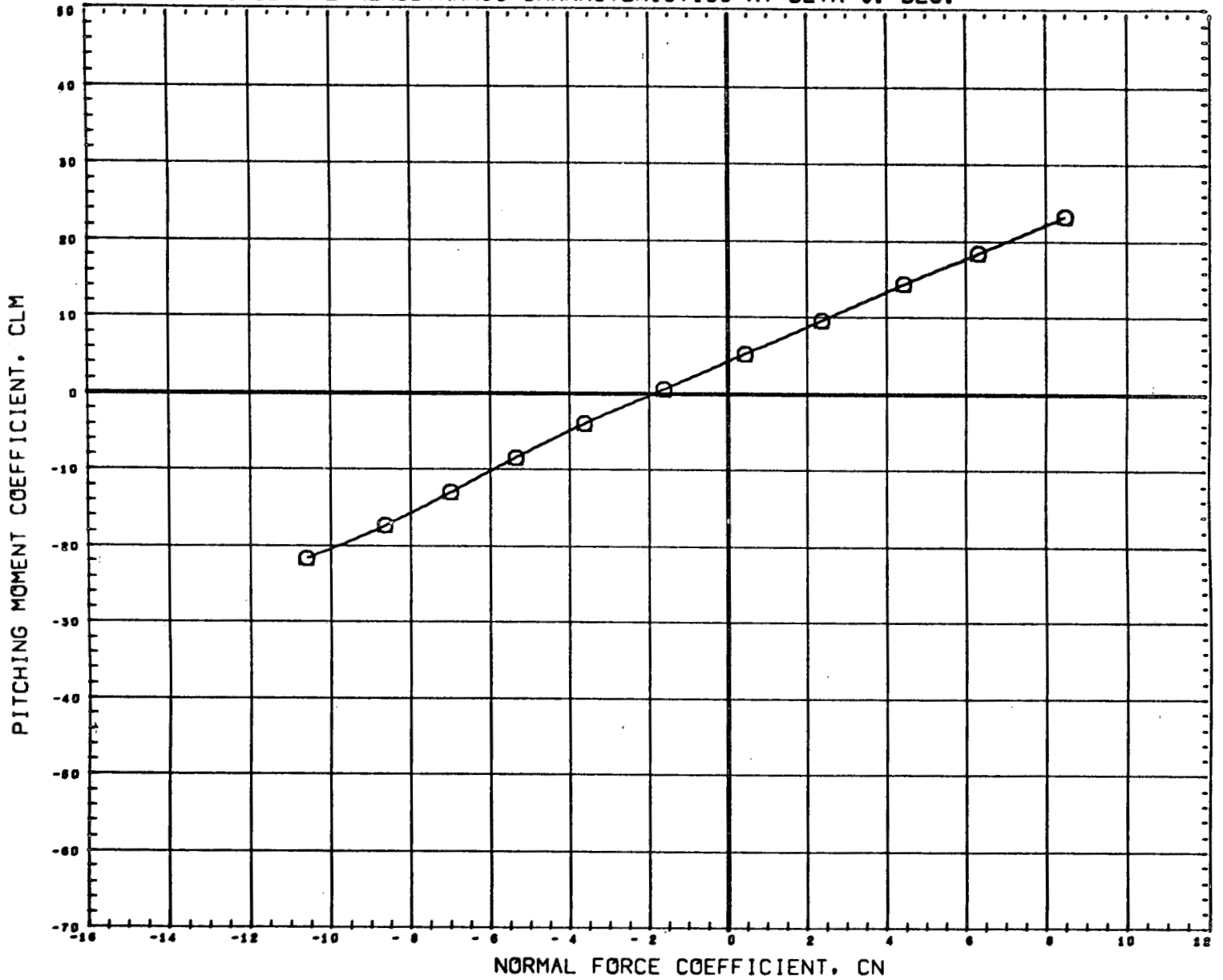


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.901 0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.995 0.000

REFERENCE INFORMATION
 BREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

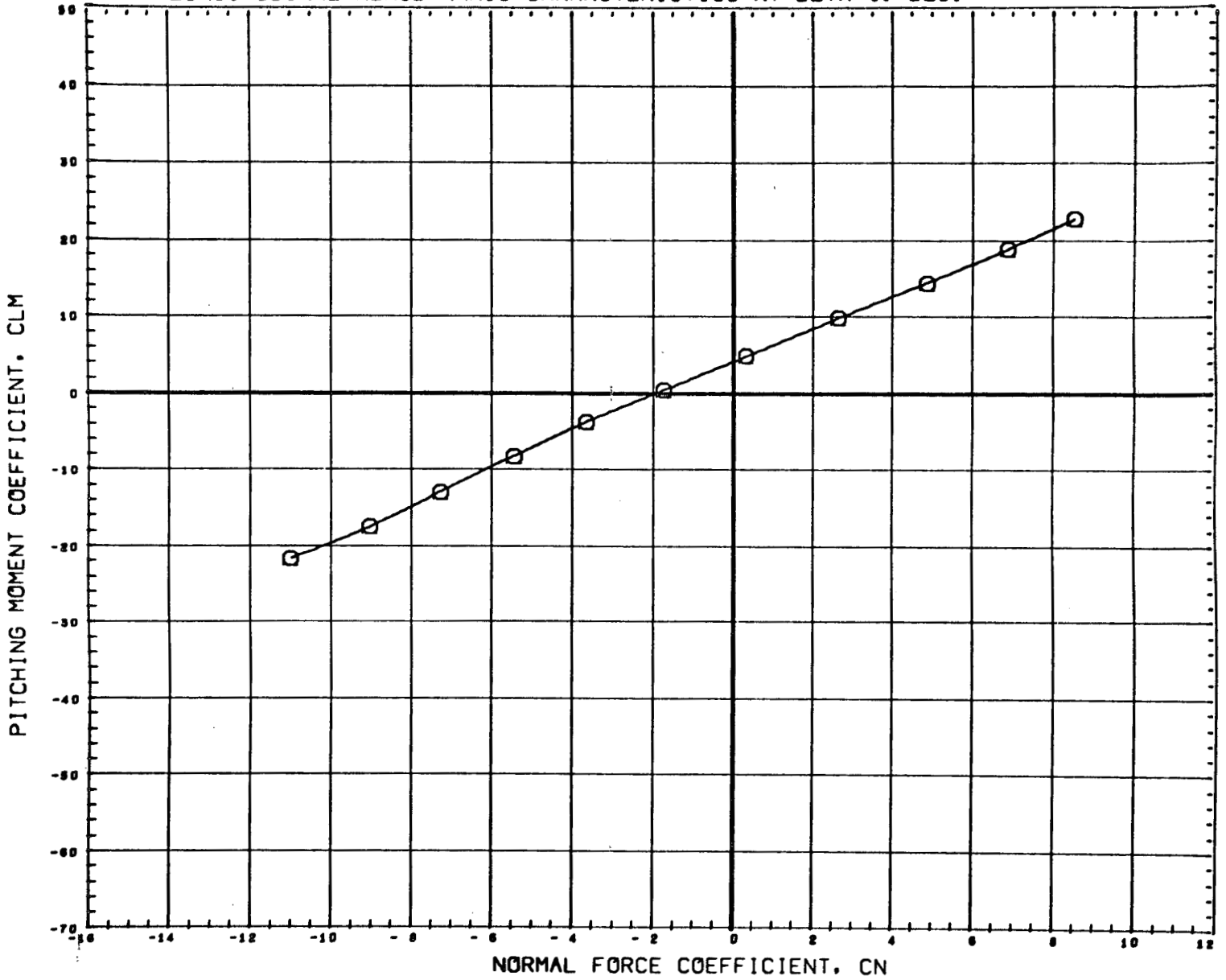
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

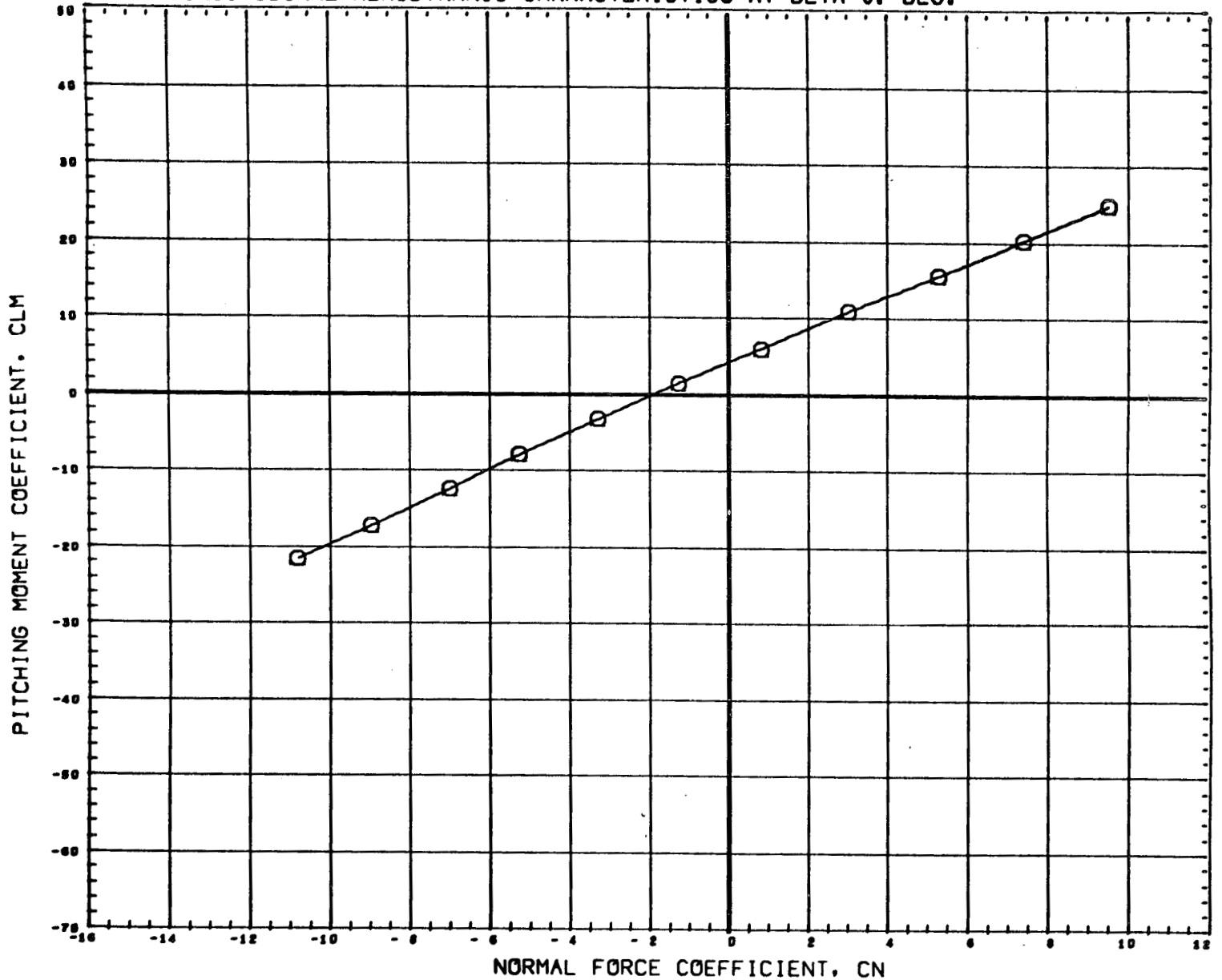


SYMBOL \bigcirc MACH 3.101 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

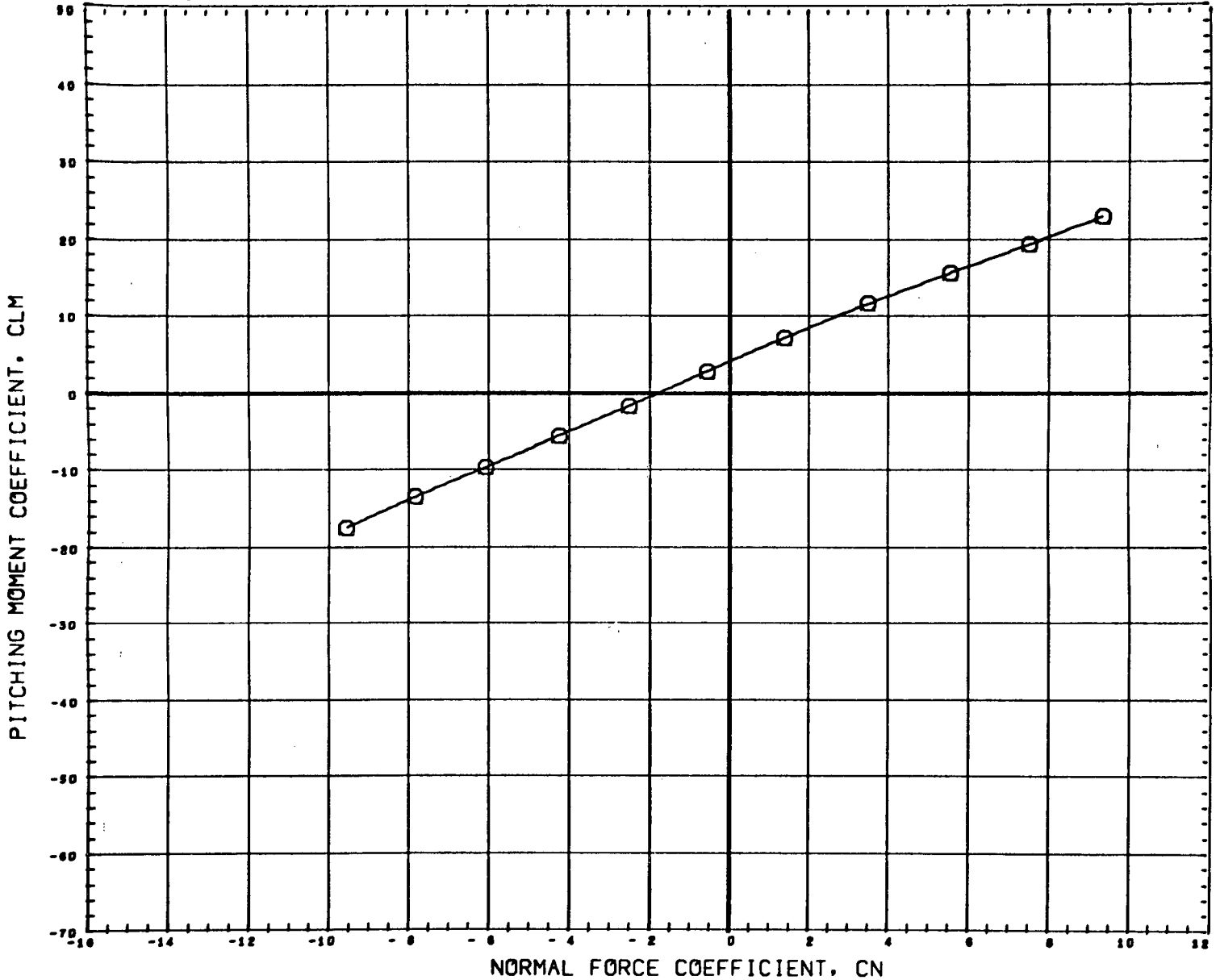


SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.202 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.463 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

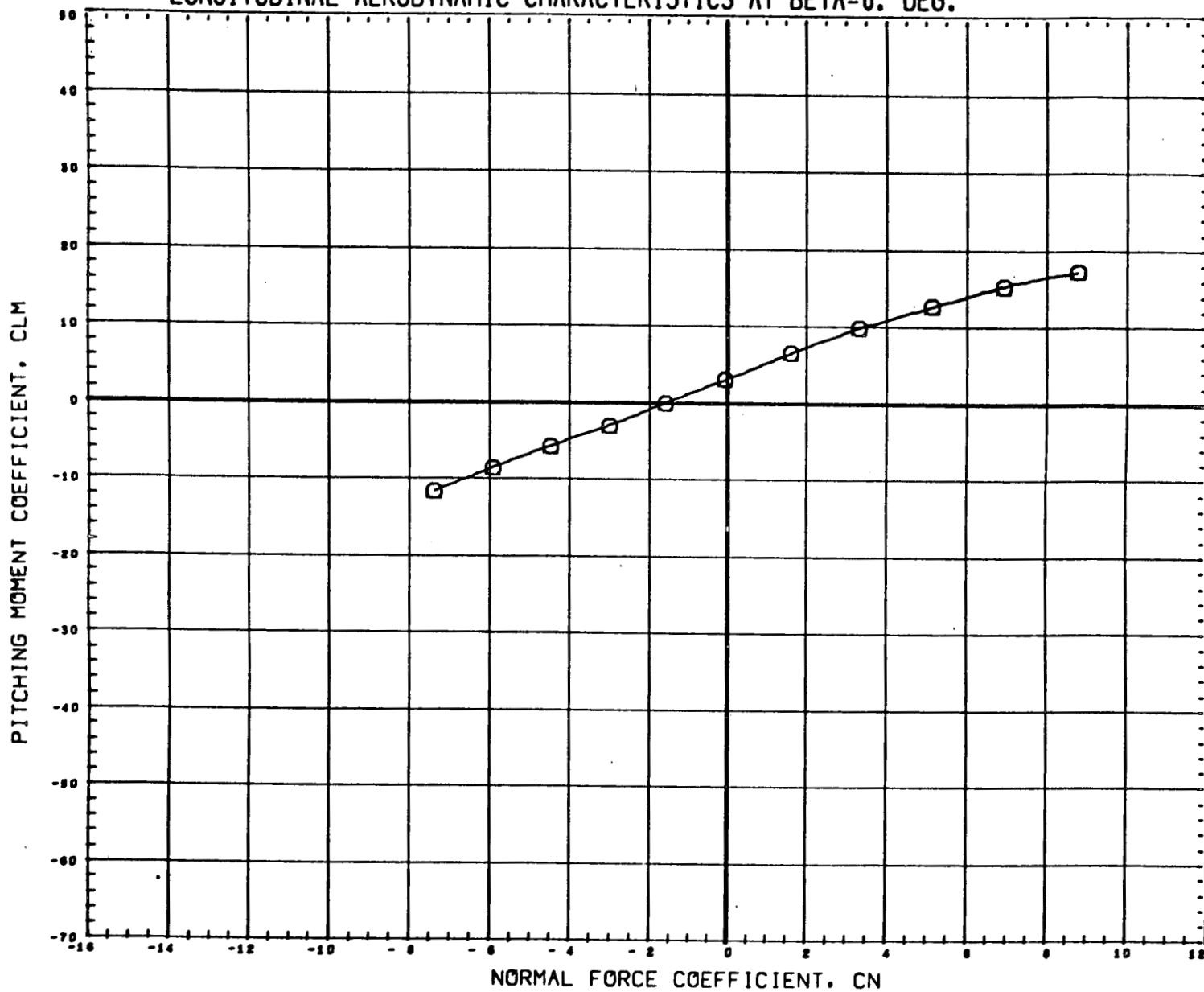
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.984 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 90 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

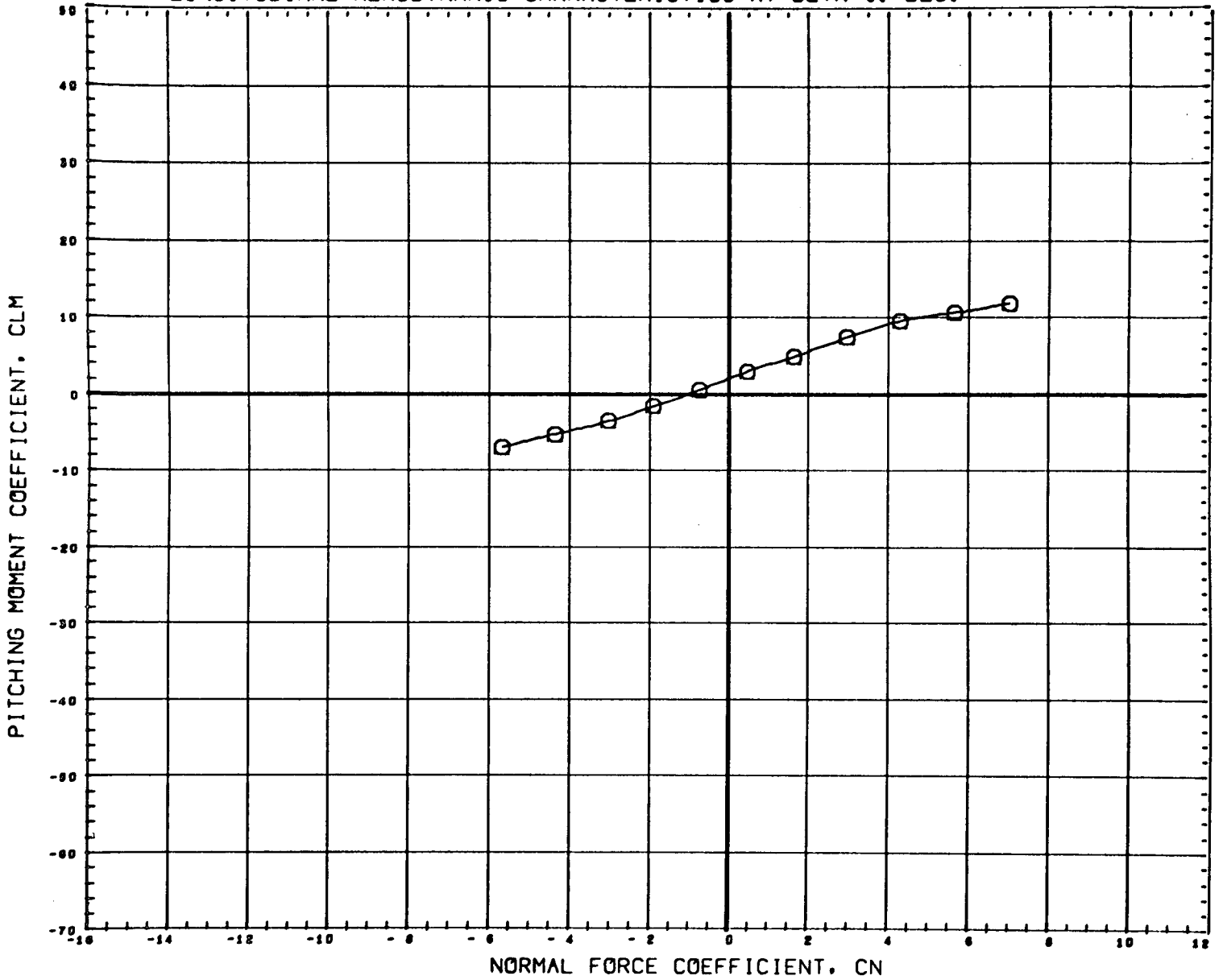
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 2.740 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

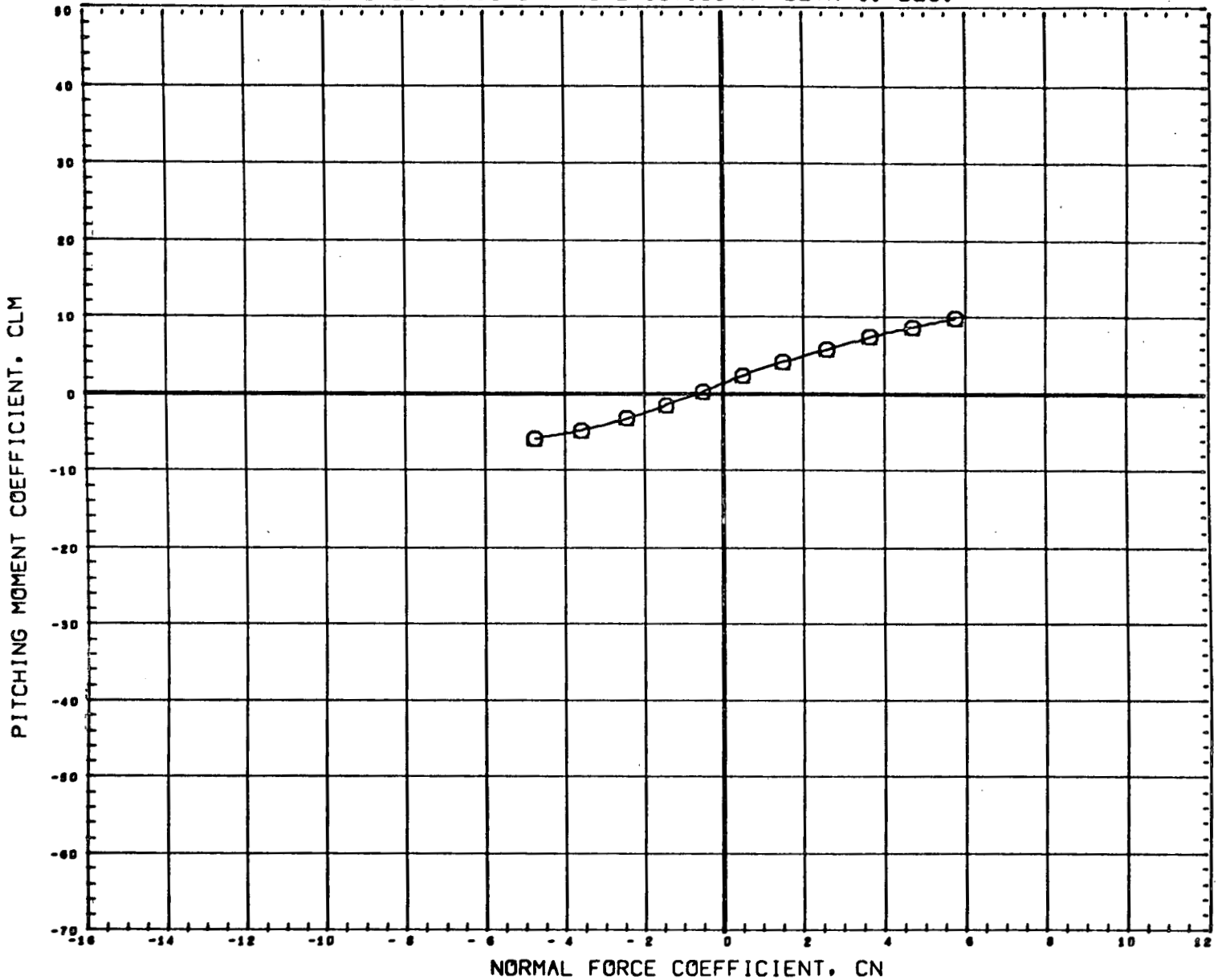
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 3.400 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

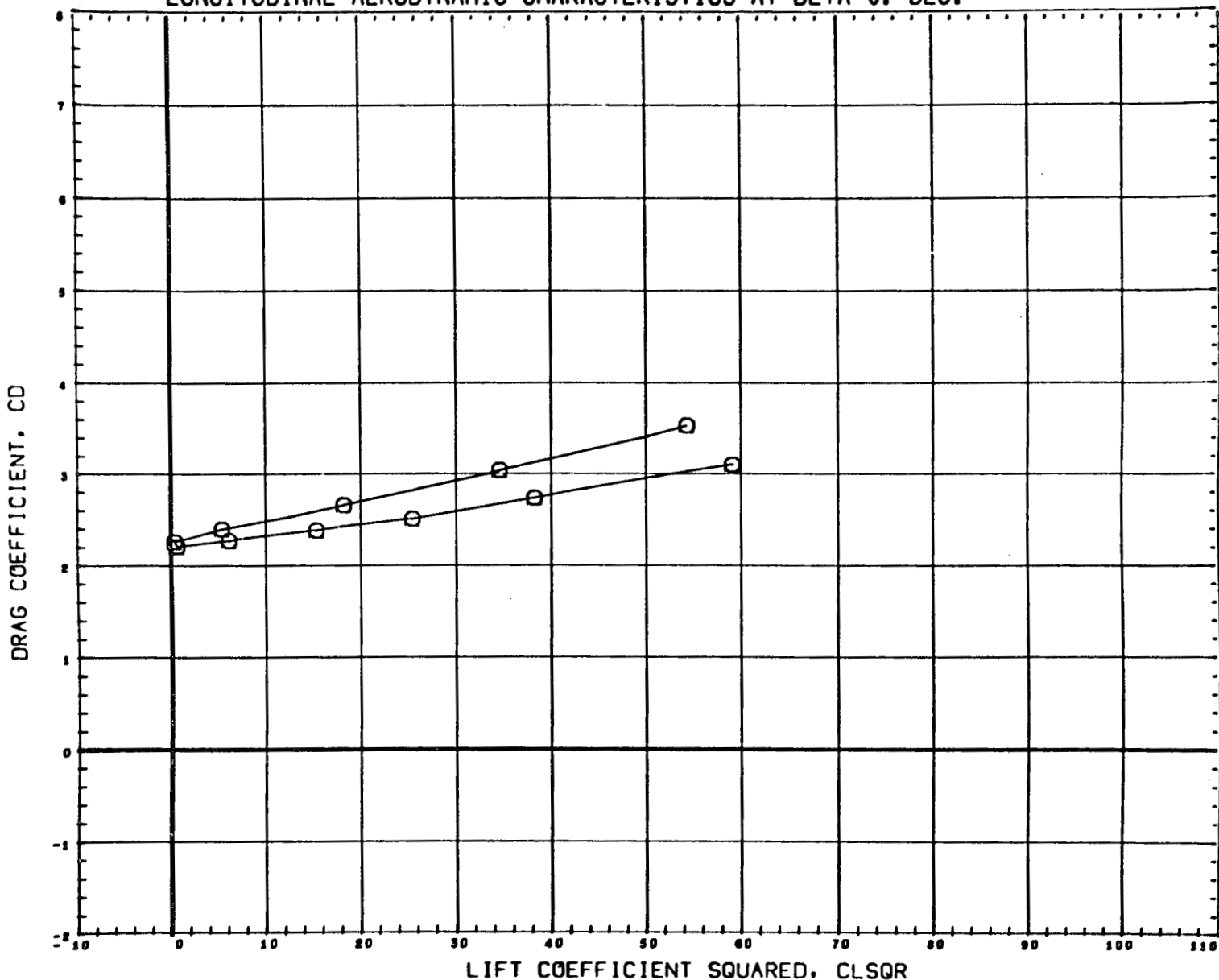
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.598 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

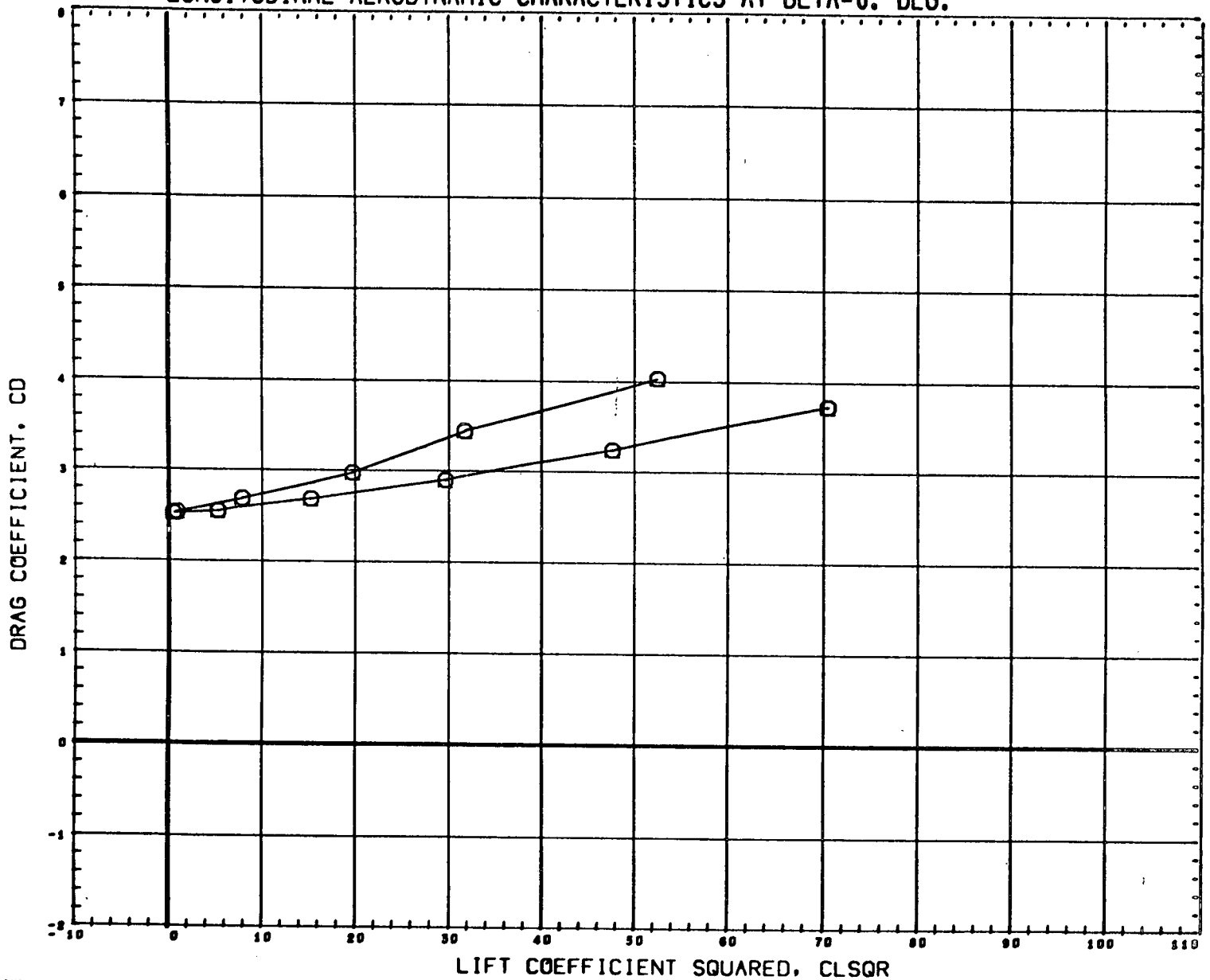
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 0.901 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XNRP 2.0170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

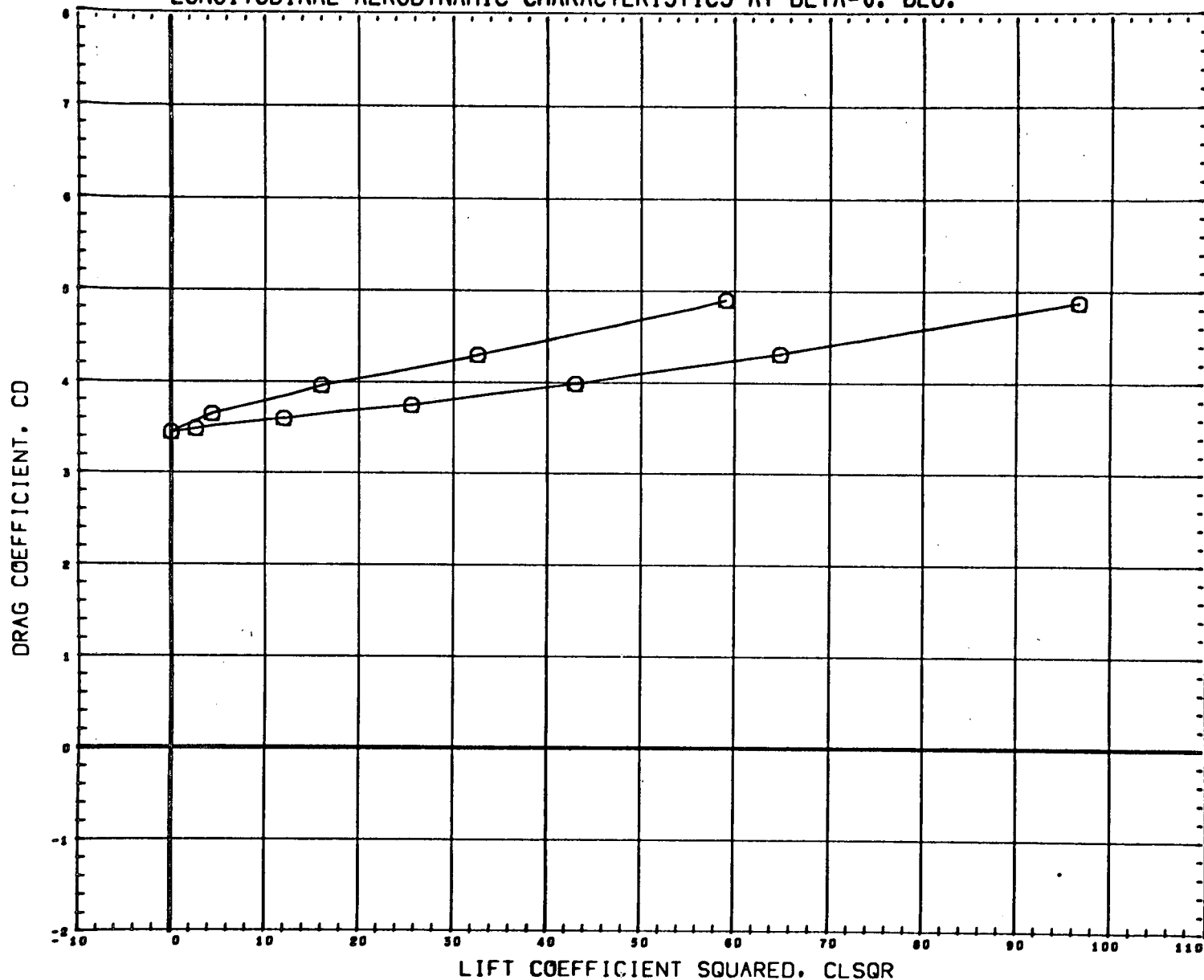
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.995 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

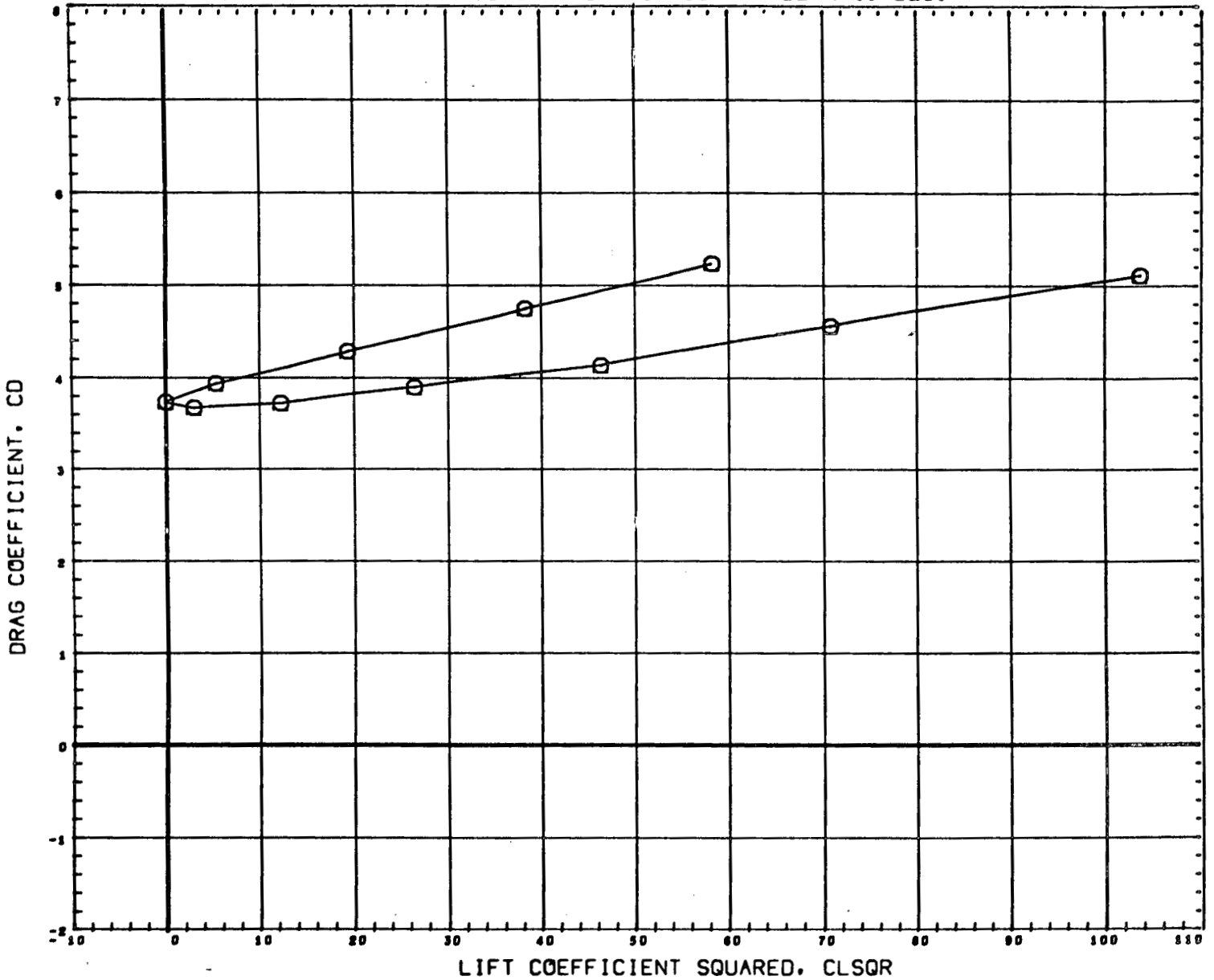
MSFC TWT 505 T111L/DT07

01D2L4

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

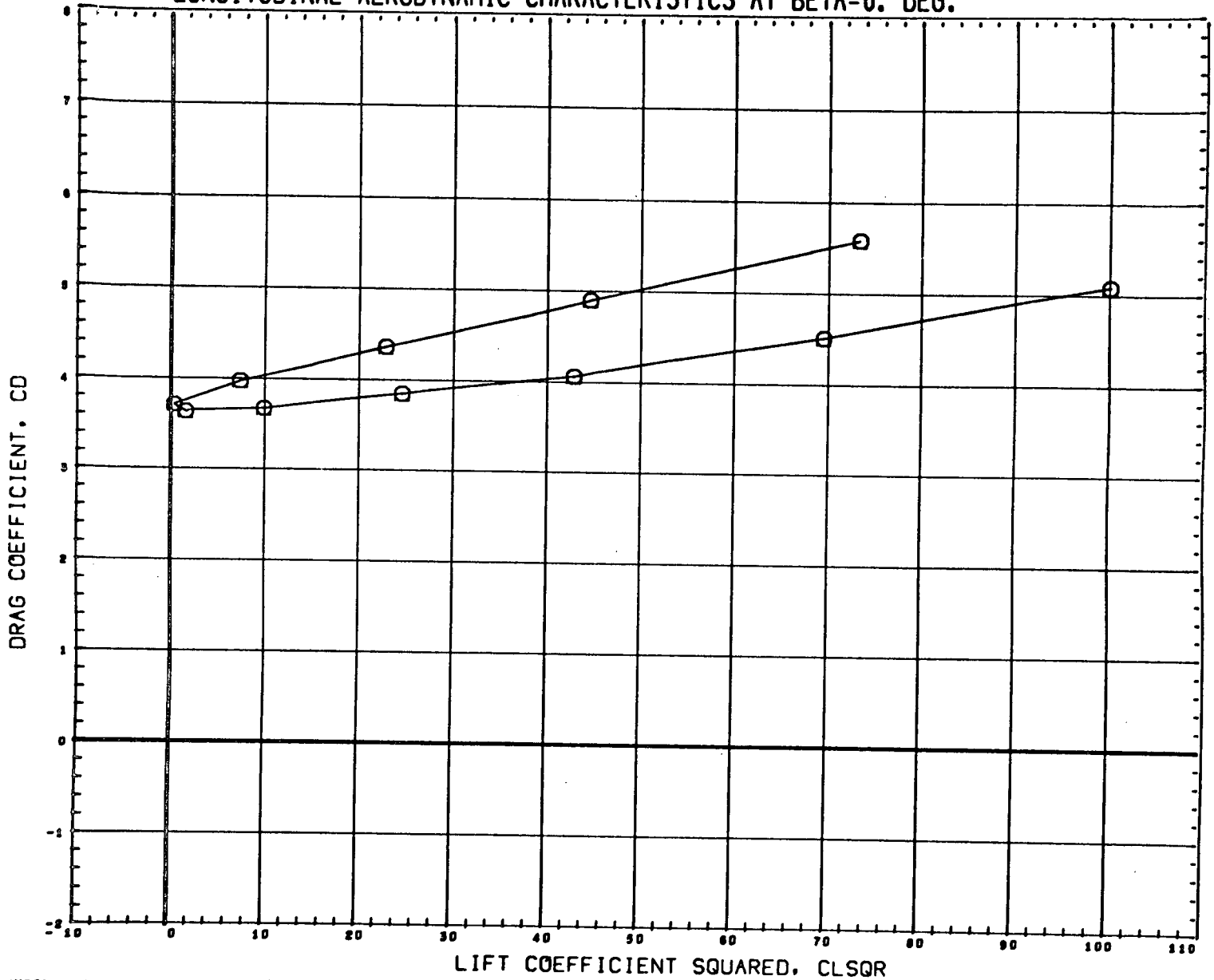


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.101 0.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4900 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.202 BETA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

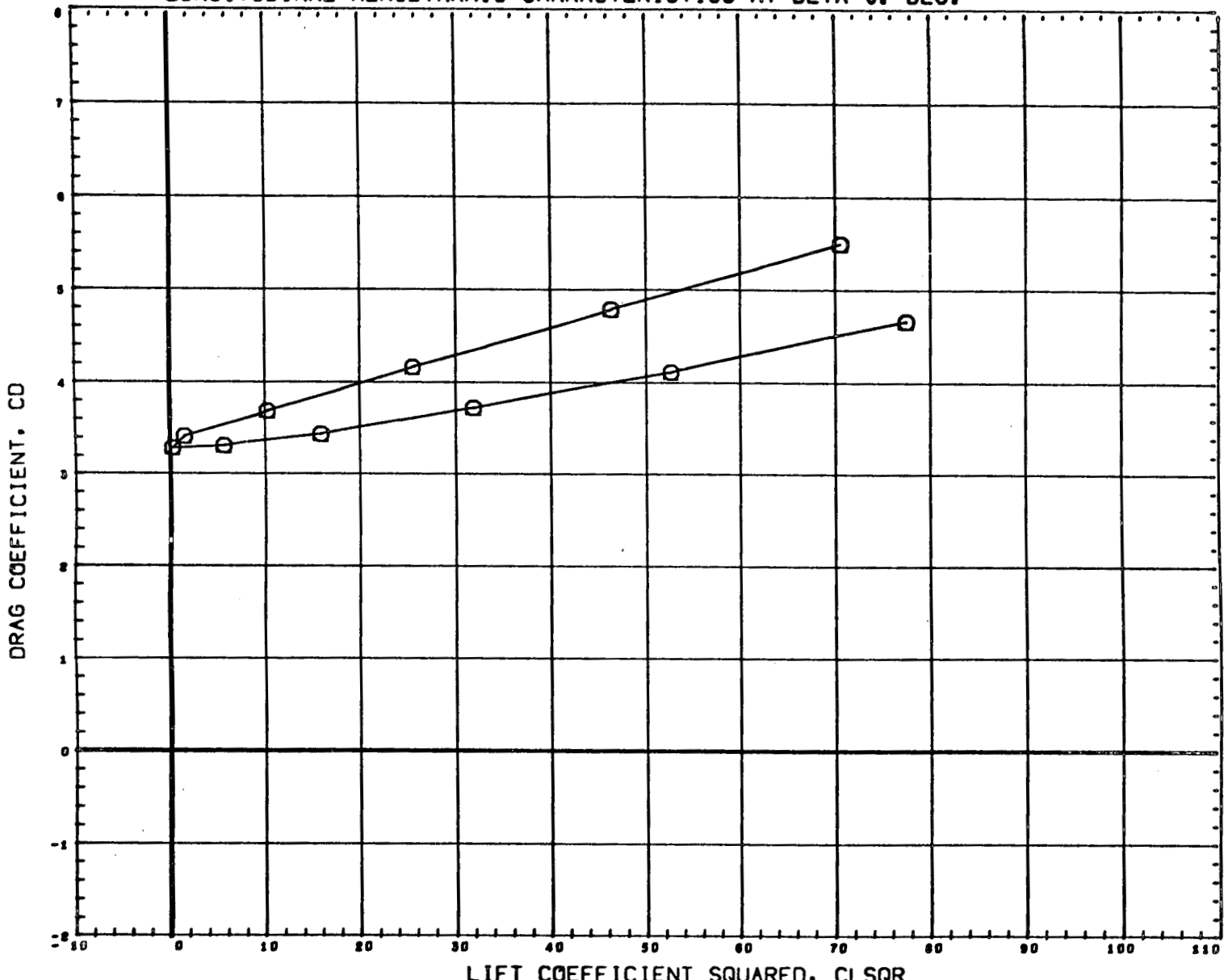
MSFC TWT 505 T111L/DT07

01D2L4

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

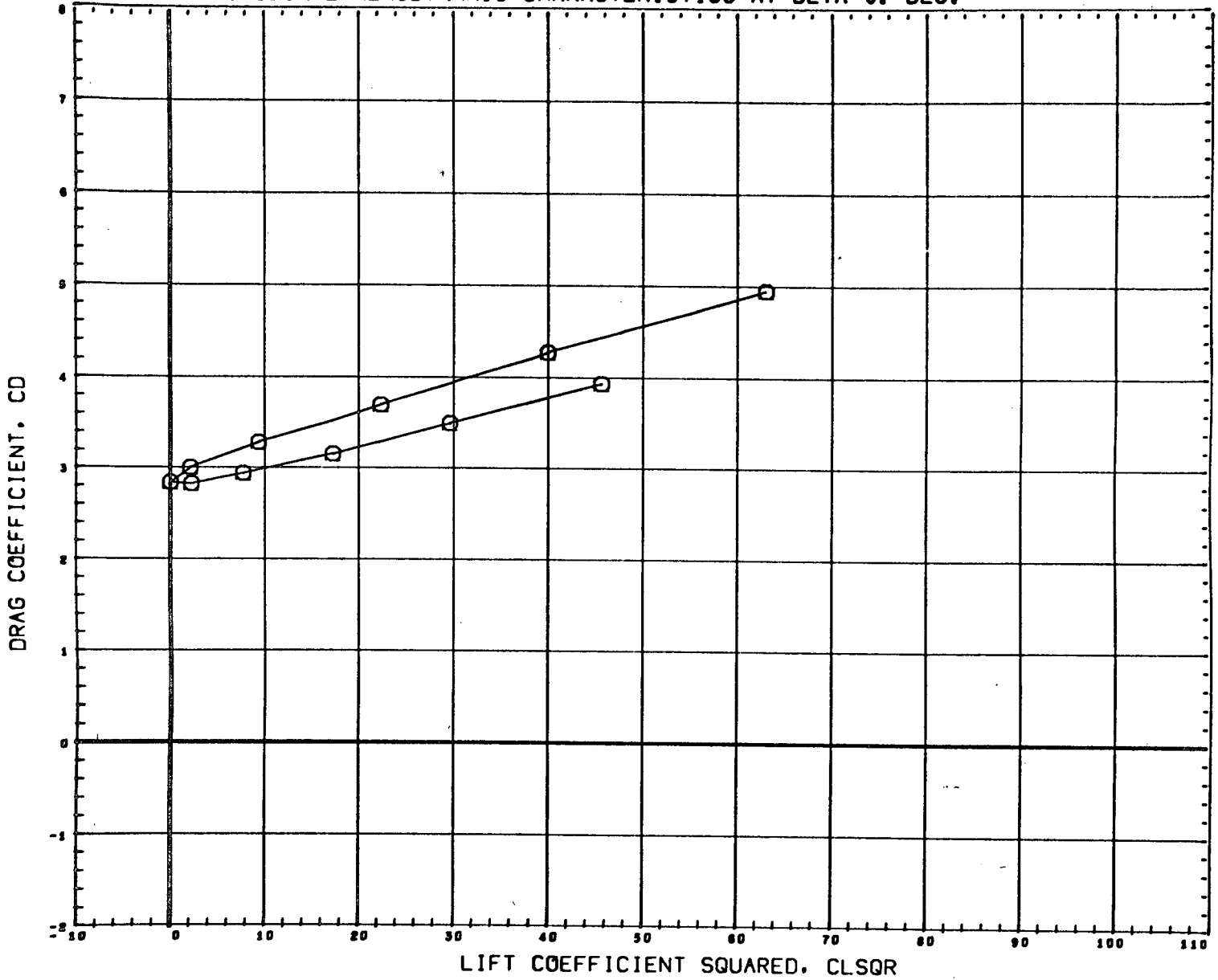


SYMBOL \square MACH 1.463 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

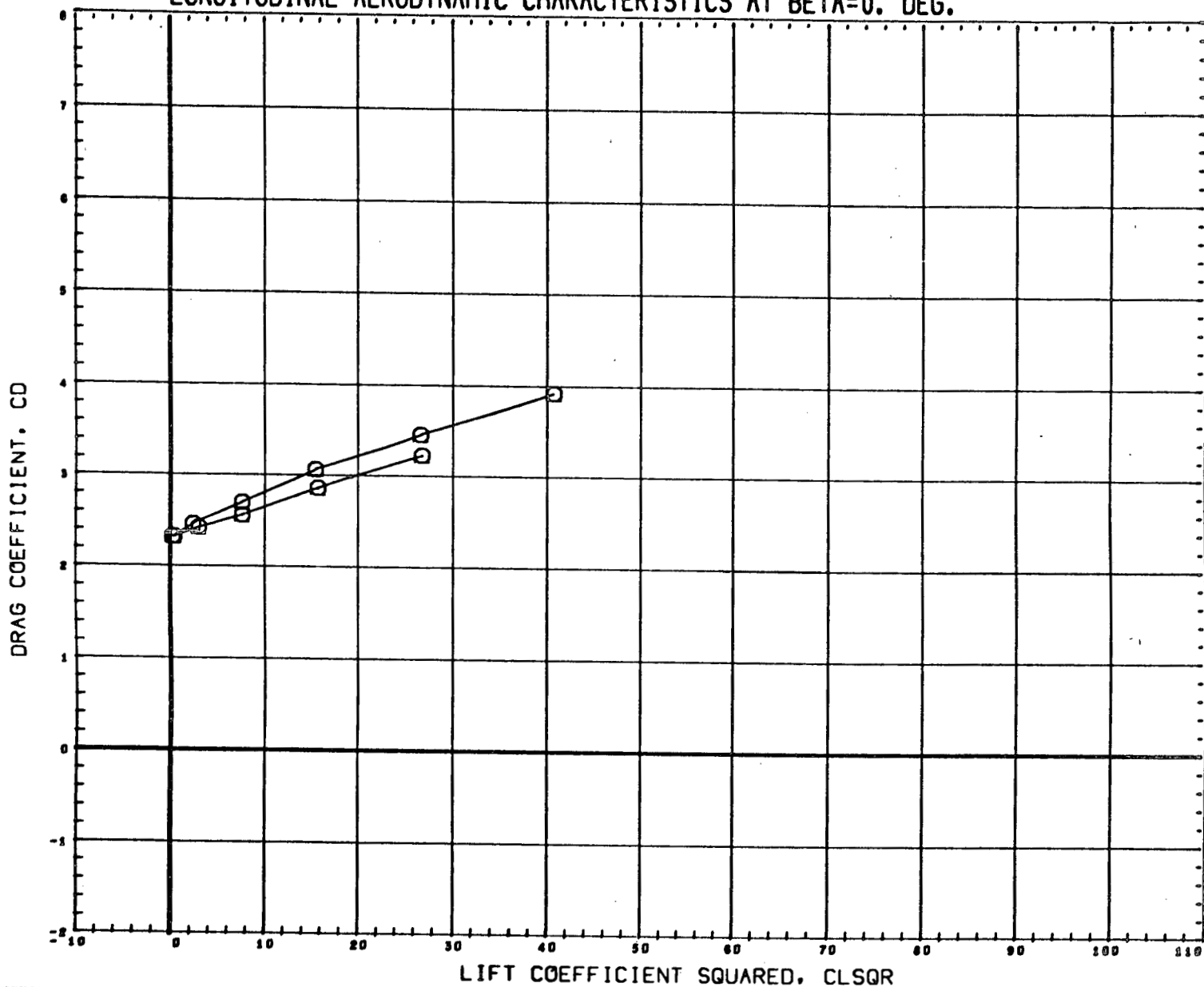


SYMBOL MACH PARAMETRIC VALUES
 O 1.964 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

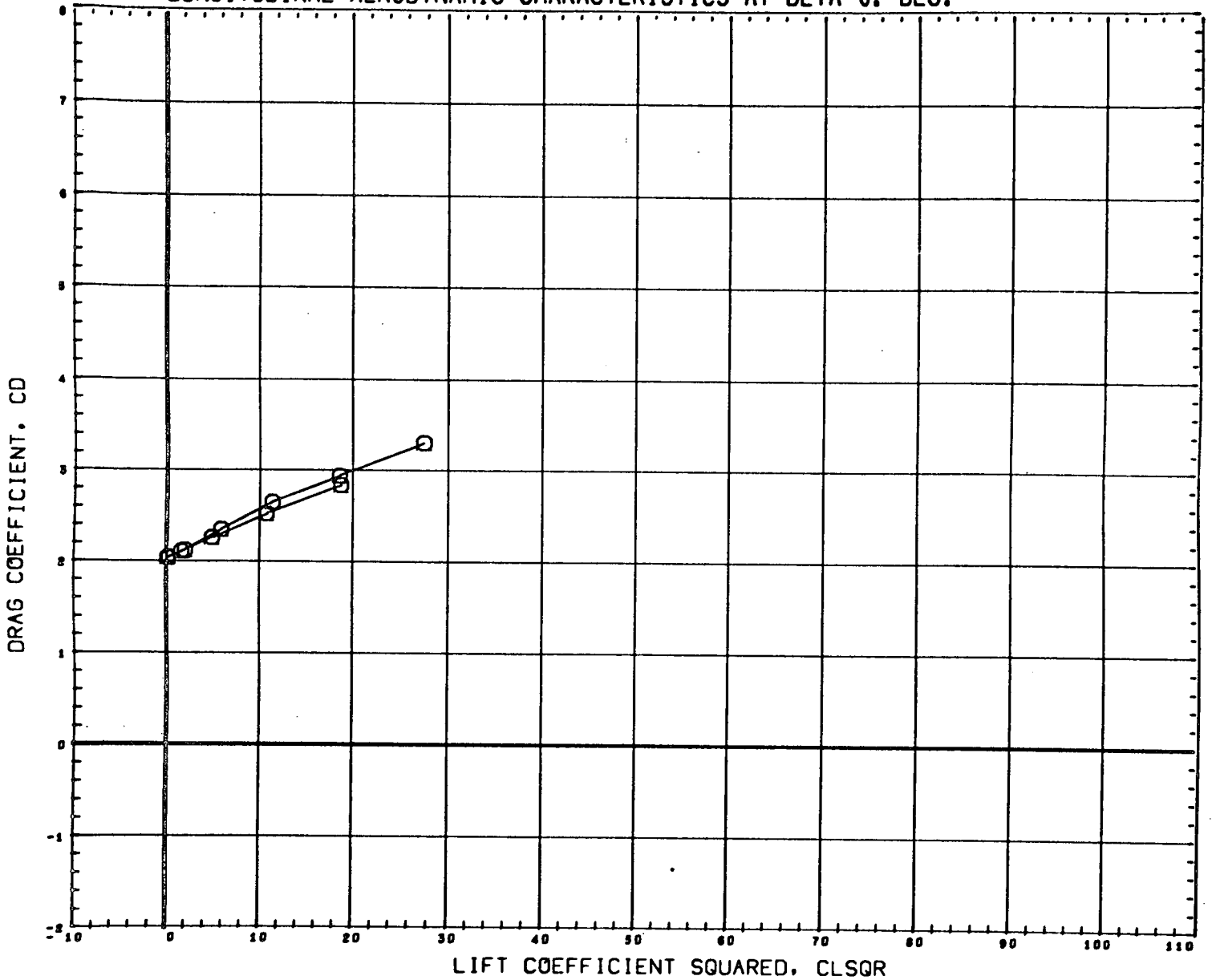
DATA HIST. CODE V9E

MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 3.460 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V+E

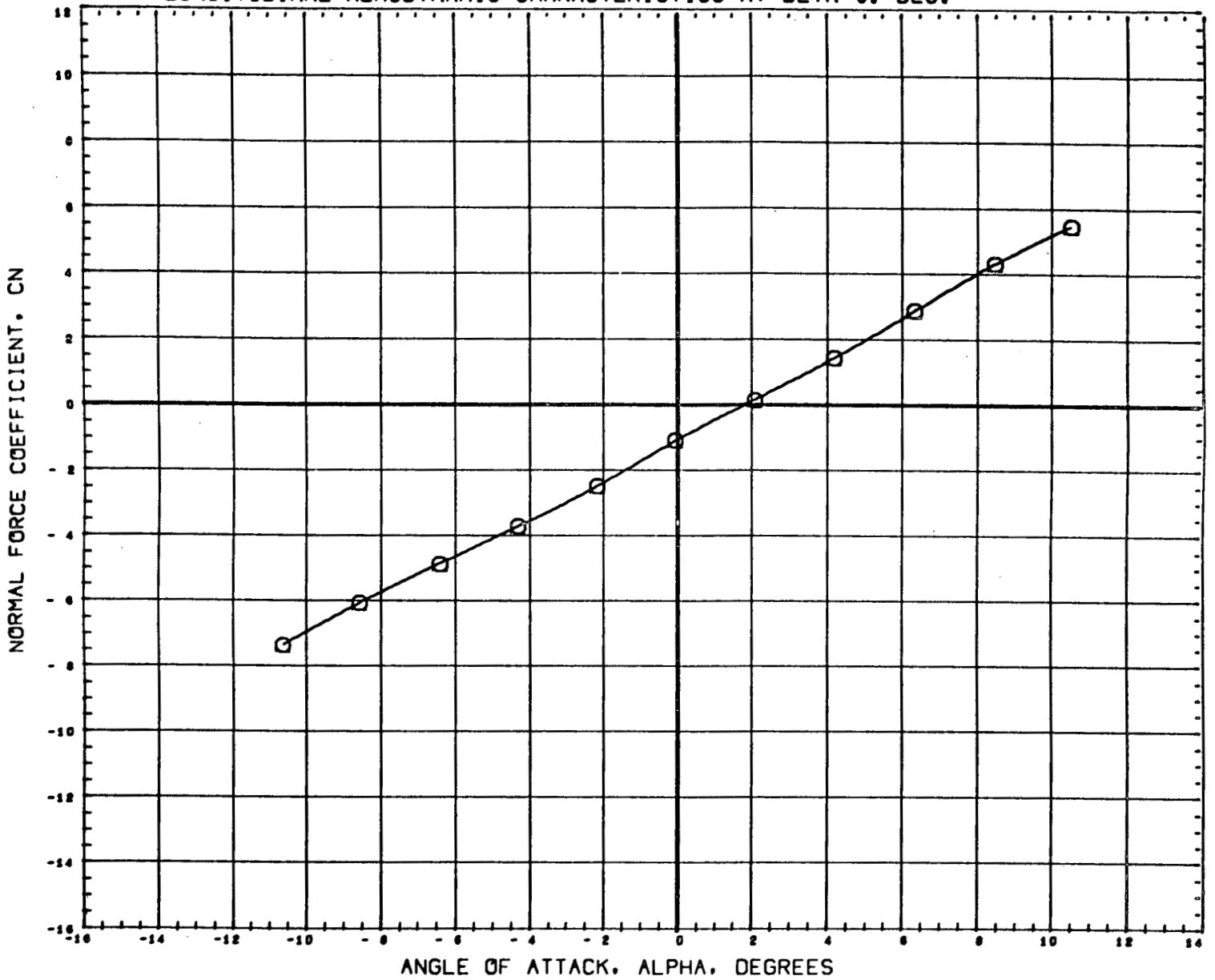
MSFC TWT 505 T111L/DT07

01D2L4

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

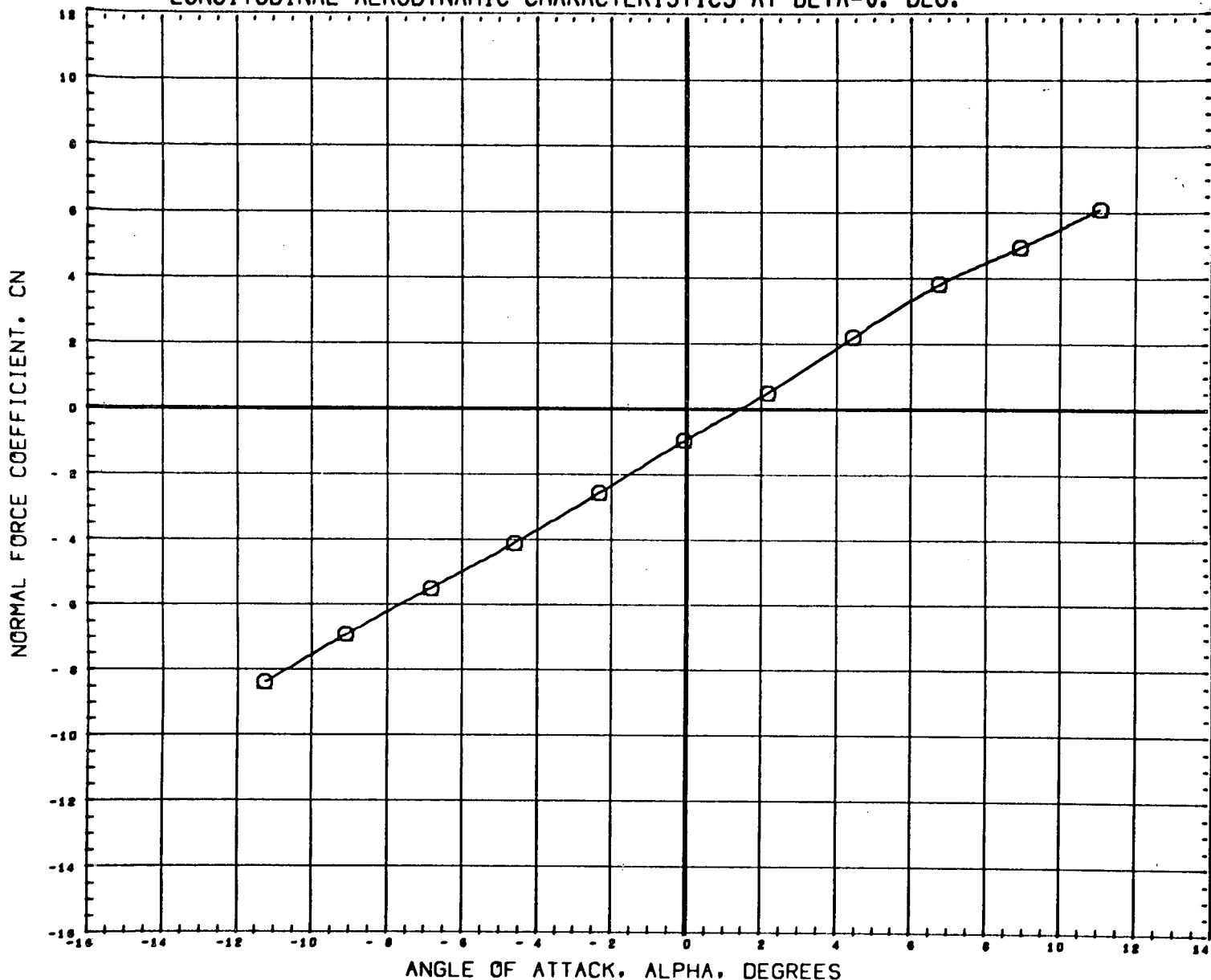


SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.597 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BRP 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

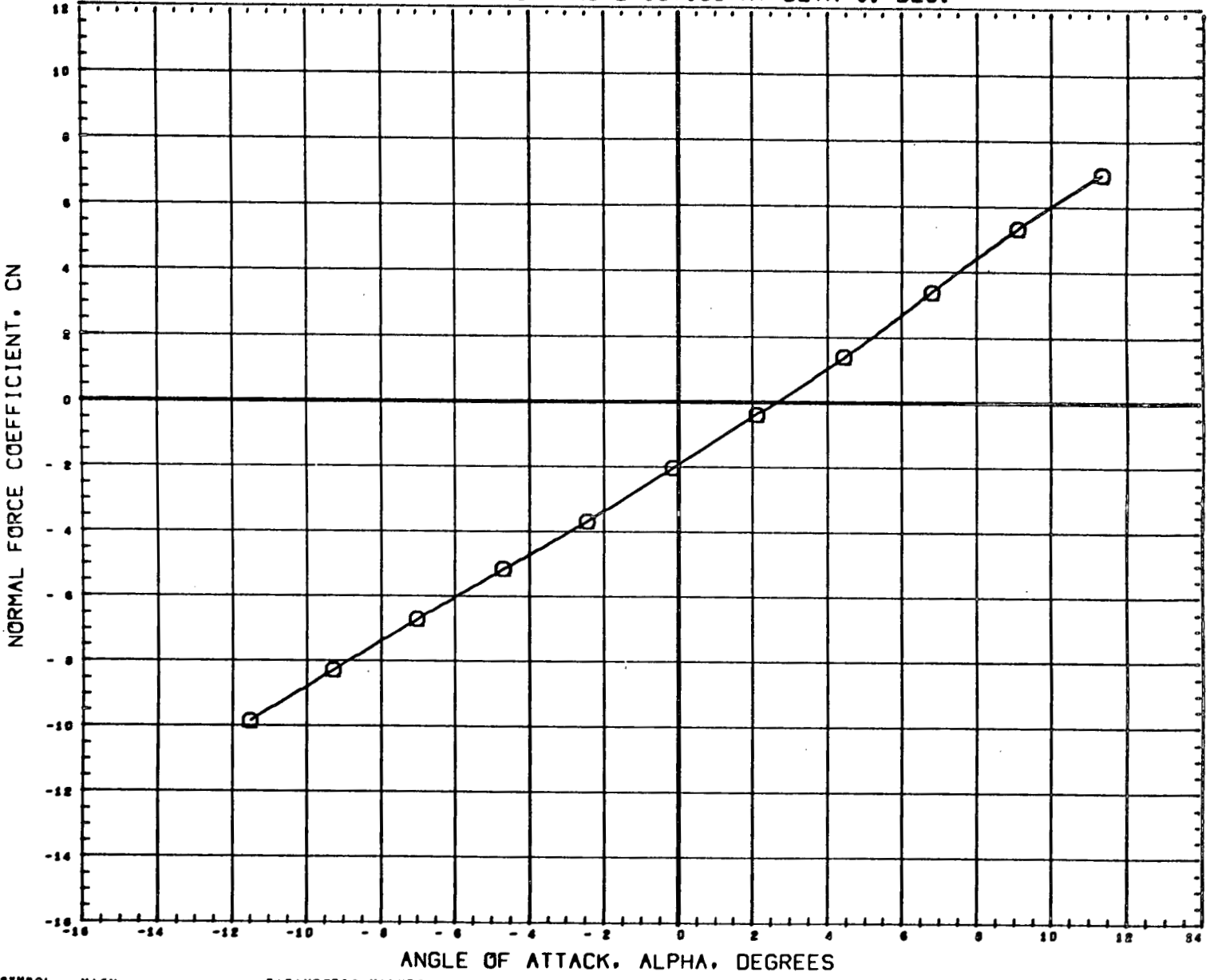


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.898 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.0170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

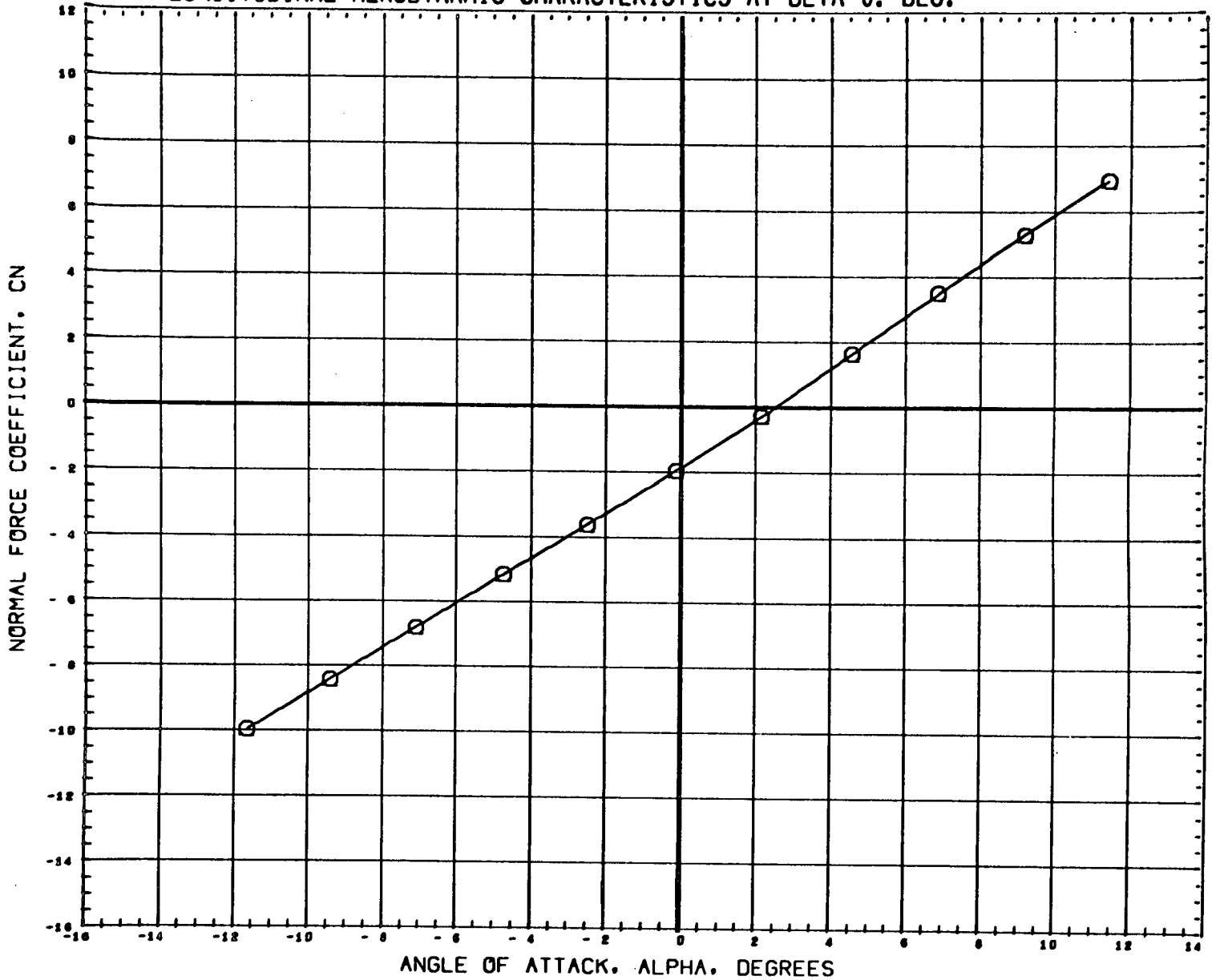


SYMBOL \circ MACH 0.997 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.097 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

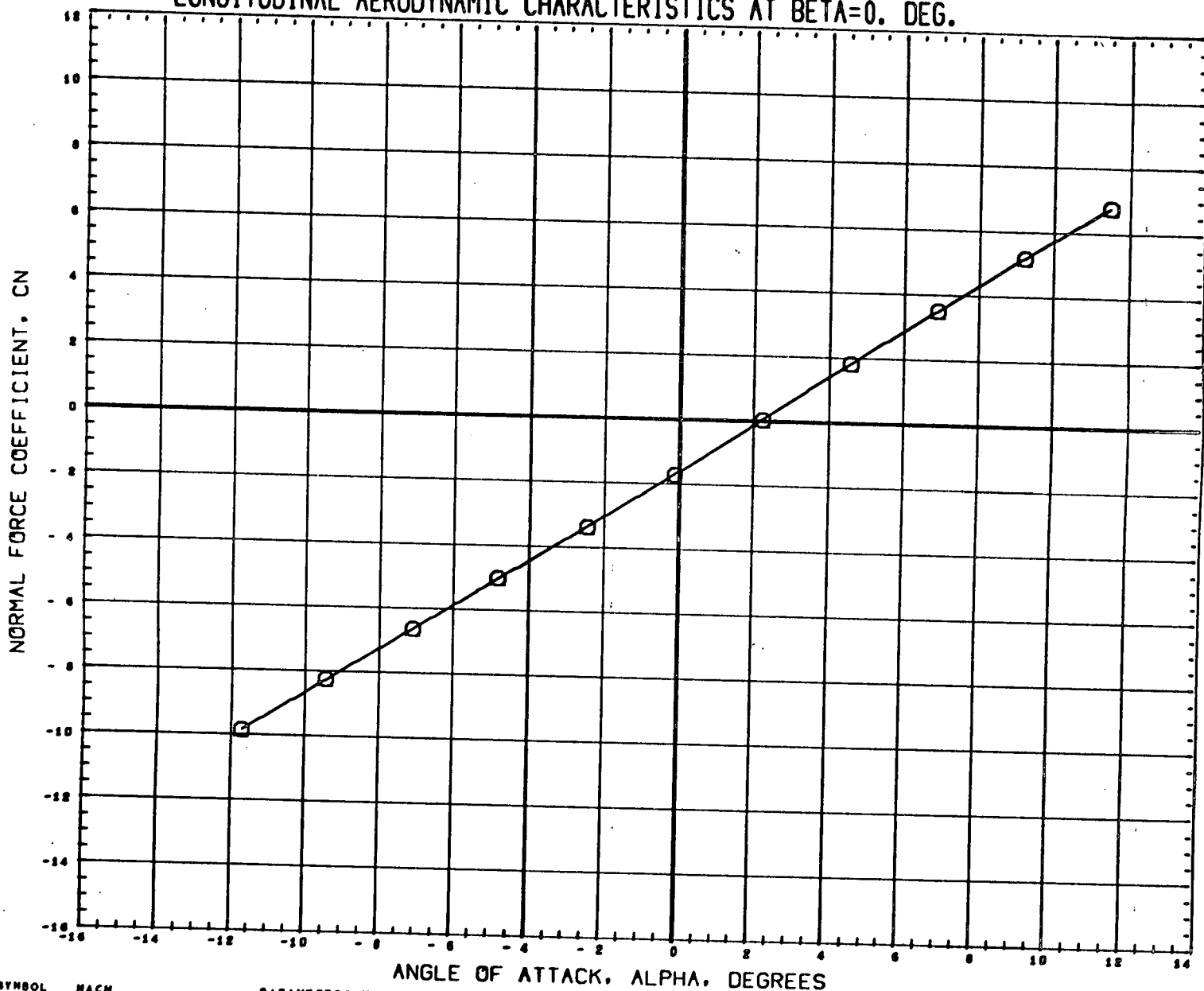
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.197 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

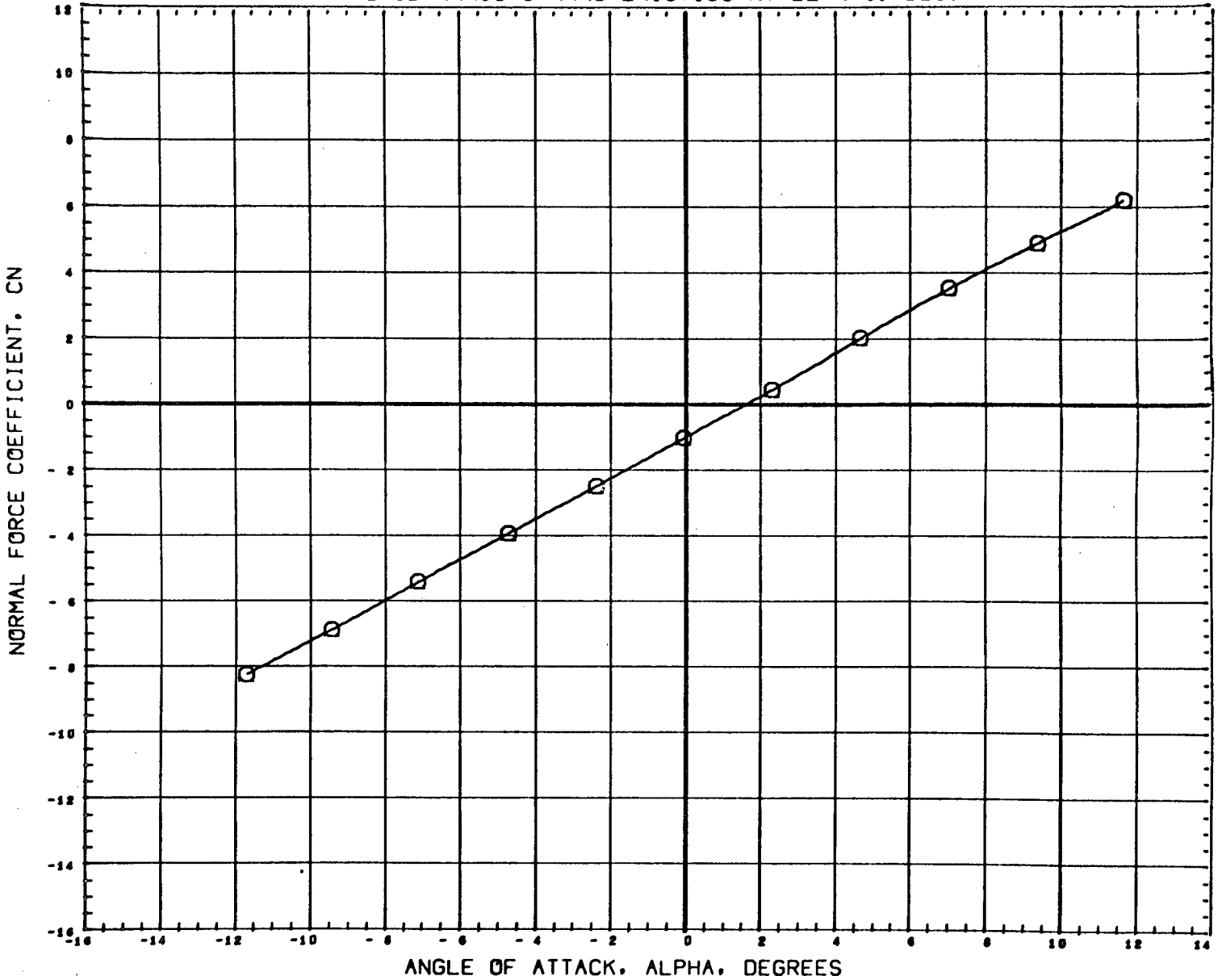
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

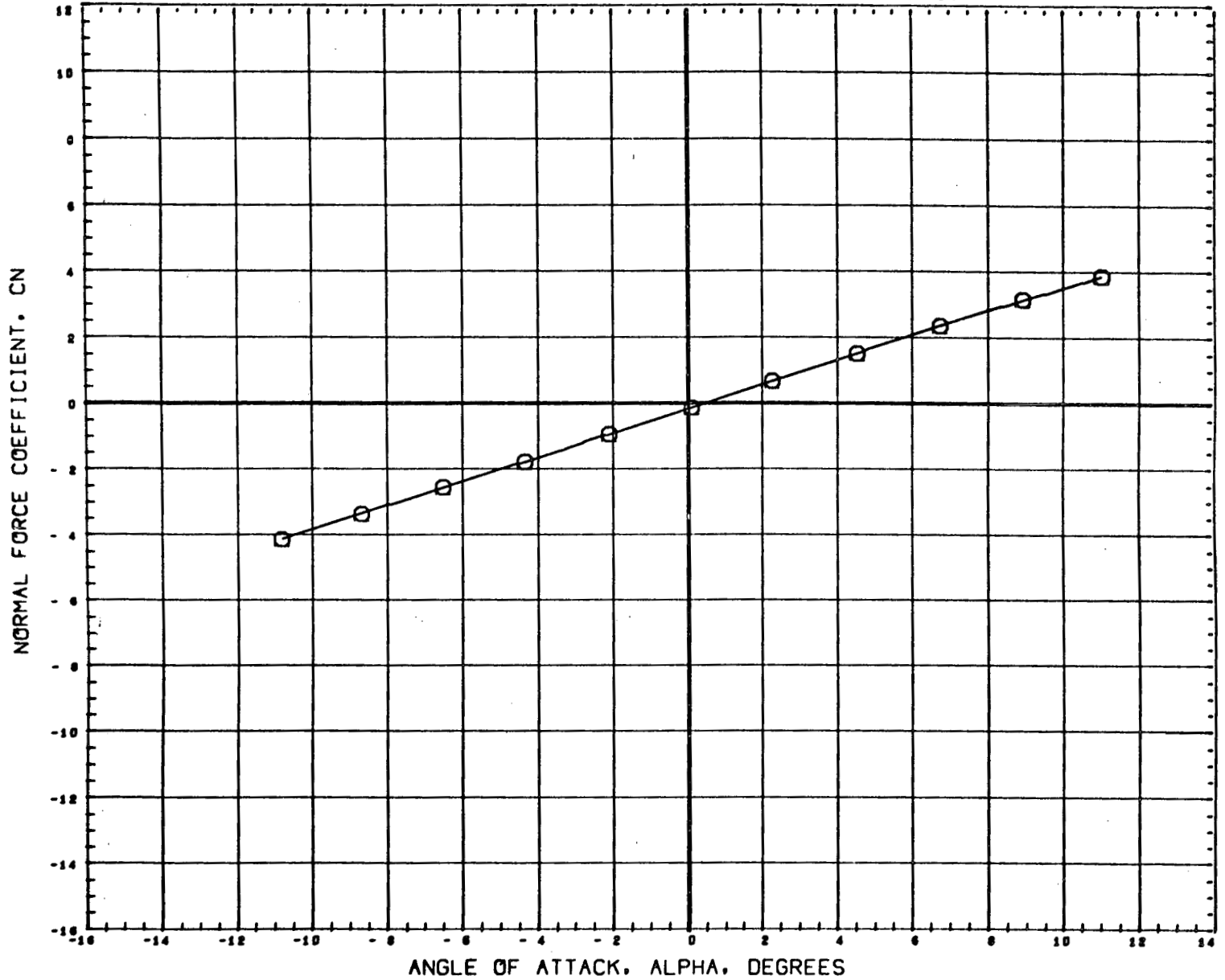


SYMBOL \bigcirc MACH 1.463 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



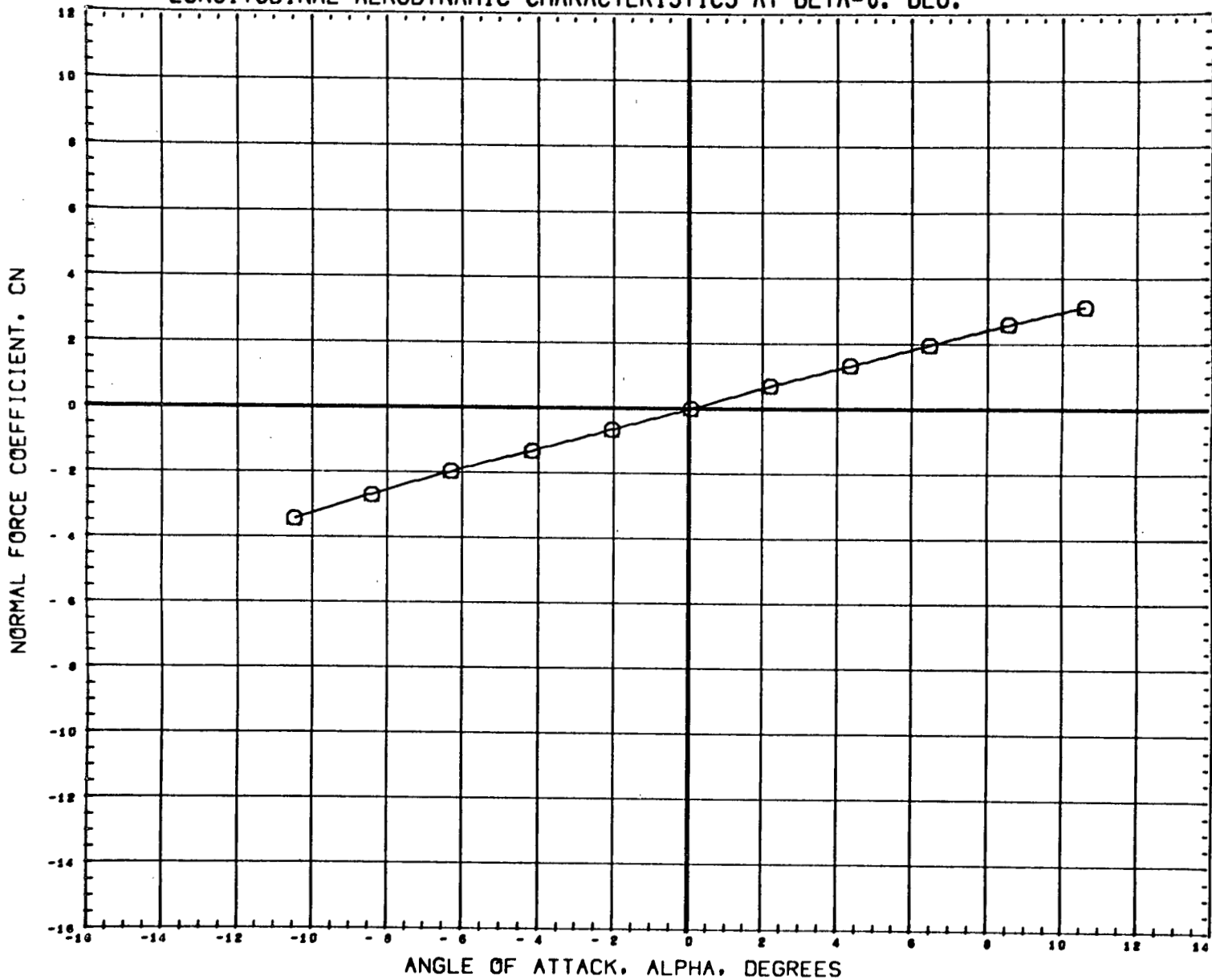
SYMBOL MACH BETA PARAMETRIC VALUES
 O 2.740 0.000

REFERENCE INFORMATION

SREF	0.3340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XNRP	2.0170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 3.480 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

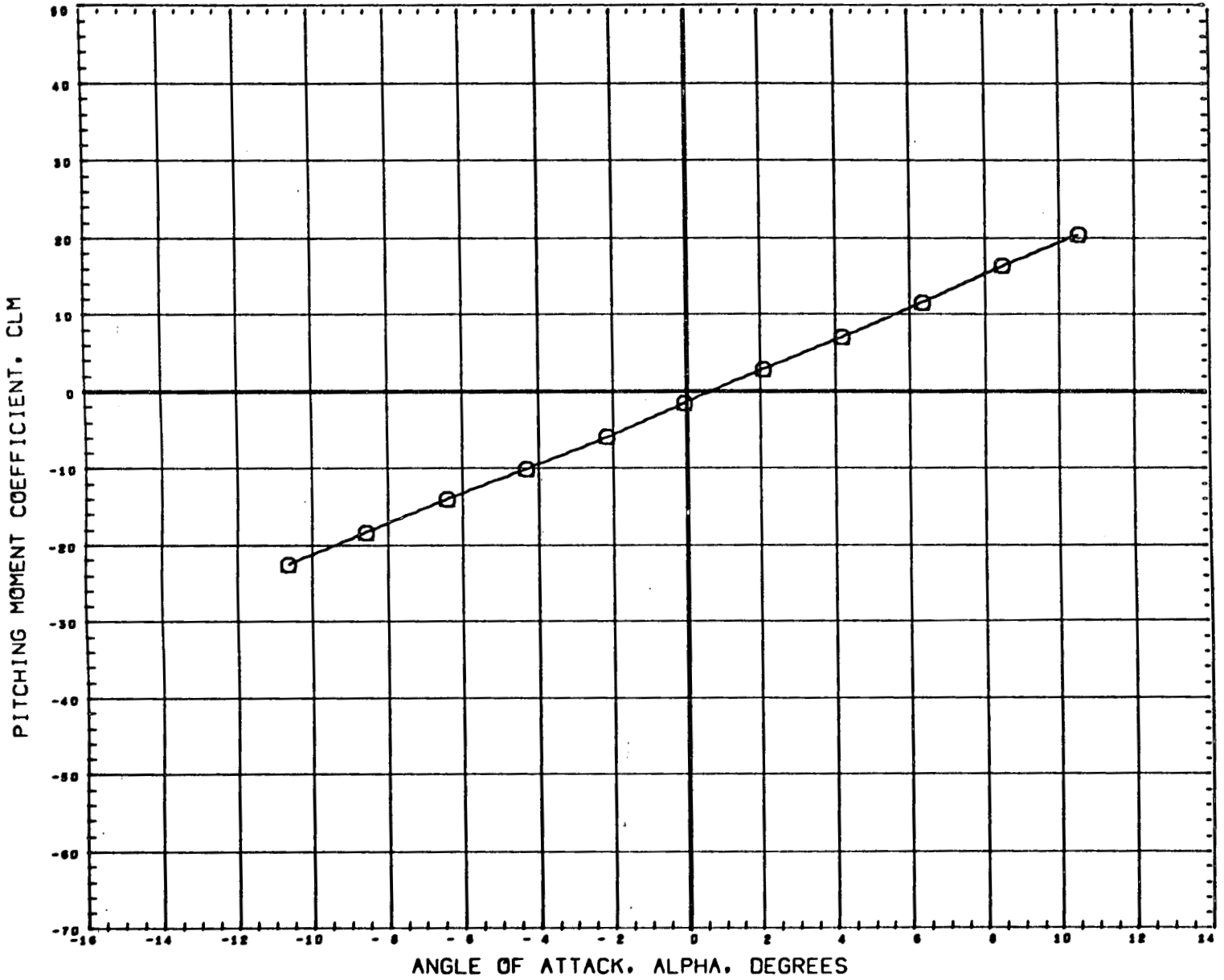
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

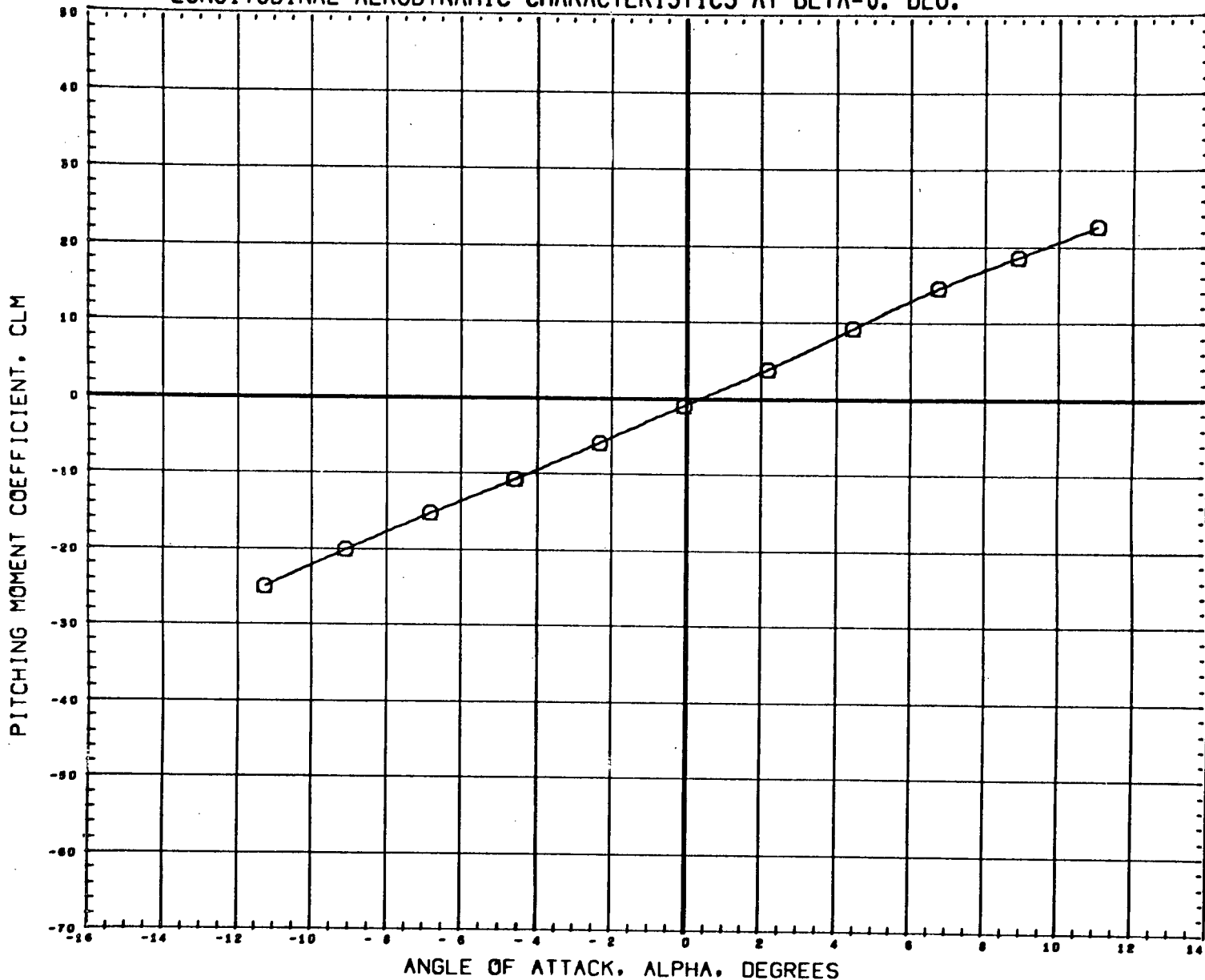


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.597 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 QREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V4E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.898 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

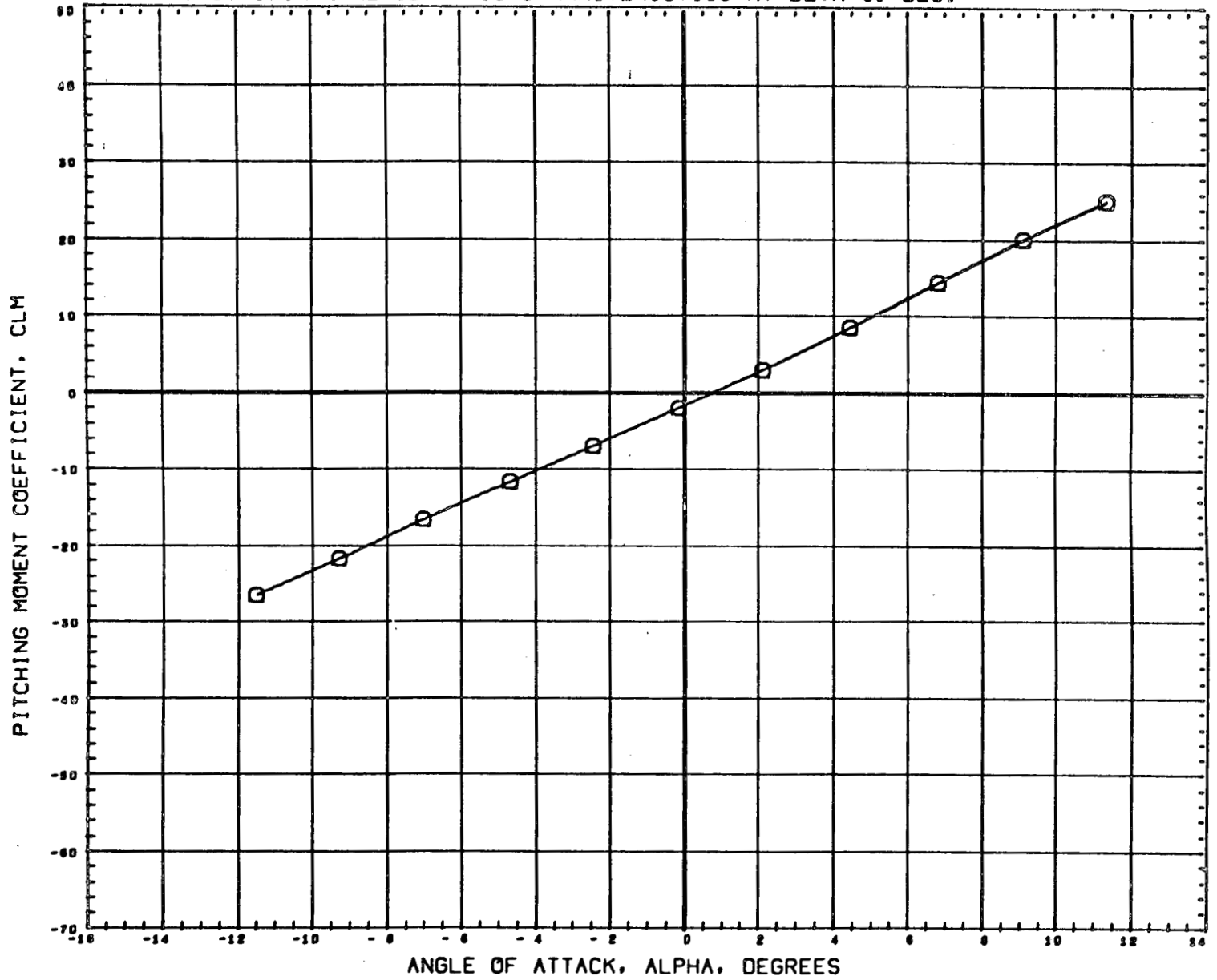
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

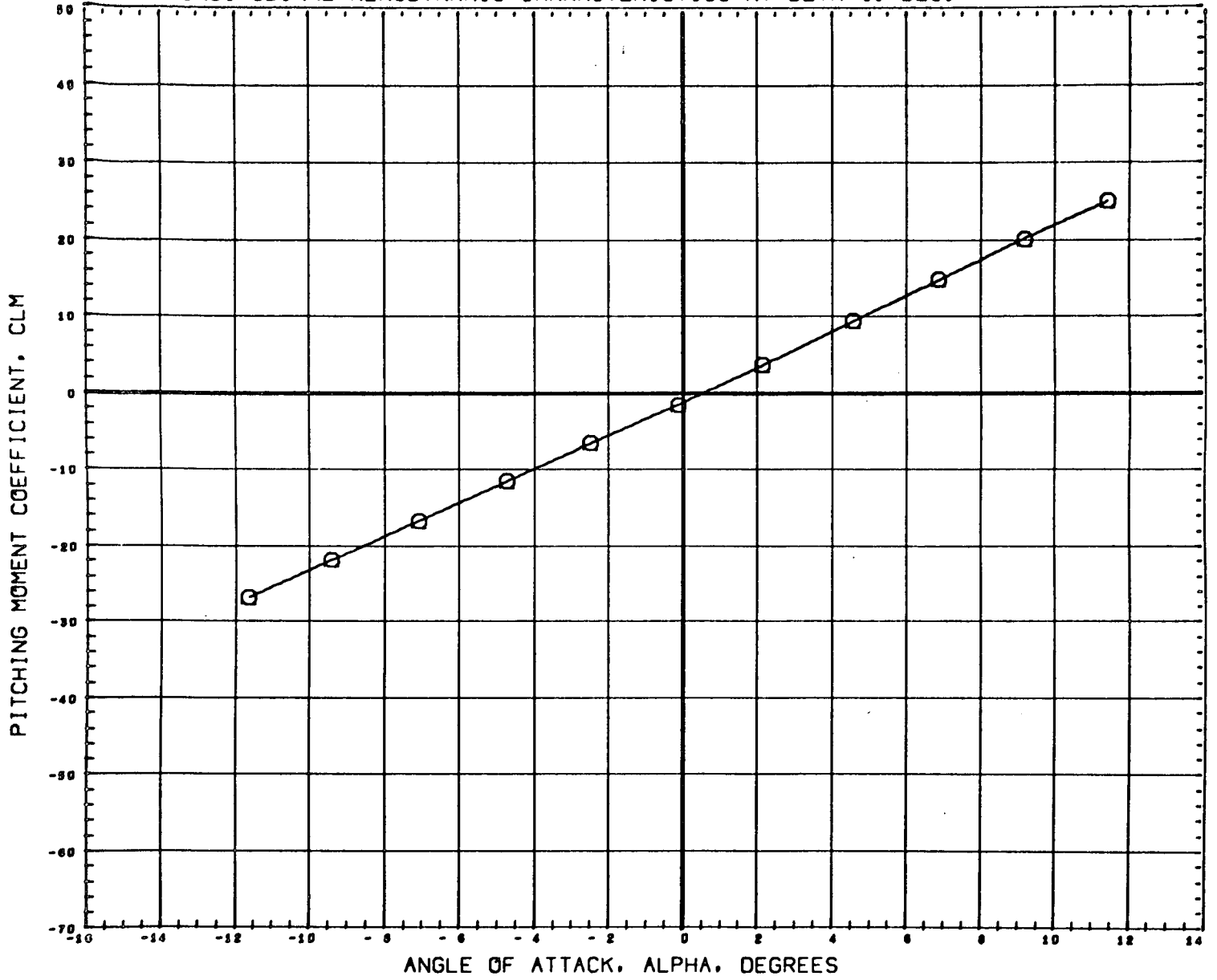


SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.997 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHED
 BREF 0.0240 INCHED
 XMRP 0.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.007 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
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 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

MSFC TWT 505 T111L/DT07

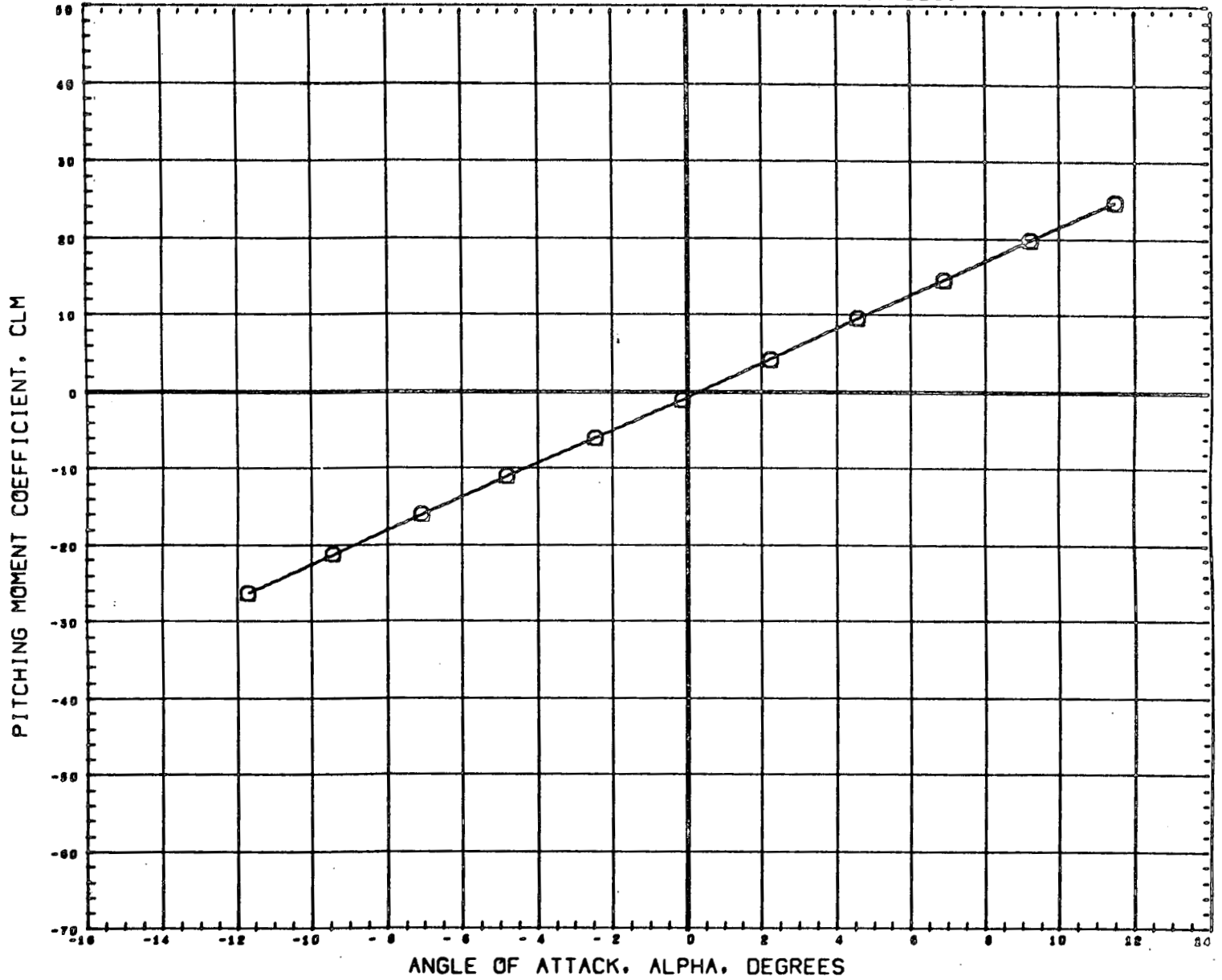
0101

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

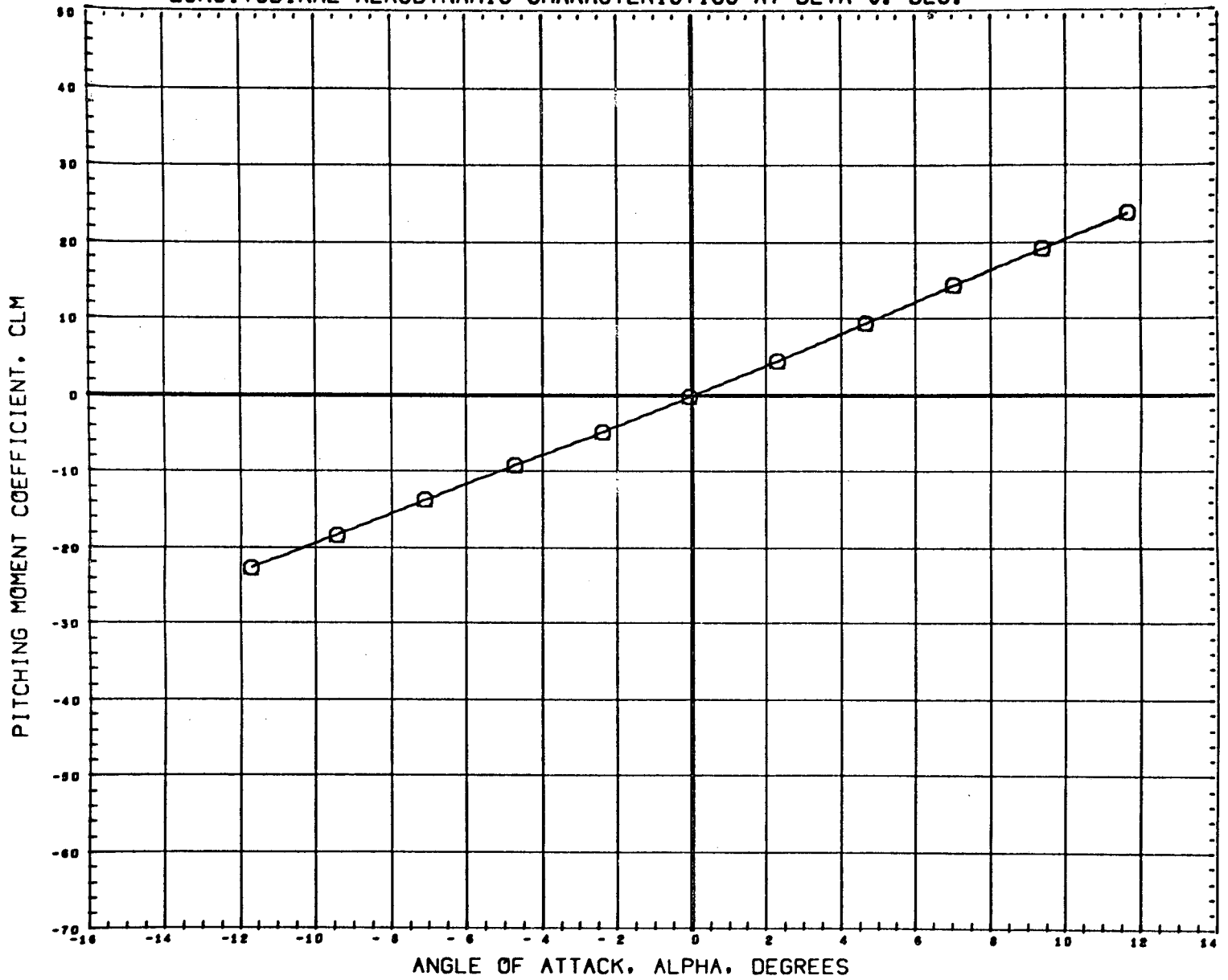


SYMBOL \bigcirc MACH 1.197 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHED
 DREF 0.0240 INCHED
 XWRP 2.9170 IN YZ
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V&E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.463 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRF 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

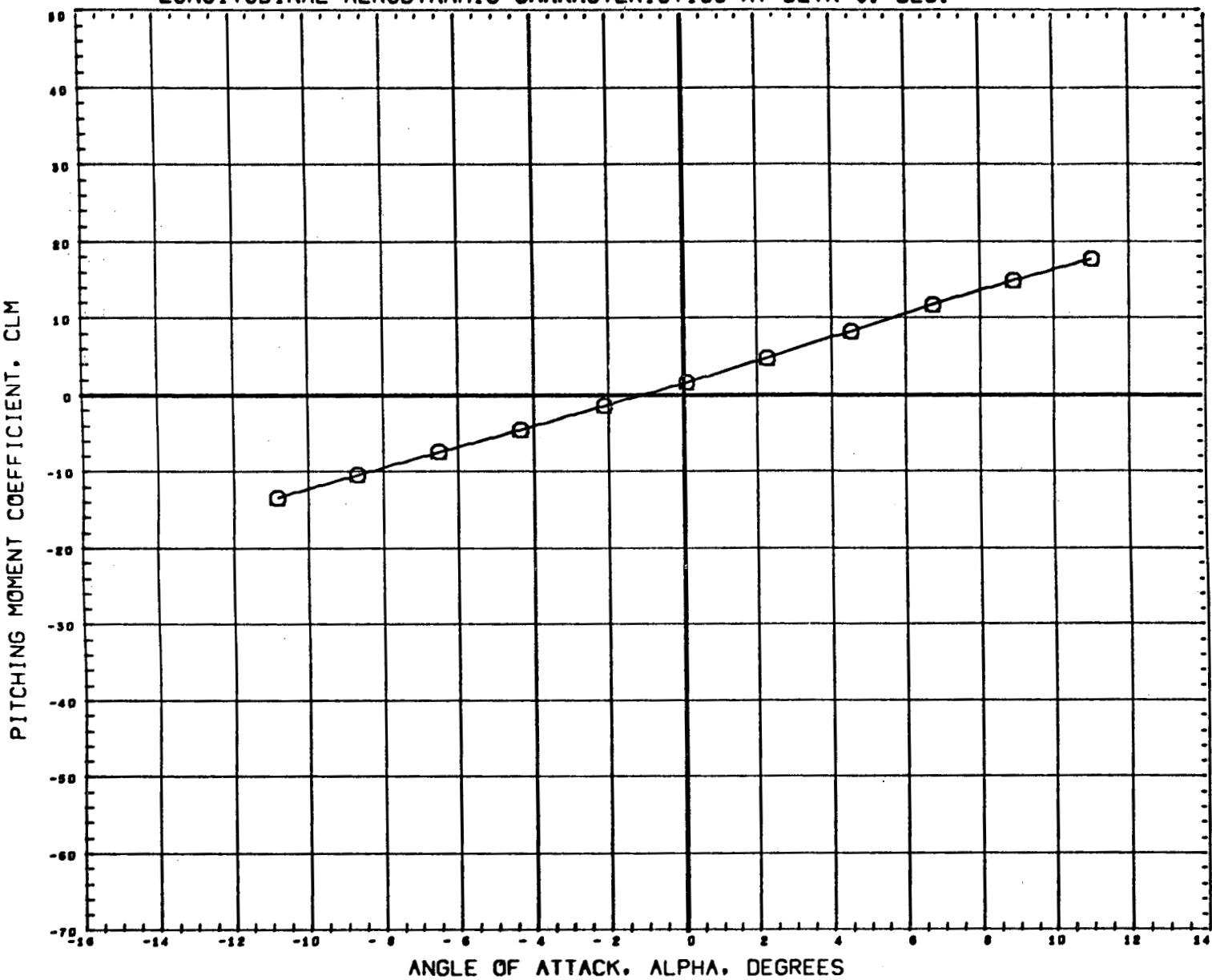
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



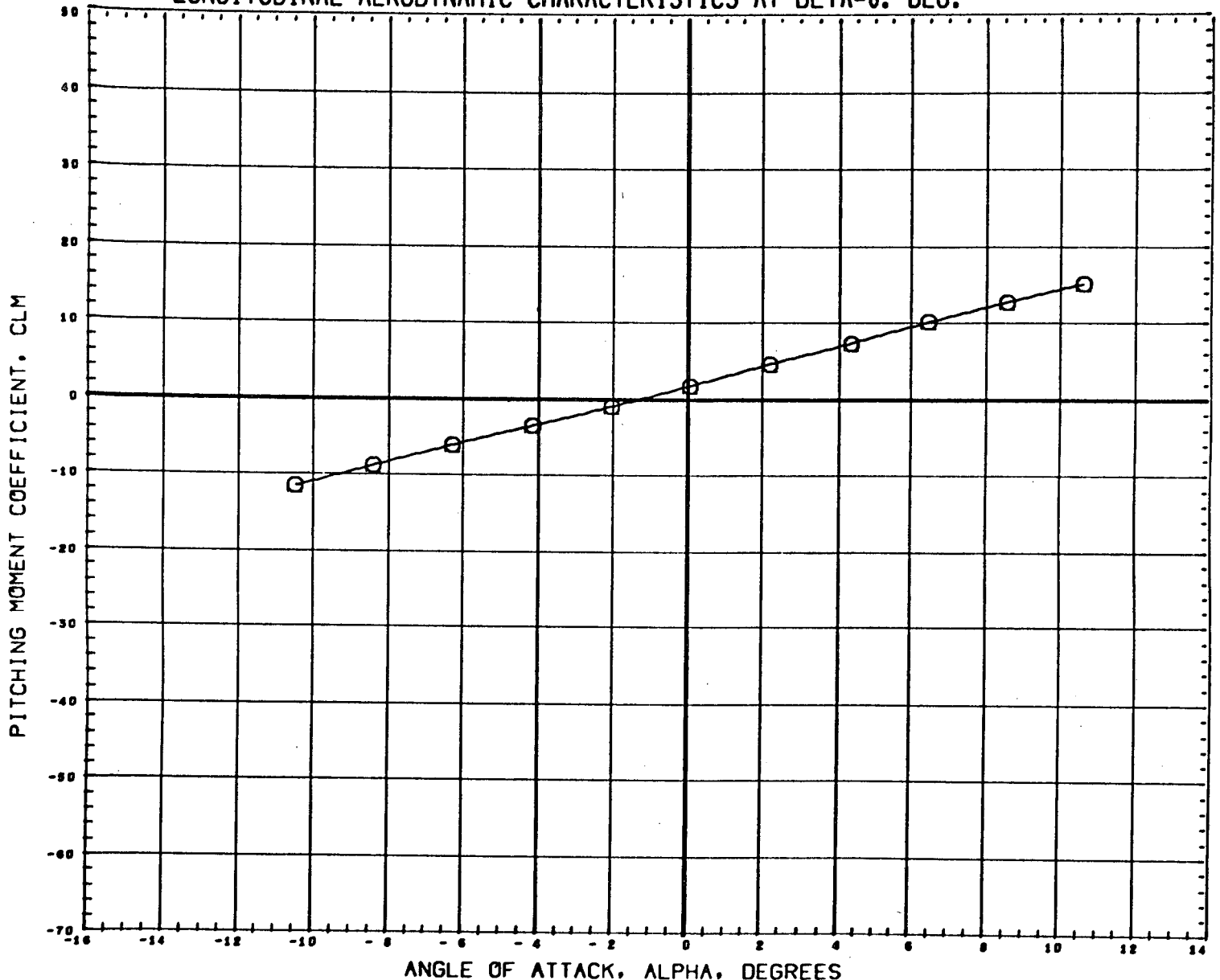
SYMBOL MACH BETA PARAMETRIC VALUES
 O 2.740 0.000

REFERENCE INFORMATION

OREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

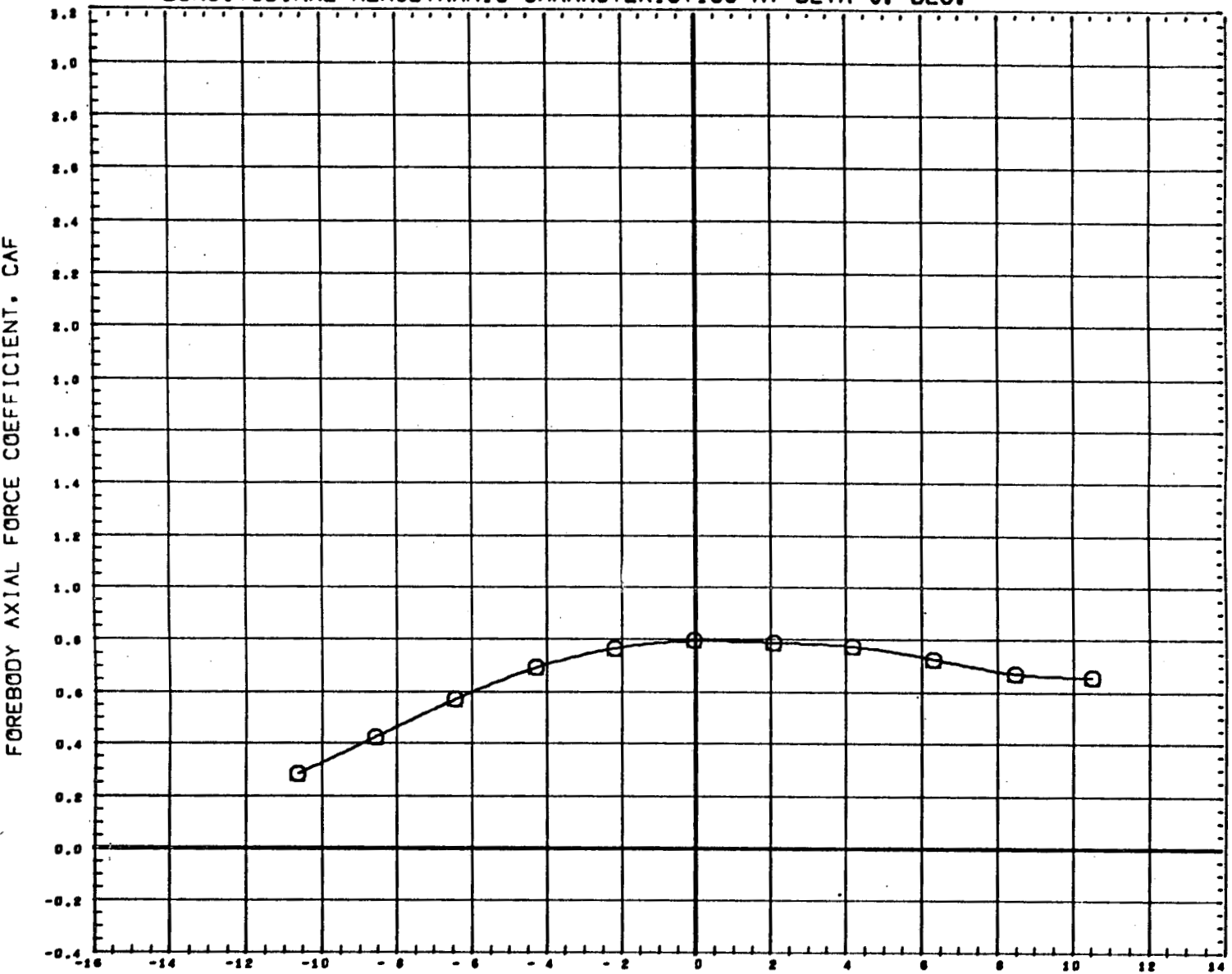


SYMBOL \circ MACH 3.480 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

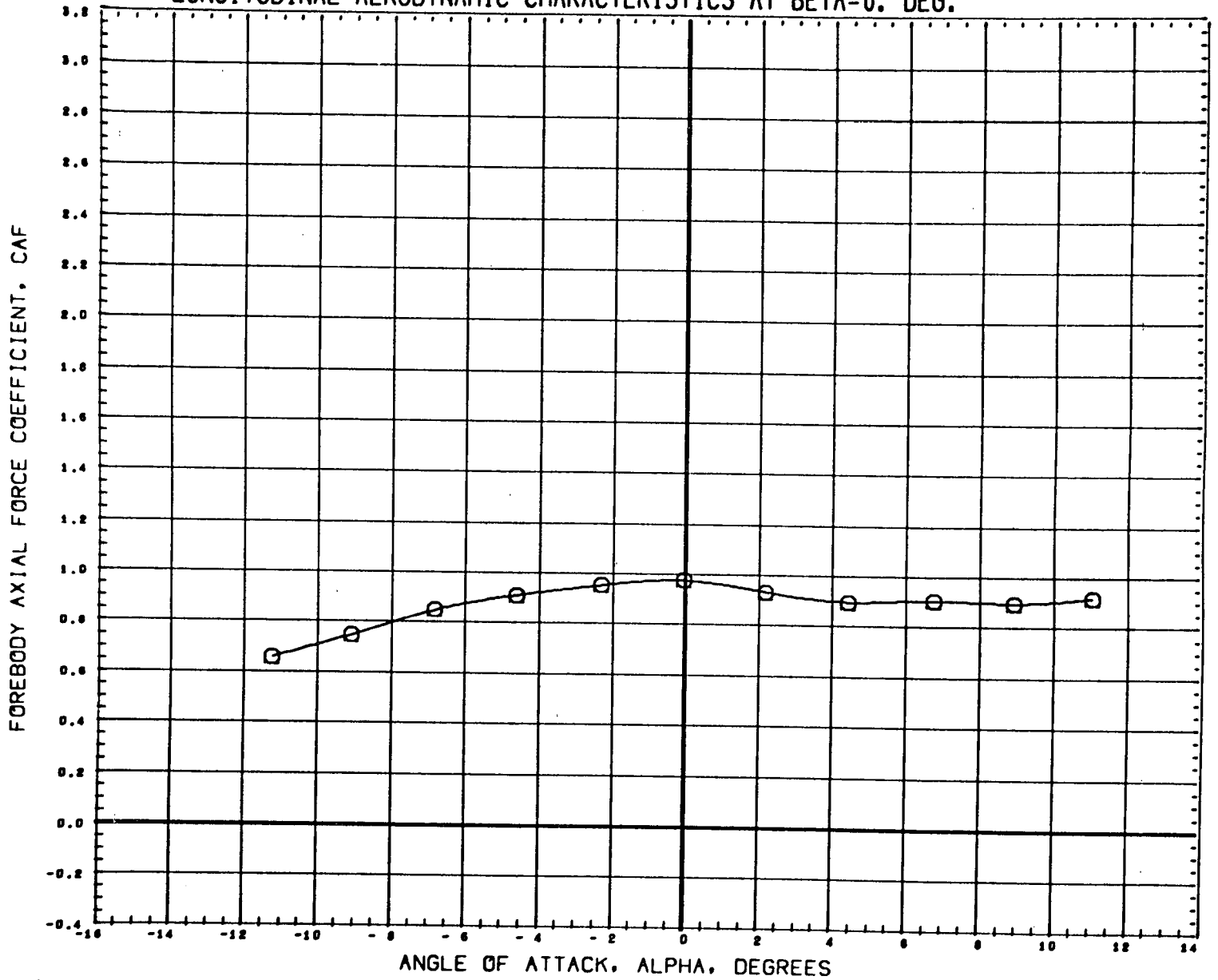


SYMBOL \circ MACH 0.597 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.998 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

MSFC TWT 505 T111L/DT07

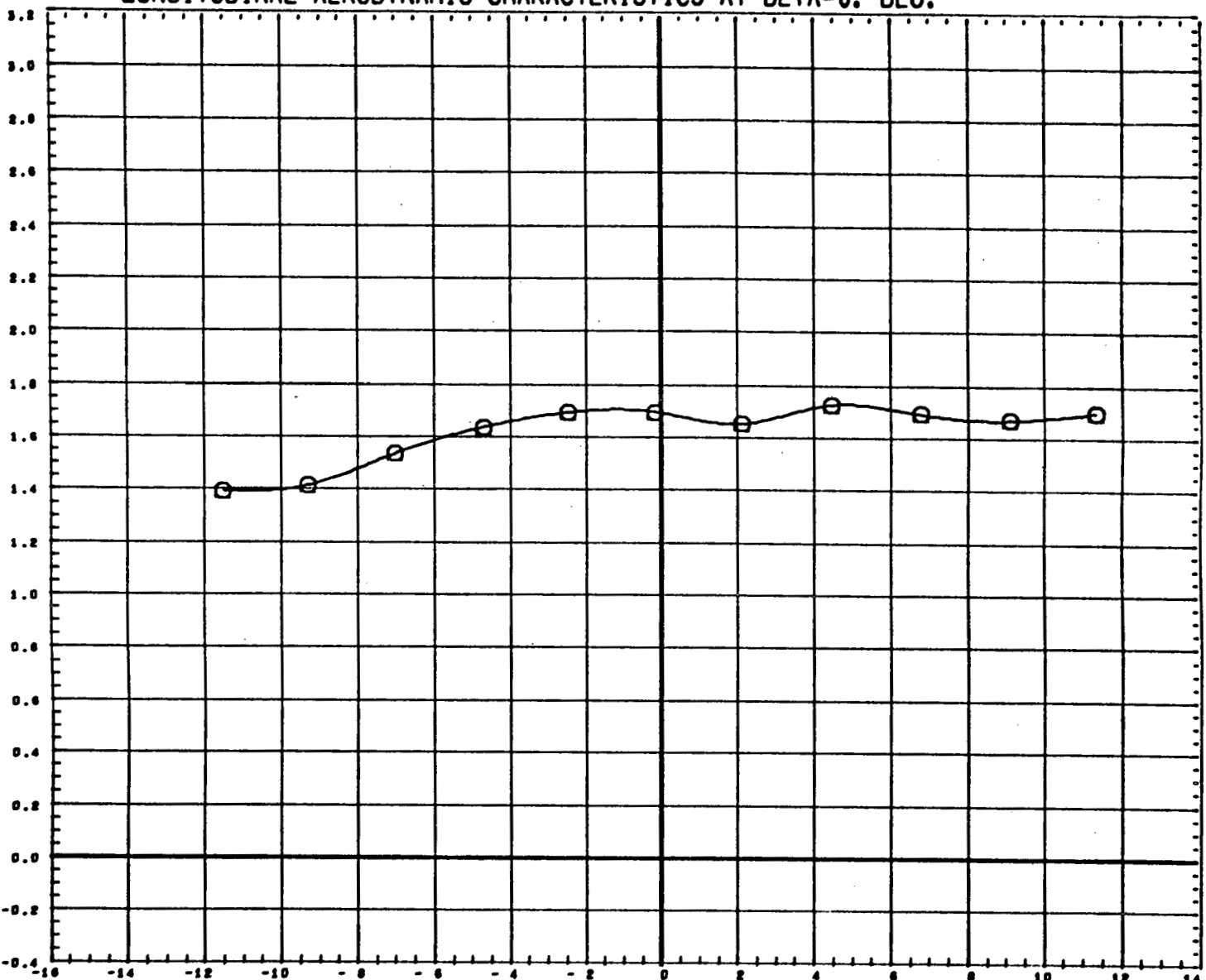
0101

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



ANGLE OF ATTACK, ALPHA, DEGREES

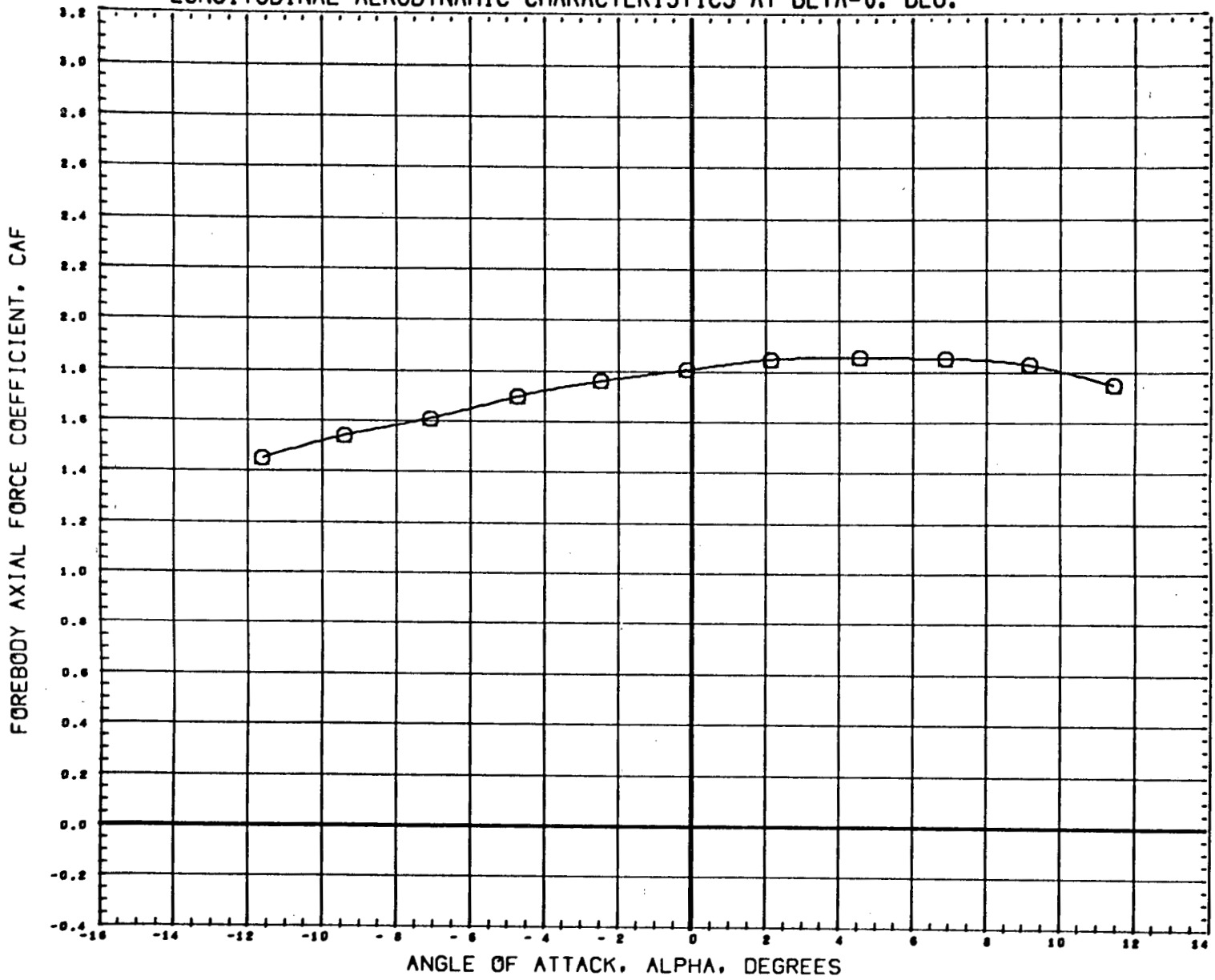
SYMBOL \circ MACH 0.997 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION

SREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN Y11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.097 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 8.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

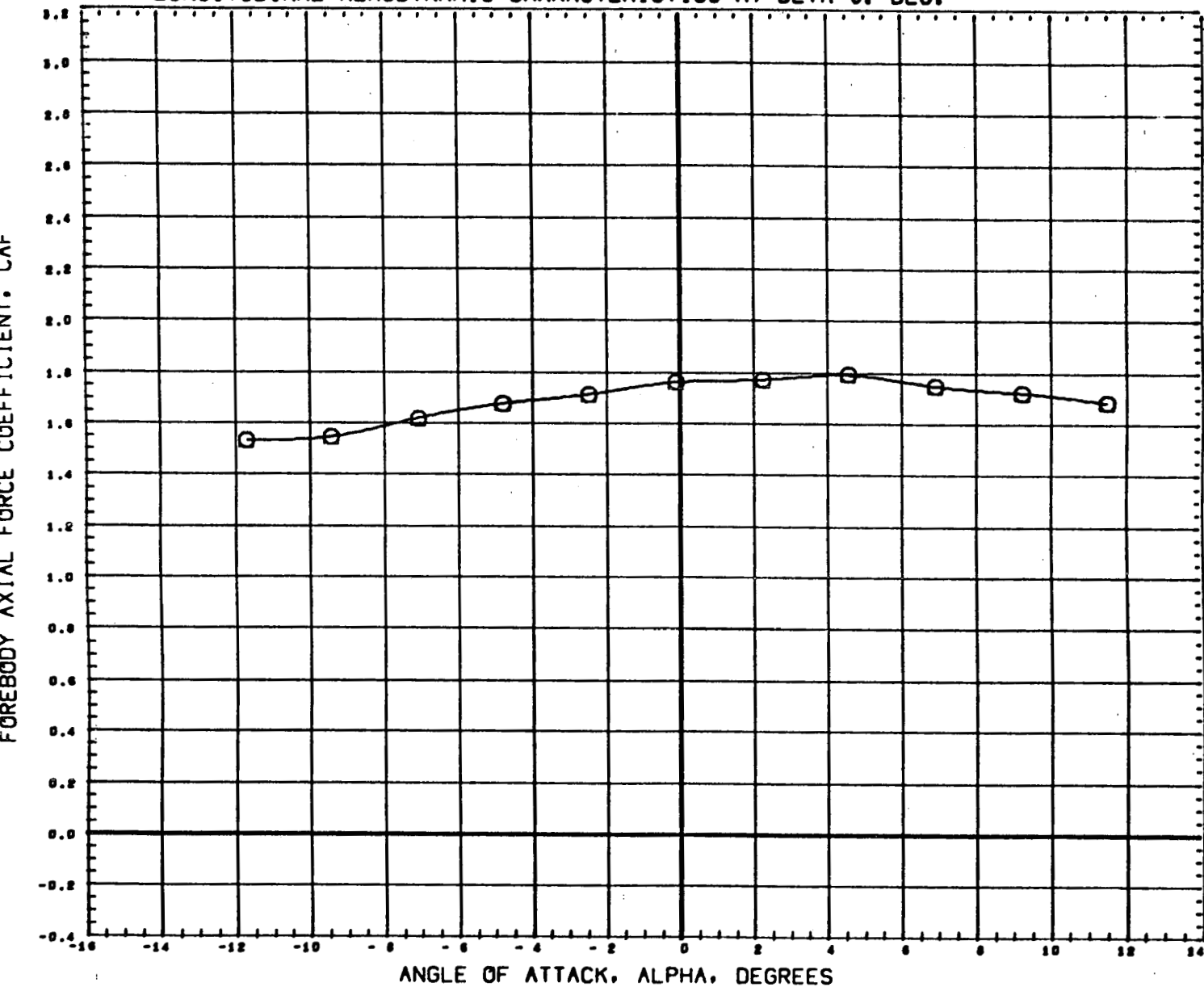
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 1.197 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

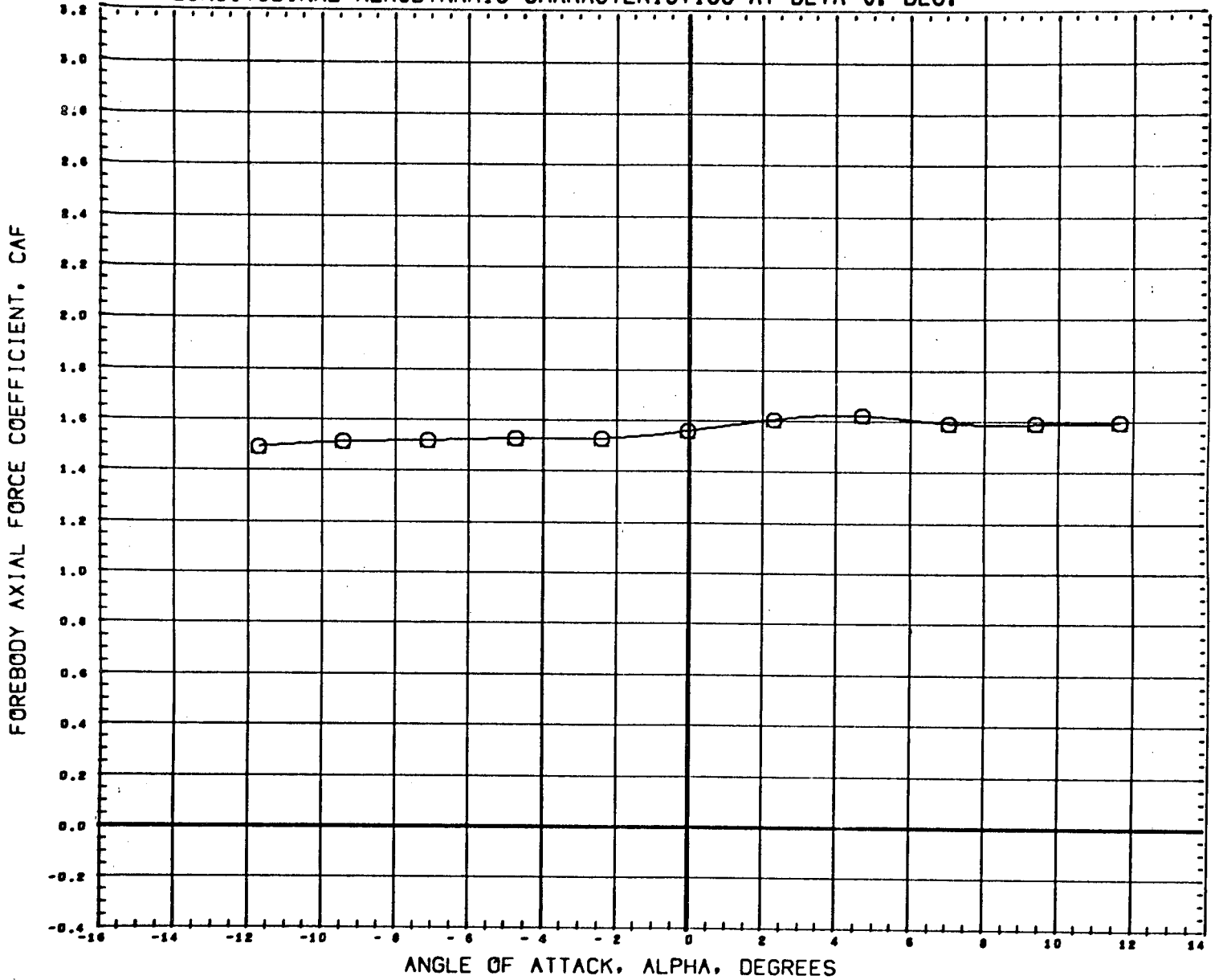
15FC TWT 505 T111L/DT07

01D1

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

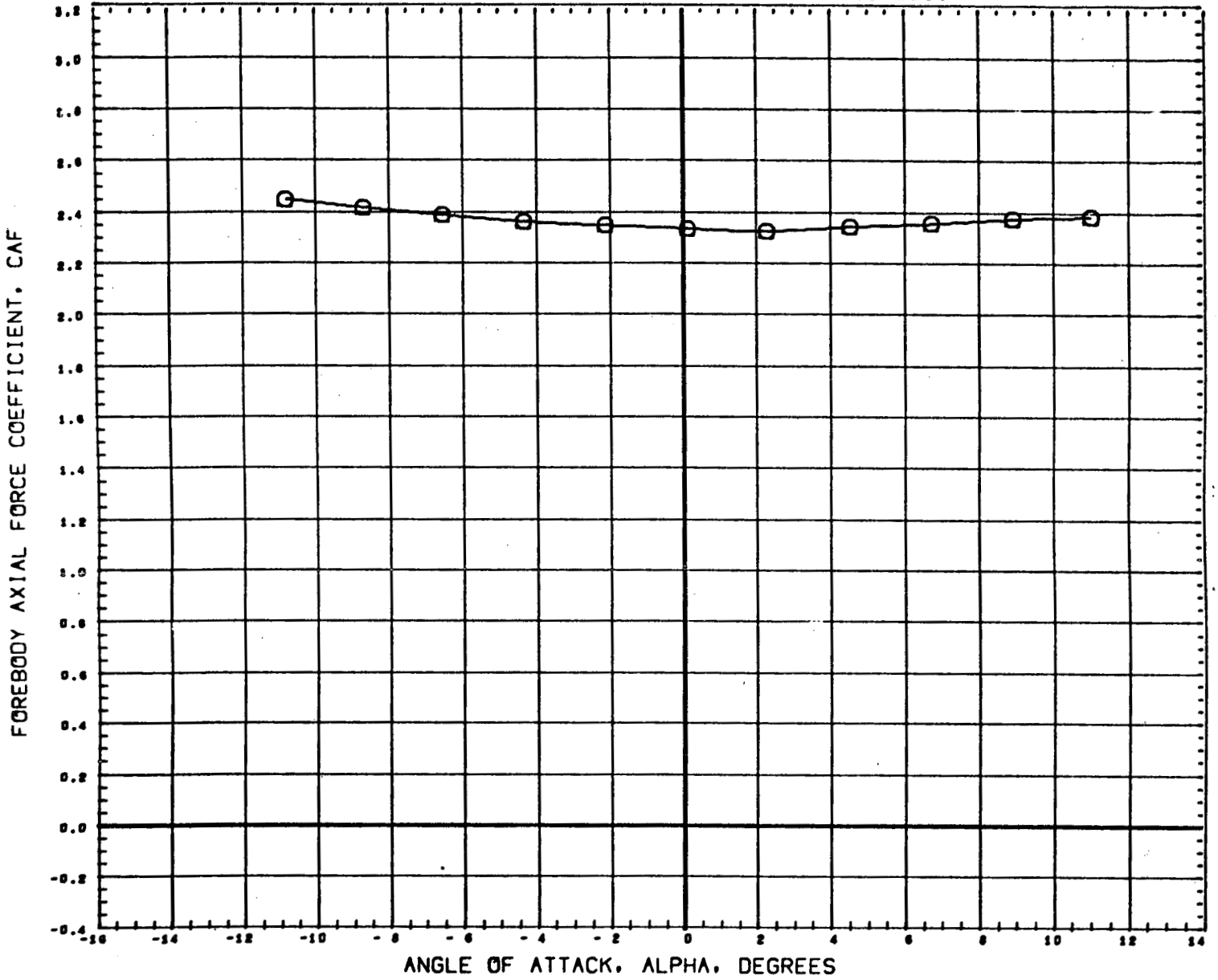


SYMBOL \circ MACH 1.463 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

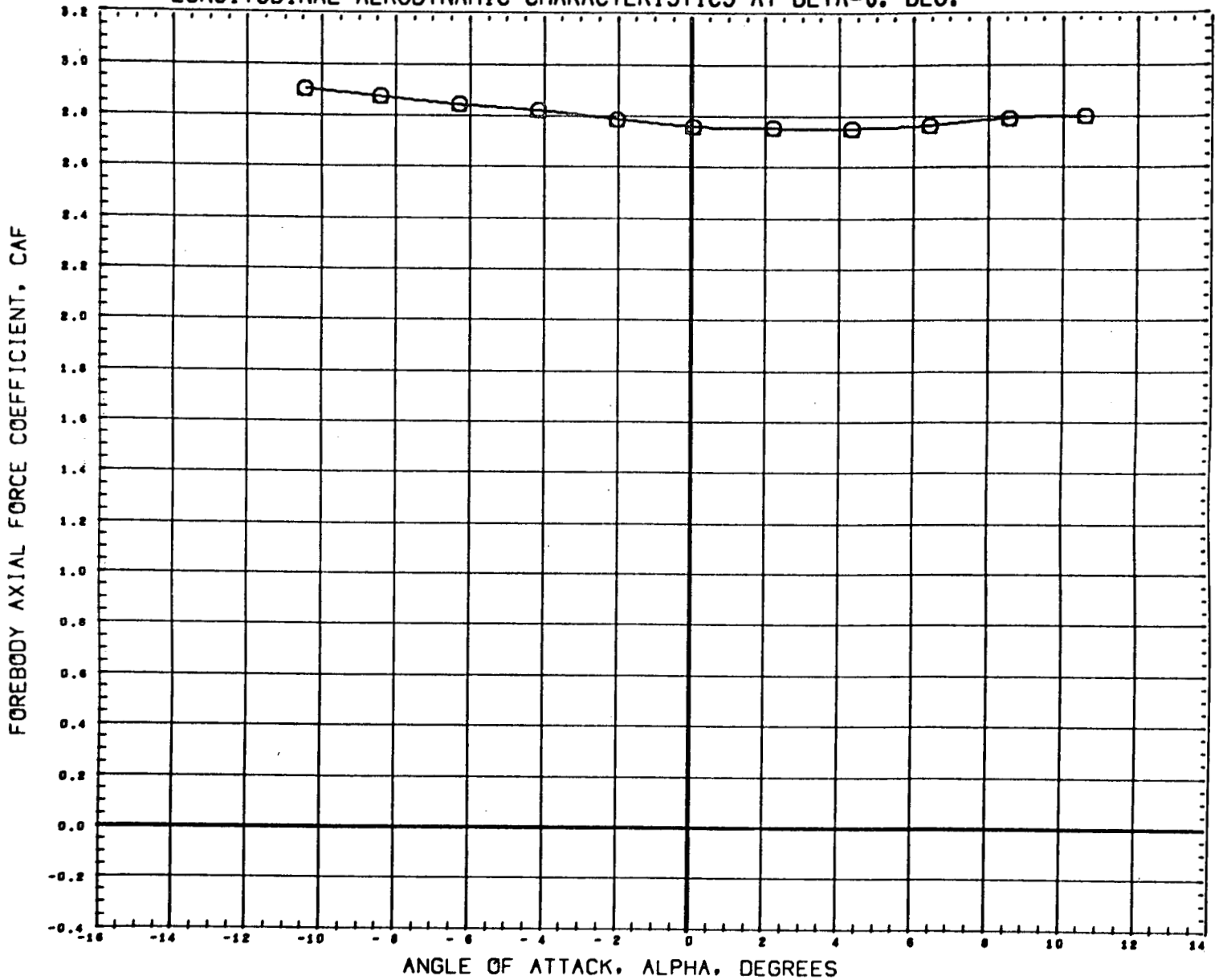


SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

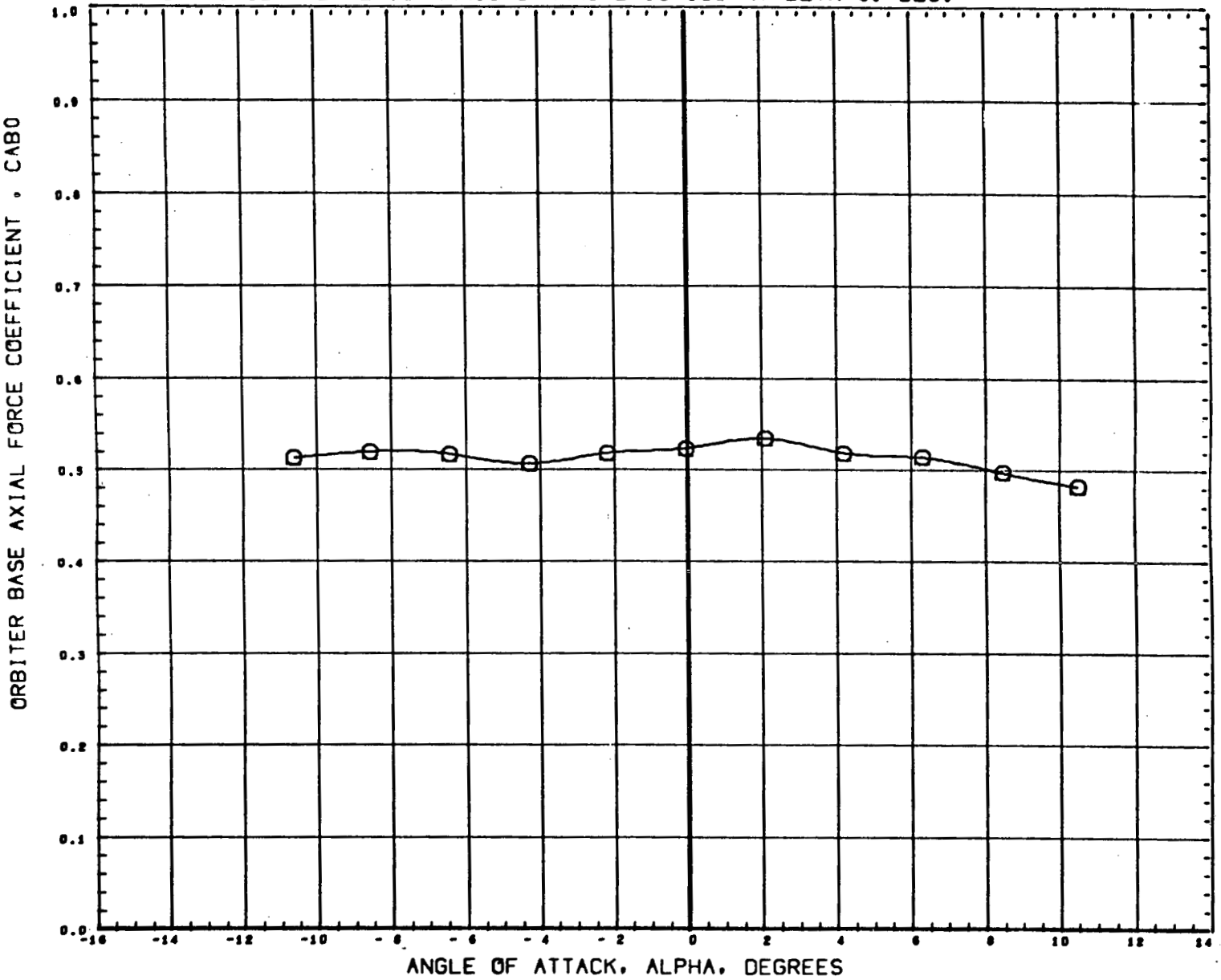


SYMBOL \bigcirc MACH 3.400 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

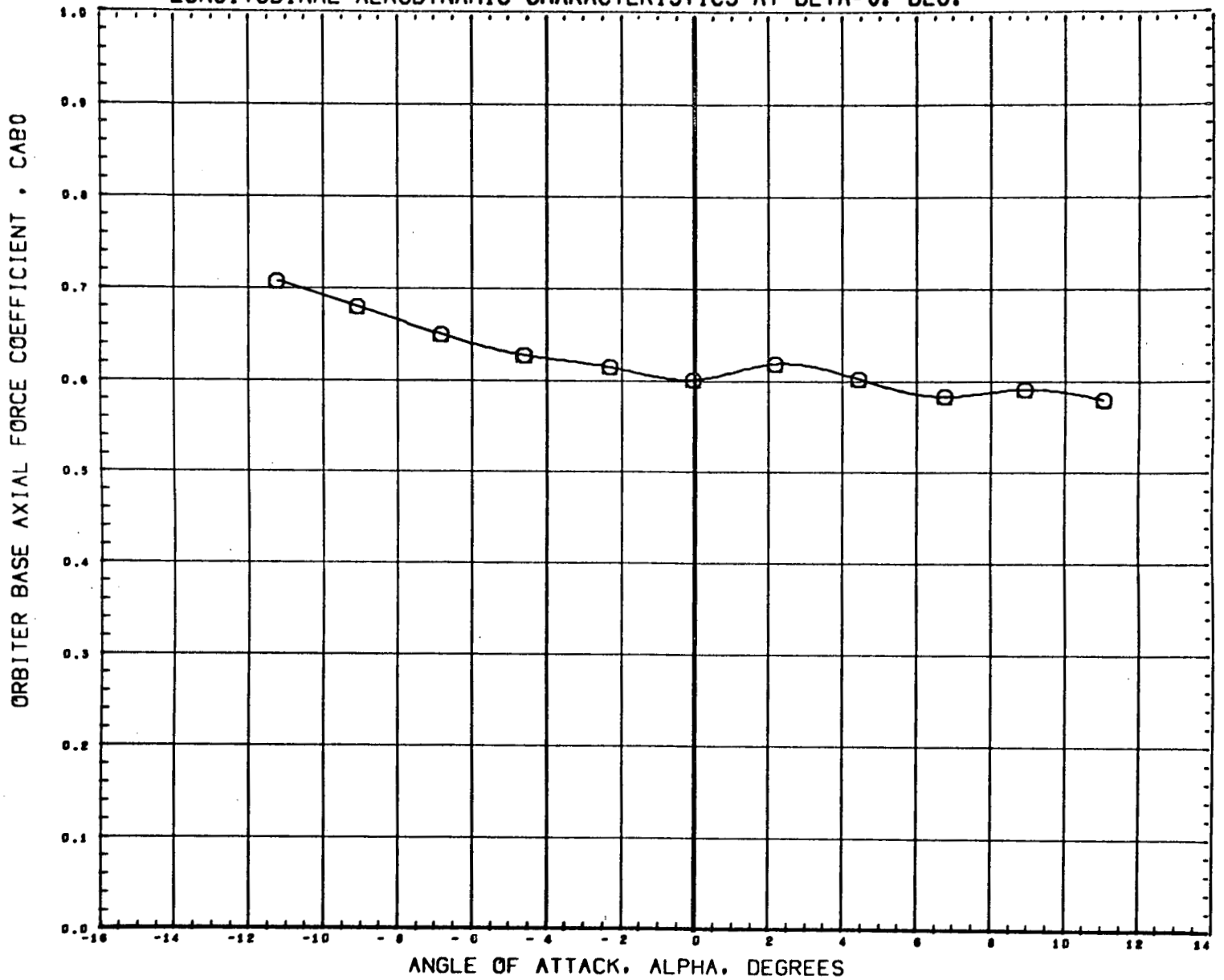


SYMBOL \bigcirc MACH 0.997 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.6240 INCHES
 BREF 0.6240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E#A

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



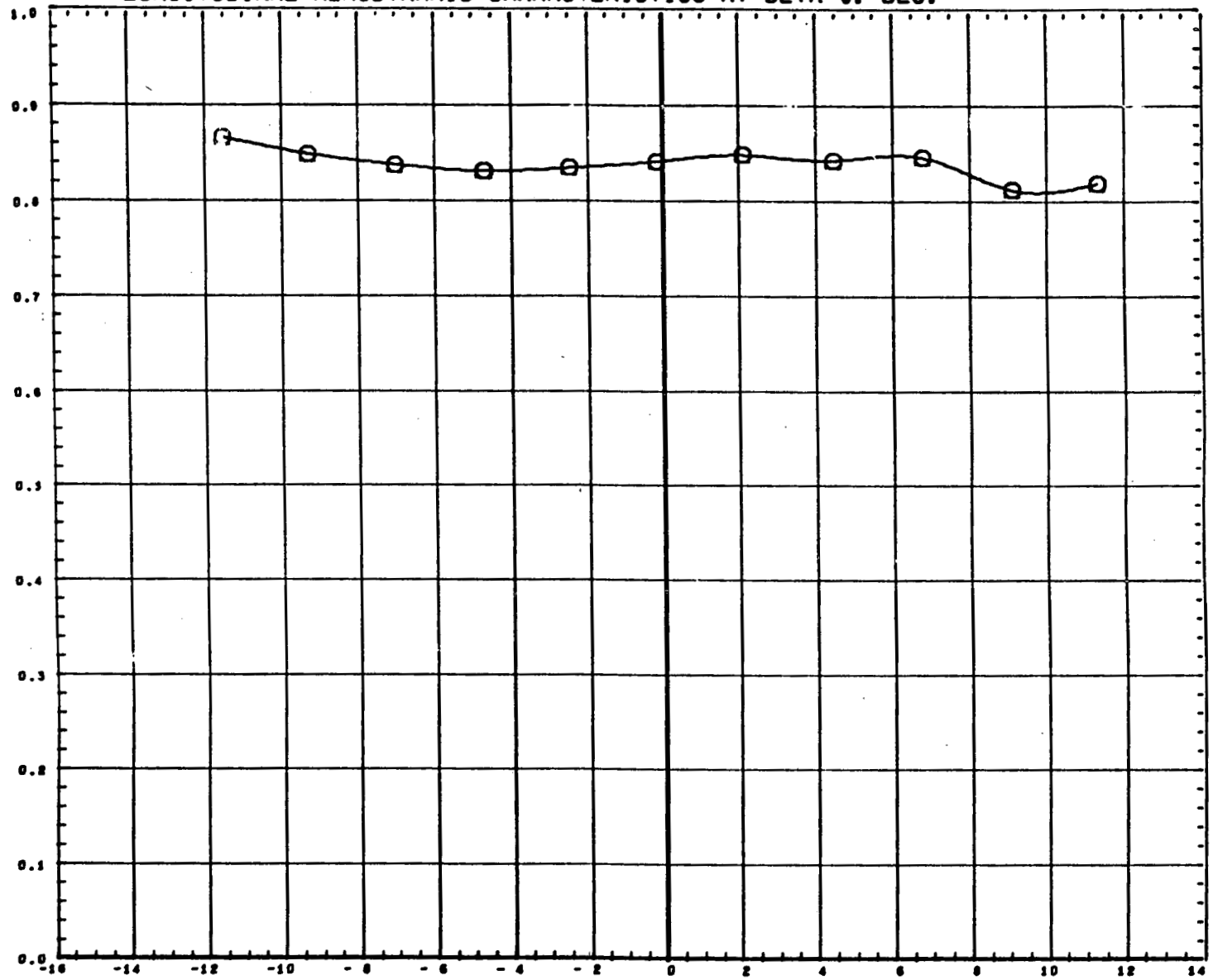
SYMBOL \circ MACH 0.098 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E#A

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT, CABO



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.997 0.000 0.000

REFERENCE INFORMATION

SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V+E*4

MSFC TWT 505 T111L/DT07

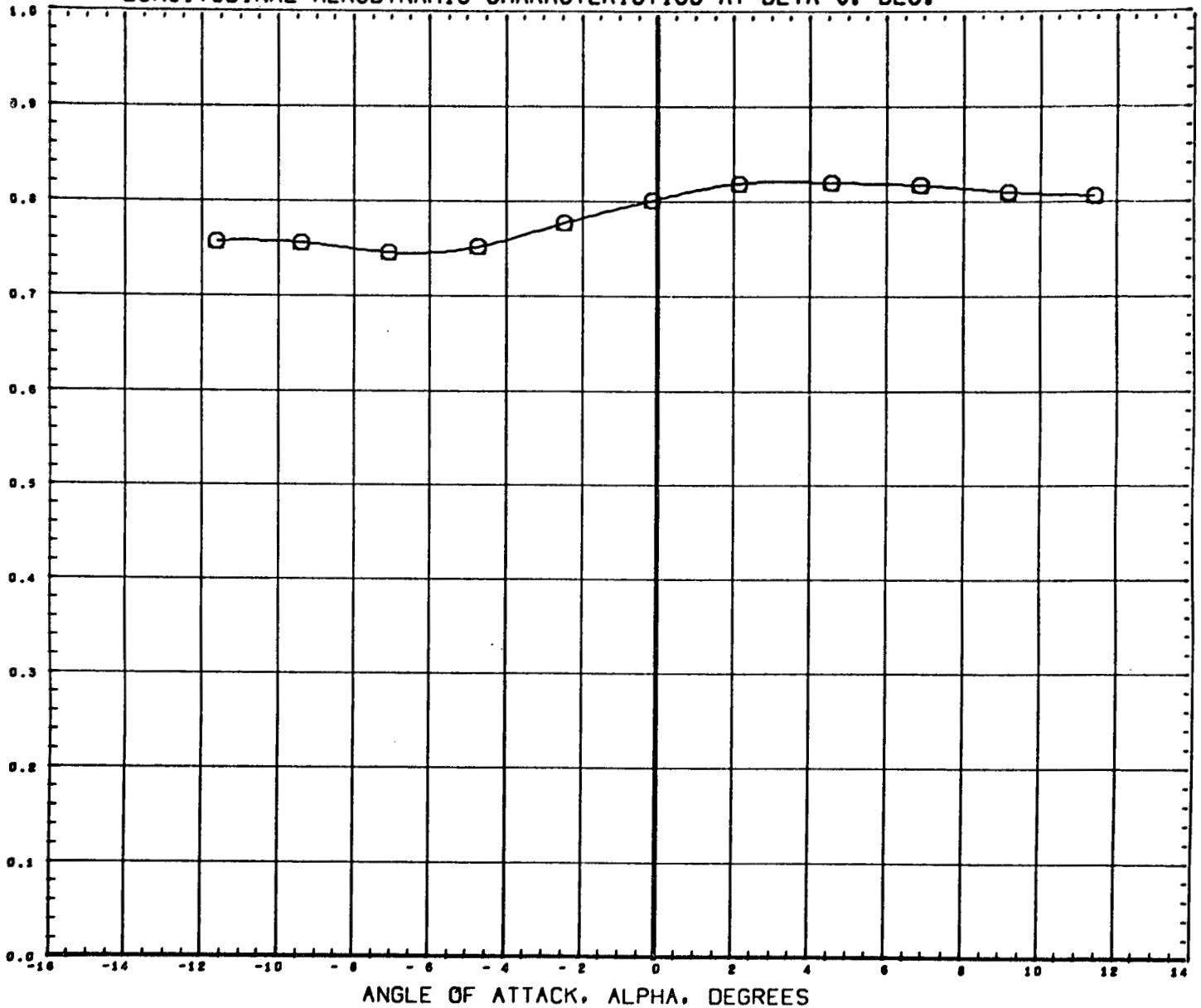
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT, CABO



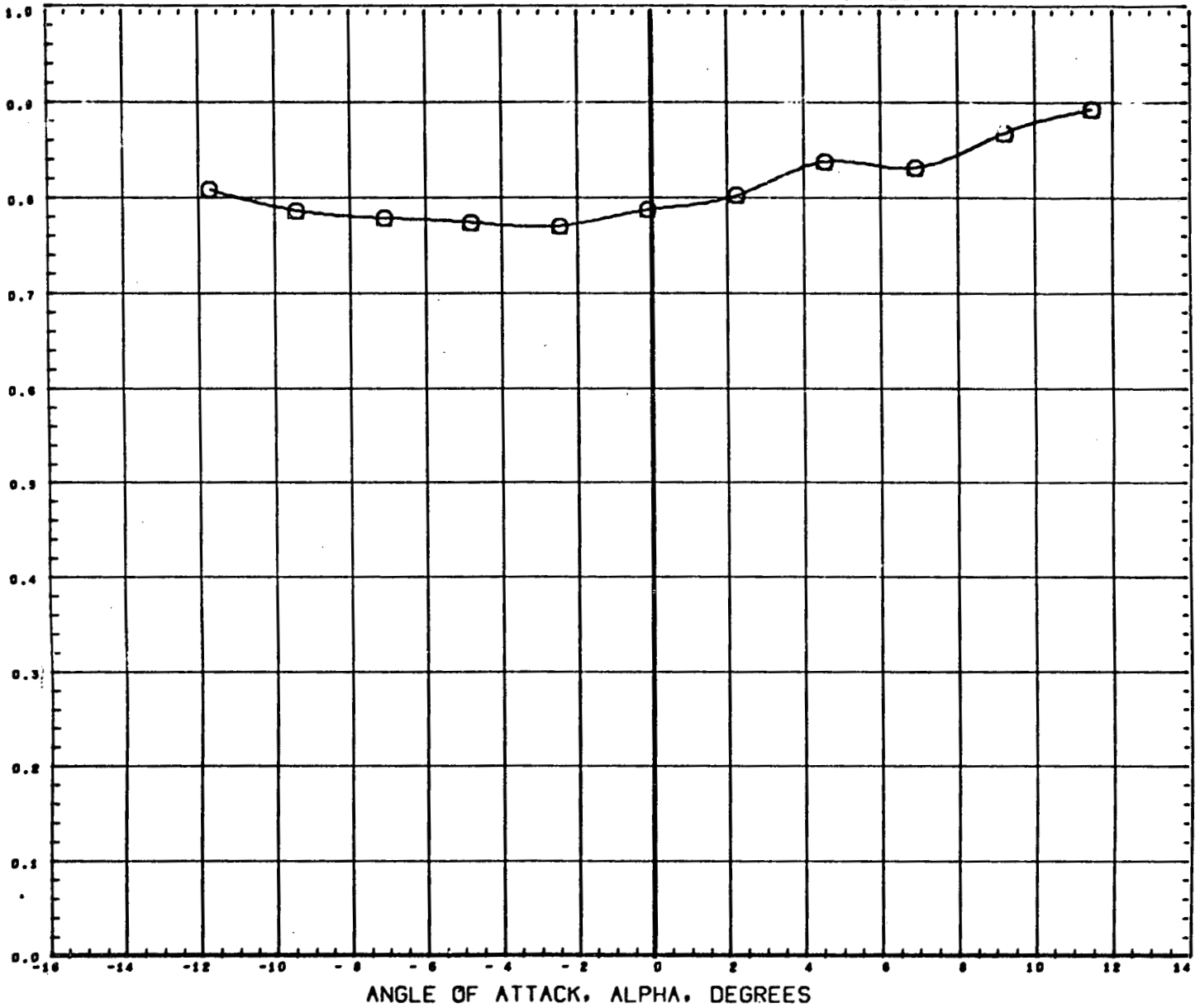
SYMBOL \bigcirc MACH 1.097 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E4A

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT, C_{AB0}



SYMBOL MACH PARAMETRIC VALUES
 ○ 1.197 BETA 0.000

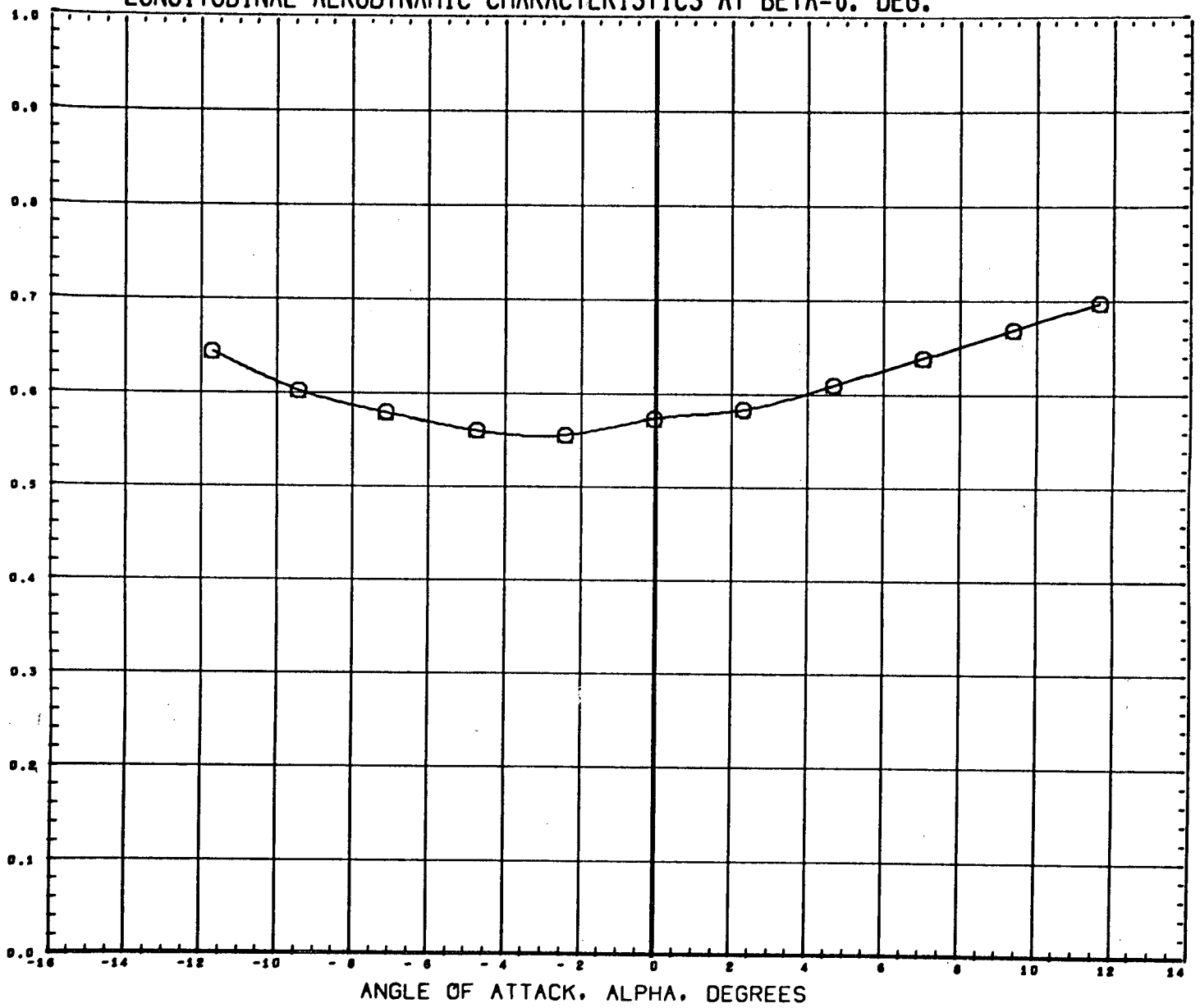
REFERENCE INFORMATION

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BREF	0.8240	INCHES
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YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E#A

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

ORBITER BASE AXIAL FORCE COEFFICIENT, CABO

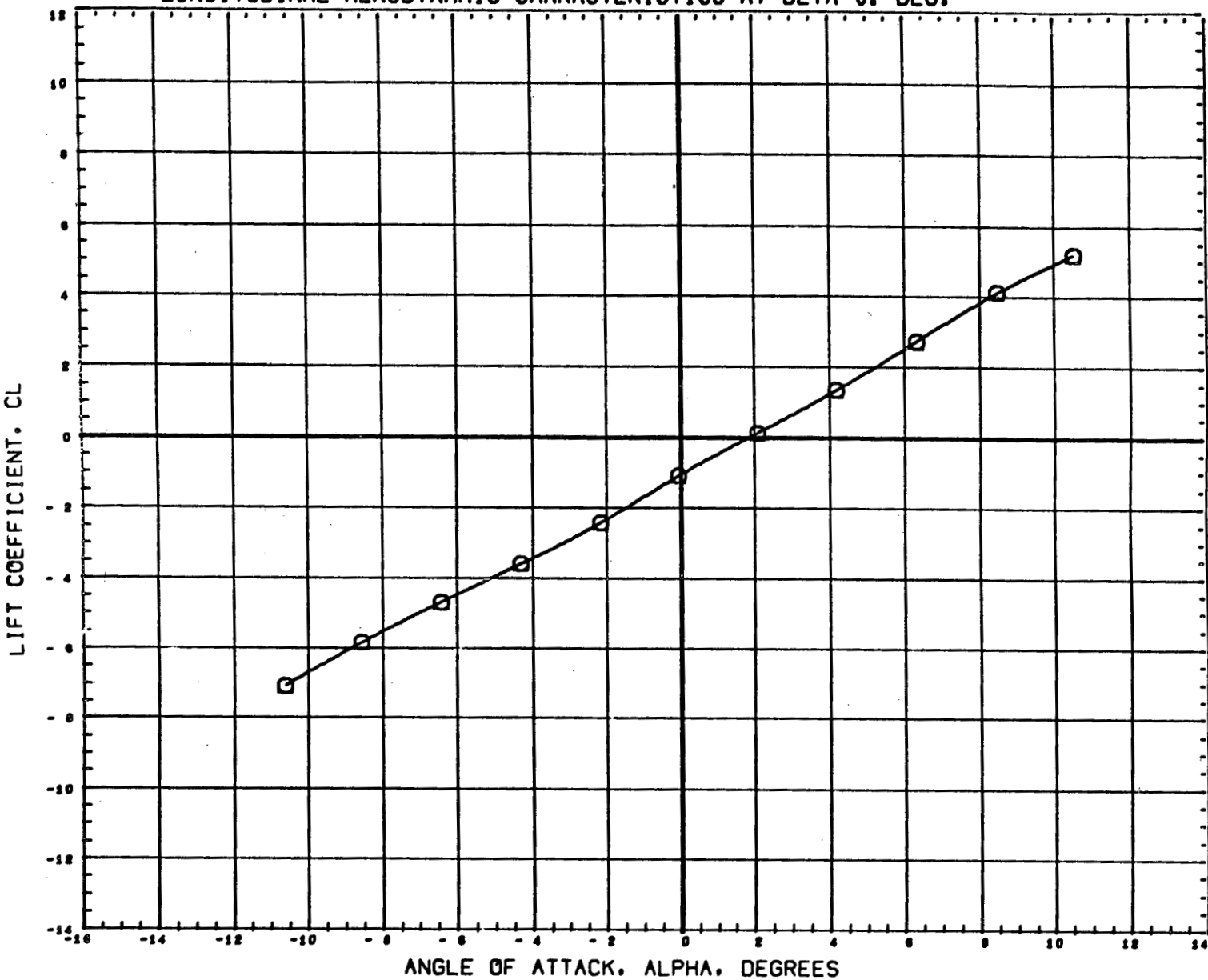


SYMBOL \bigcirc MACH 1.463 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E4A

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

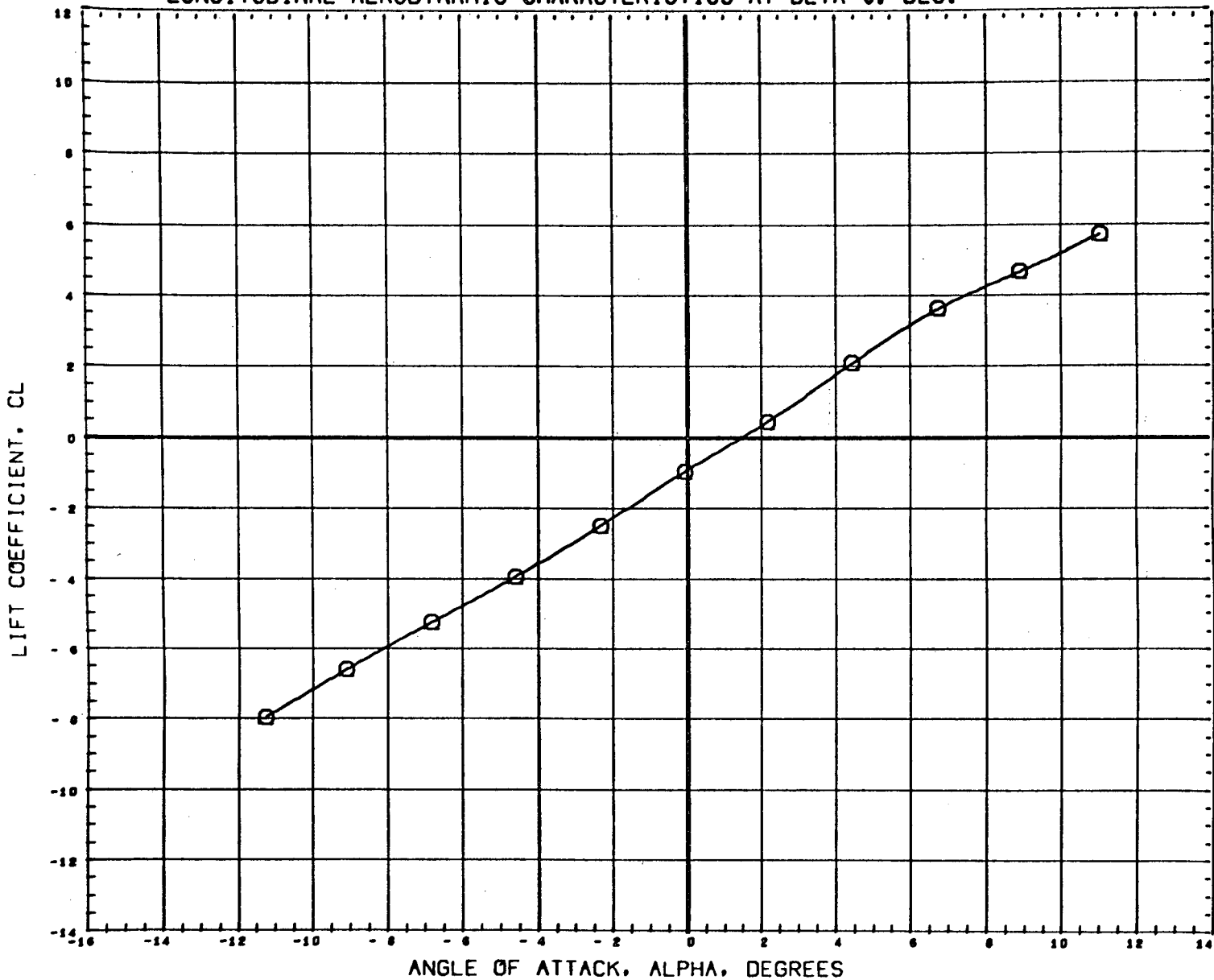


SYMBOL \circ MACH 0.997 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.9340 88 INC
 LREF 0.9240 INCHES
 DREF 0.9240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA INST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

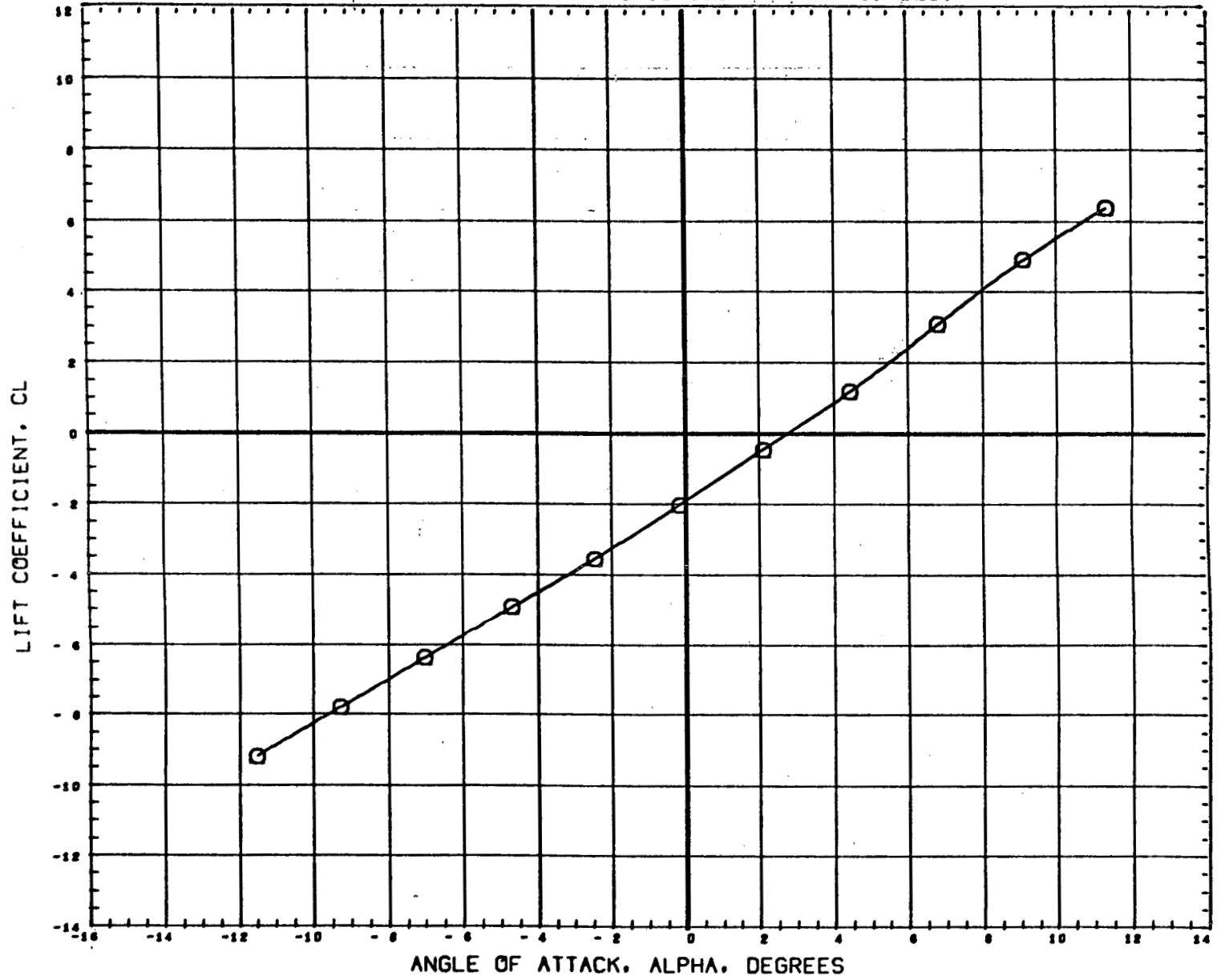


SYMBOL \circ MACH 0.898 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
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 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

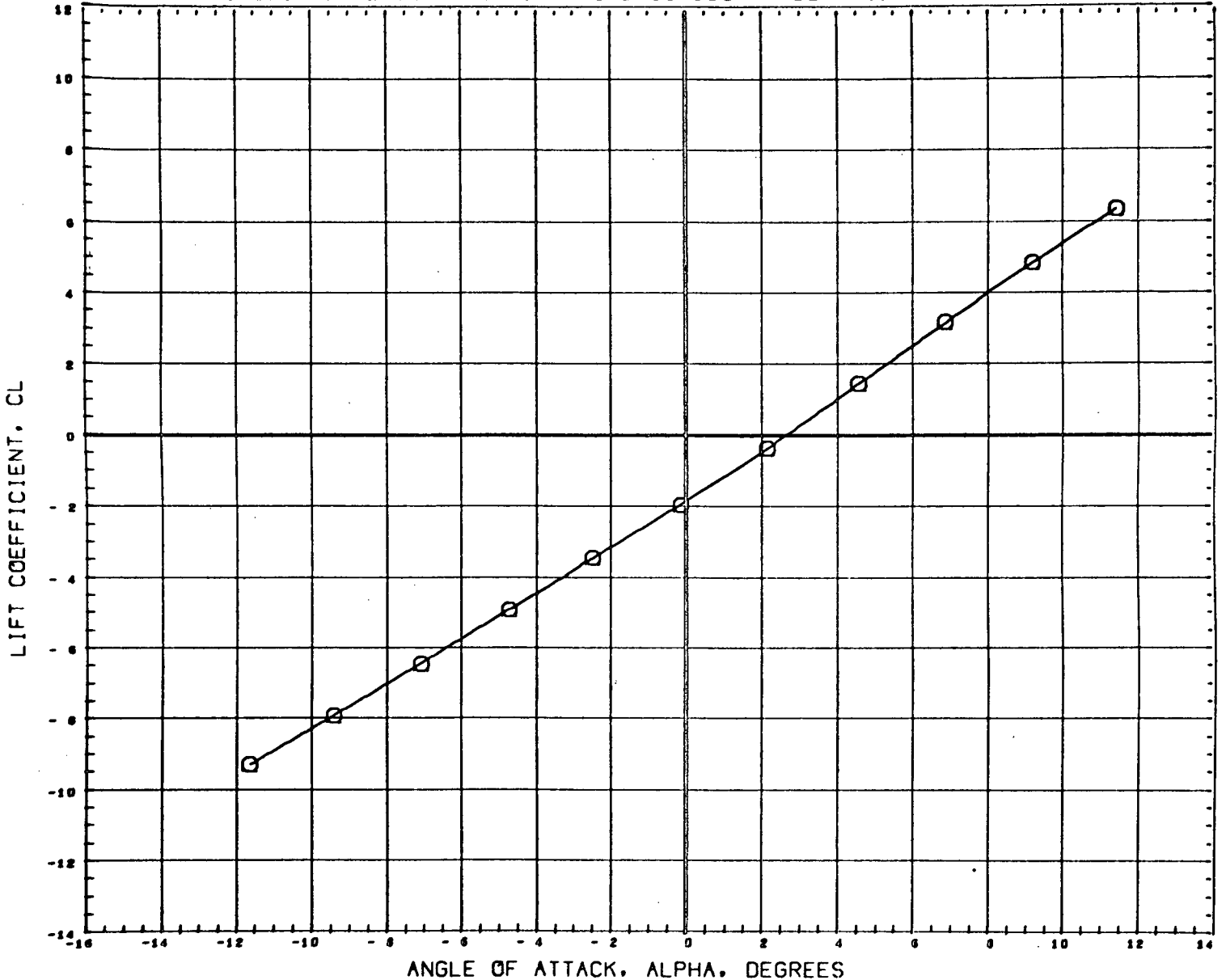


SYMBOL \square MACH 0.997 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5540 88 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

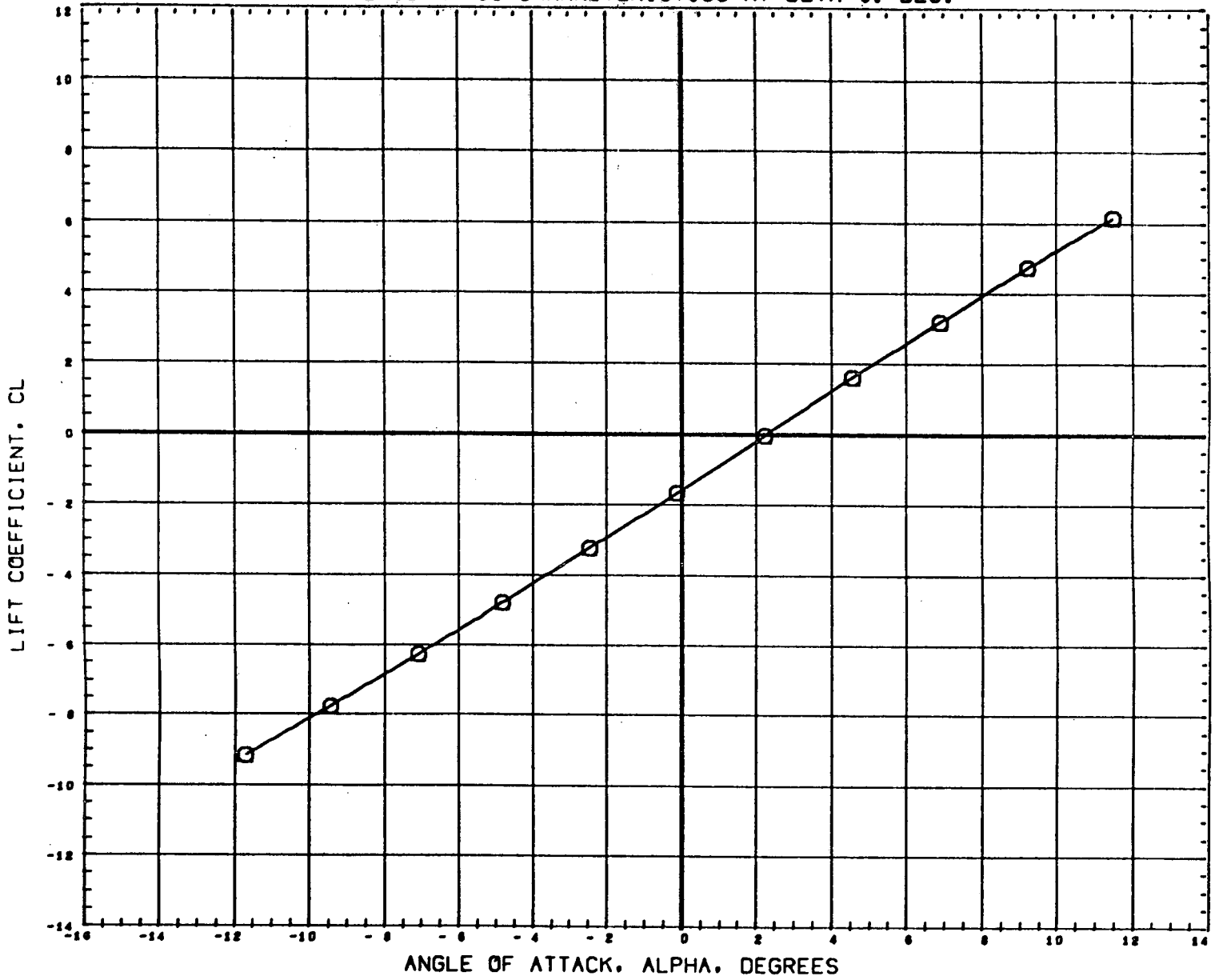


SYMBOL \circ MACH 1.097 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
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 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



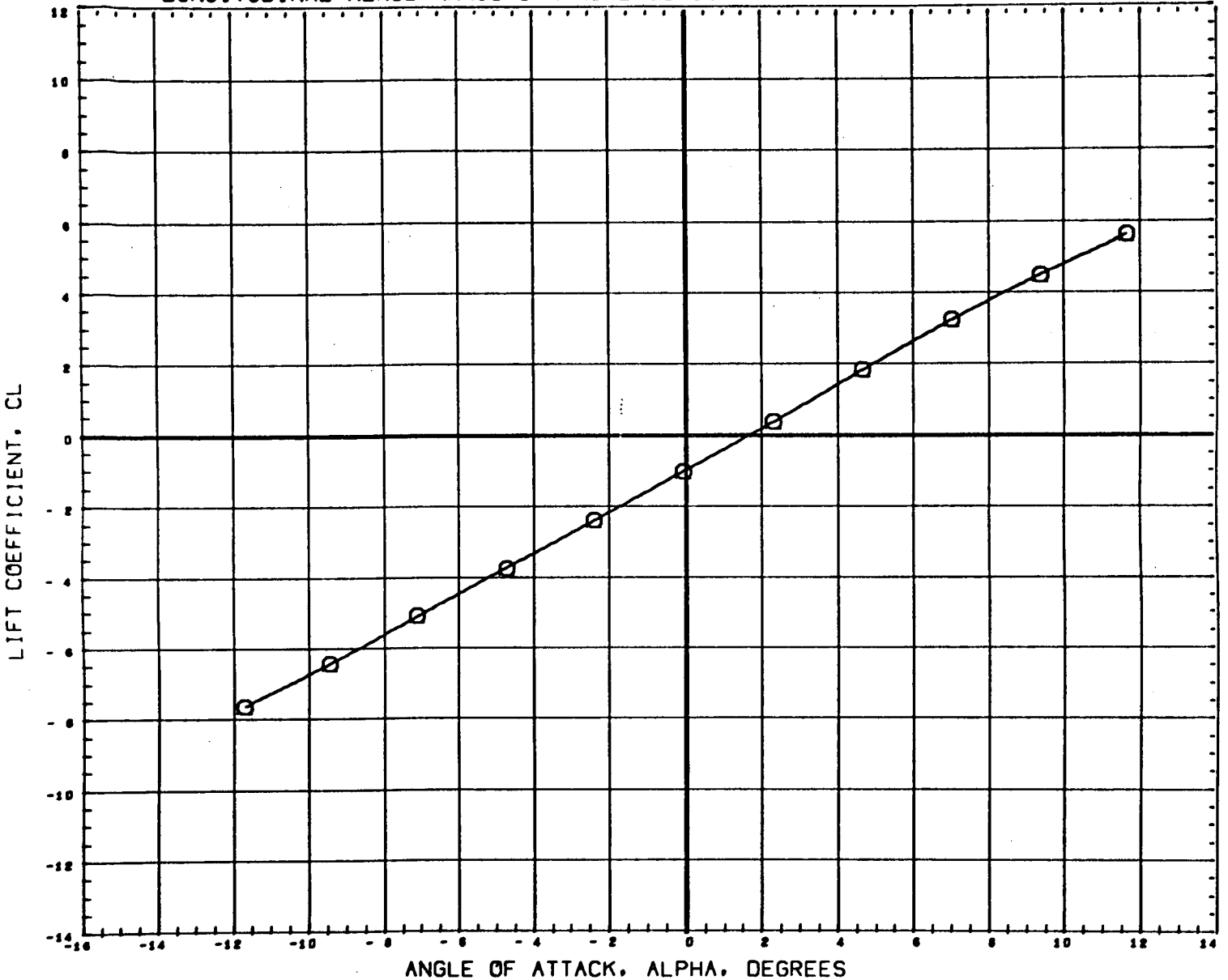
SYMBOL MACH PARAMETRIC VALUES
 ○ 1.197 BETA 0.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
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SCALE	0.4300	PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

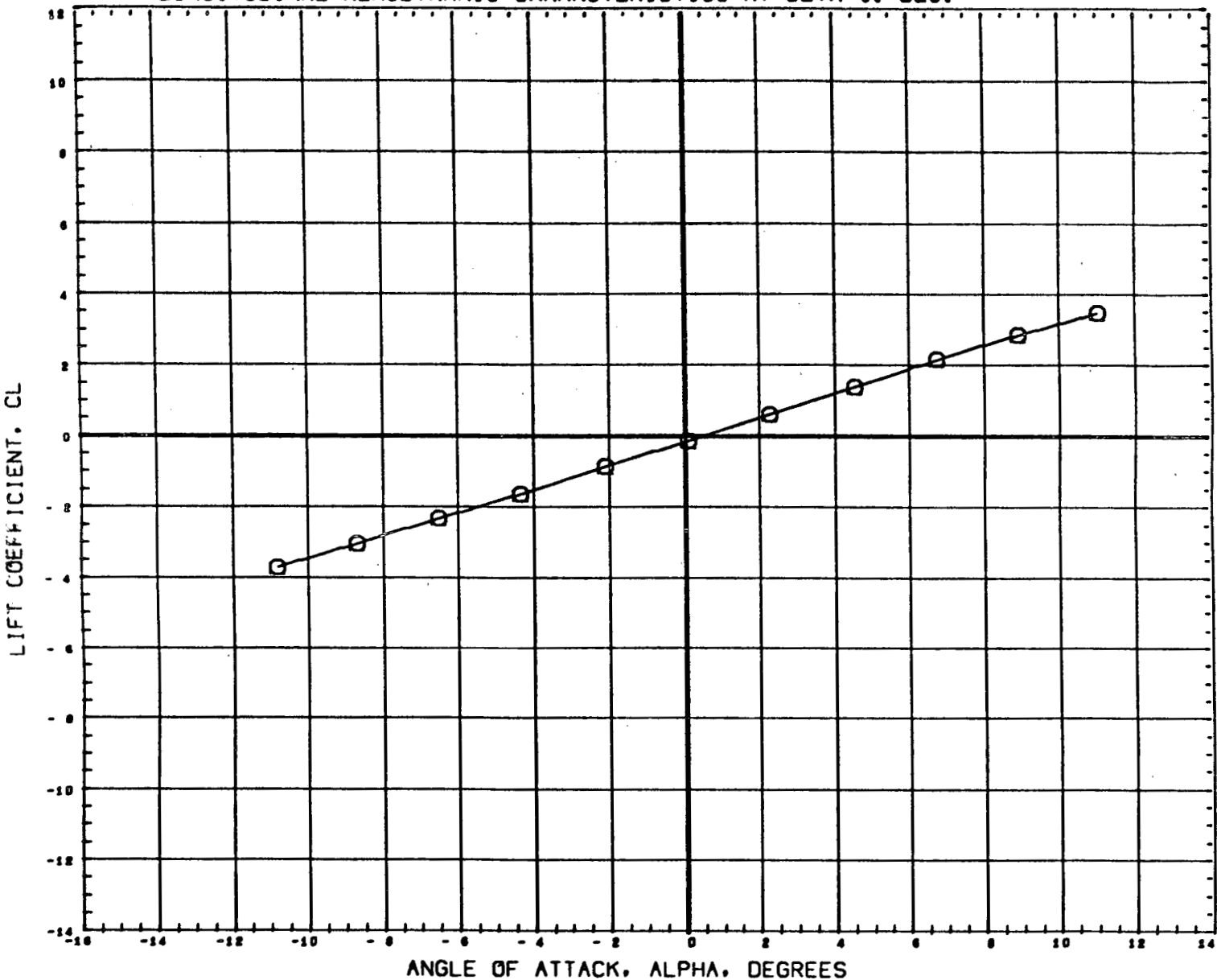


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.463 0.000

REFERENCE INFORMATION
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 LREF 0.0240 1MCHE3
 BREF 0.0240 1MCHE3
 XMRP 2.9170 1N T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

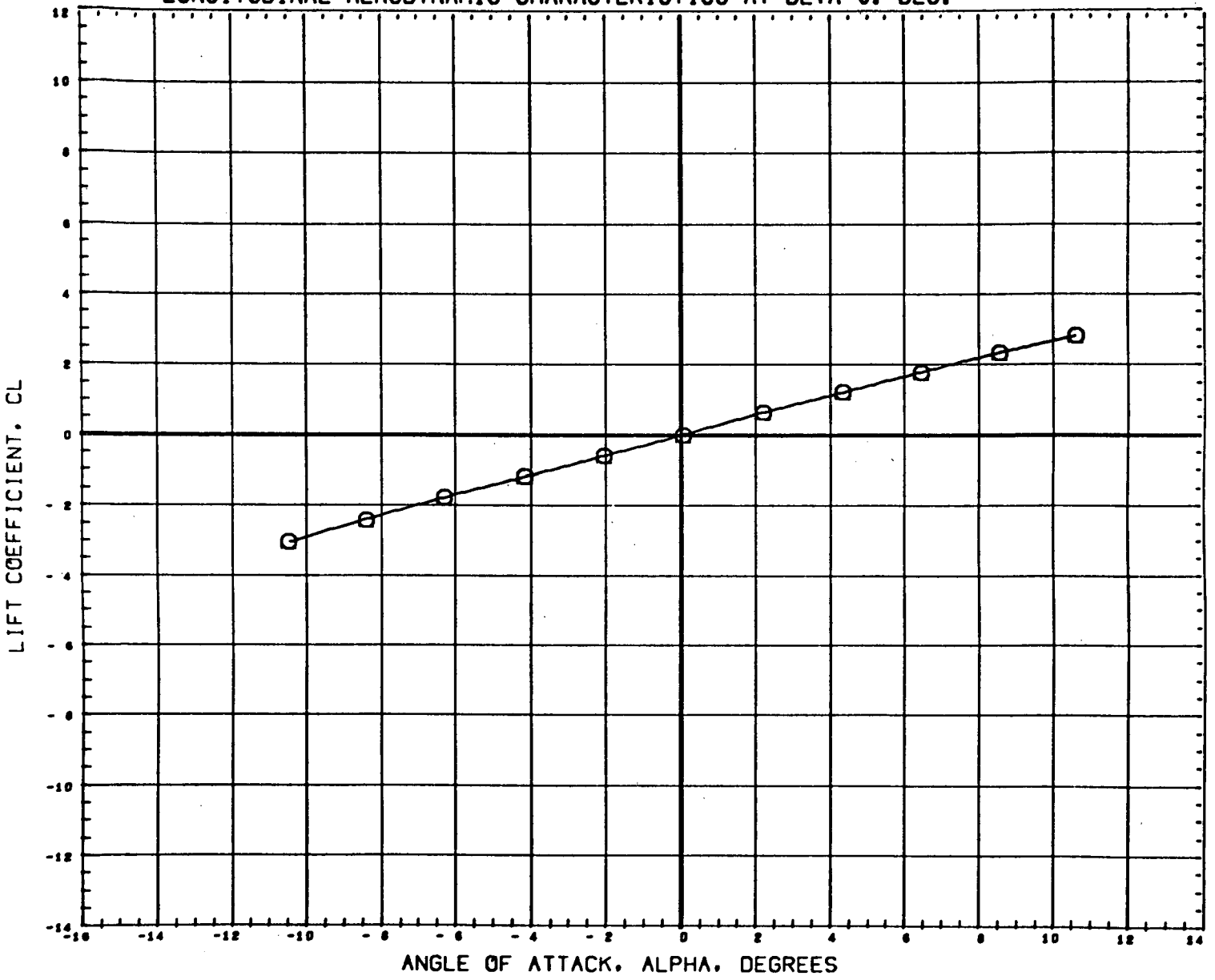


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XWRP 2.9170 IN TII
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

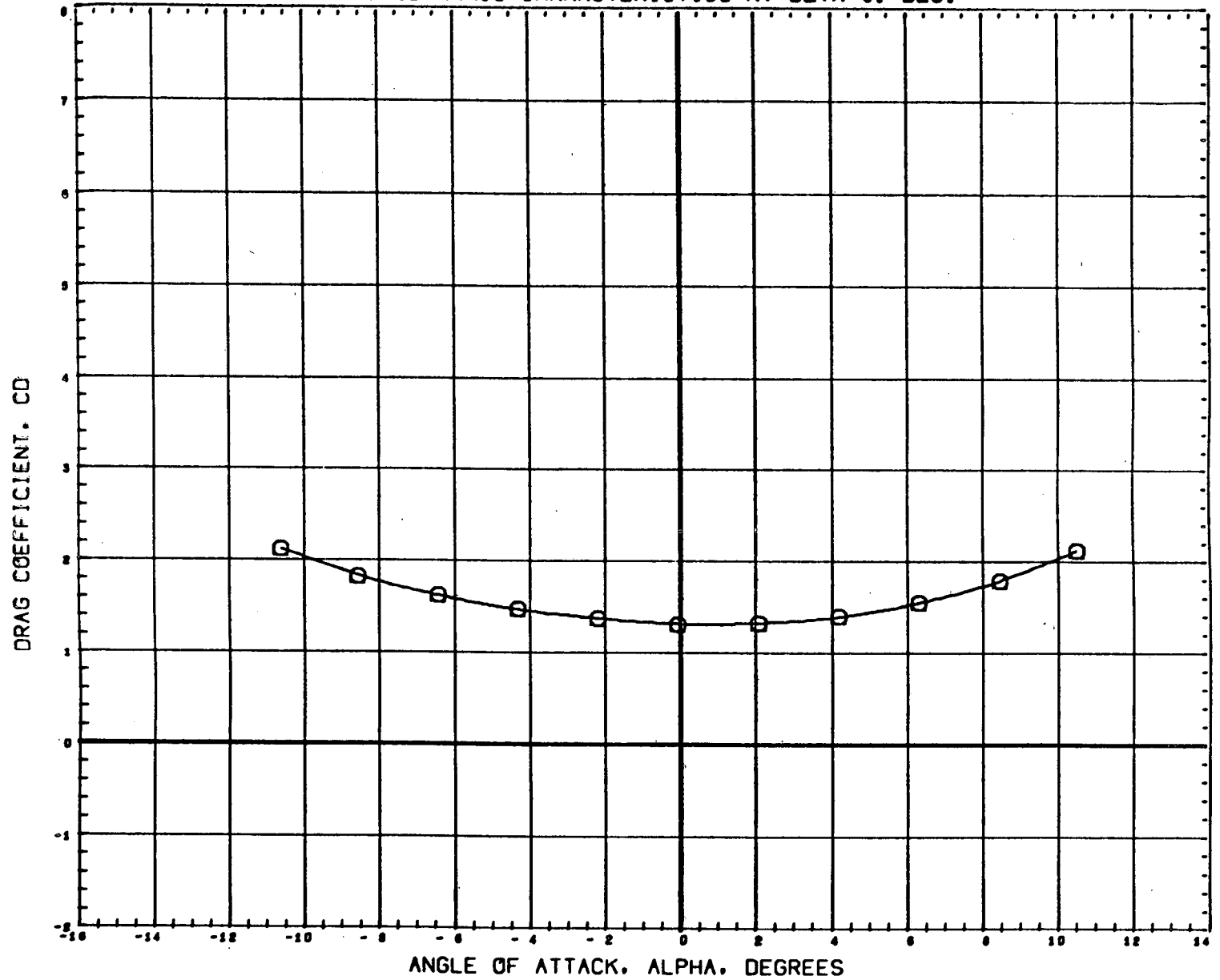


SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.997 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

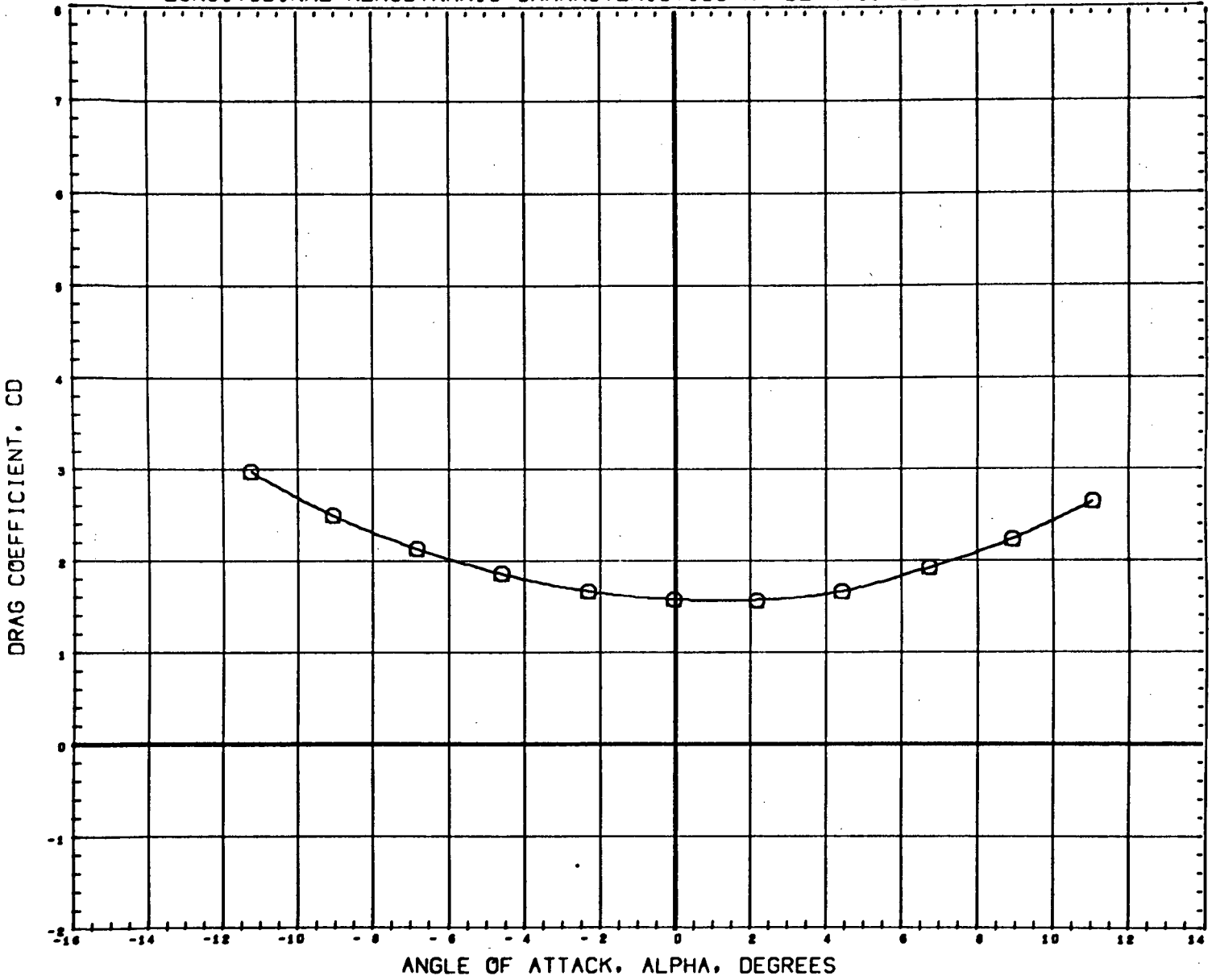
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

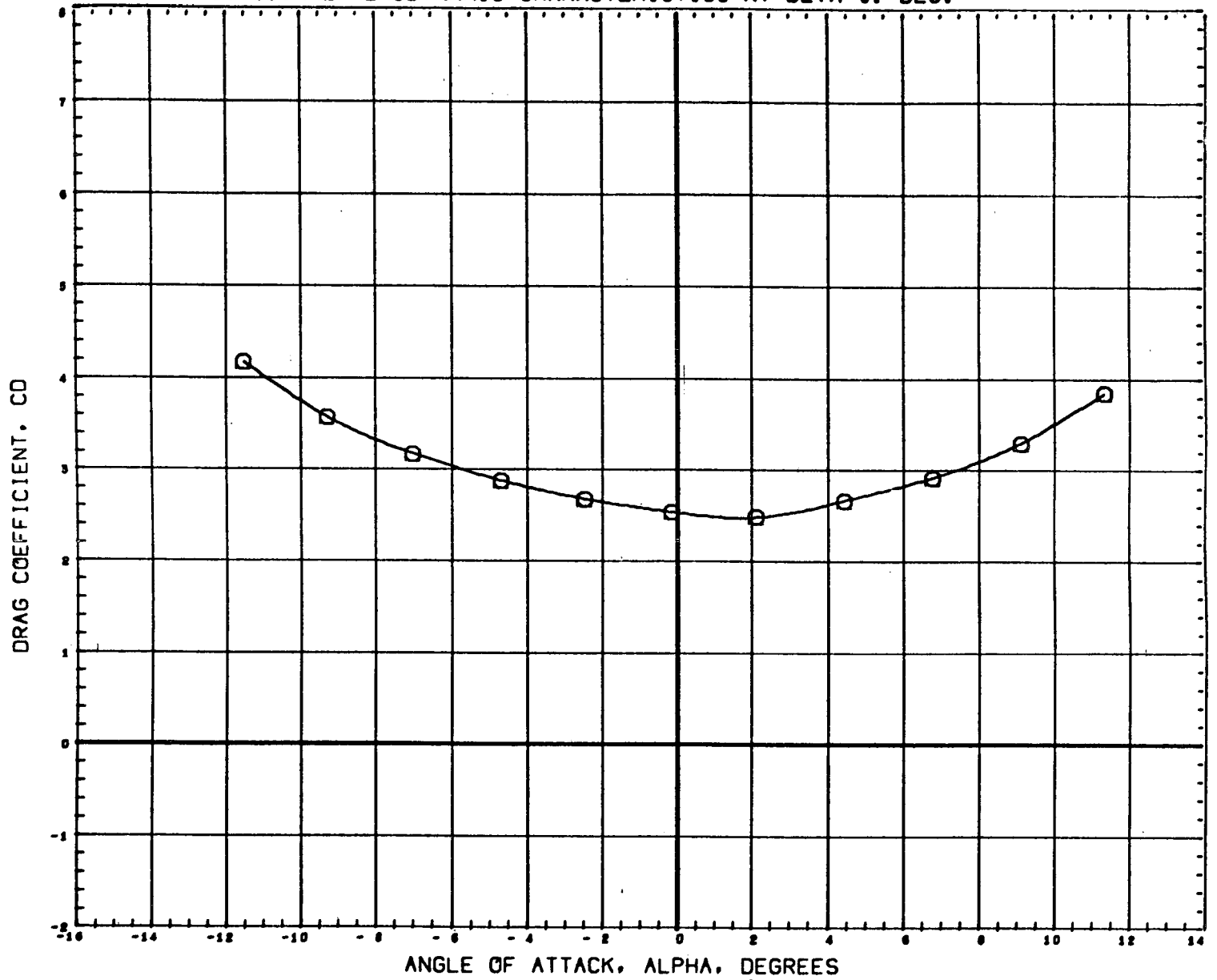


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.898 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

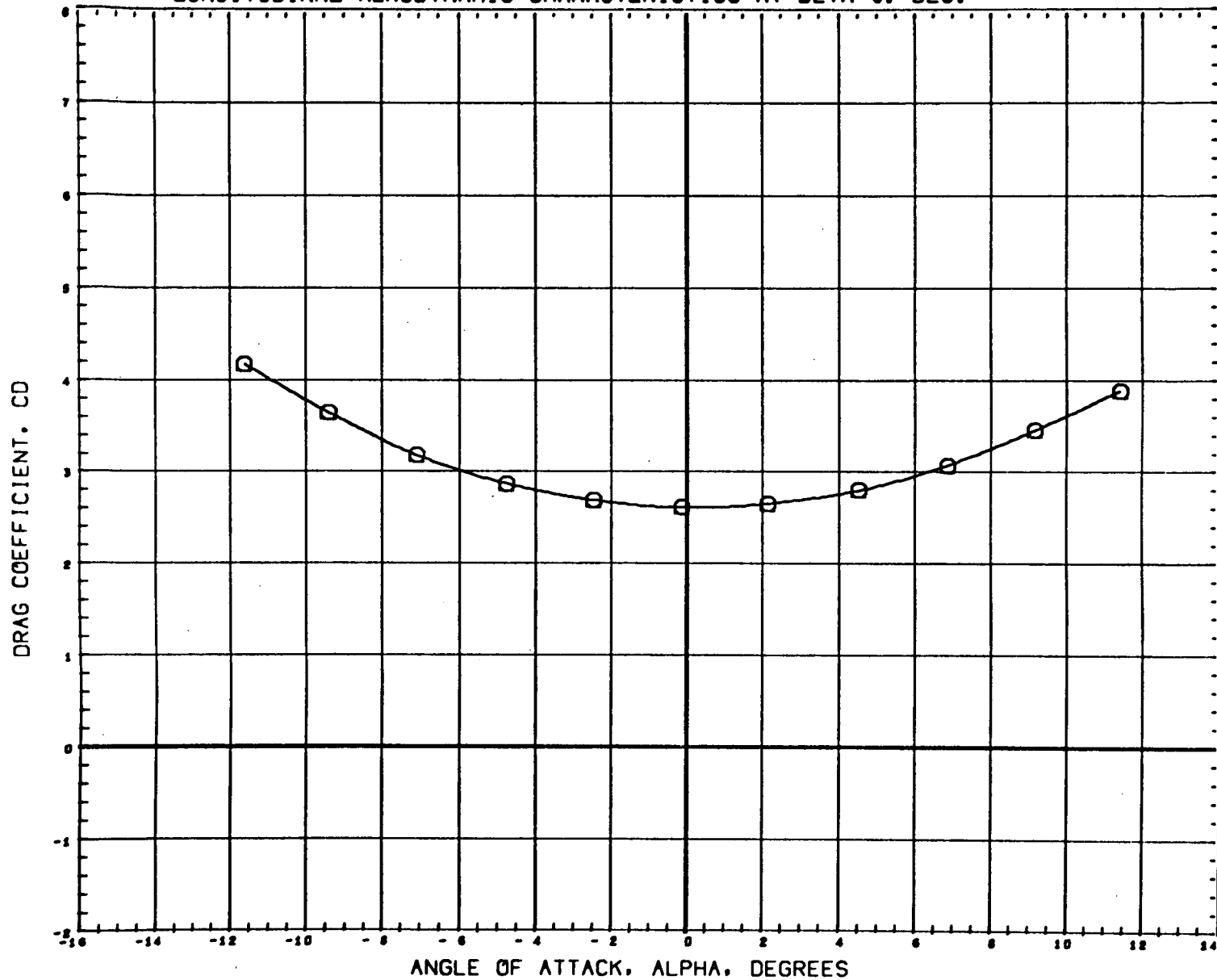


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.997 0.000 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 8.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

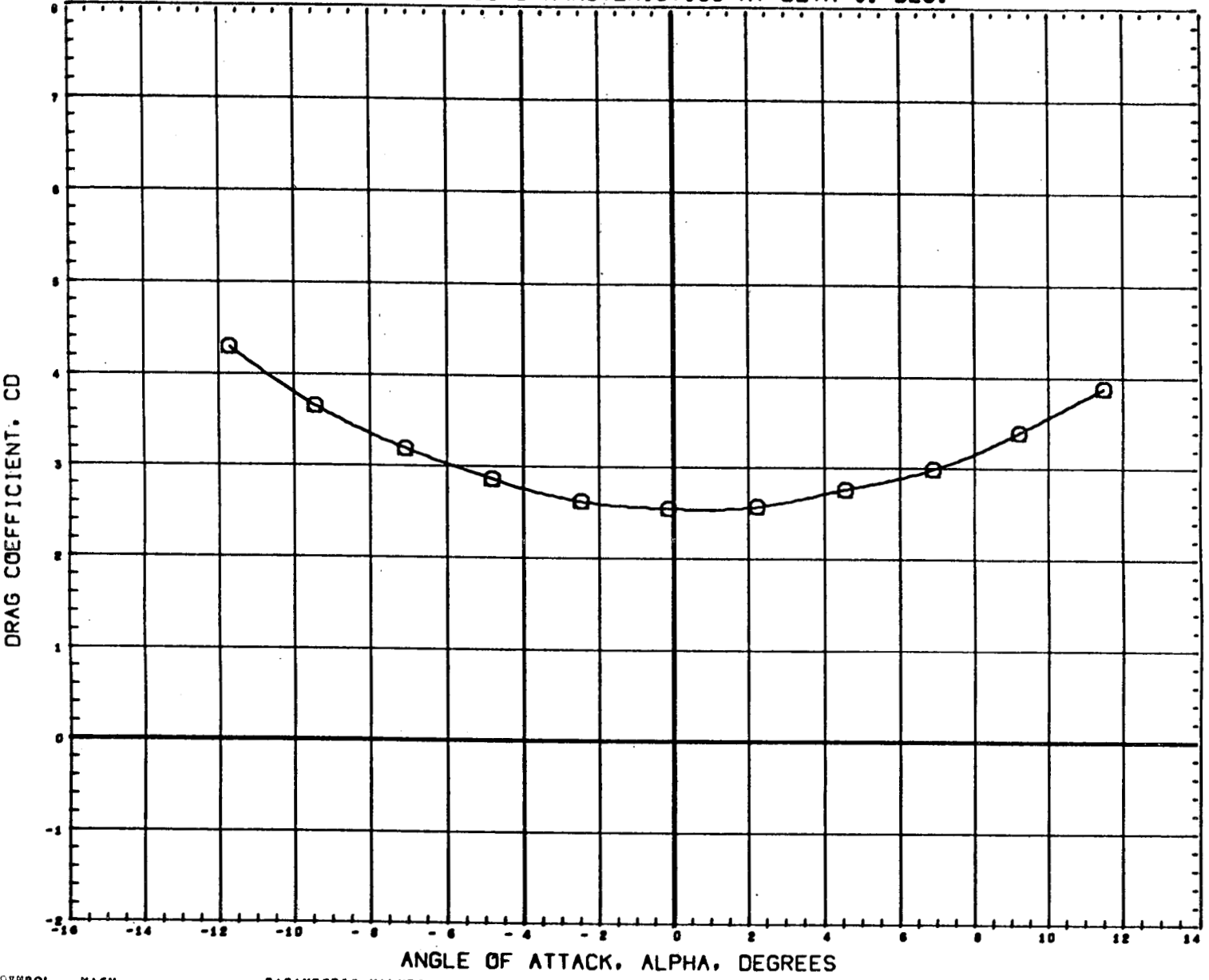


SYMBOL \square MACH 1.097 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V8E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

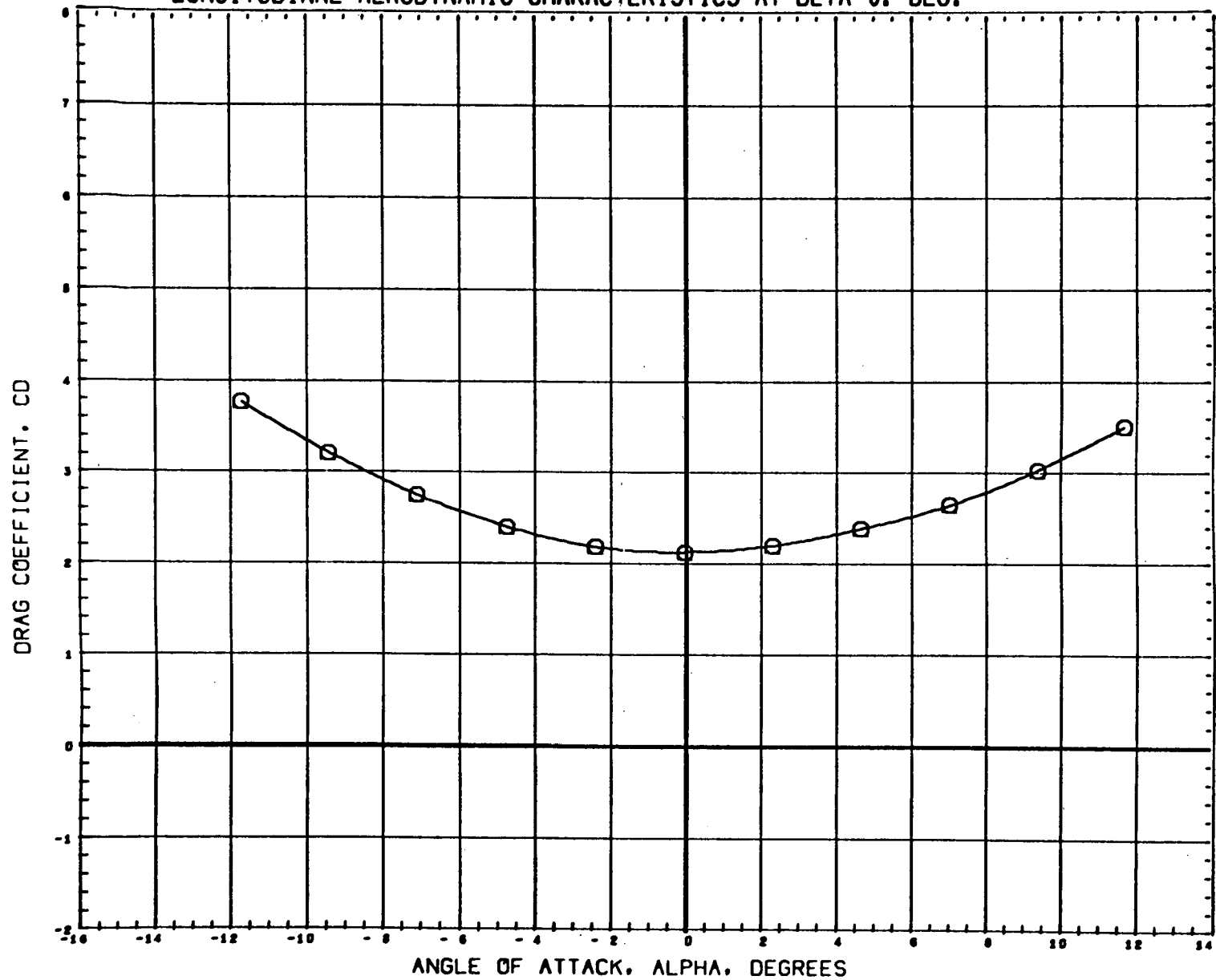


SYMBOL \circ MACH 1.197 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
BREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	8.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

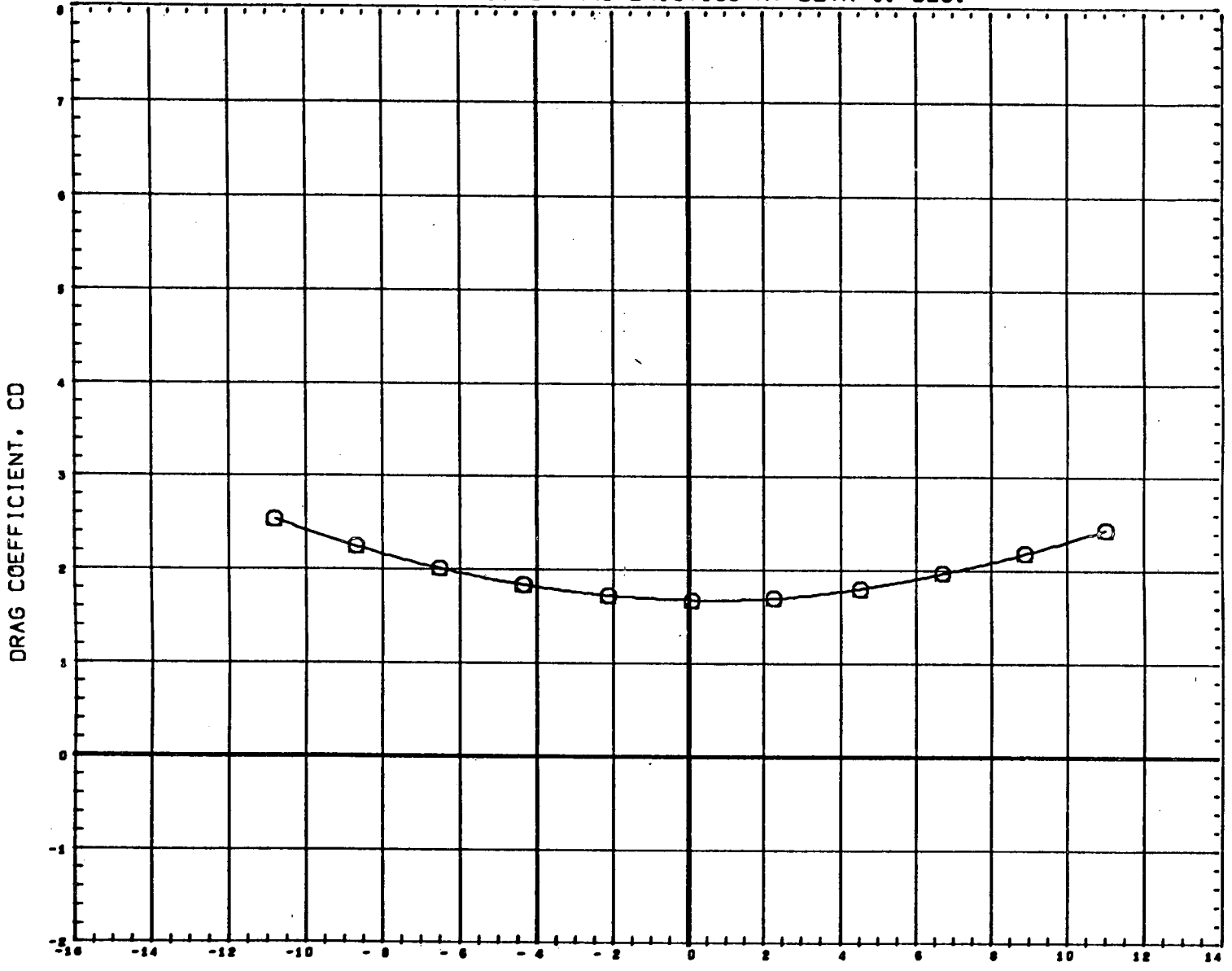


SYMBOL \bigcirc MACH 1.463 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

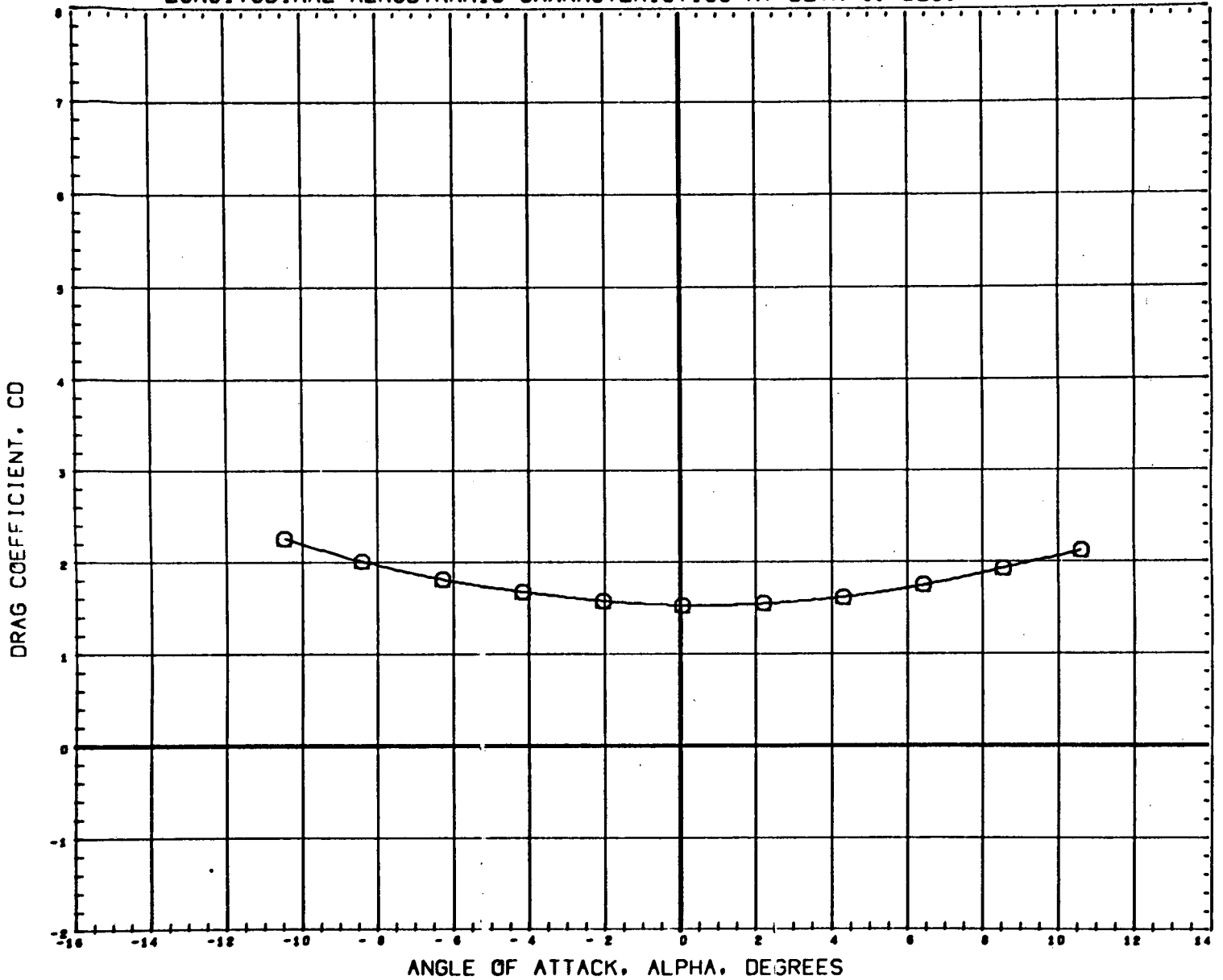
LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL ○	MACH 2.740	BETA 0.000	PARAMETRIC VALUES 0.000	REFERENCE INFORMATION SREF 0.5340 30 INC LREF 0.8240 INCHES ORF 0.8240 INCHES XMRP 2.9170 IN TII YMRP 0.0000 CORE C ZMRP 0.0000 CORE C SCALE 0.4300 PERCENT
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DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

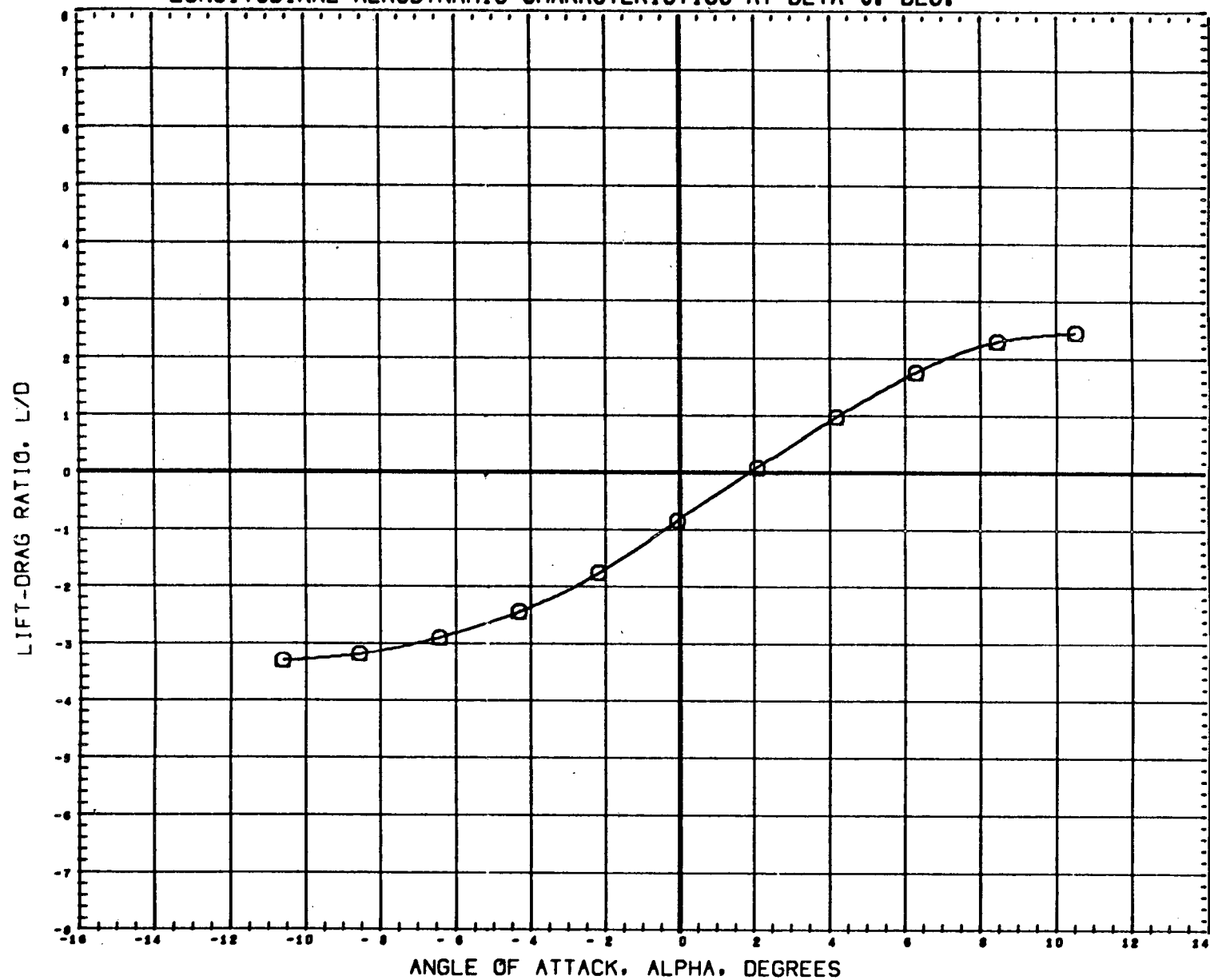


SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4500	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 0.997 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

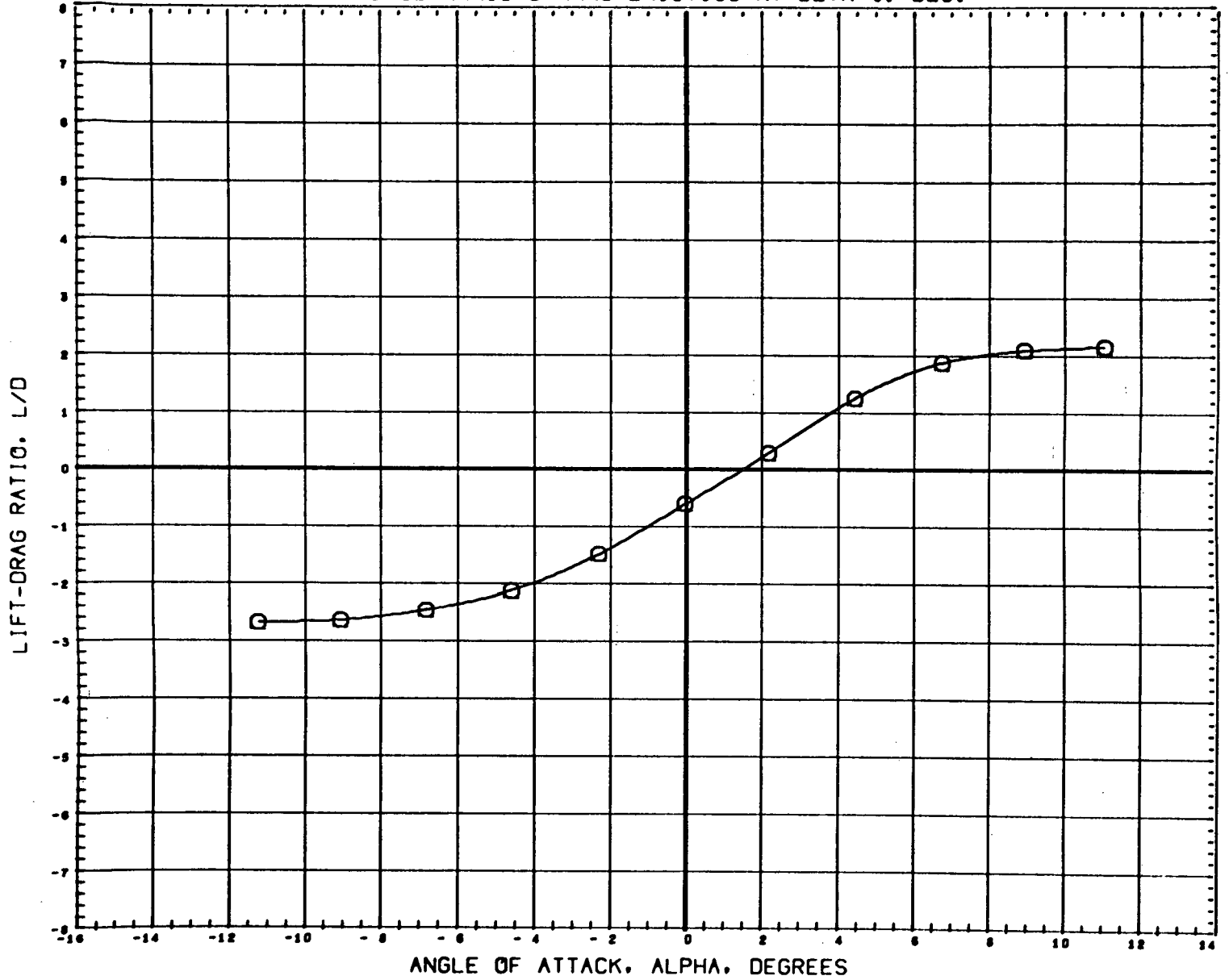
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

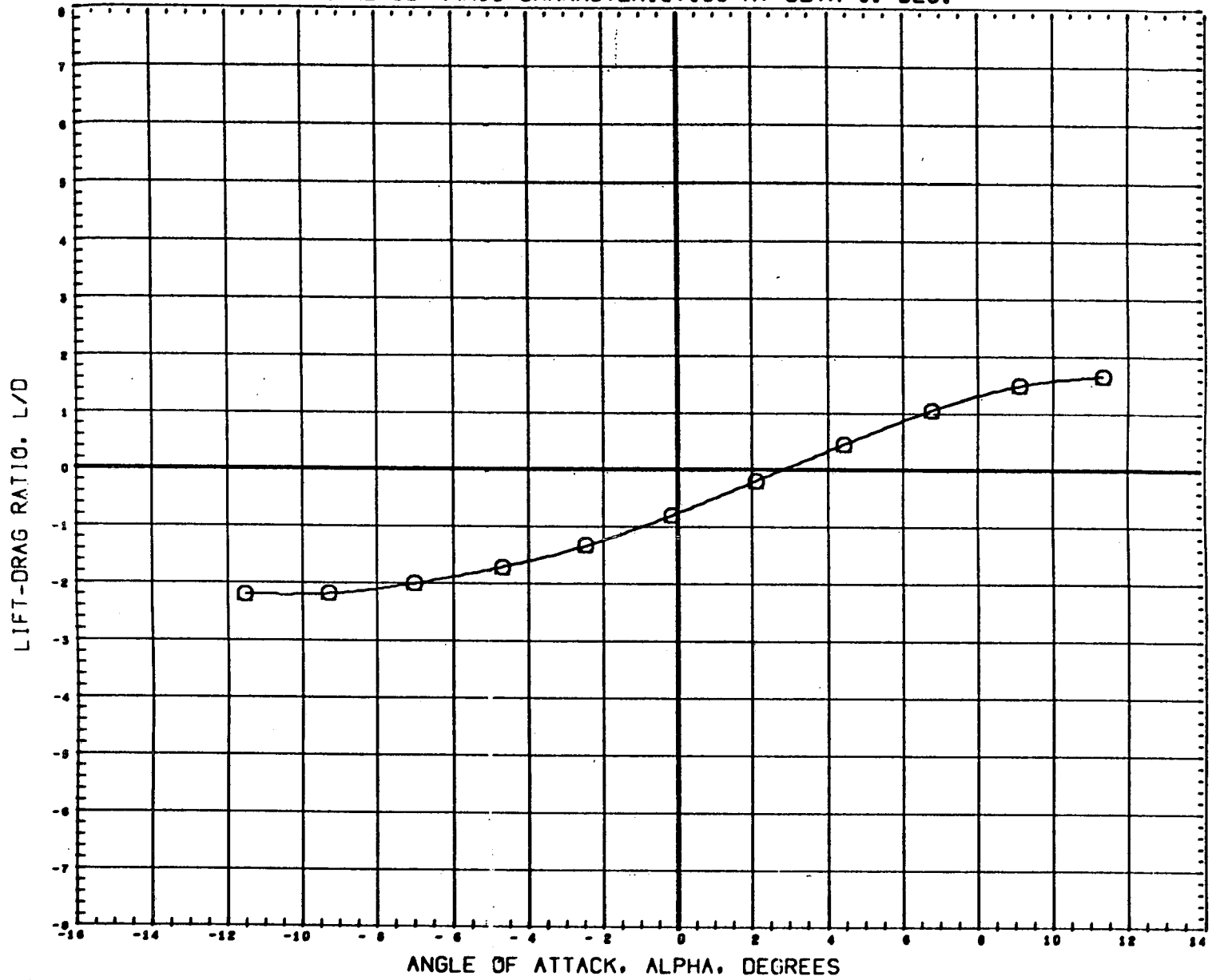


SYMBOL \bigcirc MACH 0.898 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V*E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 O 0.997 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE VGE

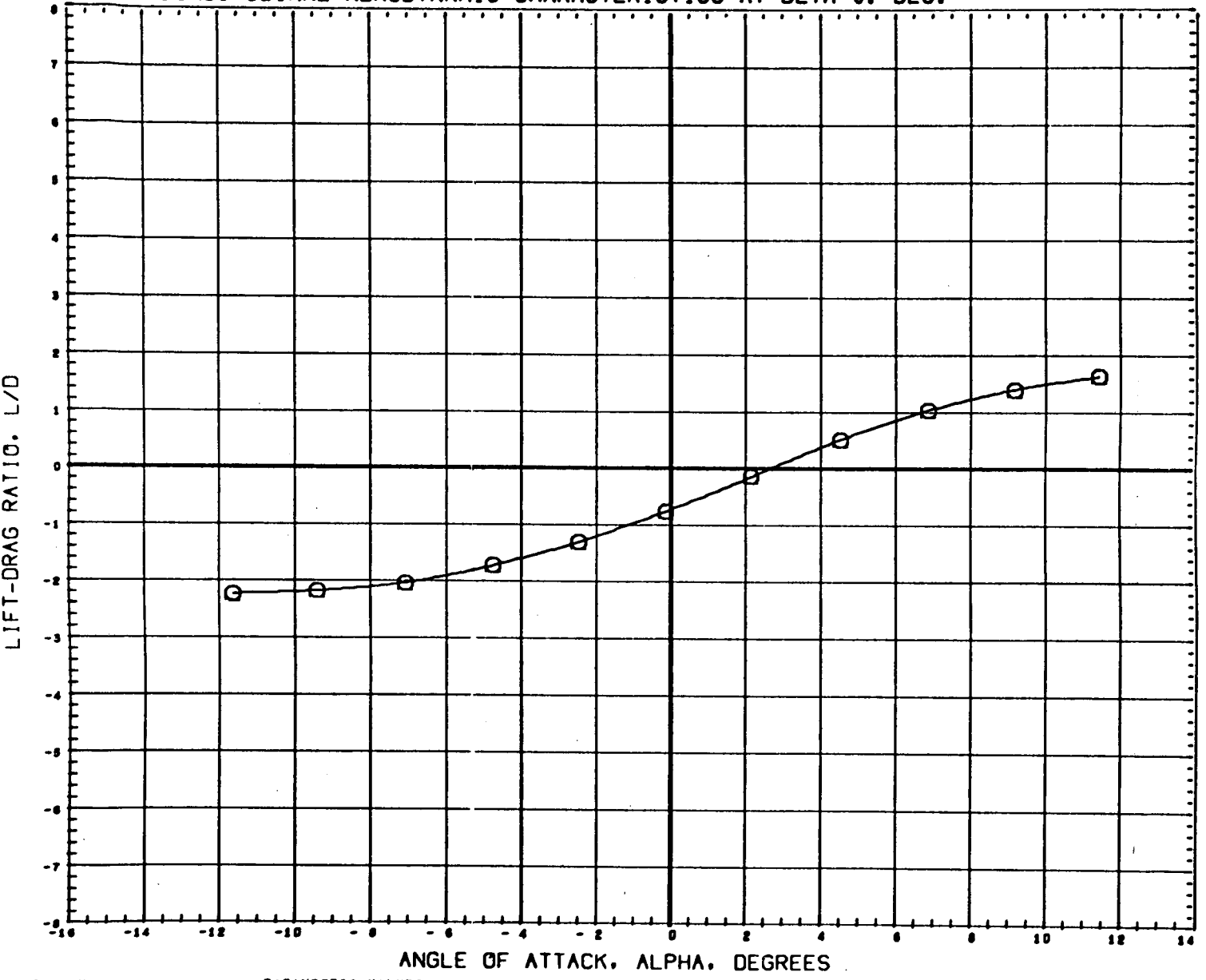
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

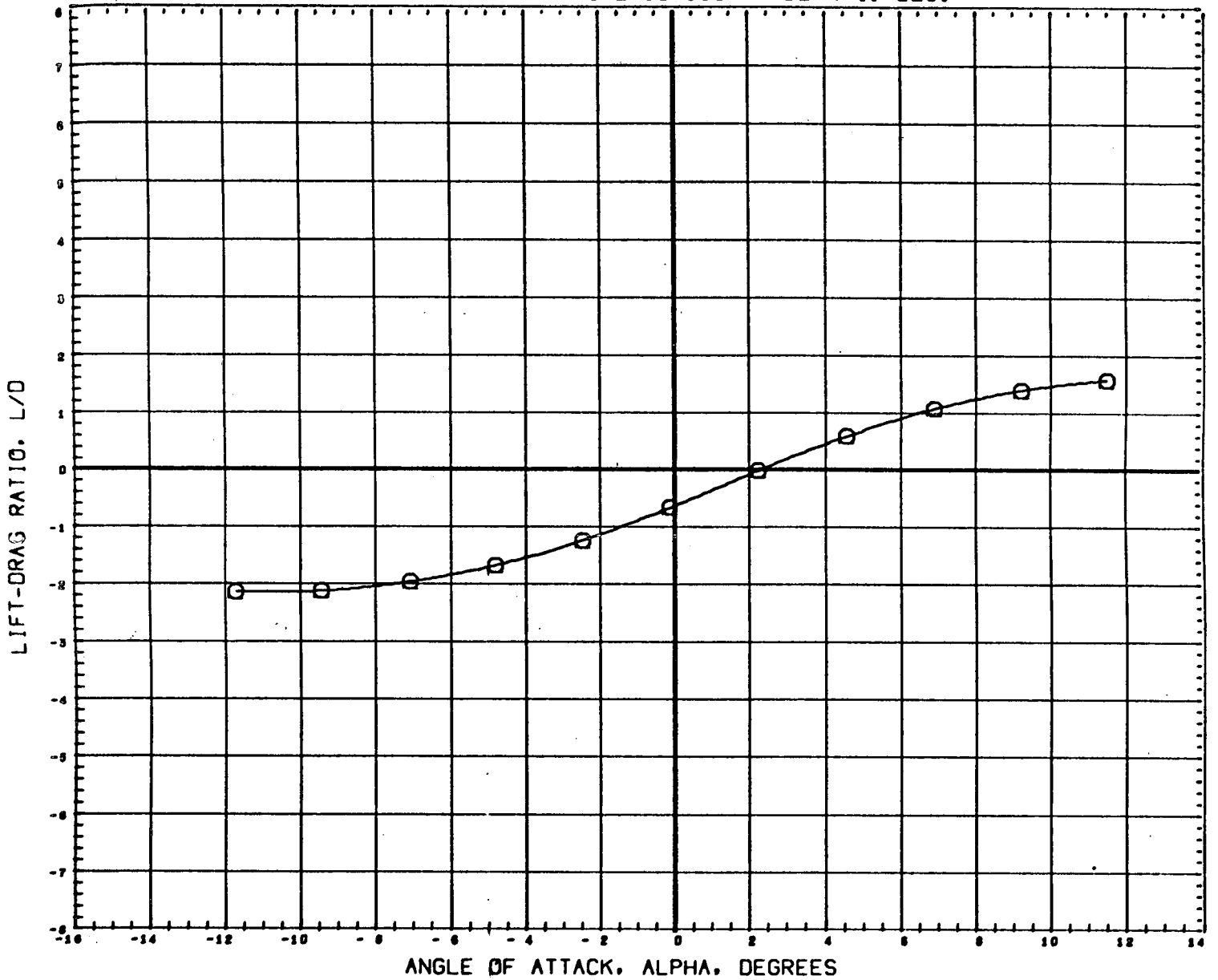


SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.097 0.000

REFERENCE INFORMATION		
SREF	0.5340	88 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 O 1.197 0.000

REFERENCE INFORMATION
 SREF 0.5340 90 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

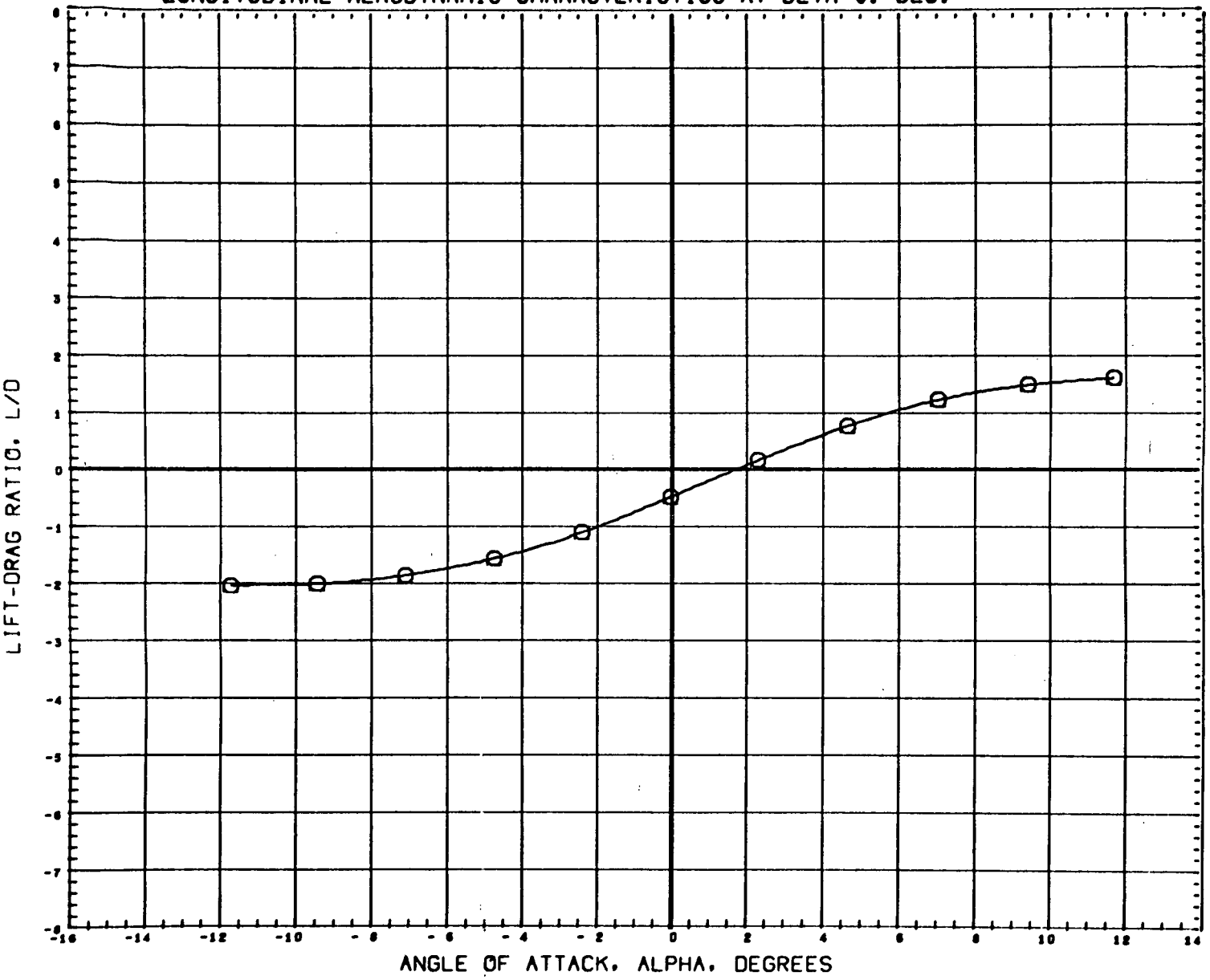
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

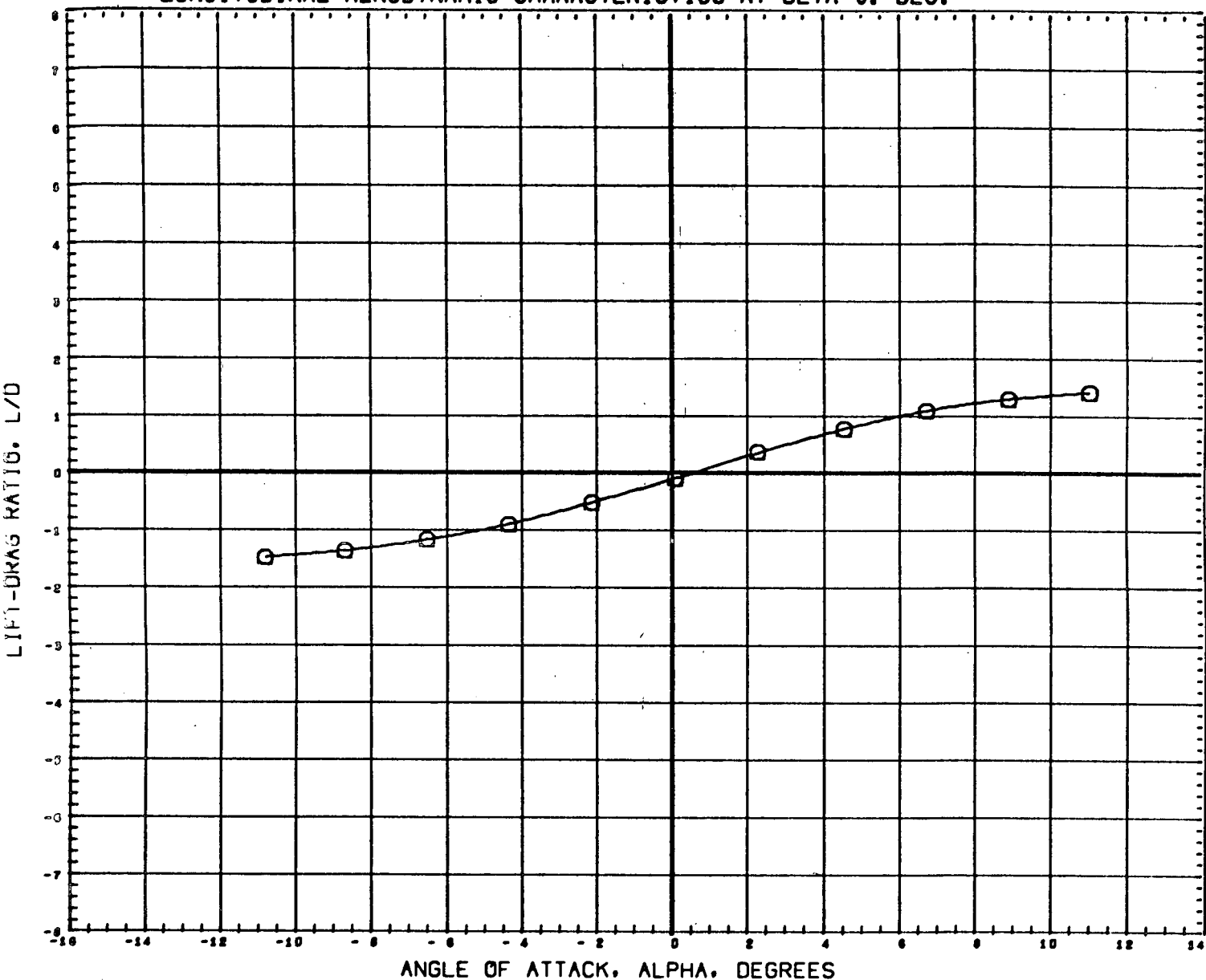


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.463 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V+E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

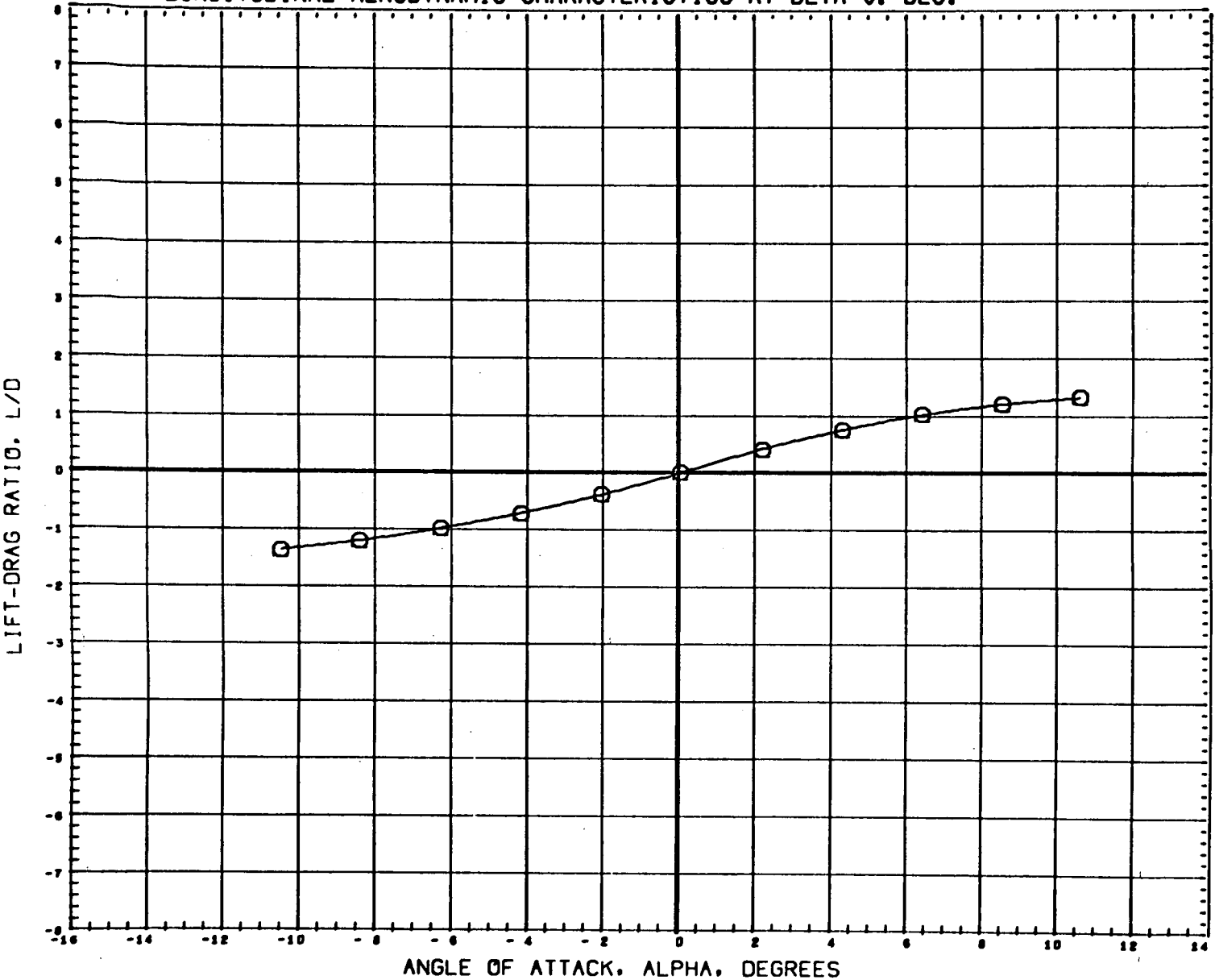
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

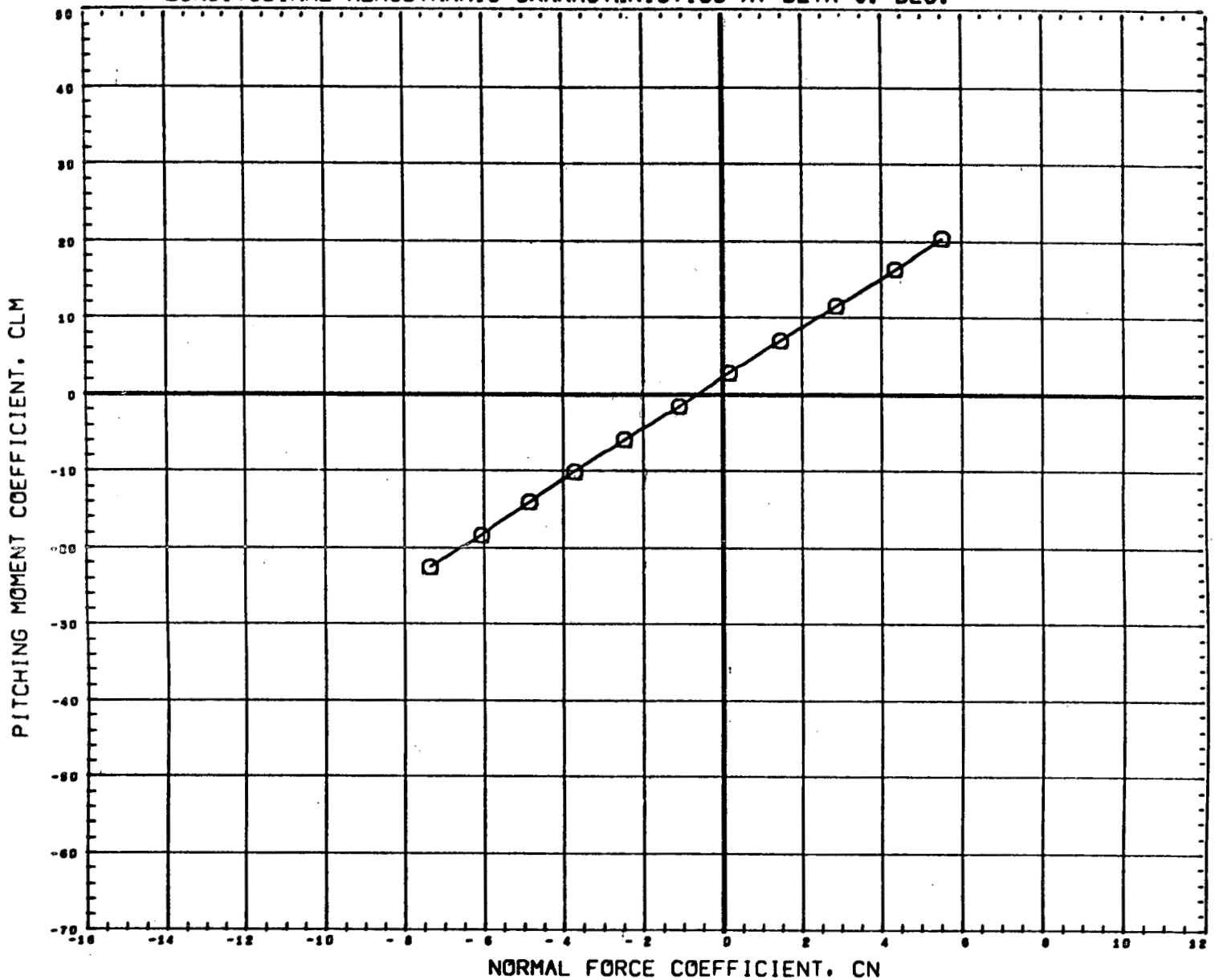


SYMBOL \bigcirc MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 0.997 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

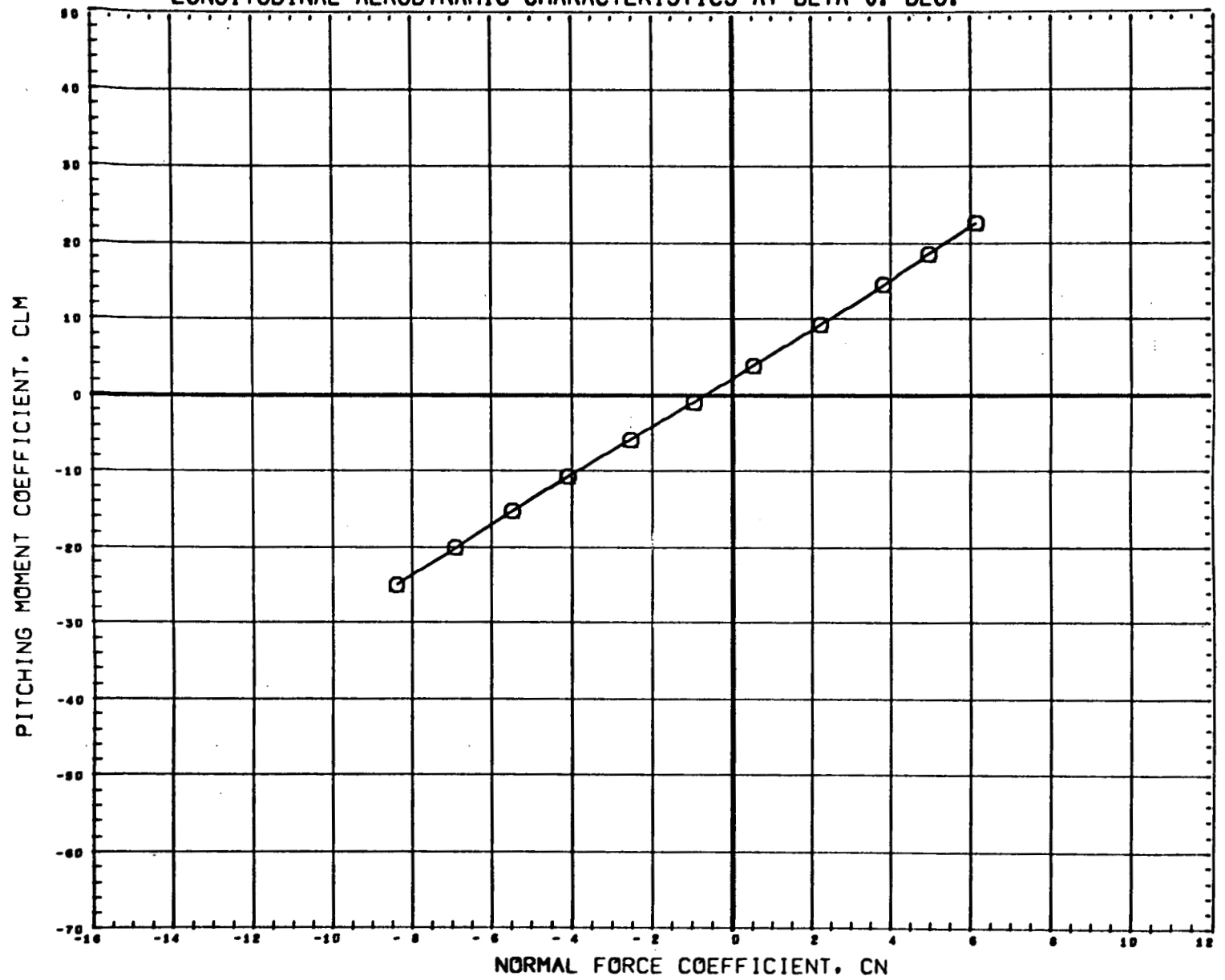
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

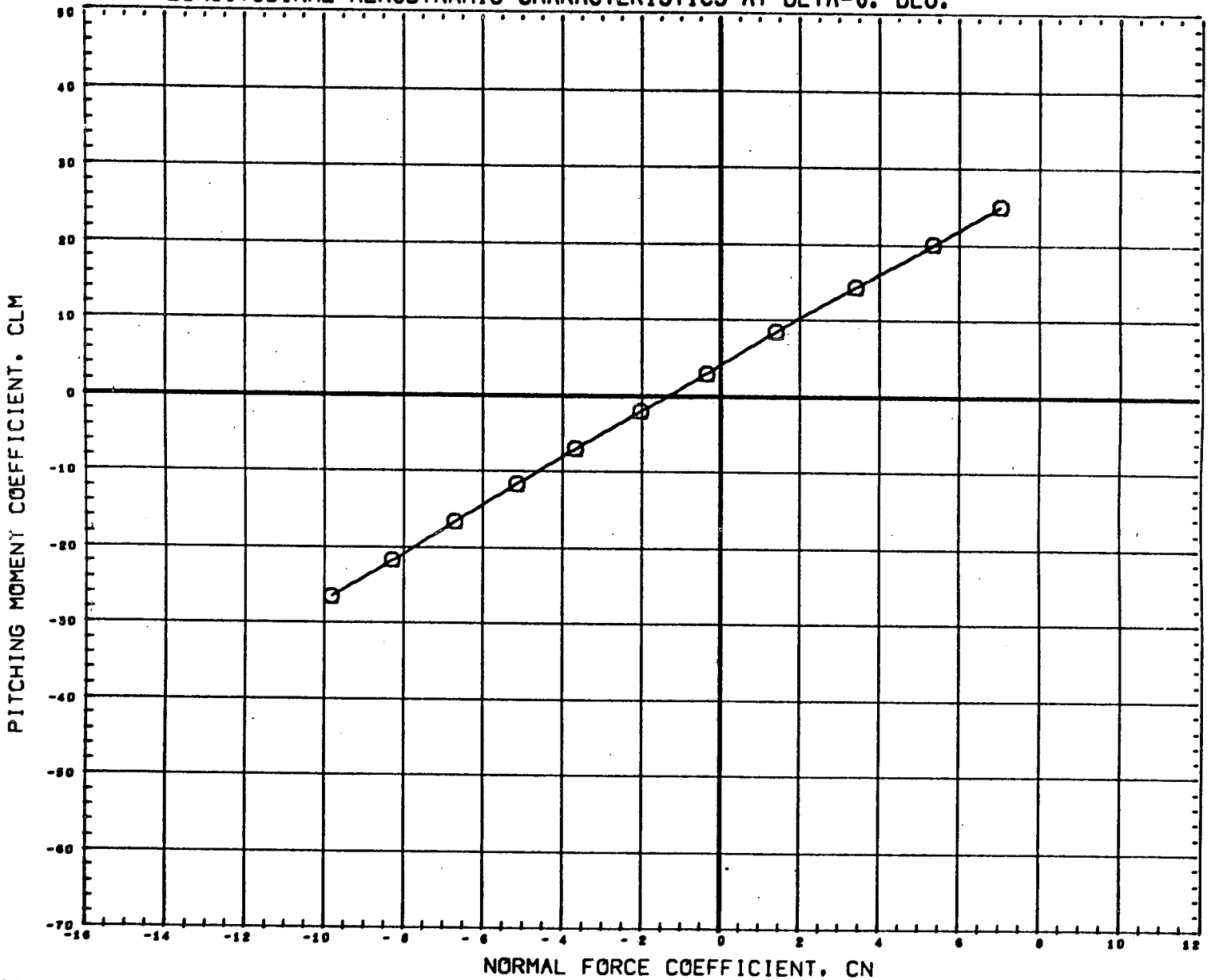


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XWRP 2.9170 IN TII
 YWRP 0.0000 CORE C
 ZWRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

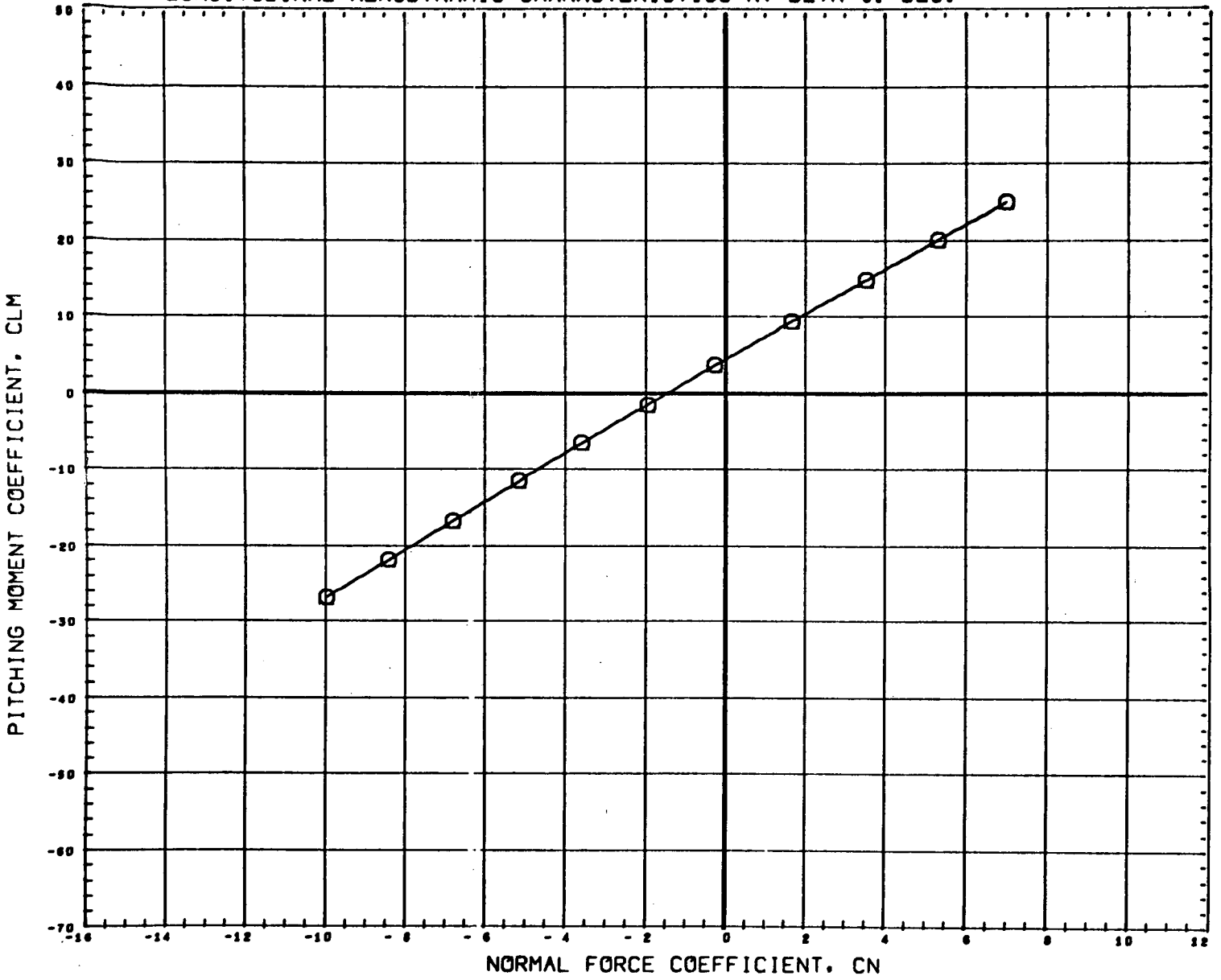


SYMBOL \circ MACH 0.997 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 SQ INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 1.097 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

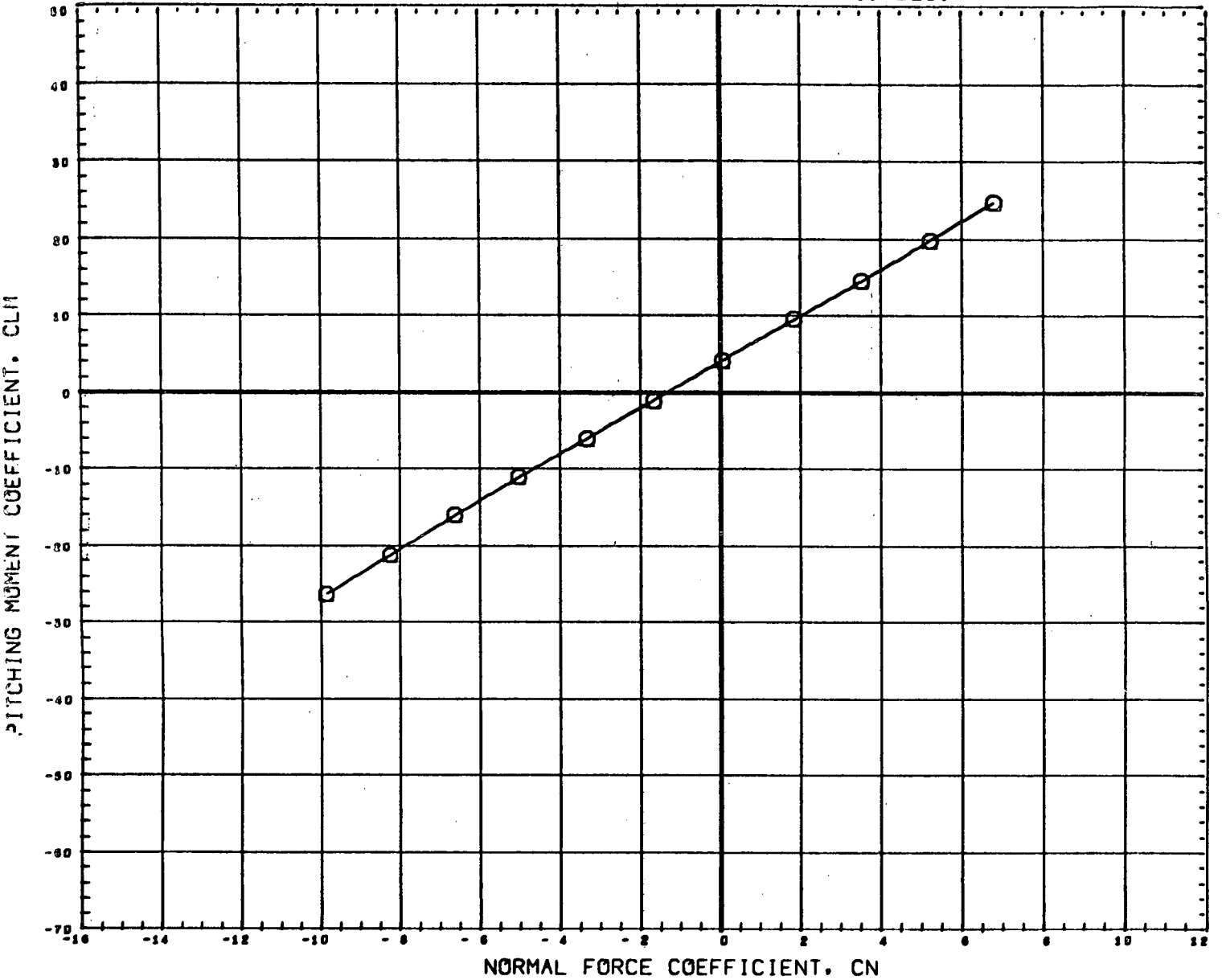
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

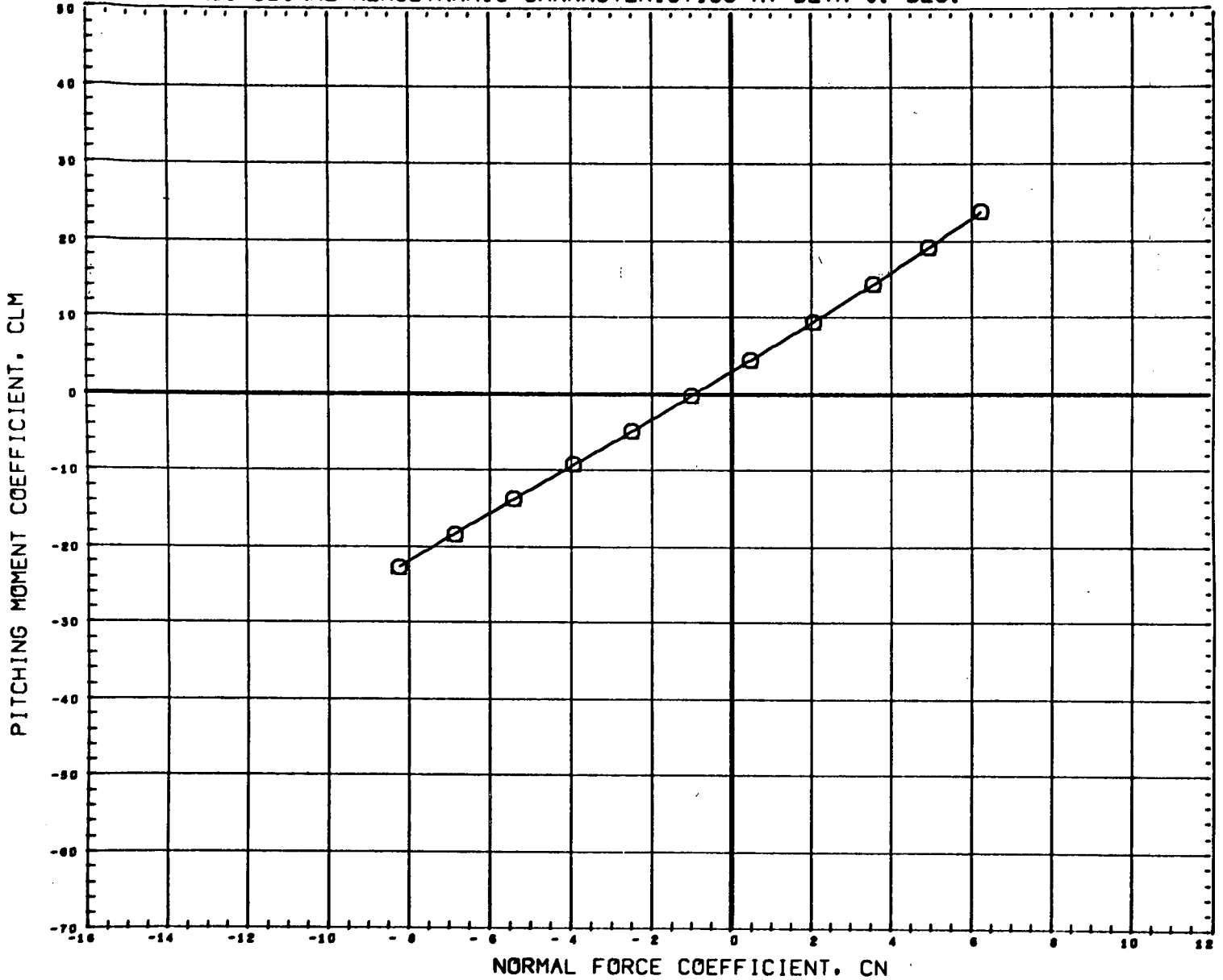


SYMBOL MACH PARAMETRIC VALUES
 O 1.197 BETA 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

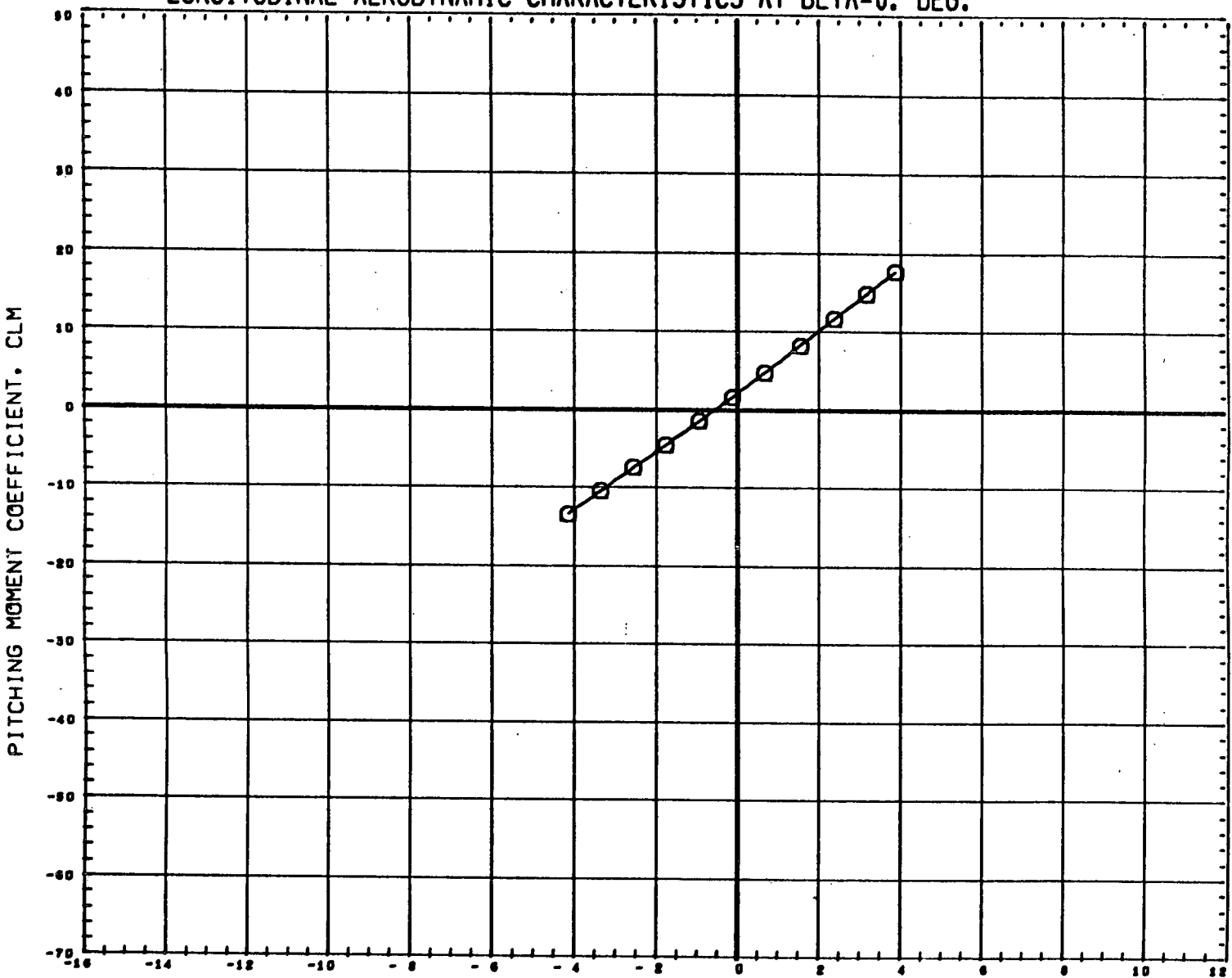


SYMBOL \bigcirc MACH 1.463 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.6240 INCHES
 BREF 0.6240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \square MACH 2.740 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

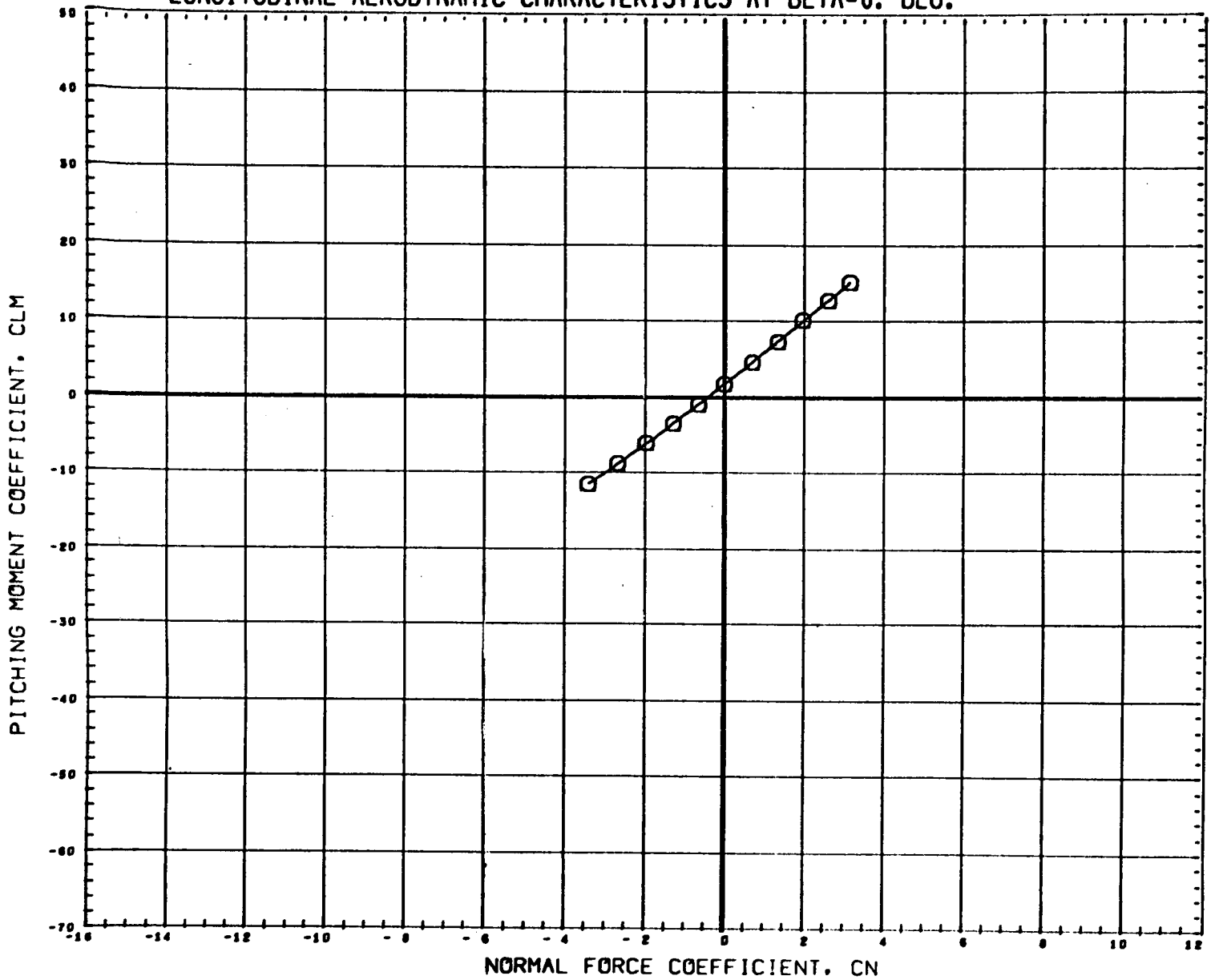
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \circ MACH 3.480 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 BRP 0.5340 88 INC
 LRF 0.0240 INCHES
 BRP 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

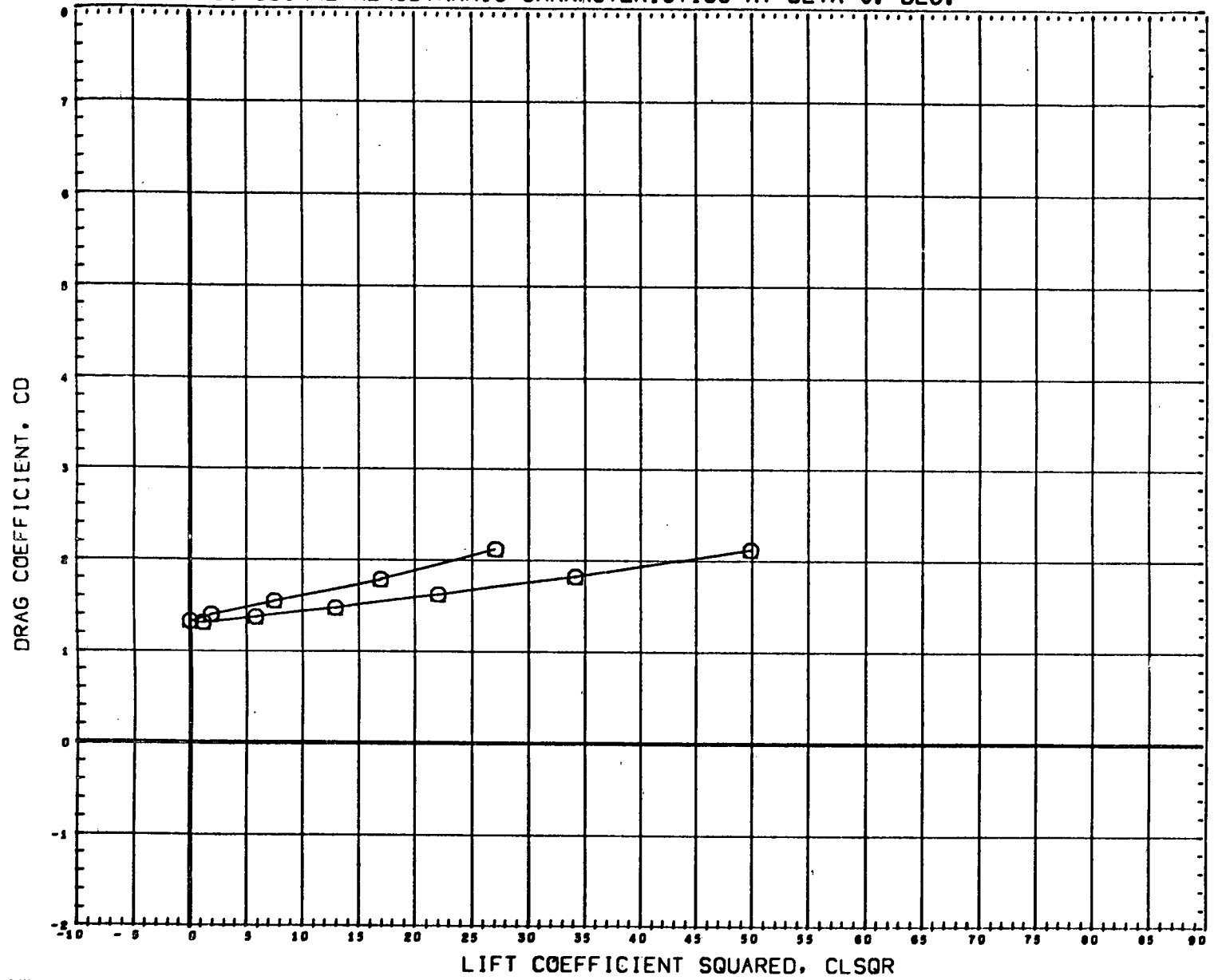
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 0.597 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BRP 0.5340 80 INC
 LRP 0.0240 INCHES
 BRP 0.0240 INCHES
 XRP 8.0170 IN TII
 YRP 0.0000 CORE C
 ZRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

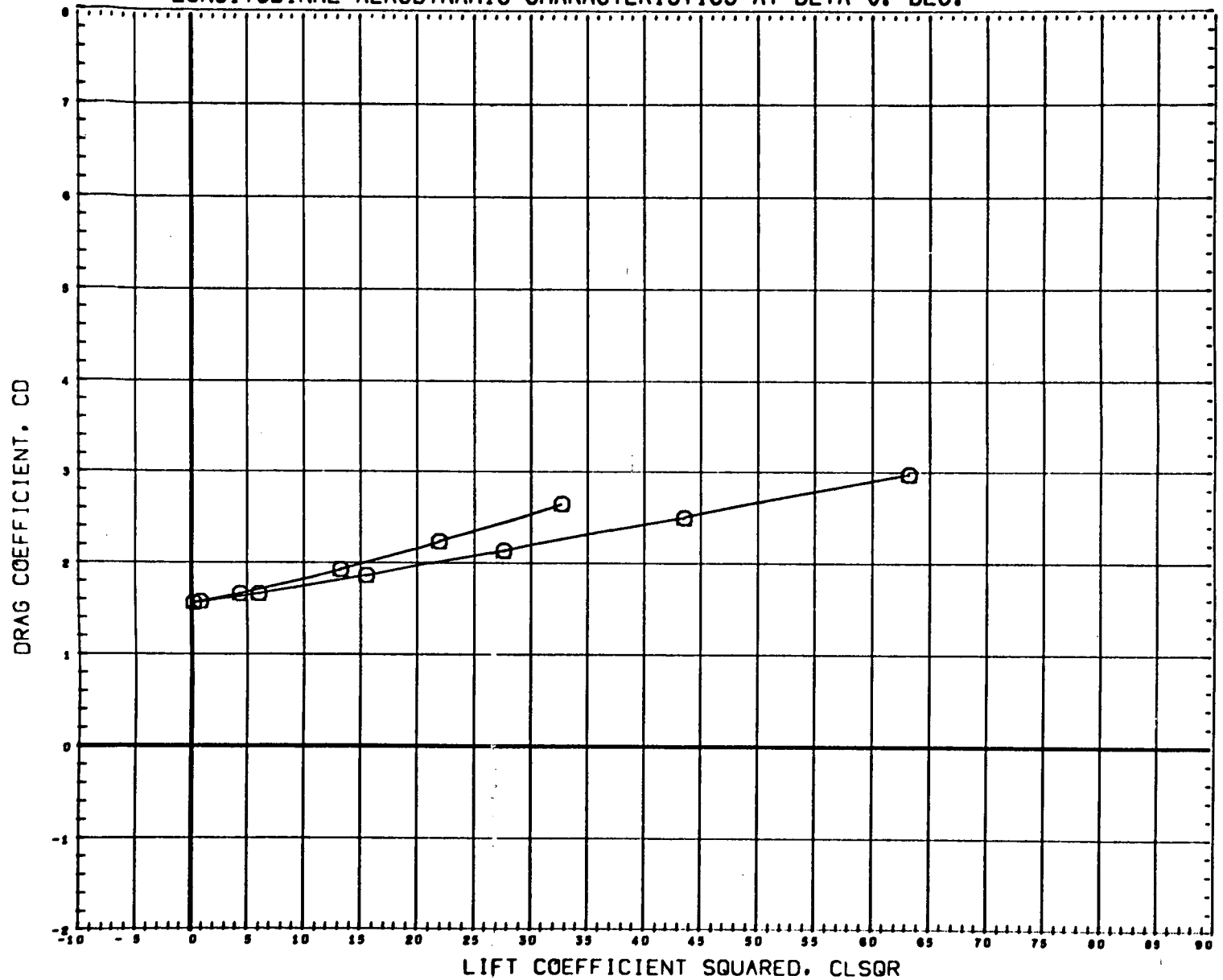
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

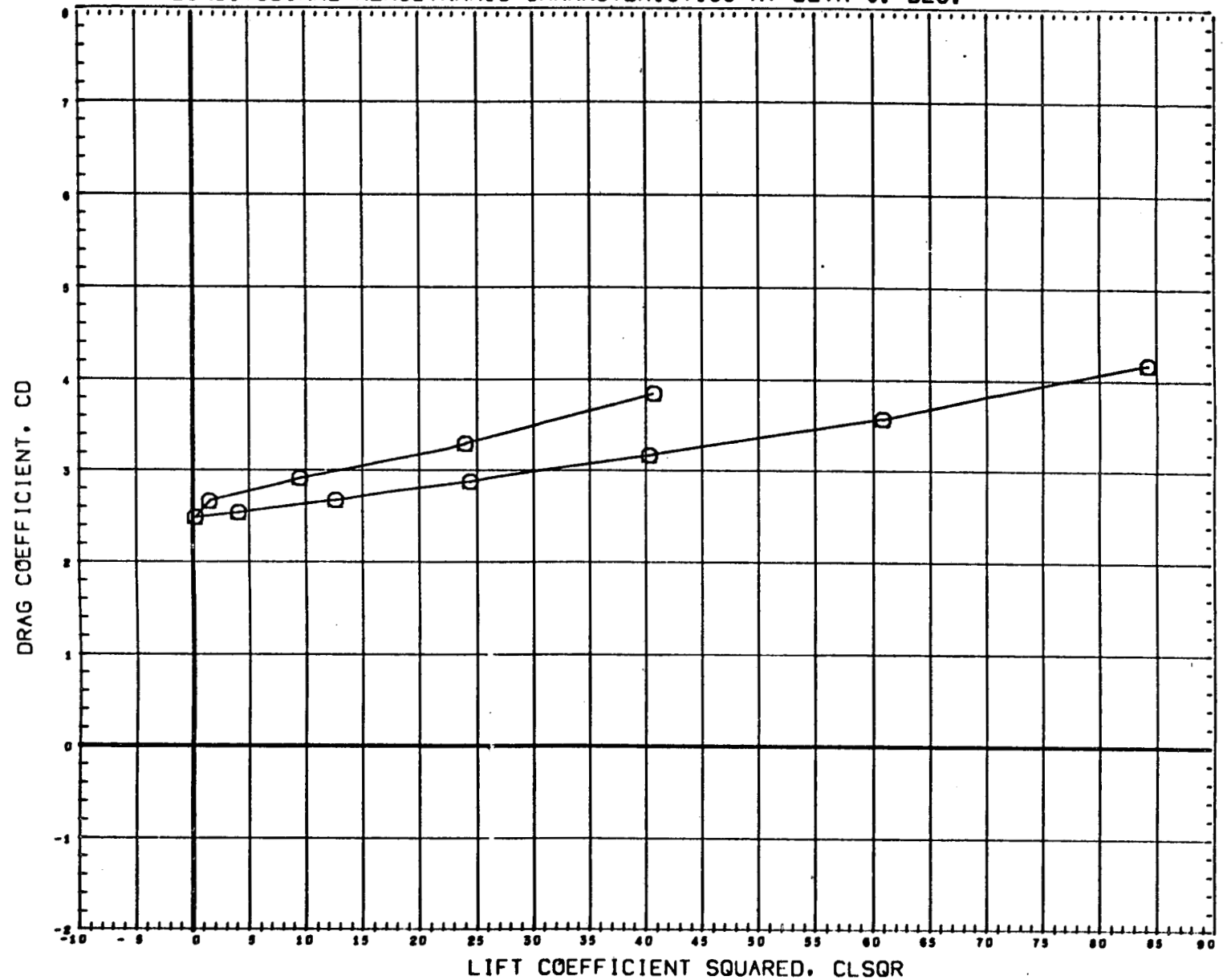


SYMBOL \bigcirc MACH 0.998 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.997 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

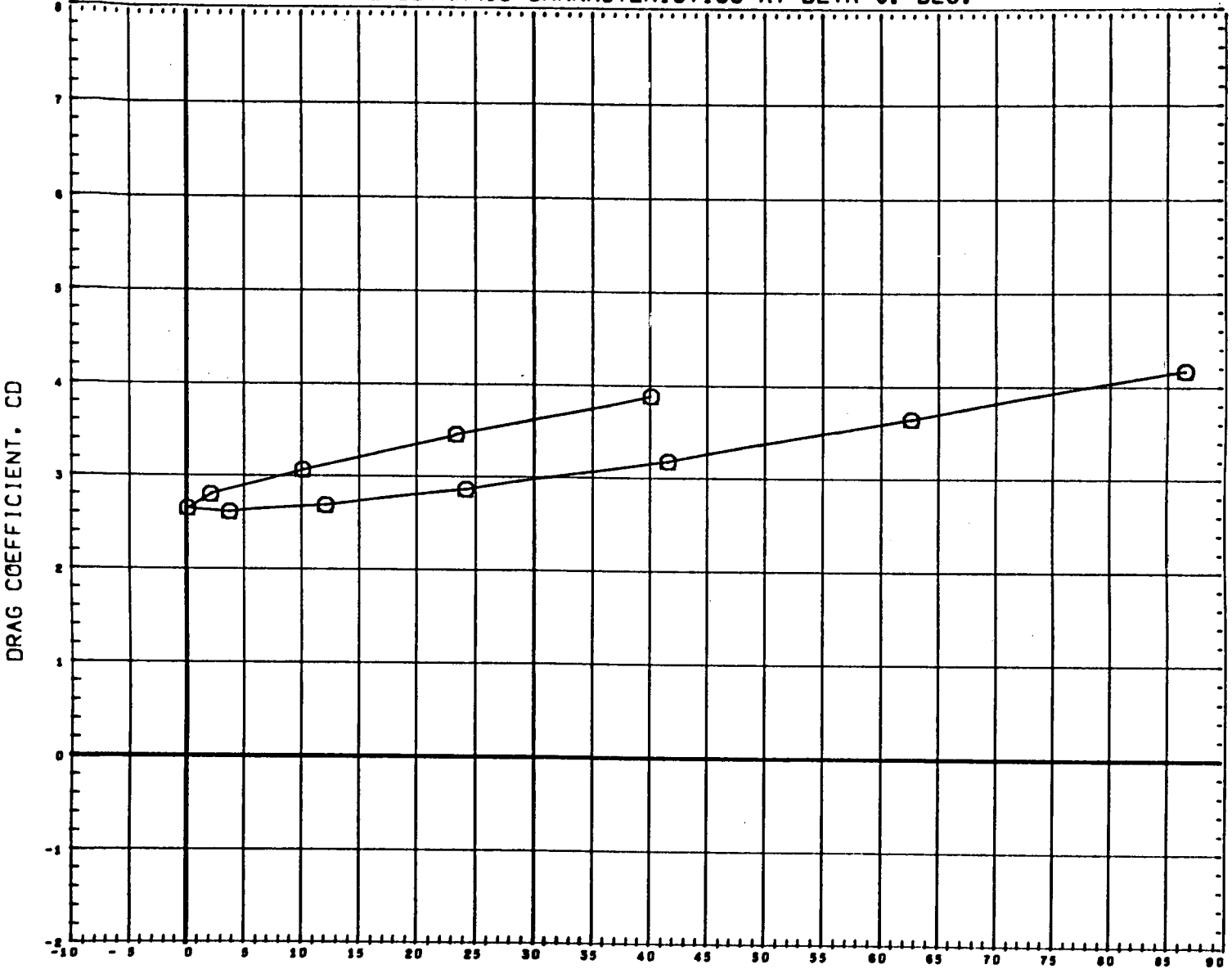
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

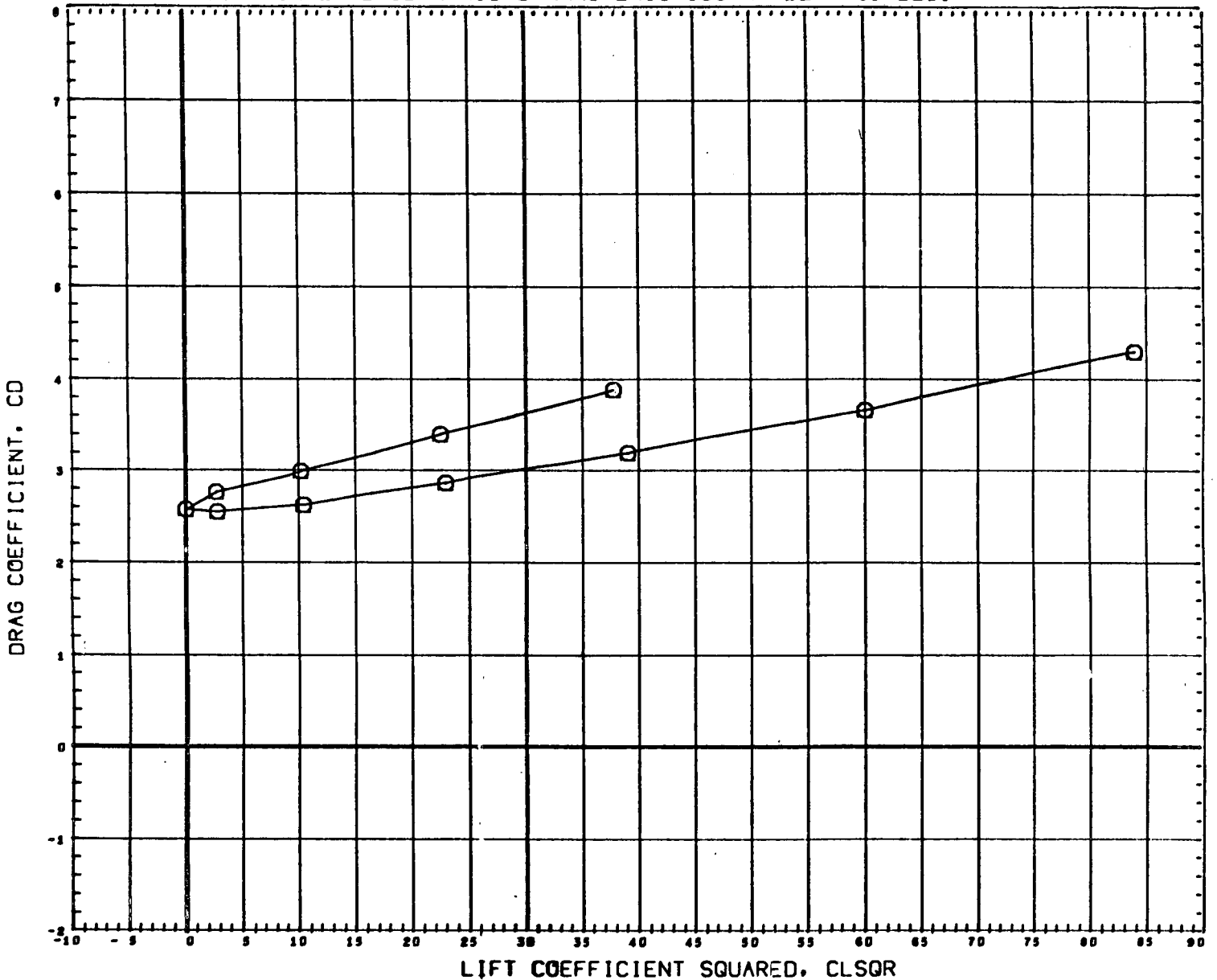


SYMBOL \circ MACH 1.097 BETA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

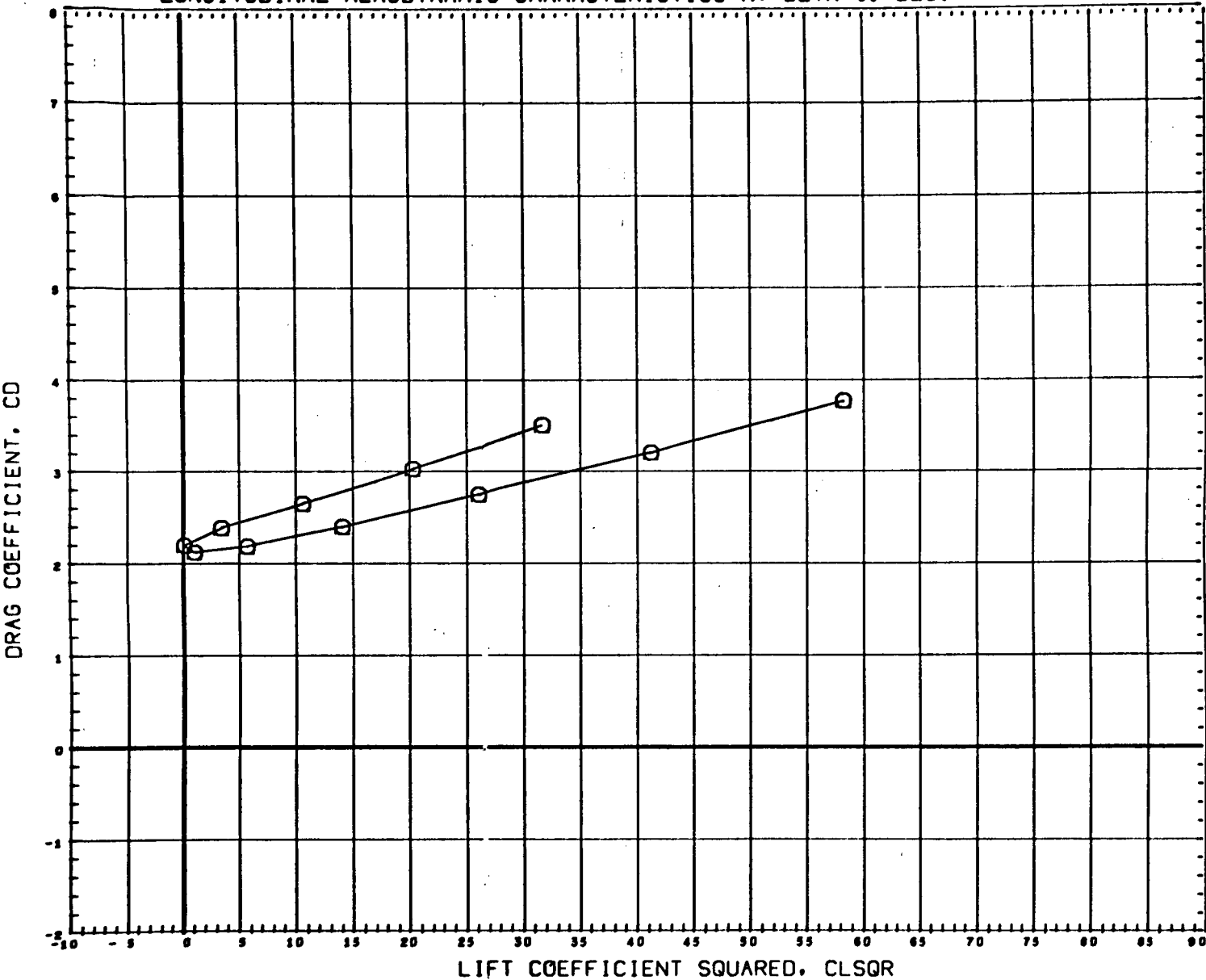


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 1.197 0.000 0.000

REFERENCE INFORMATION
 SREF 0.9340 88 INCH
 LREF 0.0240 INCHES
 OREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

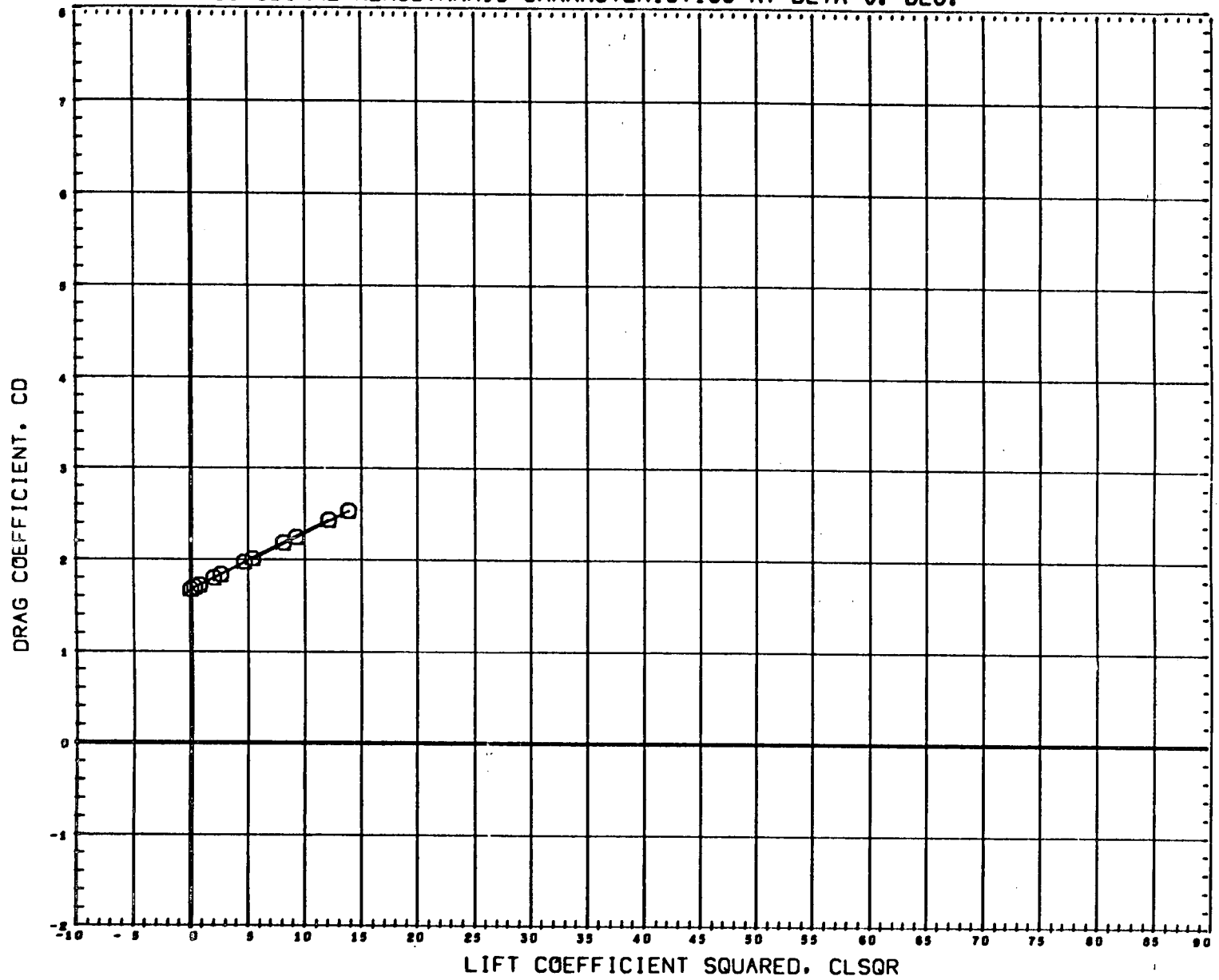


SYMBOL \circ MACH 1.463 BETA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

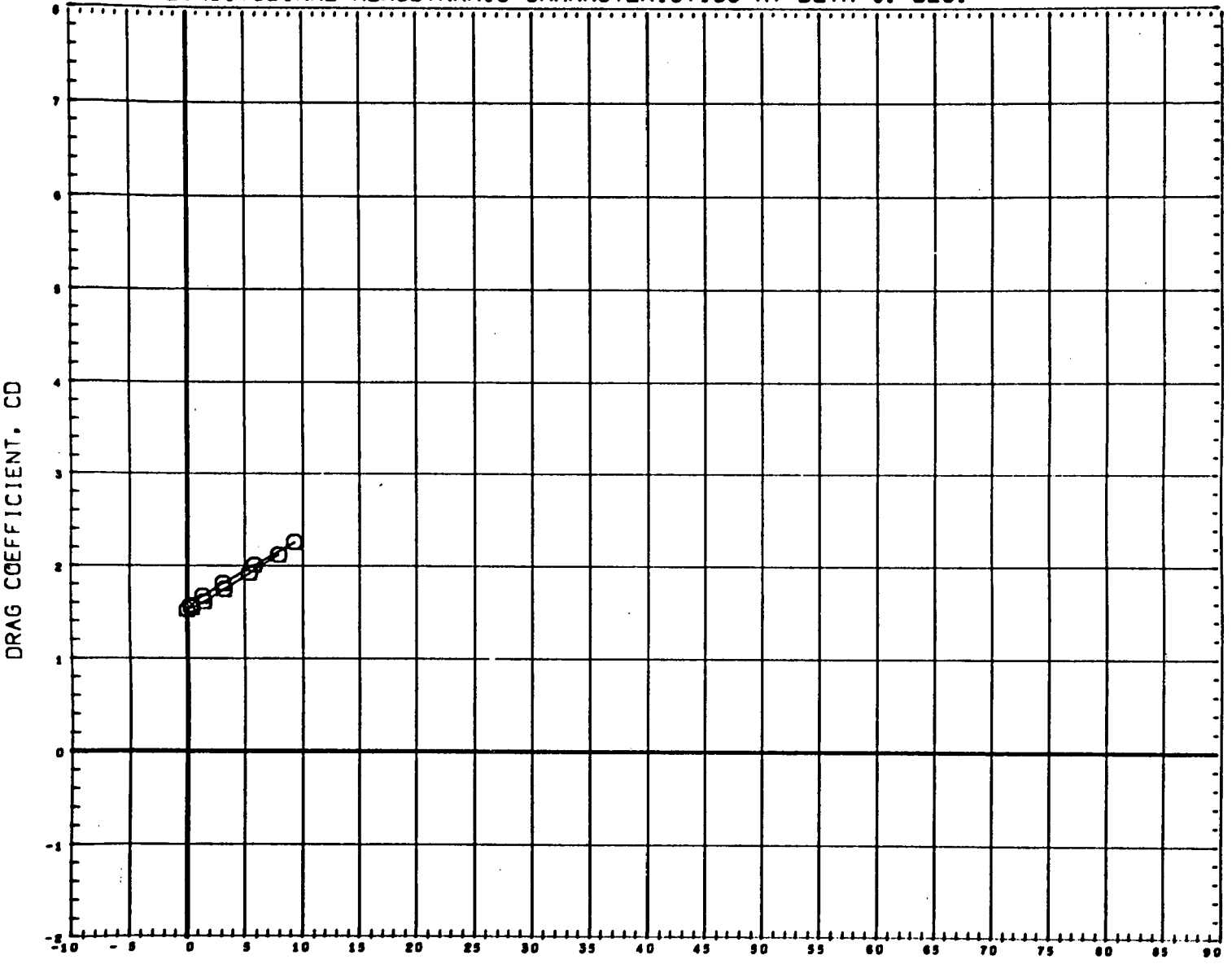
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

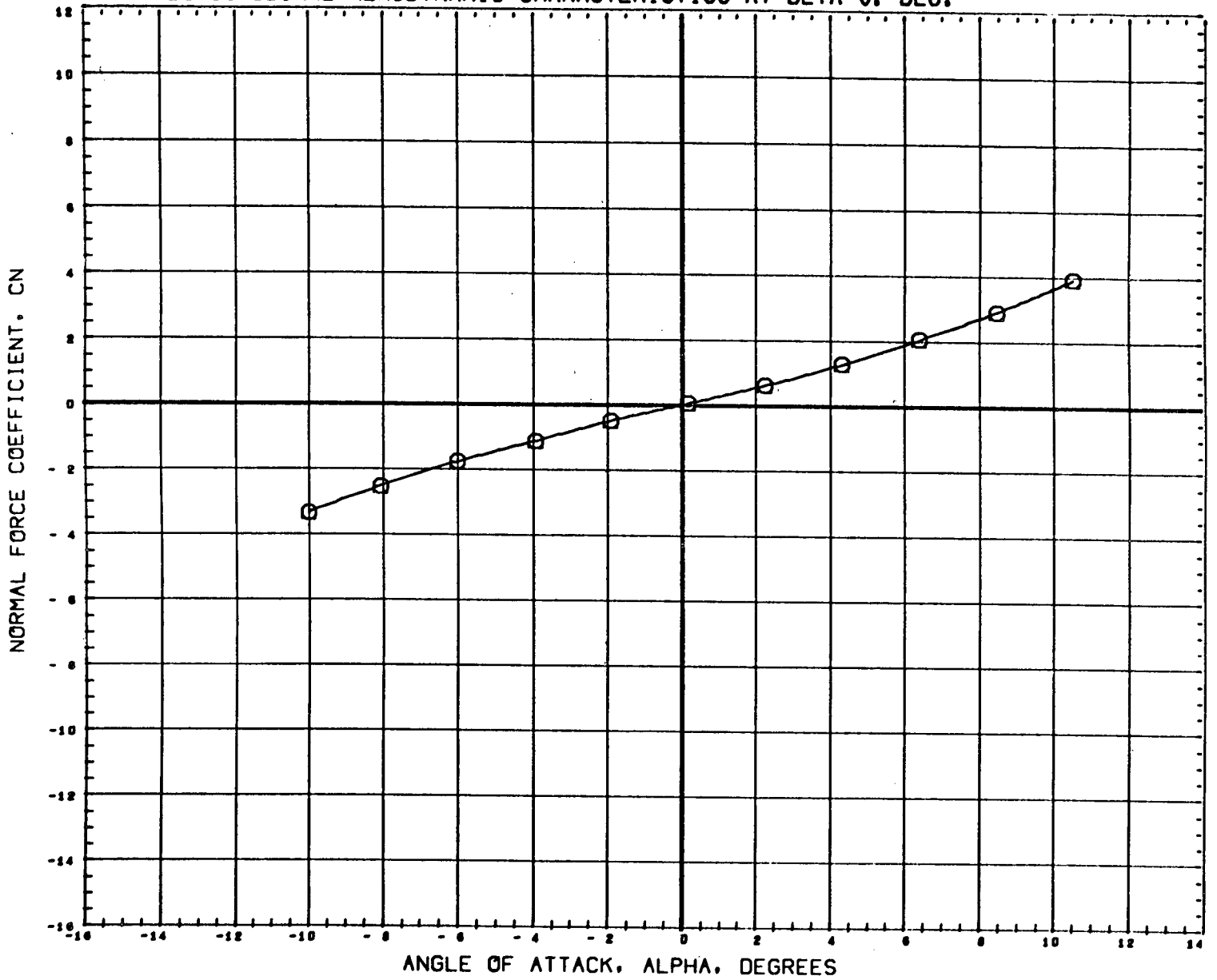


SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 3.400 0.000 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA MIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

MSFC TWT 505 T111L/DT07

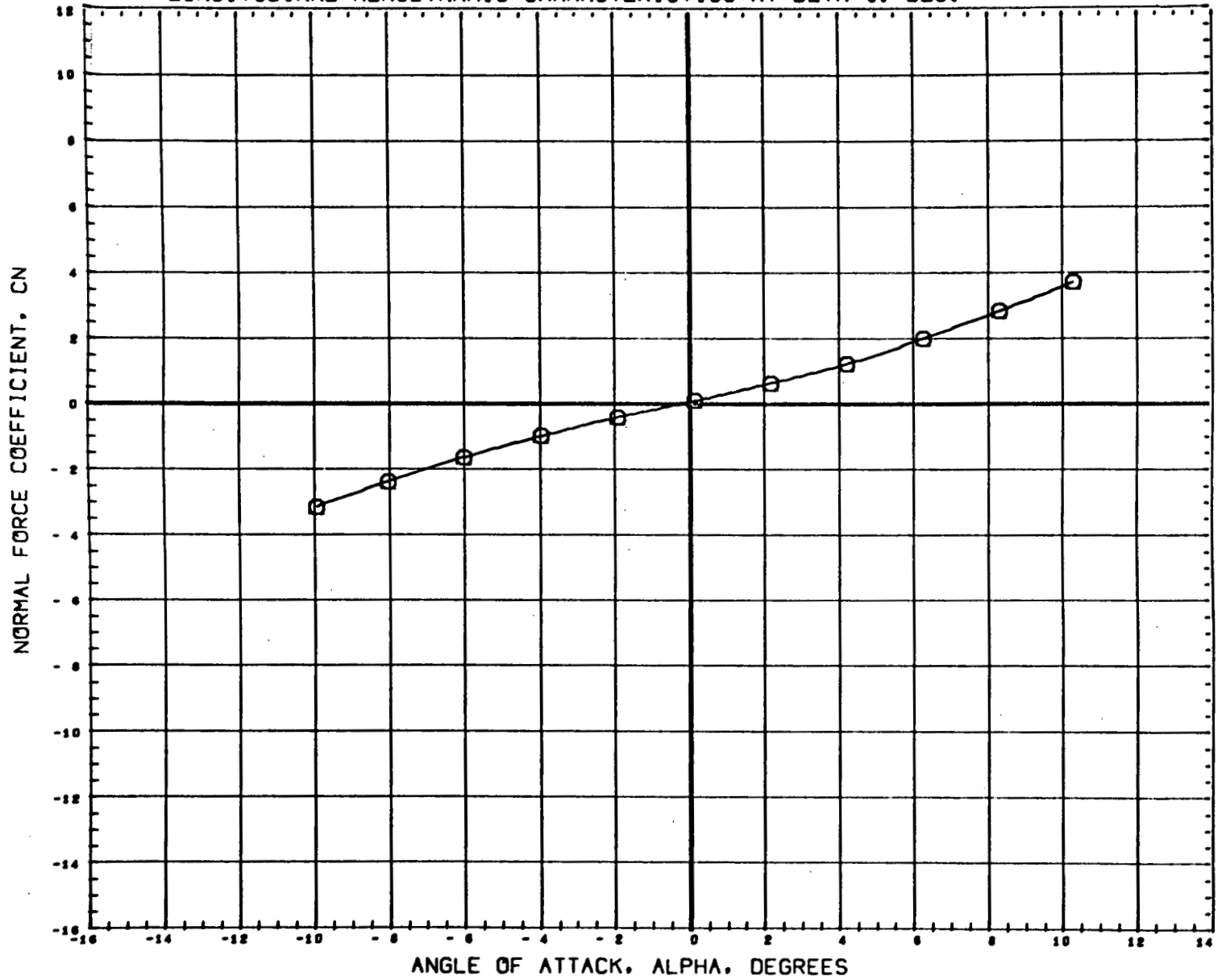
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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



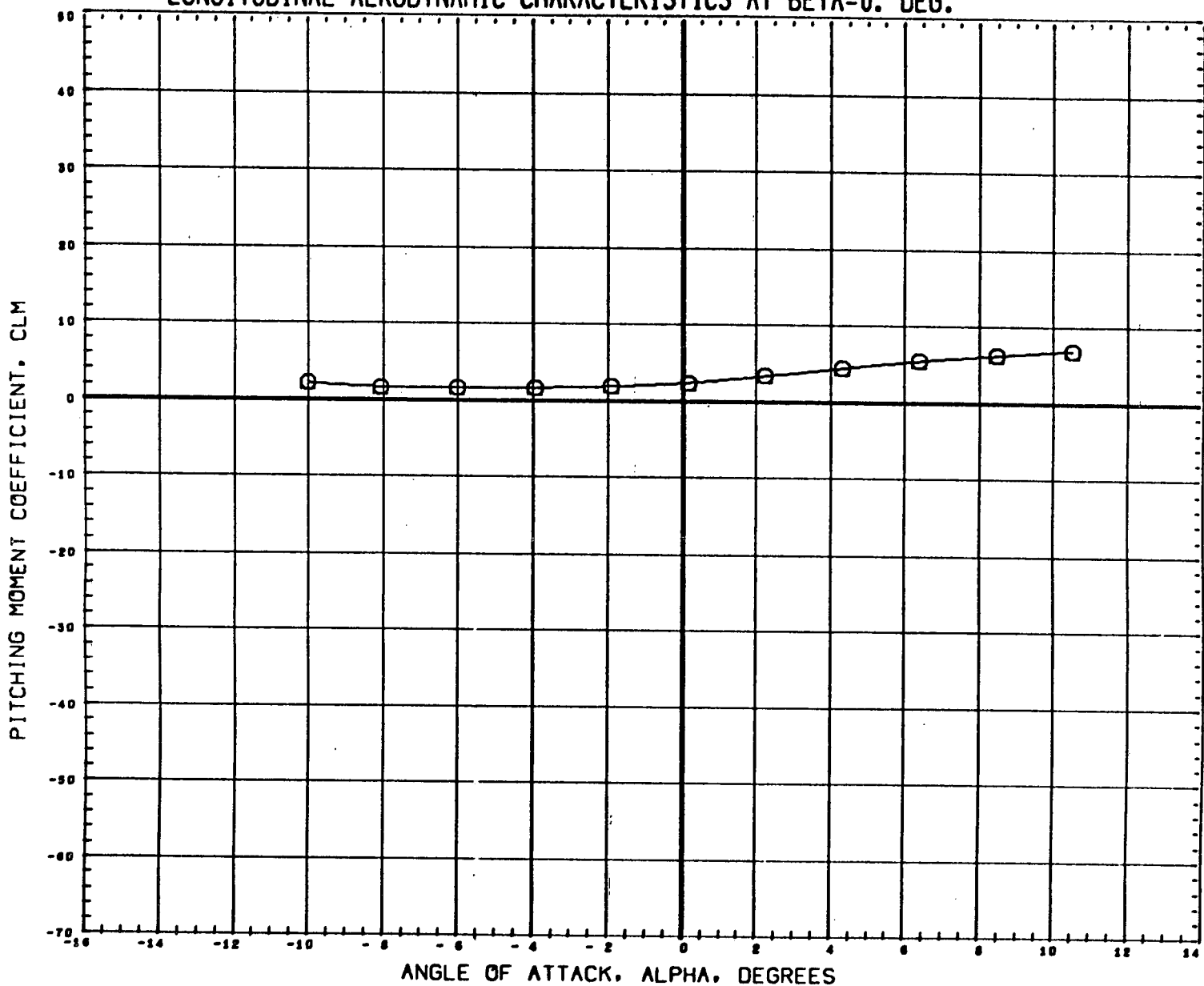
SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 3.400 0.000 0.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION

SREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

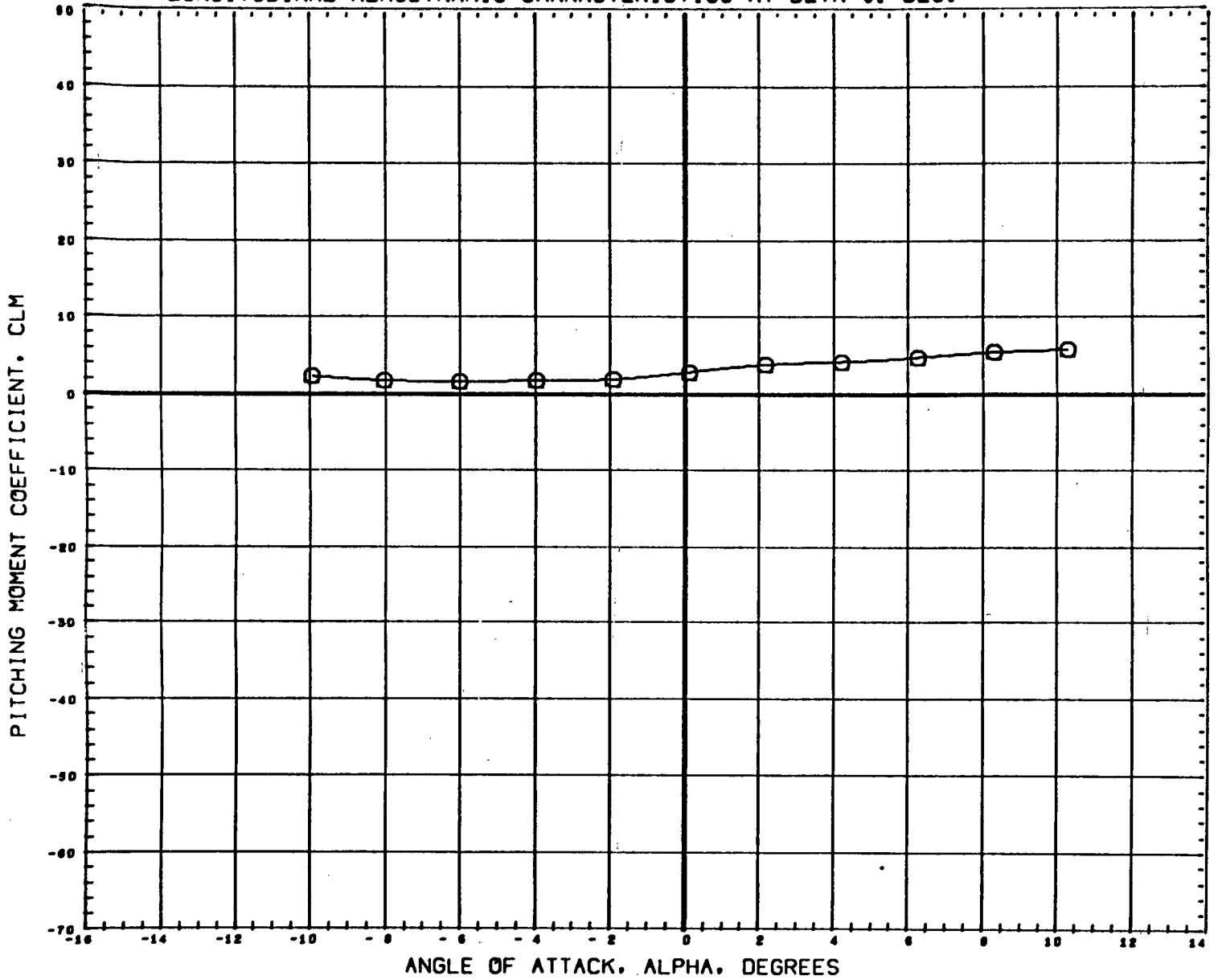
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

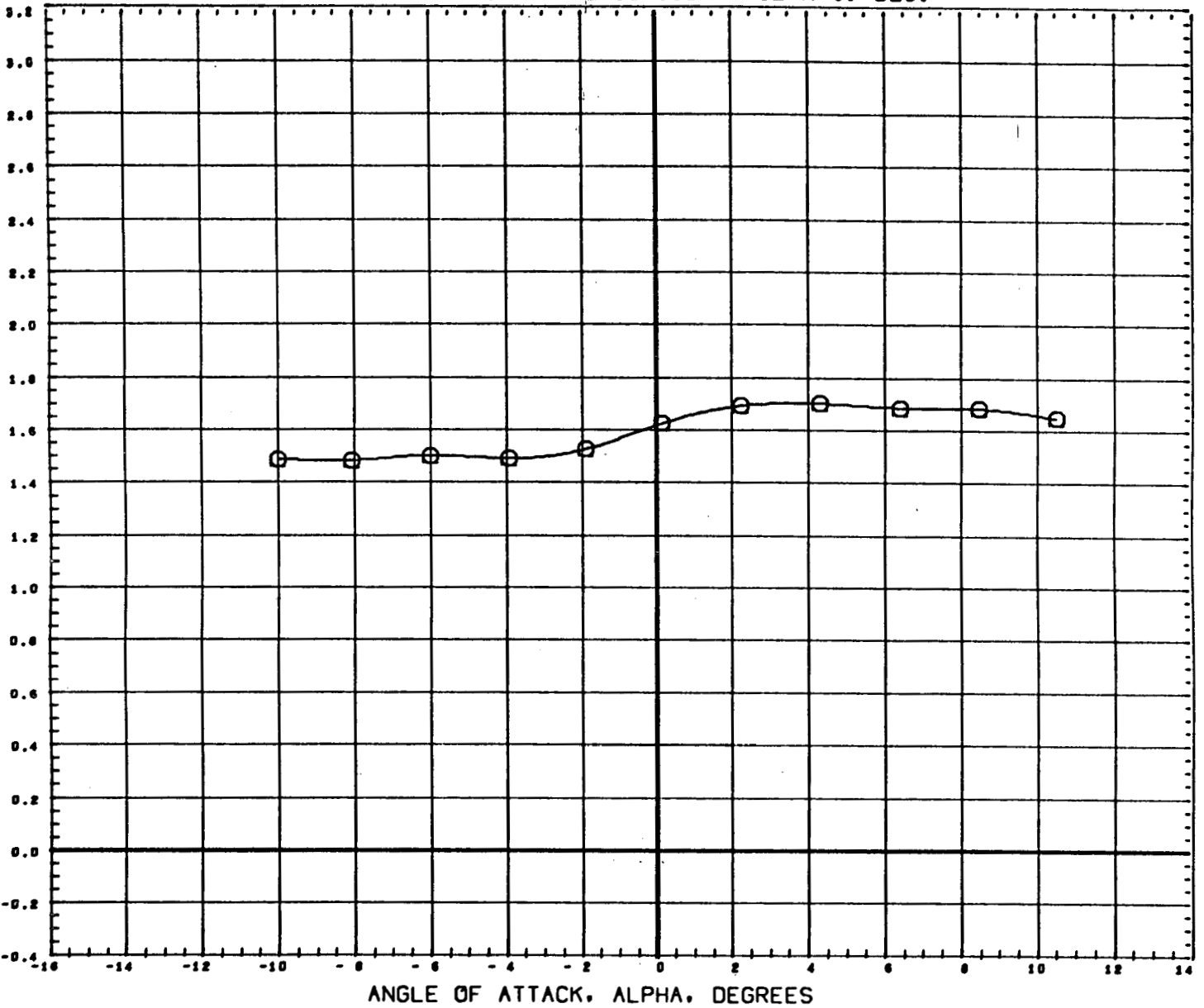


SYMBOL MACH BETA PARAMETRIC VALUES
 O 3.480 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

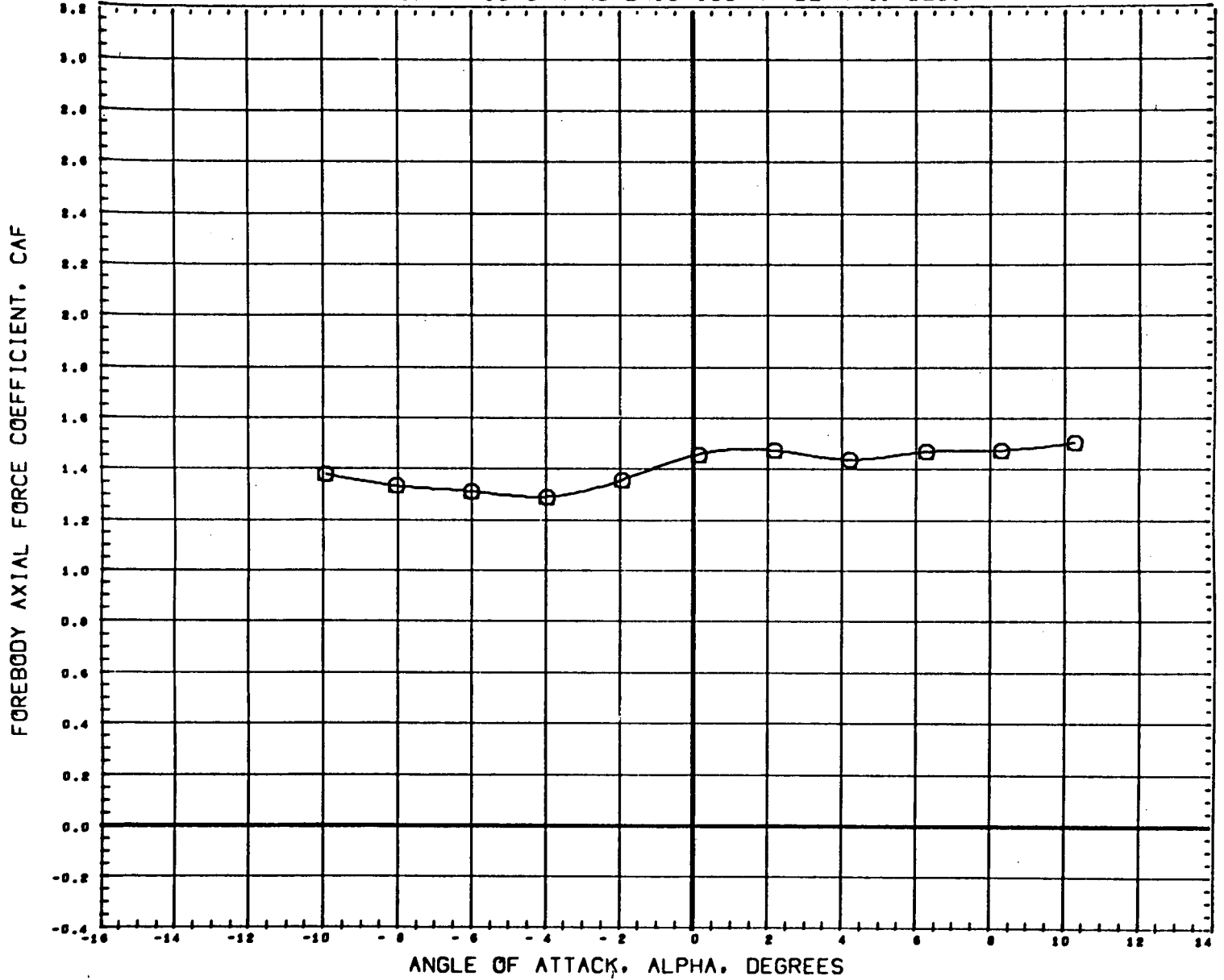


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

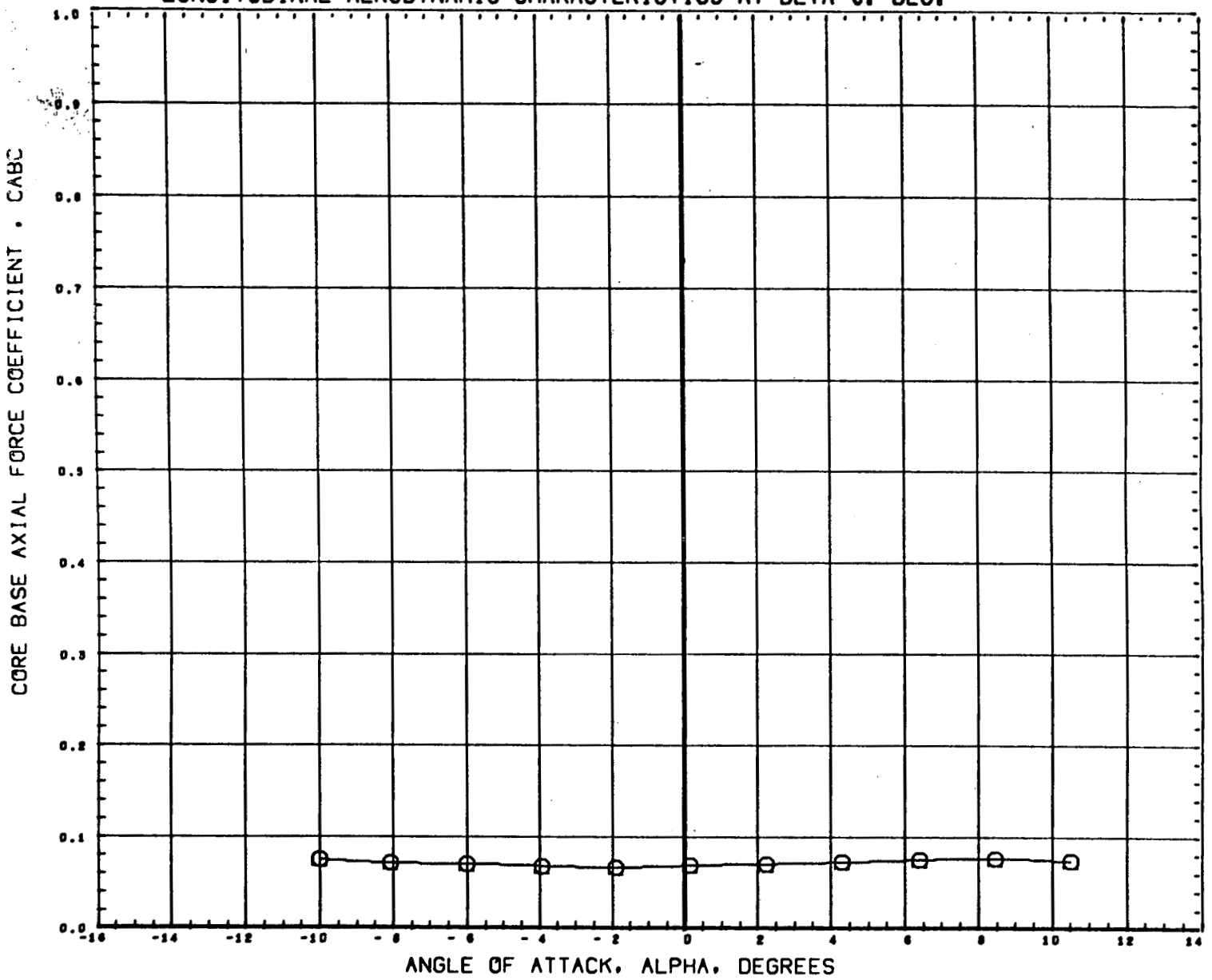


SYMBOL \bigcirc MACH 3.400 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

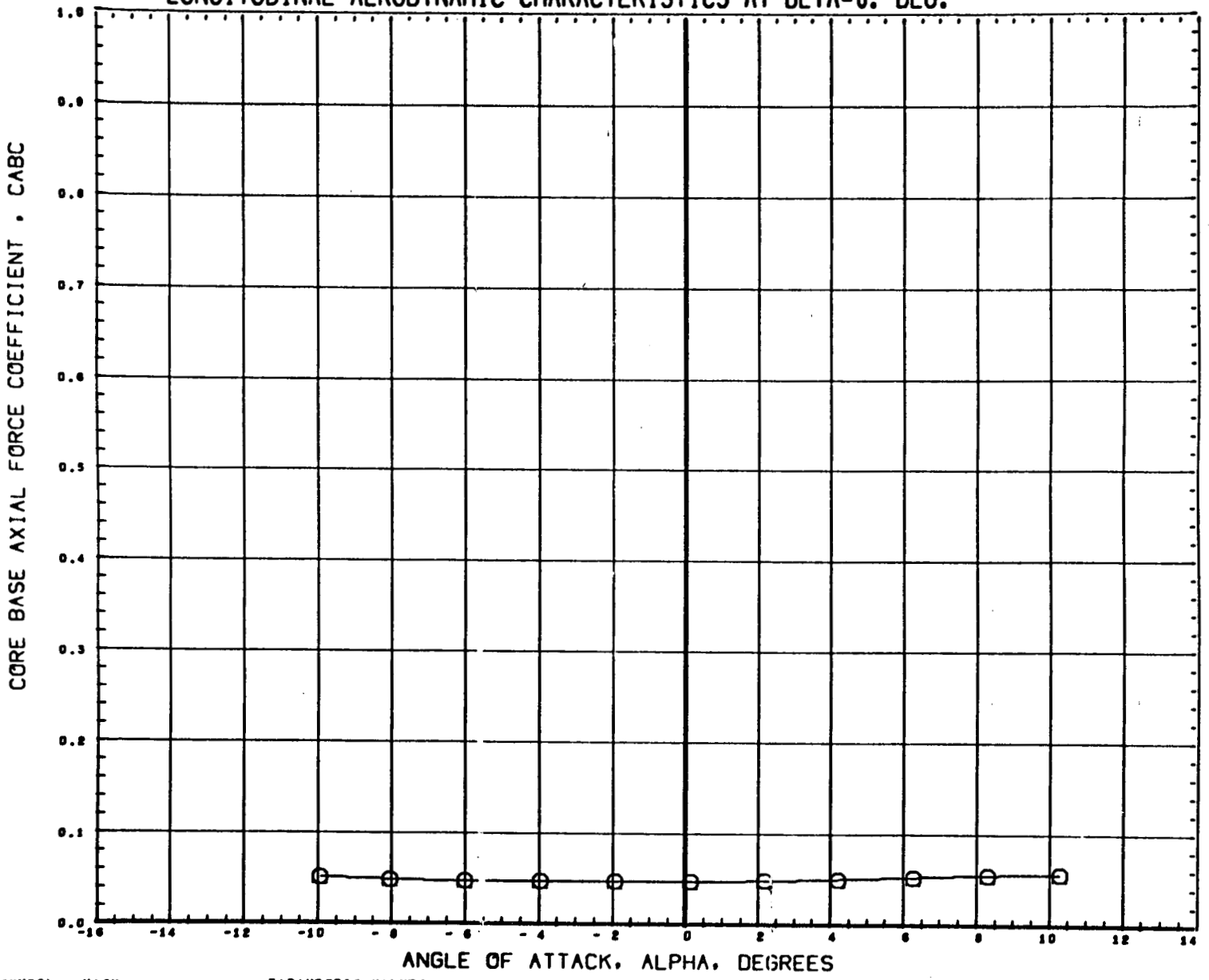


SYMBOL \circ MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



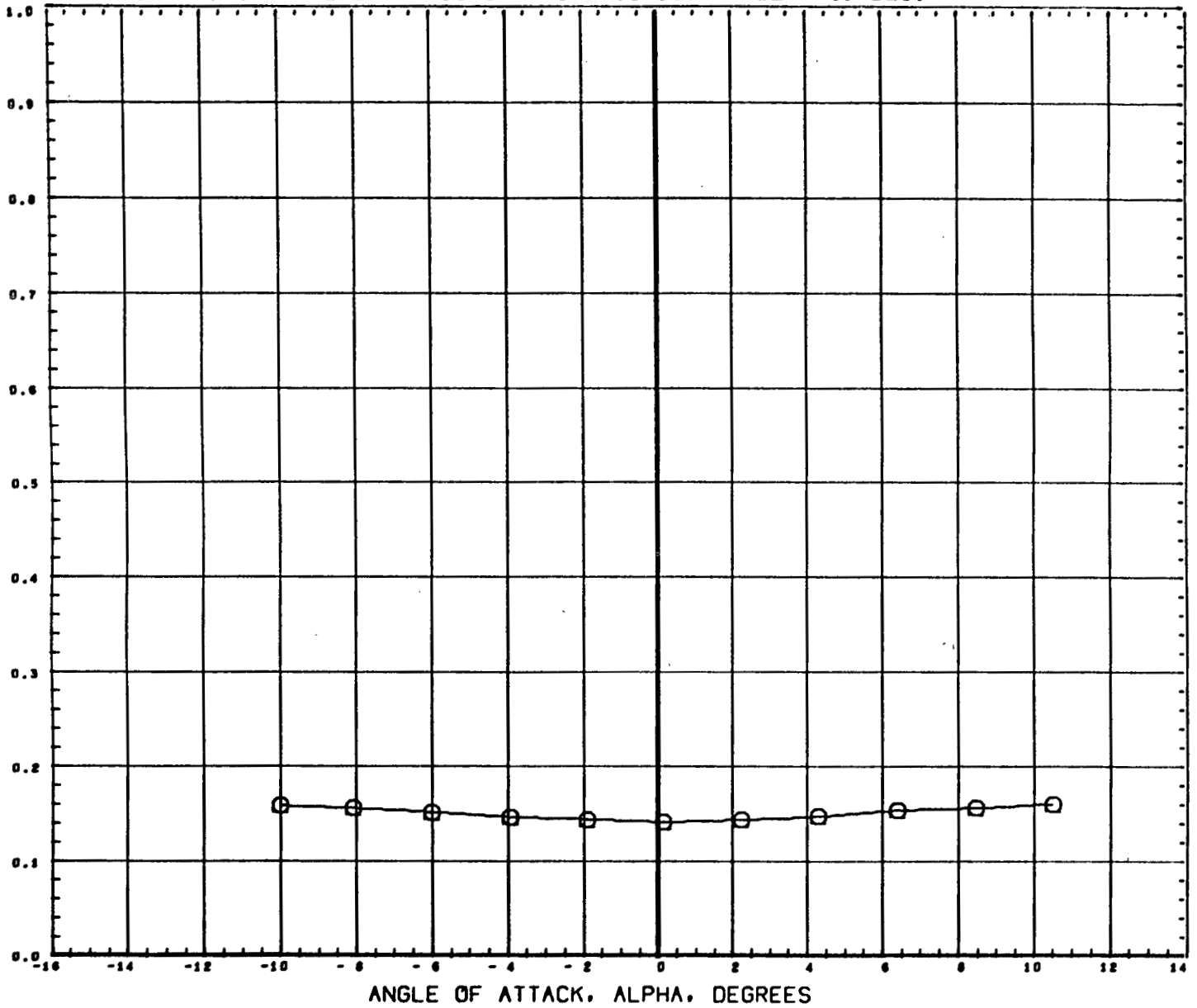
SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 3.480 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

SOLID ROCKET MOTOR BASE AXIAL FORCE COEFFICIENT C_{AB}



SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 SR INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

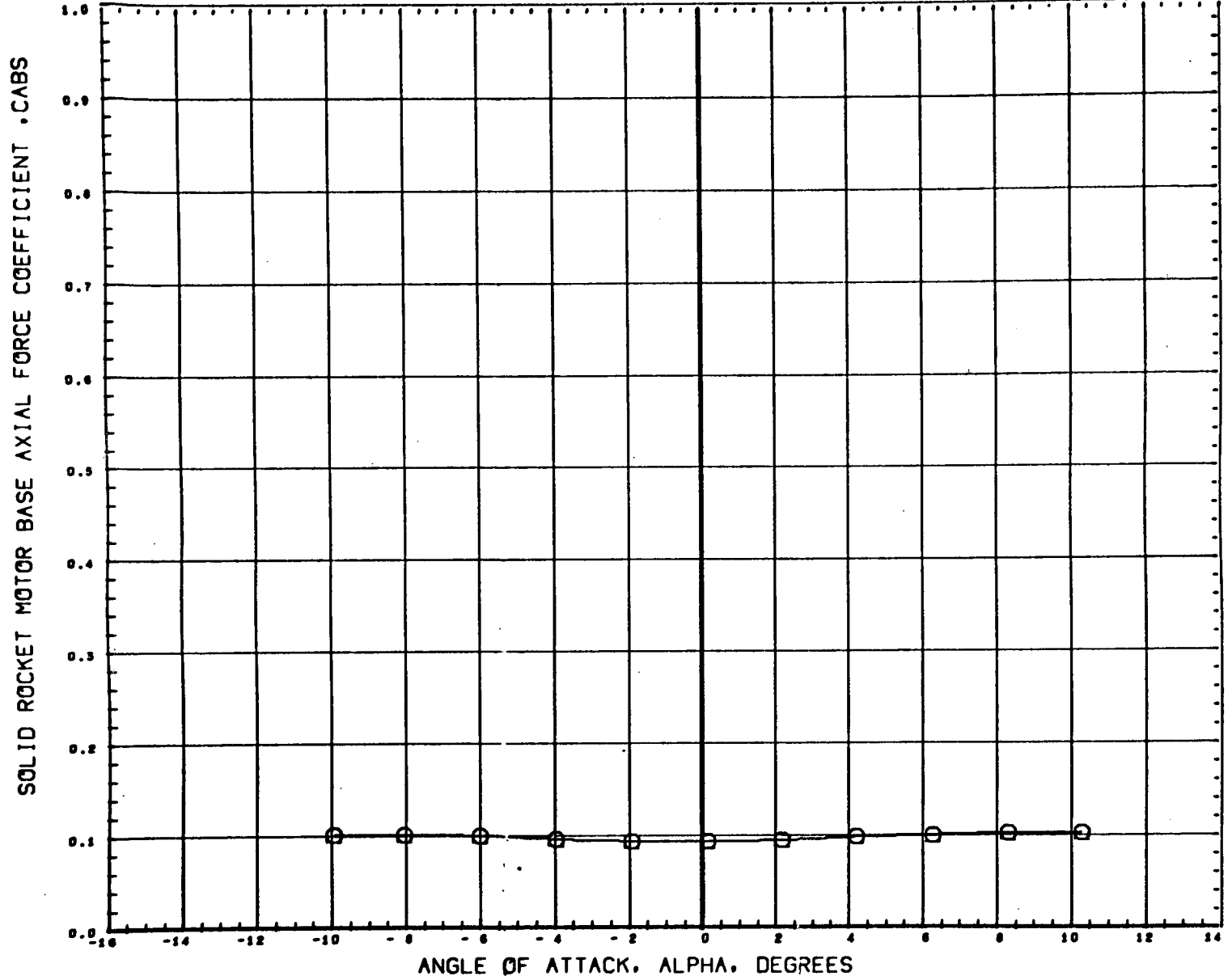
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

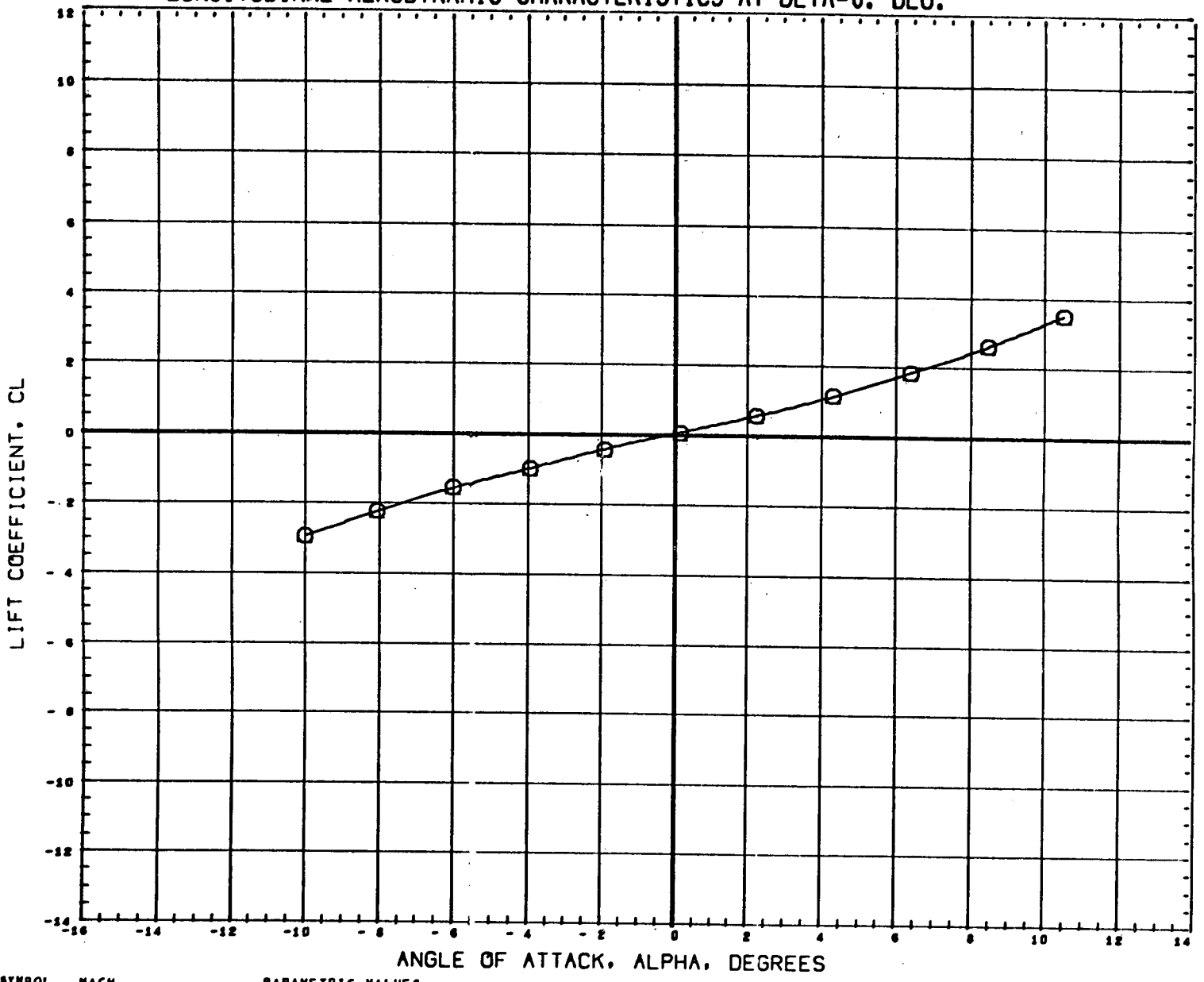


SYMBOL \circ MACH 3.400 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 30 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

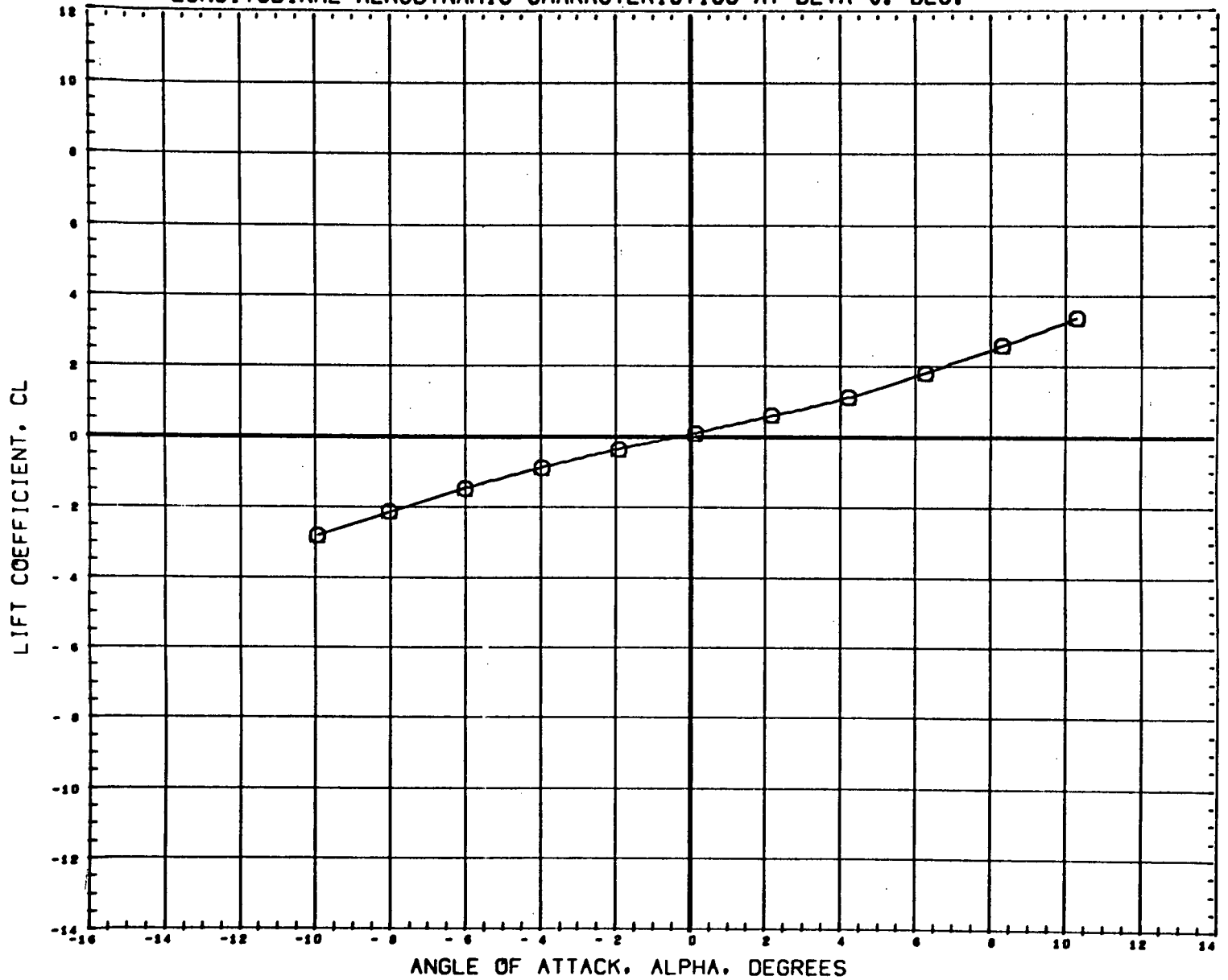


SYMBOL \bigcirc MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.5340	89 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

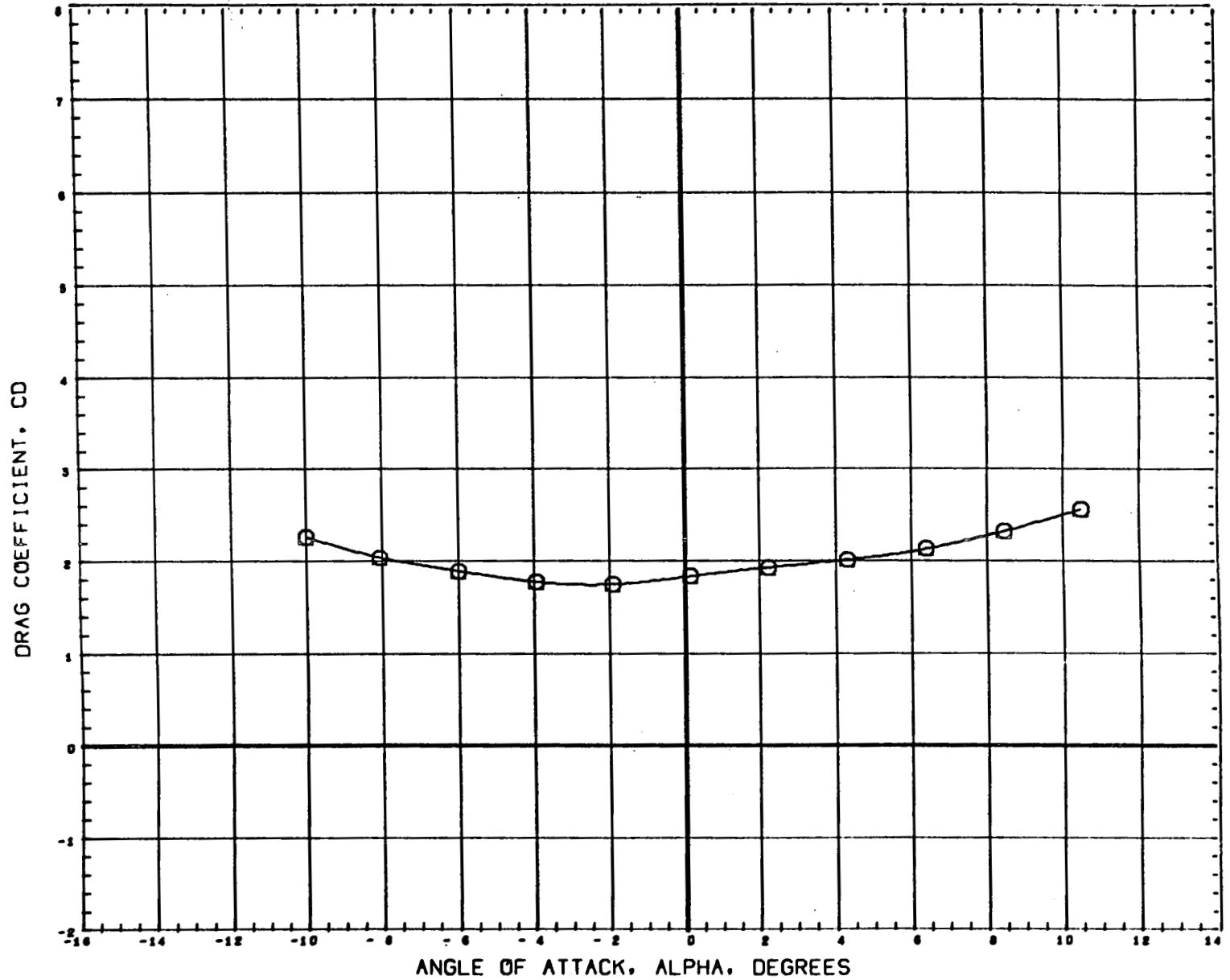


SYMBOL \circ MACH 3.480 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

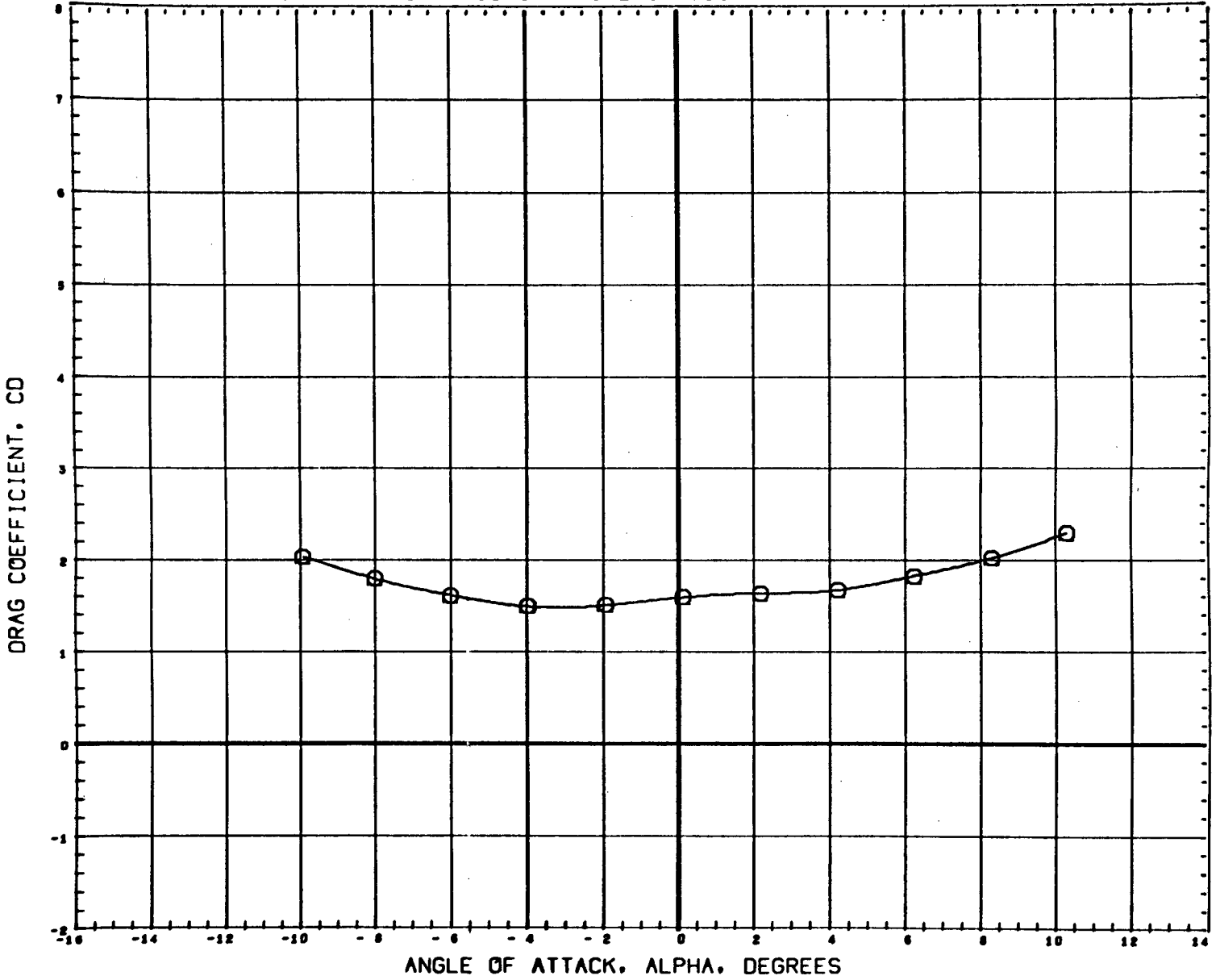


SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.6240 INCHES
 BREF 0.6240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

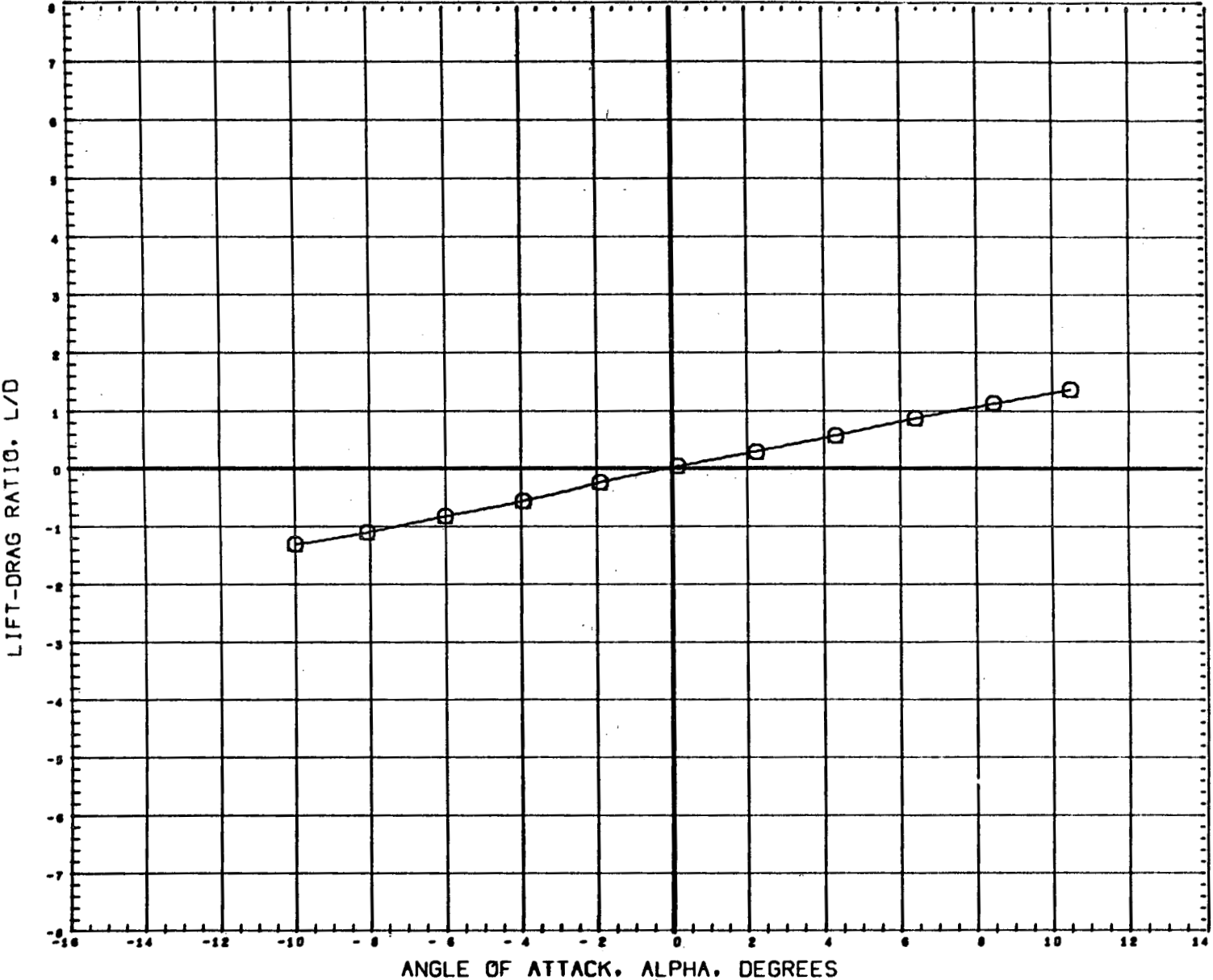


SYMBOL \circ MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

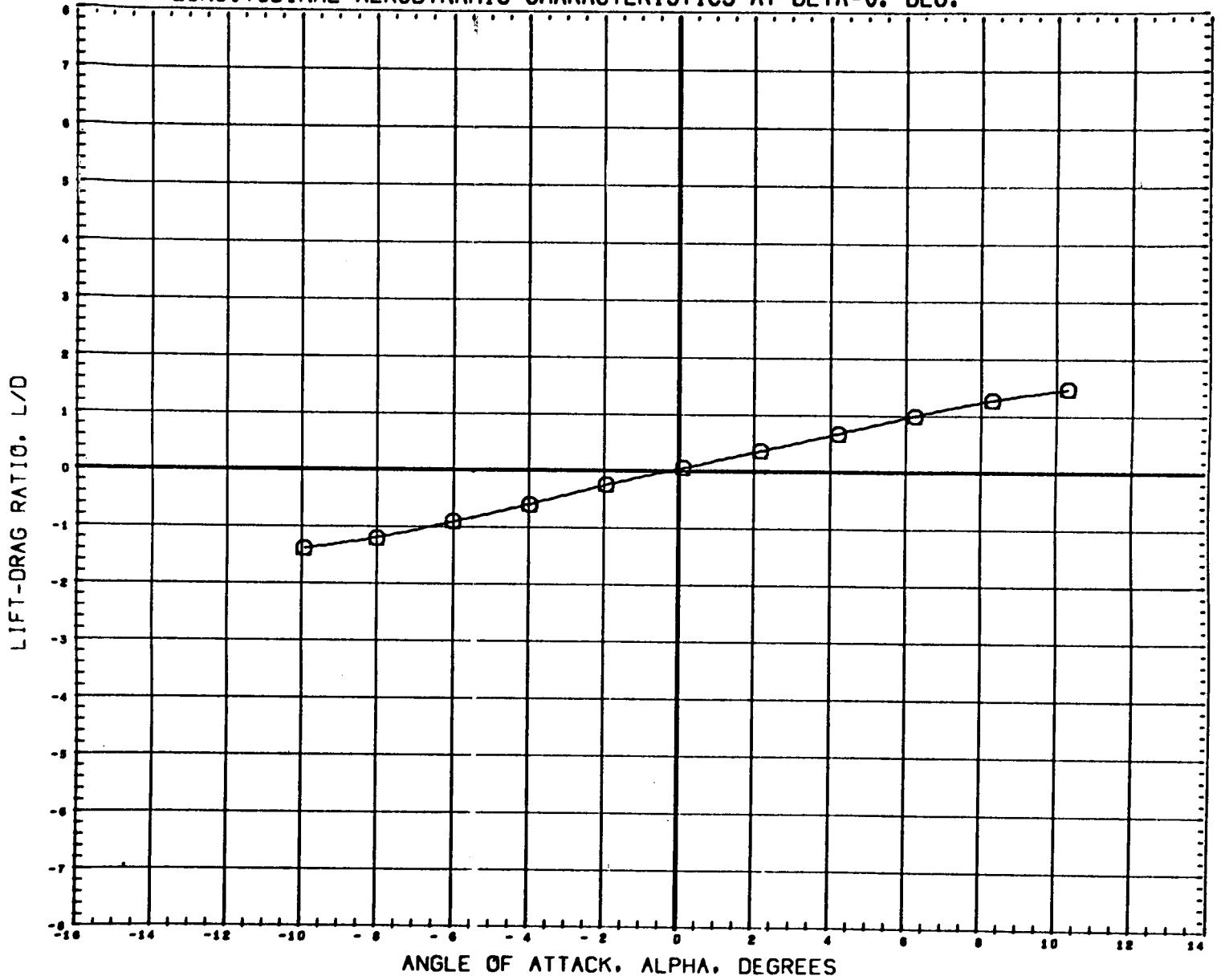


SYMBOL \bigcirc MACH 2.740 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V0E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

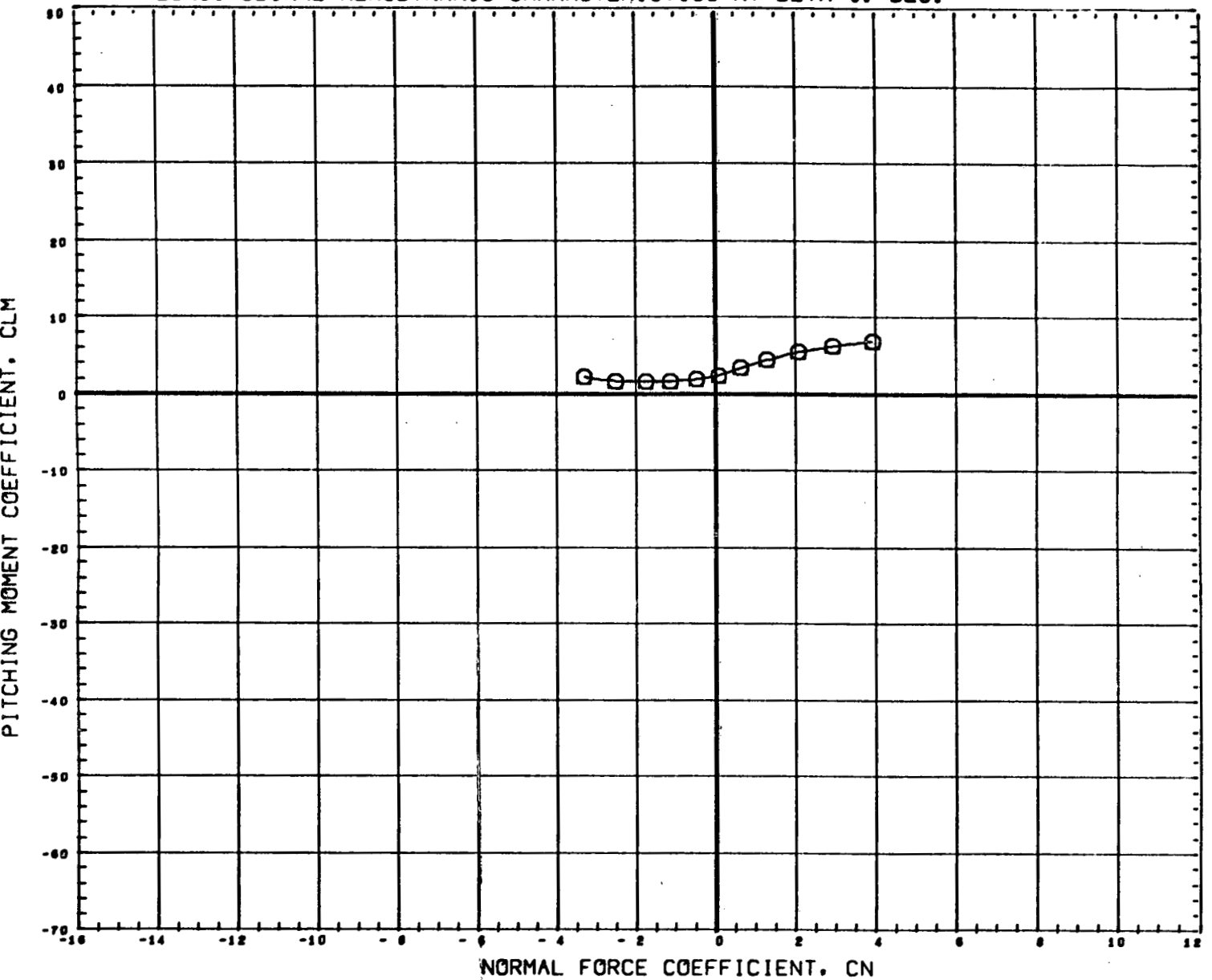


SYMBOL \circ MACH 3.400 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V4E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

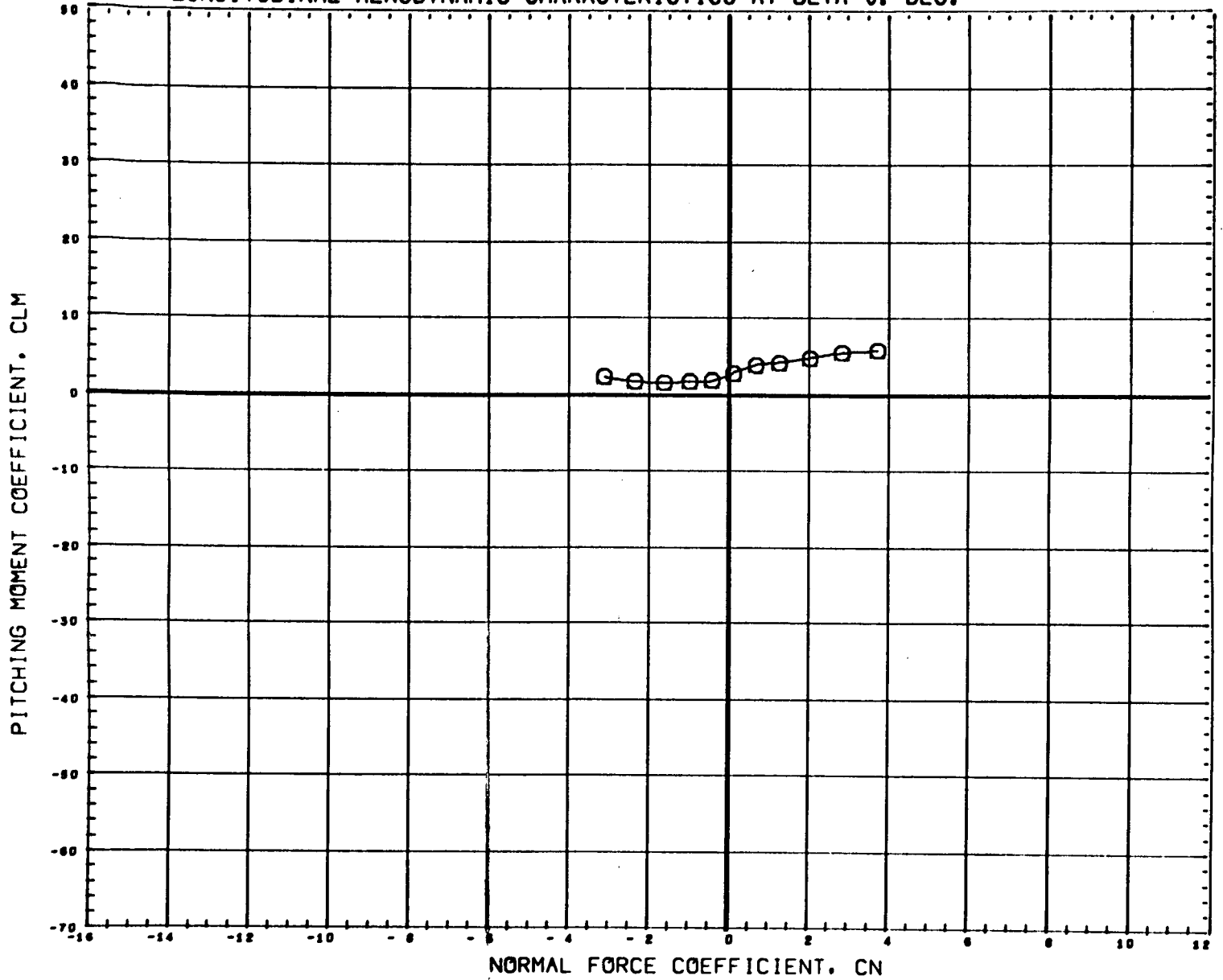


SYMBOL \bigcirc MACH 2.740 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

DATA HIST. CODE V+E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

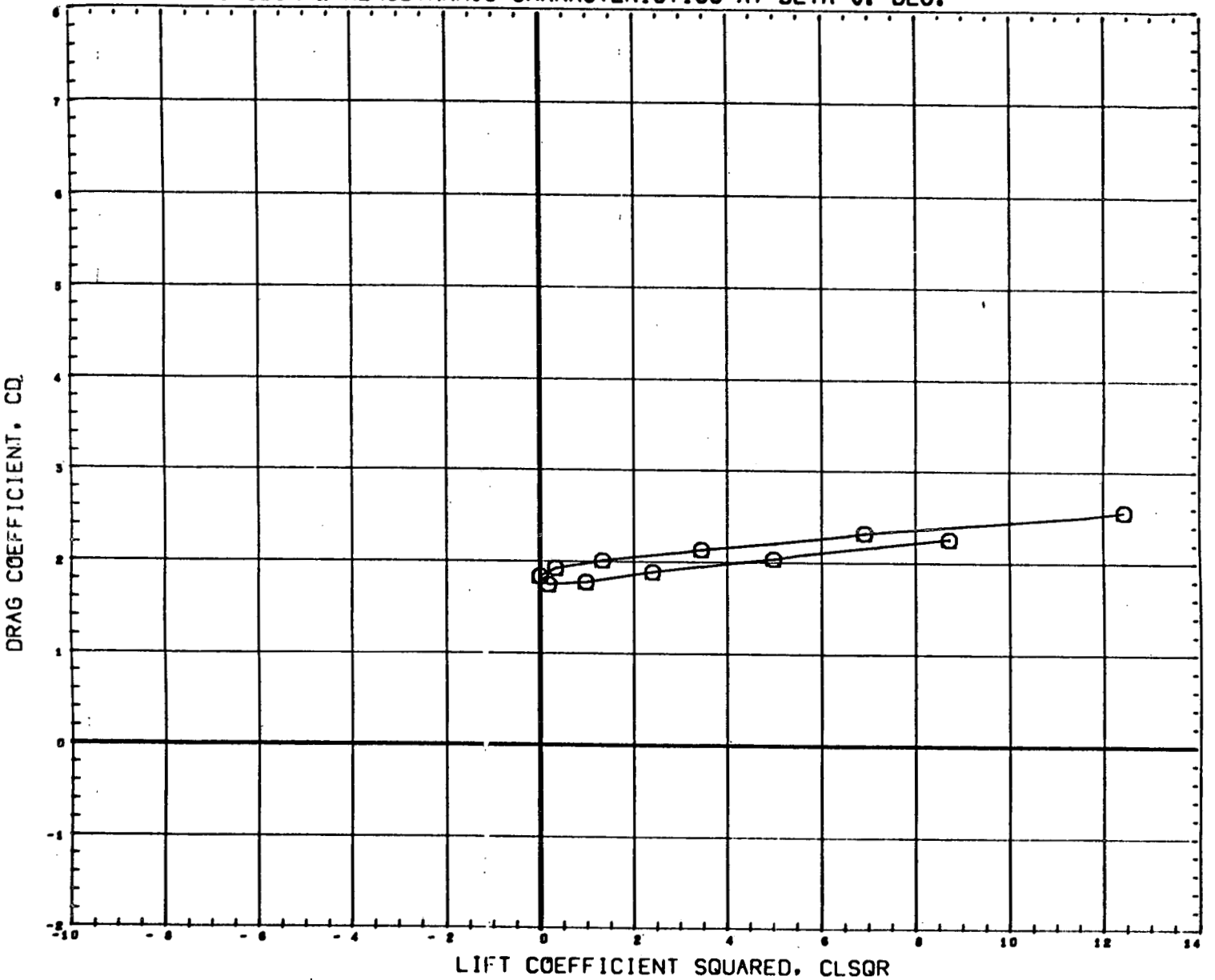


SYMBOL \bigcirc MACH 3.400 BETA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 90 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V#E

LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.



SYMBOL MACH PARAMETRIC VALUES
 ○ 2.740 BETA 0.000

REFERENCE INFORMATION

SREF	0.9340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

DATA HIST. CODE V0E

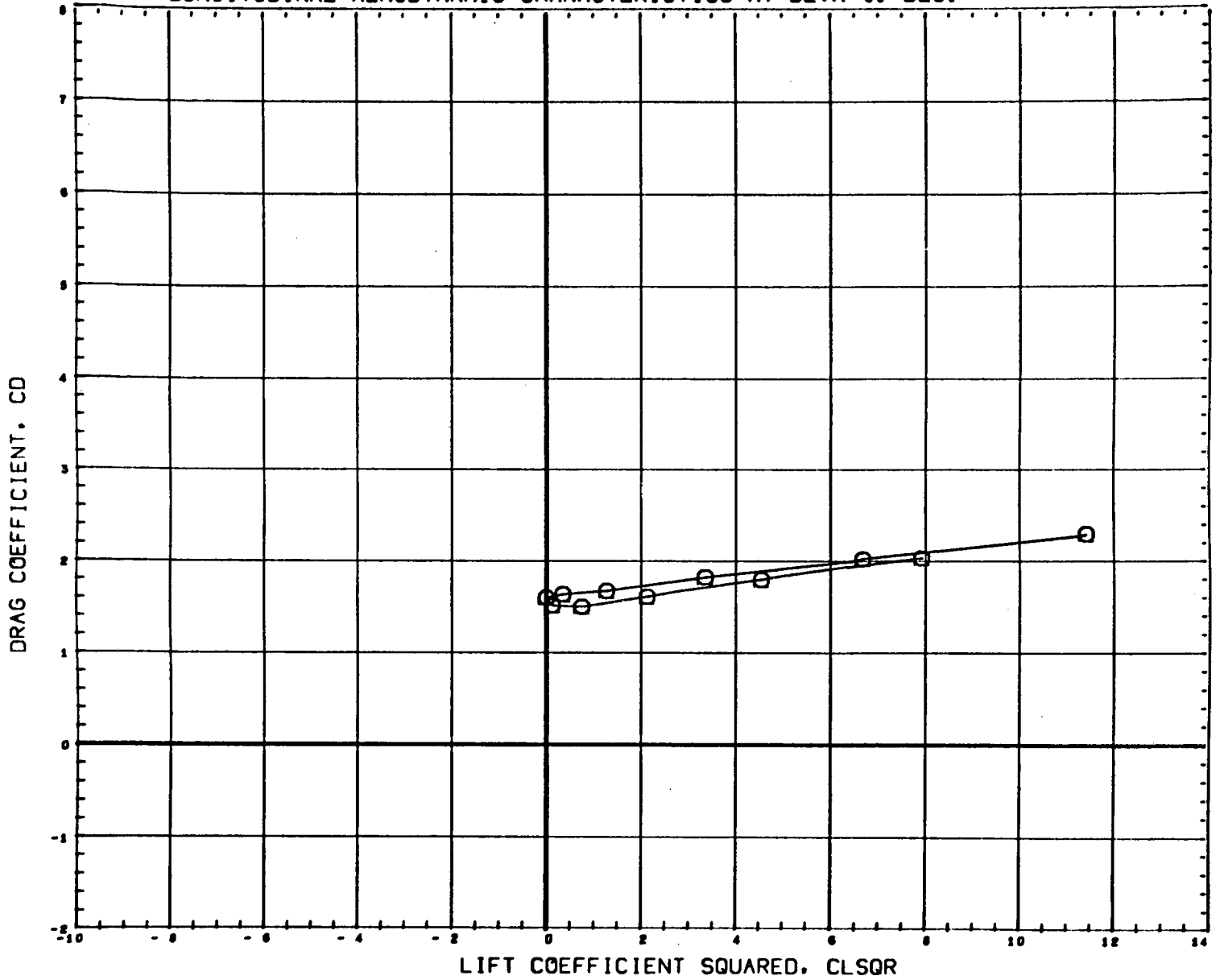
MSFC TWT 505 T111L/DT07

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LONGITUDINAL AERODYNAMIC CHARACTERISTICS AT BETA=0. DEG.

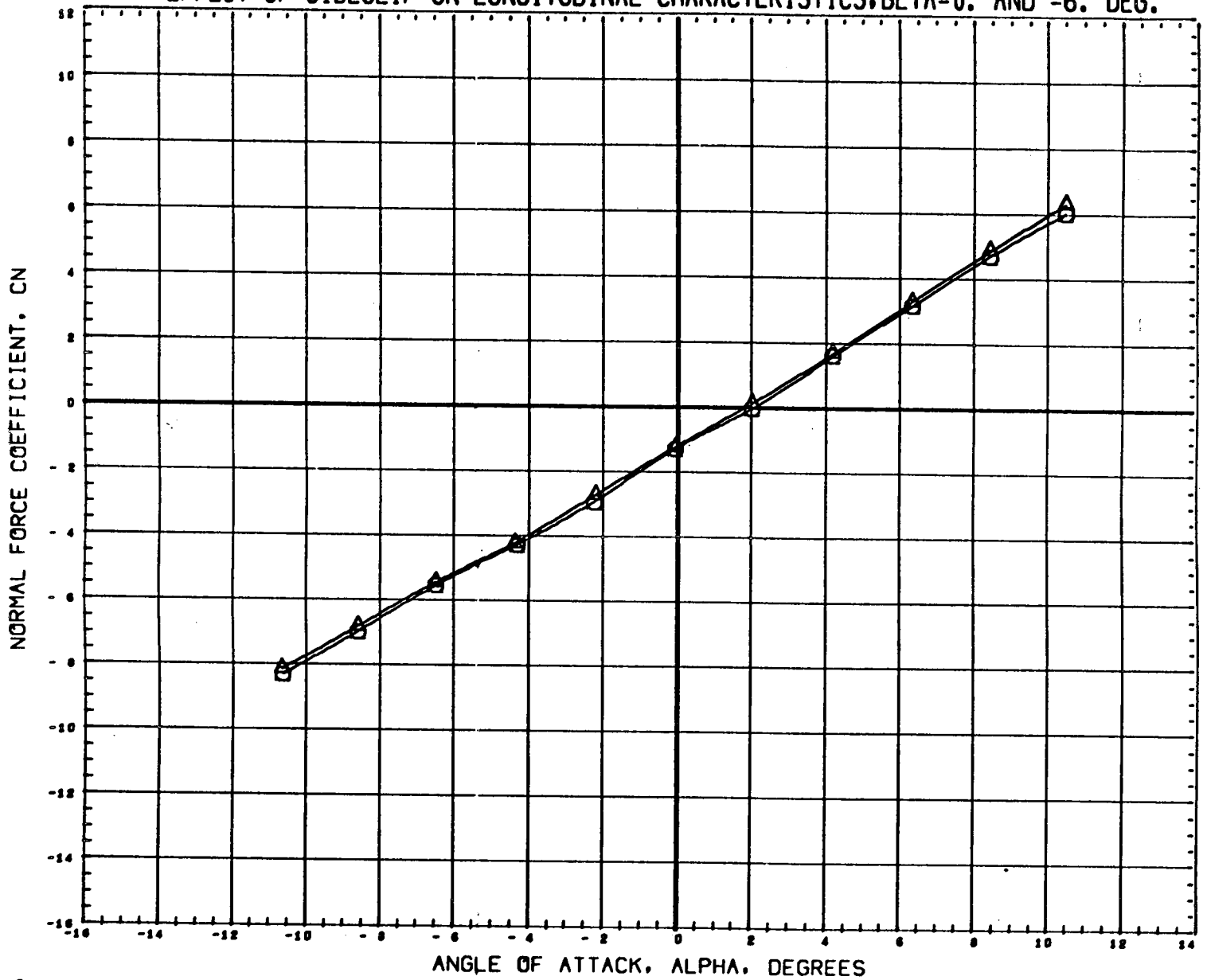


SYMBOL \bigcirc MACH 3.480 BETA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

DATA HIST. CODE V9E

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



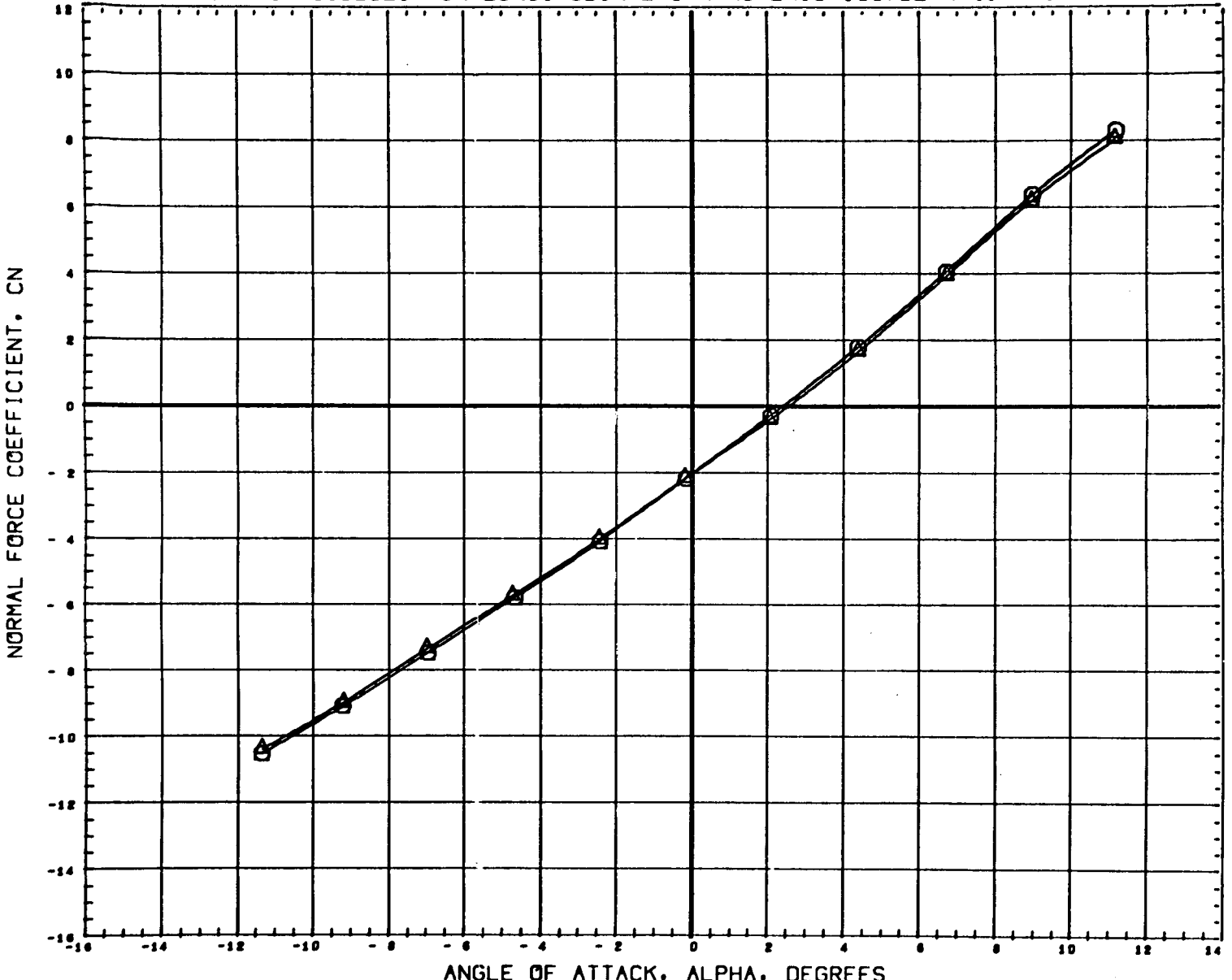
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F47001) Q MSFC TWT 505 T111L/DT07 01
 (B47002) A MSFC TWT 505 T111L/DT07 01

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 30 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XNRP 2.9170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 0.599

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



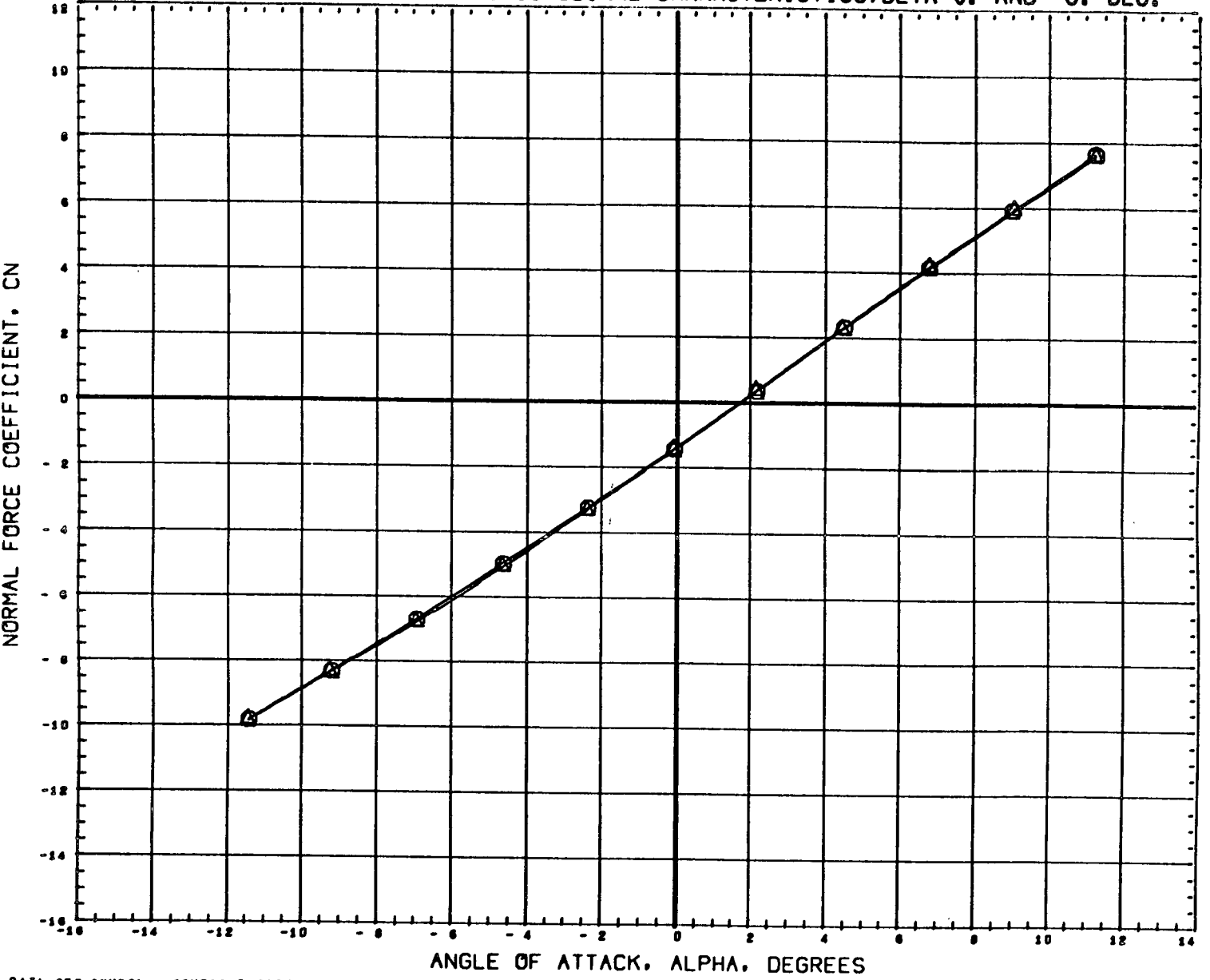
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (747001) MSFC TWT 505 T111L/D107 01
 (847002) MSFC TWT 505 T111L/D107 01

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BRP 0.0240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 0.999

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



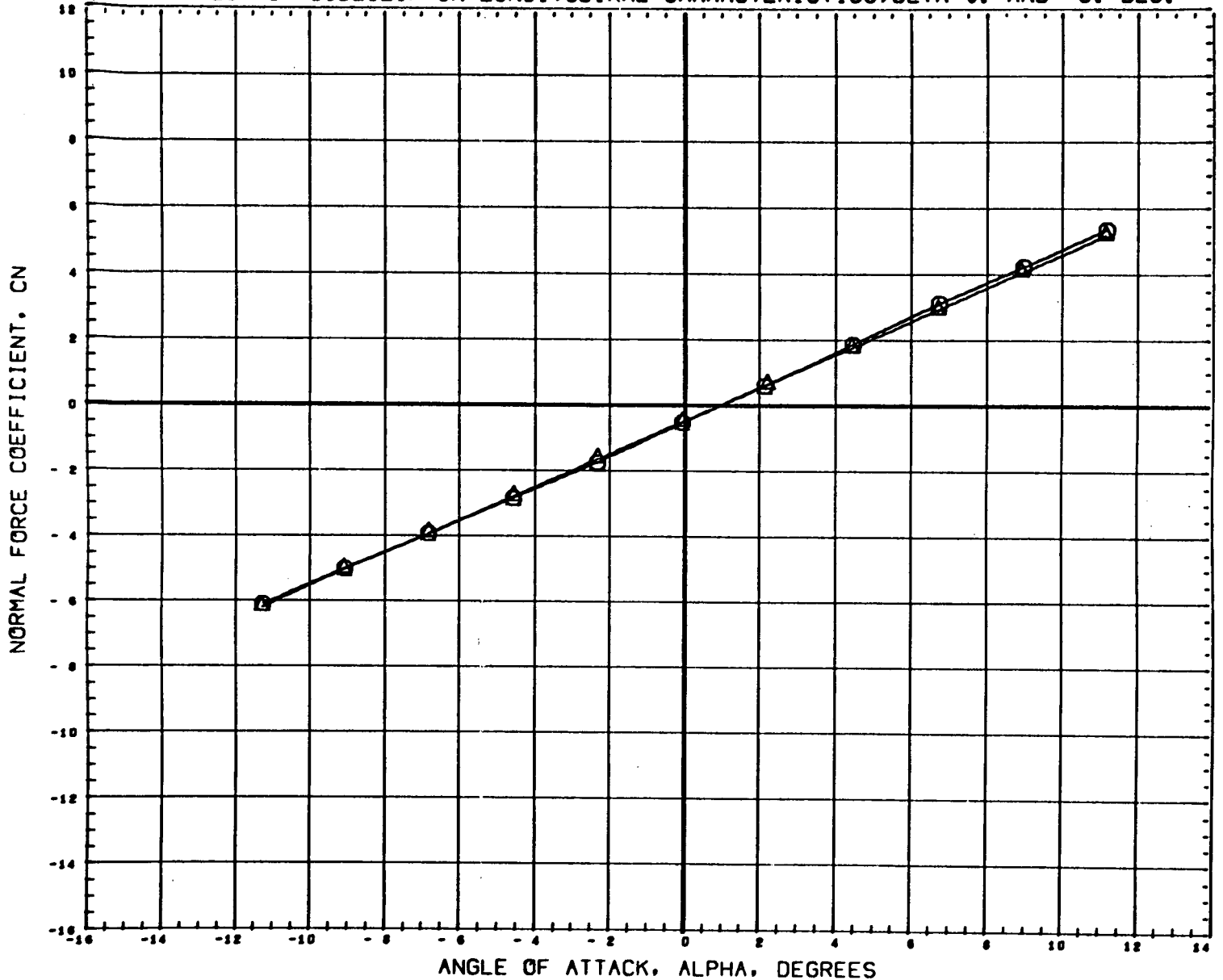
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 (F47001) ○ WSFC TWT 505 T111L/D107 01
 (047002) △ WSFC TWT 505 T111L/D107 02

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.190

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



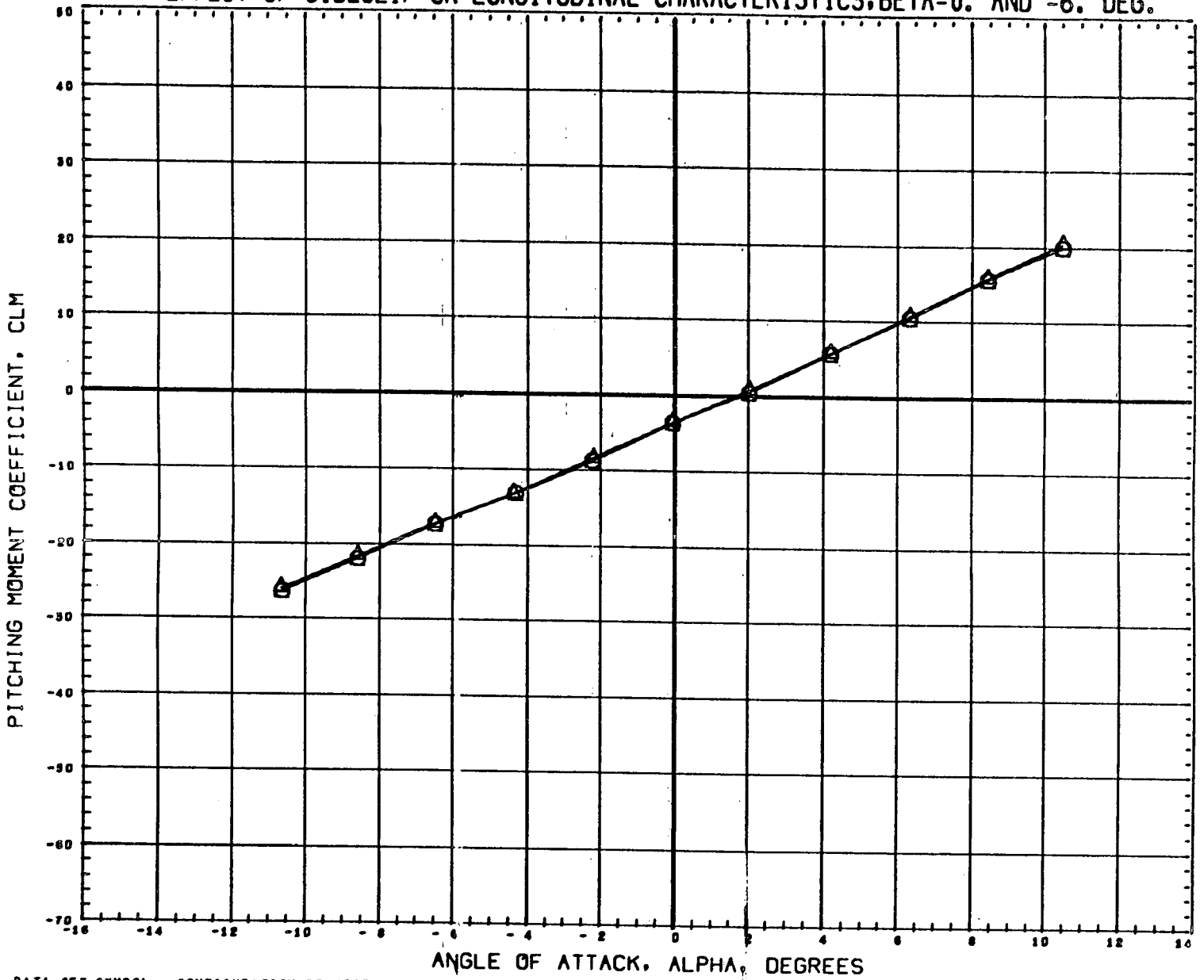
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(F47001)	MSFC TWT 505 T111L/DT07	01
(B47002)	MSFC TWT 505 T111L/DT07	01

BETA
0.000
-6.000

REFERENCE INFORMATION		
BREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.955

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



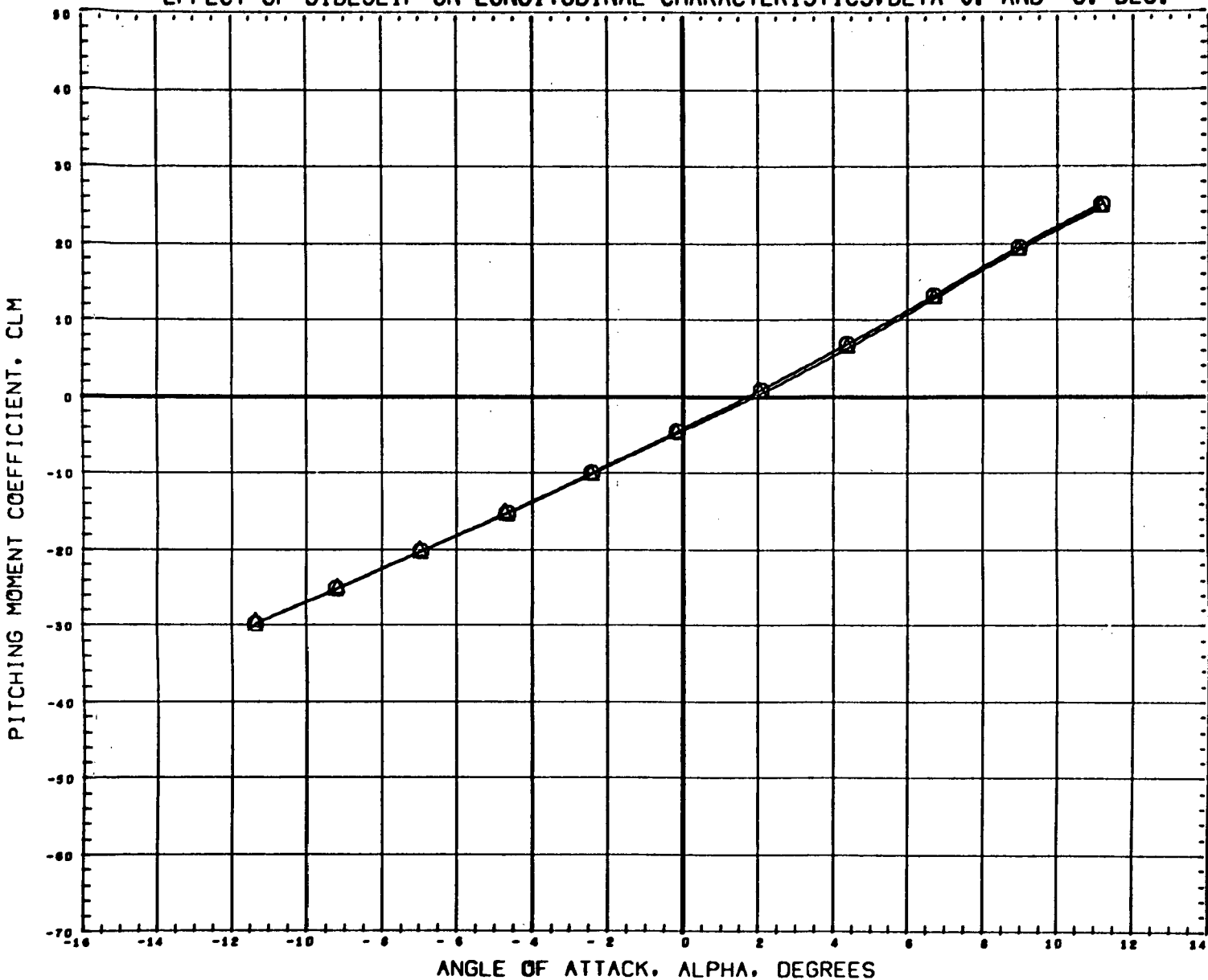
DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (B47002) Q NSFC TWT 505 T111L/DT07 01

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRF 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

MACH 0.599

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.

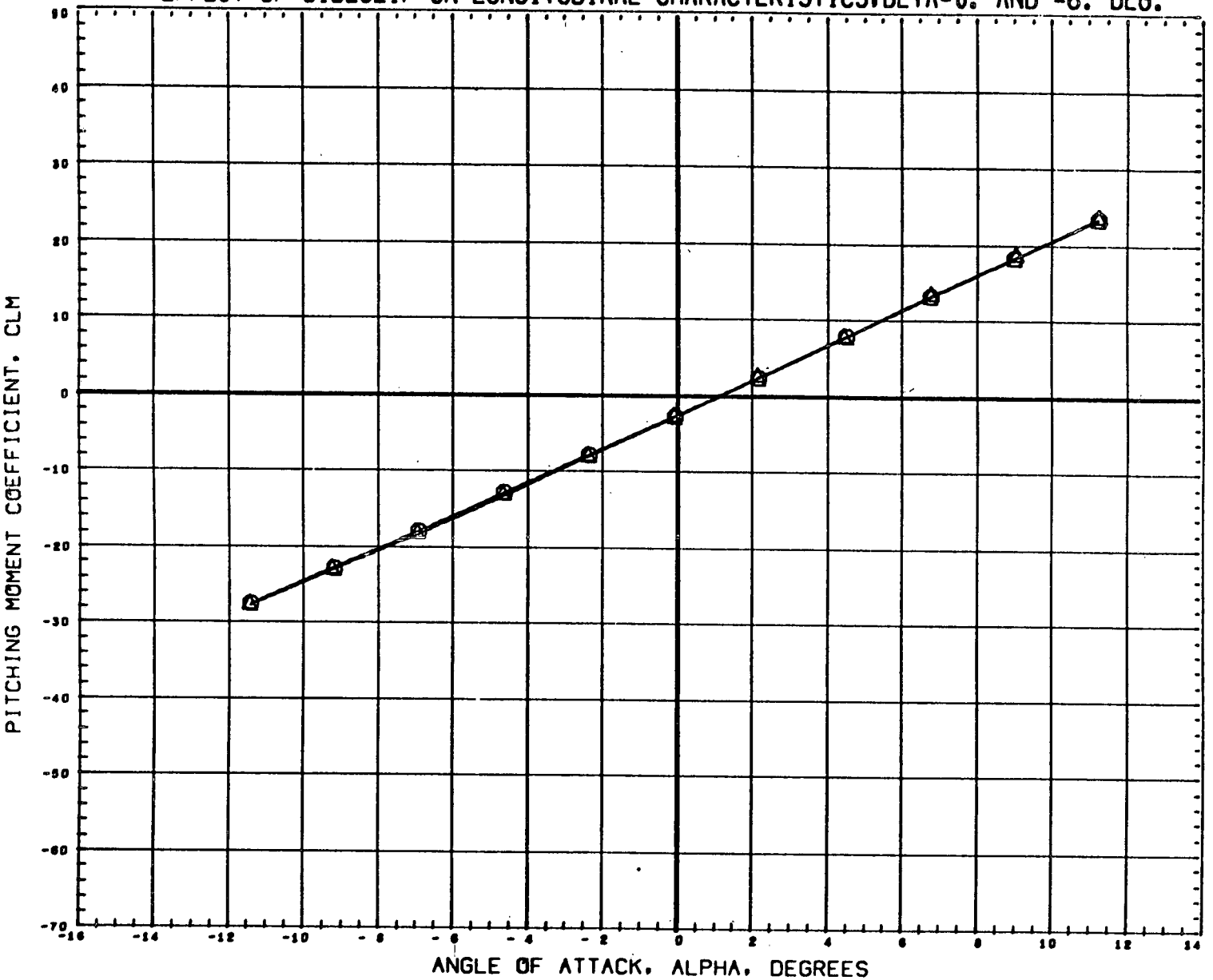


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(F47001)	NSFC TWT 305 T111L/DT07	0.000
(B47002)	NSFC TWT 305 T111L/DT07	-6.000

REFERENCE INFORMATION		
BREF	0.5340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XHRP	2.9170	IN TII
YHRP	0.0000	CORE C
ZHRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.999

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(F47001) MSFC TWT 505 T111L/DT07 01

(B47002) MSFC TWT 505 T111L/DT07 01

BETA

0.000

-6.000

REFERENCE INFORMATION

SREF 0.5340 50 INC

LREF 0.8240 INCHES

BREF 0.8240 INCHES

XHRP 2.9170 IN TII

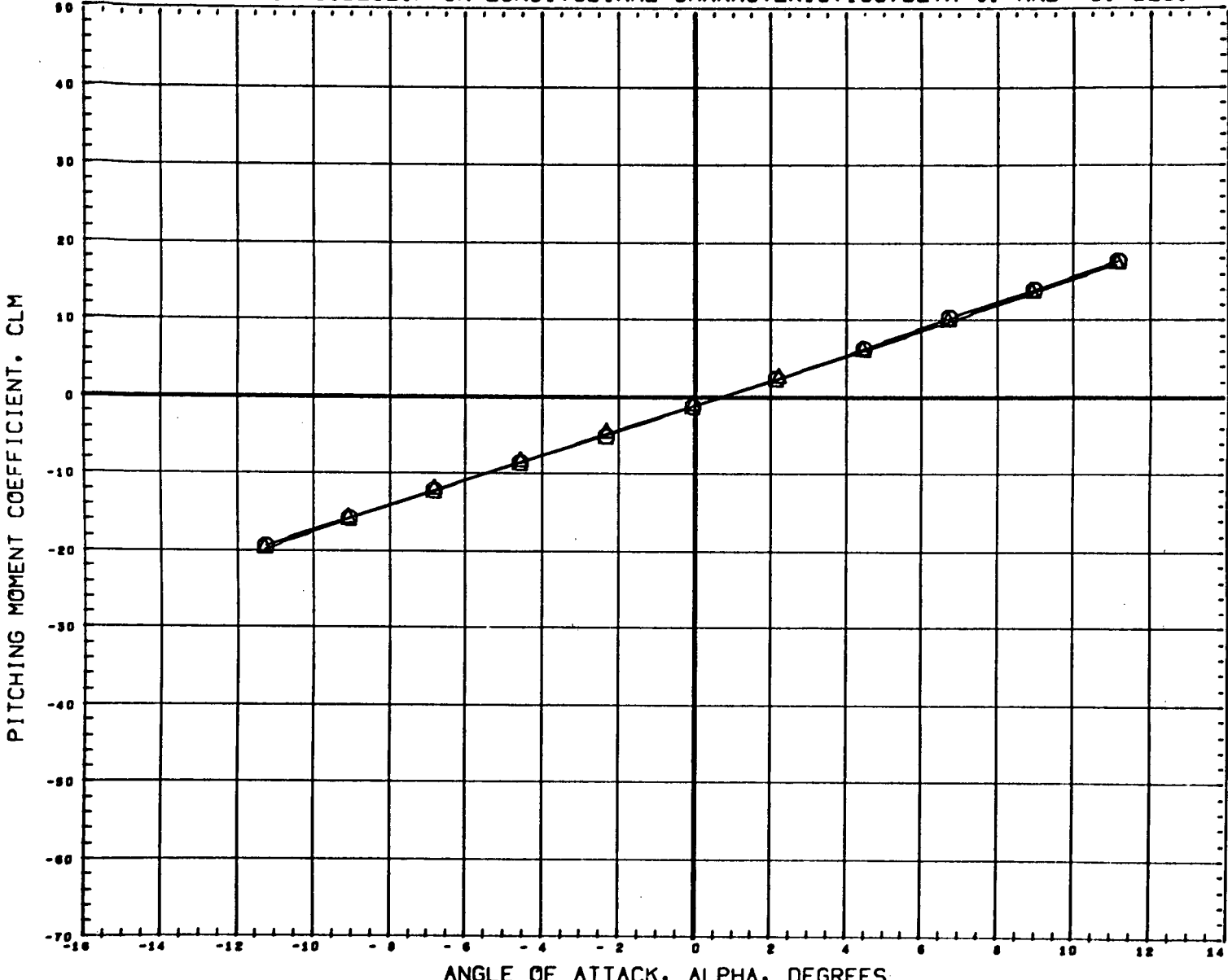
YHRP 0.0000 CORE C

ZHRP 0.0000 CORE C

SCALE 0.4300 PERCENT

MACH 1.198

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (B47002) MSFC TWT 305 T111L/D107 01

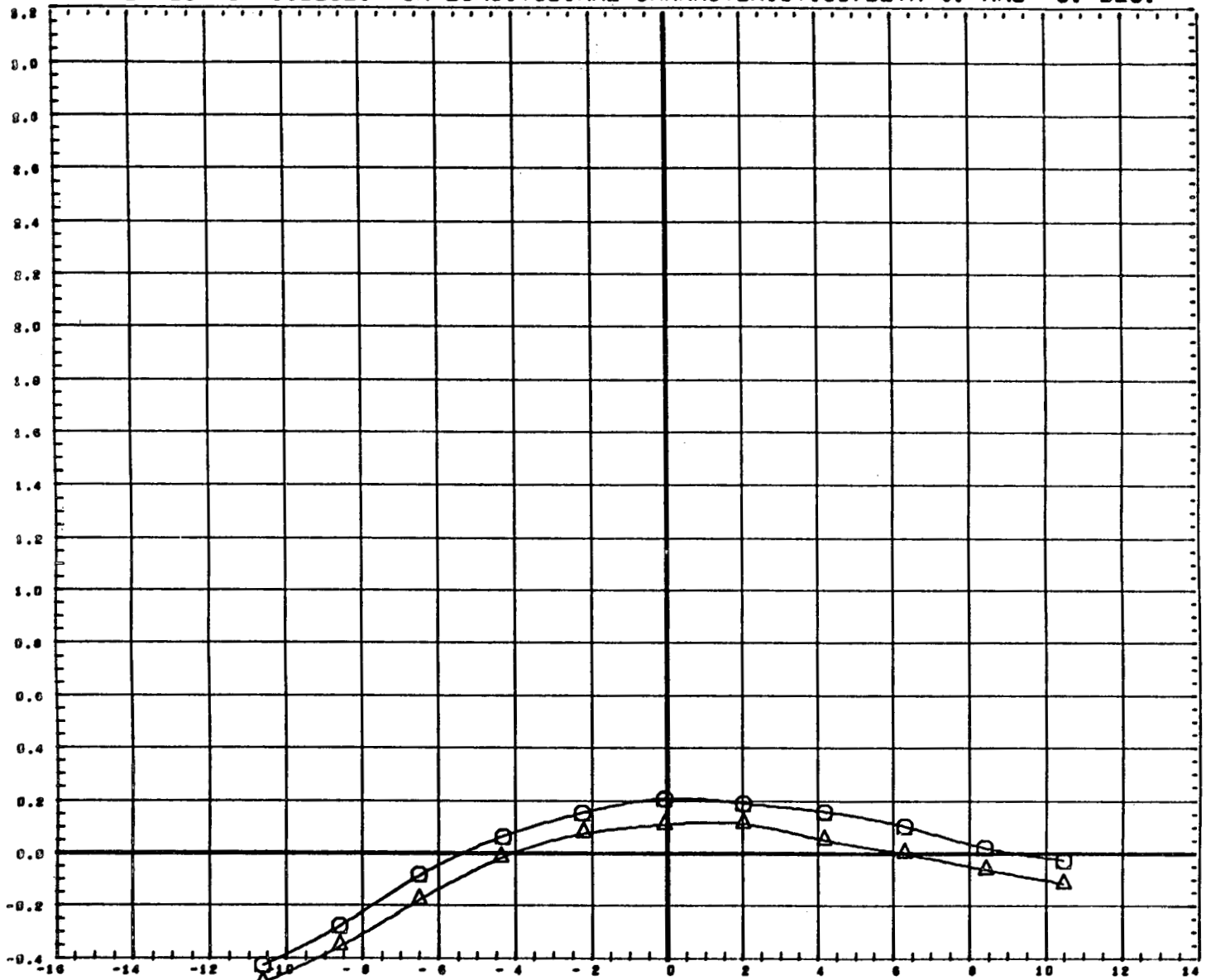
BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.9340 30 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.995

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, C_{AF}



ANGLE OF ATTACK, ALPHA, DEGREES

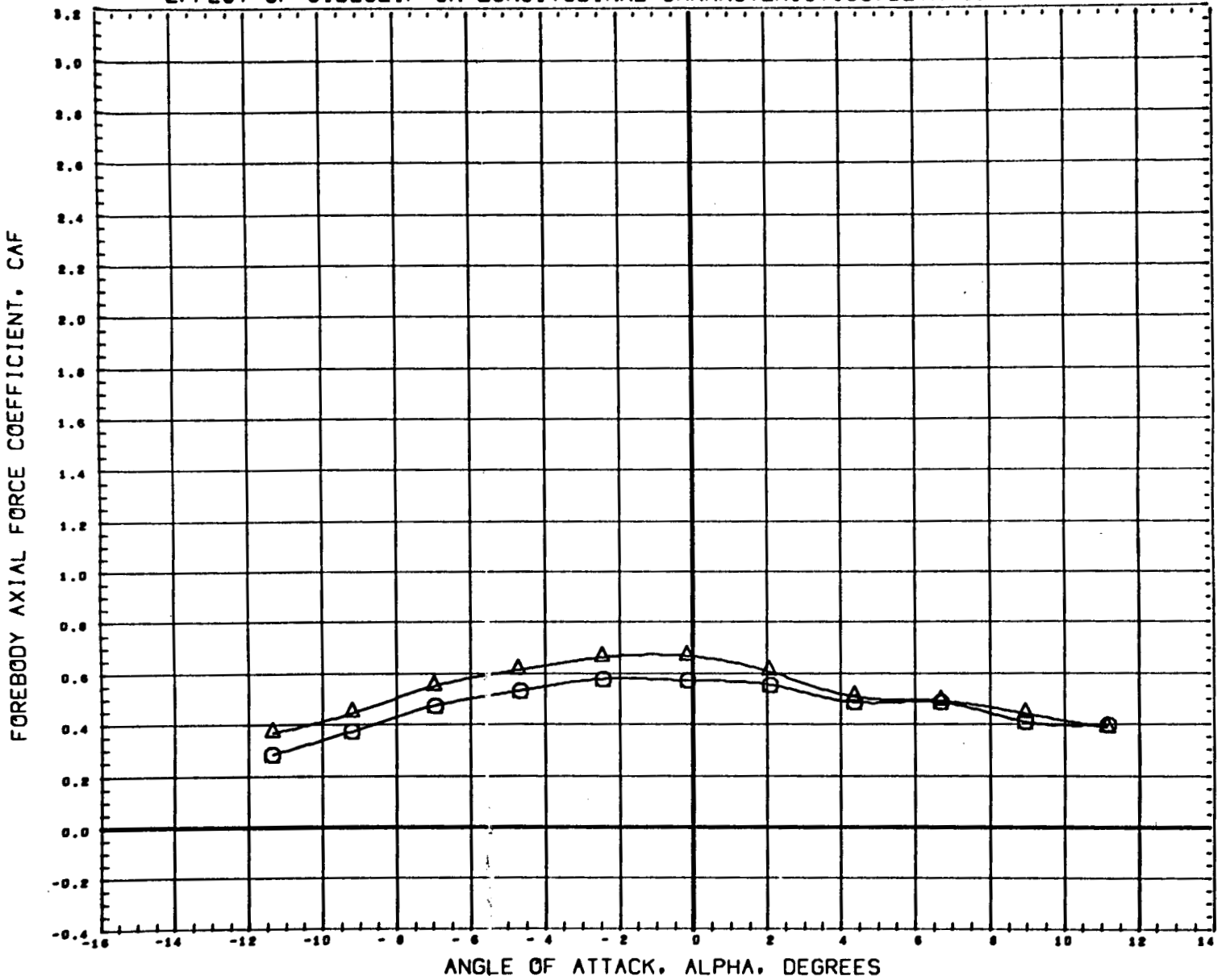
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 :F47001) Q MSFC TWT 505 T111L/DT07 01
 :B47002) Δ MSFC TWT 505 T111L/DT07 01

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

HACH 0.999

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(P47001) O NSFC TWT 505 T111L/D107 01

(B47002) A NSFC TWT 505 T111L/D107 01

BETA

0.000

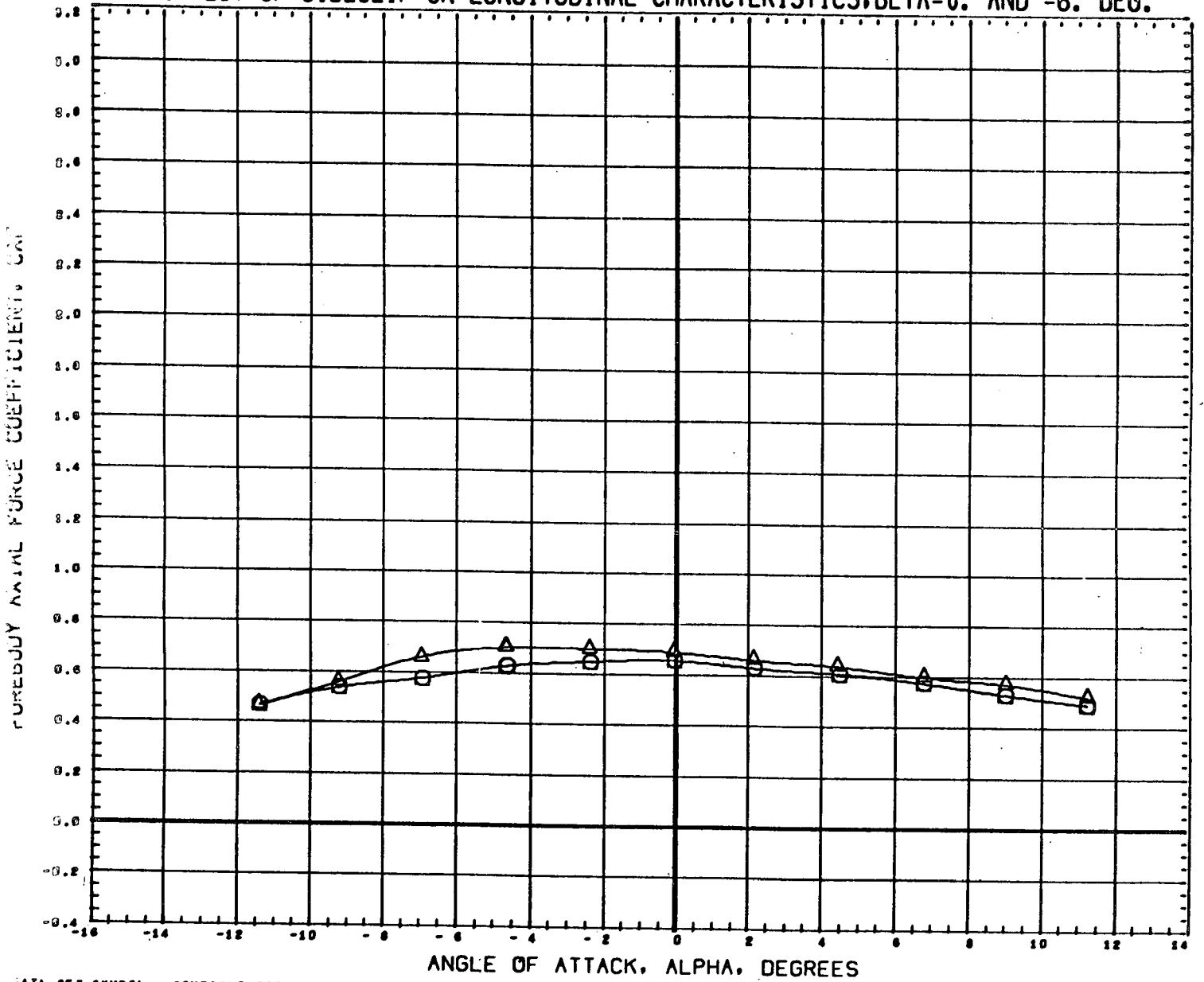
-6.000

REFERENCE INFORMATION

SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 8.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 0.999

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION

747001) H8FC TWT 505 T111L/D107 01

747002) H8FC TWT 505 T111L/D107 01

BETA
0.000
-6.000

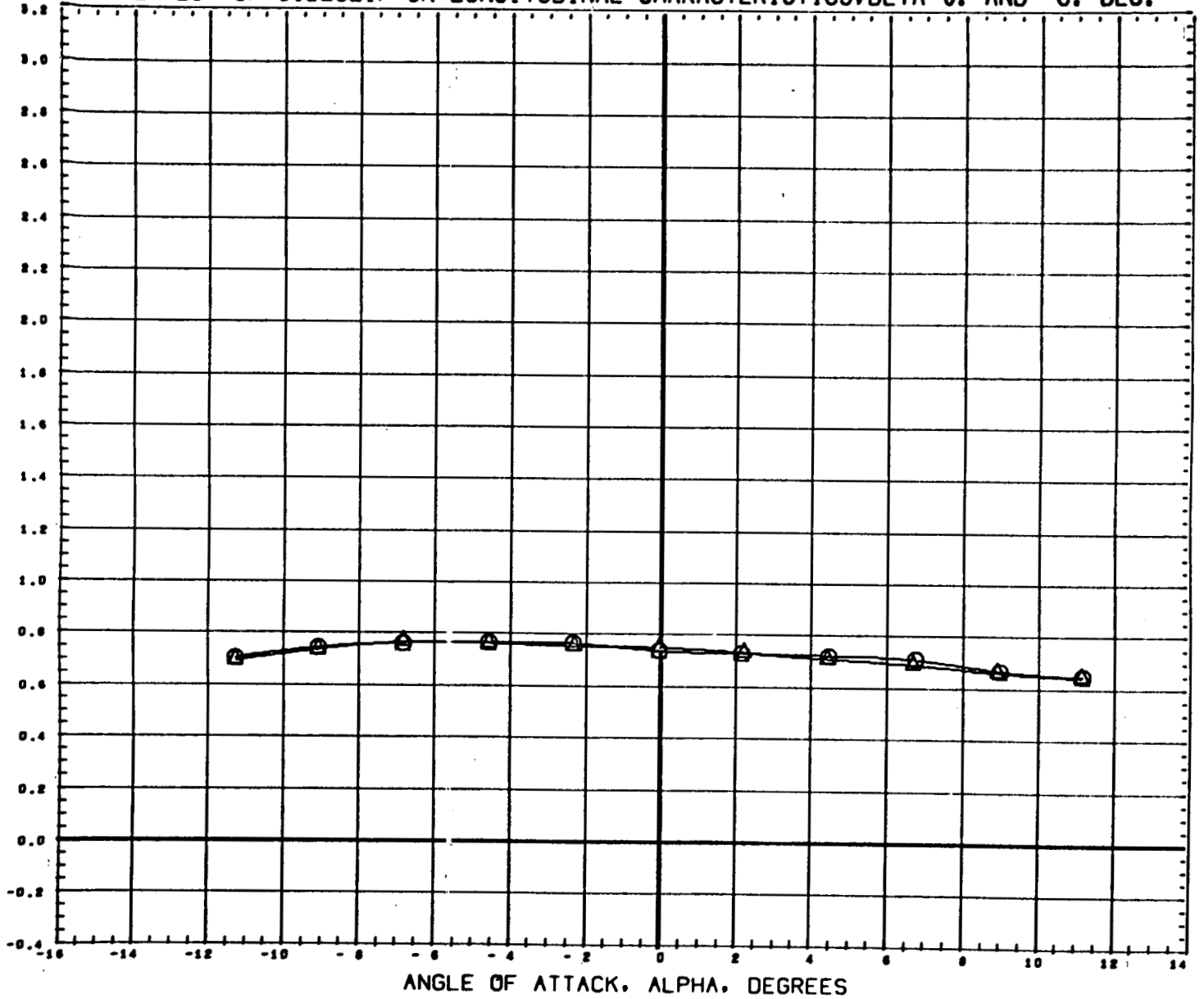
REFERENCE INFORMATION

SREF 0.3340 00 INC
LREF 0.0240 INCHES
OREF 0.0240 INCHES
XNRP 2.9170 IN YII
YNRP 0.0000 CORE C
ZNRP 0.0000 CORE C
SCALE 0.4300 PERCENT

HACH 3.198

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



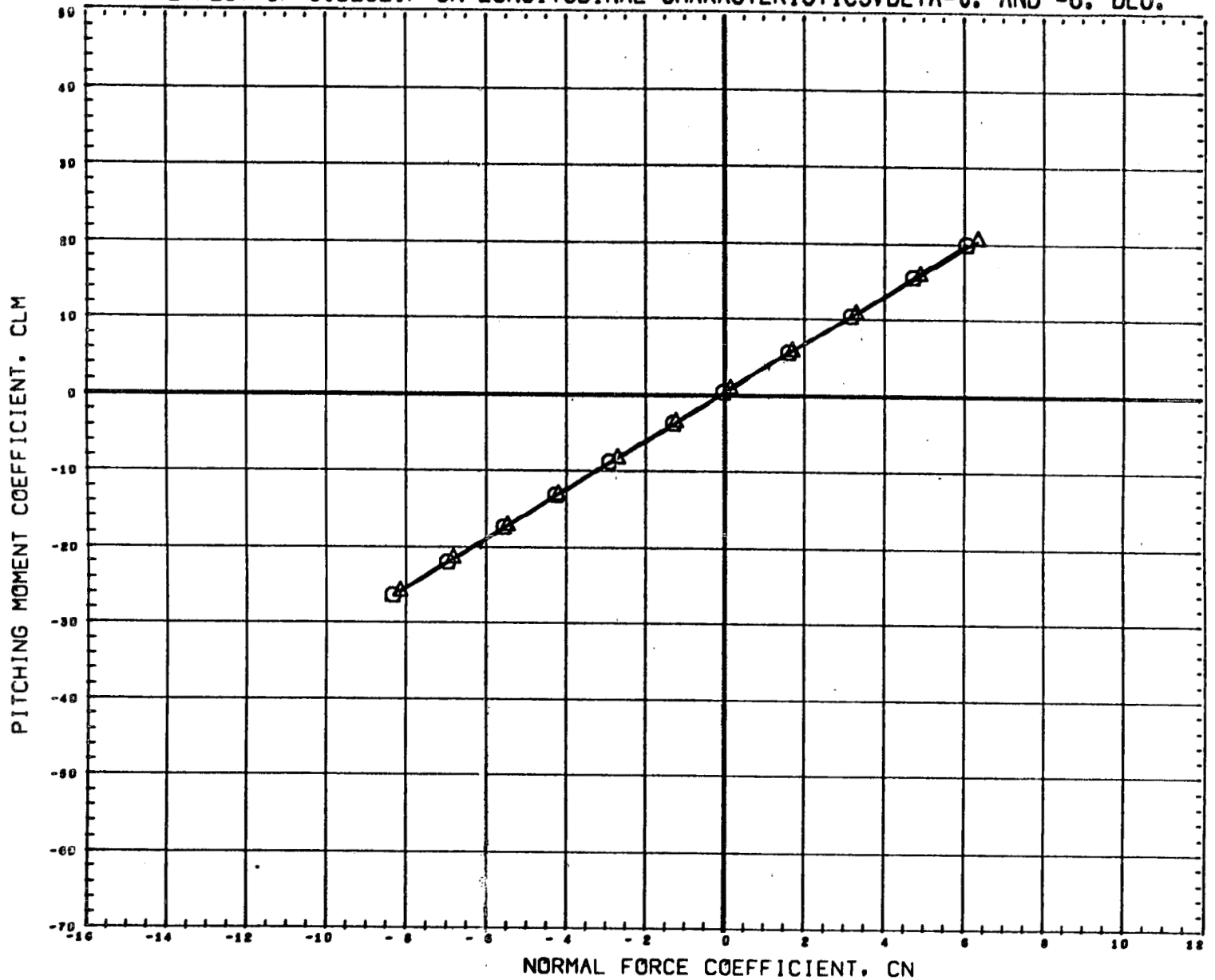
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F47001) ○ NSFC TWT 505 T111L/DY07 01
 (B47002) △ NSFC TWT 505 T111L/DY07 01

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.933

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(P47001)	MSFC TMT 505 T111L/D107	01
(B47002)	MSFC TMT 505 T111L/D107	01

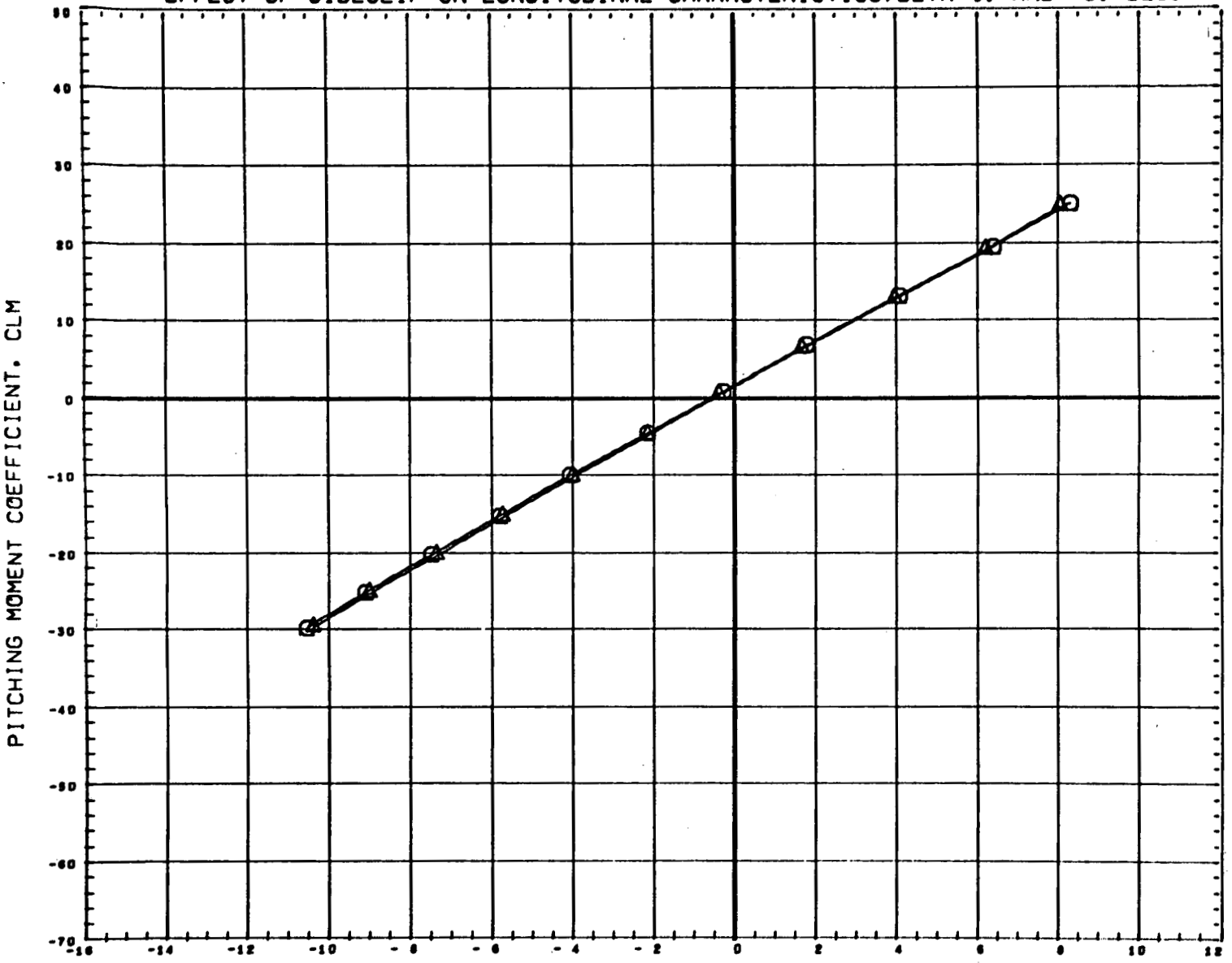
NORMAL FORCE COEFFICIENT, CN

BETA
0.000
-6.000

REFERENCE INFORMATION		
BREF	0.5340	50 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.999

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(F47001) Q	MSFC TWT 505 T111L/D107	01
(B47002) Q	MSFC TWT 505 T111L/D107	01

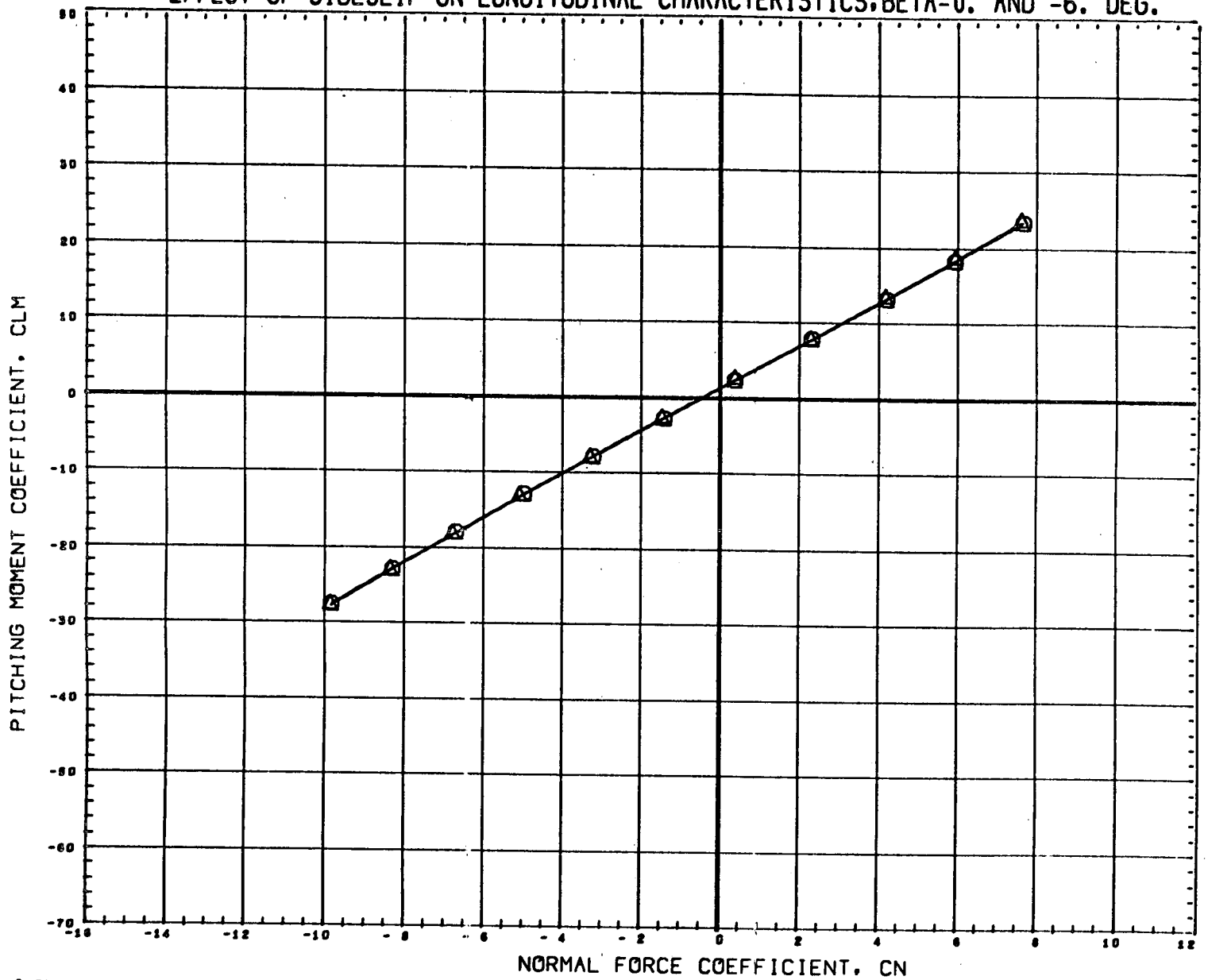
NORMAL FORCE COEFFICIENT, CN

BETA
0.000
-6.000

REFERENCE INFORMATION		
SREF	0.9340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.0170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.999

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



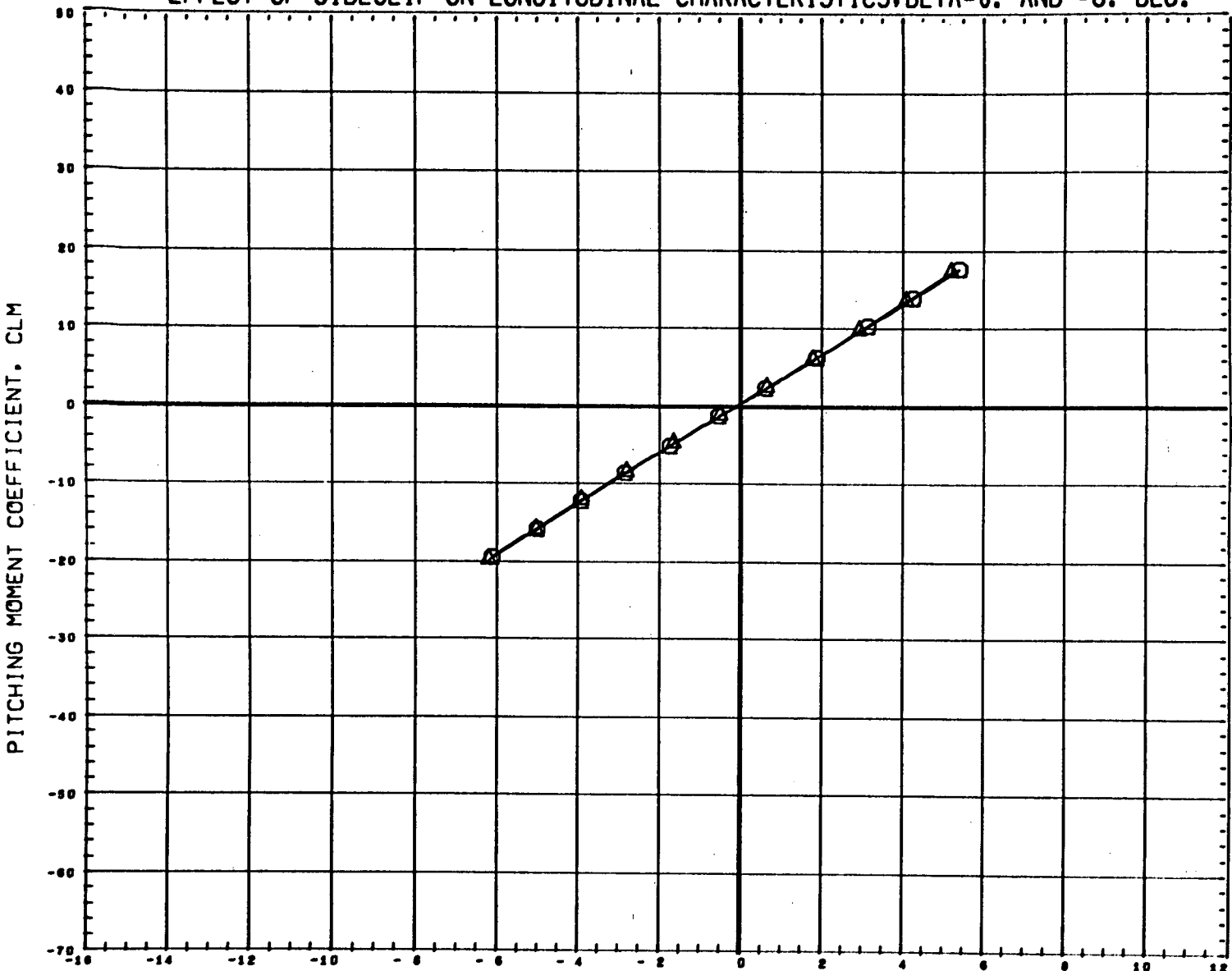
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F47001) \bigcirc MSFC TWT 505 T111L/DY07 01
 (B47002) \triangle MSFC TWT 505 T111L/DY07 01

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 SQ INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.198

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



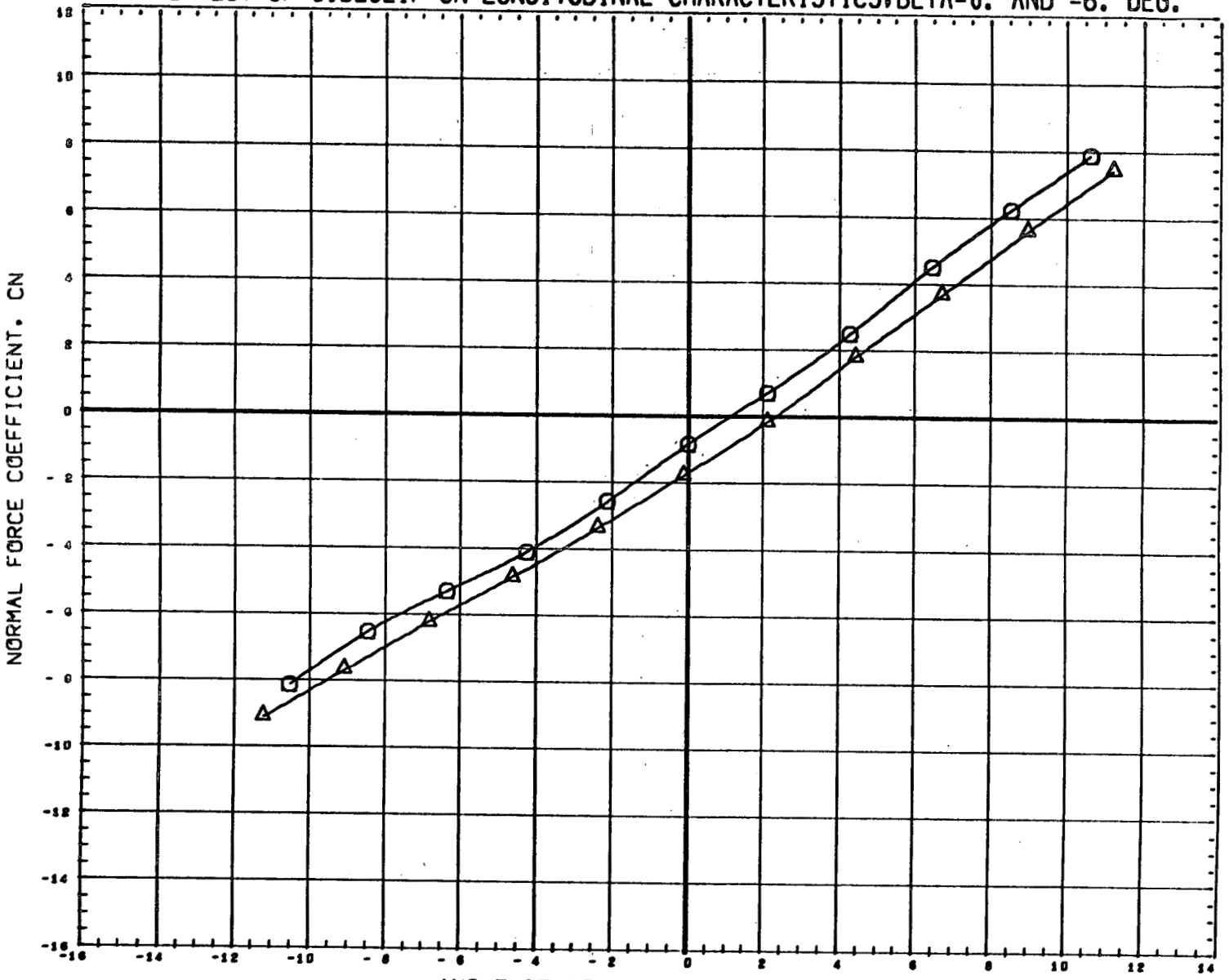
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F47001) Δ MSFC TWT 505 T111L/D107 01
 (B47002) Δ MSFC TWT 505 T111L/D107 01

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.9340 SQ INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.955

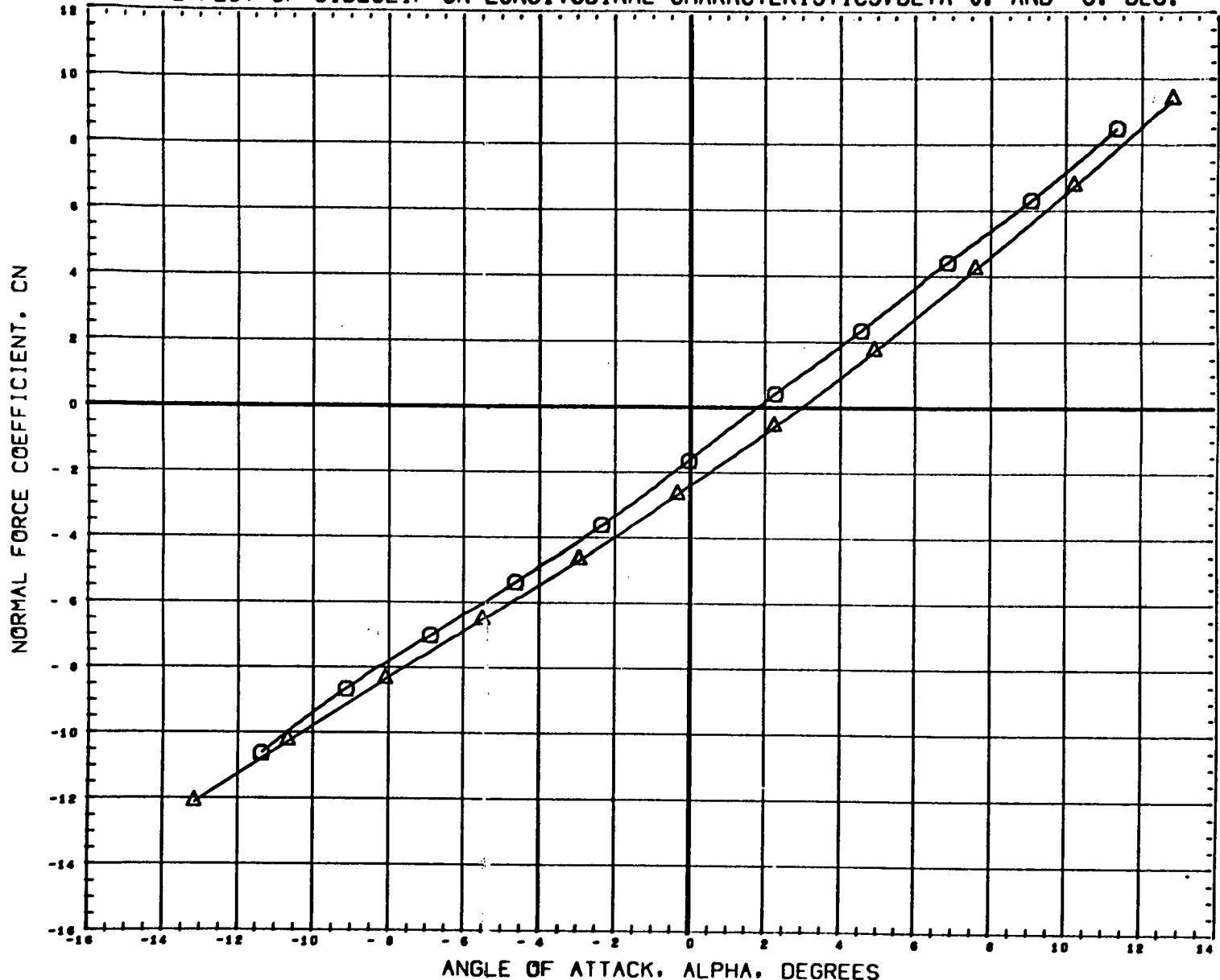
EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(647008)	NSFC TMT 505 T111L/D107	0.000	SREF 0.5340 50 INC
(847009)	NSFC TMT 505 T111L/D107	-6.000	LREF 0.8240 INCHES
			BREF 0.8240 INCHES
			XMRP 2.9170 IN T11
			YMRP 0.0000 CORE C
			ZMRP 0.0000 CORE C
			SCALE 0.4300 PERCENT

NACW 0.598

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



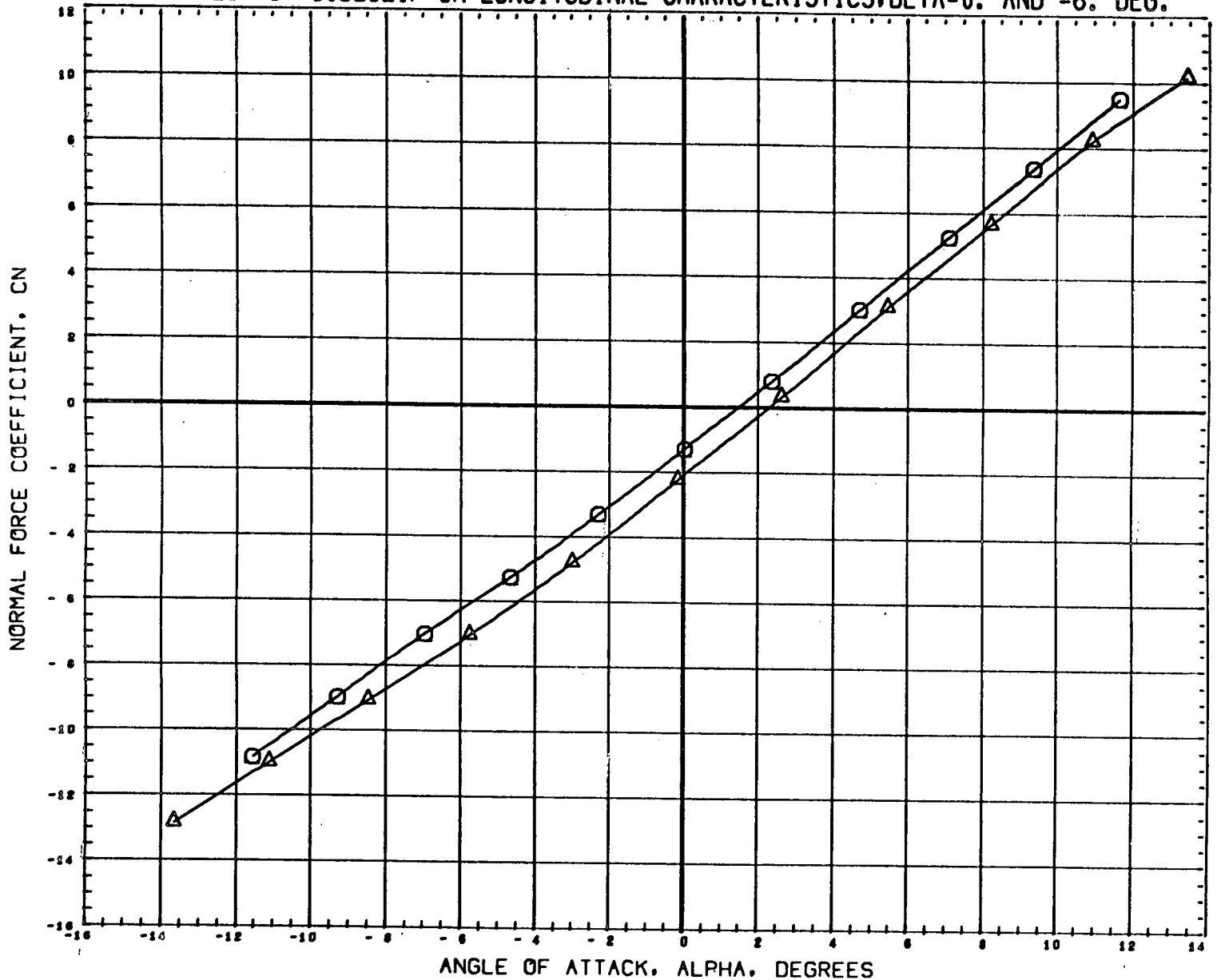
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647000) \bigcirc NSFC TWT 505 T111L/DT07
 (047000) \triangle NSFC TWT 505 T111L/DT07

BETA
 0102L4 0.000
 0102L4 -6.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 8.0170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 0.995

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



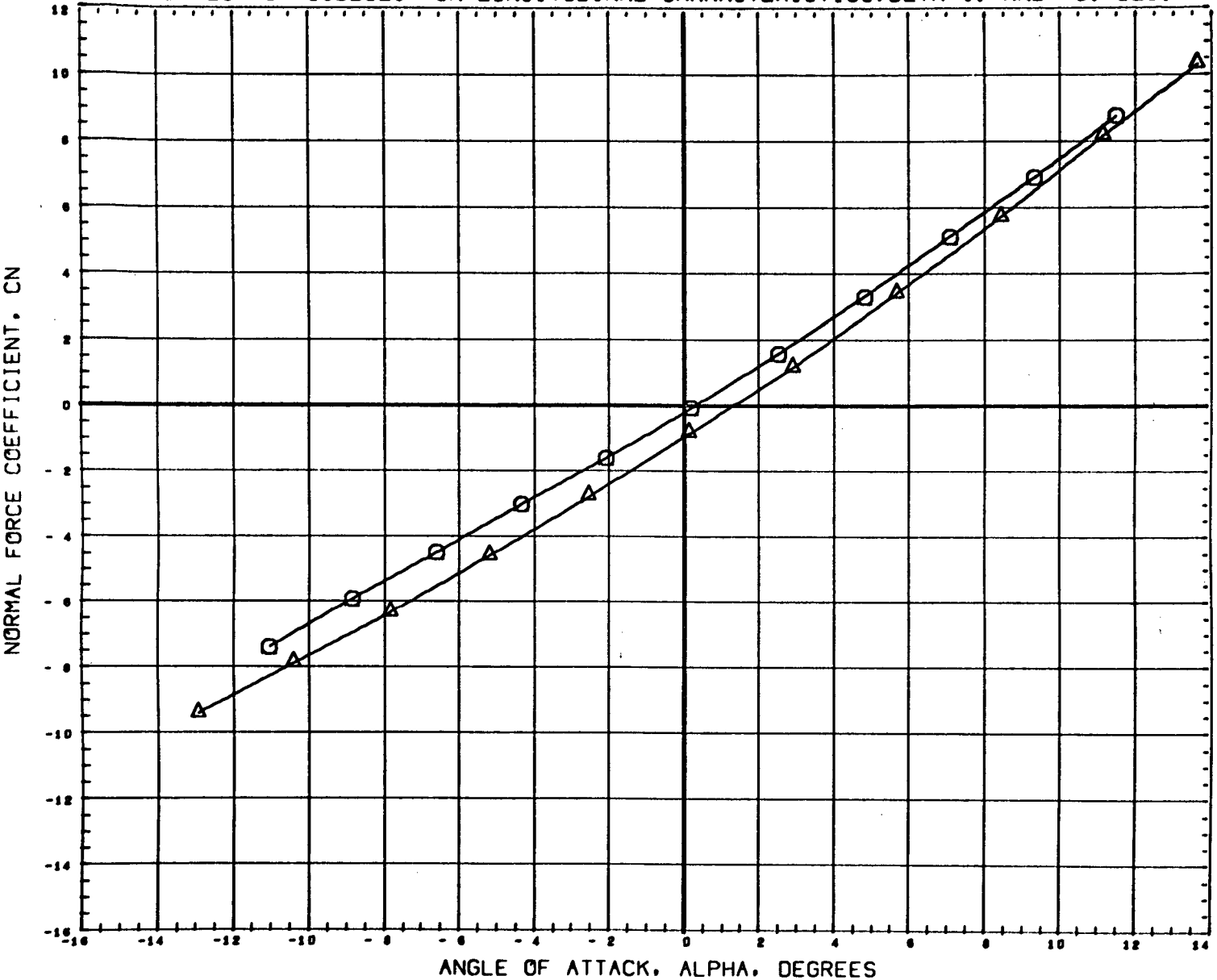
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647000) MSFC TWT 505 T111L/DT07
 (847009) MSFC TWT 505 T111L/DT07

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.202

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



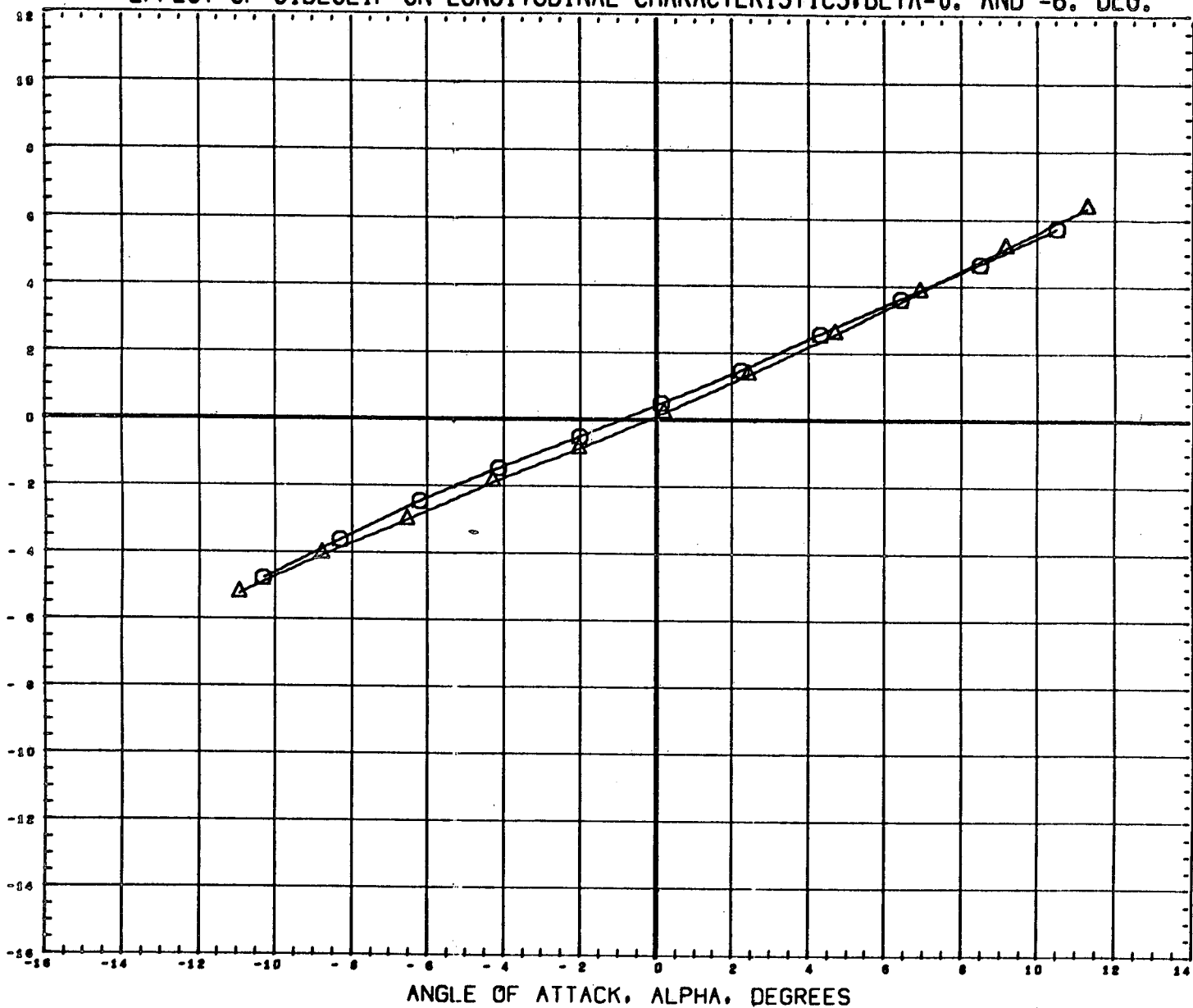
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) \odot MSFC TWT 505 T111L/DT07 01D2L4
 (647009) \triangle MSFC TWT 505 T111L/DT07 01D2L4

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.964

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (G47006) ○ WSFC TWT 505 T111L/D107
 (G47009) △ WSFC TWT 505 T111L/D107

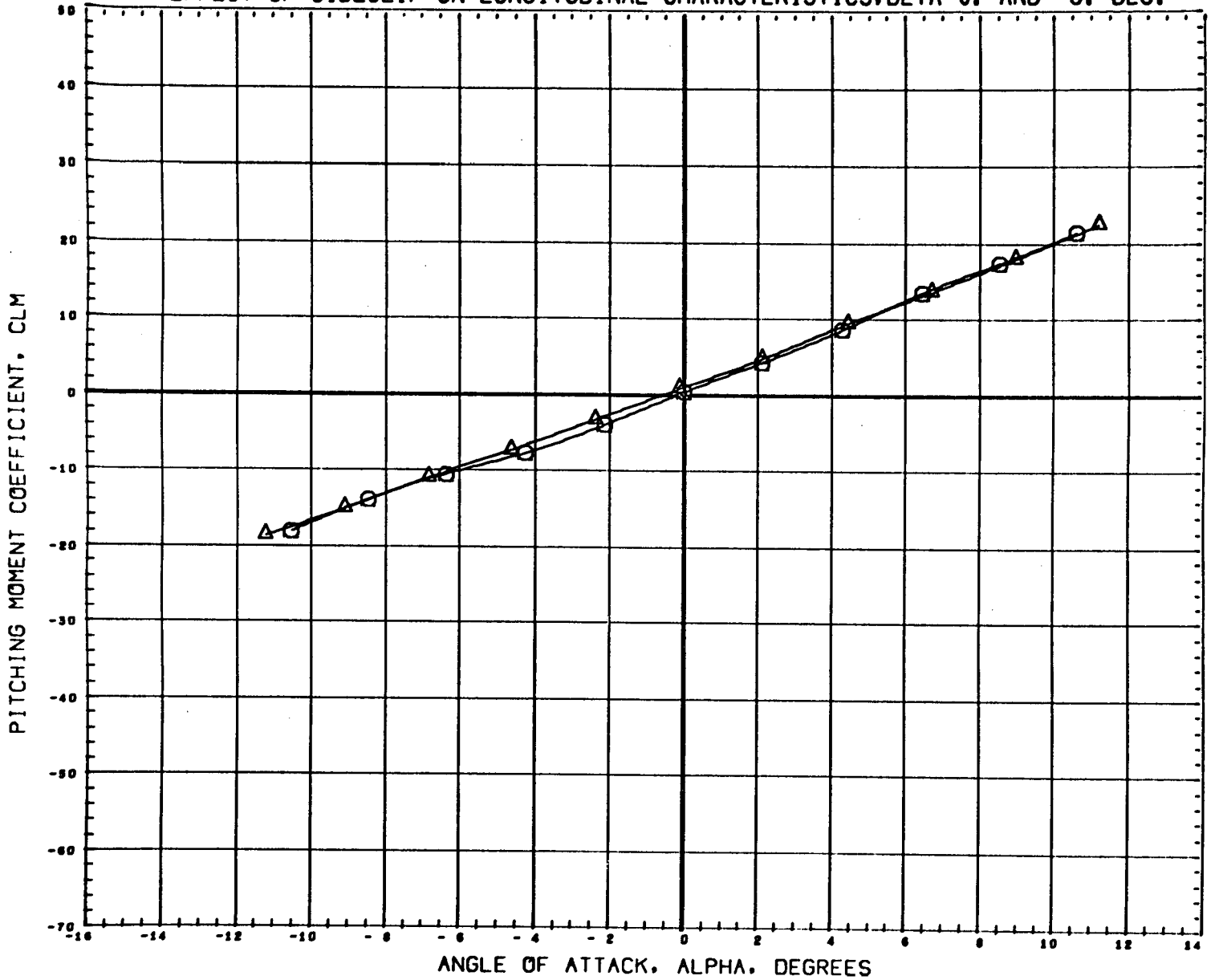
0102L4
 0102L4

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.0170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 3.400

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) Δ NSFC TWT 505 T111L/DT07
 (647009) \circ NSFC TWT 505 T111L/DT07

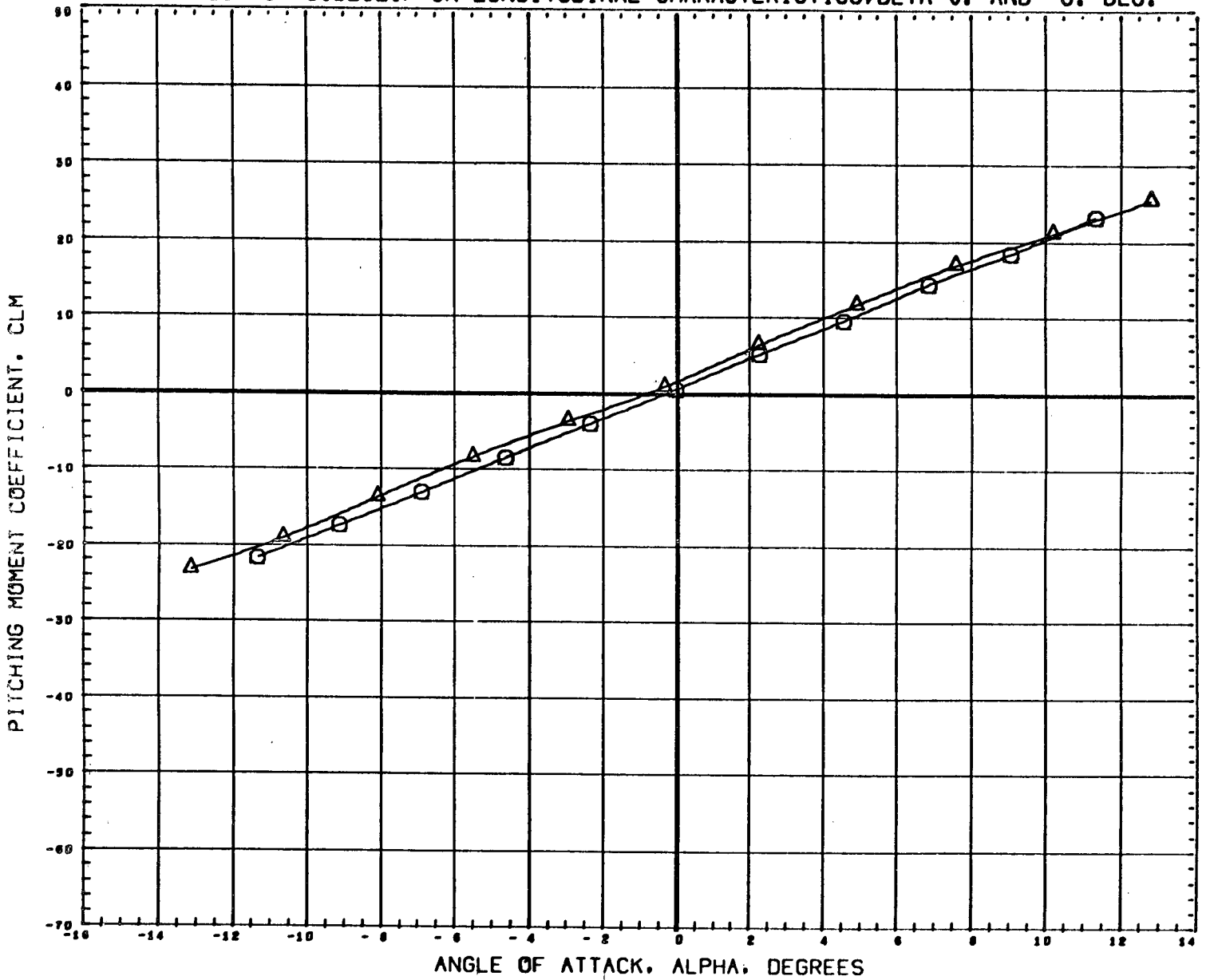
01D2L4
 01D2L4

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.9340 SQ INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XNRP 2.9170 IN YII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 0.598

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



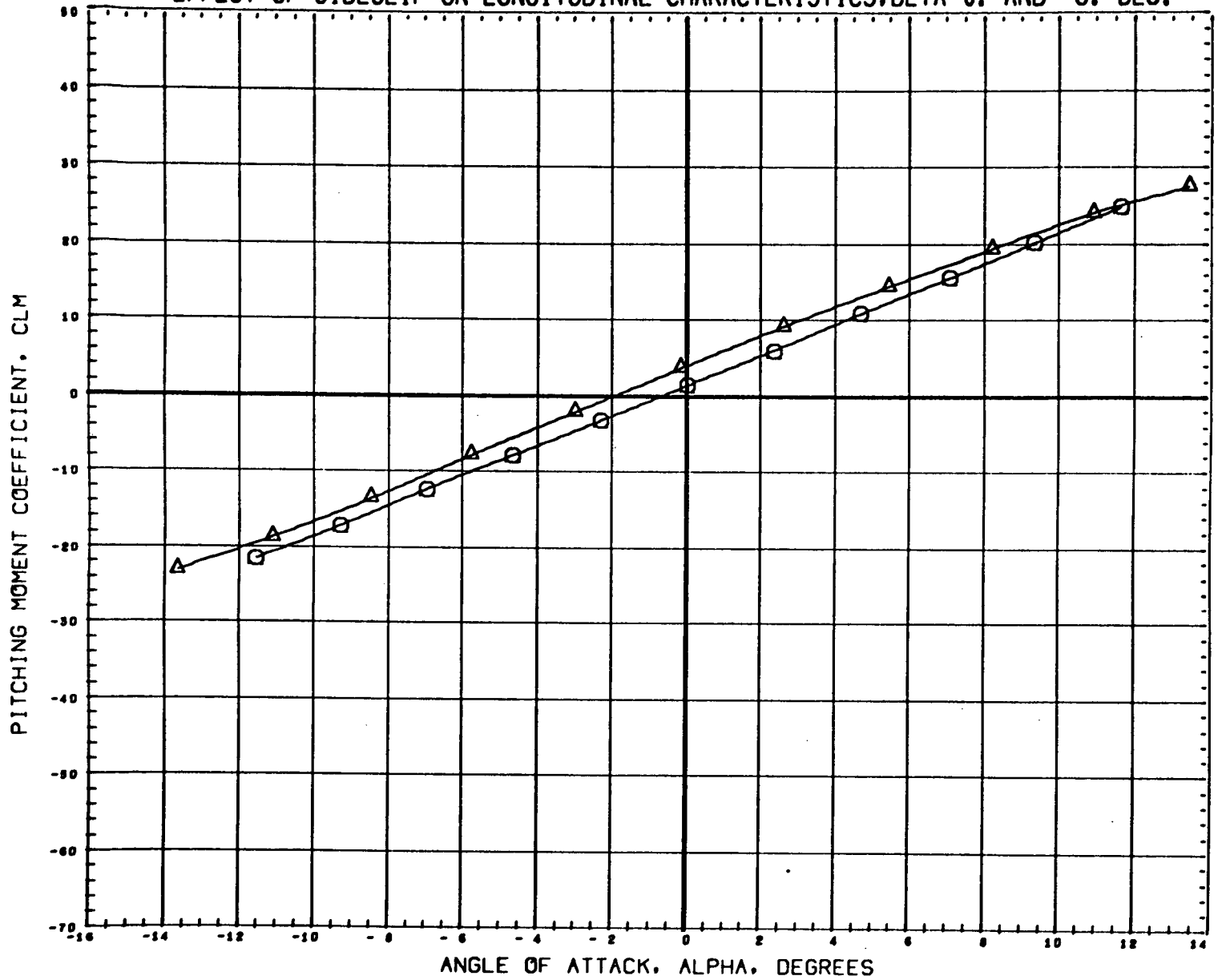
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) \circ MSFC TWT 505 T111L/D707
 (647009) \triangle MSFC TWT 505 T111L/D707

BETA
 01D2L4 0.000
 01D2L4 -6.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 0.995

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



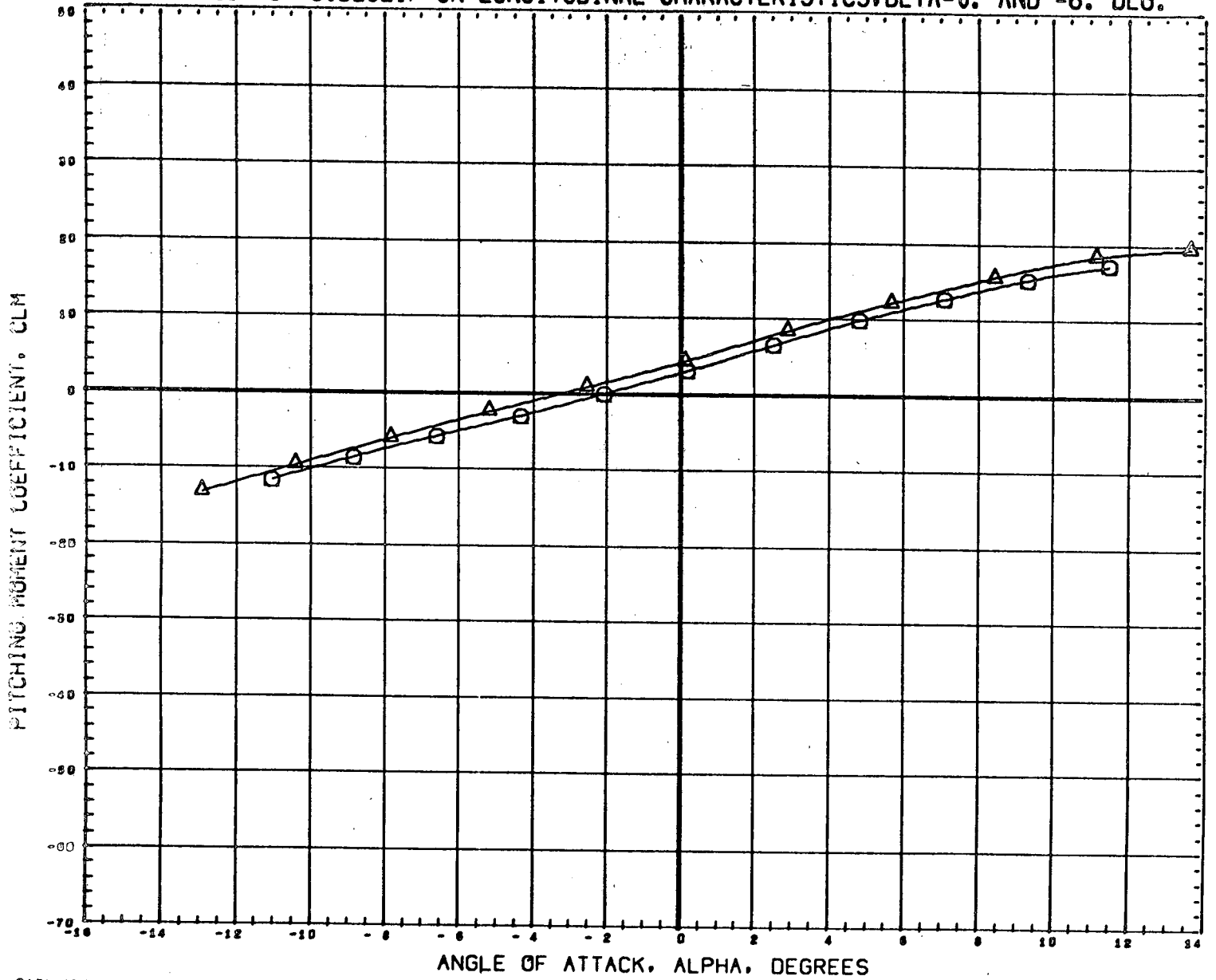
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(647008) \circ	NSFC TWT 505 T111L/D107
(847009) \triangle	NSFC TWT 505 T111L/D107

01D2L4	BETA
01D2L4	0.000
	-6.000

REFERENCE INFORMATION	
SREF	0.5340 80 INC
LREF	0.0240 INCHES
BREF	0.0240 INCHES
XMRP	2.9170 IN T11
YMRP	0.0000 CORE C
ZMRP	0.0000 CORE C
SCALE	0.4300 PERCENT

MACH 1.202

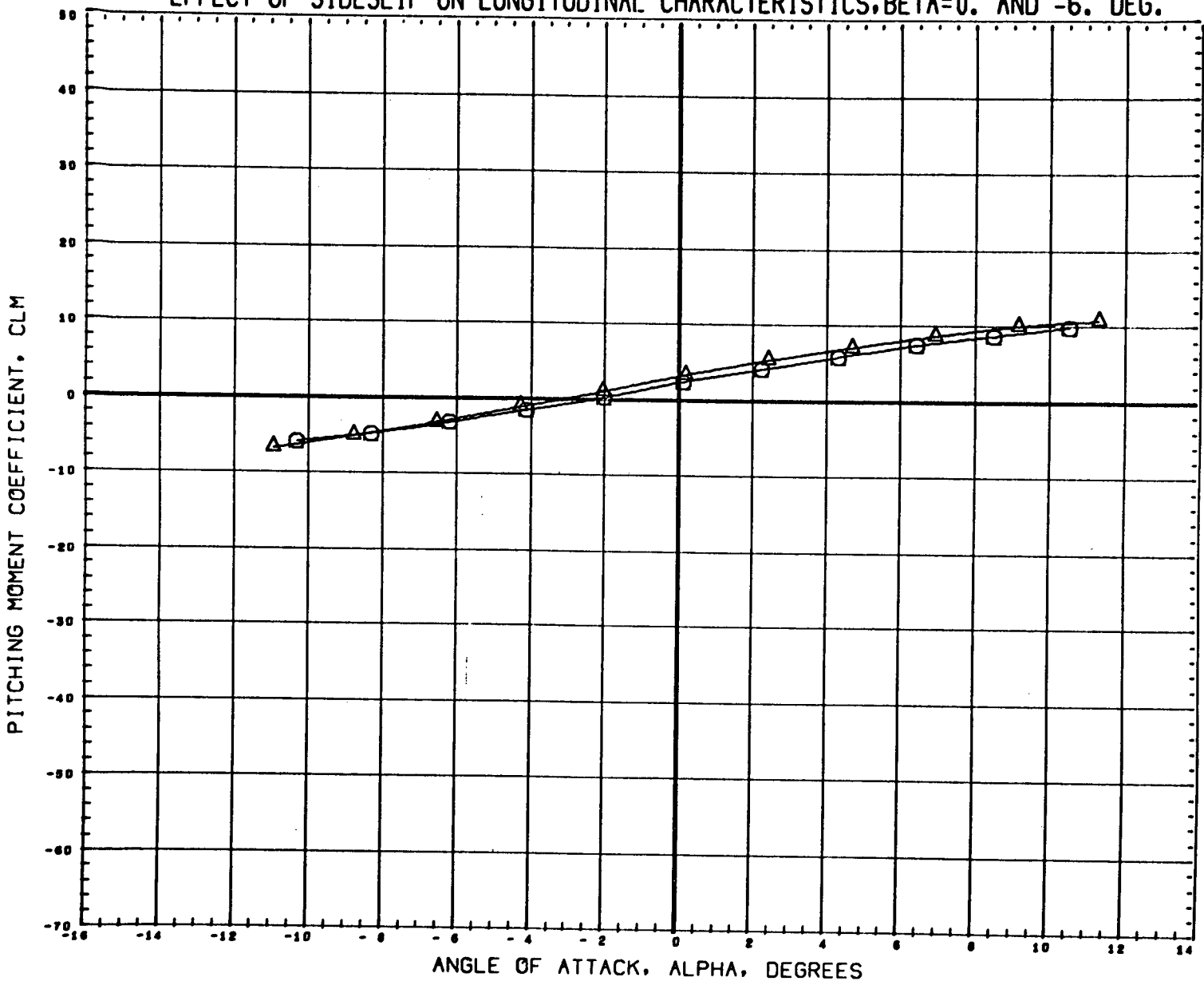
EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	REFERENCE INFORMATION
0647008	HSFC TWT 505 T111L/DT07	010214	0.000	SRFP 0.5340 80 INC
0647009	HSFC TWT 505 T111L/DT07	010214	-6.000	LRFP 0.8240 INCHES
				DRFP 0.8240 INCHES
				ZMRP 2.9170 IN TII
				YMRP 0.0000 CORE C
				ZMRP 0.0000 CORE C
				SCALE 0.4300 PERCENT

RACH 1.984

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) Q NSFC TWT 503 T111L/D107
 (847009) Δ NSFC TWT 503 T111L/D107

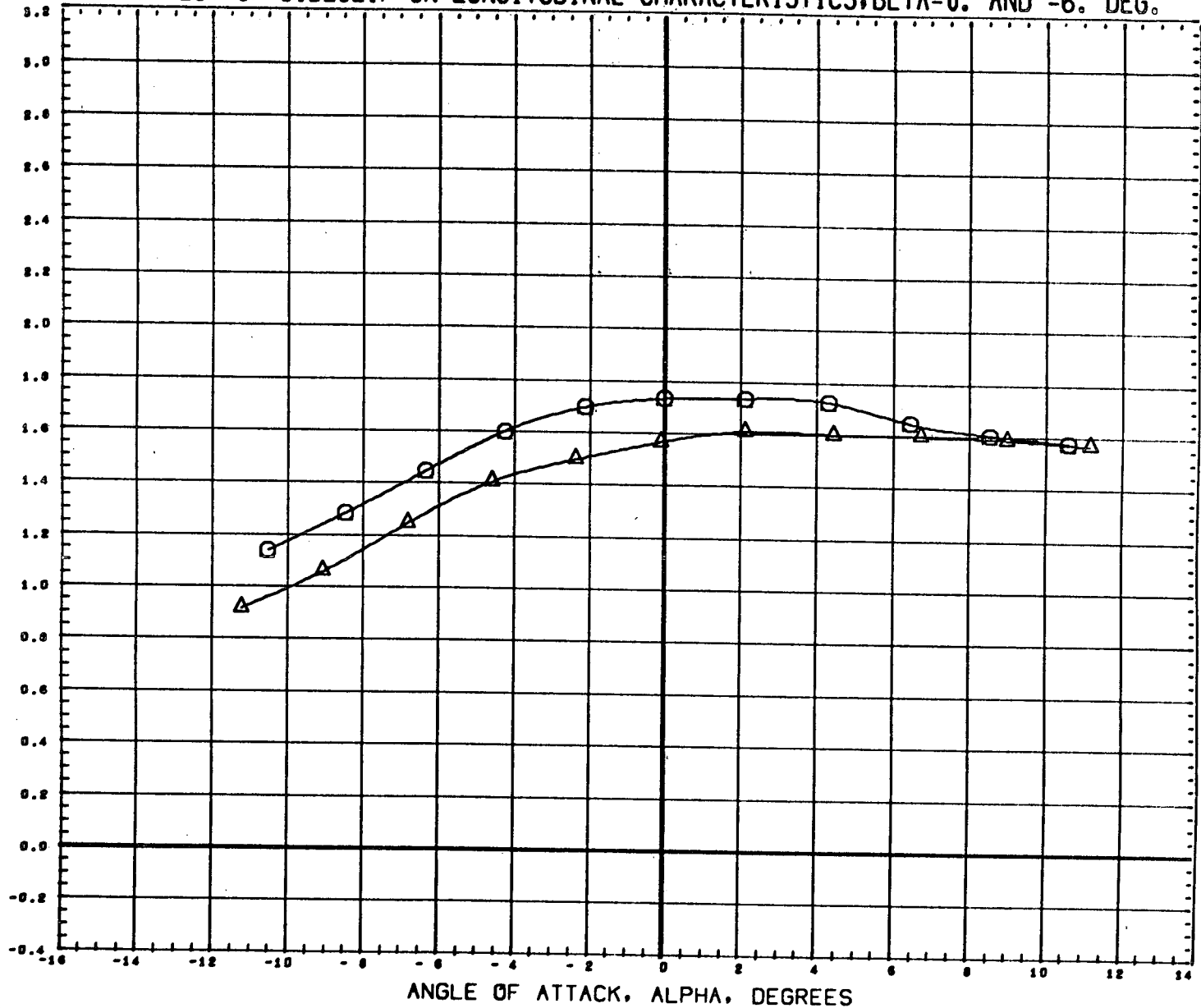
BETA
 0102L4 0.000
 0102L4 -6.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

NACH 3.480

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



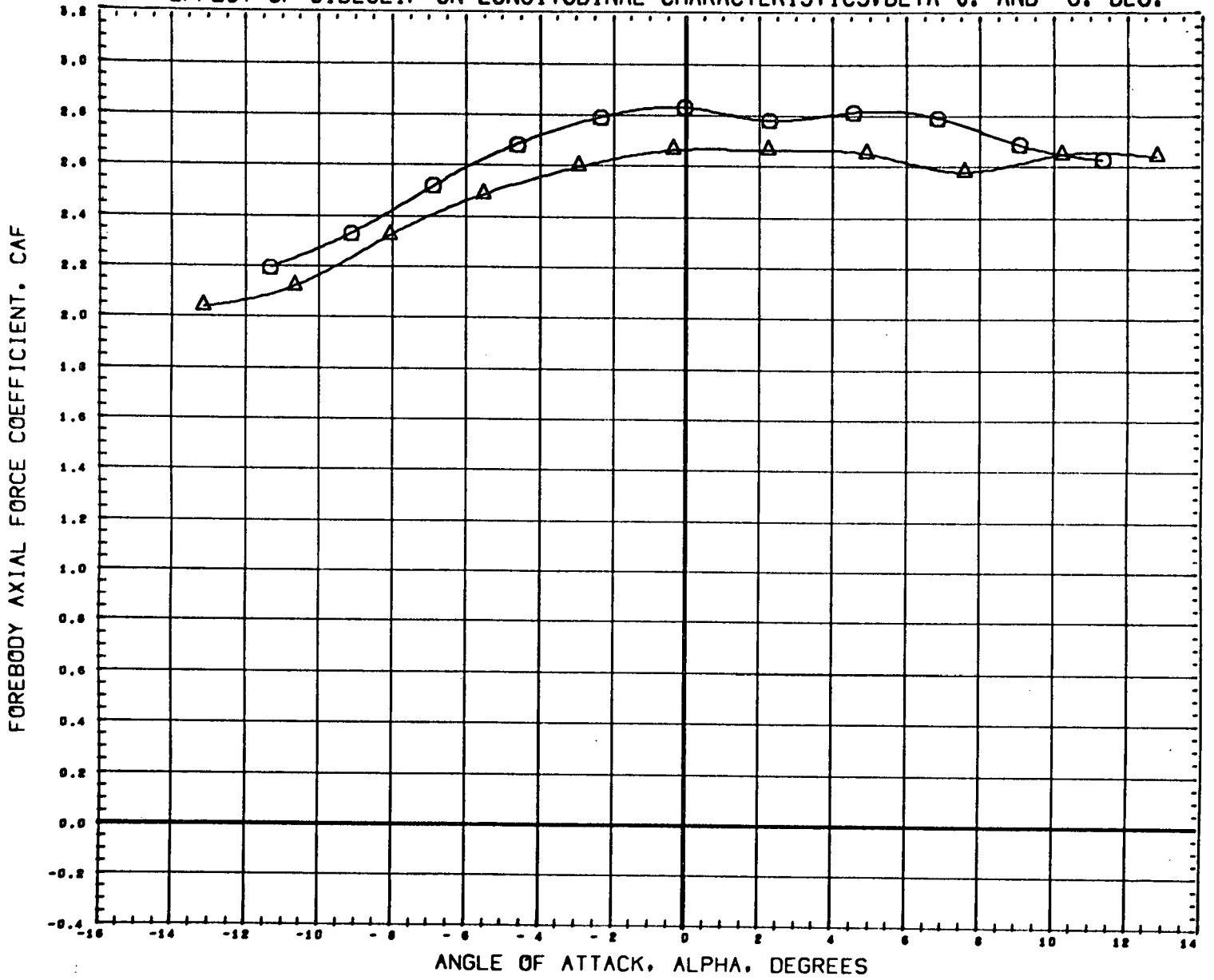
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (G47008) ○ NSFC TWT 505 T111L/DT07
 (G47009) △ NSFC TWT 505 T111L/DT07

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 0.998

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) \odot MSFC TWT 505 T111L/DT07
 (847009) \triangle MSFC TWT 505 T111L/DT07

01D2L4
 01D2L4

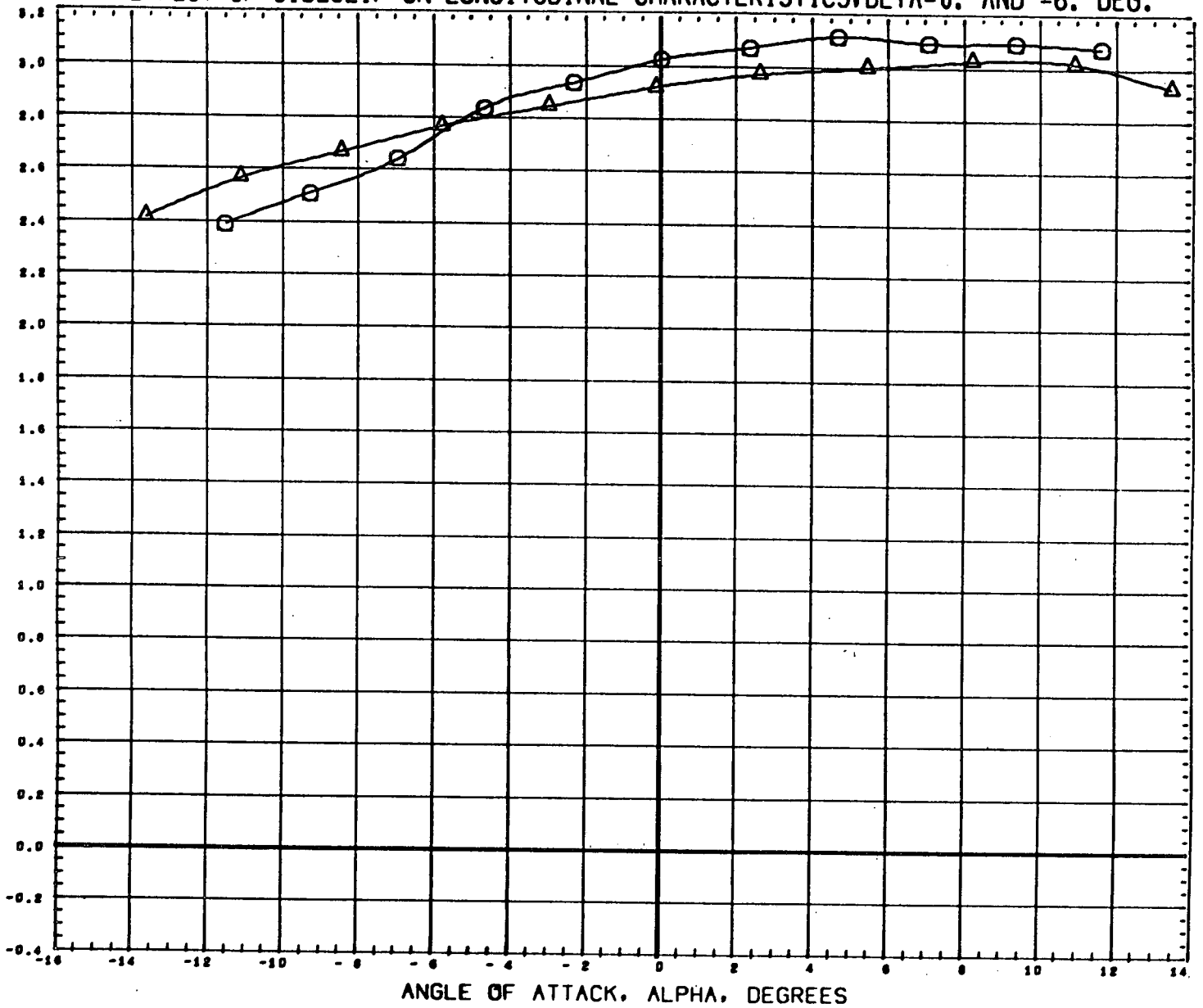
BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

MACH 0.993

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



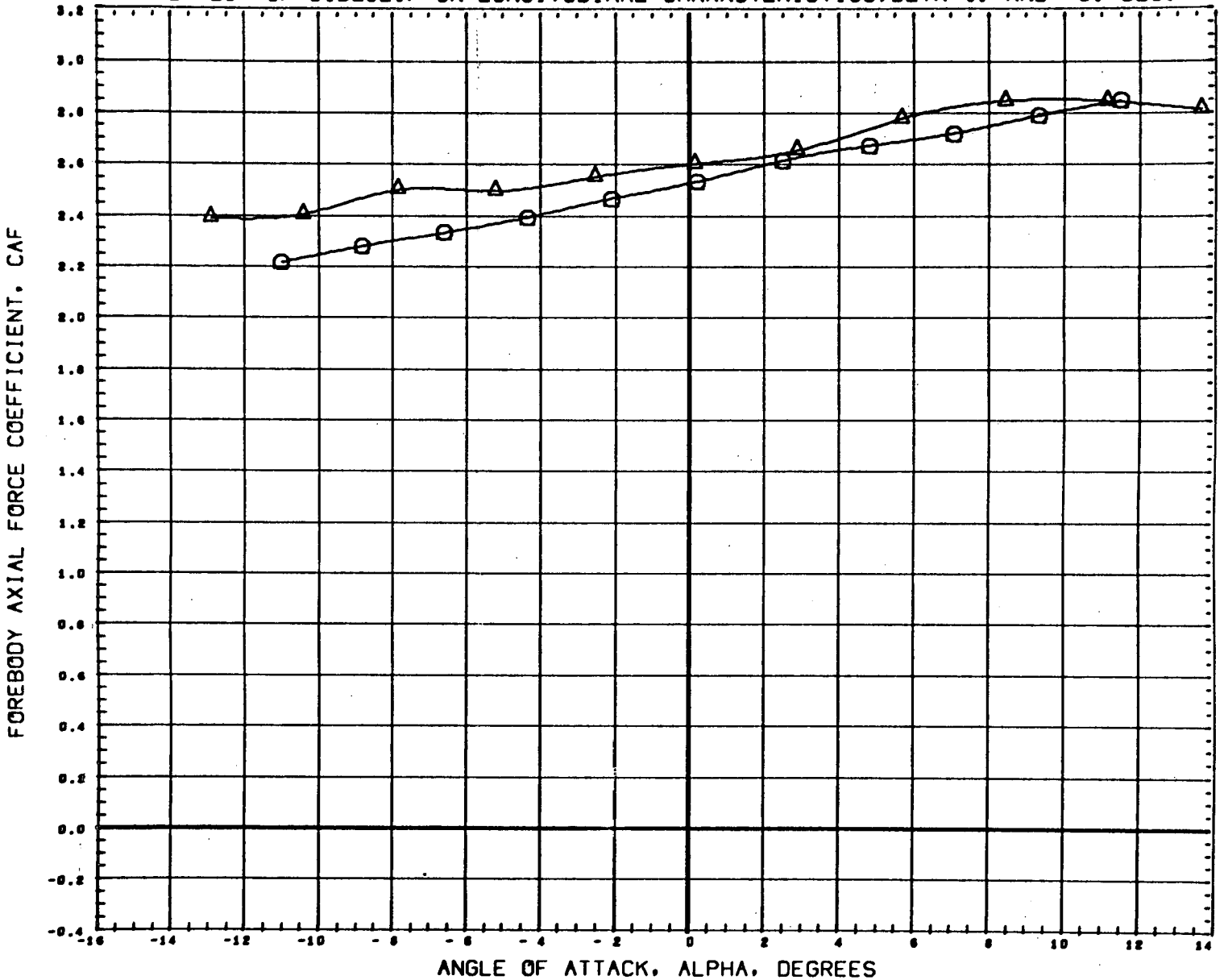
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) MSFC TWT 505 T111L/D107 01D2L4
 (647009) MSFC TWT 505 T111L/D107 01D2L4

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.202

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(647008) \circ	MSFC TWT 505 T111L/DT07
(647009) \triangle	MSFC TWT 505 T111L/DT07

0102L4
0102L4

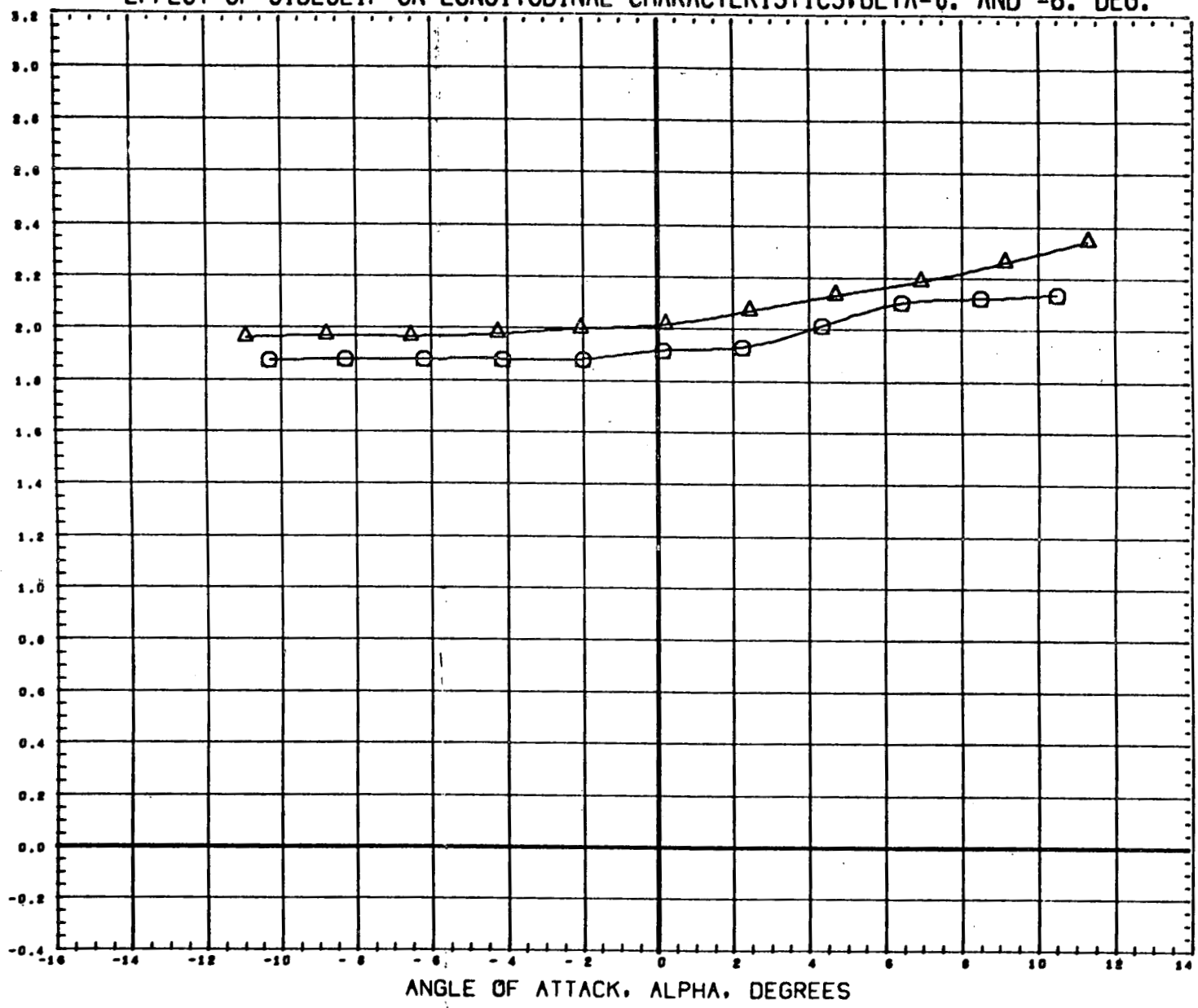
BETA
0.000
-6.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 1.964

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.

FOREBODY AXIAL FORCE COEFFICIENT, CAF



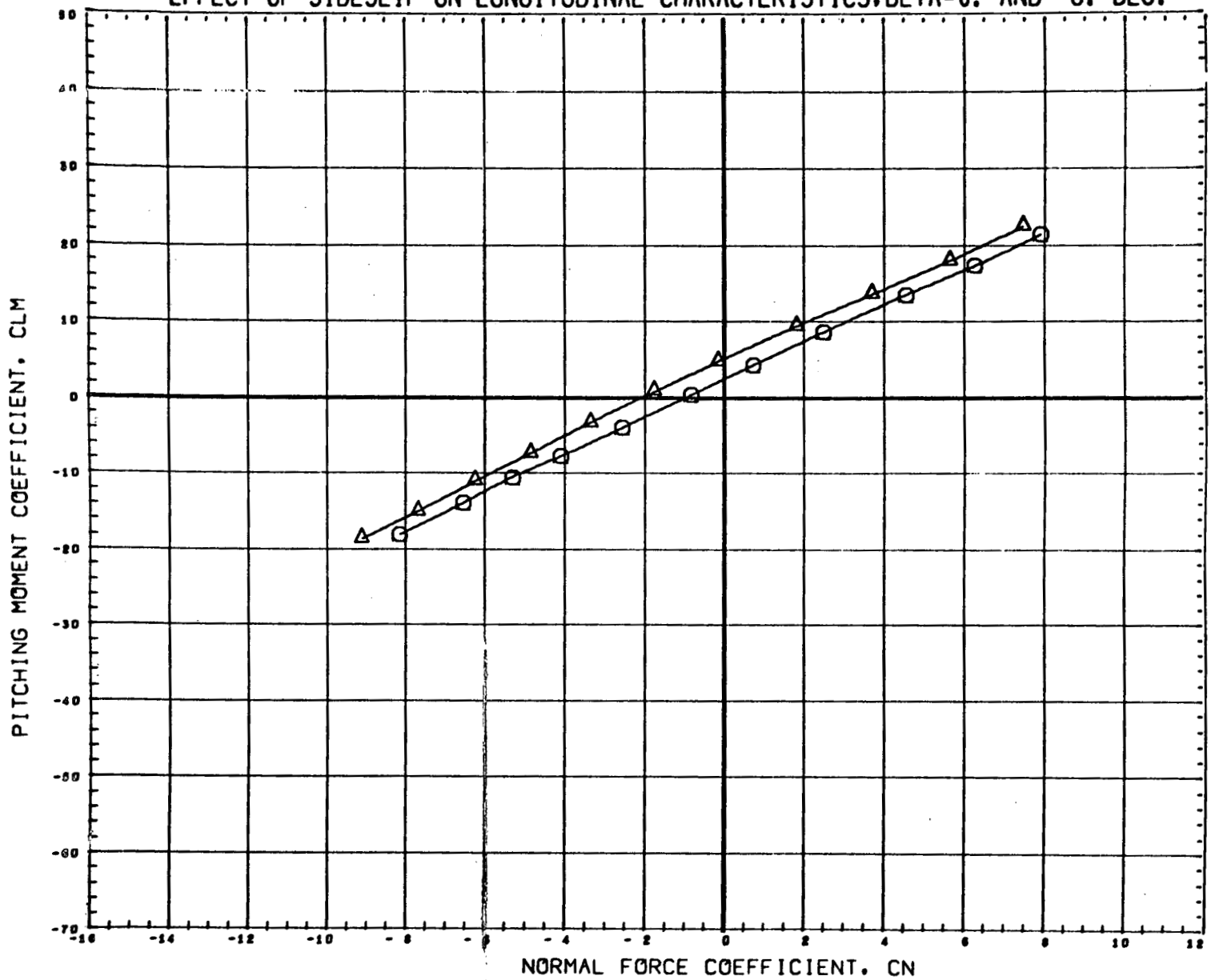
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(647006)	MSFC TWT 505 T111L/DT07
(647009)	MSFC TWT 505 T111L/DT07

0102L4	BETA
0102L4	0.000
	-6.000

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.400

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) ○ MSFC TWT 505 T111L/DT07
 (647009) △ MSFC TWT 505 T111L/DT07

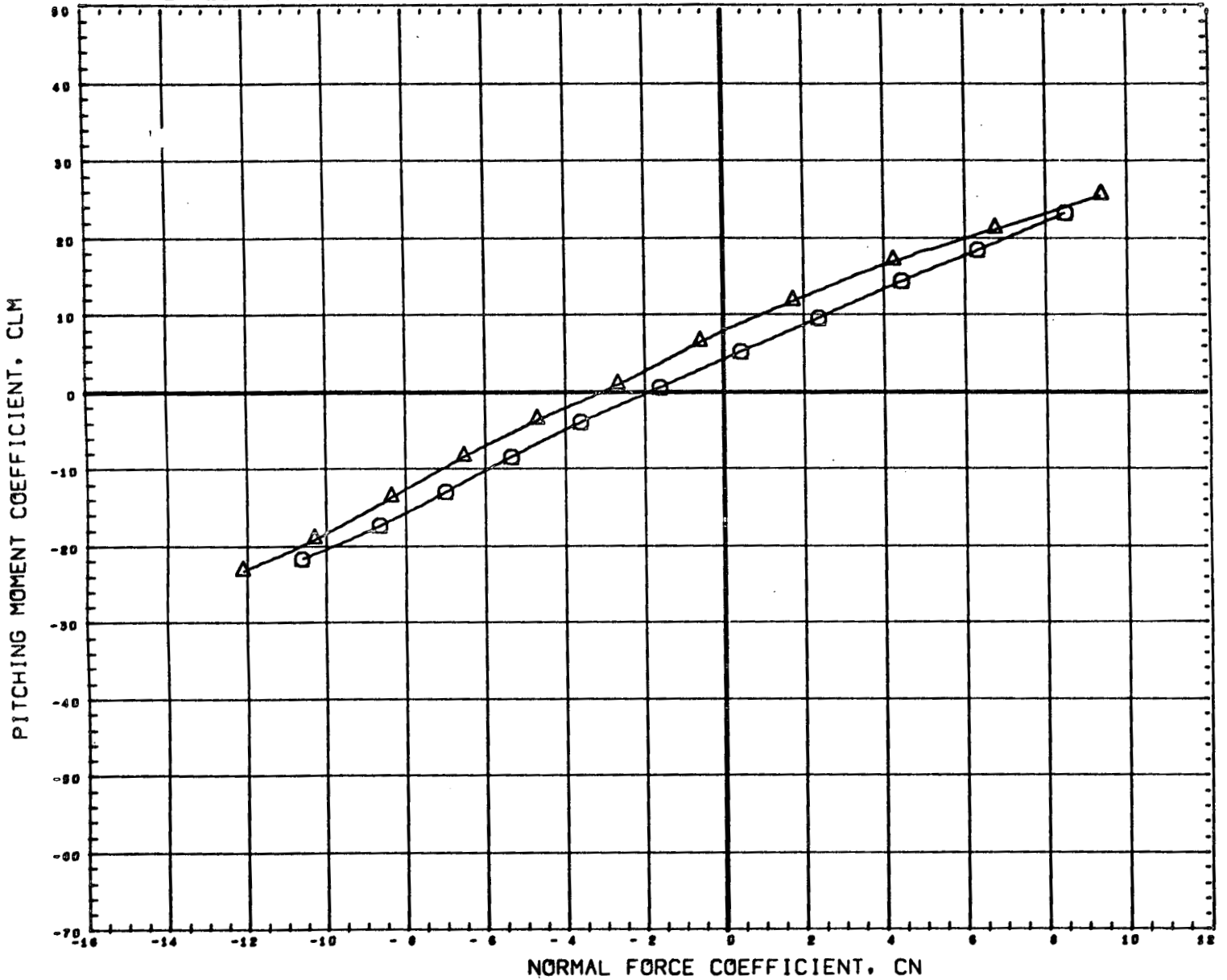
010264
 010264

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 0.598

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(647009) ○	NSFC TWT 505 T111L/D107
(647009) △	NSFC TWT 505 T111L/D107

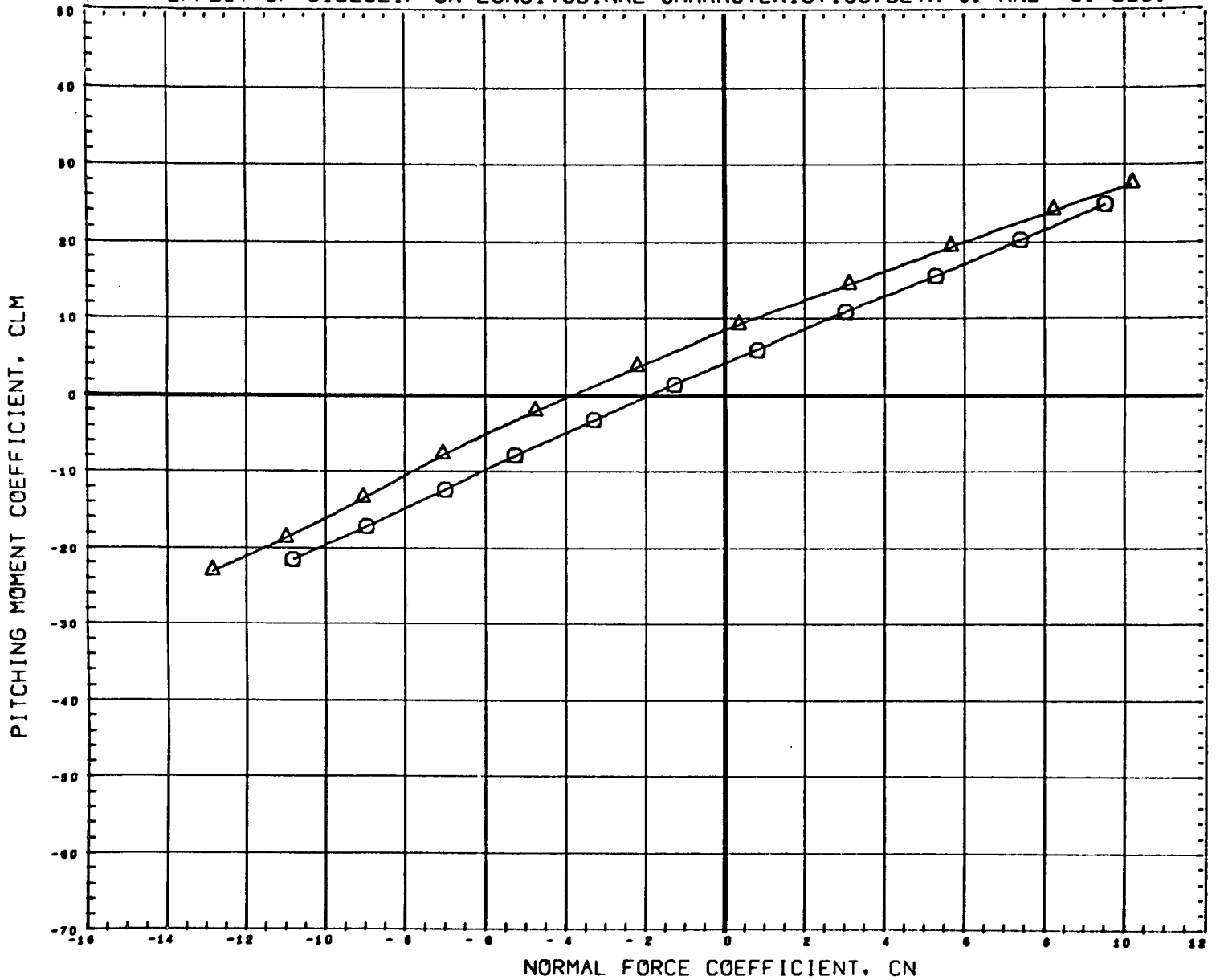
0102L4
0102L4

BETA
0.000
-6.000

REFERENCE INFORMATION		
SREF	0.9340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 0.995

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) ○ MSFC TWT 505 T111L/D107
 (847009) △ MSFC TWT 505 T111L/D107

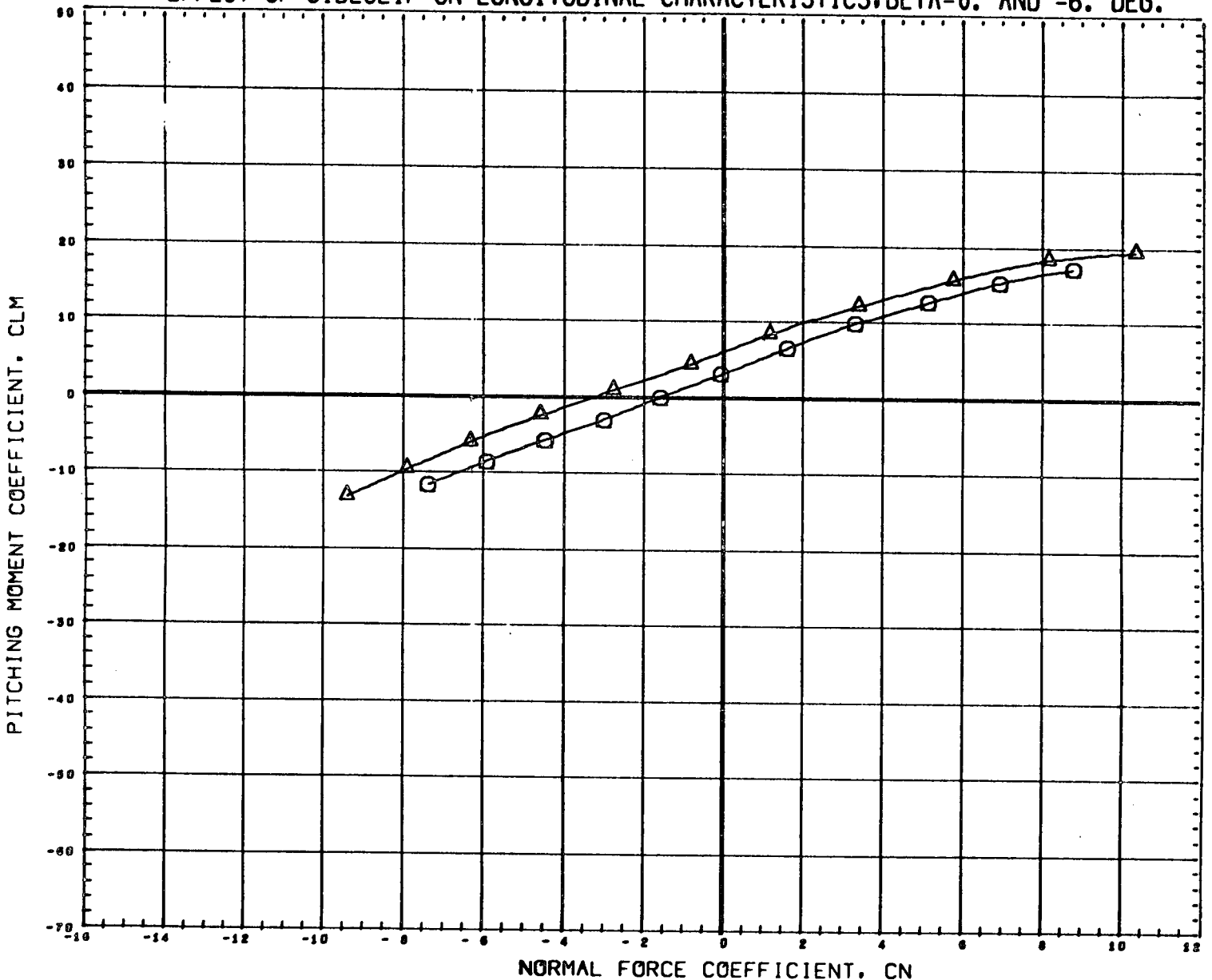
01D2L4
 01D2L4

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

NACN 1.202

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (647008) \odot MSFC TWT 505 T111L/DT07
 (647009) \triangle MSFC TWT 505 T111L/DT07

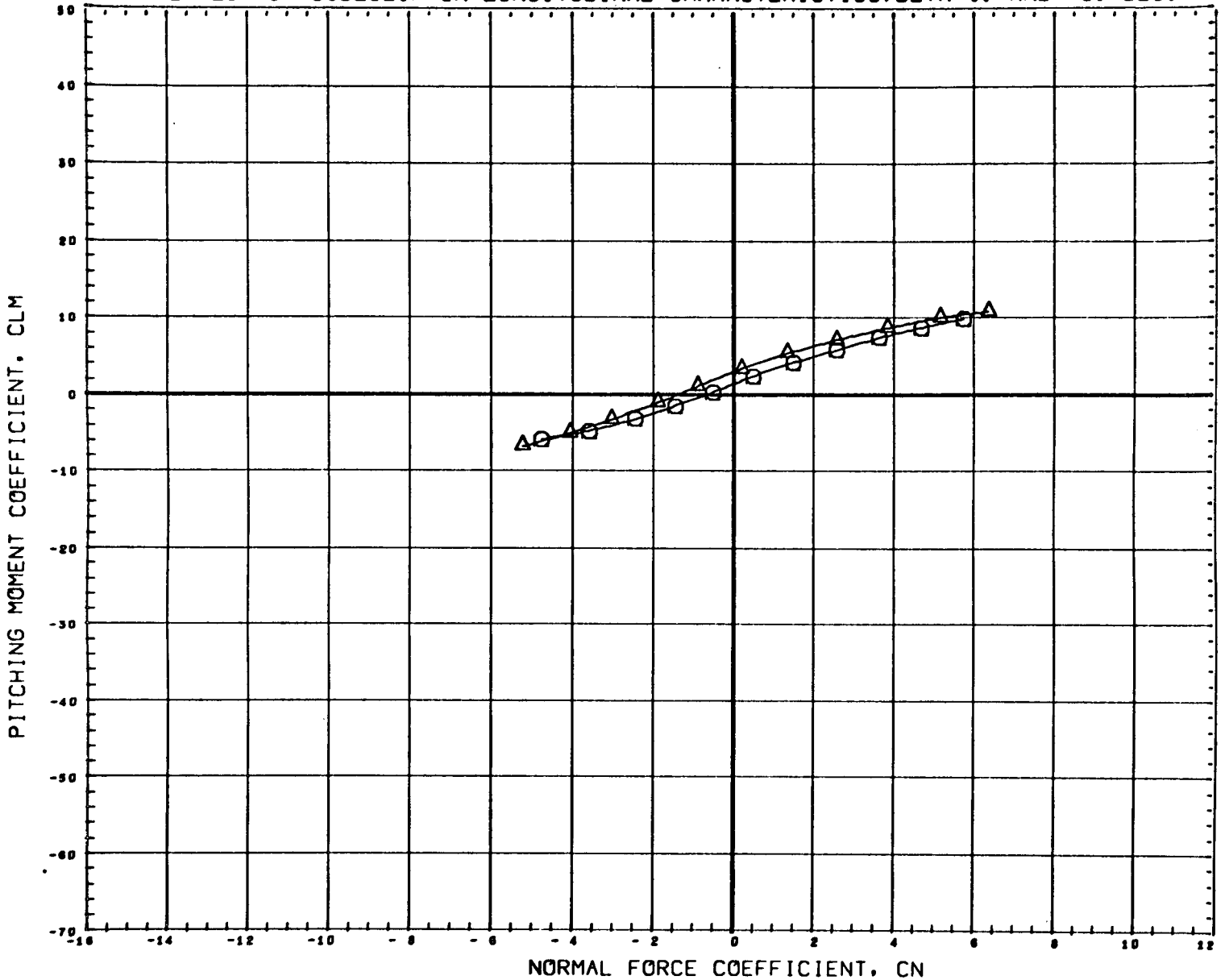
01D2L4
 01D2L4

BETA
 0.000
 -6.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 8.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

MACH 1.964

EFFECT OF SIDESLIP ON LONGITUDINAL CHARACTERISTICS, BETA=0. AND -6. DEG.



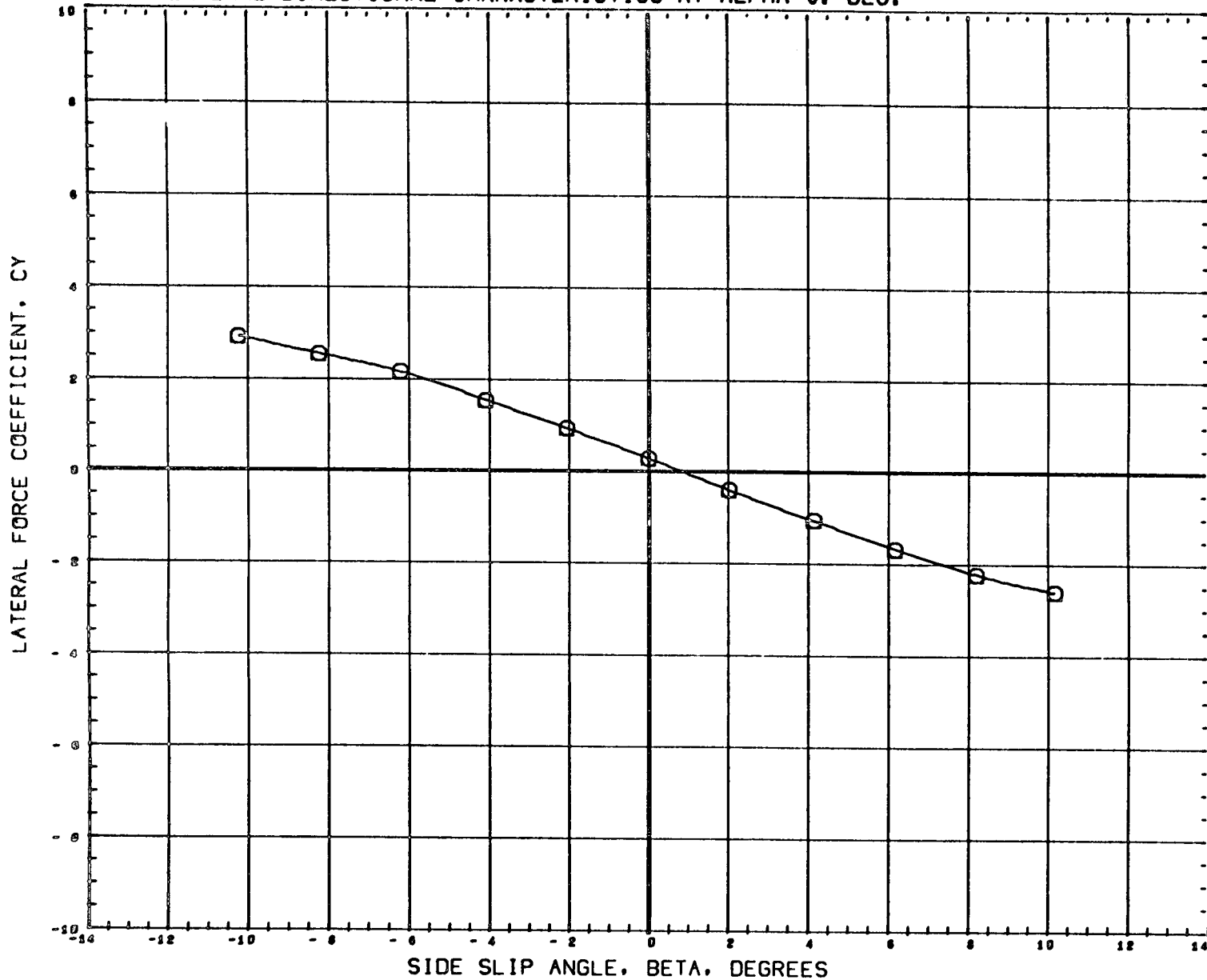
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(647008) \bigcirc	MSFC TWT 505 T111L/DT07	01D2L4
(047009) \triangle	MSFC TWT 505 T111L/DT07	01D2L4

BETA
0.000
-6.000

REFERENCE INFORMATION		
SREF	0.5340	30 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

MACH 3.480

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

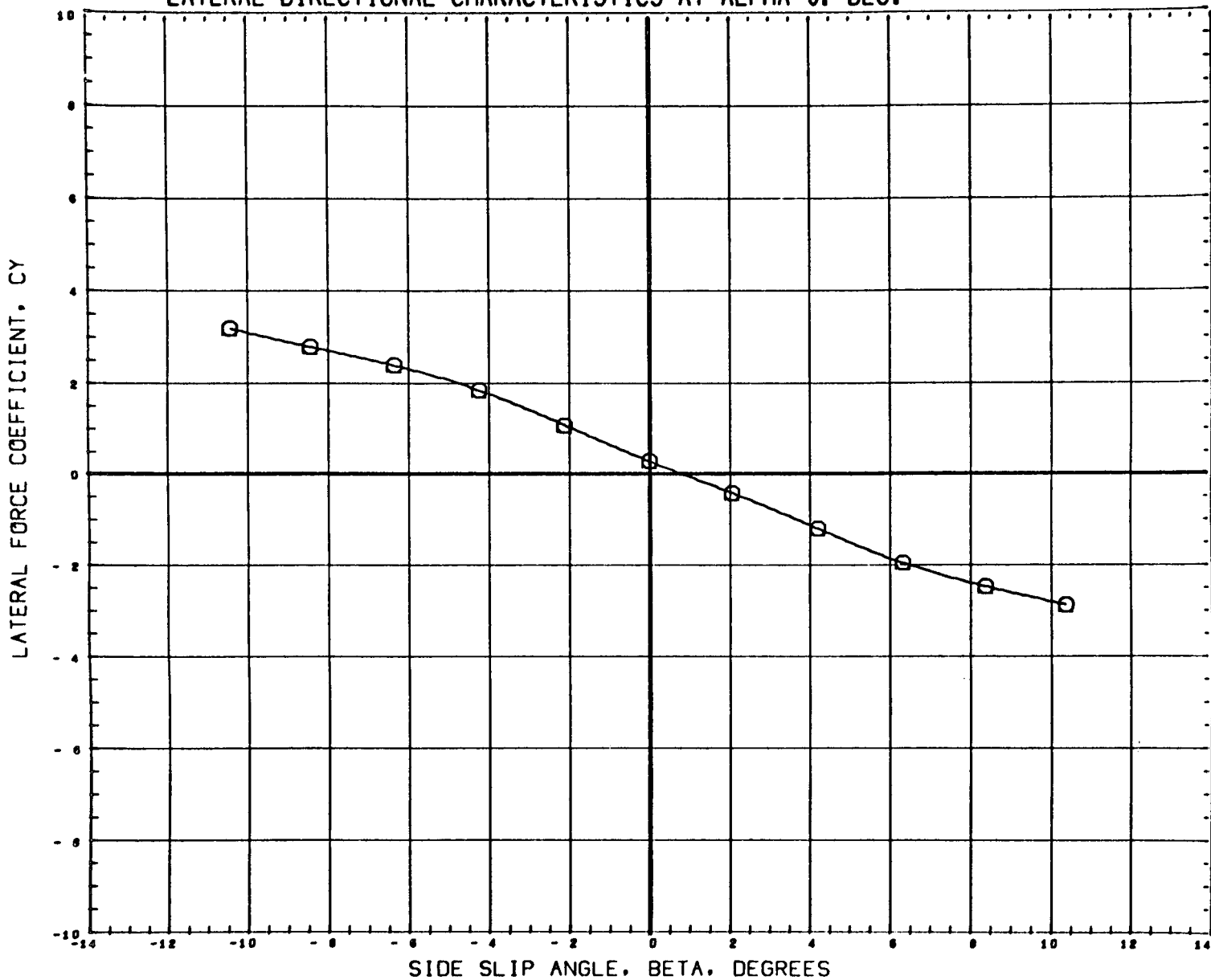


SYMBOL \square MACH 0.603 ALPHA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

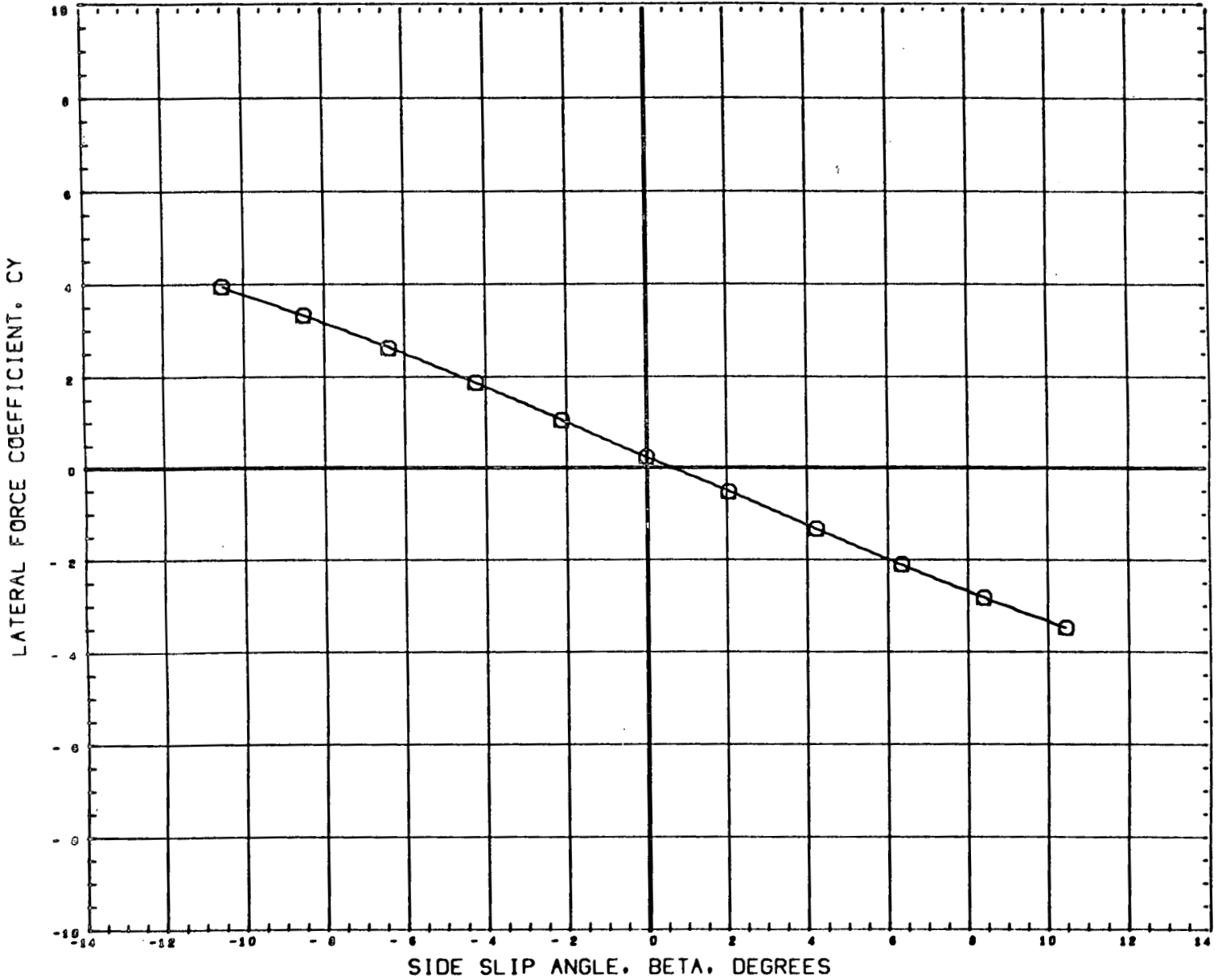


SYMBOL \bigcirc MACH 0.900 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

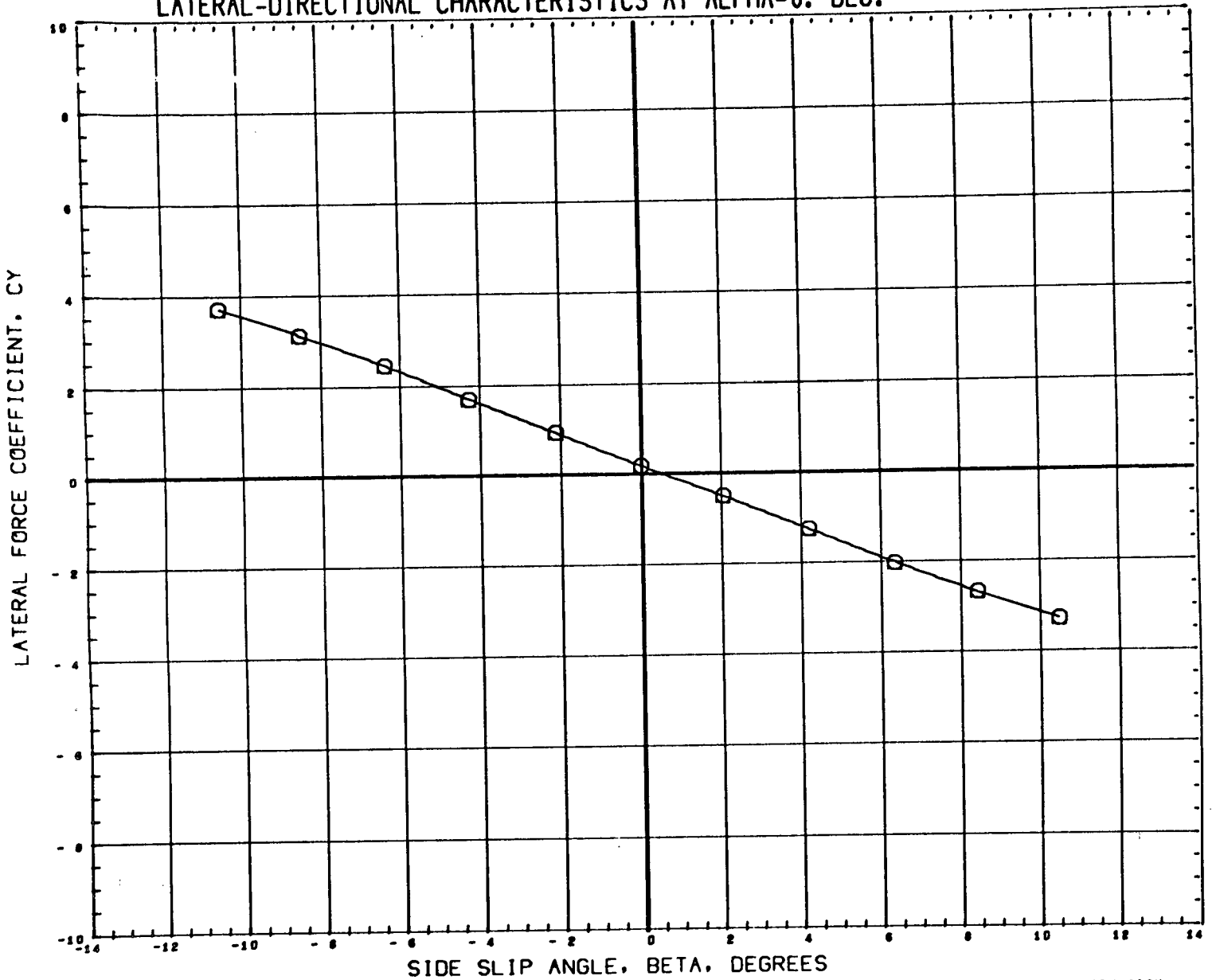


SYMBOL HACH PARAMETRIC VALUES
 ○ 1.001 ALPHA 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.0170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \circ MACH 1.100 ALPHA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 DREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.0170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

MSFC TWT 505 T111L/DT07

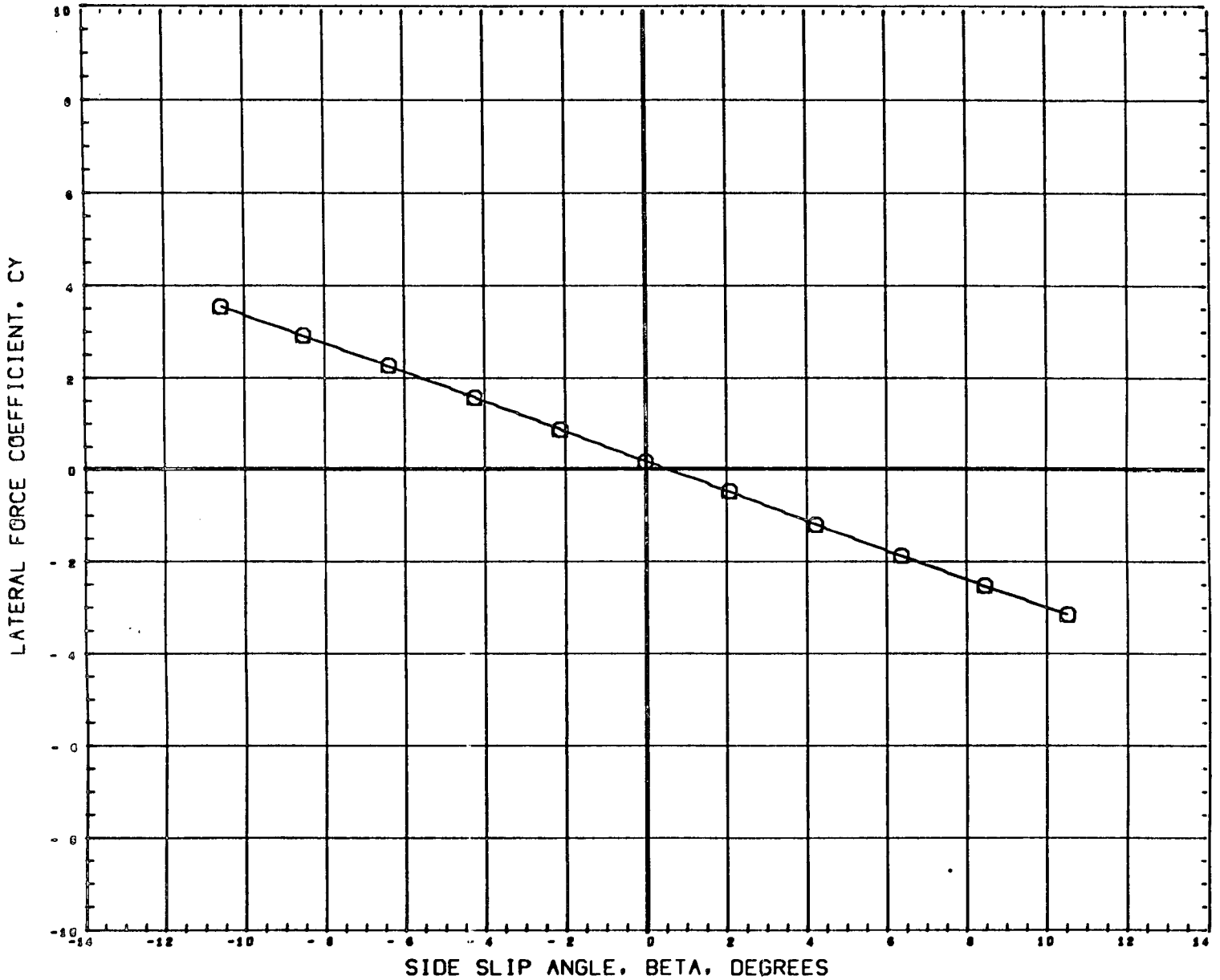
01

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

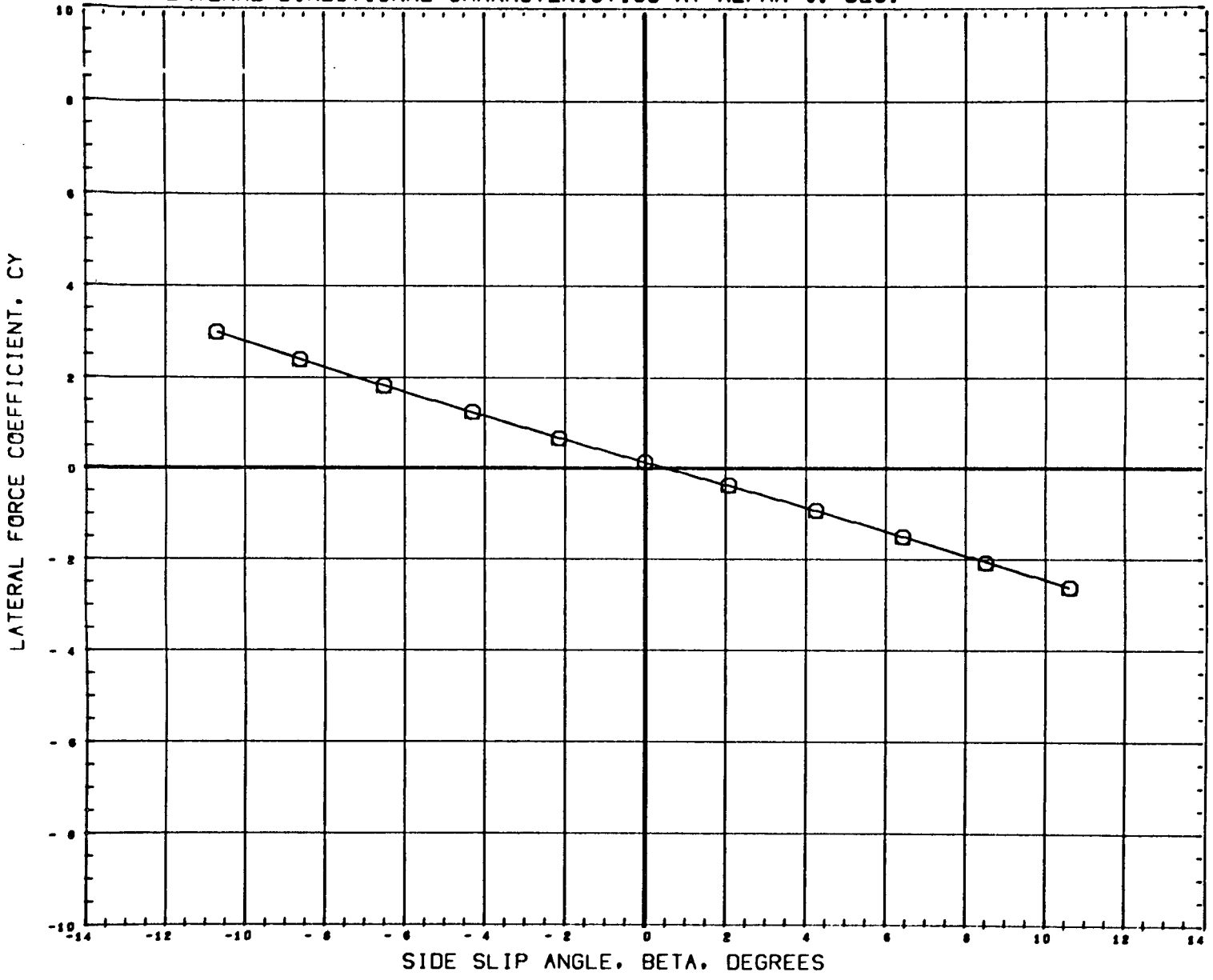


SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 1.207 0.000

REFERENCE INFORMATION
 SREF 0.5340 SQ INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

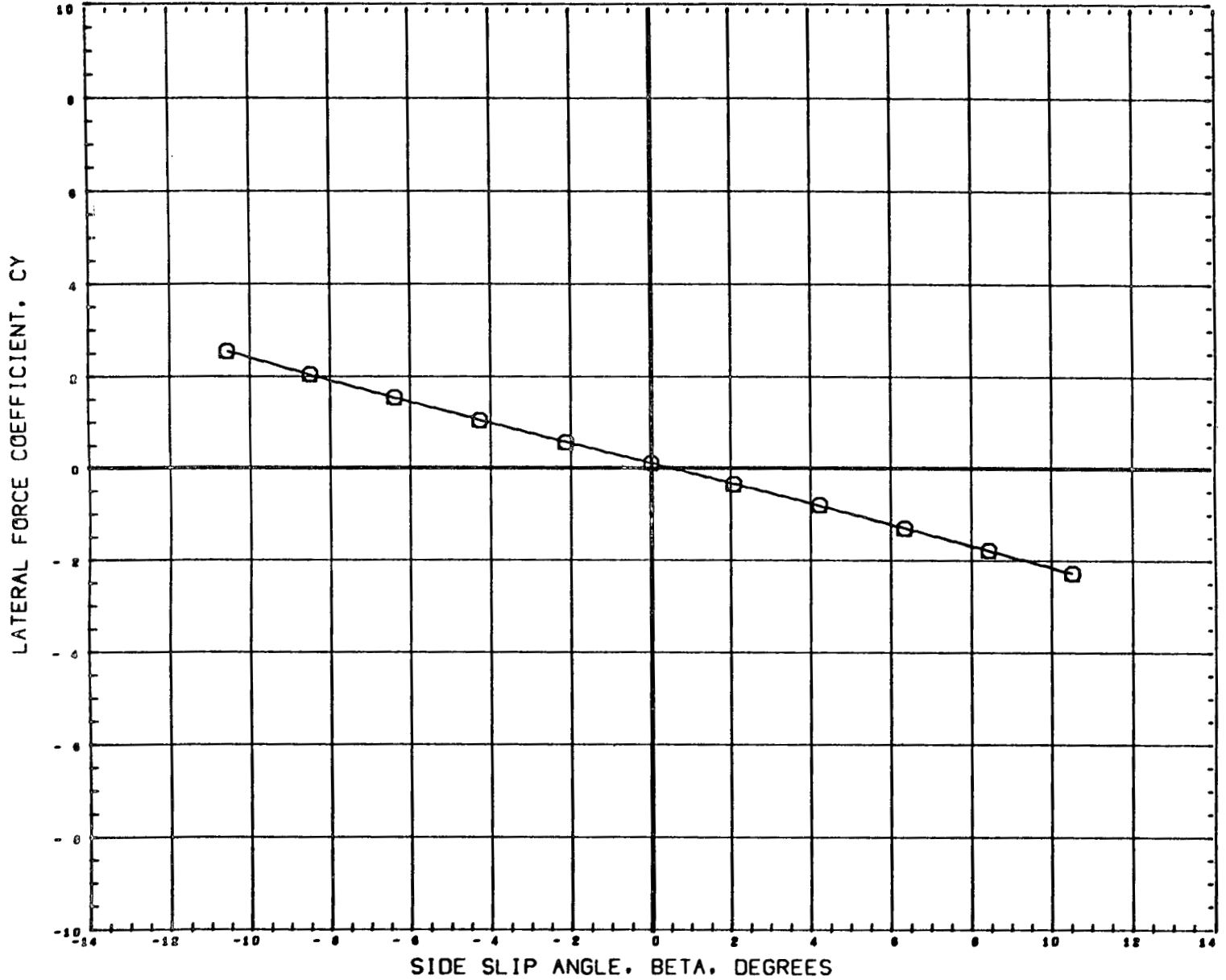


SYMBOL \bigcirc MACH 1.965 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

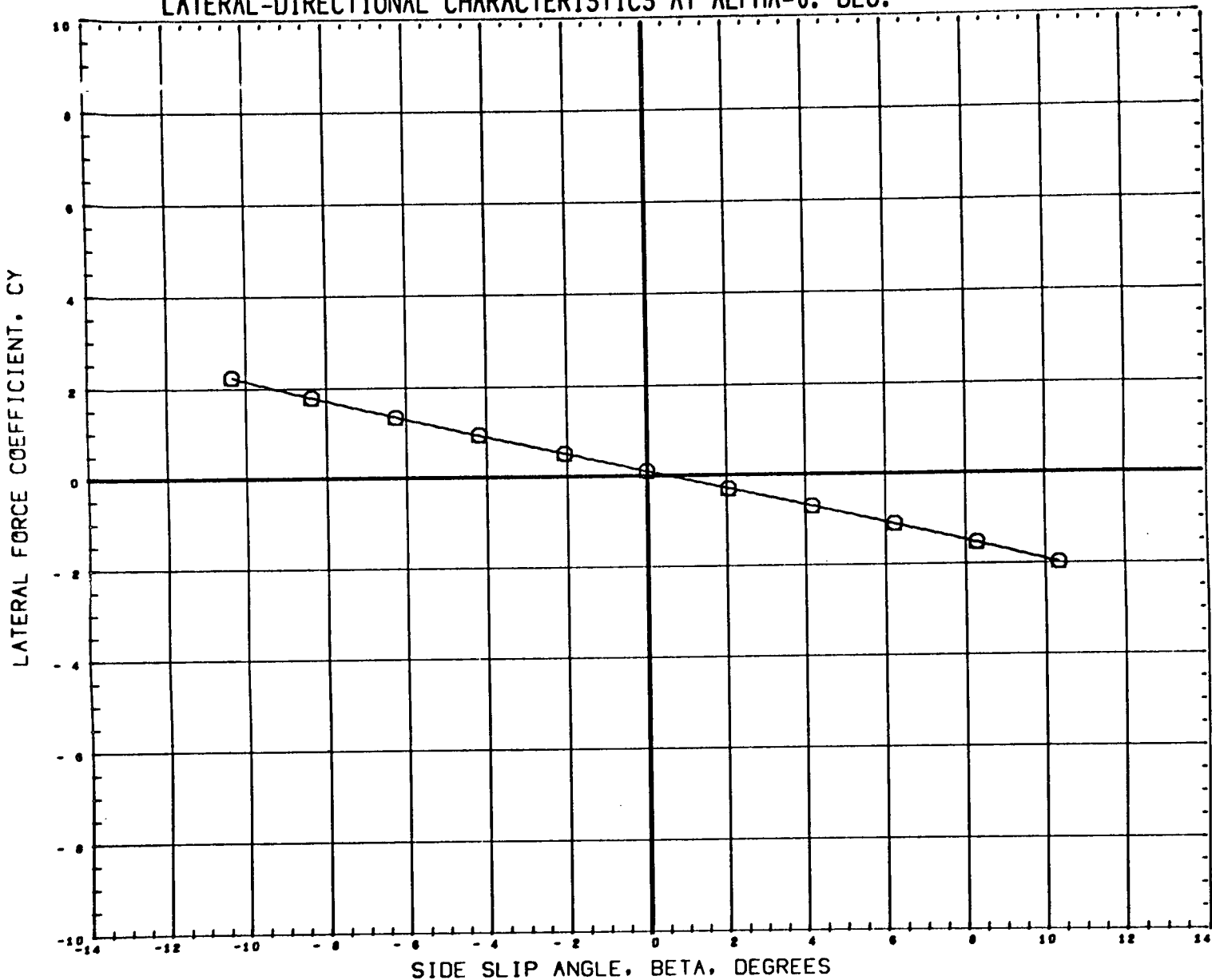


SYMBOL ○ MACH 2.740 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4800 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 3.480 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

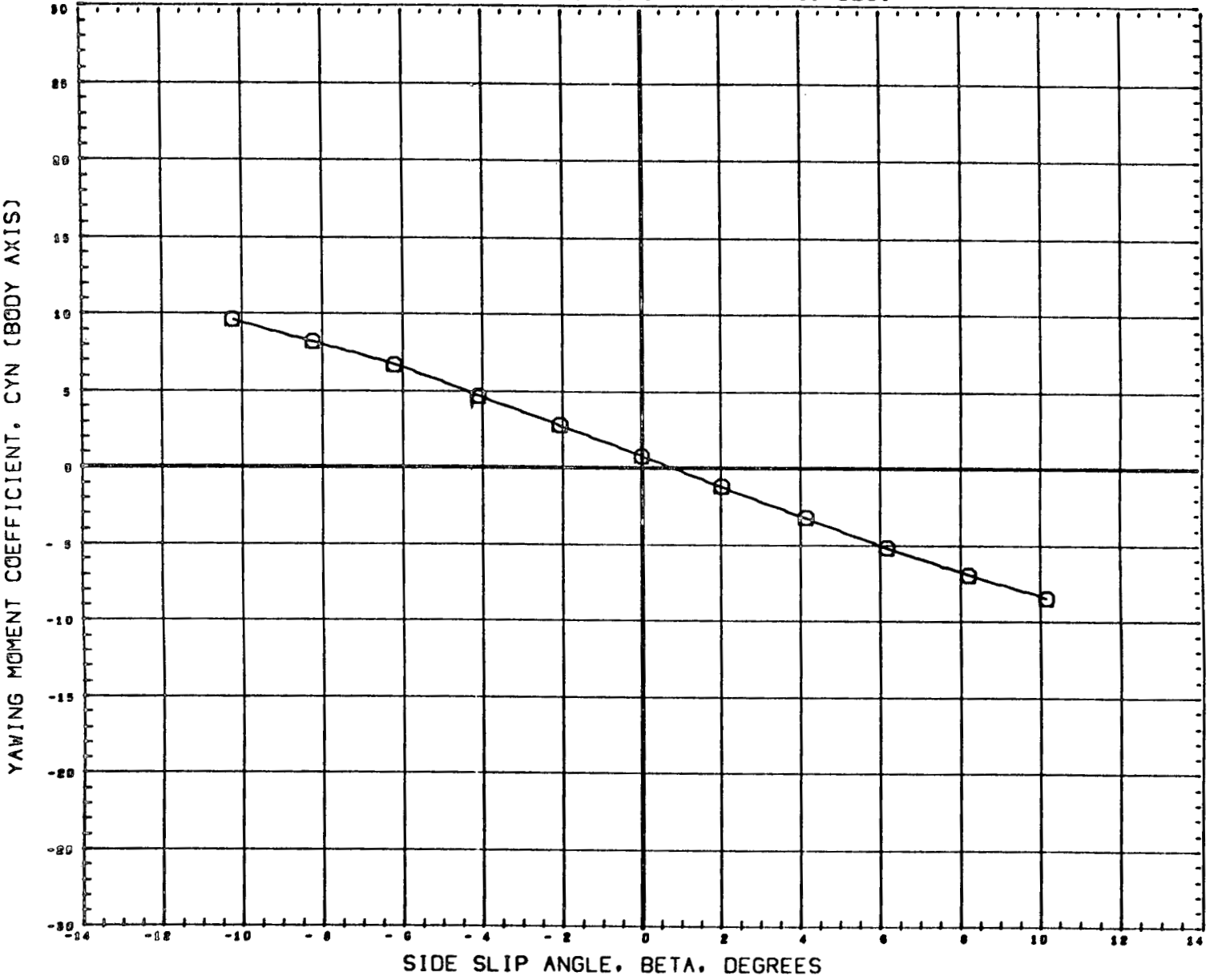
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

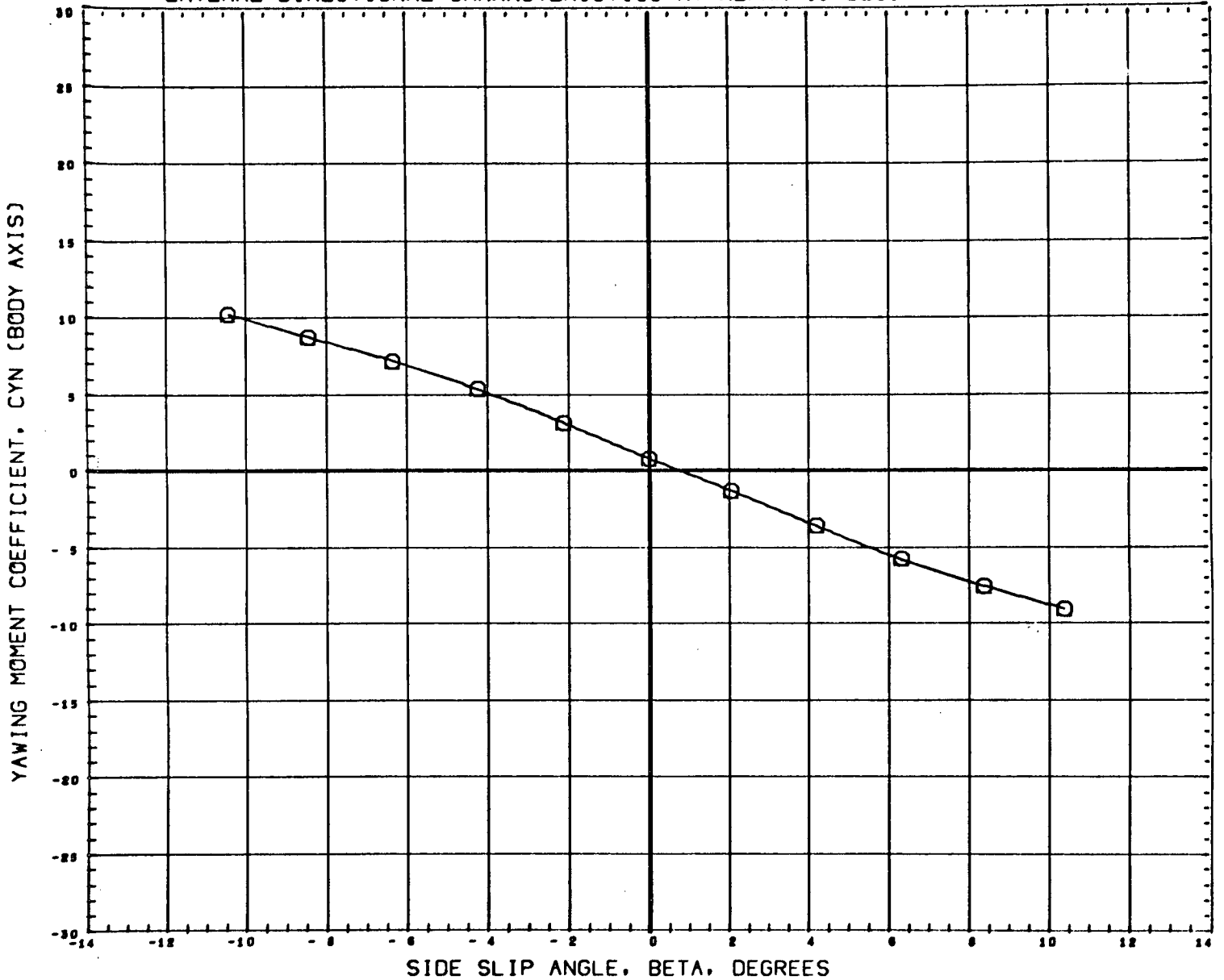


SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 0.601 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 90 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \bigcirc MACH 0.900 ALPHA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
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 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

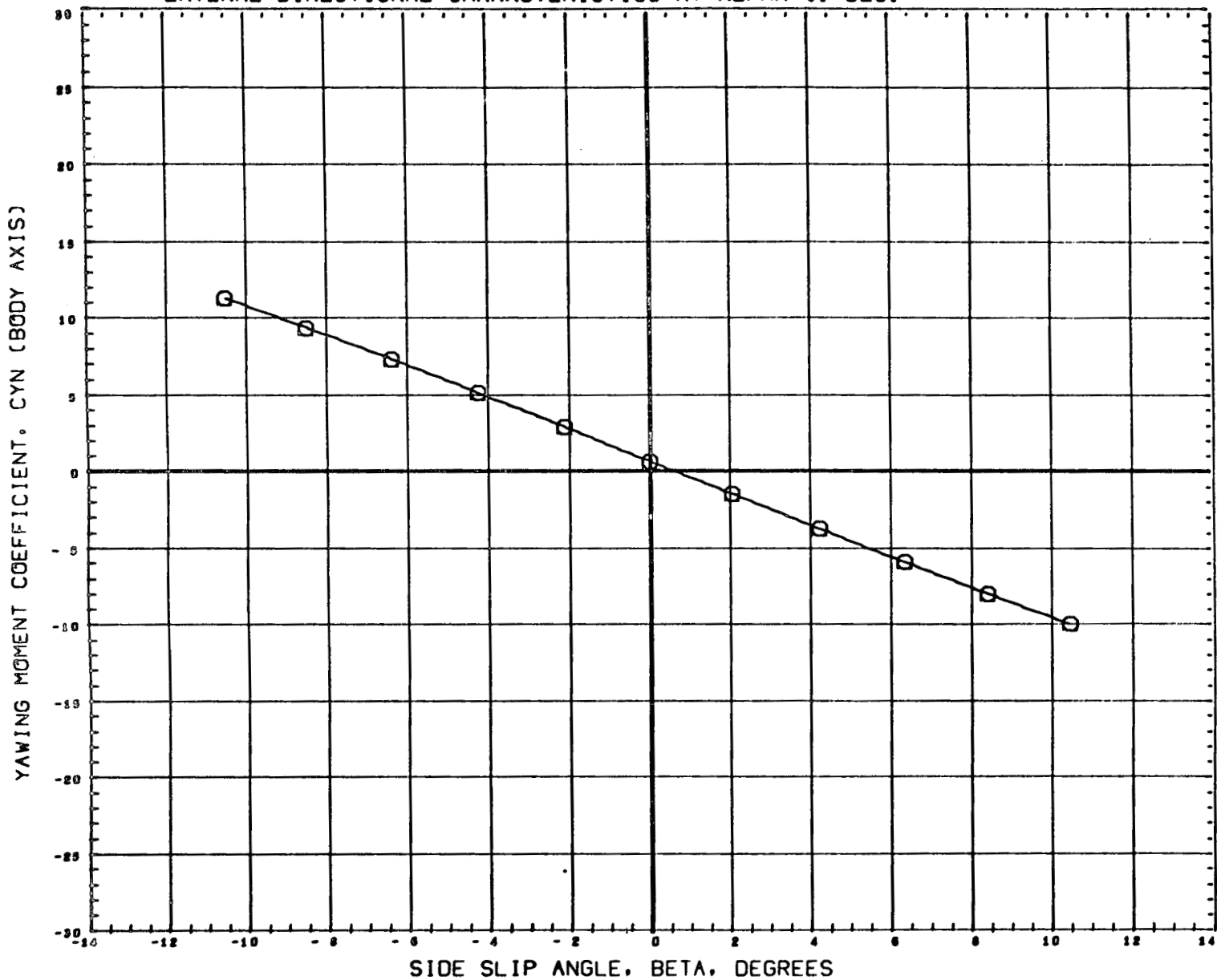
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



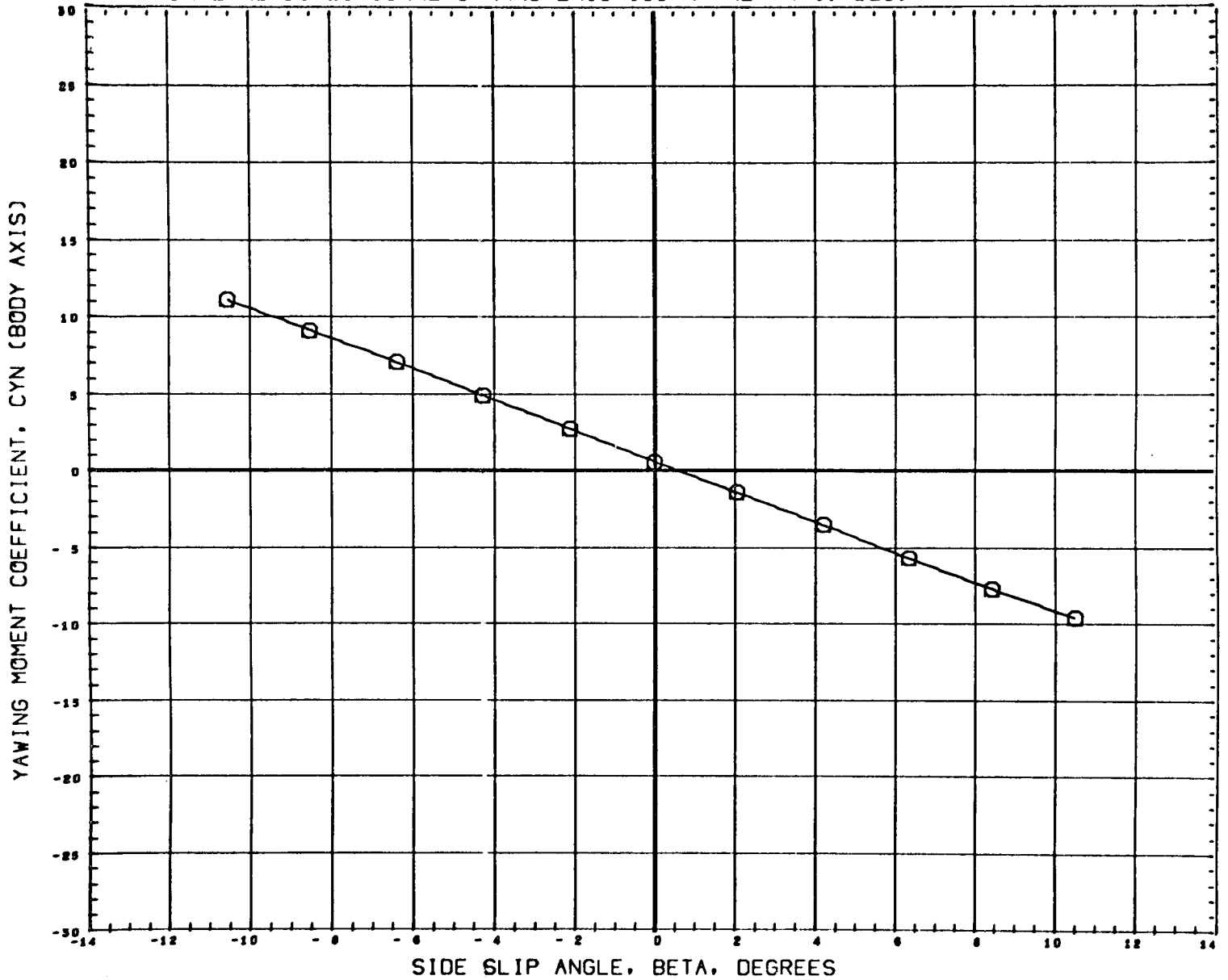
SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 1.001 0.000

REFERENCE INFORMATION

SREF	0.9340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.0170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 1.100 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

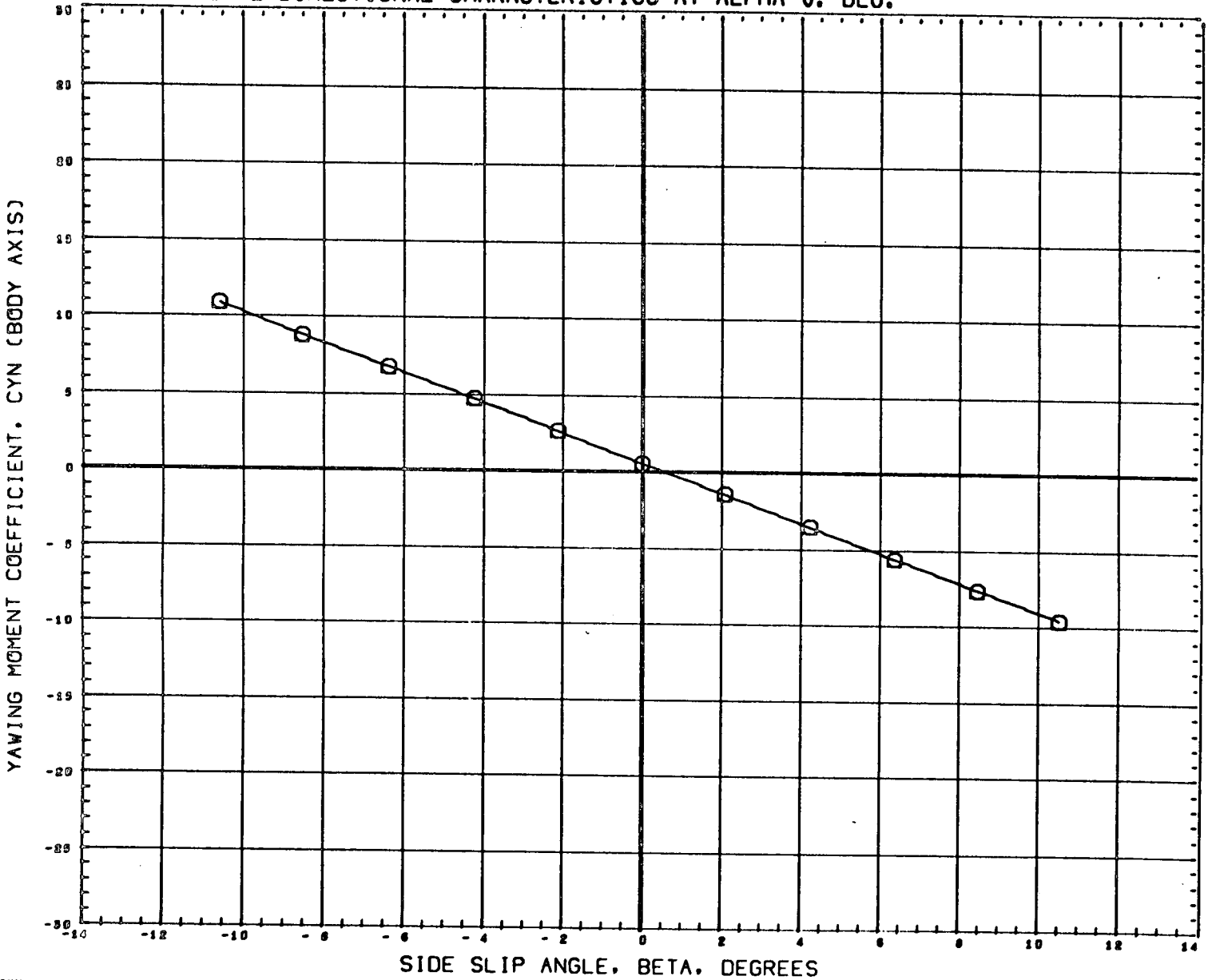
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \bigcirc HACH 1.207 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.9240 INCHES
 DREF 0.9240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

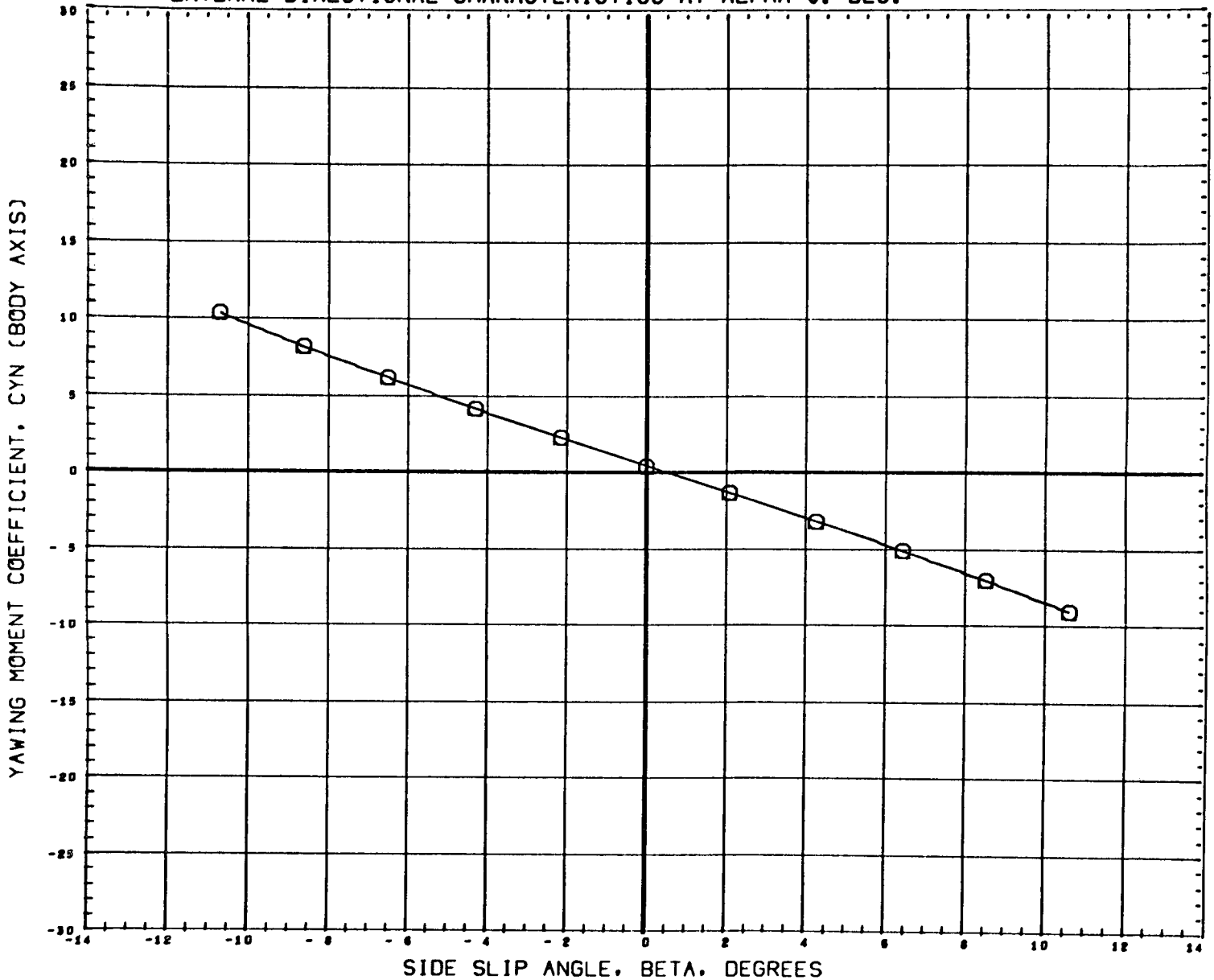
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

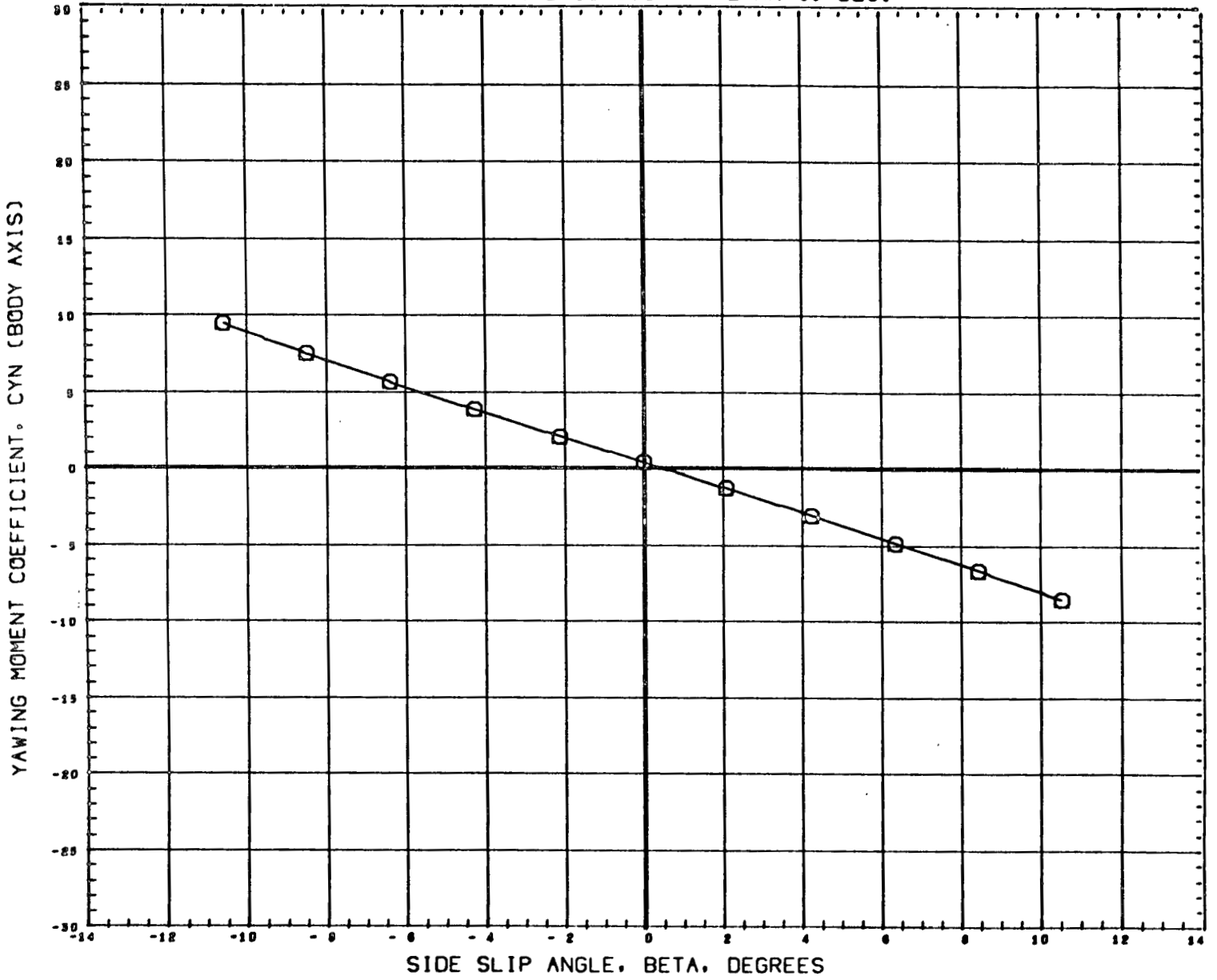


SYMBOL \bigcirc MACH 1.965 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

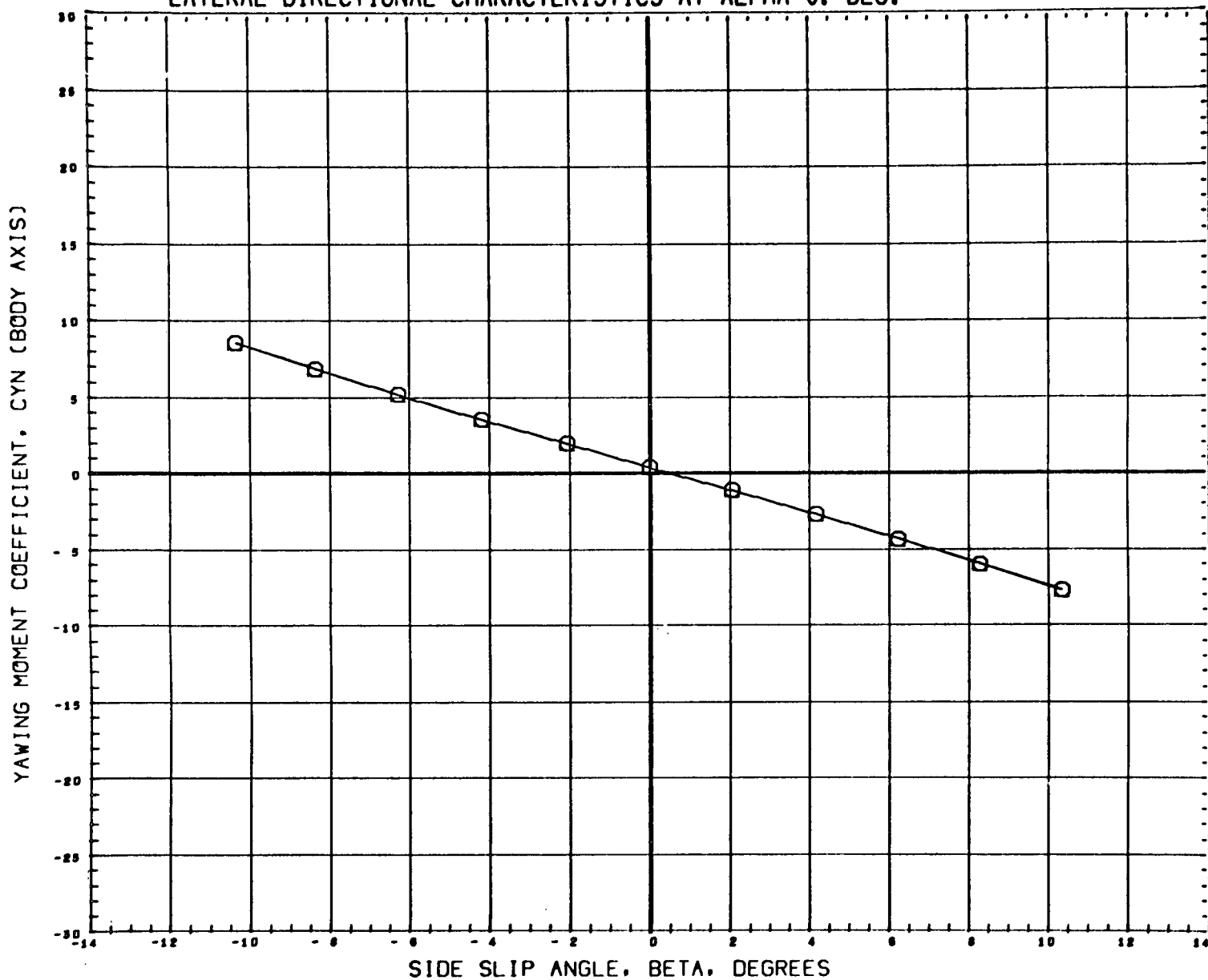


SYMBOL \circ HACH 2.740 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
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 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \bigcirc MACH 3.480 ALPHA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 BREF 0.9340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XNRP 2.9170 IN T11
 VNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

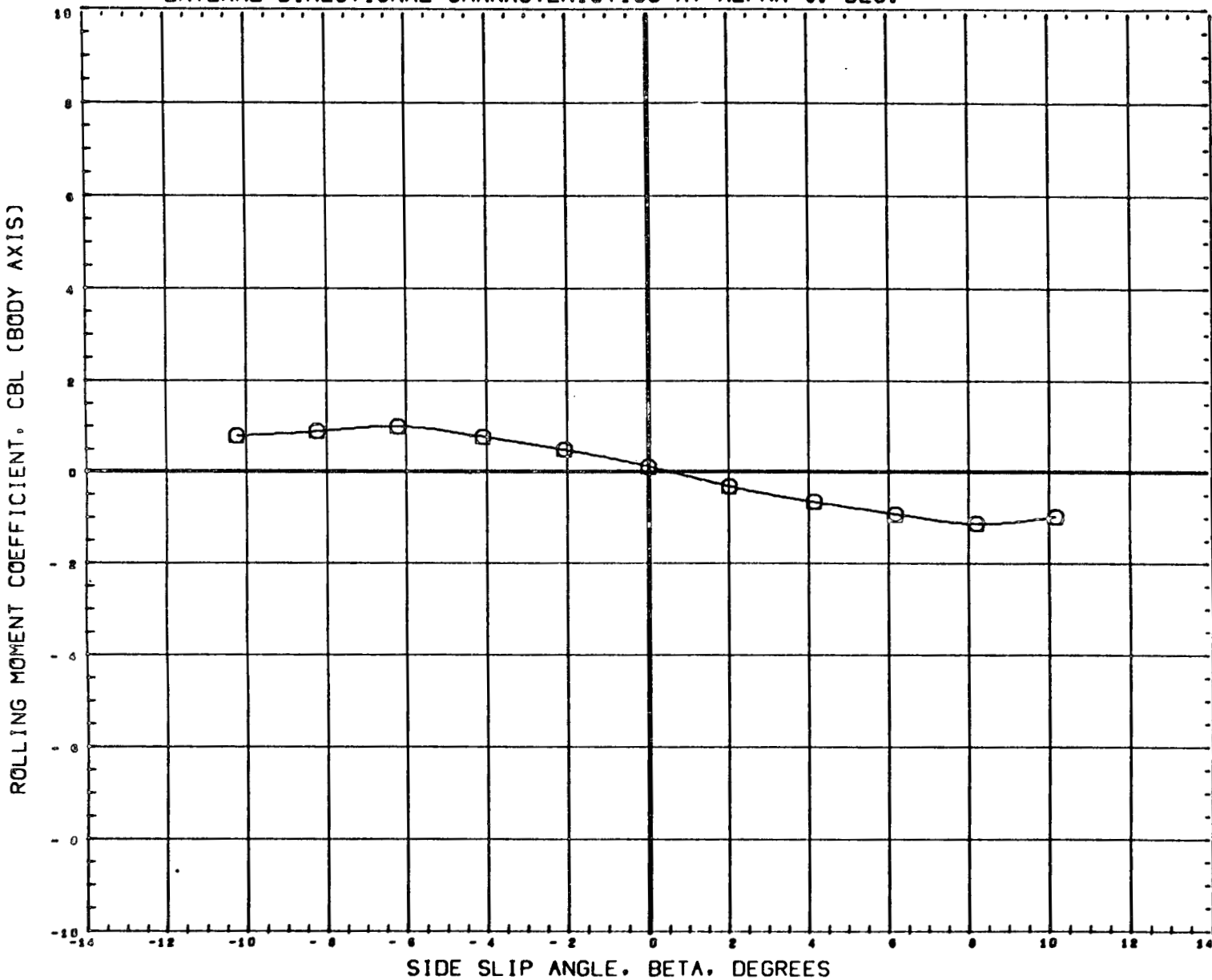
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL HACH PARAMETRIC VALUES
 ○ 0.001 ALPHA 0.000

REFERENCE INFORMATION

BREF	0.9340	88 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

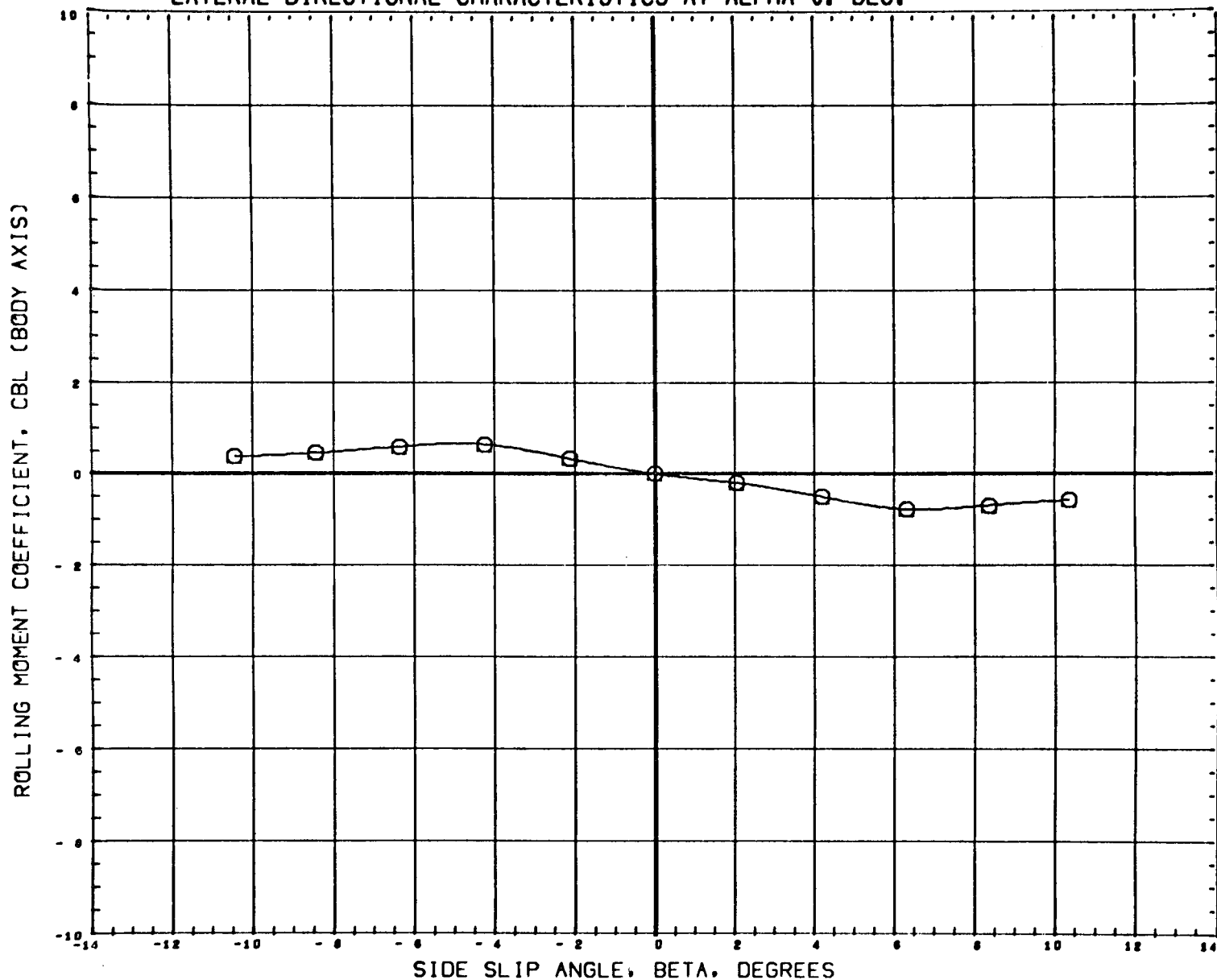
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \circ MACH 0.900 ALPHA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

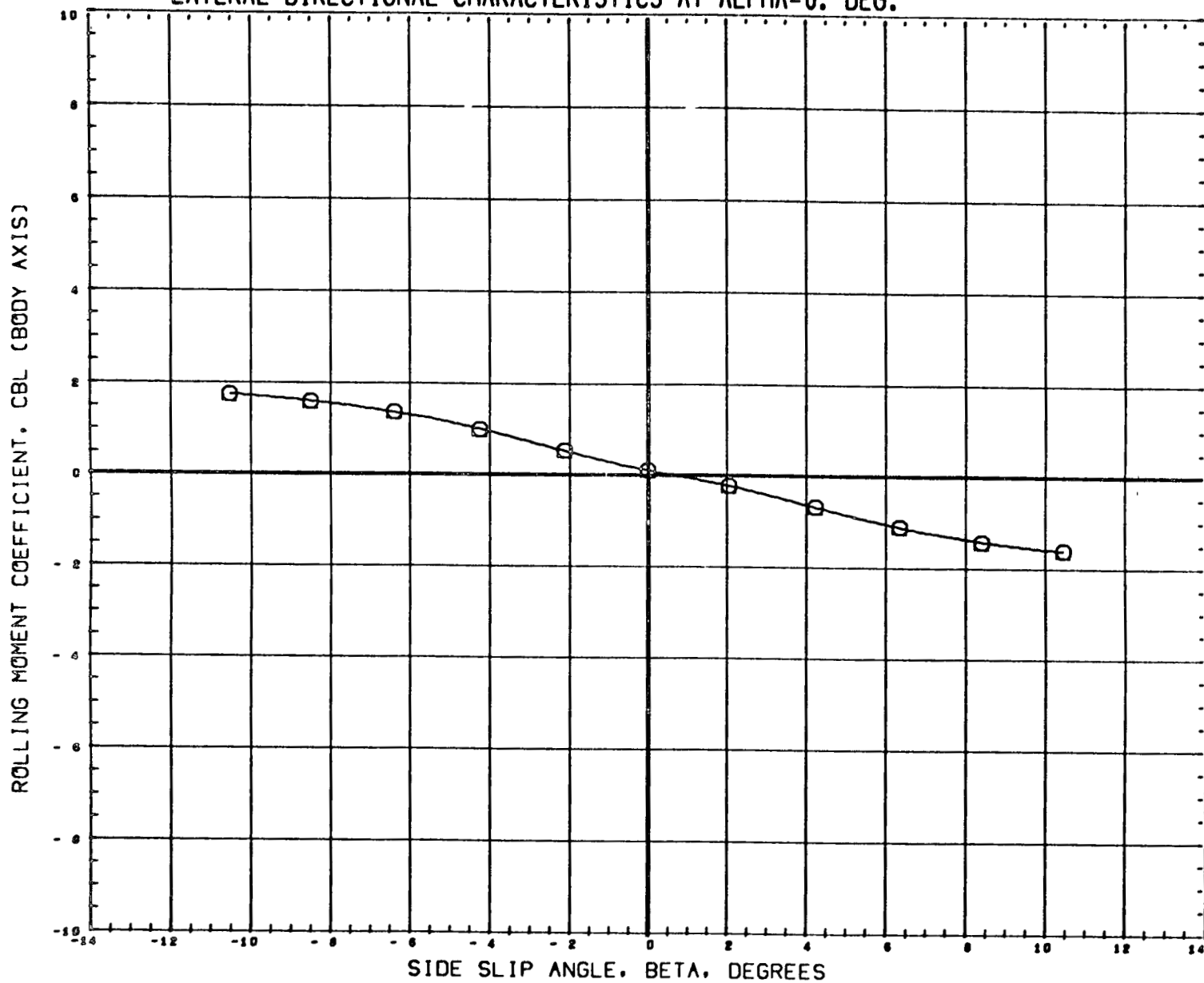
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 1.001 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

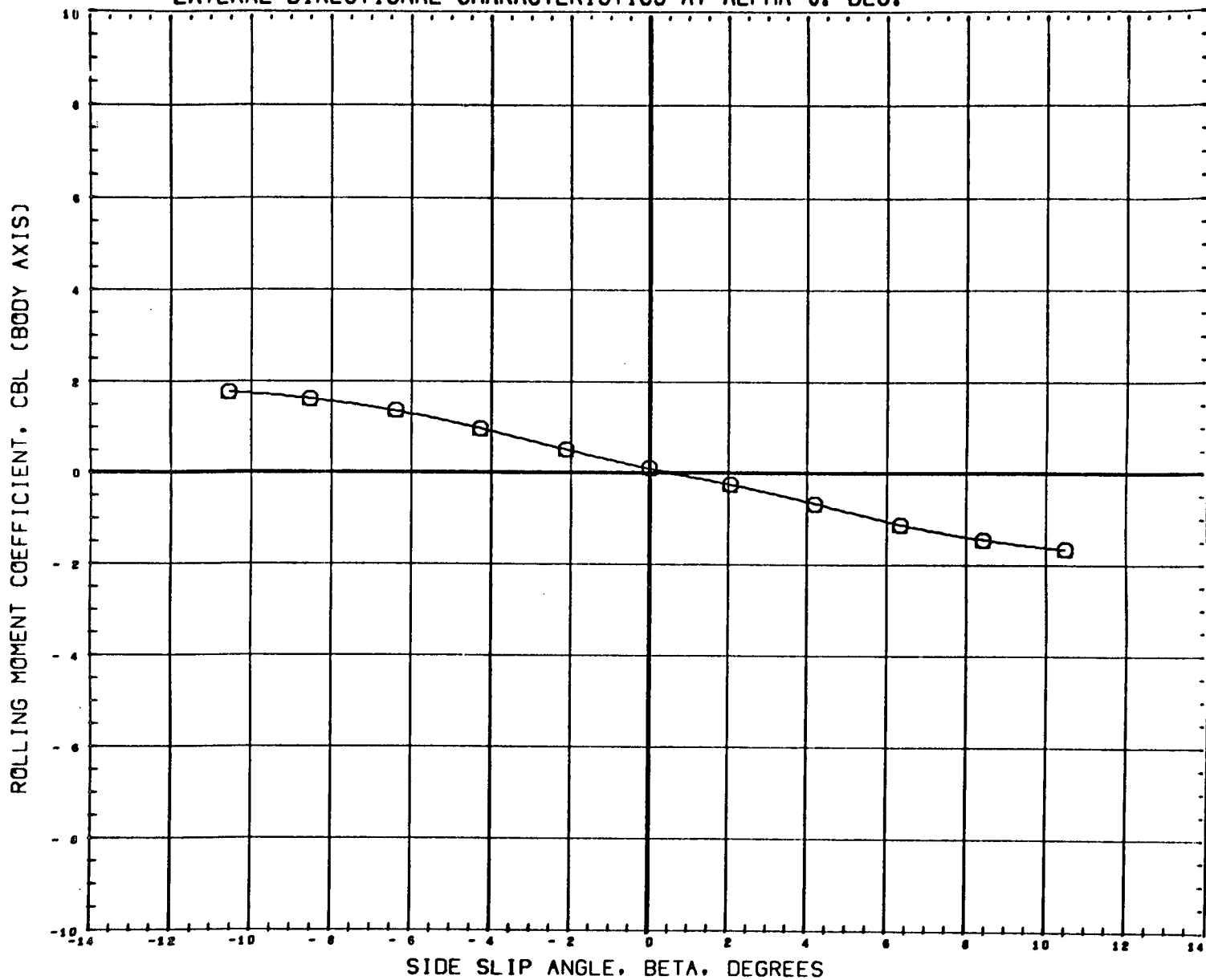
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

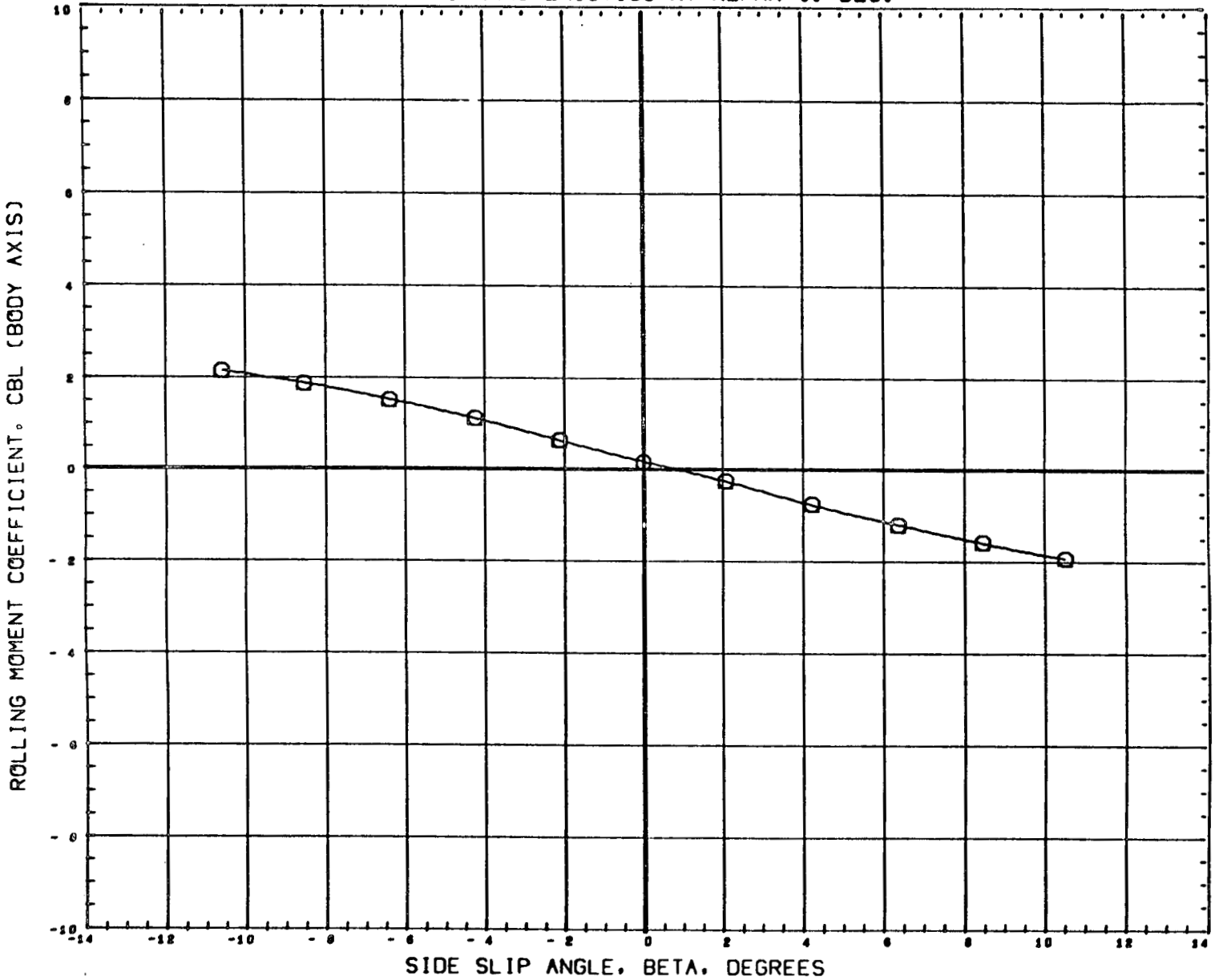


SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 1.100 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

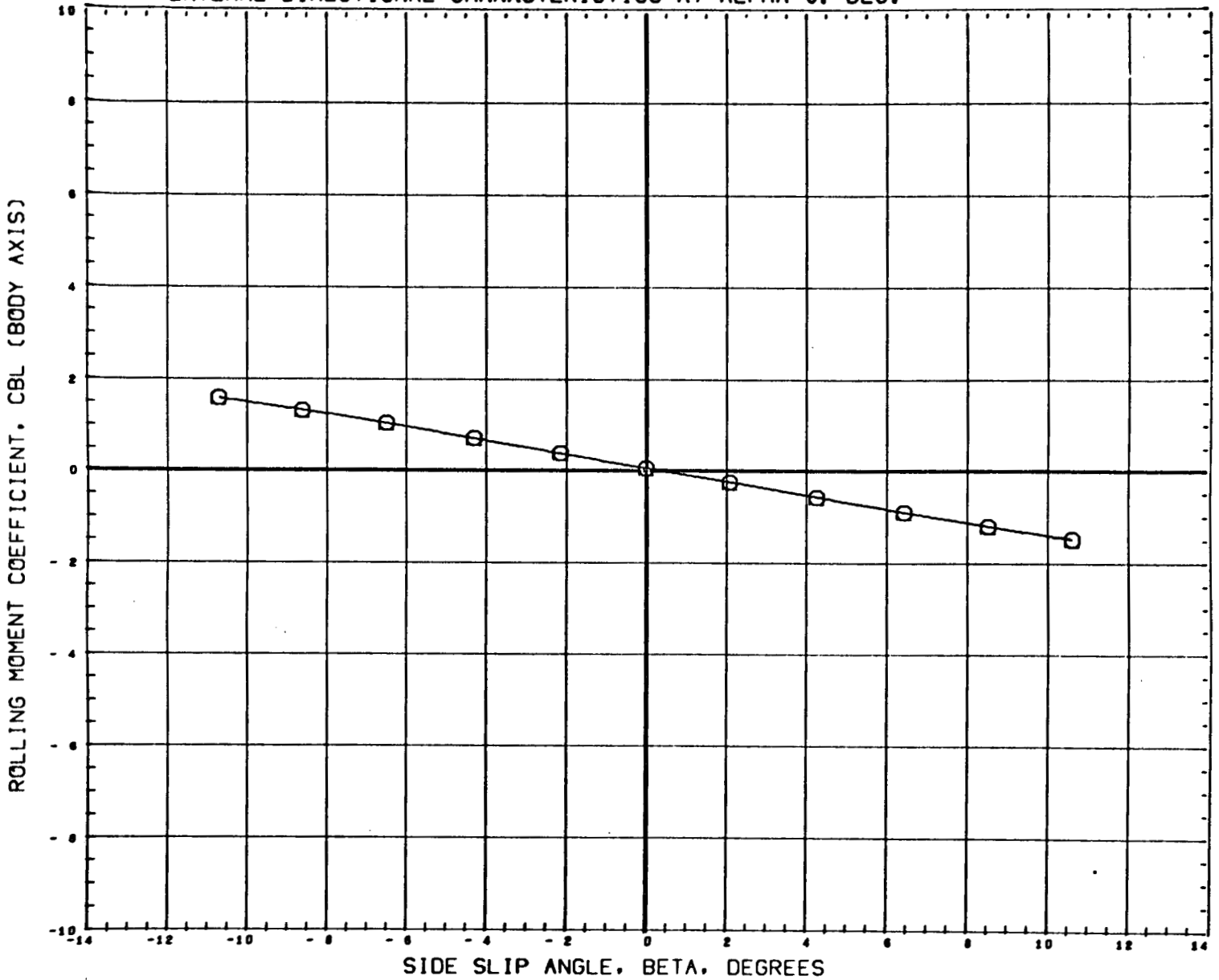


SYMBOL \circ MACH 1.207 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

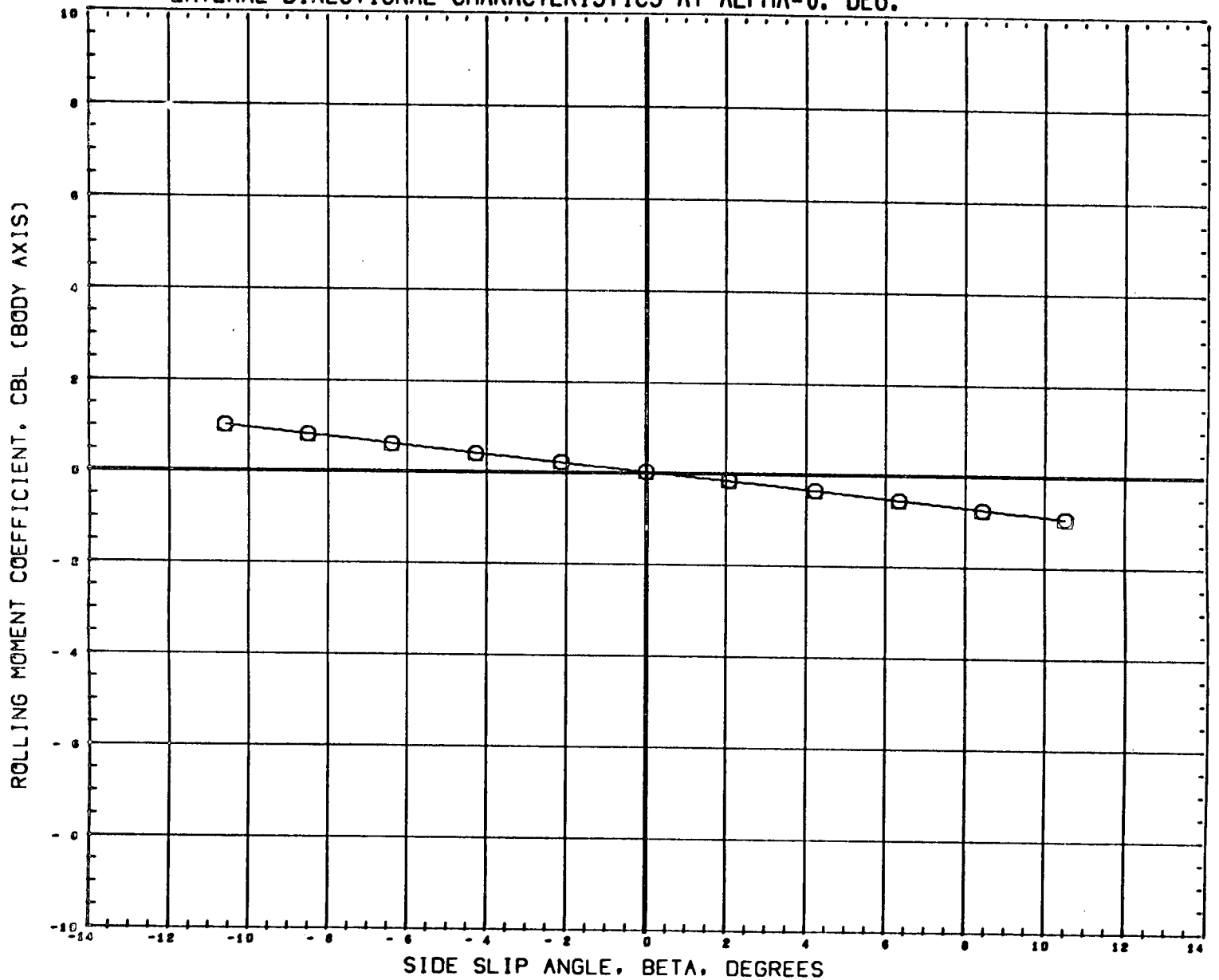


SYMBOL \circ MACH 1.965 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 DBREF 0.0240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

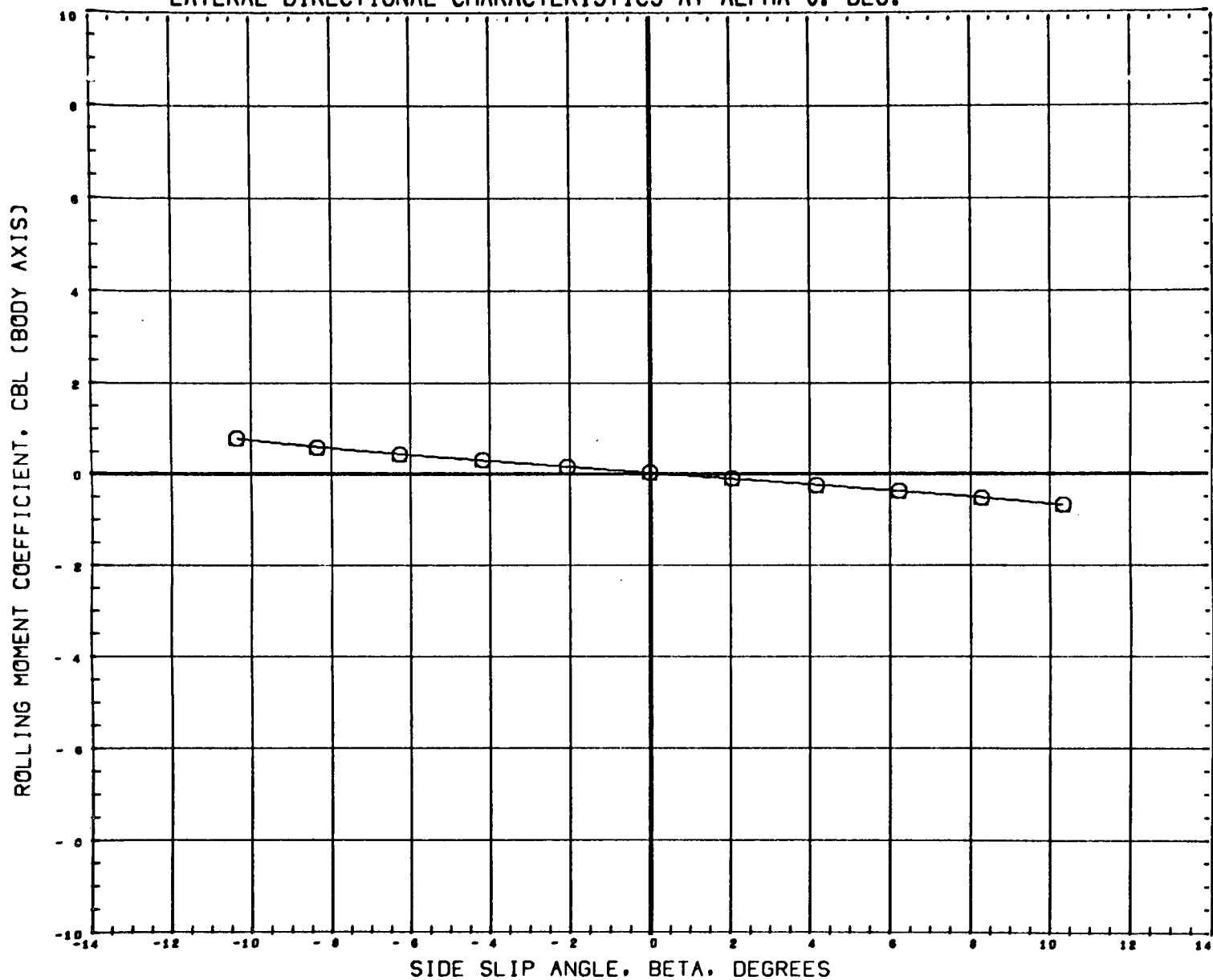


SYMBOL \bigcirc MACH 2.740 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 3.480 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.6240 INCHES
 BREF 0.6240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

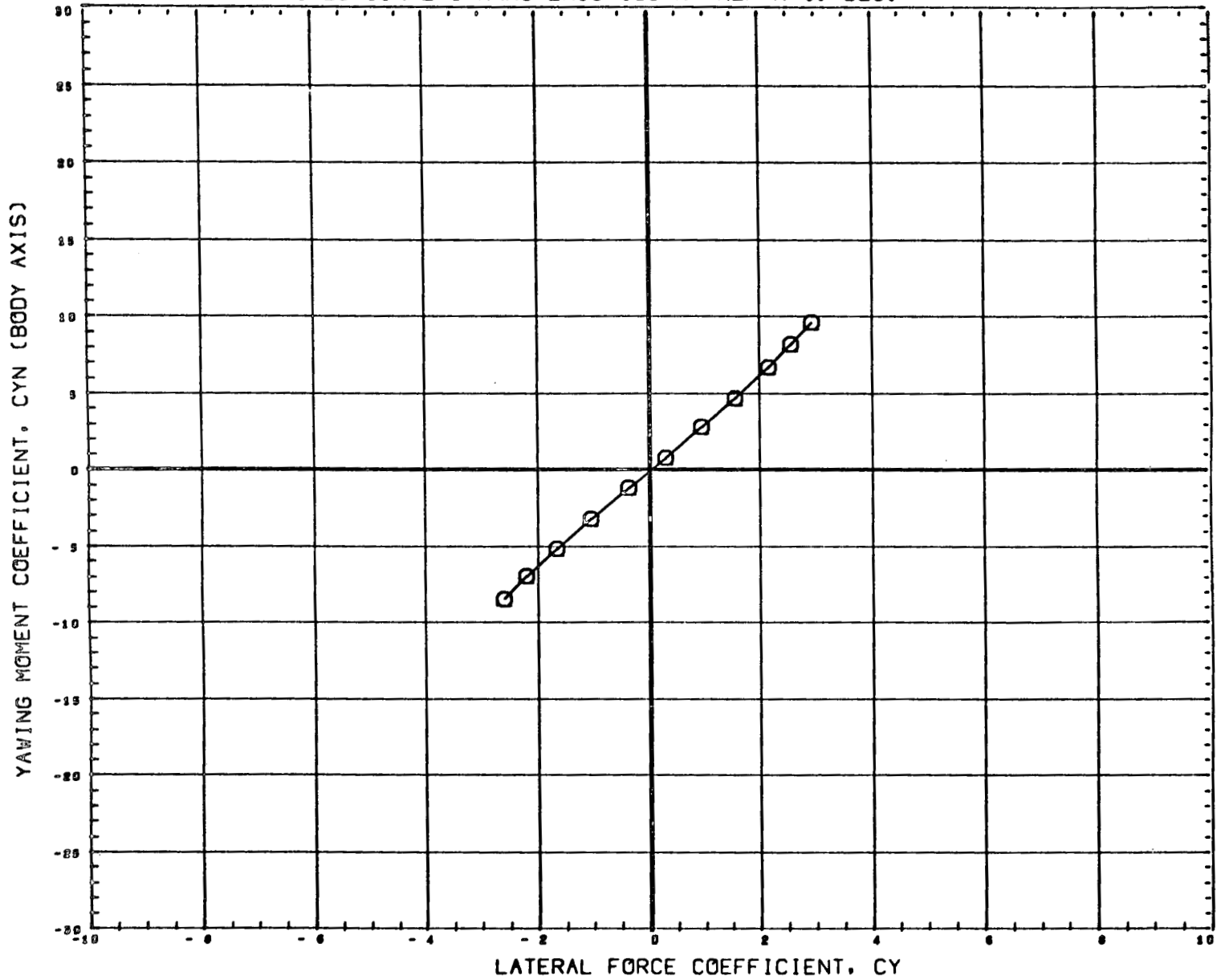
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

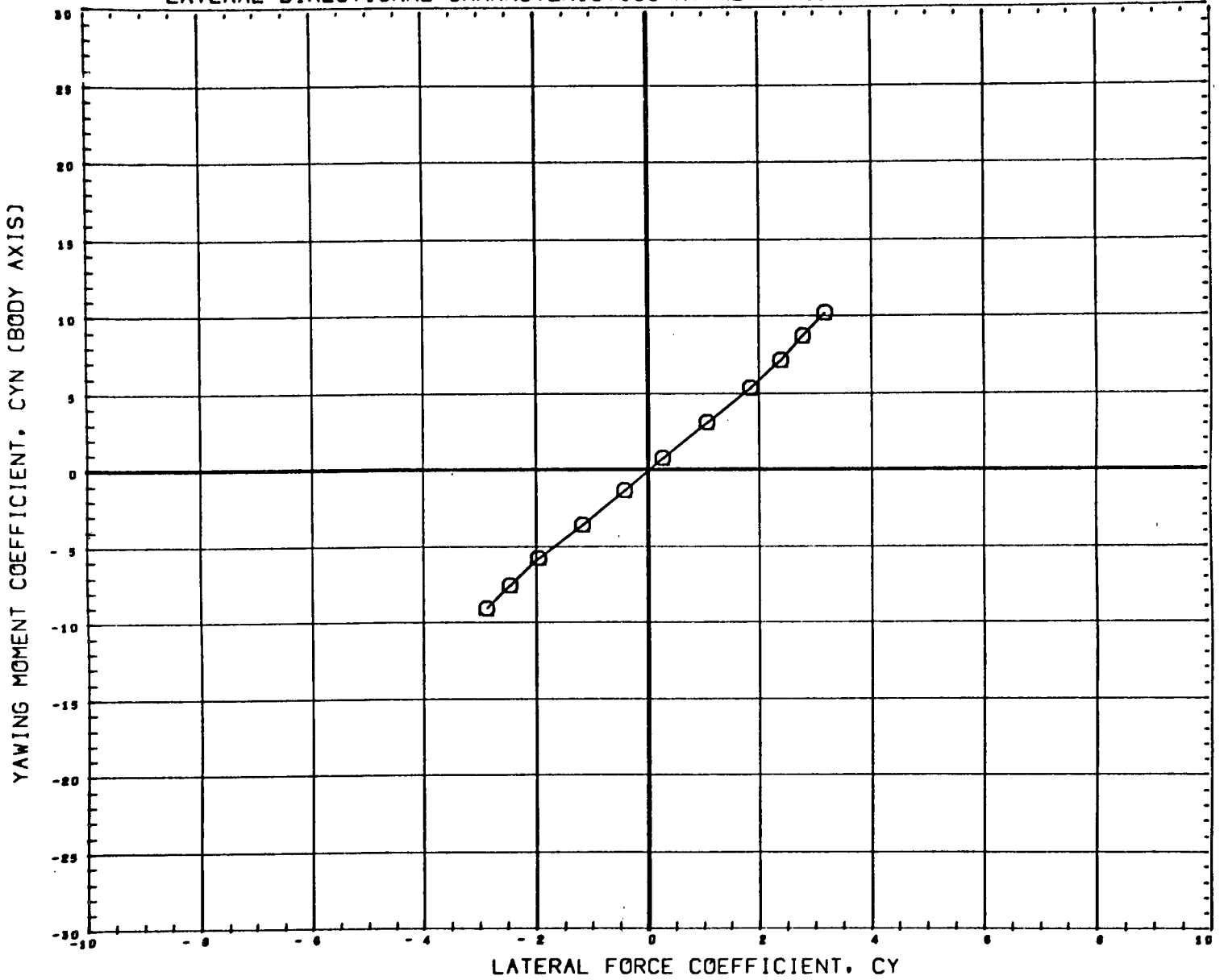


SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 0.601 0.000

REFERENCE INFORMATION
 DREF 0.5340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XNRP 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

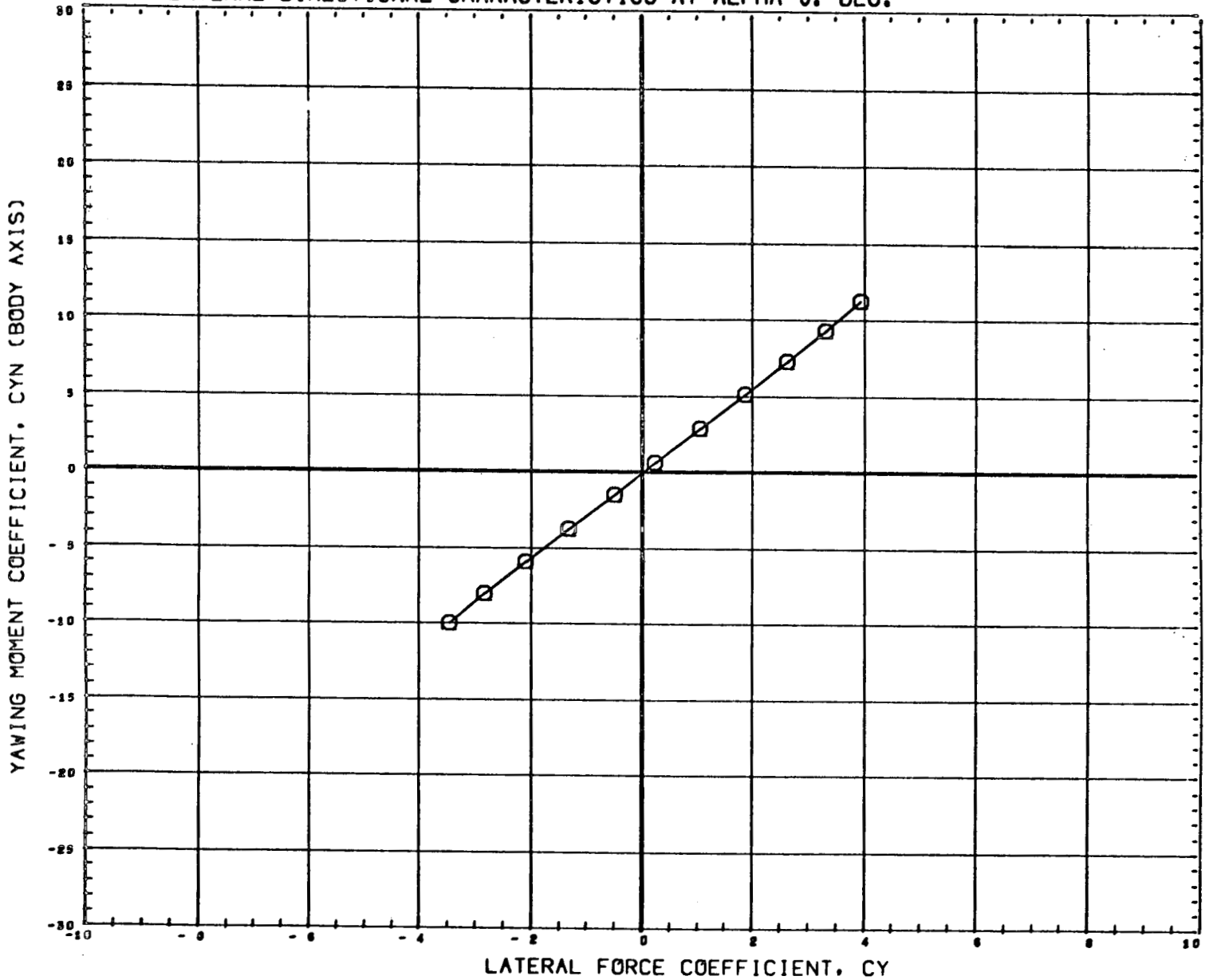


SYMBOL \circ MACH 0.900 ALPHA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN YII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

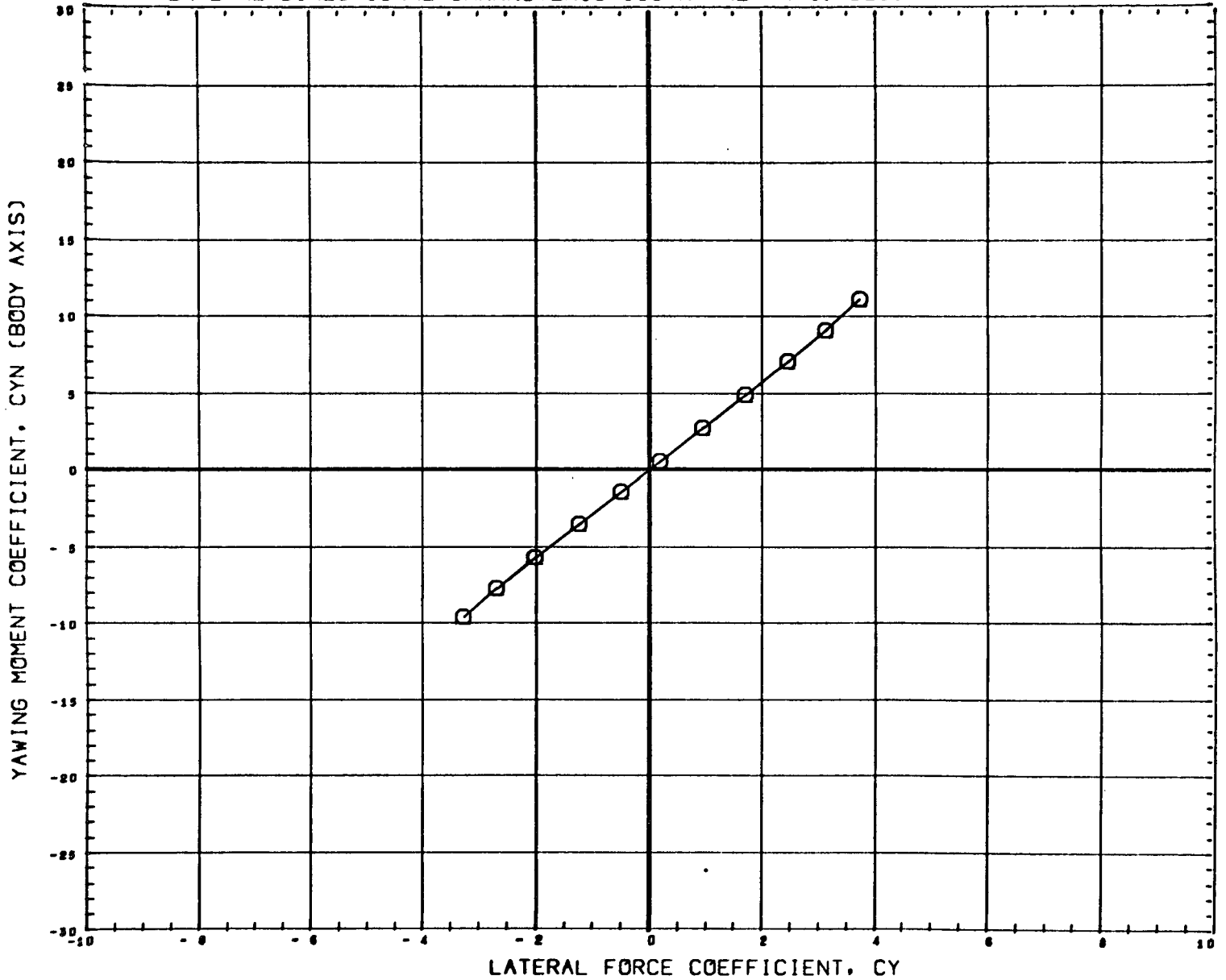


SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 1.001 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \bigcirc MACH 1.100 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 50 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

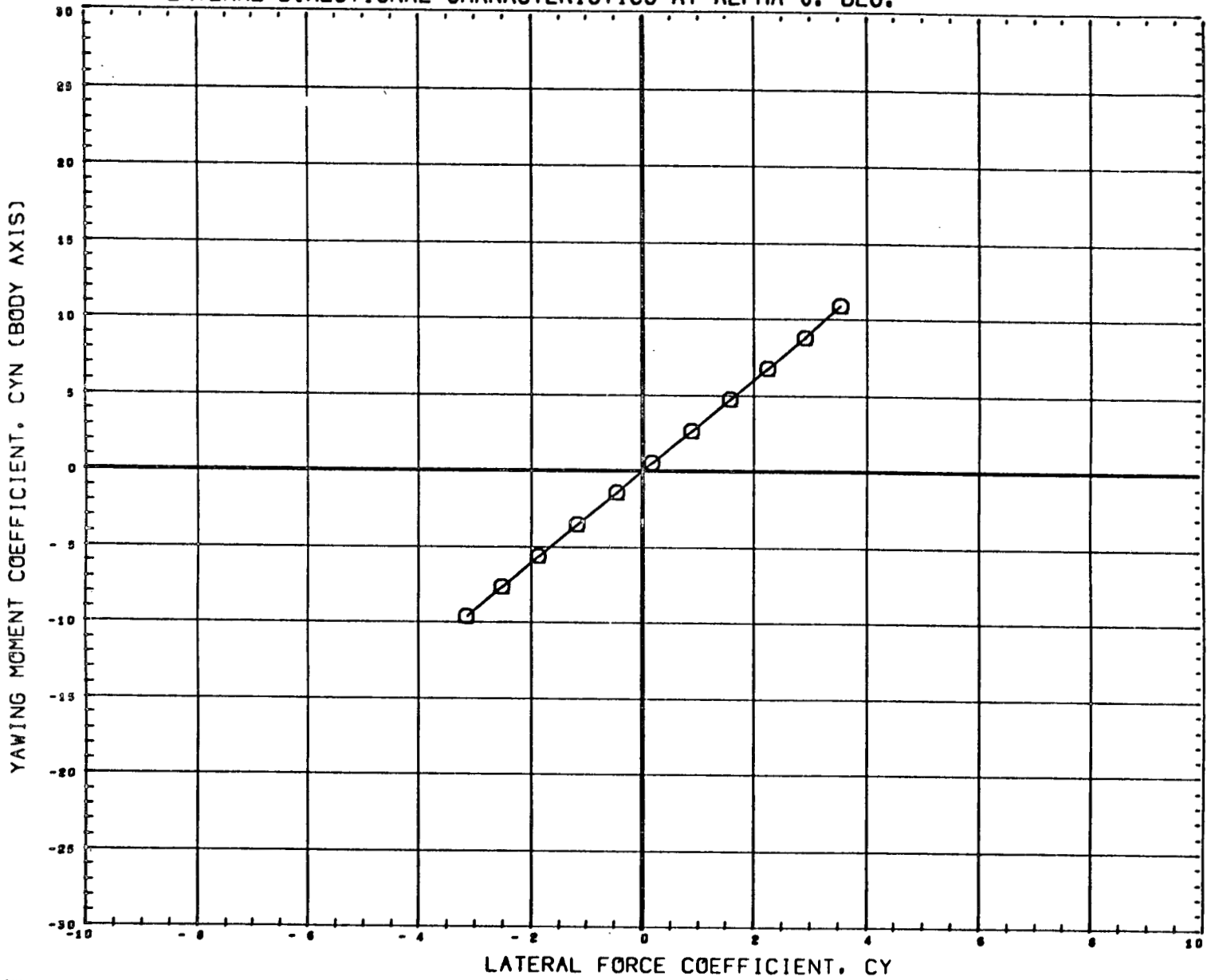
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL HACH PARAMETRIC VALUES
 ○ 1.207 ALPHA 0.000

REFERENCE INFORMATION

BREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

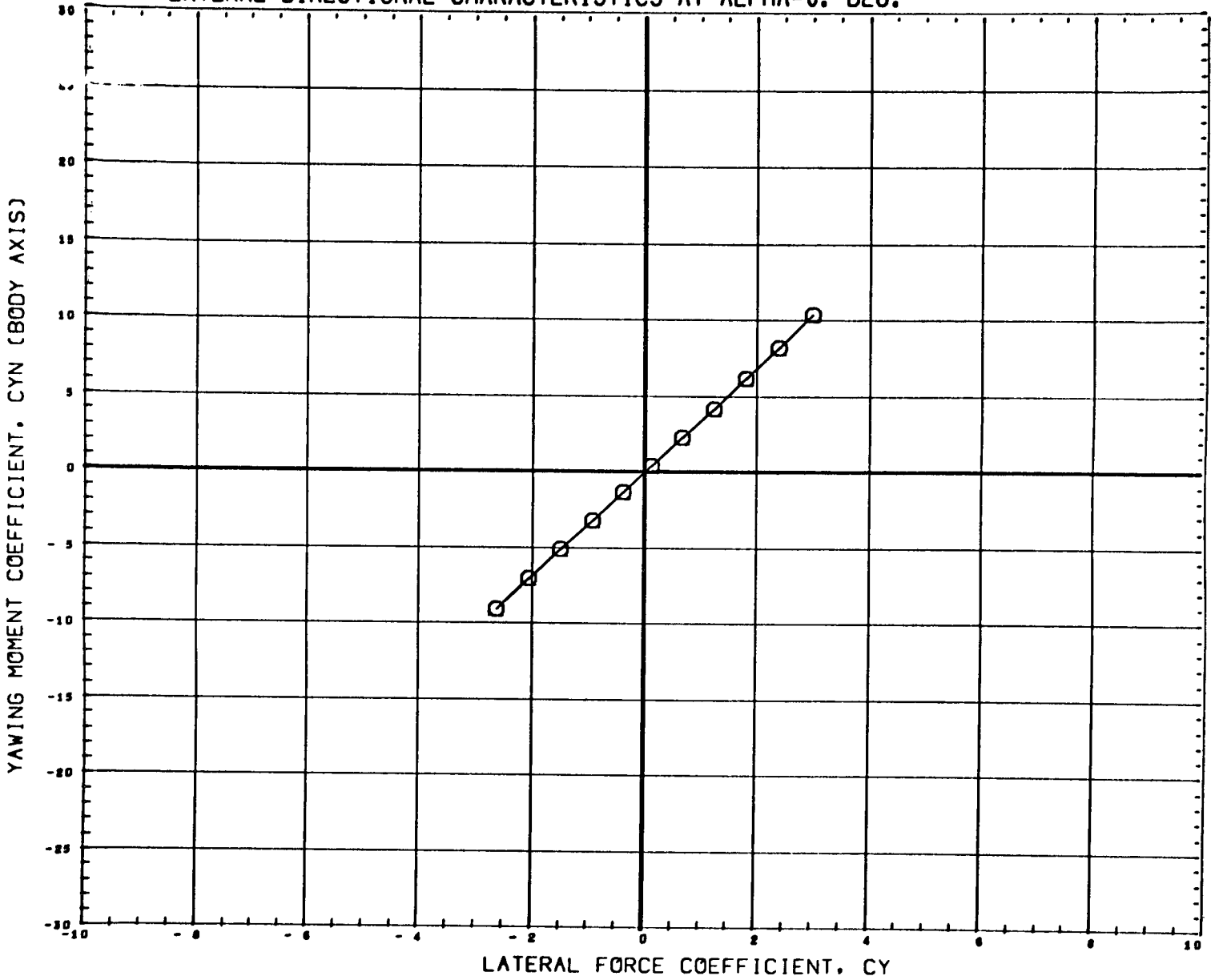
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

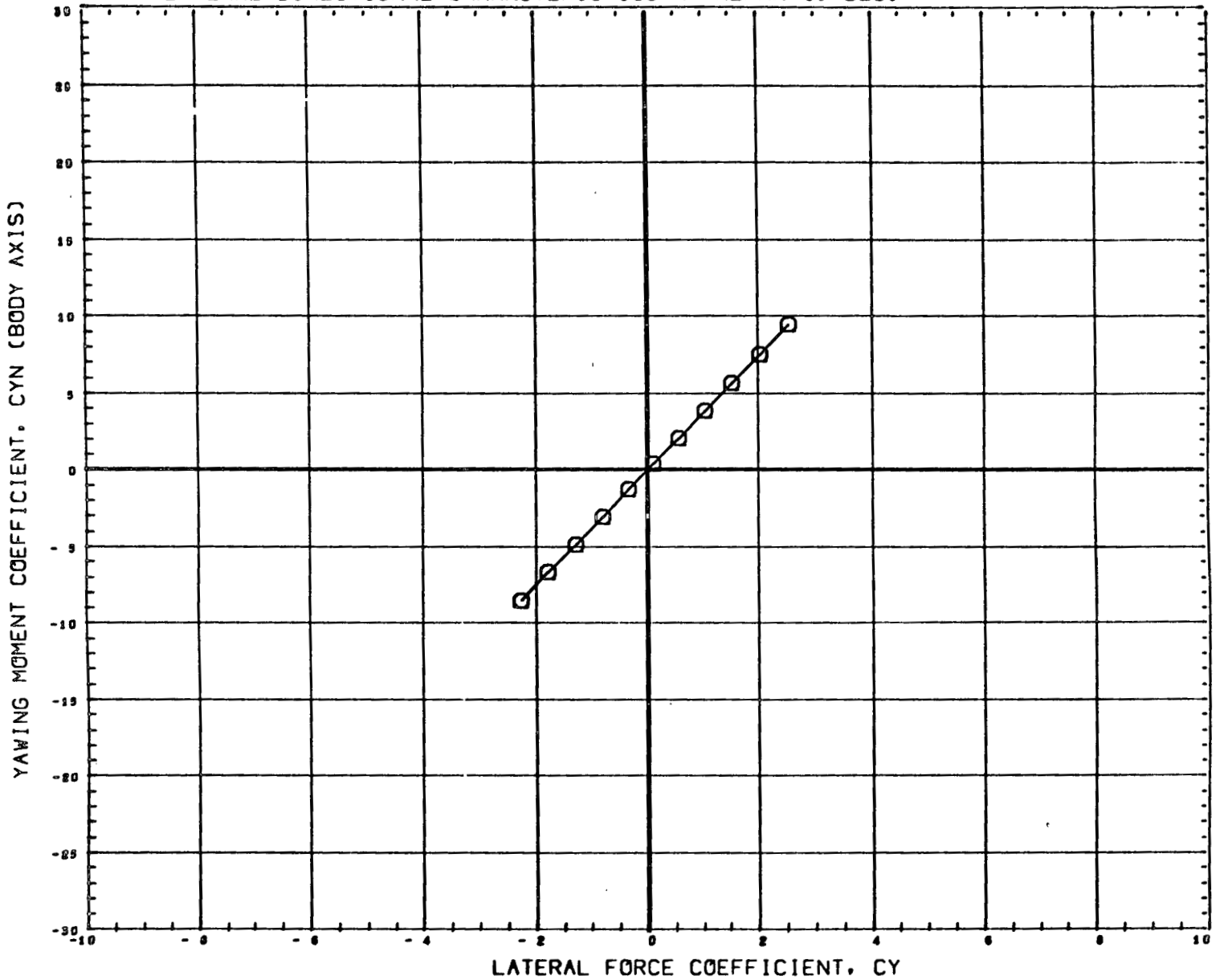


SYMBOL MACH PARAMETRIC VALUES
 ○ 1.965 ALPHA 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

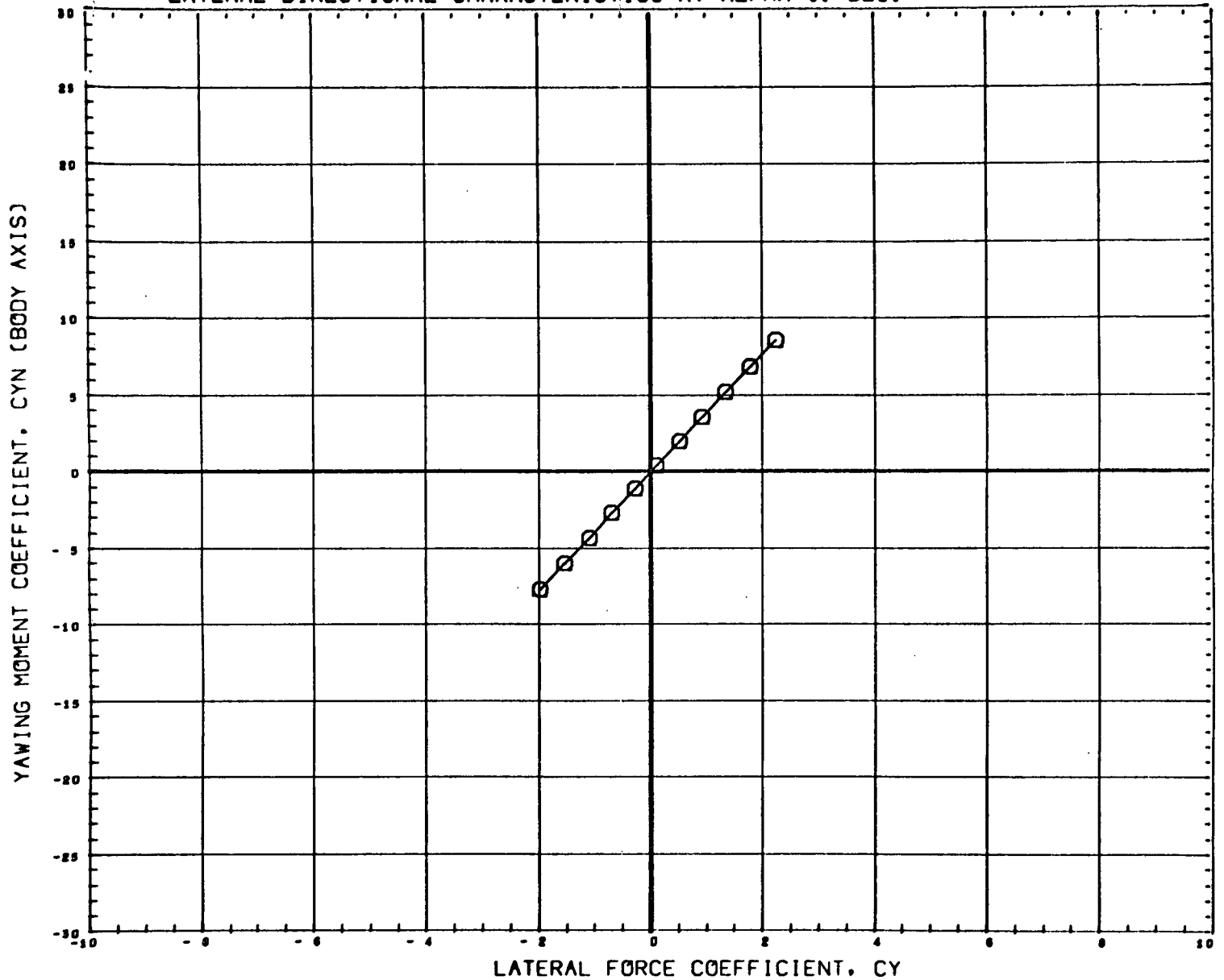


SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 2.740 0.000

REFERENCE INFORMATION
 SREF 0.9340 50 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.0170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

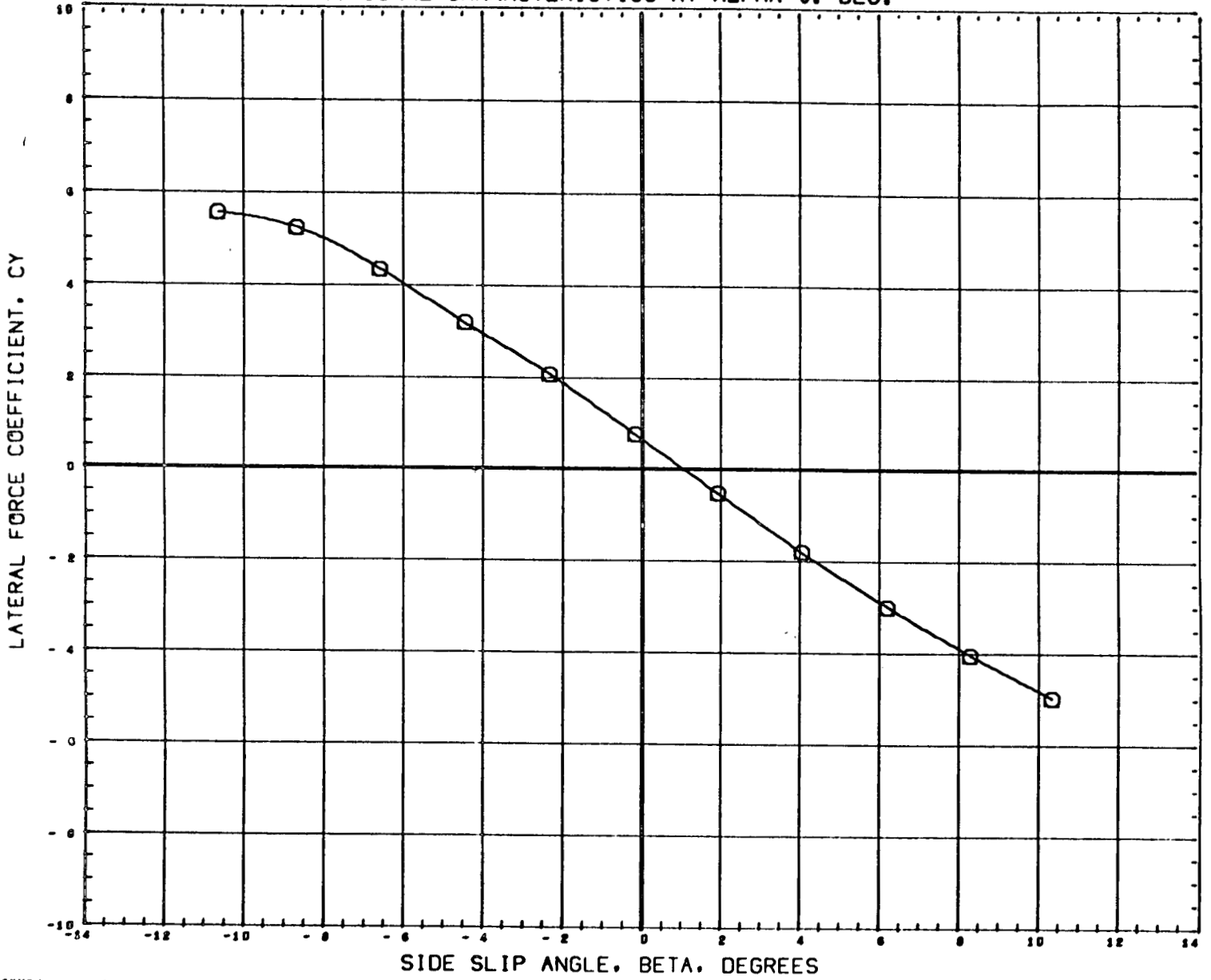


SYMBOL \circ MACH 3.480 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREP 0.5340 80 INC
 LREP 0.0240 INCHES
 BREP 0.0240 INCHES
 XMRP 2.0170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

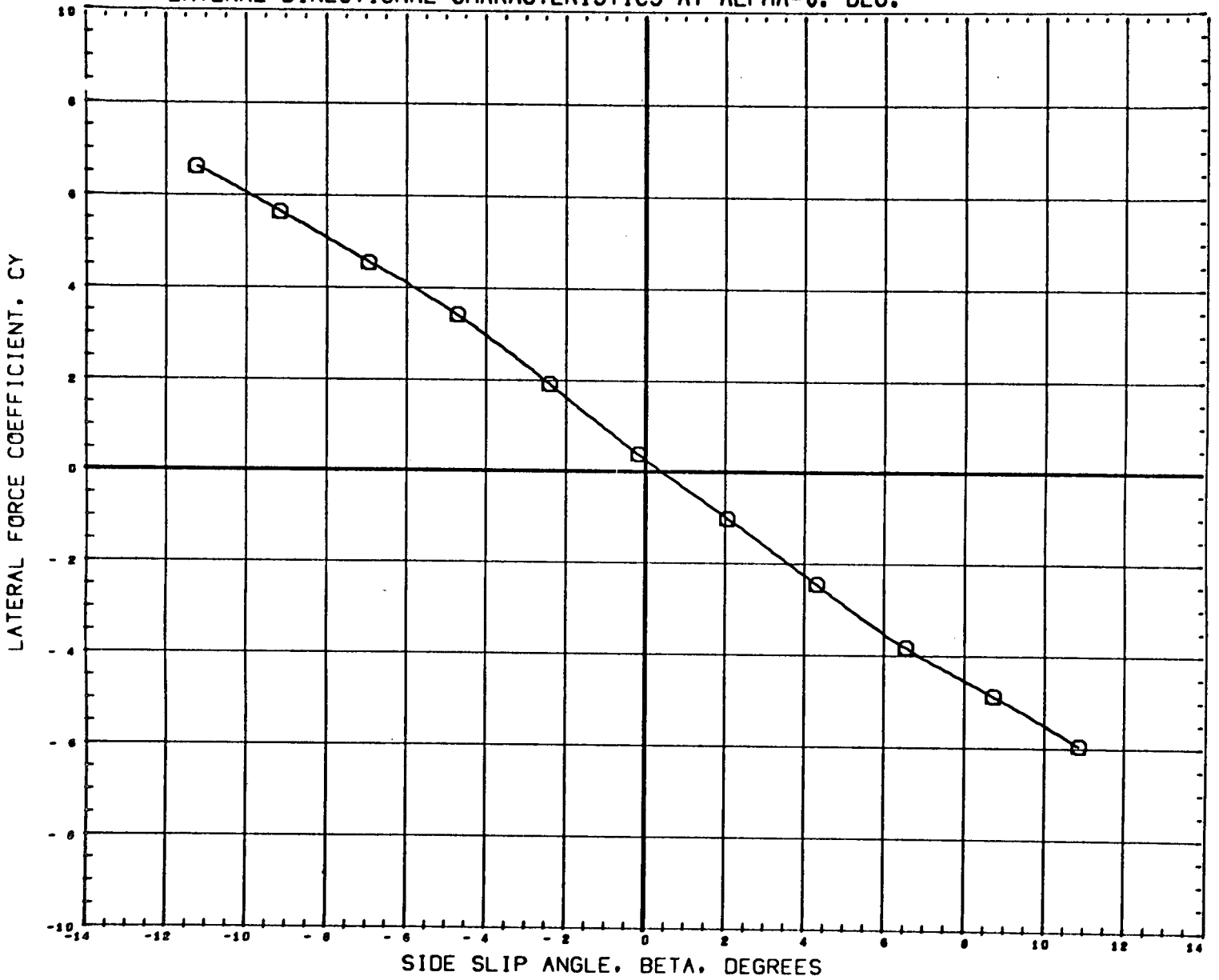


SYMBOL \circ HACH 0.002 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \circ MACH 0.902 ALPHA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

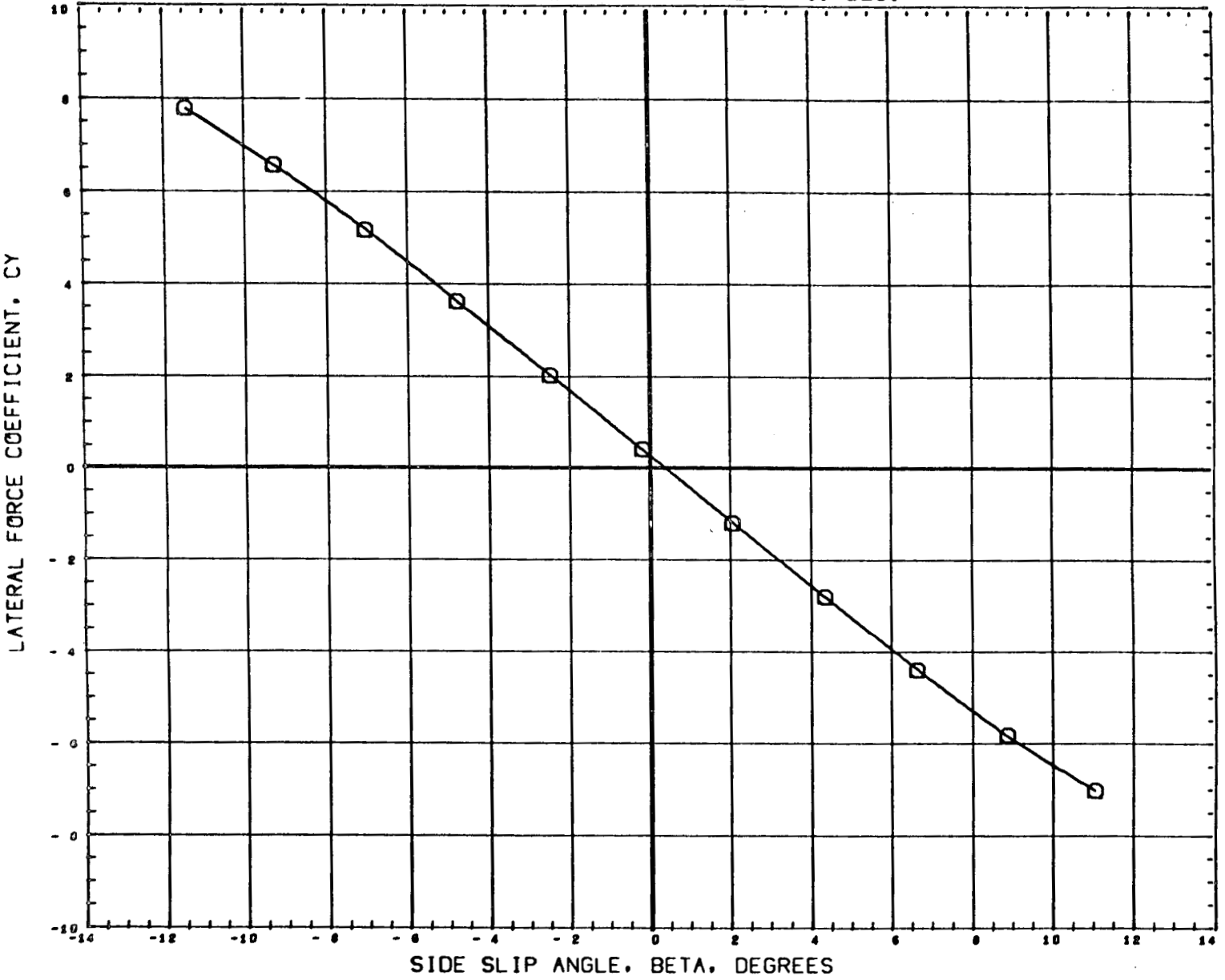
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

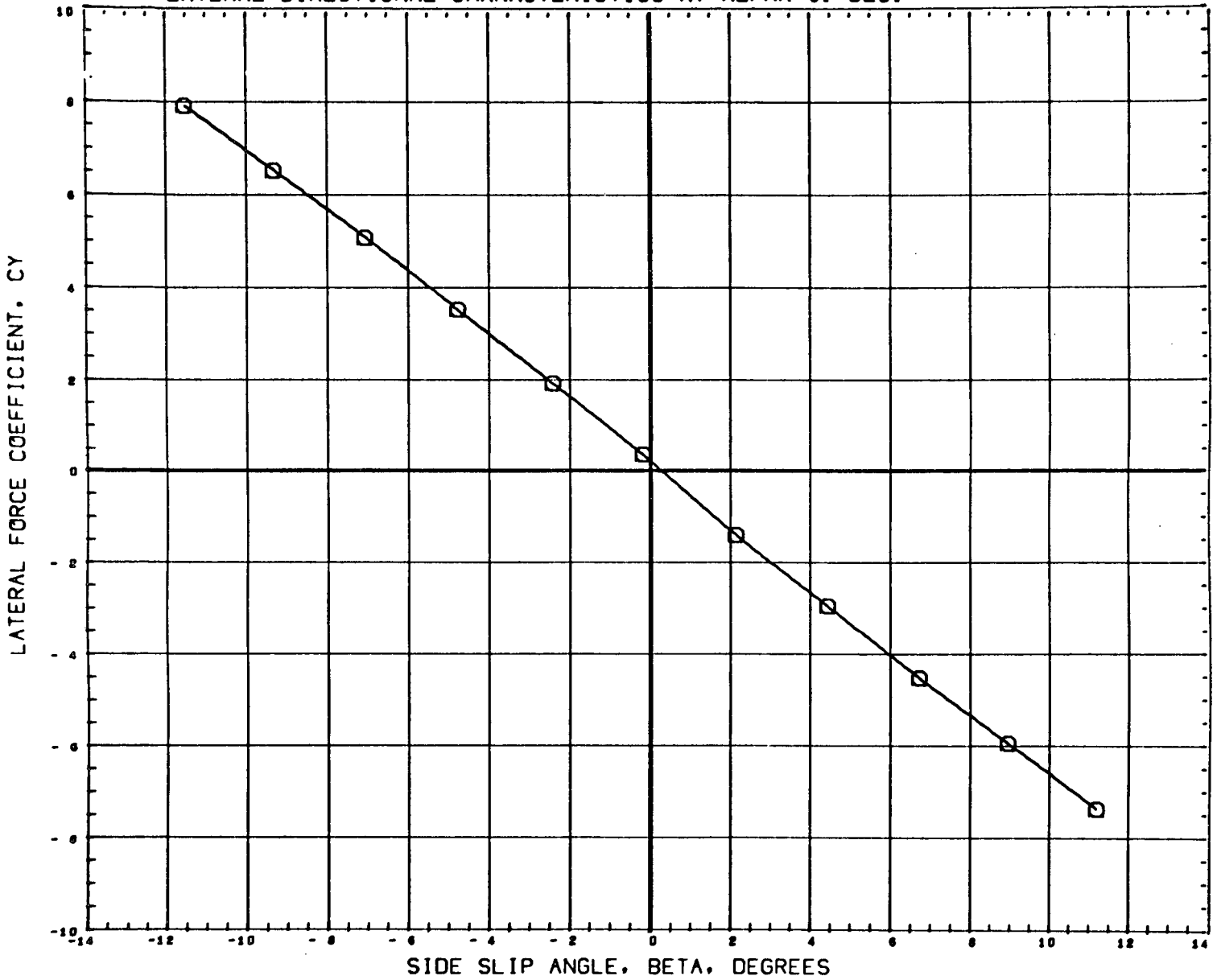


SYMBOL \circ HACH 0.994 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 1.100 0.000

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XNRP 2.0170 IN YII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

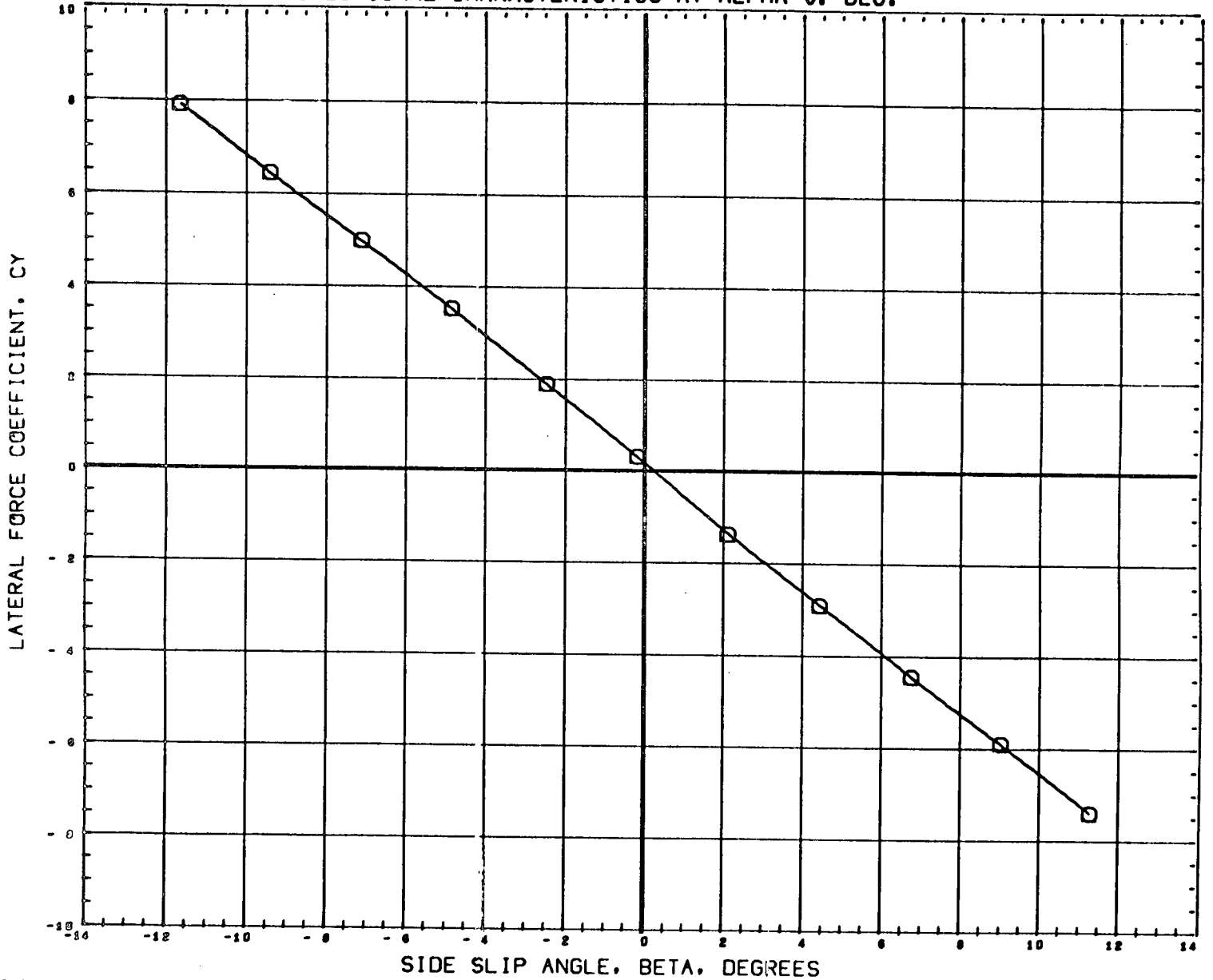
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



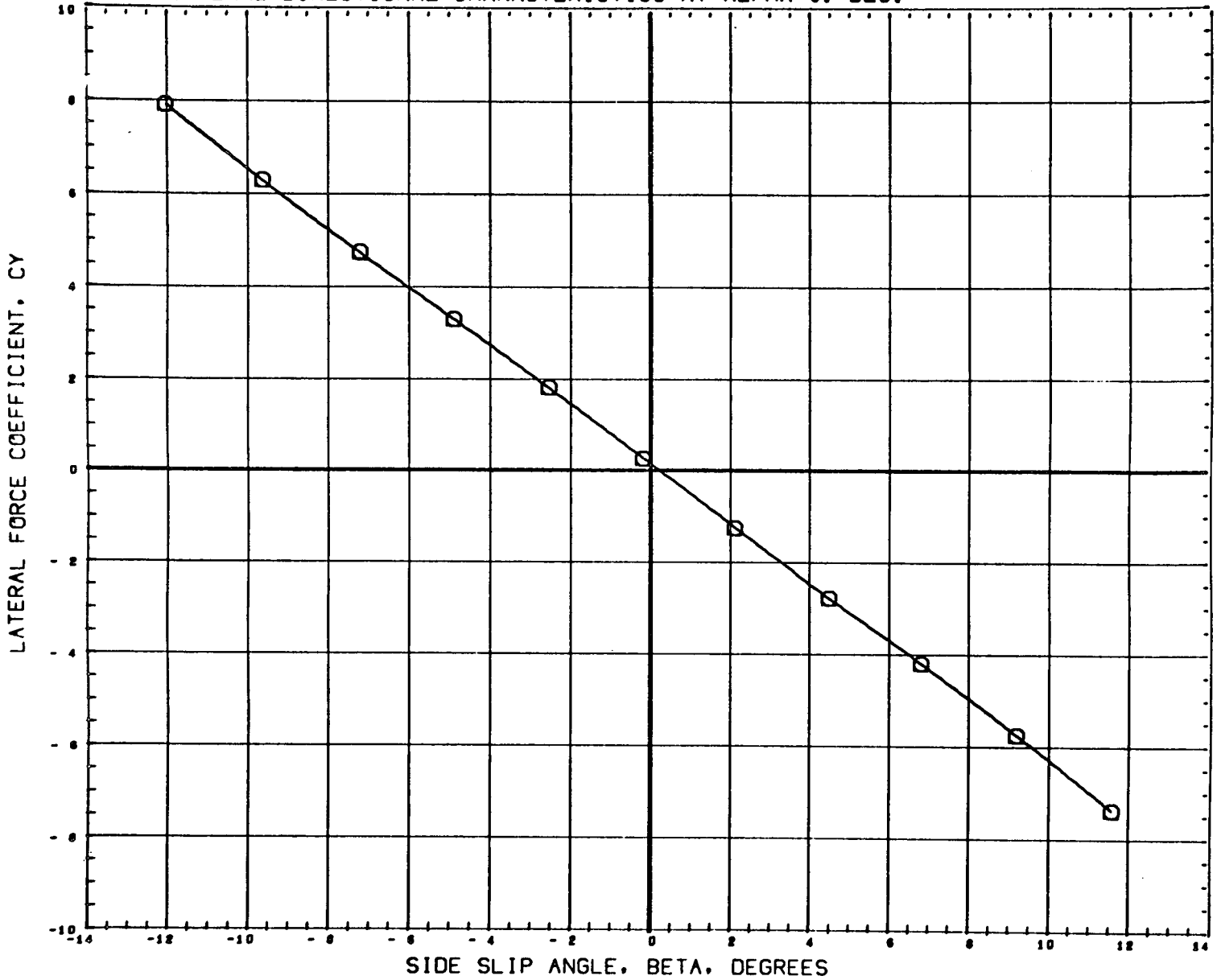
SYMBOL \circ MACH 1.204 ALPHA 0.000

PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XWRP	2.9170	IN TII
YWRP	0.0000	CORE C
ZWRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 1.462 0.000

REFERENCE INFORMATION
 SREF 0.5340 98 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

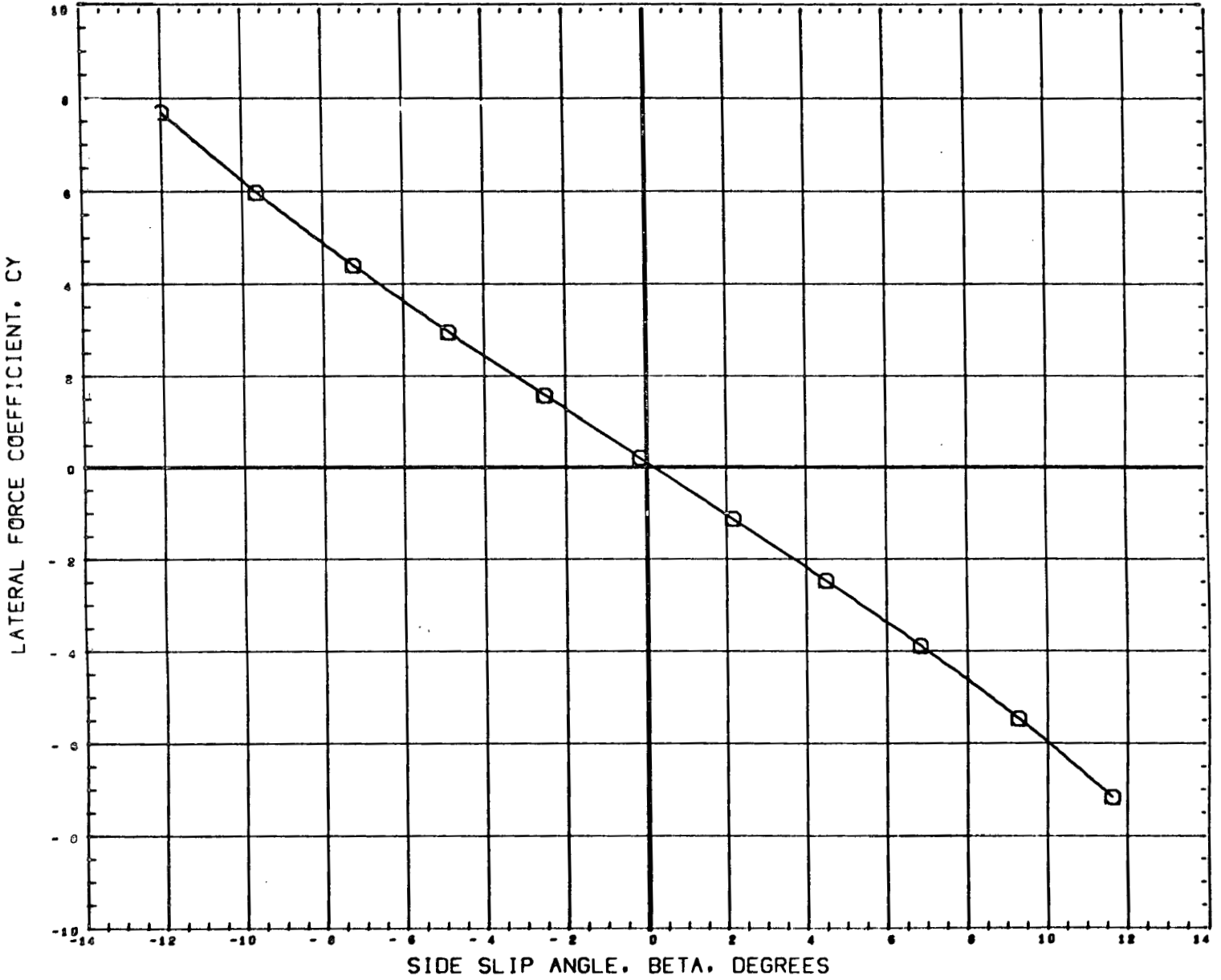
MSFC TWT 505 T111L/DT07

01D2L4

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 1.982 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

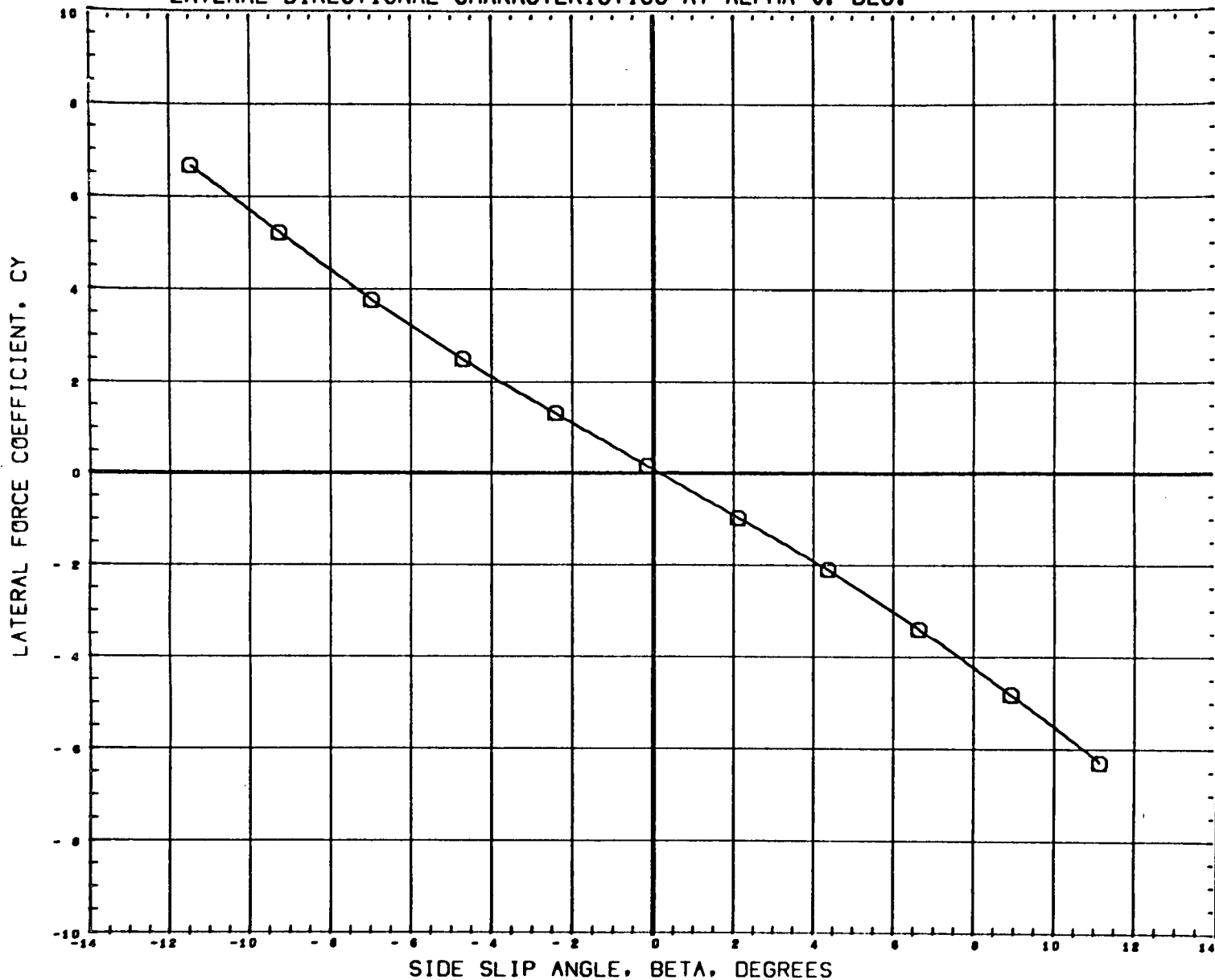
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

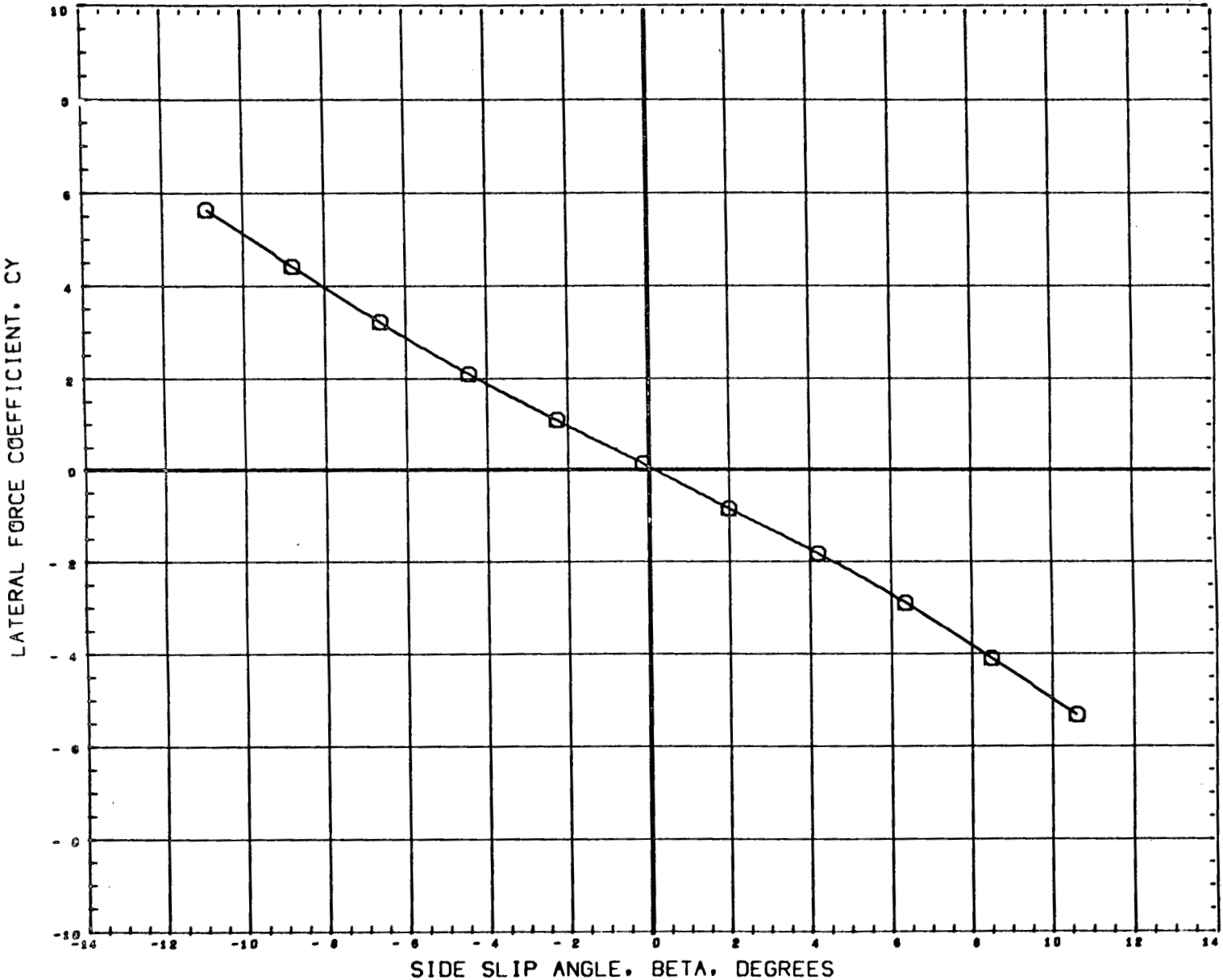


SYMBOL \circ MACH 2.740 ALPHA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
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 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

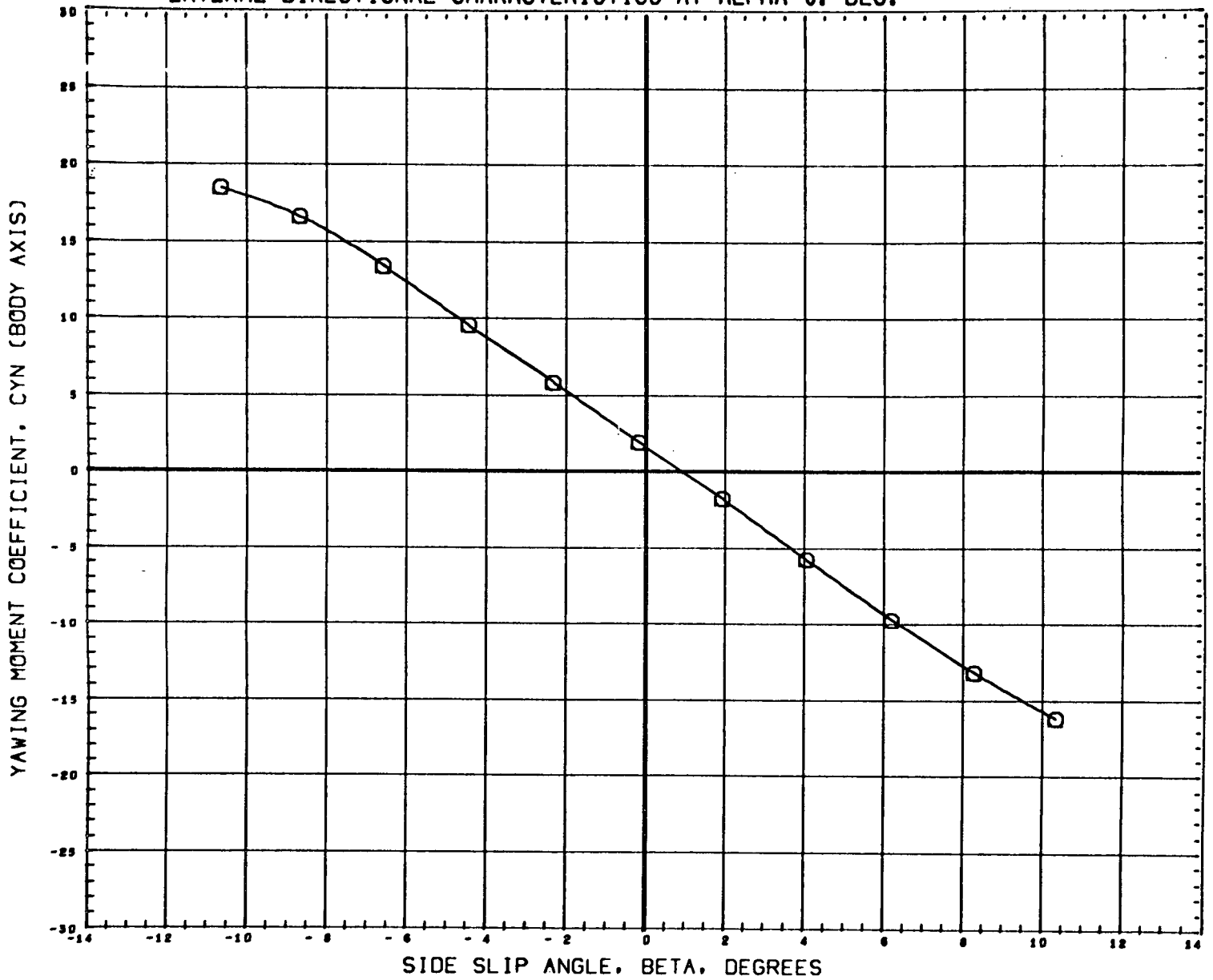


SYMBOL \bigcirc MACH 3.400 ALPHA PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

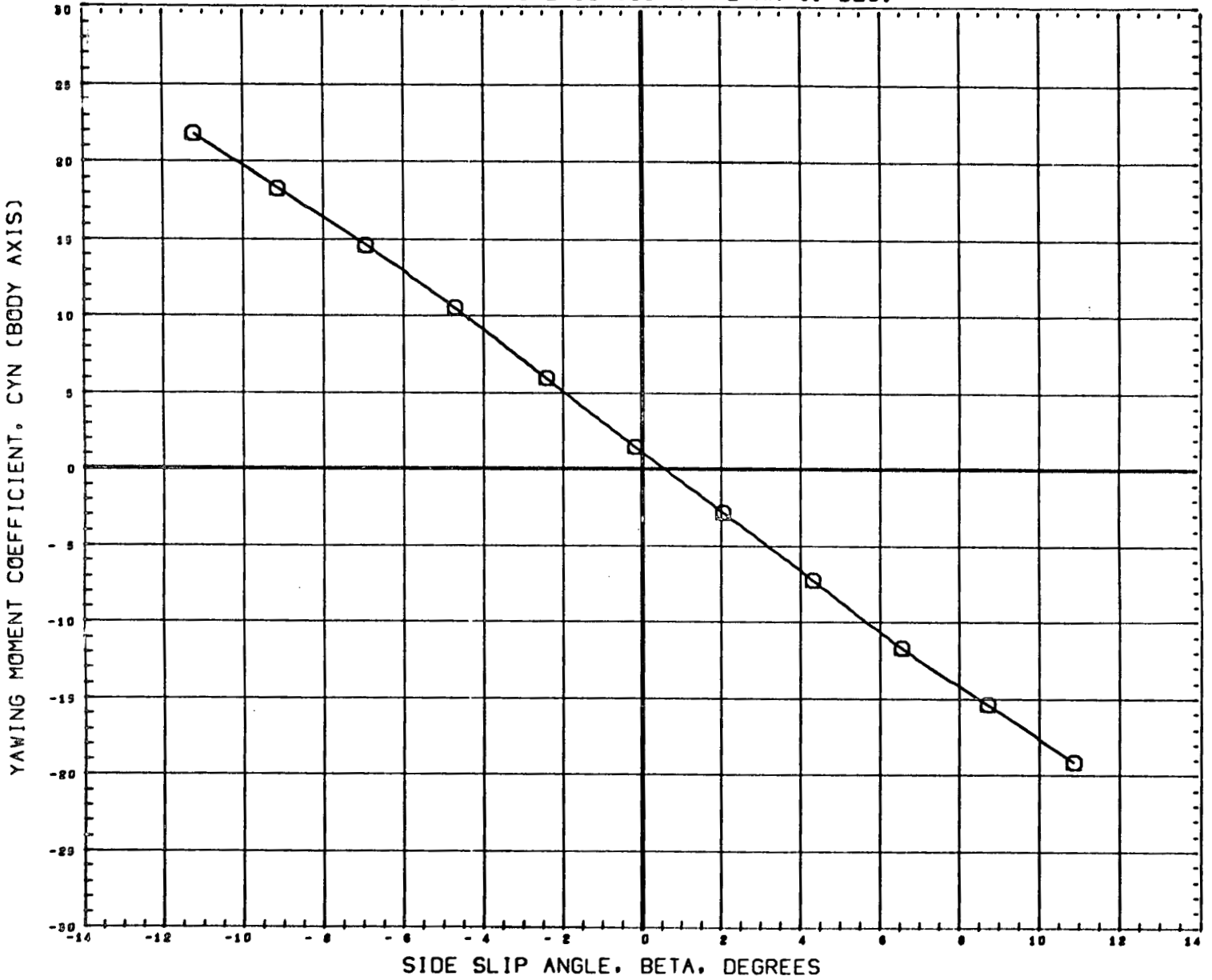


SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 0.602 0.000

REFERENCE INFORMATION
 BREF 0.9340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

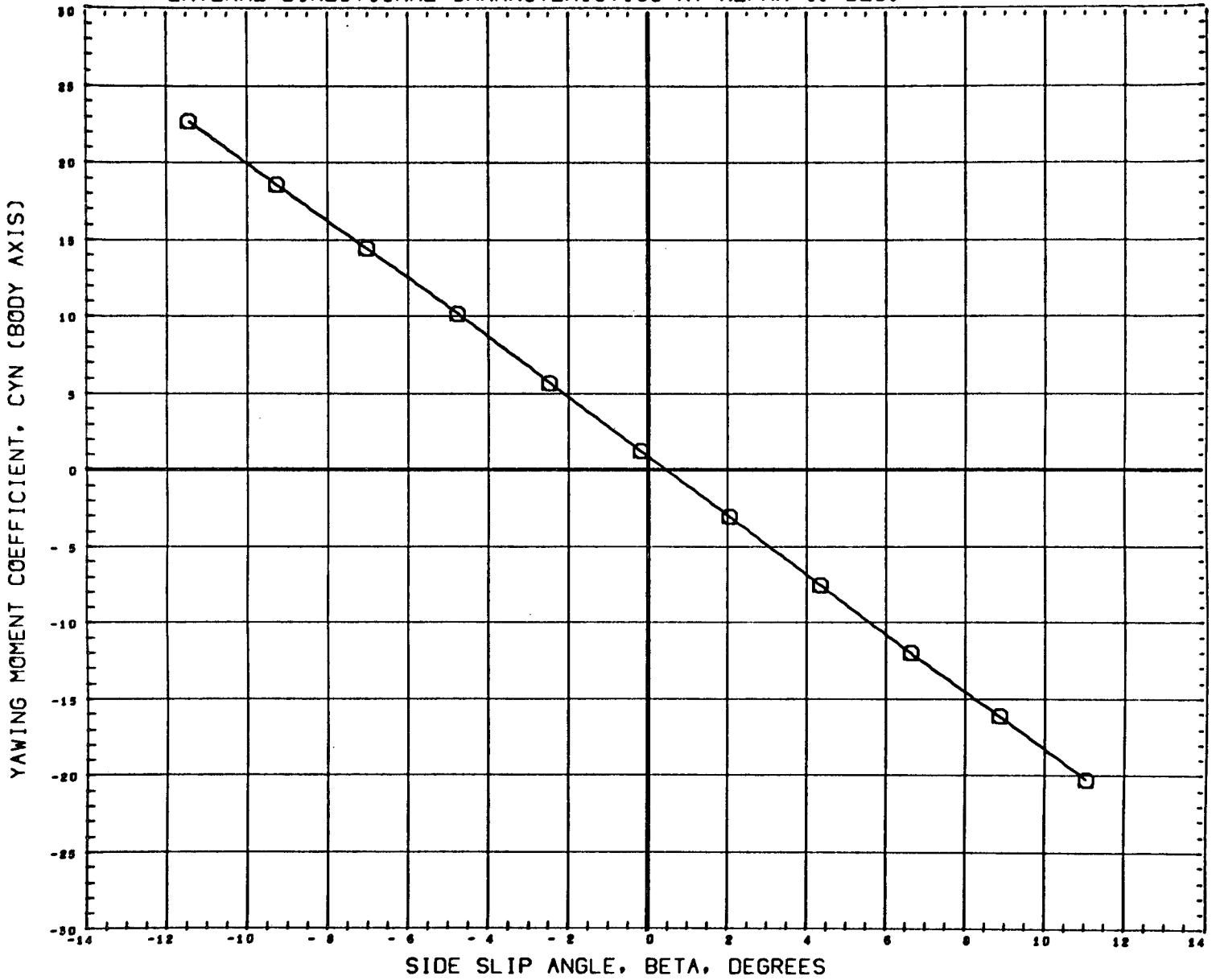


SYMBOL \square MACH 0.902 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.9340 SQ INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \square HACH 0.994 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

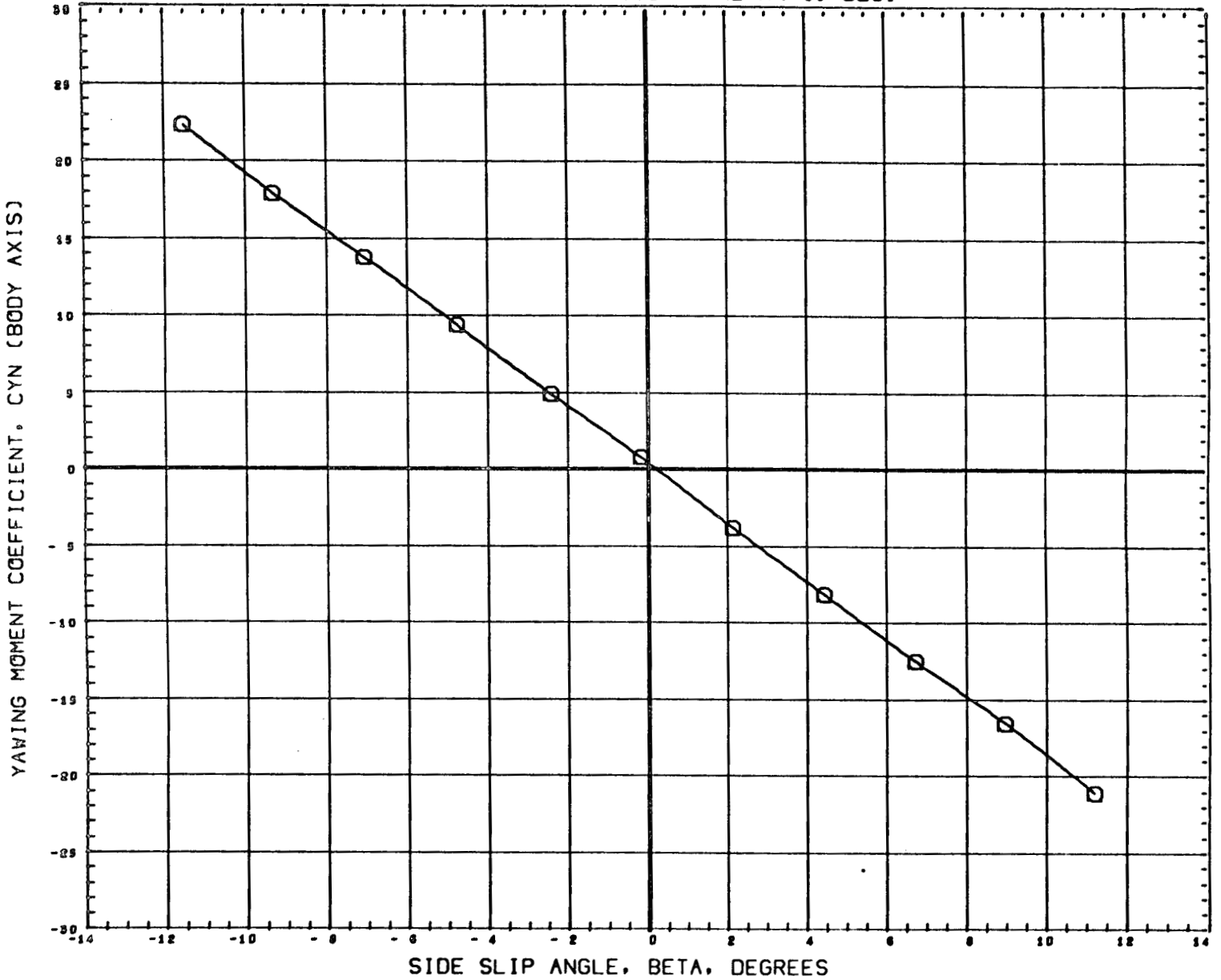
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

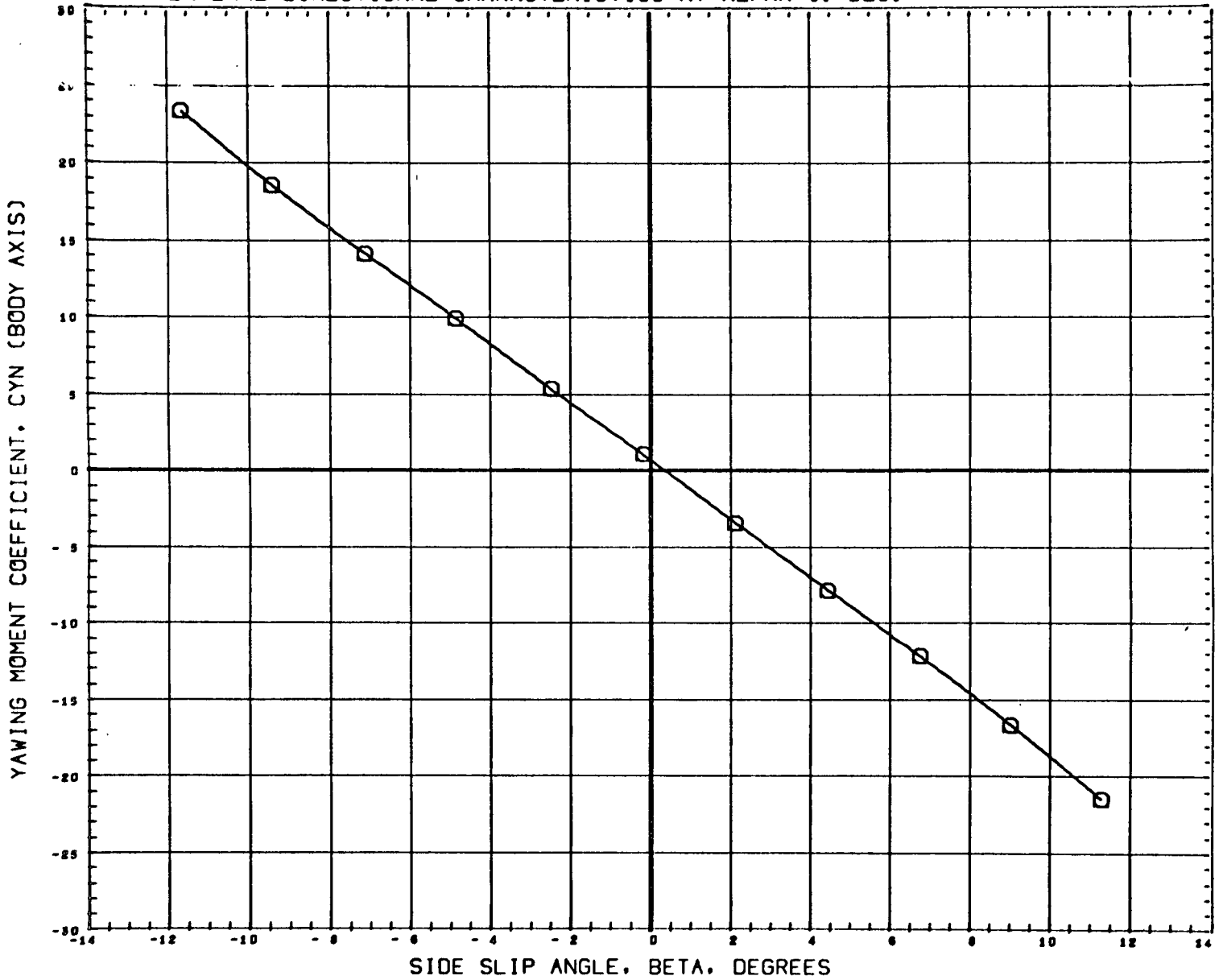


SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 1.100 0.000 0.000

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \circ MACH 1.204 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.0170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

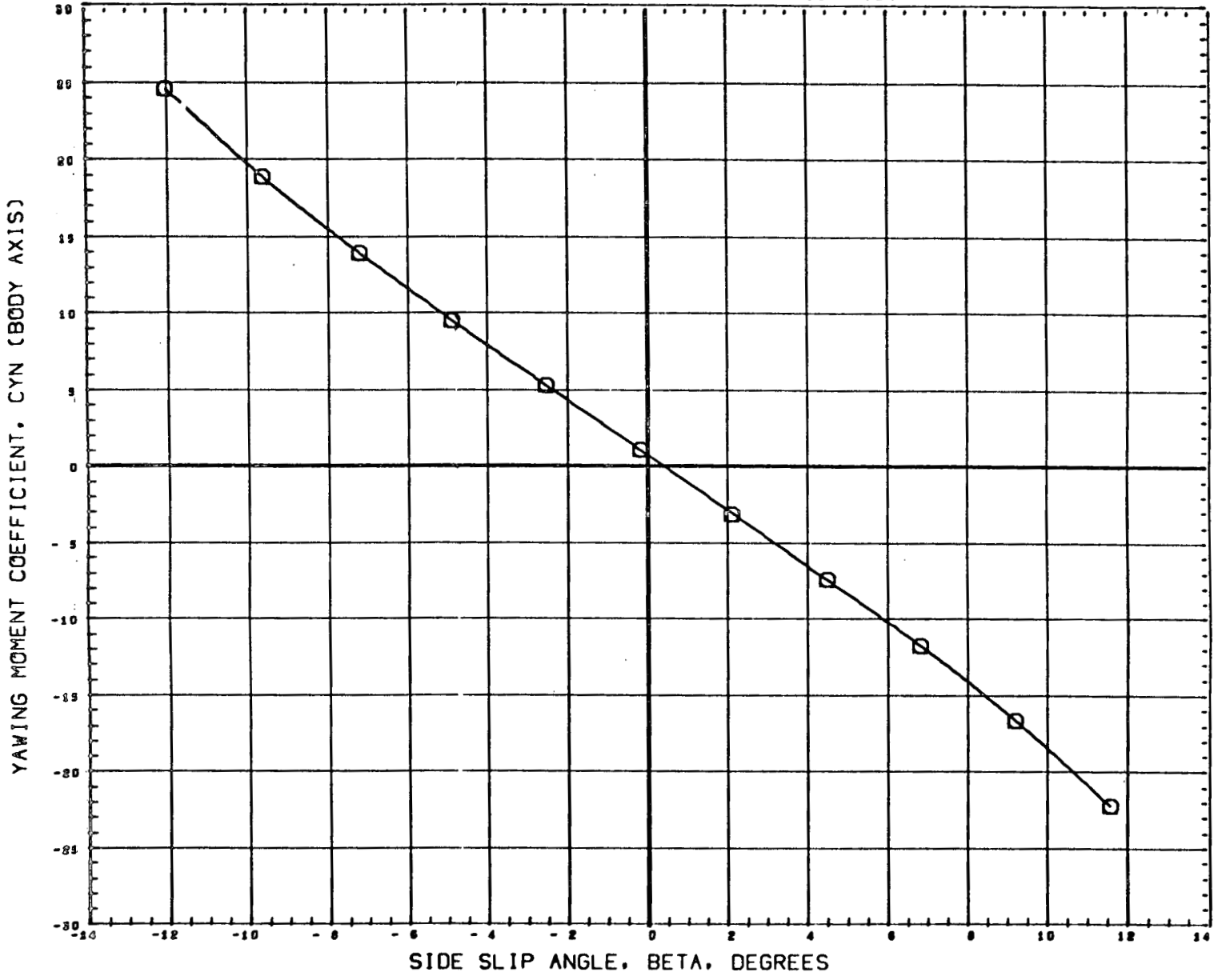
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

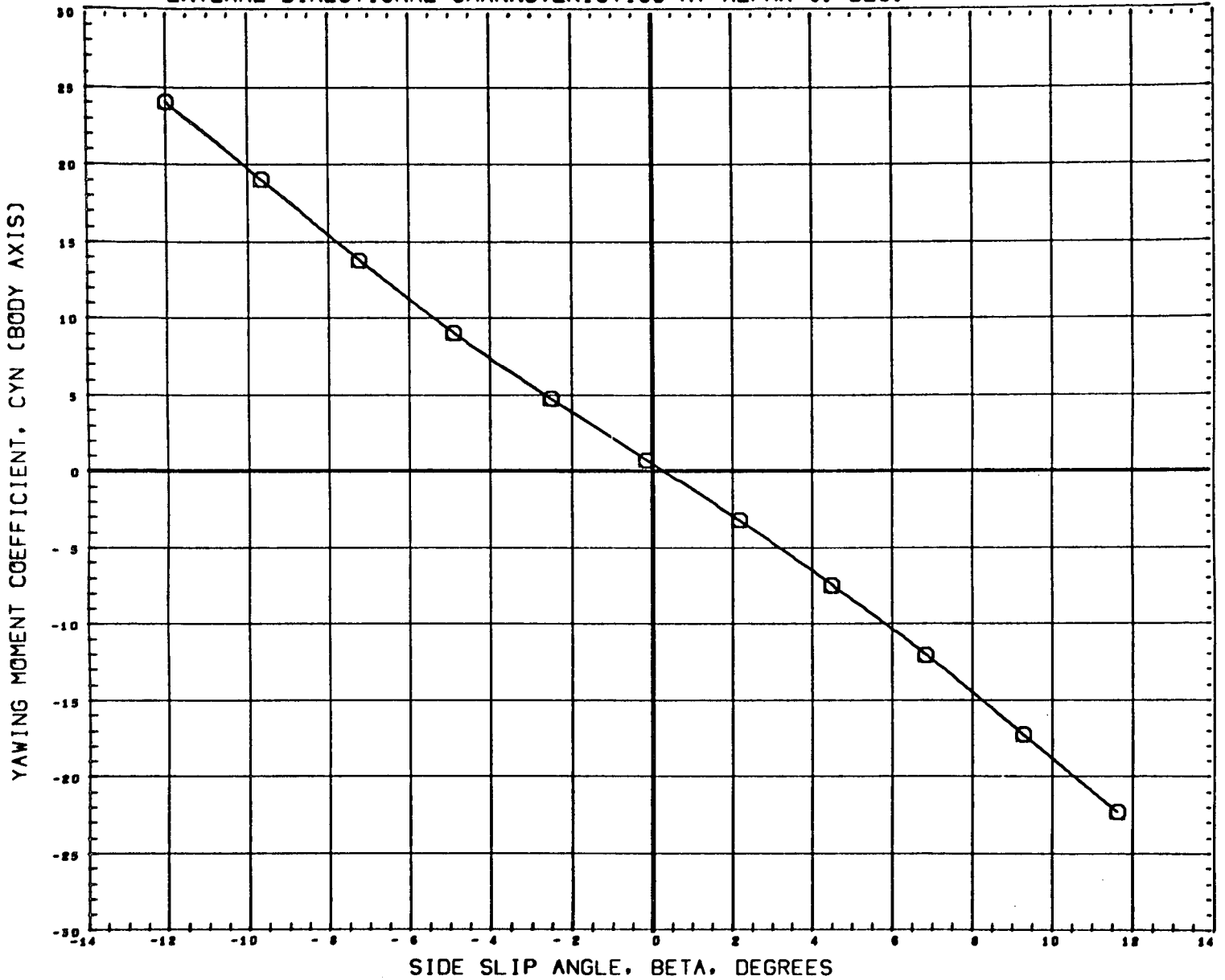


SYMBOL \circ MACH 1.482 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

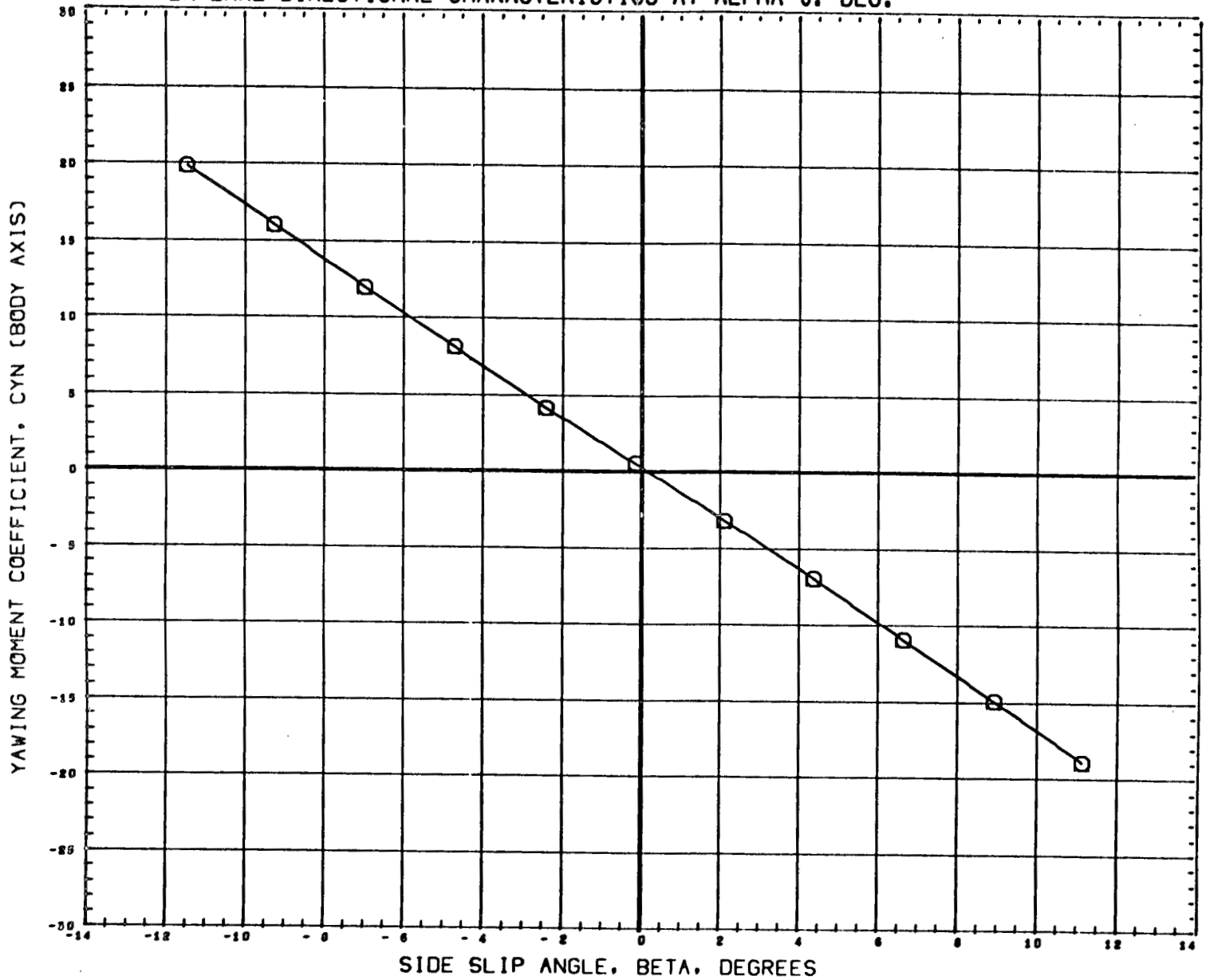


SYMBOL HACH ALPHA PARAMETRIC VALUES
 O 1.982 0.000

REFERENCE INFORMATION
 BRPF 0.9340 80 INC
 LRPF 0.0240 INCHES
 DRPF 0.0240 INCHES
 XRPF 2.9170 IN TII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

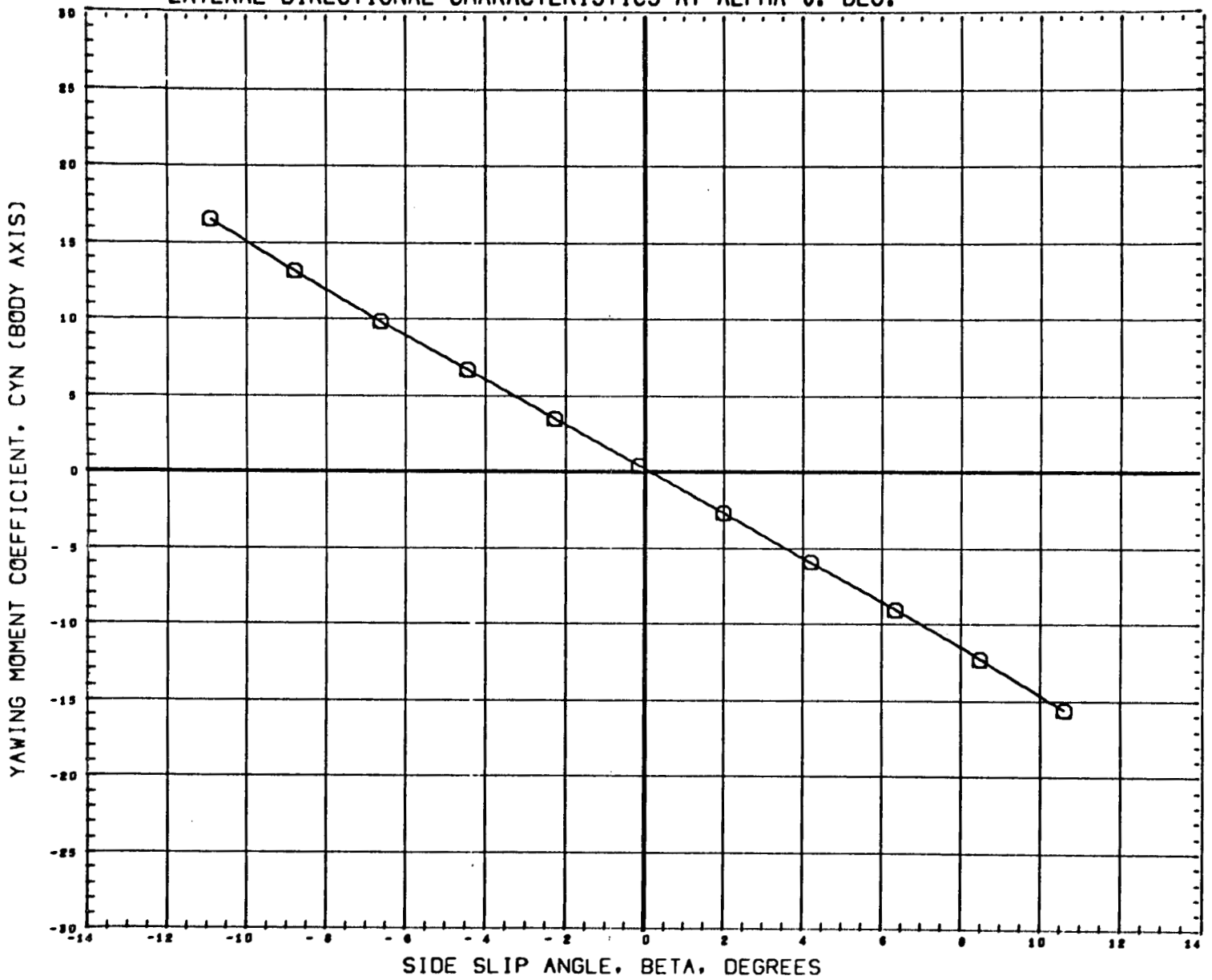


SYMBOL \square HACH 2.740 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

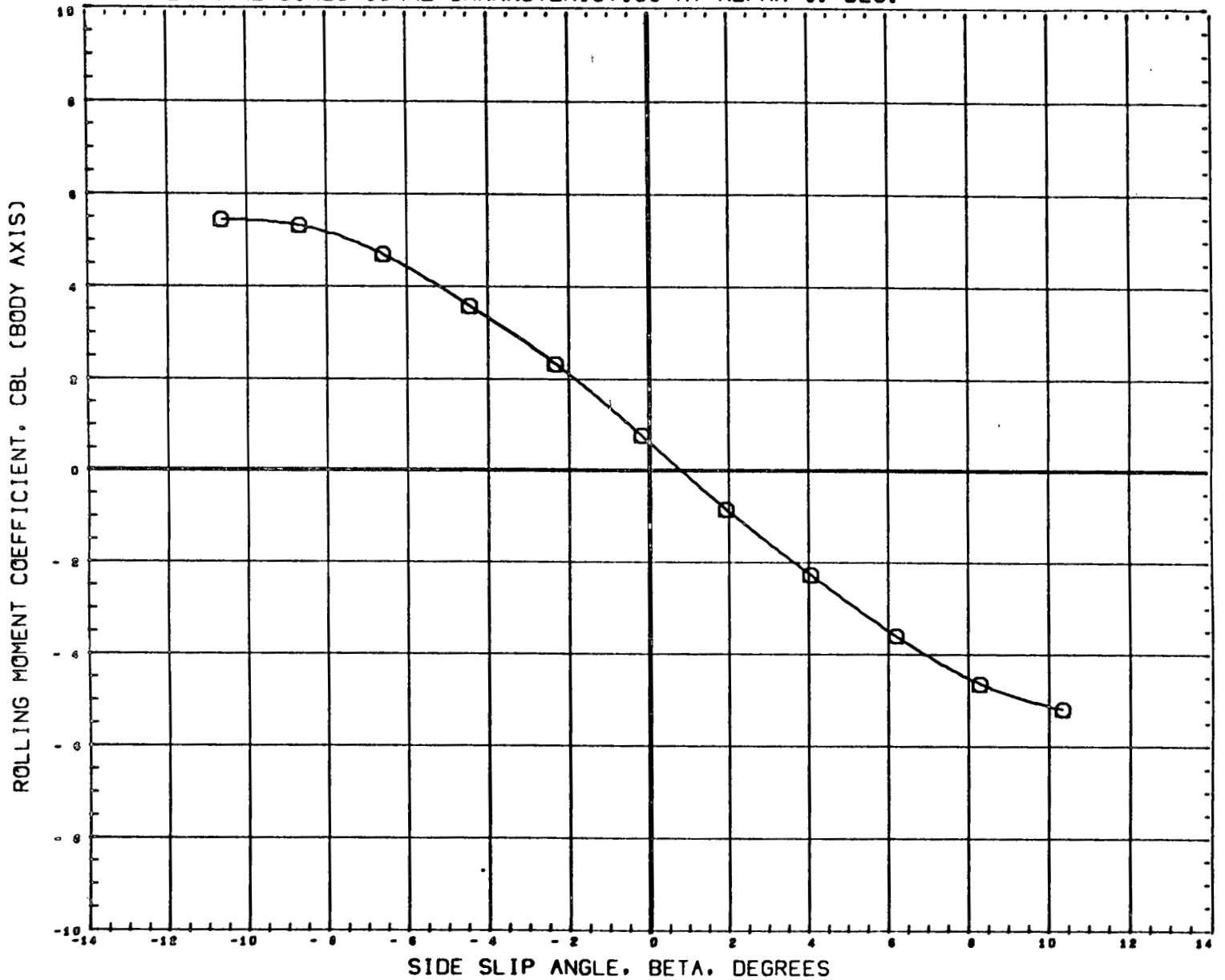


SYMBOL \circ MACH 3.480 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

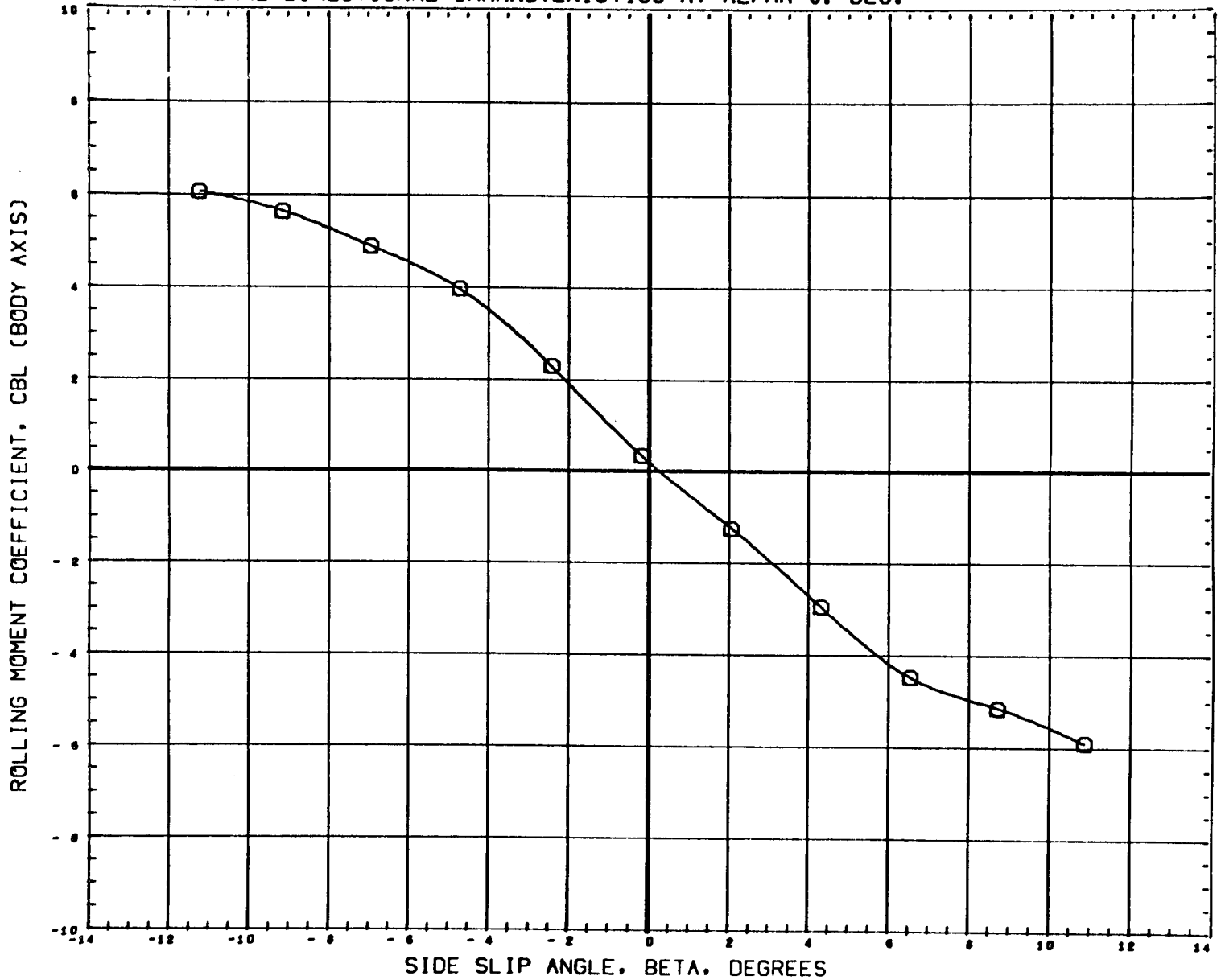


SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 0.602 0.000 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 0.902 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

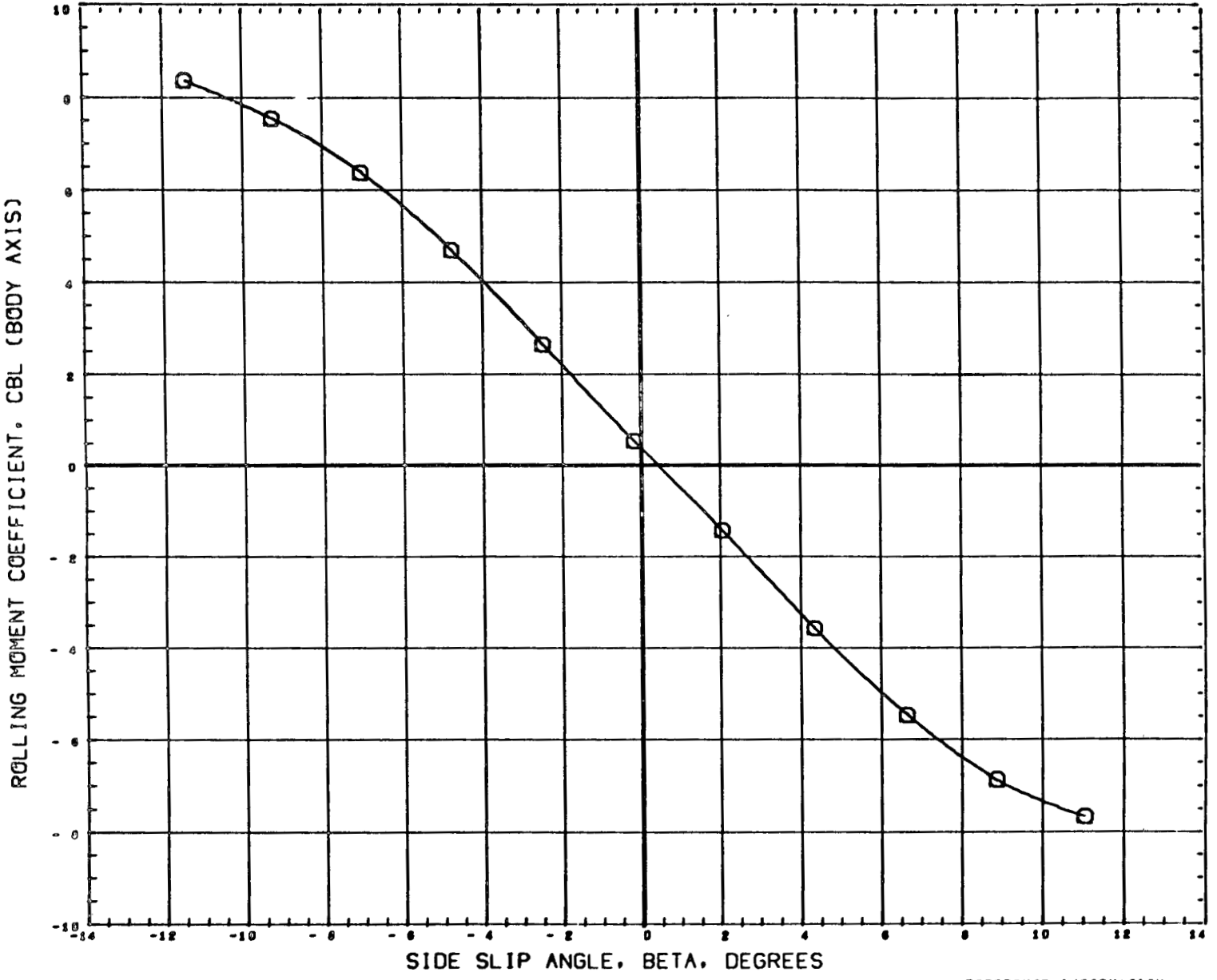
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

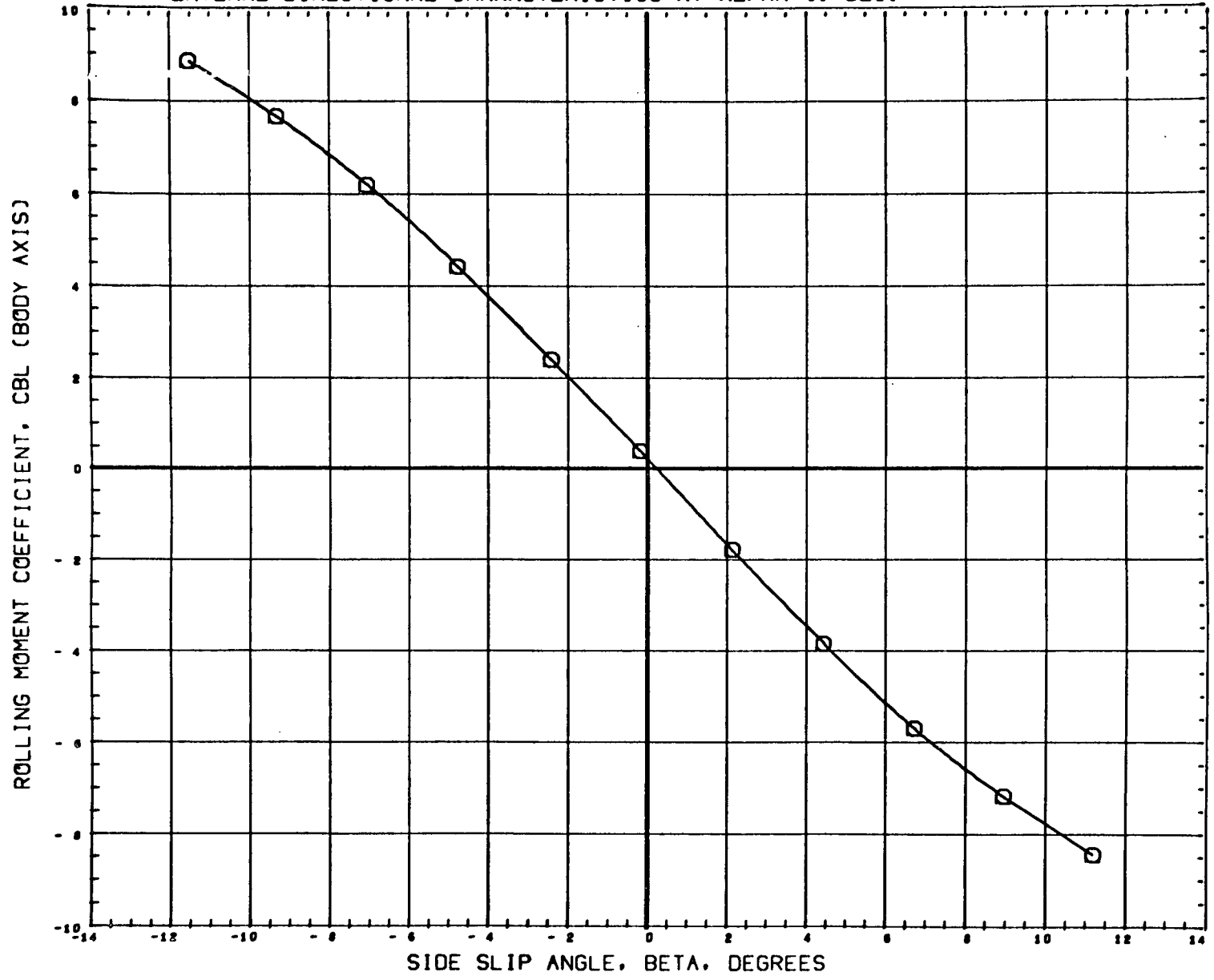


SYMBOL \square MACH 0.994 ALPHA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

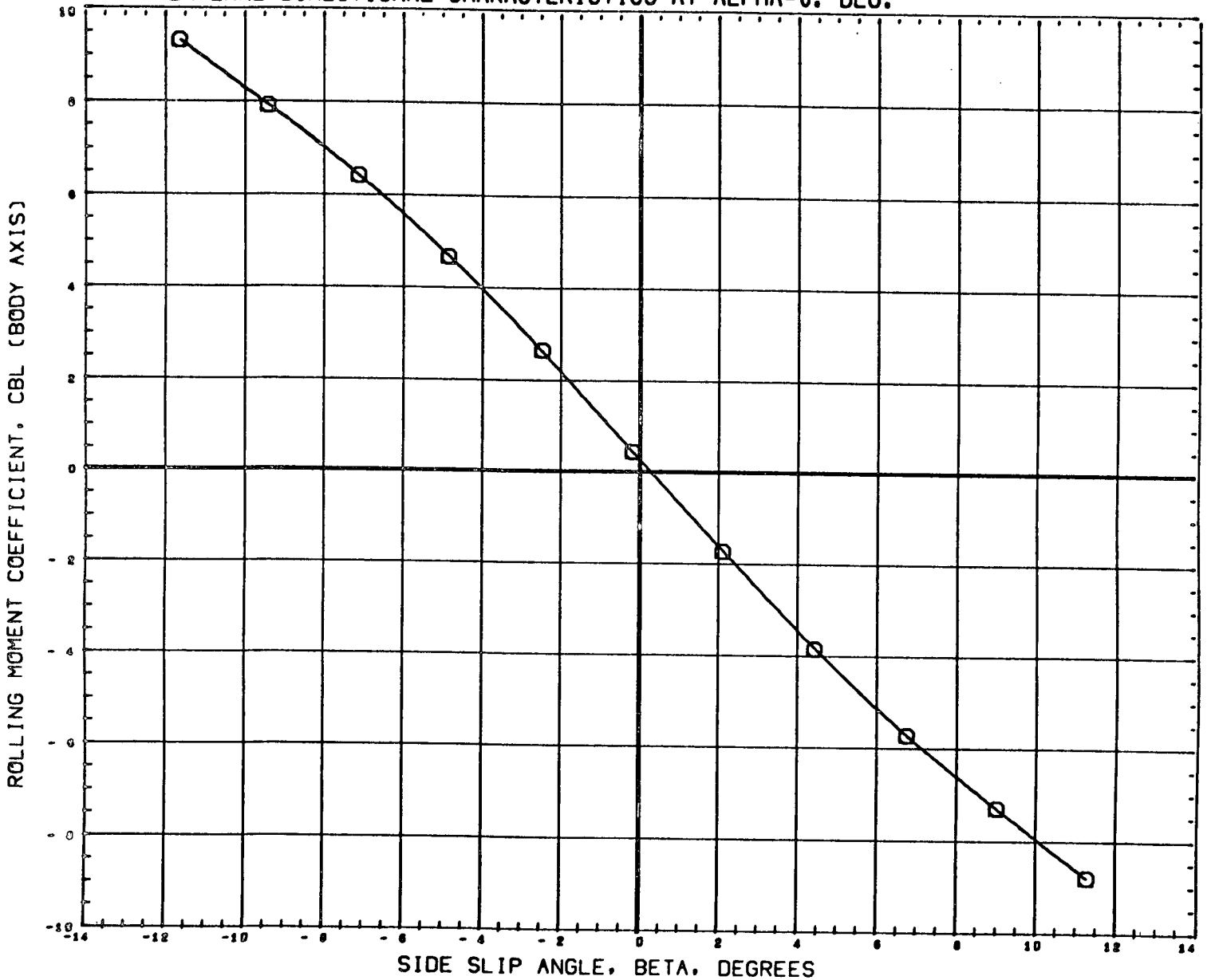


SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 1.100 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \circ MACH 1.204 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 50 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

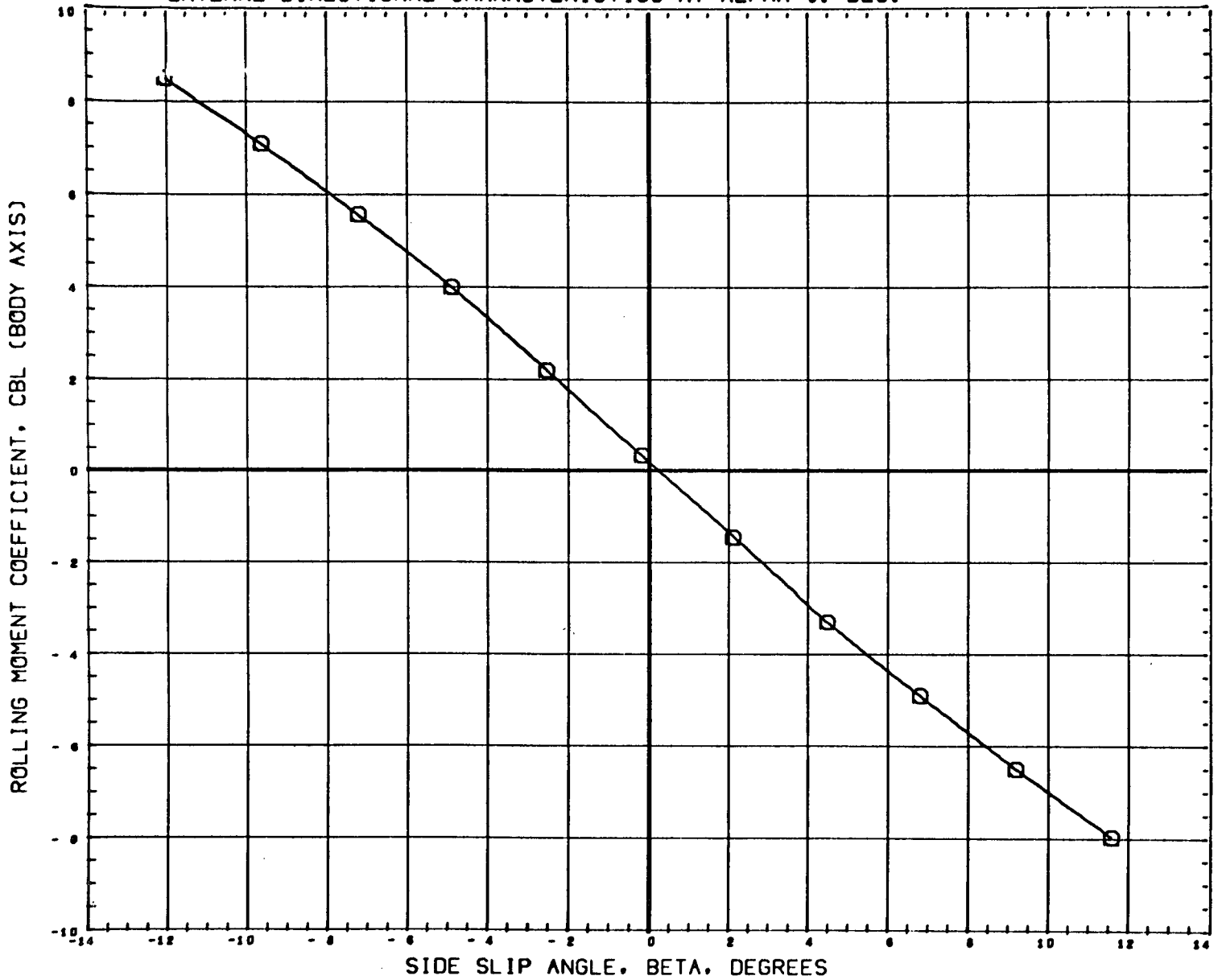
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

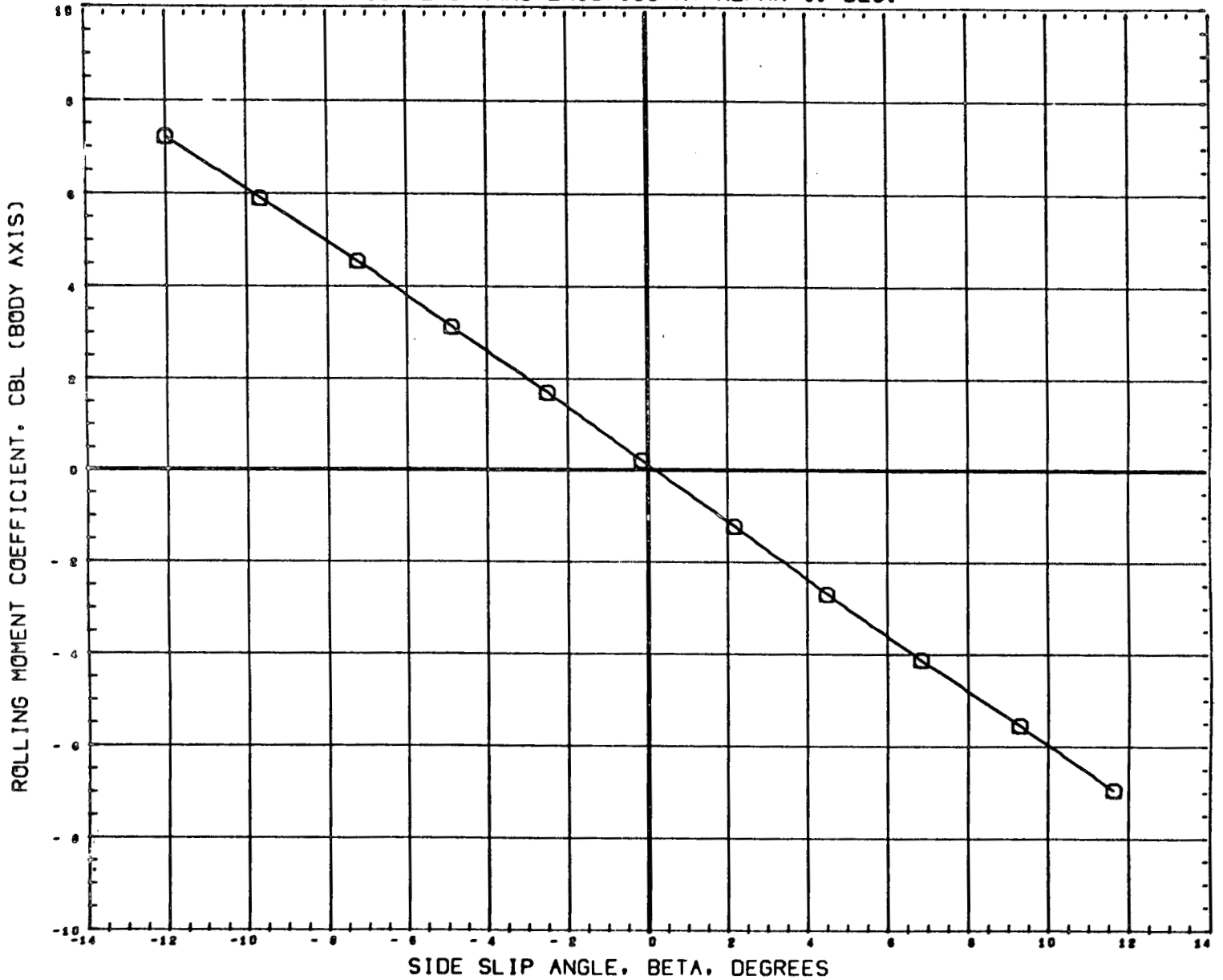


SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 1.462 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 1.992 0.000 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

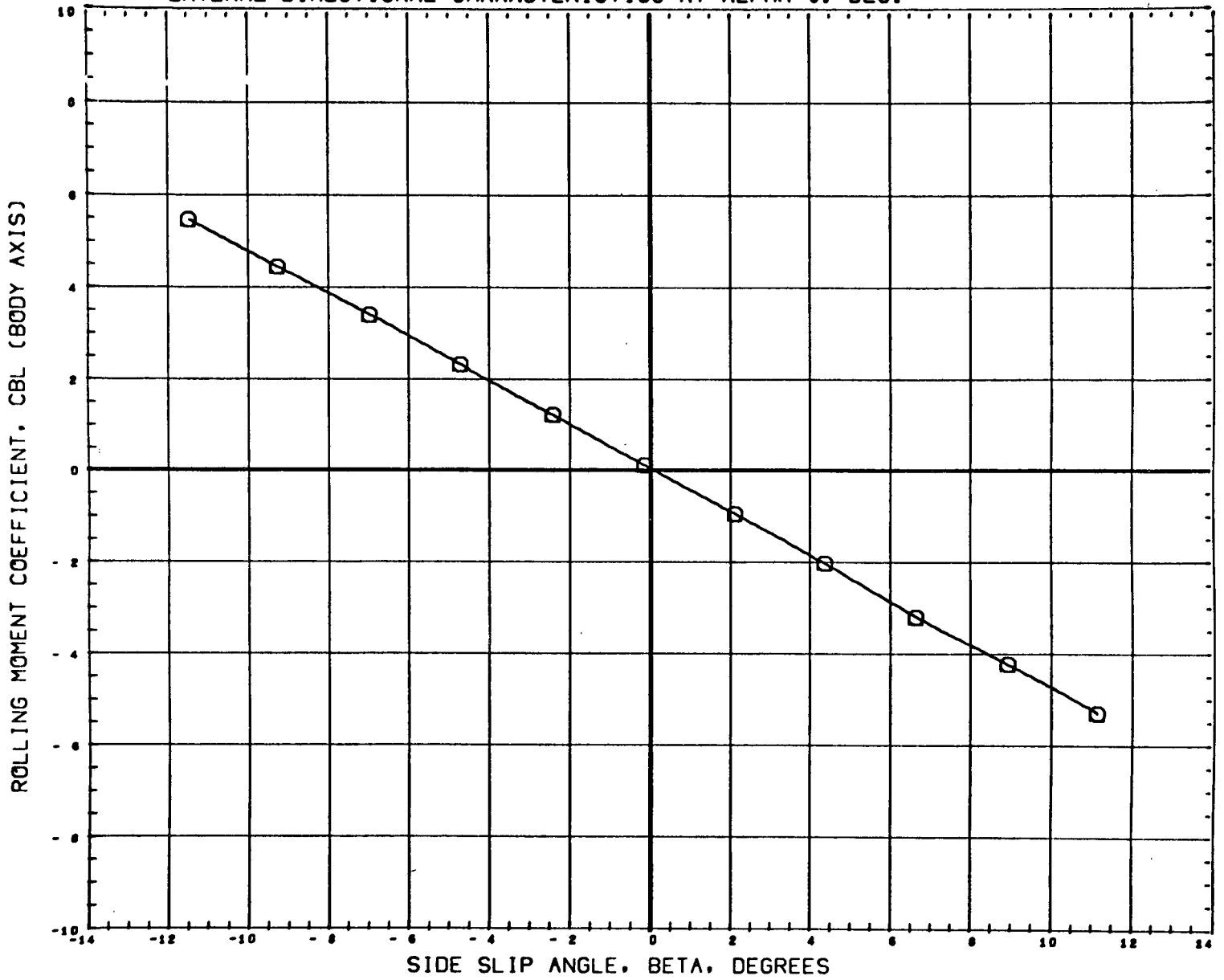
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 ○ 2.740 0.000

REFERENCE INFORMATION
 BREF 0.5340 SQ INC
 LREF 0.0240 INCHES
 DBREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

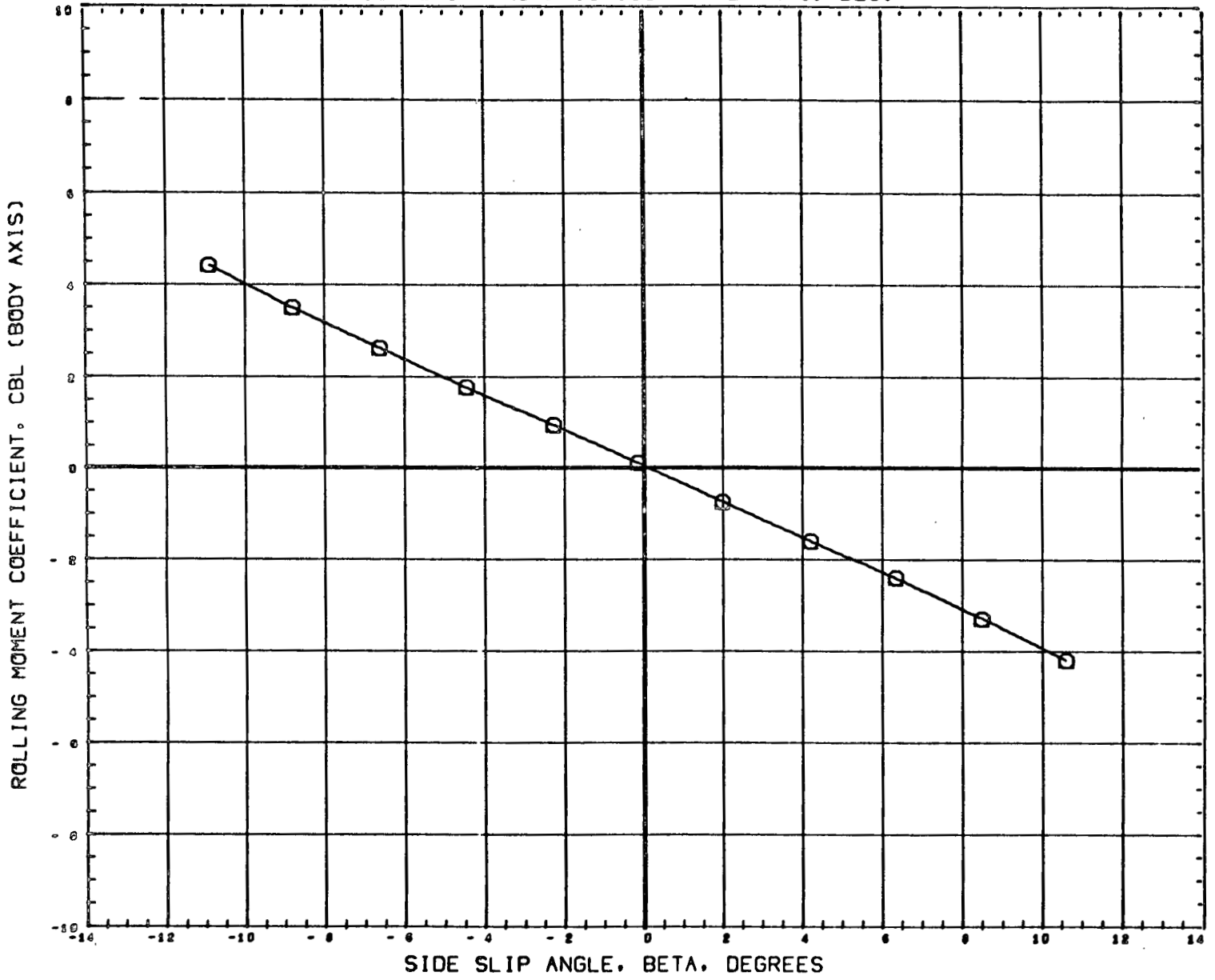
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

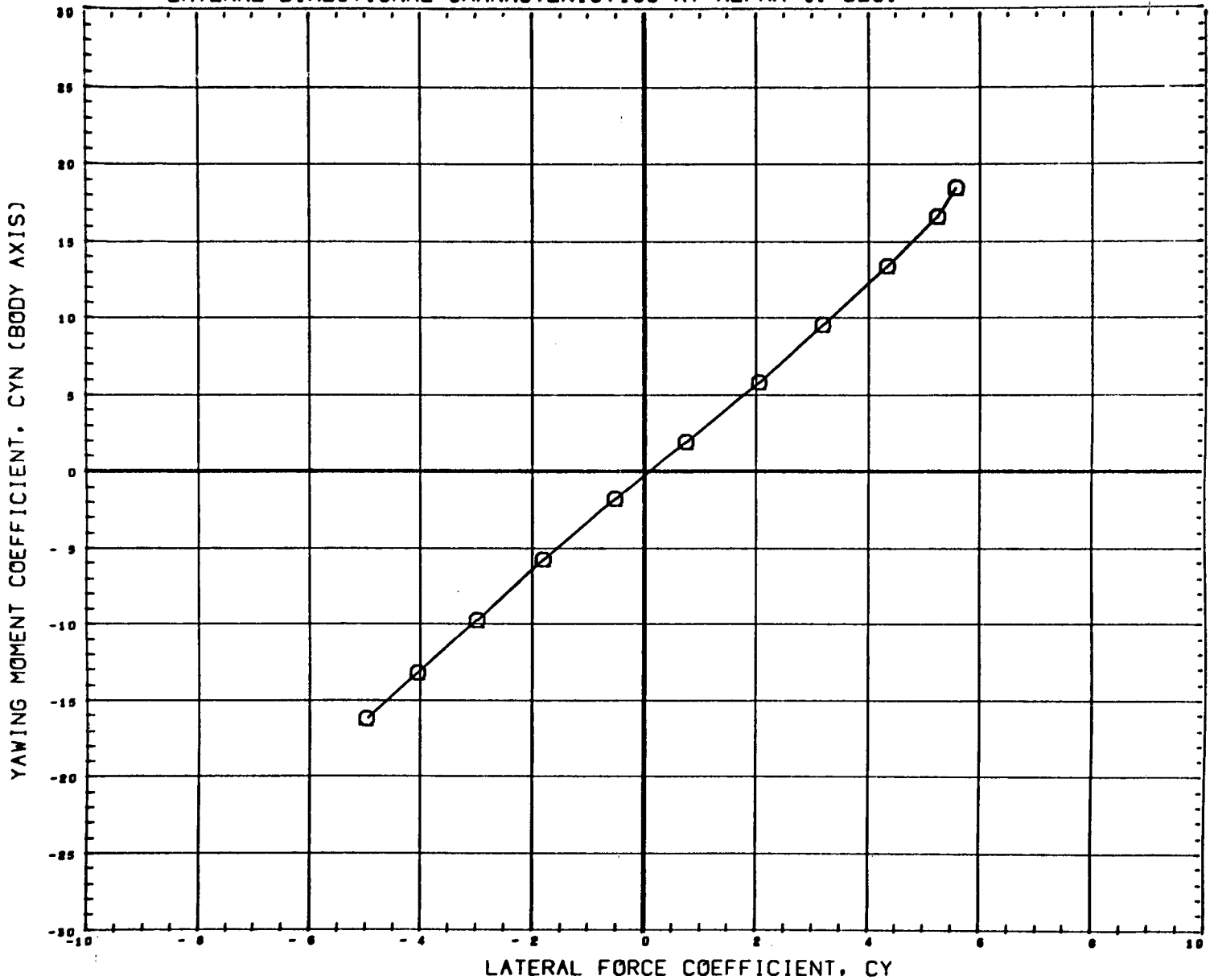


SYMBOL \bigcirc HACH 3.400 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.9340	90 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL ○ MACH 0.602 ALPHA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 8.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

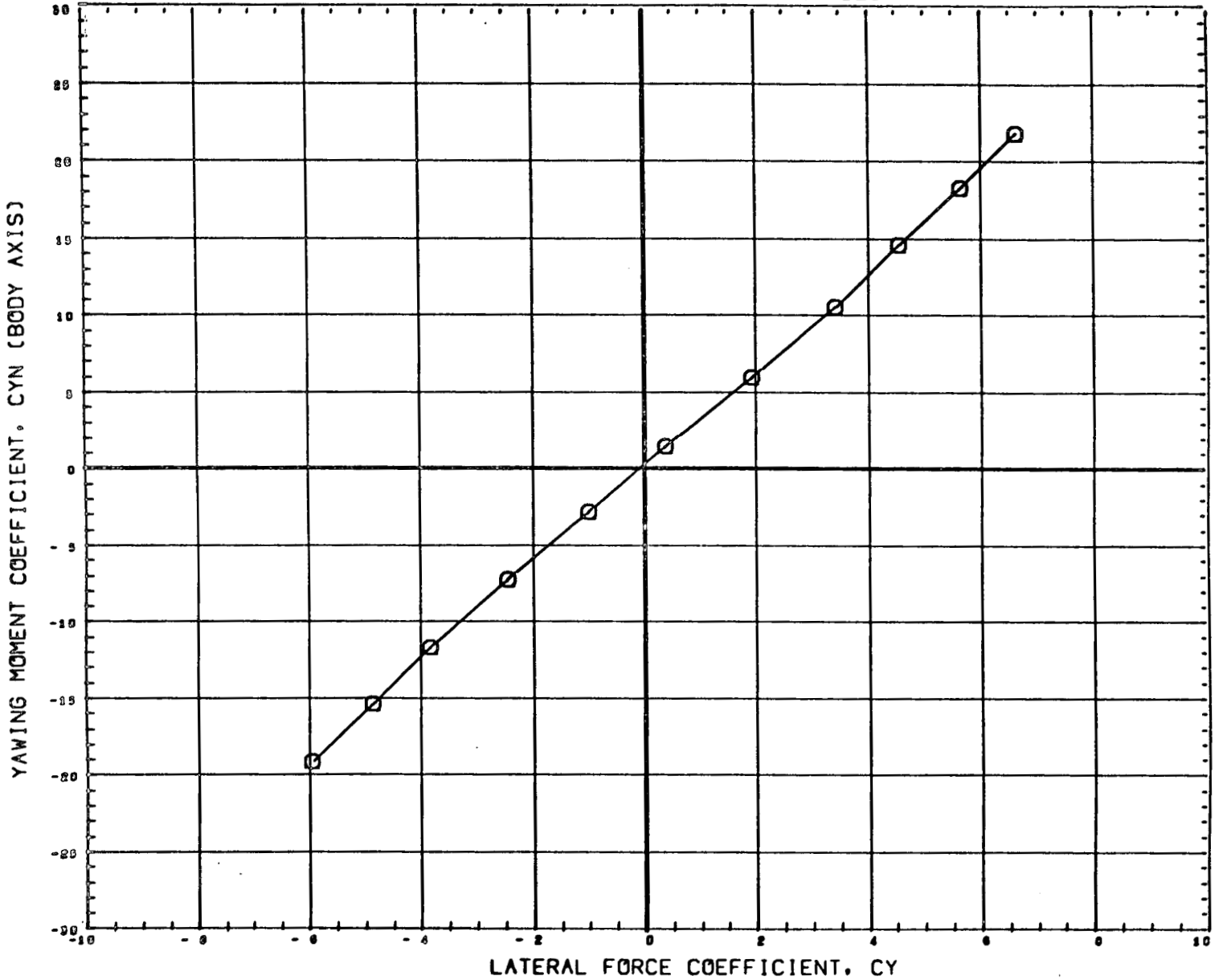
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.

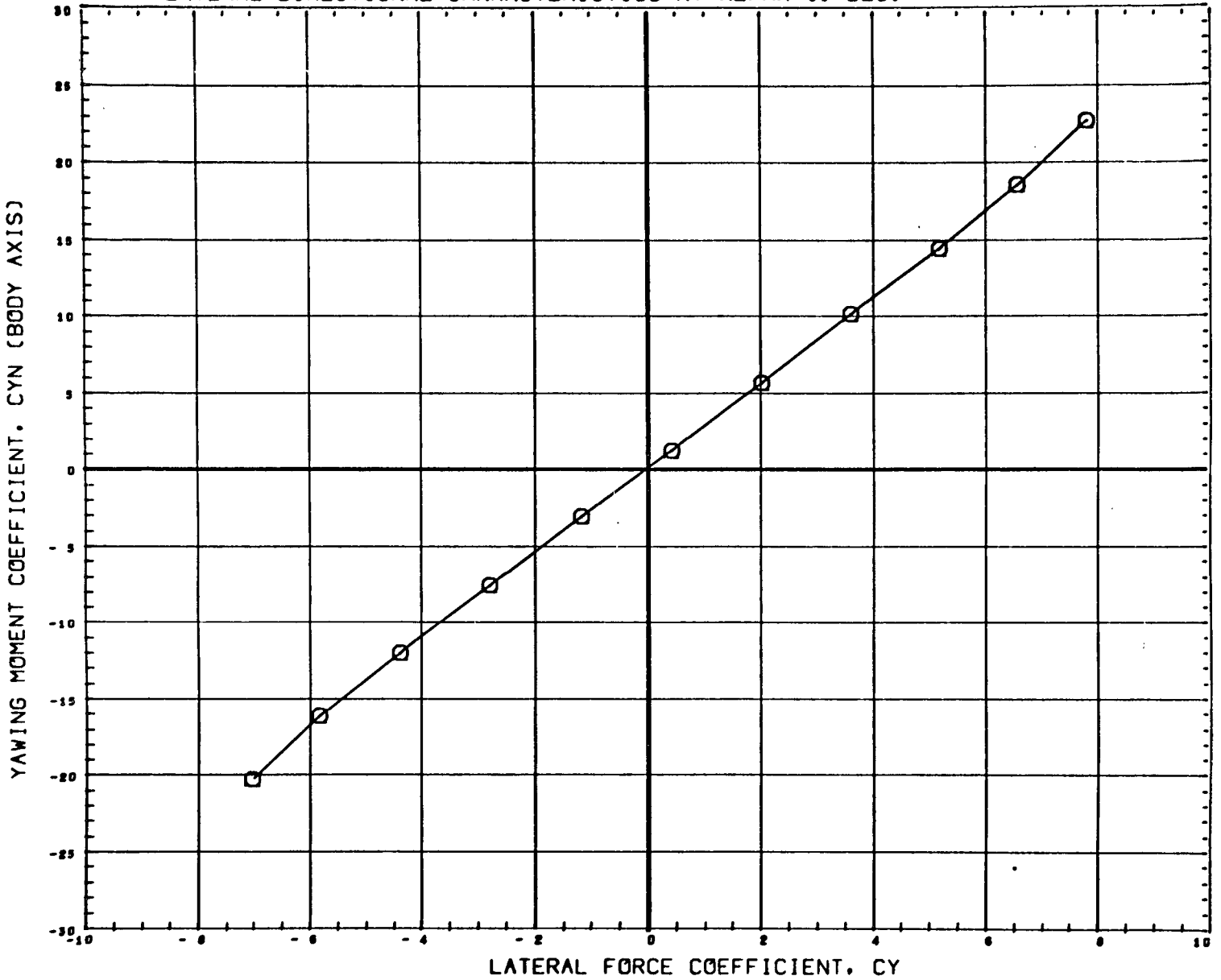


SYMBOL \circ MACH 0.902 ALPHA 0.000
 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 8.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \circ MACH 0.994 ALPHA 0.000 PARAMETRIC VALUES 0.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 8.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

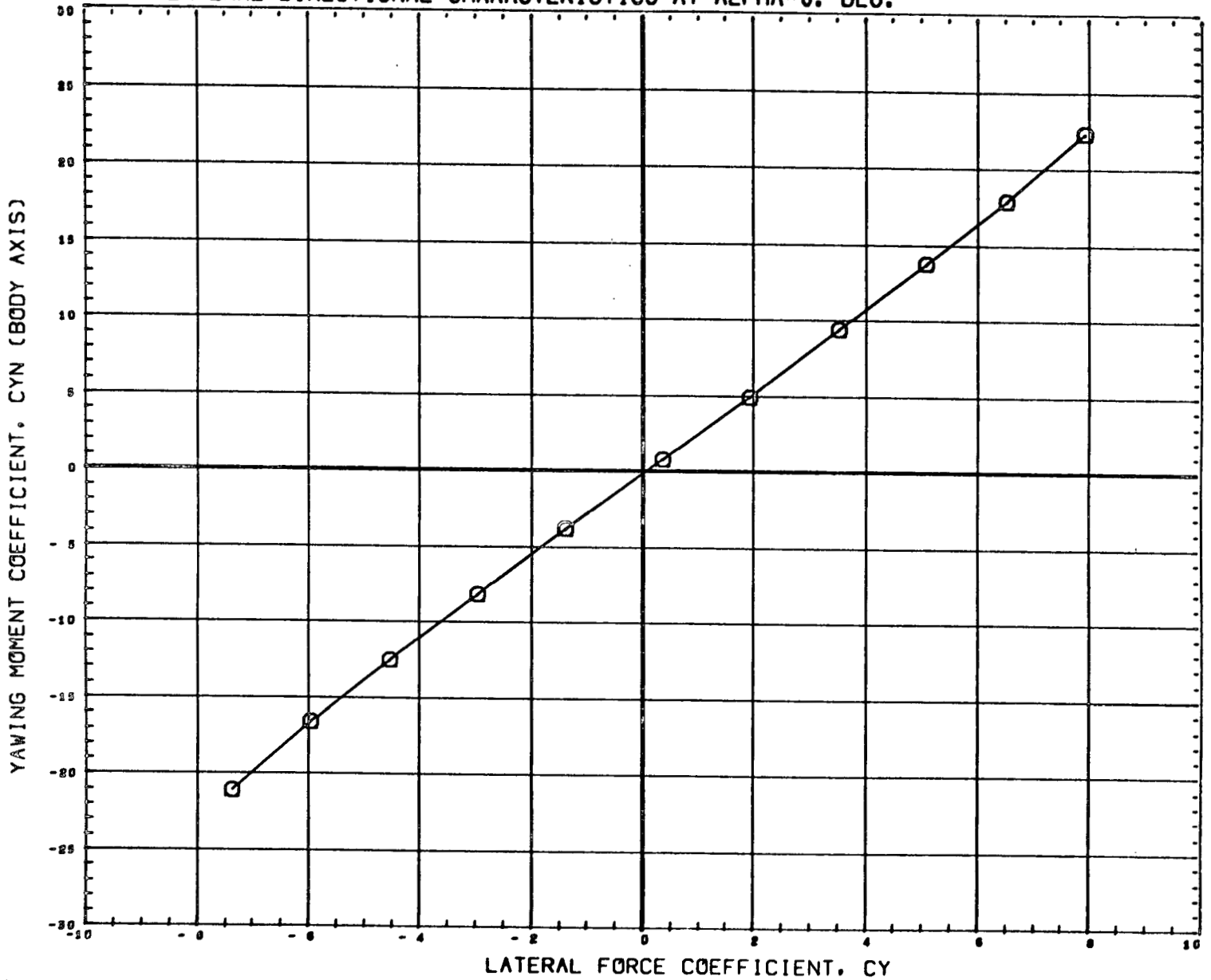
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \square MACH 1.100 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

MSFC TWT 505 T111L/DT07

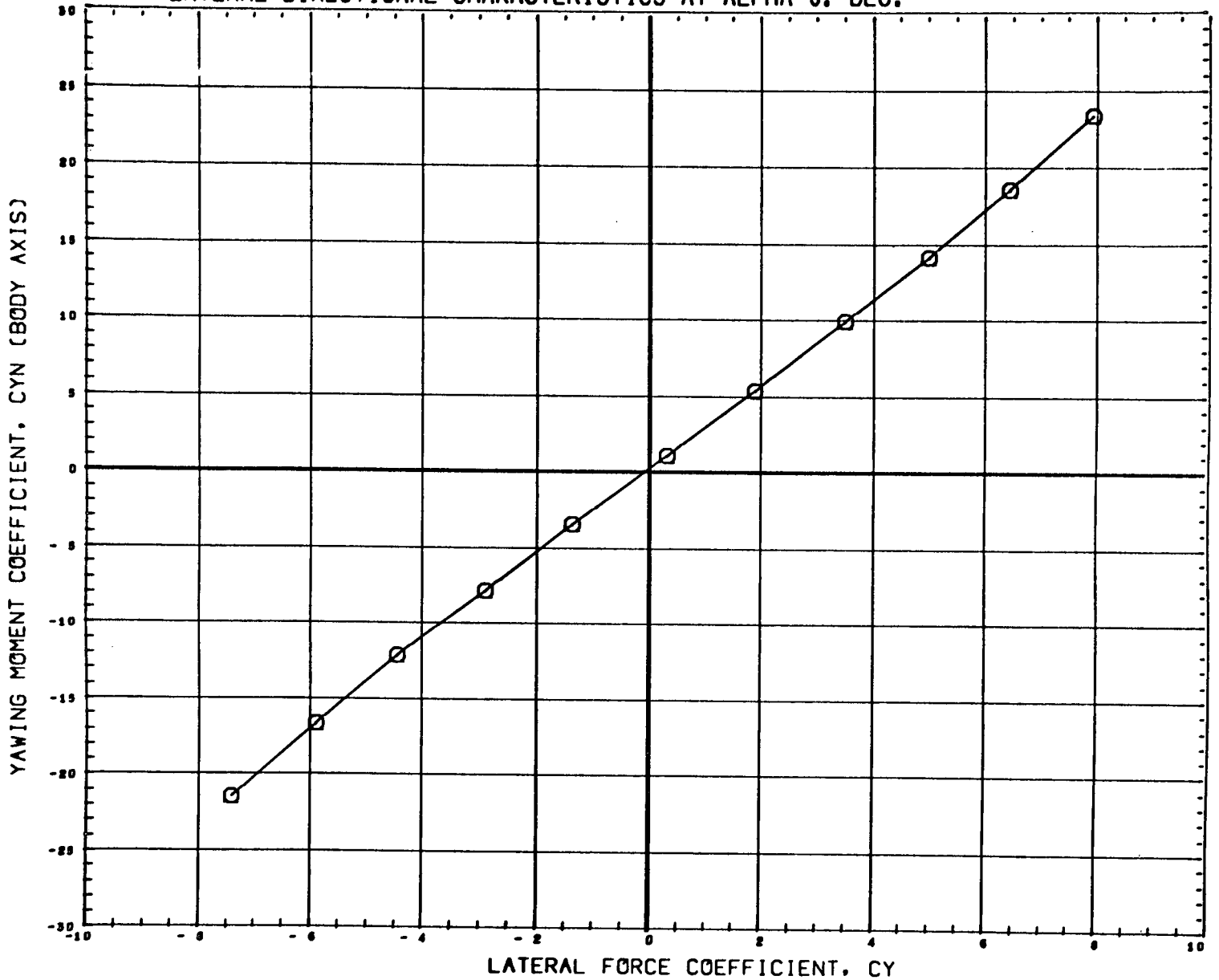
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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \square MACH 1.204 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

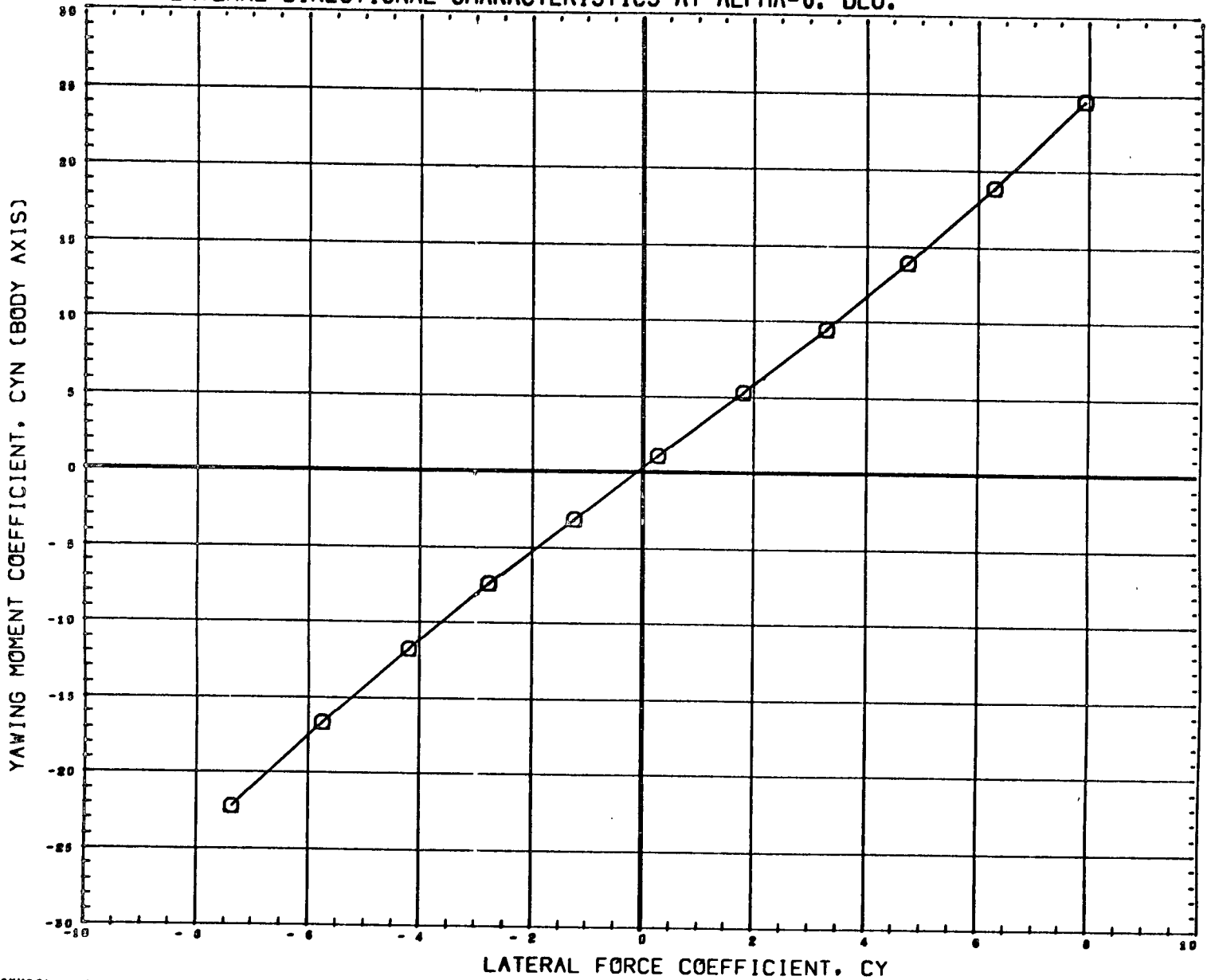
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \bigcirc MACH 1.462 ALPHA 0.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN YII
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

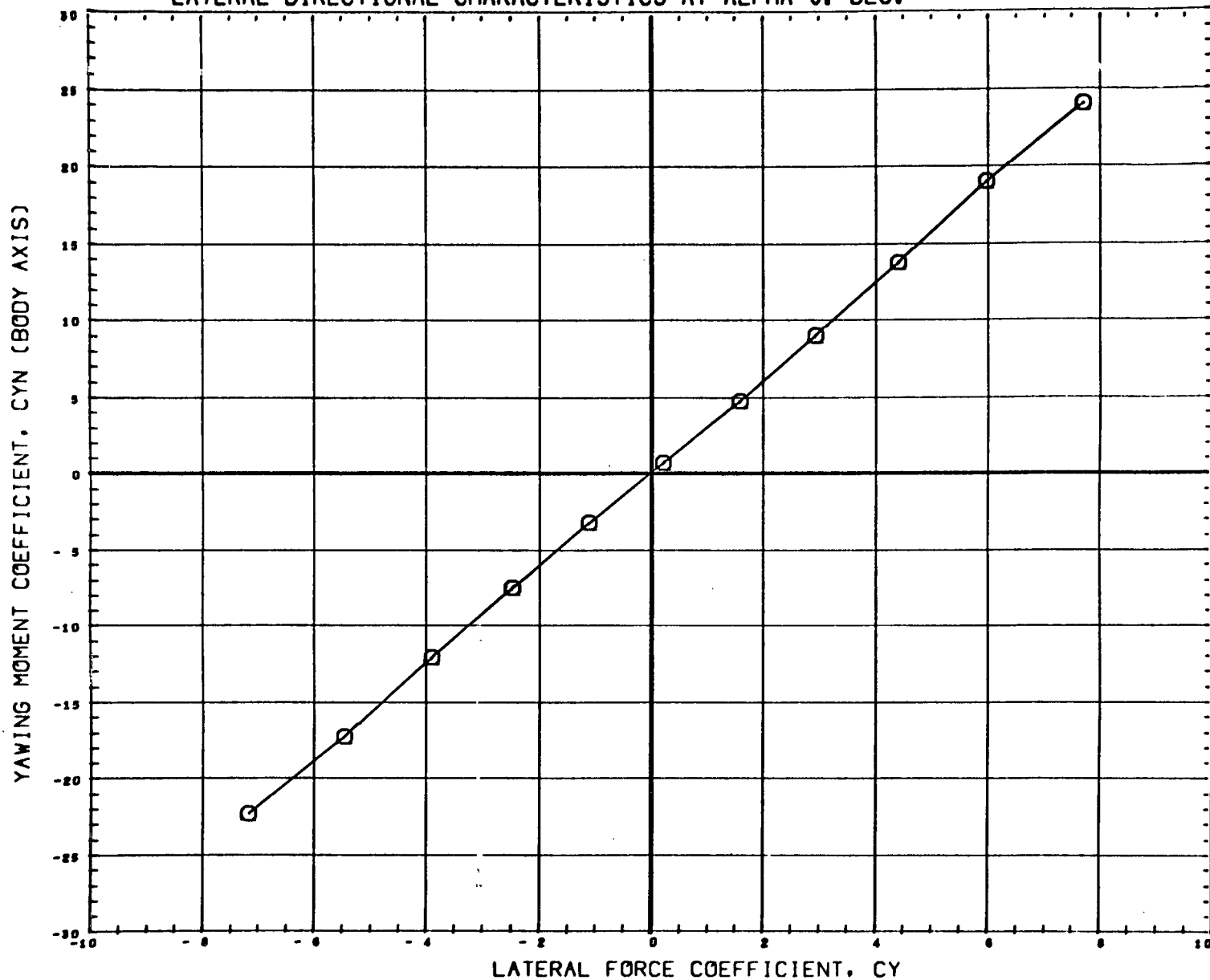
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL ○ MACH 1.962 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XNRP 2.9170 IN T11
 YNRP 0.0000 CORE C
 ZNRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

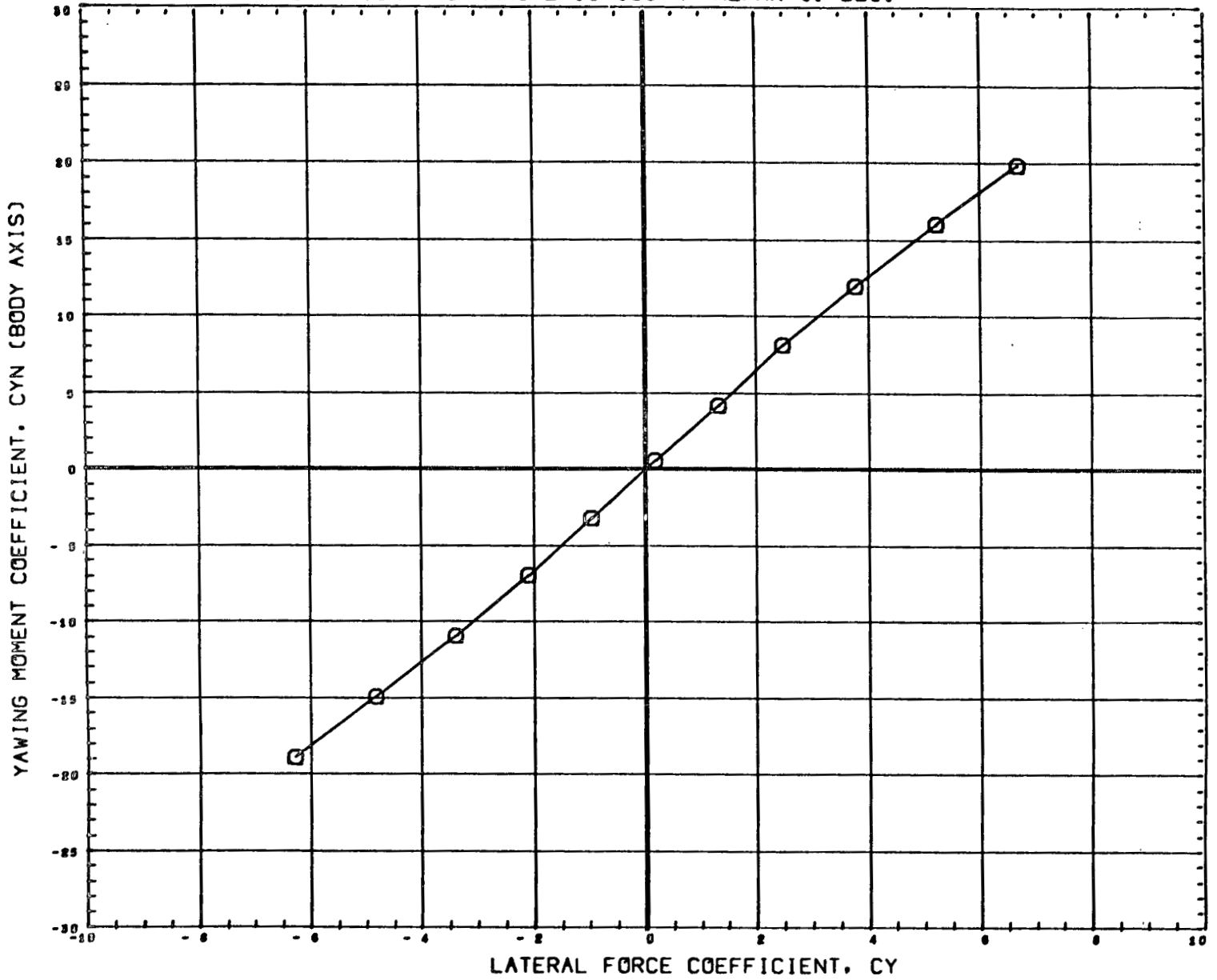
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL \square MACH 2.740 ALPHA 0.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

REFERENCE FILE

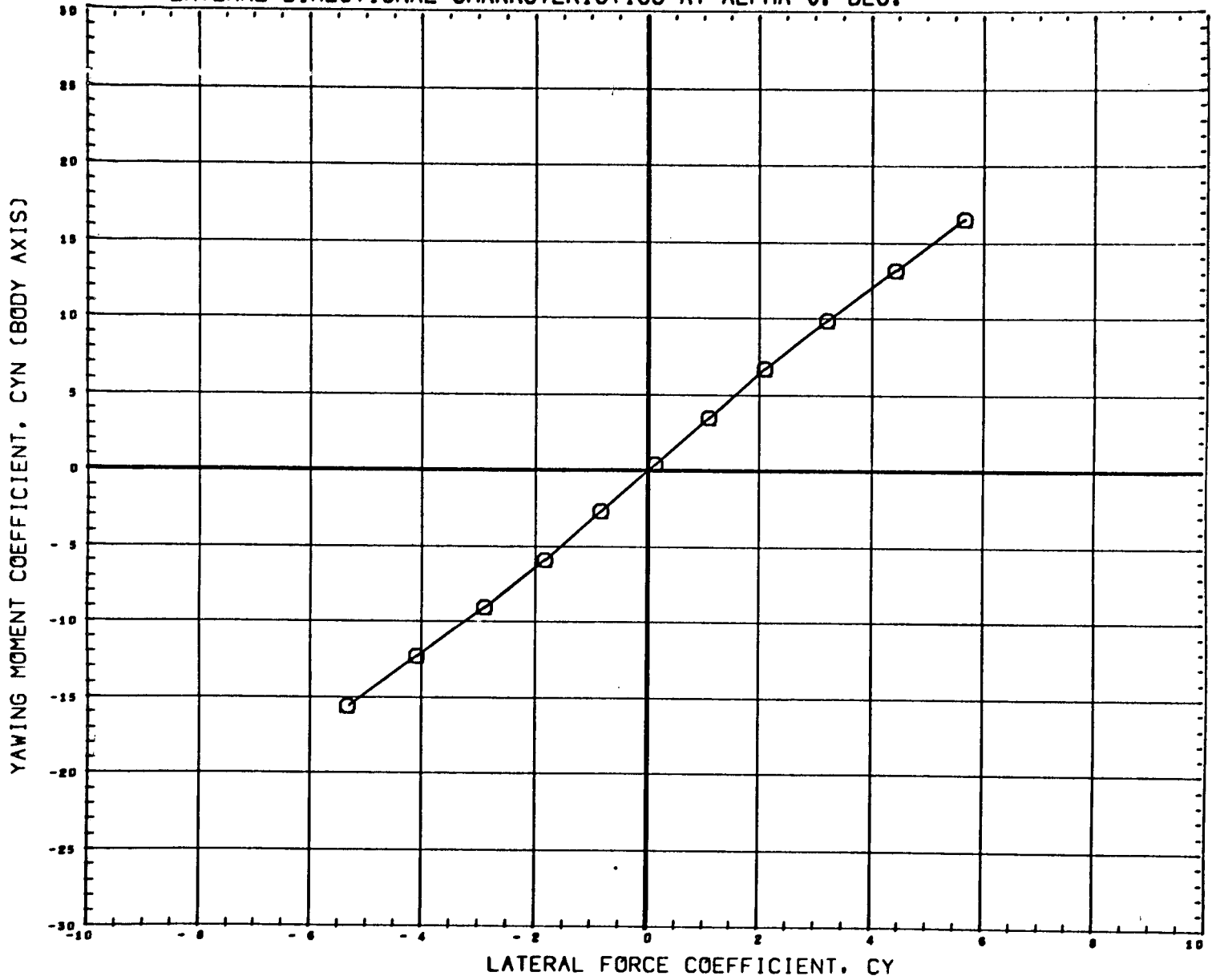
MSFC TWT 505 T111L/DT07

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LATERAL-DIRECTIONAL CHARACTERISTICS AT ALPHA=0. DEG.



SYMBOL MACH ALPHA PARAMETRIC VALUES
 O 3.480 0.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

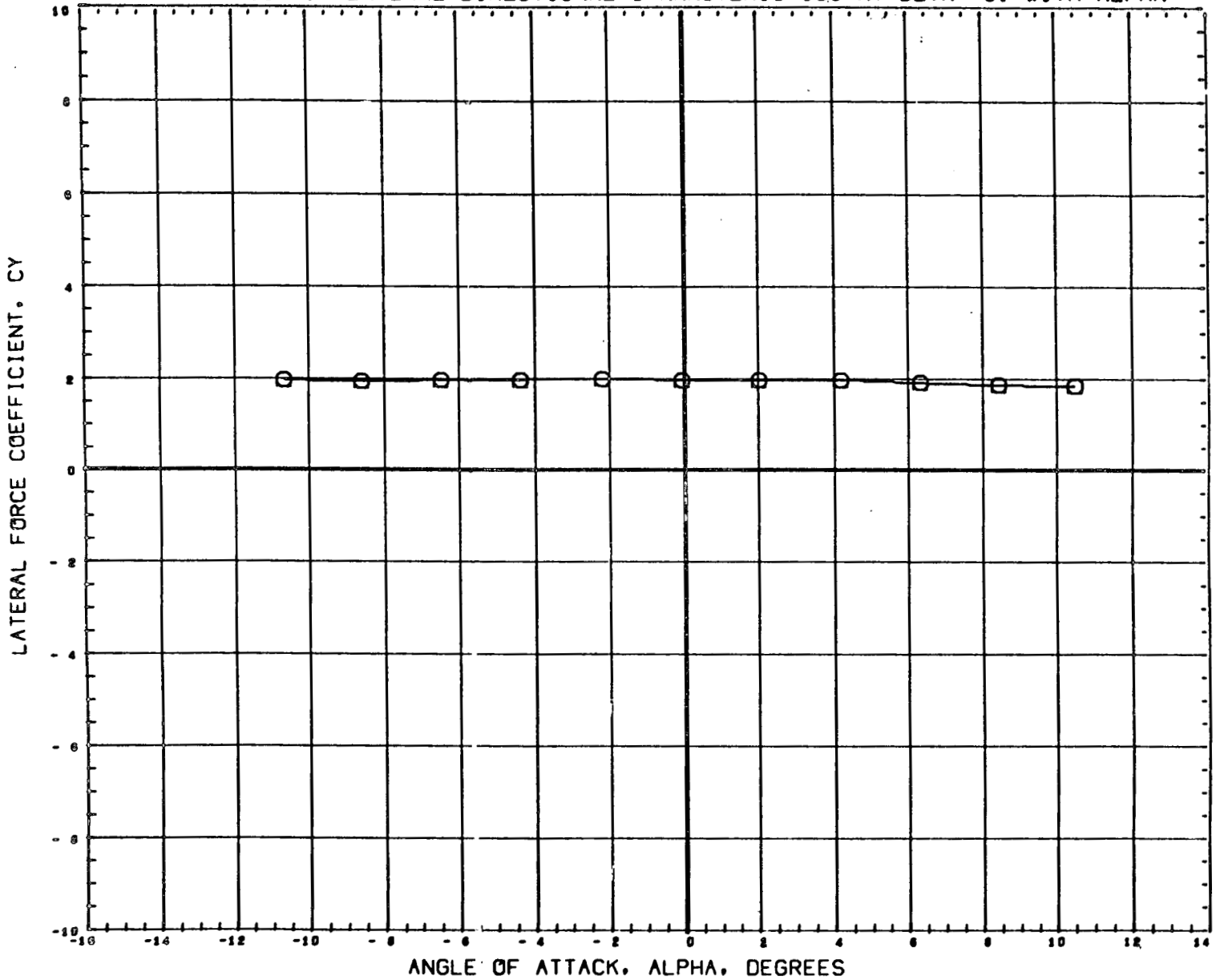
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.603 -6.000

REFERENCE INFORMATION

SREF	0.5340	80 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN T11
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

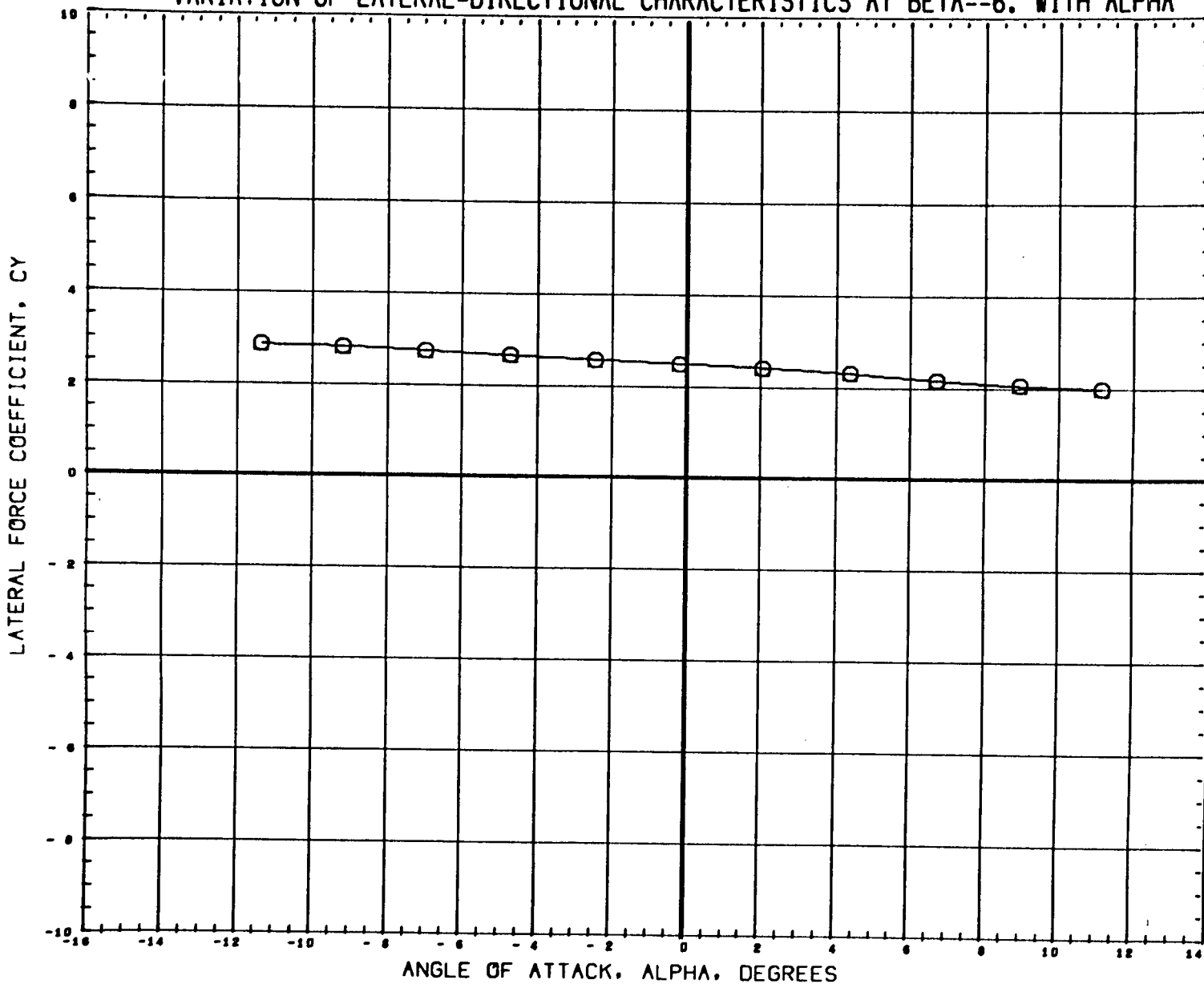
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

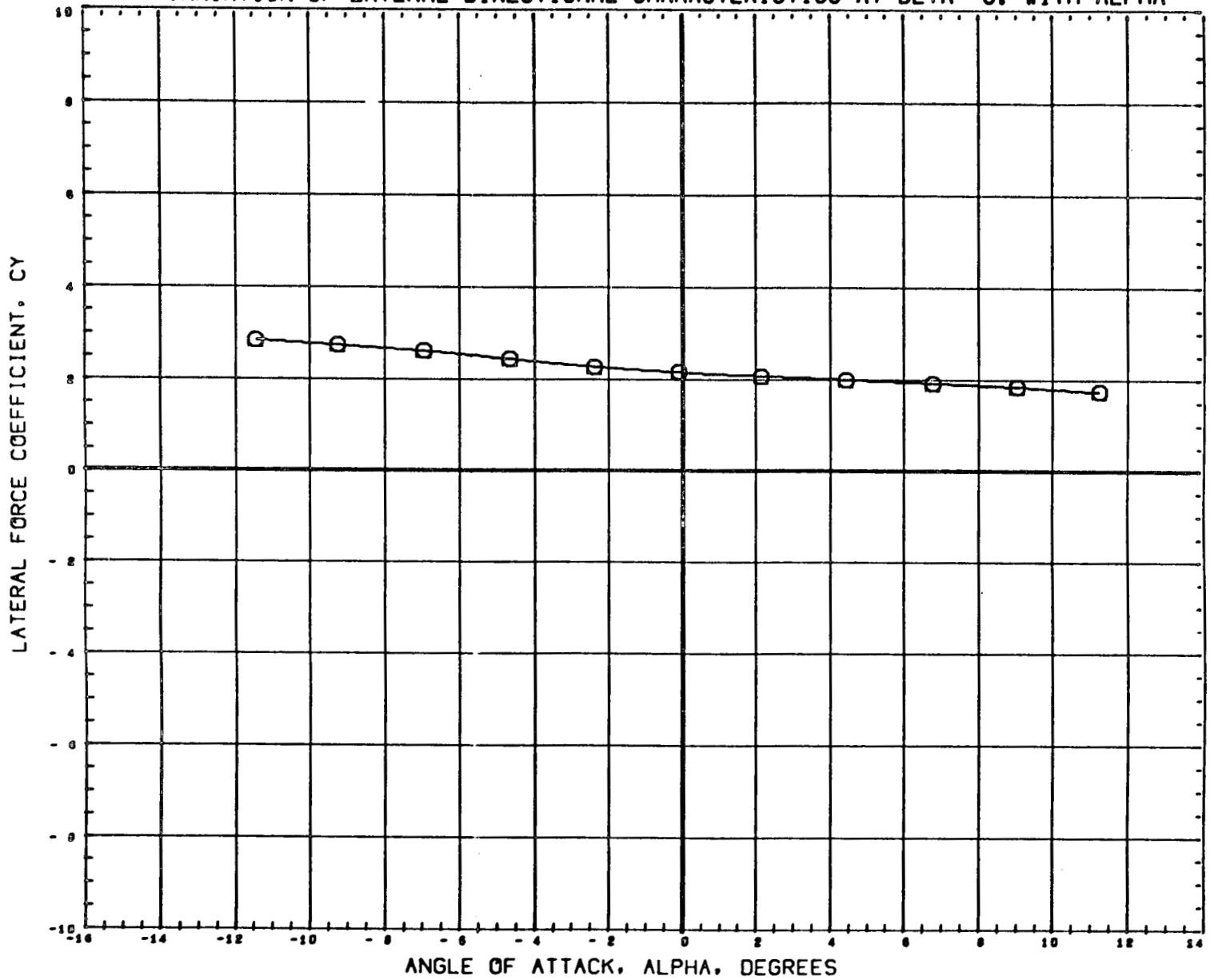


SYMBOL \circ MACH 1.004 BETA - 6.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.8240 INCHES
 DREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

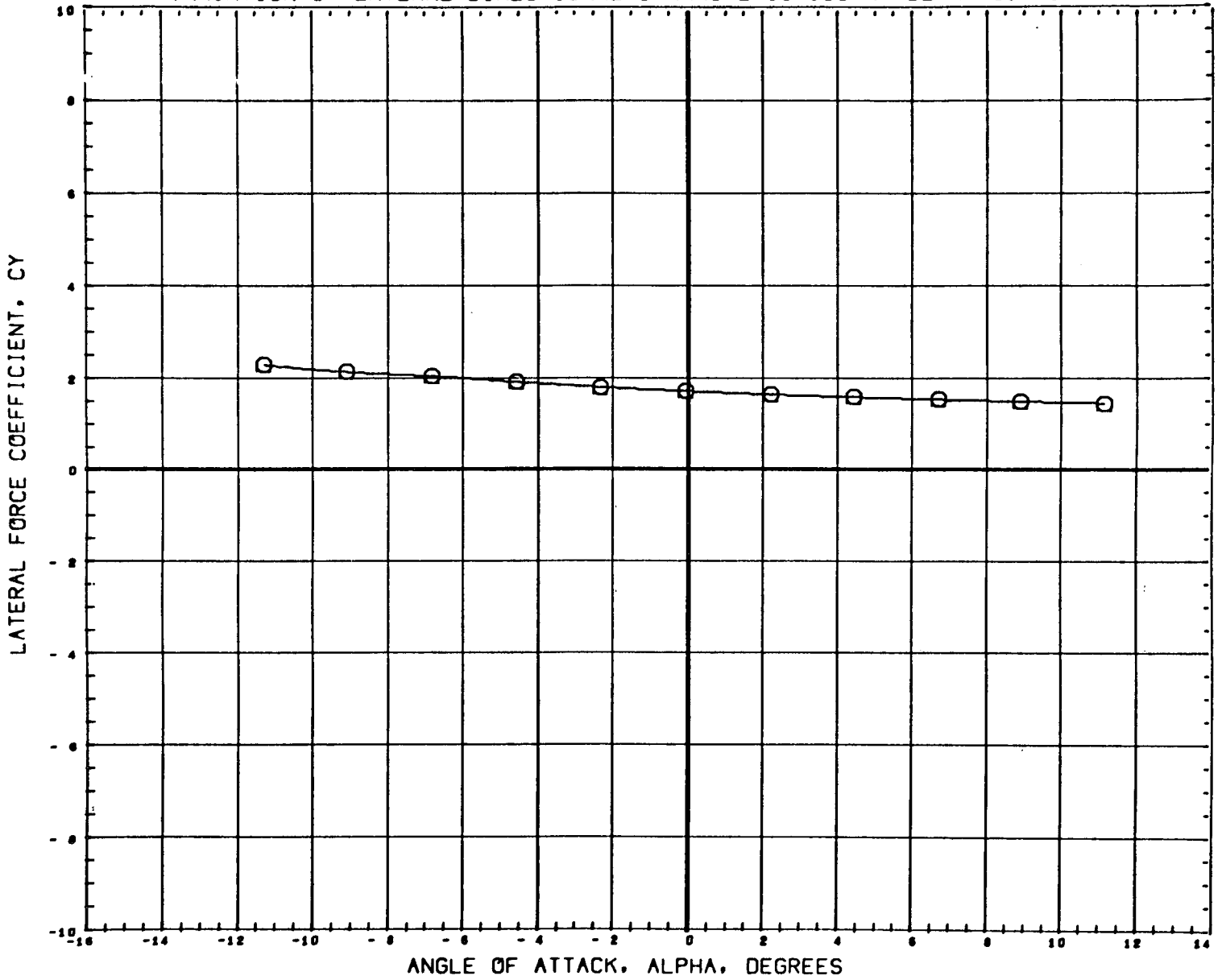


SYMBOL \bigcirc HACH 1.204 BETA -6.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

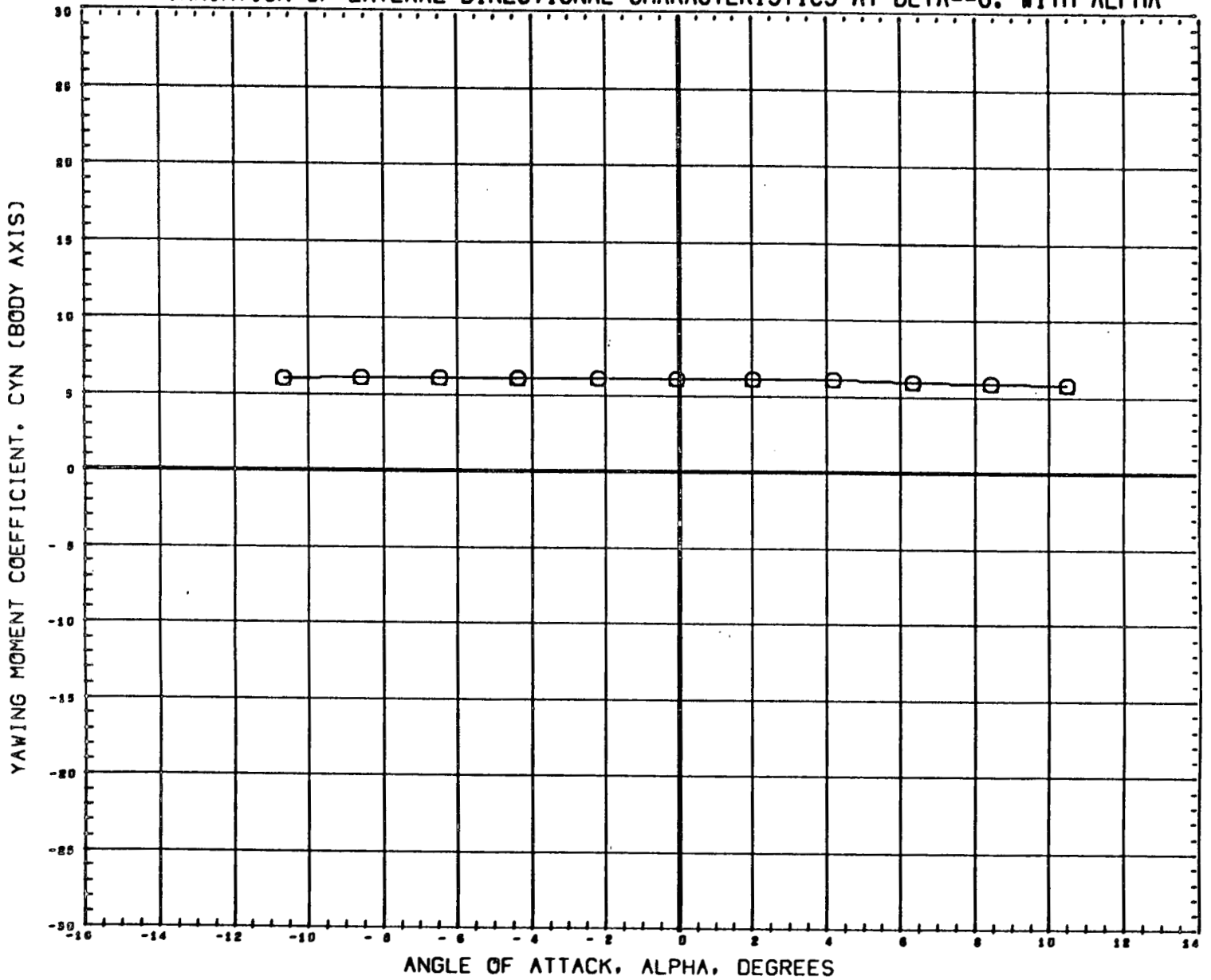


SYMBOL MACH PARAMETRIC VALUES
 O 1.969 BETA - 6.000

REFERENCE INFORMATION
 SREF 0.5340 58 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

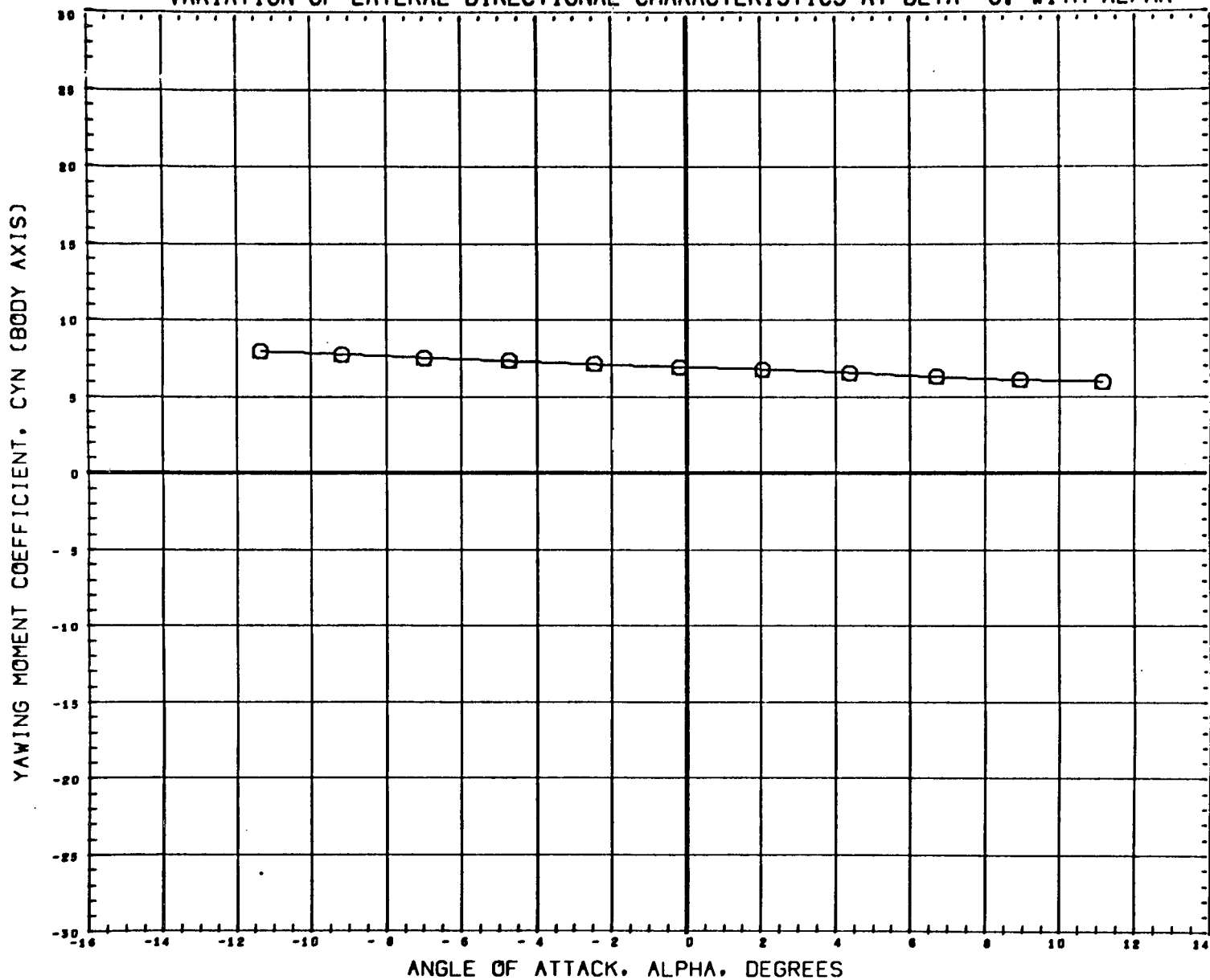


SYMBOL \square MACH 0.403 BETA - 6.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.4240 INCHES
 BREF 0.4240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

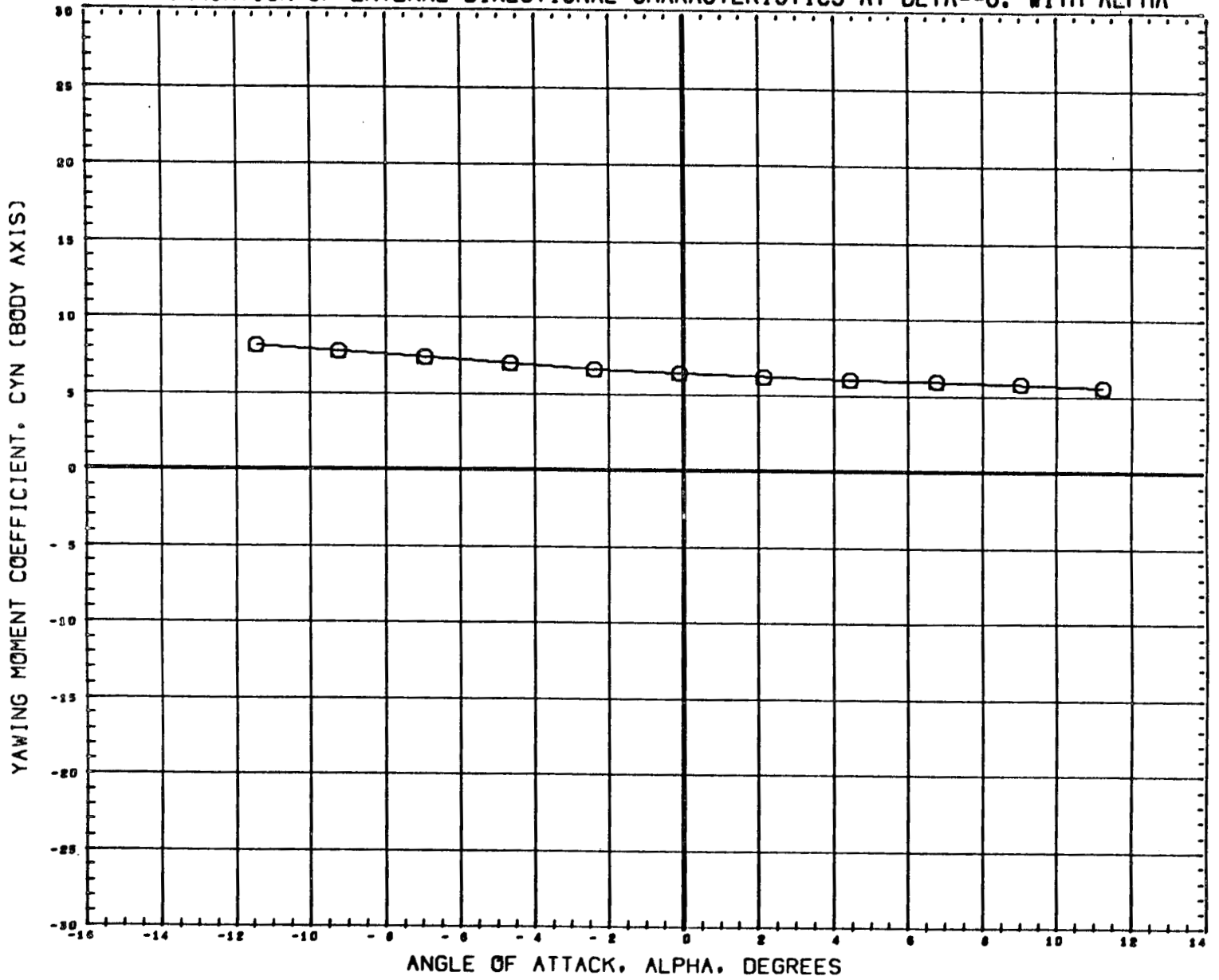


SYMBOL \circ MACH 1.004 BETA -6.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.3340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL \circ MACH 1.204 BETA -6.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TIT
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

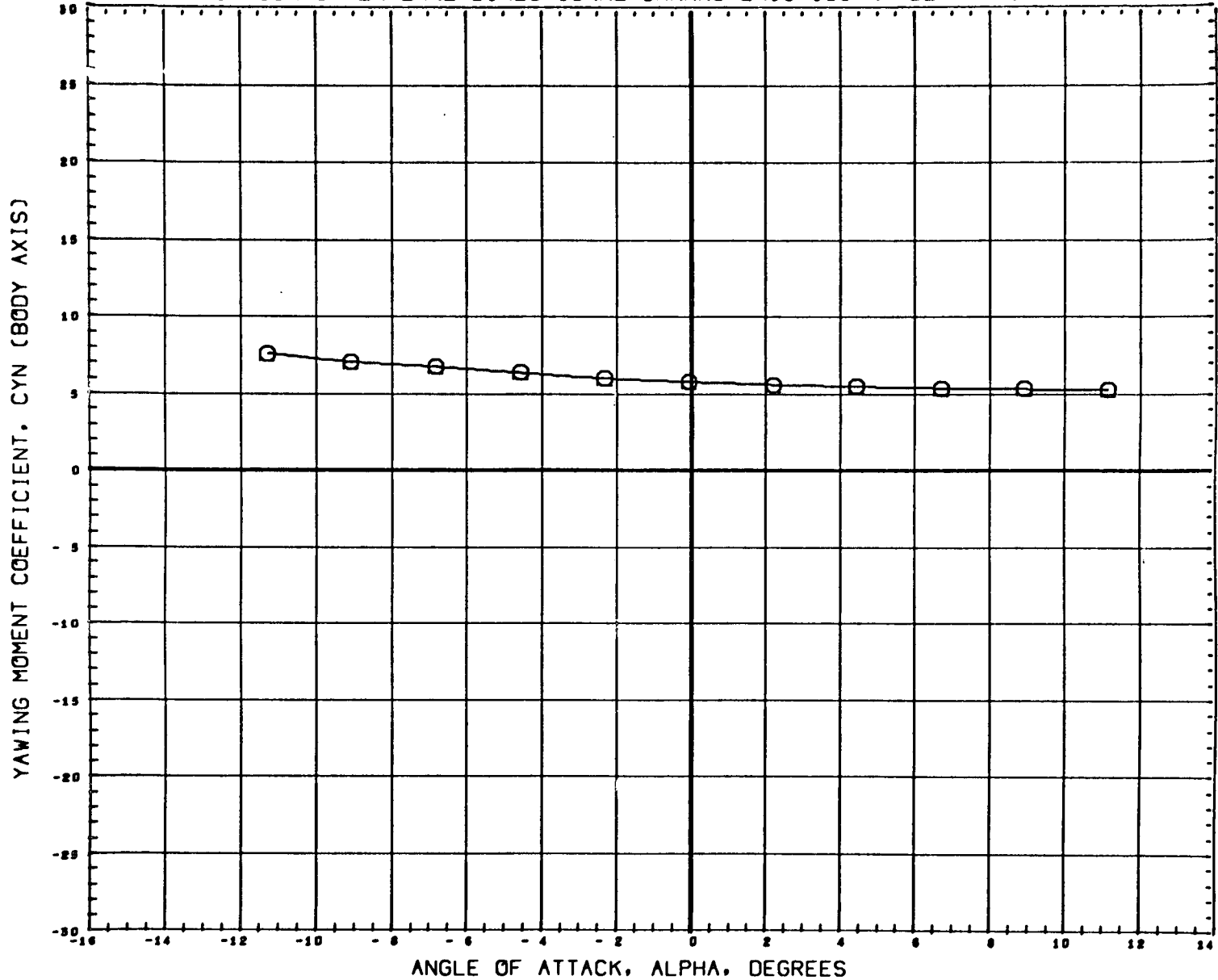
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



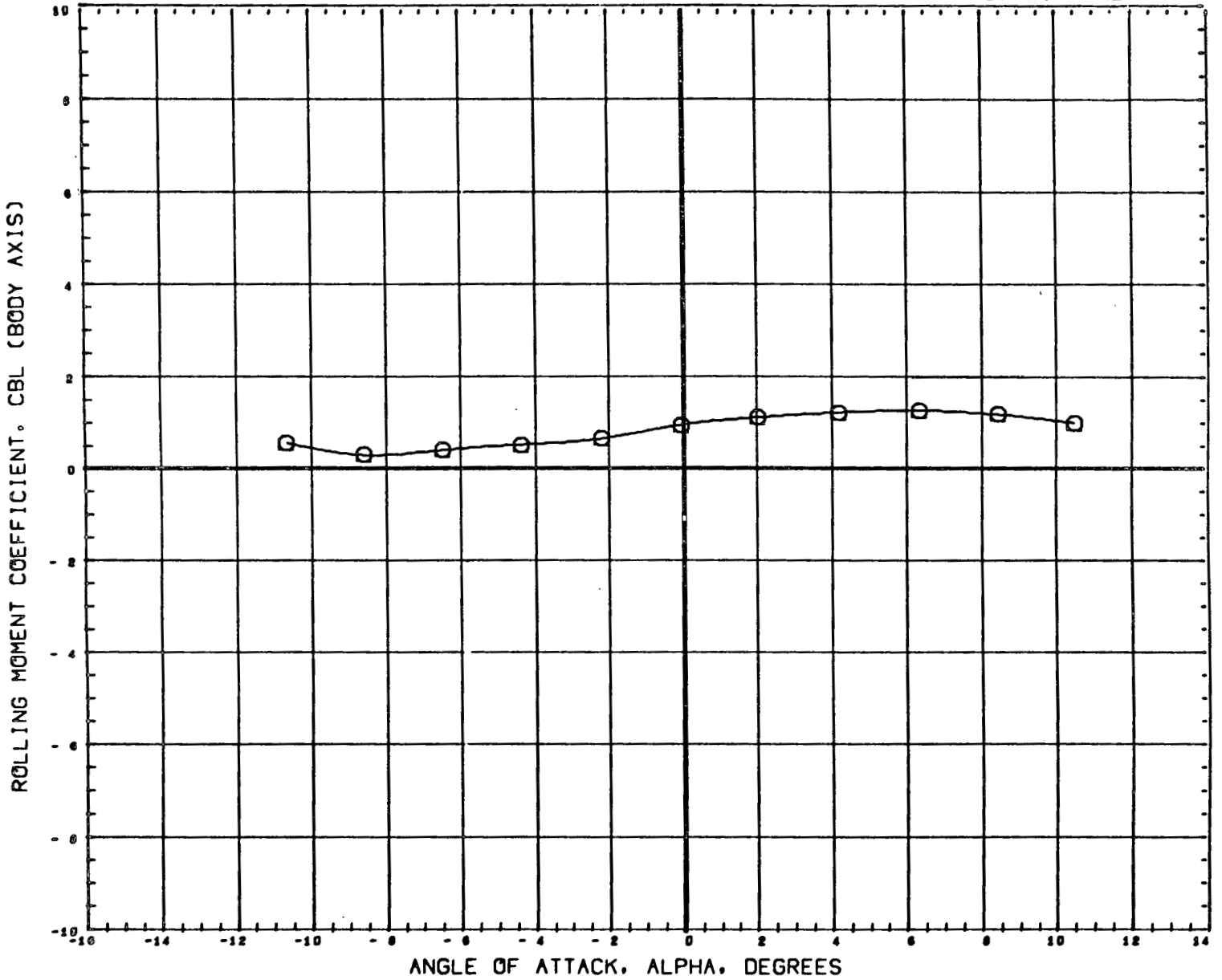
SYMBOL MACH PARAMETRIC VALUES
 O 1.969 BETA - 6.000

REFERENCE INFORMATION

SREF	0.5340	88 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TIT
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4900	PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL WACH PARAMETRIC VALUES
 O 0.603 BETA - 6.000

REFERENCE INFORMATION

BREF	0.5340	80 INC
LREF	0.0240	INCHEB
BREF	0.0240	INCHEB
XNRP	2.9170	IN TII
YNRP	0.0000	CORE C
ZNRP	0.0000	CORE C
SCALE	0.4300	PERCEN

REFERENCE FILE

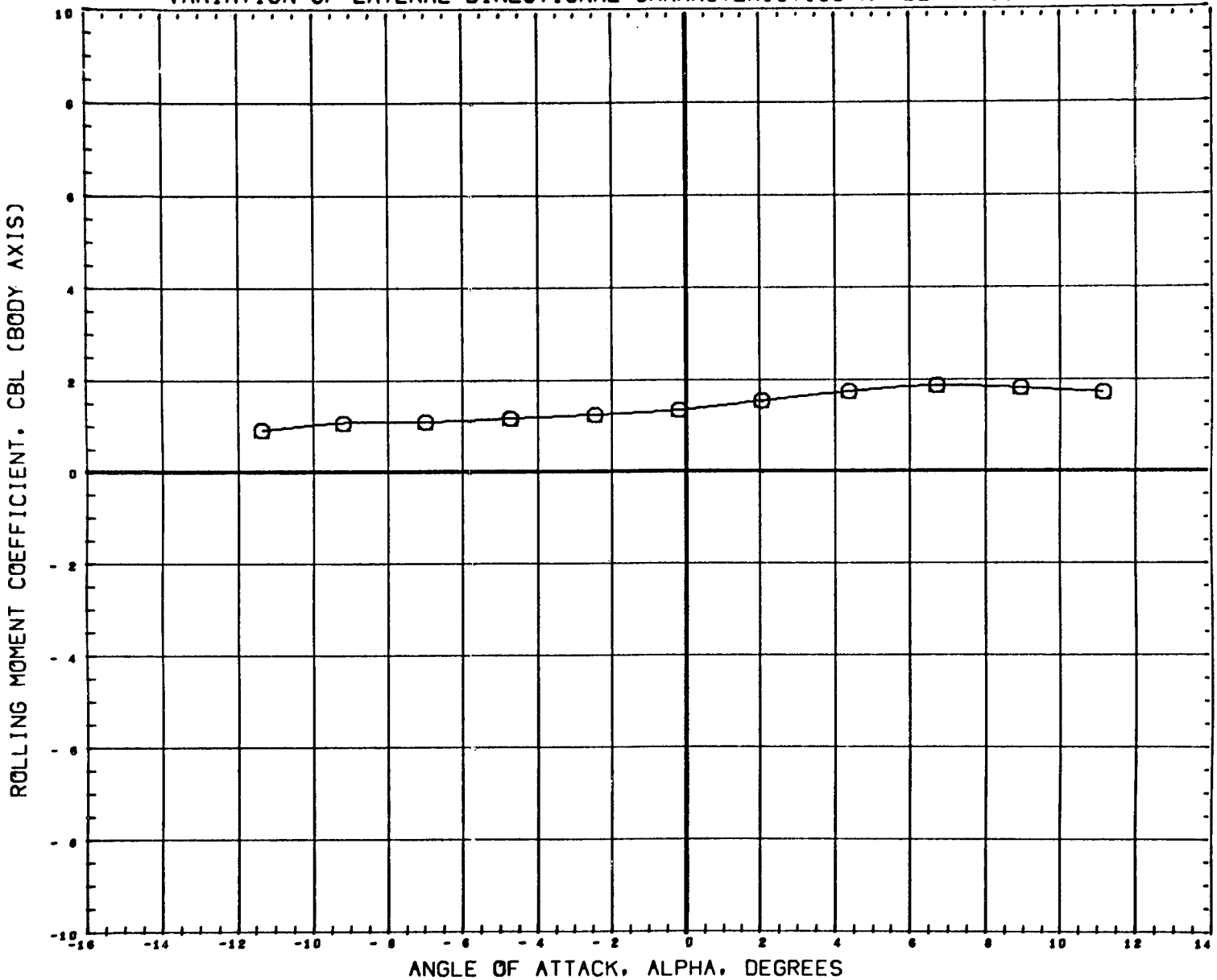
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

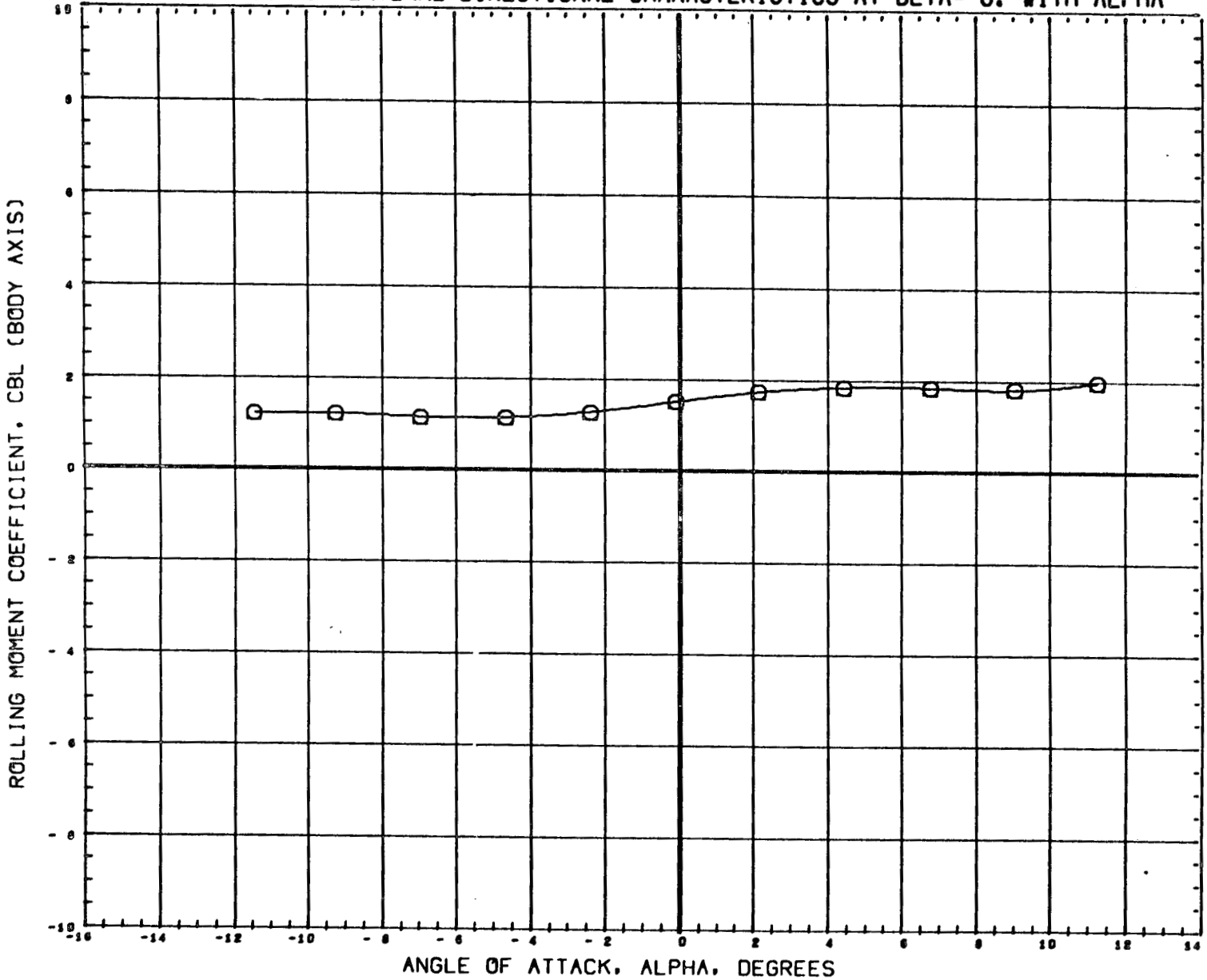


SYMBOL MACH PARAMETRIC VALUES
 O 1.004 BETA - 6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN YTI
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4500 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL \circ MACH 1.204 BETA - 6.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
BREF	0.3340	80 INC
LREF	0.8240	INCHES
BREF	0.8240	INCHES
XMRP	2.9170	IN TTI
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

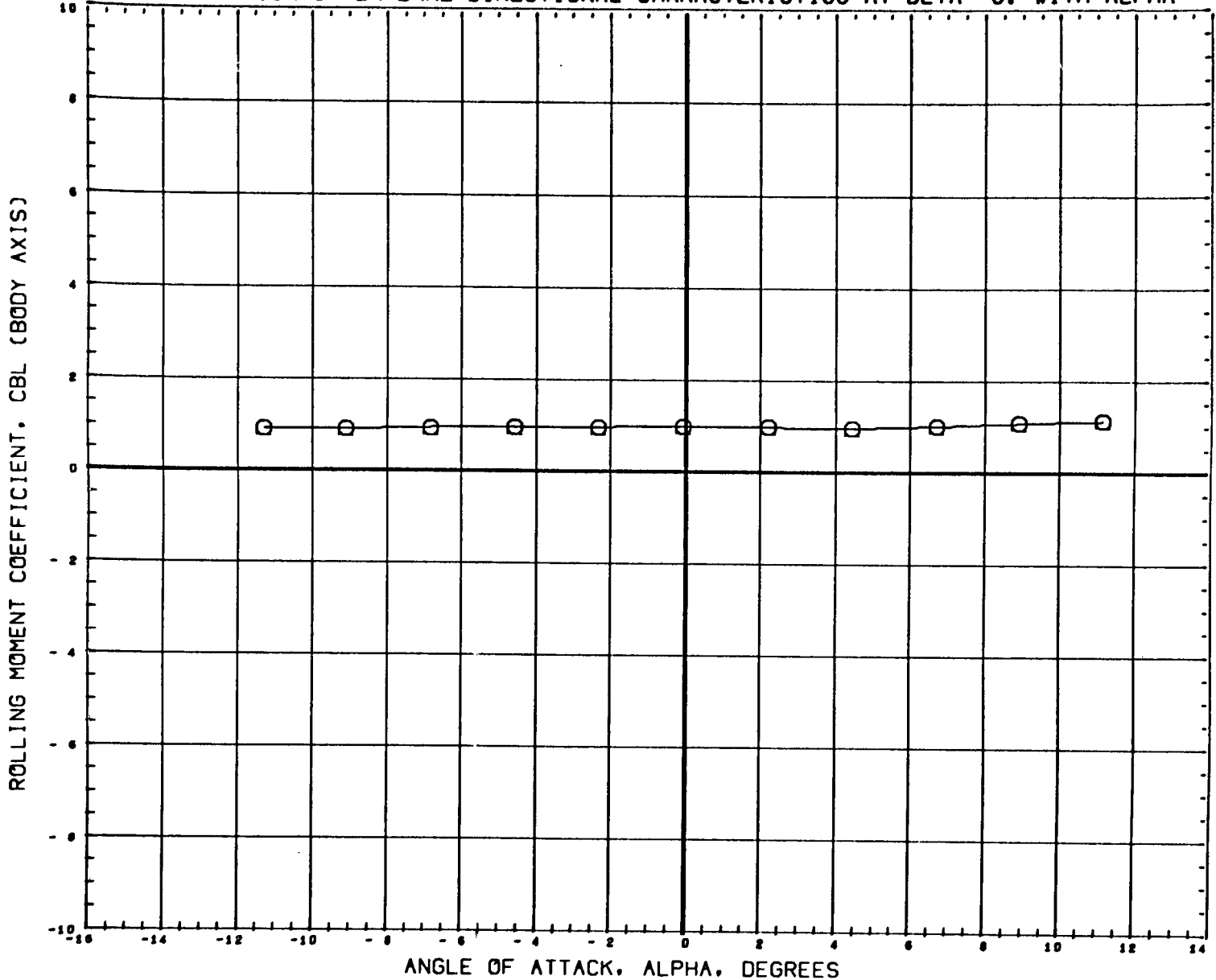
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

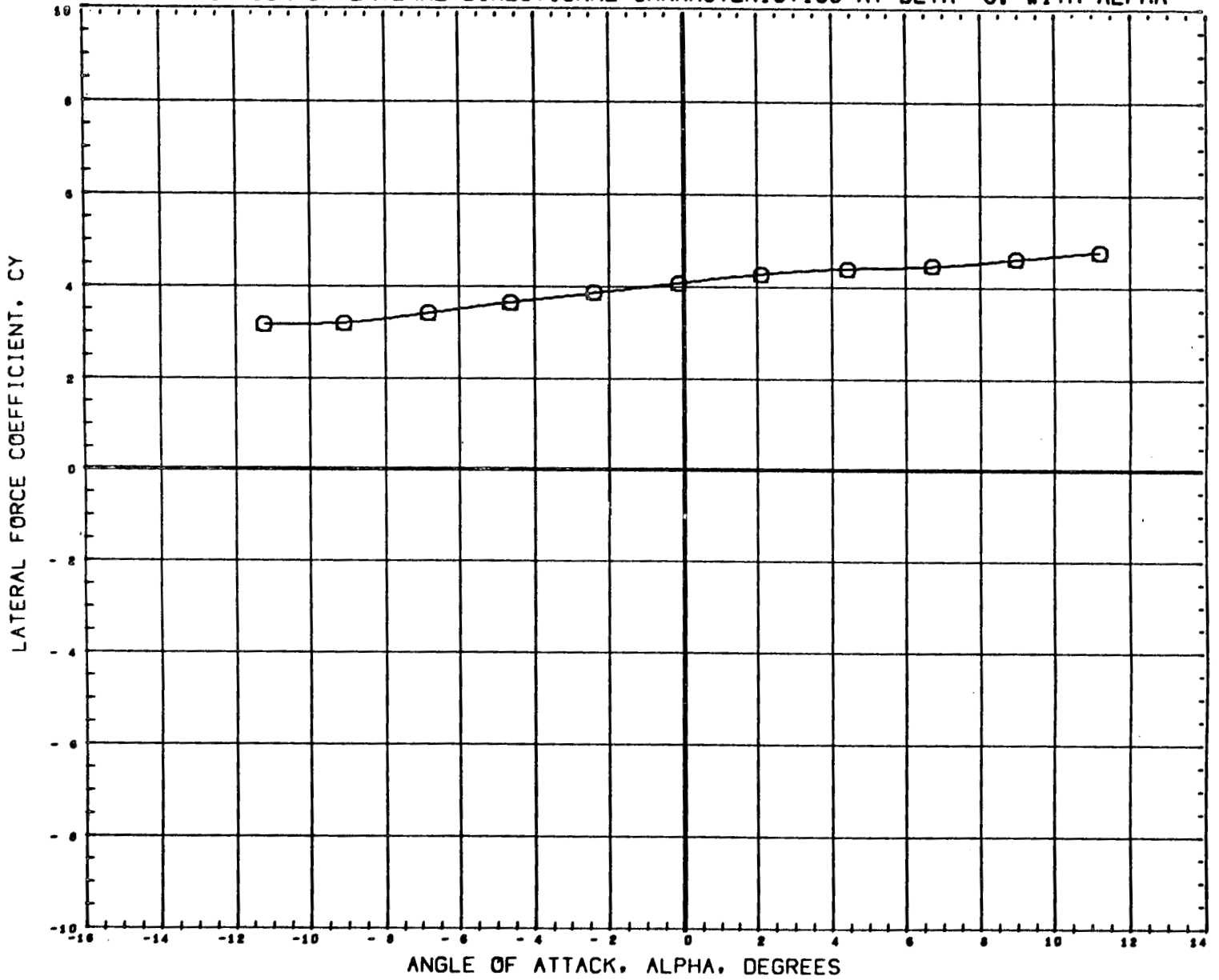


SYMBOL \circ MACH 1.969 BETA -6.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL MACH BETA PARAMETRIC VALUES
 ○ 0.996 -6.000

REFERENCE INFORMATION

SREF	0.9340	80 INC
LREF	0.0240	INCNES
BREF	0.0240	INCNES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCEN

REFERENCE FILE

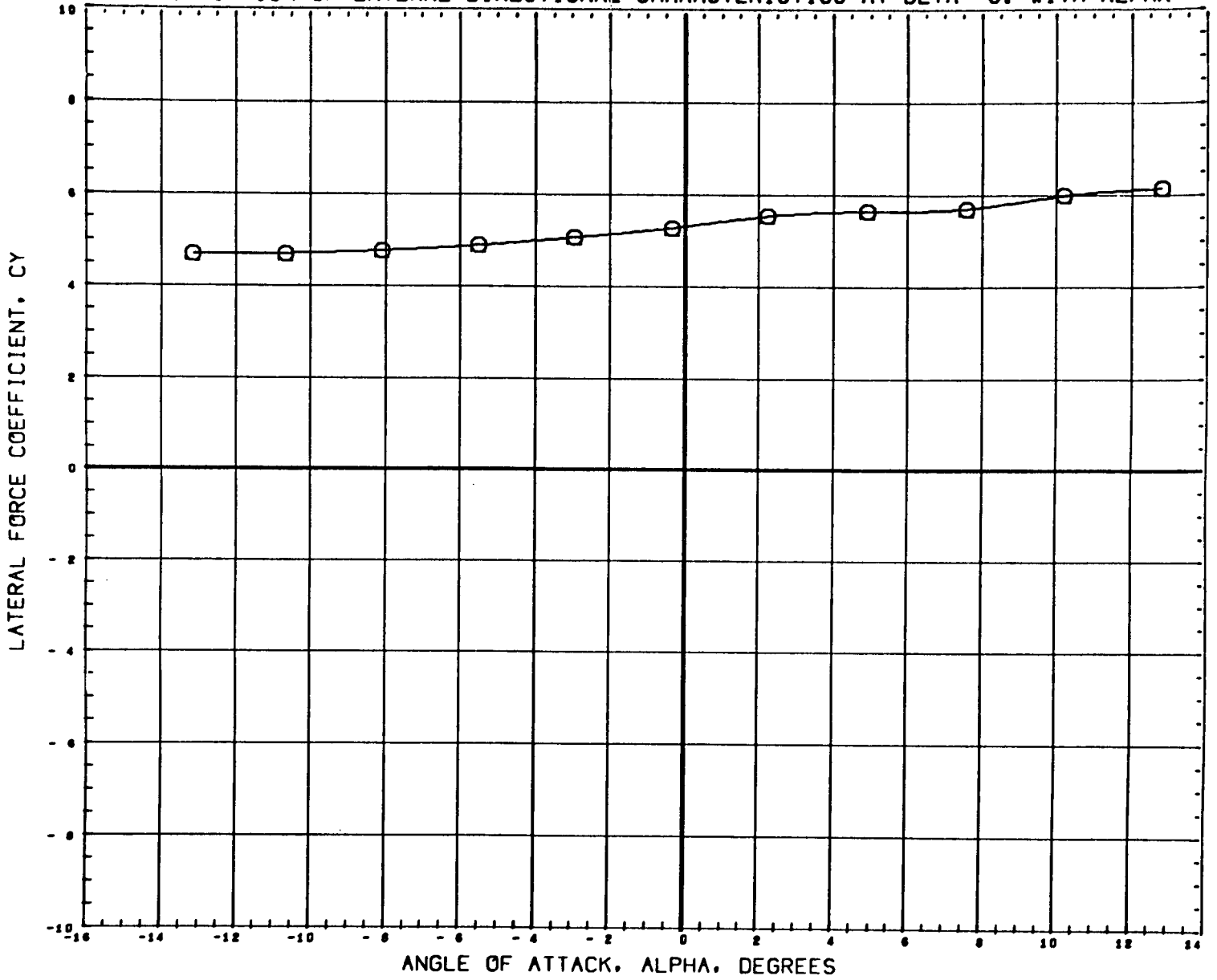
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL MACH PARAMETRIC VALUES
 O 0.996 BETA - 6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 OREF 0.8240 INCHES
 XMRP 2.9170 IN 711
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

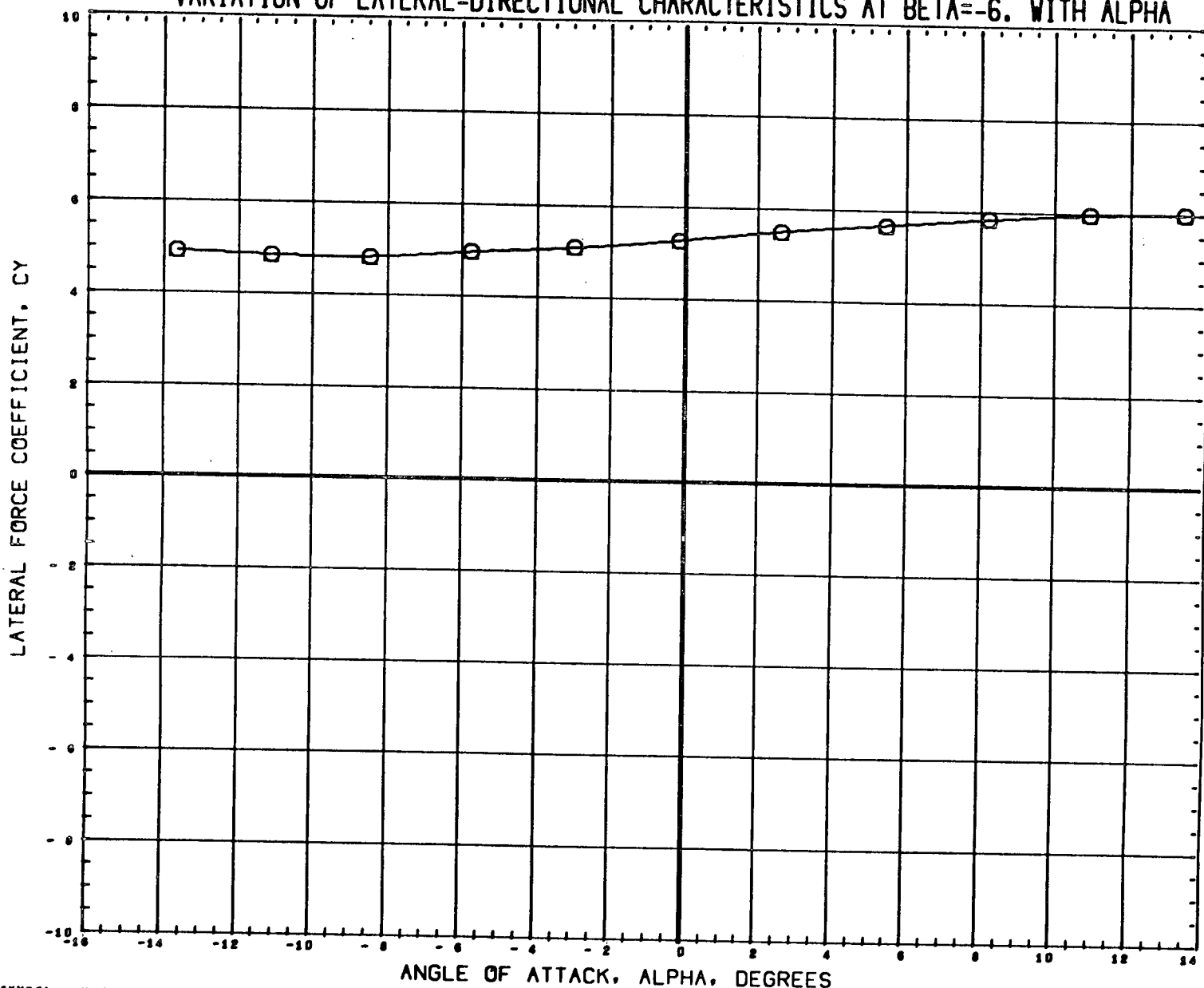
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL MACH PARAMETRIC VALUES
 O 1.197 BETA - 6.000

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

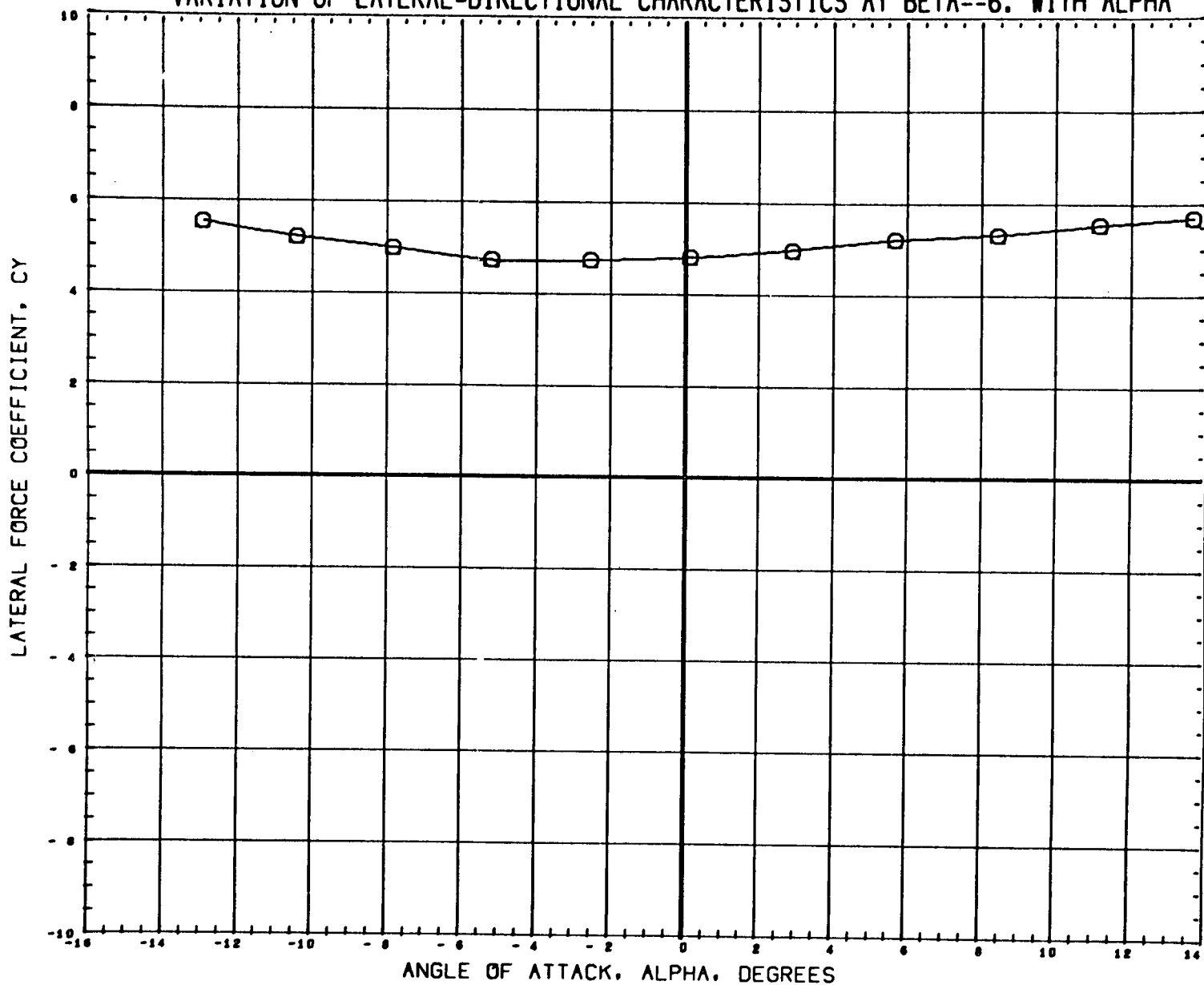
MSFC TWT 505 T111L/DT07

01D2L4

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL \bigcirc MACH 1.957 BETA - 6.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 DREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

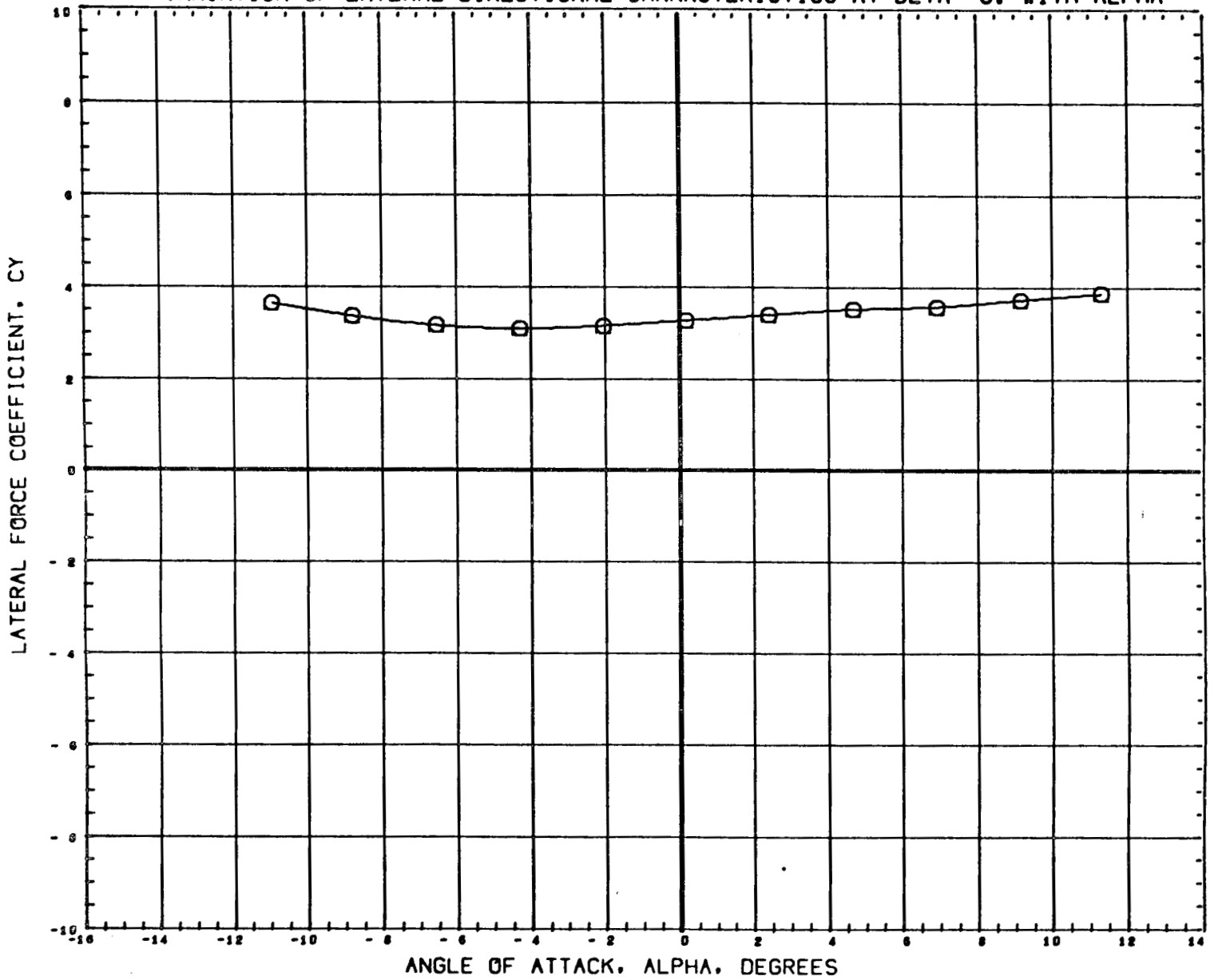
REFERENCE FILE

MSFC TWT 505 T111L/DT07

01D2L4

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL MACH PARAMETRIC VALUES
 O 3.460 BETA - 6.000

REFERENCE INFORMATION

SREF	0.5340	30 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

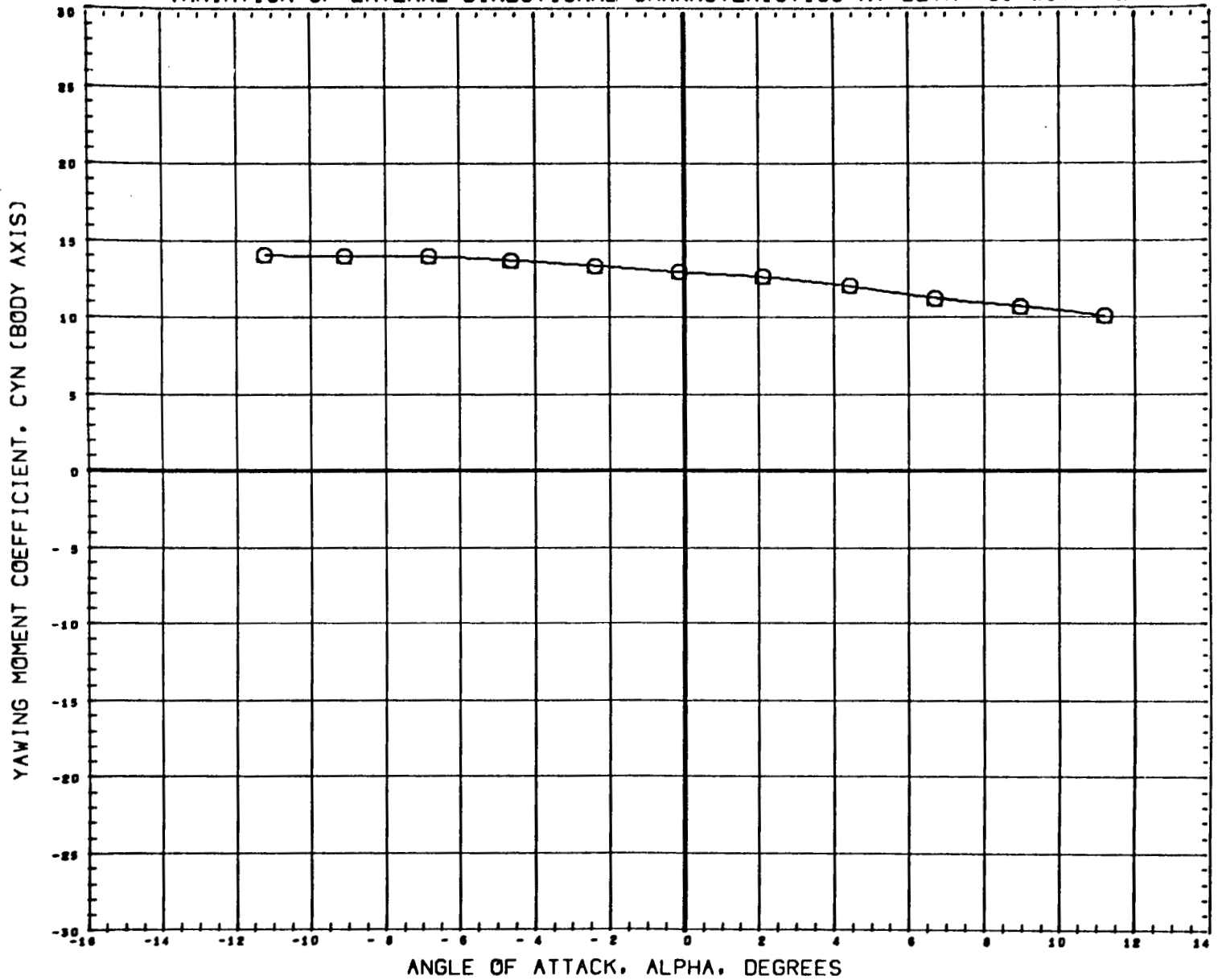
MSFC TWT 505 T111L/DT07

01D2L4

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL \bigcirc MACH 0.586 BETA - 6.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 98 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

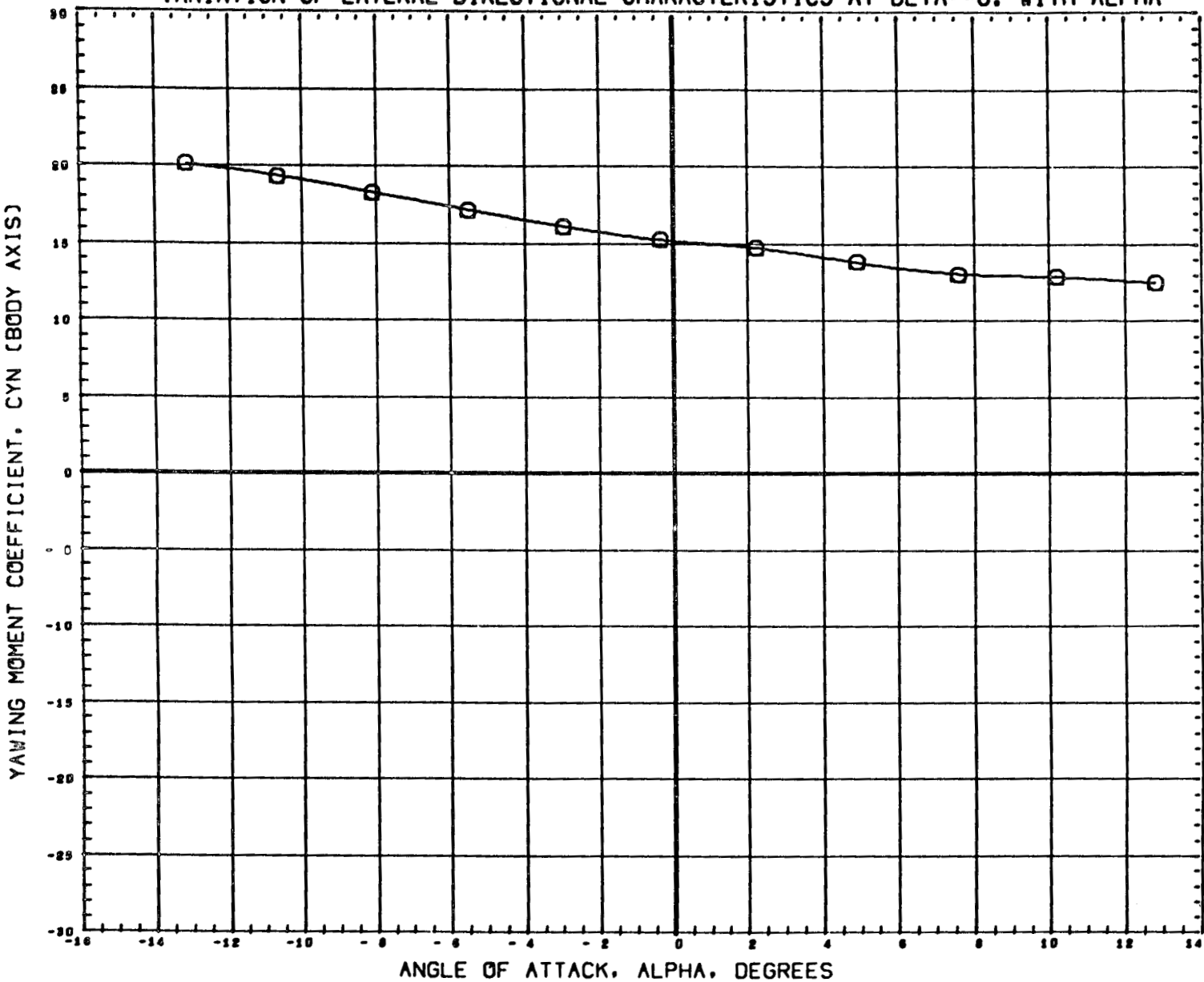
MSFC TWT 505 T111L/DT07

0102L4

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

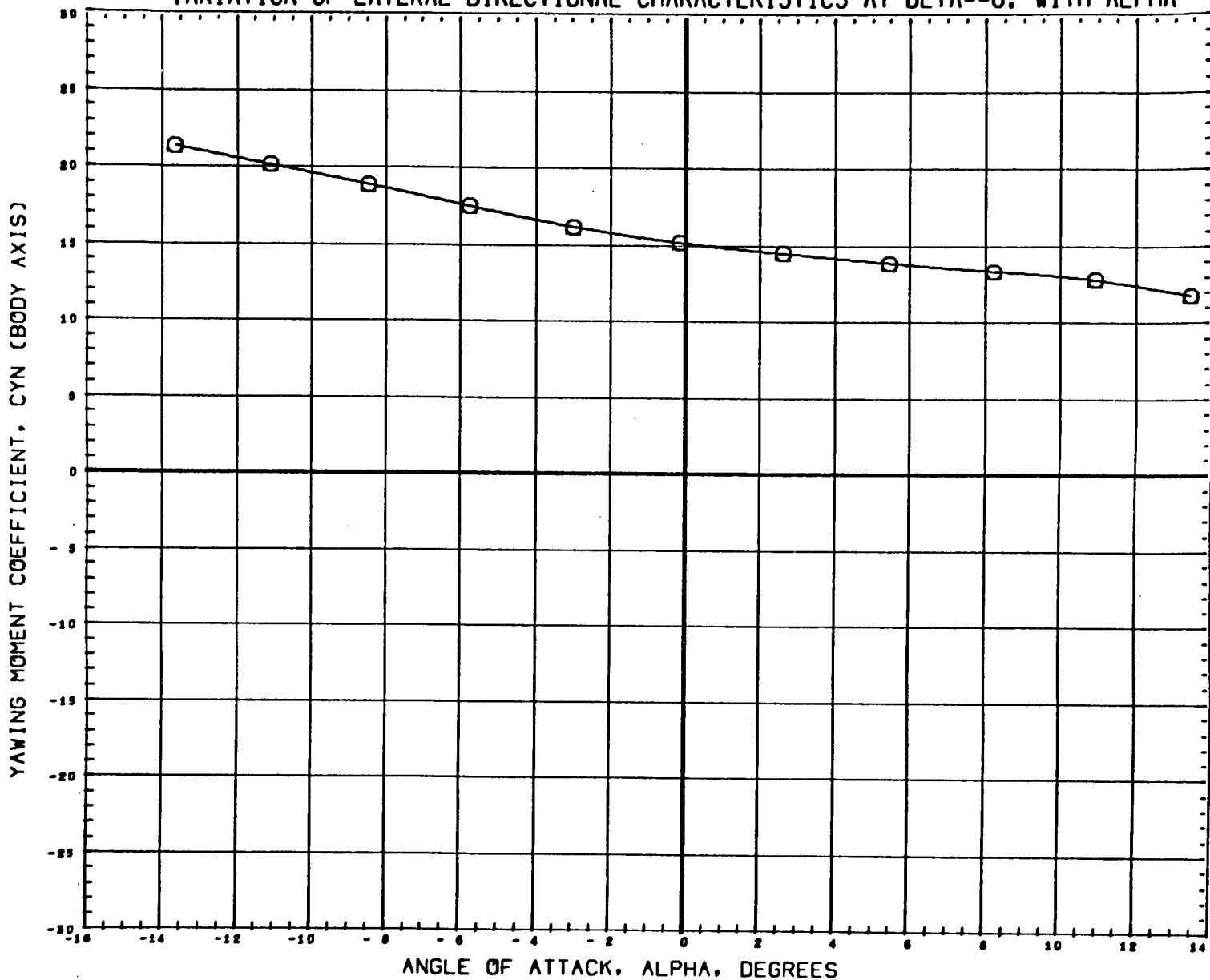


SYMBOL \circ MACH 0.998 BETA -6.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

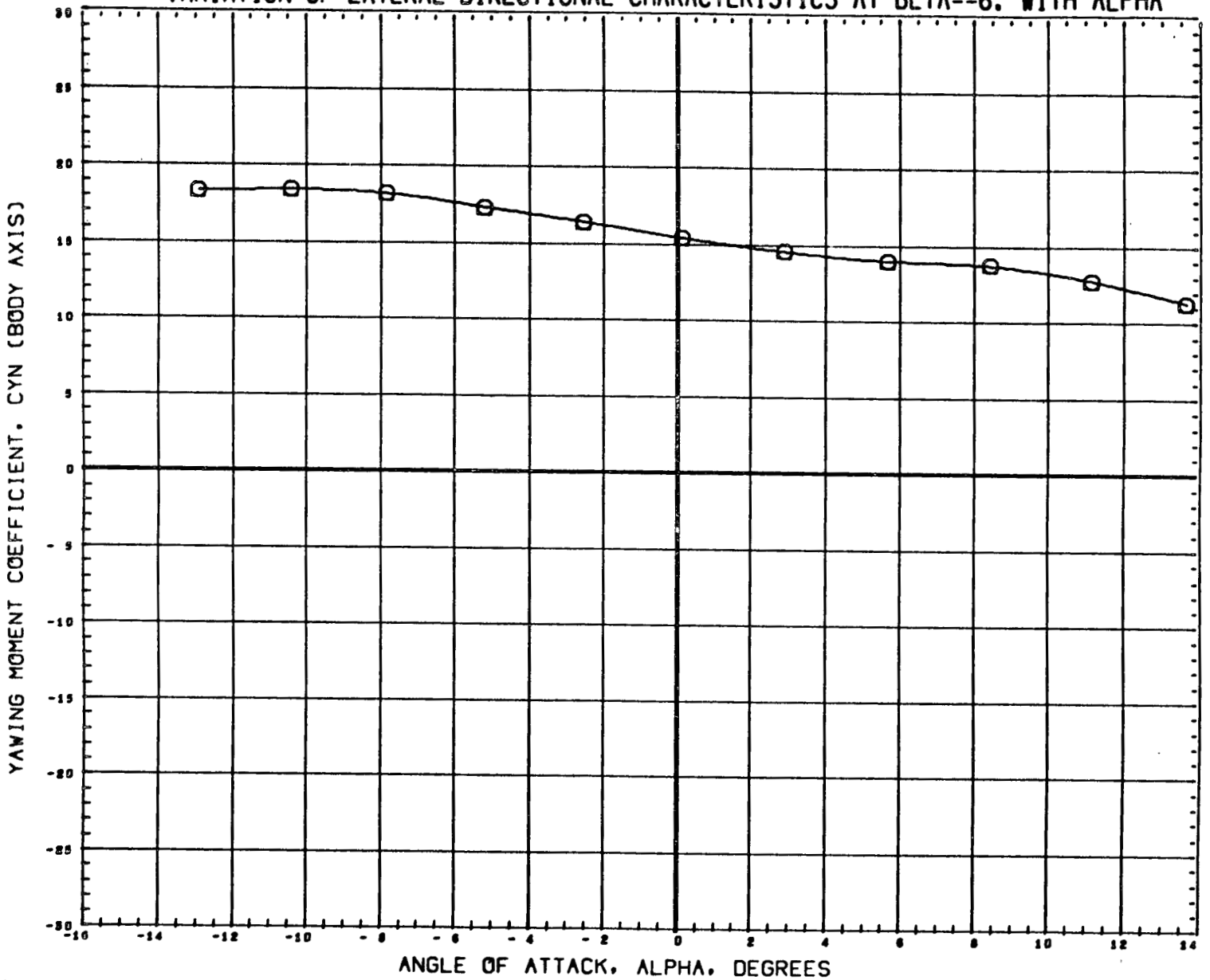


SYMBOL \bigcirc MACH 1.197 BETA -6.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XHRP 2.9170 IN T11
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

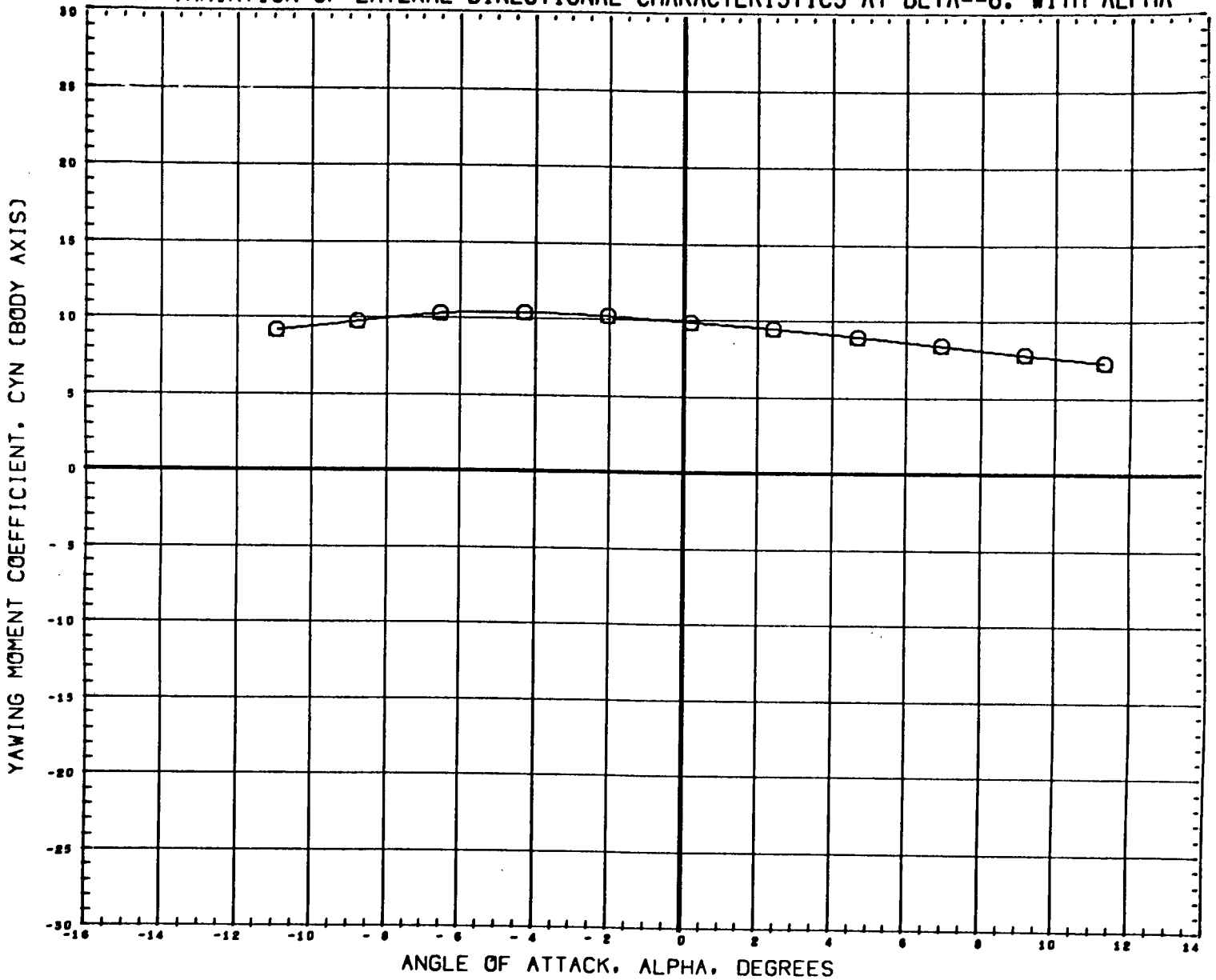


SYMBOL \bigcirc MACH 1.957 BETA - 6.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 BREF 0.5340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL \bigcirc MACH 3.400 BETA -6.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 BREF 0.0240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

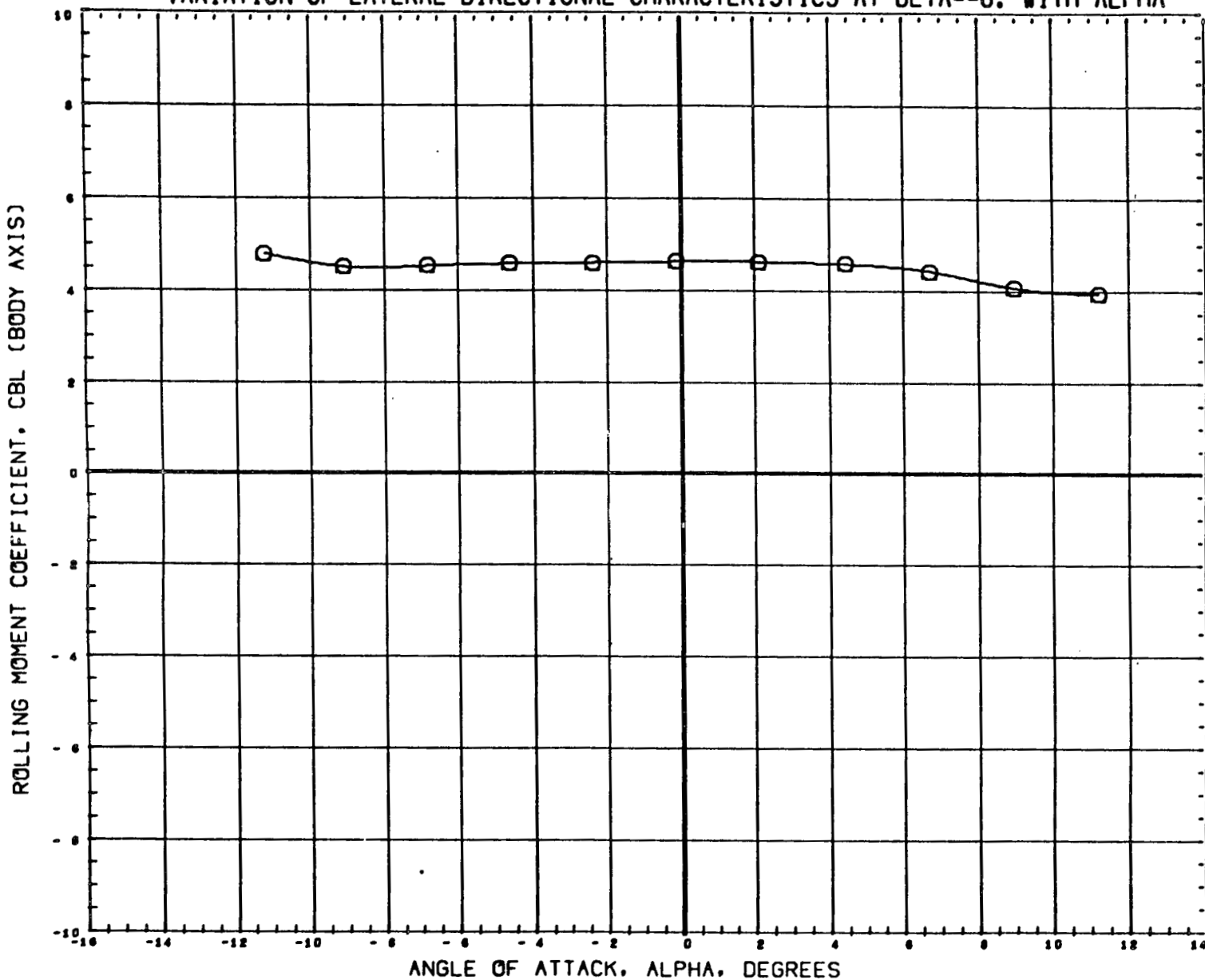
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL \circ MACH 0.996 BETA - 6.000 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.9340 80 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN T11
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

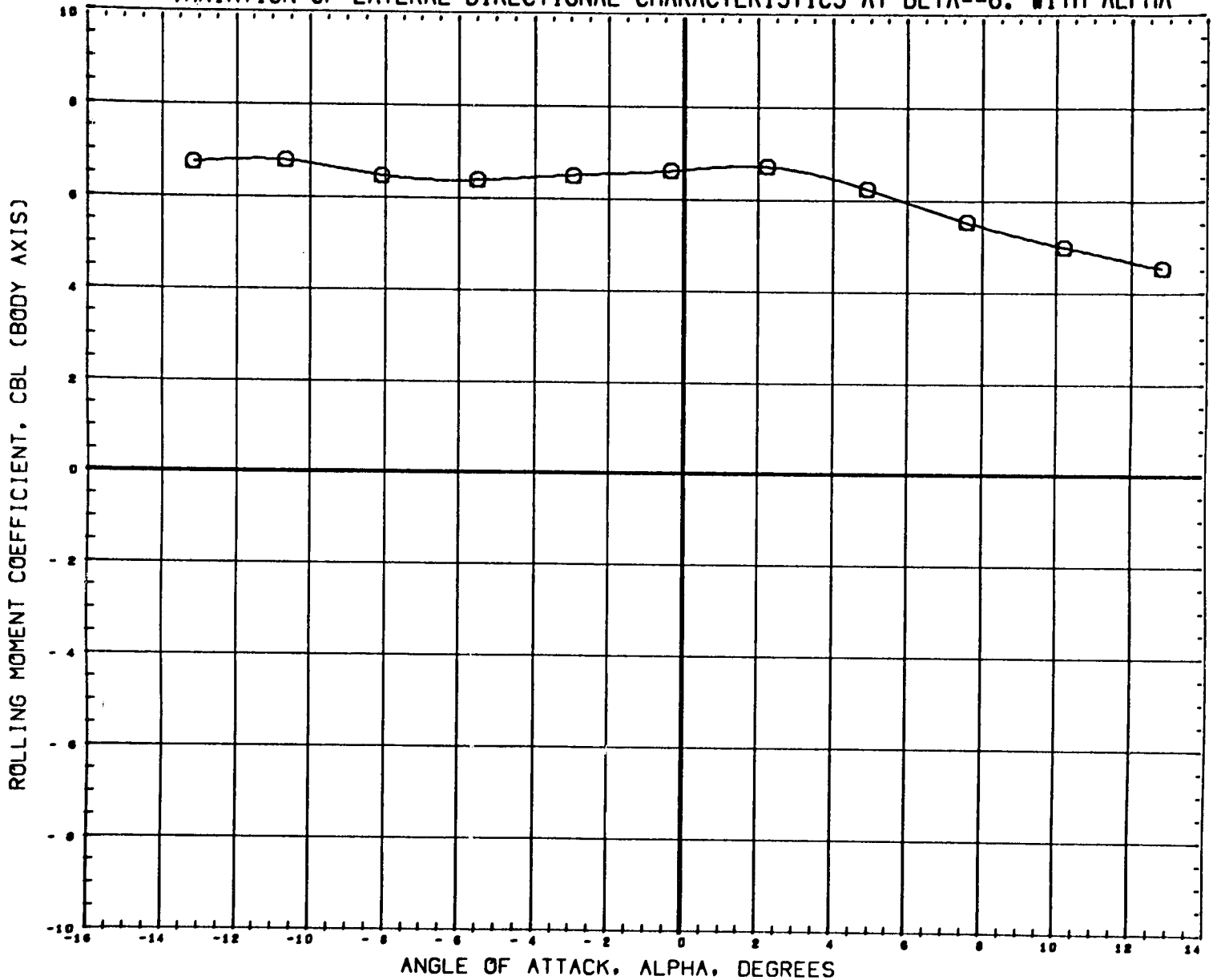
MSFC TWT 505 T111L/DT07

01D2L4

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL MACH PARAMETRIC VALUES
 O 0.996 BETA - 6.000

REFERENCE INFORMATION
 SREF 0.5340 88 INC
 LREF 0.8240 INCHES
 OREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

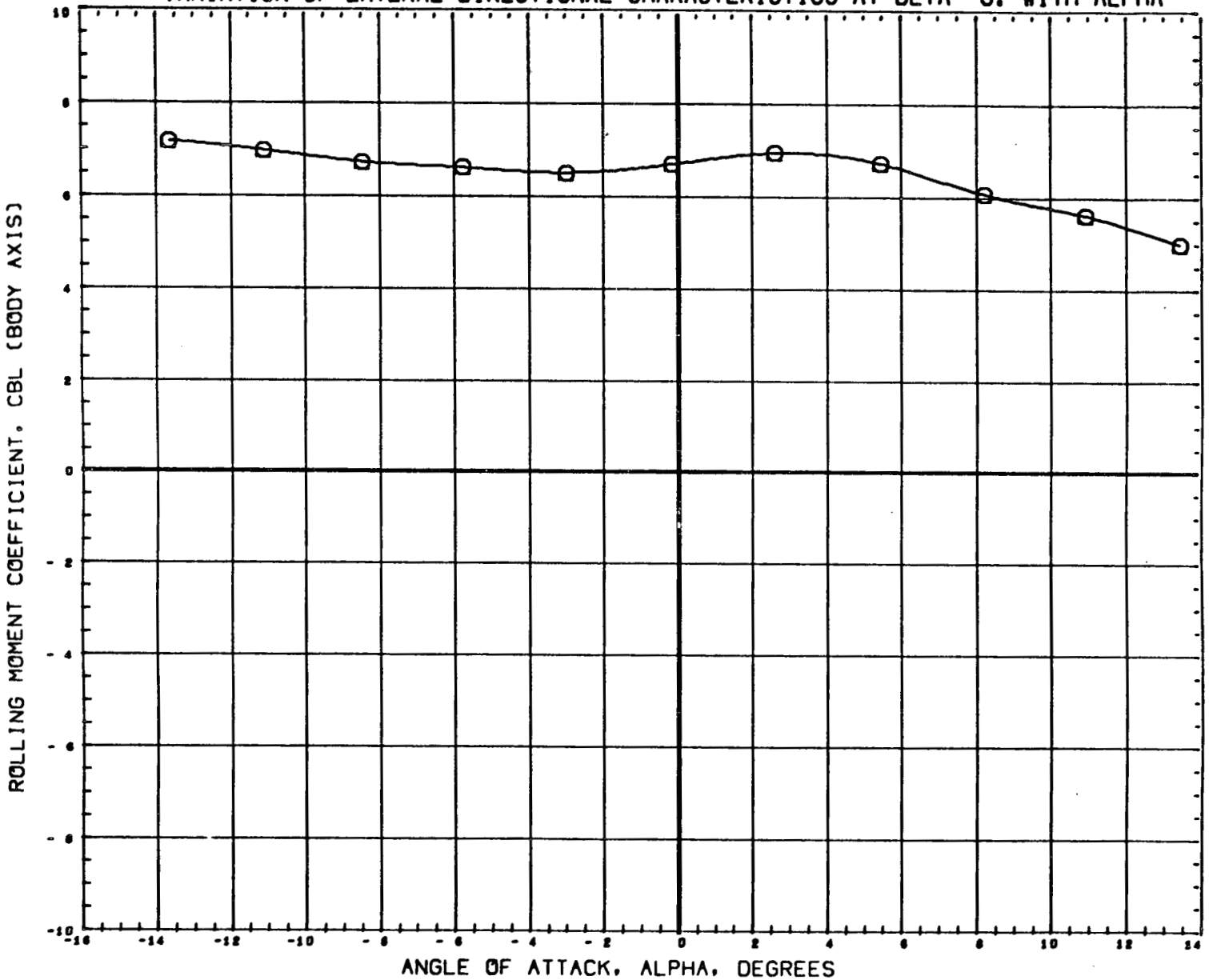
MSFC TWT 505 T111L/DT07

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA

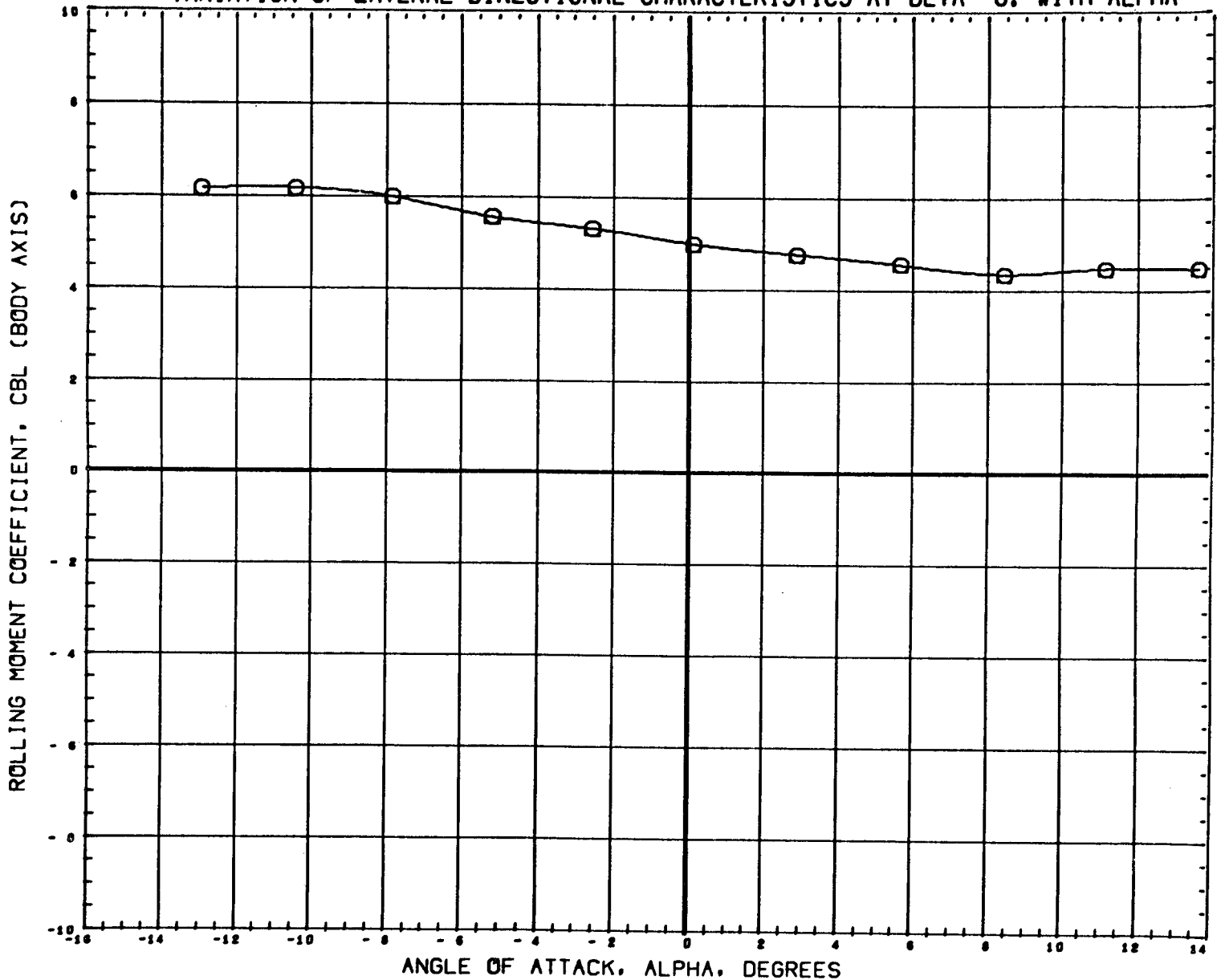


SYMBOL MACH PARAMETRIC VALUES
 O 1.197 BETA - 0.000

REFERENCE INFORMATION
 SREF 0.9340 88 INC
 LREF 0.8240 INCHES
 BREF 0.8240 INCHES
 XMRP 2.9170 IN TII
 YMRP 0.0000 CORE C
 ZMRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL \circ MACH 1.997 BETA - 6.000
 PARAMETRIC VALUES

REFERENCE INFORMATION
 SREF 0.5340 80 INC
 LREF 0.0240 INCHES
 DREF 0.0240 INCHES
 XHRP 2.9170 IN TII
 YHRP 0.0000 CORE C
 ZHRP 0.0000 CORE C
 SCALE 0.4300 PERCENT

REFERENCE FILE

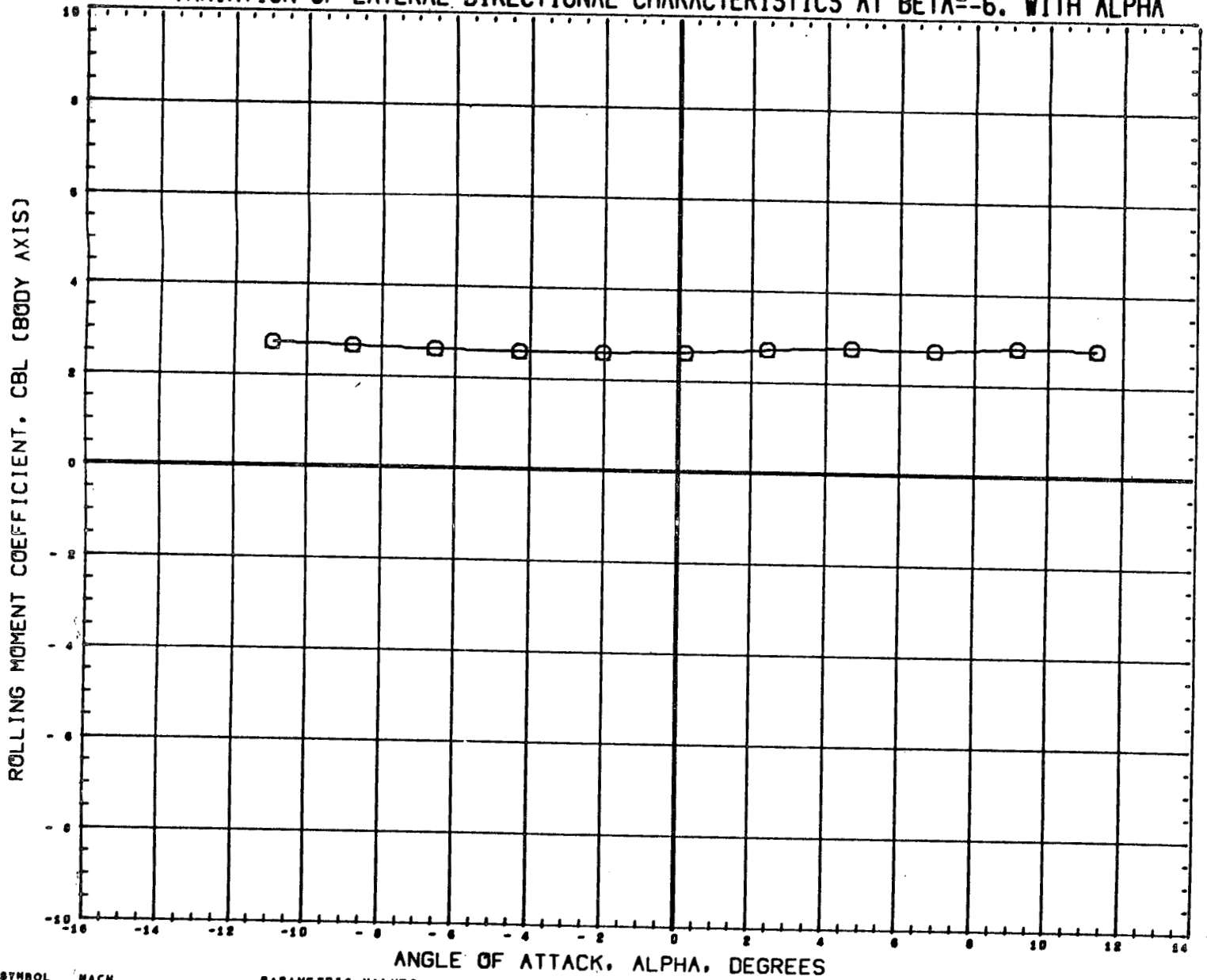
MSFC TWT 505 T111L/DT07

01D2L4

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VARIATION OF LATERAL-DIRECTIONAL CHARACTERISTICS AT BETA=-6. WITH ALPHA



SYMBOL \circ MACH 3.400 BETA -6.000 PARAMETRIC VALUES

REFERENCE INFORMATION		
SREF	0.5340	50 INC
LREF	0.0240	INCHES
BREF	0.0240	INCHES
XMRP	2.9170	IN TII
YMRP	0.0000	CORE C
ZMRP	0.0000	CORE C
SCALE	0.4300	PERCENT

REFERENCE FILE

MSFC TWT 505 T111L/DT07

01D2L4

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