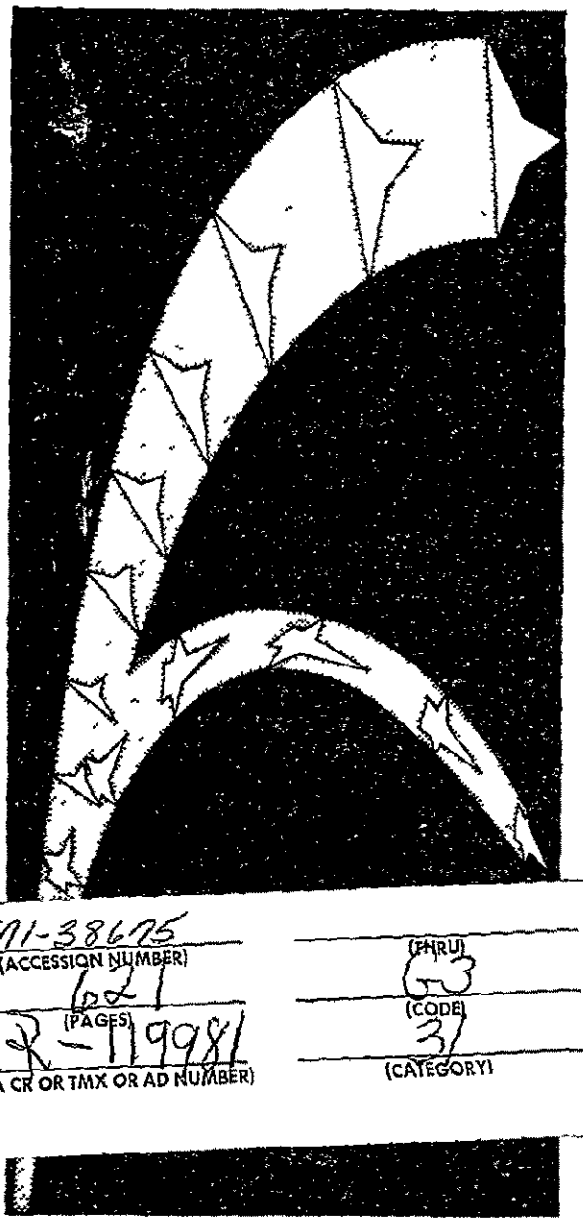
2
MIX

DMS-DR-1140
AUGUST, 1971



FACILITY FORM 602
N71-38625 (ACCESSION NUMBER)
622 (PAGES)
CR-119981 (NASA CR OR TMX OR AD NUMBER)
(THRU) G3
(CODE) 37
(CATEGORY)

—SPACE SHUTTLE—

EFFECT OF ORBITER INCIDENCE ANGLE ON THE AERODYNAMIC CHARACTERISTICS OF THE THE BOEING S-IC BOOSTER/GAC G-11 ORBITER LAUNCH CONFIGURATION

M = .6 – 4.96

BY

L.L. Watts, TBC

MSFC 14-INCH
TRISONIC WIND TUNNEL

MARSHALL
SPACE FLIGHT CENTER

NASA

SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM

Reproduced by
NATIONAL TECHNICAL
INFORMATION SERVICE
U S Department of Commerce
Springfield VA 22151

CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER

SPACE DIVISION CHRYSLER CORPORATION

OCT 1971
RECEIVED
NASA STI FACILITY
INPUT BRANCH

NASA Series Number: S-1035

DMS-DR-1140
AUGUST, 1971

SADSAC/SPACE SHUTTLE

WIND TUNNEL TEST DATA REPORT

CONFIGURATION: Saturn S-IC Booster/Grumman Drop Tank Orbiter

TEST PURPOSE: To Determine Optimum Orbiter Incidence Angle and Corresponding Configuration Aerodynamic Characteristics.

Tunnel hours - 69

TEST FACILITY: NASA-MSFC 14" Trisonic Wind Tunnel

TESTING AGENCY: The Boeing Company

TEST NO. & DATE: MSFC 491; May 6, 1971

FACILITY COORDINATOR: Jim Weaver - MSFC

PROJECT ENGINEER(S): L. Watts - TBC

DATA MANAGEMENT SERVICES

LIAISON: for John E. Vaughn
Aero Thermo Data Group

DATA OPERATIONS: John Hord
John Hord
Aero Thermo Data Group

RELEASE APPROVAL: FOR N. D. Kemp, Supervisor
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.

FACILITY COORDINATOR:

Mr. Jim Weaver
Marshall Spaceflight Center
Mail Stop S&E-AERO-AAE
Huntsville, Alabama 35801

Phone: (205) 453-2512

PROJECT ENGINEER:

Mr. L. Watts
Mail Stop JC-35
ORGN. 594-13
The Boeing Company
Huntsville, Alabama 35807

Phone: (205) 895-2990

SADSAC LIAISON:

Mr. John E. Vaughn
Chrysler Corp. Space Division
102 Wynn Drive
Department 4830
Huntsville, Alabama 35805

Phone: (205) 895-1560

SADSAC OPERATIONS

Mr. John Hord
Chrysler Corp. Space Division
P. O. Box 29200
Department 2780
New Orleans, Louisiana 70129

Phone: (504) 255-2304

ABSTRACT

Experimental aerodynamic investigations were conducted during May, 1971 on a .003366 scale model of the Grumman space shuttle orbiter mounted to a Saturn S-IC booster. These tests were conducted in the MSFC 14" Trisonic Wind Tunnel and covered a Mach number range from 0.6 to 4.96. Primary test objectives were to determine optimum orbiter incidence relative to the booster, and booster fin orientation. Six component static aerodynamic coefficients are presented in plotted form in this report.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

	Page
LIST OF FIGURES AND TABLES	2
SUMMARY	3
CONFIGURATIONS INVESTIGATED	4
DATA SET COLLATIONS	5
TEST FACILITY DESCRIPTION	8
TEST CONDITIONS	9
DATA REDUCTION	12
SUMMARY DATA PLOT INDEX	13
FIGURES	16
MODEL COMPONENT DESCRIPTION SHEETS	31
STANDARD NOMENCLATURE	40
TABULATED DATA LISTING	48
PLOTTED DATA	49

LIST OF FIGURES

Figure	Title	Page
1	Axis System	17
2	G-11 Orbiter/S-IC 0.003366 Scale Model	18
3	Photograph of Model Installed in MSFC 14 x 14 Inch Wind Tunnel	19
4	S-IC/G-11 0.003366 Scale Orbiter Model, Cradle Off	20
5	S-IC/G-11 0.003366 Scale Orbiter Model with Associated Parts	21
6	G-11 Orbiter with Cradle	22
7	S-IC/G11 Orbiter Cradle	23
8	S-IC/G11 0.003366 Orbiter Model Drop Tank	24
9	884 Sq Ft. S-IC Fin -F	25
10	900 Sq Ft. S-IC Fin -F_1	26
11	S-IC 45° Fin Configuration -F_1	27
12	Saturn V/S-IC Booster	28
13	Trip Strip Chart	29
14	Base Pressure Tap Locations	30

LIST OF TABLES

Table	Title	Page
I	SADSAC Nomenclature of Aerodynamic Coefficients	7
II	Test Conditions	11

N O T I C E

THIS DOCUMENT HAS BEEN REPRODUCED FROM THE BEST COPY FURNISHED US BY THE SPONSORING AGENCY. ALTHOUGH IT IS RECOGNIZED THAT CERTAIN PORTIONS ARE ILLEGIBLE, IT IS BEING RELEASED IN THE INTEREST OF MAKING AVAILABLE AS MUCH INFORMATION AS POSSIBLE.

SUMMARY

These tests were conducted at the MSFC 14-inch trisonic tunnel May 6 through May 12, 1971. Configurations tested included an orbiter with drop tanks and cradle mounted on: 1) An S-IC booster with fins oriented 27 1/2° off the horizontal reference plane, 2) an S-IC booster with fins oriented 45° off the horizontal reference plane, 3) an S-IC booster with no fins. In addition testing was performed with drop tanks removed, drop tanks moved aft and cradle removed. The first part of the test was conducted with orbiter incidence angles (relative to the booster $\mathrm{C_L}$) of +1, 0, -2 and -4 degrees in order to determine the optimum condition. The angle so determined was -3.1 degrees and was utilized for the remainder of the test.

Six component static aerodynamic force and moment data were recorded over a Mach number range from 0.6 to 4.96 with Reynolds number varying from 5.5 to 8.7 x 10^6 per foot. Longitudinal data were taken over an angle of attack range of $\pm 8°$ at 0° sideslip while lateral-directional data covered a range of $\pm 8°$ sideslip at 0° angle of attack.

CONFIGURATIONS INVESTIGATED

COMPONENT NOMENCLATURE

O	Grumman Orbiter Body G-11 (H3T)
V	Orbiter Vertical Stabilizer
W	Orbiter Clipped Delta Wing
T_1	Orbiter Drop Tanks in Forward Position
T_2	Orbiter Drop Tanks in Aft Position
C	S-IC/Orbiter Adapter Cradle
B	S-IC Booster
F	S-IC 884 Square-Foot Fins Oriented 27 1/2° Off Horizontal Reference Plane
F_1	S-IC 900 Square Foot Fins Oriented 45° Off Horizontal Reference Plane

Pertinent dimensional data for each of the above components is given in the section entitled "Model Component Description Sheets." The data set collation sheets which follow immediately gives the various combinations of the components tested.

TEST *MSFC TWT 491* DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES ℓ_o	PARAMETERS/VALUES ϕ	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.0	1.1	1.2	1.46	1.96	2.99	4.0	4.96		
R33011	ϕVWCBT,F	A	0	+1°	0°			001/0	002/0	003/0	004/0							
R33051	ϕVWCBT2F	A	|	+1°	|			008/0	007/0	006/0	005/0							
R33151	ϕVWCBT2F	D	|	0°	|			009/1	010/1	011/1	012/1							
R33111	ϕVWCB T,F	|	|	0°	|			016/0	015/1	014/1	013/0							
R33211	ϕVWCBT,F	|	|	-2°	|			017/0	018/1	019/1	020/0							
R33251	ϕVWCBT2F	|	|	-2°	|			024/0	023/0	022/0	021/0							
R33351	ϕVWCBT2F	|	|	-4°	|			025/0	026/0	027/0	028/0							
R33311	ϕVWCBT,F	|	|	-4°	|			032/0	031/0	030/0	029/0							
R33411	ϕVWCBT,F	∨	∨	-3.1°	∨		033/0	034/0	035/0	036/0	037/0	092/0	093/0	090/0	091/0	047/0		
R33412	ϕVWCBT,F	O	G	|	90°		052/0	051/0	050/0	049/0	048/0	089/0	096/0	046/0	045/0	044/0		5
R33032	ϕVWCBF	O	G	|	90°		053/0	054/1	055/0	056/0	057/0	088/0	097/0	123/0	095/0	094/0		
R33031	ϕVWCBF	D	O	|	0°		062/0	061/0	060/0	059/0	058/0	087/0	098/0	124/0	125/0	126/0		
R33041	ϕVWCB	D	O	|	0°		063/0	064/0	065/0	066/0	067/0	086/0	099/0					
R33042	ϕVWCB	O	G	|	90°		072/0	071/1	070/1	069/1	068/0	085/0	100/0					
R33022	ϕVWCBT,	O	G	|	90°		073/0	074/0	075/1	076/1	077/1	084/0	101/0	043/0	042/0	041/0		
R33021	ϕVWCBT,	D	O	|	0°		082/0	081/0	080/0	079/0	078/0	083/0	102/0	040/0	039/0	038/0		
R33101	ϕVWCBT,F	D	O	|	180°			103/0	104/0	105/0	106/0							
R33071	ϕVWBT,F	D	O	|	0°			110/0	109/0	109/0	107/0							
R33072	ϕVWBT,F	O	G	|	90°			111/0	112/0	113/0	111/0							
R33081	ϕVWBT,	D	O	↓	0°			118/0	117/0	116/0	115/0							

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

CLM ICN ICYN ICY ICBL CPC CAB CAF CPBI CAT | IC

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

α or β SCHEDULES

$\alpha A = -8°, -6°, -4°, -2°, 0°, +2°, +4°, +6°, +8°$

$\alpha D = -8°, -6°, -4°, -2°, -1°, 0°, +1°, +2°, +4°, +6°, +8°$

$\beta G = -8°, -6°, -4°, -2°, -1°, 0°, +1°, +2°, 4°, +4°, +8°$

TEST *MSFC TWT 491* DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES L_o	PARAMETERS/VALUES ϕ			NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.0	1.1	1.2	1.46						
R33082	ΦVWBT,	O	G	-3.1°	90°					119/0	120/0	121/0	122/0							
R33091	ΦVWCBT,F,	D	O	-3.1°	0°					127/0	123/0	123/0	130/0							

TABLE I. SADSAC NOMENCLATURE OF AERODYNAMIC COEFFICIENTS

COEFFICIENT	COEFFICIENT NAME	SADSAC NOMENCLATURE		
		BODY AXIS	STABILITY AXIS	WIND AXIS
C_A	Total Axial Force	CA	-	-
C_{AB}	Base Axial Force	CAB	--	-
C_{AF}	Forebody Axial Force	CAF	-	-
C_D	Total Drag Force	-	CD	CDTOTL
C_{DB}	Base Drag Force	-	CDB	CDBASE
C_{DF}	Forebody Drag Force	-	CDF	CDFORE
C_L	Lift Force	-	CL	CL
C_N	Normal Force	CN	-	-
C_Y	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	CLN
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	-	-

TEST FACILITY DESCRIPTION

The Marshall Space Flight Center 14" x 14" Trisonic 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 $-40^{\circ}F$ 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 $180^{\circ}F$. 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 II presents the range of test variables at which data were recorded. Also shown are the MSFC Balance No. 200 load capacities for each of the 6 components of data obtained.

Trip strips used in the test were #120 grit for Mach numbers less than 2.99 and #90 grit for Mach number 2.99 and greater. The location of all trip strips is shown on Figure 13.

The model was sting mounted as depicted in Figure 3. Pitch runs were made with the model upright while sideslip runs were made in the tunnel pitch plane with the sting and model rolled +90 degrees. Data were obtained at sector angles of 0, $\pm$1, $\pm$2, $\pm$4, $\pm$6 and $\pm$8 degrees.

In addition to balance data, two base pressures and one model cavity pressure (see Figure 14) were obtained for use in correcting the drag data.

Twenty-six flow visualization runs were made during the test. Shadowgraphs were obtained at Mach numbers between 0.6 and 1.96 and Schlieren photographs at Mach numbers of 2.99, 4.0 and 4.96.

The orbiter was attached to the booster with an orbiter sting. Orbiter incidence settings (relative to booster centerline) of -4^{o} to $+1^{o}$ were obtained by pivoting the orbiter about a point 2.525 inches forward of the orbiter base. The cradle assembly was permanently affixed to the orbiter (except during cradle off runs).

The interstage configuration between the orbiter and booster was constructed of red wax and allowed to vary with orbiter incidence angle. The wax fairing used for the cradle off runs is shown in Figure 4.

TABLE II
TEST CONDITIONS
TEST #491

MACH NUMBER	REYNOLDS NUMBER per unit length	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.60	8.7×10^6	7.5	100°F (Nominal)
0.90	7.9×10^6	9.1	↓
1.00	7.4×10^6	9.1	↓
1.10	7.0×10^6	9.0	↓
1.20	6.7×10^6	9.0	↓
1.46	7.1×10^6	10.1	↓
1.96	7.1×10^6	10.1	↓
2.99	5.6×10^6	6.5	↓
4.00	8.3×10^6	6.7	↓
4.96	5.5×10^6	3.1	↓

BALANCE UTILIZED: MSFC Balance #200

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	175 lbs.		
SF	150 lbs.		
AF	100 lbs.		
PM	185 in.-lbs.		
YM	160 in.-lbs.		
RM	50 in.-lbs.		

COMMENTS:

DATA REDUCTION

FOR SADSAC

Six component aerodynamic force and moment data were recorded using an internal strain gage balance. Base pressure (C_{P_b}) and balance cavity pressures (C_{P_c}) were also recorded and were utilized to correct the axial force measured (C_{A_T}) reading to a condition corresponding to freestream pressure acting at the base and cavity regions.

$$C_A = C_{A_T} - \left[C_{P_b} \left(\frac{A_b}{S_{ref}}\right) + C_{P_c} \left(\frac{A_{cav}}{S_{ref}}\right)\right]$$

The force and moment data were reduced to coefficient form using the following reference values:

S_{ref} = S-IC booster body maximum X-section area = 1.396 in^2

l_{ref} = b_{ref} = S-IC Base Diameter = 1.333 in

A_b = Booster base areas = 1.408 in^2 (S-IC fins on)

= 1.039 in^2 (S-IC fins off)

A_{cav} = Booster balance cavity area = 1.131 in^2

Moment Reference Center: (See Figure 2)

X = 3.686 inches from S-IC base

Y = Z = 0 inches from model centerline

SUMMARY DATA PLOT INDEX

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Longitudinal Stability	A	Mach Number, Alpha, Configuration	1-133
Lateral-Directional Stability	B	Mach Number, Beta, Configuration	134-203
Longitudinal Stability	C	Mach Number, Configuration	204-353
Lateral-Directional Stability - Beta = 0	D	Mach Number, Configuration	354-377
Effect of Orbiter Incidence, Tanks Forward	E	Orbiter Incidence Angle, Mach Number	378-389
Effect of Orbiter Incidence, Tanks Aft	E	Orbiter Incidence Angle, Mach Number	390-401
Effect of Tanks - Basic Configuration	F, G	Alpha or Beta, Mach Number	402-423
Effect of Fins - Basic Configuration	F, G	Alpha or Beta, Mach Number	424-445
Effect of Cradle - Basic Configuration	F, G	Alpha or Beta, Mach Number	446-456
Effect of 45-Degree Fins - Basic Configuration	F	Alpha or Beta, Mach Number	457-461
Effect of Cradle - Fins Off Configuration	F, G	Alpha or Beta, Mach Number	462-472

SUMMARY DATA PLOT INDEX
(CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Effect of Fins - Cradle Off Configuration	F, G	Alpha or Beta, Mach Number	473-483
Effect of Fins - Tanks Off Configuration	F, G	Alpha or Beta, Mach Number	484-505
Effect of Tanks - Fins Off Configuration	F, G	Alpha or Beta, Mach Number	506-527
Effect of Fins - Basic Configuration	H, I	Mach Number	528-539
Effect of 45-Degree Fins - Basic Configuration	H	Mach Number	540-547
Effect of Fins - Tanks Off Configuration	H, I	Mach Number	548-559
Effect of Fins - Cradle Off Configuration	H, I	Mach Number	560-571
Effect of Tanks - Basic Configuration	H, I	Mach Number	572-583
Effect of Tanks - Fins Off Configuration	H, I	Mach Number	584-595
Effect of Cradle - Basic Configuration	H, I	Mach Number	596-607
Effect of Cradle - Fins Off Configuration	H, I	Mach Number	608-619

SUMMARY DATA PLOT INDEX
(CONTINUED)

PLOTTED COEFFICIENTS SCHEDULE:

(A) CN, CLM, CA, CAF, CAB & DCLMDN vs ALPHA,
CN vs. CLM

(B) CY, CYN, CBL, CA, CAF, CAB, & DCYNDY vs. BETA

(C) XCP/D, CNAFO, CLMAFO, CNAAFO, CMAAFO, CAAFO, CAFAFO, CABAFO, ALFCNO vs. MACH

(D) YCP/D, CYBBTO, CYNBBO, CBLBBO vs. MACH

(E) CNAFO, CLMAFO, CLMCNO vs. Orbiter Incidence Angle

(F) DLTCN, DLTCLM, DLTCA, DLTCAF, DLTCAB vs. ALPHA

(G) DLTCY, DLTCYN, DLTCBL, DLTCA, DLTCAF, DLTCAB vs. BETA

(H) DCNAO, DCLMAO, DCNAAO, DCLMAA, DCAAO, DCAFAO, DCABAO, DXCP/D vs. MACH

(I) DCYBBO, DCYNBB, DCBLBB, DYCP/D vs. MACH

Note: Nomenclature, pages 40 through 47, has definitions of all plotted coefficients.

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.

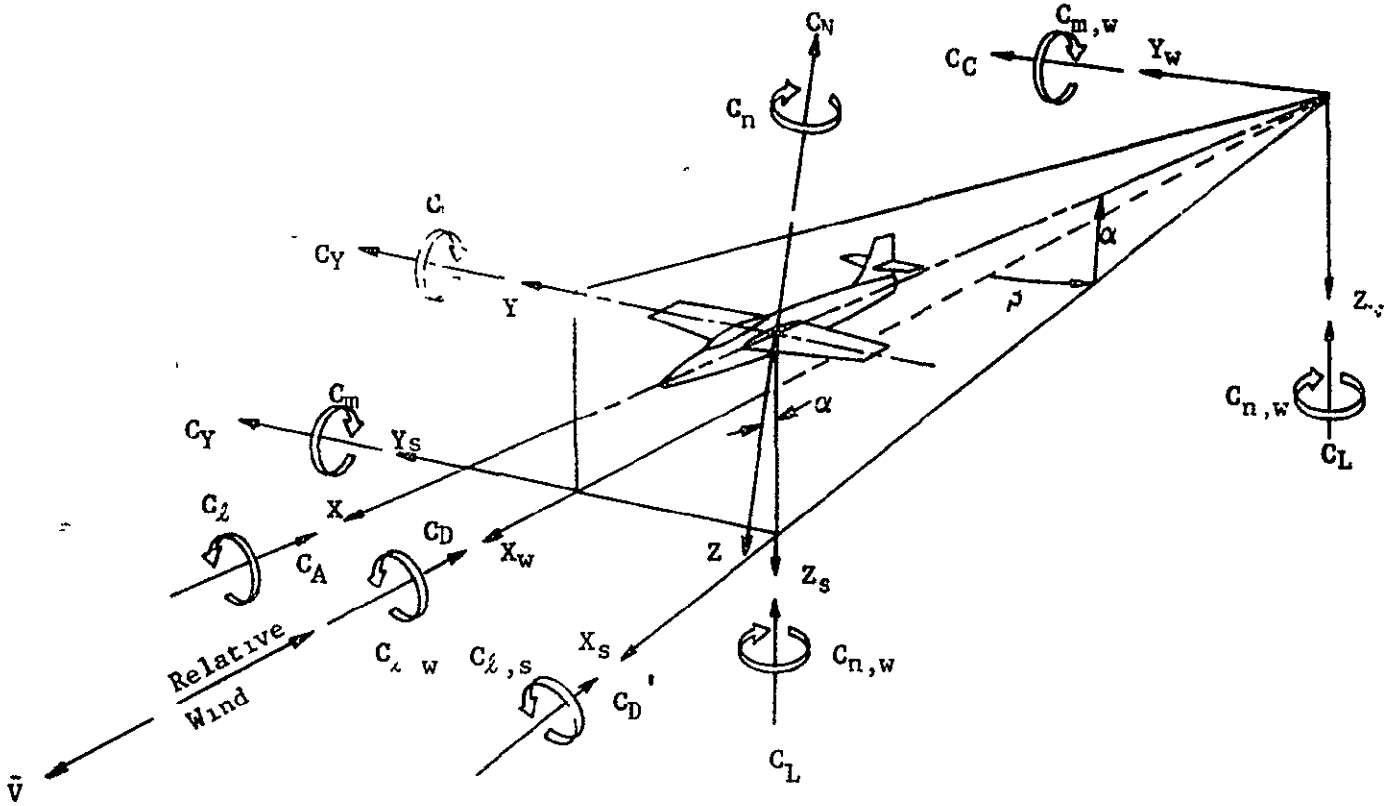


Figure 1. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

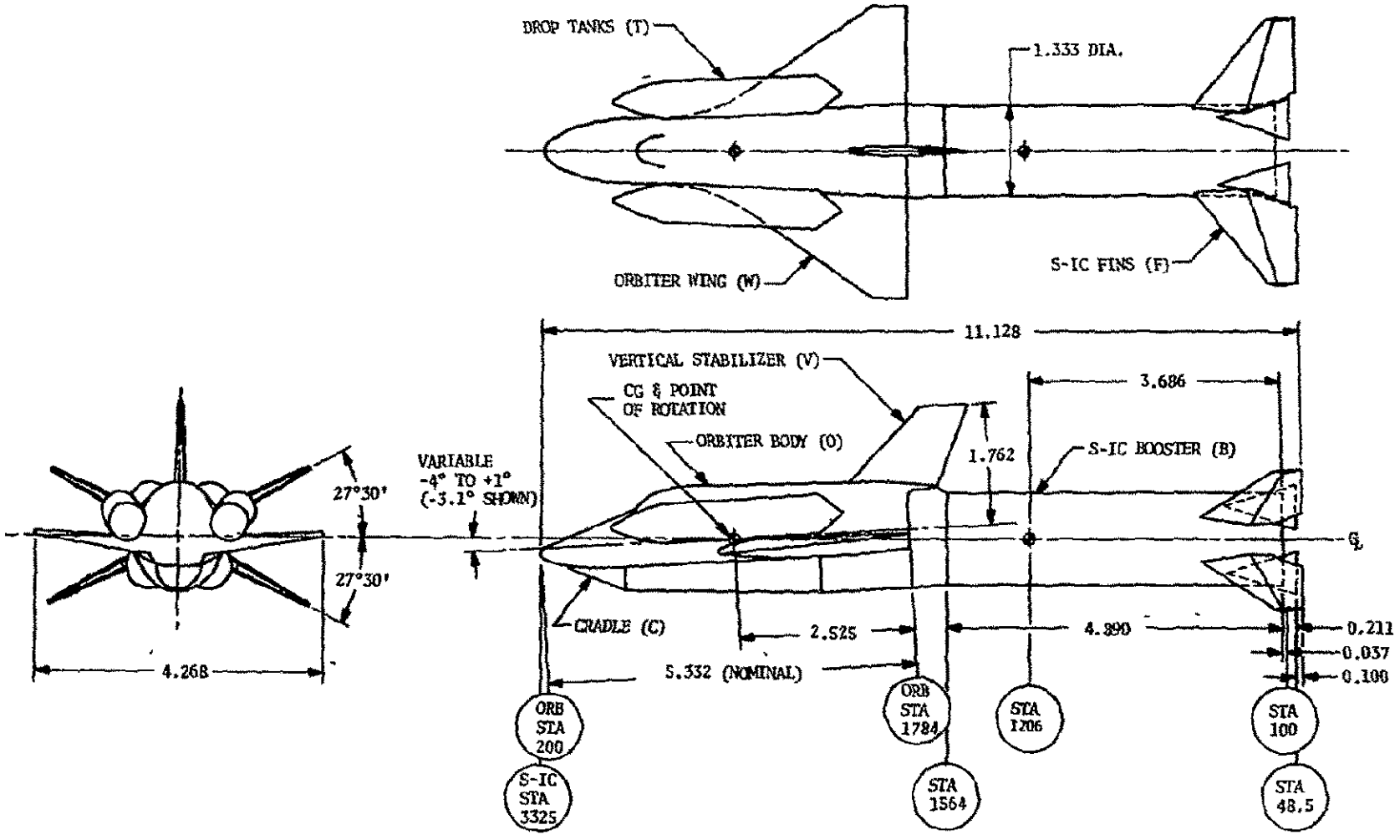


FIGURE 2. G-11 Orbiter/S-IC 0.003366 Scale Model

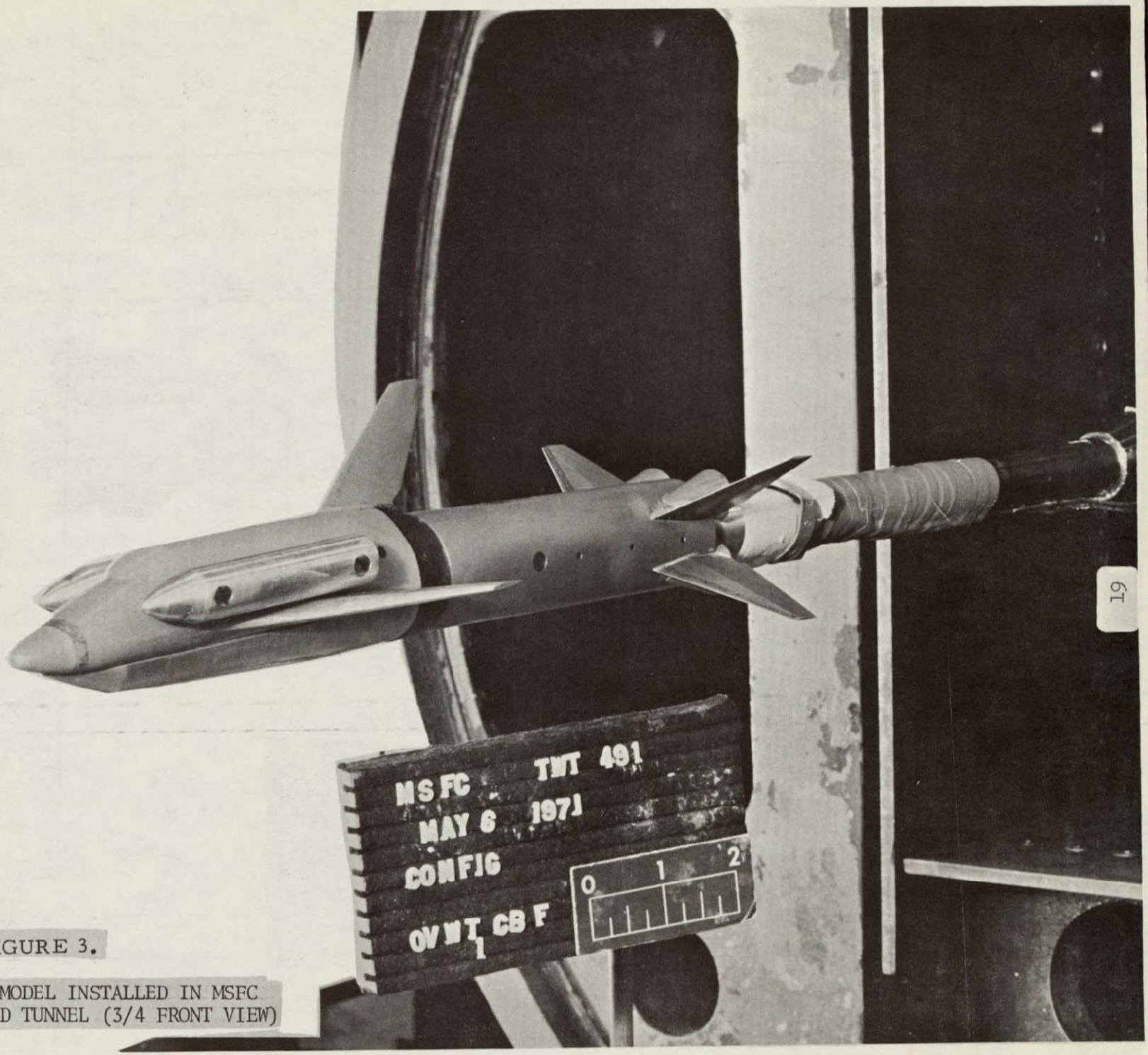


FIGURE 3.

PHOTOGRAPH OF MODEL INSTALLED IN MSFC 14x14 INCH WIND TUNNEL (3/4 FRONT VIEW)

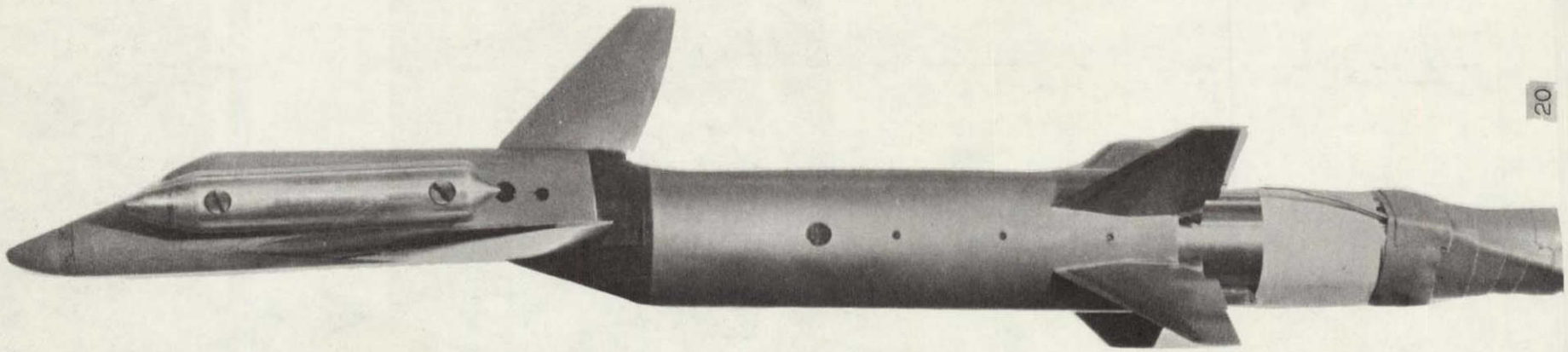


FIGURE 4.

S-IC/G-11 0.003366 SCALE ORBITER MODEL
CRADLE OFF (SIDE VIEW)

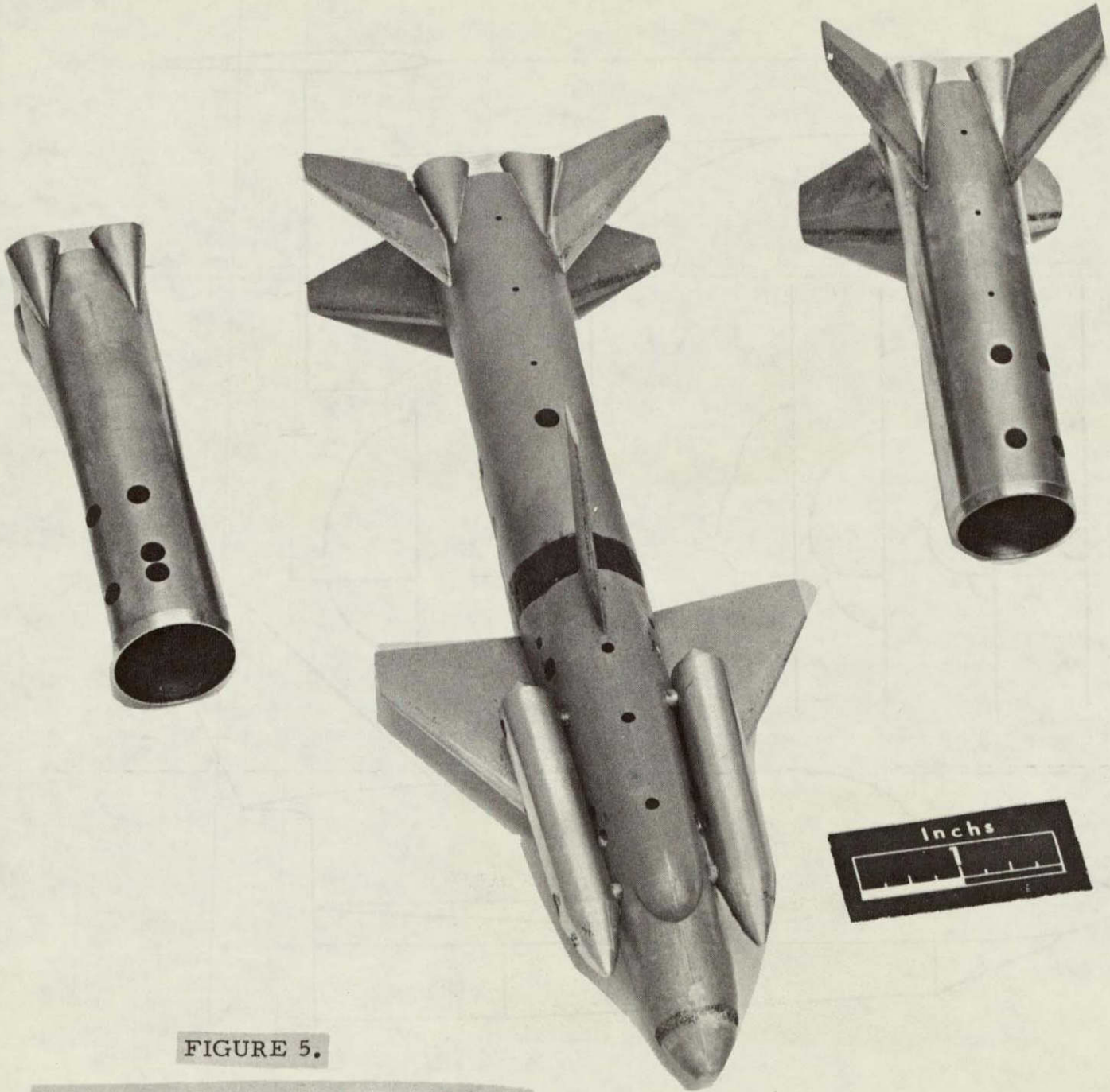


FIGURE 5.

S-IC/G-11 0.003366 SCALE ORBITER MODEL
WITH ASSOCIATED PARTS

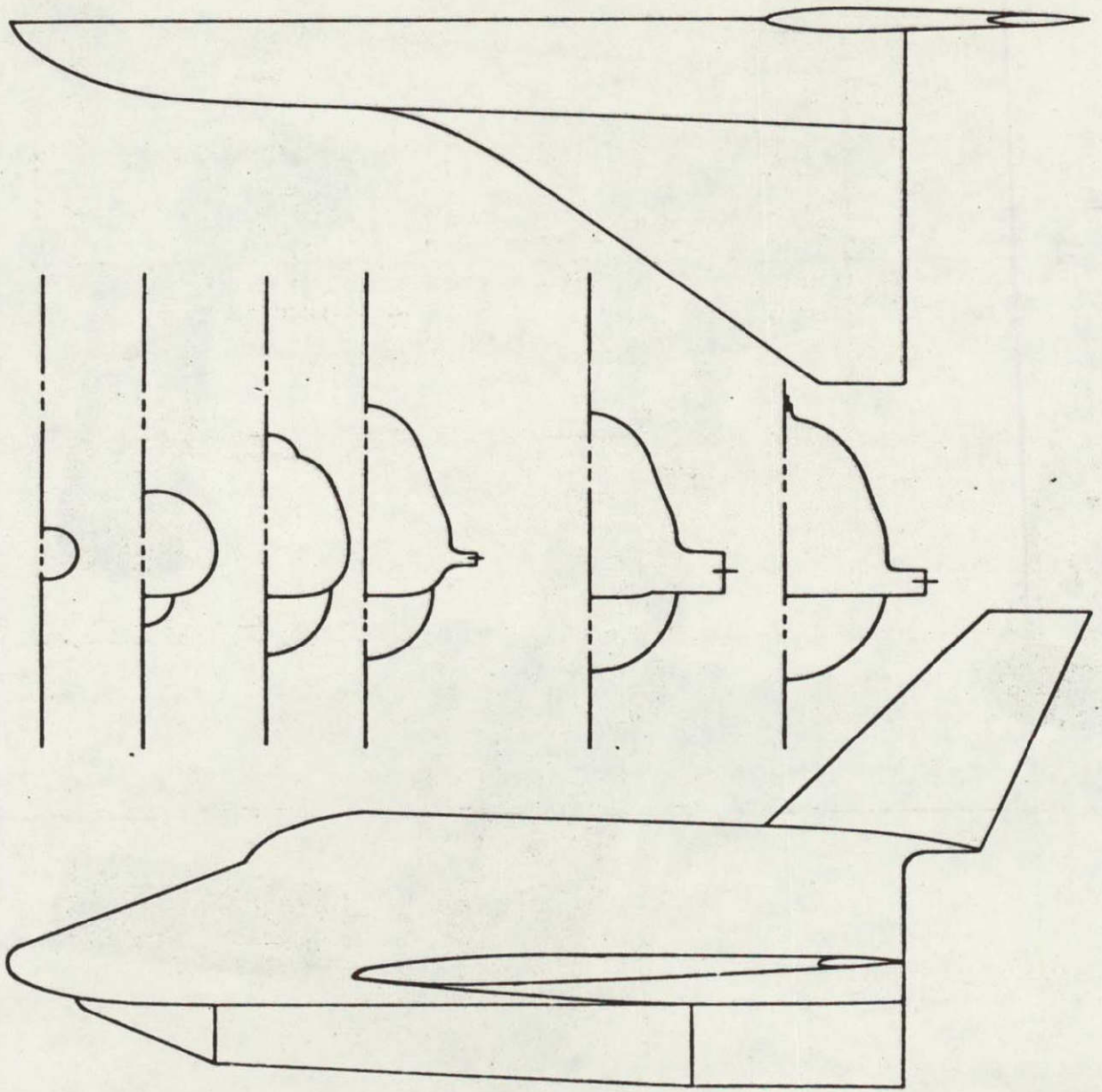


FIGURE 6. G-11 ORBITER WITH CRADLE

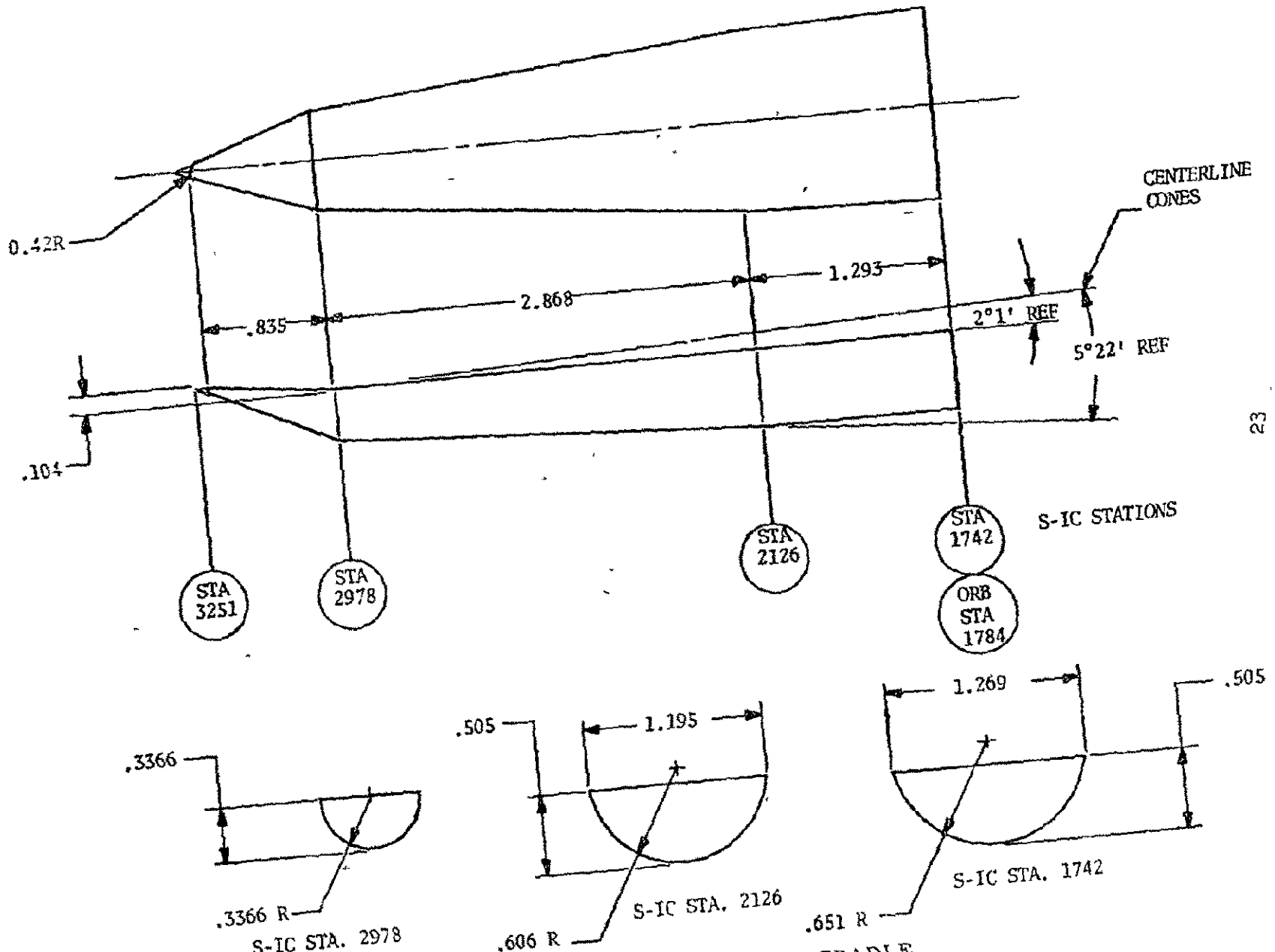


FIGURE 7. S-IC/G-11 ORBITER CRADLE

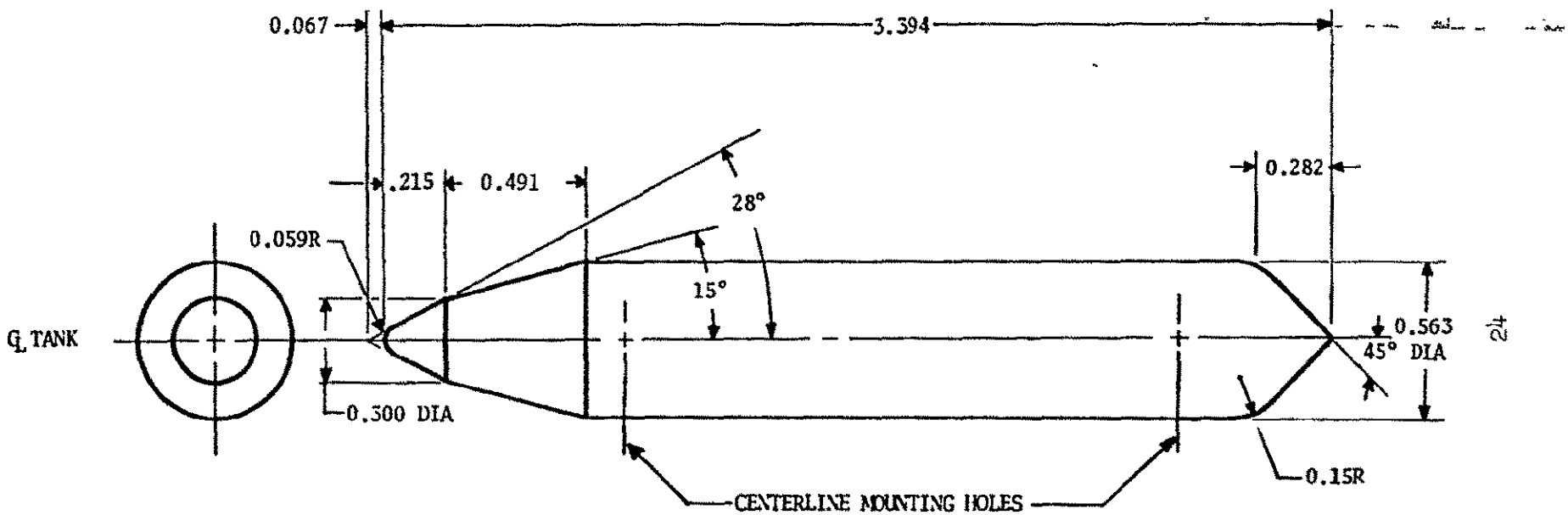


FIGURE 8. S-IC/G-11 0.003366 ORBITER MODEL DROP TANK

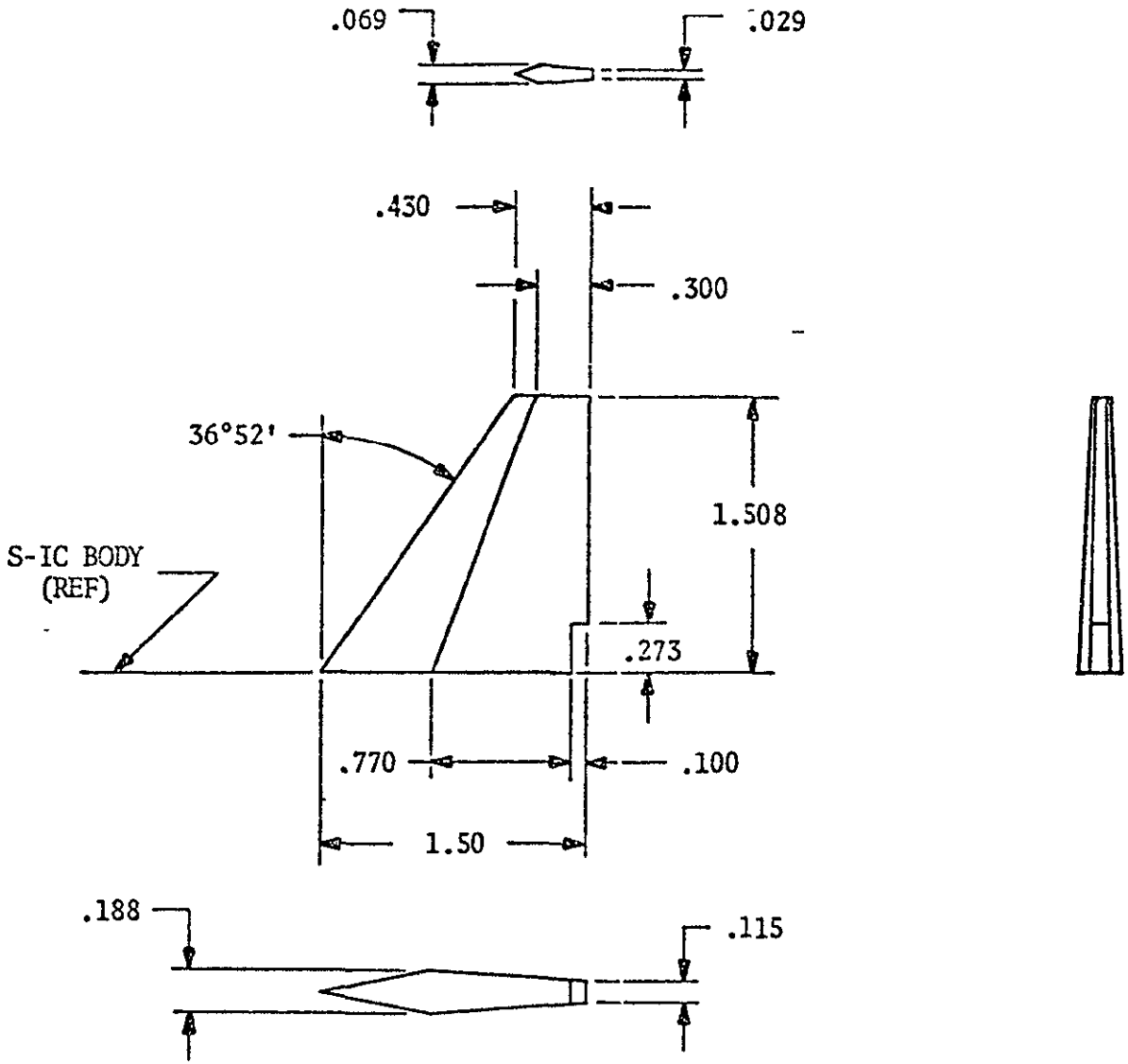


FIGURE 9. 884 SQ. FT. S-IC FIN - F

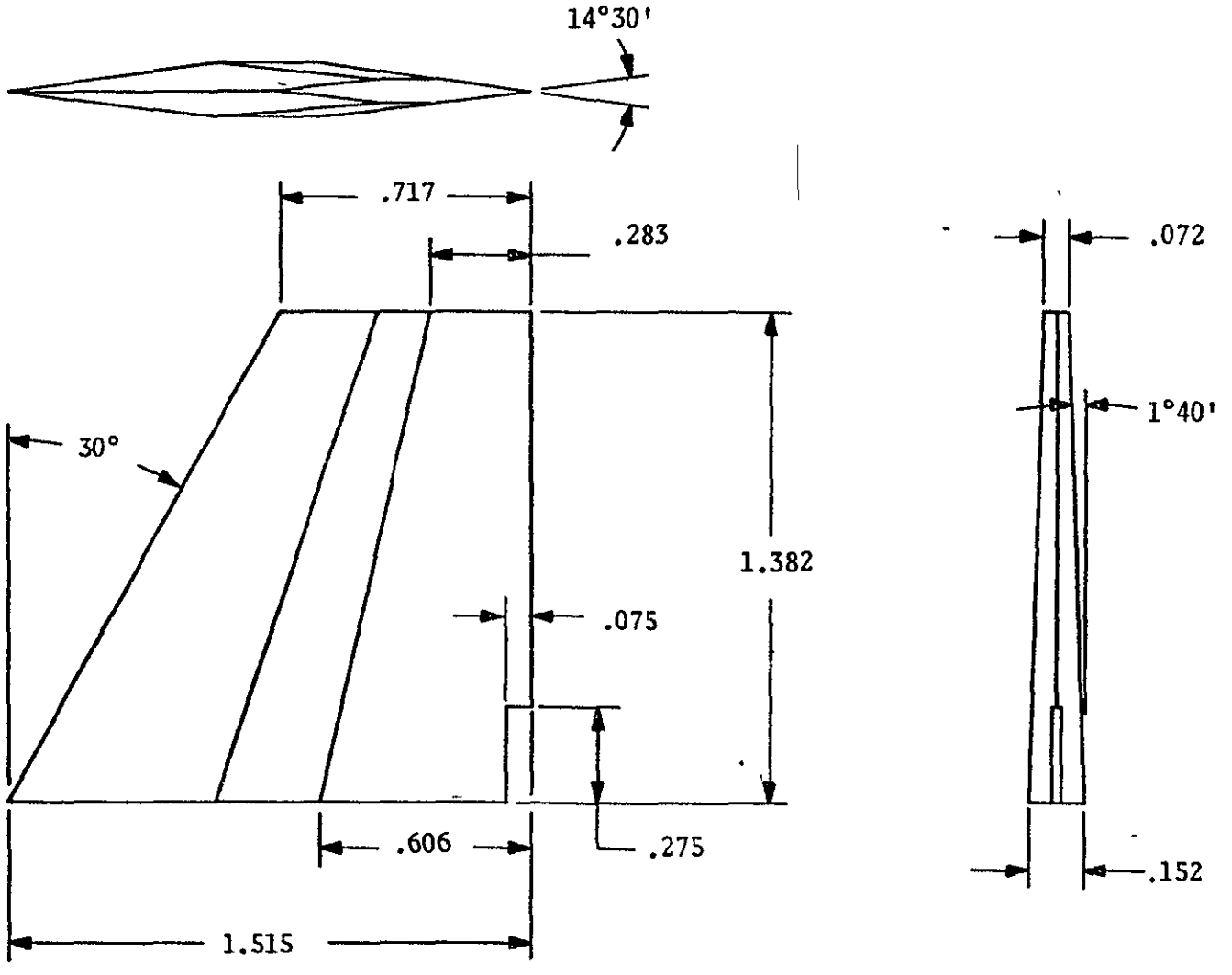


FIGURE 10. 900 FT^2 S-IC FIN - F_1

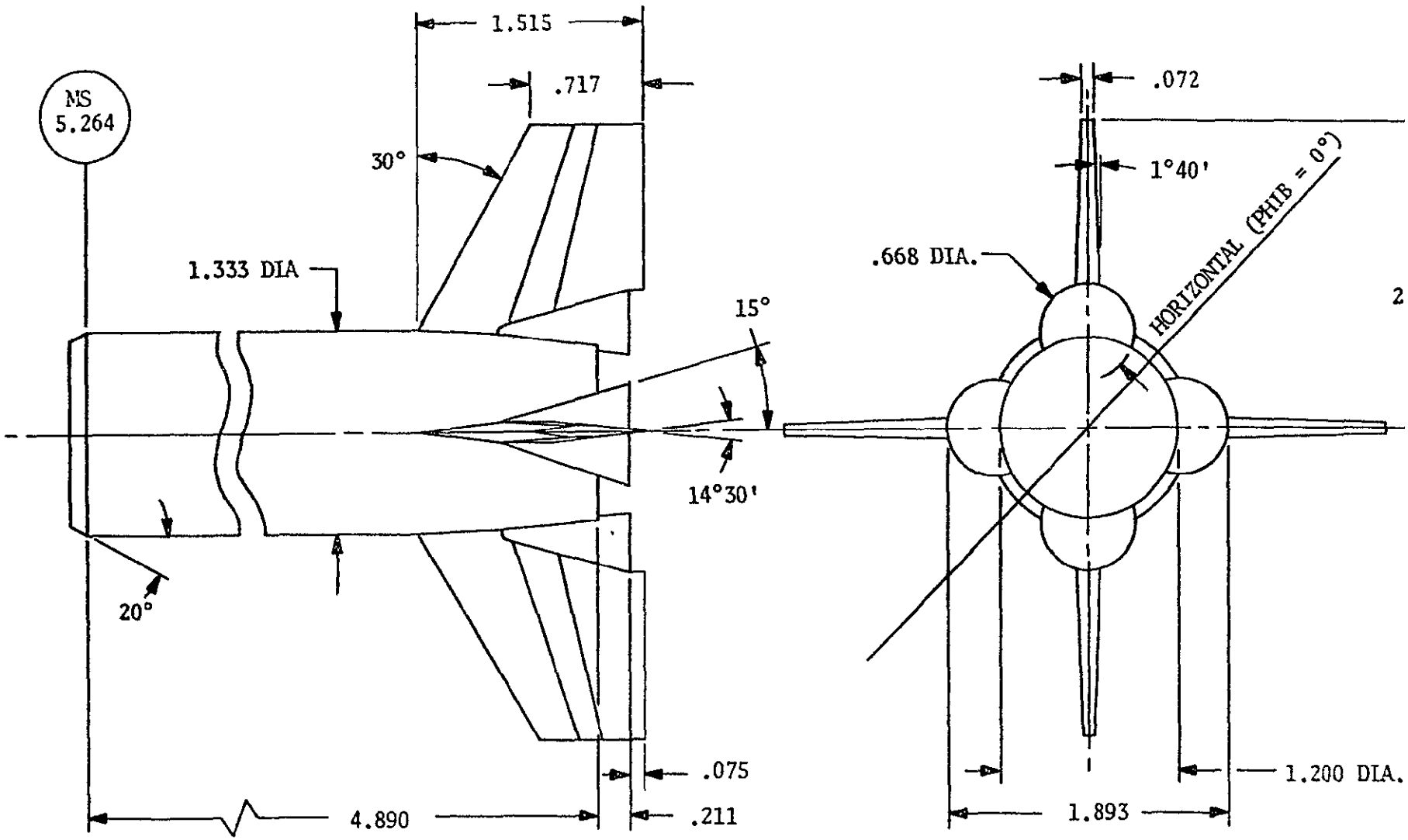


FIGURE 11. S-IC 45° FIN CONFIGURATION - F_1

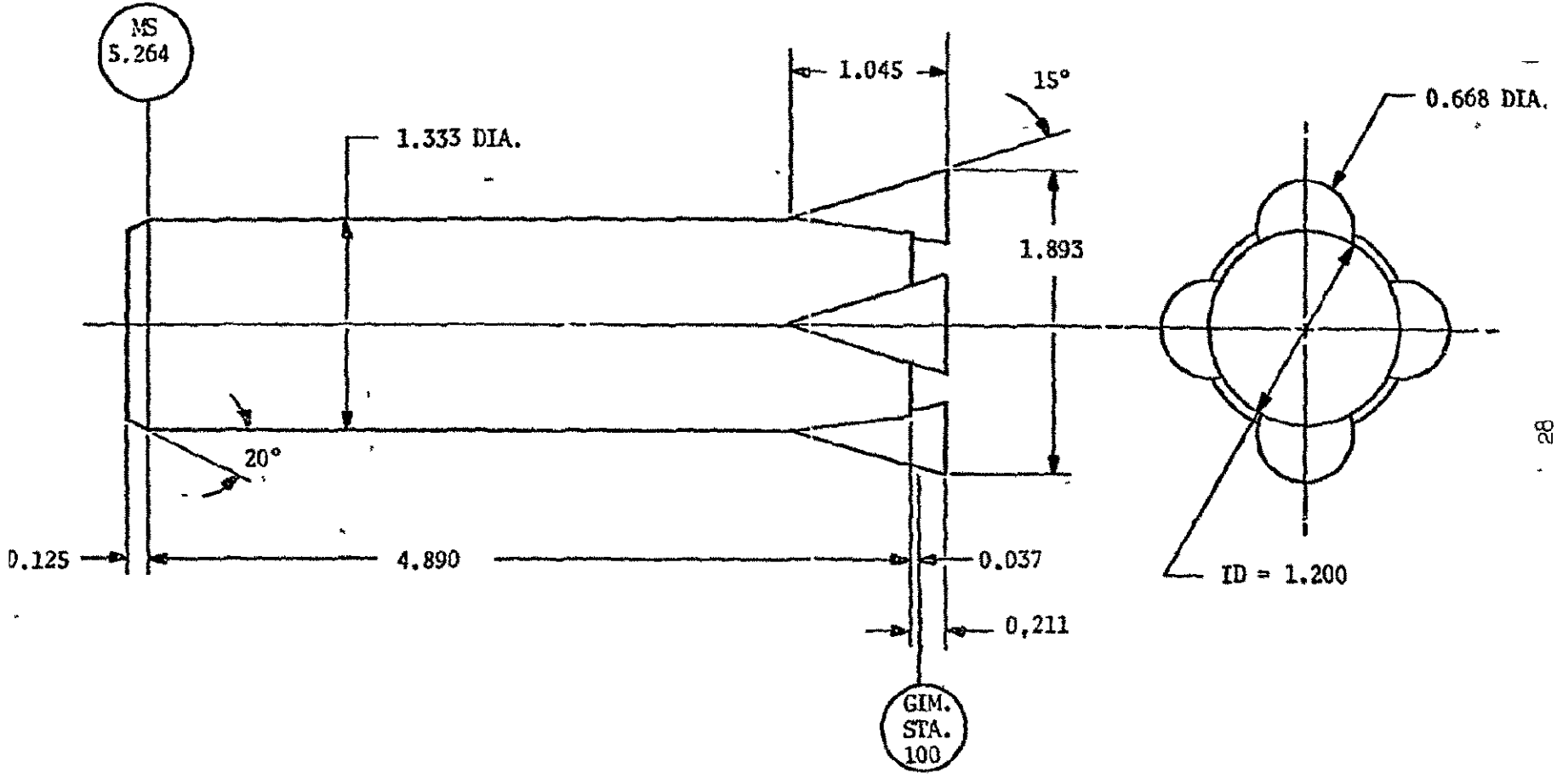


FIGURE 12. SATURN V/S-IC BOOSTER FINS OFF

- USED FOR BOTH 120 AND 90 GRIT
- 10% BACK OF LEADING EDGES EXCEPT AS NOTED
- 0.10" WIDTH AT ROOT TAPERING TO 0.05" AT TIP ON WINGS AND FINS
- STRIP ON LOWER SURFACE OF WING SAME AS TOP

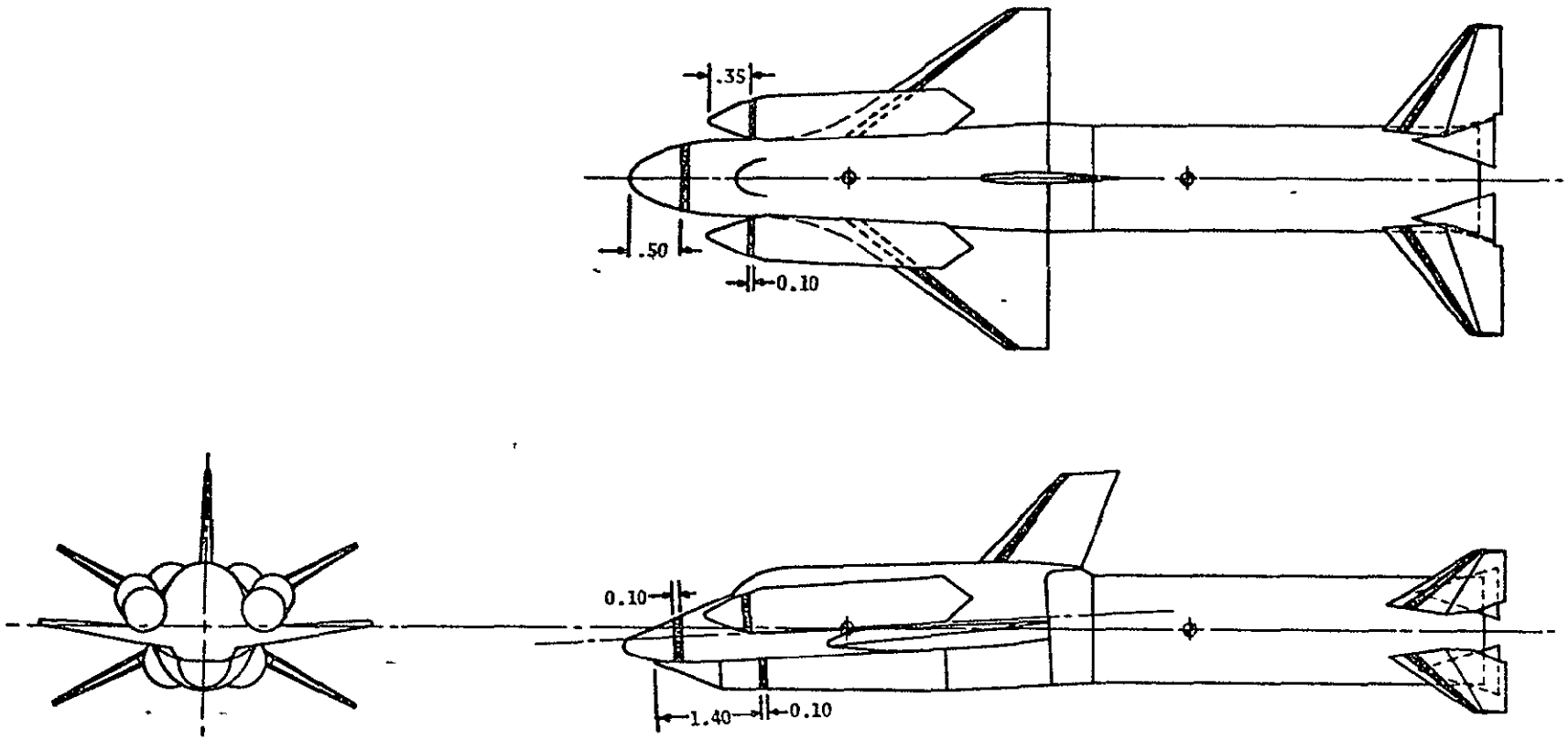


FIGURE 13. TRIP STRIP CHART S-IC/G-11 ORBITER

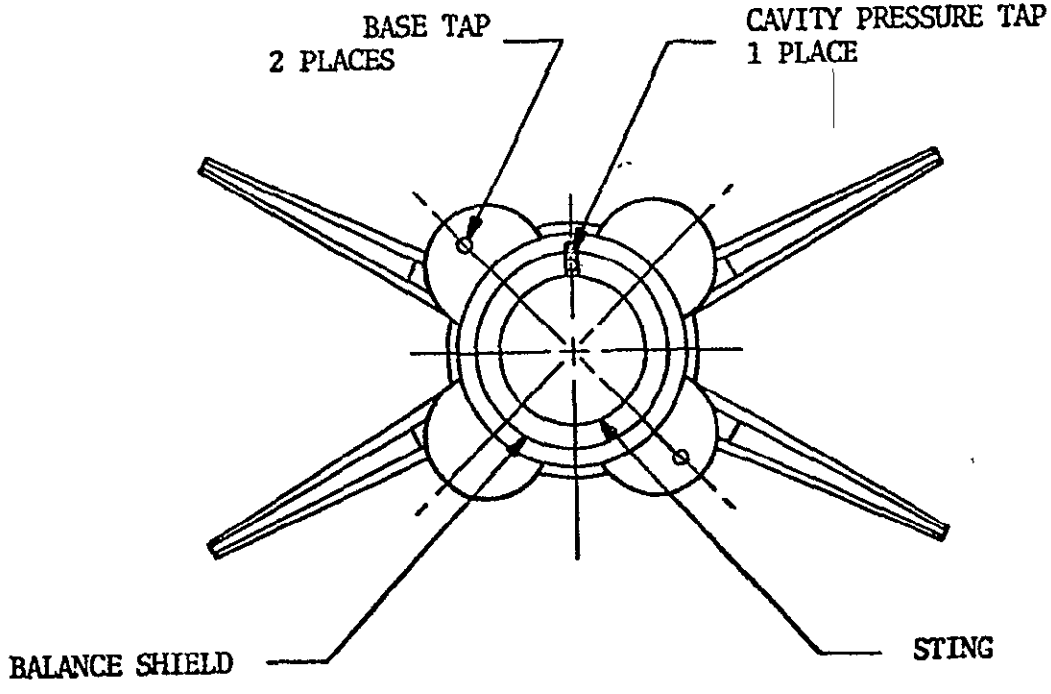


FIGURE 14. BASE PRESSURE TAP LOCATIONS

MODEL COMPONENT DESCRIPTOR SHEETS

MODEL COMPONENT: BODY - (0) - ORBITER

GENERAL DESCRIPTION: 0.003366 SCALE MODEL OF GRUMMAN G-11 (H3T) ORBITER BODY. COMPLETE ORBITER INCLUDES A WING (SEE WING SHEET) AND VERTICAL STABILIZER (SEE STABILIZER SHEET).

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE IN.	MODEL SCALE IN.
Length	1584	5.332
Max. Width	386.2	1.30
Max. Depth	331.3	1.115
Fineness Ratio	4.15	4.15
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		
Reference Fuselage Station of Orbiter Nose	200	0.6732

MODEL COMPONENT: WING (W)

GENERAL DESCRIPTION: CLIPPED DELTA WING FOR ORBITER
MODEL SCALE FACTOR 0.003366

DRAWING NUMBER.

DIMENSIONS:	FULL-SCALE IN/FT^2	MODEL SCALE IN/FT^2
TOTAL DATA		
Area		
Planform	5355.27	0.0606
Wetted		
Span (equivalent)	1268	4.263
Aspect Ratio	2.084	2.08
Rate of Taper		
Taper Ratio	0.146	0.145
Diehedral Angle, degrees	7.6	7.6
Incidence Angle, degrees, at B.L. 170	0.425	0.425
Aerodynamic Twist, degrees, across	-3.295	-3.295
Toe-In Angle exposed semi-span		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	55.05	55.0
Trailing Edge	0.0	0.0
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	1061.48	3.57
Tip, (equivalent)	154.86	0.517
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root		
Tip		
EXPOSED DATA		
Area	3143	0.0355
Span, (equivalent)	928	3.119
Aspect Ratio	1.902	1.902
Taper Ratio	0.189	0.189
Chords		
Root	818.40	2.755
Tip	154.86	0.521
MAC		
Fus. Sta. of L.E.	965.6	3.25
W.P. of .25 MAC		
B.L. of Root Chord	170.0	0.572

MODEL COMPONENT: VERTICAL STABILIZER (V)

GENERAL DESCRIPTION. CENTERLINE VERTICAL STABILIZER FOR ORBITER

MODEL SCALE FACTOR 0.003366

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE IN/FT^2	MODEL SCALE IN/IN^2
TOTAL DATA (EXPOSED)		
Area		
Planform	736.14	1.201
Wetted		
Span	370.0	1.245
Aspect Ratio	1.291	1.291
Rate of Taper		
Taper Ratio	0.4325	0 4325
Dihedral Angle, degrees	0.0	0.0
Incidence Angle, degrees	0.0	0.0
Aerodynamic Twist, degrees	0.0	0.0
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	47.15	47 15
Trailing Edge	24.90	24 90
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	400.0	1.346
Tip, (equivalent)	173.0	0.582
MAC		
Fus. Sta. of L.E.	1534.25	5.164
W.P. of Root Chord	578.5	1.947
B.L. of .25 MAC		
Airfoil Section		
Root	64A010	64A010
Tip	64A010	64A010

NASA MSFC

MODEL COMPONENT: CRADLE (C)

GENERAL DESCRIPTION: G-11 (H3T)/S-IC CRADLE ASSEMBLY

MODEL SCALE FACTOR 0.003366

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE FT/FT^2	MODEL SCALE IN/IN^2
Length	123.68	4.996
Max. Width	31.417	1.269
Max. Depth	12.50	0.505
Fineness Ratio, L/Max. Width	3.937	3.937
Area		
Max. Cross-Sectional	395.13	0.6444
Planform		
Wetted		
Base		
Fuselage Sta. of Nose	300	1.110

MODEL COMPONENT: DROP TANKS (T)

GENERAL DESCRIPTION: ORBITER EXTERNALLY MOUNTED DROP TANKS

MODEL SCALE FACTOR 0.003366

DRAWING NUMBER:

DIMENSIONS.	FULL-SCALE FT/FT^2	MODEL SCALE IN/IN^2
Length	84.025	3.394
Max. Diameter	13.938	0.560
Max. Depth		
Fineness Ratio	6.03	6.06
Area		
Max. Cross-Sectional	152.49	0.2463
Planform		
Wetted		
Base		
Fuselage Sta. of Nose		
Forward Location (T_1)	501.8	1.739
Aft Location (T_2)	690.8	2.325

MODEL COMPONENT BODY - S-IC BOOSTER (B)

GENERAL DESCRIPTION. SATURN V/S-IC BOOSTER

MODEL SCALE FACTOR 0.003366

DRAWING NUMBER: GDC 383-4

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	126.25 130.28	5.101 in (1) 5.264 in. (2)
Max. Width	46.85	1.893 in.
Max. Depth	46.85	1.893 in.
Fineness Ratio	0.276	0.276
Body Diameter	33 ft.	1.333 in
Area		
Max. Cross-Sectional	857.14 ft^2	1.396 in^2
Planform		
Wetted		
Base	1332.38 ft^2	2.170 in^2
Cavity	694.43 ft^2	1.131 in^2
Solid Base	637.94 ft^2	1.039 in^2

(1) To end of engine fairing.

(2) To Station 0.0

MODEL COMPONENT: S-IC FIN (F)

GENERAL DESCRIPTION: 884 SQUARE FOOT S-IC FIN

FOUR USED, EACH ORIENTED ±27 1/2° OFF HORIZONTAL REFERENCE PLANE

SCALE FACTOR 0.003366

DRAWING NUMBER:

DIMENSIONS (EXPOSED):	FULL-SCALE FT/FT^2	MODEL SCALE IN/IN^2
Area (Single Panel)	875.56	1.426
Semi-Span	37.33	1.508
Root Chord	37.14	1.50
Tip Chord	10.64	0.430
Taper Ratio	0.287	0.287
Aspect Ratio	3.19	3.19
Sweep Back Angles, degrees		
Leading Edge	36.867°	36.867°
Trailing Edge	0°	0°
Hingeline		
Trailing Edge Thickness		
At Root	2.84	0.115
At Tip	0.718	0.029

MODEL COMPONENT. S-IC FIN (F_1)

GENERAL DESCRIPTION: 900 SQUARE-FOOT

FOUR USED, EACH ORIENTED ±45° OFF HORIZONTAL REFERENCE PLANE

SCALE FACTOR 0.003366

DRAWING NUMBER.

DIMENSIONS (EXPOSED)·*	FULL-SCALE FT/FT^2	MODEL SCALE IN/IN^2
Area (Single Panel)	932.27	1.521
Semi-Span	34.21	1.382
Root Chord	37.51	1.515
Tip Chord	17.75	0.717
Taper Ratio	0.473	0.473
Aspect Ratio	2.51	2.51
Sweep Angles, degrees		
Leading Edge	30°	30°
Trailing Edge	0°	0°
Hingeline		
Sharp Trailing Edge		

*Including area within shroud

NOMENCLATURE

(General)

SYMBOL	SADSAC SYMBOL	DEFINITION
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

SYMBOL	SADSAC SYMBOL	DEFINITION
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

SYMBOL	SADSAC SYMBOL	DEFINITION
		Body Axis System
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; $\left[-1\right]\ \left[(p_b - p_\infty)/q\right]\ (A_b/S)$
C_{A_f}	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
C_n	CYN	yawing moment coefficient; $M_Z/qS\ b_{ref}$
C_ℓ	CBL	rolling moment coefficient; $M_X/qS\ b_{ref}$
		Common to Both Axis Systems
C_m	CLM	pitching moment coefficient; $M_Y/qS\ \ell_{ref}$
C_y	CY	side force coefficient; F_Y/qS
		Stability Axis System
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}

Design and Summary Data Definitions

SYMBOL	SADSAC SYMBOL	DEFINITION
C_{N_α}	CNALFA	normal force derivative
C_{m_α}	DCLMDA	pitching moment derivative
C_{Y_β}	CYBETA	side force derivative
C_{n_β}	DCYNDB	yawing moment derivative (body axis)
C_{ℓ_β}	DCBLDB	rolling moment derivative (body axis)
$\partial C_m / \partial C_N$	DCLMDN	longitudinal stability margin
$\partial C_n / \partial C_Y$	DCYNDY	lateral stability margin
$(\partial C_m / \partial C_N)_{\alpha=0}$	XCP/D	longitudinal stability margin at alpha = 0
$(\partial C_n / \partial C_Y)_{\beta=0}$	YCP/D	lateral stability margin at beta = 0
$(C_N)_{\alpha=0}$	CNAFO	normal force coefficient at zero degrees alpha
$(C_m)_{\alpha=0}$	CLMAFO	pitching moment coefficient at zero degrees alpha
$(C_{N_\alpha})_{\alpha=0}$	CNAAFO	normal force derivative at zero degrees alpha
$(C_{m_\alpha})_{\alpha=0}$	CMAAFO	pitching moment derivative at zero degrees alpha
$(C_A)_{\alpha=0}$	CAAFO	axial force coefficient at zero degrees alpha
$(C_{A_F})_{\alpha=0}$	CAFAFO	forebody axial force coefficient at zero degrees alpha
$(C_{A_B})_{\alpha=0}$	CABAFO	base axial force coefficient at zero degrees alpha
$(\alpha)_{C_N=0}$	ALFCNO	angle of attack at zero normal force coefficient
$(C_m)_{C_N=0}$	CLMCNO	pitching moment coefficient at zero normal force coefficient
$(C_{Y_\beta})_{\beta=0}$	CYBBTO	side force derivative at zero degrees sideslip
$(C_{n_\beta})_{\beta=0}$	CYNBBO	yawing moment derivative at zero degrees sideslip

NOMENCLATURE (continued)

Design and Summary Data Definitions

SYMBOL	SADSAC SYMBOL	DEFINITION
$(C_{\ell_\beta})_{\beta=0}$	CBLBBO	rolling moment derivative at zero degrees sideslip
ΔC_m	DLTCLM	incremental pitching moment coefficient
ΔC_N	DLTCN	incremental normal force coefficient
ΔC_A	DLTCA	incremental axial force coefficient
ΔC_{A_F}	DLTCAF	incremental forebody axial force coefficient
ΔC_{A_B}	DLTCAB	incremental base axial force coefficient
ΔC_{N_α}	DCNALF	incremental normal force derivative
ΔC_{m_α}	DCLMAF	incremental pitching moment derivative
$\Delta(\partial C_m/\partial C_N)$	DDCLMN	incremental longitudinal stability margin
ΔC_Y	DLTCY	incremental side force coefficient
ΔC_n	DLTCYN	incremental yawing moment coefficient (body axis)
ΔC_ℓ	DLTCBL	incremental rolling moment coefficient (body axis)
$\Delta(\partial C_n/\partial C_Y)$	DDCYNY	incremental lateral stability margin
ΔC_{Y_β}	DCYBTA	incremental side force derivative
ΔC_{n_β}	DDCYNB	incremental yawing moment derivative
ΔC_{ℓ_β}	DDCBLB	incremental rolling moment derivative
$(\Delta C_{N_\alpha})_{\alpha=0}$	DCNAAO	incremental normal force derivative at zero degrees alpha
$(\Delta C_{m_\alpha})_{\alpha=0}$	DCLMAA	incremental pitching moment derivative at zero degrees alpha

Design and Summary Data Definitions

SYMBOL	SADSAC SYMBOL	DEFINITION
$(\Delta C_N)_{\alpha=0}$	DCNAO	incremental normal force coefficient at zero degrees alpha
$(\Delta C_m)_{\alpha=0}$	DCLMAO	incremental pitching moment coefficient at zero degrees alpha
$(\Delta C_A)_{\alpha=0}$	DCAAO	incremental axial force coefficient at zero degrees alpha
$(\Delta C_{A_F})_{\alpha=0}$	DCAFAO	incremental forebody axial force coefficient at zero degrees alpha
$(\Delta C_{A_B})_{\alpha=0}$	DCABAO	incremental base axial force coefficient at zero degrees alpha
$[\Delta(\partial C_m/\partial C_N)]_{\alpha=0}$	DXCP/D	incremental longitudinal stability margin at zero degrees alpha
$[\Delta(\partial C_n/\partial C_Y)]_{\beta=0}$	DYCP/D	incremental lateral stability margin at zero degrees sideslip
$(\Delta C_{Y_\beta})_{\beta=0}$	DCYBBO	incremental side force derivative at zero degrees sideslip
$(\Delta C_{n_\beta})_{\beta=0}$	DCYNBB	incremental yawing moment derivative at zero degrees sideslip
$(\Delta C_{\ell_\beta})_{\beta=0}$	DCBLBB	incremental rolling moment derivative at zero degrees sideslip

NOMENCLATURE (Continued)

Surface Definitions

SYMBOL	SADSAC SYMBOL	DEFINITION
i_t	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

SURFACE SUBSCRIPTS	DEFINITION
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
NASA MSC	Mr. Ray Nelson
NASA MSFC	Mr. Jim Weaver

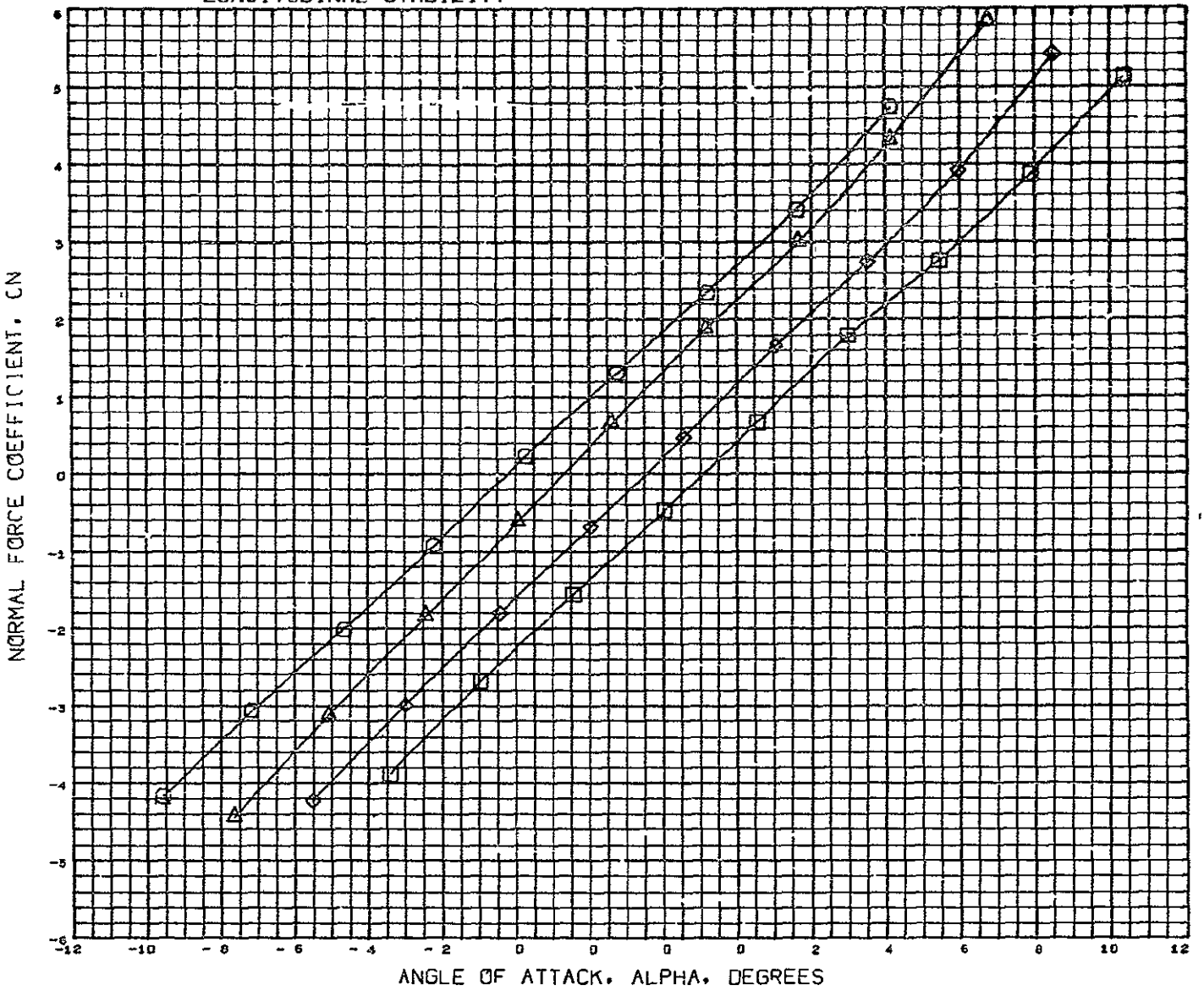
If copies of this listing are desired, please contact the above or the cognizant SADSAC personnel who, for this data, is:

Mr. John Hord
Department 2780
Chrysler Corporation Space Division
New Orleans, La. 70129

(504) 255-2304

PLOTTED DATA

LONGITUDINAL STABILITY



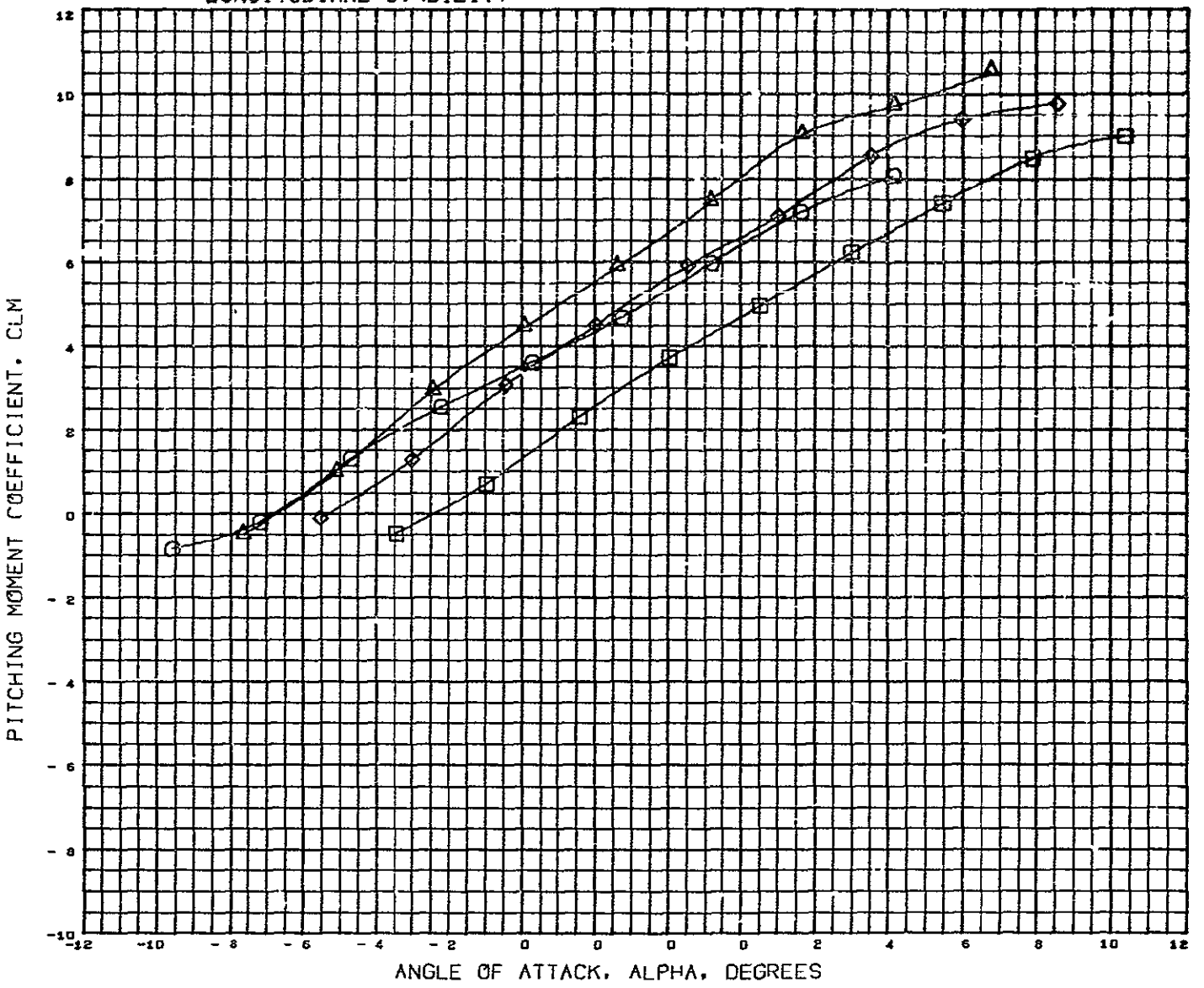
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0 000	ORBINC	1 000
△	1 004				
◇	1.096				
□	1 196				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

M491-MSFC-S1C G-11 ORBITER OVWT1CBF (033011) 08 AUG 71 PAGE 1

LONGITUDINAL STABILITY

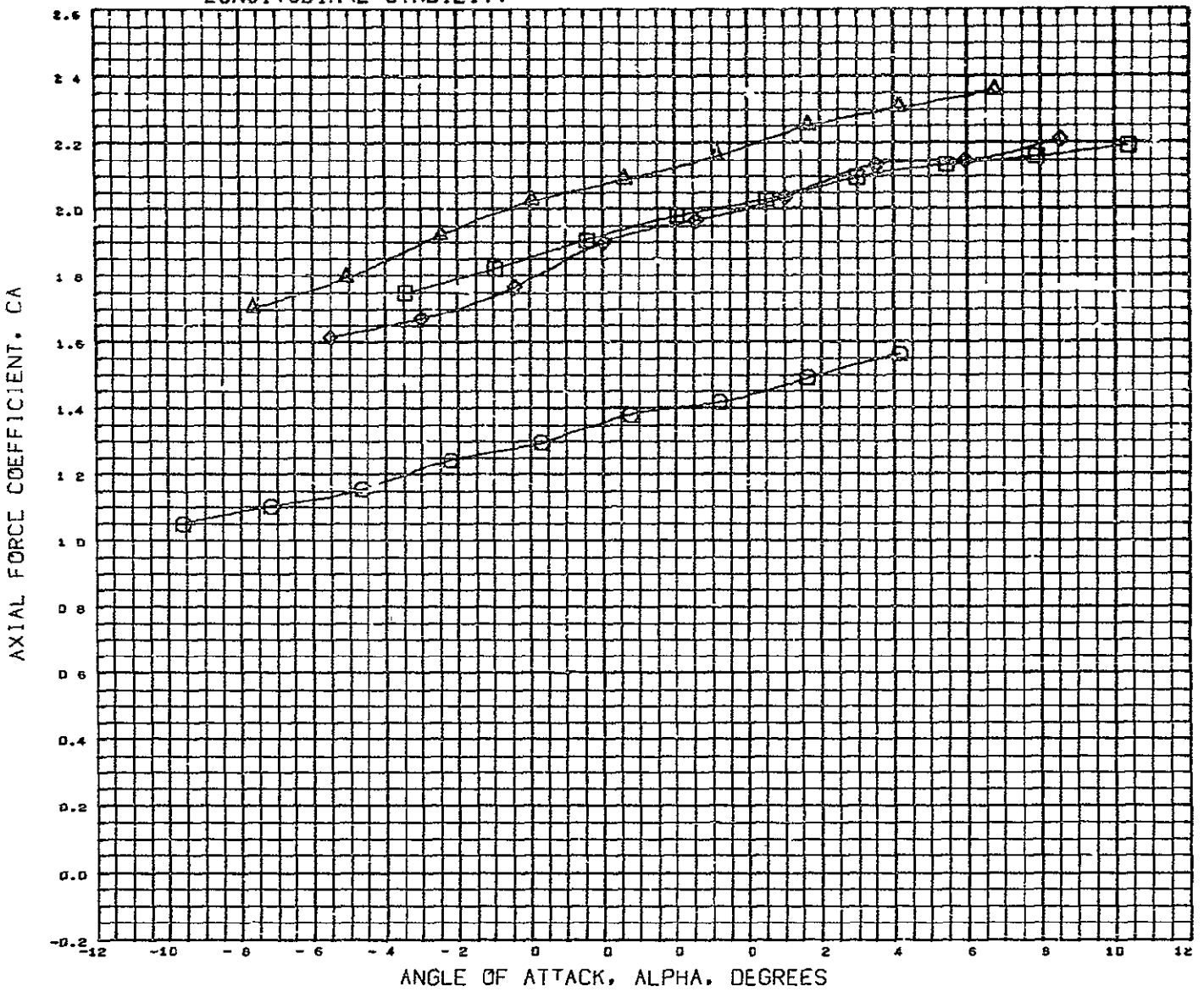


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	1.000
△	1.004				
◇	1.098				
□	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1 3960	SQ.IN.
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6850	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



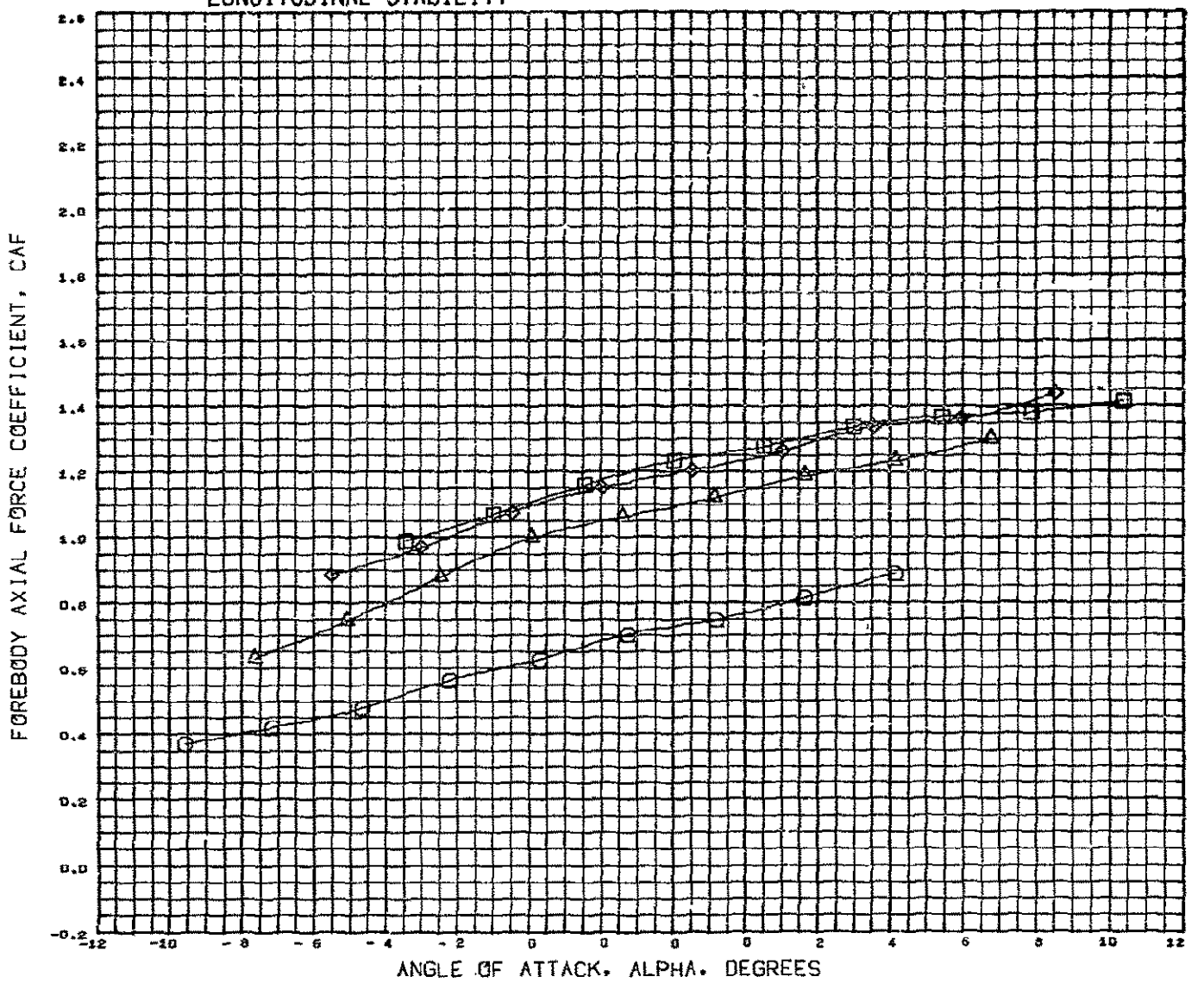
SYMBOL	MACH	PARAMETRIC VALUES			
	0.900	BETA	0.000	ORBINC	1.000
	1.004				
	1.098				
	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6260	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



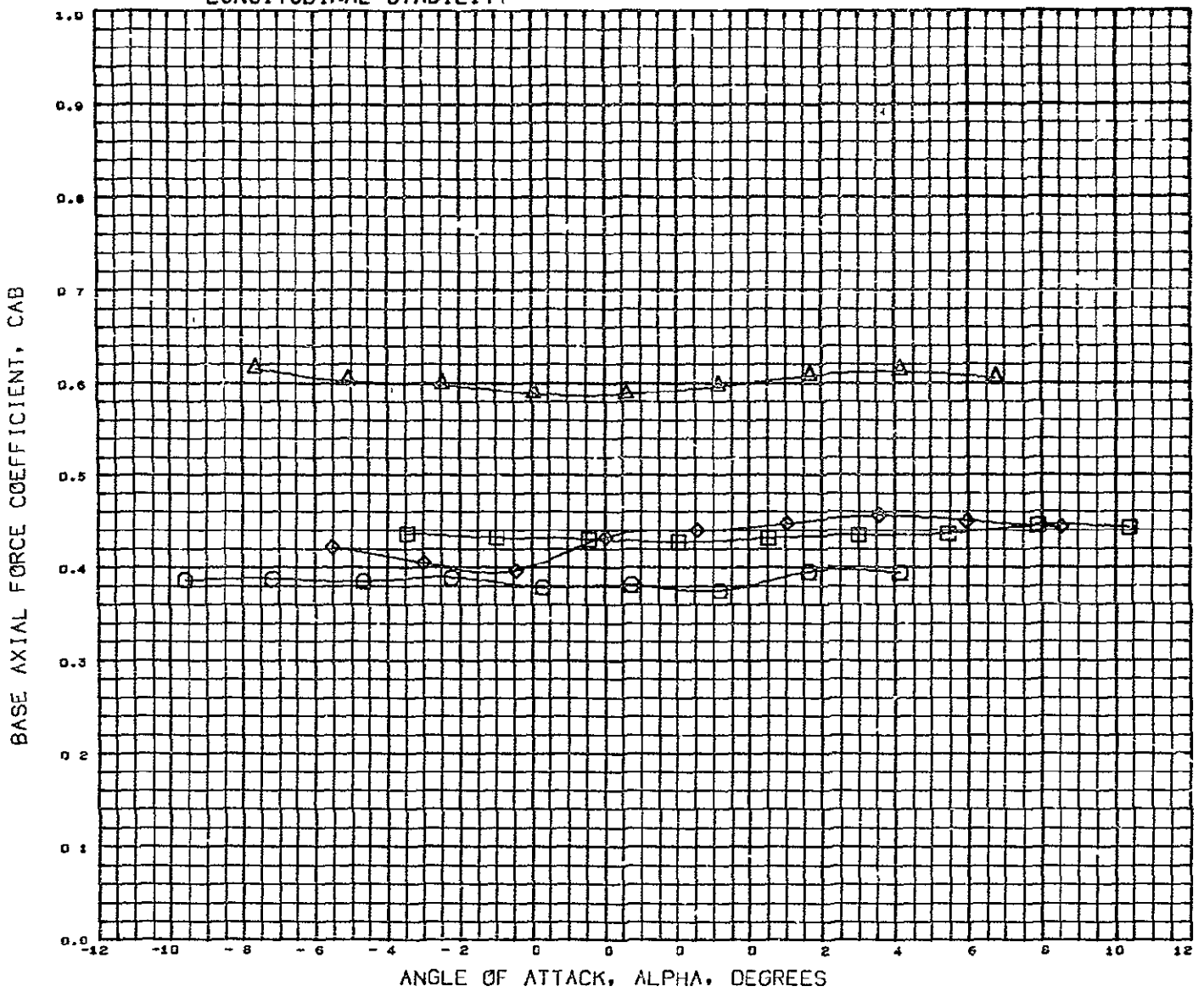
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	1.000
△	1.004				
◇	1.098				
□	1.196				

DATA HIST CODE H#E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6560	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

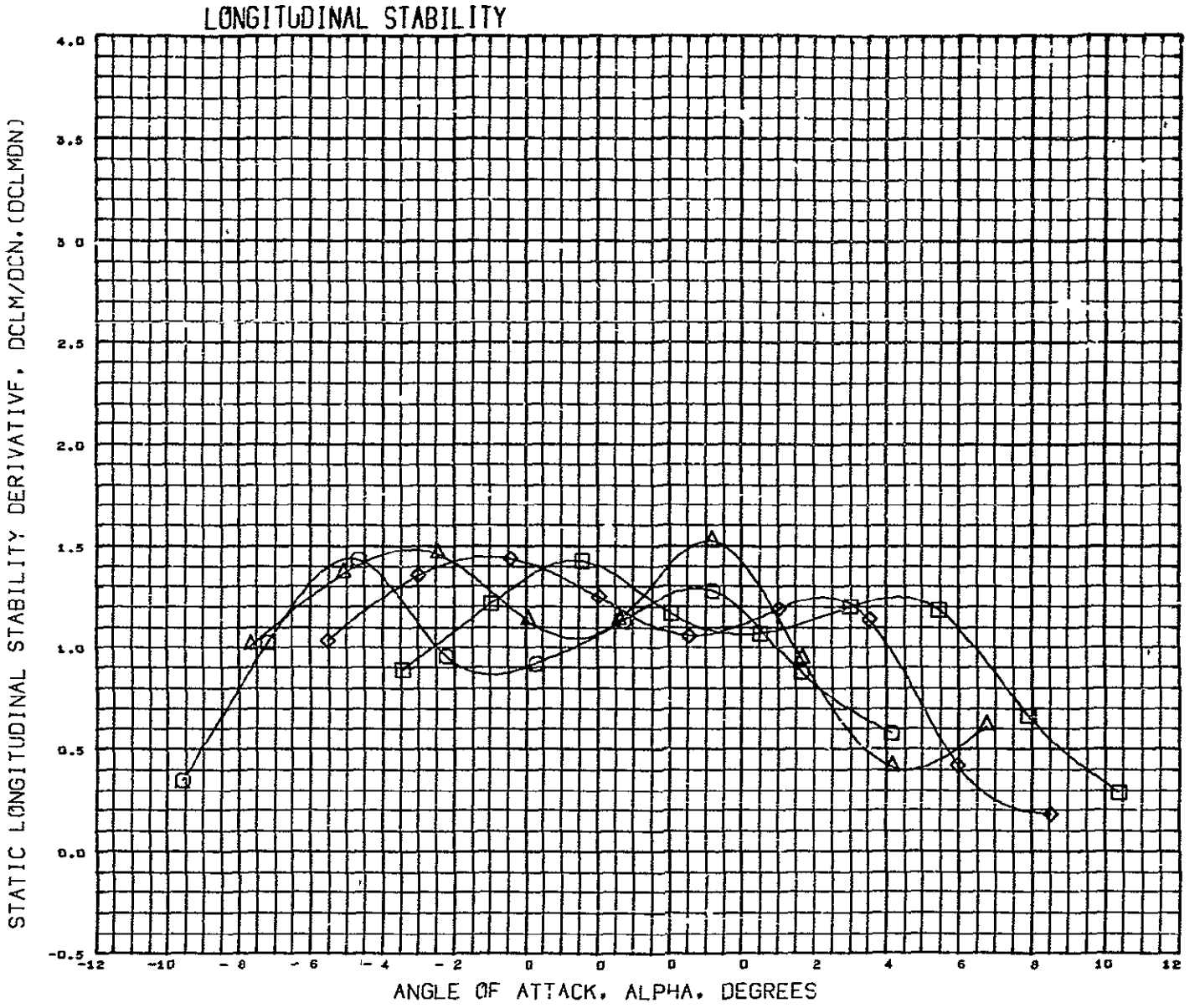
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	1.000
△	1.004				
◇	1.098				
□	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3950	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

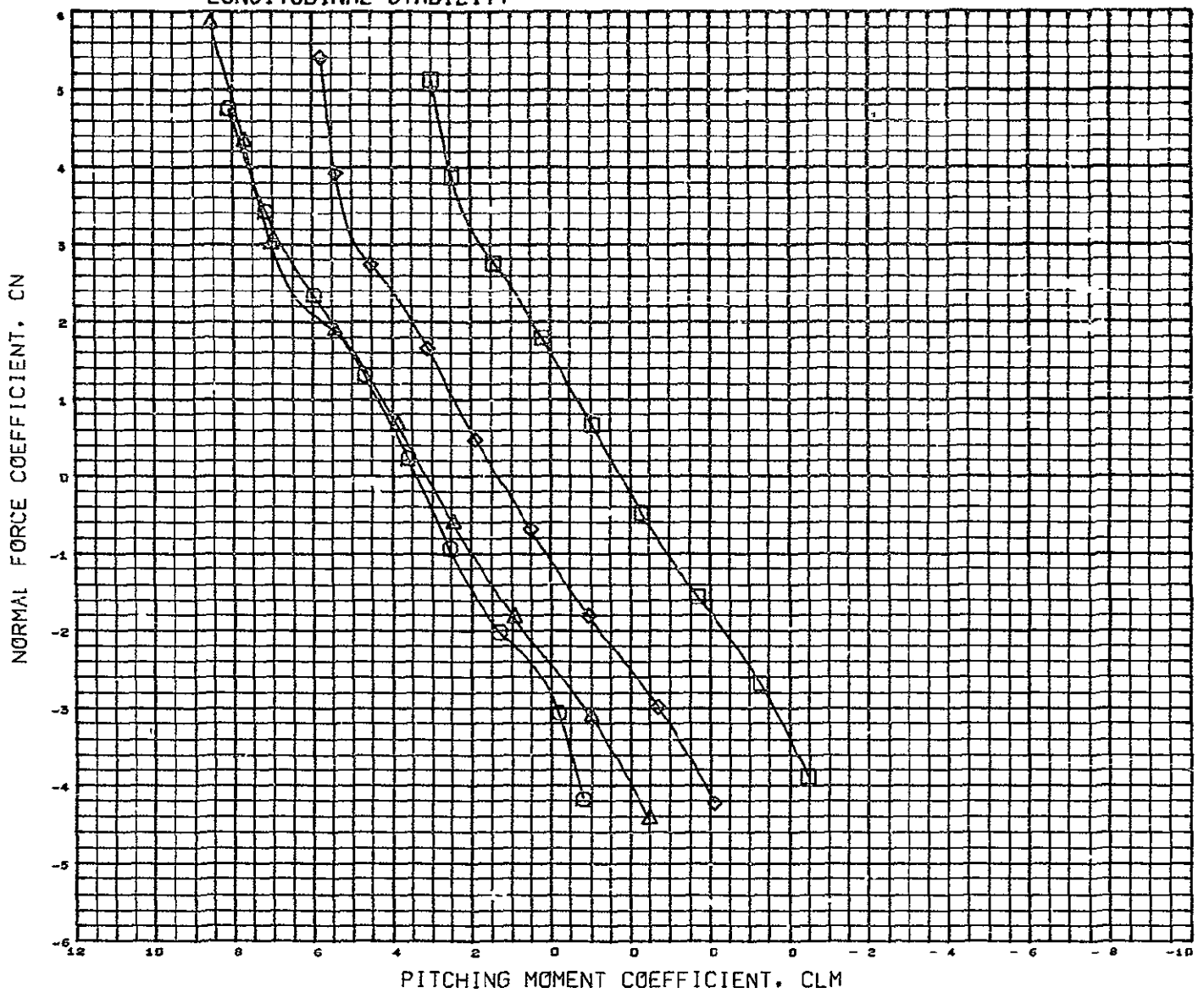


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	1.000
△	1.004				
◇	1.098				
□	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6650	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



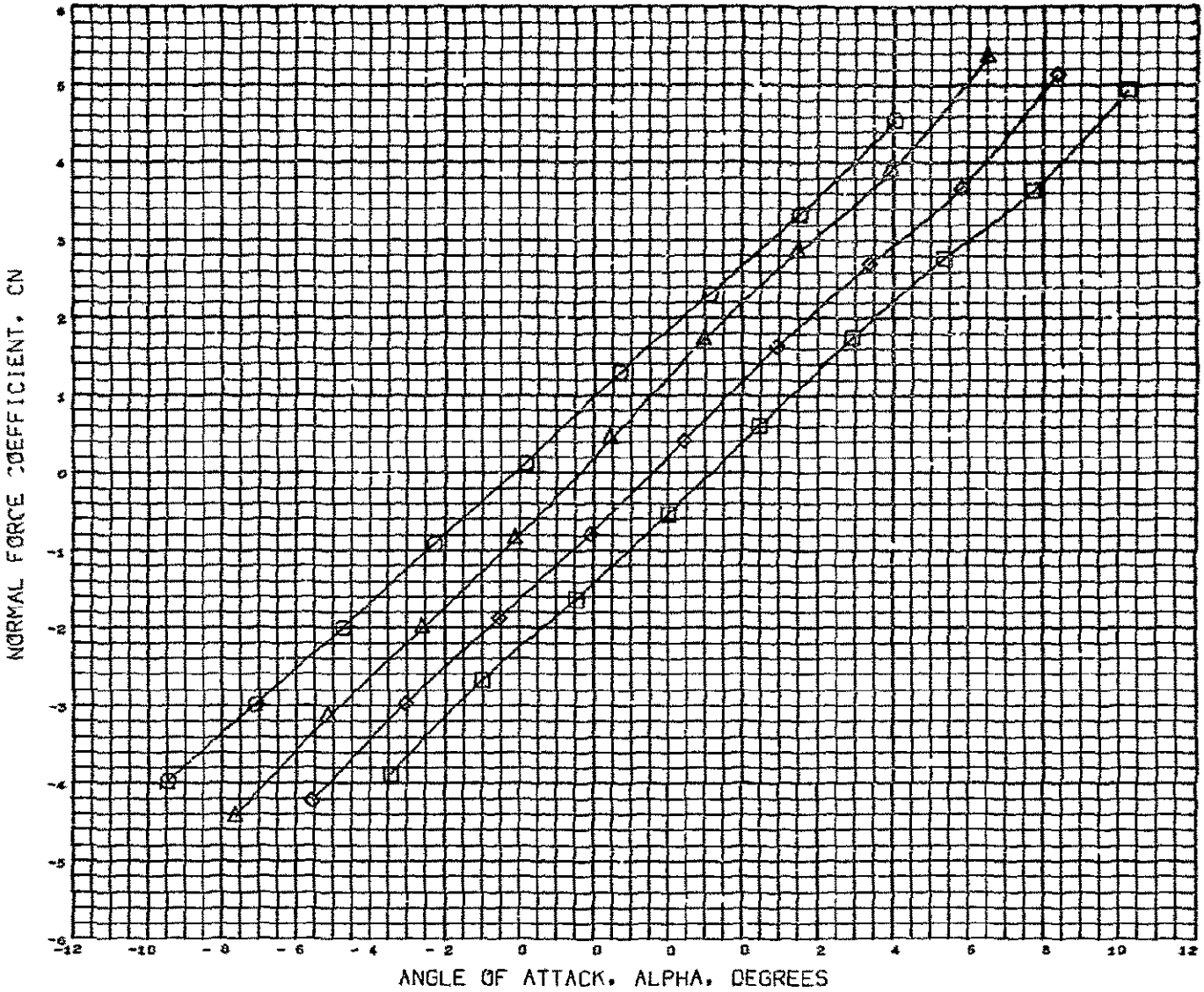
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0 000	ORBINC	1 000
△	1 004				
◇	1.098				
□	1 196				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

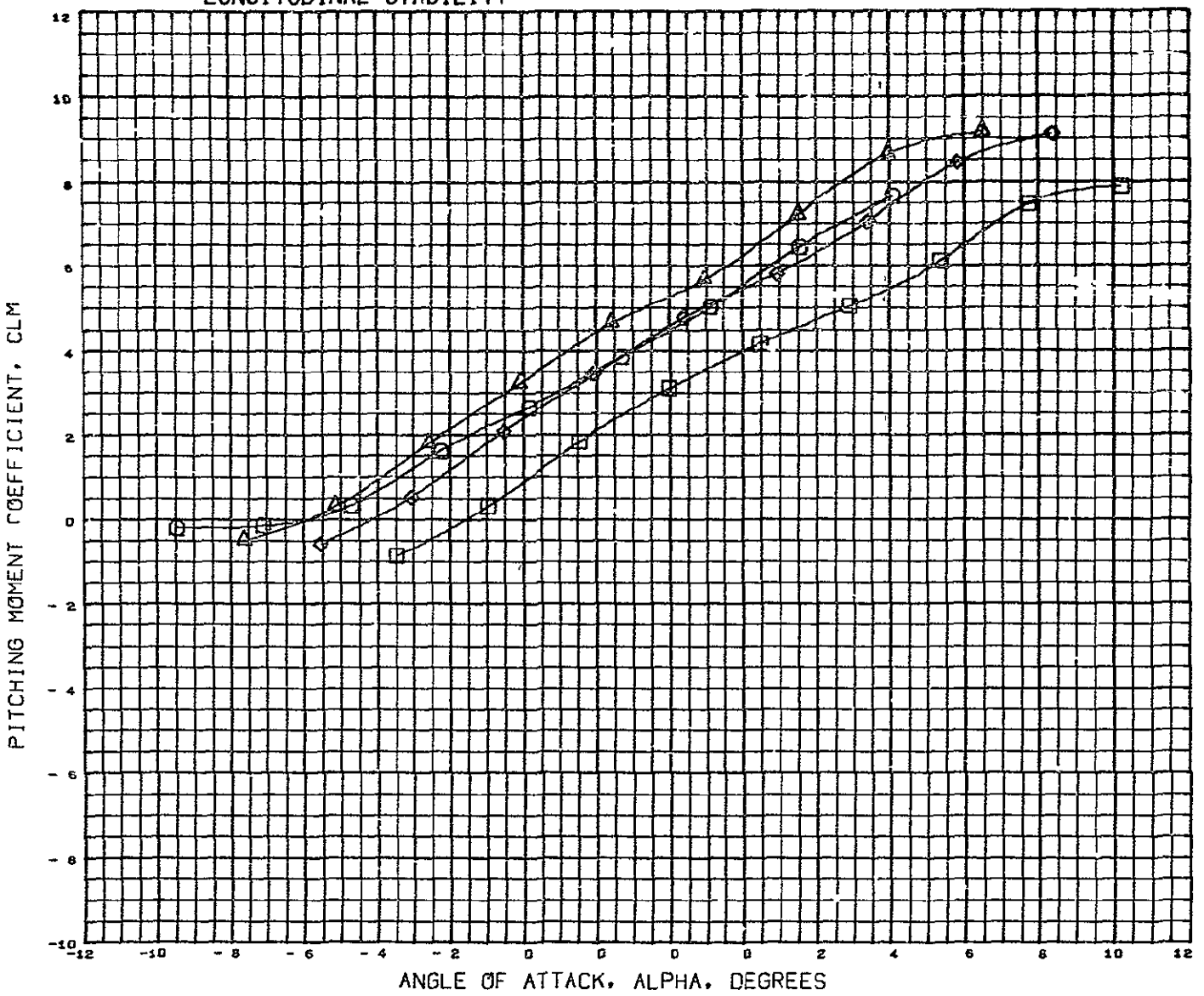


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	1.000
△	1.006				
◇	1.096				
□	1.198				

DATA HIST. CODE H*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6820	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

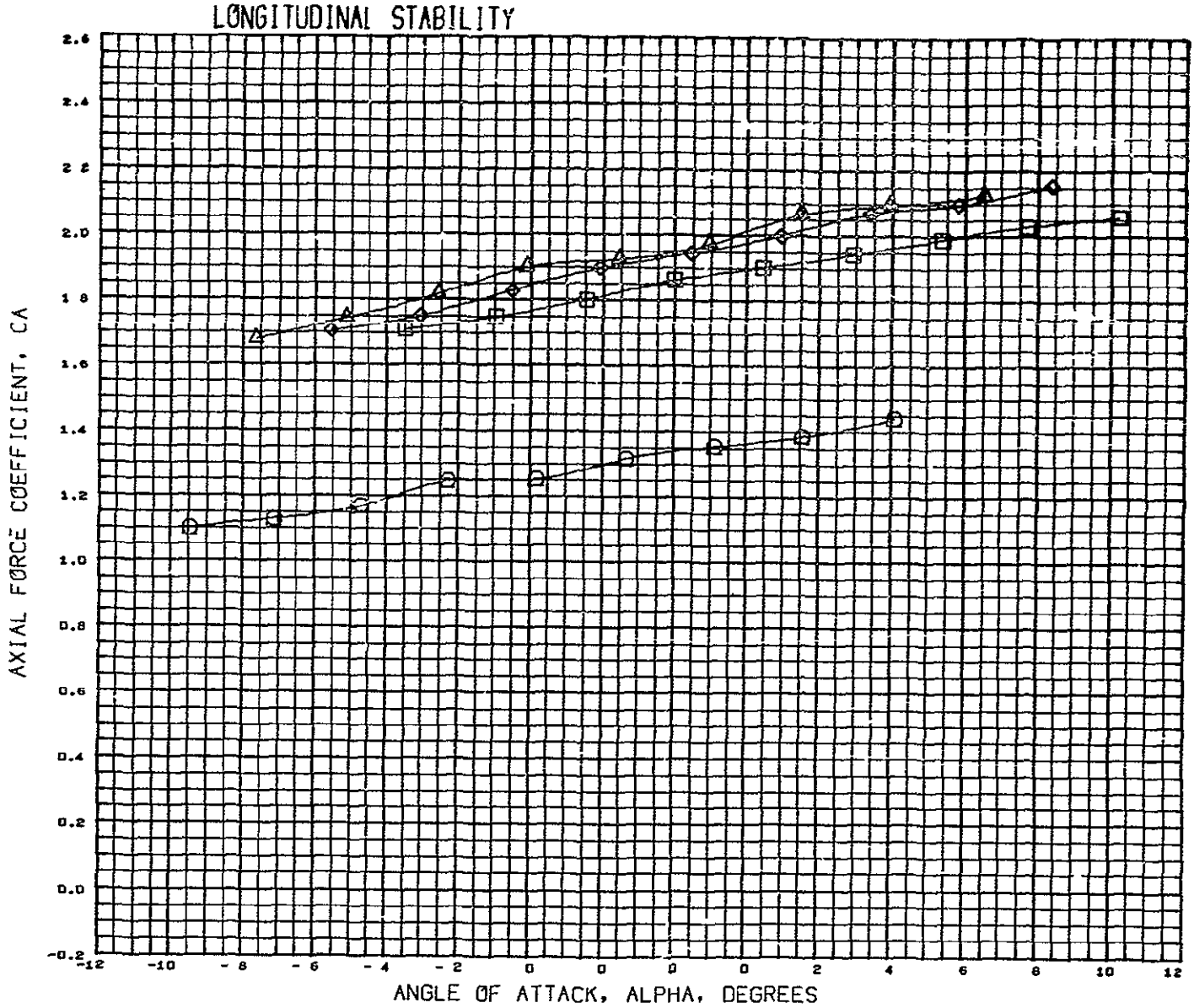
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	1.000
△	1.006				
◇	1.096				
□	1 198				

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6800	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	



SYMBOL	MACH
○	0.901
△	1.006
◇	1.096
□	1.198

PARAMETRIC VALUES

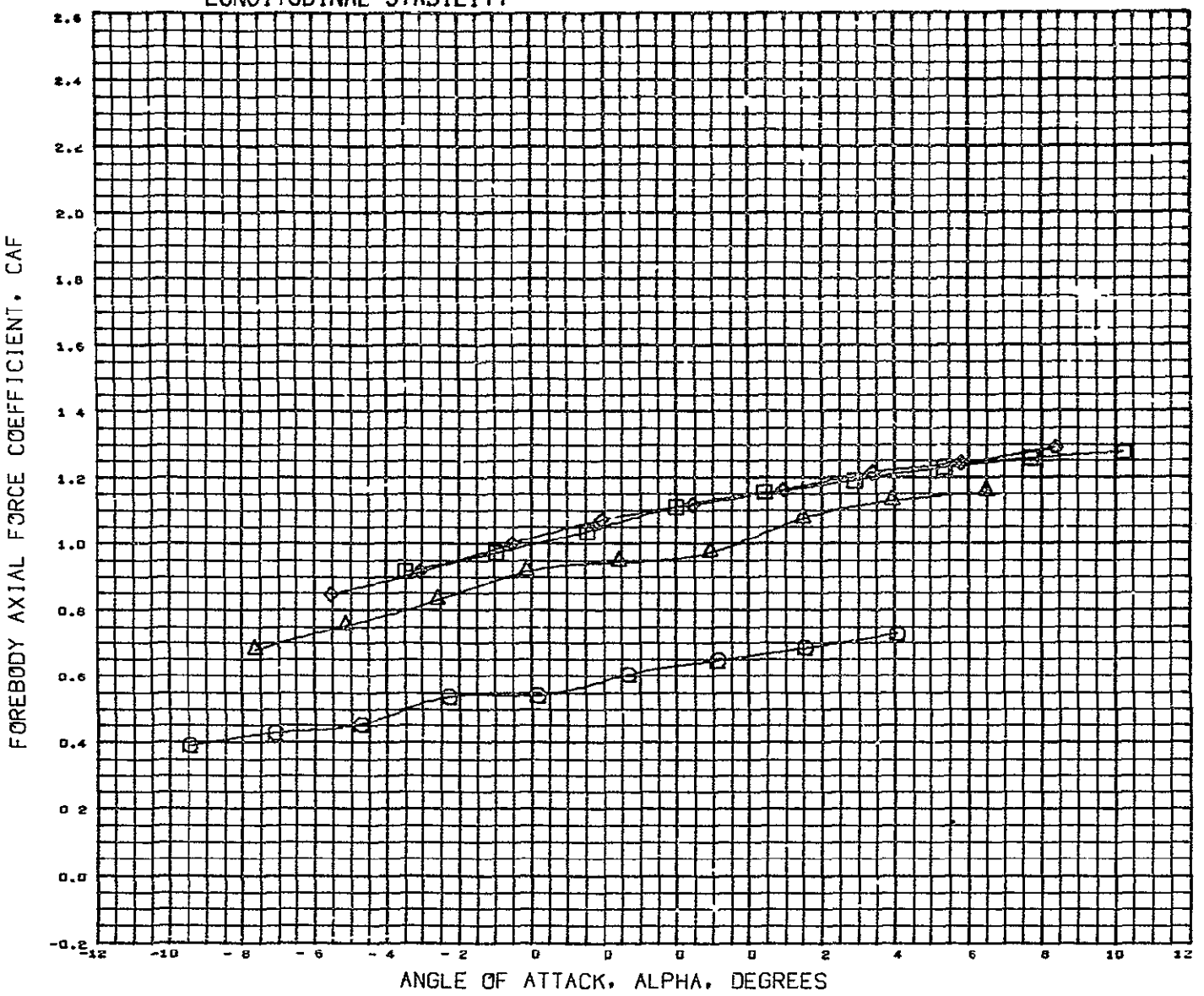
BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M#E

LONGITUDINAL STABILITY

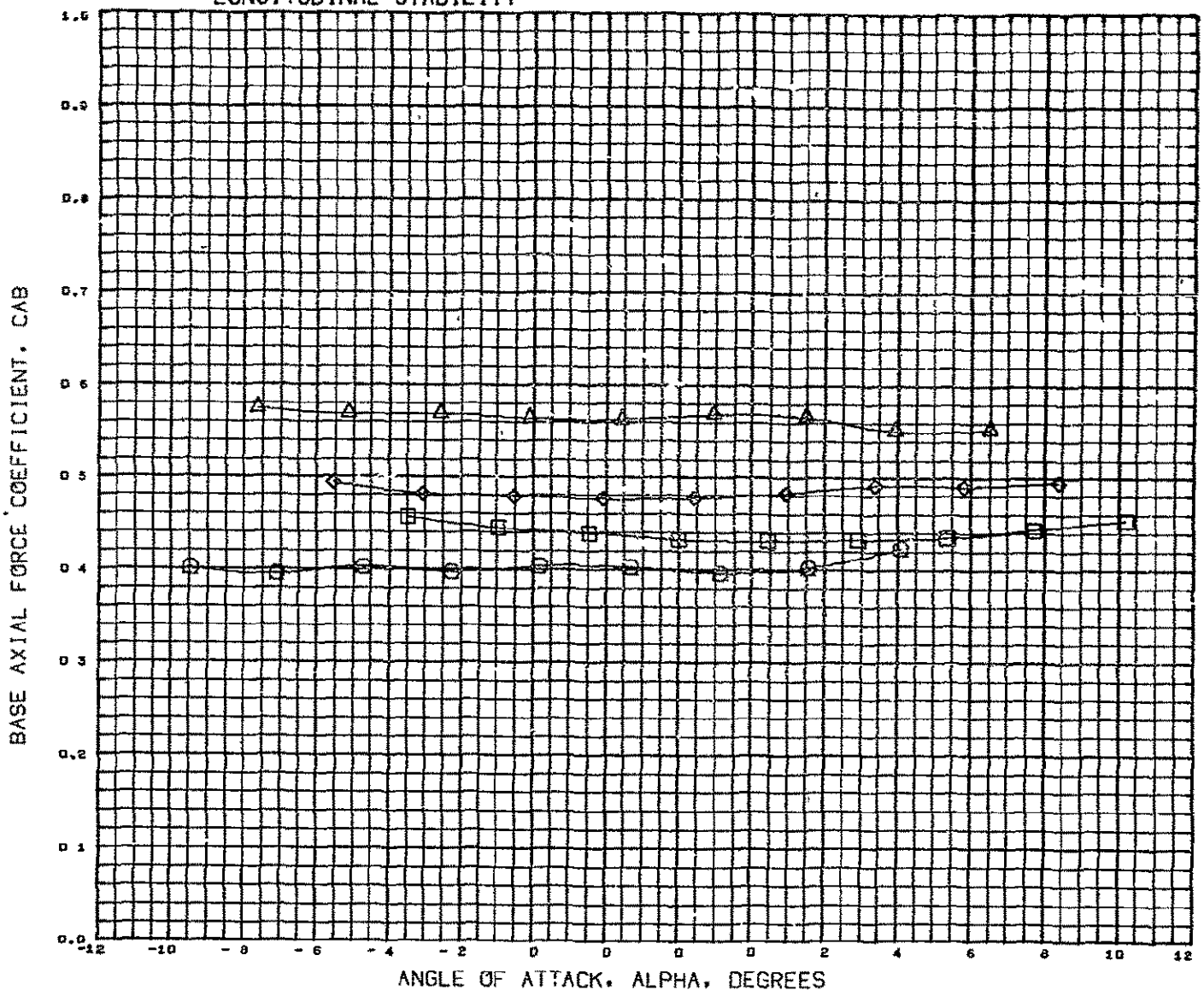


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0 000	ORBINC	1 000
△	1.006				
◇	1 096				
□	1.198				

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

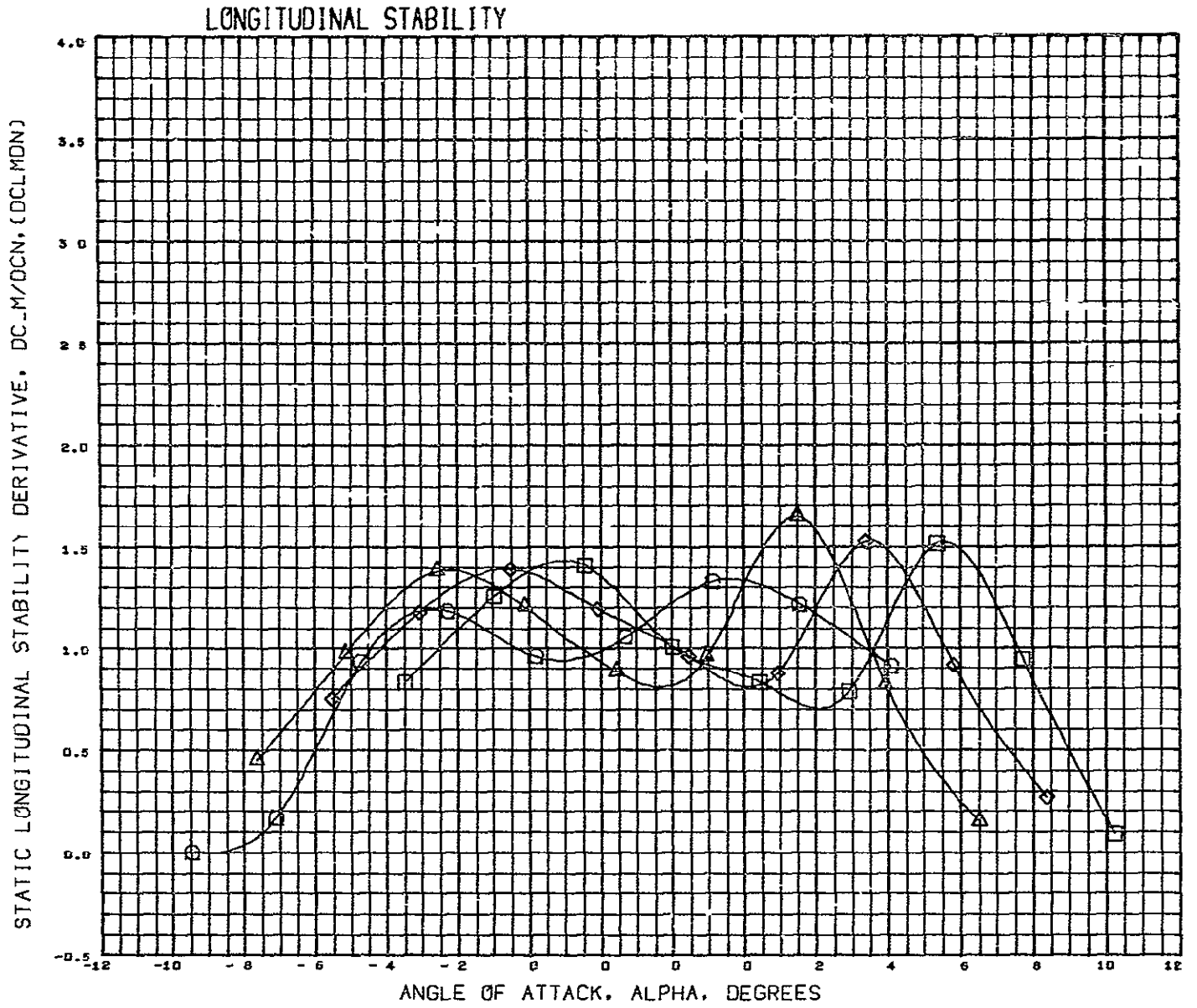


SYMBOL	MACH	PARAMETRIC VALUES			
□◇△○	0.901	BETA	0.000	ORBINC	1.000
	1.006				
	1.096				
	1.198				

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0600	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

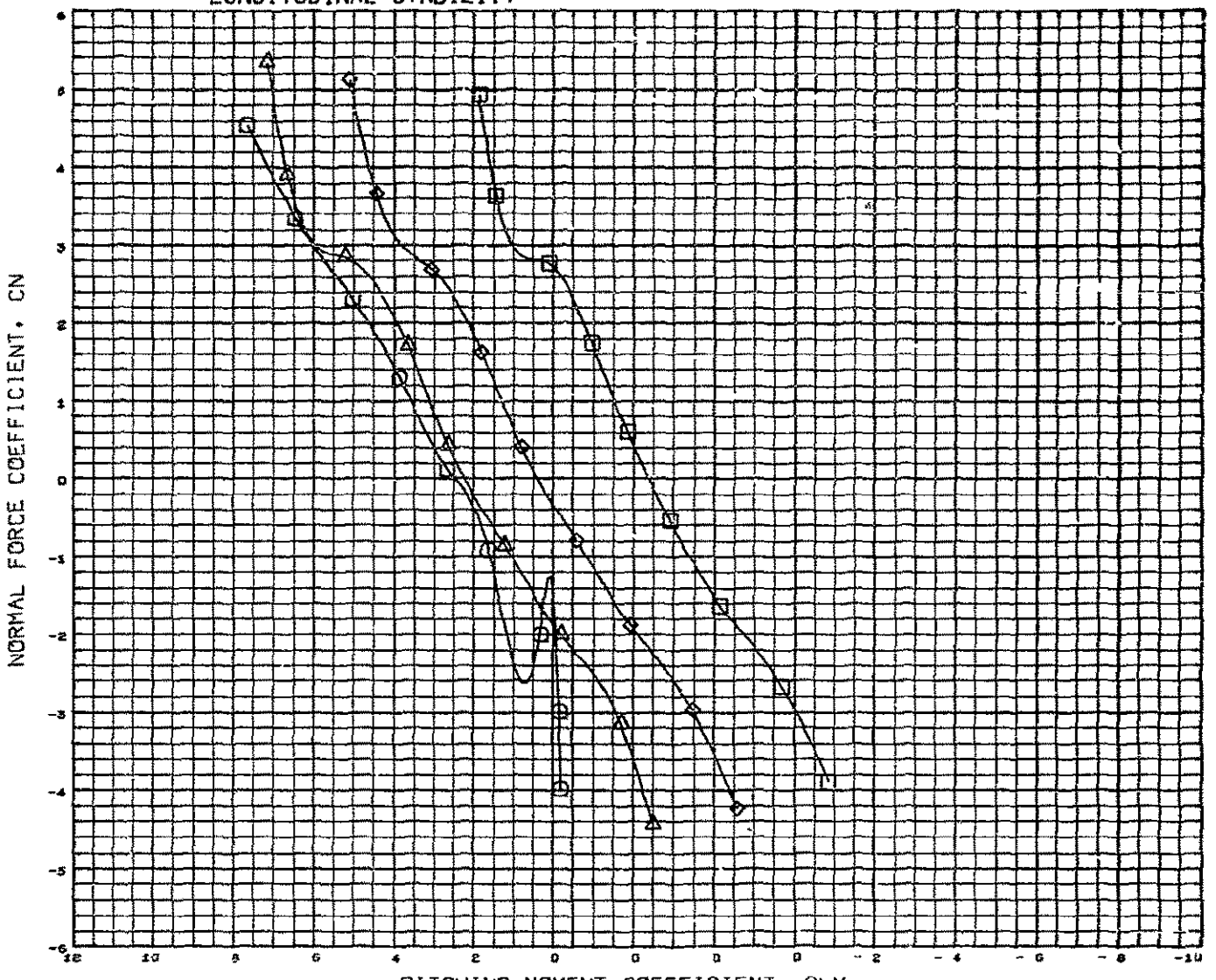


SYMBOL	MACH	PARAMETRIC VALUES			
□◇△○	0.901	BETA	0.000	ORBINC	1.000
	1.006				
	1.096				
	1.198				

DATA HIST. CODE H#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



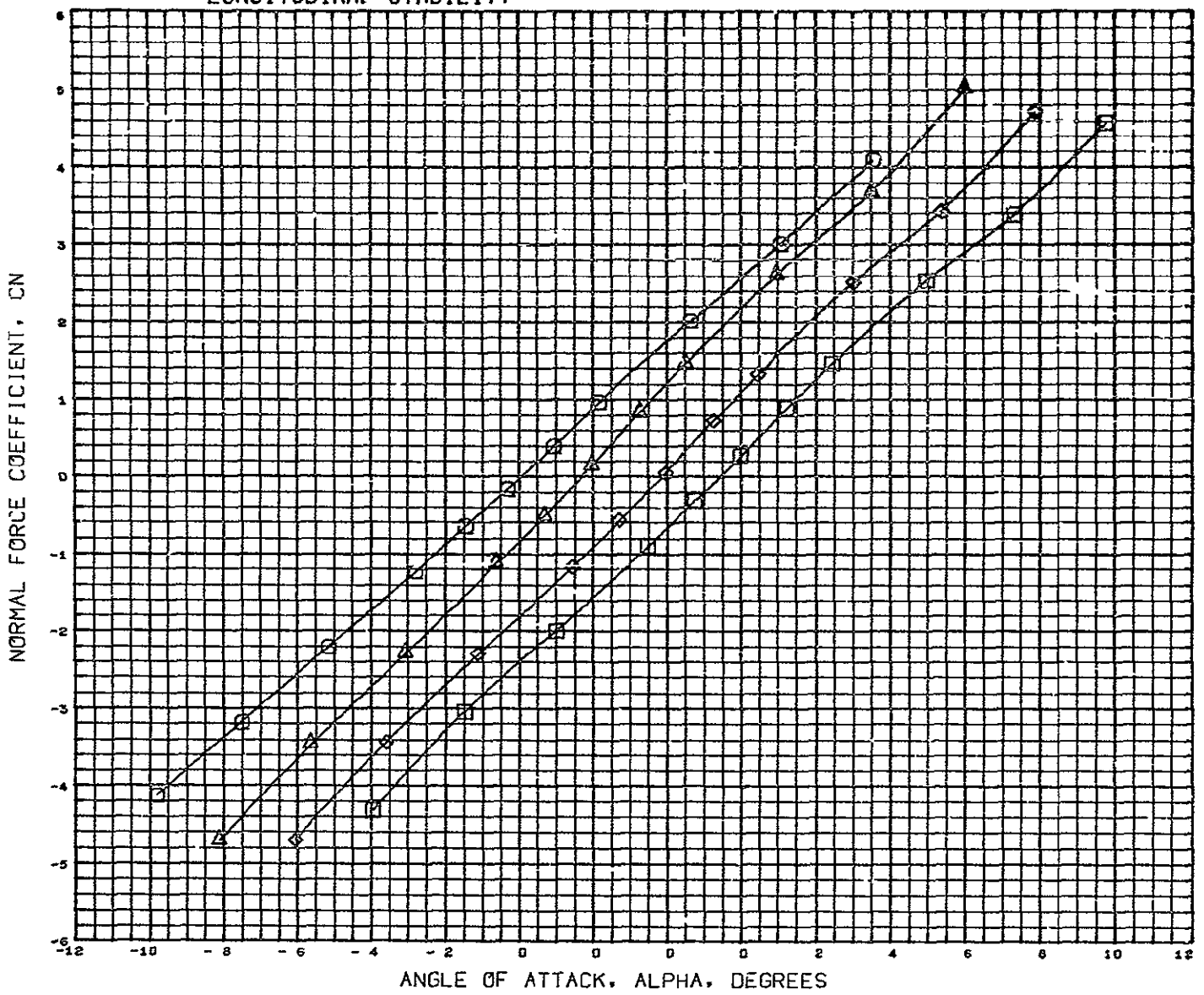
SYMBOL	MACH	PARAMETRIC VALUES		
○	0.901	BETA	0.000	ORBINC 1.000
△	1.006			
◇	1.096			
□	1.198			

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



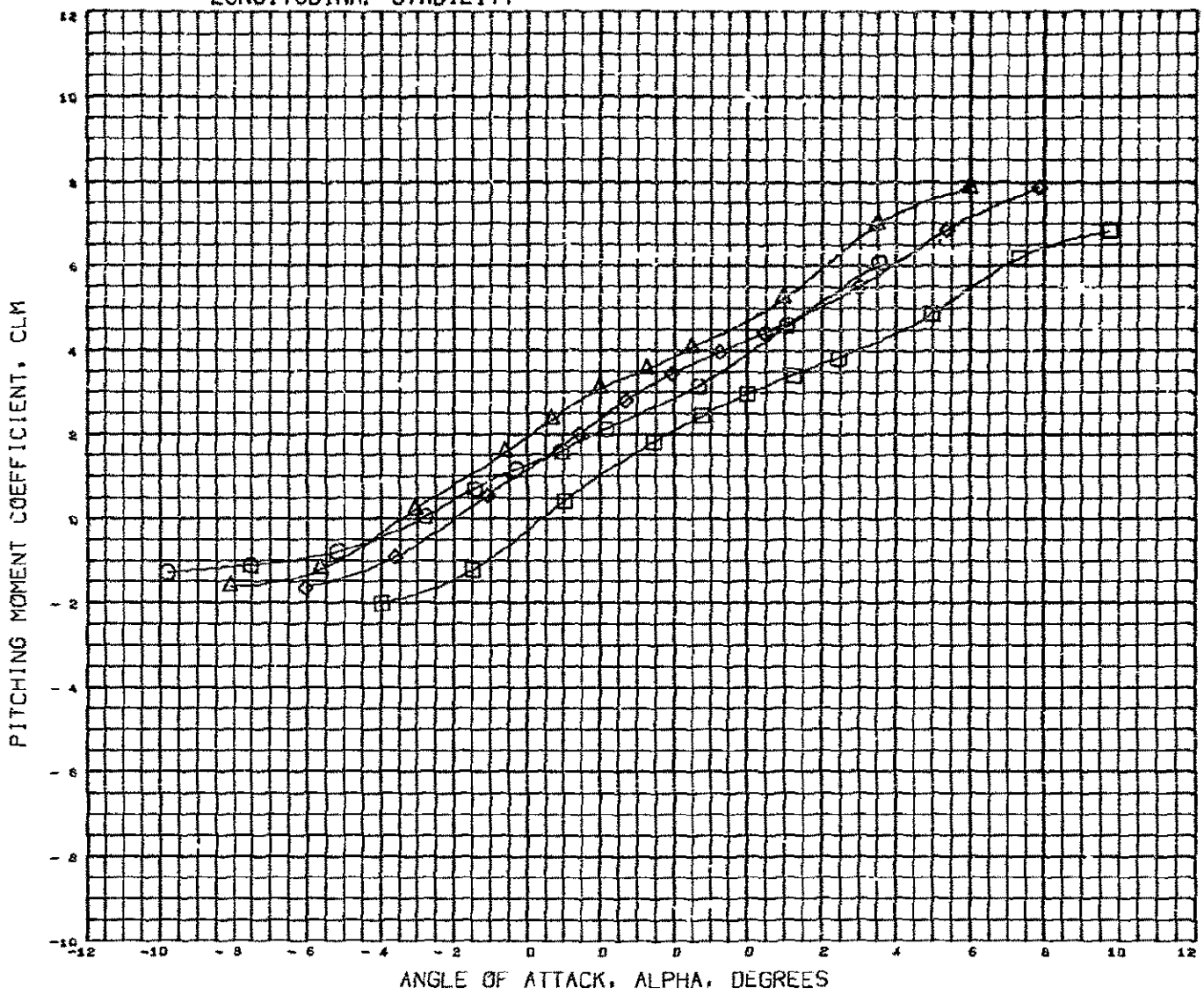
SYMBOL	MACH	PARAMETRIC VALUES			
□◇	0.902	BETA	0.000	ORBINC	0.000
△	1.004				
◇	1.099				
□	1.198				

DATA HIST. CODE H#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

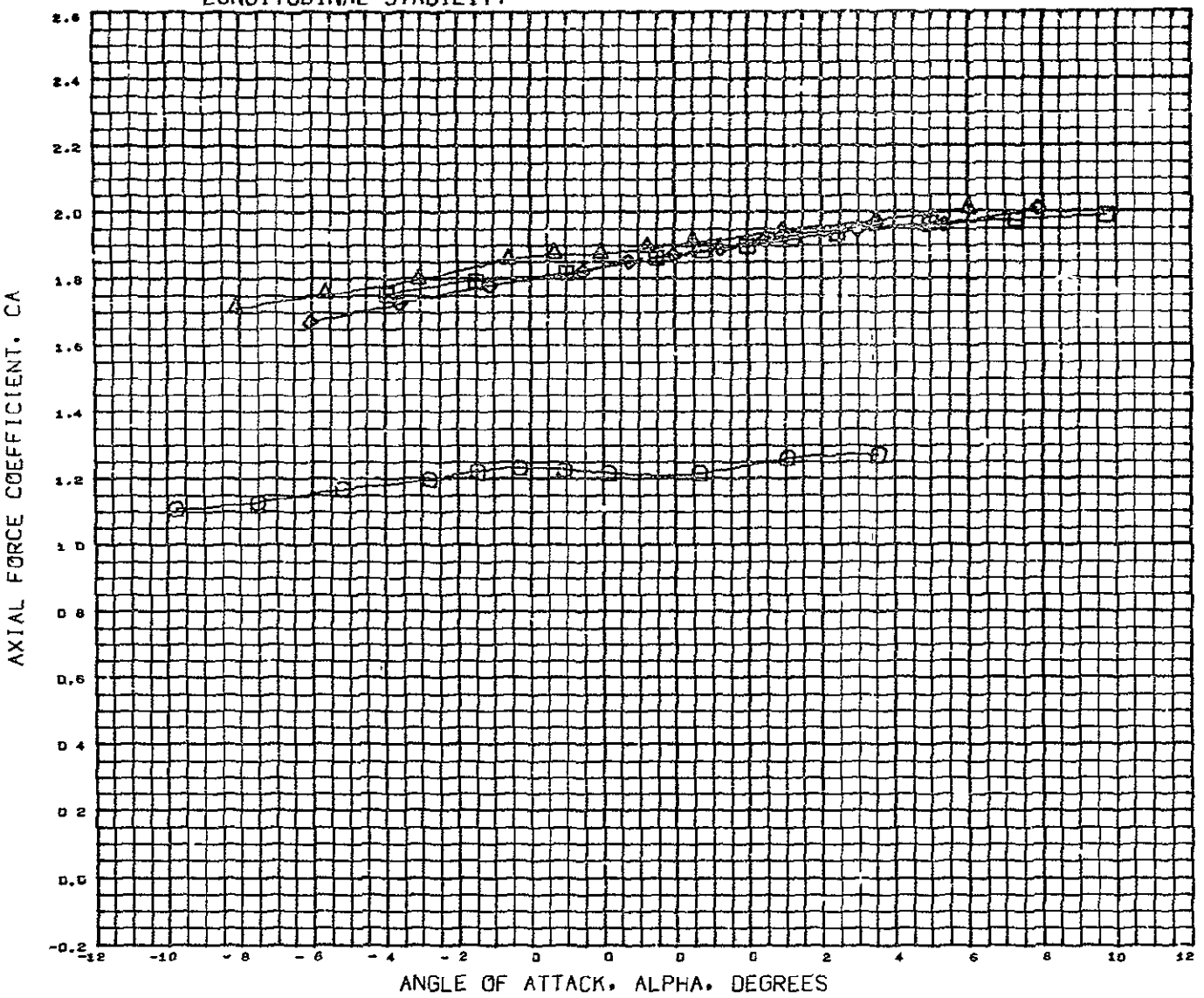


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	0.000
△	1.004				
◇	1.099				
□	1.198				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

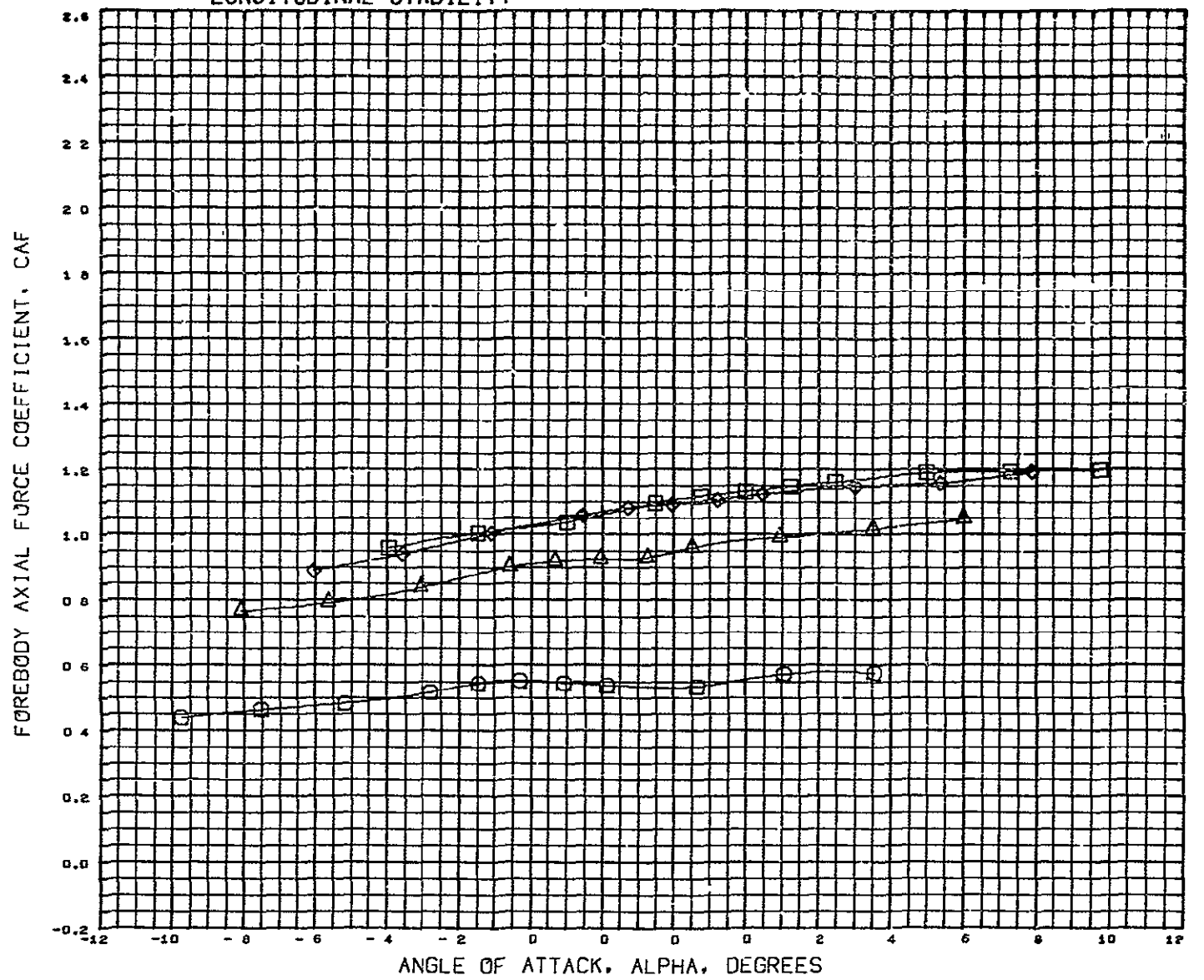


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	0.000
△	1.004				
◇	1.099				
□	1.198				

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6060	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



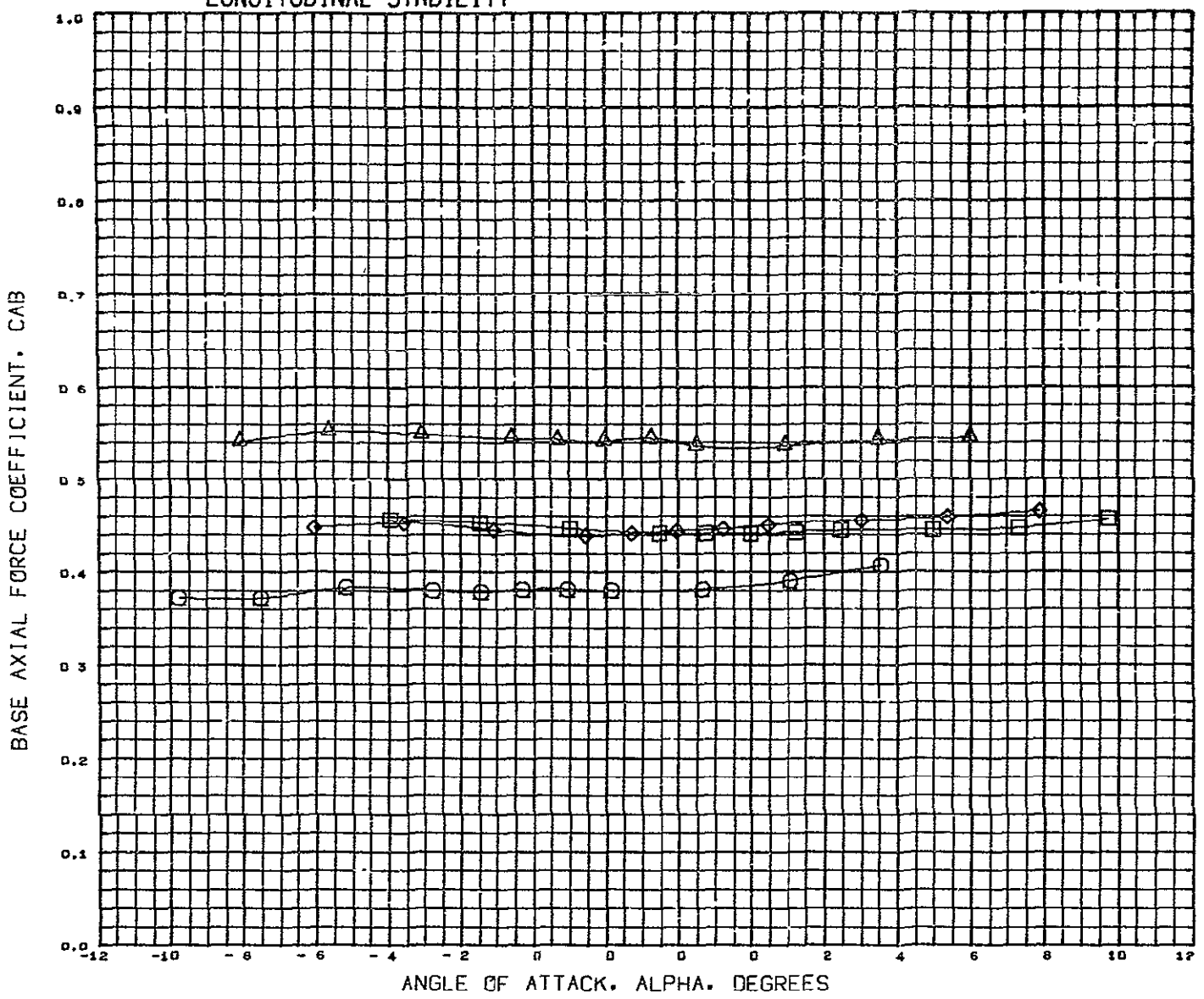
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	0.000
△	1.004				
◇	1.099				
□	1.198				

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.5460	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

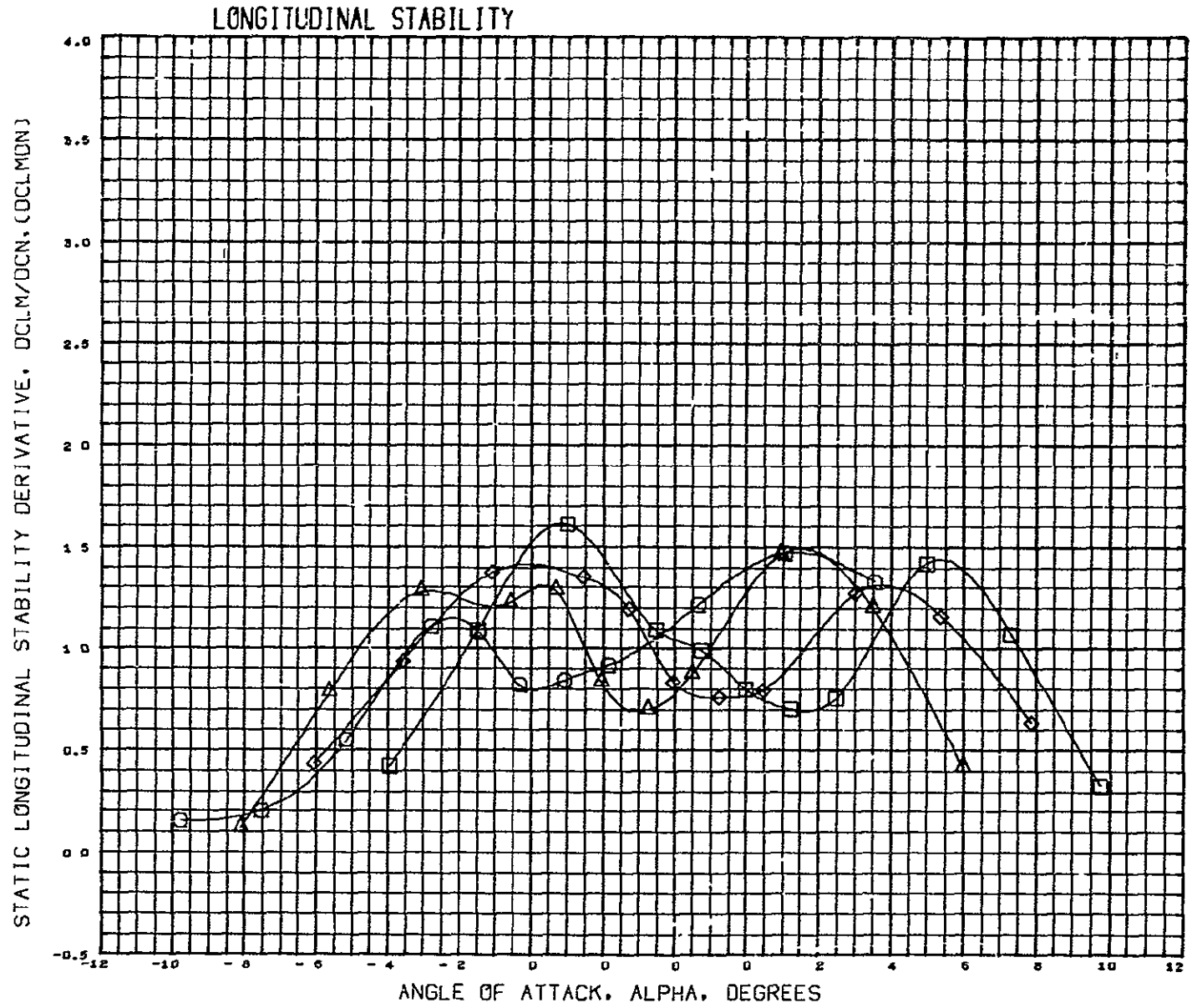
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	0.000
△	1.004				
◇	1.099				
□	1.198				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

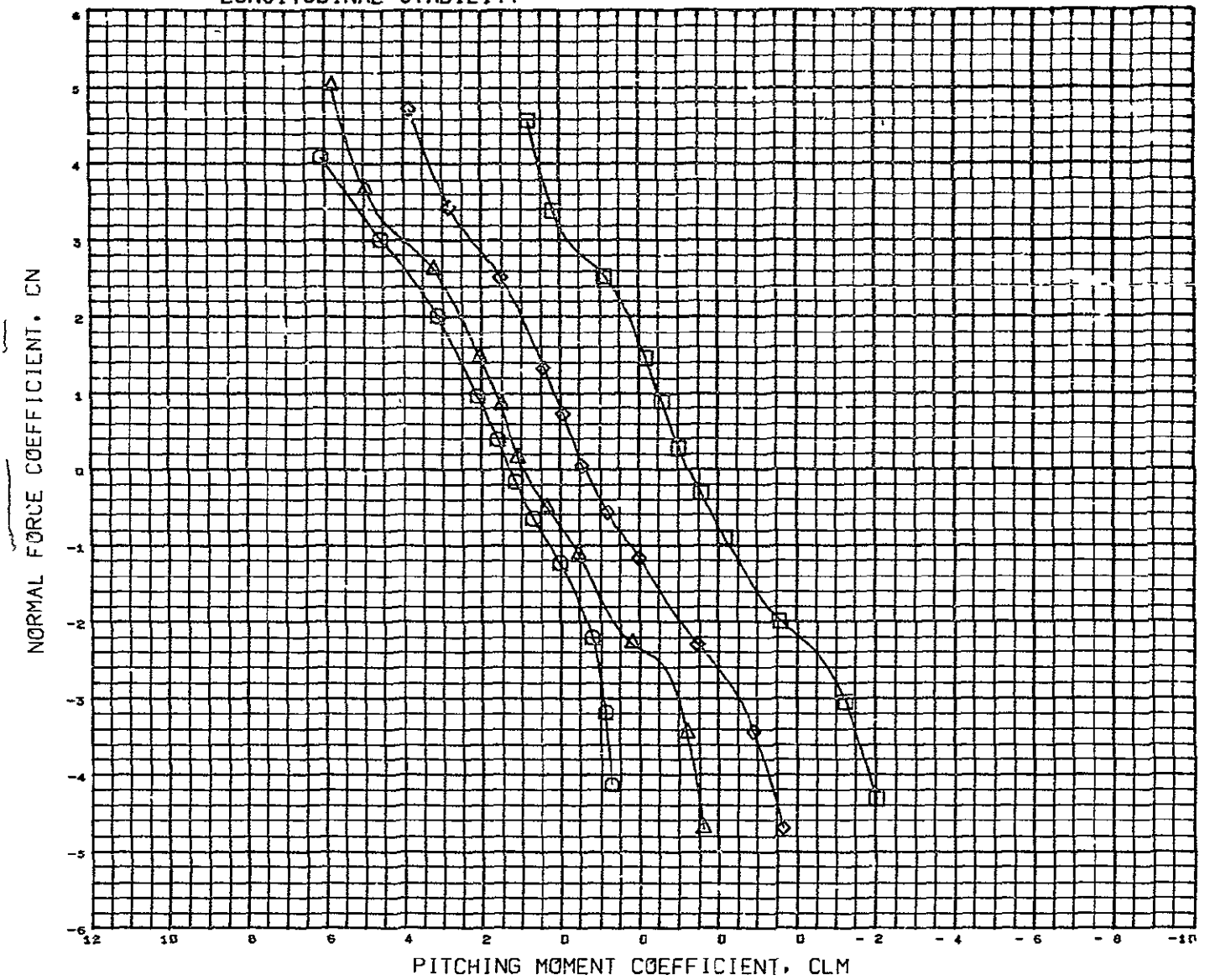


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	0.000
△	1.004				
◇	1.099				
□	1.198				

DATA HIST CODE H#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

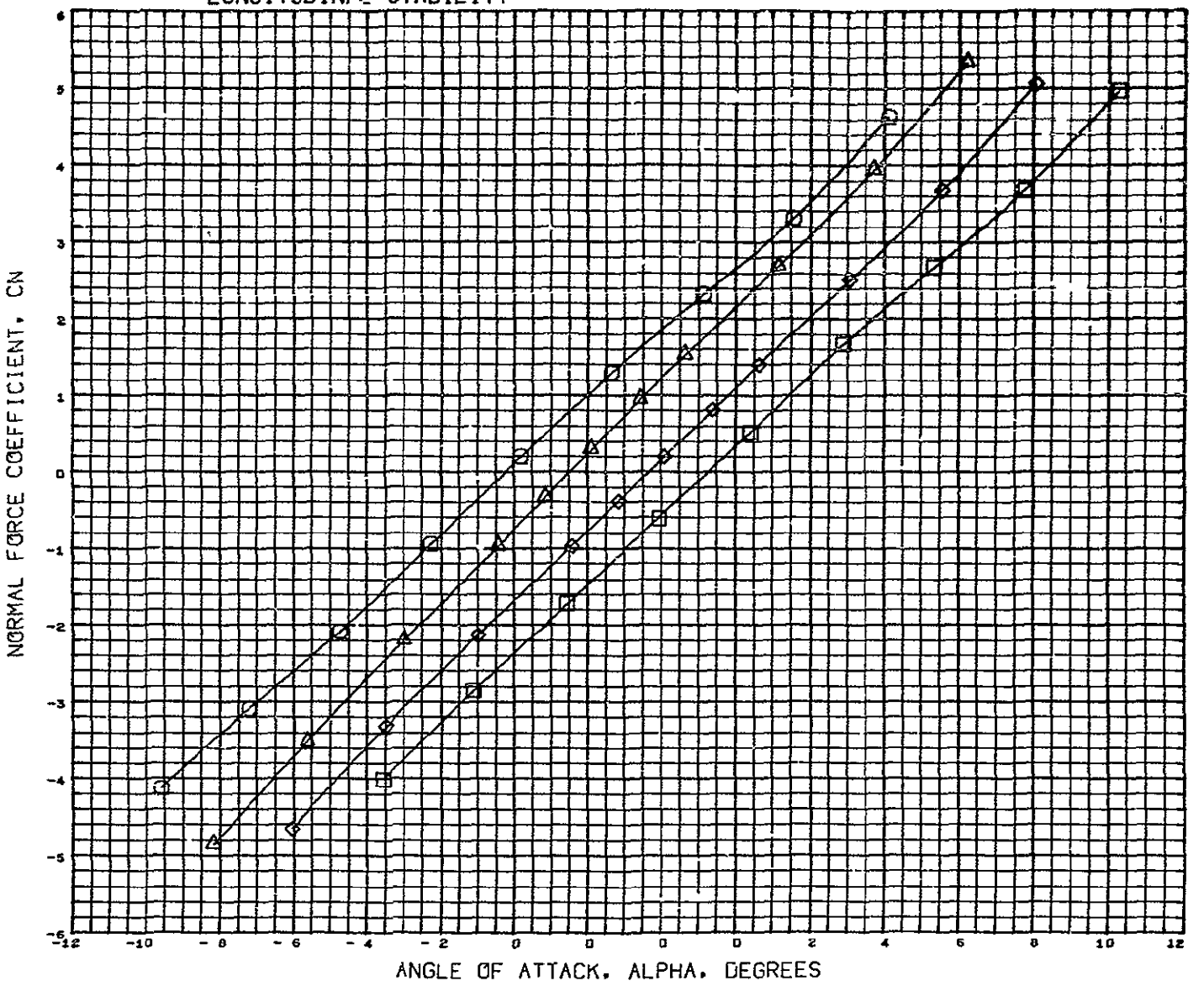


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0 000	ORBINC	0.000
△	1.004				
◇	1.099				
□	1 198				

DATA HIST. CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6360	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

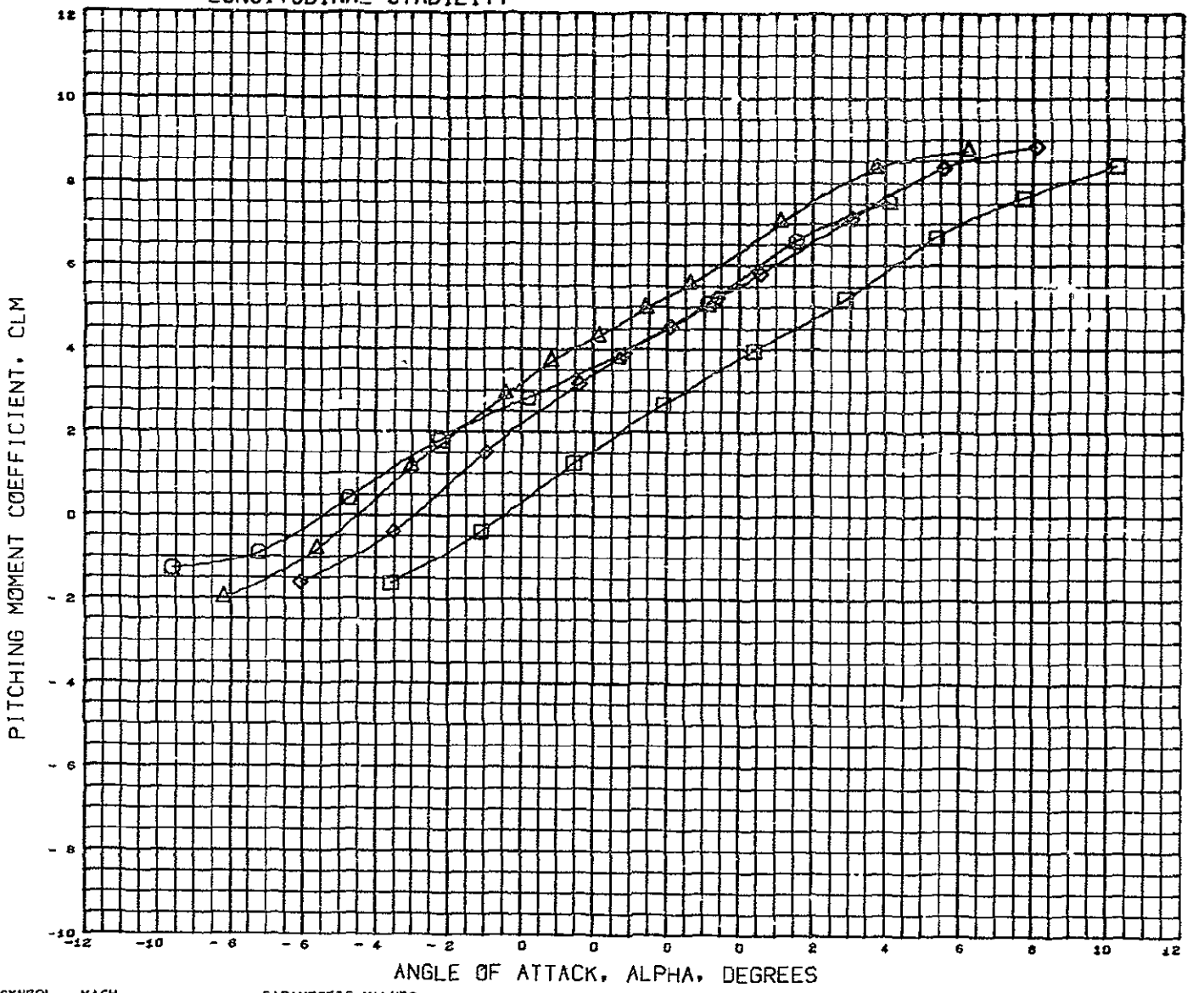


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	0.000
△	1.001				
◇	1.099				
□	1.194				

DATA HIST. CODE H*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	0.801
△	1.001
◇	1.099
□	1.194

PARAMETRIC VALUES

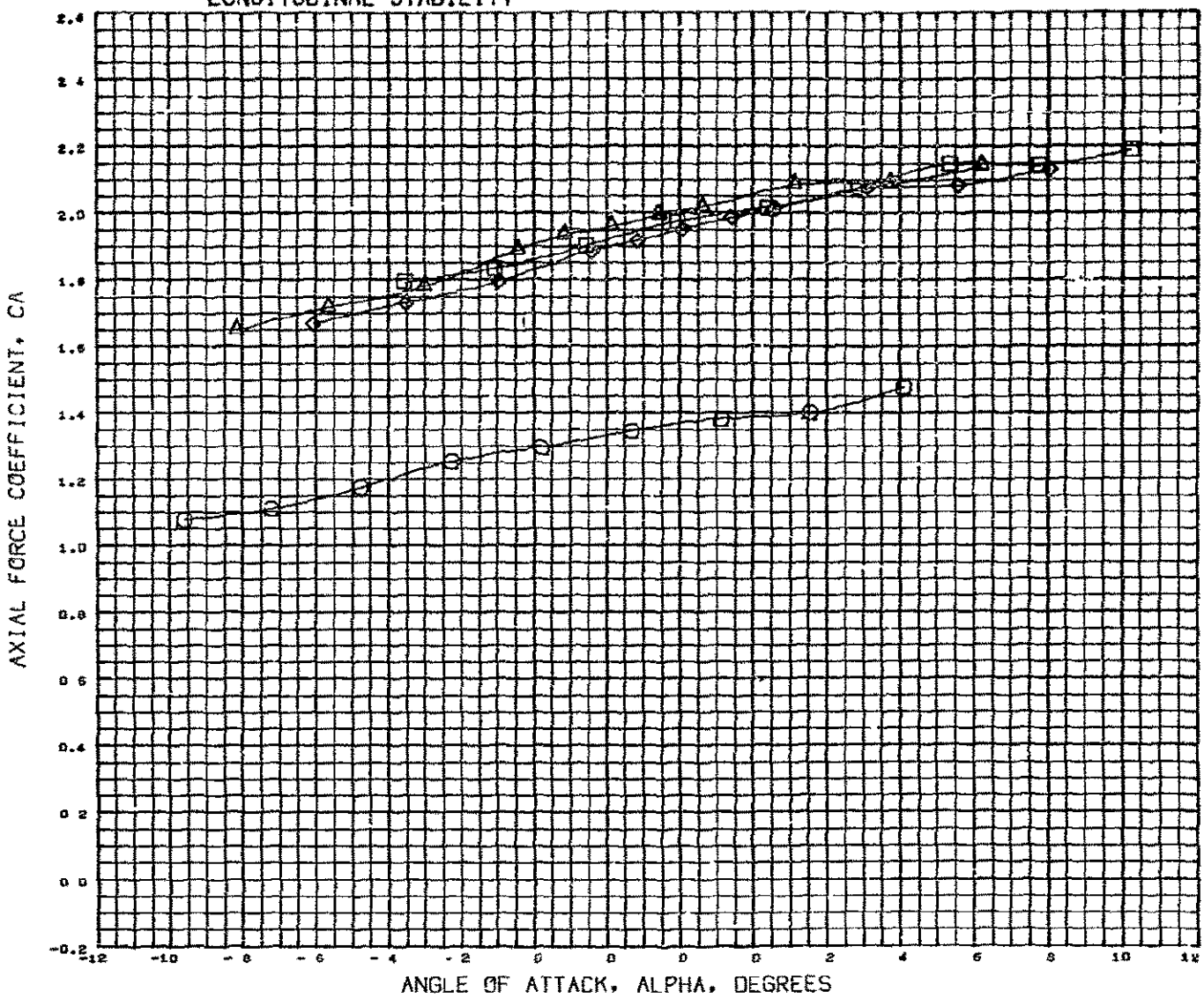
BETA 0.000 ORBINC 0.000

DATA HIST. CODE M9E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.3860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



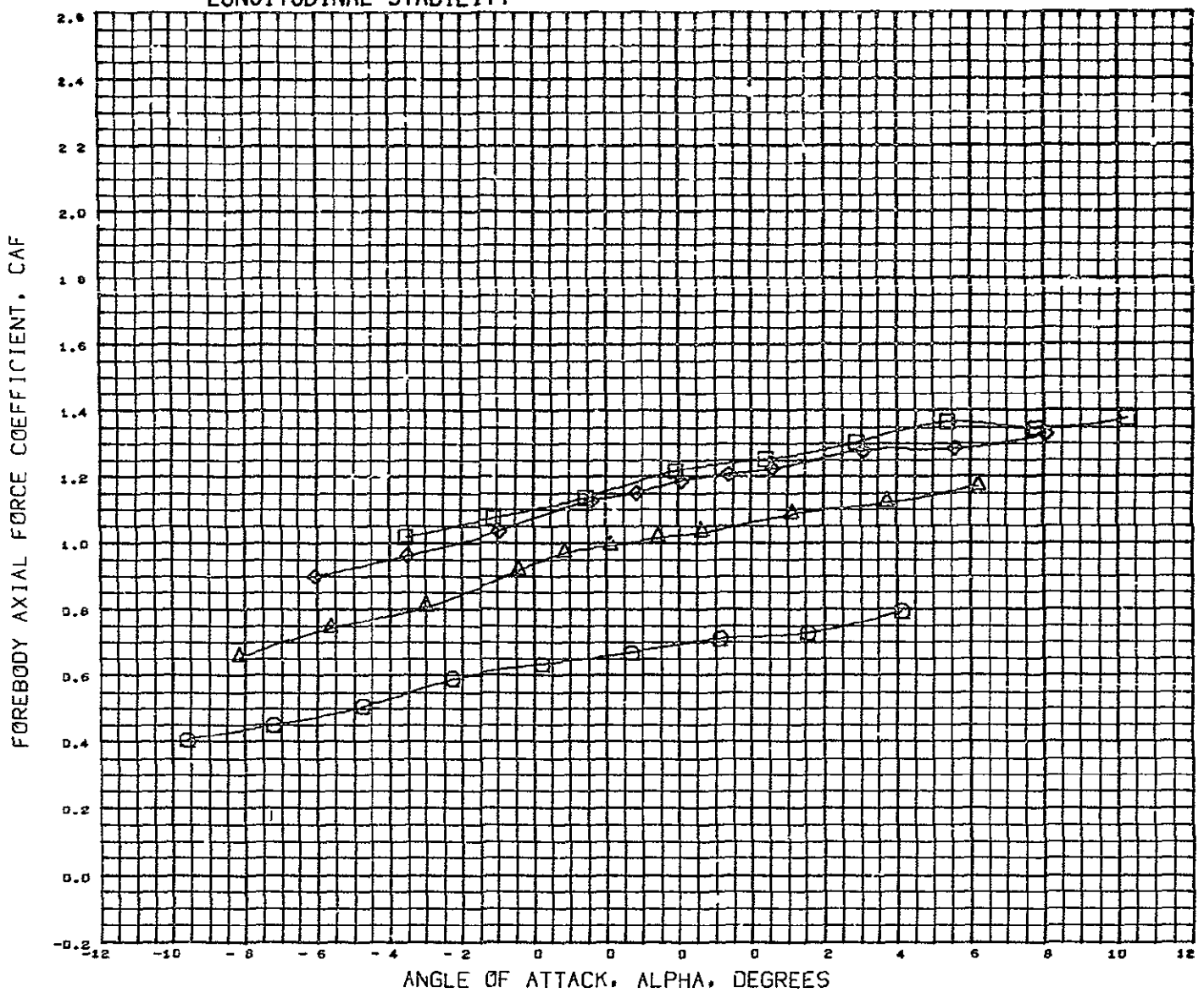
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	0.000
△	1.001				
◇	1.099				
□	1.194				

DATA HIST. CODE M6E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



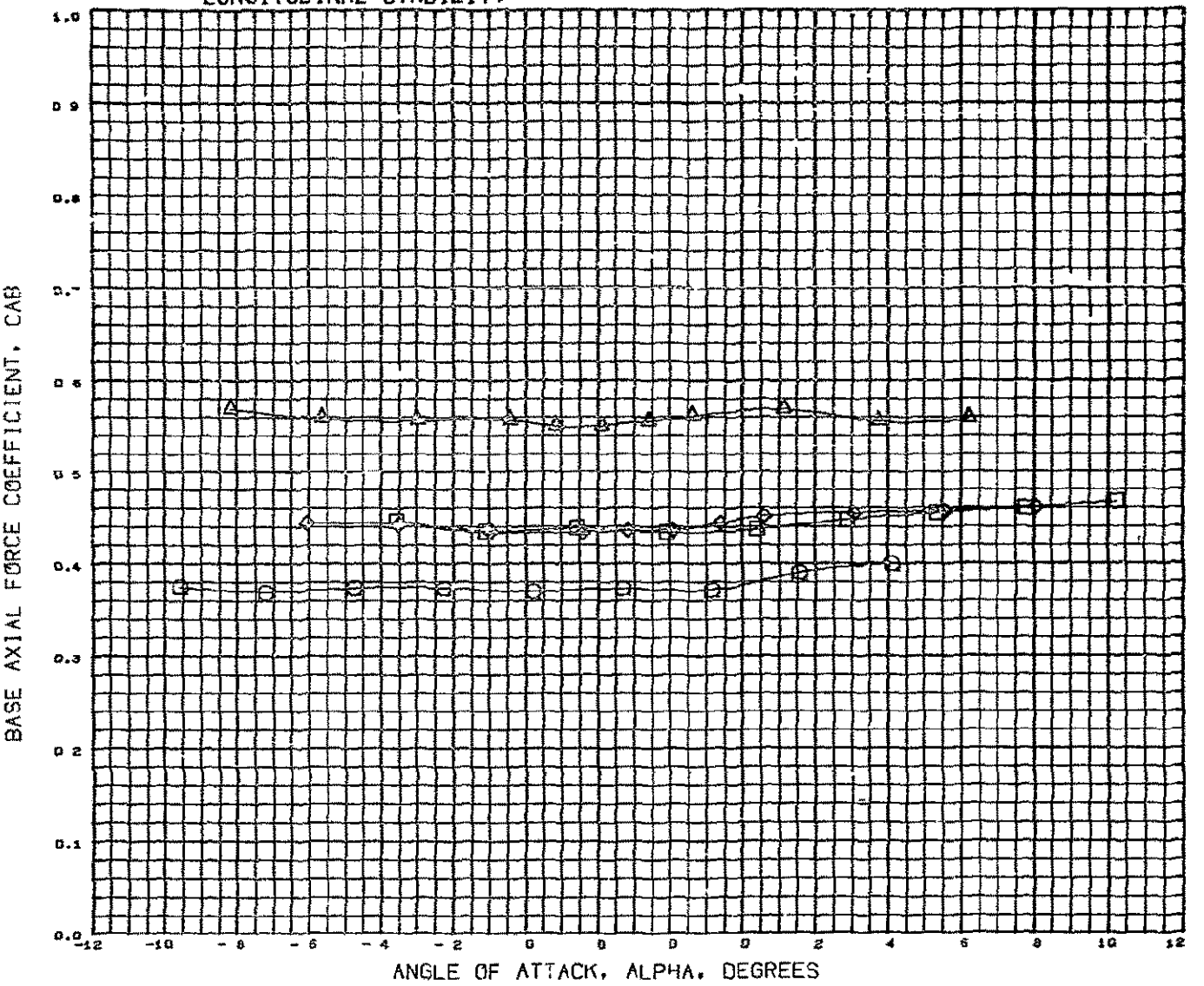
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	0.000
△	1.001				
◇	1.099				
□	1.194				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

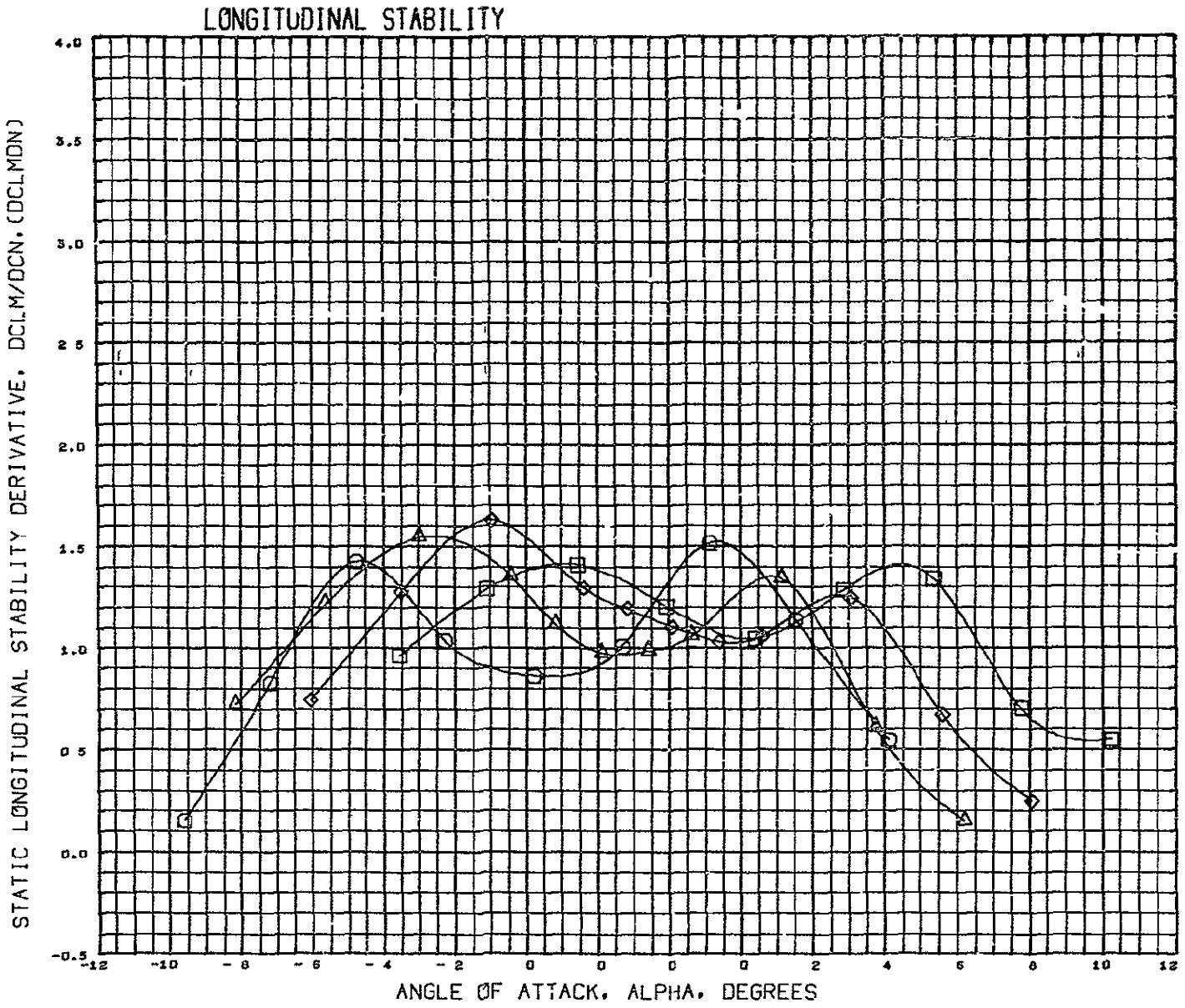
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES		
□	0.901	BETA	0.000	ORBINC 0.000
△	1.081			
◇	1.099			
▢	1.194			

DATA HIST CODE H#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6650	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

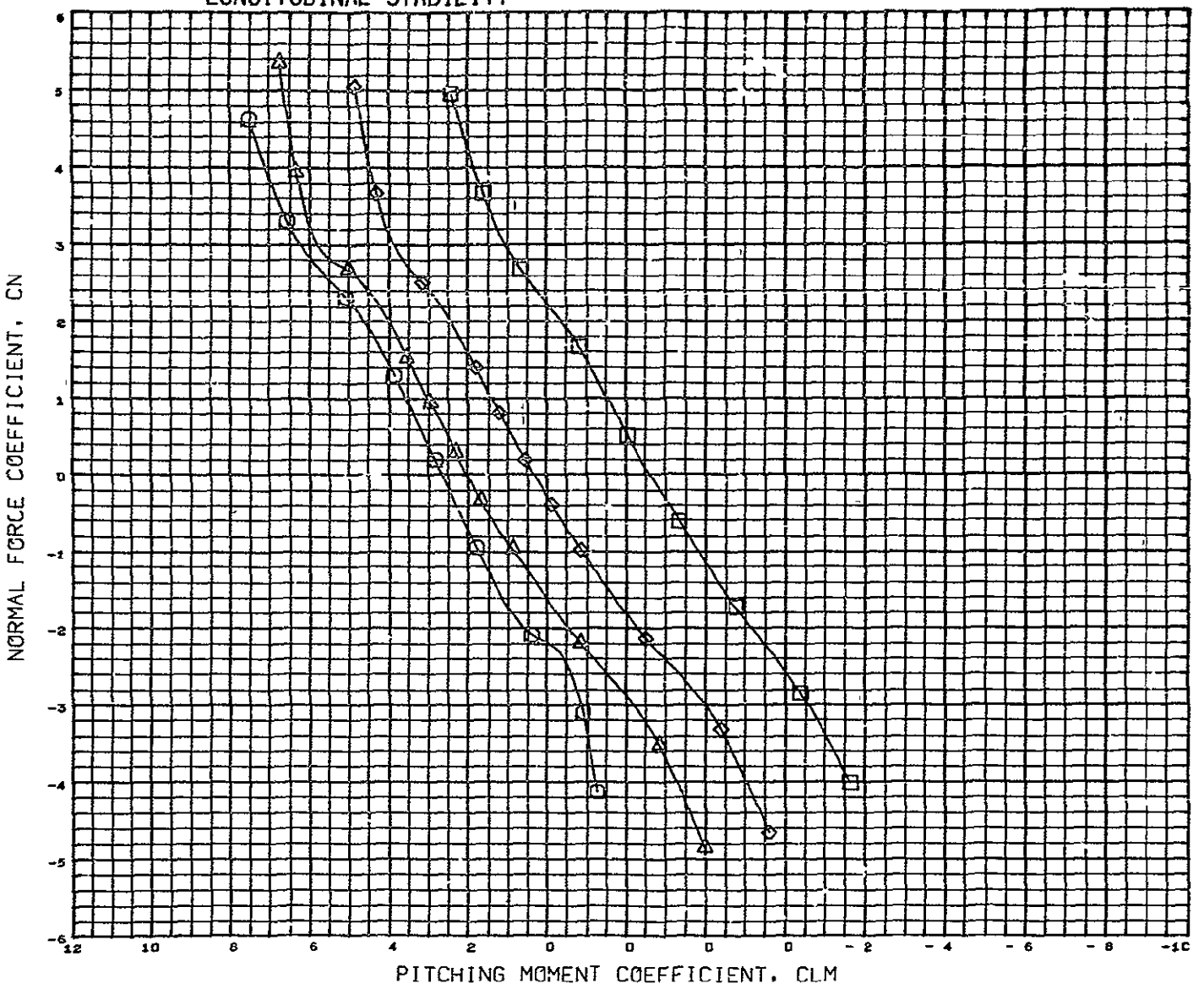


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	0.00
△	1.001				
◇	1.099				
□	1.194				

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

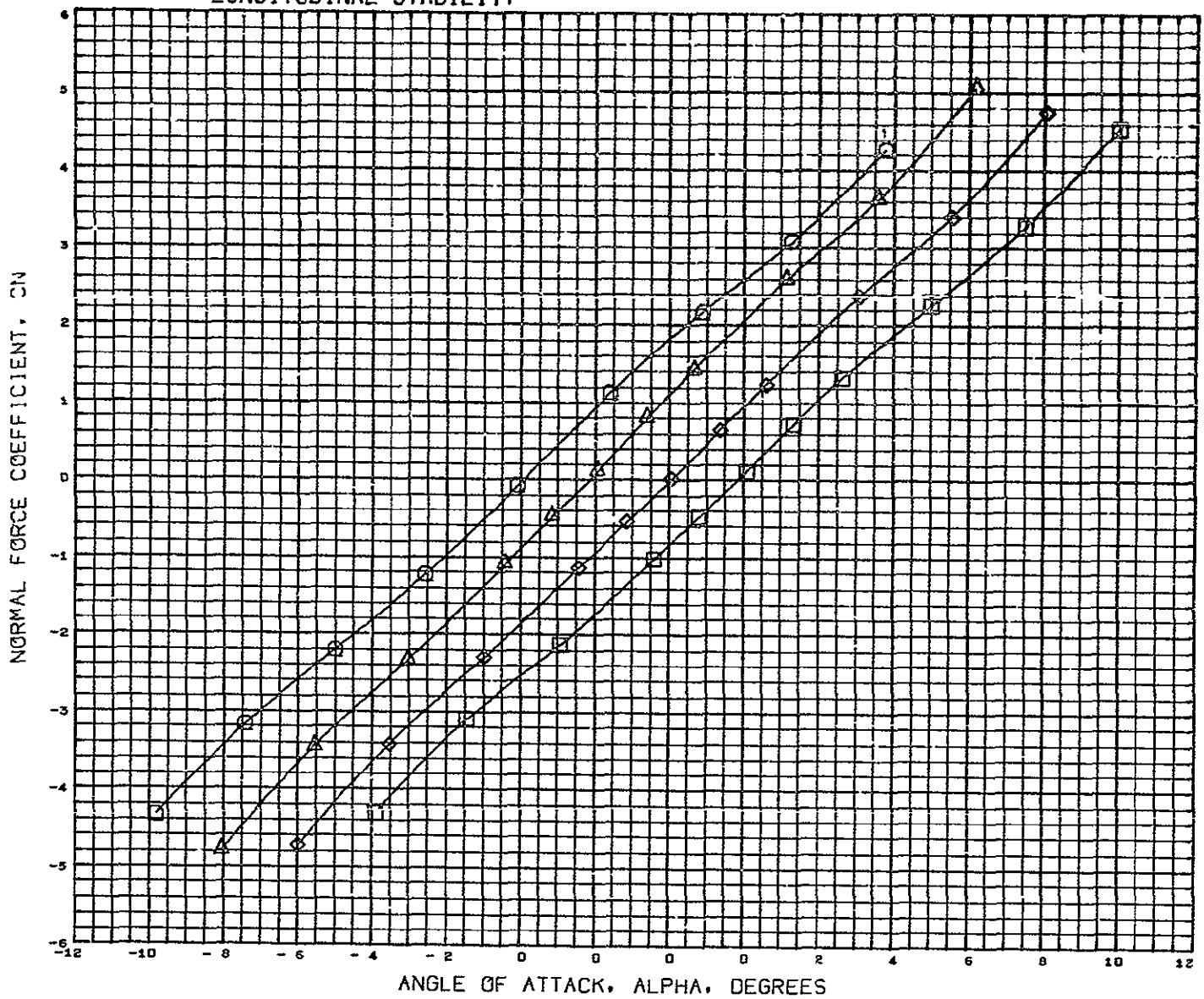


SYMBOL	MACH	PARAMETRIC VALUES			
△	0.901	BETA	0.000	ORBINC	0.000
○	1.001				
◇	1.099				
□	1.194				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6650	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



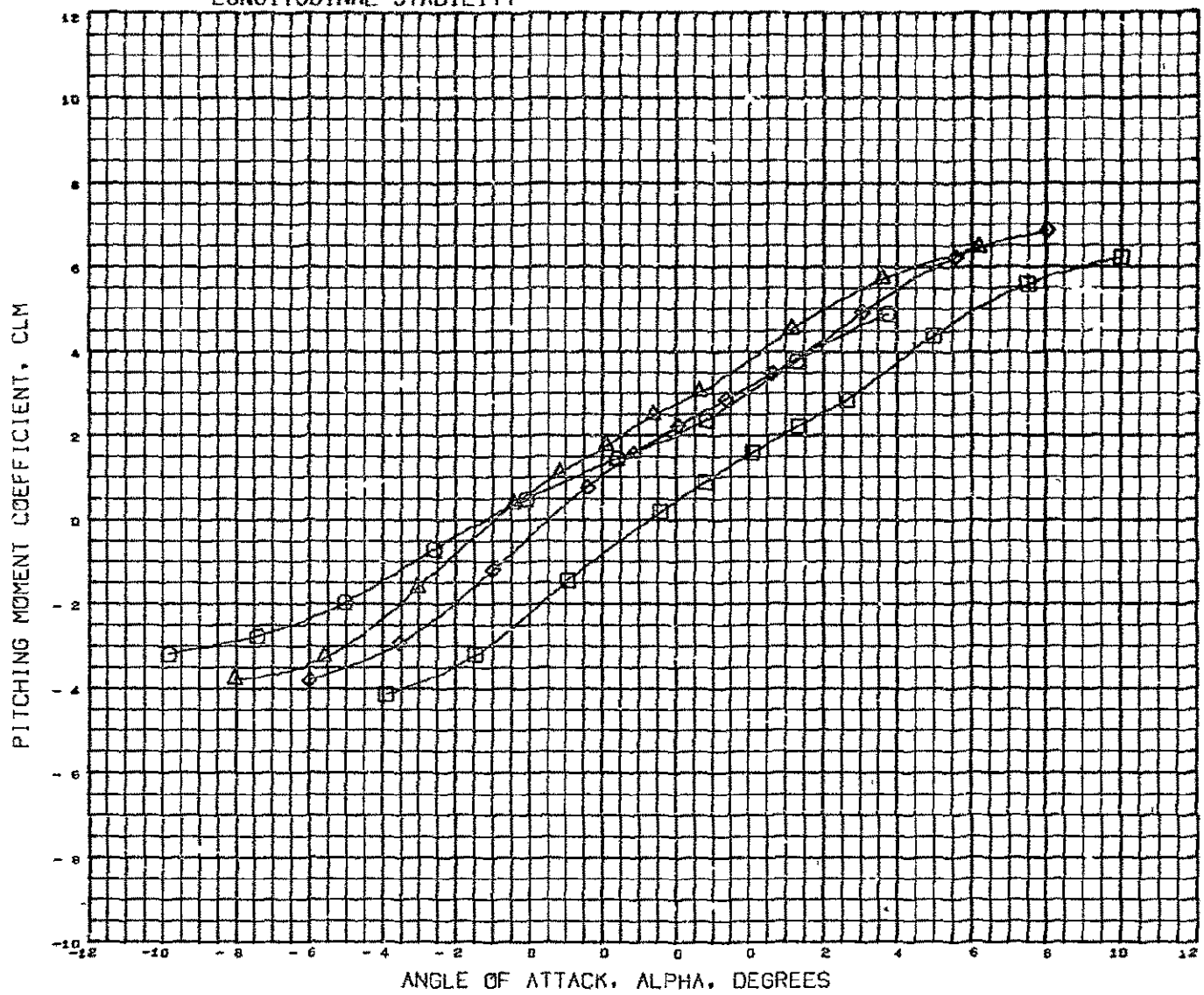
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.903	BETA	0.000	ORBINC	- 2 000
△	1 003				
◇	1.096				
○	1 201				

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

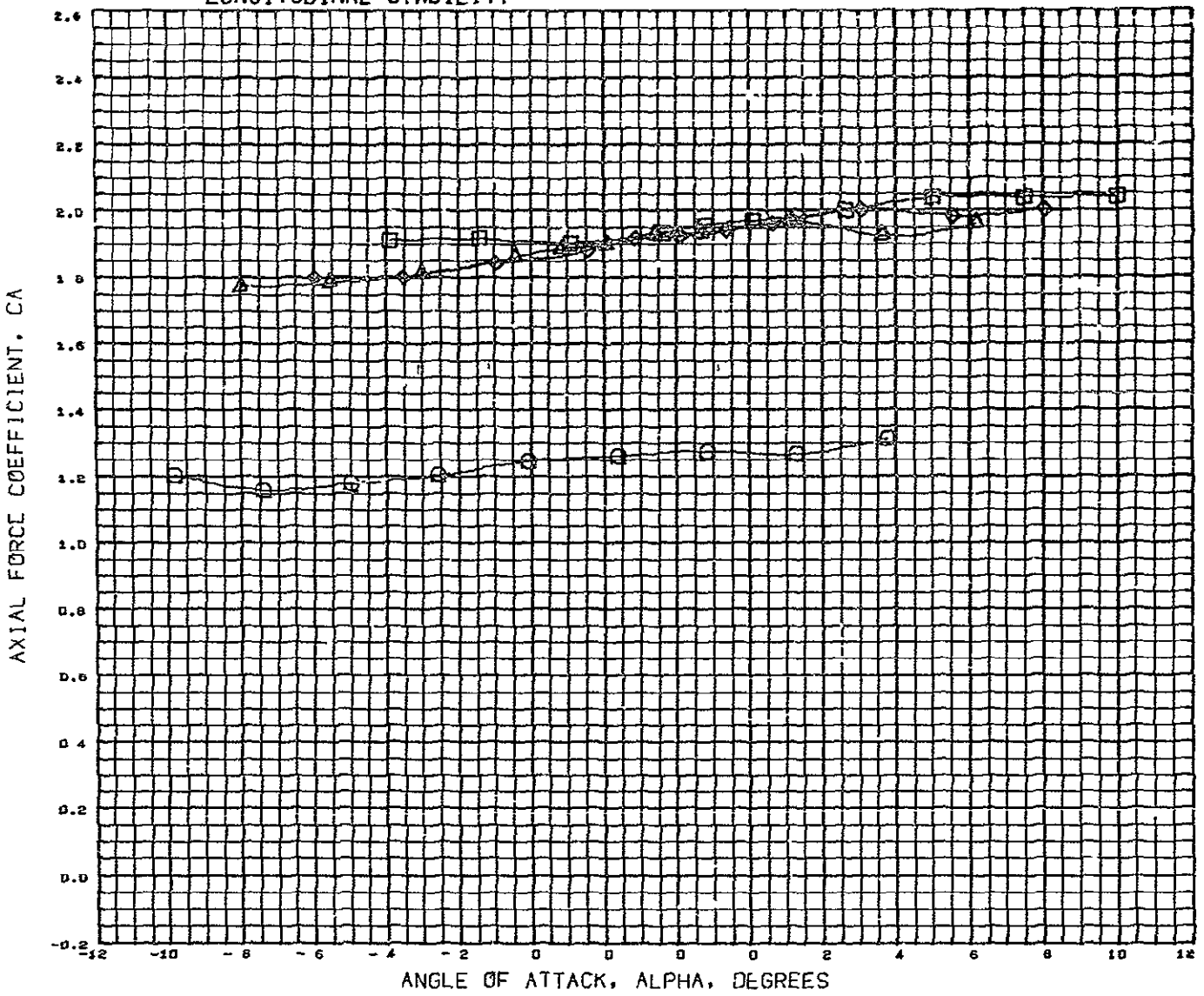


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.903	BETA	0.000	ORBINC	-2.000
△	1.003				
◇	1.096				
□	1.201				

DATA HIST. CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	0.903
△	1.003
◇	1.096
□	1.201

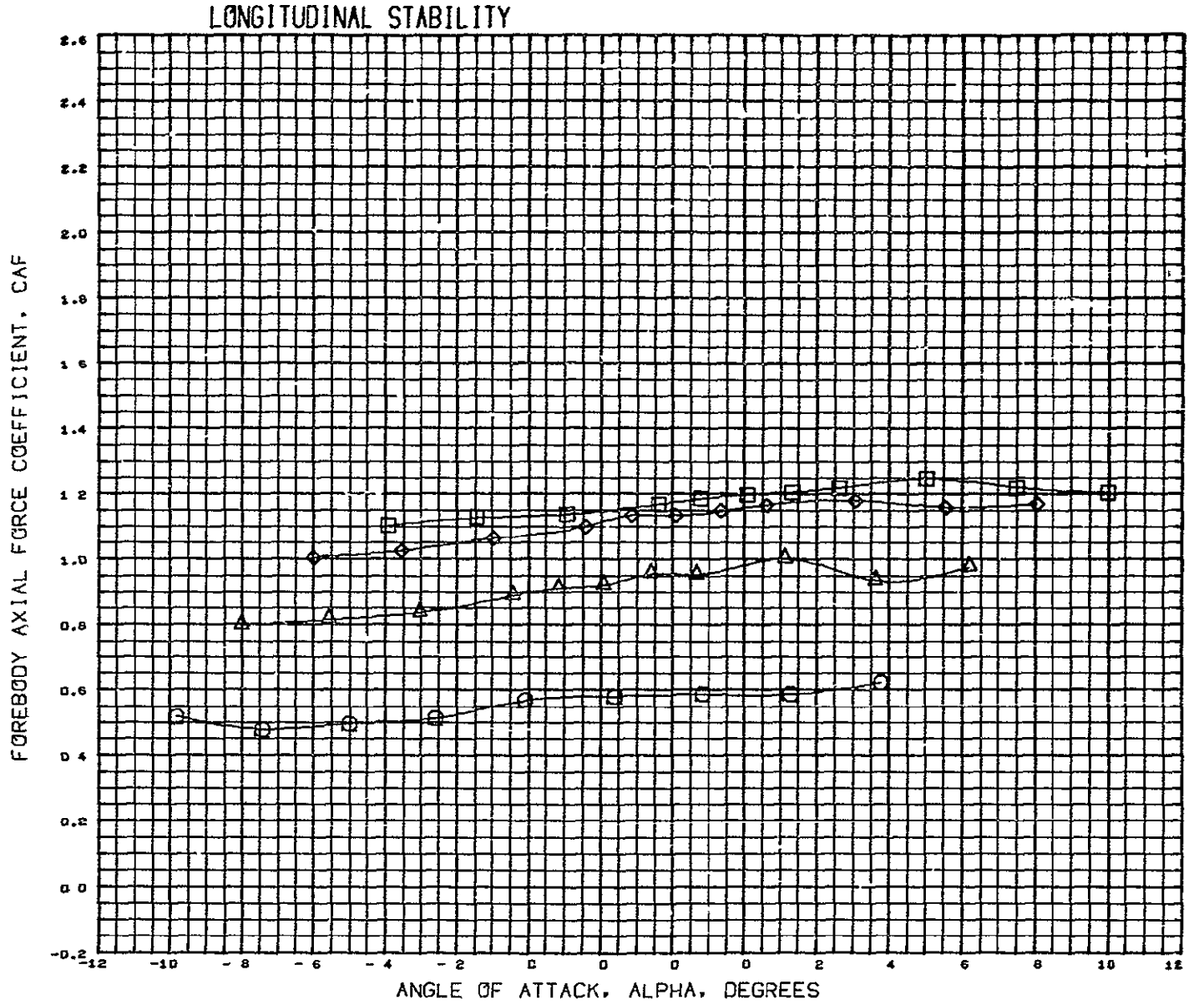
PARAMETRIC VALUES

BETA 0.000 ORBINC - 2 COS

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6360	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	



SYMBOL	MACH
○	0.903
△	1.003
◇	1.096
□	1.201

PARAMETRIC VALUES

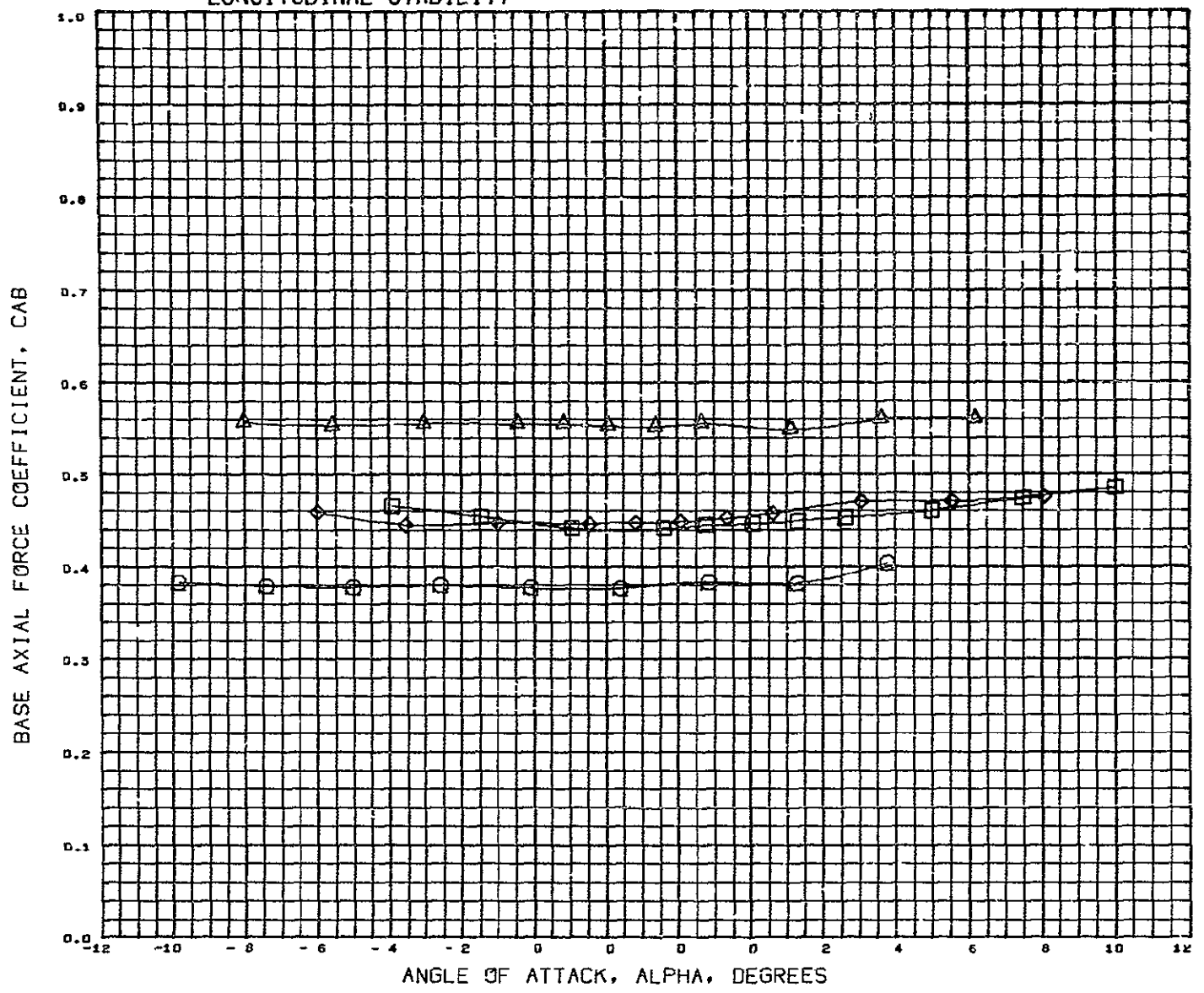
BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6650	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*E

LONGITUDINAL STABILITY

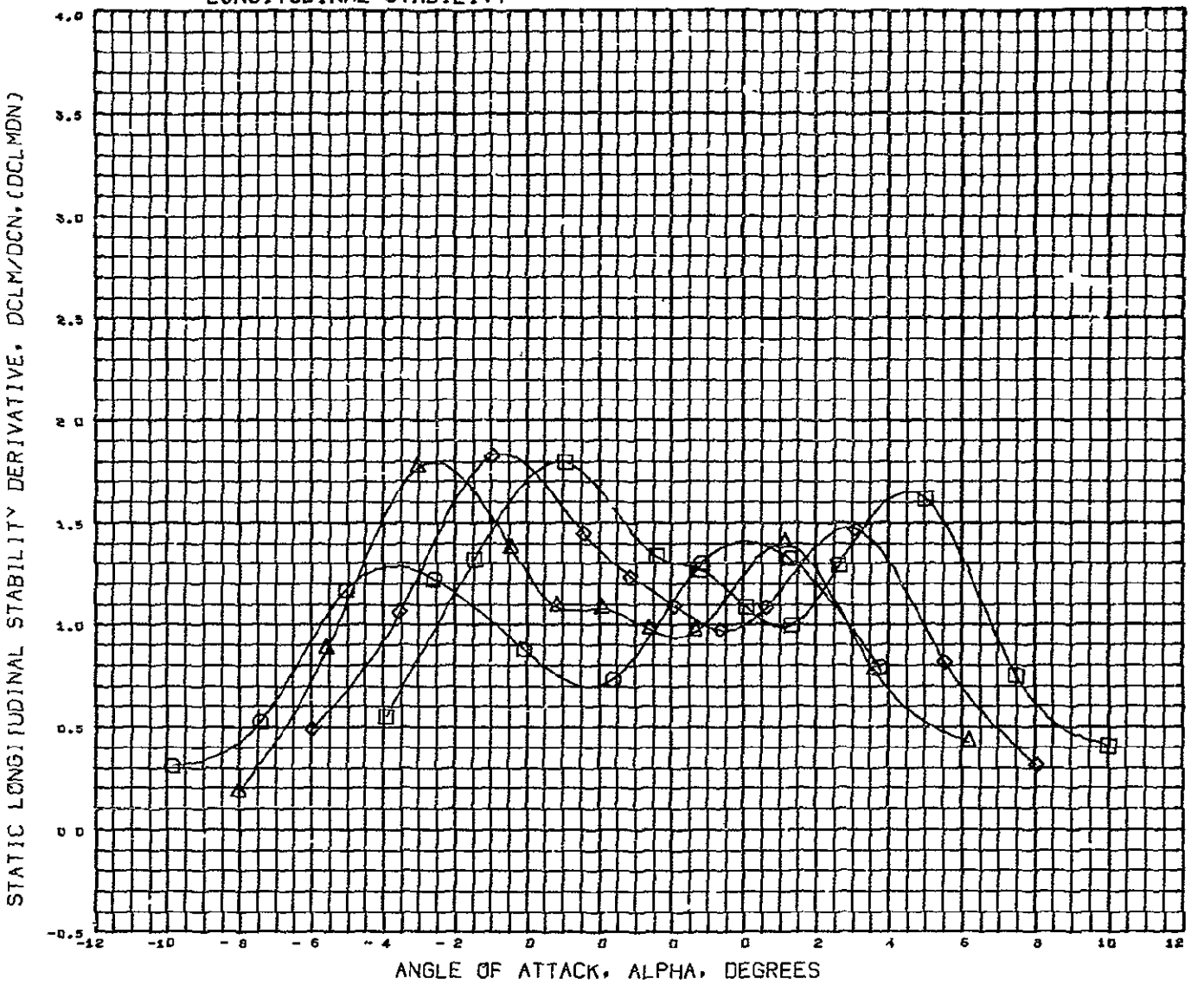


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.903	BETA	0.000	ORBINC	- 2.000
△	1.003				
◇	1.096				
□	1.201				

DATA HIST. CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

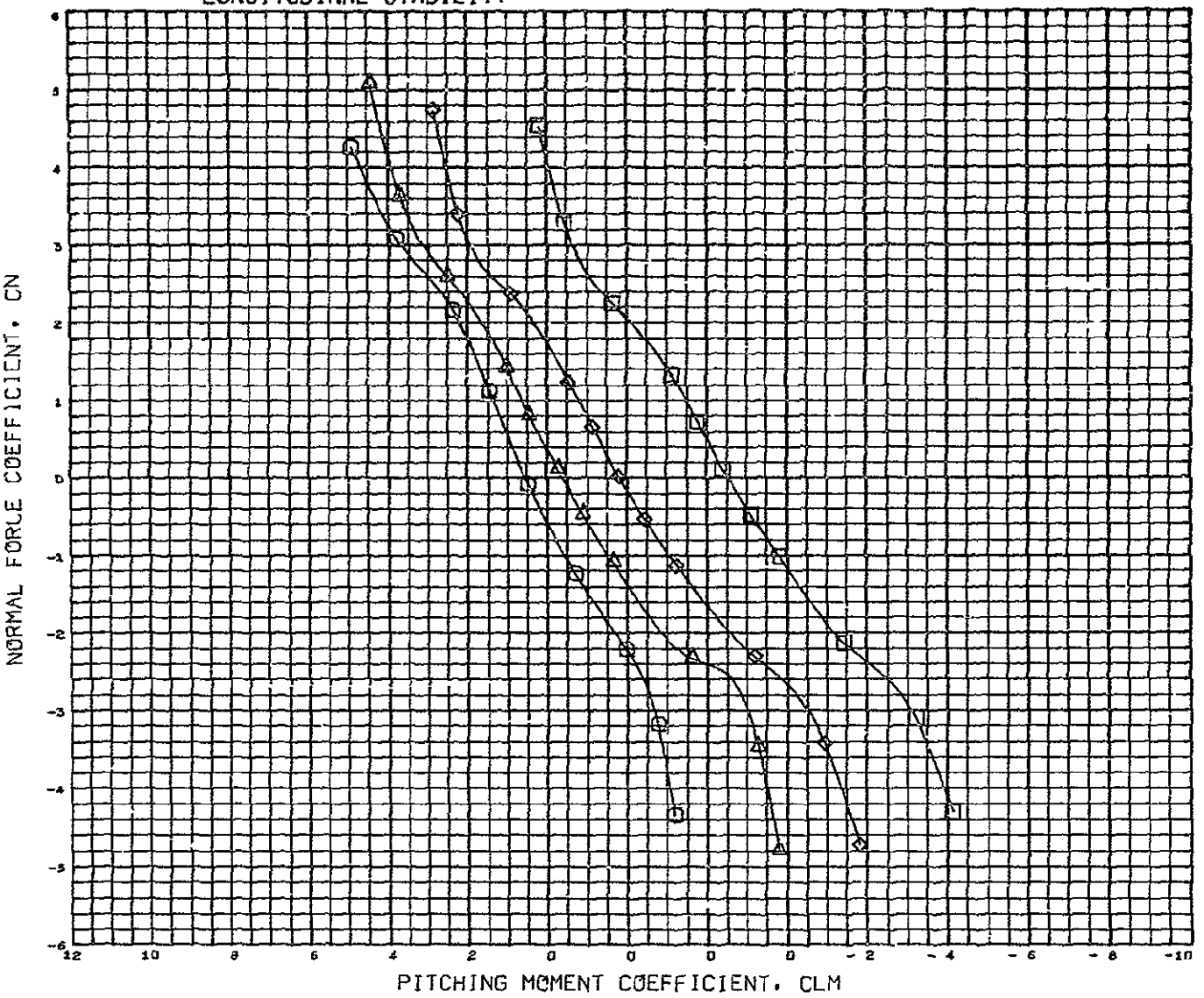


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.903	BETA	0.000	ORBINC	- 2.000
△	1.003				
◇	1.096				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6650	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

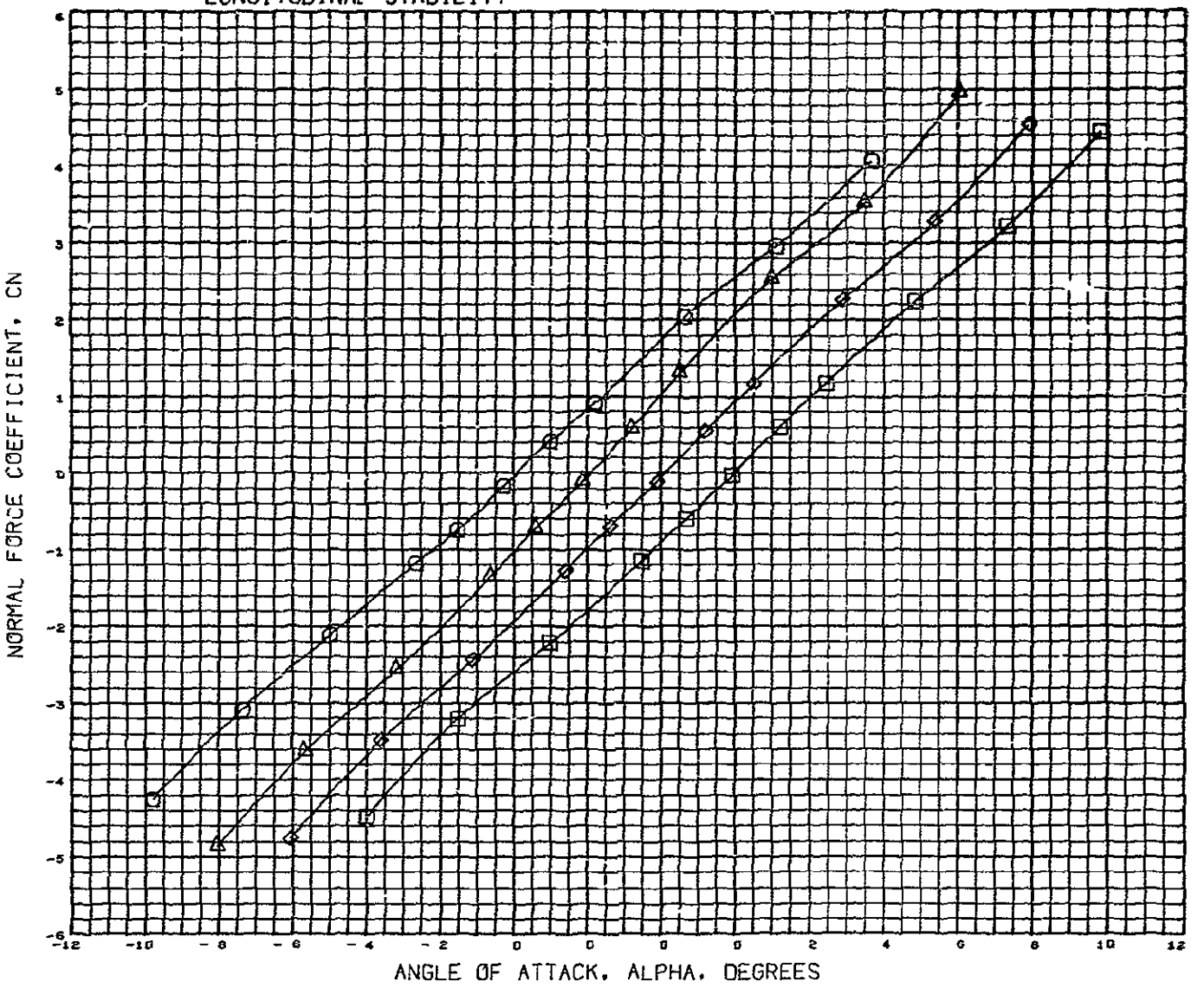


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.903	BETA	0.000	ORBINC	- 2.000
△	1.003				
◇	1.096				
□	1.201				

DATA HIST CODE H#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

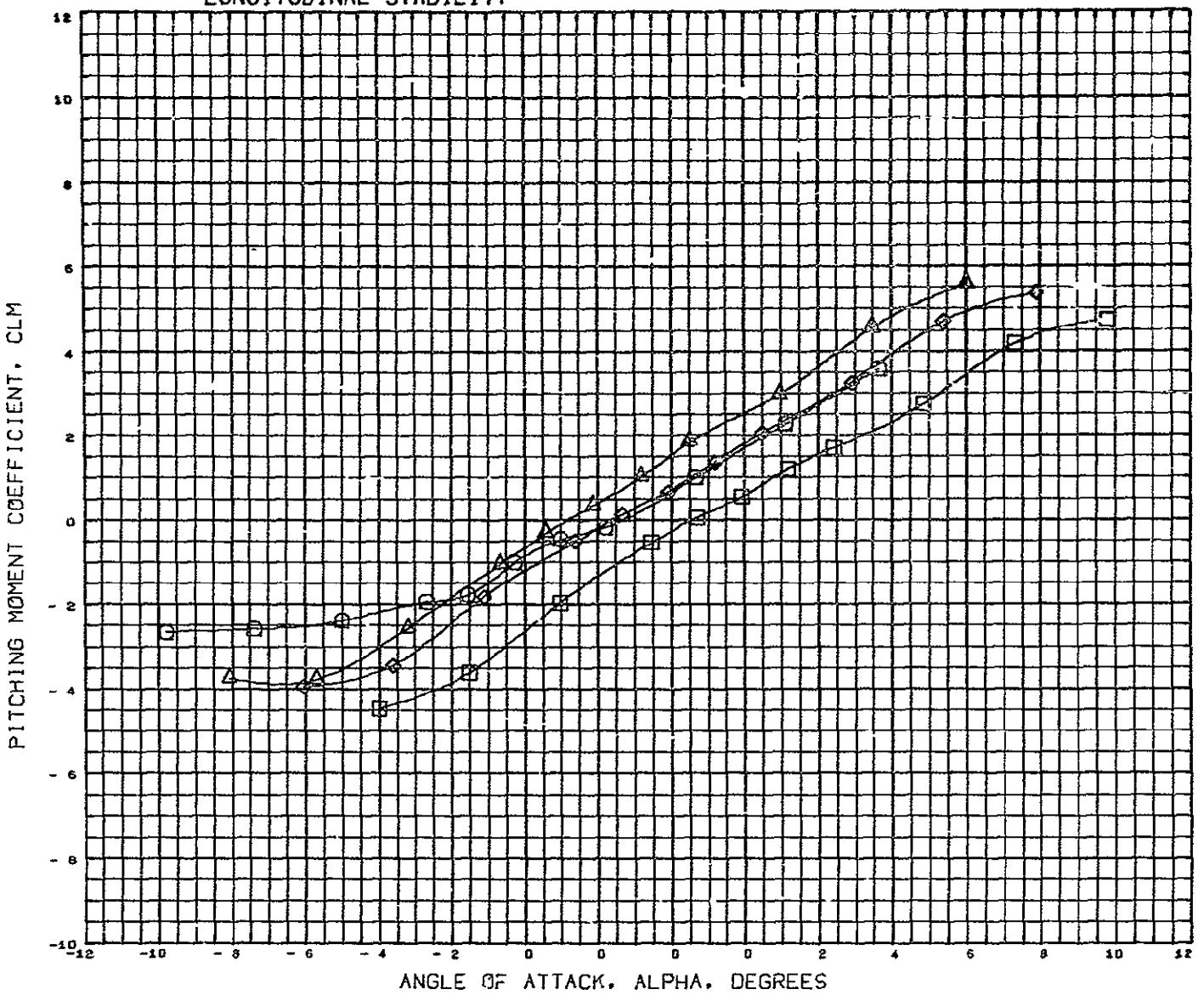


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0 000	ORBINC	- 2 000
△	1 004				
◇	1 105				
□	1.195				

DATA HIST. CODE M*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN.
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

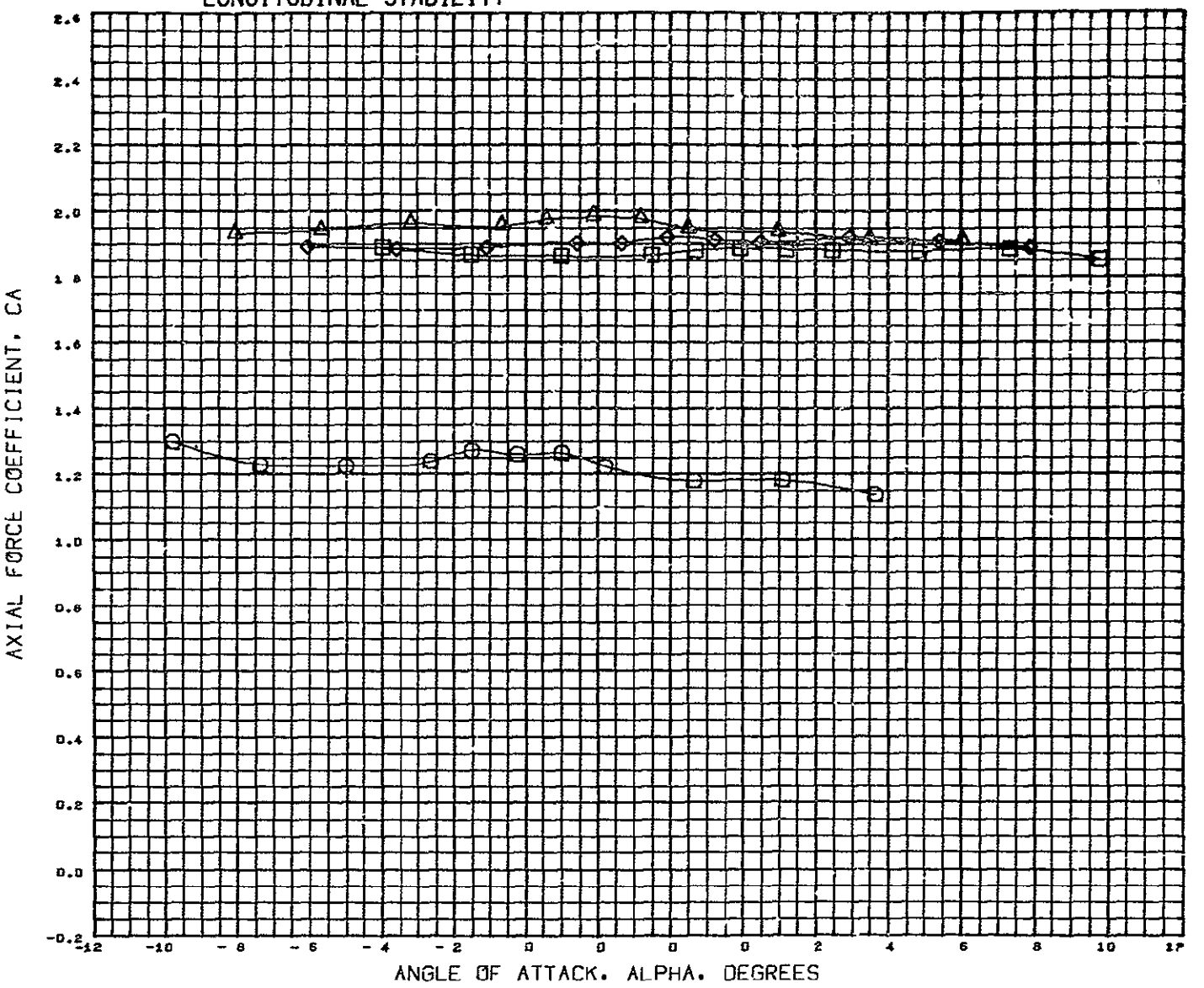


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.902	BETA	0.000	ORBINC - 2.000
△	1.004			
◇	1.105			
□	1.195			

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

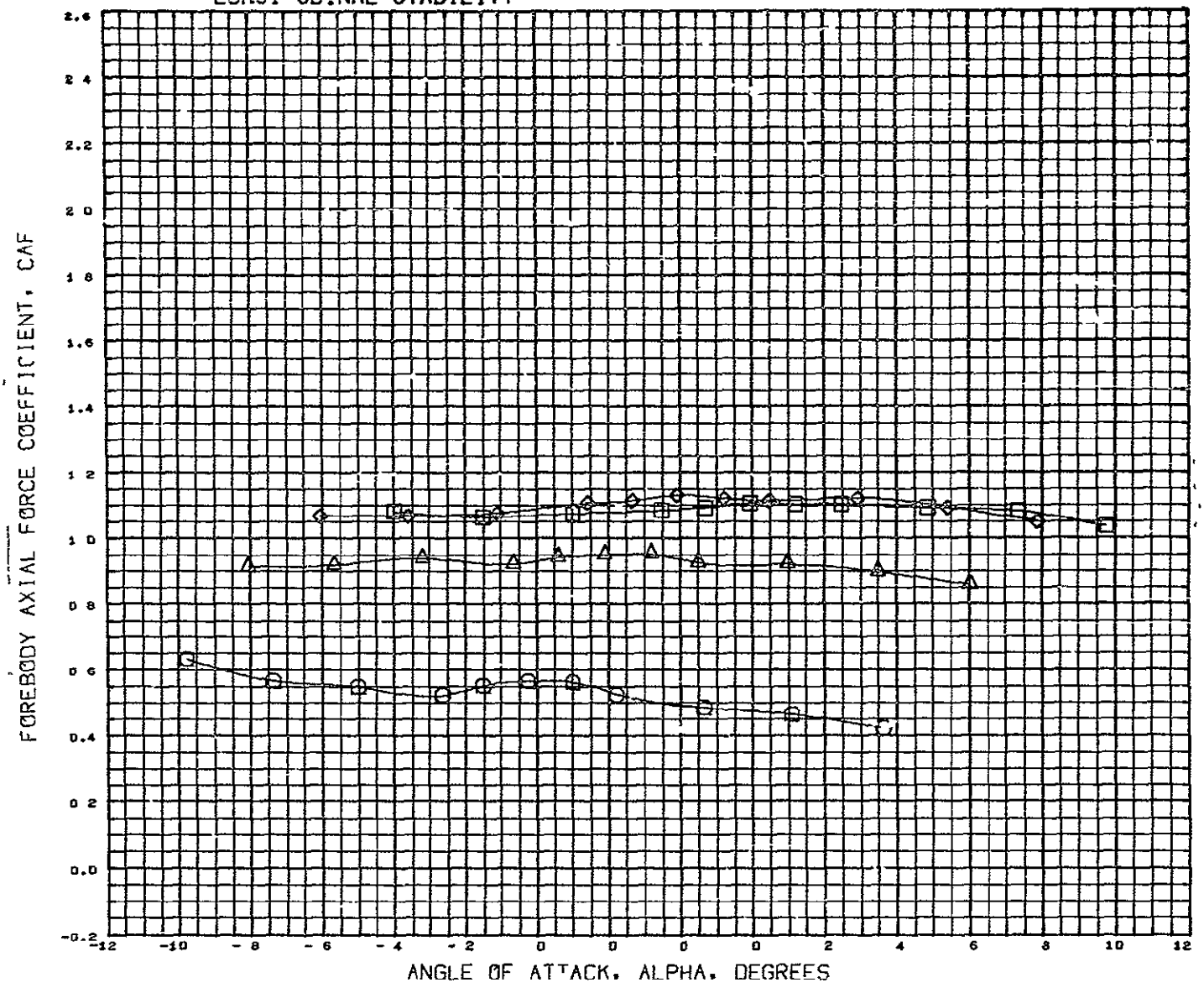


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	- 2.000
△	1.004				
◇	1.105				
□	1.195				

DATA HIST CODE M+E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

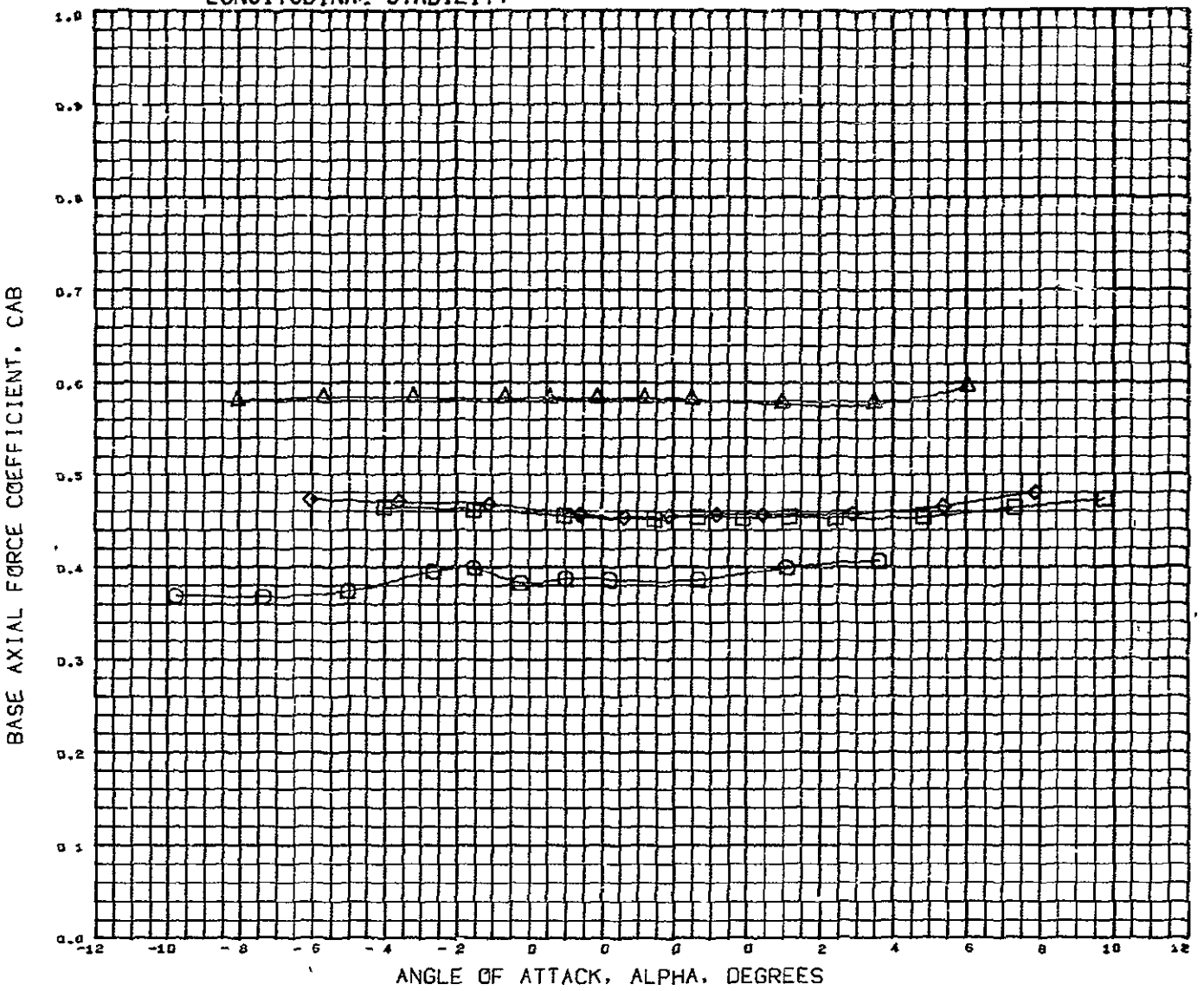


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	- 2.000
△	1.004				
◇	1.105				
□	1.195				

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6650	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

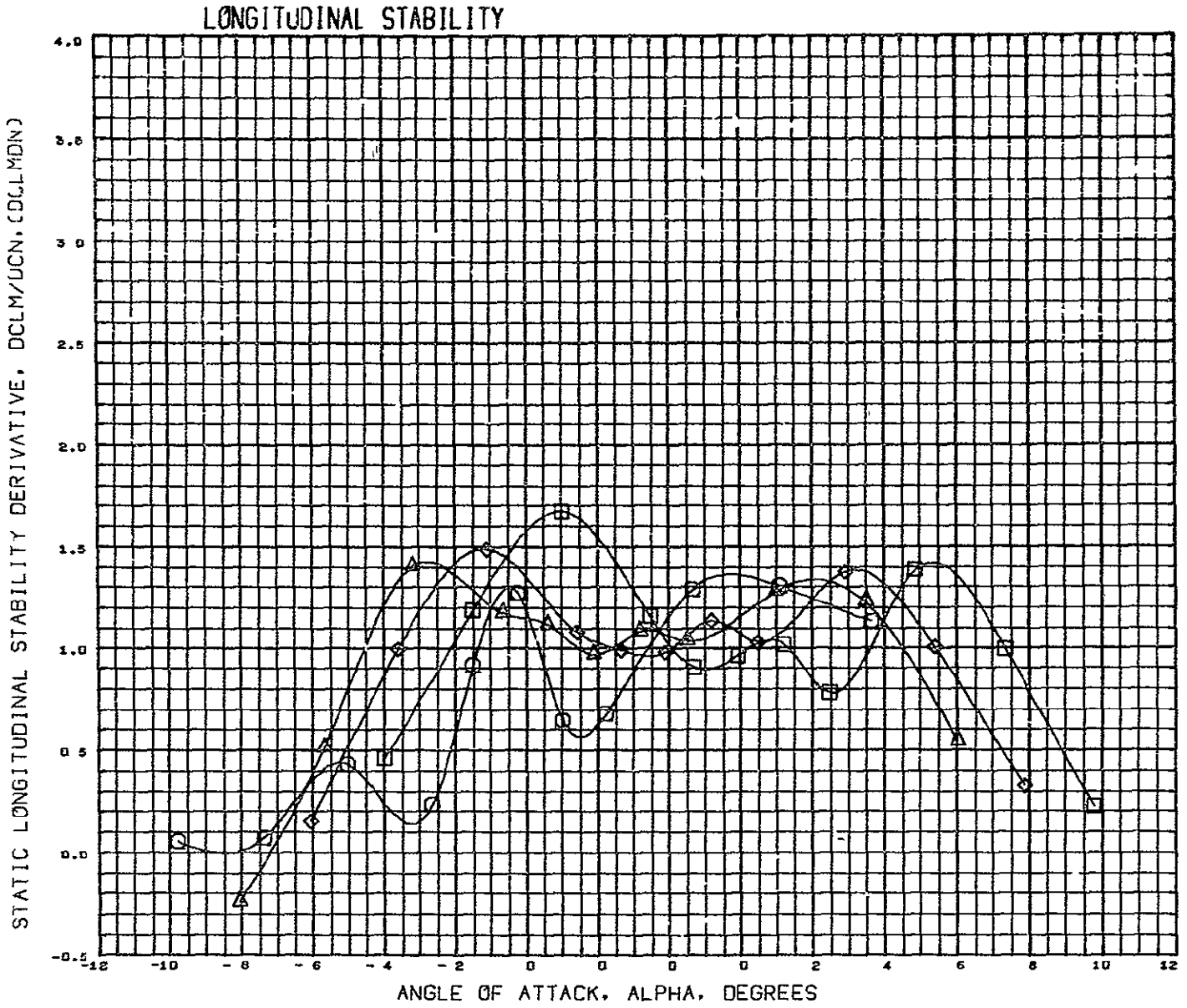
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	-2.000
△	1.004				
◇	1.105				
□	1.195				

DATA HIST. CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

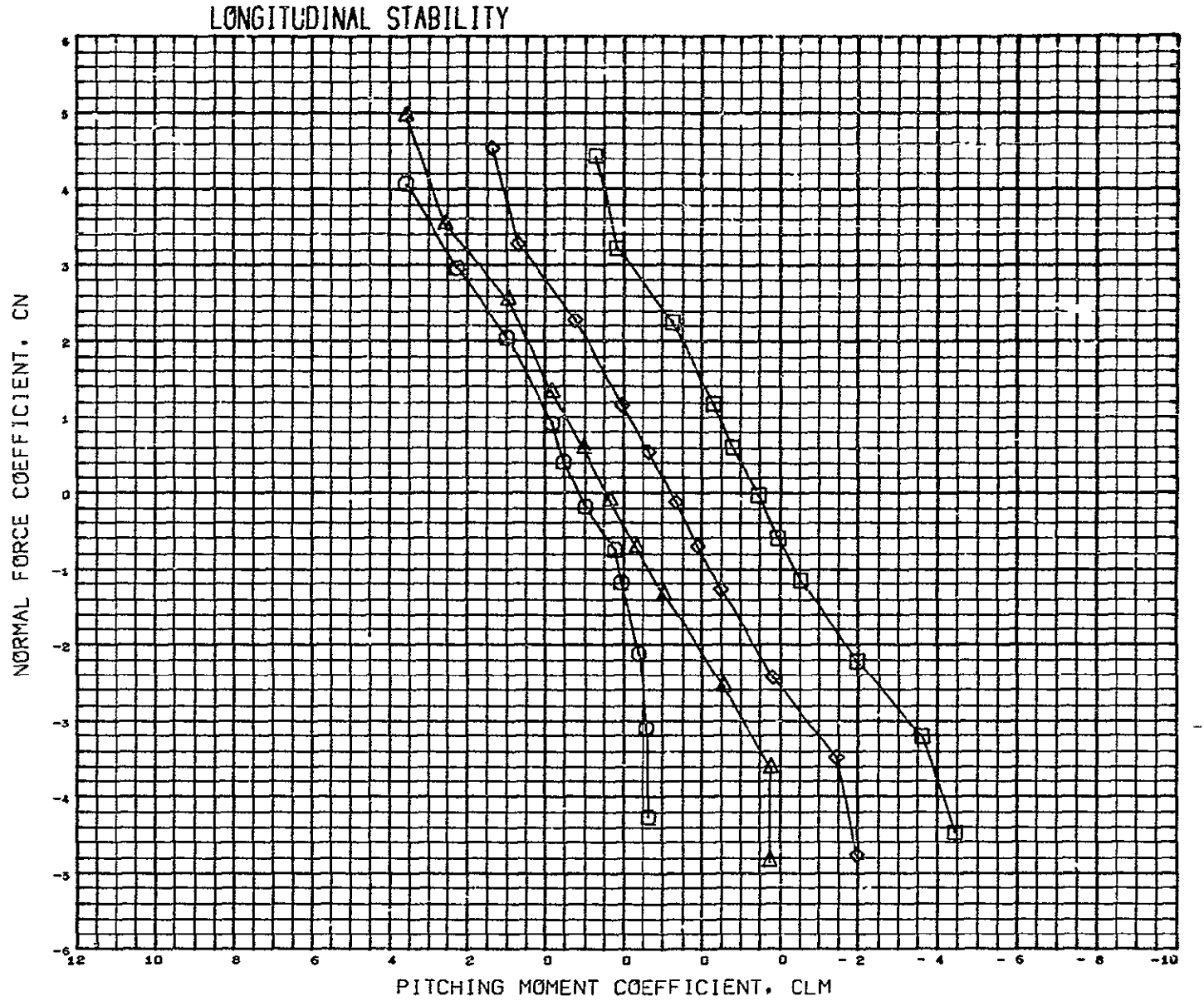


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	- 2.000
△	1.004				
◇	1.105				
□	1.195				

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



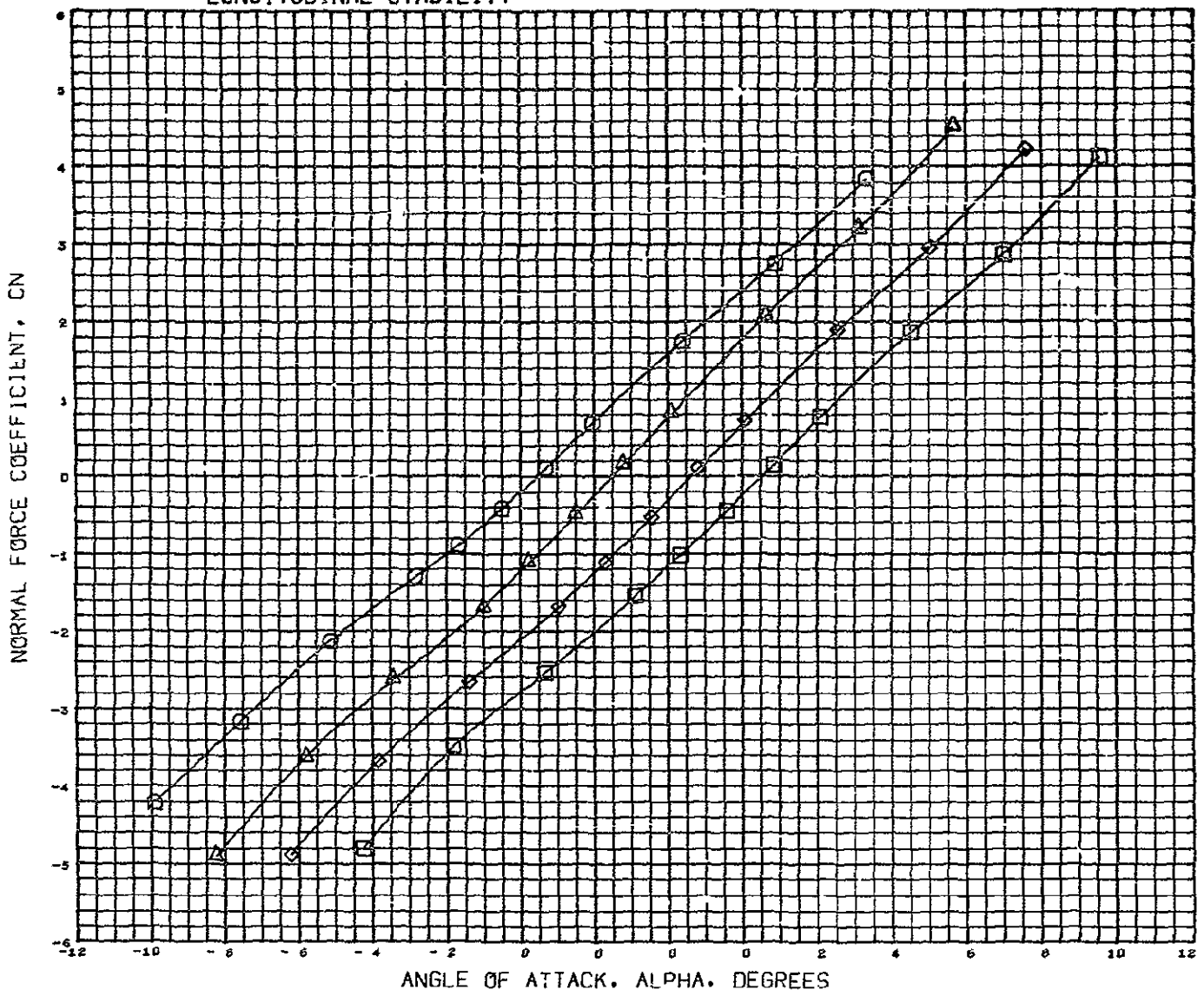
SYMBOL	MACH	PARAMETRIC VALUES			
○	0 902	BETA	0 000	ORBINC	- 2.000
△	1.004				
◇	1.105				
□	1 195				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6360	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

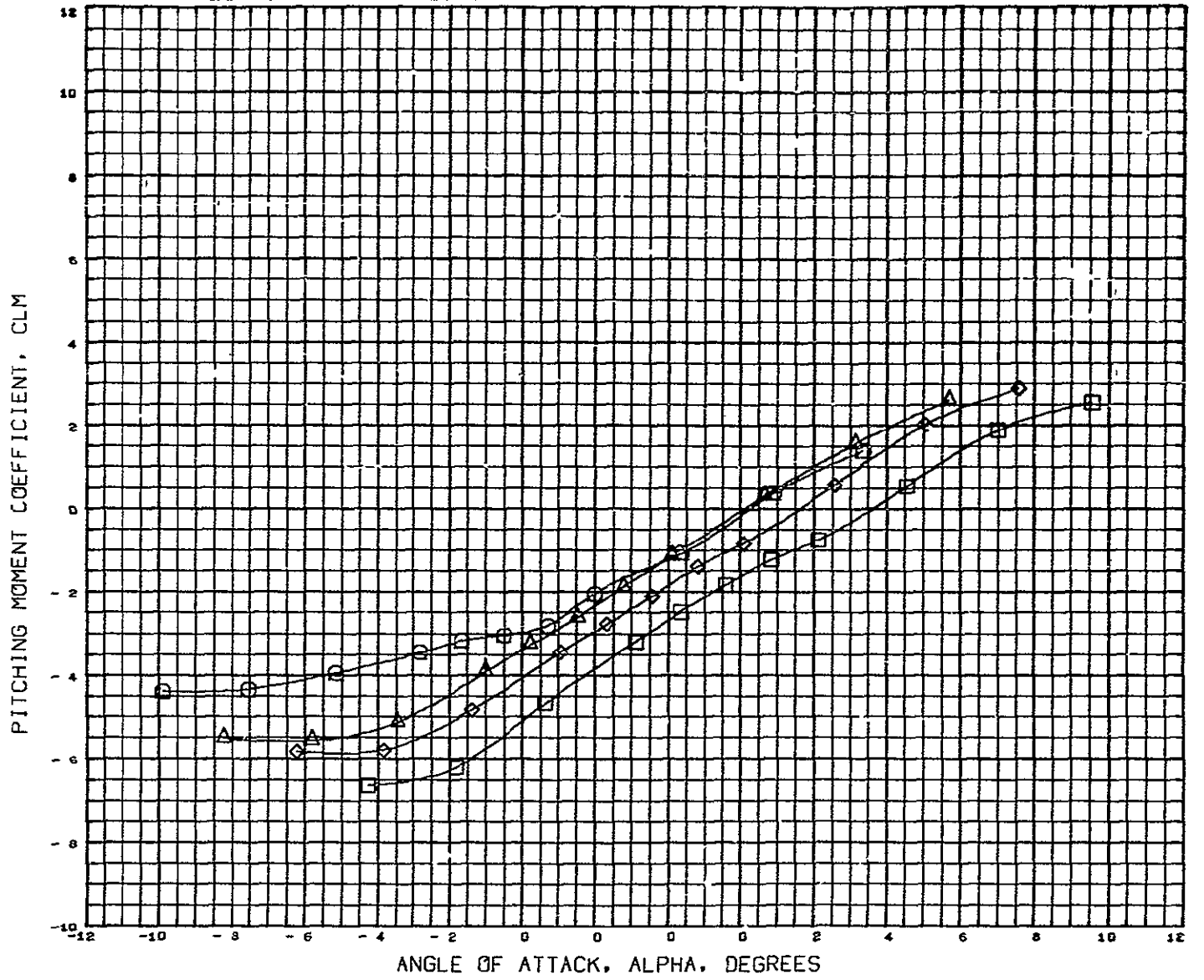


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.90	BETA	0.000	ORBINC	4.000
△	1.010				
◇	1.094				
□	1.194				

DATA HIST CODE M#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6960	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

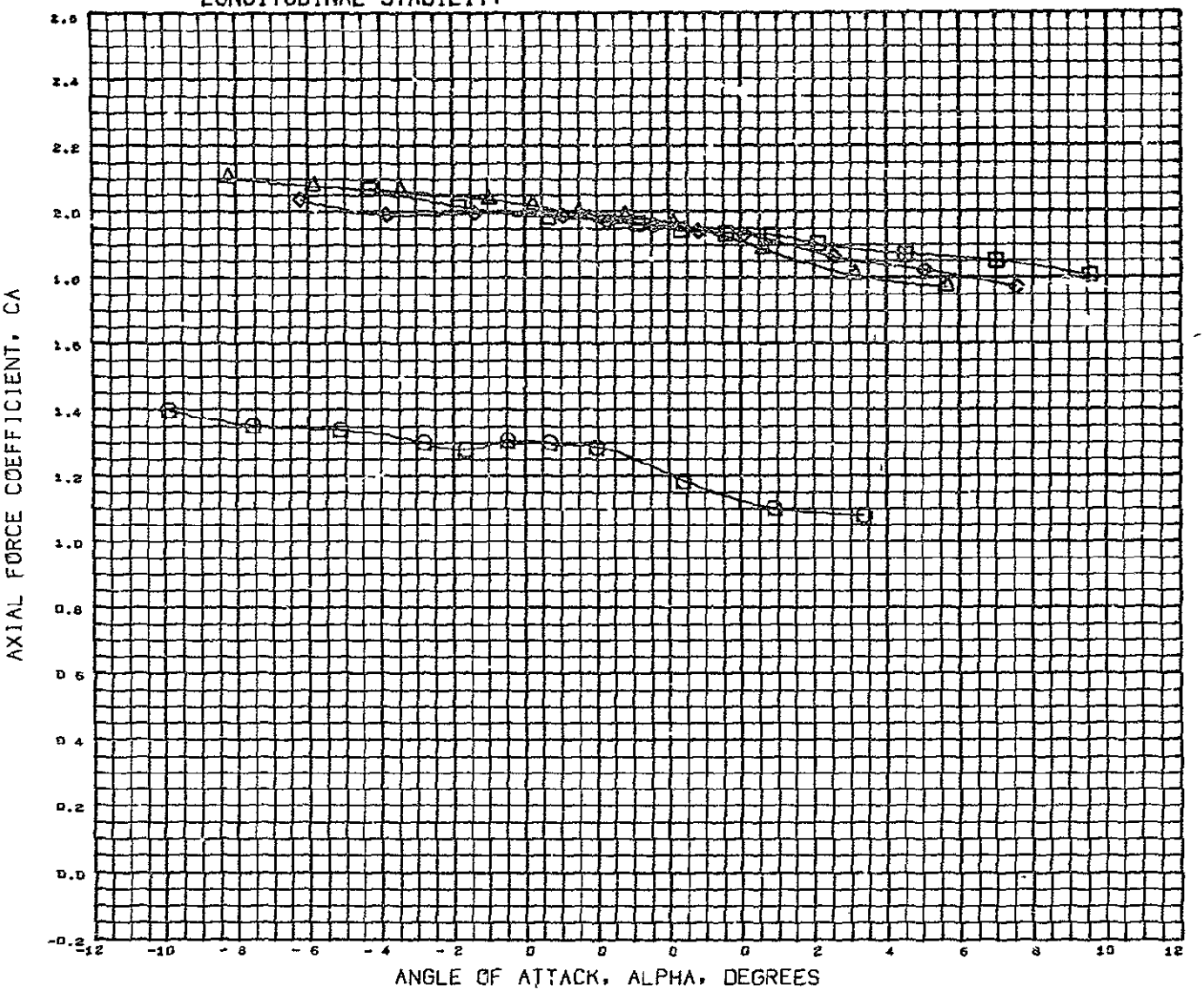


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.904	BETA	0 000	ORBINC	- 4 000
△	1 010				
◇	1 094				
□	1 194				

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	0.904
△	1.010
◇	1.094
□	1.194

PARAMETRIC VALUES

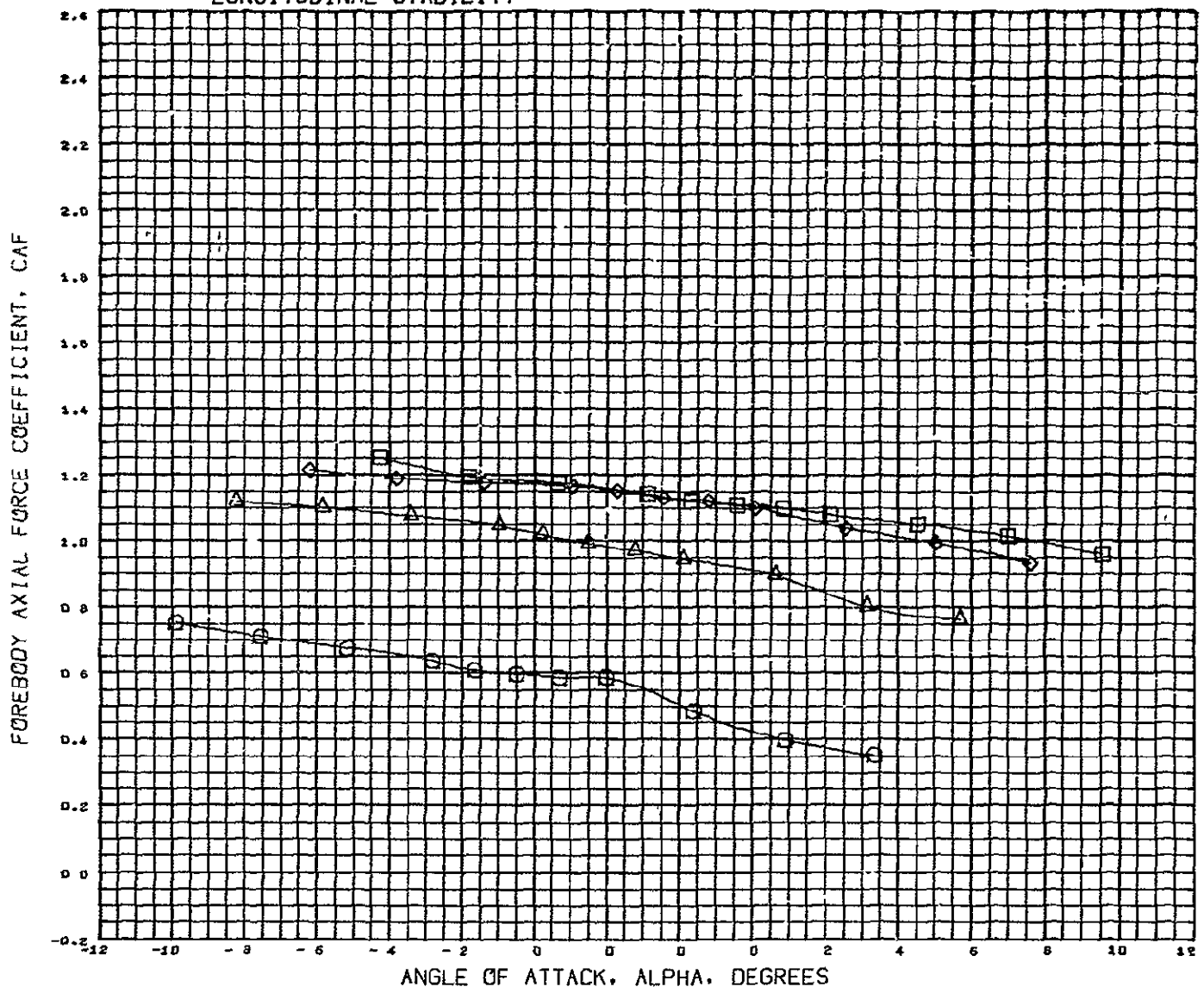
BETA 0.000 ORBINC - 4.000

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1.3960	60 IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6600	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

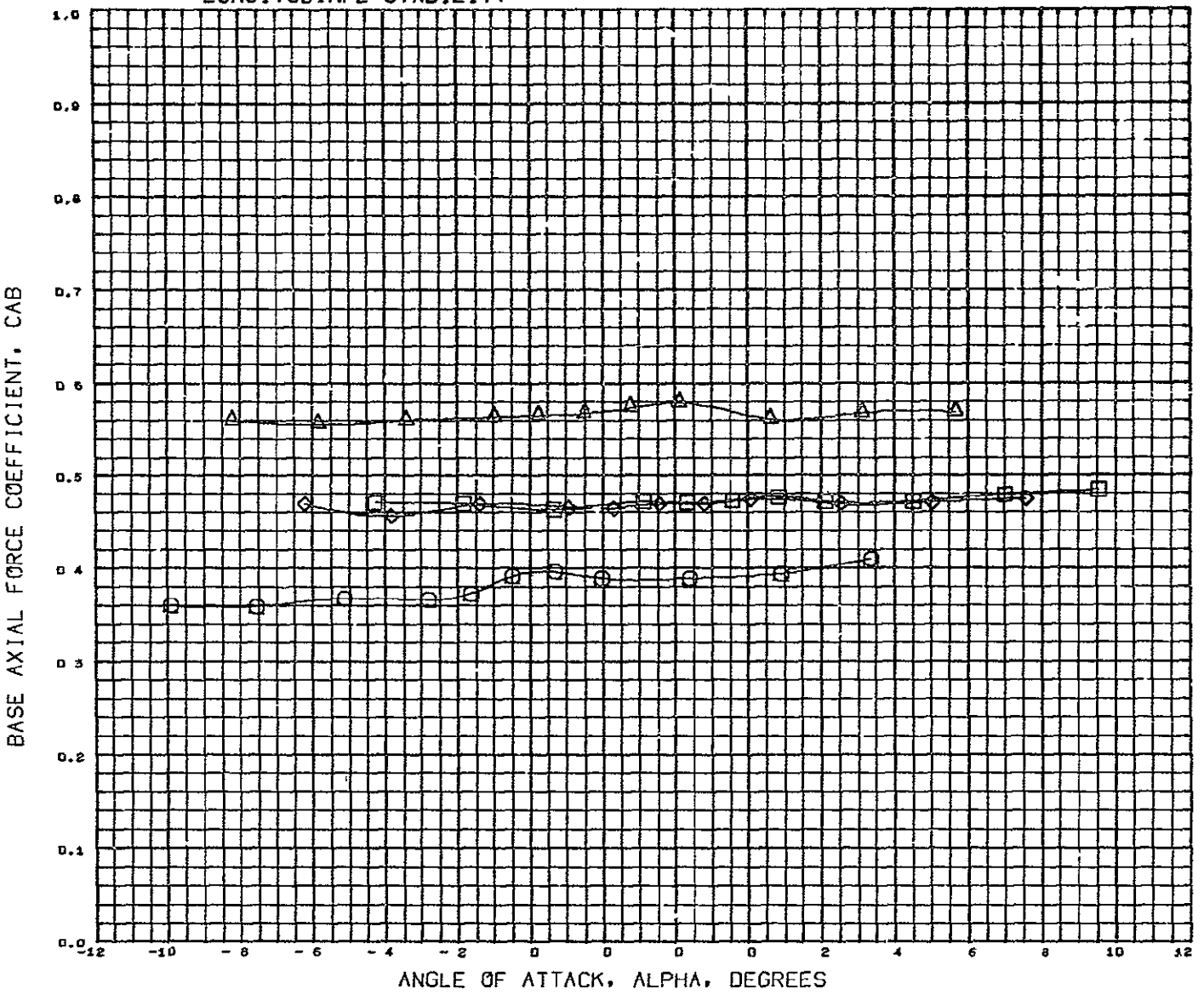


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.904	BETA	0.000	ORBINC	-4.000
△	1.010				
◇	1.094				
□	1.194				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0460	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

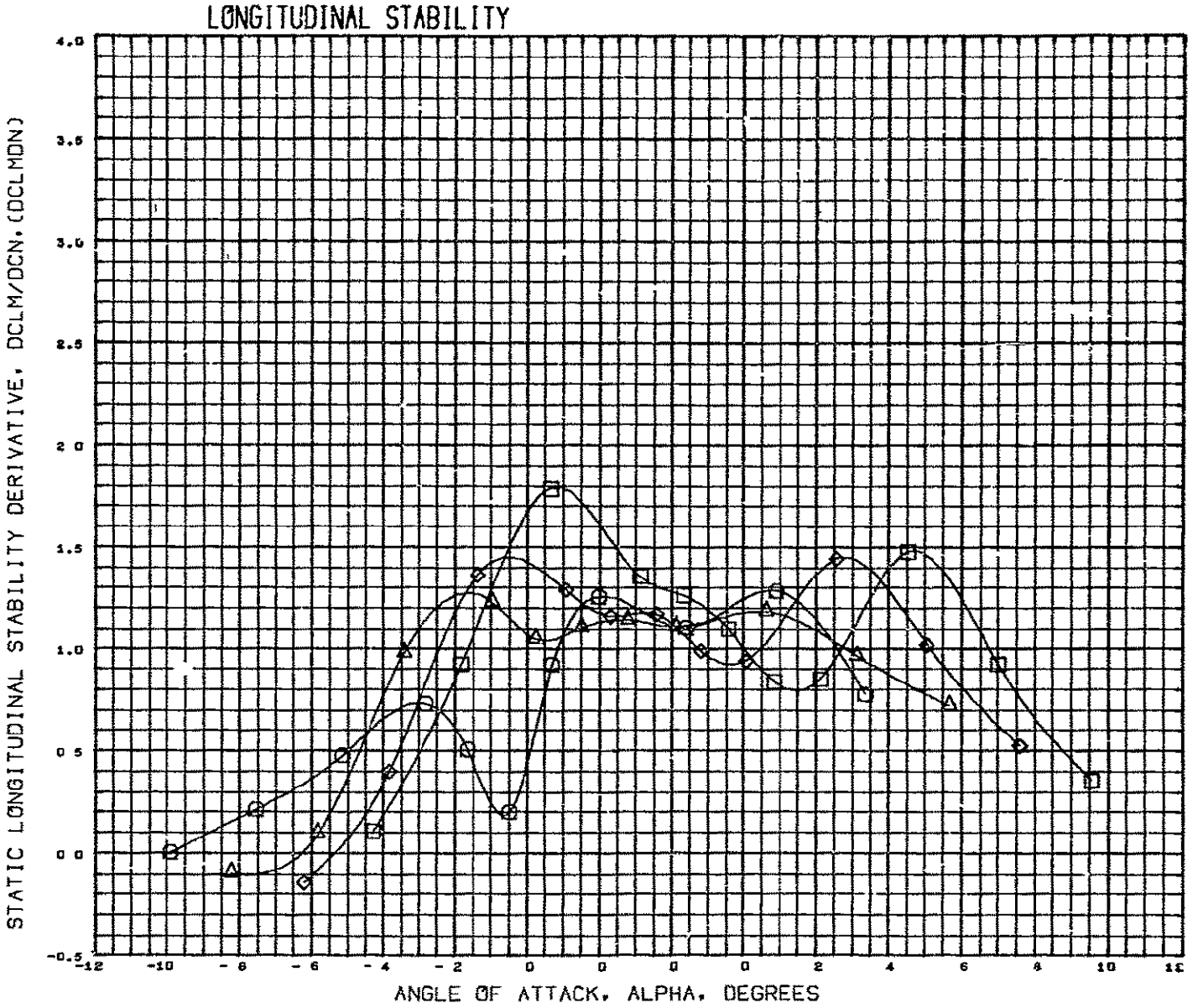
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.904	BETA	0.000	ORBINC	-4.000
△	1.010				
◇	1.094				
□	1.194				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.5864	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



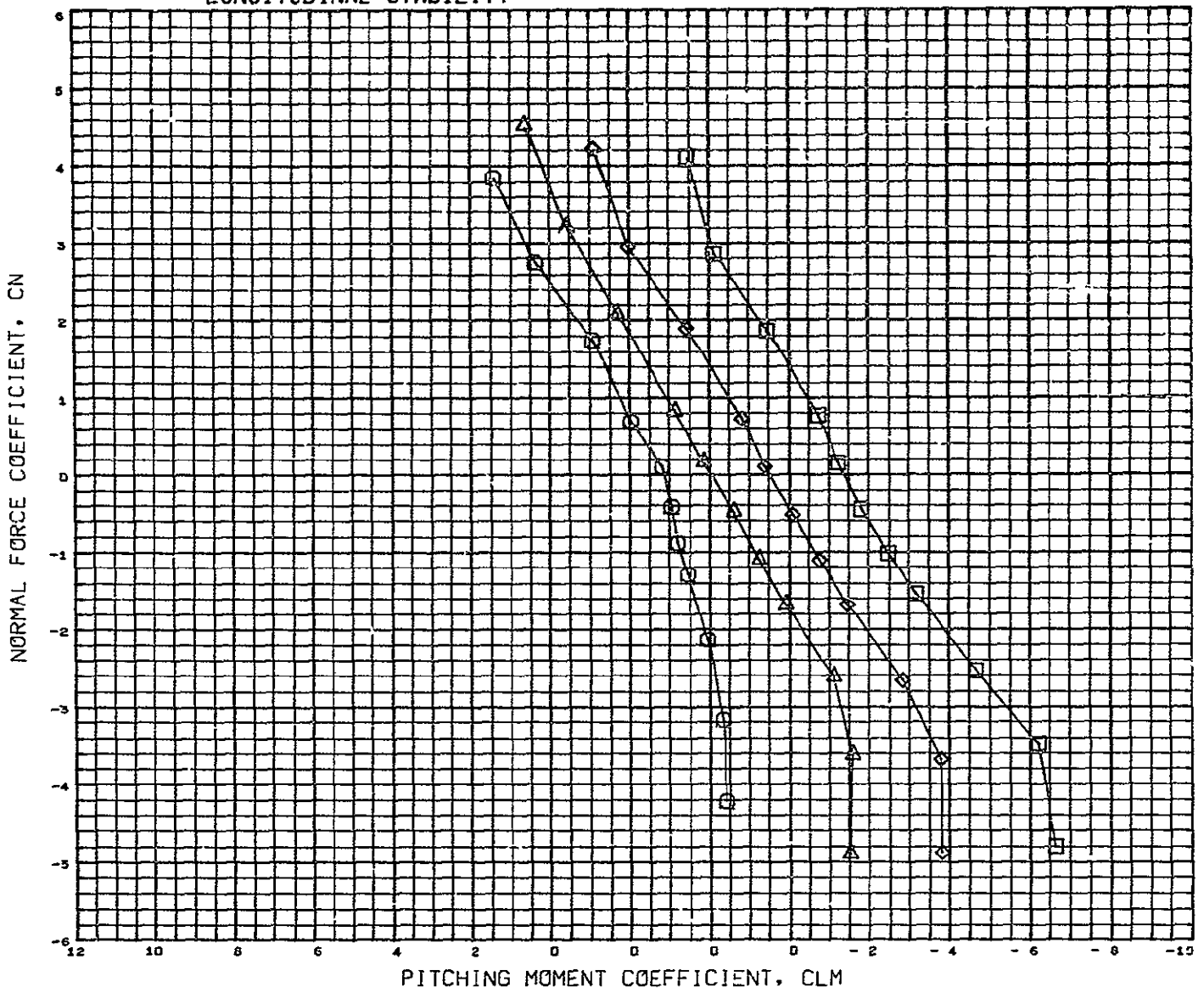
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.904	BETA	0.000	ORBINC	-4.000
△	1.010				
◇	1.094				
□	1.194				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	0 904
△	1.010
◇	1.094
□	1 194

PARAMETRIC VALUES

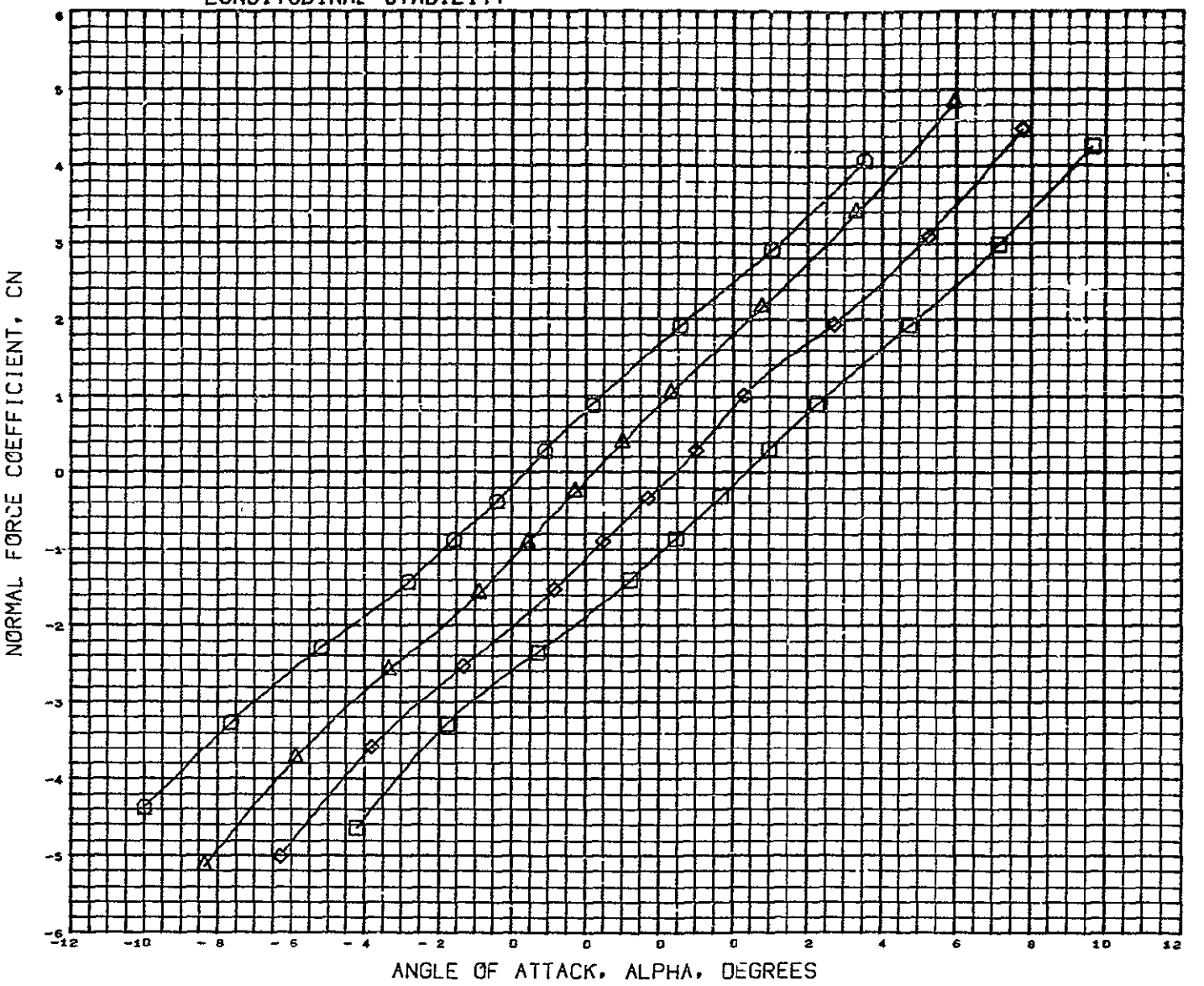
BETA 0 000 ORBINC - 4 000

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

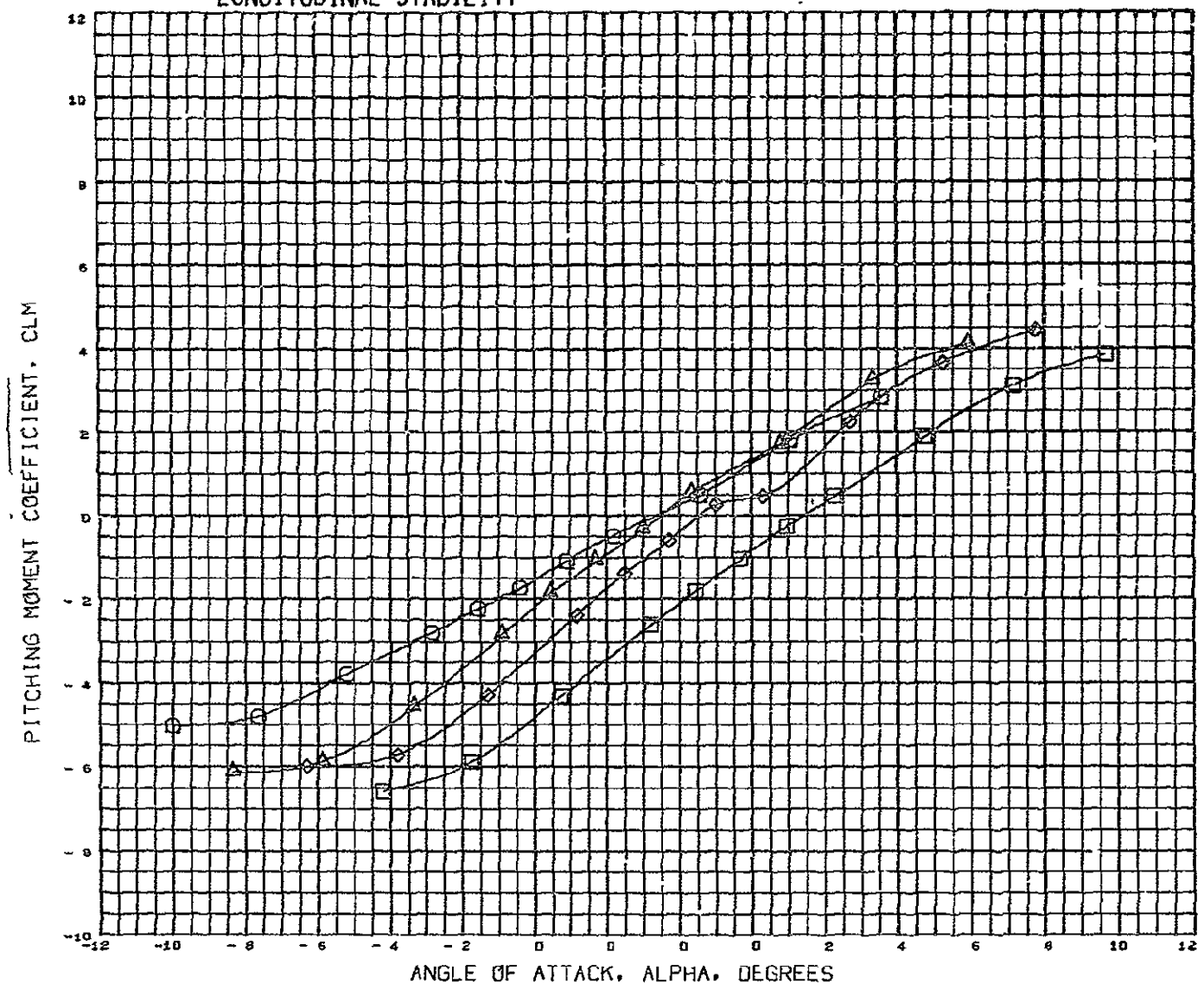


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	ORBINC	- 4.500
△	1.002				
◇	1.097				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6960	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



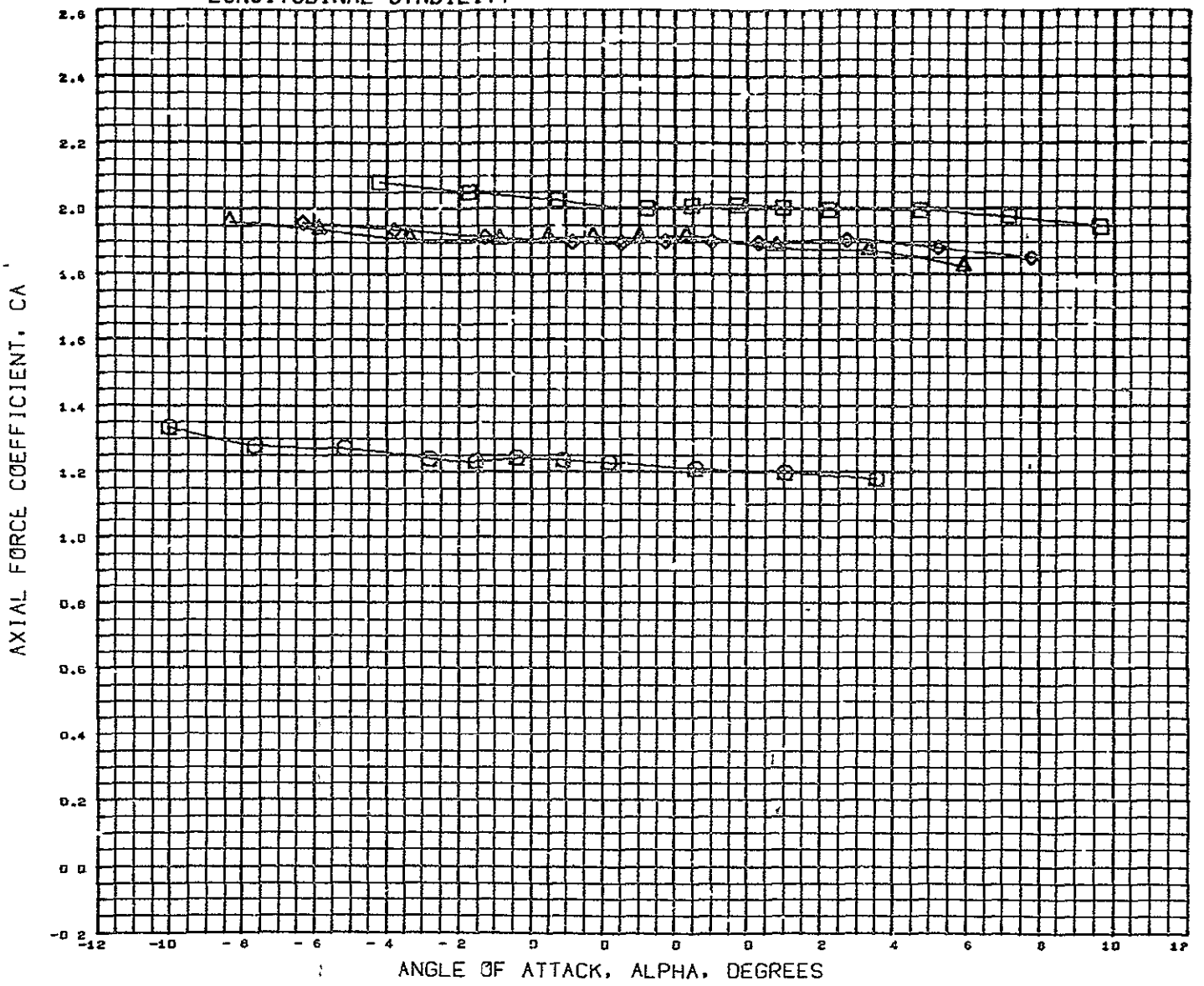
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	ORBINC	- 4 000
△	1 002				
◇	1.097				
□	1.201				

DATA HIST CODE M4E

REFERENCE INFORMATION

SREF	1,3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

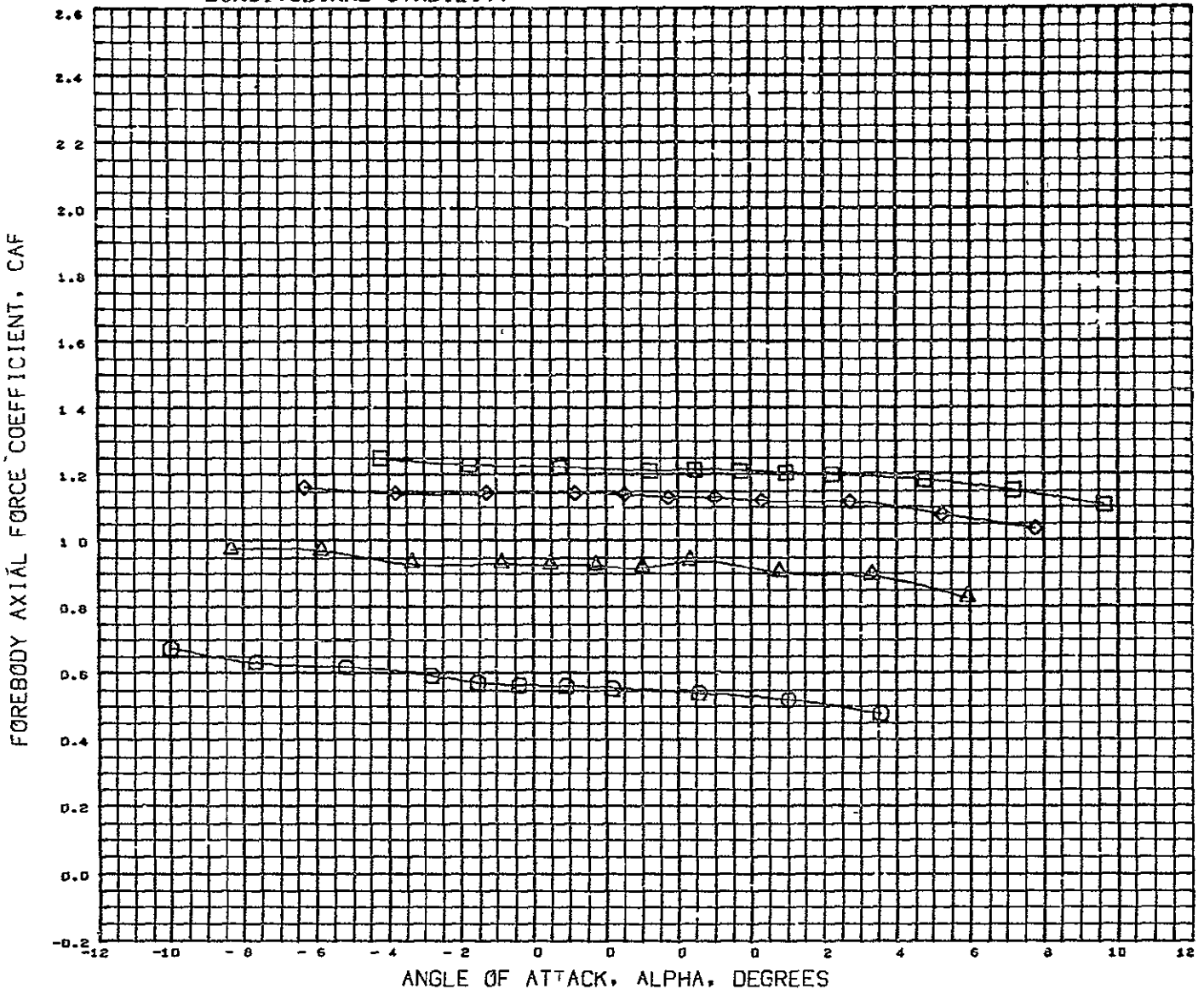


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.899	BETA	0.000	ORBITC - 4 00S
△	1.002			
◇	1.097			
□	1.201			

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

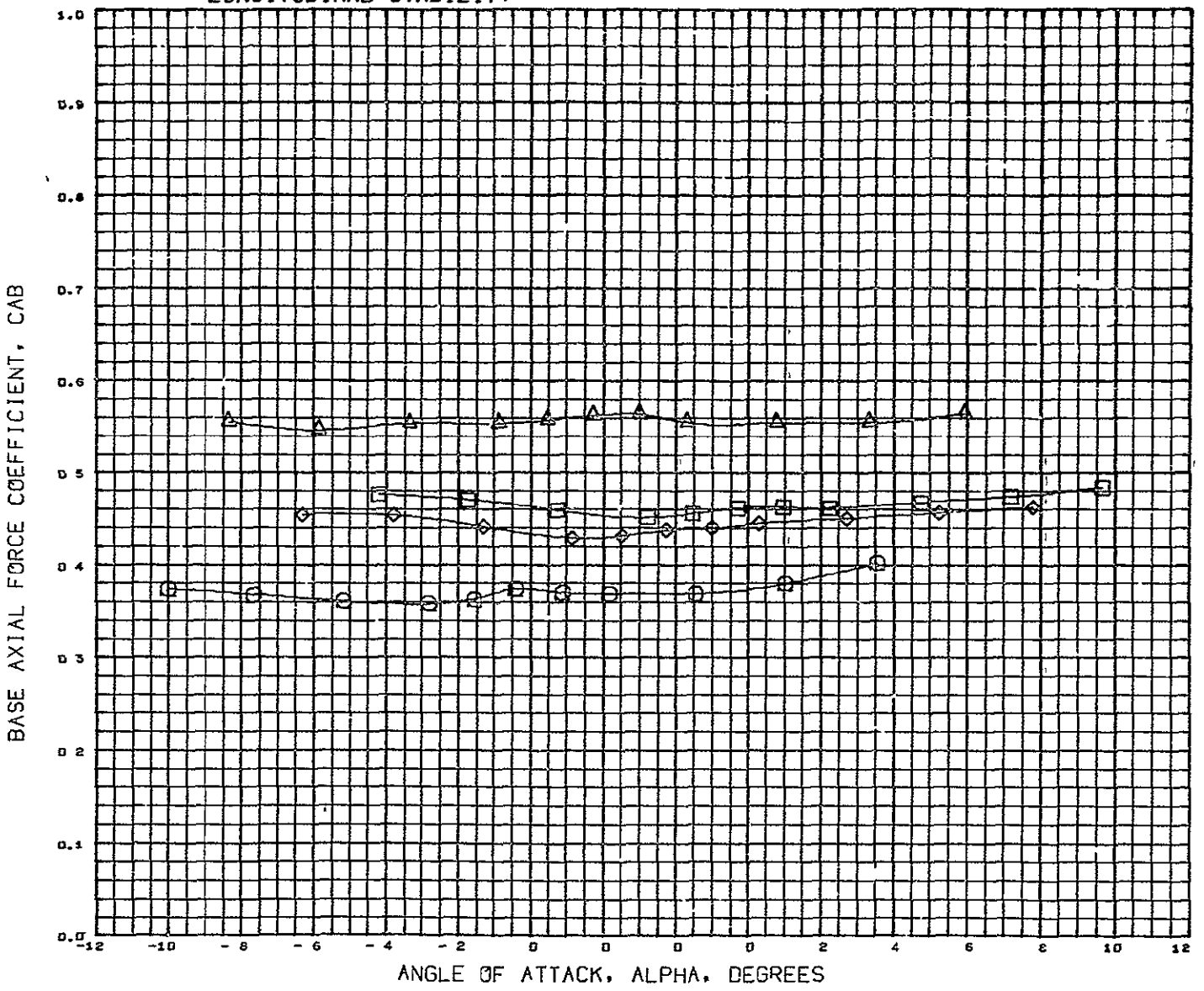


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	ORBINC	-4.000
△	1.002				
◇	1.097				
□	1.201				

DATA HIST. CODE H*E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6850	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

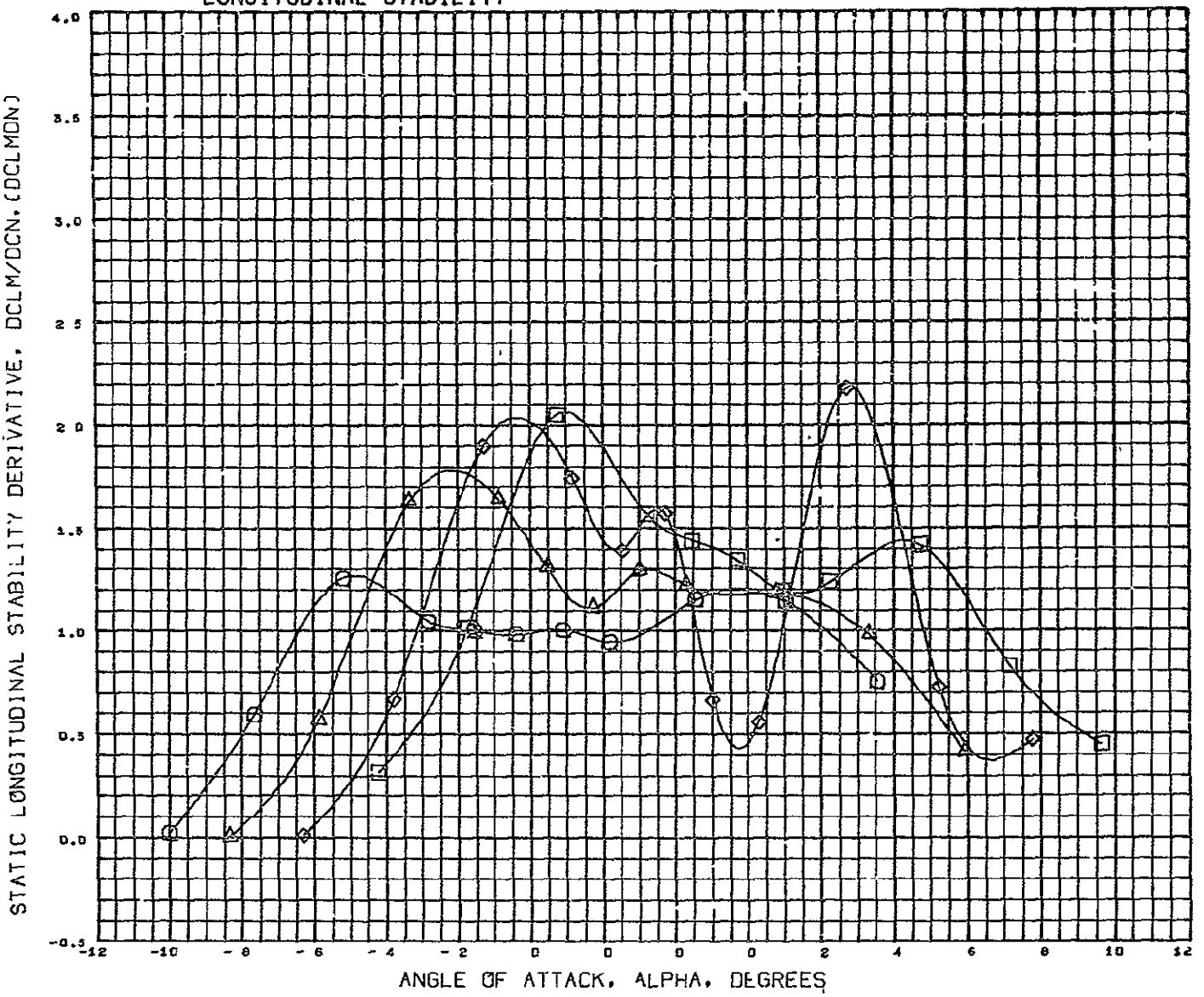


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.899	BETA	0.000	ORBIT - 4.000
△	1.002			
◇	1.097			
□	1.201			

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6809	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

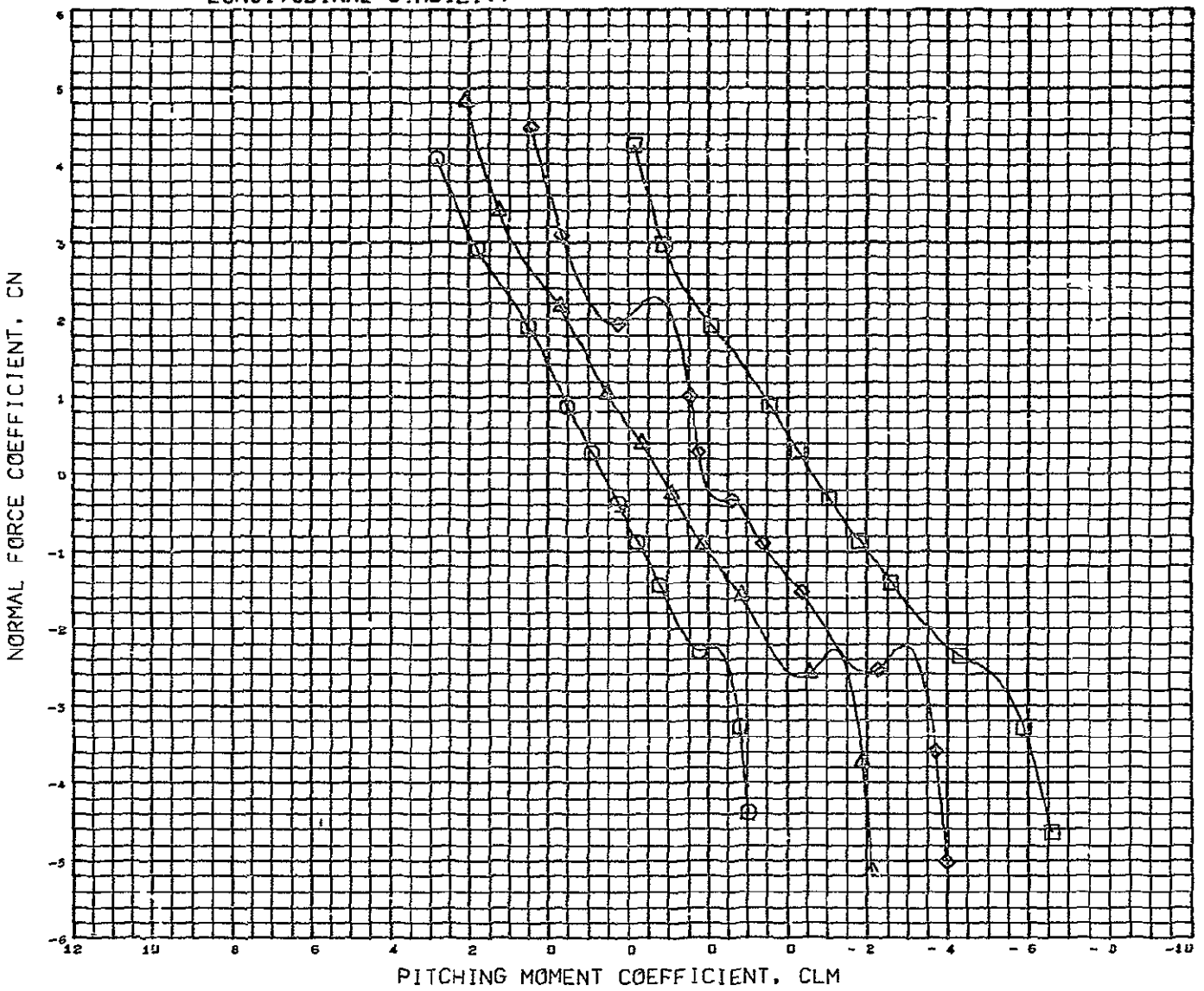


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	ORBINC	- 4.000
△	1.002				
◇	1.097				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6560	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

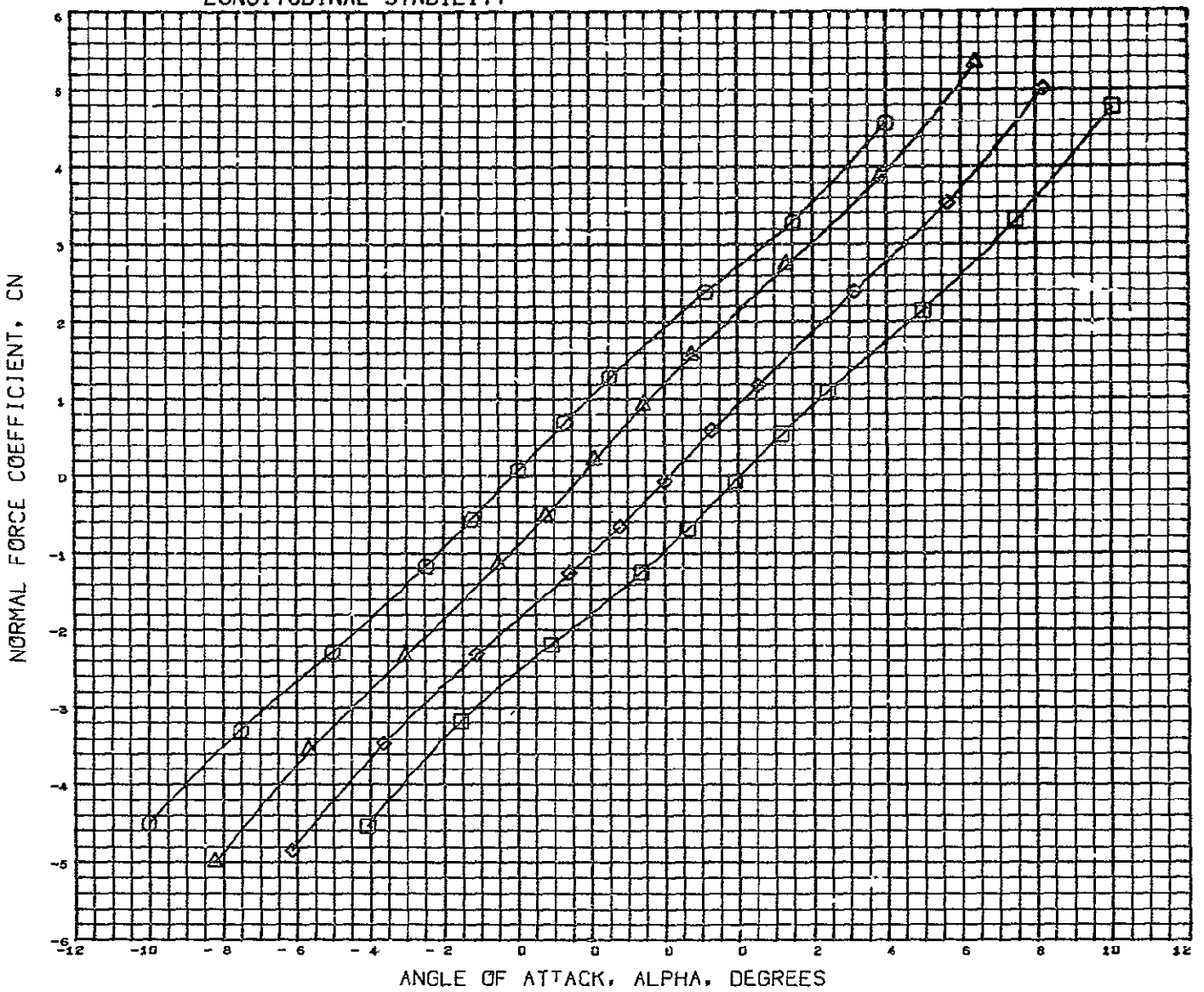


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	BETA	0.000	ORBINC	- 4.000
△	1.002				
◇	1.097				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6260	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

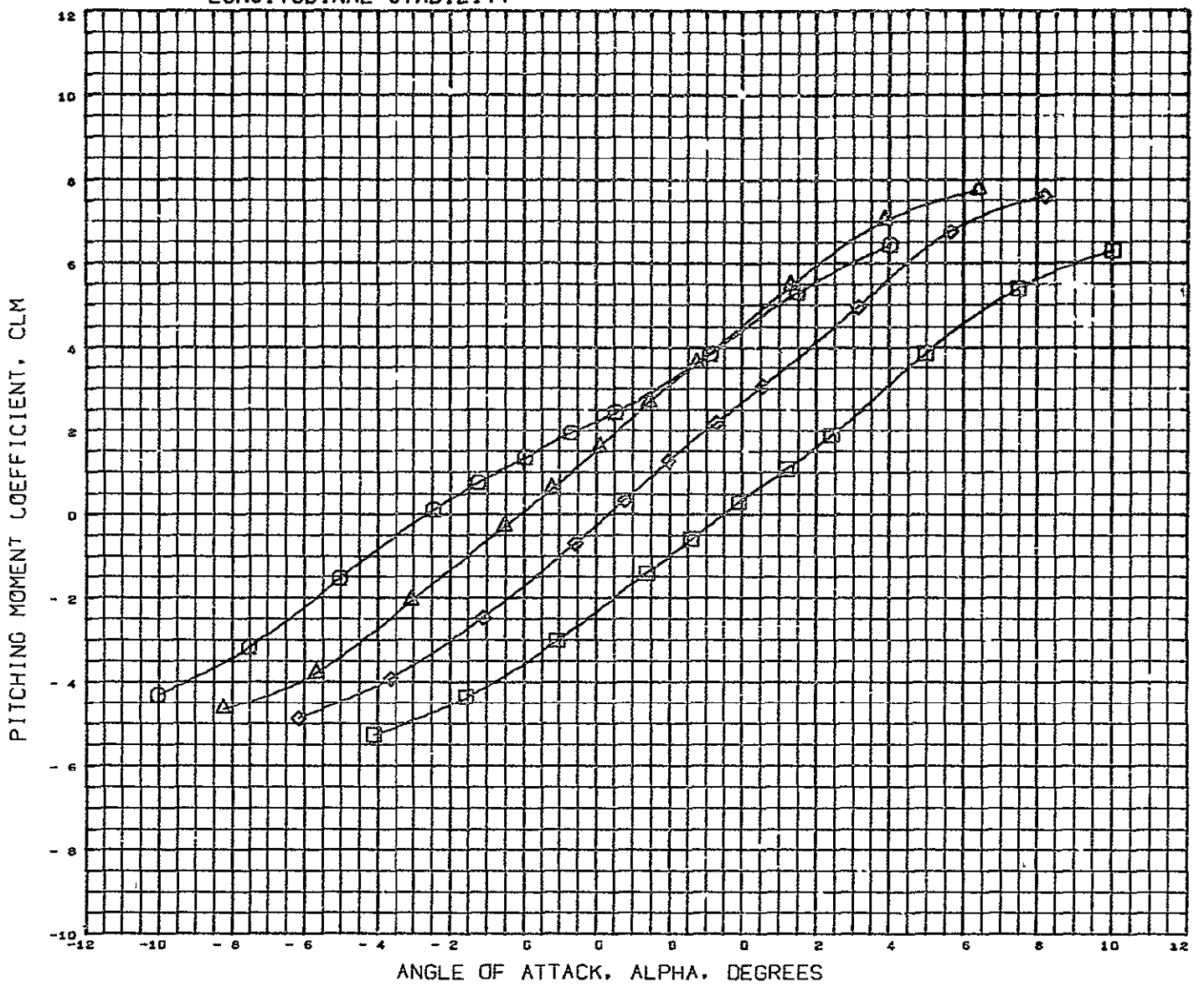


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.903	BETA	0.000	ORBINC	- 3.150
△	1.009				
◇	1.097				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6260	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

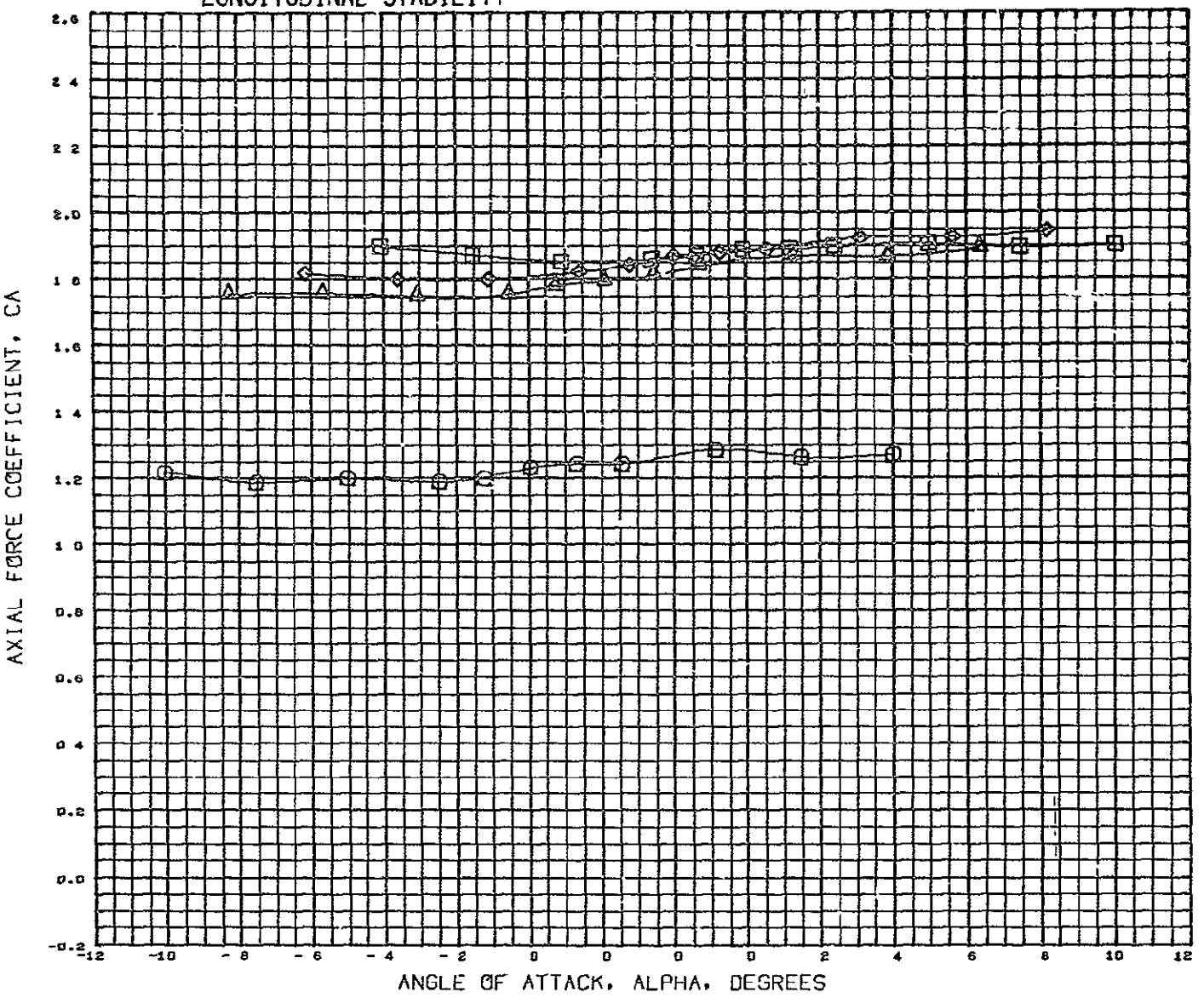


SYMBOL	MACH	PARAMETRIC VALUES		
○	0 903	BETA	0 000	ORBINC - 3 100
△	1 009			
◇	1.097			
□	1 201			

DATA HIST CODE M+E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRF	3.0R60	IN
YMRF	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

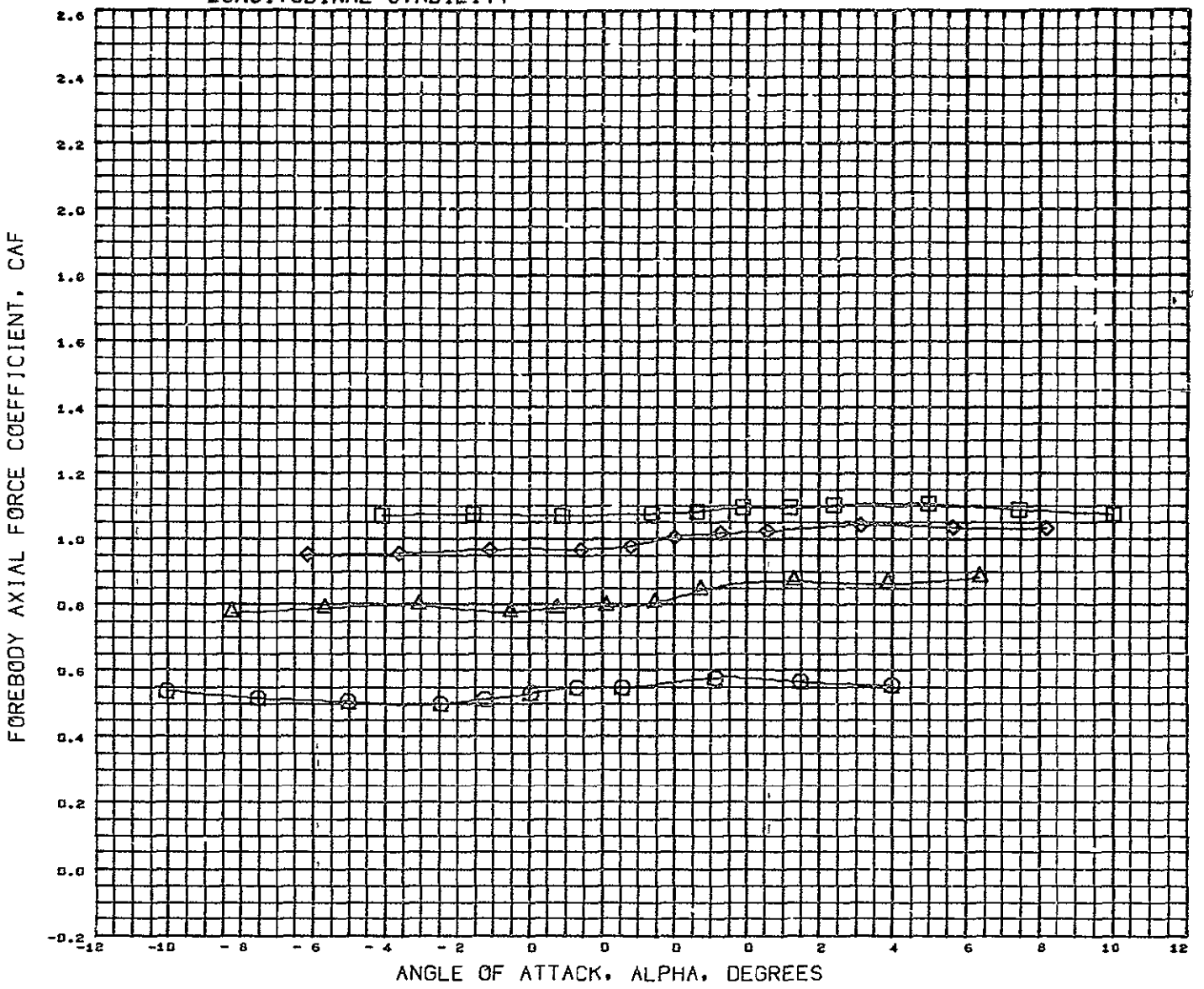


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.903	BETA	0.000	ORBINC	- 3 100
△	1.009				
◇	1.097				
□	1.201				

DATA HIST CODE H3E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

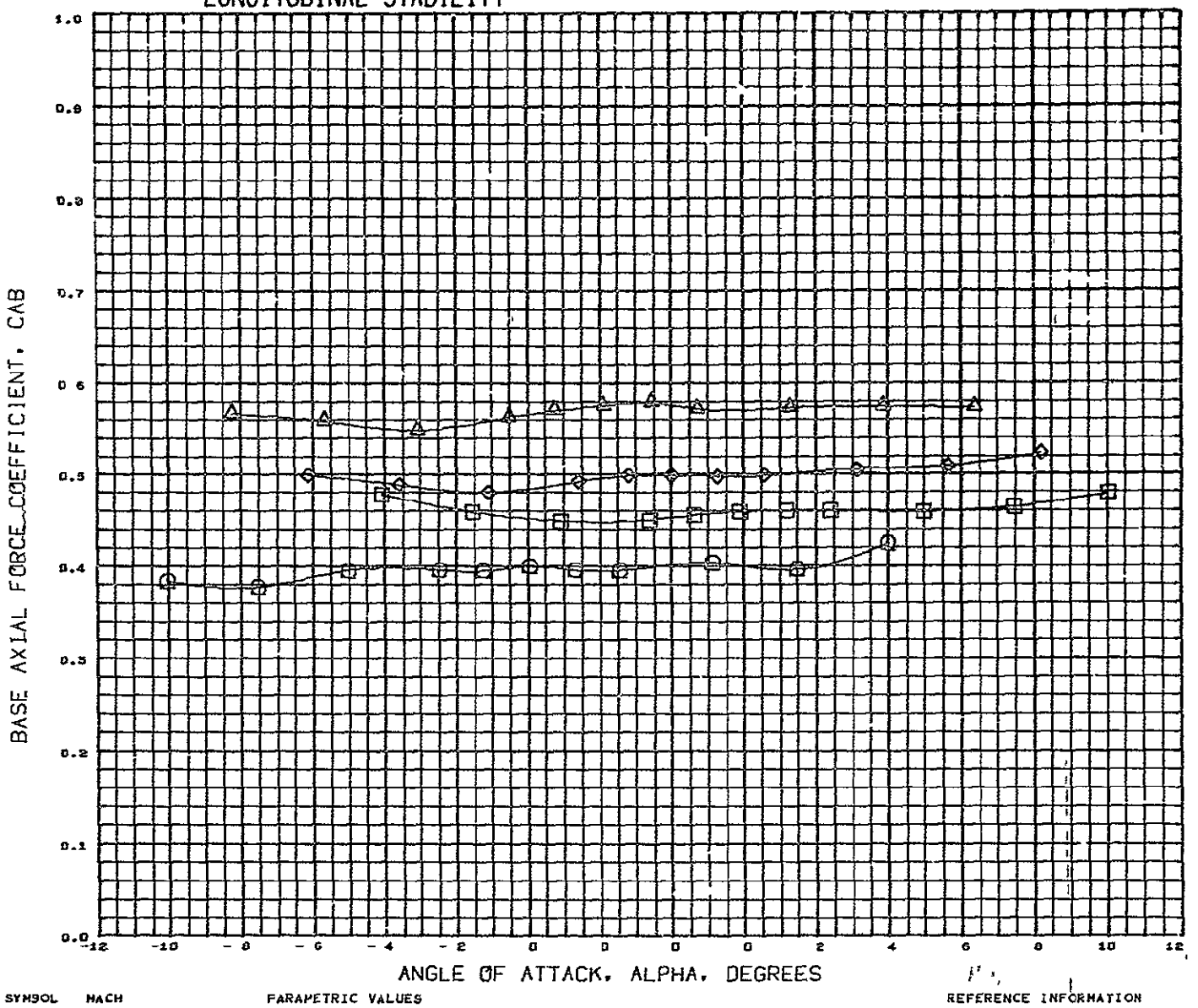


SYMBOL	MACH	PARAMETRIC VALUES			
□	0.903	BETA	0.000	ORBINC	-3.100
△	1.009				
◇	1.097				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6650	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

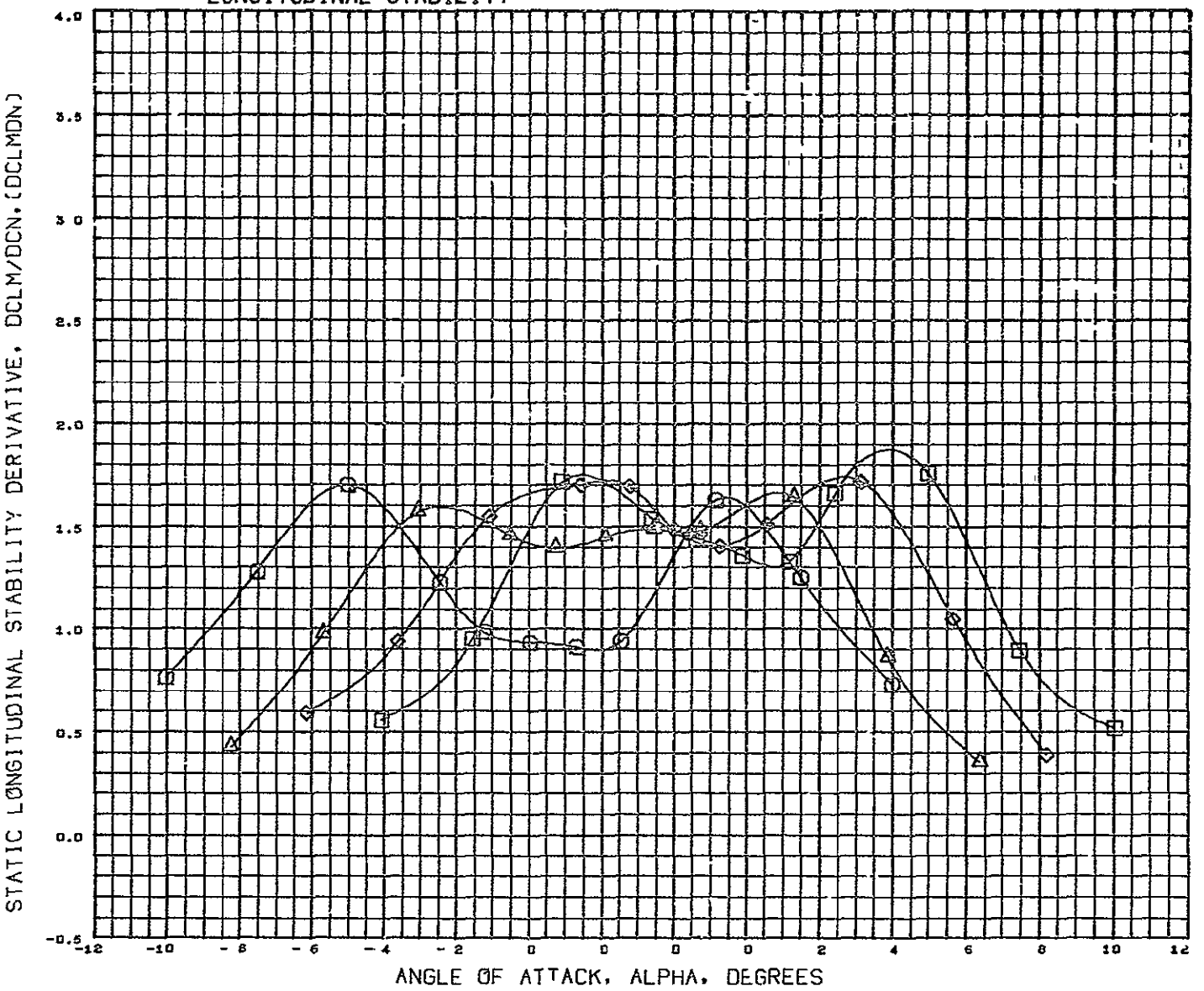


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.903	BETA	0.000	ORBINC	- 3.100
△	1.009				
◇	1.097				
□	1.201				

DATA HIST. CODE H9E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

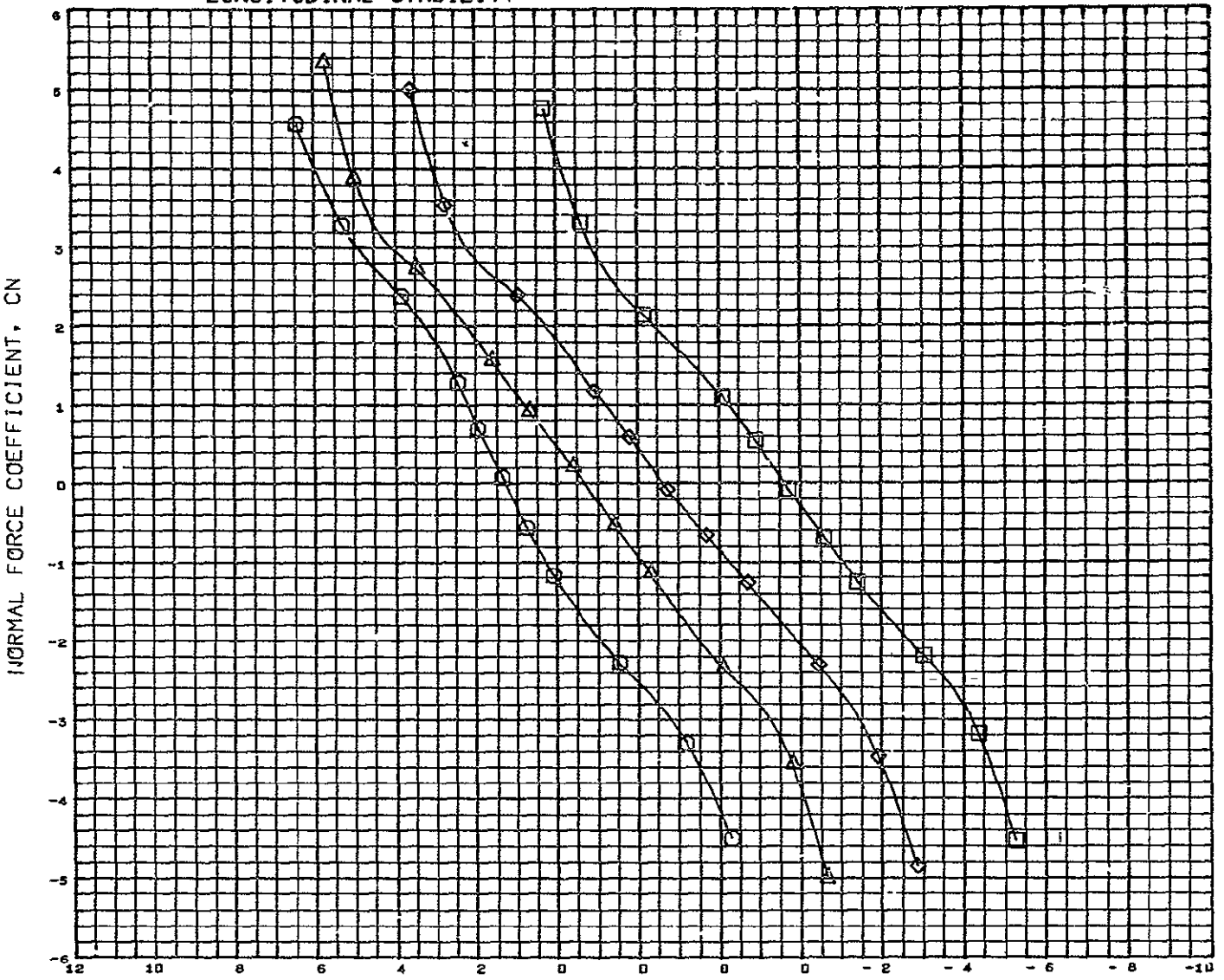


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.903	BETA	0.000	ORBINC	- 3 .00
△	1.009				
◇	1.037				
□	1 201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6260	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

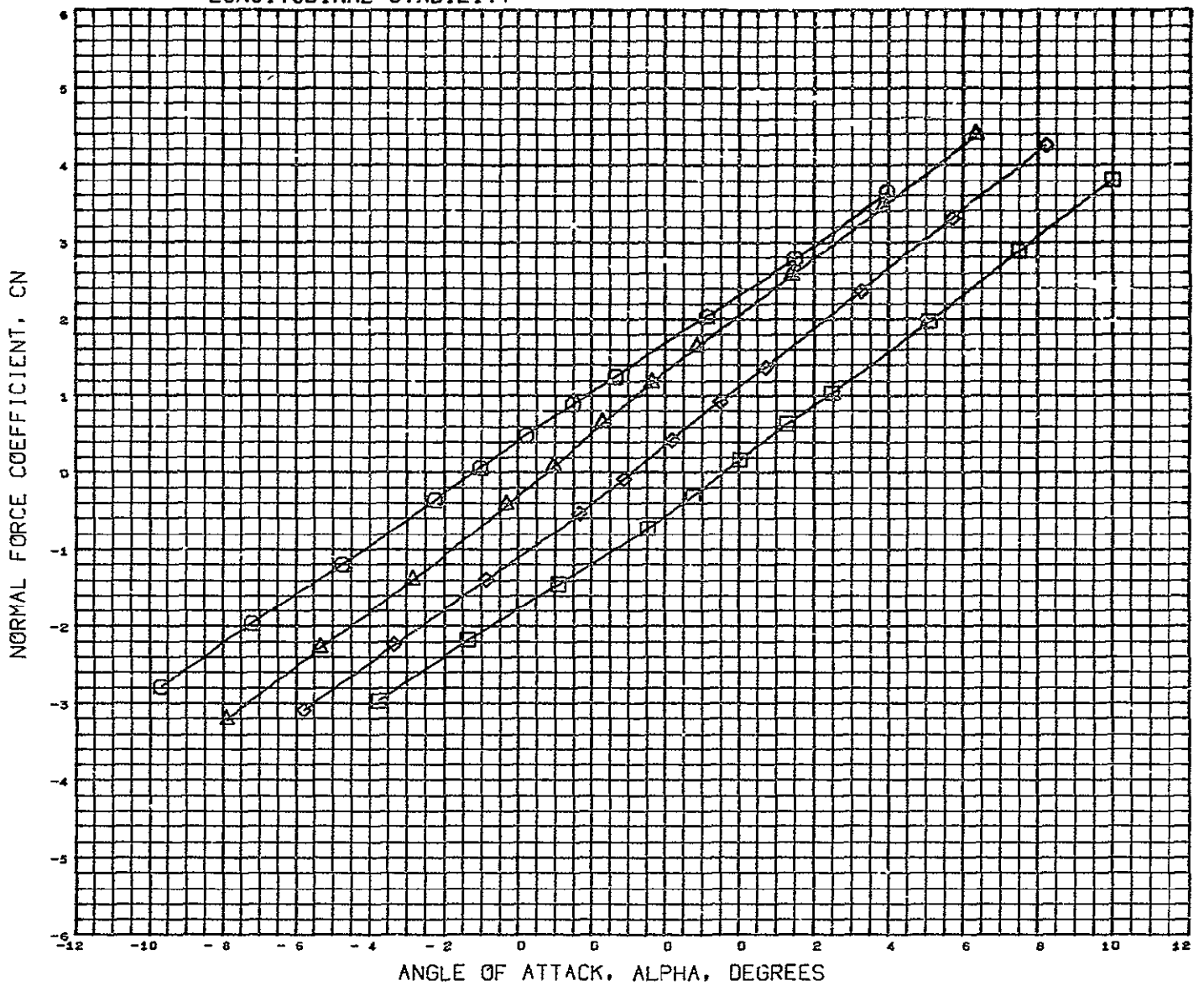


SYMBOL	MACH	PARAMETRIC VALUES			
○	0 903	BETA	0 000	ORBINC	- 3 100
△	1.009				
◇	1 097				
□	1 201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6360	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

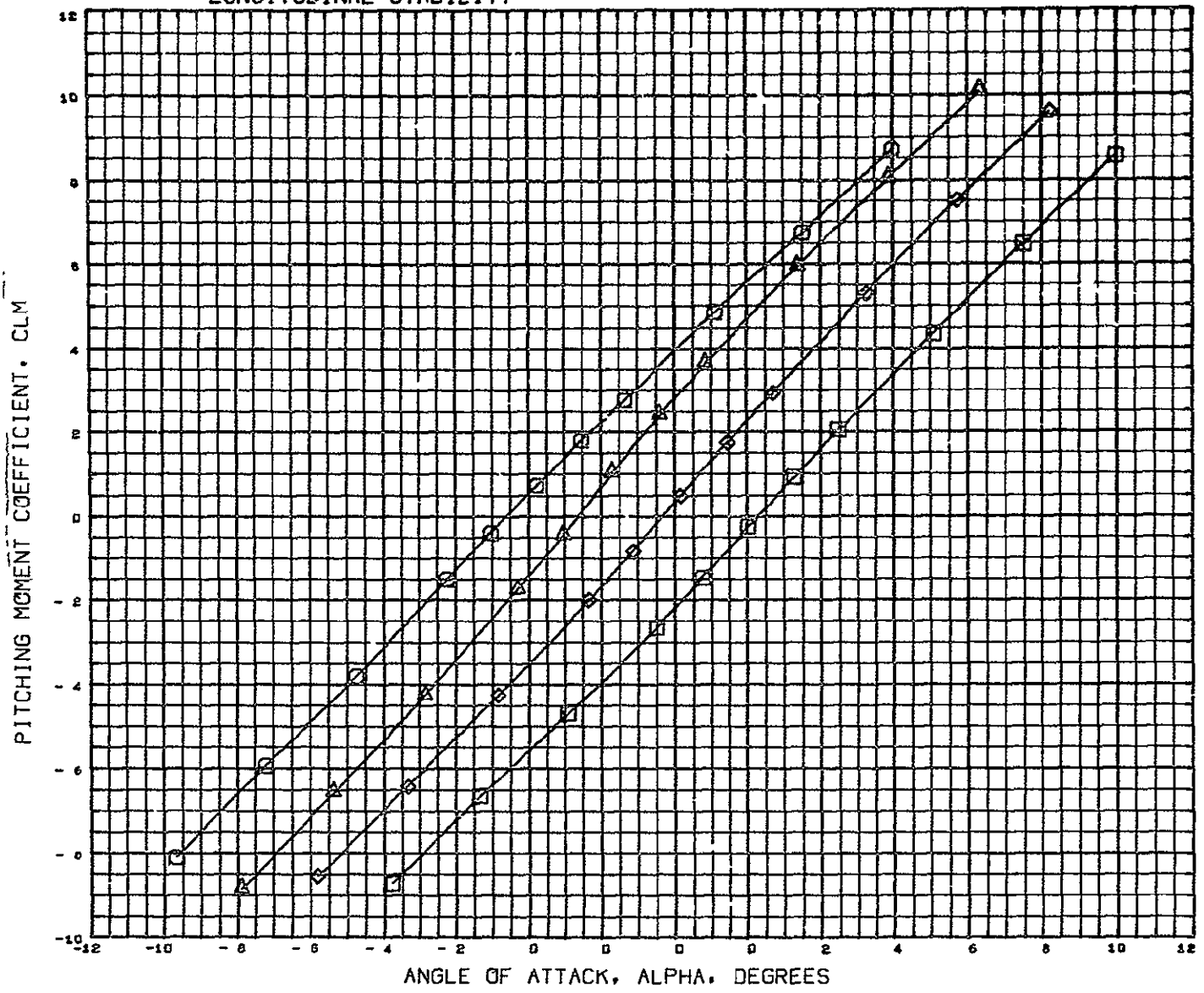


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.901	BETA	0.000	ORBITER -3.100
△	1.003			
◇	1.101			
□	1.201			

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

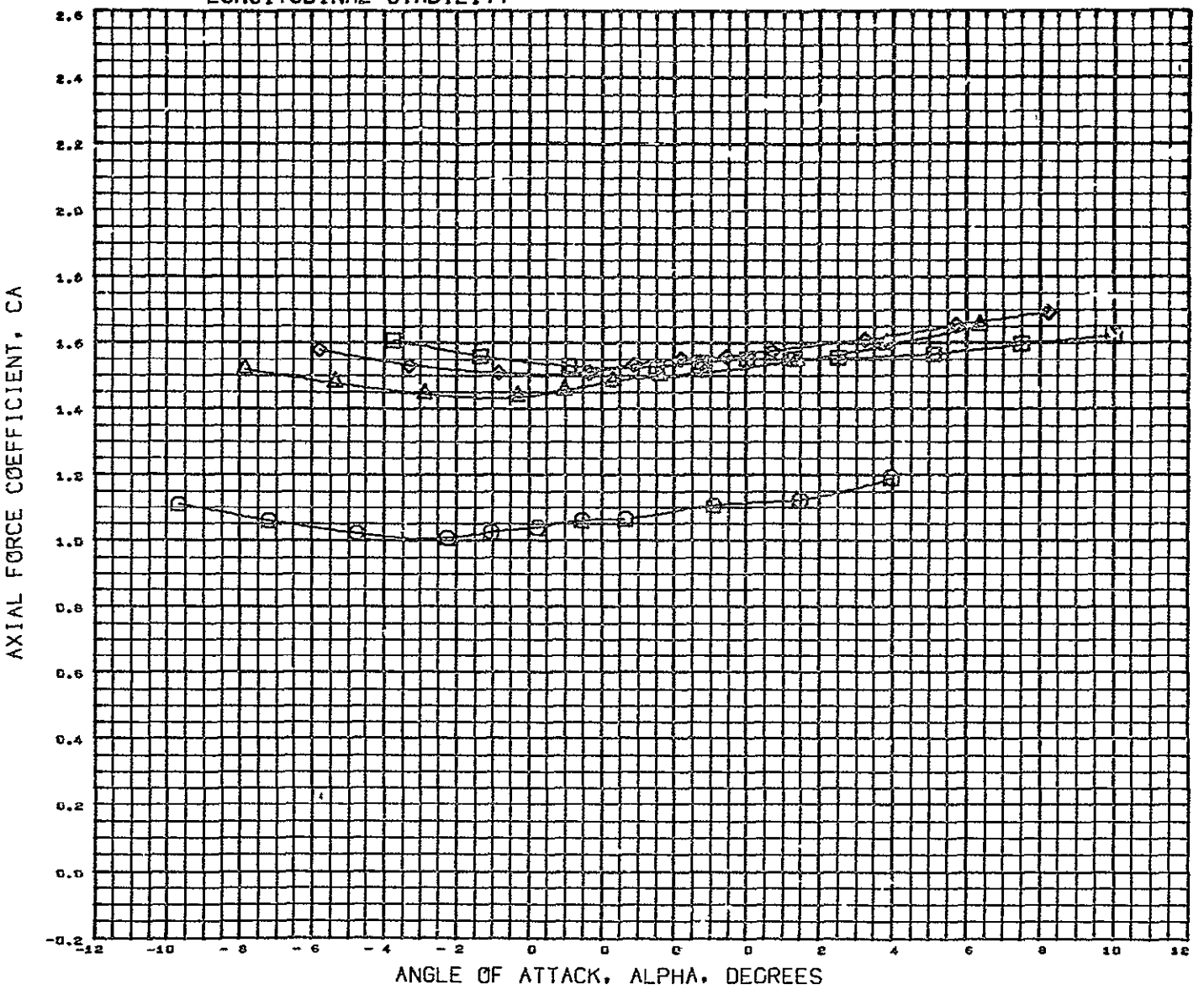


SYMBOL	MACH	PARAMETRIC VALUES			
□	0.901	BETA	0.000	ORBINC	- 3 100
△	1 003				
◇	1.101				
□	1.201				

DATA HIST. CODE H#E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

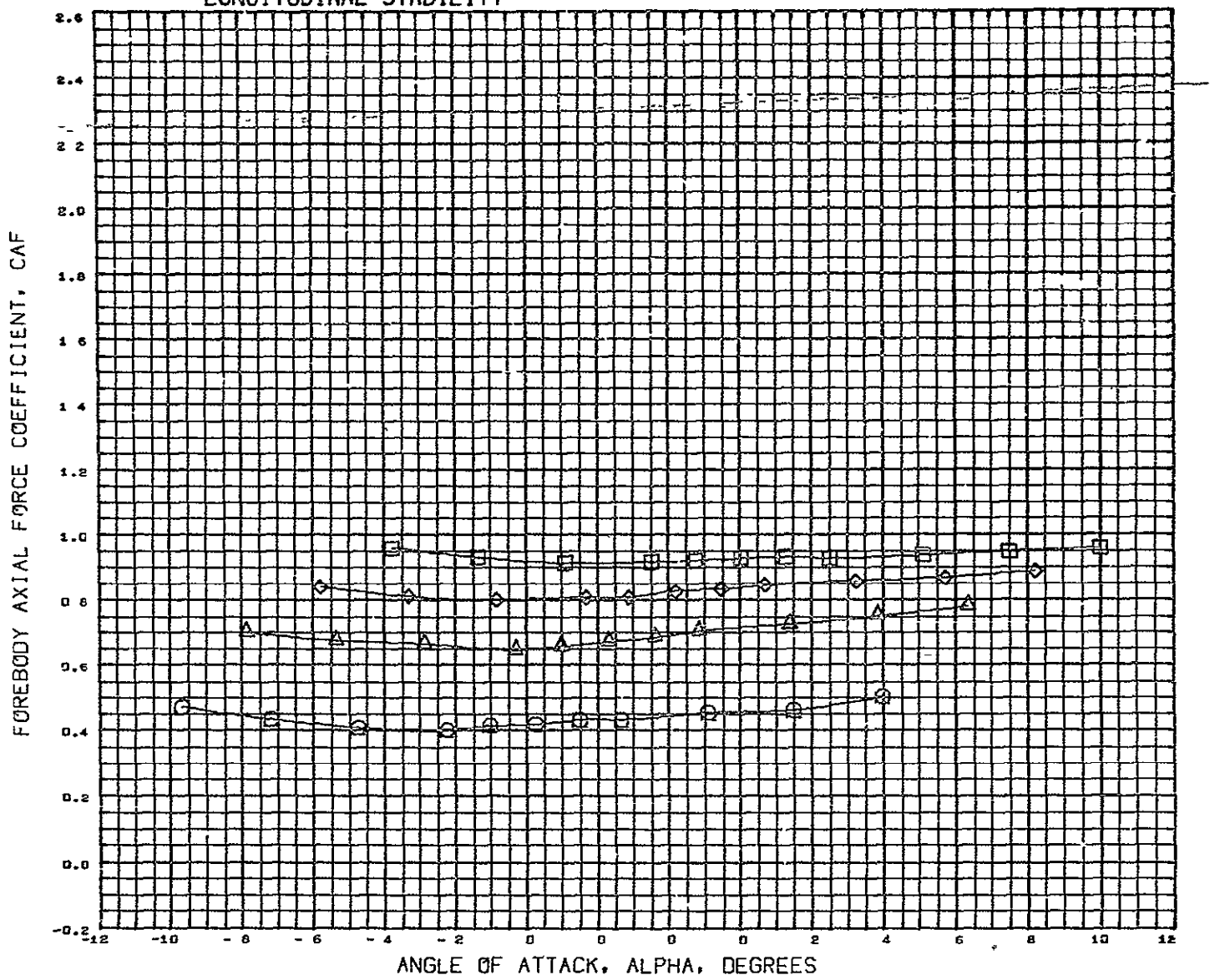


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	- 3 100
△	1 003				
◇	1.101				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0006	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

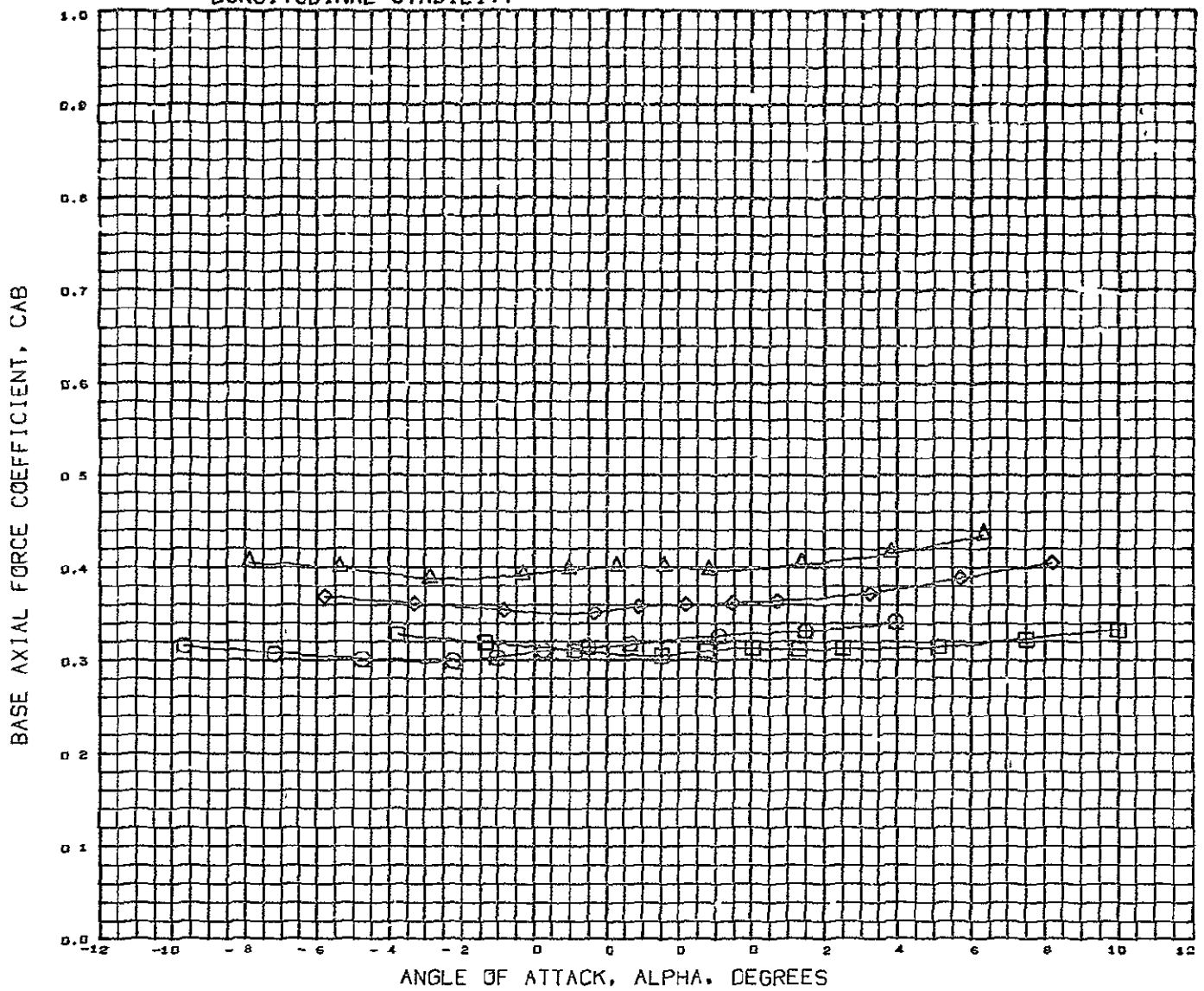


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	OPBINC	-3.100
△	1.003				
◇	1.101				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6850	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

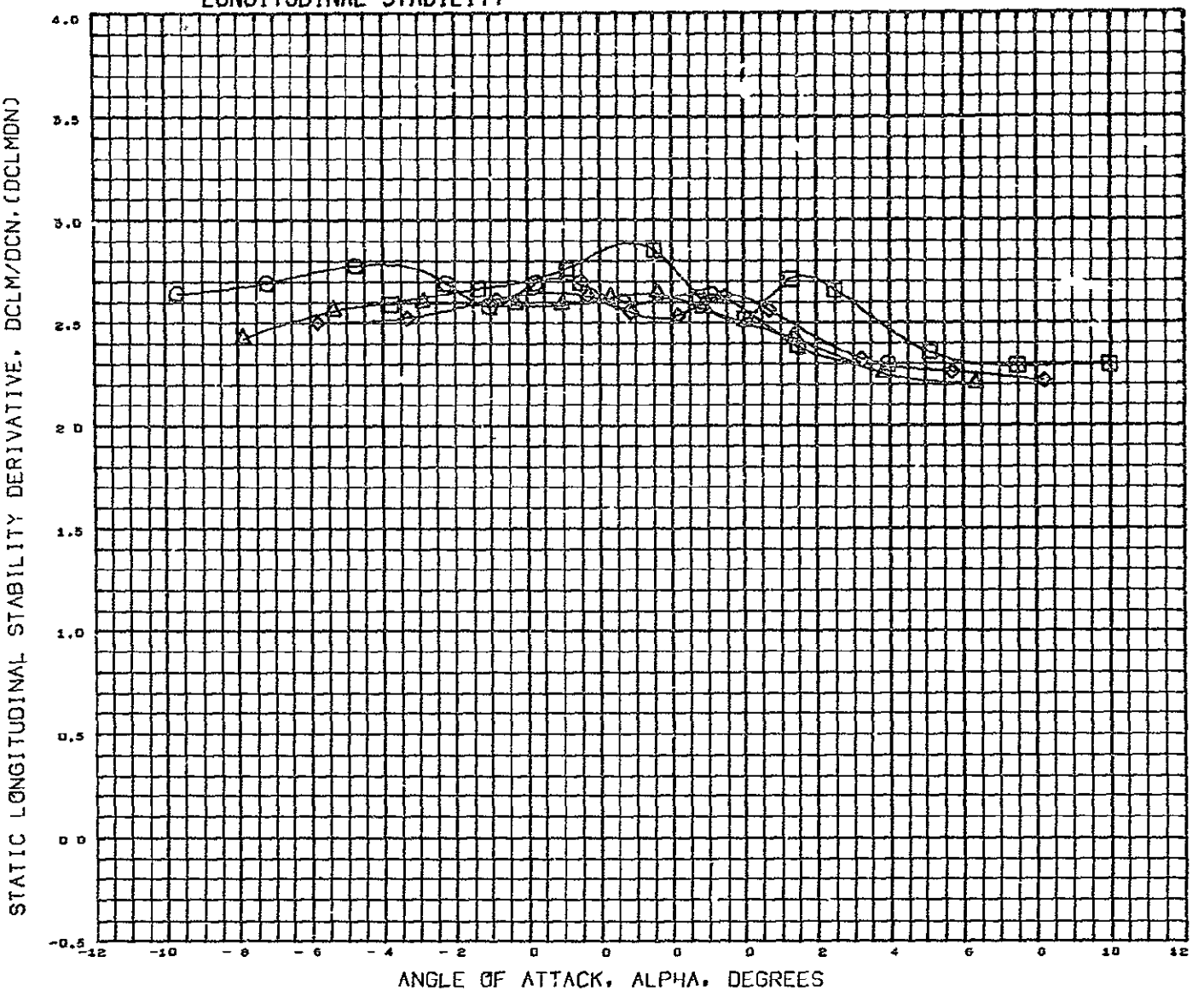


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	- 3 100
△	1 003				
◇	1.101				
□	1 201				

DATA HIST. CODE N*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 5960	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

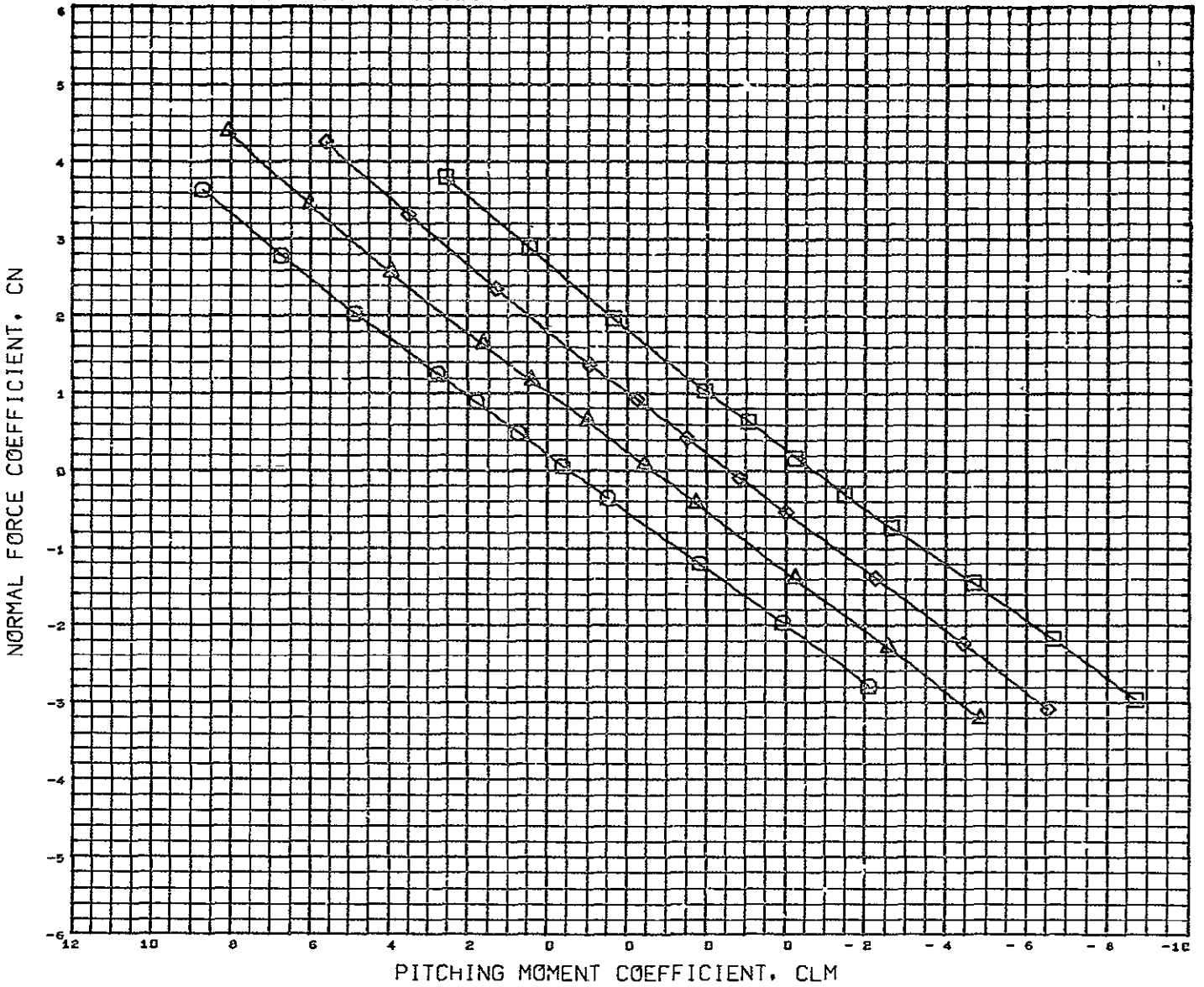


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.901	BETA	0.000	ORBINC	- 5.100
△	1.003				
◇	1.101				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6650	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



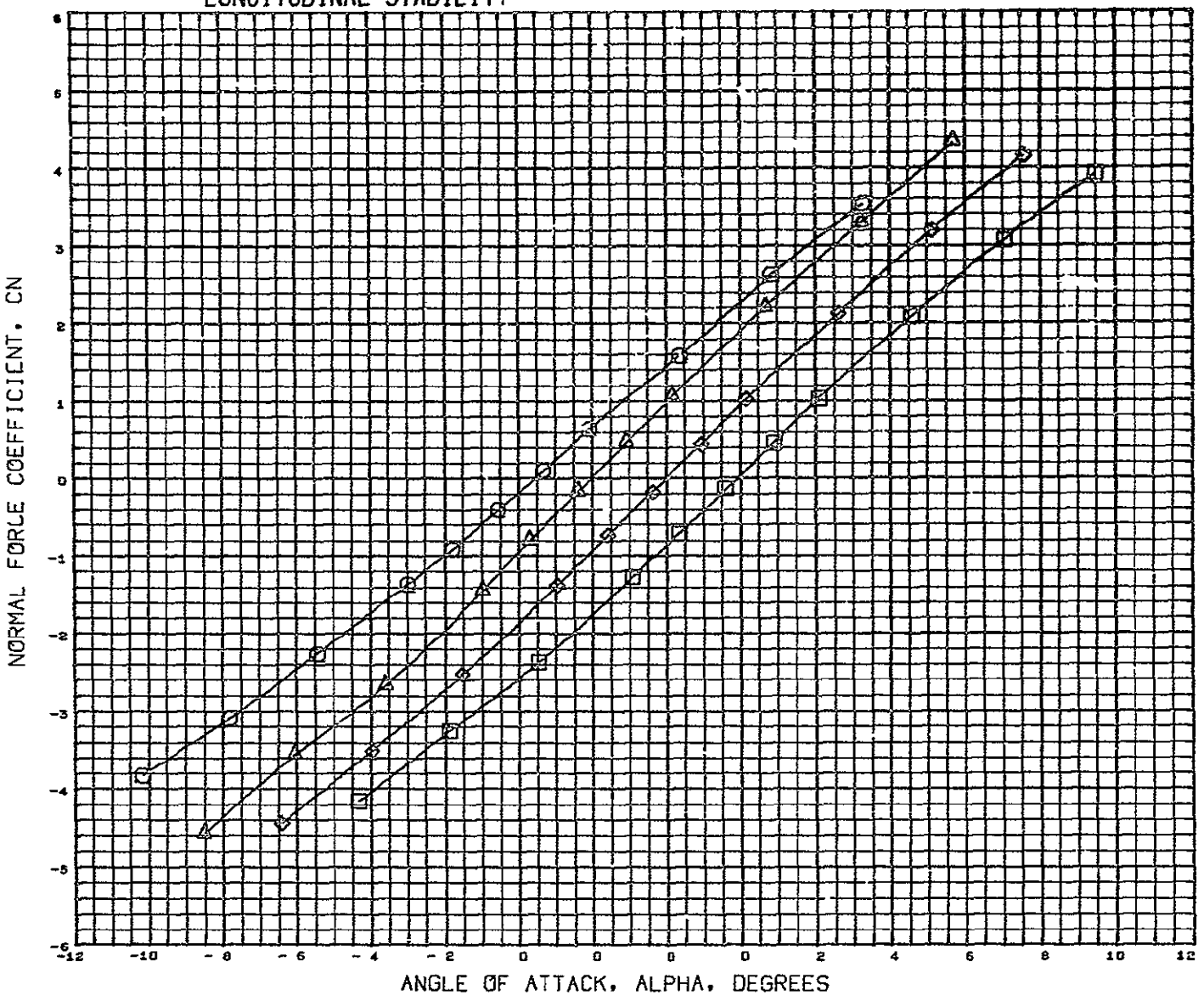
SYMBOL	MACH	PARAMETRIC VALUES		
○	0.901	BETA	0 000	ORBINC - 3 105
△	1 003			
◇	1.101			
□	1 201			

DATA HIST CODE M*E

REFEFENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6650	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

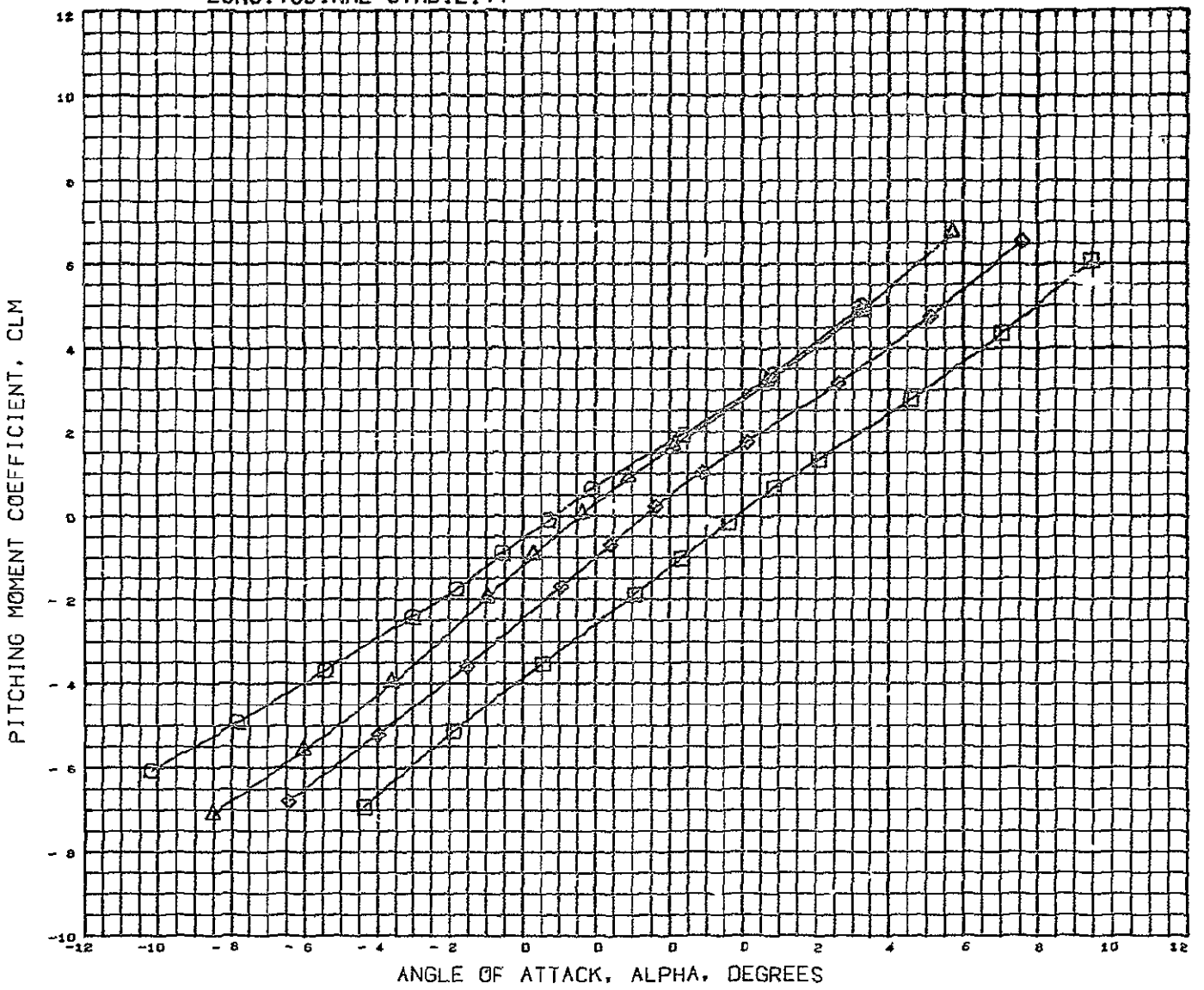


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.902	BETA	0.000	ORBINC - 3.100
△	1.001			
◇	1.100			
□	1.196			

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

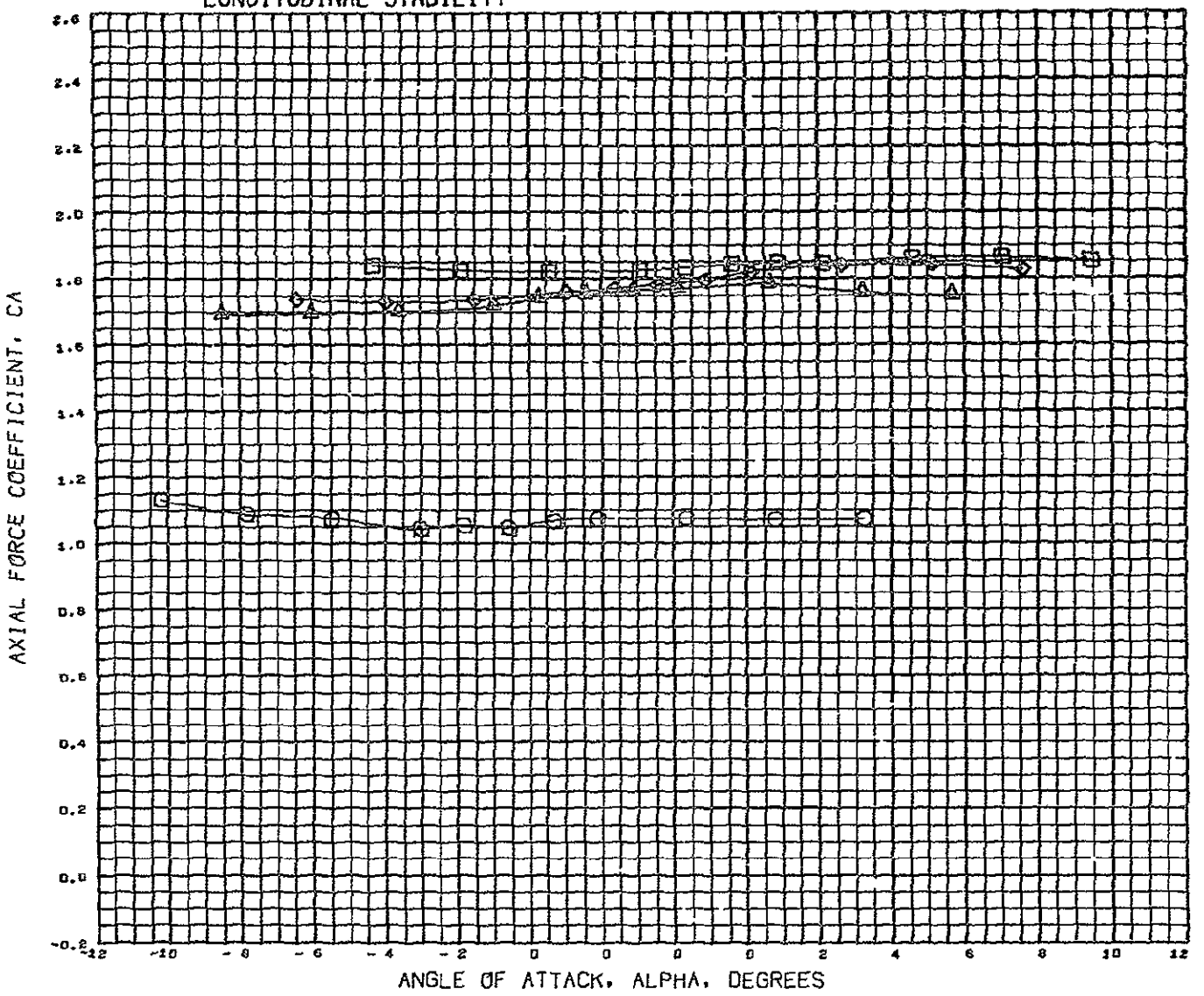


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	-3.100
△	1.001				
◇	1.100				
□	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6865	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



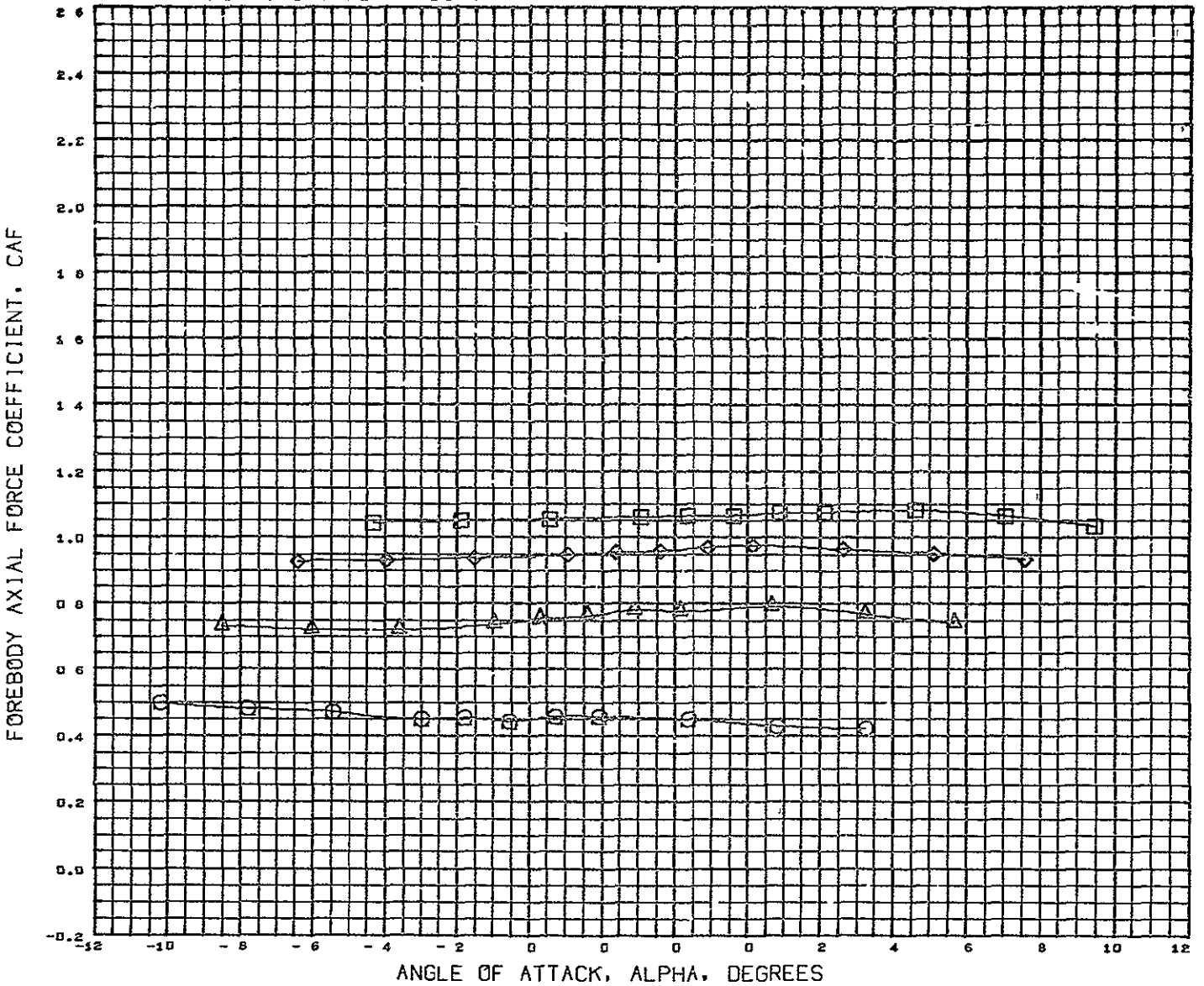
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	-3.100
△	1.001				
◇	1.100				
□	1.196				

DATA HIST CODF M*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

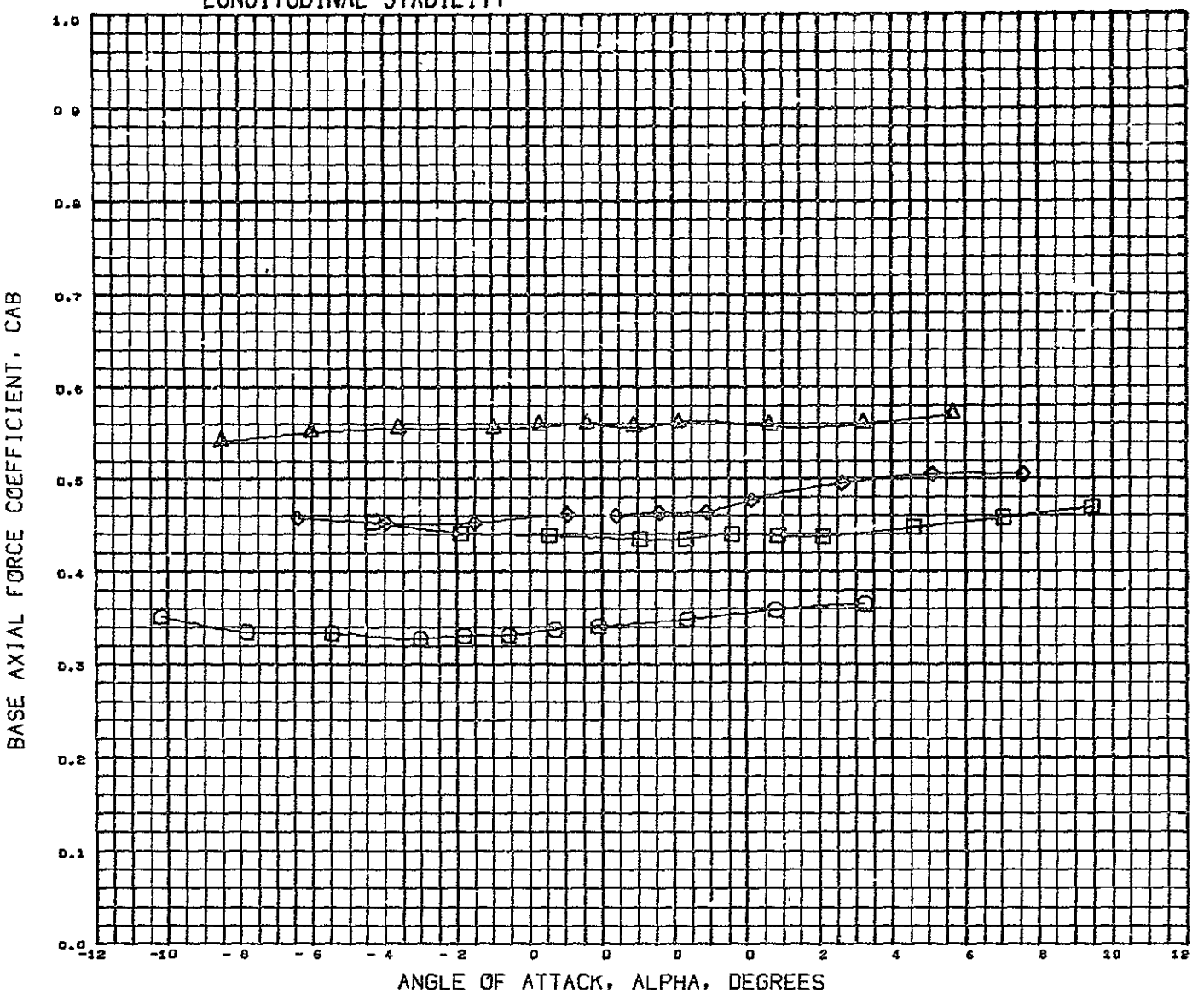


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.902	BETA	0.000	ORBINC - 3.100
△	1.001			
◇	1.100			
□	1.196			

DATA HIST CODE N*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0060	IN
ZMRP	0.0006	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

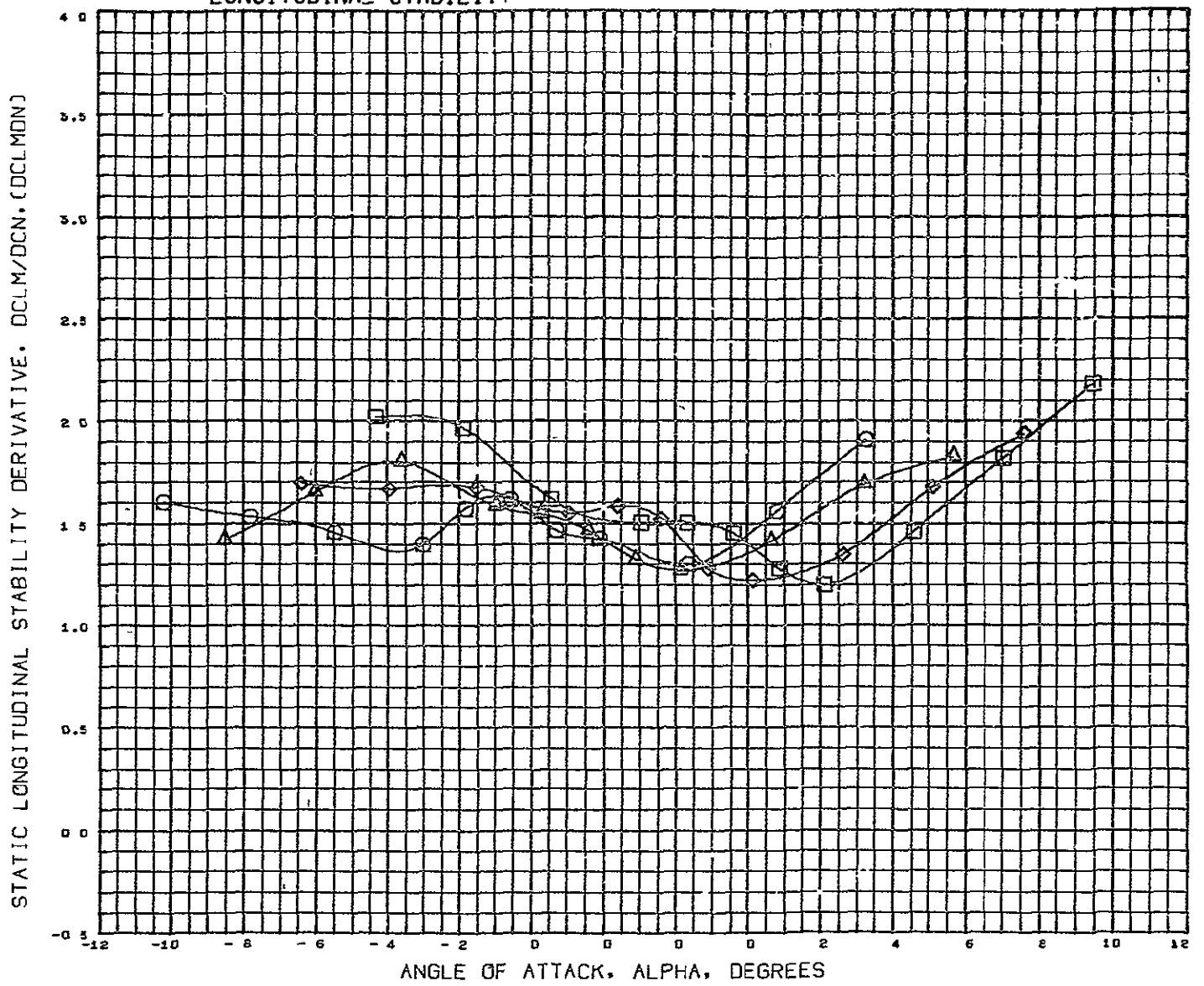


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	- 3.109
△	1.001				
◇	1.100				
□	1.196				

DATA HIST CODE M#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

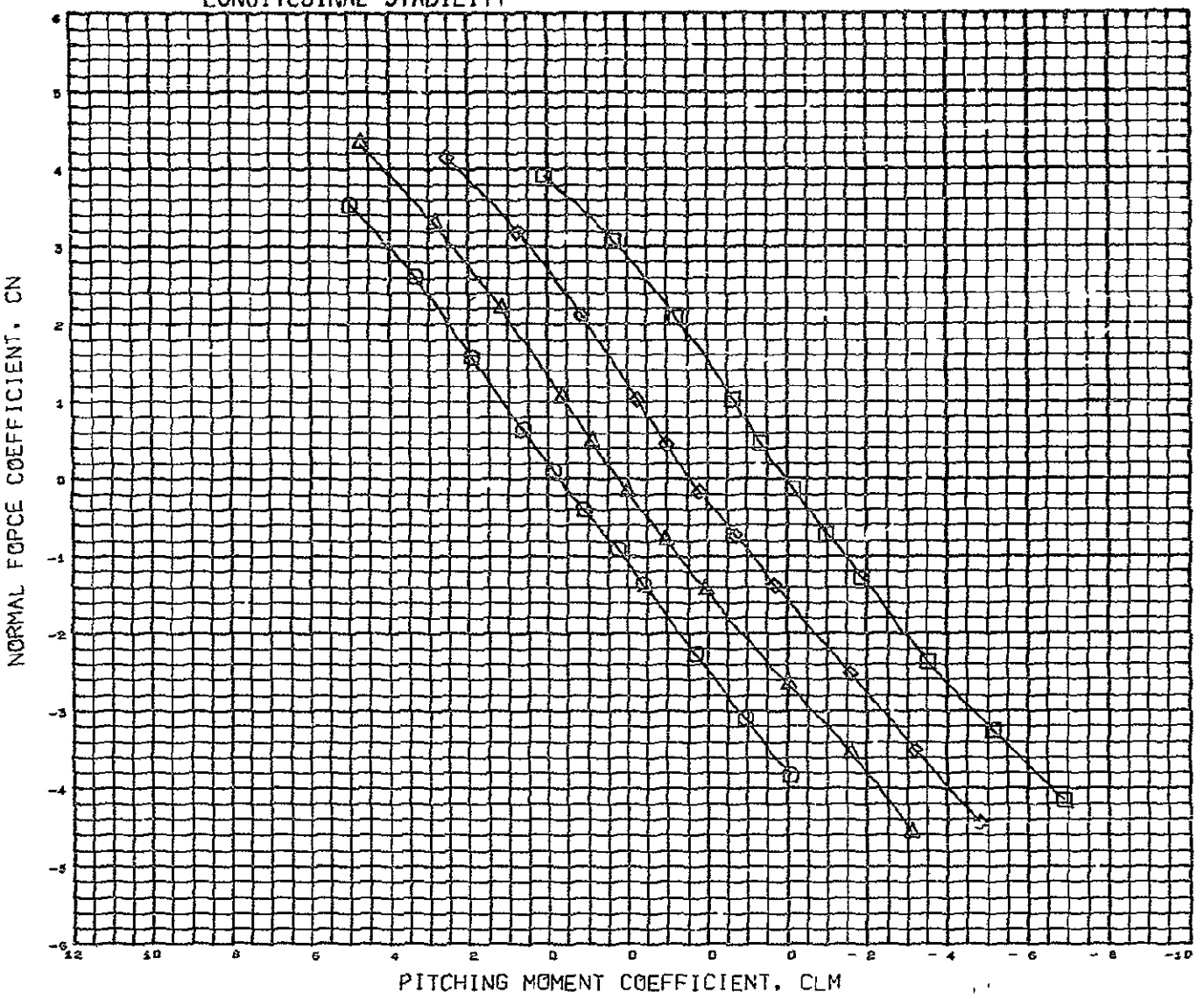


SYMBOL	MACH	PARAMETRIC VALUES			
□◇△○	0.902	BETA	0.000	DPSINC	-3.100
	1.001				
	1.100				
	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0460	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

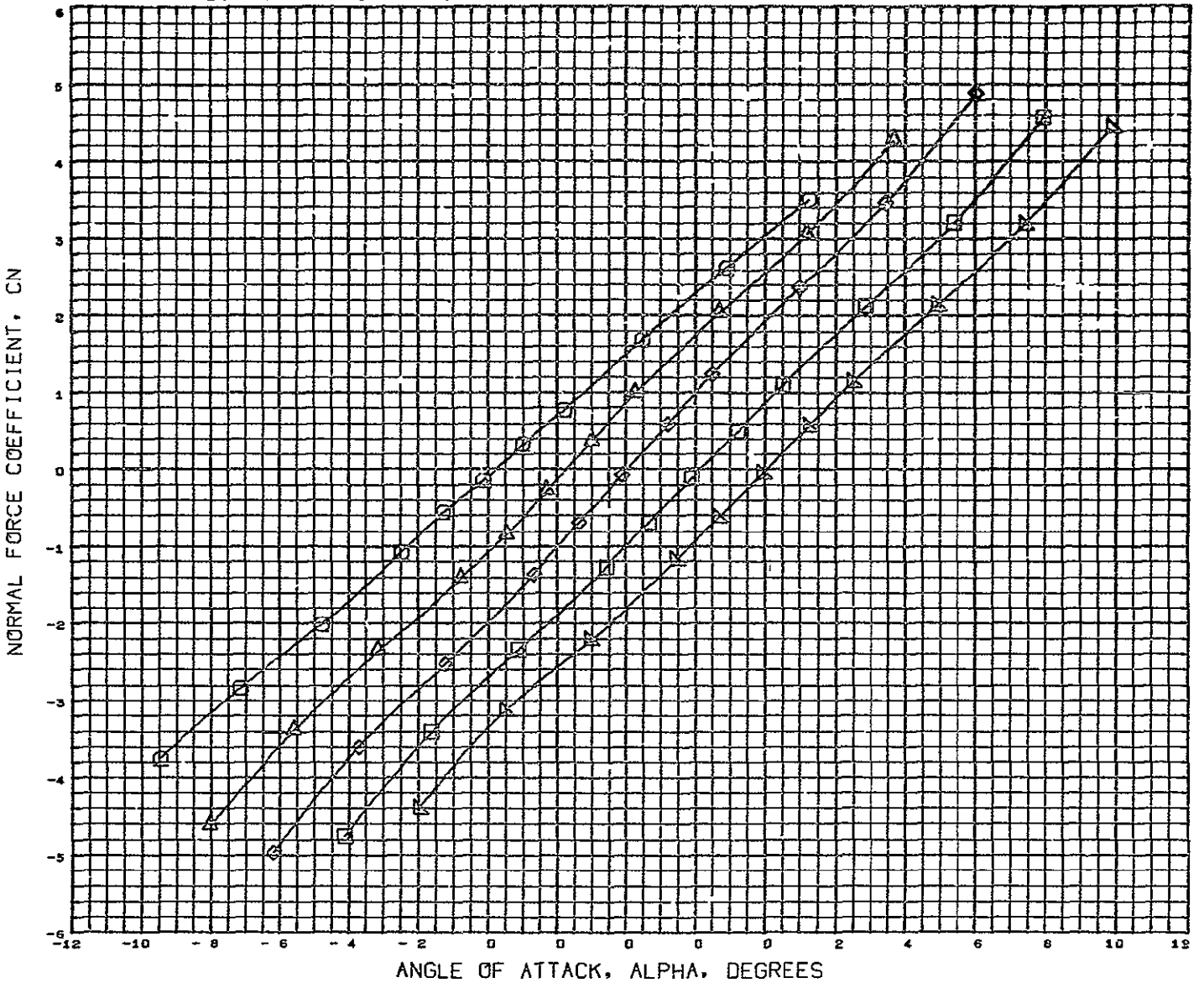


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.902	BETA	0.000	ORBINC	-3.100
△	1.001				
◇	1.100				
□	1.196				

DATA HIST CODE H#E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	5.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

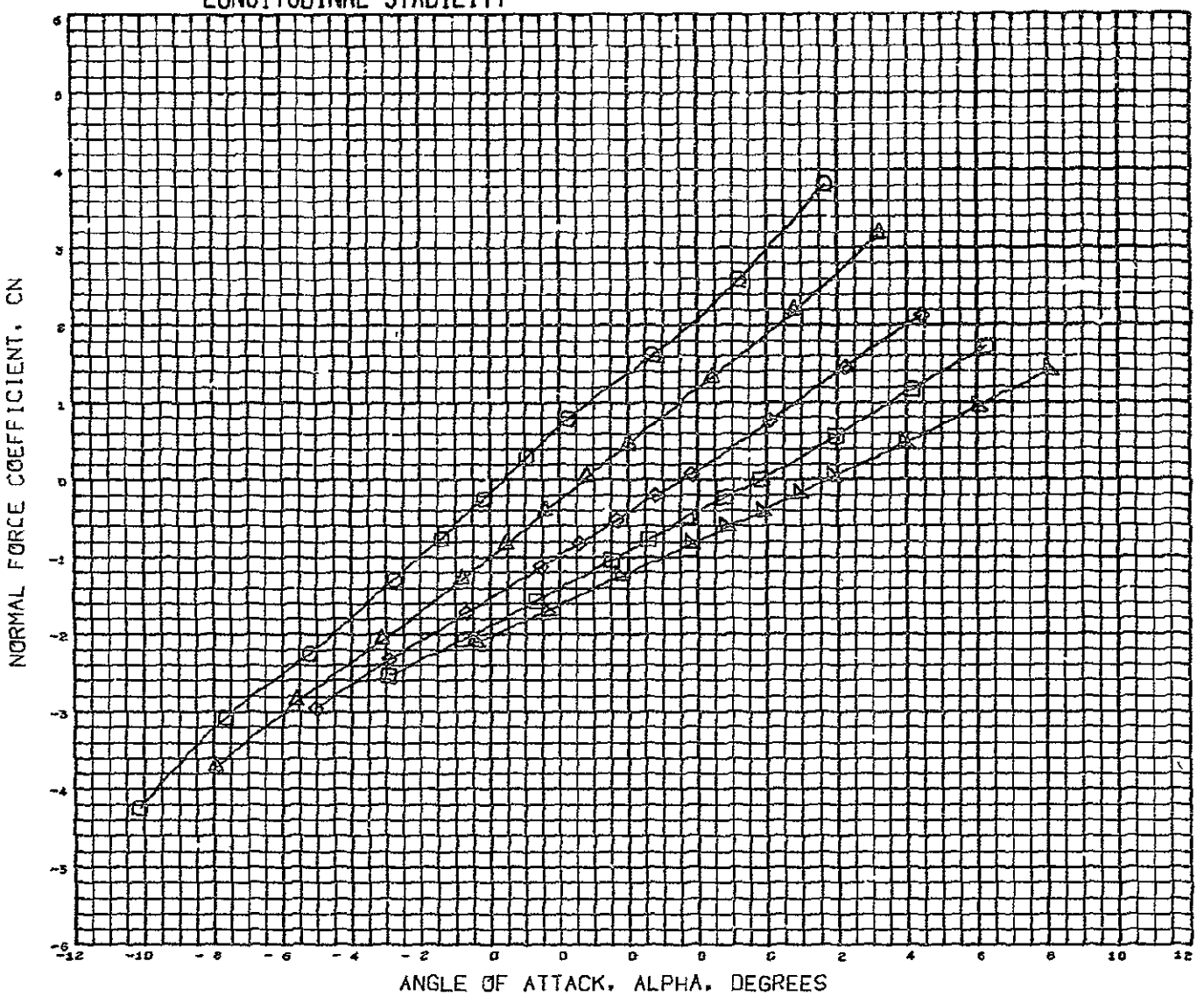


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.604	BETA	0.000	ORBINC	- 3.100
△	0.899				
◇	1.004				
□	1.098				
▽	1.194				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	1.466
△	1.965
◇	2.990
□	4.000
▽	4.959

PARAMETRIC VALUES

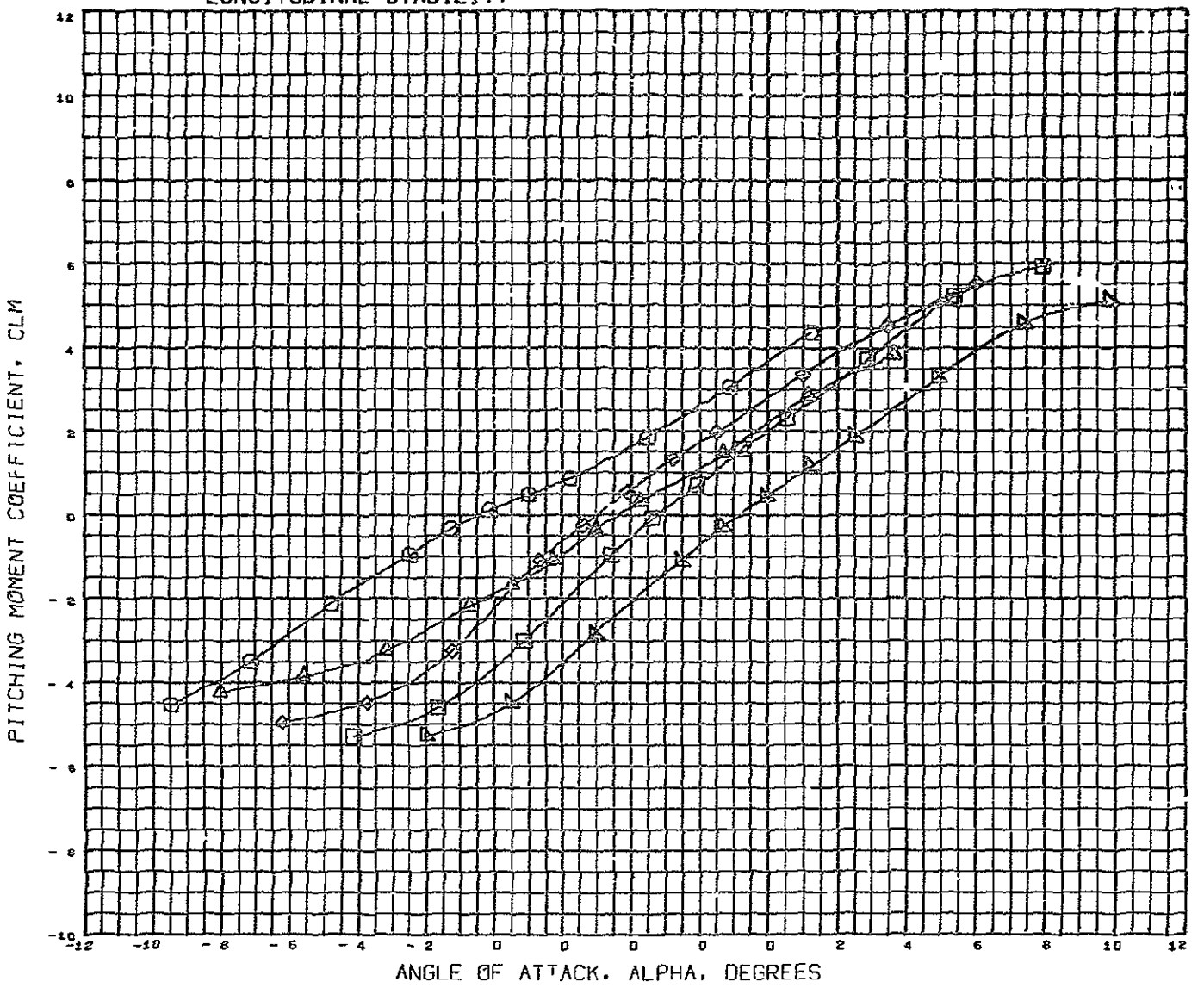
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



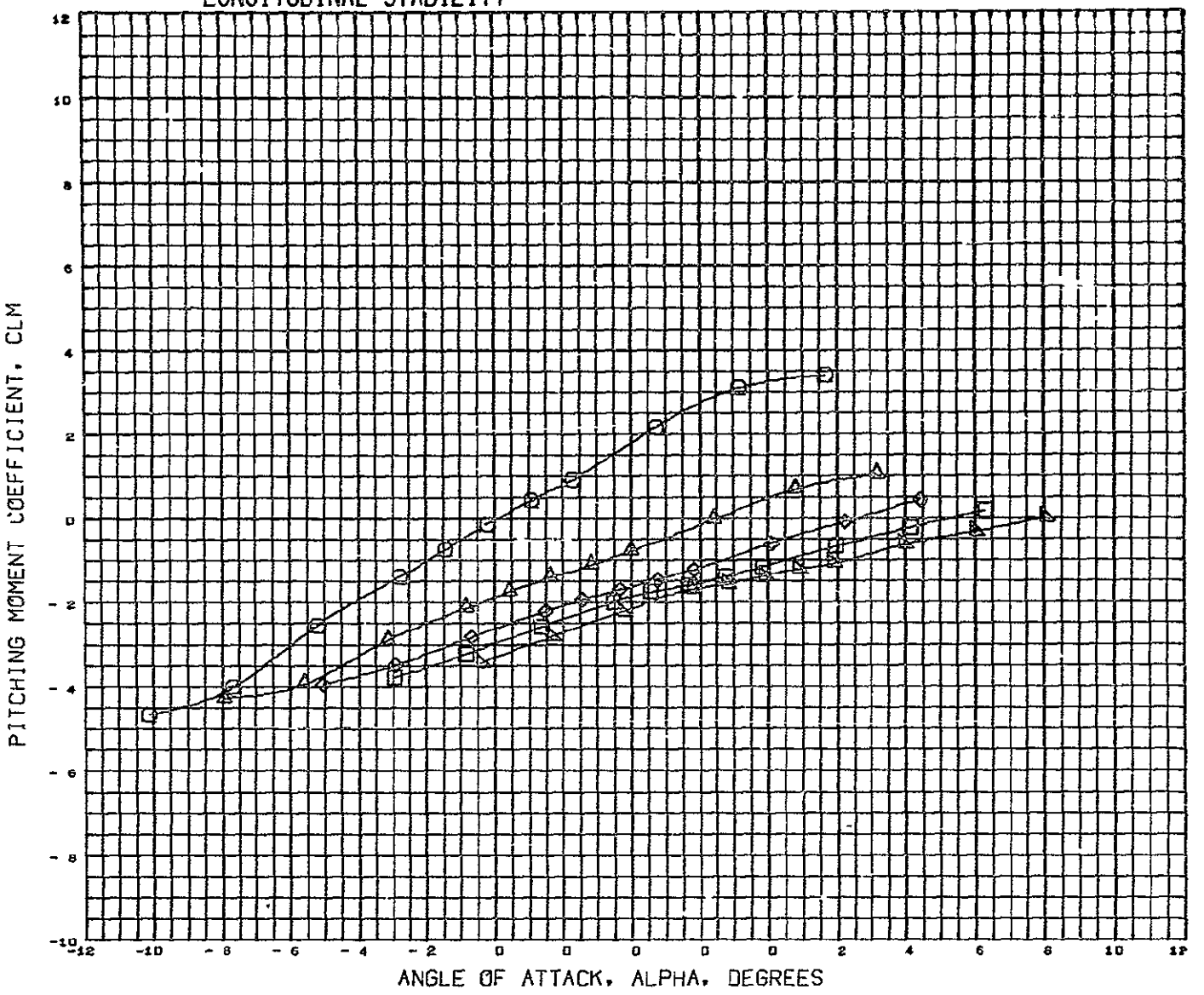
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.604	BETA	0.000	ORBINC	- 3.100
△	0.899				
◇	1.004				
□	1.096				
▷	1.194				

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6850	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



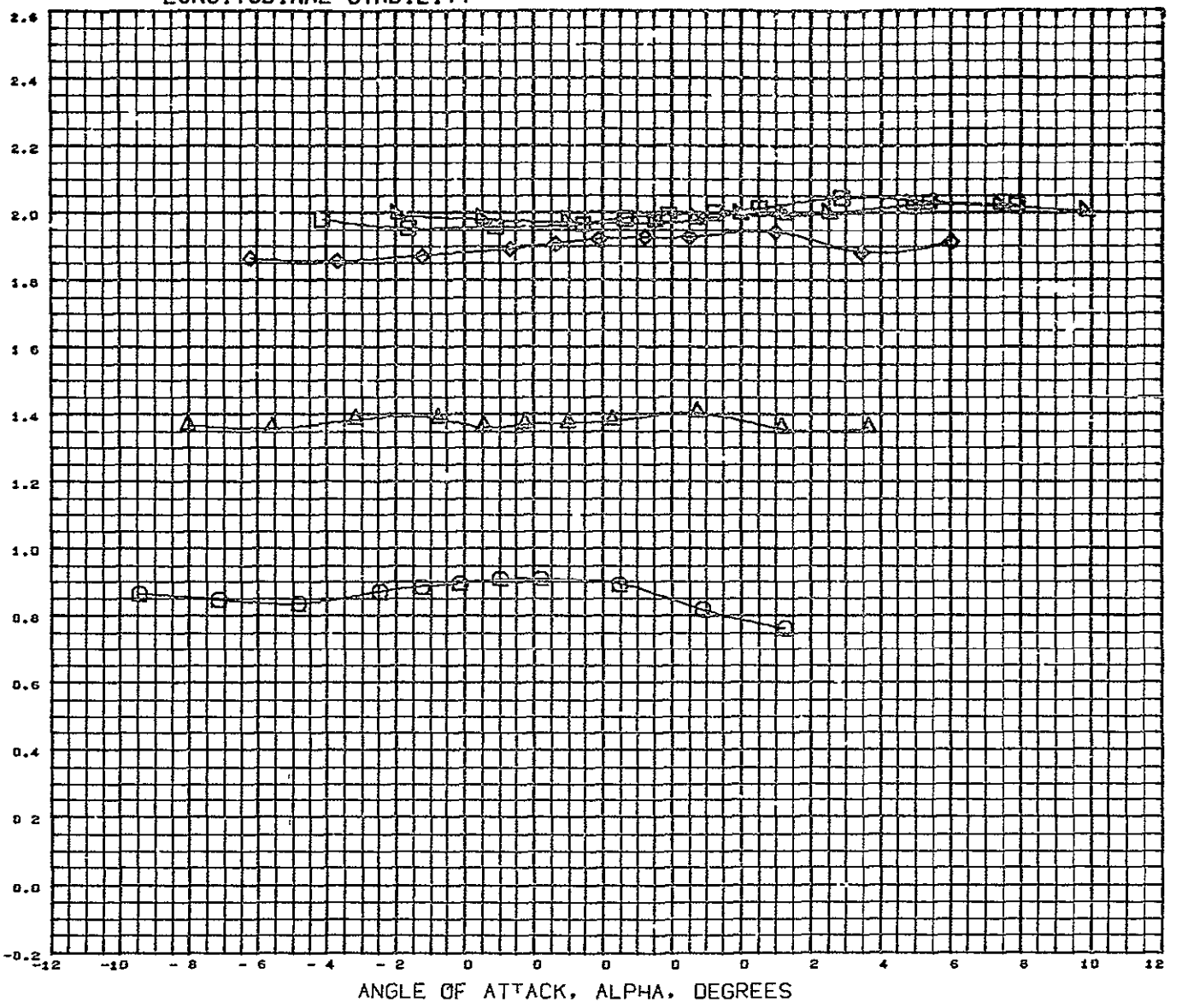
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.466	BETA	0.000	ORBINC	- 3.100
△	1.965				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRC	3.6260	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
□	0.604
△	0 899
◇	1 004
▽	1.098
◁	1 194

PARAMETRIC VALUES

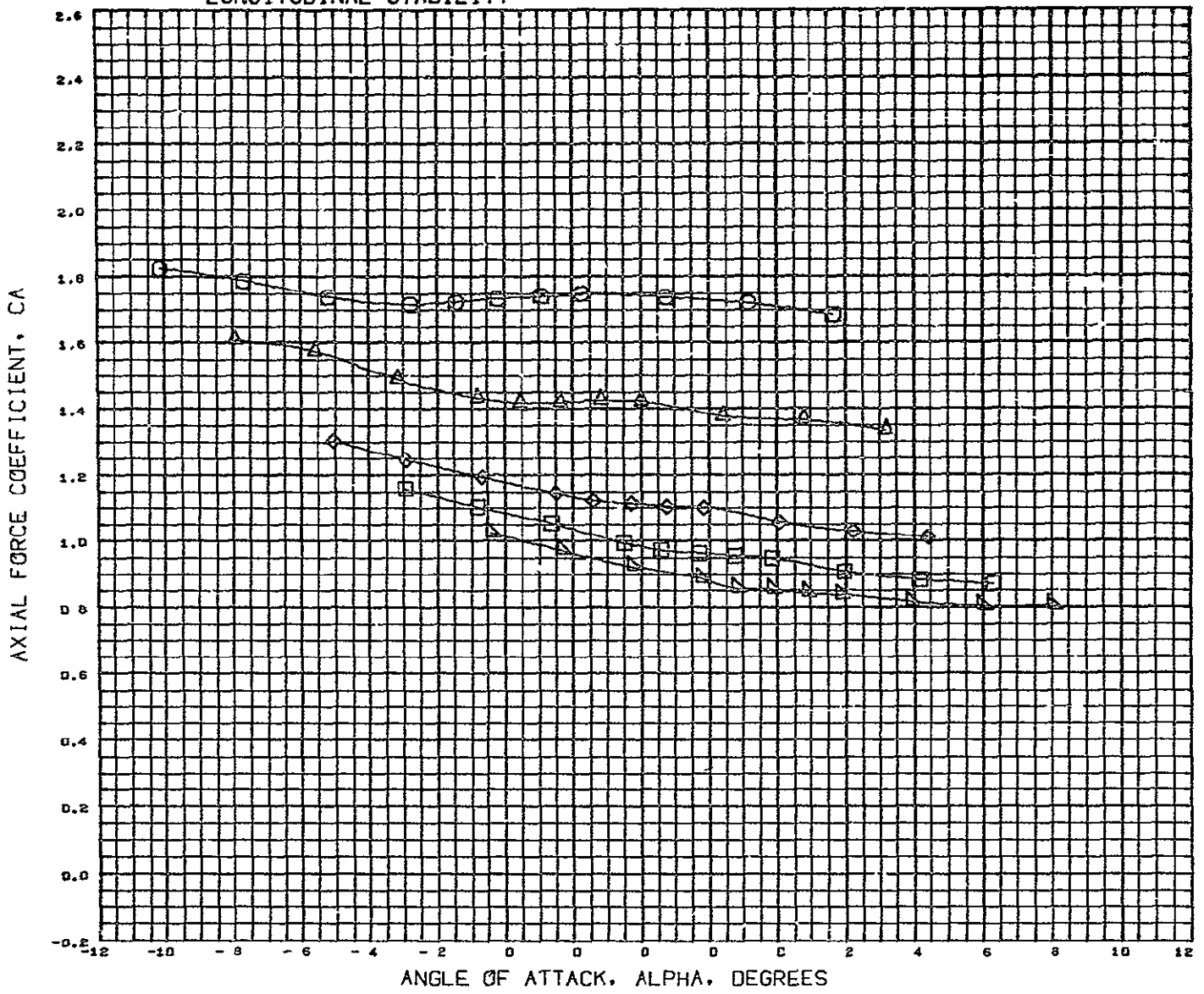
BETA 0.000 ORBINC - 3 100

DATA HIST. CODE H*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

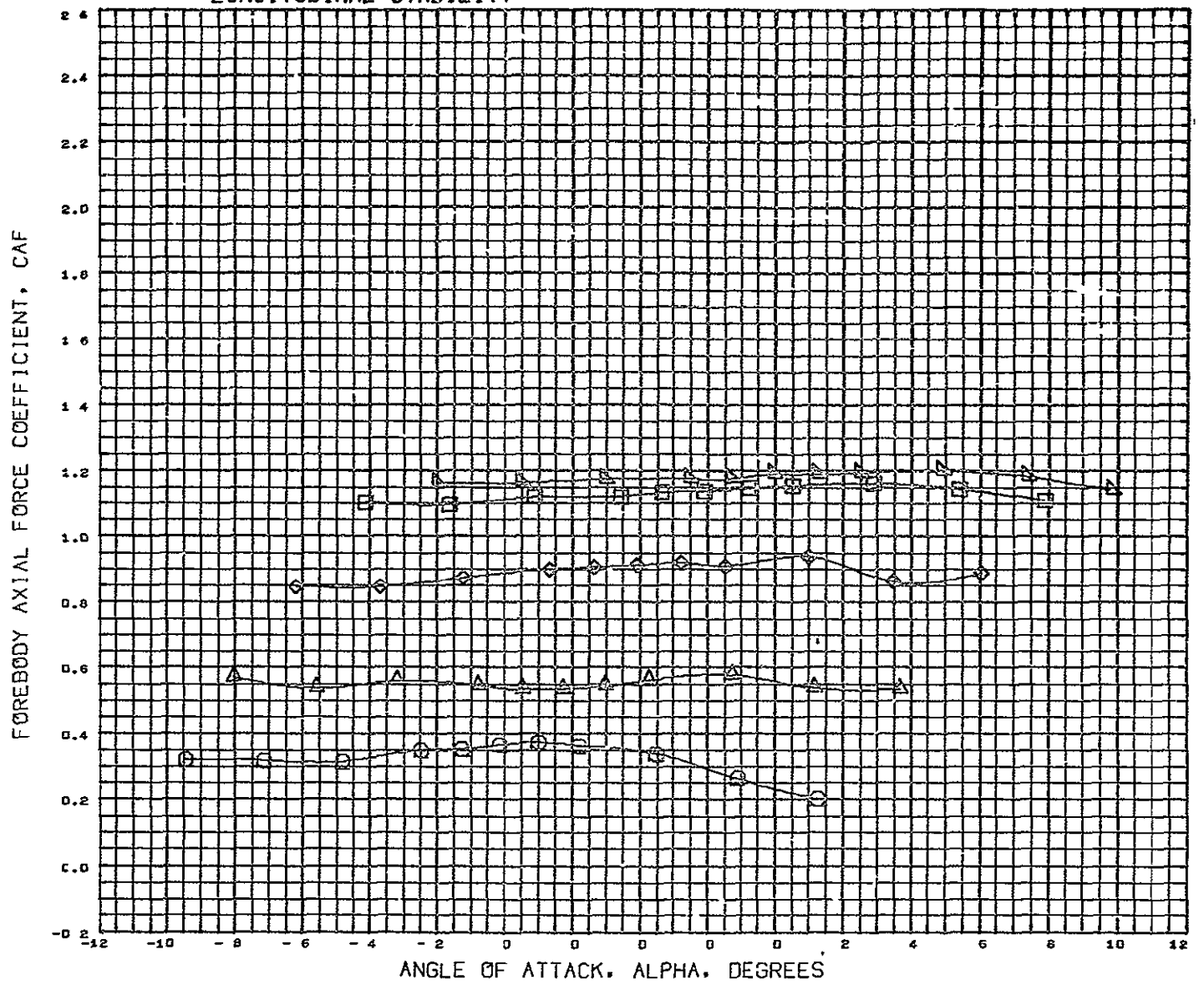


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.466	BETA	0 000	ORBINC	- 3 100
△	1 965				
◇	2.990				
□	4.000				
▷	4.959				

DATA HIST CODE M4E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	0.604
△	0.899
◇	1.004
□	1.098
▷	1.194

PARAMETRIC VALUES

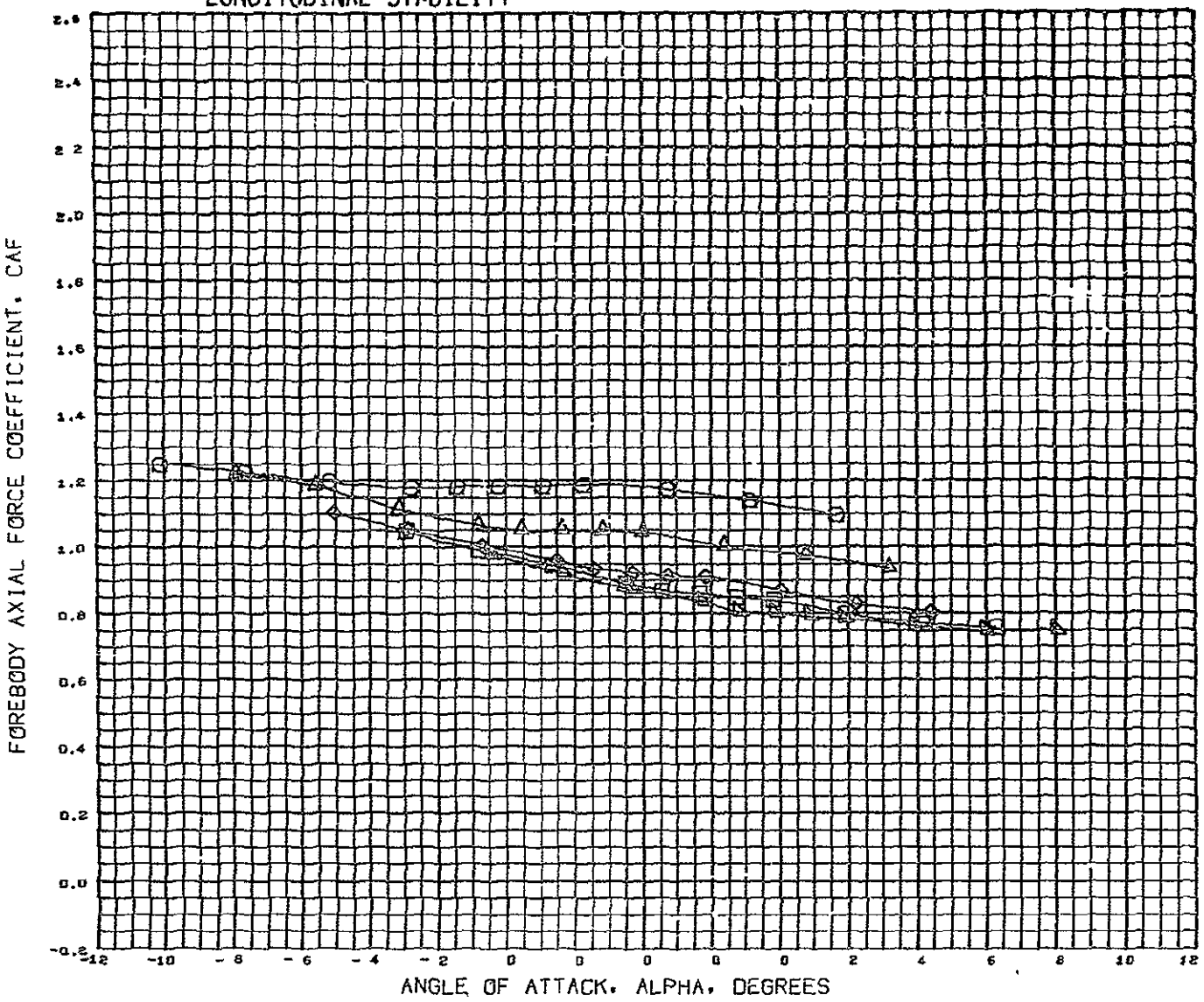
BETA 0.000 ORBINC - 3.100

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
□	1.466
△	1.965
◇	2.990
▽□	4.000
▽	4.959

PARAMETRIC VALUES

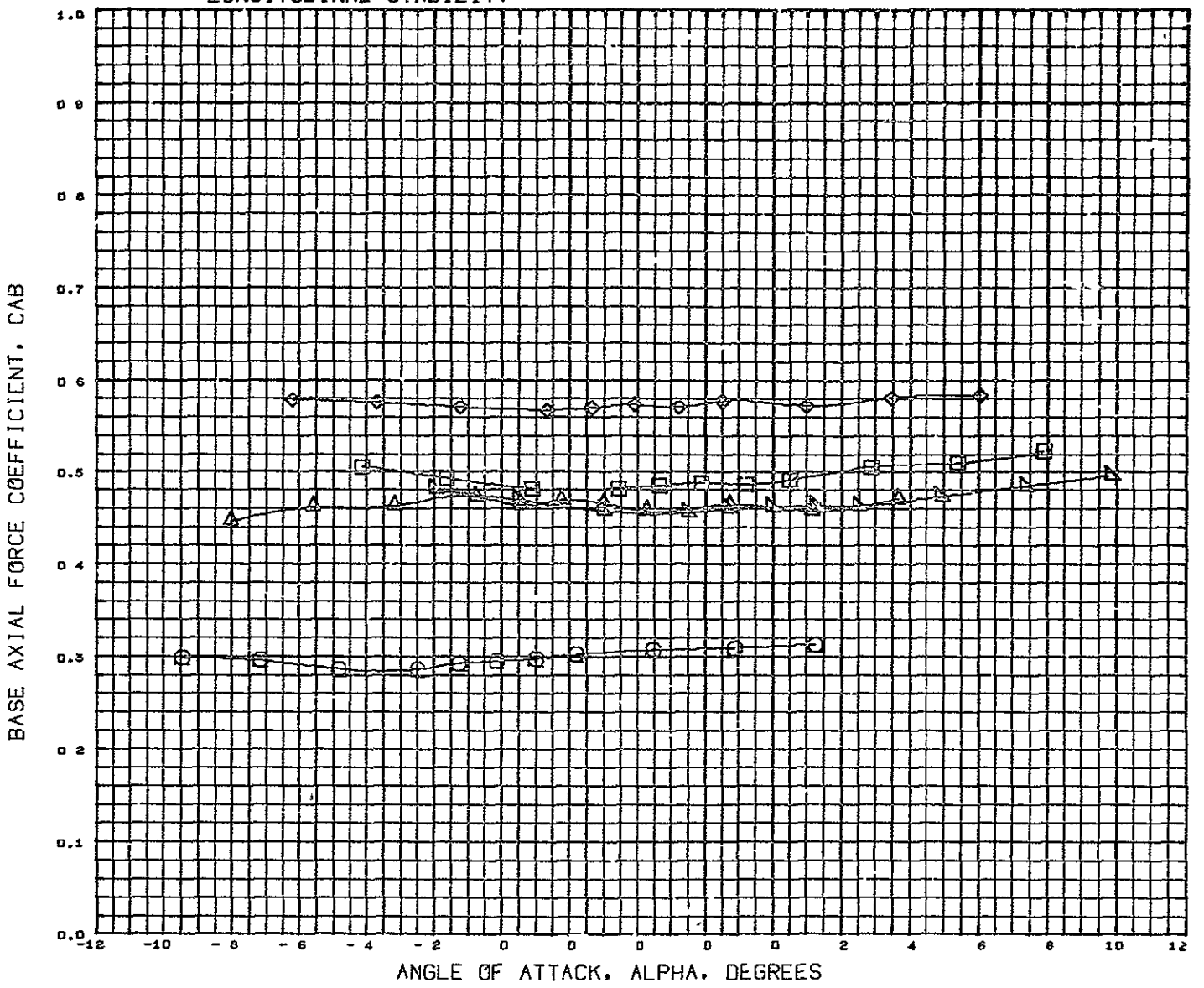
BETA 0.000 ORBINC - 3.100

DATA HIST CODE N#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

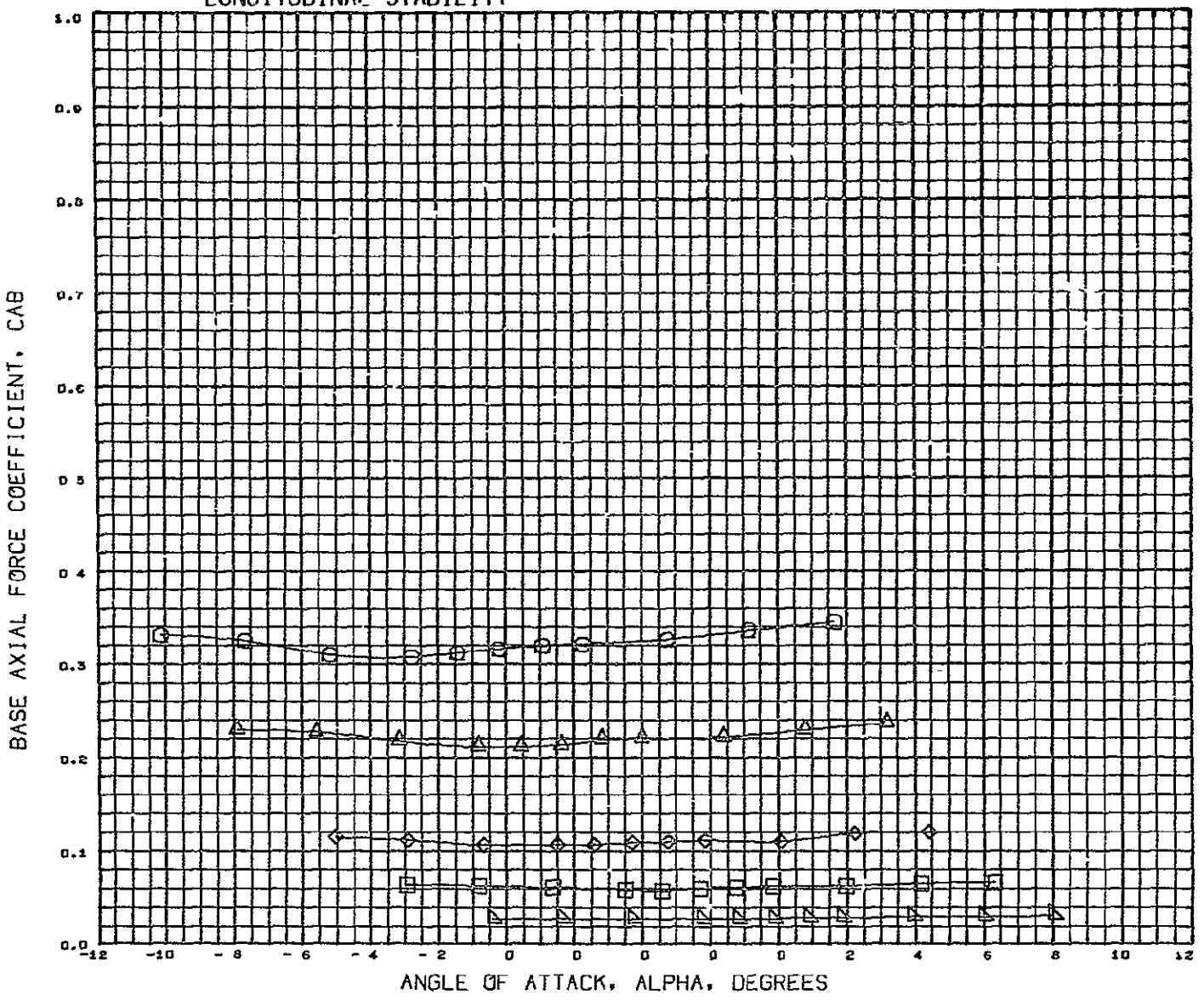


SYMBOL	MACH	PARAMETRIC VALUES			
	0.604	BETA	0.000	ORBINC	-3.100
	0.899				
	1.004				
	1.098				
	1.194				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

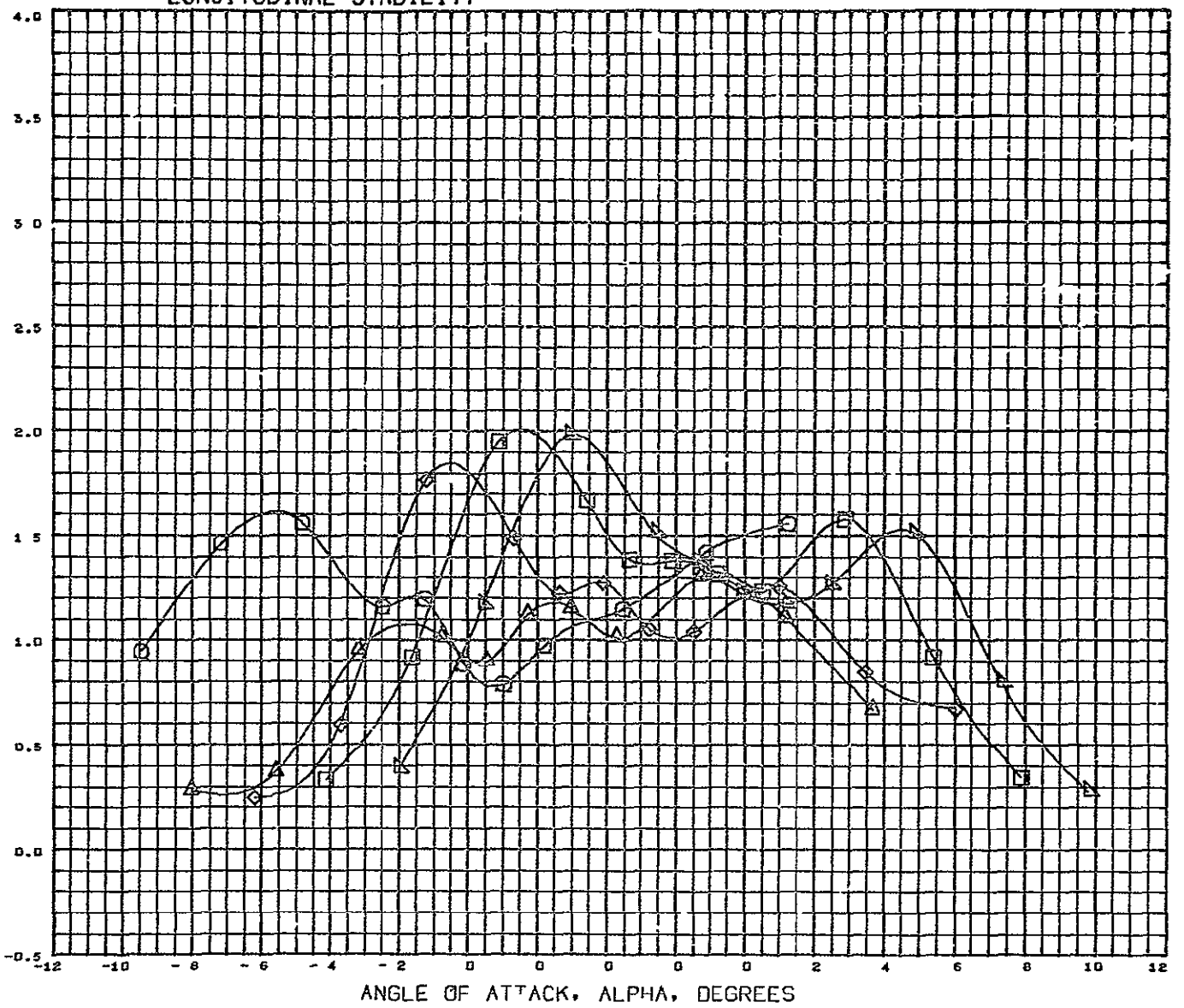


SYMBOL	MACH	PARAMETRIC VALUES			
	1.466	BETA	0.000	ORBINC	- 3.100
	1.965				
	2.990				
	4.000				
	4.959				

DATA HIST. CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



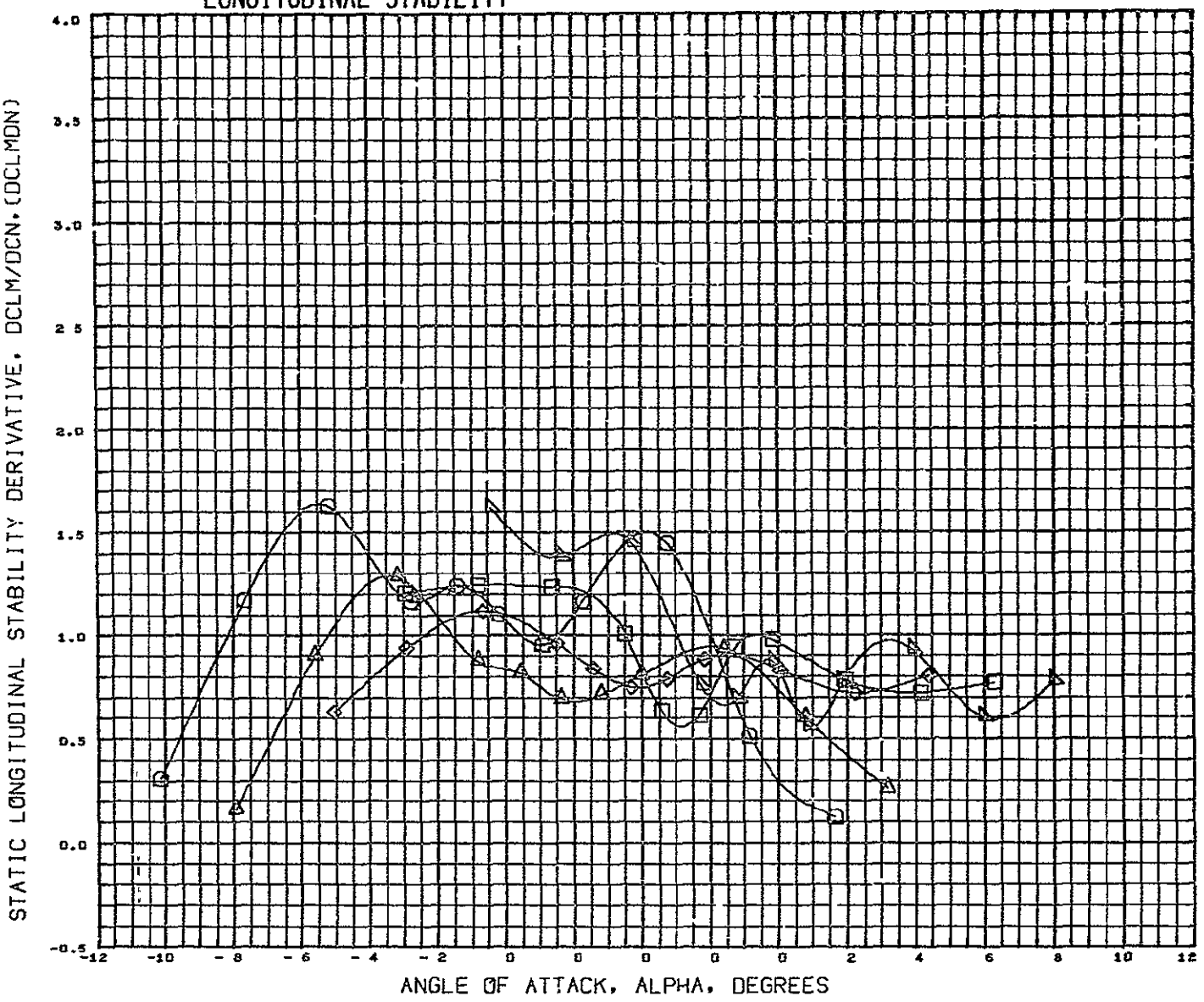
SYMBOL	MACH	PARAMETRIC VALUES			
	0.604	BETA	0.000	ORBINC	- 3.100
	0.899				
	1.004				
	1.098				
	1.194				

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6640	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

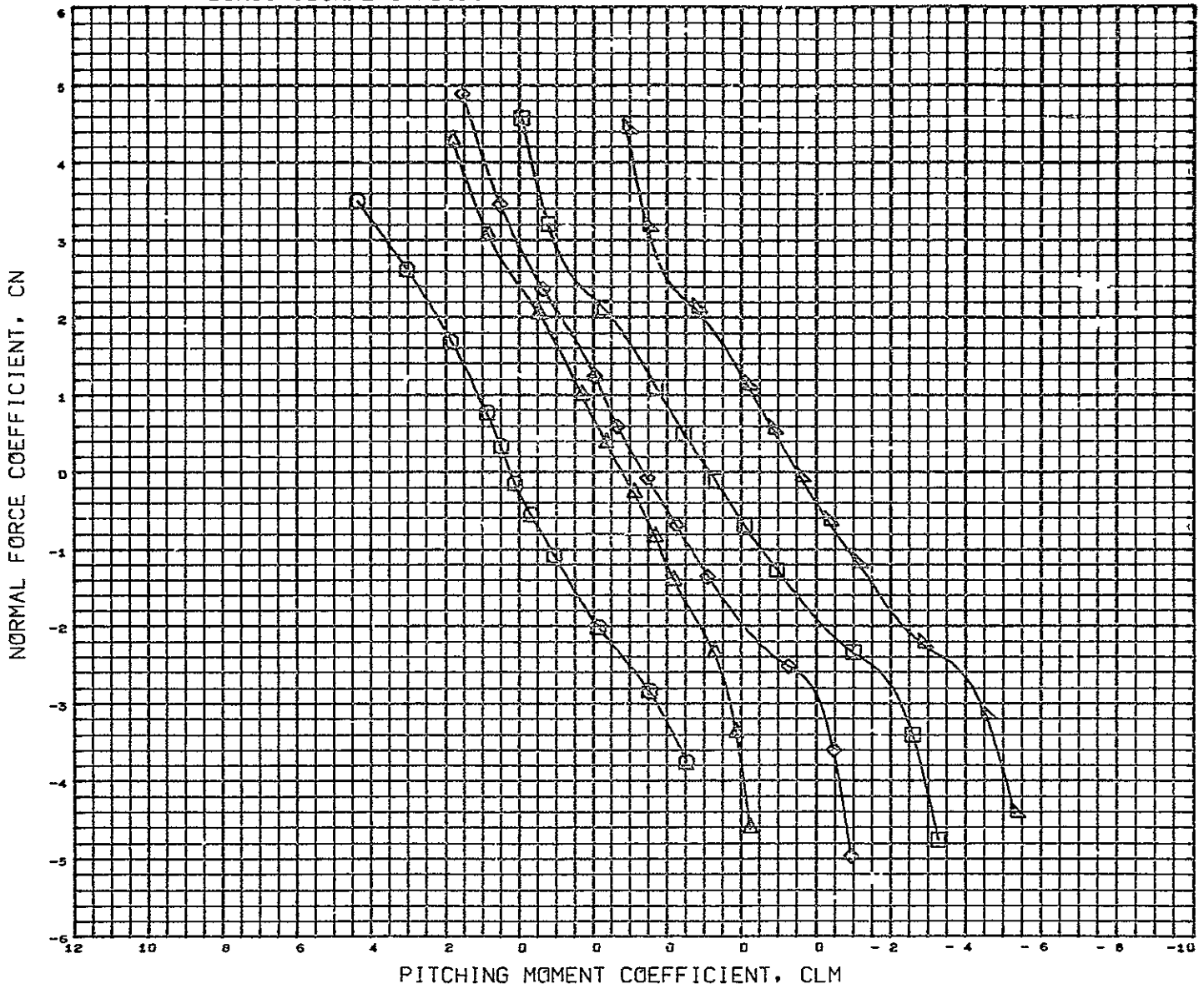


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.466	BETA	0.000	ORBINC	- 3.100
△	1.965				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE H#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6640	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



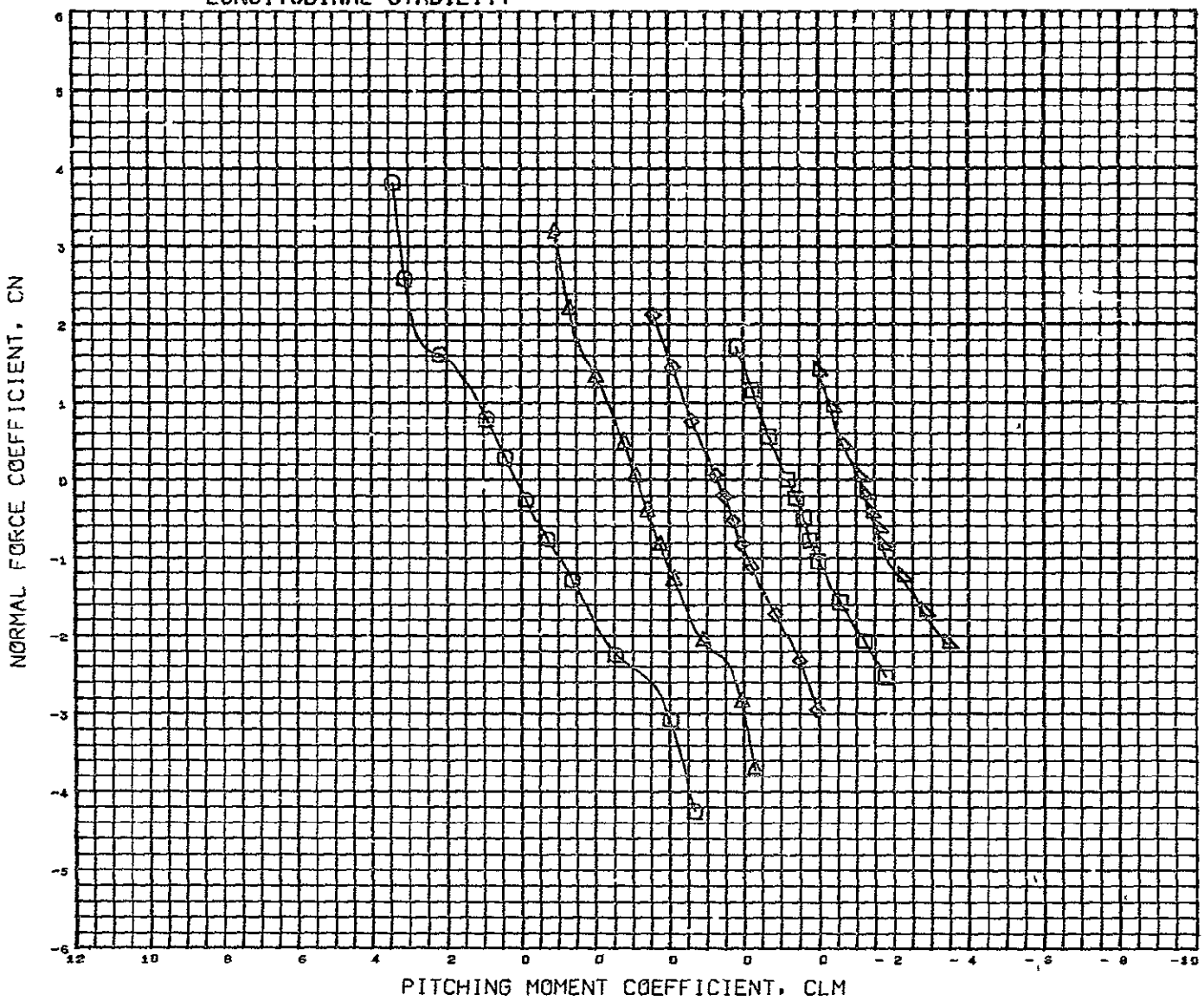
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.604	BETA	0.000	ORBINC	- 3 100
△	0 899				
◇	1.004				
□	1.098				
▽	1.194				

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6360	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

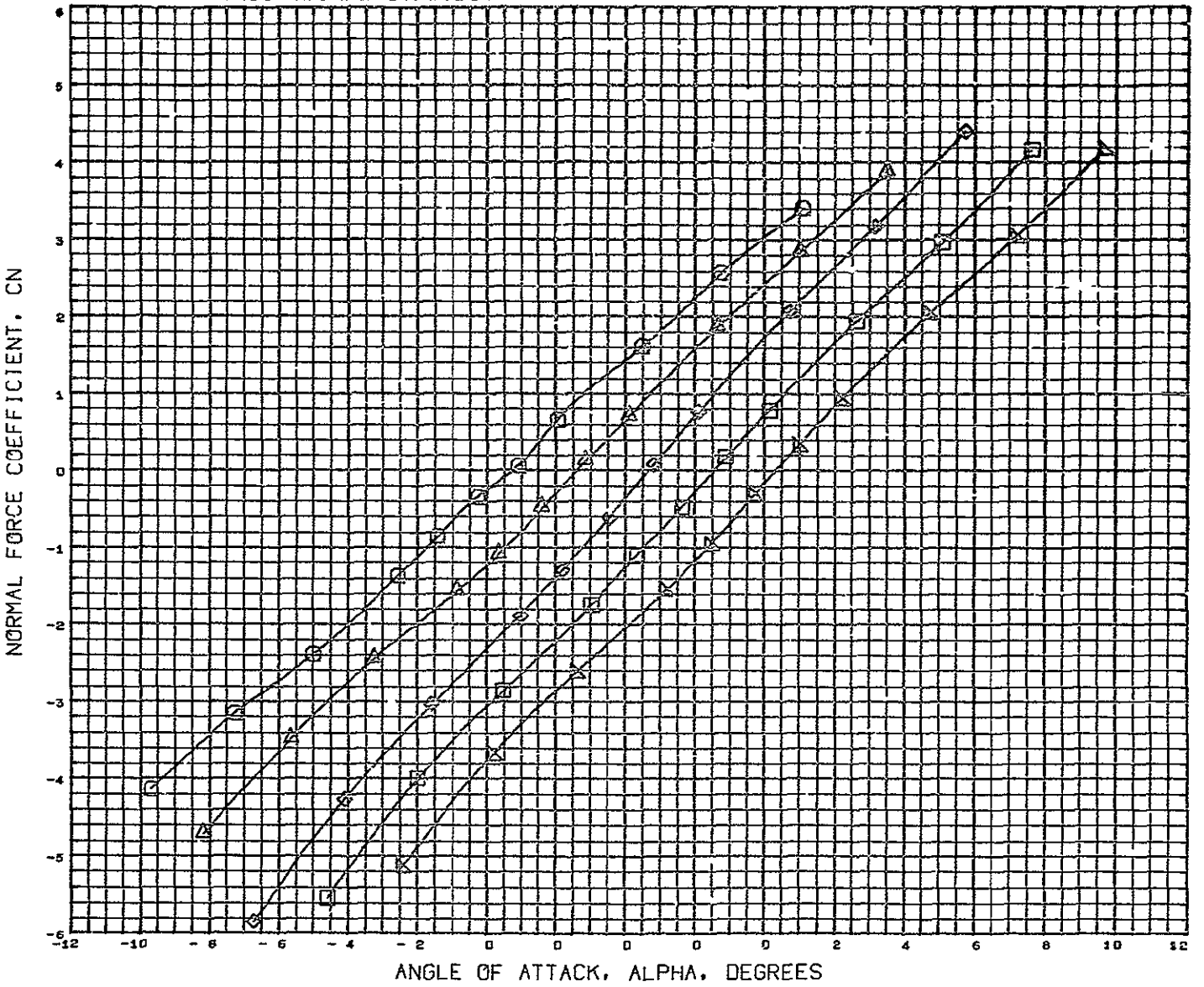


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.466	BETA	0.000	ORBINC	- 3 100
△	1.965				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3 6860	IN
YMRF	0 0000	IN
ZMRF	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

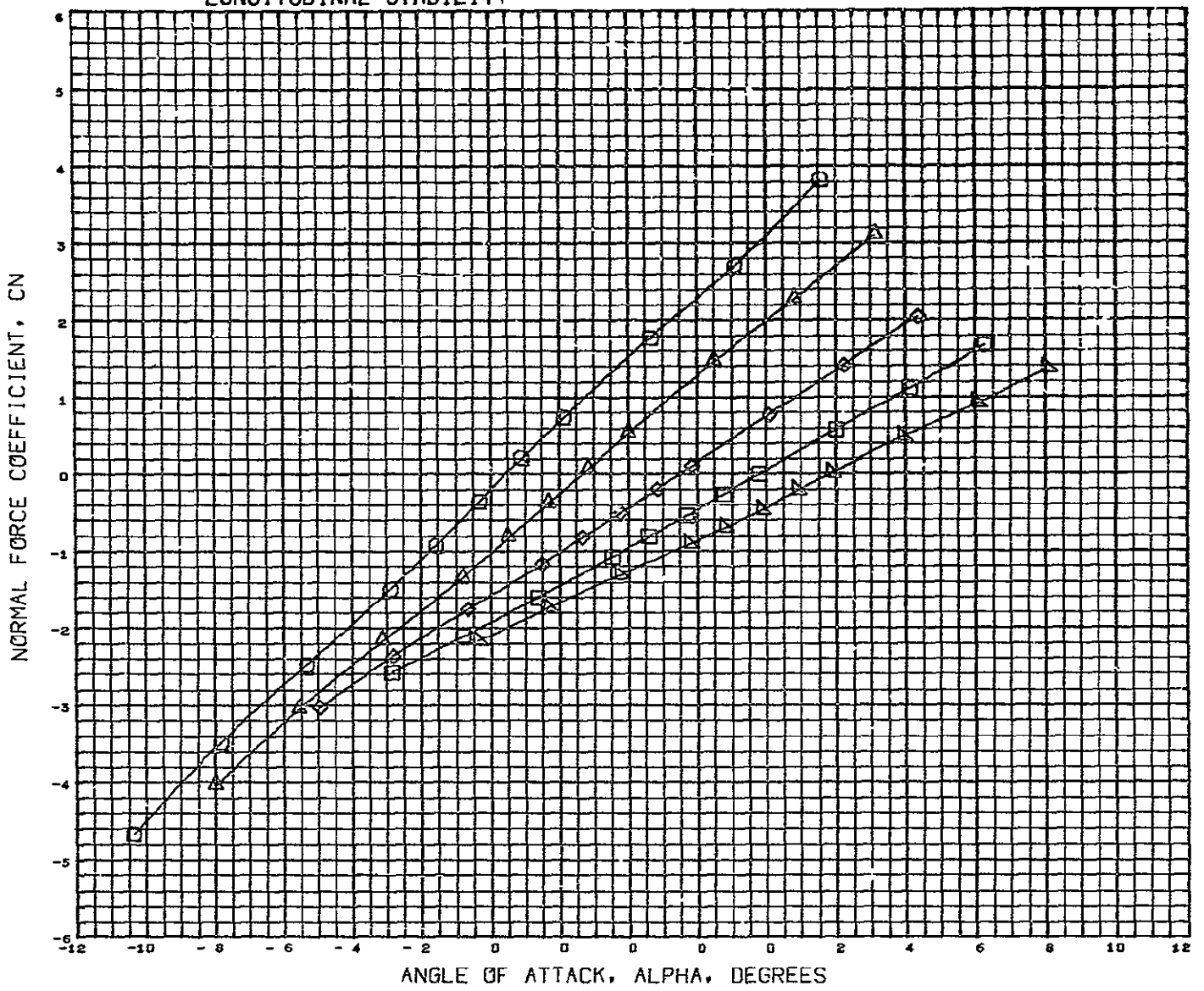


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0 000	ORBINC	- 3.100
△	0 902				
◇	1 002				
□	1 095				
▽	1.195				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1 3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6850	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



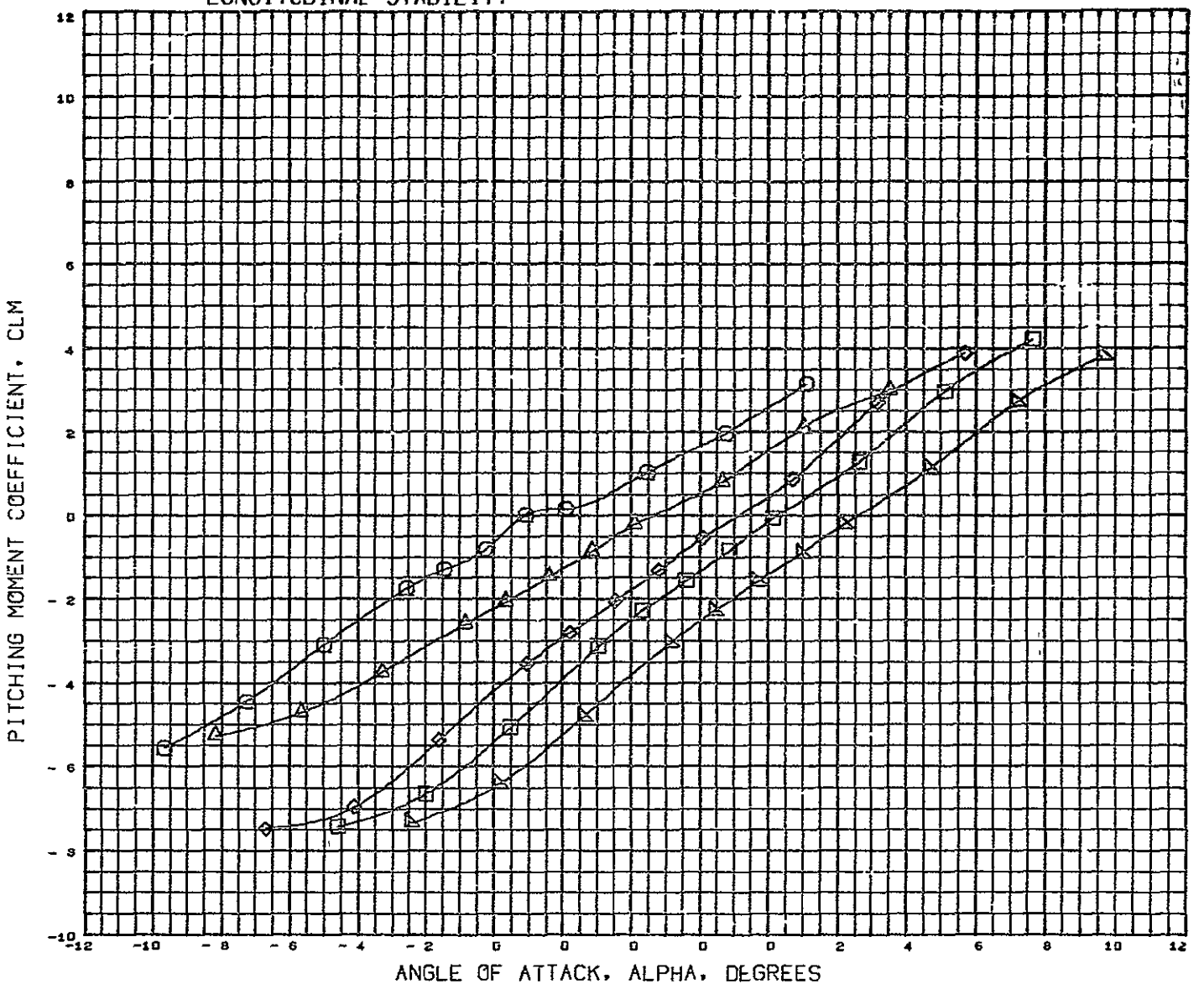
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.464	BETA	0.000	ORBITC	- 3 100
△	1 960				
◇	2.990				
□	4 000				
▷	4 959				

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

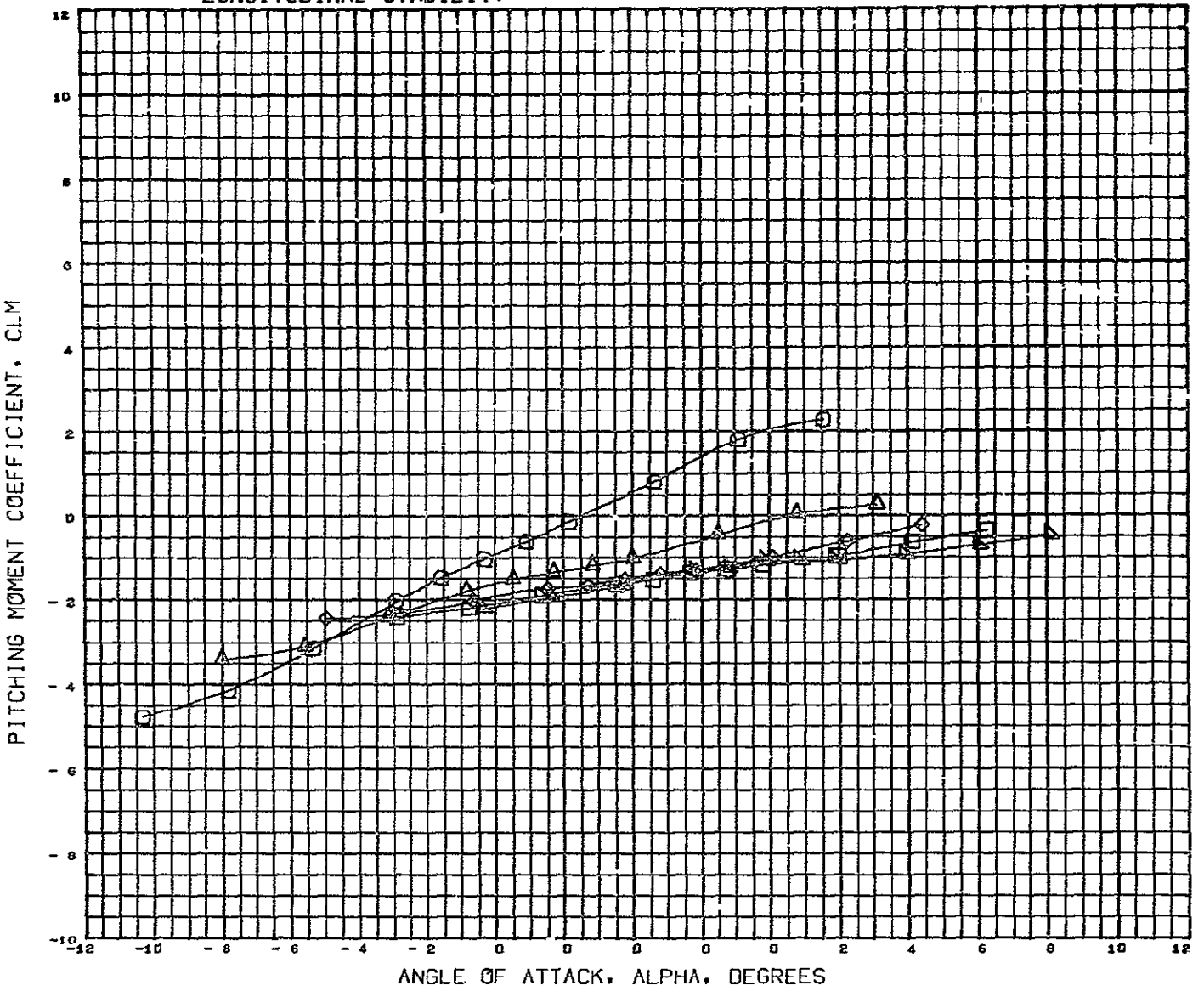


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0 000	ORBINC	- 3 100
△	0 902				
◇	1.002				
□	1.095				
▽	1 195				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRF	3 6360	IN
YMRF	0 0000	IN
ZMRF	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

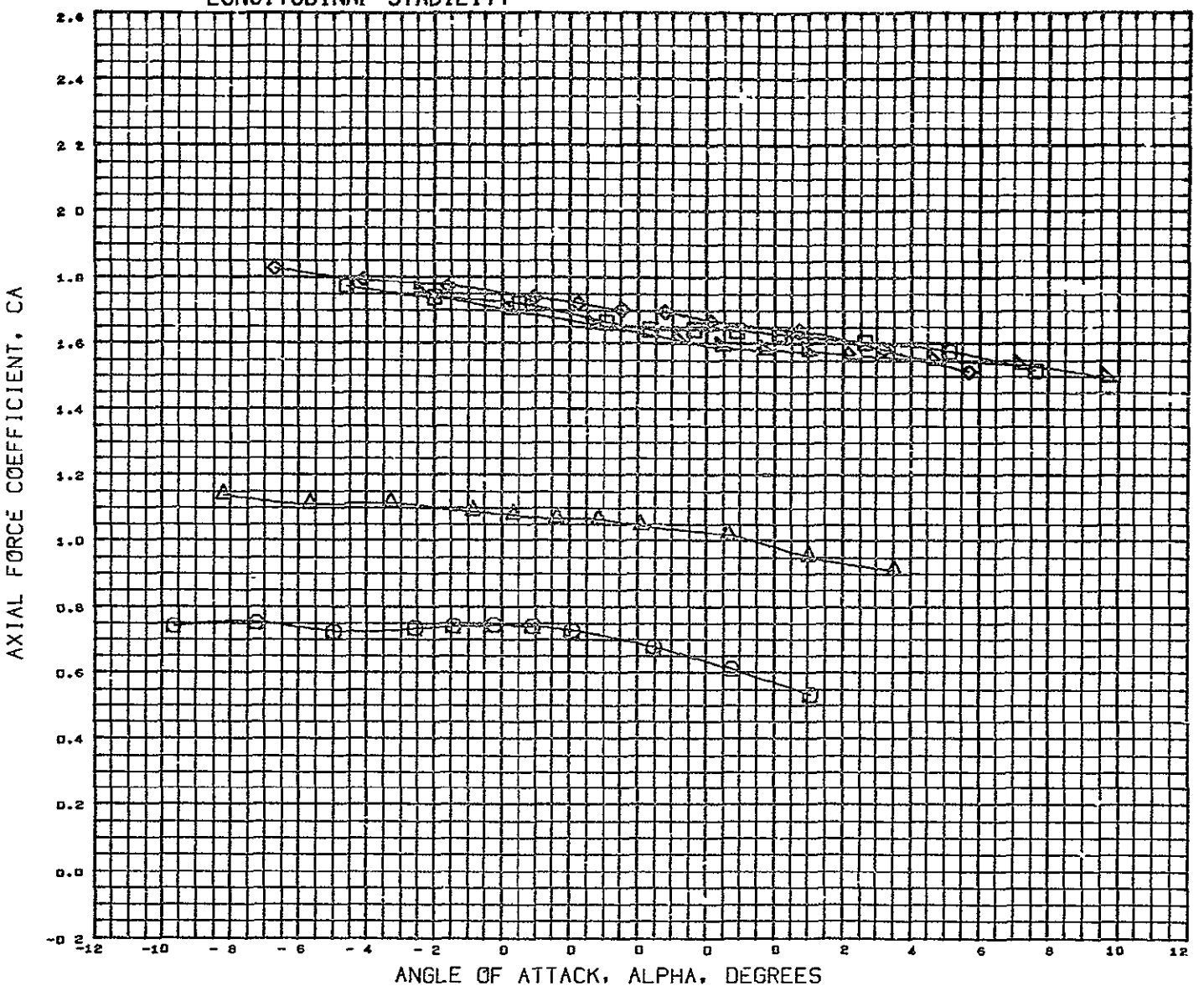


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.464	BETA	0.000	ORBINC	- 3.100
△	1.960				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



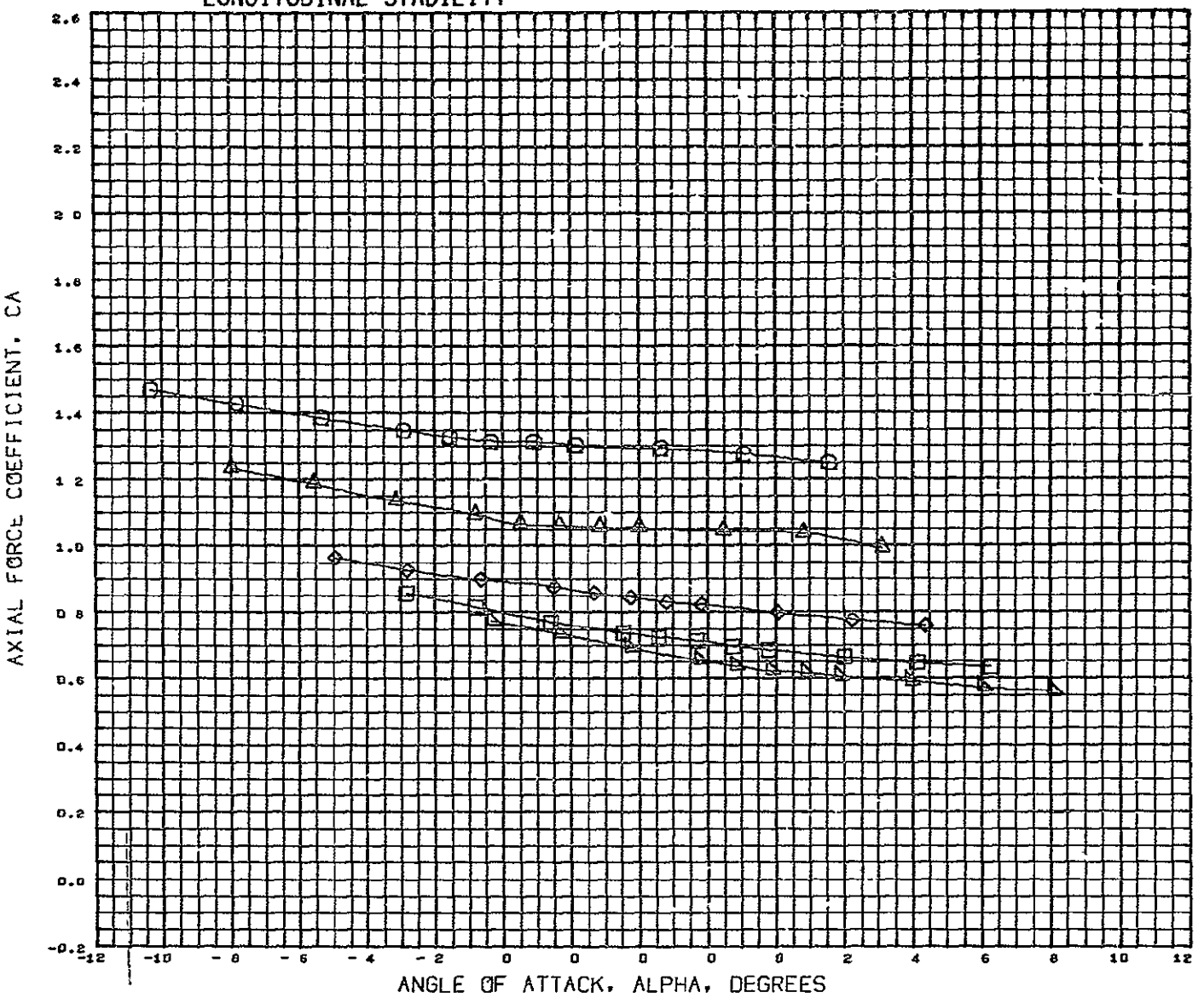
SYMBOL	MACH	PARAMETRIC VALUES			
	0.600	BETA	0 000	ORBINC	- 3 100
	0 902				
	1.002				
	1 095				
	1 195				

DATA HIST. CODE H*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 0860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

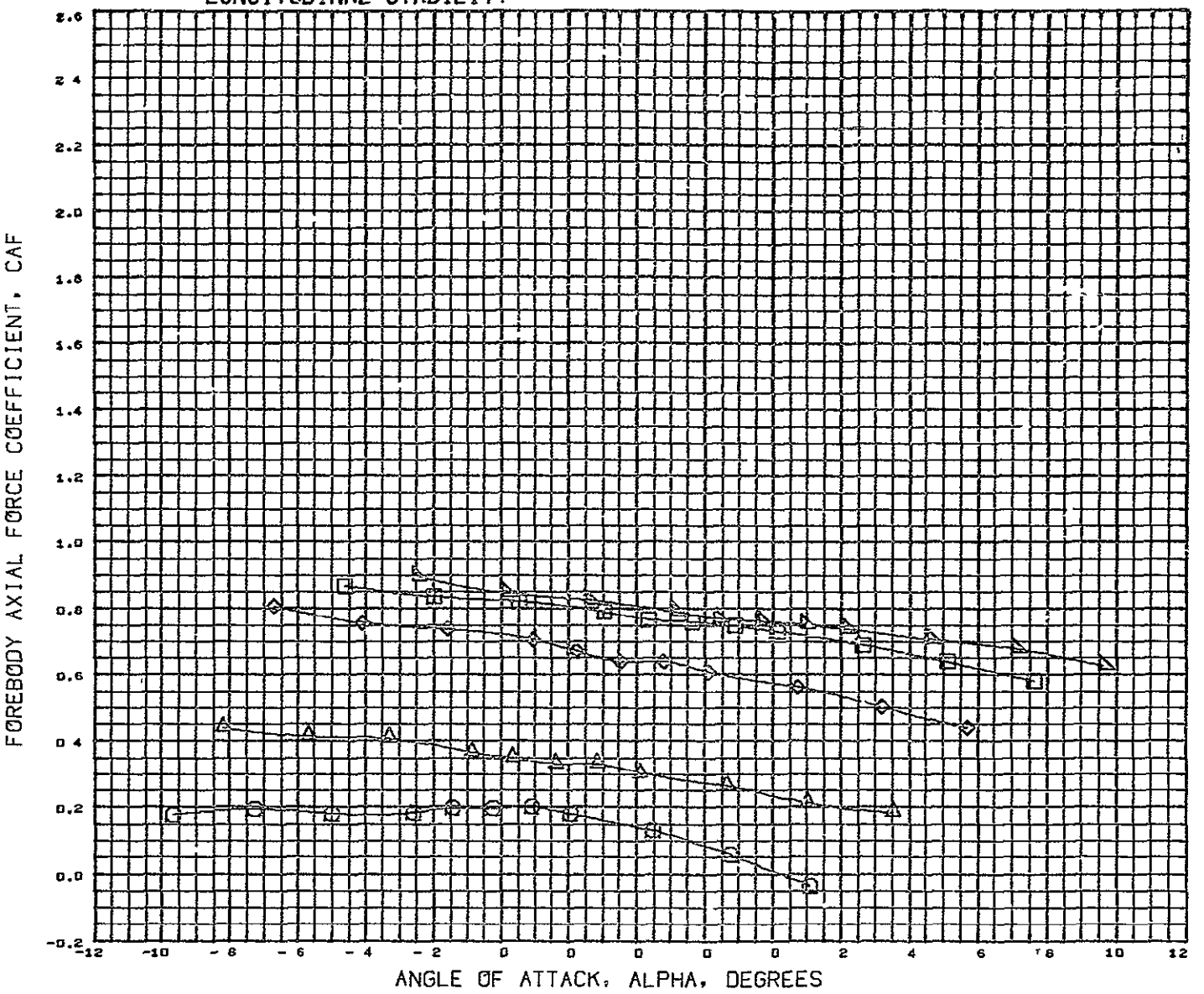


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.464	BETA	0.000	ORBINC	- 3 100
△	1.960				
◇	2 990				
□	4 000				
▽	4 959				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1 3960	SQ.IN
LREF	1.3330	IN
BREF	1 3330	IN
XMR=	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0030	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



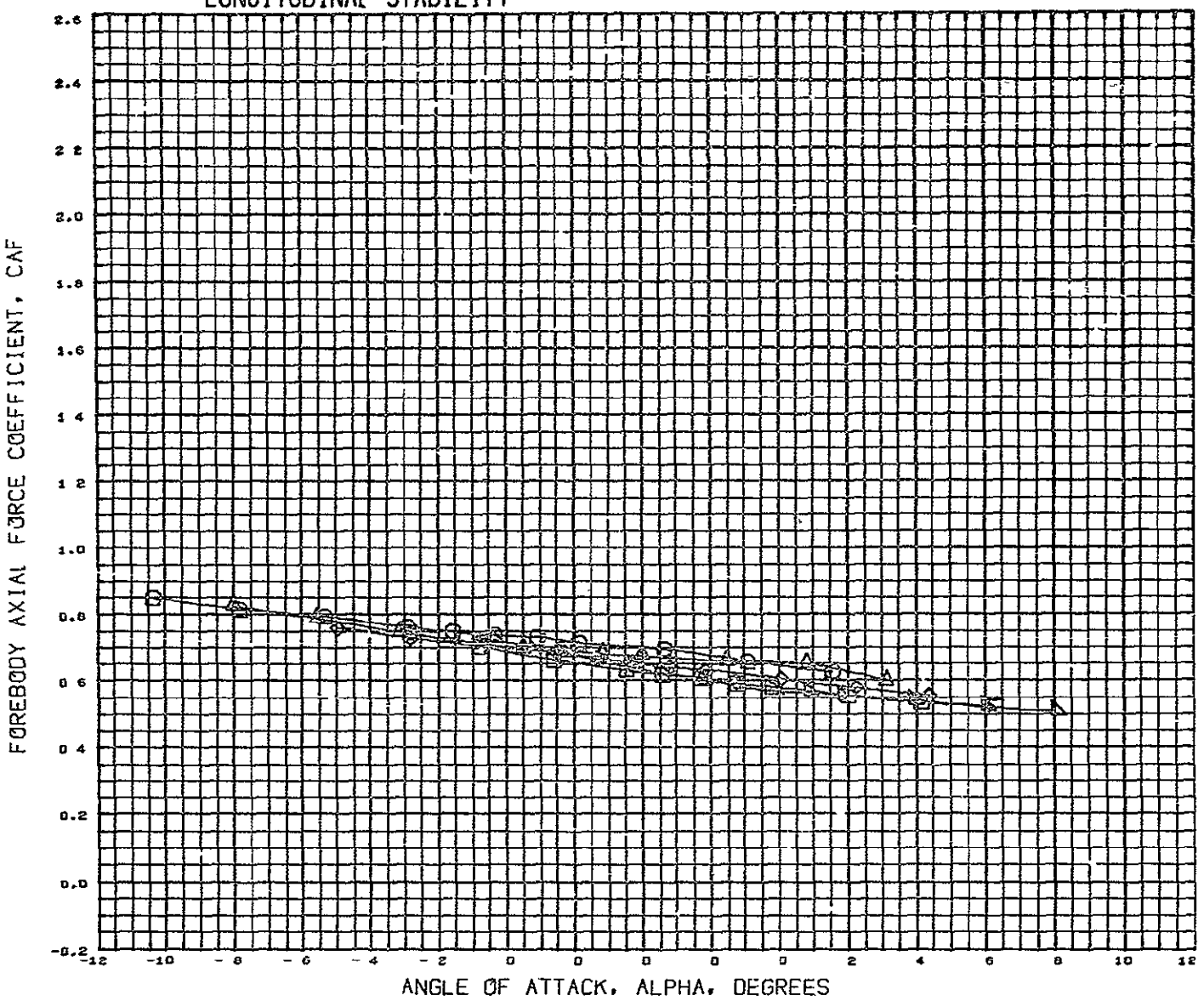
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0.000	ORBINC	- 3.100
△	0.902				
◇	1.002				
□	1.095				
▽	1.195				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	1.464
△	1.960
◇	2.990
□	4.000
▽	4.959

PARAMETRIC VALUES

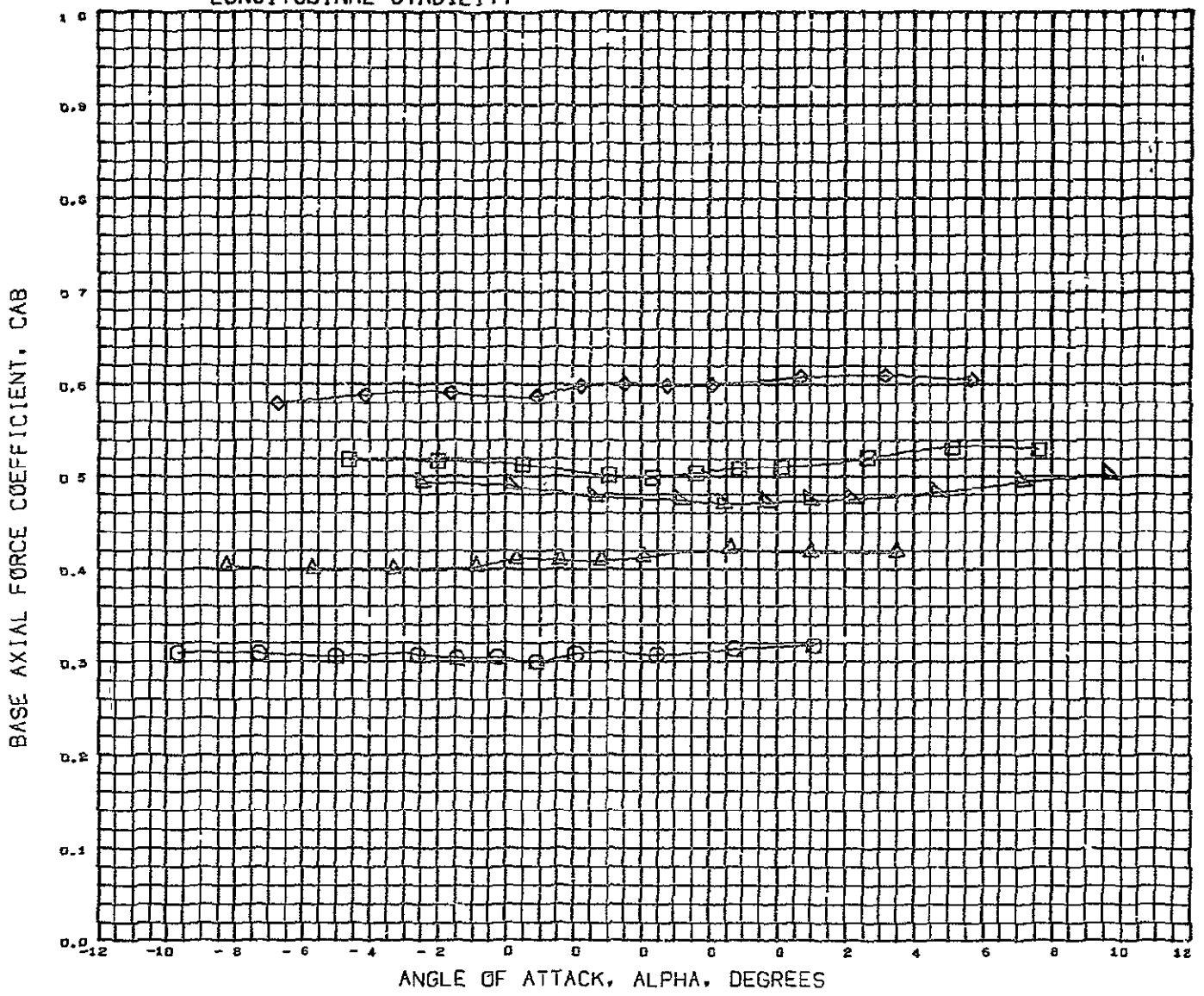
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BPEF	1.3330	IN
XMRP	3.6560	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



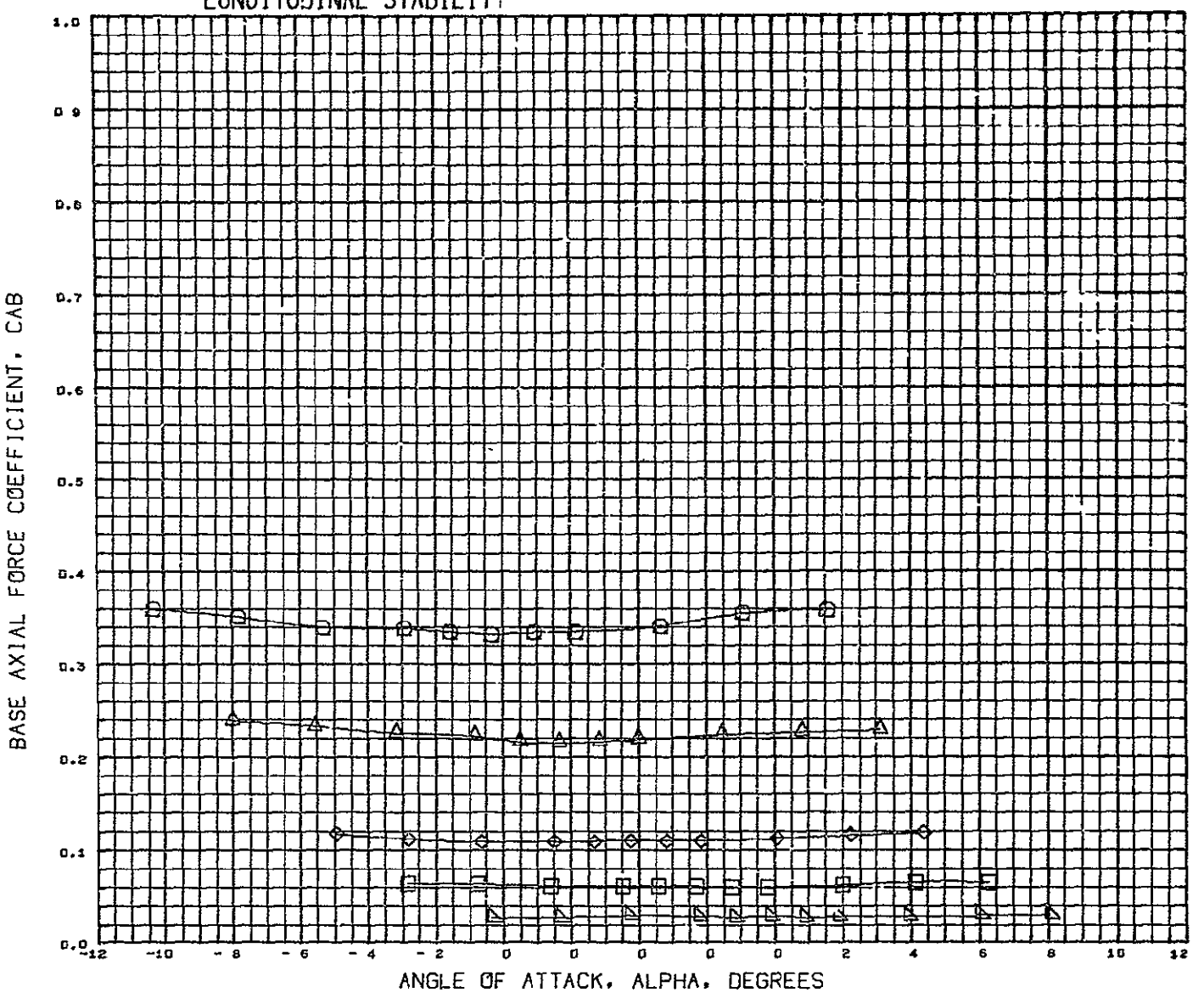
SYMBOL	MACH	PARAMETRIC VALUES			
	0.600	BETA	0.000	ORBINC	- 3.100
	0.902				
	1.002				
	1.095				
	1.195				

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

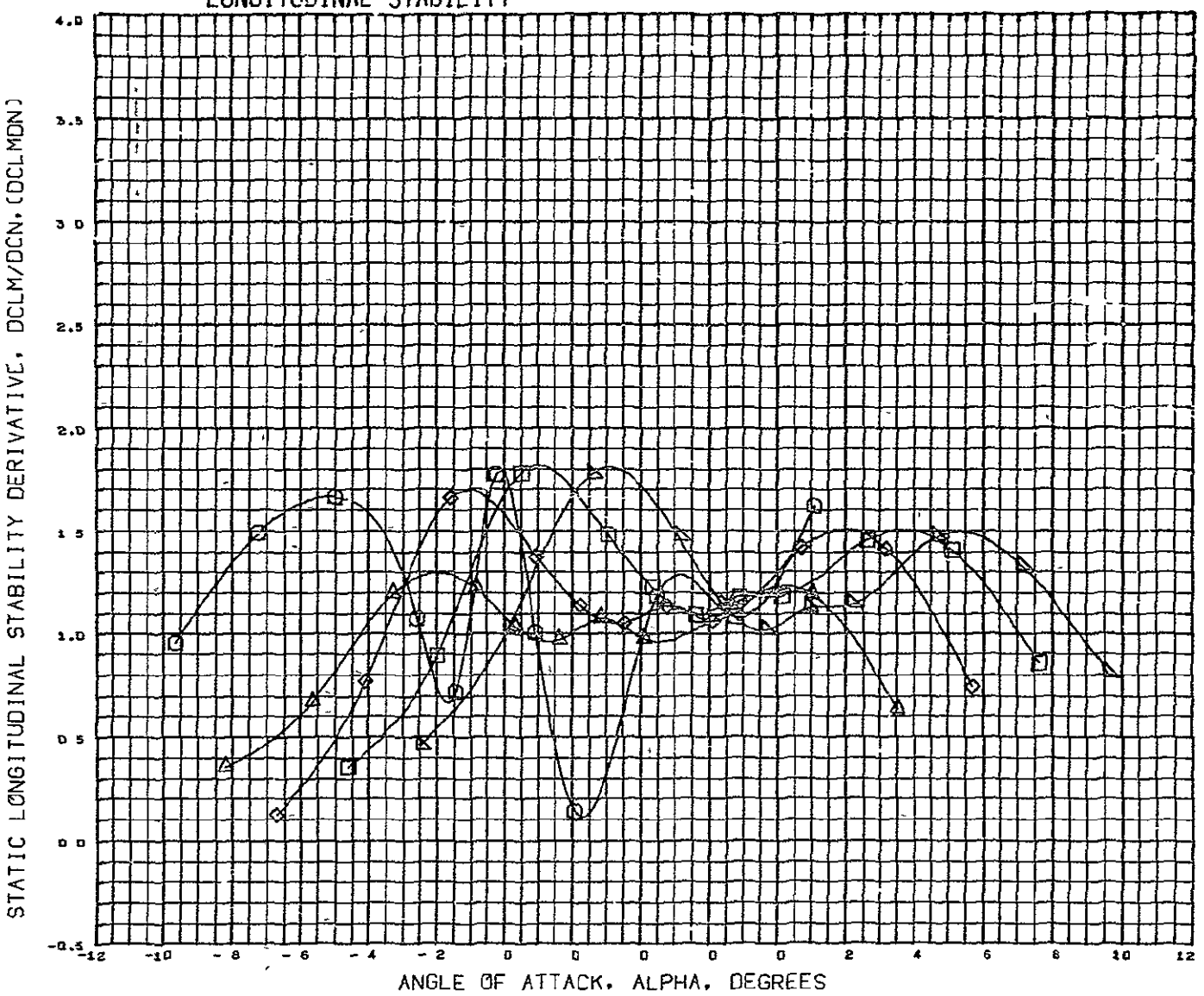


SYMBOL	MACH	PARAMETRIC VALUES			
	1.464	BETA	0.000	ORBINC	-3.100
	1.960				
	2.990				
	4.000				
	4.959				

DATA HIST CODE M4E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

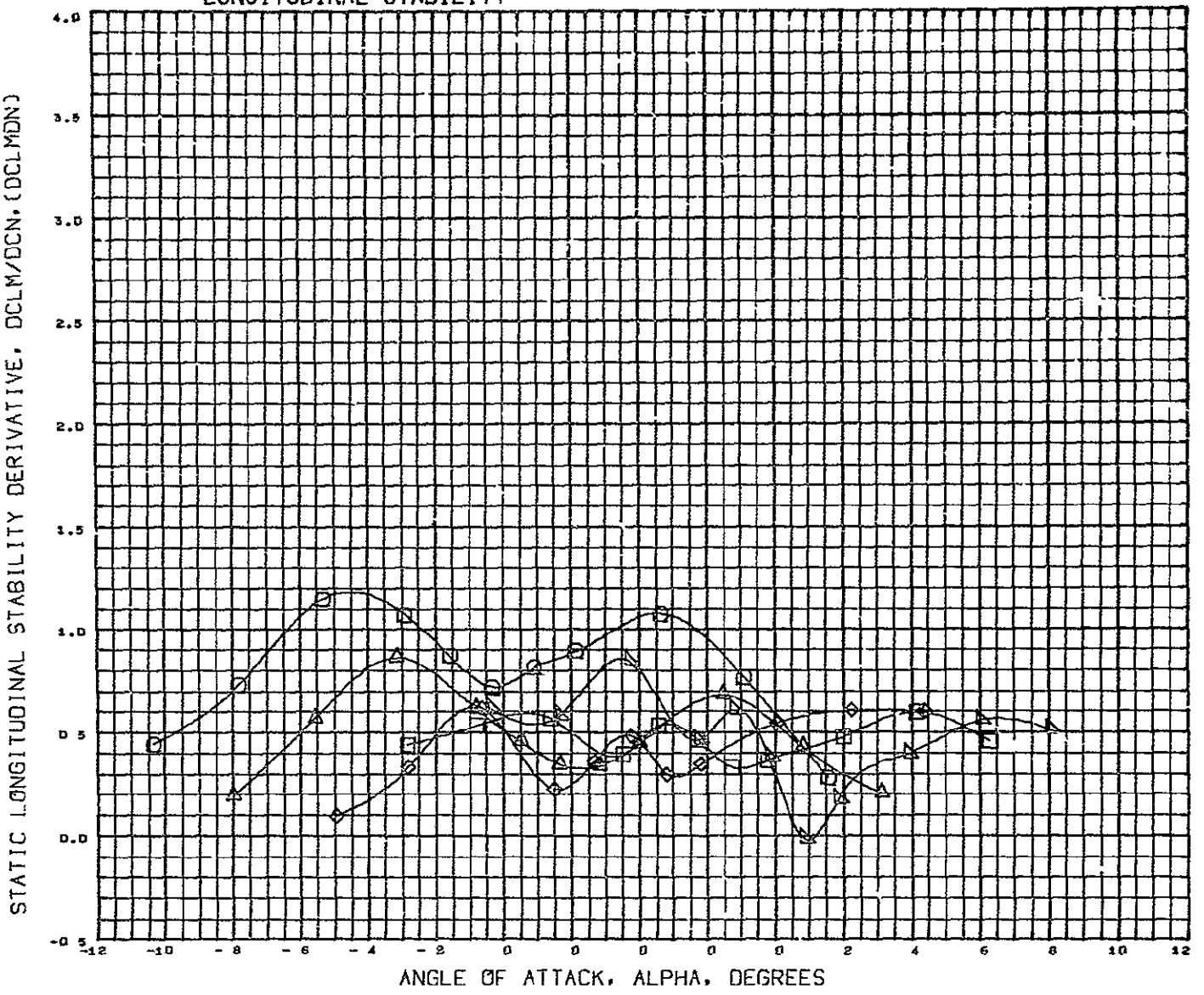


SYMBOL	MACH	PARAMETRIC VALUES			
	0.600	BETA	0.000	ORBINC	- 3.100
	0.902				
	1.002				
	1.095				
	1.195				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRF	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

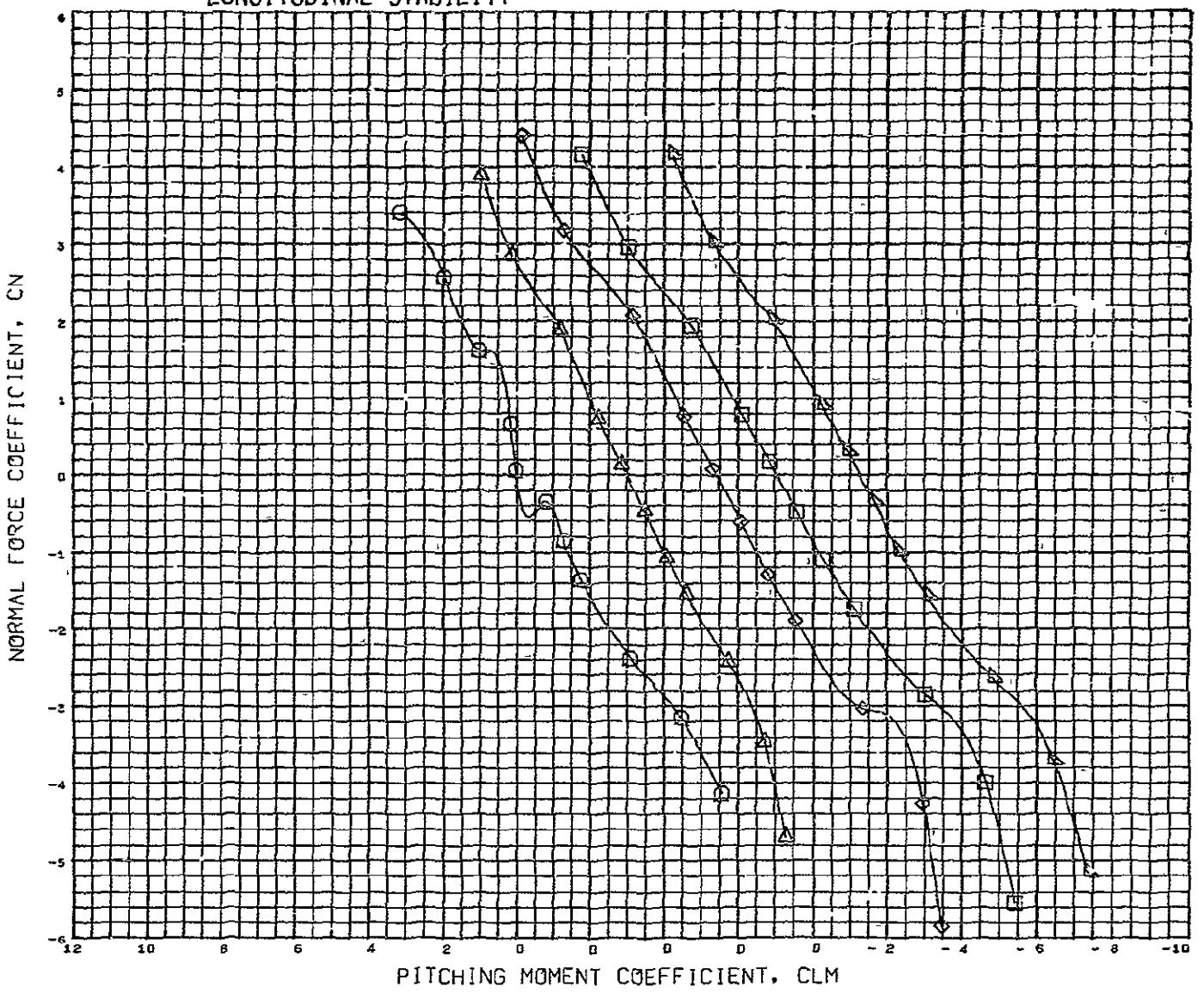
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
	1.464	BETA	0.000	ORBINC = 3.100	SREF	1.3960	SQ IN
	1.960				LREF	1.3330	IN
	2.990				BREF	1.3330	IN
	4.000				XMRP	3.6860	IN
	4.959				YMRP	0.0000	IN
					ZMRP	0.0000	IN
					SCALE	0.0034	

DATA HIST CODE M*E

LONGITUDINAL STABILITY



SYMBOL	MACH
○	0.600
△	0.902
◇	1.602
□	1.098
◸	1.195

PARAMETRIC VALUES

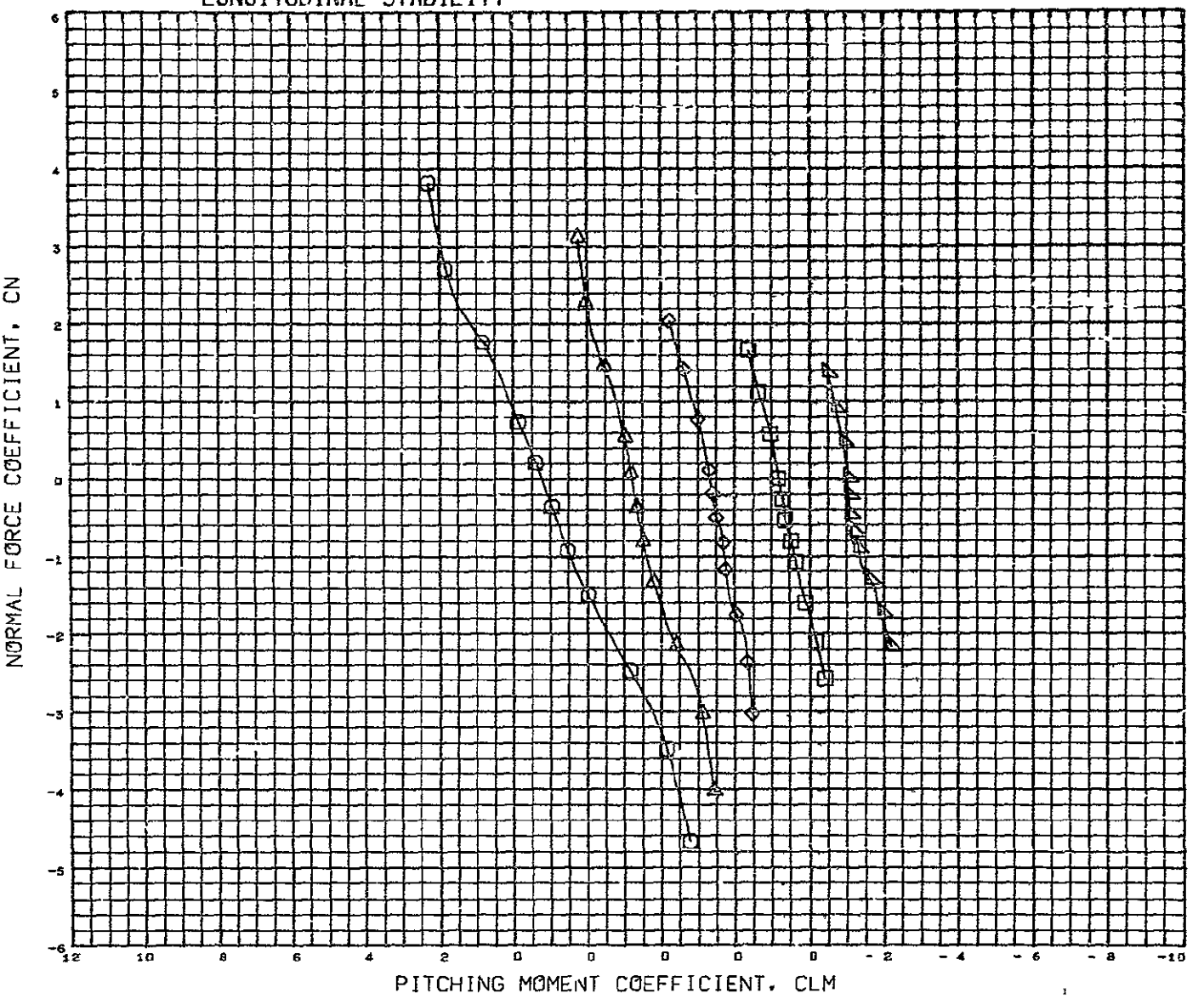
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	1 464
△	1 960
◇	2 990
□	4 000
◸	4.959

PARAMETRIC VALUES

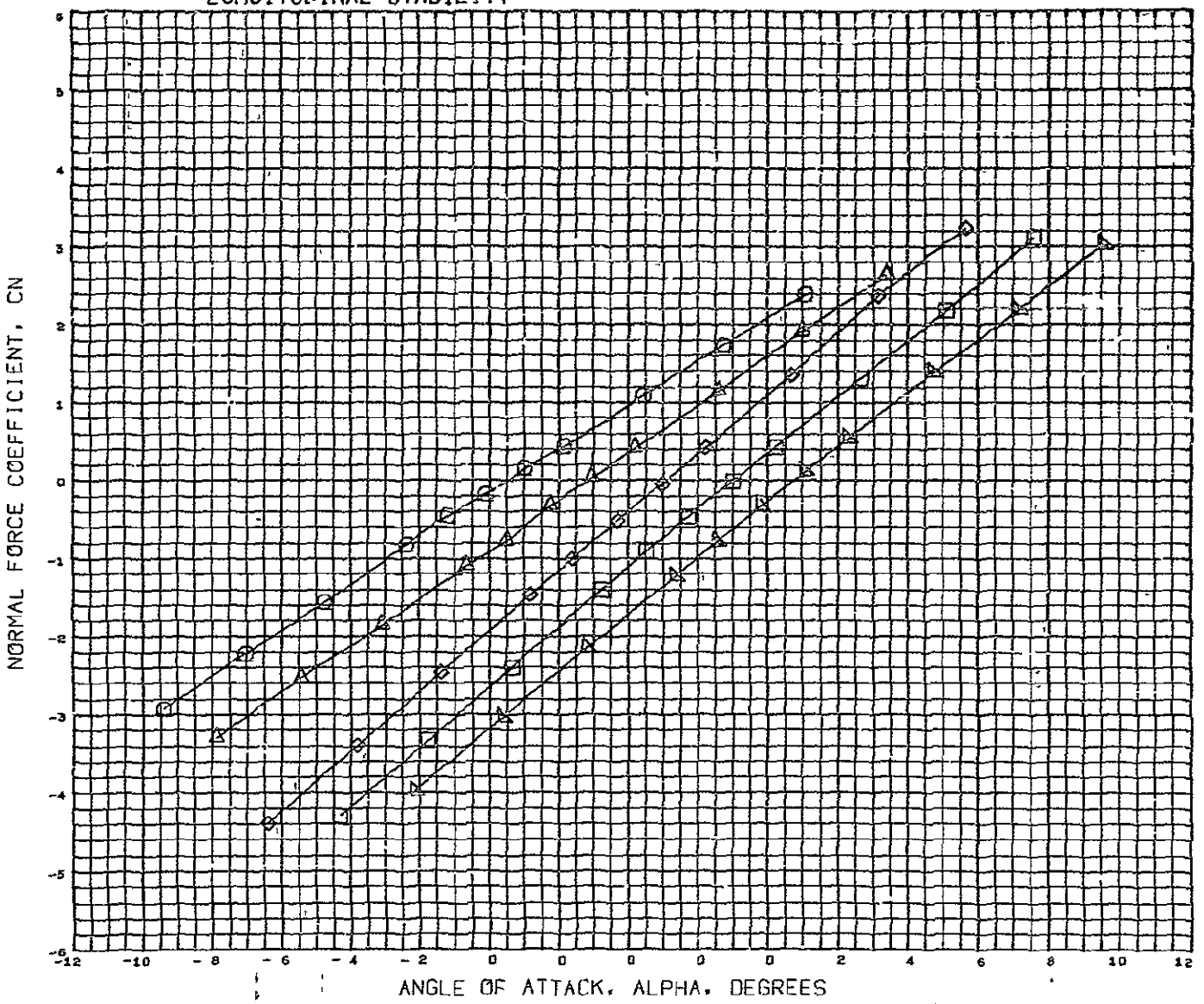
BETA 0 000 ORBINC - 3 100

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



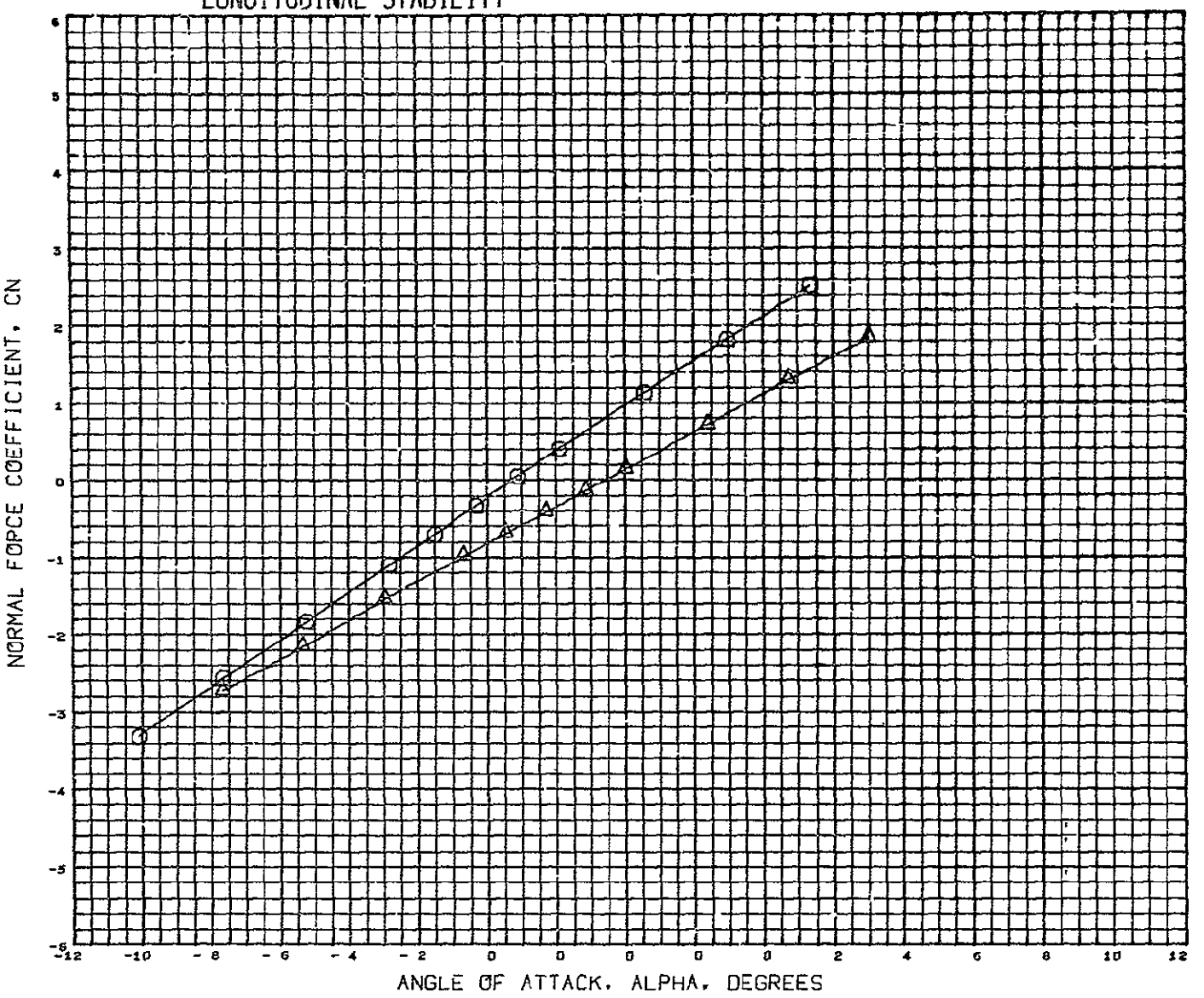
SYMBOL	MACH	PARAMETRIC VALUES			
	0.602	BETA	0.000	OPBIAS	-3.100
	0.903				
	1.003				
	1.103				
	1.200				

DATA HIST. CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

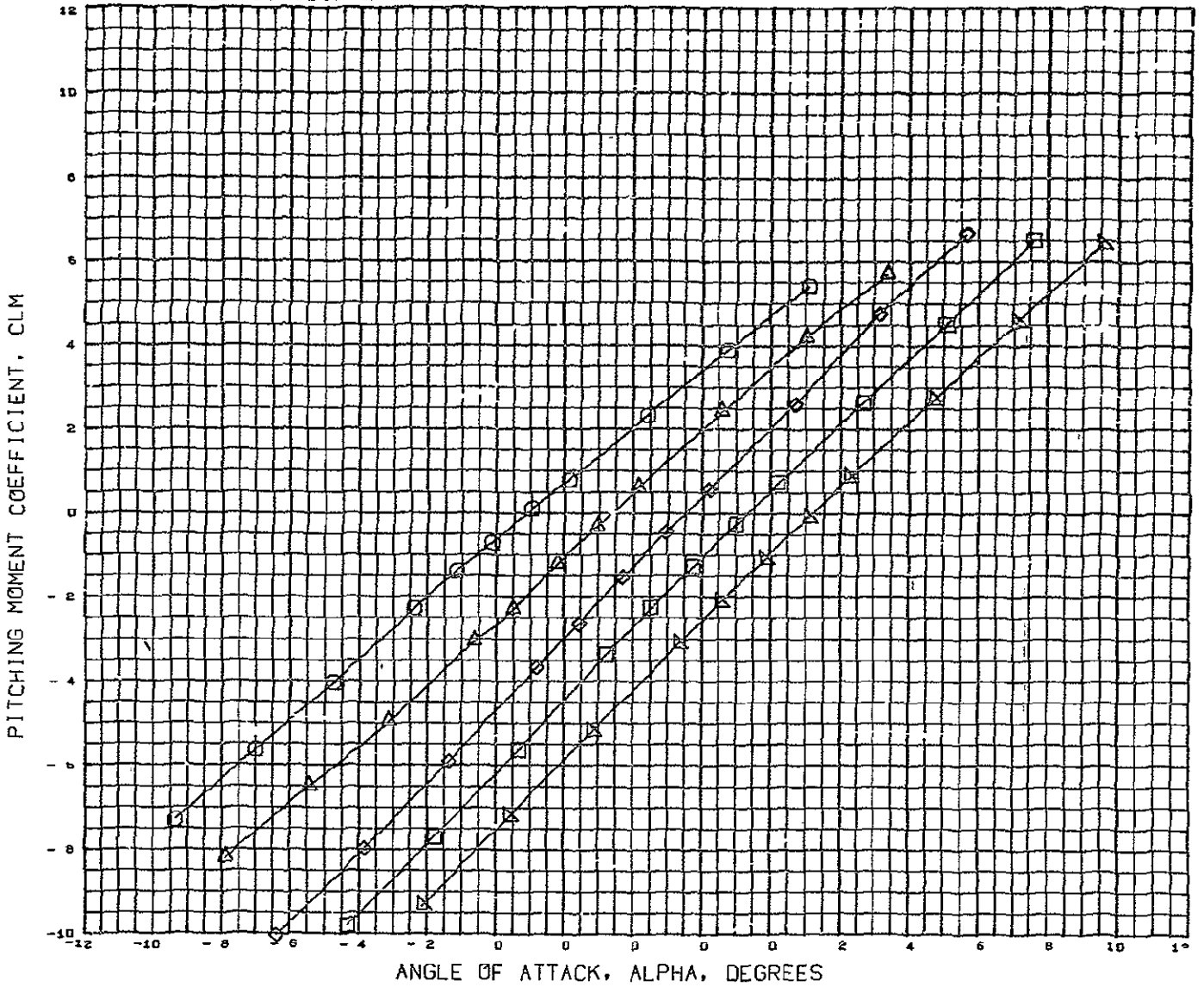


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	BETA	0.000	ORBINC	-3.100
△	1.959				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



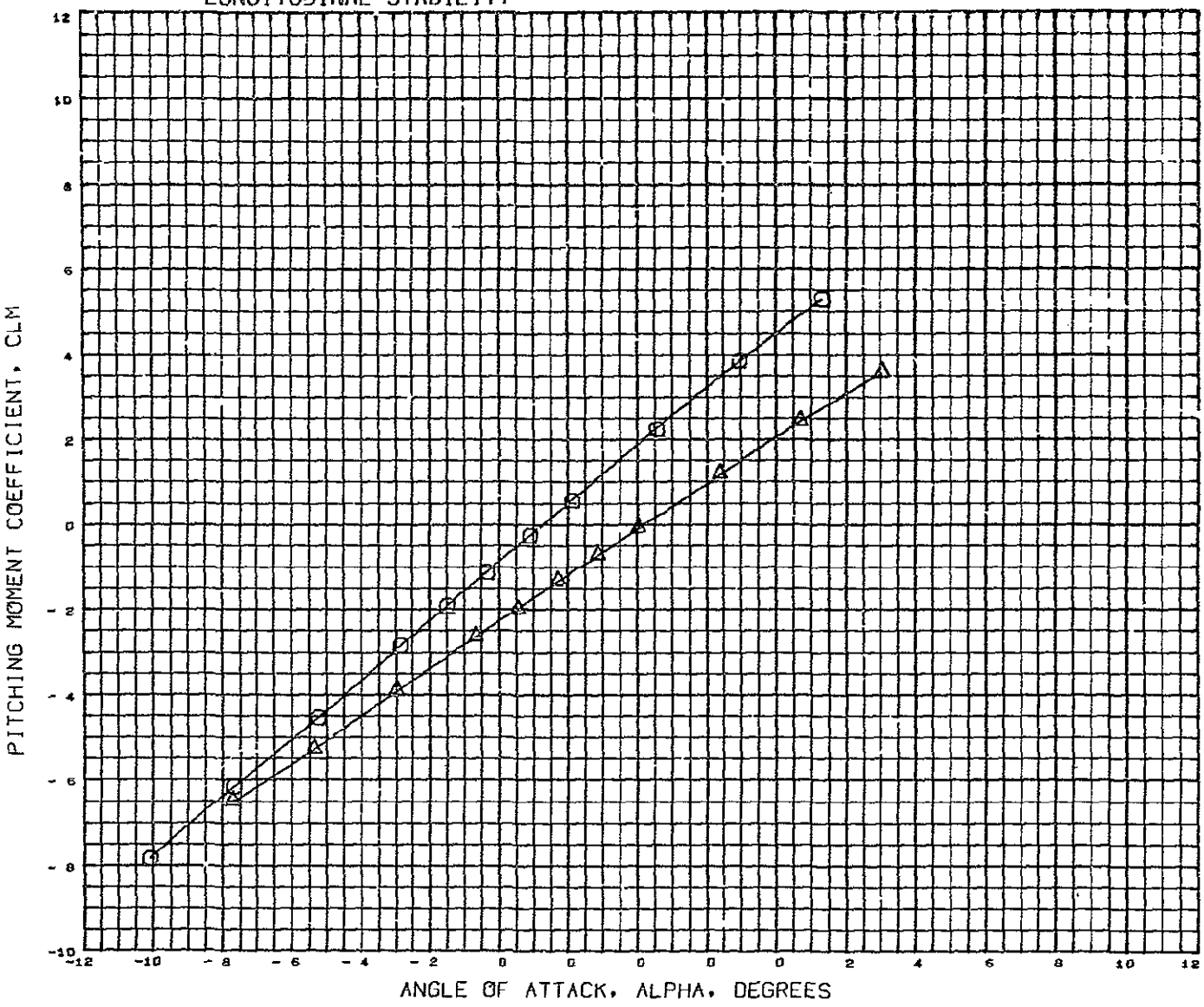
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	BETA	0.000	ORBINC	- 3.100
△	0.903				
◇	1.003				
□	1.103				
▽	1.200				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0001	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

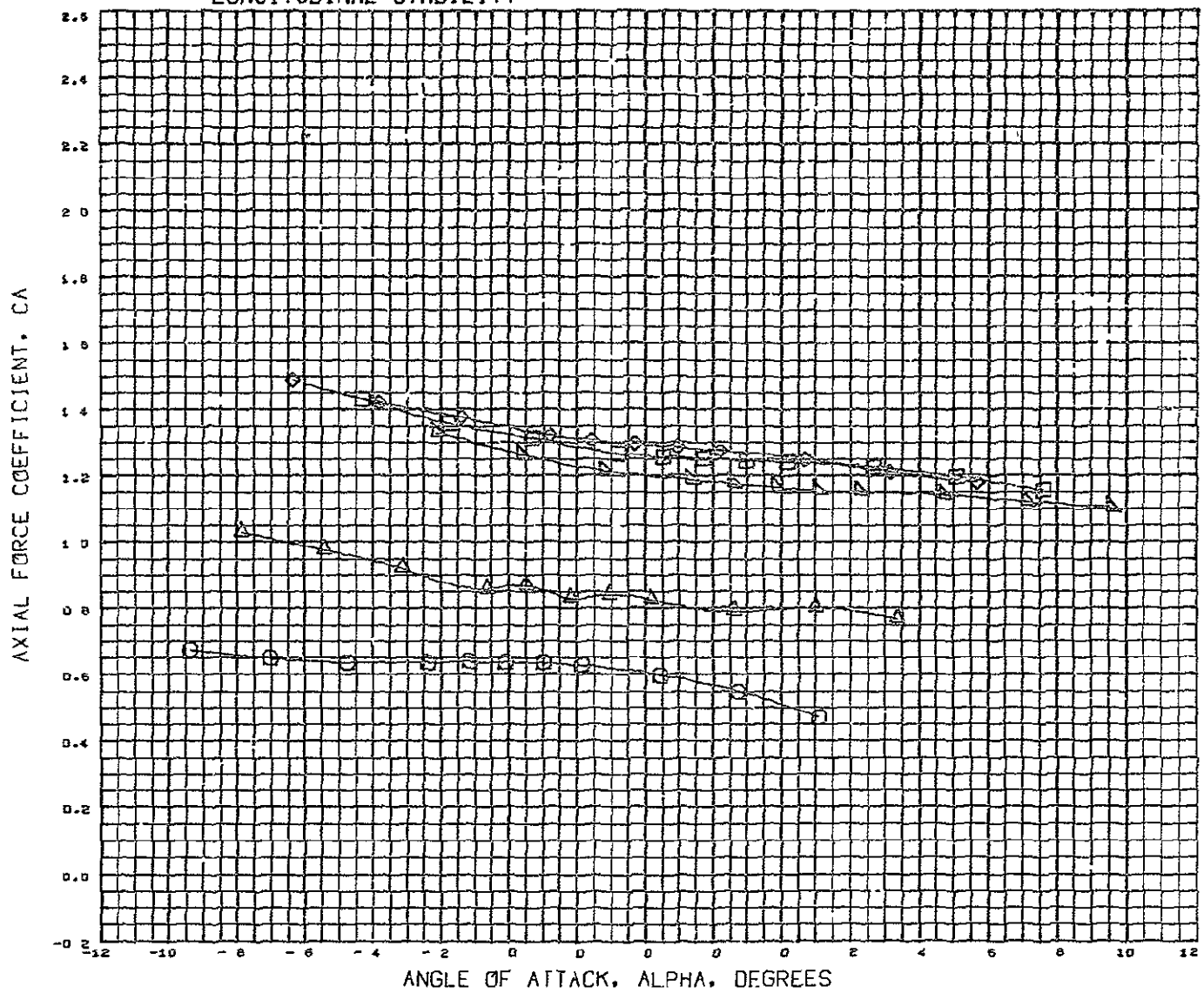


SYMBOL	MACH		PARAMETRIC VALUES		
○	1.463	BETA	0.000	ORBINC	-3.100
△	1.959				

DATA HIST COLE M=E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	0.602
△	0.903
◇	1.003
□	1.103
▽	1.200

PARAMETRIC VALUES

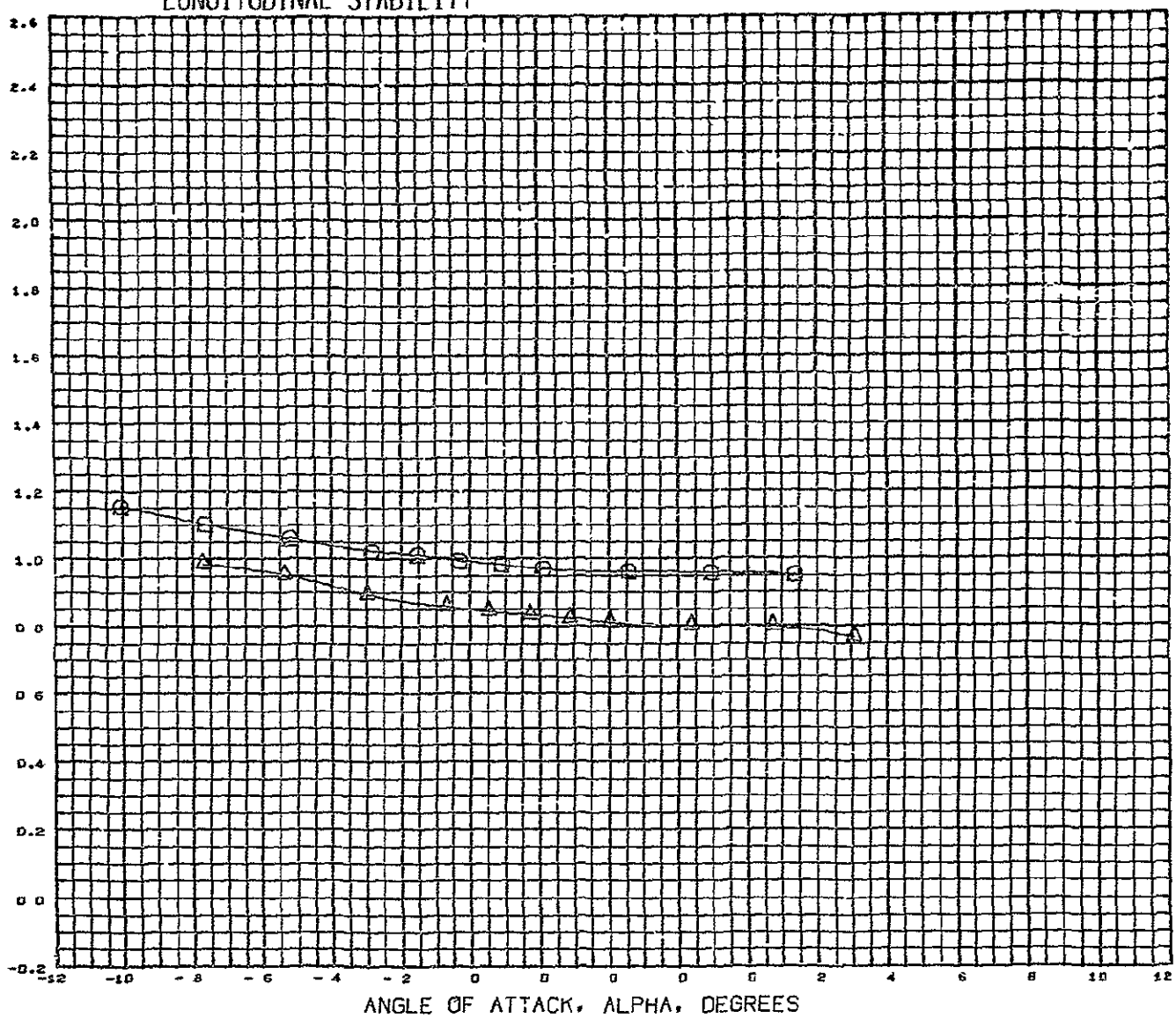
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE H*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0054	

LONGITUDINAL STABILITY



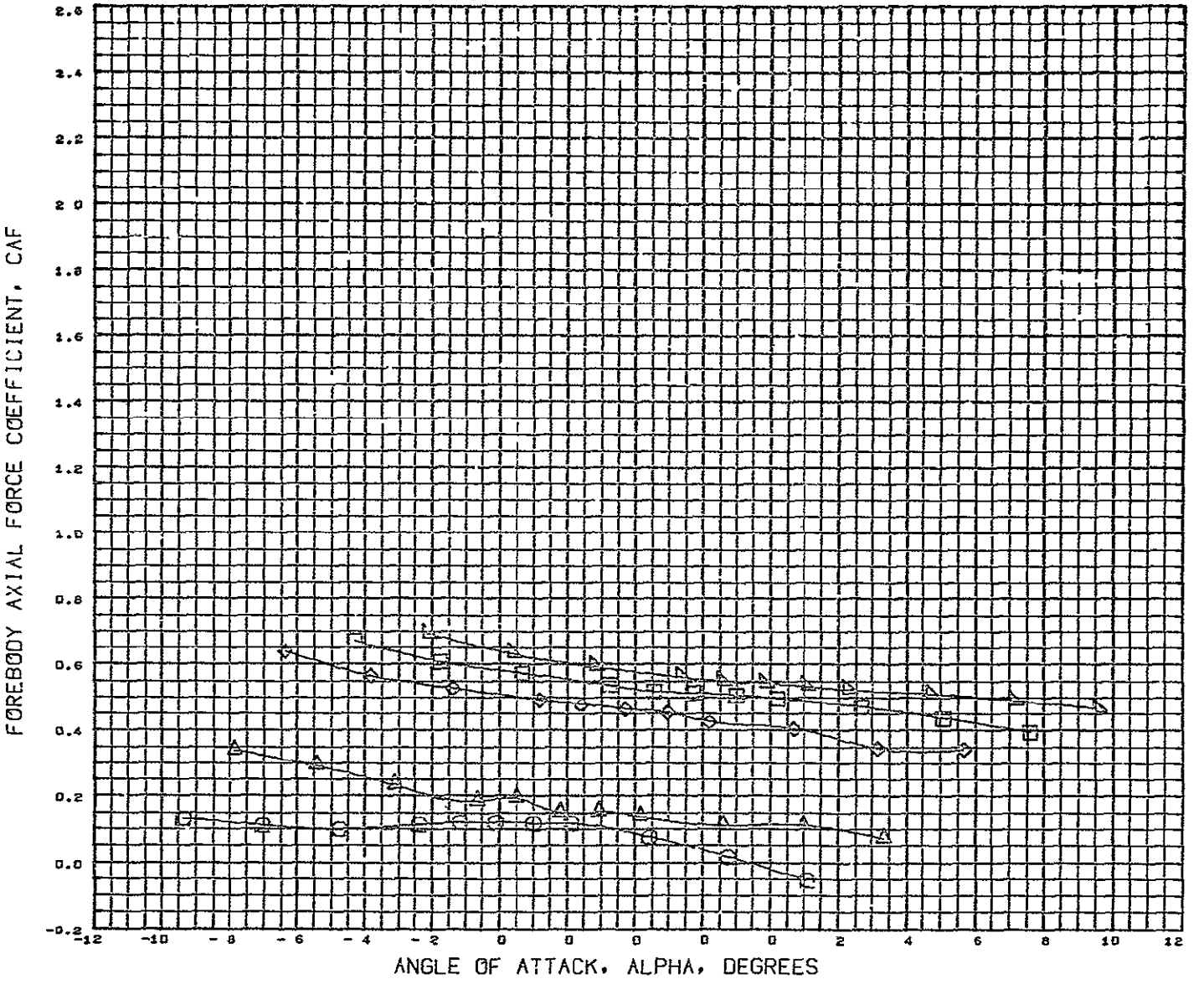
SYMBOL	MACH	PARAMETRIC VALUES			
□	1.465	BETA	0.000	ORBINC	- 3.100
△	1.959				

DATA HIST CODE M=L

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
▽	0.602
□	0 903
◇	1.003
△	1 103
○	1.200

PARAMETRIC VALUES

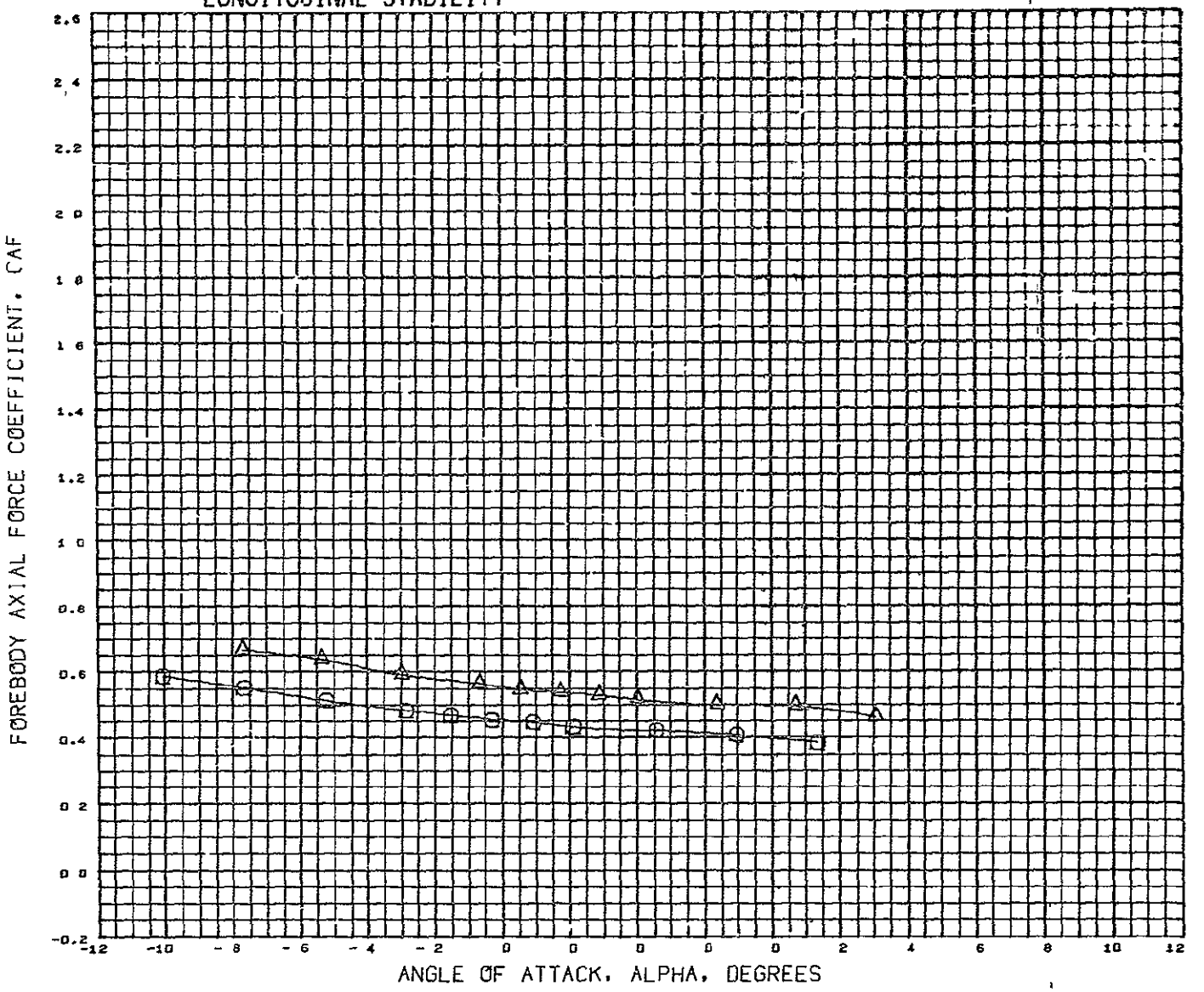
BETA 0 000 ORBINC - 5.100

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1.3330	IN
BREF	1 3330	IN
XMFP	3 6360	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

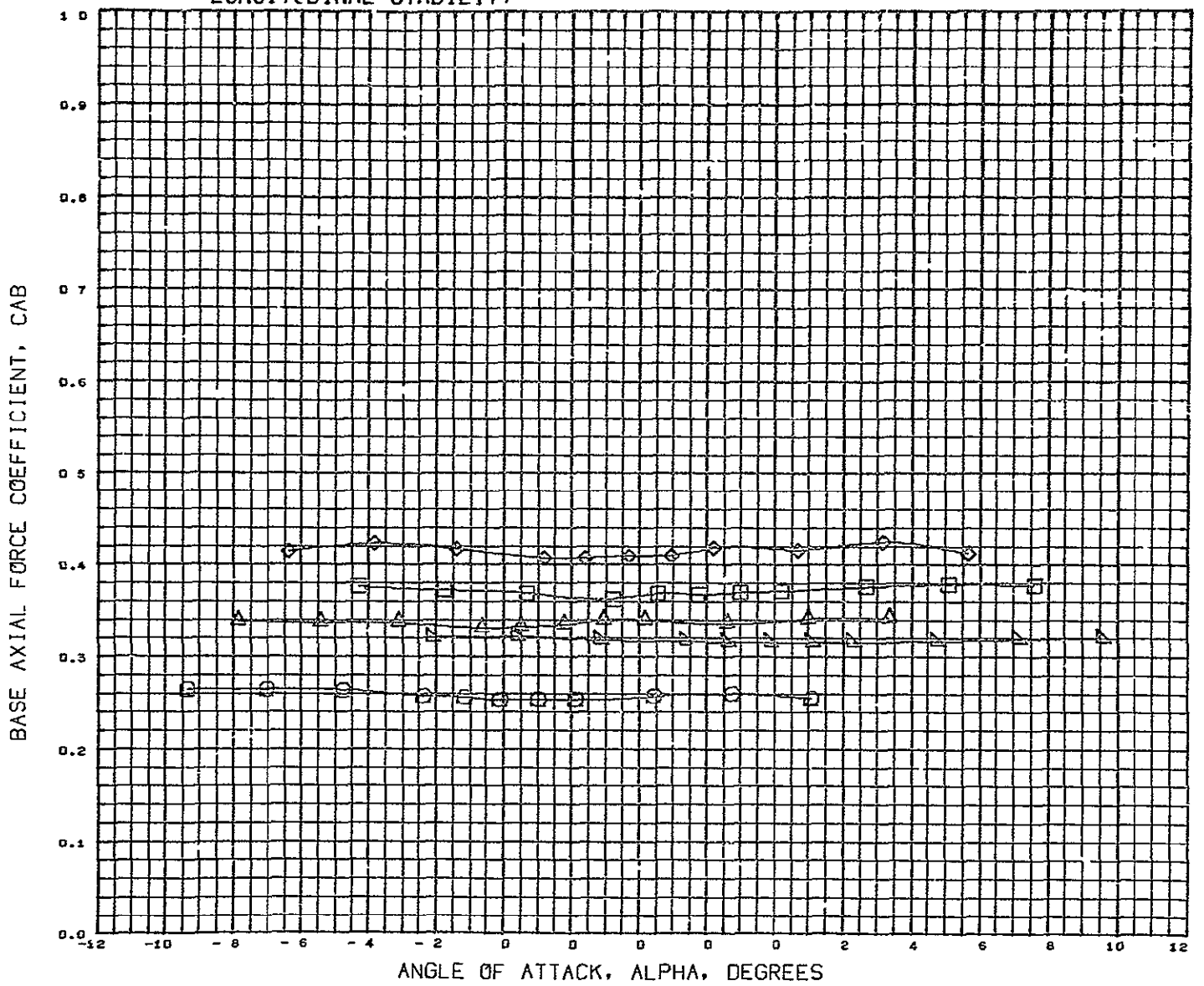


SYMBOL	MACH	PARAMETRIC VALUES		
○	1.463	BETA	0.000	ORB.INC = 3.100
△	1.959			

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3336	IN
BREF	1.3336	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



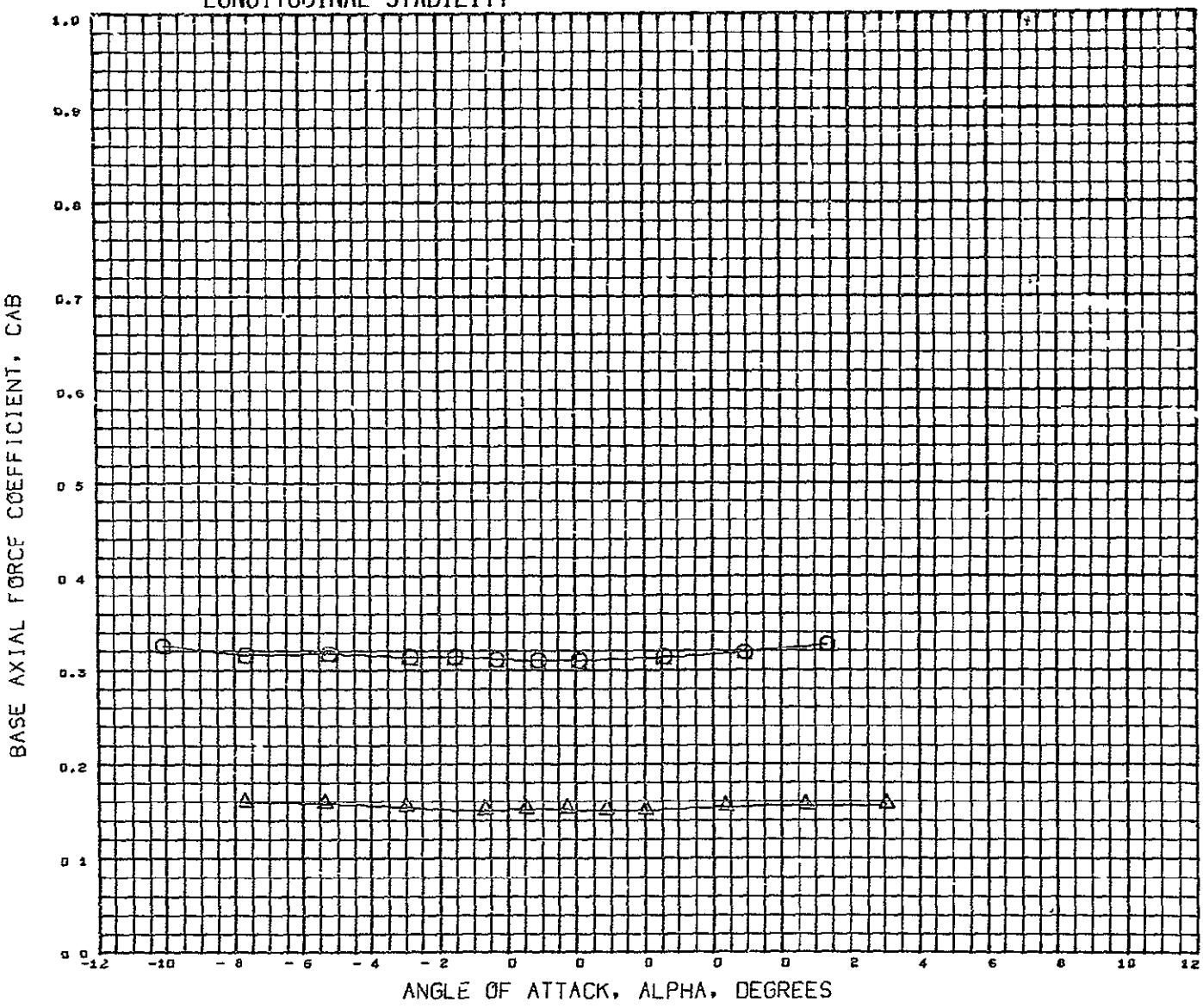
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	BETA	0.000	ORBINC	- 3.100
△	0.903				
◇	1.003				
□	1.103				
◸	1.200				

DATA HIST CODE M#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



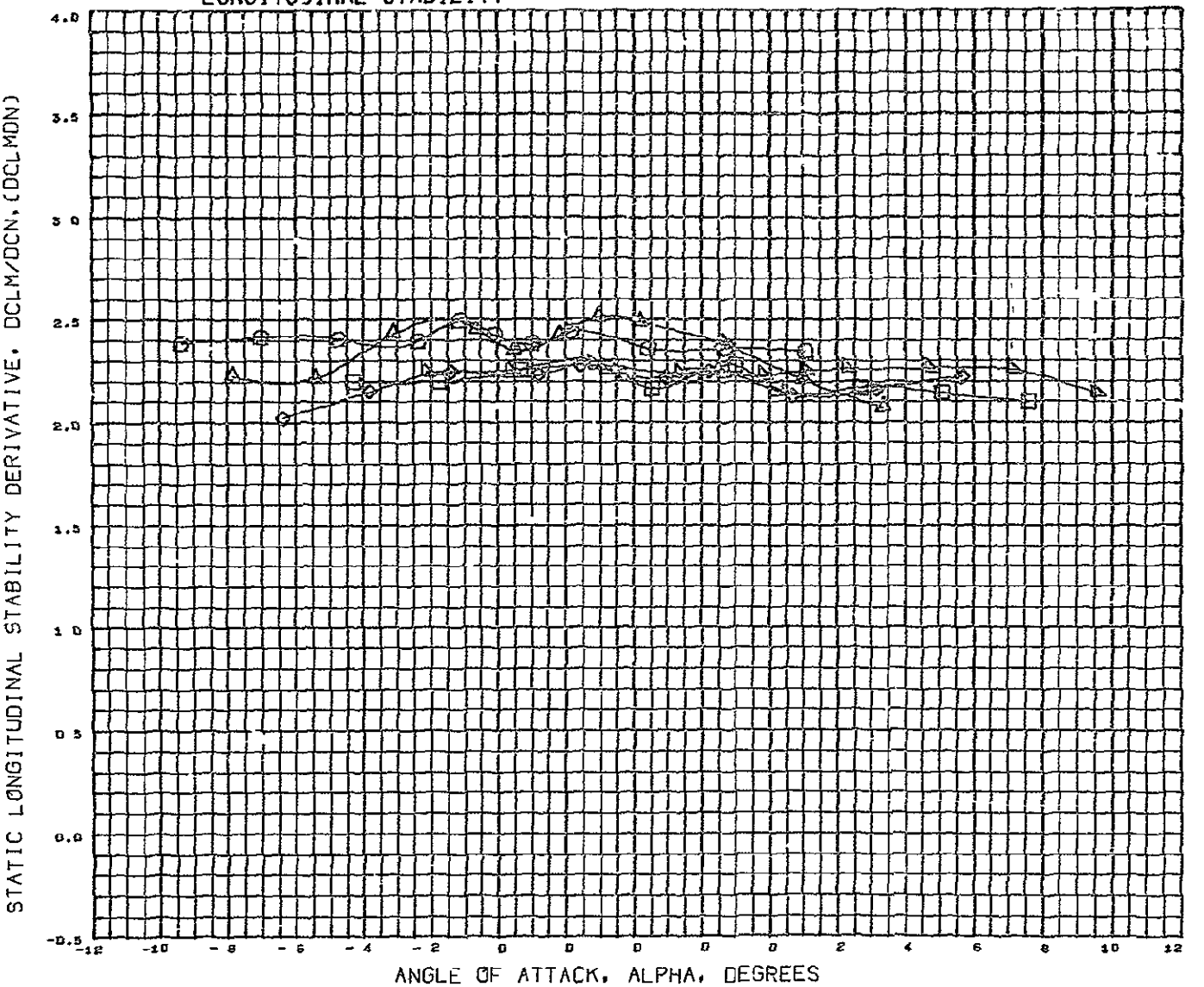
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	BETA	0.000	ORBINC	-3.100
△	1.959				

DATA HIST CODE M#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



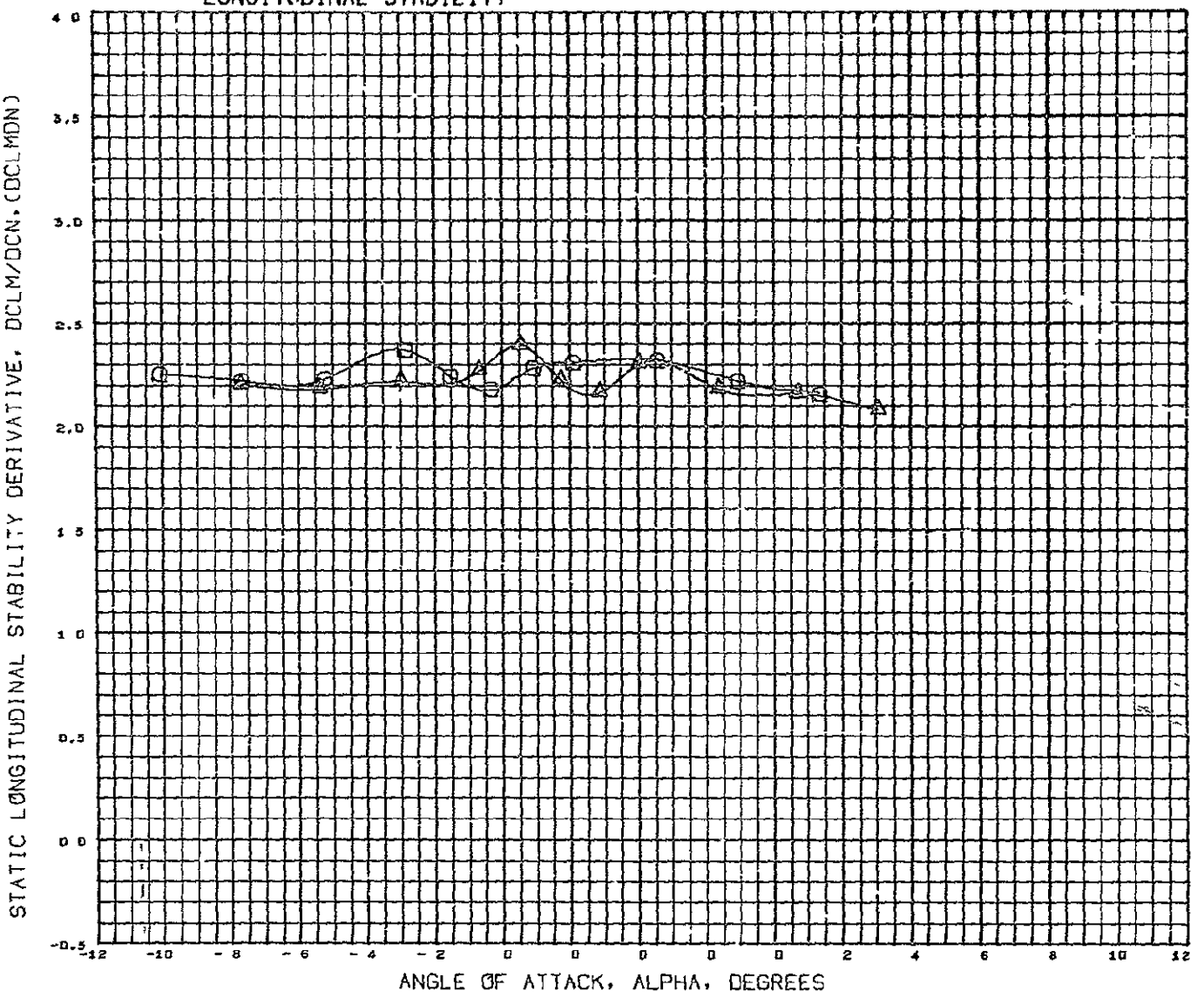
SYMBOL	MACH	PARAMETRIC VALUES			
▽○	0.602	BETA	0 000	ORBINC	- 3.100
△	0 903				
◇	1.003				
□	1 103				
◁	1 200				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



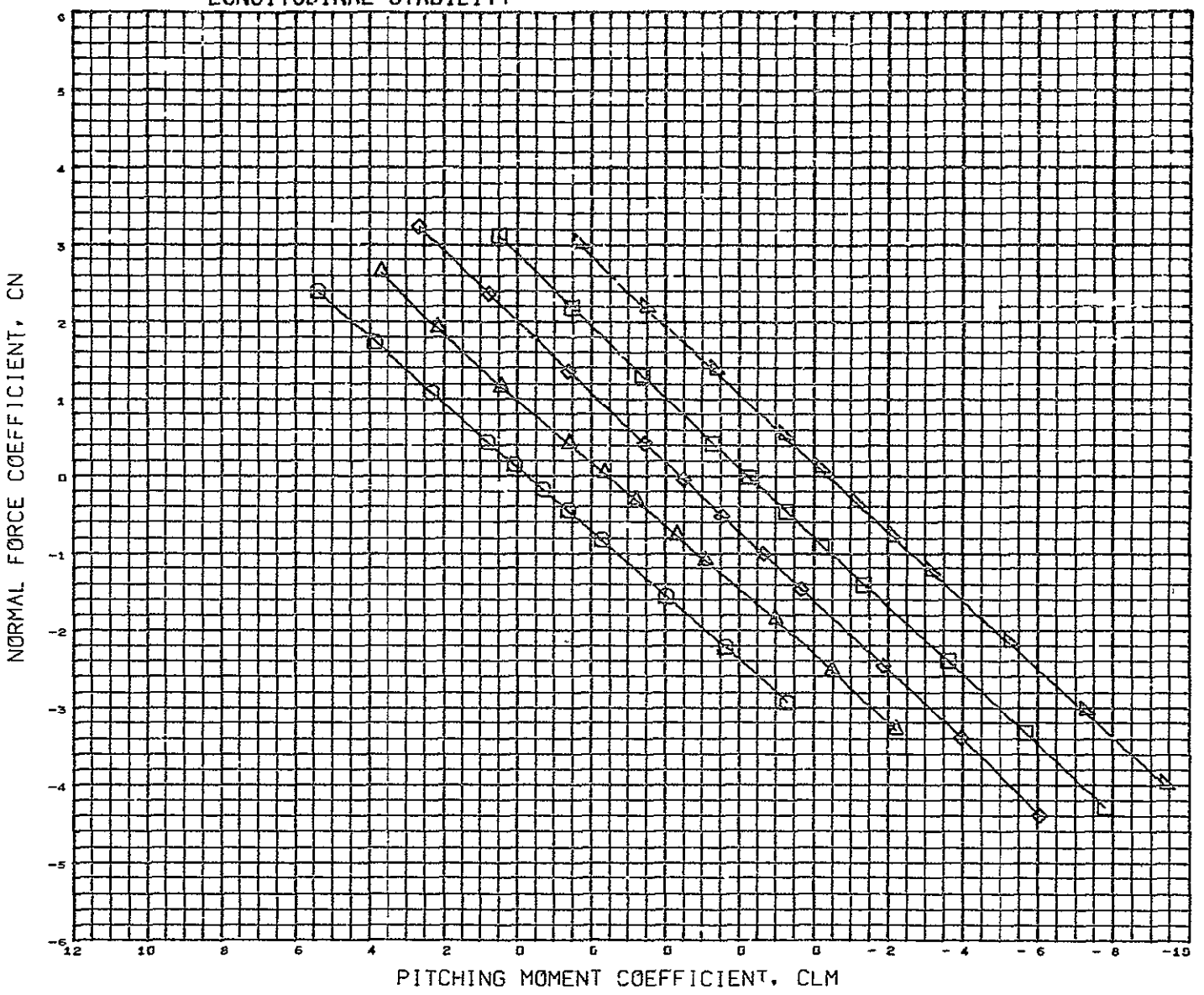
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	BETA	0.000	ORBINC	-3.100
△	1.959				

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



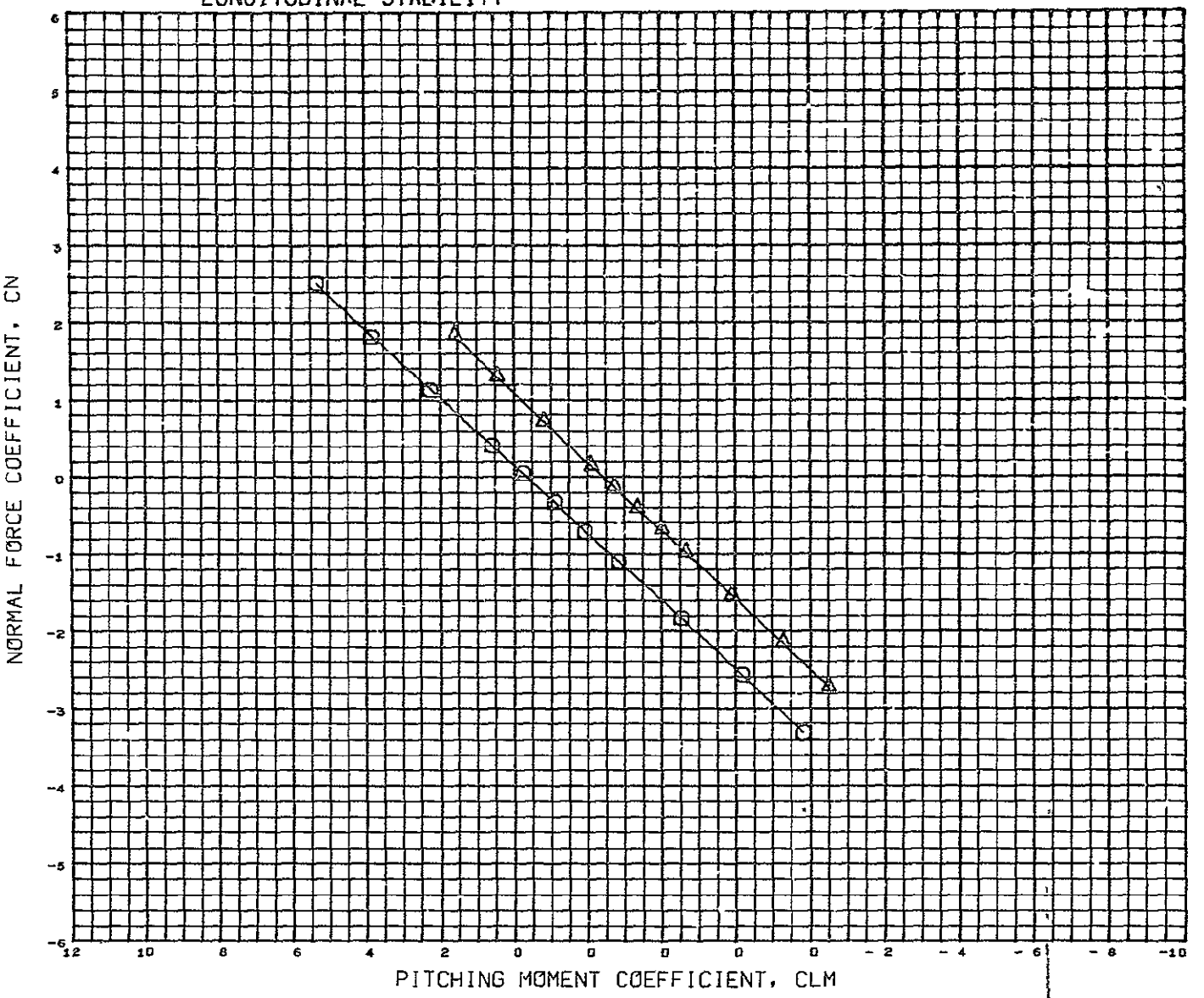
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	BETA	0.000	ORBINC	- 3 100
△	0.903				
◇	1 003				
□	1 103				
▽	1.200				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0061	IN
ZMRP	0 0000	IN
SCALE	0 0034	

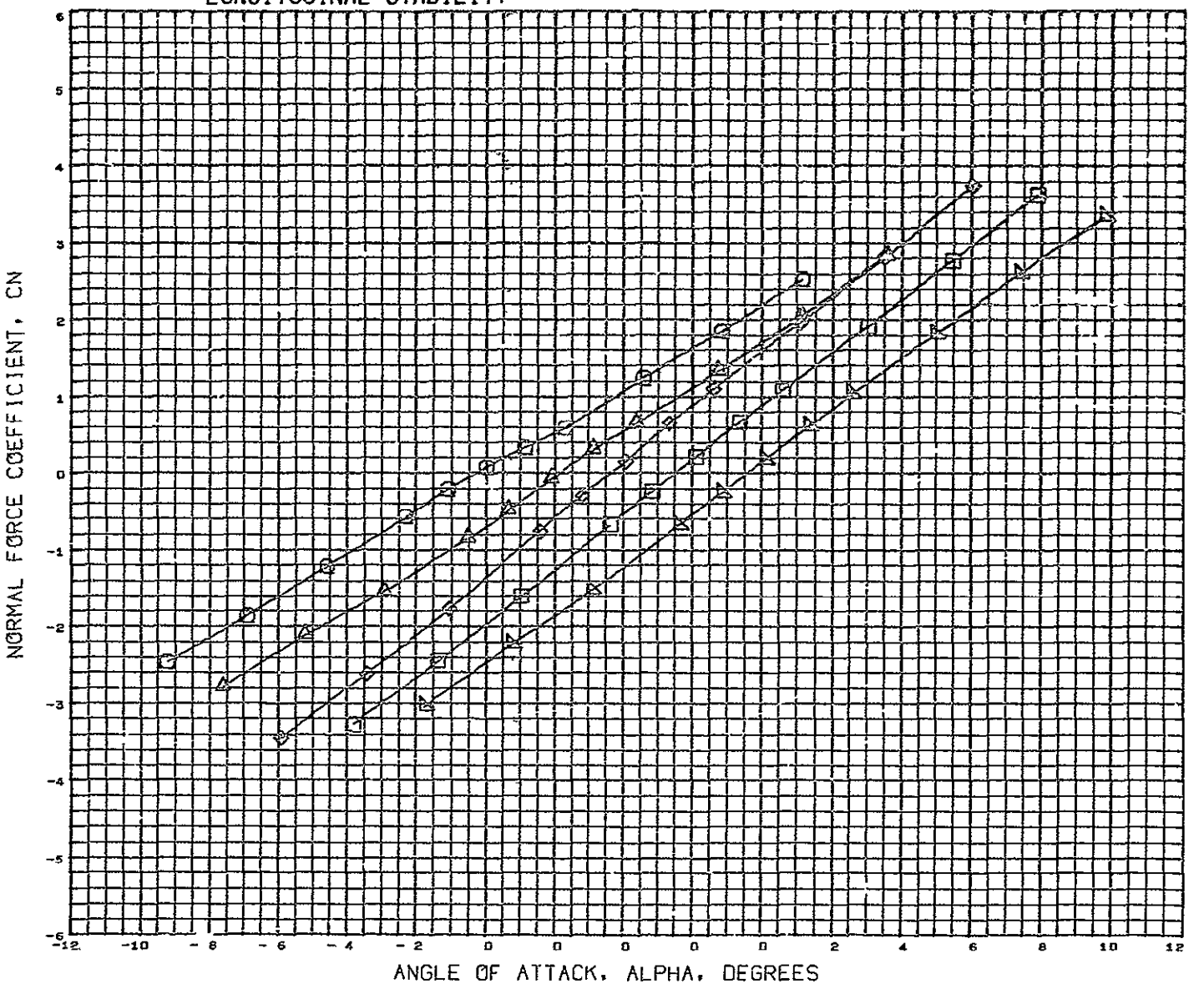
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
○	1.463	BETA	0 000	ORBINC - 3 100	SREF	1 3960	SQ IN
△	1 959				LREF	1 3330	IN
					BREF	1 3330	IN
					XMRP	3 6860	IN
					YMRP	0 0000	IN
					ZMRP	0 0000	IN
					SCALE	0 0034	

DATA HIST CODE H#E

LONGITUDINAL STABILITY

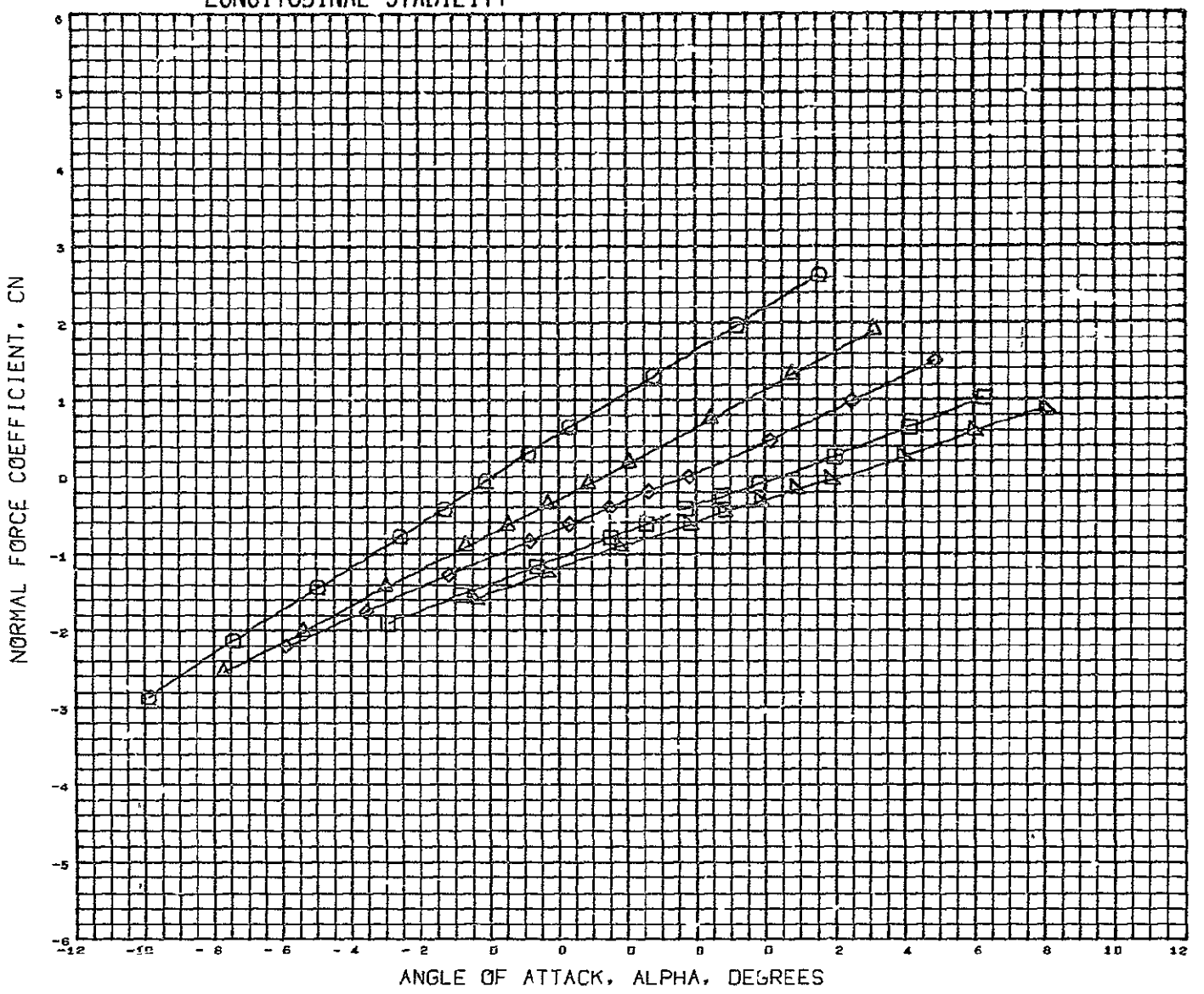


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0.000	ORBINC	-3.100
△	0.898				
◇	1.000				
□	1.093				
▽	1.205				

DATA HIST CODE MH*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	1.463
△	1.960
◇	2.990
□	4.000
▽	4 959

PARAMETRIC VALUES

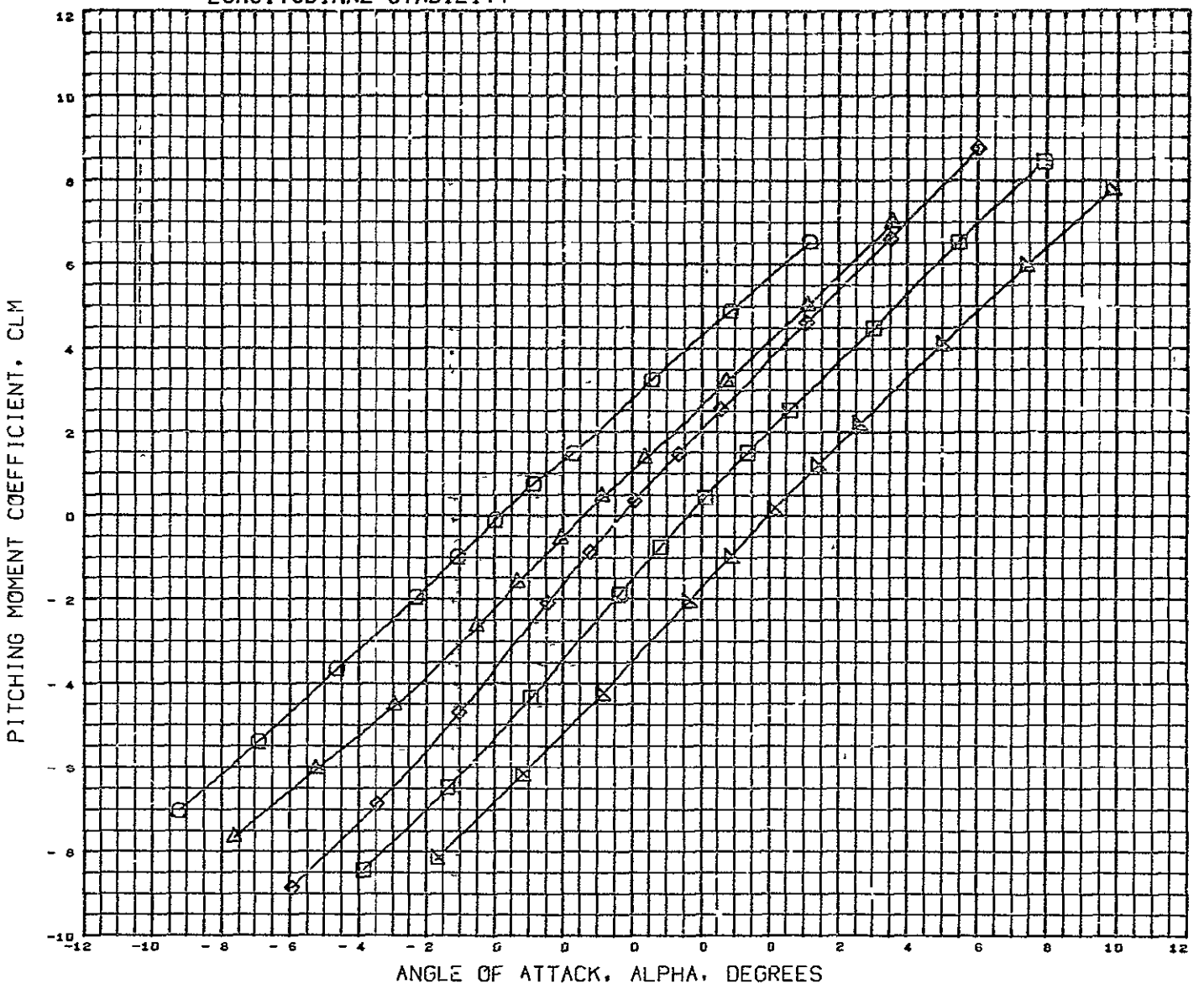
BETA 0 000 ORBINC - 3 100

DATA HIST CODE MM#E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0063	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



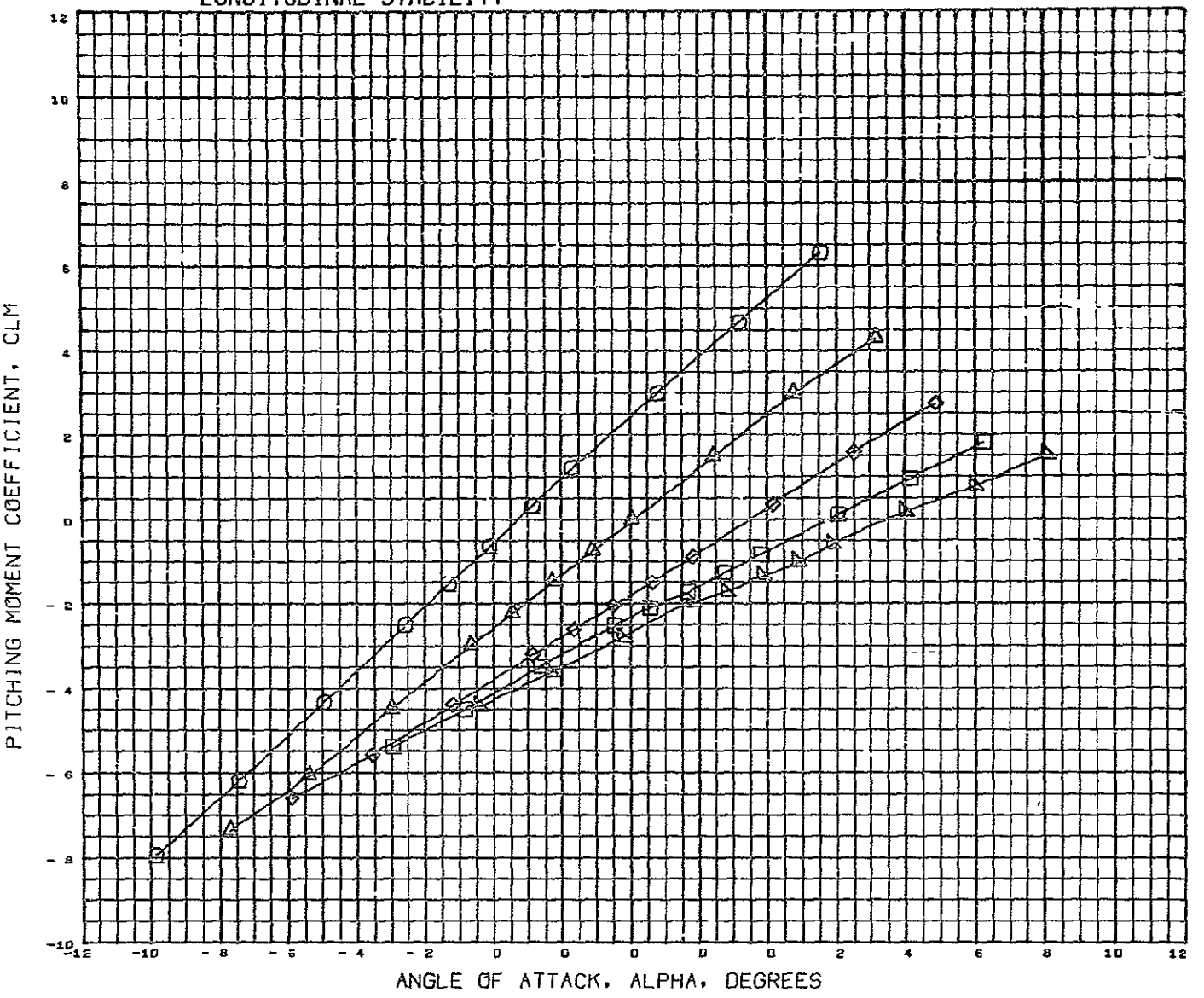
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0.000	ORBINC	- 3.100
△	0.898				
◇	1.000				
□	1.093, 1.205				

DATA HIST CODE MH#E

REFERENCE INFORMATIO

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



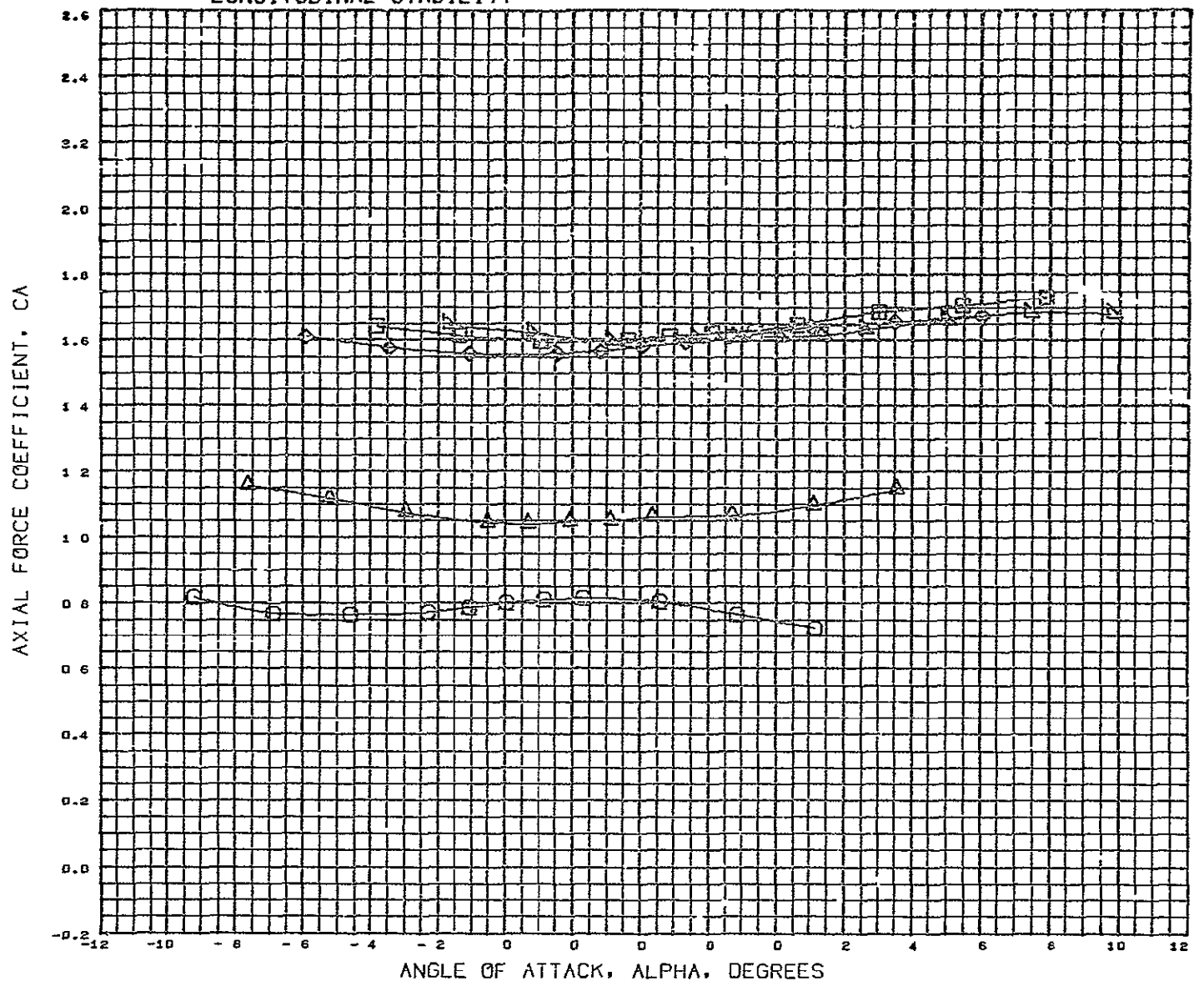
SYMBOL	MACH	PARAMETRIC VALUES			
○	1 465	BETA	0 000	ORBINC	- 3 100
△	1.960				
◇	2 990				
□	4 000				
◸	4 959				

DATA HIST CODE NM*E

REFERENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRF	3 6860	IN
YMRF	0.0000	IN
ZMRF	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

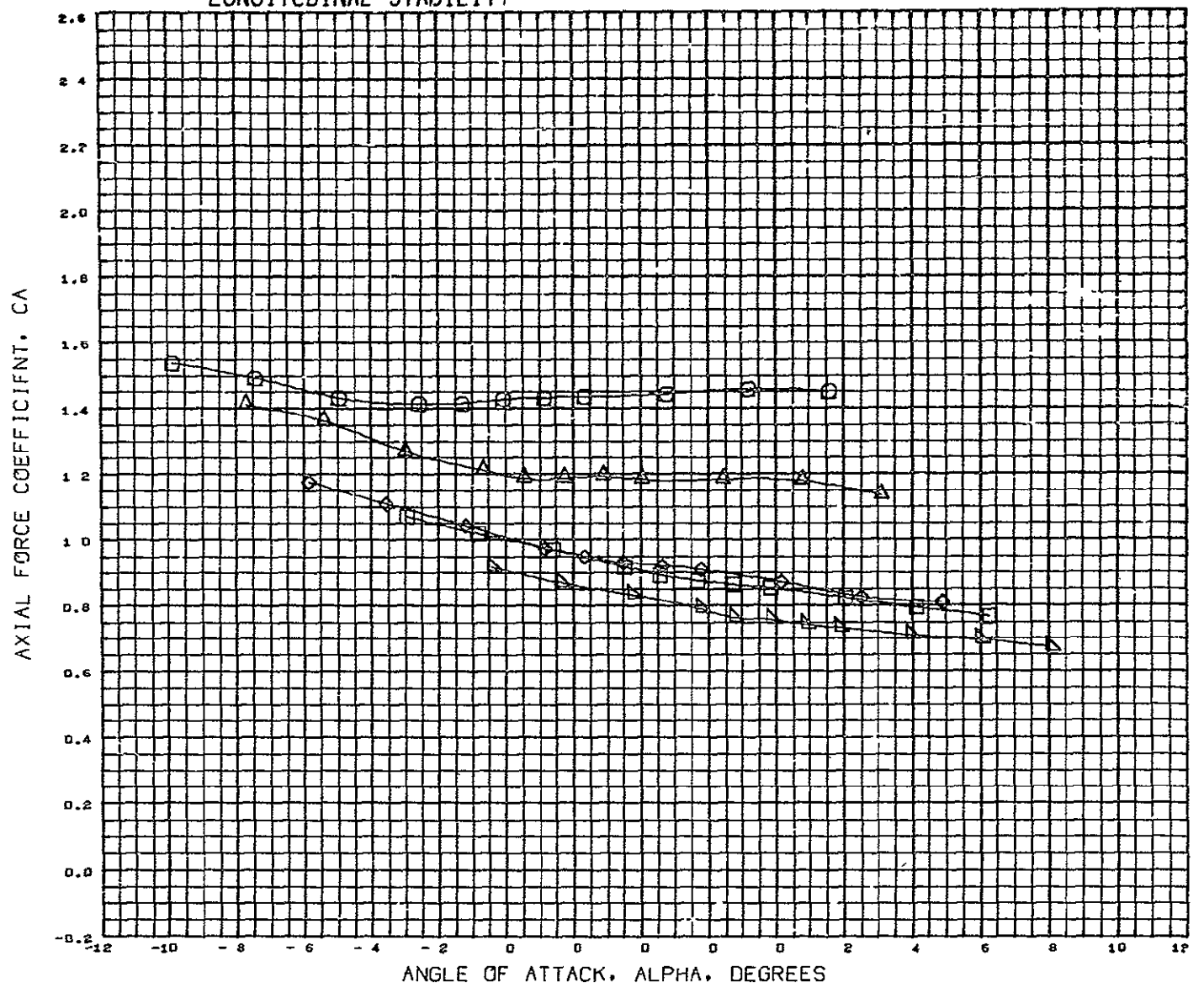


SYMBOL	MACH	PARAMETRIC VALUES		
	0.600	BETA	0.000	ORBINC - 3 100
	0 898			
	1 000			
	1 093			
	1 205			

DATA HIST CODE MM*E

REFERENCE INFORMATION		
SREF	1 3960	S0 IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



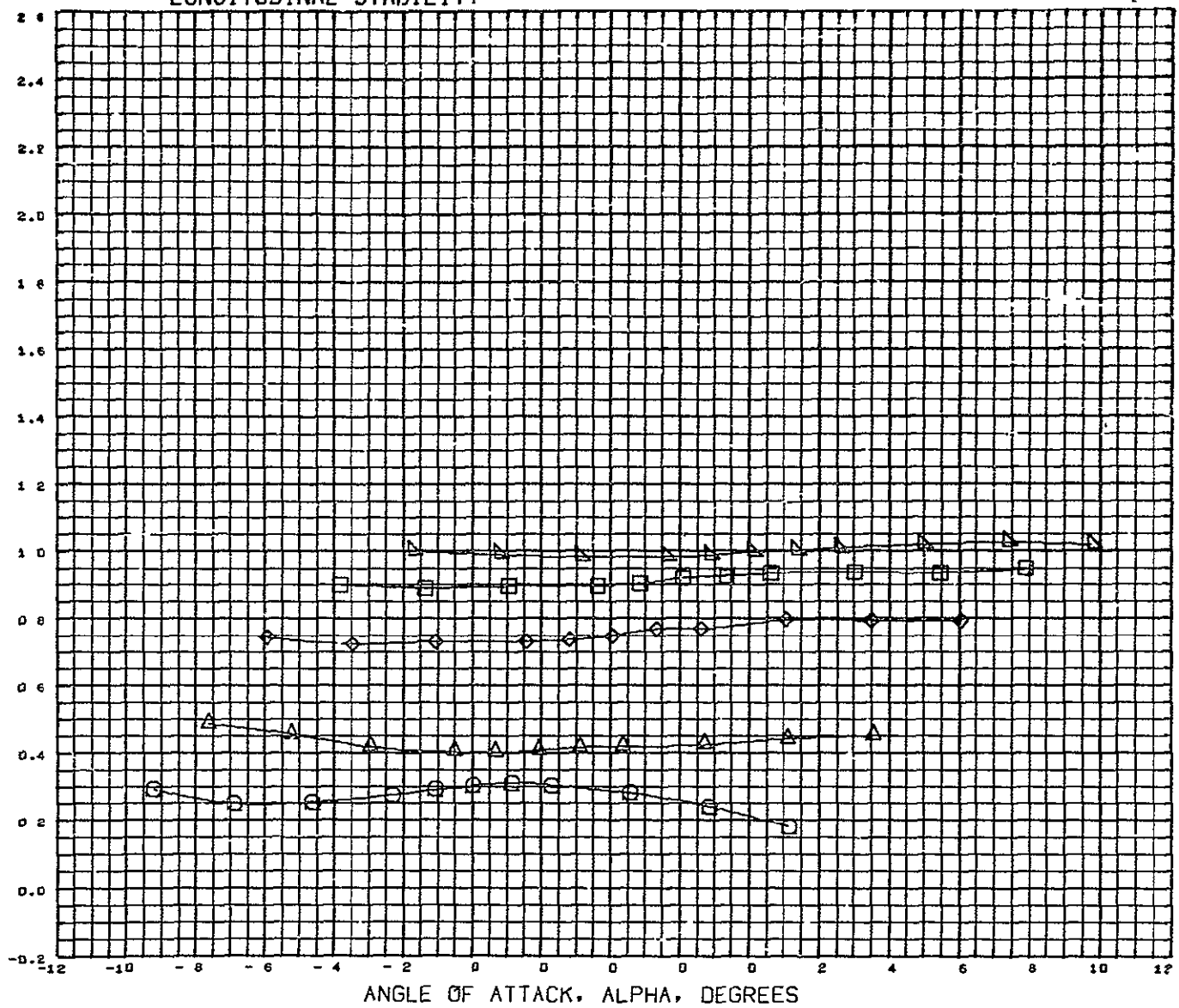
SYMBOL	MACH	PARAMETRIC VALUES			
▽□○	1.463	BETA	0.000	ORBINC	- 3.100
△	1.960				
◇	2.990				
	4.000				
	4.959				

DATA HIST CODE HM*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
▽	0.600
△	0.898
◇	1.000
□	1.093
⊿	1.205

PARAMETRIC VALUES

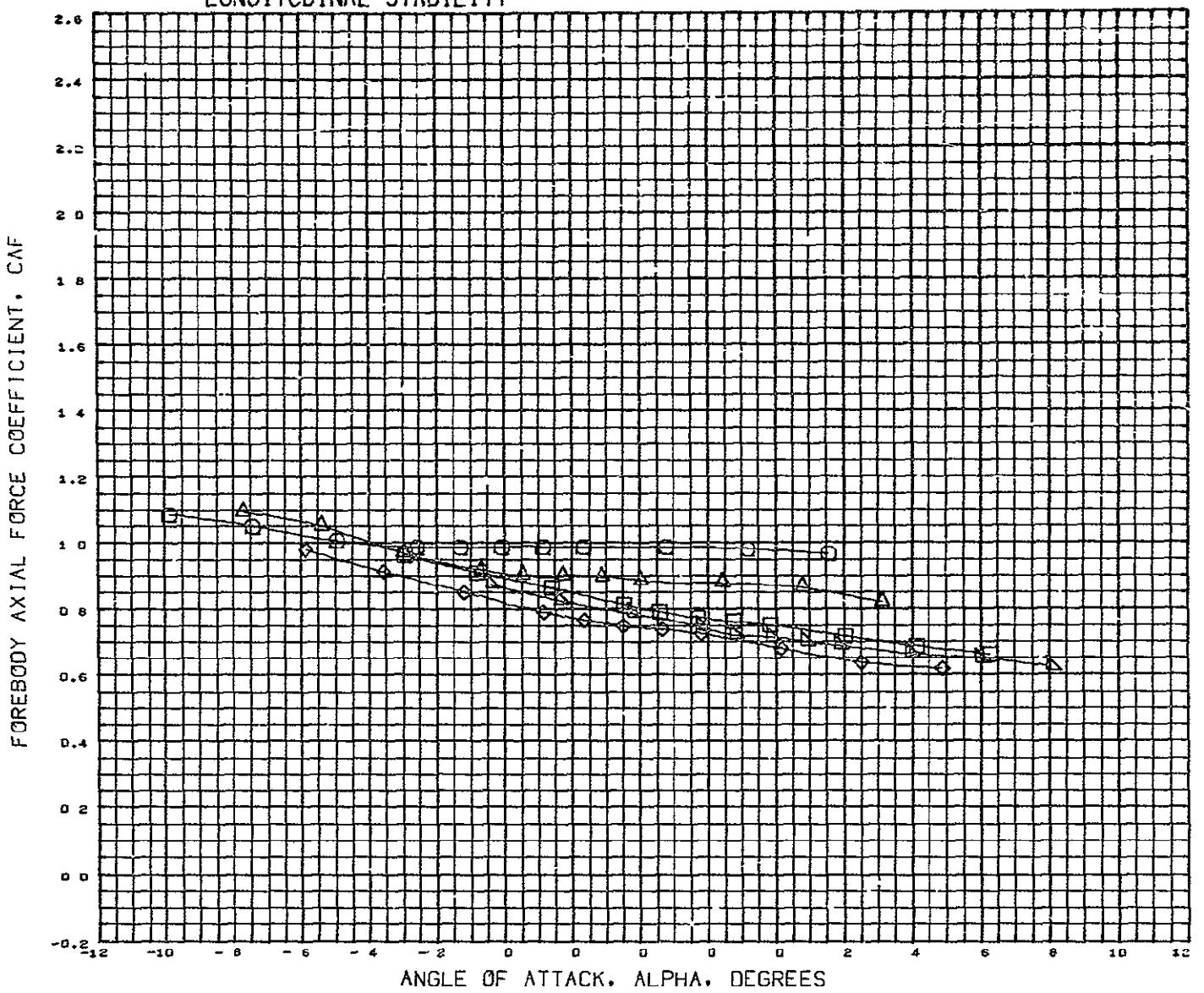
BETA 0.000 ORBINC - 3.100

DATA HIST CODE NN*E

REFERENCE INFORMATIO

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



SYMBOL	MACH
○	1.463
△	1.960
◇	2.990
□	4.000
▽	4.959

PARAMETRIC VALUES

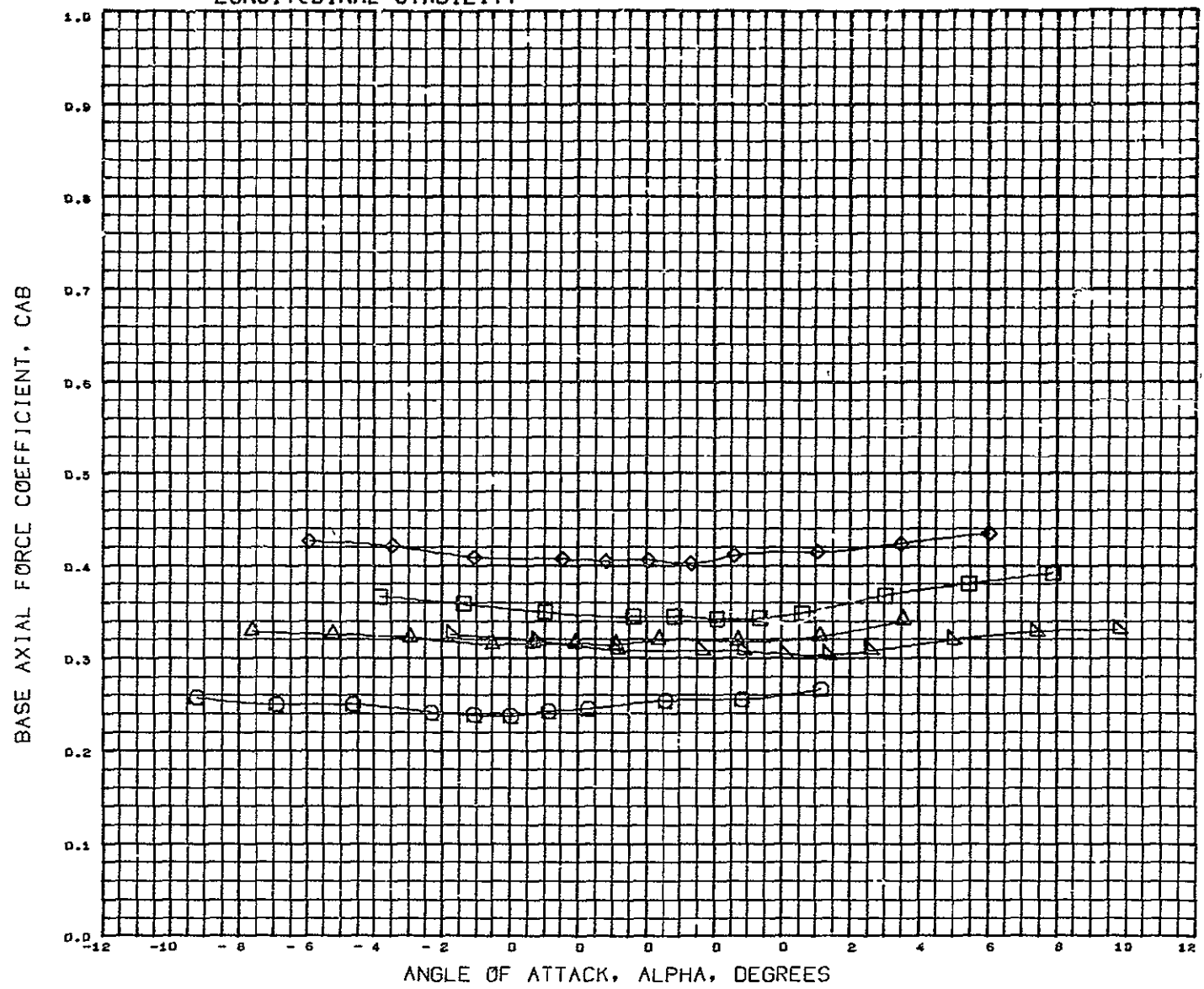
BETA 0.000 ORBINC - 3.100

DATA HIST CODE MM#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

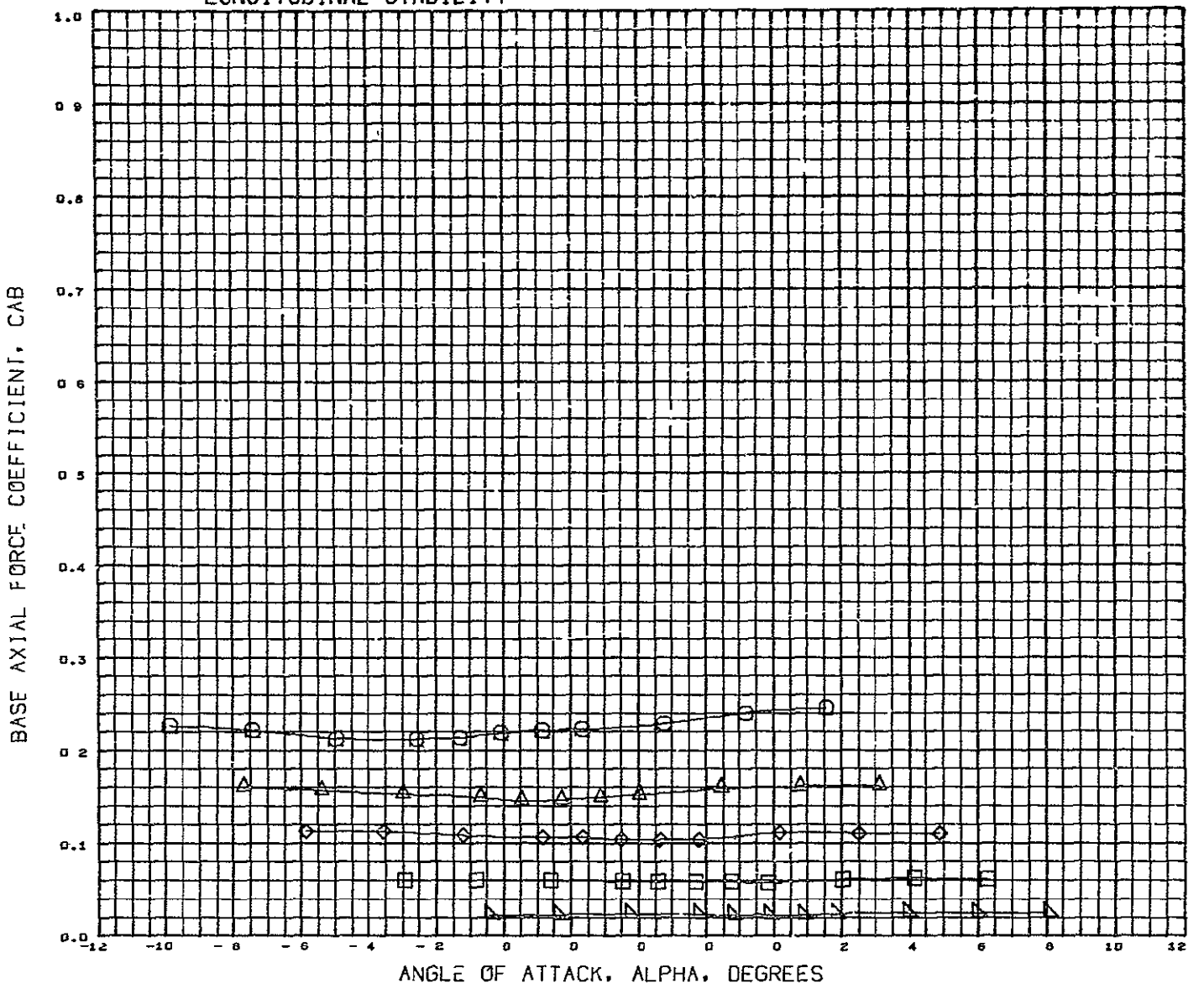


SYMBOL	MACH	PARAMETRIC VALUES			
◇	0.600	BETA	0.000	ORBINC	- 3.100
△	0.898				
◇	1.000				
□	1.093				
◇	1.205				

DATA HIST CODE MM#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



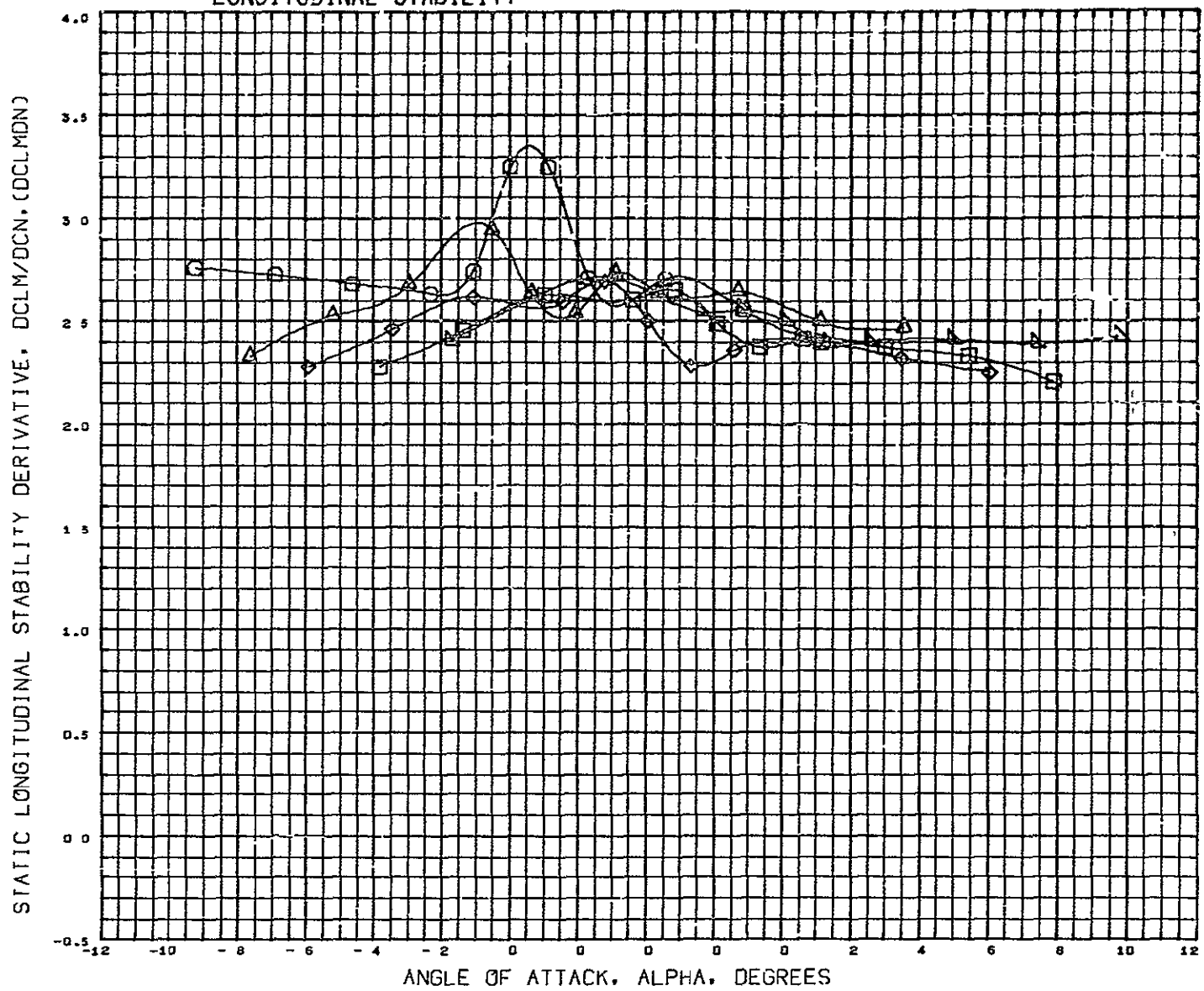
SYMBOL	MACH	PARAMETRIC VALUES			
	1.463	BETA	0.000	ORBINC	-3.400
	1.960				
	2.990				
	4.000				
	4.959				

DATA HIST CODE HM#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

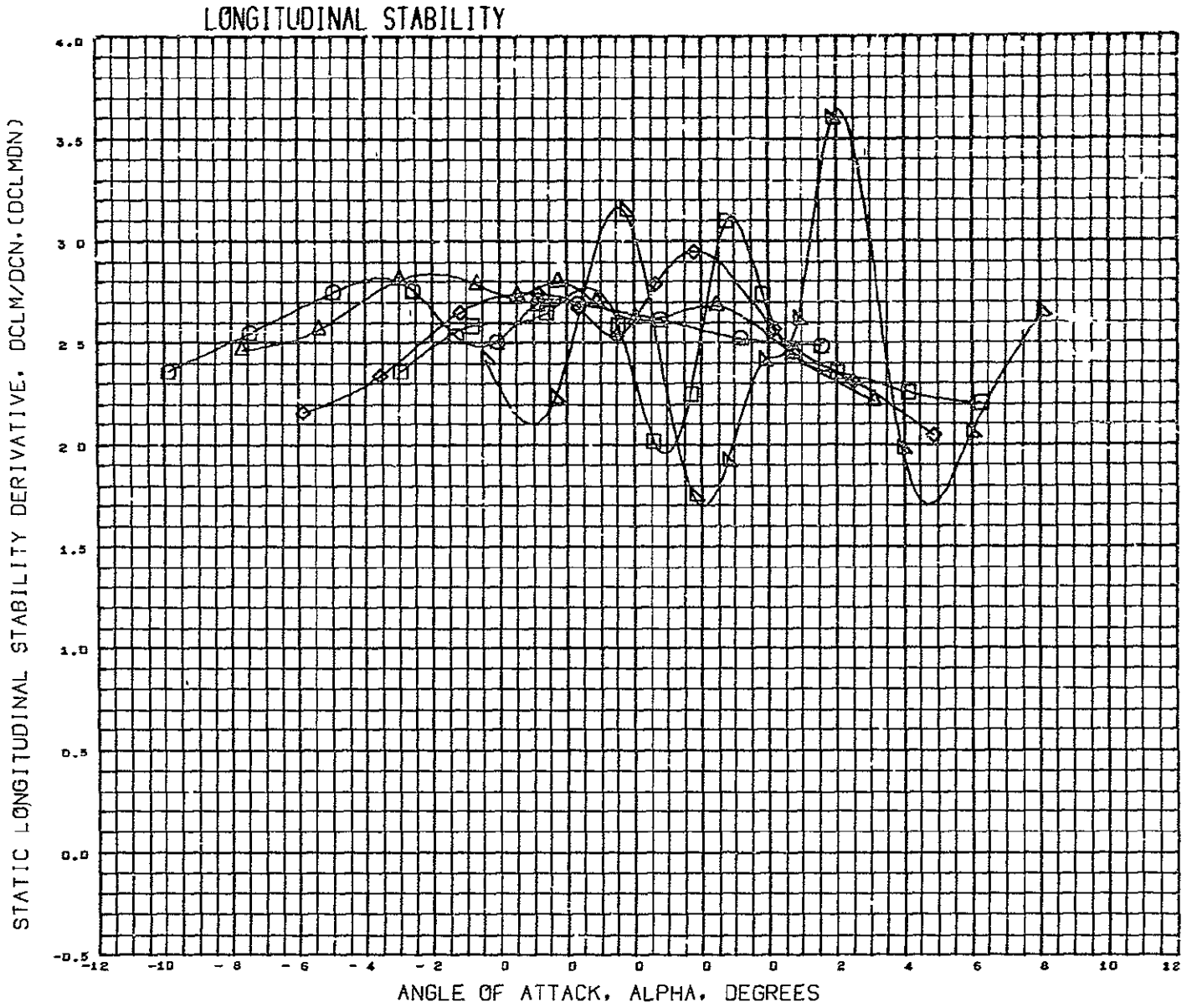
LONGITUDINAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			
○	0 600	BETA	0 000	ORBINC	- 3 100
△	0 898				
◇	1 000				
□	1 093				
▽	1 205				

DATA HIST CODE HH*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRF	0 0000	IN
ZMRF	0 0000	IN
SCALE	0 0034	



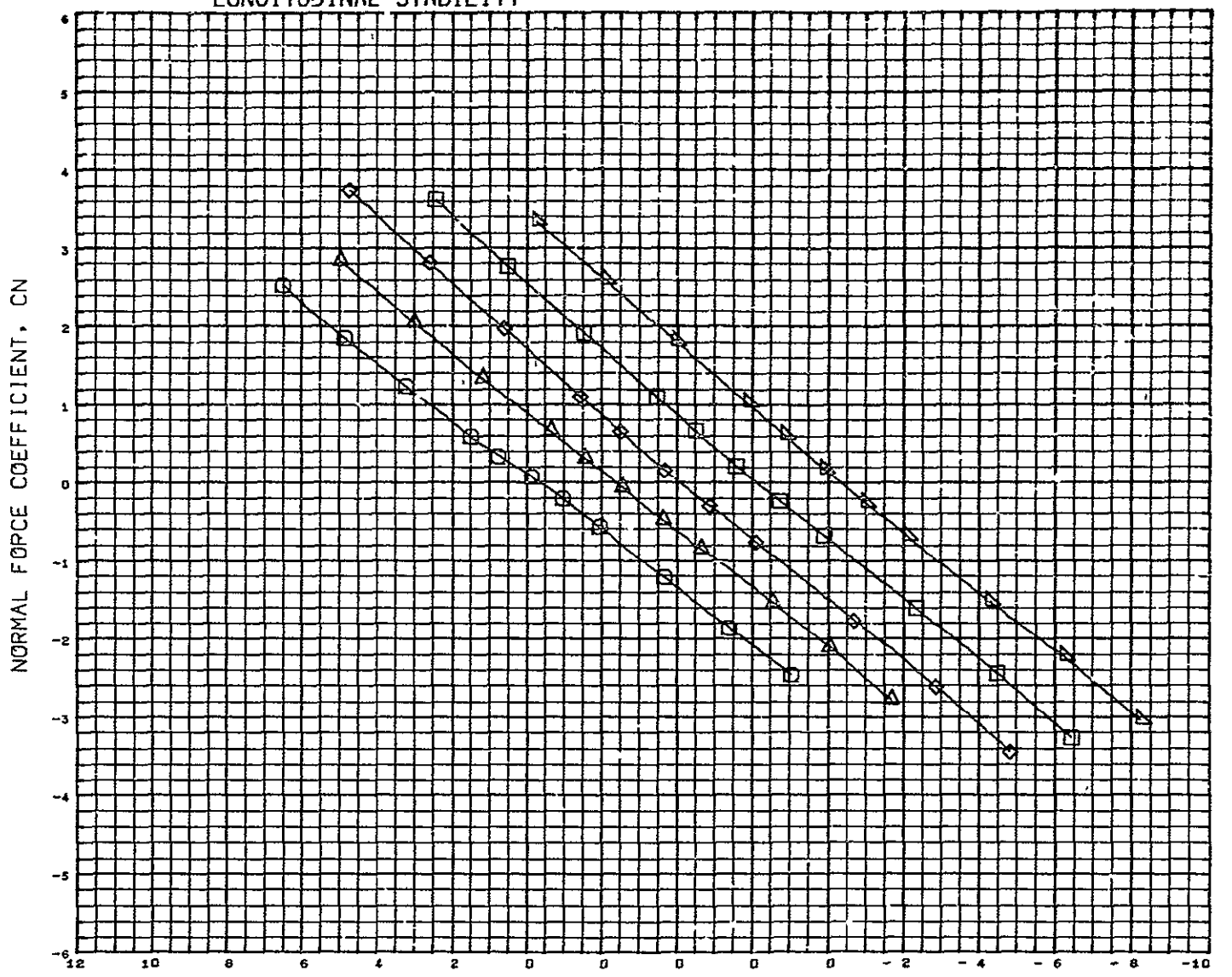
SYMBOL	MACH	PARAMETRIC VALUES			
	1.463	BETA	0.000	ORBINC	- 3.150
	1.960				
	2.990				
	4.000				
	4.959				

DATA HIST CODE MM#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0500	IN
ZMRF	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY

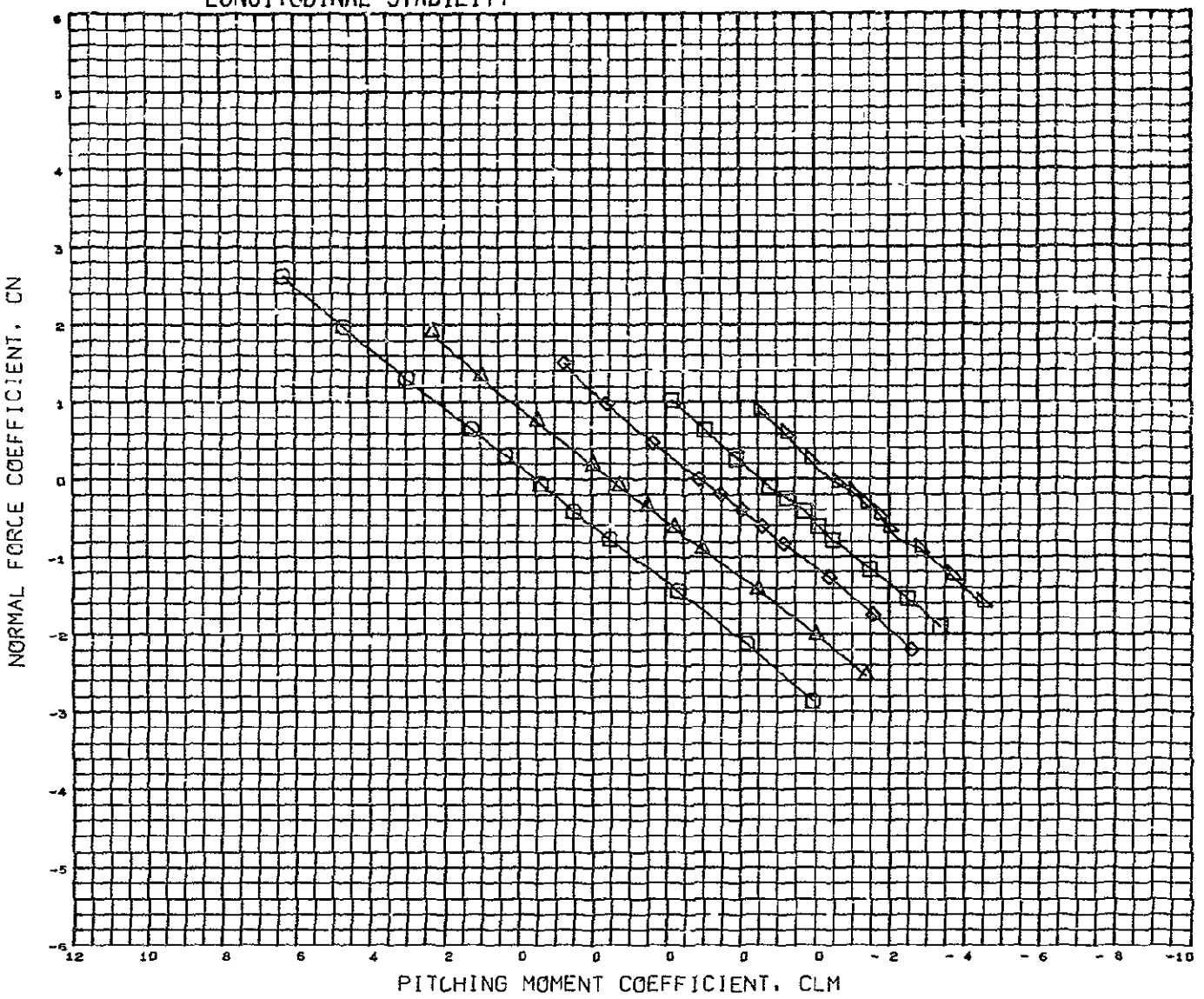


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0 000	ORBINC	- 3 100
△	0 898				
◇	1 000				
□	1 093				
◸	1 205				

DATA LIST CODE MM#E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



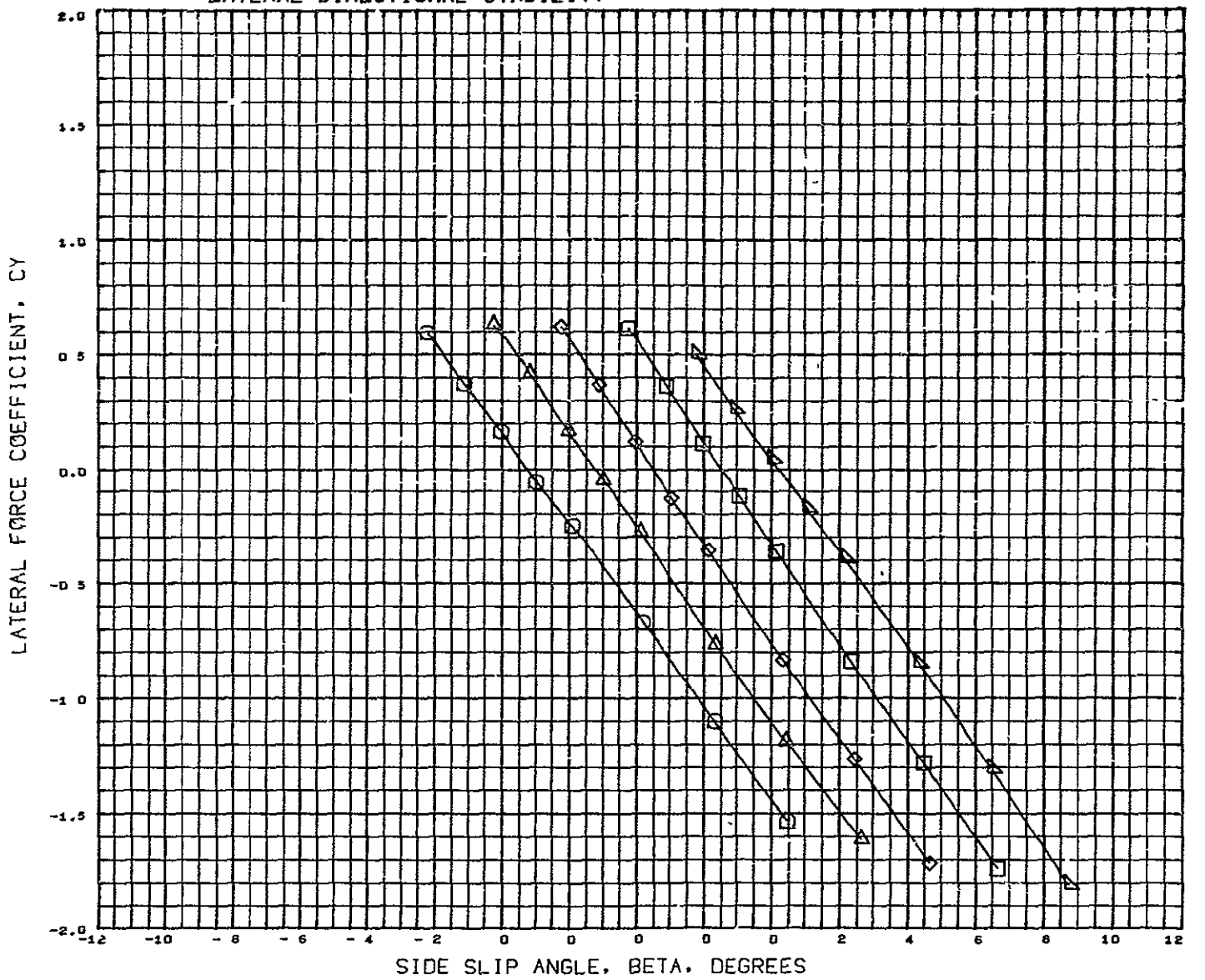
SYMBOL	MACH	PARAMETRIC VALUES		
○	1 463	BETA	0 000	ORBINC - 3 100
△	1.960			
◇	2 990			
□	4.000			
◸	4 959			

DATA HIST CODE MM*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0490	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY

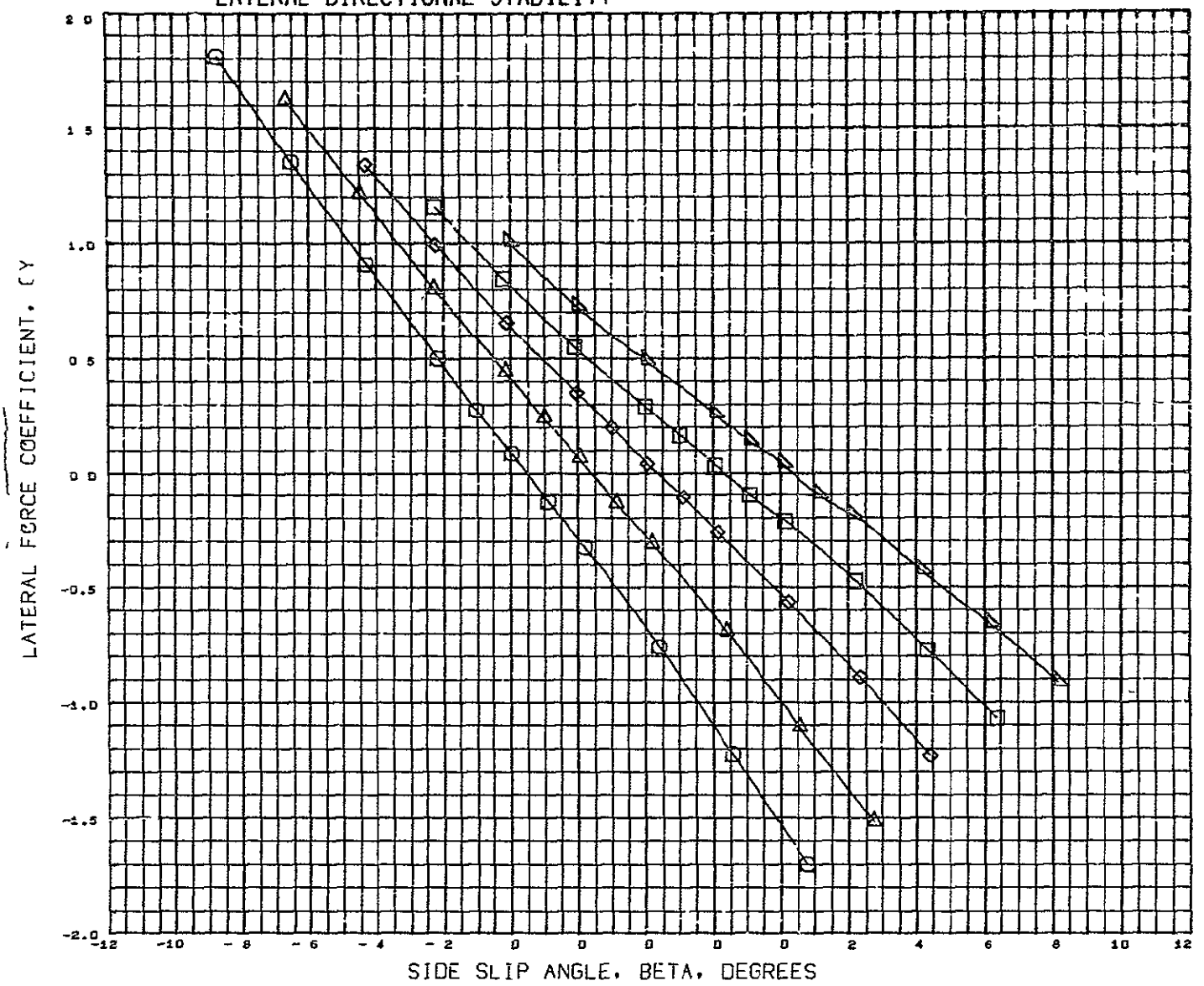


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.604	ALPHA	0.000	ORBINC	-3.100
△	0.903				
◇	1.002				
□	1.102				
▽	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



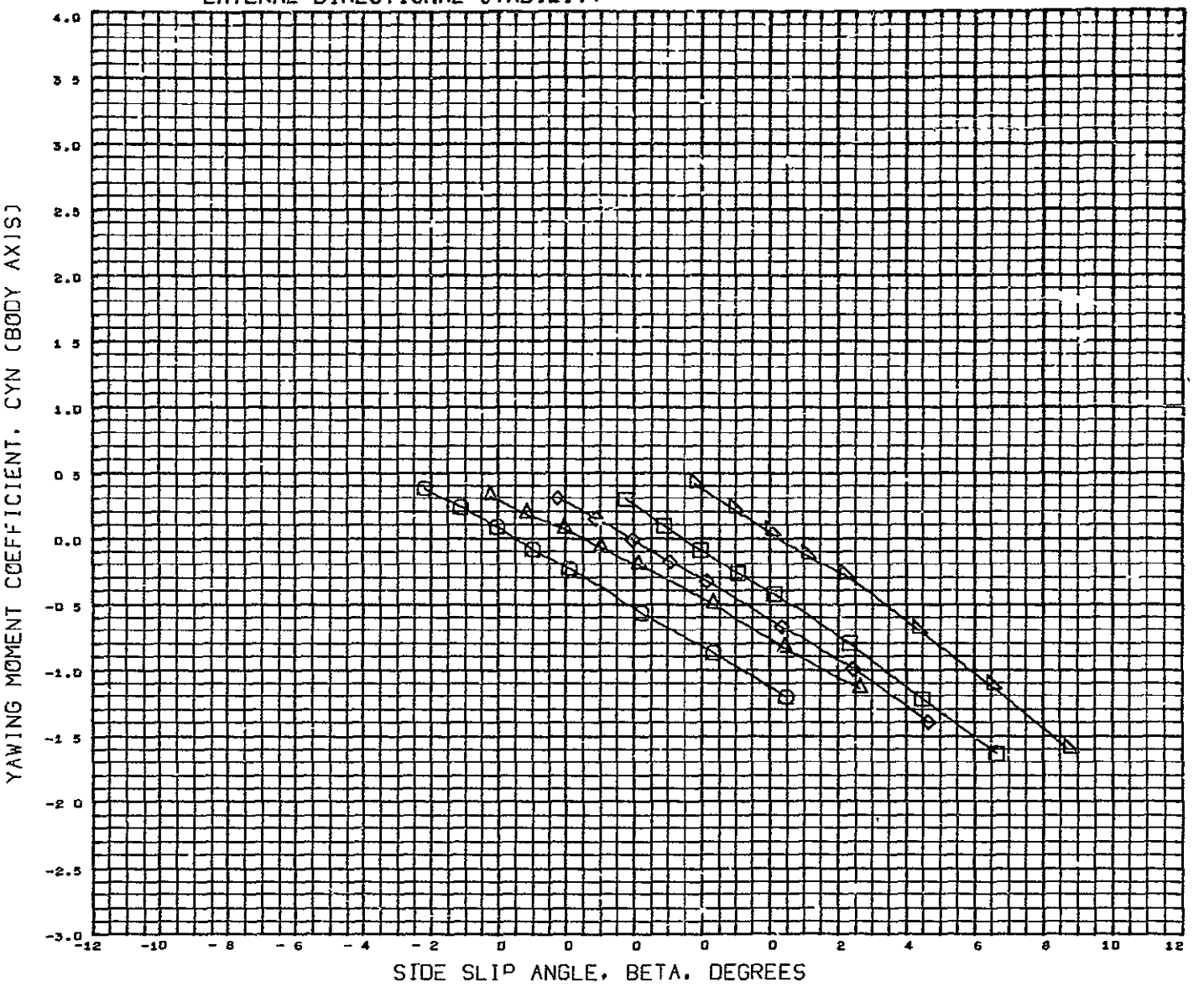
SYMBOL	MACH	PARAMETRIC VALUES			
	1.461	ALPHA	0.000	ORBINC	-3.100
	1.961				
	2.990				
	4.000				
	4.959				

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



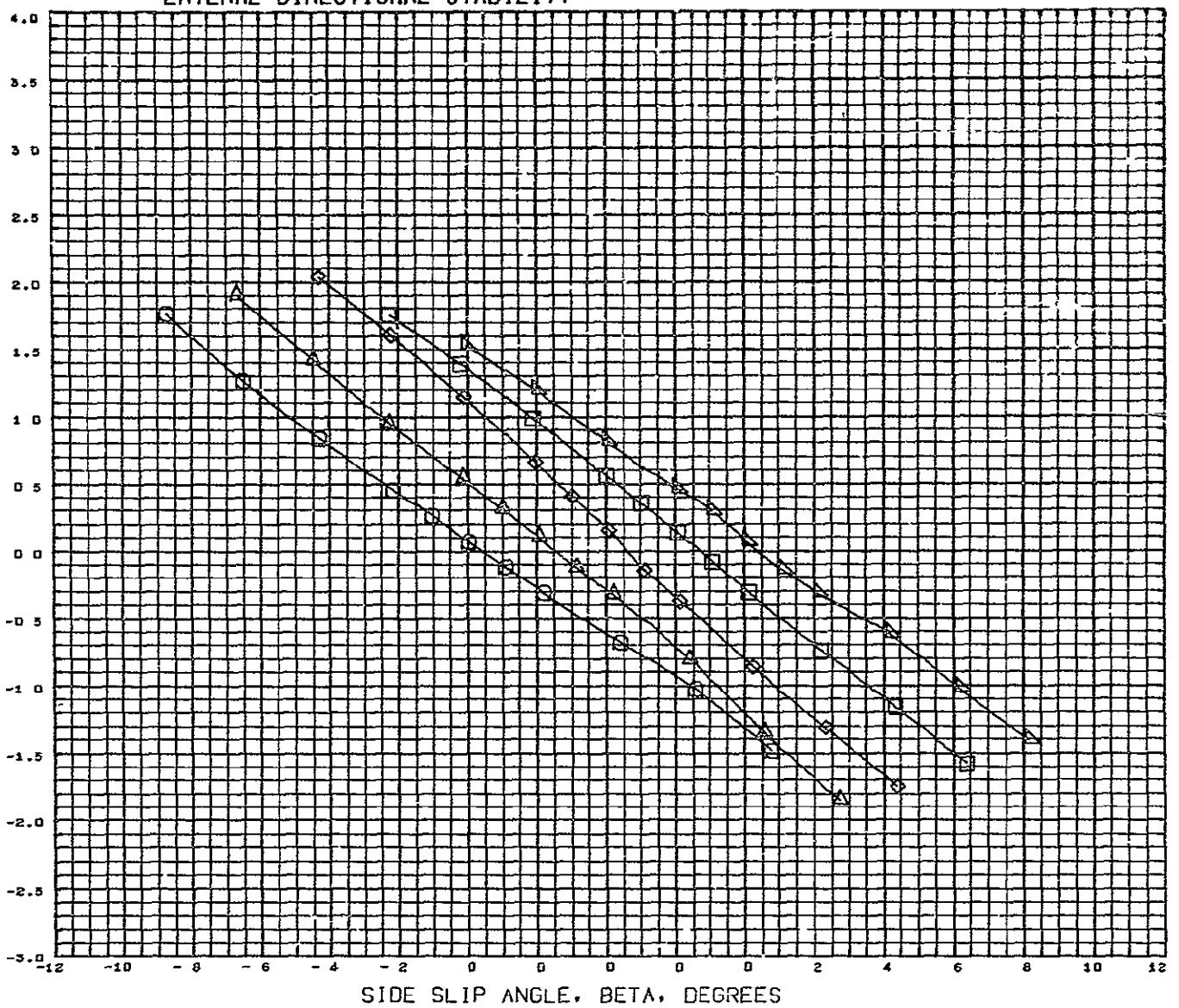
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.604	ALPHA	0.000	ORBINC -	3.100
△	0.903				
◇	1.002				
□	1.102				
⬠	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATIO

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

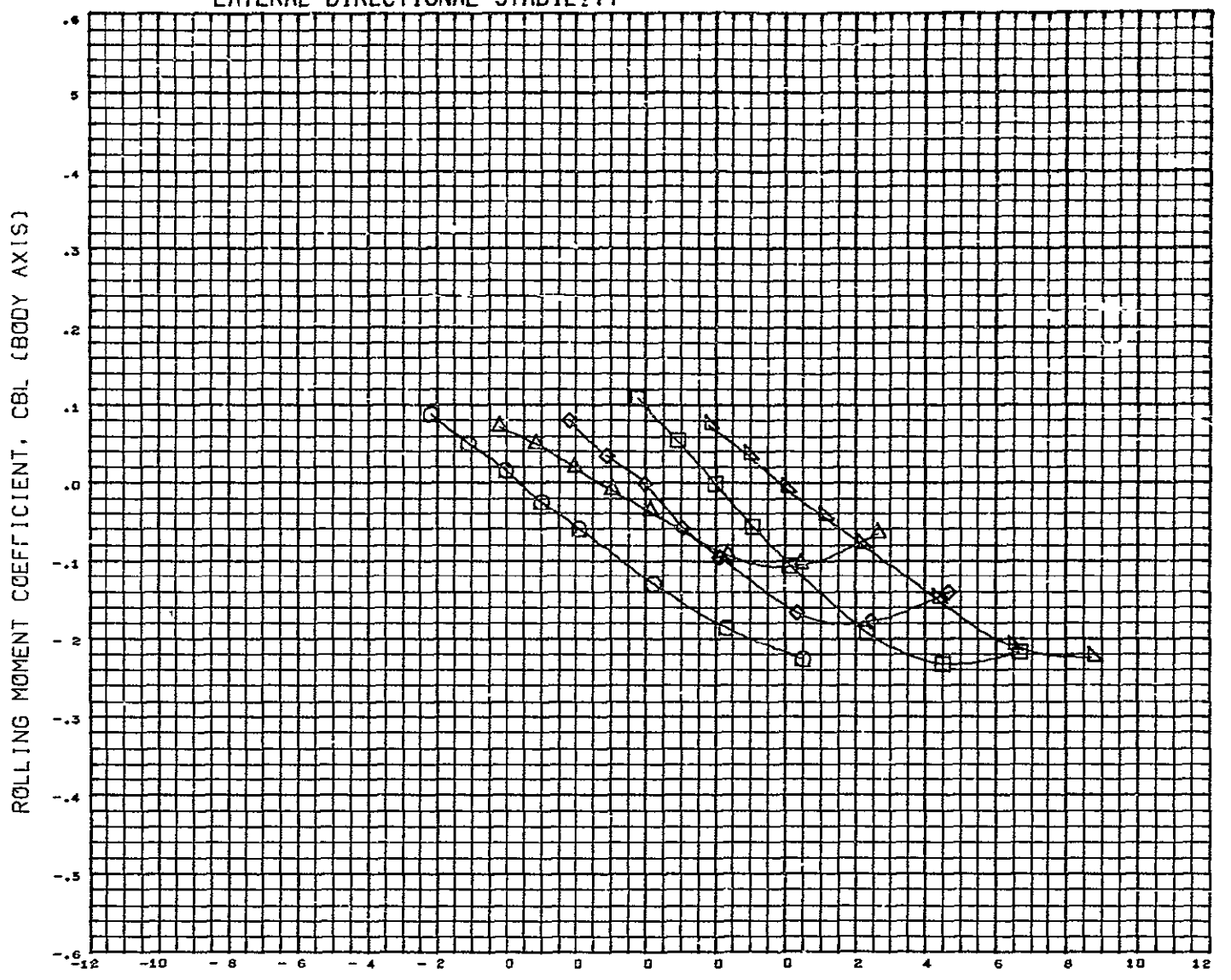


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.461	ALPHA	0.000	ORBINC	- 3.100
△	1.961				
◇	2.990				
□	4.000				
◸	4.959				

DATA HIST. CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0006	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



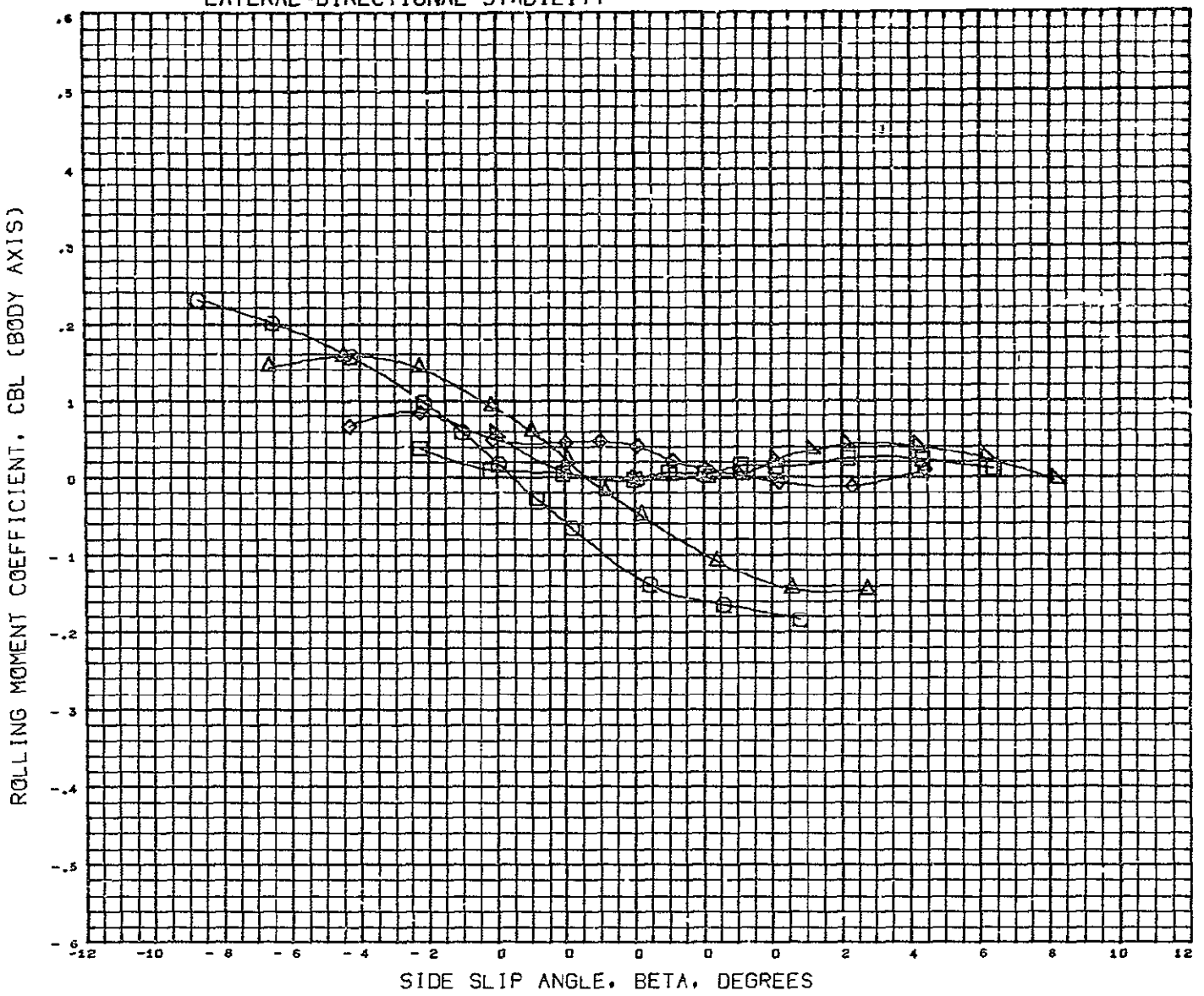
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.604	ALPHA	0.000	ORBINC	- 3.100
△	0.903				
◇	1.002				
□	1.102				
▽	1.196				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



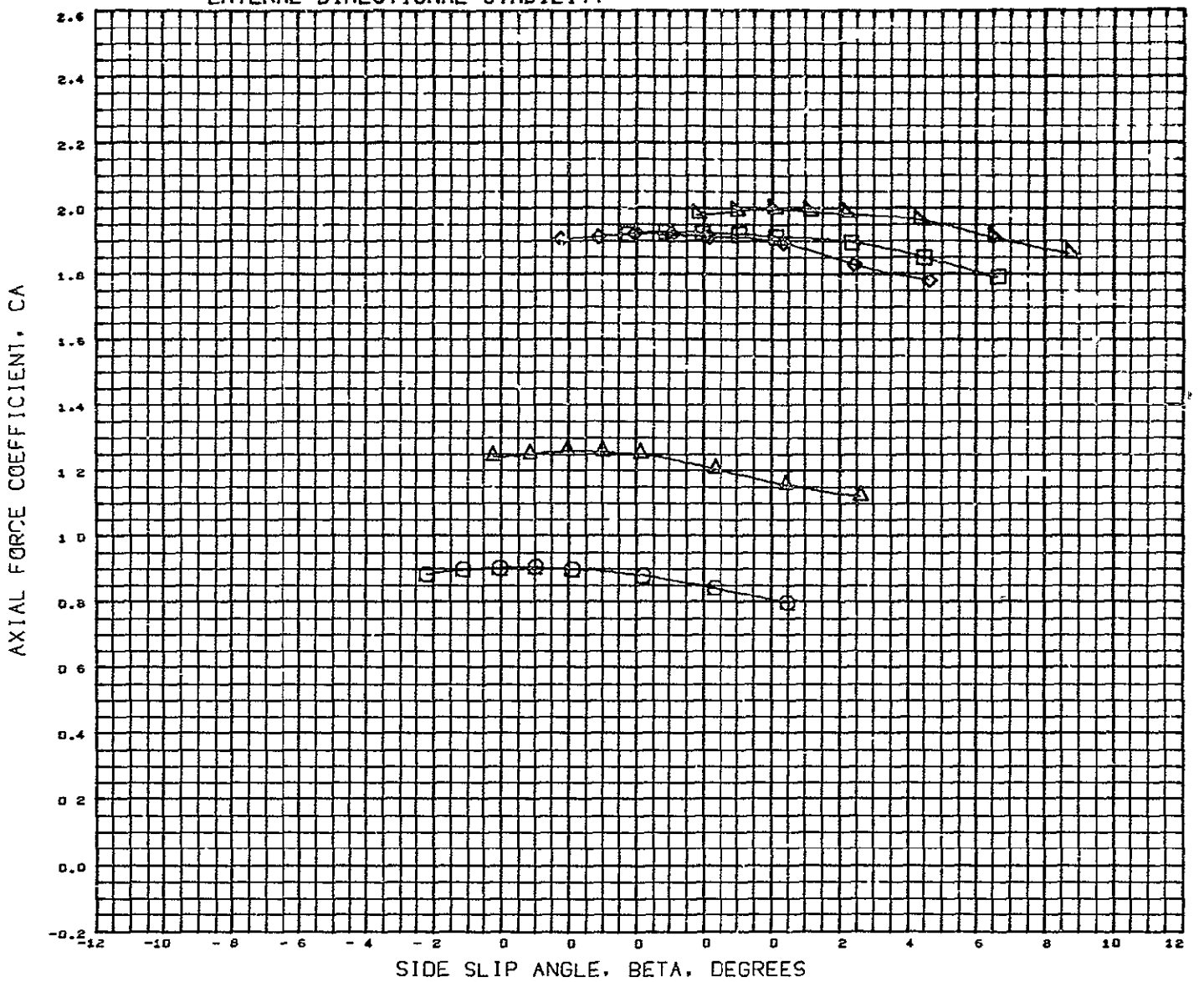
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.461	ALFHA	0.000	ORBINC	- 3.100
△	1.961				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

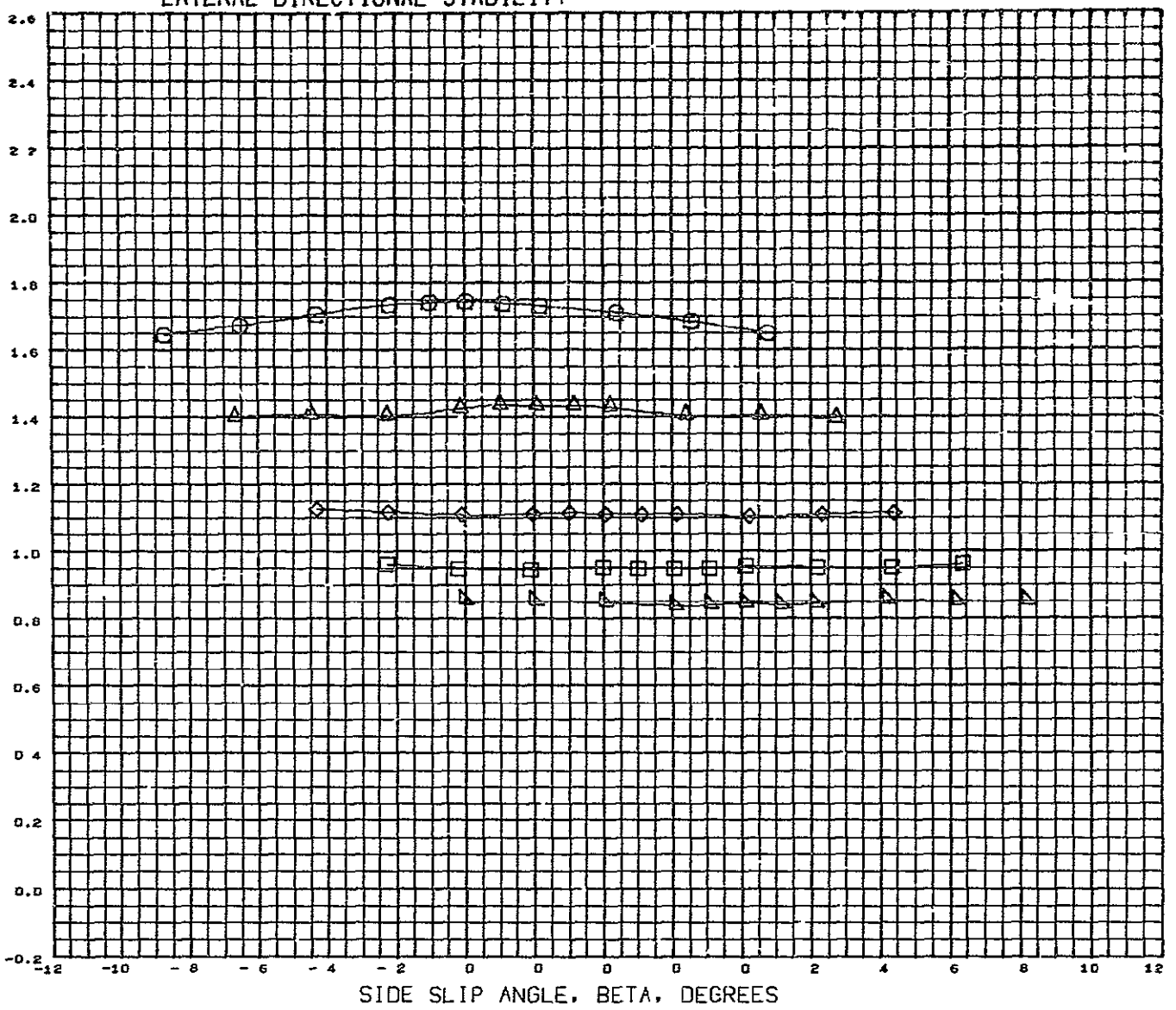


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.604	ALPHA	0.000	ORBINC	- 3.100
△	0.903				
◇	1.002				
□	1.102				
▽	1.196				

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0010	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



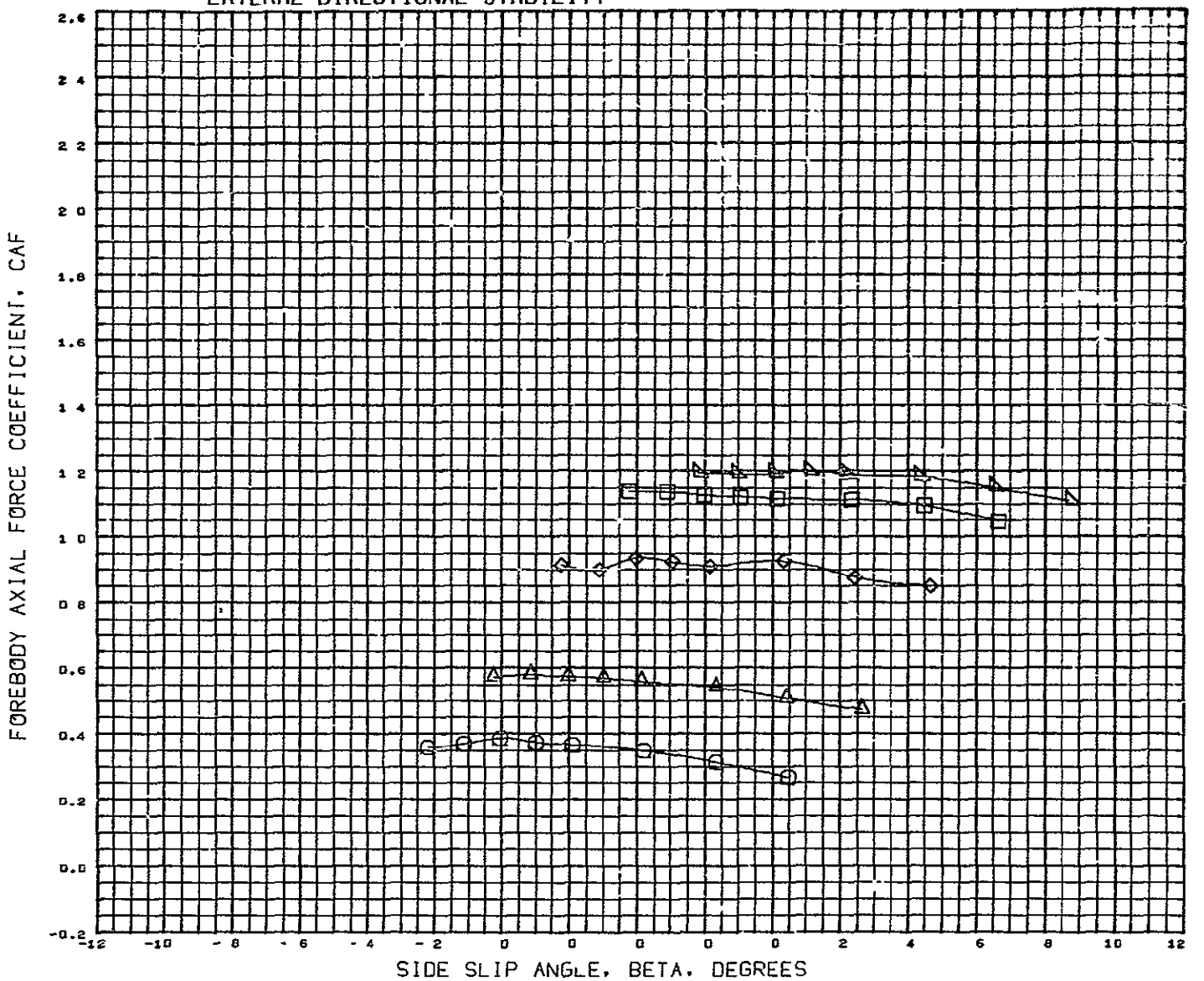
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.461	ALPHA	0.000	ORBINC	- 3 100
△	1 961				
◇	2 990				
□	4.000				
▷	4 959				

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.604	ALPHA	0.000	ORB.INC	-3.100
△	0.903				
◇	1.002				
□	1.102				
▽	1.196				

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

SYMBOL	MACH
○	1.461
△	1.961
◇	2.990
□	4.000
◸	4.959

PARAMETRIC VALUES

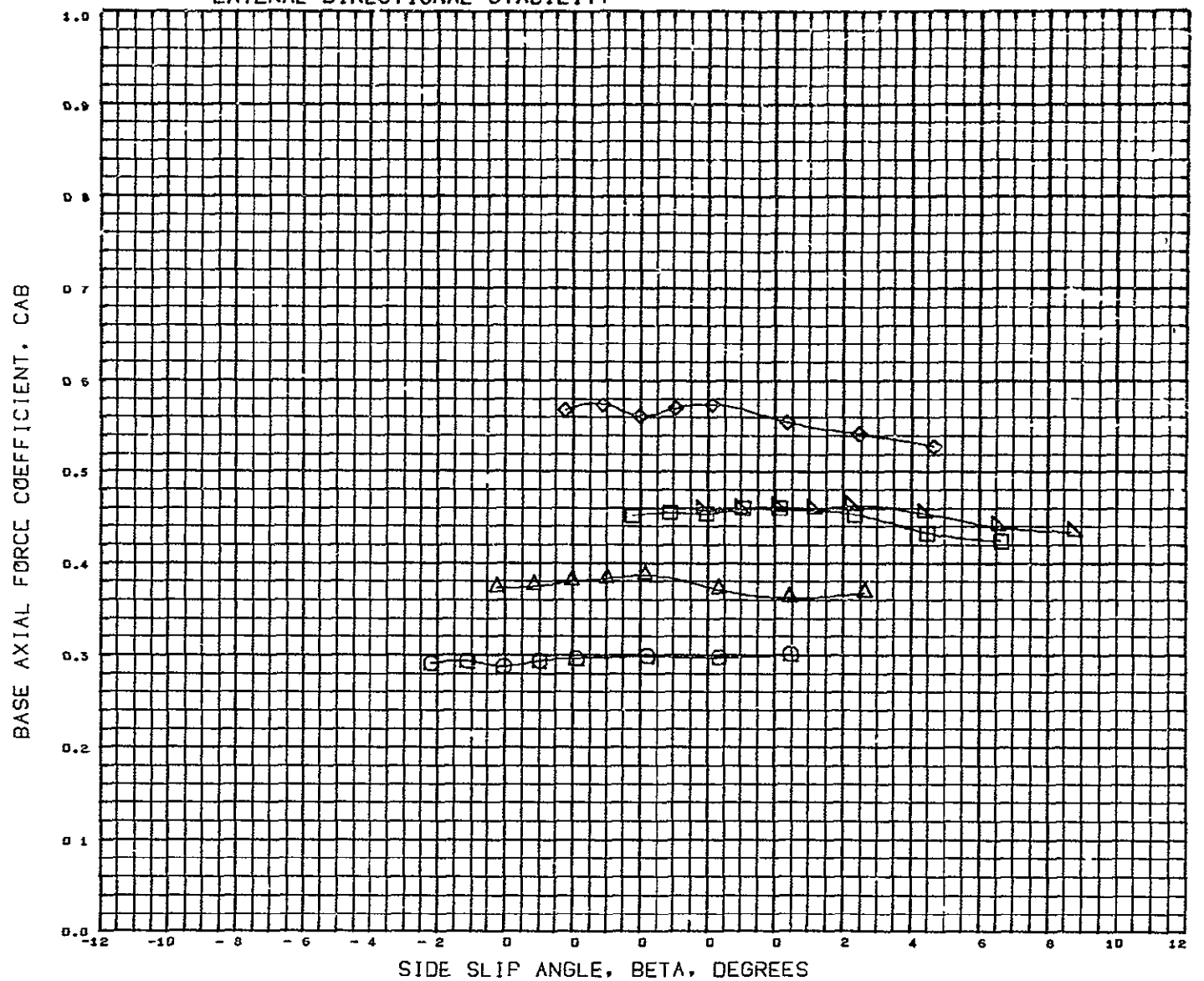
ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



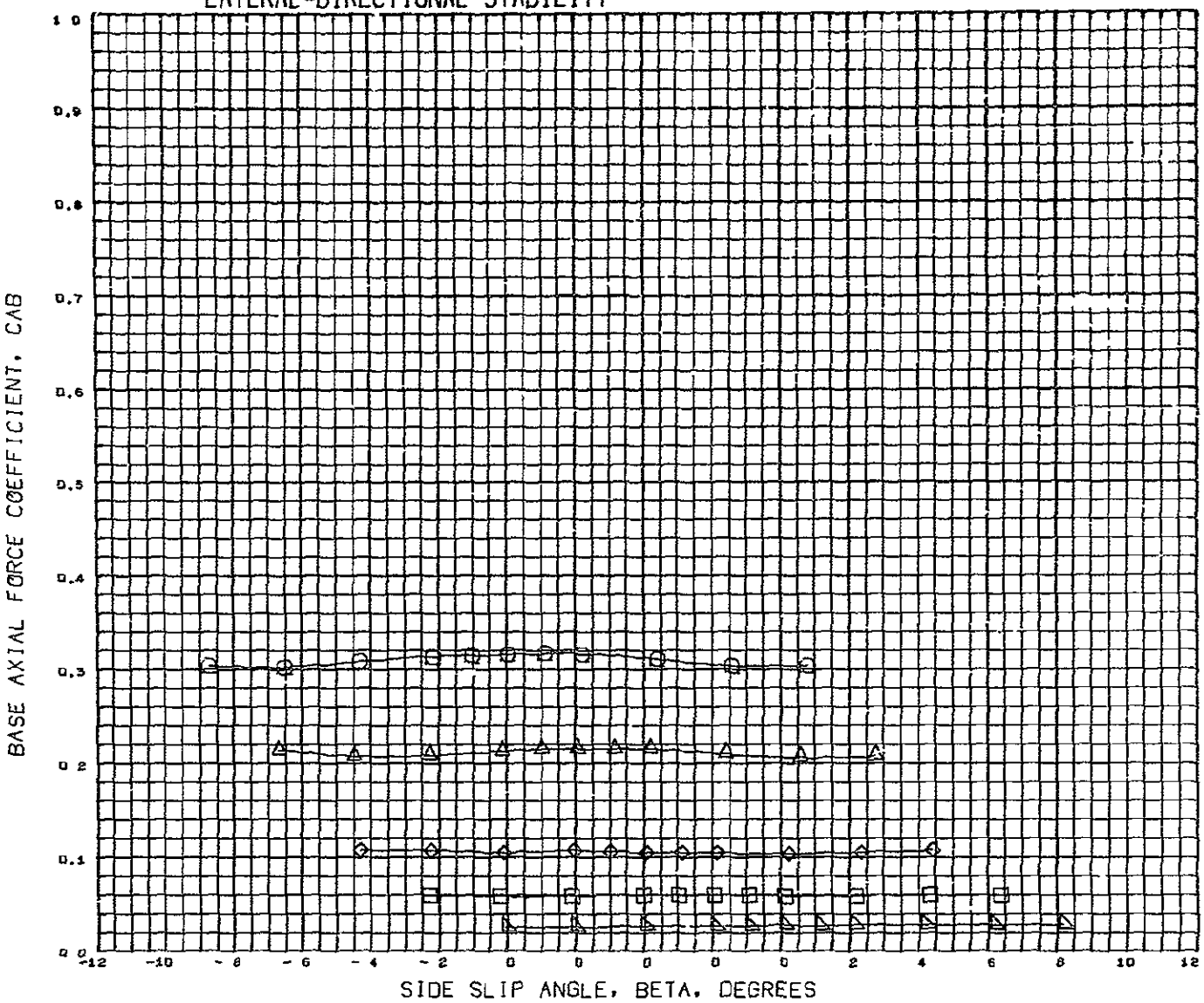
SYMBOL	MACH	PARAMETRIC VALUES		
	0.604	ALPHA	0 000	ORBINC - 3 100
	0 903			
	1 002			
	1 102			
	1.196			

DATA HIST CODE M#E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0020	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH
▽	1.461
□	1.961
◇	2 990
△	4 000
○	4.959

PARAMETRIC VALUES

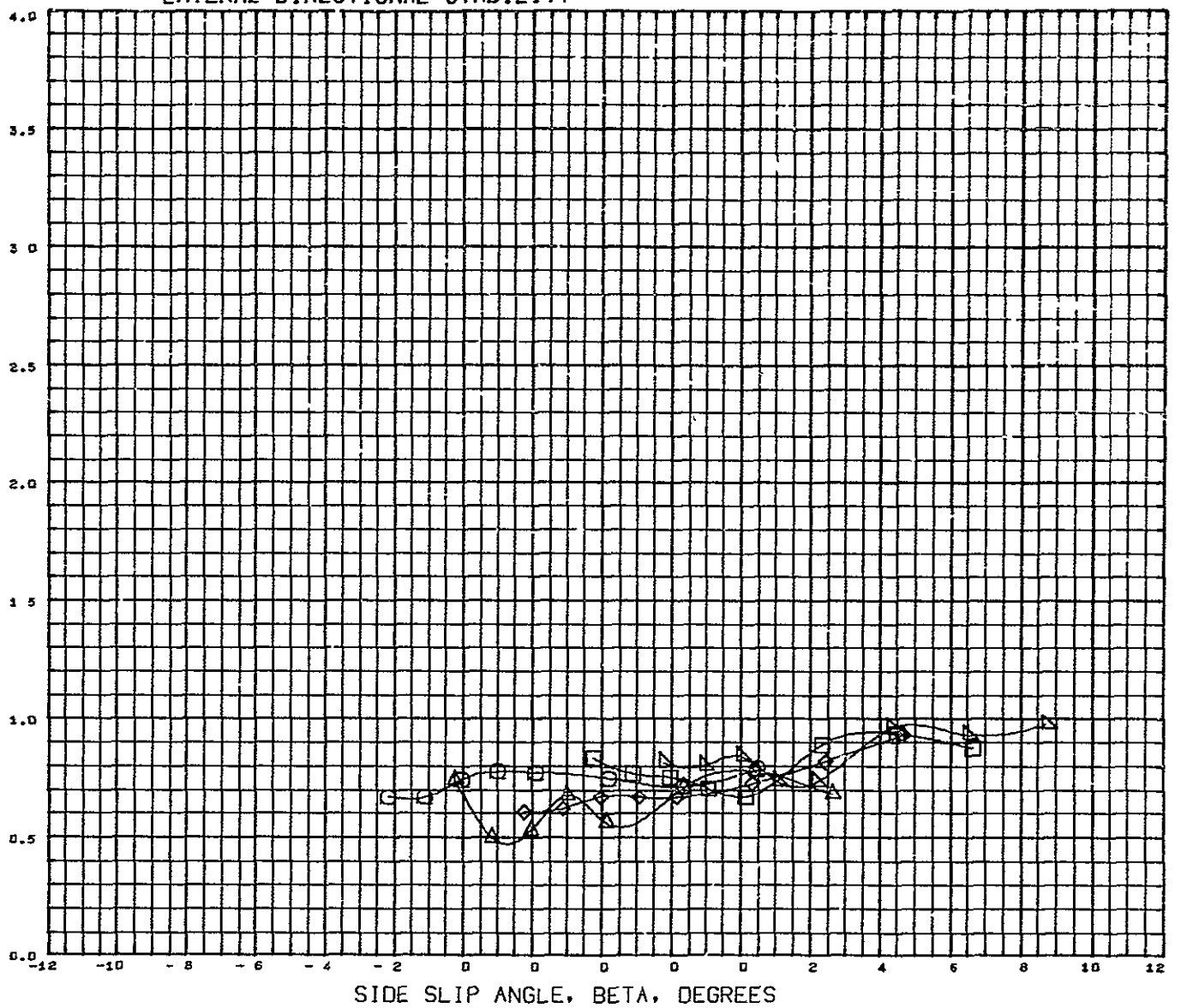
ALPHA 0.000 ORBINC - 3 100

DATA HIST CODE M*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

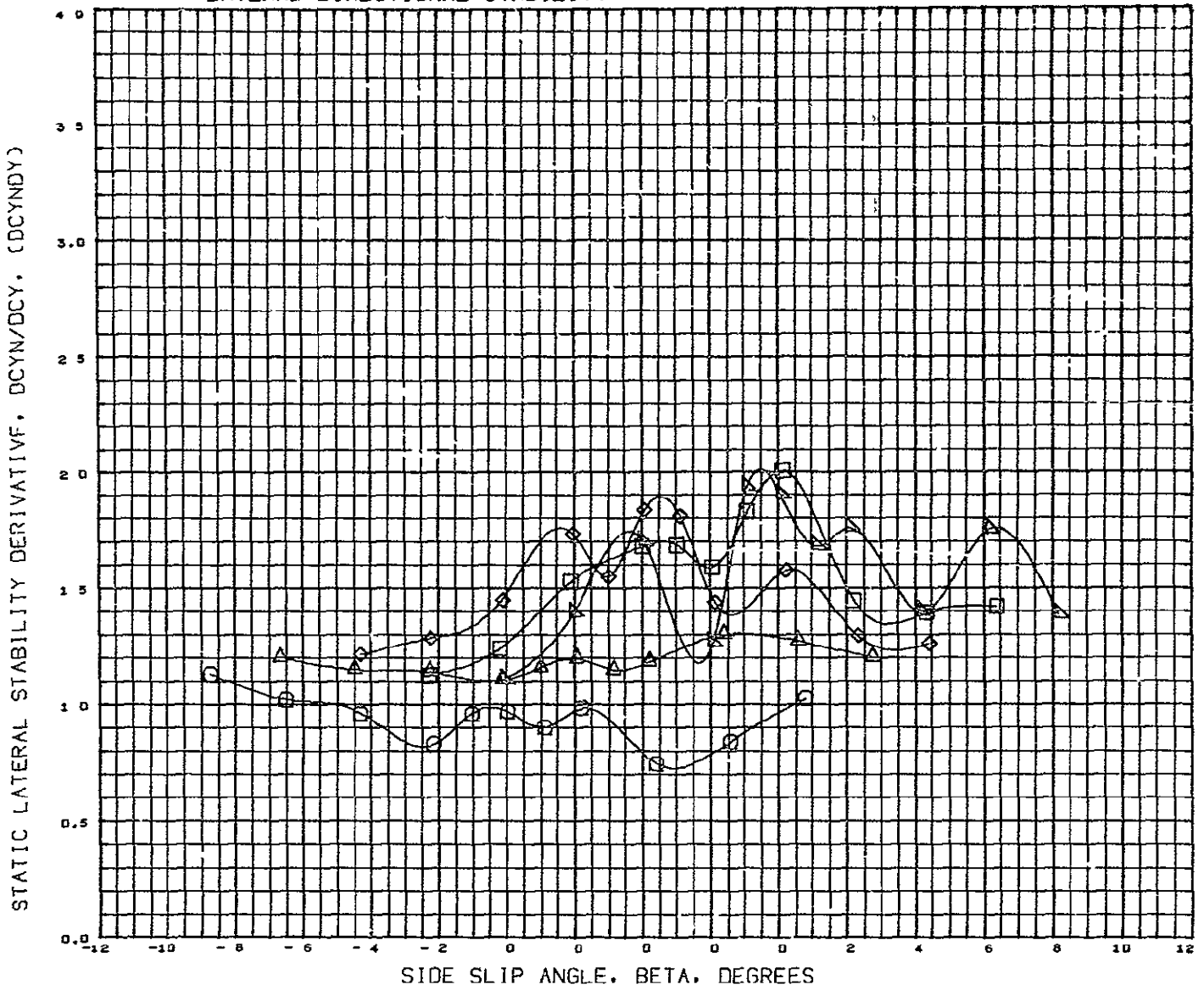


SYMBOL	MACH	PARAMETRIC VALUES			
	0.604	ALPHA	0 000	ORBINC	- 3 100
	0.903				
	1.002				
	1 102				
	1.196				

DATA HIST CODE H*E

REFERENCE INFORMATION		
SREF	1 3360	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY

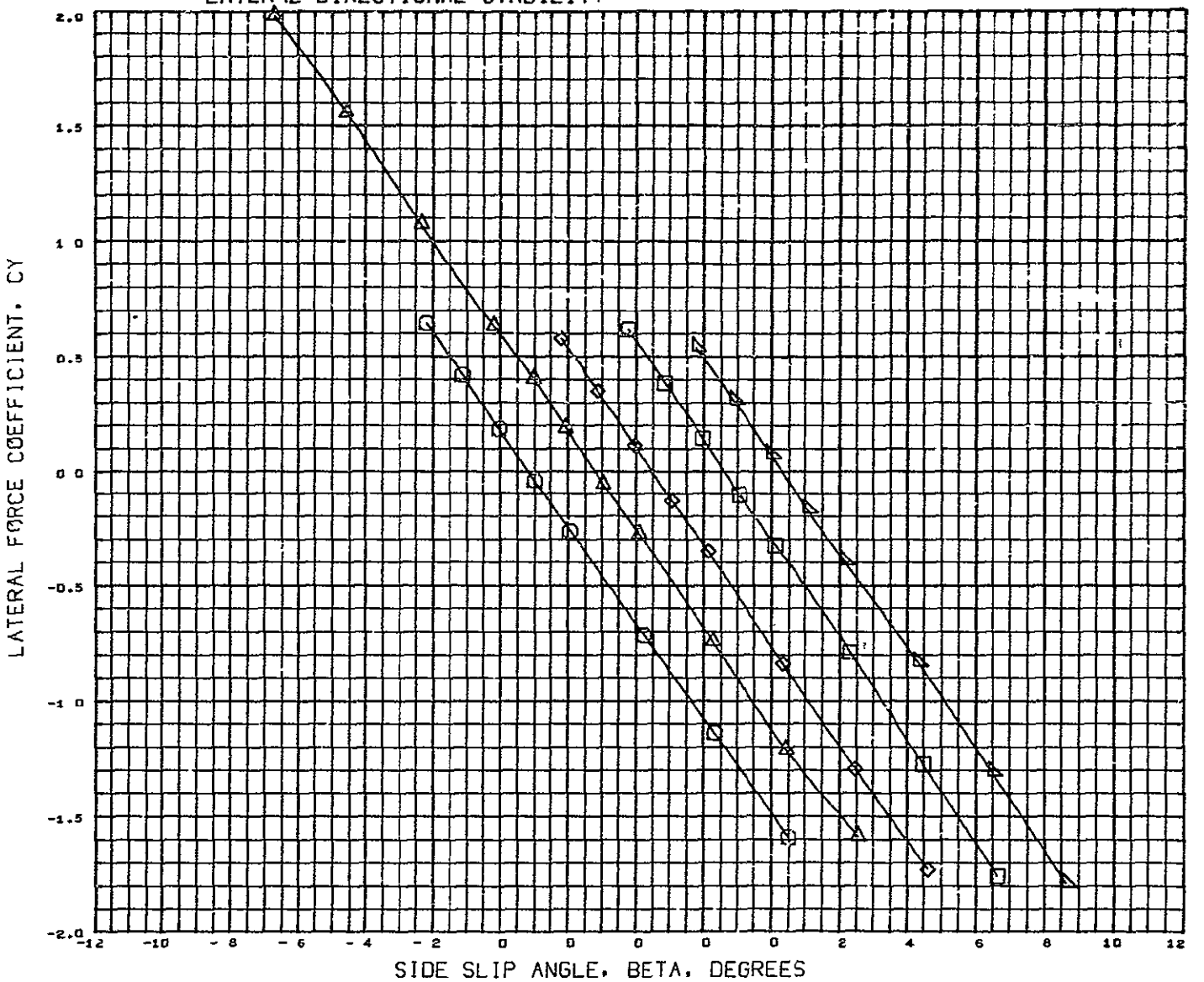


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.461	ALPHA	0 000	ORØINC	- 3 100
△	1 961				
◇	2 990				
□	4 000				
	4 959				

DATA HIST CODE N*E

REFERENCE INFORMATION		
SREF	1 3960	Sq IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0300	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY

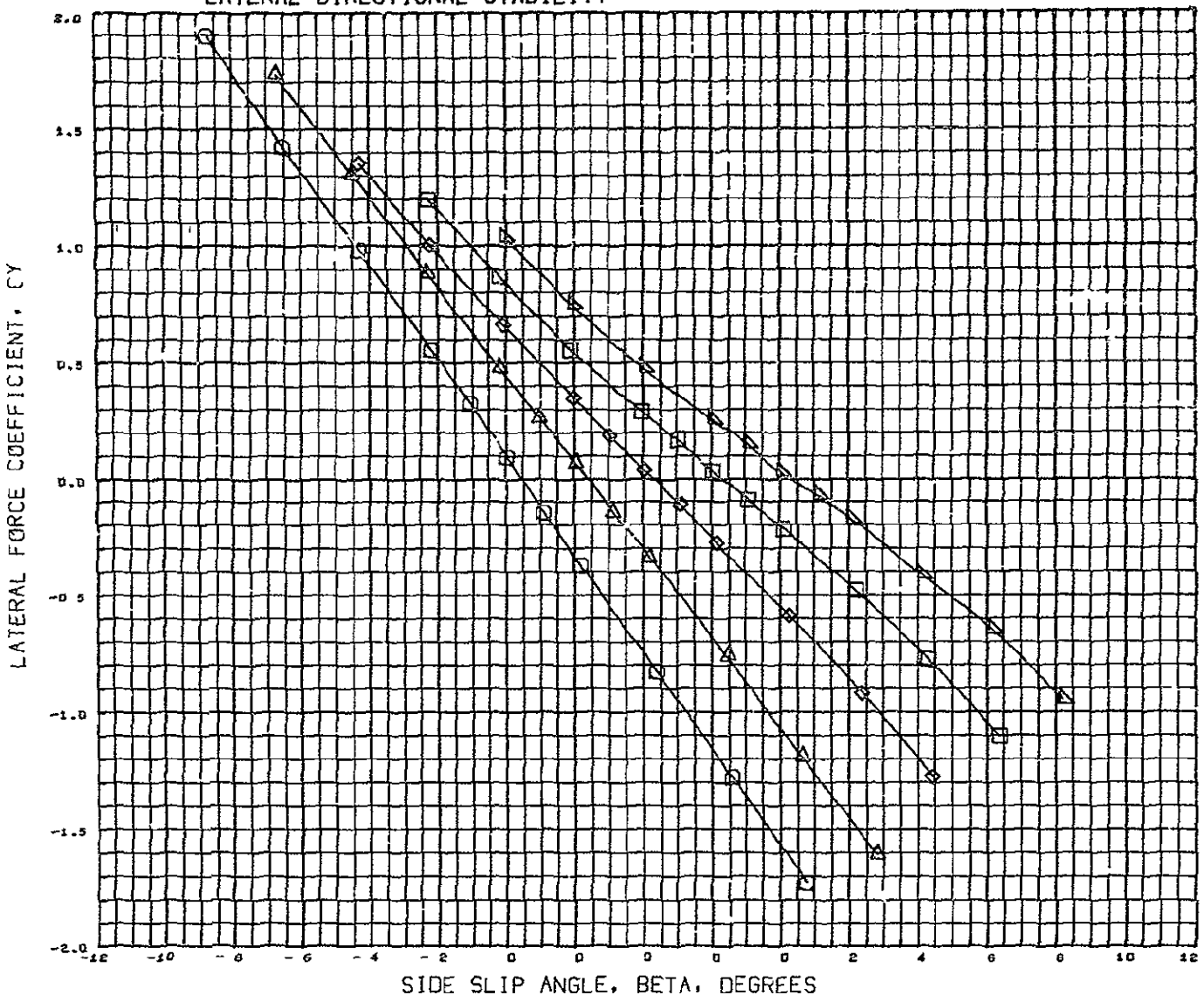


SYMBOL	MACH	PARAMETRIC VALUES			
	0.602	ALPHA	0.000	ORBINC	- 3.100
	0.900				
	1.005				
	1.098				
	1.196				

DATA HIST CODE *AH*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0020	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

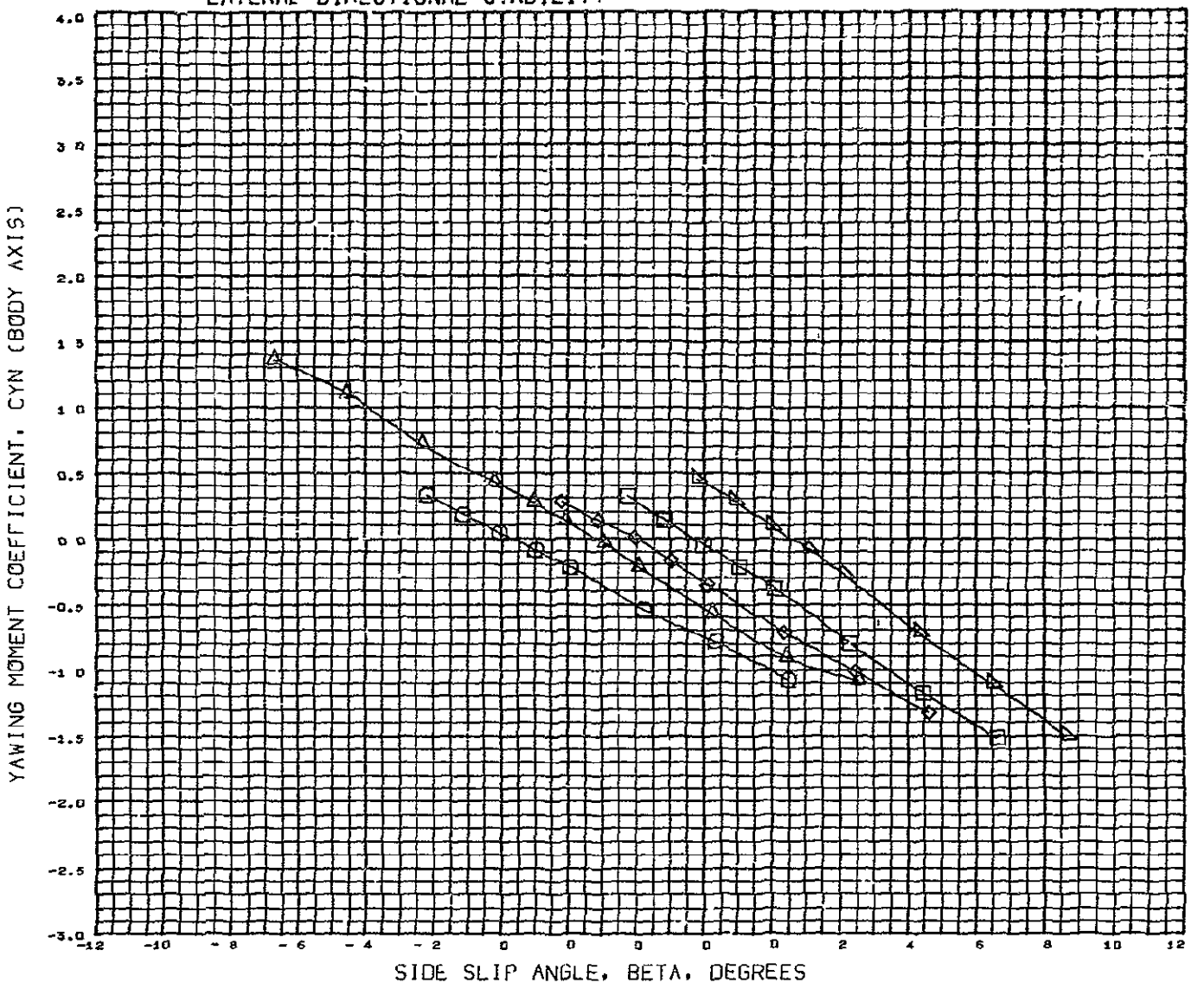


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	ALPHA	0.000	ORBINC	- 3.100
△	1.952				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE *AM*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

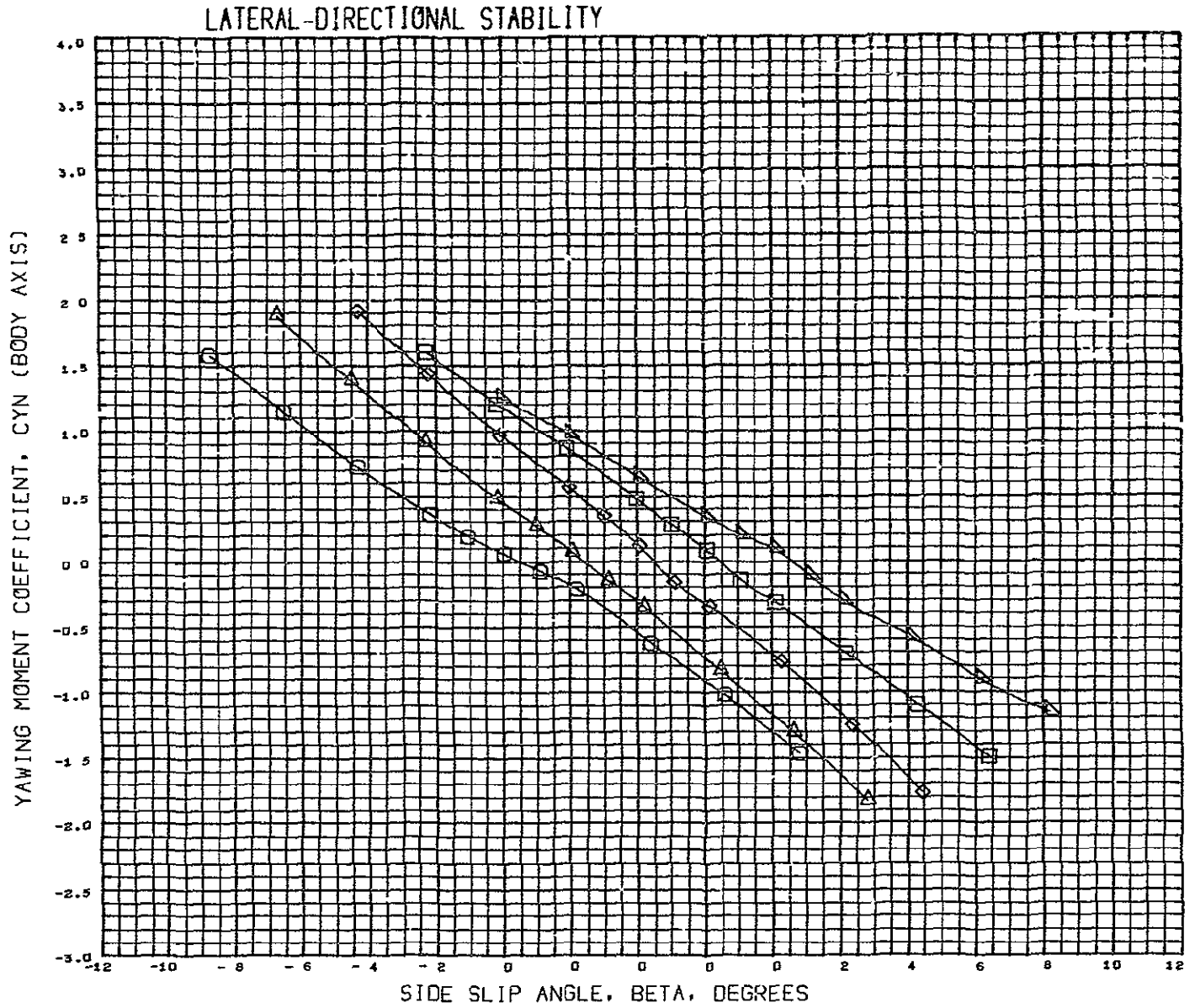


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	ALPHA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.005				
□	1.098				
▷	1.196				

DATA HIST CODE *AM*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



SYMBOL	MACH
▽	1.463
△	1.952
◇	2.990
□	4.000
○	4.959

PARAMETRIC VALUES

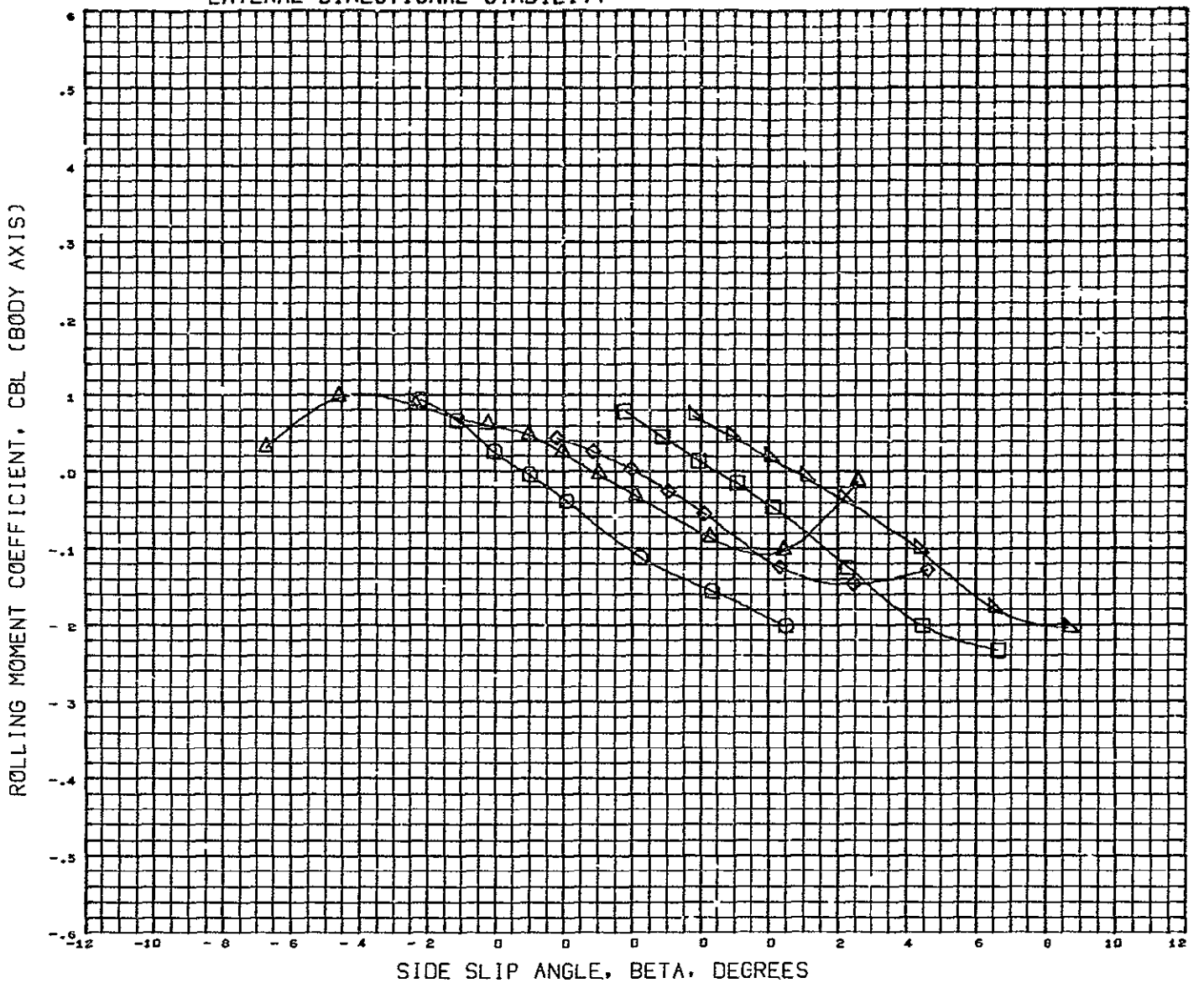
ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE *AM*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0063	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

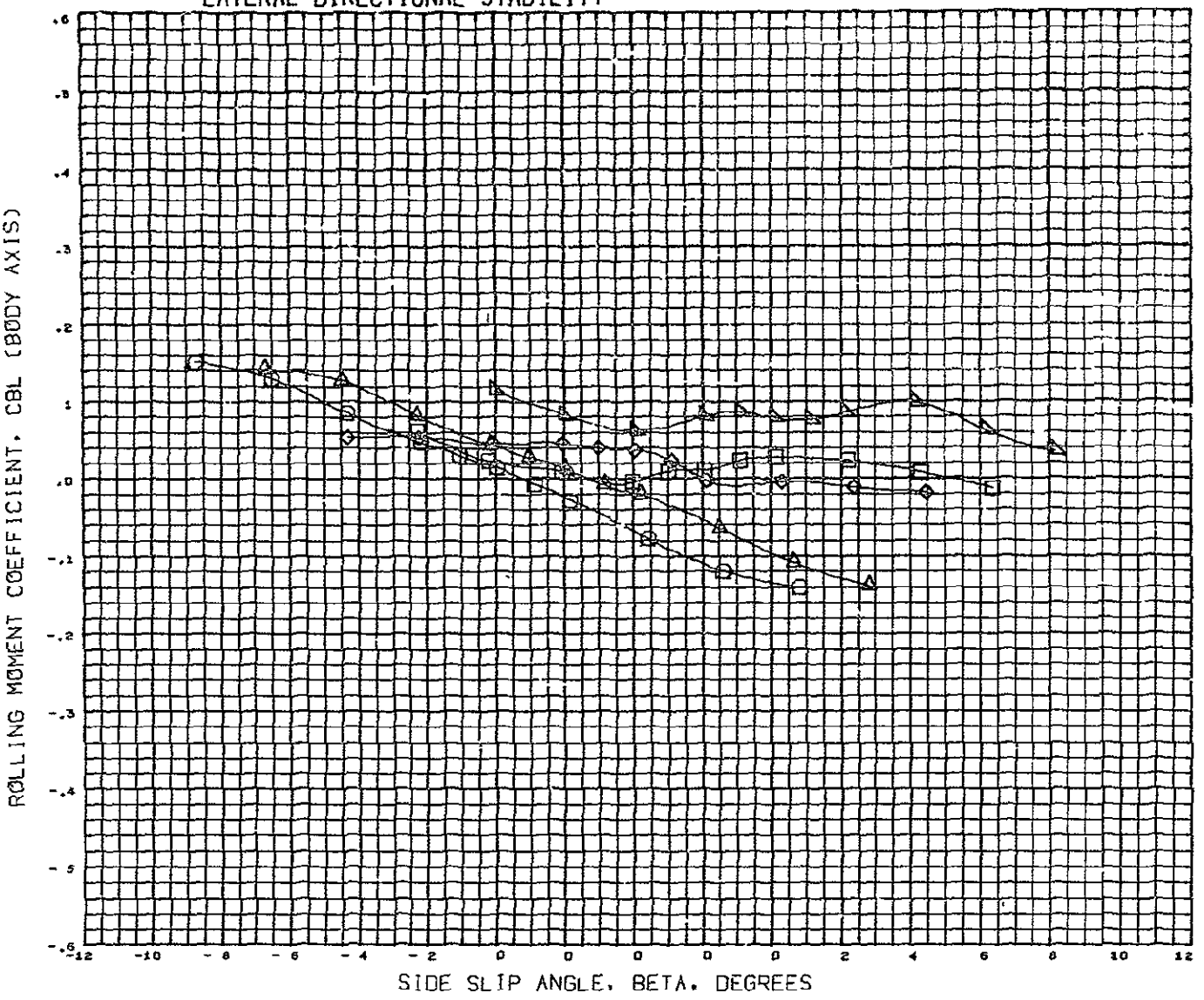


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	ALPHA	0 000	ORBINC	- 3.100
△	0 900				
◇	1 005				
□	1 098				
▽	1 196				

DATA HIST CODE *AM*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY

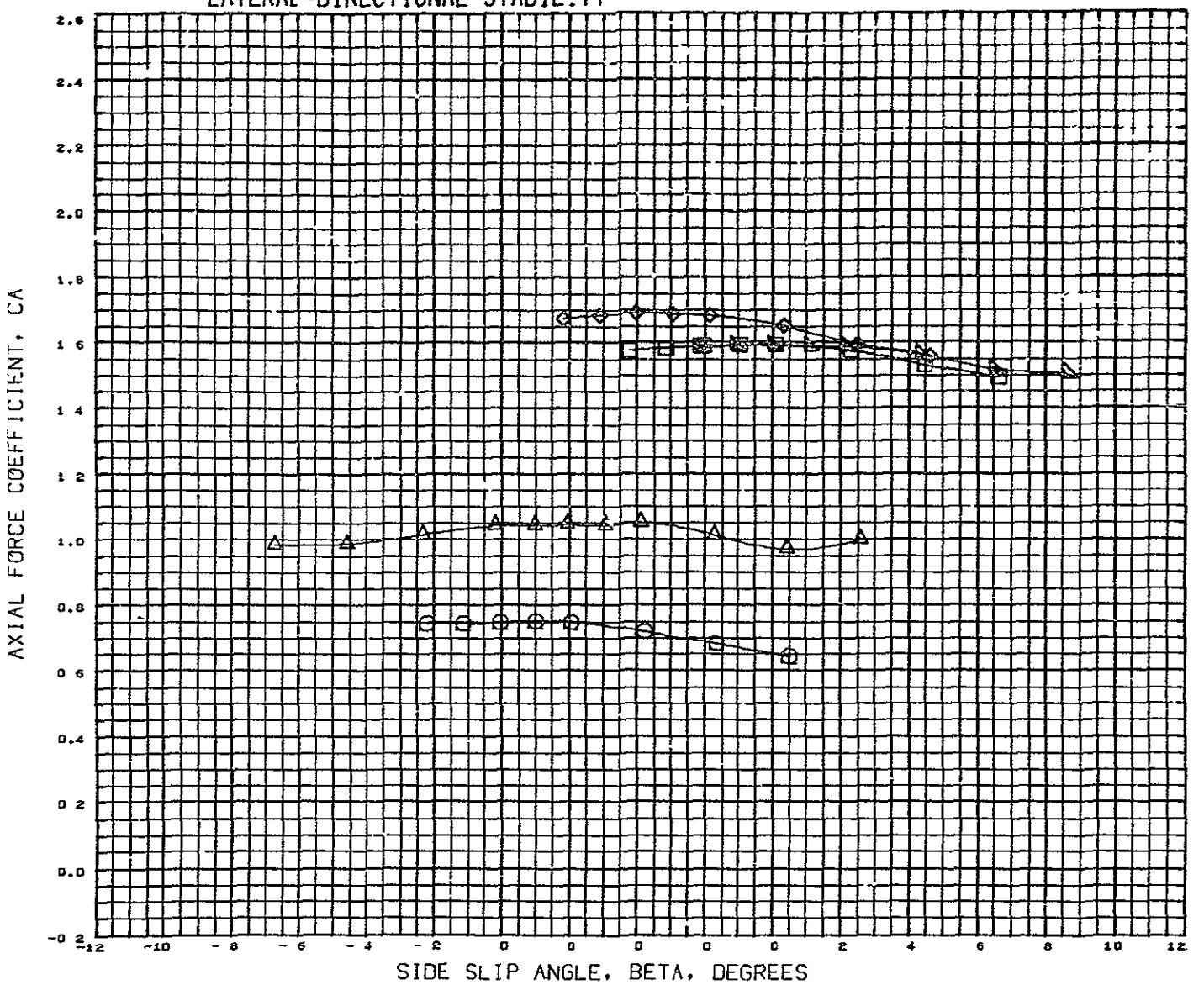


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	ALPHA	0.000	ORBINC	- 3.100
△	1.952				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE *AM*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH
○	0 602
△	0.900
◇	1 005
□	1.098
⬠	1.196

PARAMETRIC VALUES

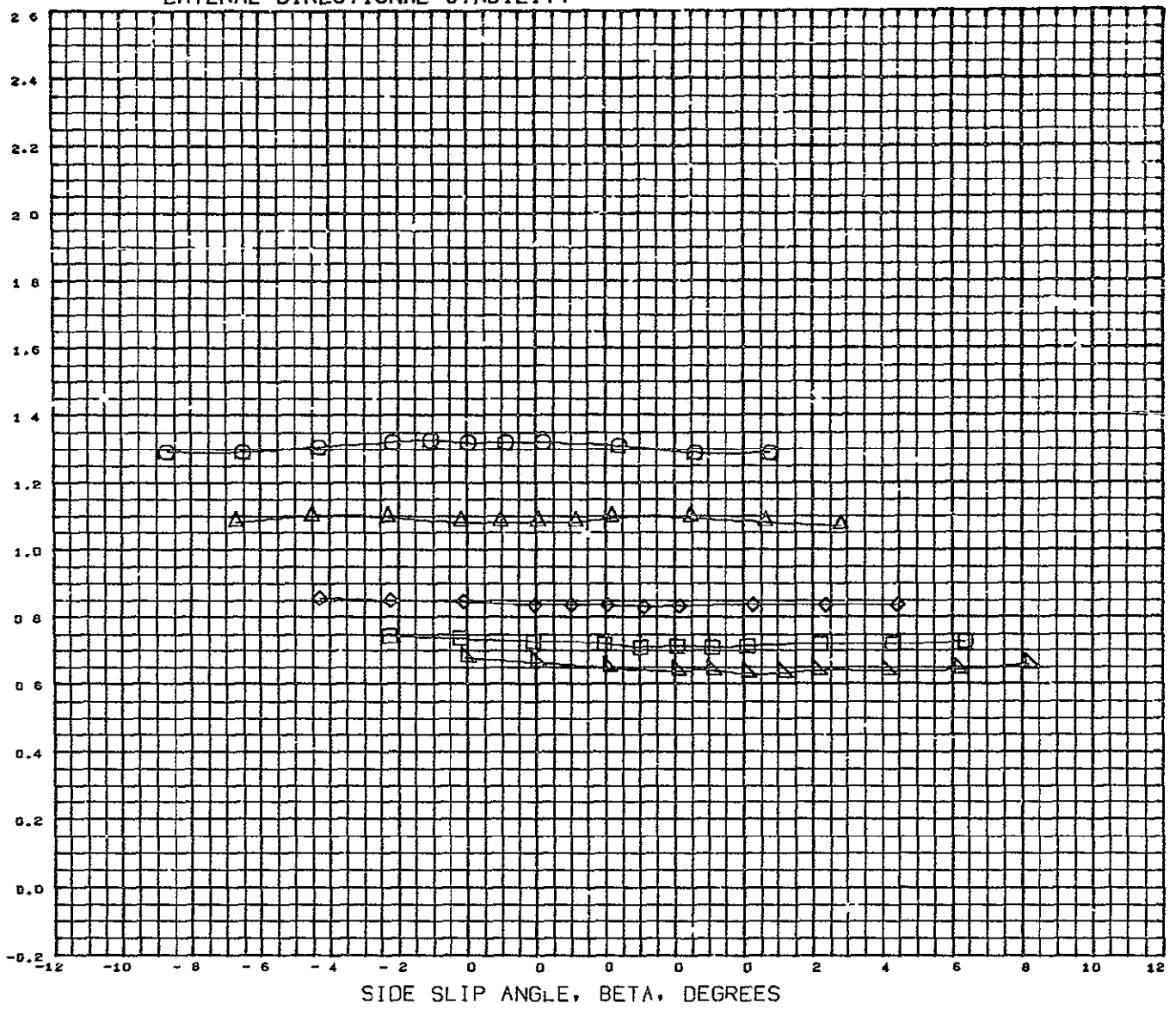
ALPHA 0 000 ORBINC - 3 100

DATA HIST. CODE *AH*E

REFERENCE & FORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY



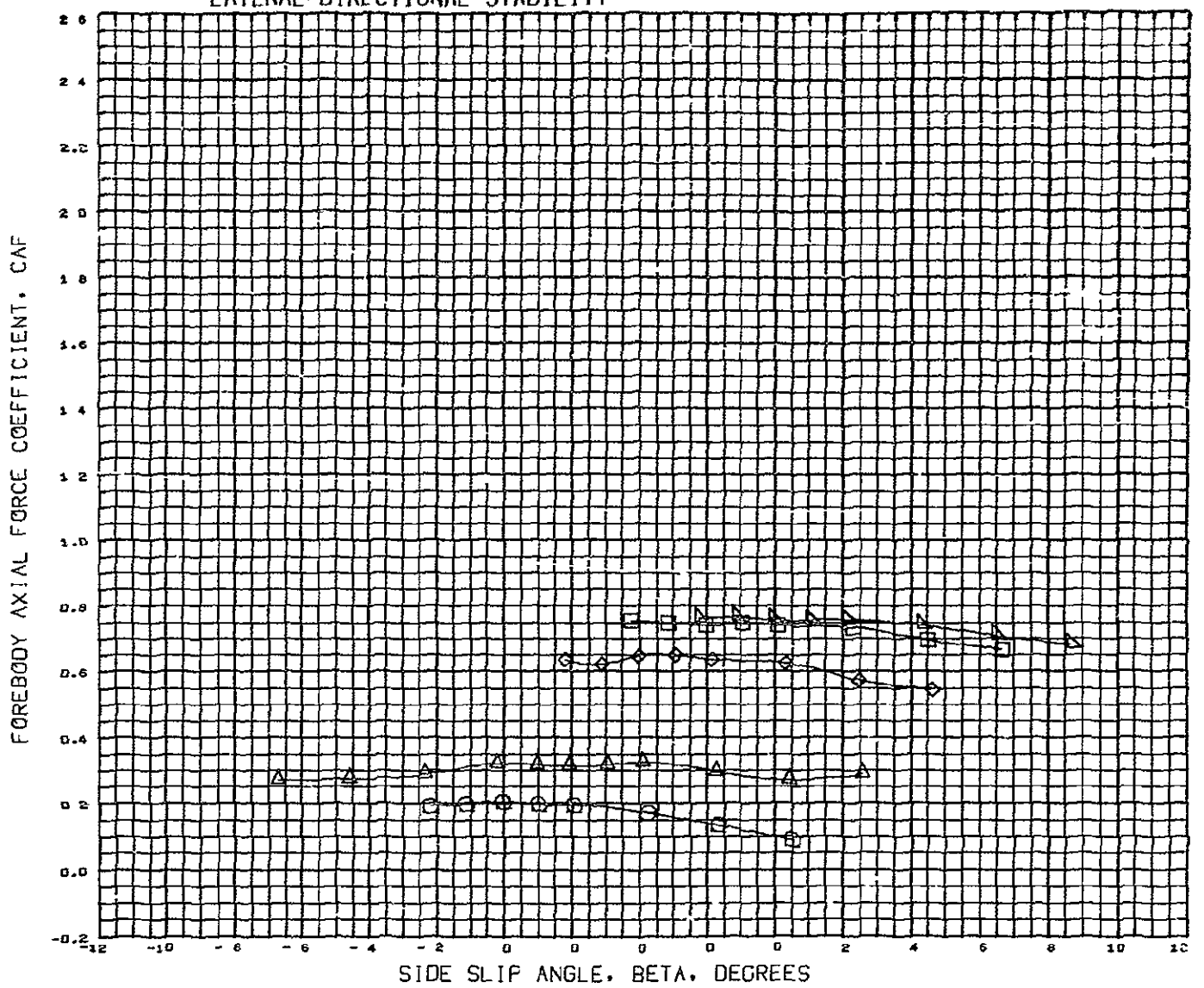
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	ALPHA	0 000	ORBINC	- 3 100
△	1.952				
◇	2 990				
□	4 000				
▽	4 959				

DATA HIST CODE *AN*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY

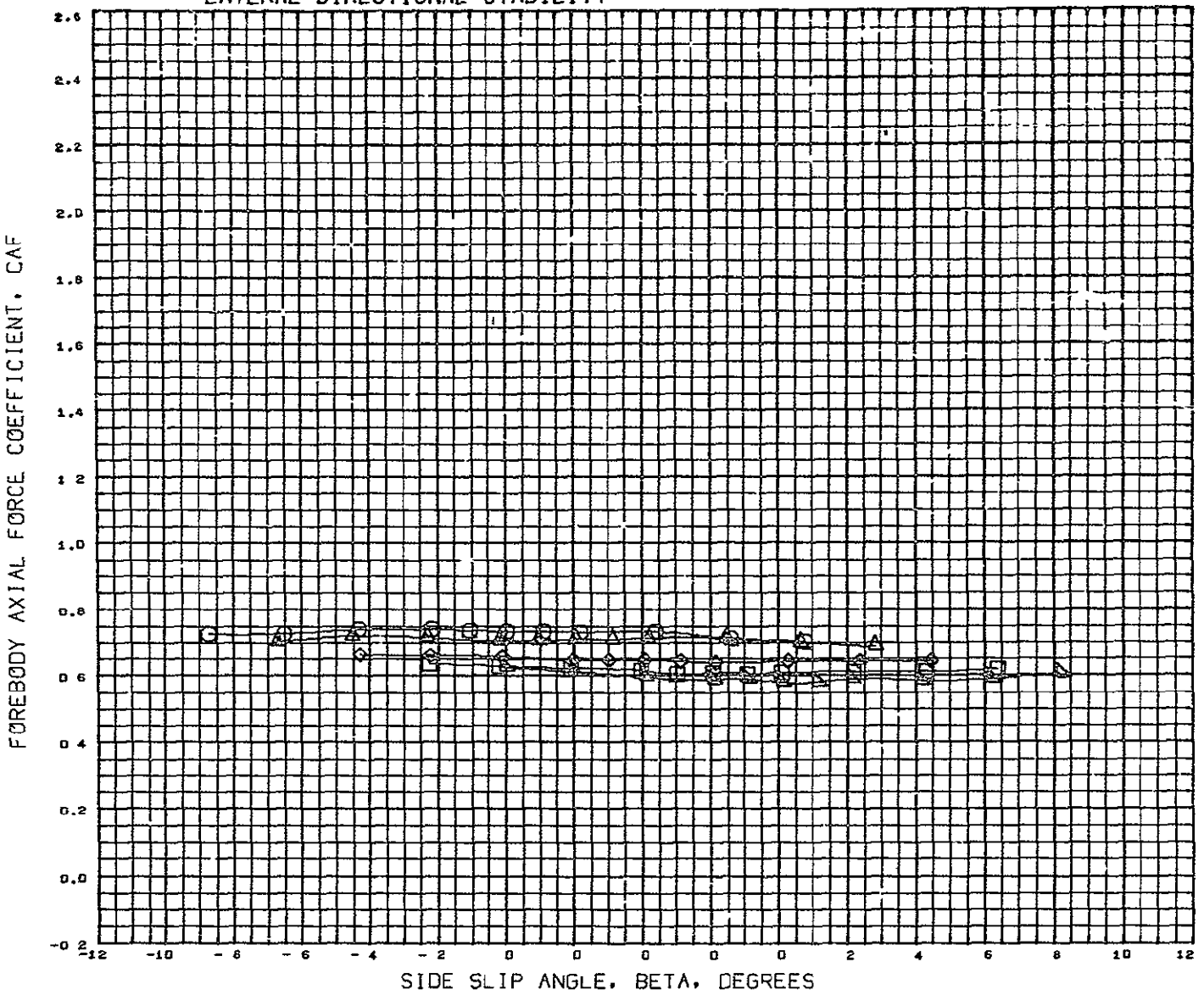


SYMBOL	MACH	PARAMETRIC VALUES		
	0.602	ALPHA	0.000	ORBINC - 3.100
	0.900			
	1.005			
	1.098			
	1.196			

DATA HIST CODE *AM*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

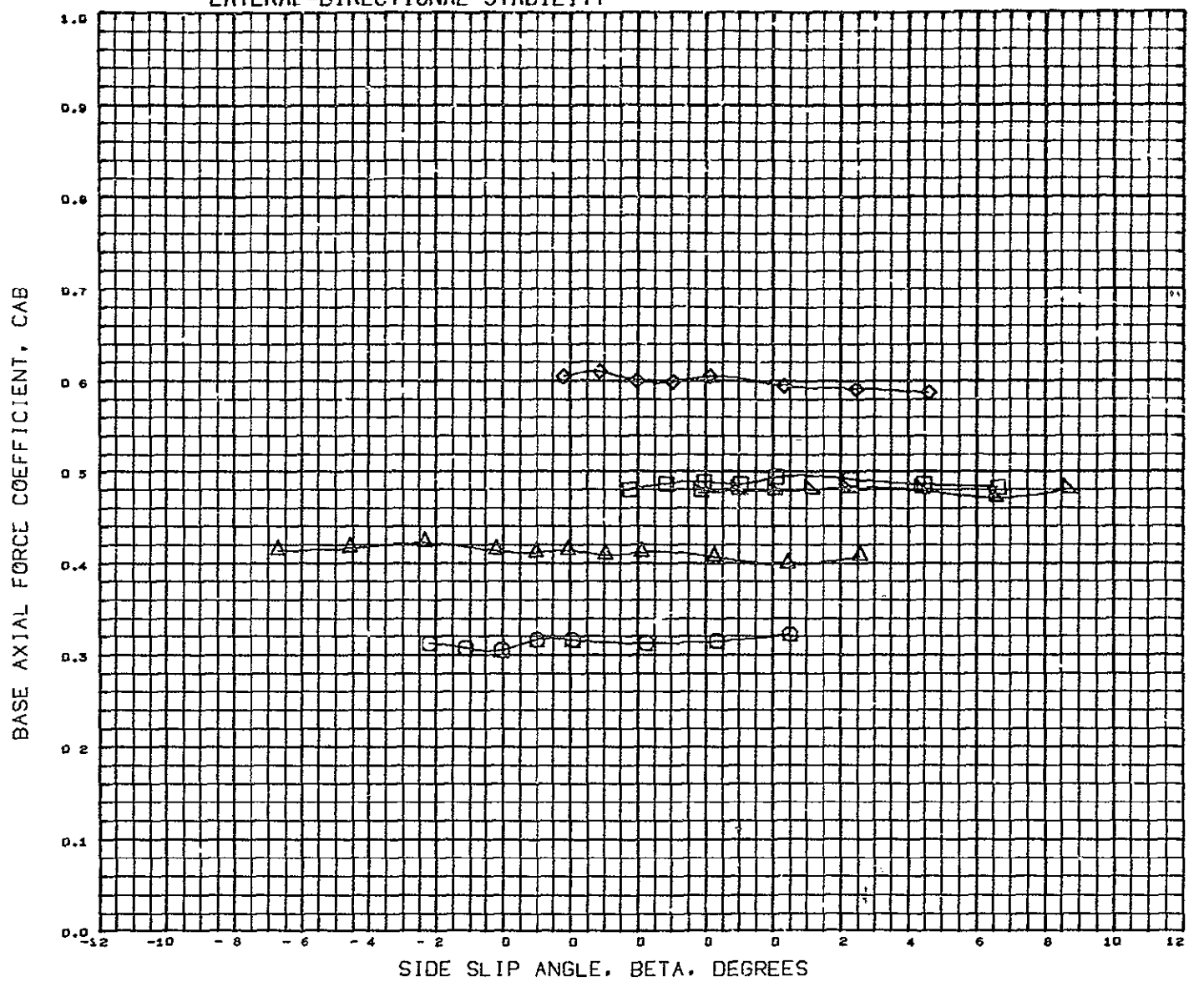
LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
○	1.463	ALPHA	0.000	ORBINC - 3.100	SREF	1.3960	SQ IN
△	1.952				LREF	1.3330	IN
◇	2.990				BREF	1.3330	IN
□	4.000				XMRP	3.6860	IN
▽	4.959				YMRP	0.0000	IN
					ZMRP	0.0000	IN
					SCALE	0.003	

DATA HIST CODE *AM*E

LATERAL-DIRECTIONAL STABILITY



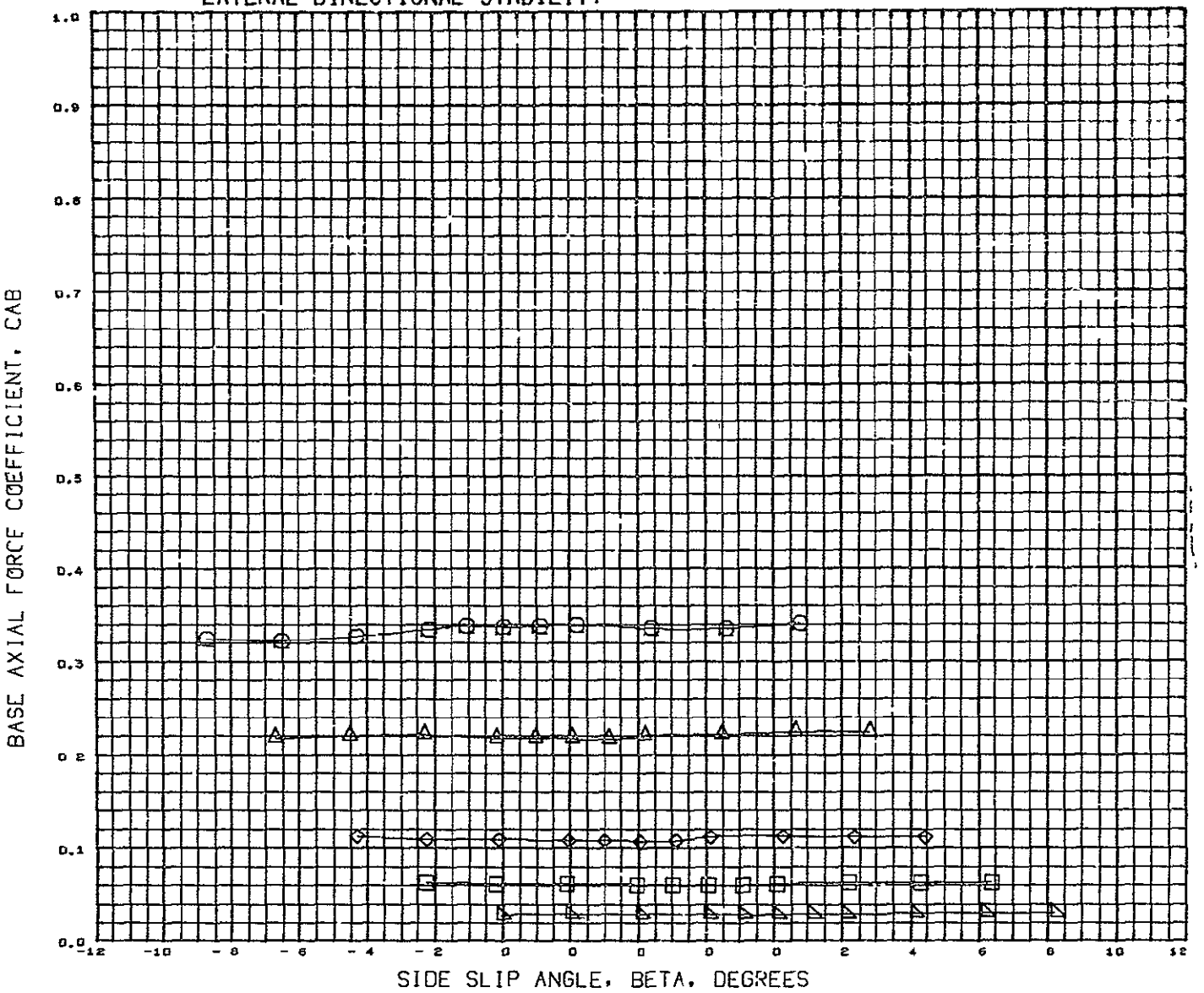
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	ALPHA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.005				
□	1.098				
▽	1.196				

DATA HIST CODE *AM*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0300	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



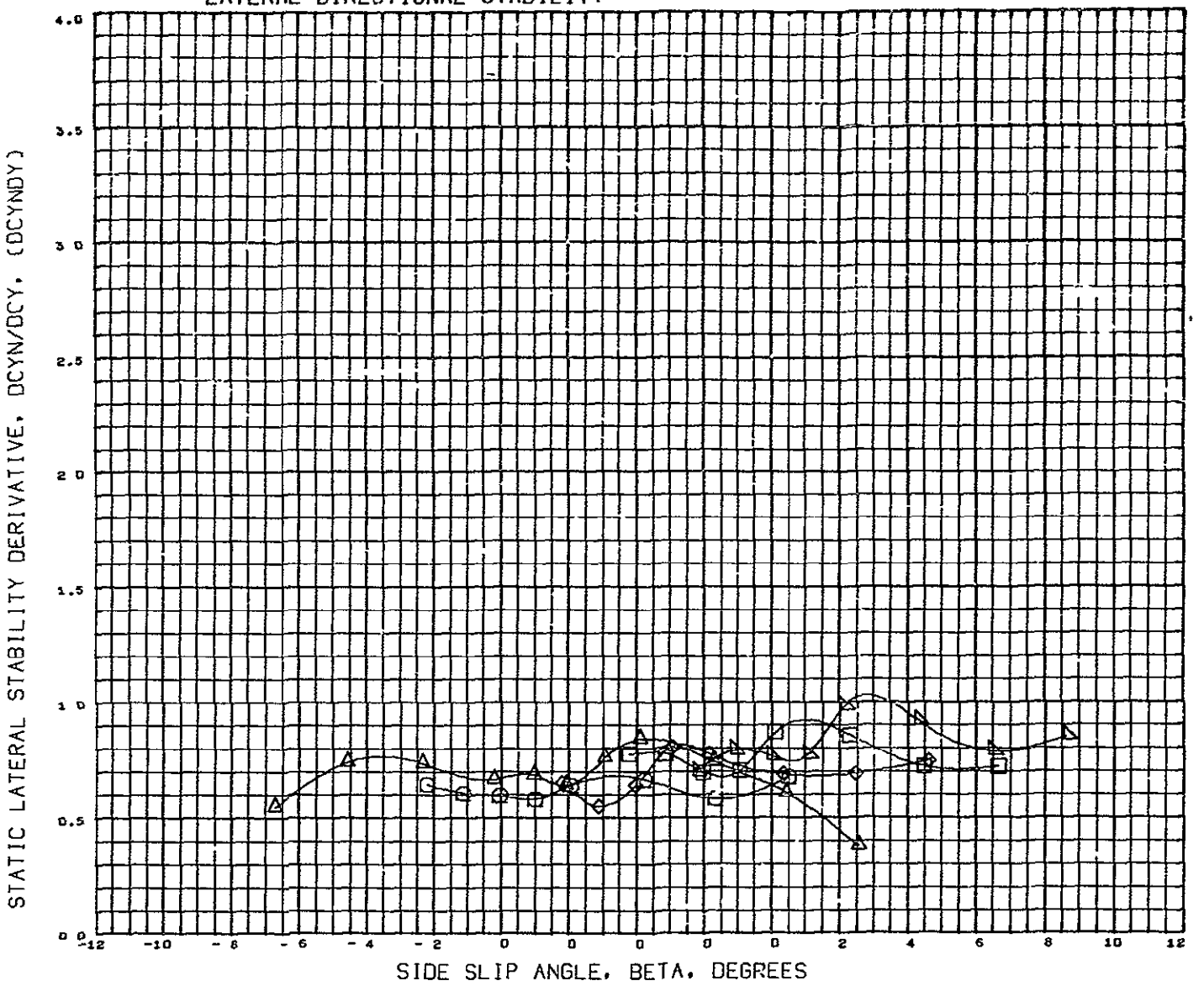
SYMBOL	MACH	PARAMETRIC VALUES			
○	1 463	ALPHA	0 000	ORBINC	- 3 100
△	1 952				
◇	2 990				
□	4 000				
▽	4 959				

DATA HIST CODE *AM*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0003	IN
ZMRP	0 0006	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

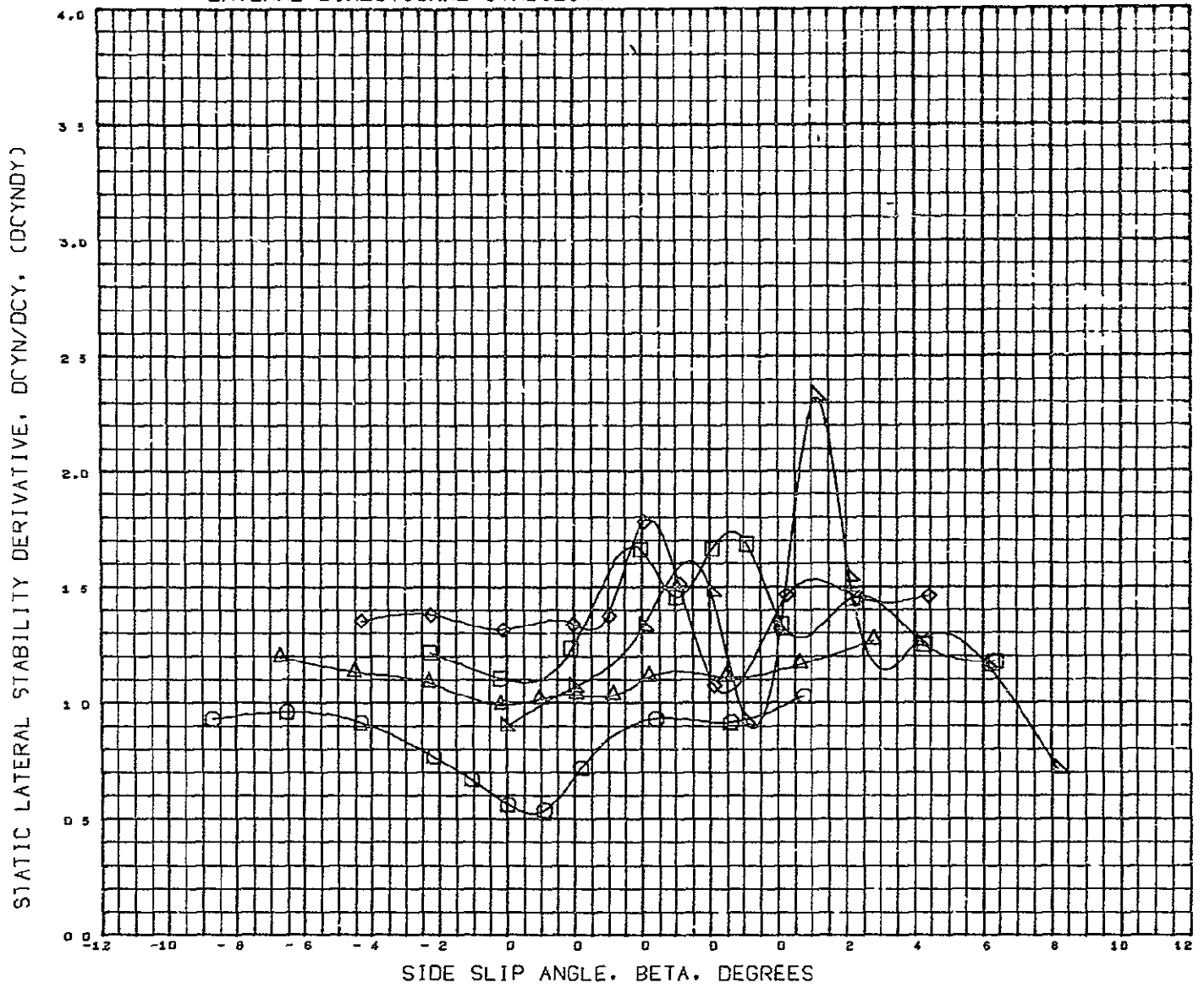


SYMBOL	MACH	PARAMETRIC VALUES		
△	0.602	ALPHA	0.000	ORBINC - 3.100
▷	0.900			
◇	1.005			
□	1.098			
○	1.196			

DATA HIST CODE *AM*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



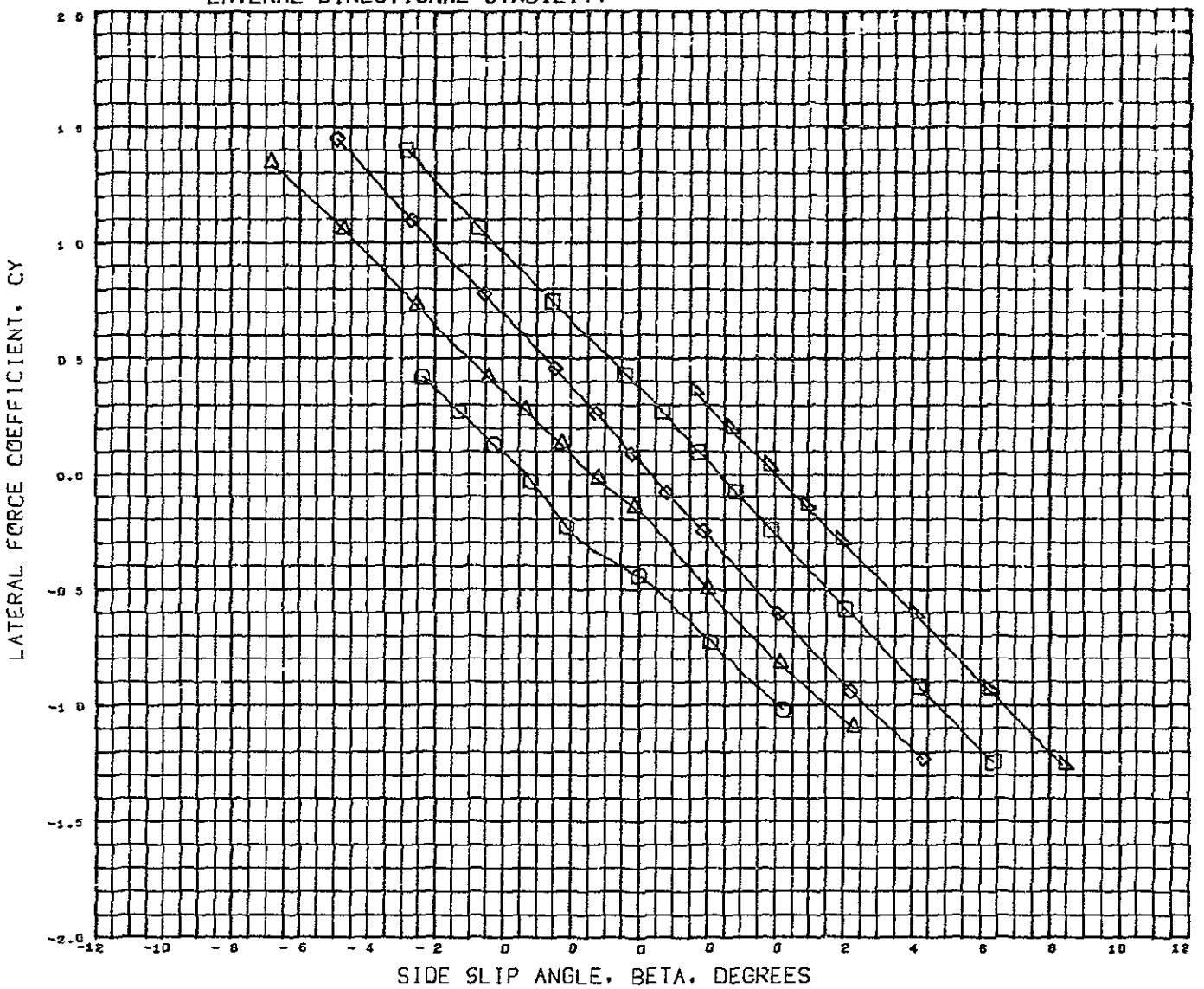
SYMBOL	MACH	PARAMETRIC VALUES			
	1.463	ALPHA	0.000	ORBINC	- 3.100
	1.952				
	2.990				
	4.000				
	4.959				

DATA HIST CODE #AH*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

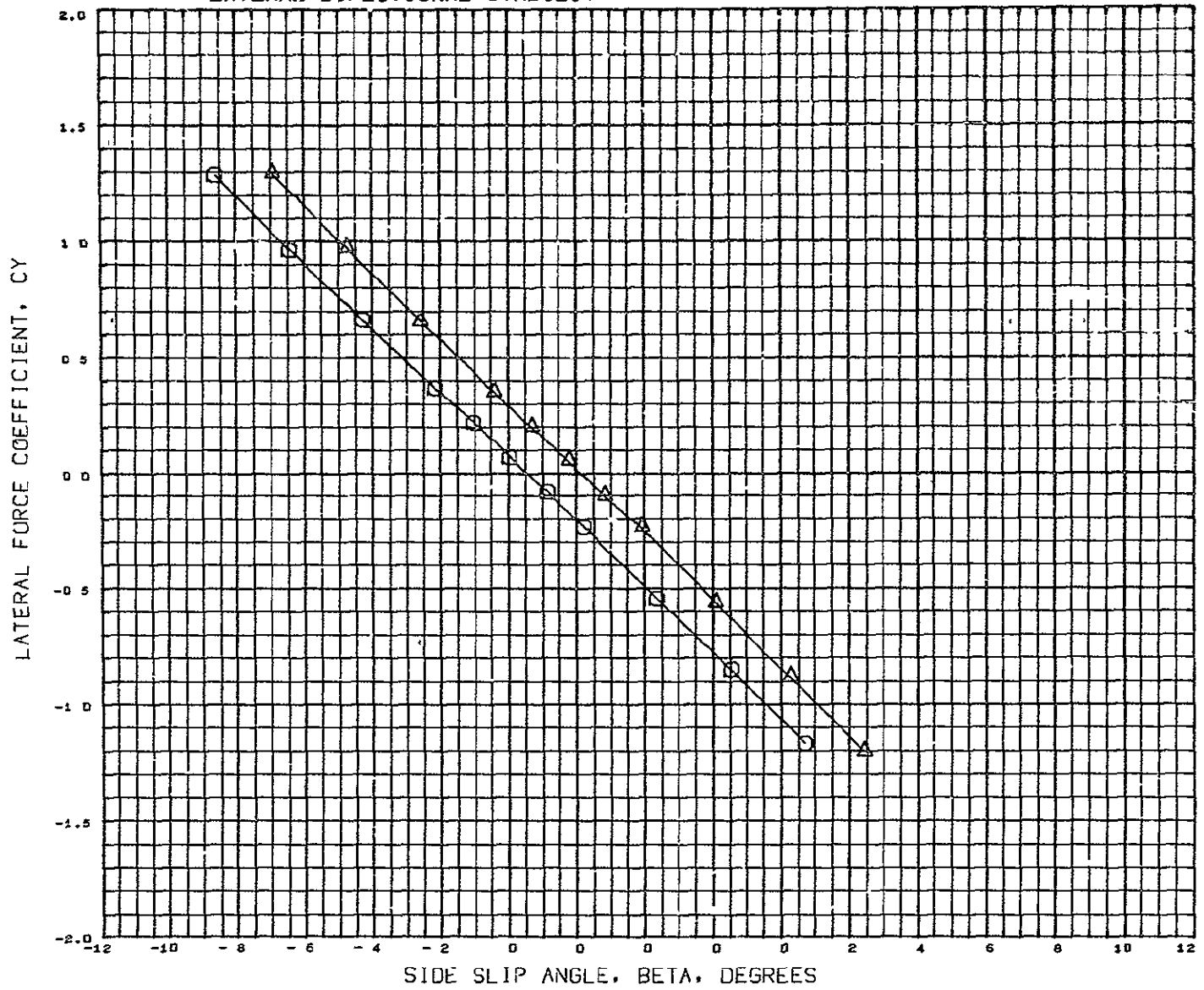
LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
	0.602	ALPHA	0.000	ORBINC - 3.100	SREF	1.3960	SQ IN
	0.902				LREF	1.3330	IN
	1.002				BREF	1.3330	IN
	1.101				XMRP	3.6860	IN
	1.194				YMRP	0.0000	IN
					ZMRP	0.0000	IN
					SCALE	0.0034	

DATA HIST CODE NH*E

LATERAL-DIRECTIONAL STABILITY

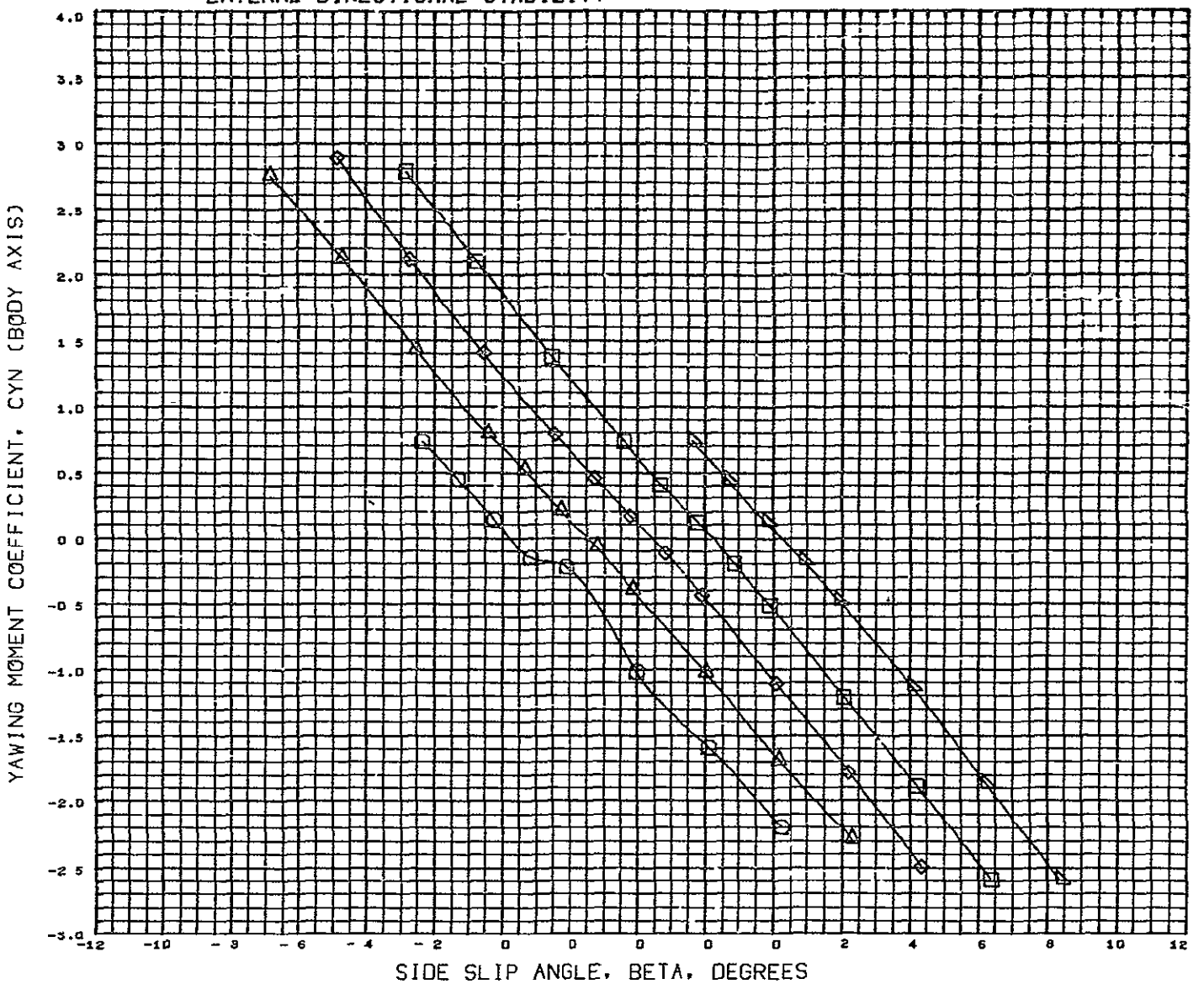


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	ALPHA	0.000	ORBINC	-3.100
△	1.955				

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*E

LATERAL-DIRECTIONAL STABILITY

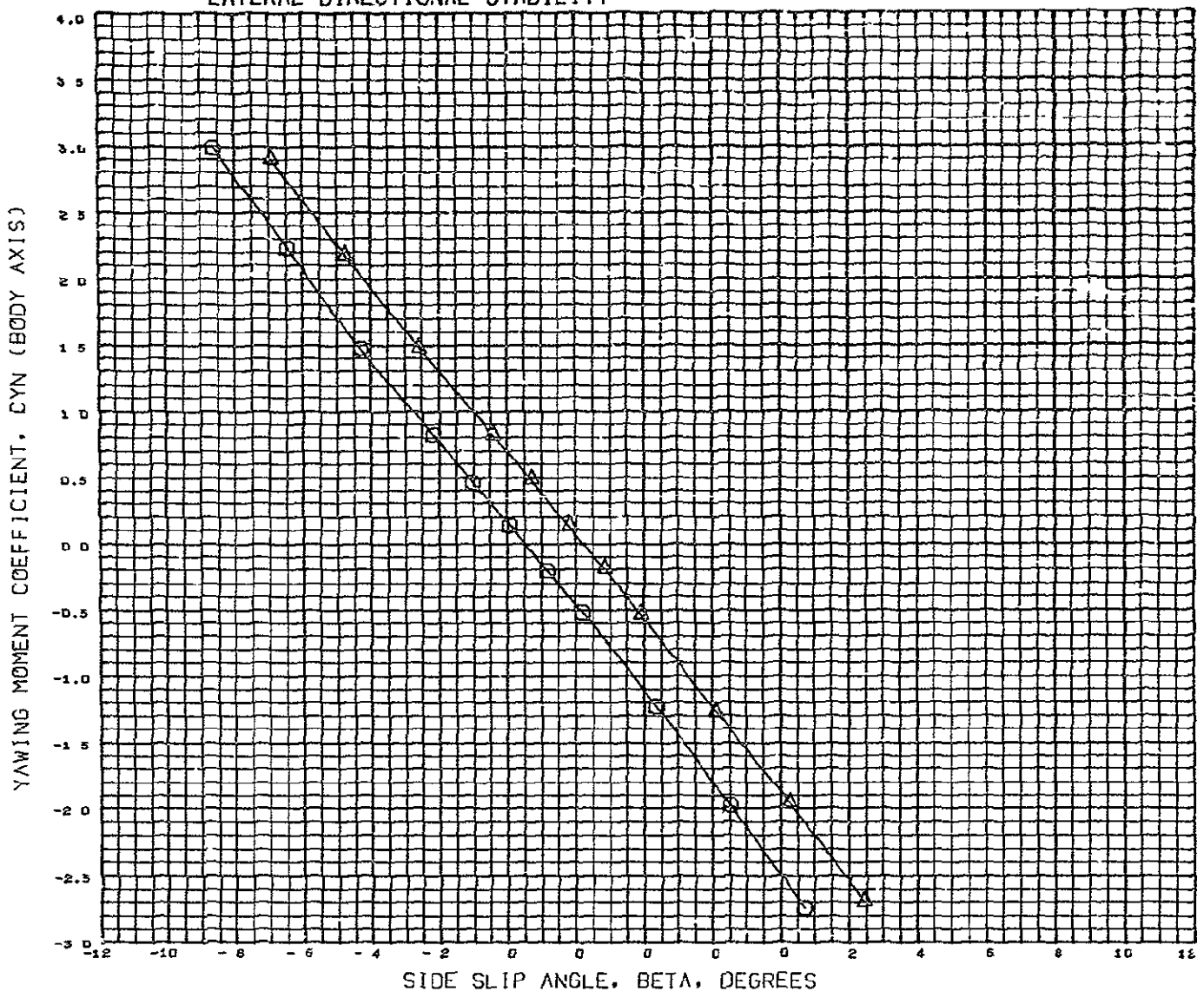


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	ALPHA	0.000	ORBINC	- 3.100
△	0.902				
◇	1.002				
□	1.101				
▽	1.194				

DATA HIST. CODE MM#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



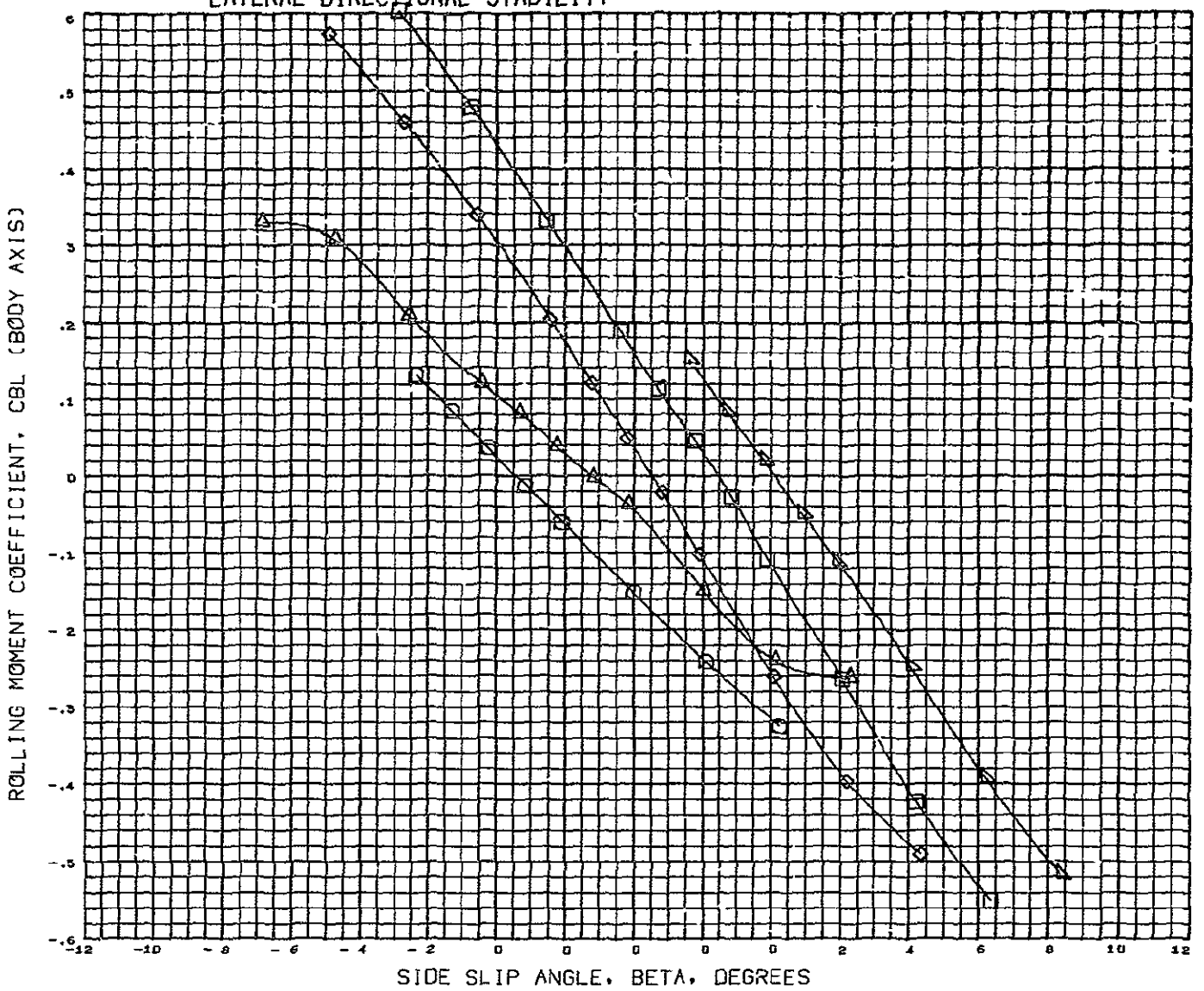
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	ALPHA	0.000	ORBINC	3.100
△	1.955				

DATA HIST CODE HM*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.5650	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

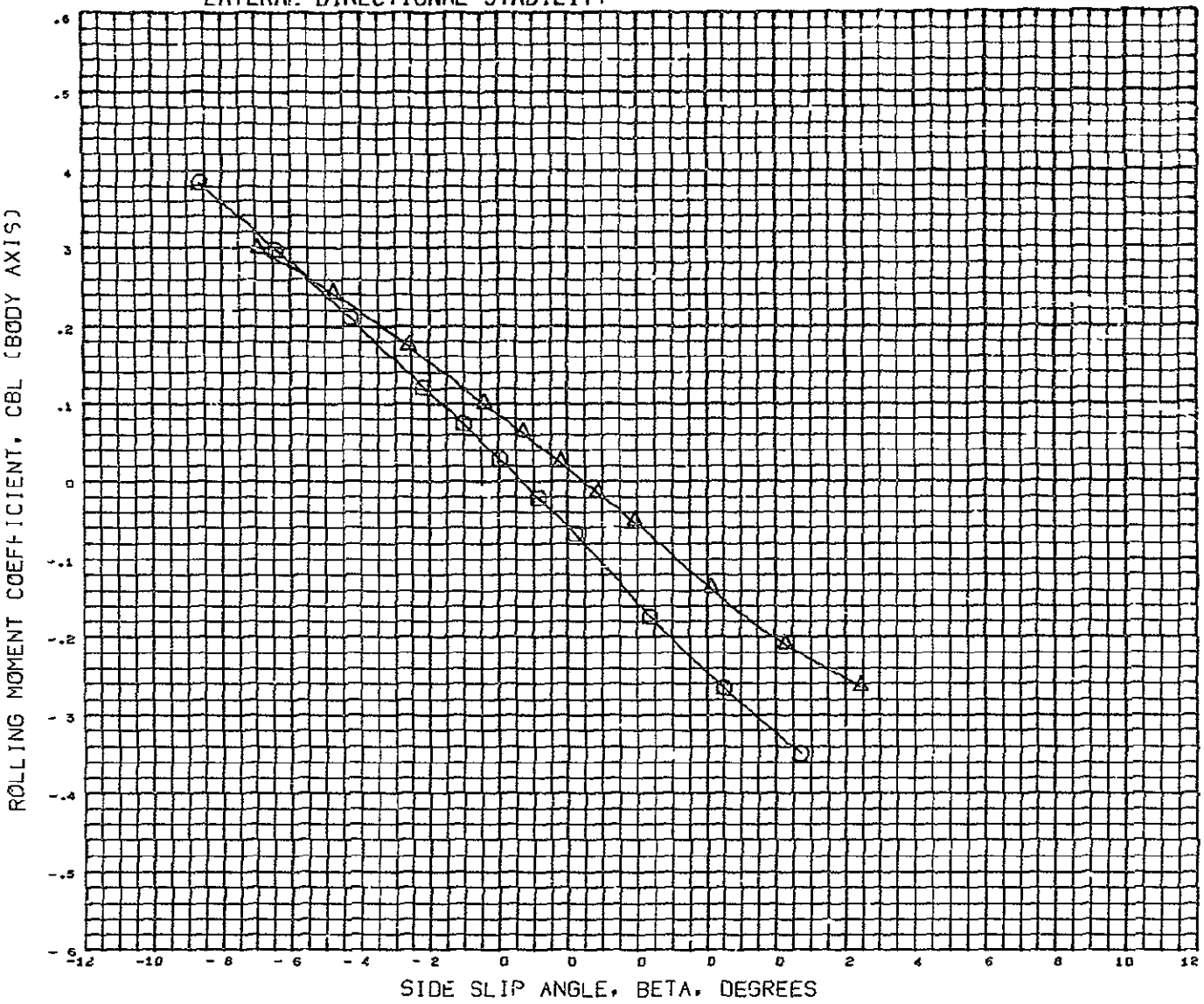


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	ALPHA	0 000	ORBINC	- 3 100
△	0 902				
◇	1 002				
□	1 101				
▽	1 194				

DATA HIST CODE NH*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



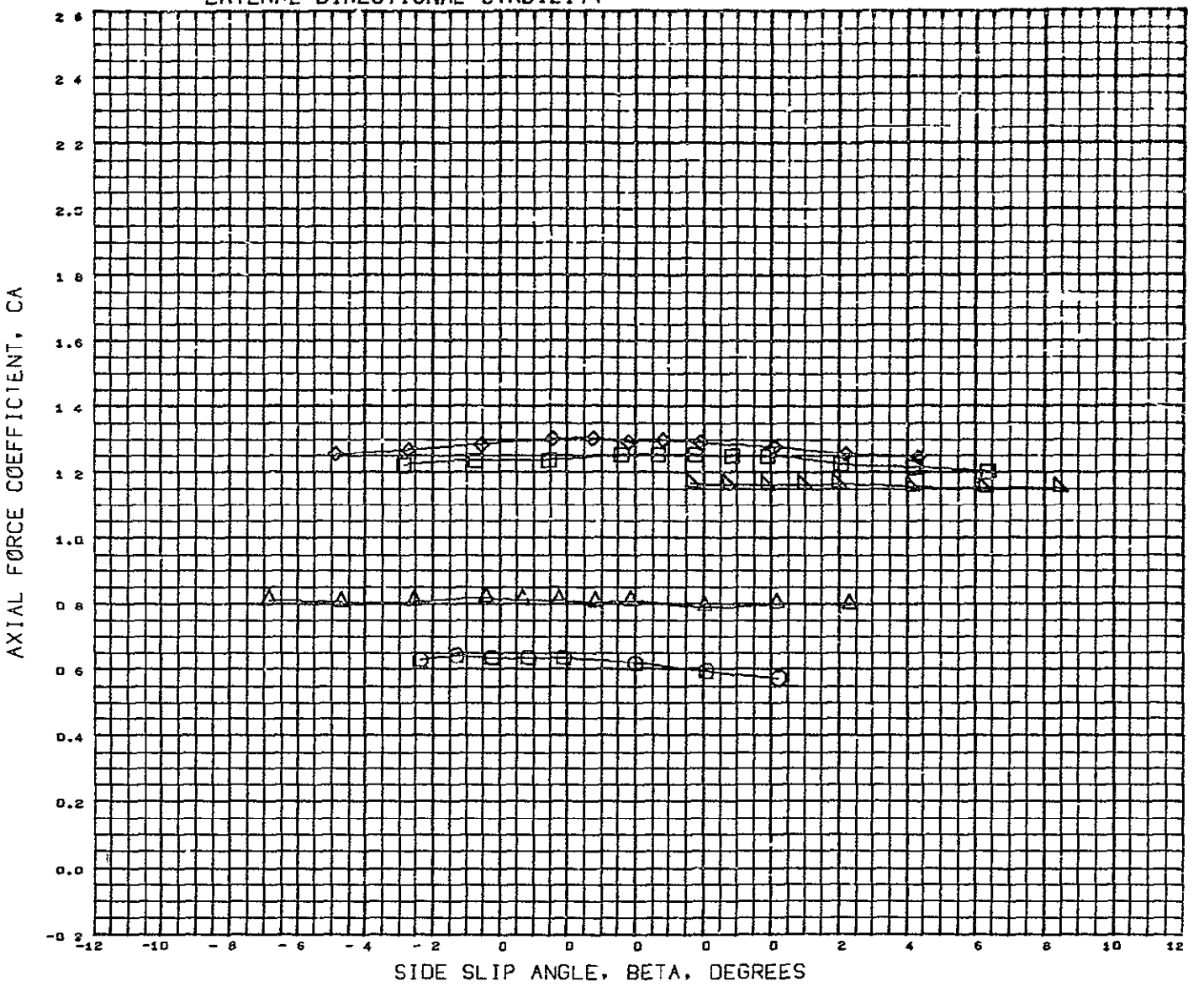
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	ALPHA	0.000	ORBINC	-3.100
△	1.955				

DATA HIST CODE MH*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

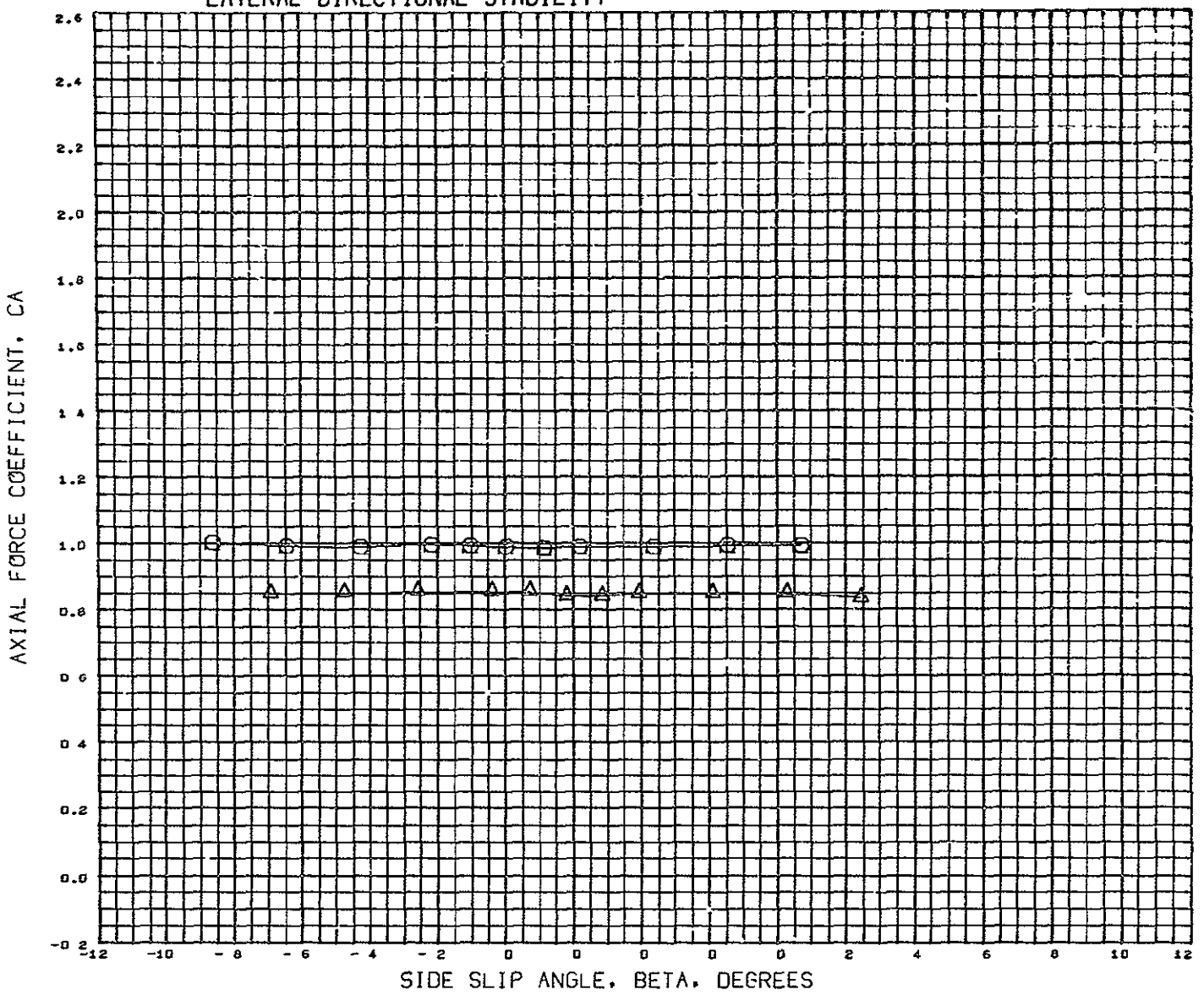


SYMBOL	MACH	PARAMETRIC VALUES		
	0.602	ALPHA	0 000	ORBINC - 3 100
	0 902			
	1.002			
	1 101			
	1 194			

DATA HIST CODE MM*E

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMPP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY



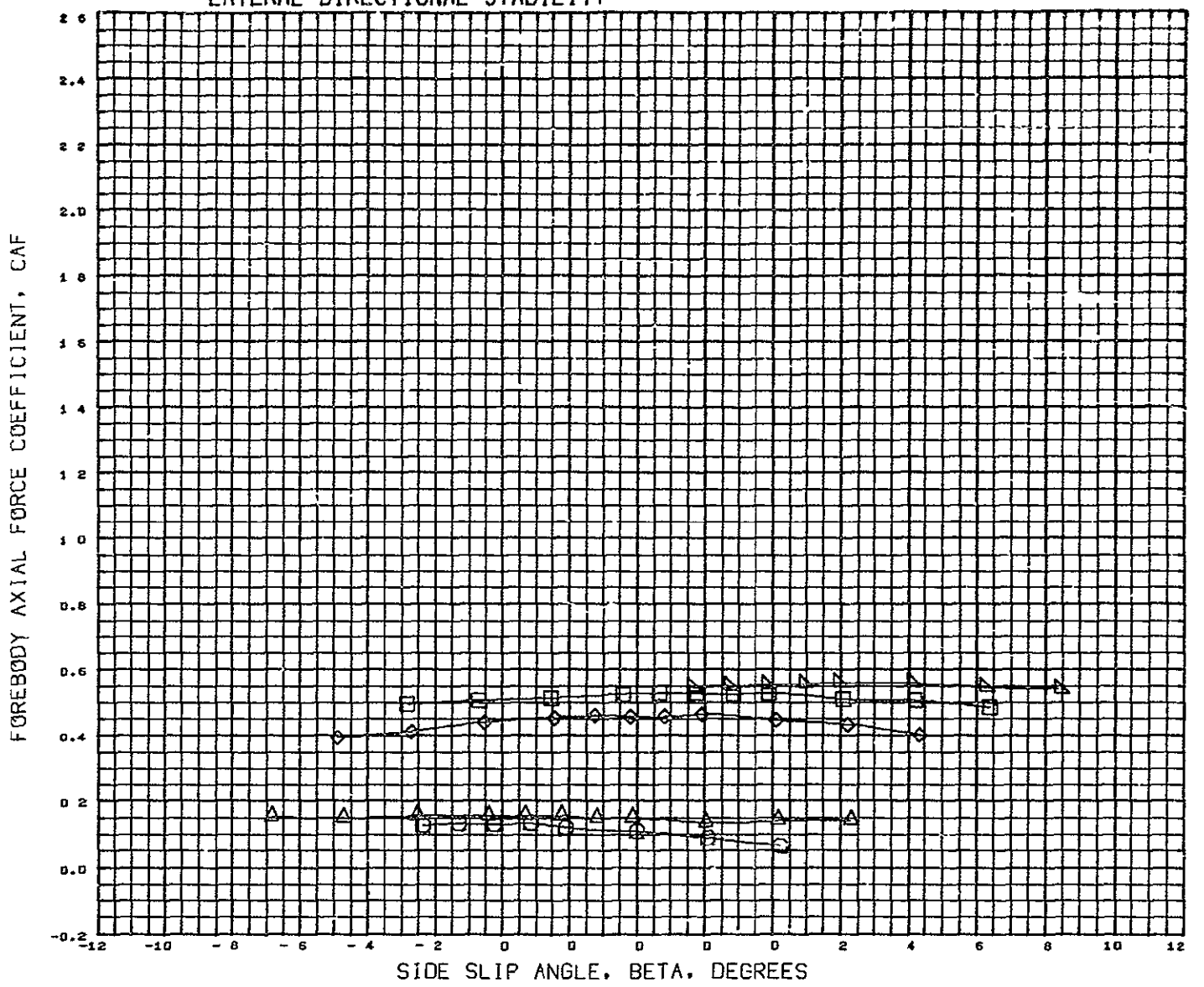
SYMBOL	MACH		PARAMETRIC VALUES		
○	1.463	ALPHA	0.000	ORBINC	- 3.100
△	1.955				

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*E

LATERAL-DIRECTIONAL STABILITY



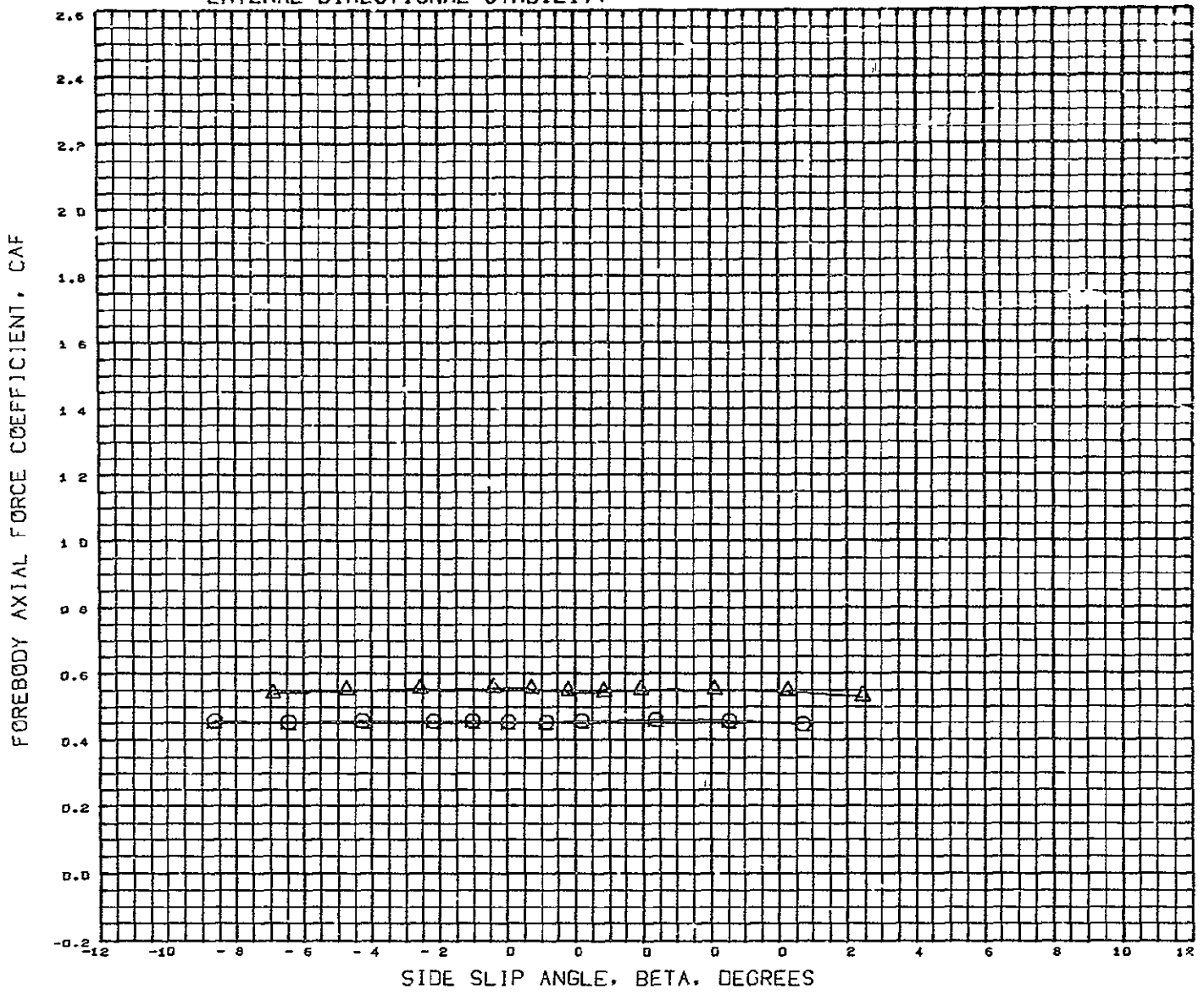
SYMBOL	MACH	PARAMETRIC VALUES			
	0.602	ALPHA	0.000	ORBINC	- 3 100
	0 902				
	1 002				
	1 101				
	1 194				

DATA HIST. CODE HM*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

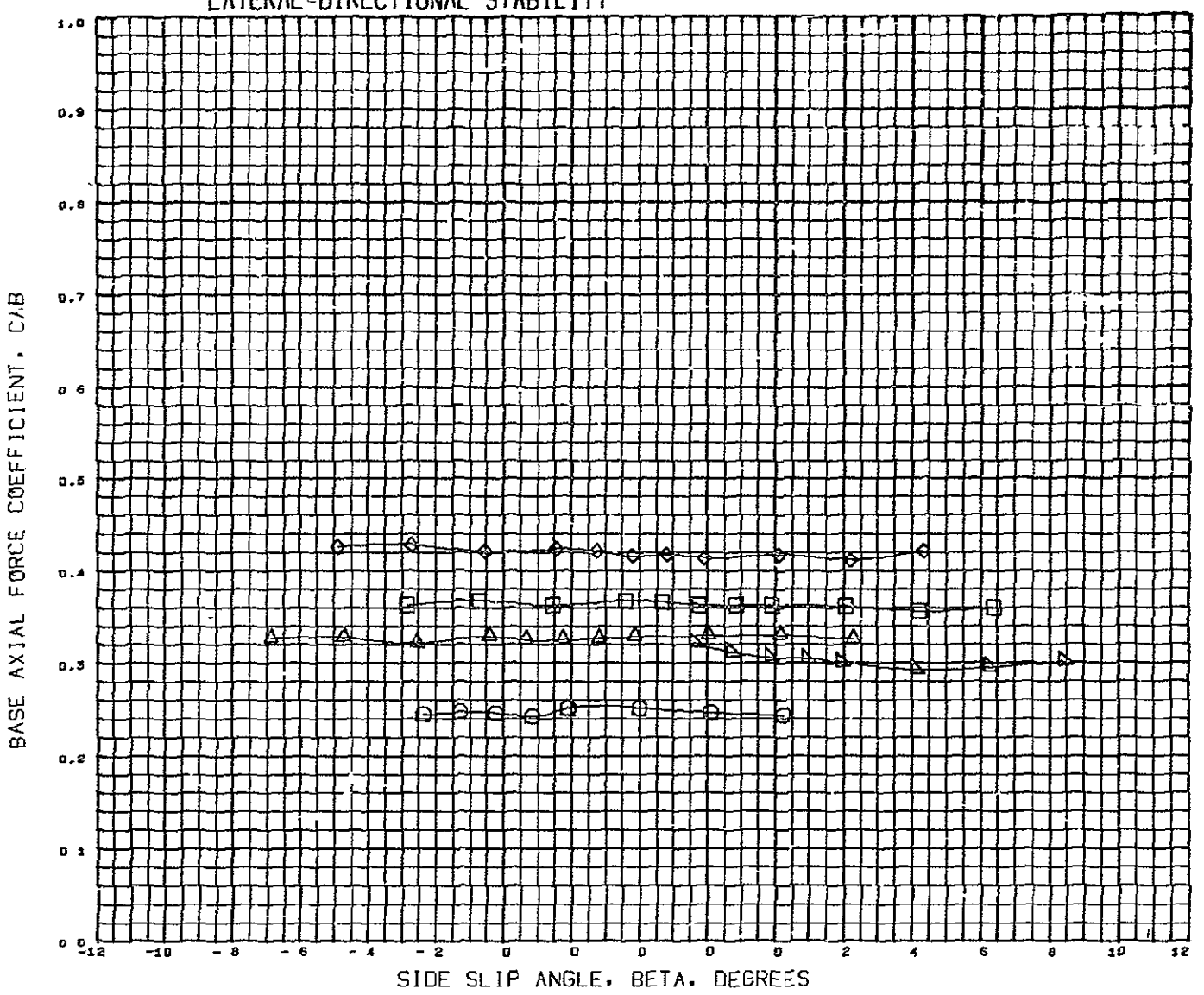
LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
○	1.463	ALPHA	0.000	ORBINC = 3.100	SREF	1.3960	SQ IN
△	1.955				LREF	1.2330	IN
					BREF	1.3330	IN
					XMRP	3.6860	IN
					YMRP	0.0050	IN
					ZMRP	0.0000	IN
					SCALE	0.0034	

DATA HIST CODE MM#E

LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH
◇	0.602
△	0.902
○	1.002
□	1.101
◸	1.194

PARAMETRIC VALUES

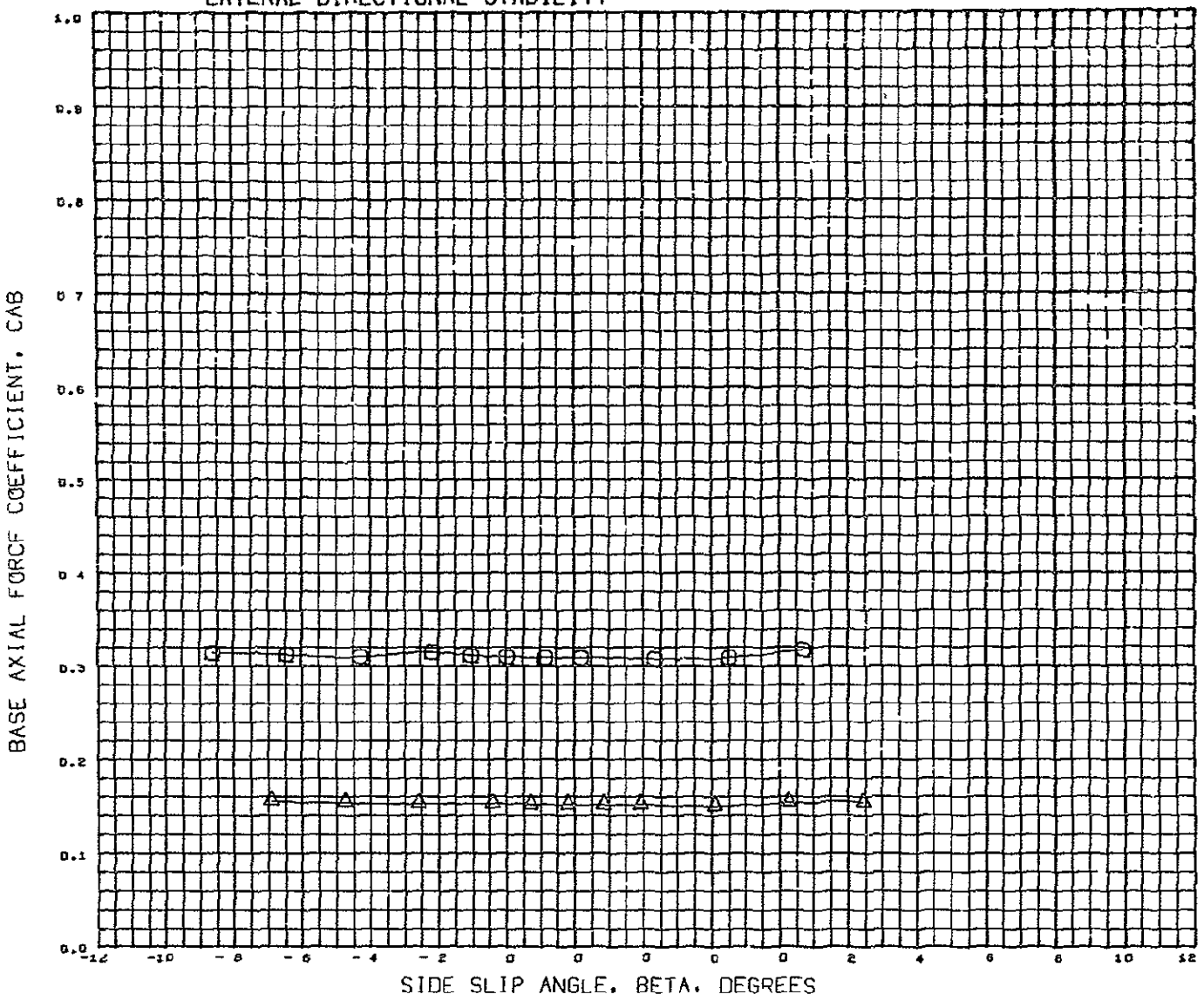
ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE MM#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

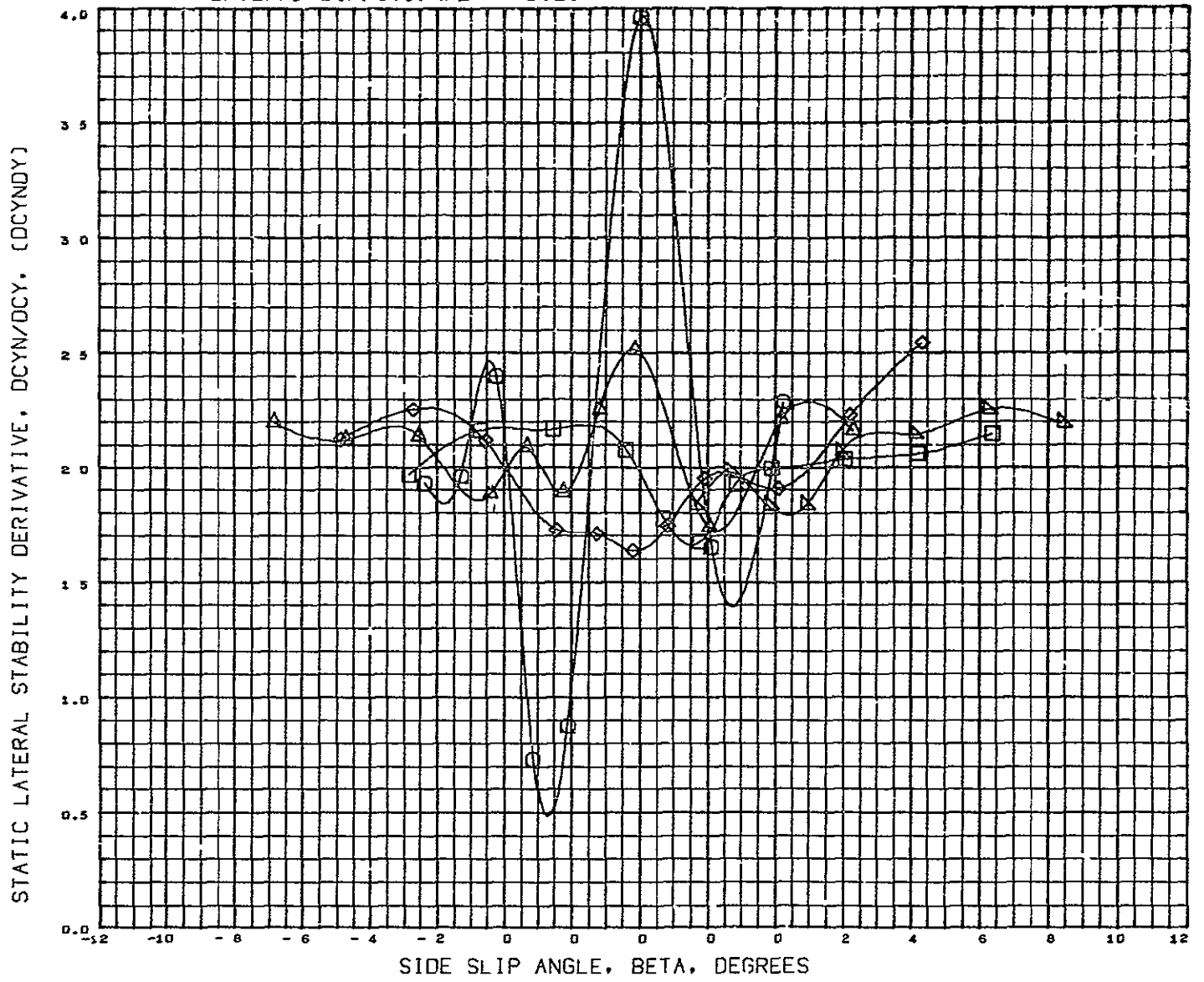


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	ALPHA	0.000	ORBINC	-3.100
△	1.955				

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE HH*E

LATERAL-DIRECTIONAL STABILITY

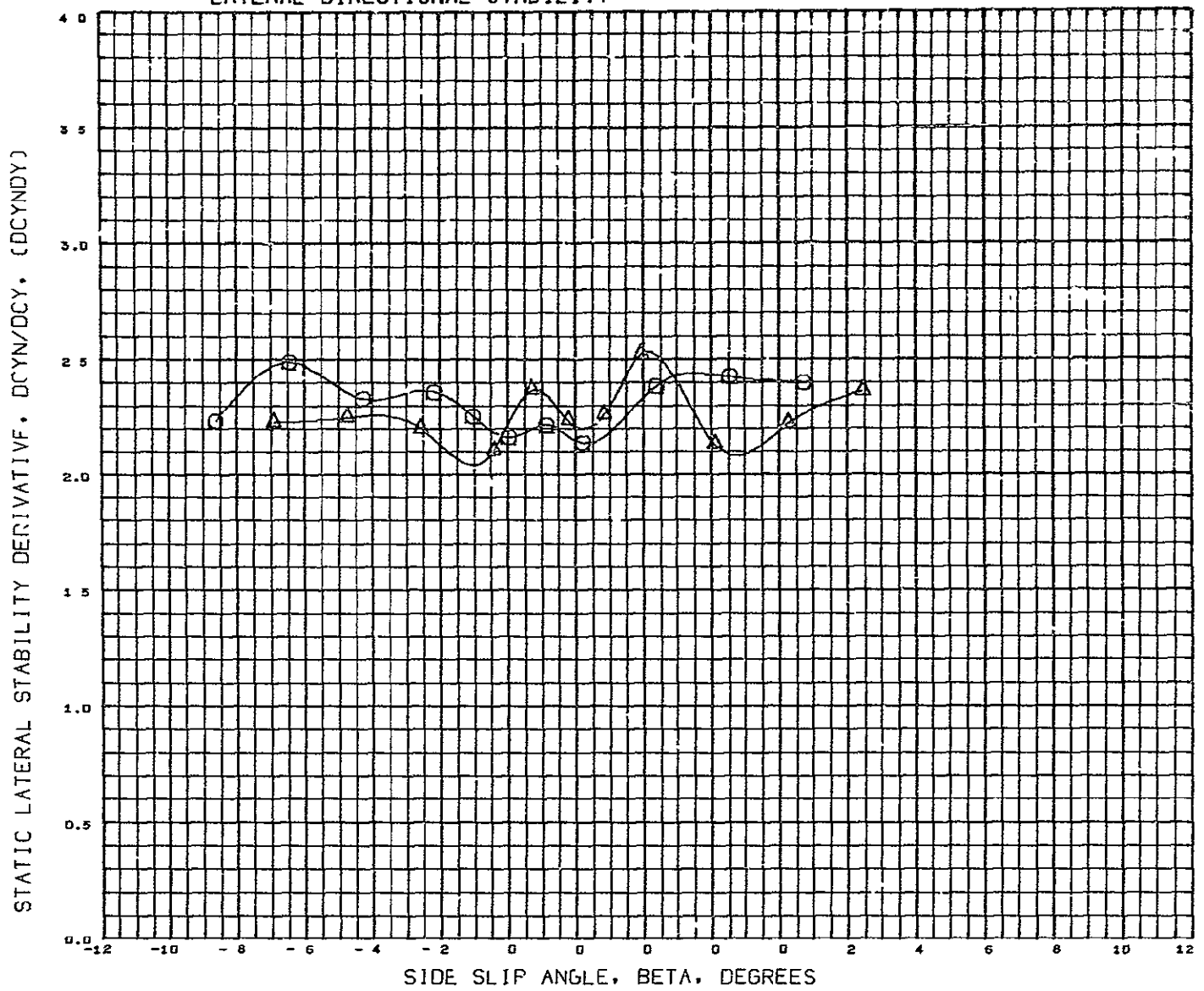


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.602	ALPHA	0 000	ORBINC	- 3 100
△	0 902				
◇	1 002				
□	1 101				
▽	1 194				

DATA HIST CODE MM+E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0.0500	IN
ZMRP	0.0000	IN
SCALE	0 0054	

LATERAL-DIRECTIONAL STABILITY

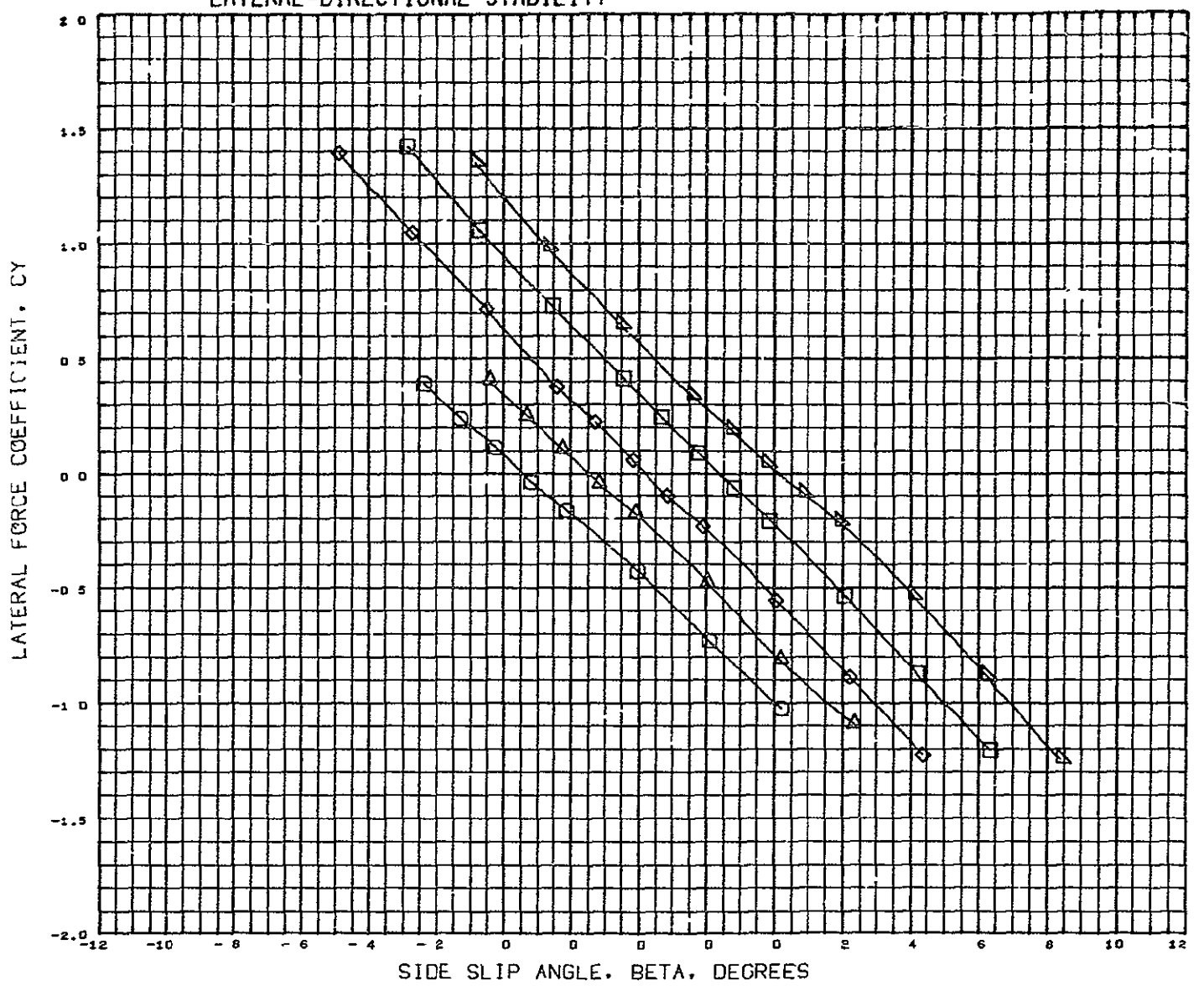


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.463	ALPHA	0.000	ORBINC	-3.400
△	1.955				

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*E

LATERAL-DIRECTIONAL STABILITY



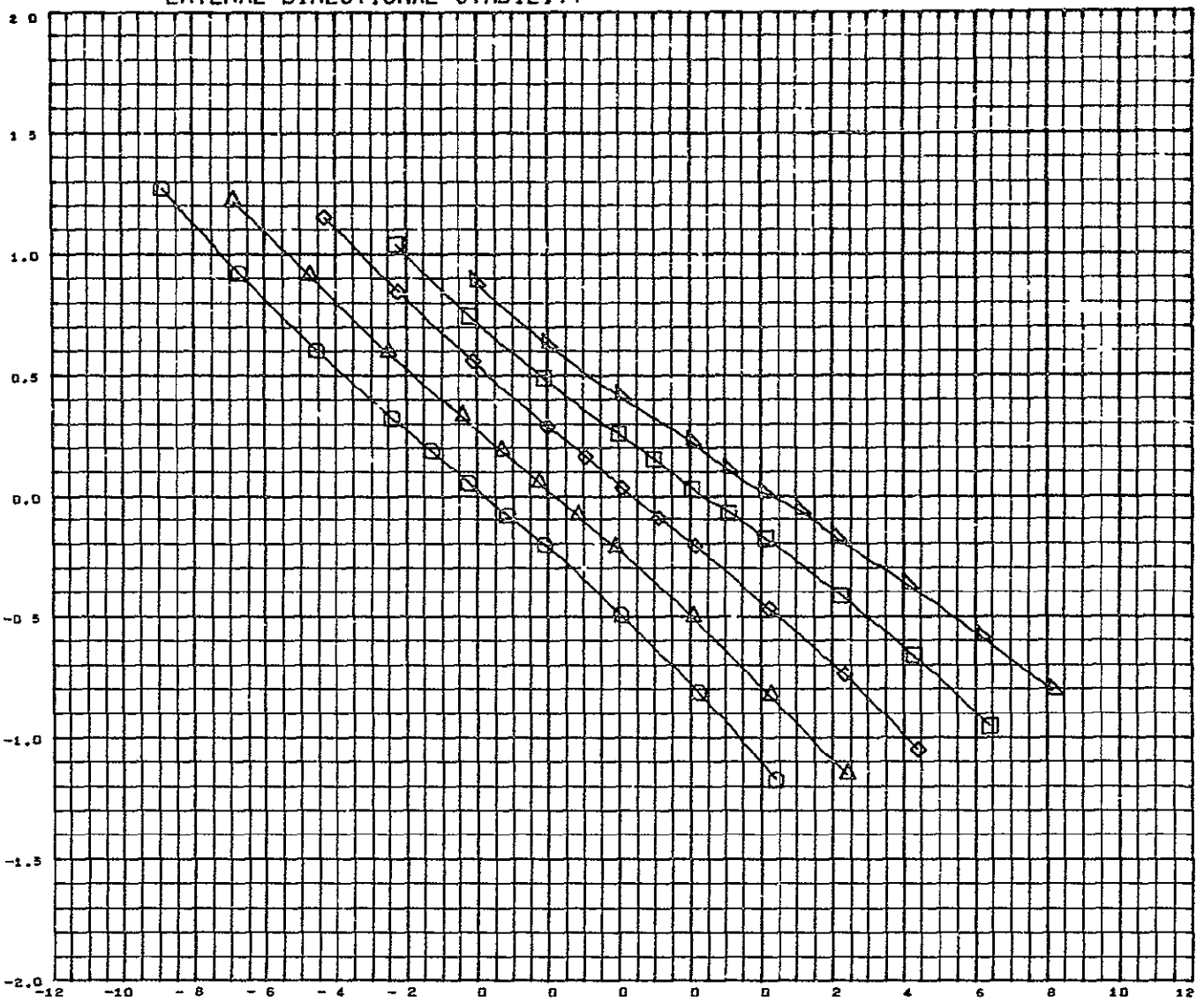
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.601	ALPHA	0.000	ORBINC	- 3.100
△	0.903				
◇	1.001				
□	1.100				
▷	1.202				

DATA HIST CODE HM*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRF	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

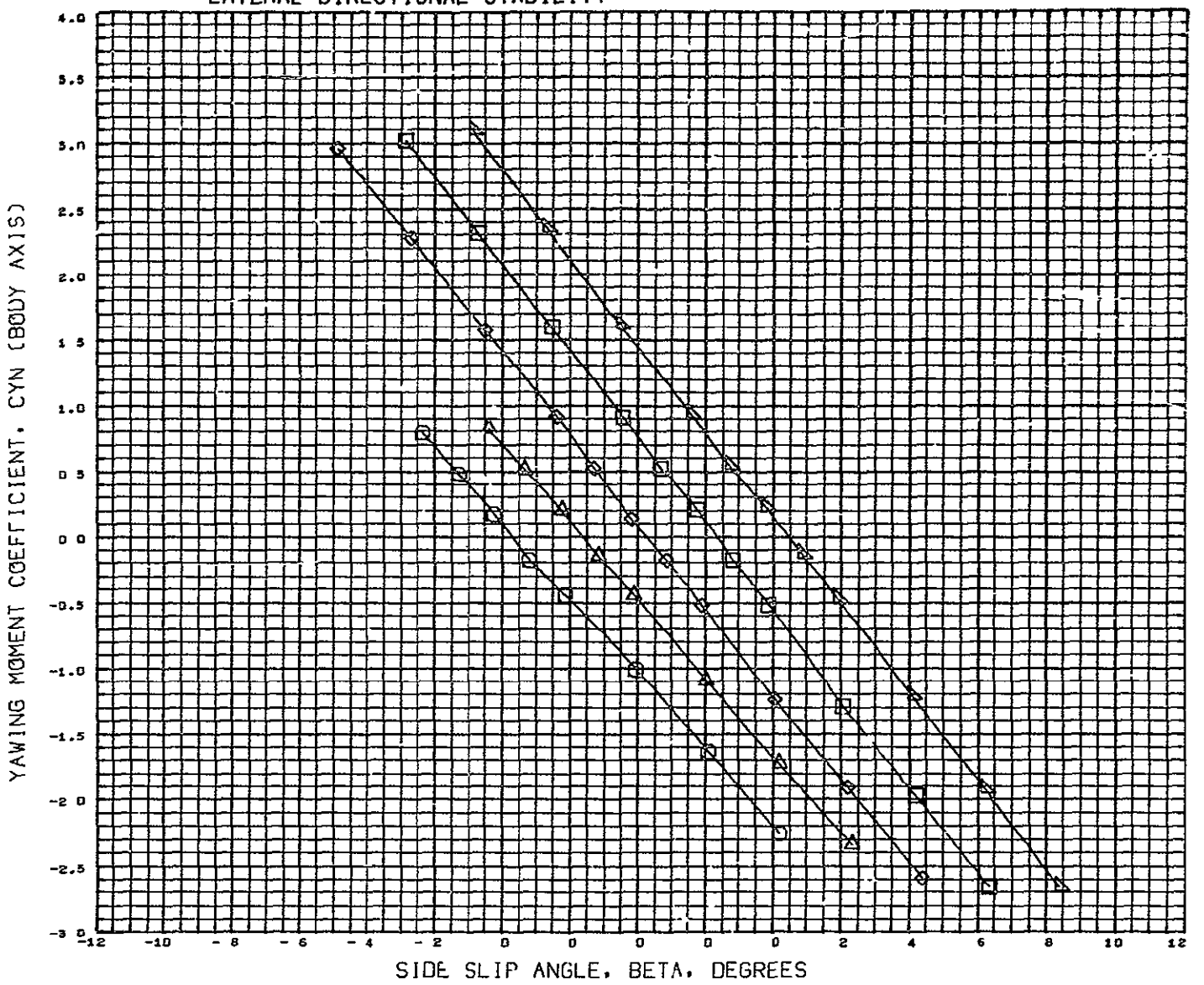


SYMBOL	MAC	PARAMETRIC VALUES			
○	1.467	ALPHA	0.000	ORBINC	-3.100
△	1.957				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE MM#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

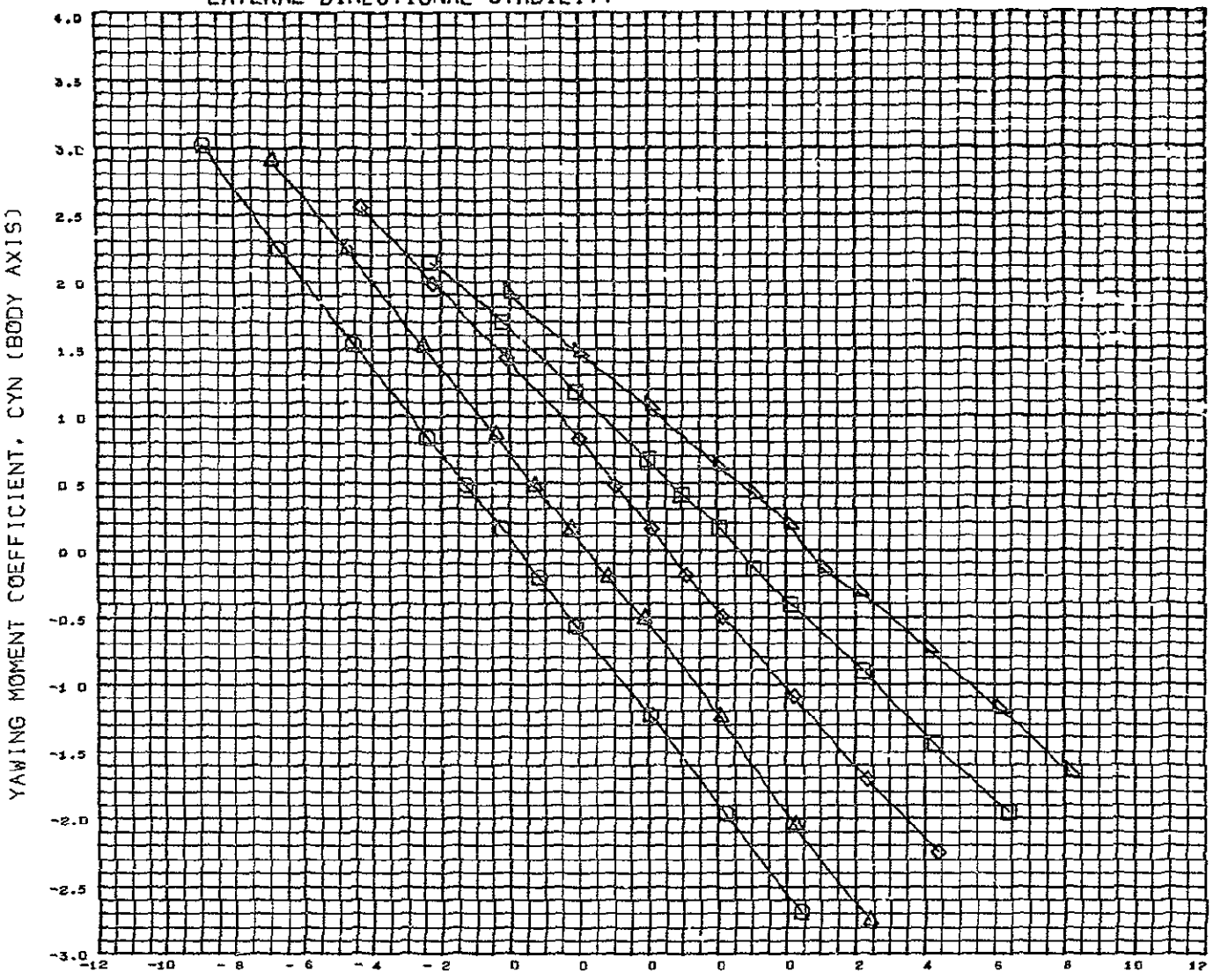


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.601	ALPHA	0.000	ORBINC	- 3.100
△	0.903				
◇	1.001				
□	1.100				
▽	1.202				

DATA HIST CODE MM#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0470	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

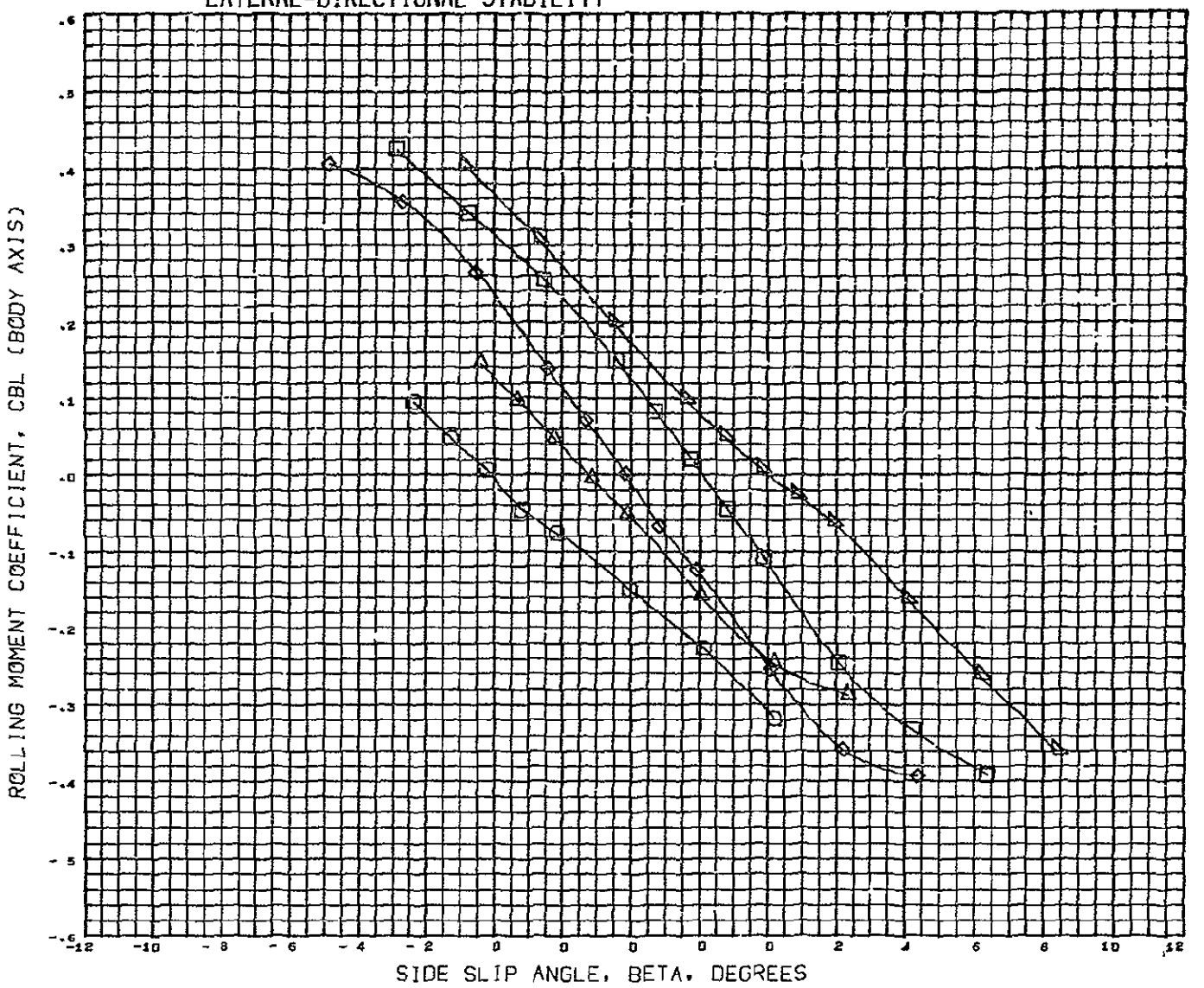


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.467	ALPHA	0.000	ORBINC	- 3.100
△	1.957				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST. CODE MM#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



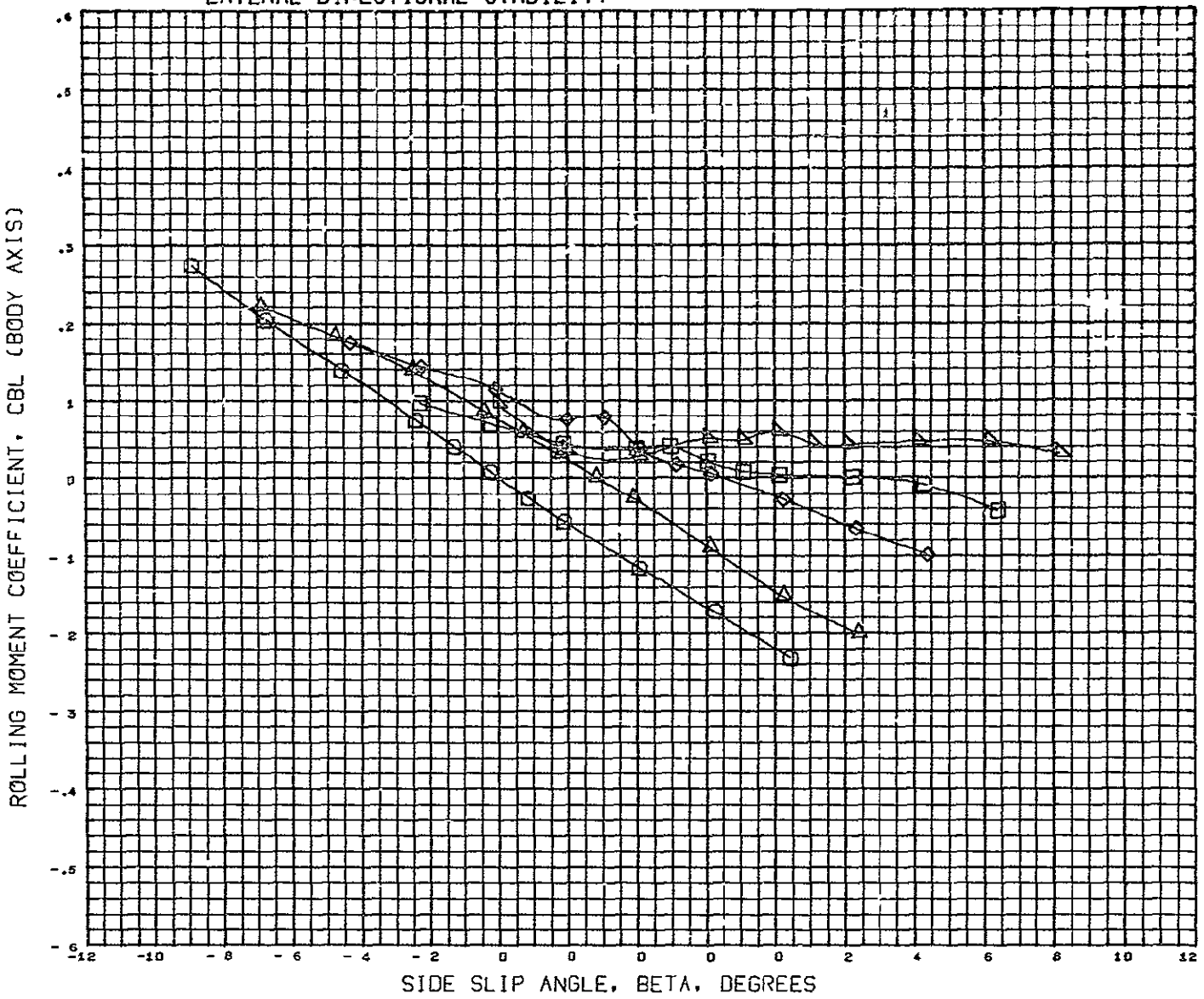
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.601	ALPHA	0.000	ORBINC	-3.100
△	0.903				
◇	1.001				
□	1.100				
▽	1.202				

DATA HIST CODE MM#E

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0020	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



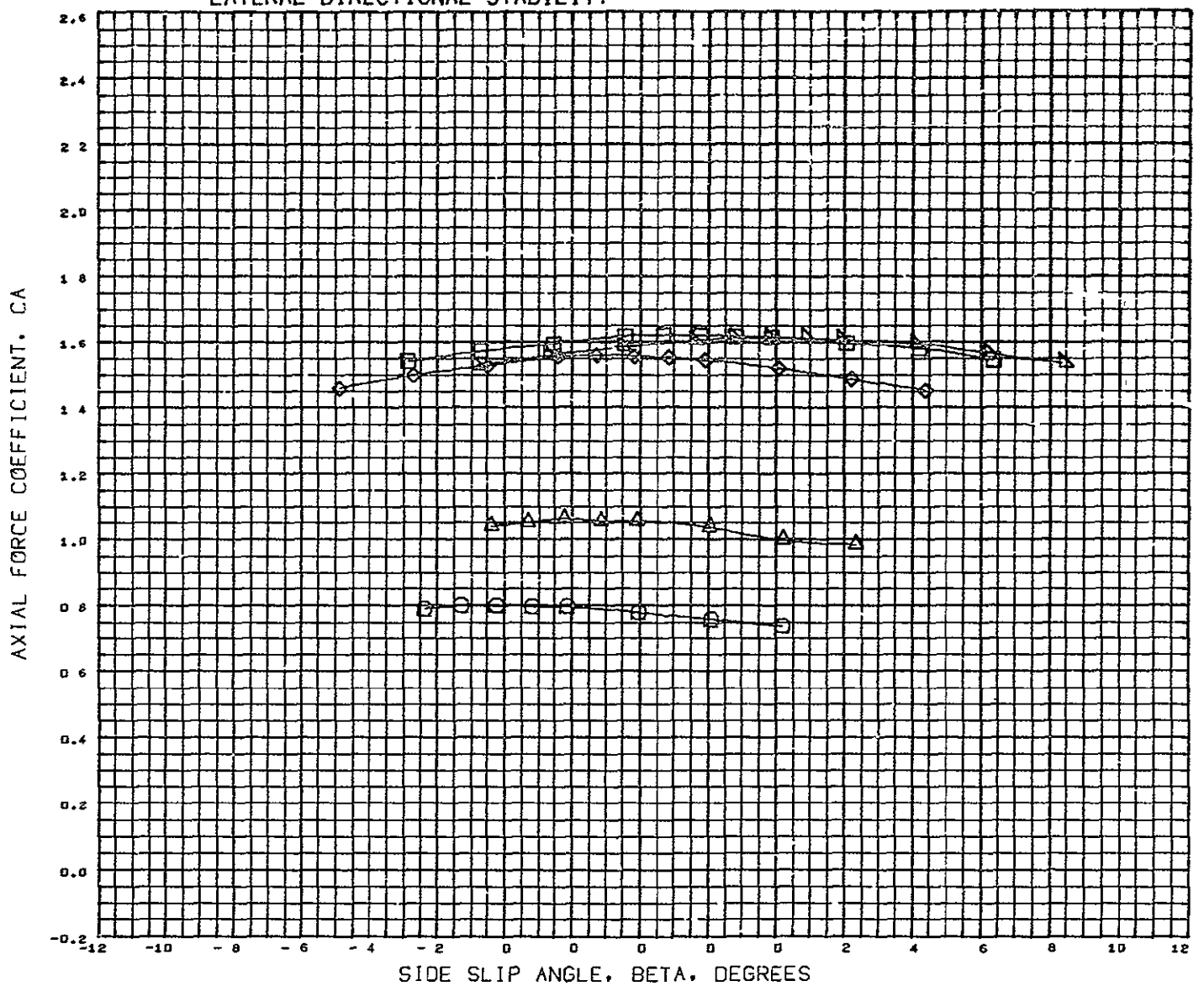
SYMBOL	MACH	PARAMETRIC VALUES			
	1.467	ALPHA	0.000	ORBINC	-3.100
	1.957				
	2.990				
	4.000				
	4.959				

DATA HIST CODE MM*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6060	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



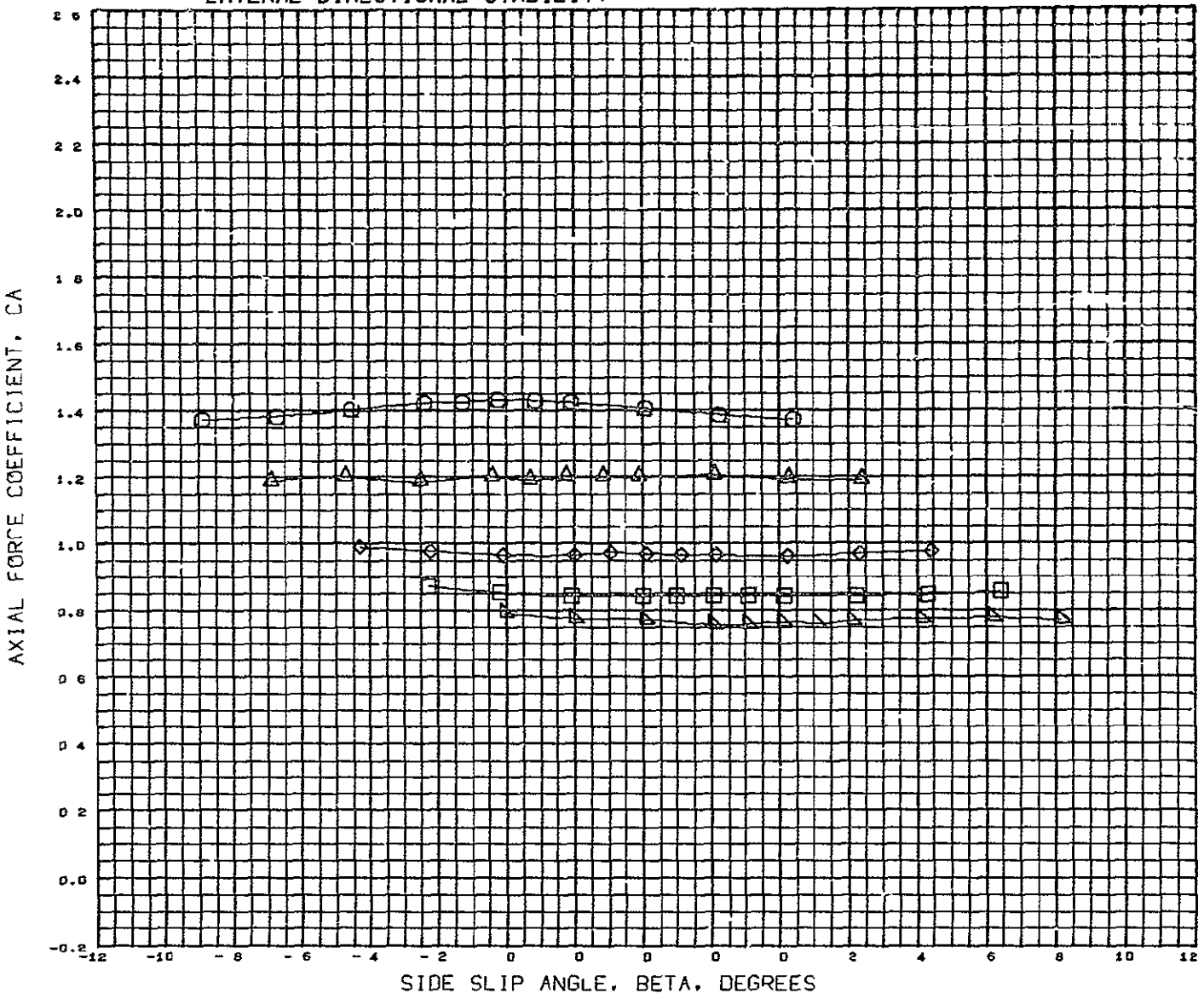
SYMBOL	MACH	PARAMETRIC VALUES		
○	0.601	ALPHA	0.000	ORBINC - 3.100
△	0.903			
◇	1.001			
□	1.100			
▽	1.202			

DATA HIST CODE MM*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3340	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

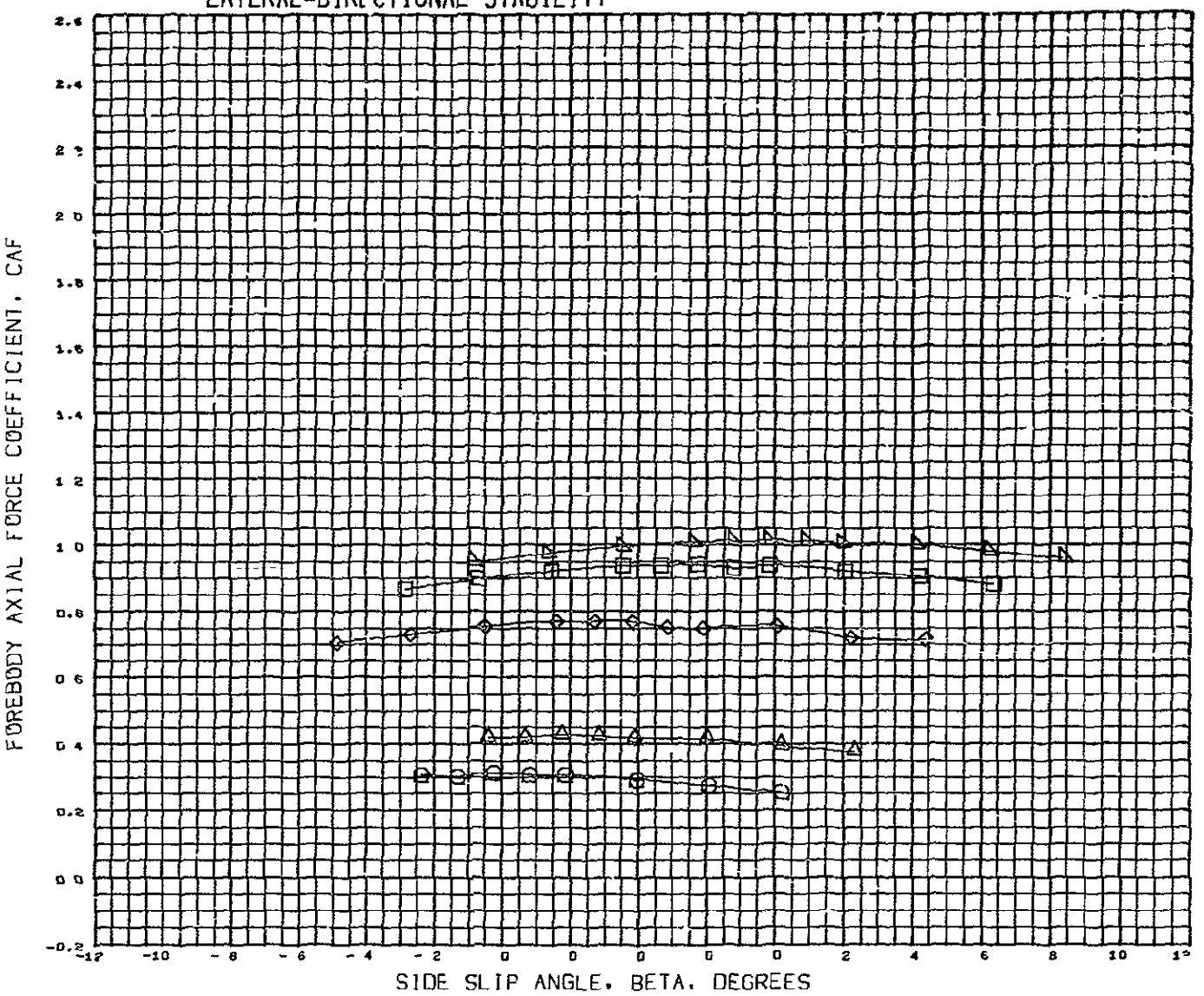


SYMBOL	MACH	PARAMETRIC VALUES			
	1.467	ALPHA	0 000	ORBINC	- 3 100
	1 957				
	2.990				
	4 000				
	4 959				

DATA HIST CODE MM*E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

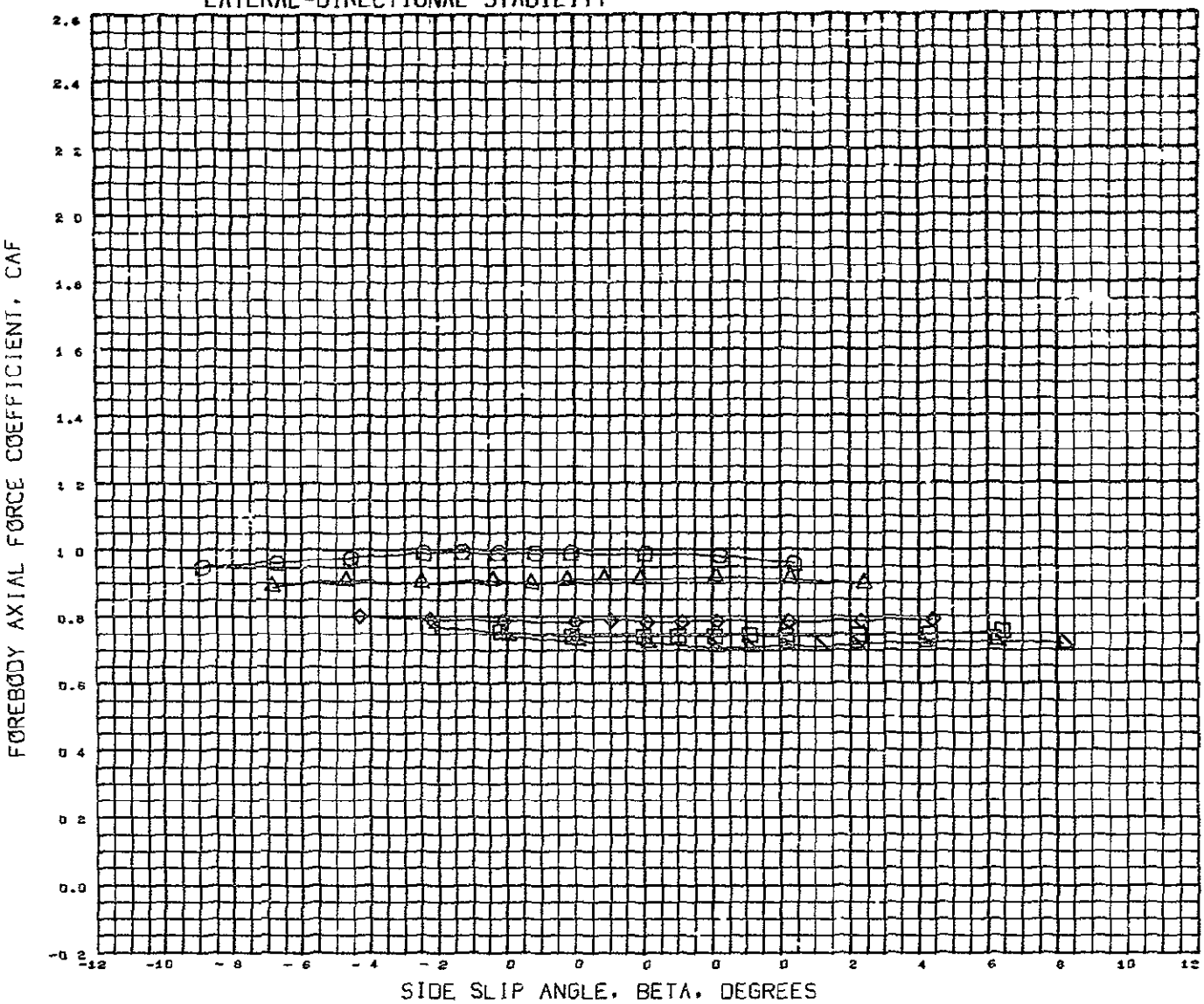
LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES		REFERENCE INFORMATION		
○	0.601	ALPHA 0.000	ORBINC -3.100	SREF	1.3960	SQ IN
△	0.903			LREF	1.3330	IN
◇	1.001			BREF	1.3330	IN
□	1.100			XMRF	3.6860	IN
◸	1.202			YMRF	0.0000	IN
				ZMRF	0.0000	IN
				SCALE	0.0034	

DATA HIST CODE MN*E

LATERAL-DIRECTIONAL STABILITY

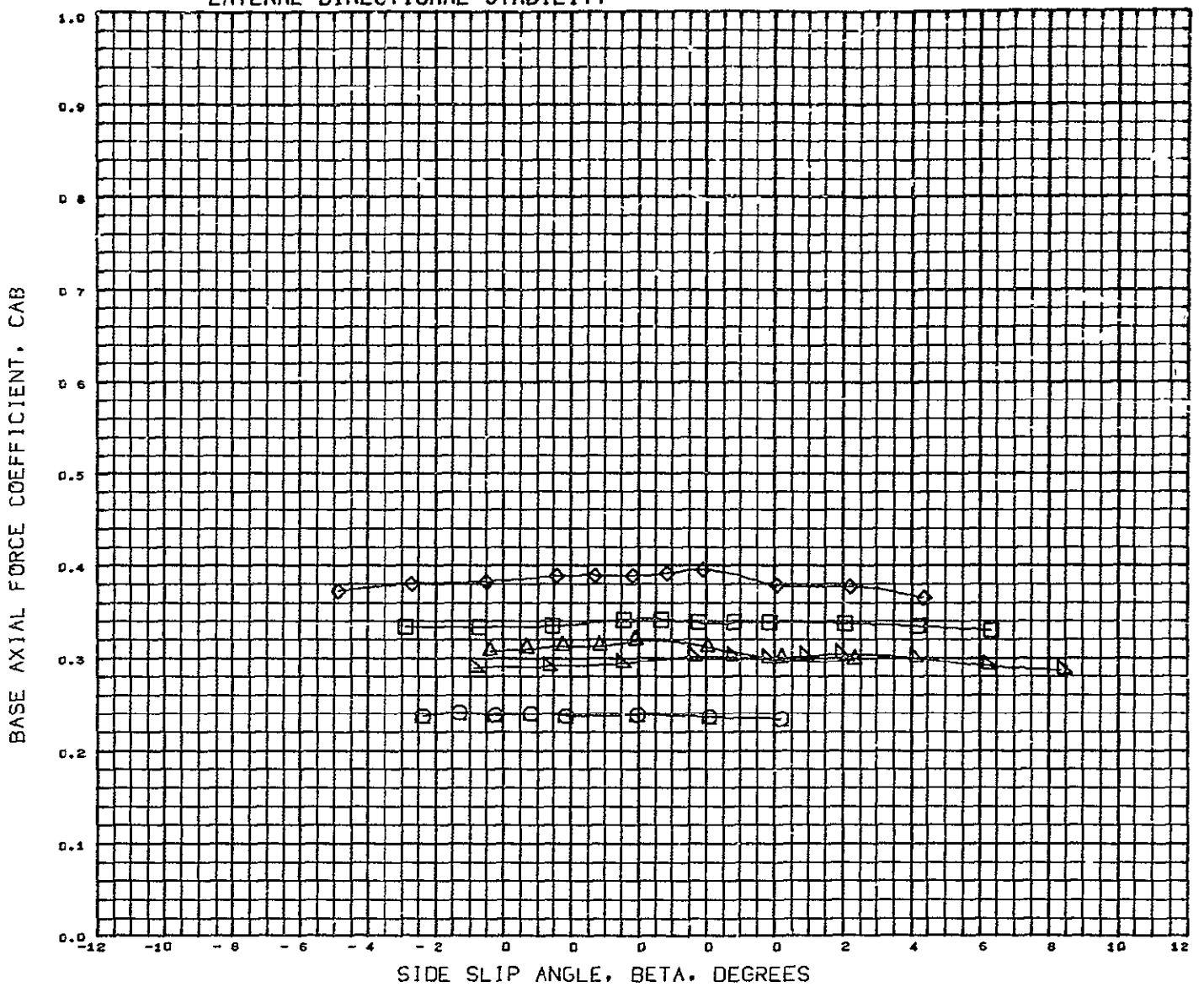


SYMBOL	MACH	PARAMETRIC VALUES			
	1.467	ALPHA	0.000	ORBINC	-3.100
	1.957				
	2.990				
	4.000				
	4.959				

DATA HIST CODE NH*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

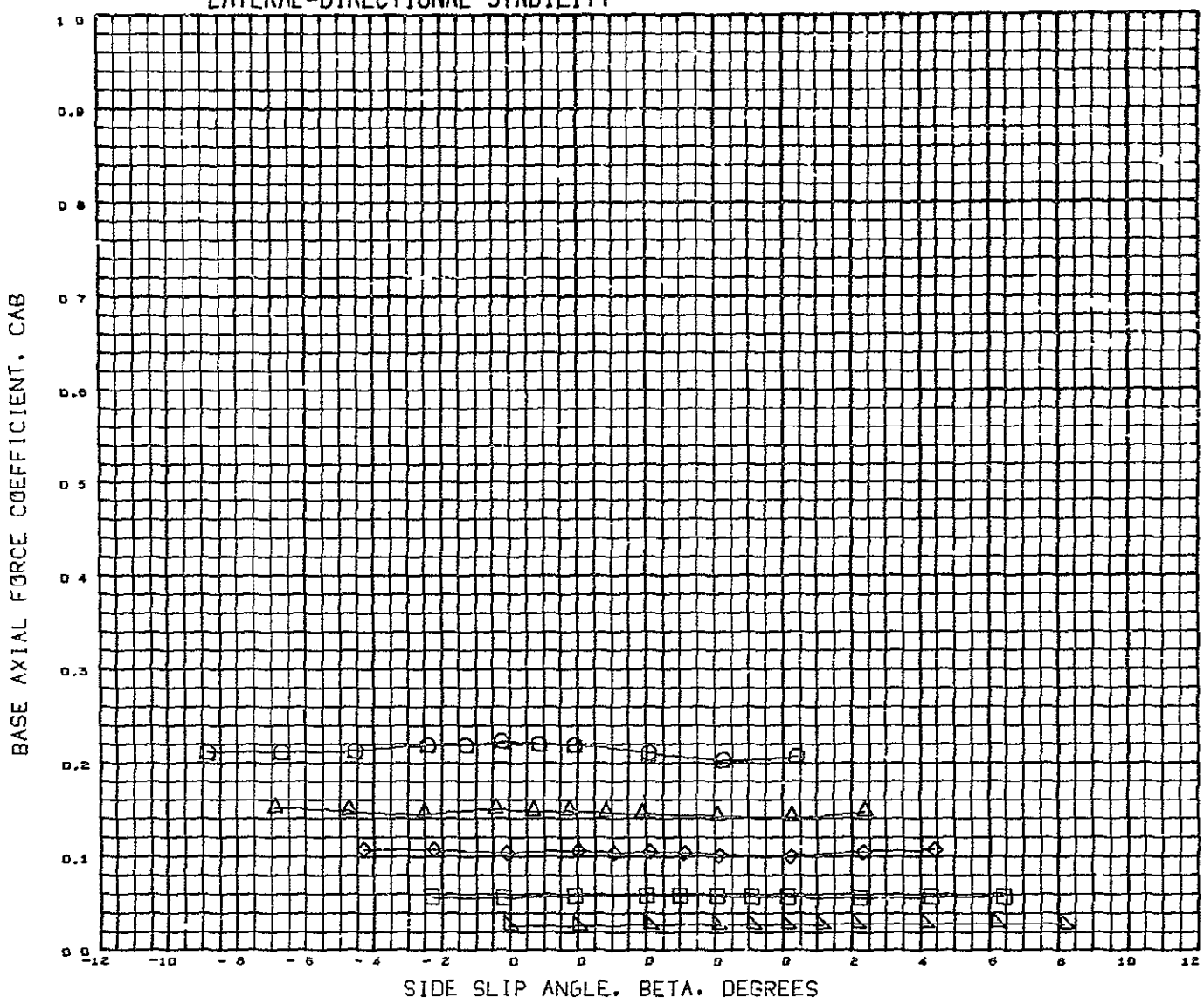


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.601	ALPHA	0.000	ORBINC	- 3.100
△	0.903				
◇	1.001				
□	1.100				
◸	1.202				

DATA HIST CODE MM*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

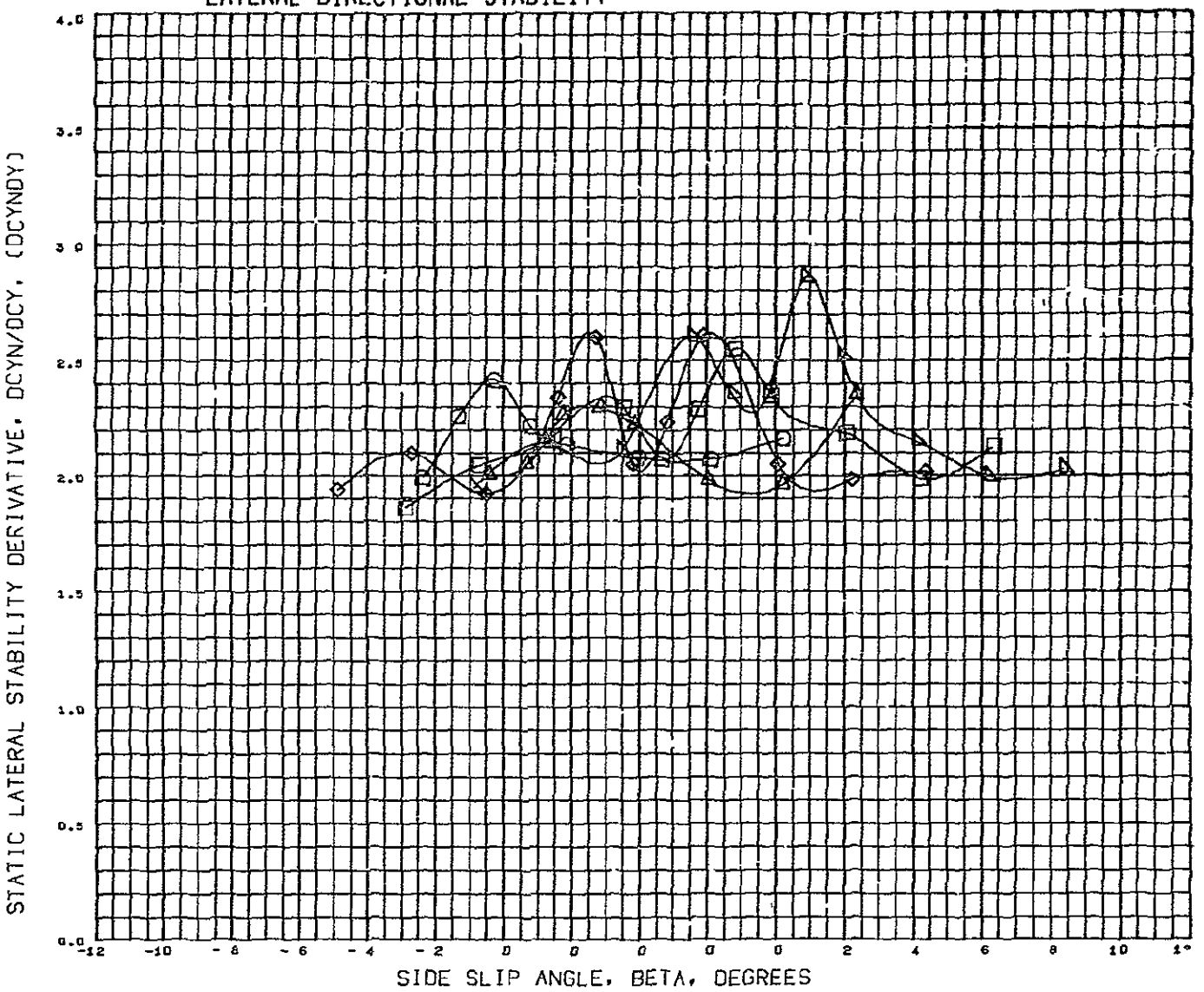


SYMBOL	MACH	PARAMETRIC VALUES		
○	1.467	ALPHA	0.000	ORBINC - 3.100
△	1.957			
◇	2.990			
□	4.000			
▽	4.959			

DATA HIST CODE NH#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0690	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

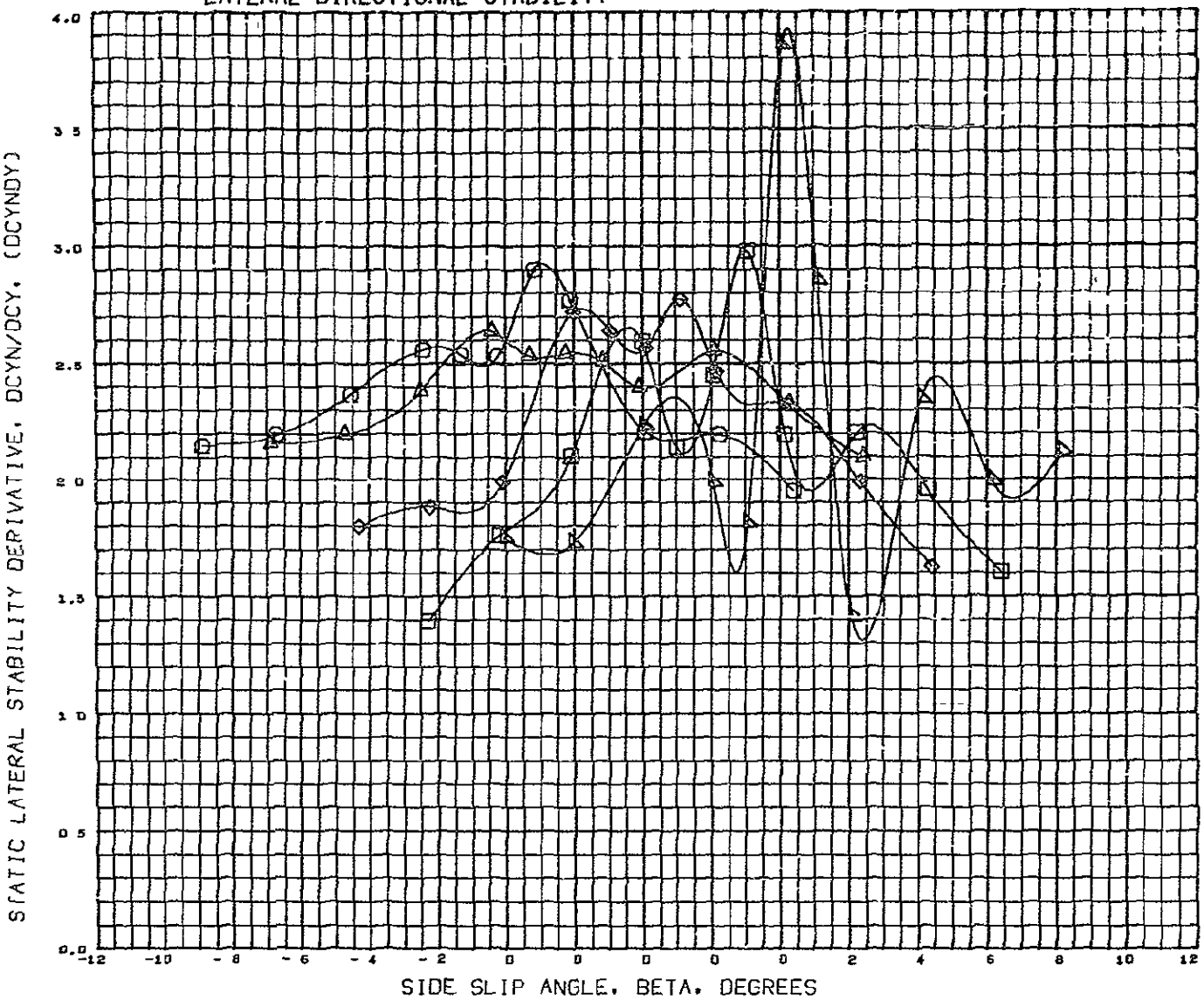


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.601	ALPHA	0.000	ORBINC	- 3.100
△	0.903				
◇	1.001				
□	1.100				
▽	1.202				

DATA HIST CODE MM#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

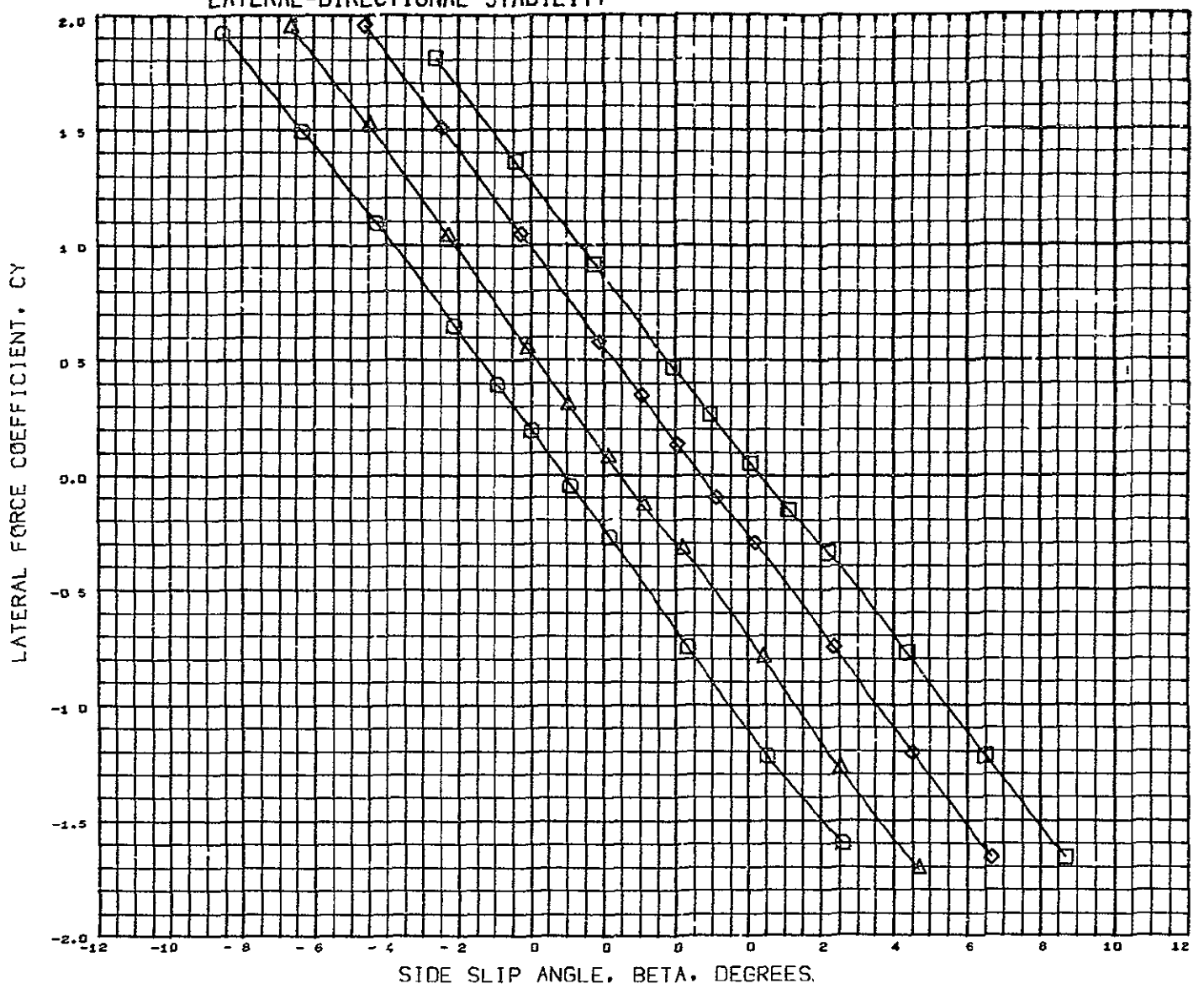


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.467	ALPHA	0.000	ORBINC	- 3.100
△	1.957				
◇	2.990				
□	4.000				
▽	4.959				

DATA HIST CODE HM#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

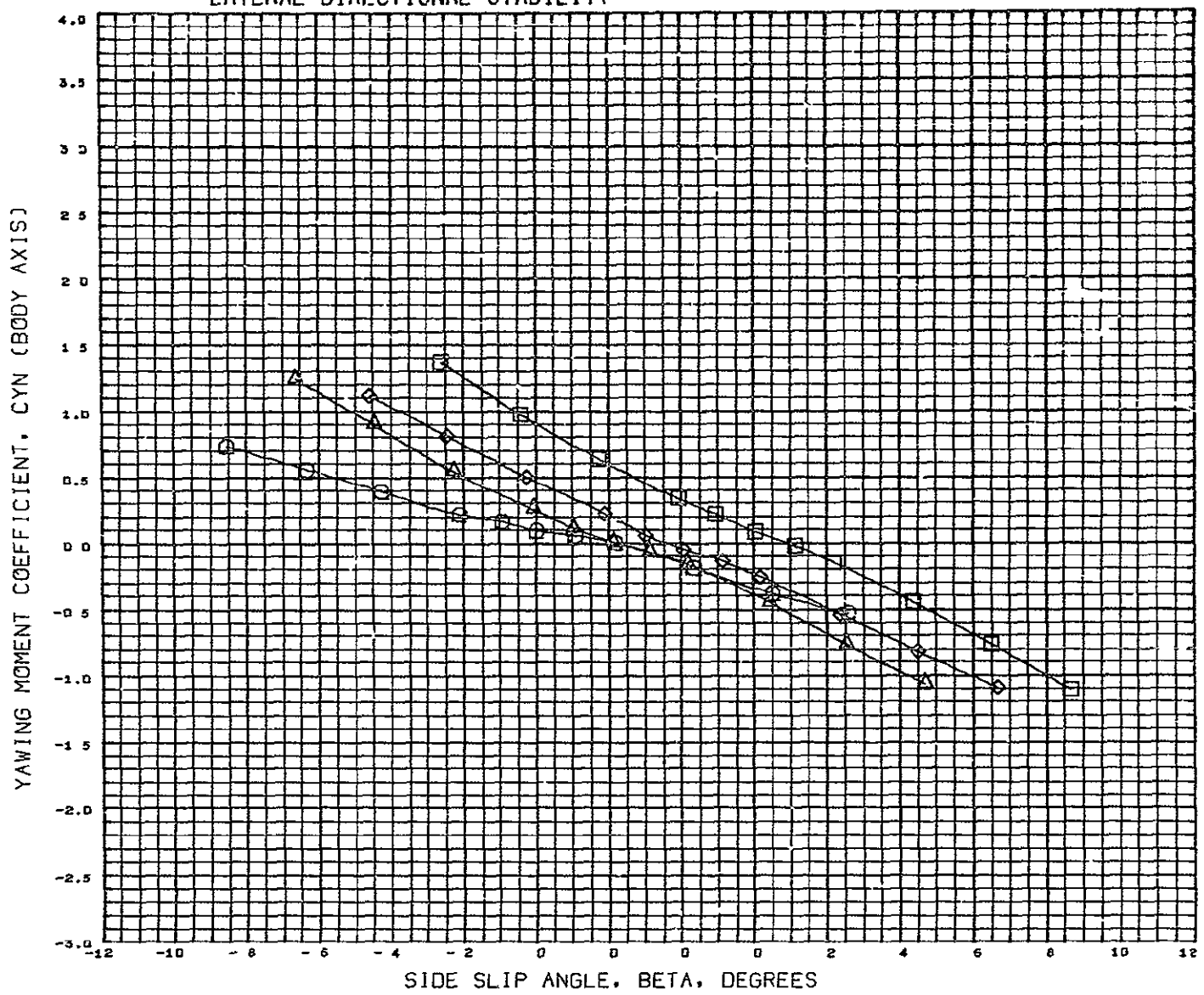


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.896	ALPHA	0 000	ORBINC	- 3 100
△	1.003				
◇	1 102				
□	1 197				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY

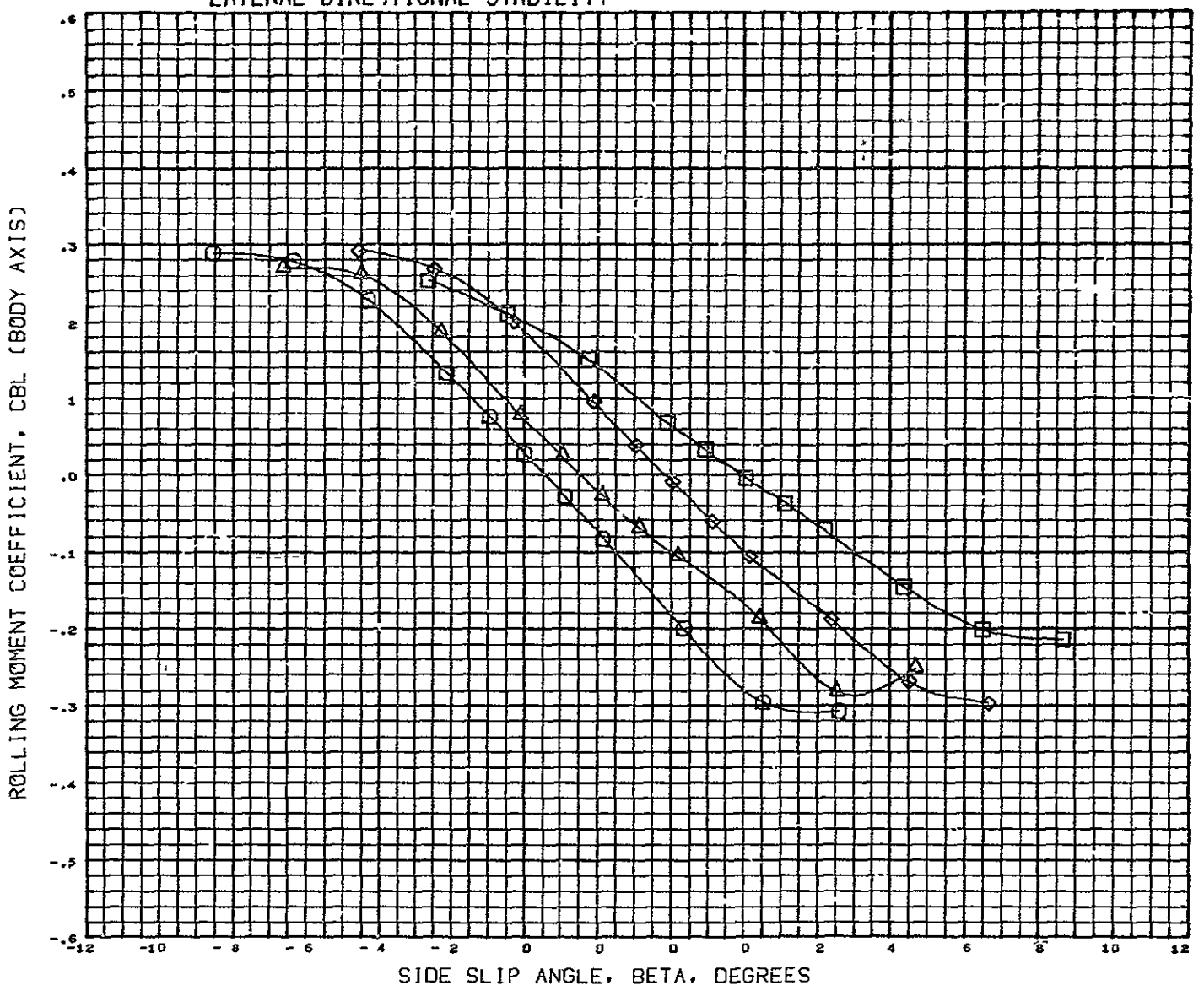


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.896	ALPHA	0.000	ORBINC	- 3.100
△	1.003				
◇	1.102				
□	1.197				

DATA HIST CODE H#E

REFERENCE INFORMATION		
SREF	1.3960	Sq IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

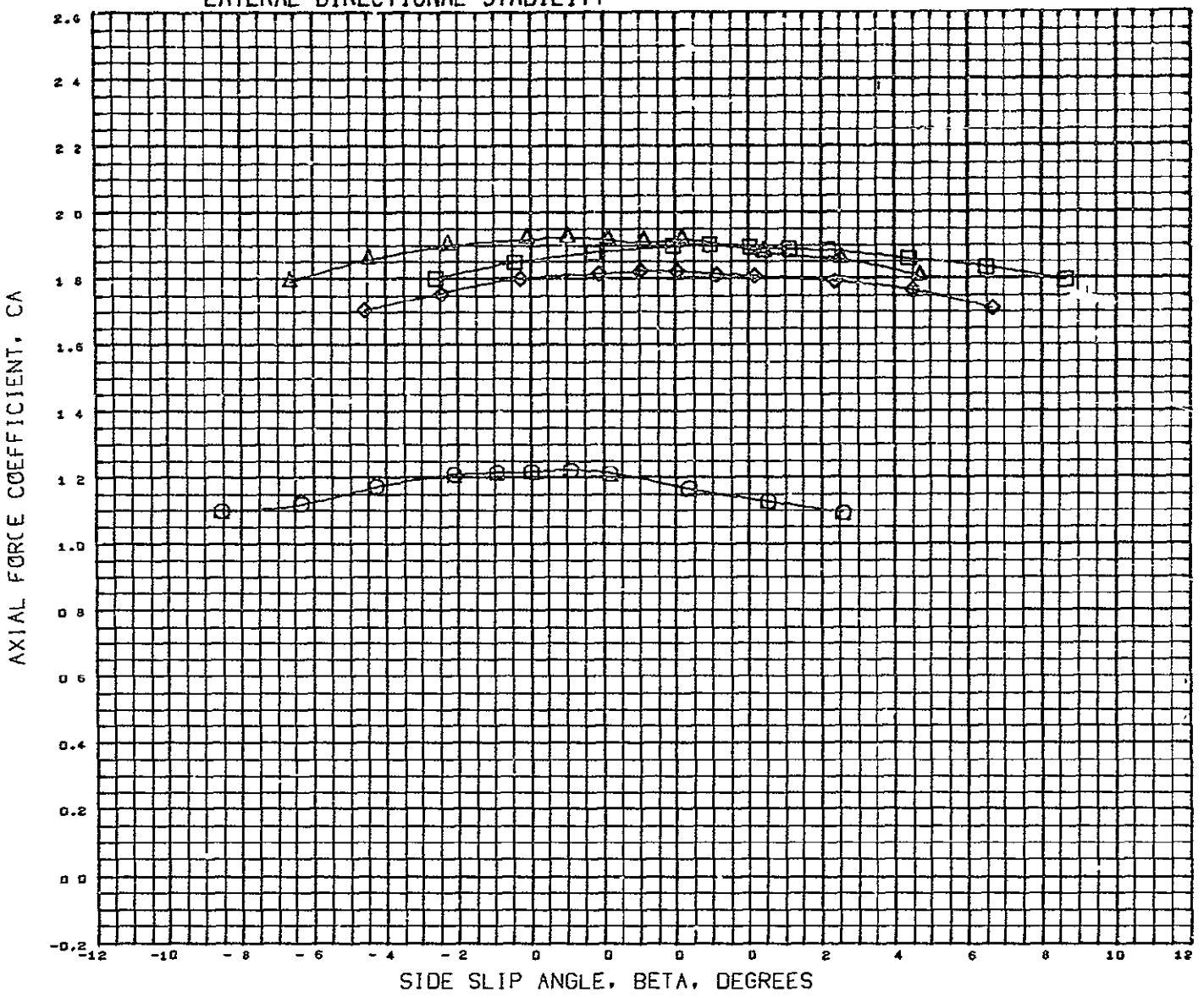


SYMBOL	MACH	PARAMETRIC VALUES			
△○	0.896	ALPHA	0 000	ORBINC	- 3 100
◇	1 003				
□	1 102				
	1 197				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6850	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

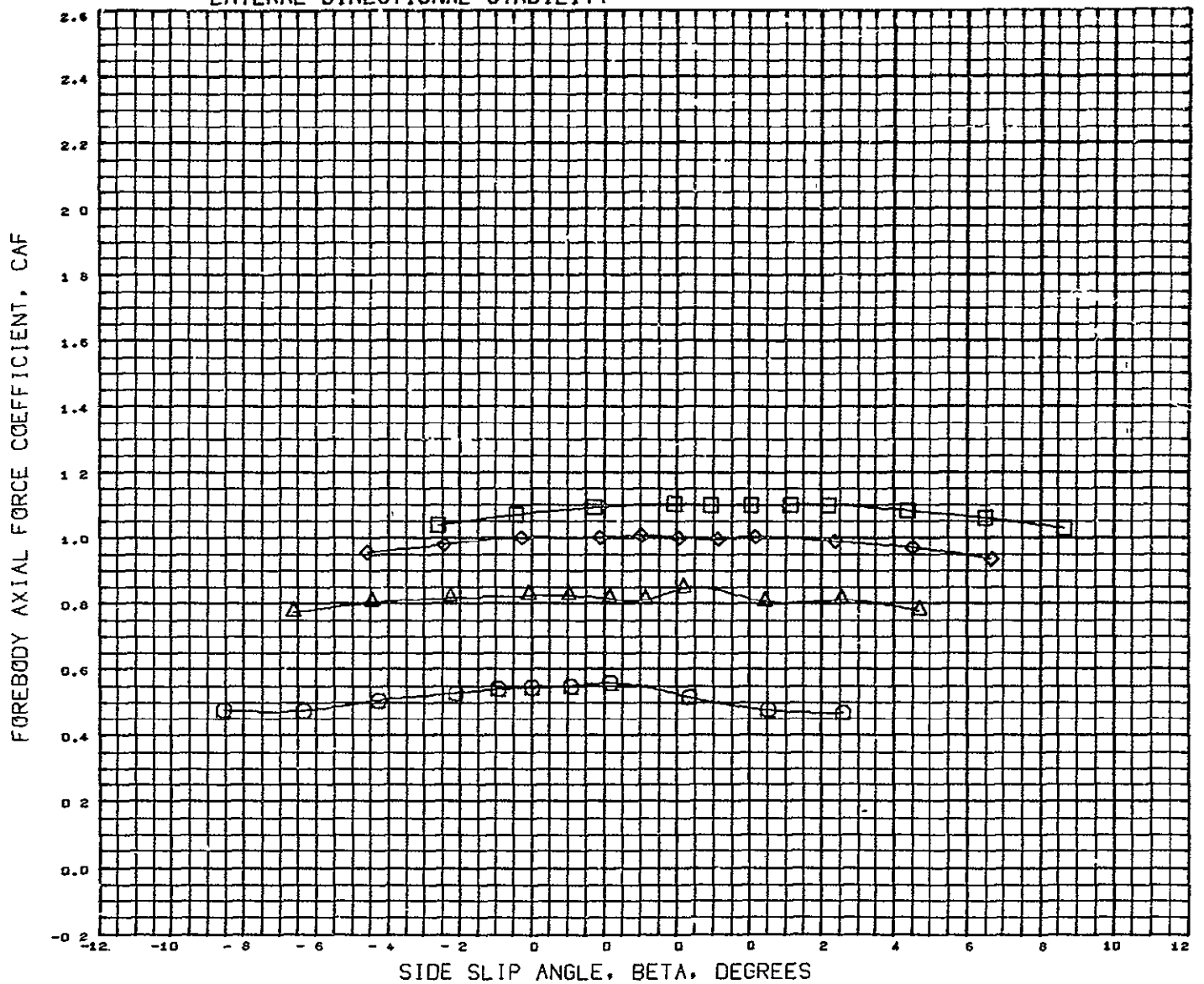
LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATIO		
○	0.696	ALPHA	0.000	ORBINC - 3.100	SREF	1.3960	SQ IN
△	1.003				LREF	1.3330	IN
◇	1.102				BREF	1.3330	IN
□	1.197				XMRP	3.6860	IN
					YMRP	0.0000	IN
					ZMRP	0.0000	IN
					SCALE	0.0034	

DATA HIST CODE M*E

LATERAL-DIRECTIONAL STABILITY



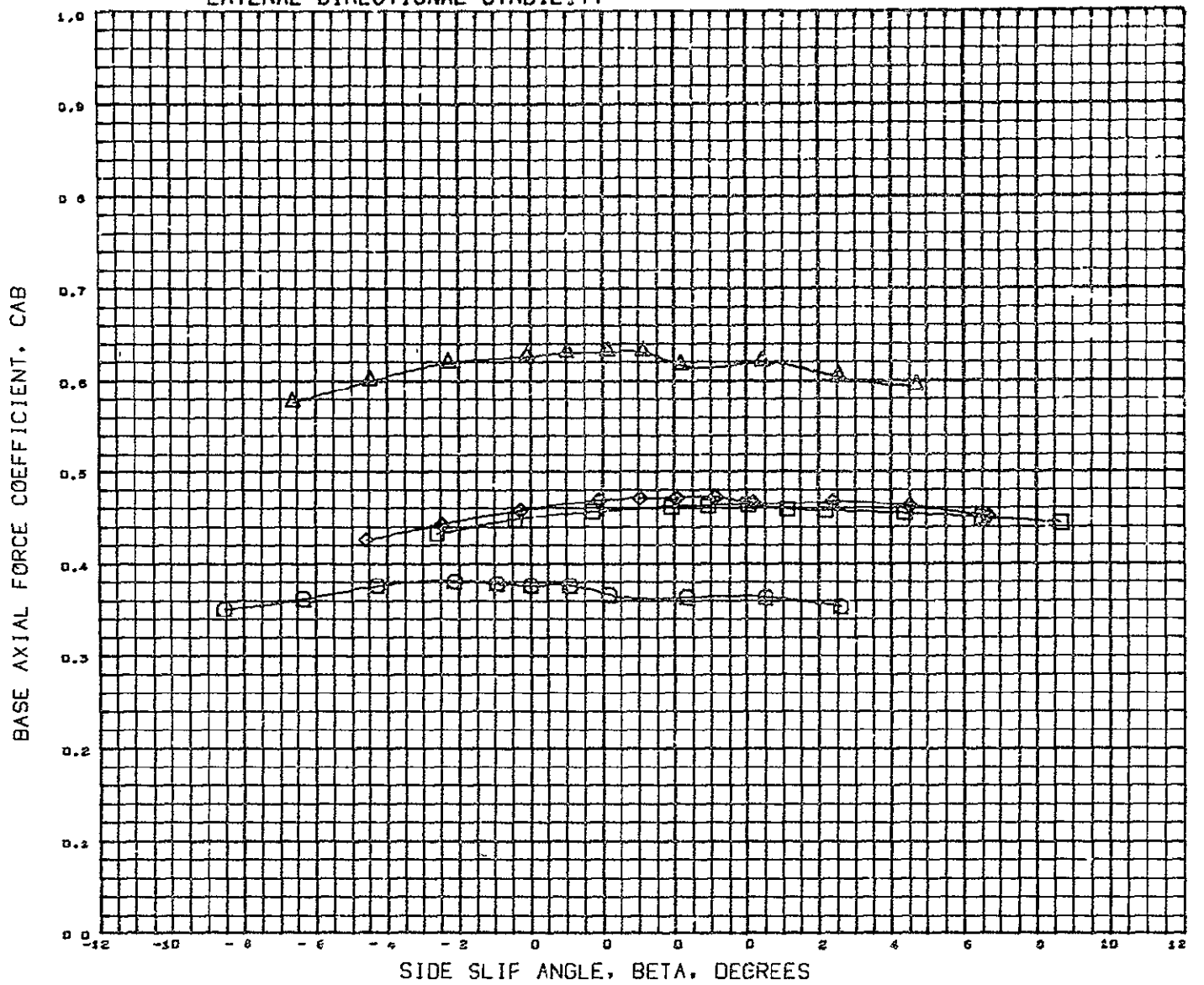
SYMBOL	MACH	PARAMETRIC VALUES			
○	0 696	ALPHA	0 000	ORBINC	- 3 100
△	1.003				
◇	1 102				
□	1 197				

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LATERAL-DIRECTIONAL STABILITY

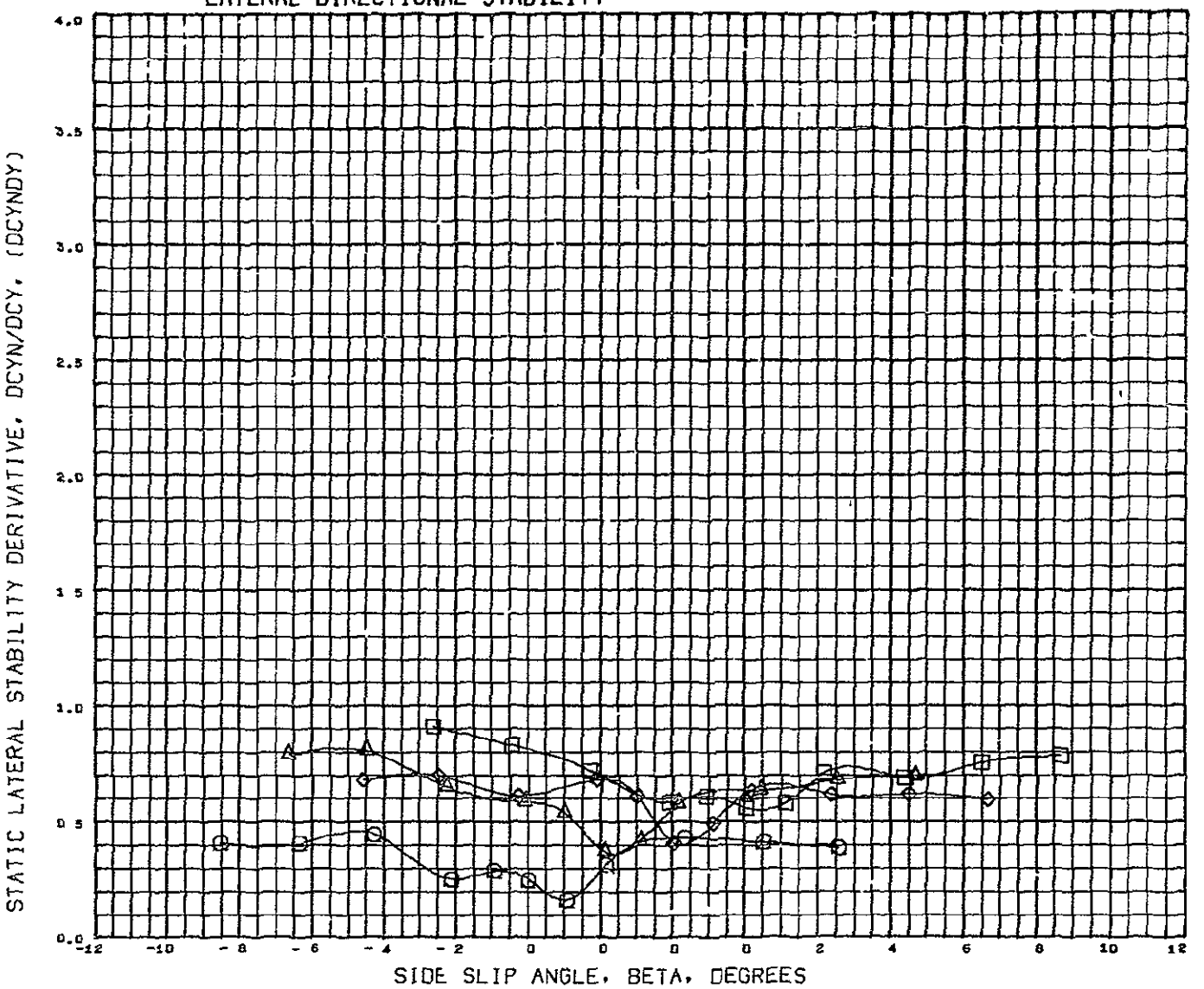


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.896	ALPHA	0.000	ORBINC	-3.100
△	1.003				
◇	1.102				
□	1.197				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



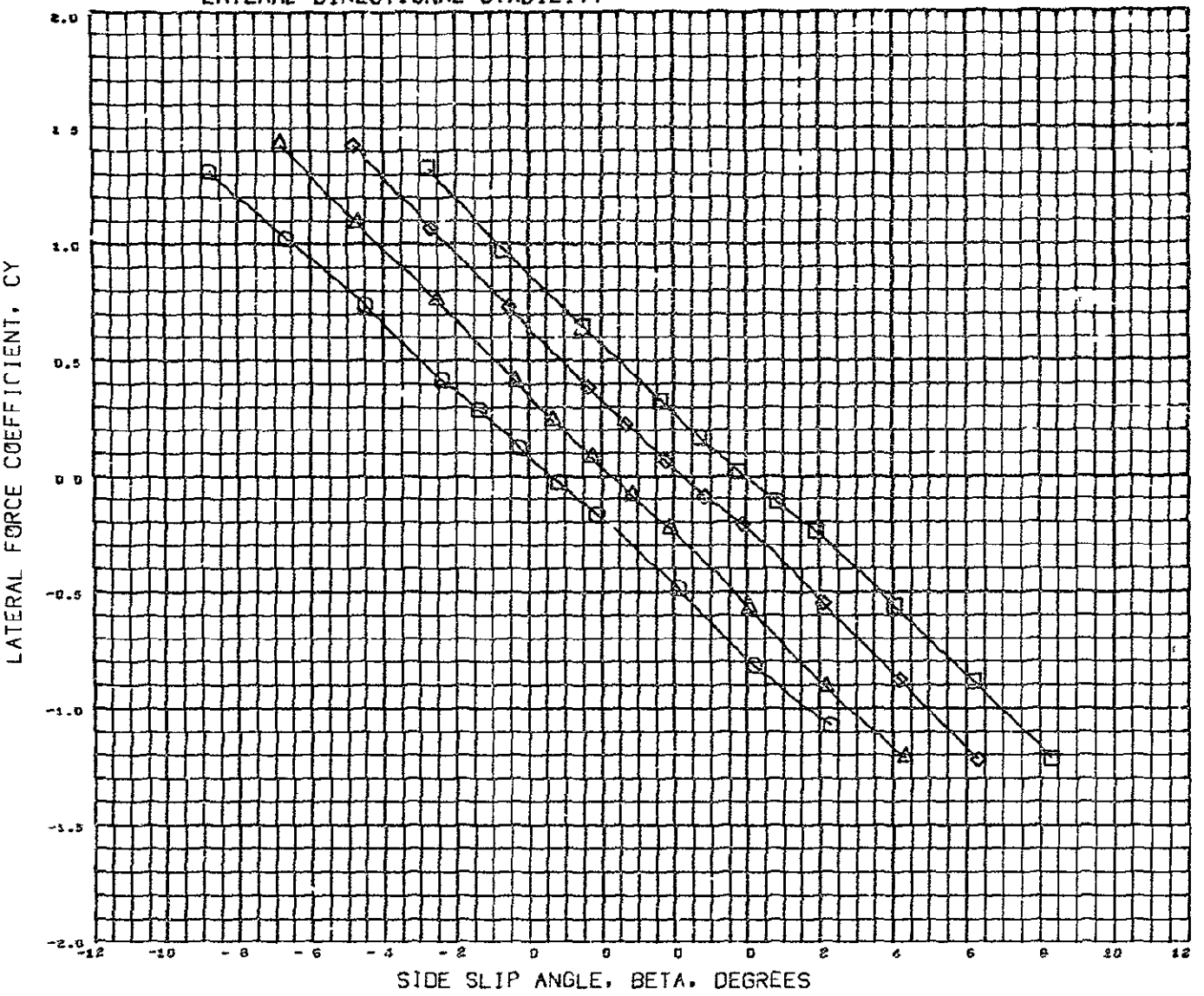
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.896	ALPHA	0.000	ORBINC	-3.100
△	1.003				
◇	1.102				
□	1.197				

DATA HIST CODE M#E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

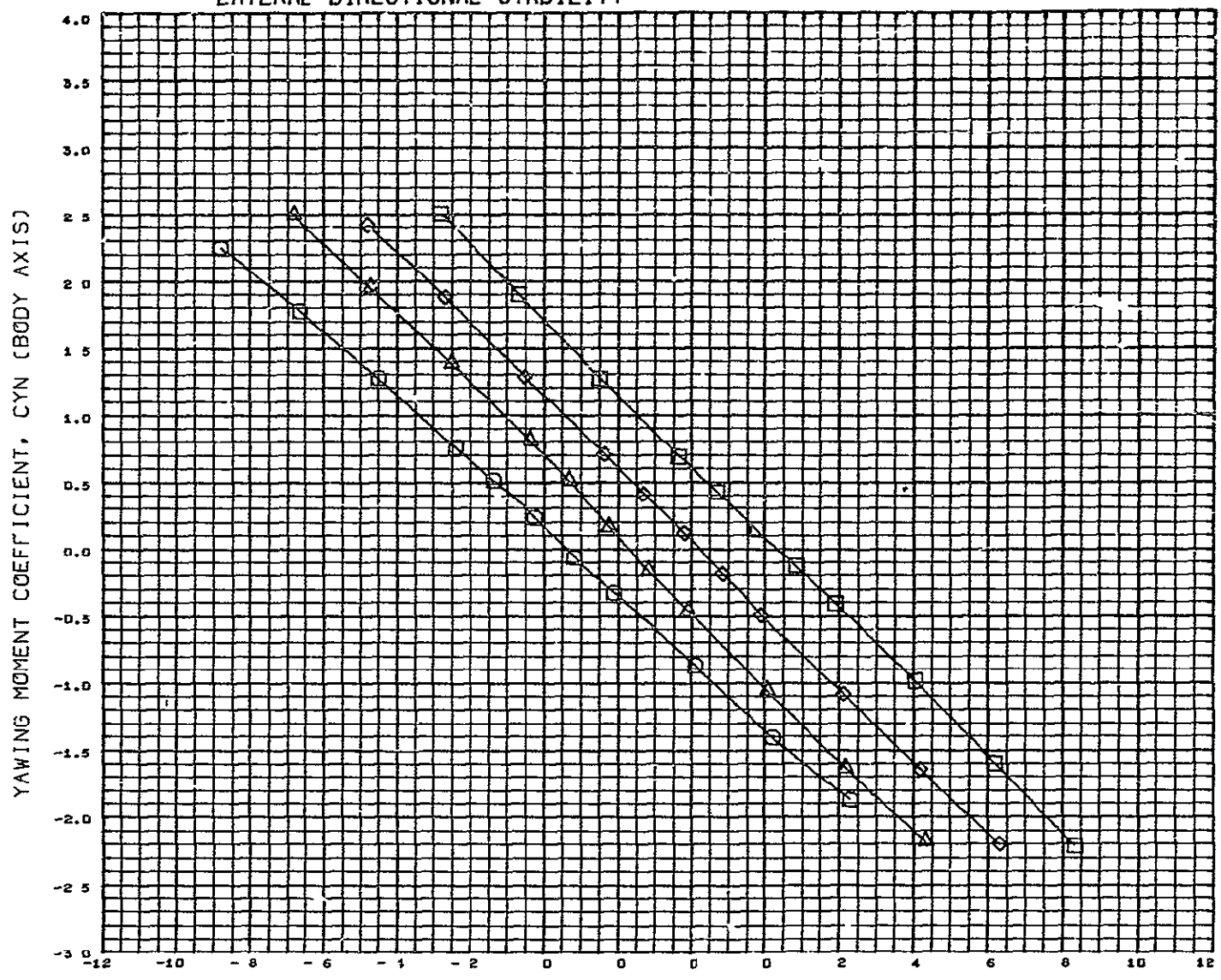


SYMBOL	MACH	PARAMETRIC VALUES		
○△	0.599	ALPHA	0.000	ORBINC - 3.100
◇	1.005			
□	1.100			
	1.201			

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

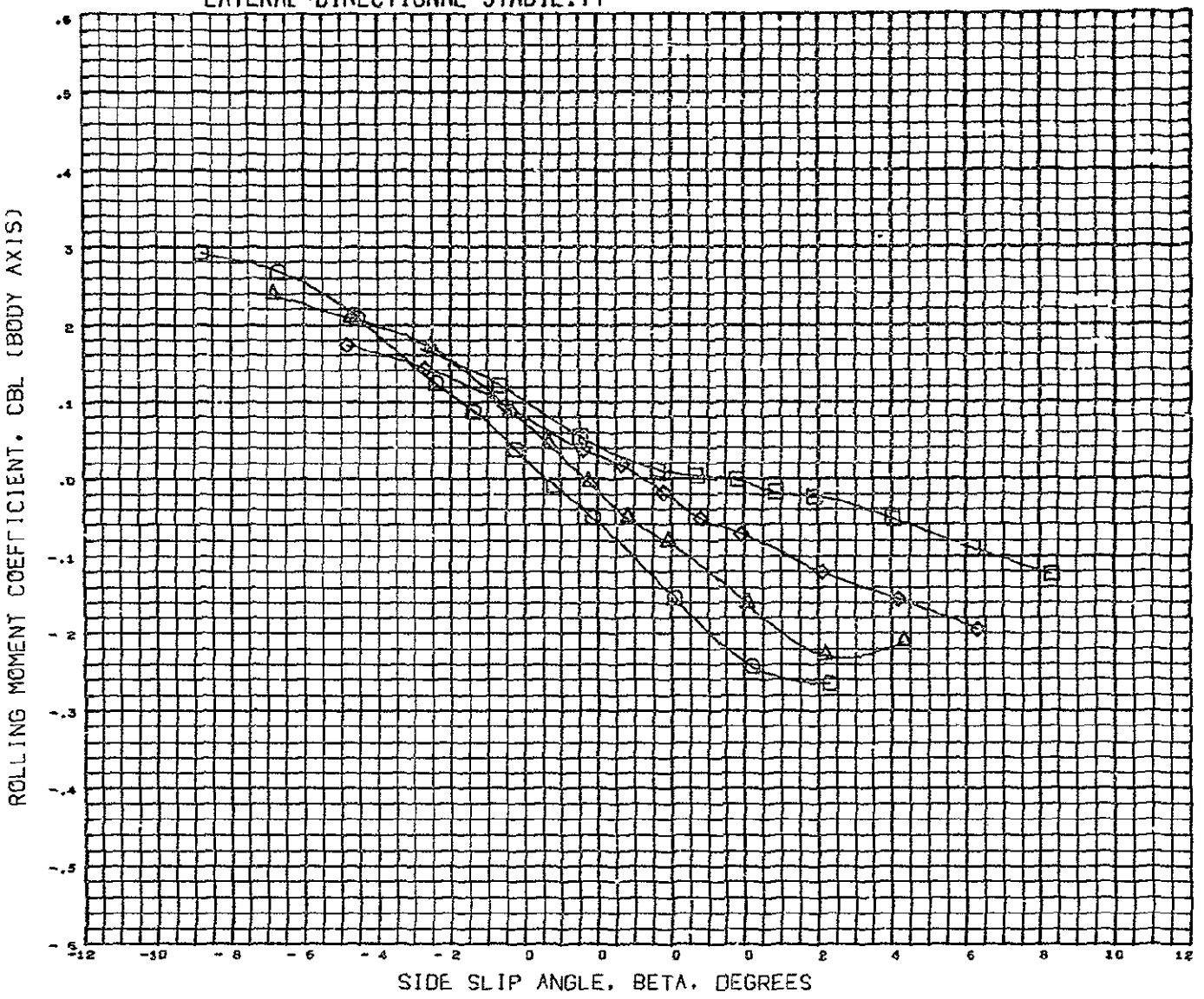


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	ALPHA	0.000	ORBINC	-3.100
△	1.005				
◇	1.100				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



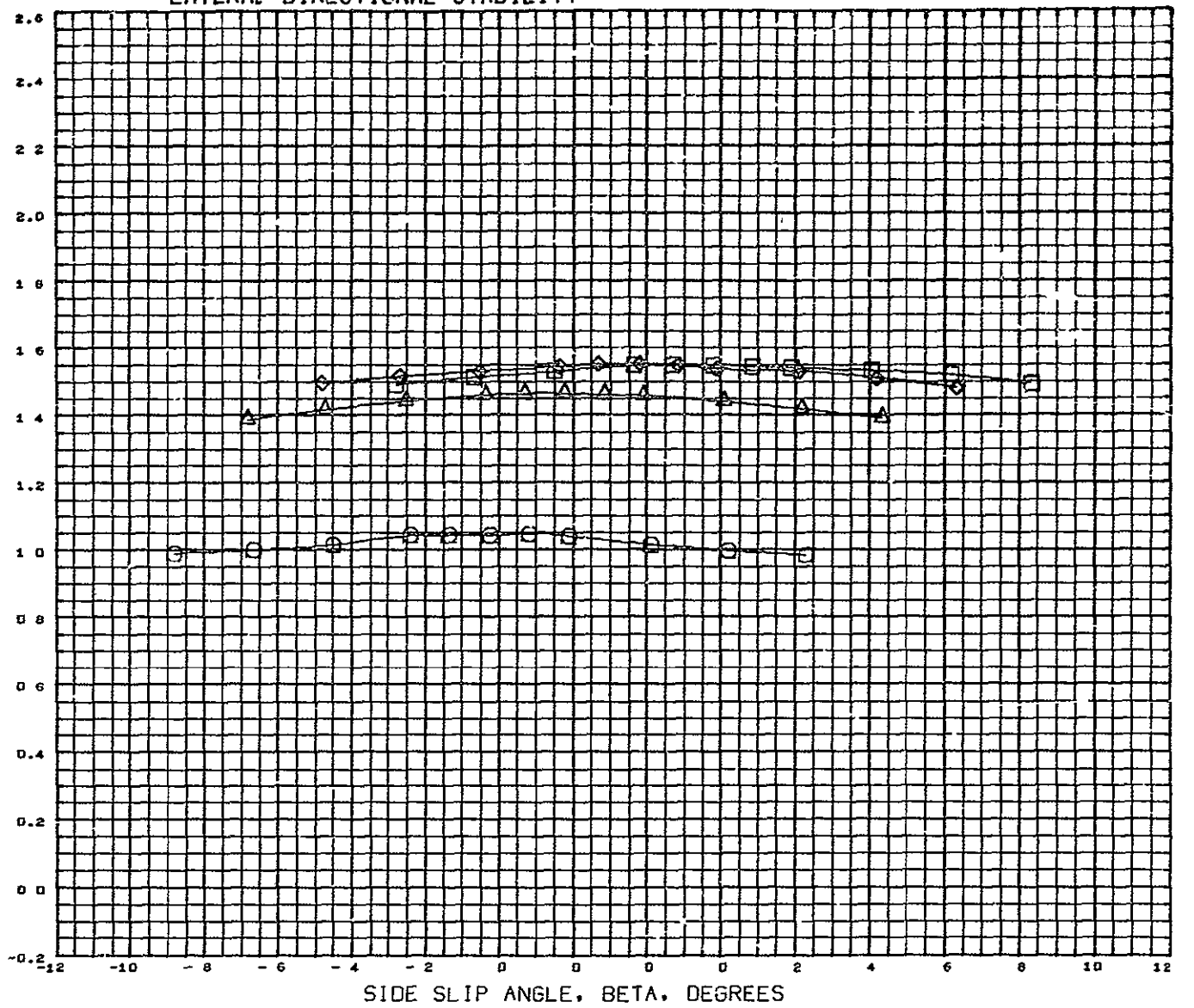
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.599	ALPHA	0.000	ORBINC	-3.100
△	1.005				
◇	1.100				
□	1.201				

DATA HIST CODE H*E

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0070	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

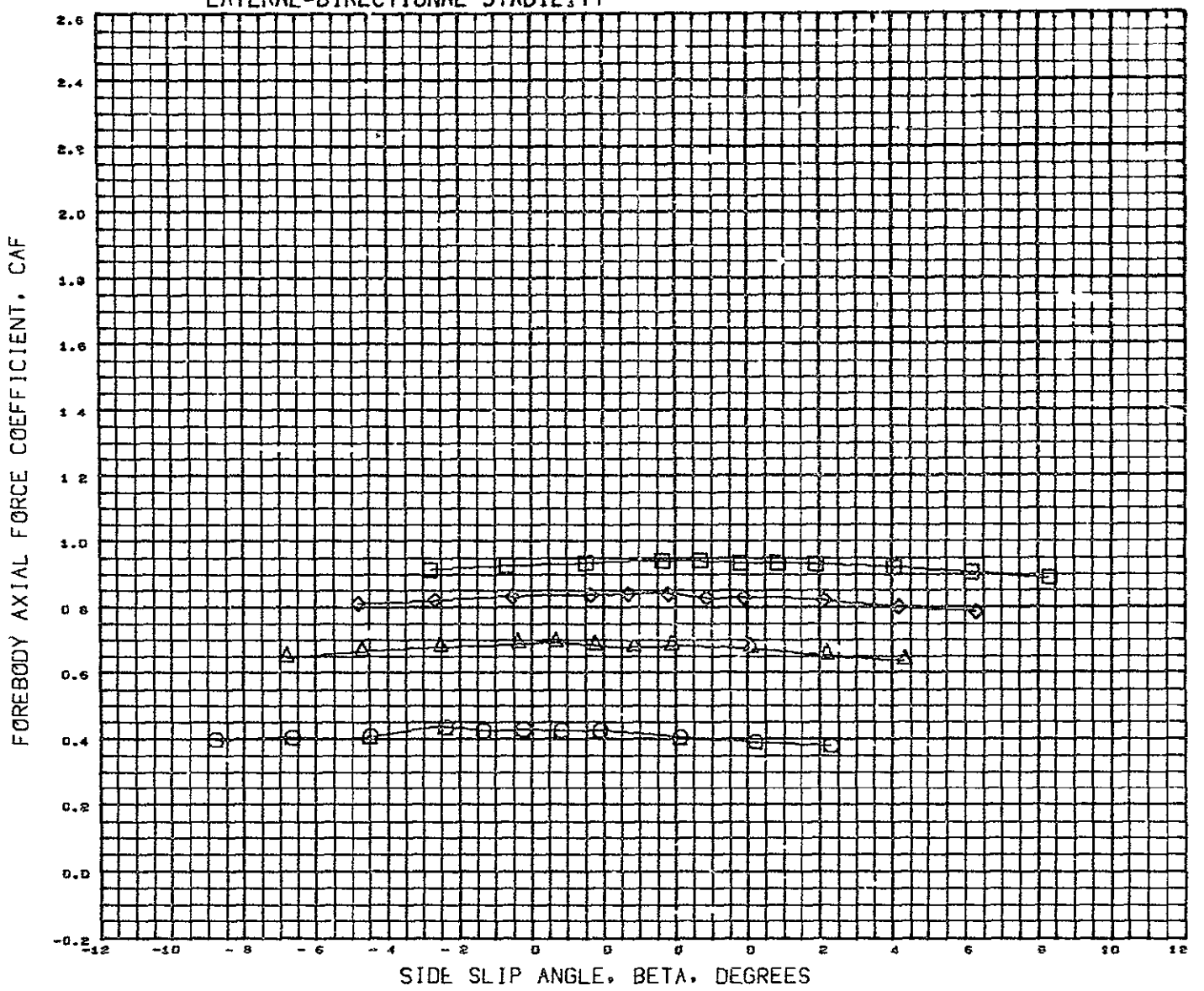


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.895	ALPHA	0.000	ORBINC	-3.100
△	1.005				
◇	1.100				
□	1.201				

DATA HIST CODE M#E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.003	

LATERAL-DIRECTIONAL STABILITY

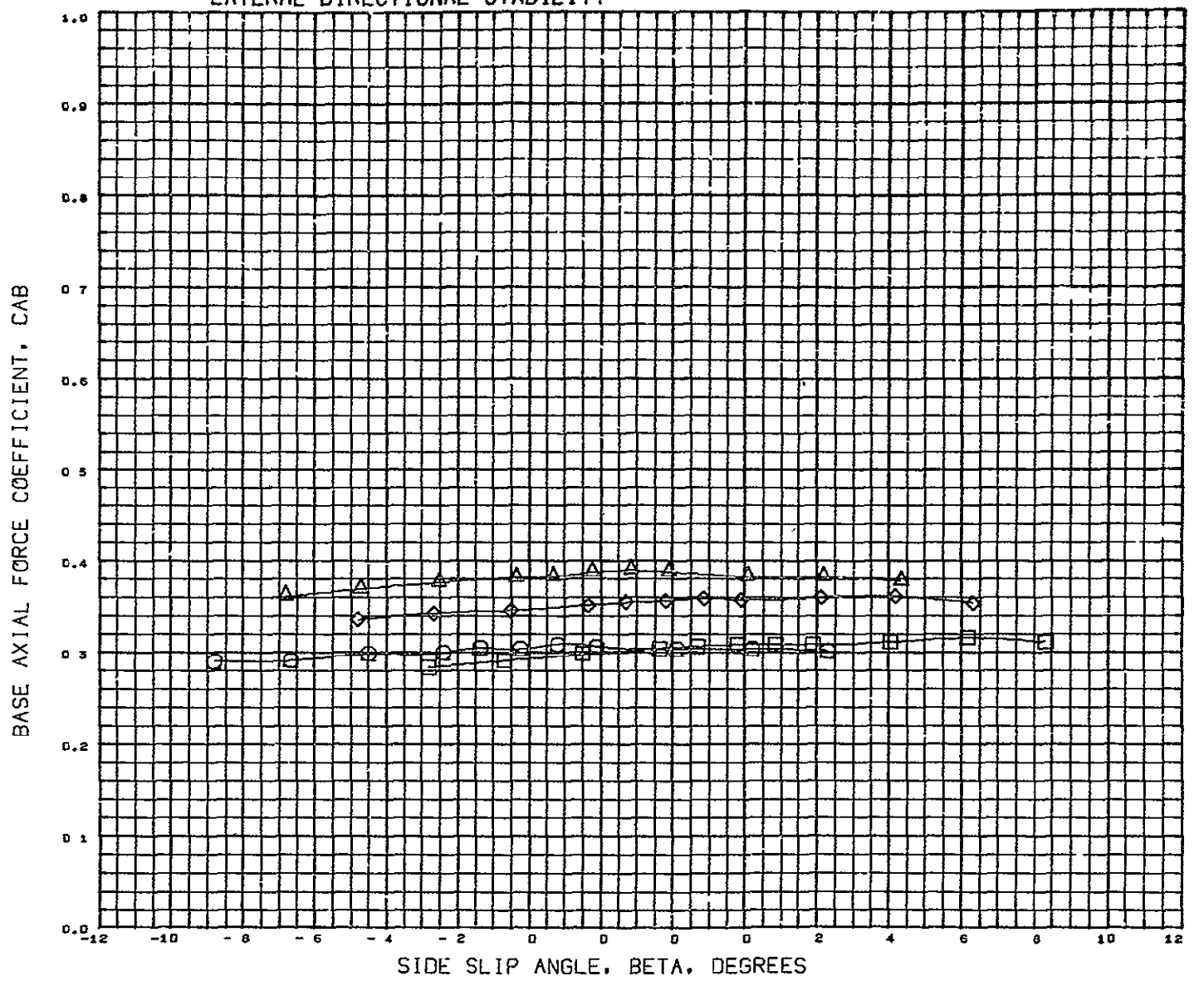


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	ALPHA	0.000	ORBINC	-3.100
△	1.005				
◇	1.100				
□	1.201				

DATA HIST CODE M*E

REFERENCE FORMATIC		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY

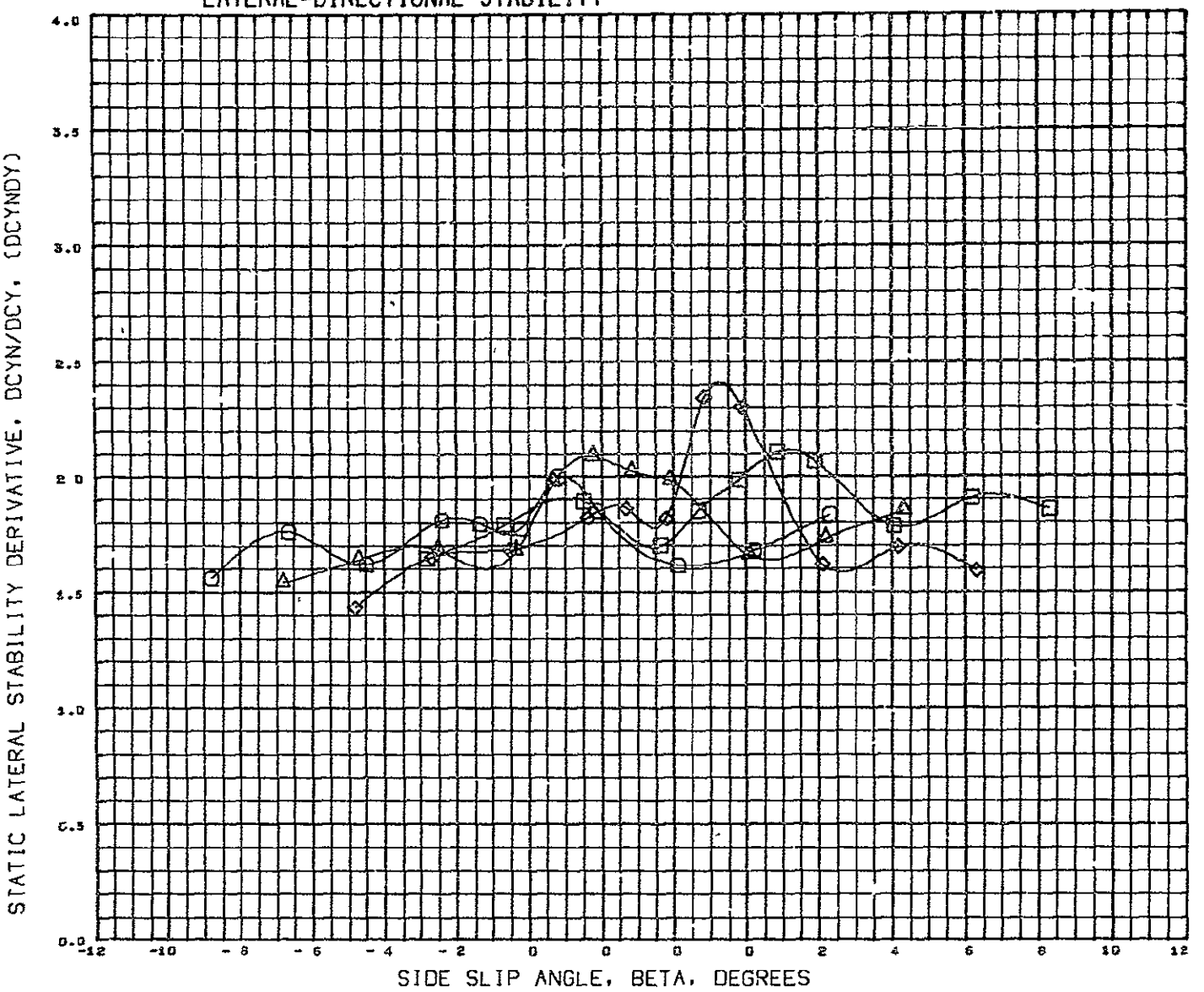


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	ALPHA	0.000	ORBINC	-3.100
△	1.005				
◇	1.100				
□	1.201				

DATA HIST CODE M*E

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

LATERAL-DIRECTIONAL STABILITY



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.899	ALPHA	0 000	ORBINC	- 3 100
△	1.045				
◇	1.100				
□	1 201				

DATA HIST CODE H#E

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY

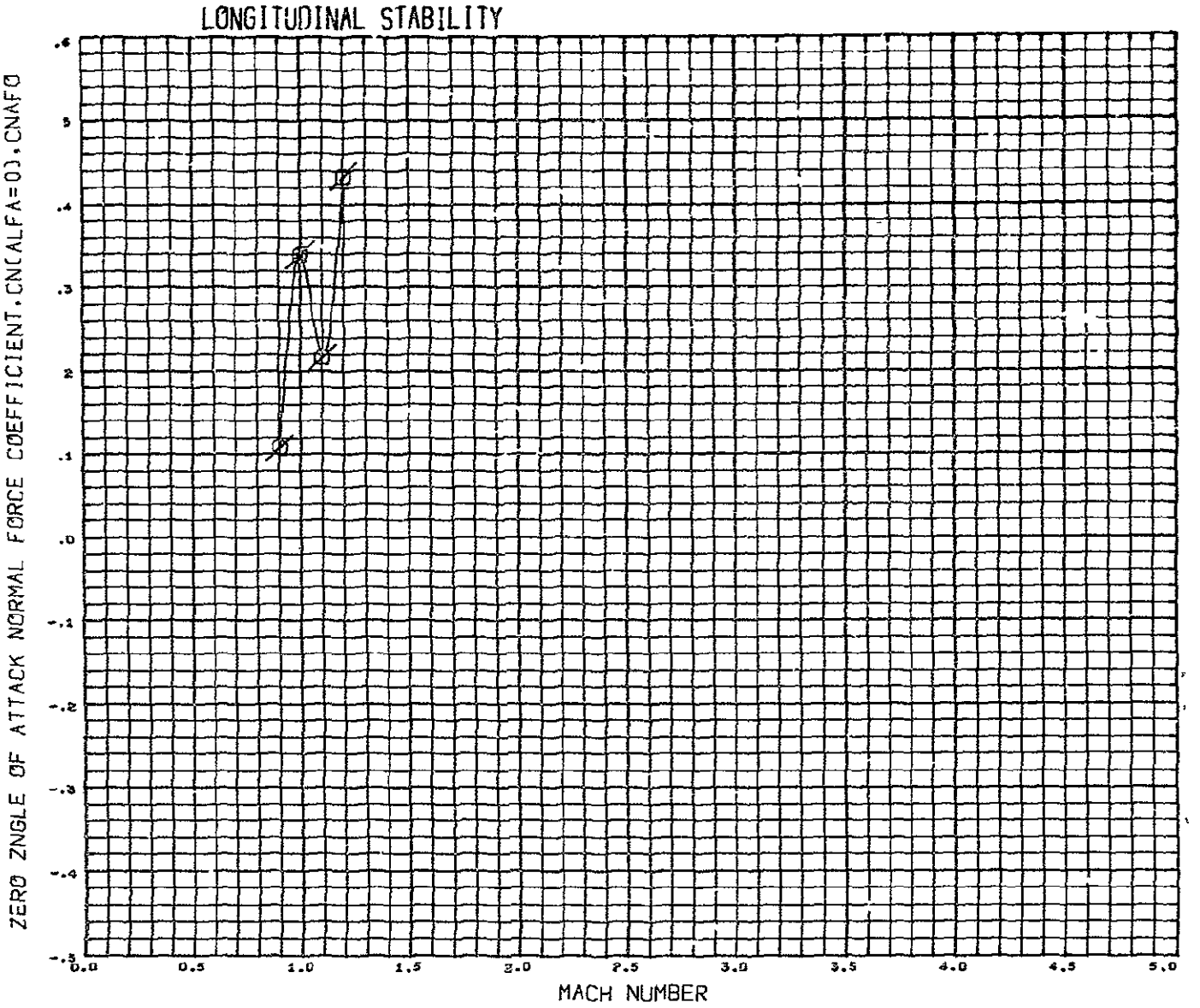
PARAMETRIC VALUES

BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF



PARAMETRIC VALUES

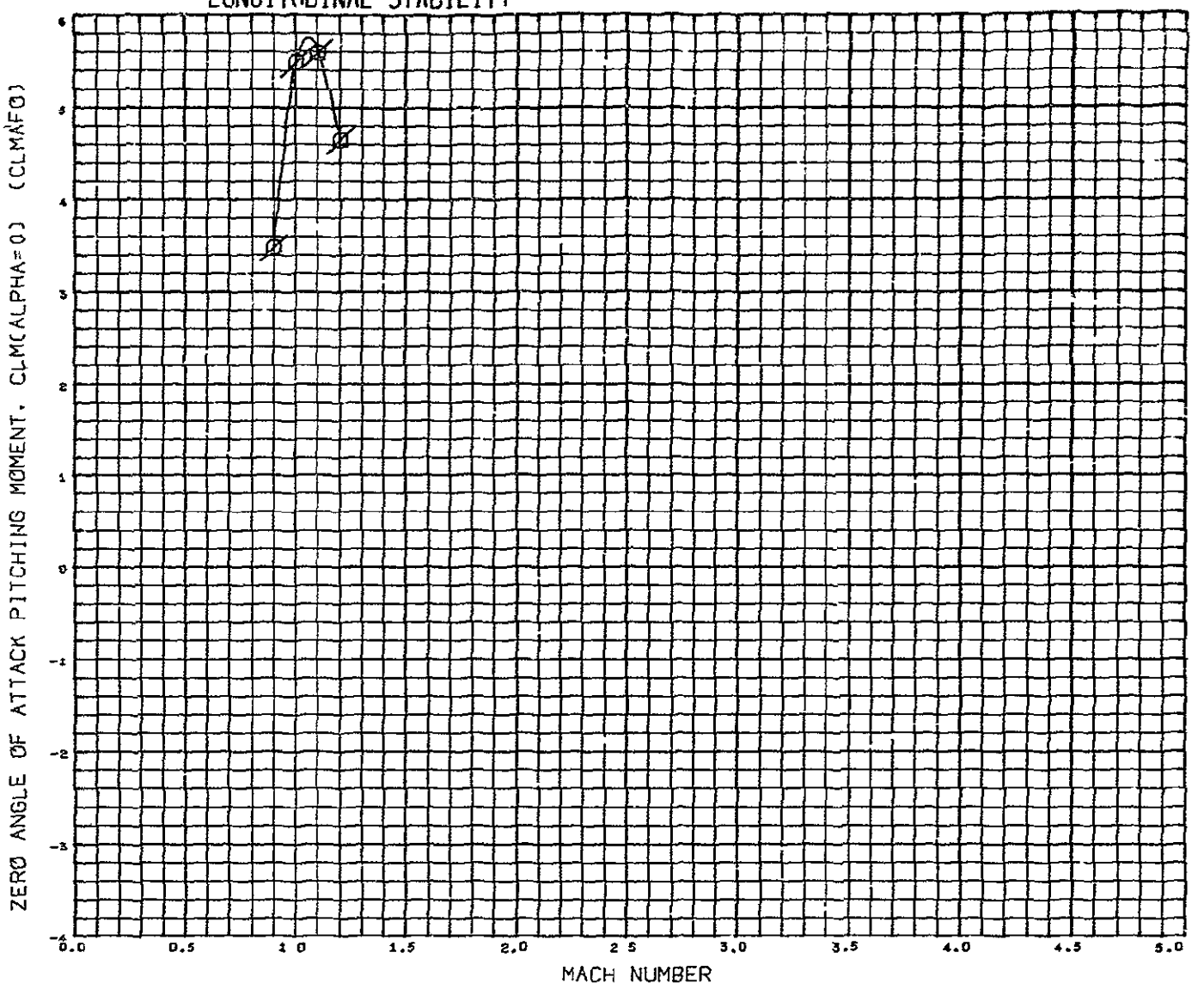
BETA 0 000 ORBINC 1 000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



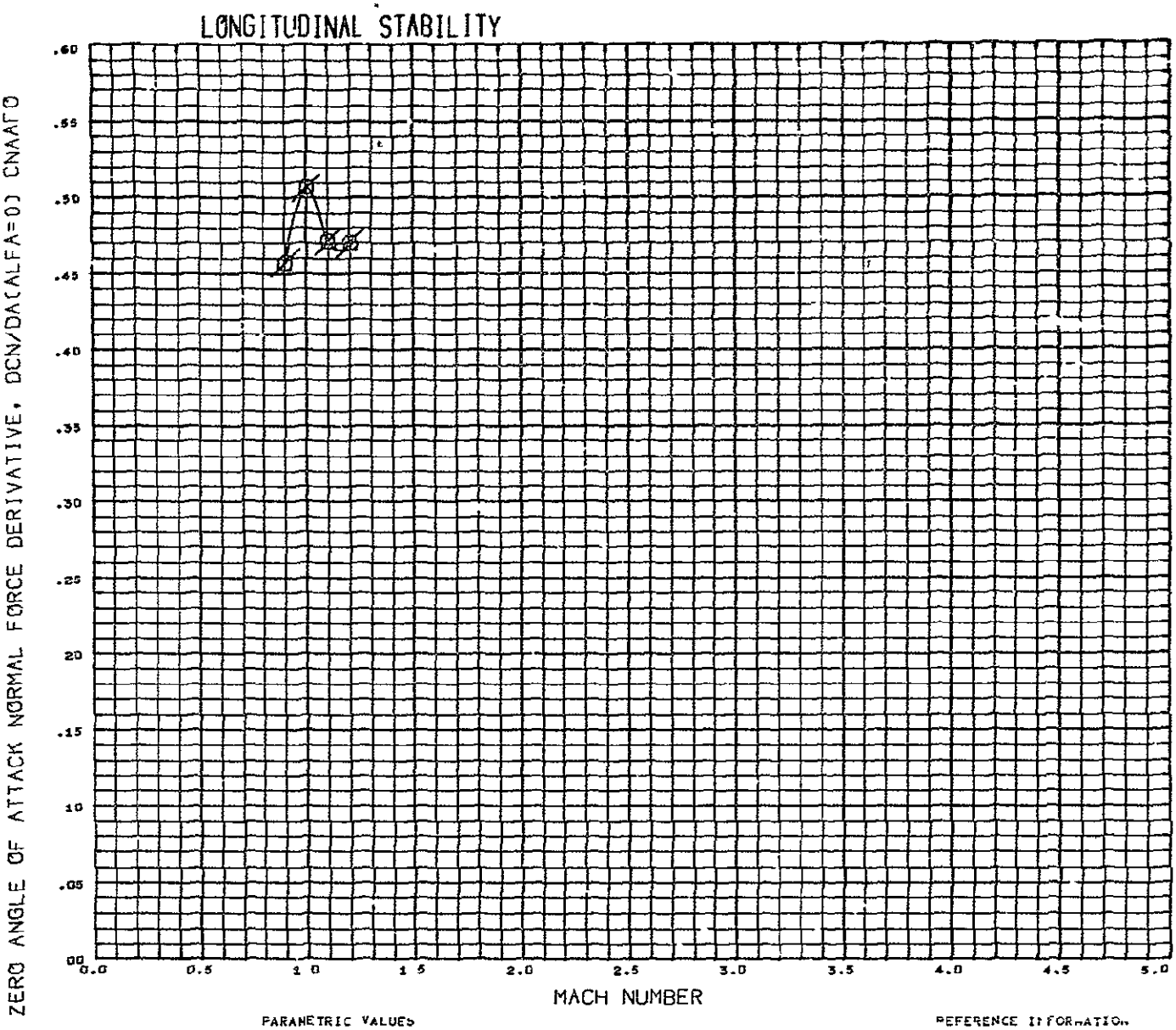
PARAMETRIC VALUES

BETA 0 000 ORBINC 1 000

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0054	



PARAMETRIC VALUES

BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRF	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY

PARAMETRIC VALUES

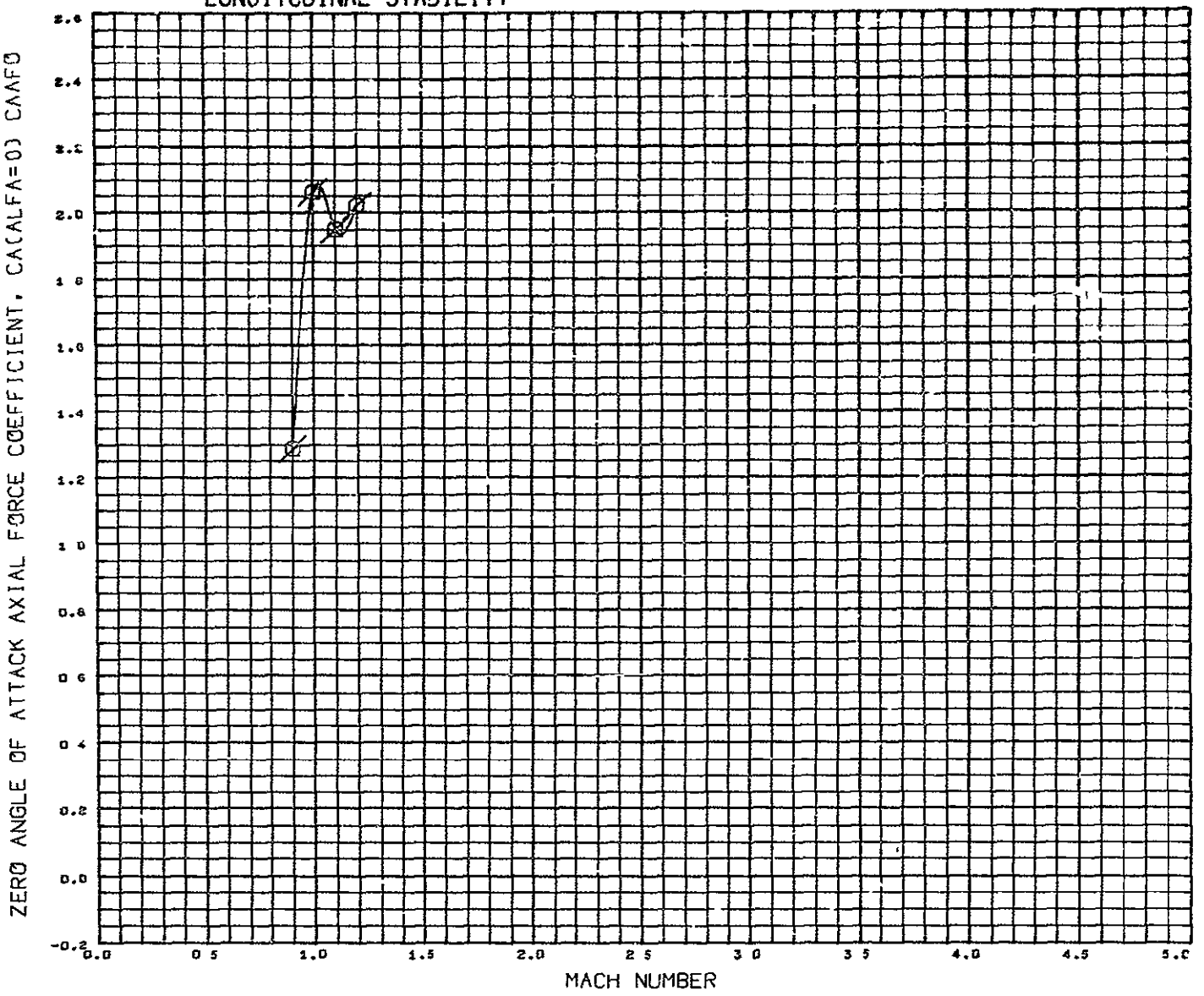
BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0006	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

PARAMETRIC VALUES

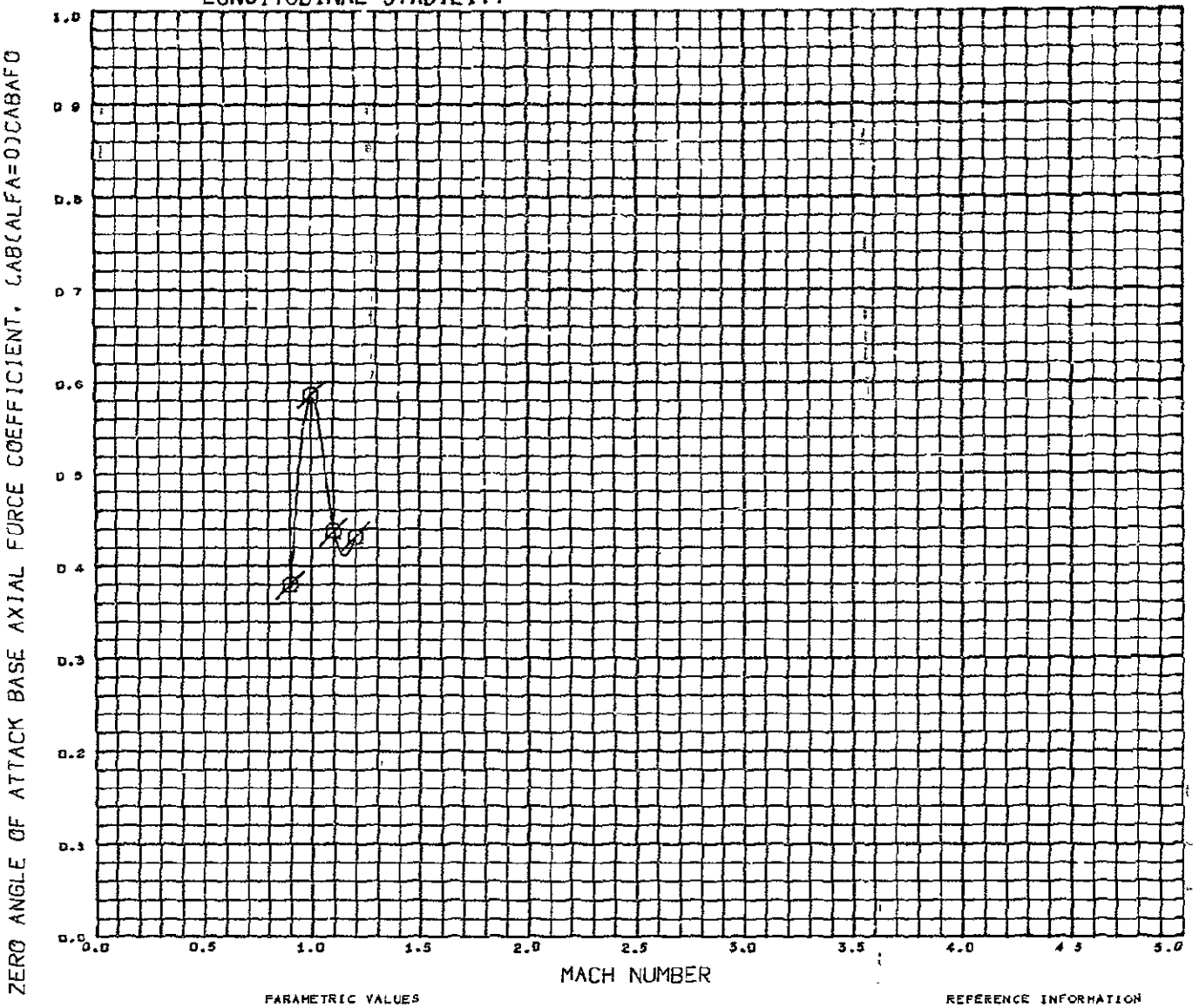
BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

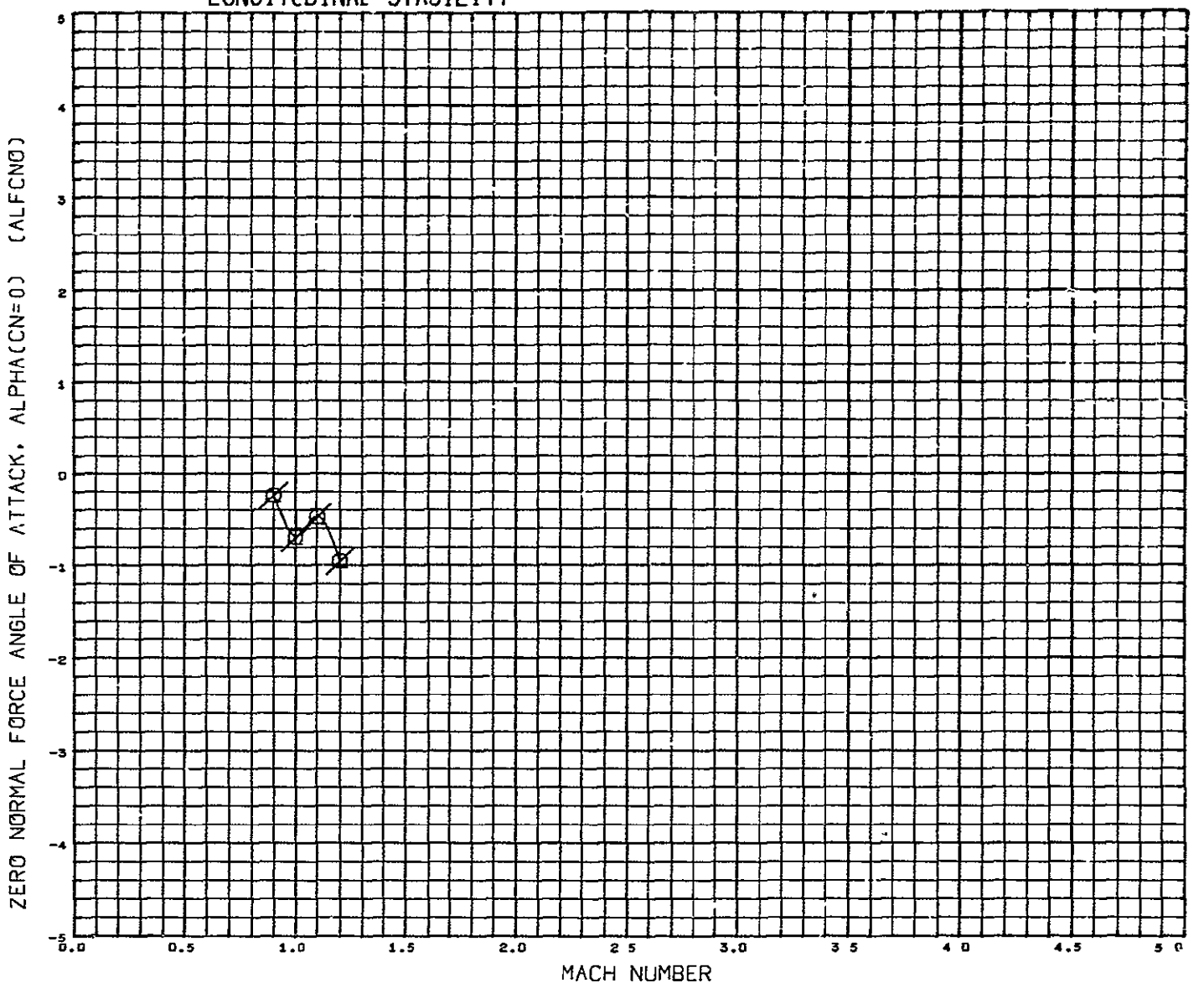
BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

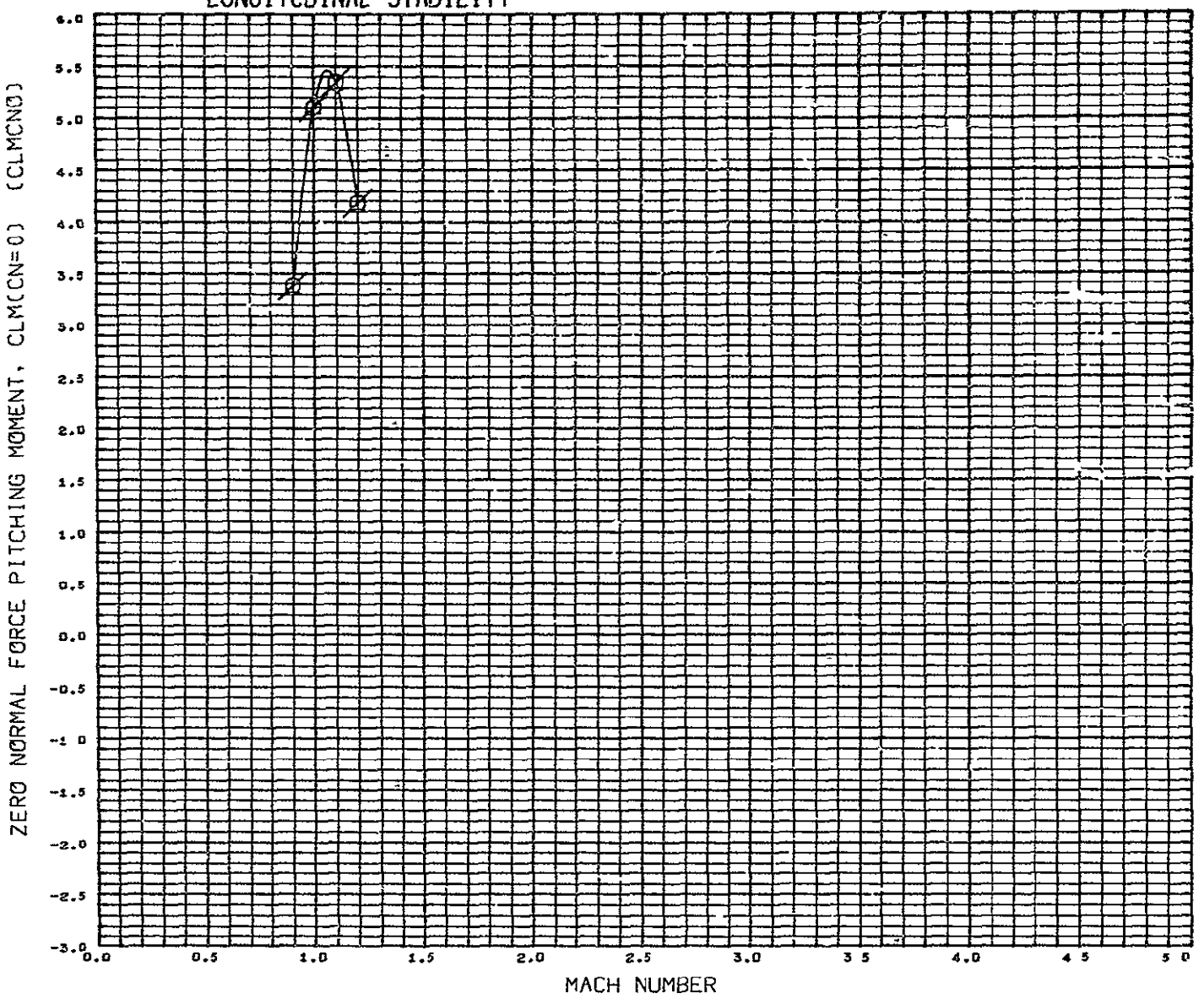
BETA 0.000 ORBINC 1 000

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRF	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

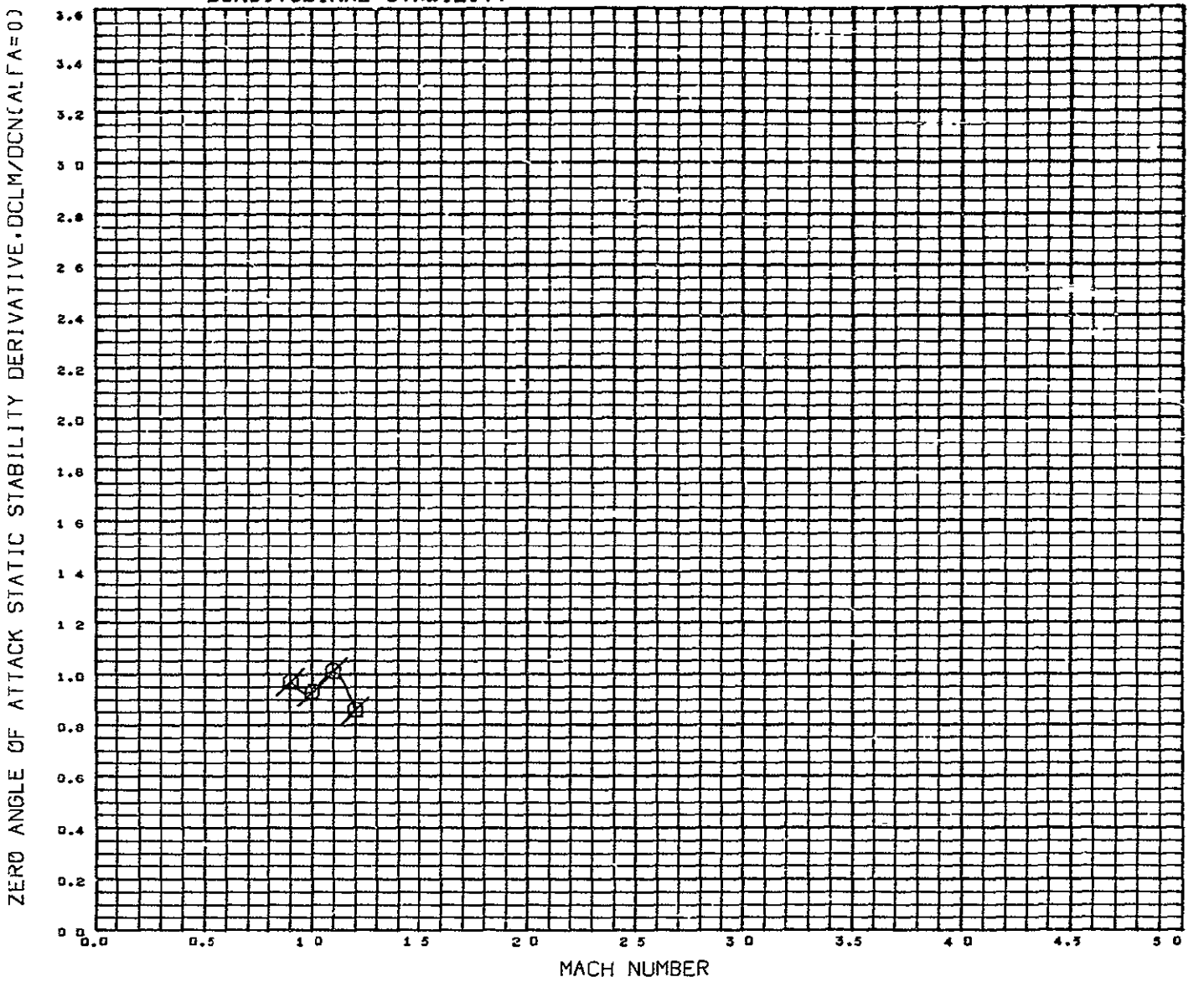
BETA 0.000 ORBINC 1.000

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0060	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



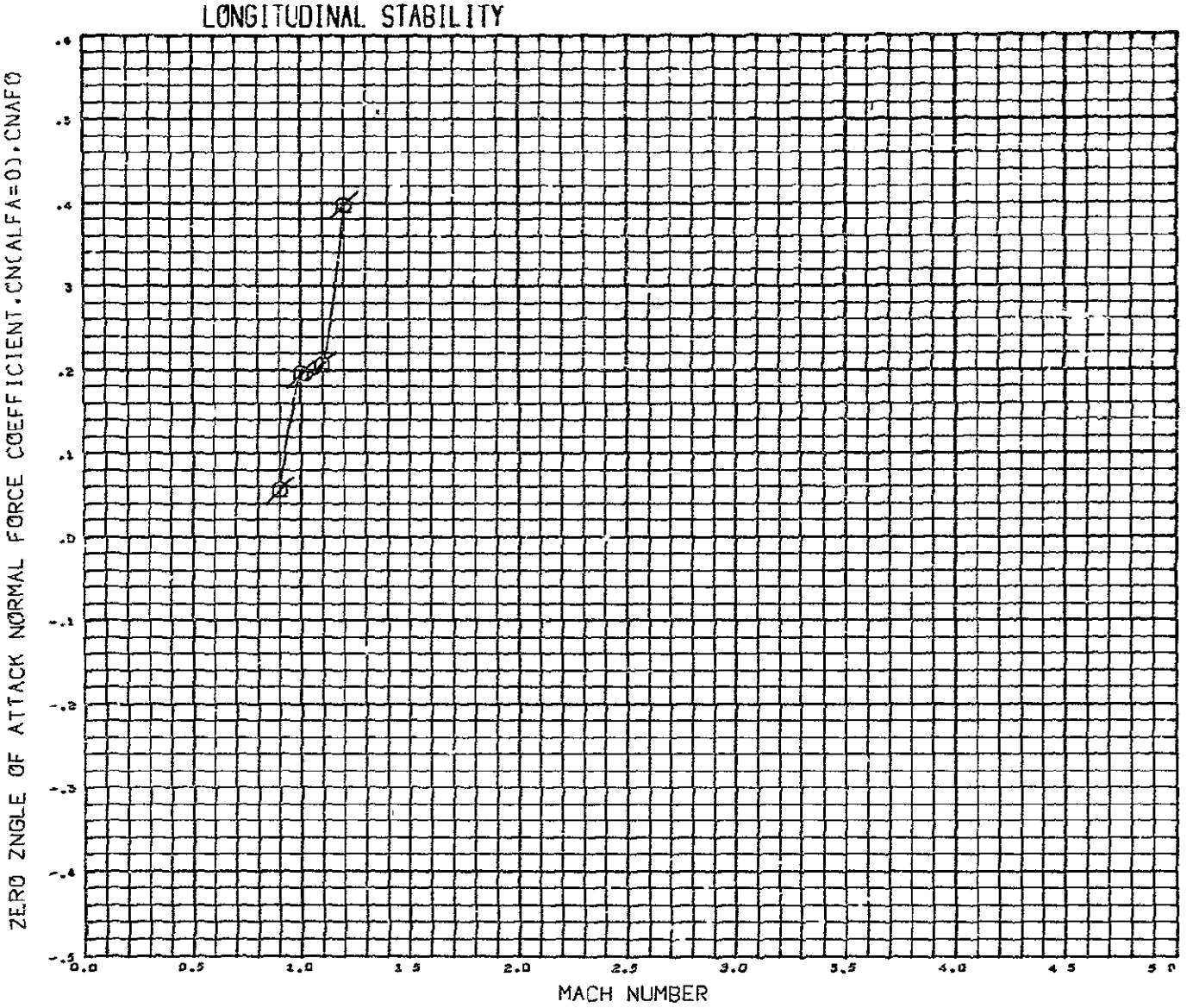
PARAMETRIC VALUES

BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M#EIF



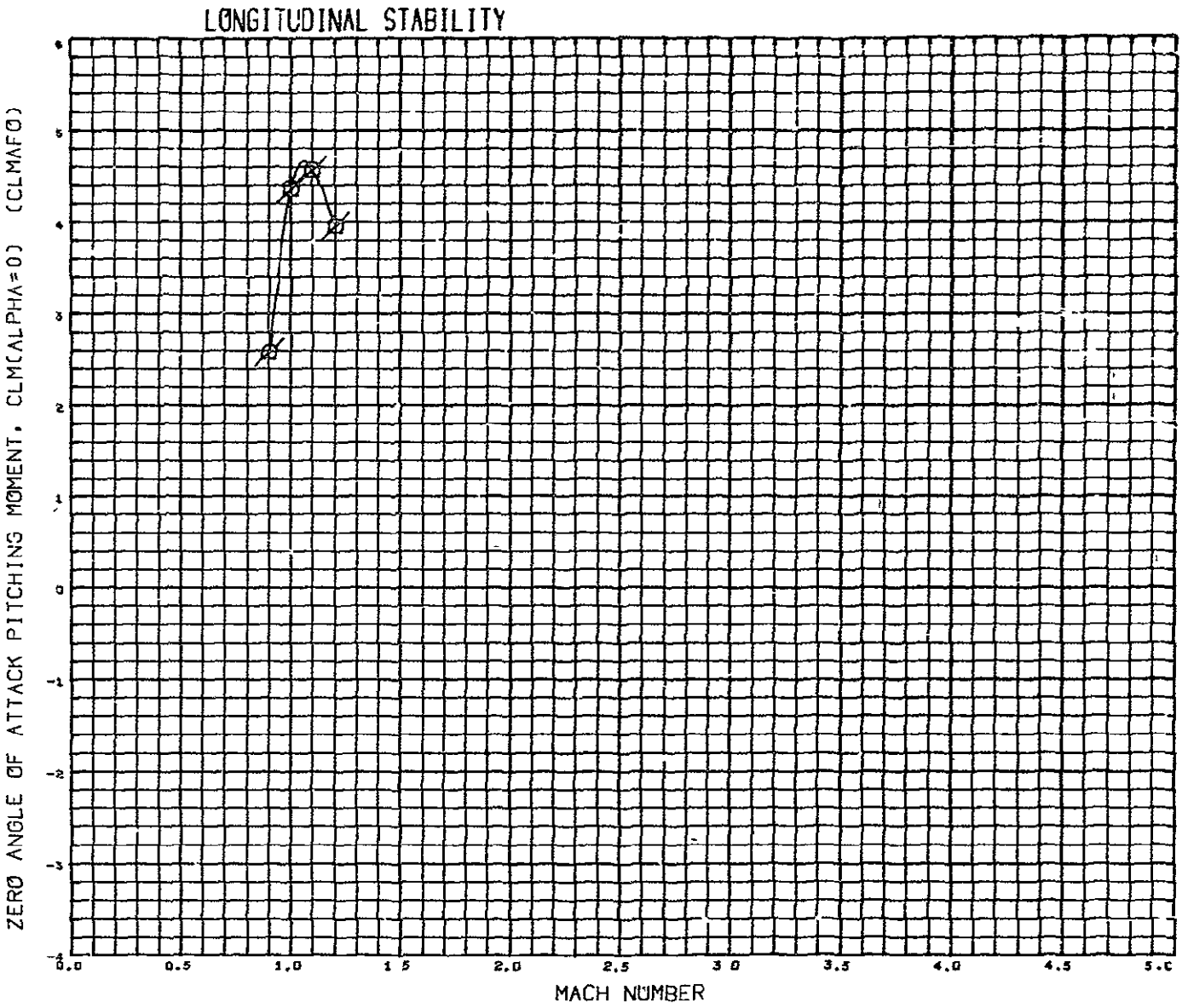
PARAMETRIC VALUES

BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M4EIF



PARAMETRIC VALUES

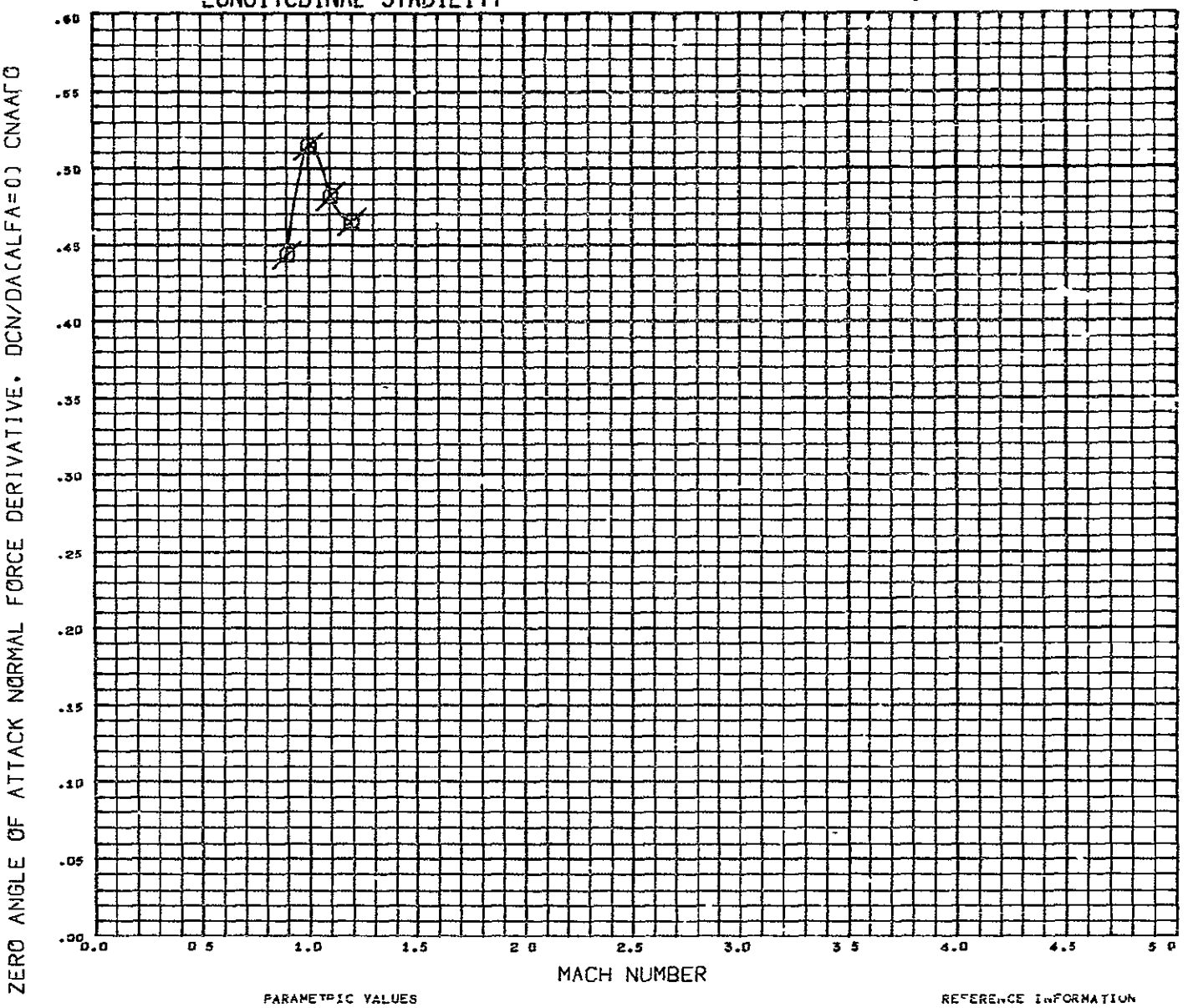
BETA 0 000 ORBINC 1 000

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

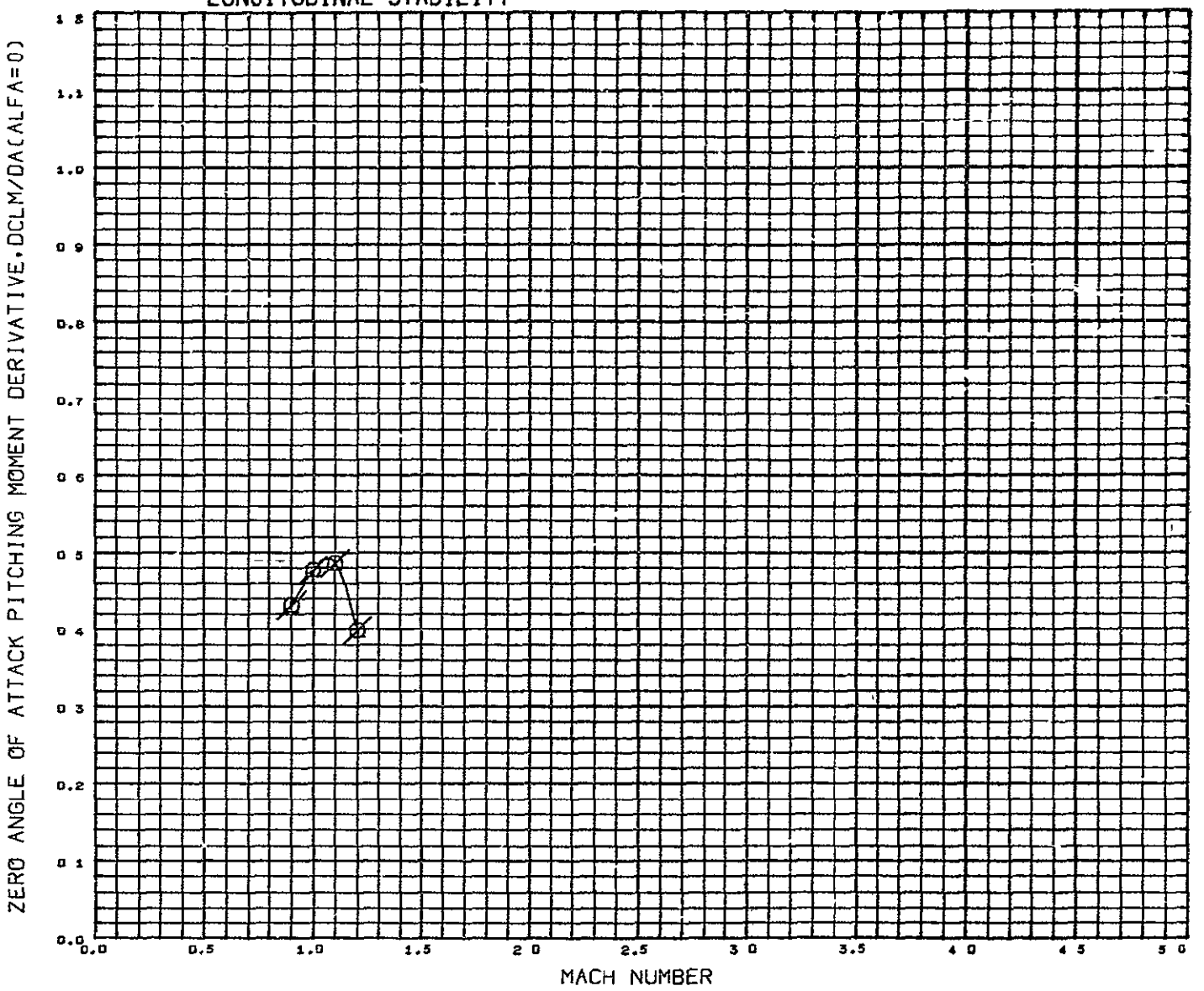
BETA 0 000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRF	3.6860	IN
YMRF	0 0000	IN
ZMRF	0 0000	IN
SCALE	0 0034	

DATA MIST CODE MXEIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

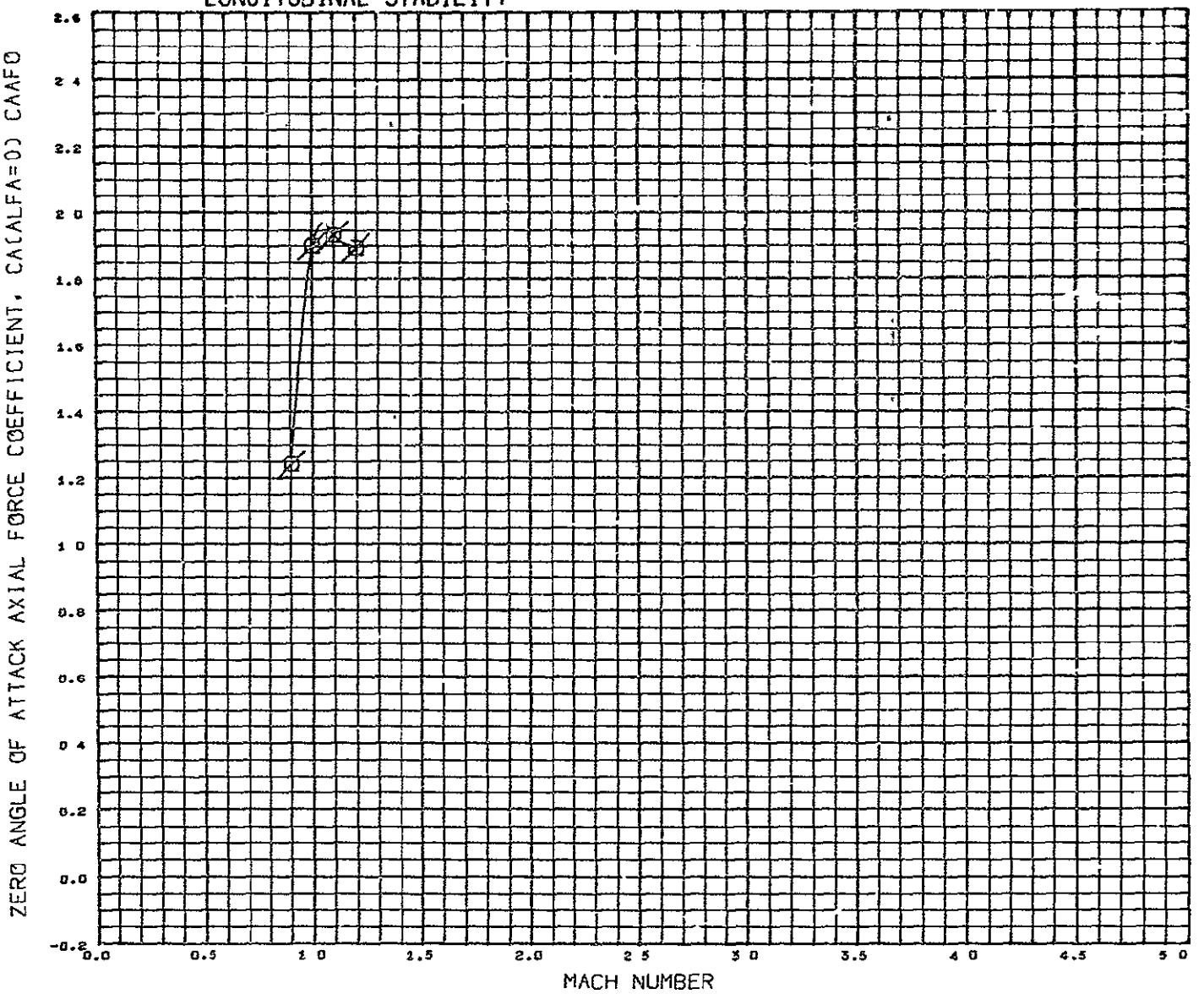
BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

	SREF	1.3960	SQ IN.
*	LREF	1.3330	IN
	BREF	1.3330	IN
	XMRP	3.6860	IN
	YMRP	0.0000	IN
	ZMRP	0.0000	IN
*	SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

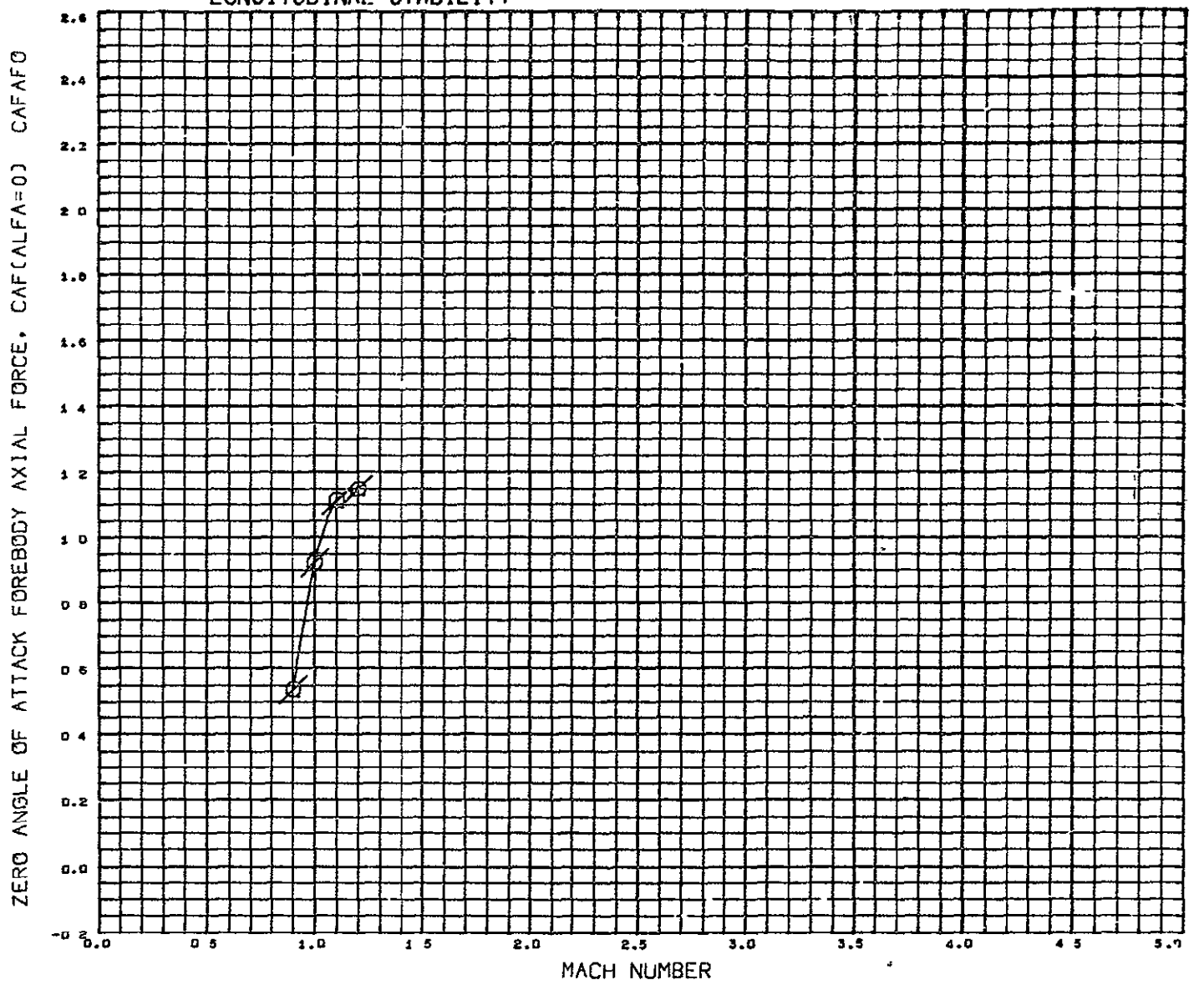
BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



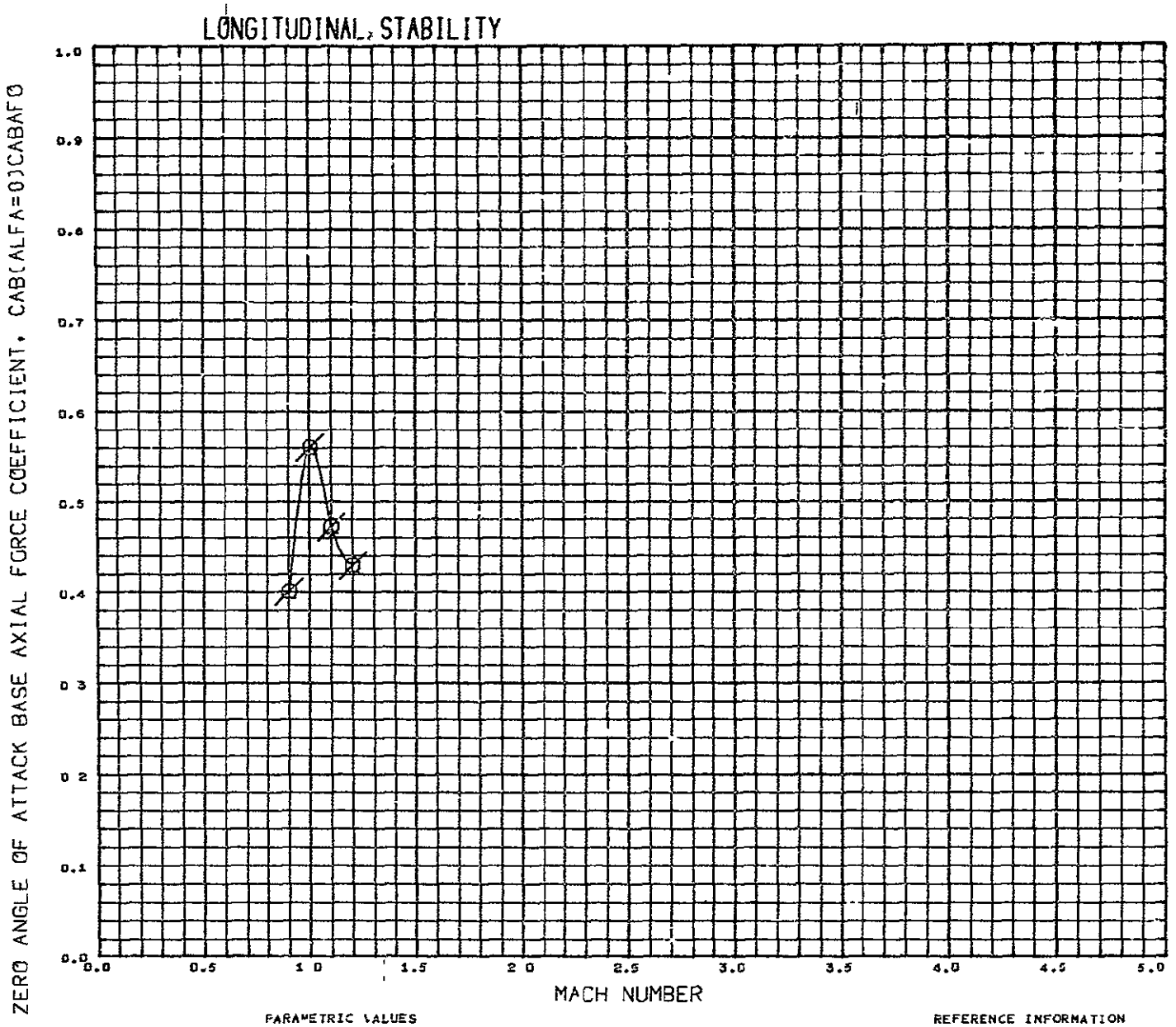
PARAMETRIC VALUES

BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA H.ST CODE M*EIF



PARAMETRIC VALUES

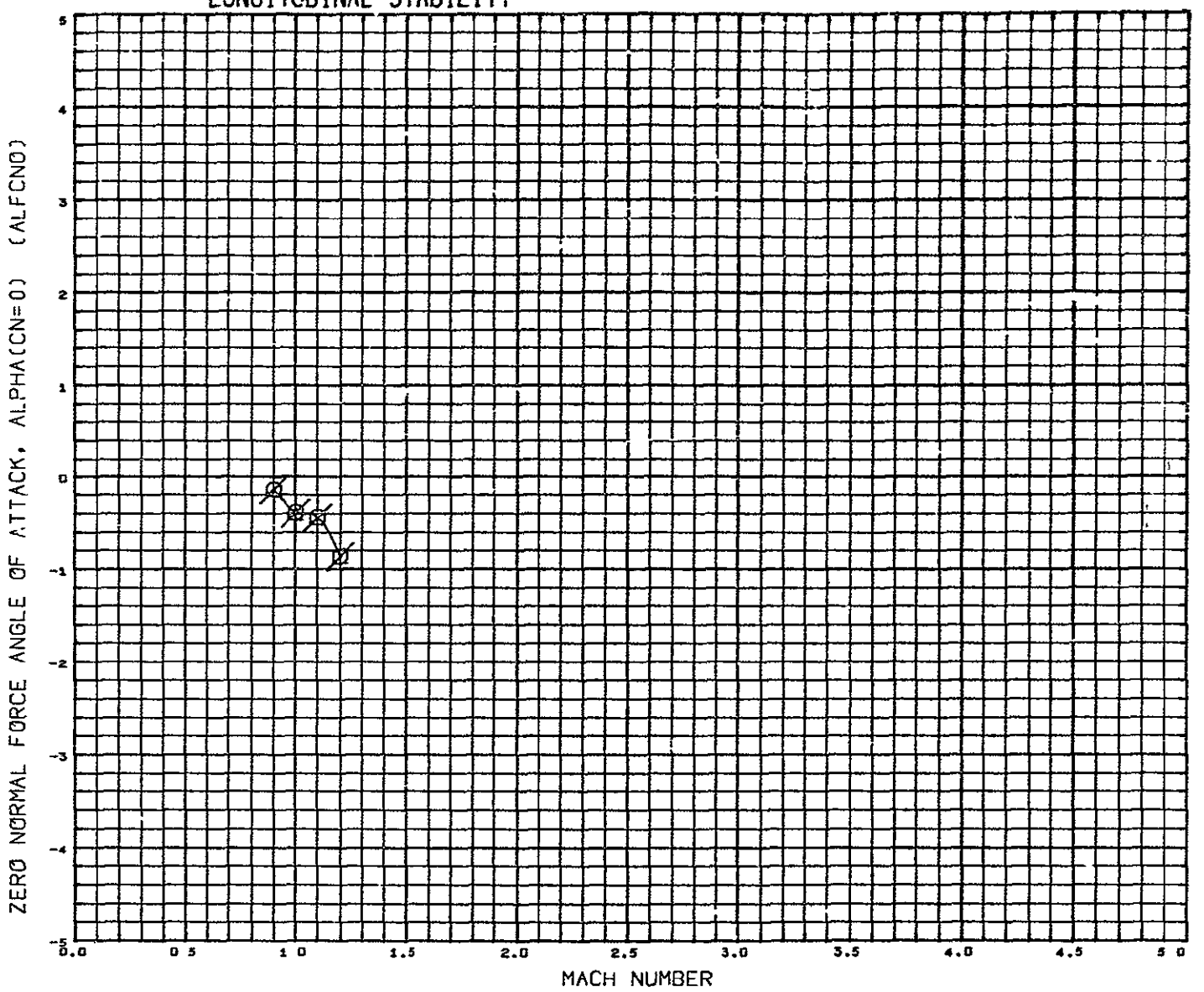
BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE H*EIF

LONGITUDINAL STABILITY



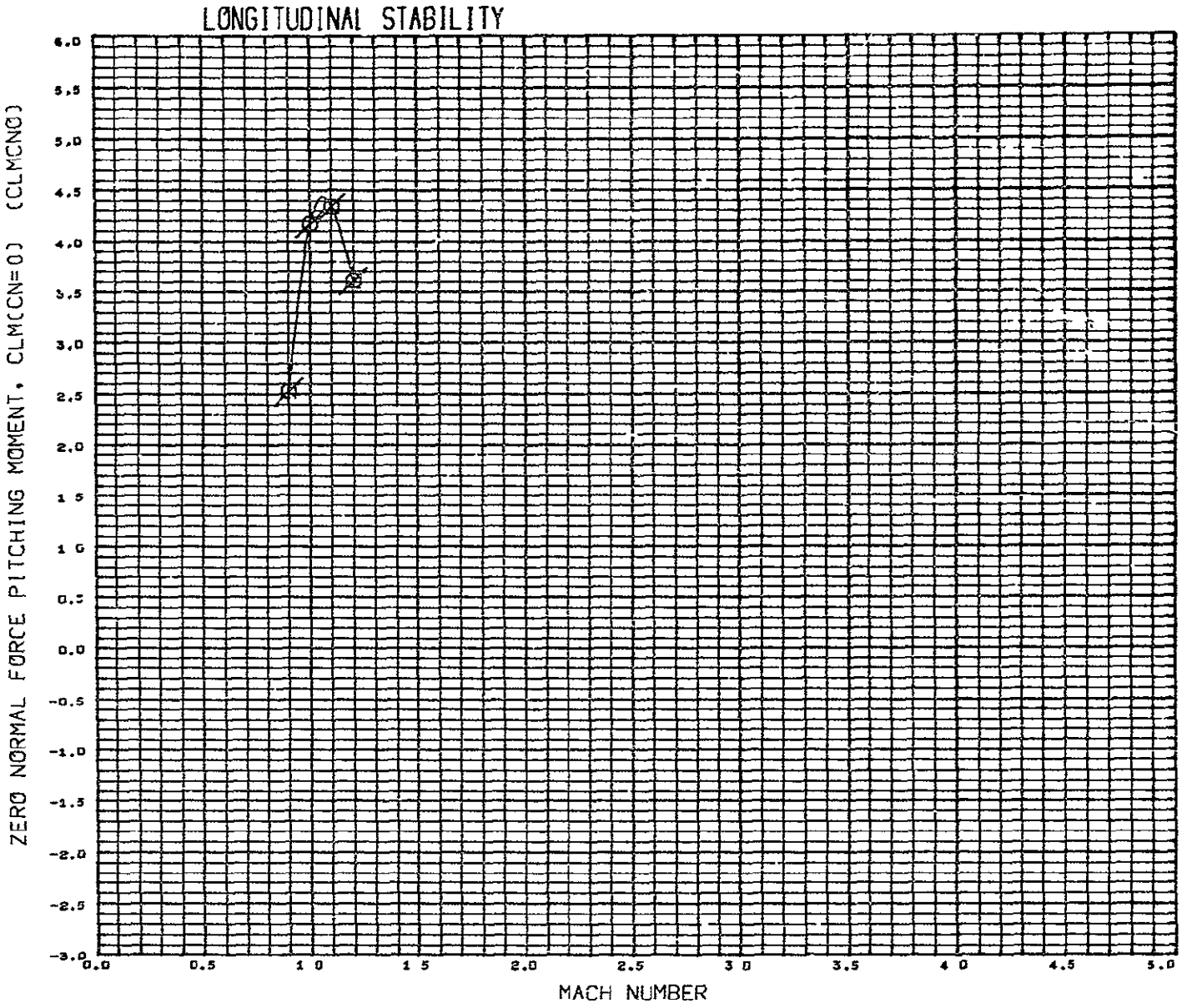
PARAMETRIC VALUES

BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRF	0.0670	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

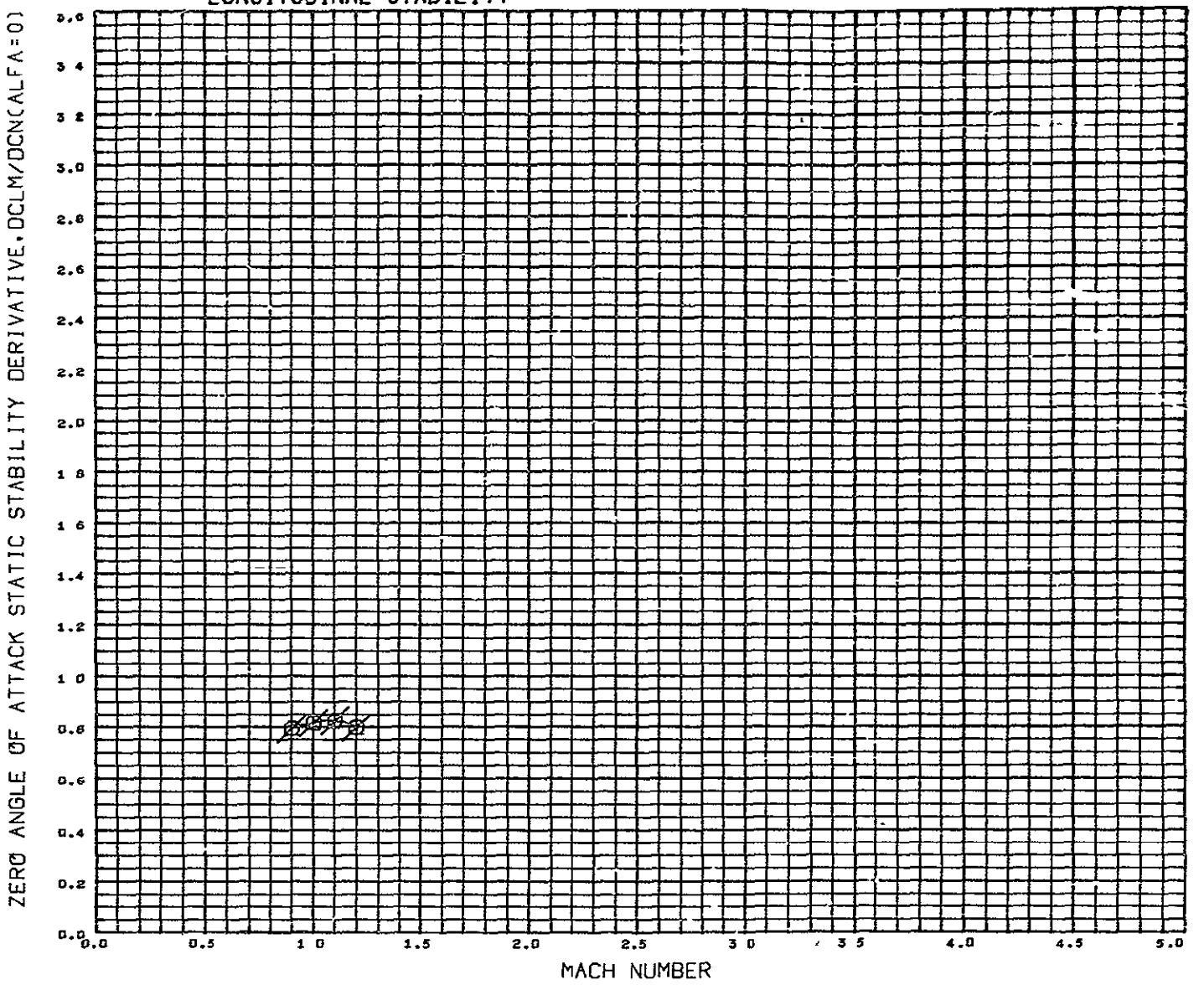
BETA 0.000 ORBINC 1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

DATA HIST CODE M#EIF

LONGITUDINAL STABILITY



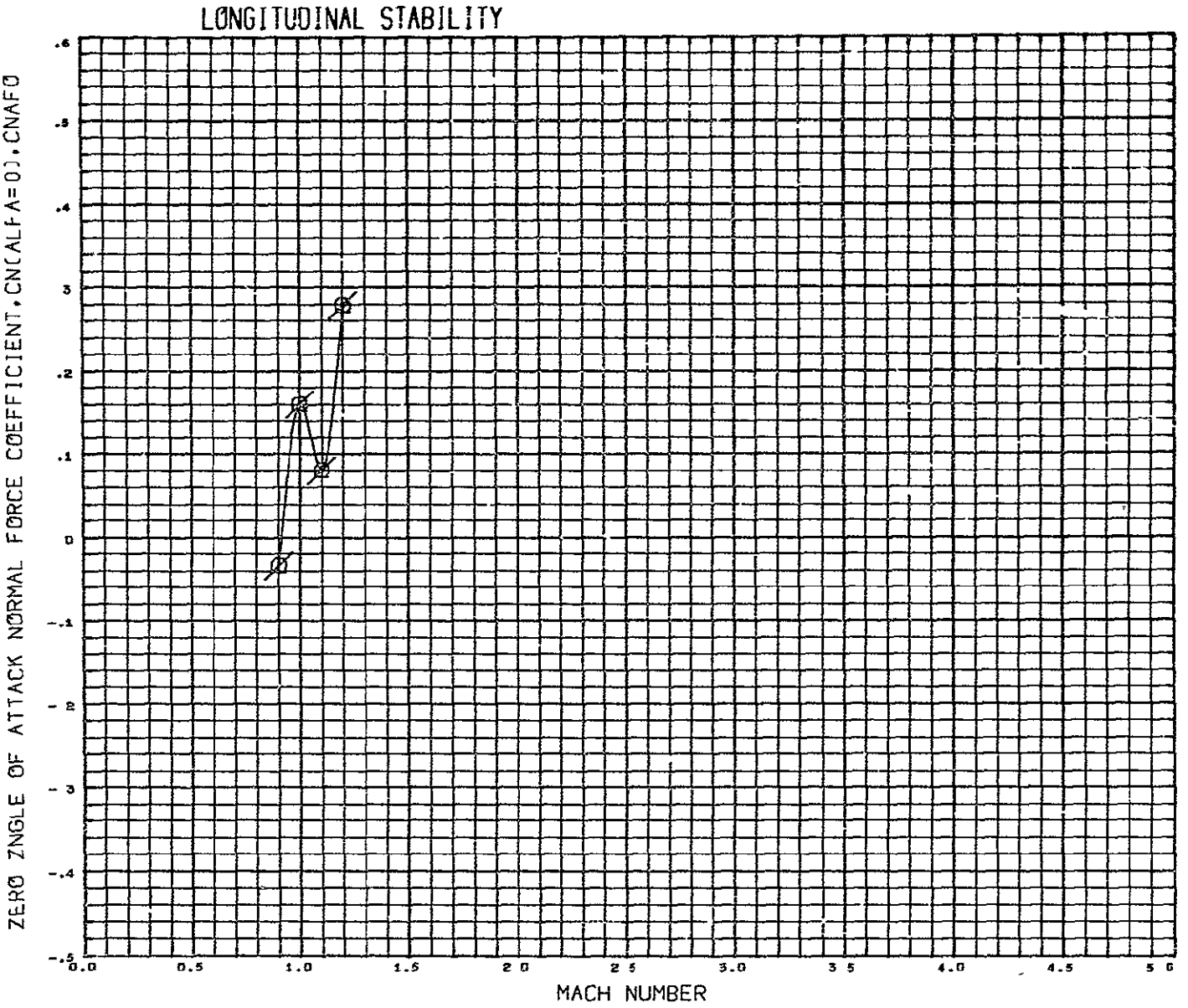
PARAMETRIC VALUES

BETA 0 000 ORBINC 0 000

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M*EIF



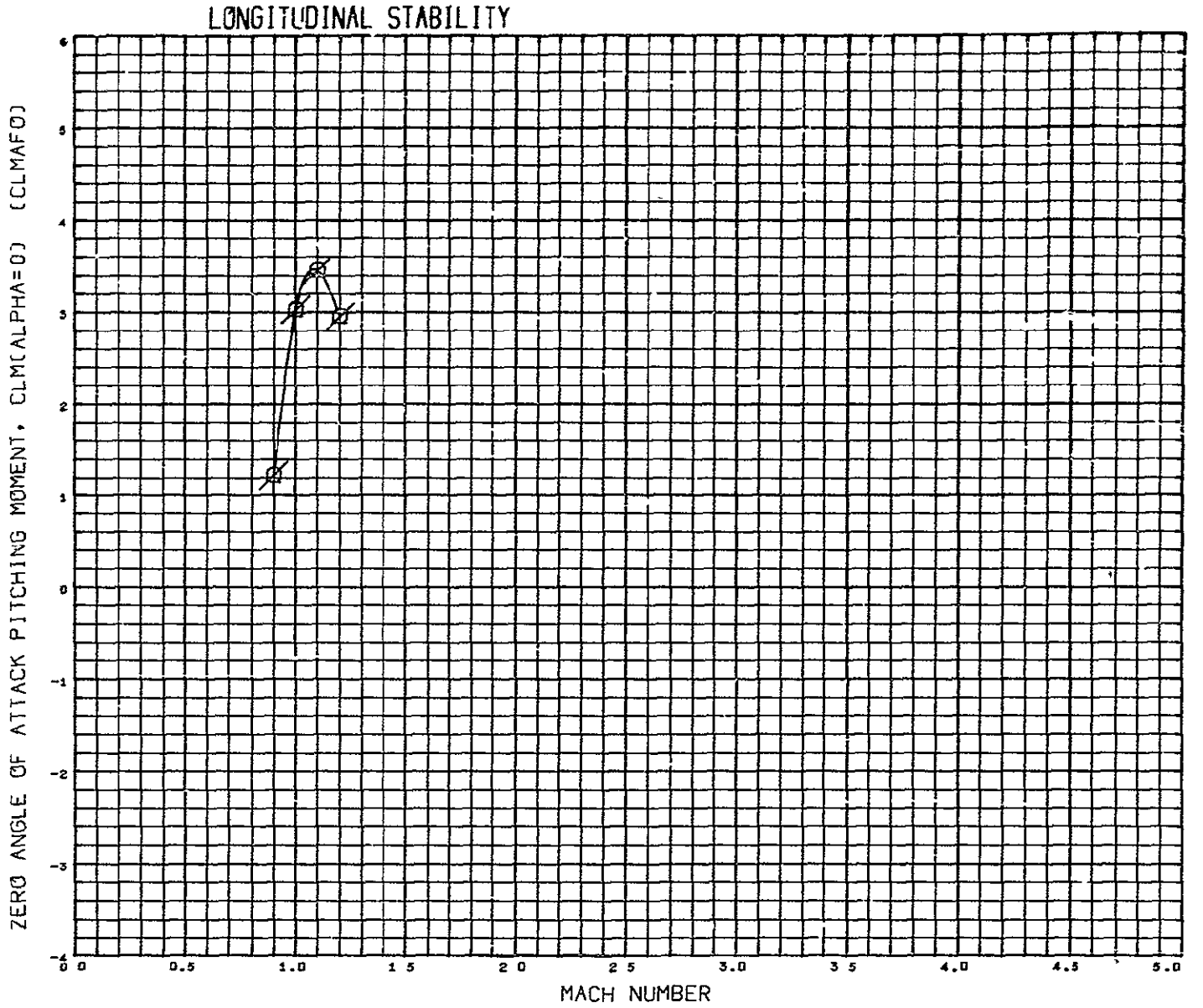
PARAMETRIC VALUES

BETA 0 000 ORBINC 0 000

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6850	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	



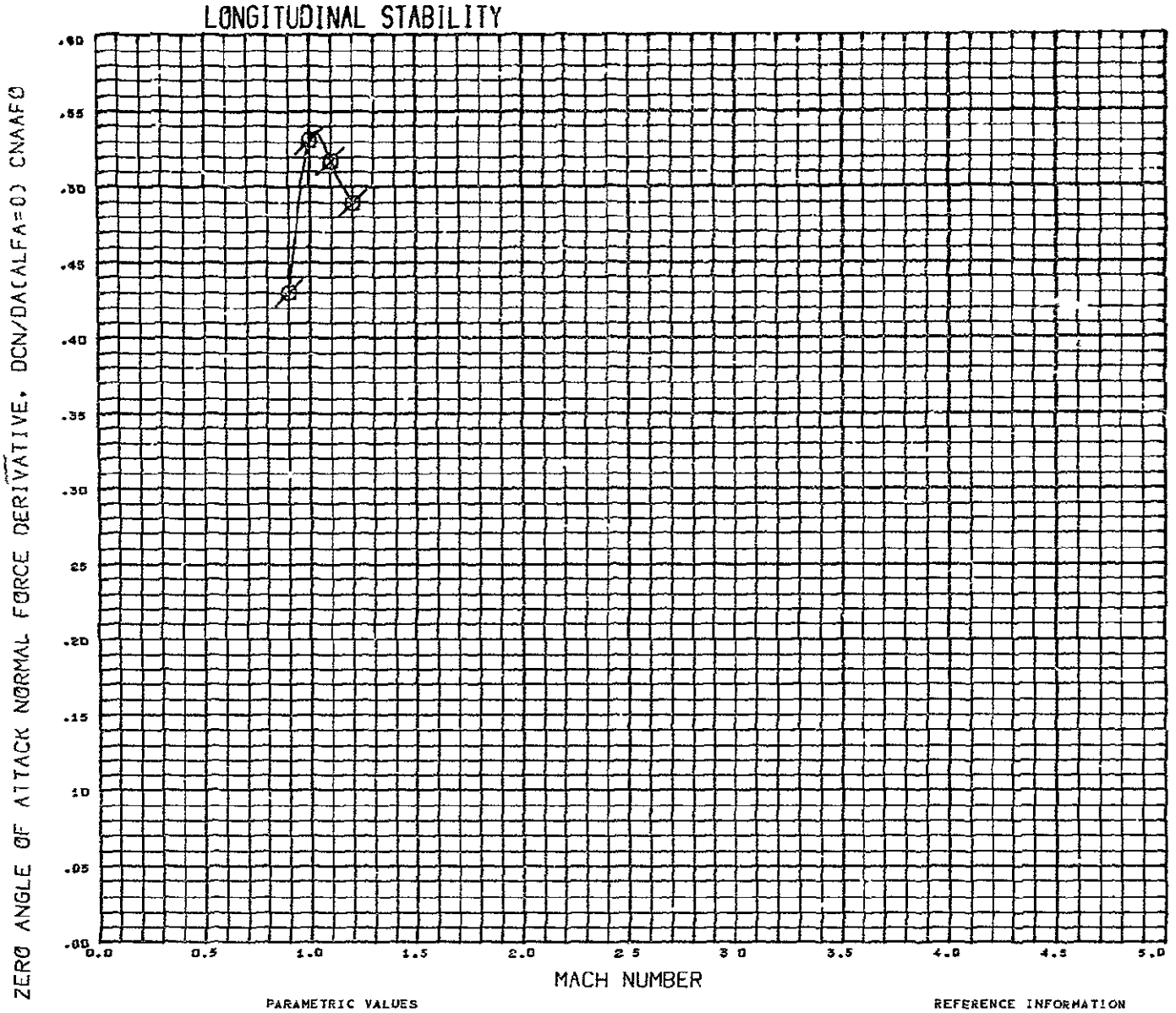
PARAMETRIC VALUES

BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

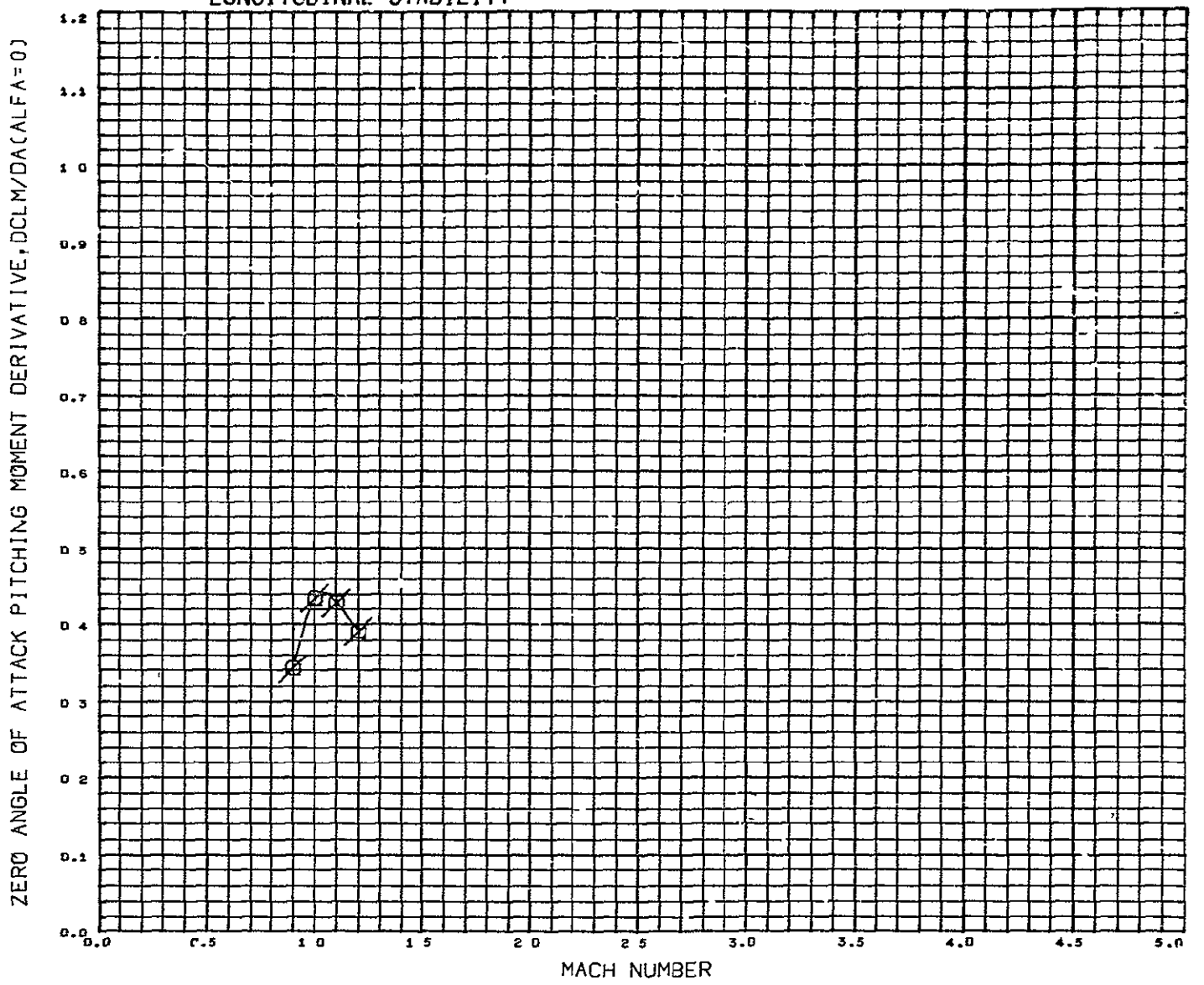
BETA 0 000 ORBINC 0 000

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6850	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M#EIF

LONGITUDINAL STABILITY



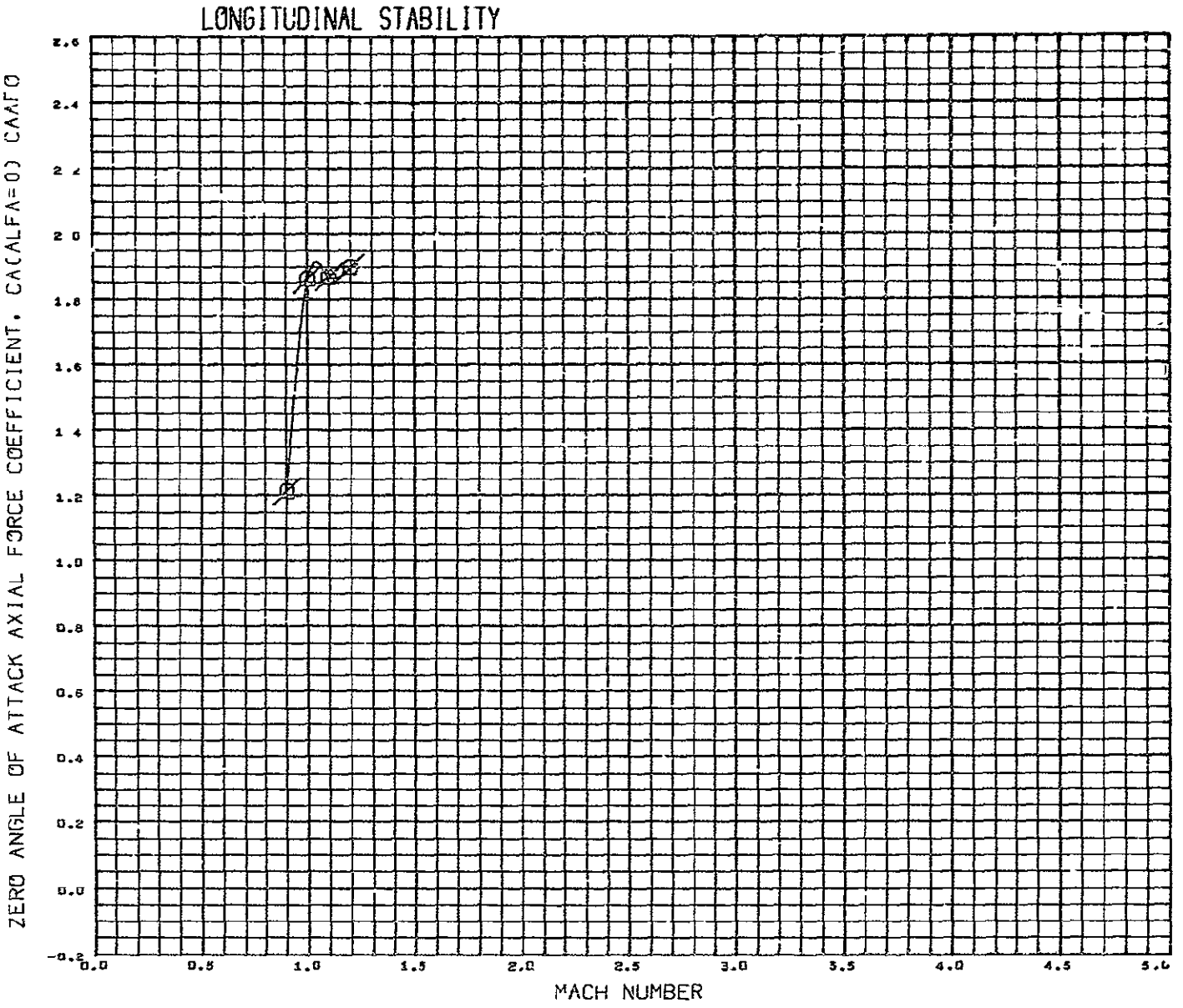
PARAMETRIC VALUES

BETA 0.000 ORBINC 0.000

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0006	IN
SCALE	0.0034	



PARAMETRIC VALUES

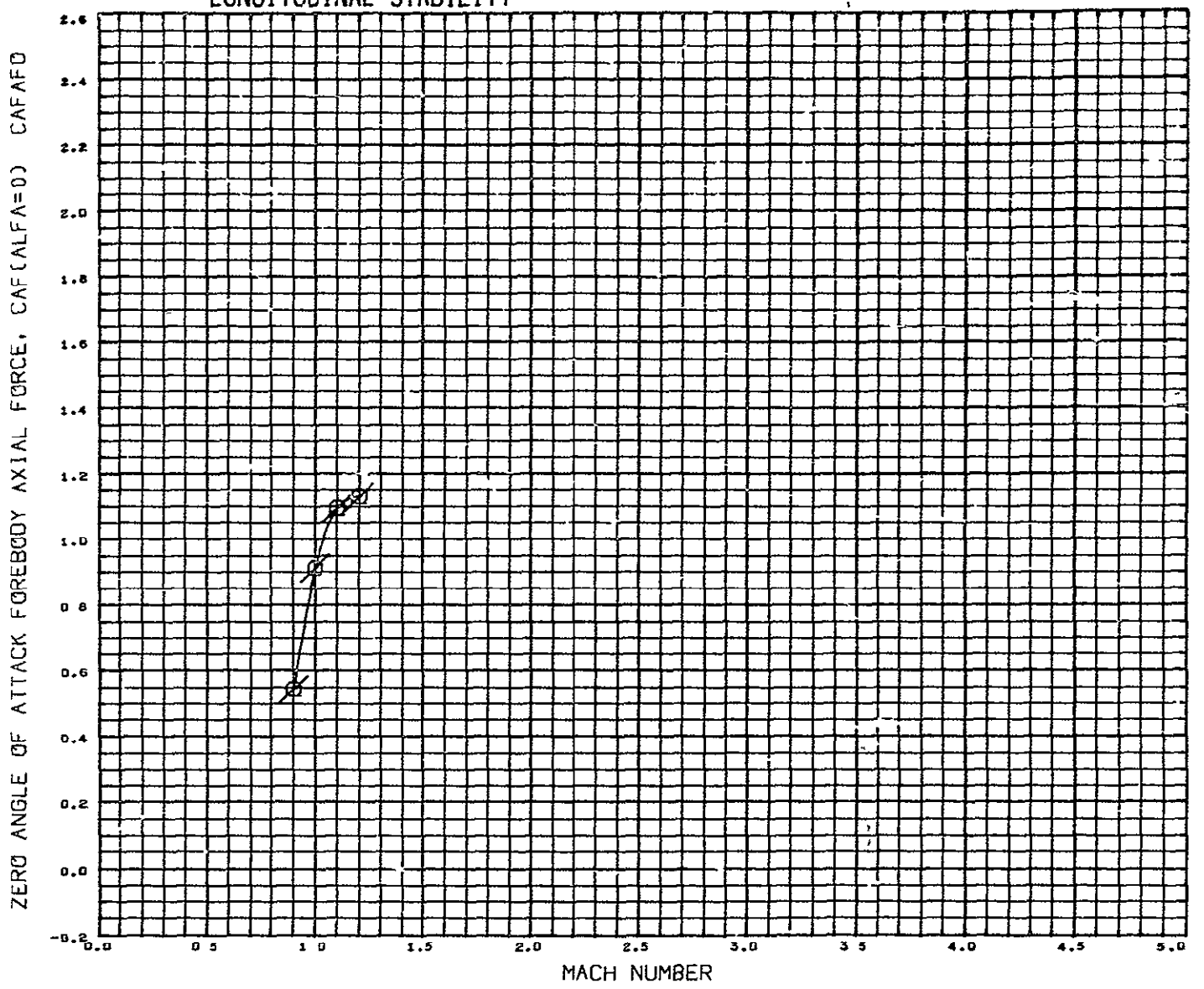
BETA 0.000 ORBINC 0.000

DATA HIST CODE MJEIF

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

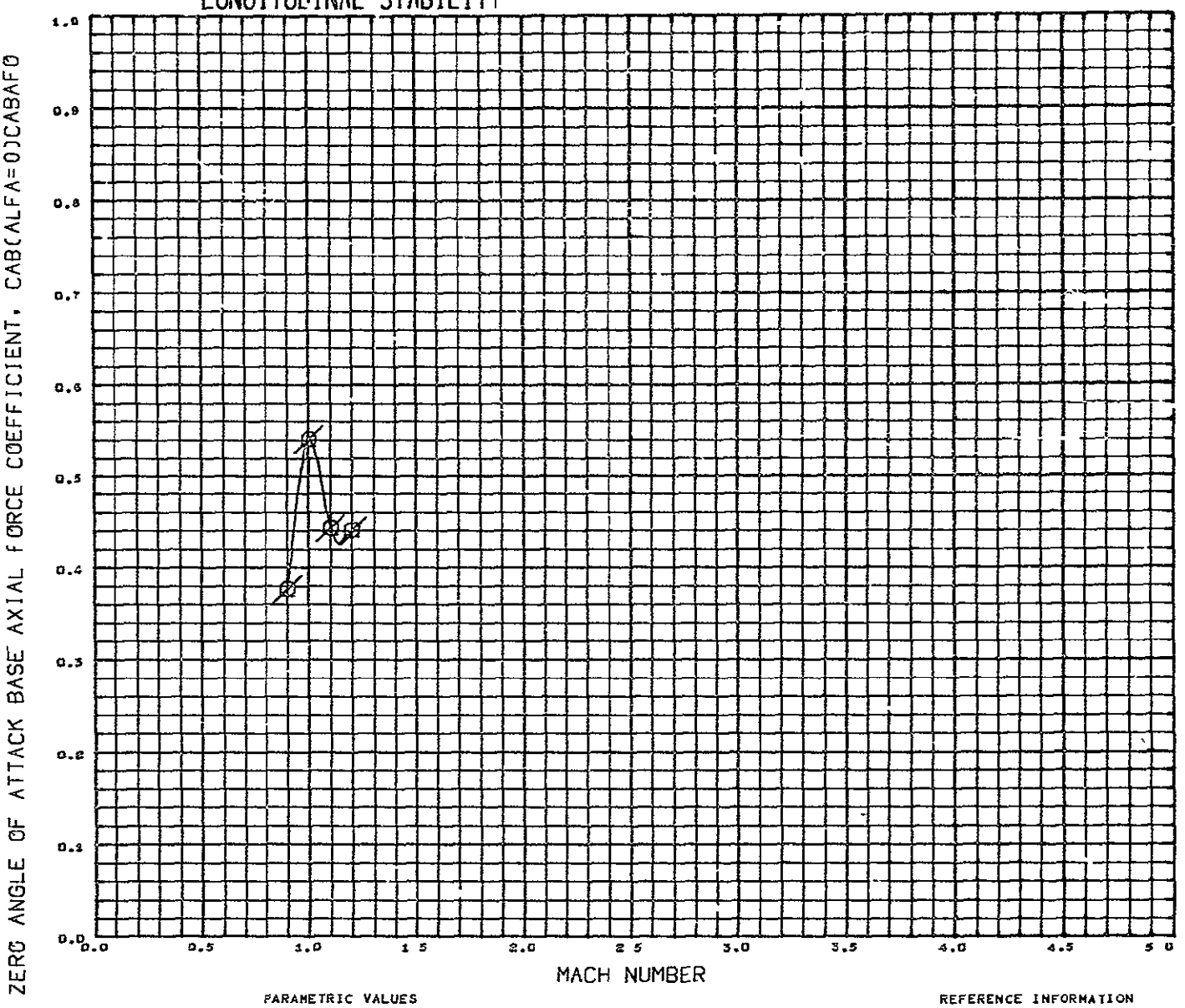
BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

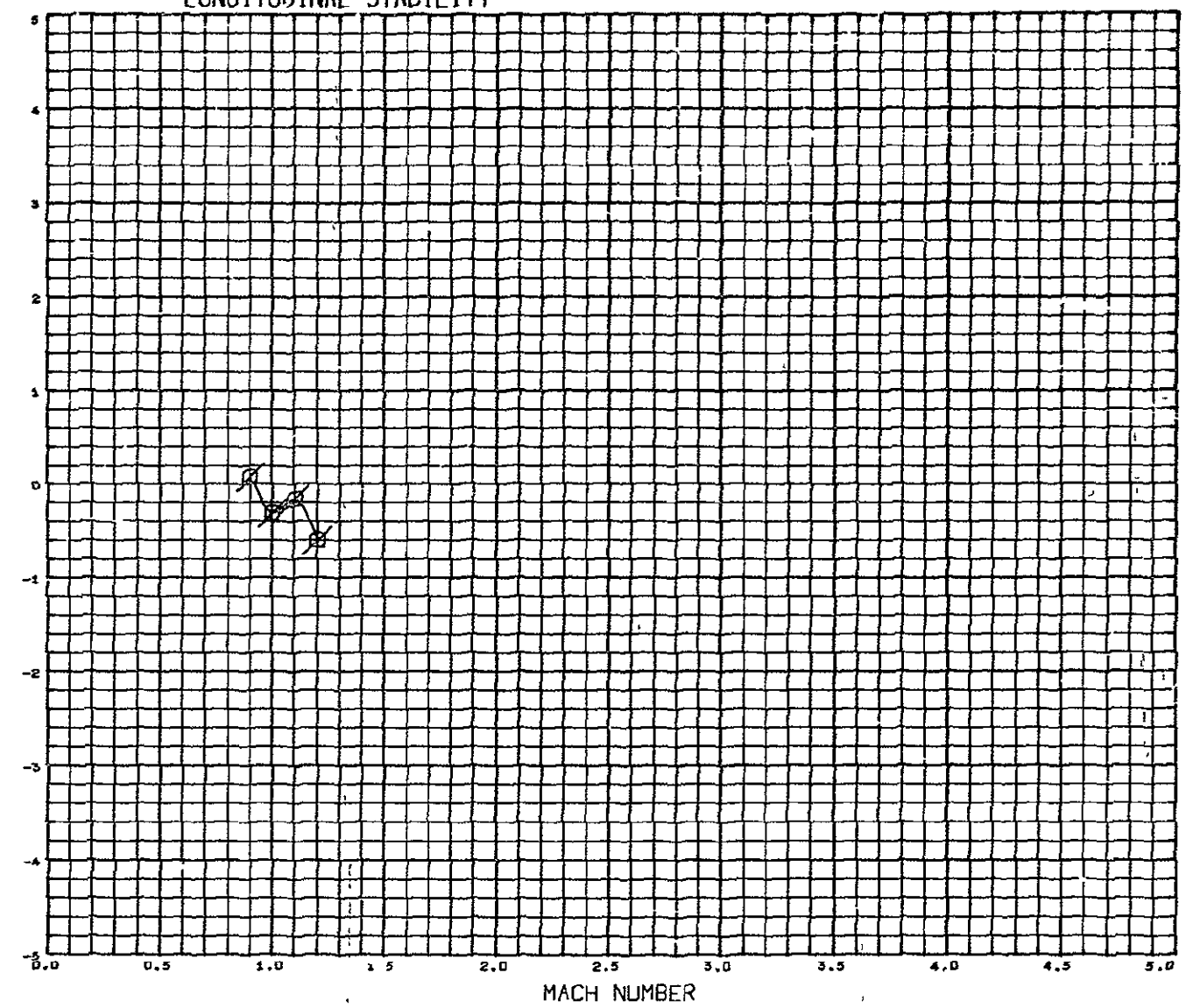
BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M#EIF

LONGITUDINAL STABILITY



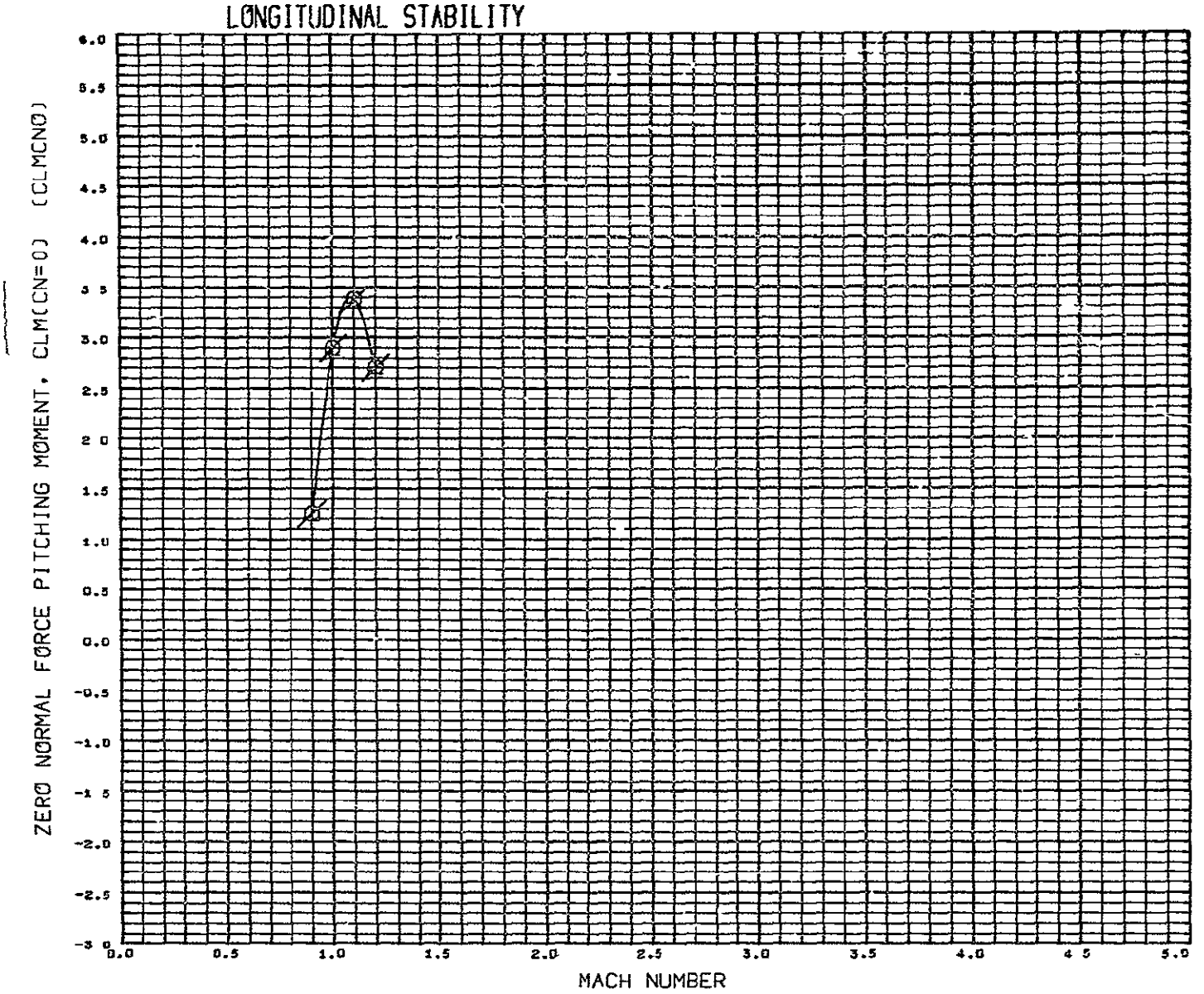
PARAMETRIC VALUES

BETA 0.000 ORBINC 0.000

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

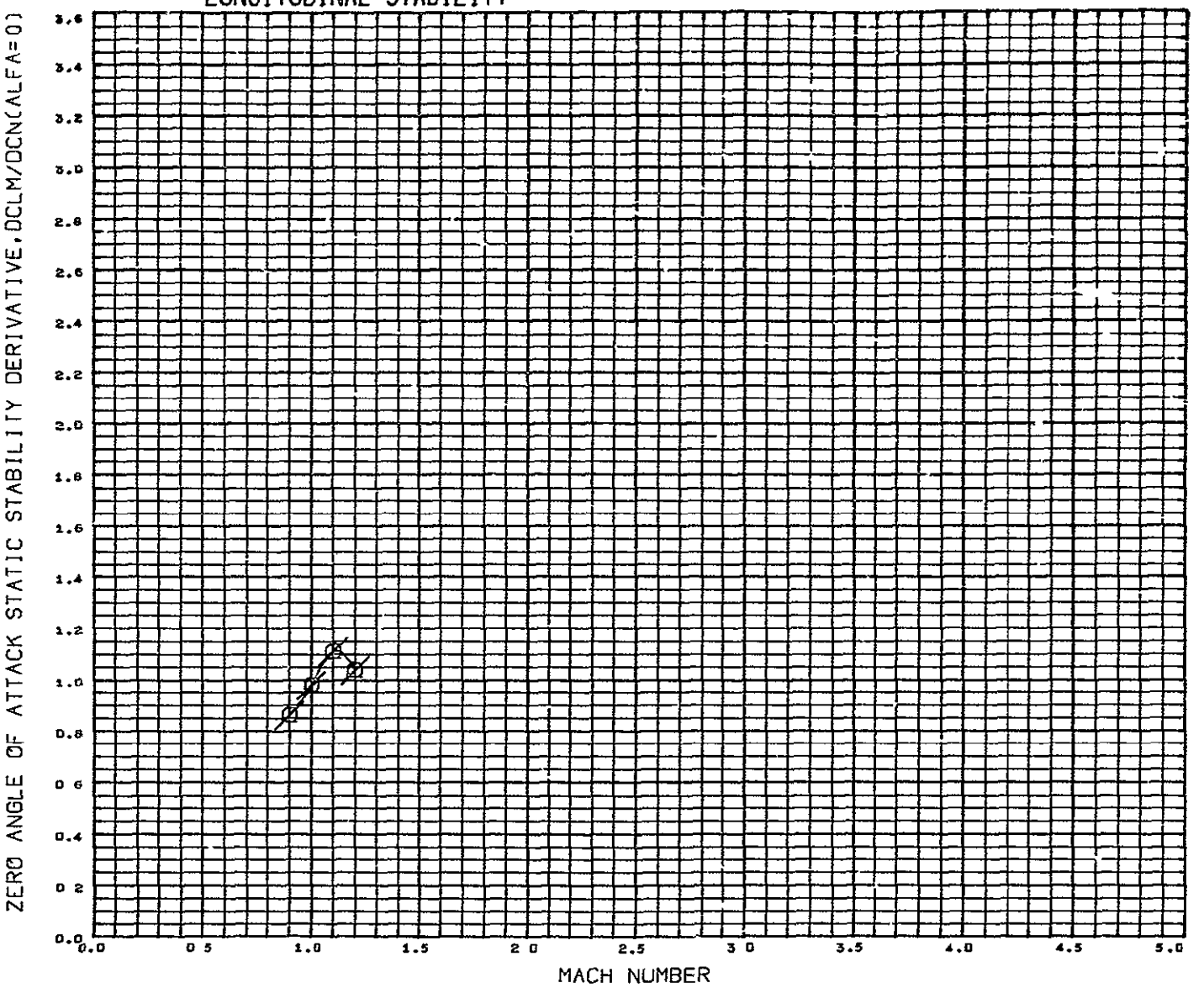
BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



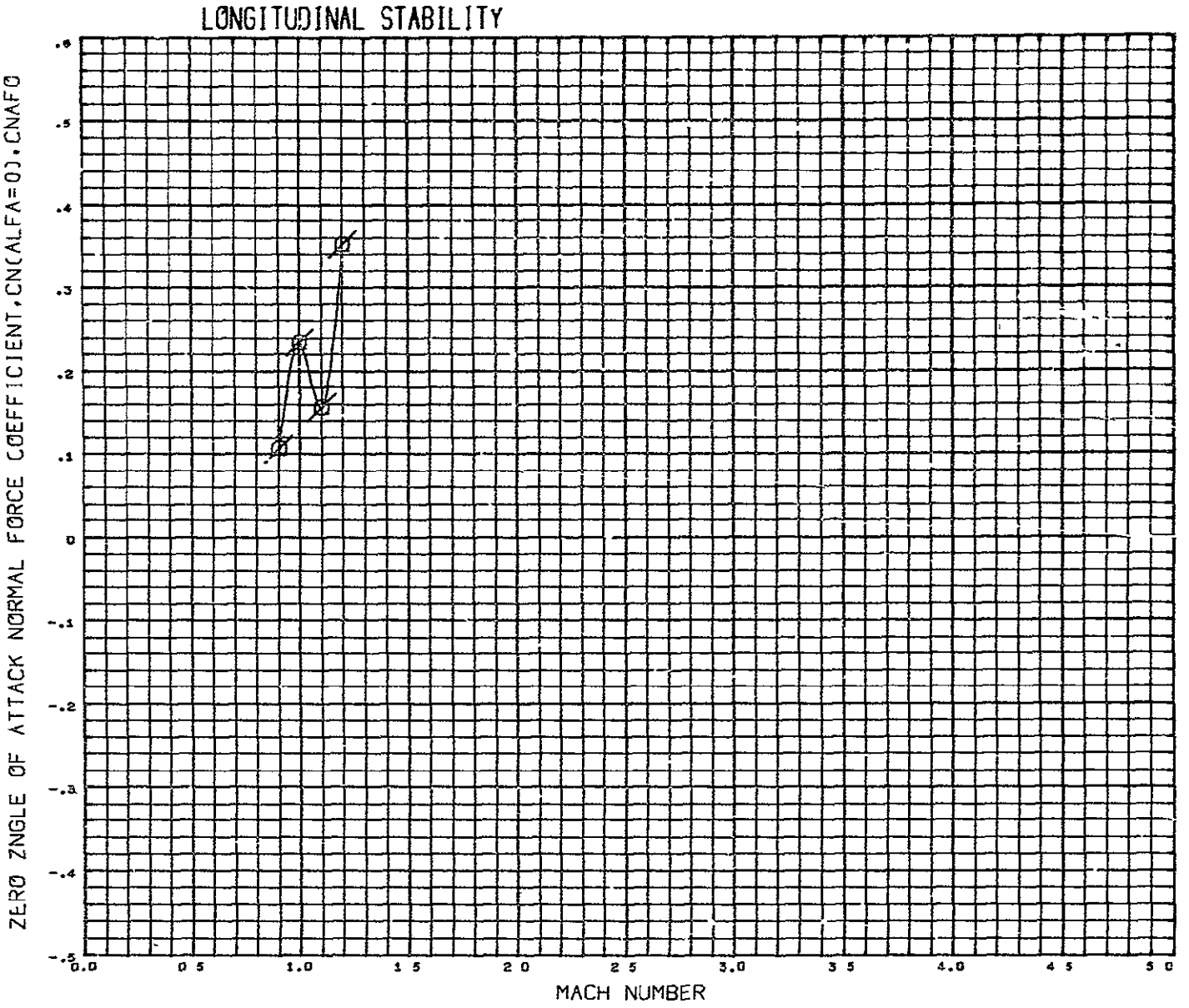
PARAMETRIC VALUES

BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M4EIF



PARAMETRIC VALUES

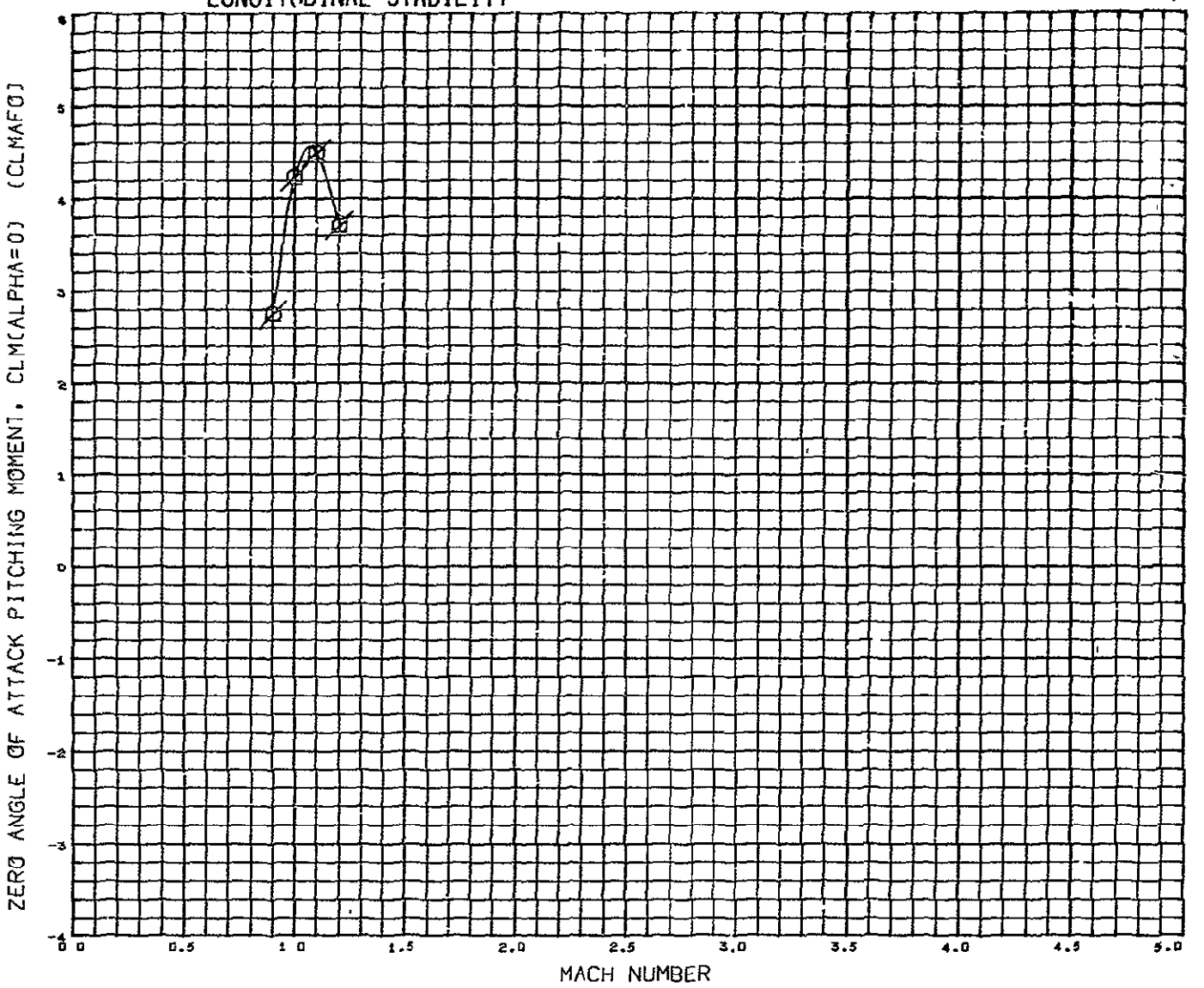
BETA 0 000 ORBINC 0 000

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

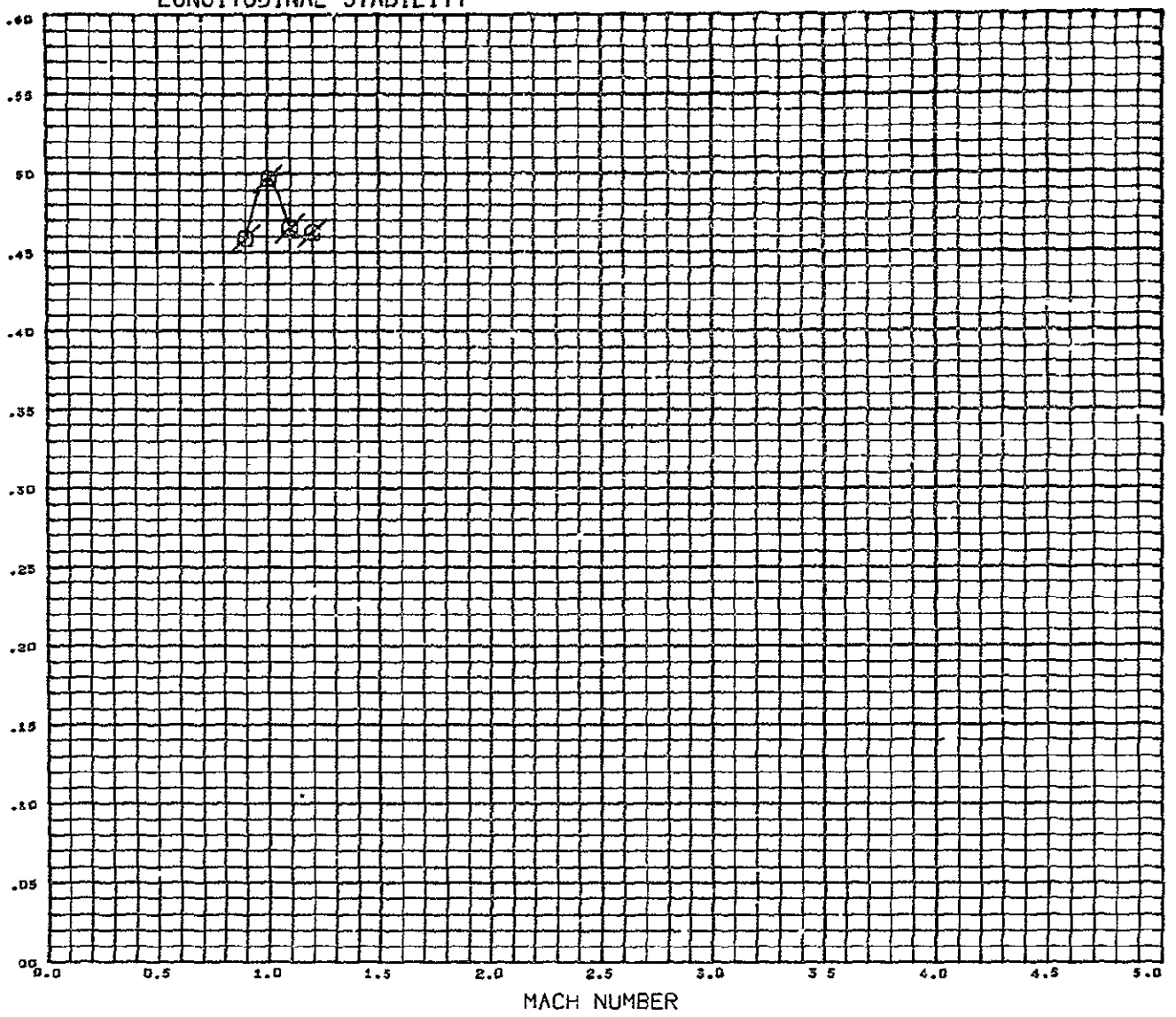
BETA 0.000 ORBINC 0.000

DATA HIST. CODE H#EIF

REFERENCE INFORMATIO.

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0200	IN
ZMRF	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

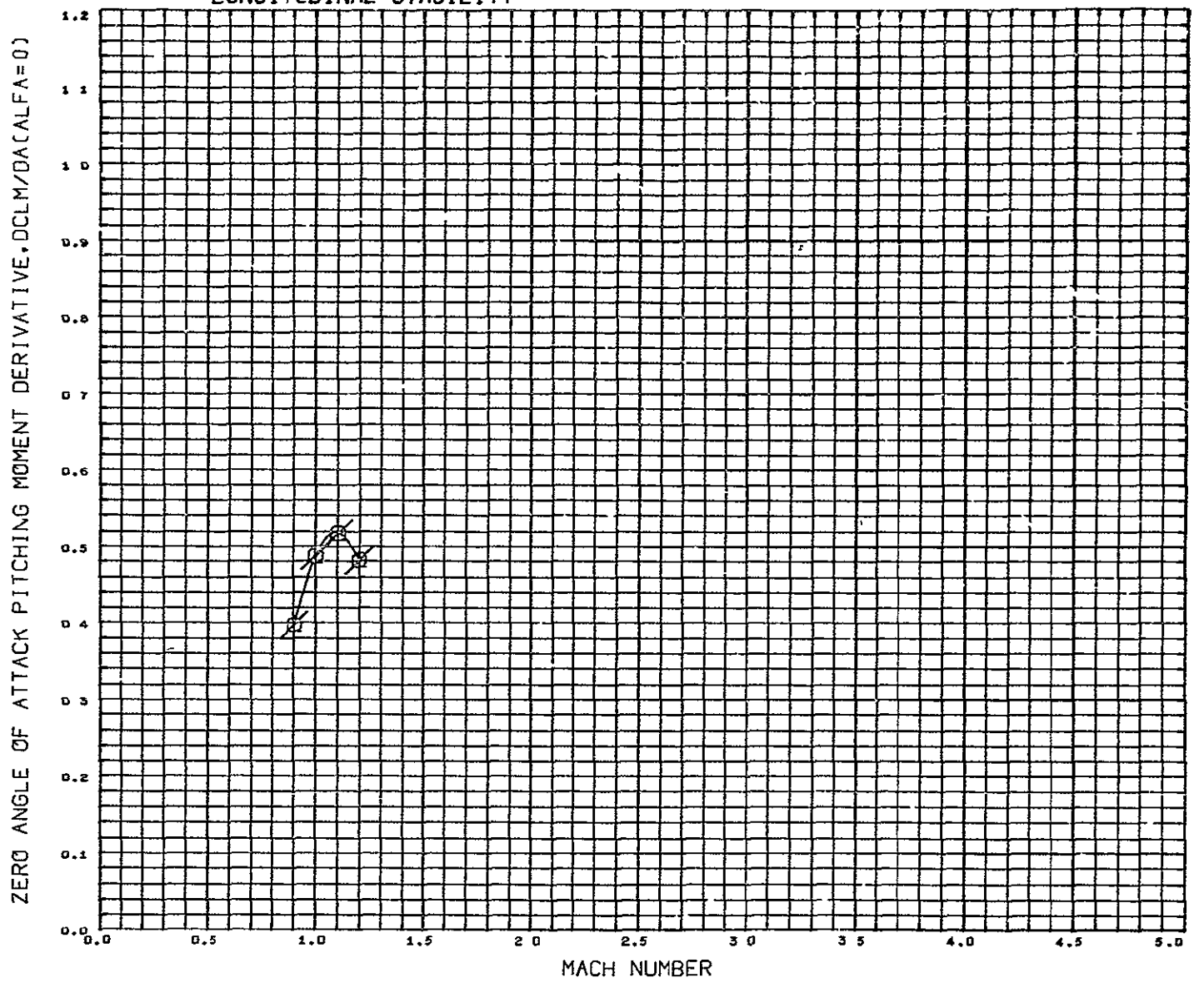
BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



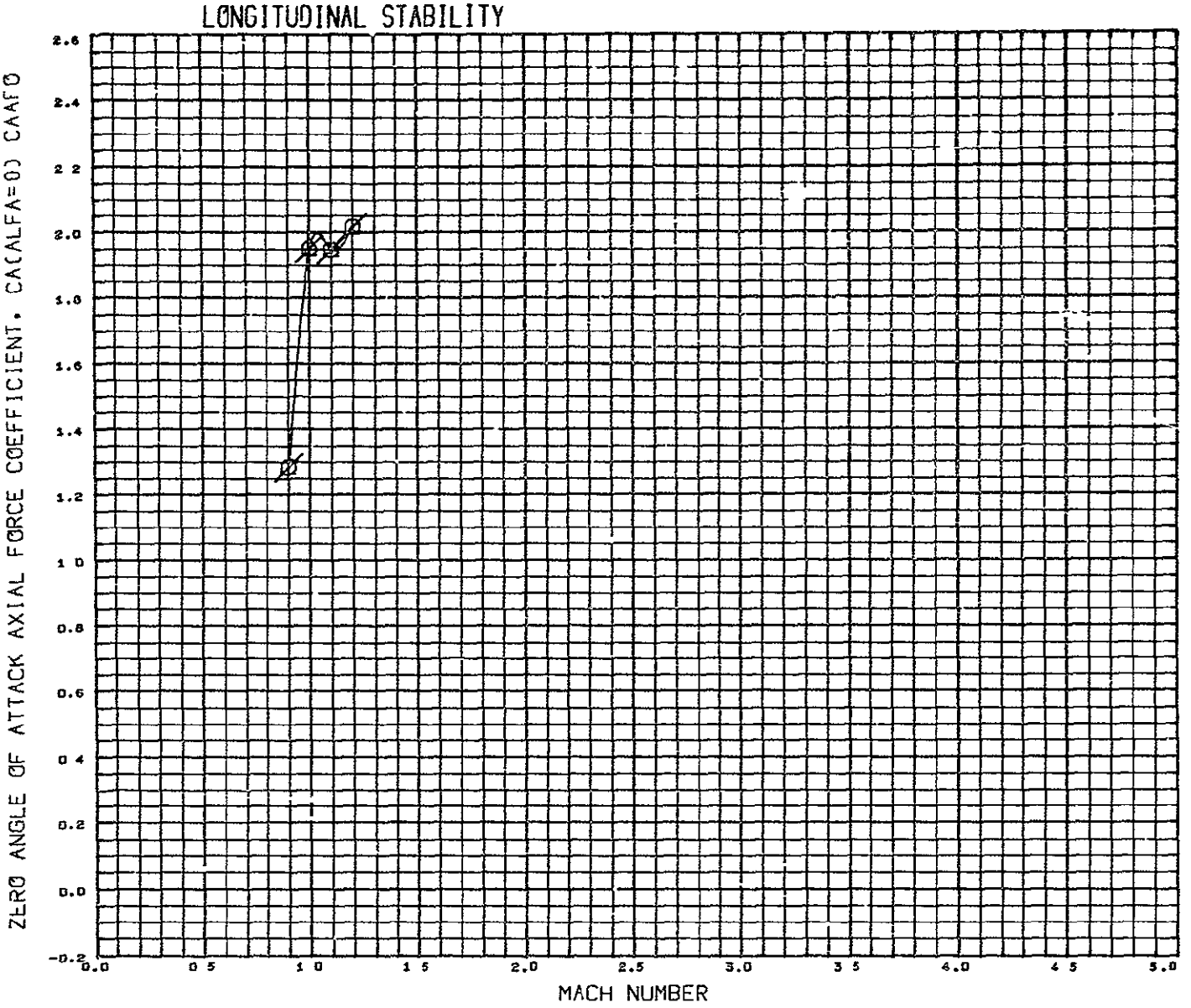
PARAMETRIC VALUES

BETA 0.000 ORBINC 0.000

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

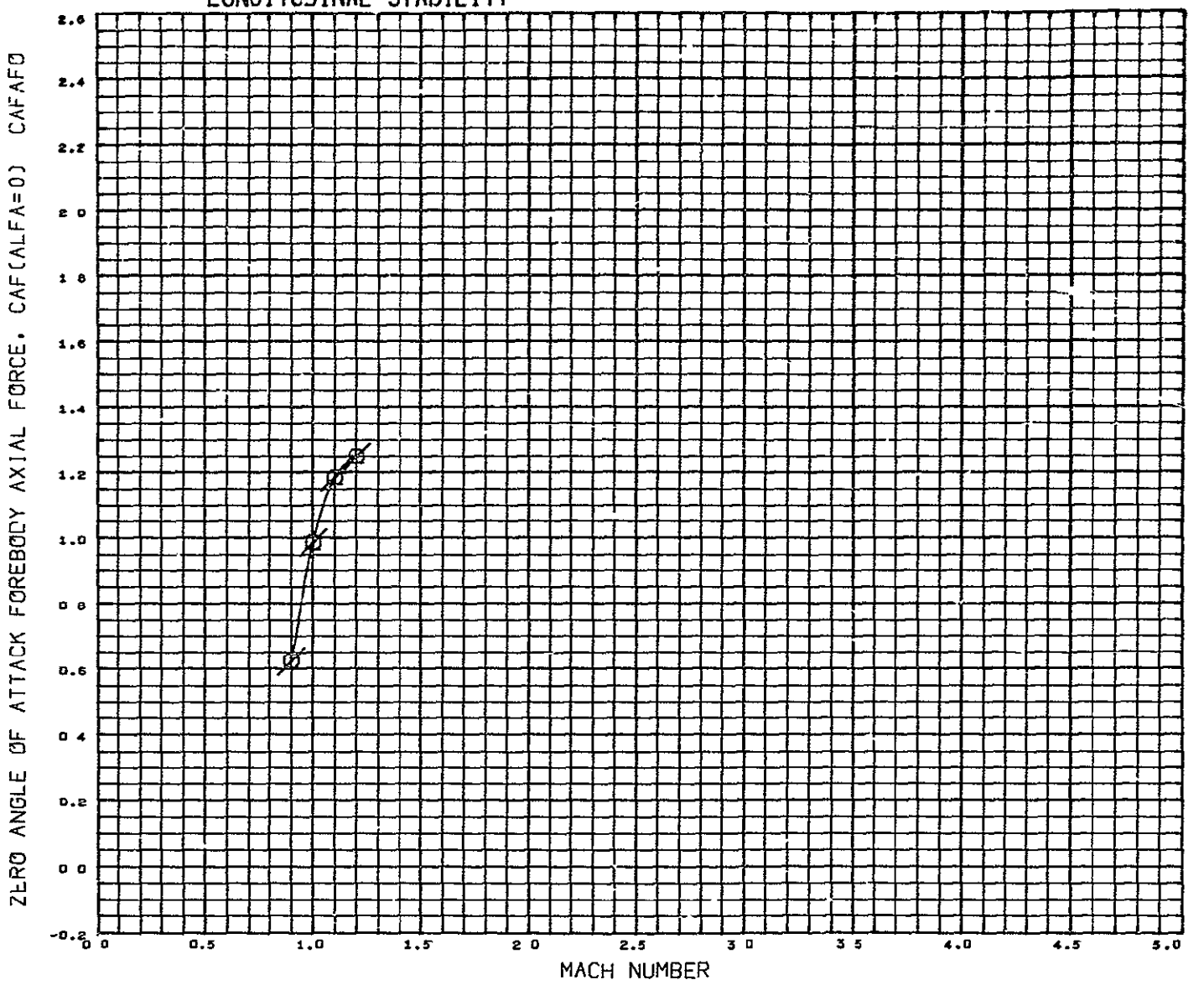
BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



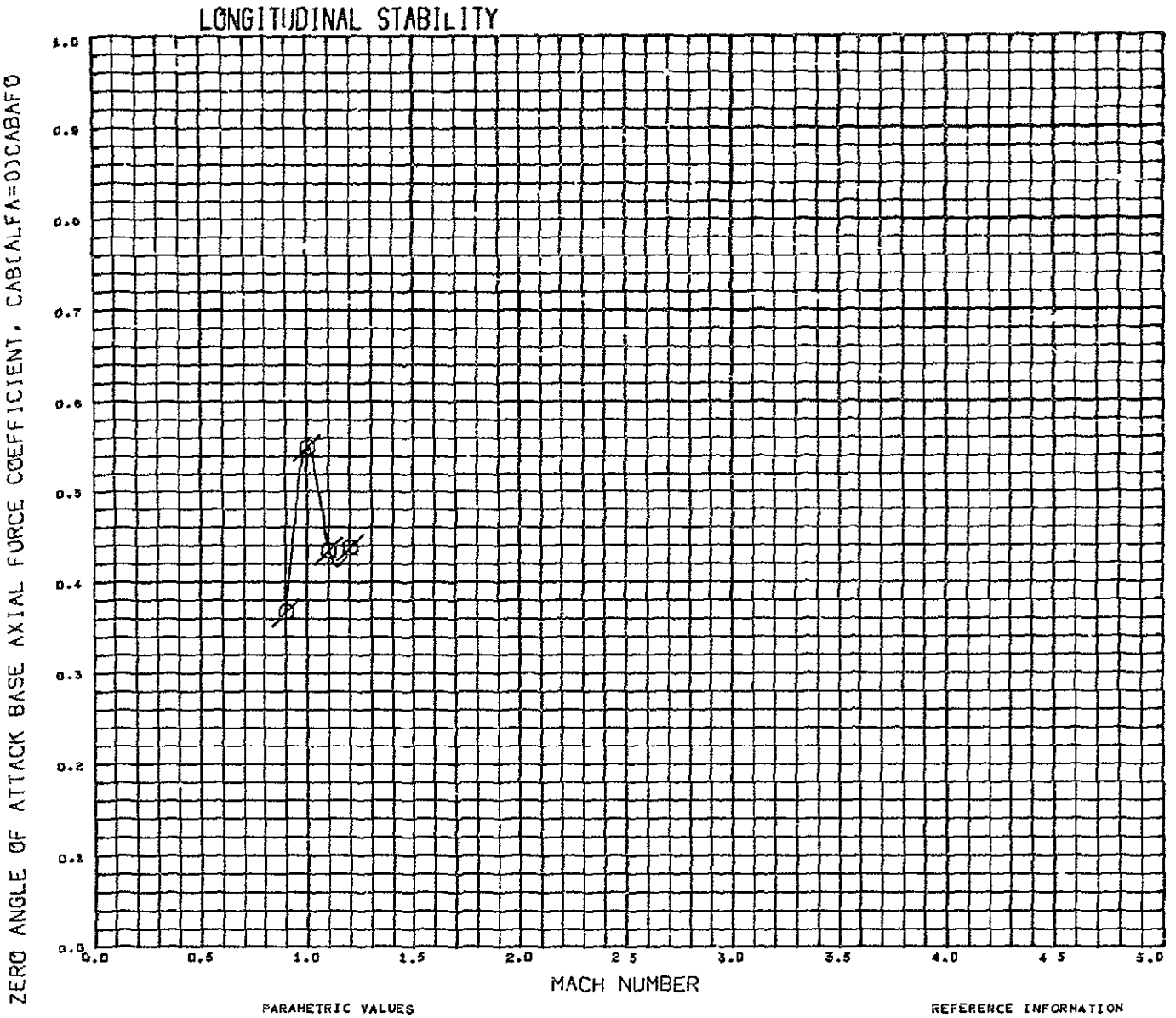
PARAMETRIC VALUES

BETA 0.000 ORBINC 0.000

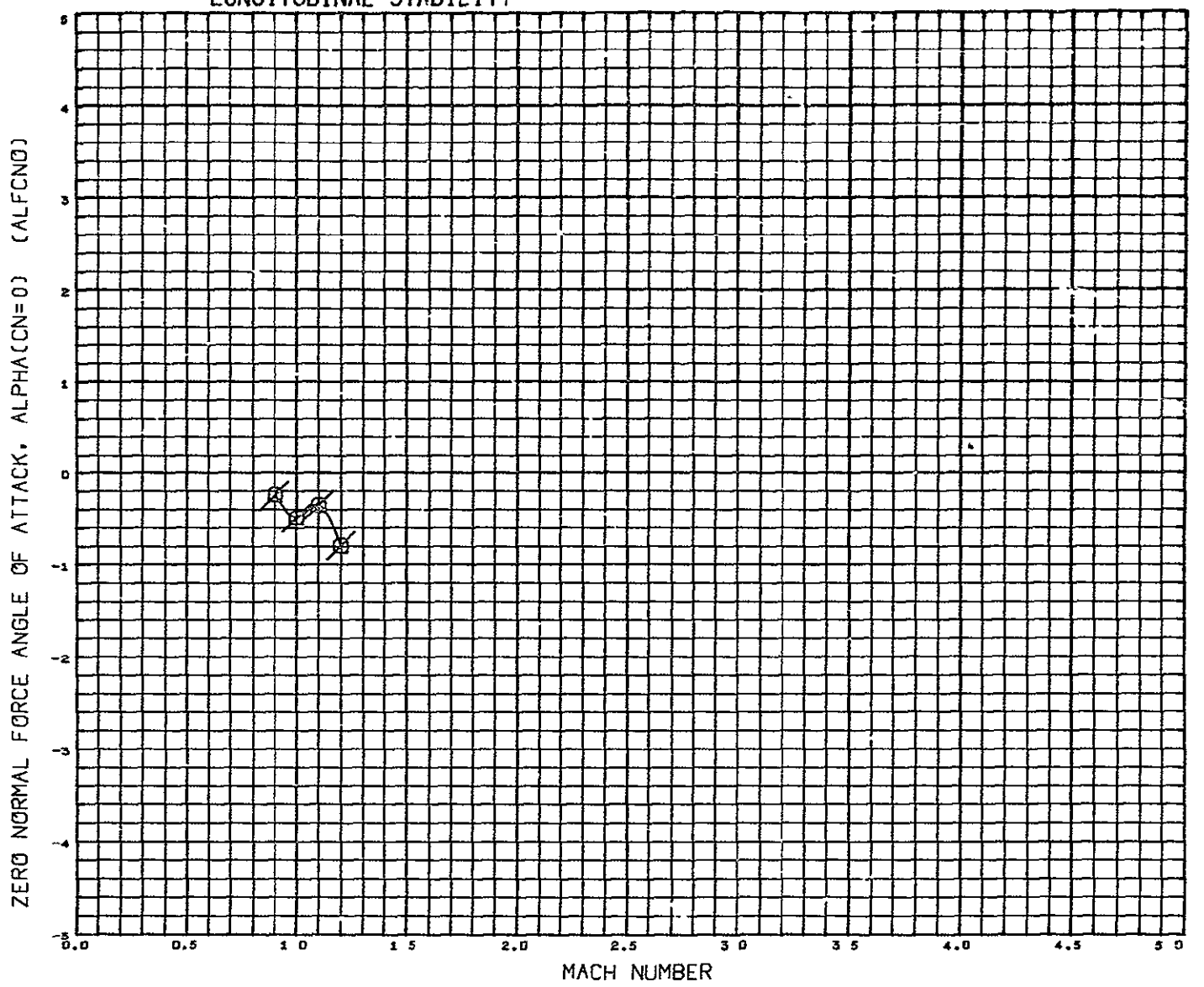
DATA HIST CODE N*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	


LONGITUDINAL STABILITY
ZERO ANGLE OF ATTACK BASE AXIAL FORCE COEFFICIENT, CAB(ALFA=0)CABAF0
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
MACH NUMBER
PARAMETRIC VALUES
BETA 0.000 ORBINC 0.000
REFERENCE INFORMATION
SREF 1.3960 SQ.IN.
LREF 1.3330 IN
BREF 1.3330 IN
XMRP 3.6860 IN
YMRP 0.0000 IN
ZMRP 0.0009 IN
SCALE 0.0034
DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



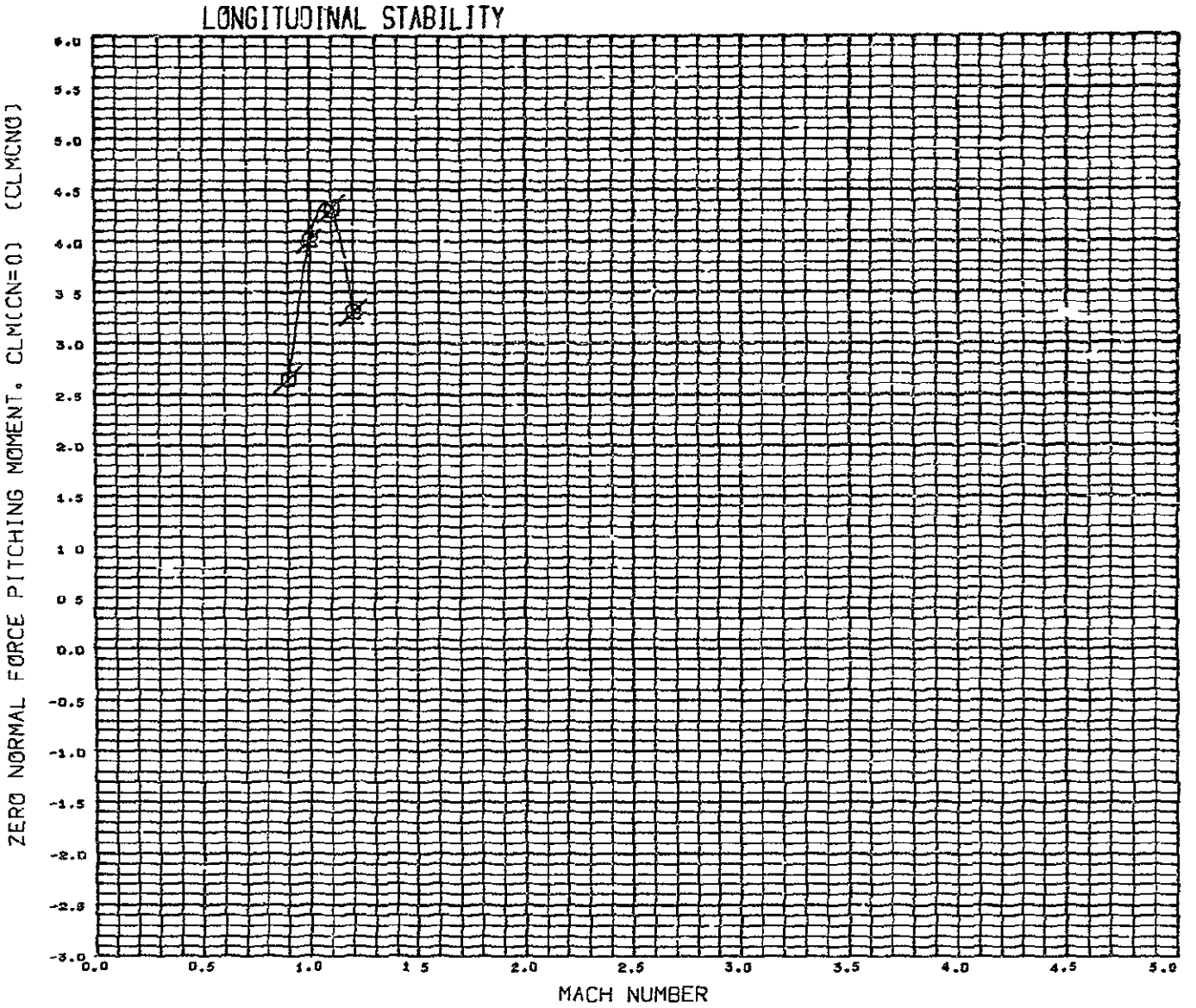
PARAMETRIC VALUES

BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

DATA HIST CODE M#EIF



PARAMETRIC VALUES

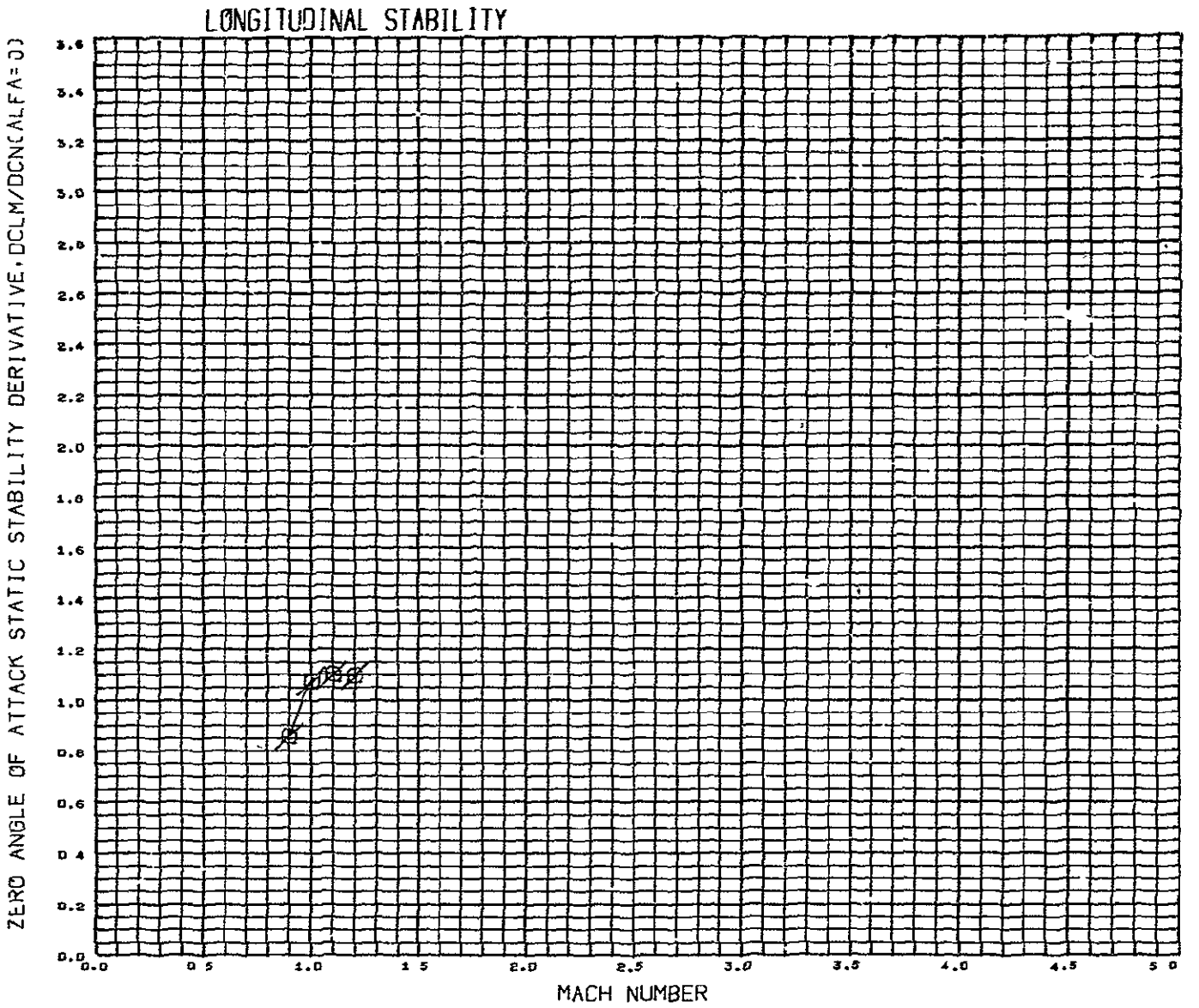
BETA 0.000 ORBINC 0.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

6



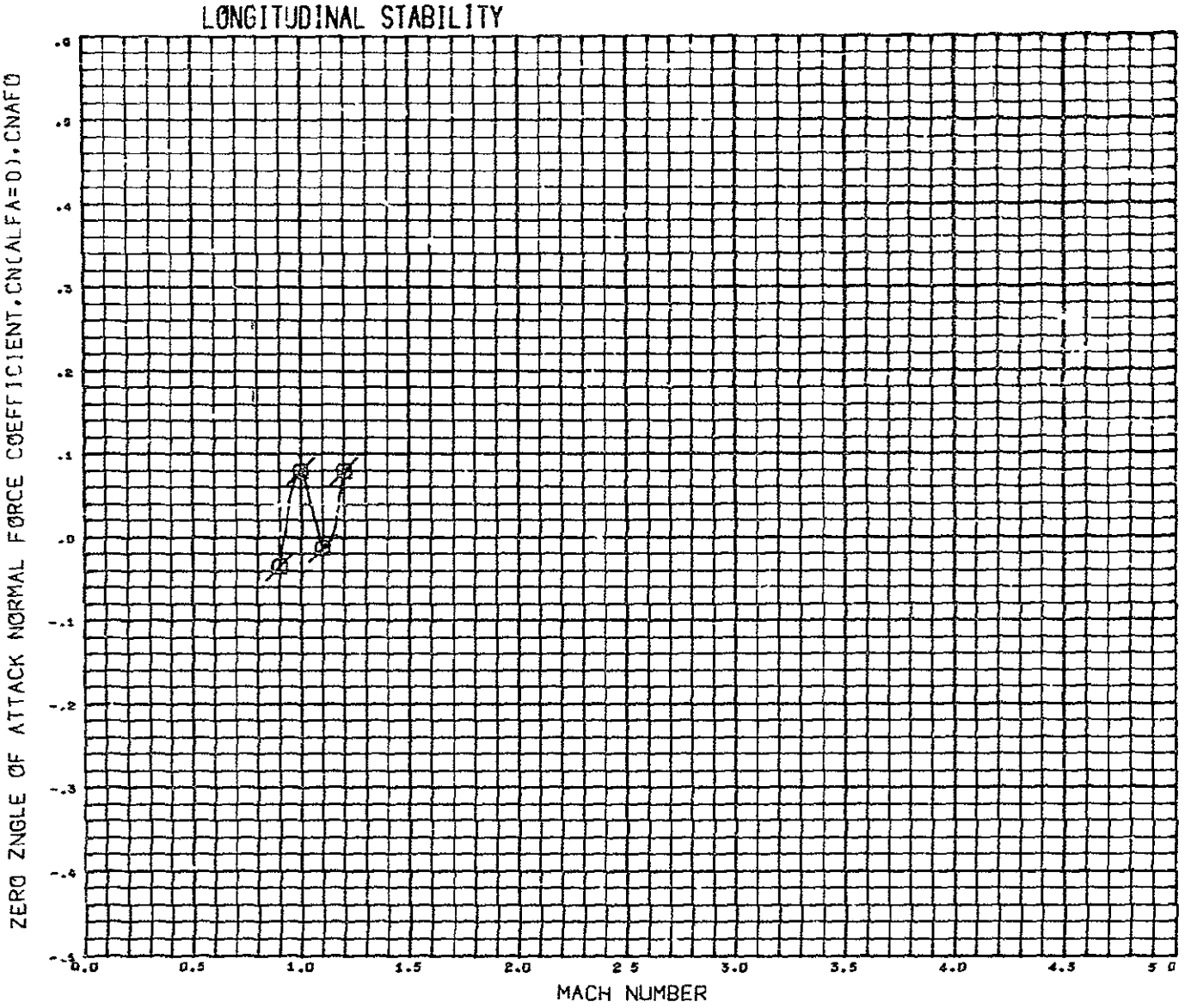
PARAMETRIC VALUES

BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H=EIF



PARAMETRIC VALUES

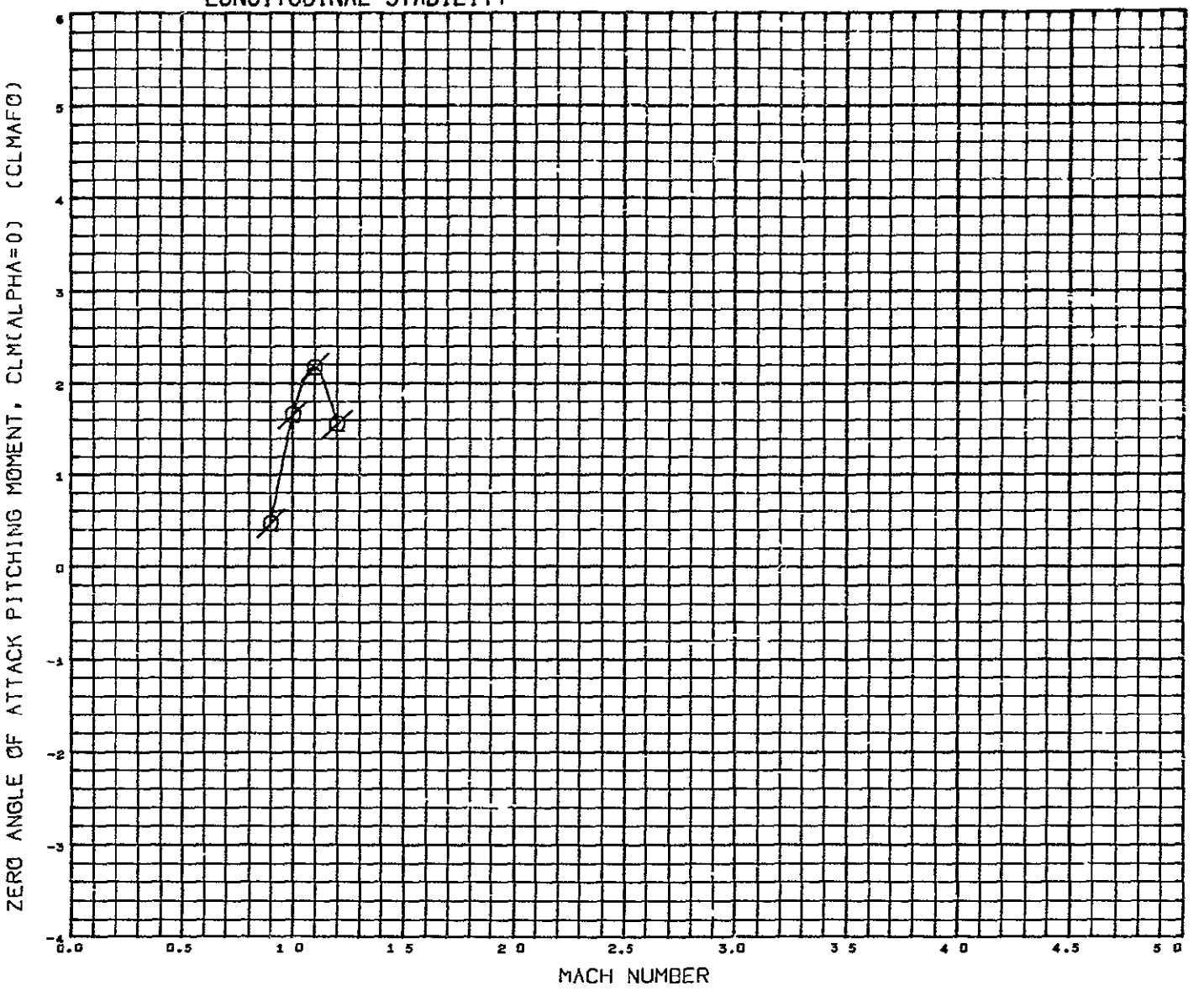
BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIP

LONGITUDINAL STABILITY



PARAMETRIC VALUES

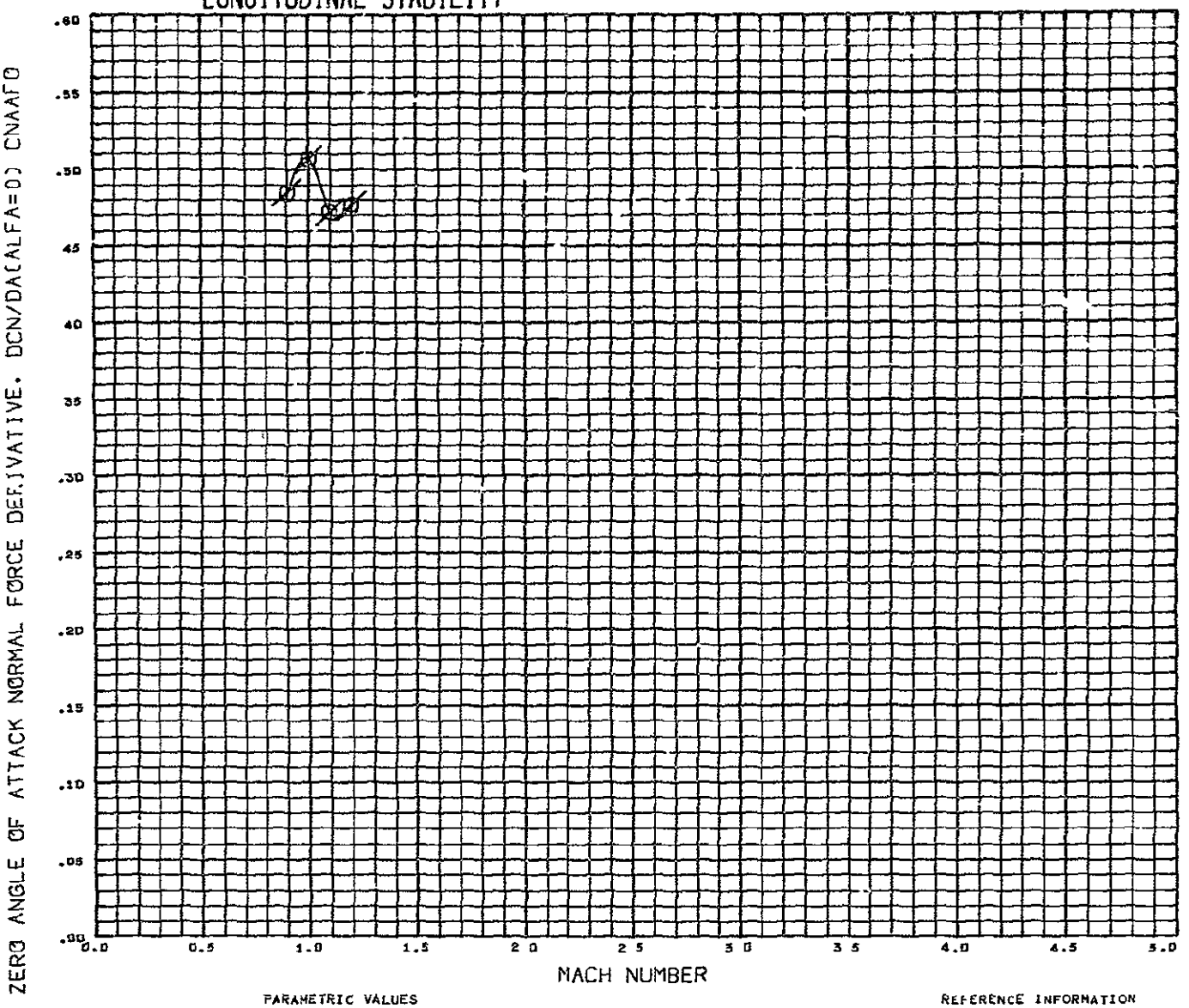
BETA 0.000 ORBINC - 2 000

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0.0600	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

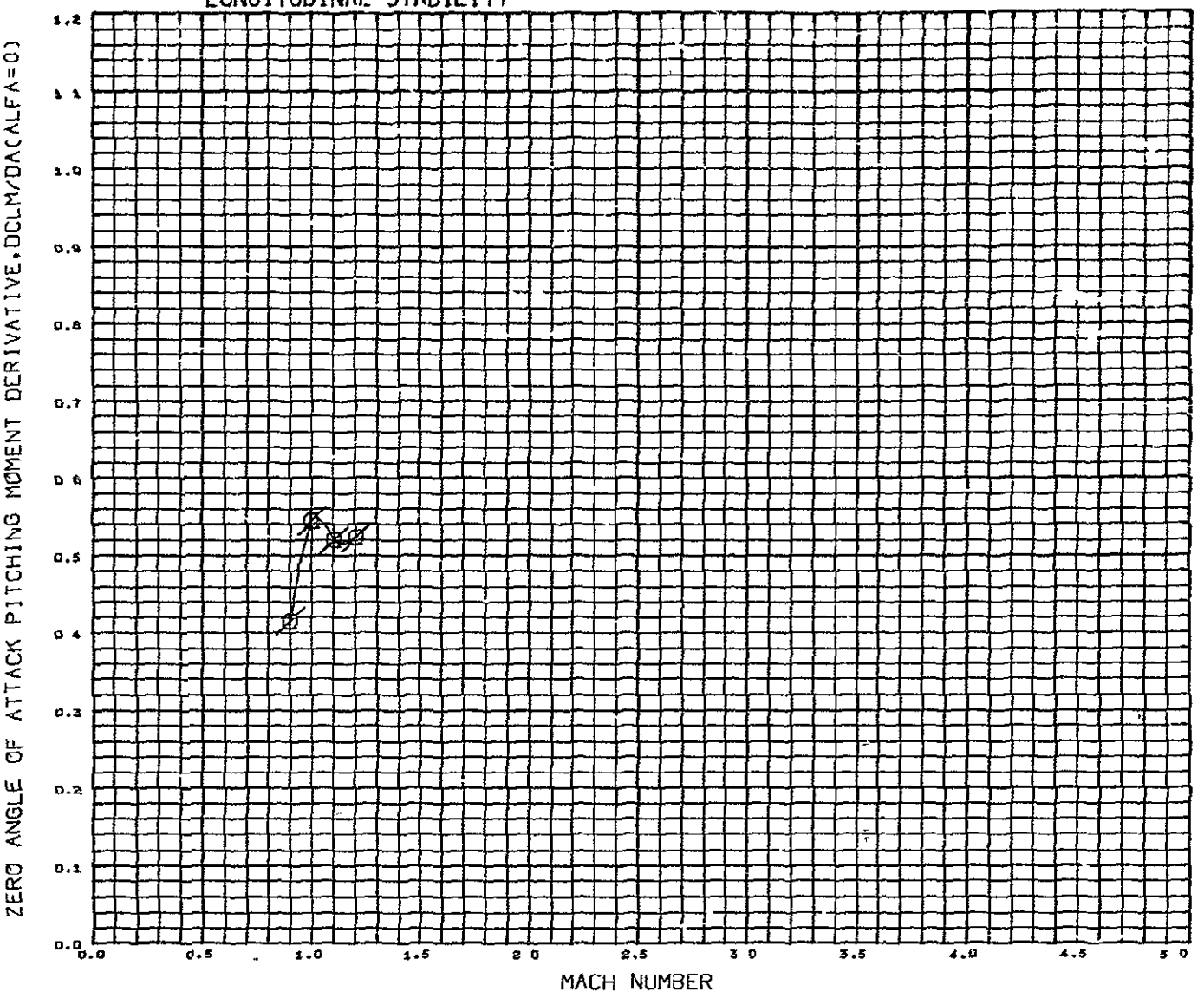
BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H#EIF

LONGITUDINAL STABILITY



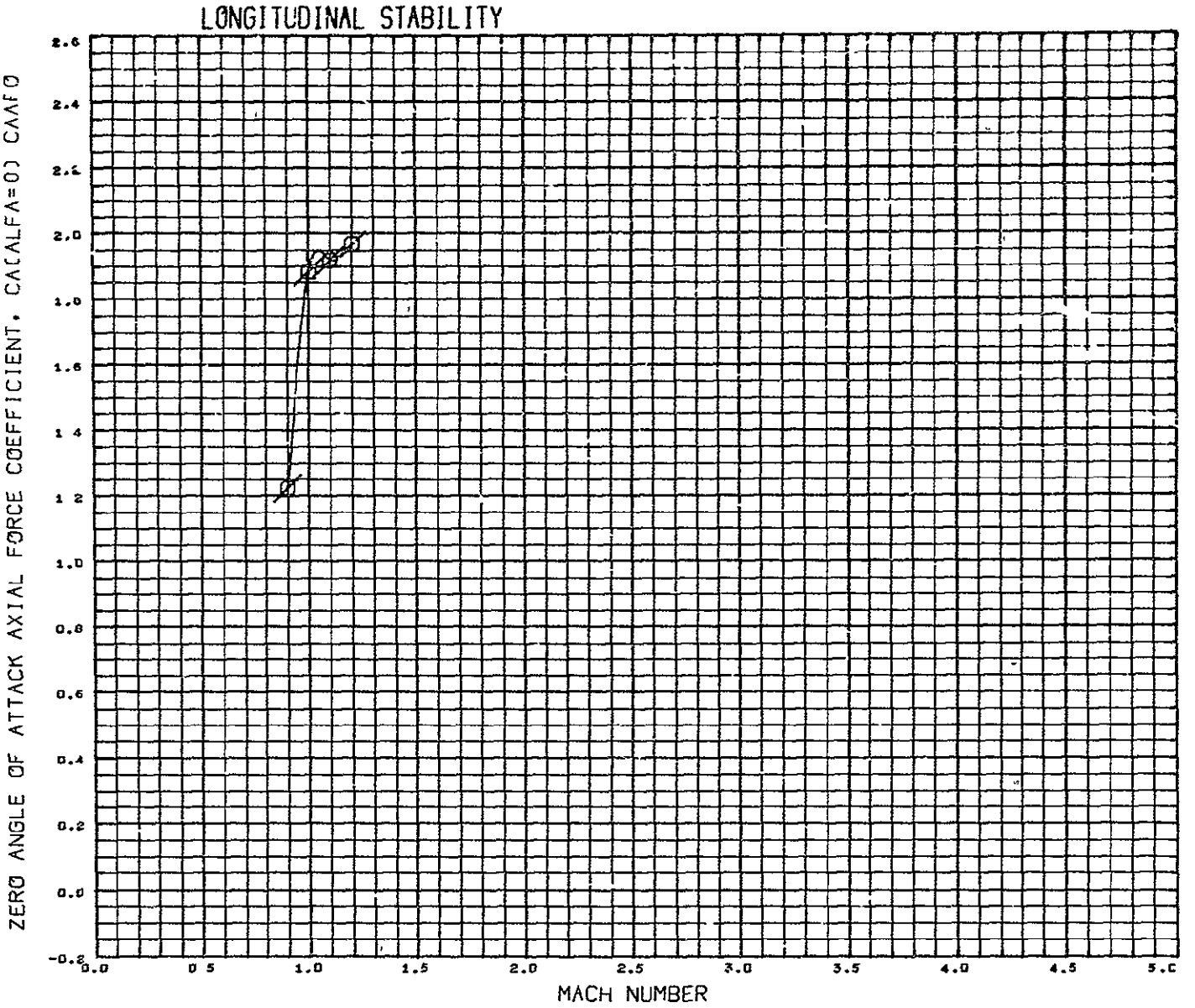
PARAMETRIC VALUES

BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

DATA HIST. CODE MREIF



PARAMETRIC VALUES

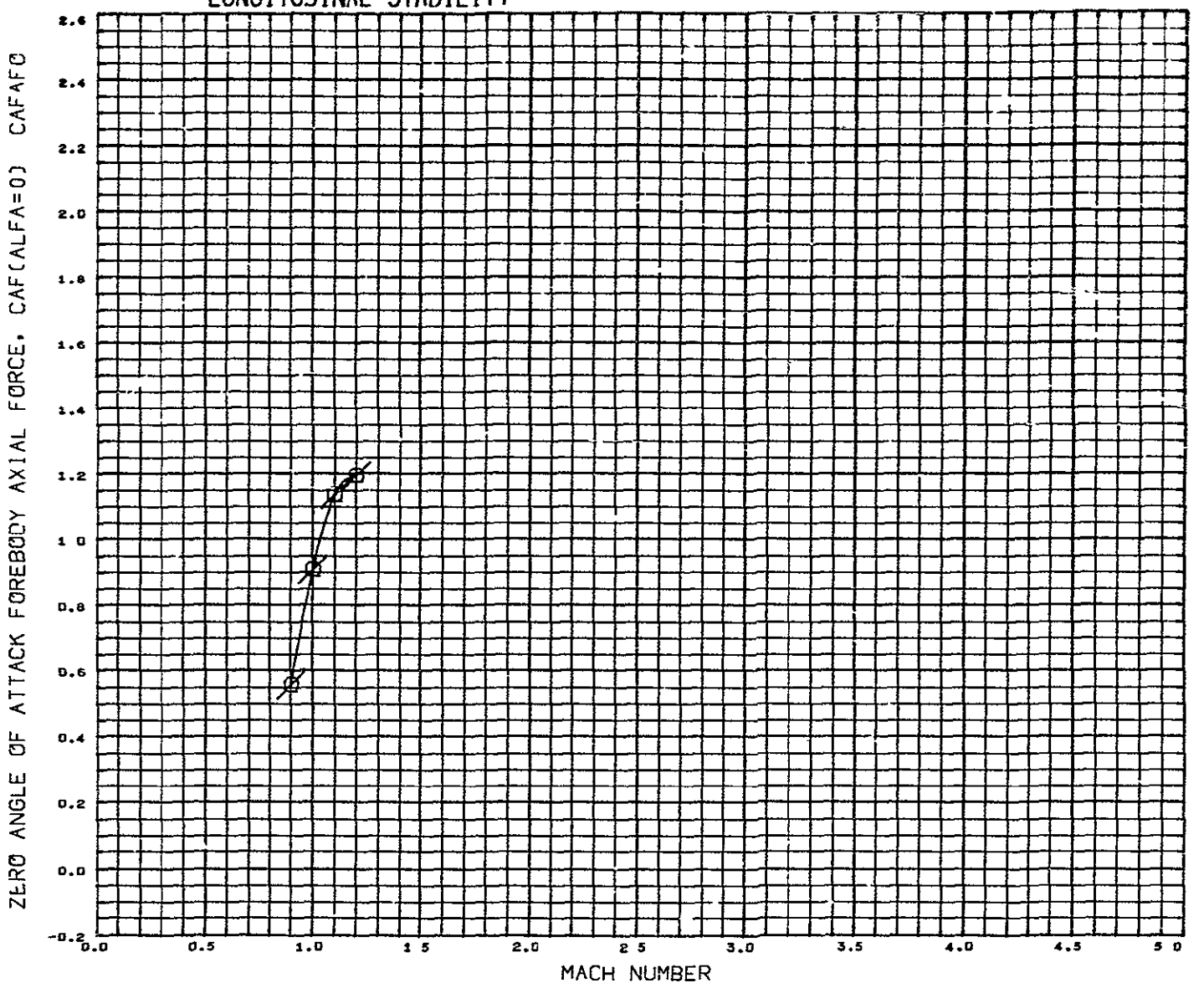
BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6460	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



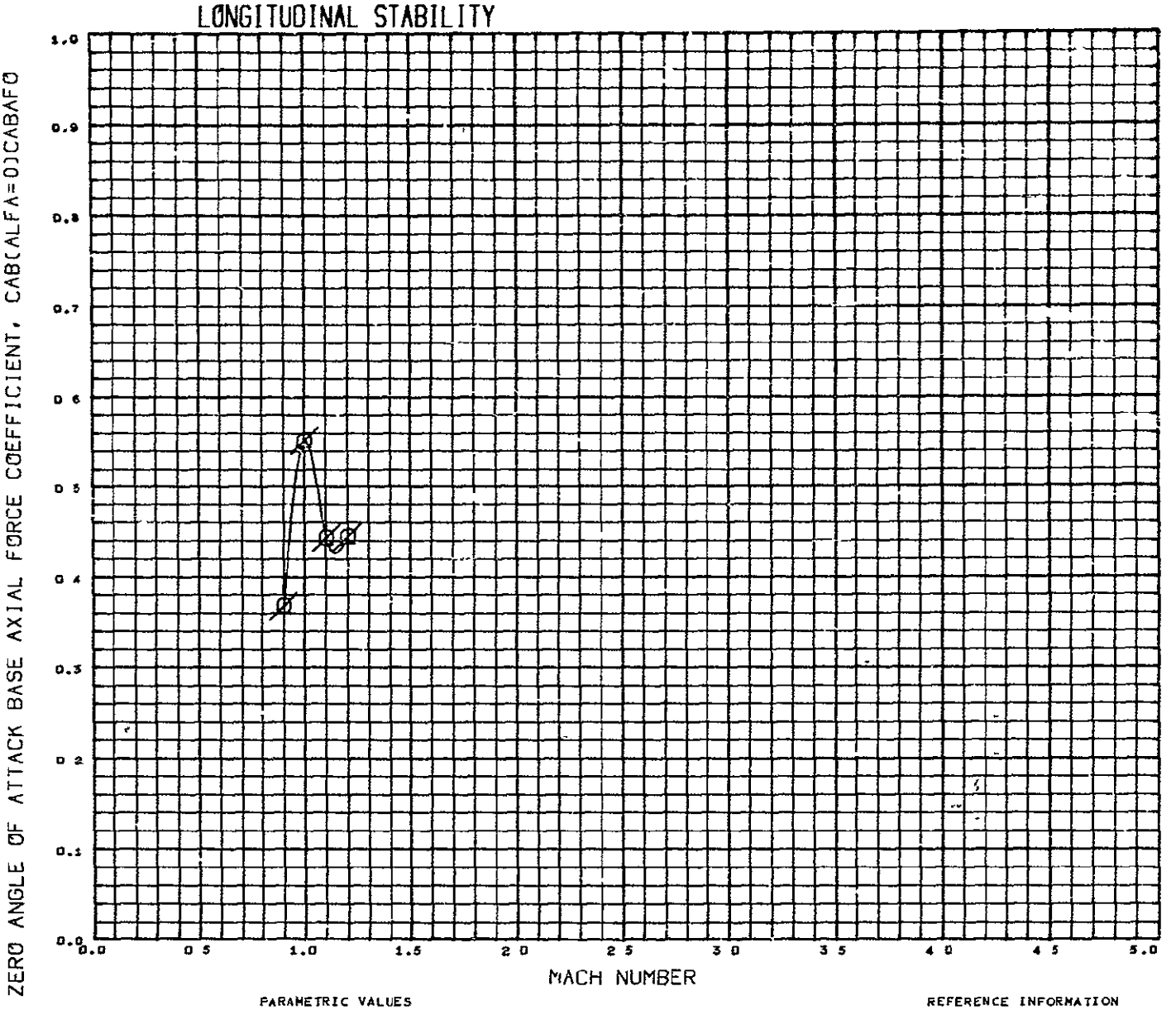
PARAMETRIC VALUES

BETA 0 000 ORBINC - 2 000

PEFERENCE INFOPMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M#EIF



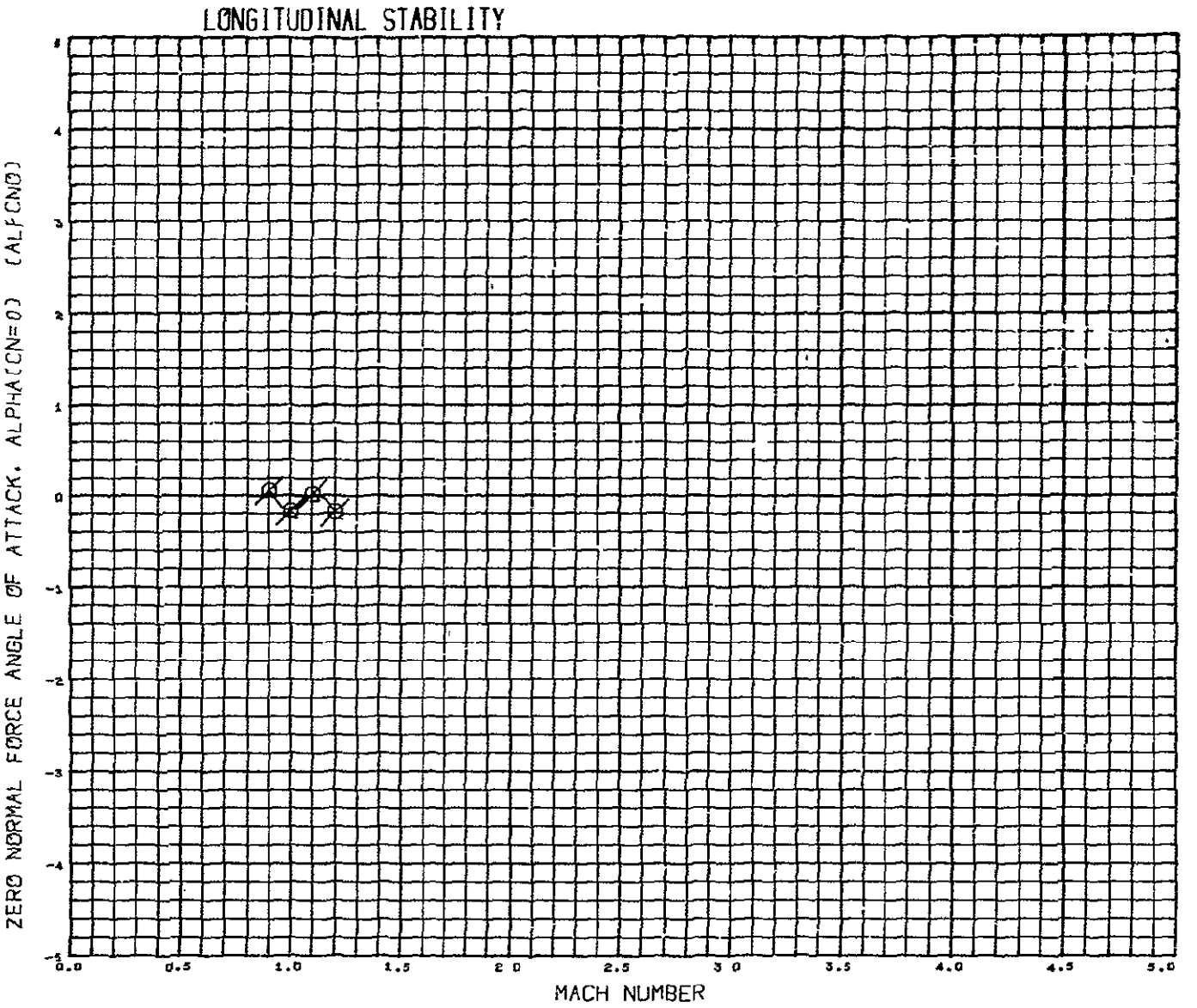
PARAMETRIC VALUES

BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



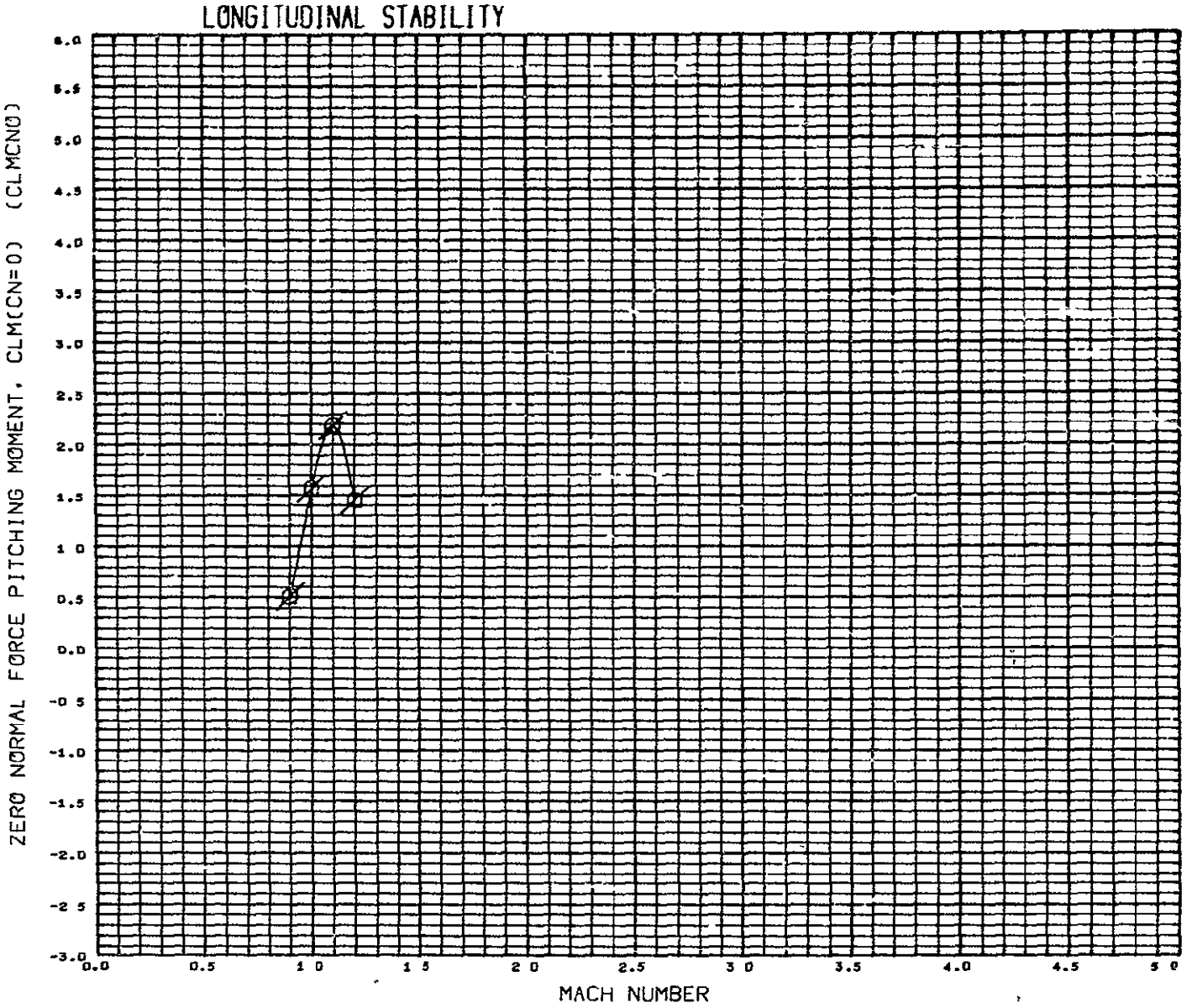
PARAMETRIC VALUES

BETA 0.000 ORBINC - 2.000

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

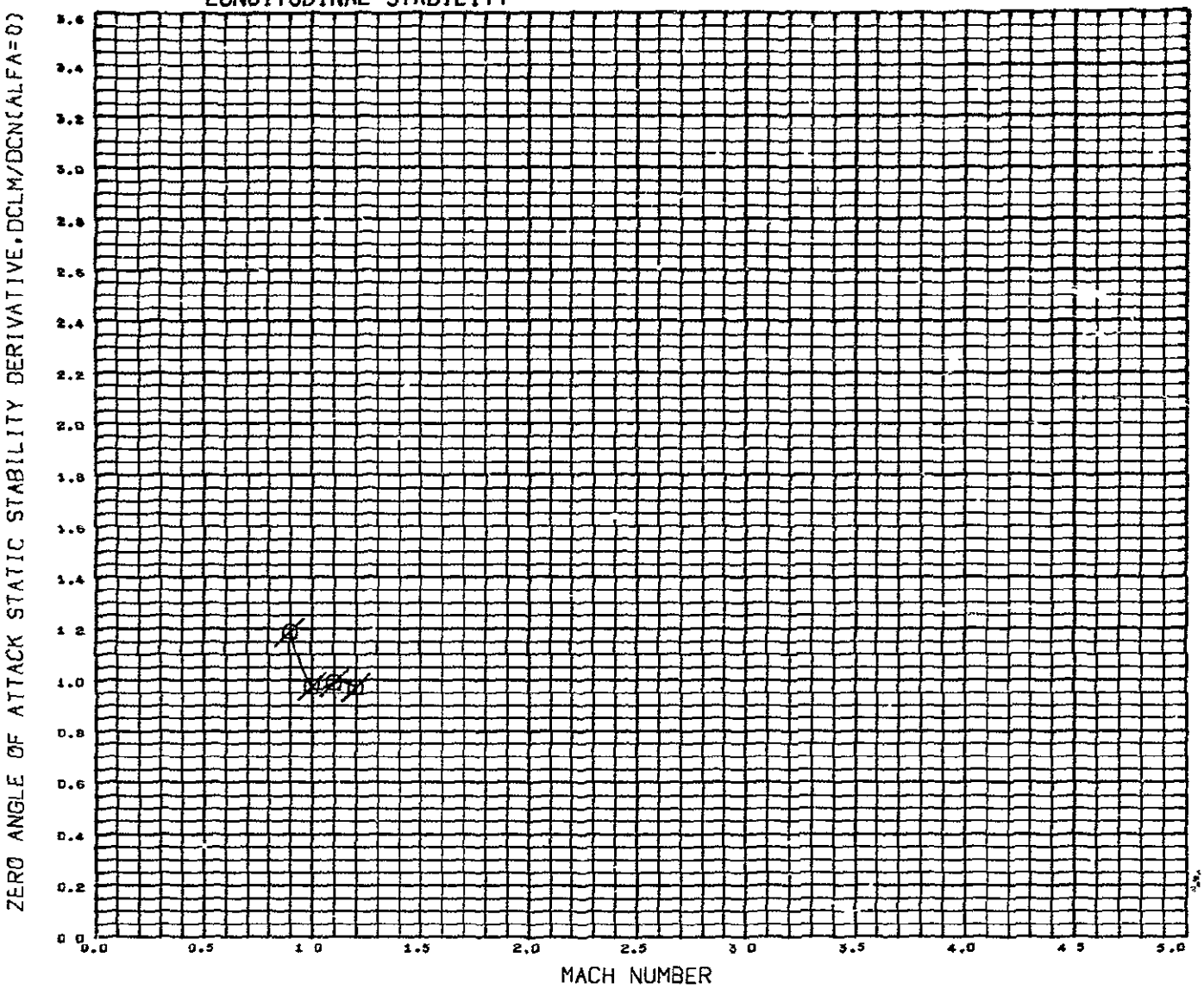
BETA 0 000 ORBINC - 2 000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

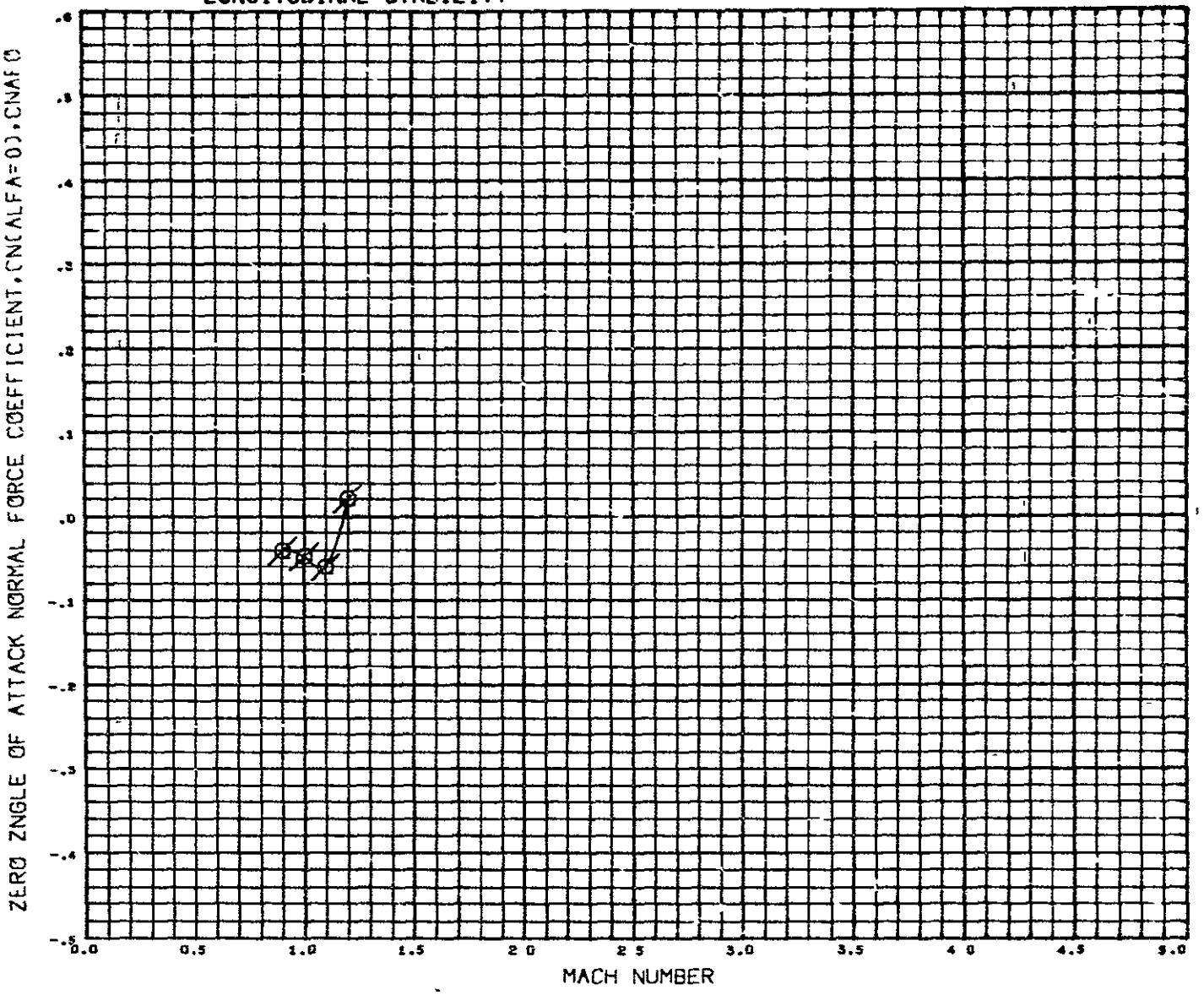
BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M+EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

BETA 0 000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6660	IN
YMRF	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

DATA HIST. CODE N#EIF

LONGITUDINAL STABILITY

PARAMETRIC VALUES

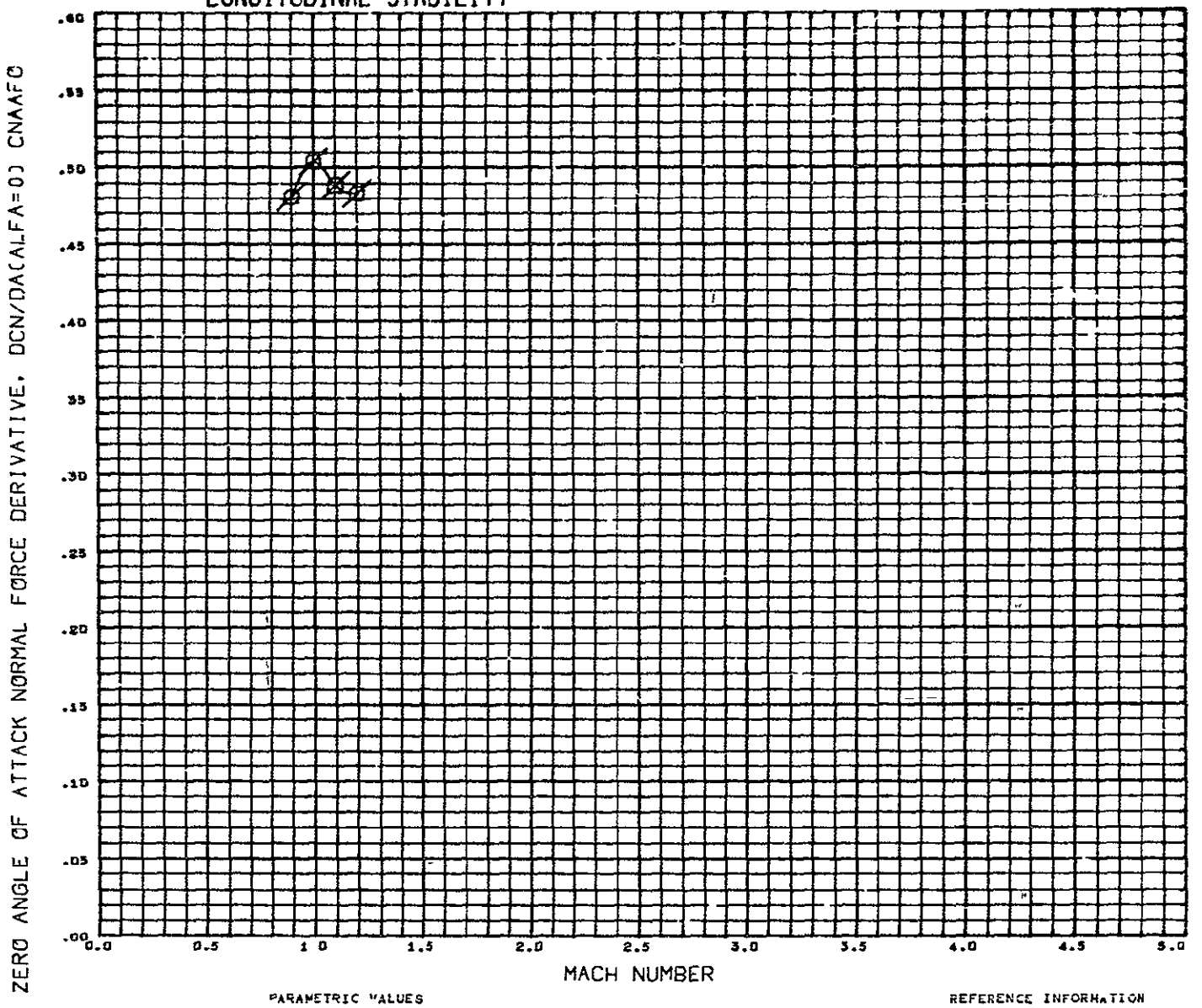
BETA 0.000 ORBINC — 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0030	IN
SCALE	0.0034	

DATA HIST. CODE M#EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

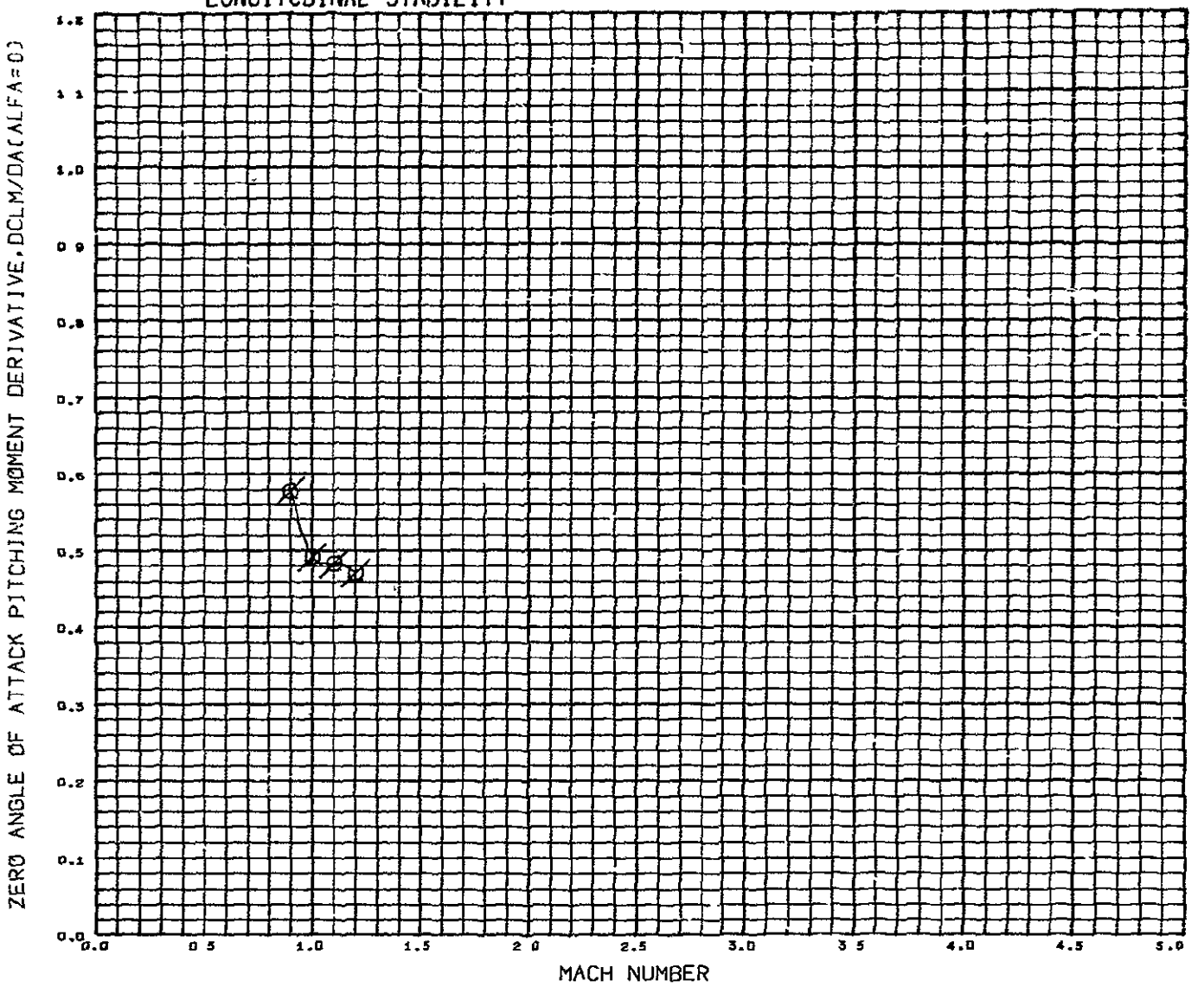
BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H=EIF

LONGITUDINAL STABILITY



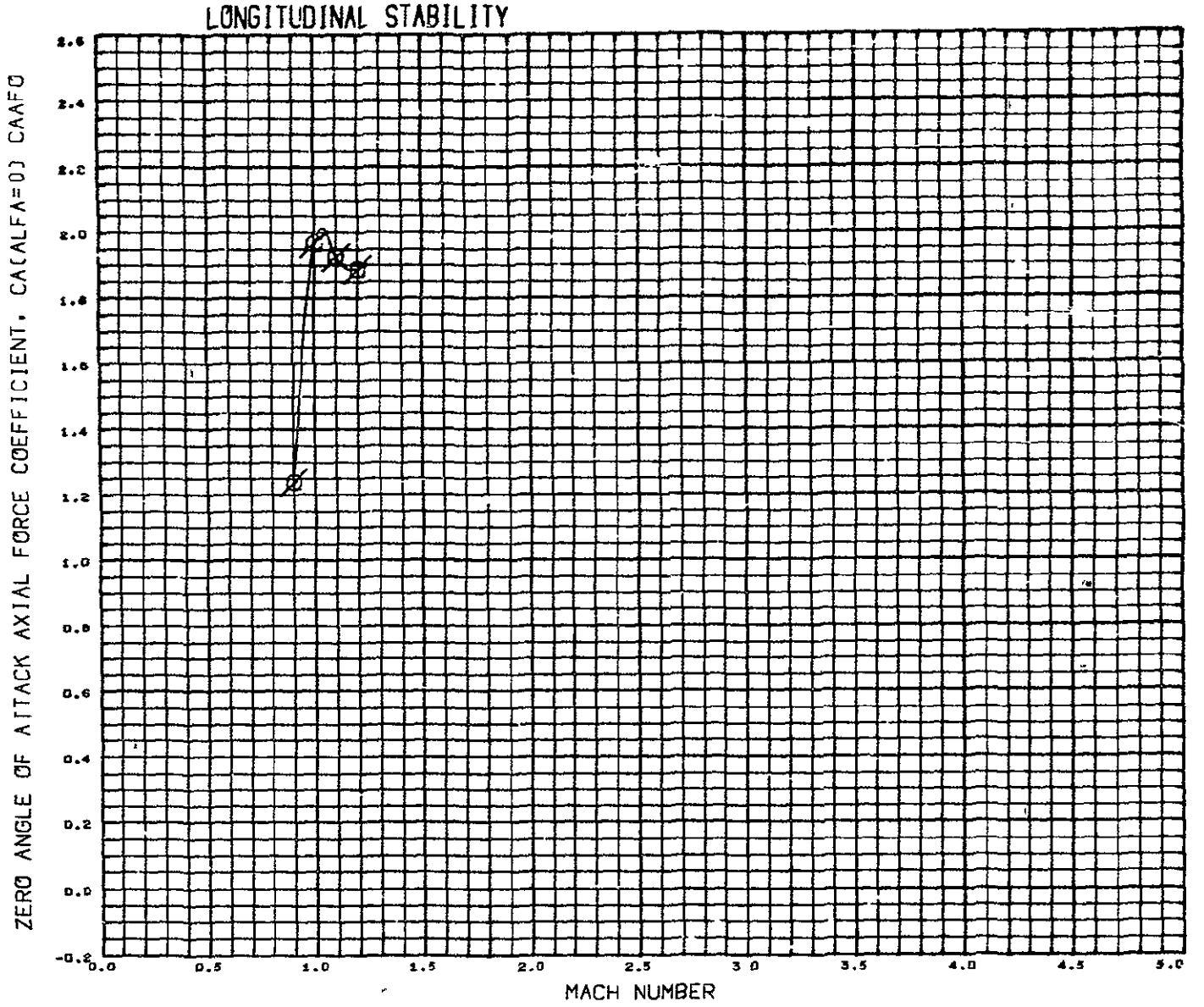
PARAMETRIC VALUES

BETA 0.000 ORBINC - 2.000

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

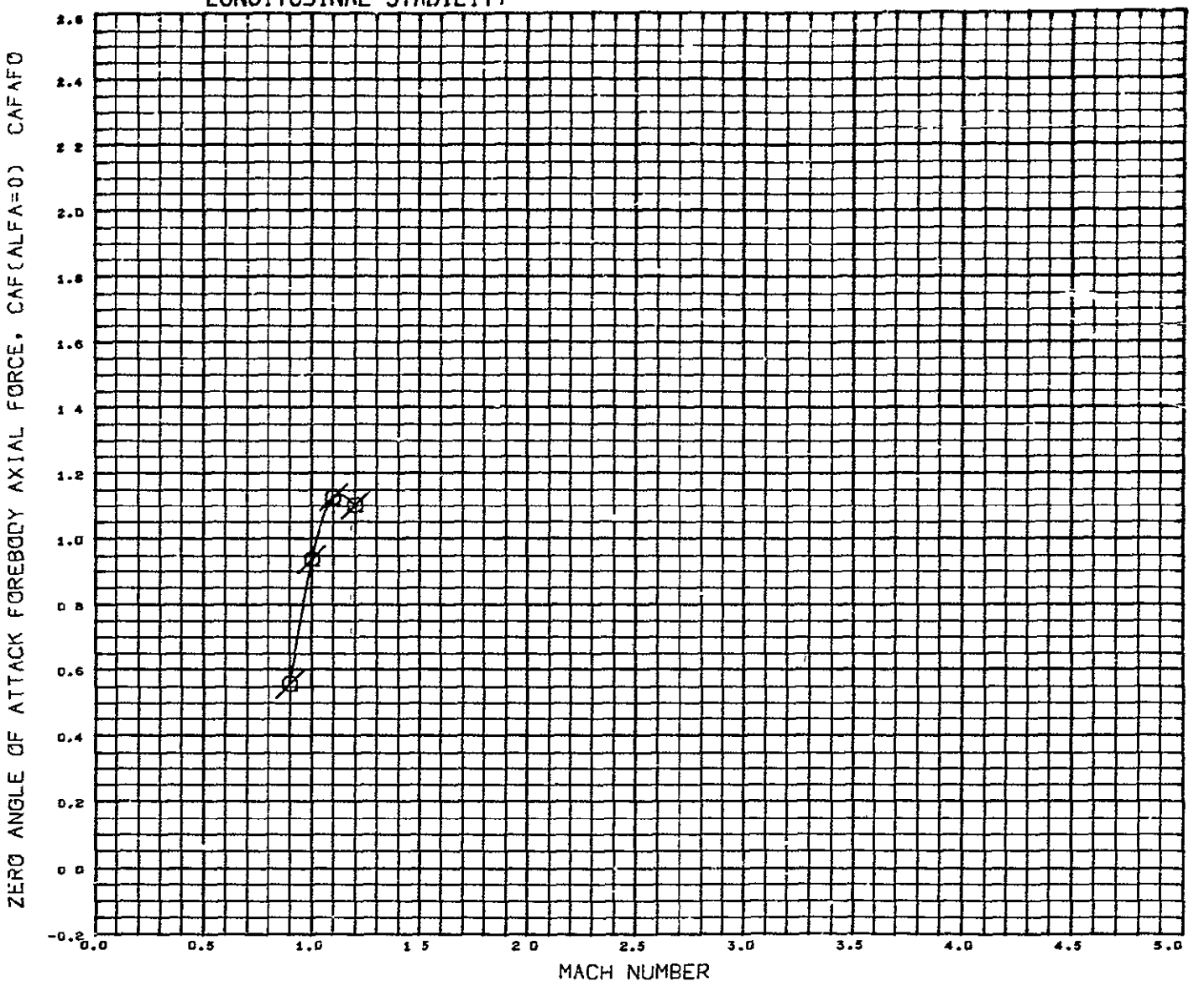
BETA 0.000 ORBINC = 2.000

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRF	3 6860	IN
YMRF	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST. CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

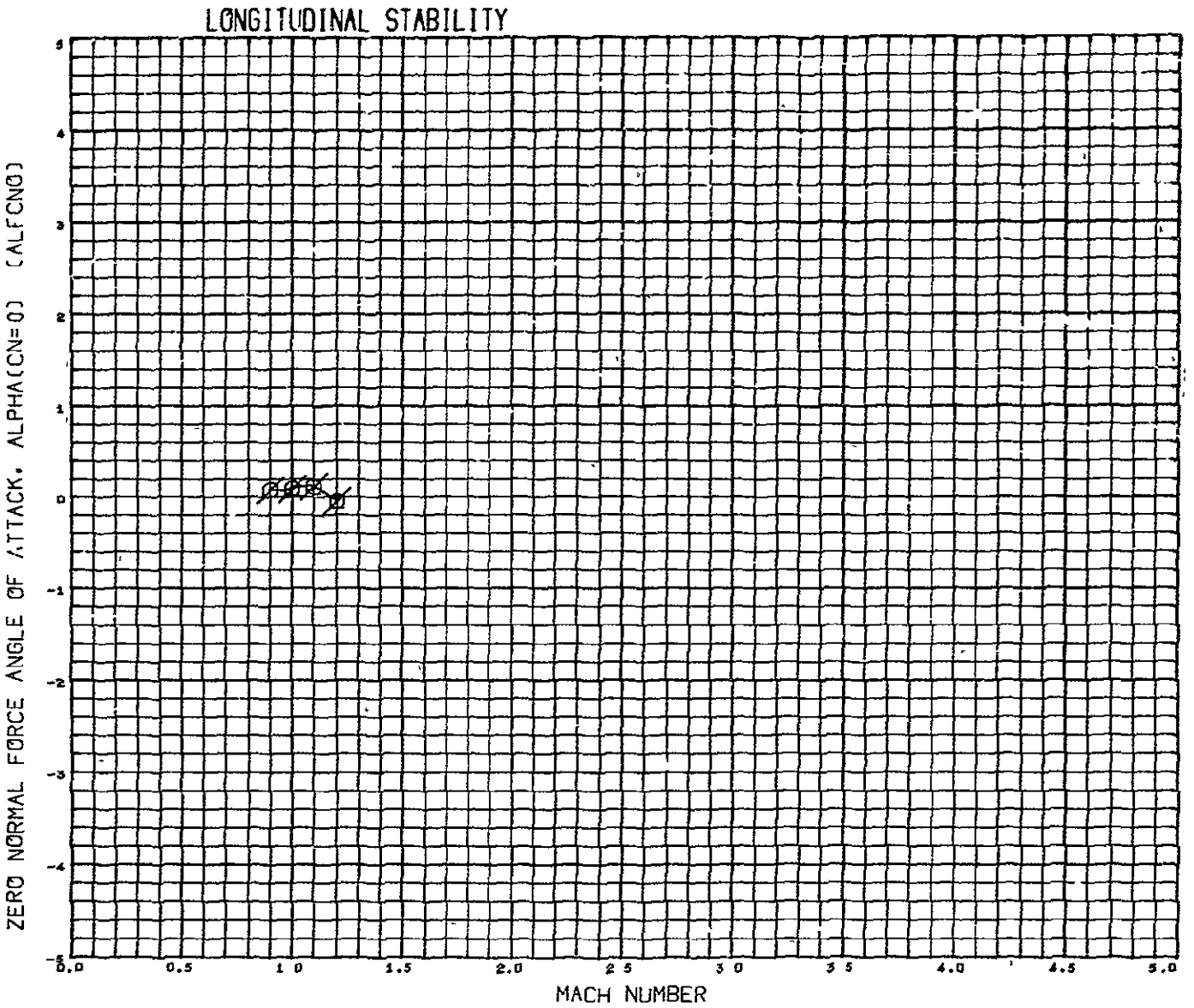
PARAMETRIC VALUES

BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

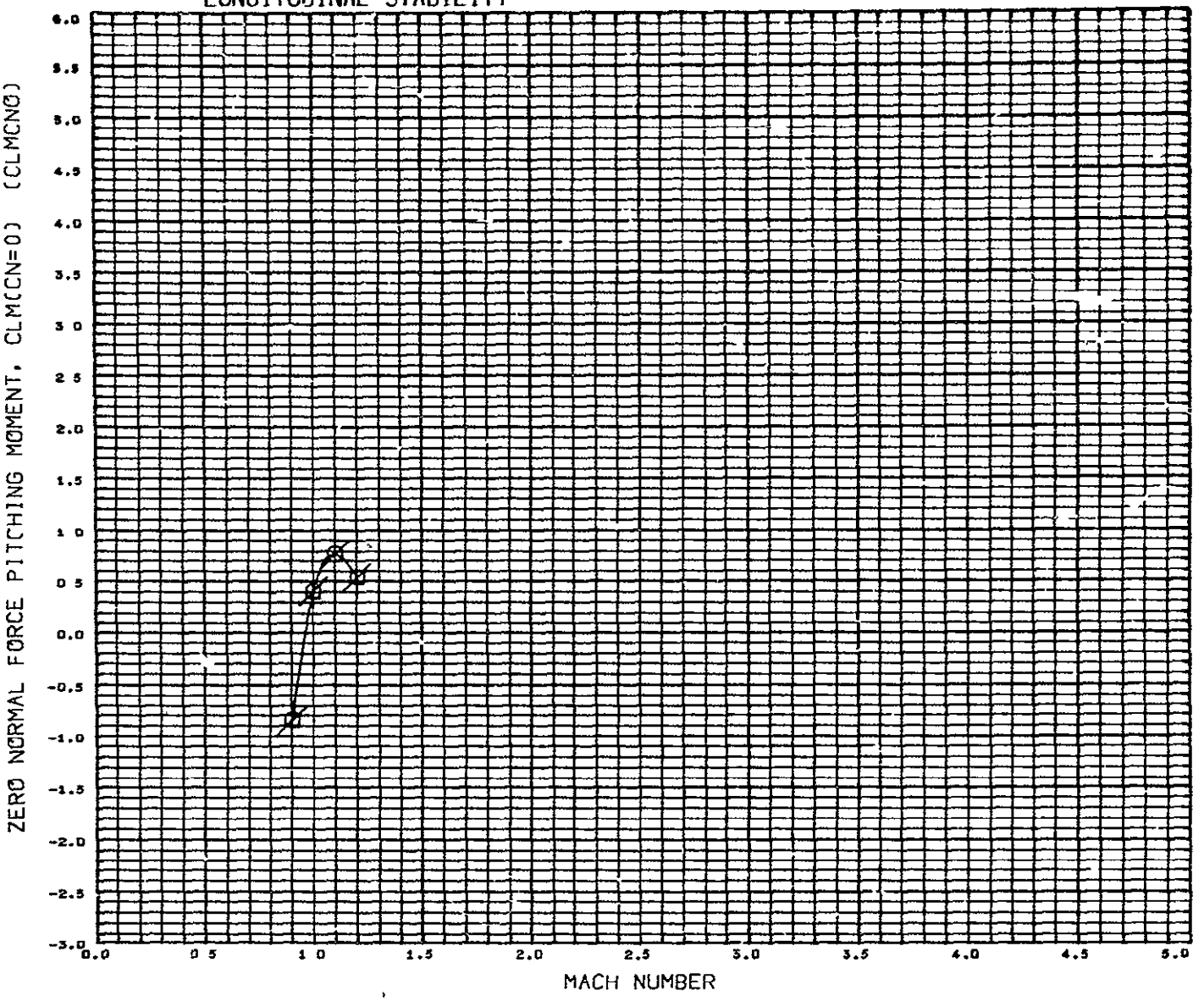
BETA 0.000 ORBINC - 2.000

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.5860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



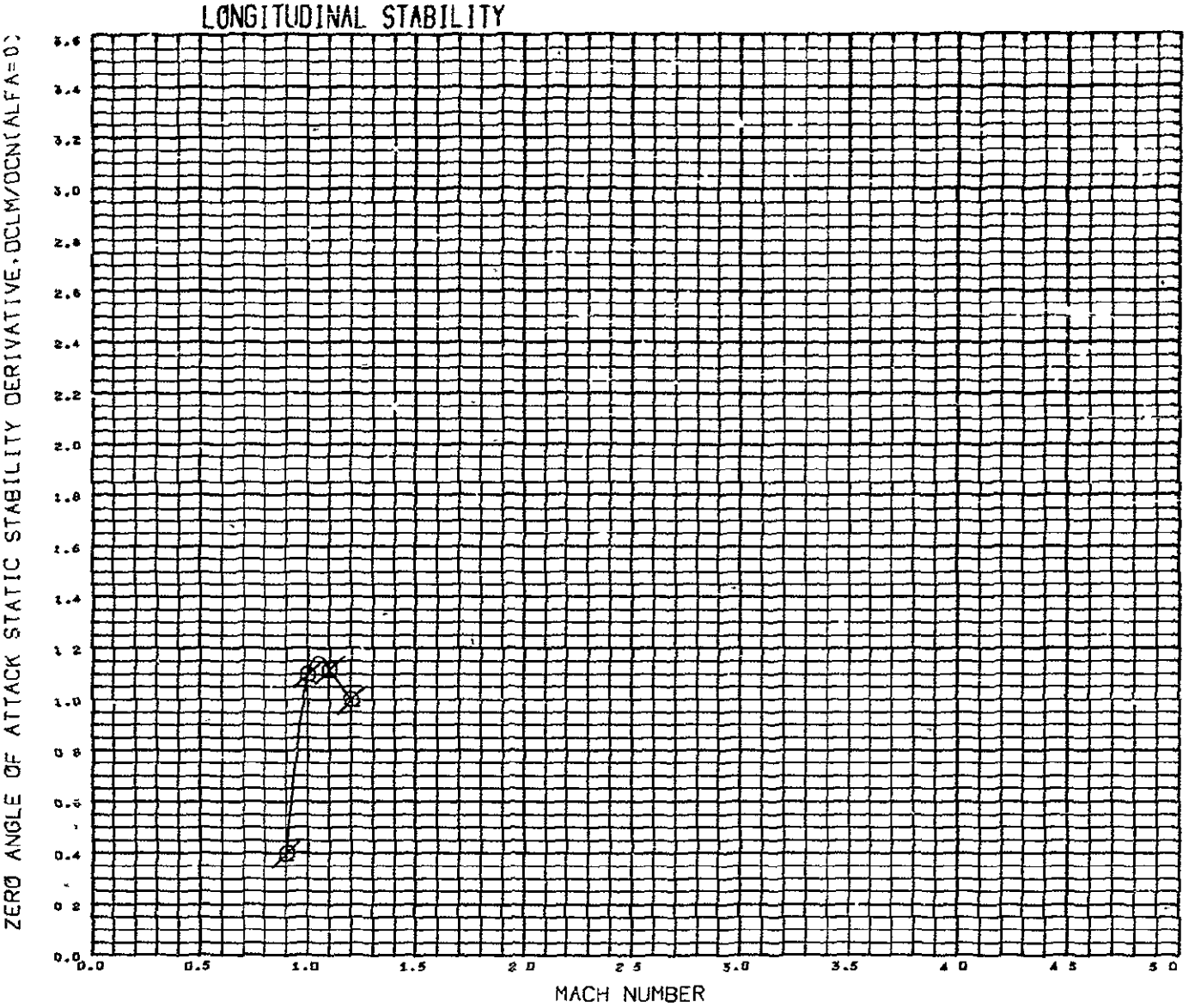
PARAMETRIC VALUES

BETA 0.000 ORBINC - 2.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0020	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF



PARAMETRIC VALUES

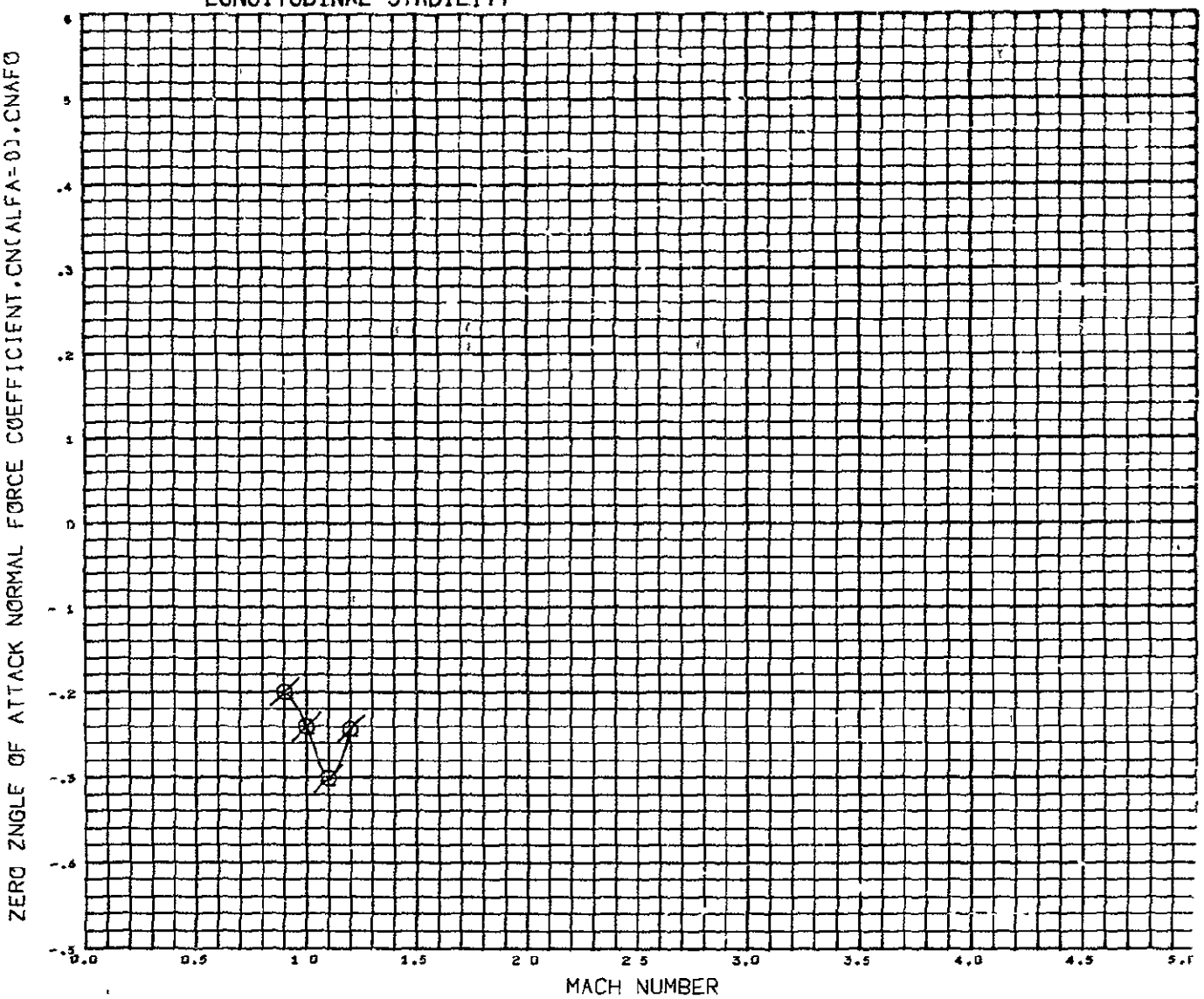
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M#2IF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

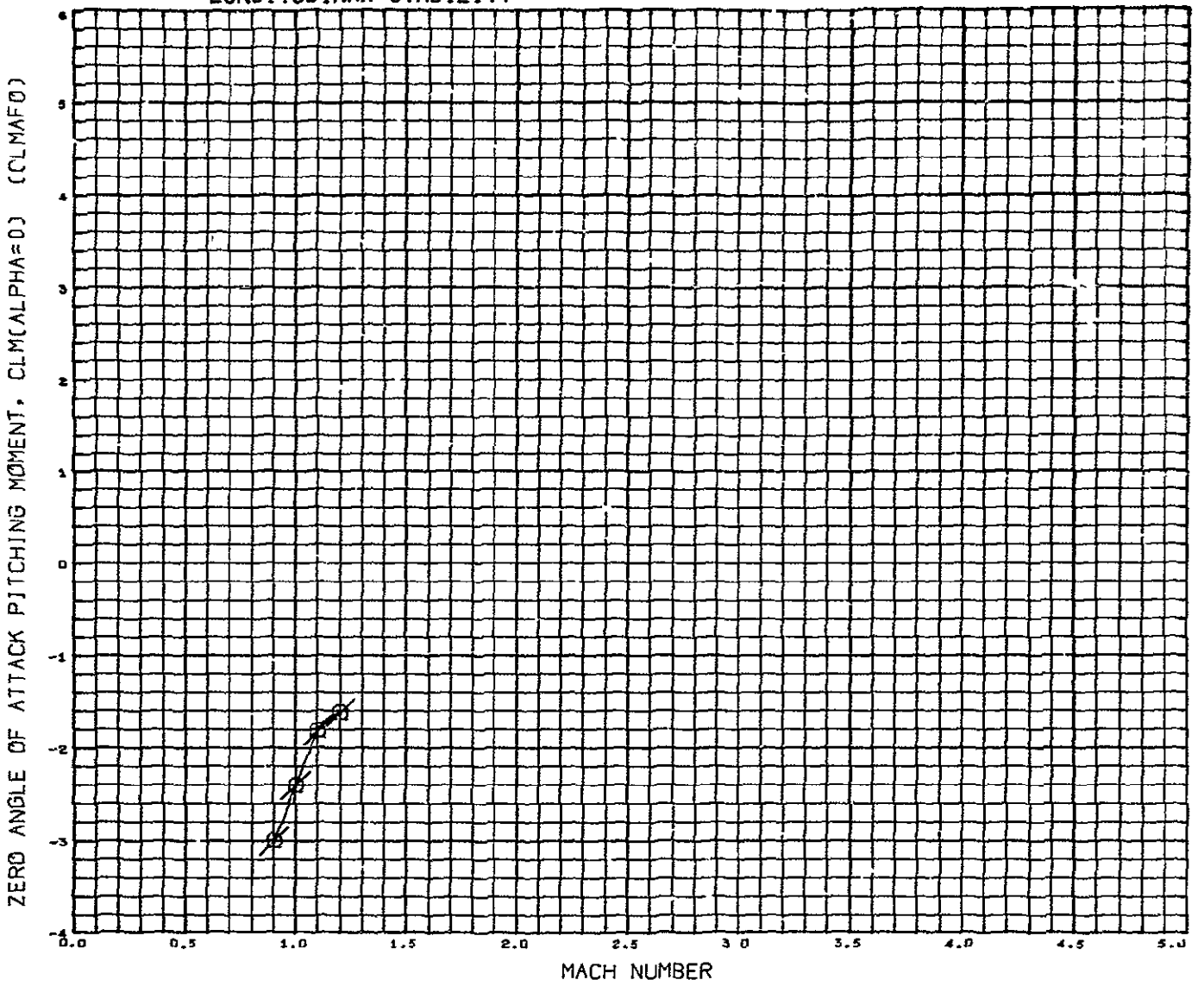
BETA 0 000 ØRBINC - 4 000

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 0660	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CØDE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

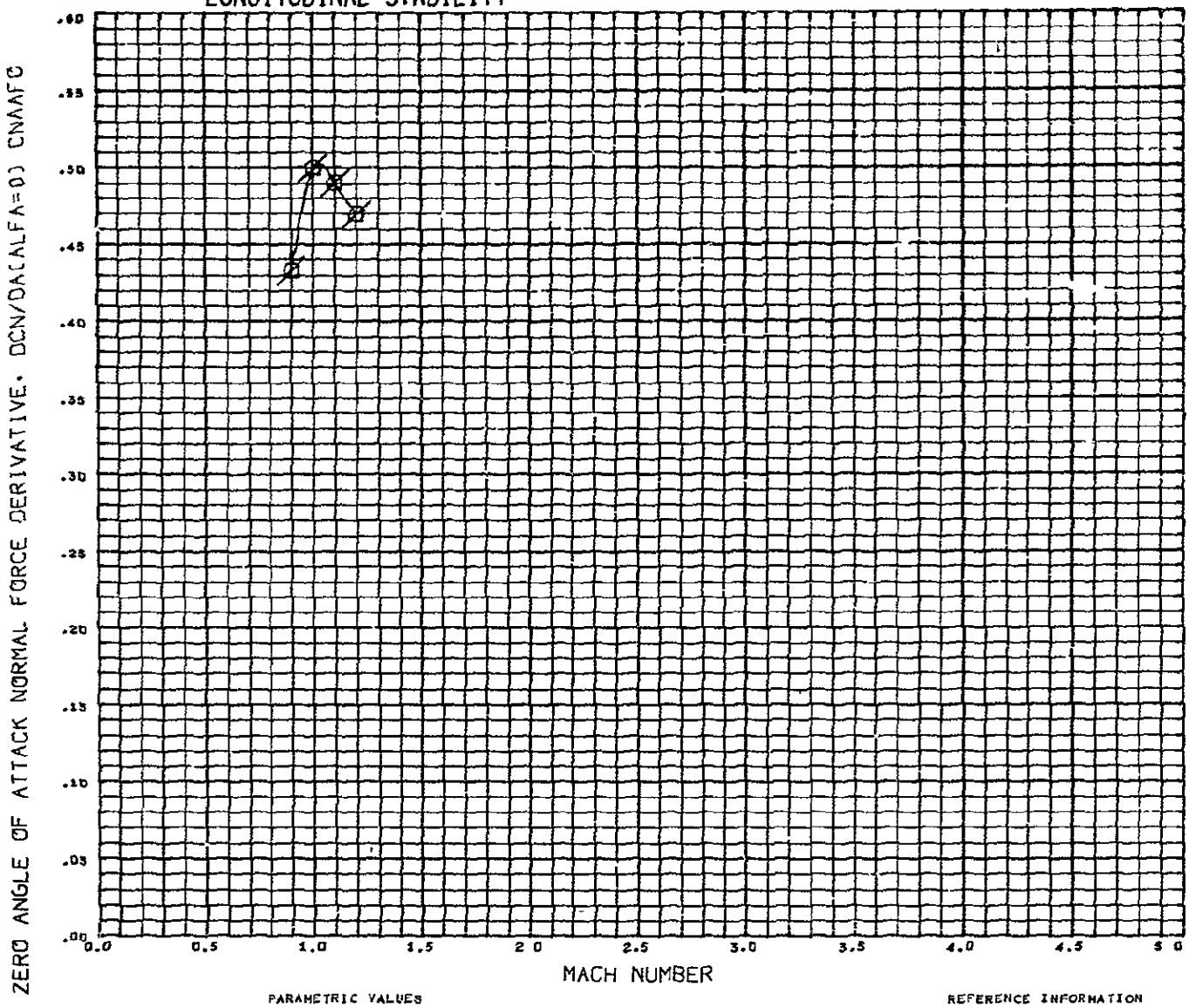
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6960	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA MIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

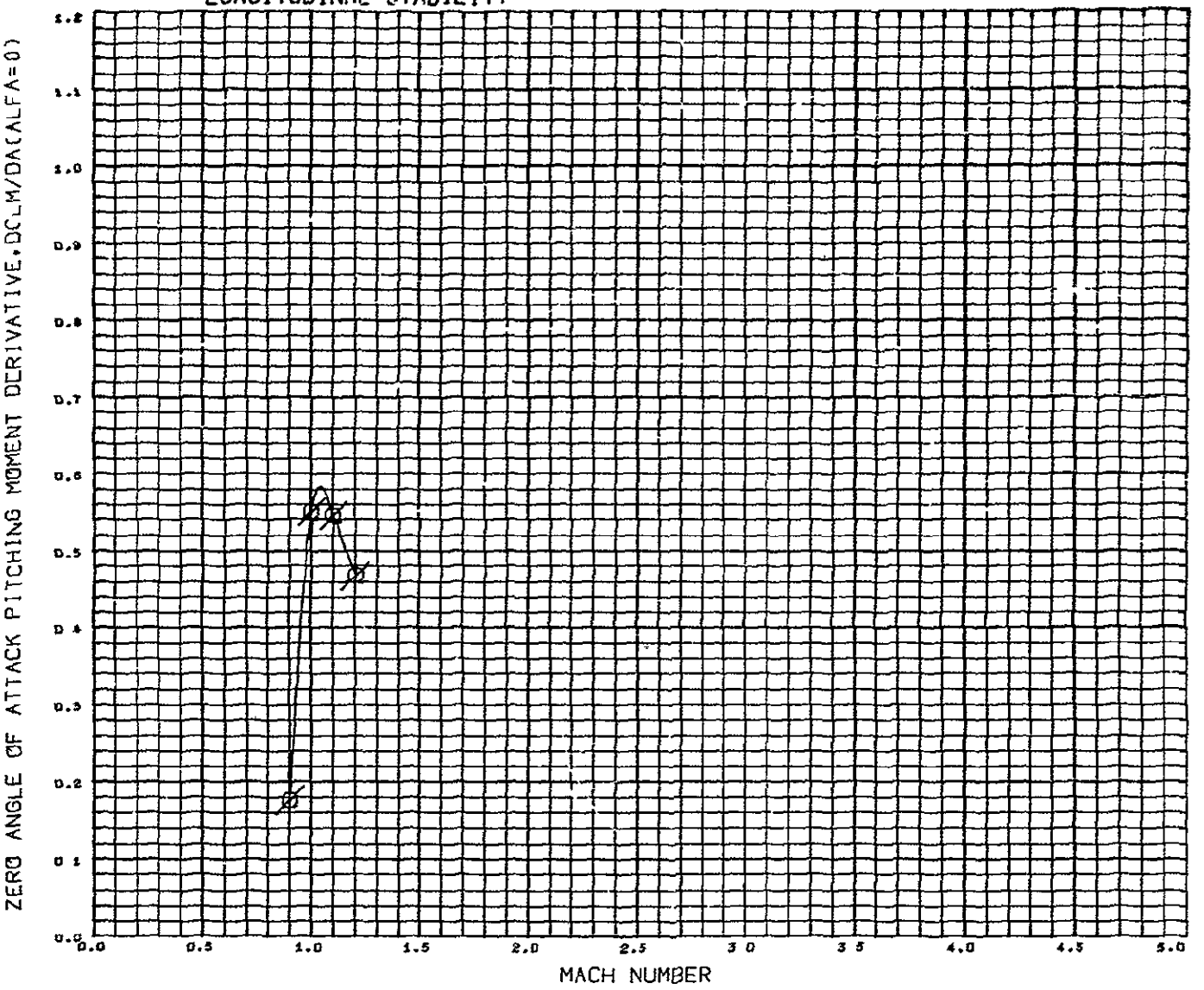
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6060	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



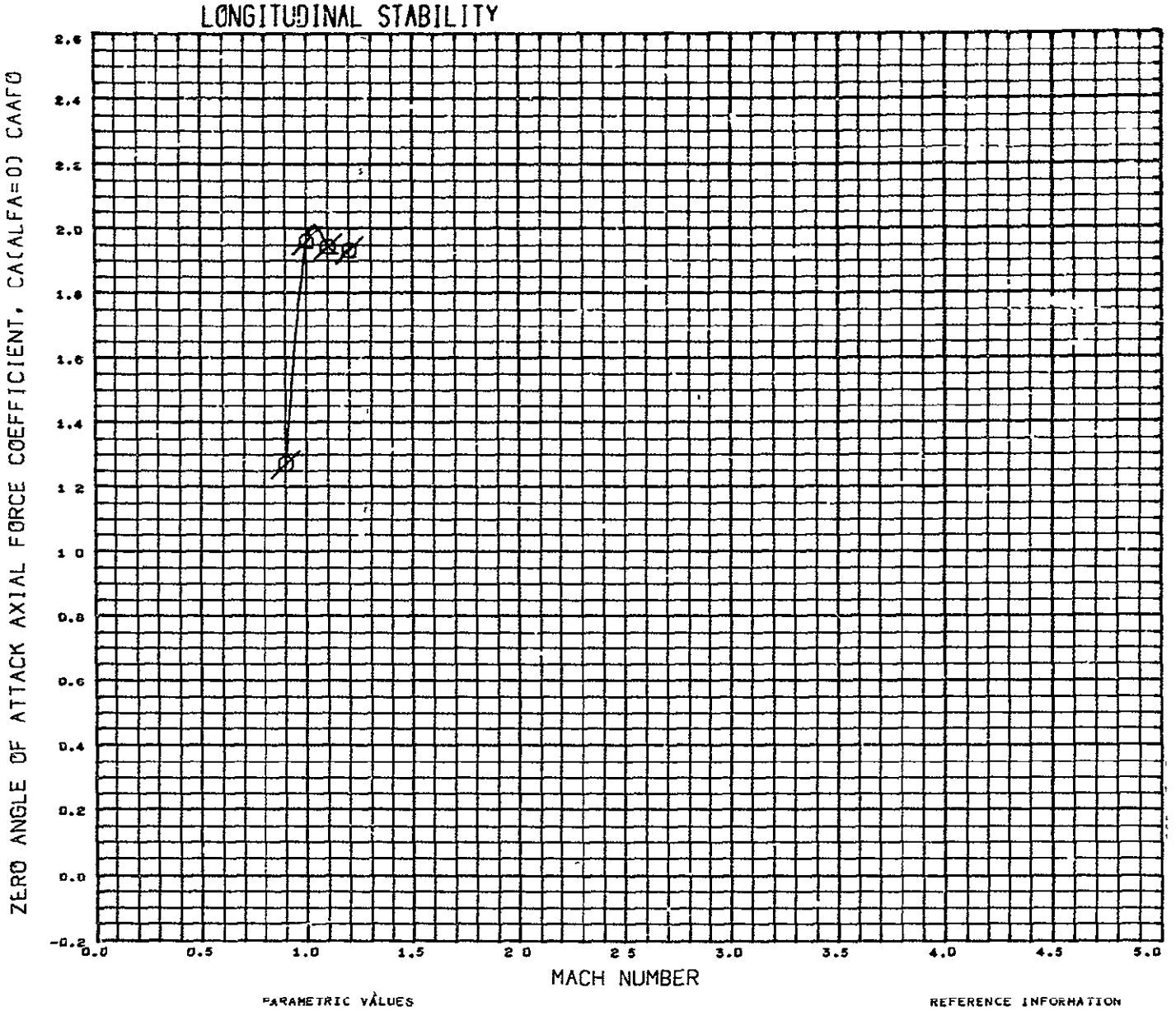
PARAMETRIC VALUES

BETA 0.000 ORBINC = 4.000

DATA HIST CODE H*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.5860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



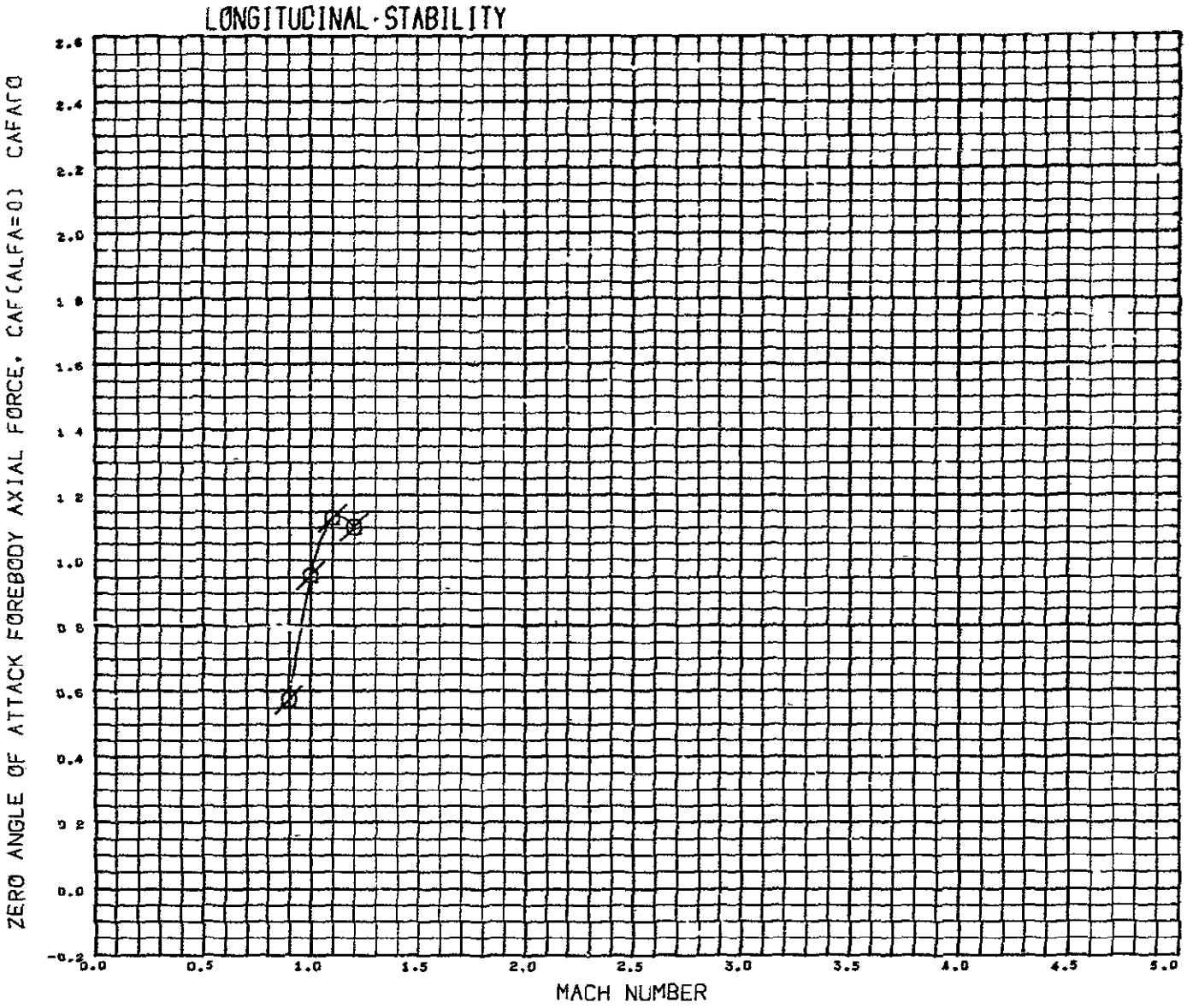
PARAMETRIC VALUES

BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

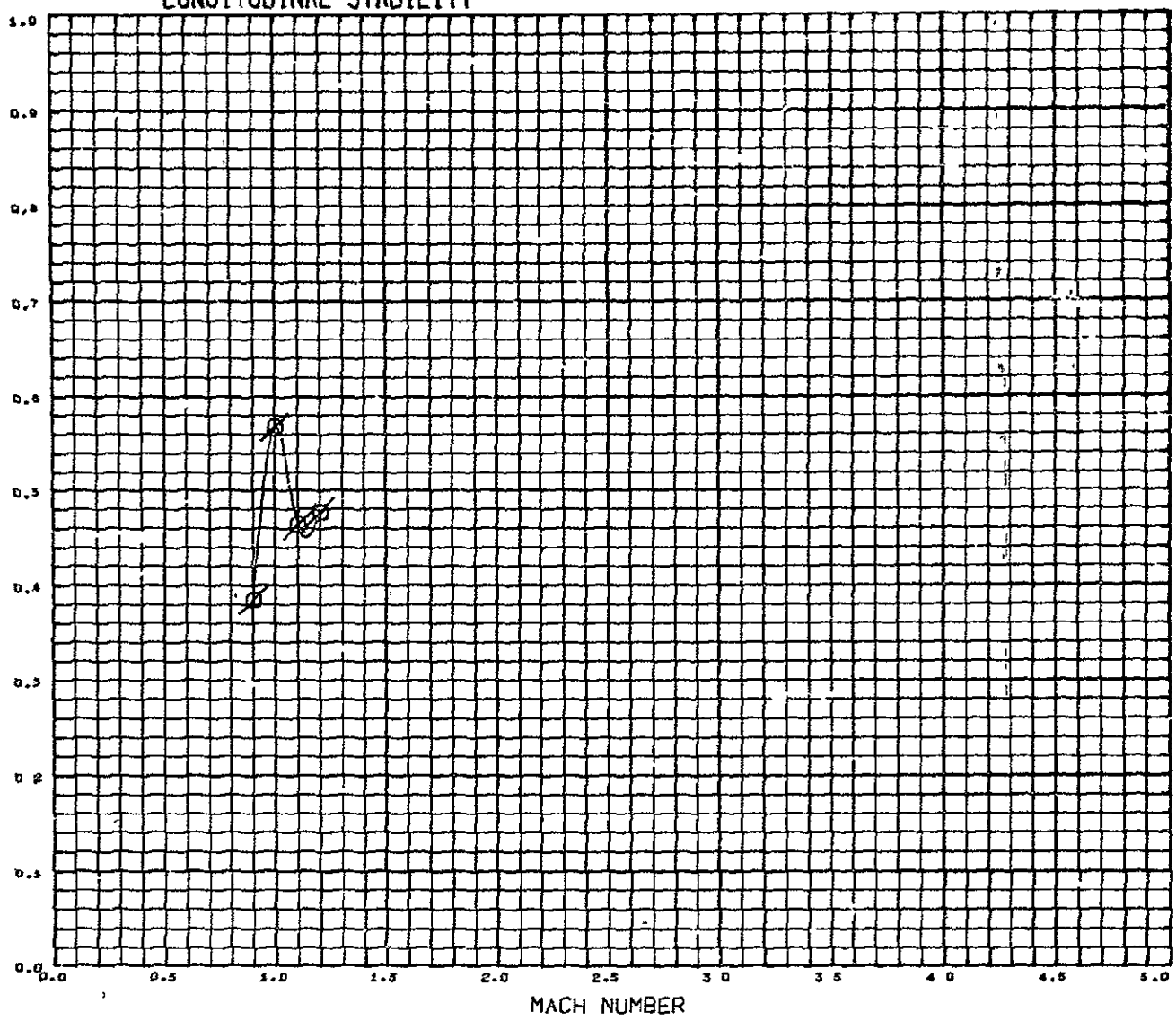
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6850	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA MISC CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

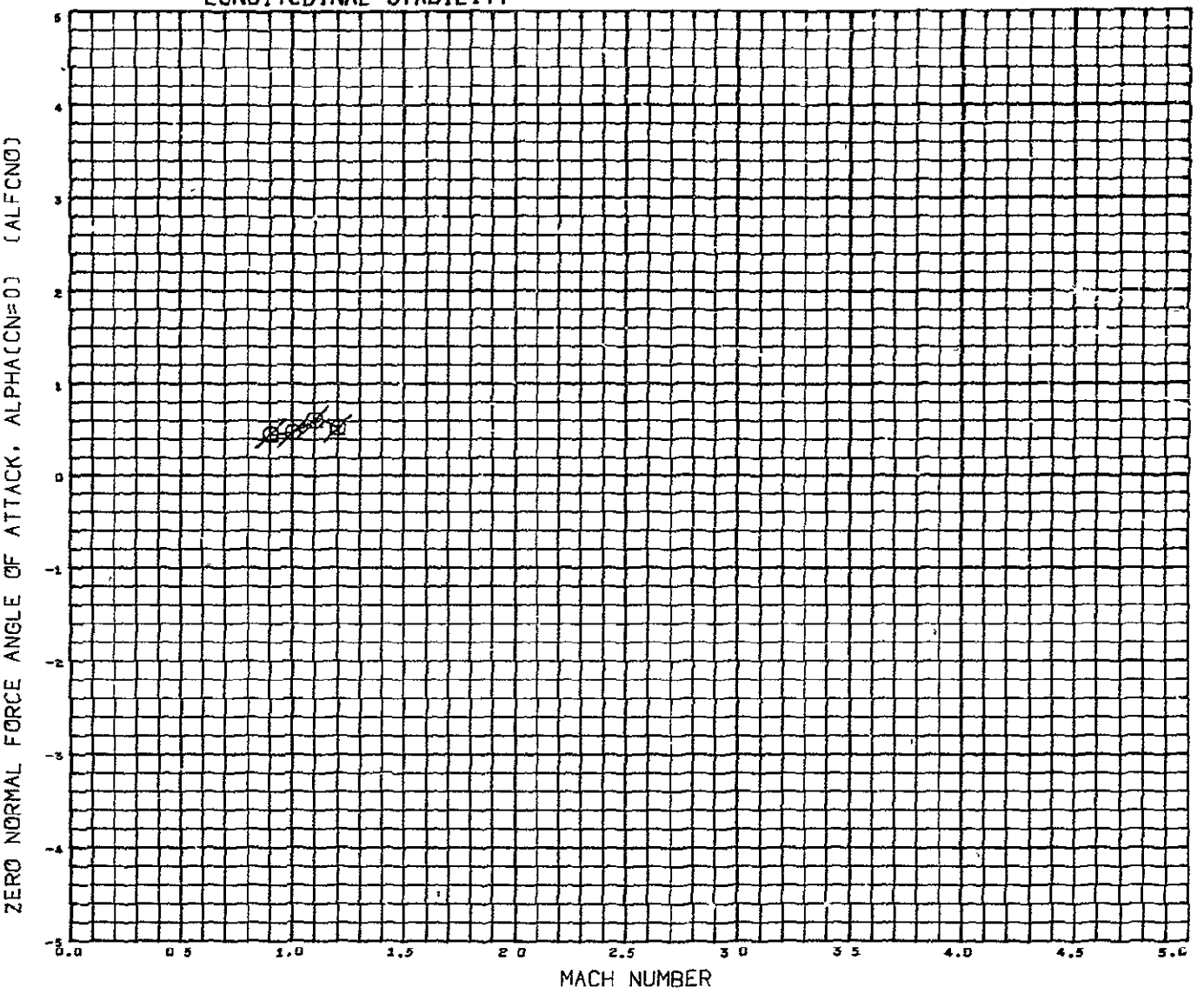
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

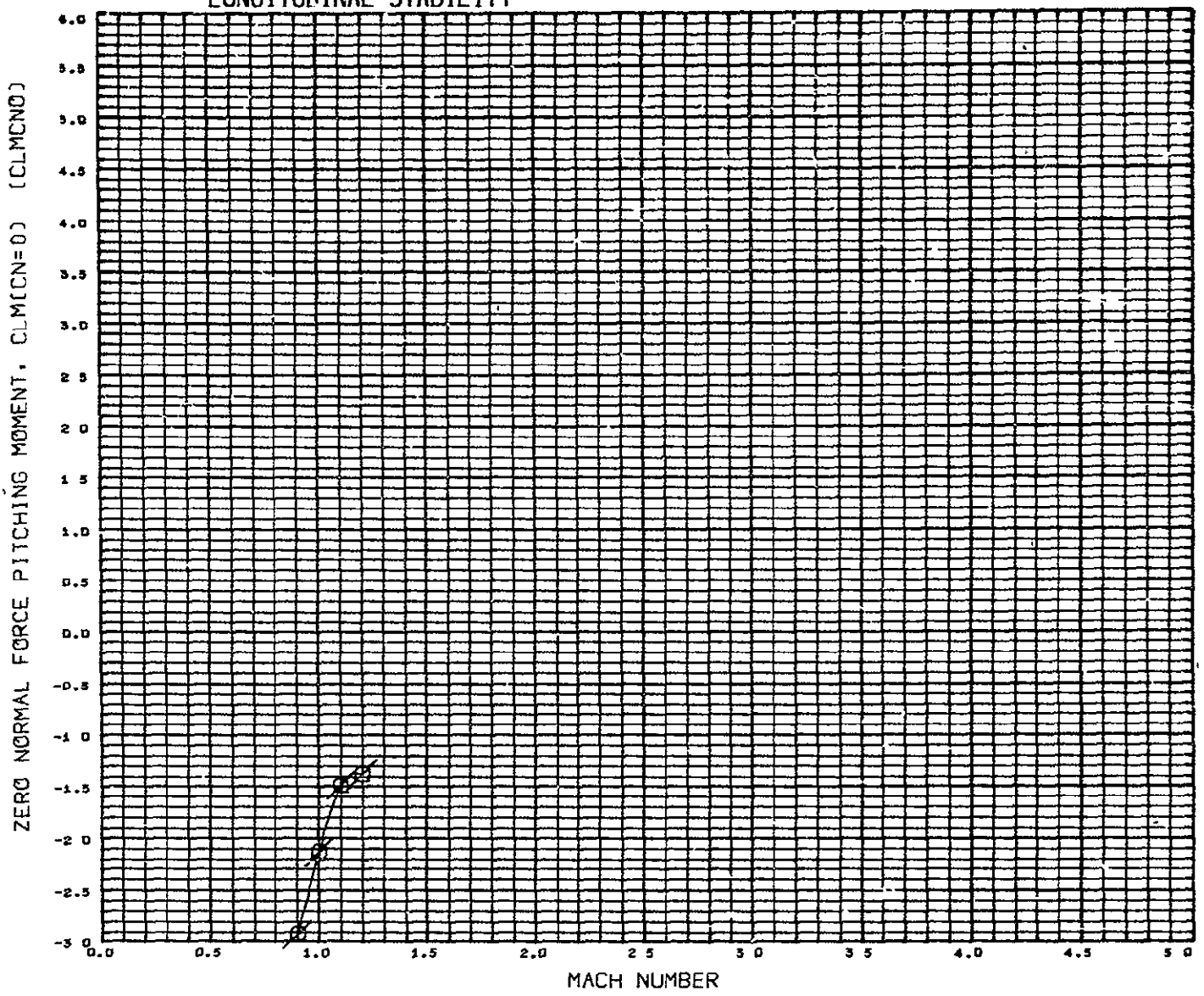
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H=EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

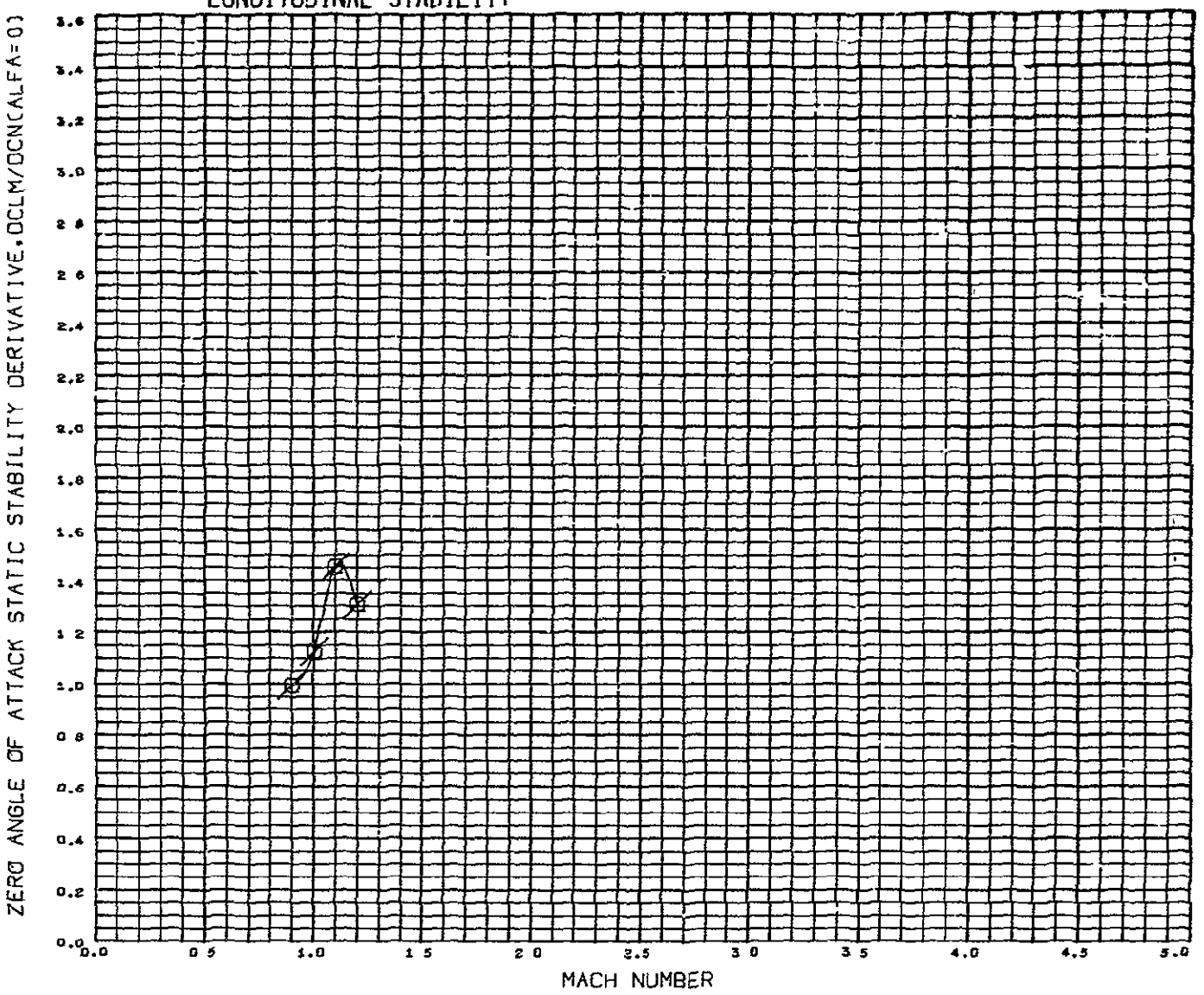
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF

LONGITUDINAL STABILITY



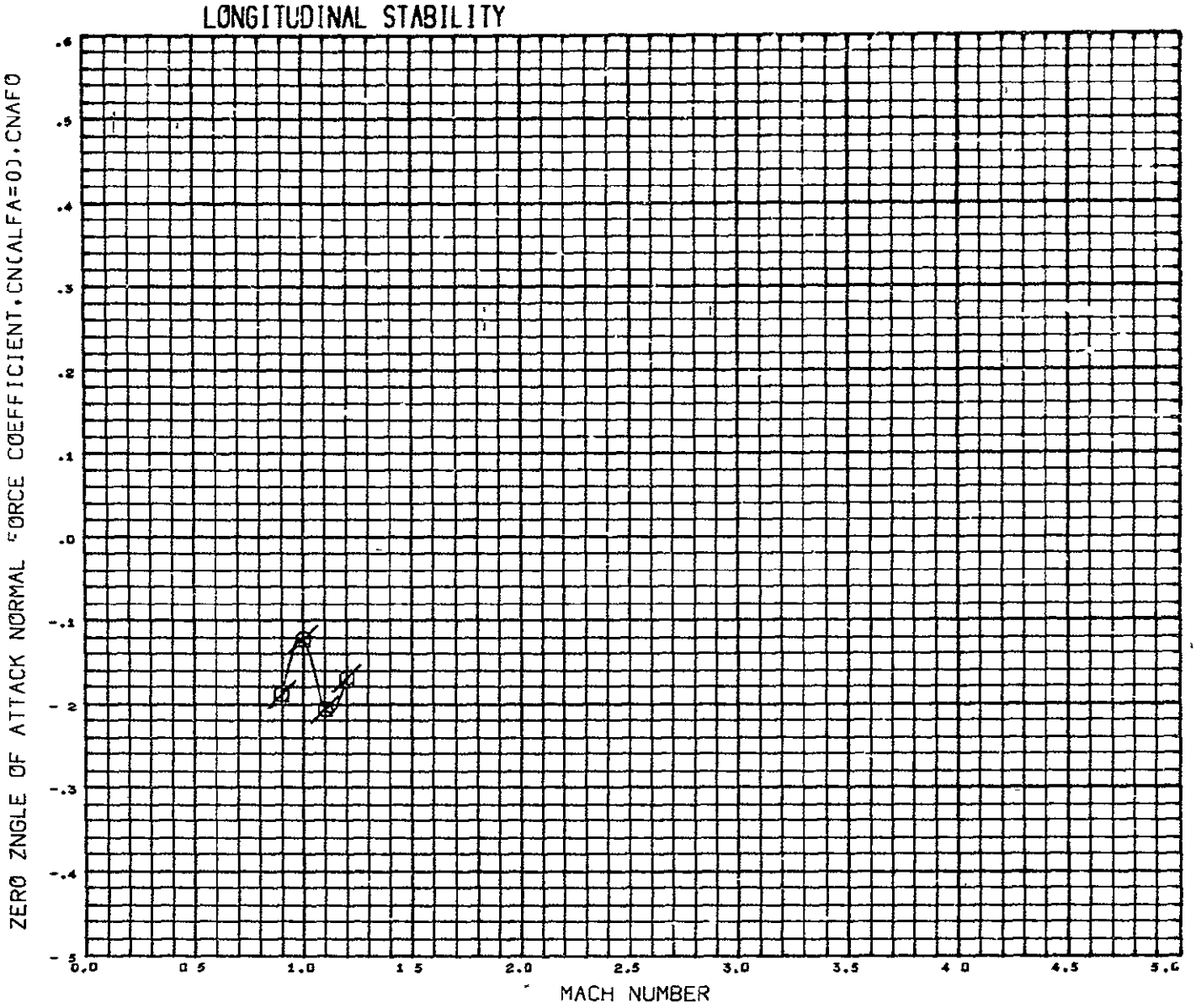
PARAMETRIC VALUES

BETA 0 000 ORBINC - 4 000

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	



PARAMETRIC VALUES

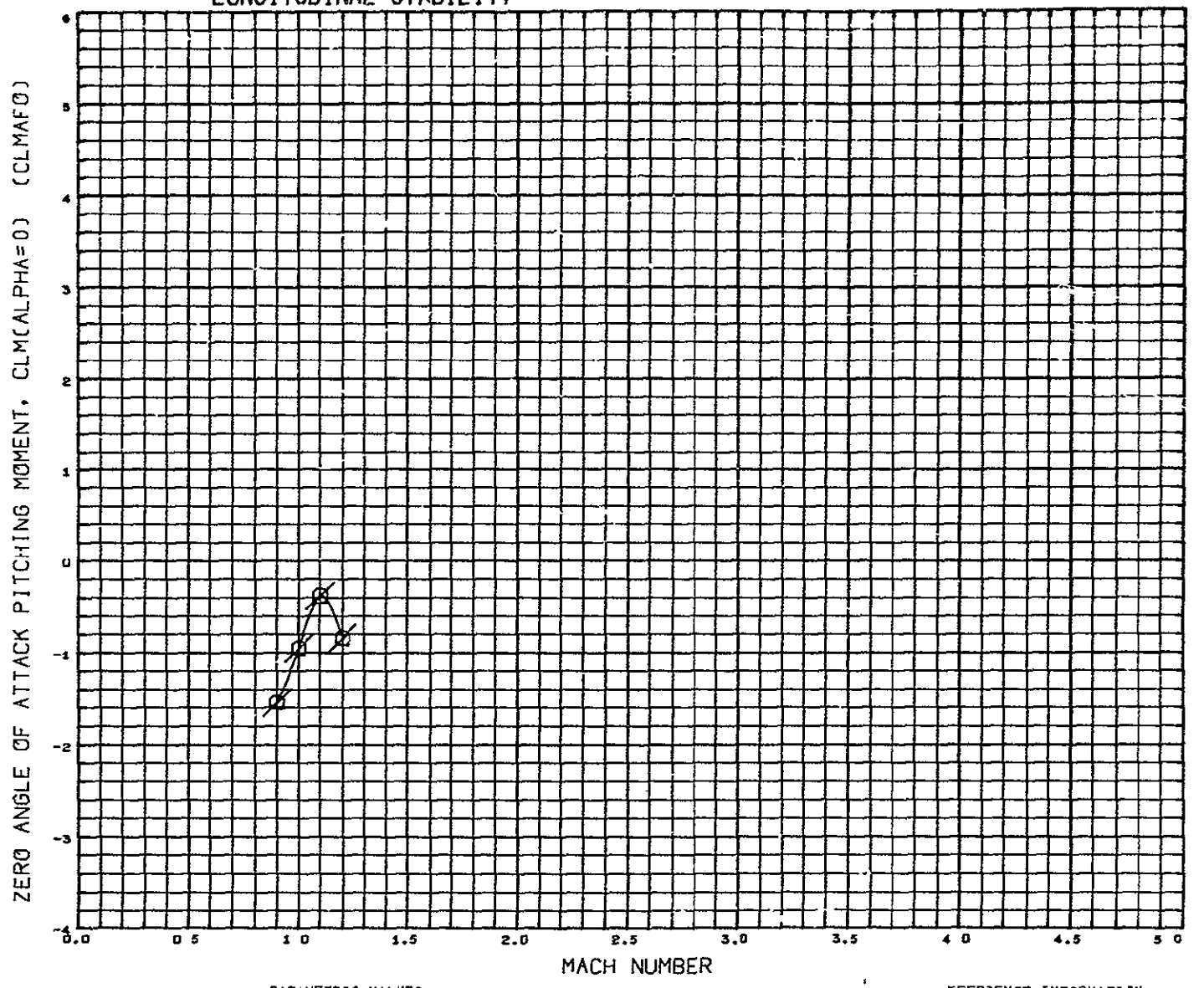
BETA 0.000 ORBINC - 4.000

DATA HIST CODE M#EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

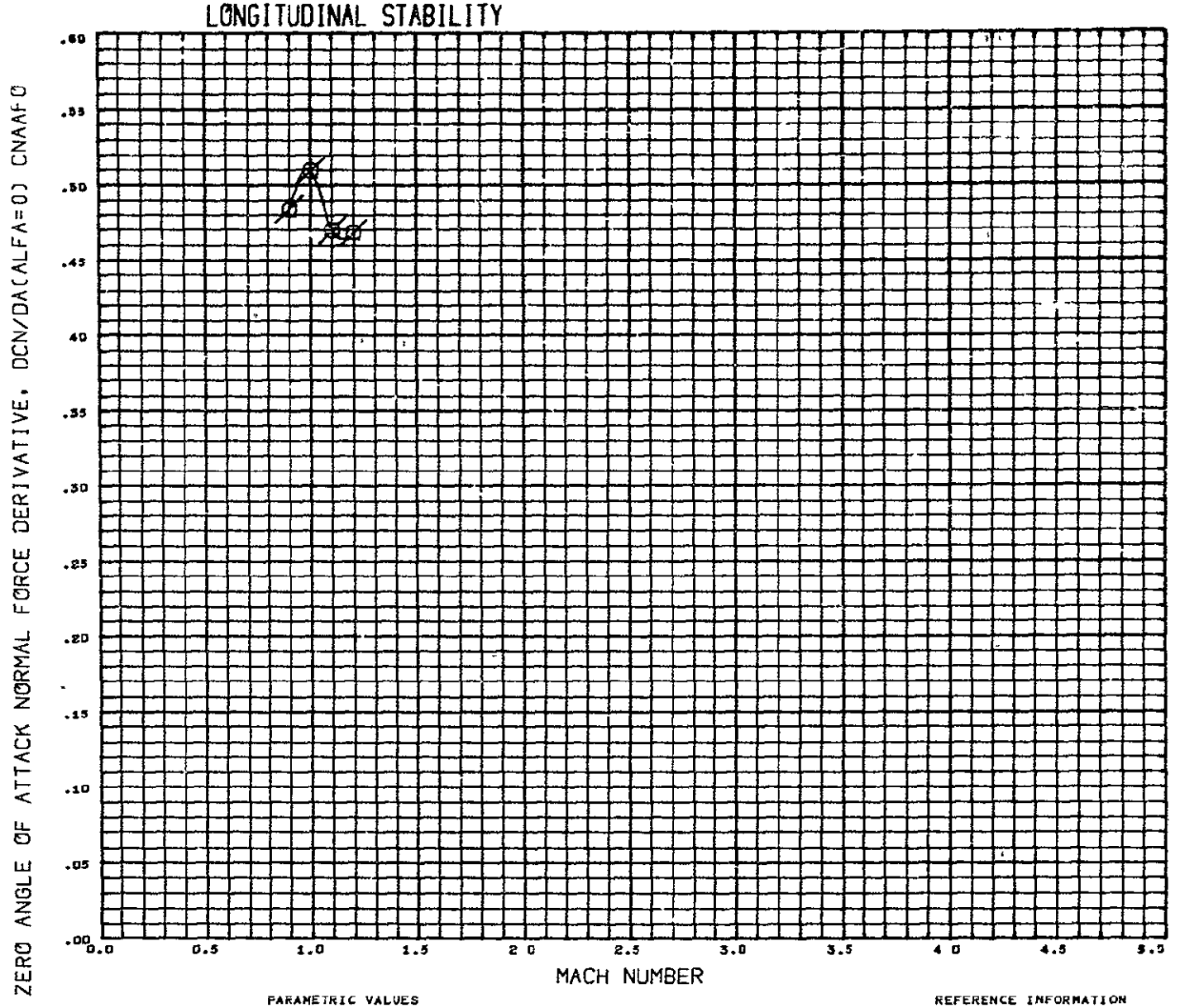
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



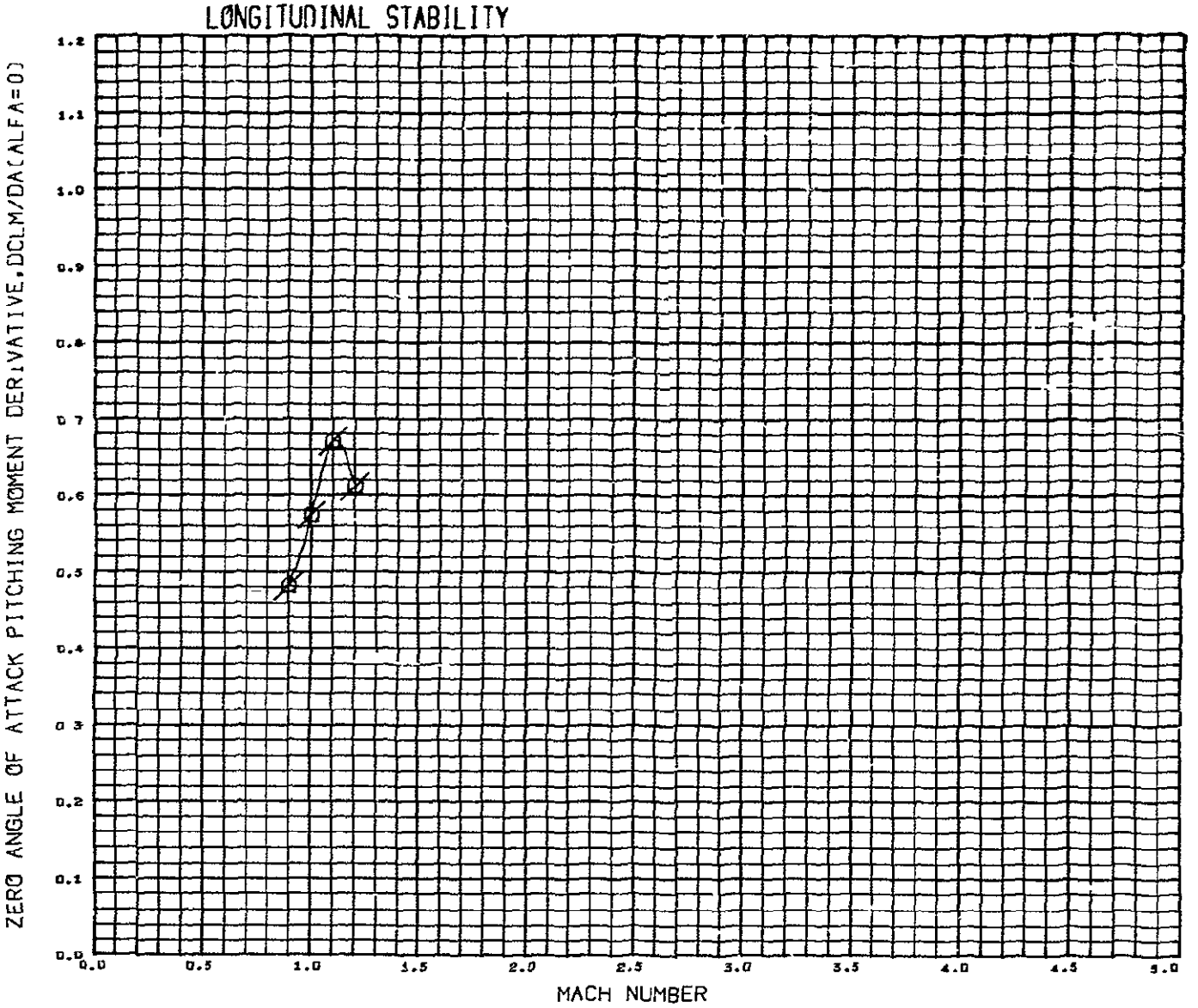
PARAMETRIC VALUES

BETA 0 000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



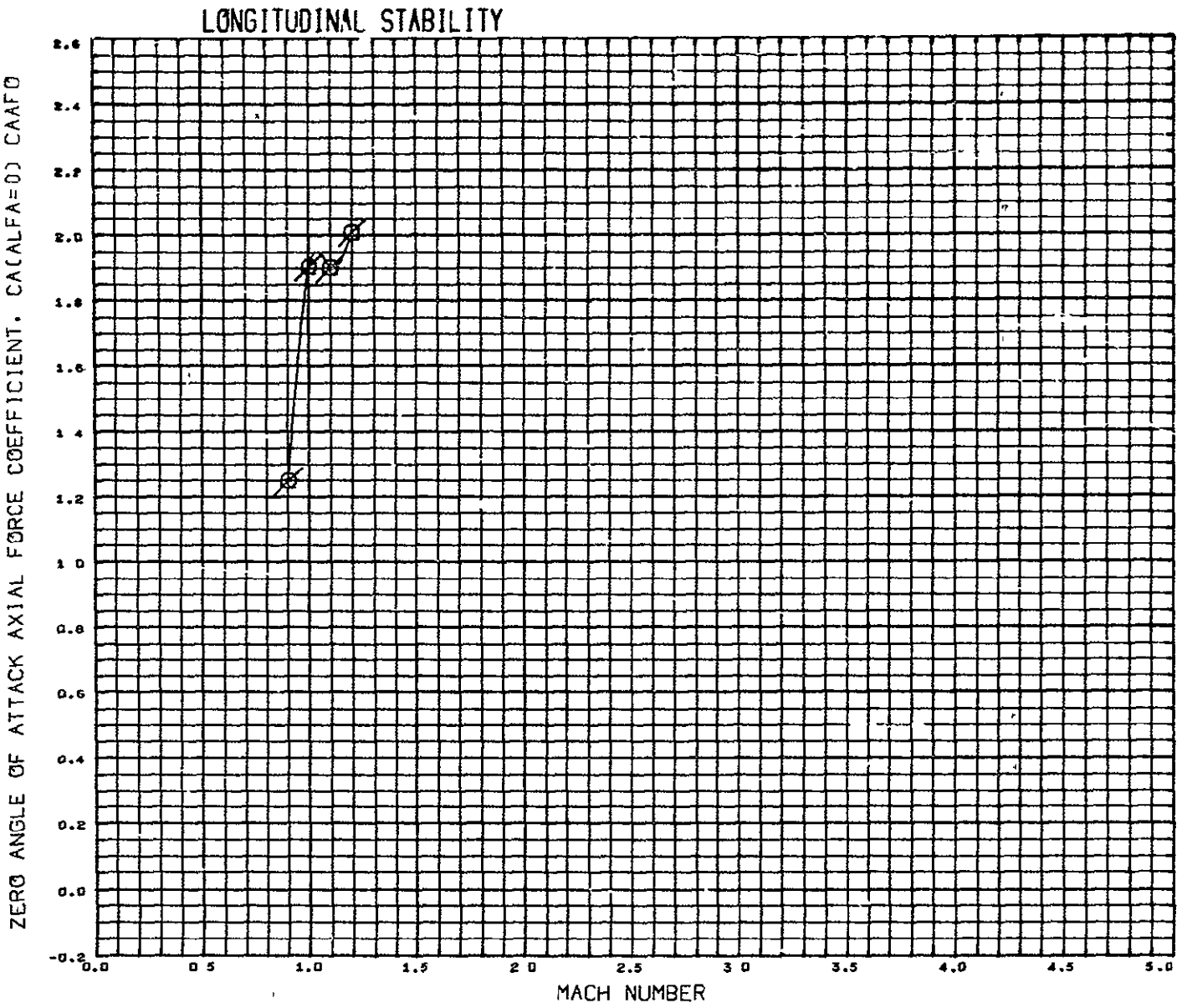
PARAMETRIC VALUES

BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0030	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE N*EIF



PARAMETRIC VALUES

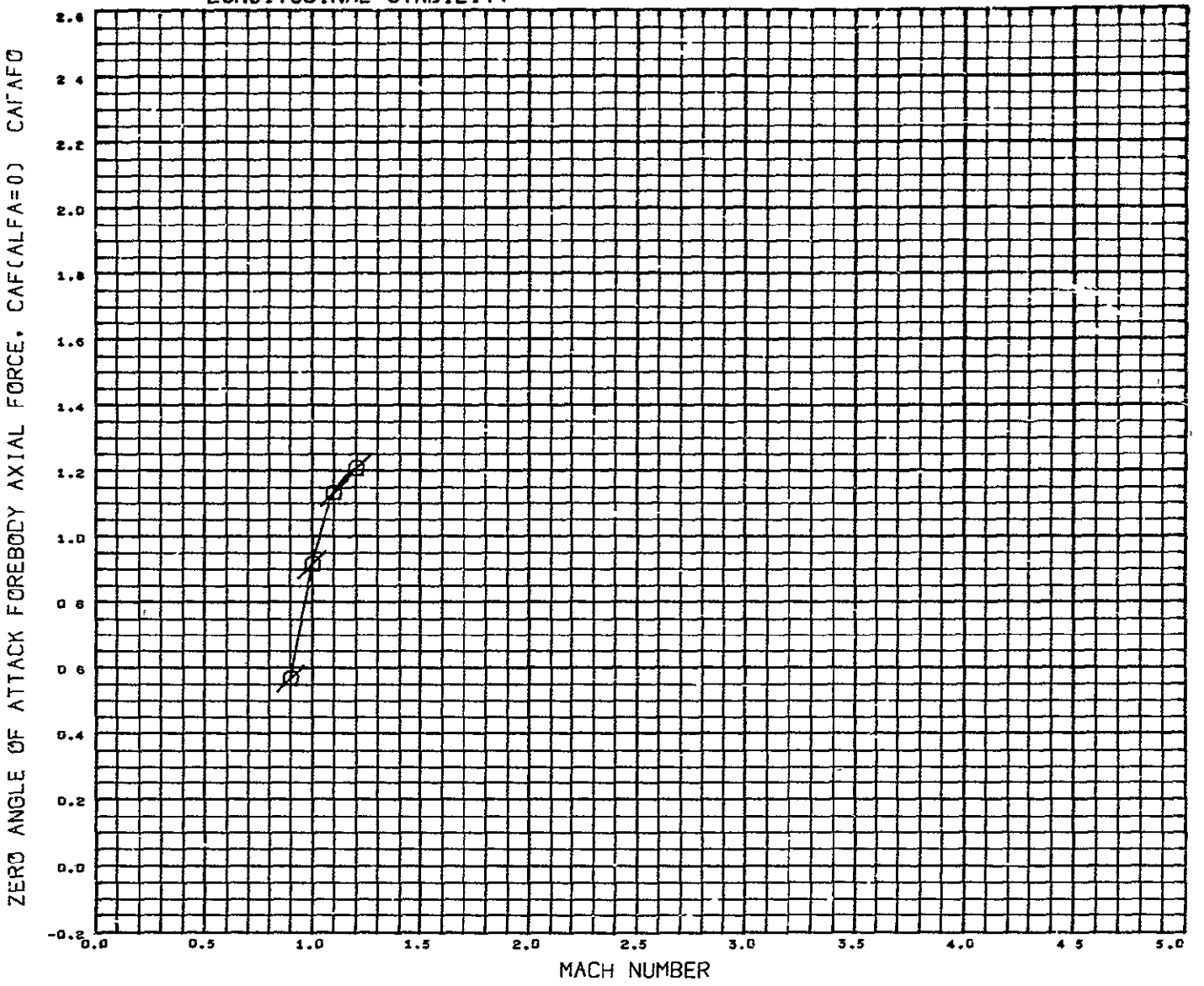
BETA 0.000 ORBINC - 4.000

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

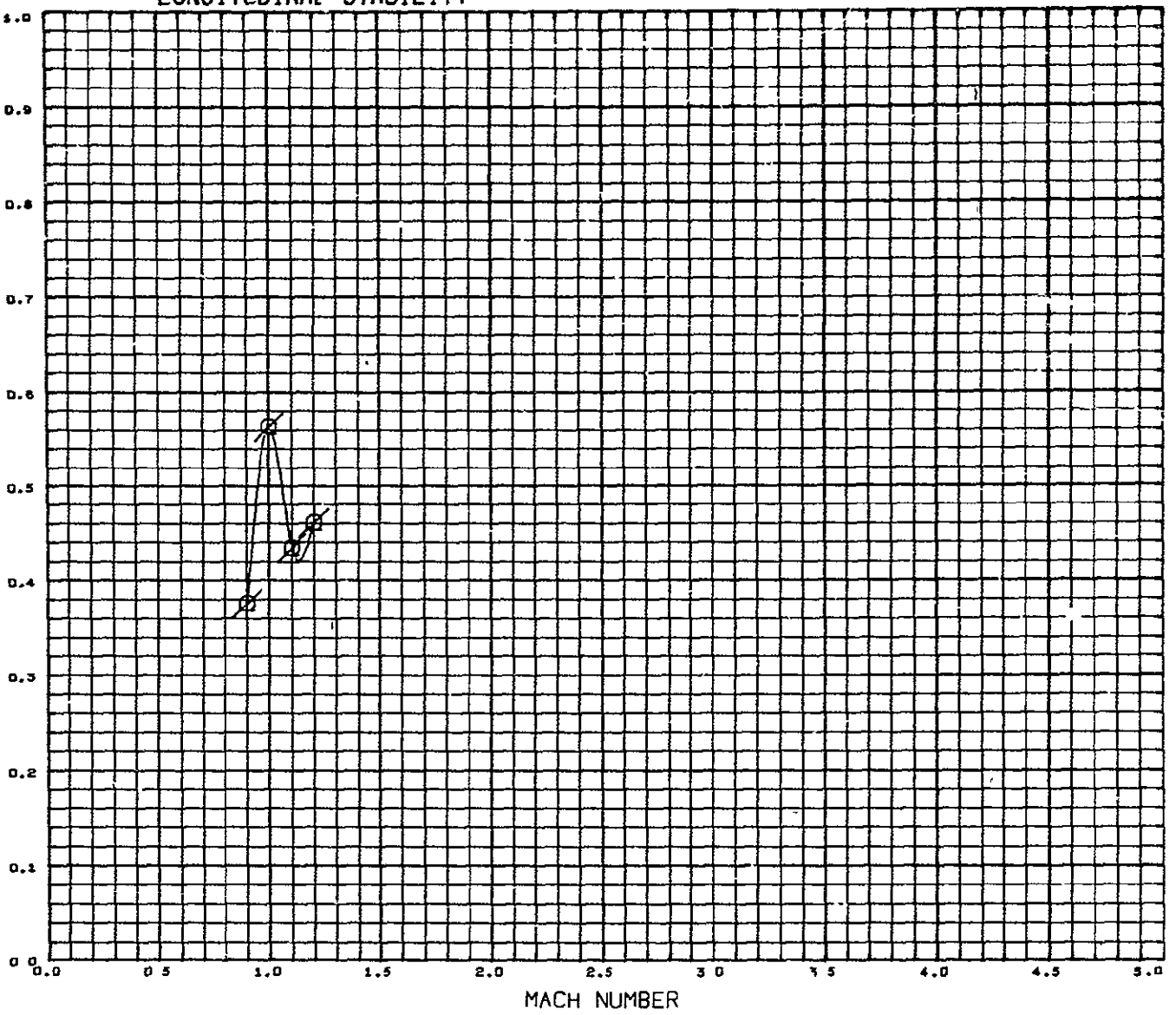
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

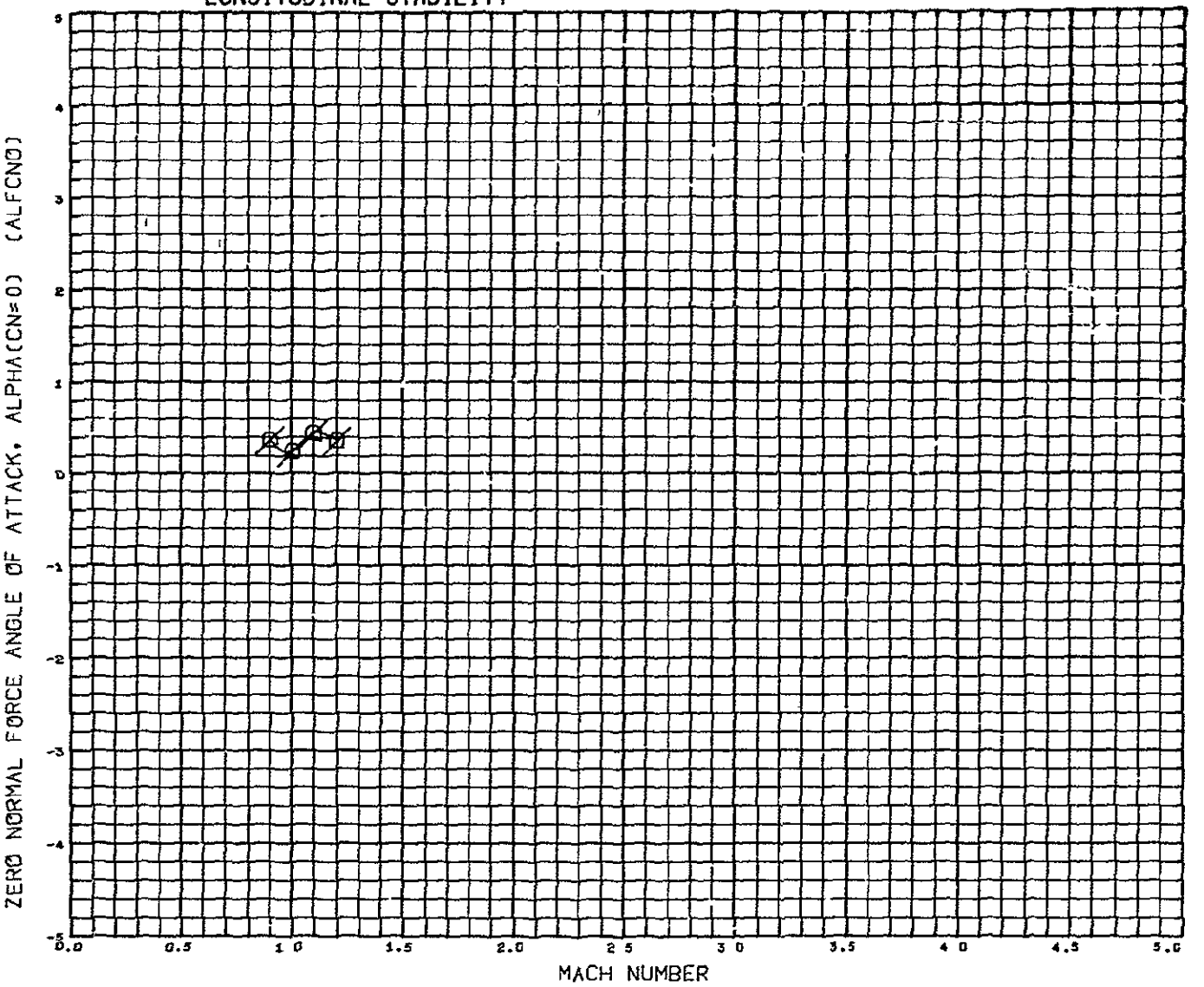
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

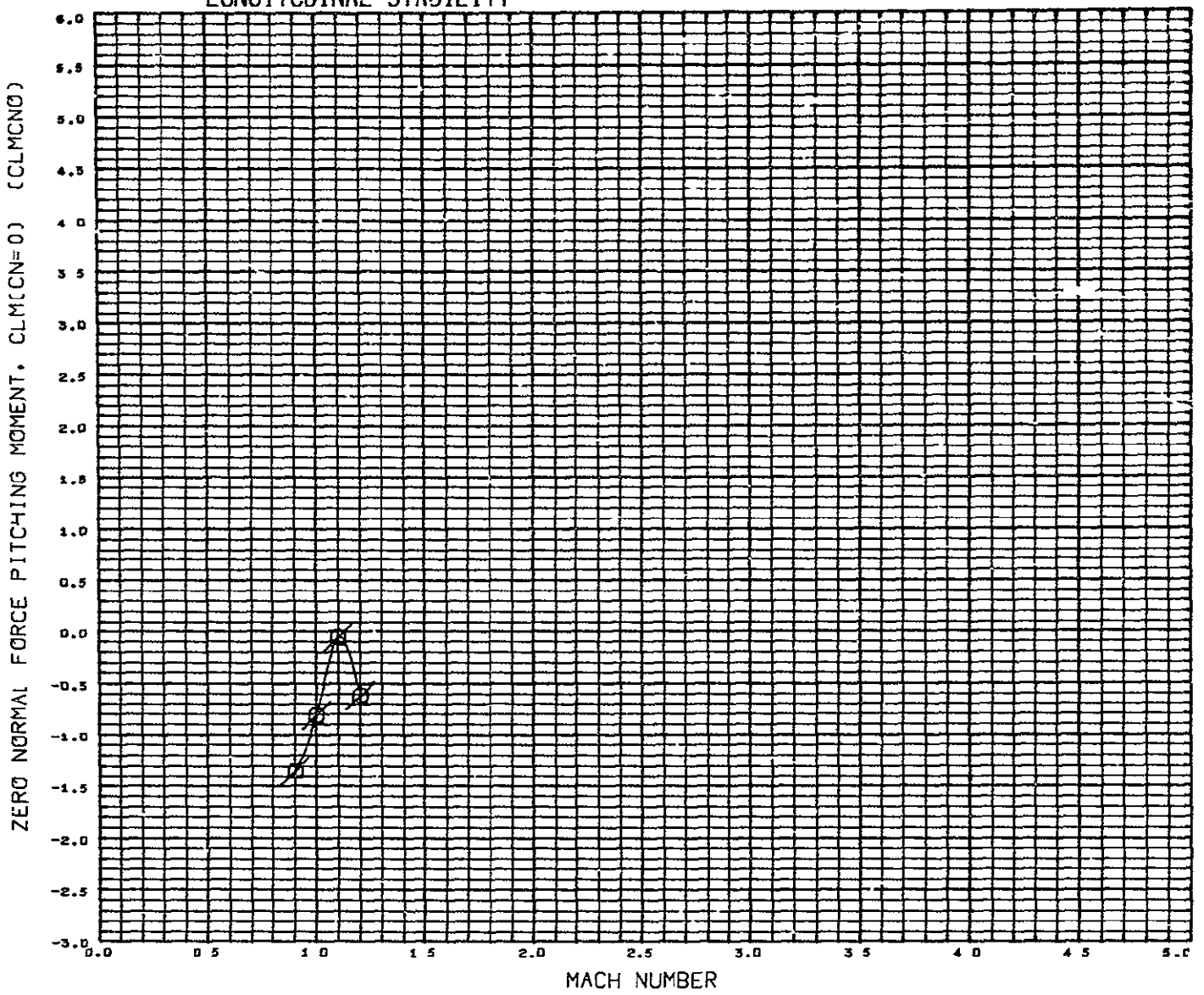
BETA 0.000 ORBINC - 4.000

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3950	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

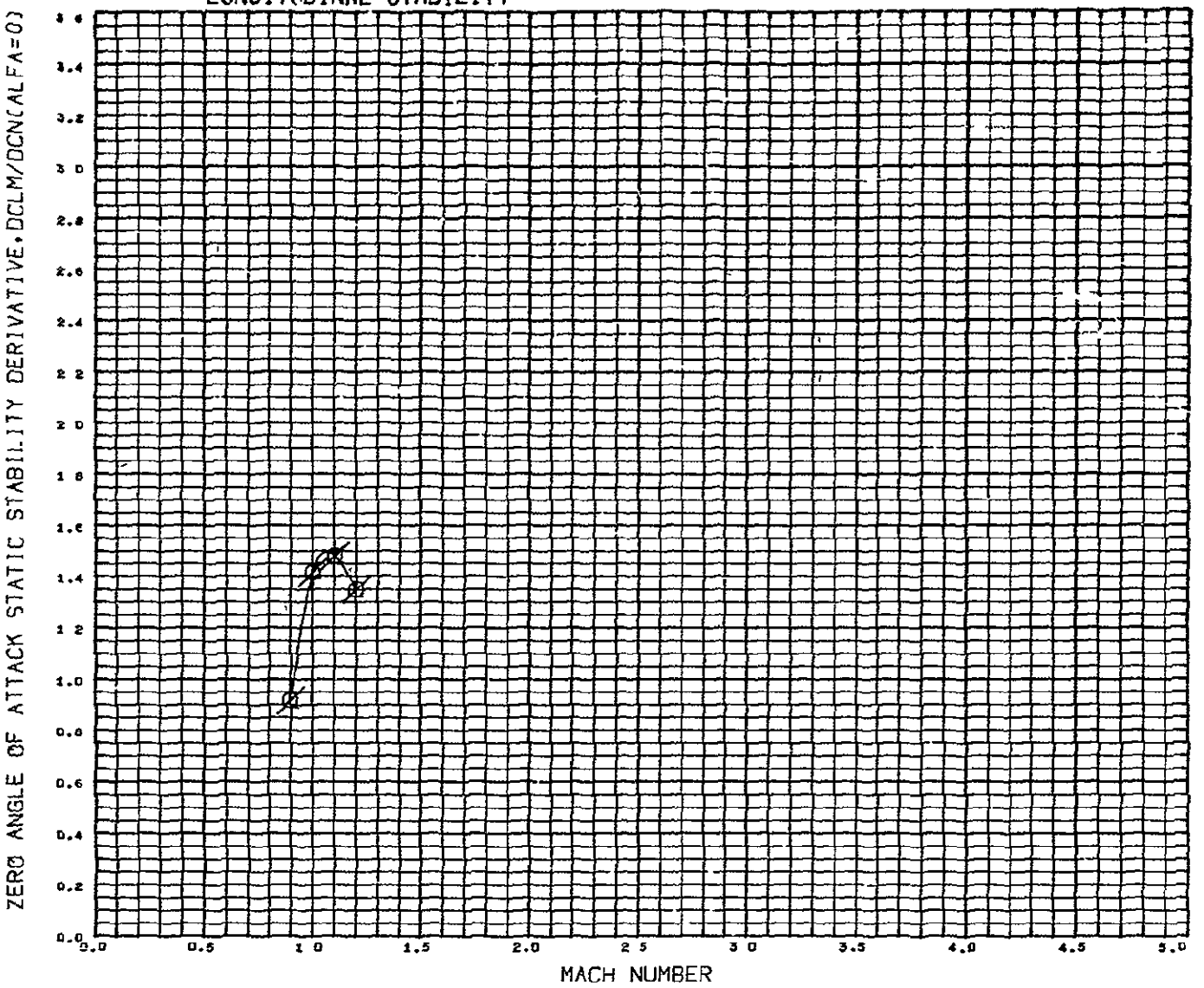
BETA 0.000 ORBINC - 4.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



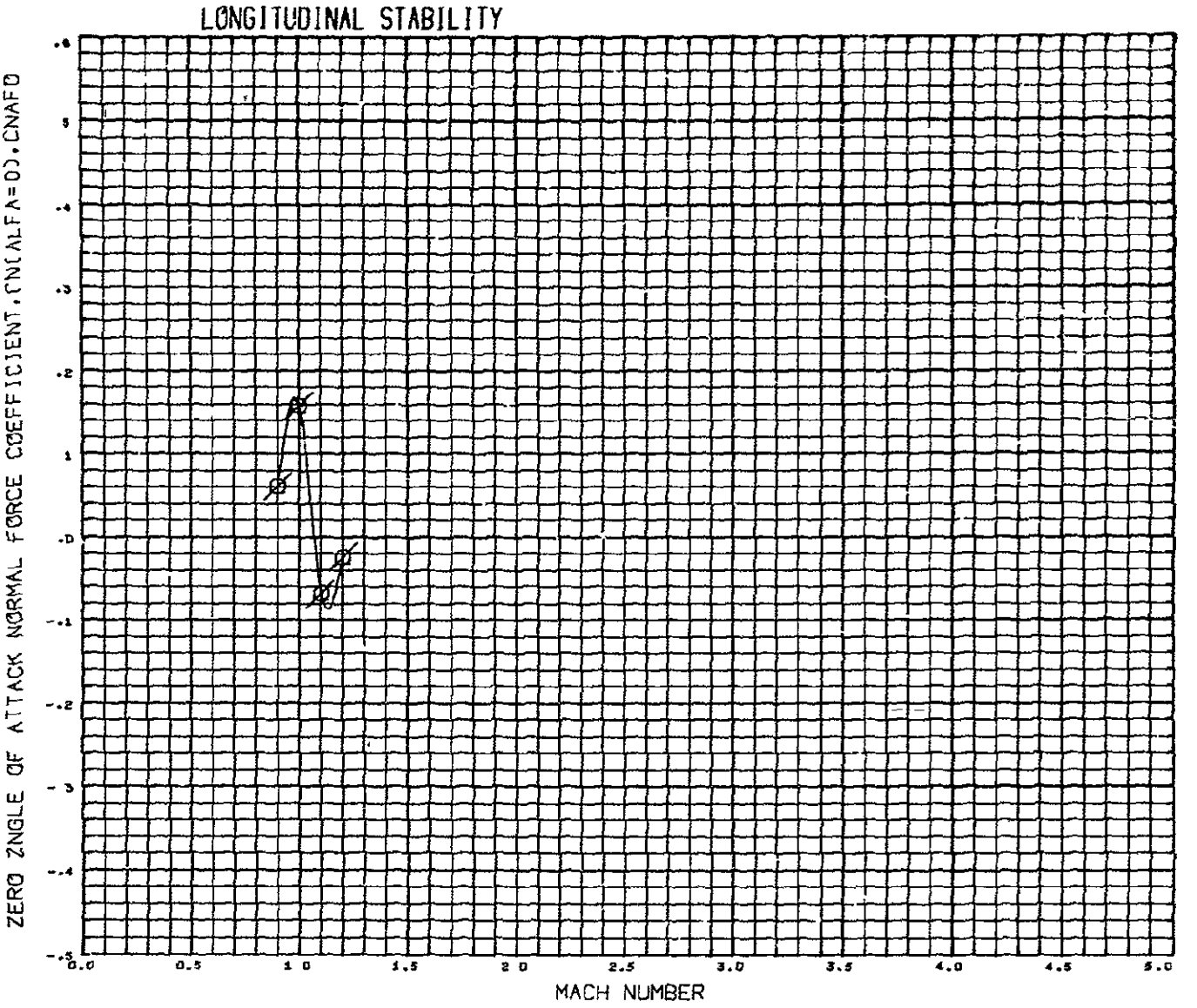
PARAMETRIC VALUES

BETA 0.000 ORBINC = 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0650	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

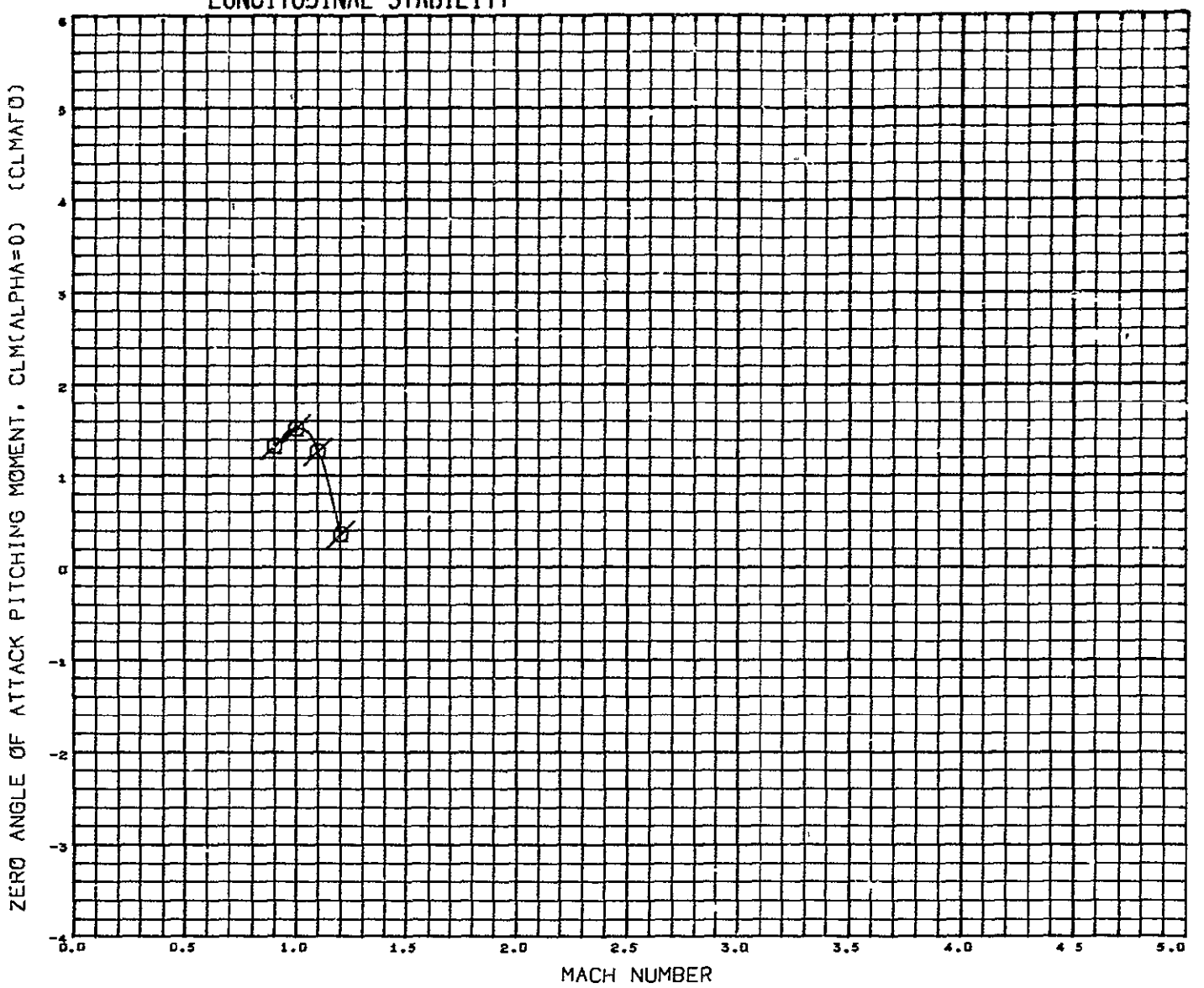
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE NWEIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

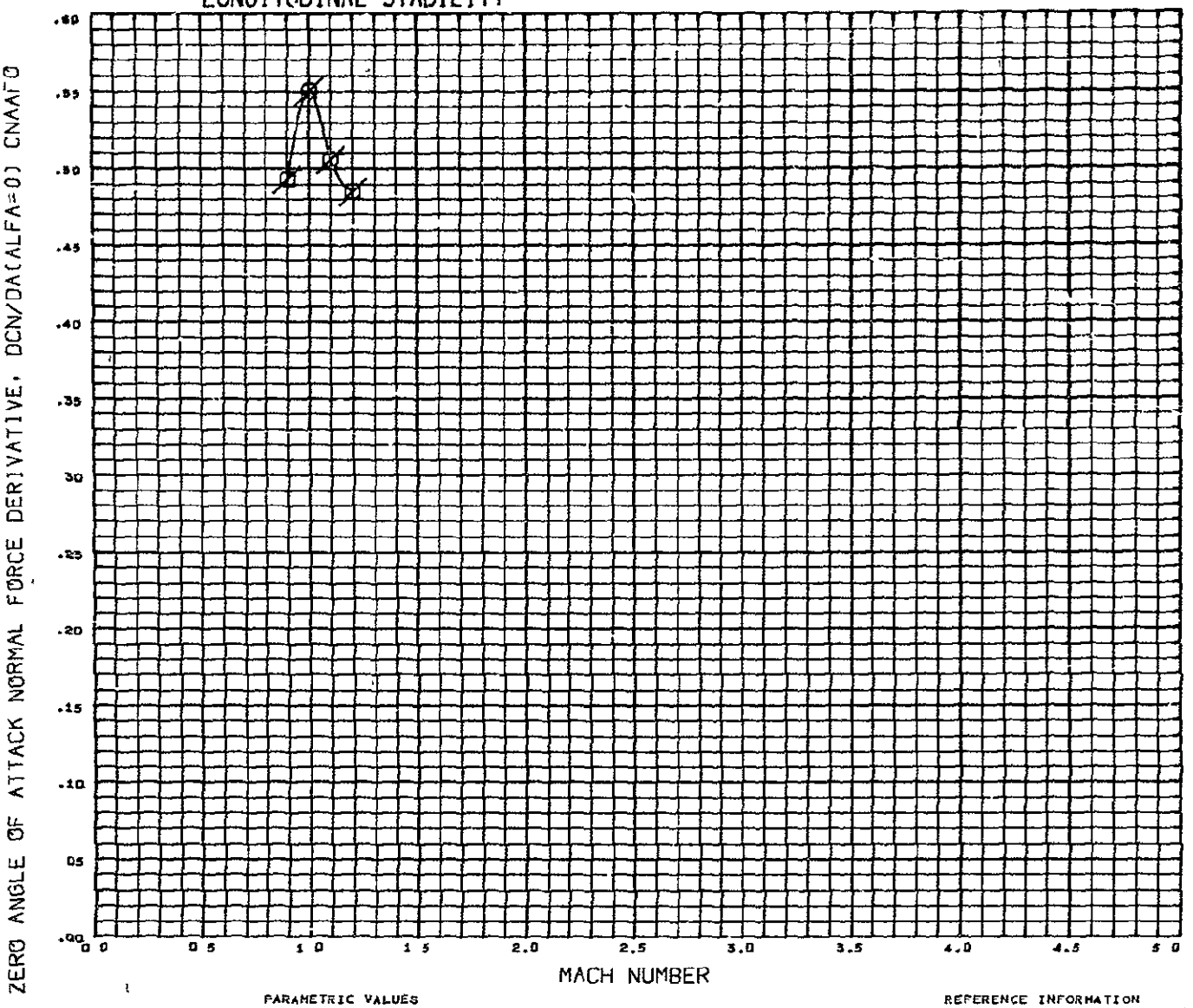
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



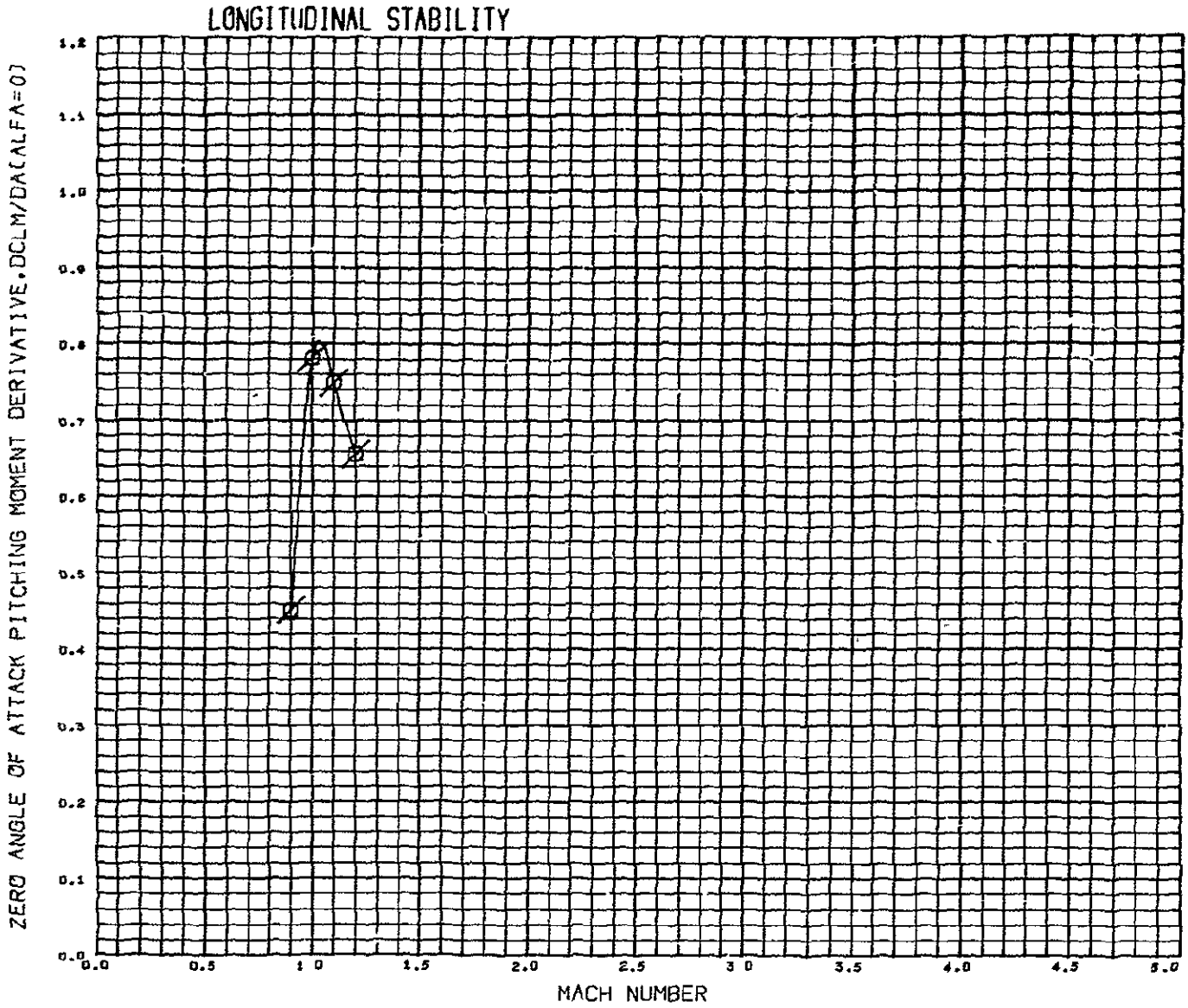
PARAMETRIC VALUES

BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ.IN.
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	5.6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE M*E1F



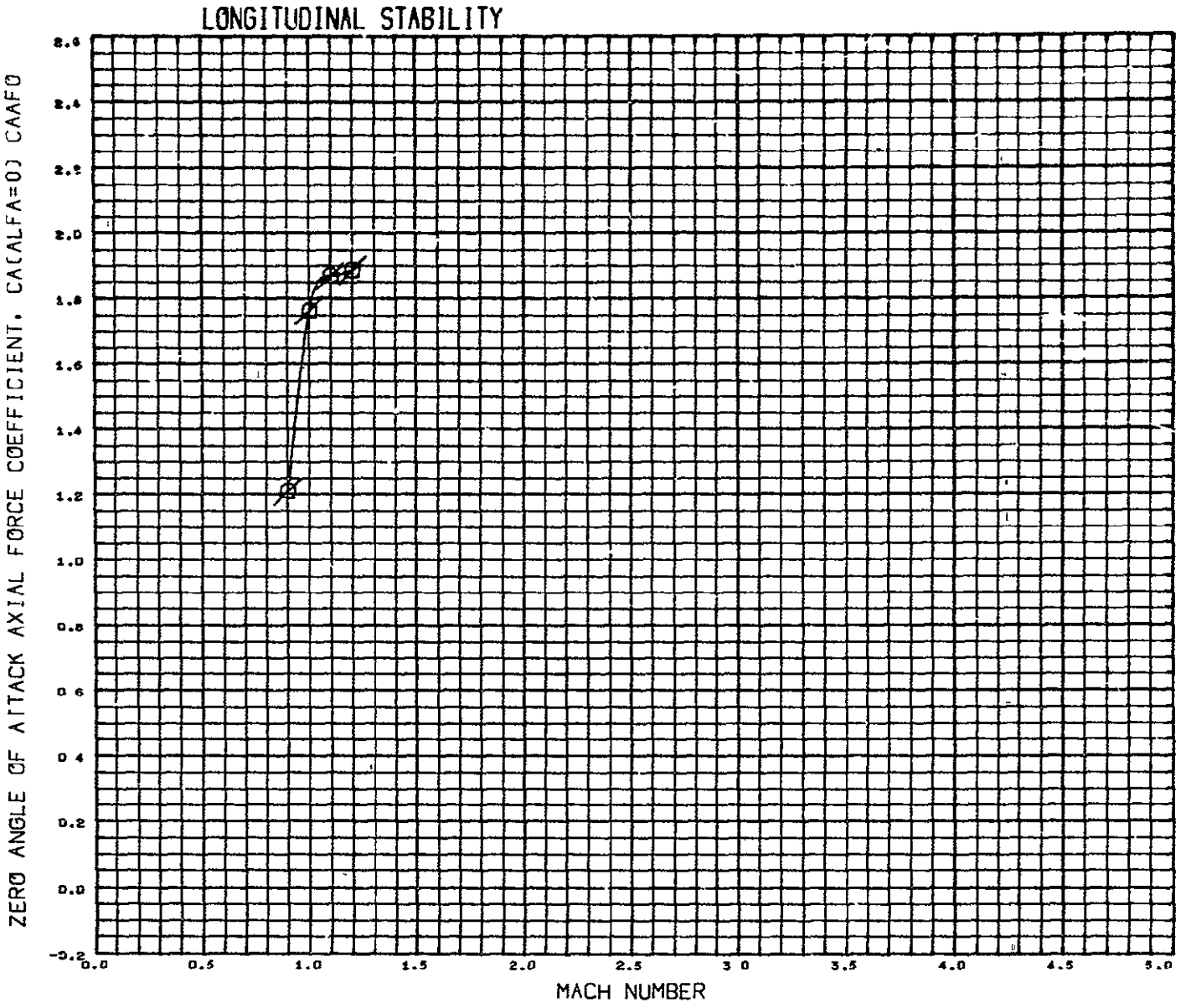
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0054	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

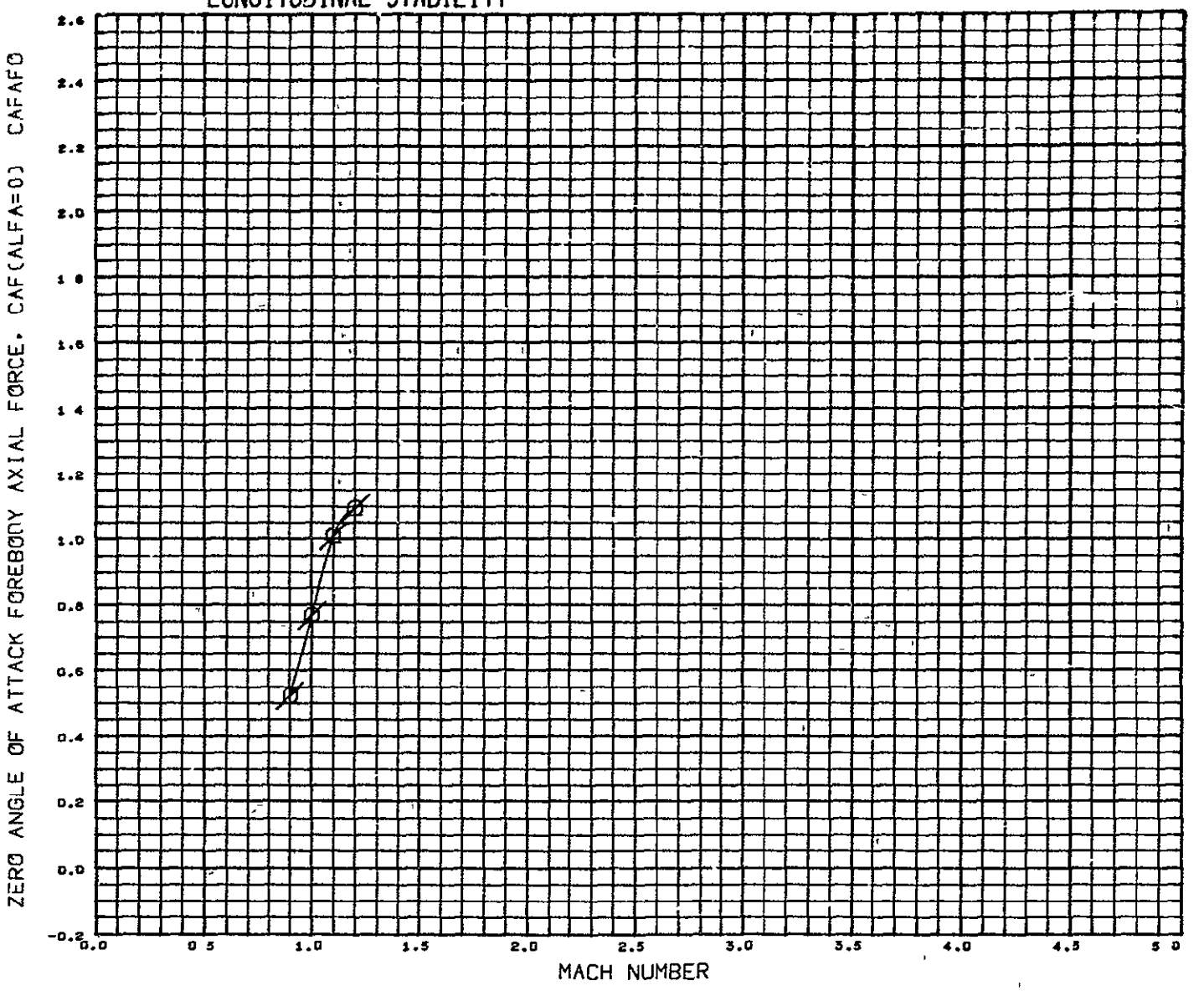
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*E1F

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

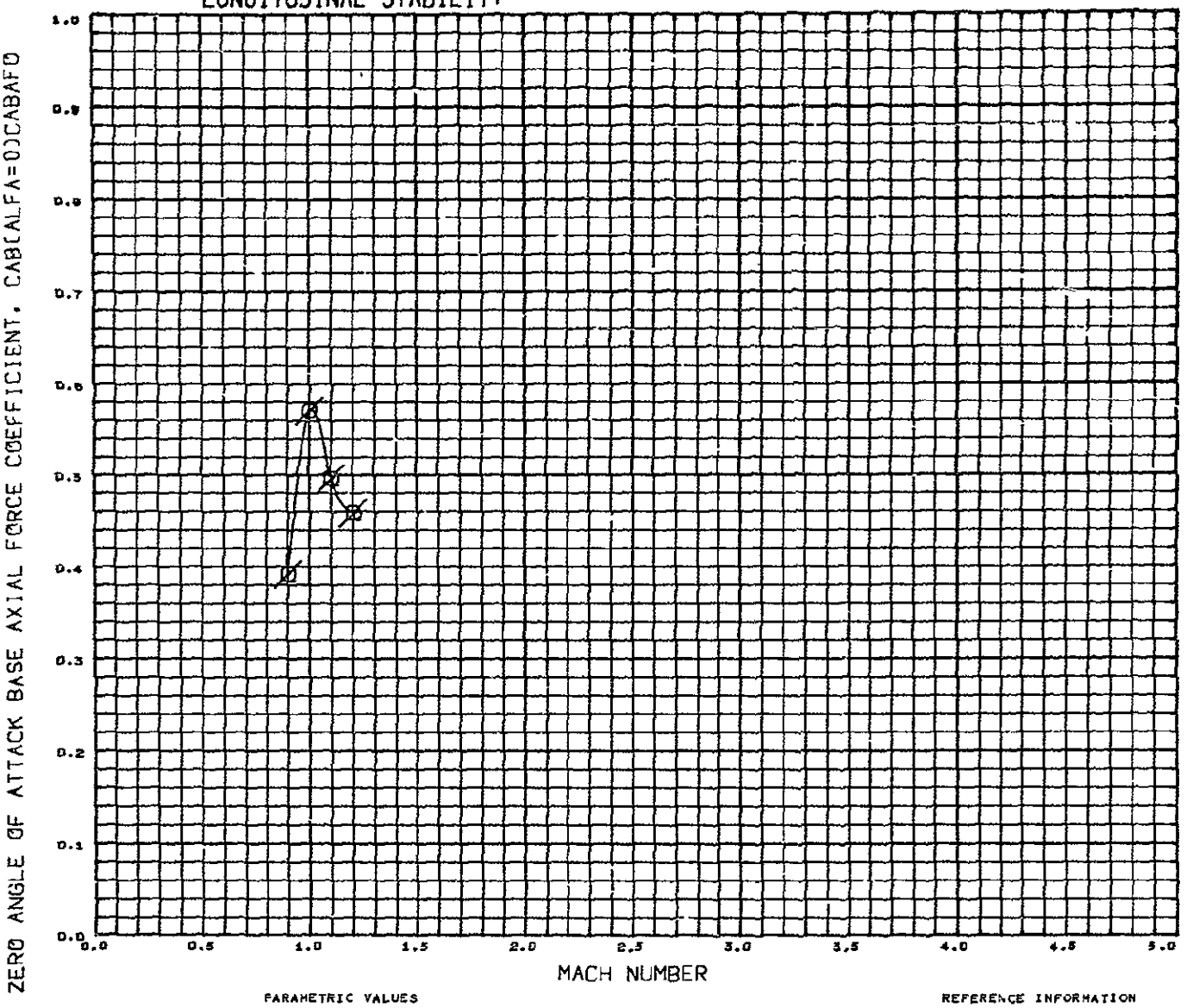
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

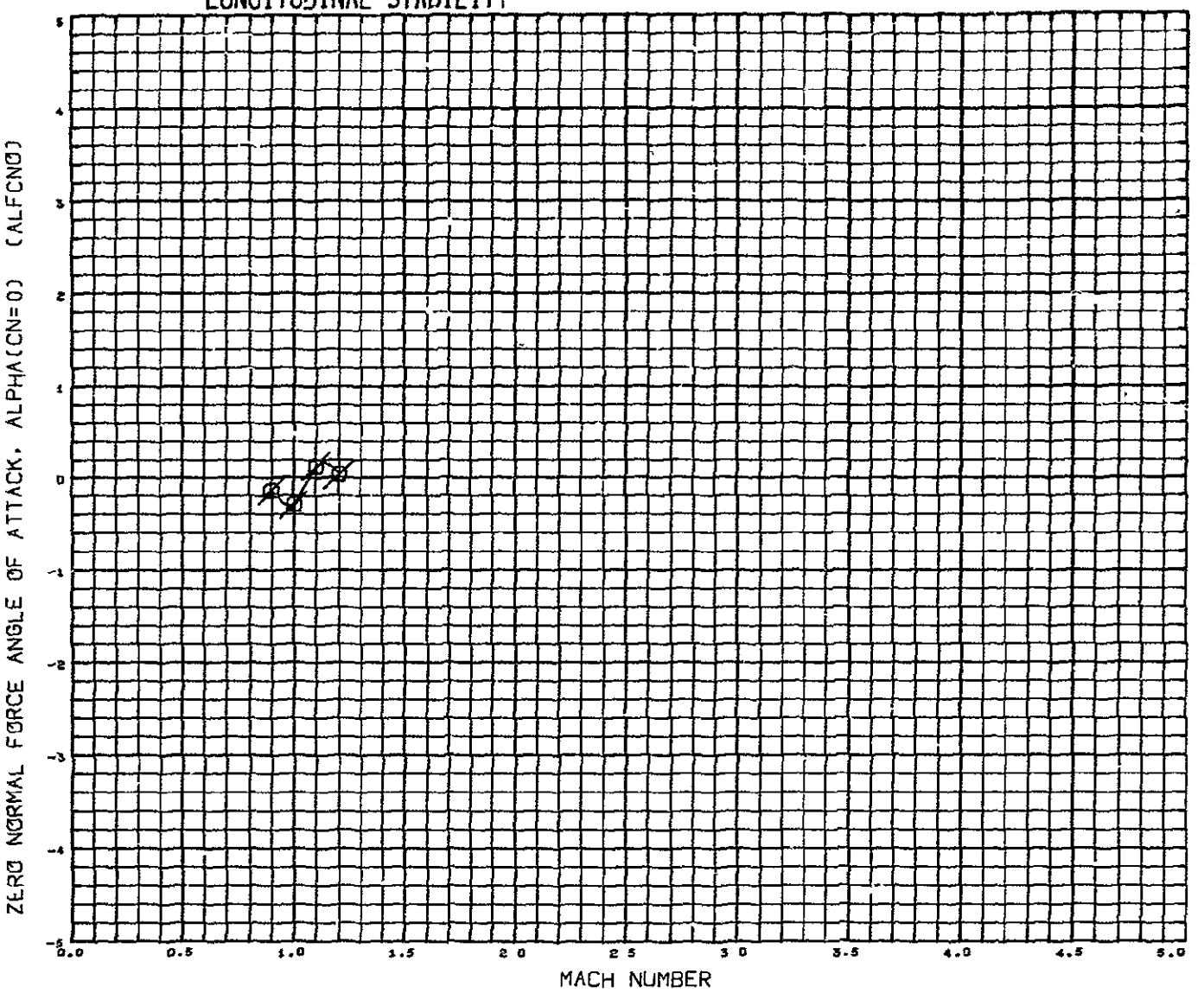
BETA 0 000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

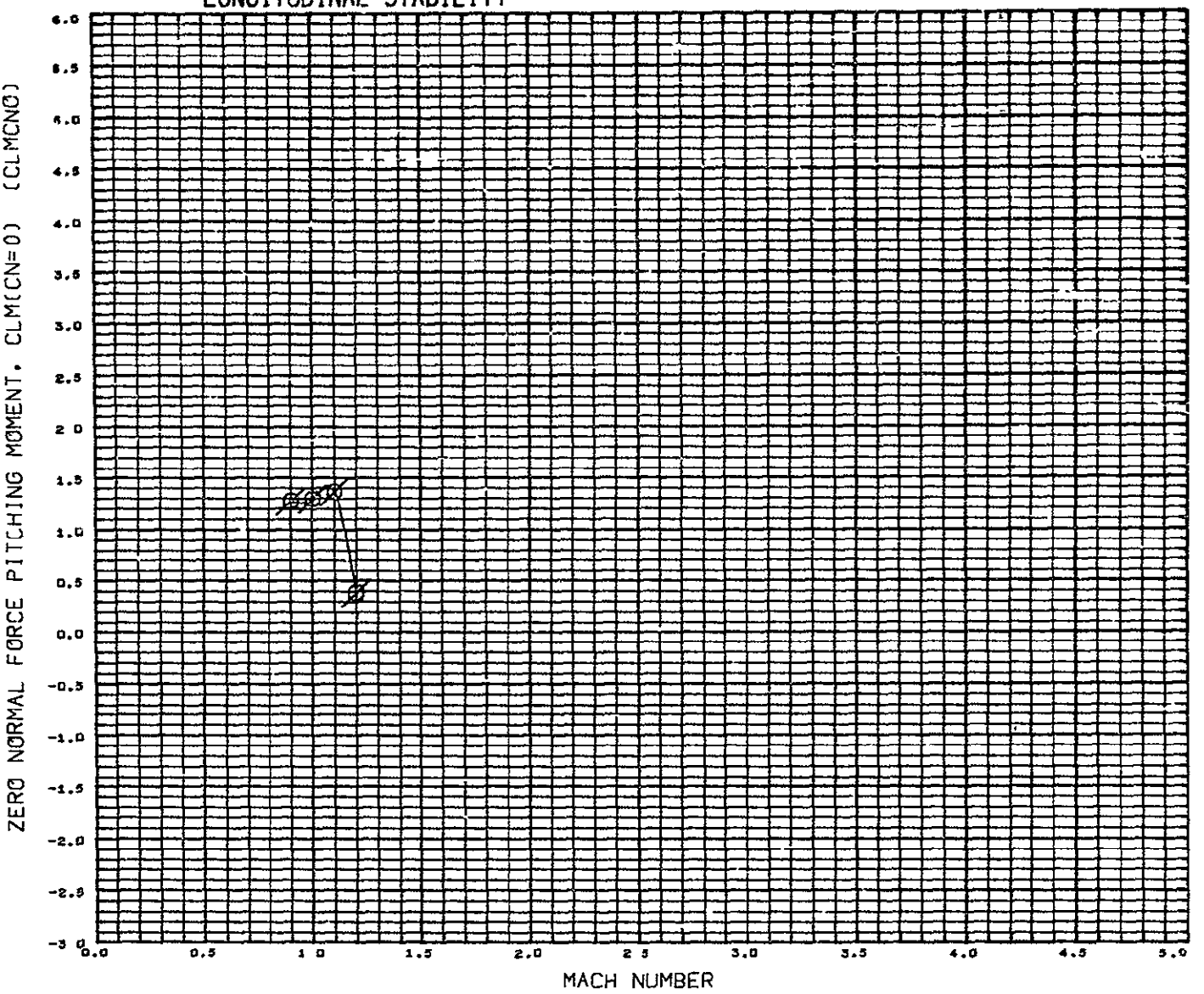
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M=EIF

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

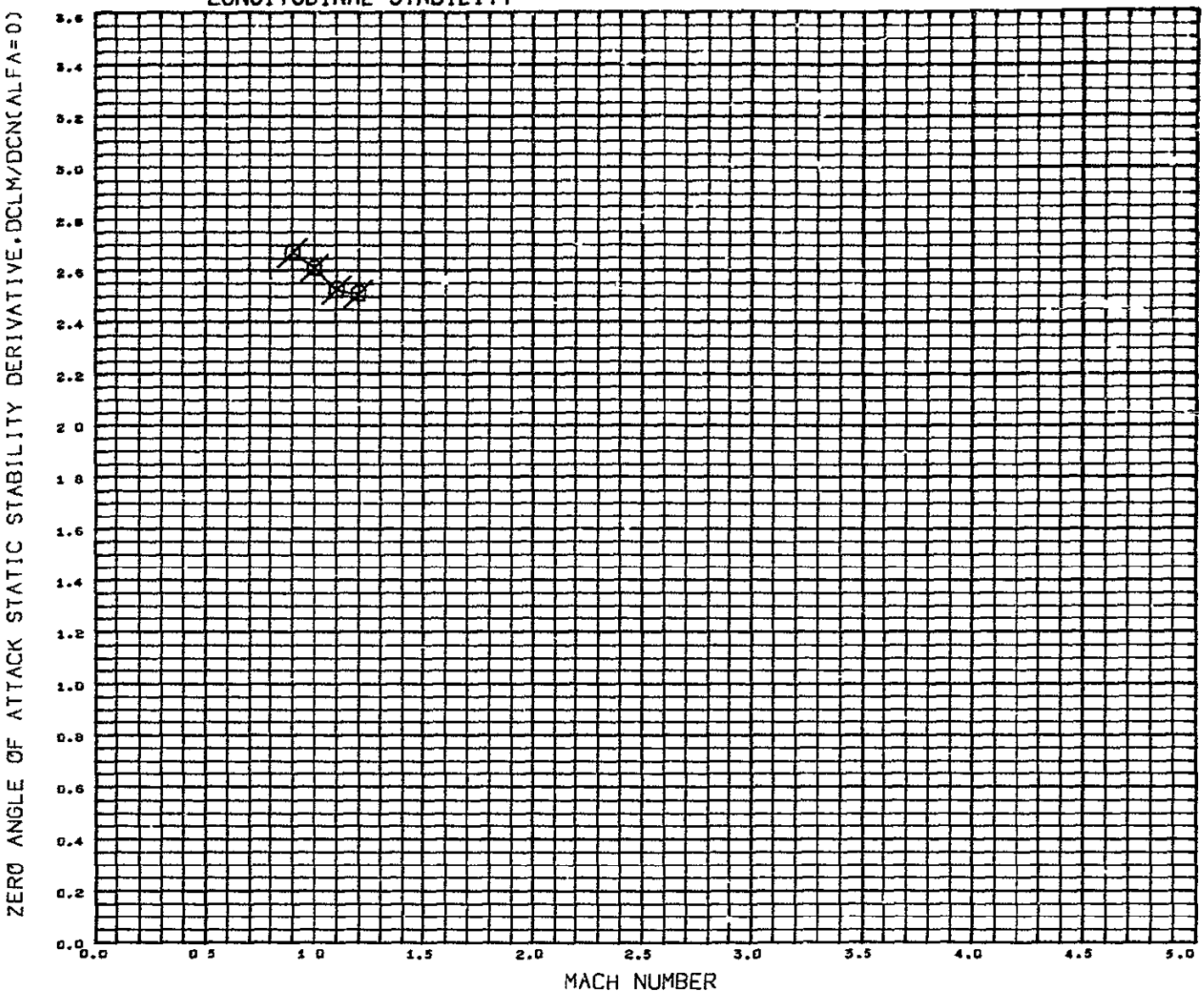
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



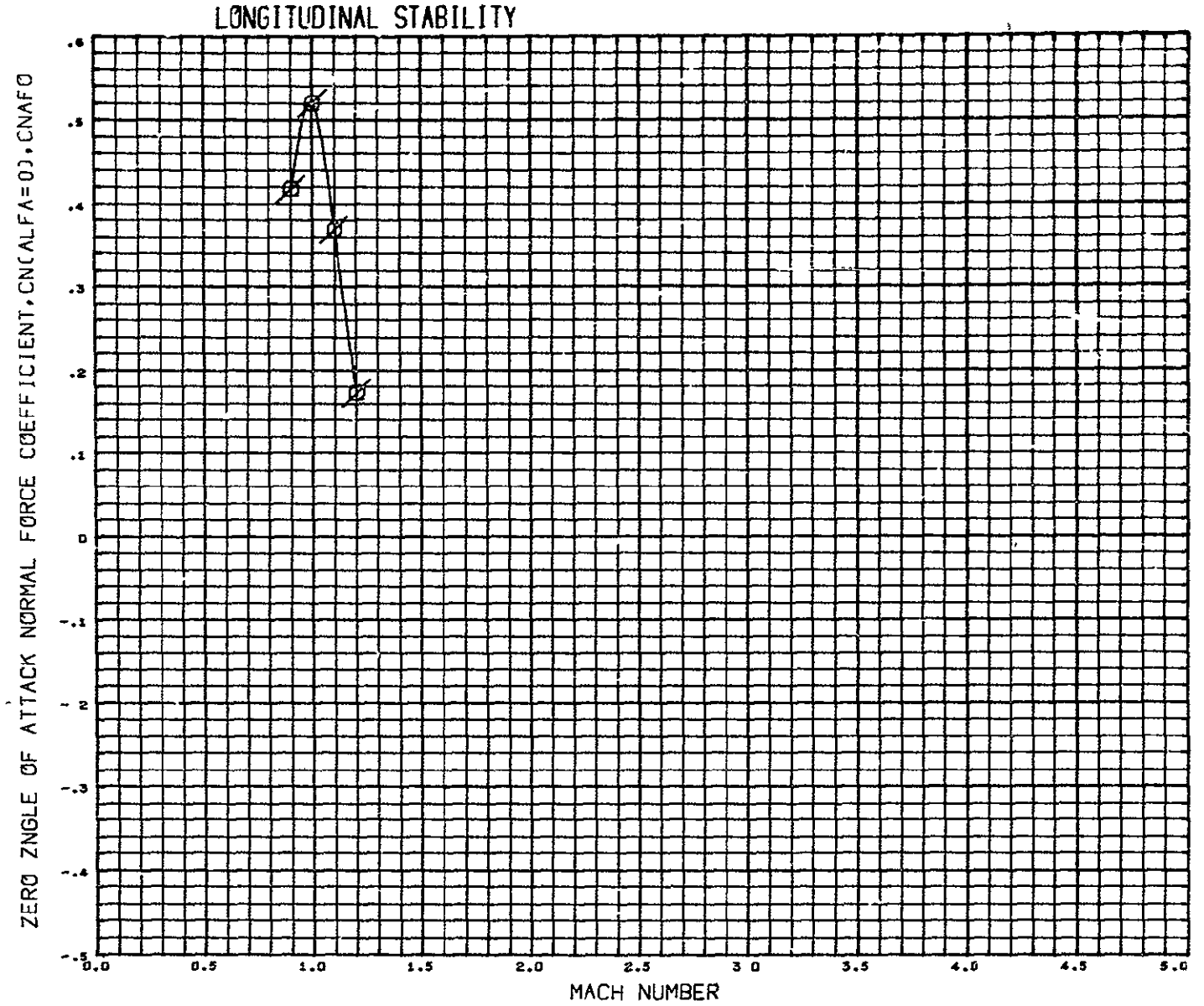
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



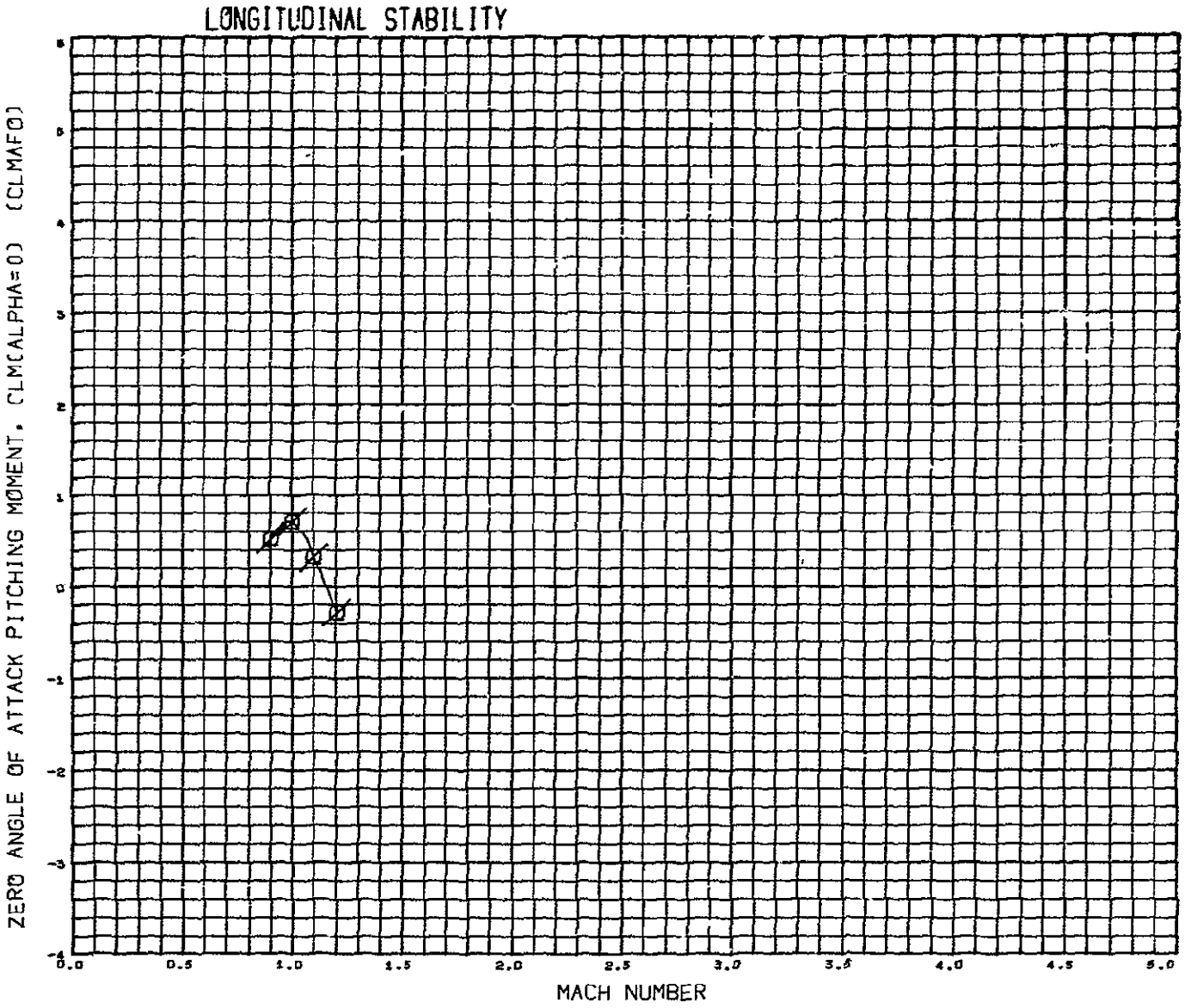
PARAMETRIC VALUES

BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M#EIF



PARAMETRIC VALUES

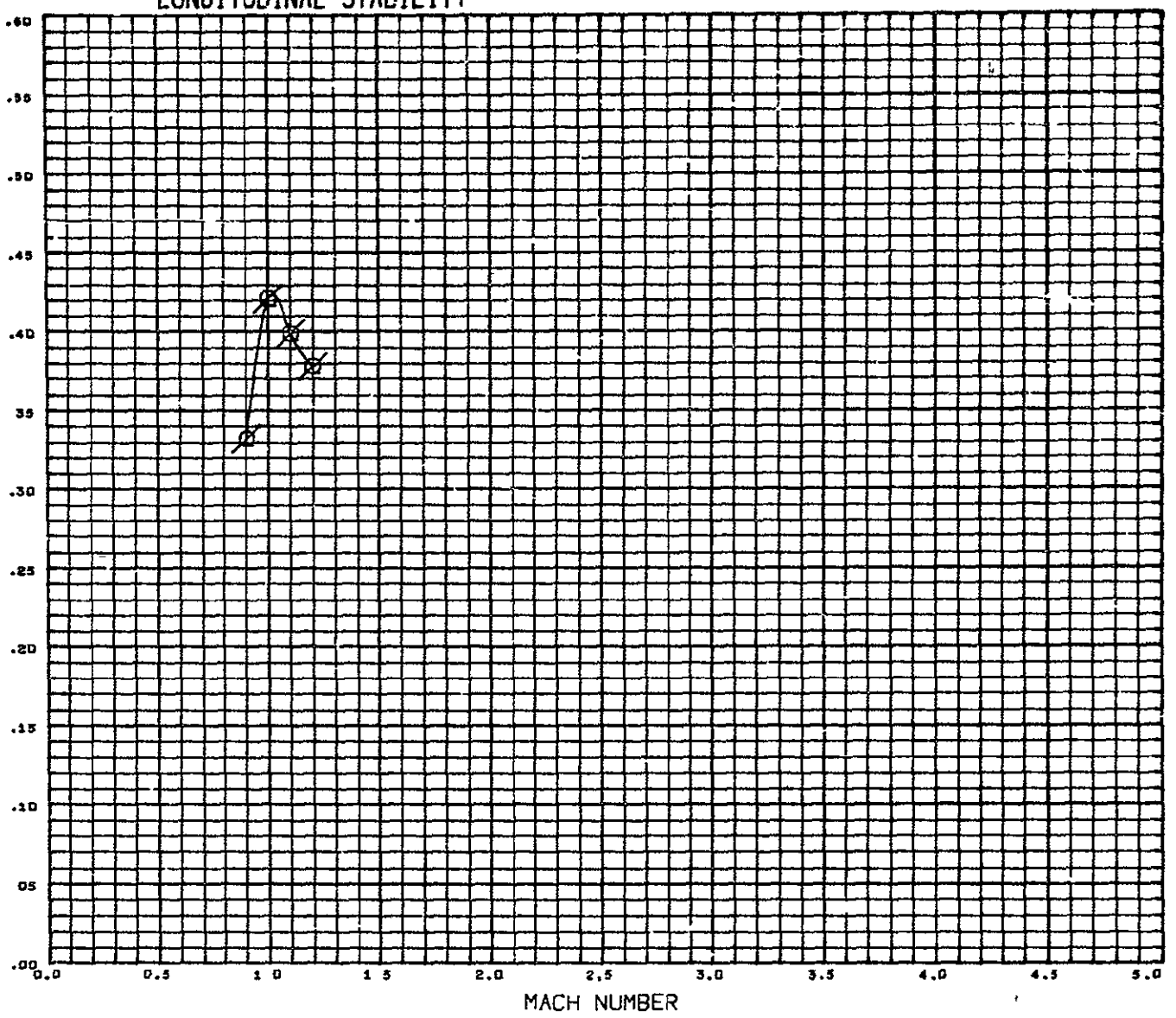
BETA 0.000 ORBINC ~ 3 100

DATA HIST. CODE H#EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

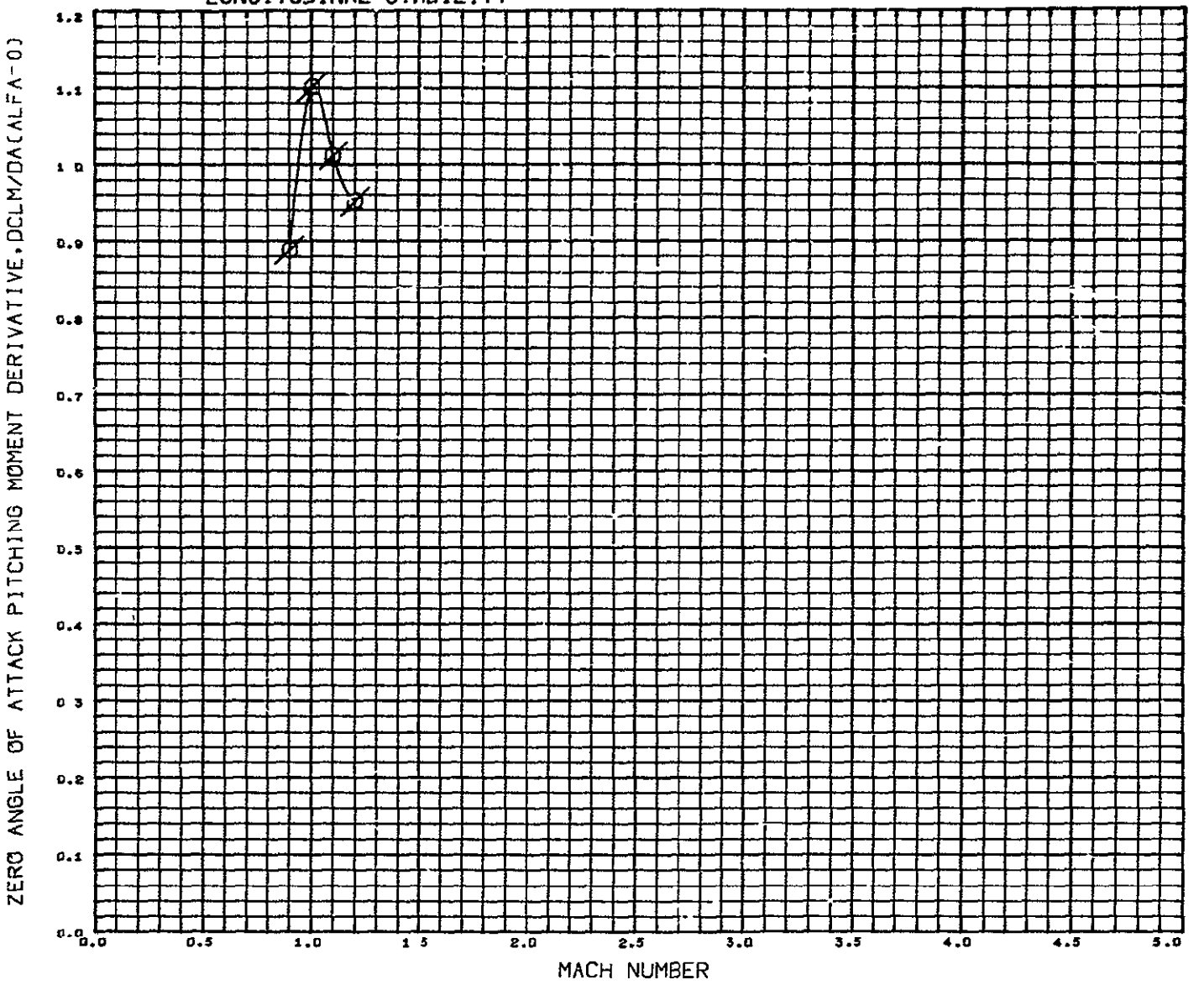
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

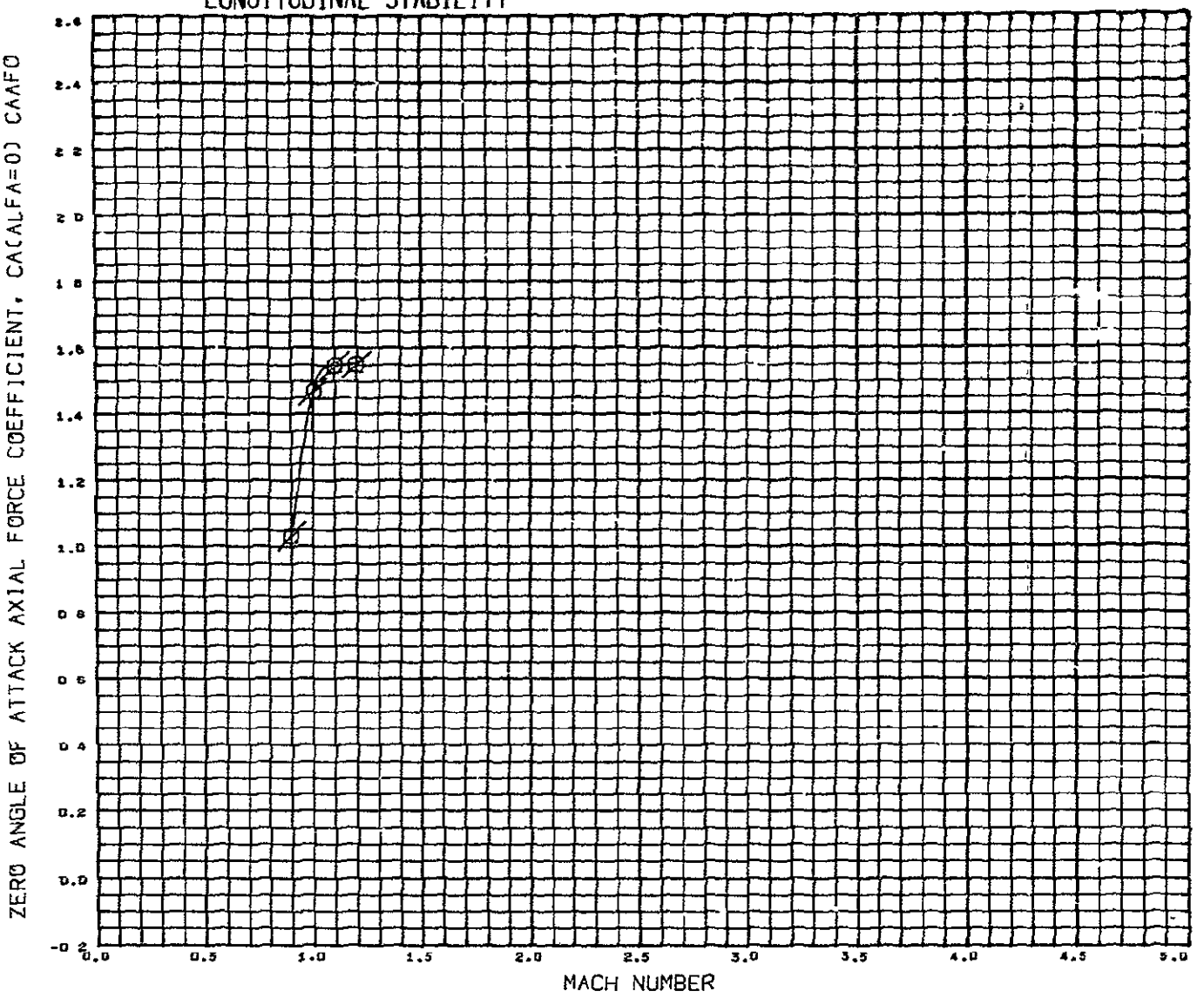
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0060	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

LONGITUDINAL STABILITY



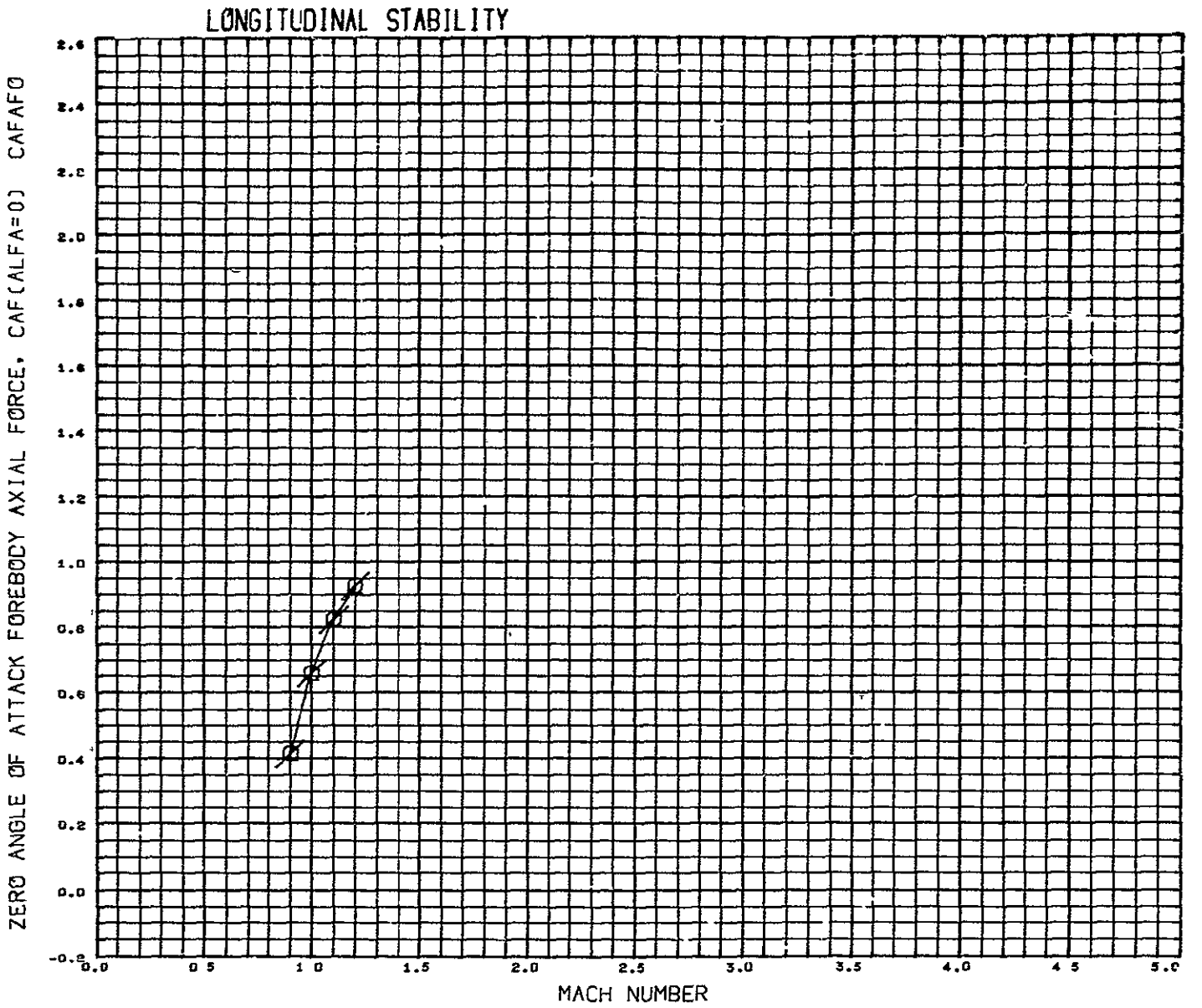
PARAMETRIC VALUES

BETA 0.000 OPBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA NIST CODE M*EIF



PARAMETRIC VALUES

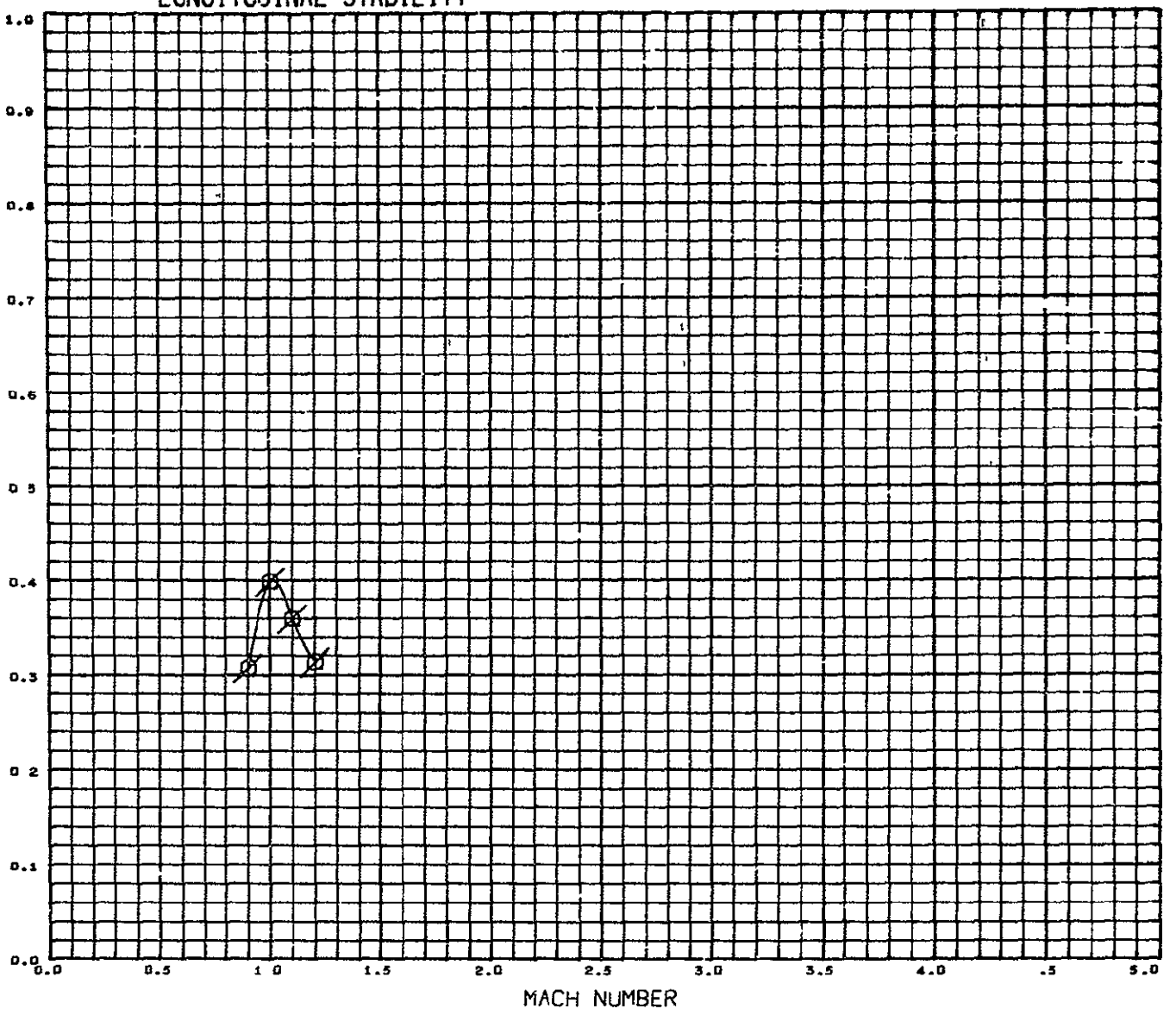
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

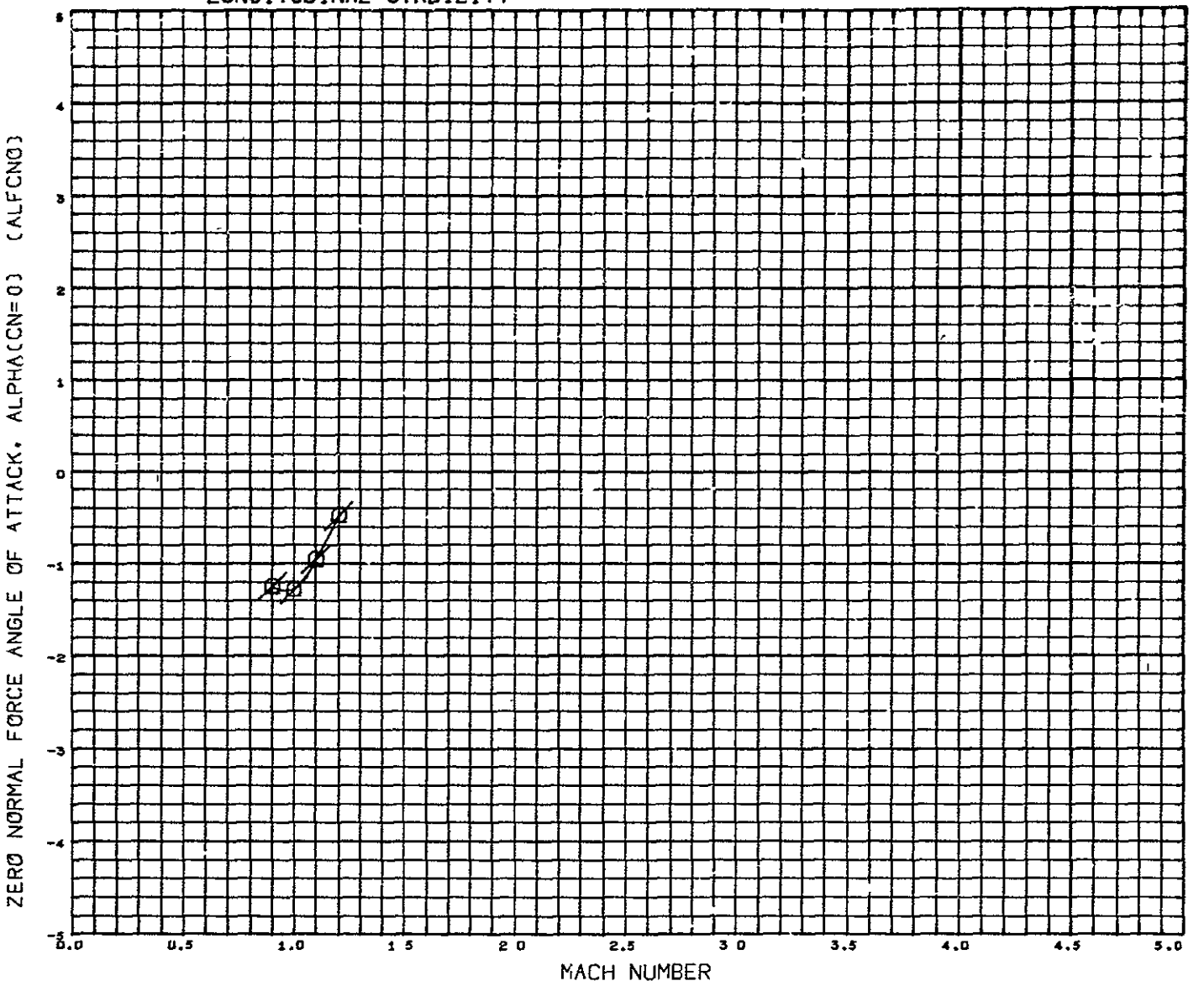
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

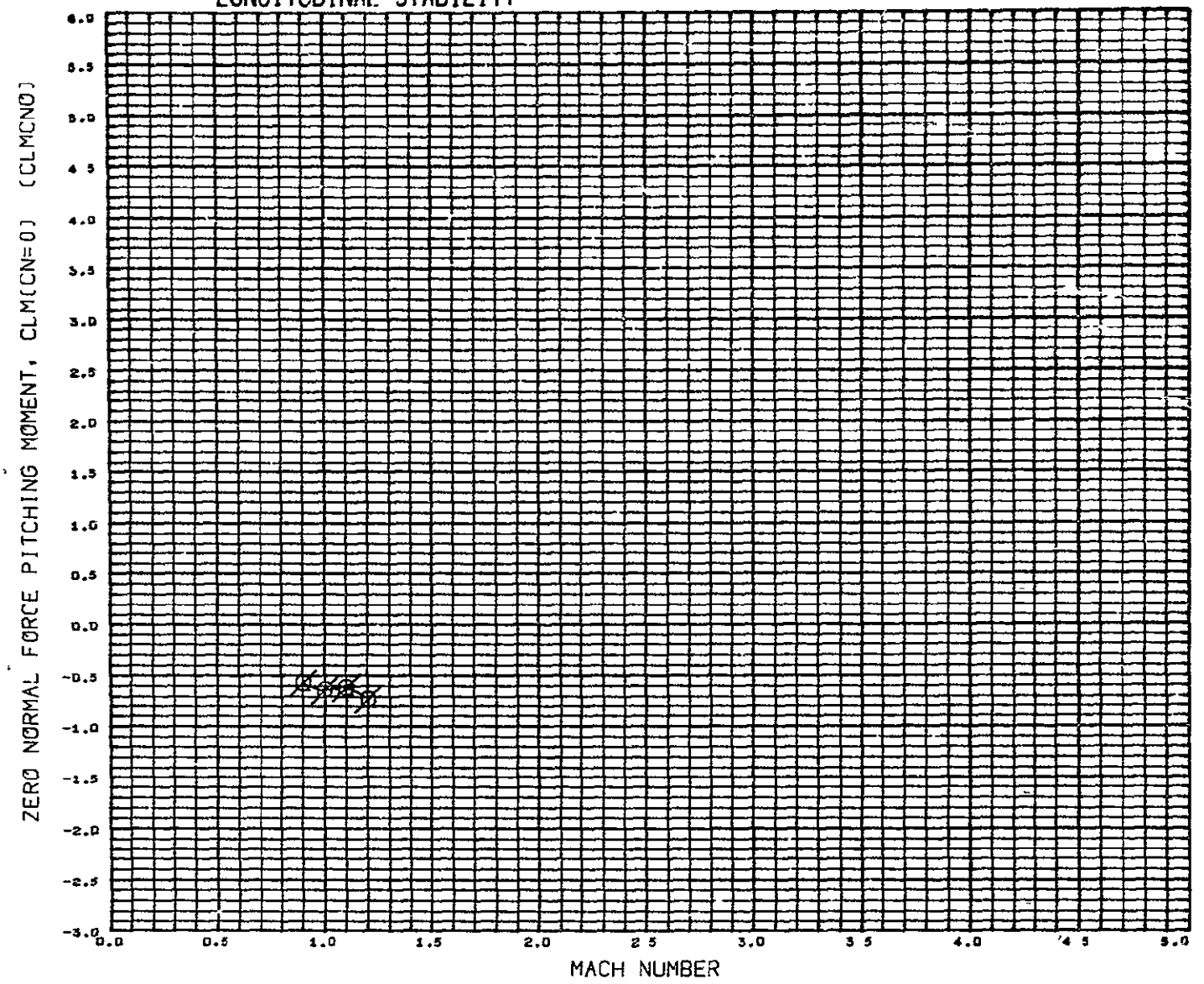
BETA 0.000 ORBINC - 3.00

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



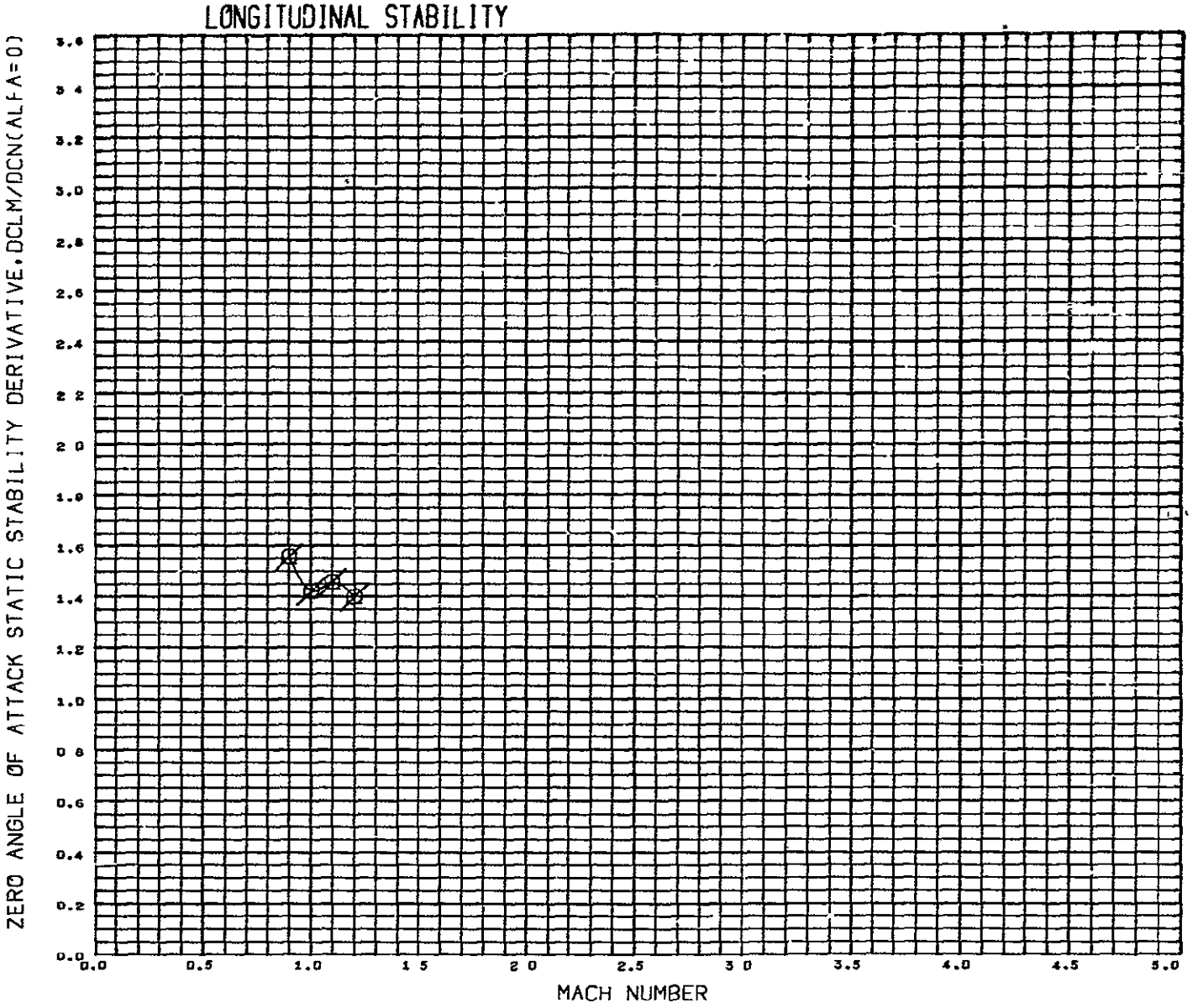
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M#EIF



PARAMETRIC VALUES

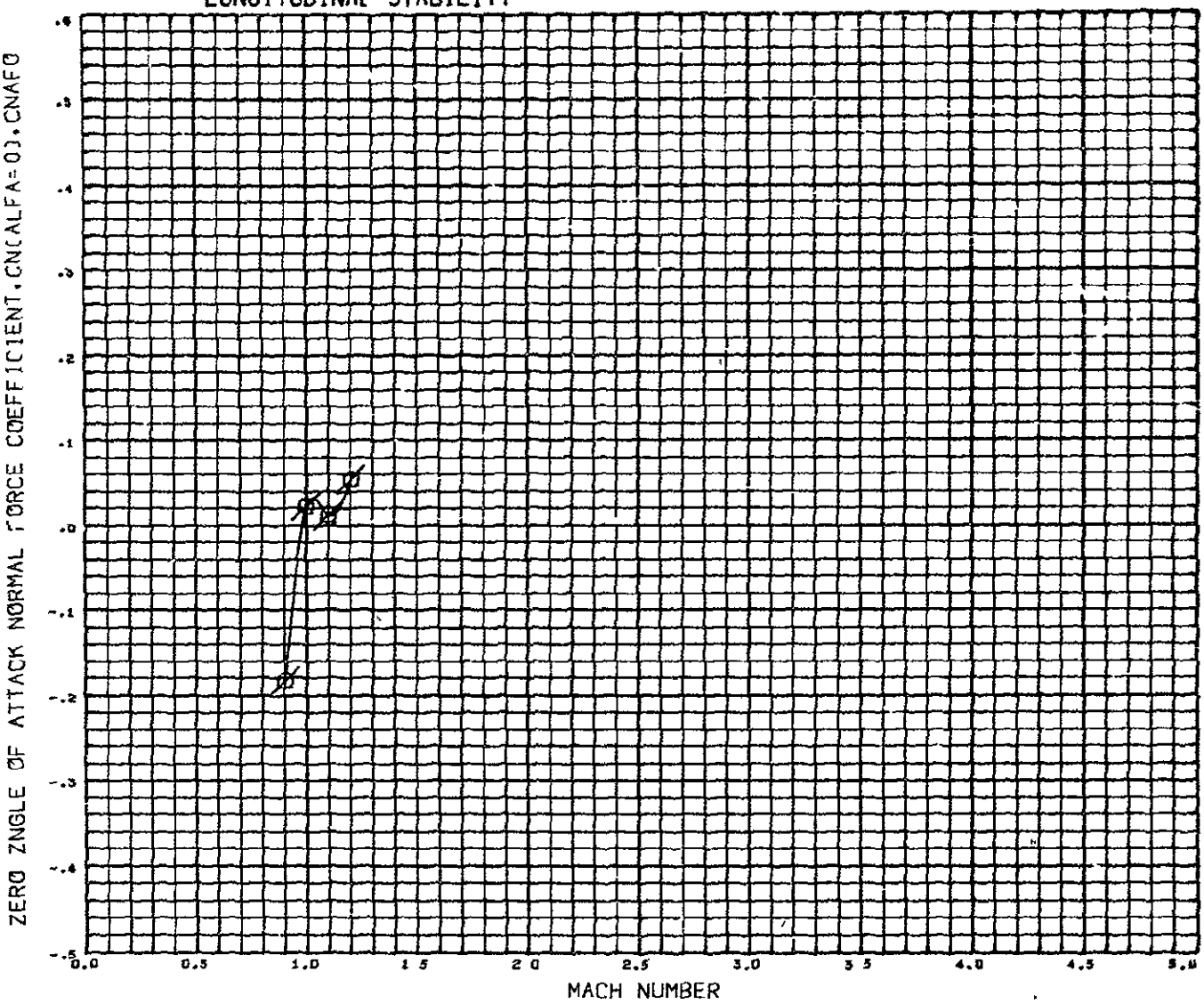
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6850	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

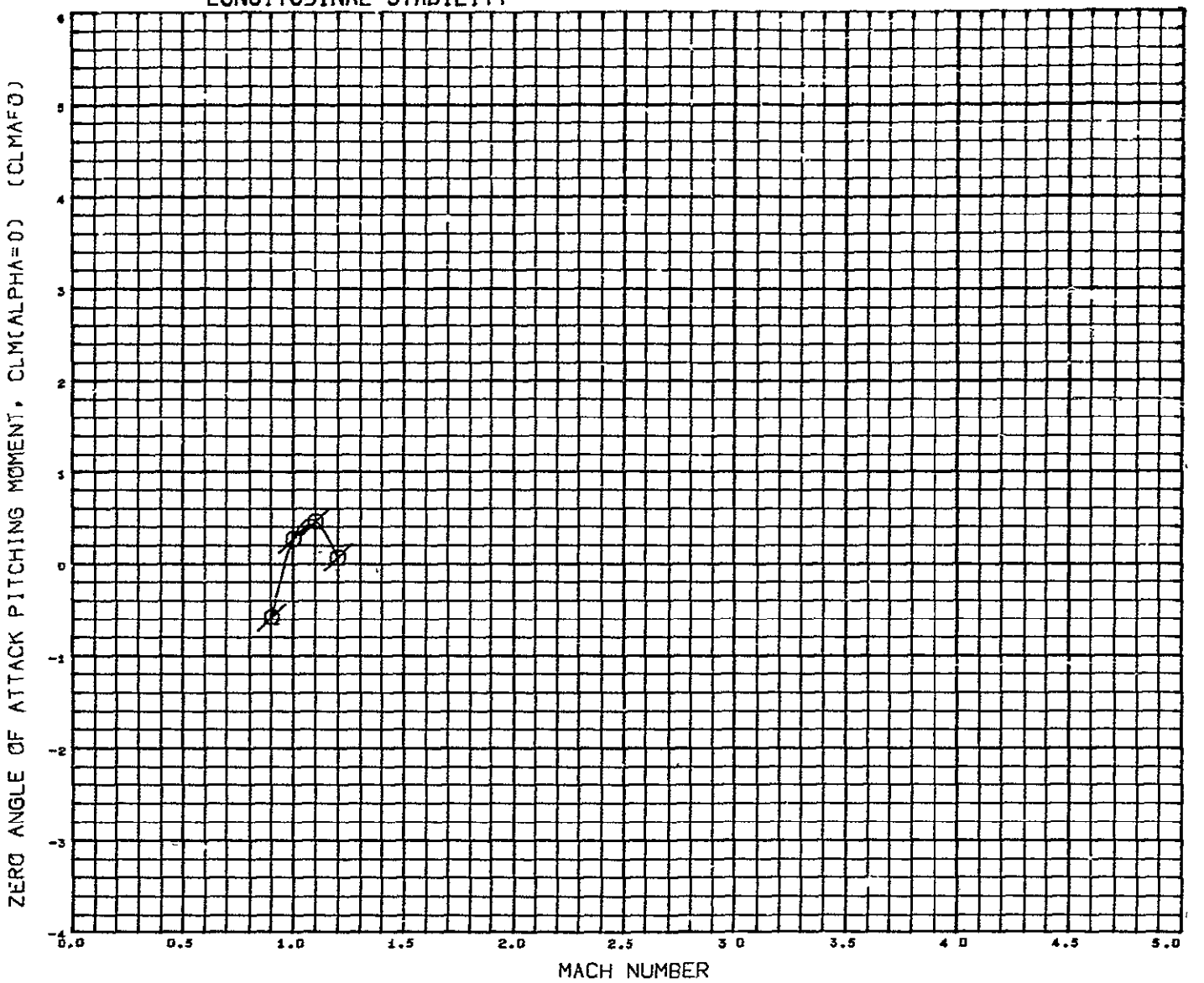
BETA 0.000 ORBINC - 3.00

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6560	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



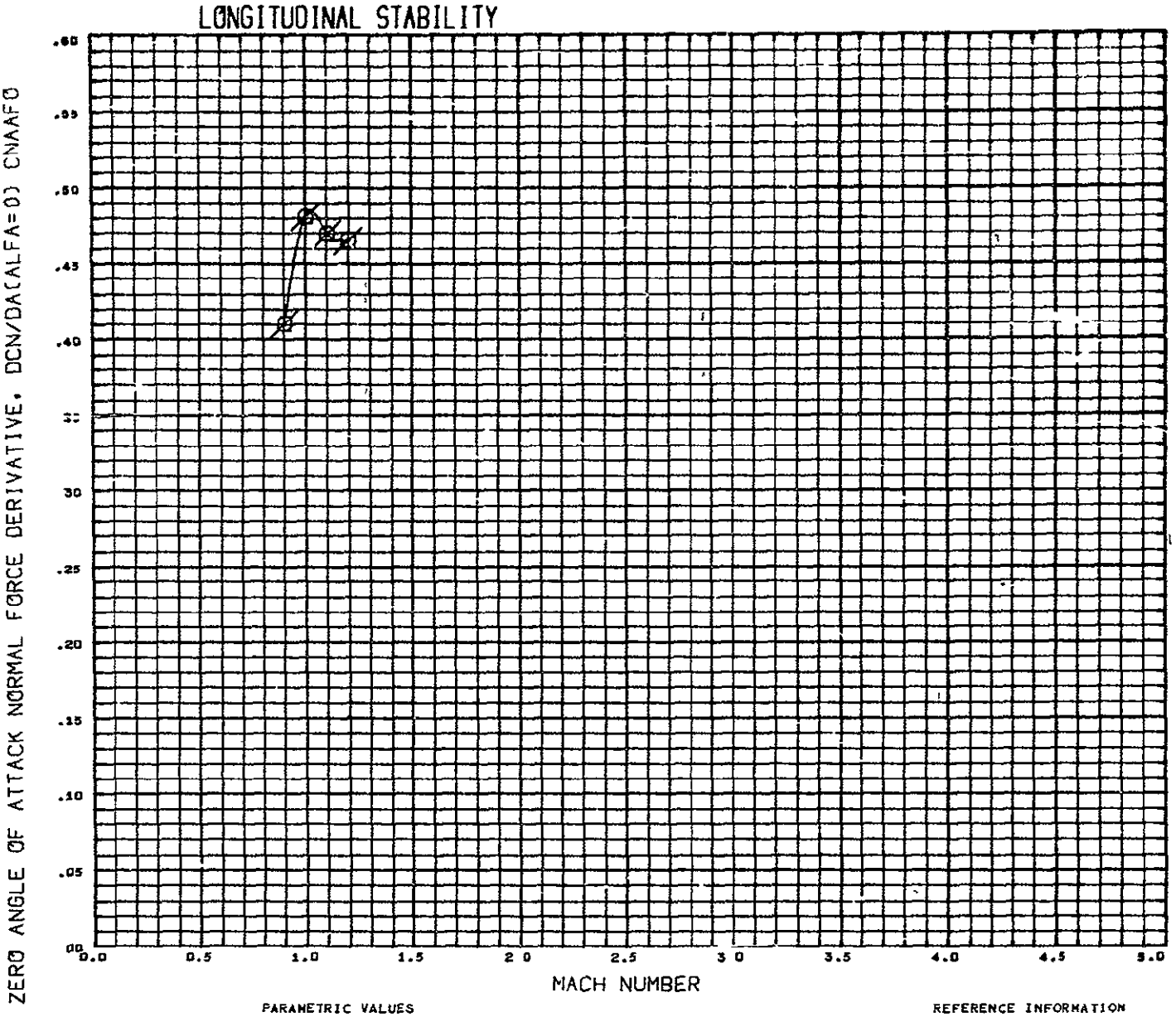
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

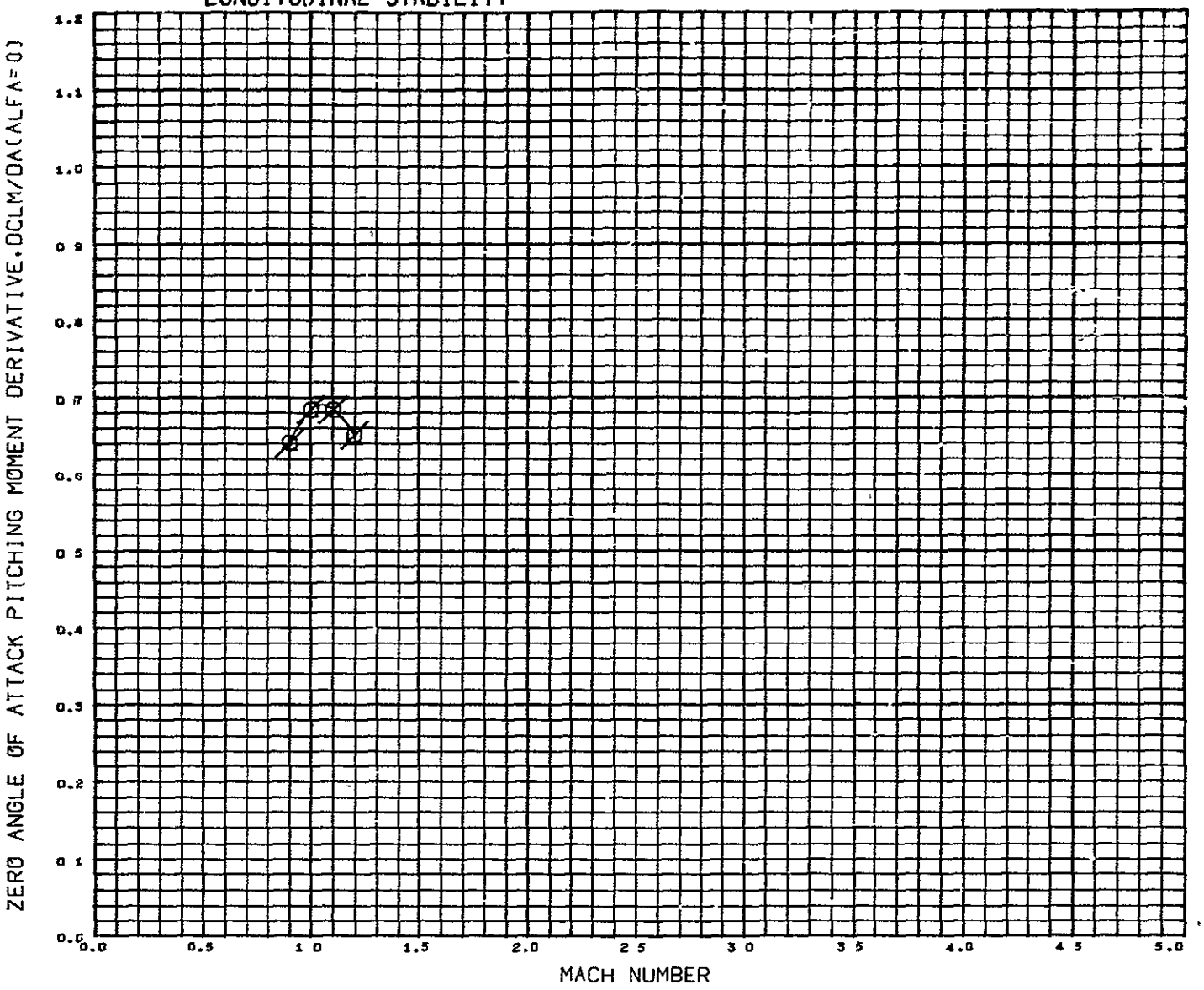
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M#EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

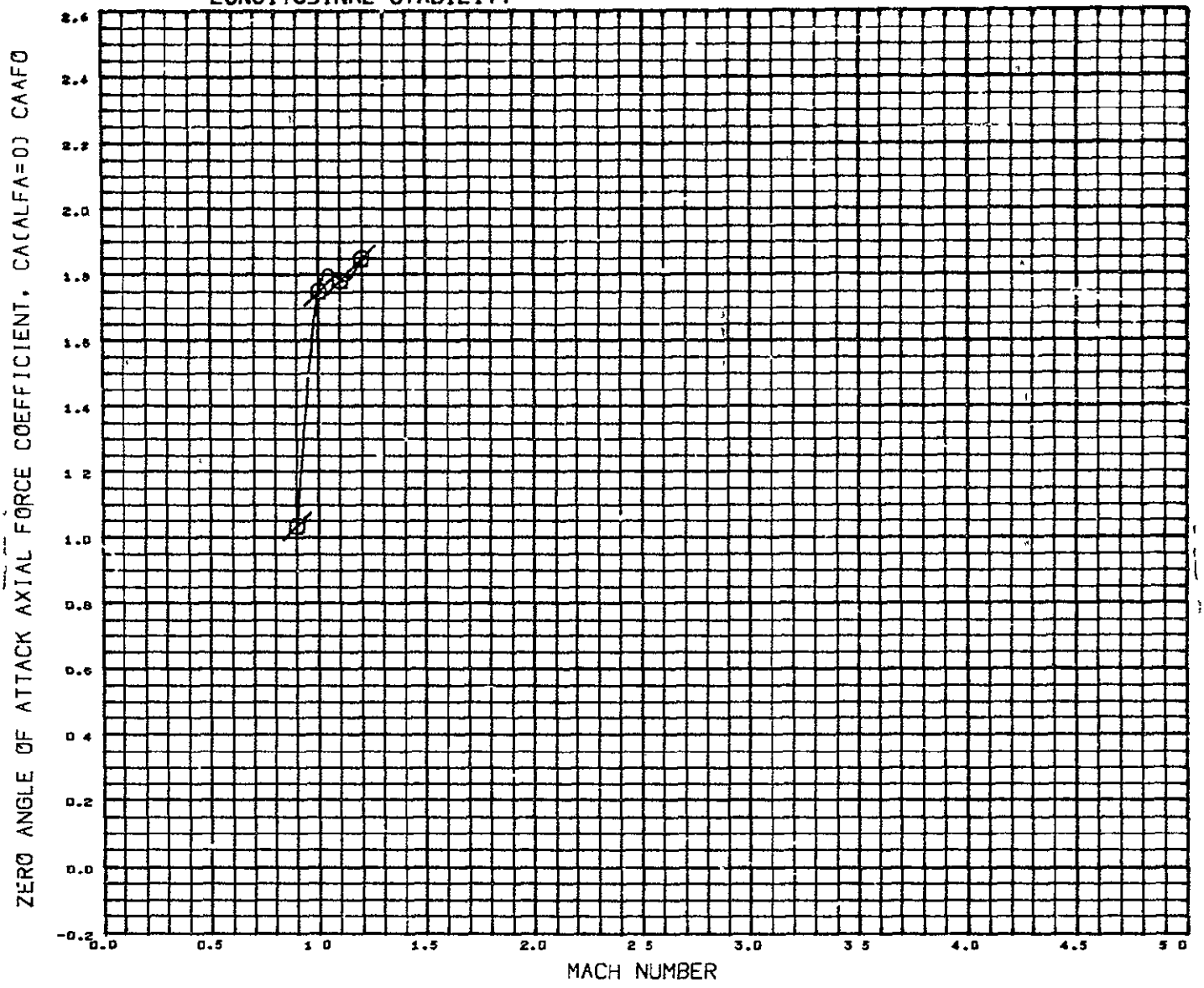
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



FARAMETRIC VALUES

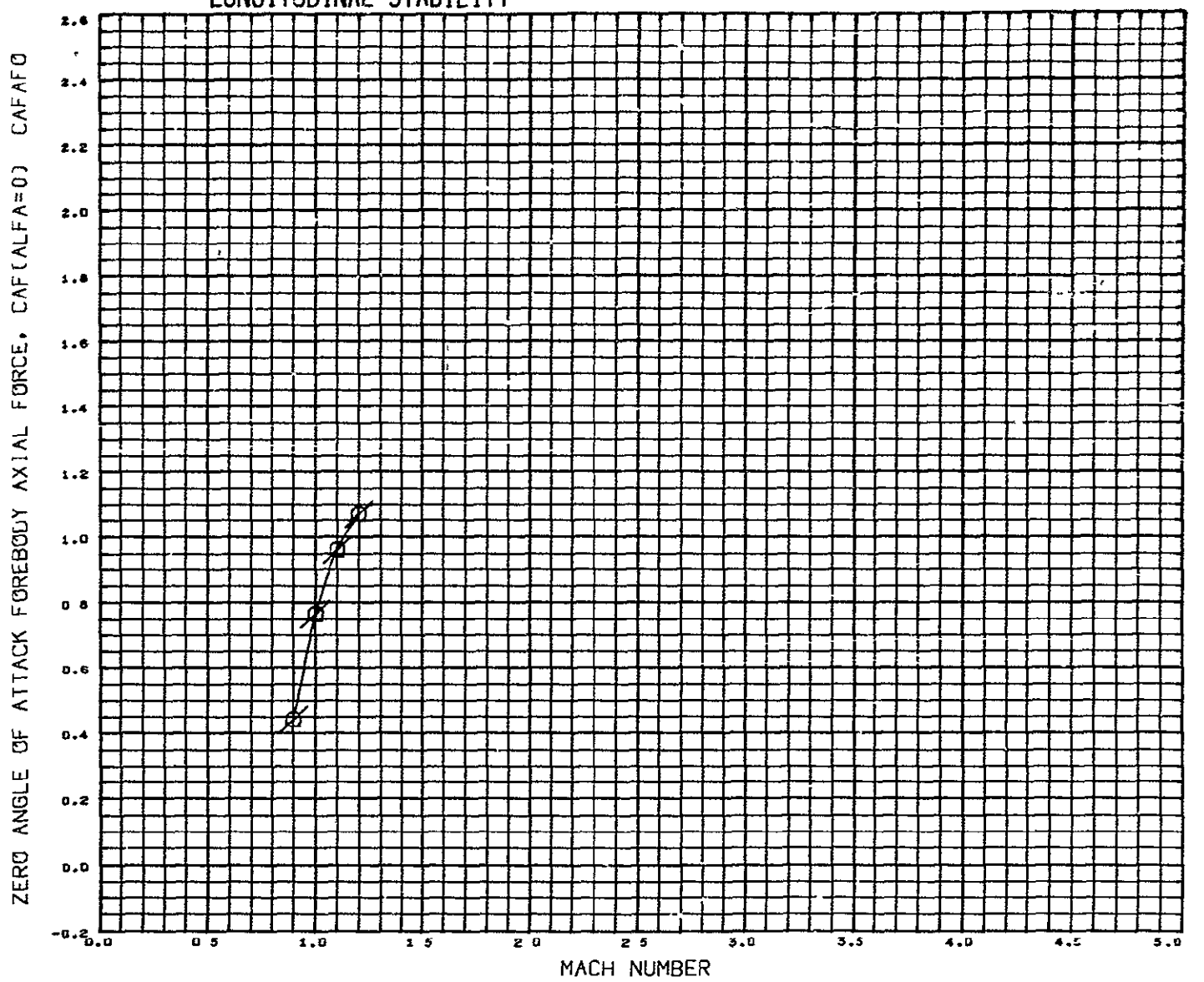
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

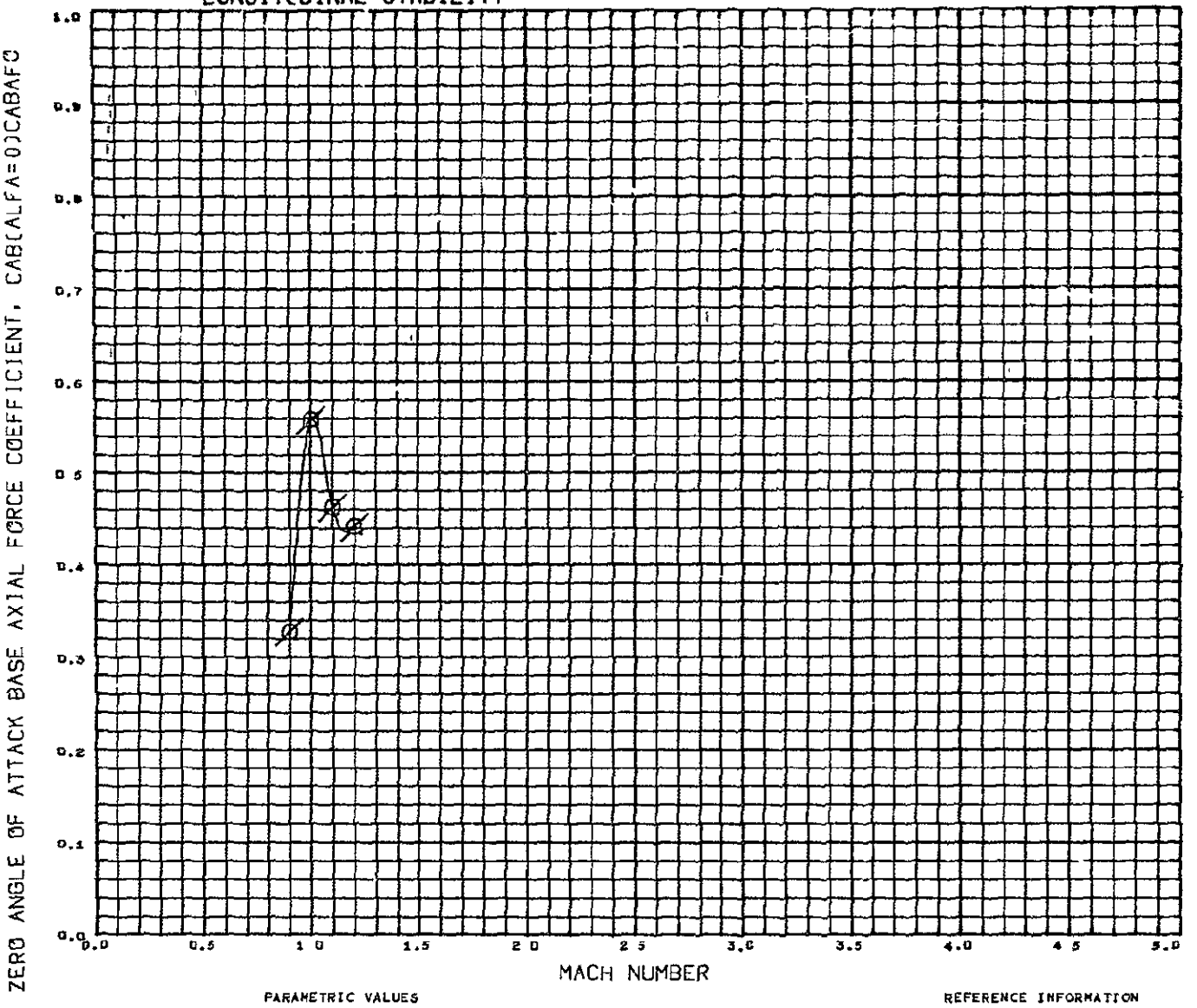
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

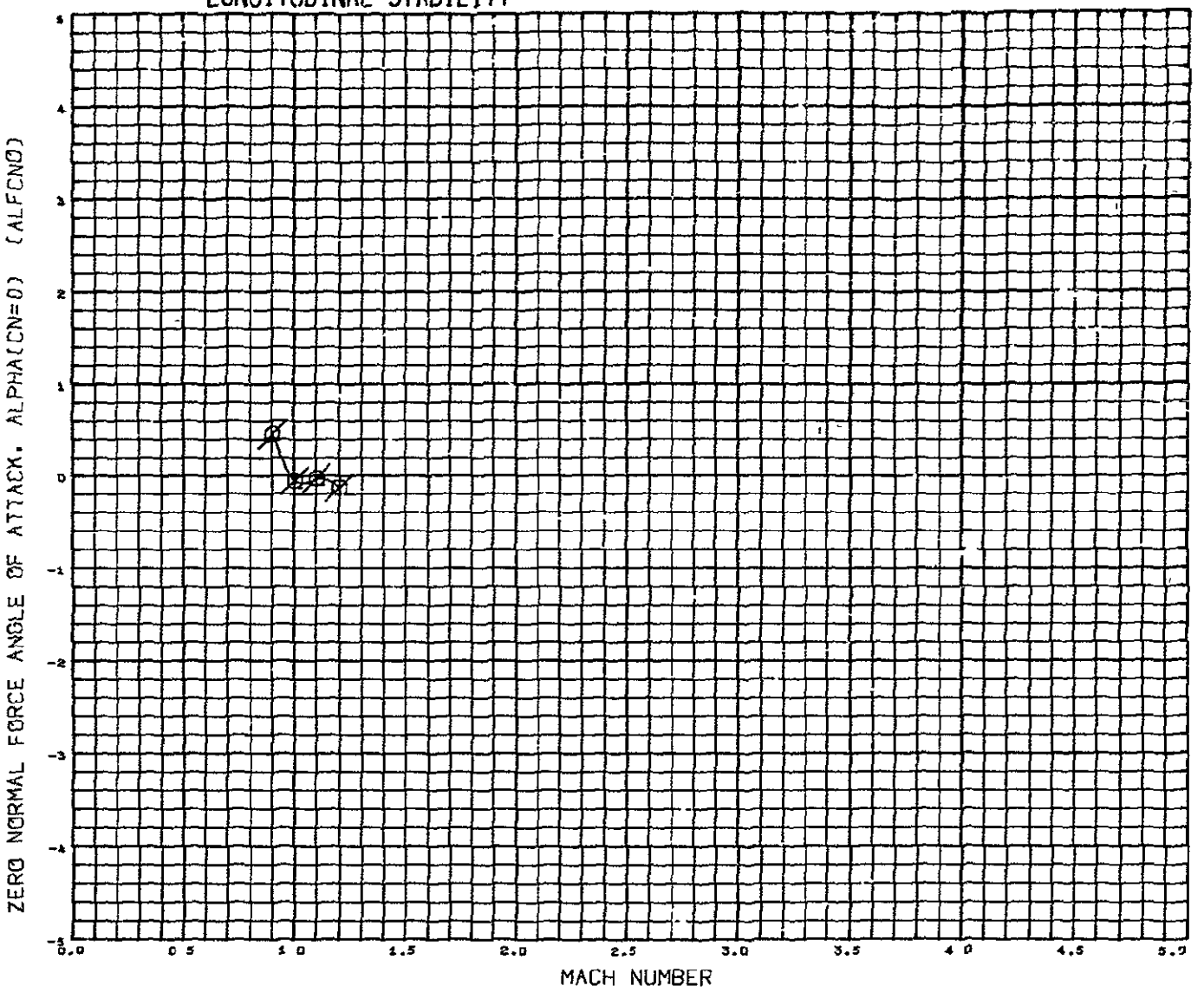
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0650	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

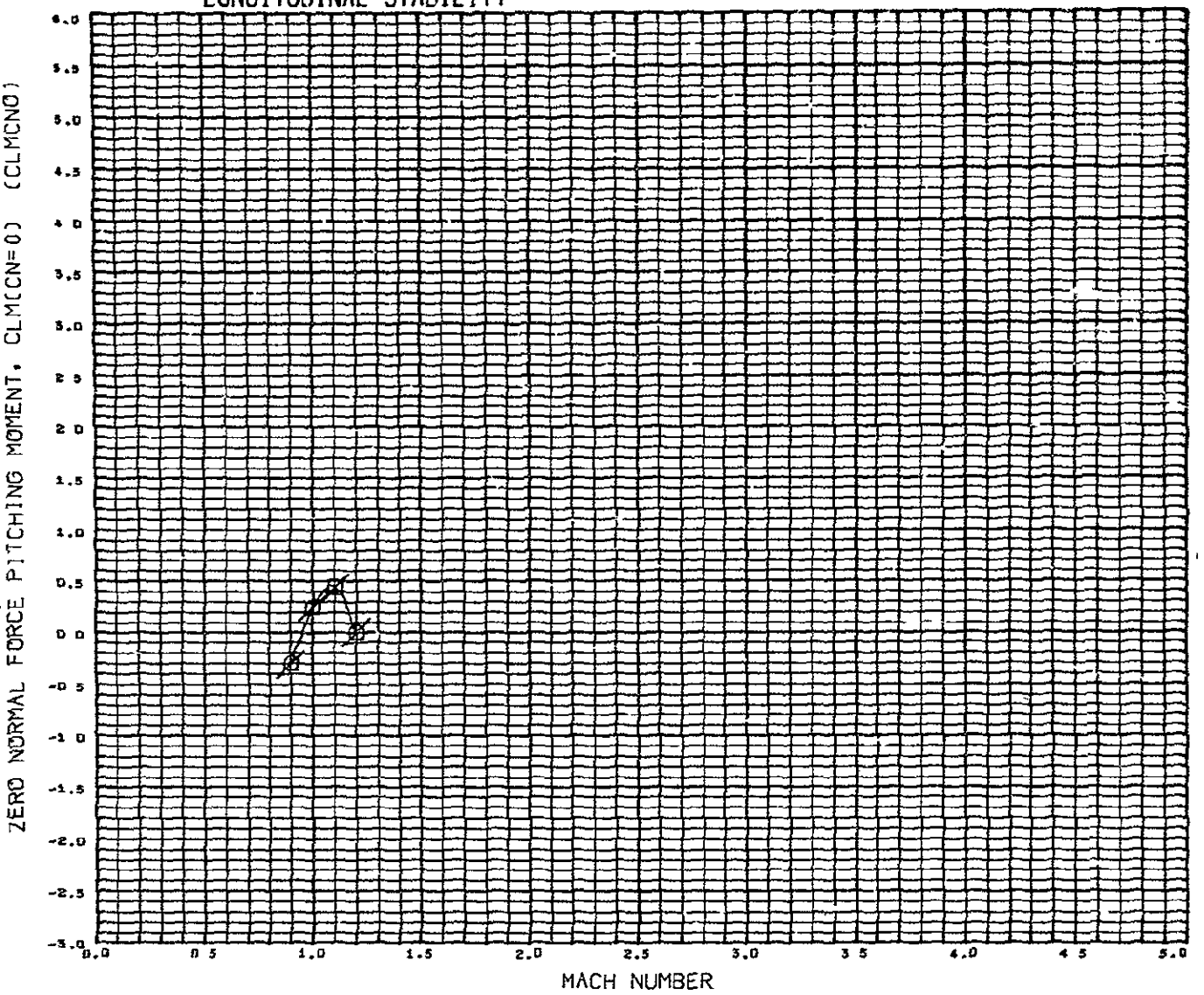
BETA 0.000 ORBINC - 3.100

DATA HIST CODE h*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

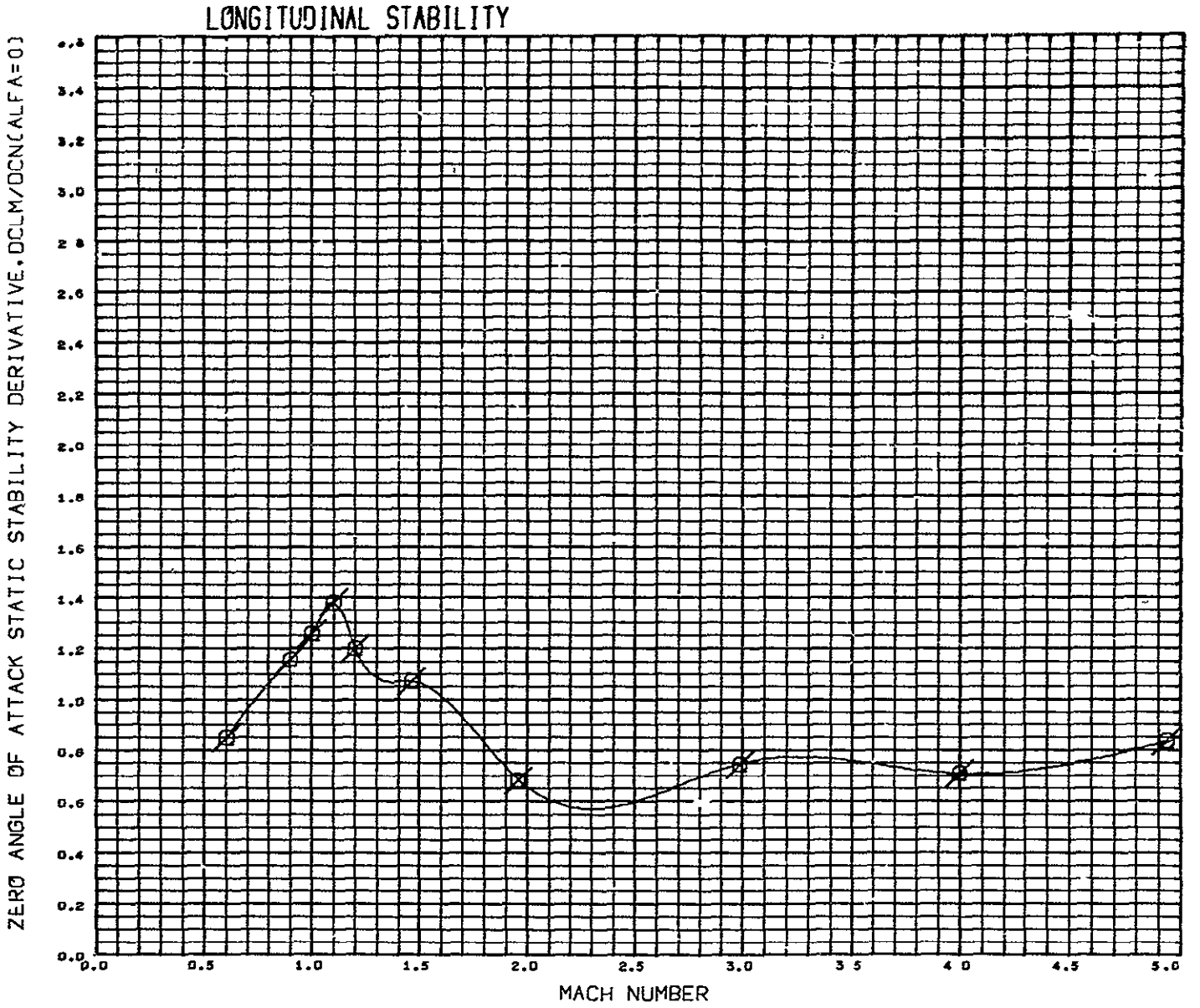
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

M491-MSFC-S1C G-11 ORBITER OVWT1CBF1 (E330911) 08 AUG 71 PAGE C13



PARAMETRIC VALUES

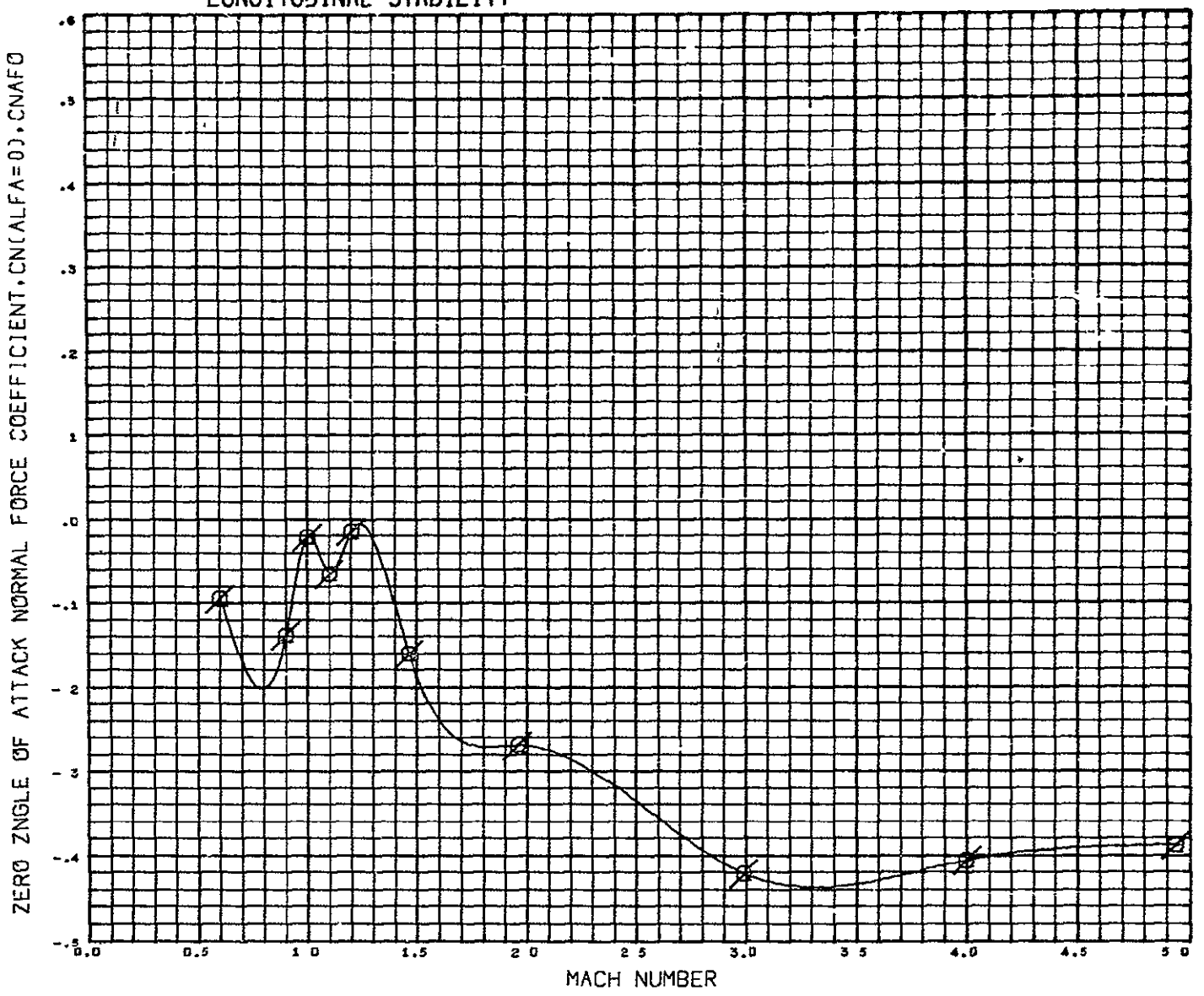
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



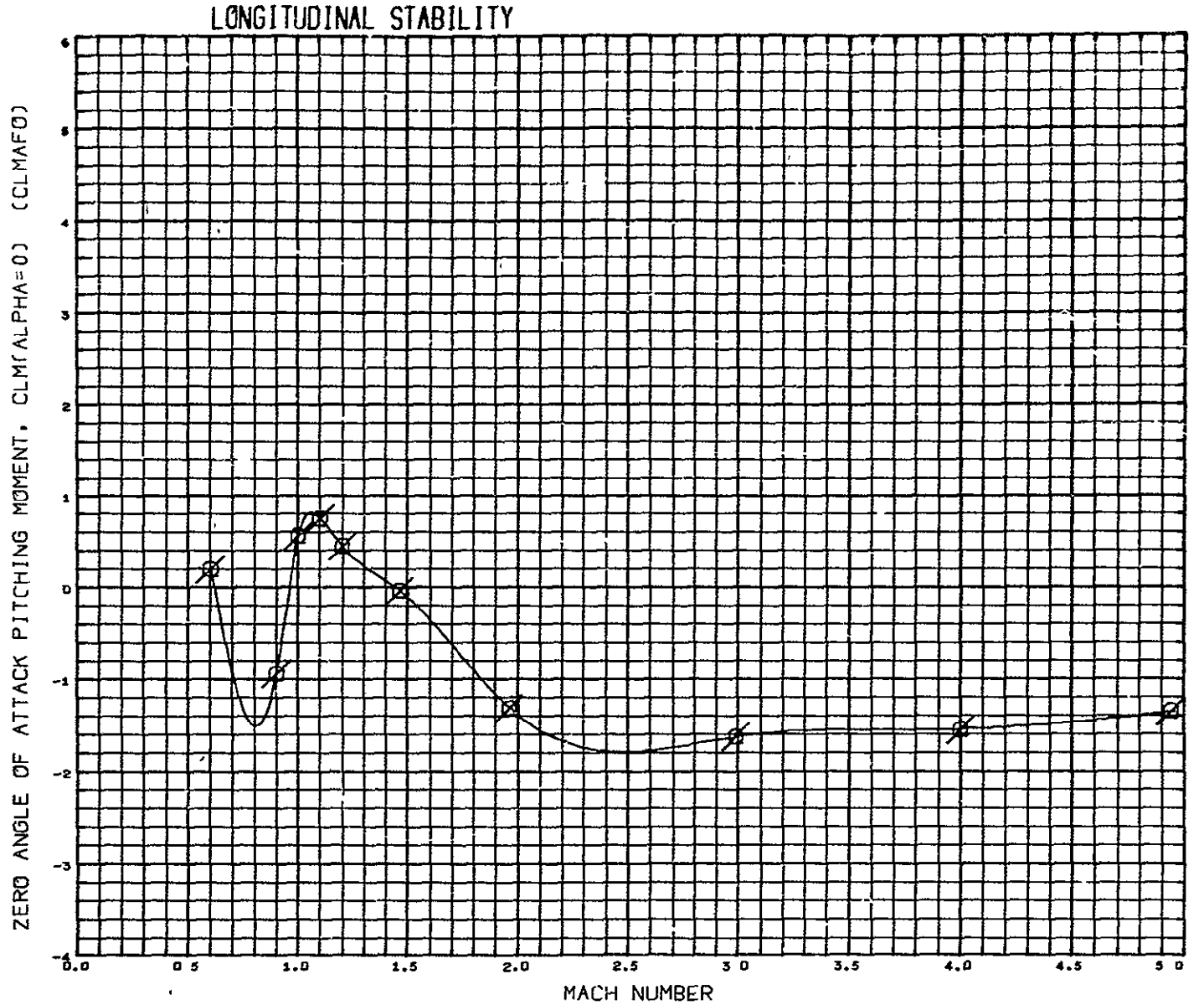
PARAMETRIC VALUES

BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRF	3 6860	IN
YMRF	0 0000	IN
ZMRF	0 0000	IN
SCALE	0 0034	

DATA HIST CODE H*EIF



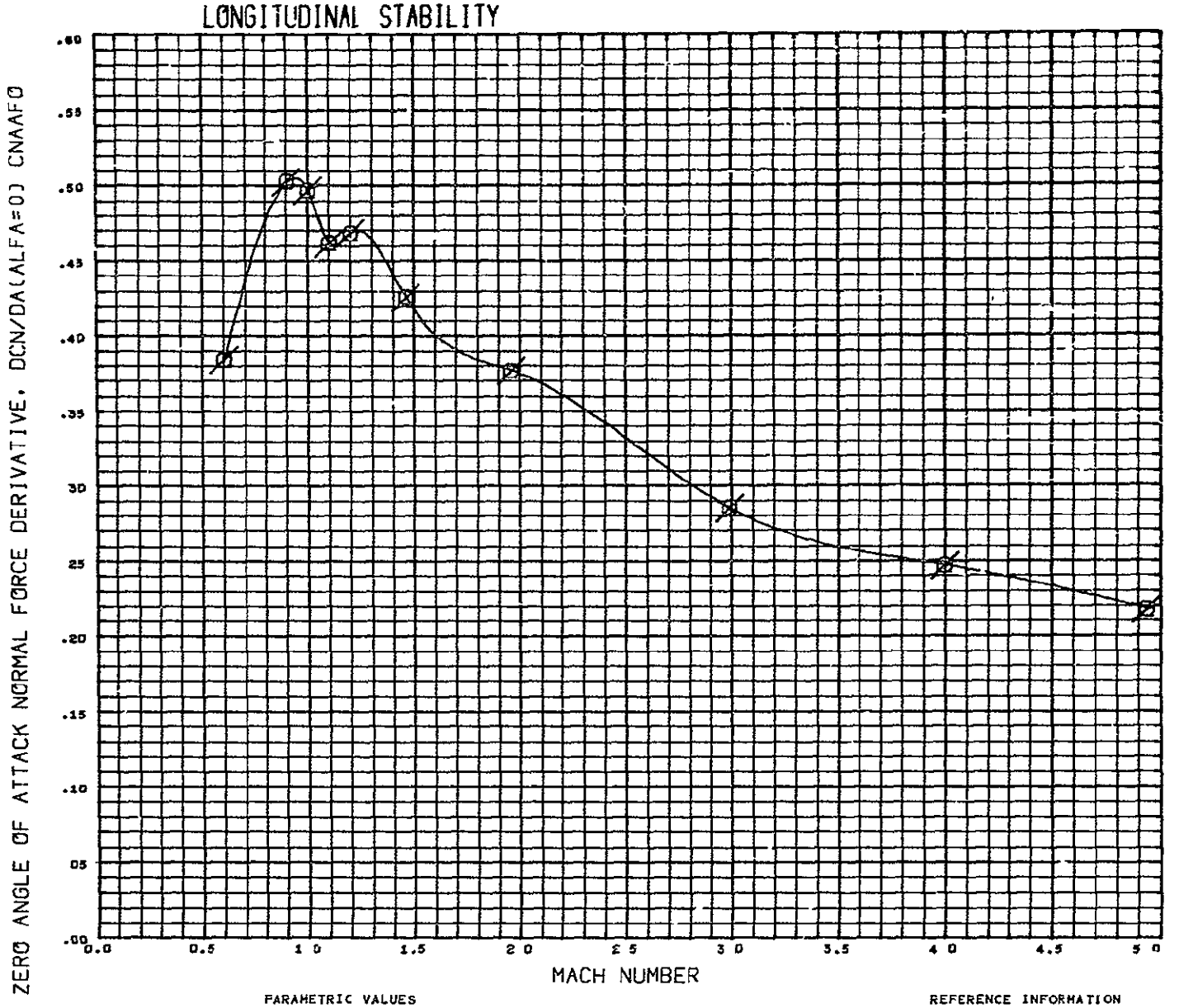
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0003	IN
SCALE	0 0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

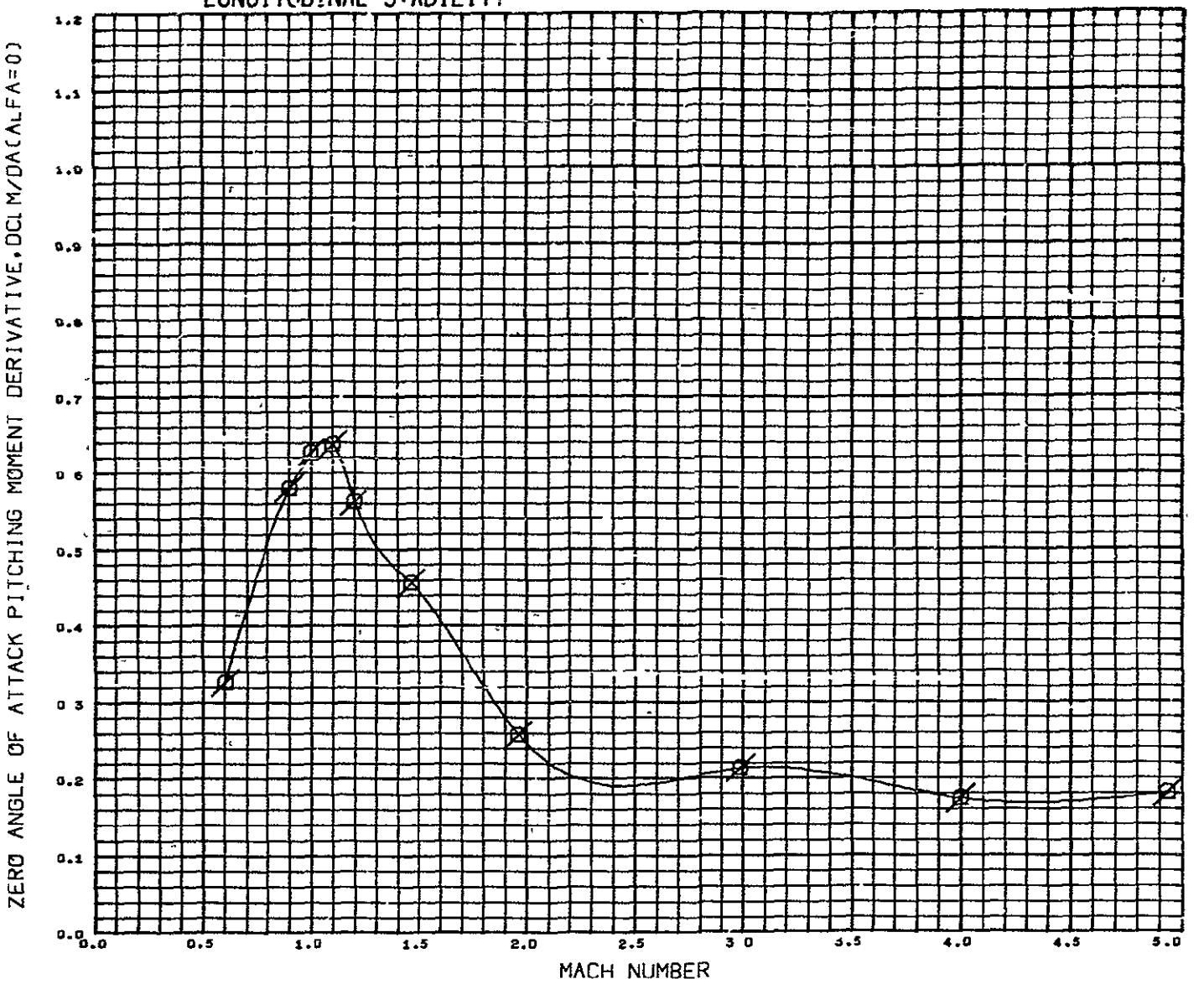
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRF	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



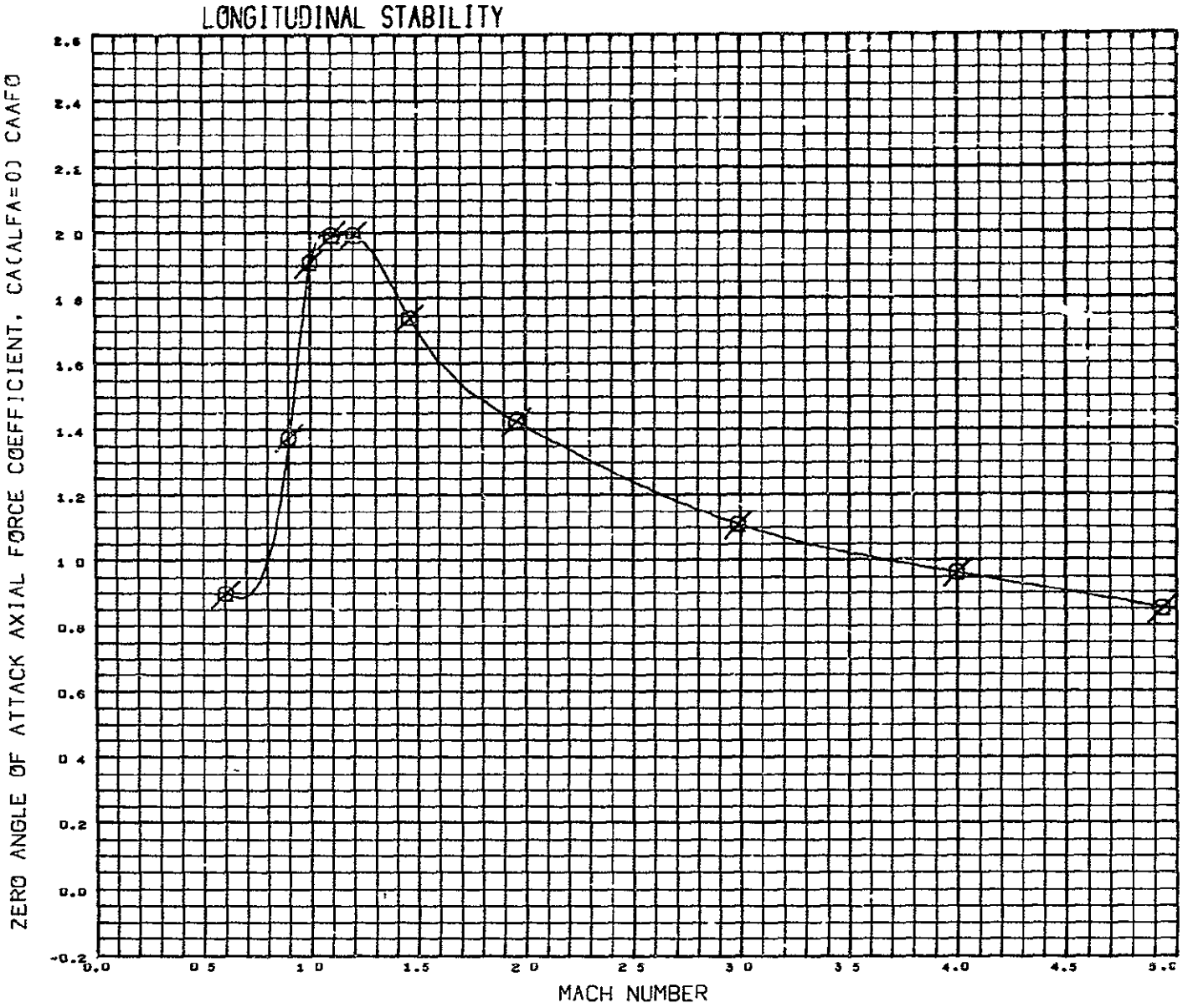
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0490	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*E1F



PARAMETRIC VALUES

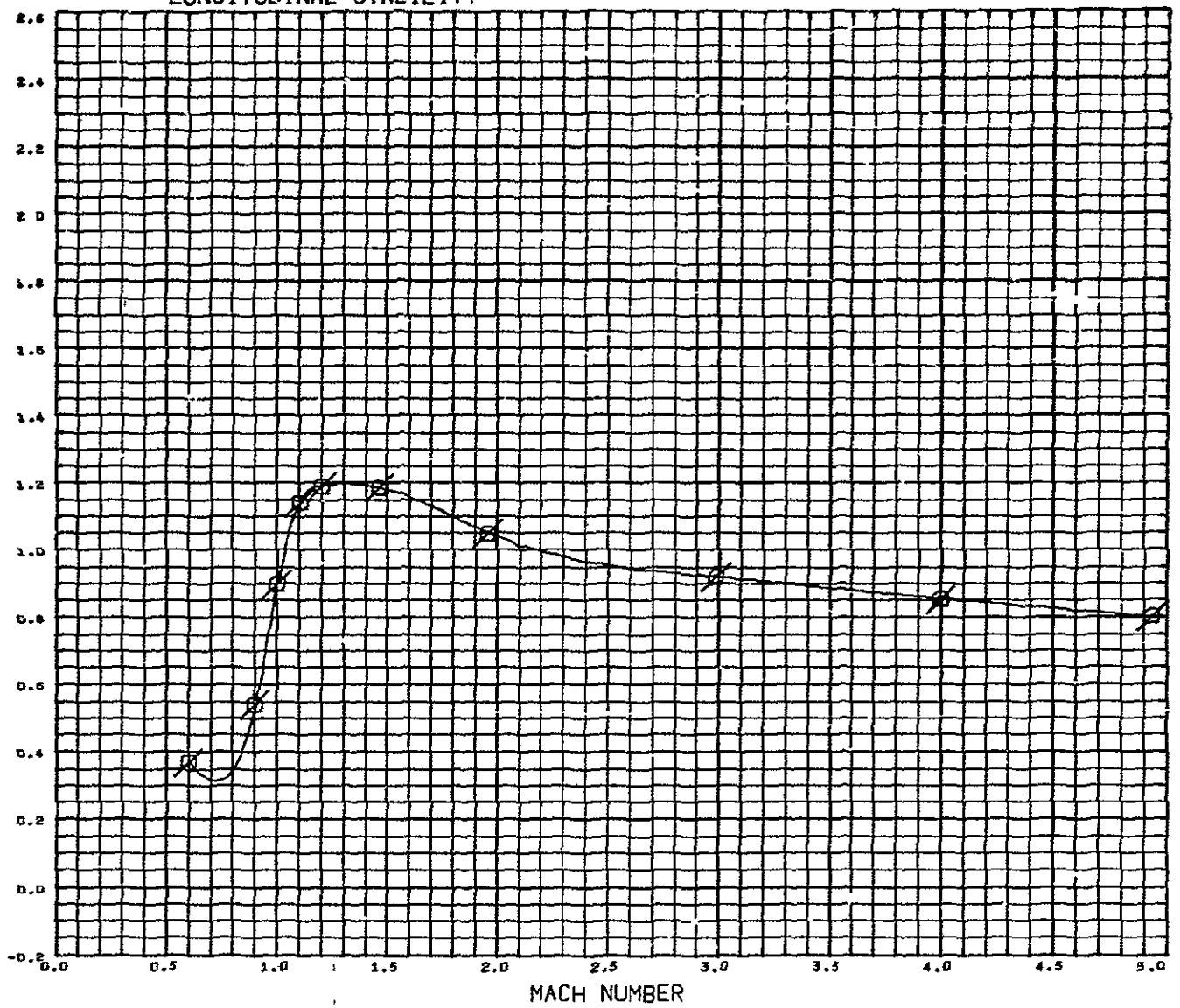
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

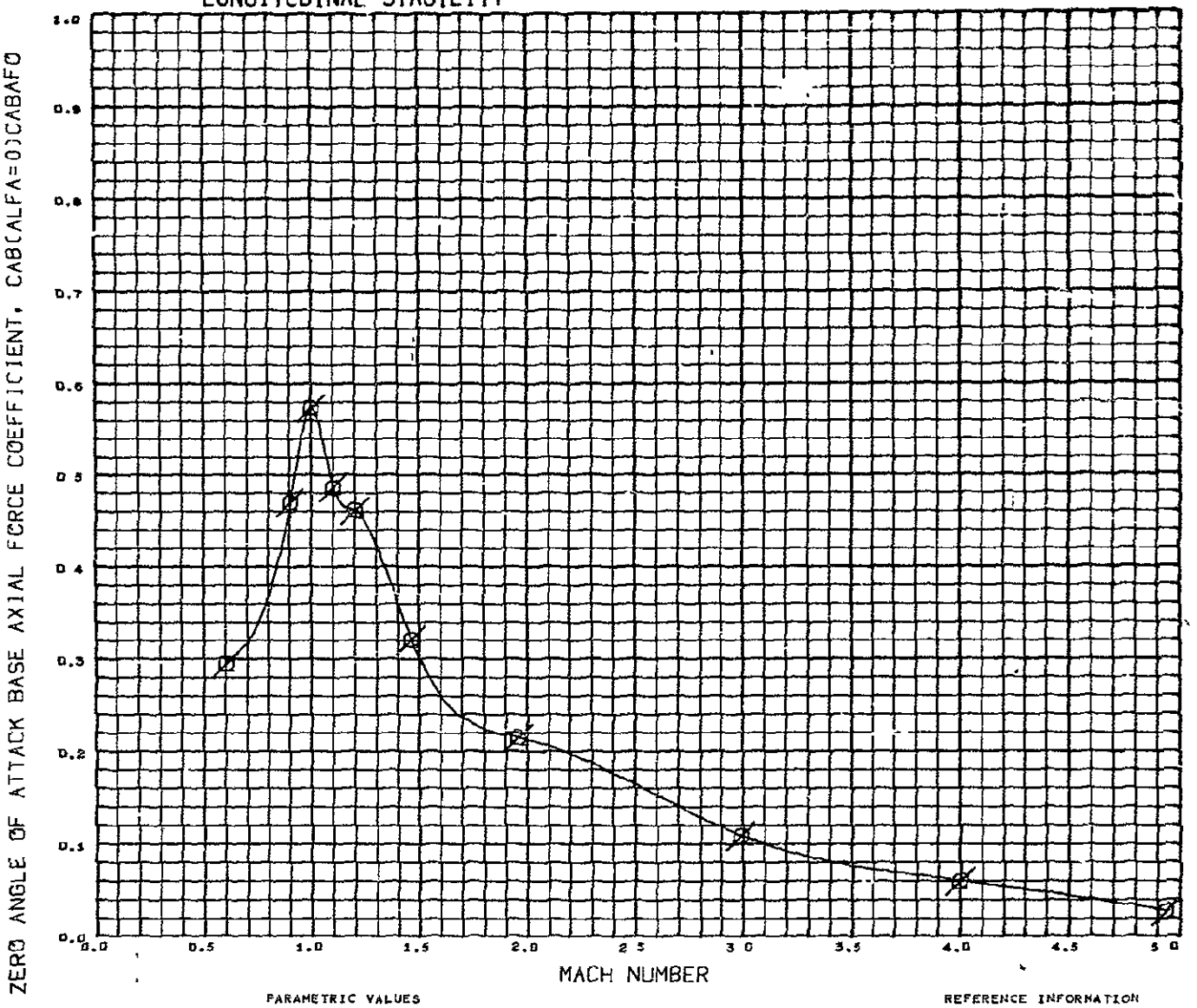
BETA 0 000 ORBINC - 3 100

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

LONGITUDINAL STABILITY



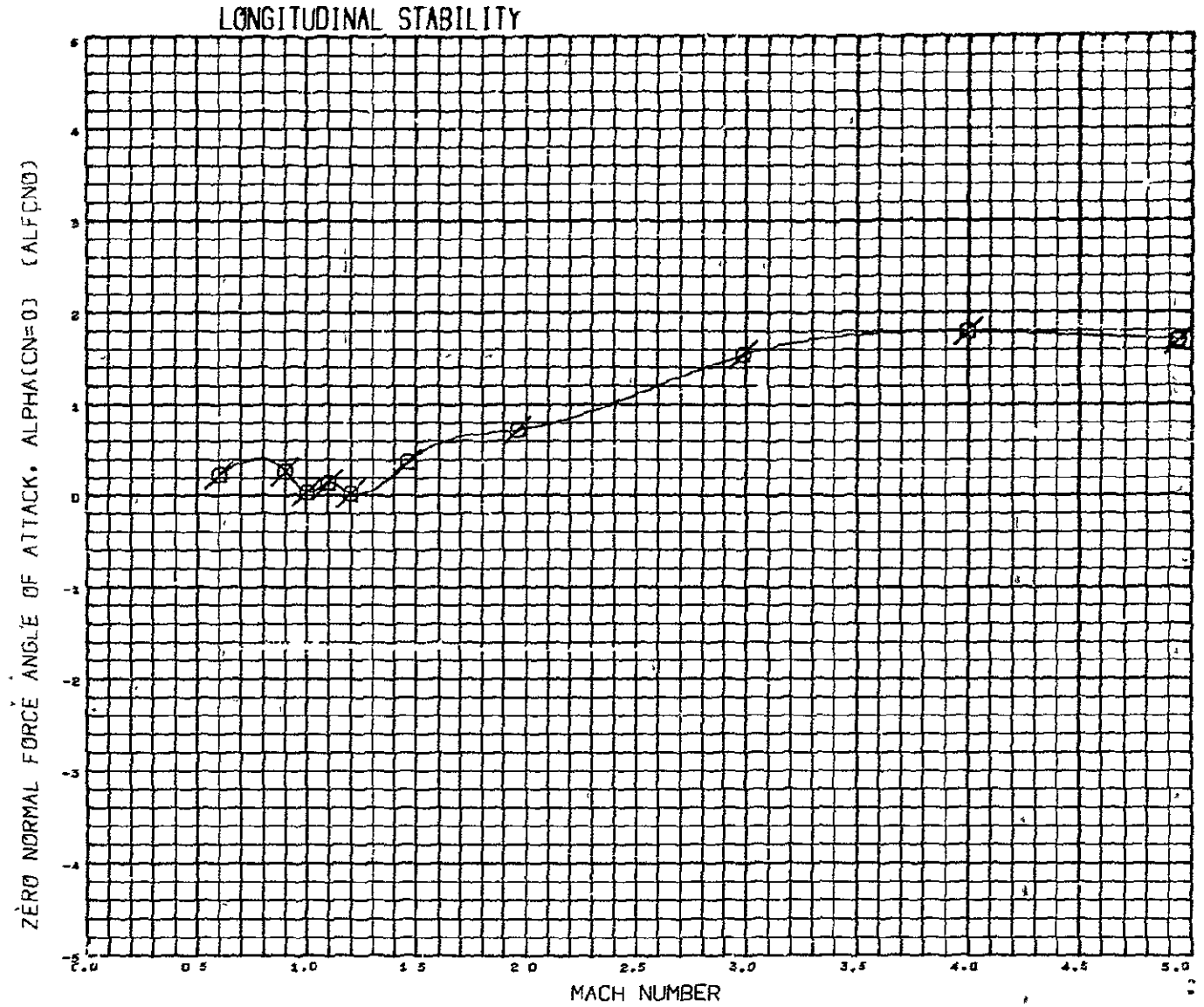
PARAMETRIC VALUES

BETA 0.000 ORBINC = 3.100

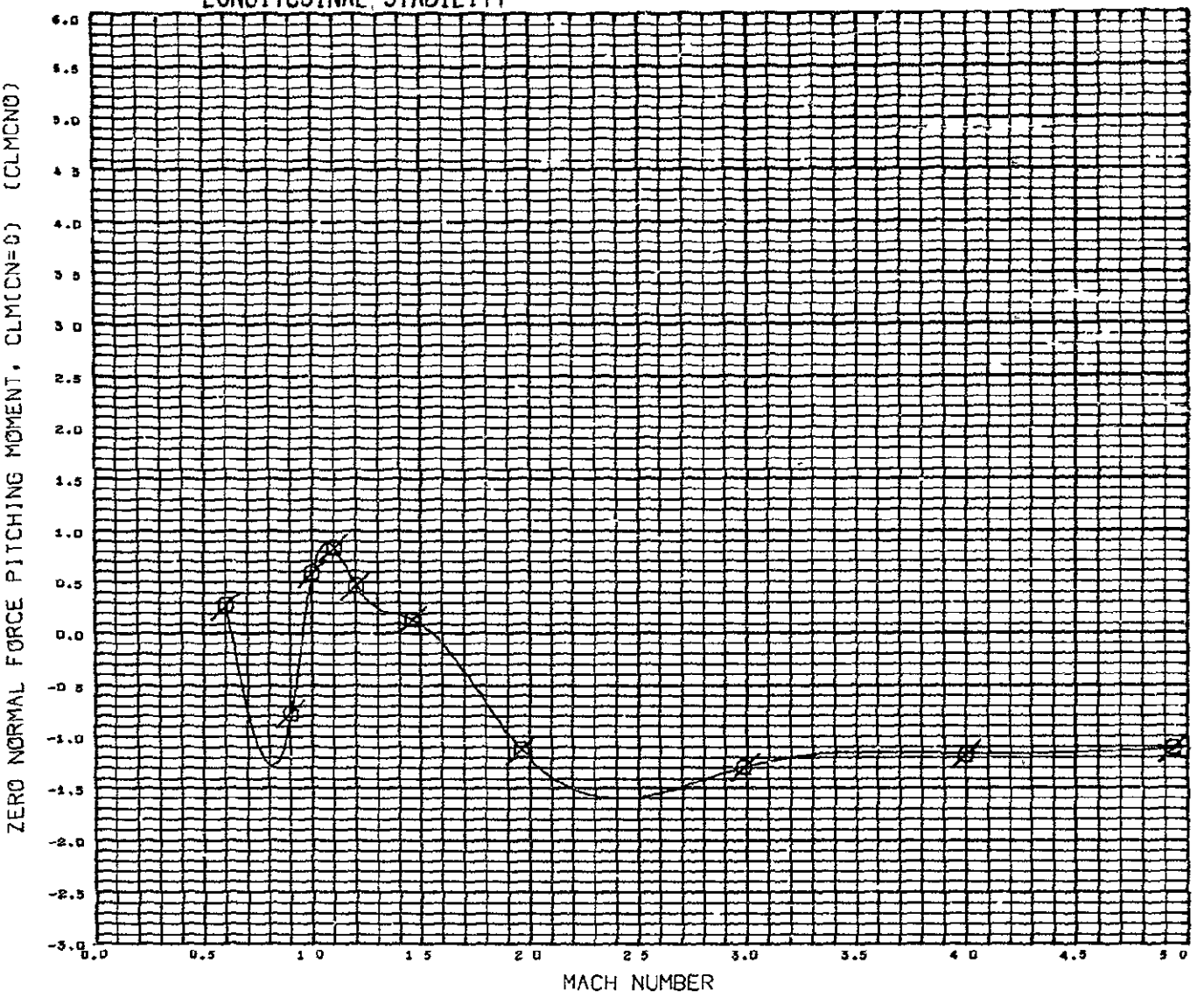
REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF


LONGITUDINAL STABILITY
ZERO NORMAL FORCE ANGLE OF ATTACK, ALPHA(CN=0) (ALFCN0)
MACH NUMBER
PARAMETRIC VALUES
BETA 0 000 ORBINC - 5 100
REFERENCE INFORMATION
SREF 1.3960 SQ IN
LREF 1 3330 IN
BREF 1 3330 IN
XMRP 3.6860 IN
YMRP 0 5000 IN
ZMRP 0 0000 IN
SCALE 0.0034
DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



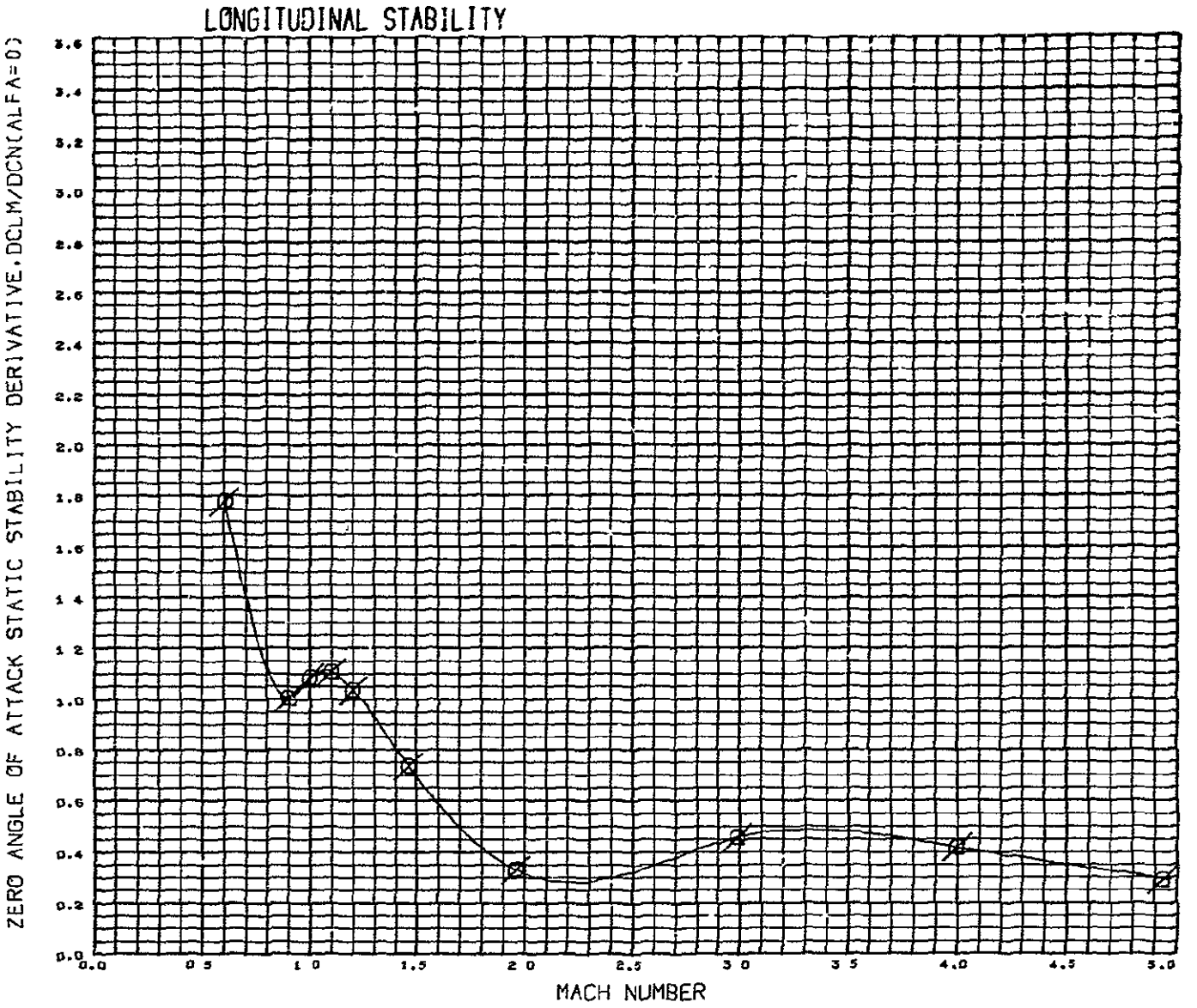
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6880	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF



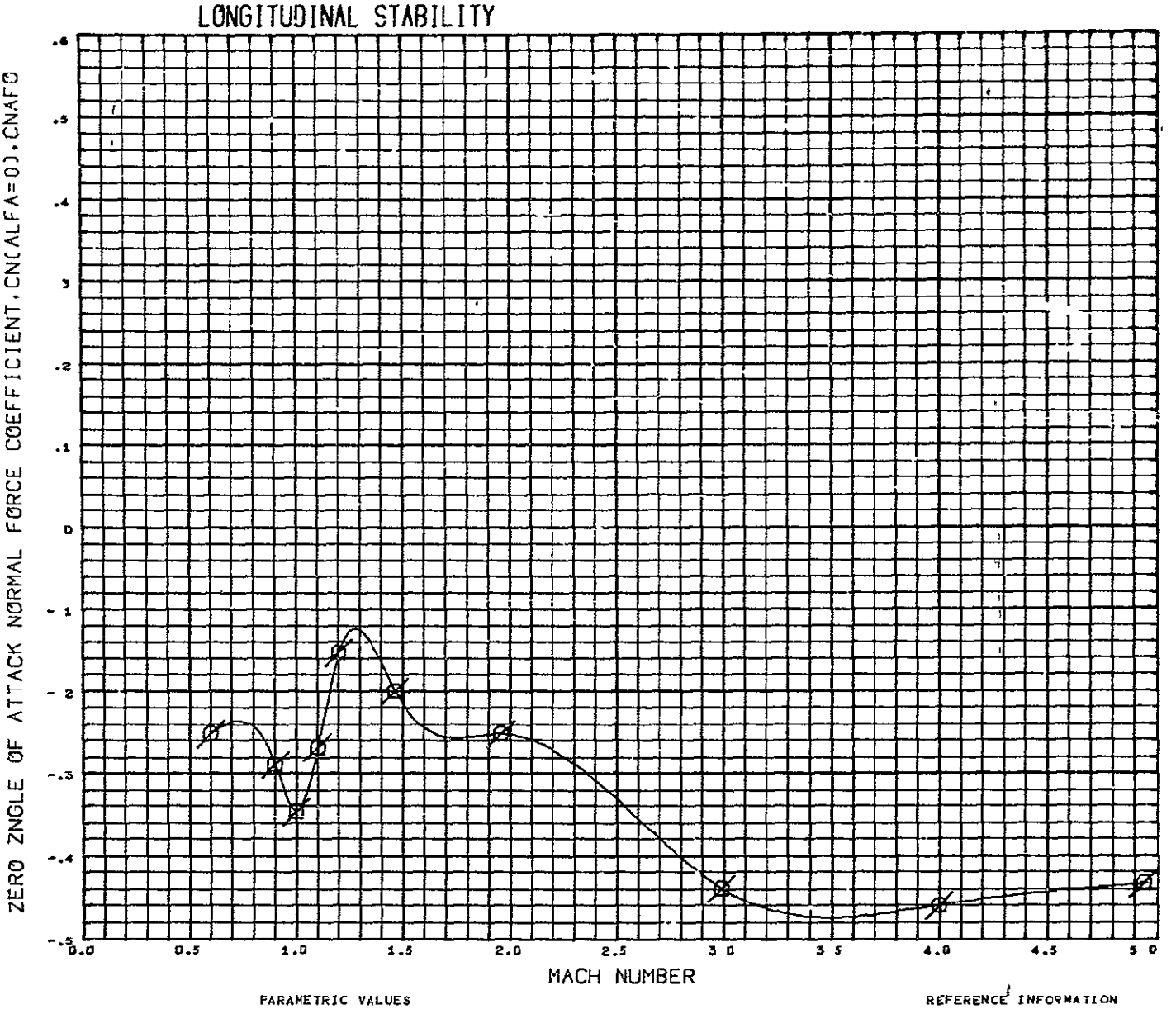
PARAMETRIC VALUES

BETA 0.000 ORBI%C - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE HWEIF



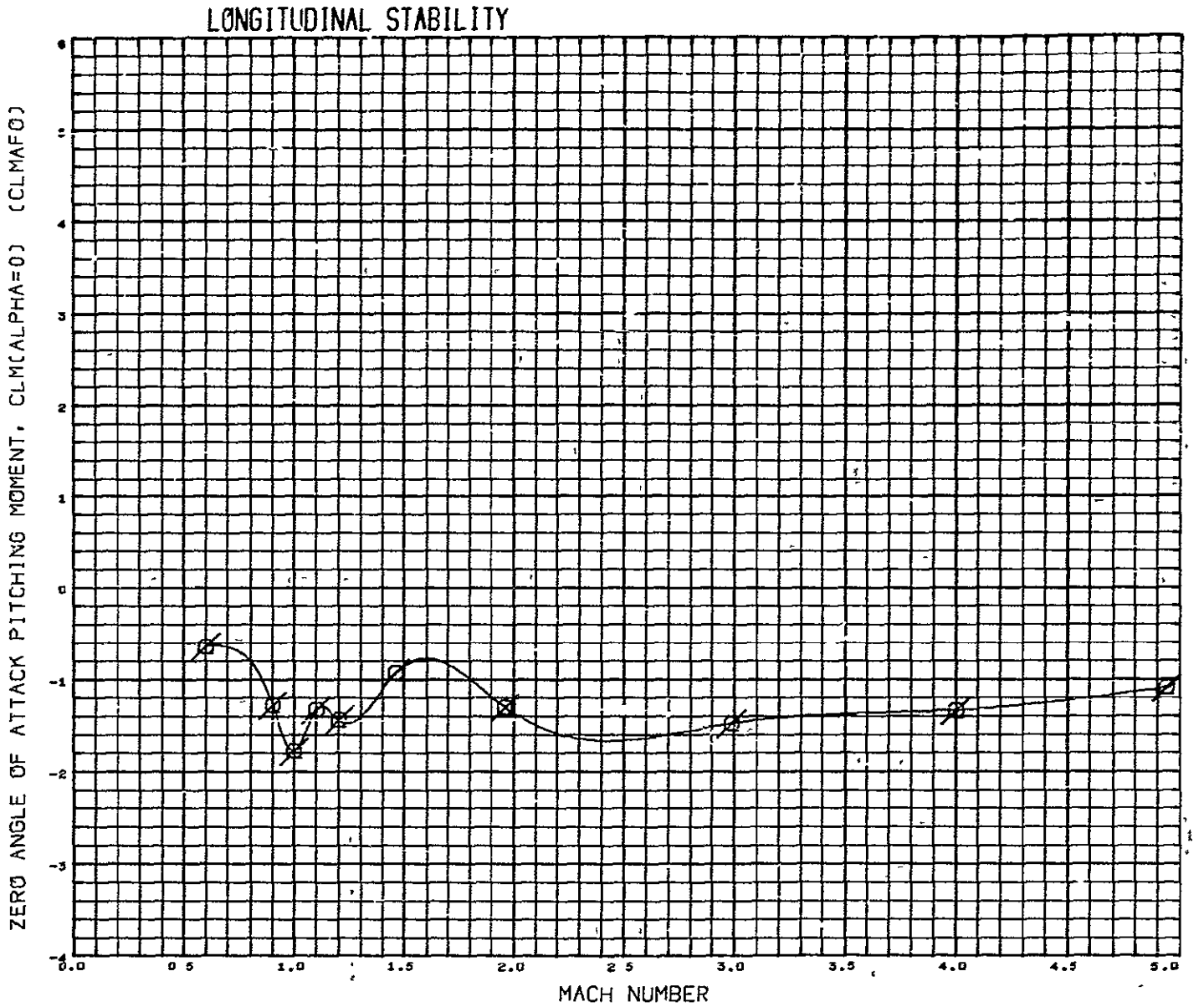
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

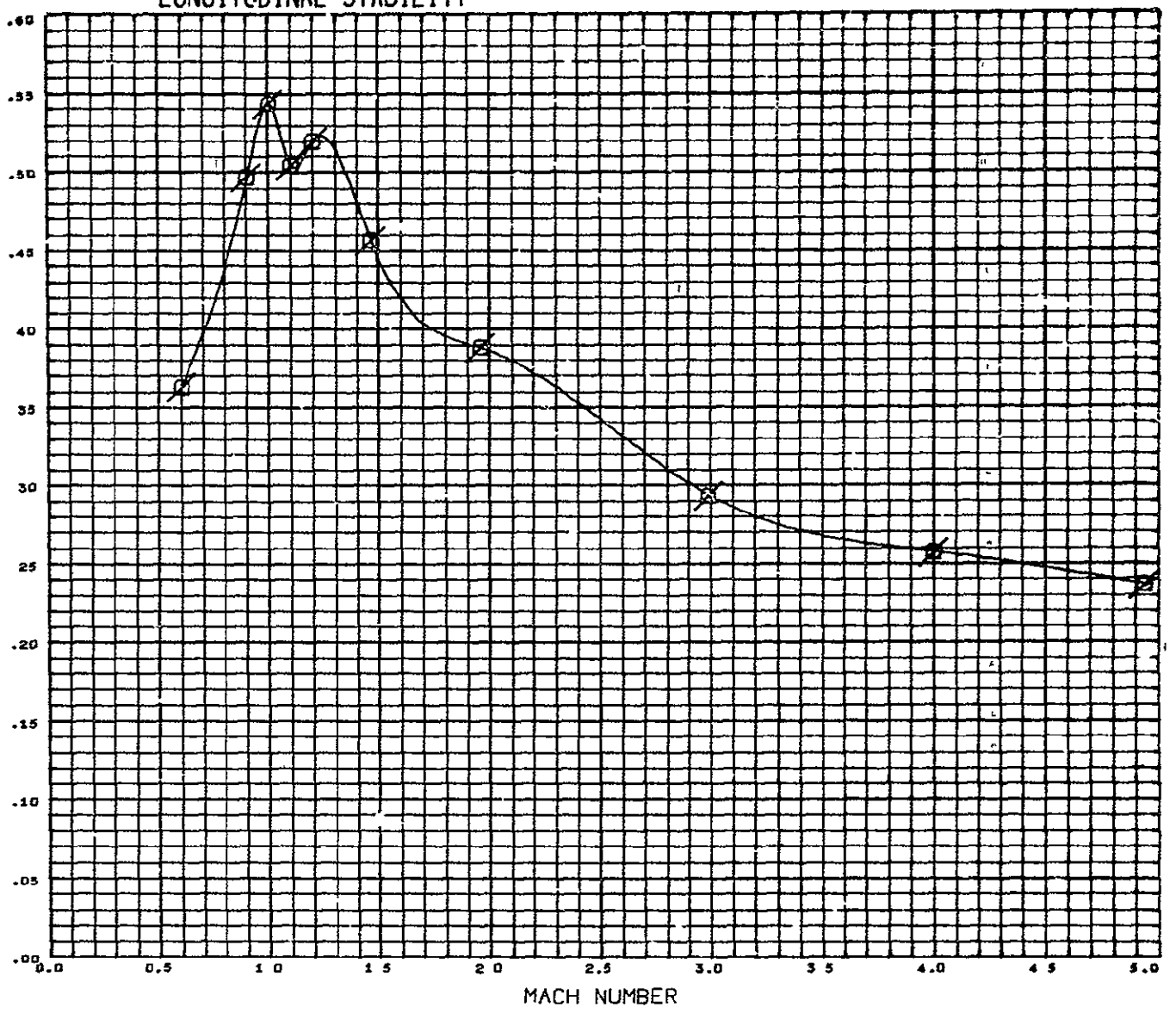
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

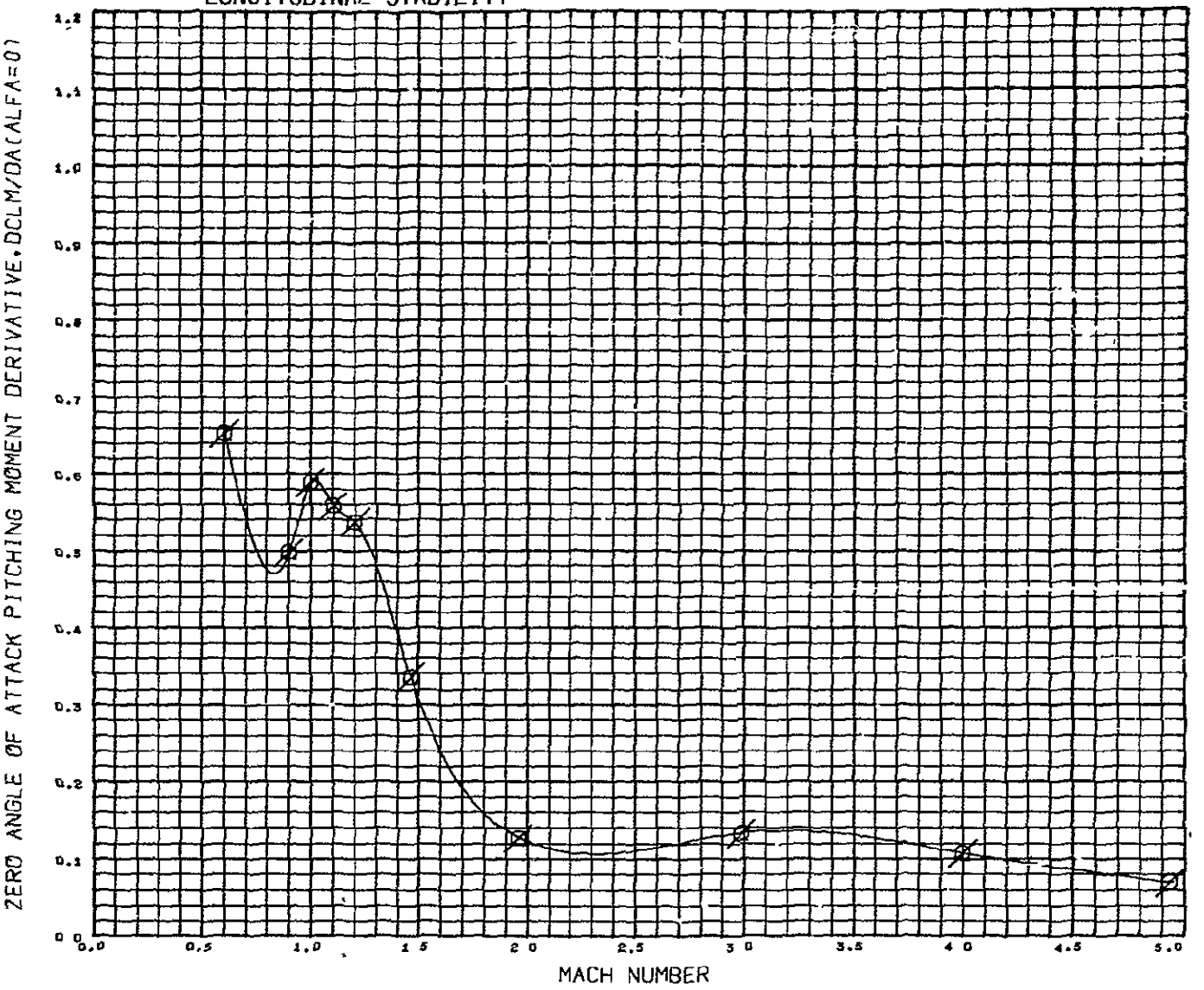
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

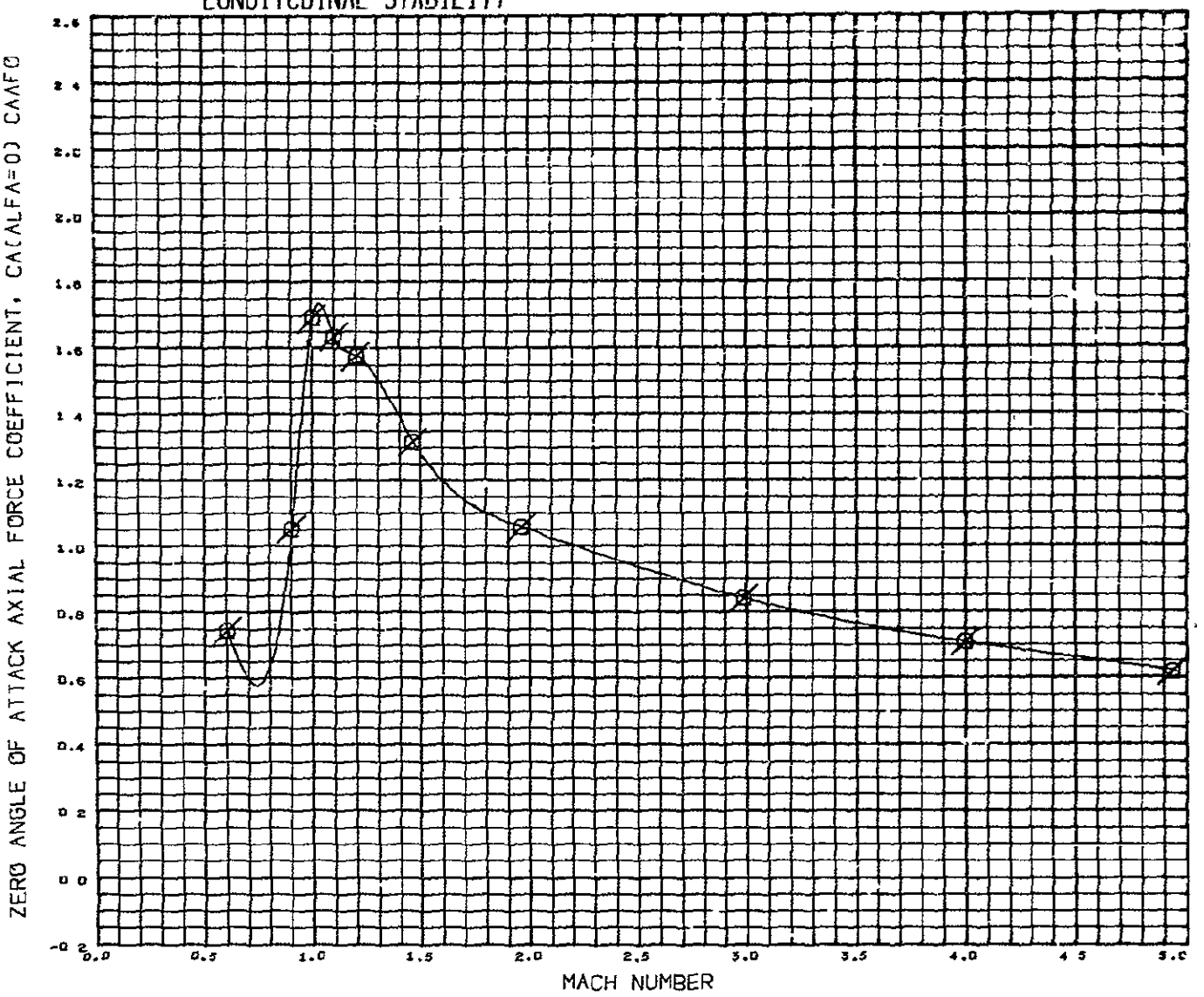
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0600	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*E1F

LONGITUDINAL STABILITY



PARAMETRIC VALUES

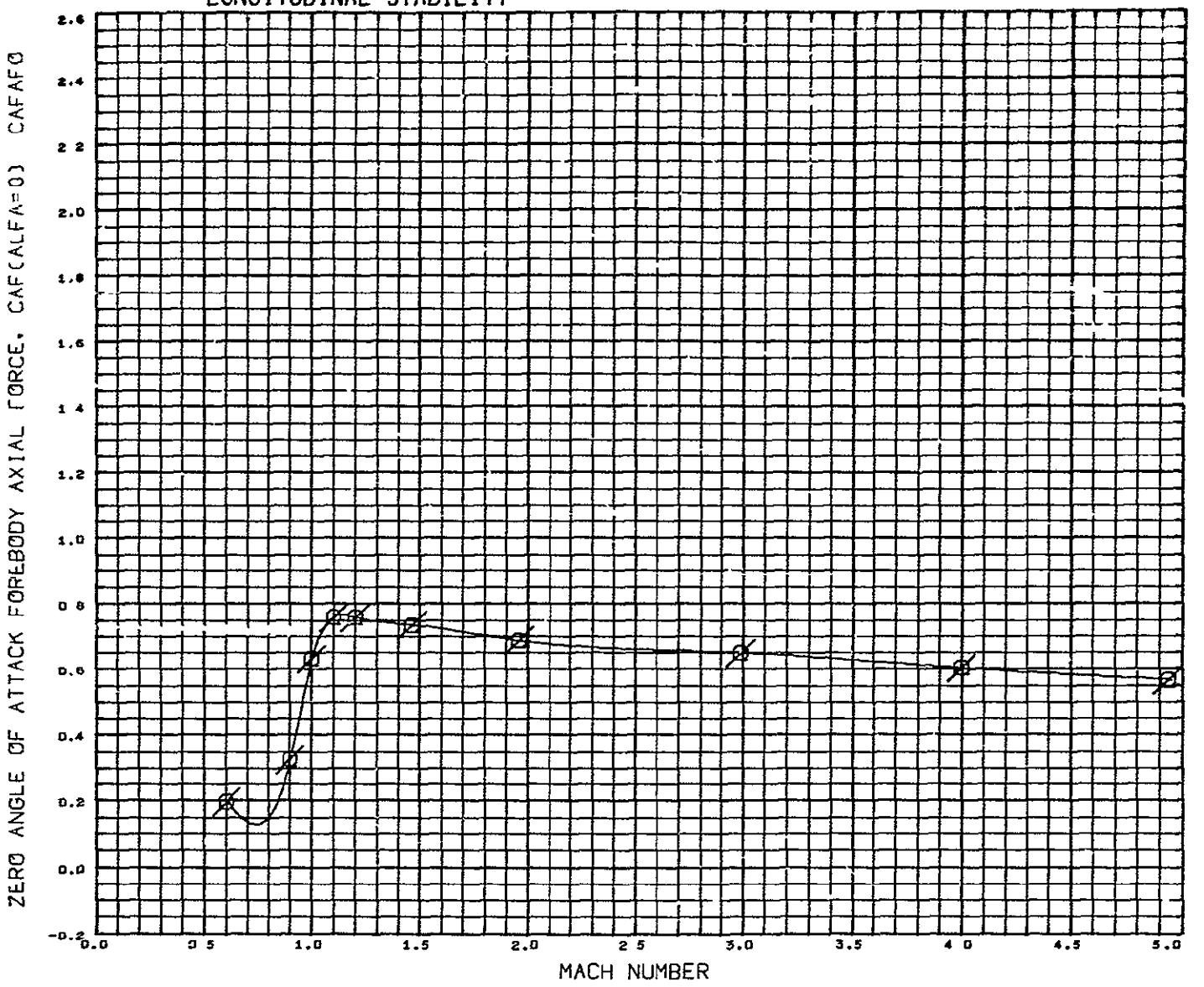
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*E1F

LONGITUDINAL STABILITY



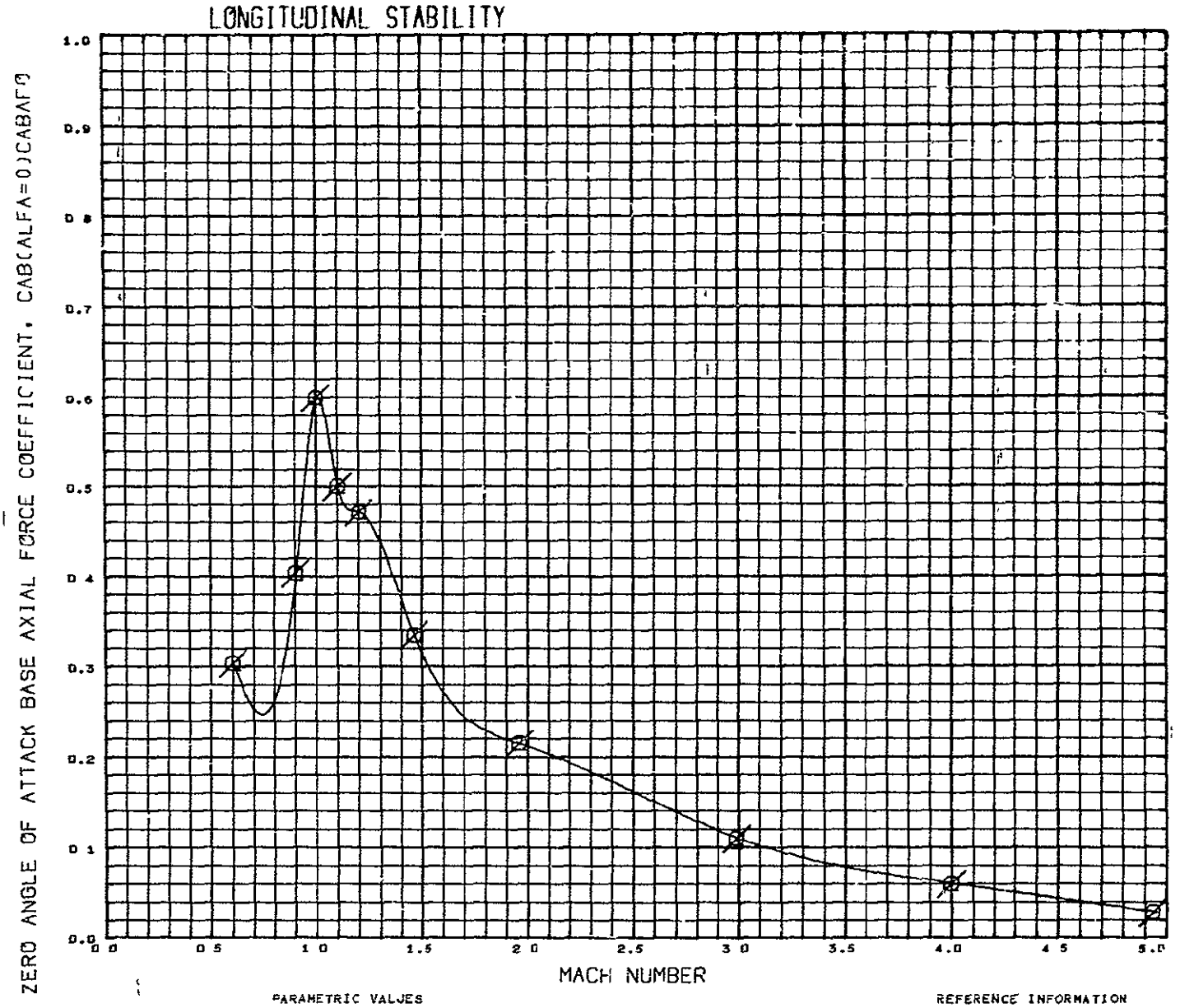
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

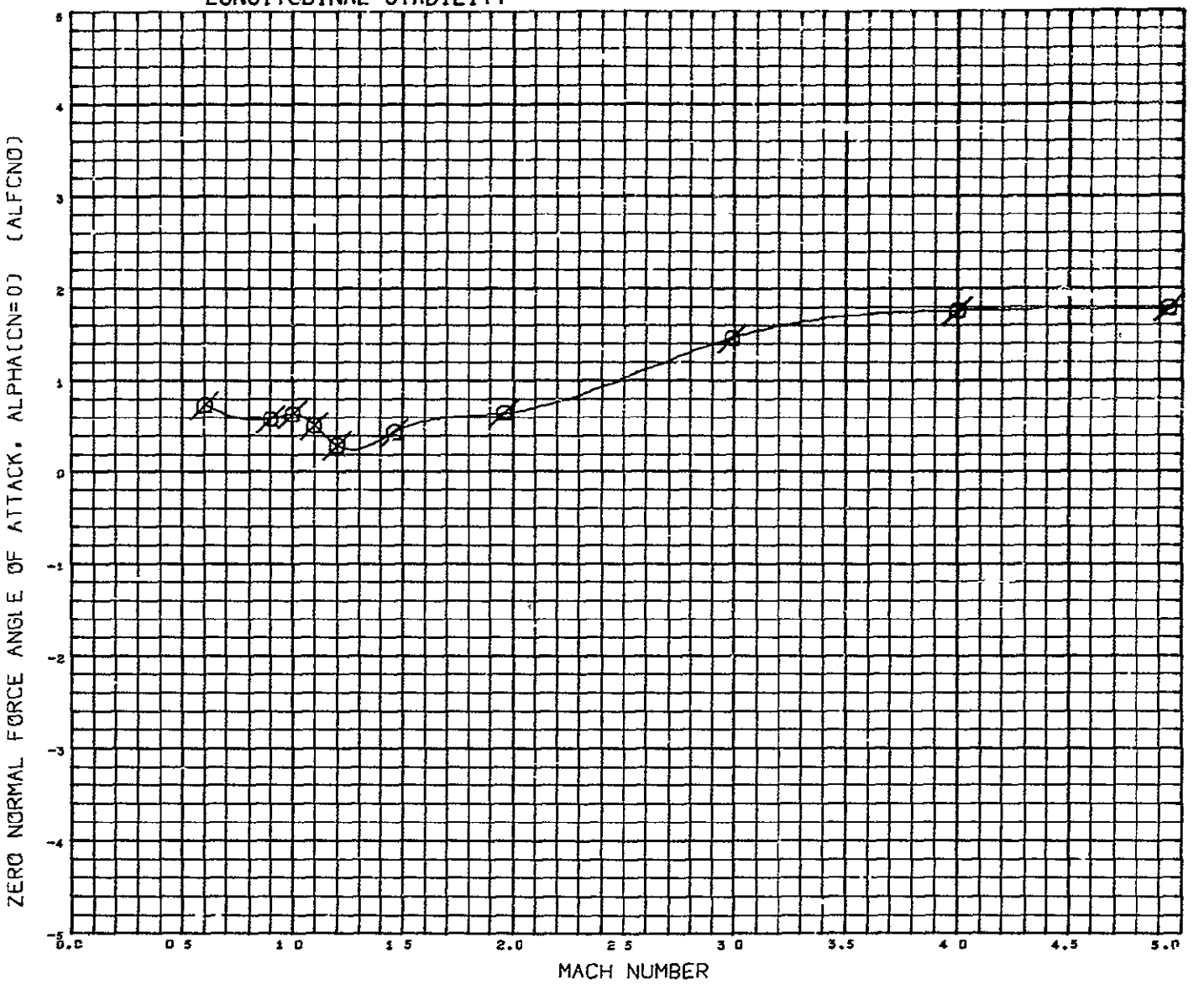
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0006	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



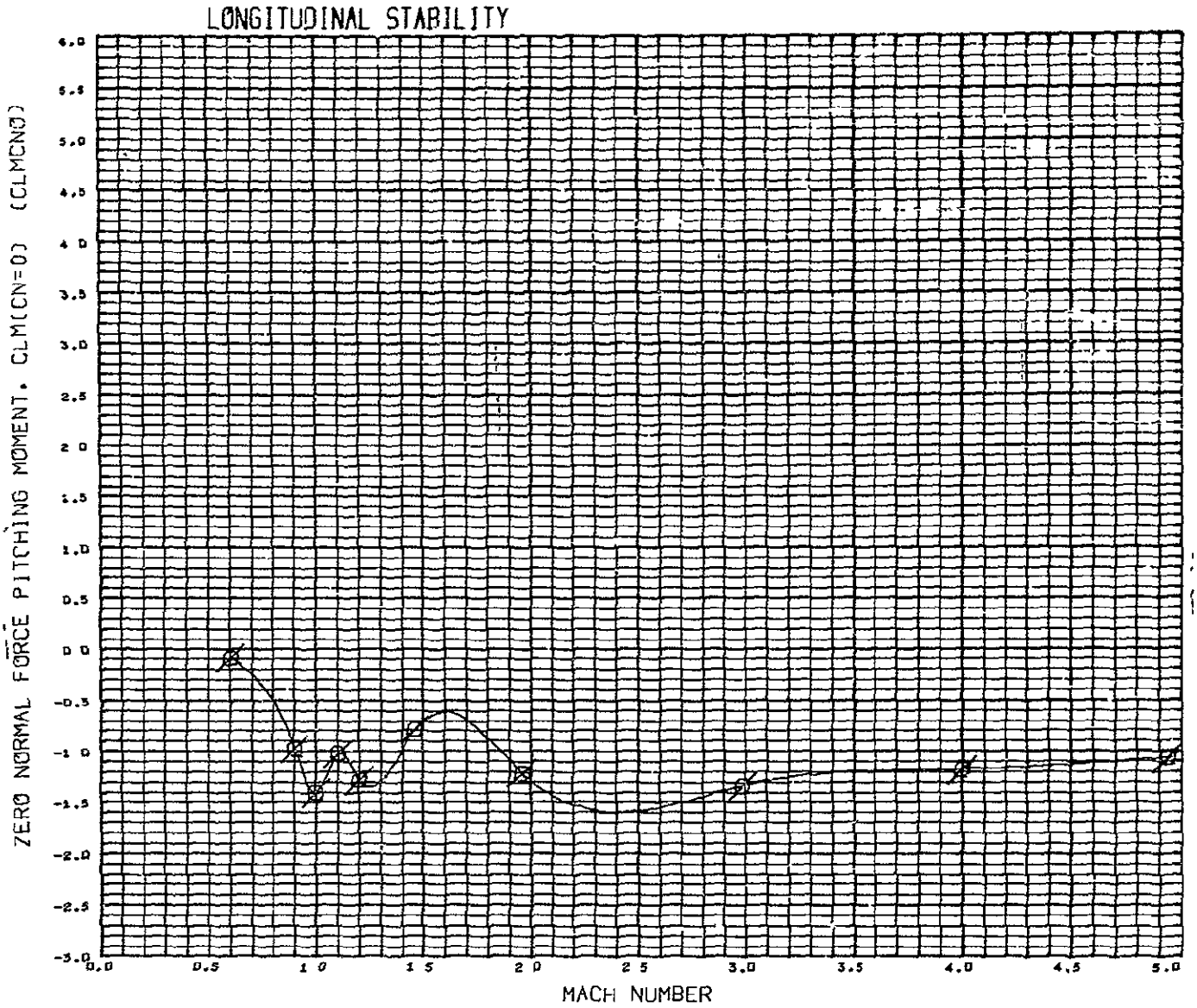
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF



PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M#EIF

LONGITUDINAL STABILITY

PARAMETRIC VALUES

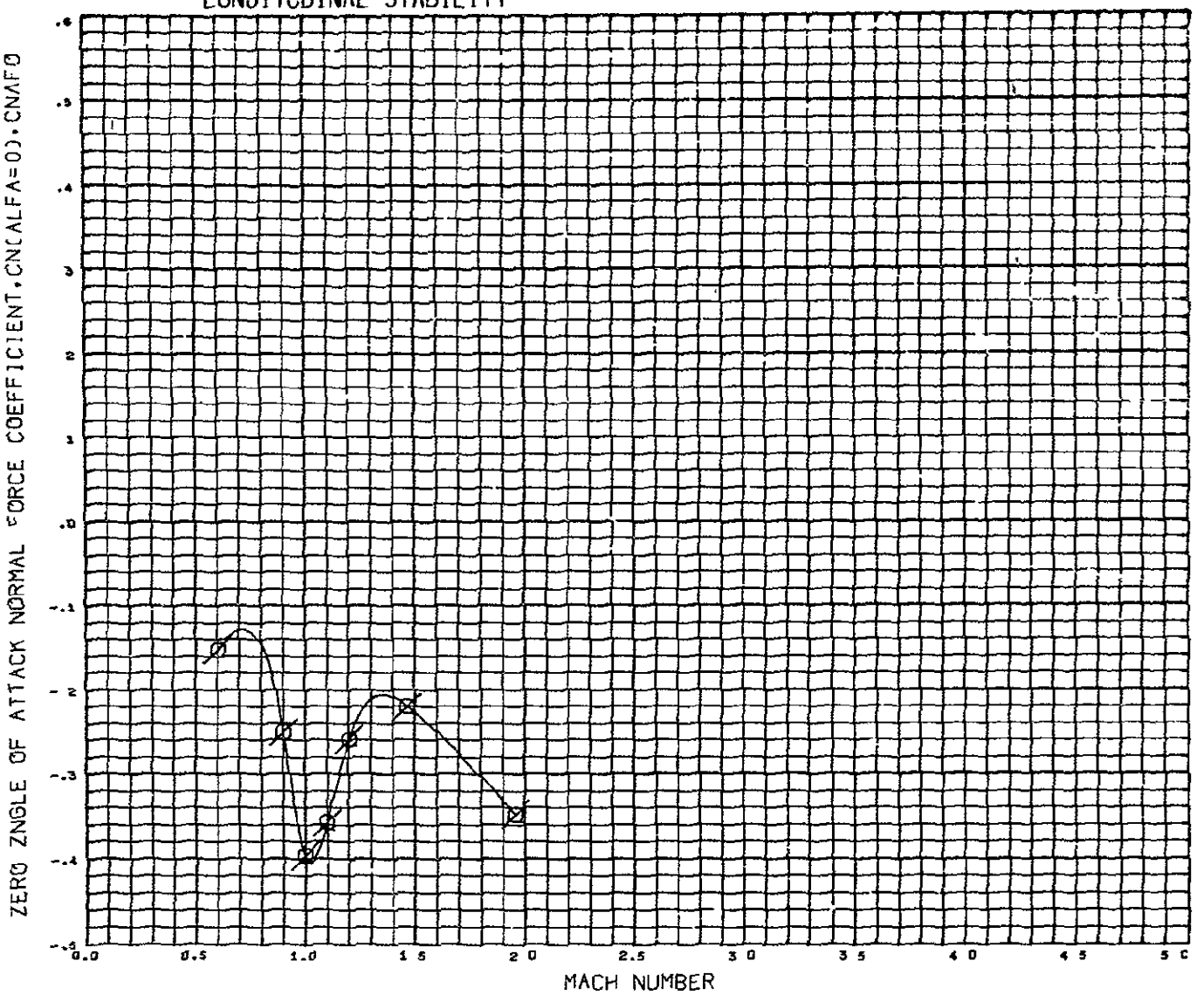
BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0.0030	IN
ZMRP	0 0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

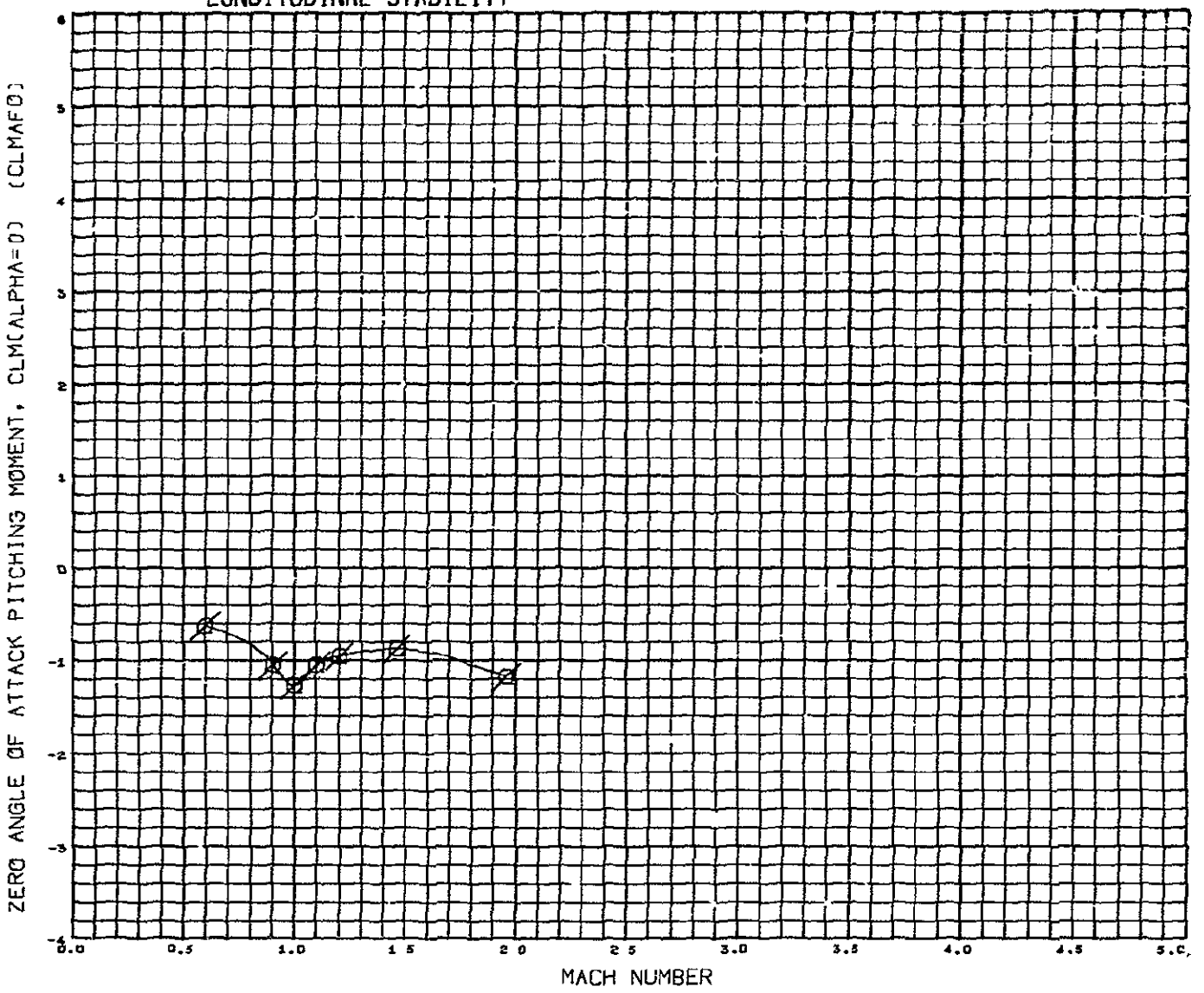
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

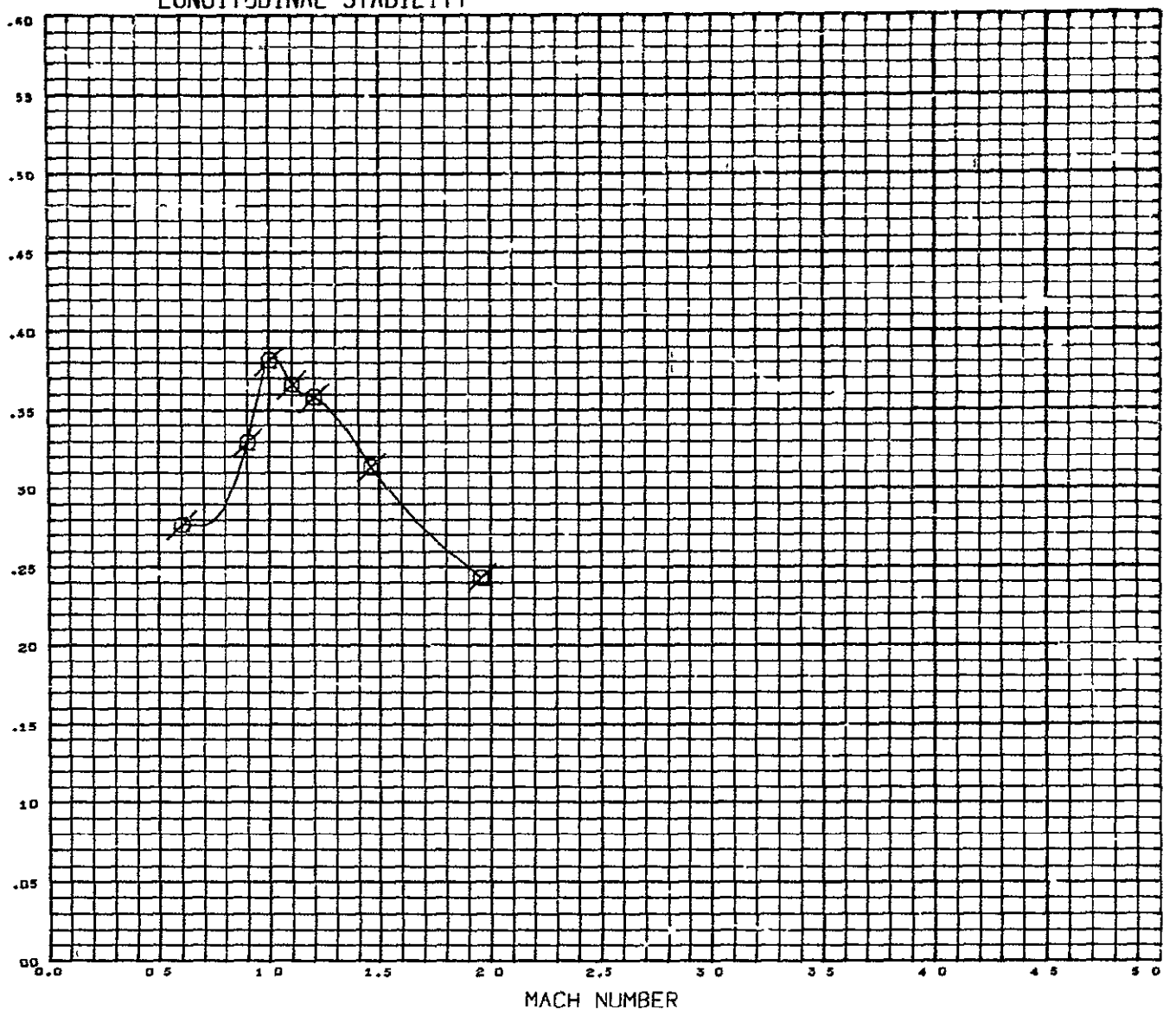
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6960	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

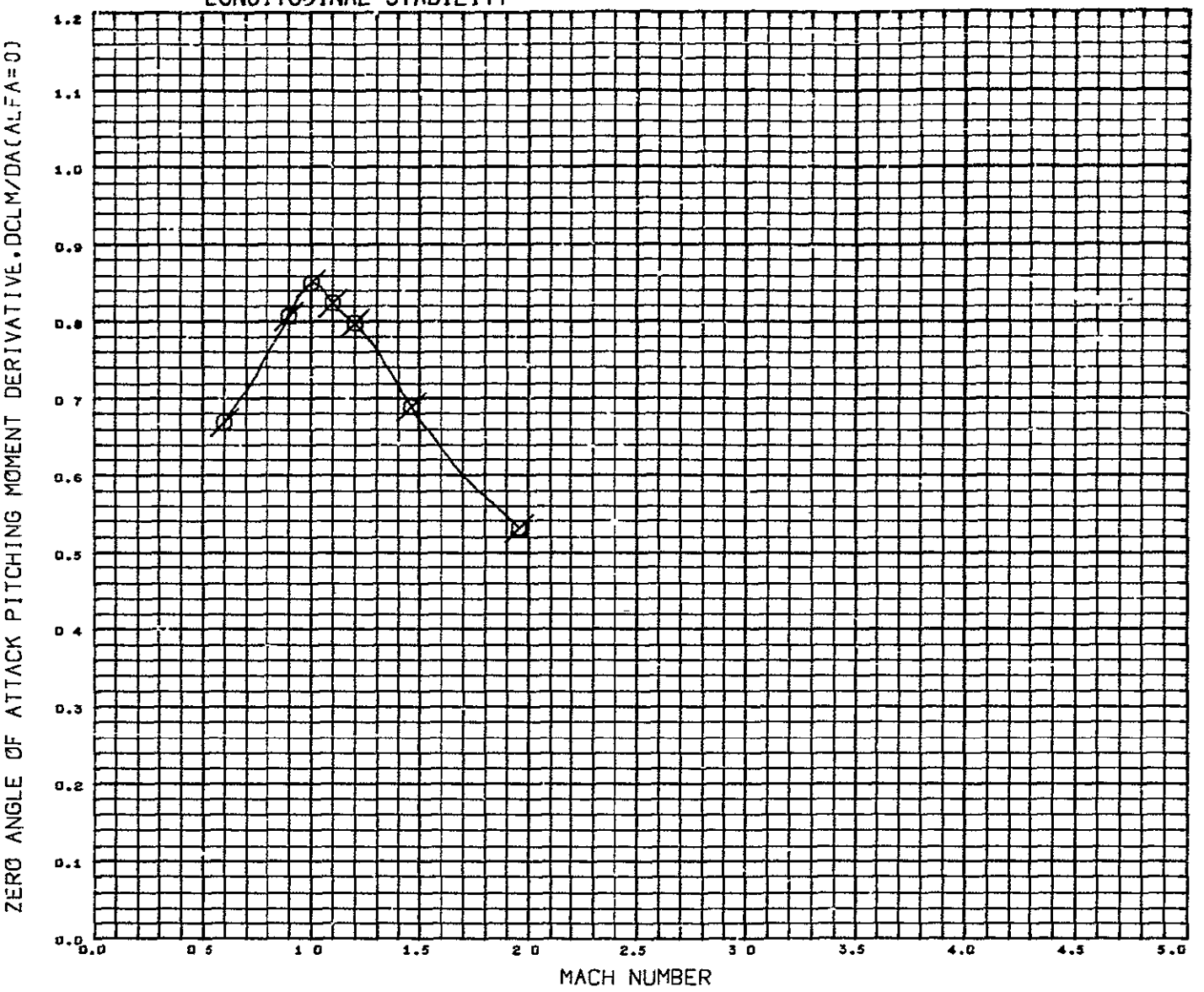
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*E1F

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0100	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

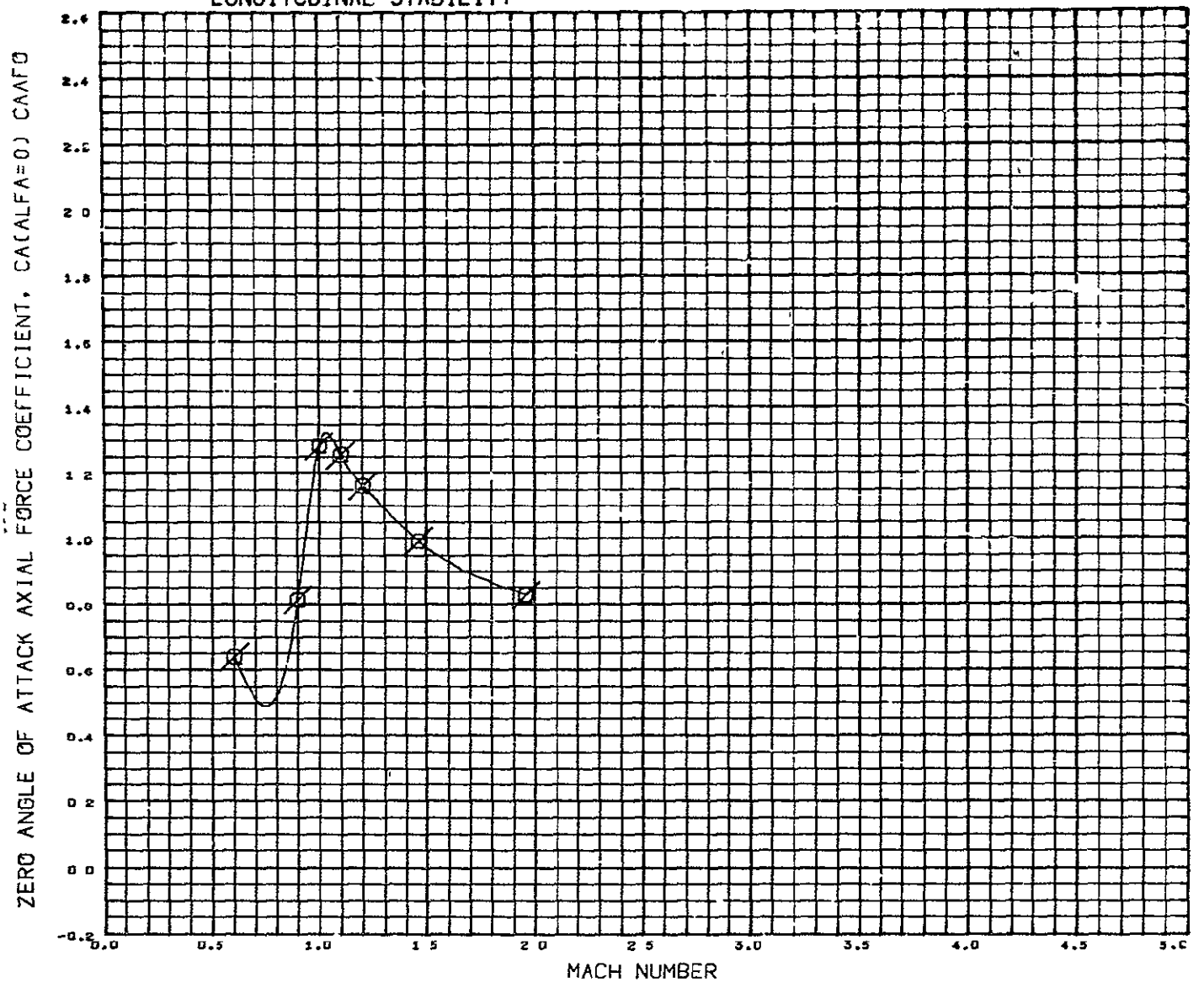
BETA 0.000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE H*EIF

LONGITUDINAL STABILITY



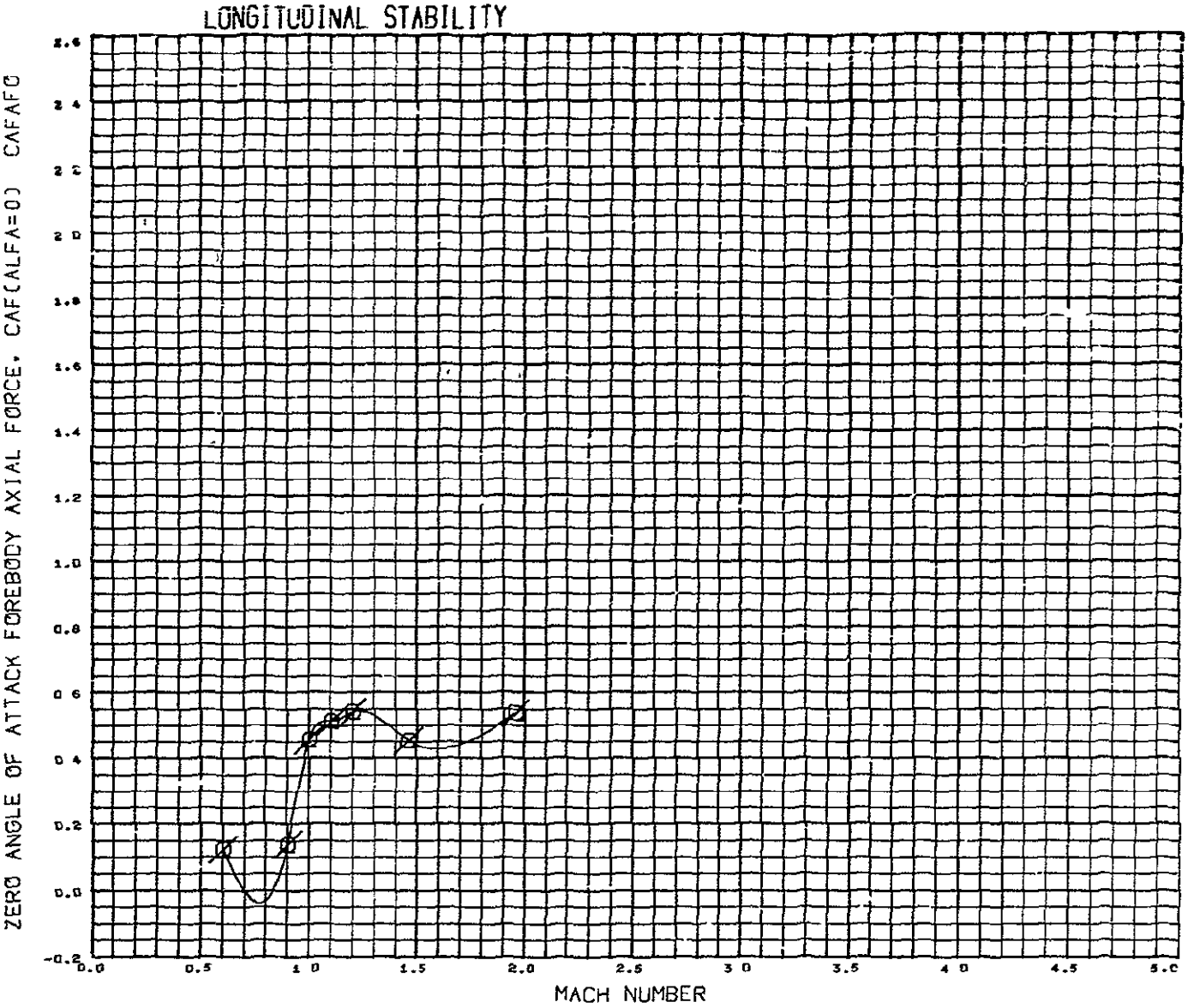
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST CODE H*CIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

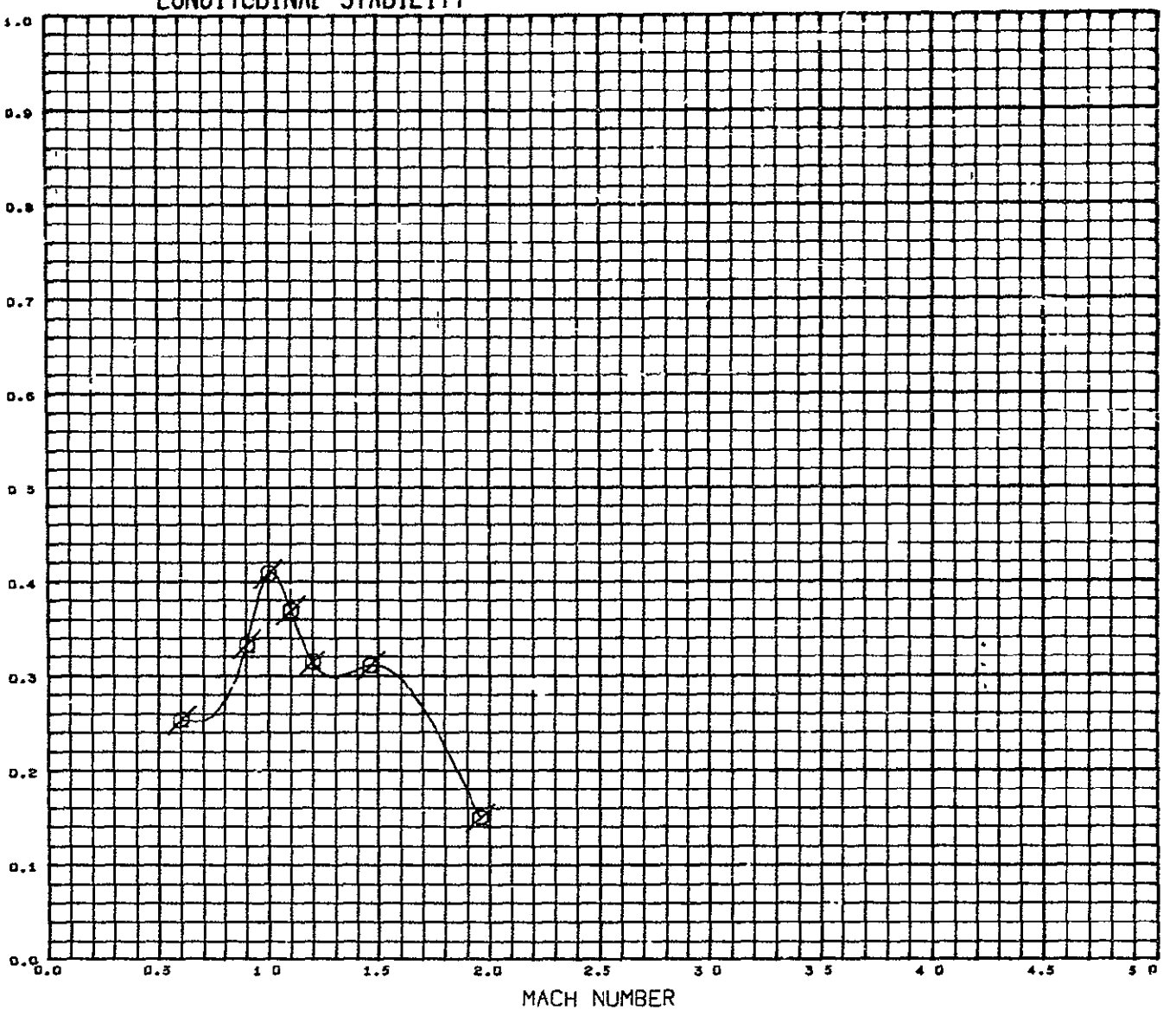
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M#EIF

LONGITUDINAL STABILITY



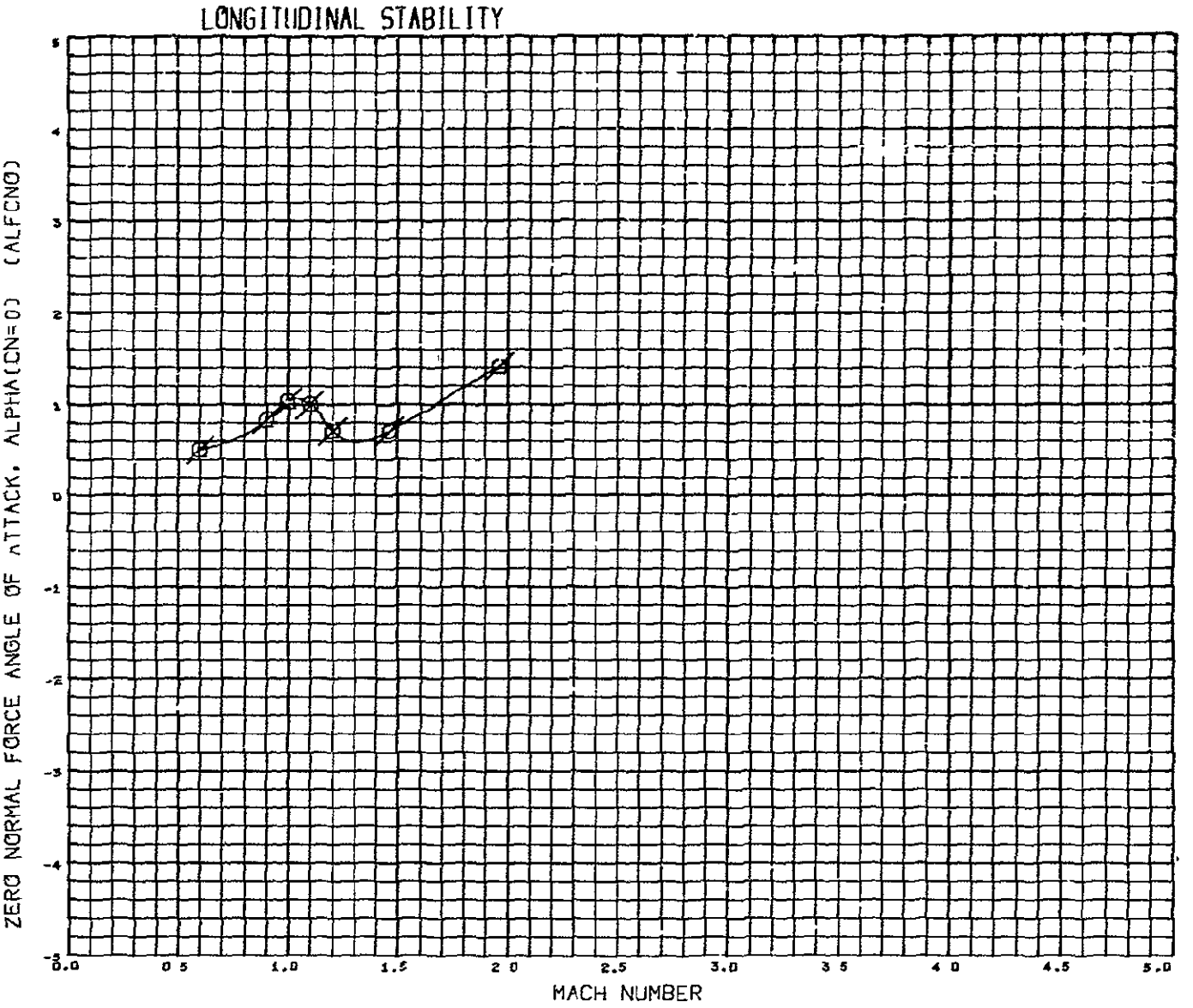
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

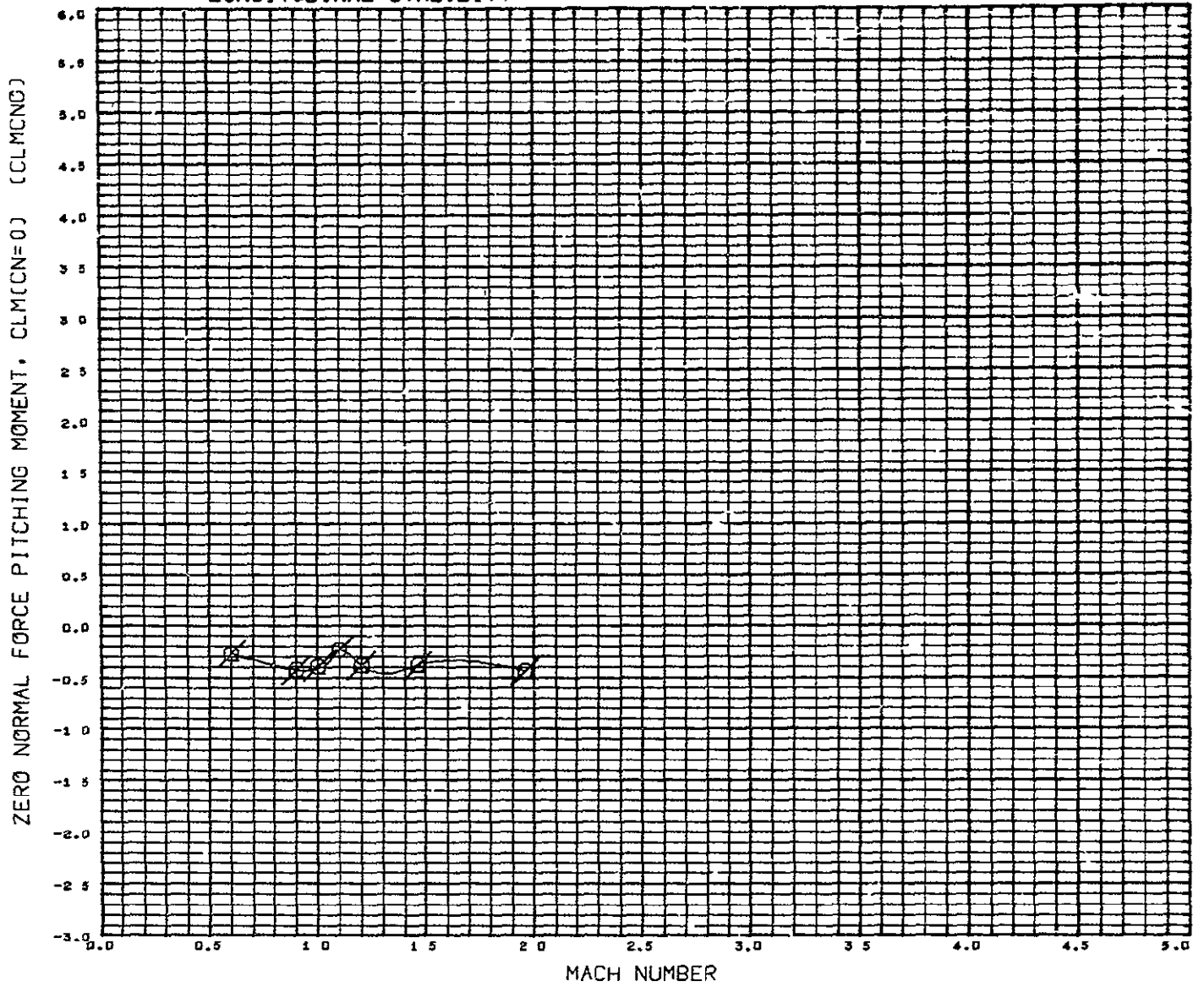
BETA 0.000 ORBINC - 5.100

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0300	IN
ZMRF	0.0009	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



PARAMETRIC VALUES

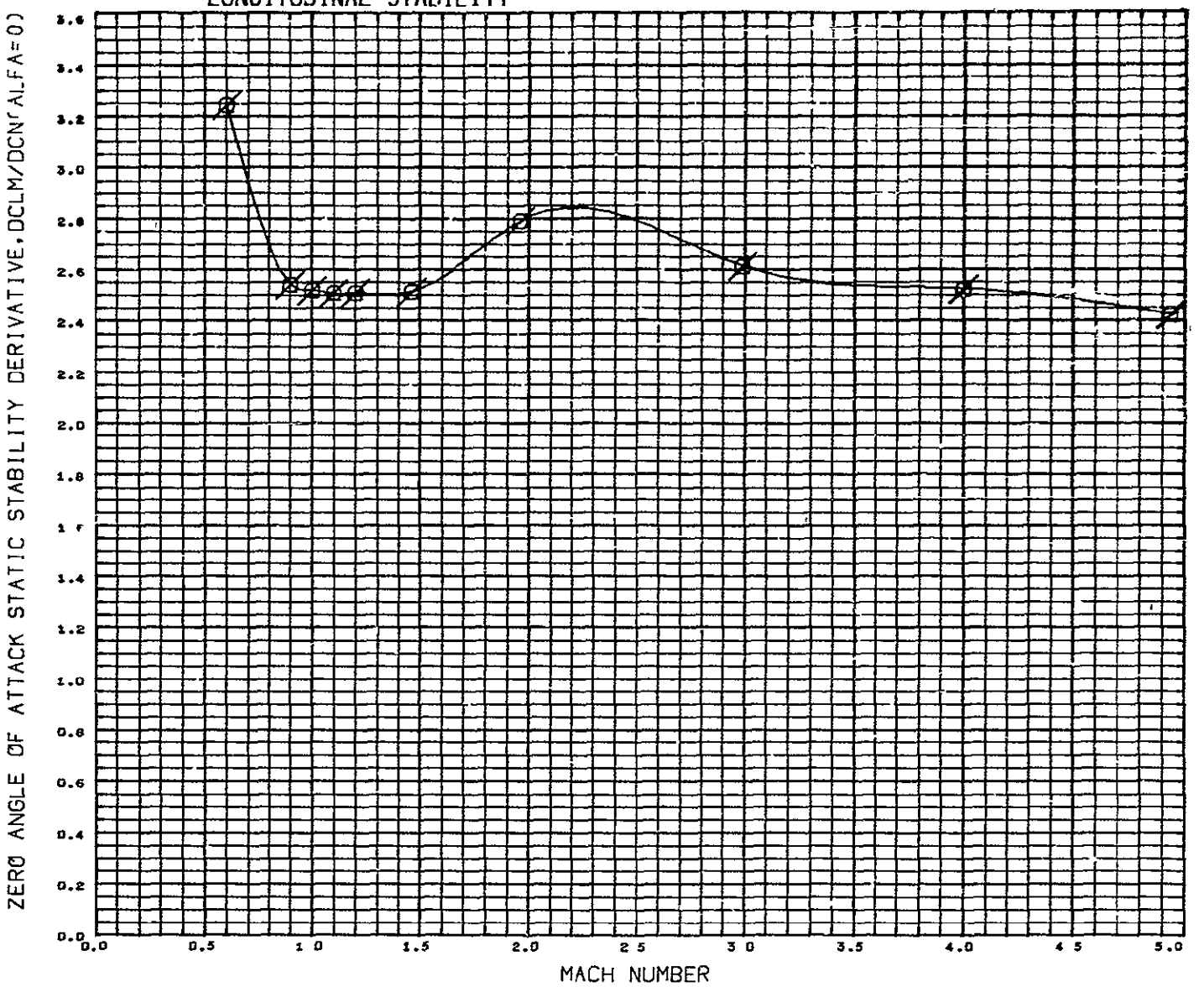
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0054	

DATA HIST CODE M*EIF

LONGITUDINAL STABILITY



PARAMETRIC VALUES

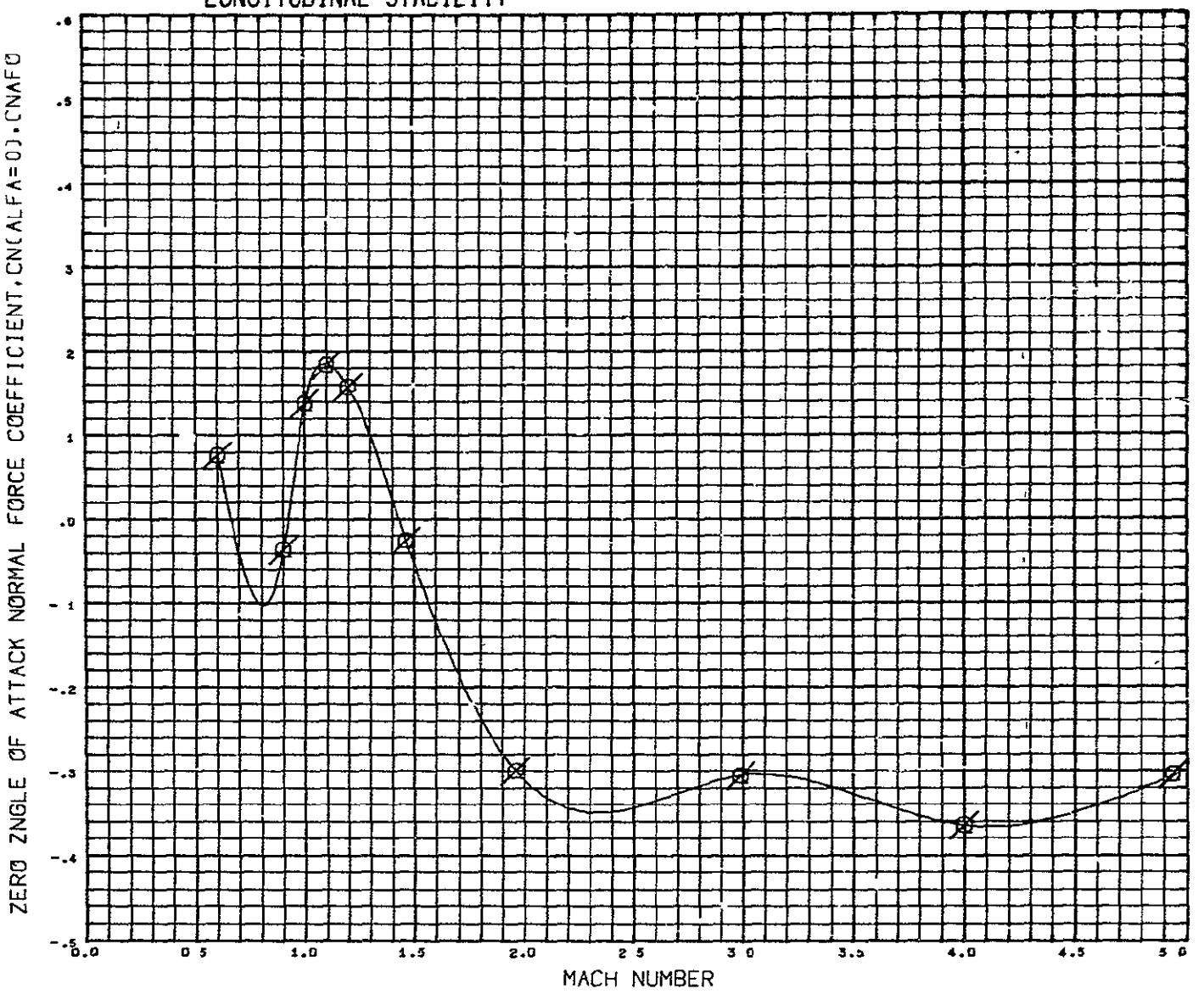
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE MM*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LONGITUDINAL STABILITY



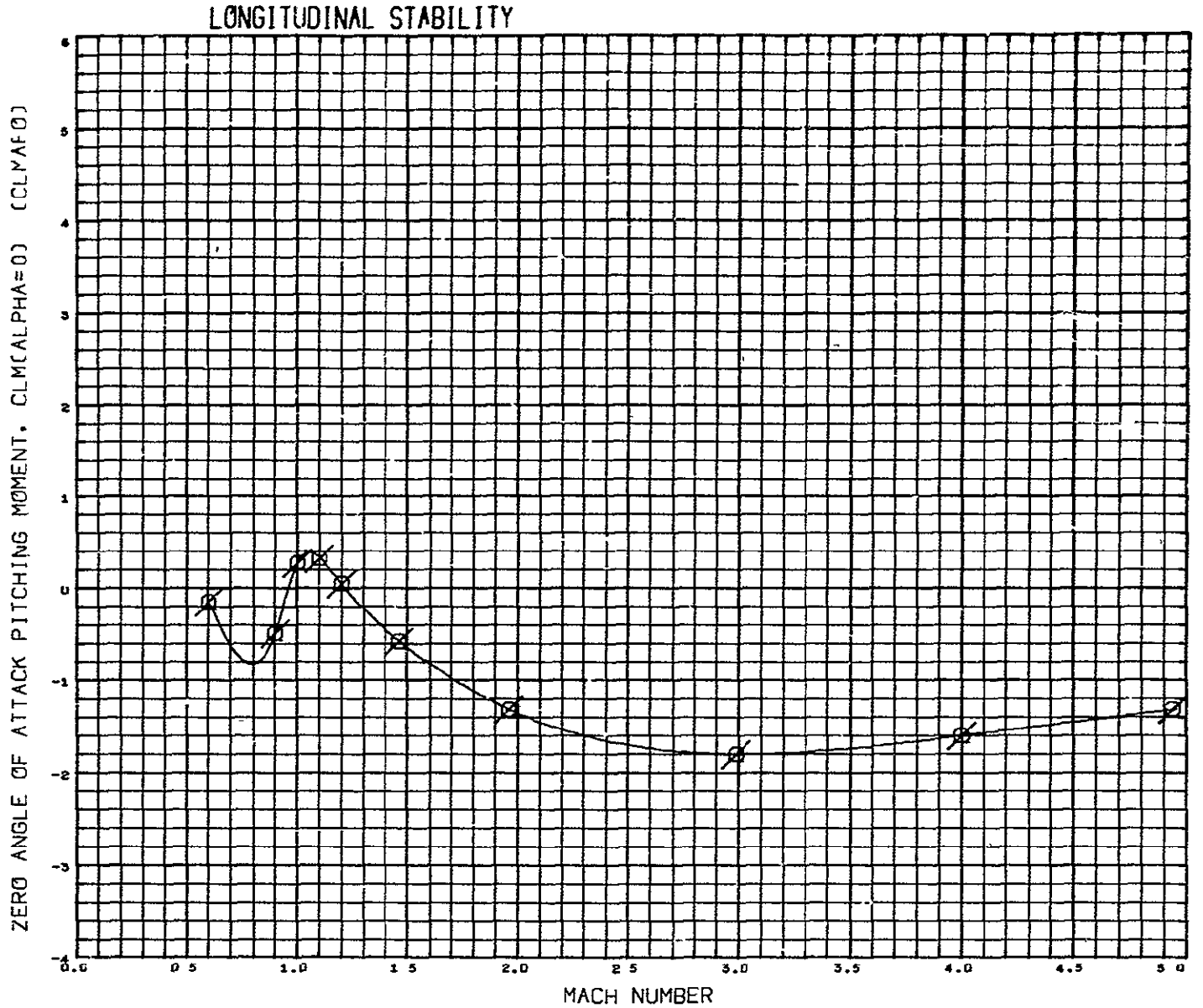
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MH*EIF



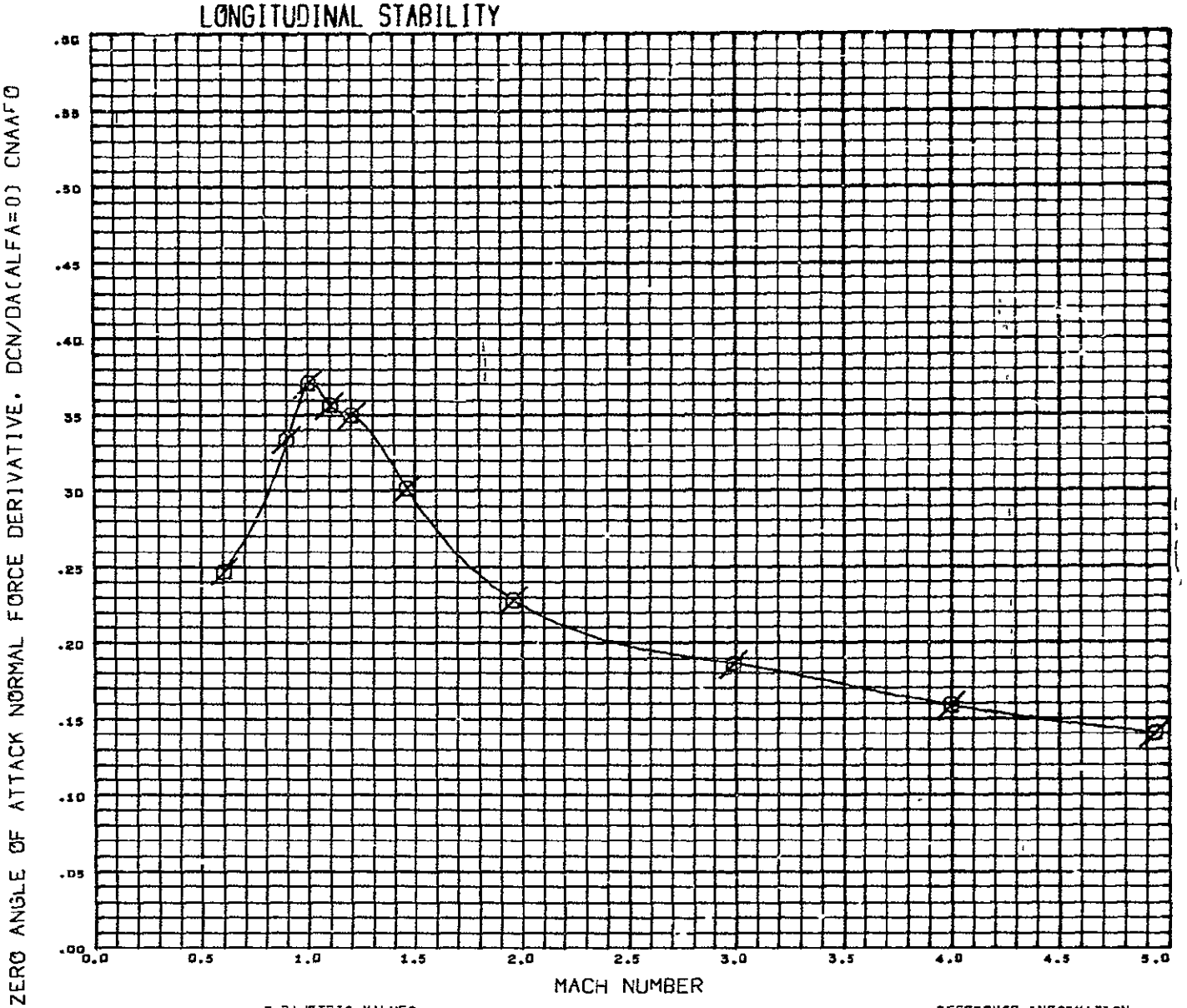
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

DATA HIST CODE MM*EIF



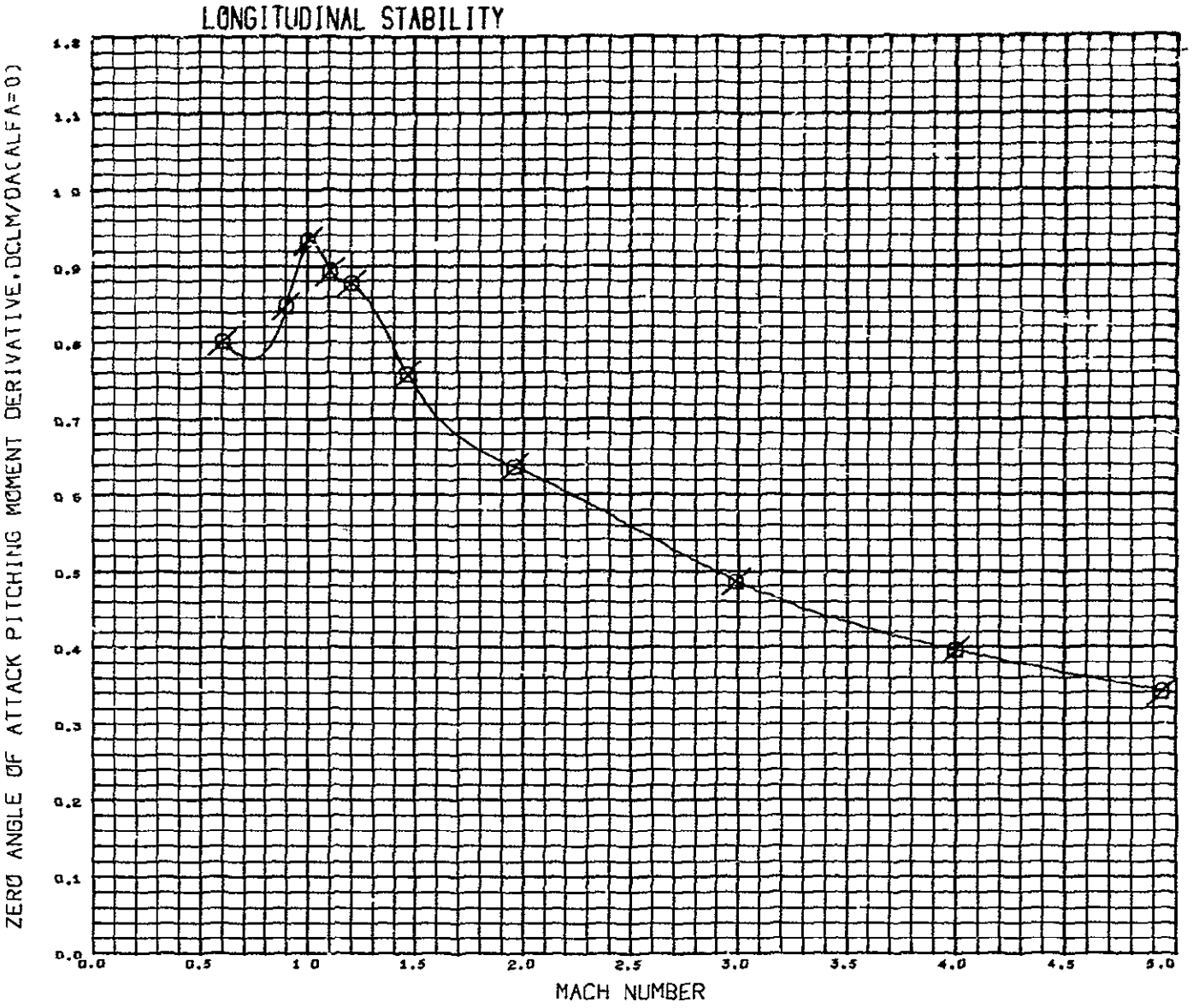
PARAMETRIC VALUES

BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST. CODE HM*EIF



PARAMETRIC VALUES

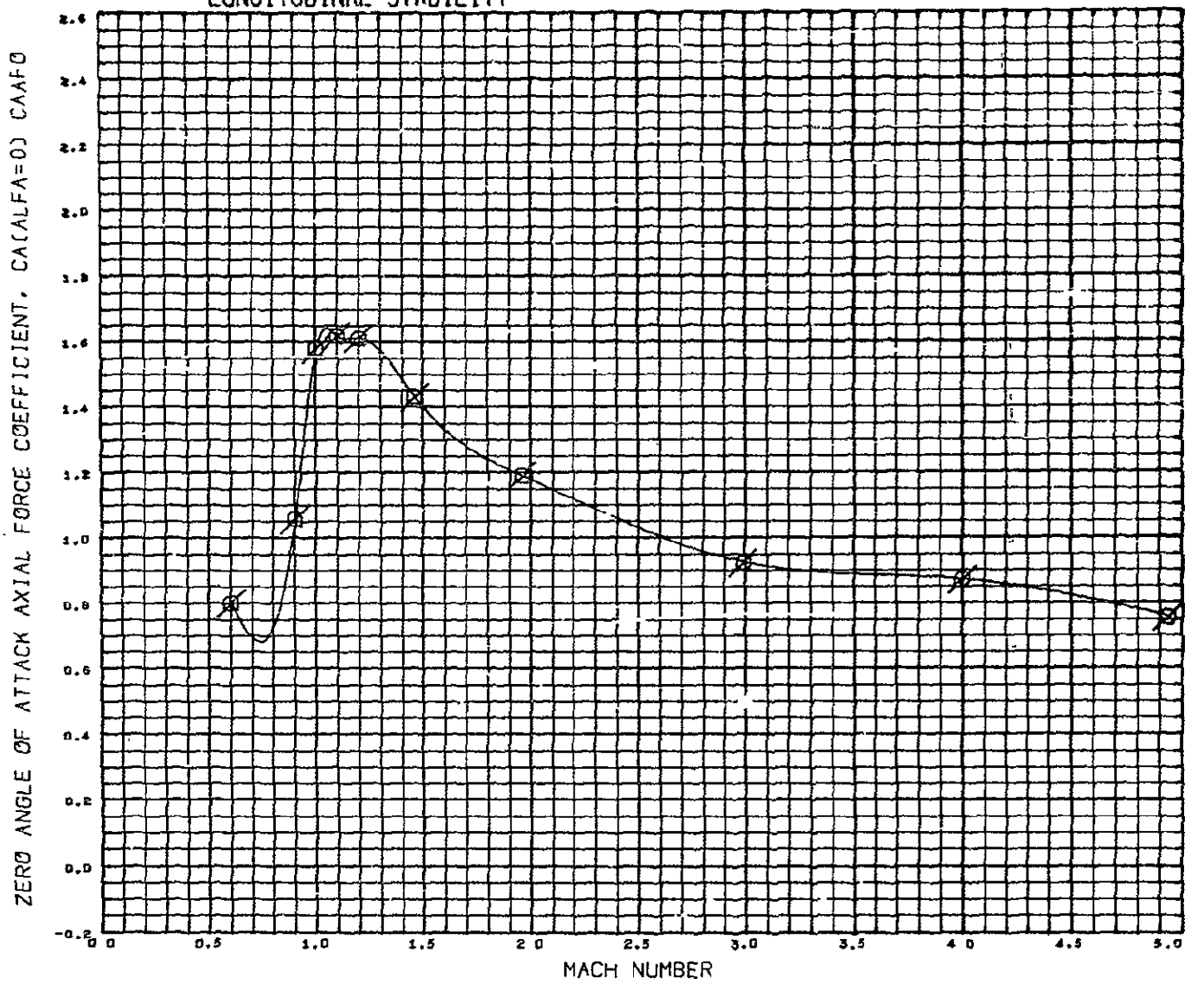
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*EIF

LONGITUDINAL STABILITY



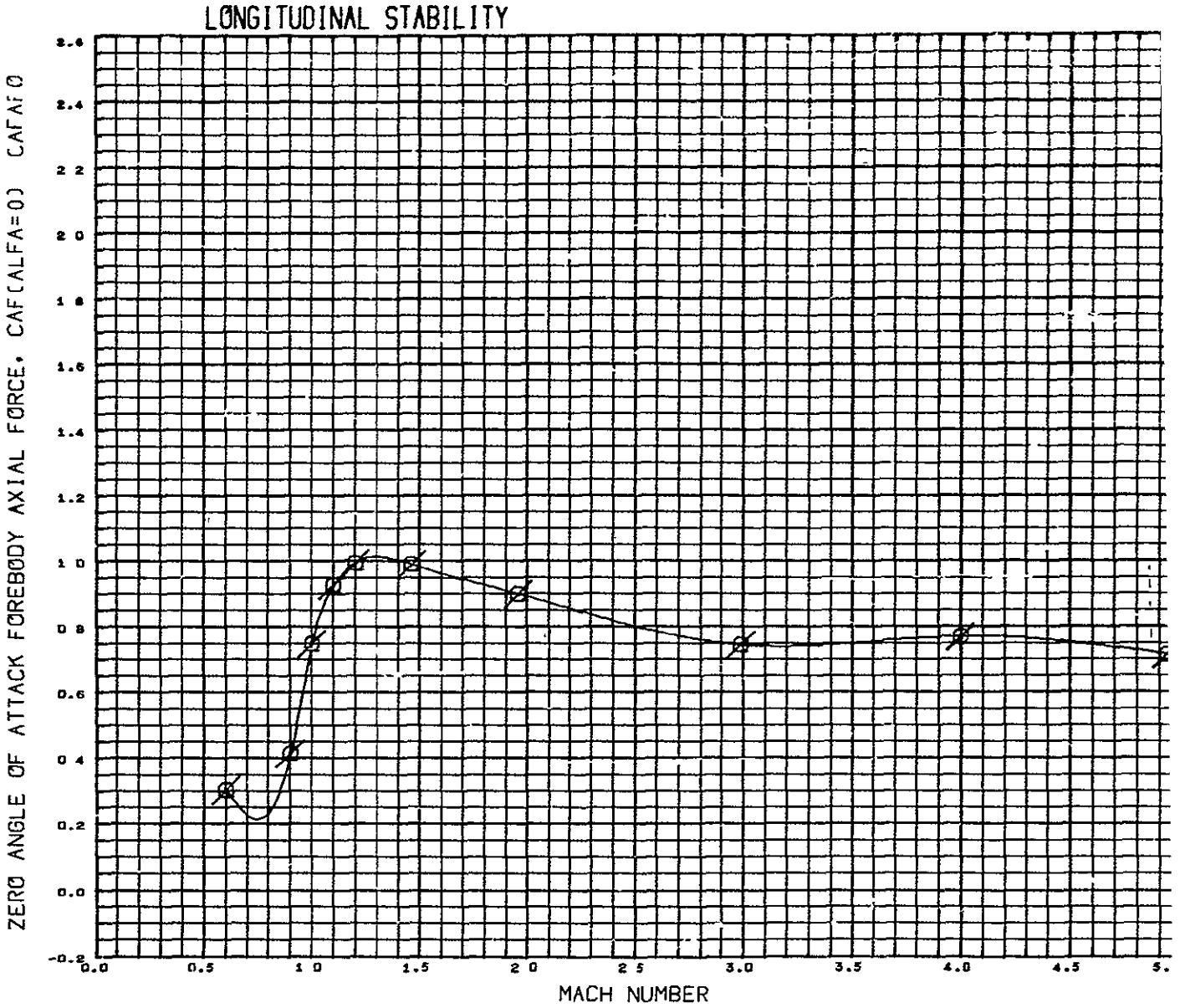
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

DATA HIST CODE MM*EIF



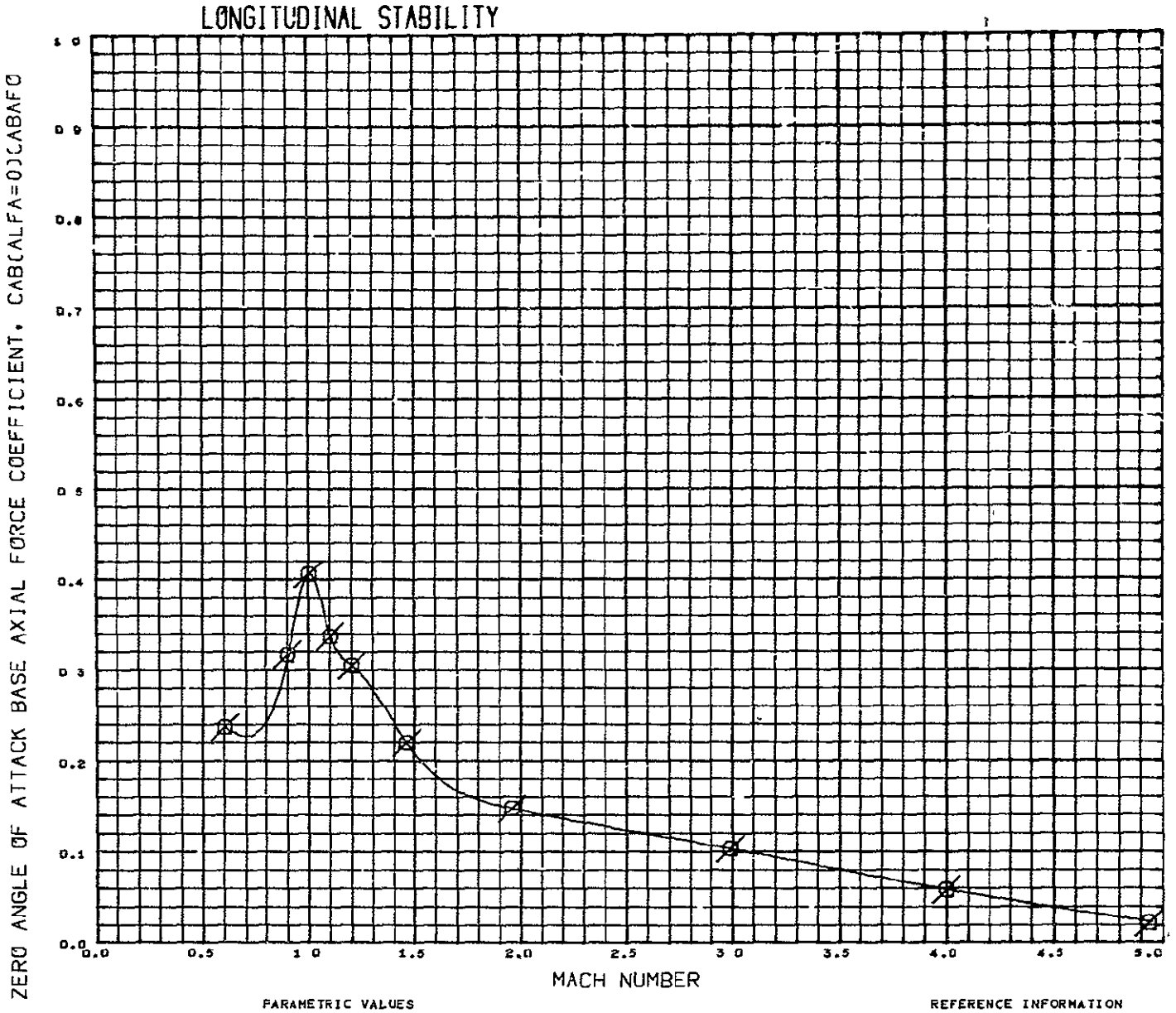
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST CODE MM*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



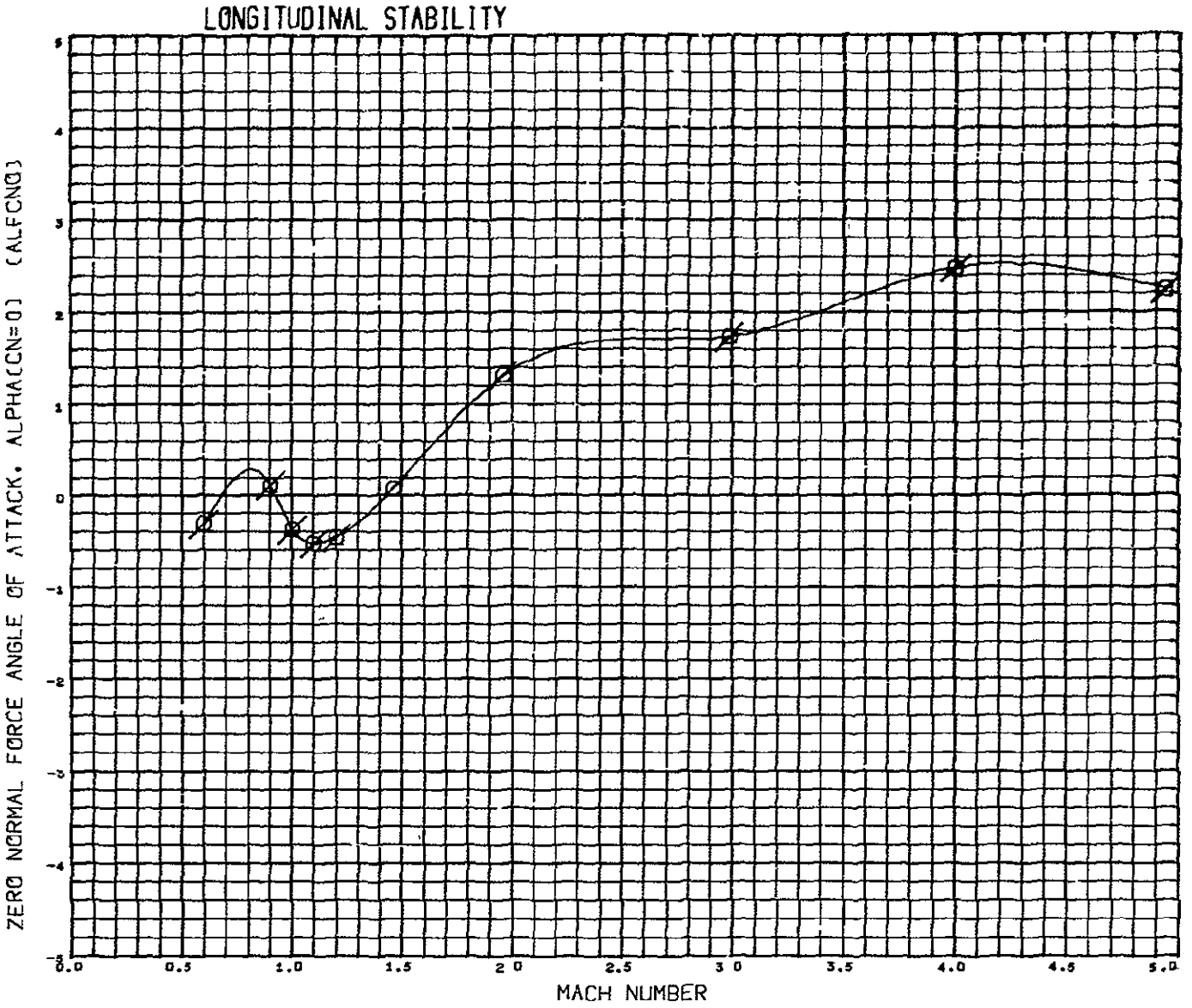
PARAMETRIC VALUES

BETA 0.000 ORBINC 3.00

DATA HIST CODE MM#EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*EIF

PARAMETRIC VALUES

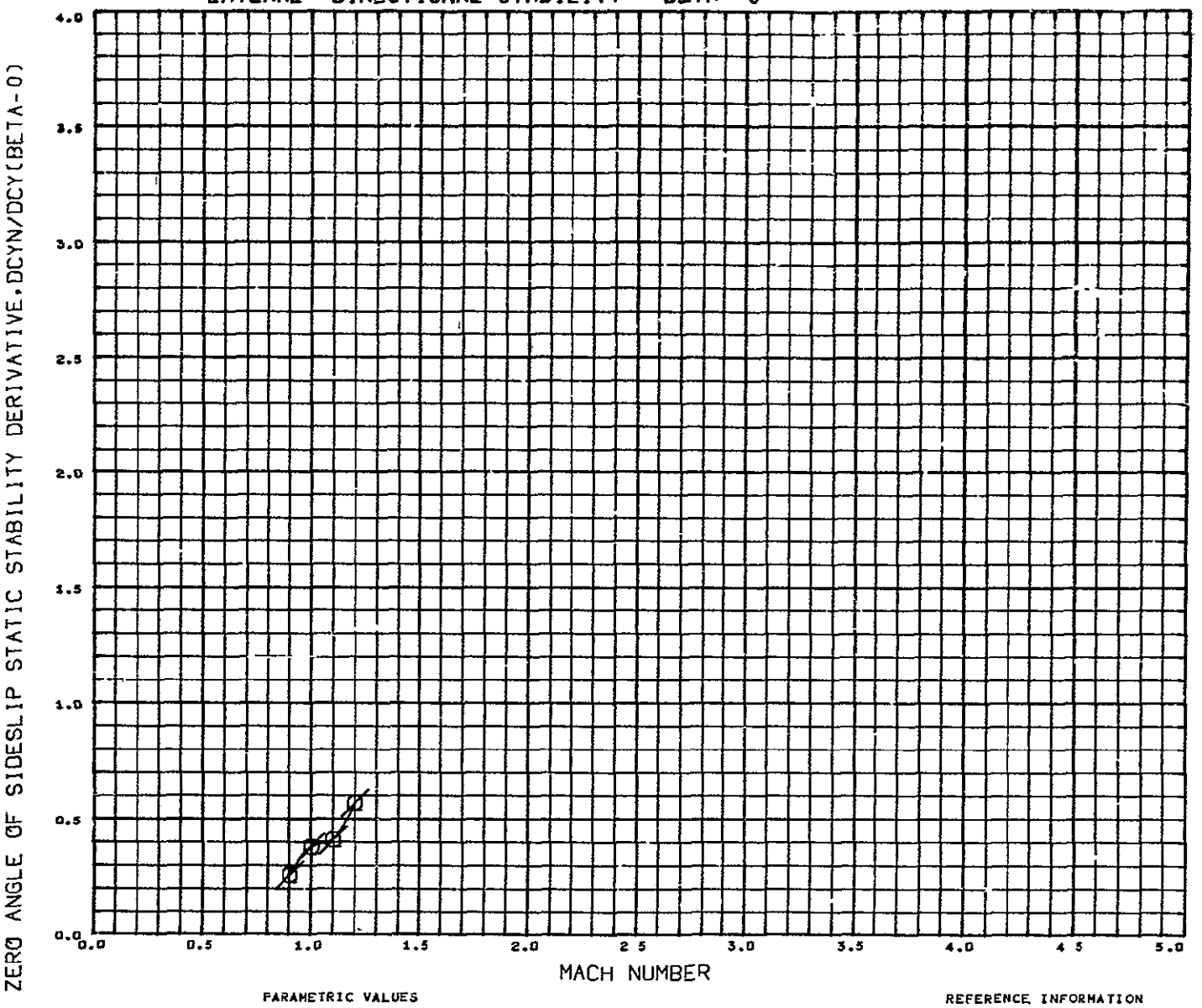
BETA 0.000 ORBINC - 3.100

DATA HIST CODE HM*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3230	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0047	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

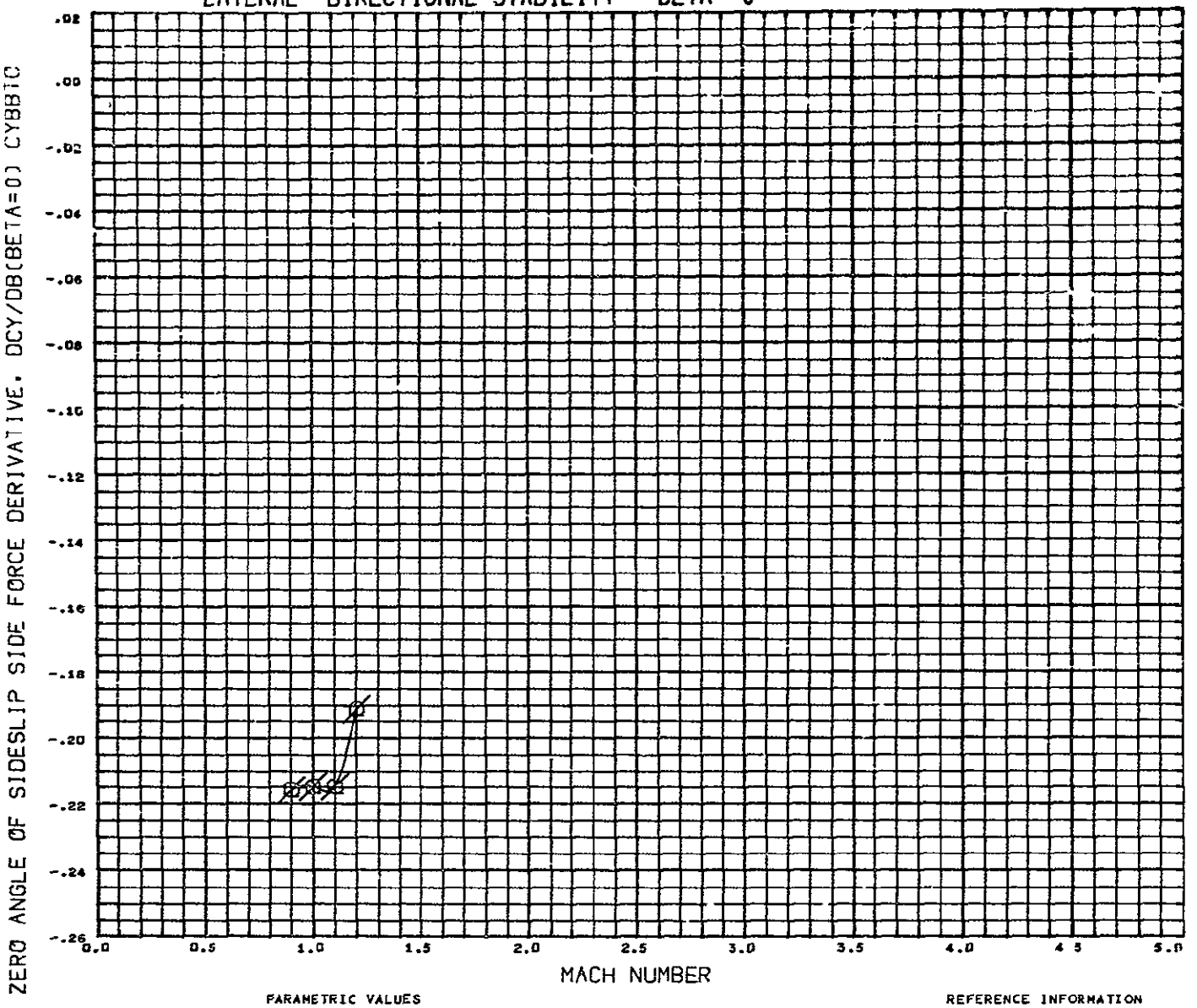
ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE M*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

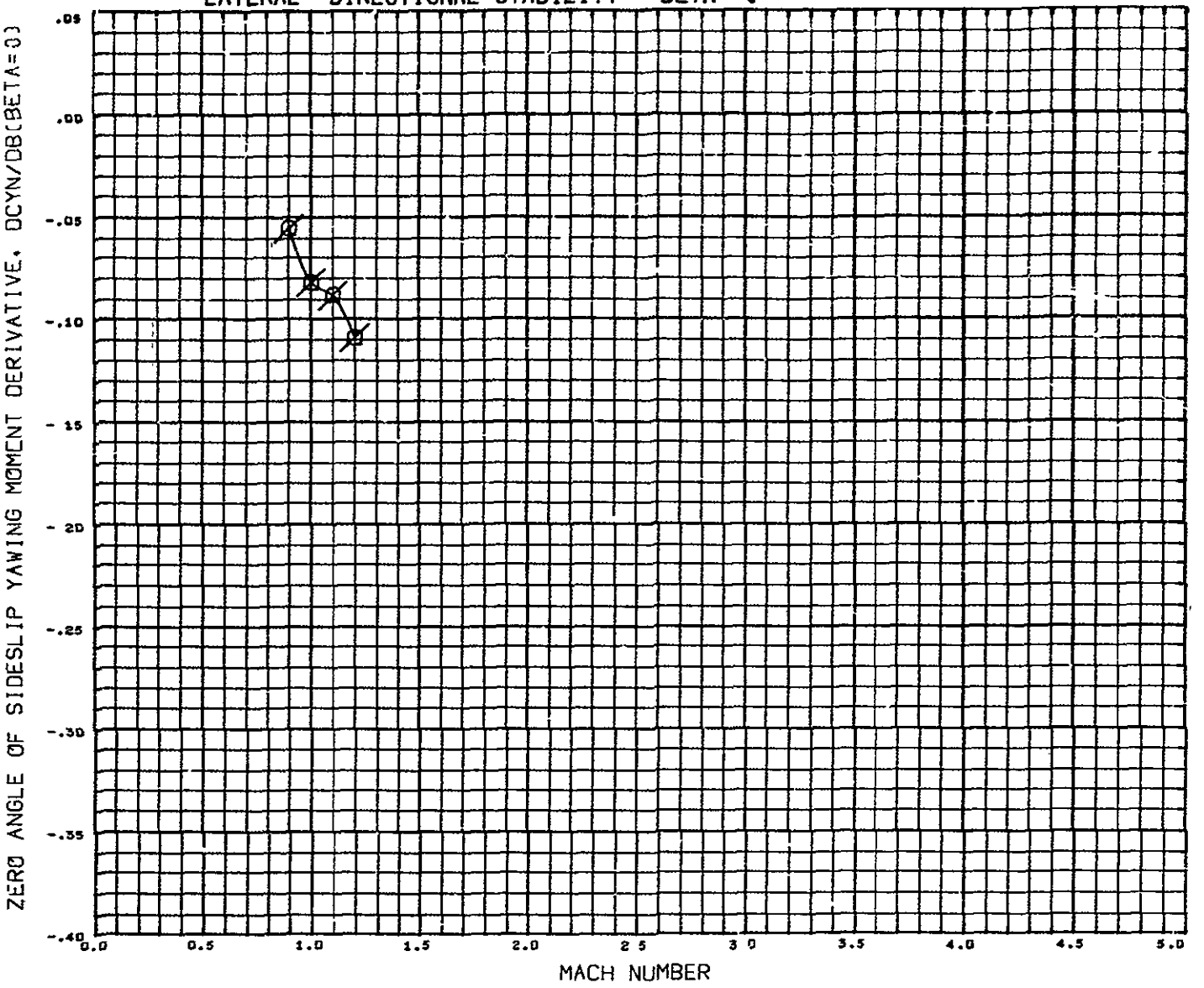
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0001	IN
SCALE	0.0034	

DATA HIST CODE H*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



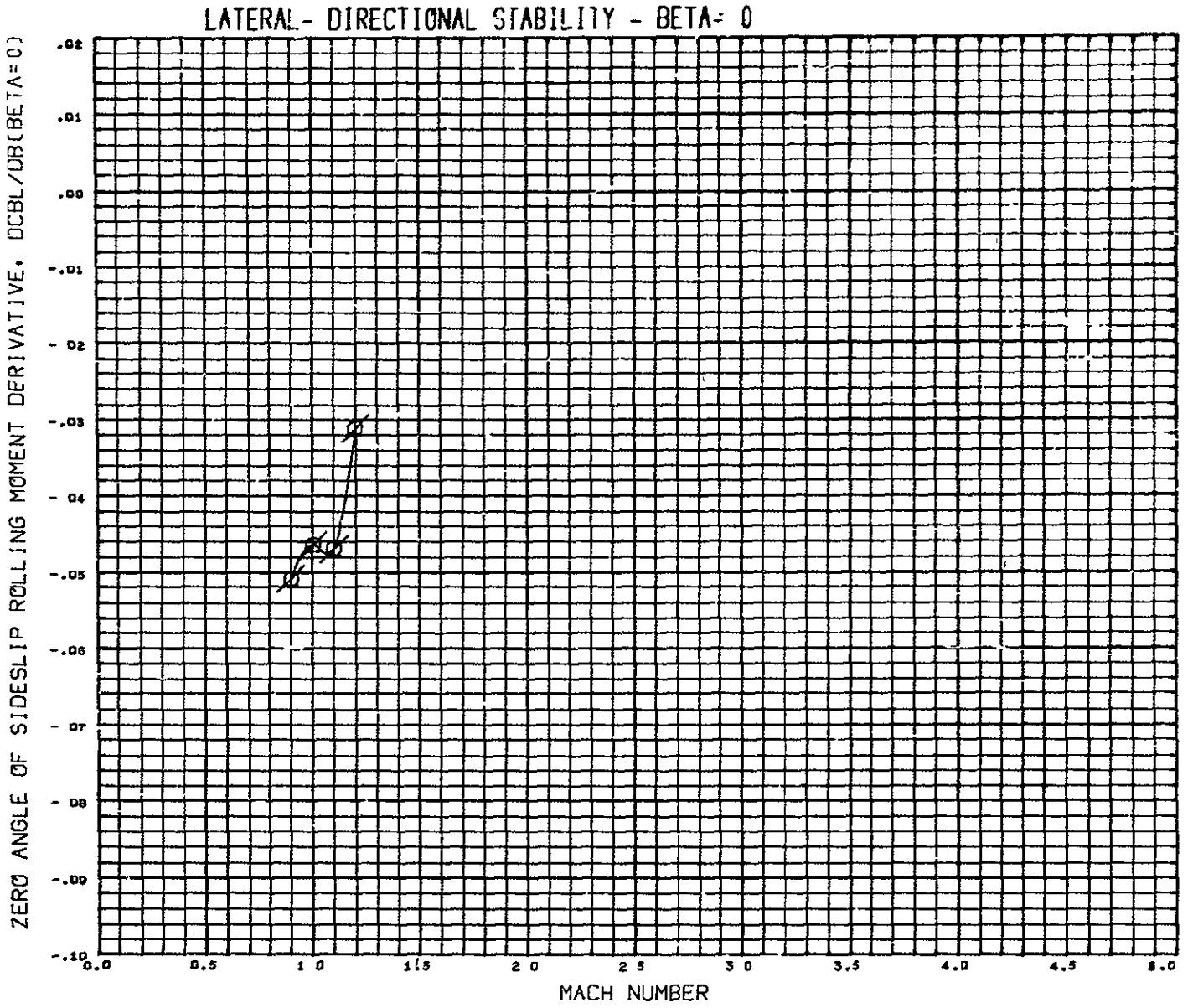
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0020	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

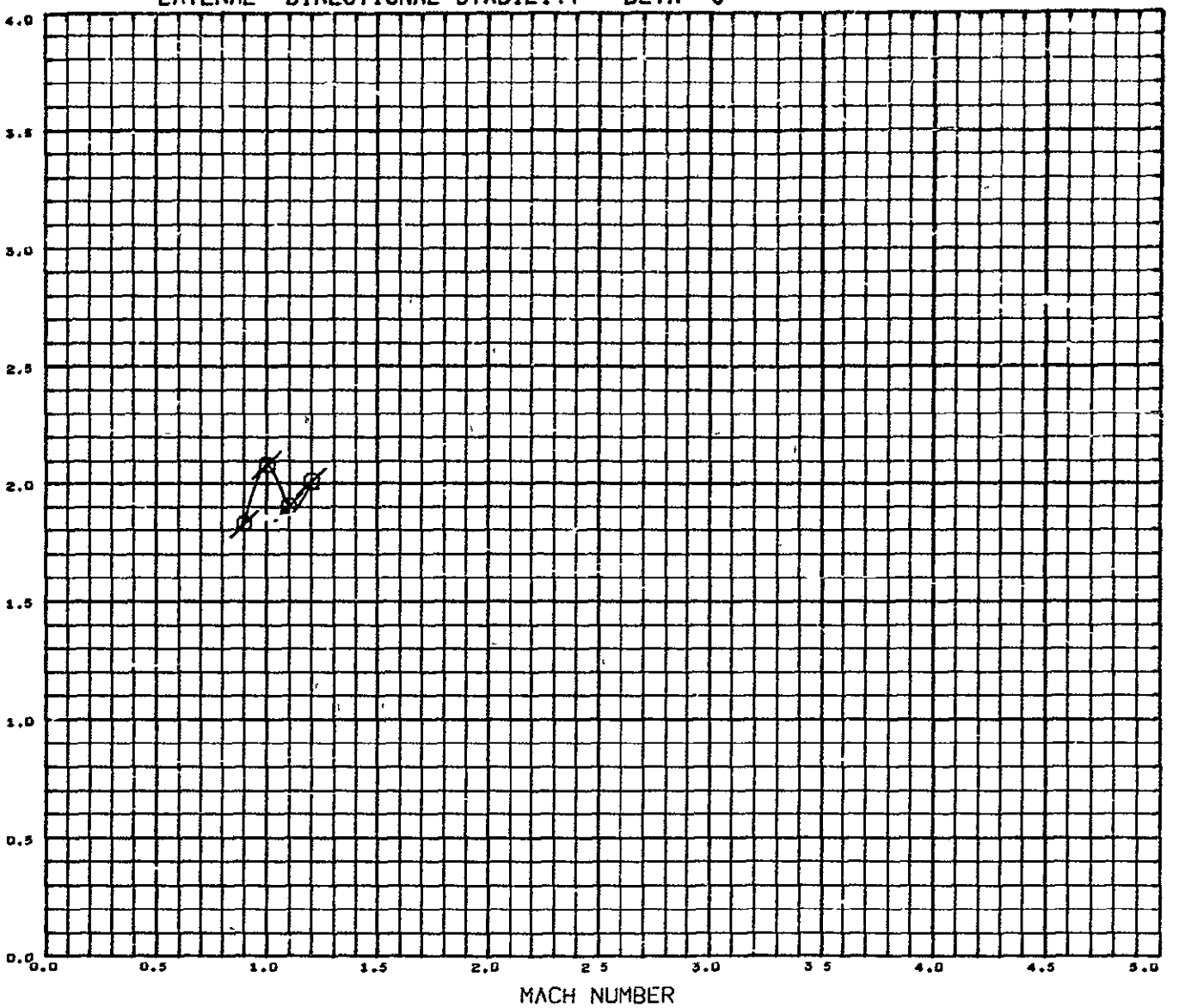
ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0400	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



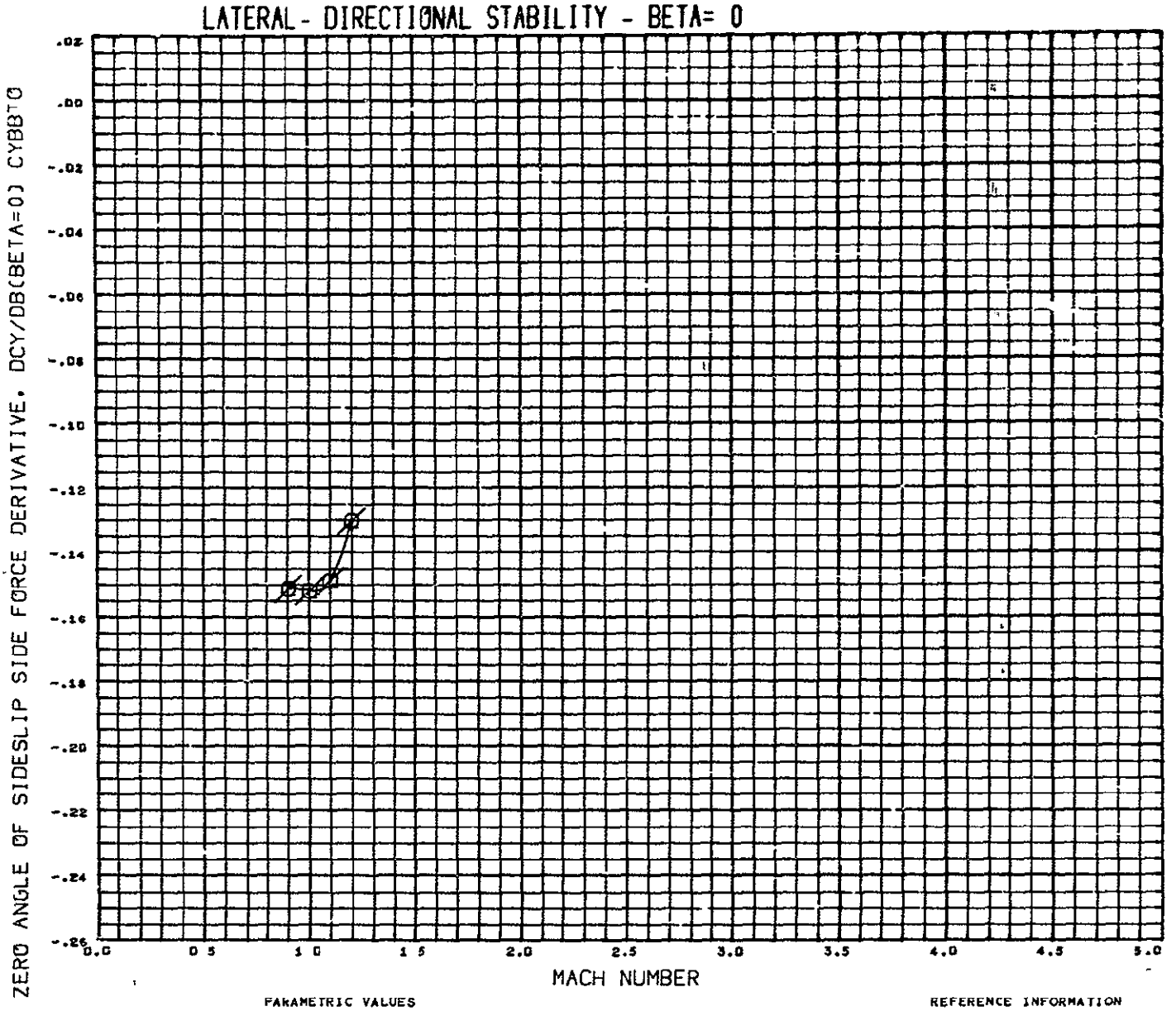
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0020	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

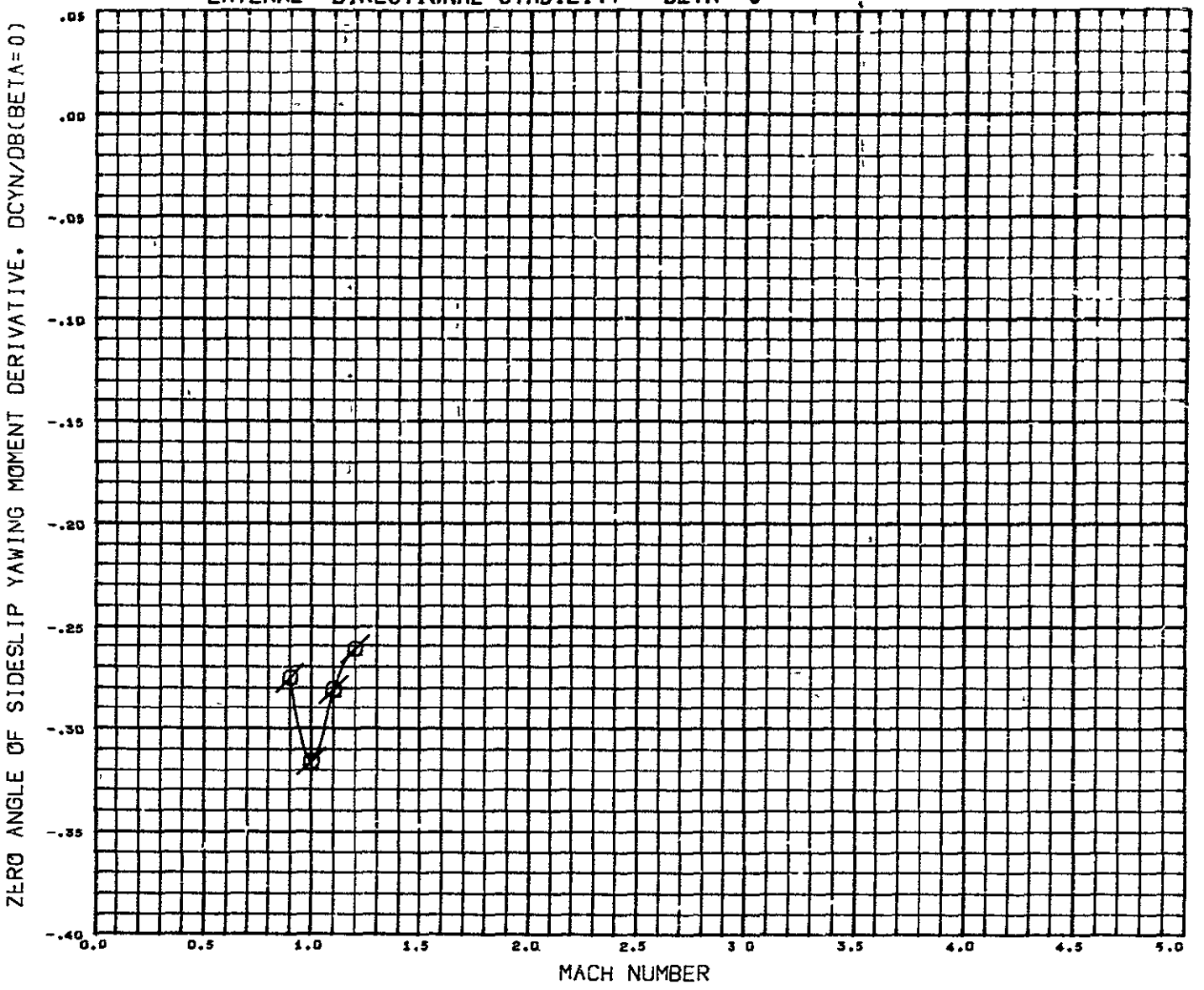
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

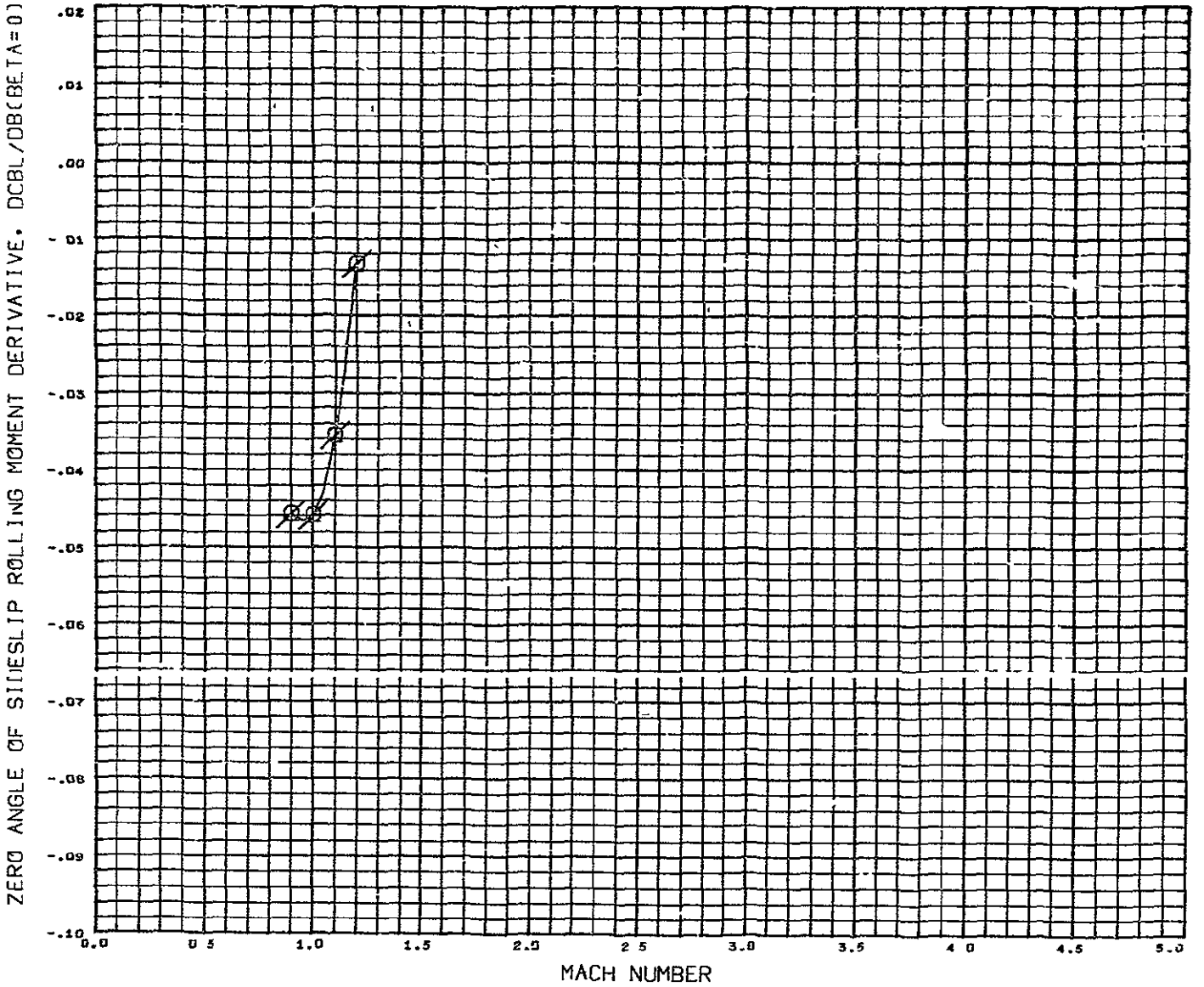
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

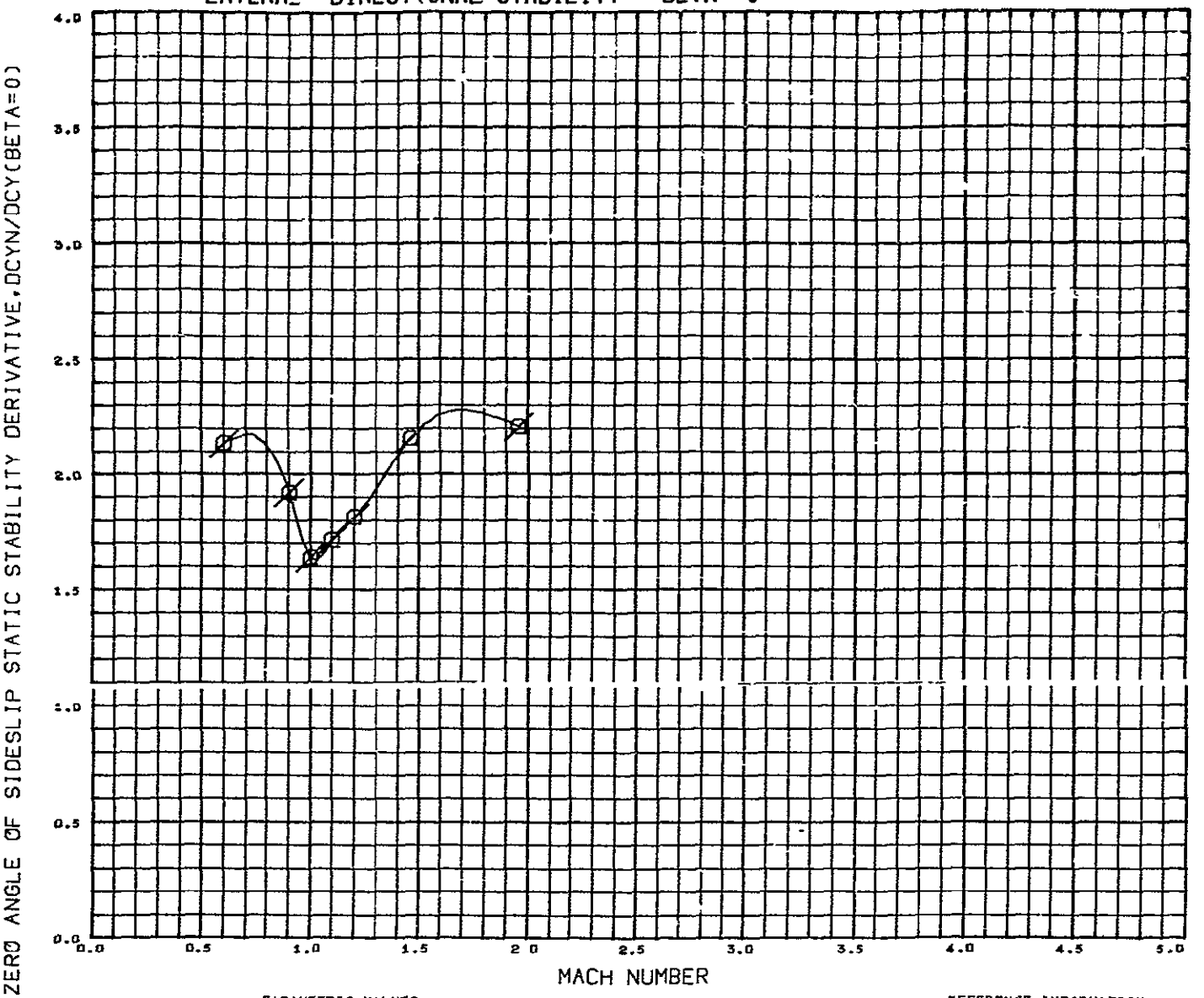
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6960	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

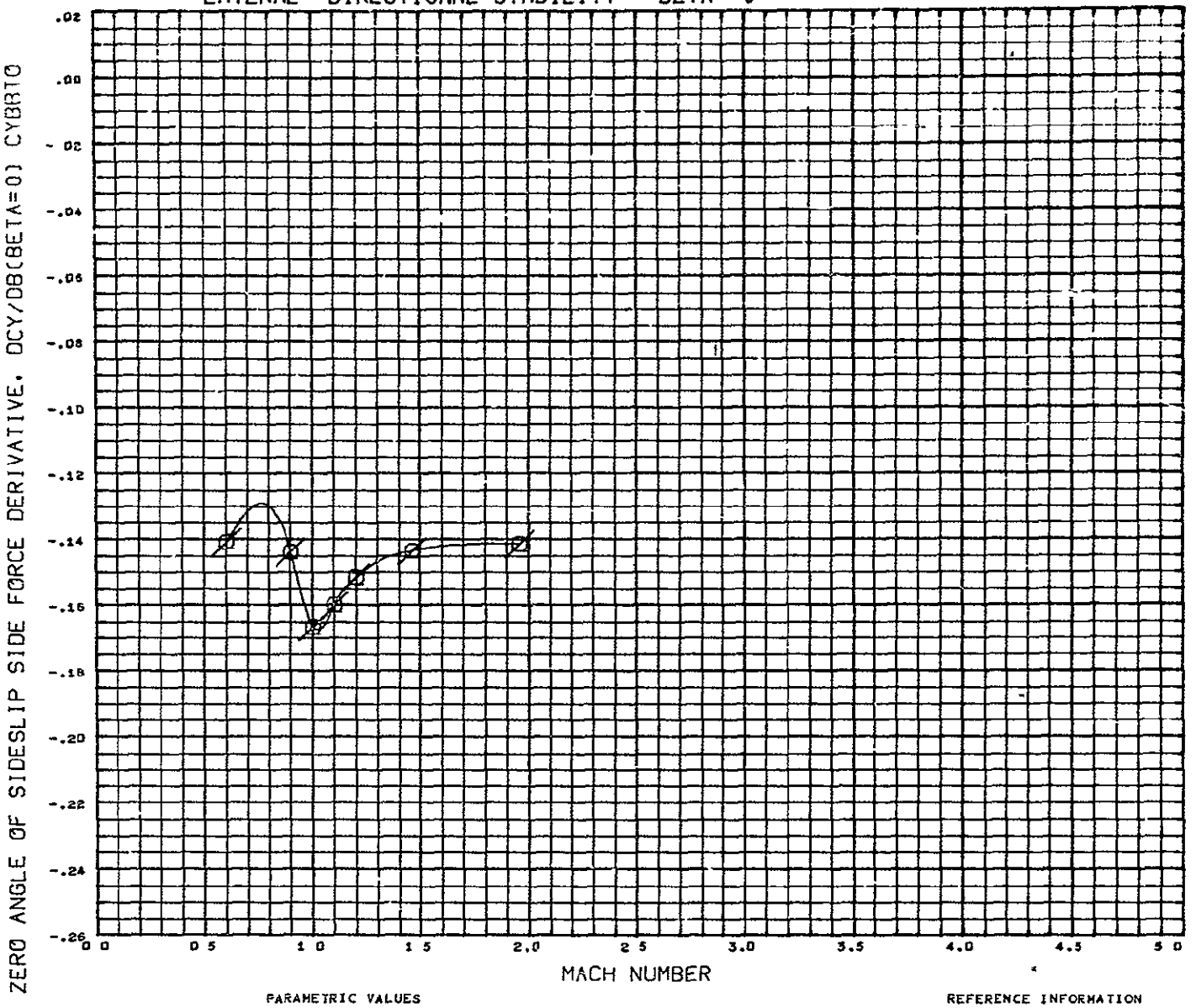
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MH*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

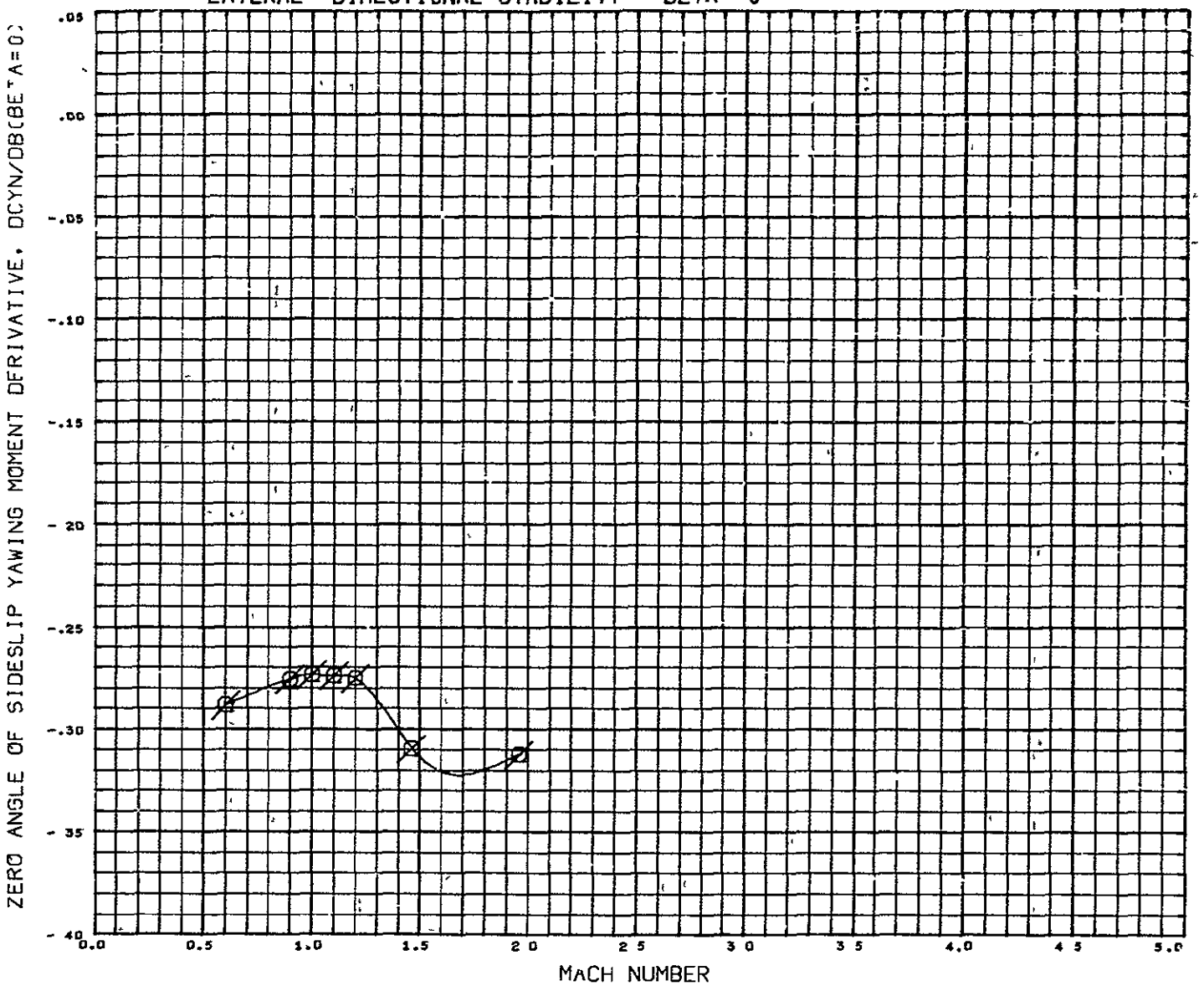
ALPHA 0 000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE MM*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

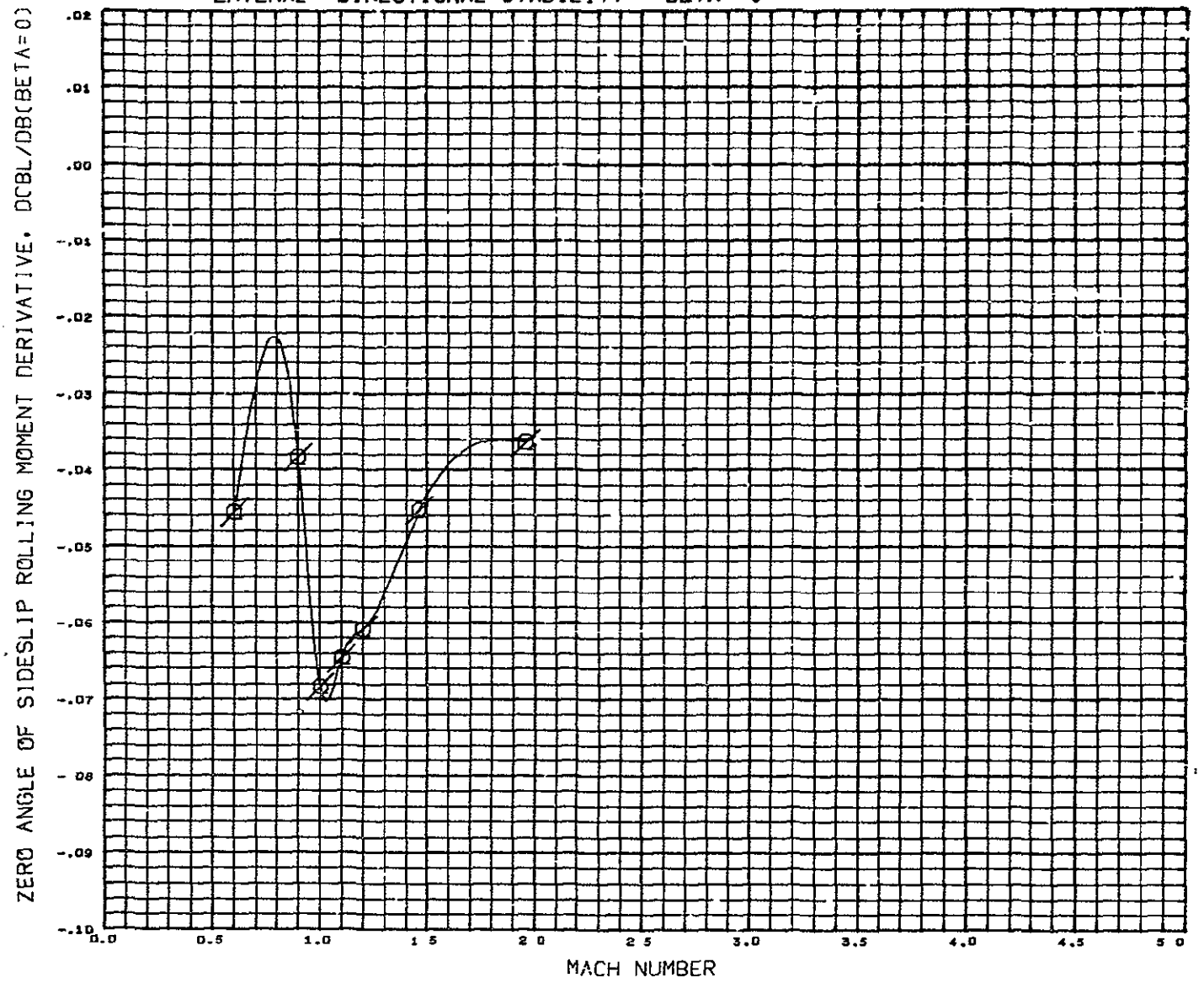
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0006	IN
SCALE	0.0034	

DATA HIST. CODE HH*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



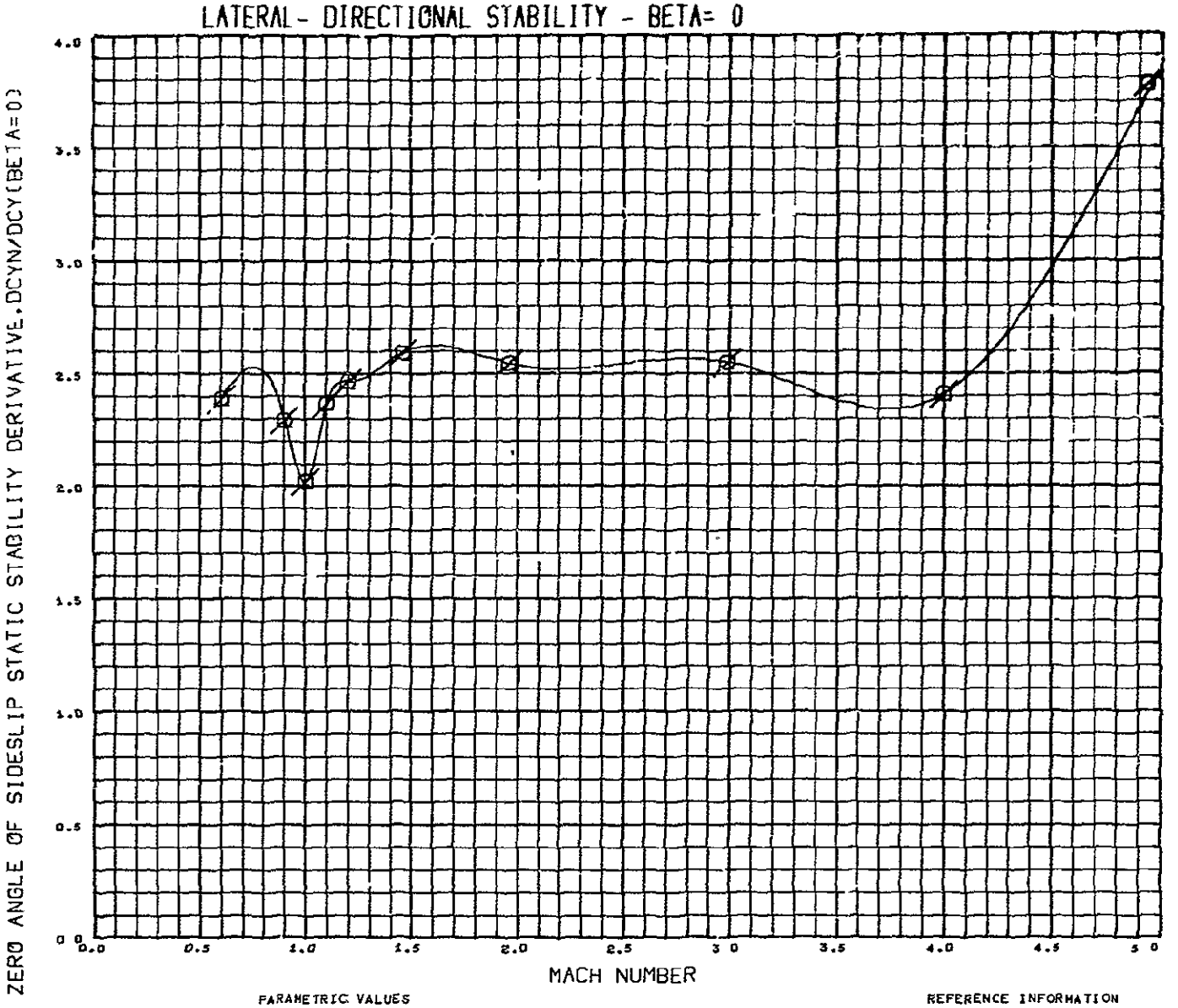
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM8E1F



PARAMETRIC VALUES

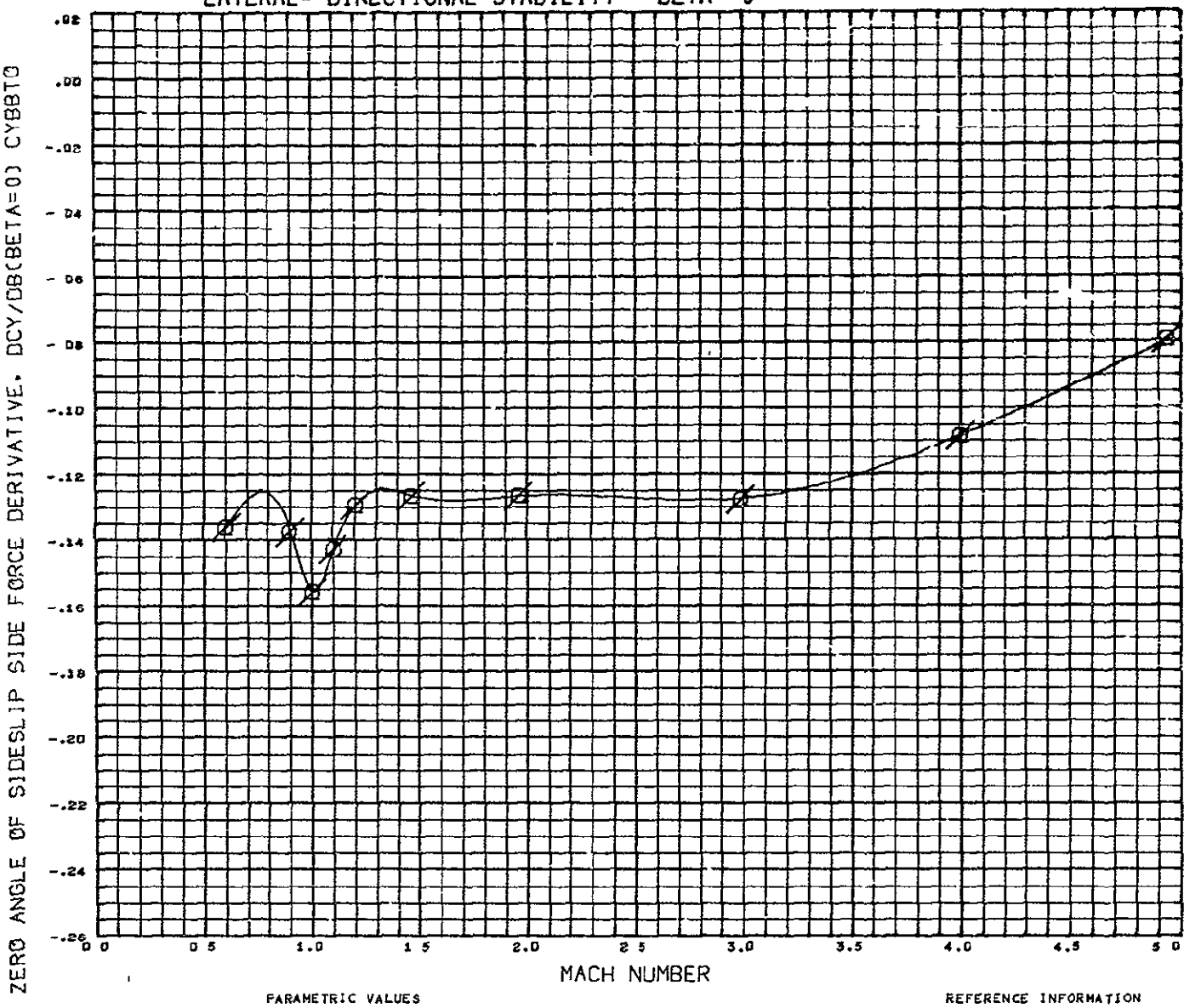
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRF	0.0070	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE HM*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

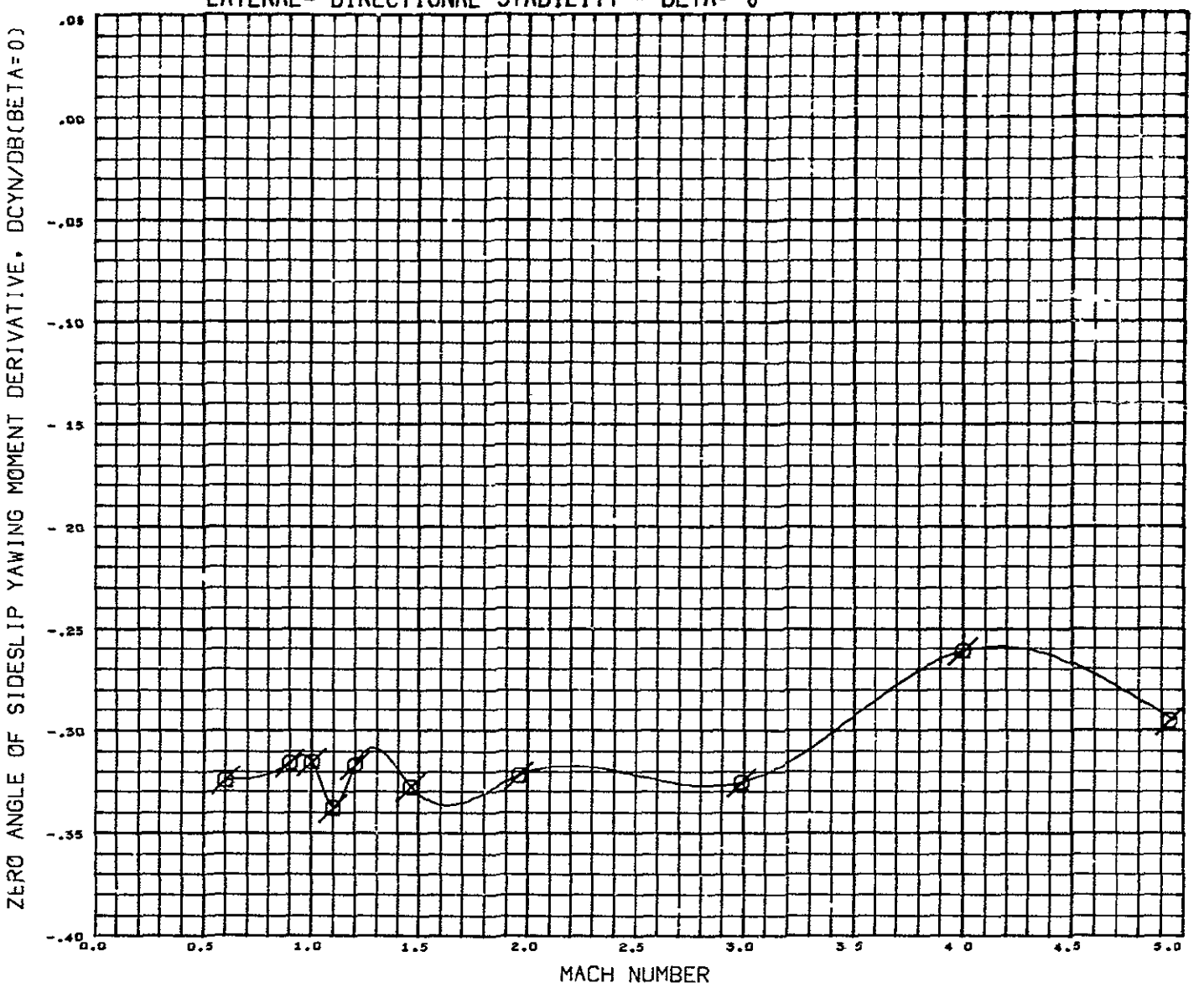
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6660	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM#EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

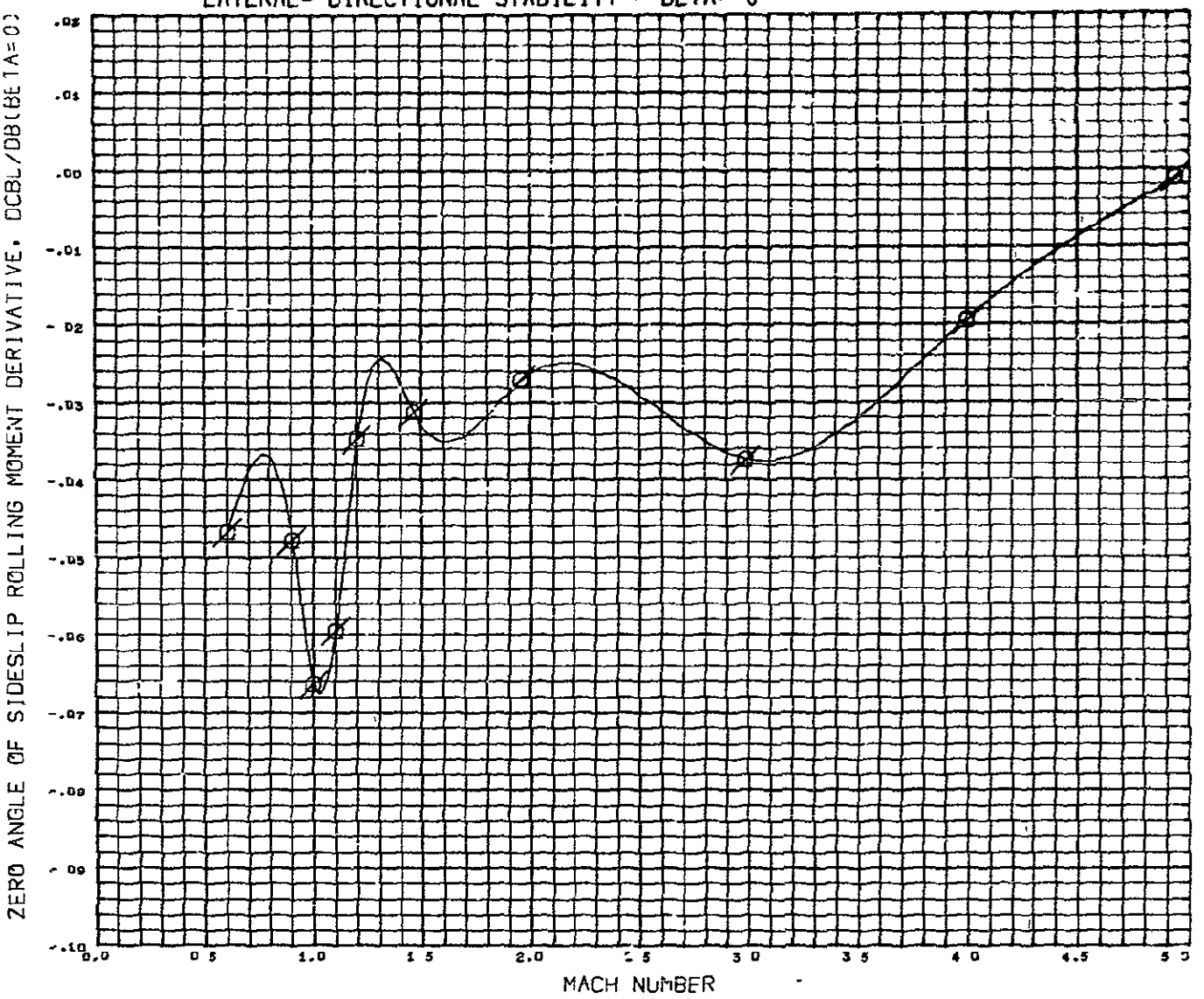
ALPHA 0.000 ORBINC - 3.100

DATA HIST. CODE MM*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

LATERAL- DIRECTIONAL STABILITY - BETA= 0



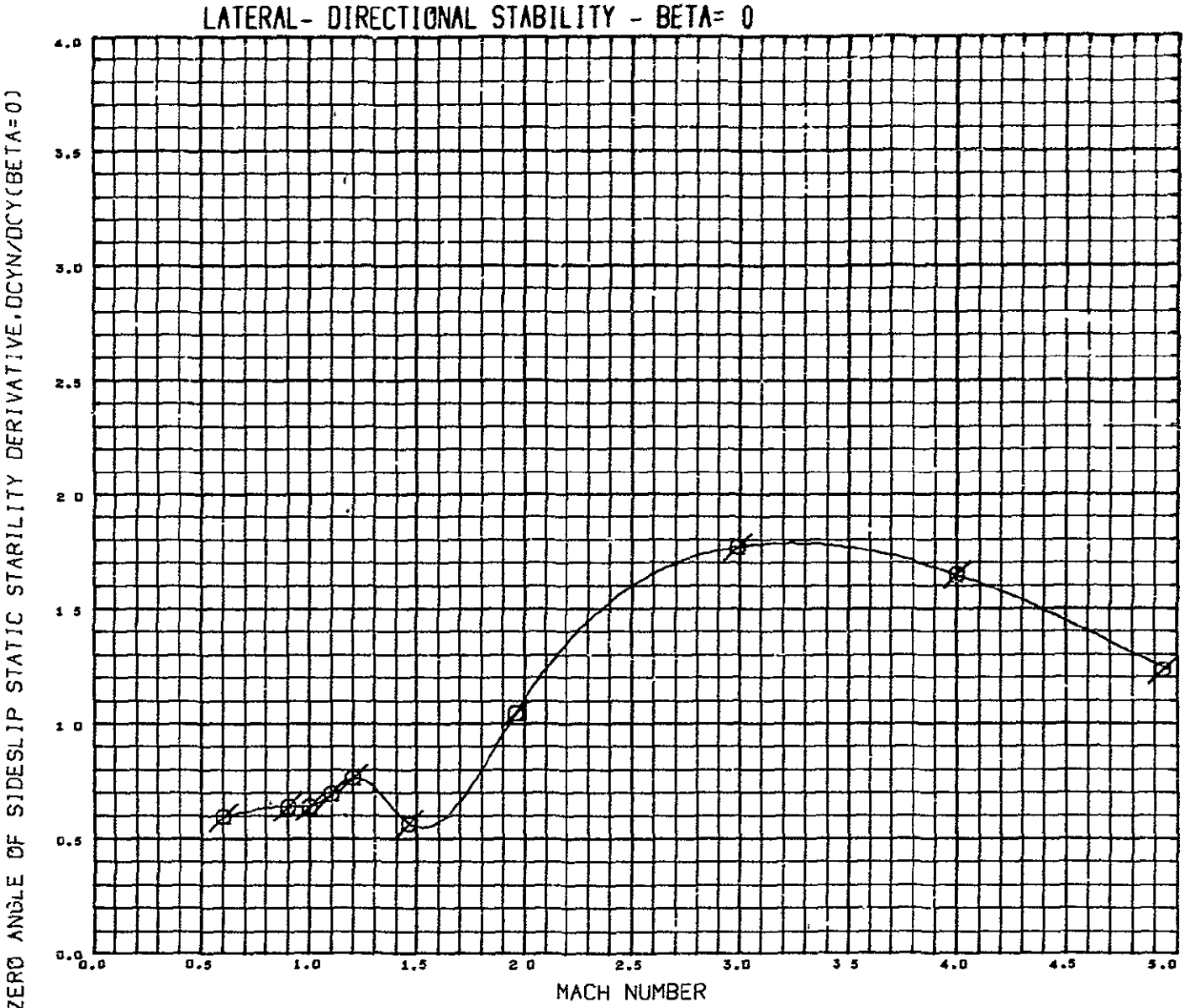
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM=EIF



PARAMETRIC VALUES

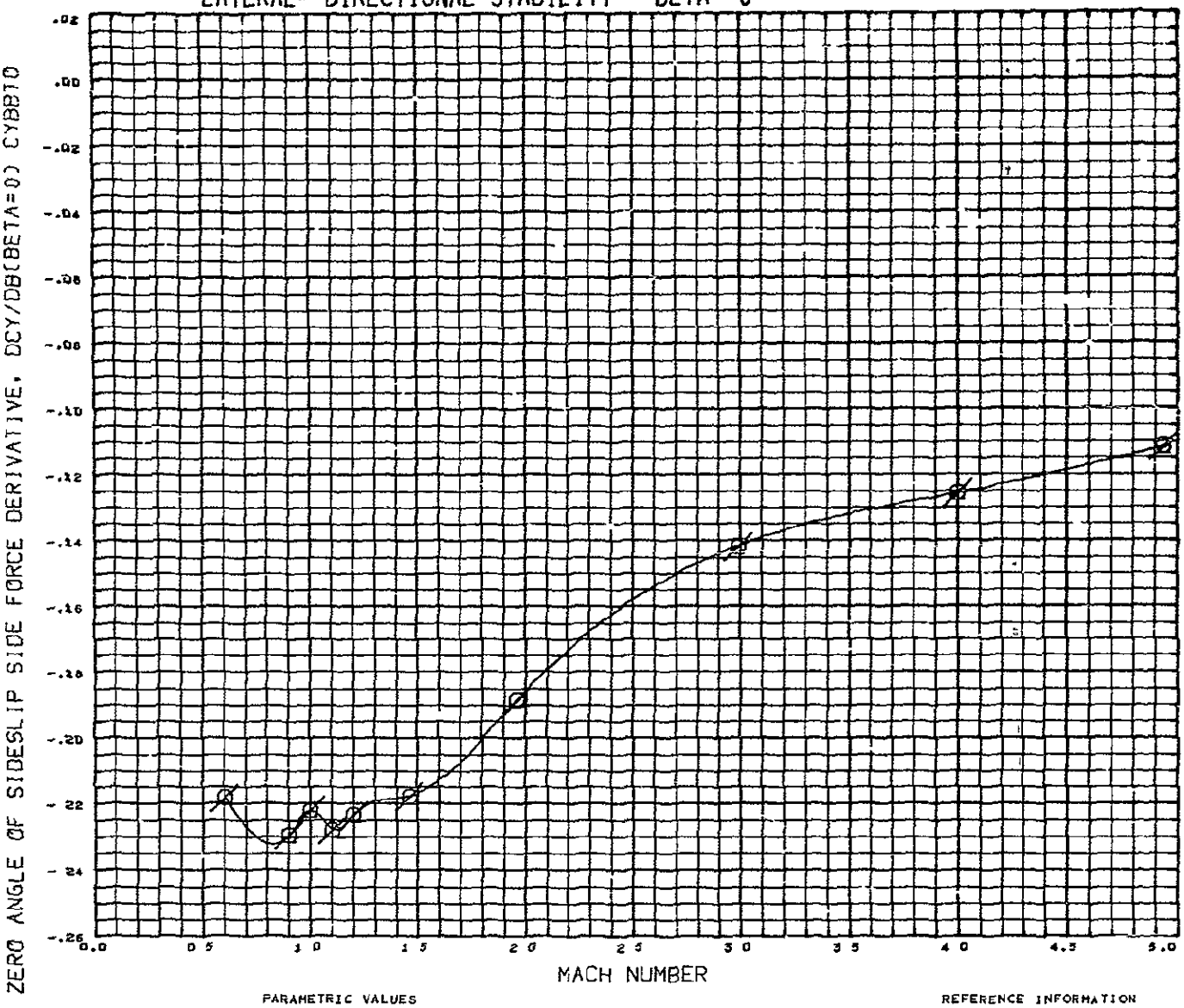
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE *AM*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

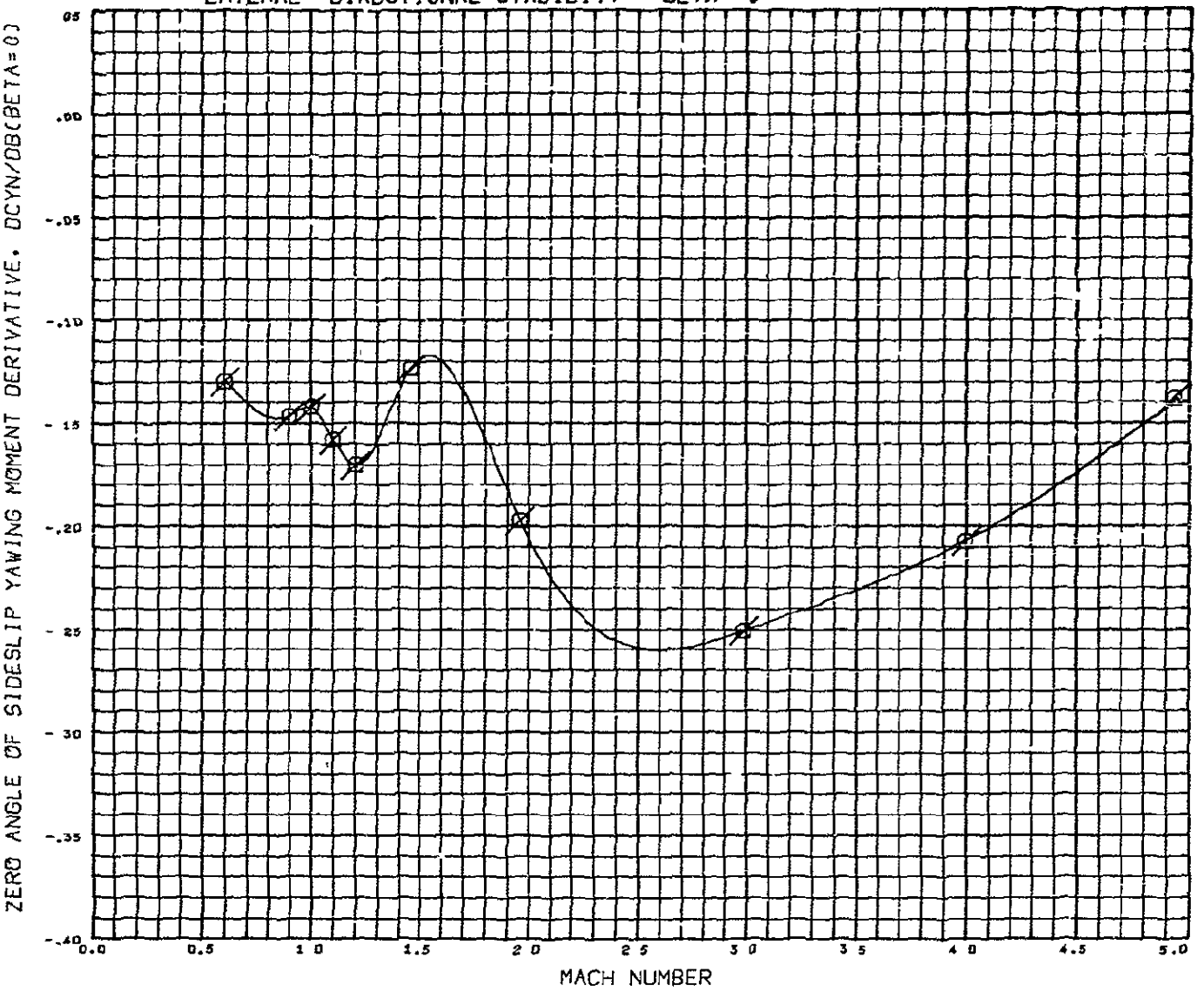
ALPHA 0.000 ORBINC - 3.400

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE *AM*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



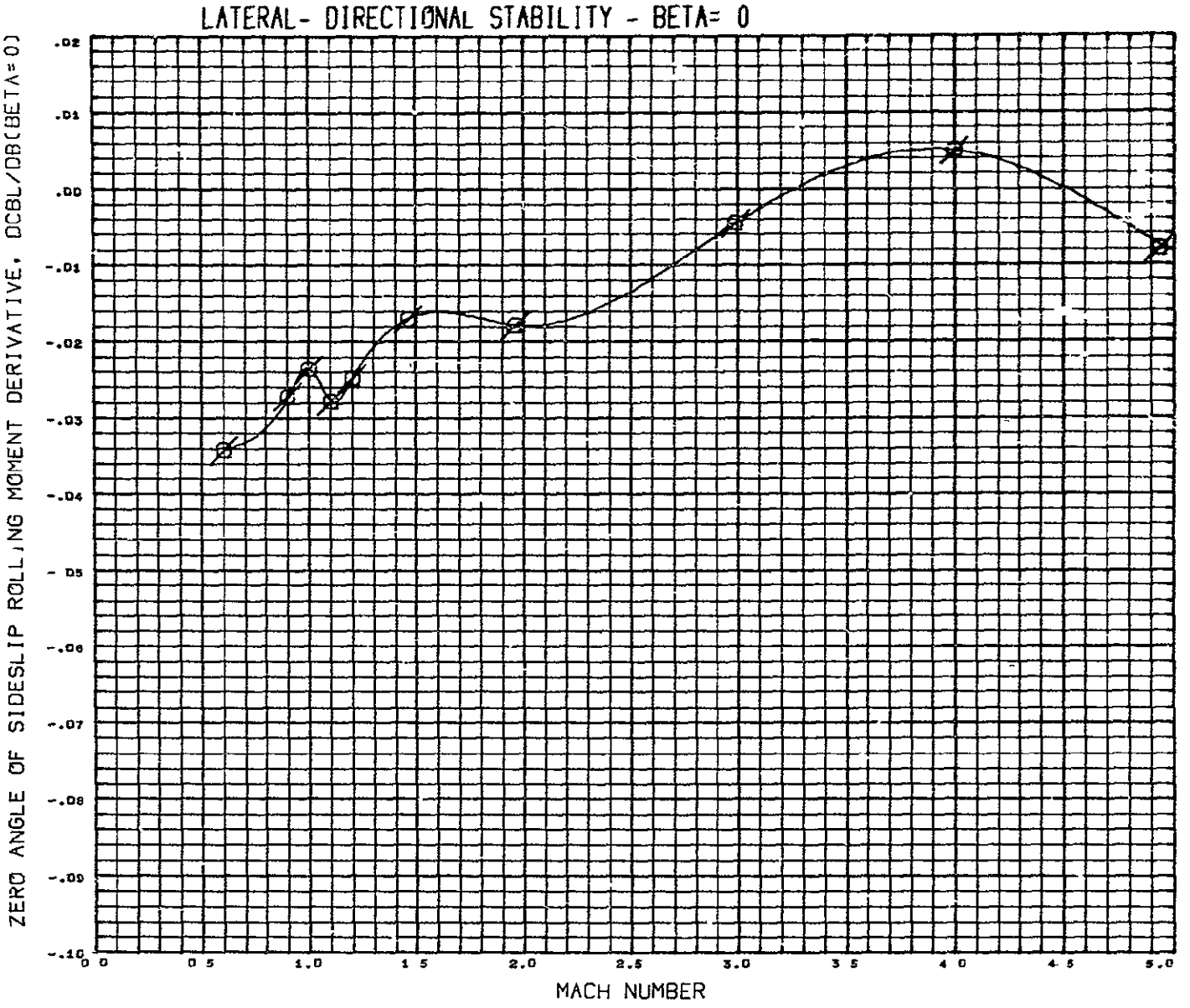
PARAMETRIC VALUES

ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0003	IN
SCALE	0 0034	

DATA HIST CODE *AH*EIF



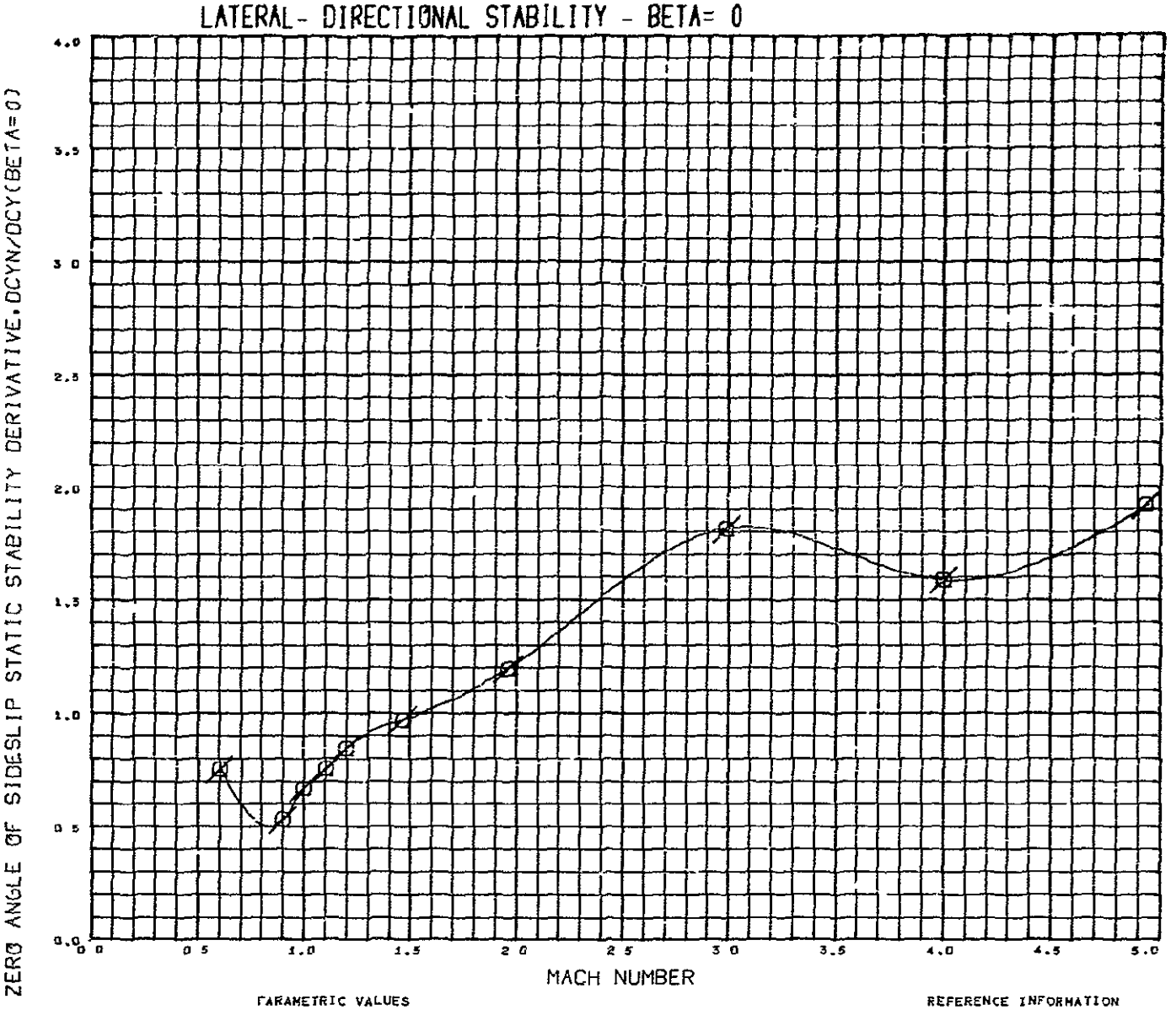
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE *AH*EIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



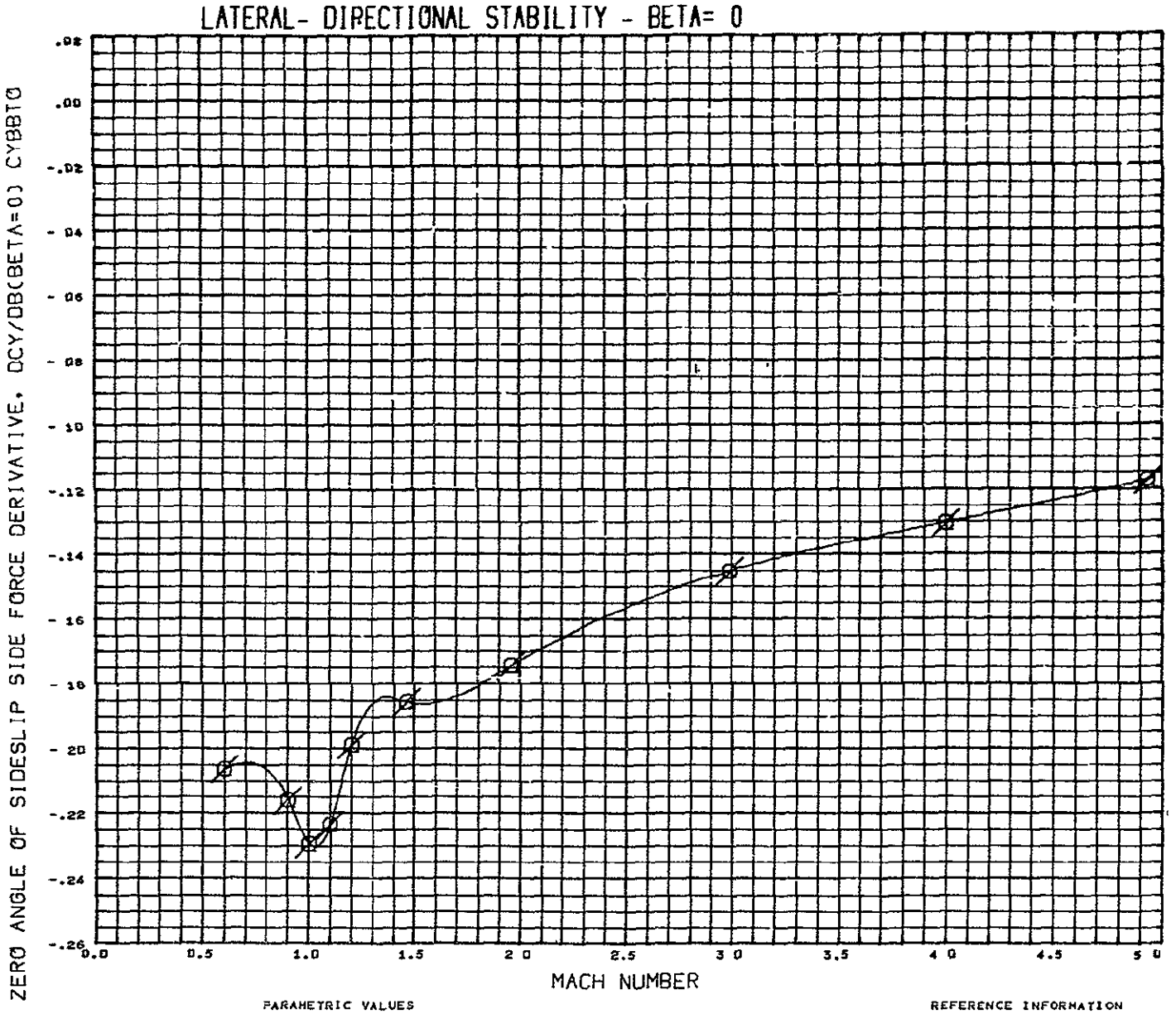
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100 ,

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF



PARAMETRIC VALUES

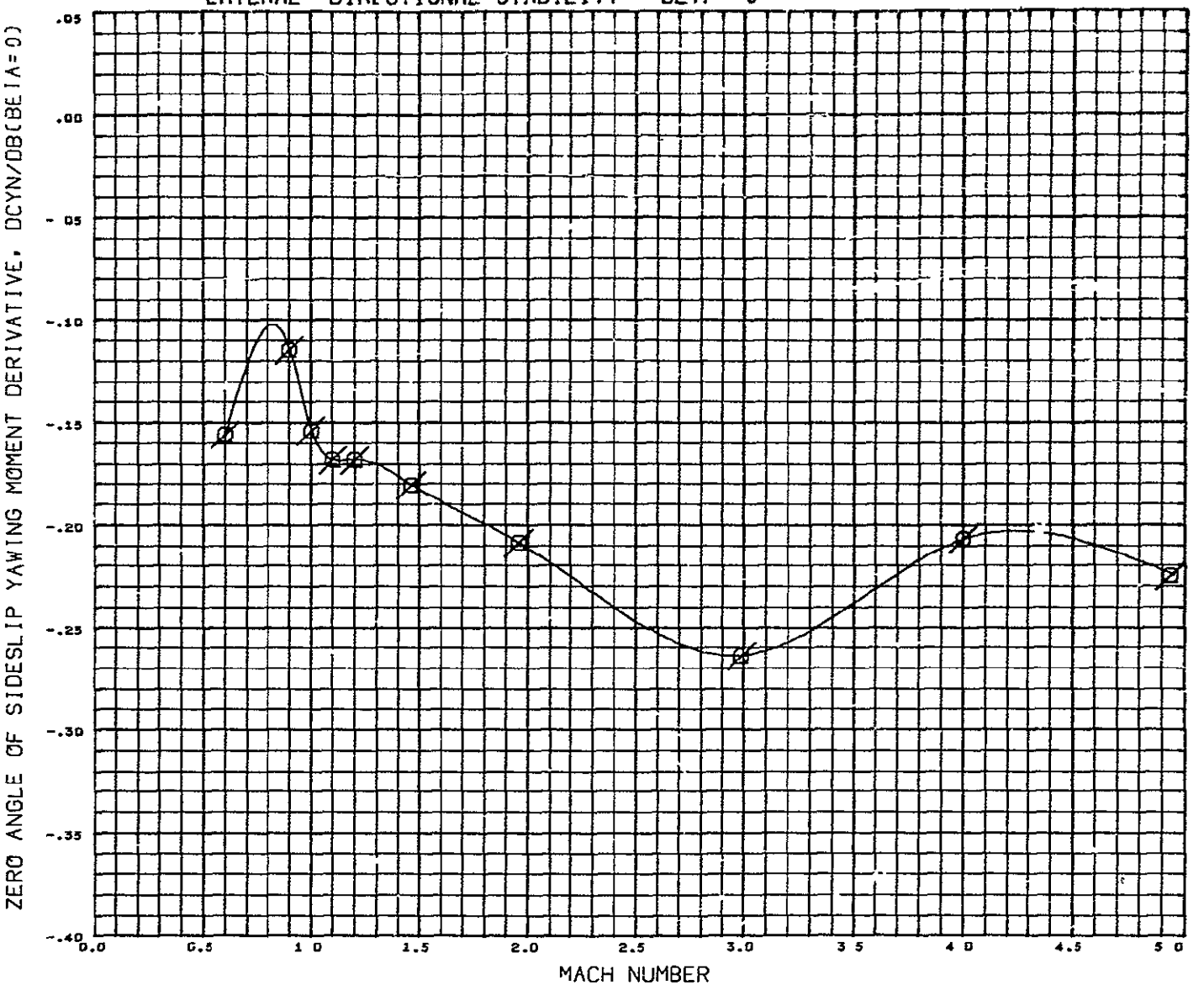
ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6260	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M*EIF

LATERAL- DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

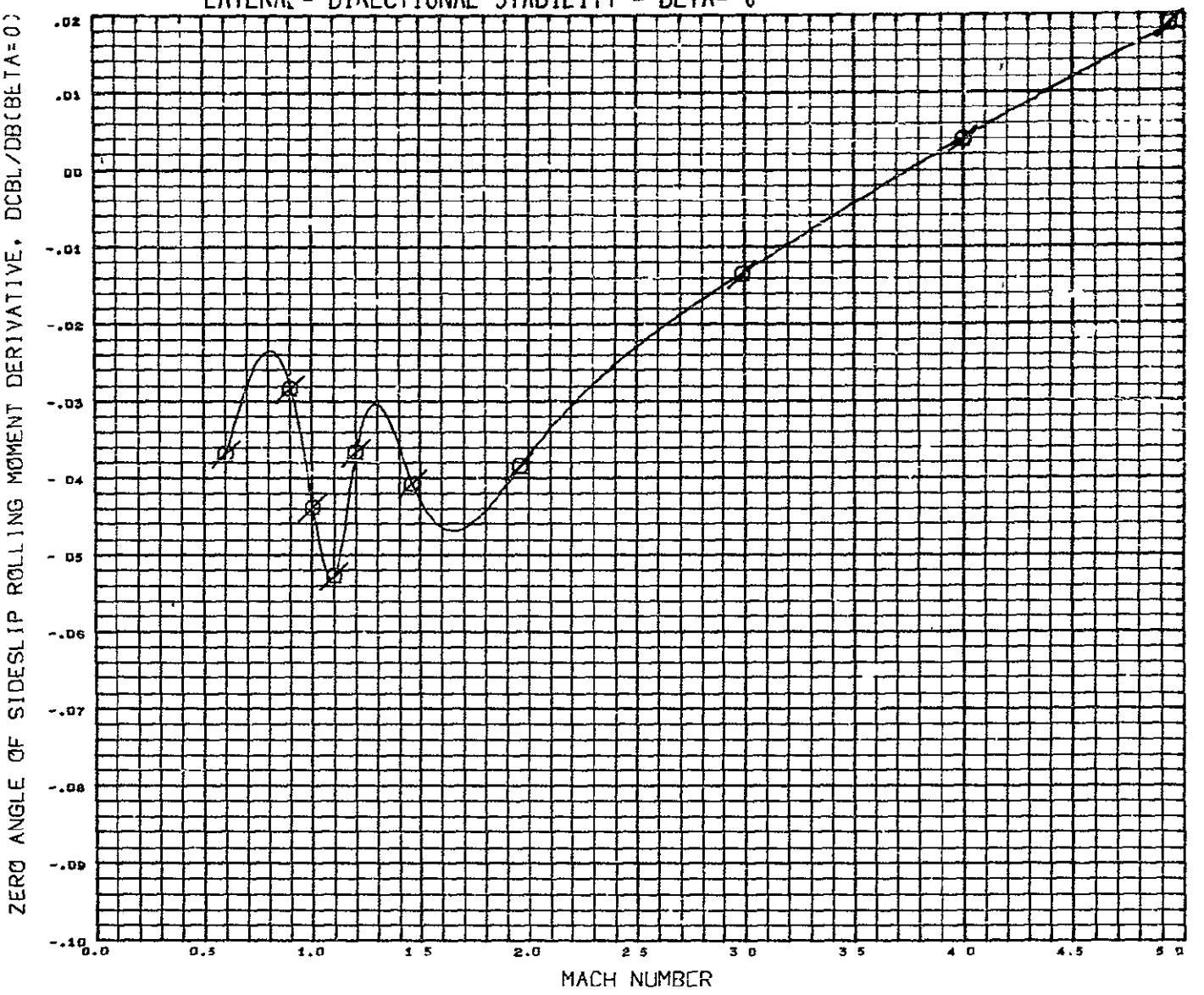
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6820	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF

LATERAL - DIRECTIONAL STABILITY - BETA= 0



PARAMETRIC VALUES

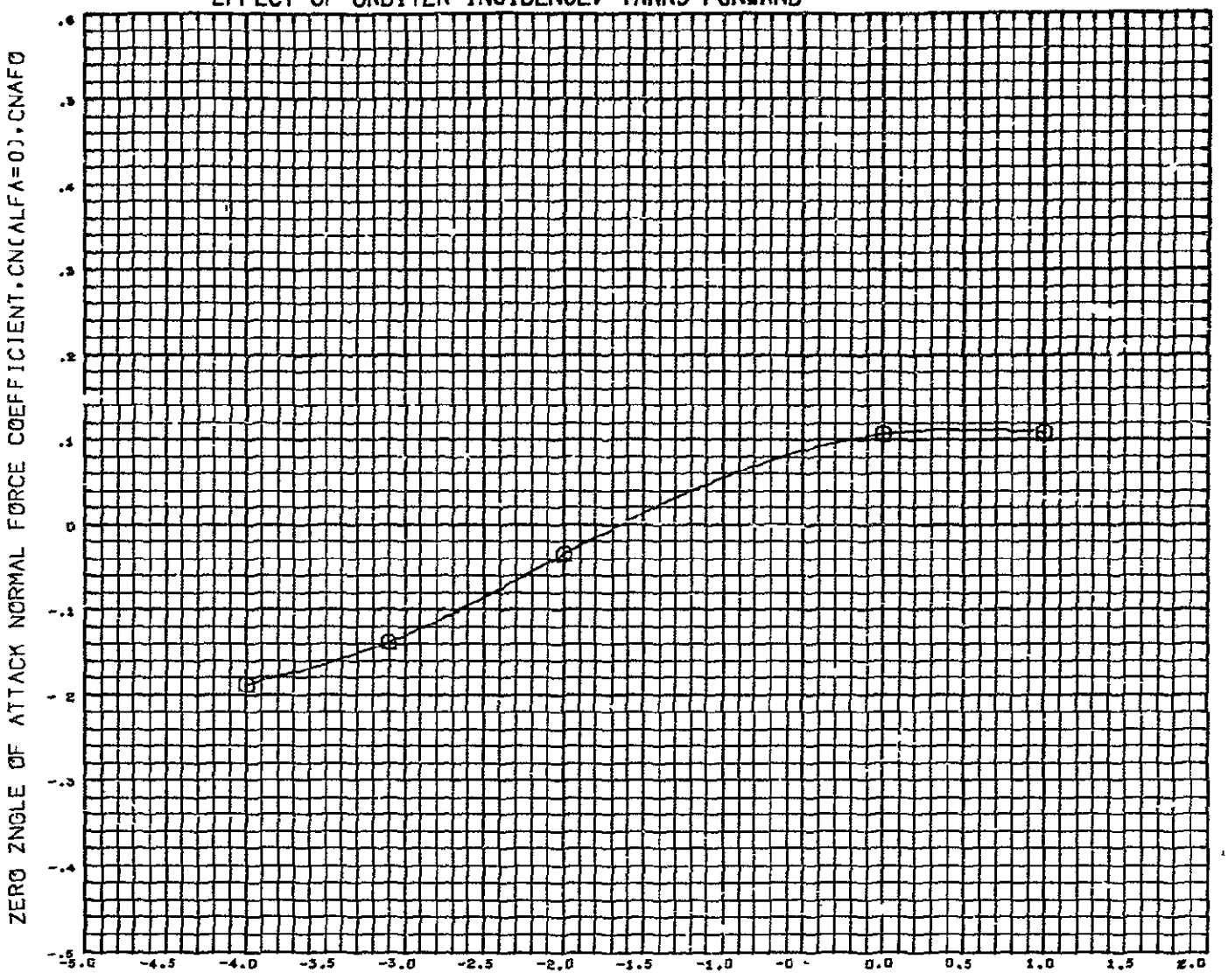
ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE H#EIF

EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH	PARAMETRIC VALUES	
O	0.900	BETA	0.000

DATA SOURCE

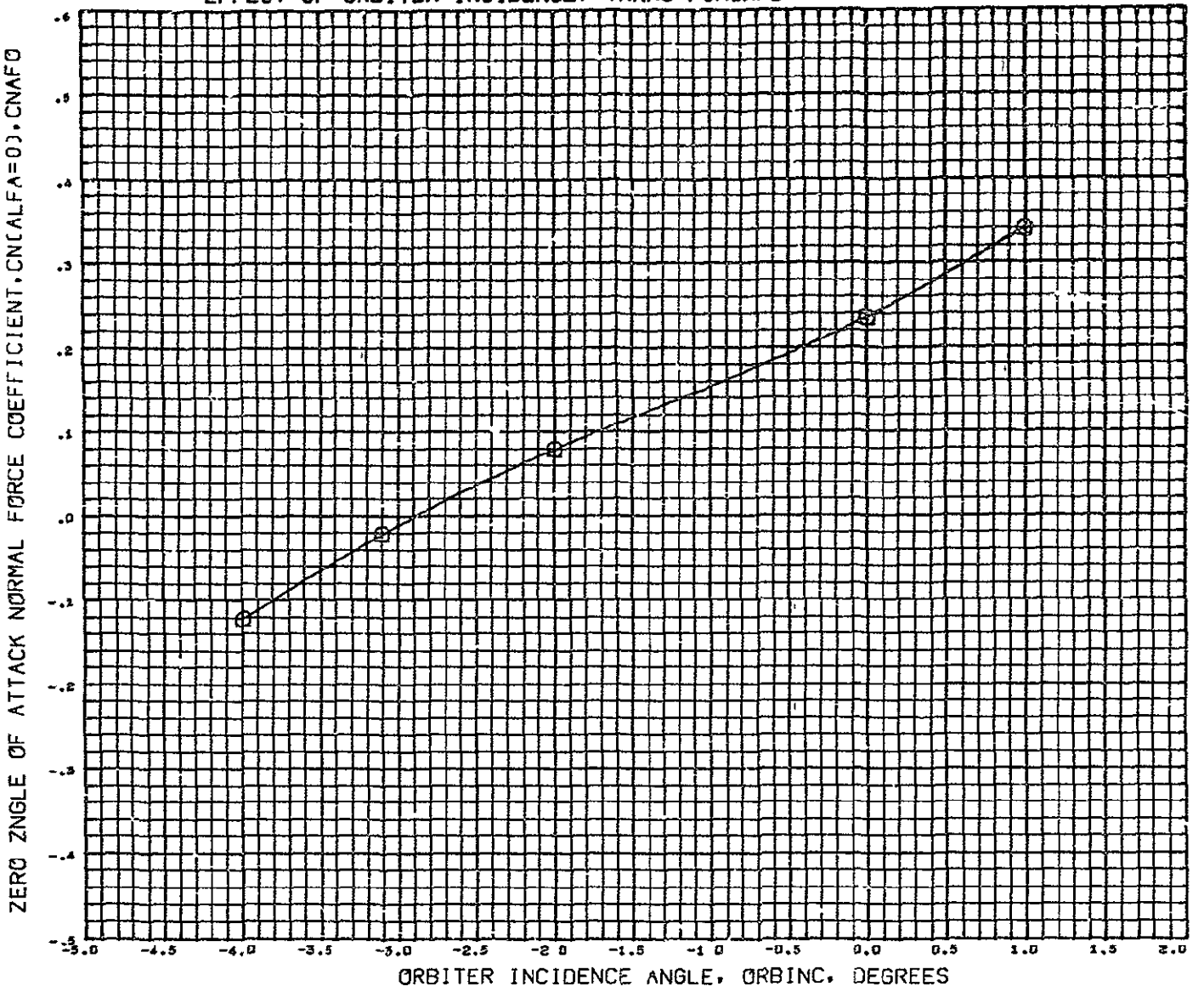
DATASET	ORBINC	DATASET	ORBINC
E3331A	- 4.000	Y334T1	- 3.100
E33211	- 2.000	E33111	0.000
E33011	1.000		

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EIF

EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH		PARAMETRIC VALUES
O	1.000	BETA	0 000

DATA SOURCE

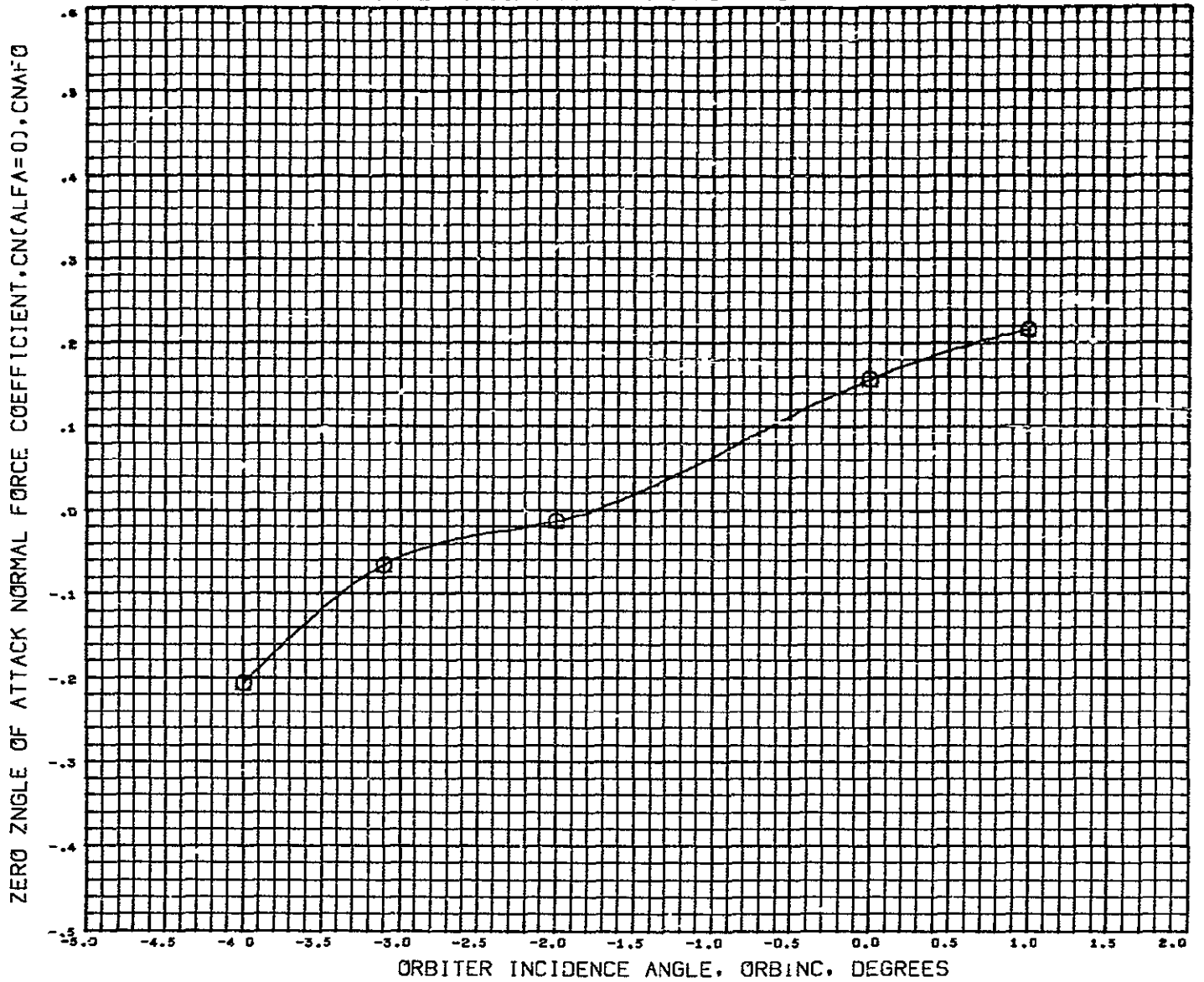
DATASET	ORBINC	DATASET	ORBINC
E33311	- 4 000	Y33-11	- 3.100
E33211	- 2 000	E33111	0 000
E33011	1.000		

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M*E1F

EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH	PARAMETRIC VALUES	
O	1 100	BETA	0.000

DATA HIST CODE H*E1F

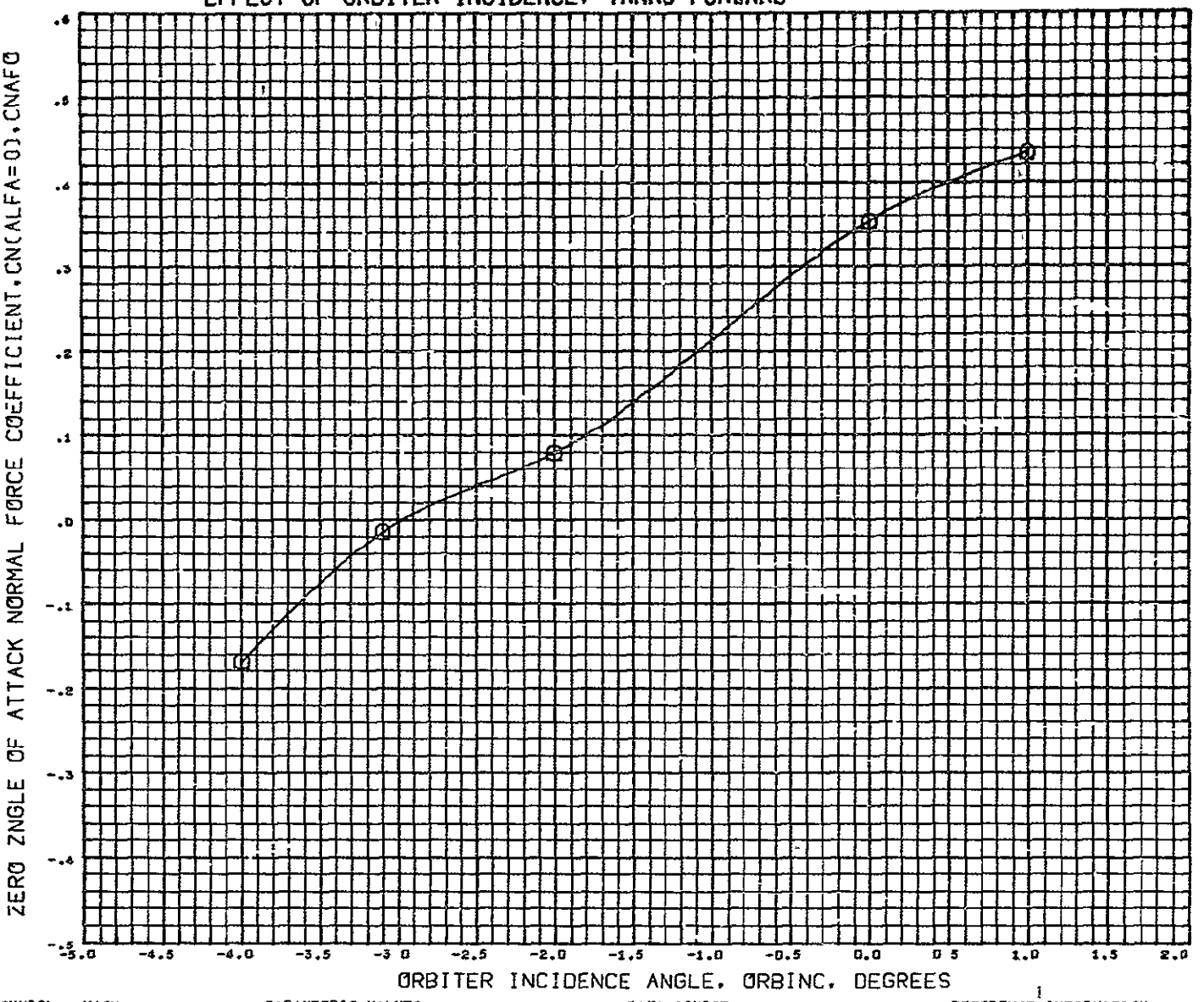
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33311	- 4 000	Y33411	- 3 100
E33211	- 2 000	E33111	0 000
E33011	1.000		

REFERENCE INFORMATION

SREF	1.3960	S2 IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH	PARAMETRIC VALUES	
O	1.200	BETA	0 000

DATA HIST CODE M*E1F

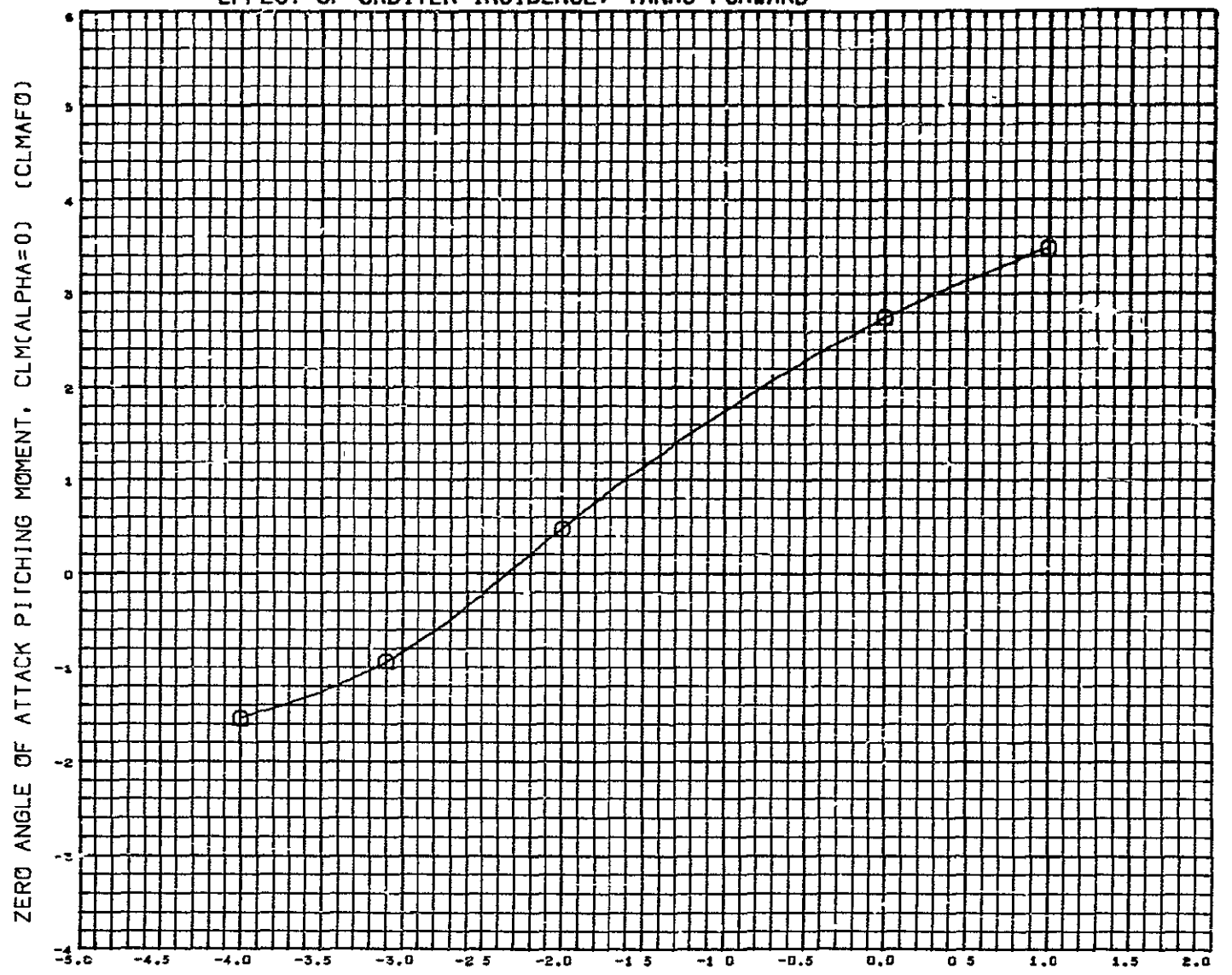
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33311	- 4 000	Y33411	- 3.100
E33211	- 2 000	E33111	0 000
E33011	1 000		

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH	PARAMETRIC VALUES	
O	0.900	BETA	0.000

DATA HIST. CODE M*E1F

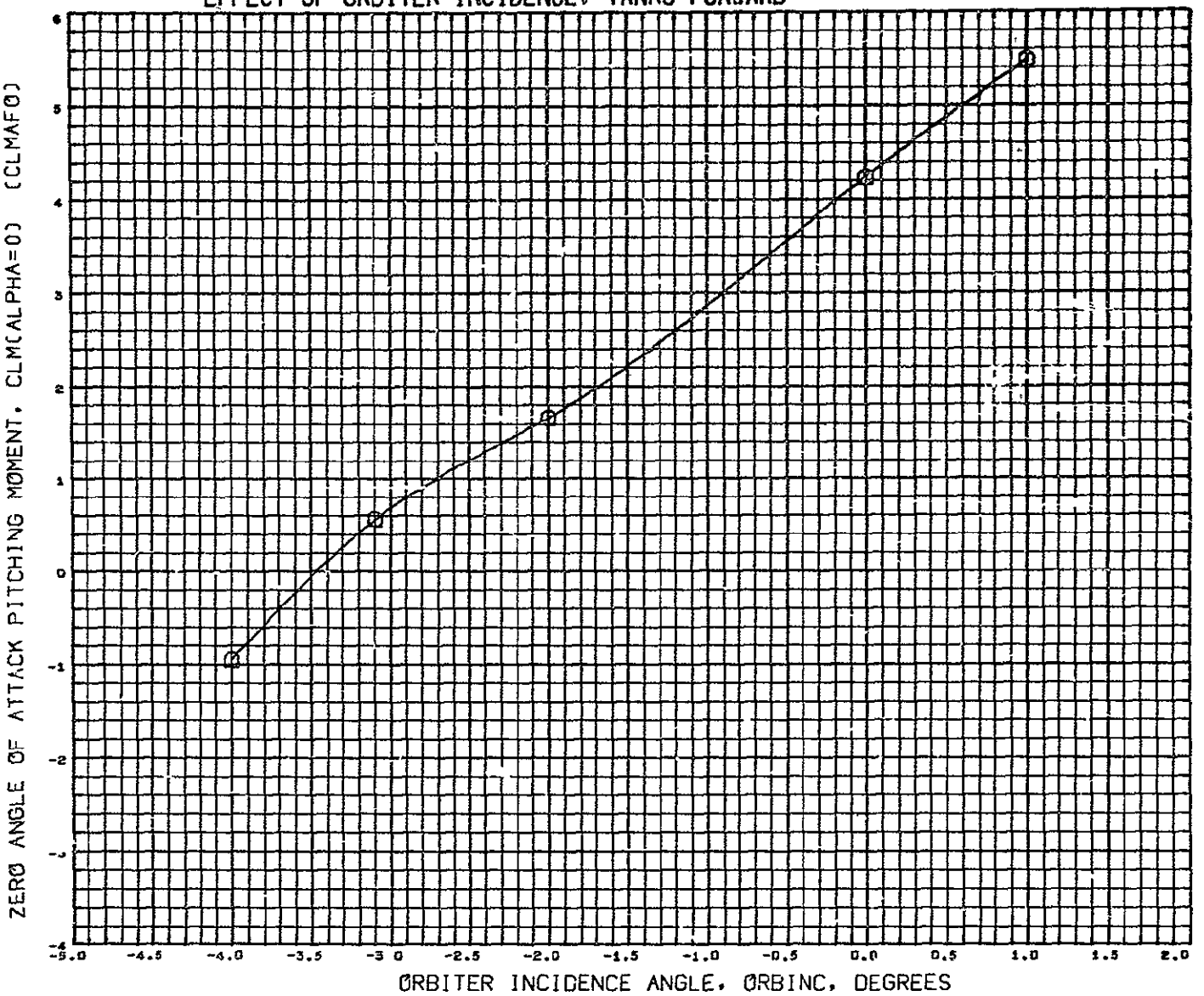
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33311	- 4.000	V33411	- 3.100
E33211	- 2.000	E33111	0.000
E33011	1.000		

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0054	

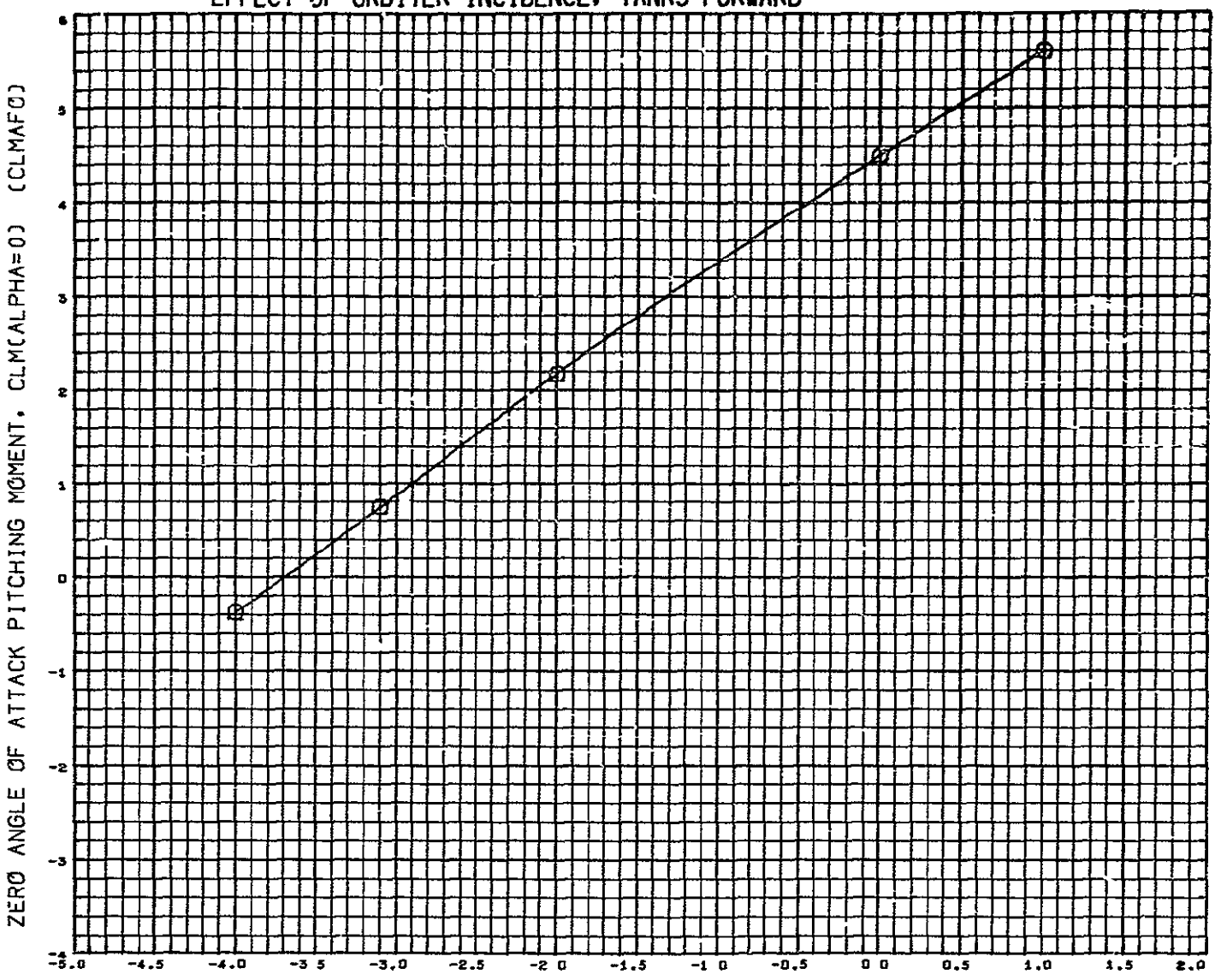
EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH	PARAMETRIC VALUES		DATA SOURCE				REFERENCE INFORMATION		
□	1.000	BETA	0.000	DATASET	ORBINC	DATASET	ORBINC	SREF	1.3960	SQ.IN
				E33311	- 4.000	Y33V 1	- 3.100	LREF	1.3330	IN
				E33211	- 2.000	E33111	0.000	BREF	1.3330	IN
				E33011	1.000			XMRP	3.6860	IN
								YMRP	0.0000	IN
								ZMRP	0.0000	IN
								SCALE	0.0034	

DATA HIST. CODE H*EIF

EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH	PARAMETRIC VALUES	
O	1.100	BETA	0.000

DATA HIST CODE M*EIF

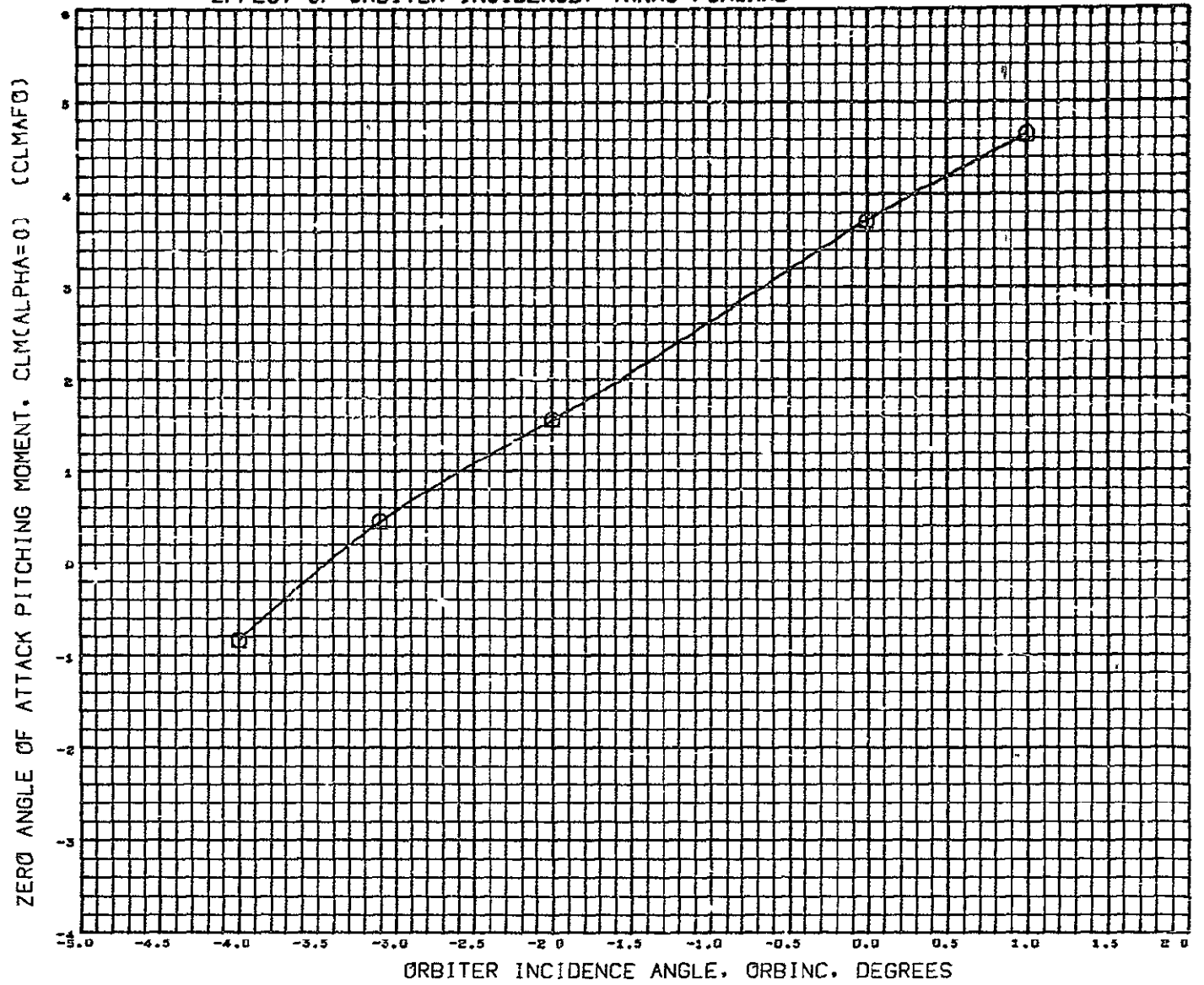
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33311	- 4.000	Y33411	- 3.100
E33211	- 2.000	E33111	0.000
E33011	1.000		

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH		PARAMETRIC VALUES
O	1.200	BETA	0.000

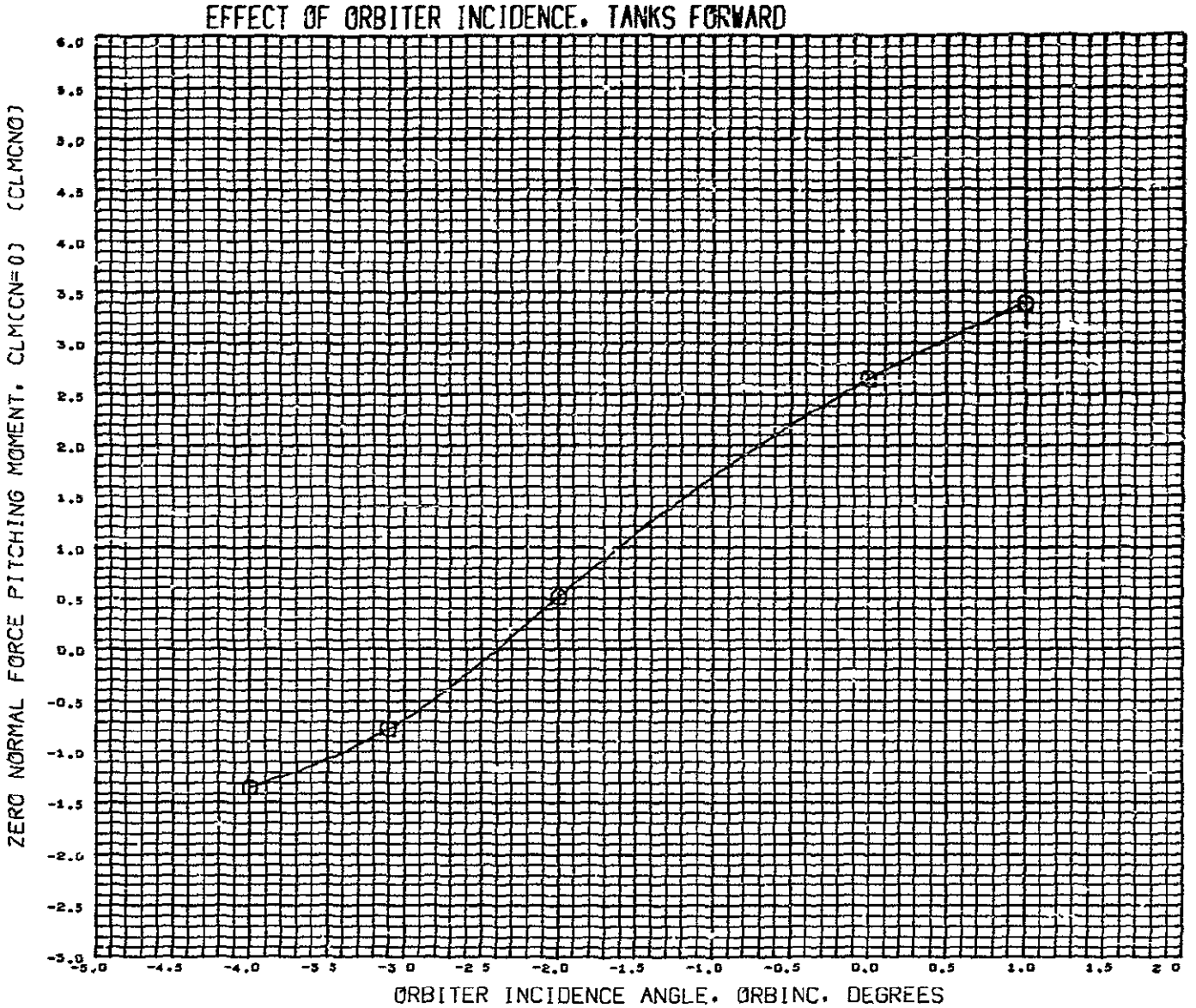
DATA HIST CODE M*EIF

DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33311	- 4.000	Y33111	- 3.100
E33211	- 2.000	E33111	0.000
E33011	1.000		

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



SYMBOL	MACH	PARAMETRIC VALUES	
○	0.900	BETA	0.000

DATA SOURCE

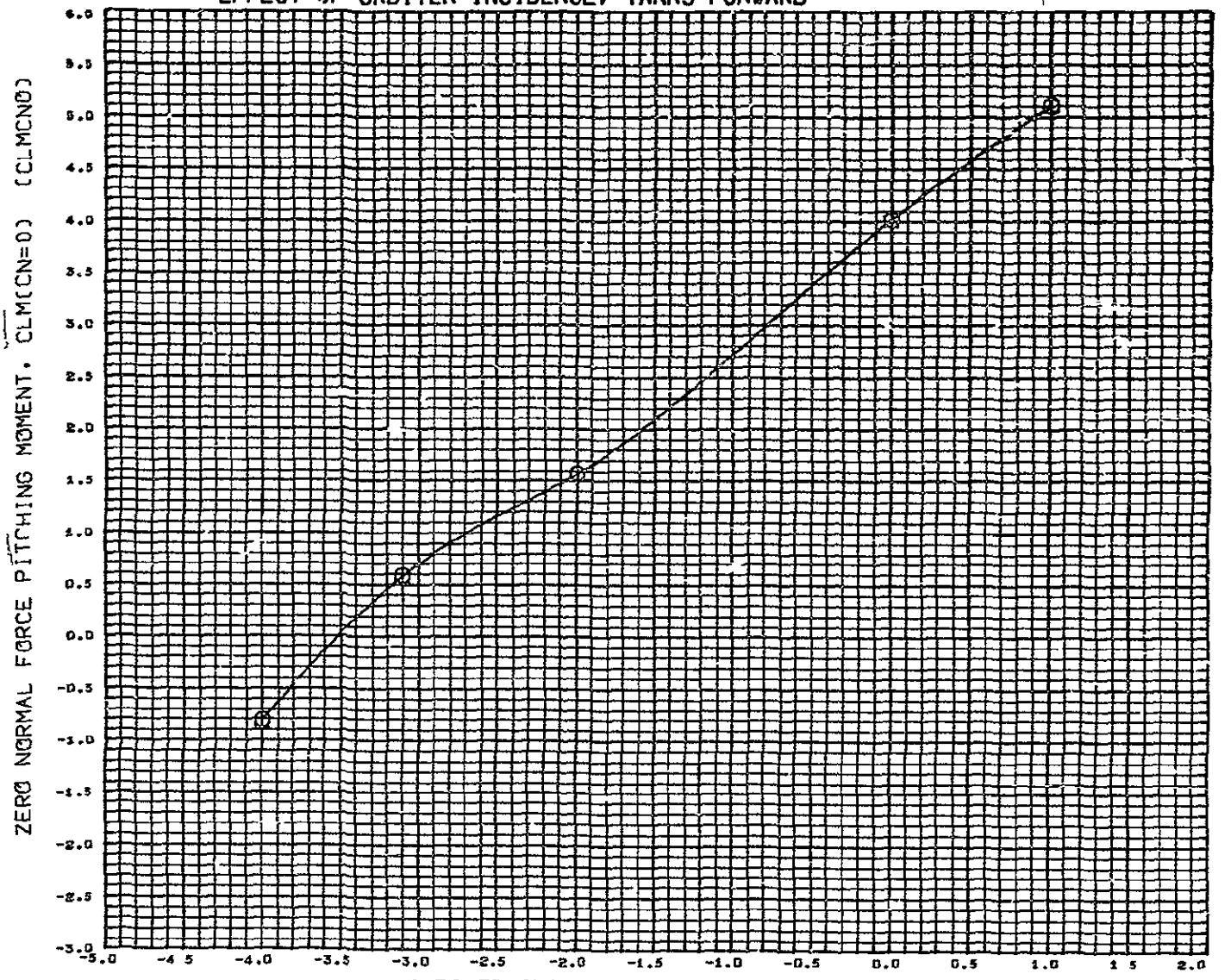
DATASET	ORBINC	DATASET	ORBINC
E33311	- 4.000	Y33. 1	- 3.100
E33211	- 2.000	E33111	0.000
E33011	1.000		

REFERENCE INFORMATION

SREF	.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

EFFECT OF ORBITER INCIDENCE, TANKS FORWARD



SYMBOL	MACH		PARAMETRIC VALUES
O	1.000	BETA	0.000

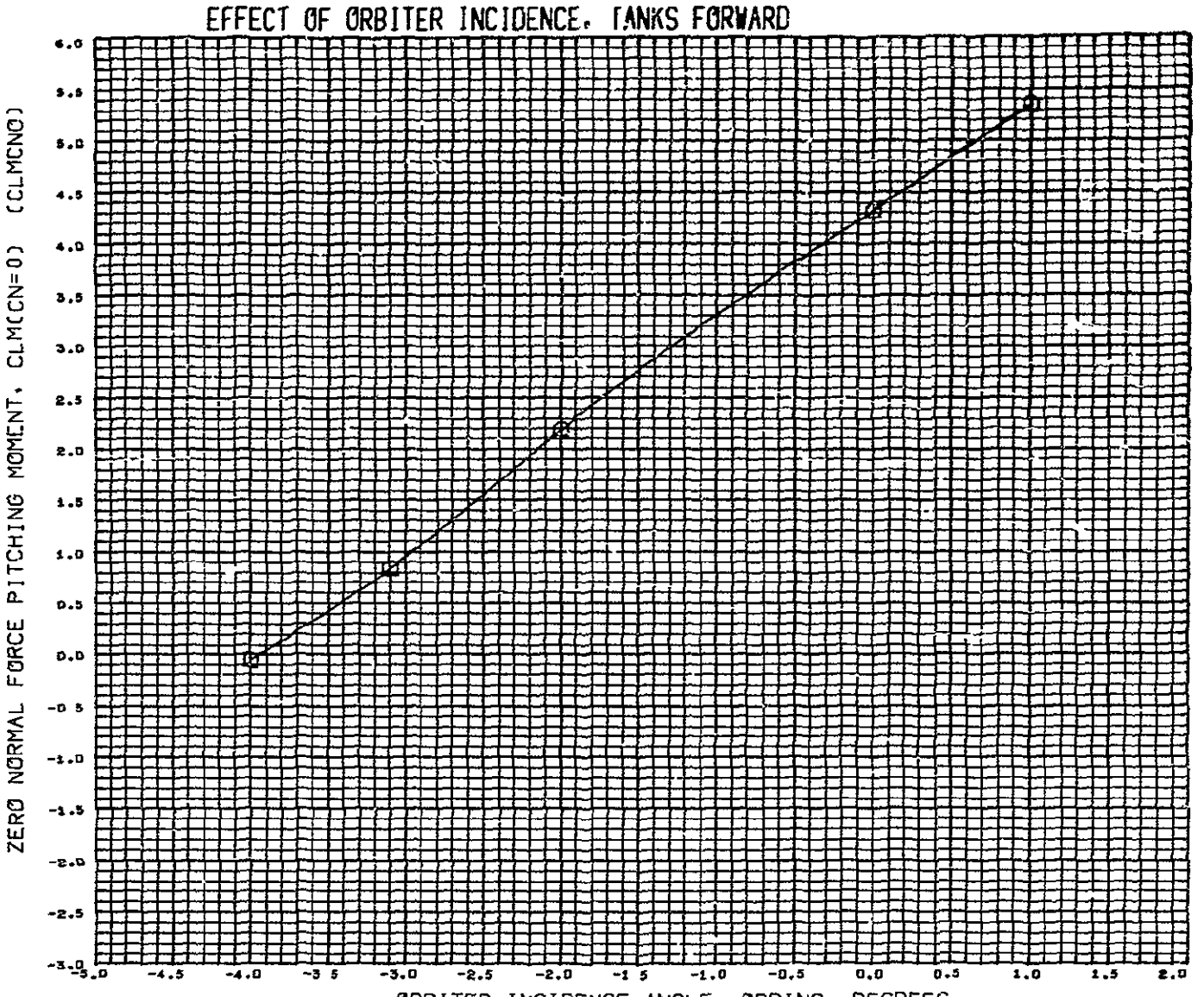
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33311	- 4.000	Y33411	- 3.100
E33211	- 2.000	E33111	0.000
F33011	1.000		

REFERENCE INFORMATION

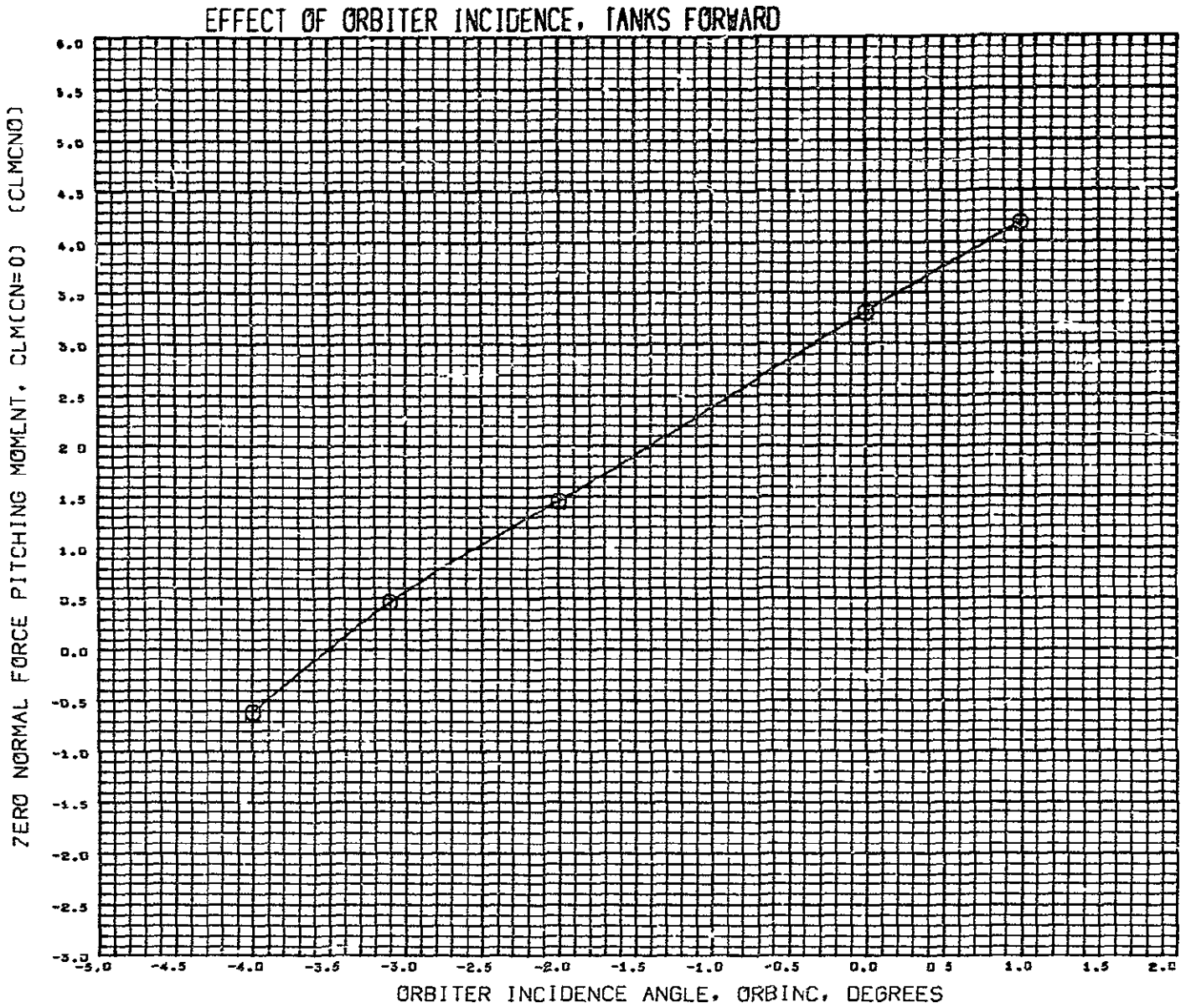
SREF	1.3960	SQ IN
LPEF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF



SYMBOL	MACH	PARAMETRIC VALUES	DATA SOURCE				REFERENCE INFORMATION		
O	1.100	BETA 0.000	DATASET	ORBINC	DATASET	ORBINC	SREF	1.3960	SQ..N
			E33311	- 4.000	Y33411	- 3.100	LREF	1.3330	IN
			E33211	- 2.000	E33114	0.000	BREF	1.3330	IN
			E33011	1.000			XMRP	3.6860	IN
							YMRP	0.0000	IN
							ZMRP	0.0000	IN
							SCALE	0.0034	

DATA HIST CODE M#E1F



SYMBOL	MACH	PARAMETRIC VALUES	
O	1.200	BETA	0.000

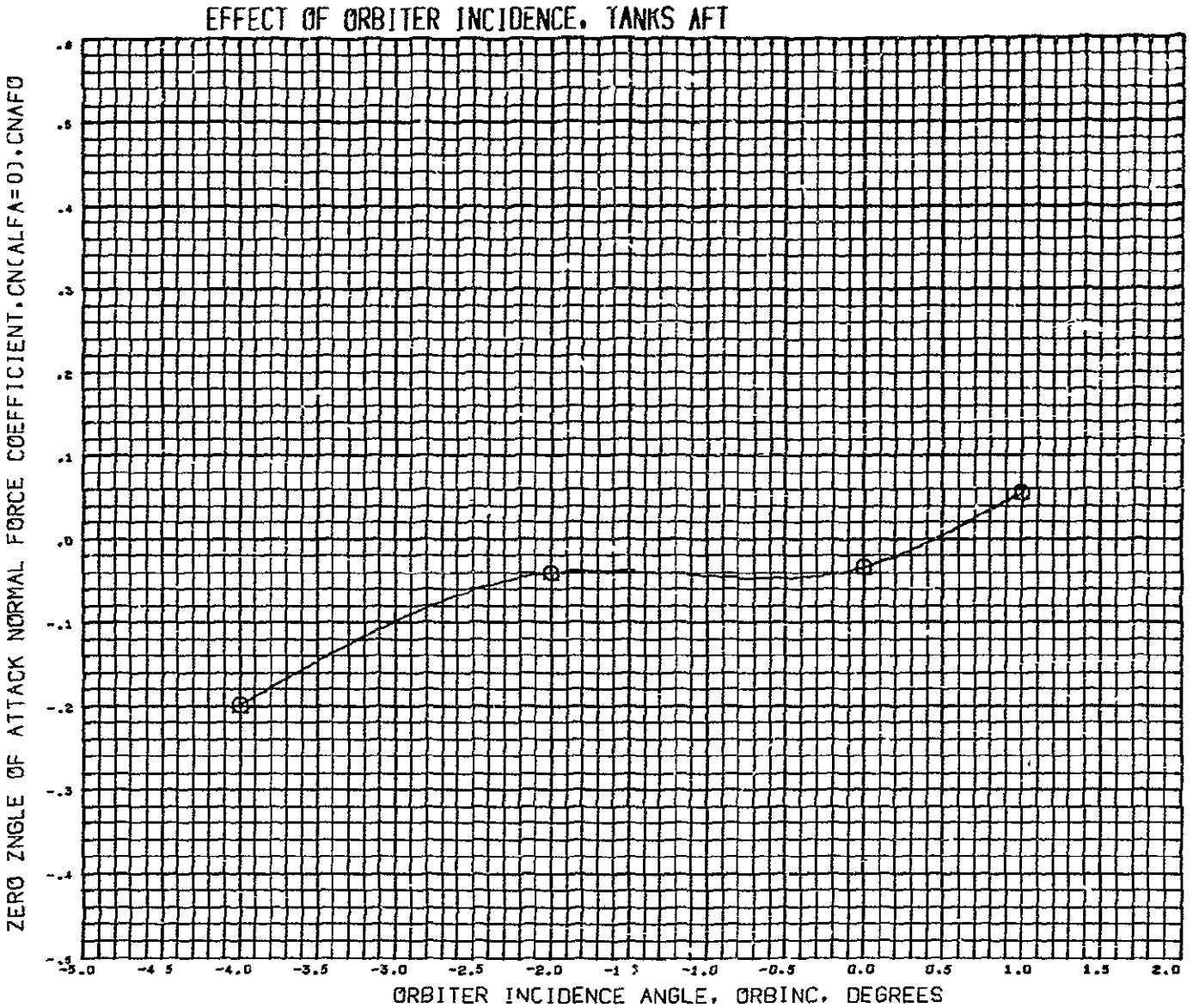
DATA HIST CODE H#EIF

DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33311	- 4.000	Y33~'+	- 3.100
E33211	- 2.000	E33111	0.000
E33011	1.000		

REFERENCE INFORMATION

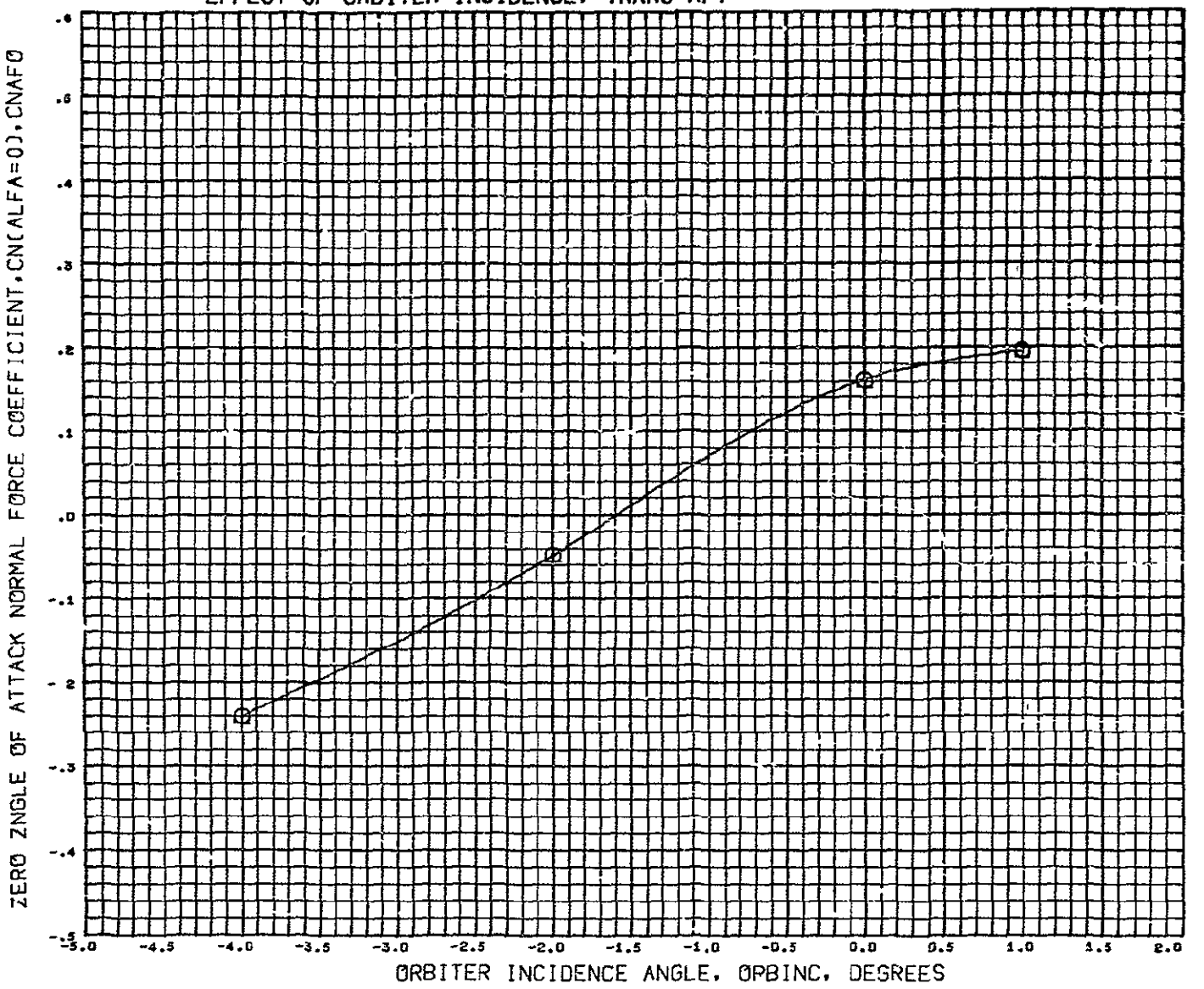
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



SYMBOL	MACH	PARAMETRIC VALUES		DATA SOURCE				REFERENCE INFORMATION		
				DATASET	ORBINC	DATASET	ORBINC			
O	0.900	BETA	0.000	E33351	- 4.000	E33251	- 2.000	SREF	1.3960	SQ IN.
				E33151	0.000	E33051	1.000	LREF	1.3330	IN
								BREF	1.3330	IN
								XMRP	3.6660	IN
								YMRP	0.0000	IN
								ZMRP	0.0000	IN
								SCALE	0.0034	

DATA HIST CODE M*EIF

EFFECT OF ORBITER INCIDENCE, TANKS AFT



SYMBOL	MACH	PARAMETRIC VALUES	
O	1.000	BETA	0.000

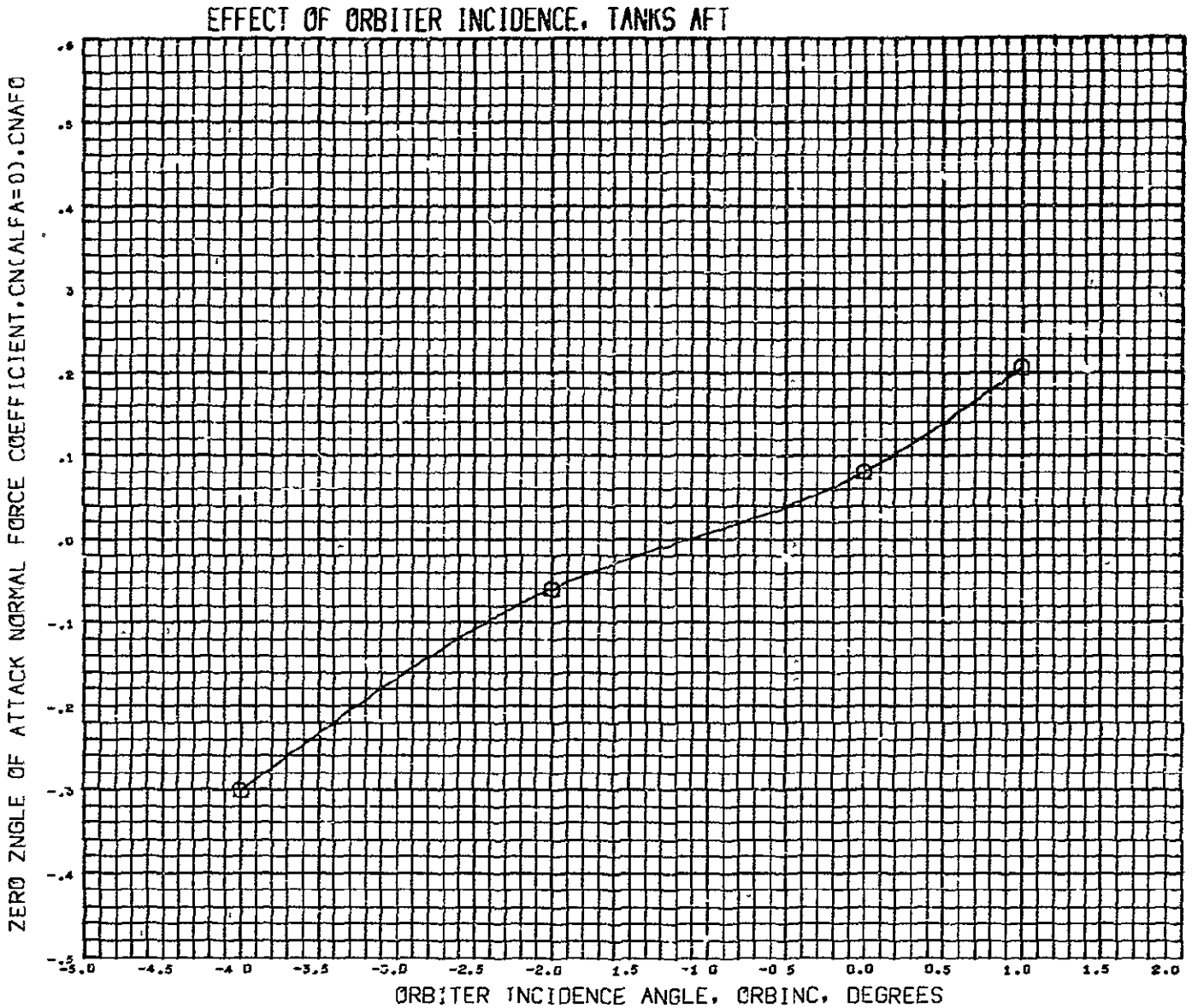
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33351	- 4.000	E33251	- 2.000
E33151	0.000	E33051	1.000

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M4EIF



SYMBOL	MACH	PARAMETRIC VALUES	
O	1 100	BETA	0.000

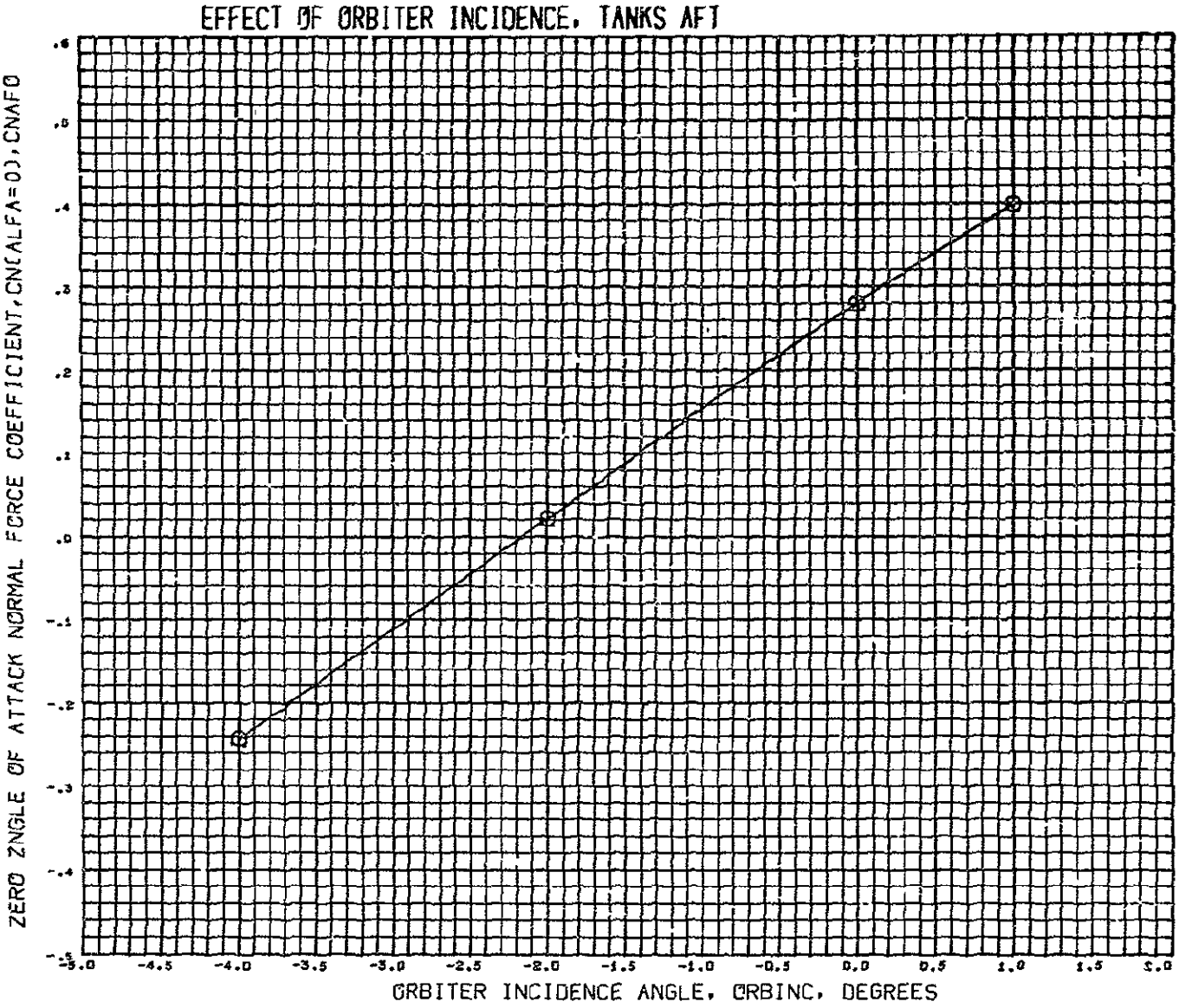
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33351	- 4 000	E33251	- 2 000
E33151	0 000	E33051	1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST. CODE M*EIF



SYMBOL	MACH	PARAMETRIC VALUES	
O	1.200	BETA	0.000

DATA SOURCE

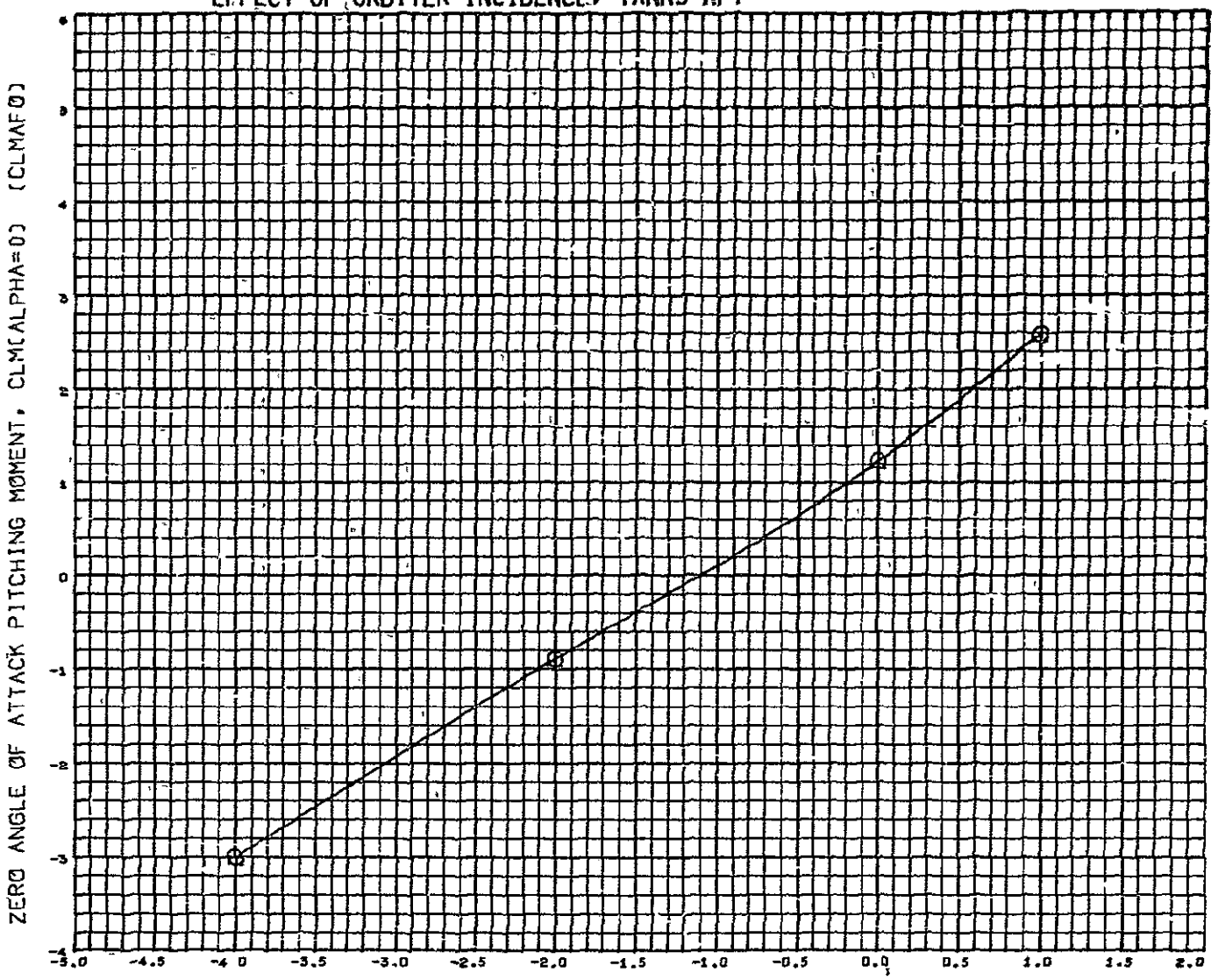
DATASET	ORBINC	DATASET	ORBINC
E33351	- 4.000	E33251	- 2.000
E33151	0.000	E33051	1.000

DATA MIST. CODE MMEIF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF ORBITER INCIDENCE, TANKS AFT



SYMBOL	MACH		PARAMETRIC VALUES
O	0.900	BETA	0.000

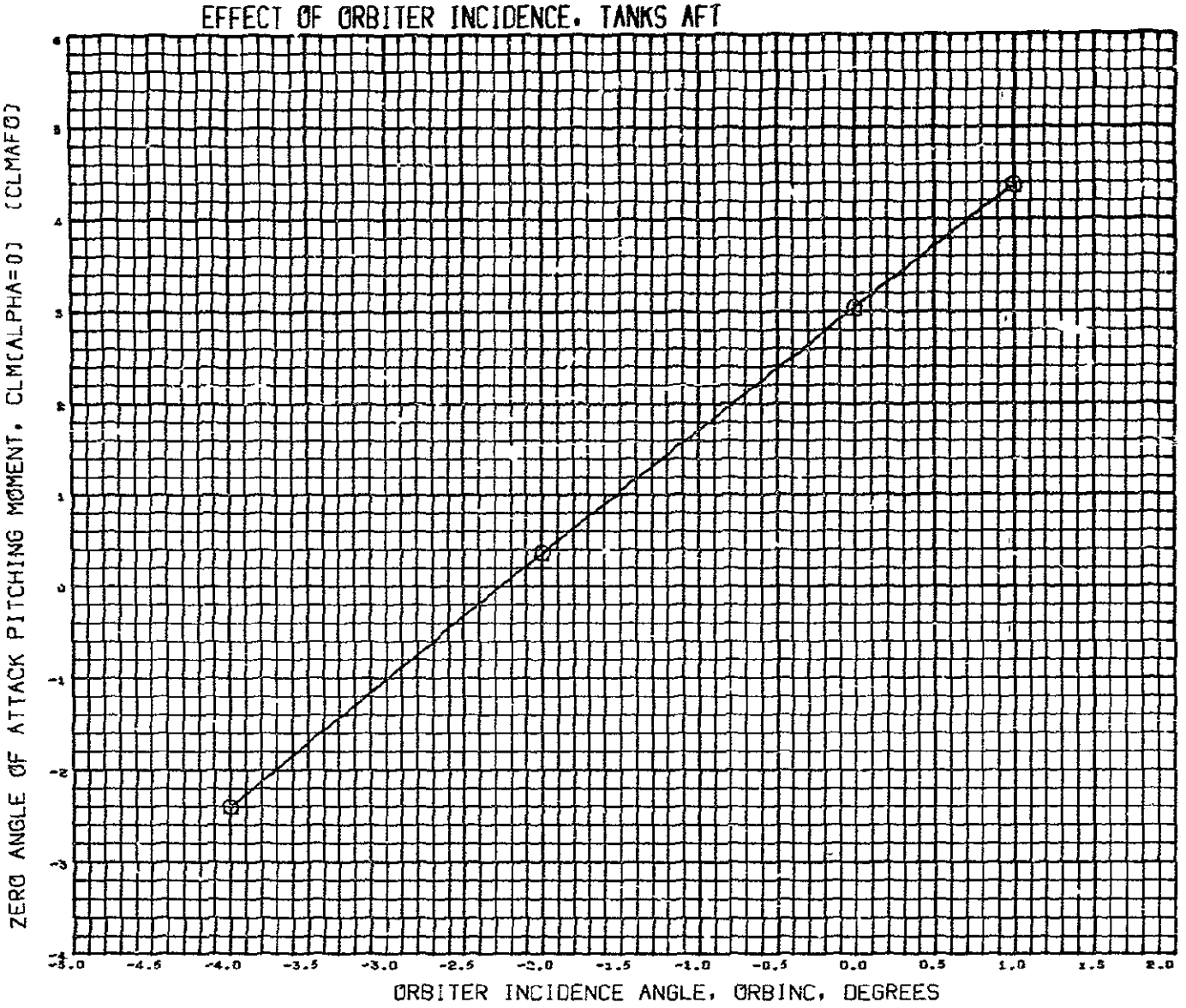
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33351	- 4.000	E33251	- 2.000
E33151	0 000	E33051	1 000

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0400	IN
ZMRP	0 0000	IN
SCALE	0.0034	

DATA HIST. CODE H*EIF



SYMBOL	MACH	PARAMETRIC VALUES	
O	1.000	BETA	0.000

DATA SOURCE

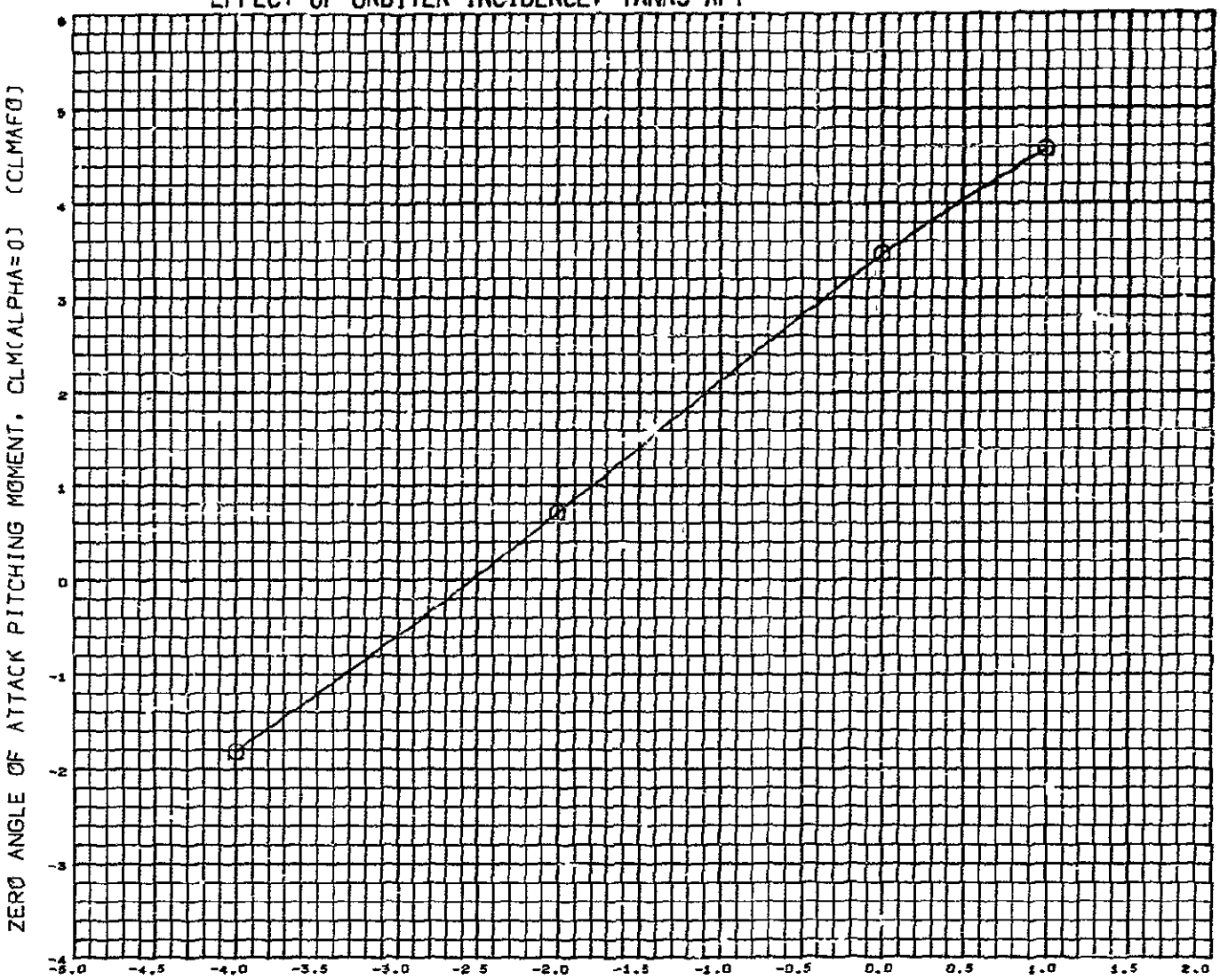
DATASET	ORBINC	DATASET	ORBINC
E33351	-4.000	E33251	-2.000
E33151	0.000	E33051	1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6060	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0036	

DATA HIST CODE H*EIF

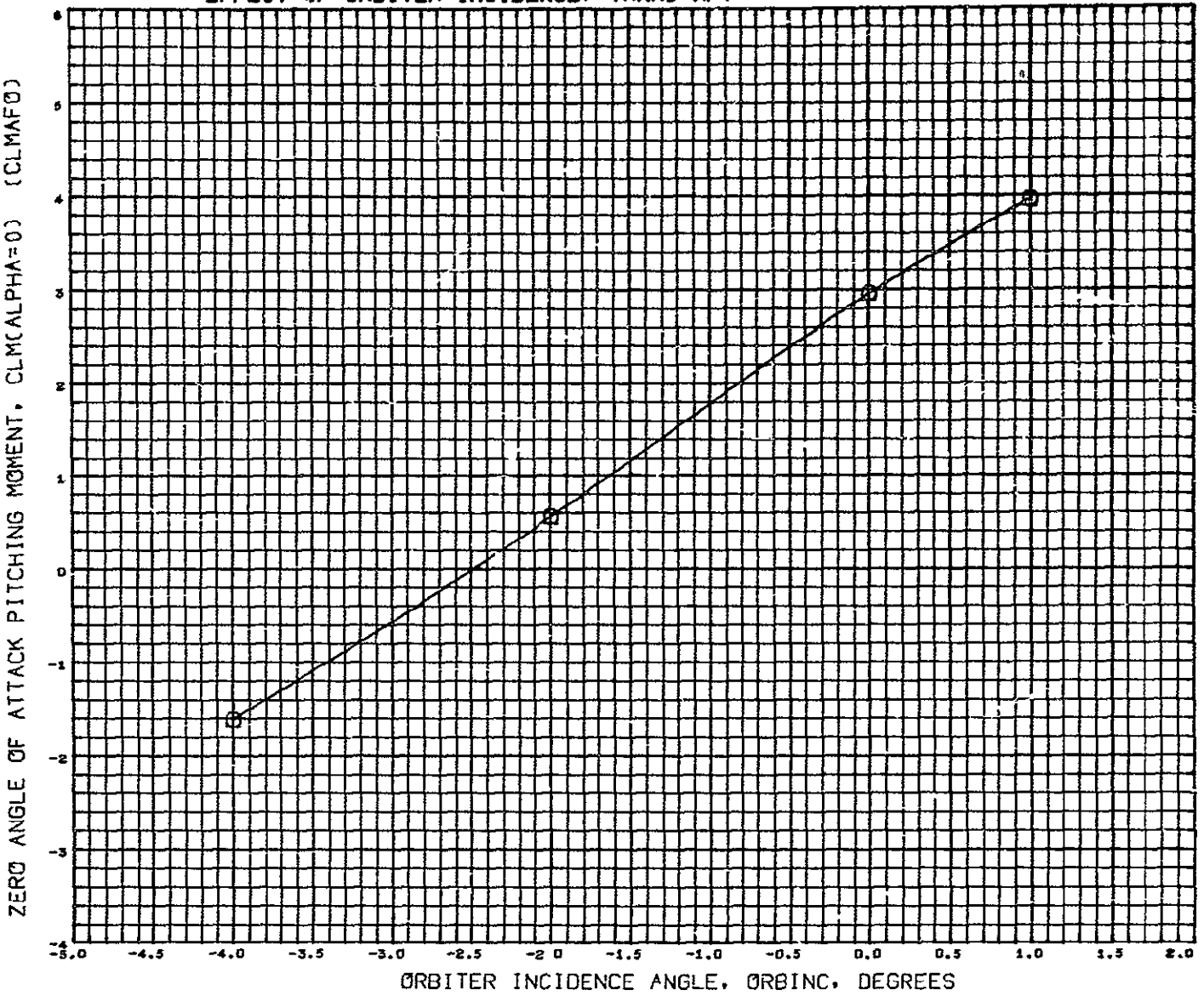
EFFECT OF ORBITER INCIDENCE, TANKS AFT



SYMBOL	MACH	PARAMETRIC VALUES		DATA SOURCE				REFERENCE INFORMATION		
				DATASET	ORBINC	DATASET	ORBINC			
O	1.100	BETA	0.000	E33351	- 4.000	E33251	- 2.000	SREF	1.3960	SQ IN
				E33151	0.000	E33051	1.000	LREF	1.3330	IN
								BREF	1.3330	IN
								XMRP	3.6860	IN
								YMRP	0.0000	IN
								ZMRP	0.0000	IN
								SCALE	0.003	

DATA HIST. CODE M*E1F

EFFECT OF ORBITER INCIDENCE, TANKS AFT



SYMBOL	MACH	PARAMETRIC VALUES	
○	1.200	BETA	0.000

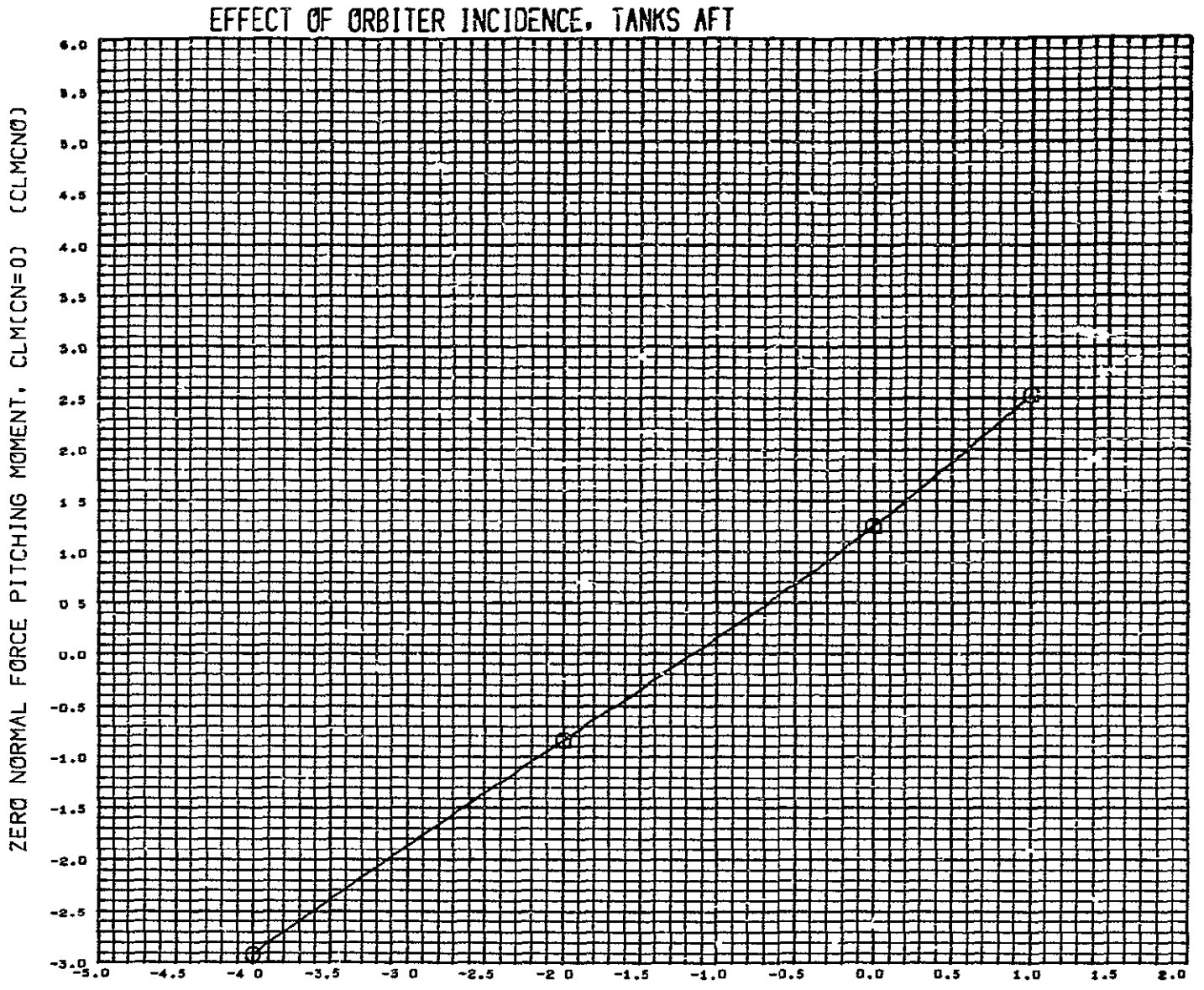
DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33351	- 4.000	E33211	- 2.000
E33151	0.000	E33051	1.000

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0090	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF



SYMBOL	MACH	PARAMETRIC VALUES	
O	0.900	BETA	0.000

DATA SOURCE

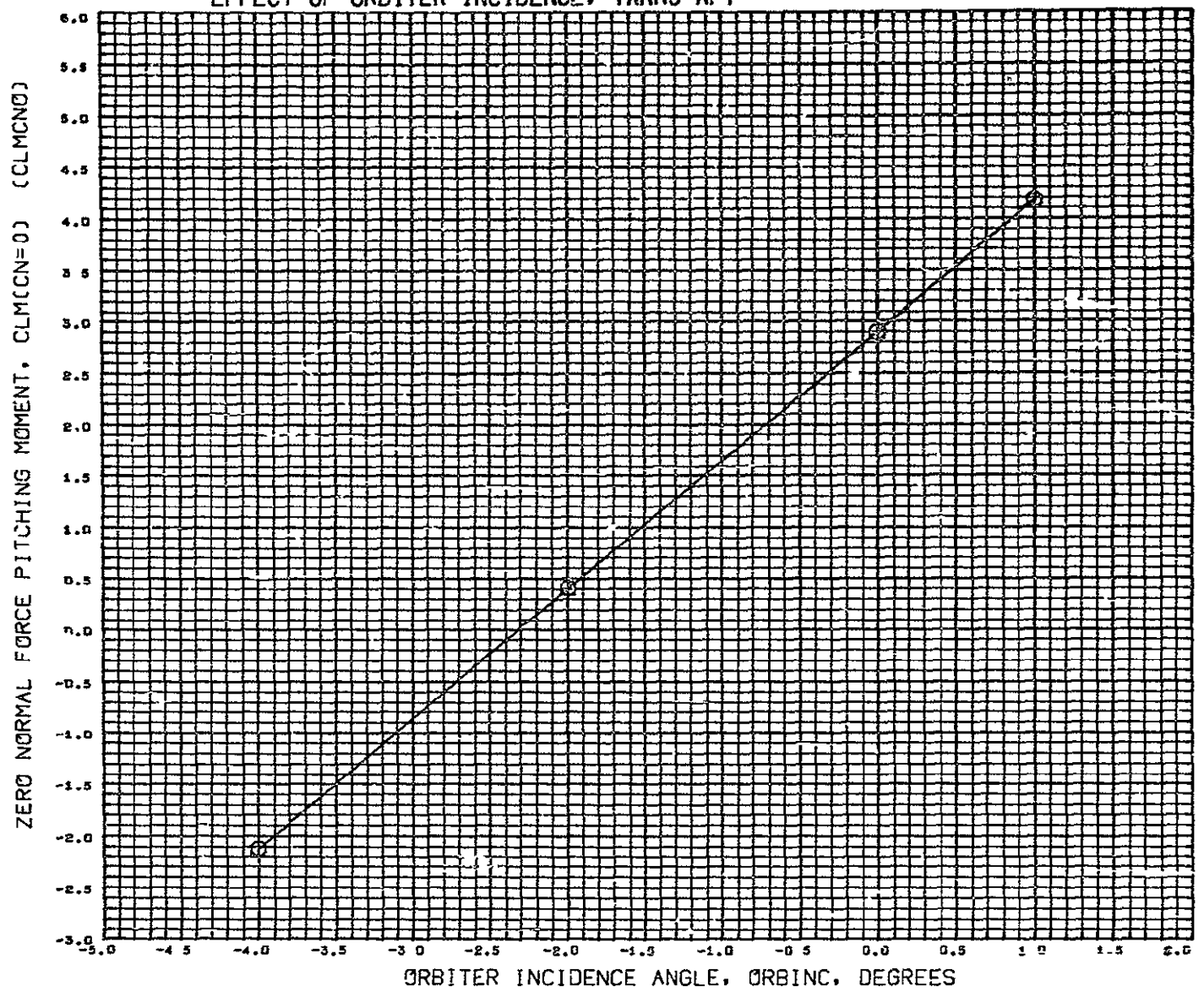
DATASET	ORBINC	DATASET	ORBINC
E33331	- 4.000	E33251	- 2.000
E33151	0.000	E33051	1.000

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EIF

EFFECT OF ORBITER INCIDENCE, TANKS AFT



SYMBOL	MACH	PARAMETRIC VALUES	
O	1.000	BETA	0.000

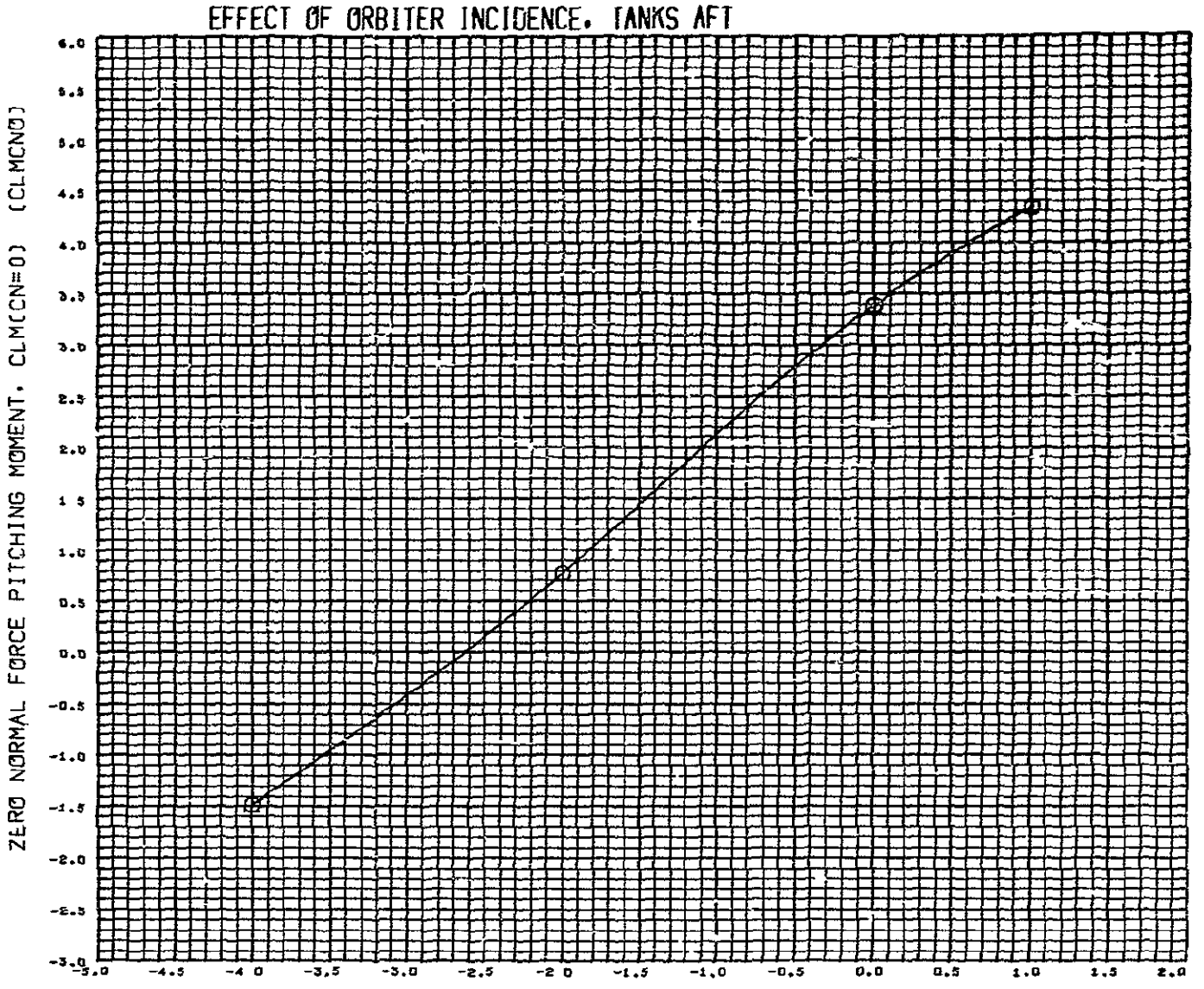
DATA HIST CODE M*E1F

DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33351	- 4.000	E33251	- 2.000
E33151	0.000	E33051	1.000

REFERENCE INFORMATION

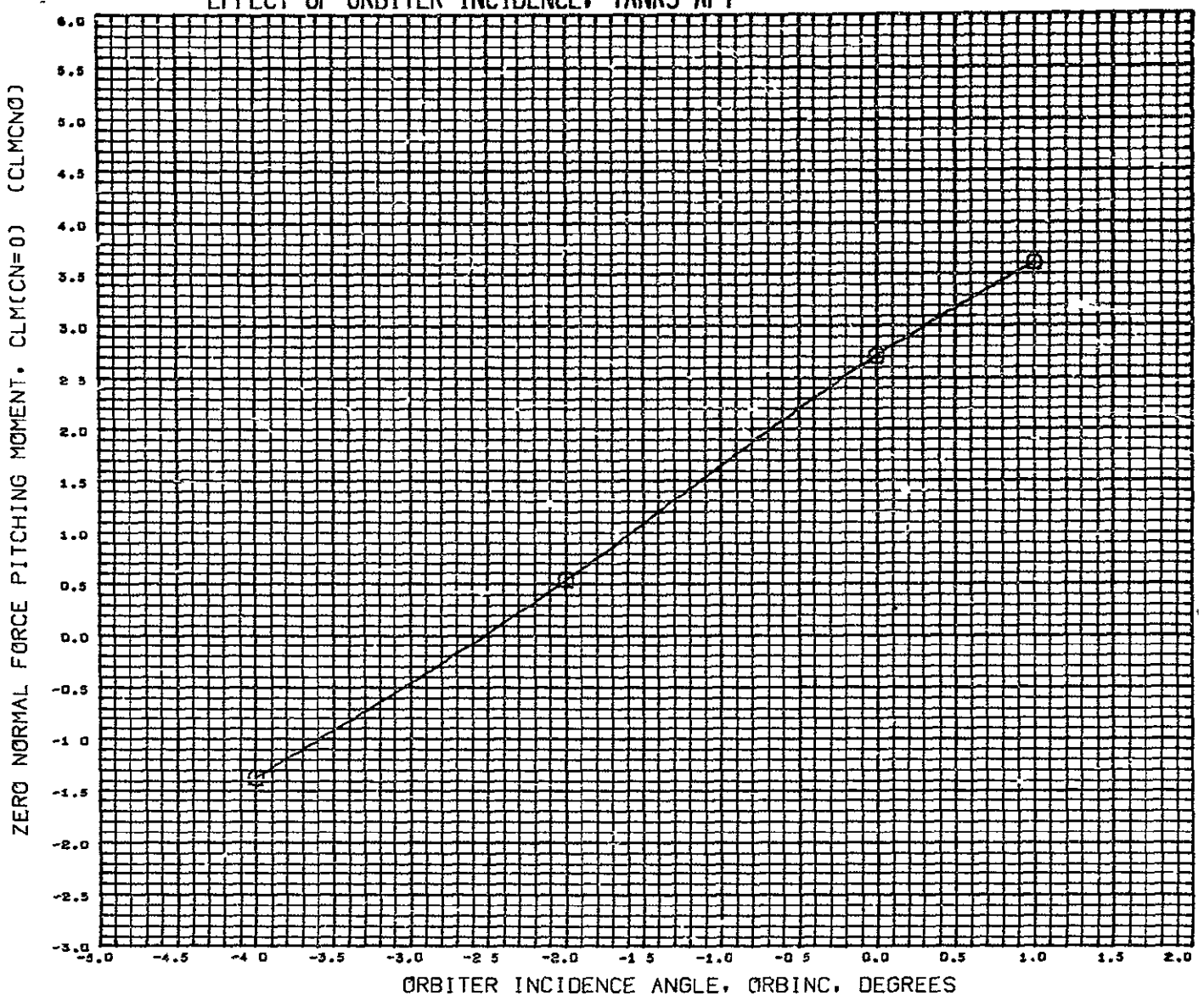
SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



SYMBOL	MACH	PARAMETRIC VALUES	DATA SOURCE				REFERENCE INFORMATION		
			DATASET	ORBINC	DATASET	ORBINC			
O	1.100	BETA 0.000	E33351	-4.000	E33251	-2.000	SREF	1.3960	SQ IN
			E33151	0.000	E33051	1.000	LREF	1.3330	IN
							BREF	1.3330	IN
							XMRP	3.6860	IN
							YMRP	0.0000	IN
							ZMRP	0.0000	IN
							SCALE	0.0034	

DATA HIST. CODE M*E1F

EFFECT OF ORBITER INCIDENCE, TANKS AFT



SYMBOL	MACH	PARAMETRIC VALUES	
O	1.200	BETA	0.000

DATA SOURCE

DATASET	ORBINC	DATASET	ORBINC
E33351	- 4.000	E33231	- 2.000
E33151	0.000	E33051	1.000

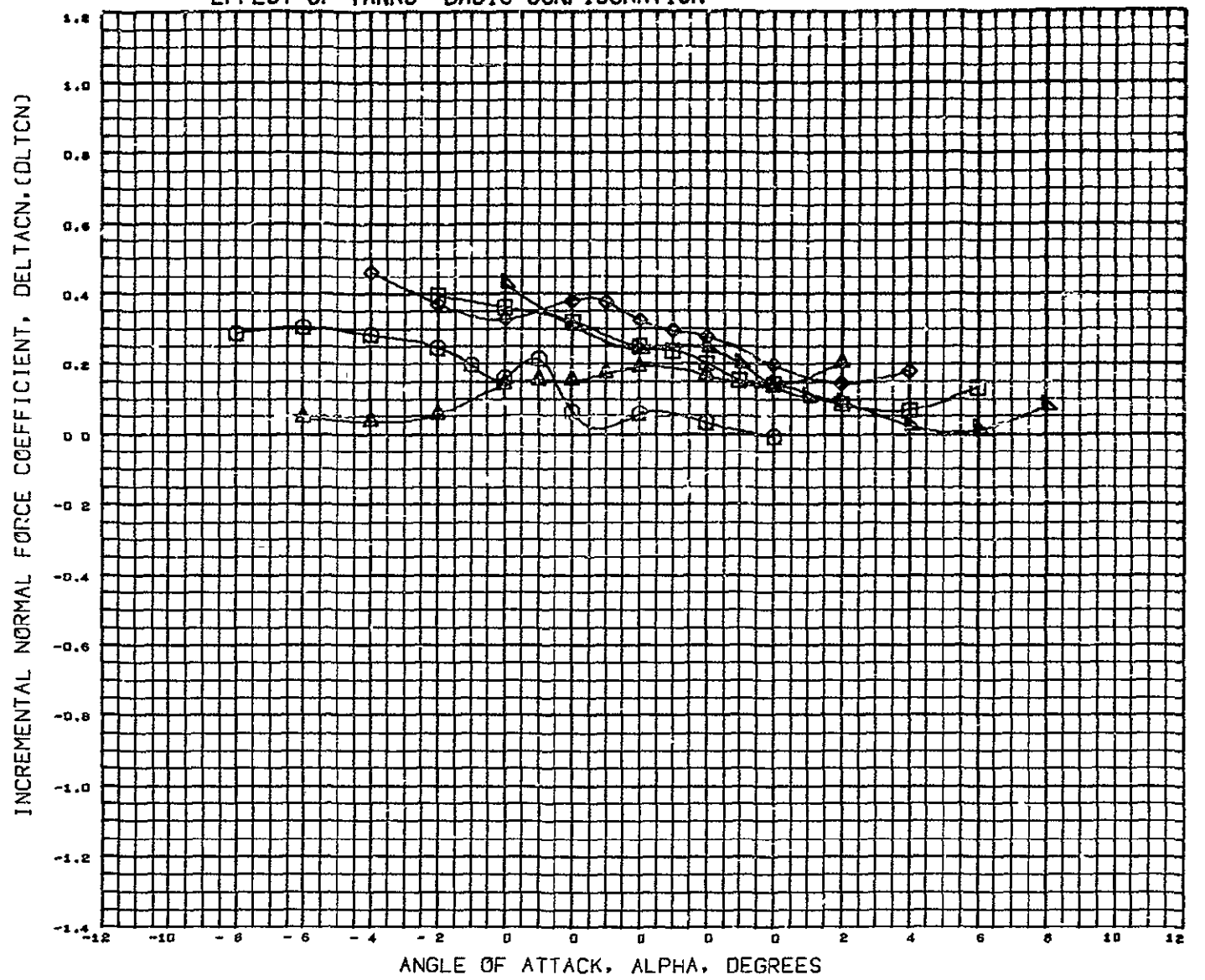
REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EIF

M491-MSFC-S1C G-11 ORBITER 0VWT2CBF (E33351) 08 AUG 71 PAGE 401

EFFECT OF TANKS- BASIC CONFIGURATION



SYMBOL	MACH
○	0.600
△	0.900
◇	1.000
□	1.100
▽	1.200

PARAMETRIC VALUES

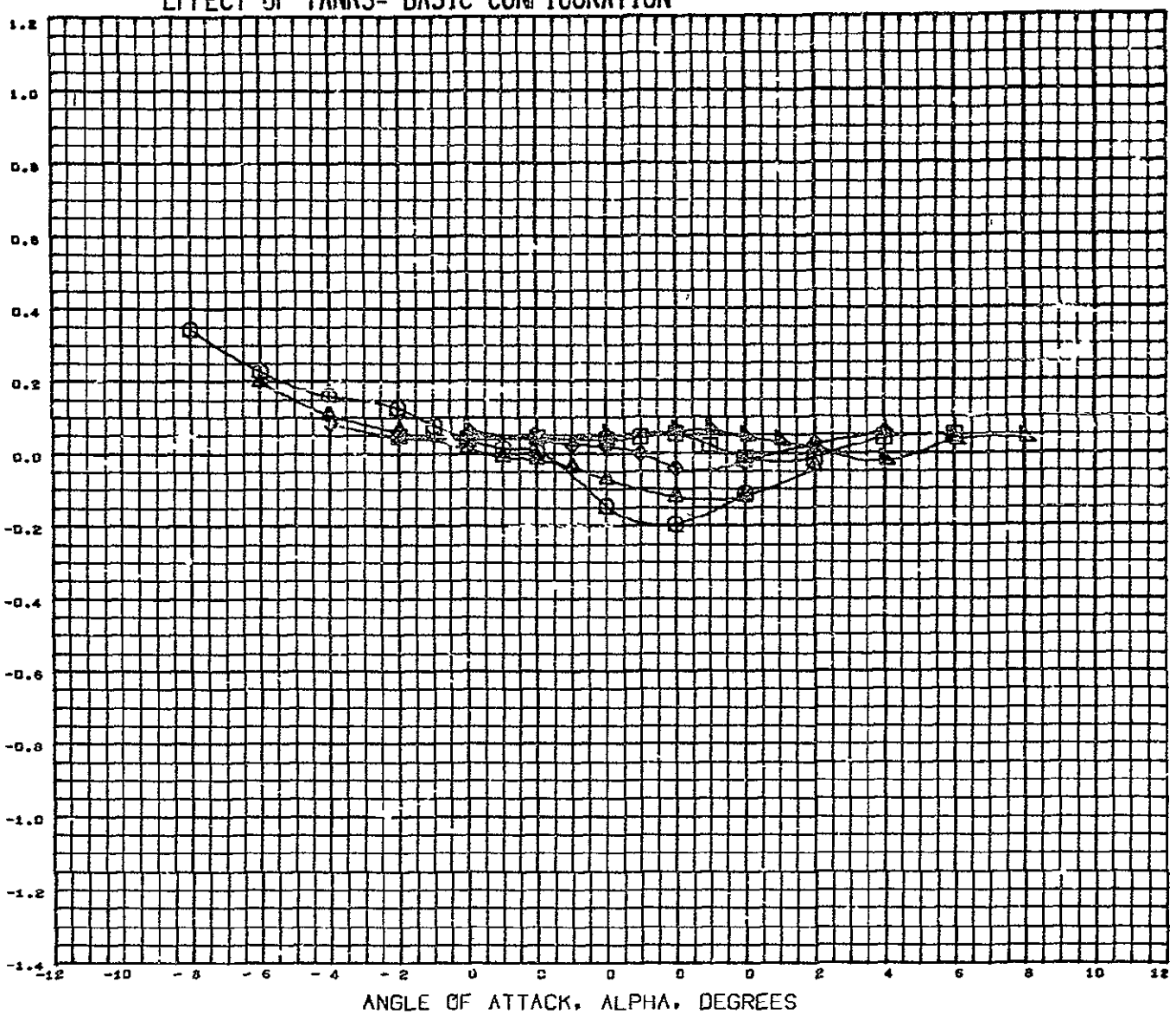
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0500	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



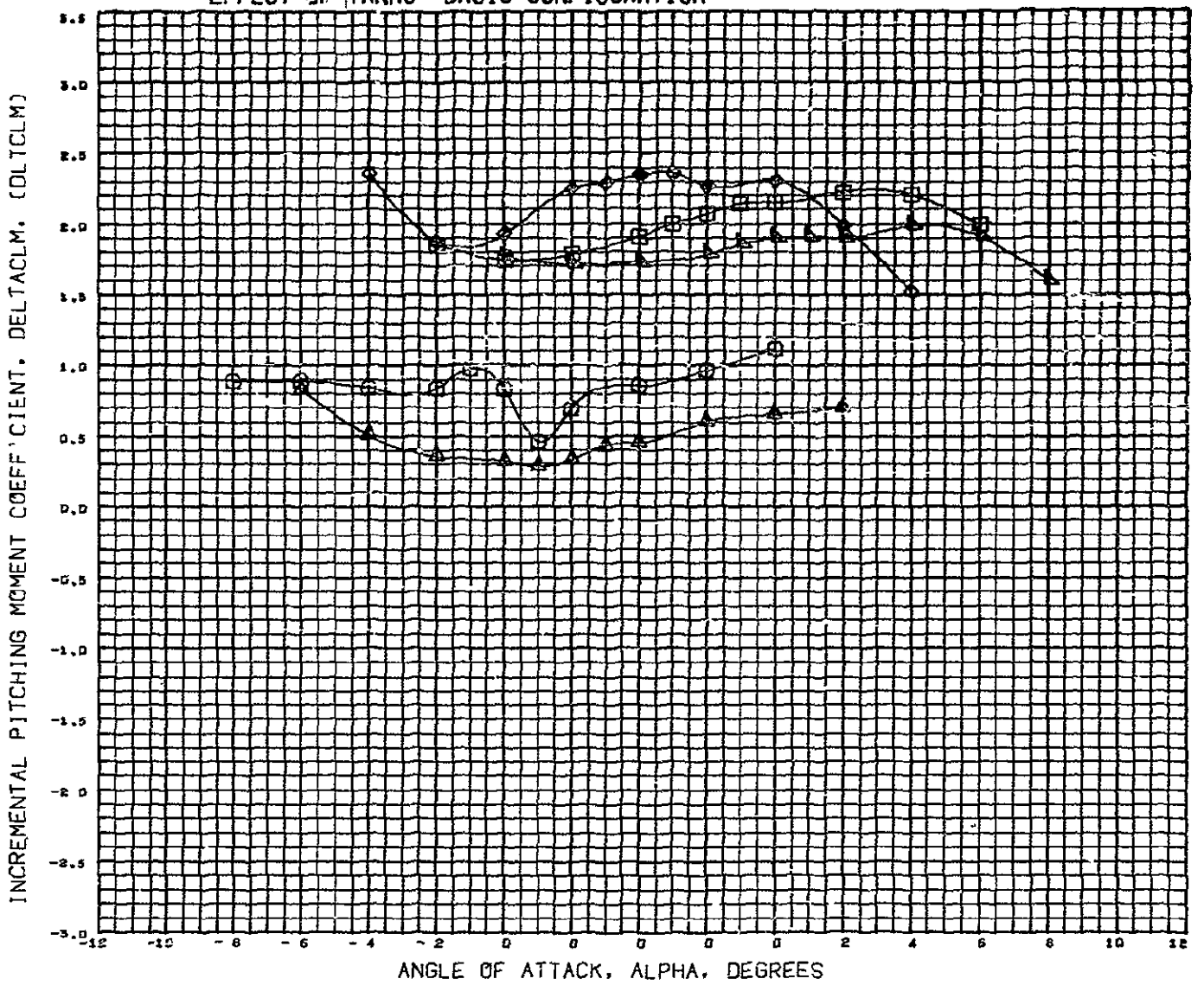
SYMBOL	MACH	PARAMETRIC VALUES
○	1.460	BETA 0.000 ORBINC - 3.100
△	1.960	
◇	2.990	
□	4.000	
⬠	4.960	

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



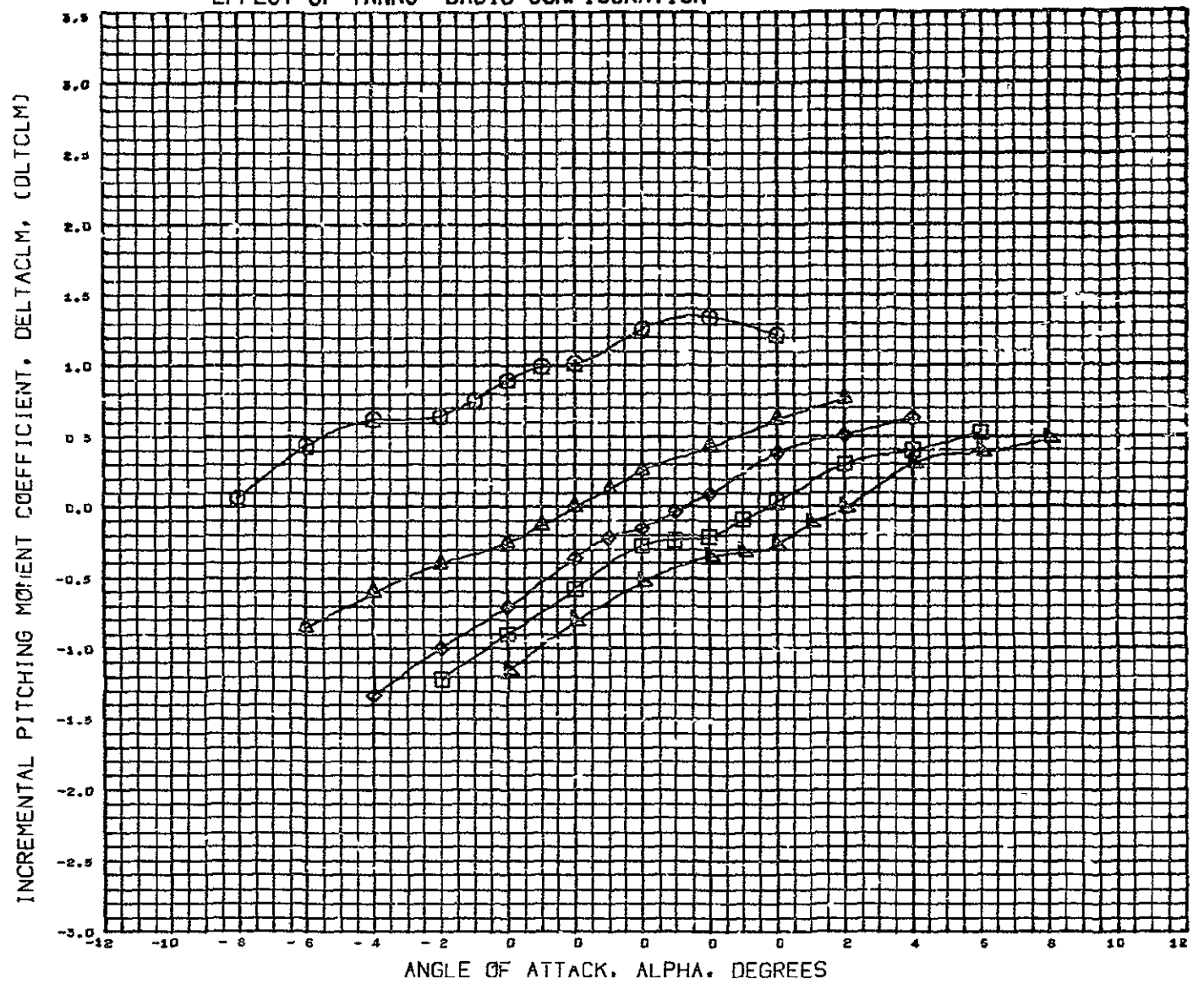
SYMBOL	MACH	PARAMETRIC VALUES		
□	0.600	BETA	0.000	ORBINC - 3.100
△	0.900			
◇	1.000			
▽	1.100			
⊿	1.200			

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

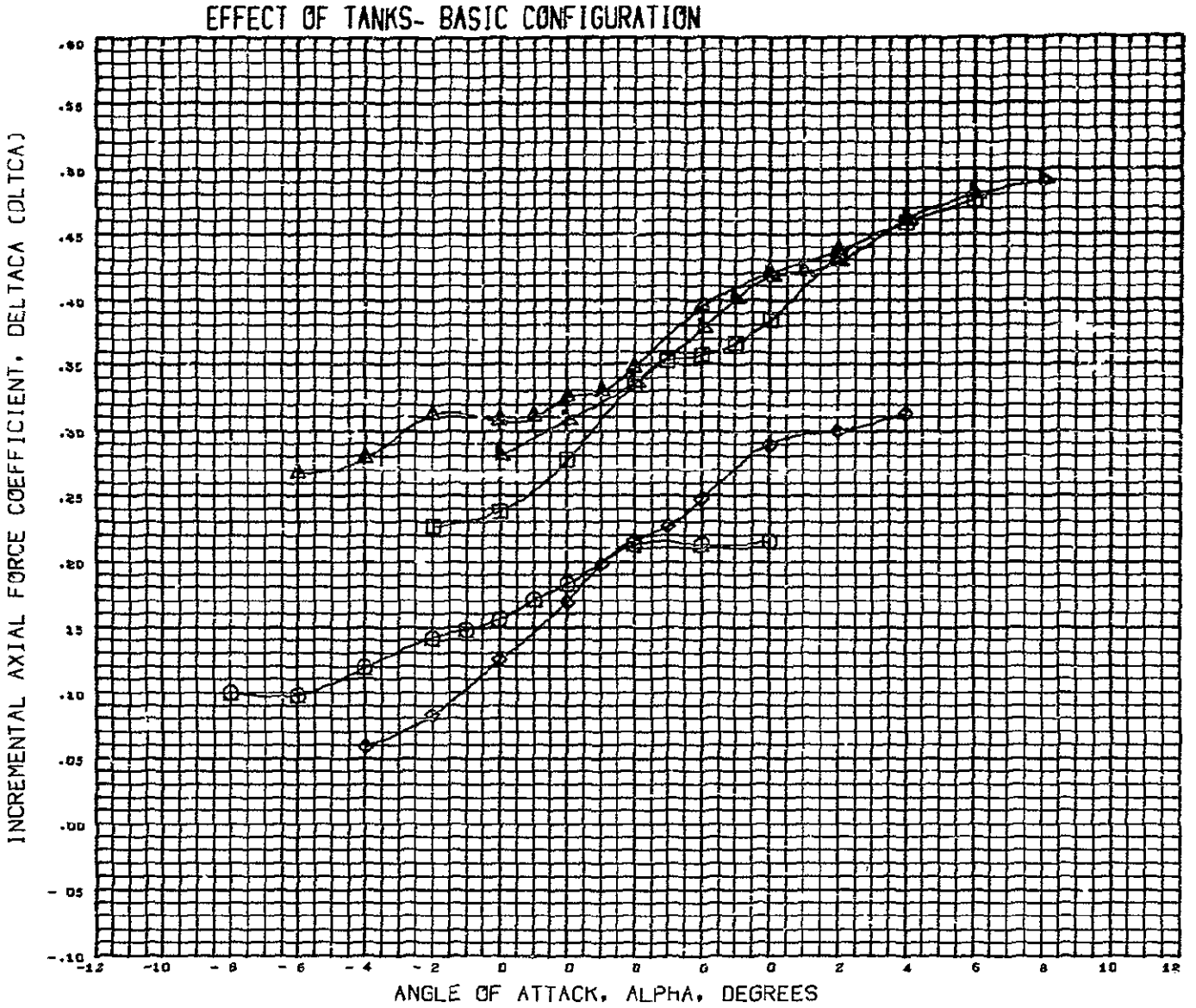
EFFECT OF TANKS- BASIC CONFIGURATION

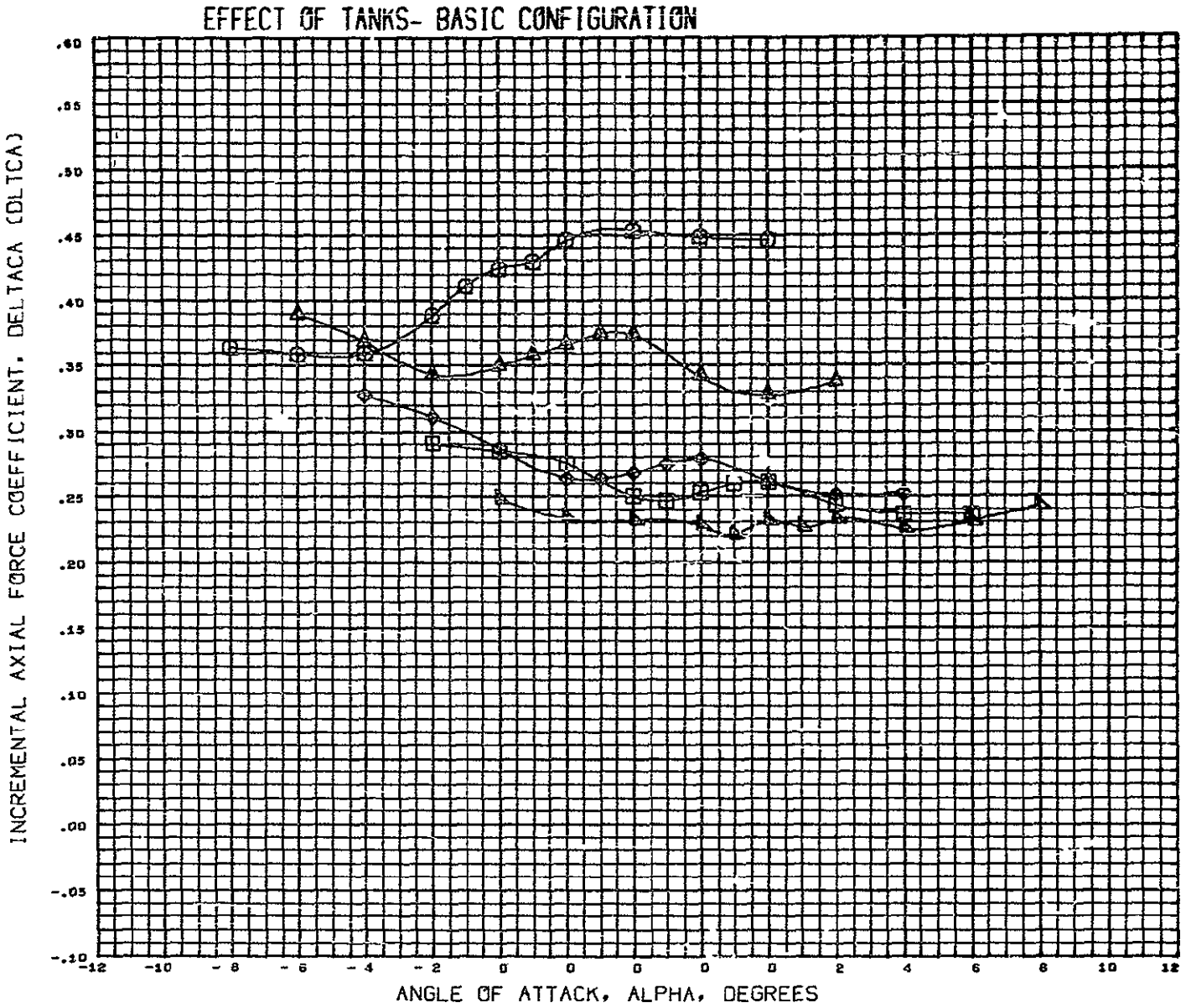


SYMBOL	MACH	PARAMETRIC VALUES			
	1.460	BETA	0.000	ORBINC	- 3.100
	1.960				
	2.990				
	4.000				
	4.960				

DATA HIST CODE M*E1*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	


EFFECT OF TANKS- BASIC CONFIGURATION
INCREMENTAL AXIAL FORCE COEFFICIENT, DELTACA (CALTCA)
.60
.55
.50
.45
.40
.35
.30
.25
.20
.15
.10
.05
.00
-.05
-.10
-12
-10
-8
-6
-4
-2
0
0
0
0
0
2
4
6
8
10
12
ANGLE OF ATTACK, ALPHA, DEGREES
SYMBOL
MACH
0.600
0.900
1.000
1.100
1.200
PARAMETRIC VALUES
BETA 0.000 ORBINC - 3.100
DATA HIST. CODE M*EI*C
REFERENCE INFORMATION
SREF 1.3960 SQ.IN.
LREF 1.3330 IN
BREF 1.3330 IN
XMRP 3.6860 IN
YMRP 0.0000 IN
ZMRP 0.0000 IN
SCALE 0.0034

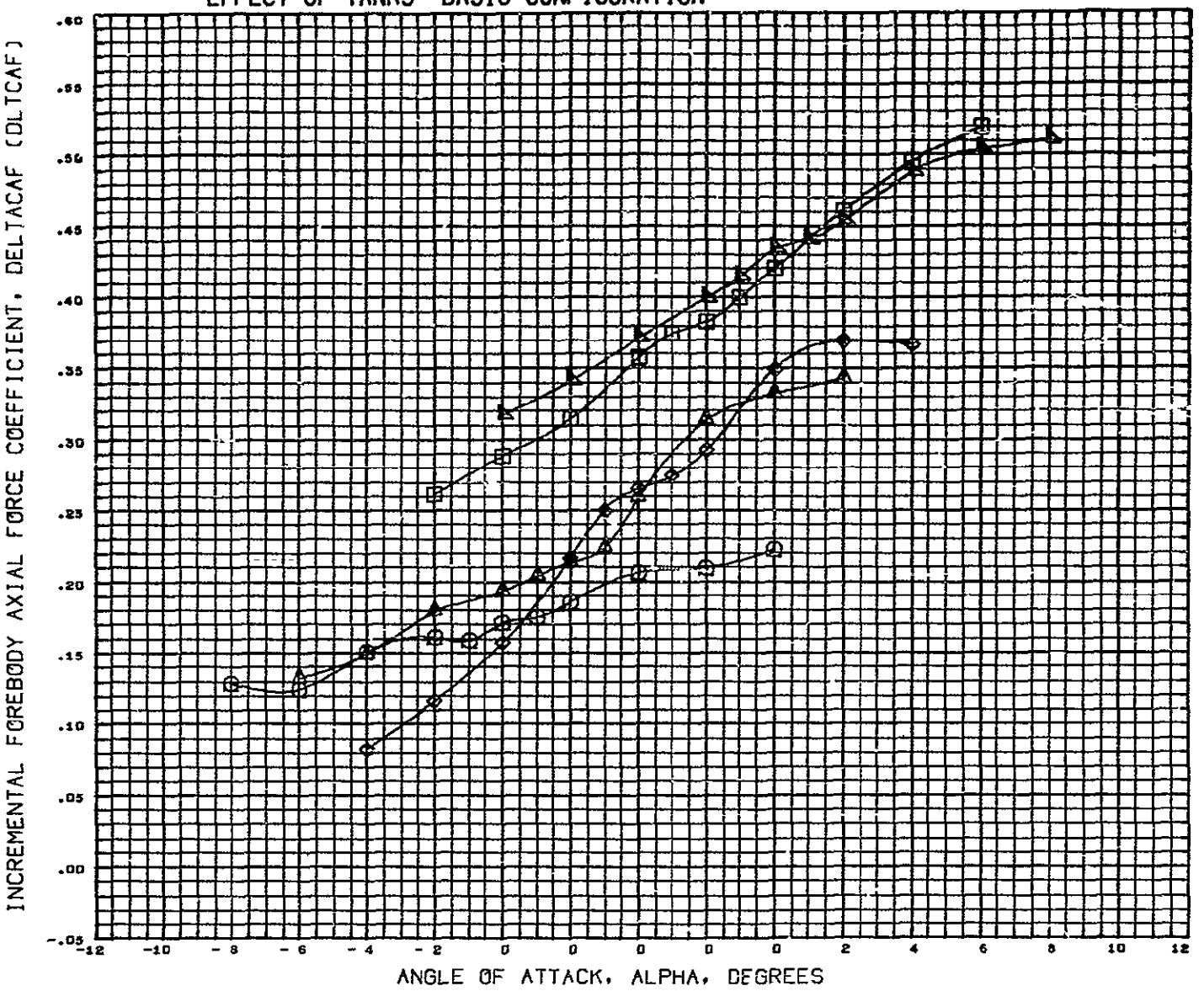


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.460	BETA	0.000	ORBINC	- 3.100
△	1.960				
◇	2.990				
□	4.000				
▽	4.960				

DATA HIST CODE M*E1*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0600	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



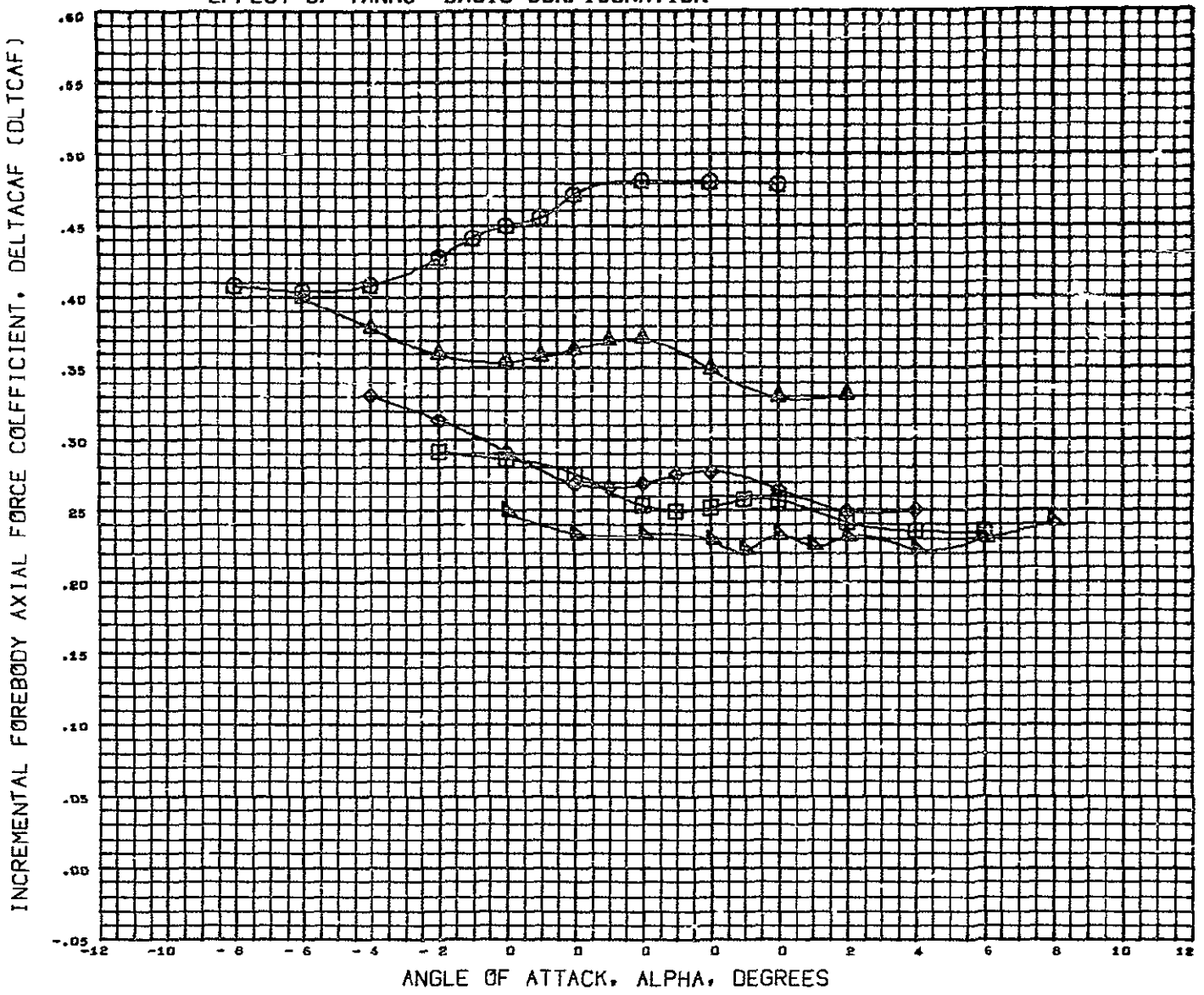
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.600	BETA	0.000	ORBINC -	3.100
△	0.900				
◇	1.000				
▽	1.100				
⬠	1.200				

DATA HIST. CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

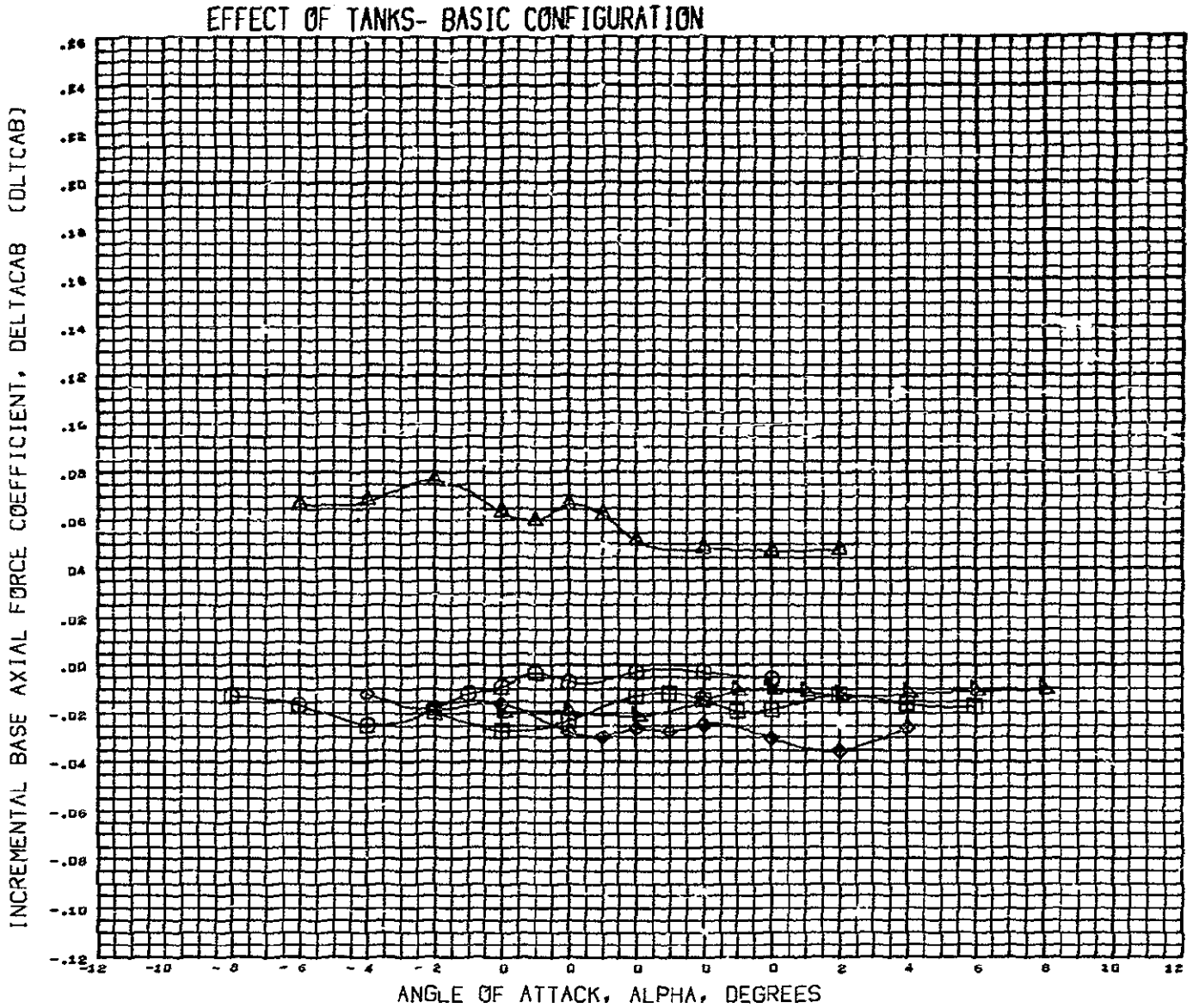
EFFECT OF TANKS- BASIC CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES		
	1.460	BETA	0 000	ORBINC - 3 100
	1 960			
	2.990			
	4.000			
	4 960			

DATA HIST CODE M*EI*C

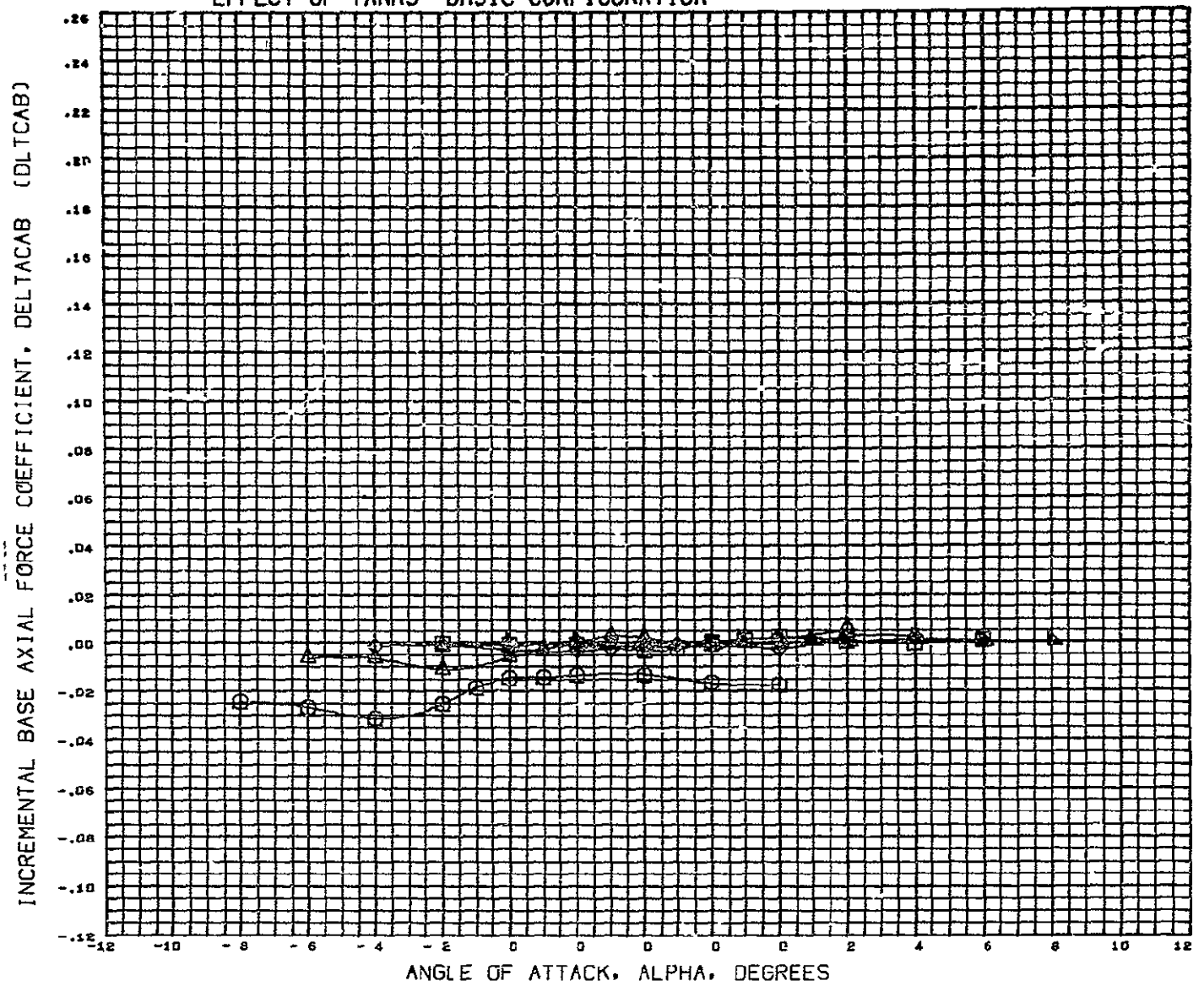
REFERENCE INFORMATION		
SREF	1 3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRF	0 0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



M491-S1C/G-11 ORB., TANK(T1) INCREMENT ON OVWCBF (F3300A) 08 AUG 71 PAGE 410

511

EFFECT OF TANKS- BASIC CONFIGURATION

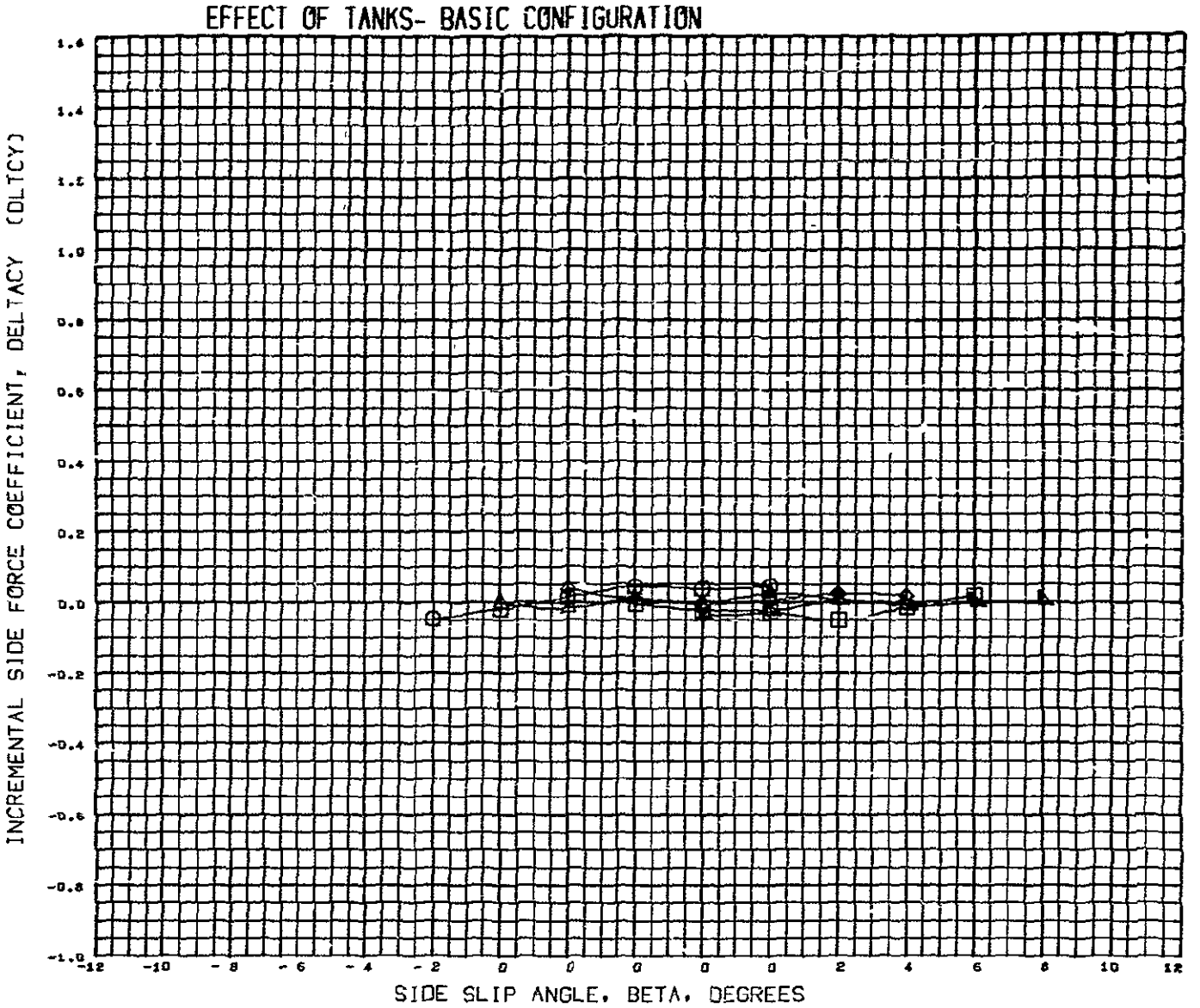


SYMBOL	MACH	PARAMETRIC VALUES			
	1.460	BETA	0.000	ORBINC	- 3.100
	1.960				
	2.990				
	4.000				
	4.960				

DATA HIST CODE H*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0400	IN
SCALE	0.0034	

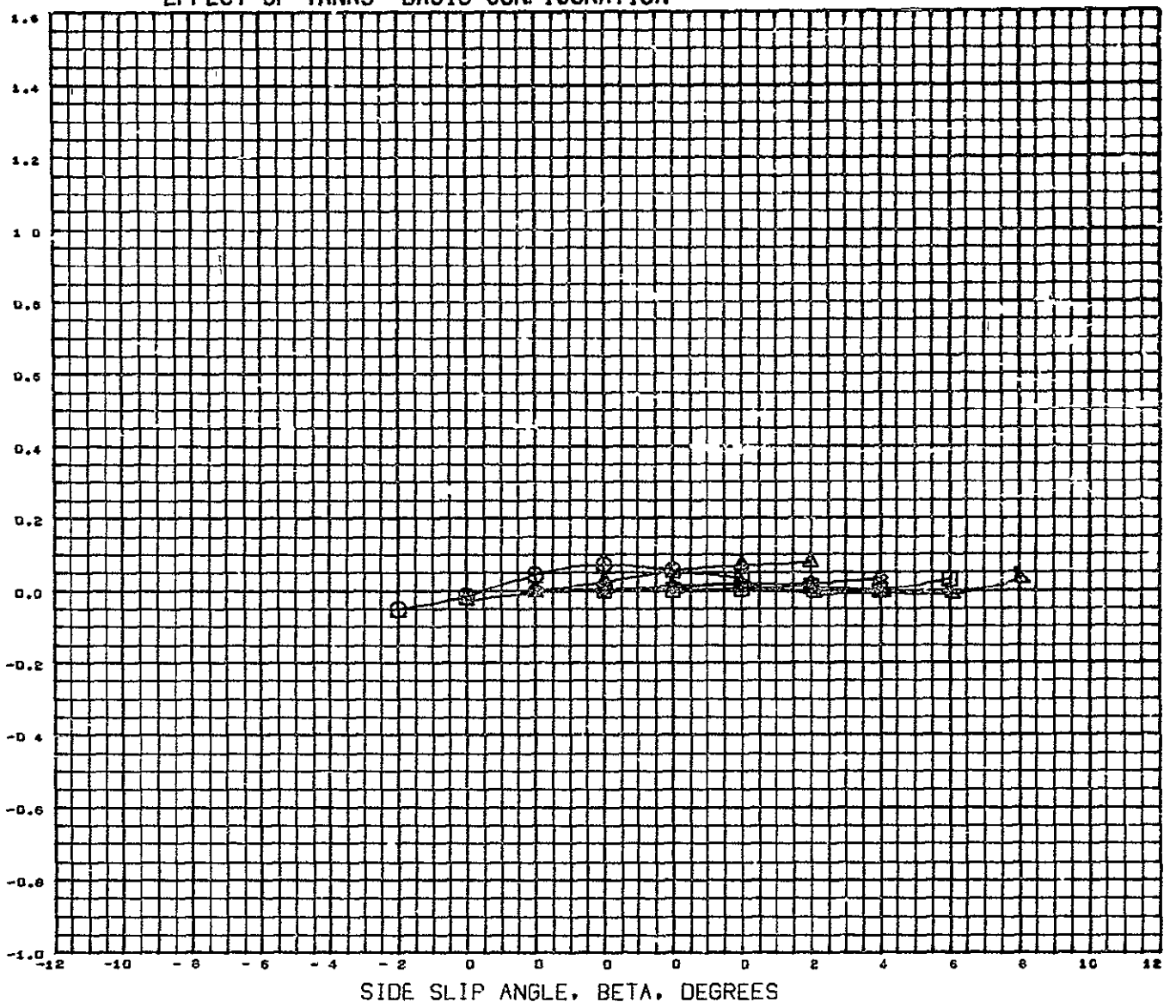


SYMBOL	MACH	PARAMETRIC VALUES			
	0.600	ALPHA	0.000	ORBINC -	3.100
	0.900				
	1.000				
	1.100				
	1.200				

DATA HIST CODE M*E1*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



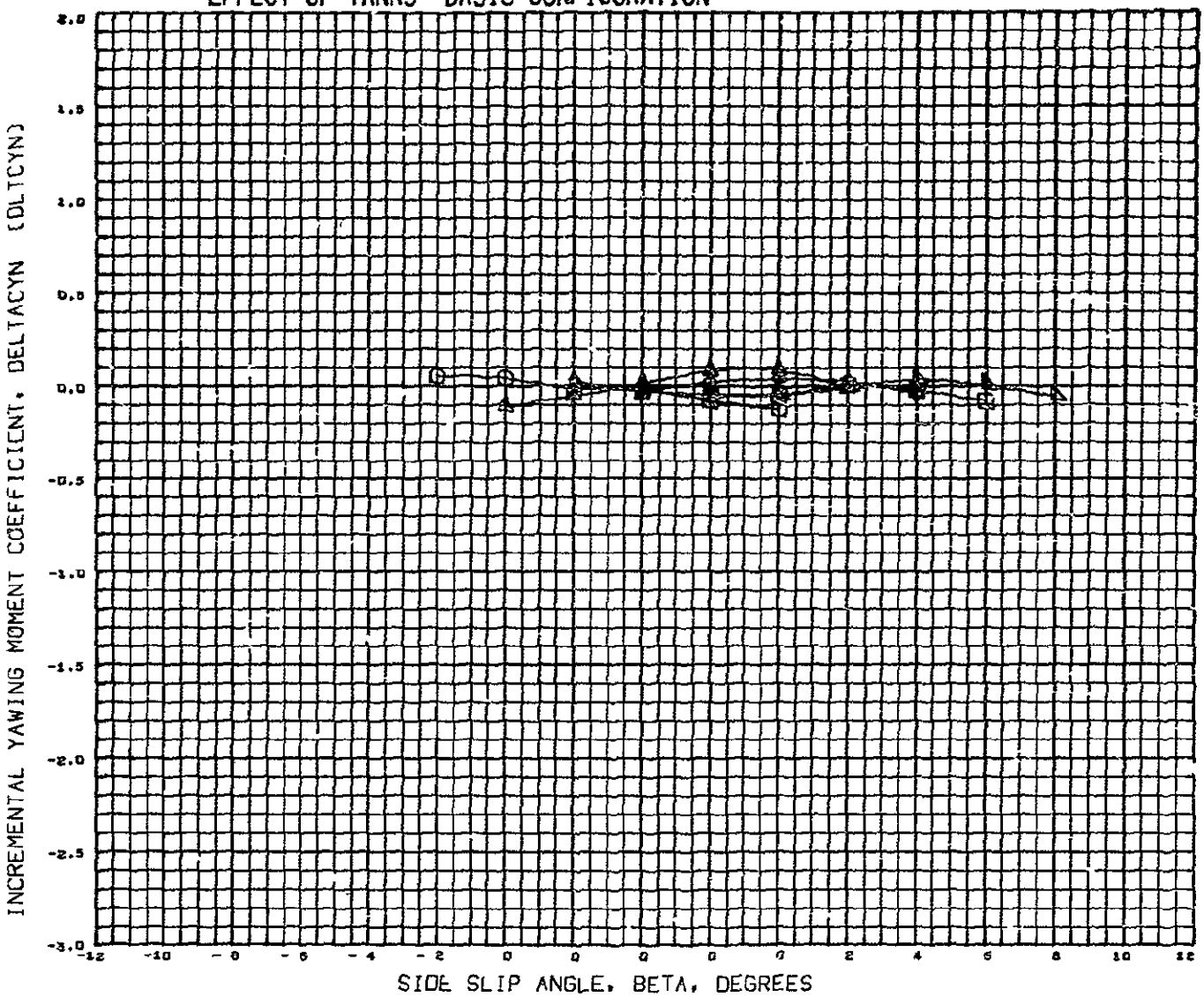
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.460	ALPHA	0.000	ORBINC	-3.100
△	1.960				
◇	2.990				
□	4.000				
▽	4.960				

DATA HIST CODE M#EI#C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRF	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



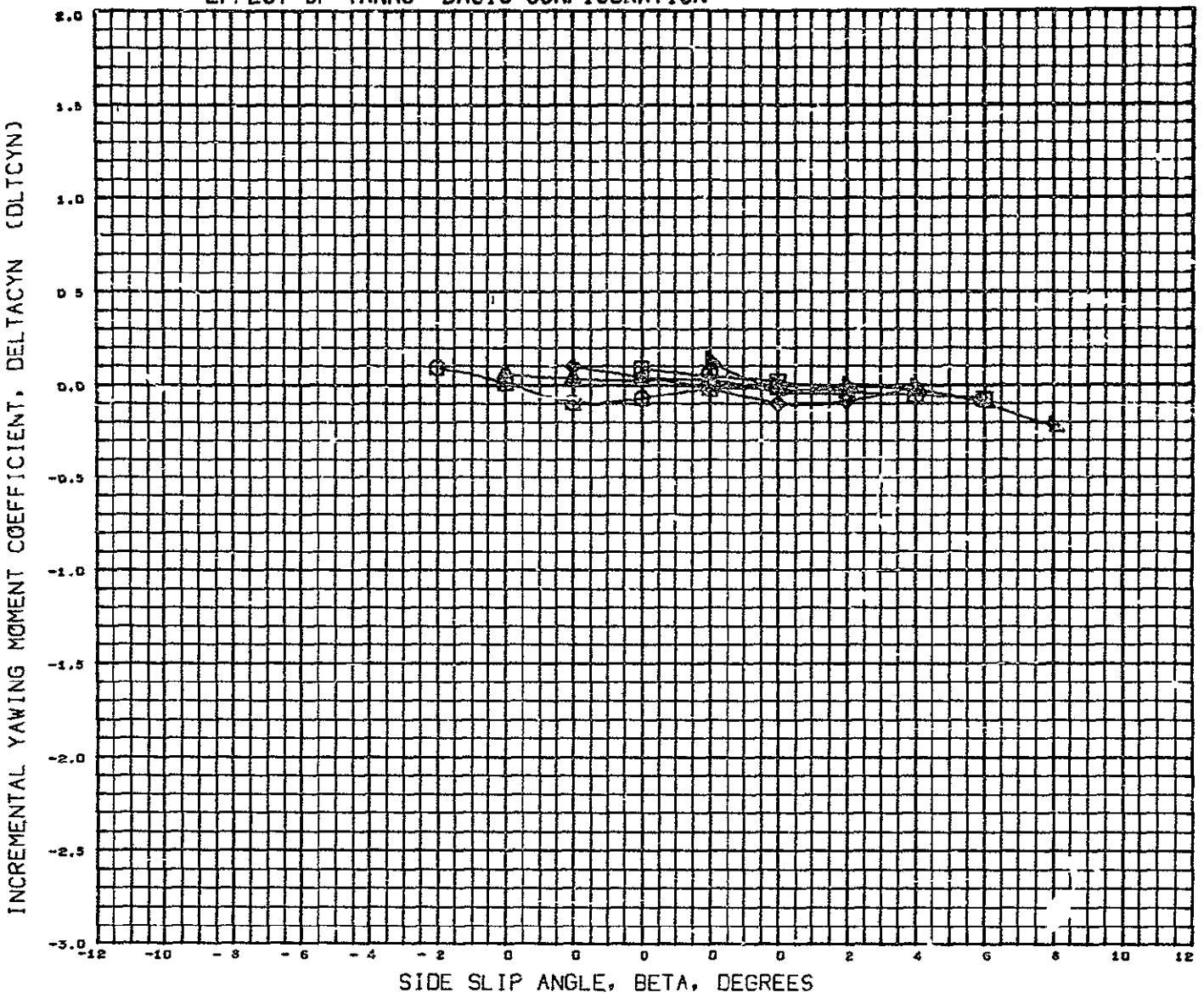
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0.000	ORBINC	- 3 100
△	0.900				
◇	1.000				
□	1.100				
▽	1 200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION

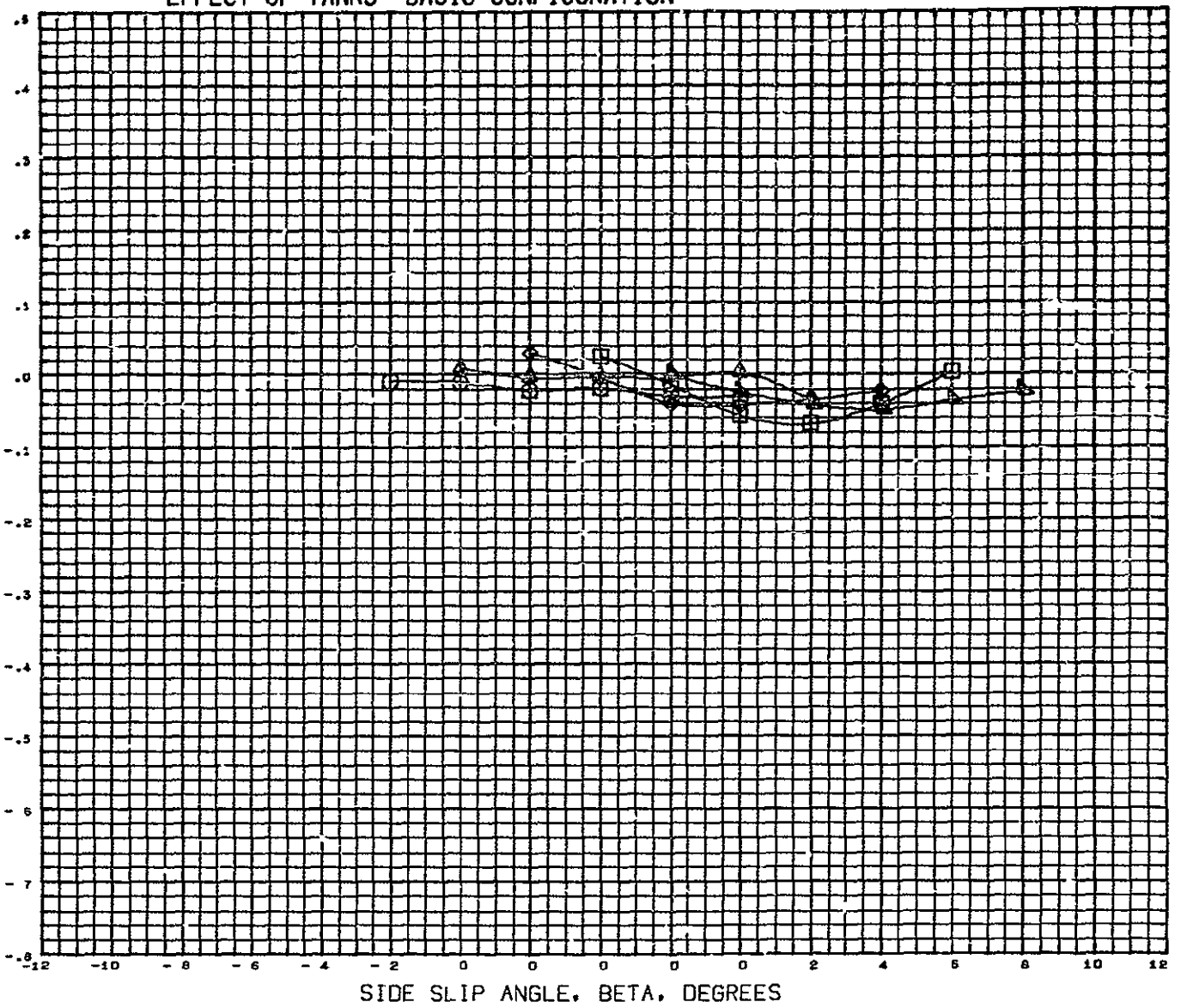


SYMBOL	MACH	PARAMETRIC VALUES		
○	1.460	ALPHA	0.000	ORBINC - 3.100
△	1.960			
◇	2.990			
□	4.000			
▷	4.960			

DATA HIST CODE H*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



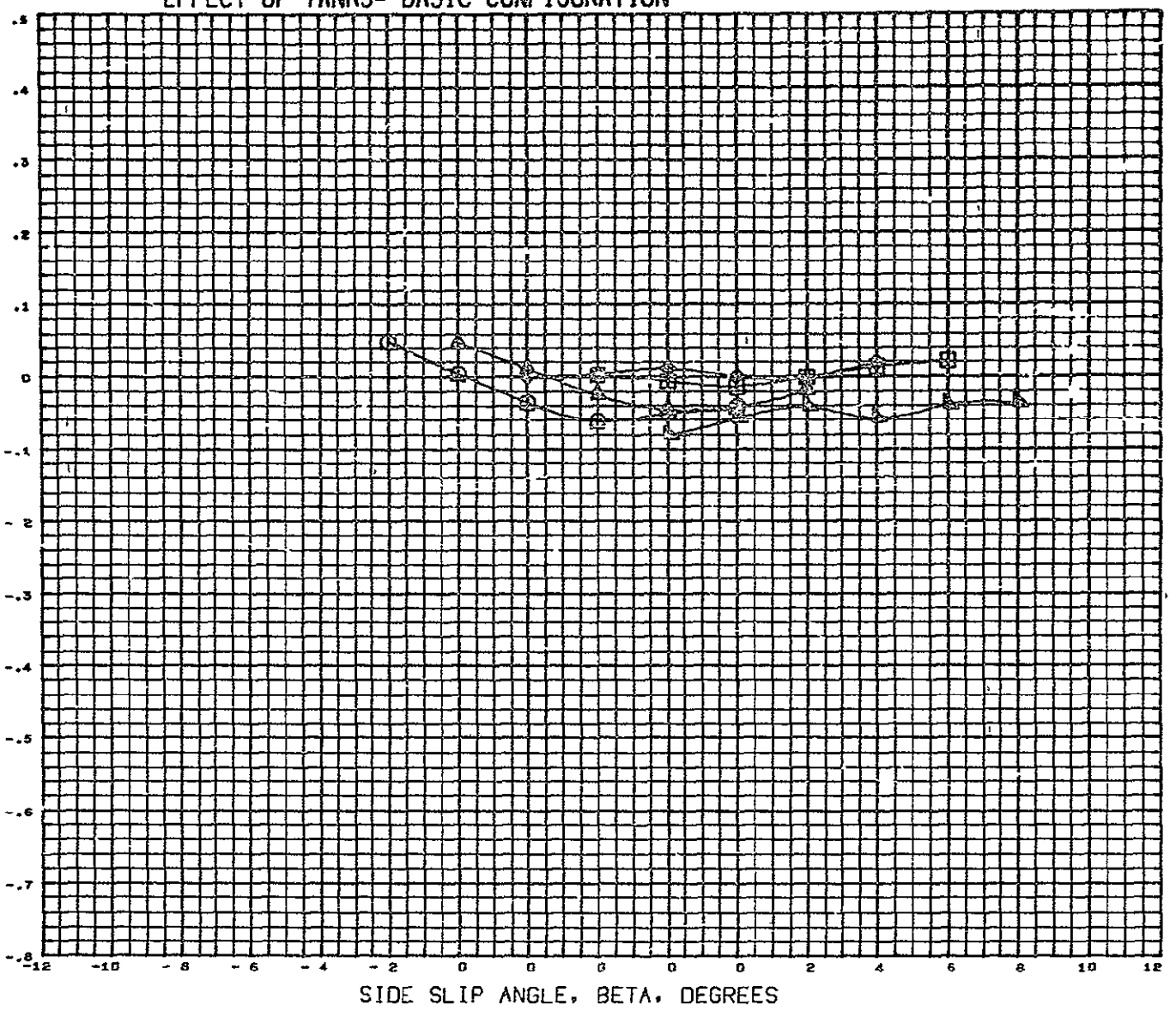
SYMBOL	MACH	PARAMETRIC VALUES		
△	0.600	ALPHA	0.000	ORBINC - 3.100
◇	0.900			
□	1.000			
▽	1.100			
	1.200			

DATA HIST CODE H*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



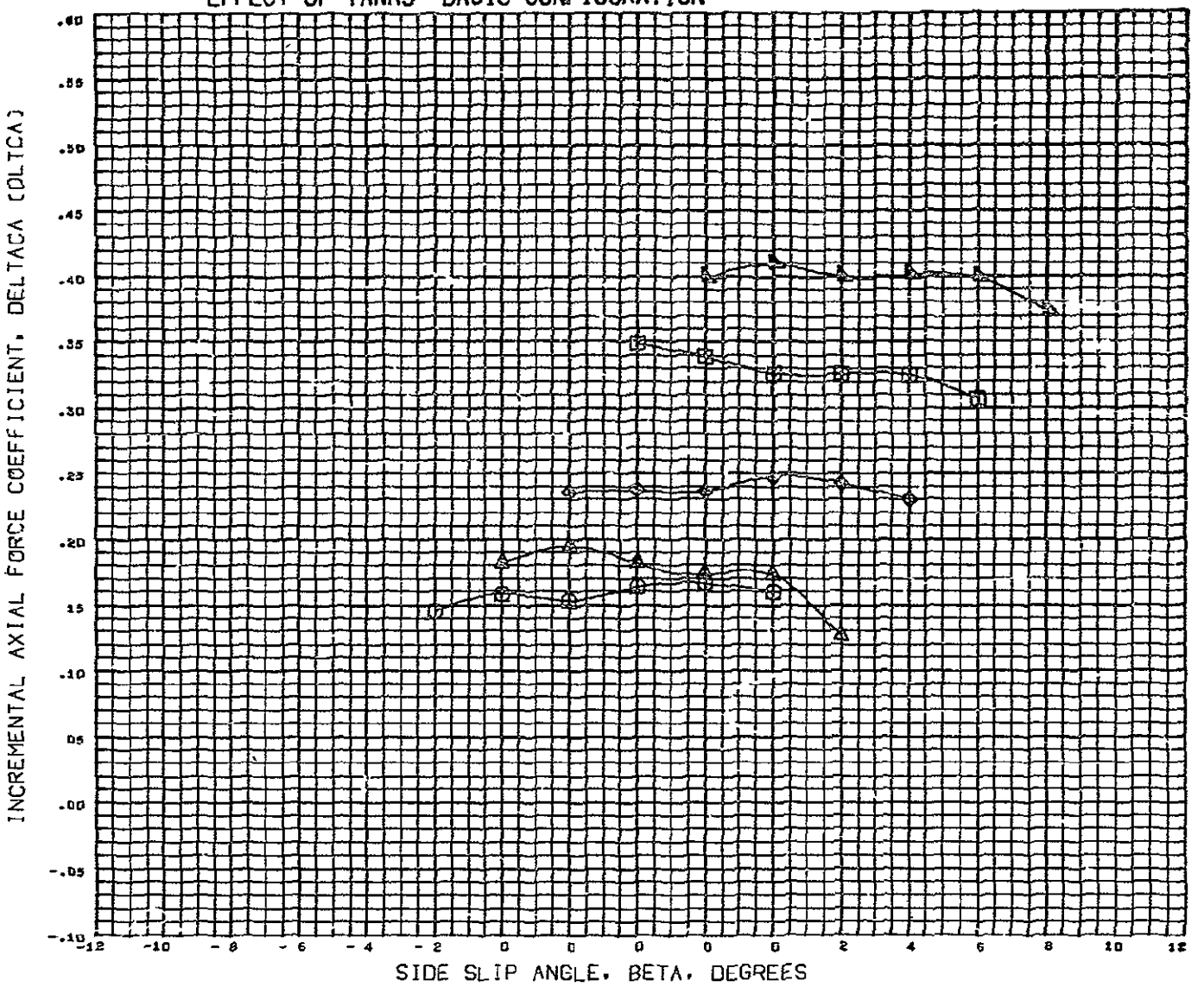
SYMBOL	MACH	PARAMETRIC VALUES			
	1.460	ALPHA	0.000	ORBINC	- 3.100
	1.960				
	2.990				
	4.000				
	4.960				

DATA HIST. CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



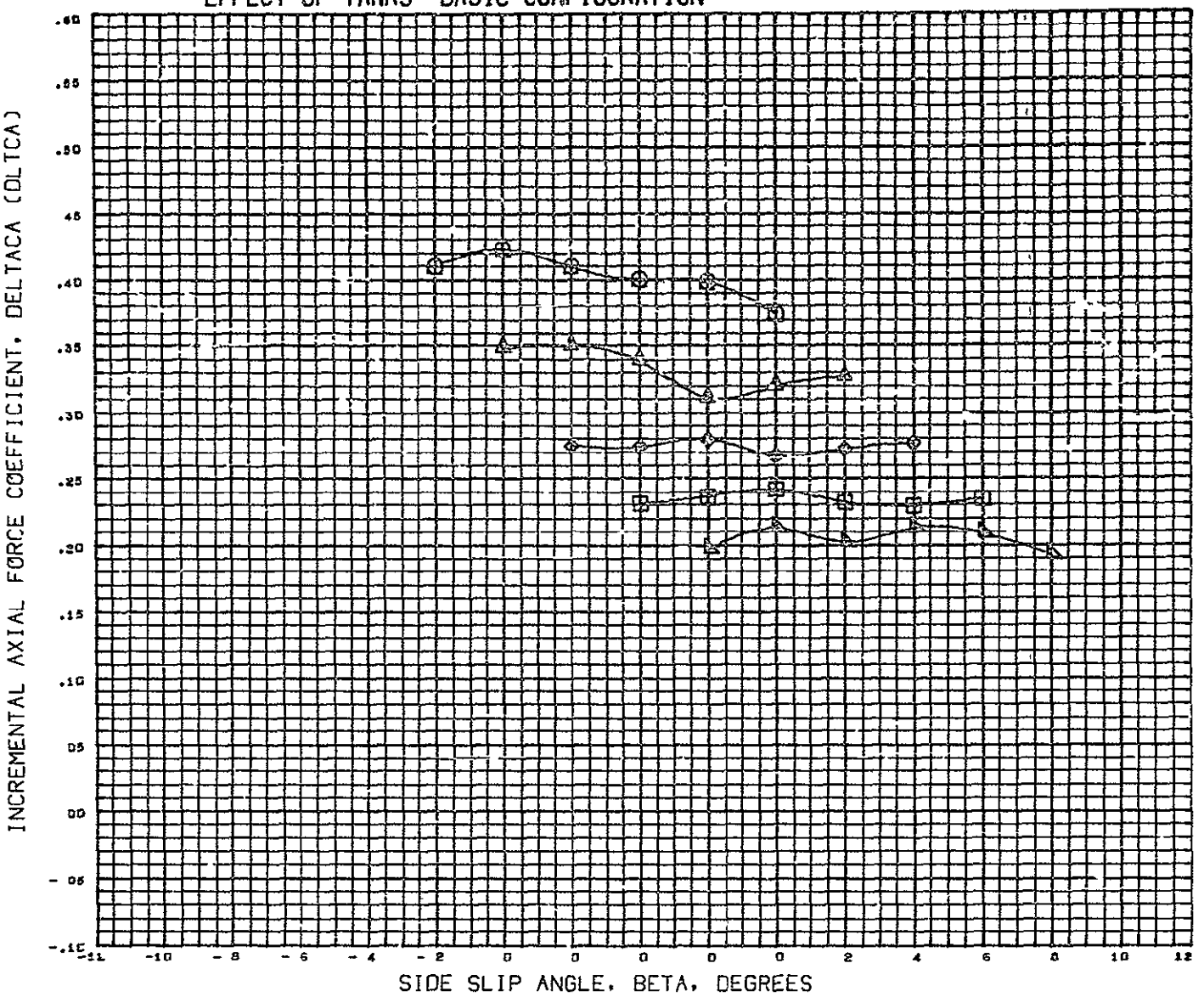
SYMBOL	MACH	PARAMETRIC VALUES			
	0.600	ALPHA	0.000	ORBINC	- 3 .00
	0.900				
	1 000				
	1.100				
	1.200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0060	IN
SCALE	0 0034	

EFFECT OF TANKS- BASIC CONFIGURATION



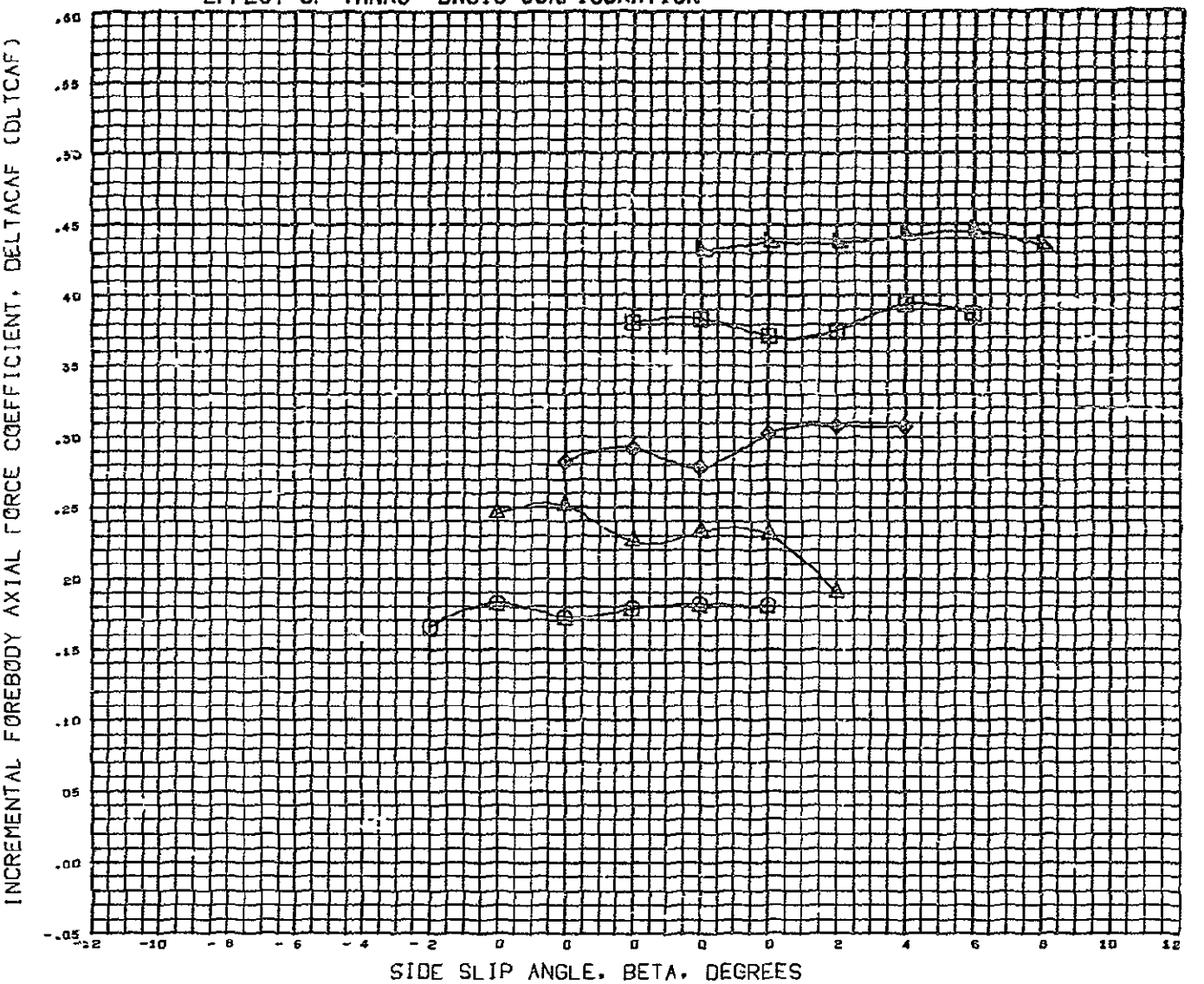
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.460	ALPHA	0.000	ORBINC	- 3.100
△	1.960				
◇	2.990				
□	4.000				
▽	4.960				

DATA HISF CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



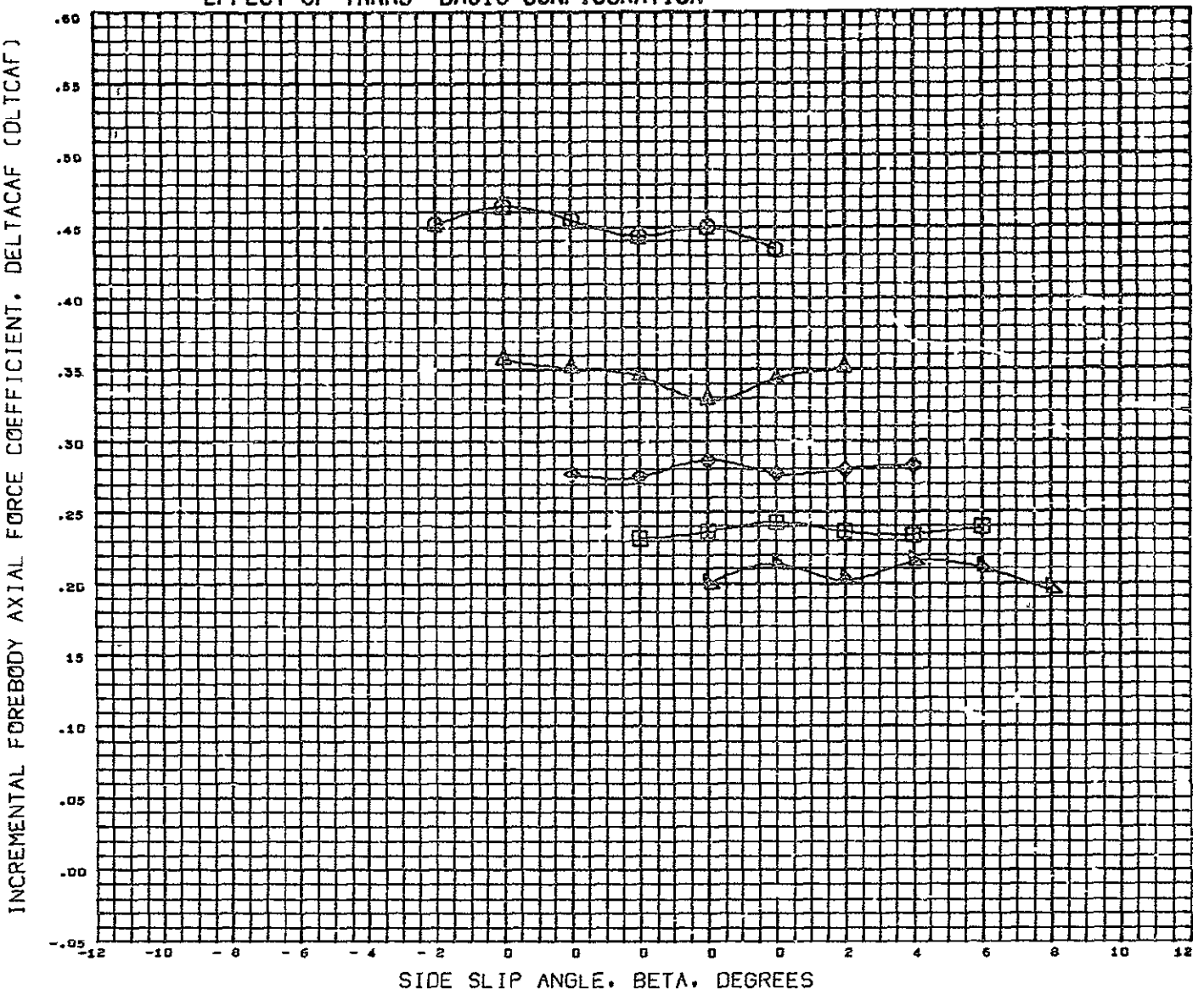
SYMBOL	MACH	PARAMETRIC VALUES			
△	0.600	ALPHA	0 000	ORBINC	- 3 100
□	0 900				
◇	1.000				
▽	1 100				
○	1 200				

DATA HIST CODE M*E1*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF TANKS- BASIC CONFIGURATION



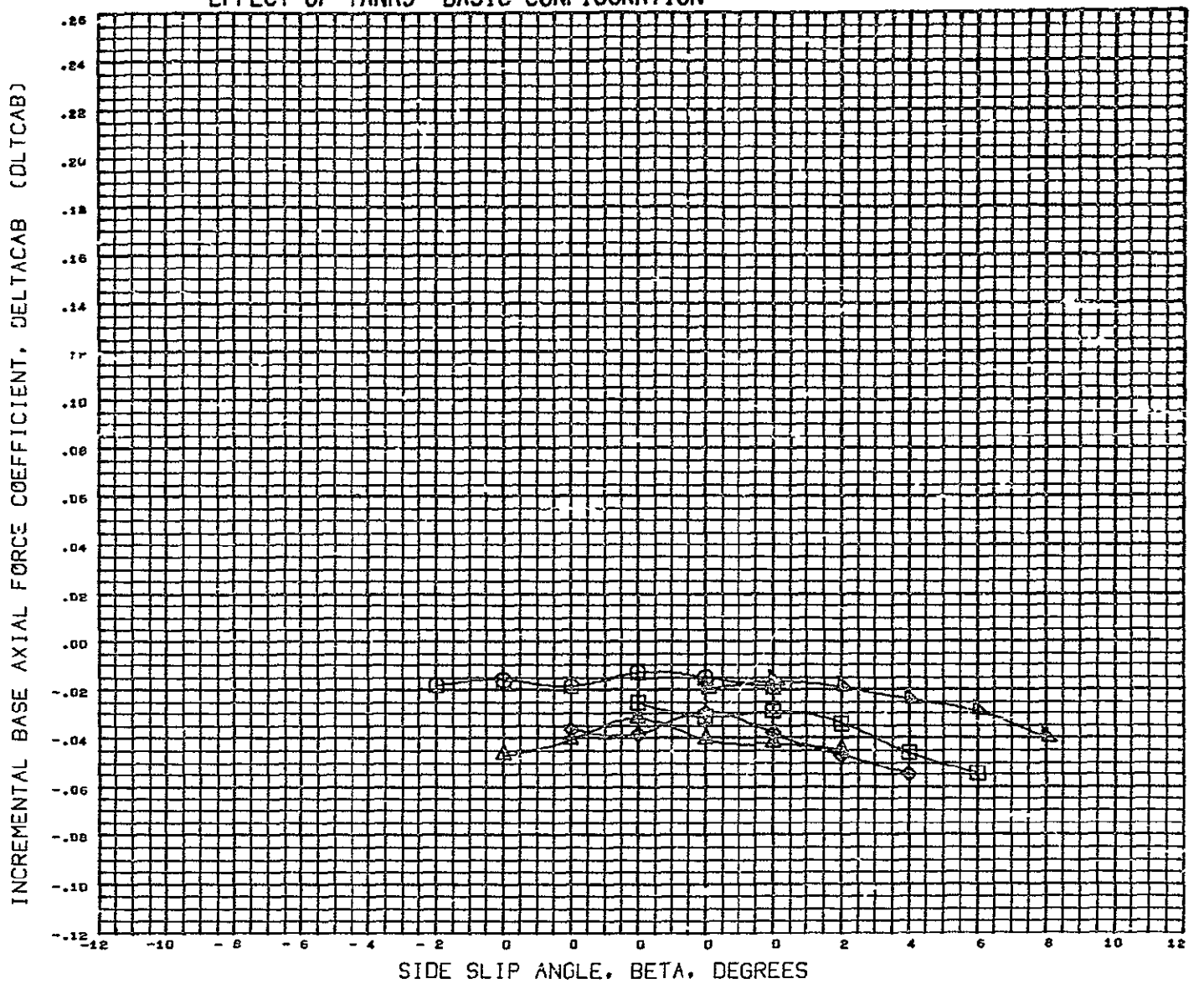
SYMBOL	MACH	PARAMETRIC VALUES			
□	1.460	ALPHA	0.000	ORBINC	-3.100
◇	1.960				
△	2.990				
○	4.000				
▽	4.960				

DATA HIST CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- BASIC CONFIGURATION



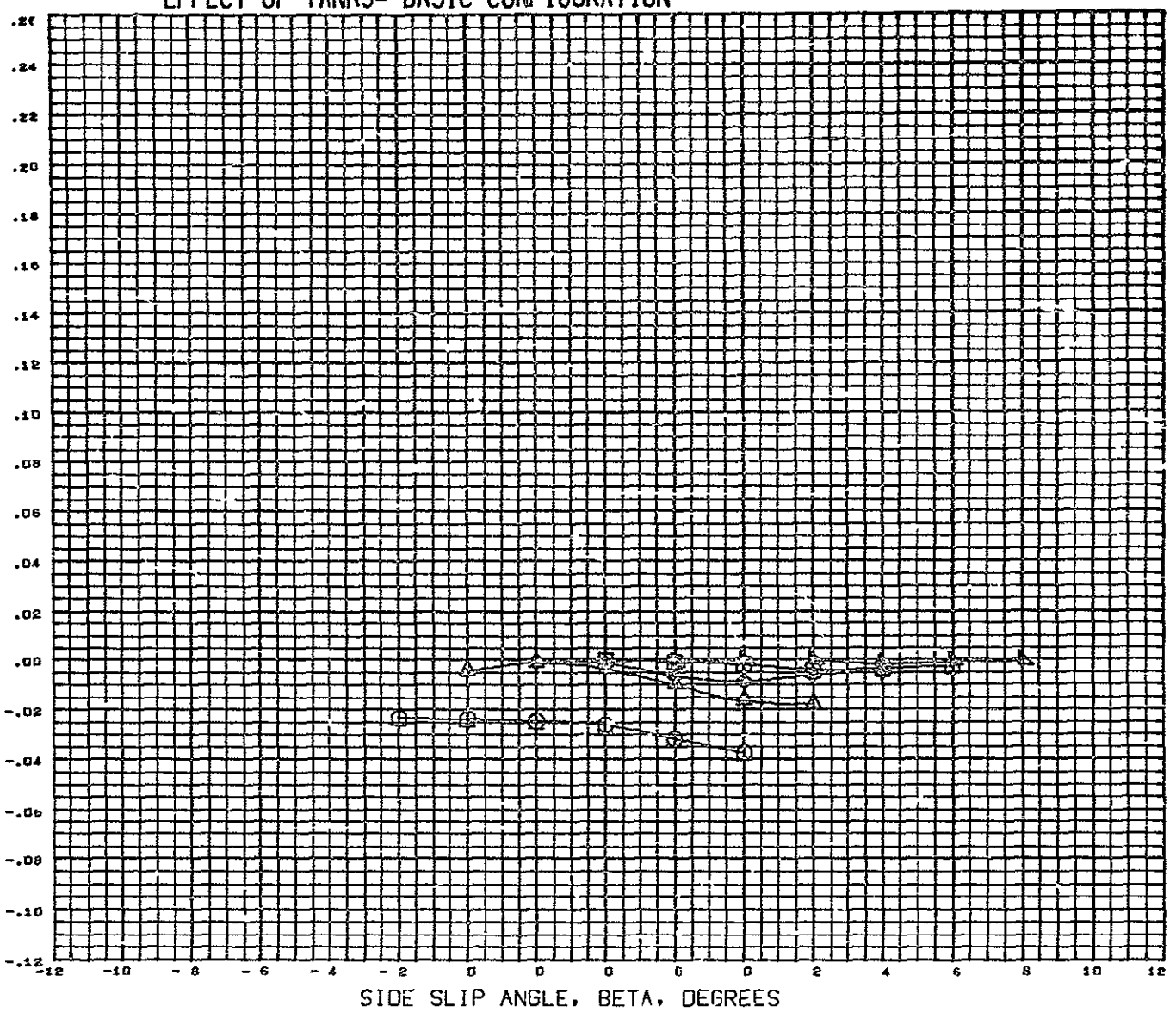
SYMBOL	MACH	PARAMETRIC VALUES			
	0.600	ALPHA	0 000	ORBINC	- 3 100
	0 900				
	1.000				
	1.100				
	1 200				

DATA HIST CODE H*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF TANKS- BASIC CONFIGURATION



SYMBOL	MACH
▽	1.460
⋈	1 960
◇	2 990
□	4.000
◸	4.960

PARAMETRIC VALUES

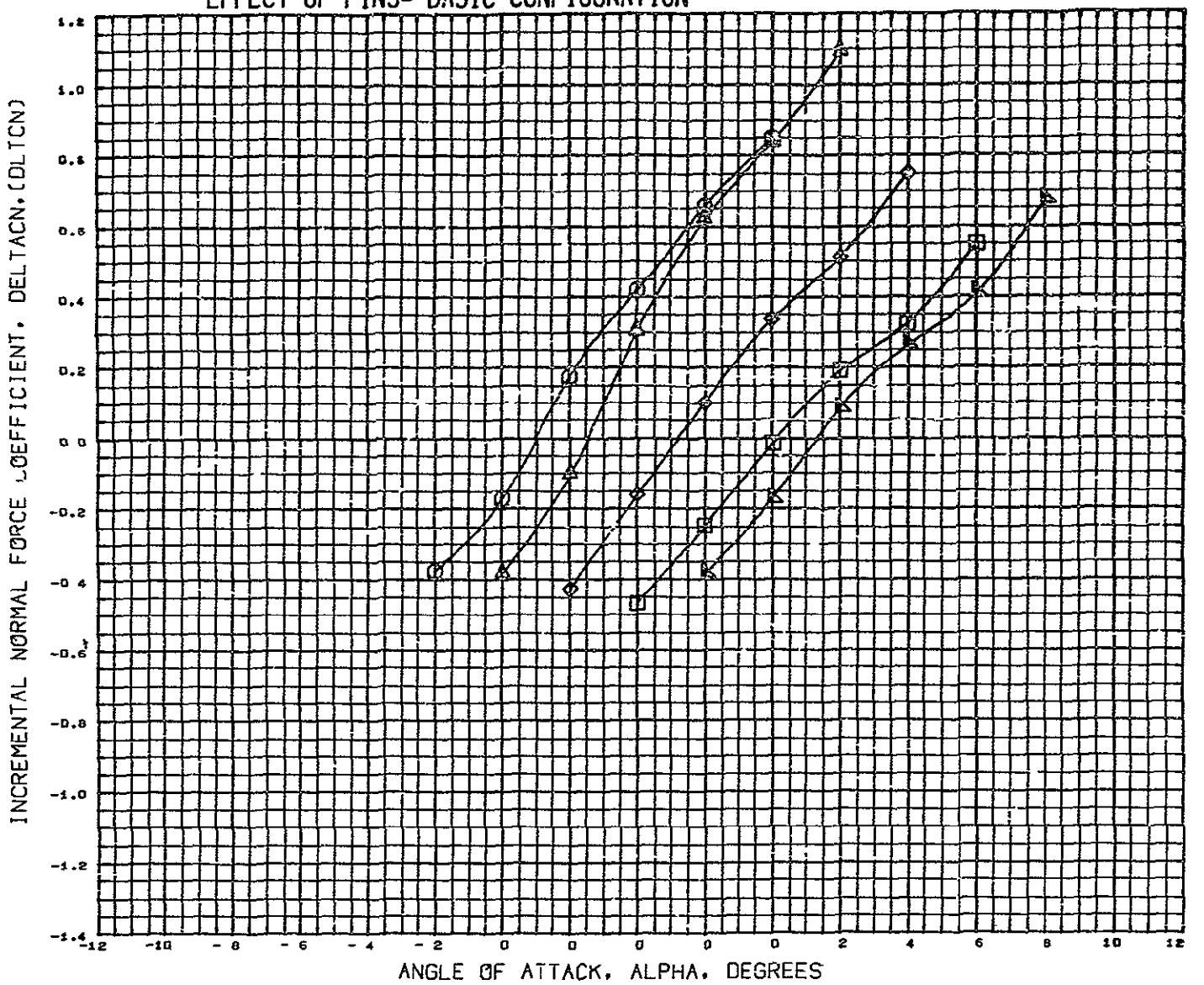
ALPHA 0 000 ORBINC - 3 100

DATA HIST CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0500	IN
ZMRF	0 0000	IN
SCALE	0 0034	

EFFECT OF FINS- BASIC CONFIGURATION



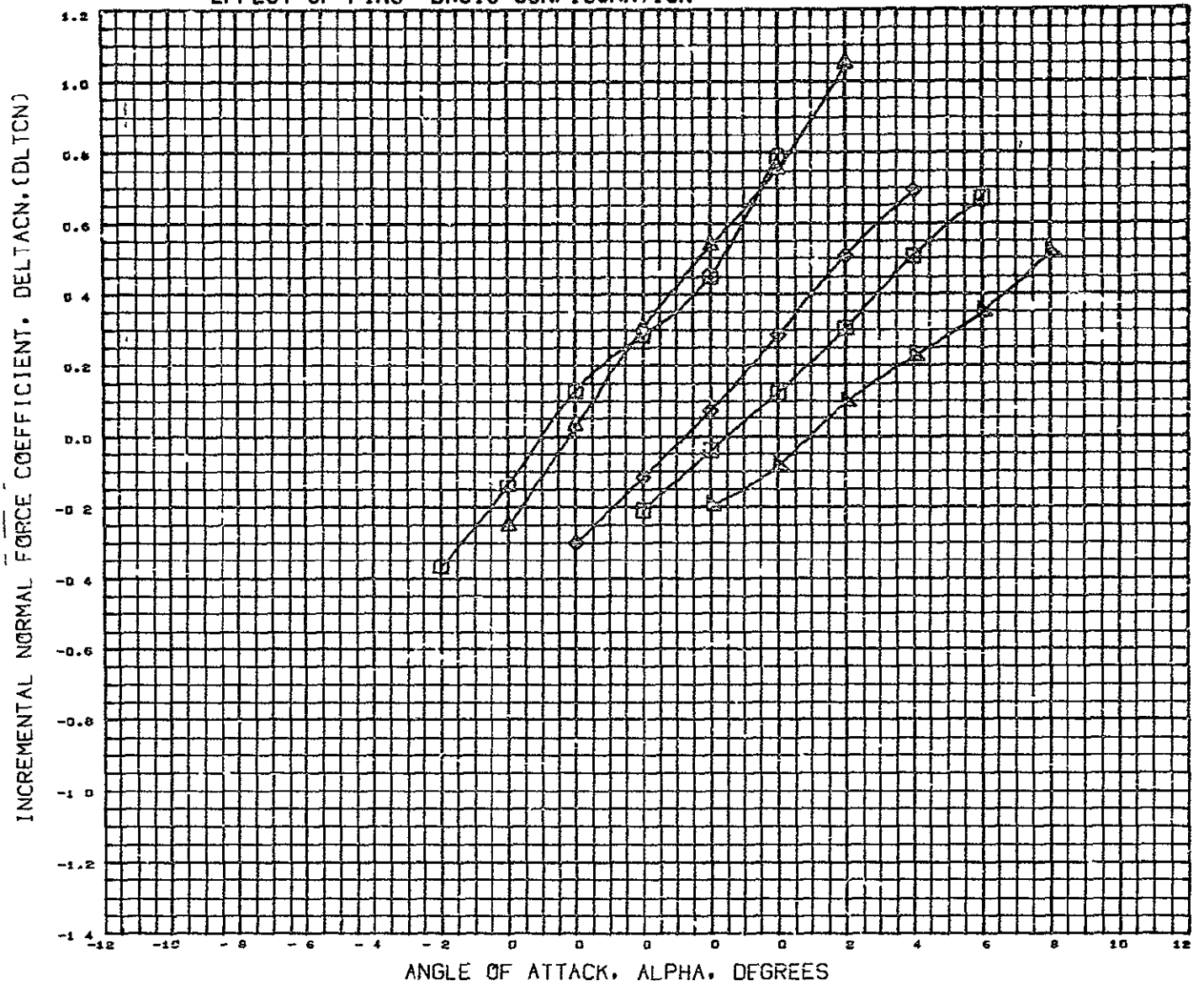
SYMBOL	MACH	PARAMETRIC VALUES		
○	0.600	BETA	0.000	ORBINC - 3.100
△	0.900			
◇	1.000			
□	1.100			
▽	1.200			

DATA HIST CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



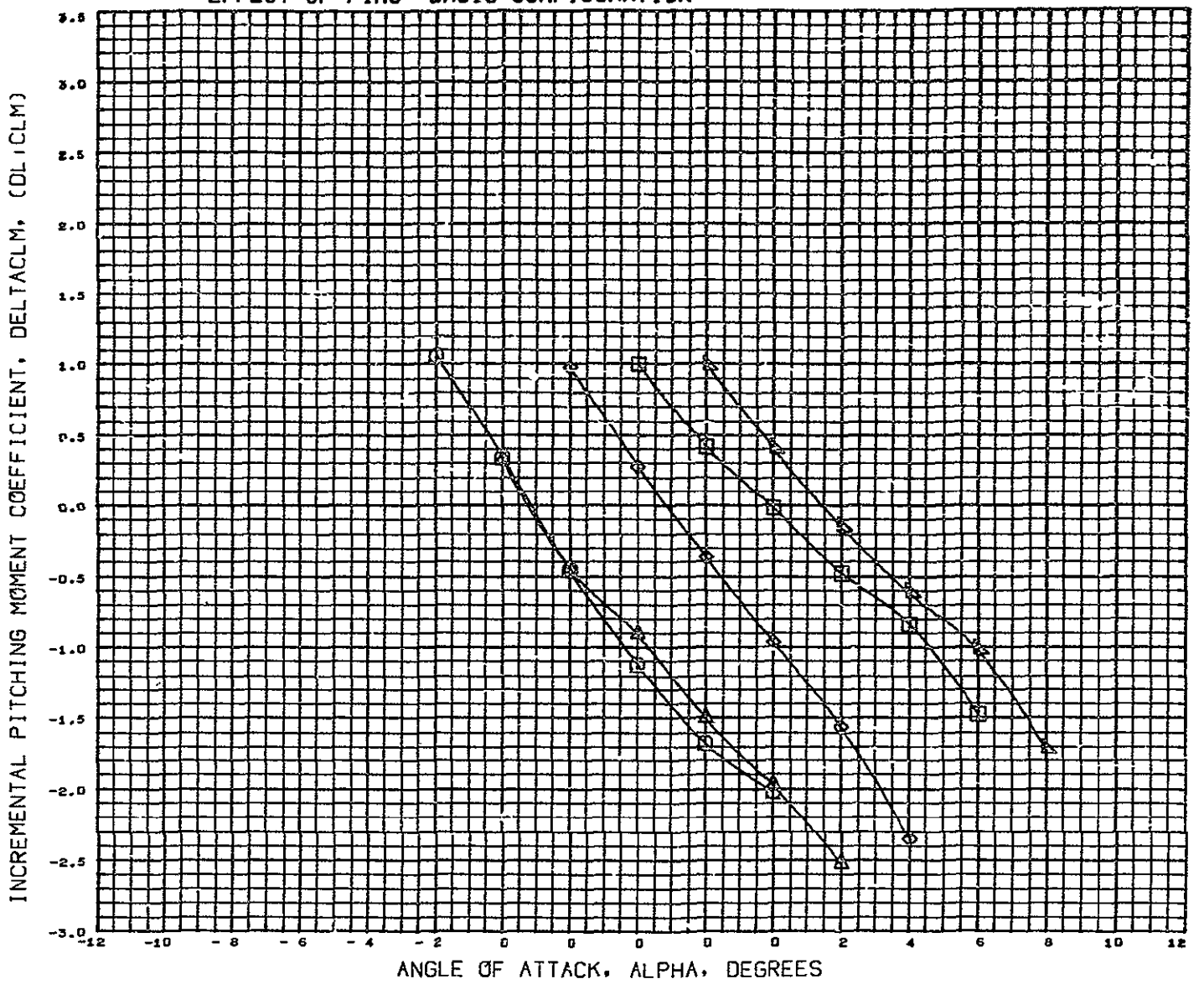
SYMBOL	MACH	PARAMETRIC VALUES			
	1.460	BETA	0.000	ORBINC	- 3.100
	1.960				
	2.990				
	4.000				
	4.960				

DATA HIST CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0200	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



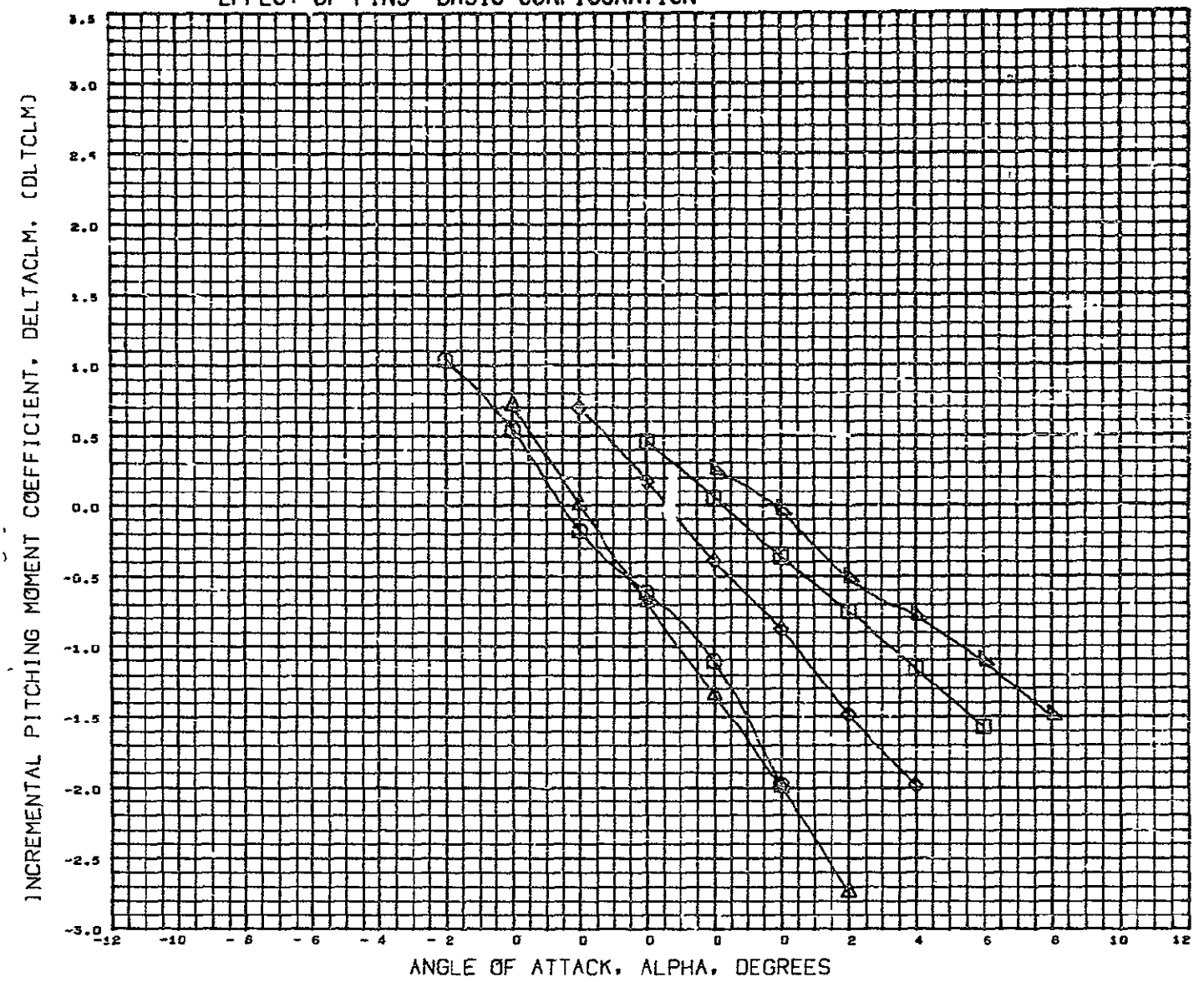
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0.000	ORBINC	- 3 100
△	0 900				
◇	1.000				
□	1.100				
▽	1 200				

DATA HIST. CODE H*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF FINS- BASIC CONFIGURATION



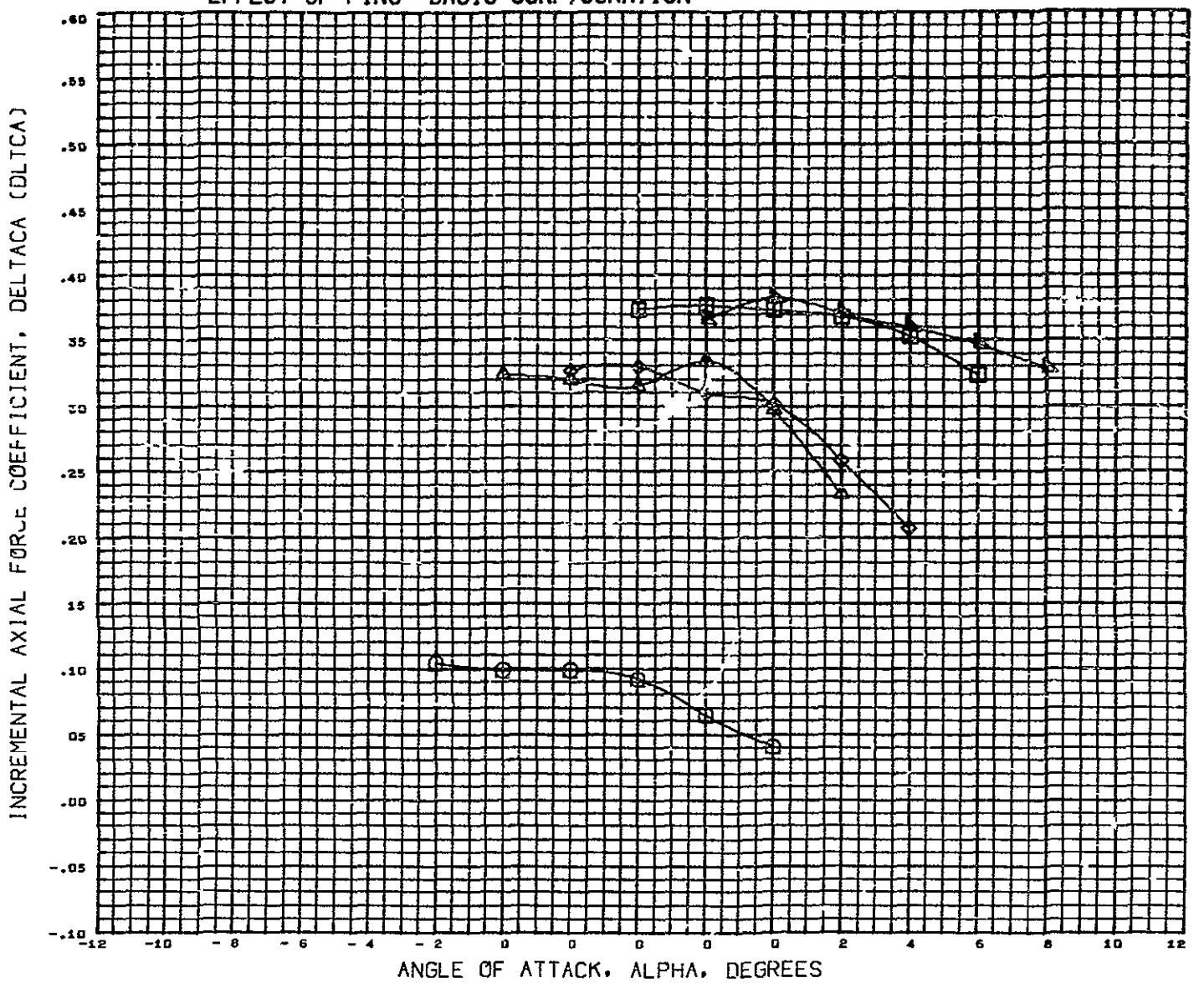
SYMBOL	MACH	PARAMETRIC VALUES			
△	1.460	BETA	0.000	ORBINC	- 3.100
□	1.960				
◇	2.990				
▷	4.000				
○	4.960				

DATA HIST. CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0630	IN
SCALE	0.003	

EFFECT OF FINS- BASIC CONFIGURATION

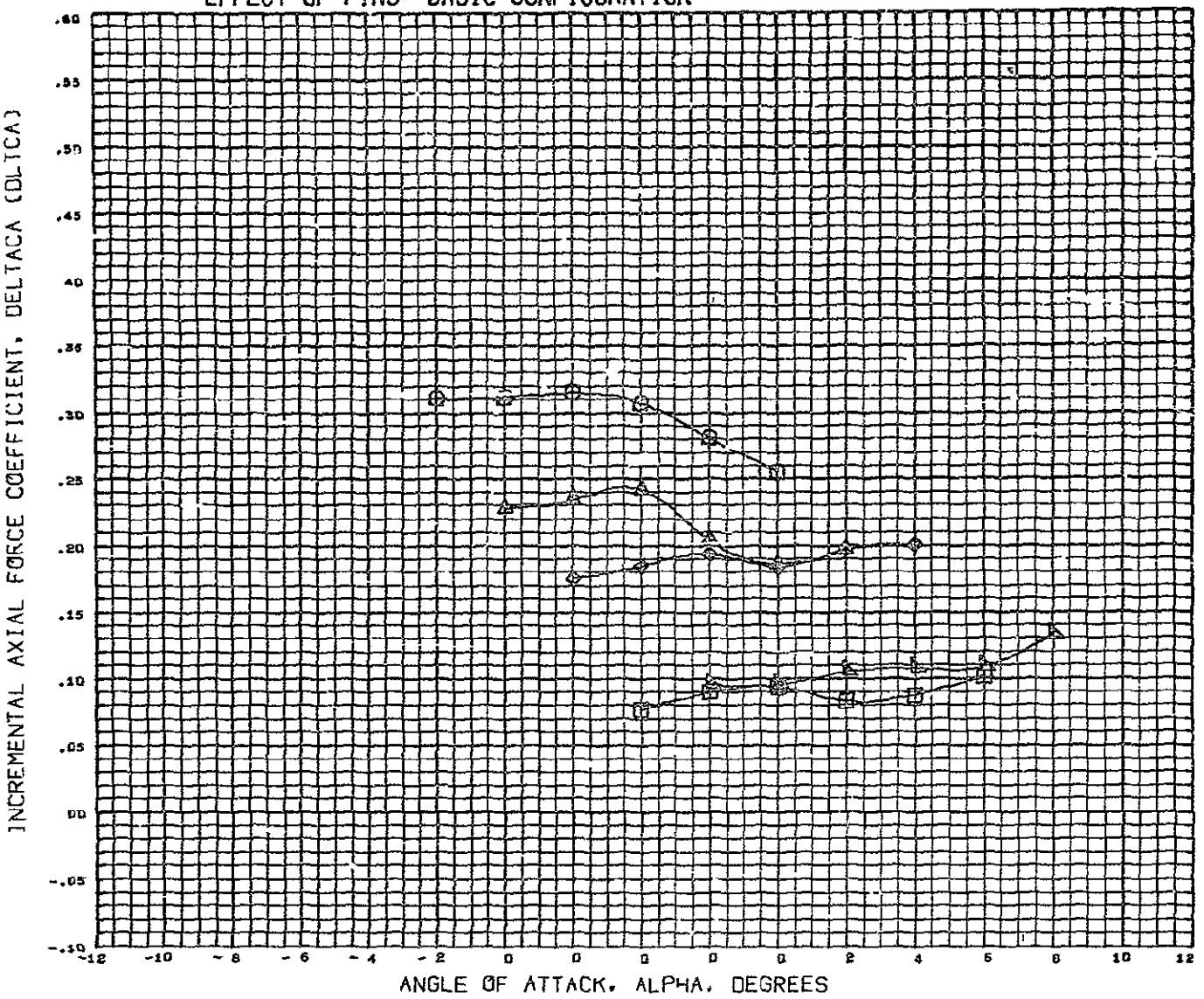


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
□	1.100				
▽	1.200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION

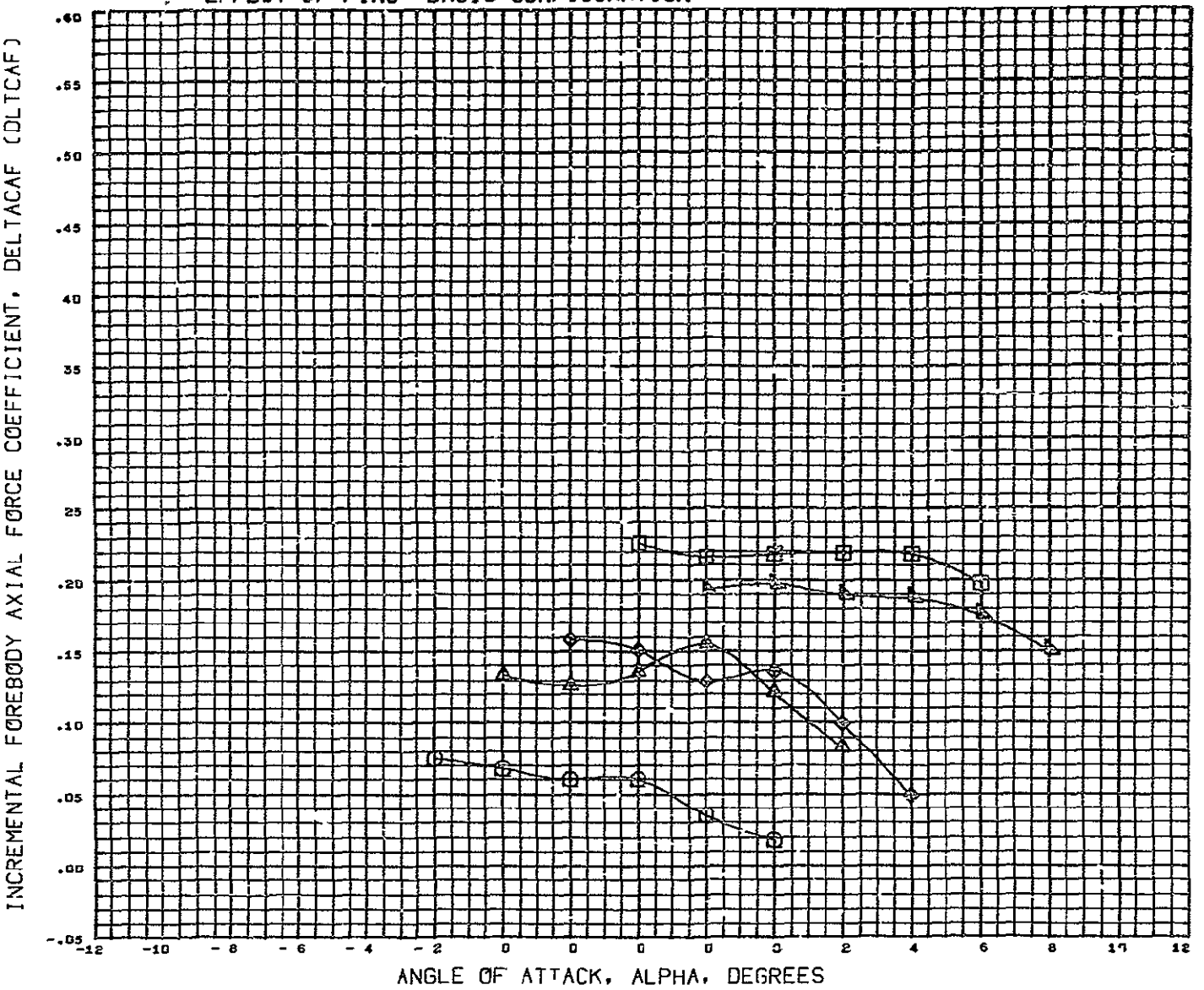


SYMBOL	MACH	PARAMETRIC VALUES			
	1.460	BETA	0.000	ORBINC - 3.100	
	1.960				
	2.990				
	4.000				
	4.960				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



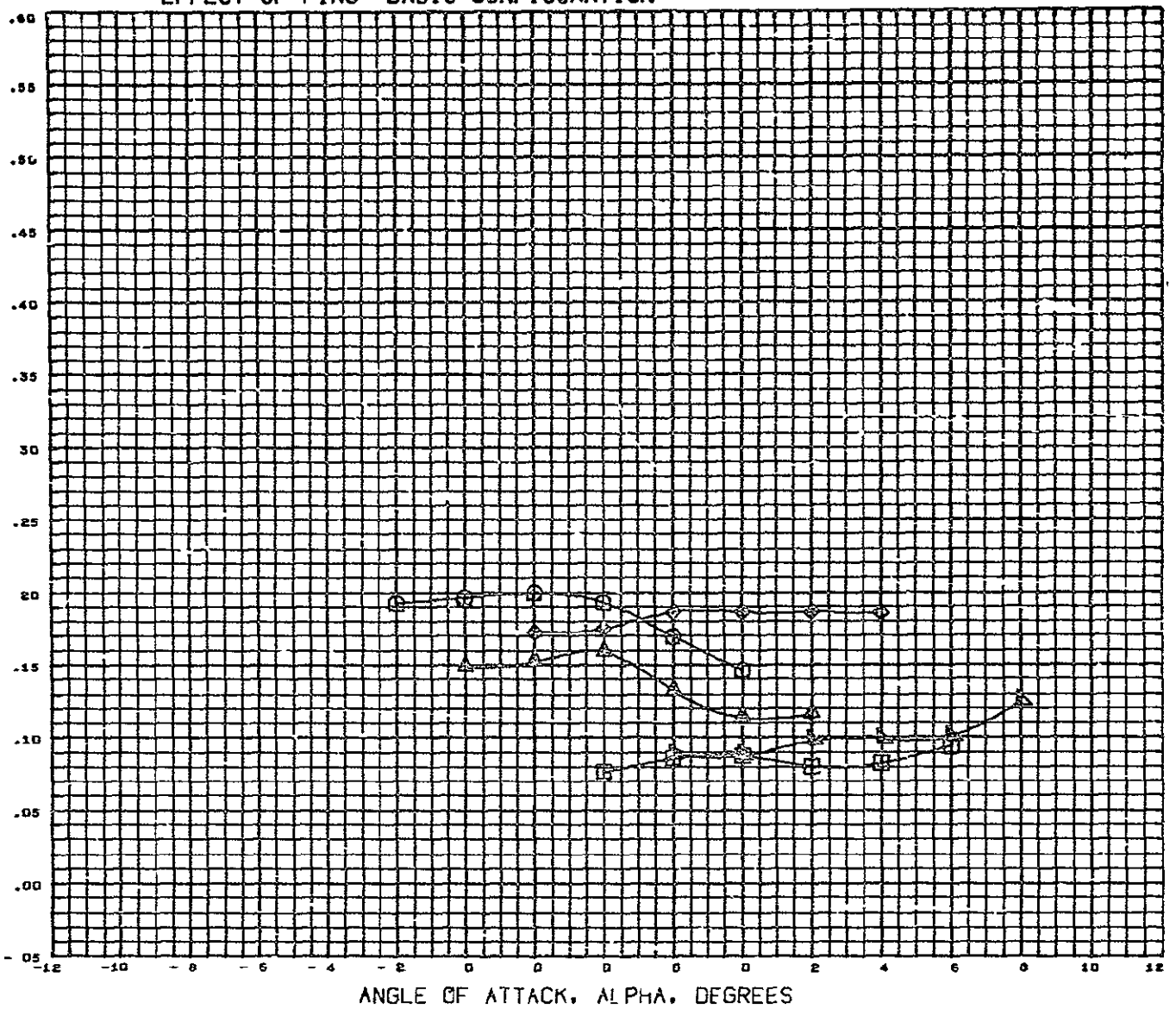
SYMBOL	MACH	PARAMETRIC VALUES			
	0.600	BETA	0.000	ORBINC	- 3.100
	0.900				
	1.000				
	1.100				
	1.200				

DATA HIST CODE H*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION

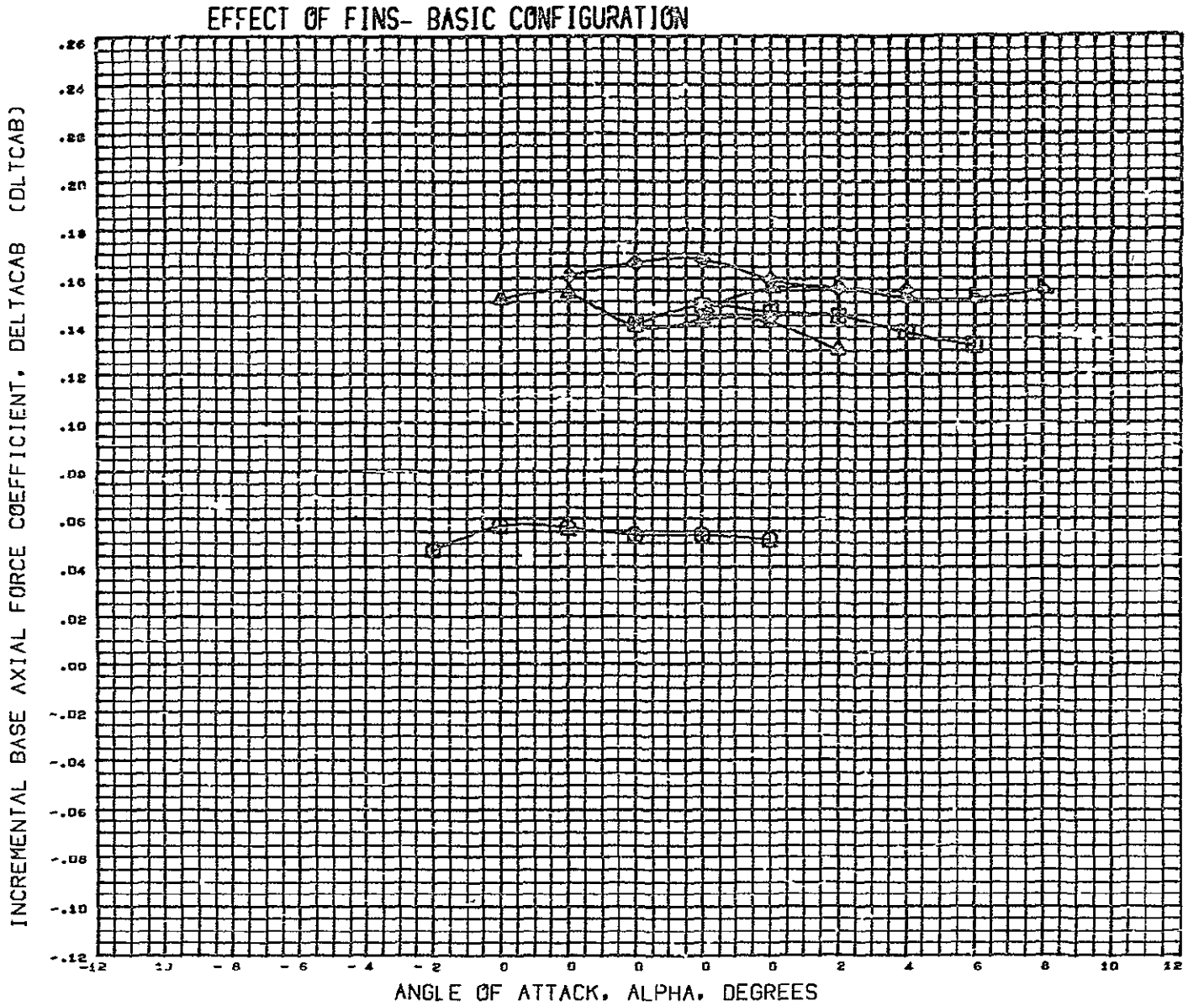


SYMBOL	MACH	PARAMETRIC VALUES			
	1.460	BETA	0.000	ORBINC	- 3.100
	1.960				
	2.990				
	4.000				
	4.960				

DATA HIST CODE 4*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



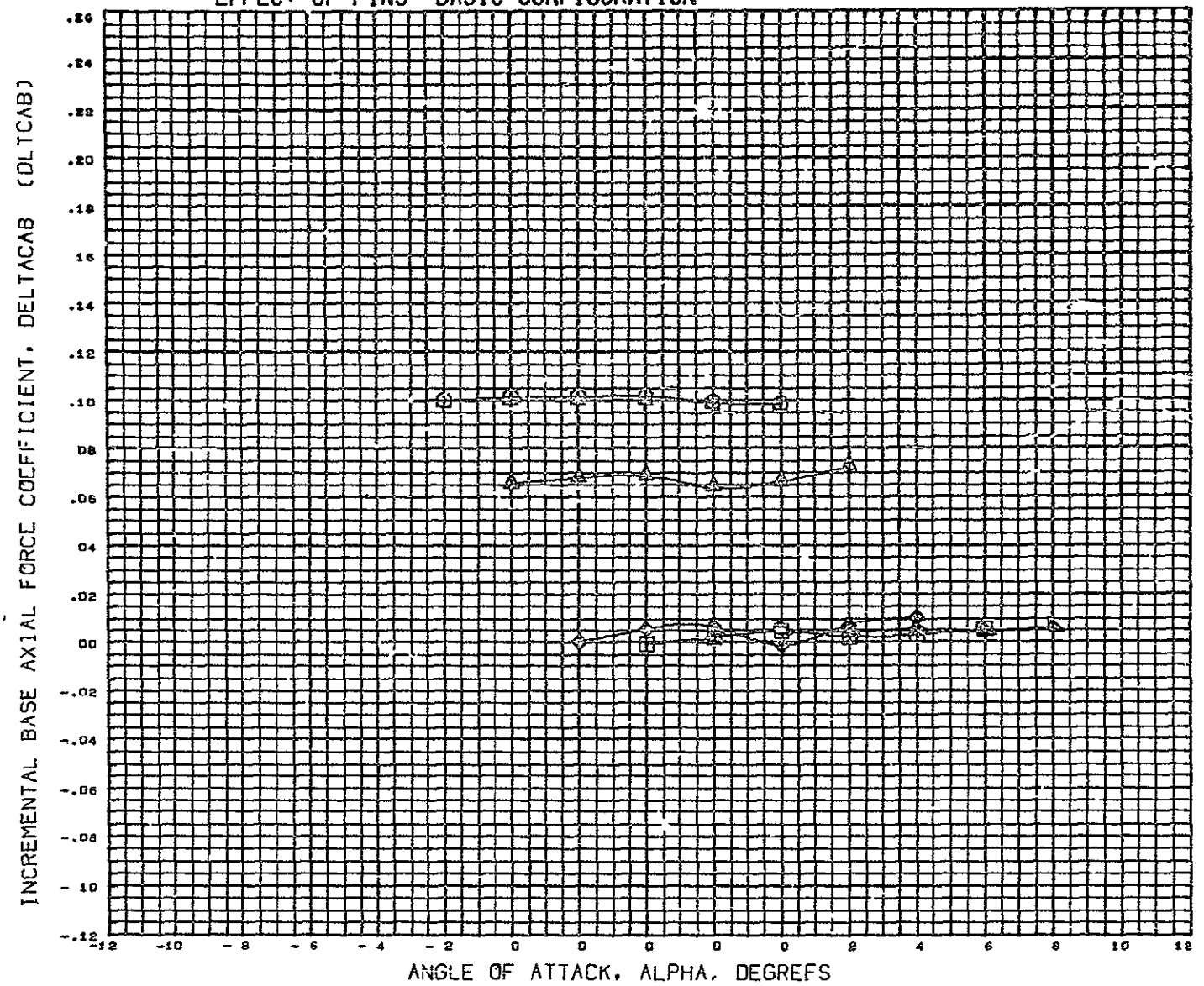
SYMBOL	MACH	PARAMETR C VALUES			
	0.600	BETA	0 000	ORBINC	~ 3.100
	0.900				
	1.000				
	1.100				
	1.200				

DATA HIST. CODE H*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRF	0.0470	IN
SCALE	0 0034	

EFFECT OF FINS- BASIC CONFIGURATION



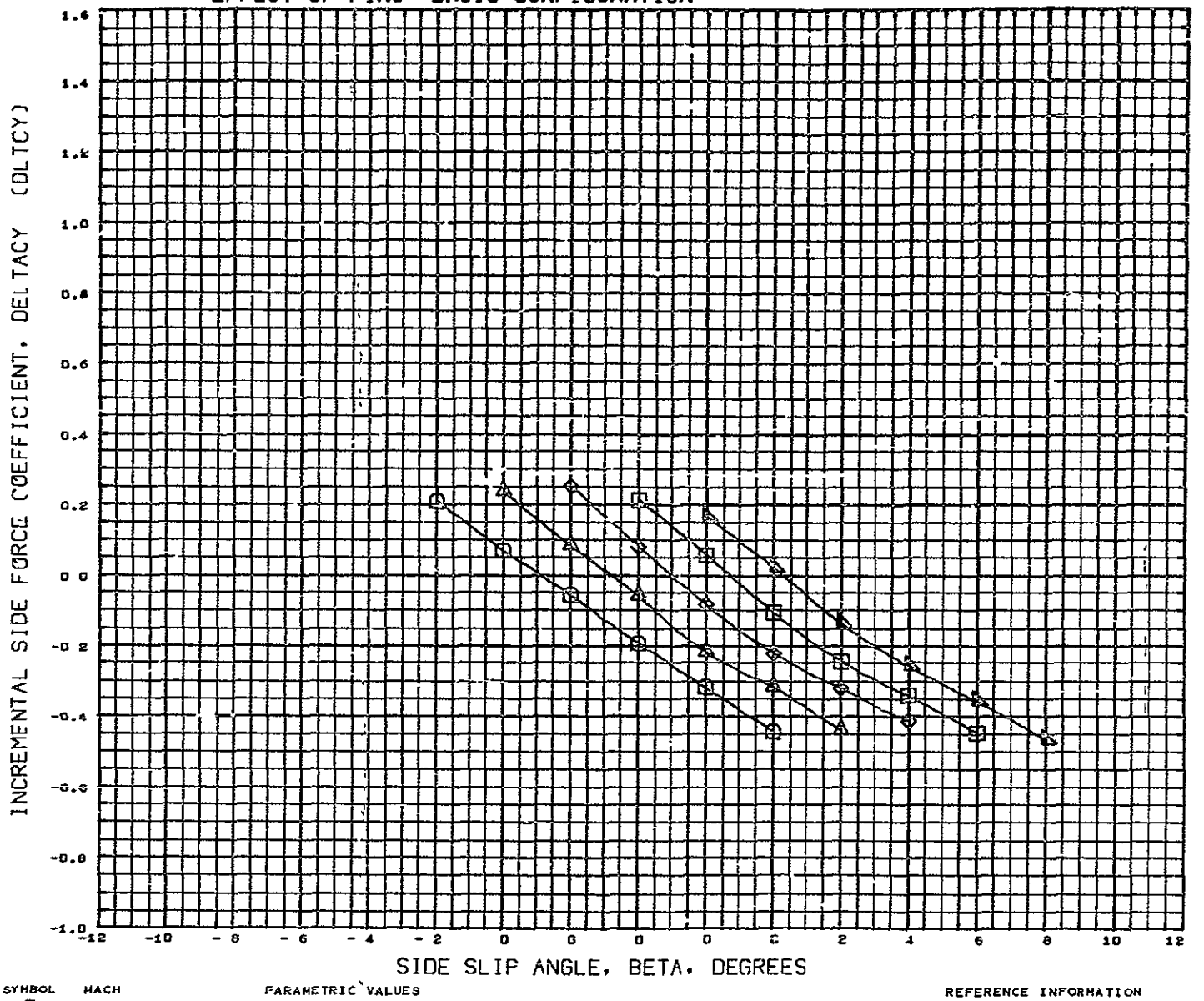
SYMBOL	MACH	PARAMETRIC VALUES		
	1.460	BETA	0.000	ORBINC - 3.100
	1.960			
	2.990			
	4.000			
	4.960			

DATA HIST CODE H#E1#C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



SYMBOL	MACH
○	0.600
△	0.900
◇	1.000
□	1.100
▽	1.200

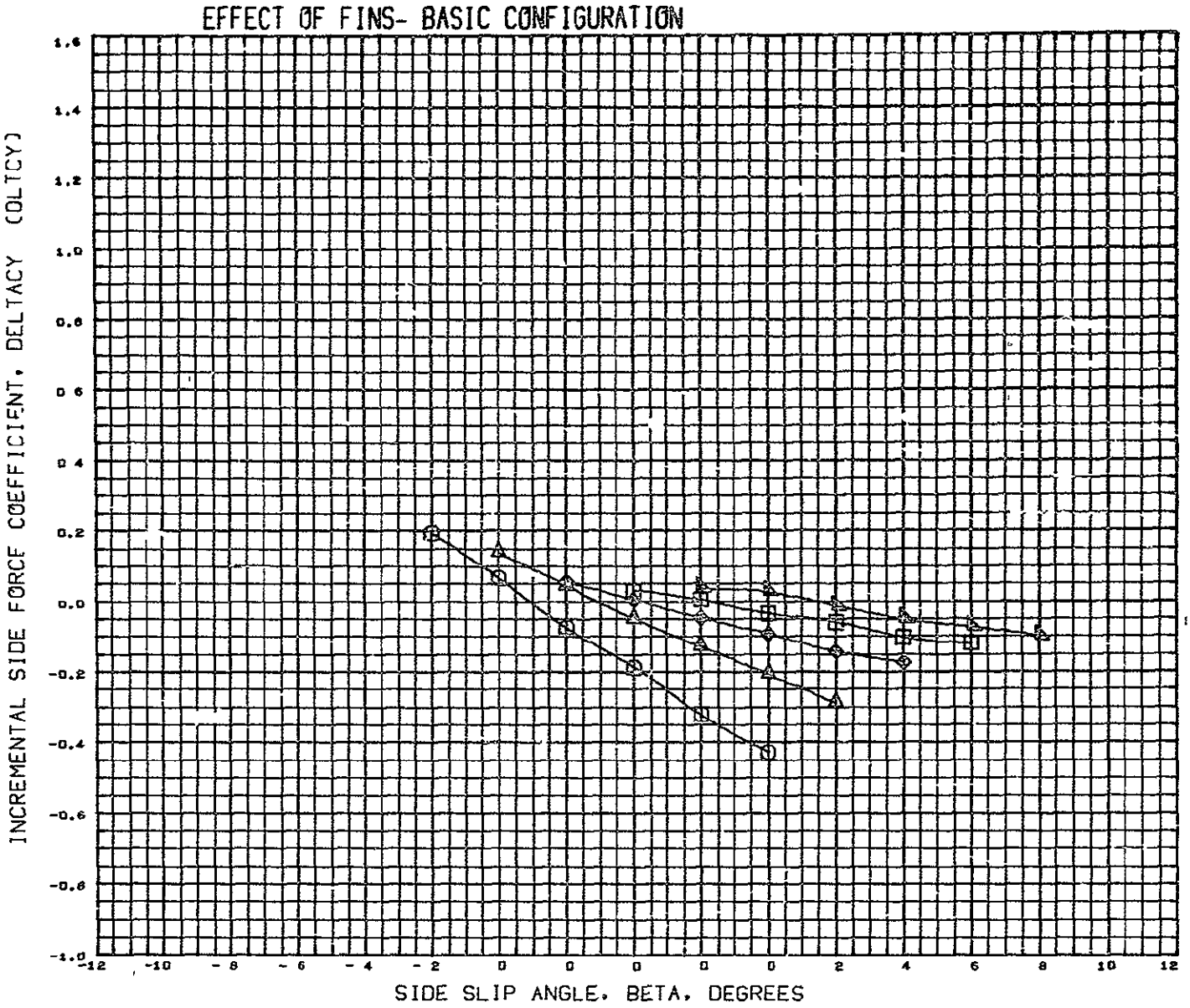
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

DATA HIST. CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

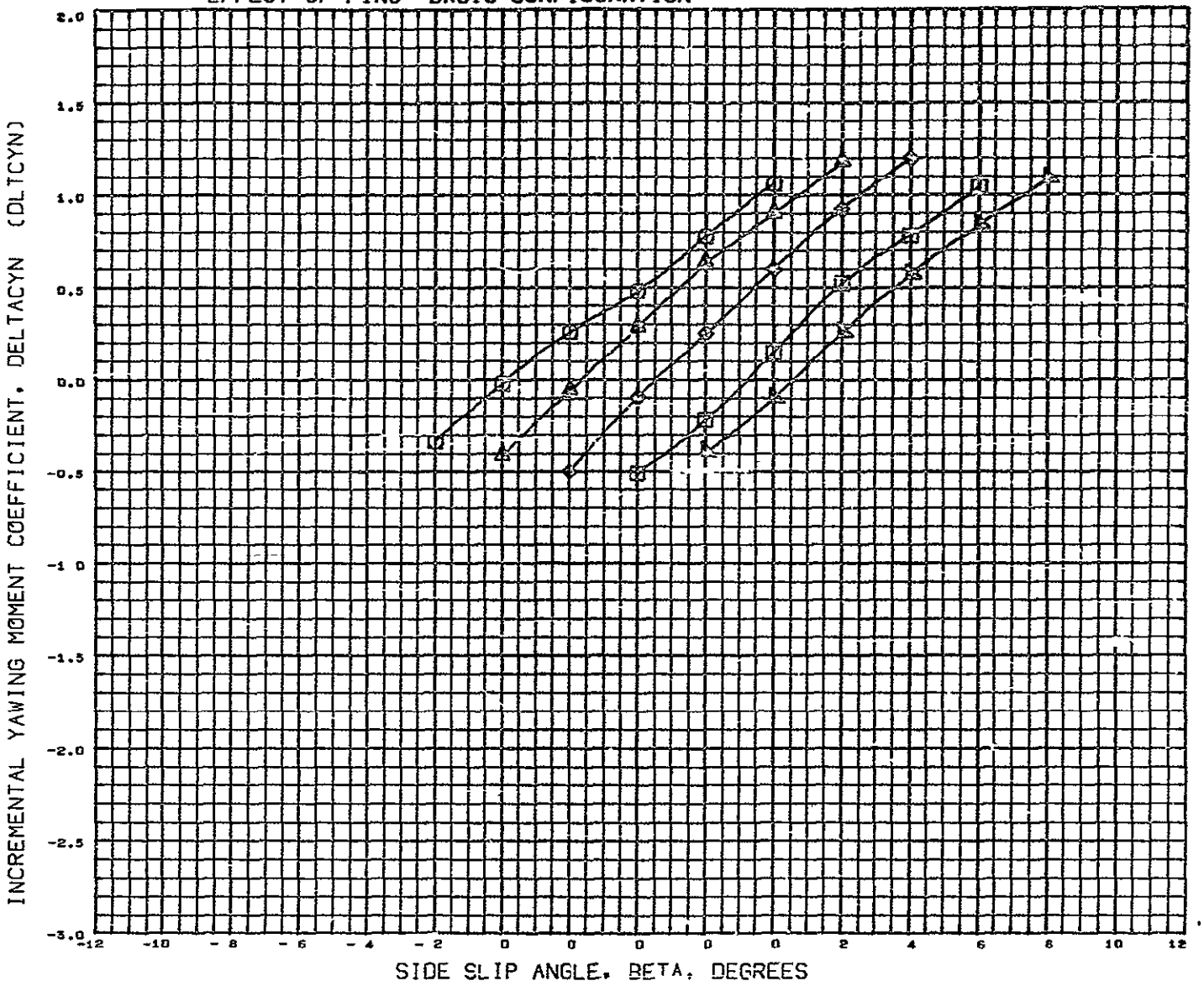


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.460	ALPHA	0.000	ORBINC	-3.100
△	1.960				
◇	2.990				
□	4.300				
▽	4.960				

DATA HIST CODE H*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION

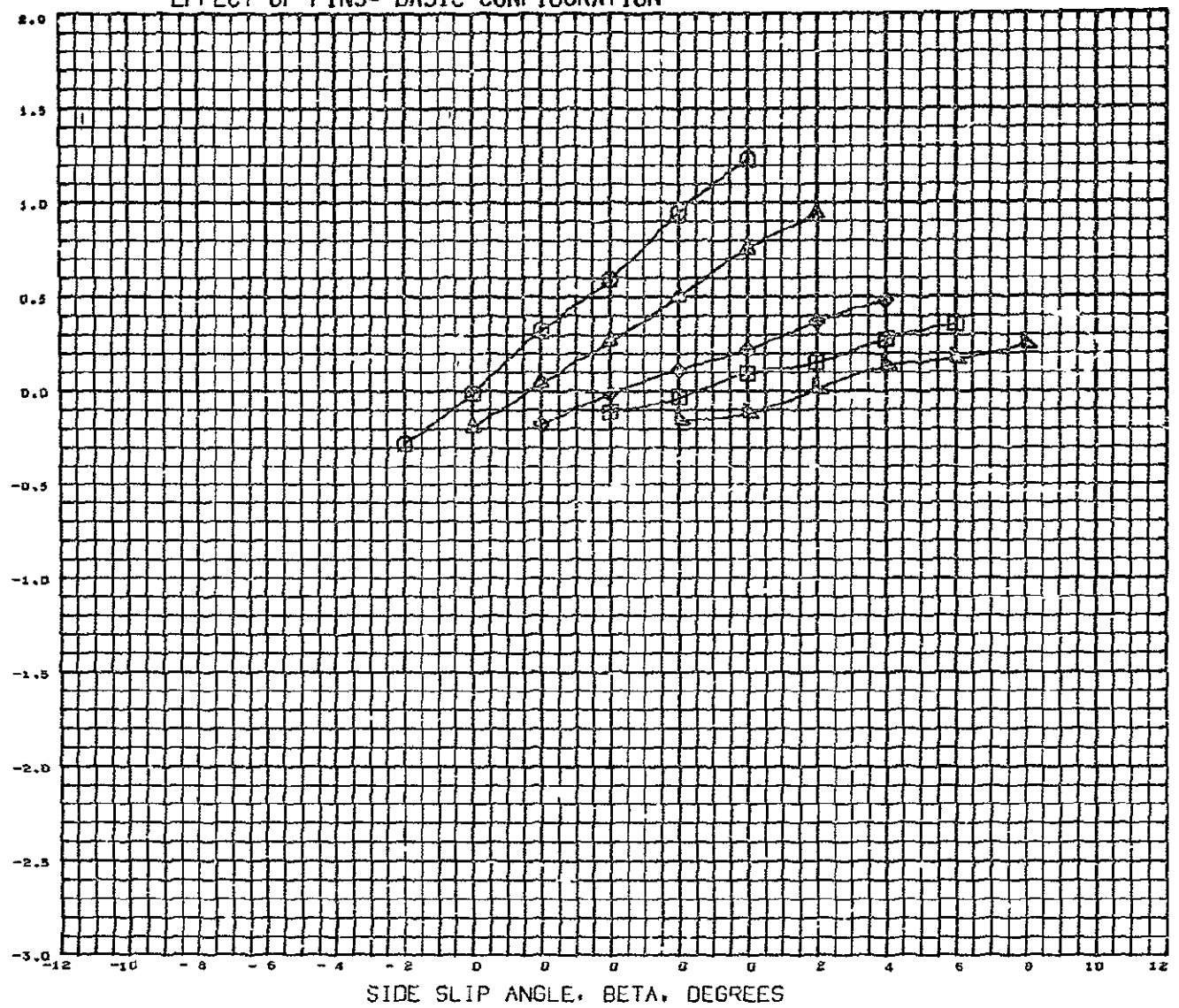


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0 000	ORBINC	- 3 100
△	0 900				
◇	1.000				
□	1.100				
▽	1 200				

DATA HIST CODE H*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



SYMBOL	MACH
○	1.460
△	1.960
◇	2.990
□	4.000
▽	4.960

PARAMETRIC VALUES

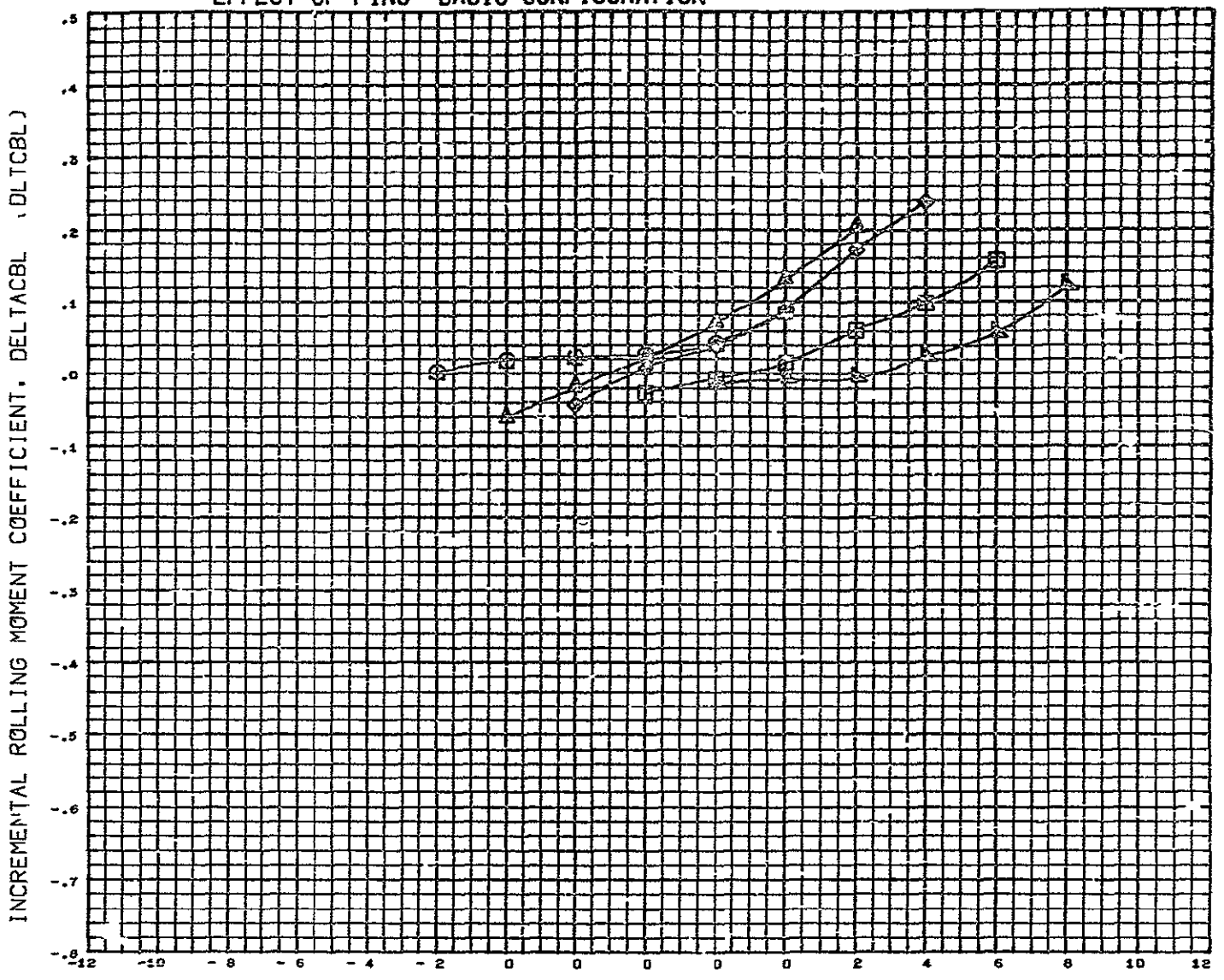
ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
DREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



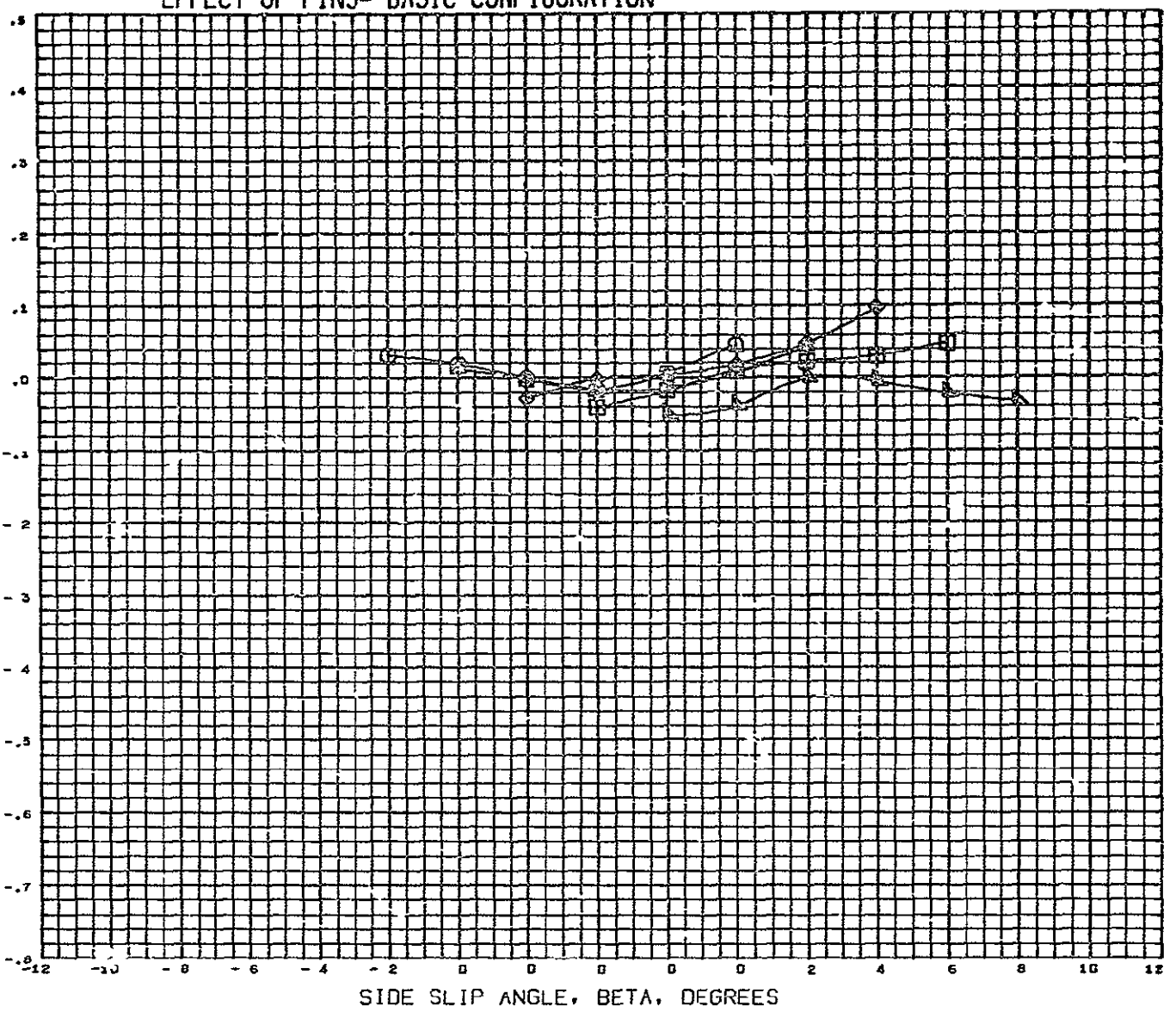
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.600	ALPHA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
	1.100				
	1.200				

DATA HIST. CODE H*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRF	0.0650	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



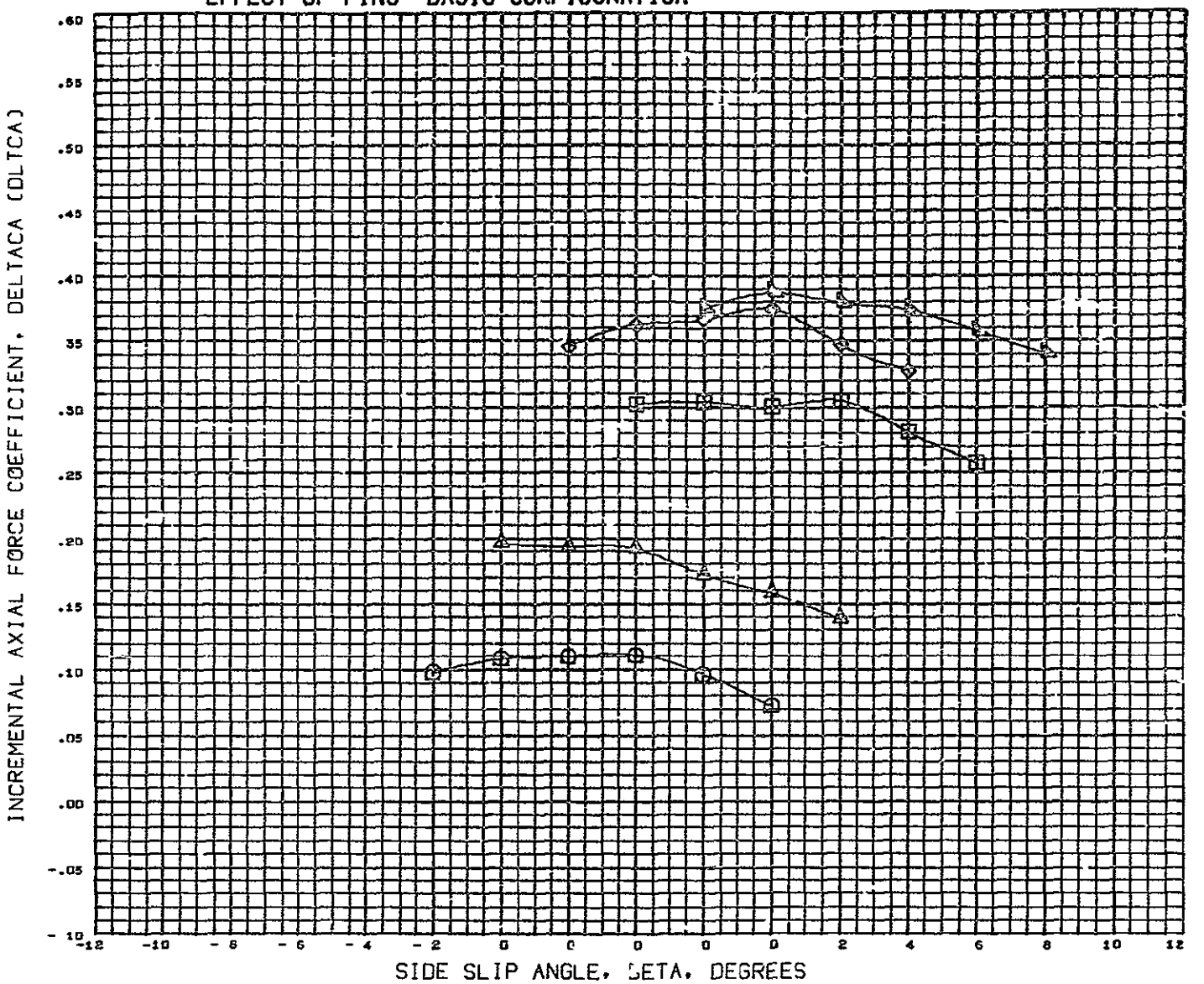
SYMBOL	MACH	PARAMETRIC VALUES			
	1.460	ALPHA	0.000	ORBINC	- 3.100
	1.960				
	2.990				
	4.000				
	4.960				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



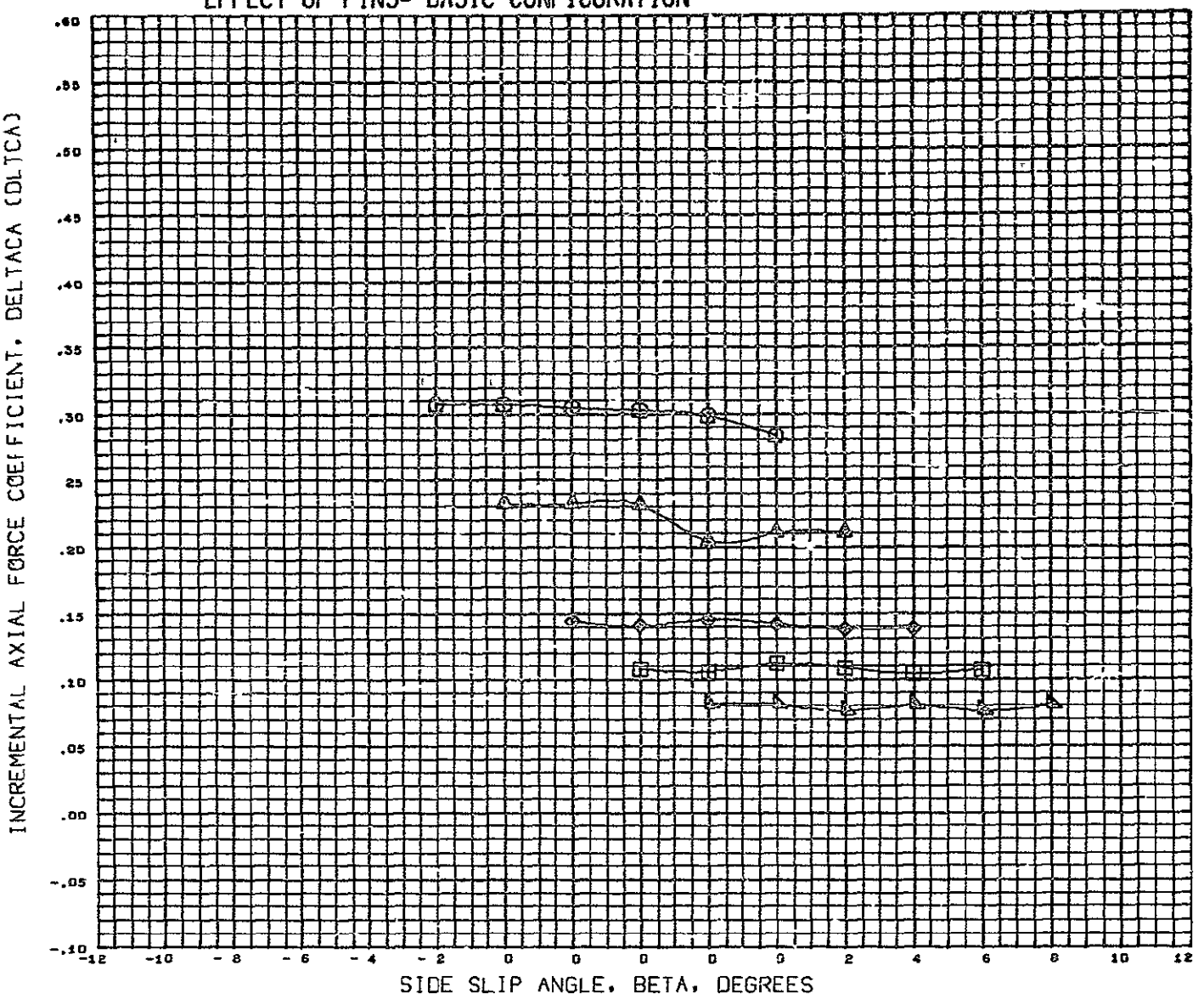
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
□	1.100				
▽	1.200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION

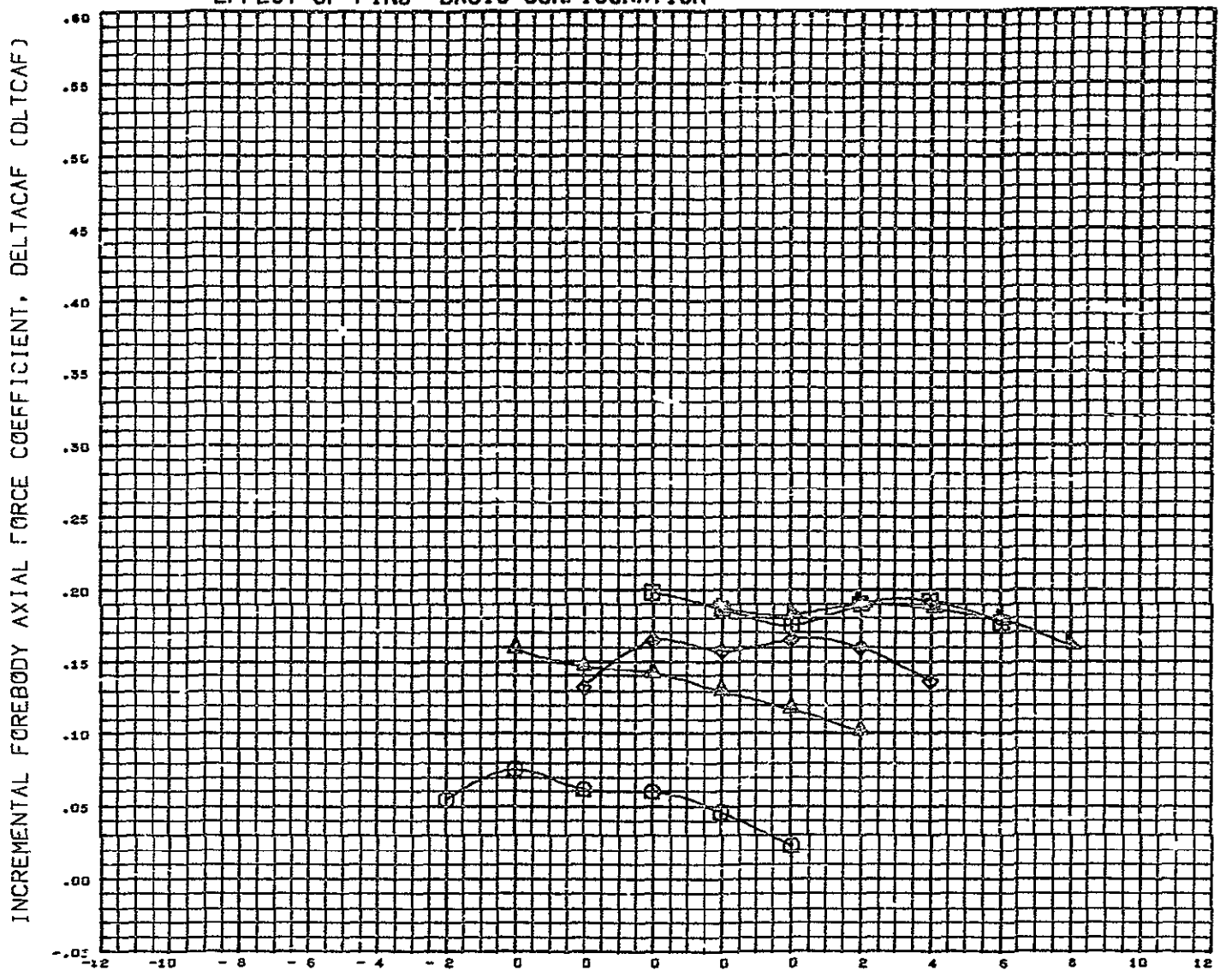


SYMBOL	MACH	PARAMETRIC VALUES		
□	1.460	ALPHA	0.000	ORBINC = 3.100
△	1.960			
◇	2.990			
▽	4.000			
▽	4.960			

DATA HIST CODE M*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.5860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



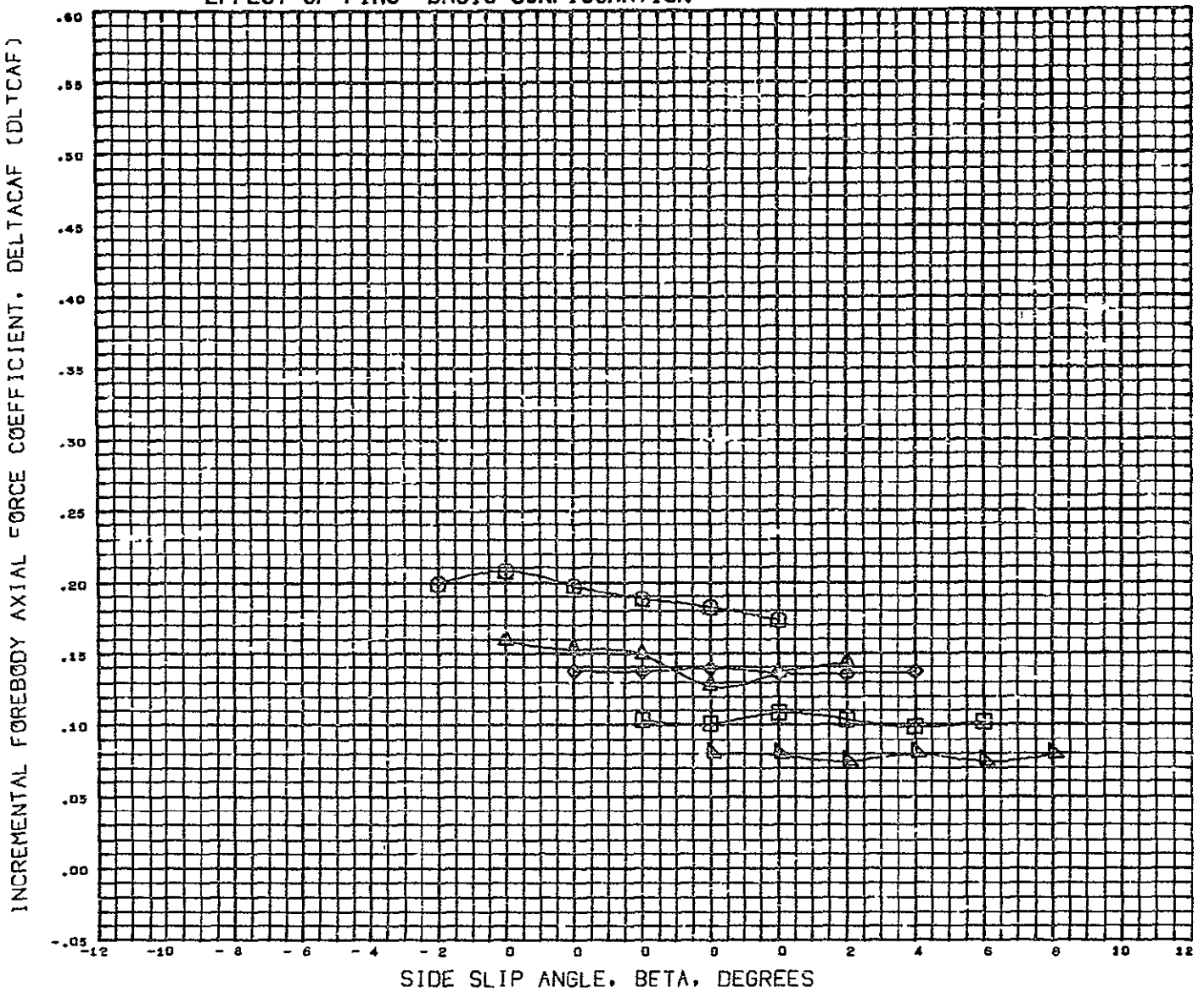
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0 000	ORBINC	- 3 100
△	0 900				
◇	1.000				
□	1 100				
	1 200				

DATA HIST CODE M*E1*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0400	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF FINS- BASIC CONFIGURATION



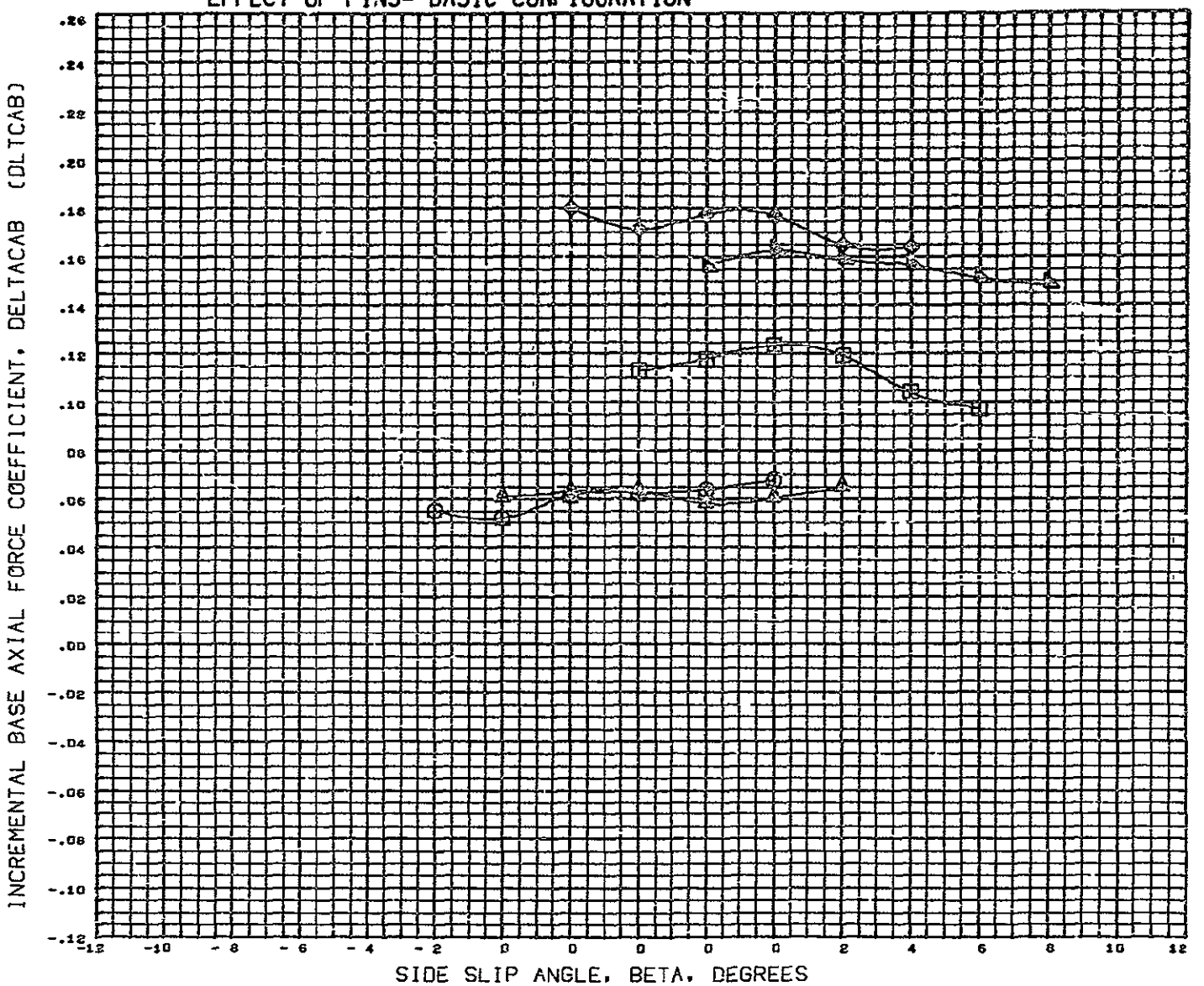
SYMBOL	MACH	PARAMETRIC VALUES			
	1.460	ALPHA	0.000	ORBINC	- 3.00
	1.960				
	2.990				
	4.000				
	4.960				

DATA HIST CODE M>EI+C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

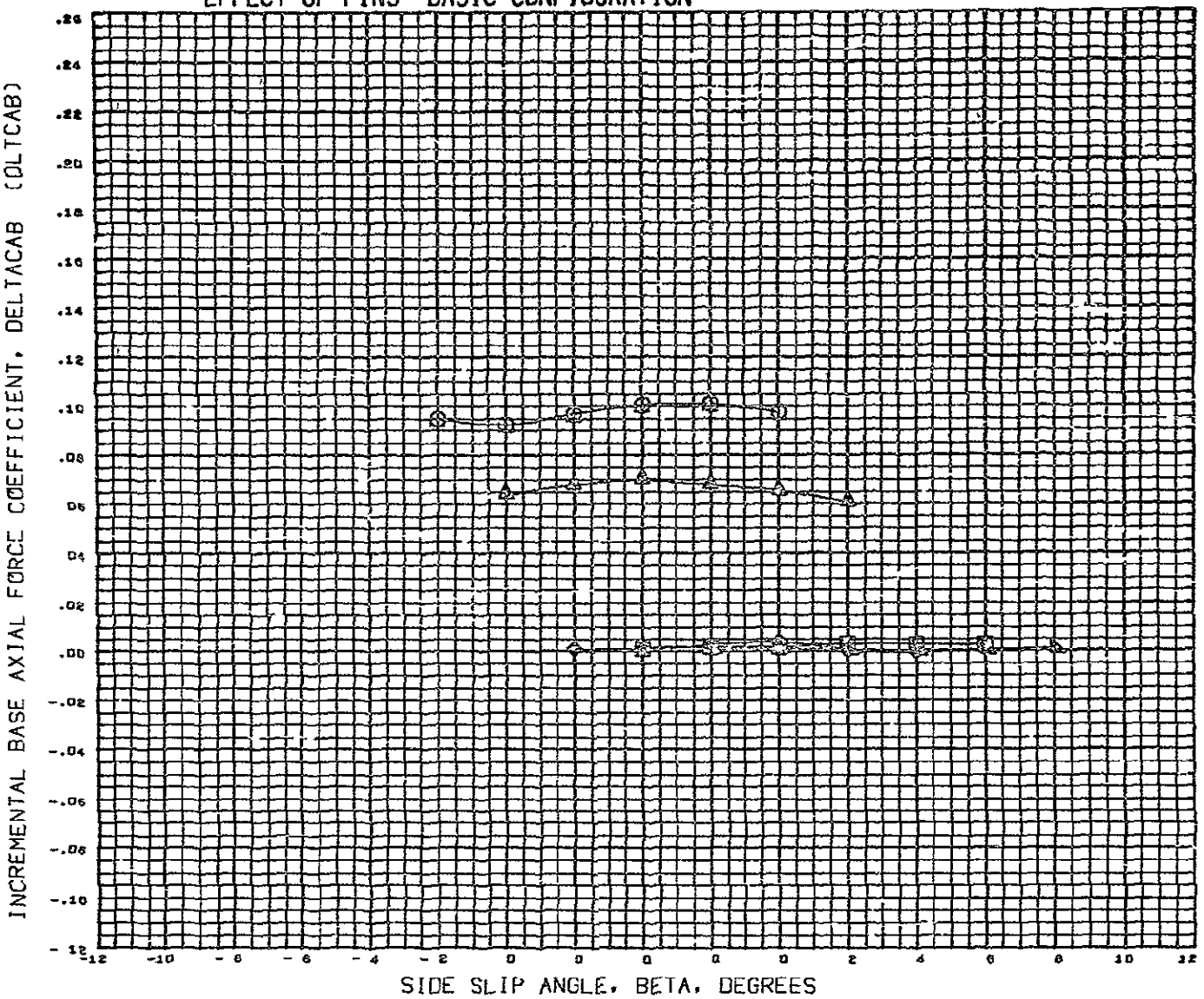
EFFECT OF FINS- BASIC CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
○	0.600	ALPHA	0.000	ORBINC - 3.100	SREF	1.3960	SQ IN.
▷	0.900				LREF	1.3330	IN
◇	1.000				BREF	1.3330	IN
□	1.100				XMRP	3.6860	IN
△	1.200				YMRP	0.0000	IN
					ZMRP	0.0000	IN
					SCALE	0.0034	

DATA HIST CODE M*EI*C

EFFECT OF FINS- BASIC CONFIGURATION



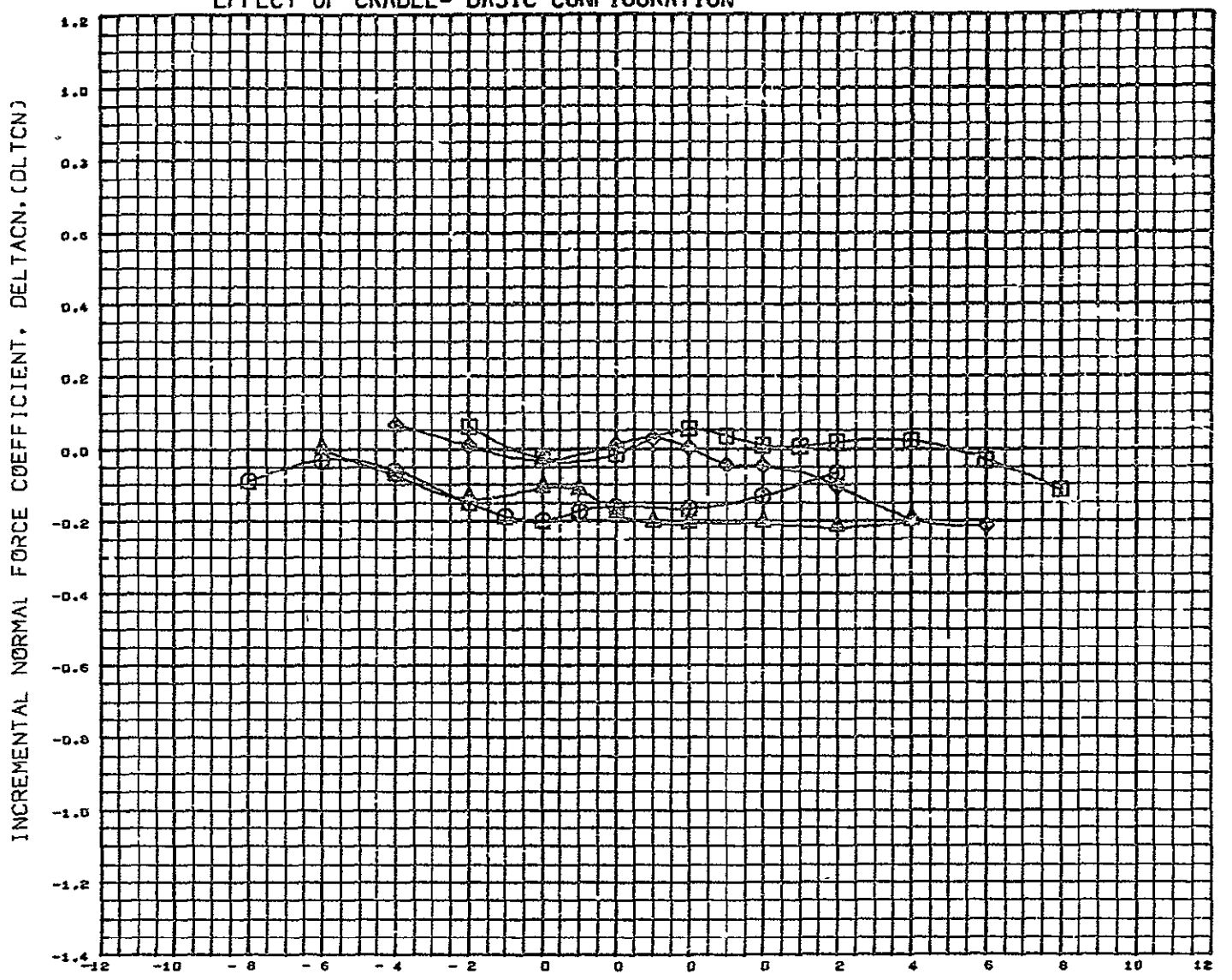
SYMBOL	MACH	PARAMETRIC VALUES			
□	1.460	ALPHA	0.000	ORBINC	- 3.100
◇	1.960				
△	2.990				
○	4.000				
	4.960				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003*	

EFFECT OF CRADLE- BASIC CONFIGURATION



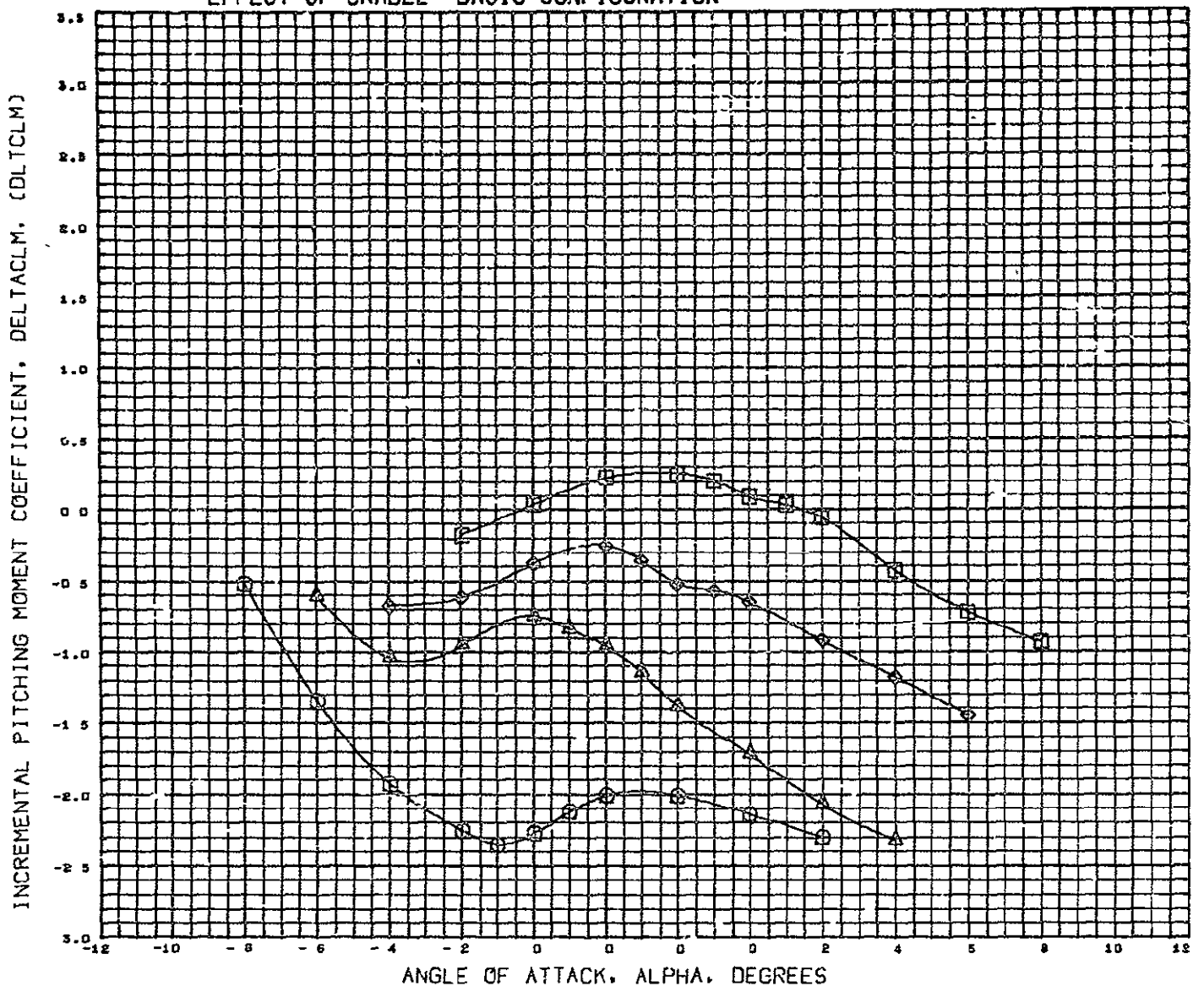
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0 000	OPBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST. CODE M*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

EFFECT OF CRADLE- BASIC CONFIGURATION

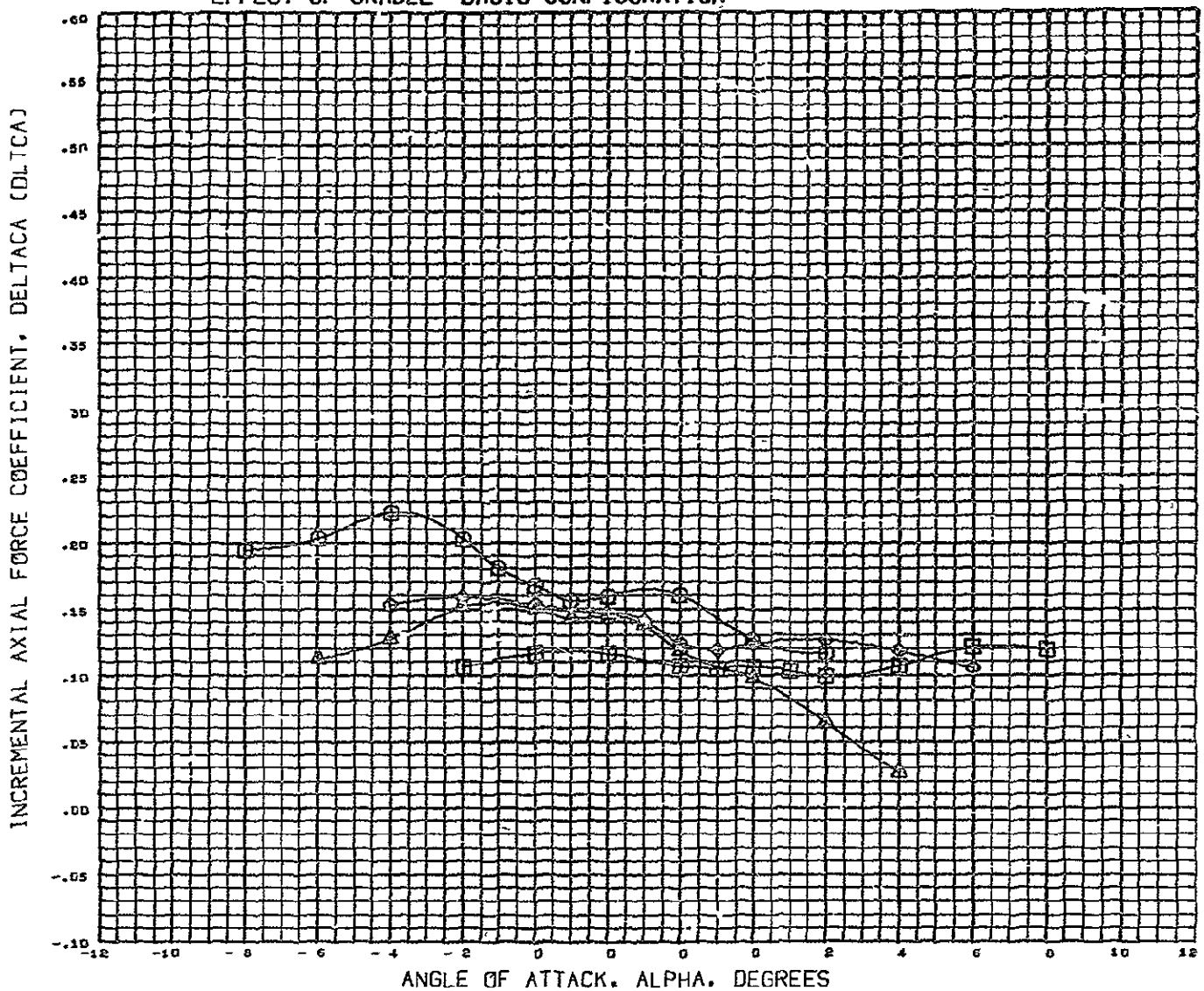


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC -	3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE H*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0670	IN
SCALE	0.0034	

EFFECT OF CRADLE- BASIC CONFIGURATION

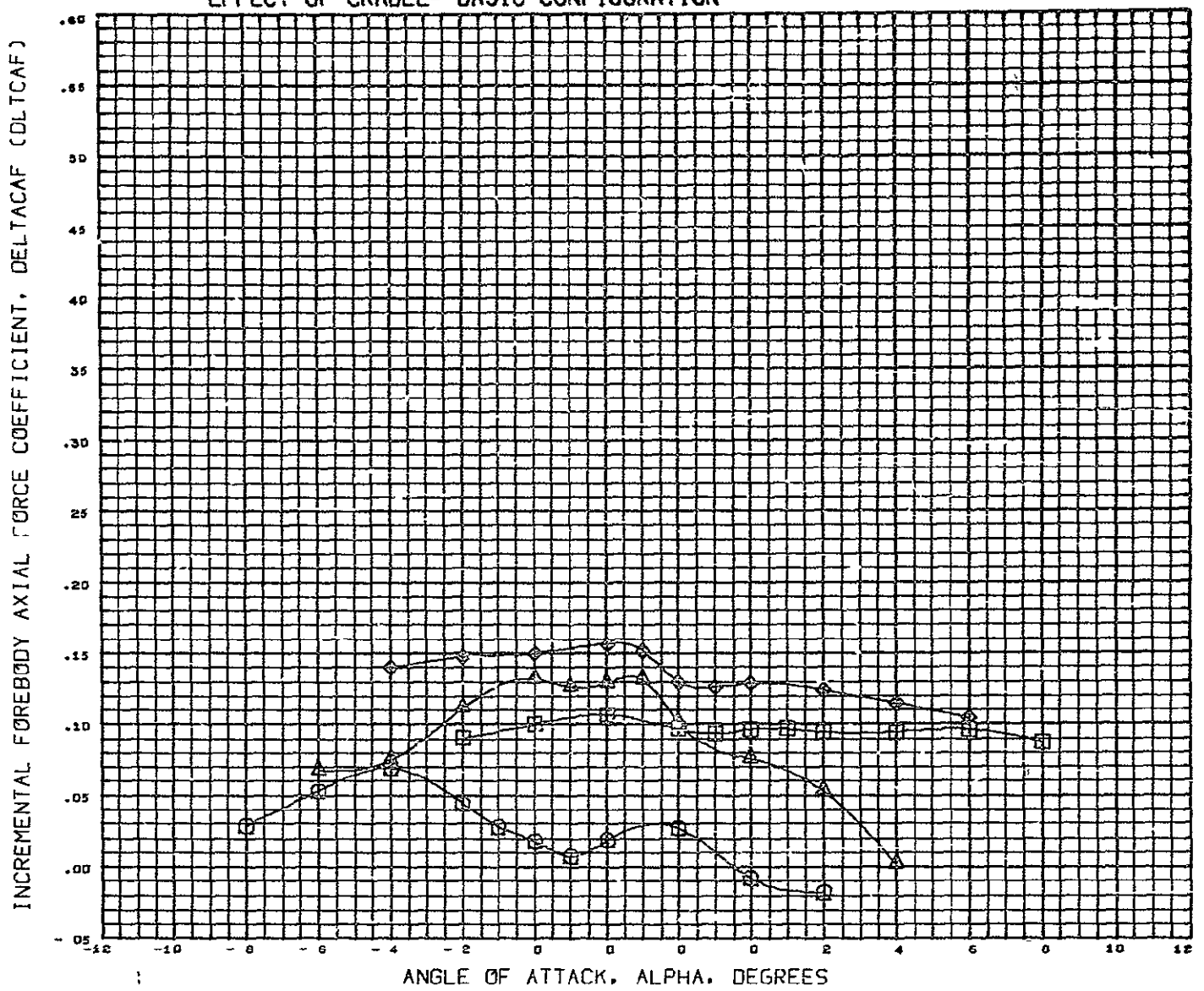


SYMBOL	MACH	PARAMETRIC VALUES			
○	0 900	BETA	0 000	ORBINC	- 3 100
△	1 000				
◇	1.100				
□	1 200				

DATA HIST CODE M*E1*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0L90	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- BASIC CONFIGURATION



SYMBOL	MACH
○	0.900
△	1.000
◇	1.100
□	1.200

PARAMETRIC VALUES

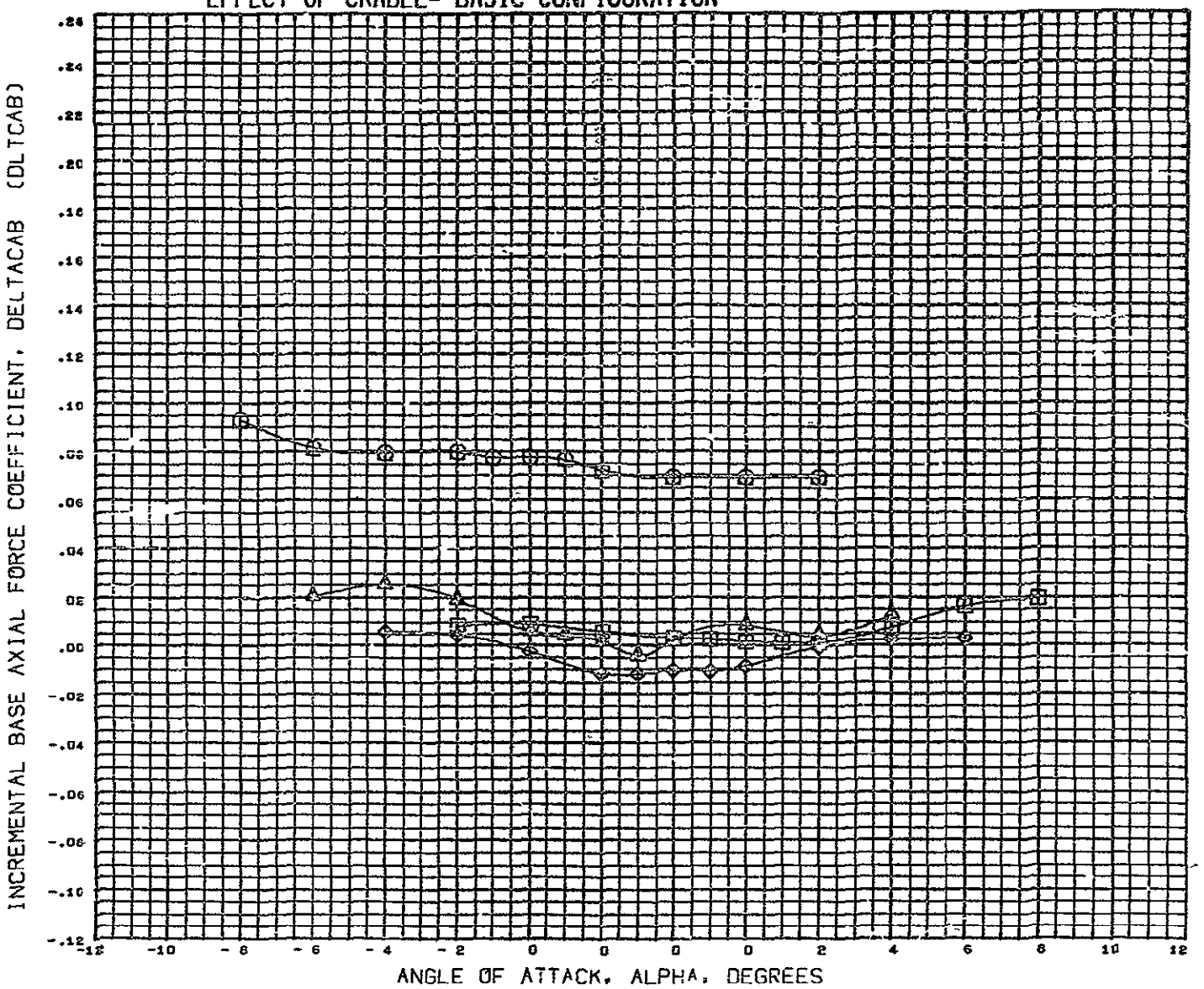
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*E1*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- BASIC CONFIGURATION

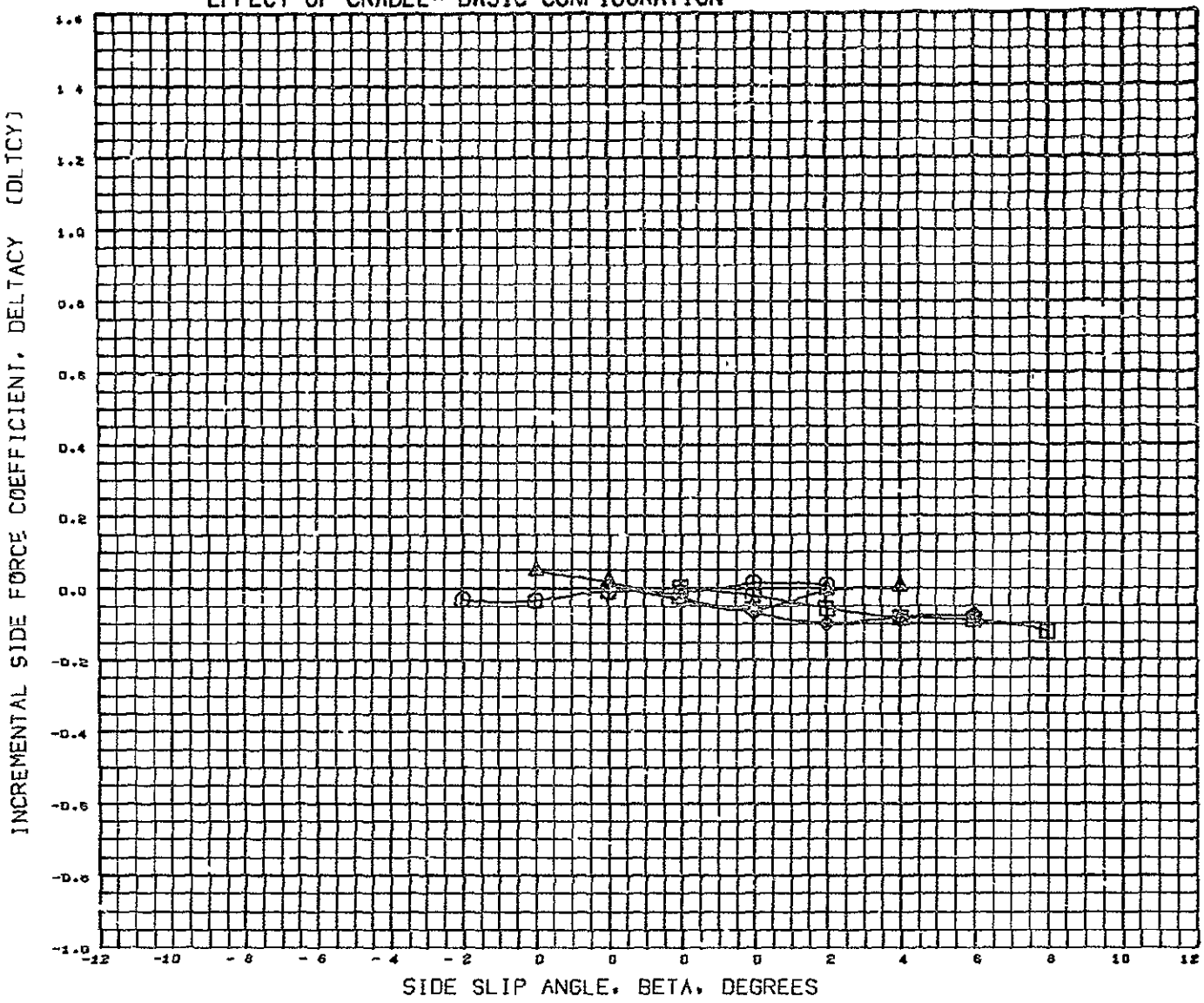


SYMBOL	MACH	PARAMETRIC VALUES			
□	0.900	BETA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
○	1.200				

DATA HIST CODE M*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- BASIC CONFIGURATION

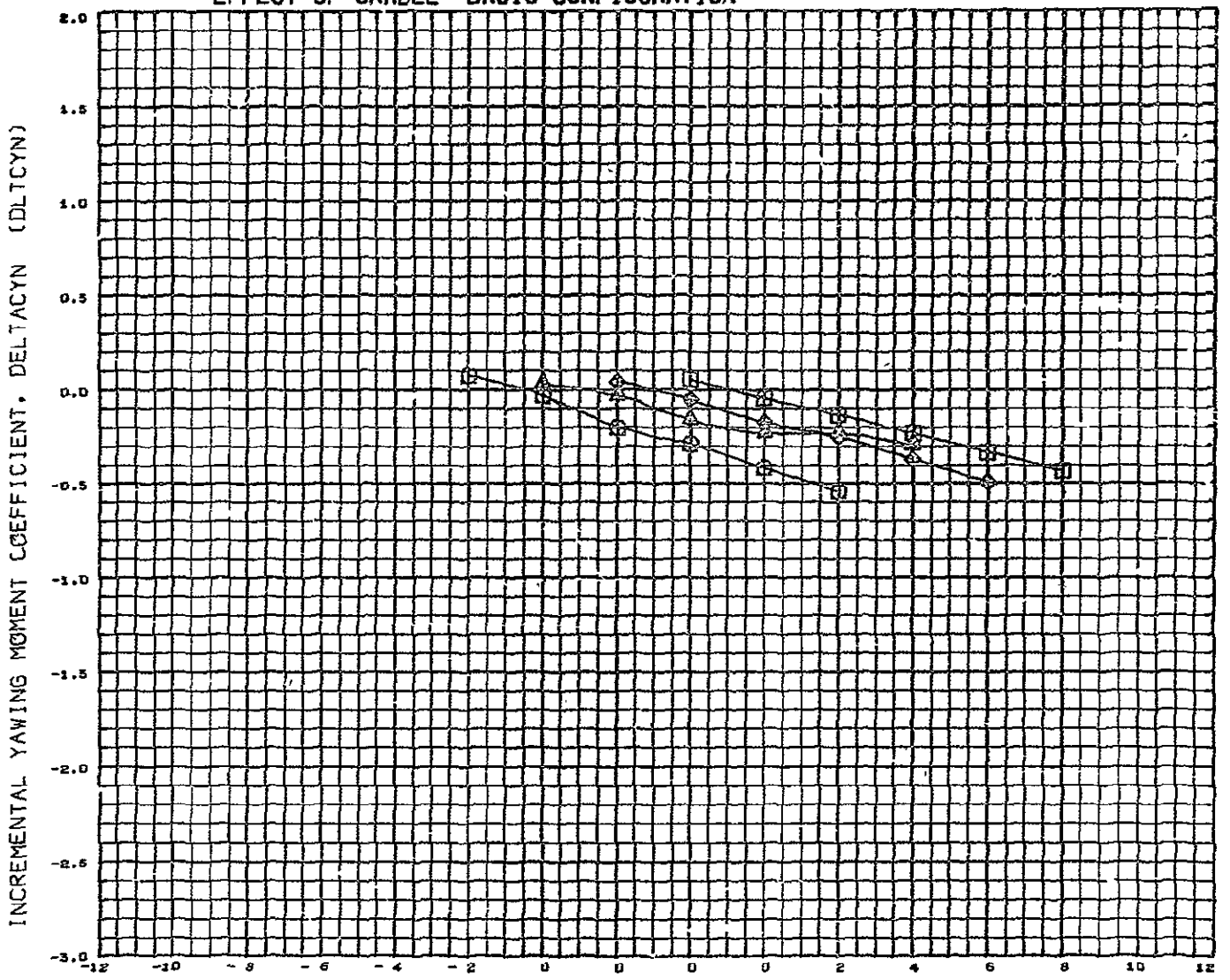


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.00
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE M*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0060	IN
SCALE	0.0034	

EFFECT OF CRADLE- BASIC CONFIGURATION

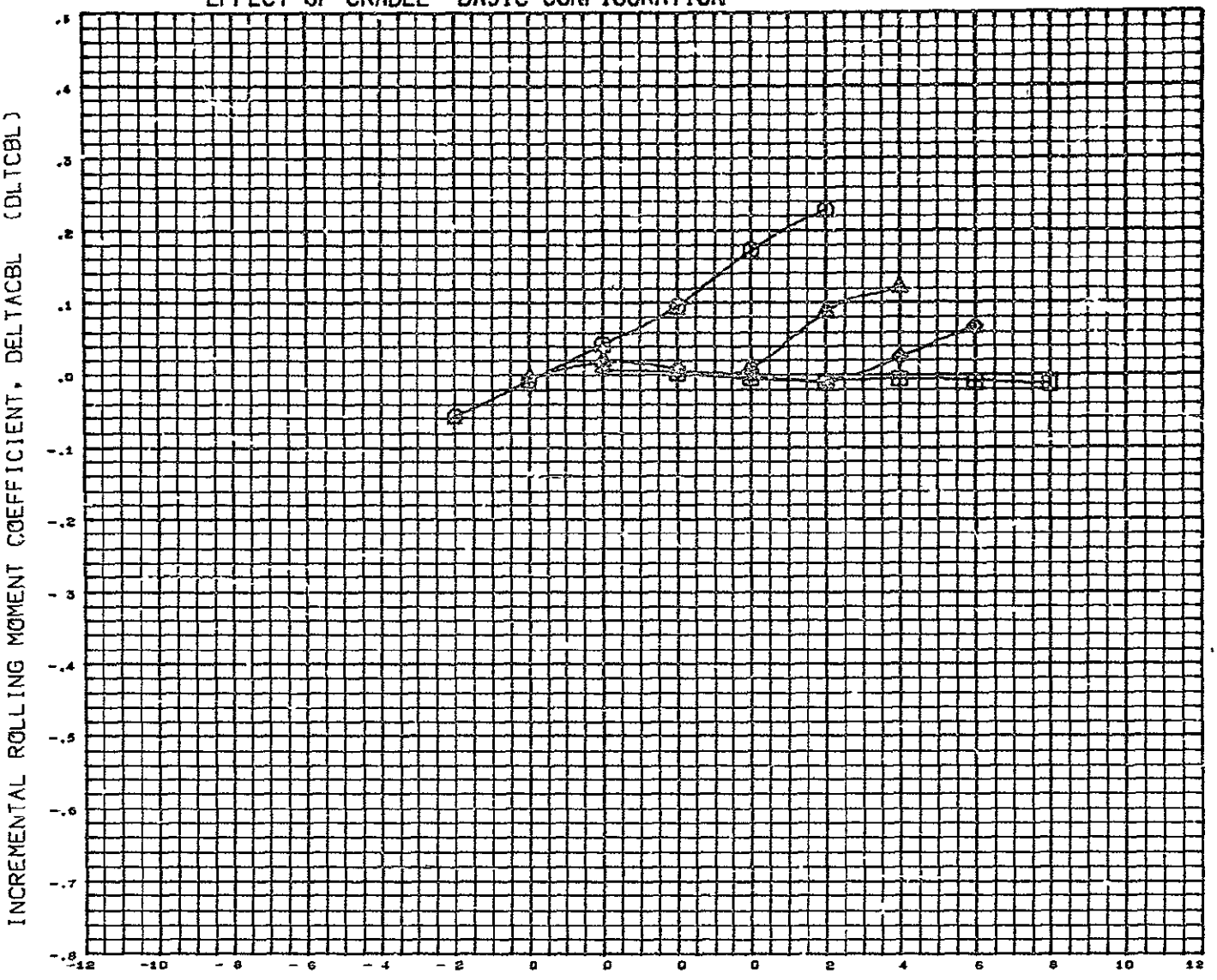


SYMBOL	MACH	PARAMETRIC VALUES		
□	0.900	ALPHA	0.000	ORBINC - 3.100
△	1.000			
◇	1.100			
□	1.200			

DATA HIST CODE M*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.2330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- BASIC CONFIGURATION



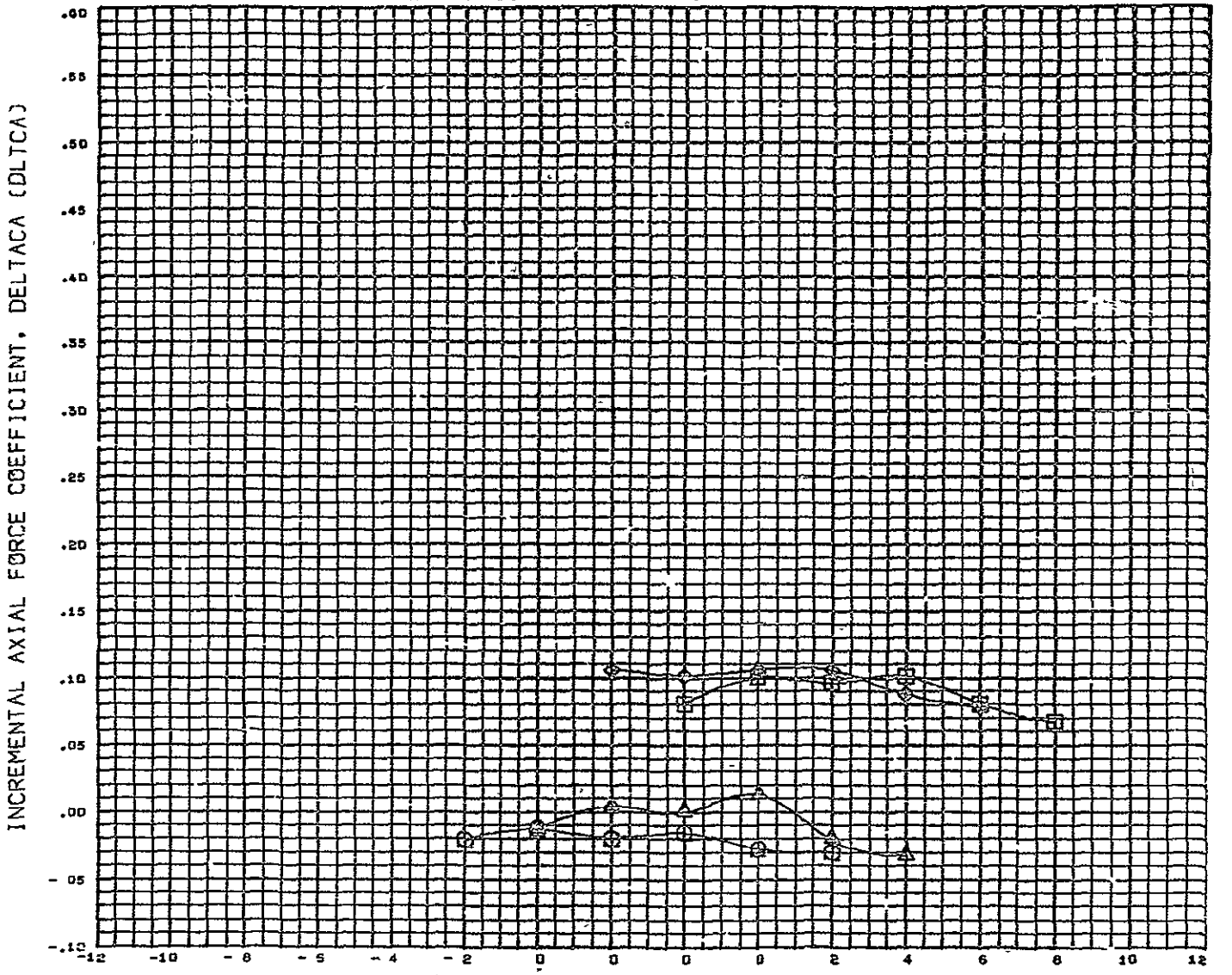
SYMBOL	MACH	PARAMETRIC VALUES			
□◇△○	0.900	ALPHA	0.000	ORBINC	- 3.100
	1.000				
	1.100				
	1.200				

DATA HIST CODE H*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

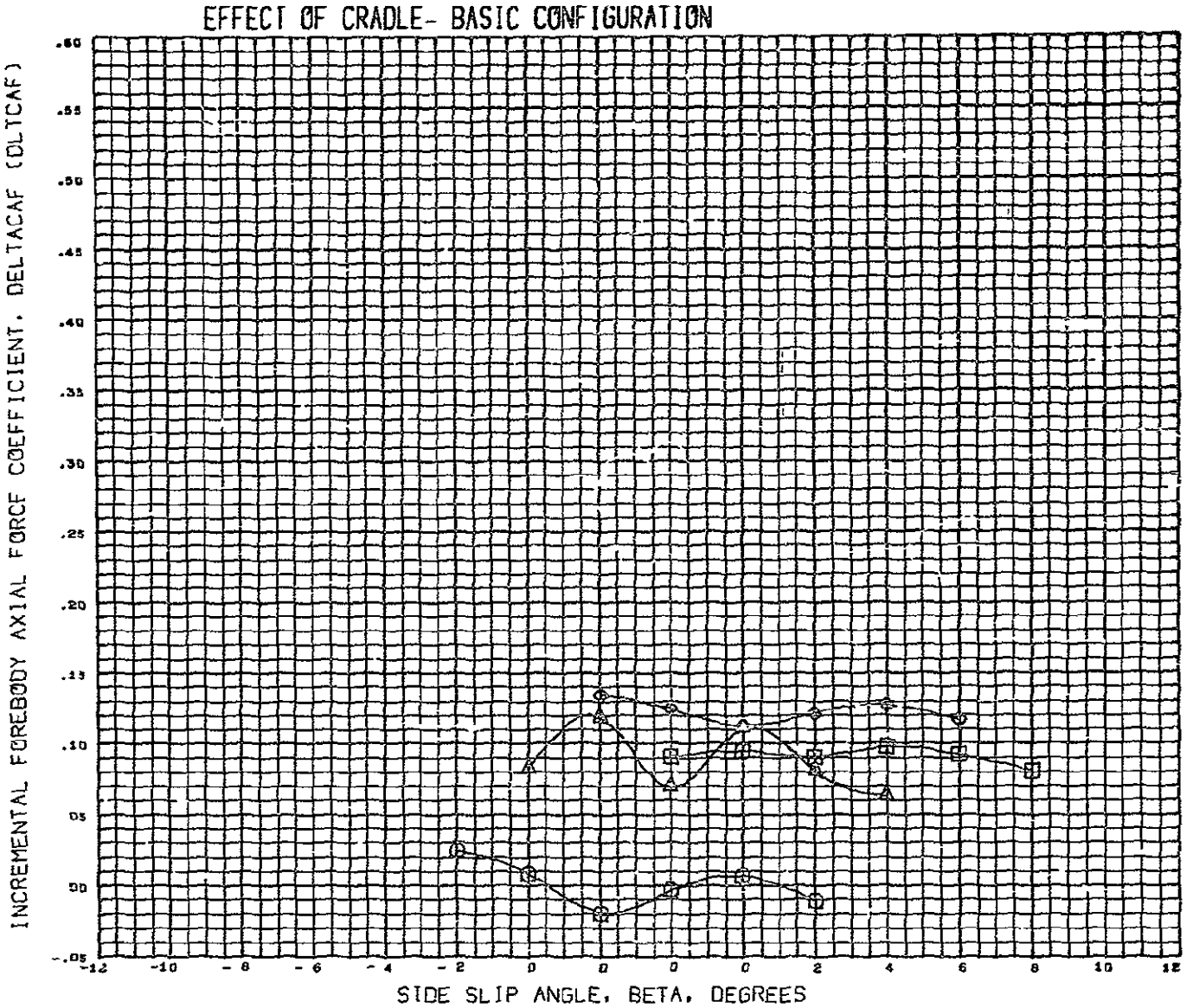
EFFECT OF CRADLE- BASIC CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE H*EI*A*C

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



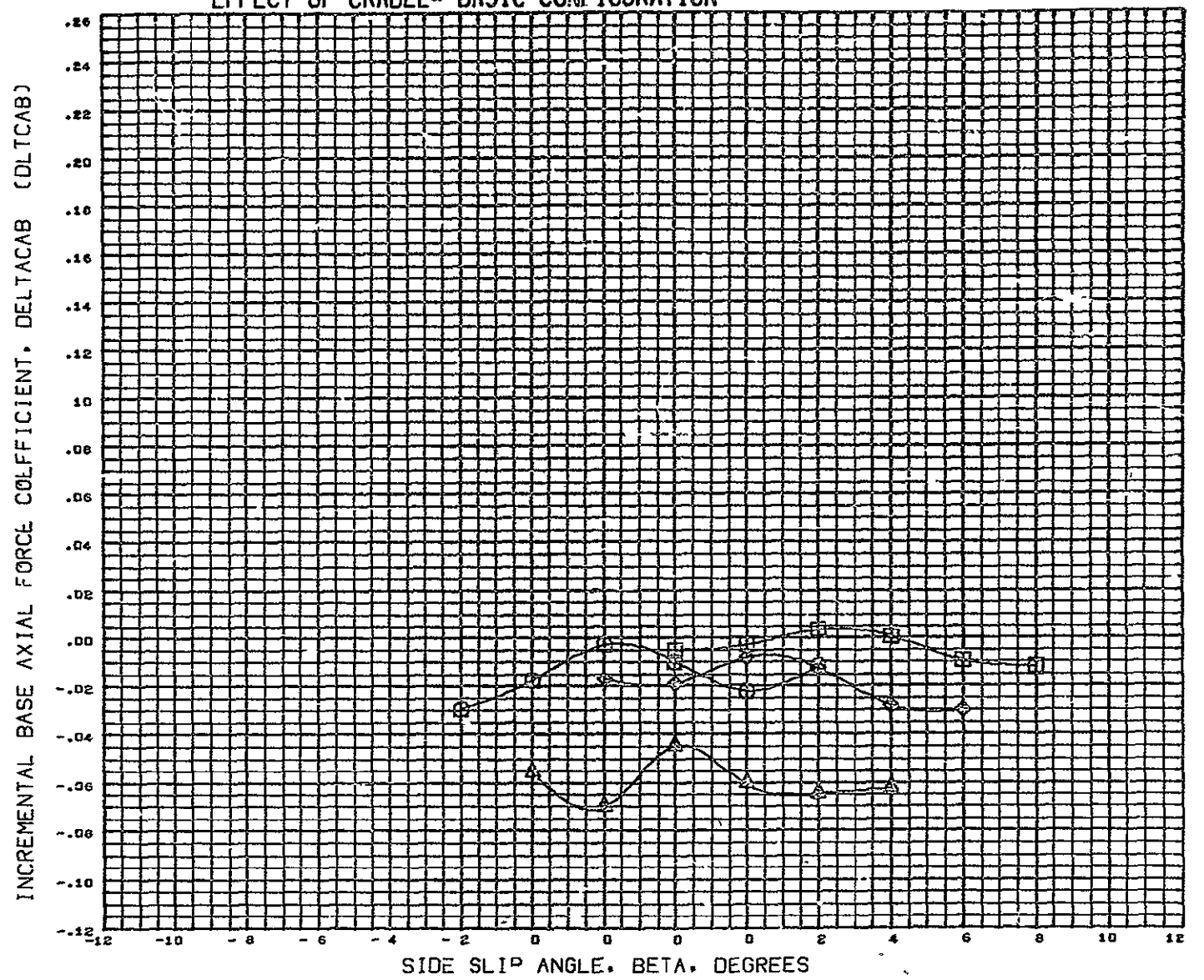
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORDINC	- 3.00
△	1.000				
◇	1.100				
□	1.200				

DATA HIST. CODE M*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- BASIC CONFIGURATION

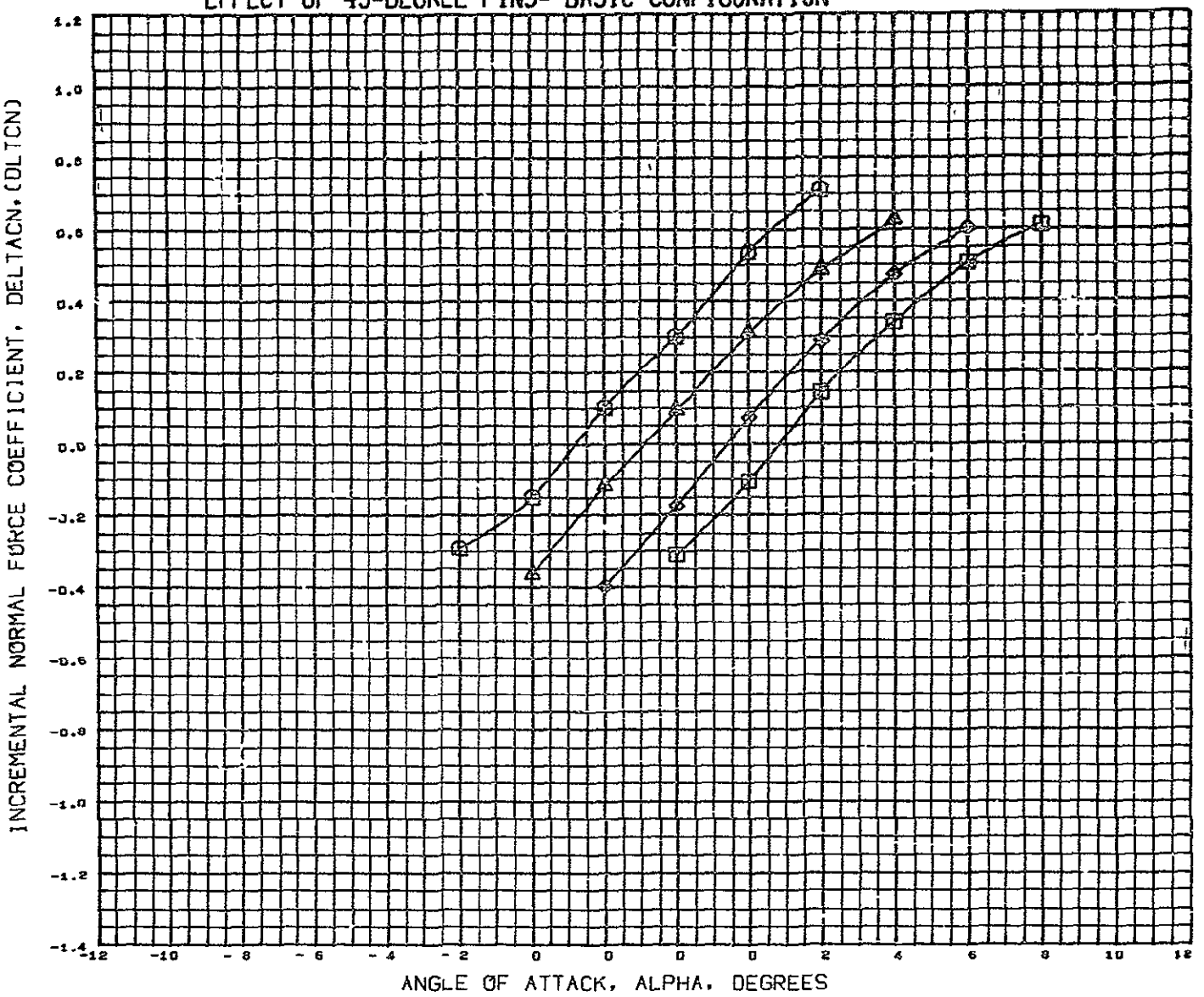


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE M*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION

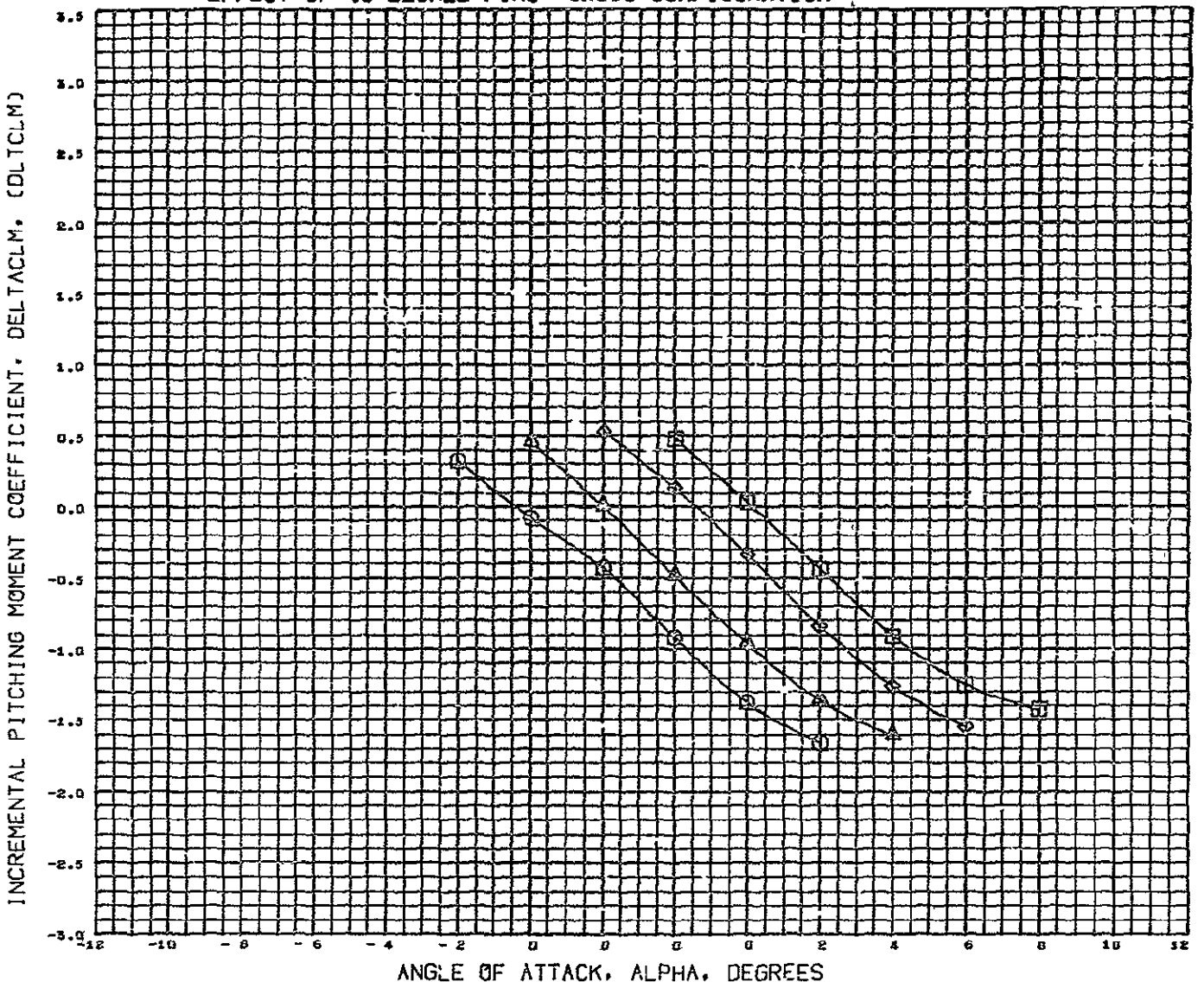


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0 000	ORBINC	- 3 100
△	1 000				
◇	1.100				
□	1 200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION

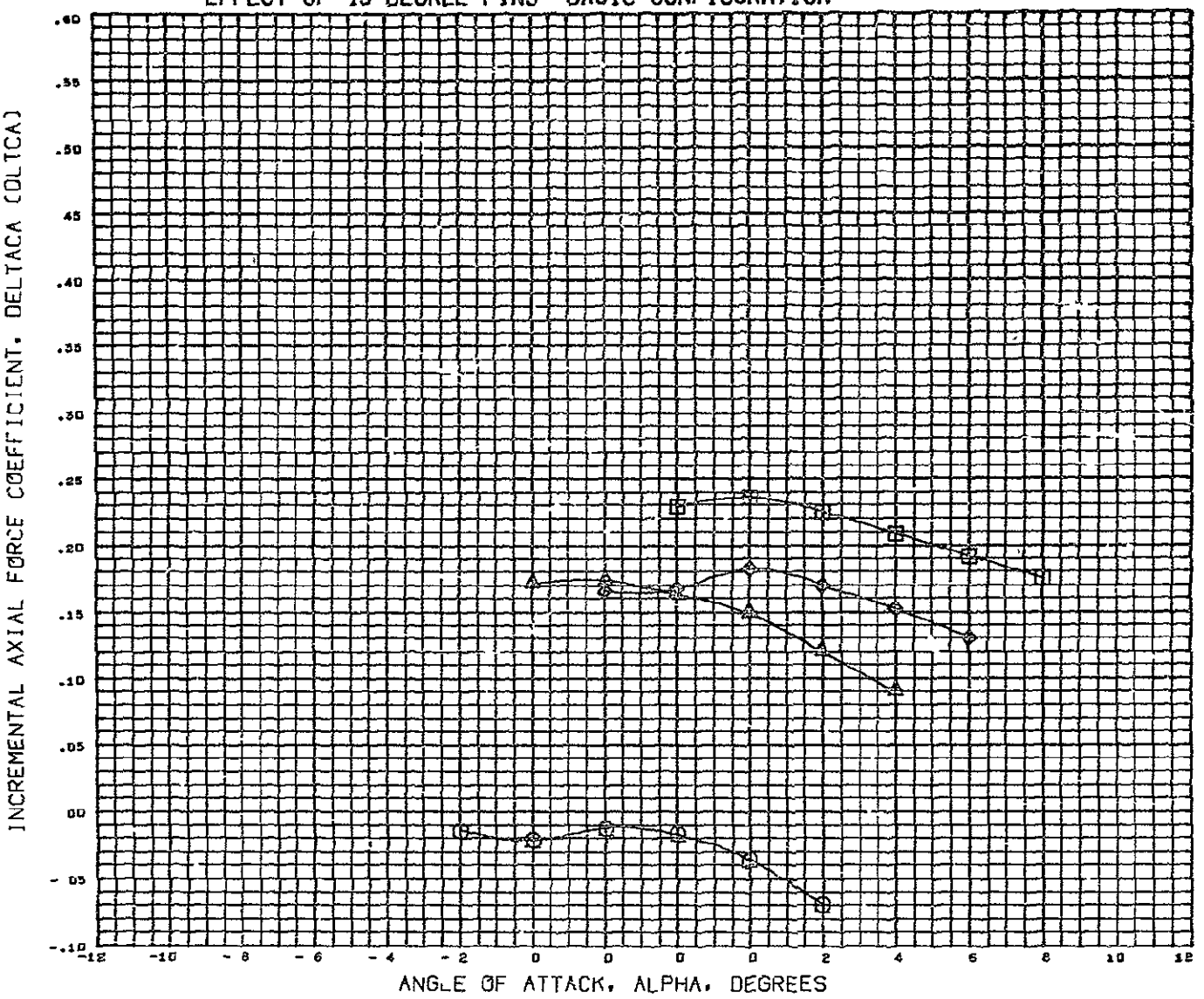


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	-3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST. CODE h*CI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN.
CREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



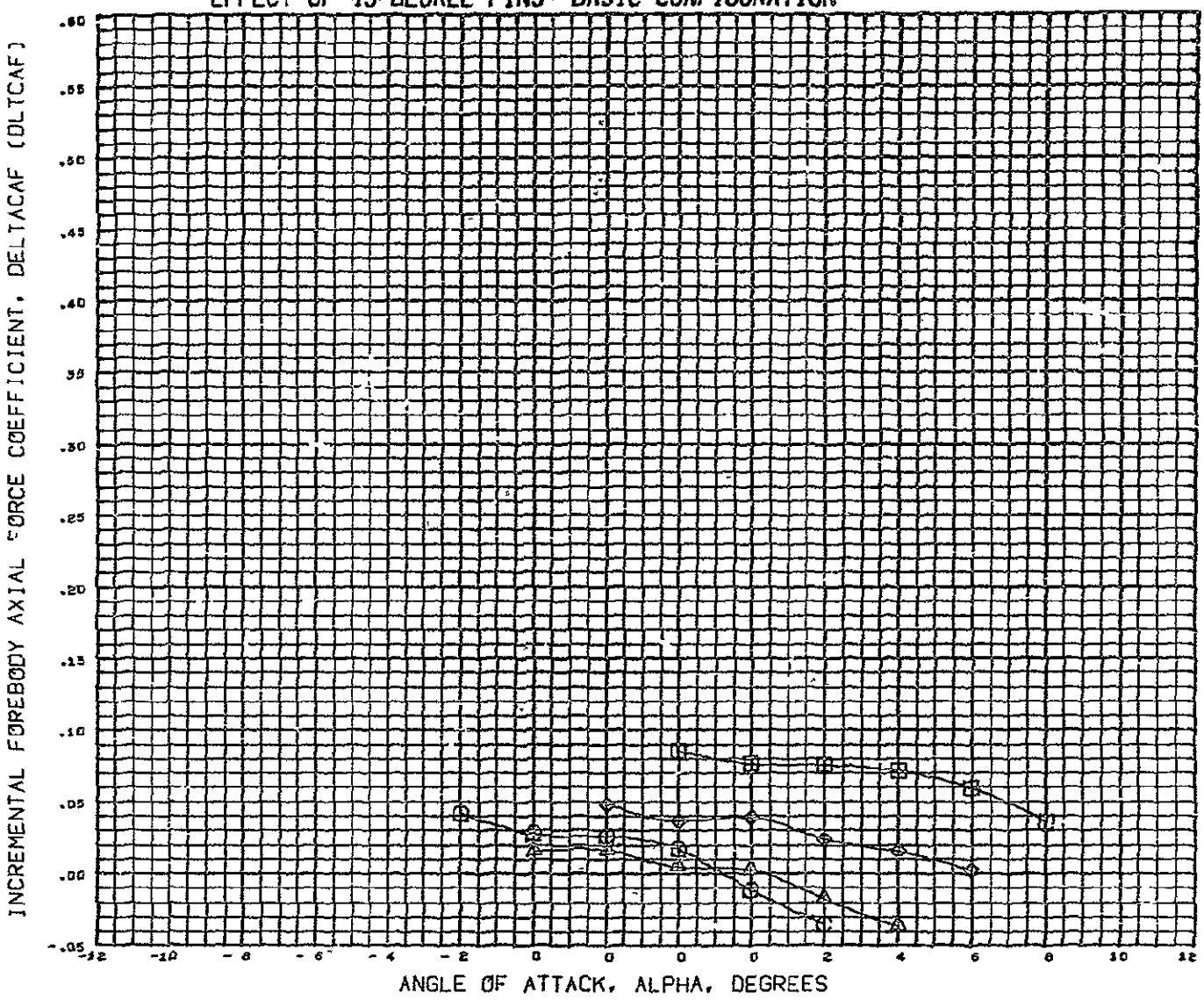
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.900	BETA	0.000	ORBINC	-3.100
△	1.000				
◇	1.100				
	1.200				

DATA HIST. CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	"
ZMRP	0.0000	IN
SCALE	9.0034	

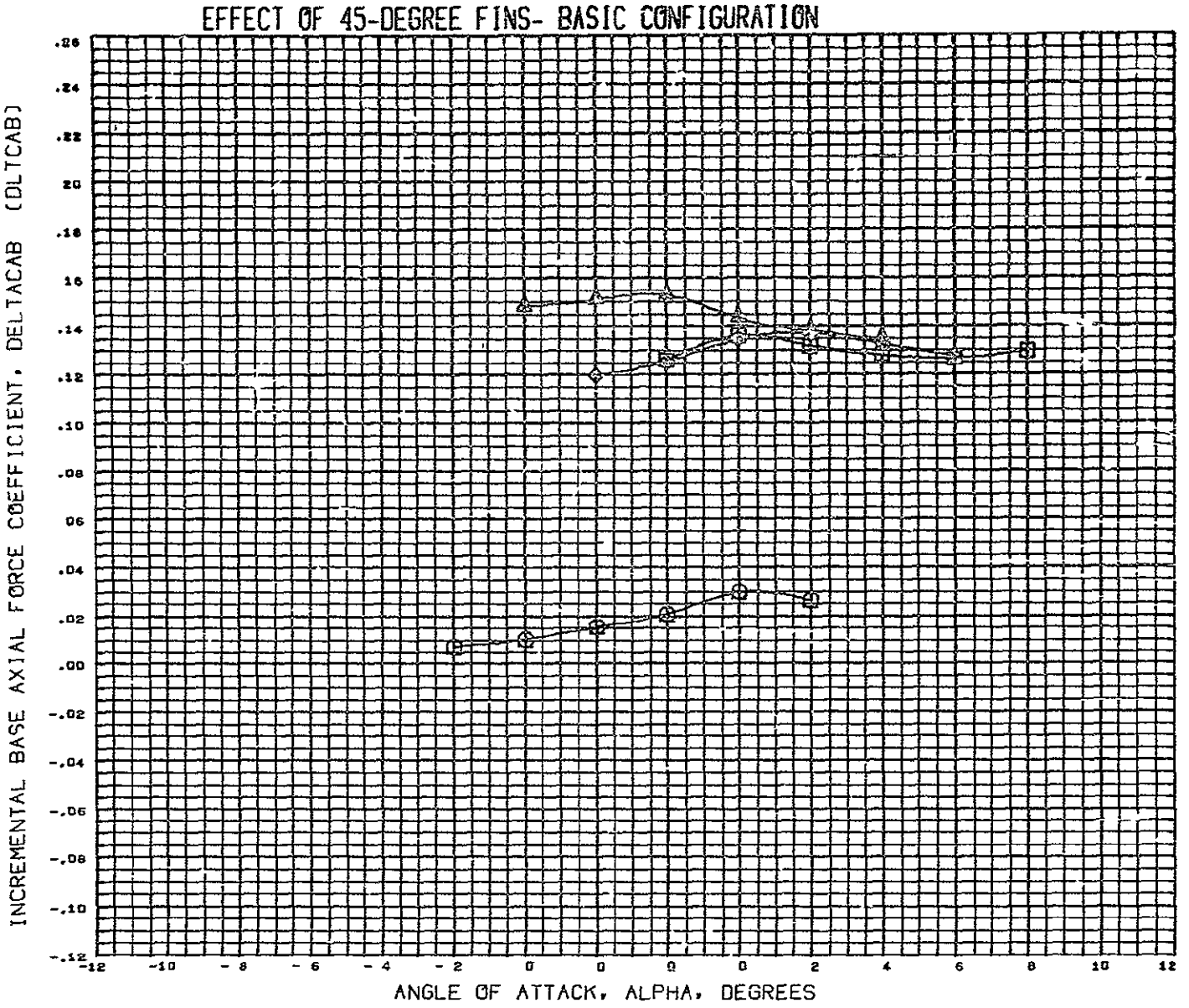
EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			
□◇△○	0.900	BETA	0.000	ORBINC	- 3.100
	1.000				
	1.100				
	1.200				

DATA HIST CODE H*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

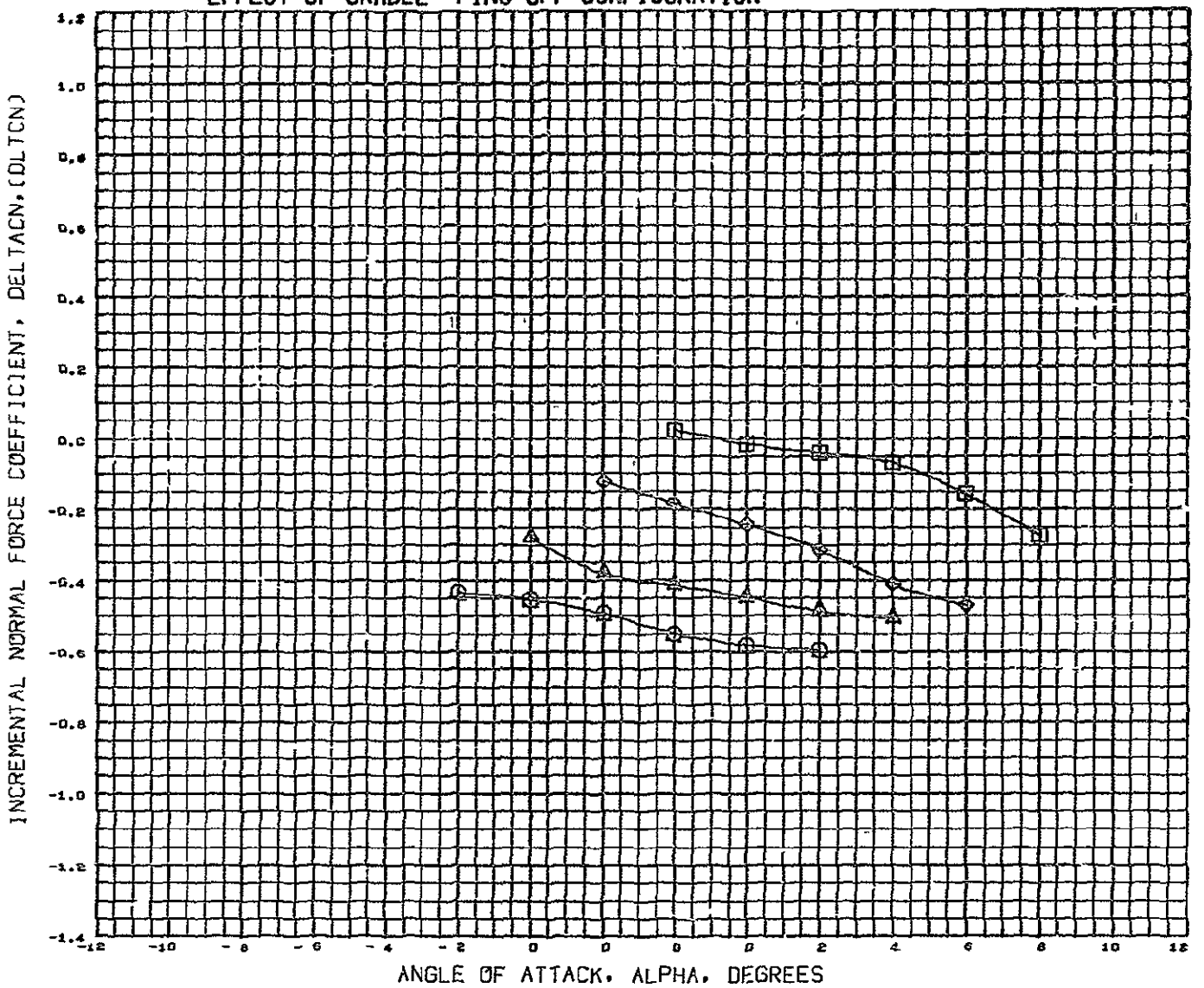


SYMBOL	MACH	PARAMETRIC VALUES			
□◇	0.900	BETA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE H*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- FINS OFF CONFIGURATION

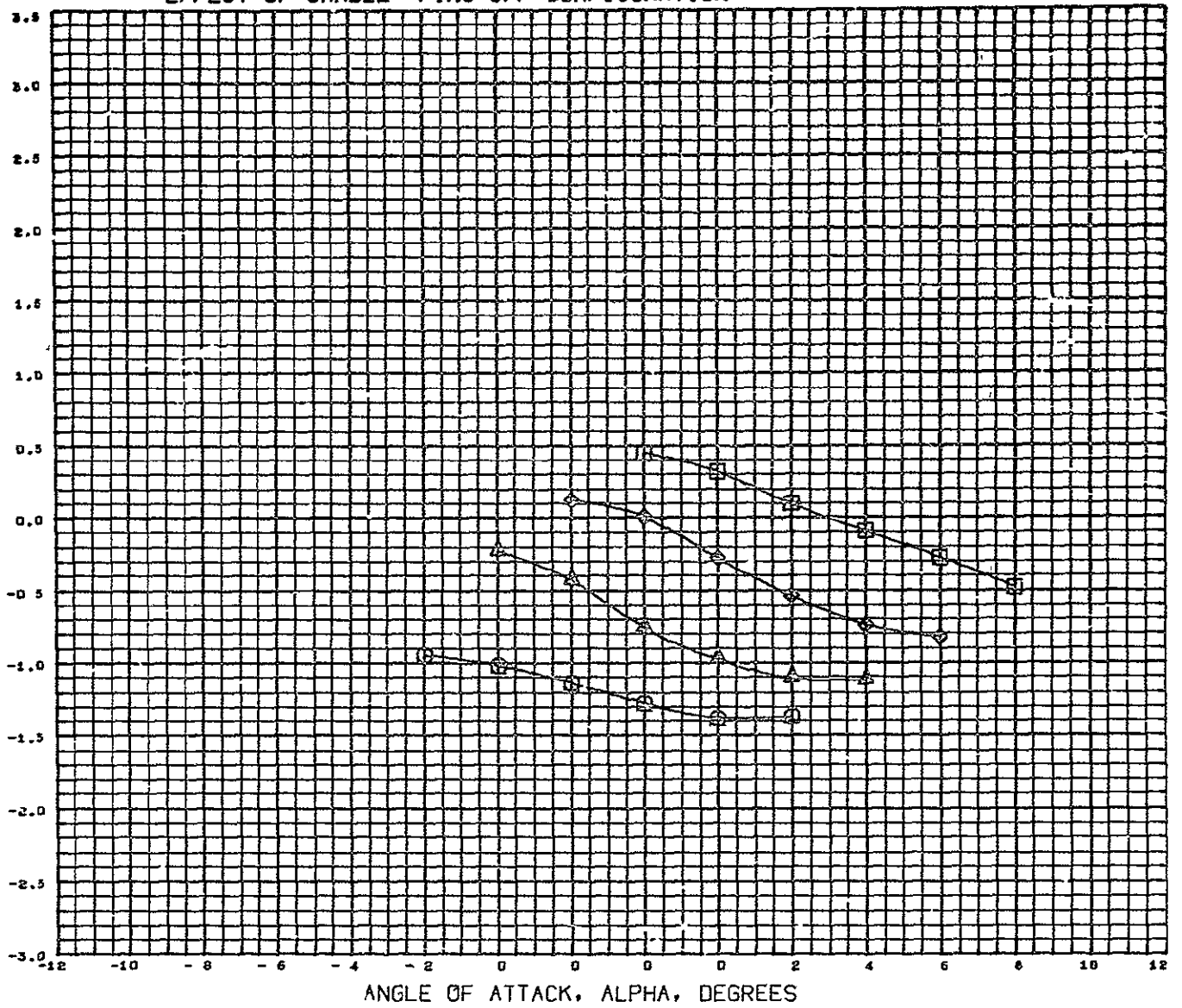


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.900	BETA	0.000	ORBINC - 3.100
△	1.000			
◇	1.100			
□	1.200			

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LRCF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- FINS OFF CONFIGURATION



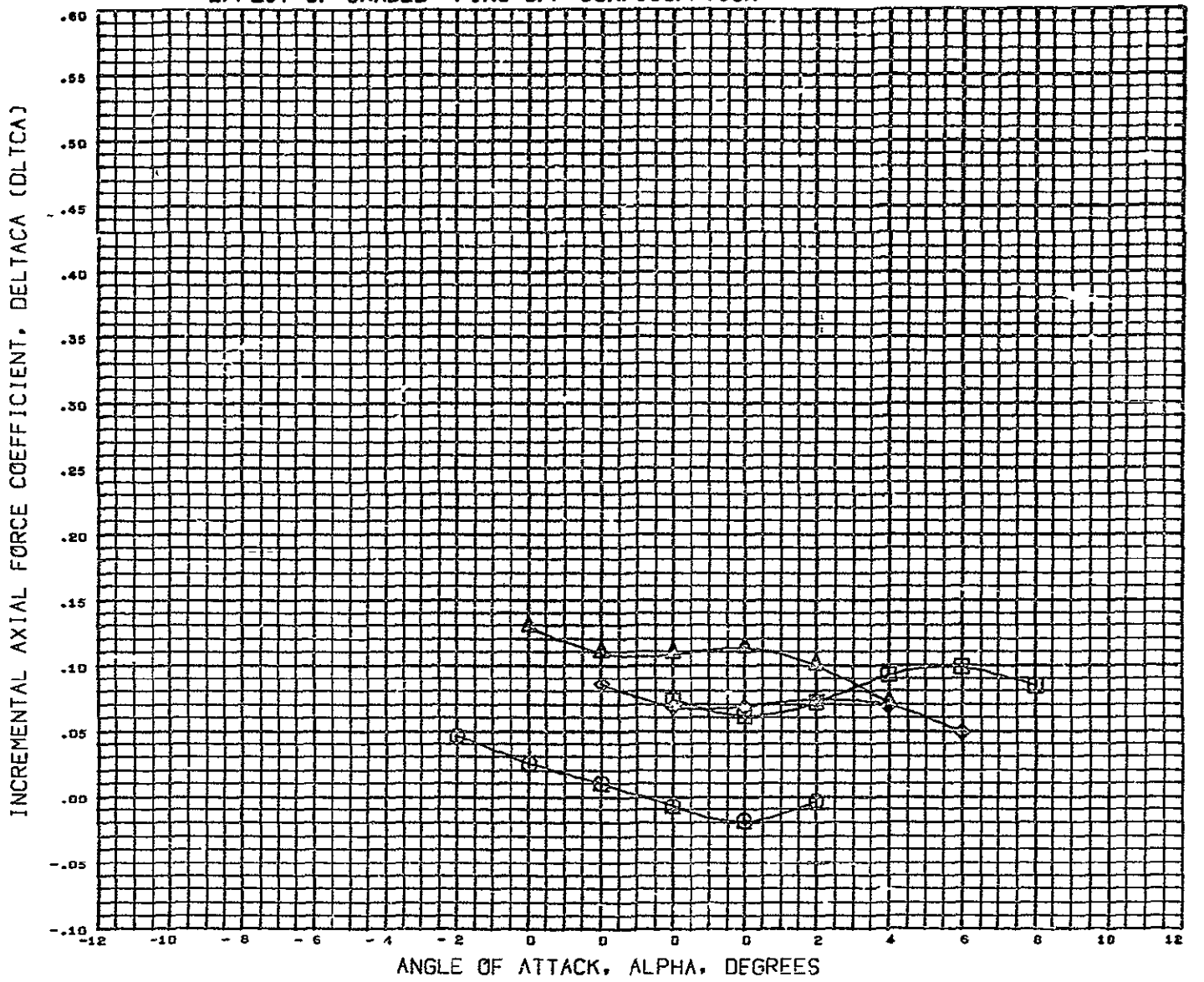
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	- 3 100
△	1 000				
◇	1 100				
□	1 200				

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF CRADLE- FINS OFF CONFIGURATION

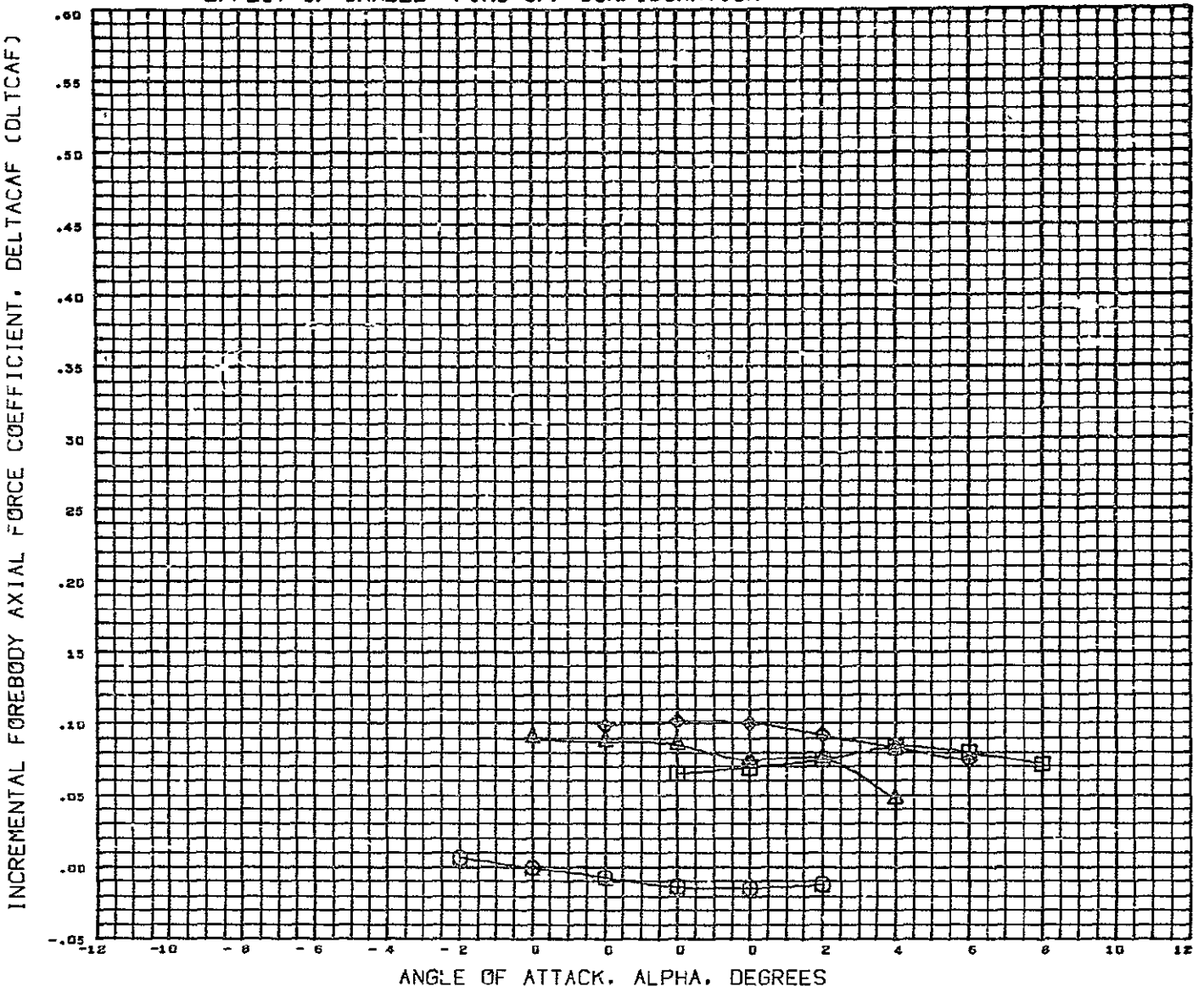


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE MN*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- FINS OFF CONFIGURATION

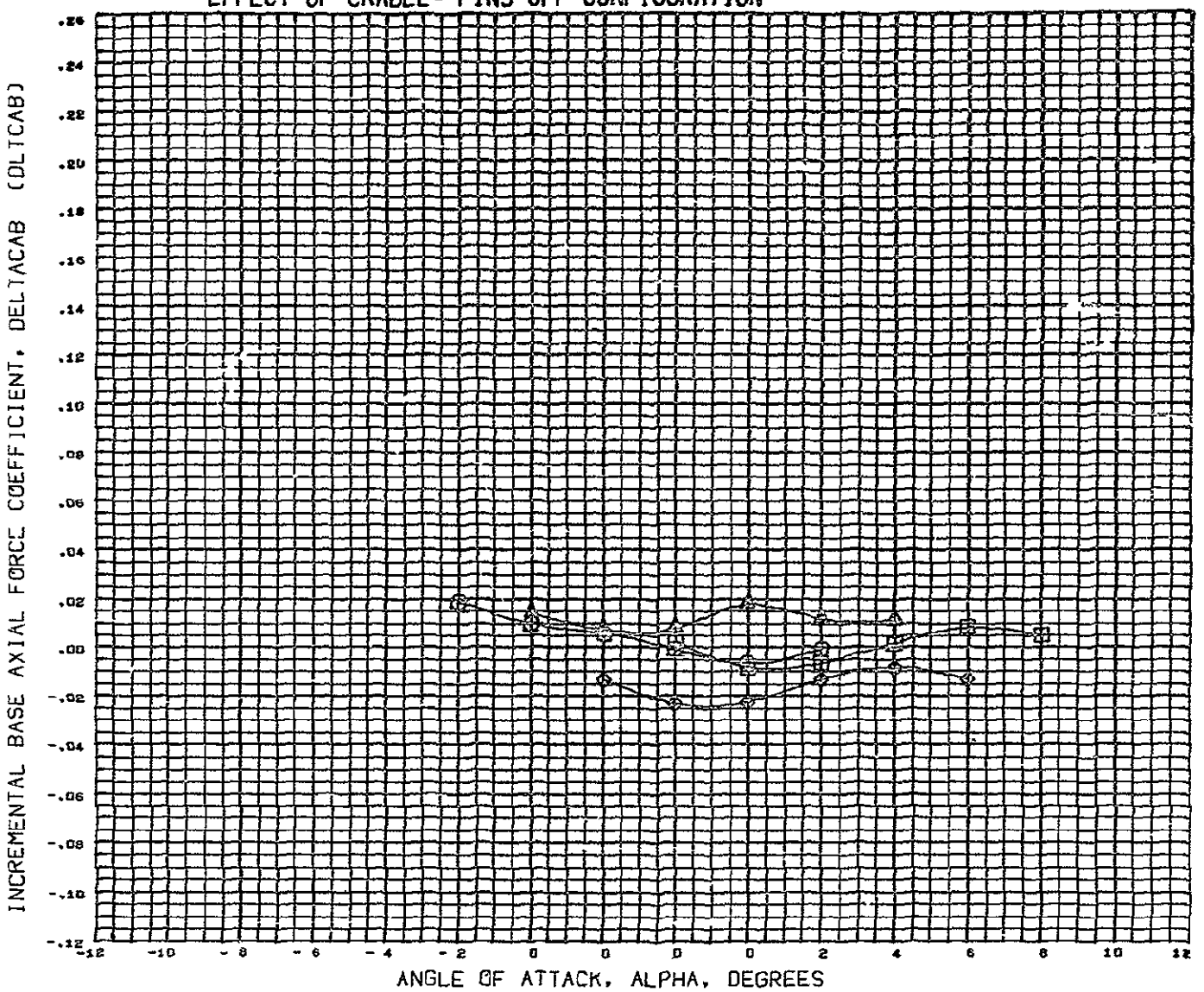


SYMBOL	MACH	PARAMETRIC VALUES			
□	0.900	BETA	0.000	ORBINC	- 3 100
△	1.000				
◇	1 100				
○	1.200				

DATA HIST CODE MN*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF CRADLE- FINS OFF CONFIGURATION



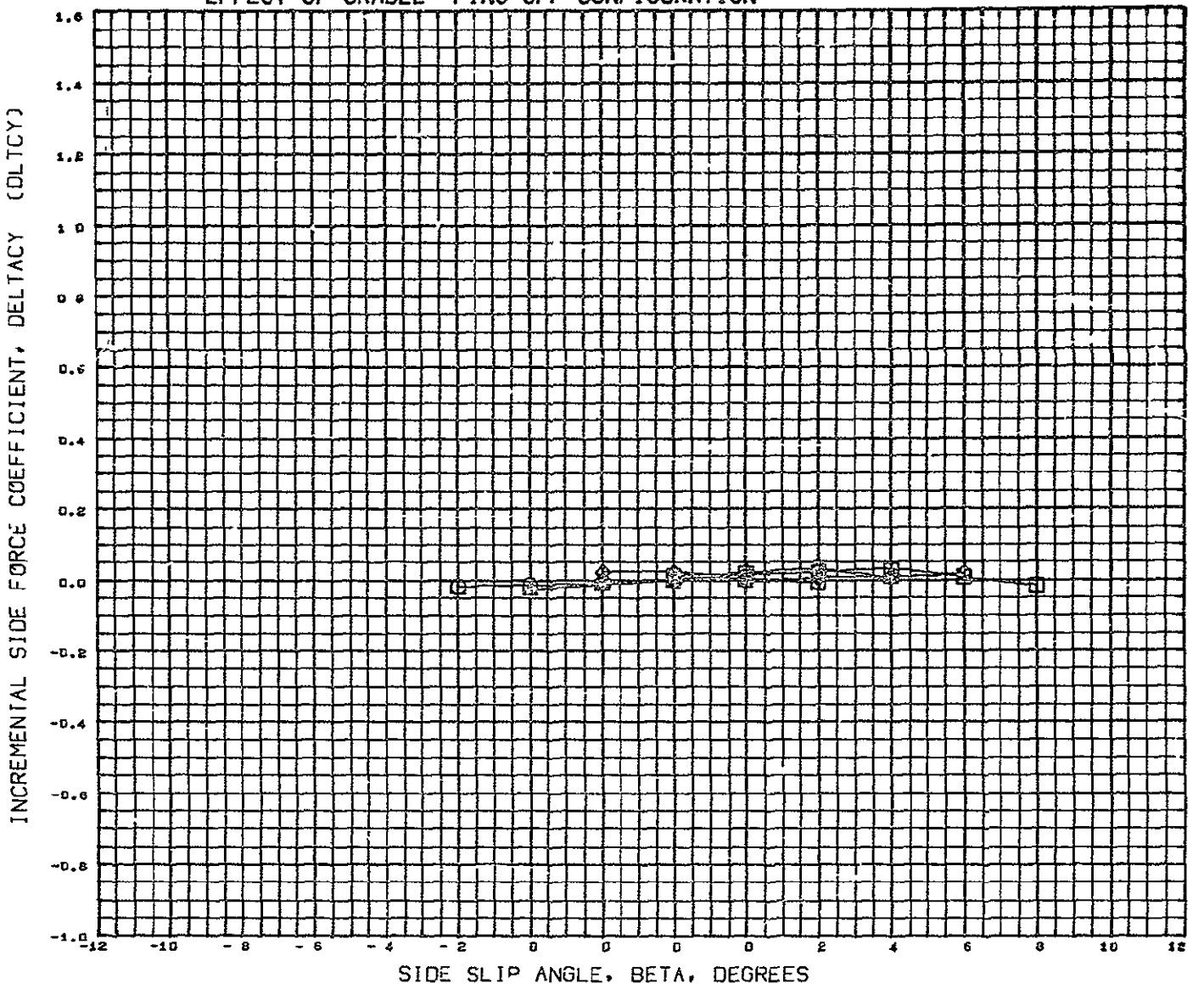
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003*	

EFFECT OF CRADLE- FINS OFF CONFIGURATION

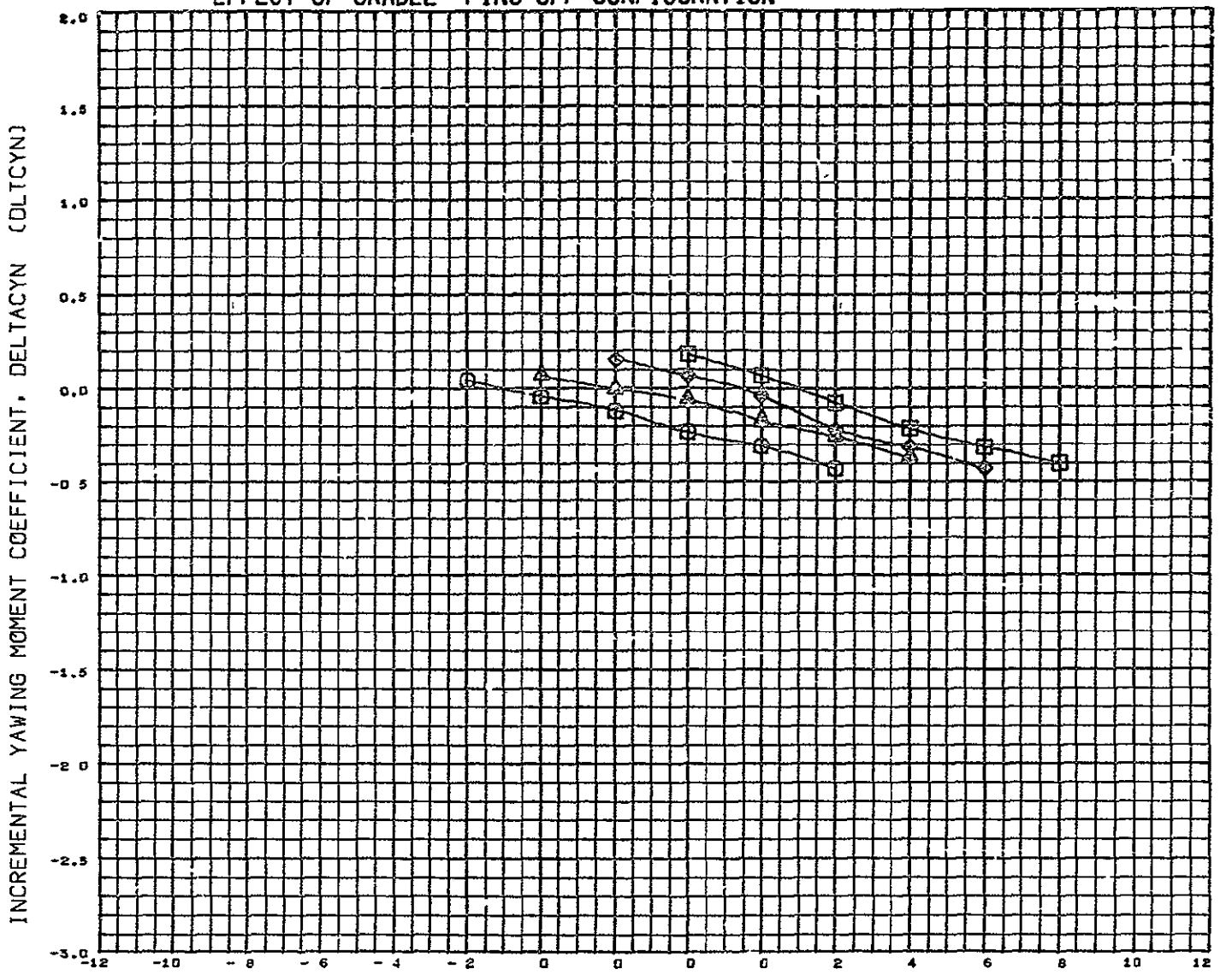


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE MH*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- FINS OFF CONFIGURATION



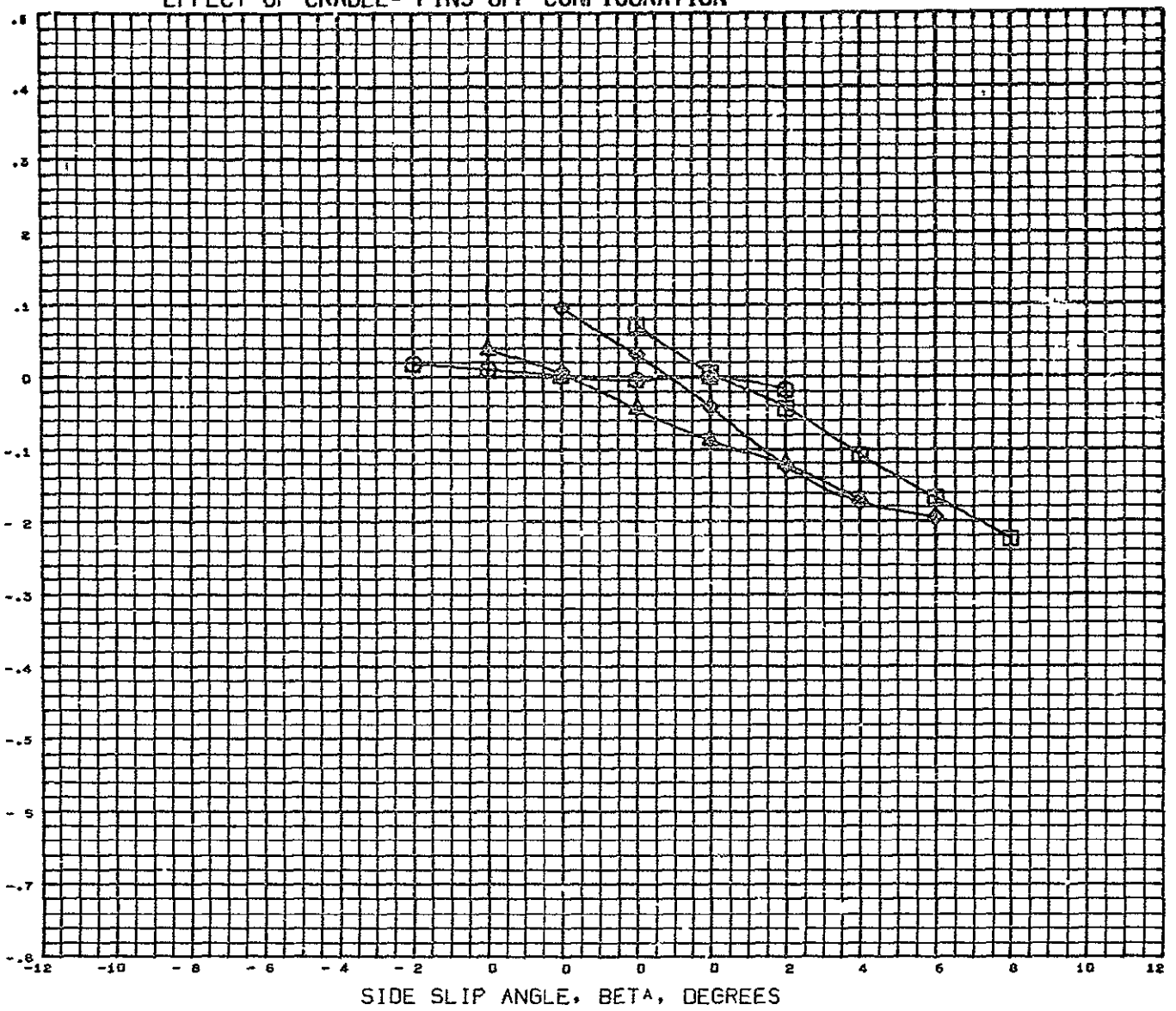
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- FINS OFF CONFIGURATION



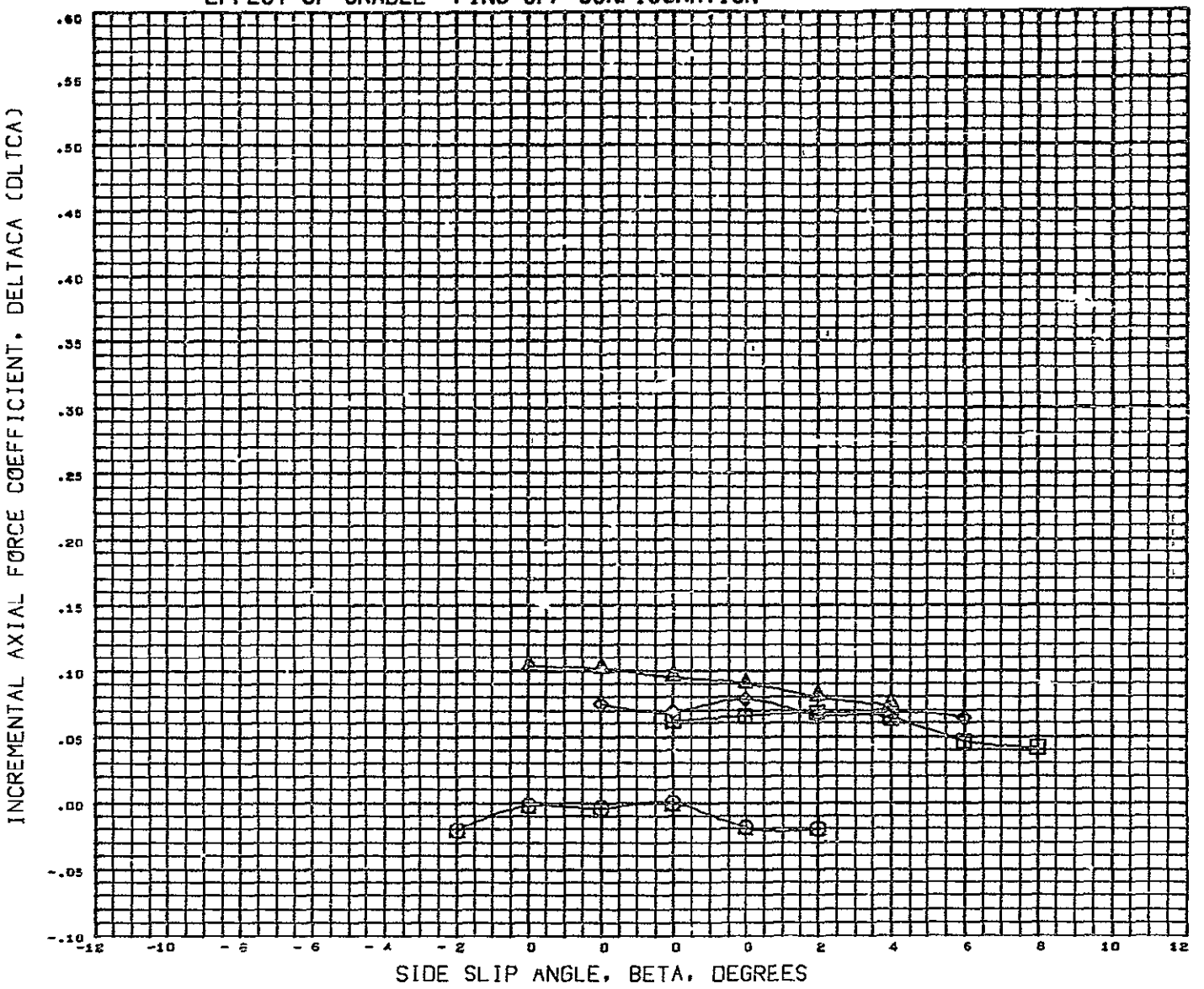
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE HM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF CRADLE- FINS OFF CONFIGURATION



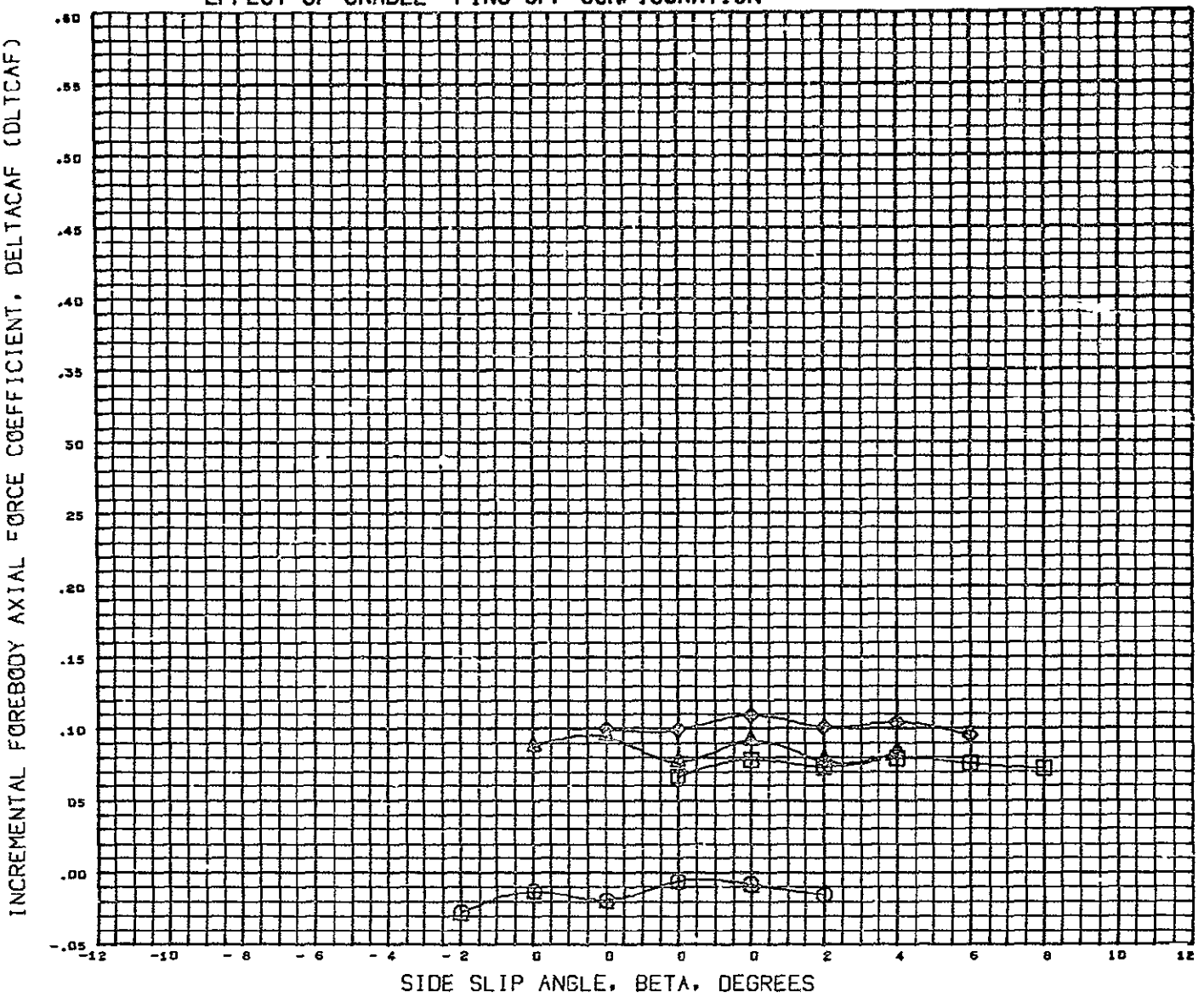
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0 000	ORBINC	- 3 100
△	1 000				
◇	1 100				
□	1.200				

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

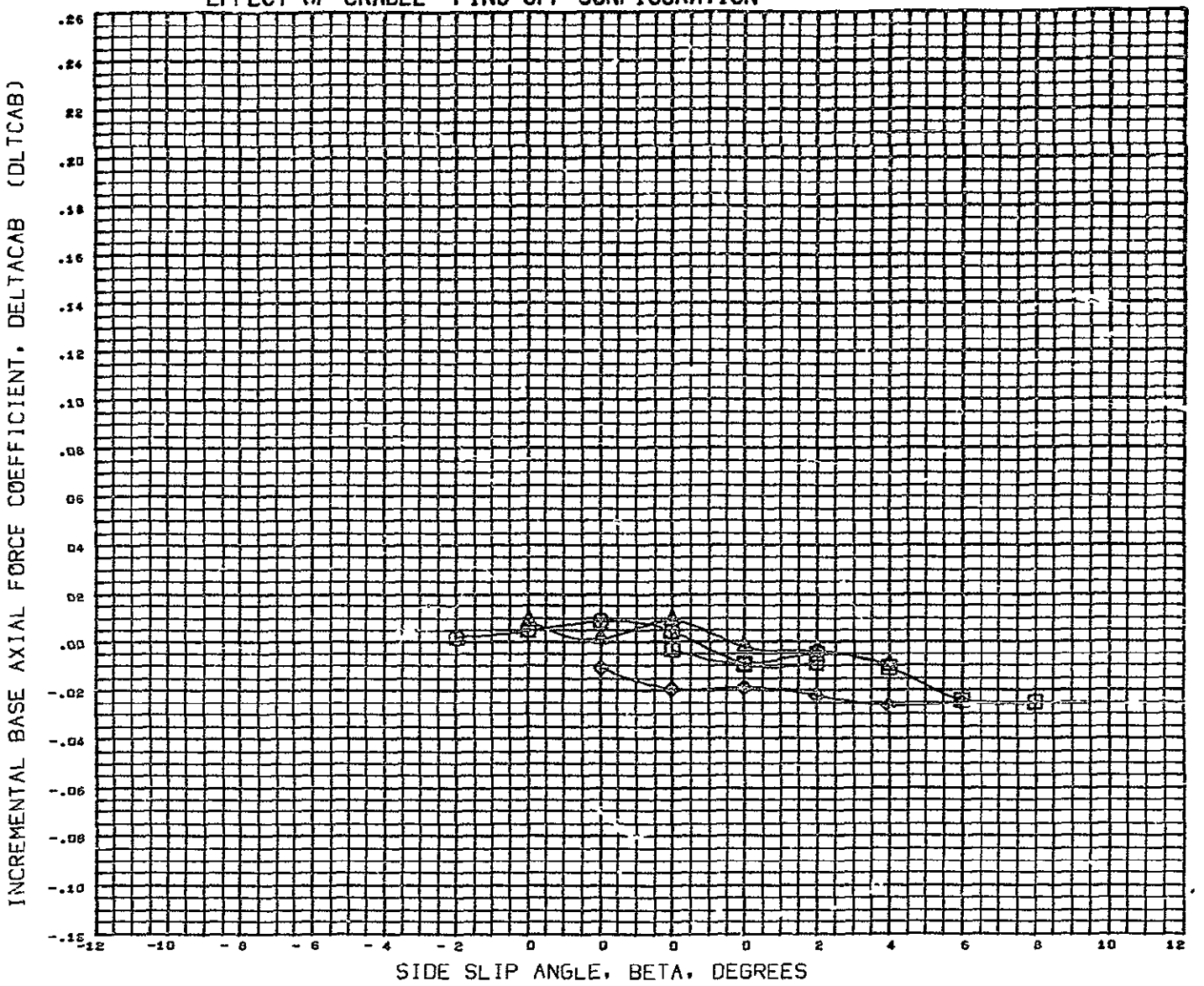
EFFECT OF CRADLE- FINS OFF CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
○	0 900	ALPHA	0 000	ORBINC - 3 *00	SREF	1 3960	SQ IN
△	1.000				LREF	1.3330	IN
◇	1.100				BREF	1 3330	IN
□	1 200				XMRP	3 6860	IN
					YMRP	0 0000	IN
					ZMRP	0.0000	IN
					SCALE	0 0034	

DATA HIST. CODE HH*EI*A*C

EFFECT OF CRADLE- FINS OFF CONFIGURATION



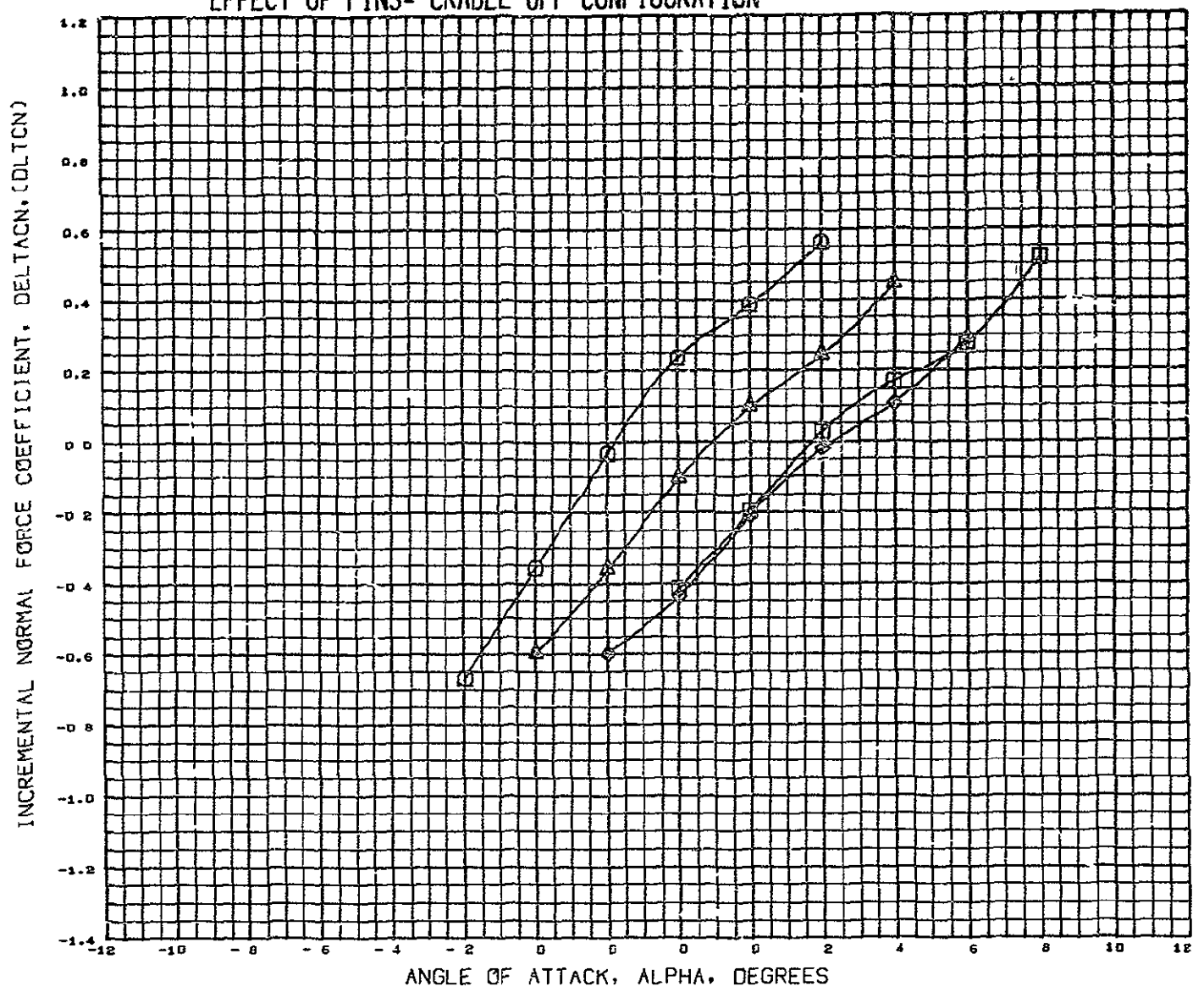
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST. CODE MH*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0050	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- CRADLE OFF CONFIGURATION



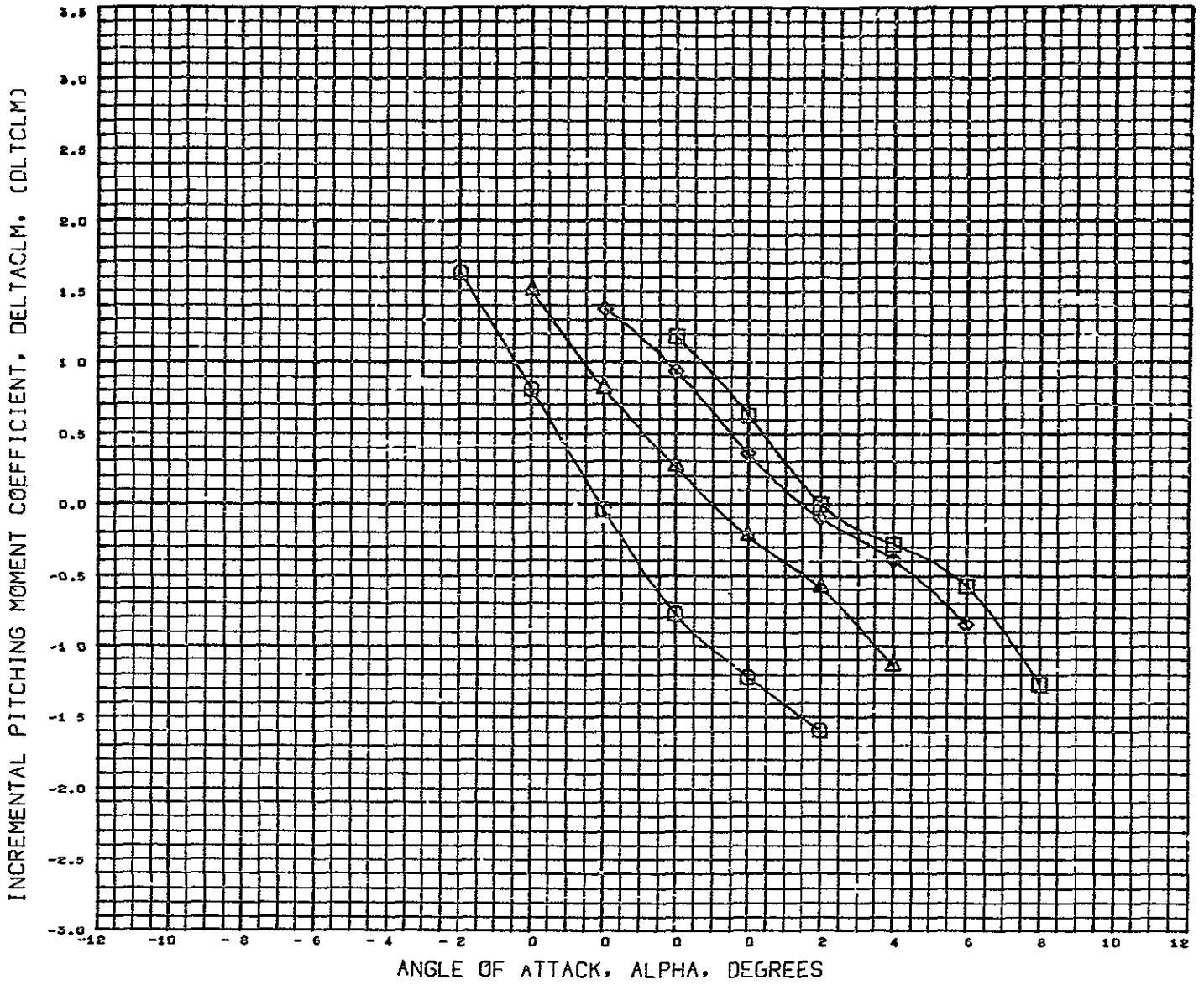
SYMBOL	MACH	PARAMETRIC VALUES			
□◇	0.900	BETA	0.000	ORBINC	- 3 00
△	1 000				
◇	1.100				
□	1.200				

DATA HIST CODE H*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF FINS- CRADLE OFF CONFIGURATION

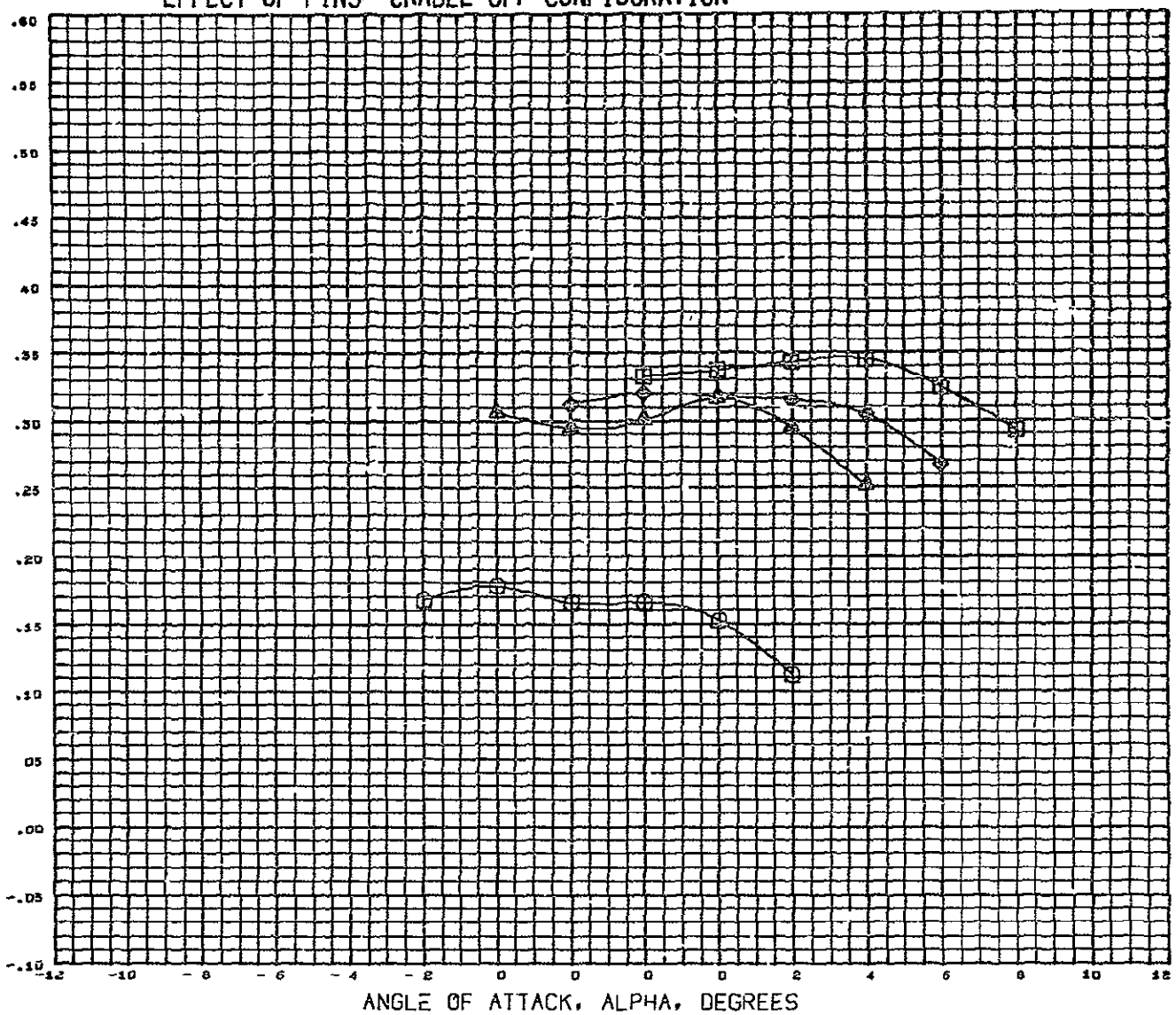


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.900	BETA	0.000	ORBINC - 3.100
△	1.000			
◇	1.100			
□	1.200			

DATA HIST CODE M*E1*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BPEF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- CRADLE OFF CONFIGURATION



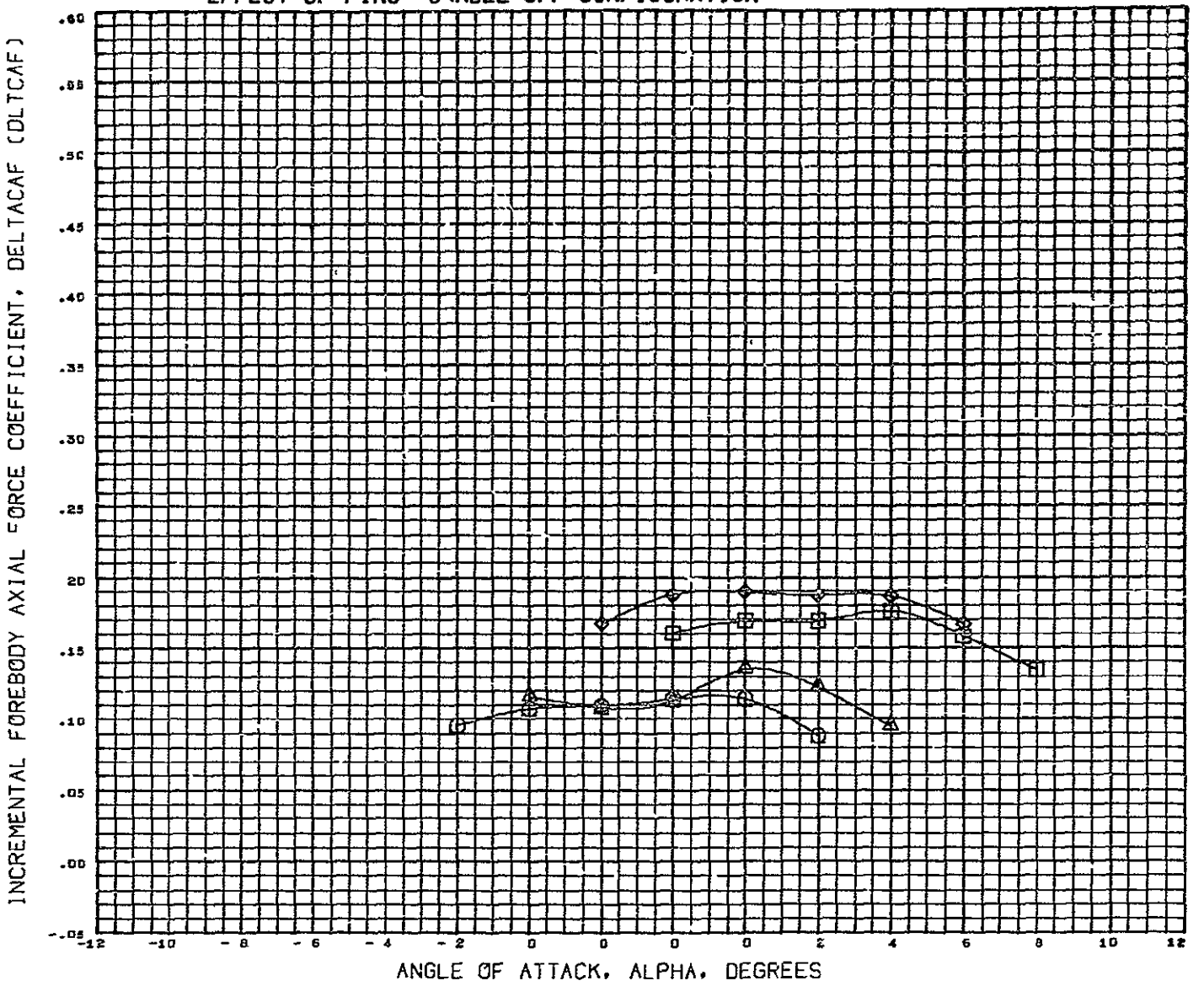
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	- 3 100
△	1 000				
◇	1.100				
□	1 200				

DATA HIST. CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF FINS- CRADLE OFF CONFIGURATION



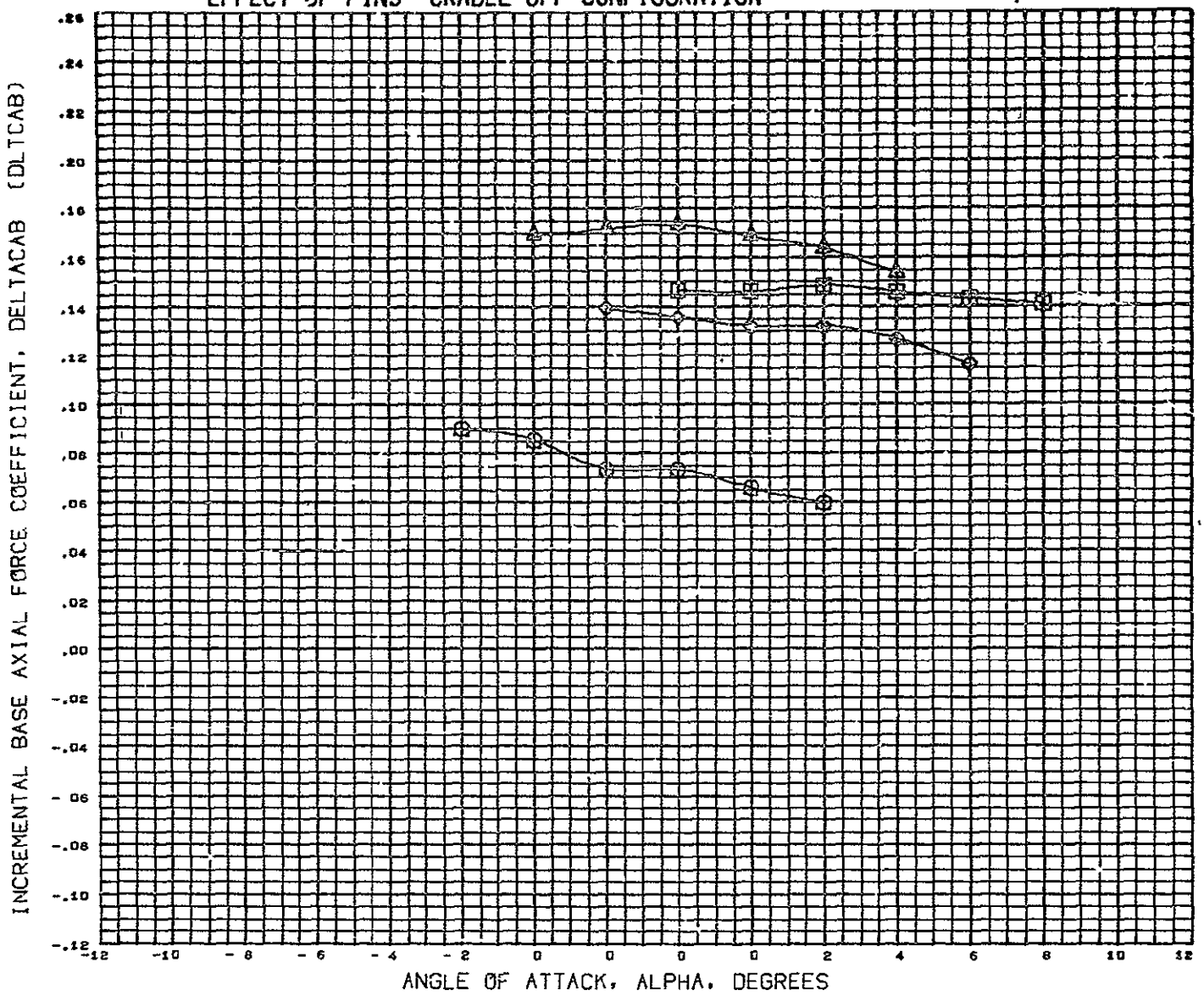
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	BETA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.150				
□	1.200				

DATA HIST CODE M*E1*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- CRADLE OFF CONFIGURATION



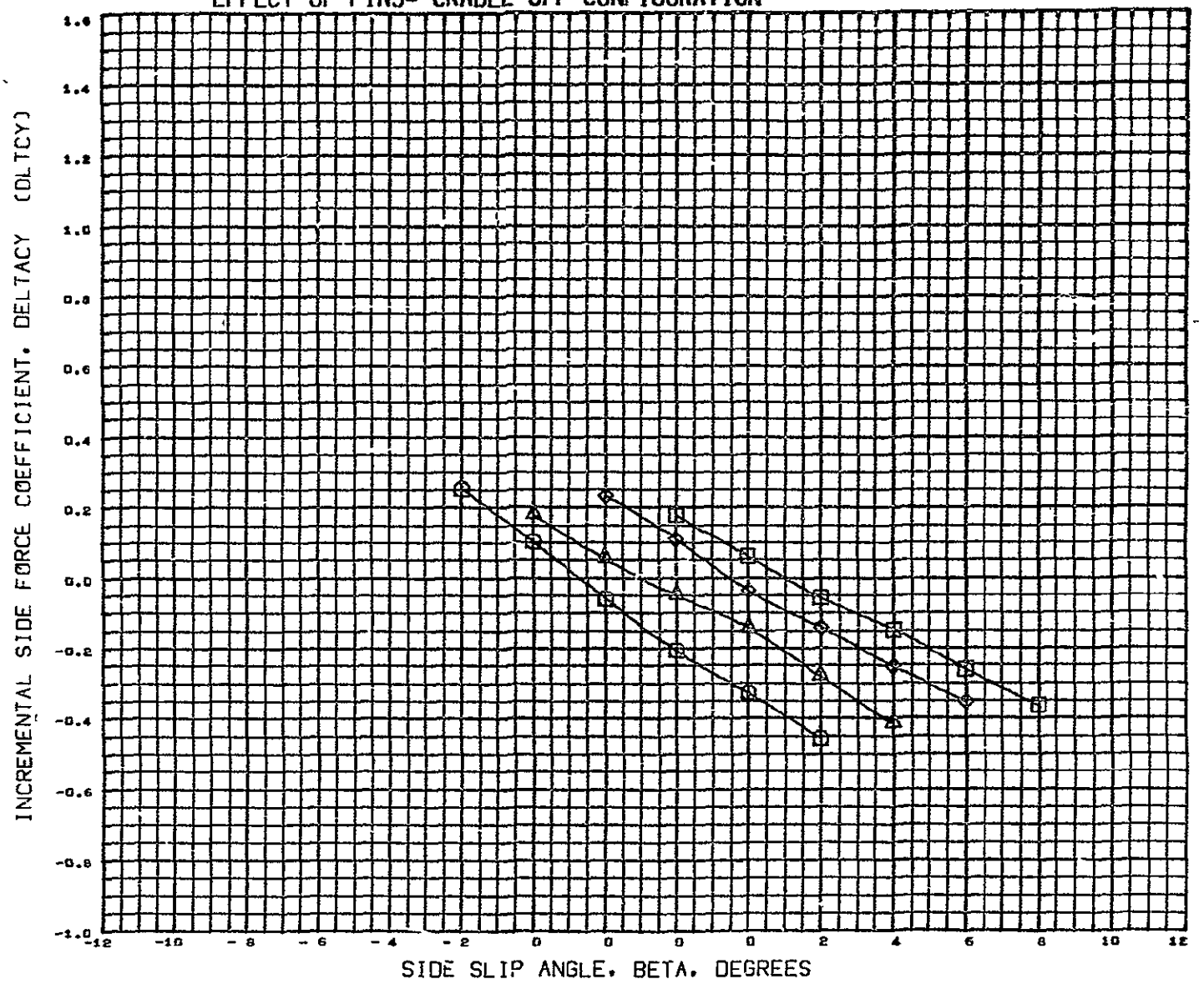
SYMBOL	MACH	PARAMETRIC VALUES			
□◇▷○	0.900	BETA	0.000	ORBINC	- 3.100
	1.000				
	1.100				
	1.200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

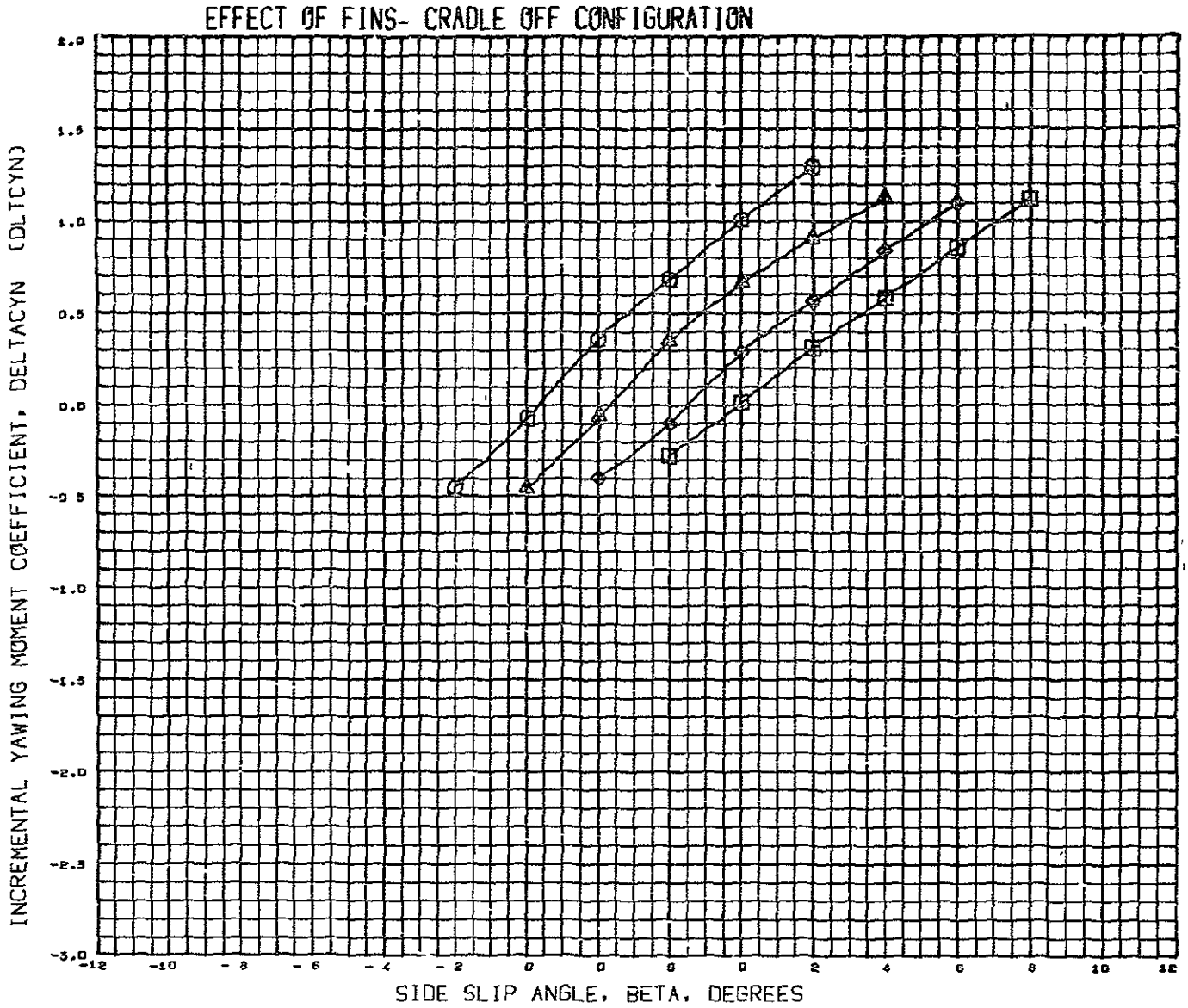
EFFECT OF FINS- CRADLE OFF CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST. CODE H#EI#C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6060	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



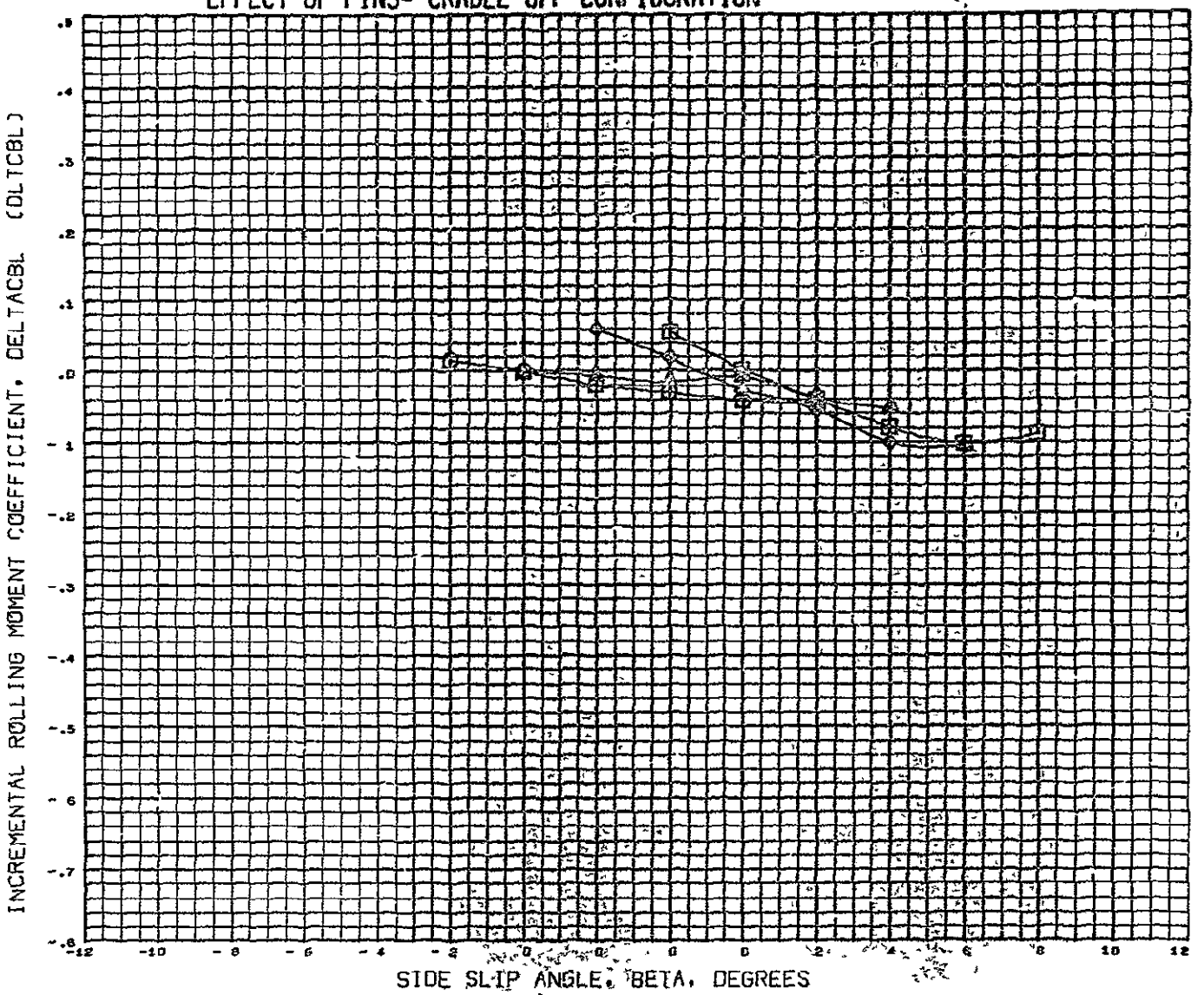
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6800	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- CRADLE OFF CONFIGURATION

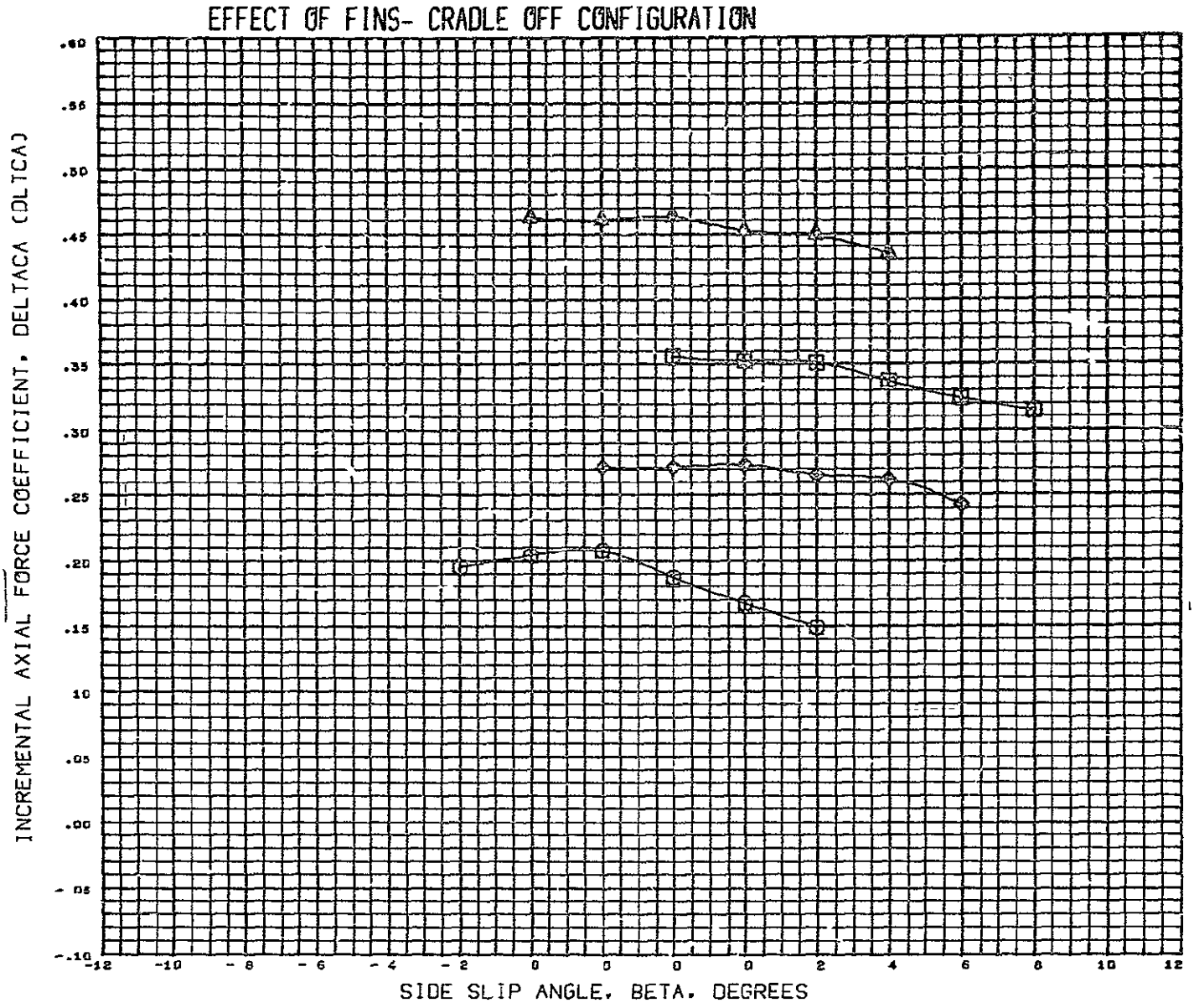


SYMBOL	MACH	PARAMETRIC VALUES			
□	0.900	ALPHA	0.000	ORBINC	3.00
◇	1.000				
△	1.100				
○	1.200				

DATA HIST. CODE M#E1#C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

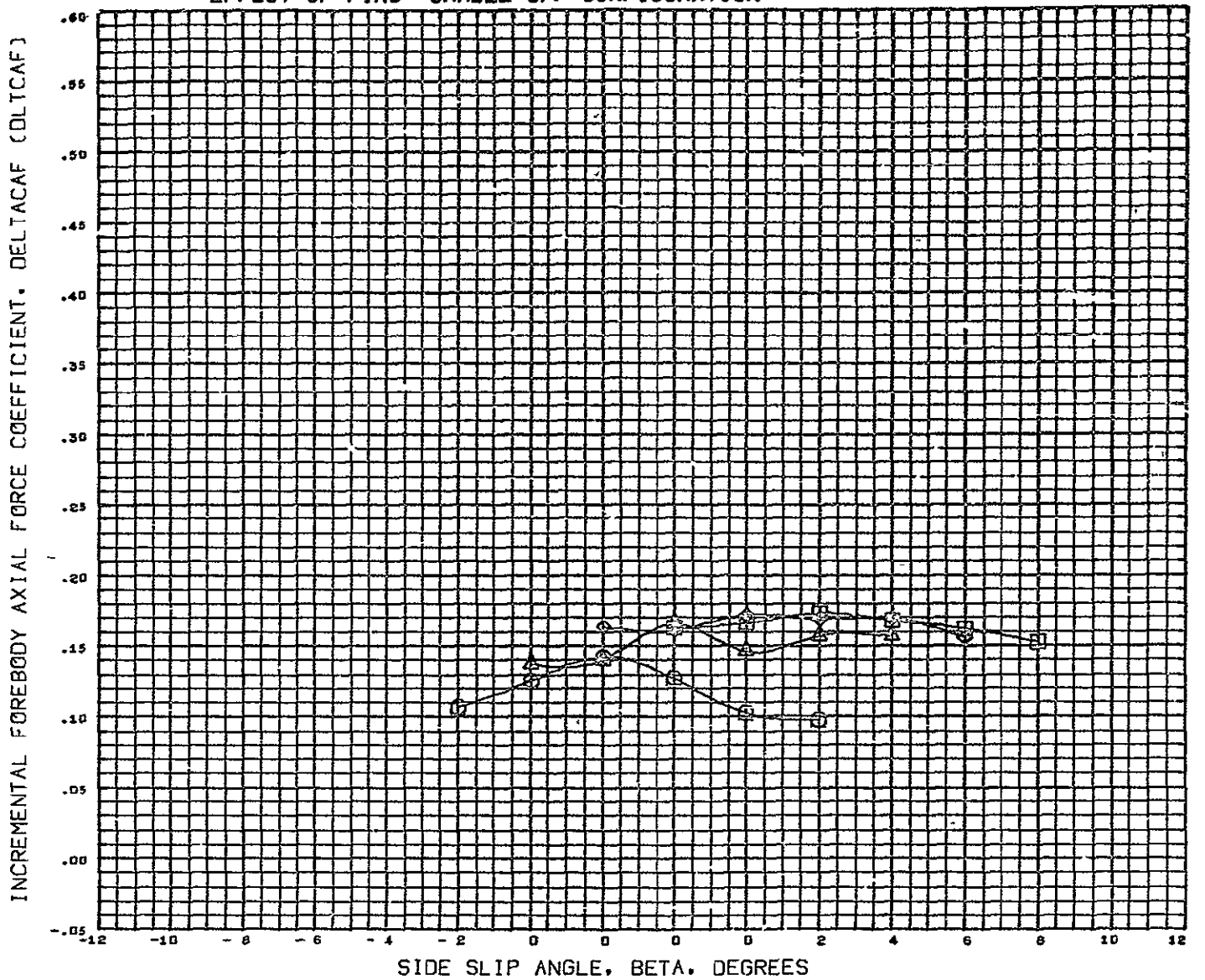


SYMBOL	MACH	PARAMETRIC VALUES			
□◇	0.900	ALPHA	0.000	ORBINC	- 3.100
△	1.000				
◇	1.100				
□	1.200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- CRADLE OFF CONFIGURATION

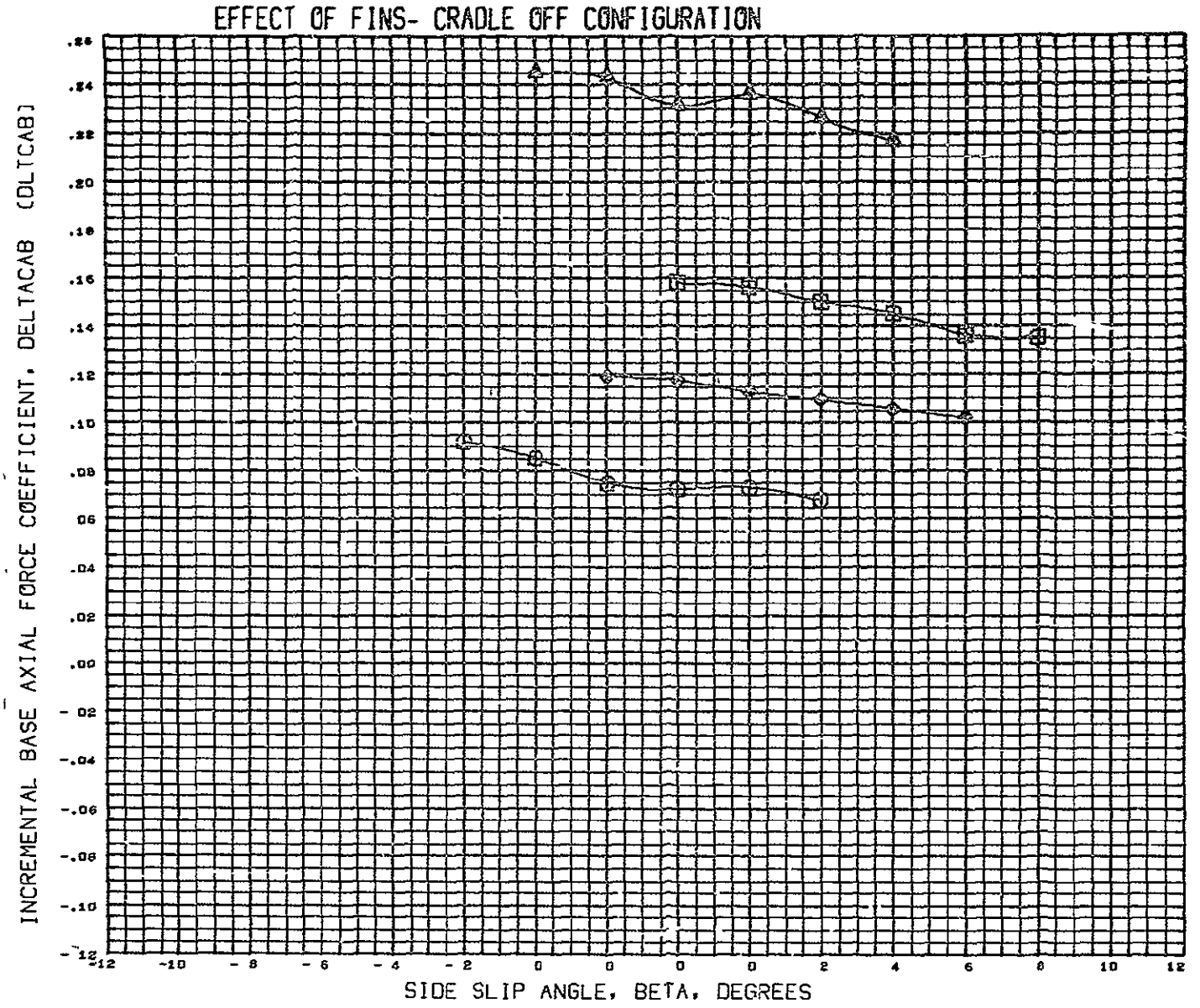


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.900	ALPHA	0.000	ORBINC - 3 100	
△	1 000				
◇	1.100				
□	1 200				

DATA HIST CODE M*EI*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0.0500	IN
ZMRP	0.0000	IN
SCALE	0.0034	

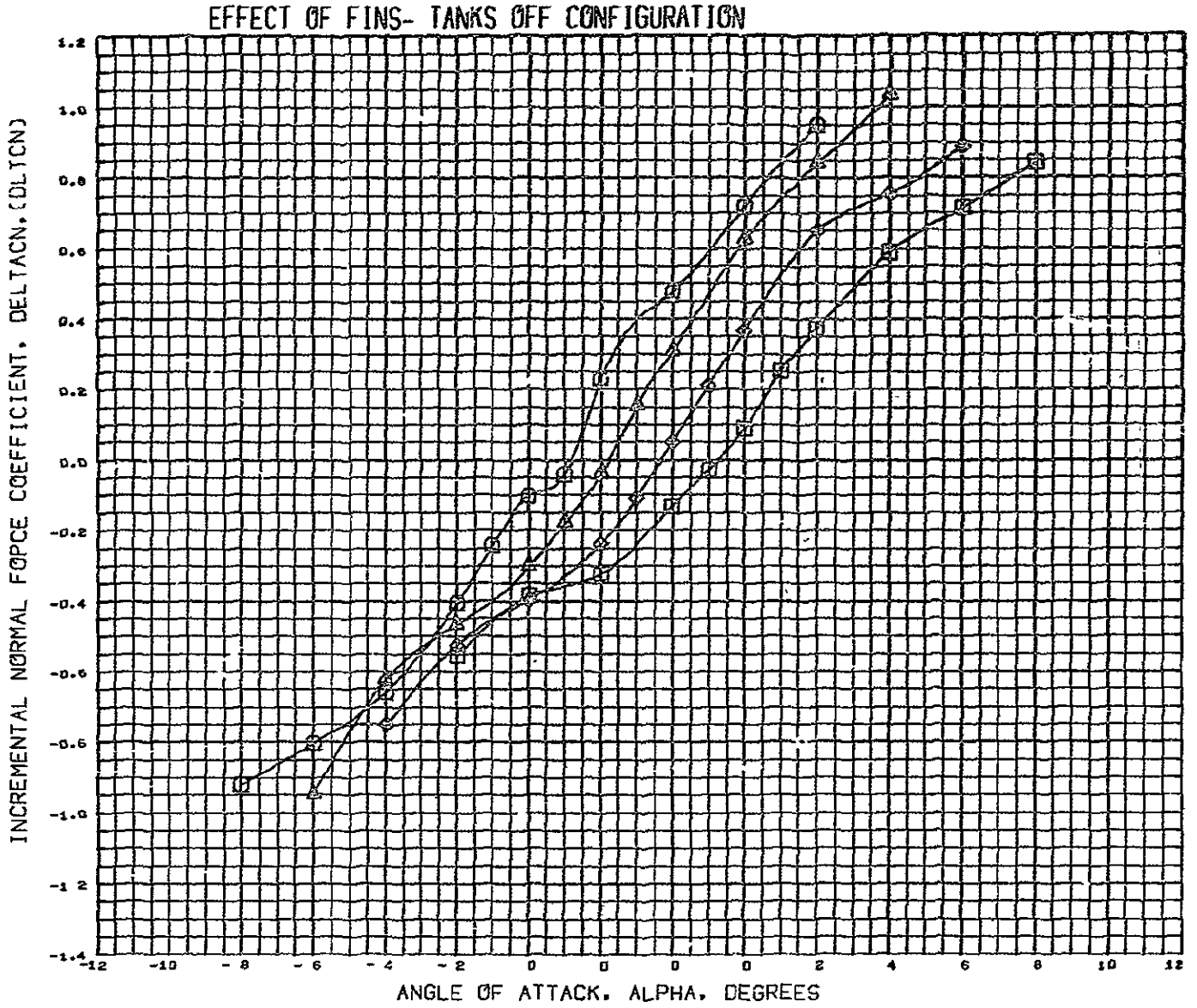


SYMBOL	MACH	PARAMETRIC VALUES			
○	0 900	ALPHA	0 000	ORBINC	- 3 100
△	1.000				
◇	1.100				
□	1 200				

DATA HIST CODE H*E1*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRF	0 0000	IN
SCALE	0 0034	



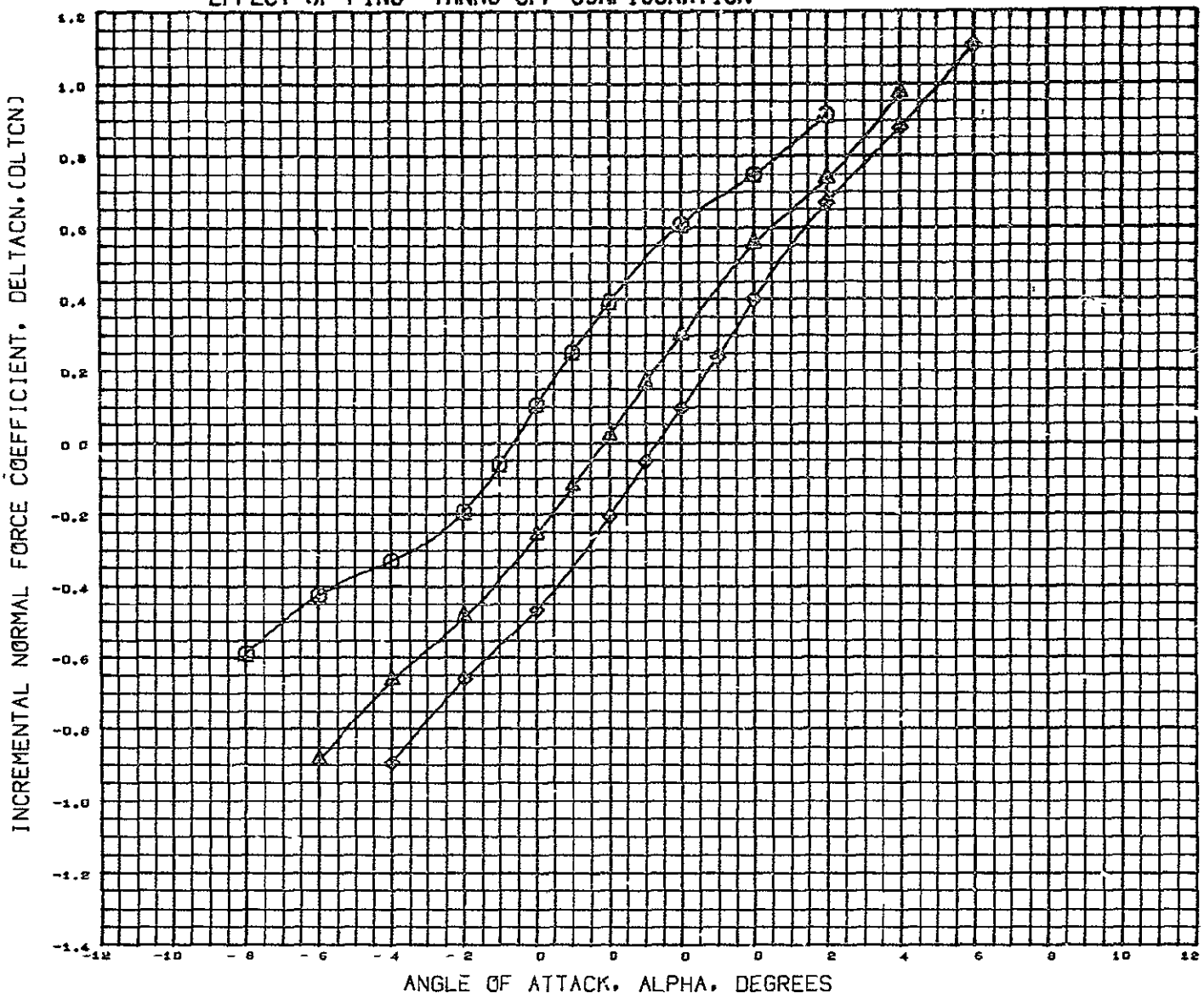
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
□	1.100				

DATA HIST CODE N*E1*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	3.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION

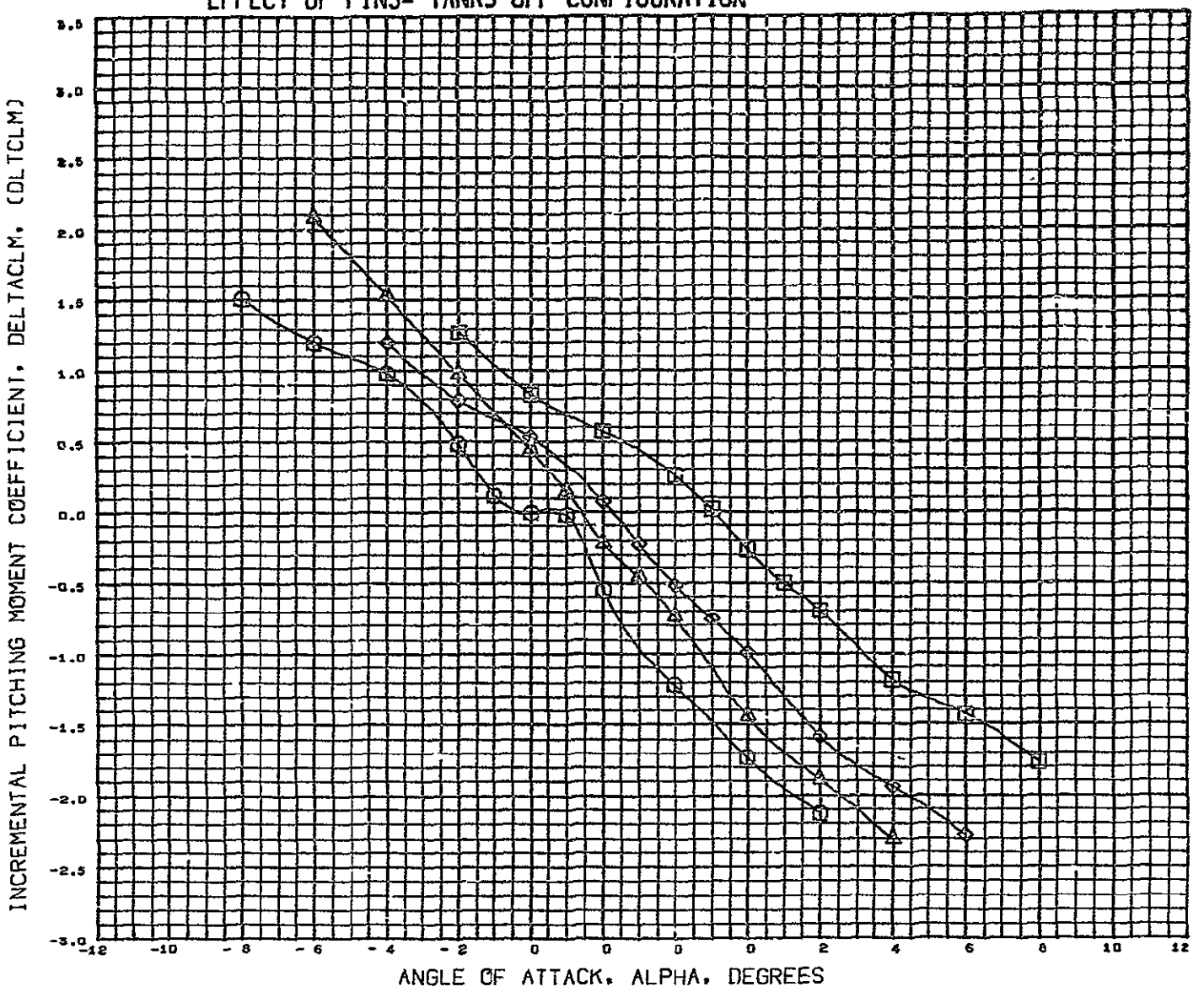


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	BETA	0.000	ORBINC	- 3.100
△	1.460				
◇	1.960				

DATA HIST CODE H*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003	

EFFECT OF FINS- TANKS OFF CONFIGURATION



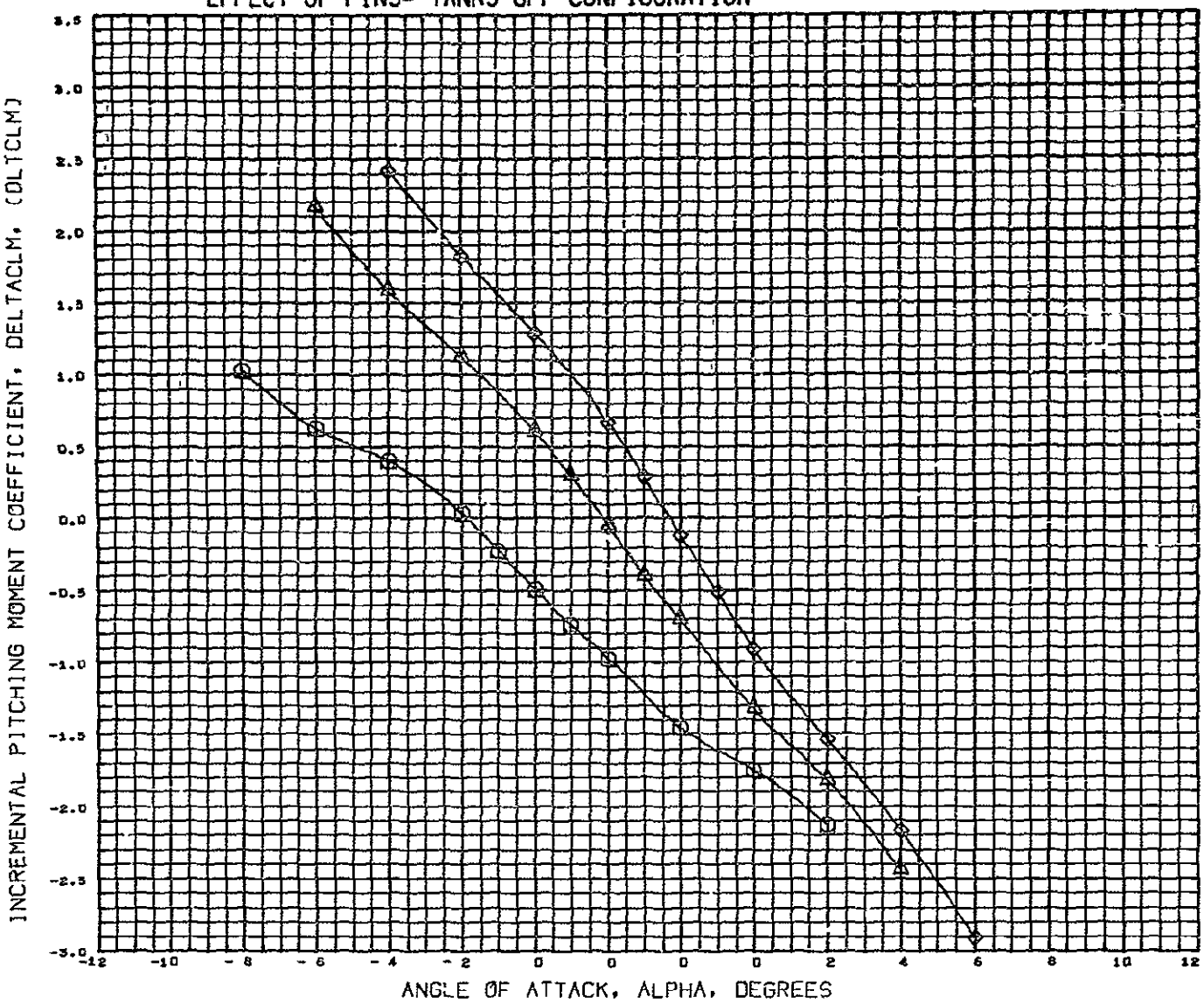
SYMBOL	MACH	PARAMETRIC VALUES		
○	0.600	BETA	0.000	ORBINC - 3.100
△	0 900			
◇	1.000			
□	1.100			

DATA HIST CODE 'M*E1*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0.0934	

EFFECT OF FINS- TANKS OFF CONFIGURATION



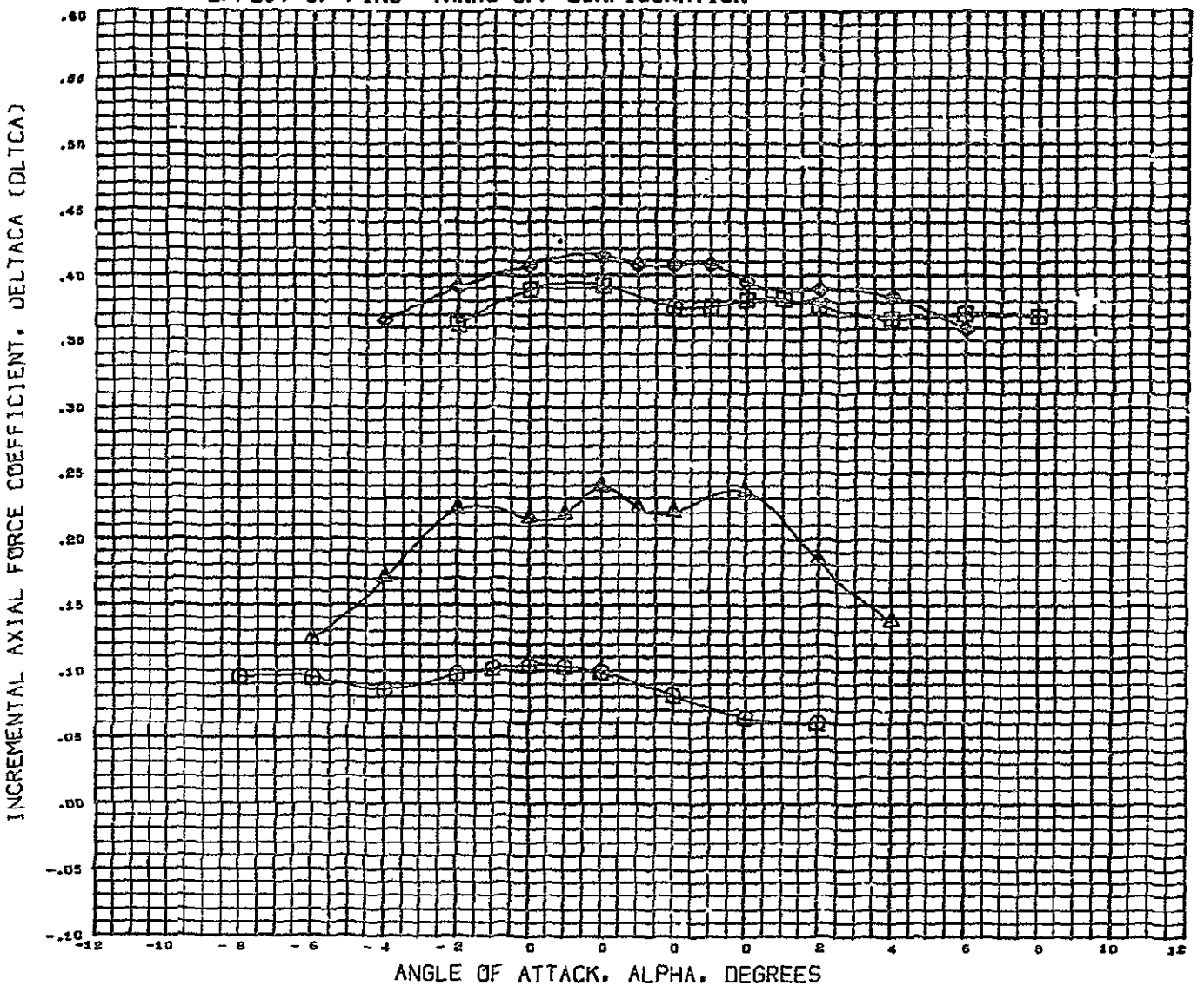
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	BETA	0.000	ORBINC	-3.100
△	1.460				
◇	1.960				

DATA HIST CODE M*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION

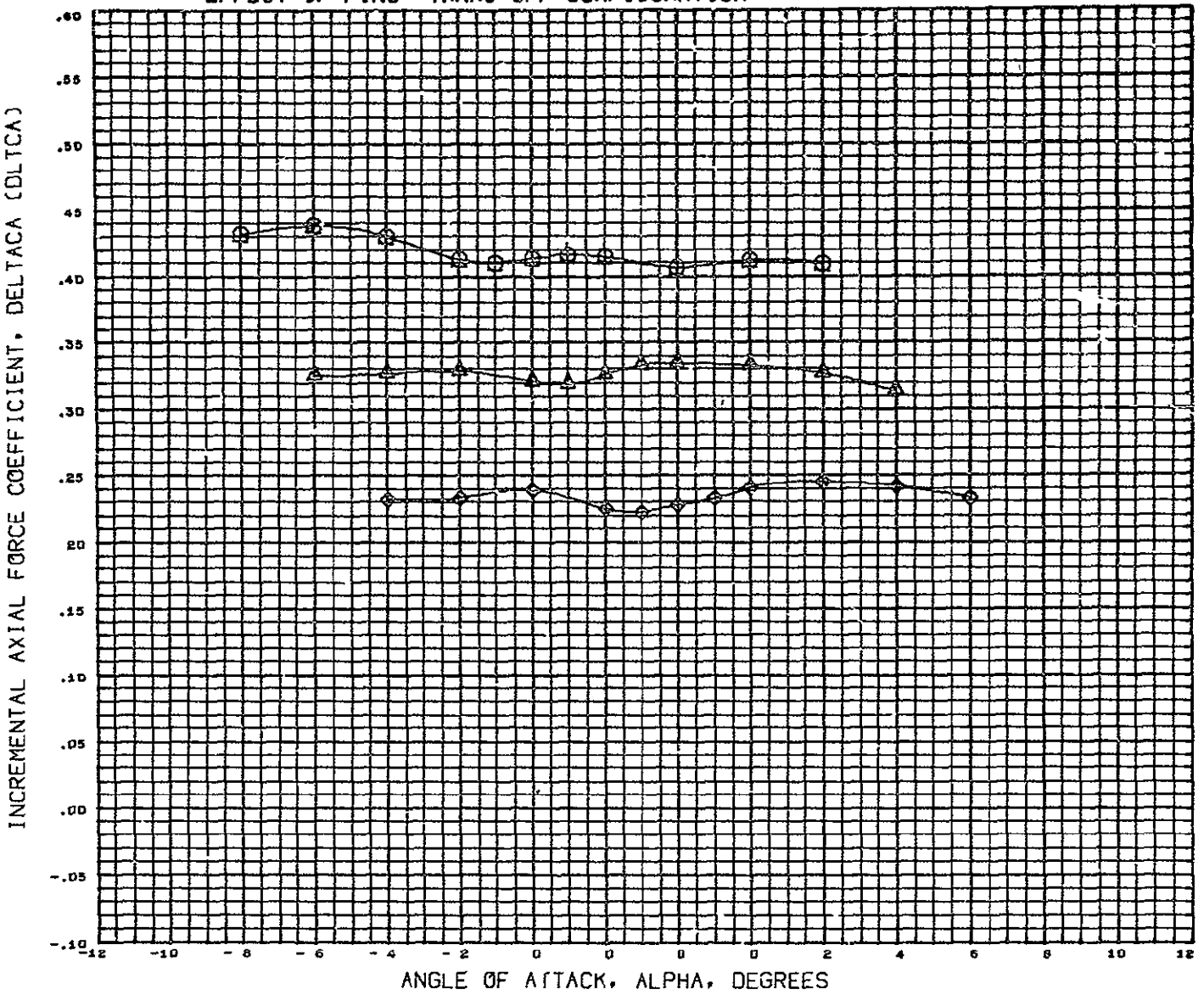


SYMBOL	MACH	PARAMETRIC VALUES			
□	0.600	BETA	0.000	ORBINC - 3.100	
◇	0.900				
△	1.000				
▷	1.100				

DATA HIST. CODE M*E1*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0054	

EFFECT OF FINS- TANKS OFF CONFIGURATION

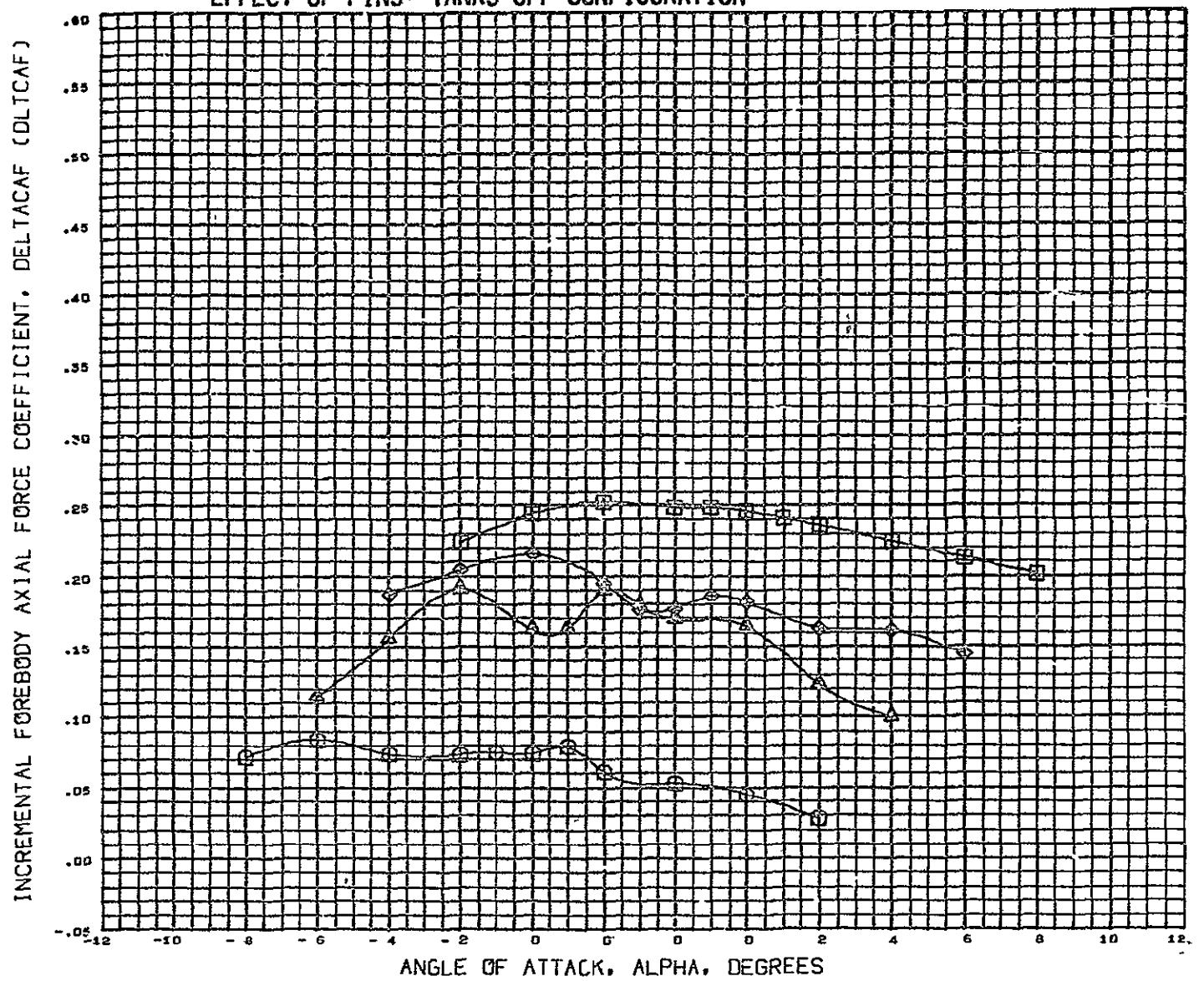


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	BETA	0.000	ORBINC	- 3.100
△	1.460				
◇	1.960				

DATA HIST CODE M*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



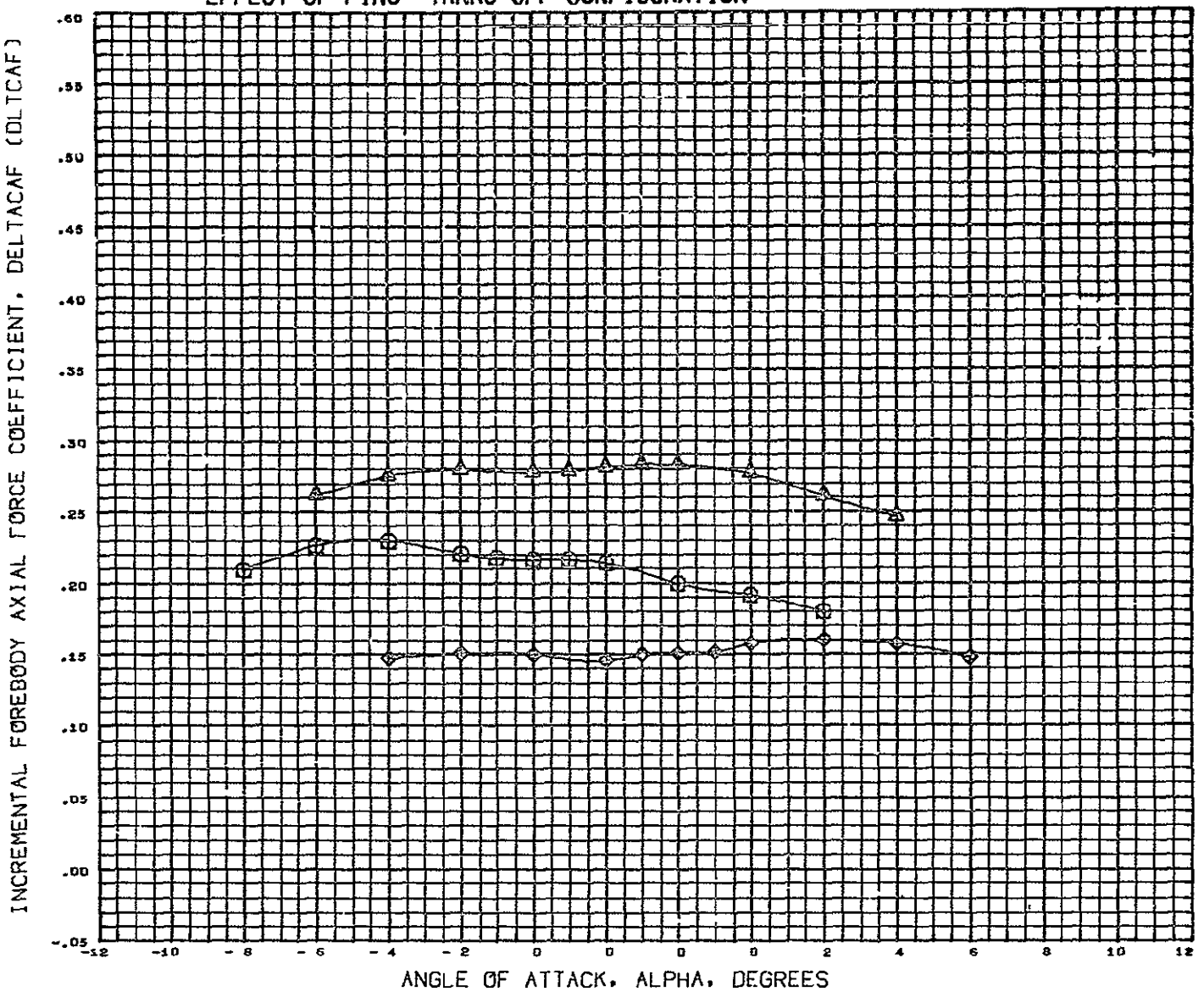
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.600	BETA	0.000	ORBINC	- 3.100
◇	0.900				
△	1.000				
○	1.100				

DATA HIST. CODE M*E1*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



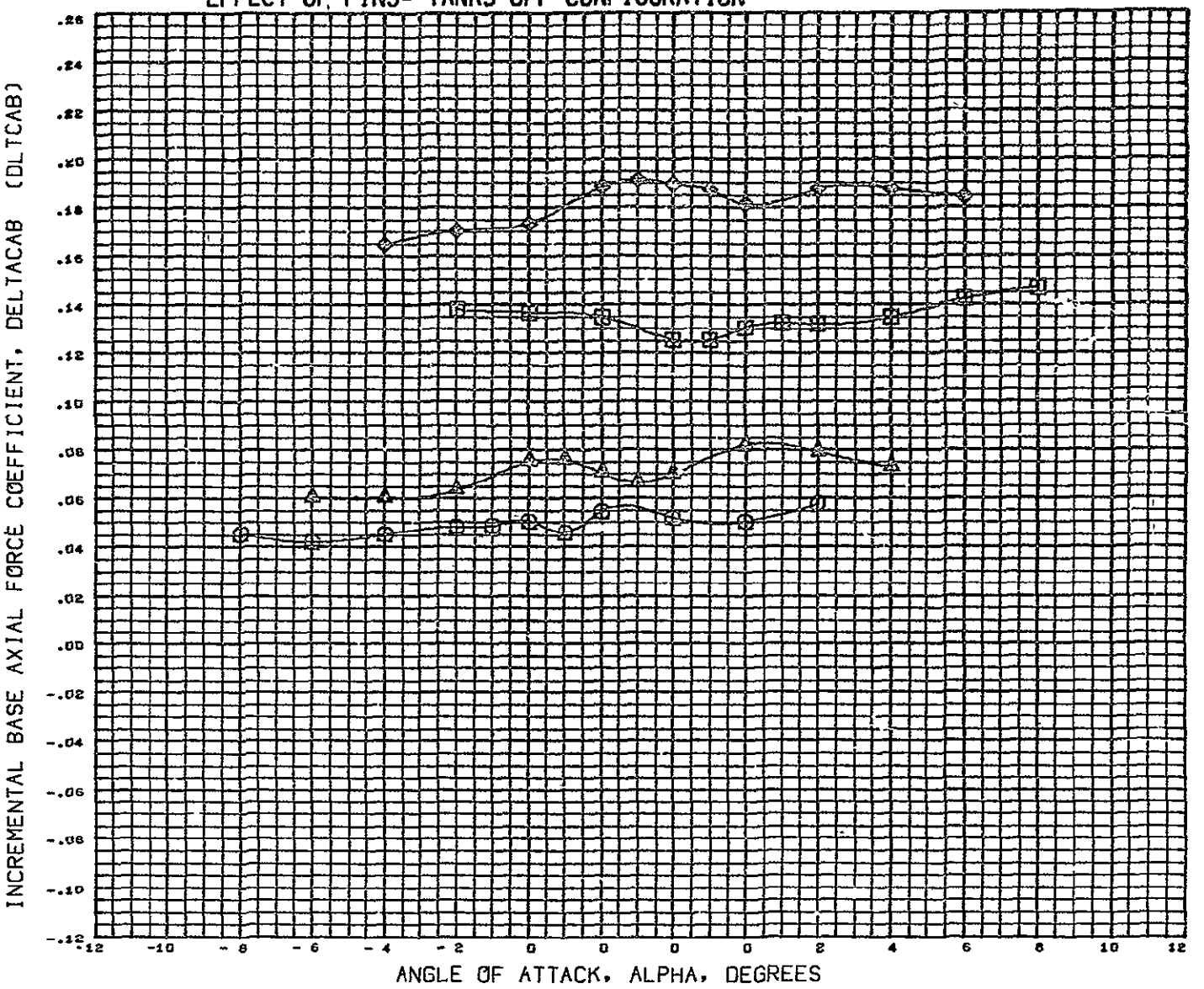
SYMBOL	MACH	PARAMETRIC VALUES		
○	1.200	BETA	0.000	ORBINC - 3 100
△	1.460			
◇	1 960			

DATA HIST. CODE M*E1*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	5.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION

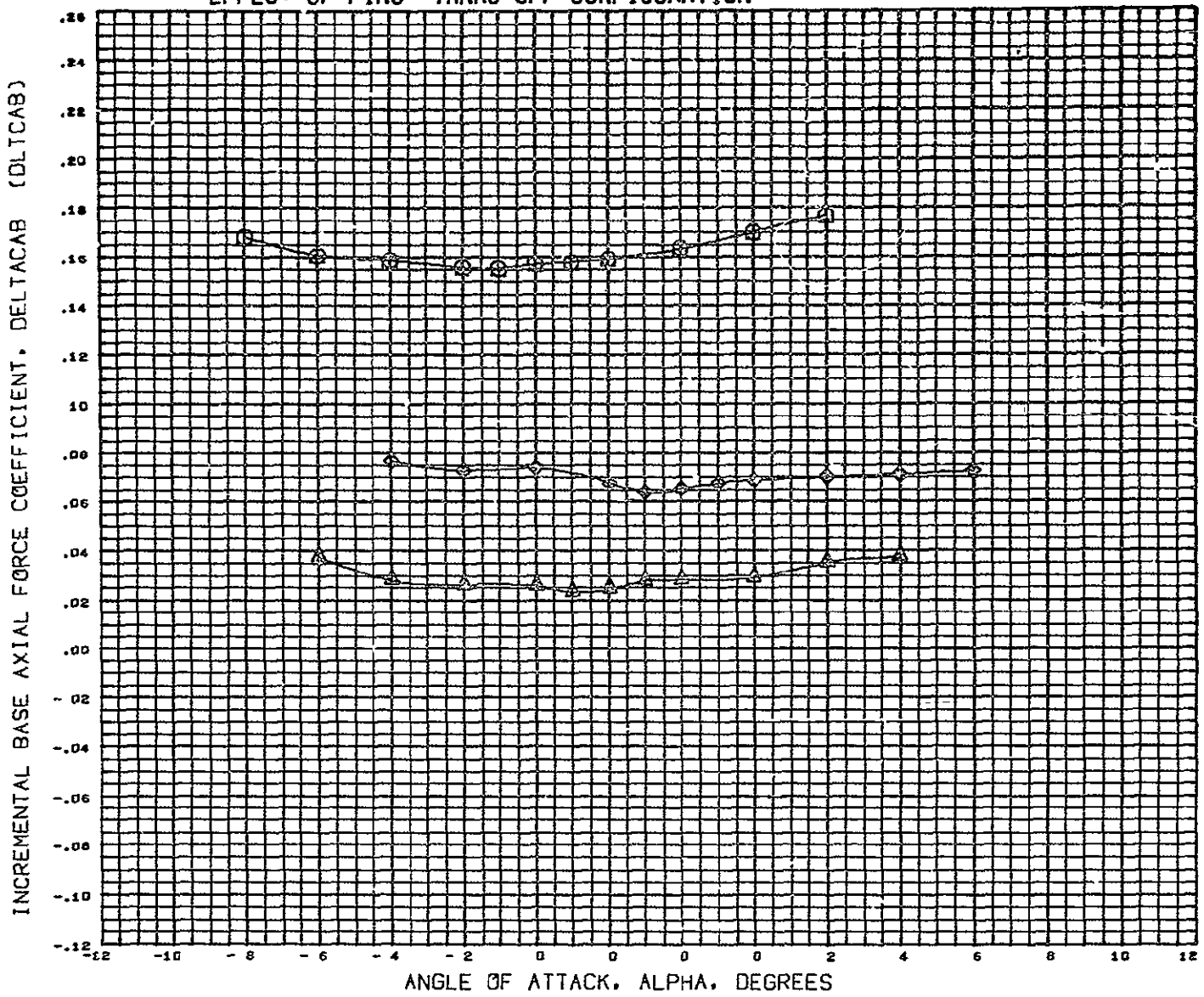


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
□	1.100				

DATA HIST. CODE M*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



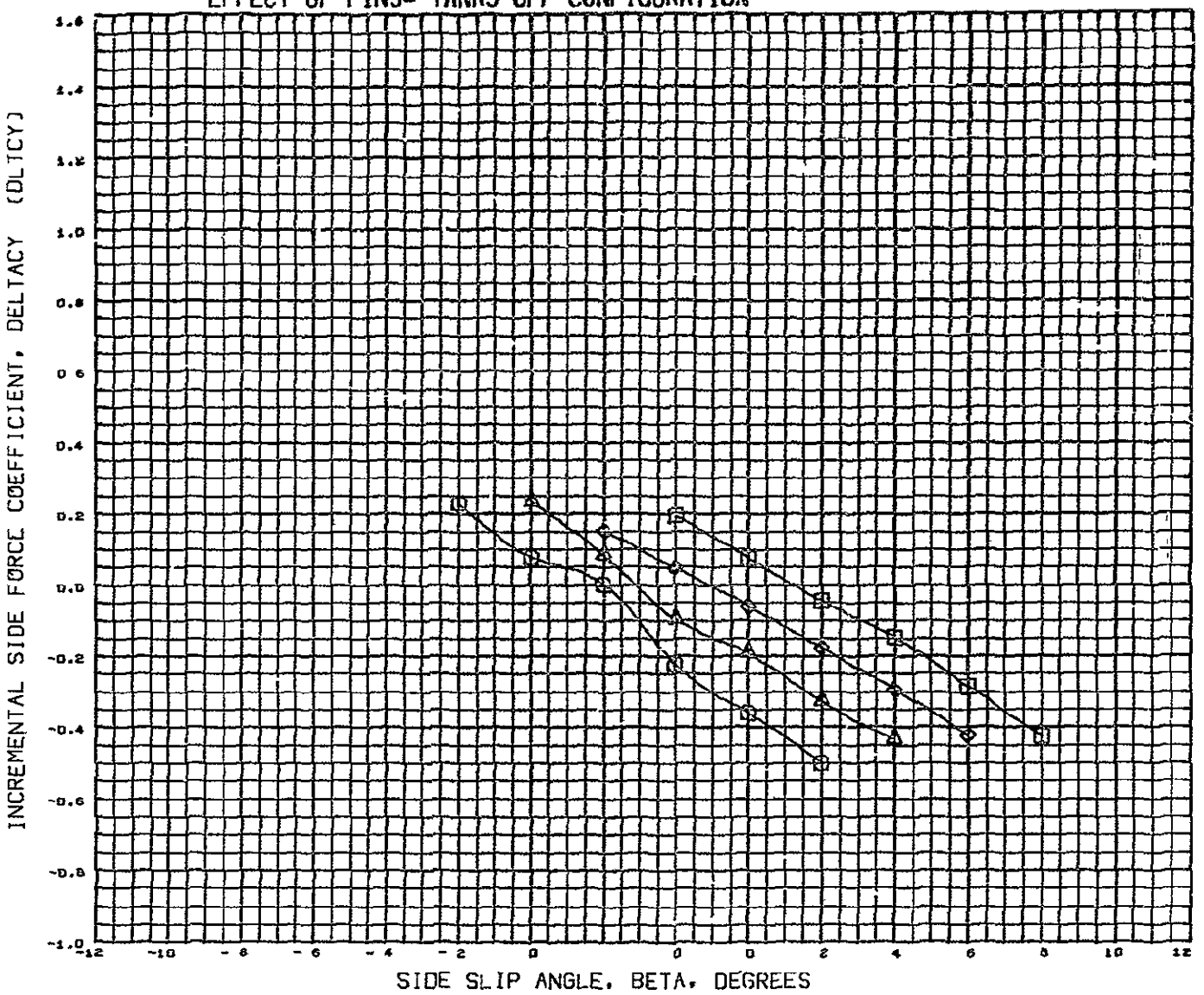
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	BETA	0.000	ORBINC	- 3 100
△	1 460				
◇	1.960				

DATA HIST. CODE M*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0.0030	IN
SCALE	0 003.	

EFFECT OF FINS- TANKS OFF CONFIGURATION

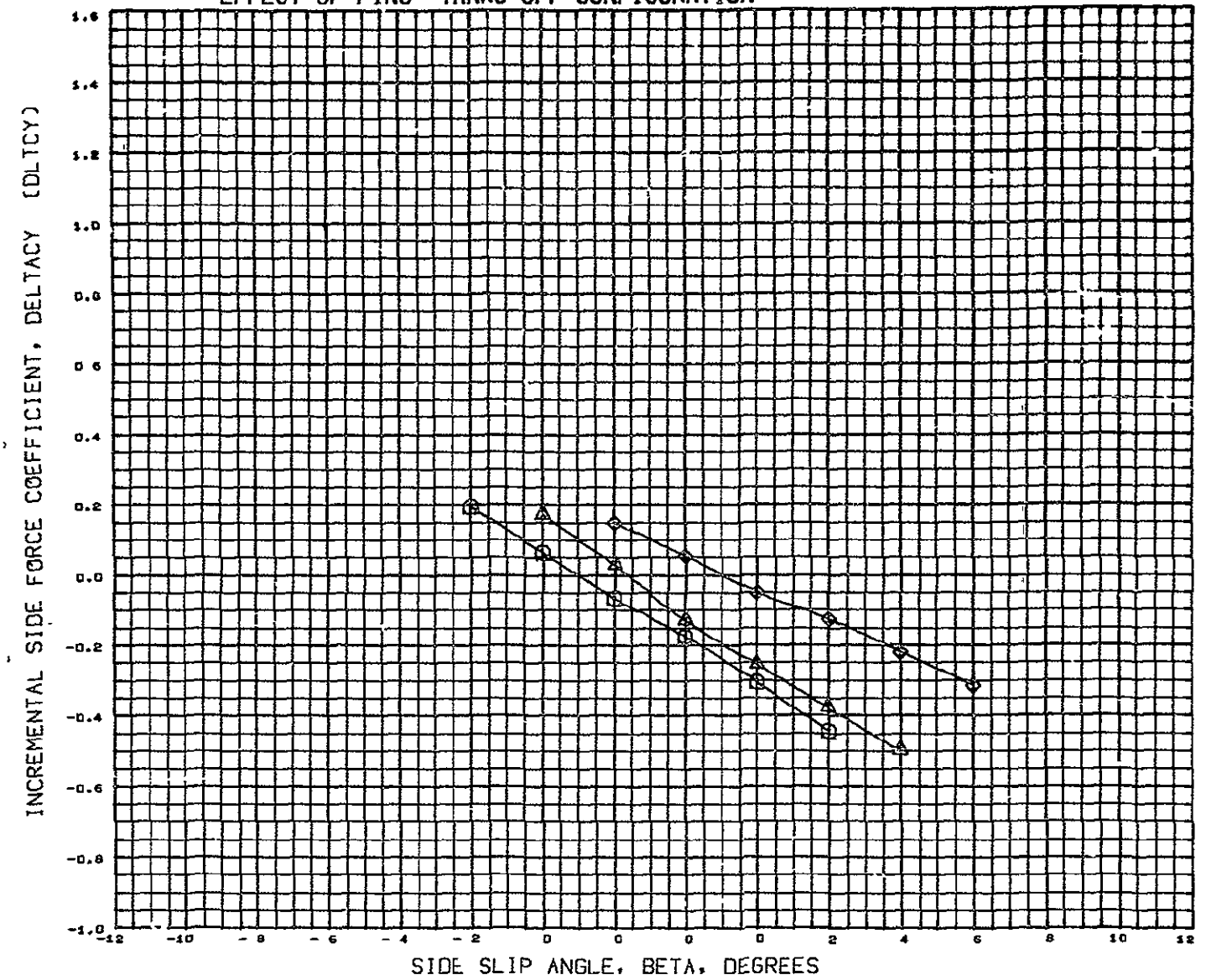


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0 000	ORBINC	- 3 100
△	0 900				
◇	1.000				
□	1 100				

DATA HIST CODE *AM*E1*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION

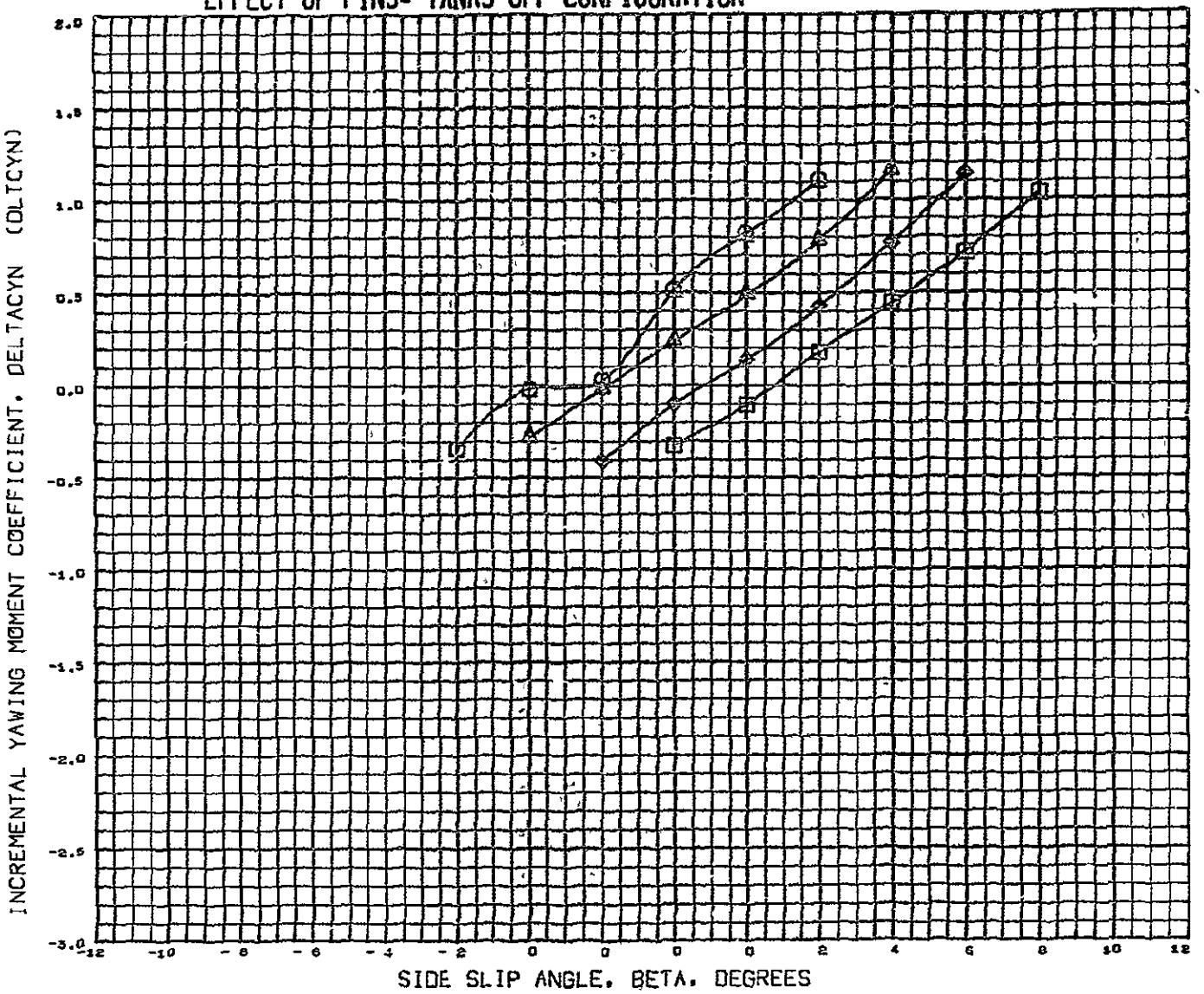


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.000	ORBINC	- 3.100
△	1.460				
◇	1.960				

DATA HIST CODE *AH*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3339	IN
XMRP	3.6860	IN
YMRC	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



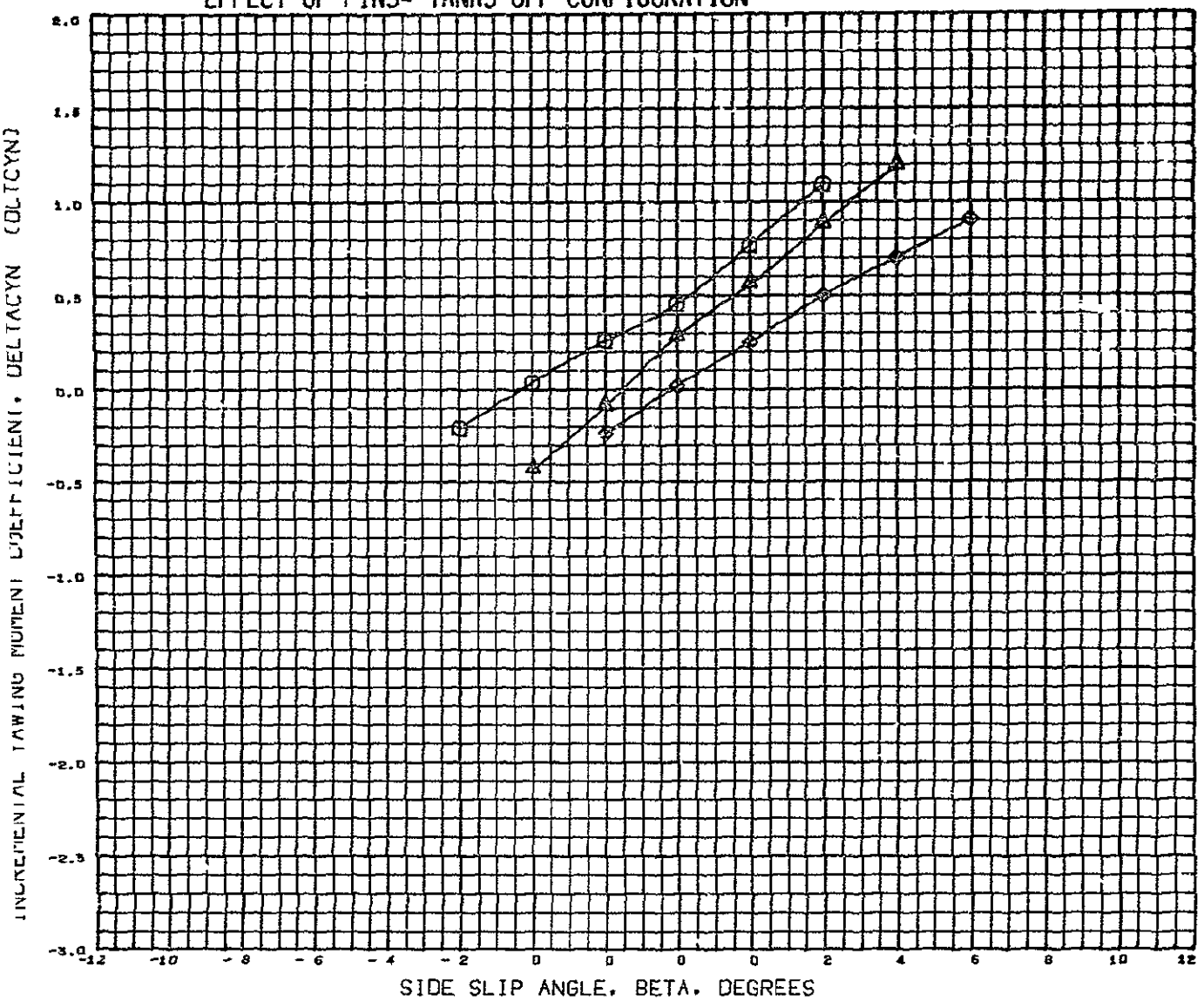
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.600	ALPHA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
□	1.100				

DATA HIST. CODE *AM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION

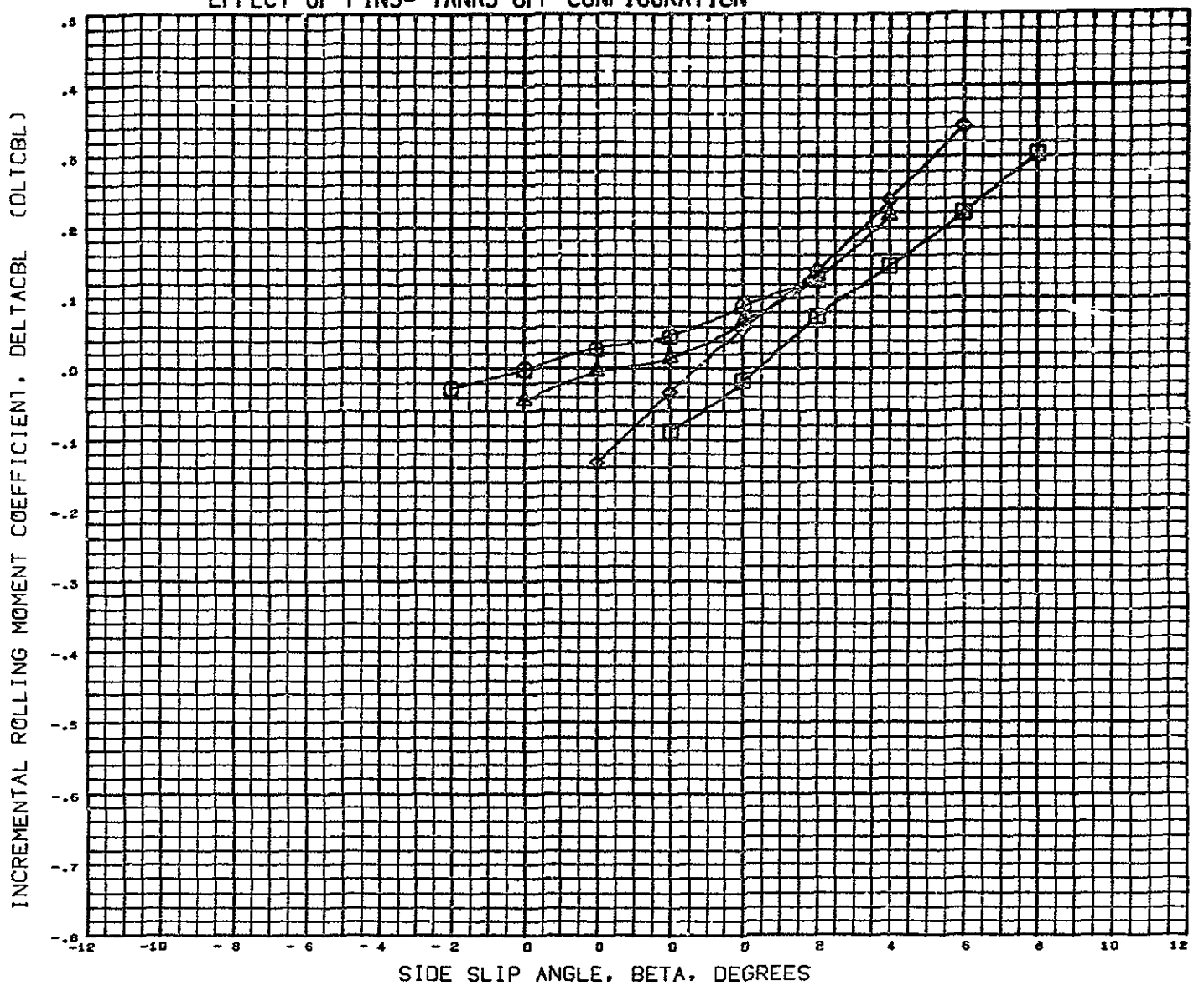


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.000	ORBINC	- 3.00
△	1.460				
◇	1.960				

DATA HIST. CODE *AM*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



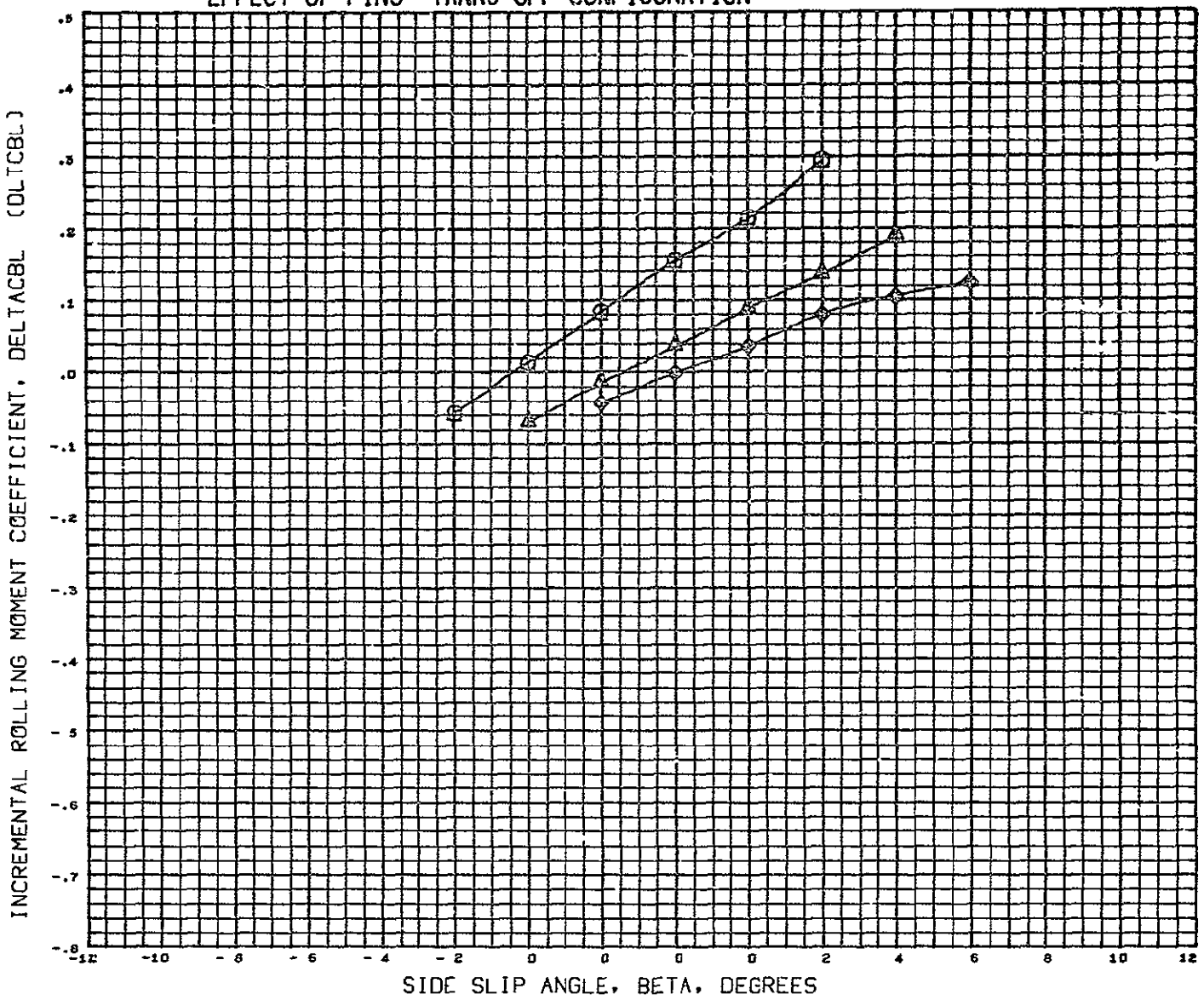
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0.000	ORBINC	- 3.100
△	0 900				
◇	1 000				
□	1.100				

DATA HIST CODE *AM*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0 003	

EFFECT OF FINS- TANKS OFF CONFIGURATION

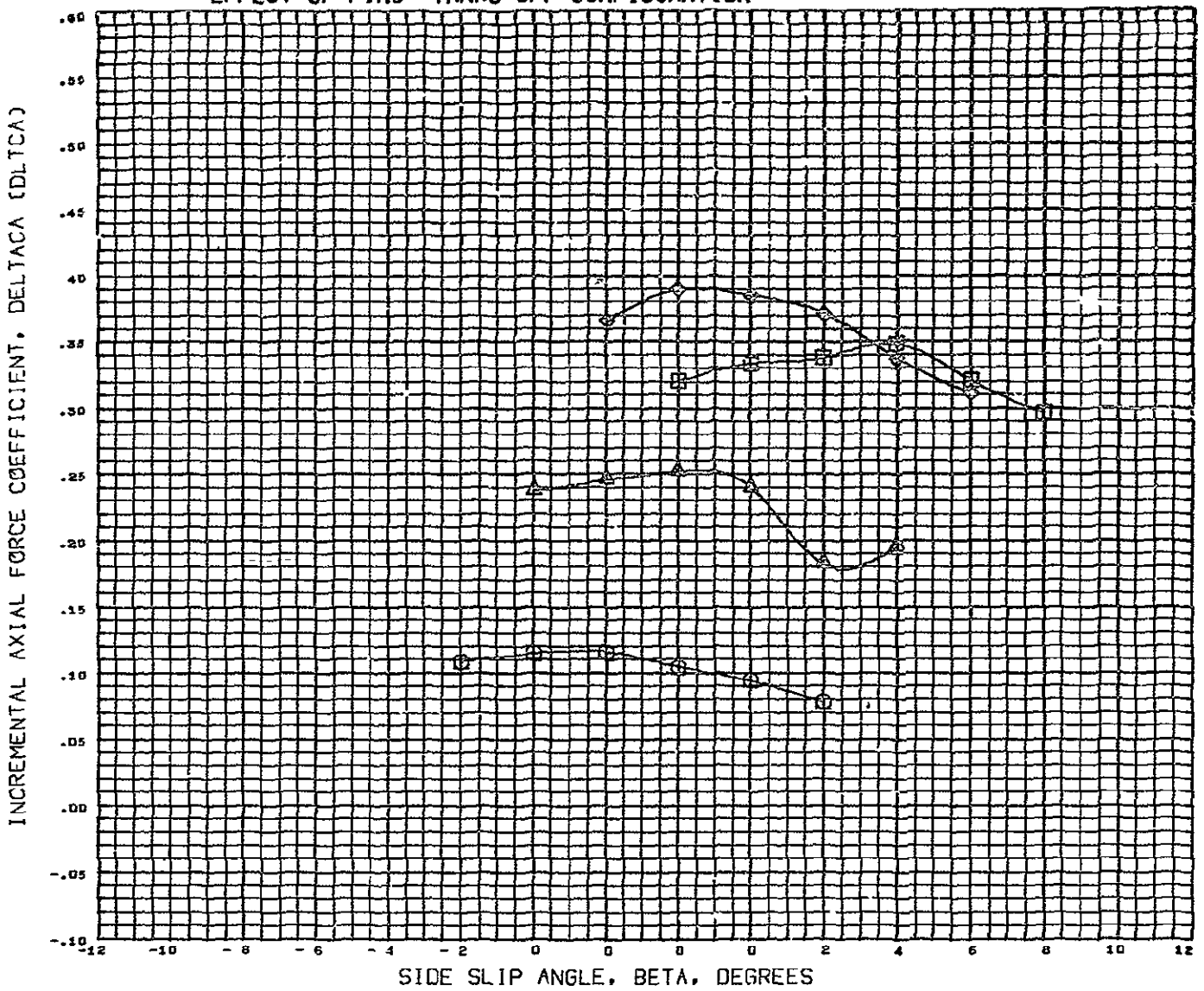


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.000	ORBINC	- 3.100
△	1.460				
◇	1.960				

DATA HIST CODE *AH*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



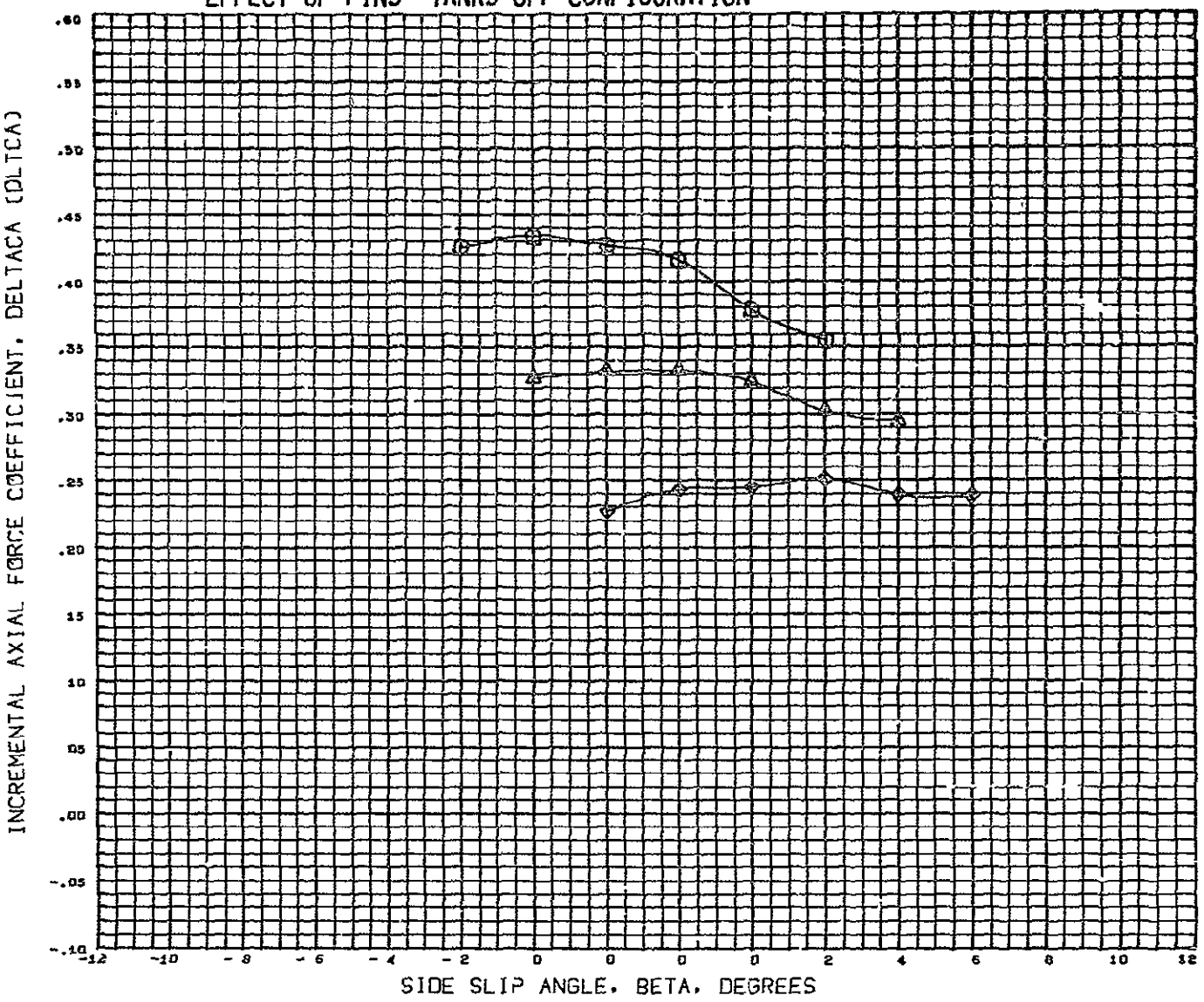
SYMBOL	MACH	PARAMETRIC VALUES		
○	0.600	ALPHA	0.000	ORBINC - 3 100
△	0 900			
◇	1.000			
□	1.100			

DATA HIST CODE *AM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



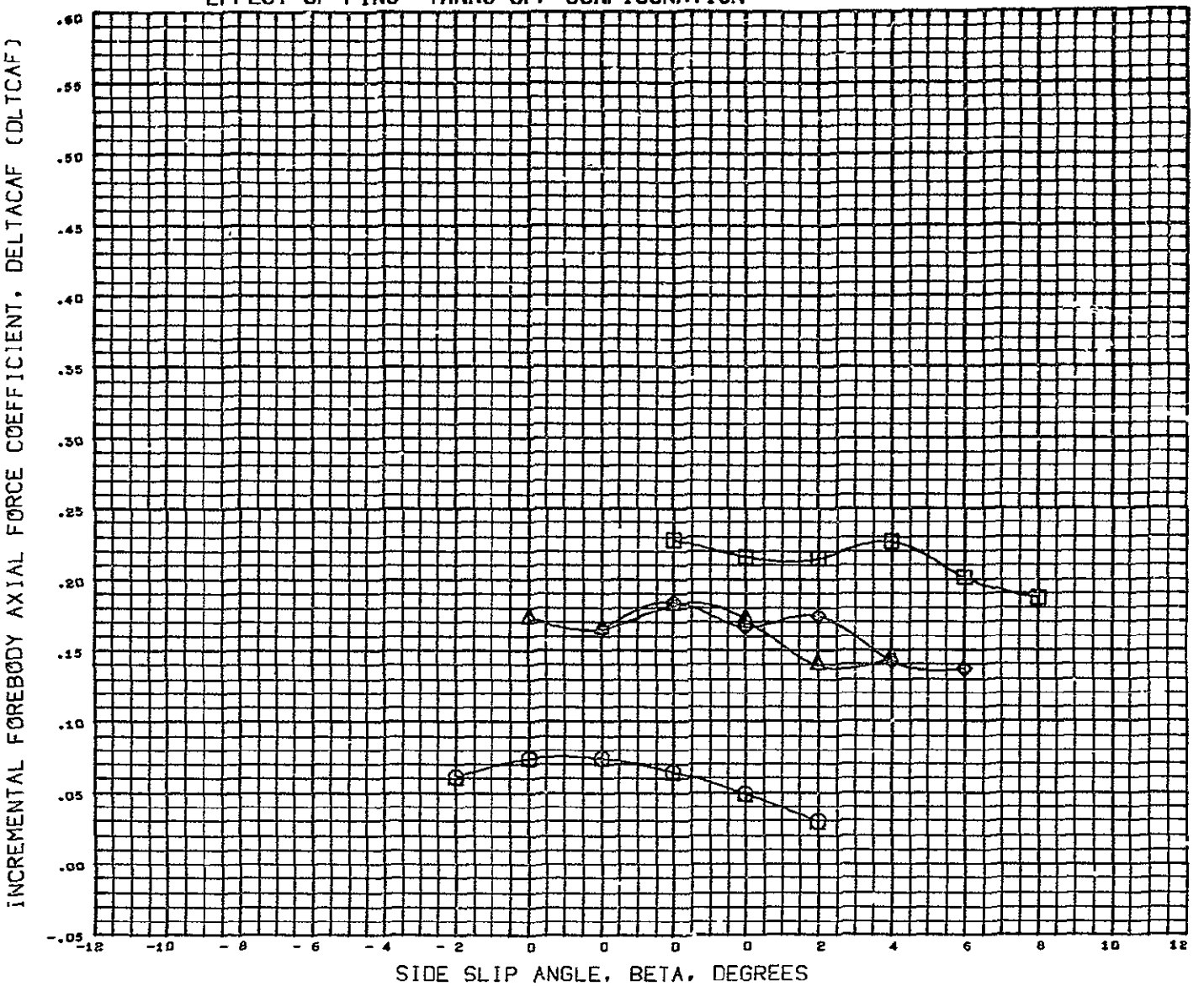
SYMBOL	MACH	PARAMETRIC VALUES			
◇	1.200	ALPHA	0.000	ORBINC	-3.100
△	1.460				
◇	1.960				

DATA HIST CODE *AM*E1*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION

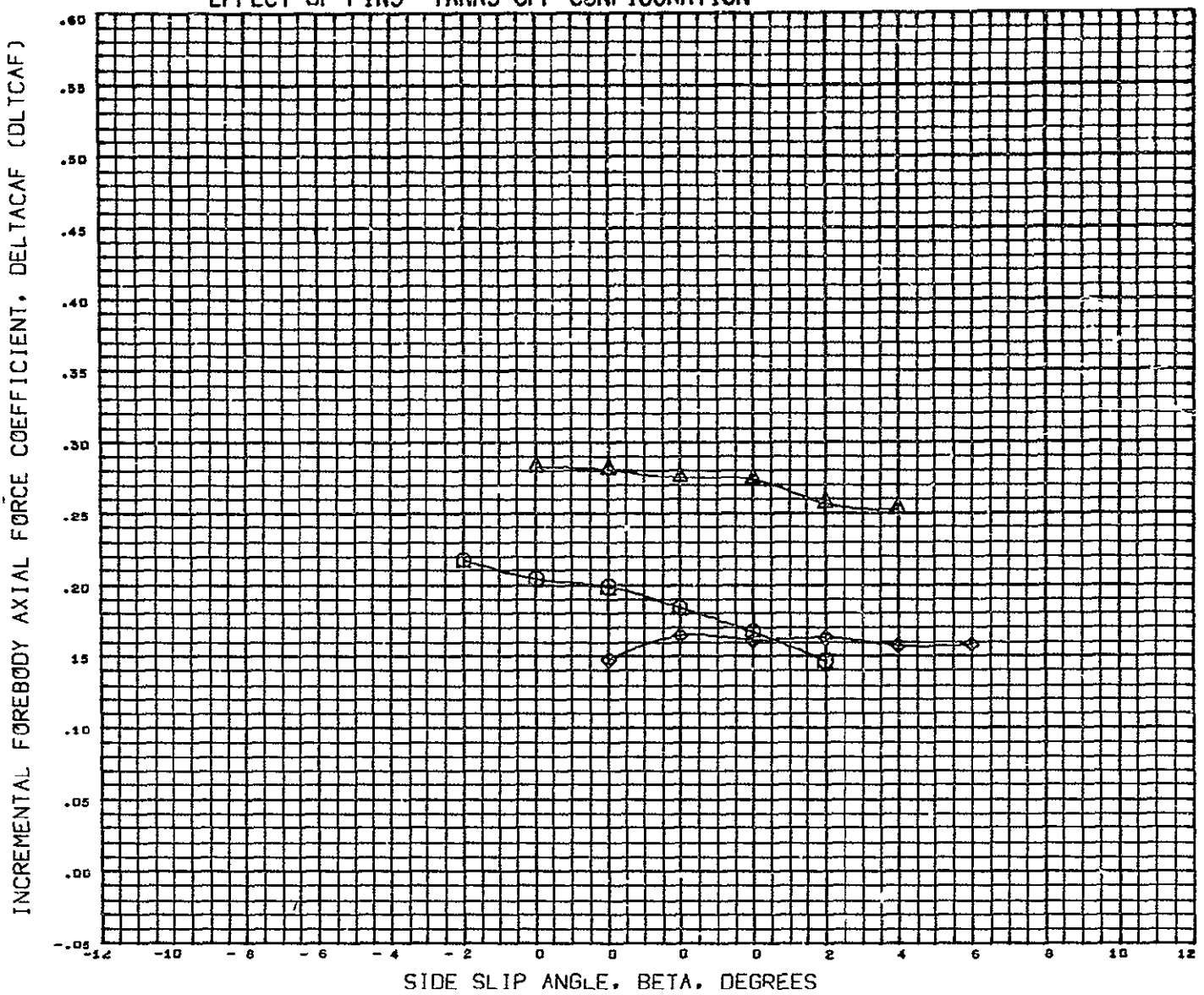


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0 000	ORBINC	- 3 100
△	0.900				
◇	1.000				
□	1 100				

DATA HIST CODE *AM*EI*A*C

REFERENCE INFORMATION		
SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0059	IN
SCALE	0 0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



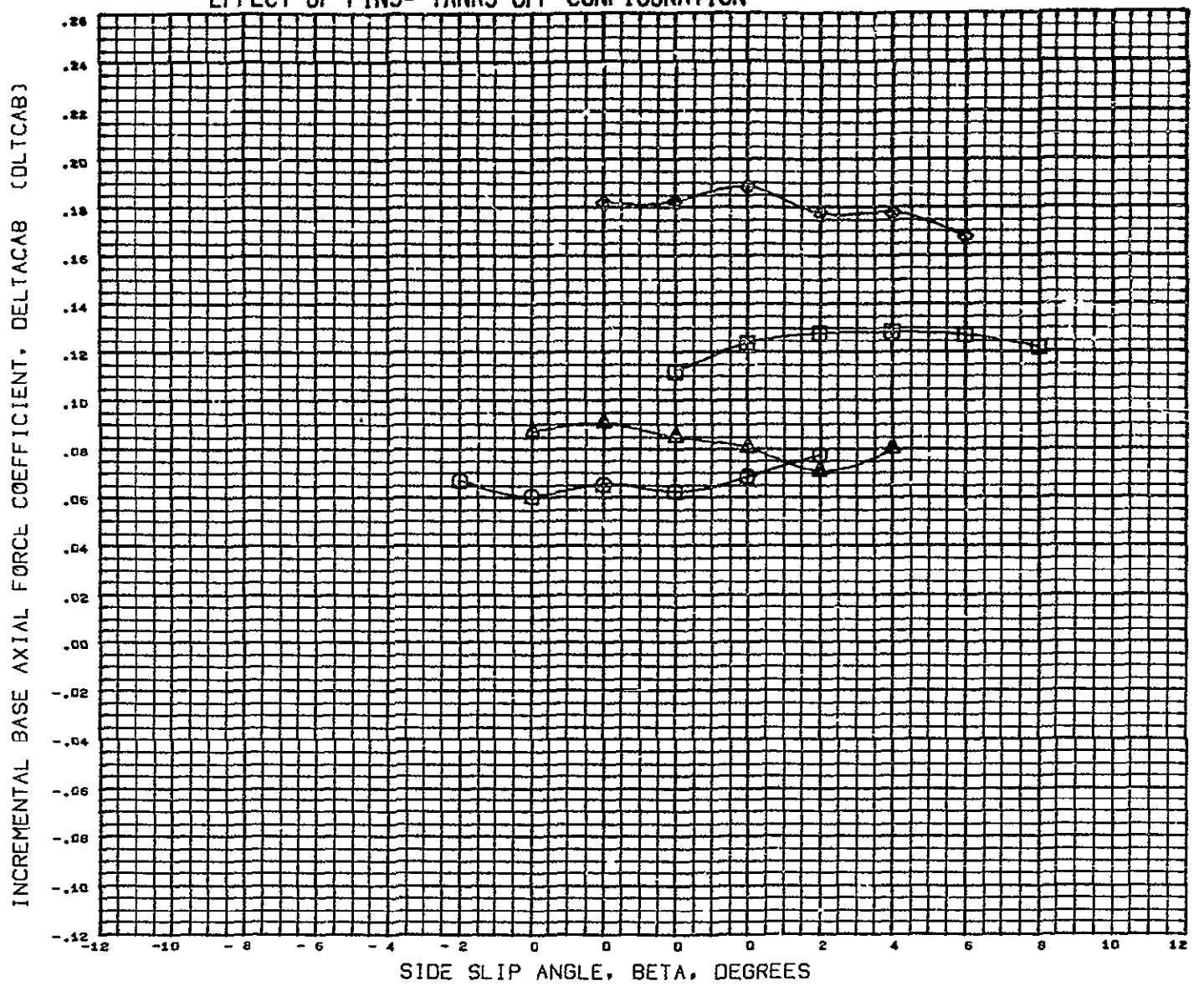
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.009	ORBINC	- 3 100
△	1.460				
◇	1 960				

DATA HIST CODE *AM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0050	IN
ZMRP	0.0000	IN
SCALE	0 0034	

EFFECT OF FINS- TANKS OFF CONFIGURATION



SYMBOL	MACH
○	0 600
△	0.900
◇	1.000
□	1 100

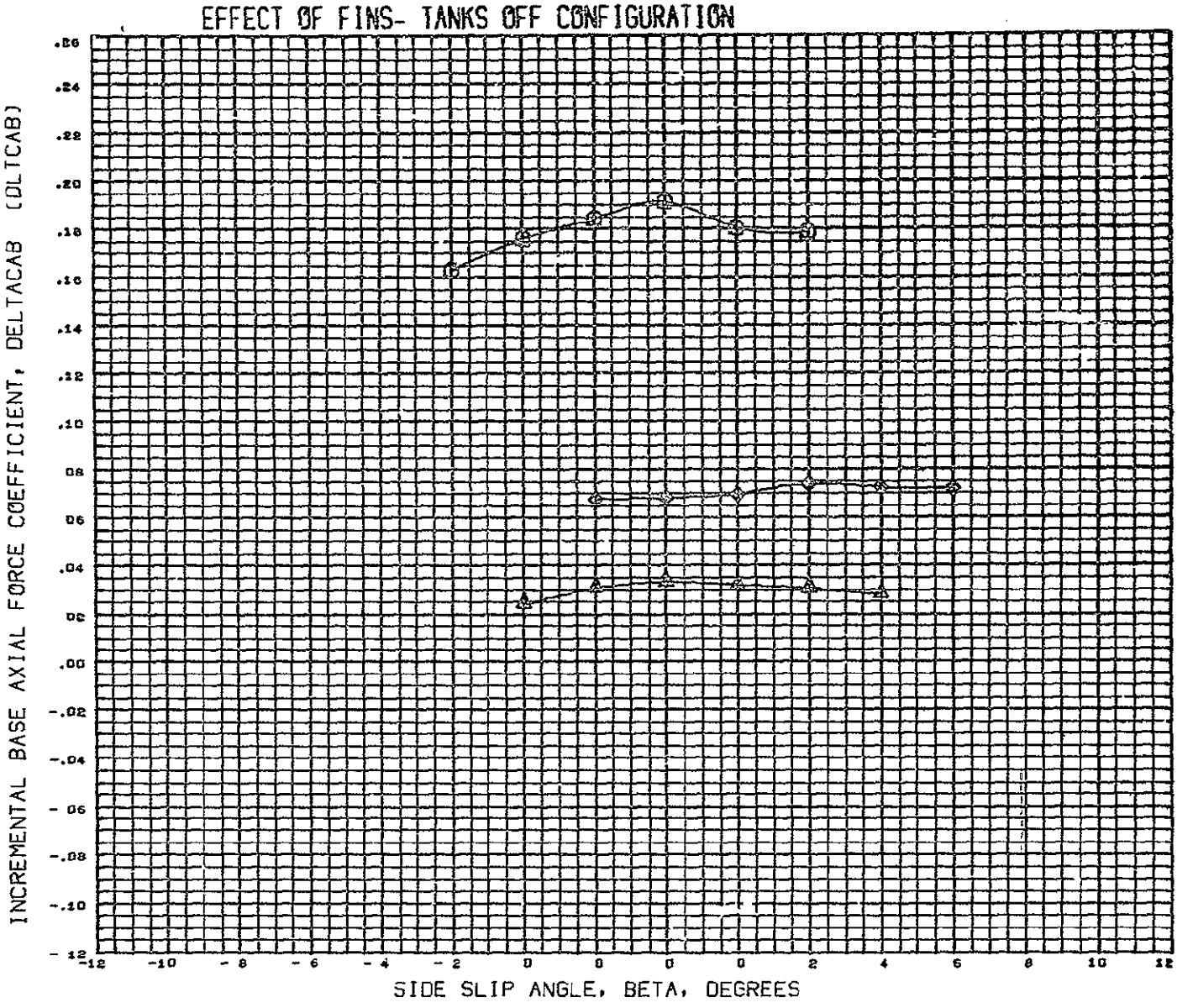
PARAMETRIC VALUES

ALPHA 0 000 ORBINC - 3 100

DATA HIST. CODE *AH*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	



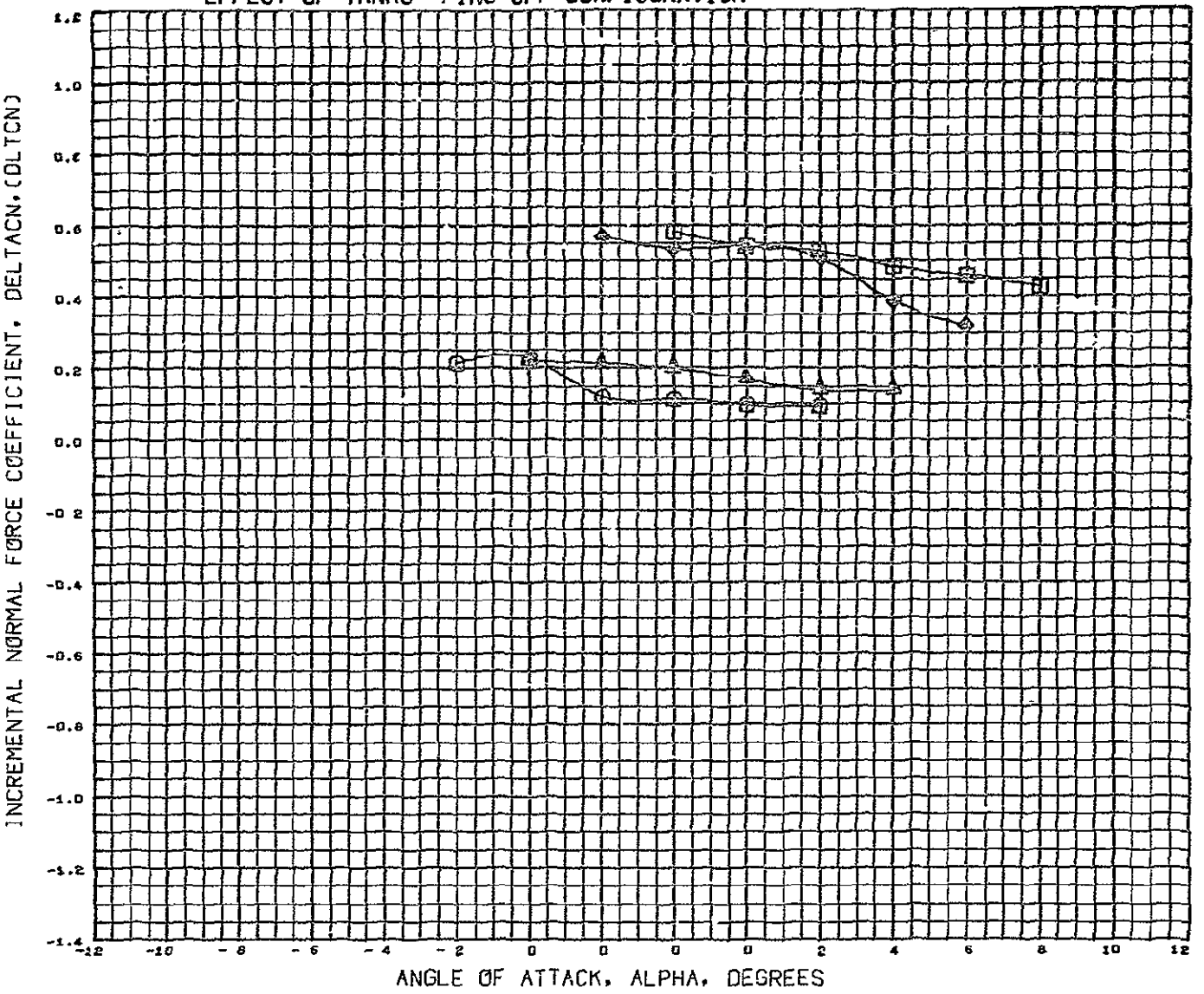
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.000	ORBINC -	3.100
△	1.460				
◇	1.960				

DATA HIST CODE *AM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0600	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



SYMBOL	MACH
○	0.600
△	0.900
◇	1.000
□	1.100

PARAMETRIC VALUES

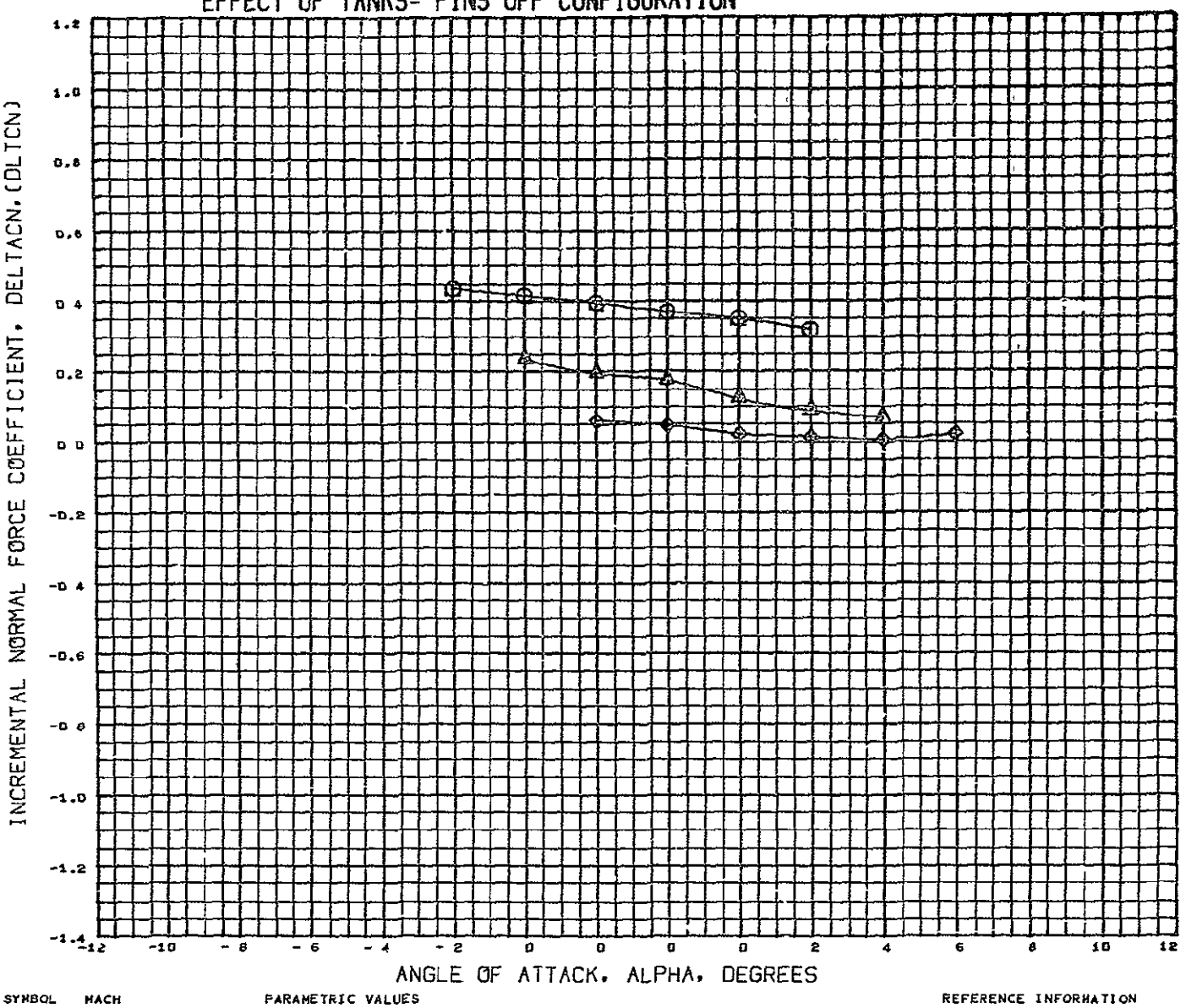
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE HH*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



SYMBOL	MACH
○	1.200
△	1.460
◇	1.960

PARAMETRIC VALUES

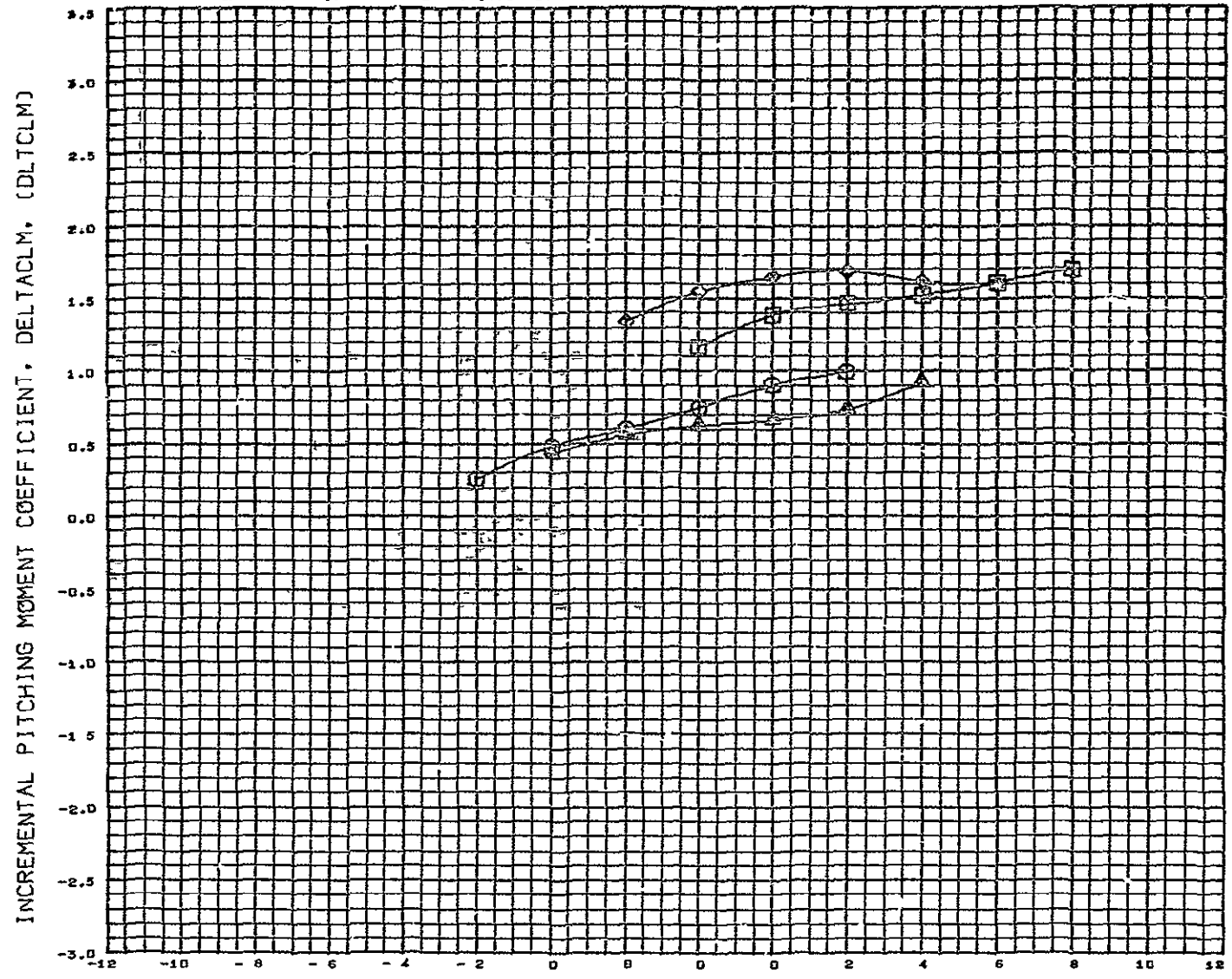
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE MM*E1*A*C

EFFECT OF TANKS- FINS OFF CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	BETA	0 000	ORBINC	- 3 100
△	0 900				
◇	1 000				
□	1 100				

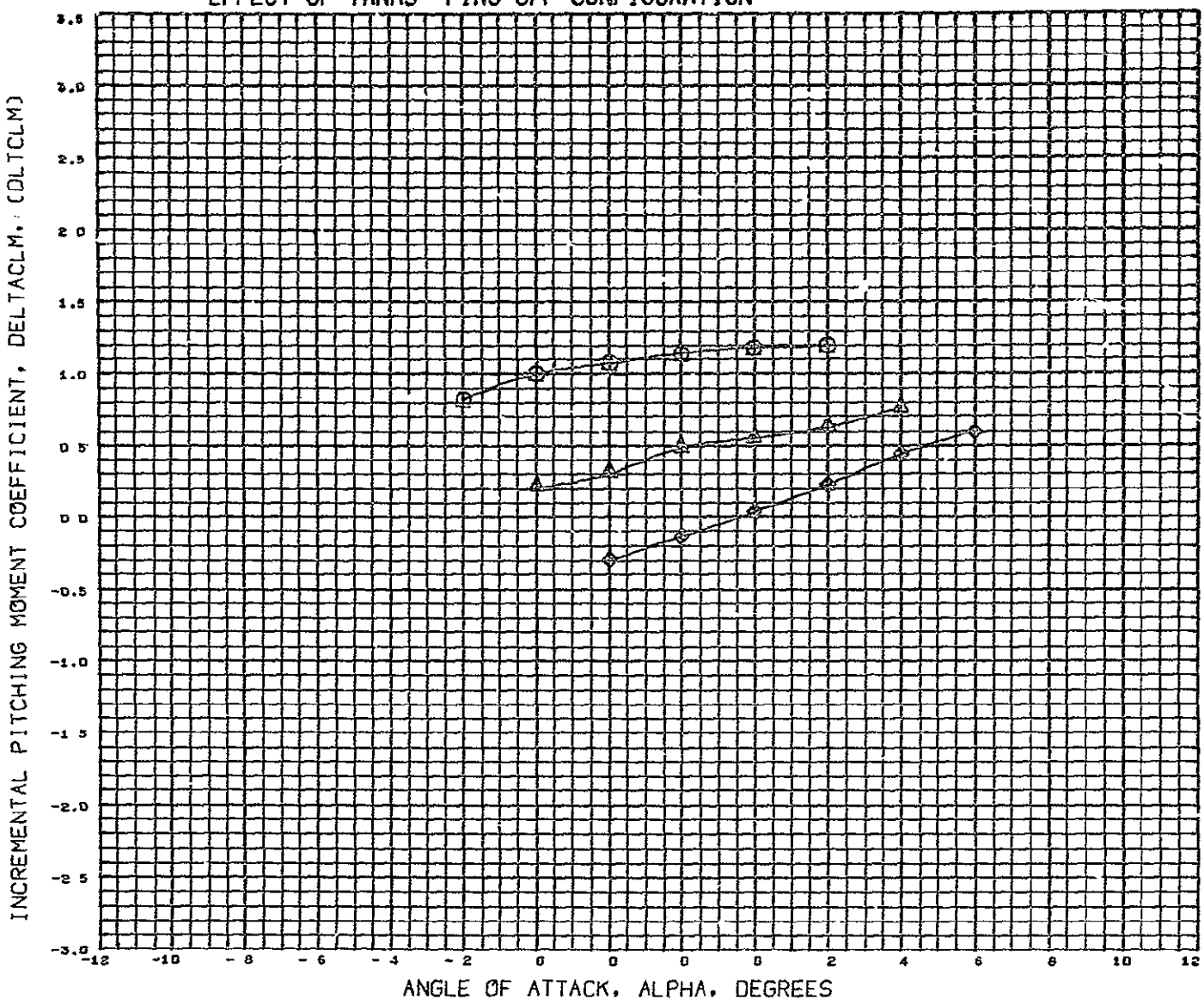
DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

M491-S1C/G-11 ORB., TANK(T1) INCREMENT ON OVWCB (F3300N) 08 AUG 71 PAGE 508

EFFECT OF TANKS- FINS OFF CONFIGURATION



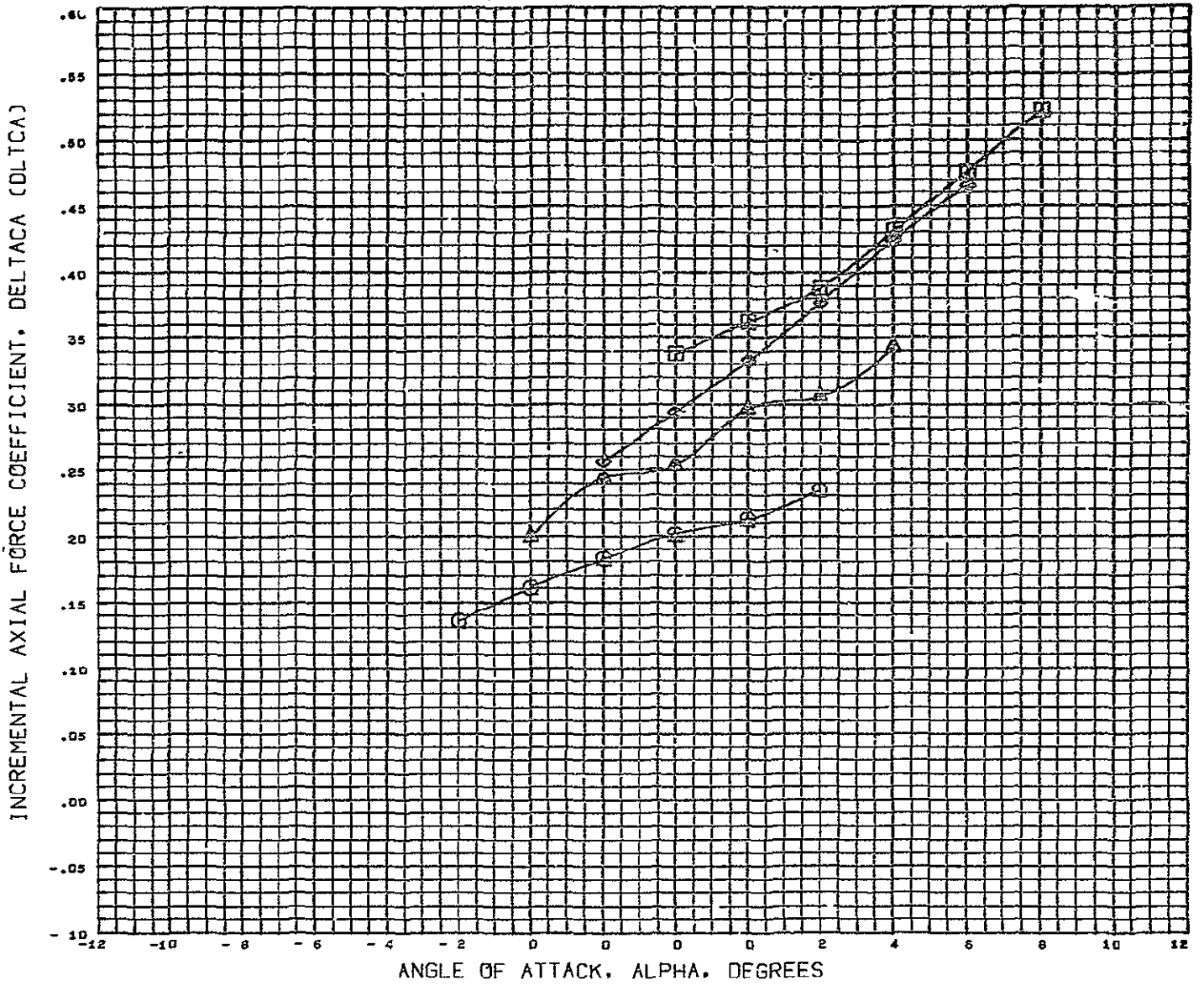
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	BETA	0.000	ORBINC	- 3 100
△	1.460				
◇	1 960				

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

DATA HIST. CODE MH*EI*A*C

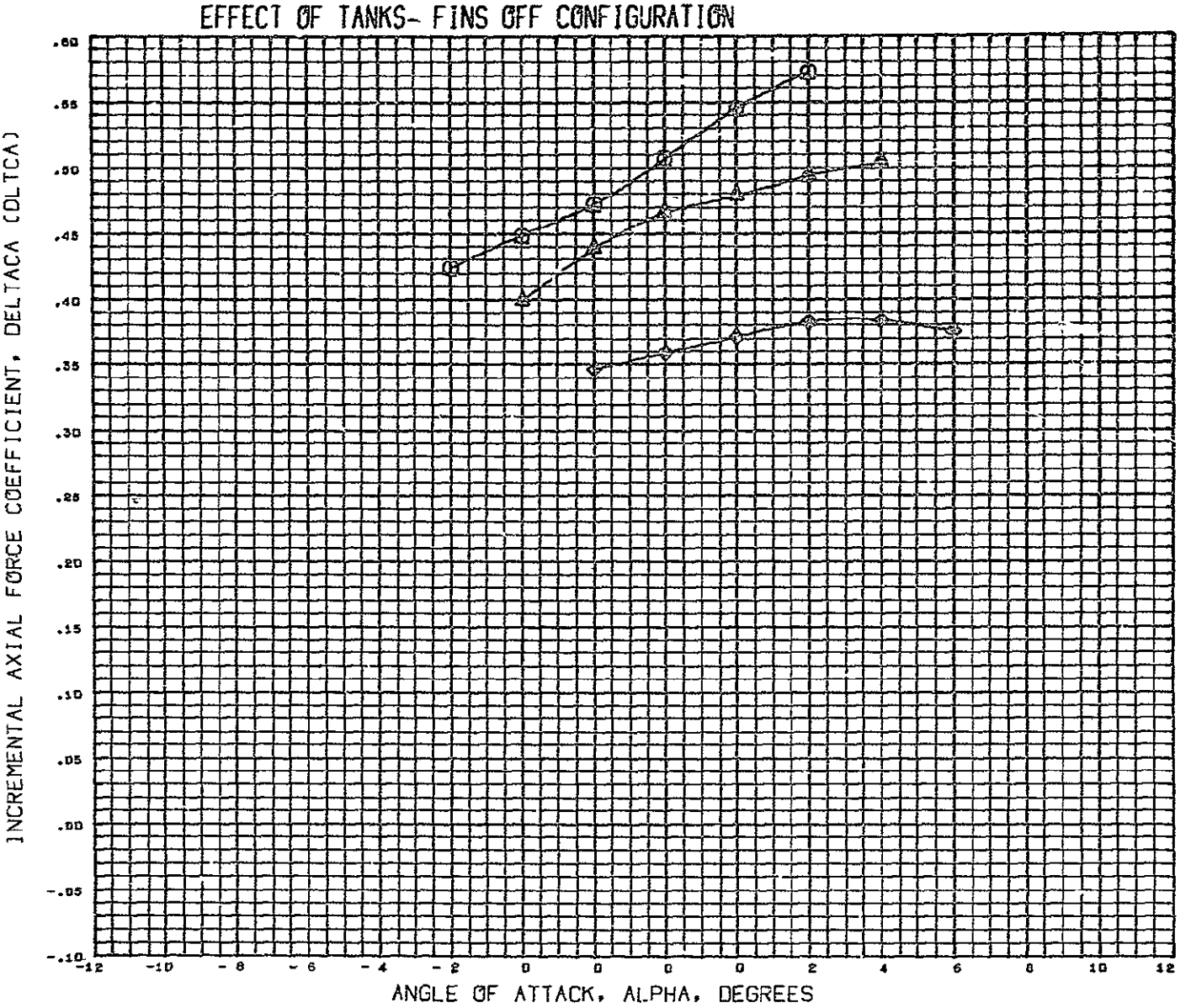
EFFECT OF TANKS- FINS OFF CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			
○	0 600	BETA	0 000	ORBINC	- 3 100
△	0 900				
◇	1 000				
□	1 100				

DATA HIST CODE MH*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

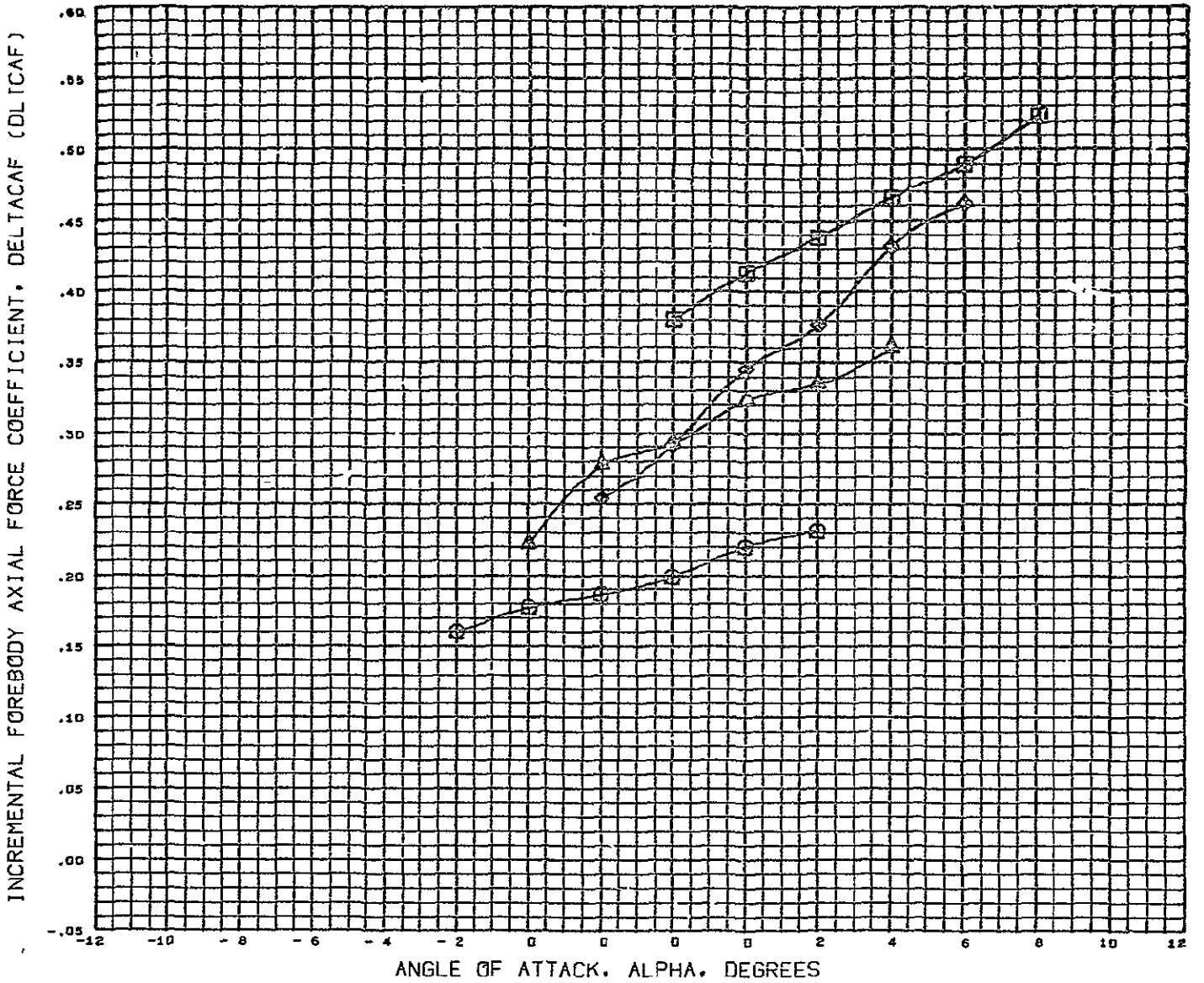


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	BETA	0.000	ORBINC	- 3 100
△	1.460				
◇	1.960				

DATA HIST CODE HH*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



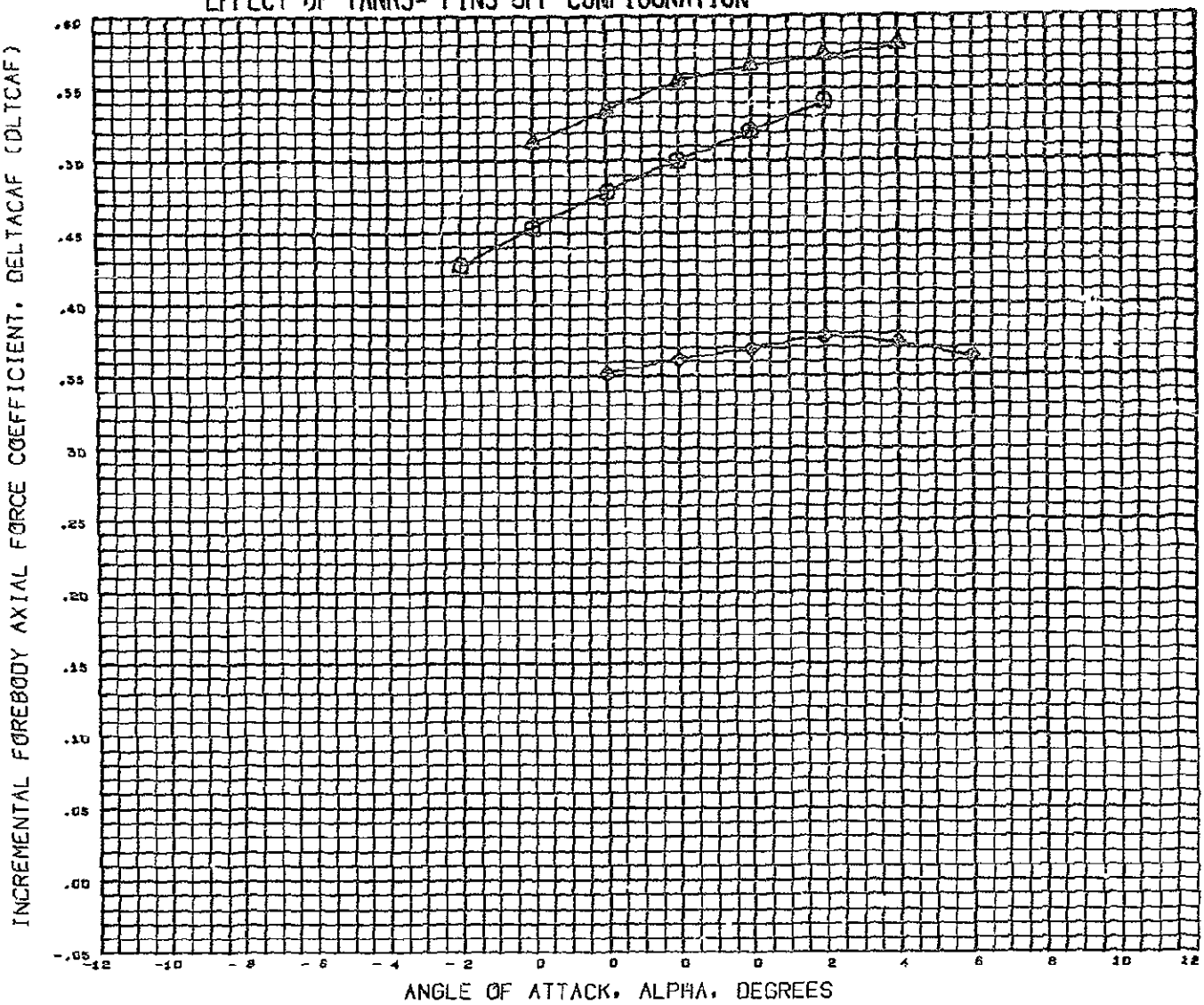
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.600	BETA	0 000	ORBINC	- 3 100
△	0.900				
◇	1 000				
□	1 100				

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



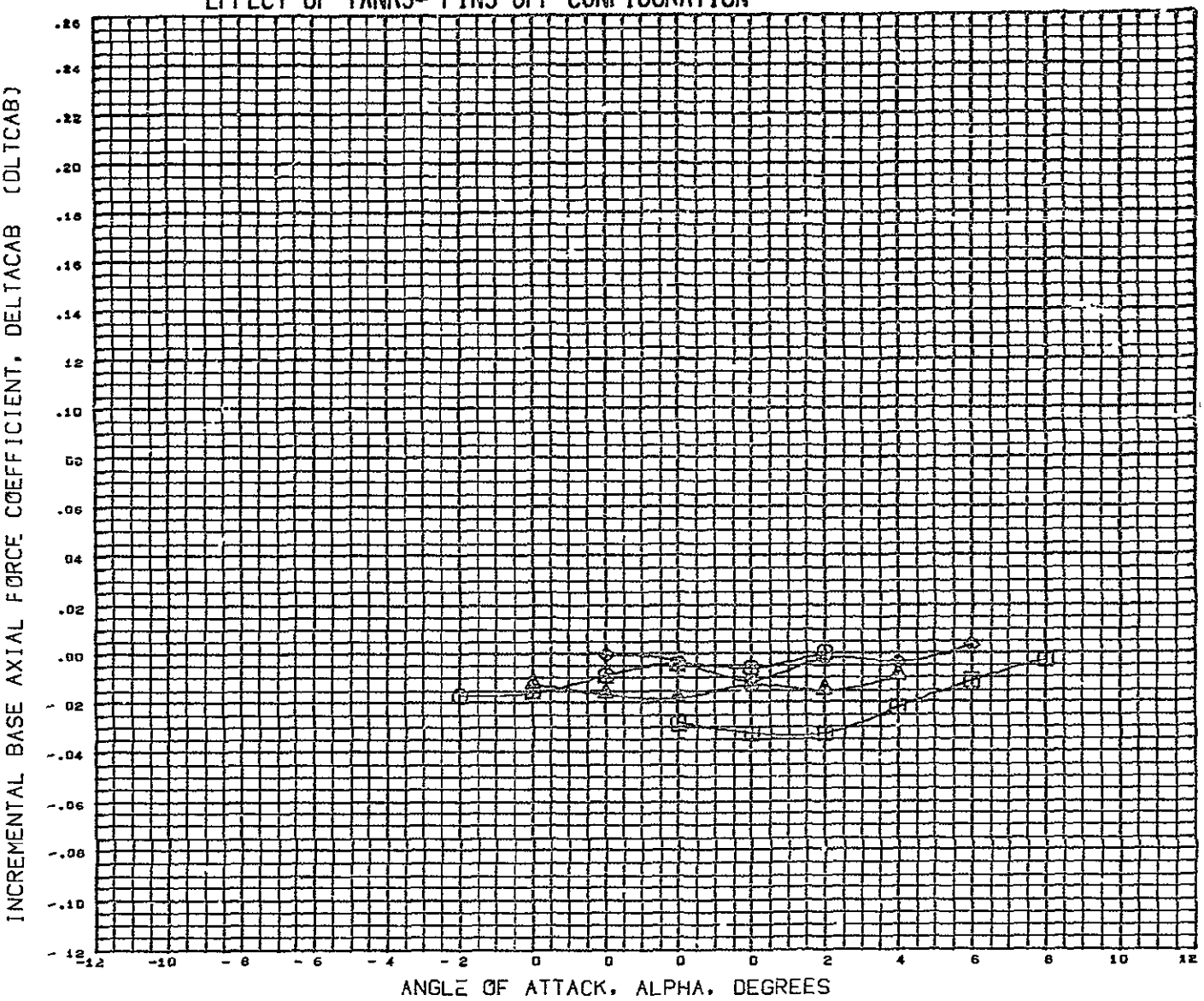
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	BETA	0.000	ORBINC	- 3.100
△	1.460				
◇	1.960				

DATA HIST CODE MM#EI#A#C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0020	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



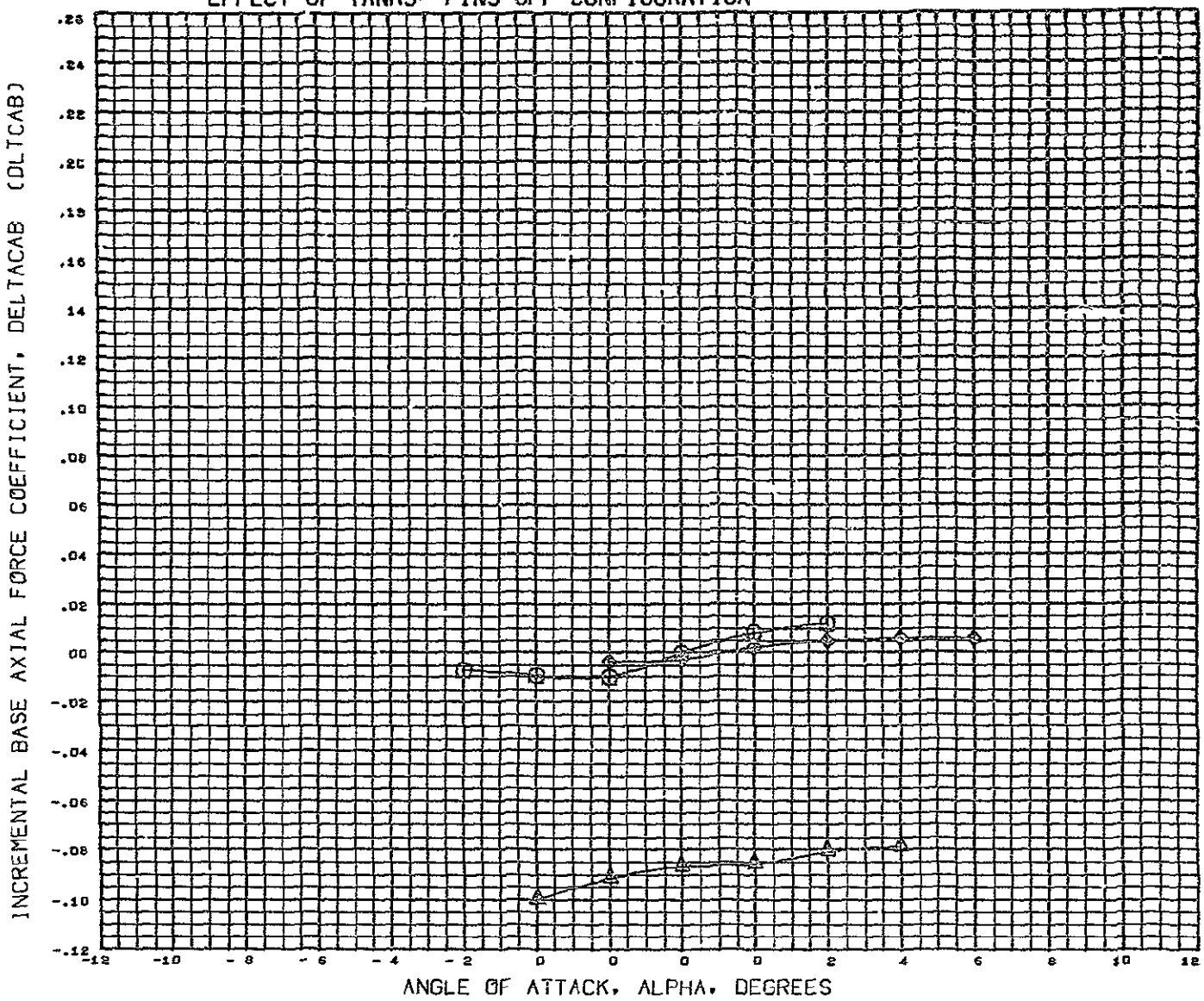
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.600	BETA	0.000	ORBINC	- 3.00
◇	0.900				
△	1.000				
○	1.100				

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



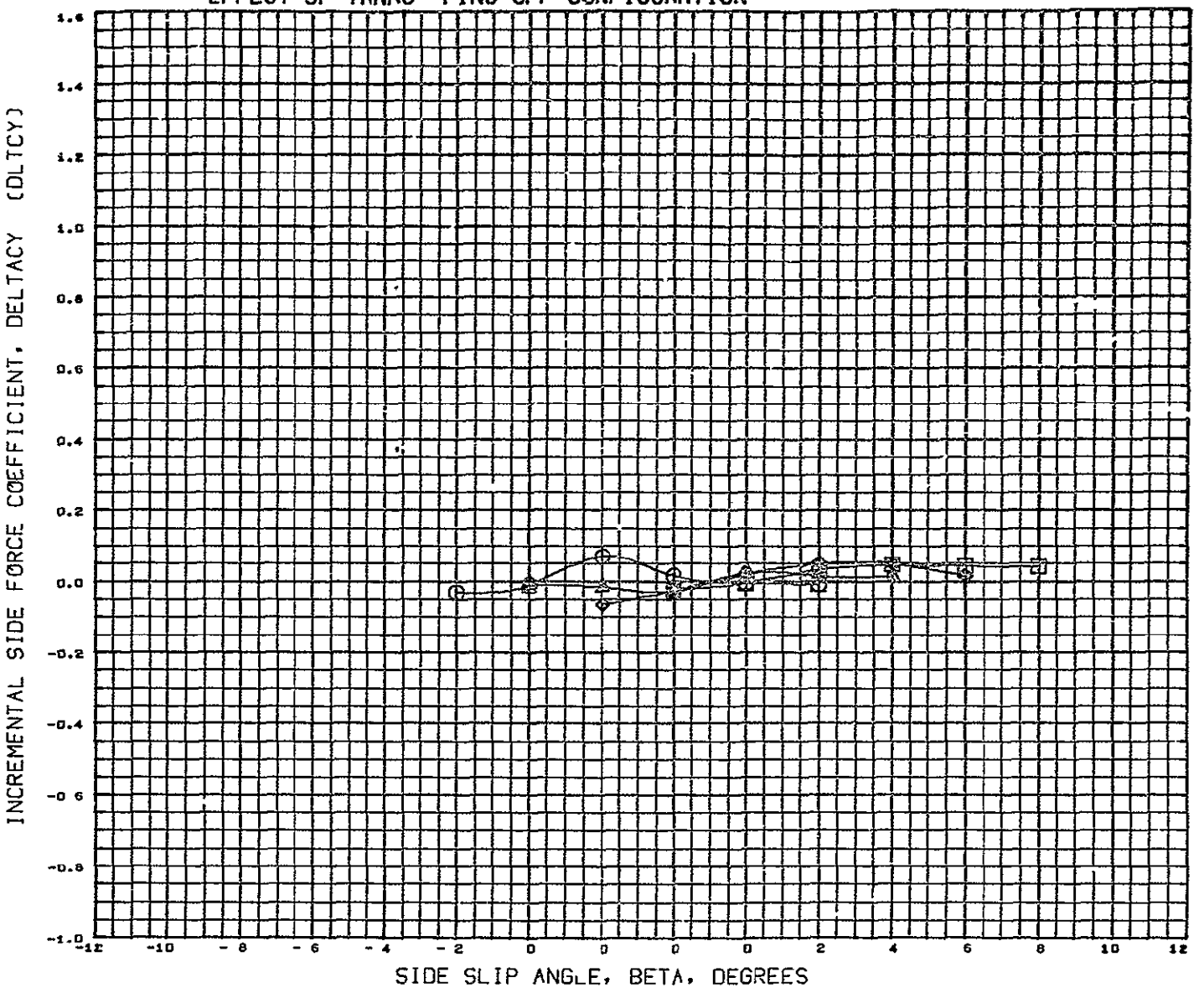
SYMBOL	MACH	PARAMETRIC VALUES			
○	1 200	BETA	0 000	ORBINC	- 3 700
△	1.460				
◇	1 960				

DATA HIST CODE NM*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRF	0.0040	IN
SCALE	0 0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION

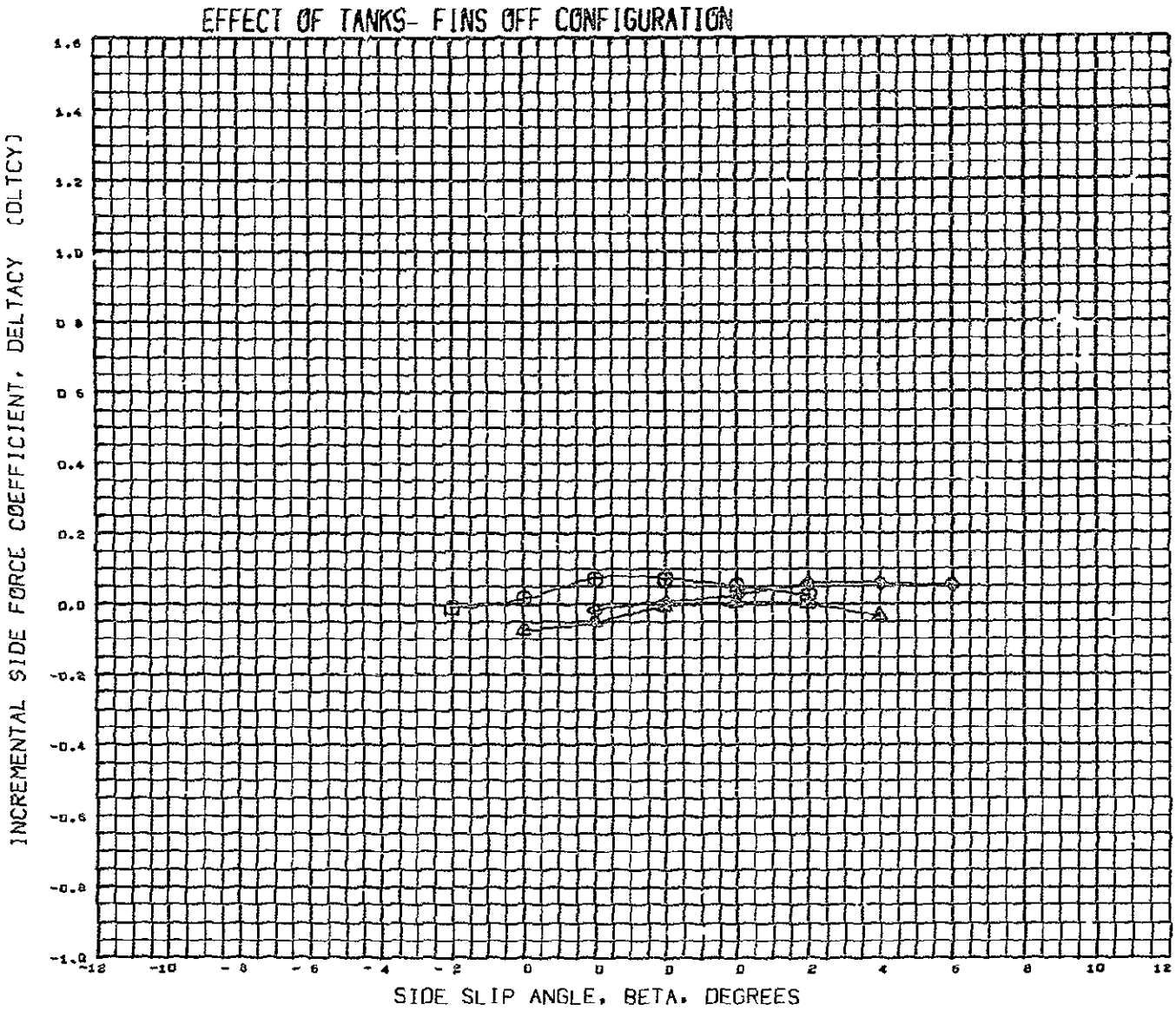


SYMBOL	MACH	PARAMETRIC VALUES		
○	0.600	ALPHA	0.000	ORBINC = 3.100
△	0.900			
◇	1.000			
□	1.100			

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

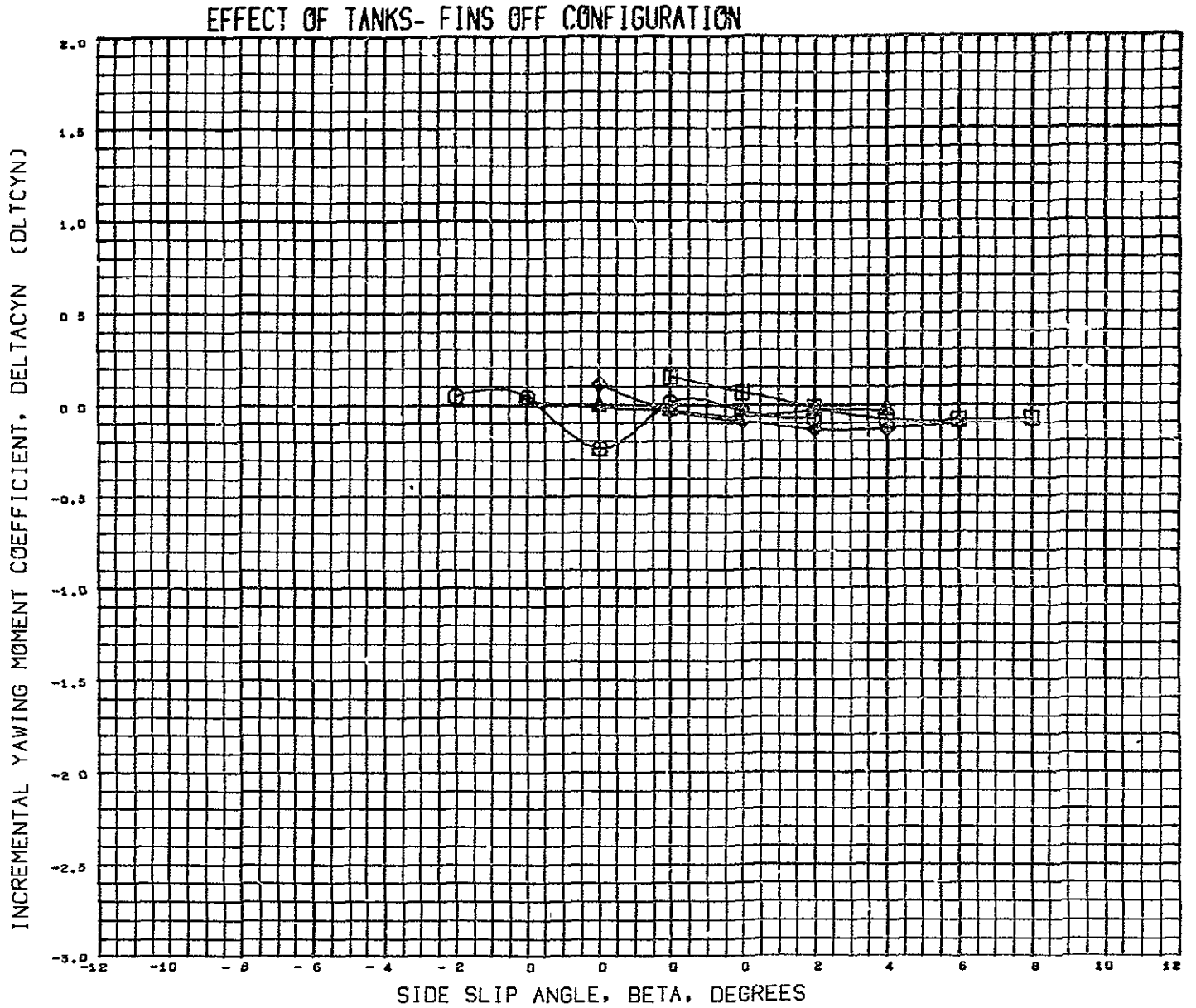


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.000	ORBINC	- 3.100
△	1.460				
◇	1.960				

DATA HIST. CODE MH*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

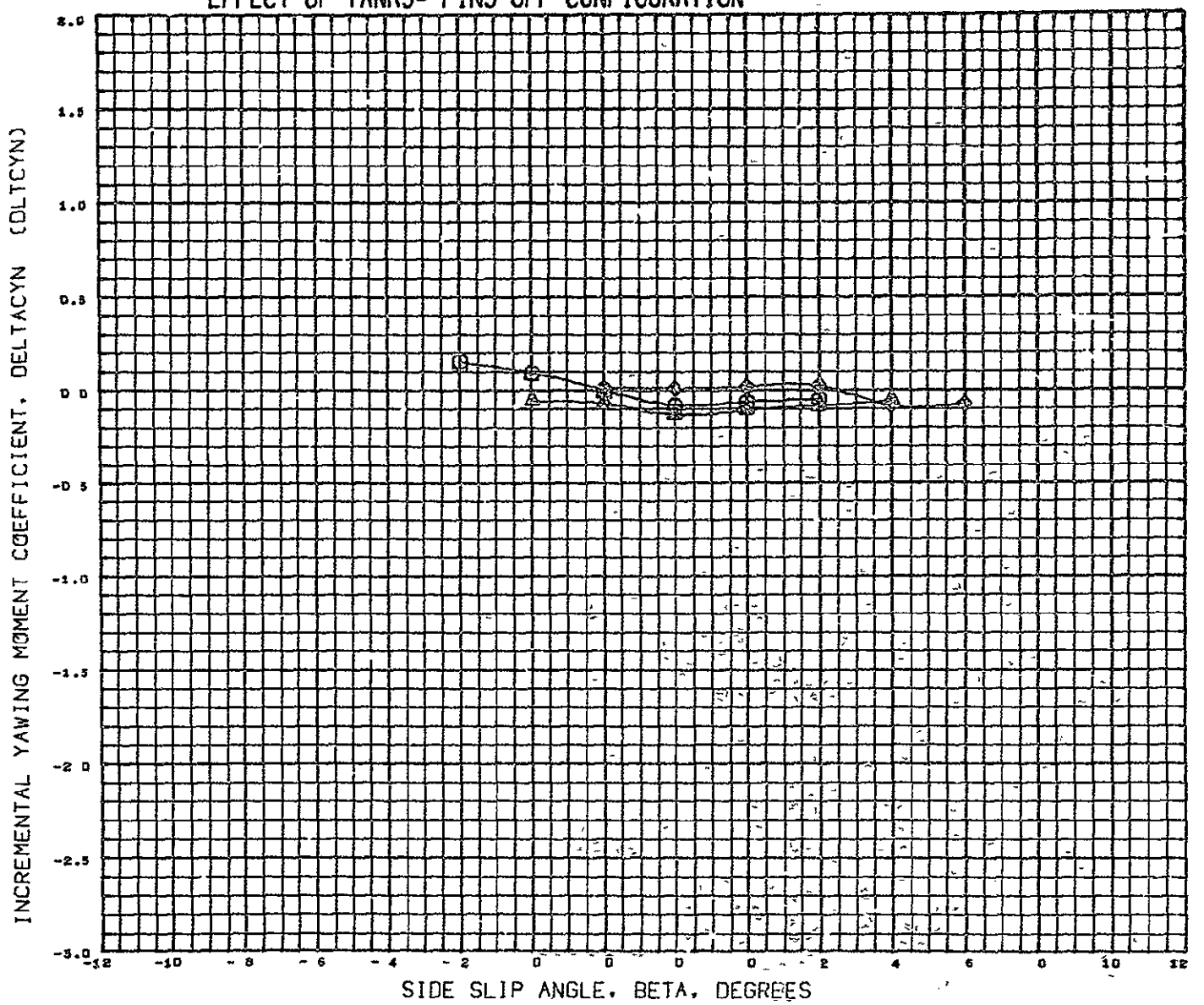


SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
□	1.100				

DATA HIST CODE MH*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.0460	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

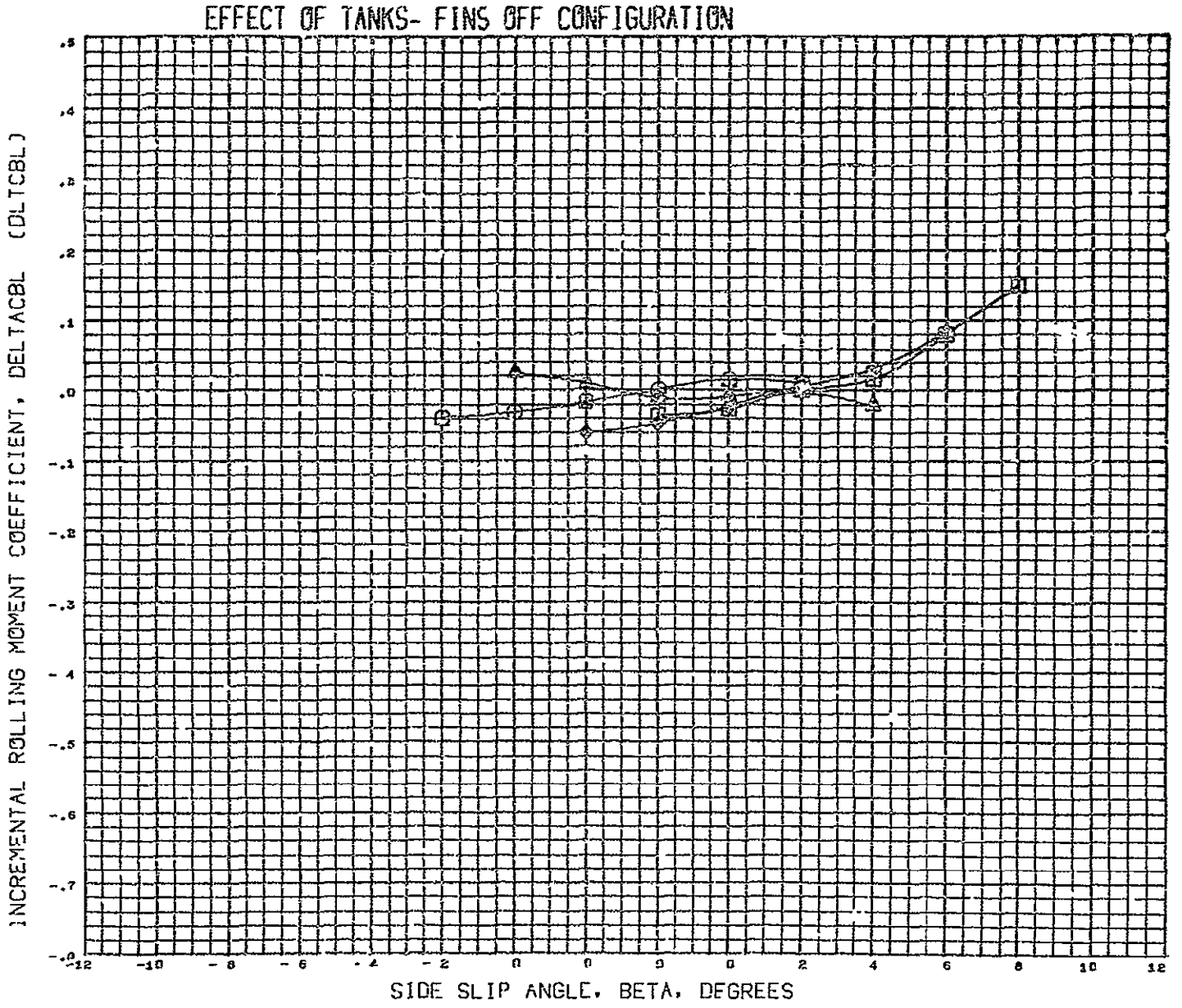
EFFECT OF TANKS- FINS OFF CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.000	ORBINC	3.100
△	1.460				
◇	1.960				

DATA HIST. CODE HM*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003	



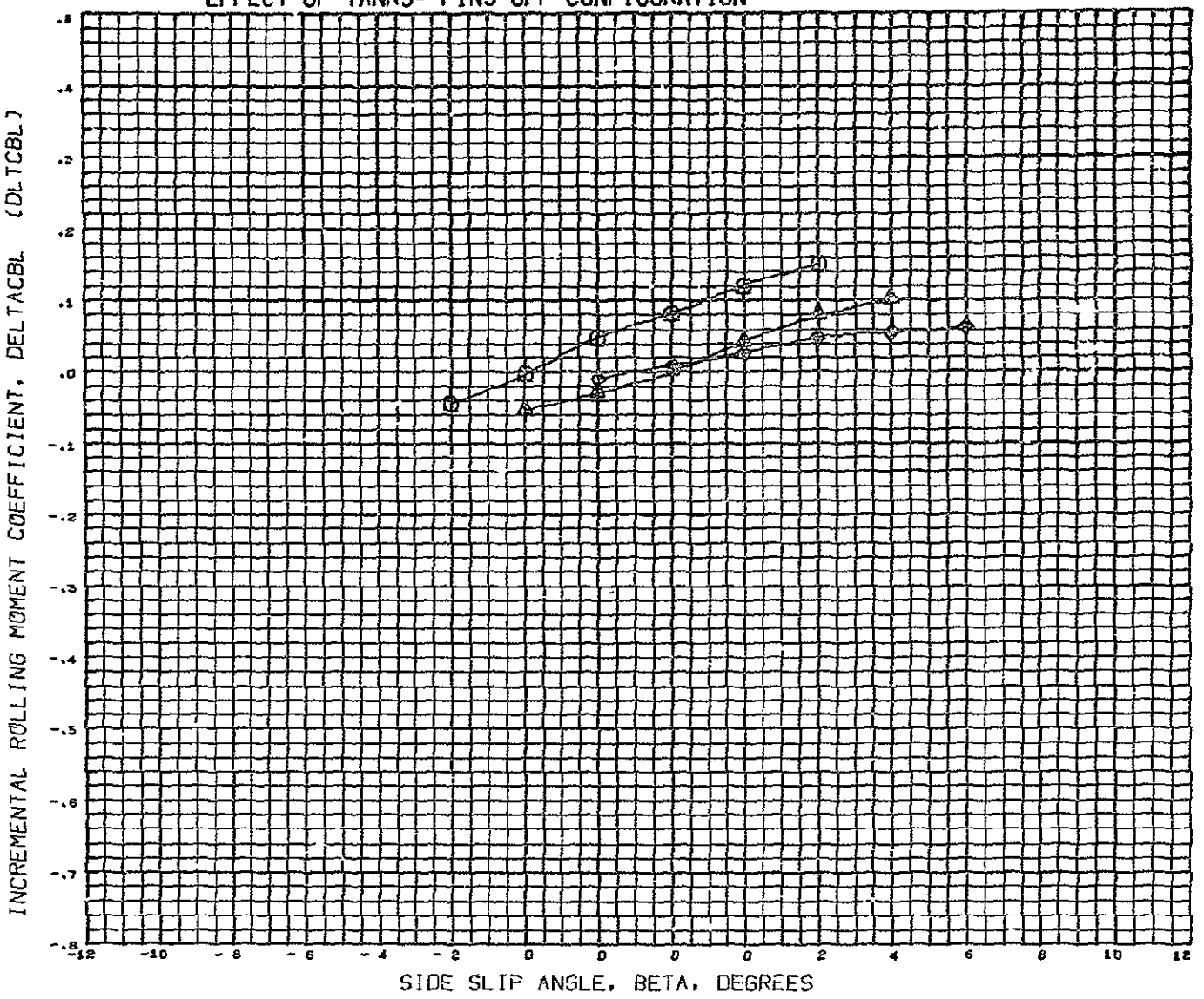
SYMBOL	HACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
□	1.100				

DATA HIST. CODE HH*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION

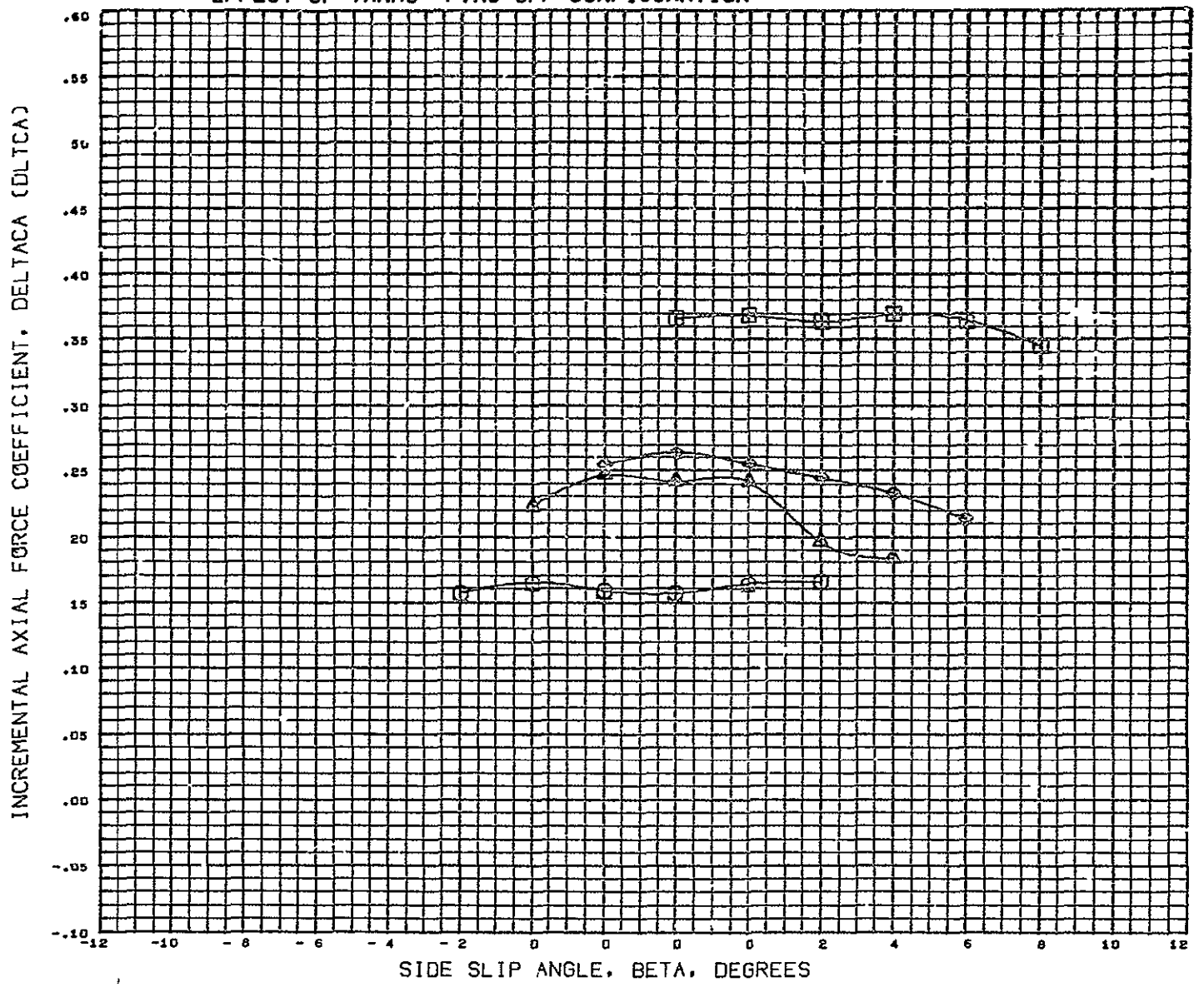


SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.000	ORBINC	- 3.100
△	1.460				
◇	1.960				

DATA HIST. CODE MM*EI*A*C

REFERENCE INFORMATION		
SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



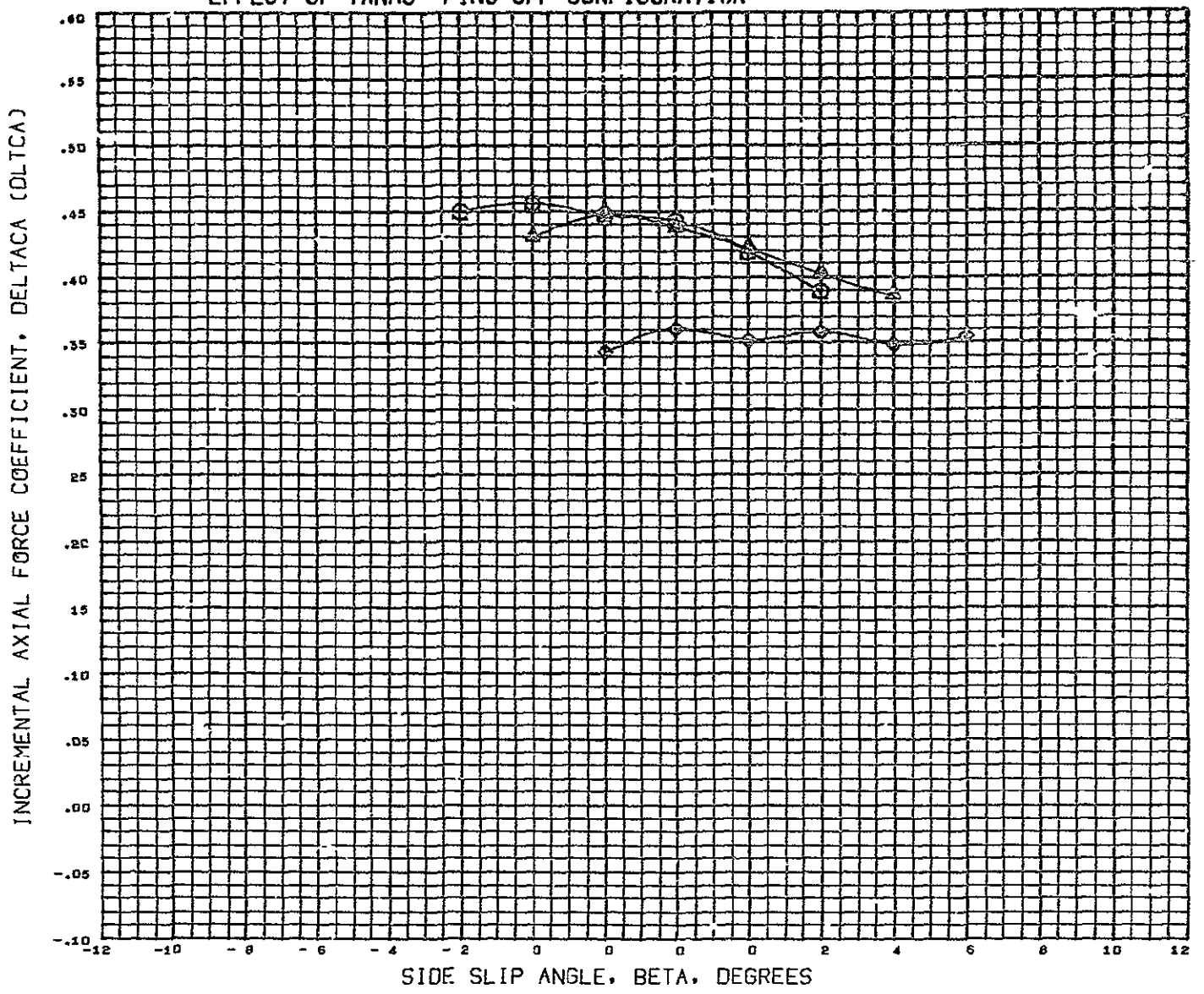
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0 000	ORBINC	- 3 100
△	0 900				
◇	1 000				
□	1 100				

DATA HIST CODE M#*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0.0100	IN
SCALE	0 0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



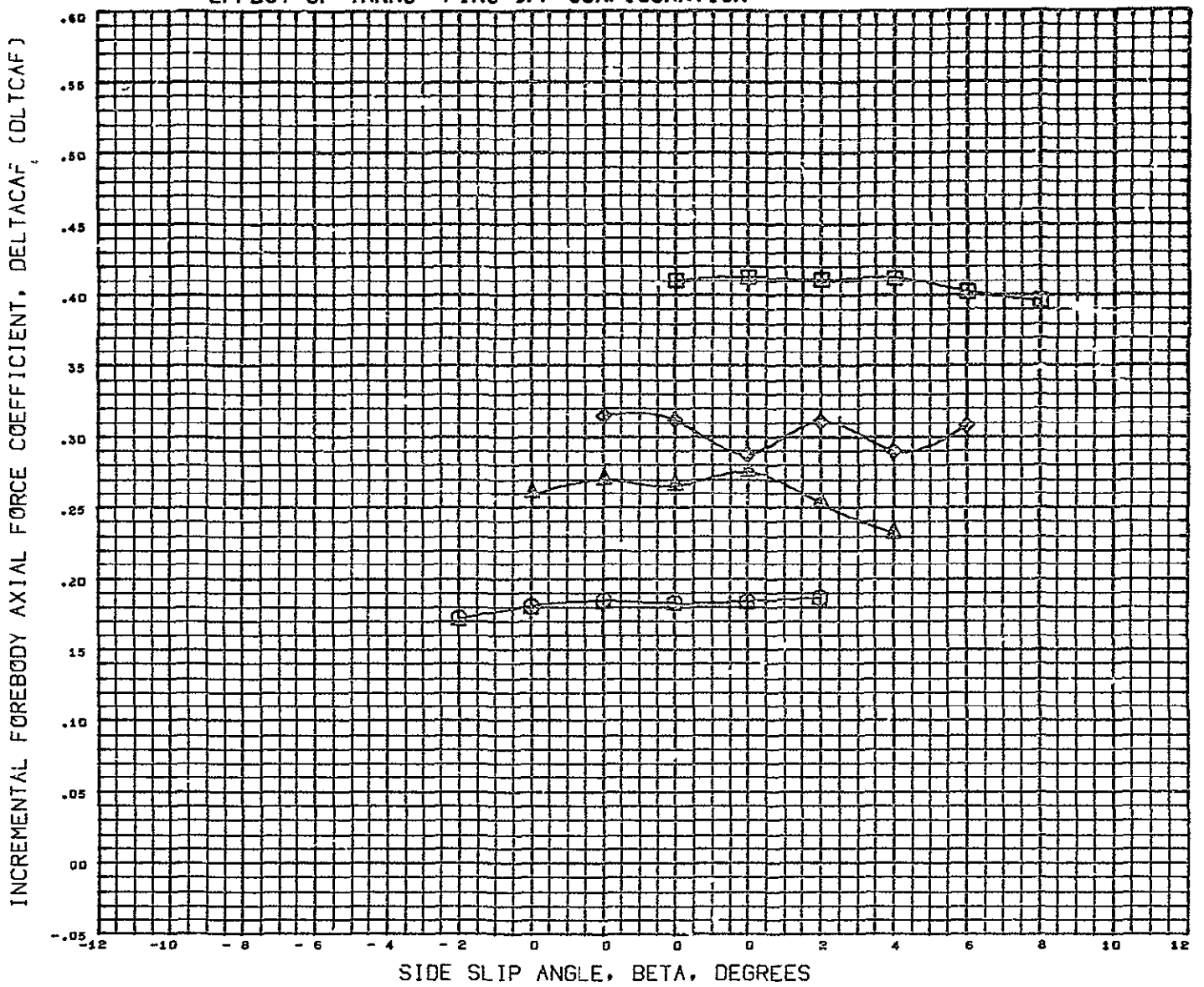
SYMBOL	MACH	PARAMETRIC VALUES			
○	1.200	ALPHA	0.000	ORBINC	- 3 100
△	1 460				
◇	1 960				

DATA HIST CODE MH*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0200	IN
SCALE	0 003A	

EFFECT OF TANKS- FINS OFF CONFIGURATION



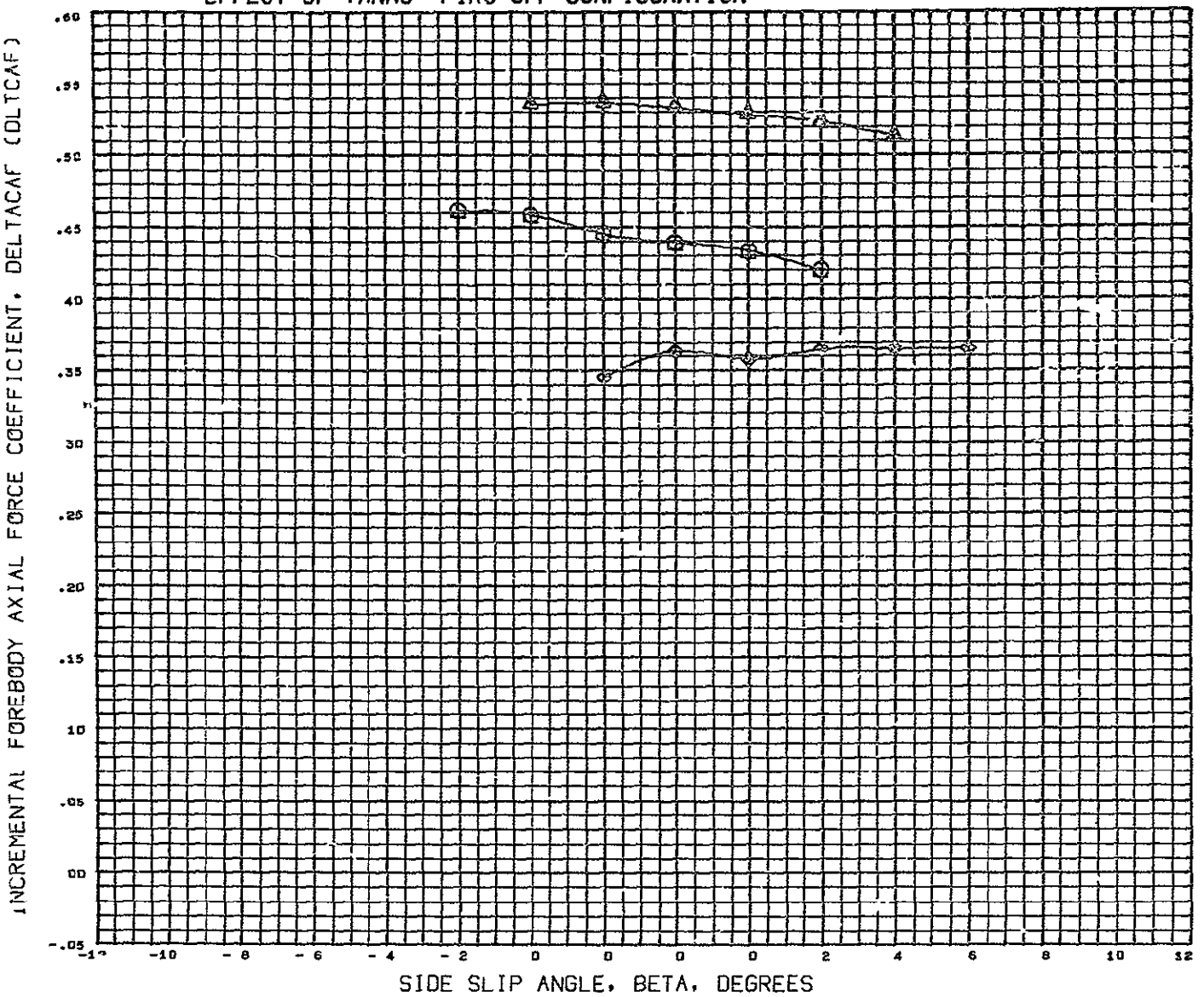
SYMBOL	MACH	PARAMETRIC VALUES			
□	0.600	ALPHA	0 000	ORBINC	- 3 00
△	0.900				
◇	1.000				
○	1 100				

DATA HIST CODE MH*EI*A*C

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION

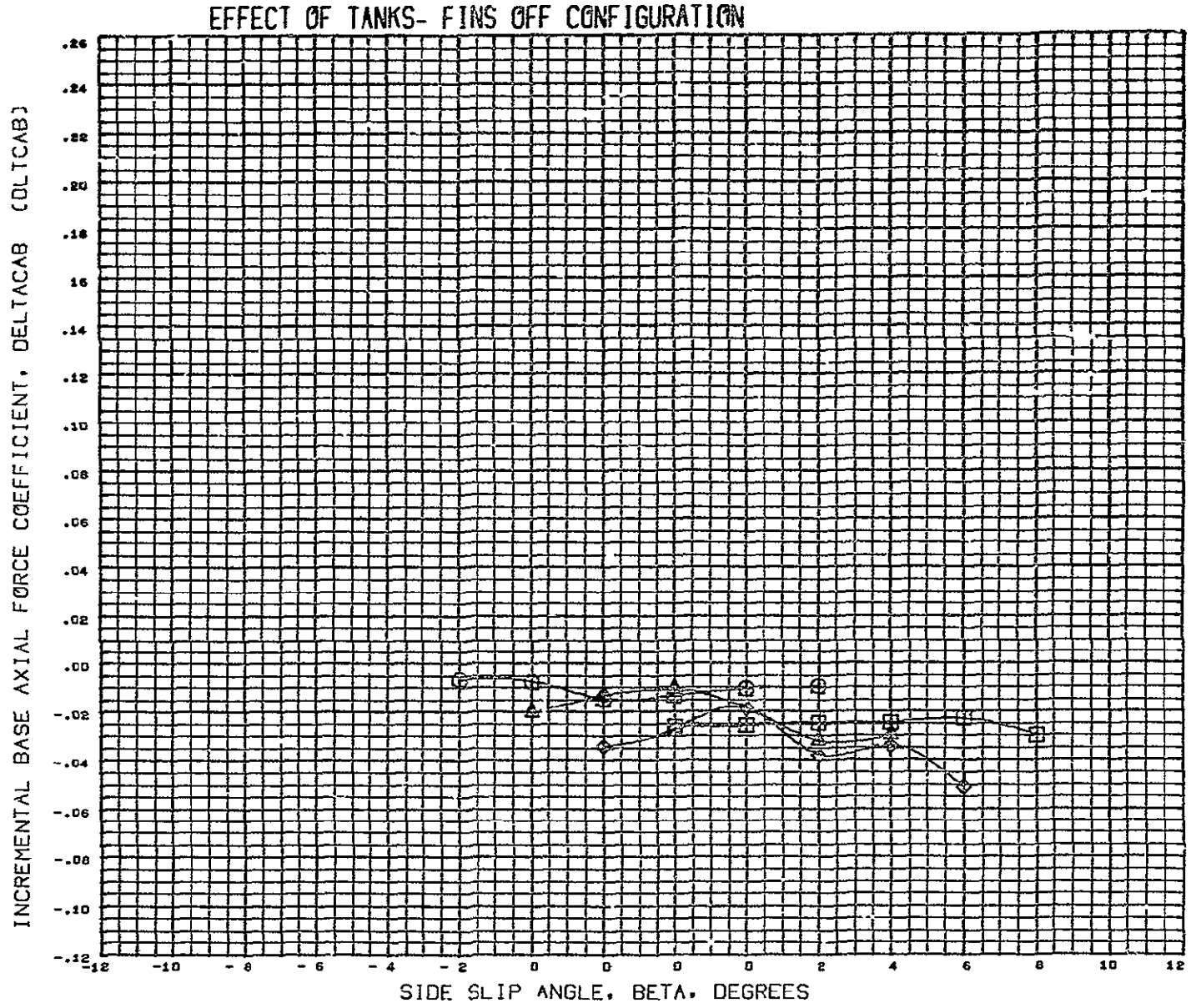


SYMBOL	MACH	PARAMETRIC VALUES		
○	1.200	ALPHA	0.000	ORBINC = 3.100
△	1.460			
◇	1.960			

DATA HIST CODE MM*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



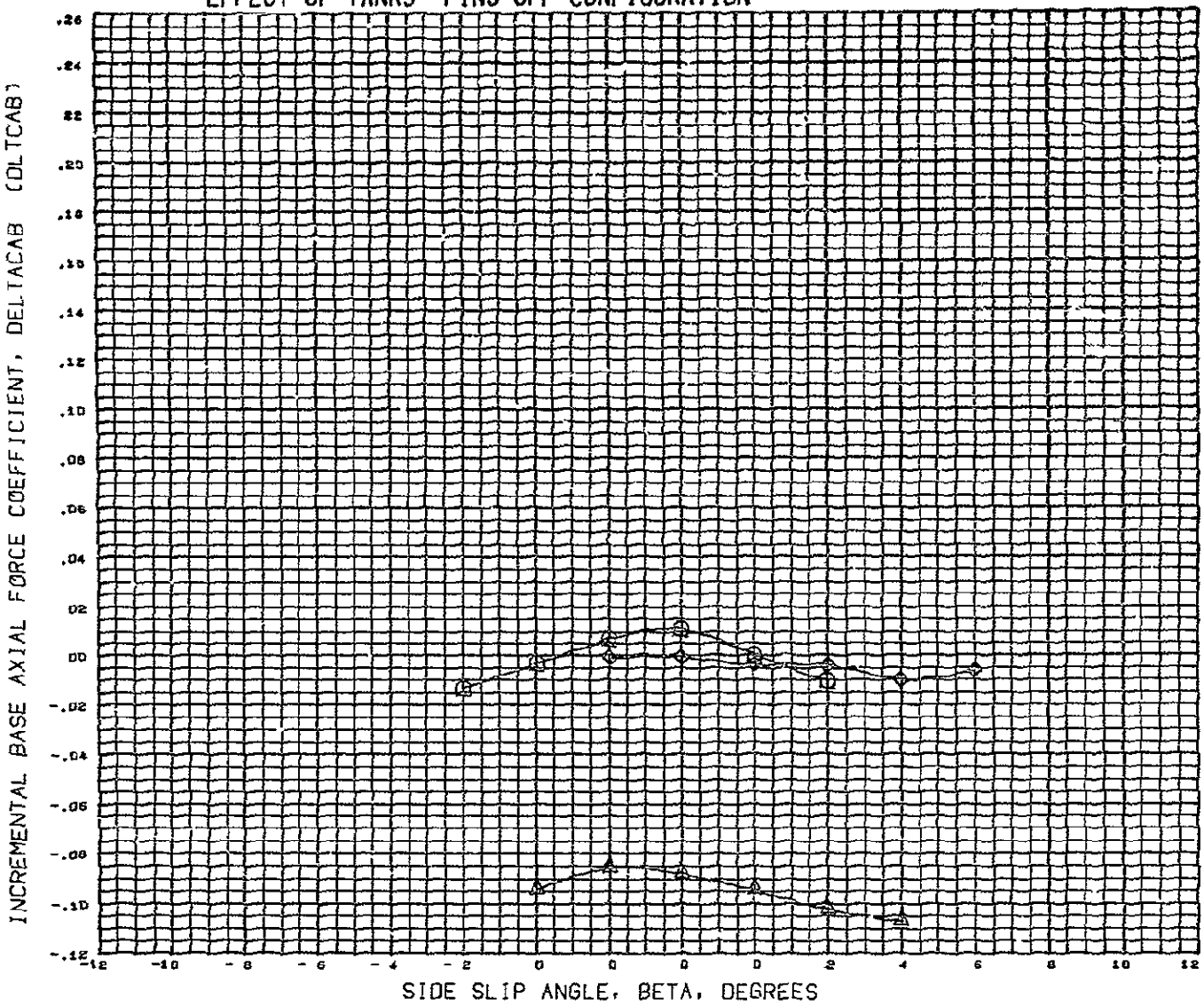
SYMBOL	MACH	PARAMETRIC VALUES			
○	0.600	ALPHA	0.000	ORBINC	- 3.100
△	0.900				
◇	1.000				
□	1.100				

DATA HIST CODE MN*EI*A*C

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3350	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0300	IN
SCALE	0.0034	

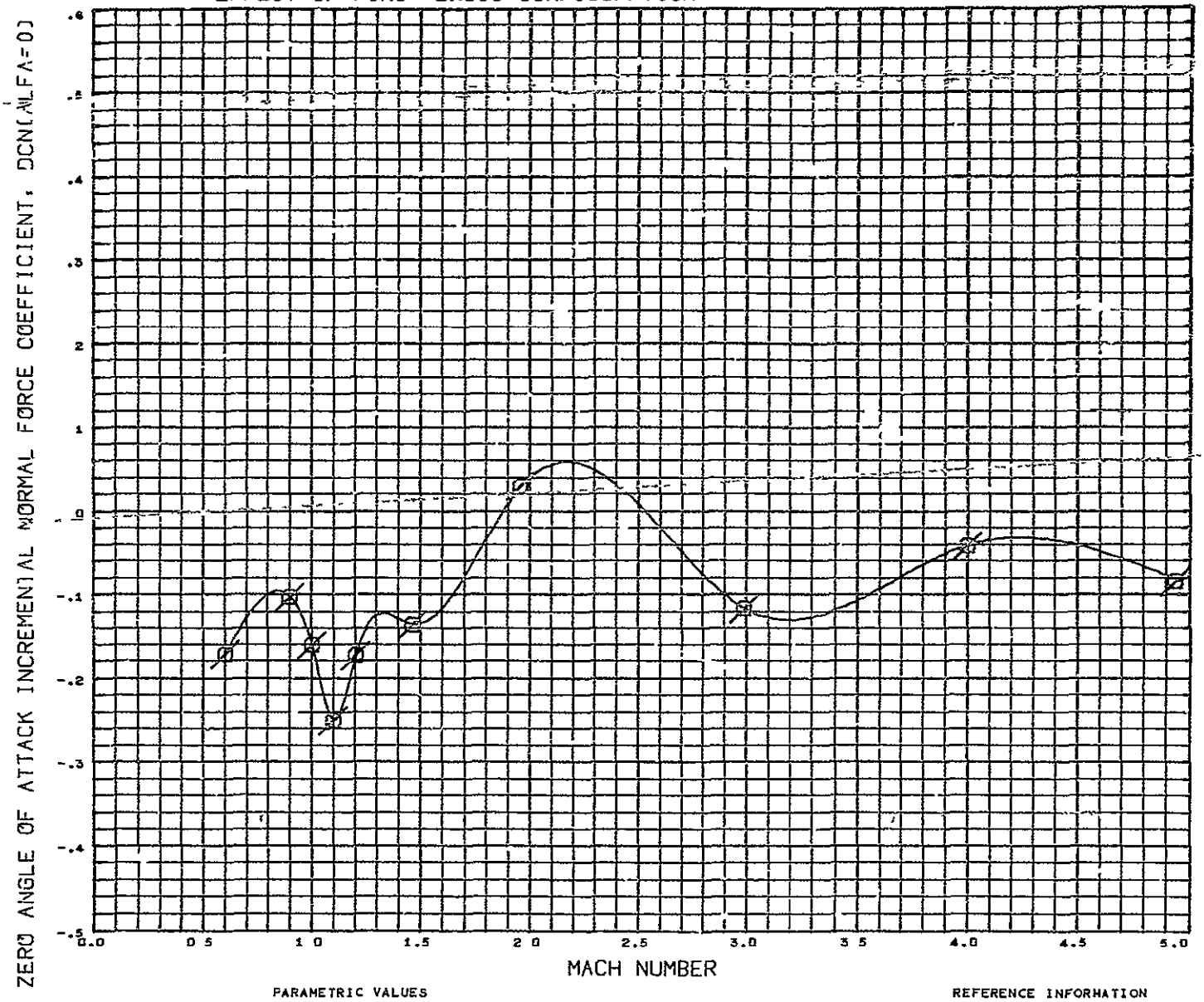
EFFECT OF TANKS- FINS OFF CONFIGURATION



SYMBOL	MACH	PARAMETRIC VALUES			REFERENCE INFORMATION		
○△	1.200	ALPHA	0.000	ORBINC - 5.100	SREF	1.3960	SQ IN.
◇△	1.460				LREF	1.3330	IN
◇	1.960				BREF	1.3330	IN
					XMRP	3.6860	IN
					YMRP	0.0000	IN
					ZMRP	0.0000	IN
					SCALE	0.0034	

DATA HIST CODE HM*EI*A*C

EFFECT OF FINS- BASIC CONFIGURATION



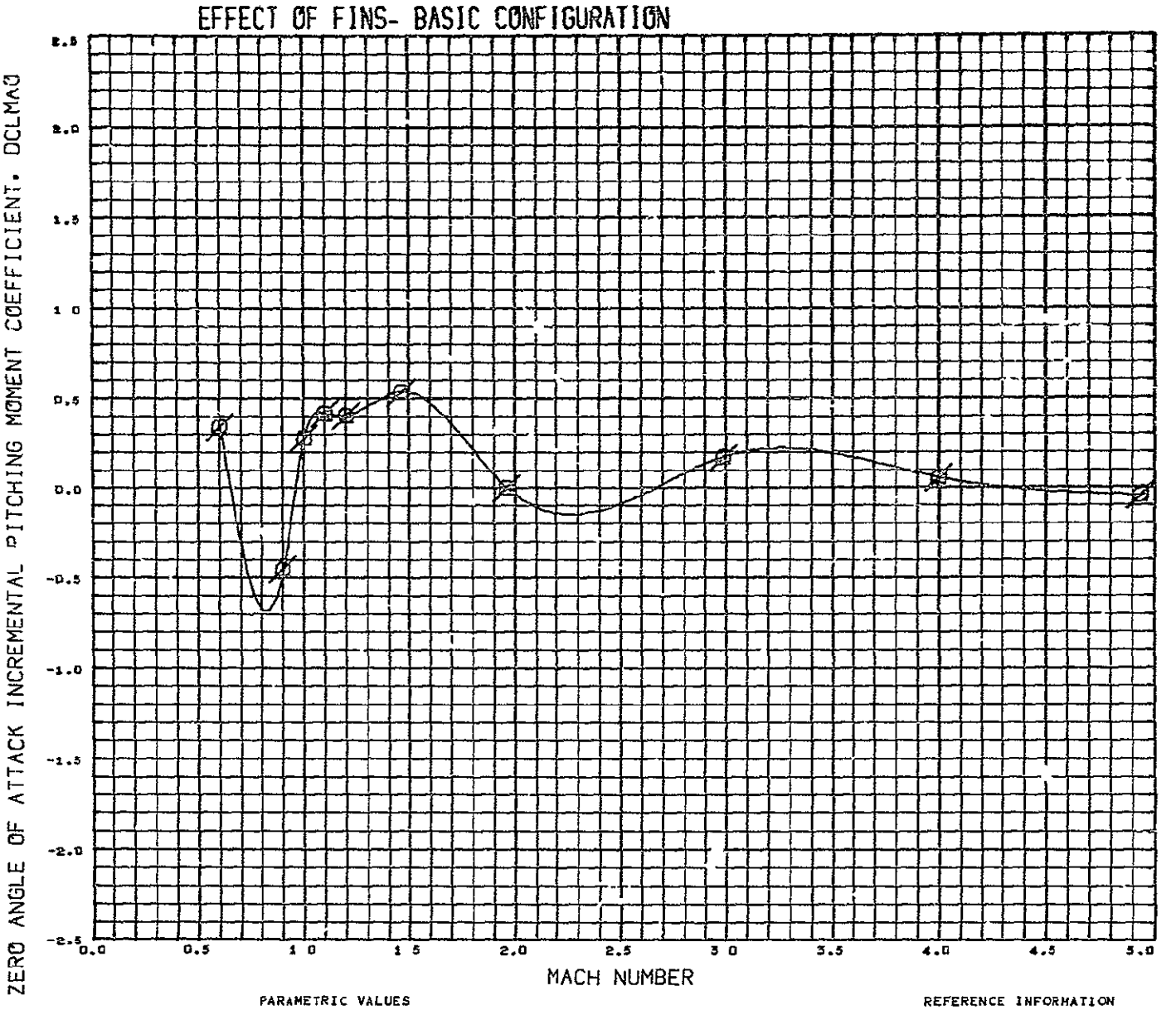
PARAMETRIC VALUES

dETA 0.000 ORBINC - 3.100

DATA HIST CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0009	IN
SCALE	0.0034	



PARAMETRIC VALUES

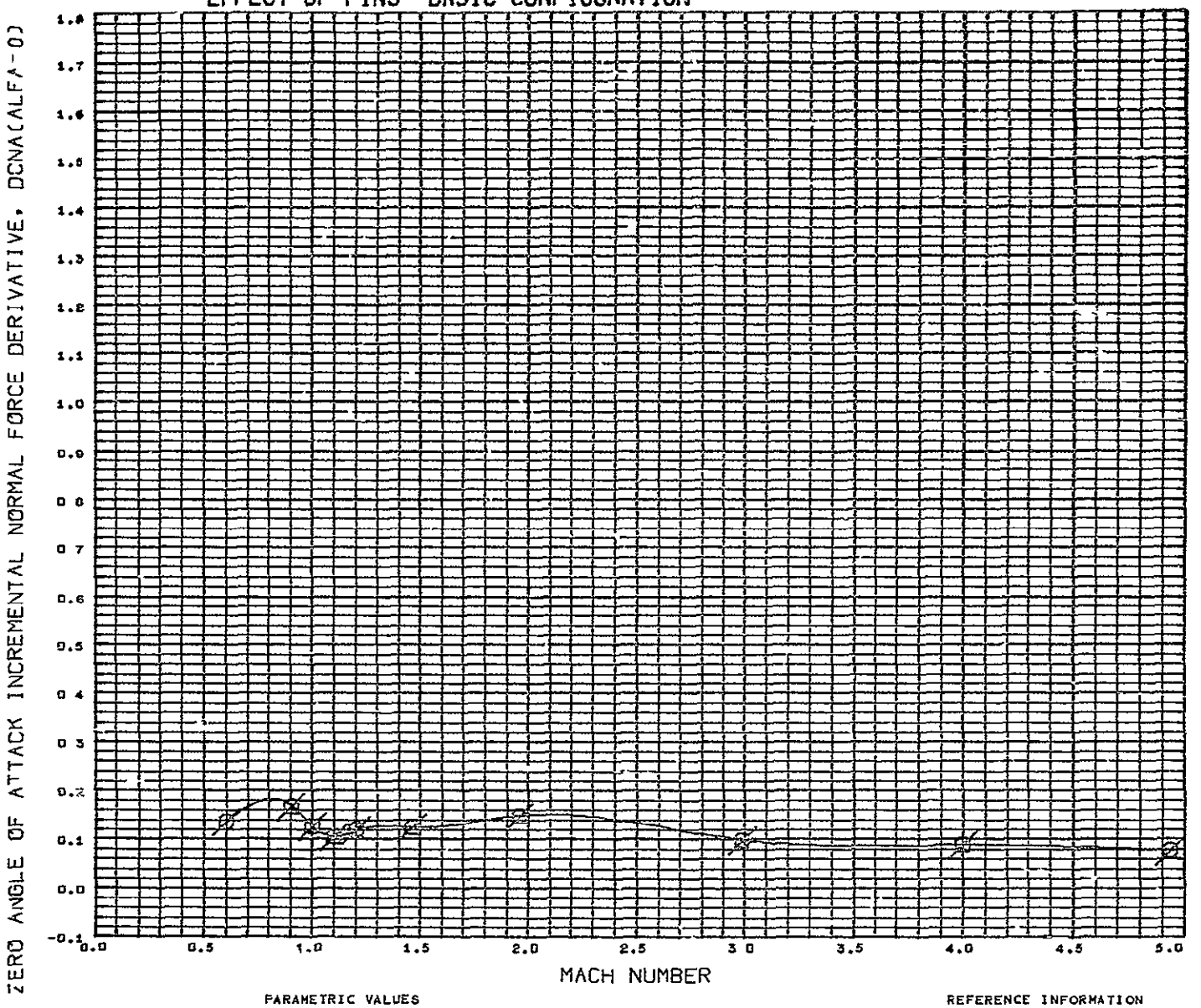
BETA 0.000 ORBINC = 3.100

DATA HIST CODE H*E1*CF

REFERENCE INFORMATION

SREF	1.3965	SQ IN
LREF	1.3350	IN
BREF	1.3350	IN
XMRP	3.6850	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



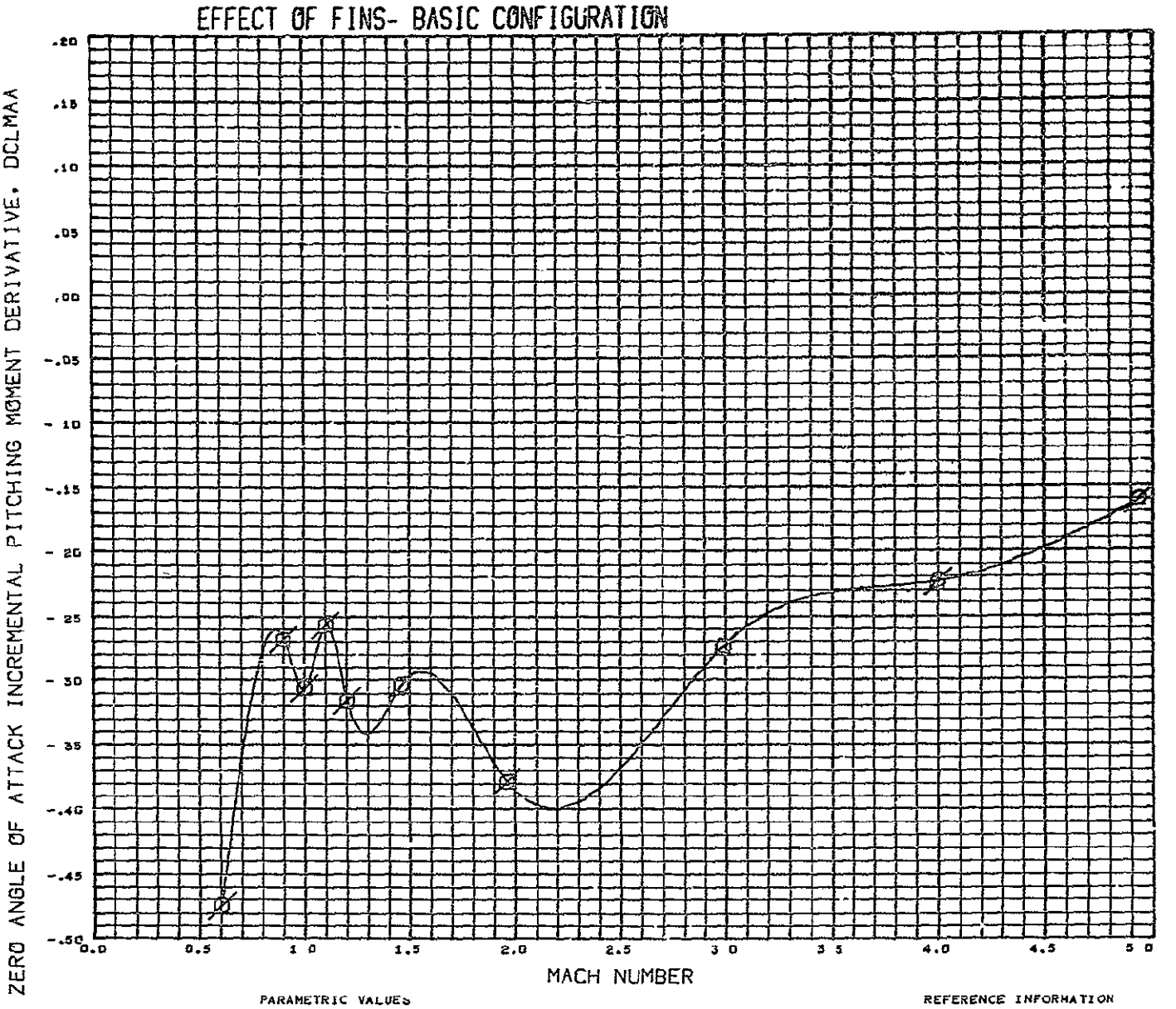
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRF	3.6860	IN
YMRF	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF



PARAMETRIC VALUES

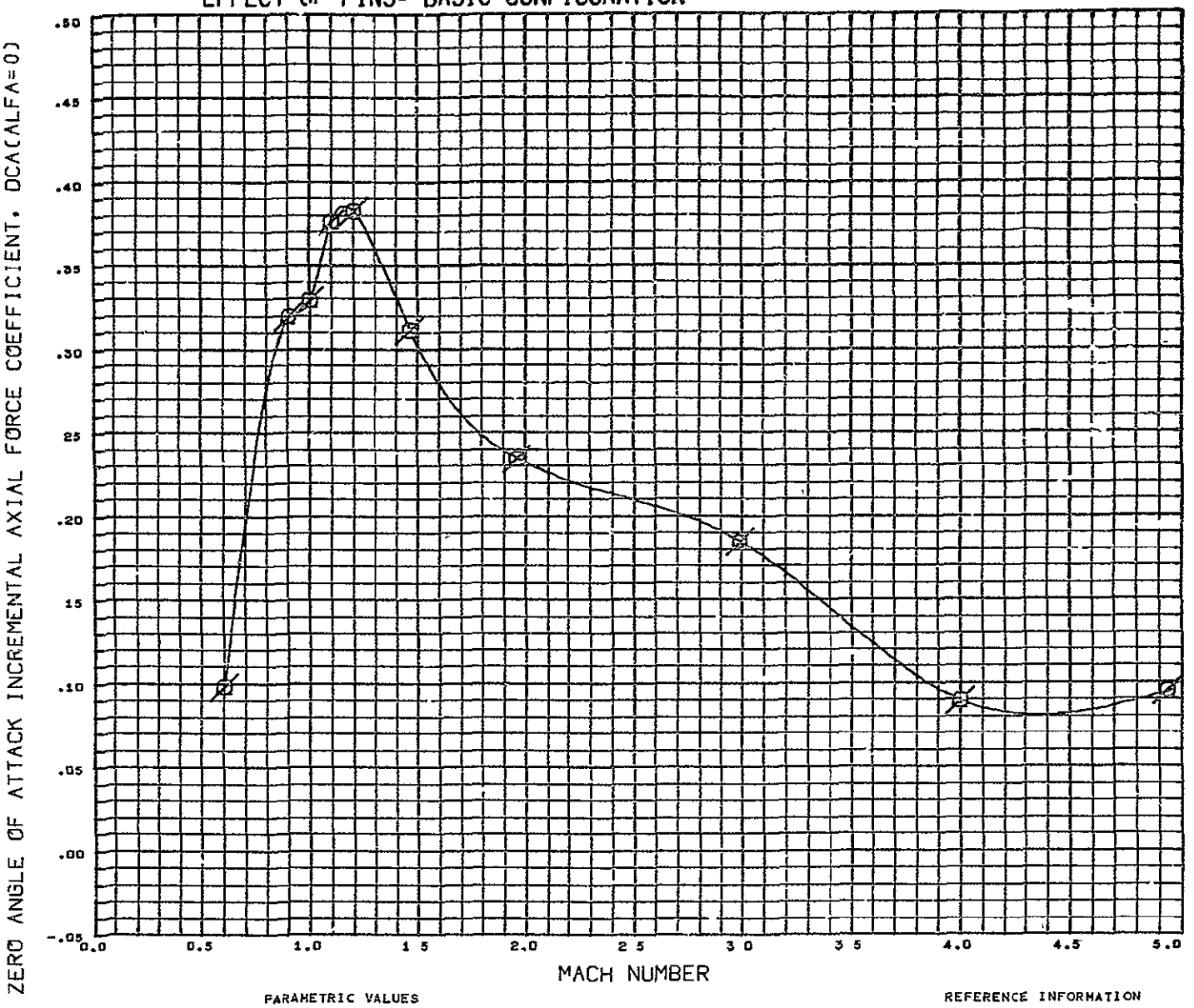
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0630	IN
SCALE	0.003	

DATA HIST CODE M*EI*CF

EFFECT OF FINS- BASIC CONFIGURATION



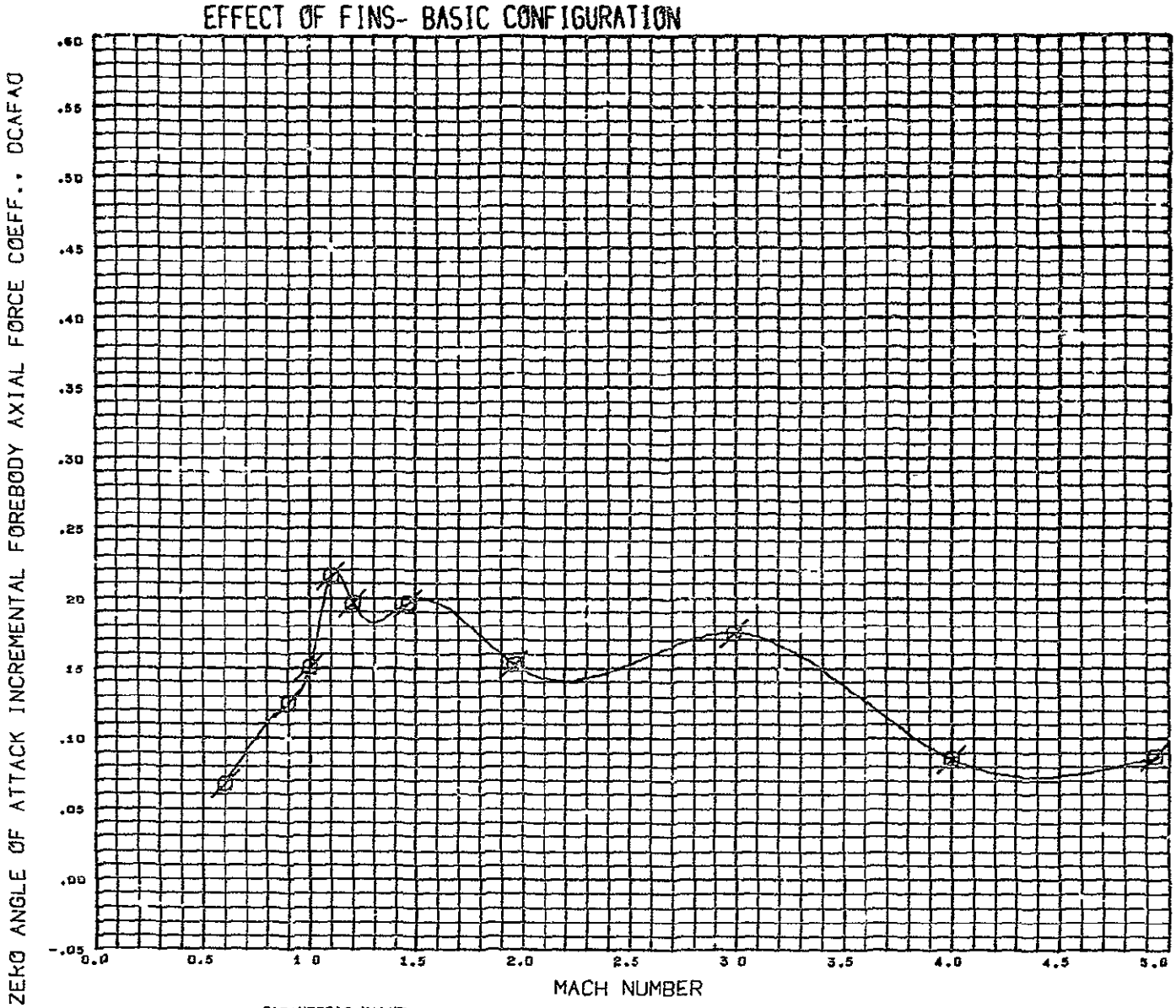
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1.3550	SQ.IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0060	IN
SCALE	0 0034	

DATA HIST. CODE M*EI*CF



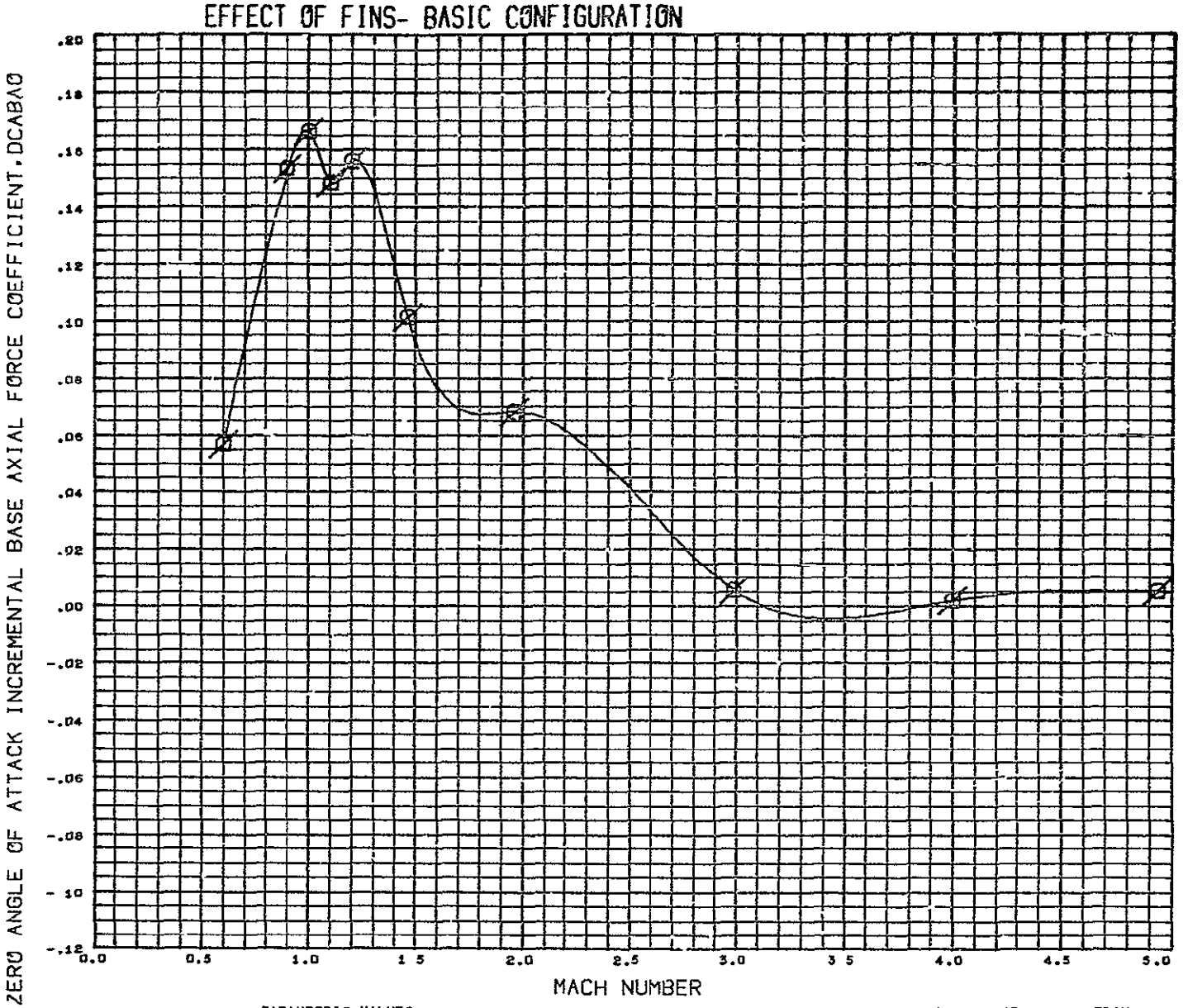
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST CODE H*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

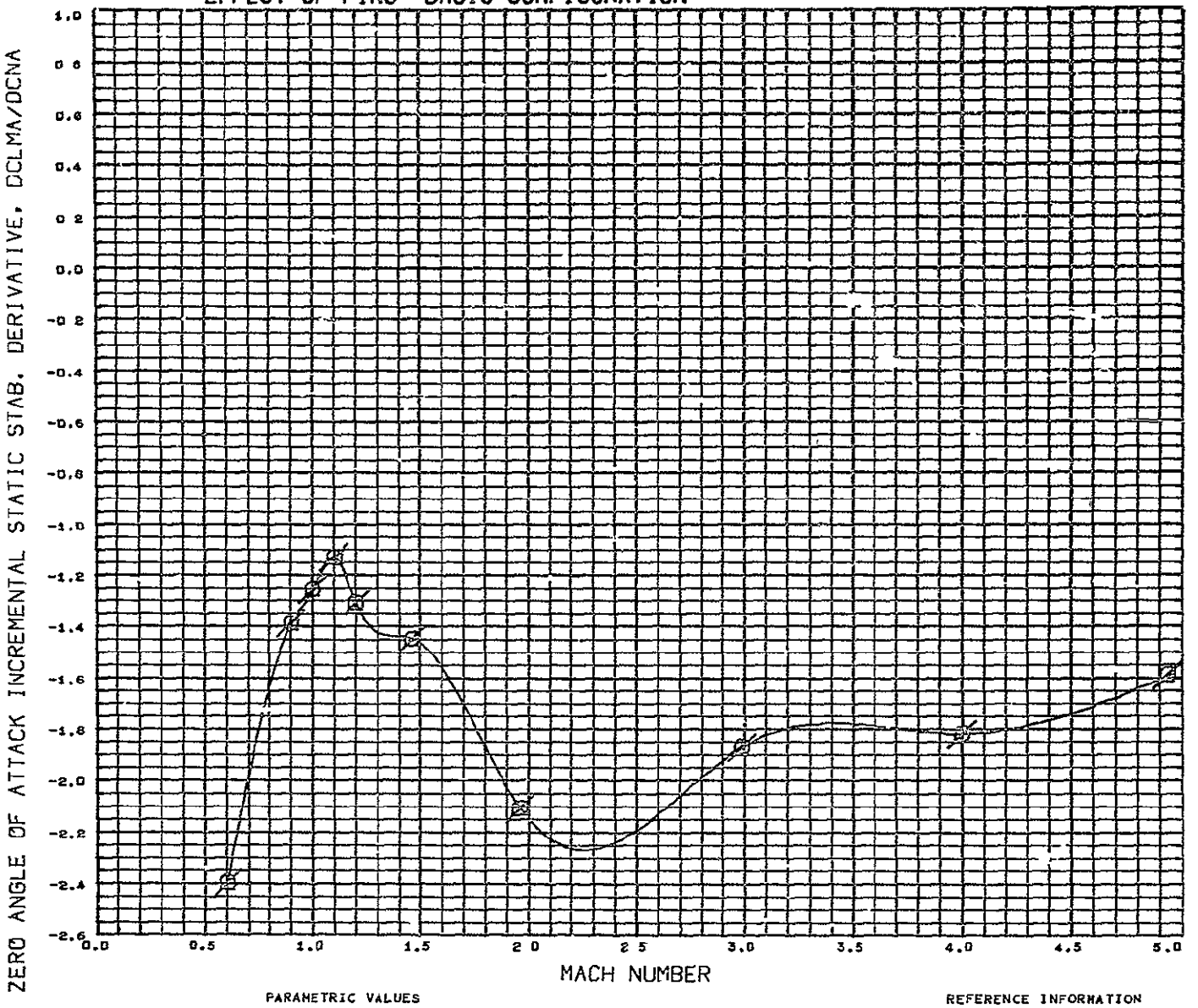
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- BASIC CONFIGURATION



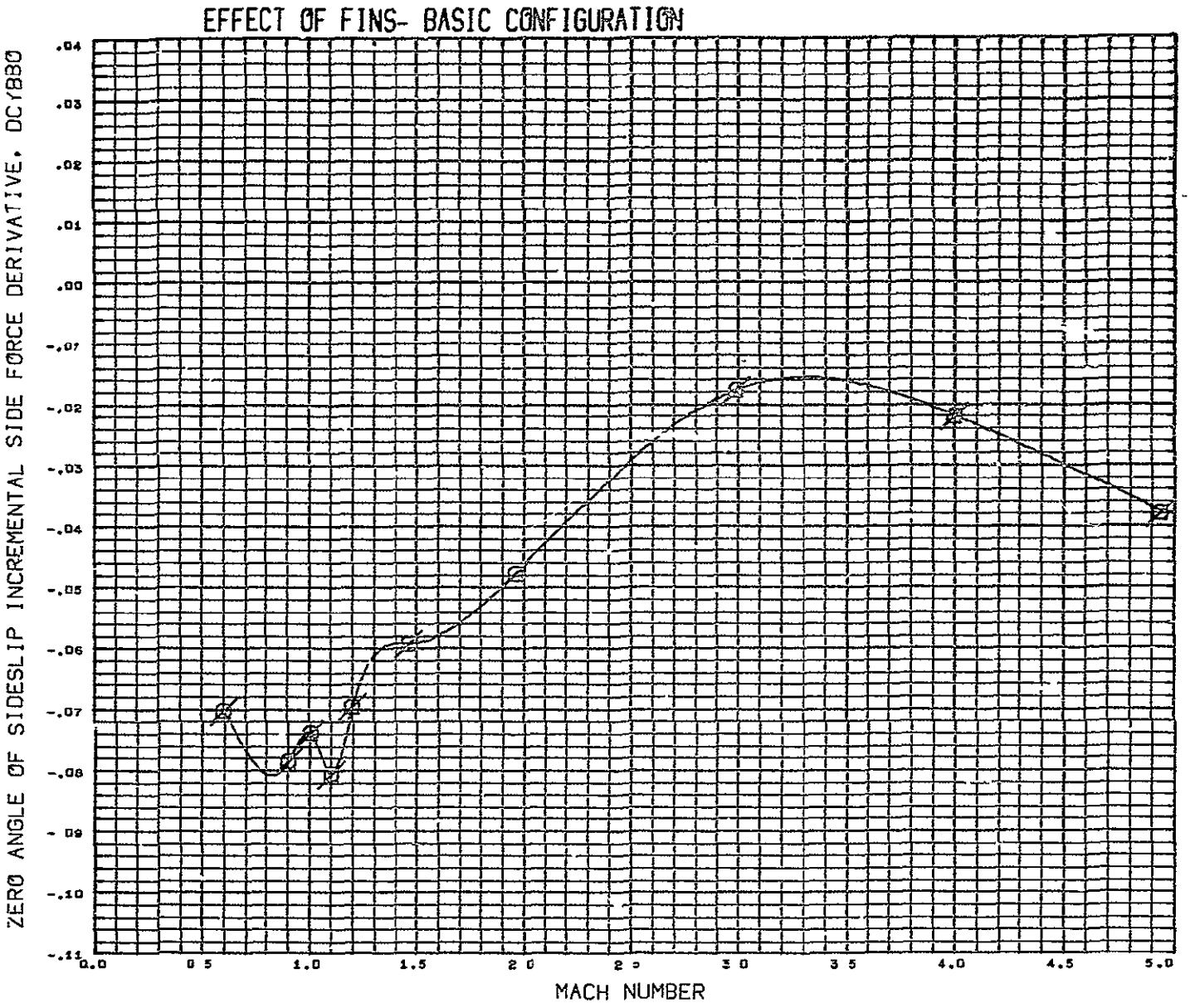
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*E1*CF



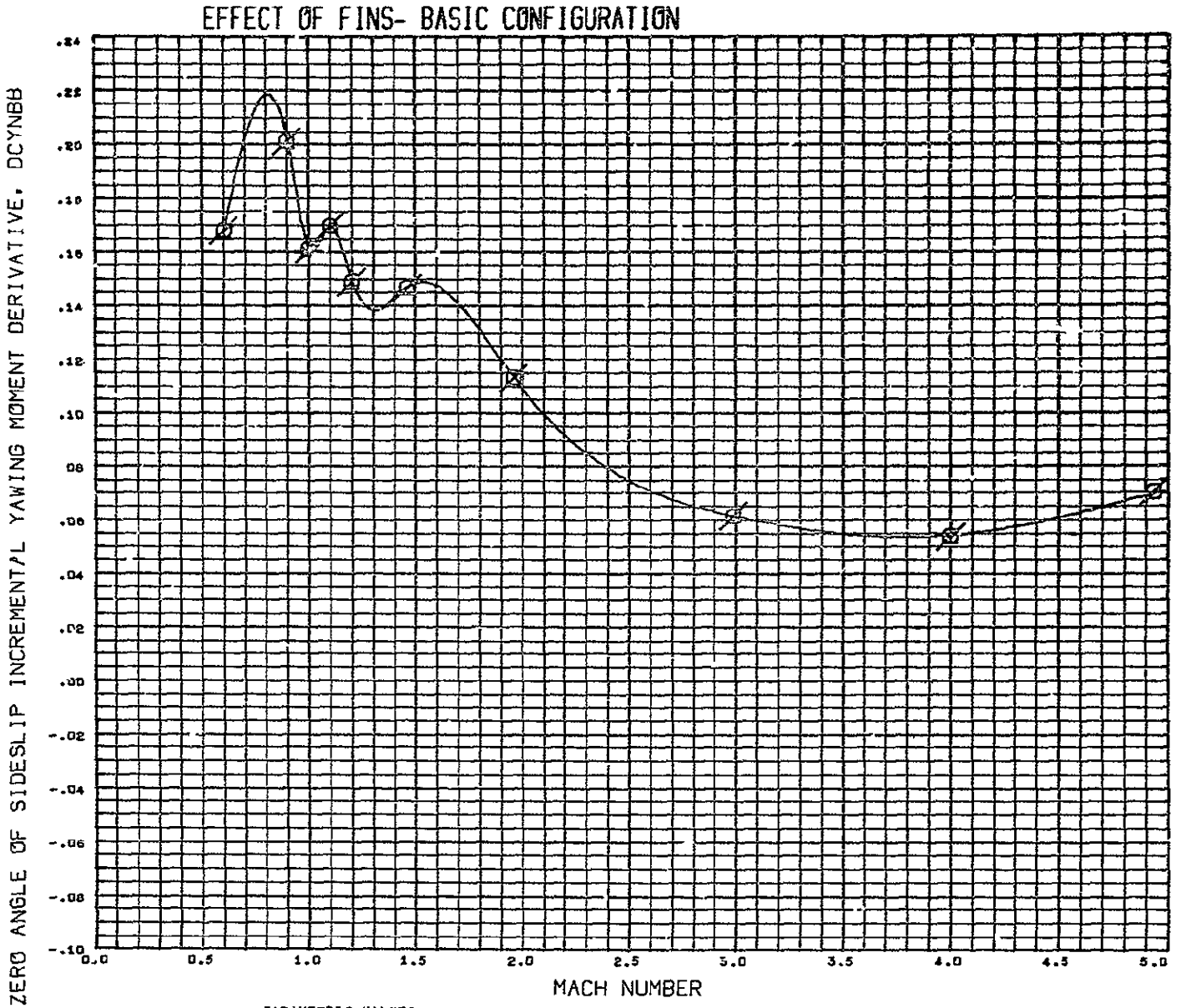
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3 700

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M*EI*CF



PARAMETRIC VALUES

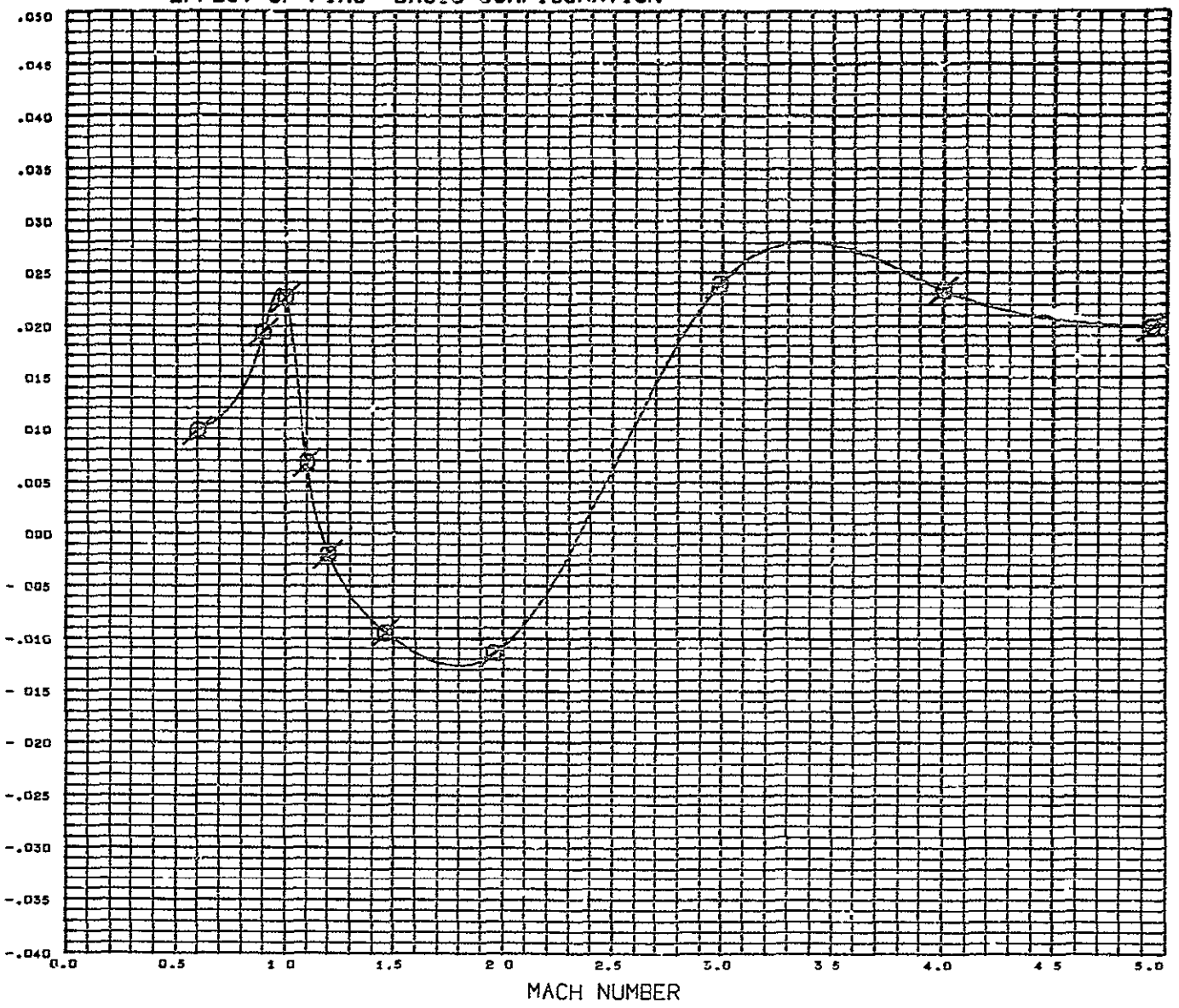
ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0934	

EFFECT OF FINS- BASIC CONFIGURATION



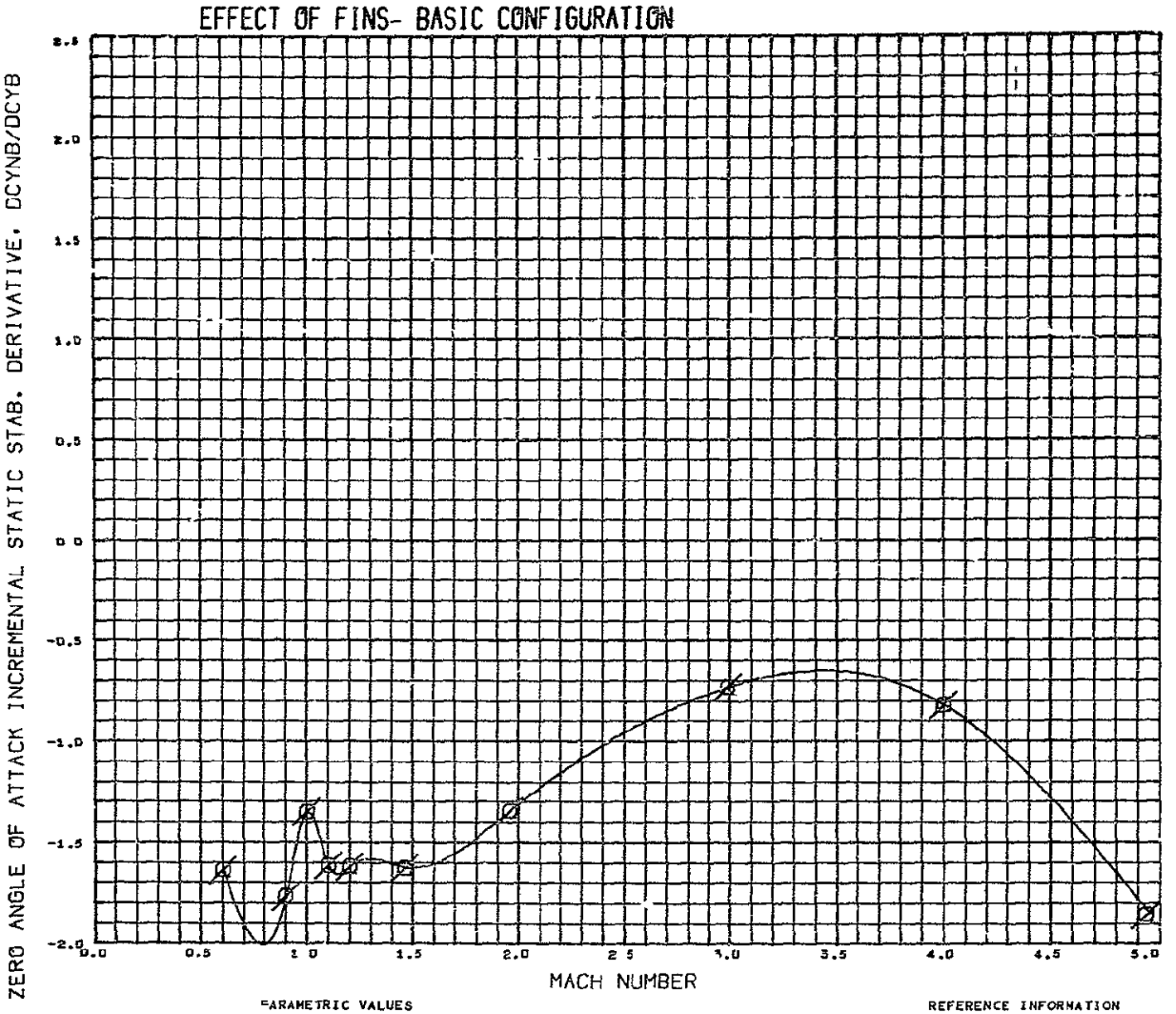
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF



PARAMETRIC VALUES

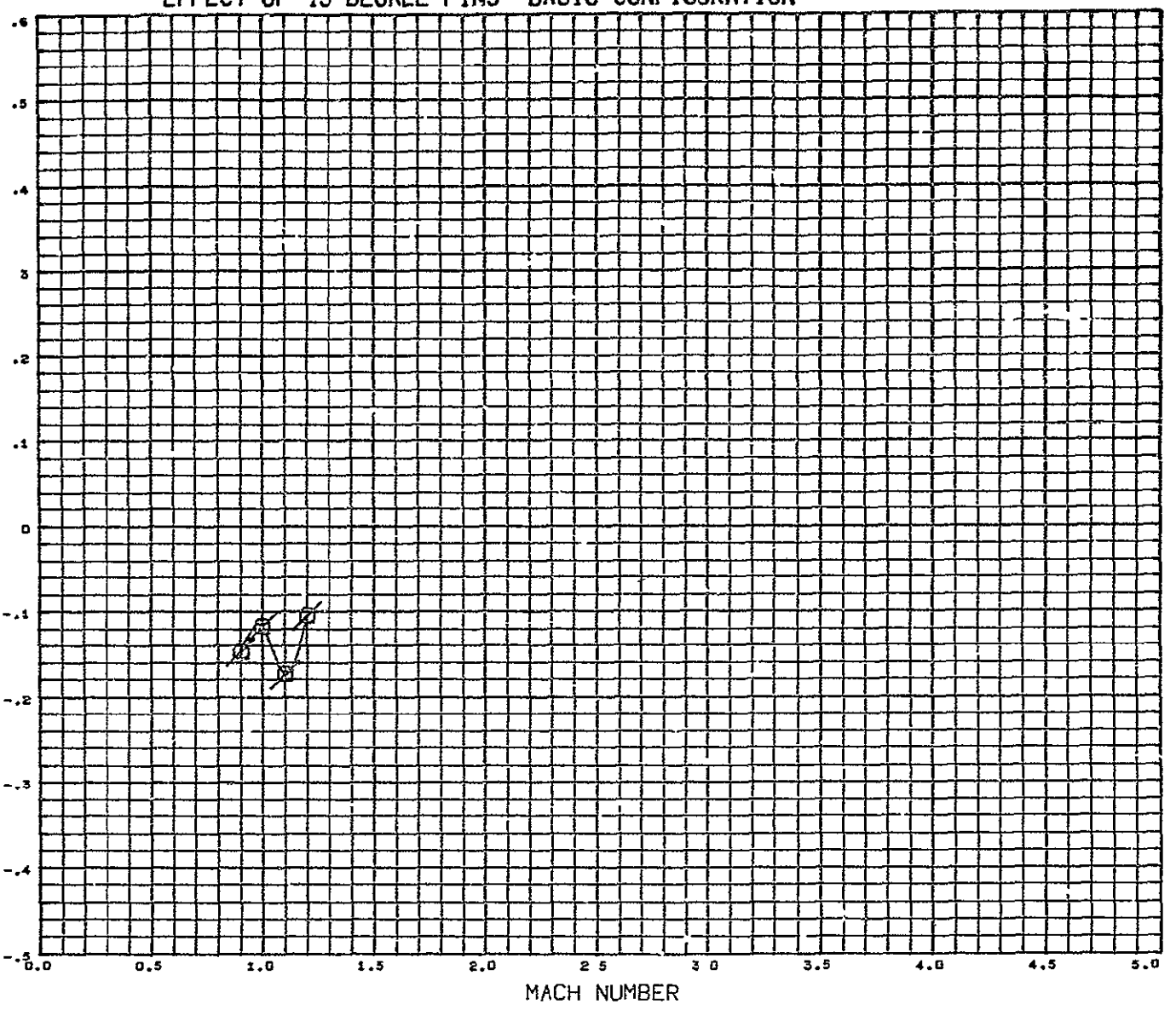
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



PARAMETRIC VALUES

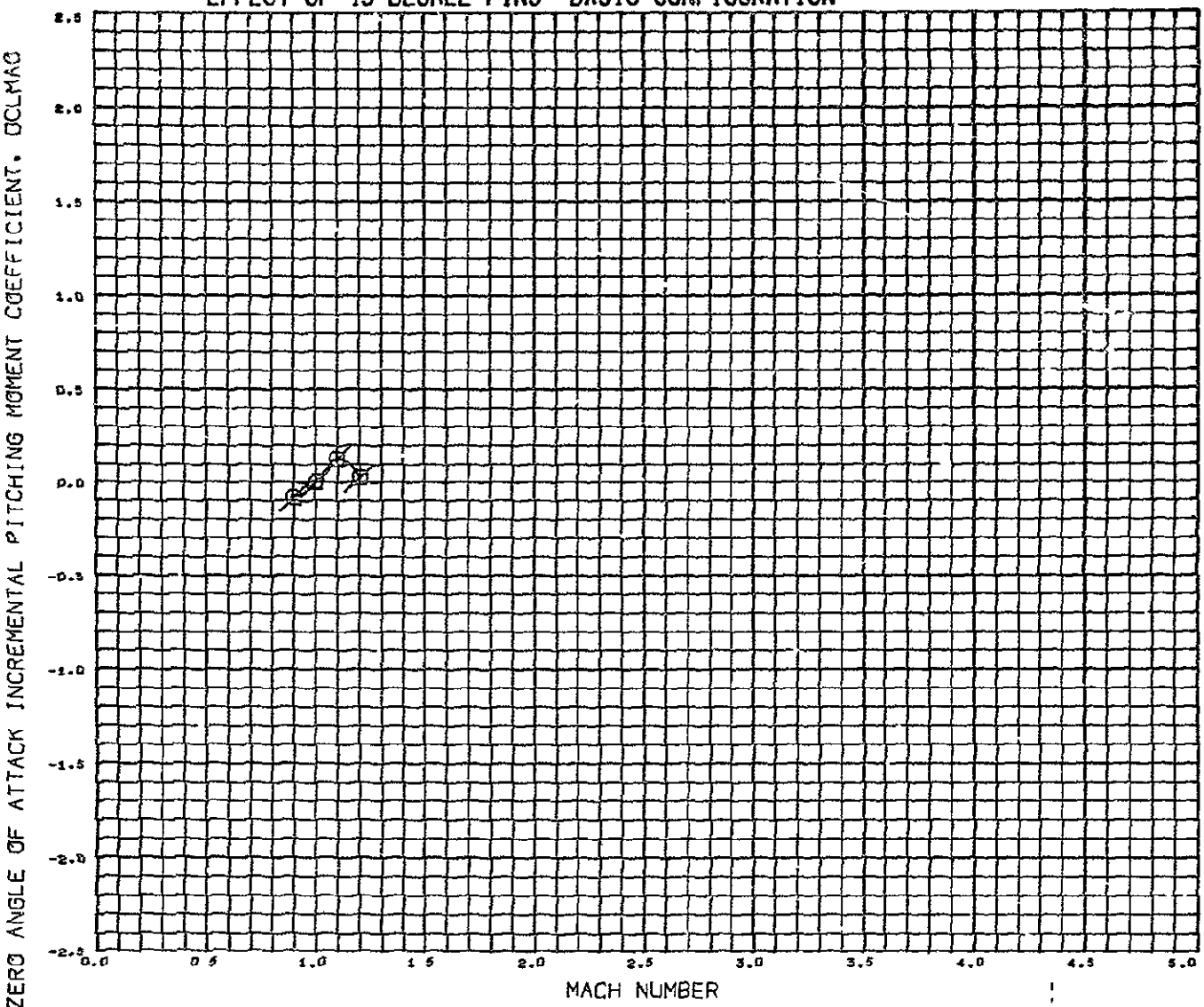
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0049	IN
SCALE	0.0034	

DATA HIST. CODE M*EI*CF

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



PARAMETRIC VALUES

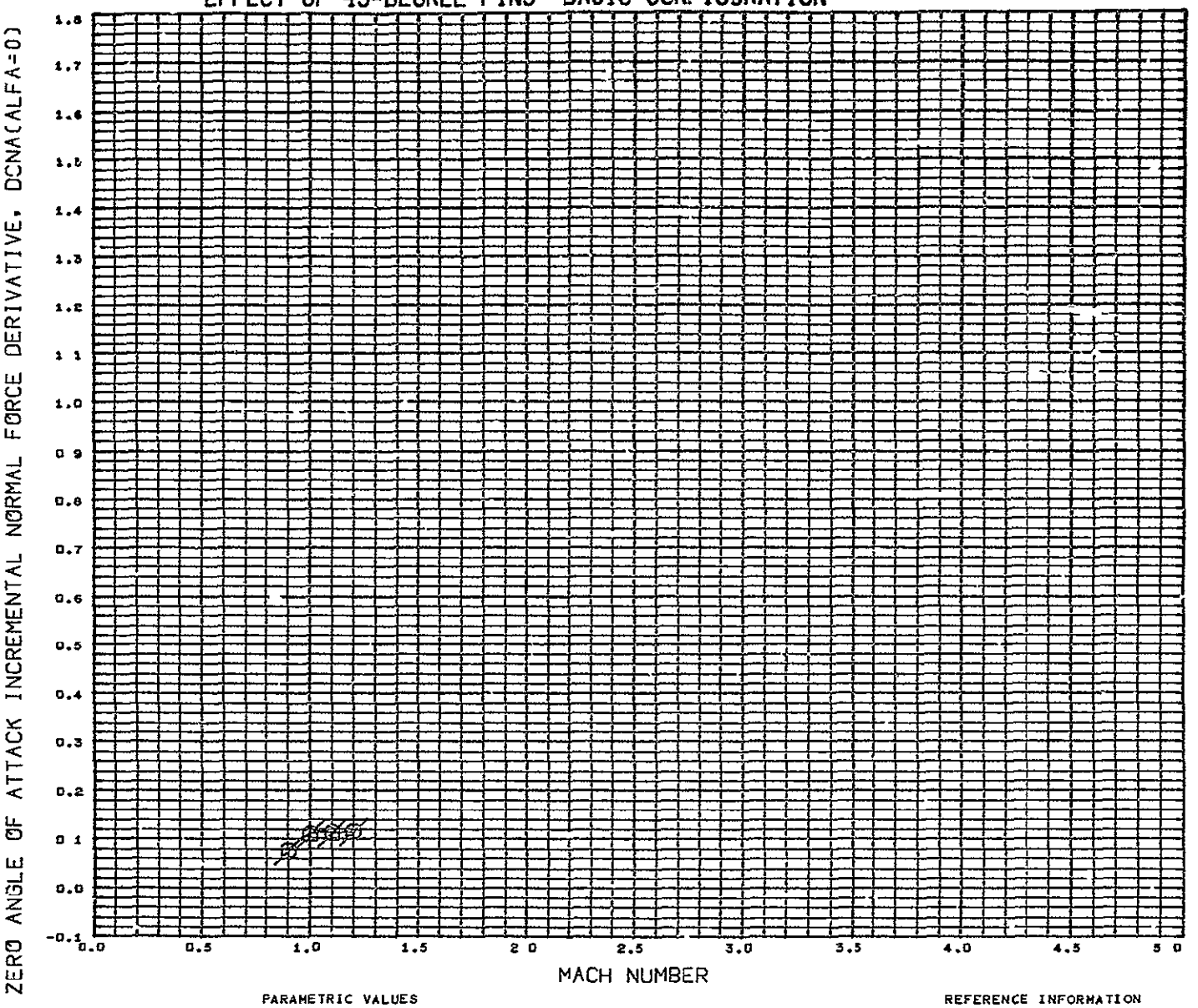
BETA 0.000 ORBINC ~ 5 100

DATA HIST CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3969	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



PARAMETRIC VALUES

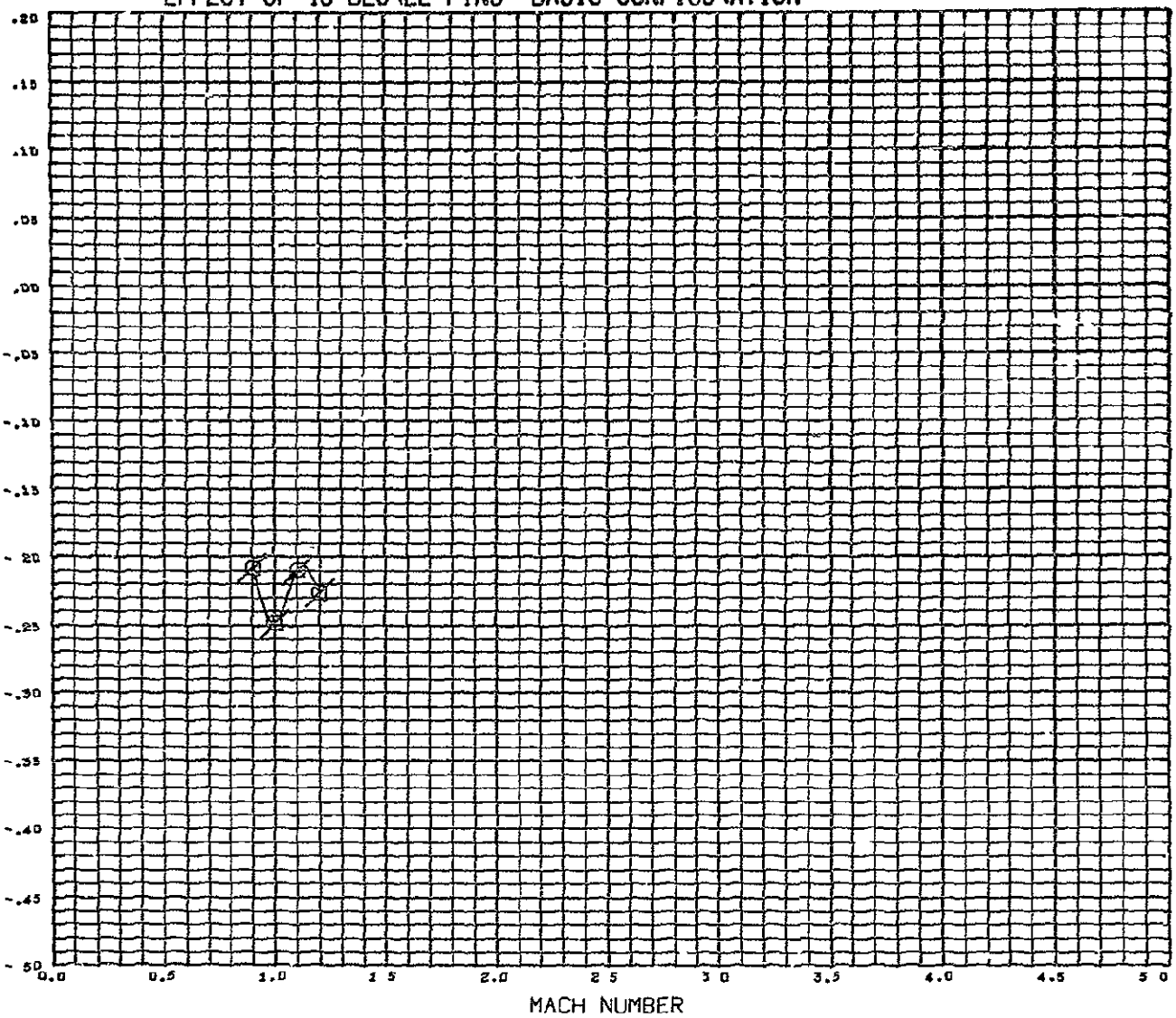
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*E1*CF

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0020	IN
SCALE	0.0034	

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



PARAMETRIC VALUES

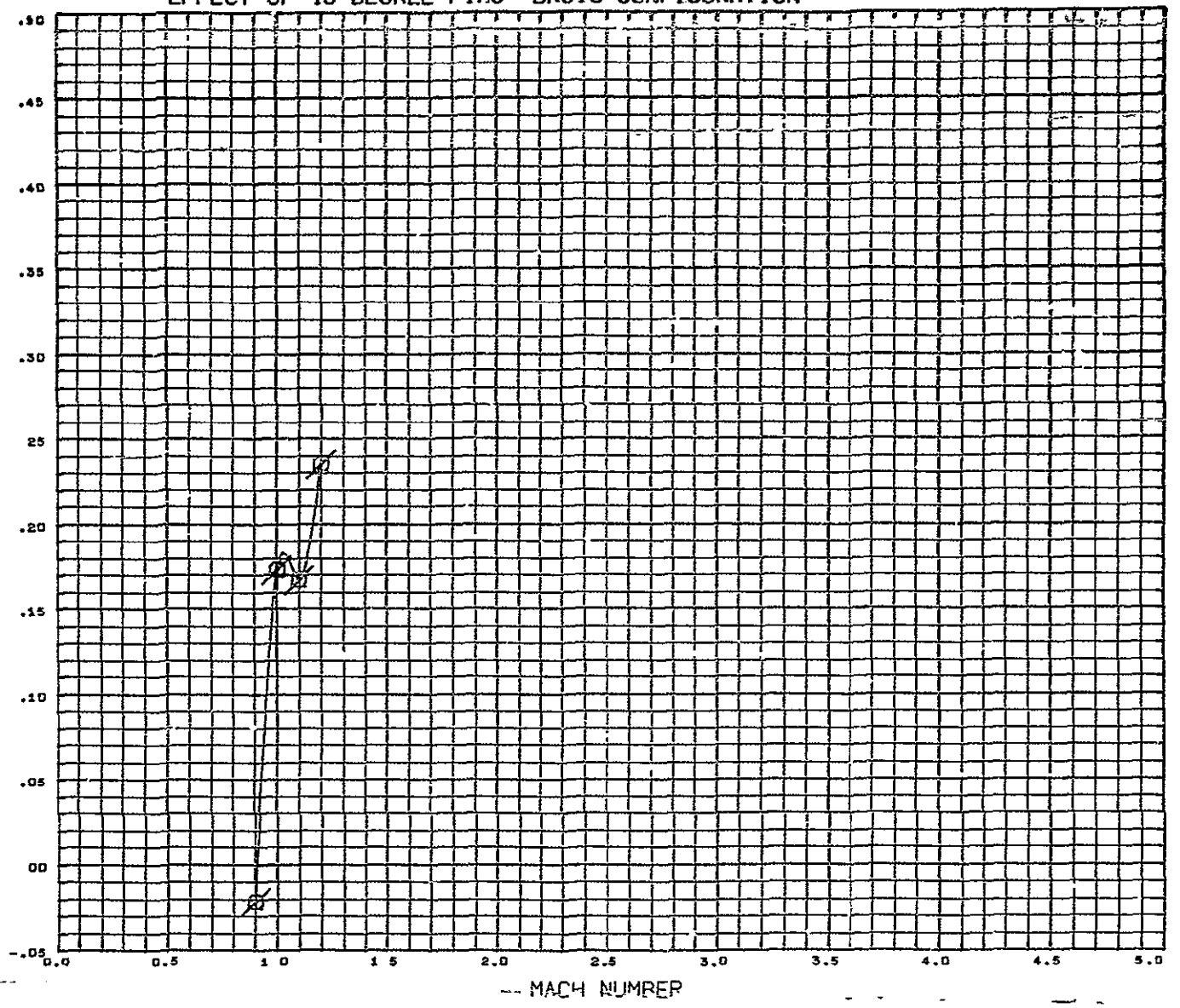
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0200	IN
SCALE	0.0034	

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



PARAMETRIC VALUES

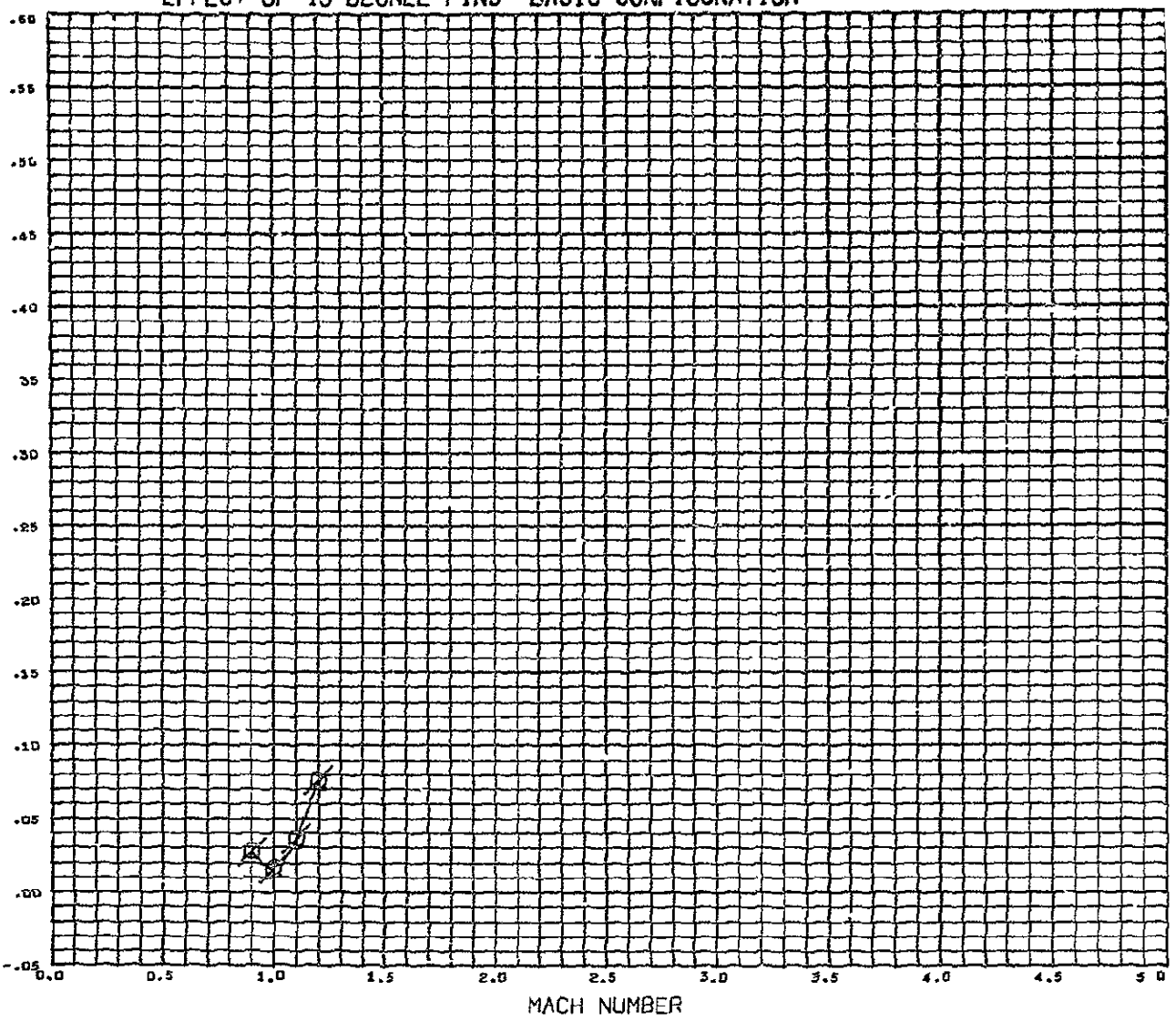
BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST. CODE M*EI*CF

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



PARAMETRIC VALUES

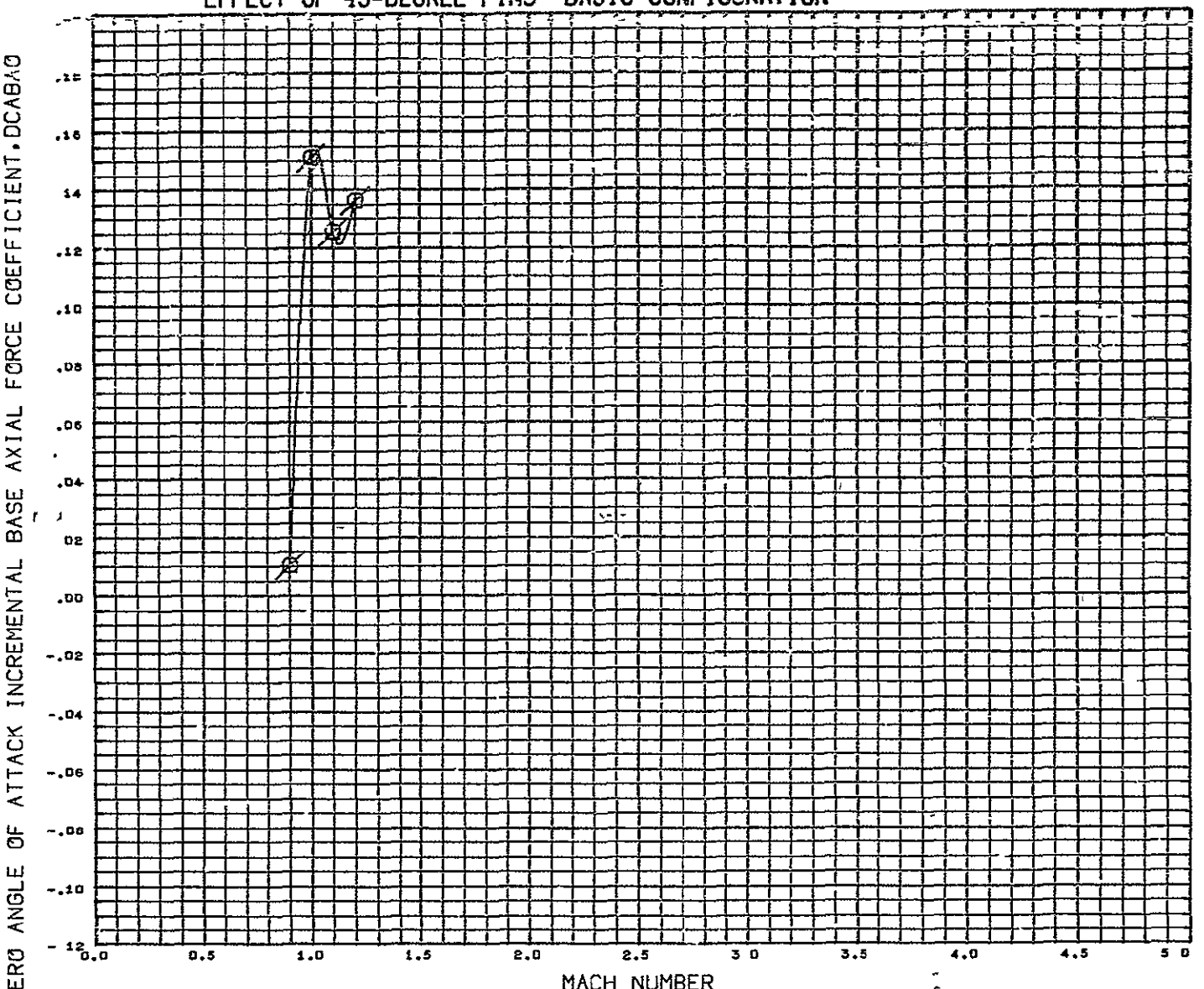
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



PARAMETRIC VALUES

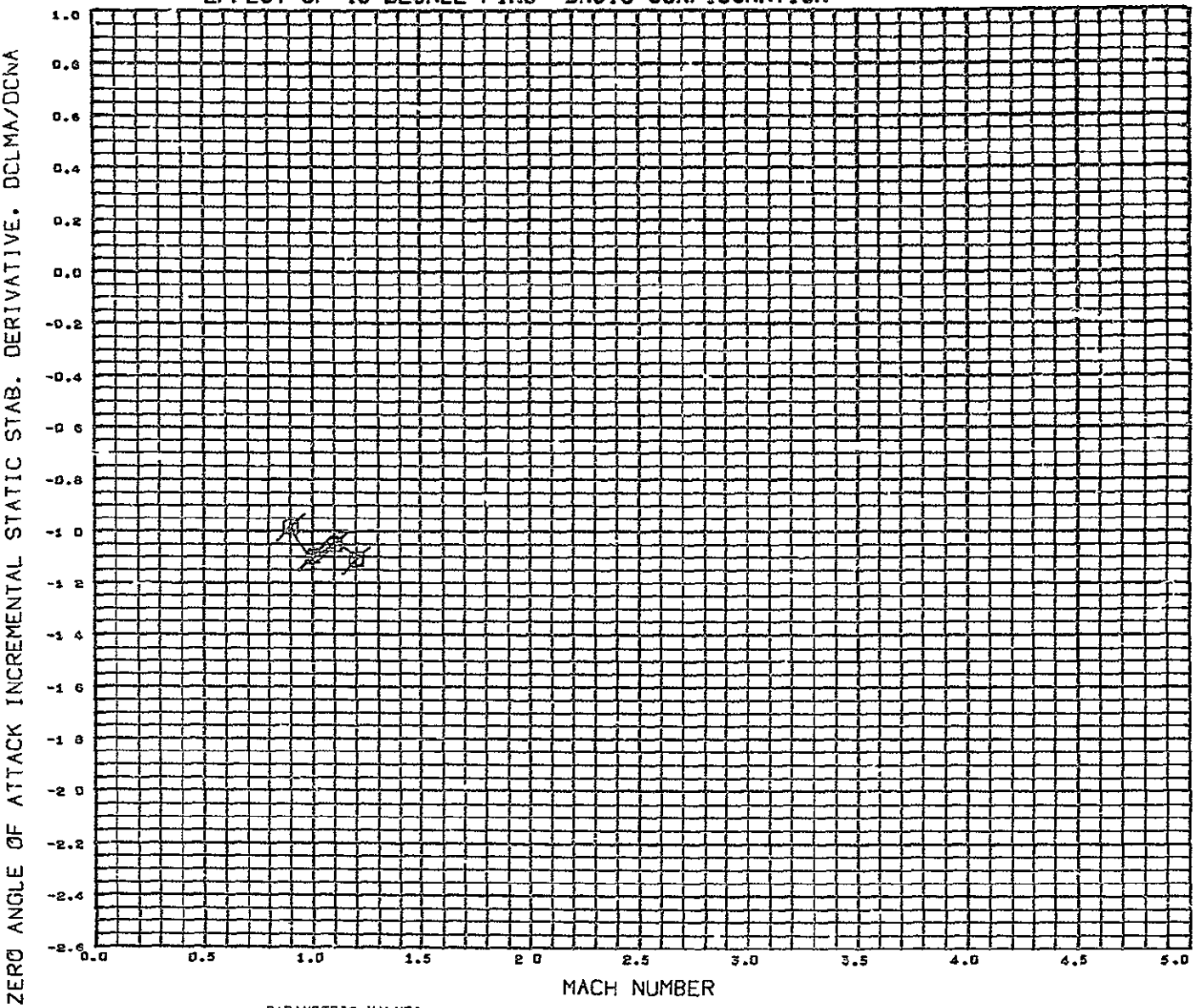
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0049	IN
SCALE	0.0034	

EFFECT OF 45-DEGREE FINS- BASIC CONFIGURATION



PARAMETRIC VALUES

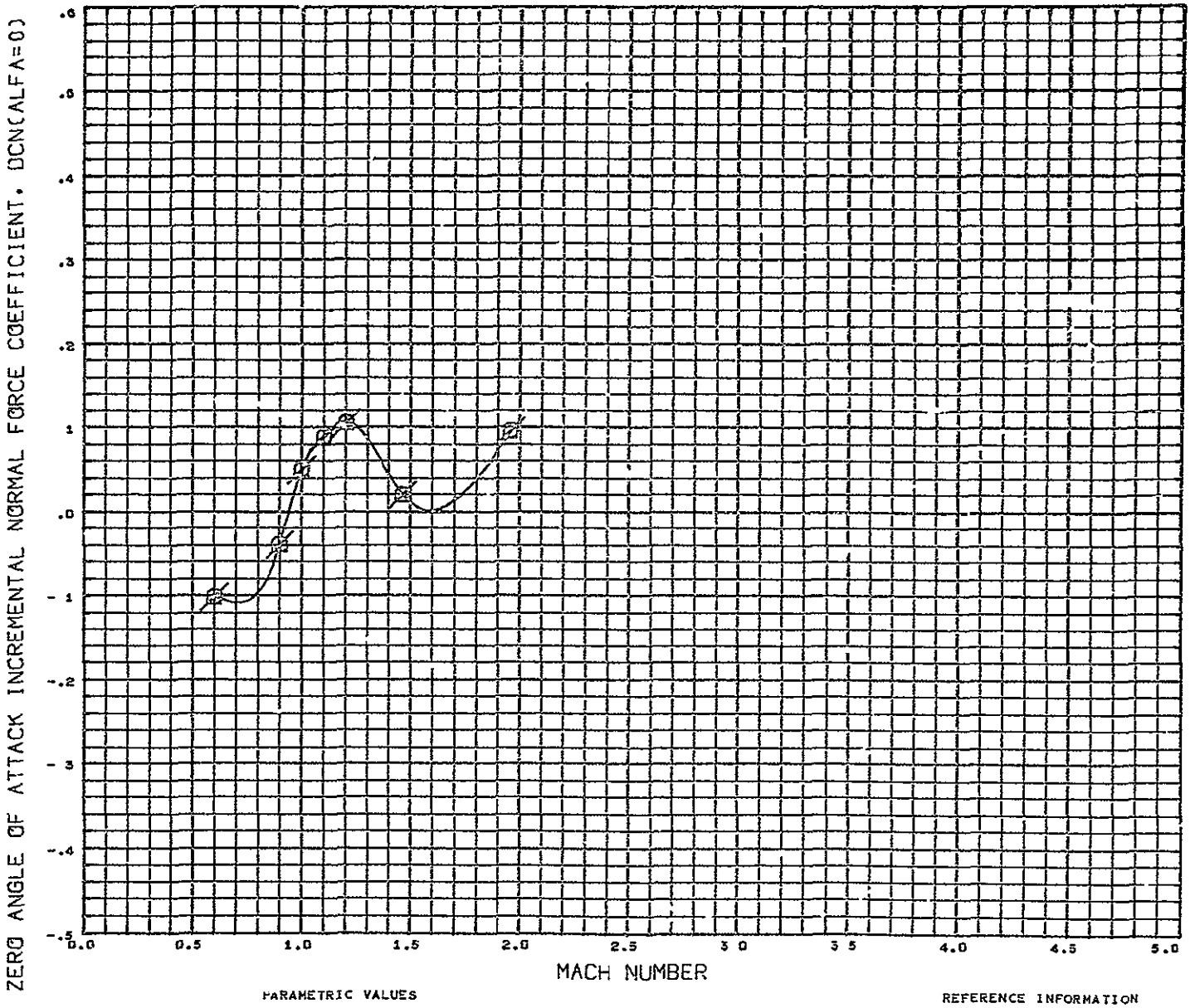
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0490	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF

EFFECT OF FINS- TANKS OFF CONFIGURATION



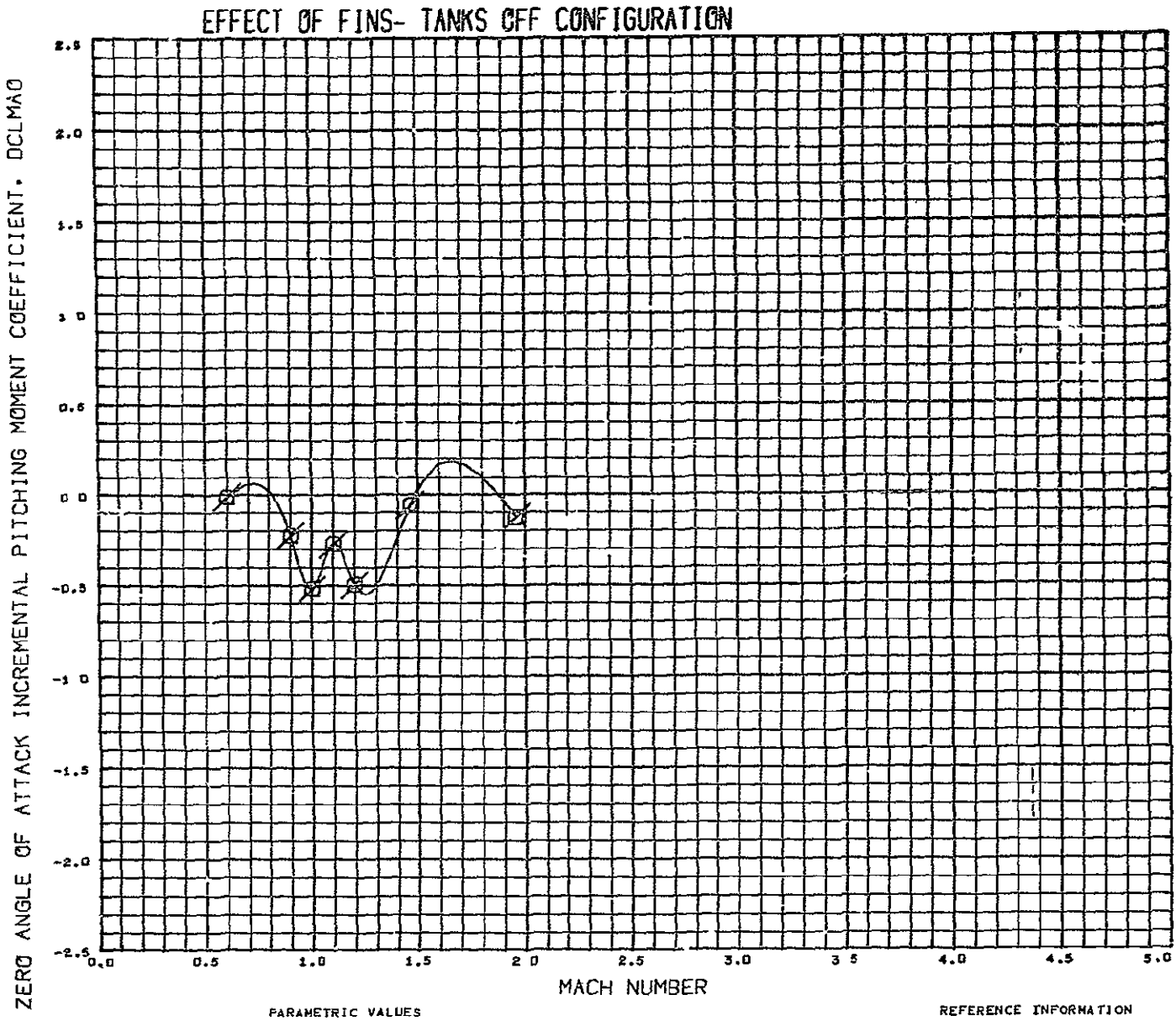
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*E1*A*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

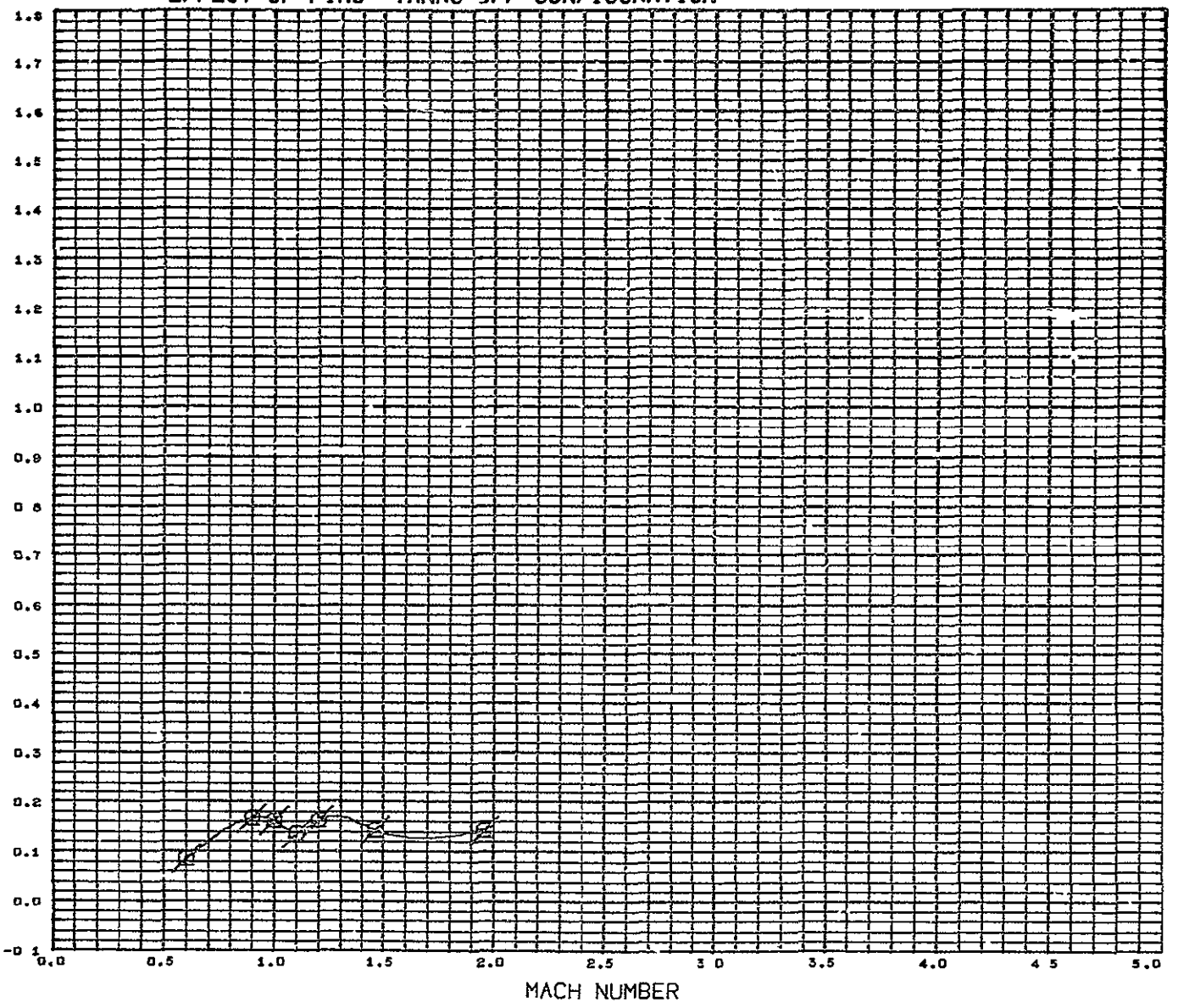
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*E1*A*CF

EFFECT OF FINS- TANKS OFF CONFIGURATION



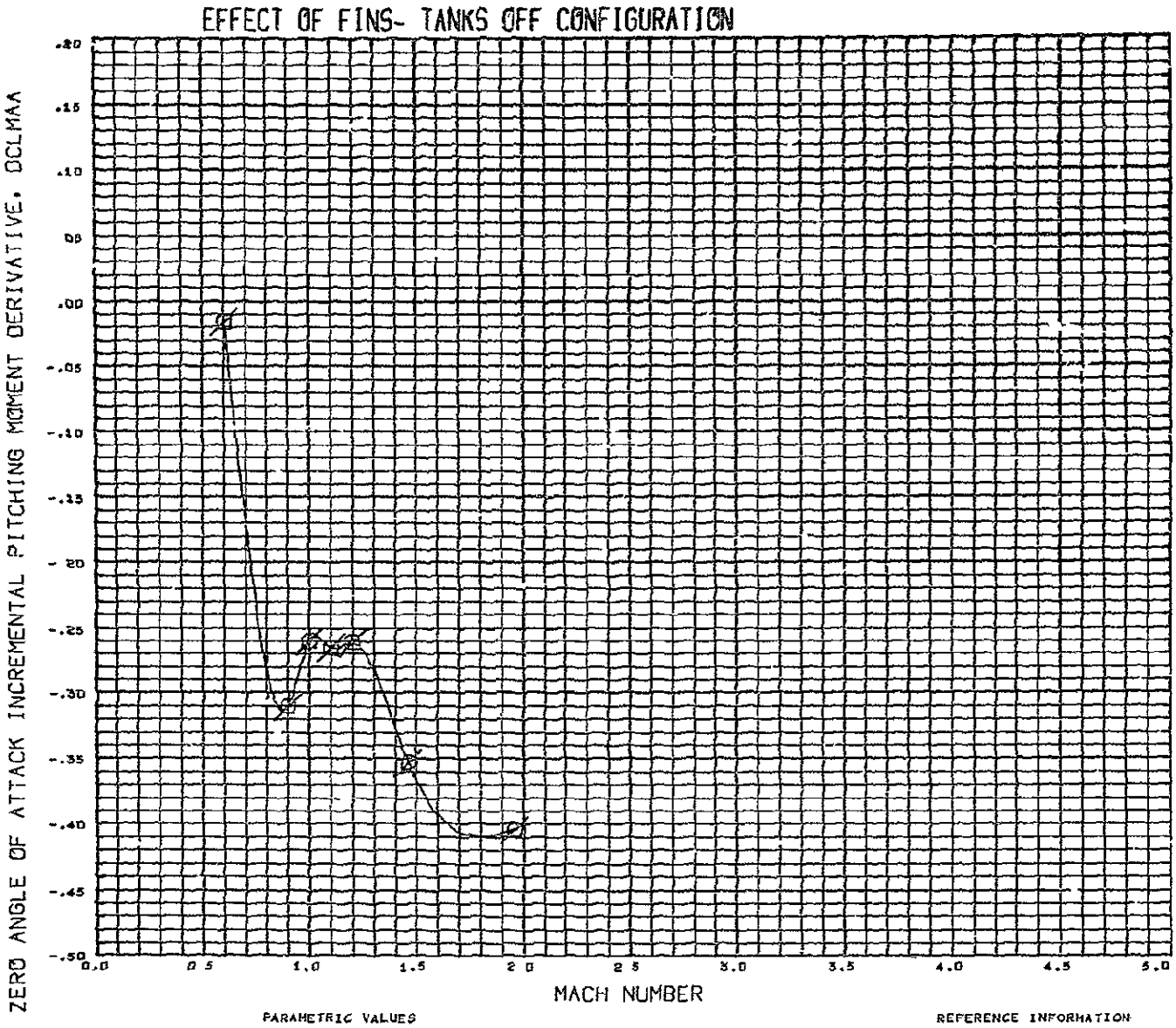
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*E1*A*CF



PARAMETRIC VALUES

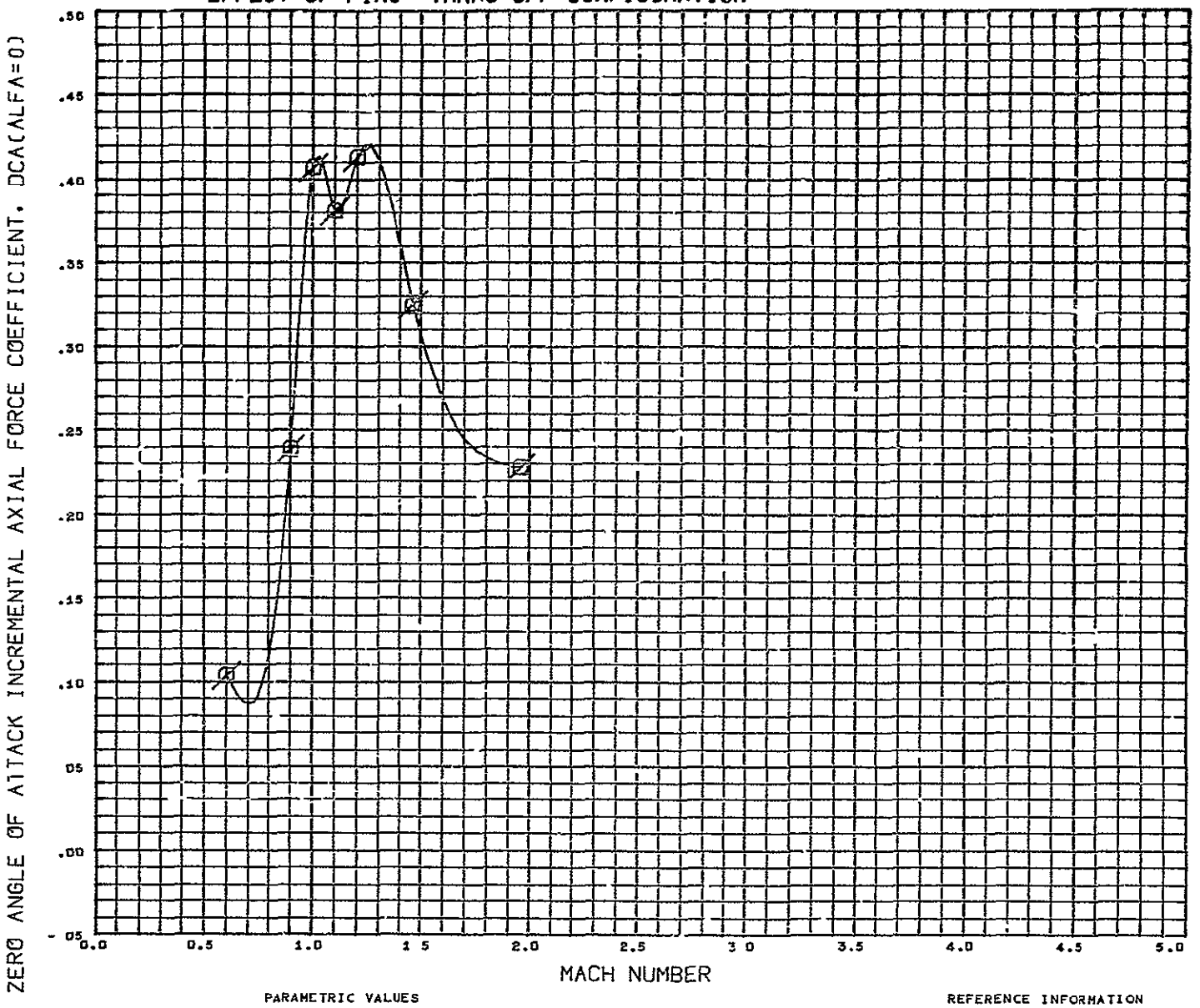
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*E1*A*CF

EFFECT OF FINS- TANKS OFF CONFIGURATION



PARAMETRIC VALUES

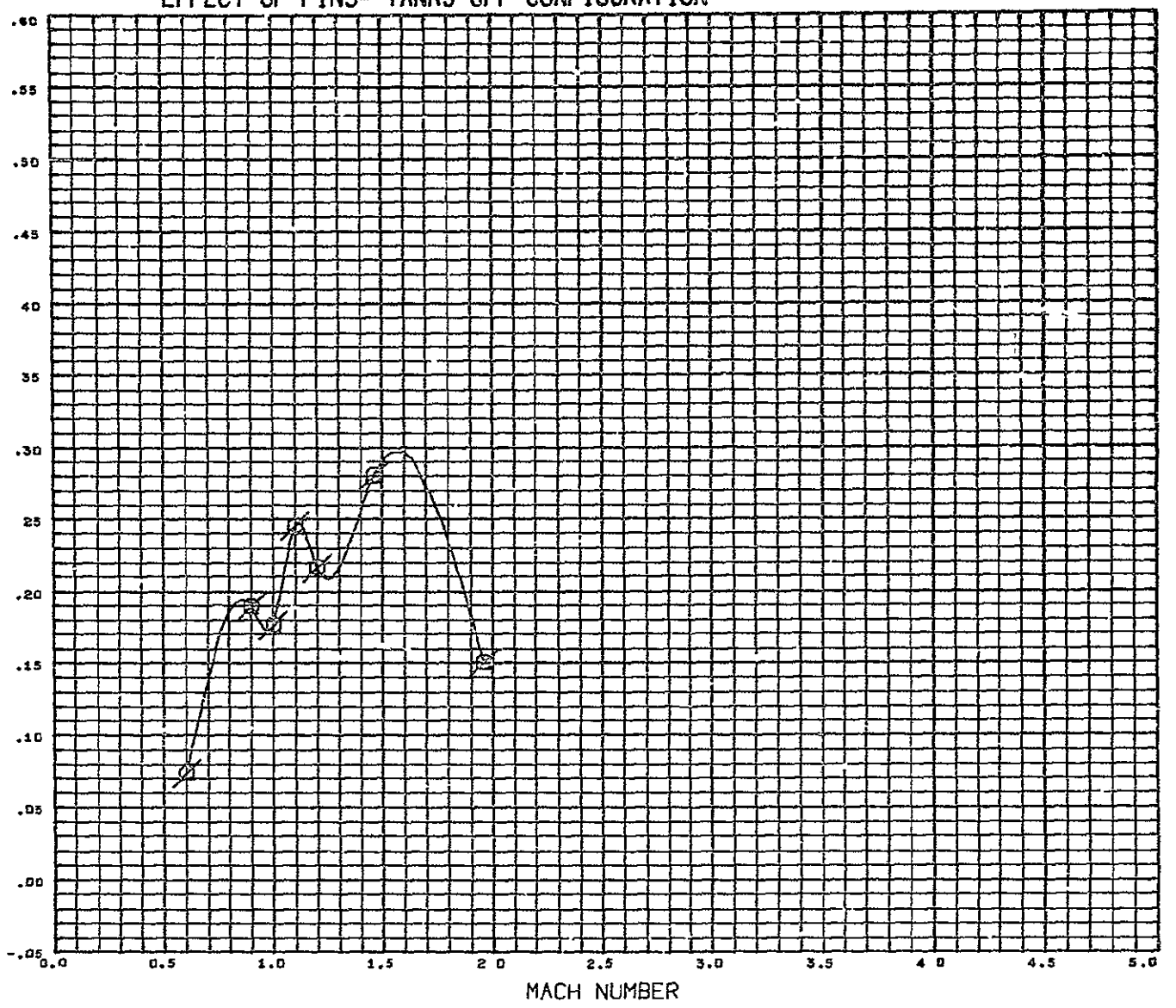
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0200	IN
SCALE	0.0031	

DATA HIST CODE M*EI*A*CF

EFFECT OF FINS- TANKS OFF CONFIGURATION



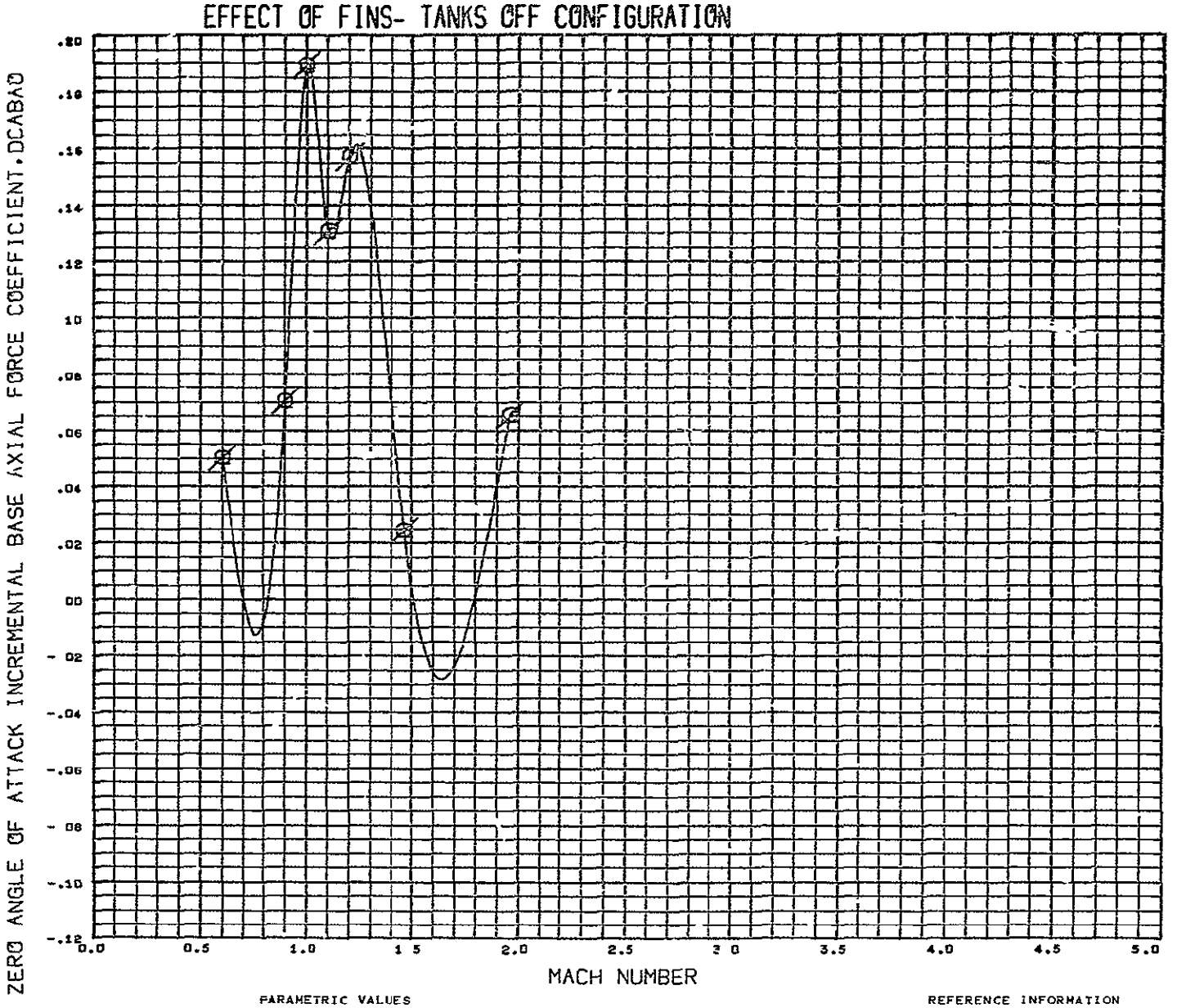
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*E1*A*CF

REFERENCE INFORMATION

SREF	1.3940	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



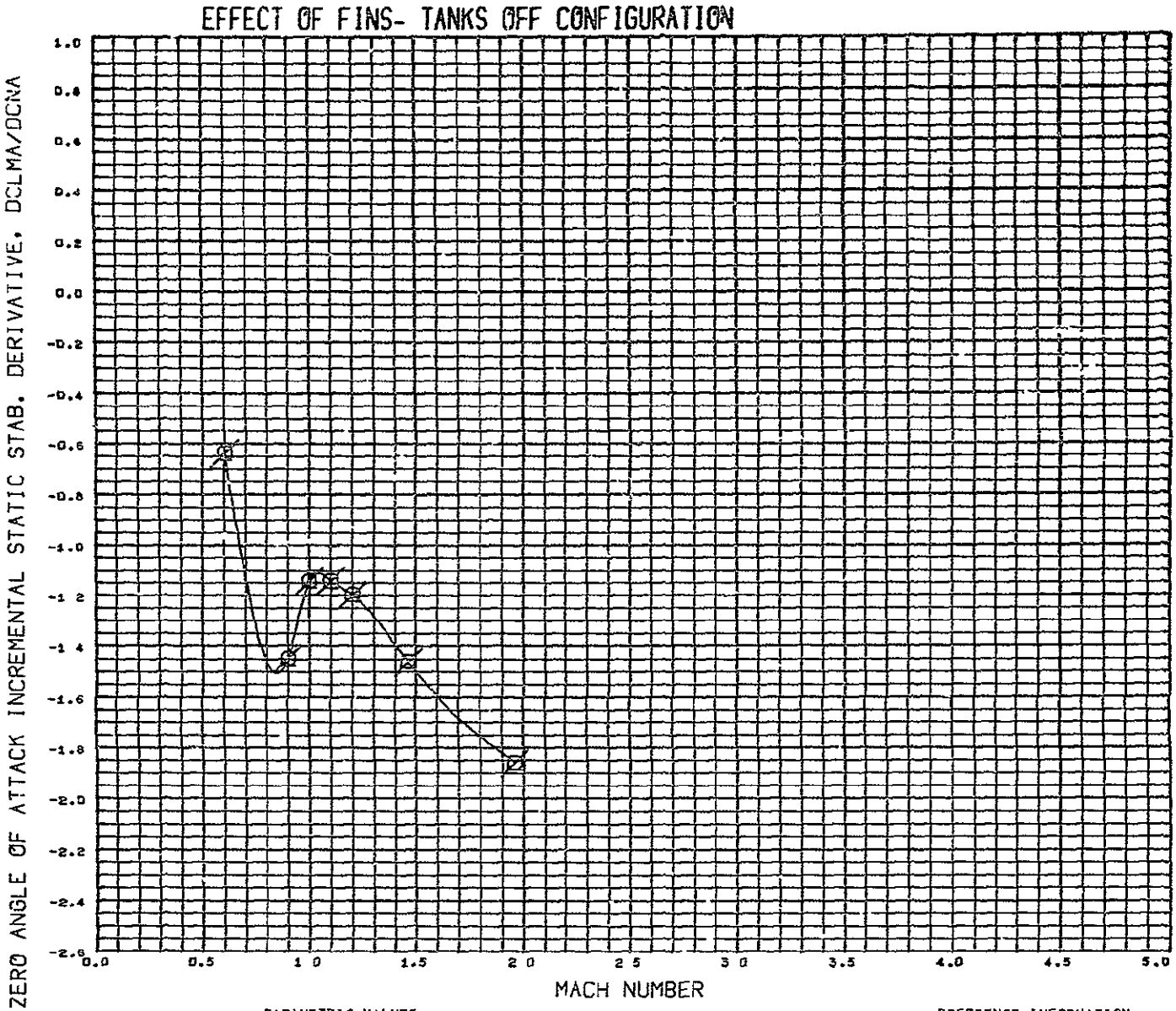
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*E1*A*CF



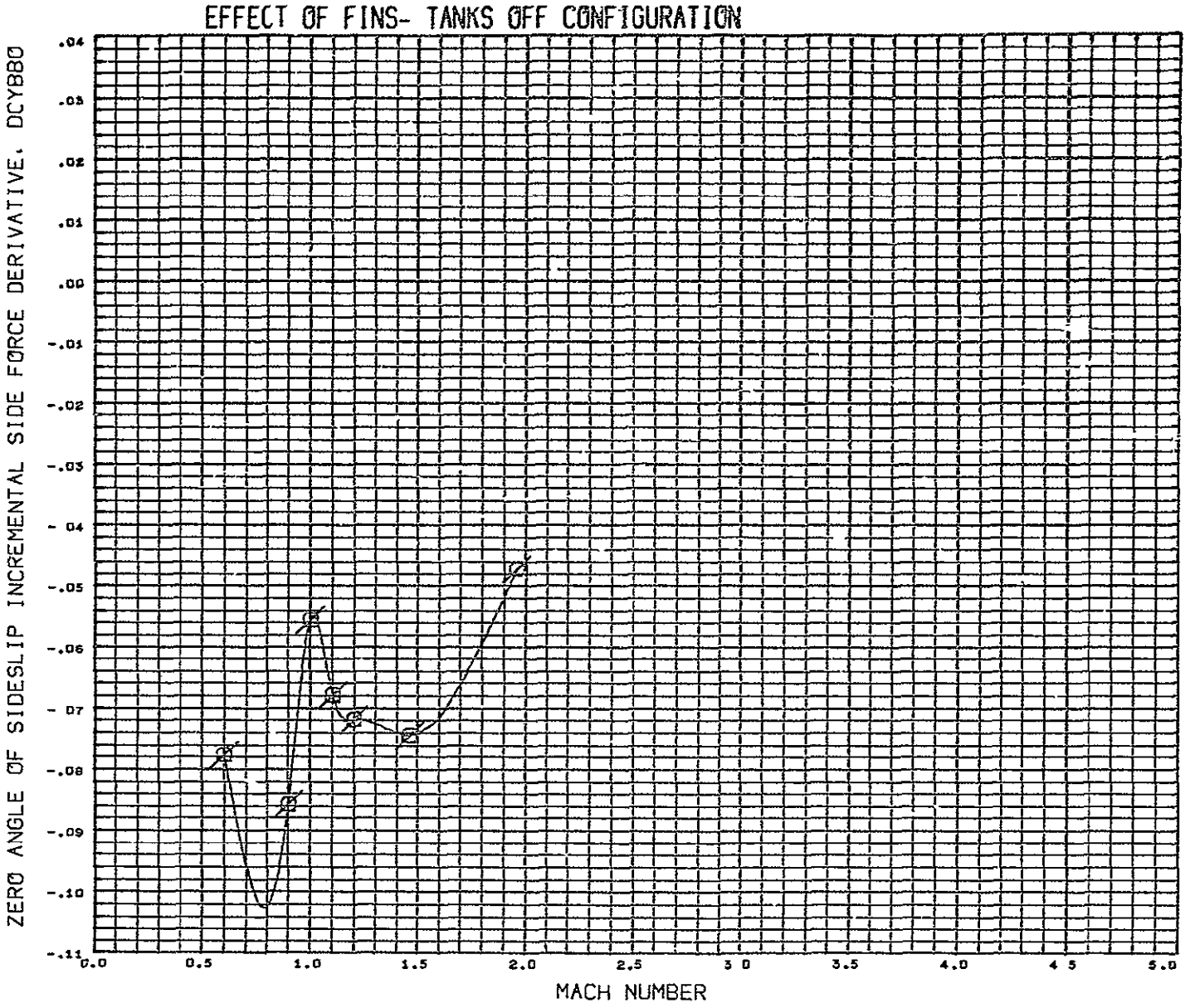
PARAMETRIC VALUES

BETA 0.000 CONFINC - 3.100

DATA HIST CODE M*EI*A*CF

REFERENCE INFORMATION

WREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



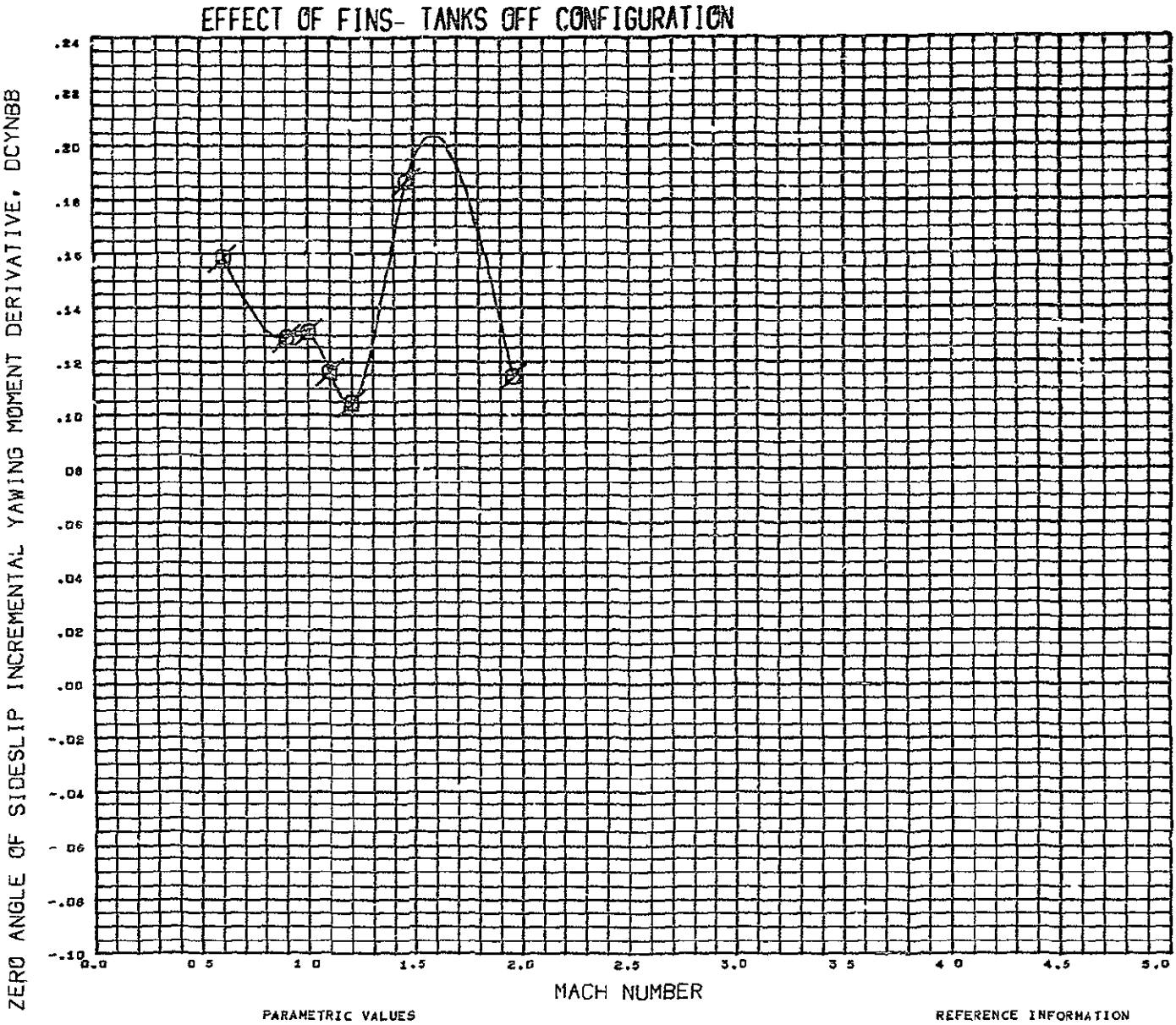
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3 100

DATA HIST CODE *AM*EI*A*CF

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	



PARAMETRIC VALUES

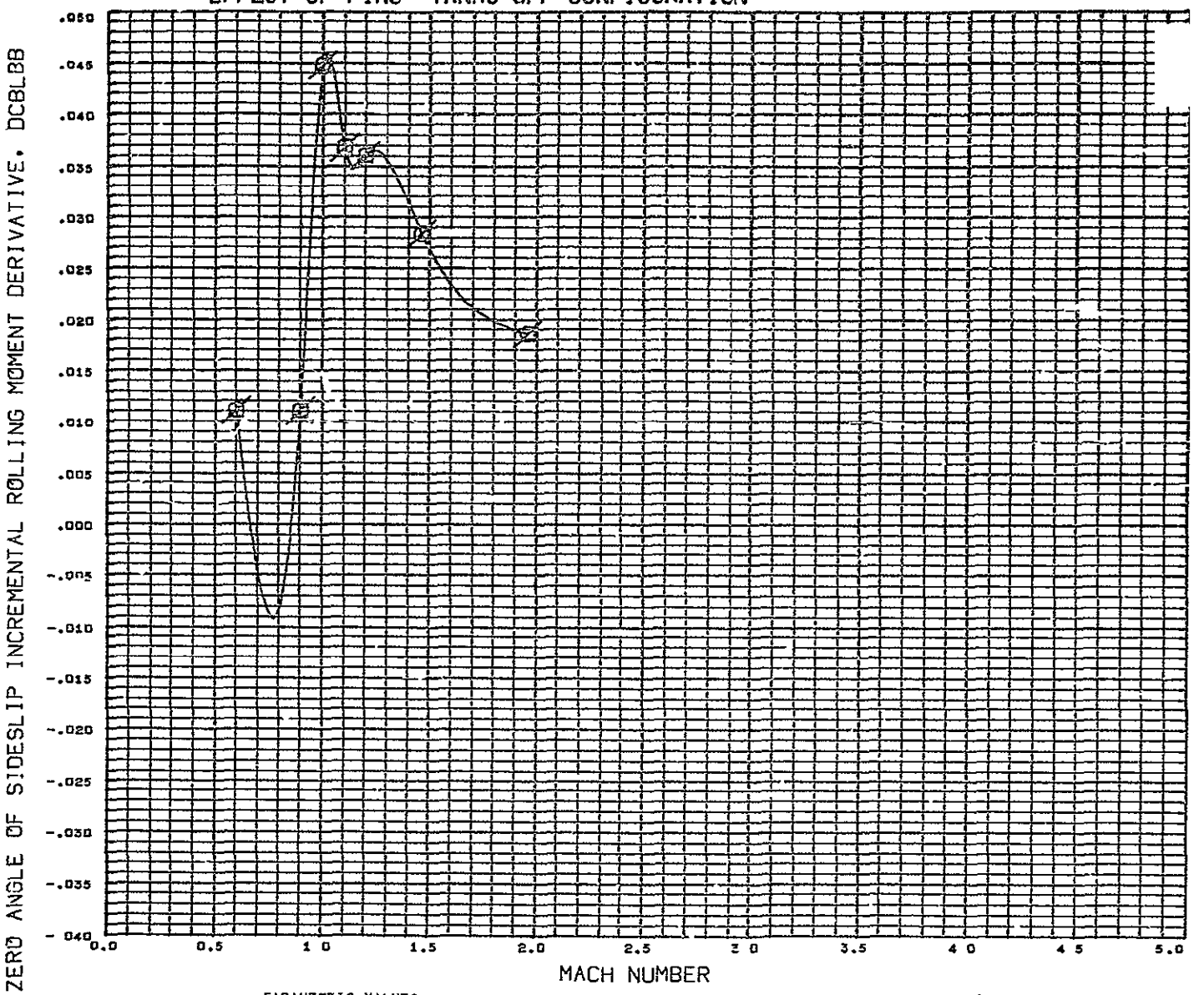
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE *AM*EI*A*CF

EFFECT OF FINS- TANKS OFF CONFIGURATION



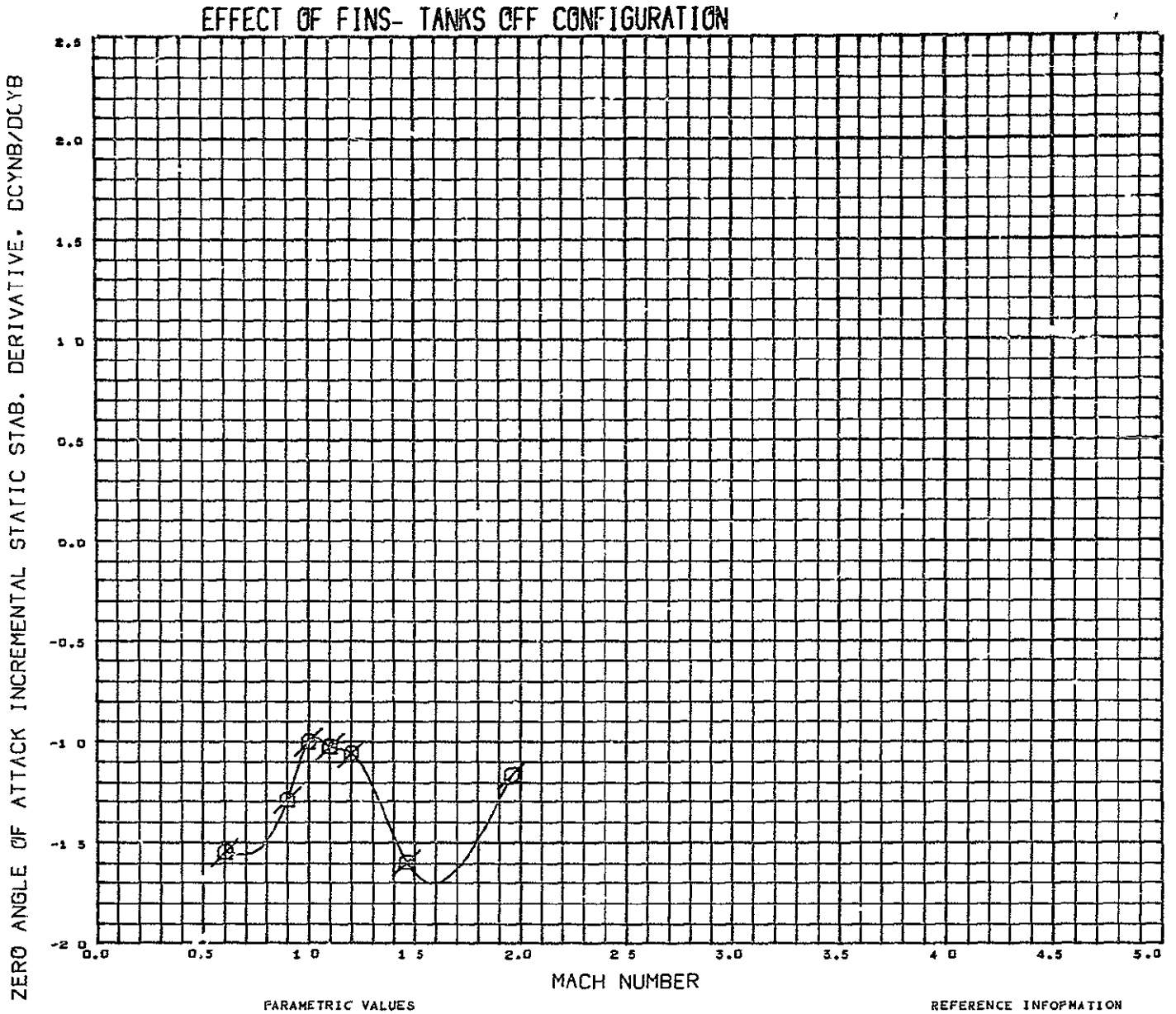
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0029	IN
SCALE	0.0034	

DATA HIST CODE *AM*EI*A*CF



PARAMETRIC VALUES

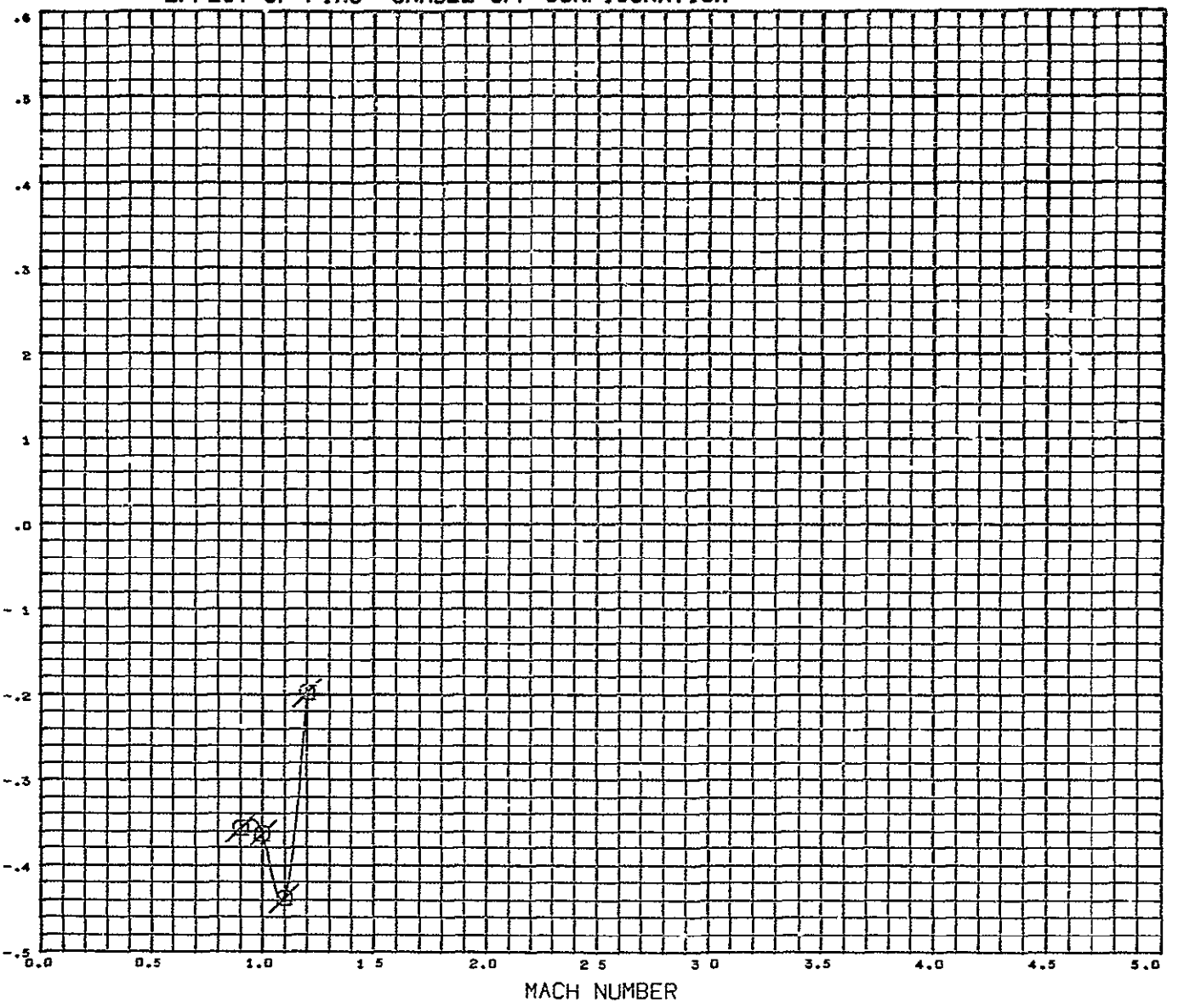
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE *AH*EI*A*CF

EFFECT OF FINS- CRADLE OFF CONFIGURATION



PARAMETRIC VALUES

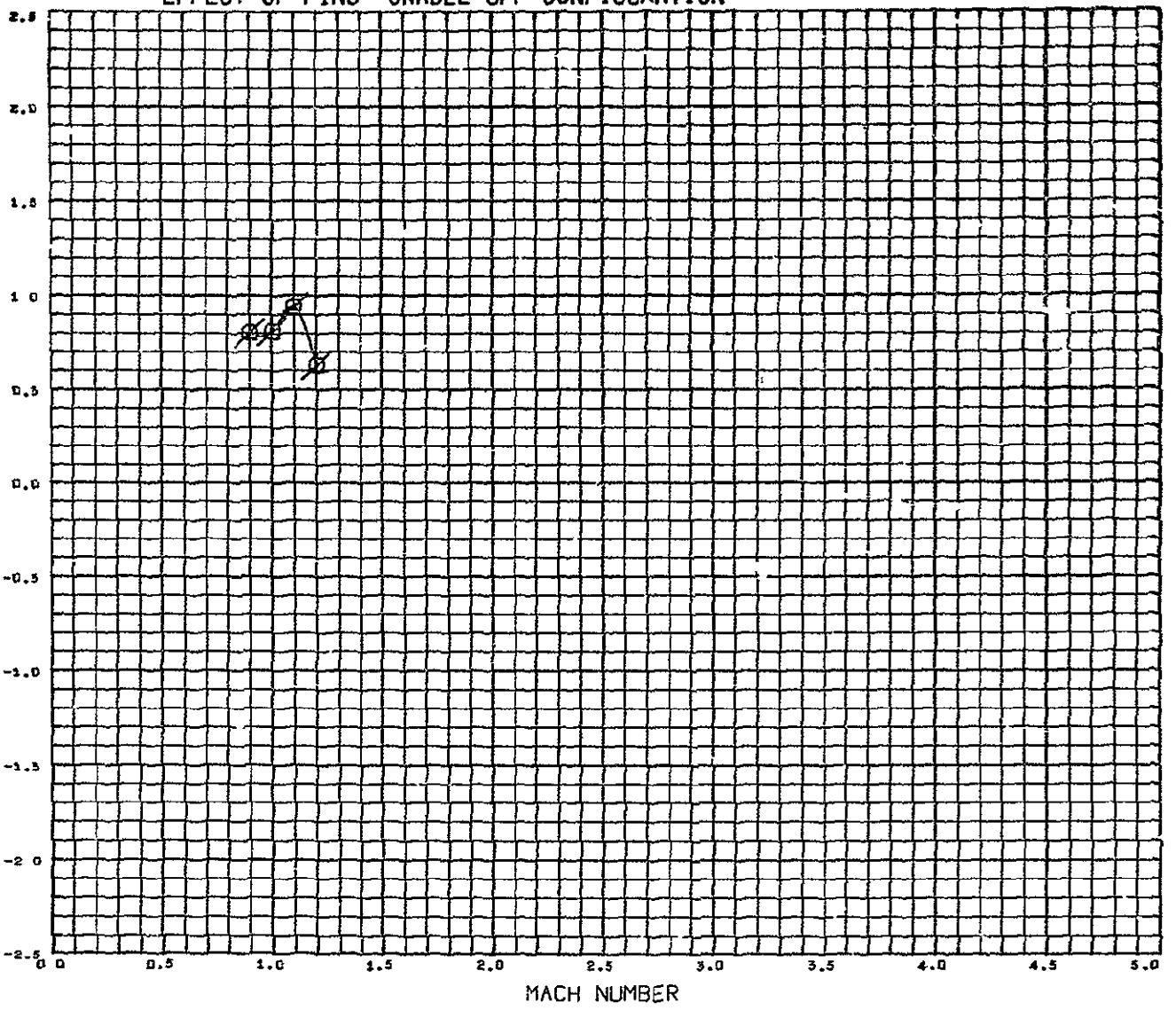
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

EFFECT OF FINS- CRADLE OFF CONFIGURATION



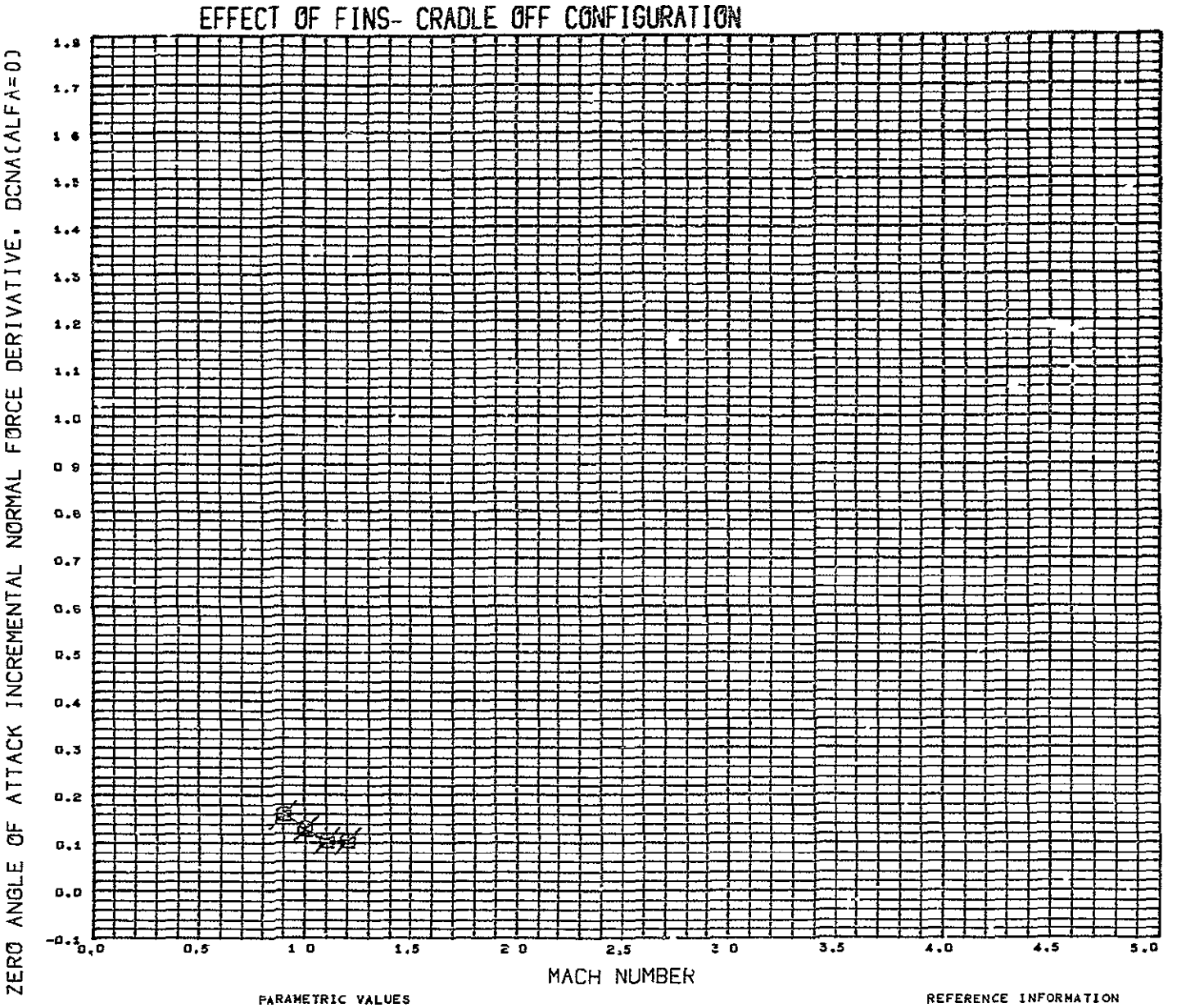
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EI*CF



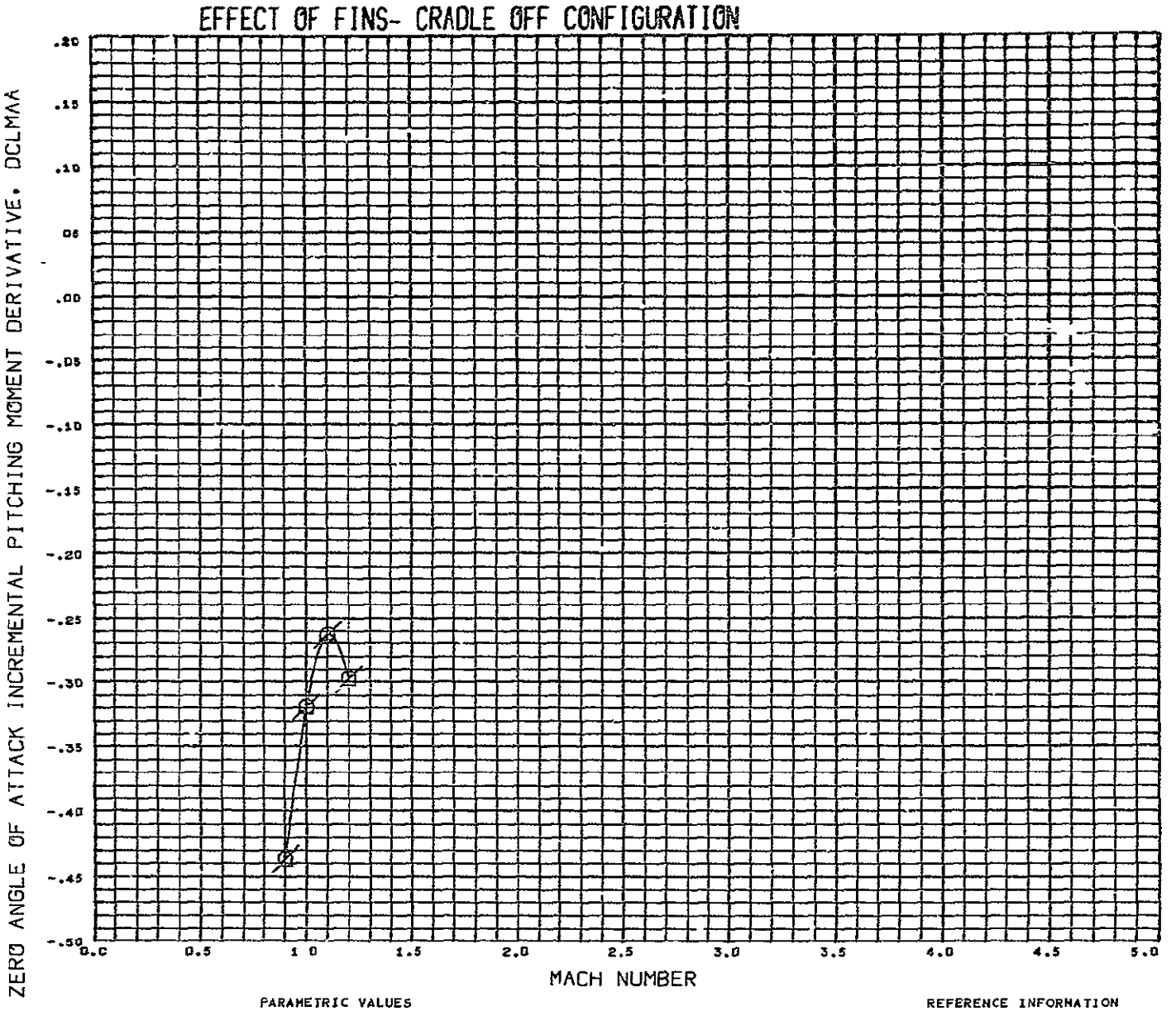
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA LIST CODE M*EI*CF



PARAMETRIC VALUES

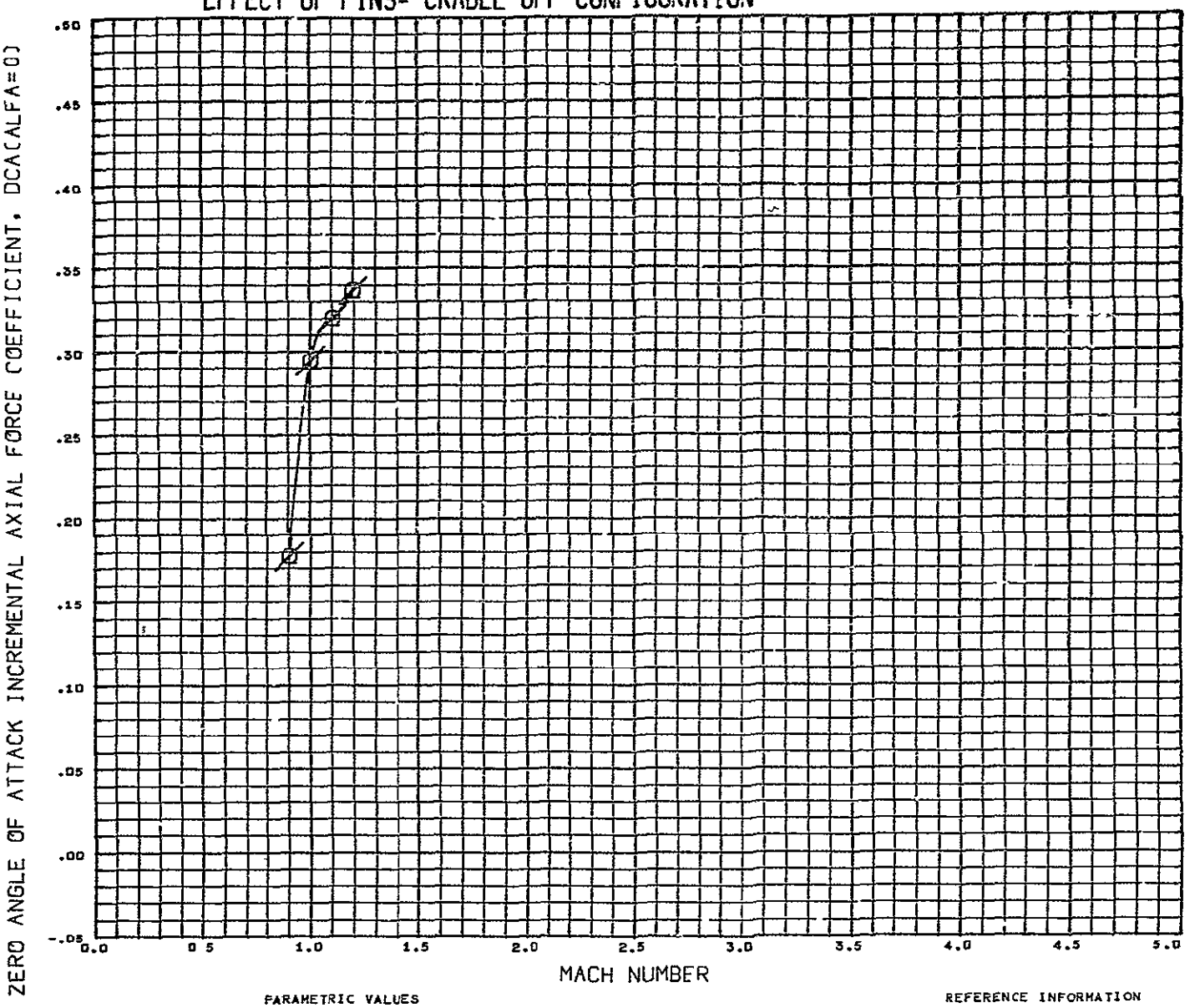
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6460	IN
YMRP	0.0000	IN
ZMRP	0.0600	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF

EFFECT OF FINS- CRADLE OFF CONFIGURATION



PARAMETRIC VALUES

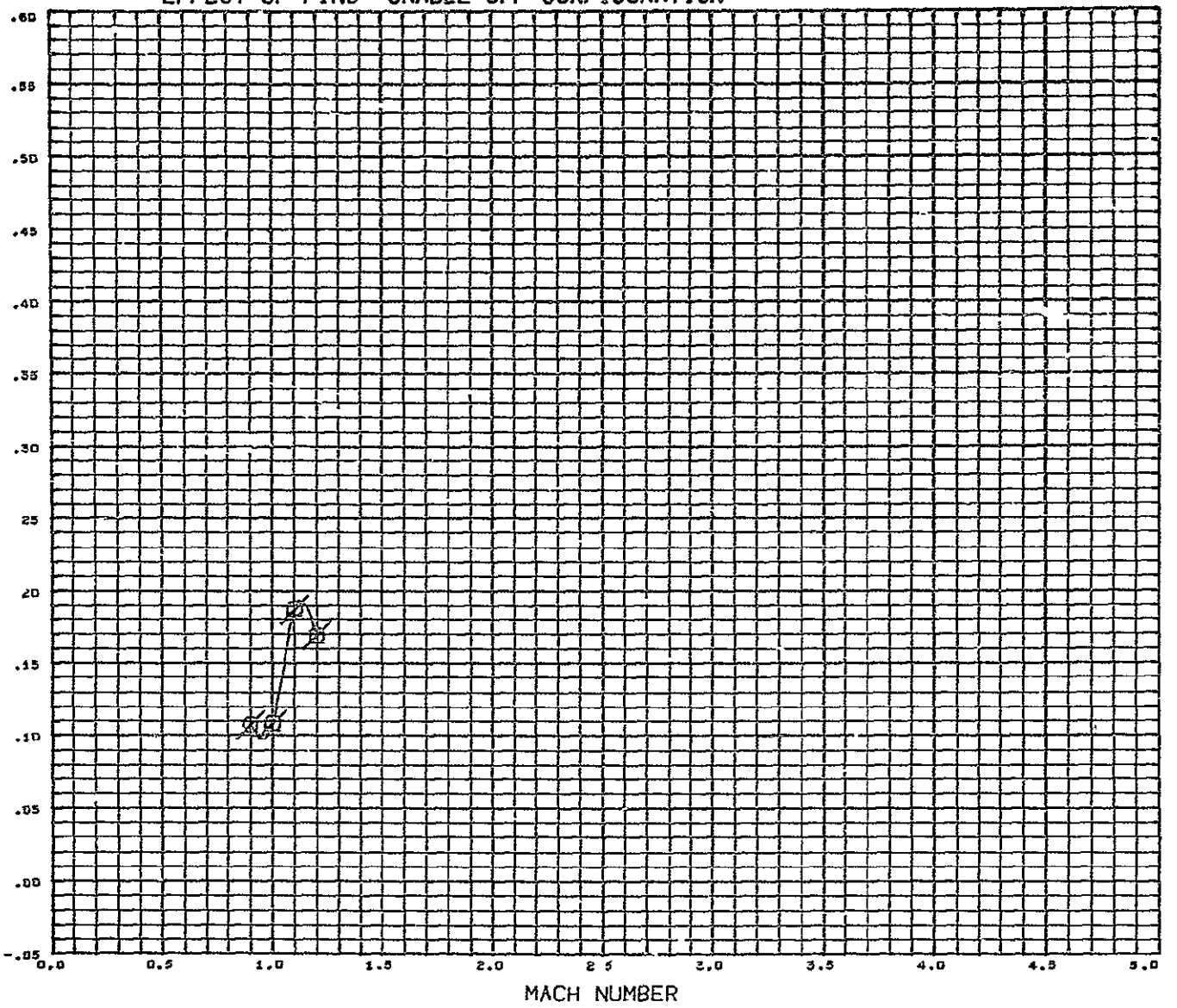
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003	

EFFECT OF FINS- CRADLE OFF CONFIGURATION



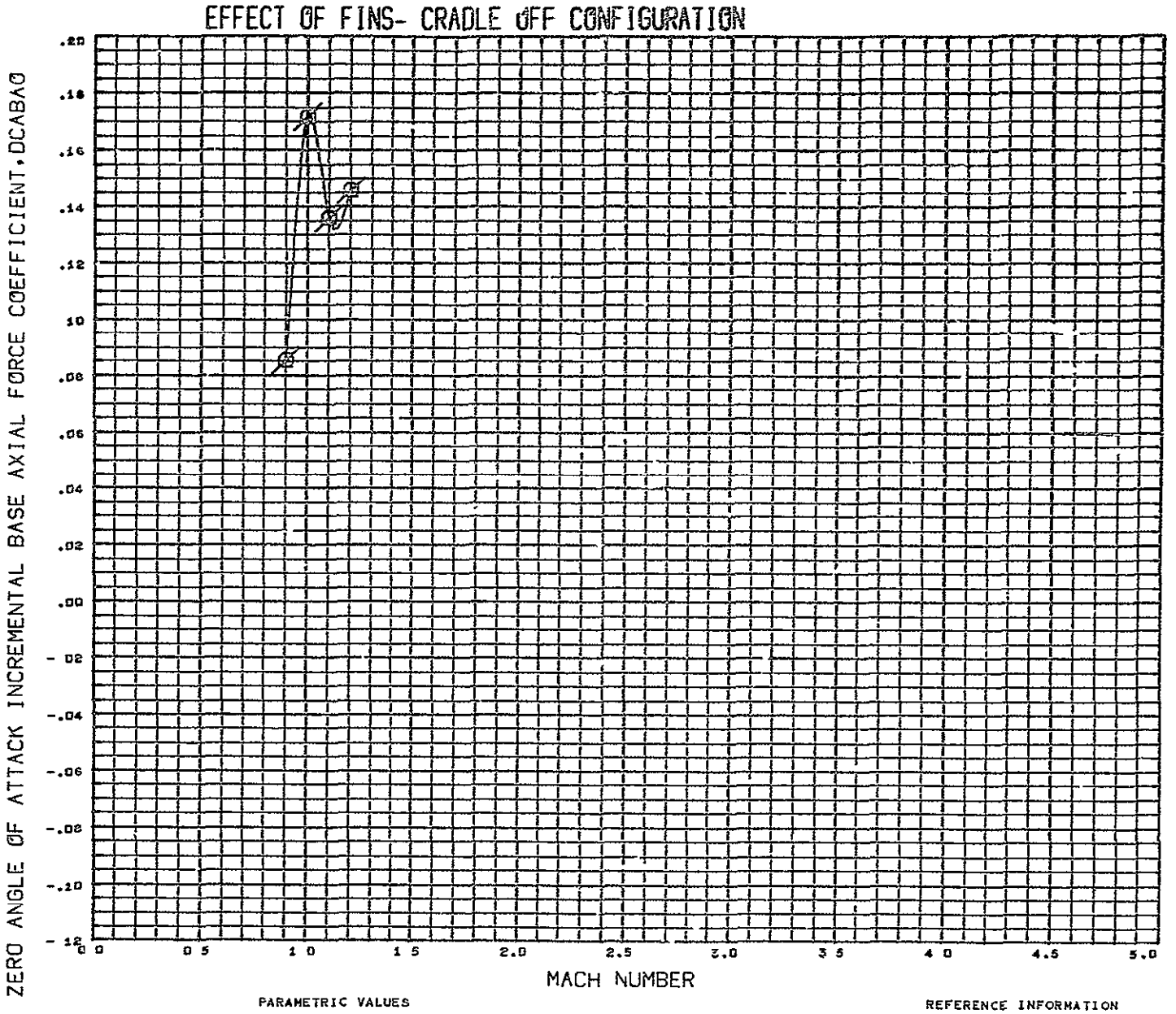
PARAMETRIC VALUES

BETA 0 000 ORBINC - 3 100

DATA HIST CODE M*EI*CF

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XHRF	3 6860	IN
YHRP	0.0000	IN
ZHRF	0.0000	IN
SCALE	0.0034	



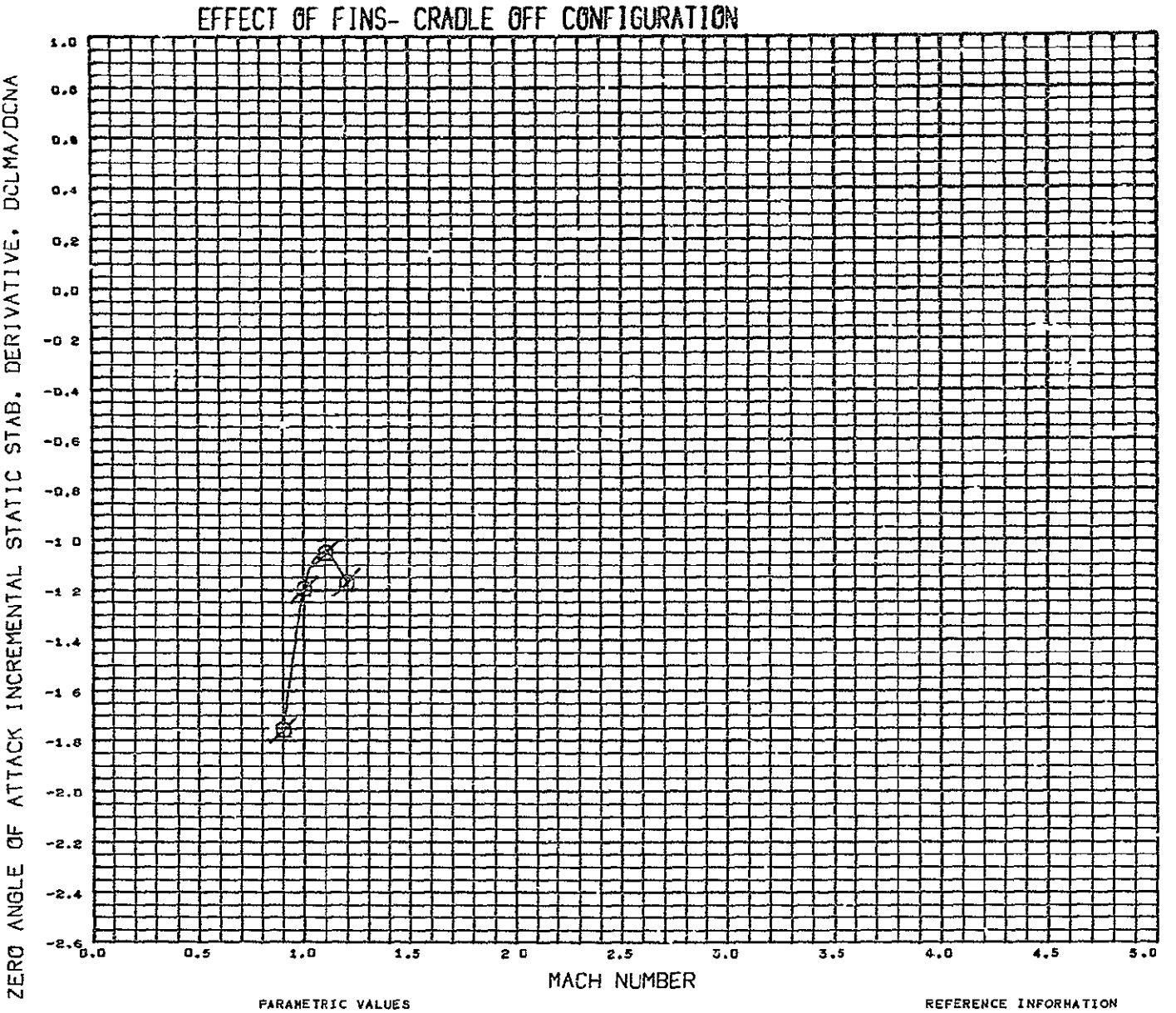
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3 100

DATA HIST CODE H=EI=CF

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRF	0 0070	IN
SCALE	0 0034	



PARAMETRIC VALUES

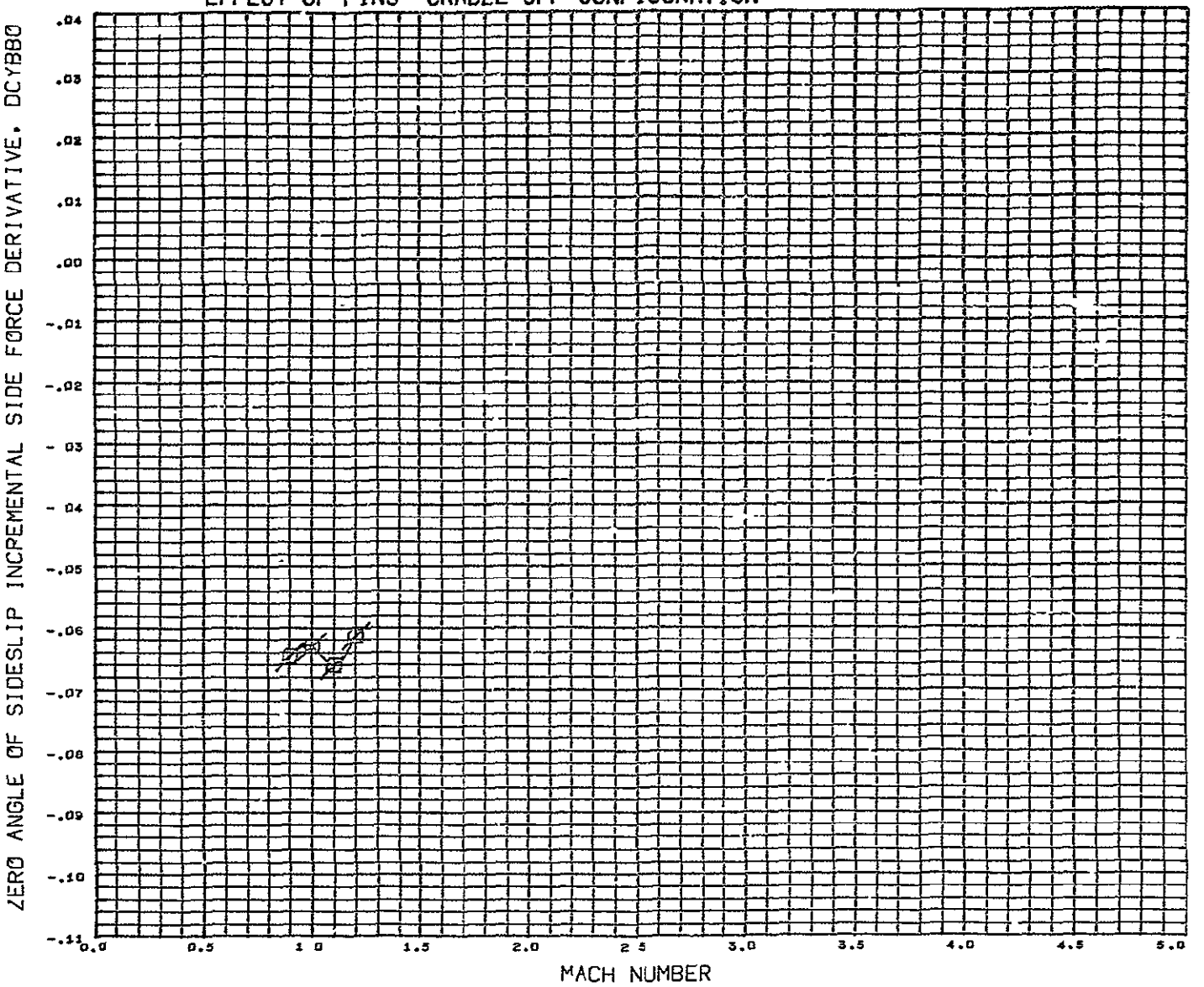
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*E1*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0037	

EFFECT OF FINS- CRADLE OFF CONFIGURATION



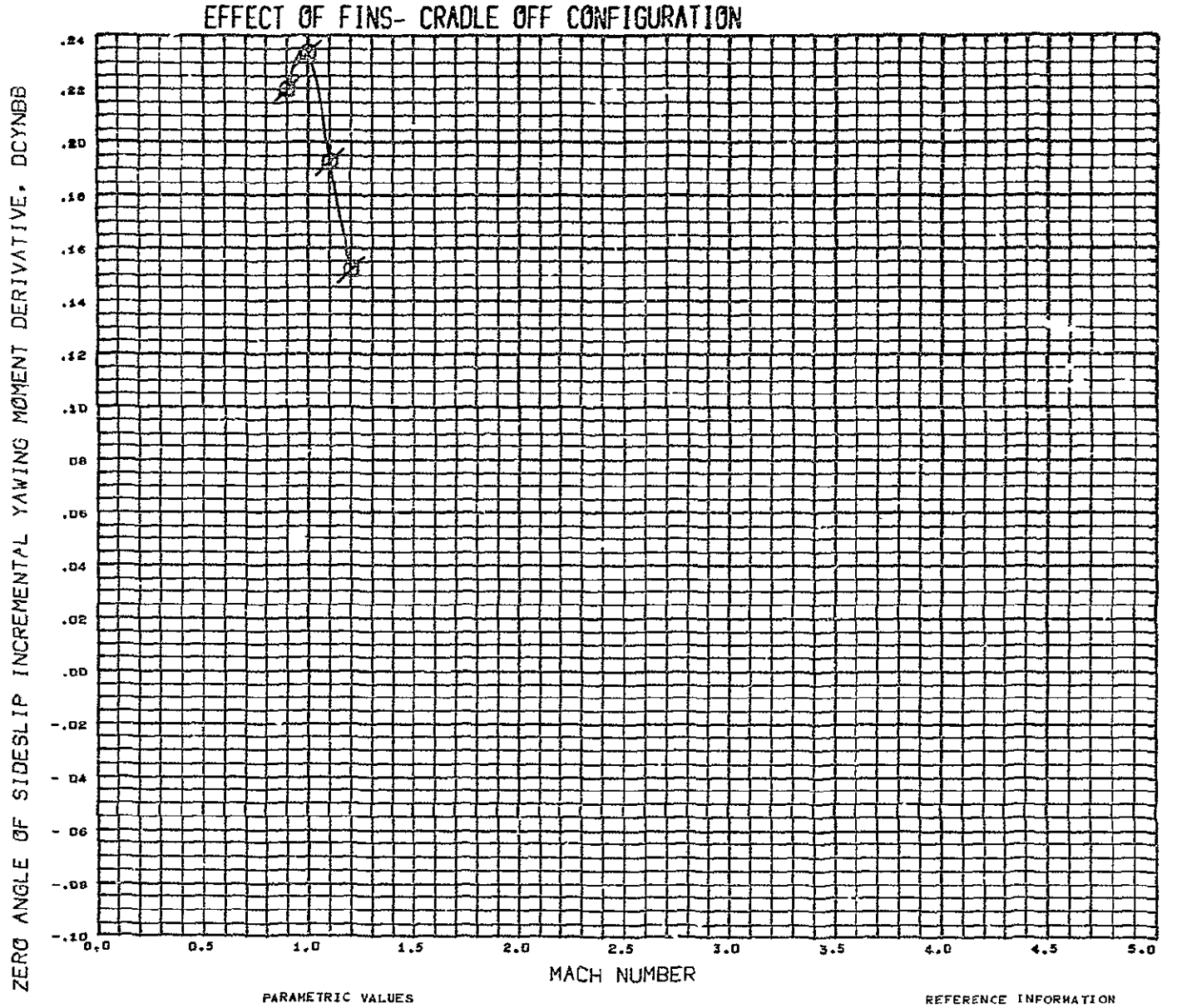
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0060	IN
SCALE	0.0034	



PARAMETRIC VALUES

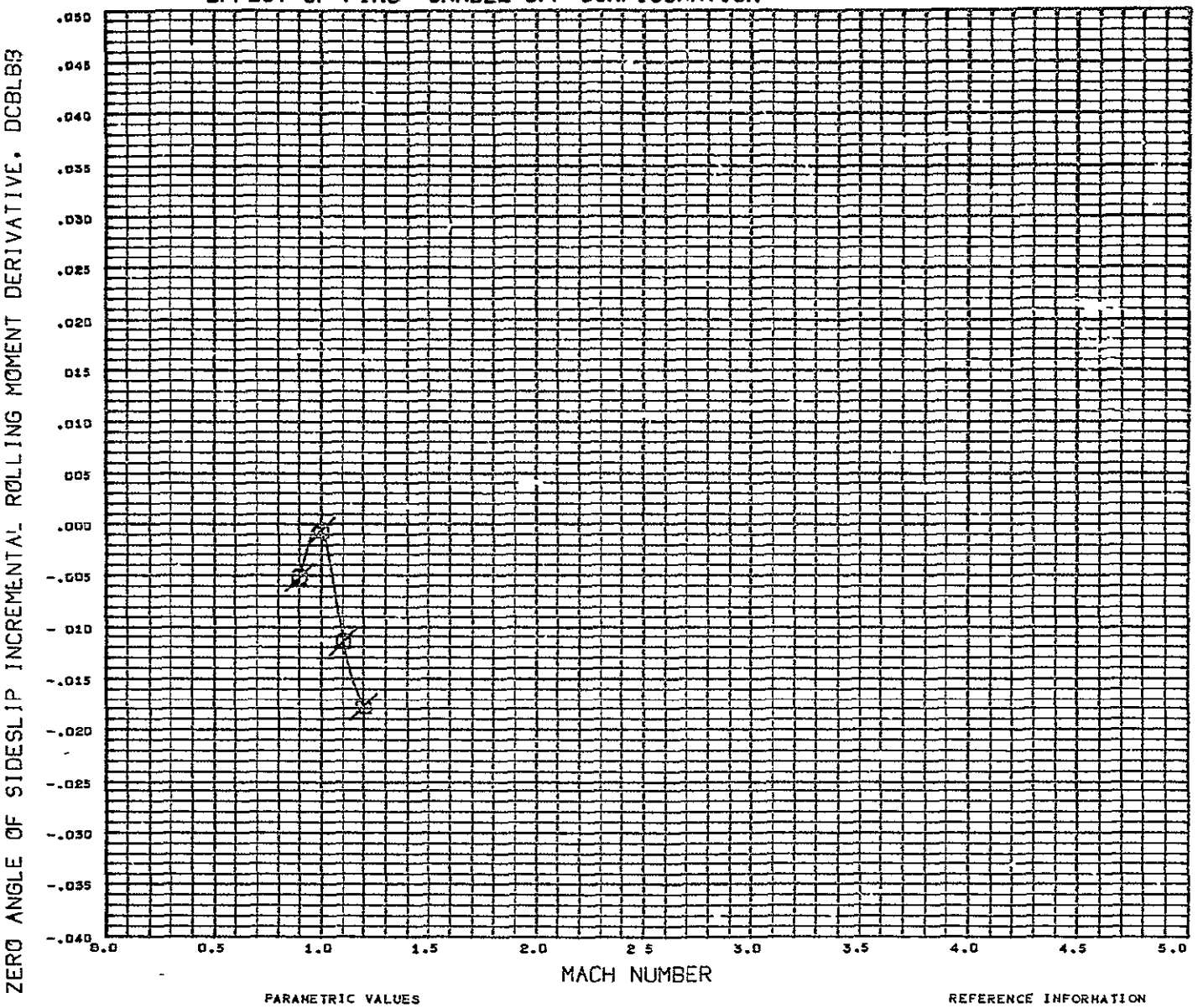
ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 8860	IN
YMRP	0 0000	IN
ZMRP	0 0020	IN
SCALE	0 0034	

DATA HIST CODE M*EI*CF

EFFECT OF FINS- CRADLE OFF CONFIGURATION



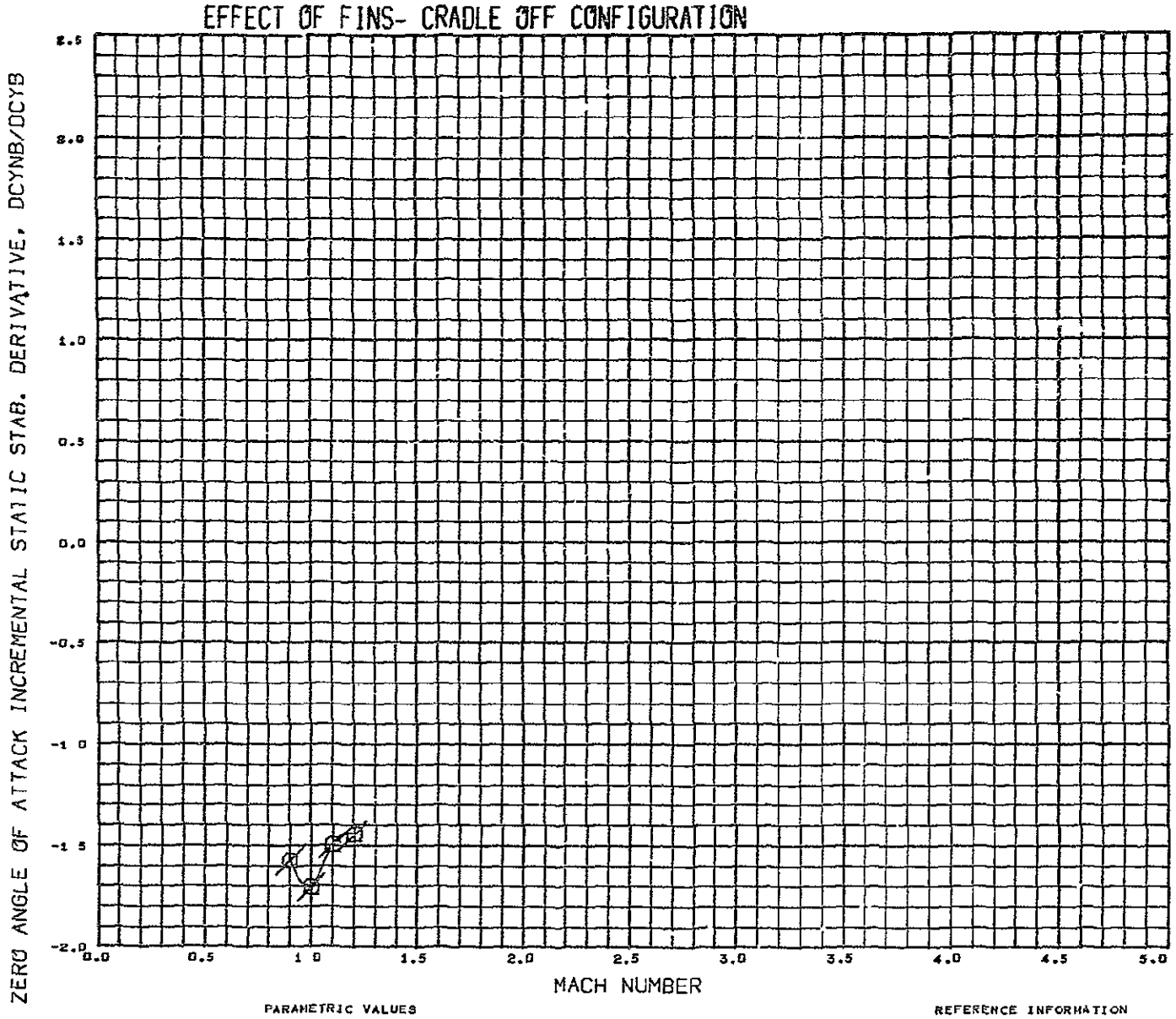
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE M*EI*CF



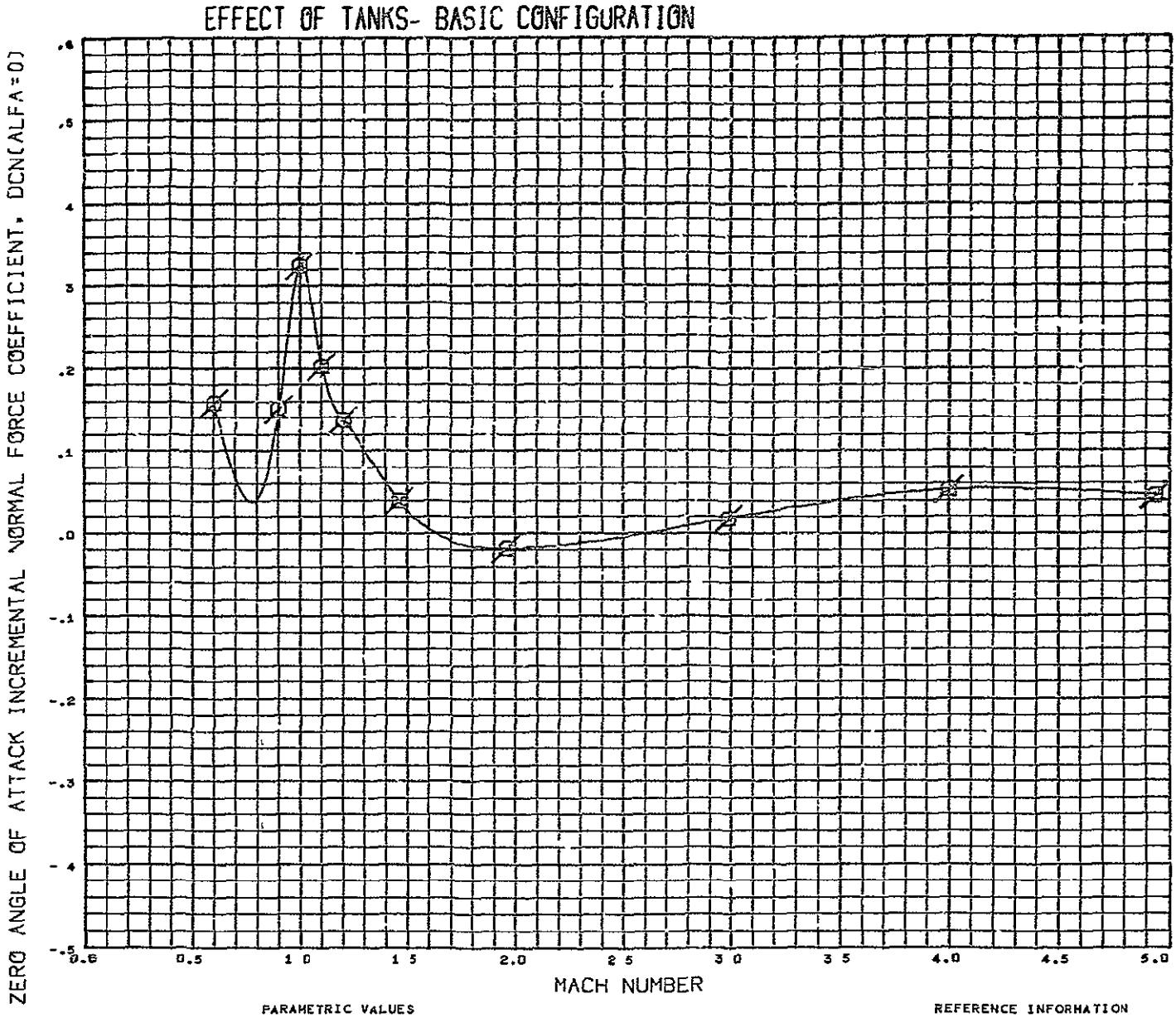
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



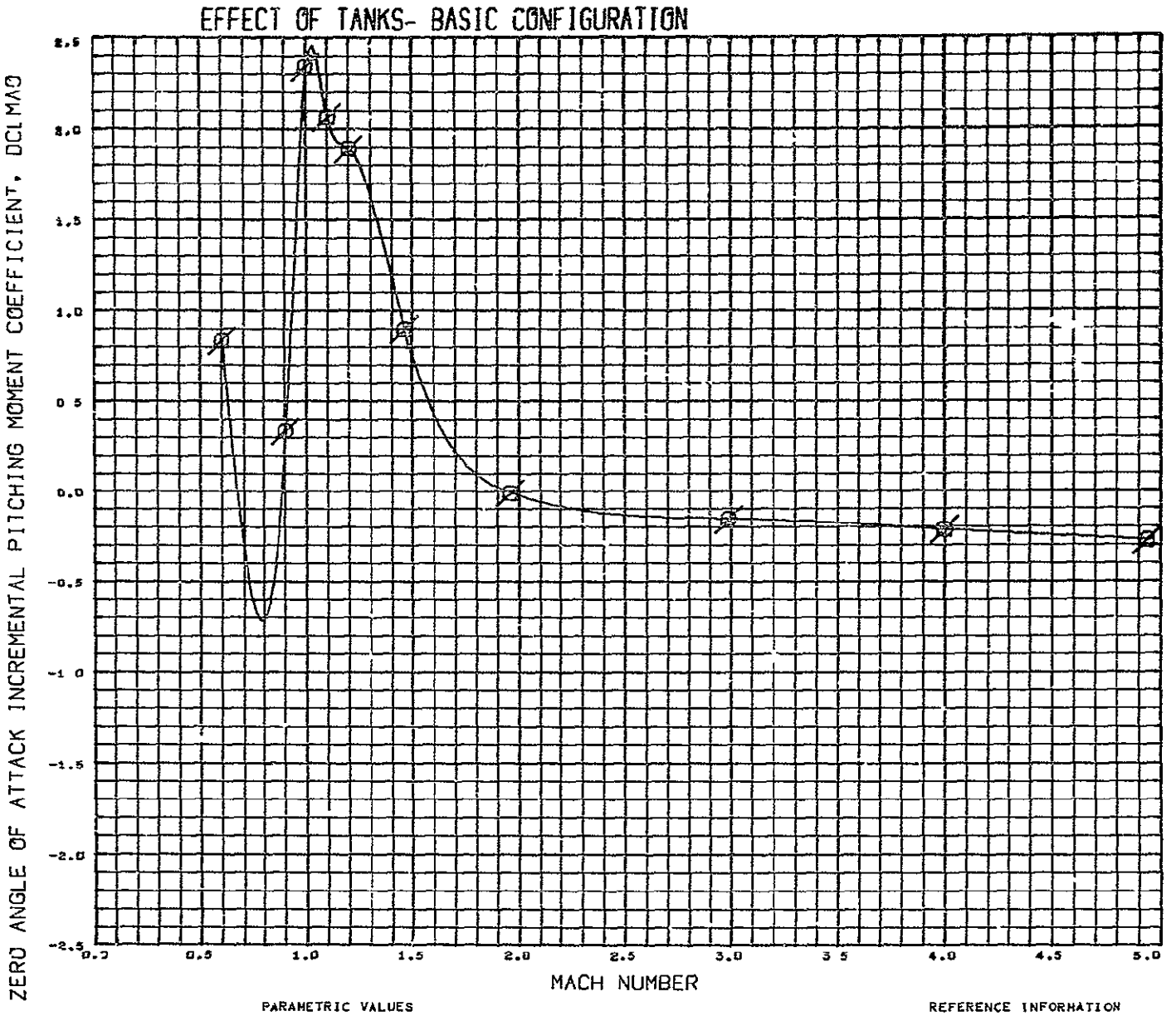
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF



PARAMETRIC VALUES

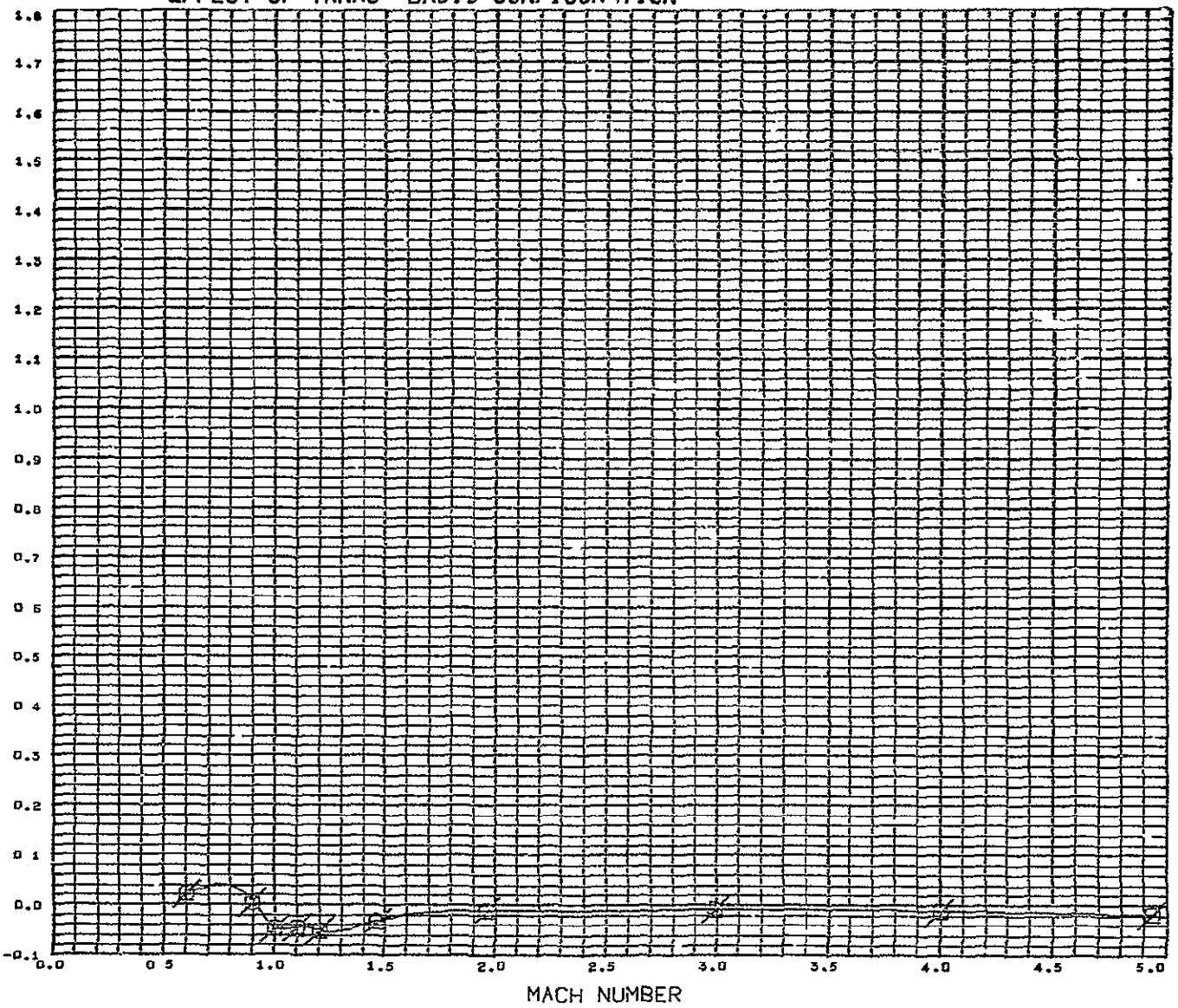
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M#E1#CF

EFFECT OF TANKS- BASIC CONFIGURATION



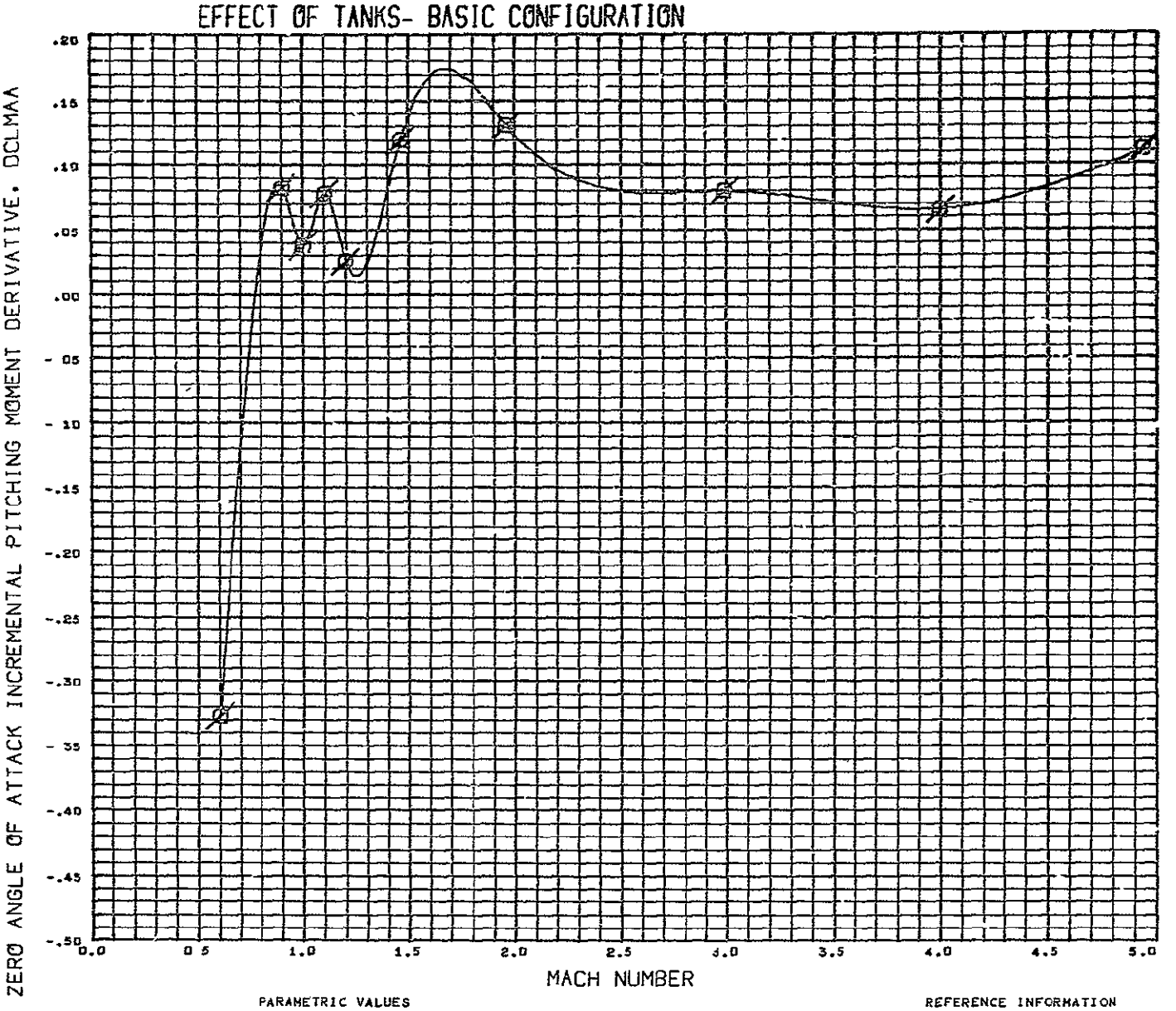
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EI*CF



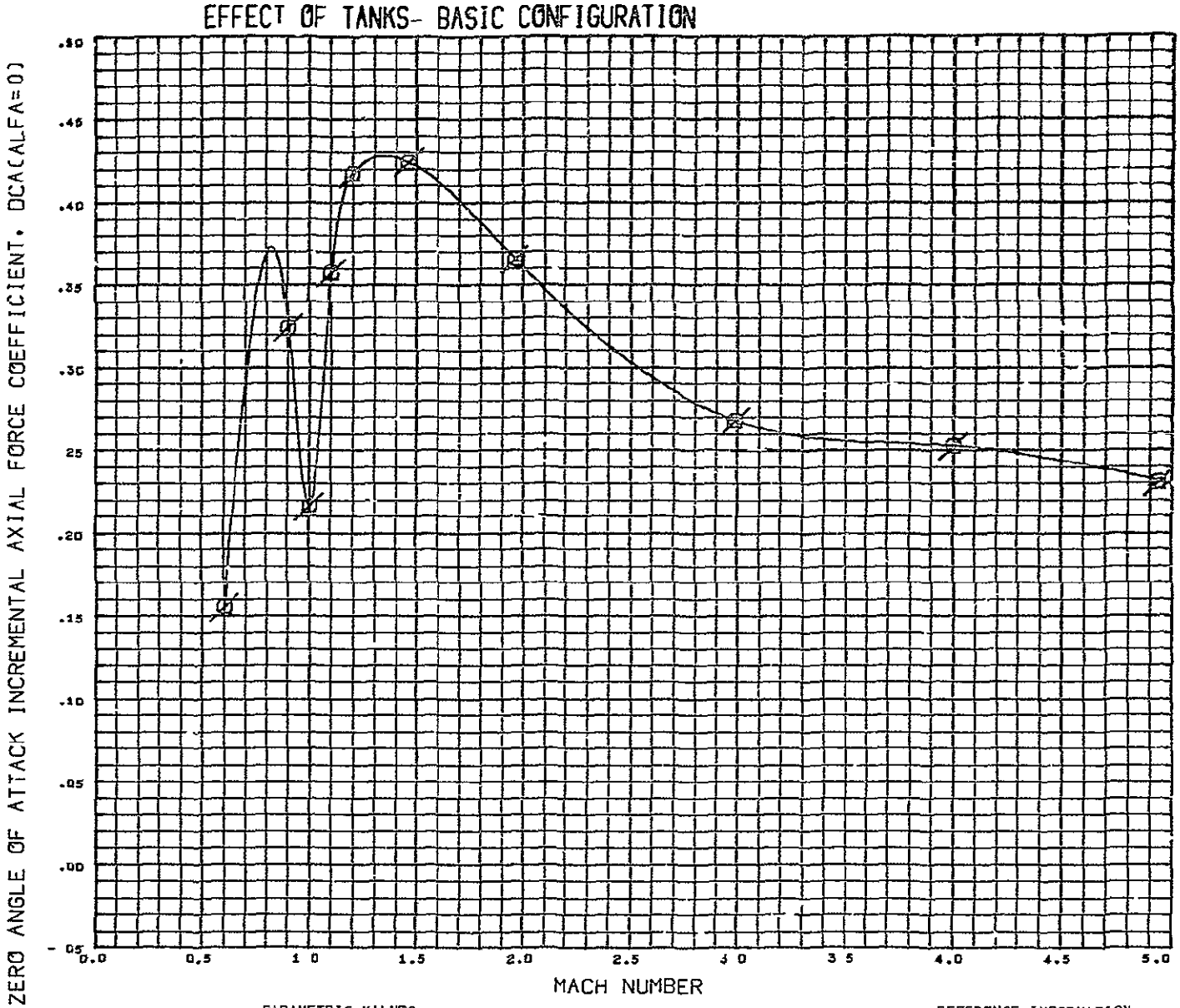
PARAMETRIC VALUES

BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1.3960	Sq IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.003	

DATA HIST CODE M*EI*CF



PARAMETRIC VALUES

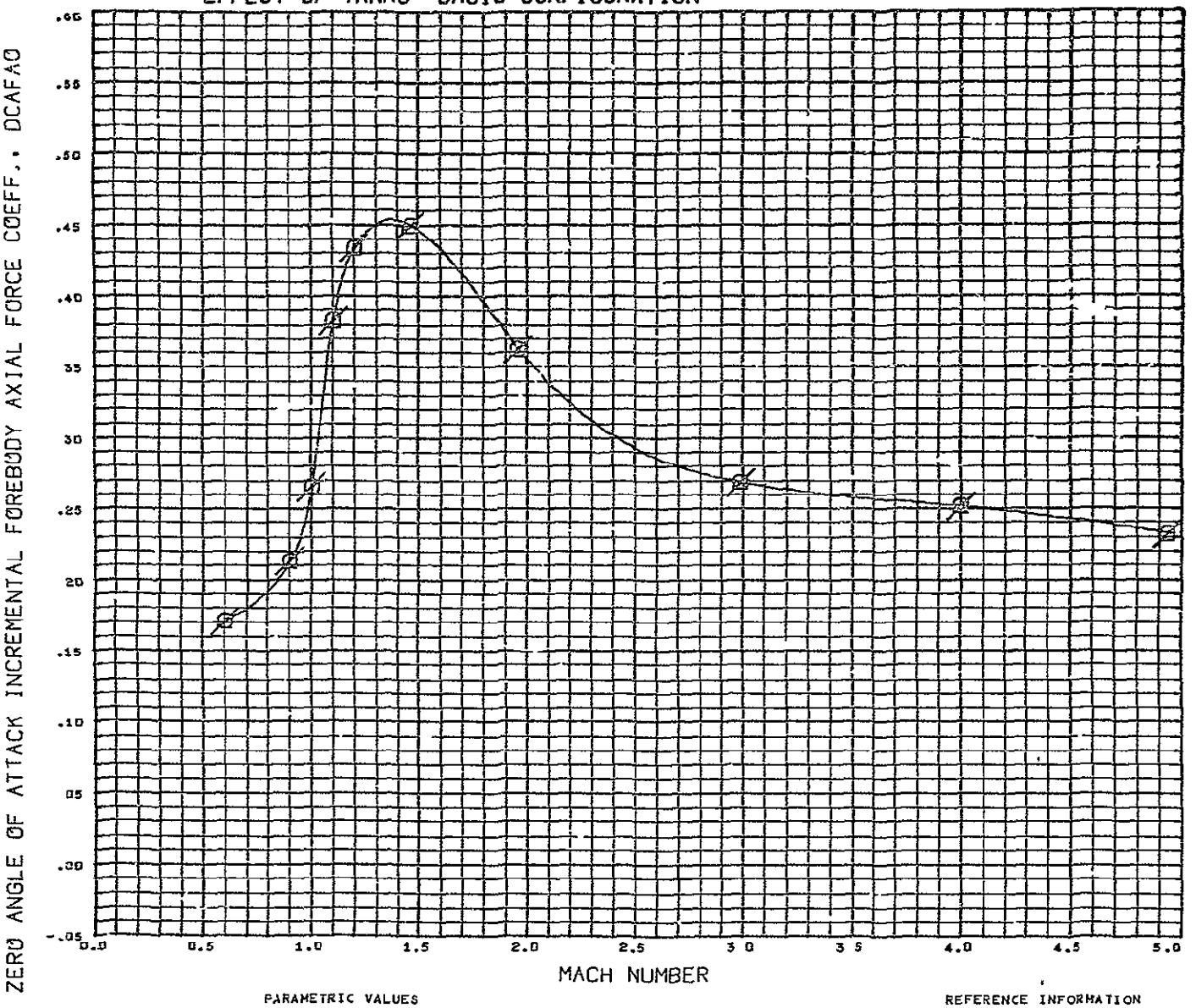
BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EI*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003~	

EFFECT OF TANKS- BASIC CONFIGURATION



PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF

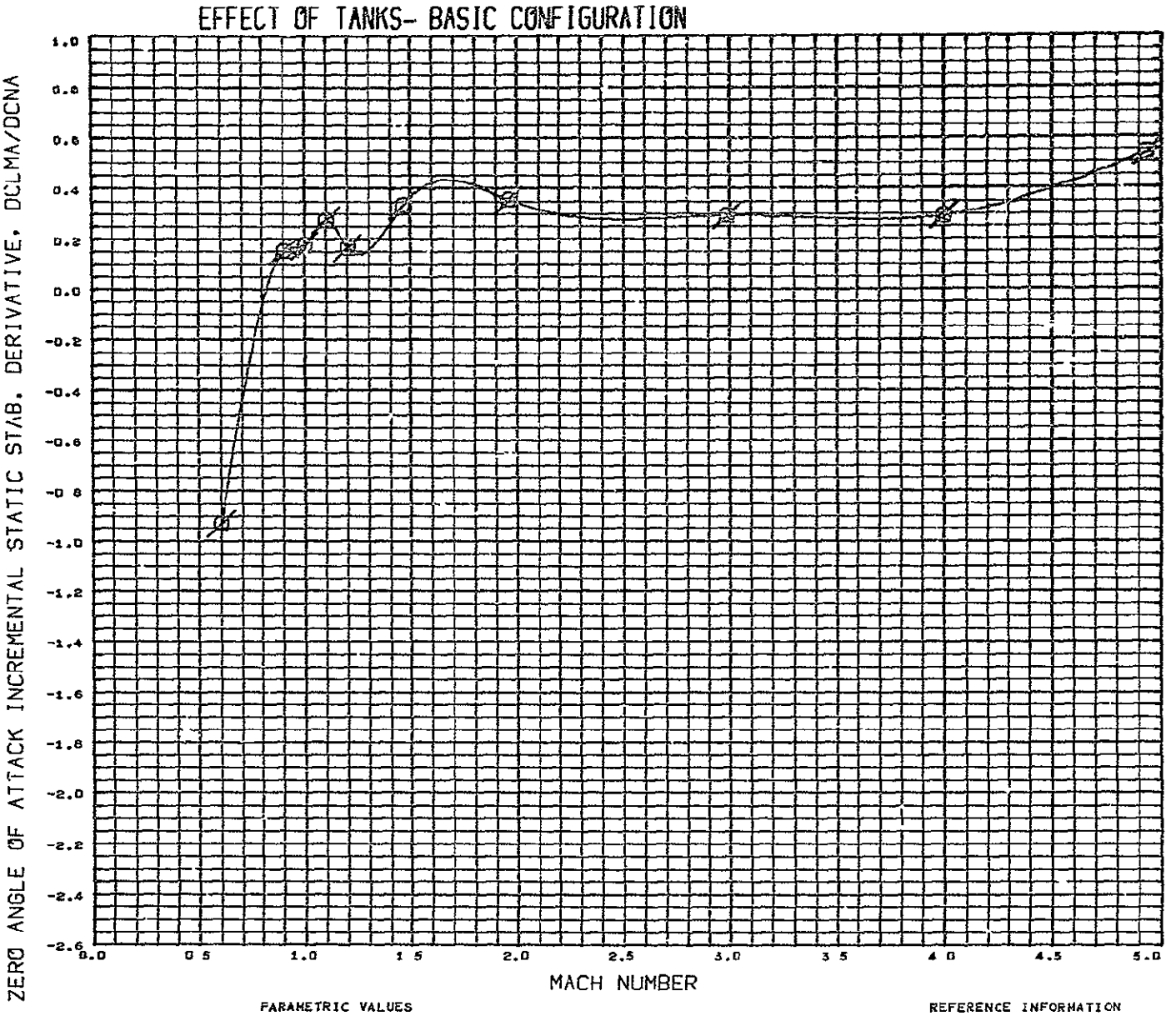
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6660	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*CF



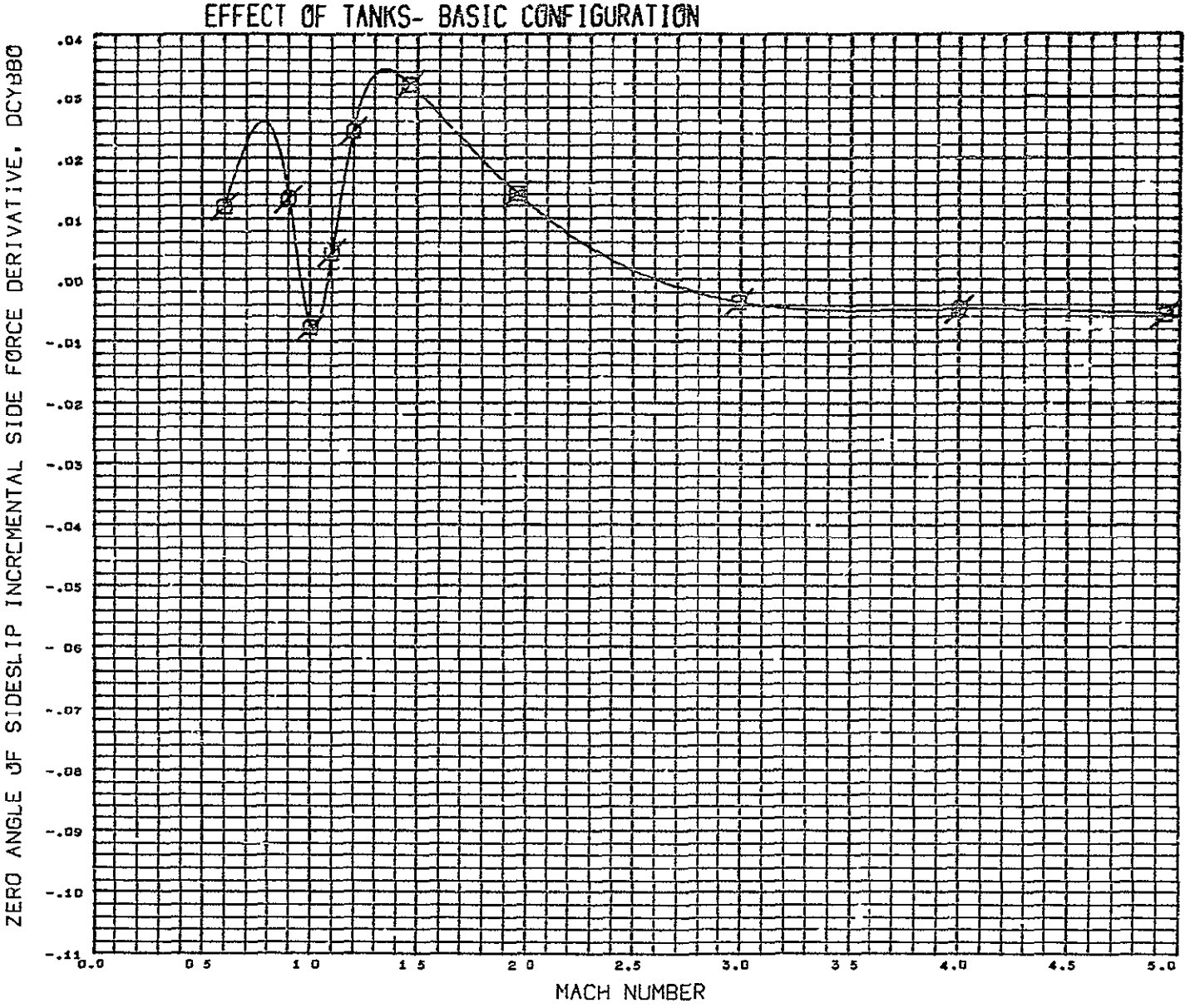
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.5330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE H*EI*CF



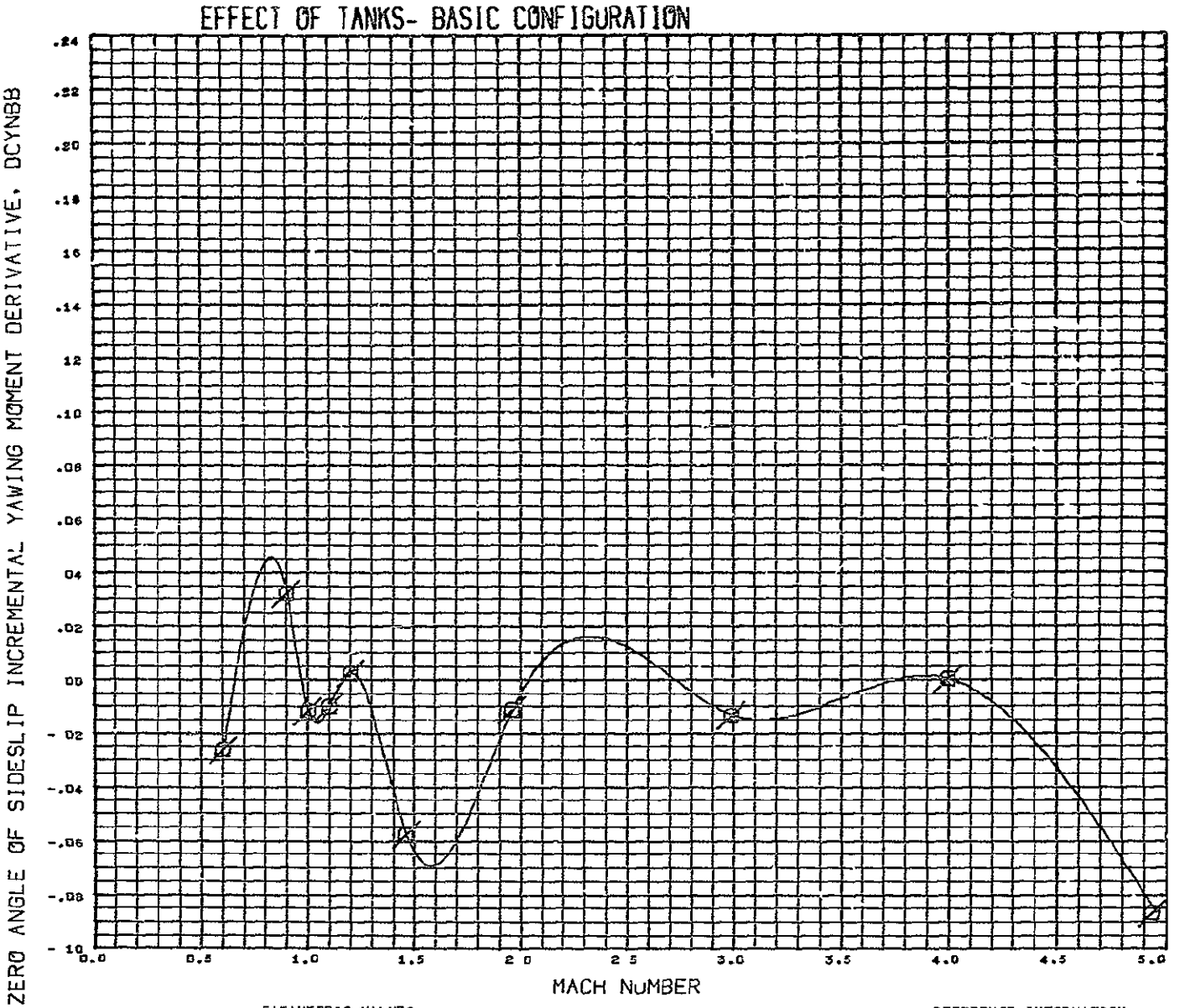
PARAMETRIC VALUES

ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST. CODE N*EI*CF



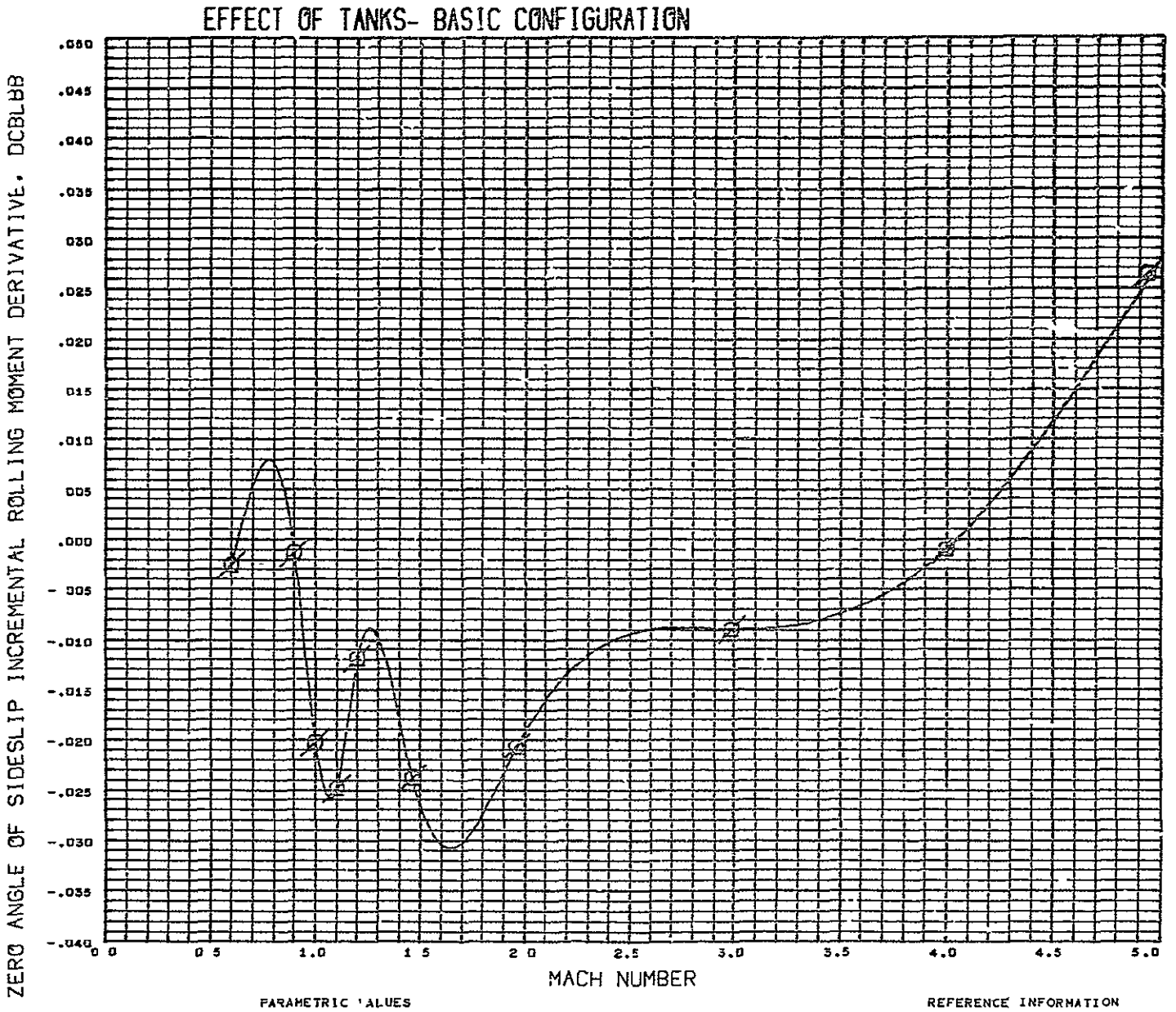
PARAMETRIC VALUES

ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE M*E1*CF



PARAMETRIC VALUES

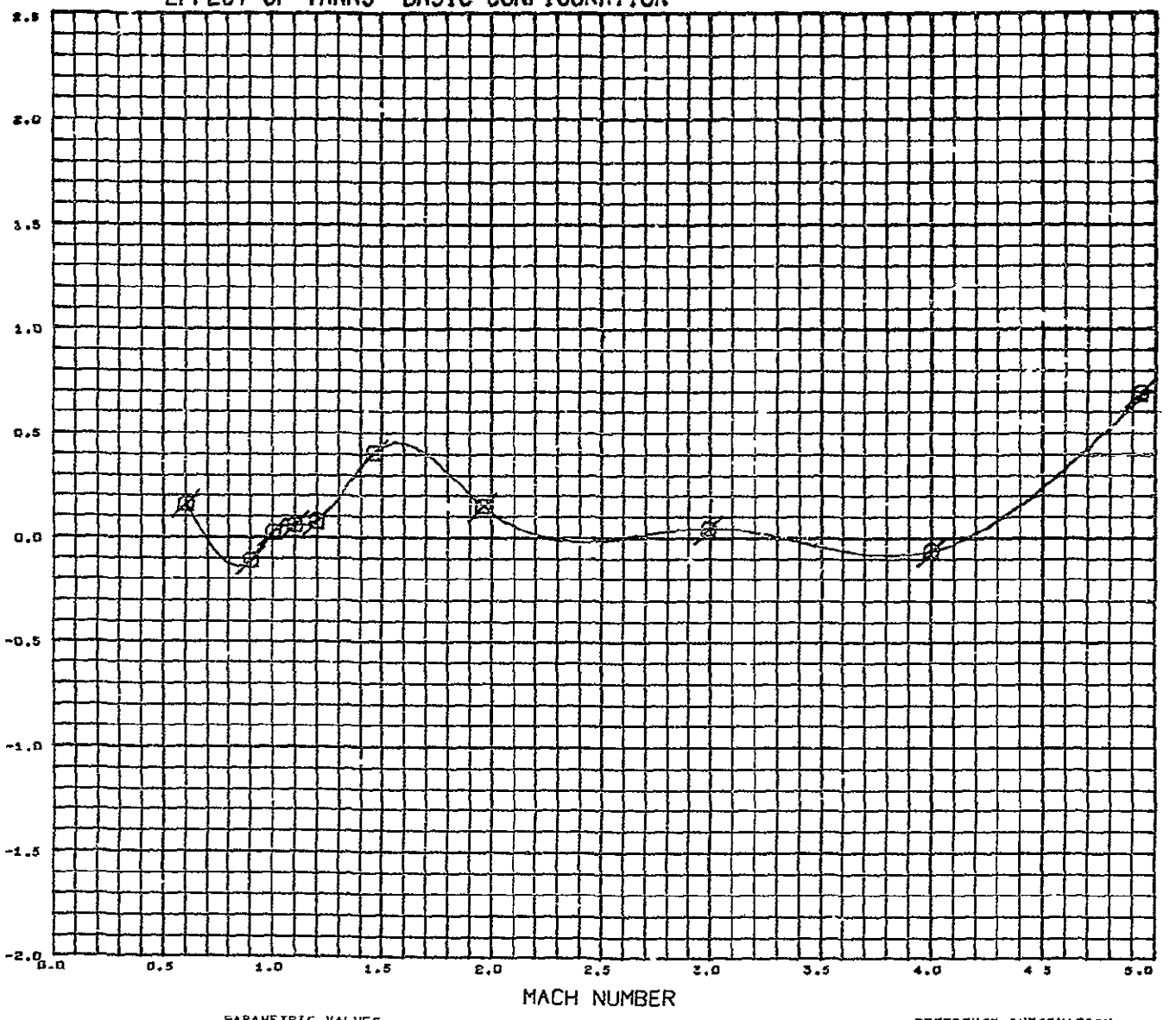
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003	

DATA HIST. CODE M*EI*CF

EFFECT OF TANKS- BASIC CONFIGURATION



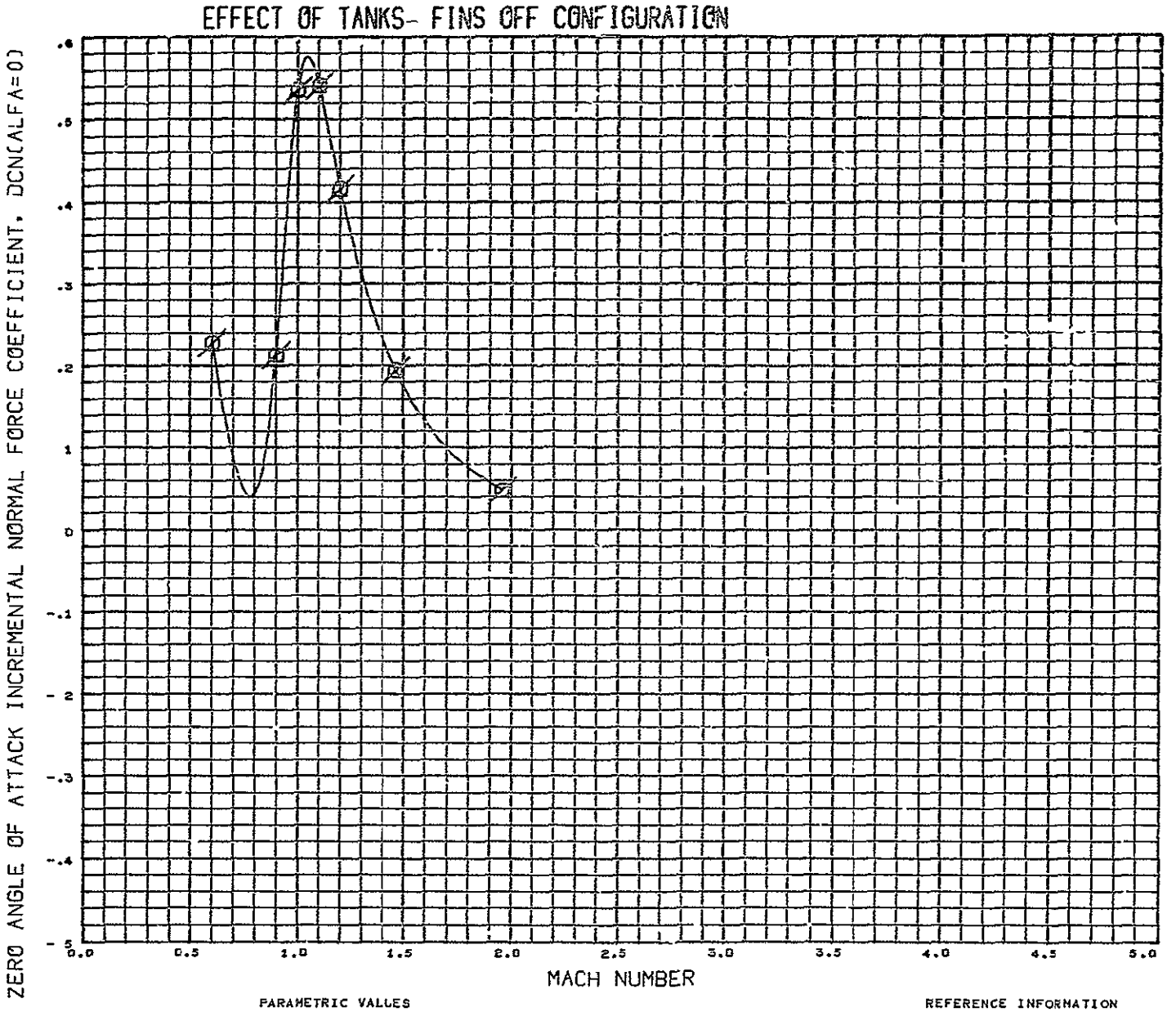
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EI*CF



PARAMETRIC VALUES

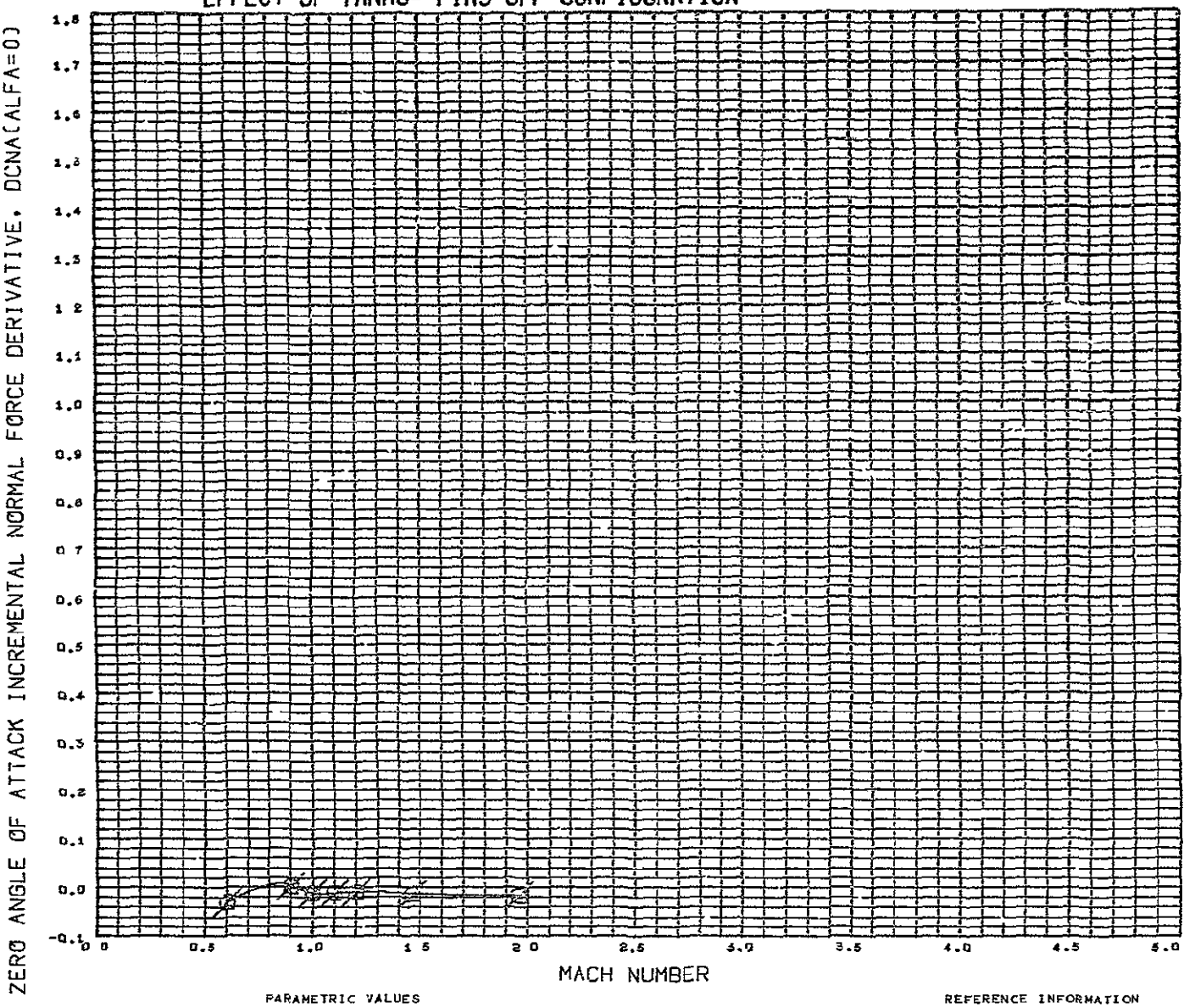
BETA 0 000 ORBINC - 5 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST. CODE MH*EI*A*CF

EFFECT OF TANKS- FINS OFF CONFIGURATION



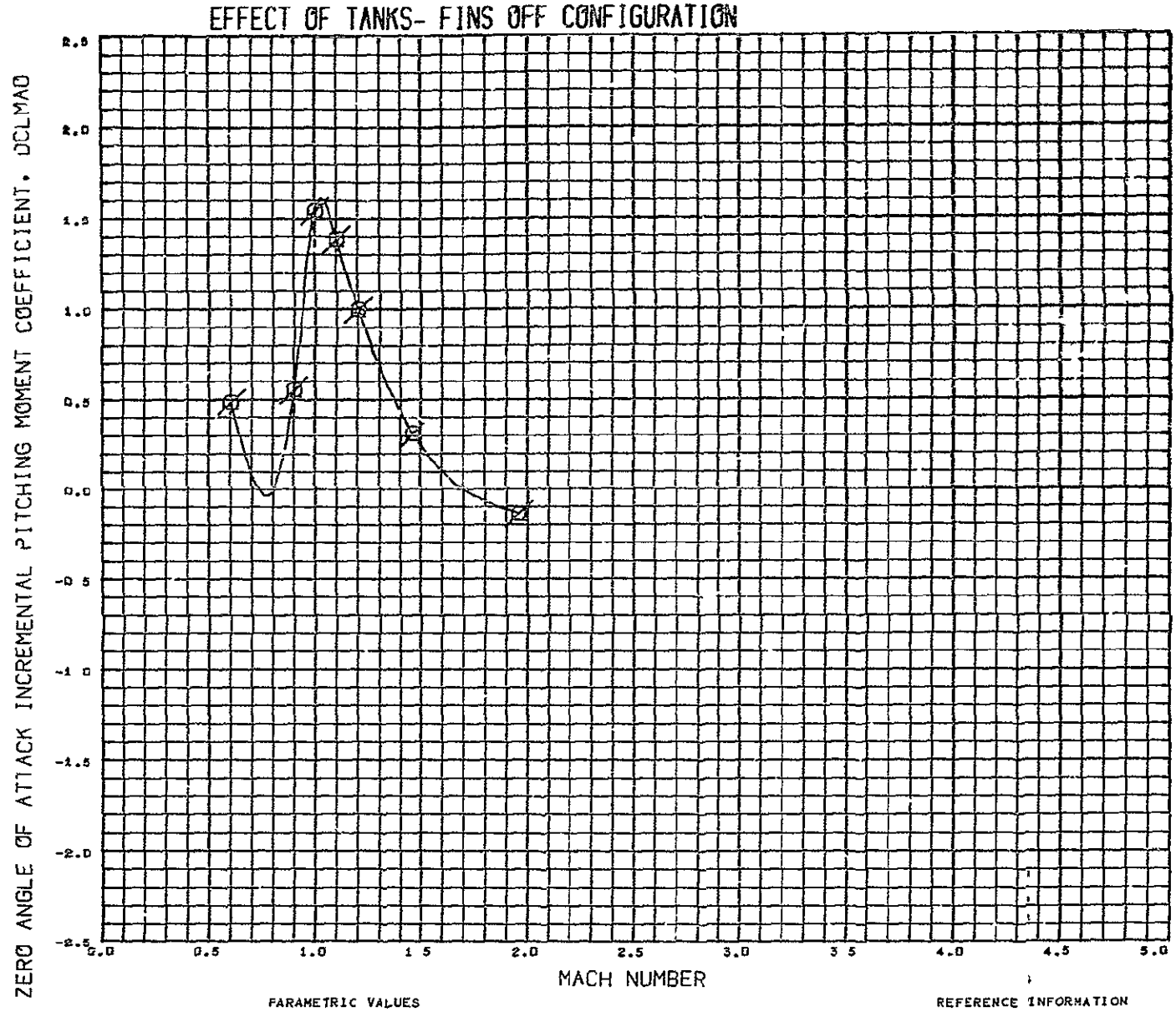
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE MH*EI*A*CF



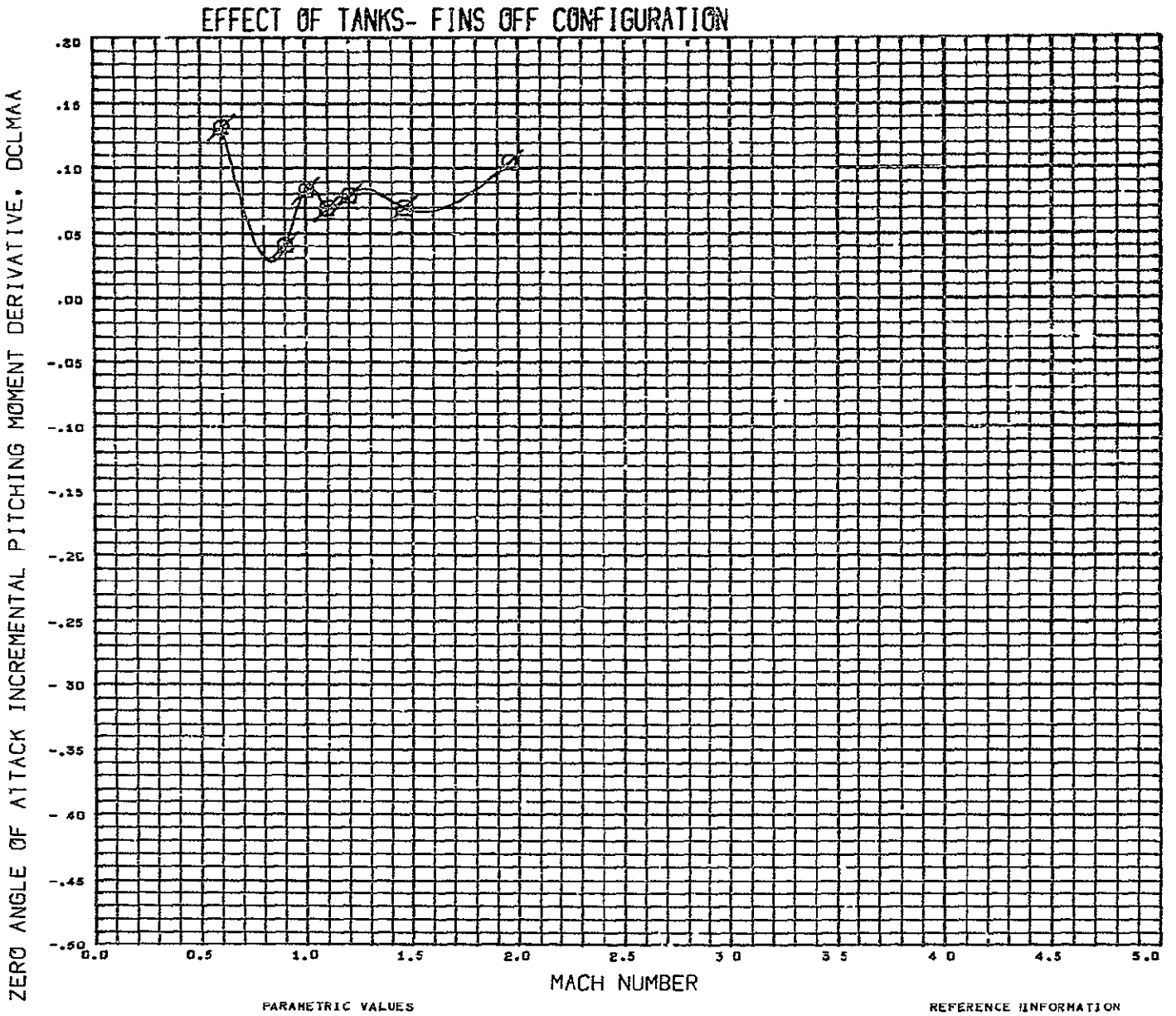
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*EI*A*CF



PARAMETRIC VALUES

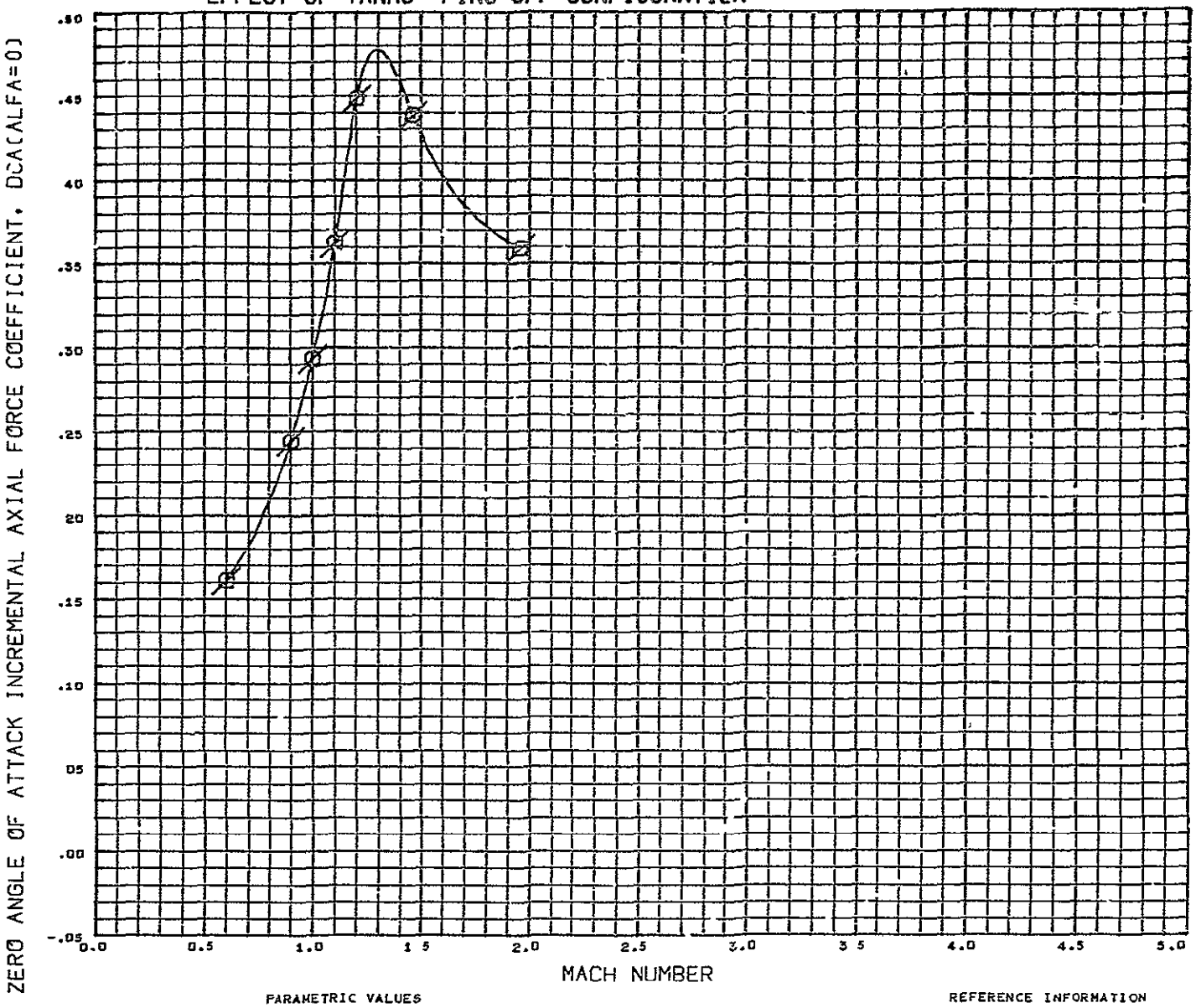
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0031	

DATA HIST CODE HH=EI=A=CF

EFFECT OF TANKS- FINS OFF CONFIGURATION



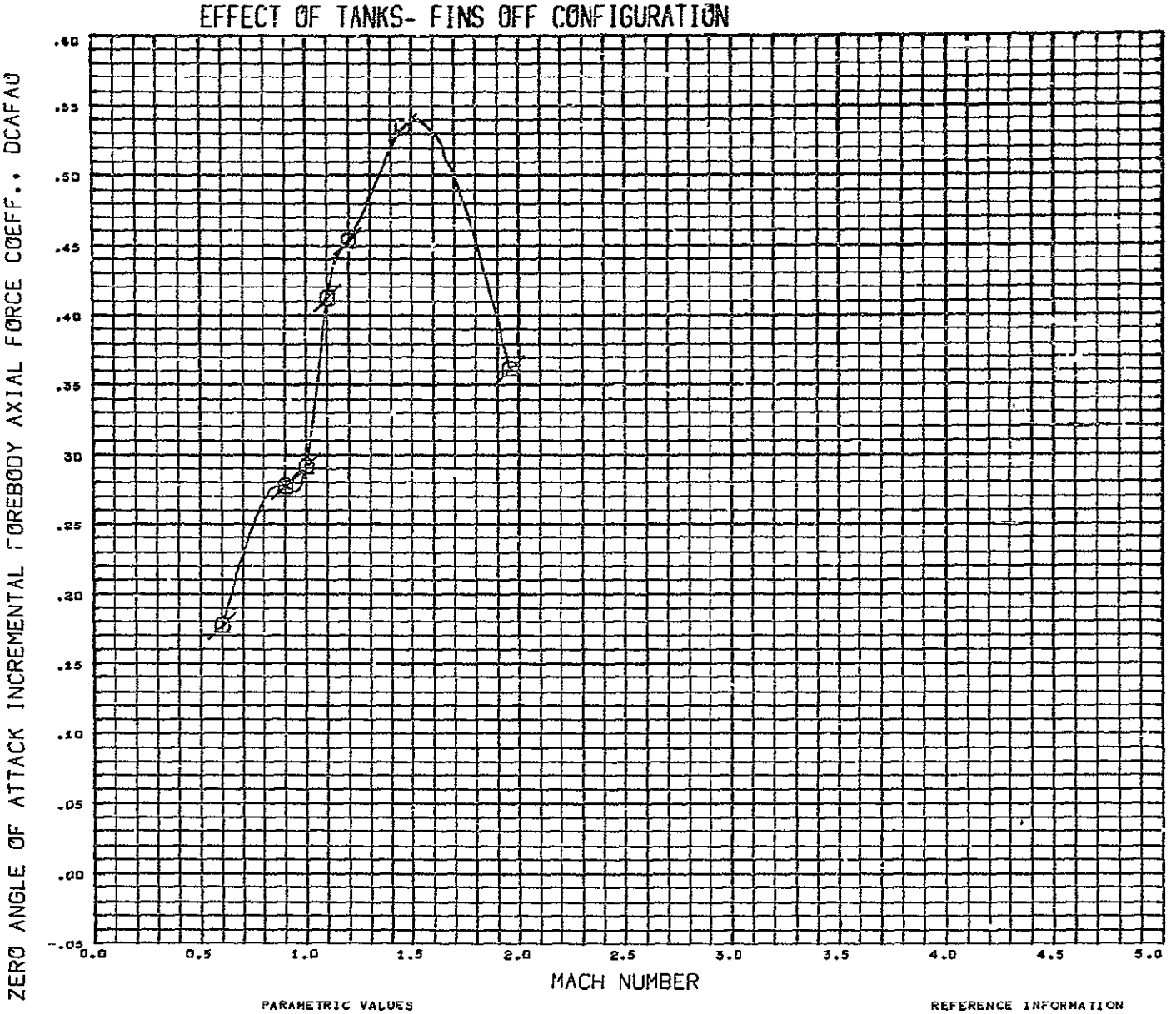
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRF	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*EI*A*CF



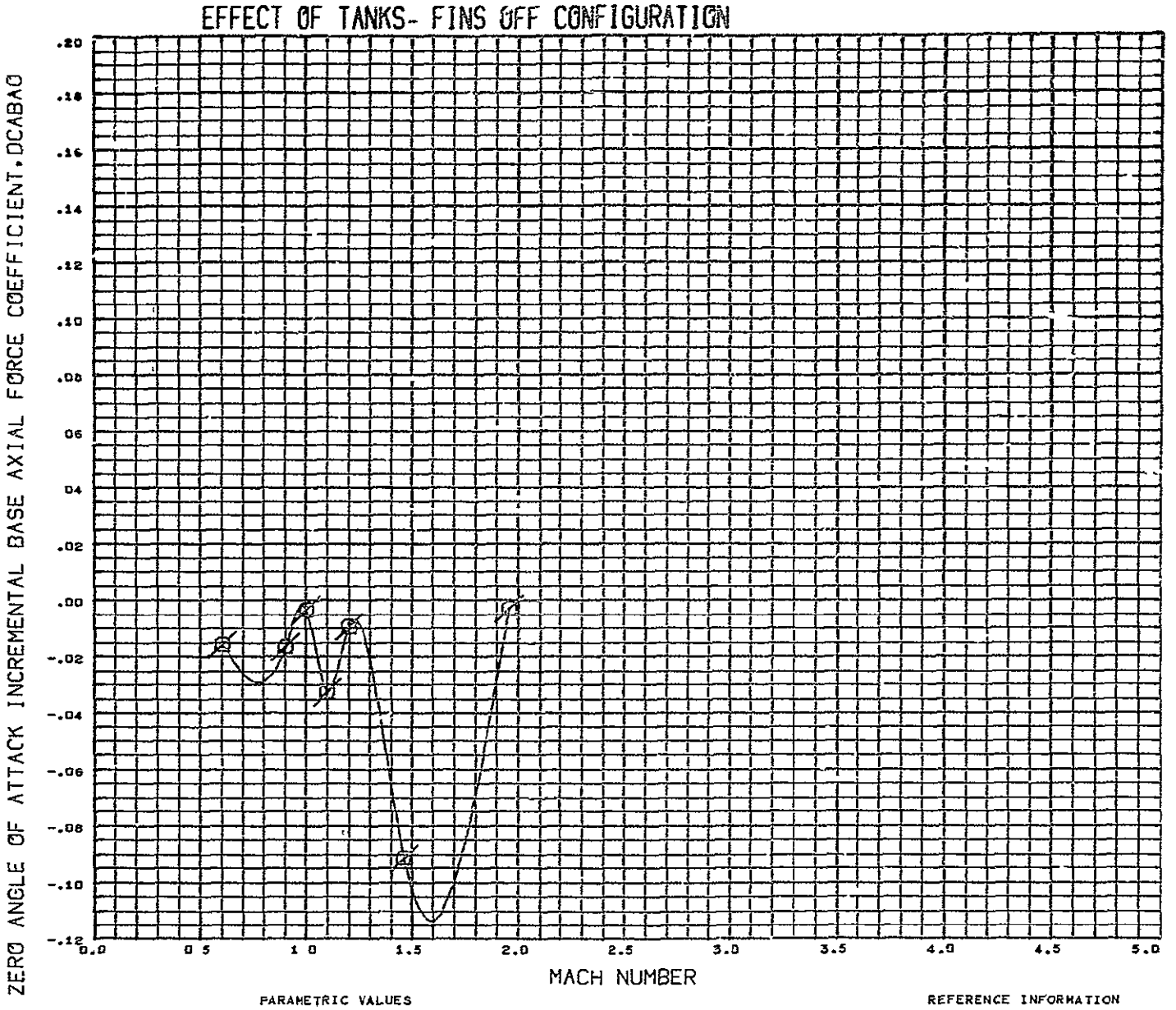
PARAMETRIC VALUES

BETA 0 000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE MN*EI*A*CF



PARAMETRIC VALUES

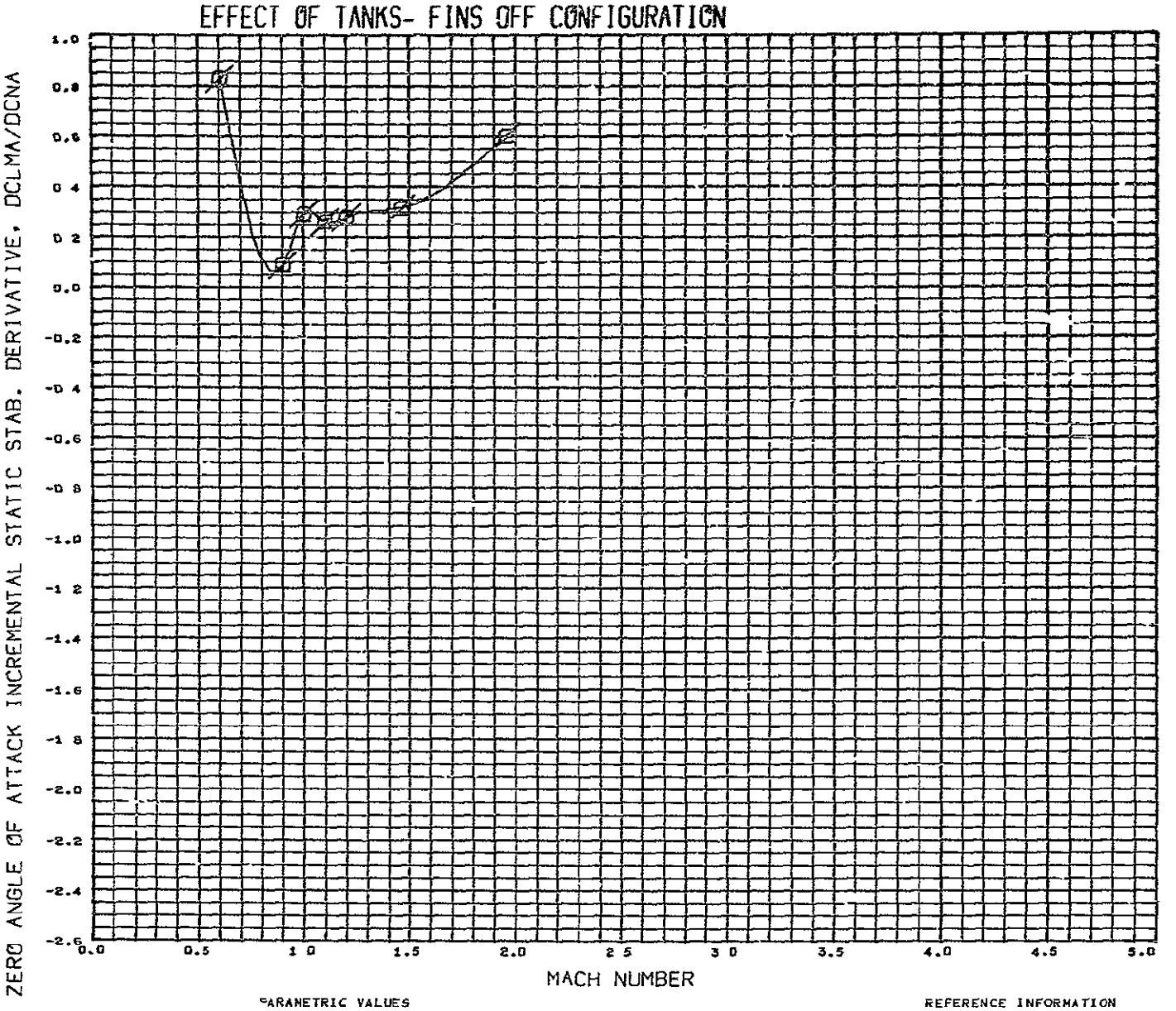
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE HH*EI*A*CF

M491-S1C/G-11 ORB., TANK(T1) INCREMENT ON OVWCB (G3300N) 08 AUG 71 PAGE 590



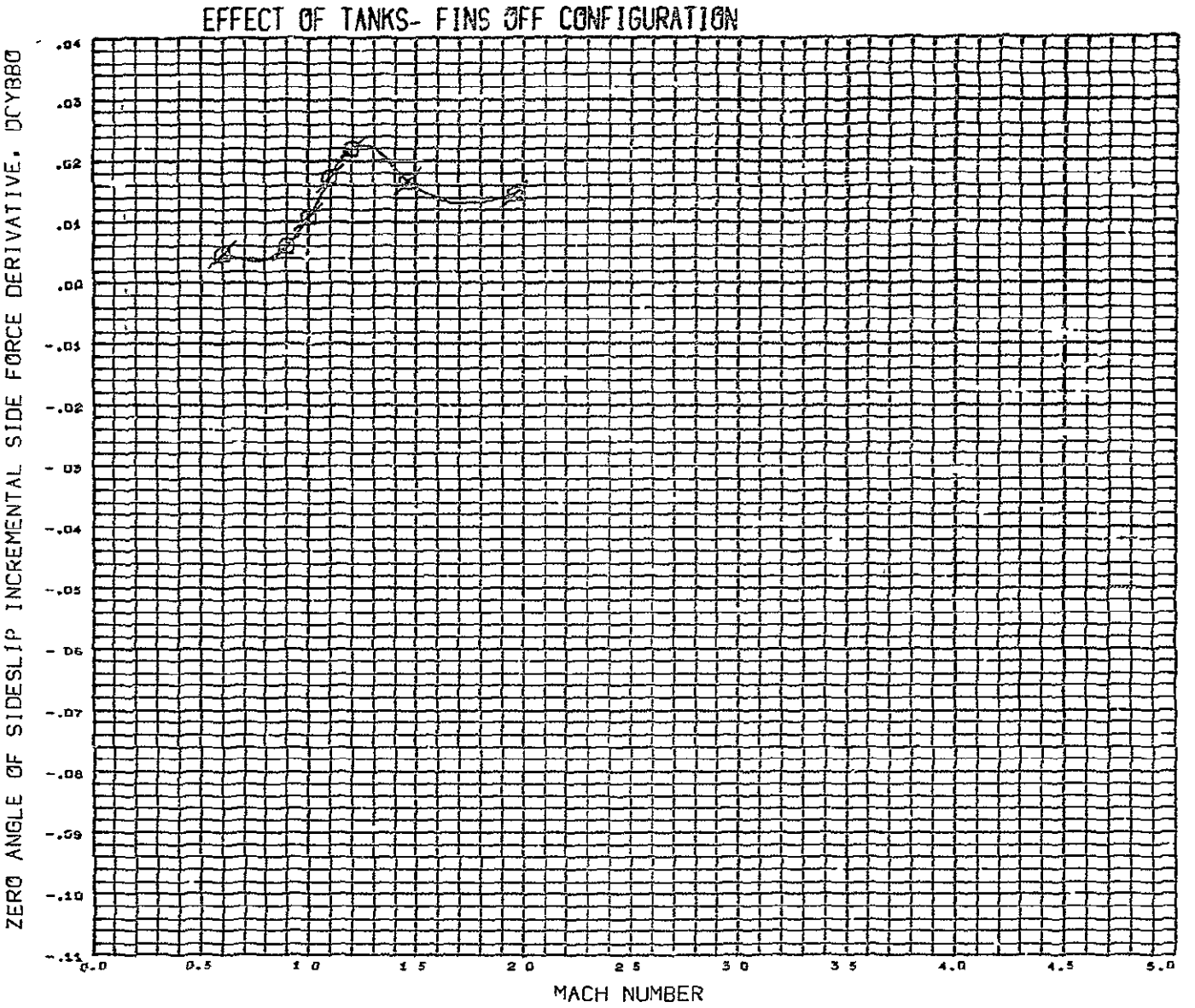
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MN*EI*A*CF



PAPAMETRIC VALUES

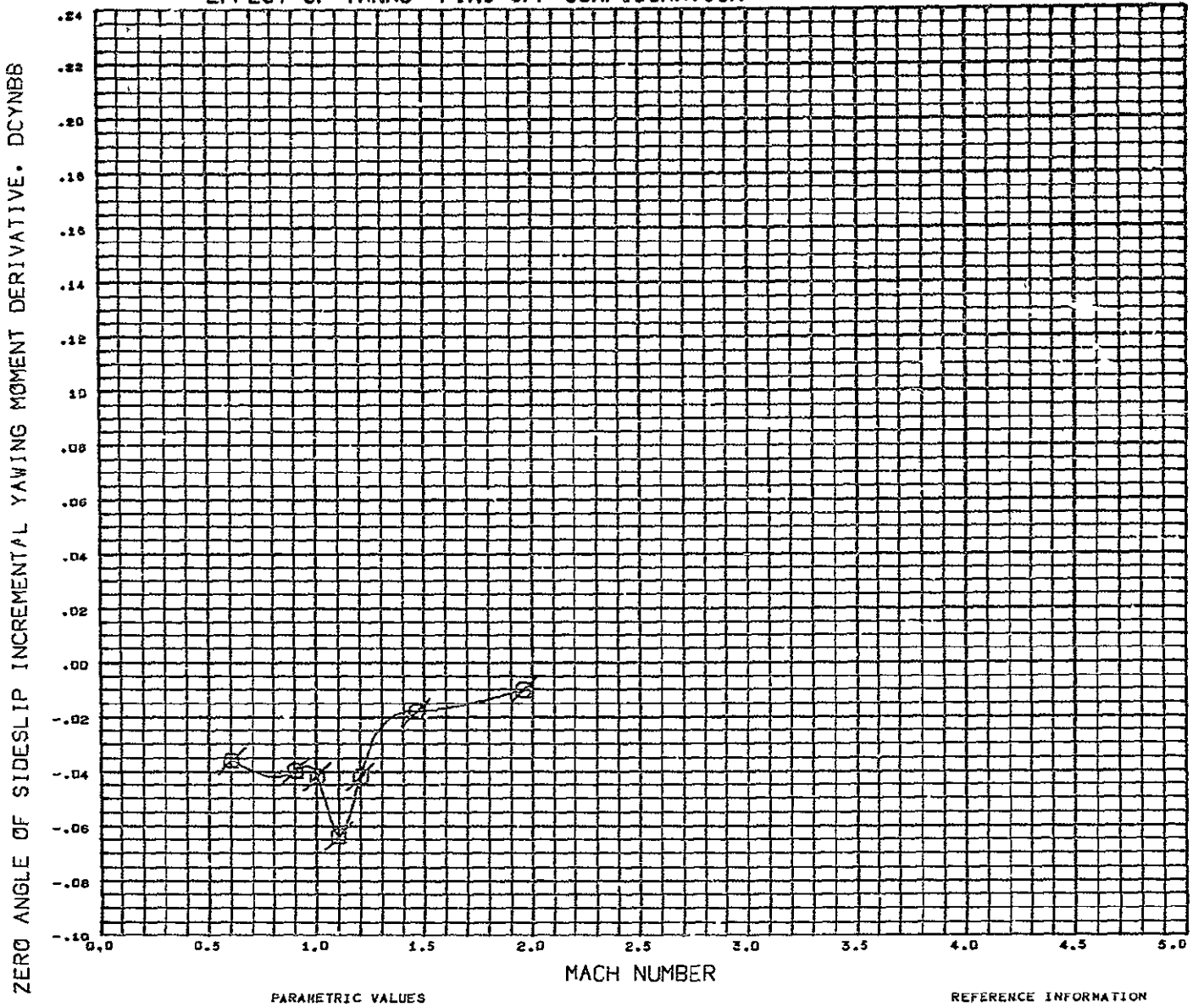
ALPHA 0.000 ORBINC - 3.100

DATA HIST CODE MM*EI*A*CF

REFERENCE INFORMATION

SREF	1 3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

EFFECT OF TANKS- FINS OFF CONFIGURATION



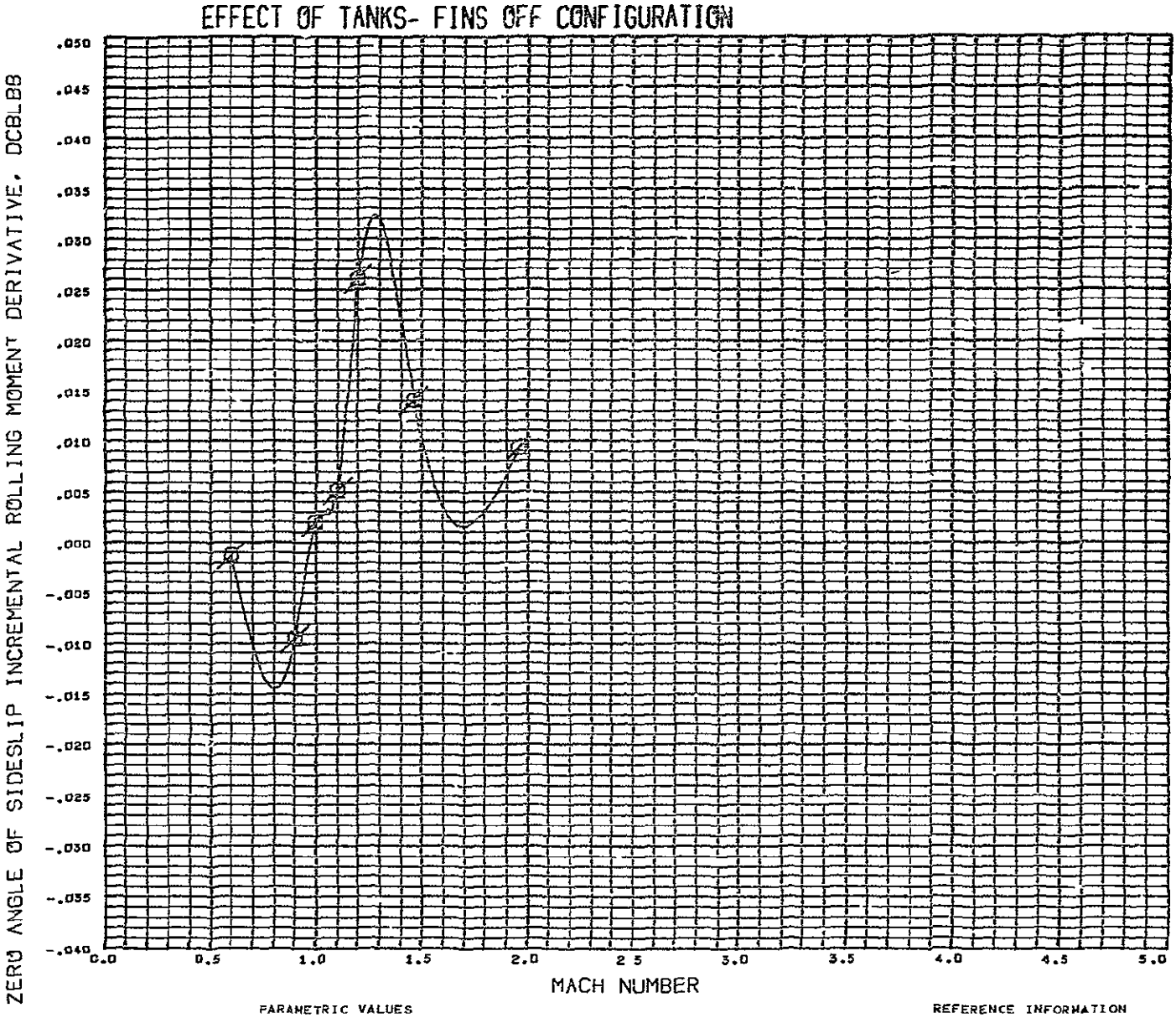
PARAMETRIC VALUES

ALPHA 0 000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE MM*EI*A*CF



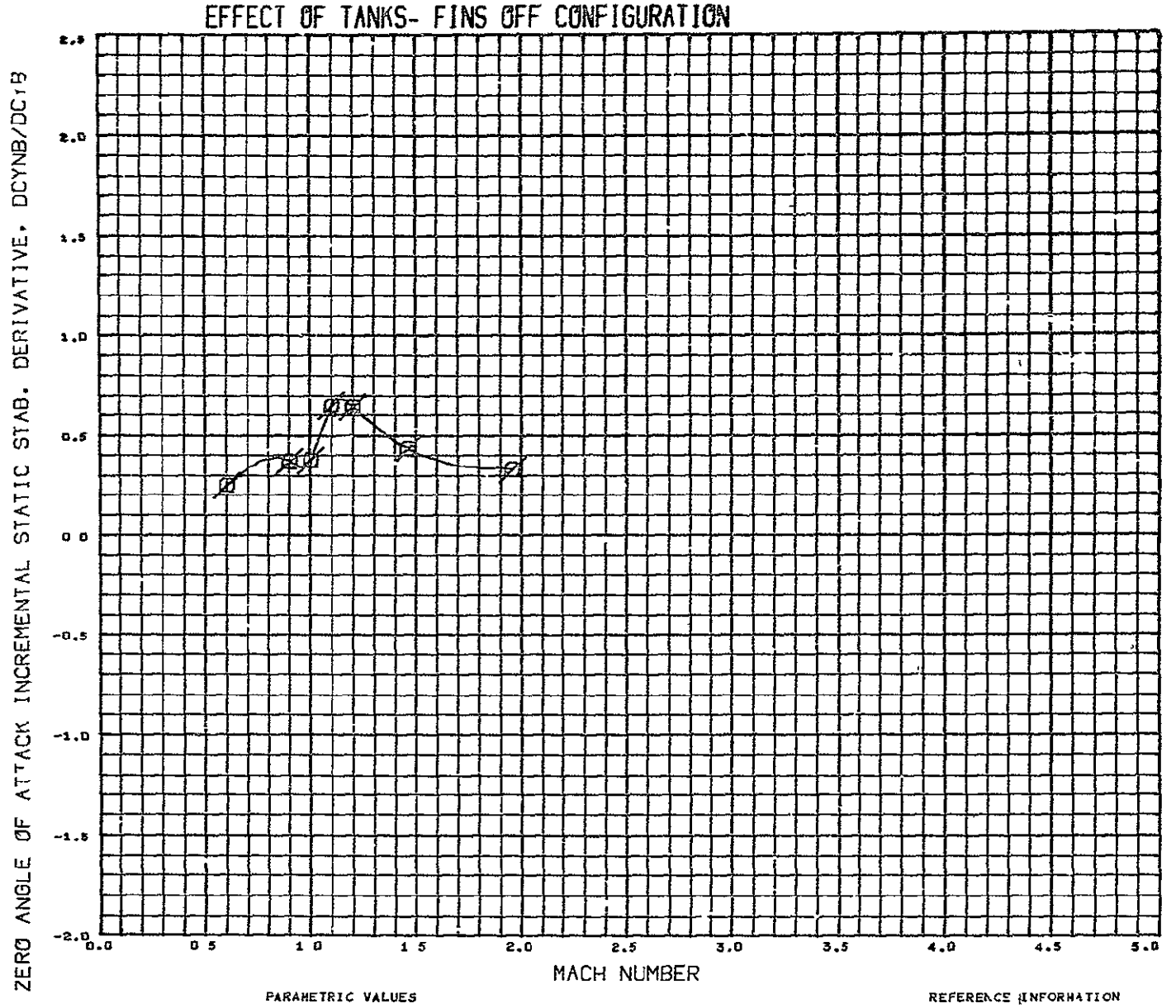
PARAMETRIC VALUES

ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST. CODE MH*EI*A*CF



PARAMETRIC VALUES

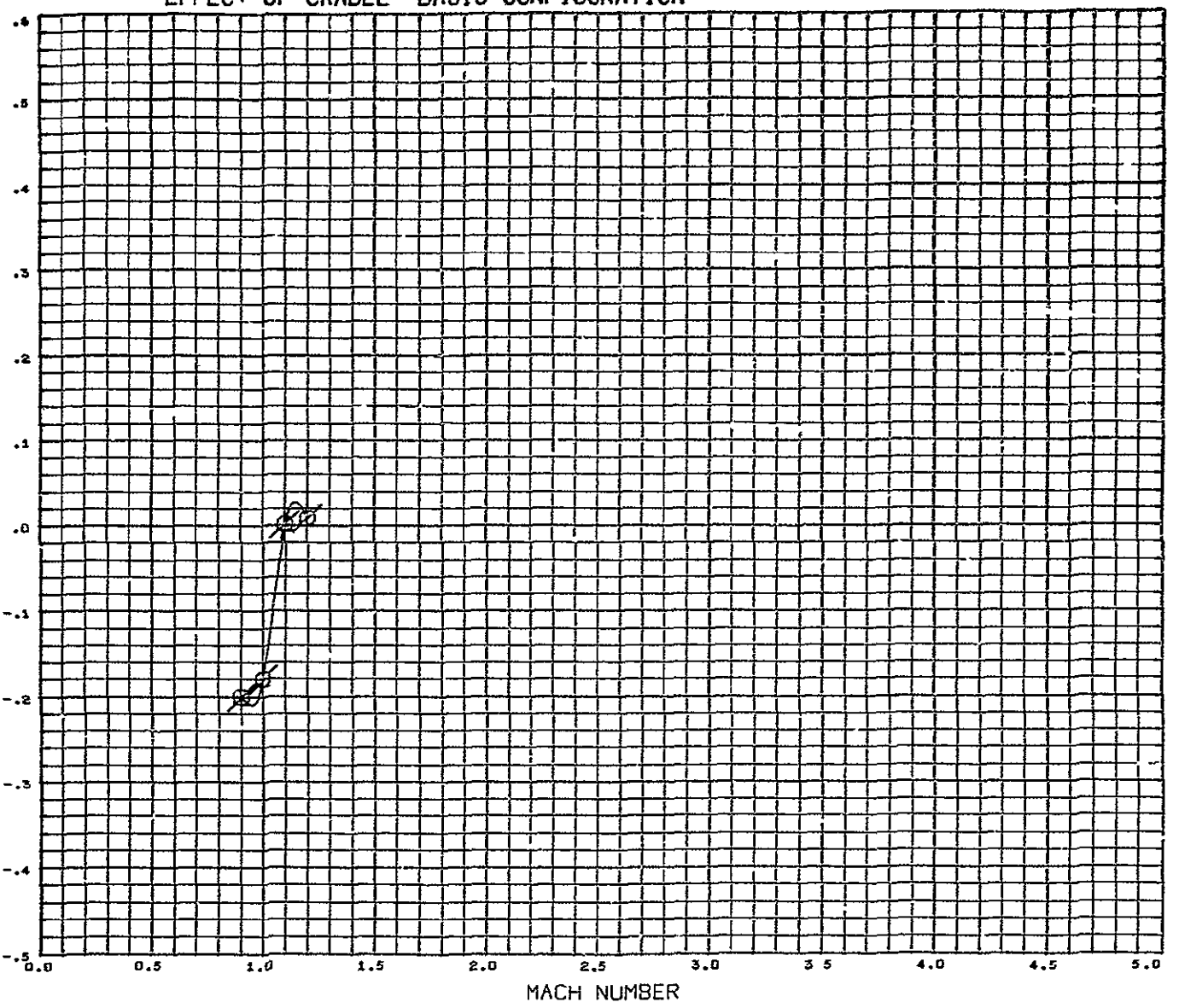
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*EI*A*CF

EFFECT OF CRADLE- BASIC CONFIGURATION



PARAMETRIC VALUES

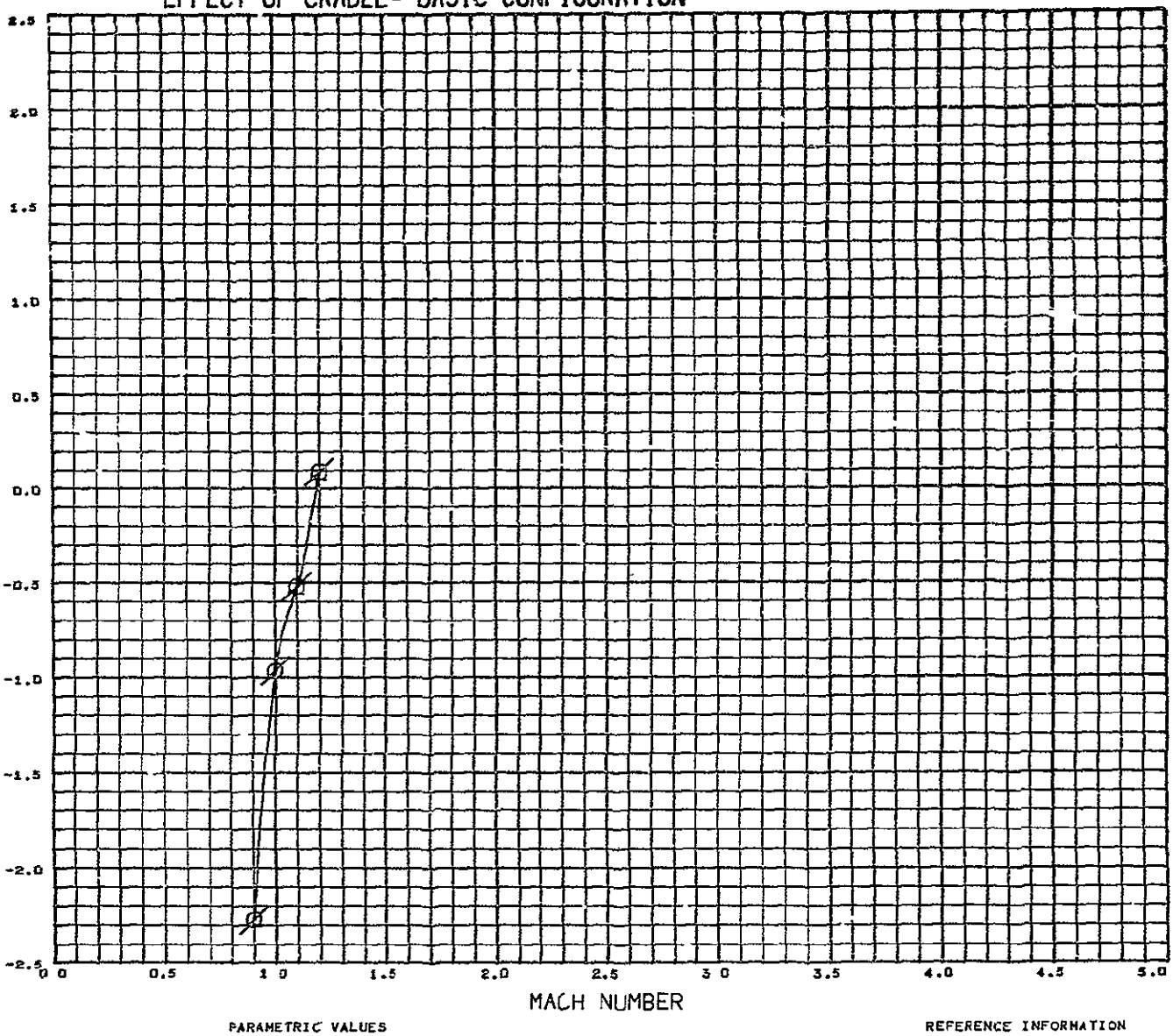
BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMPP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0.003+	

DATA HIST CODE M*EI*A*CF

EFFECT OF CRADLE- BASIC CONFIGURATION



PARAMETRIC VALUES

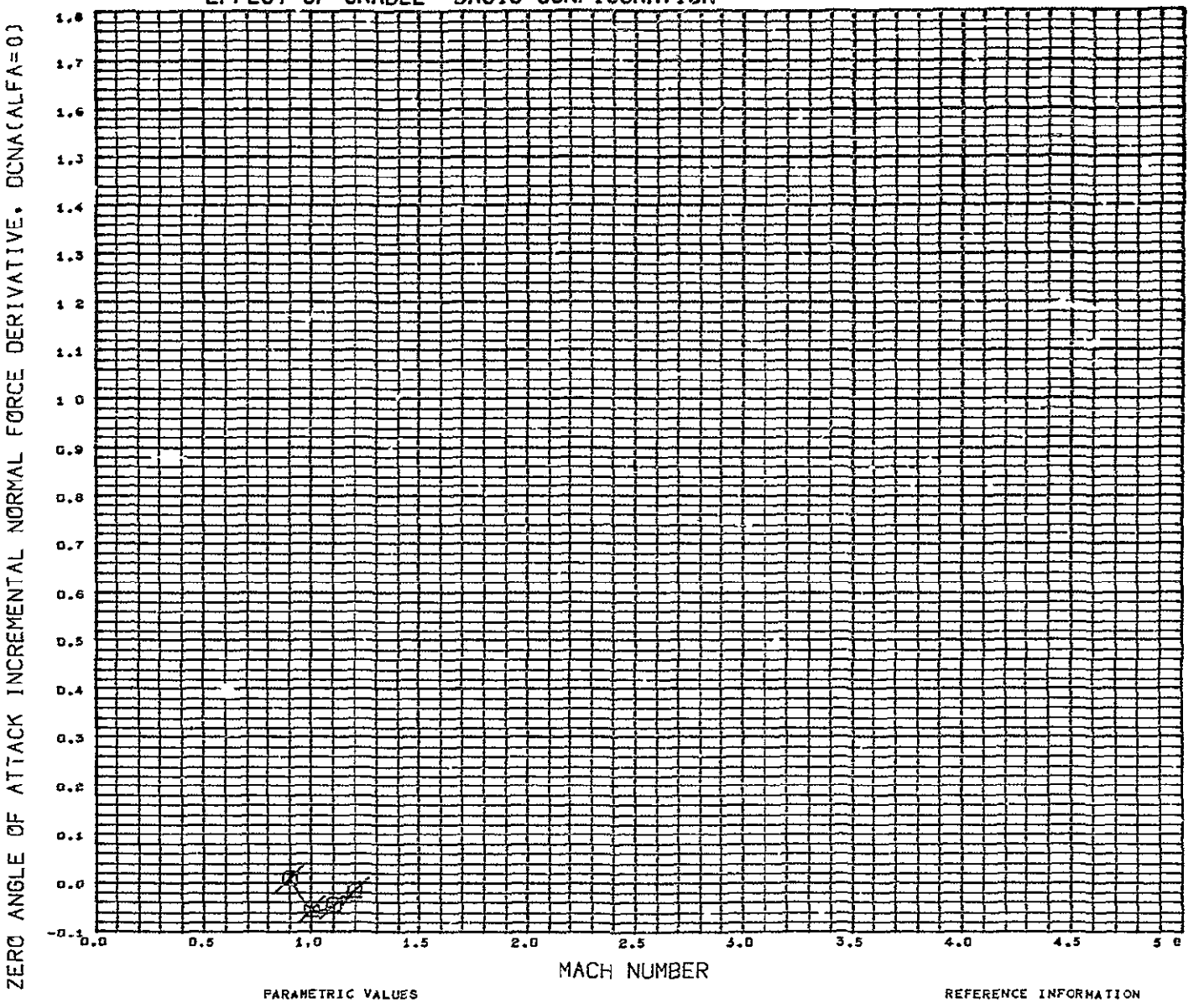
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0060	IN
SCALE	0.0034	

DATA HIST CODE M*EI*A*CF

EFFECT OF CRADLE- BASIC CONFIGURATION



PARAMETRIC VALUES

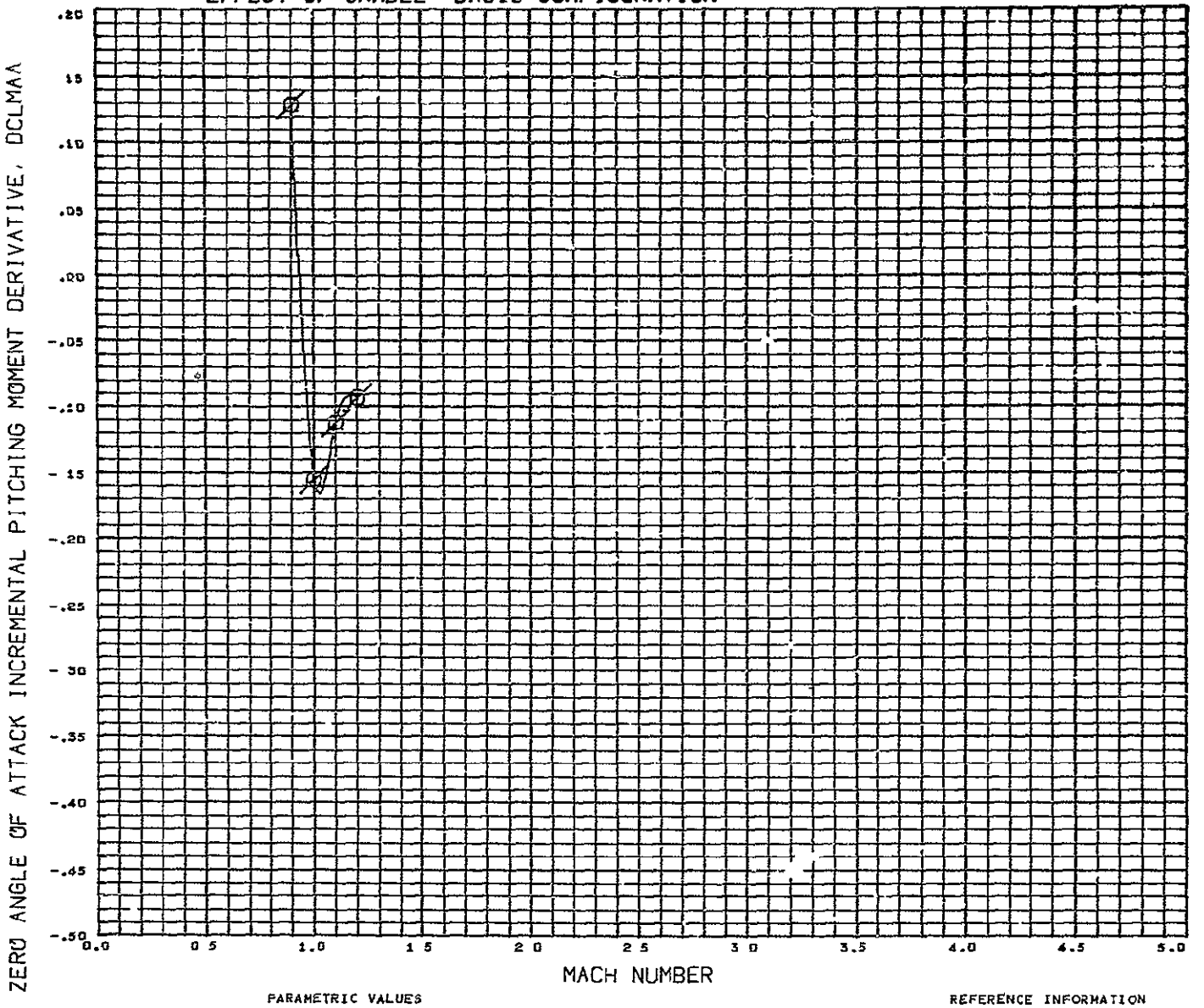
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003	

DATA HIST CODE M*EI*A*CF

EFFECT OF CRADLE- BASIC CONFIGURATION



PARAMETRIC VALUES

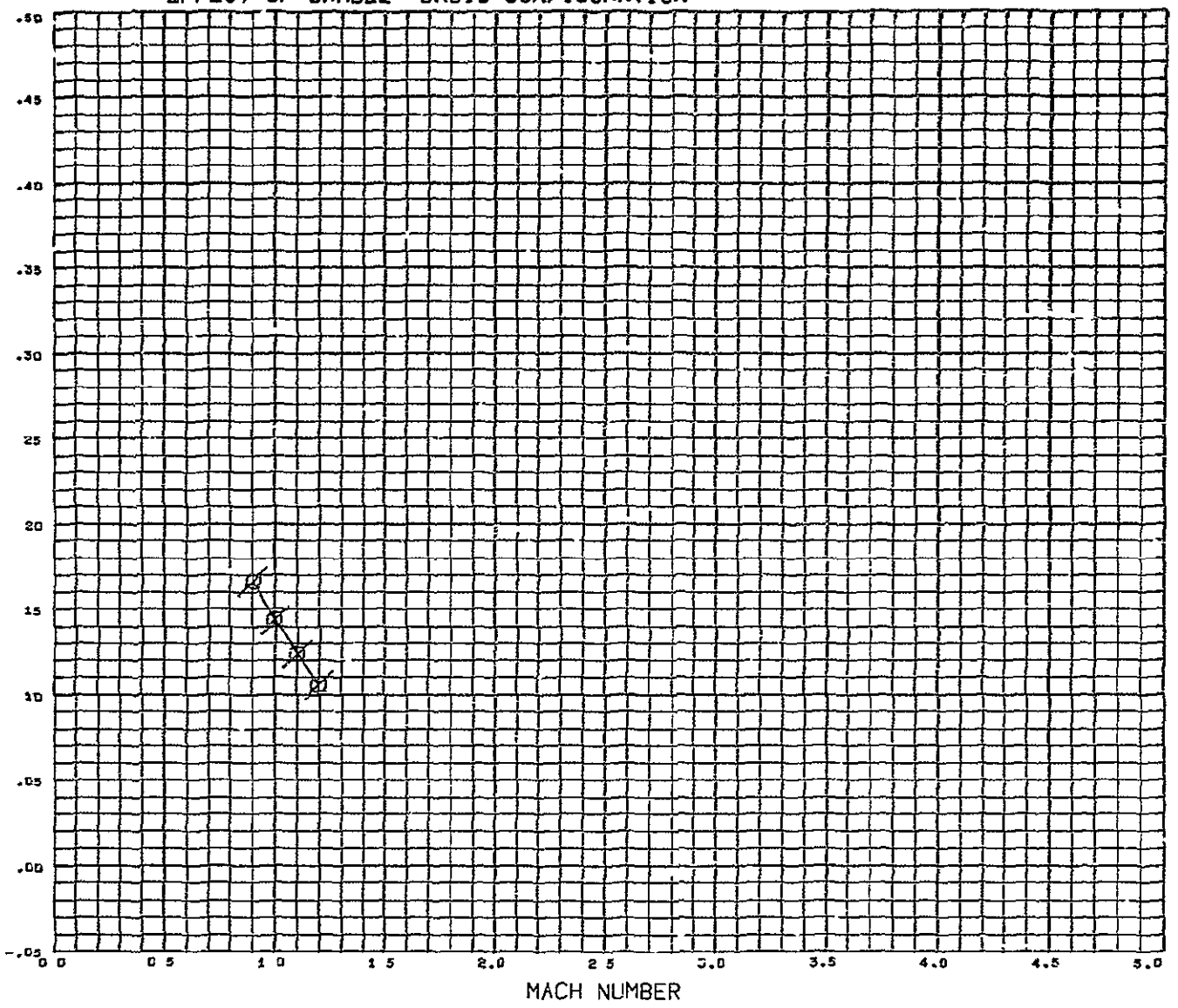
BETA 0.000 ORBINC - 3.100

DATA HIST CODE M*EI*A*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0003	IN
SCALE	0.0034	

EFFECT OF CRADLE- BASIC CONFIGURATION



PARAMETRIC VALUES

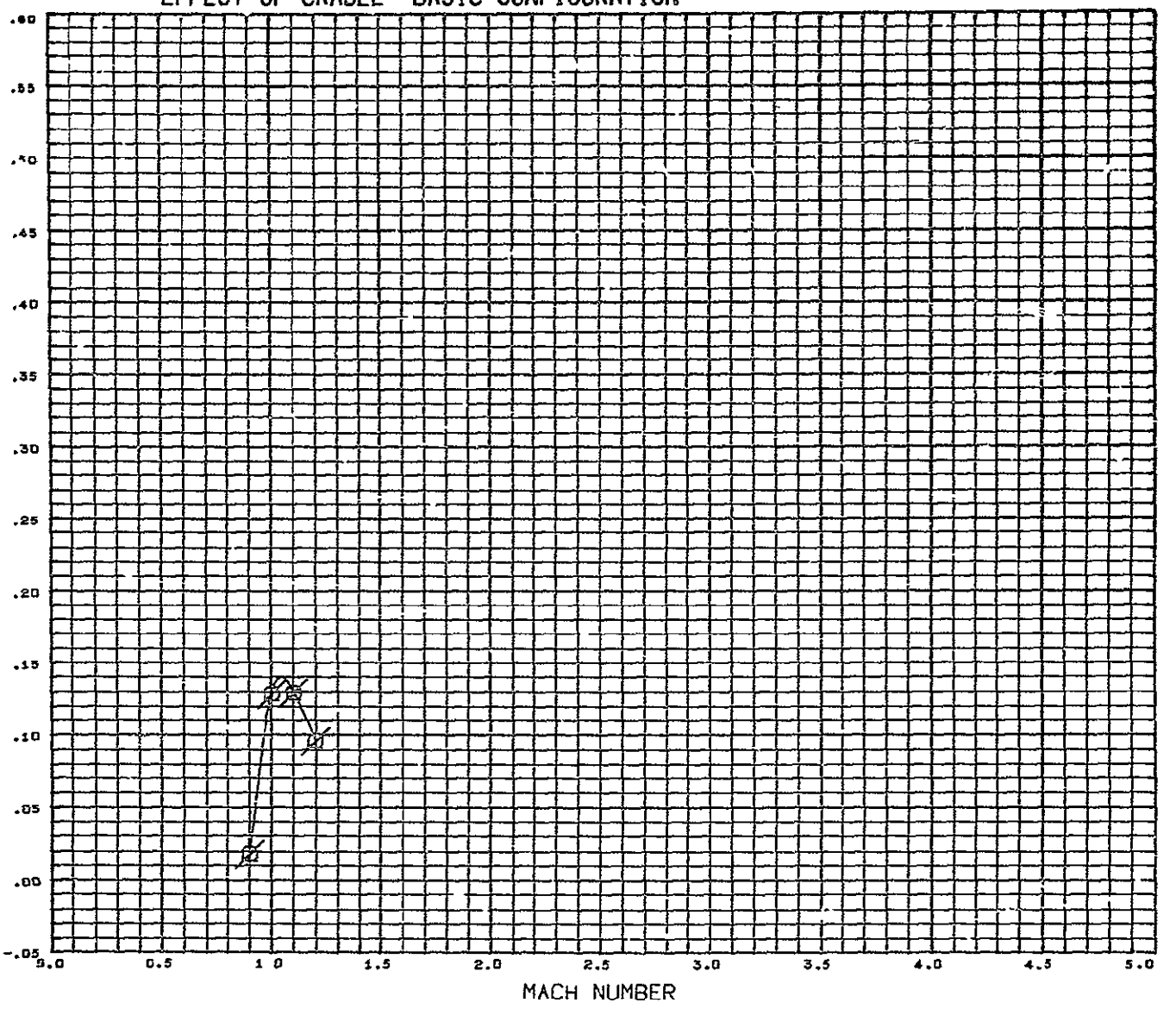
BETA 0 000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0037	

DATA HIST CODE H*EI*A*CF

EFFECT OF CRADLE- BASIC CONFIGURATION



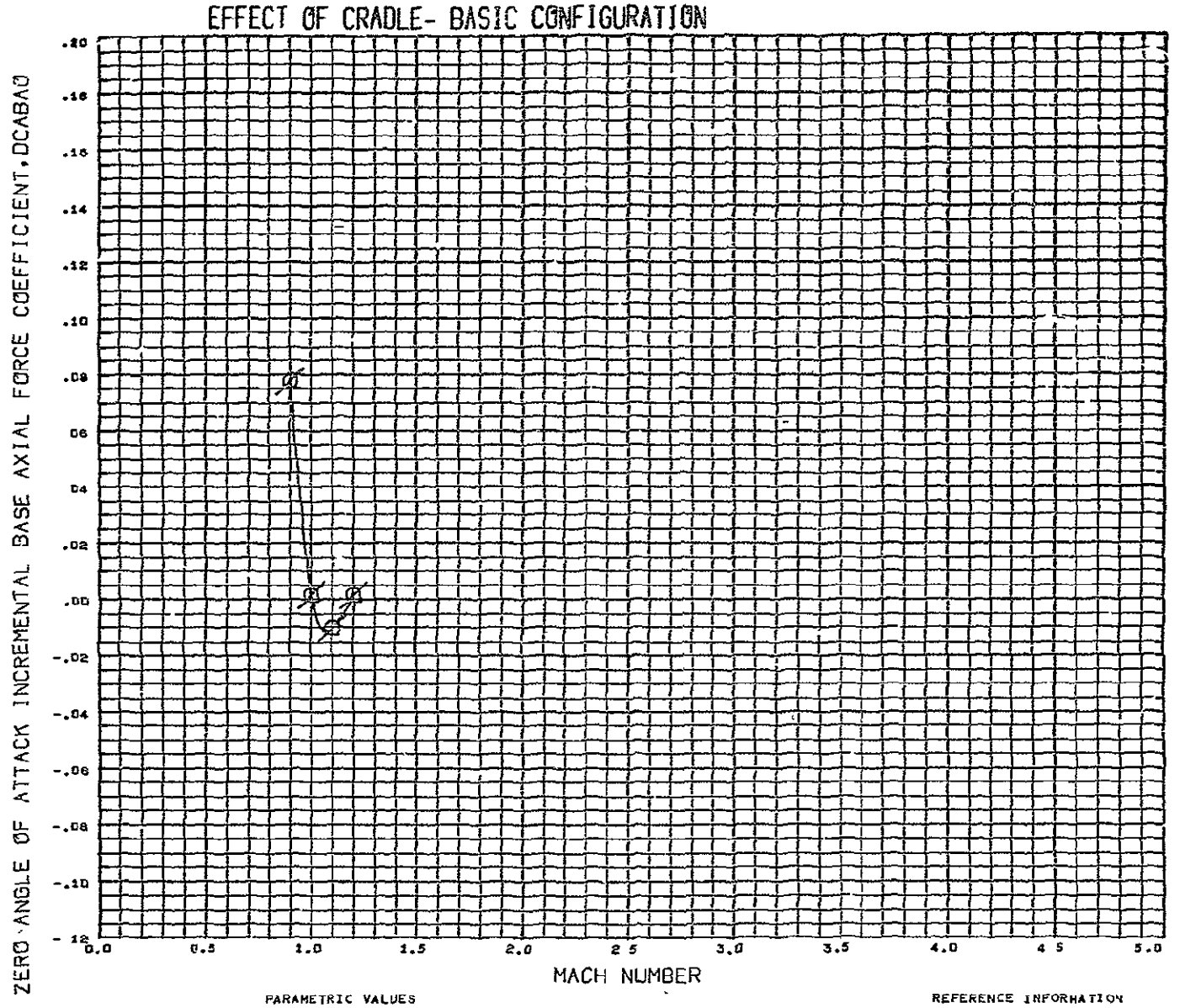
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST. CODE M*EI*A*CF

REFERENCE INFORMATION

SREF	1.3560	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0014	



PARAMETRIC VALUES

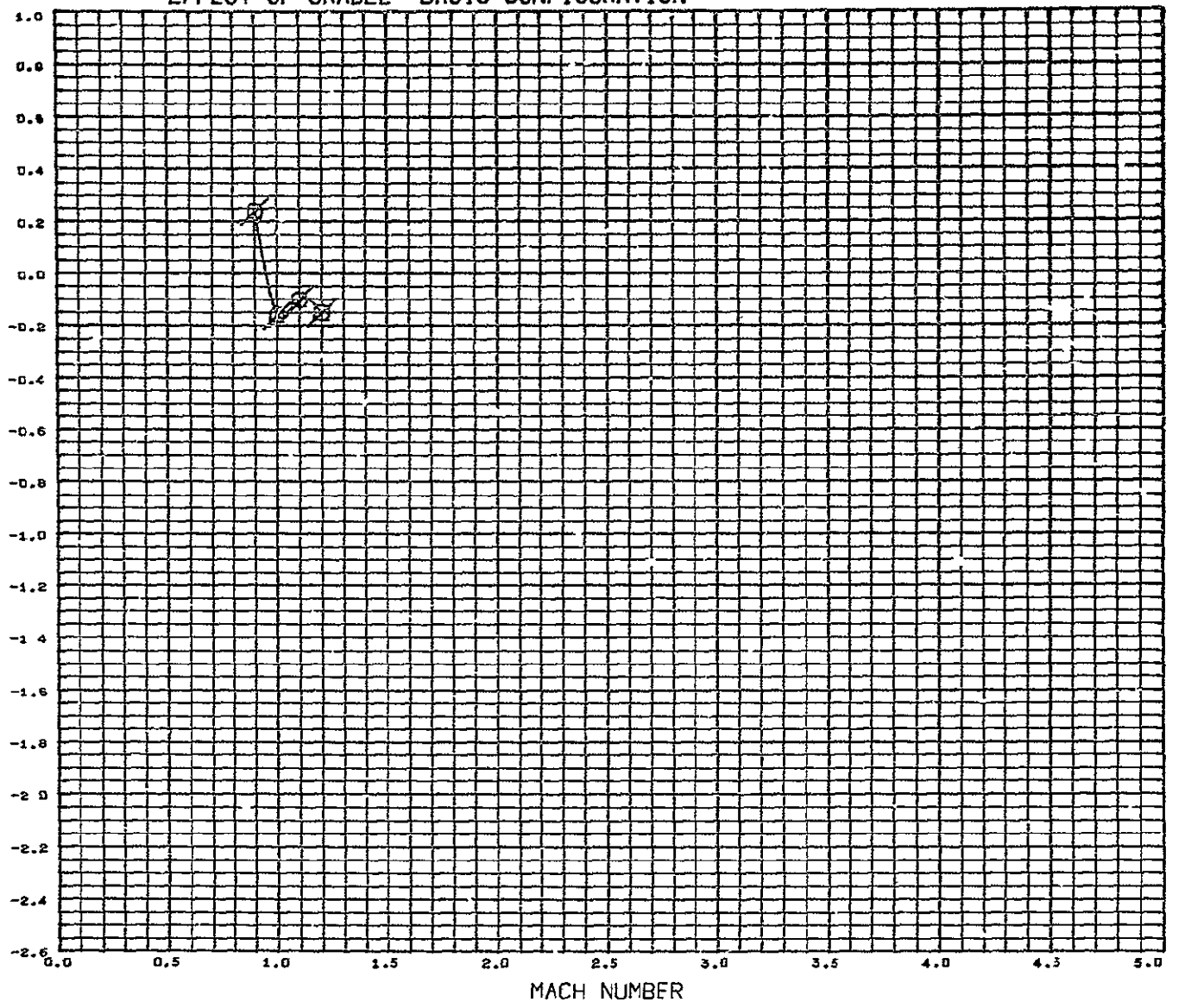
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*A*CF

EFFECT OF CRADLE- BASIC CONFIGURATION



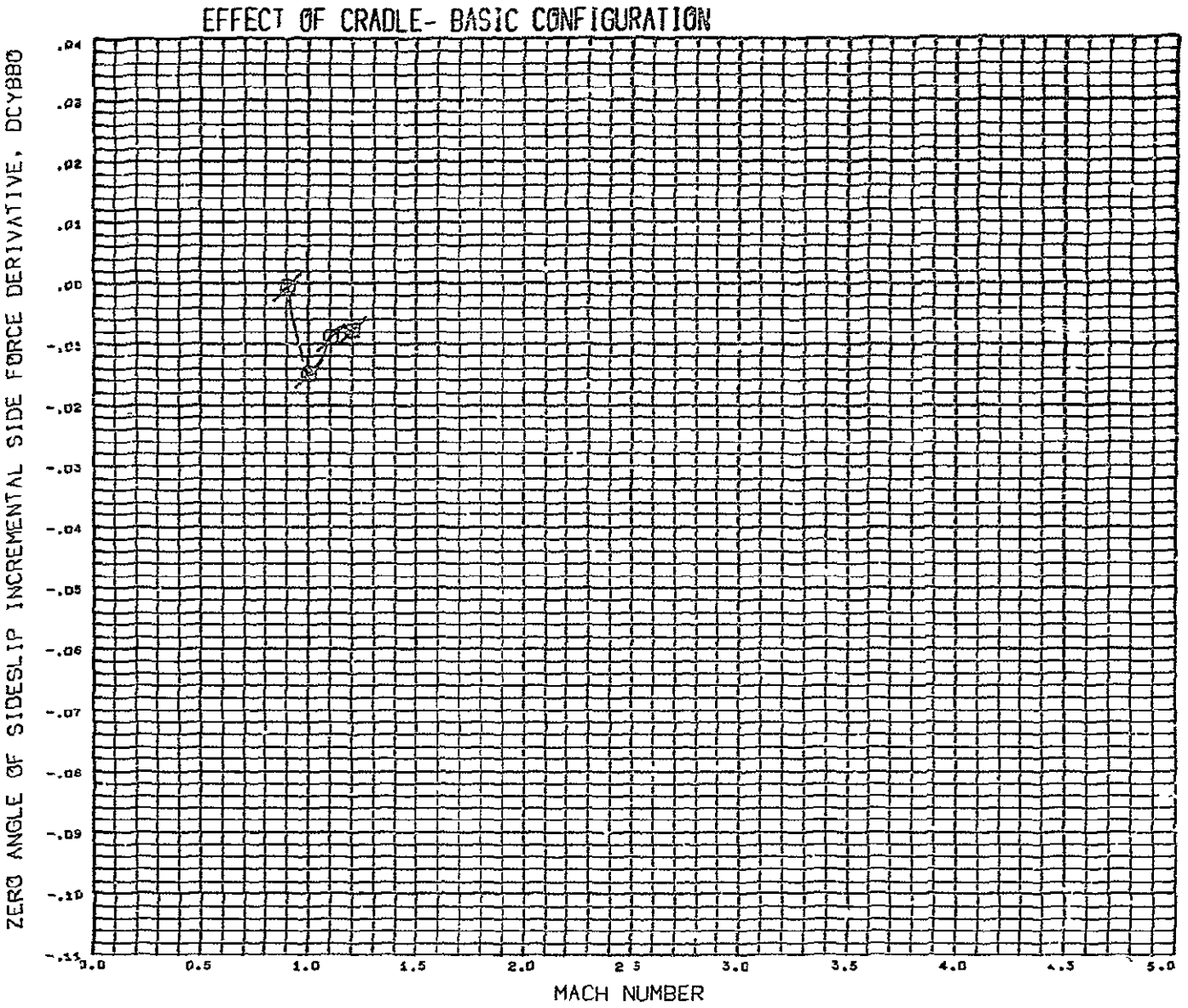
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*EI*A*CF



PARAMETRIC VALUES

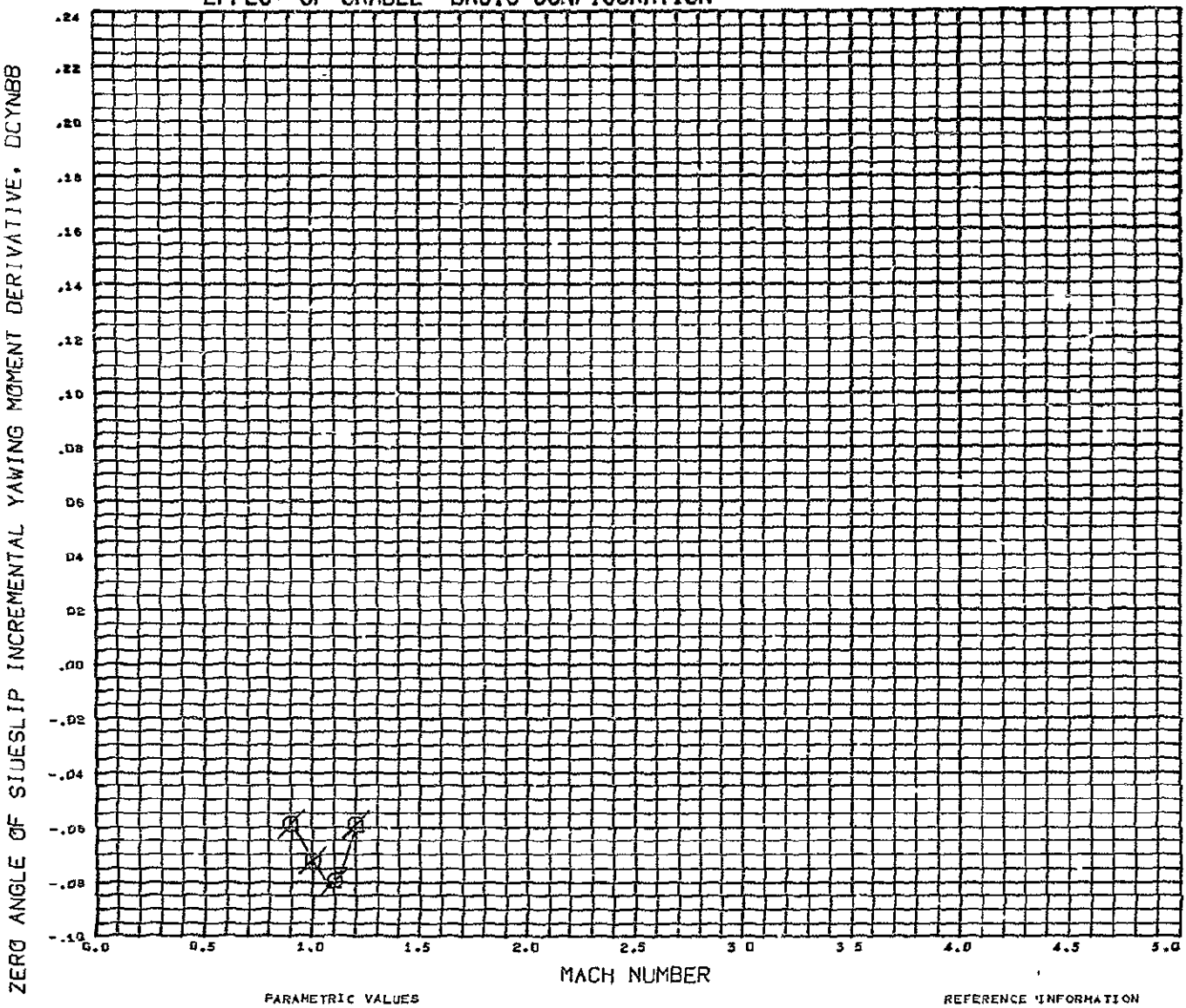
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0054	

DATA HIST. CODE M*E1*A*CF

EFFECT OF CRADLE- BASIC CONFIGURATION



PARAMETRIC VALUES

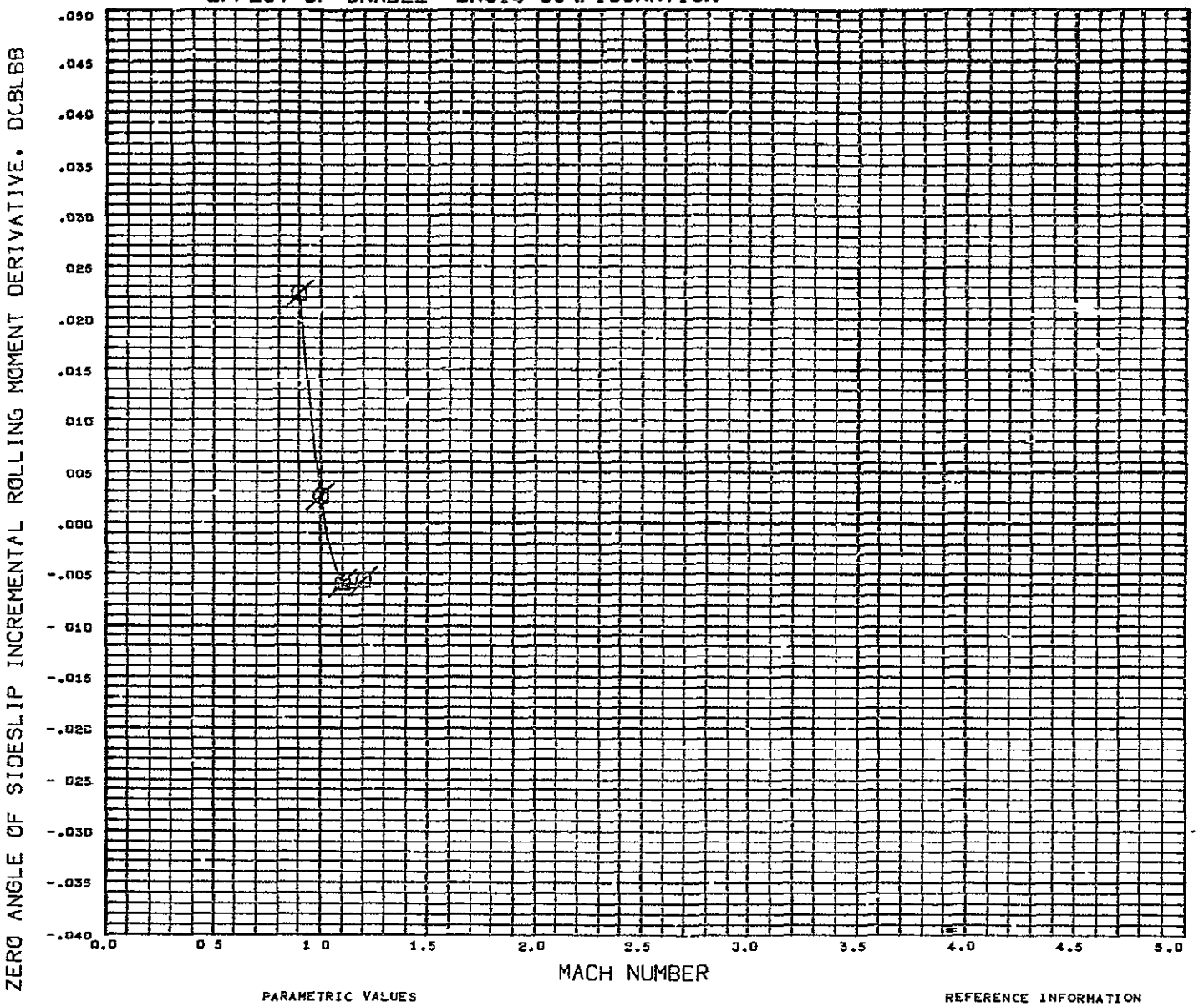
ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3930	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE M*E1*A*CF

EFFECT OF CRADLE- BASIC CONFIGURATION



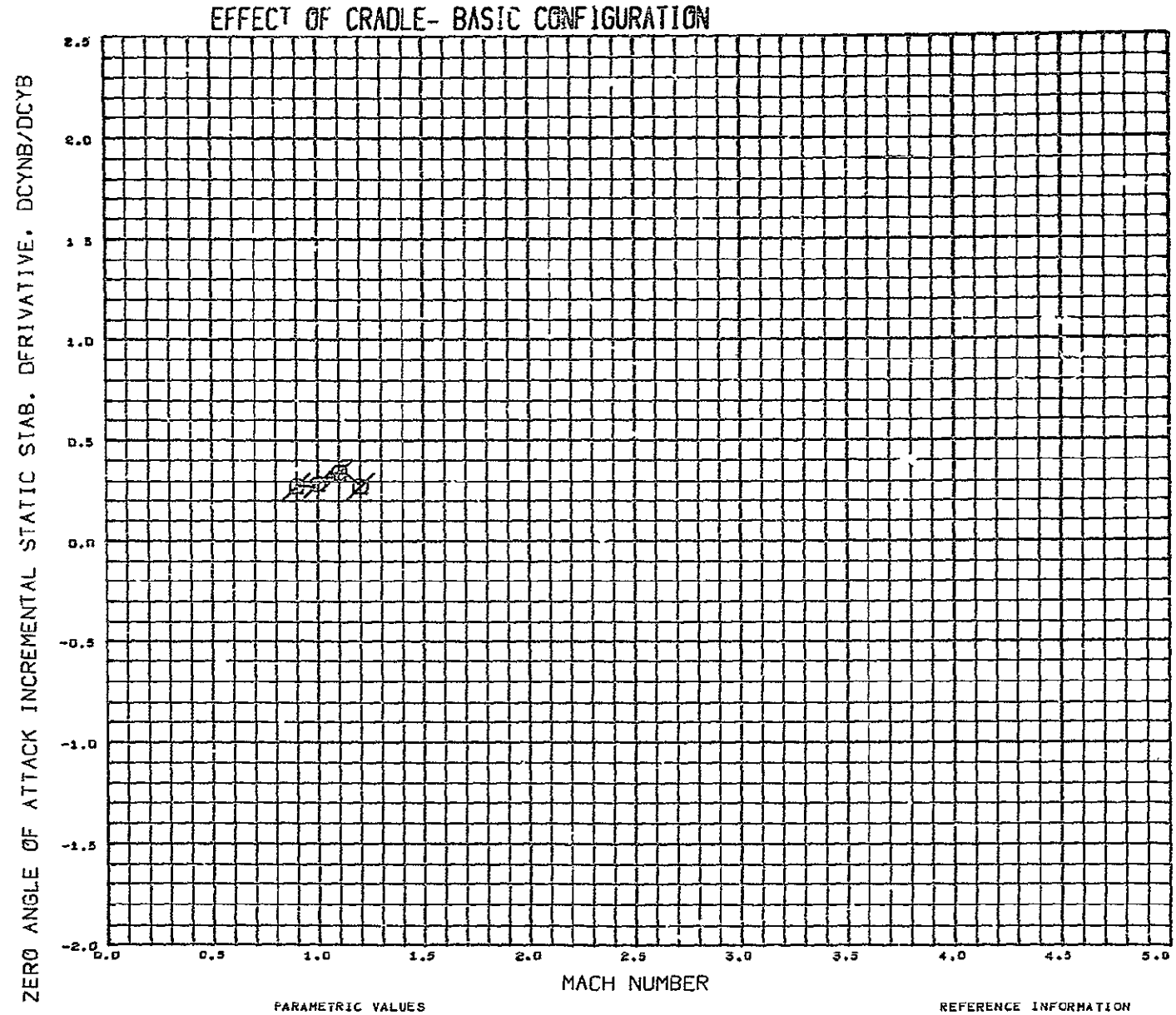
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST. CODE M*EI*A*CF



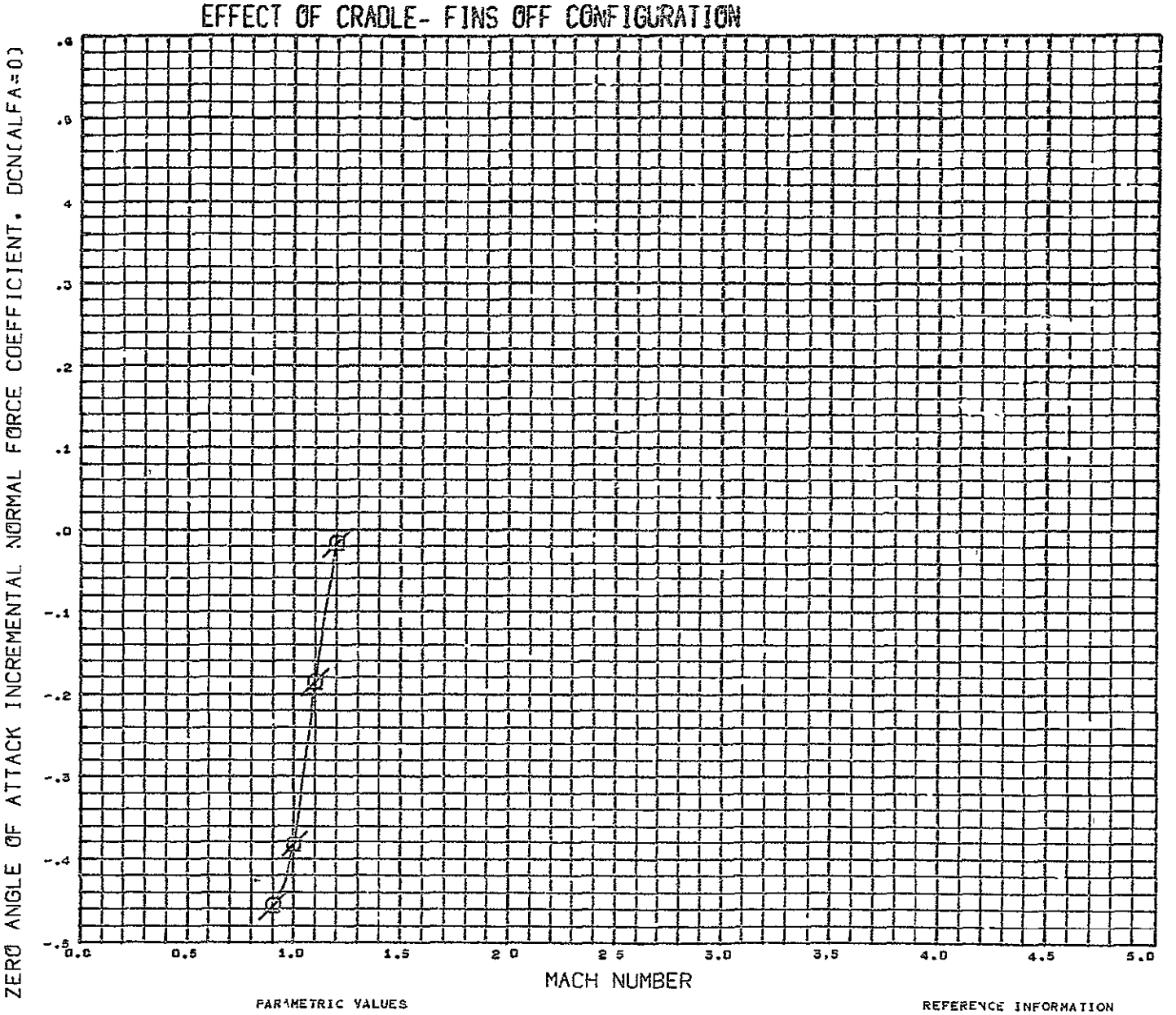
PARAMETRIC VALUES

ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0 0034	

DATA HIST CODE M*E1*A*CF



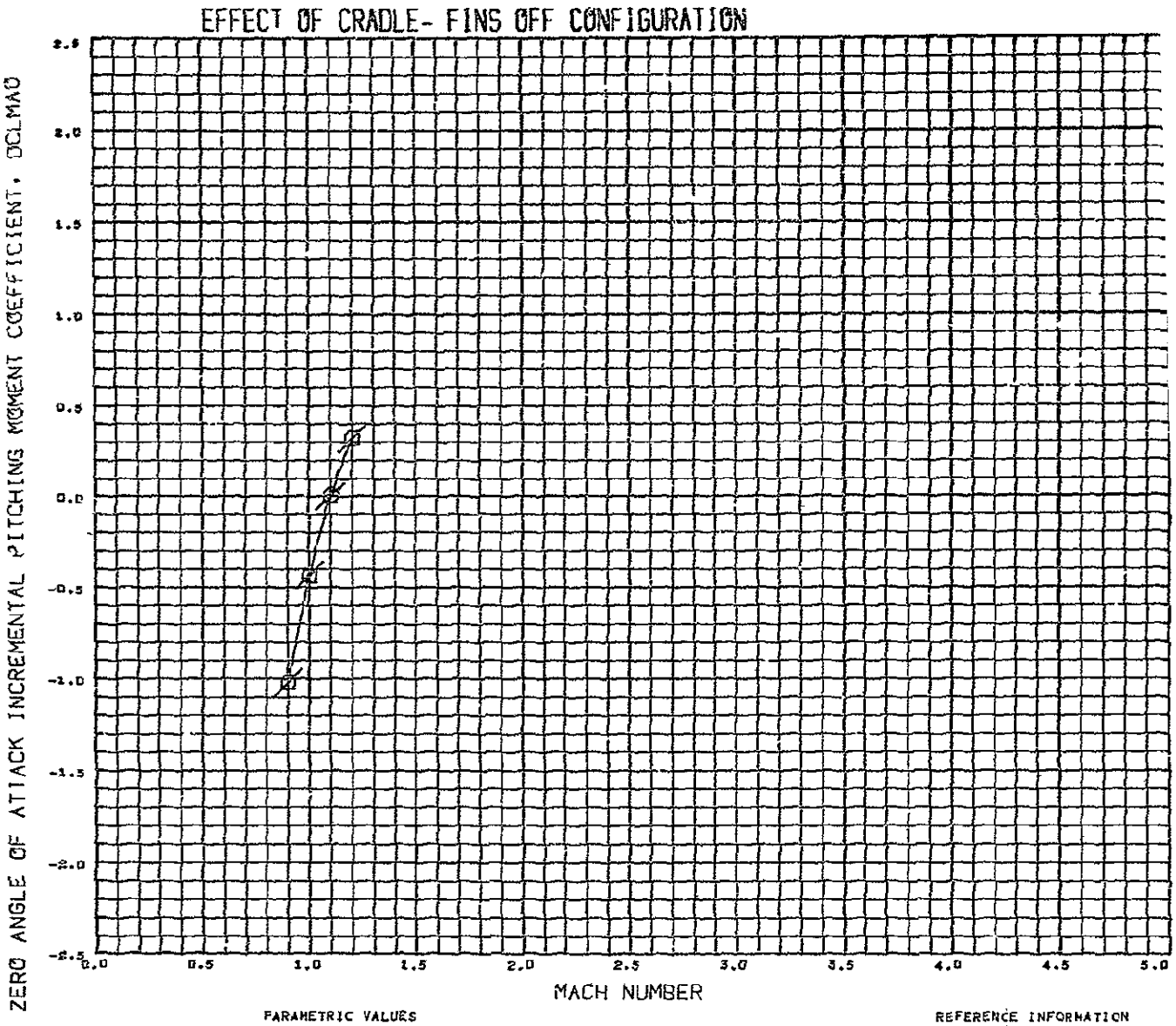
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST CODE MN*EI*A*CF

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	



PARAMETRIC VALUES

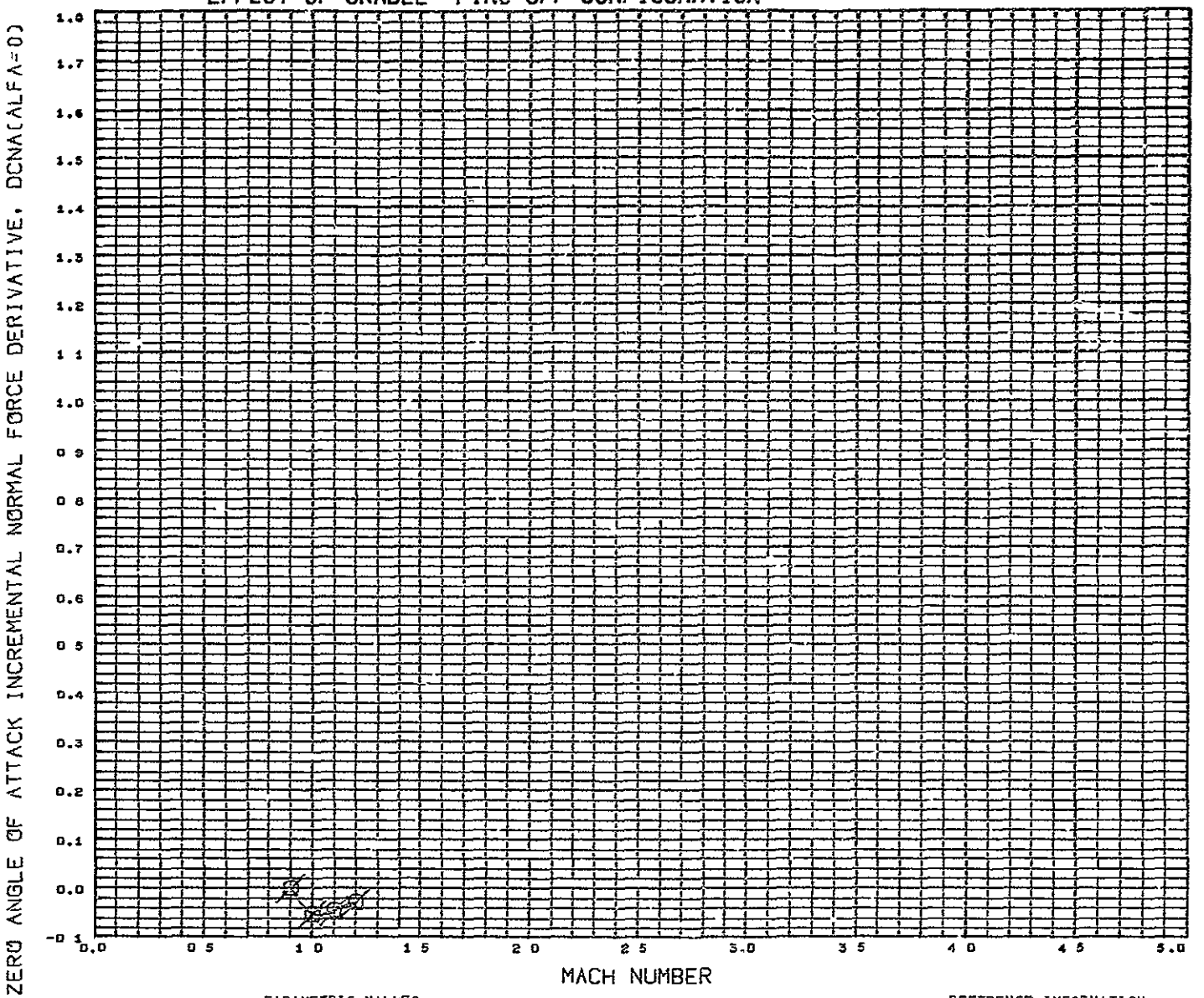
BETA 0.000 ORDINC = 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MH*EI*A*CF

EFFECT OF CRADLE- FINS OFF CONFIGURATION



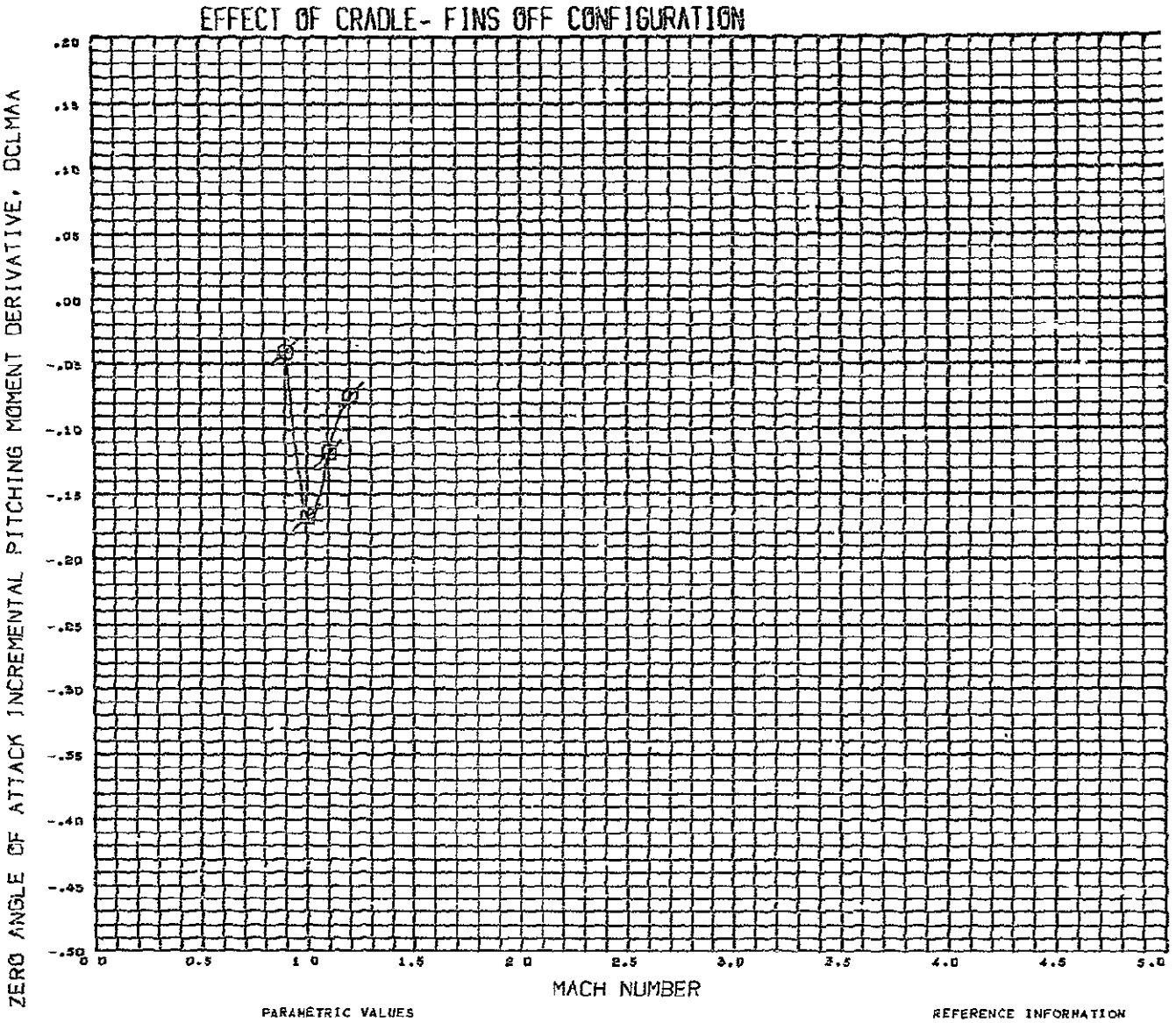
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

DATA HIST CODE MM*EI*A*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0053	IN
SCALE	0.0034	



PARAMETRIC VALUES

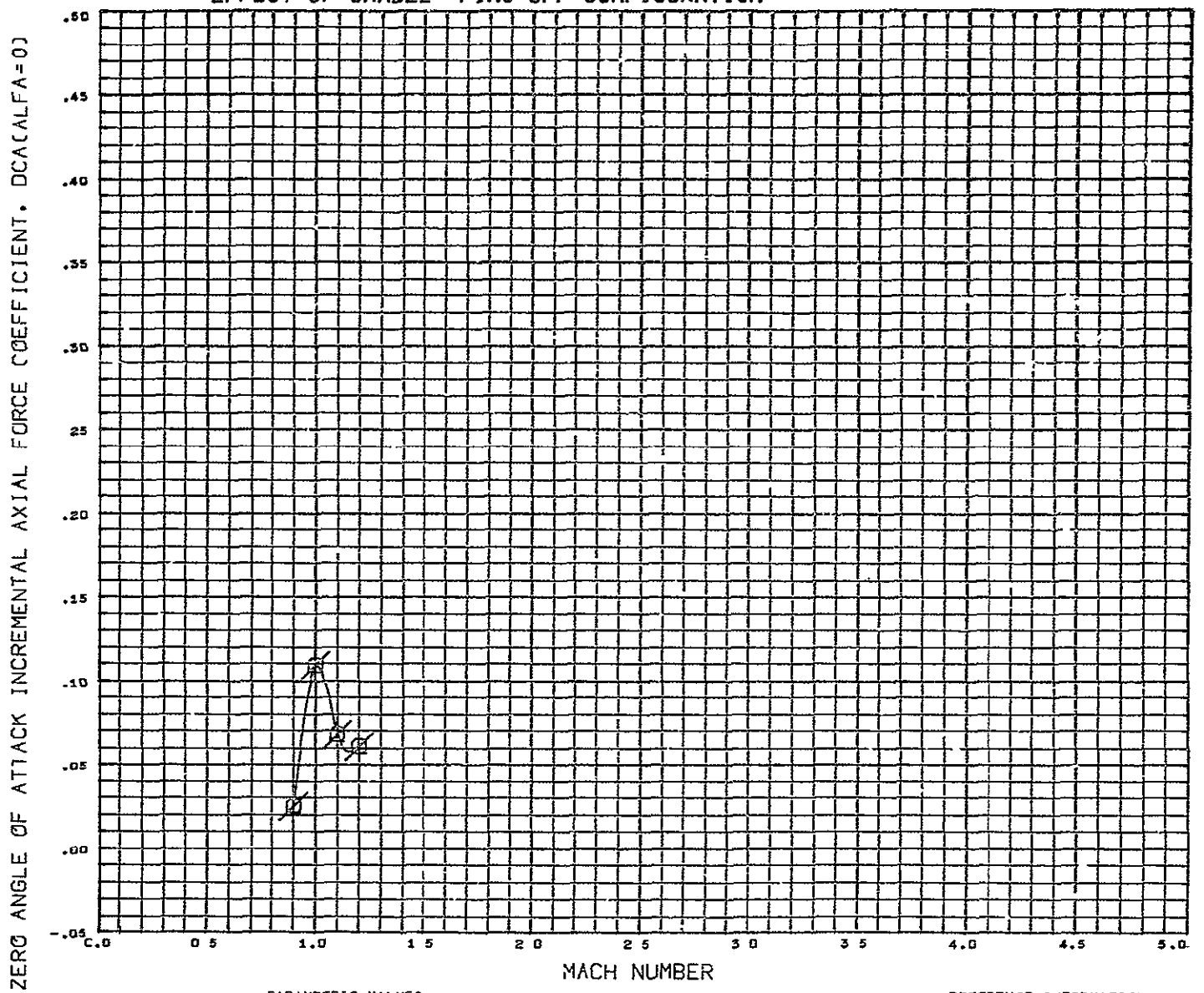
BETA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1 3960	SQ IN.
LREF	1 3330	IN
BREF	1 3830	IN
XMRP	3 6660	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST. CODE HM*EI*A*CF

EFFECT OF CRADLE- FINS OFF CONFIGURATION



PARAMETRIC VALUES

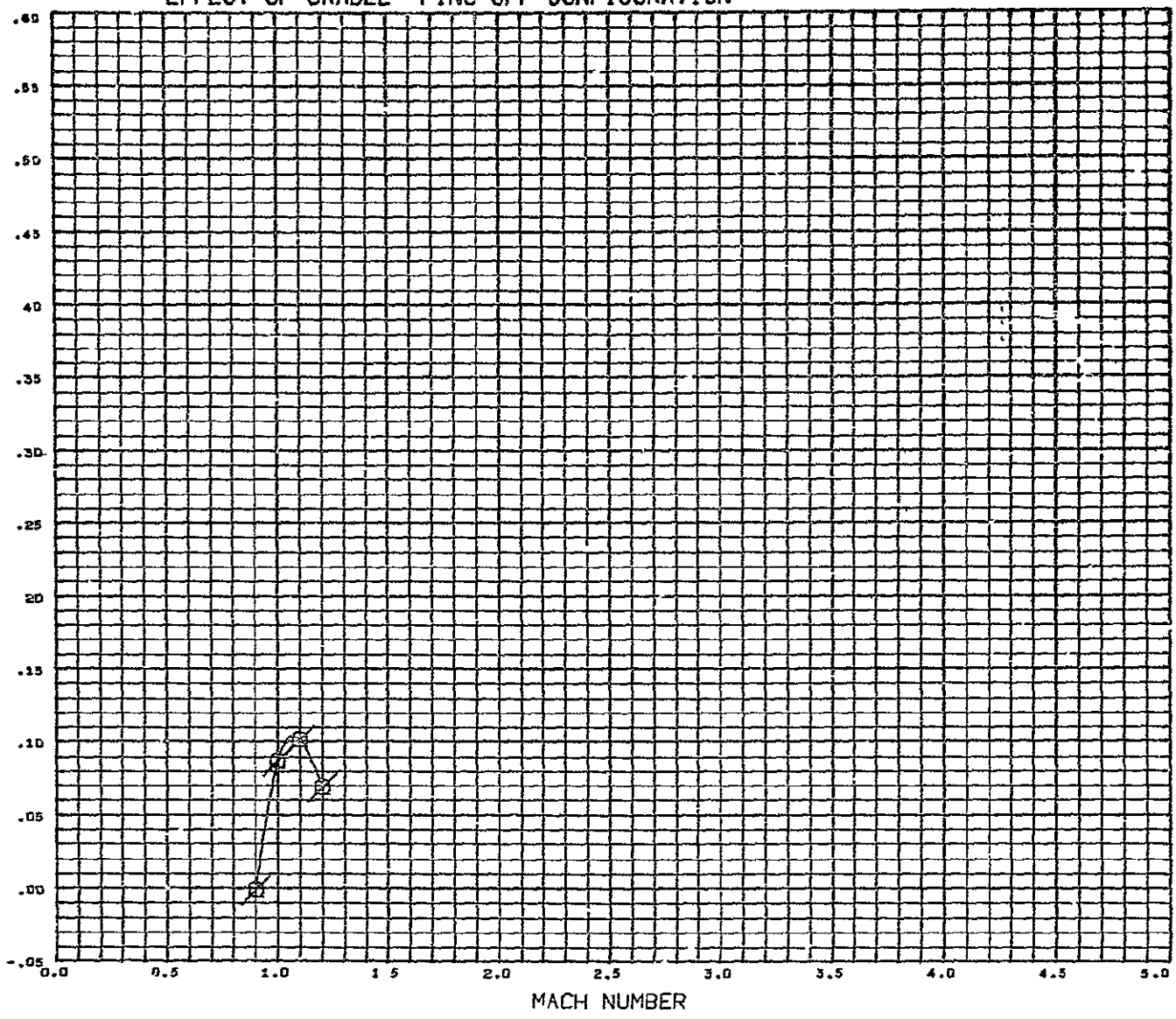
BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 3330	IN
BREF	1.3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE MM*EI*A*CF

EFFECT OF CRADLE- FINS OFF CONFIGURATION



PARAMETRIC VALUES

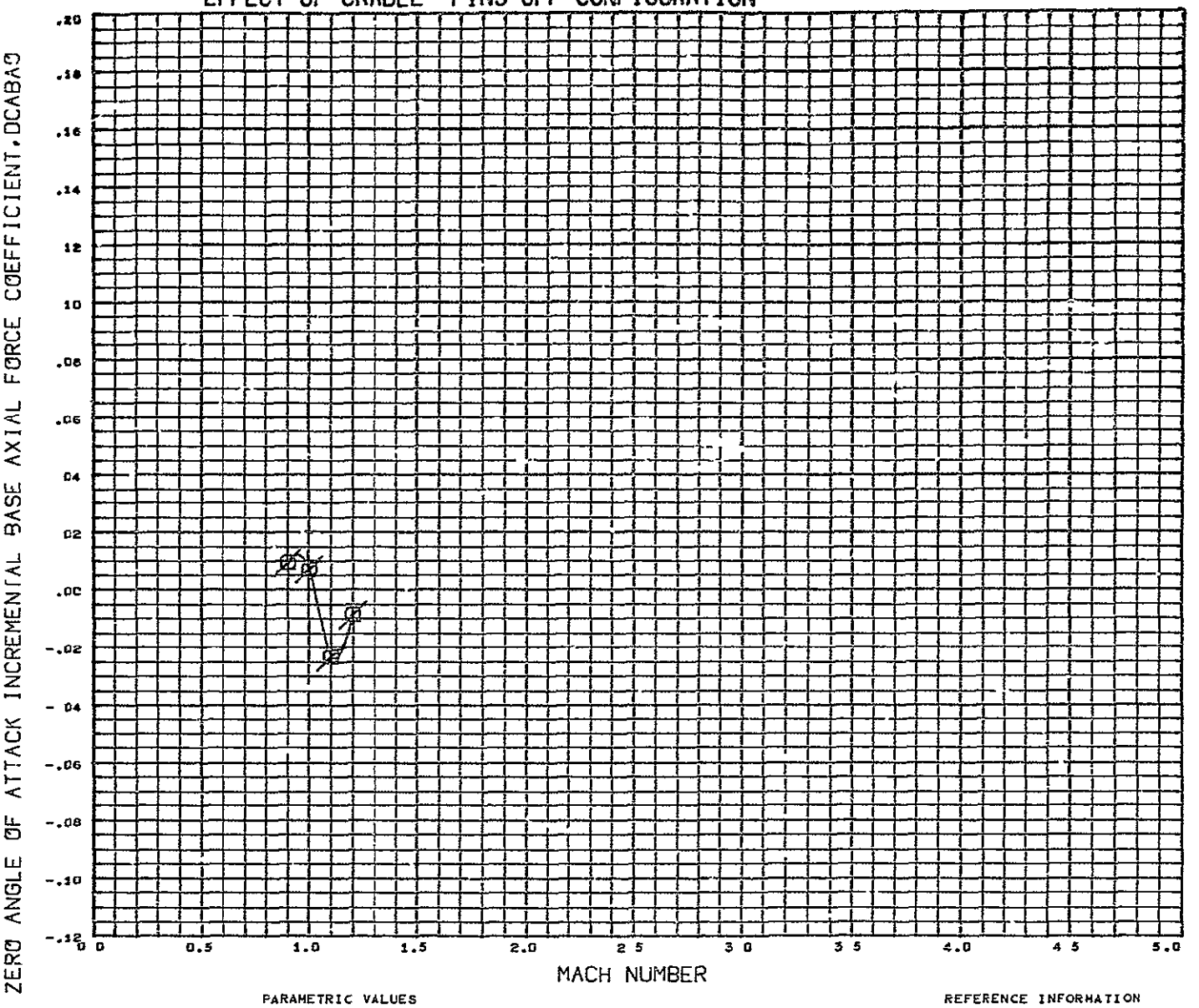
BETA 0.000 ORBINC = 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE NM*EI*A*CF

EFFECT OF CRADLE- FINS OFF CONFIGURATION



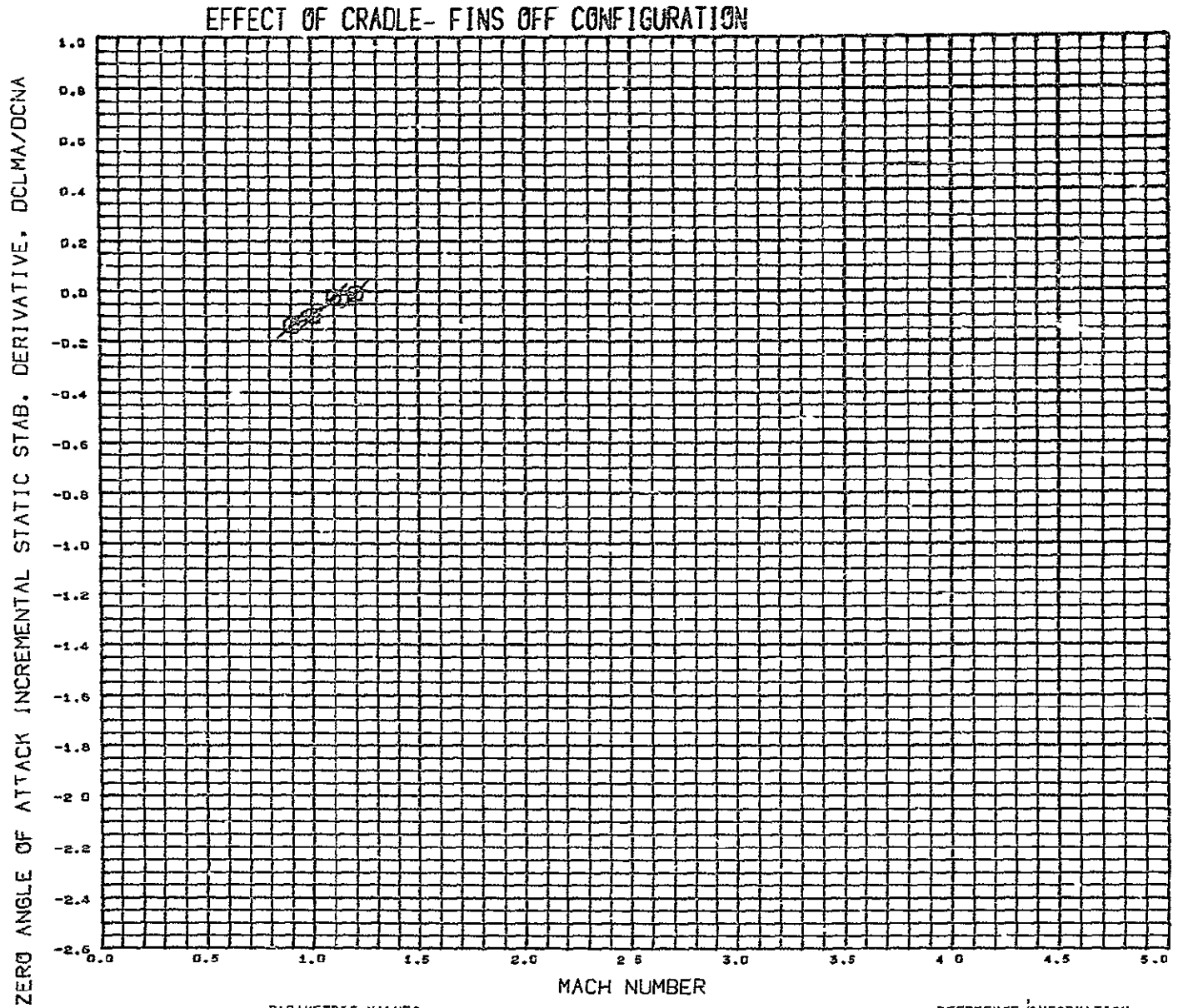
PARAMETRIC VALUES

BETA 0 000 ORBINC - 3.700

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1.3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE MM*EI*A*CF



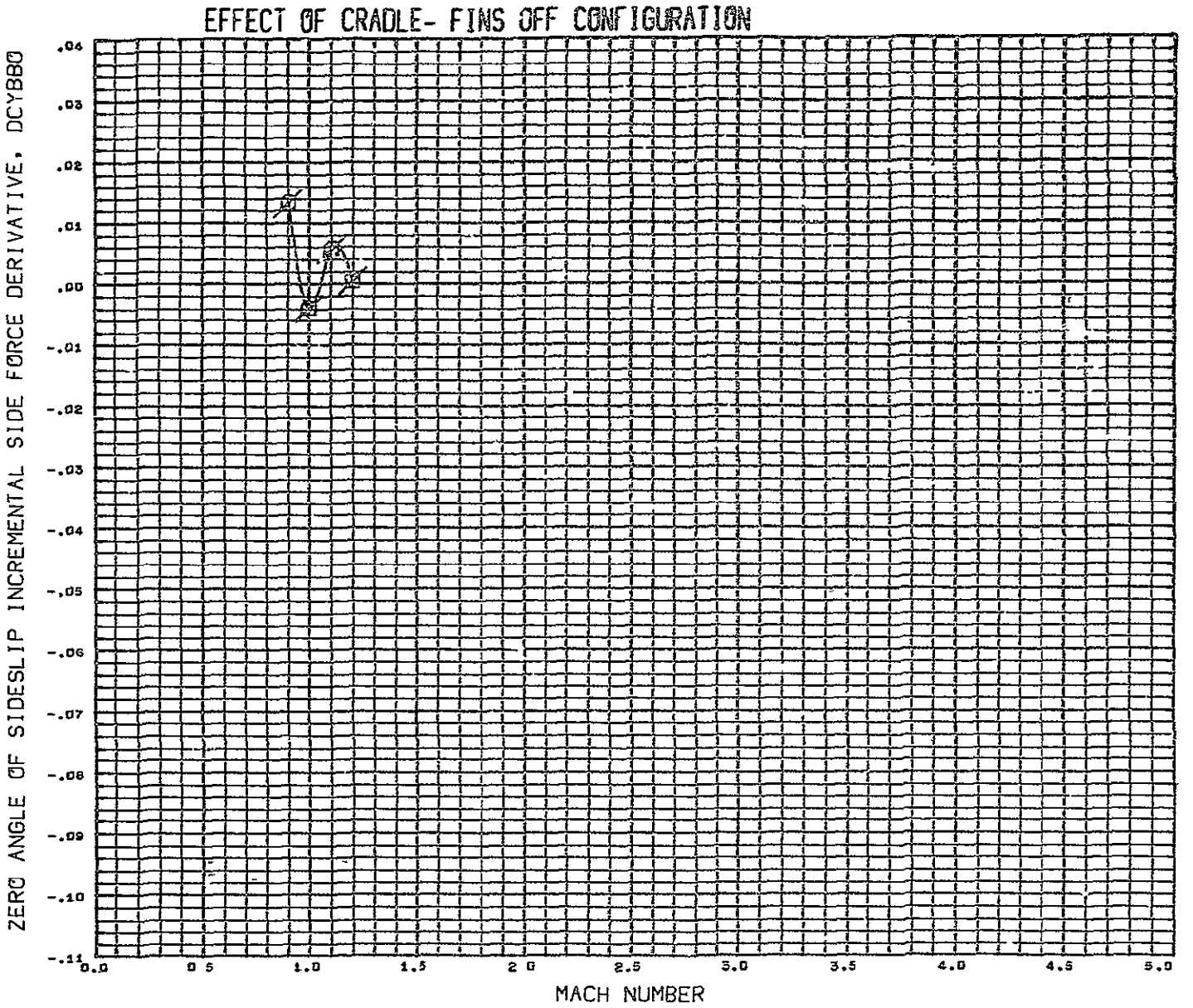
PARAMETRIC VALUES

BETA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.0034	

DATA HIST CODE MM*EI*A*CF



PARAMETRIC VALUES

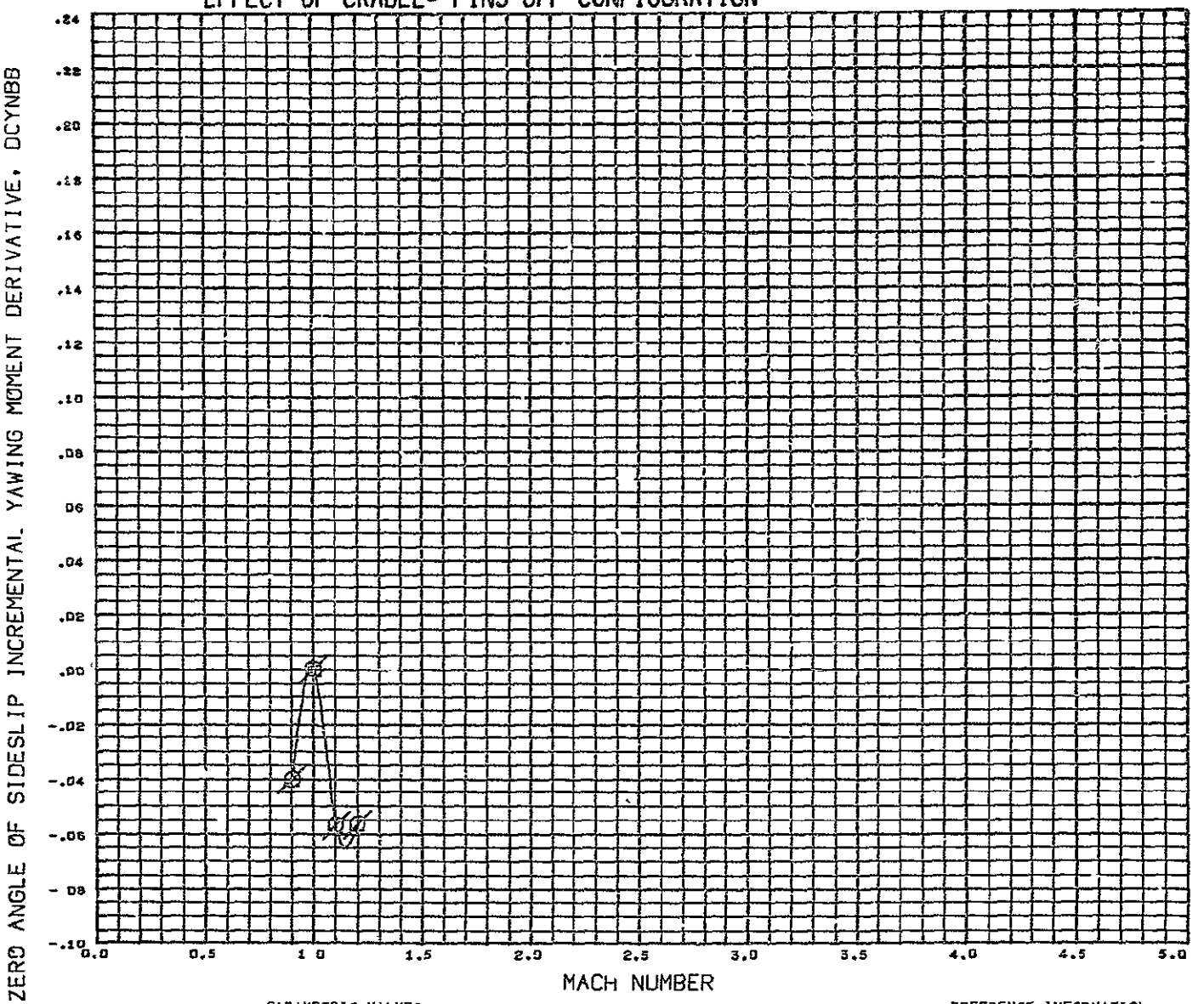
ALPHA 0 000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1 3960	SQ IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3.6860	IN
YMRP	0 0000	IN
ZMRP	0 0000	IN
SCALE	0 0034	

DATA HIST CODE MM*EI*A*CF

EFFECT OF CRADLE- FINS OFF CONFIGURATION



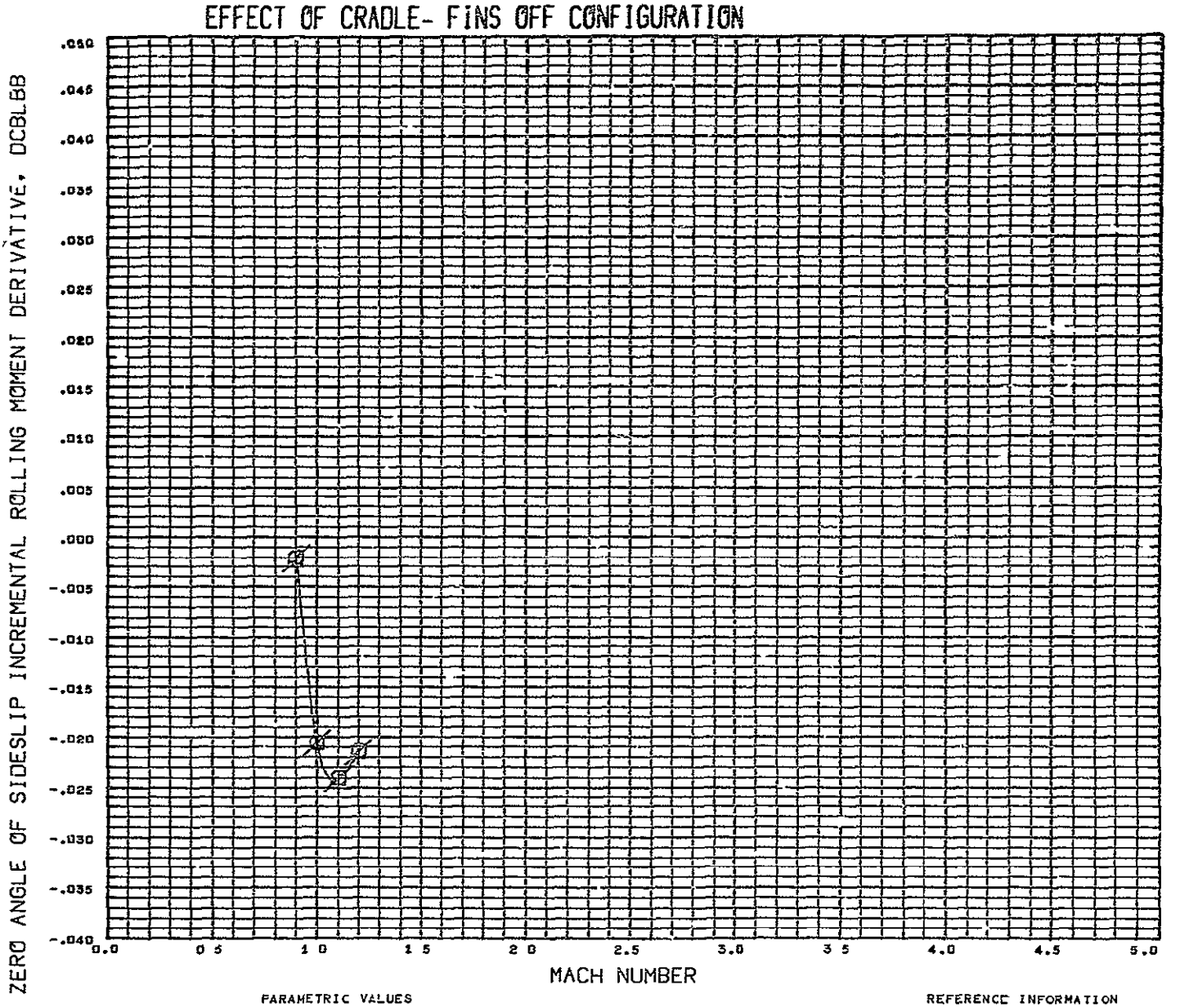
PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

REFERENCE INFORMATION

SREF	1.3960	SQ IN
LREF	1 333u	IN
BREF	1 333D	IN
XMRP	3 6860	IN
YMRP	D 0000	IN
ZMRP	D 0000	IN
SCALE	0.0034	

DATA HIST. CODE HM*EI*A*CF



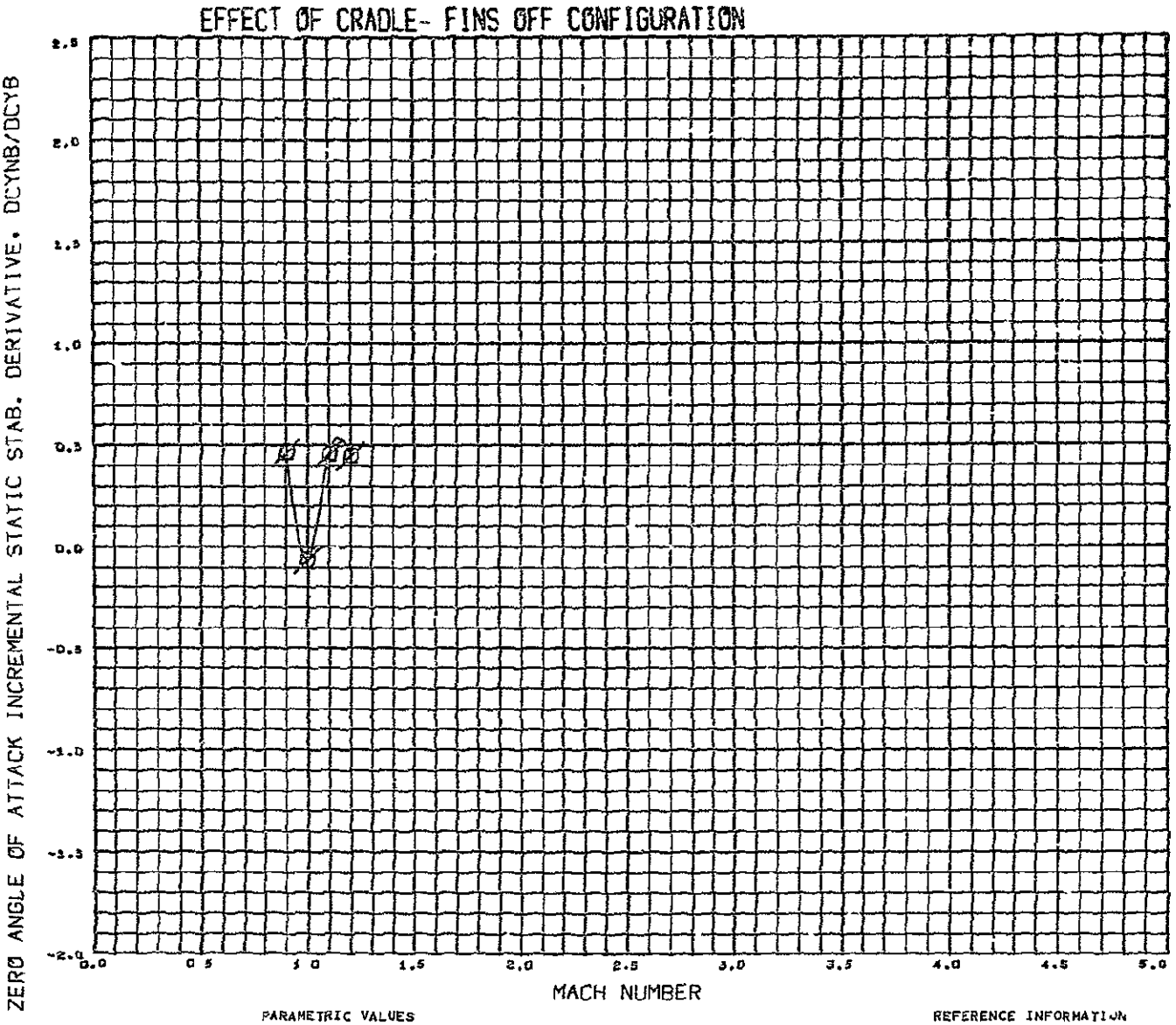
PARAMETRIC VALUES

ALPHA 0 000 ORBINC - 3 100

REFERENCE INFORMATION

SREF	1.3960	SQ.IN
LREF	1 3330	IN
BREF	1 3330	IN
XMRP	3 6860	IN
YMRP	0 0000	IN
ZMRP	0 0090	IN
SCALE	0 003	

DATA HIST CODE MM*EI*A*CF



PARAMETRIC VALUES

ALPHA 0.000 ORBINC - 3.100

DATA HIST. CODE NH*EI*A*CF

REFERENCE INFORMATION

SREF	1.3960	SQ IN.
LREF	1.3330	IN
BREF	1.3330	IN
XMRP	3.6860	IN
YMRP	0.0000	IN
ZMRP	0.0000	IN
SCALE	0.003-	