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Technical Report RD-75-37

AN INVESTIGATION OF JET PLUME EFFECTS ON THE STABILITY CHARACTERISTICS OF A BODY OF REVOLUTION IN CONJUNCTION WITH FINS OF VARIOUS GEOMETRY AND LONGITUDINAL POSITIONS AT TRANSONIC SPEEDS (STING-MOUNTED MODEL WITH NORMAL JET PLUME SIMULATOR)

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12 June 1975

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U.S. ARMY MISSILE COMMAND
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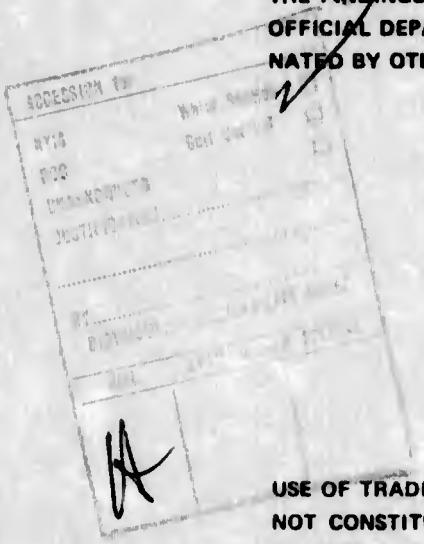

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Transonic wind tunnel tests were conducted on a body of revolution with various fin configurations to investigate jet plume effects on missile longitudinal stability. The sting-mounted model utilized a series cold air normal jets located downstream of the base to simulate the jet plume. Fins of various planform geometry were tested in three longitudinal positions. Base pressures, total model forces and moments, and fin forces and moments were measured.

The test was conducted in the CALSPAN 8-ft Transonic Wind Tunnel at Mach numbers of 0.4 to 1.25 and at angles of attack of -4 deg to 12 deg. Plume simulator chamber pressure was varied from 0 to 600 psia. The test was designated CALSPAN T17-123.

CALSPAN T17-123

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PLOT SCHEDULE:

(A) CN vs ALPHA and CNALFA vs CRT

(B) CLM vs ALPHA and CLMALF vs CRT

(C) PB1/P, PB2/P, and PB-AVG vs CRT

(D) CNF2 and CNF4 vs ALPHA, CNF2ALFA and CNF4ALFA vs CRT

(E) CNF1, CNF2, CNF3, and CNF4 vs ALPHA: CNF1ALFA, CNF2ALFA, CNF3ALFA, and CNF4ALFA vs CRT

INTRODUCTION

During the past few years the Army Missile Command has been interested in the adverse effects of the propulsive jet plume on missile aerodynamics. Of particular importance are the effects on missile longitudinal stability. A research program has been established as a means of obtaining the understanding necessary for the proper design of advanced missiles and rockets (see Reference 1).

Wind tunnel investigations have been conducted recently to determine effect of thrust level on missile longitudinal stability and to assess the effectiveness of locating fins some distance forward of the base as a means of alleviating adverse effects on stability (see References 2 & 3). Results of these tests indicated that fin effectiveness (when affected by the plume) improved as the distance from the base was increased. These results also showed a smooth and repeatable variation in stability parameters with thrust. These characteristics appeared to suggest that the plume induced stability degradation could be used to advantage as a means of tailoring the static margin variation with Mach number. In-house studies in support of a free rocket technology program have indicated the desirability of an unstable vehicle during the transonic portion of the boast phase as a means of reducing wind sensitivity. The purpose of the present investigation is to obtain design information for use in static margin tailoring and to continue in development of a correlation between thrust level and plume induced stability effects.

The model and plume simulator used for this test was the same as reported in Reference 3. Fins of various planforms were tested in each of 3 longitudinal positions. The investigation was conducted over a Mach number range from 0.40 to 1.25 and at angles of attack between -4 degrees to 12 degrees. The tunnel was operated at a wind-off static pressure of 0.5 atmospheres. Effects of thrust level were obtained by changing plume simulator chamber pressure from zero to 600 psia.

APPARATUS AND TESTS

The basic sting mounted model used for this test was 52 inches in length and 5 inches in diameter. It had a 3-caliber tangent ogive nose and a cylindrical body. The model was tested in combination with 4 sets of cruciform rectangular fins with each fin panel having a 3-component strain gage balance. The plume simulator consisted of 24 normal sonic jets arranged circumferentially in 2 rows with a common air chamber. The simulator was located 2.5 inches aft of the base. The combined exit area of the 24 jets represented 6 percent of the model base (reference area).

The following model components were used during the test:

B — Body, includes sharp nose N_1.

F_1 — Tail fins with 5 inch chord and 2.5 inch semi-span. Calspan Ref. Dwg. W19-1316-2.

F_2 — Tail fins with 3 inch chord and 2.5 inch semi-span. Calspan Ref. Dwg. W19-1321-1.

F_3 — Tail fins with 3 inch chord and 2.0 inch semi-span. Calspan Ref. Dwg. W19-1321-2.

F_4 Tail fins with 3 inch chord, 2.5 inch semi-span and a .25 inch gap between the fuselage and the root chord. Calspan Ref. Dwg. W19-1321-3.

Tail fin positions:

Aft Hinge line at M.S. 49.750

Mid Hinge line at M.S. 46.000

Fwd Hinge line at M.S. 42.250

The model assembly drawing is shown in Figure 3 and the model installation drawing is shown in Figure 4. A description of fin F_1, F_2, F_3 and F_4 geometry is shown in Figures 5a and 5b. Photographs of the model with various fin configurations are shown in Figures 6 through 10.

TEST CONDITIONS

The tests were conducted in the Calspan Corporation 8-foot Transonic Wind Tunnel. A detailed description of this facility is presented in Reference 5. The test was conducted at Mach numbers of 0.4 to 1.25 with the amount of air in the tunnel circuit equivalent to a wind-off static pressure of 0.5 atmospheres. Plume effect of value of C_{RT} was varied by changing simulator chamber pressure, P_c. Normally, angle of attack is varied during a run while keeping configuration, C_{RT}, and tunnel operating conditions constant. Air was supplied to the plume simulator at flow rates up to 15 lbs per sec. and at chamber pressures to 600 psi. Angles of attack varied from -4 degrees to 12 degrees.

All fins were tested at three longitudinal positions with the

exception of F-1 which was tested in the forward and mid positions only. This fin was tested in the rear position in a previous test which is reported in Reference 3. (This configuration was denoted B1N1T2 in Reference 3.). All fins were tested in the 0° roll position (+). F_2 and F_4 were also tested in the 45° roll position (x).

The model aerodynamic data were resolved in the body axis system with the origin located at model station 26.5 on the model centerline. The aerodynamic data from the tail fin balances were resolved in individual axis systems, having origins located at the intersection of the tail fin hinge lines and the balance centerlines. The axis system and sign conventions are shown in Figures 1 and 2.

PLUME SIMULATION

Base pressure ratio p_b/p_∞ is a good measure of plume effects on missile aerodynamics (see Reference 1). One of the parameters convenient to use with base pressure is thrust coefficient C_T, where C_T is axial thrust non-dimensionalized by dynamic pressure and body cross sectional area A. For the normal jet simulator, a similar parameter is radial thrust coefficient CRT, where

$$C_{RT} = \frac{\text{Radial Thrust}}{qA}$$

For an axial jet, base pressure appears to be primarily influenced by the portion of the jet plume in the vicinity of the jet boundary where it interacts with the freestream flow. Where C_T can be considered to represent the axial component of the effective jet, it can be assumed that

C_{RT} represents the normal component.

For the plume size of interest in the present investigation a value of C_T several times the value of C_{RT} is required for matching base pressures. The exact C_T/C_{RT} ratio will depend on a comparison of flight base pressures with base pressure value for the normal jet simulator. Where flight base pressures are unavailable, methods exist which allow simulation of flight rockets with cold air axial jets (see, for example Reference 4). An estimate of the C_T/C_{RT} ratio (although crude) is valuable for use in preliminary design and insuring that the range of C_{RT} values planned for wind tunnel tests is sufficient.

RESULTS

Data presented in the plots consists of base pressure, total normal force and pitching moment, and fin normal force. The remainder of the main balance components and fin hinge moment and bending moment are not presented but are tabulated in Reference 6 (available from Defense Documentation Center). These missing coefficients were presented for a similar investigation in Reference 3 and should show typical characteristics with plume effects. Body alone data were not obtained to match all of the body-fin data since body data were obtained on the same model in Reference 3. Initial slopes of total configuration normal force and pitching moment coefficients are presented as a function of C_{RT}. Initial slopes of fin No. 2 and fin No. 4 normal force coefficient with C_{RT} are also shown.

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5. "8-Foot Transonic Wind Tunnel", Calspan Corporation Wind Tunnel Report No. WTO-300, Revised October 1971.
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NOMENCLATURE

SYMBOL	PLOT SYMBOL	DEFINITION
RN/L	RN/L	unit Reynolds number; per ft
V		velocity; ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; slugs/ft^3
	Reference & C.G. Definitions	
A_b		base area; m^2, in^2
b	BREF	wing span or reference span; m, in
c.g.		center of gravity
ℓ_{REF}, $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, in
S	SREF	reference area based on body diameter, in^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

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

NOMENCLATURE (Continued)

Body Axis System

SYMBOL	PLOT SYMBOL	DEFINITION
C_N	CN	normal force coefficient; F_N/qS
C_A	CA	axial force coefficient; F_A/qS
C_{A_b}	CAB	base axial force coefficient; $(-1) \cdot [(p_b - p_\infty)/q] (A_b/S)$
C_{A_u}	CAU	uncorrected axial force coefficient
C_m	CLM	pitching moment coefficient; $M_Y/qS\ \ell_{ref}$
C_y	CY	side force coefficient; F_Y/qS
C_n	CYN	yawing moment coefficient; $M_Z/qS\ b_{ref}$
C_ℓ	CBL	rolling moment coefficient; $M_Y/qS\ b_{ref}$
$C_{N_{T_X}}$	CNTX	fin normal force coefficient for fin number X $\frac{\text{Fin Normal Force}}{qS}$
$C_{N_{F_X}}$	CNFX	fin number X corrected normal force coefficient, CNF1 = CNT1 CNF2 = CNT2 CNF3 = (-1.0) CNT3 CNF4 = (-1.0) CNT4
$C_{m_{HX}}$	CLMHX	fin hinge moment coefficient, $\frac{\text{Fin Hinge Moment}}{qS\ \ell_{ref}}$
$C_{m_{RX}}$	CLMRX	root bending moment coefficient, $\frac{\text{Fin Root Bending Moment}}{qS\ \ell_{ref}}$

NOMENCLATURE (Continued)

SYMBOL	PLOT SYMBOL	DEFINITION
	CPB1	base pressure coefficient at tap 1
	CPB2	base pressure coefficient at tap 2
	CPC	cavity pressure coefficient
	CPXT1	tail fin number 1 center of pressure location
	CPYT1	tail fin number 1 lateral center of pressure location
C_T	CT	thrust coefficient, axial thrust/qS
C_{RT}	CRT	radial thrust coefficient, radial thrust/qS
C_{N_α}	CNALFA	normal force coefficient derivative with respect to angle of attack
C_{NFX_α}	CNFXALFA	fin normal force coefficient derivative with respect to angle of attack
	DELCAB	incremental axial force due to model base pressure effects
	DELCAC	incremental axial force due to balance cavity pressure effects
P_{b_1}/P_∞	PB1/P	base pressure tap 1 ratio to freestream pressure
P_{b_2}/P_∞	PB2/P	base pressure tap 2 ratio to freestream pressure
$\frac{(P_{b_1}/P_\infty+P_{b_2}/P_\infty)}{2}$	PB-AVG	average of two base pressure tap ratios
F.P.	FINPOS	fin position on body: 1. AFT; Fin Hinge line at M.S. 49.750 2. MID; Fin Hinge line at M.S. 46.000 3. FWD; Fin Hinge line at M.S. 42.250

NOMENCLATURE (Concluded)

SYMBOL	PLOT SYMBOL	DEFINITION
	PL	air supply pressure upstream of orifice, psi
	WA	air supply flow rate, lb/sec
C_{m_α}	CLMALF	pitching moment coefficient derivative with respect to angle of attack
a		speed of sound; ft/sec
C_p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, psf

TABLE 1.

TEST: CAL T17-123 | **DATA SET/RUN NUMBER COLLATION SUMMARY** | **DATE:** 06-13-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. CRT	SCHD. β	PARAMETERS/VALUES α	PARAMETERS/VALUES φ			NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.7	0.9	1.0	1.2							TEST RUN NUMBERS
RX8Δ*01	B	C	0	0	0			4	8	7	6	5							

*Δ=0 DATA, CN, CLM, CNT1, CNT2, CNT3, CNT4, PB1/P, PB2/P, CA, MACH, CRT, 9

Δ=1 DATA, CY, CYN, CBL, PL, WA, MACH, CRT, 5

Δ=2 DATA, CLMH1, CLMH2, CLMH3, CLMH4, CLMR1, CLMR2, CLMR3, CLMR4, CPXT1, CPYT1, MACH, CRT, 10

TYPE OF DATA α OR β SCHEDULES

COEEFICENT SCHEDULES

CRT (C) = 0.1, 1.5, 2.1, 2.9, 4.1, 5.5, 7.7, 12.2

IDVAR (1) IDVAR (2) NDV

NASA-MSFC-MAF

TABLE 1. (Continued)

TEST: CAL T17-123 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 06-13-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES ϕ	F.P.	MACH	NO. OF RUNS	CRT (OR ALTERNATE INDEPENDENT VARIABLE) 0	2.5	4.2	6.0	7.2	8.5	10.3	12.0	20	37.5	TEST RUN NUMBERS
RX8Δ*02	B	A	0	0		0.4	1								9			
03		B				0.4	2	10			11							
04		A				0.7	3			13				15				
05		B				0.7	2	12			14							
06		A				0.9	1						18					
07		B				0.9	2	16			17							
08		B				1.0	2	28			24							
09		A				1.2	4		26	25		21		20				
10		B				1.2	2	27			23							
11		A				1.25	1				22							
13	BF2	A	0	45	3	0.7	5	48		49	50			51		52		
14				0		0.9	4	47		46	45		44					
15				0		1.0	5	43	42	41	40	39						
16				0		1.2	4	38	37	36	35							
17				45		0.9	2	58			53							
18				45		1.0	2	57			54							
19				45		1.2	2	56			55							

*Δ=0 DATA, CN, CLM, CNT1, CNT2, CNT3, CNT4, PB1/P, PB2/P, CA, CRT, ALPHA, 9

Δ=1 DATA, CY, CYN, CBL, PL, WA, CRT, ALPHA, 5

Δ=2 DATA, CLMH1, CLMH2, CLMH3, CLMH4, CLMR1, CLMR2, CLMR3, CLMR4, CPXT1, CPYT1, CRT, ALPHA, 10

IDVAR (1) IDVAR (2) NDV

TYPE OF DATA α OR β SCHEDULES

COEFFICENT SCHEDULES

αA=-4, -2, -1, -1/2, 0, 1/2, 1, 2, 4

αB=-4, -2, -1, -1/2, 0, 1/2, 2, 3, 4,6,8,10,12

F.P. = FIN POSITION CODE: 1 = AFT, 2 = MID, 3 = FWD

TABLE 1. (Continued)

TEST: CAL T17-123 | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE: 06-13-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES ϕ	PARAMETERS/VALUES F.P.	PARAMETERS/VALUES MACH	NO. OF RUNS	CRT (OR ALTERNATE INDEPENDENT VARIABLE) 0	2.5	4.2	6.0	7.2	8.5	10.3	12.0	20	37.5	TEST RUN NUMBERS
RX8Δ*20	BF3	A	0	0	3	0.4	4	92			91				90		71	
21						0.7	5	89		88	87			86		68		
22						0.9	5	85		84	83		73		69			
23						1.0	6	82	81	80	79	74		70				
24						1.2	5	78	77	76	75	72						
25	BF4	A	0		3	0.7	3	96			94			95				
26						0.9	3	105			104		103					
27						1.0	3	100		102	101							
28						1.2	3	99		98	97							
29				45		0.9	2	109			108							
30						1.0	2	110			107							
31						1.2	2	111			106							
32	BF1	A	0	0	3	0.4	2	132			134						133	
33						0.7	3	131		130	129							
34						0.9	3	126		128	127							
35						1.0	5	125	124	123	122	121						
36						1.2	5	117	120	119	118	116						

*Δ=0 DATA	CN	CLM	CNT1	CNT2	CNT3	CNT4	PB1/P	PB2/P	CA	CRT	ALPHA	9
Δ=1 DATA	CY	CYN	CBL	PL	WA					CRT	ALPHA	5
Δ=2 DATA	CLMH1	CLMH2	CLMH3	CLMH4	CLMR1	CLMR2	CLMR3	CLMR4	CPXT1	CPYT1	CRT	ALPHA	10

TYPE OF DATA α OR β SCHEDULES

COEFFICENT SCHEDULES

αA=-4, -2, -1, -1/2, 0, 1/2, 1, 2, 4

αB=-4, -2, -1, -1/2, 0, 1/2, 2, 3, 4,6,8,10,12

IDVAR (1) IDVAR (2) NDV

F.P. = FIN POSITION CODE: 1 = AFT

2 = MID, 3 = FWD

TABLE 1. (Continued)

TEST: CAL T17-123 — **DATA SET/RUN NUMBER COLLATION SUMMARY** — **DATE:** 06-13-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES φ	F.P.	MACH	NO. OF RUNS	CRT (OR ALTERNATE INDEPENDENT VARIABLE) 0	2.5	4.2	6.0	7.2	8.5	10.3	12.0	20	37.5
RX8Δ*37	BF1	A	0	0	3	1.25	2			114	113						
38					3	1.25	1	115									
39					2	0.4	3	152			153						159
40						0.7	5	148		149	150			151		160	
41						0.9	4	144		145	146		147				
42						1.0	5	155	154	156	157	158					
43						1.2	5	139	143	142	141	140					
44						1.25	3	138		137	136						
45	BF2	A	0	0	2	0.7	5	166		165	164			163		162	
46						0.9	4	170		169	168		167				
47						1.0	5	174	173	175	172	171					
48						1.2	5	180	179	178	177	176					
49	BF4	A	0	0	2	0.7	3	213			214			215			
50						0.9	3	212			211		210				
51						1.0	3	209		208	207						
52						1.2	3	206		205	204						
53	BF3	A	0	0	2	0.4	3	182			183				184		

TEST RUN NUMBERS

*Δ=0 DATA	CN	CLM	CNT1	CNT2	CNT3	CNT4	PB1/P	PB2/P	CA	CRT	ALPHA	9
Δ=1 DATA	CY	CYN	CBL	PL	WA					CRT	ALPHA	5
Δ=2 DATA	CLMH1	CLMH2	CLMH3	CLMH4	CLMR1	CLMR2	CLMR3	CLMR4	CPXT1	CPYT1	CRT	ALPHA	10

TYPE OF DATA α OR β SCHEDULES

COEFFICENT SCHEDULES

αA=-4, -2, -1, -1/2, 0, 1/2, 1, 2, 4

αB=-4, -2, -1, -1/2, 0, 1/2, 2, 3, 4,6,8,10,12

IDVAR (1) IDVAR (2) NDV

F.P. = FIN POSITION CODE: 1 = AFT

2 = MID, 3 = FWD

TABLE 1. (Continued)

TEST: CAL T17-123 | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE: 06-13-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES φ	PARAMETERS/VALUES F.P.	PARAMETERS/VALUES MACH	NO. OF RUNS	CRT (OR ALTERNATE INDEPENDENT VARIABLE) 0	2.5	4.2	6.0	7.2	8.5	10.3	12.0	20	37.5	TEST RUN NUMBERS
RX8Δ*54	BF3	A	0	0	2	0.7	4	185		186	187			188				
55						0.9	4	189		190	191		192					
56						1.0	5	193	194	195	196	197						
57						1.2	5	202	201	200	199	198						
58					1	0.4	4	235			236				237		238	
59						0.7	4	217		218	219			220				
60						0.9	4	221		222	223		224					
61						1.0	5	225	226	227	228	229						
62						1.2	5	234	233	232	231	230						
63	BF4	A	0	0	1	0.7	3	251			250			249				
64						0.9	3	246			247		248					
65						1.0	3	245		244	243							
66						1.2	3	240		241	242							
67	BF2	A	0	0	1	0.7	5	273		272	271			270		253		
68						0.9	5	266		269	268		267		254			
69						1.0	6	265	259	258	257	256		255				
70						1.2	5	264	263	262	261	260						

*Δ=0 DATA	CN	CLM	CNT1	CNT2	CNT3	CNT4	PB1/P	PB2/P	CA	CRT	ALPHA	9
Δ=1 DATA	CY	CYN	CBL	PL	WA					CRT	ALPHA	5
Δ=2 DATA	CLMH1	CLMH2	CLMH3	CLMH4	CLMR1	CLMR2	CLMR3	CLMR4	CPXT1	CPYT1	CRT	ALPHA	10

TYPE OF DATA α OR β SCHEDULES

COEFFICENT SCHEDULES

αA=-4, -2, -1, -1/2, 0, 1/2, 1, 2, 4

αB=-4, -2, -1, -1/2, 0, 1/2, 2, 3, 4,6,8,10,12

IDVAR (1) IDVAR (2) NDV

F.P. = FIN POSITION CODE: 1 = AFT

2 = MID, 3 = FWD

TABLE 1. (Concluded)

TEST: CAL T17-123 — **DATA SET/RUN NUMBER COLLATION SUMMARY** — **DATE:** 06-13-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES φ	PARAMETERS/VALUES F.P.	PARAMETERS/VALUES MACH	NO. OF RUNS	CRT (OR ALTERNATE INDEPENDENT VARIABLE) 0	2.5	4.2	6.0	7.2	8.5	10.3	12.0	20	37.5	TEST RUN NUMBERS
RX8Δ*71	BF2	A	0	180	3	0.7	1	66										
72						0.9	1	65										
73						1.0	1	64										
74						1.2	1	63										

*Δ=0 DATA	CN	CLM	CNT1	CNT2	CNT3	CNT4	PB1/P	PB2/P	CA	CRT	ALPHA	9		
Δ=1 DATA	CY	CYN	CBL	PL	WA					CRT	ALPHA	5		
Δ=2 DATA	CLMH1	CLMH2	CLMH3	CLMH4	CLMR1	CLMR2	CLMR3	CLMR4	CPXT1	CPYT1	CRT	ALPHA	10	

TYPE OF DATA α OR β SCHEDULES

COEFFICIENT SCHEDULES

αA=-4, -2, -1, -1/2, 0, 1/2, 1, 2, 4

αB=-4, -2, -1, -1/2, 0, 1/2, 2, 3, 4,6,8,10,12

IDVAR (1) IDVAR (2) NDV

F.P. = FIN POSITION CODE: 1 = AFT

2 = MID, 3 = FWD

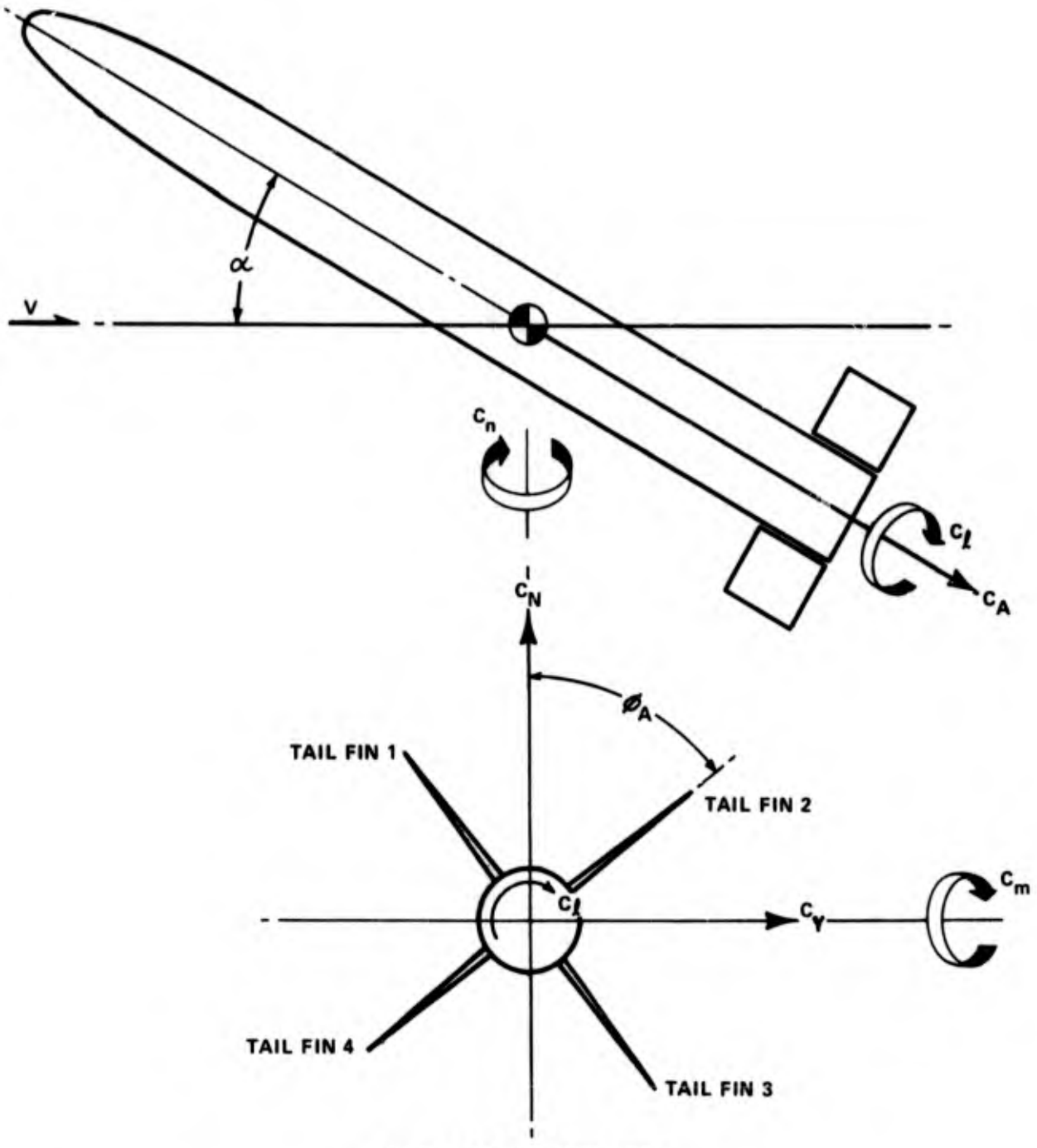
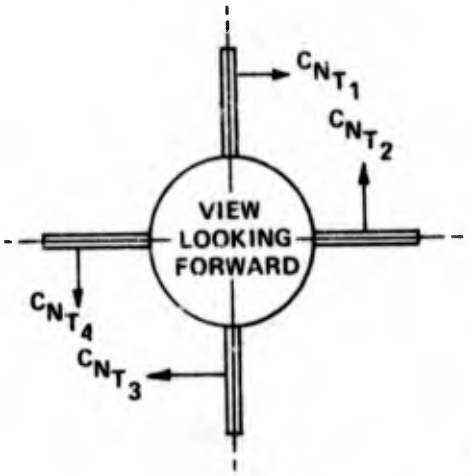


FIGURE 1. **AXIS SYSTEMS AND POSITIVE SIGN CONVENTION**

BODY AXIS SYSTEM



TAIL FINS

HINGE LINE LOCATION FINS	DIMENSION "a"
F_1	2.750
F_2, F_3, F_4	0.750

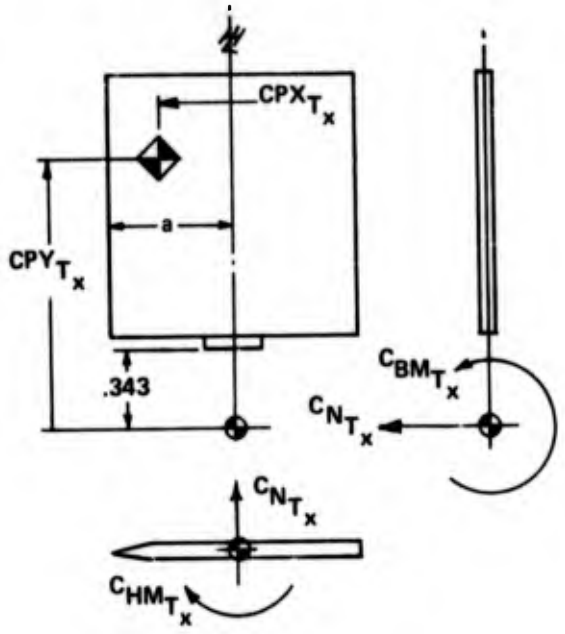


FIGURE 2. TAIL FIN AXIS SYSTEMS , POSITIVE SIGN CONVENTION AND CENTER OF PRESSURE LOCATION

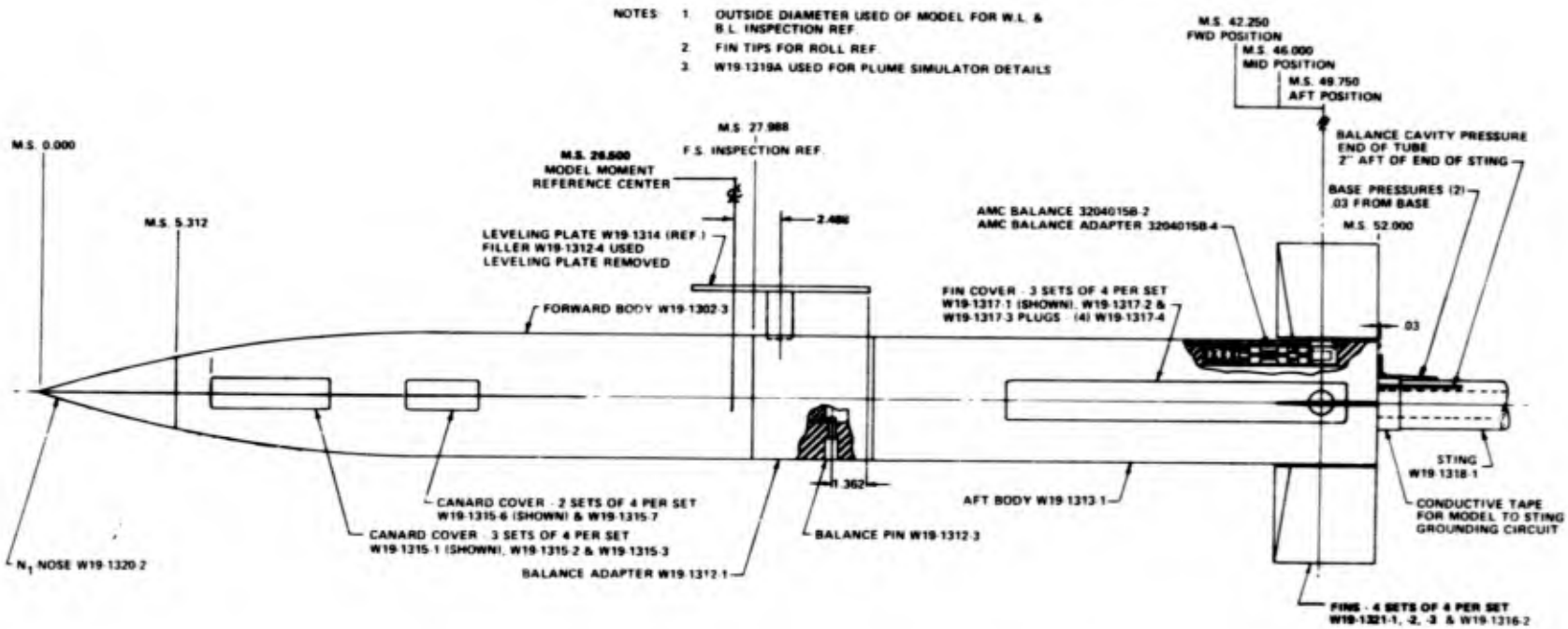


FIGURE 3. **MODEL ASSEMBLY DRAWING**

AMC MODEL

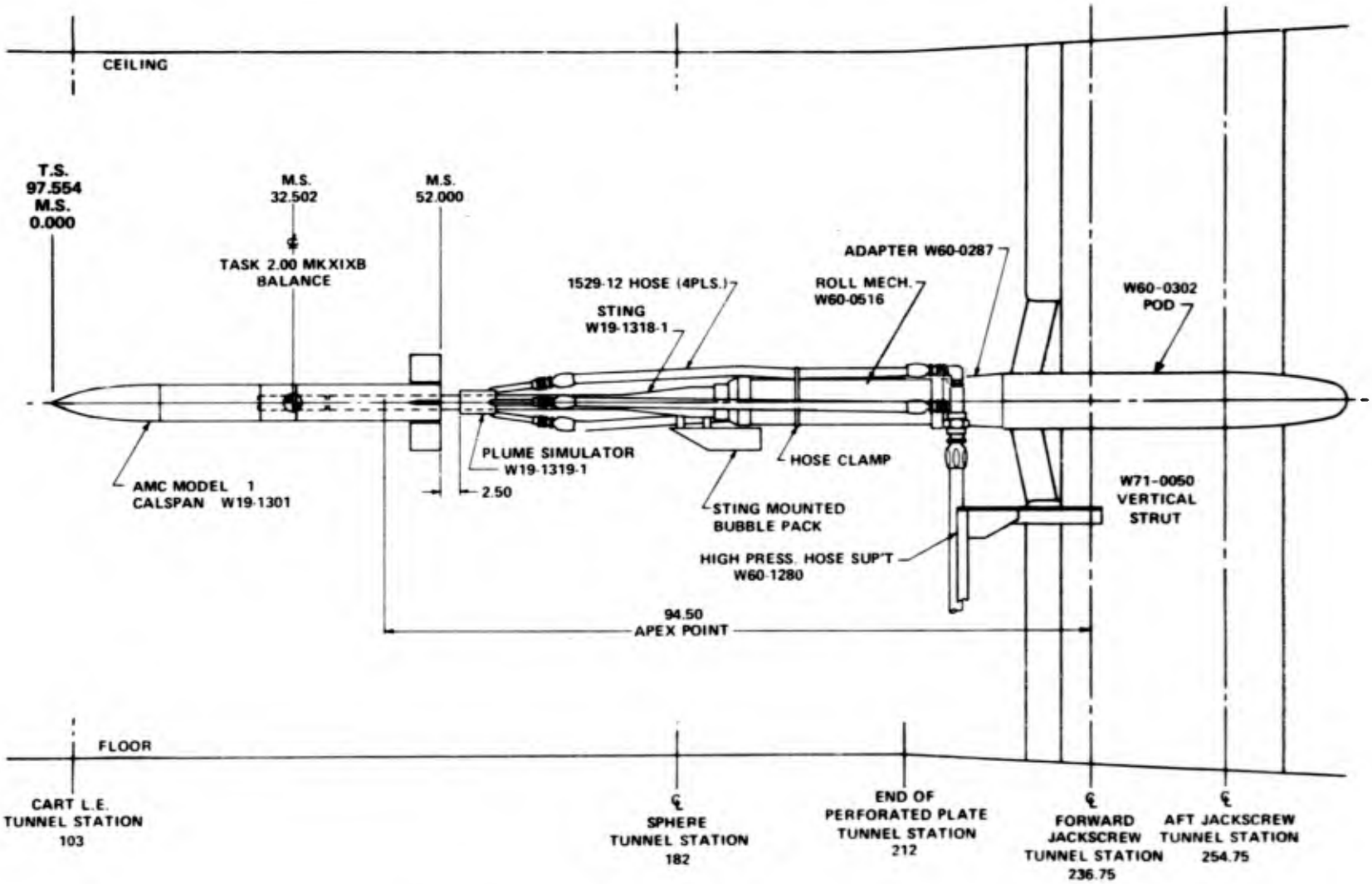


FIGURE 4. **INSTALLATION DRAWING**

AMC MODEL

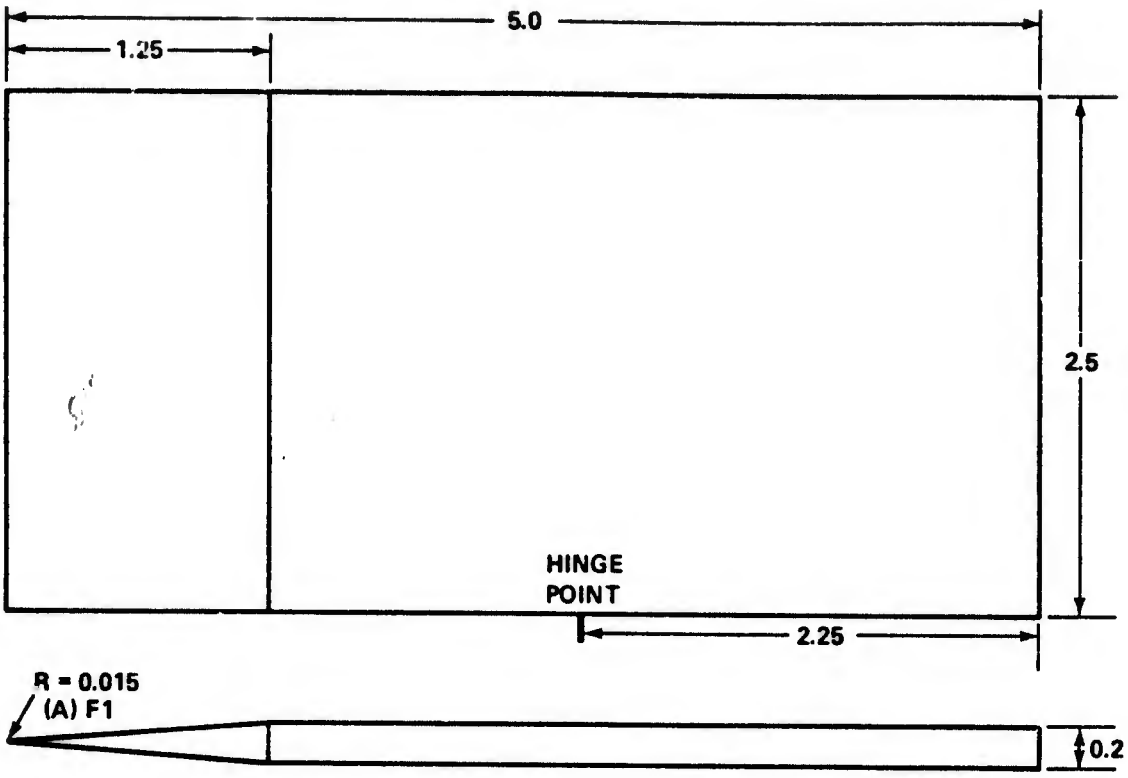


FIGURE 5a. FIN F_1 GEOMETRY

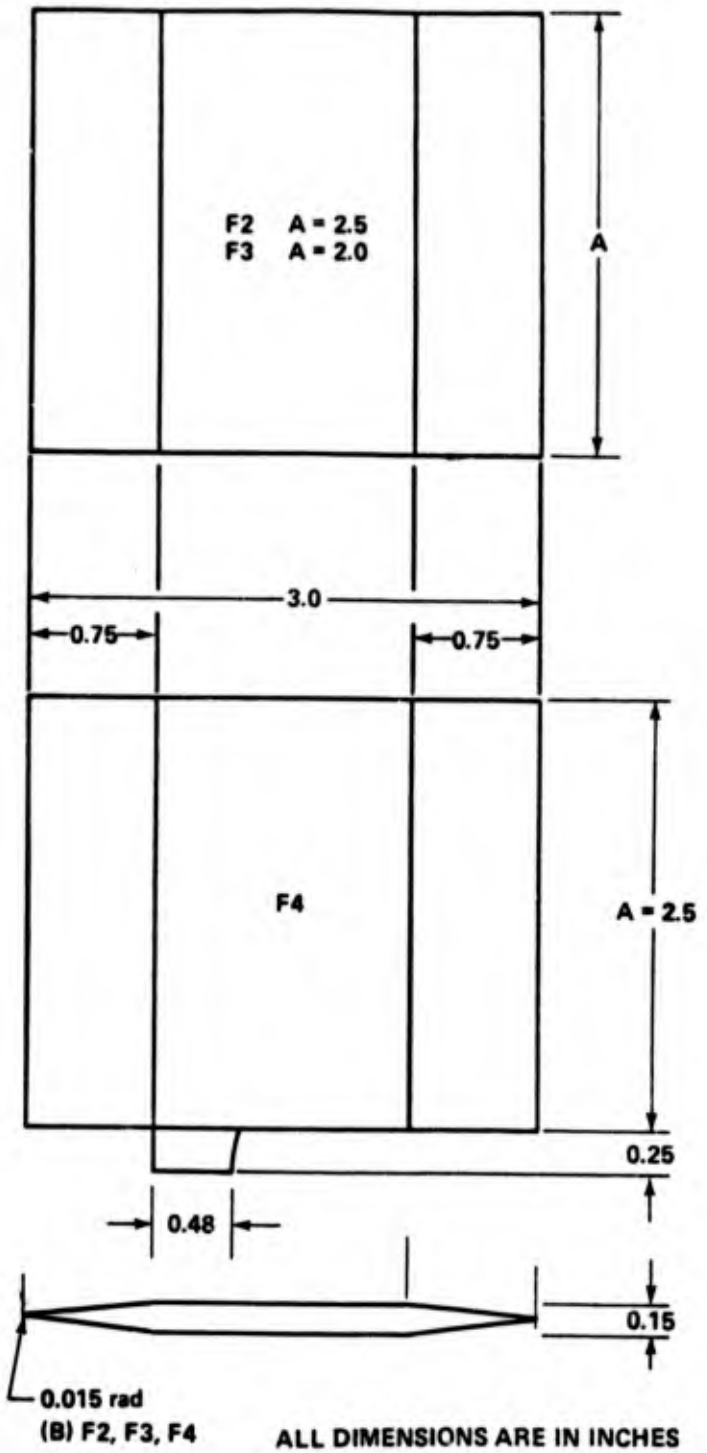
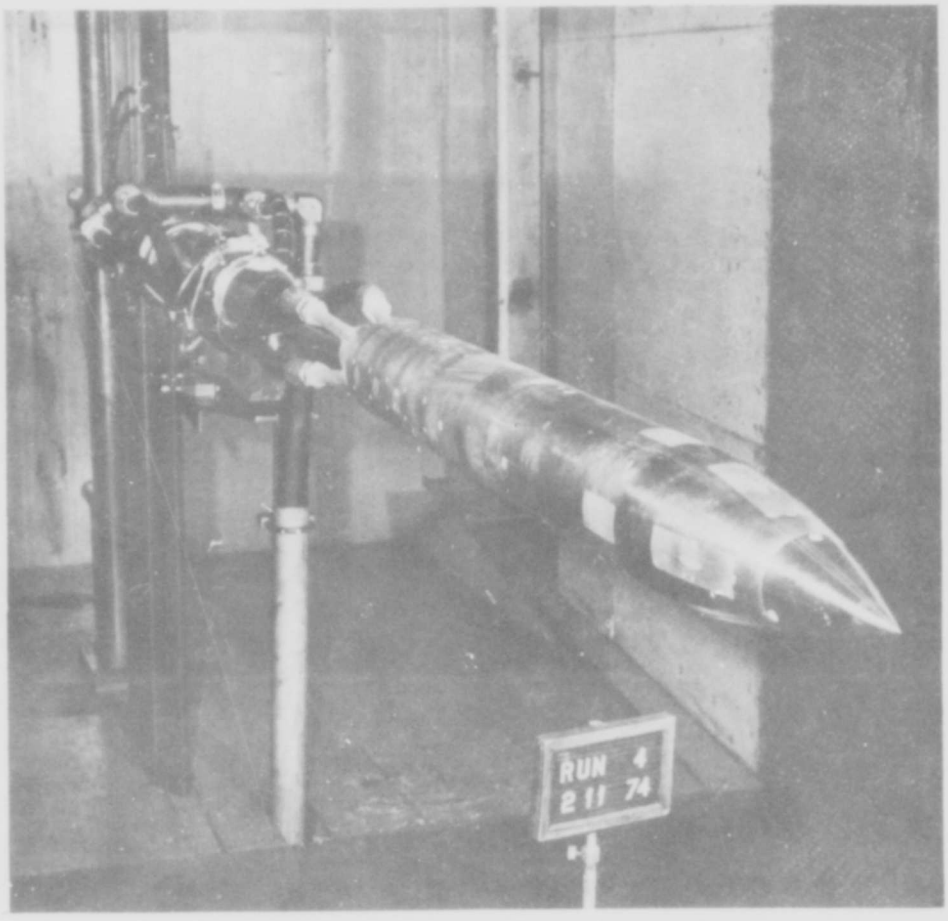
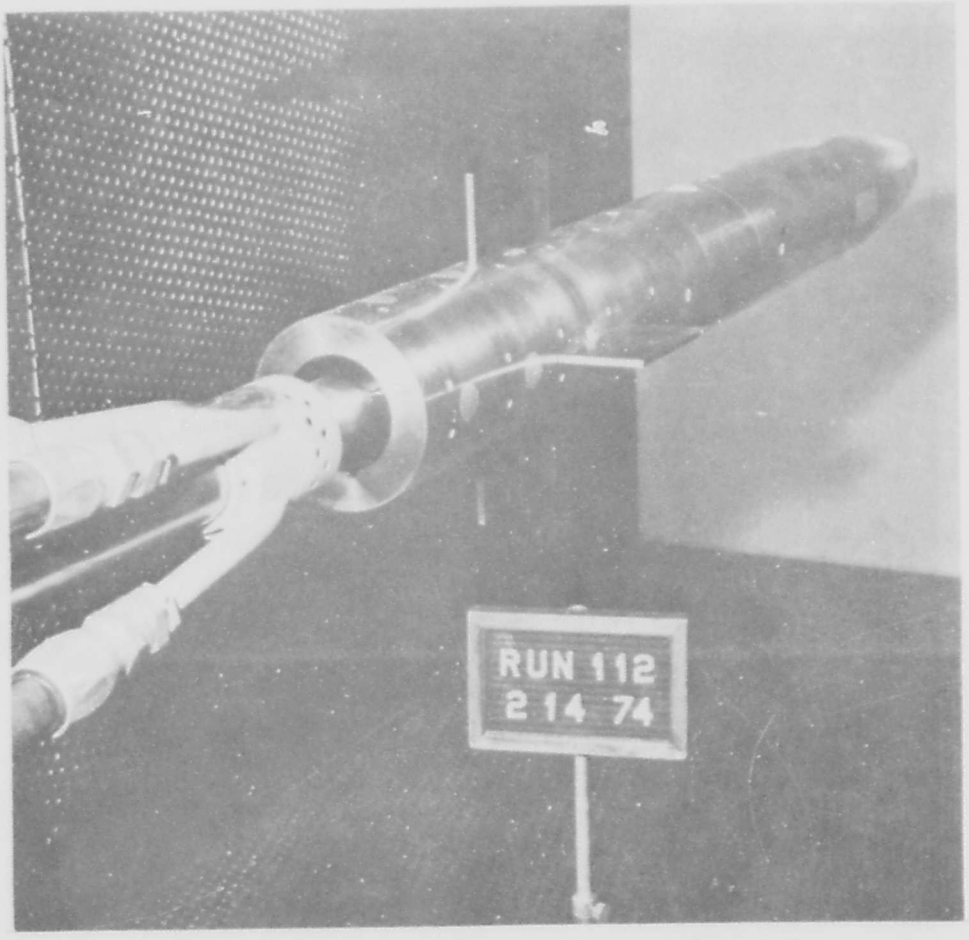


FIGURE 5b. FINS F_2,F_3, and F_4 GEOMETRY



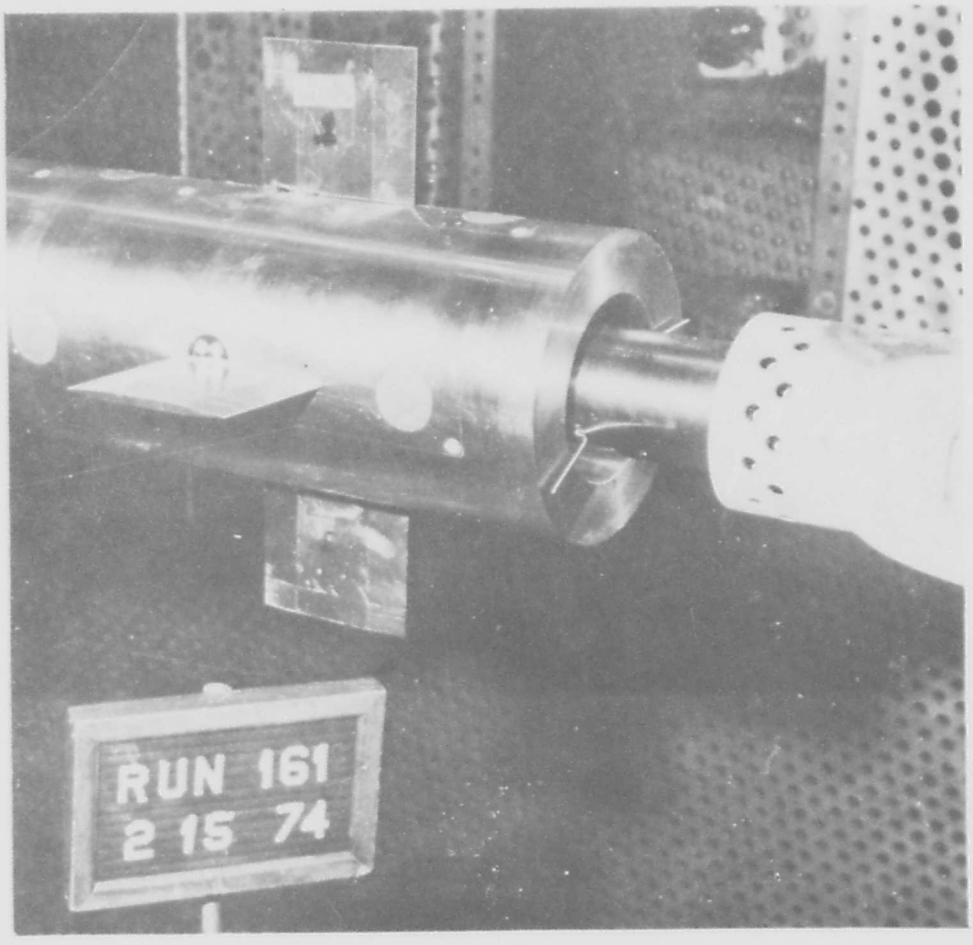
57113

FIGURE 6. PHOTOGRAPH OF TUNNEL INSTALLATION, BODY ALONE



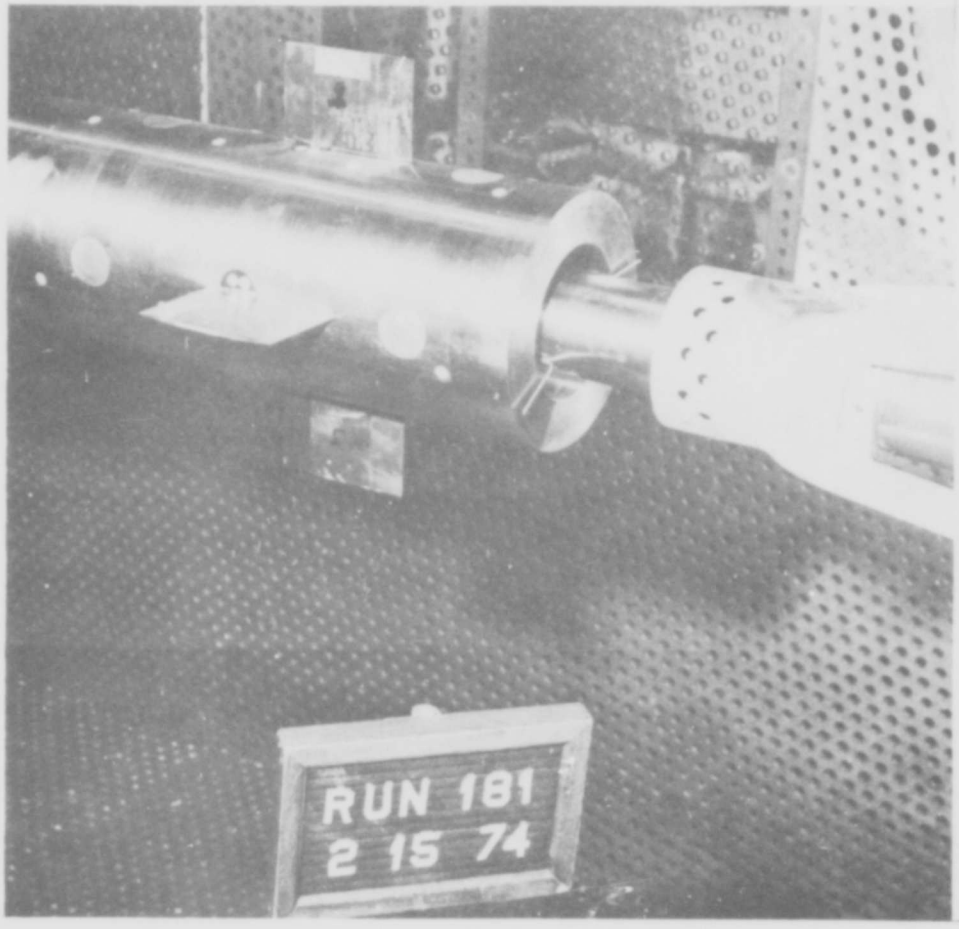
57125

FIGURE 7. PHOTOGRAPH OF TUNNEL INSTALLATION, FINS F_1 IN FORWARD (3) POSITION



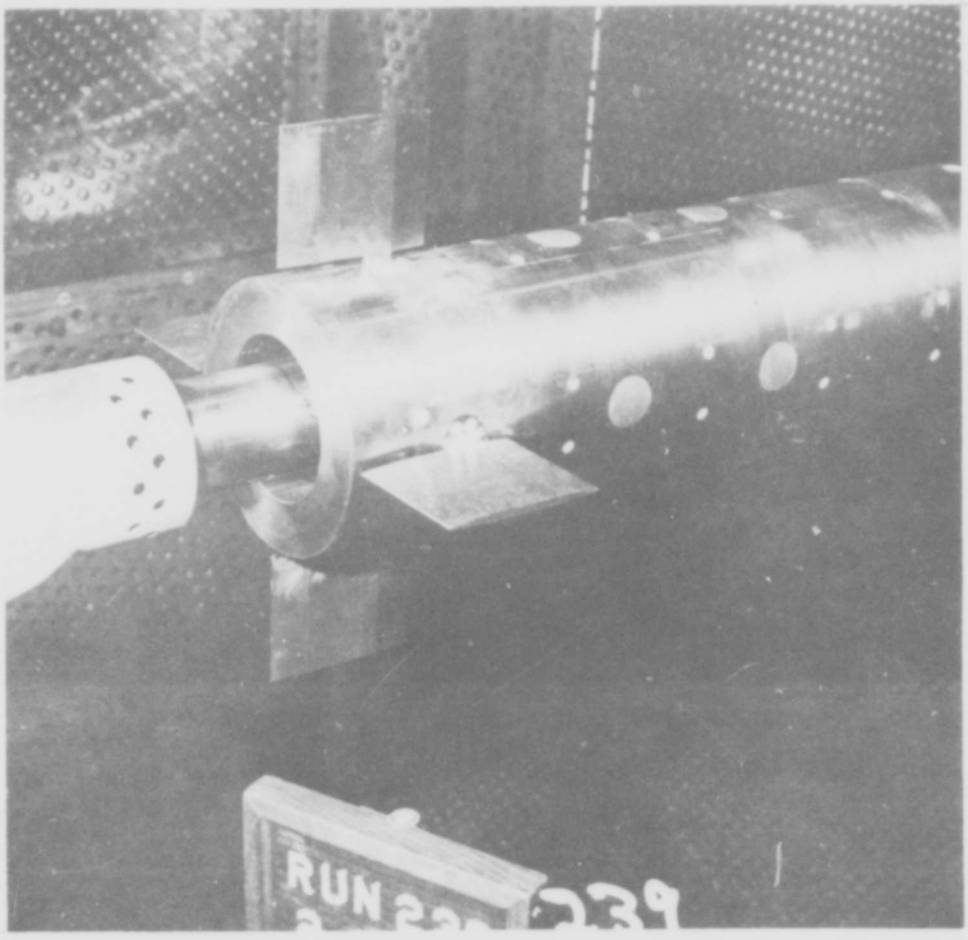
57127

FIGURE 8. PHOTOGRAPH OF TUNNEL INSTALLATION, FINS F_2 IN MID (2) POSITION



57128

FIGURE 9. PHOTOGRAPH OF TUNNEL INSTALLATION, FINS F_3 IN MID (2) POSITION



57131

FIGURE 10. PHOTOGRAPH OF TUNNEL INSTALLATION, FINS F_4 IN AFT (1) POSITION

PLOTTED DATA

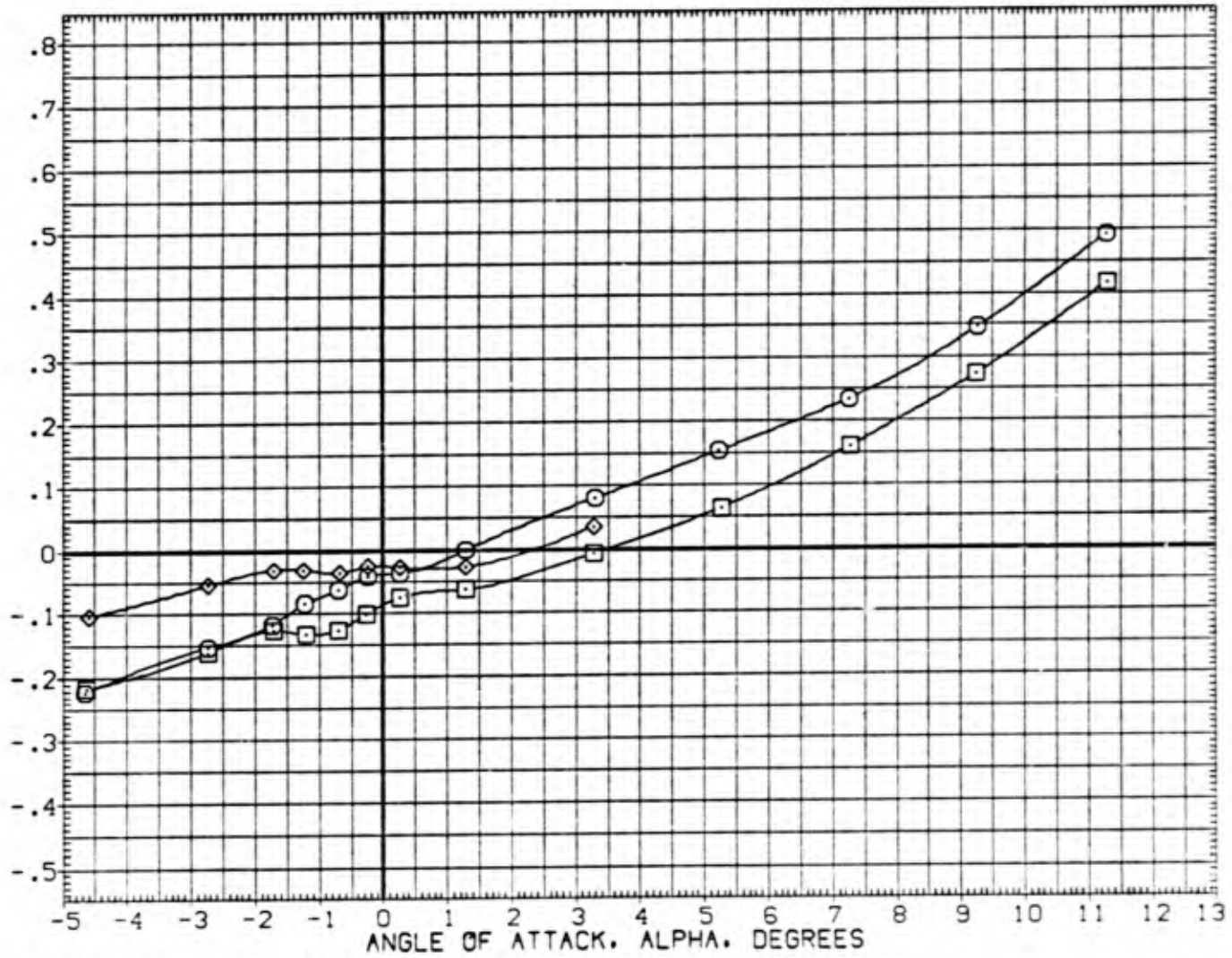
Tabulations of the plotted data and corresponding source data are available from Data Management Services Operations.

CAL T17-123 (B) BODY ALONE (AX8002)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.015	BETA	.000	PHI	.000
□	5.864	MACH	.400		
◇	11.672				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



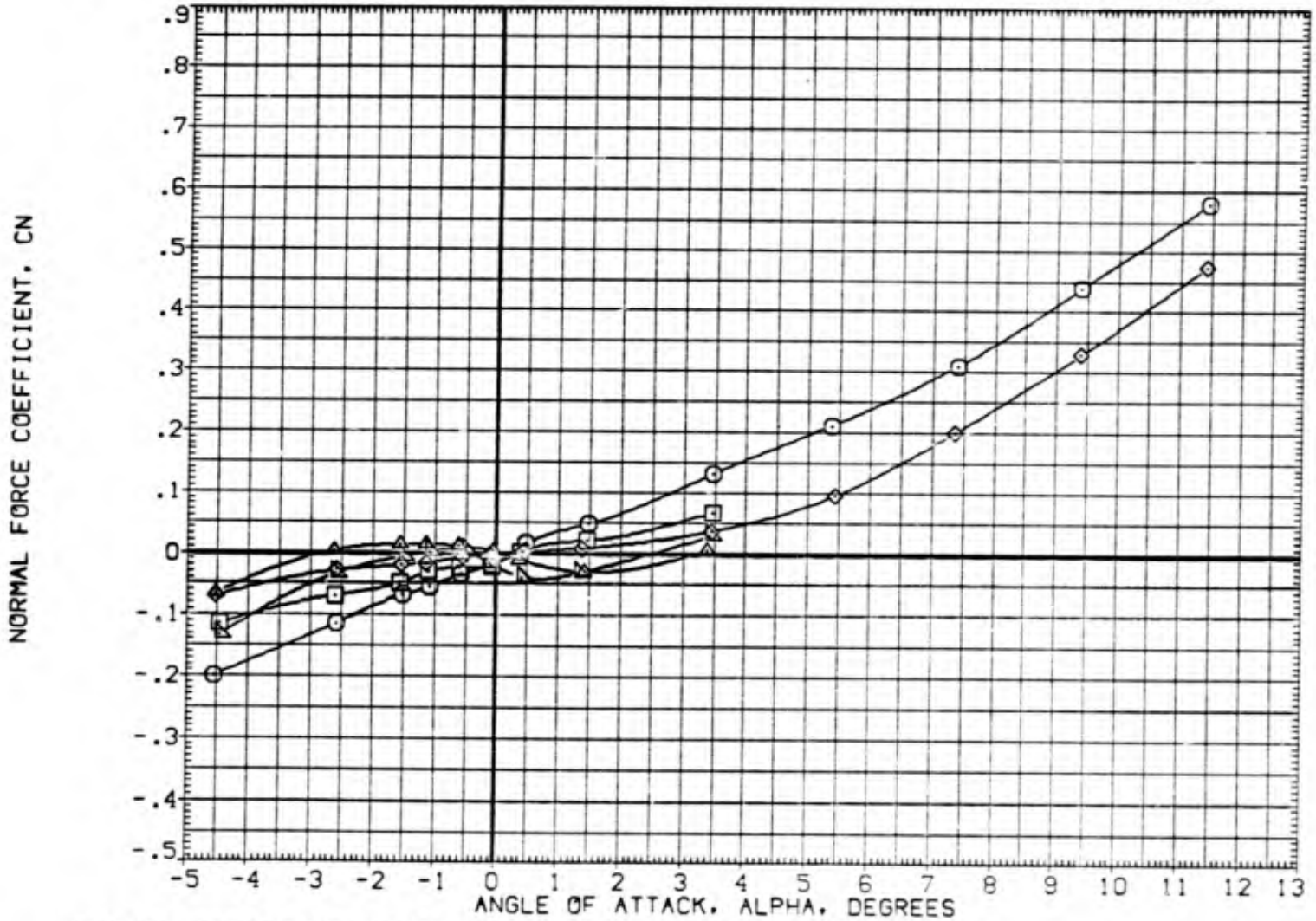
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8004)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.068	BETA	.000	PHI	.000
□	4.174	MACH	.700		
◇	5.891				
△	10.084				
▽	21.044				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



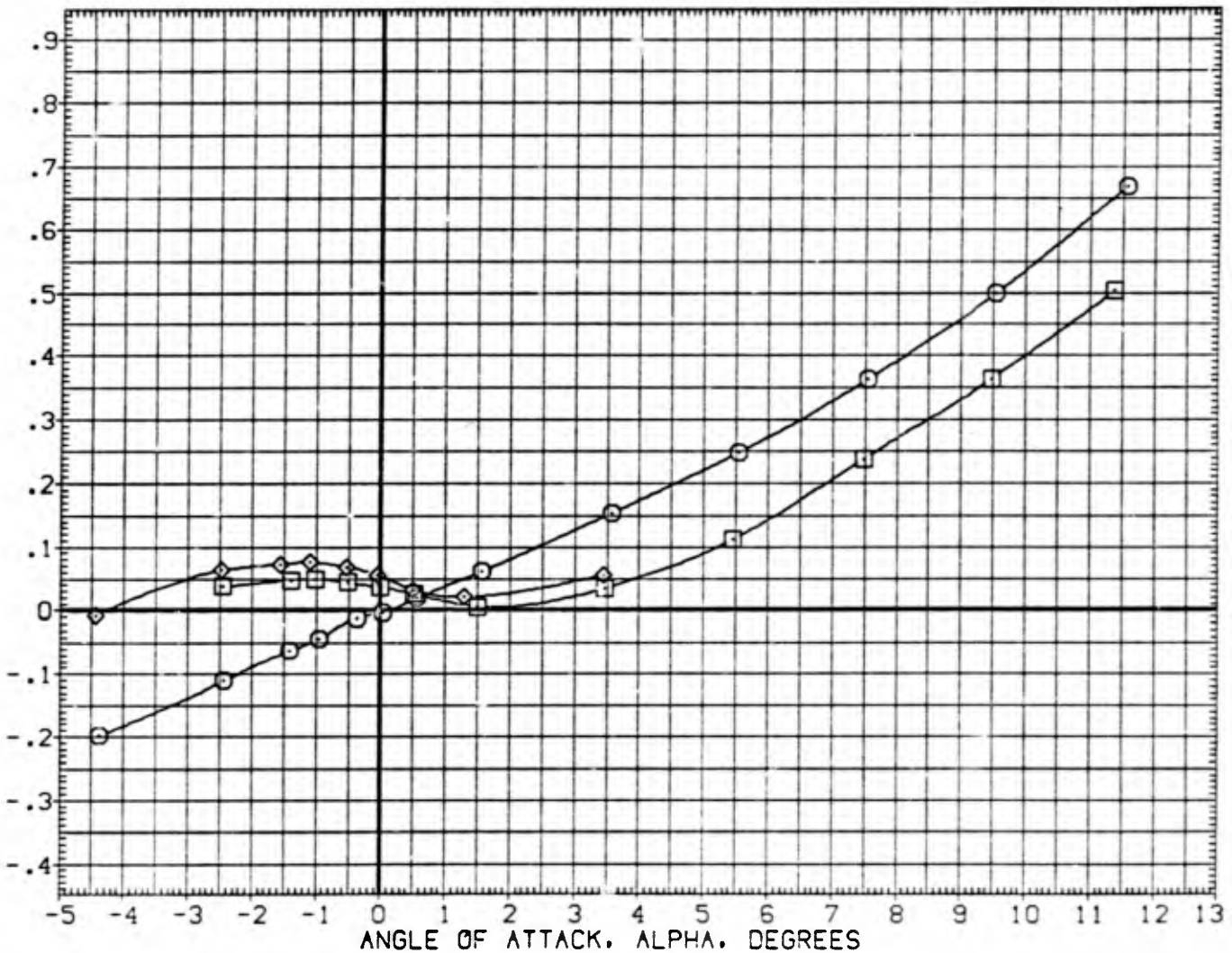
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8006)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.055	BETA	.000	PHI	.000
□	5.858	MACH	.900		
◇	8.786				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8009)

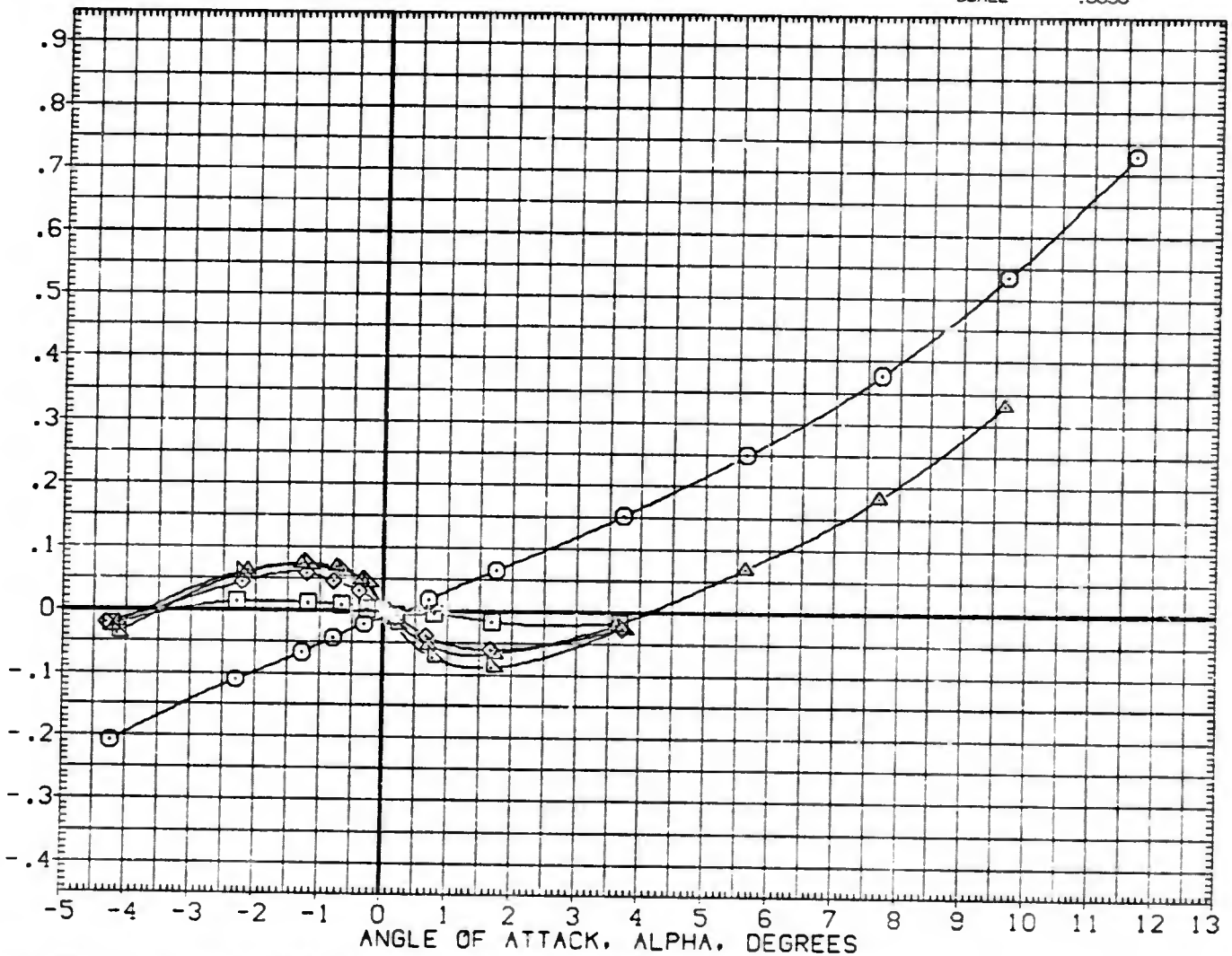
SYMBOL	CRT
○	.006
□	2.511
◇	4.284
△	5.775
▽	6.820

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



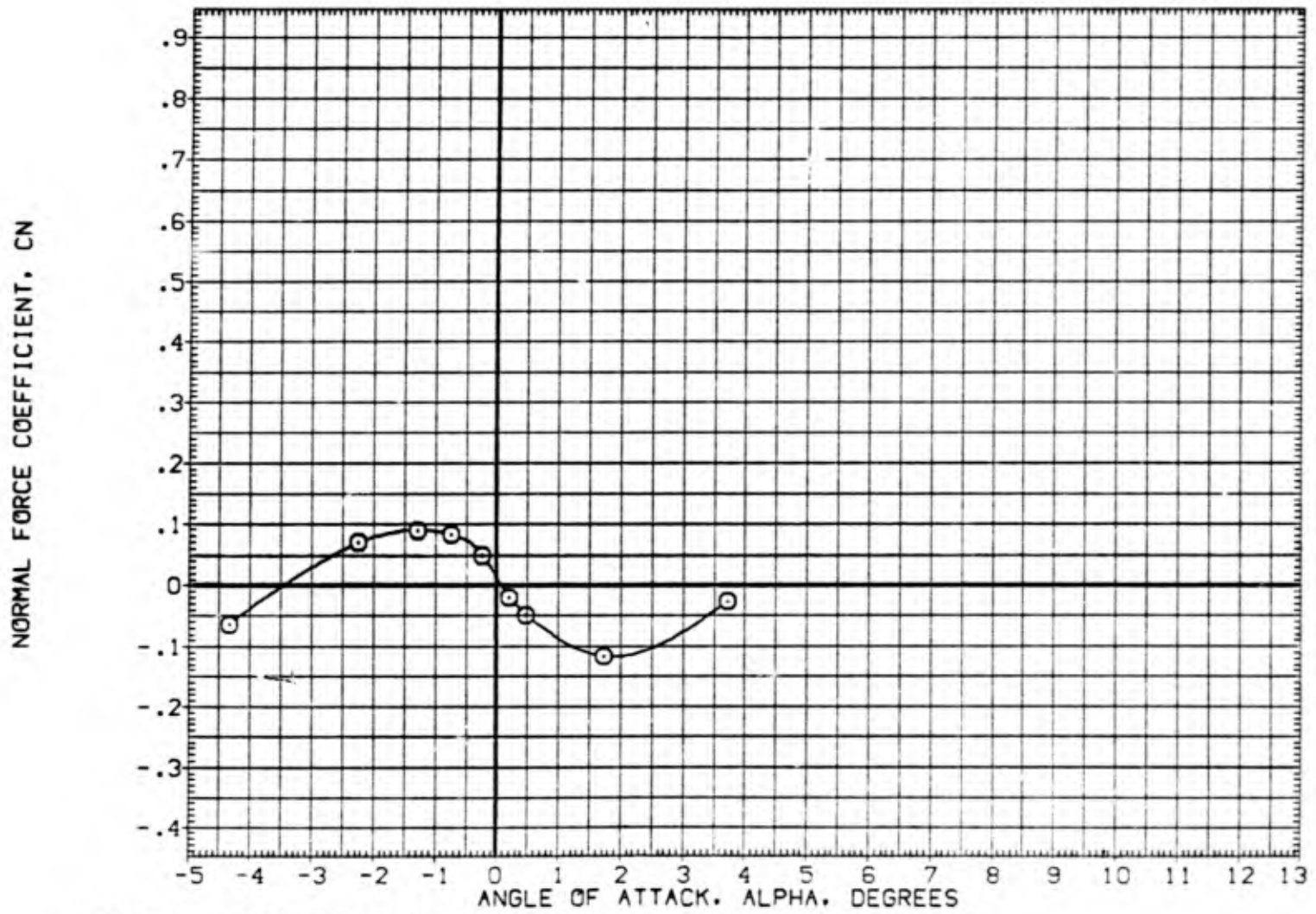
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8009)

SYMBOL	CRT		PARAMETRIC VALUES		
○	10.529	BETA	.000	PHI	.000
		MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



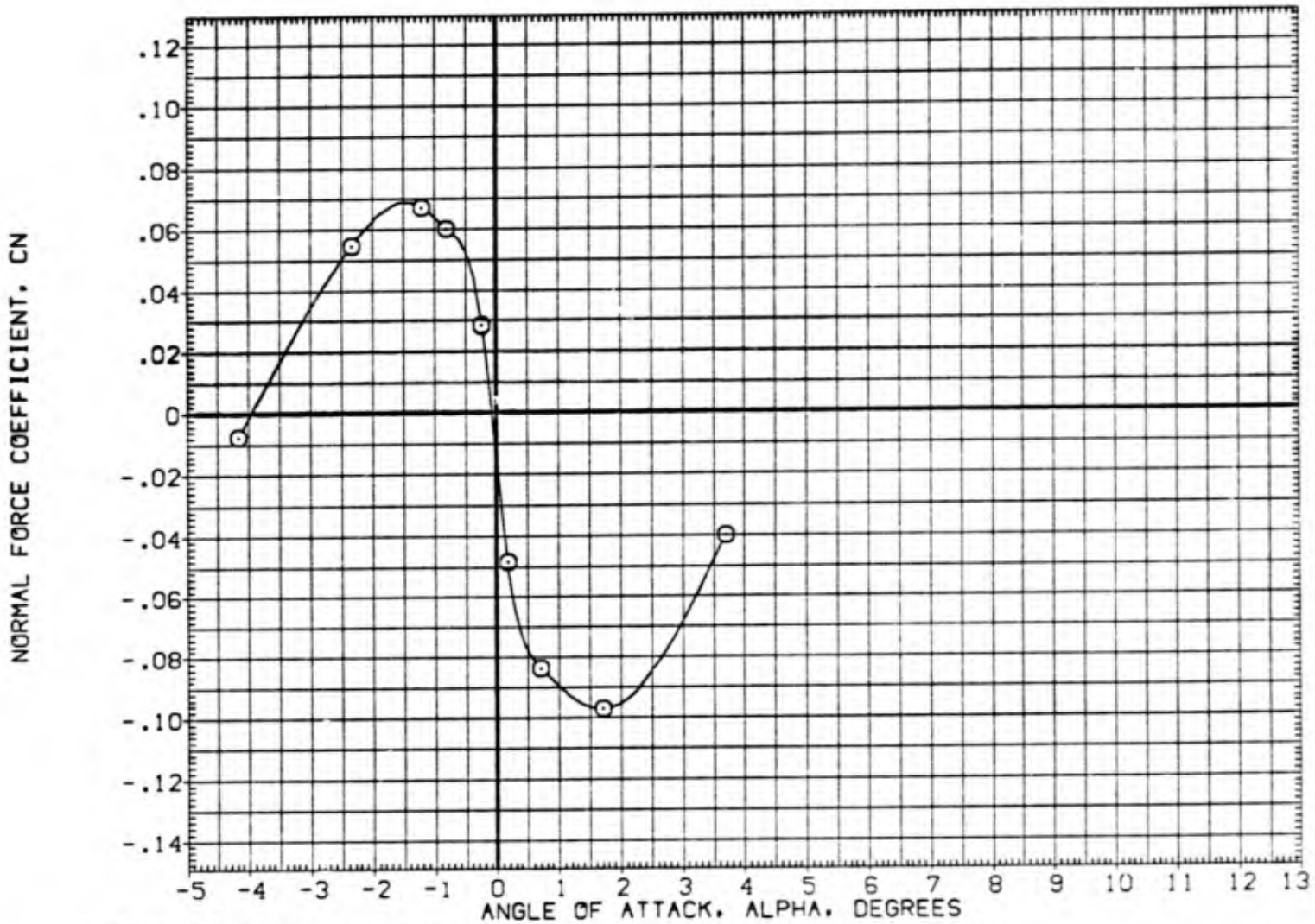
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (RX8011)

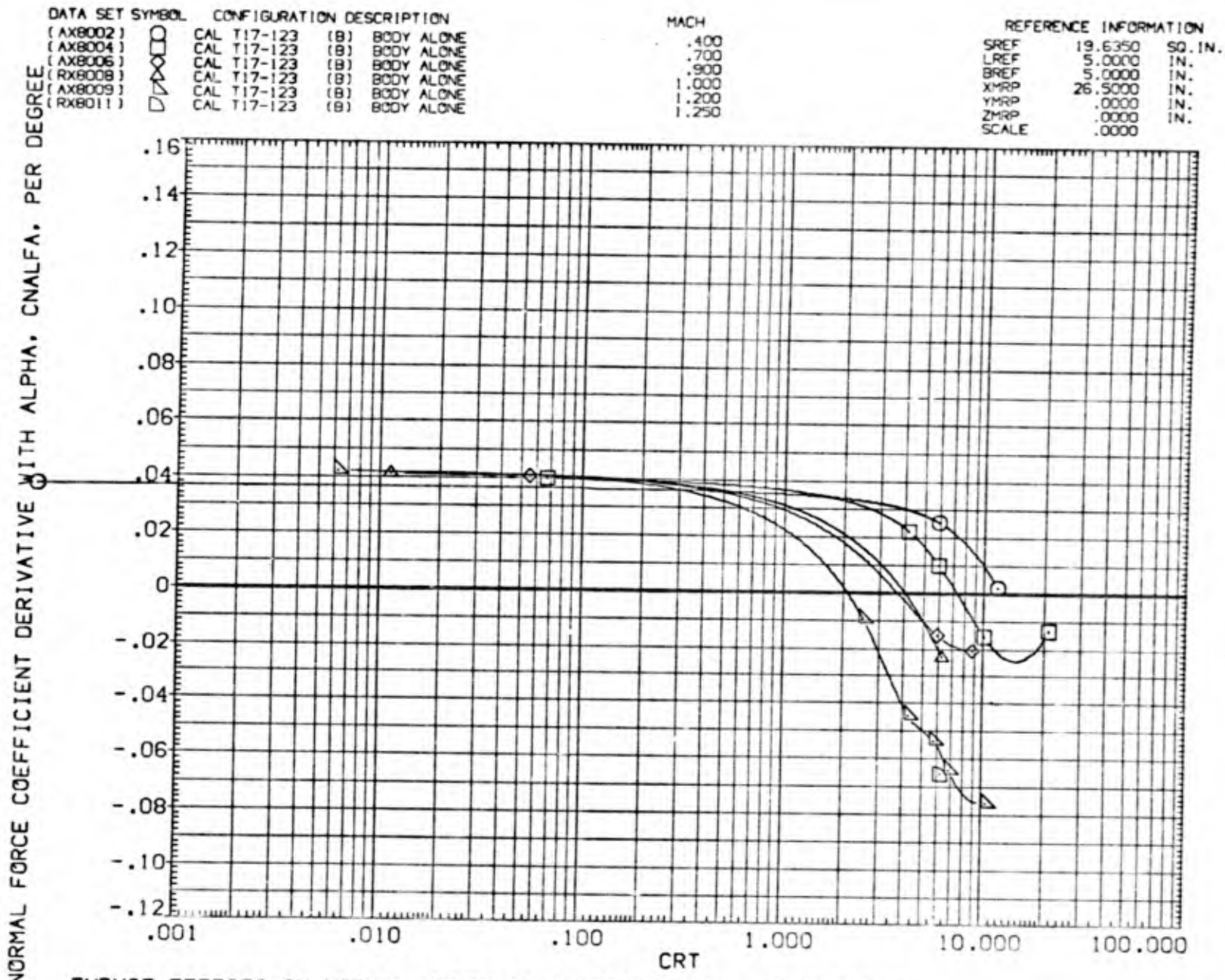
SYMBOL	CRT		PARAMETRIC VALUES		
○	6.229	BETA	.000	PHI	.000
		MACH	1.250		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - BODY ALONE



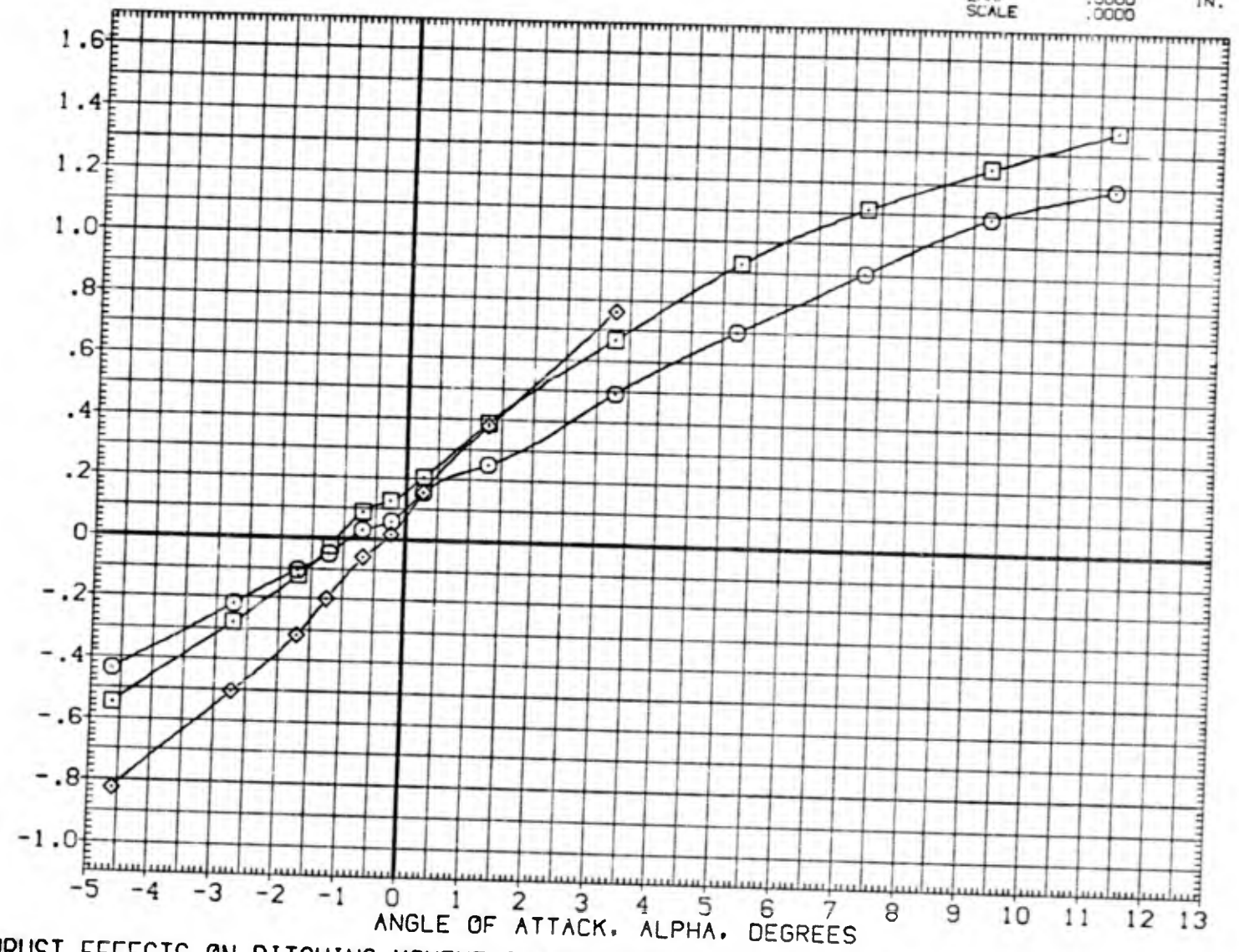
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8002)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.015	BETA	.000	PHI	.000
□	5.864	MACH	.400		
◇	11.672				

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8004)

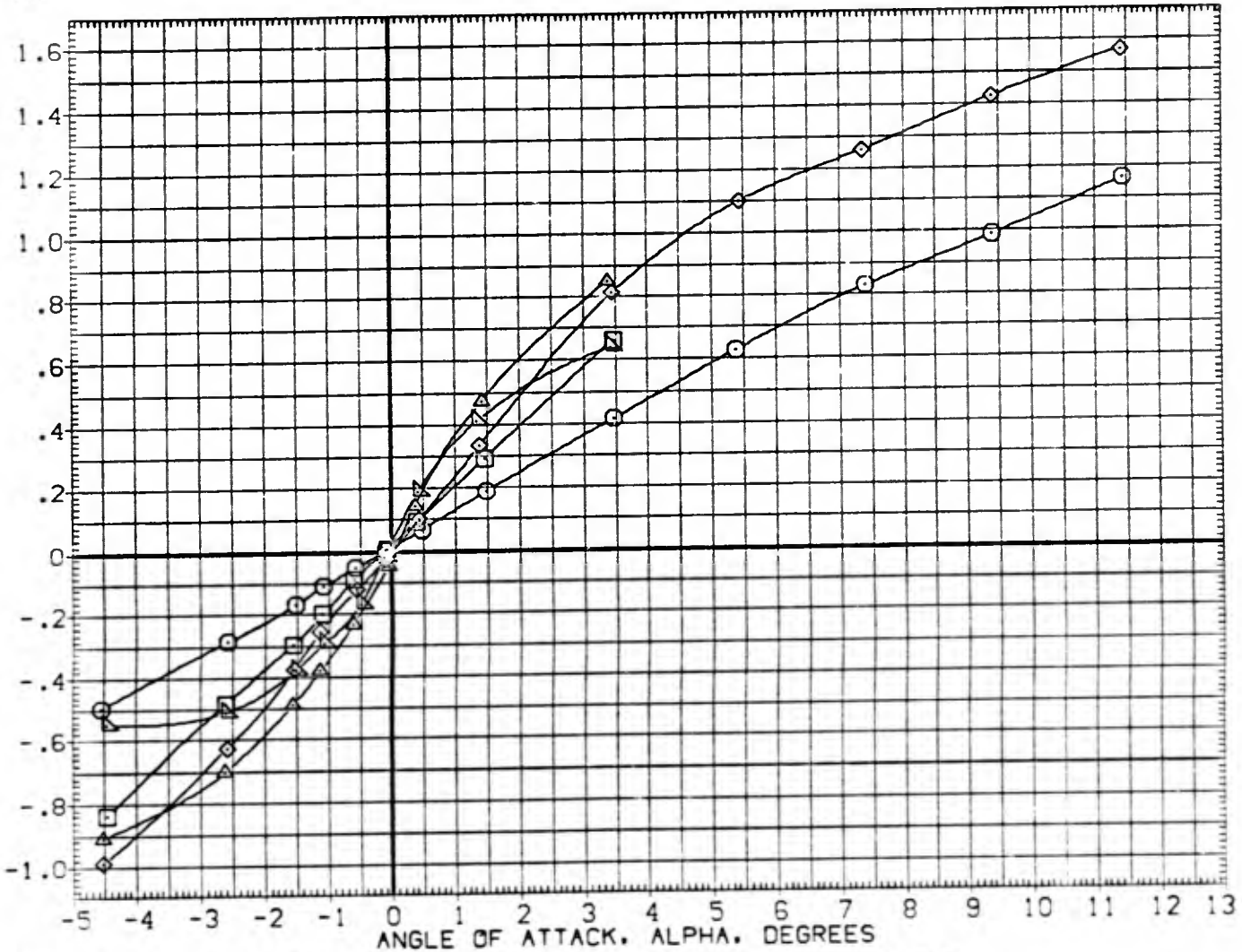
SYMBOL	CRT
○	.068
□	4.174
◇	5.891
△	10.084
▷	21.044

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	.700		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



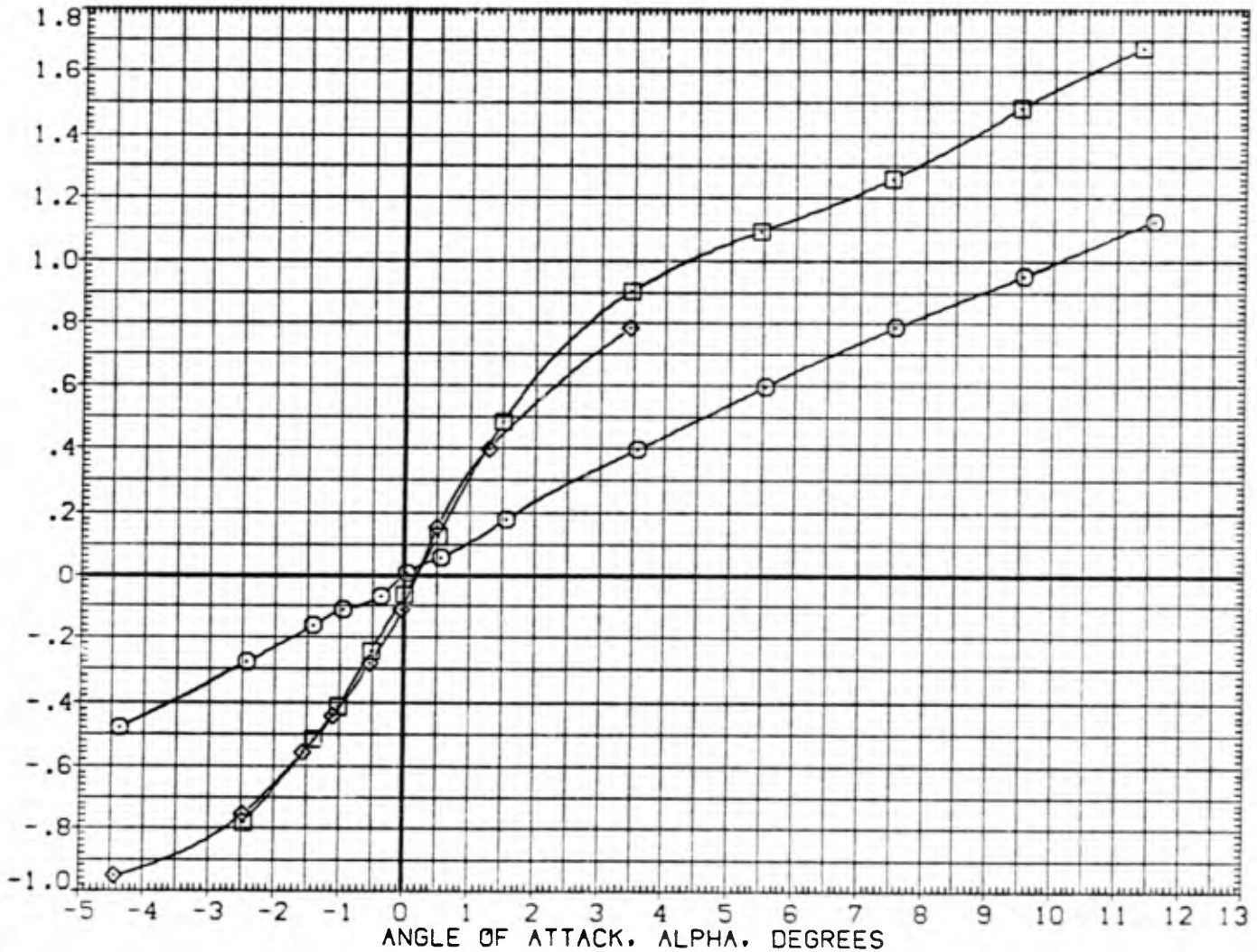
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8006)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.055	BETA	.000	PHI	.000
□	5.858	MACH	.900		
◇	8.786				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8009)

SYMBOL	CRT
○	.006
□	2.511
◇	4.284
△	5.775
▽	6.820

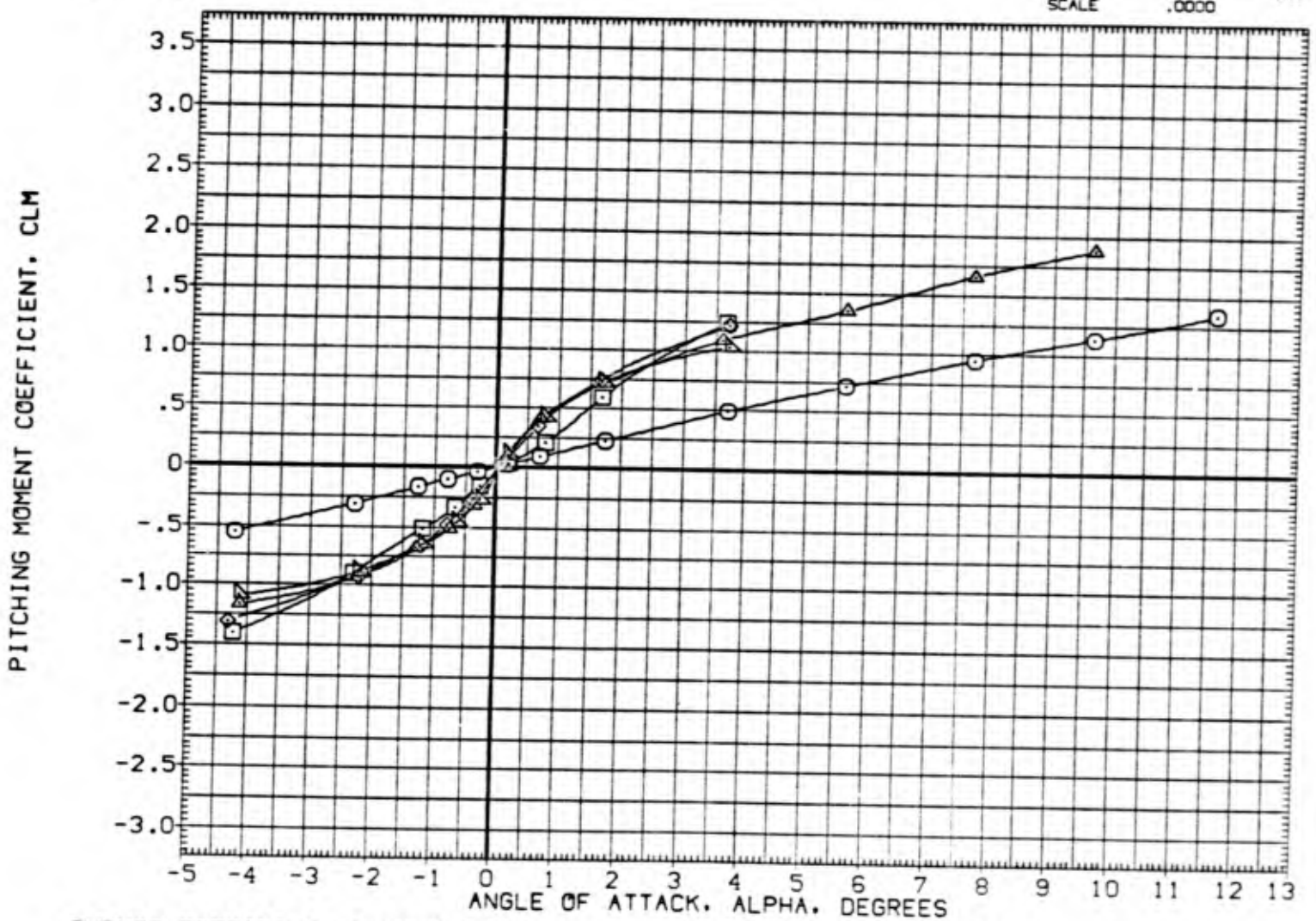
PARAMETRIC VALUES

BETA .000 PHI .000

MACH 1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



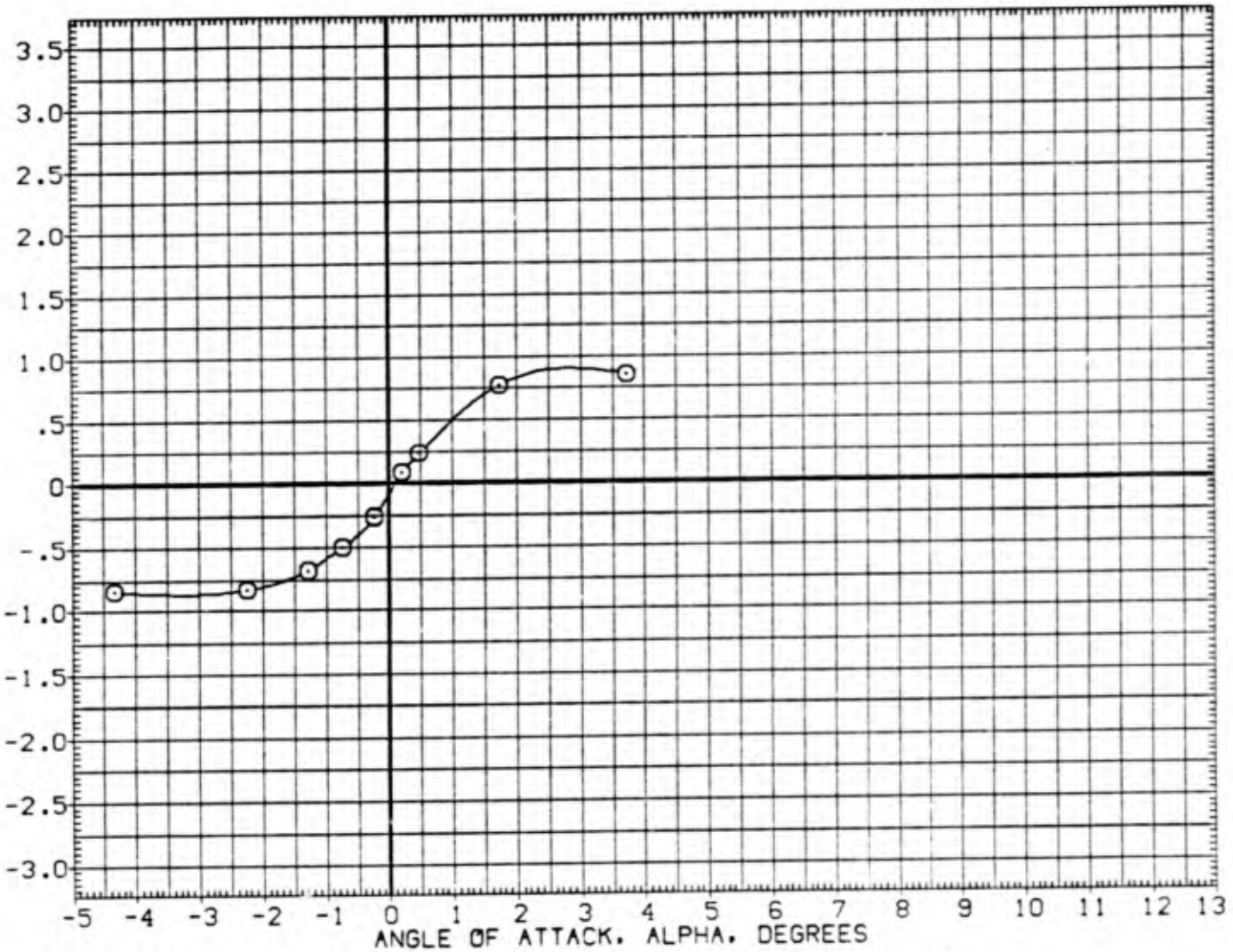
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8009)

SYMBOL	CRT		PARAMETRIC VALUES		
○	10.529	BETA	.000	PHI	.000
		MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



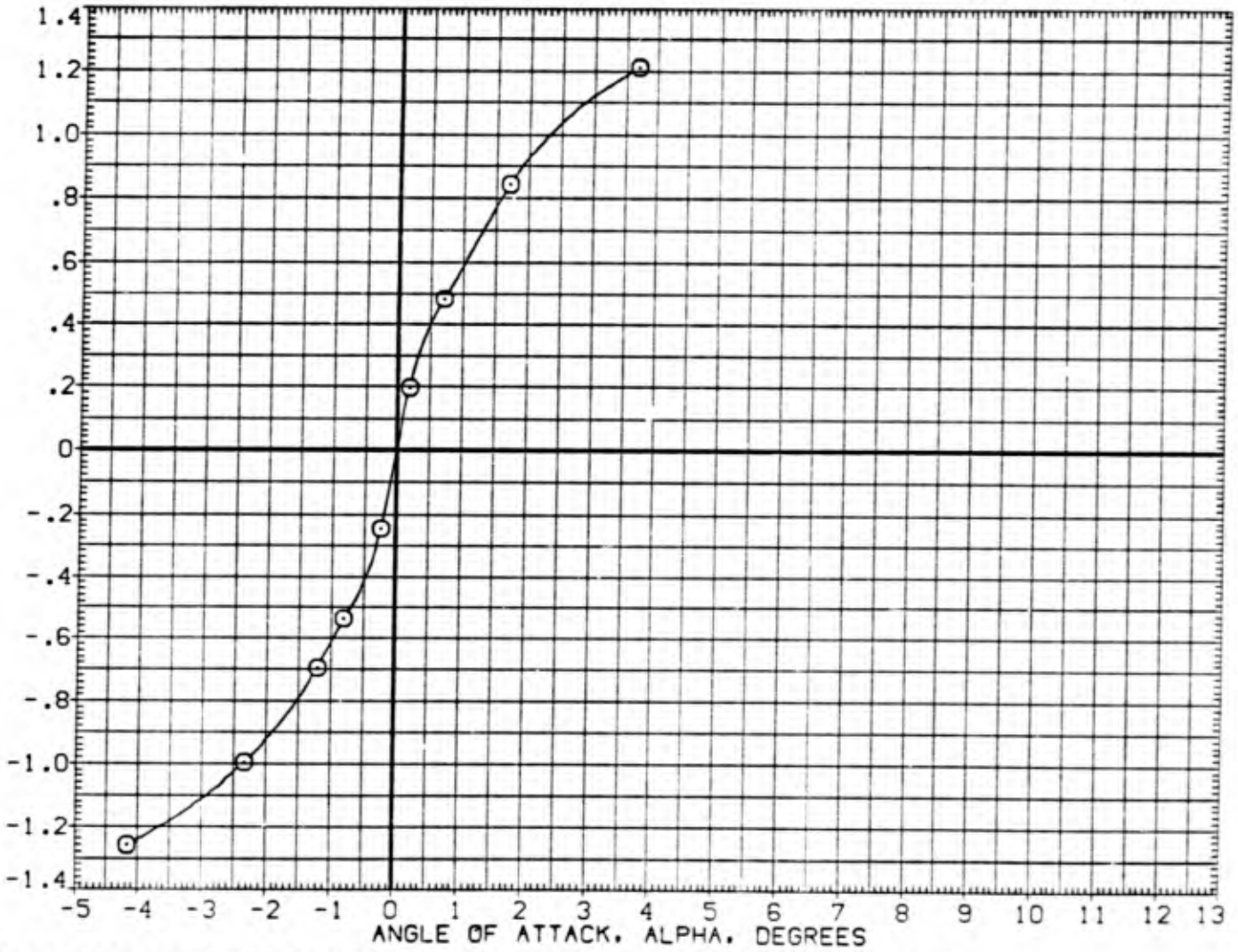
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (RX8011)

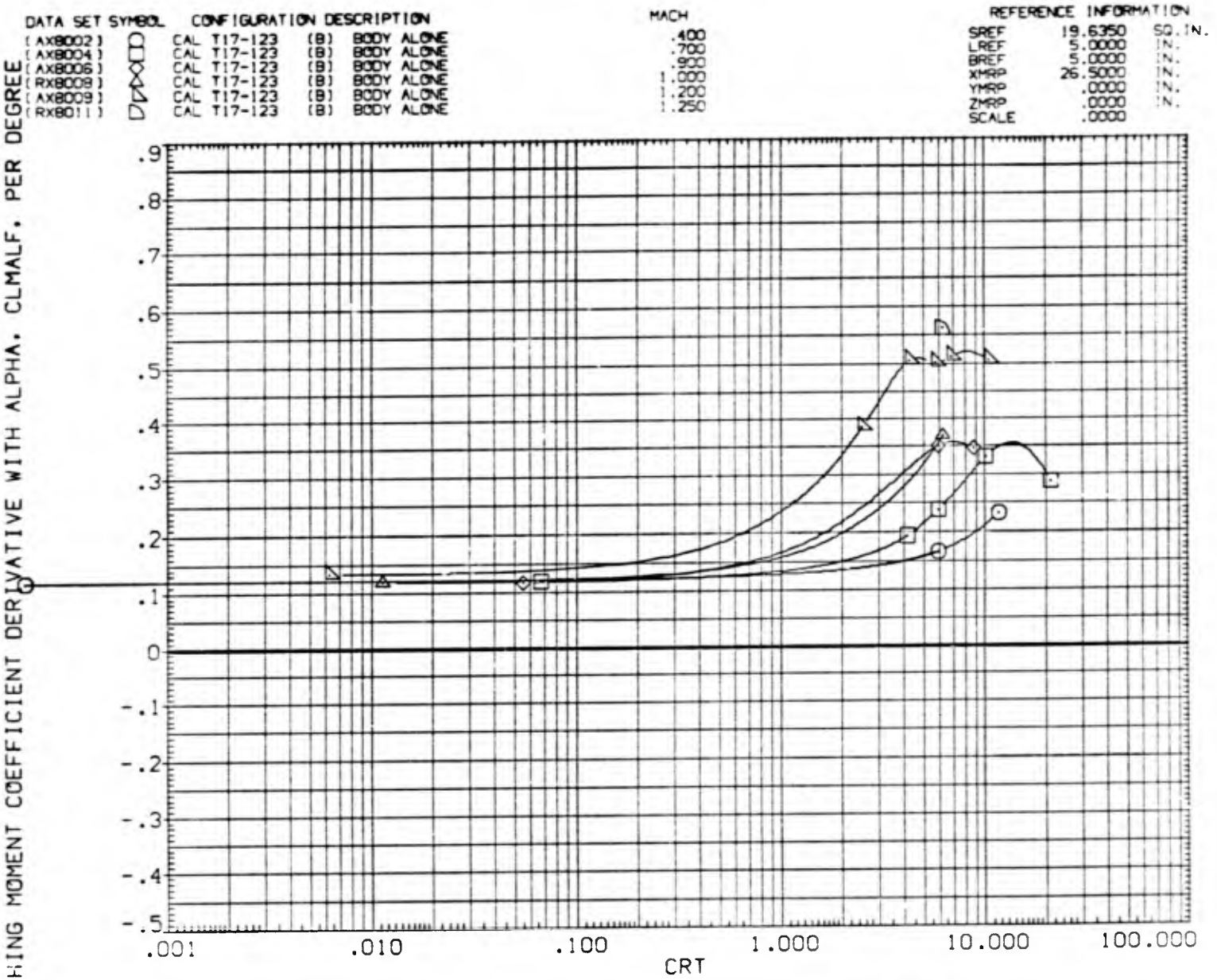
SYMBOL	CRT		PARAMETRIC VALUES		
O	6.229	BETA	.000	PHI	.000
		MACH	1.250		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - BODY ALONE



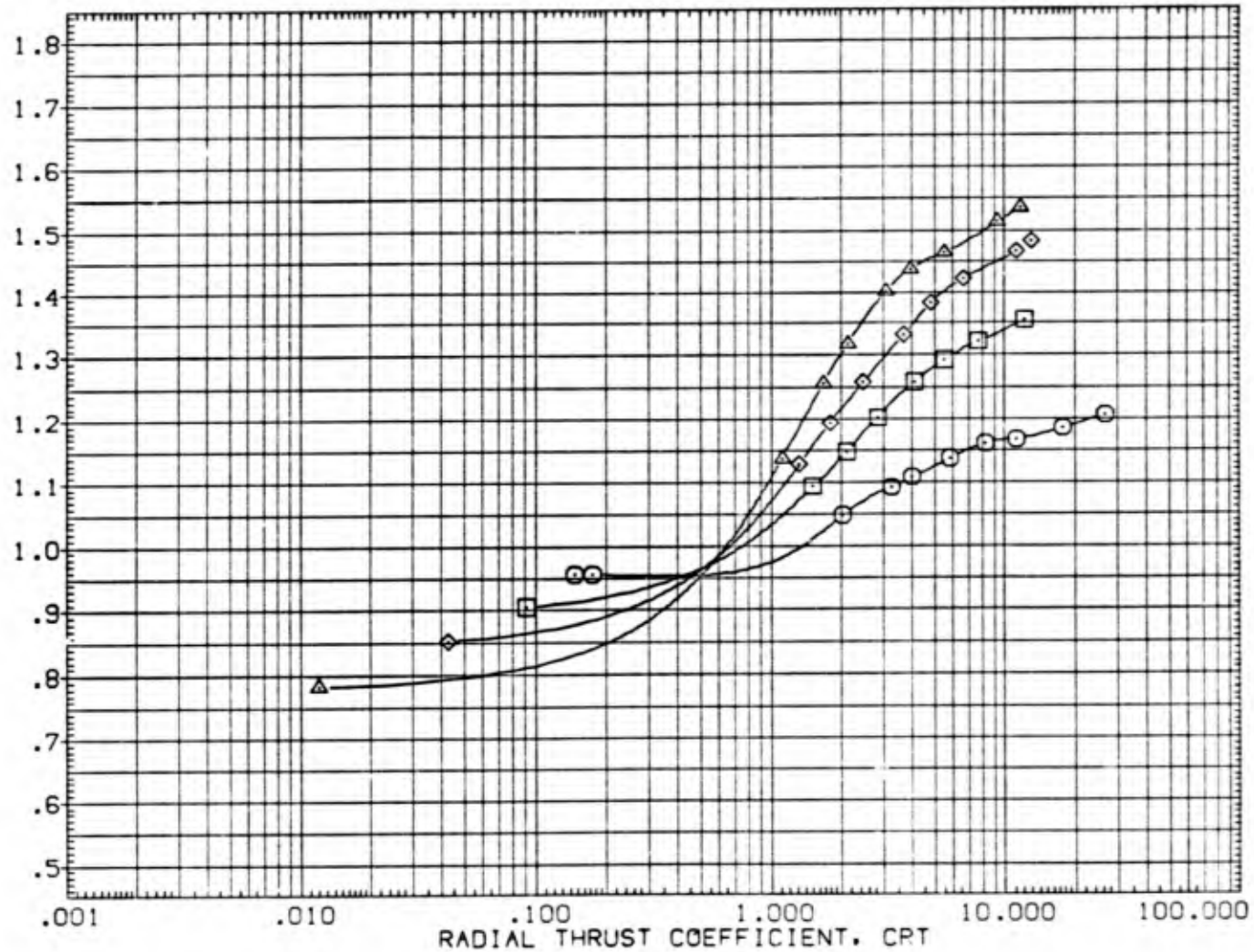
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - BODY ALONE

CAL T17-123 (B) BODY ALONE (AX8001)

SYMBOL	MACH		PARAMETRIC VALUES		
○	.684	ALPHA	.000	BETA	.000
□	.921	PHI	.000		
◇	.999				
△	1.196				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



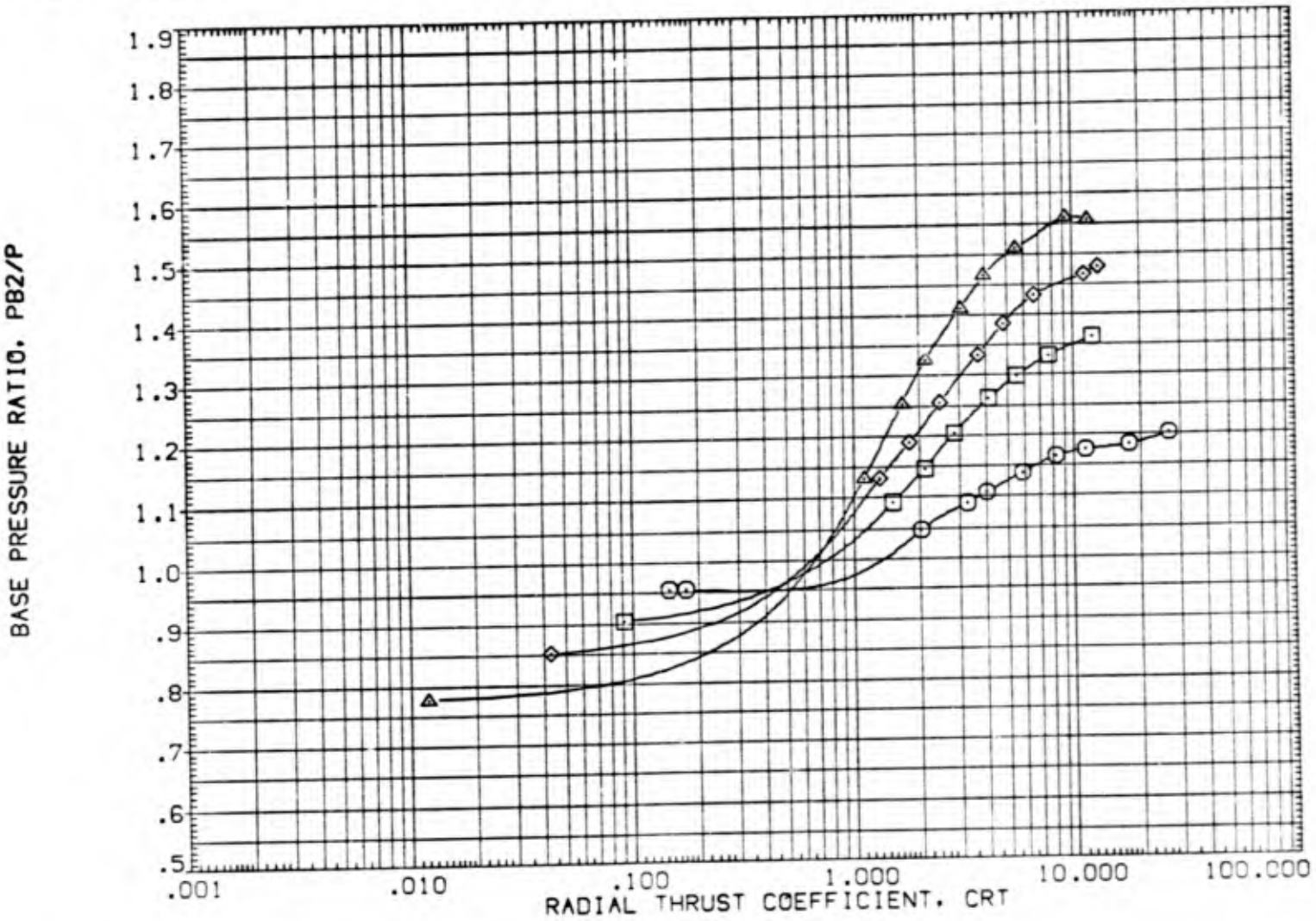
VARIATION OF BASE PRESSURE WITH THRUST

CAL T17-123 (B) BODY ALONE (AX8001)

SYMBOL	MACH	PARAMETRIC VALUES			
○	.684	ALPHA	.000	BETA	.000
□	.921	PHI	.000		
◇	.999				
△	1.196				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



VARIATION OF BASE PRESSURE WITH THRUST

CAL T17-123 (B) BODY ALONE (AX8001)

SYMBOL	MACH
○	.684
□	.921
◇	.999
△	1.196

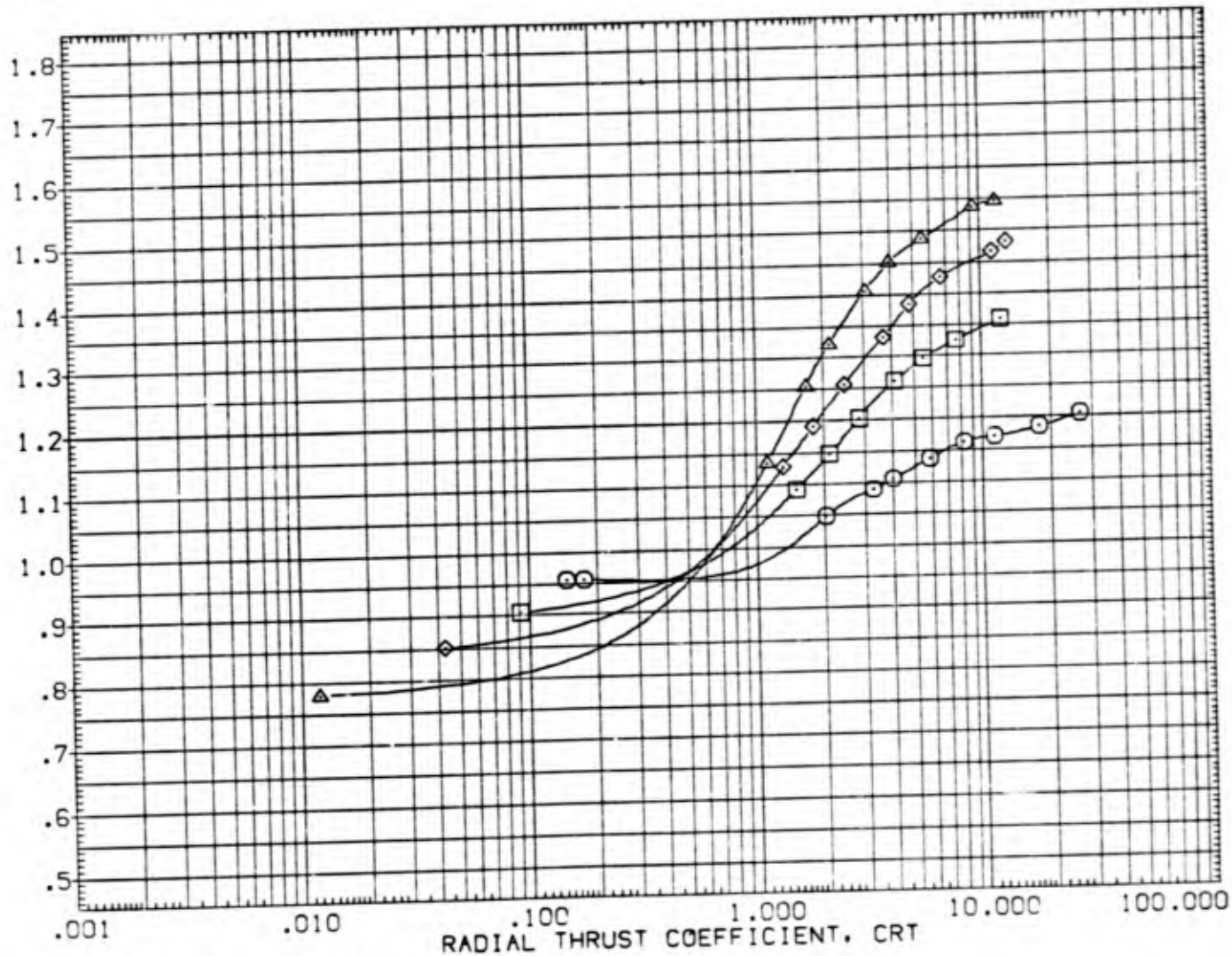
PARAMETRIC VALUES

ALPHA .000 BETA .000

PHI .000

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



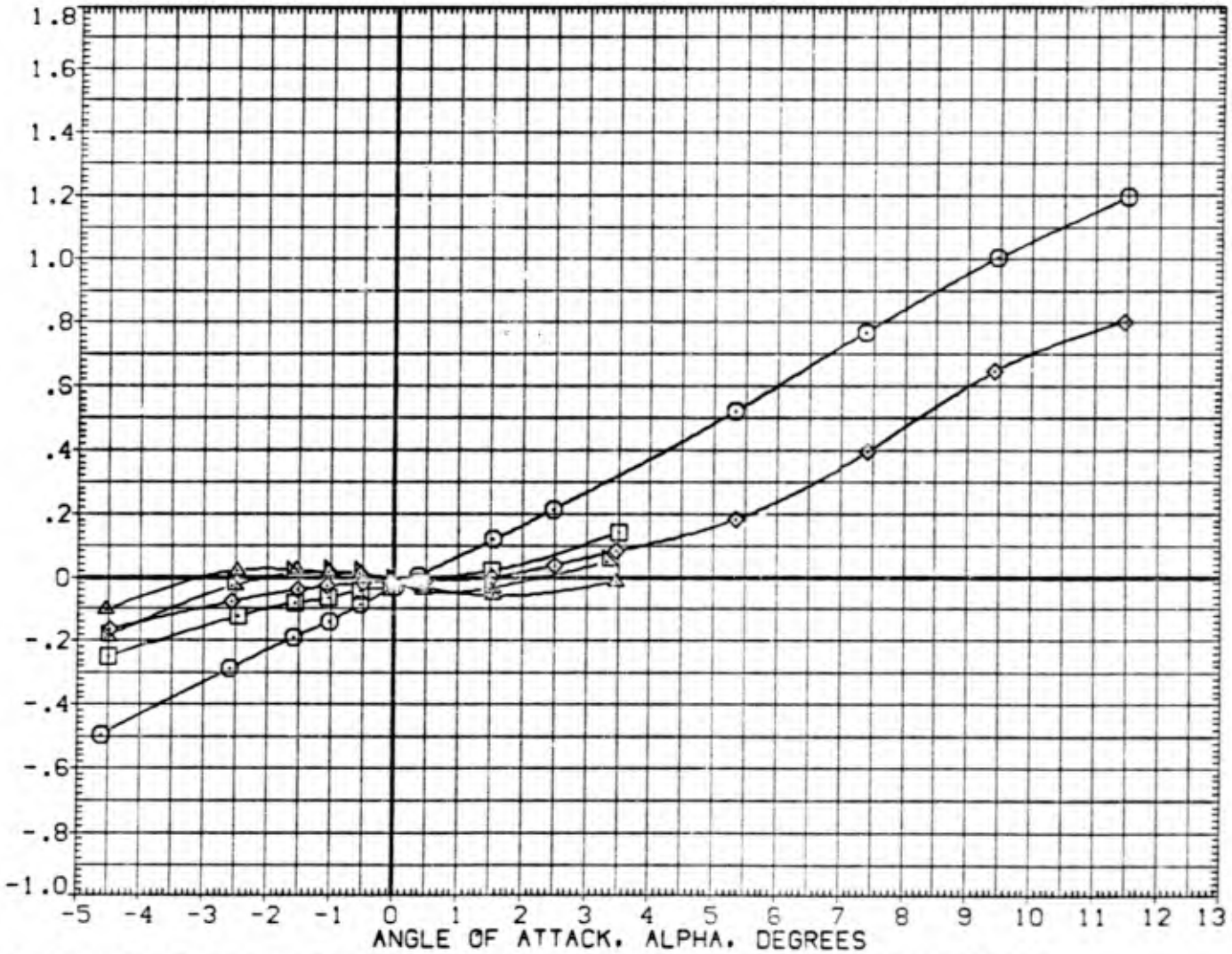
VARIATION OF BASE PRESSURE WITH THRUST

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8067)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	.000
□	4.159	MACH	.700		
◇	5.788				
△	10.526				
▽	21.283				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

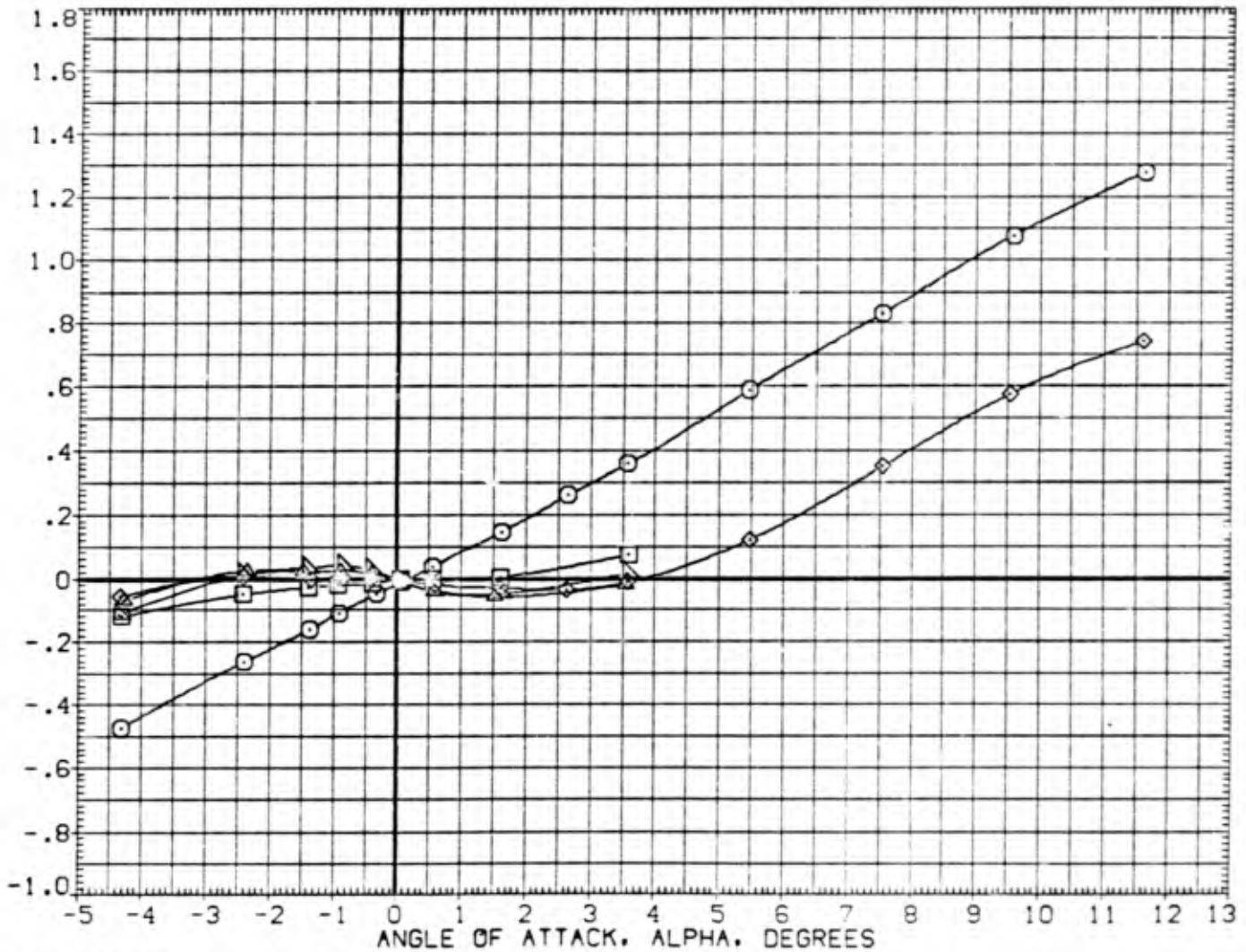


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY. FIN IN AFT POSITION (AX8068)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.033	BETA	.000	PHI	.000
□	4.195	MACH	.900		
◇	5.723				
△	8.761				
◁	12.778				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



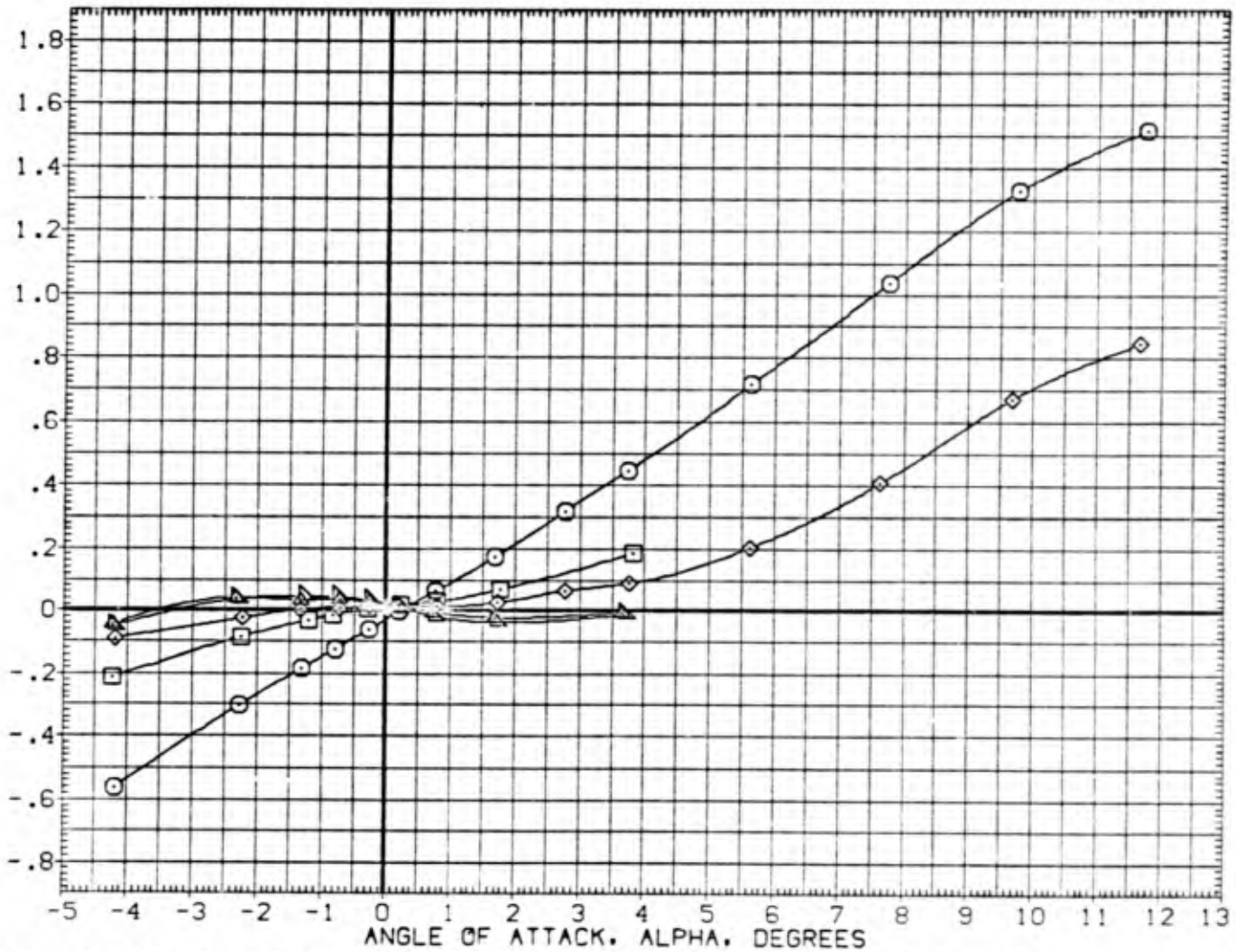
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8069)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.022	BETA	.000	PHI	.000
□	2.586	MACH	1.000		
◇	4.042				
△	6.063				
▽	7.435				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



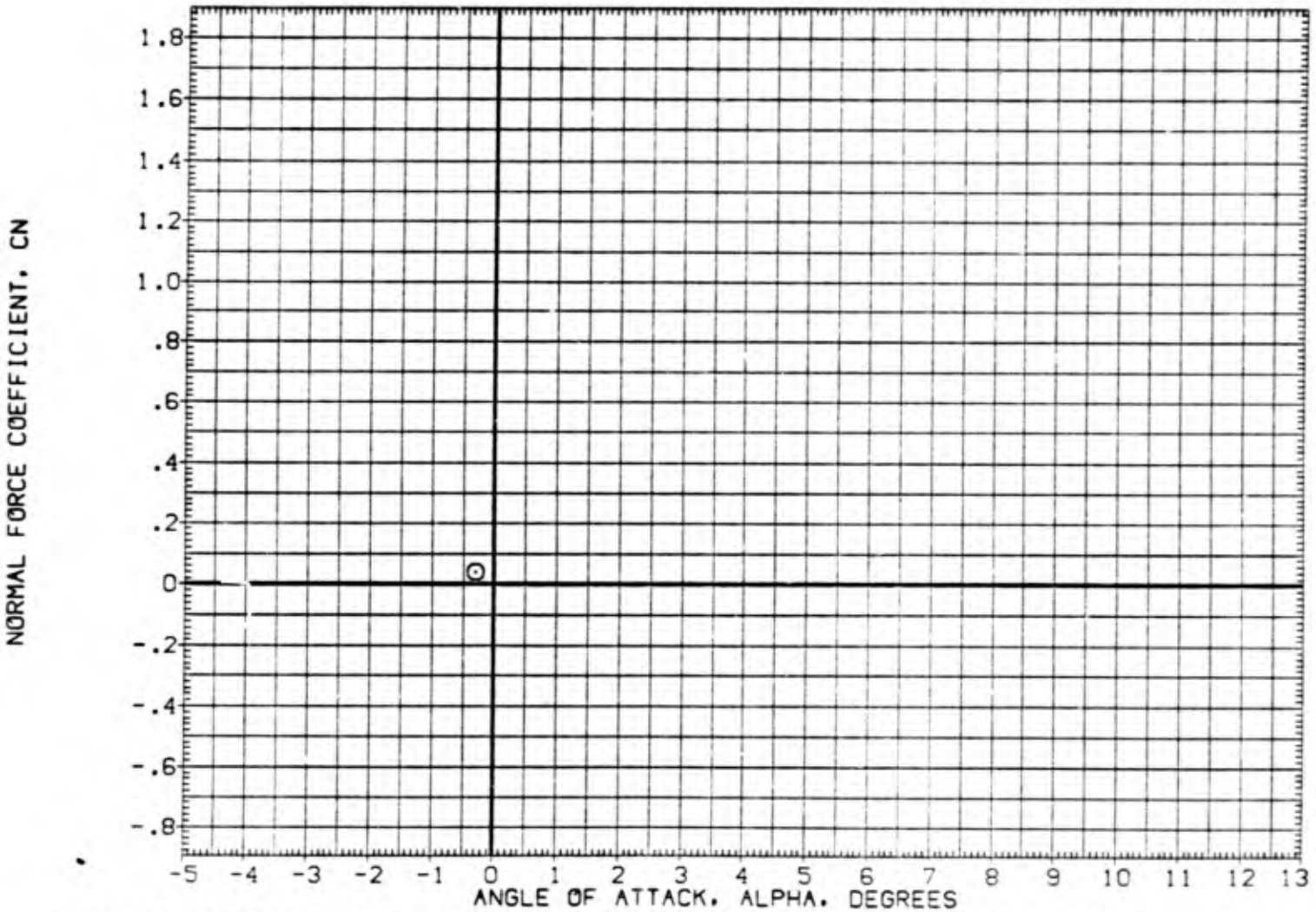
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8069)

SYMBOL	CRT		PARAMETRIC VALUES		
○	10.859	BETA	.000	PHI	.000
		MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



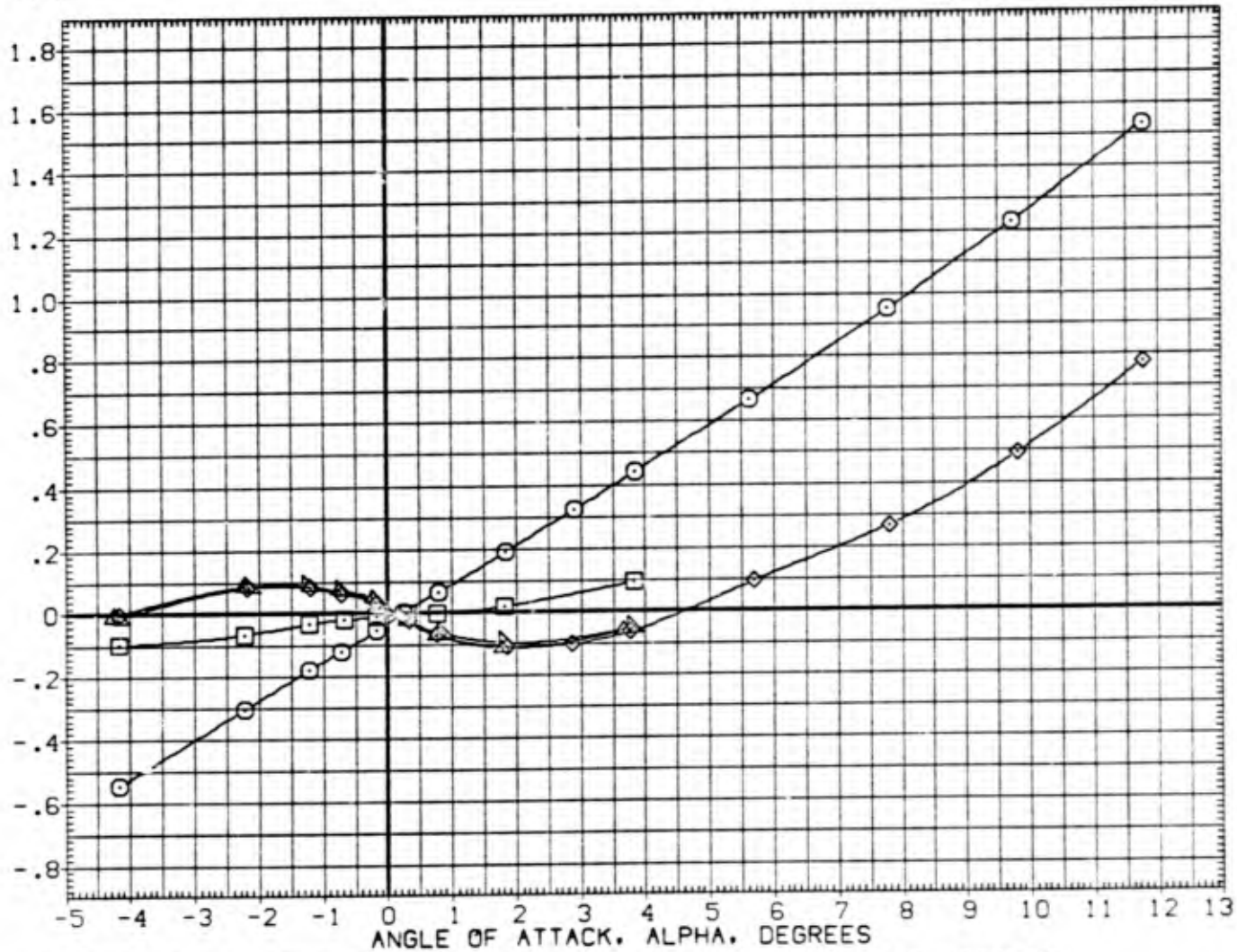
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY. FIN IN AFT POSITION (AX8070)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.010	BETA	.000	PHI	.000
□	2.617	MACH	1.200		
◇	4.181				
△	5.969				
▽	6.941				

REFERENCE INFORMATION

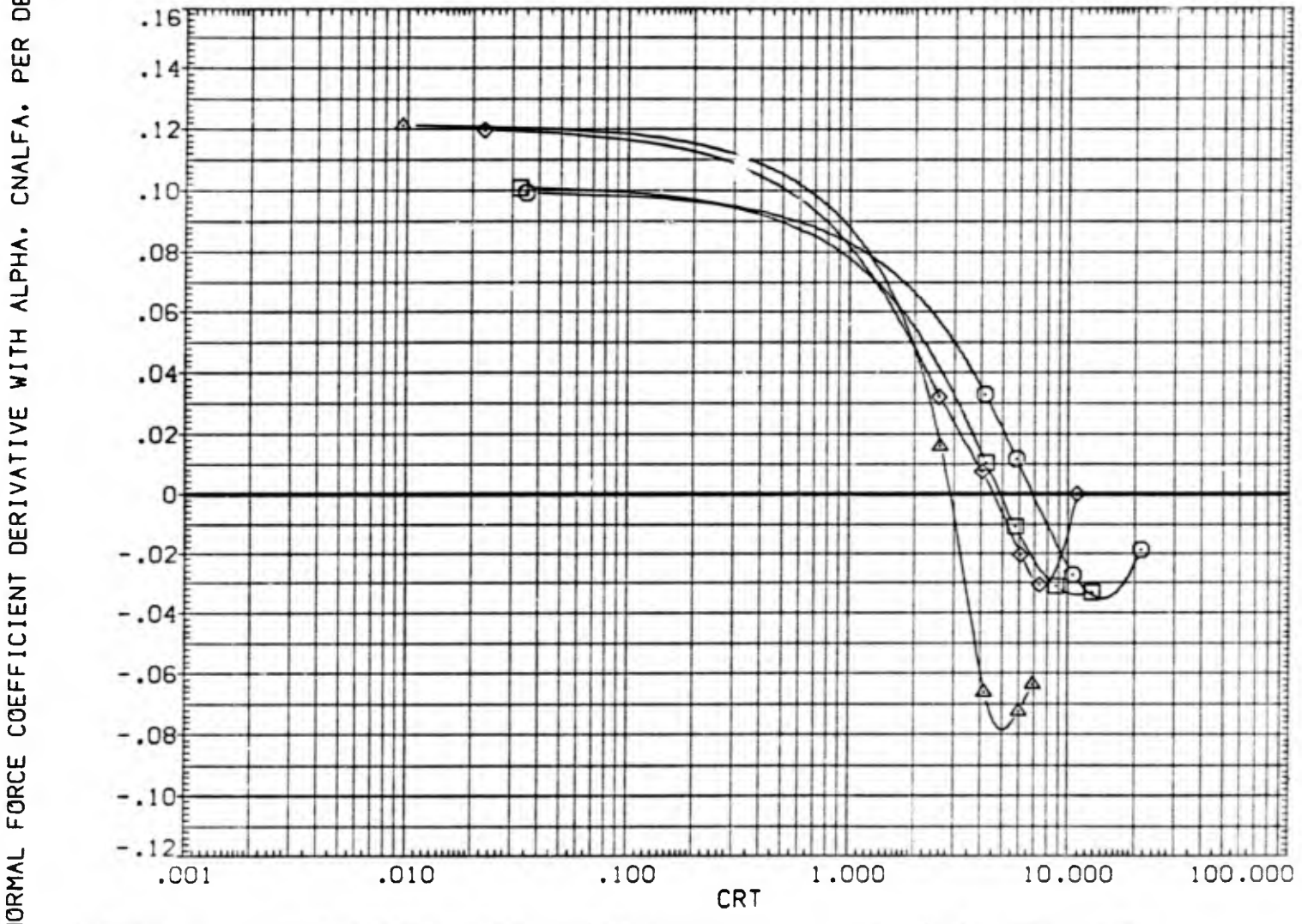
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8067)	◇	CAL T17-123 (BF2) BODY, FIN IN AFT POSITION	.000	.700
(AX8068)	□	CAL T17-123 (BF2) BODY, FIN IN AFT POSITION	.000	.900
(AX8069)	⊗	CAL T17-123 (BF2) BODY, FIN IN AFT POSITION	.000	1.000
(AX8070)	△	CAL T17-123 (BF2) BODY, FIN IN AFT POSITION	.000	1.200

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

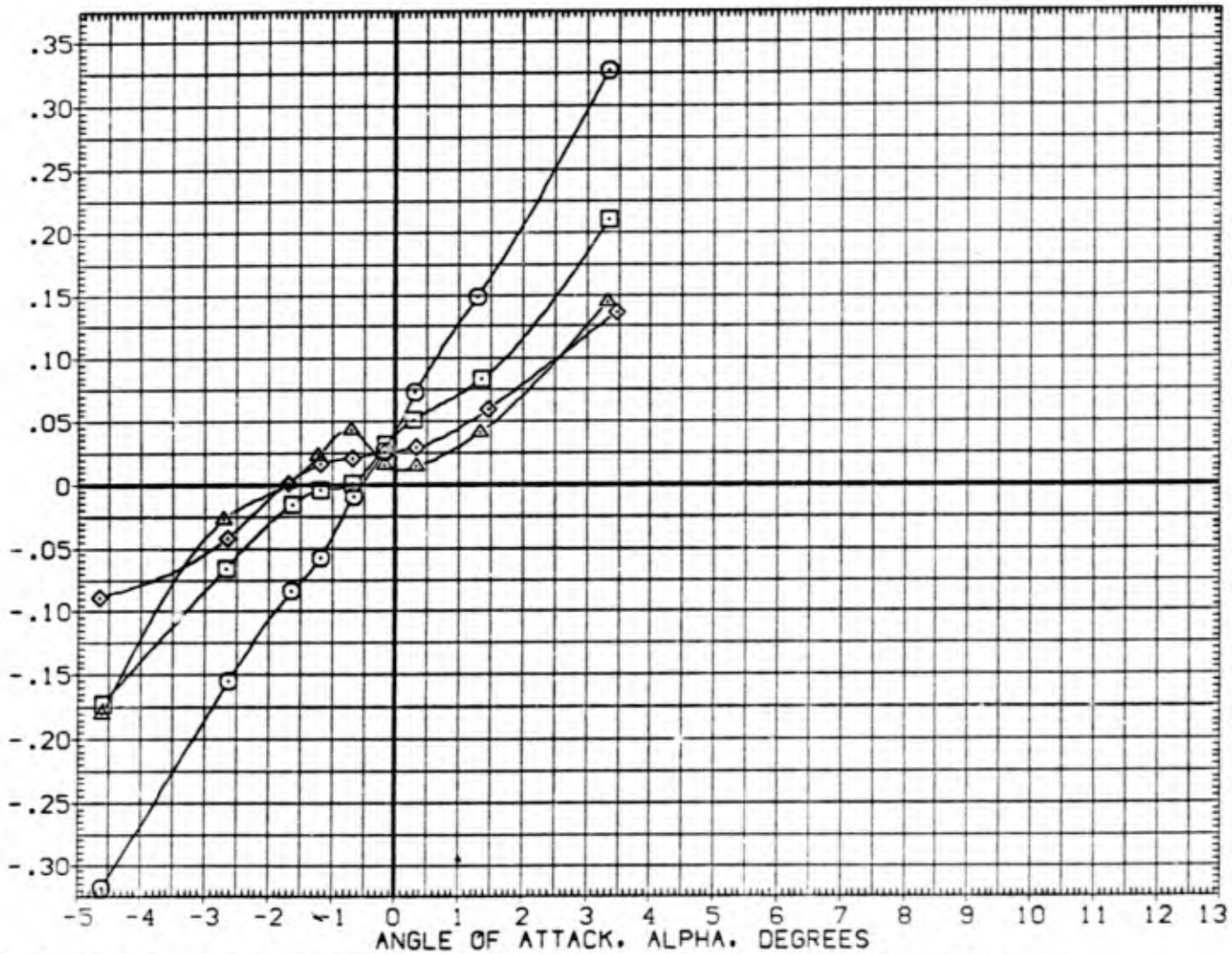


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8058)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.232	BETA	.000	PHI	.000
□	6.206	MACH	.400		
◇	16.272				
△	37.785				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



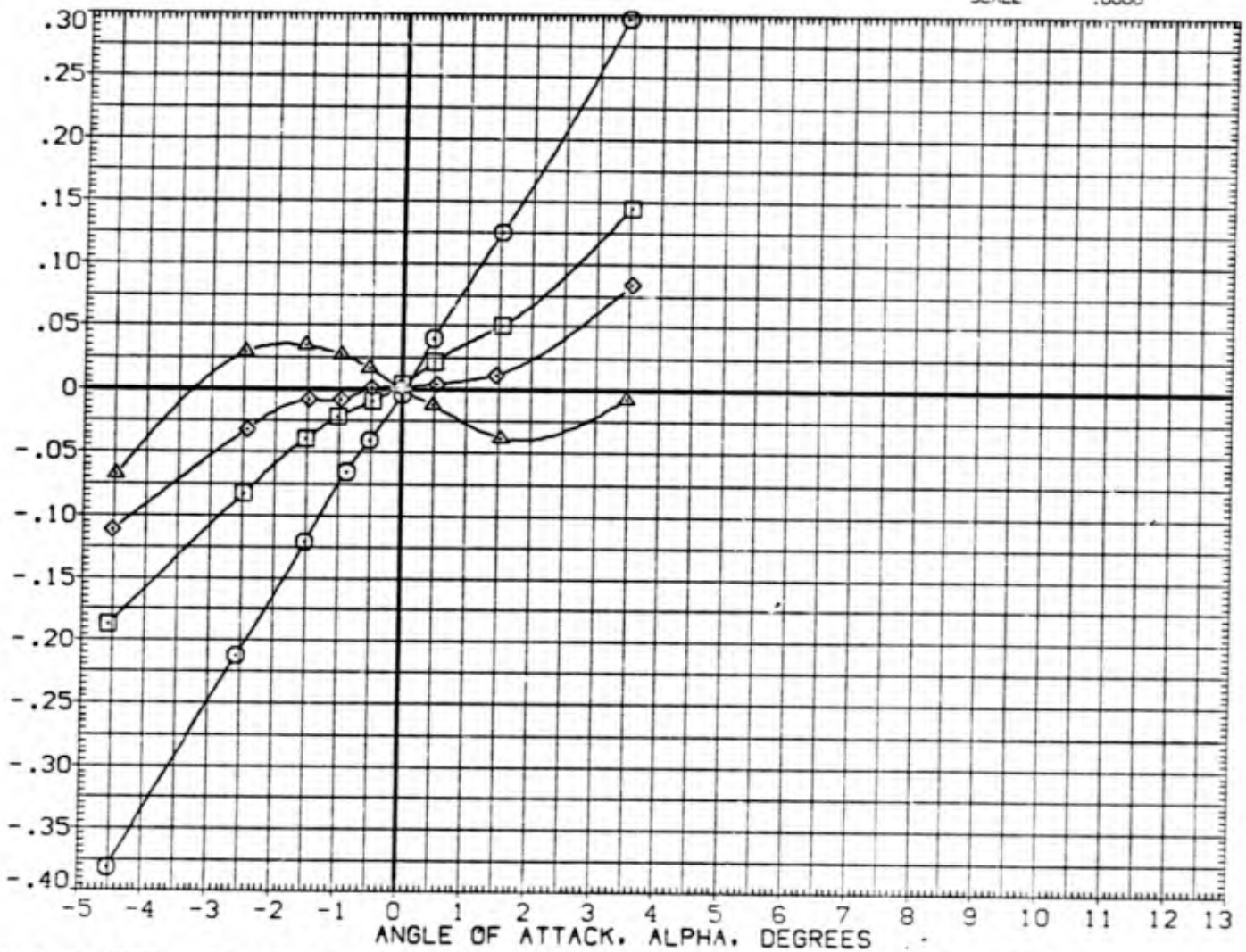
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8059)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.075	BETA	.000	PHI	.000
□	4.226	MACH	.700		
◇	6.017				
△	10.340				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

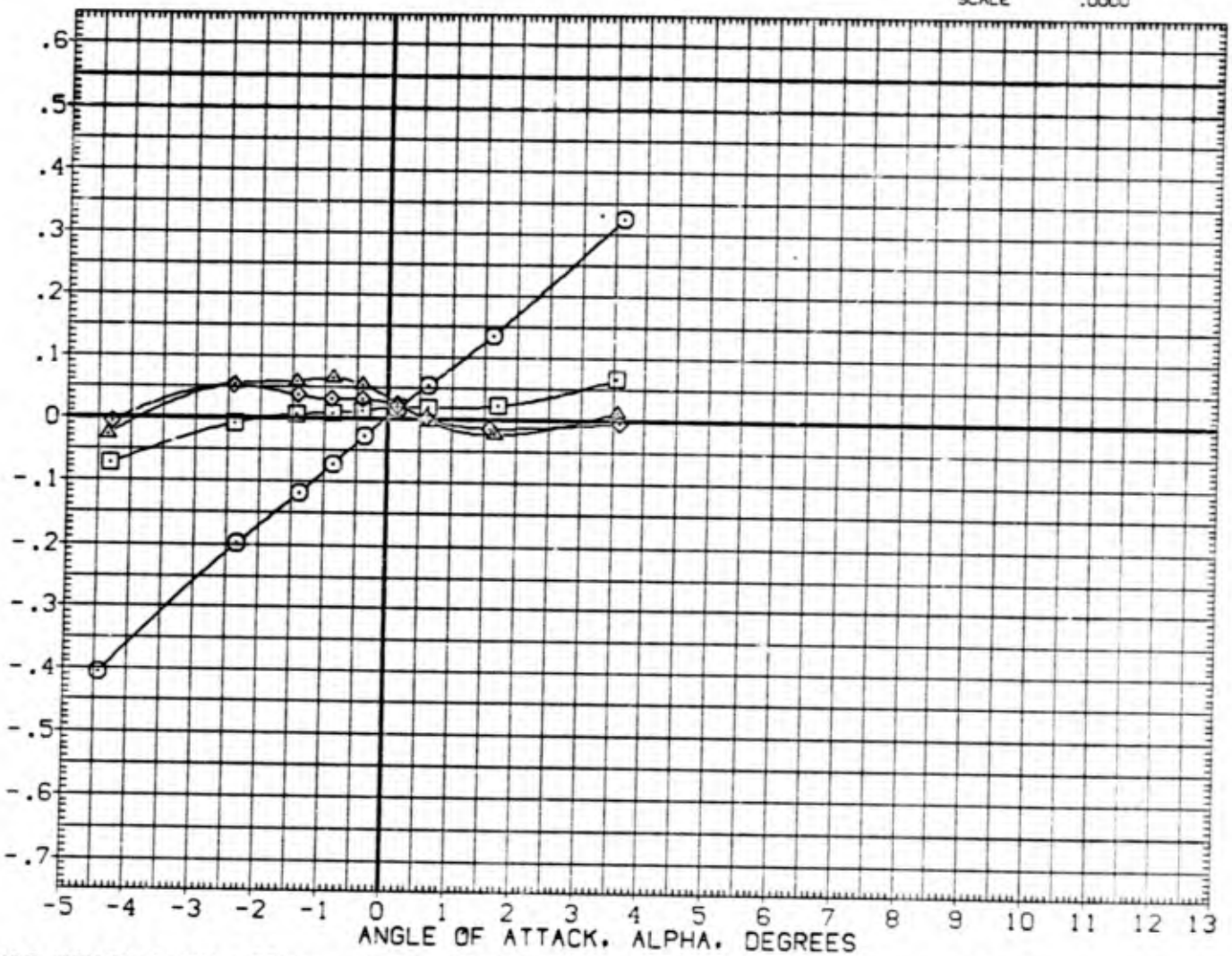


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8060)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.075	BETA	.000	PHI	.000
□	4.265	MACH	.900		
◇	6.059				
△	8.861				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

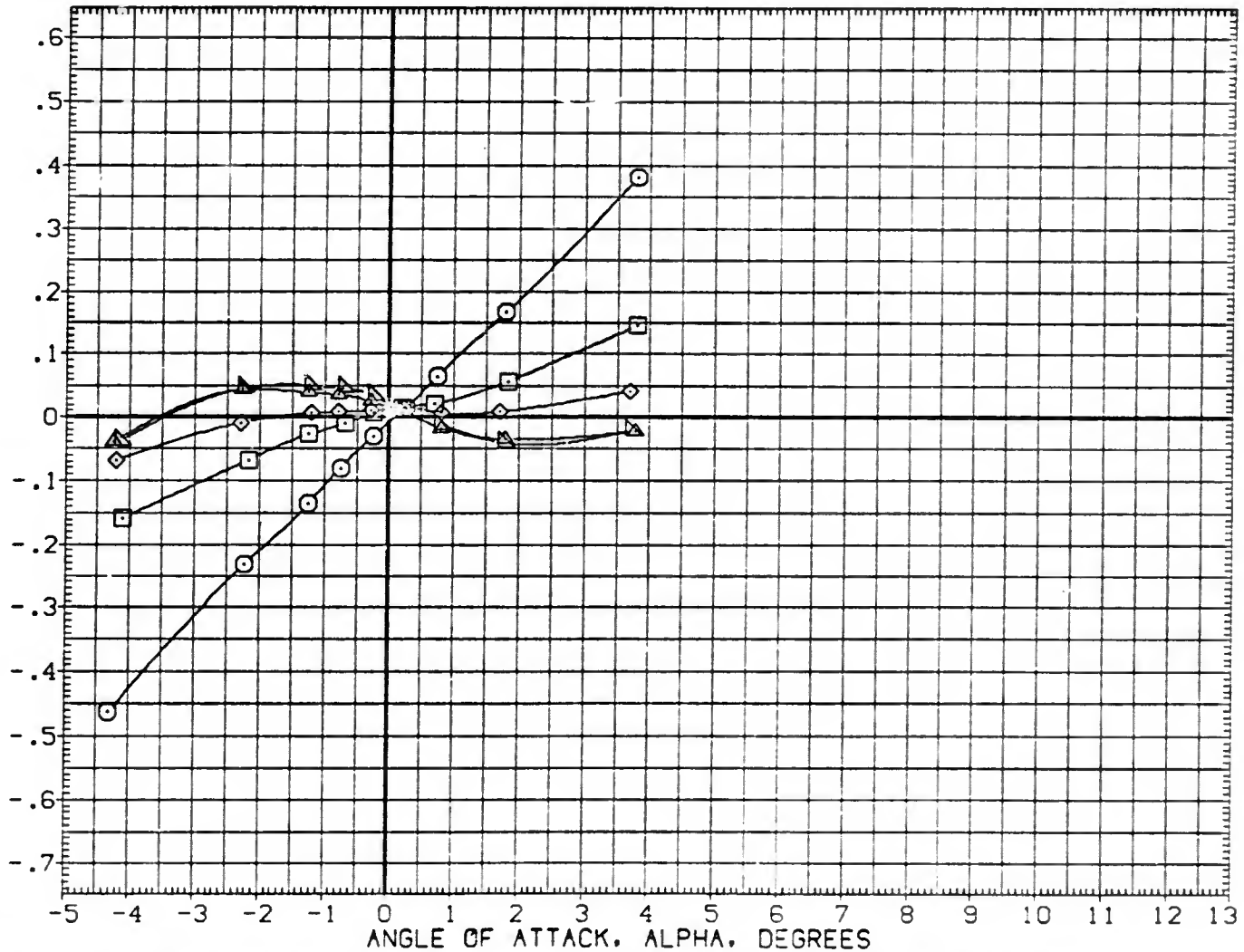


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8061)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	.000
□	2.719	MACH	1.000		
◇	4.216				
△	6.081				
▽	7.322				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8062)

SYMBOL	CRT
○	.013
□	2.513
◇	4.279
△	5.925
▷	7.246

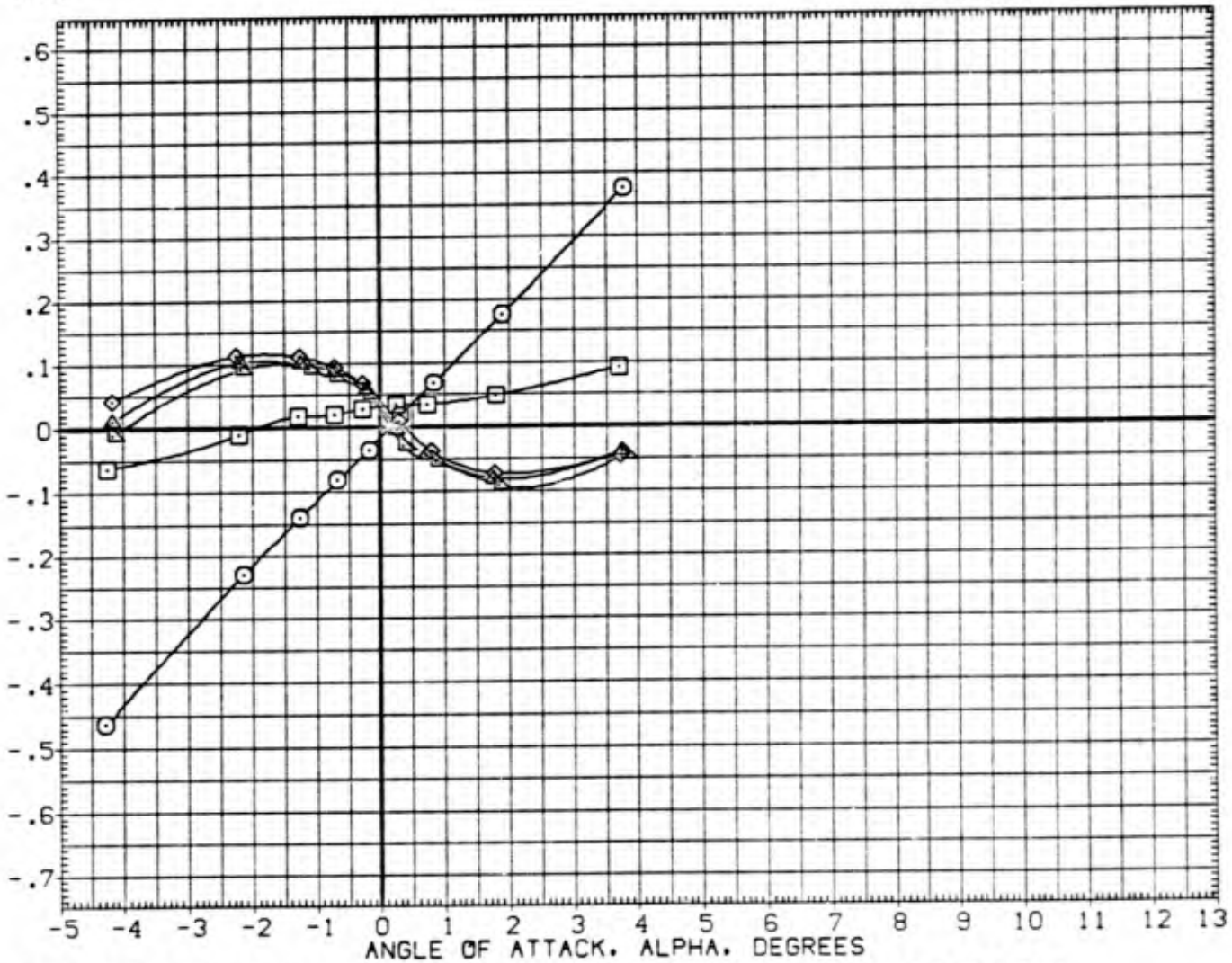
PARAMETRIC VALUES

BETA .000 PHI .000

MACH 1.200

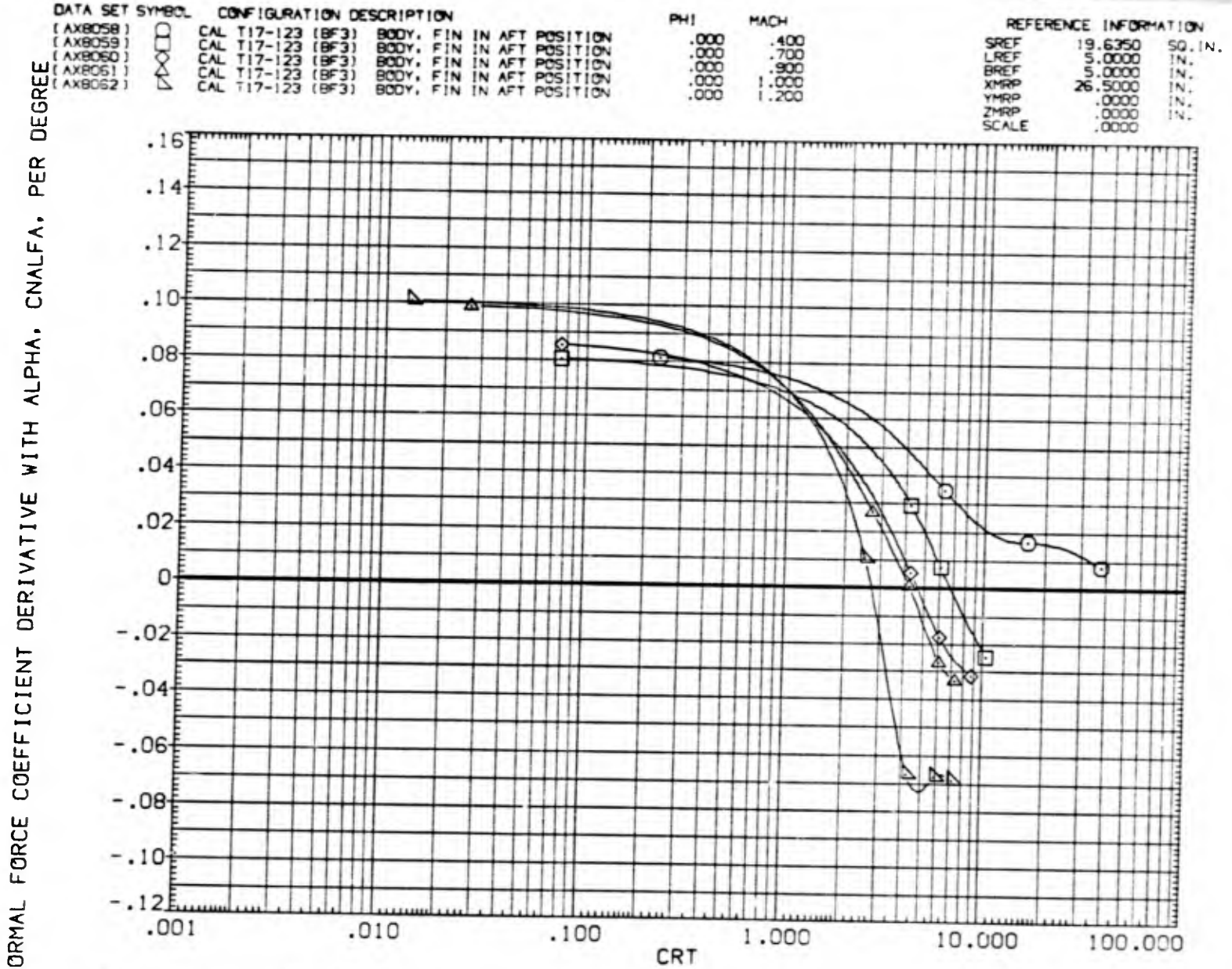
REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



NORMAL FORCE COEFFICIENT, CN

THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION



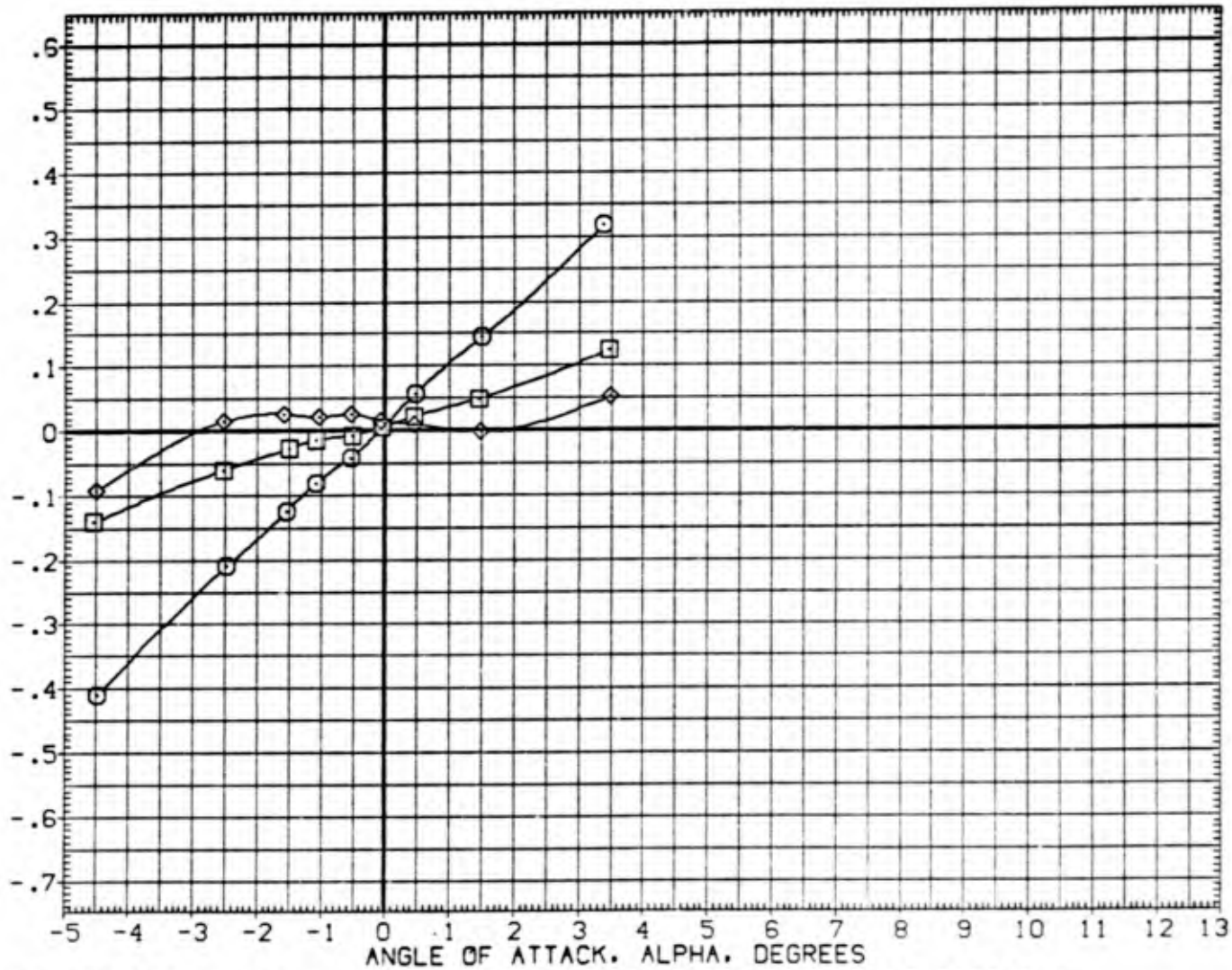
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8063)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.092	BETA	.000	PHI	.000
□	5.952	MACH	.700		
◇	11.155				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



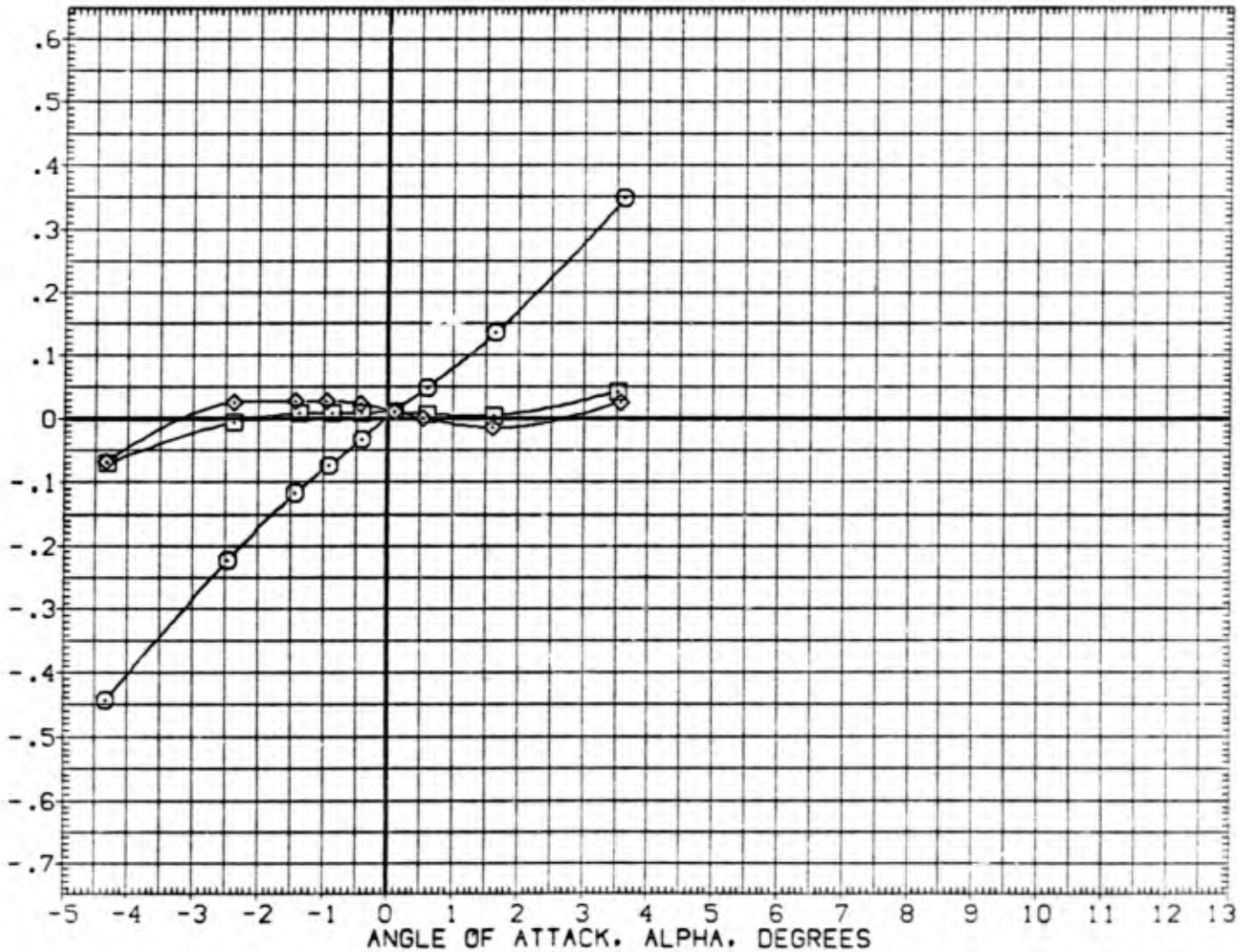
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY. FIN IN AFT POSITION (AX8064)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.069	BETA	.000	PHI	.000
□	5.770	MACH	.900		
◇	8.520				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



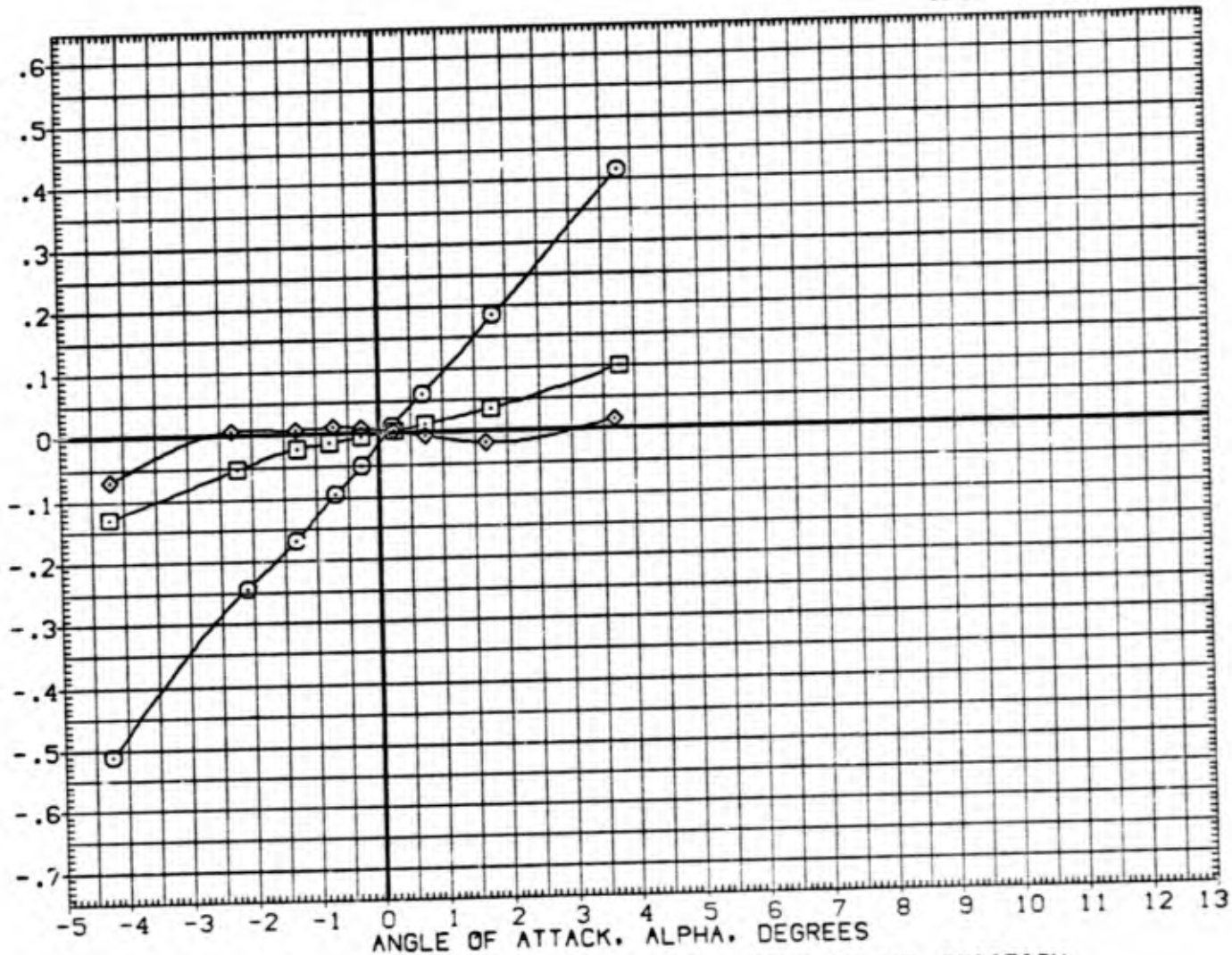
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8055)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.033	BETA	.000	PHI	.000
□	4.084	MACH	1.000		
◇	5.854				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



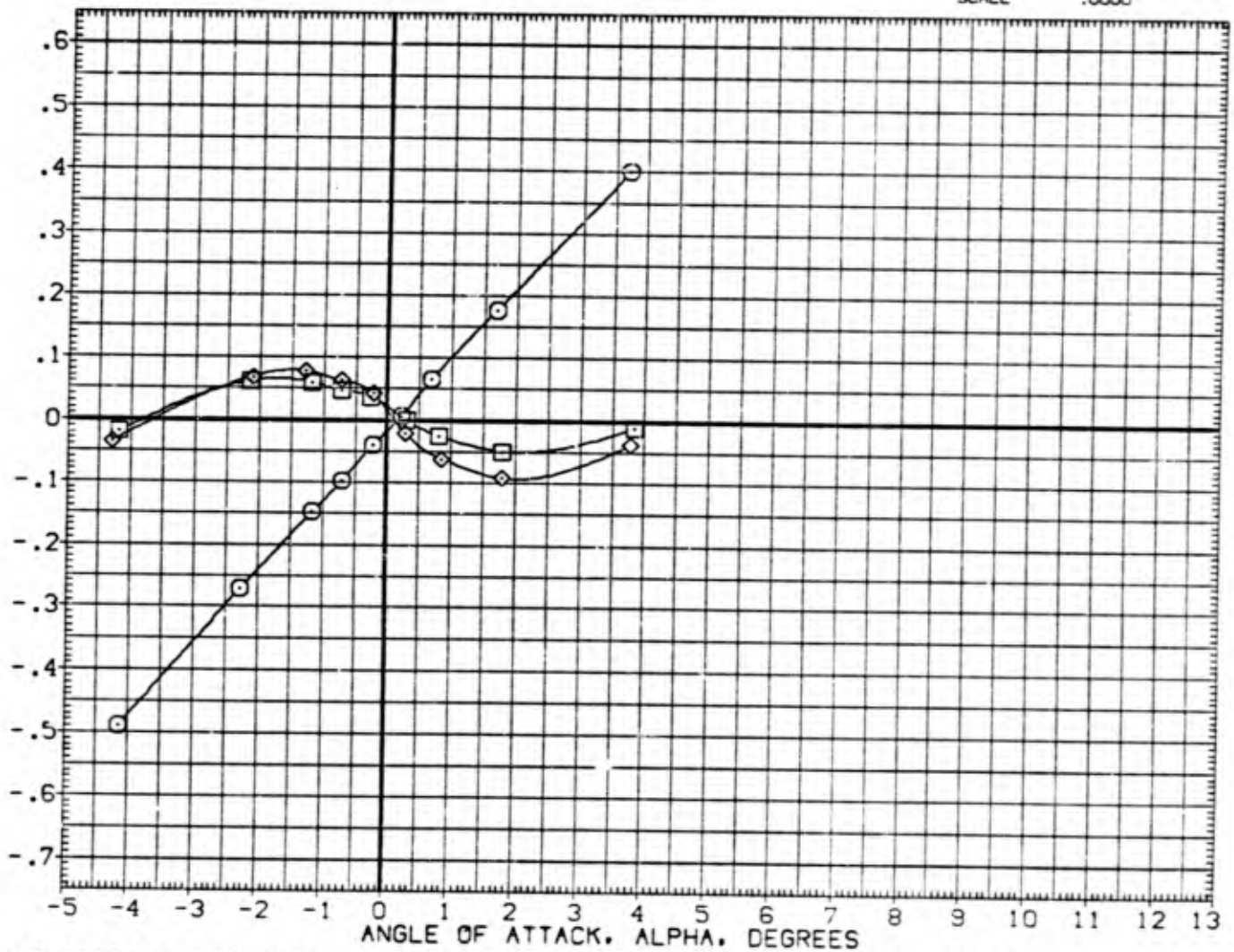
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8066)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.005	BETA	.000	PHI	.000
□	4.273	MACH	1.200		
◇	6.242				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

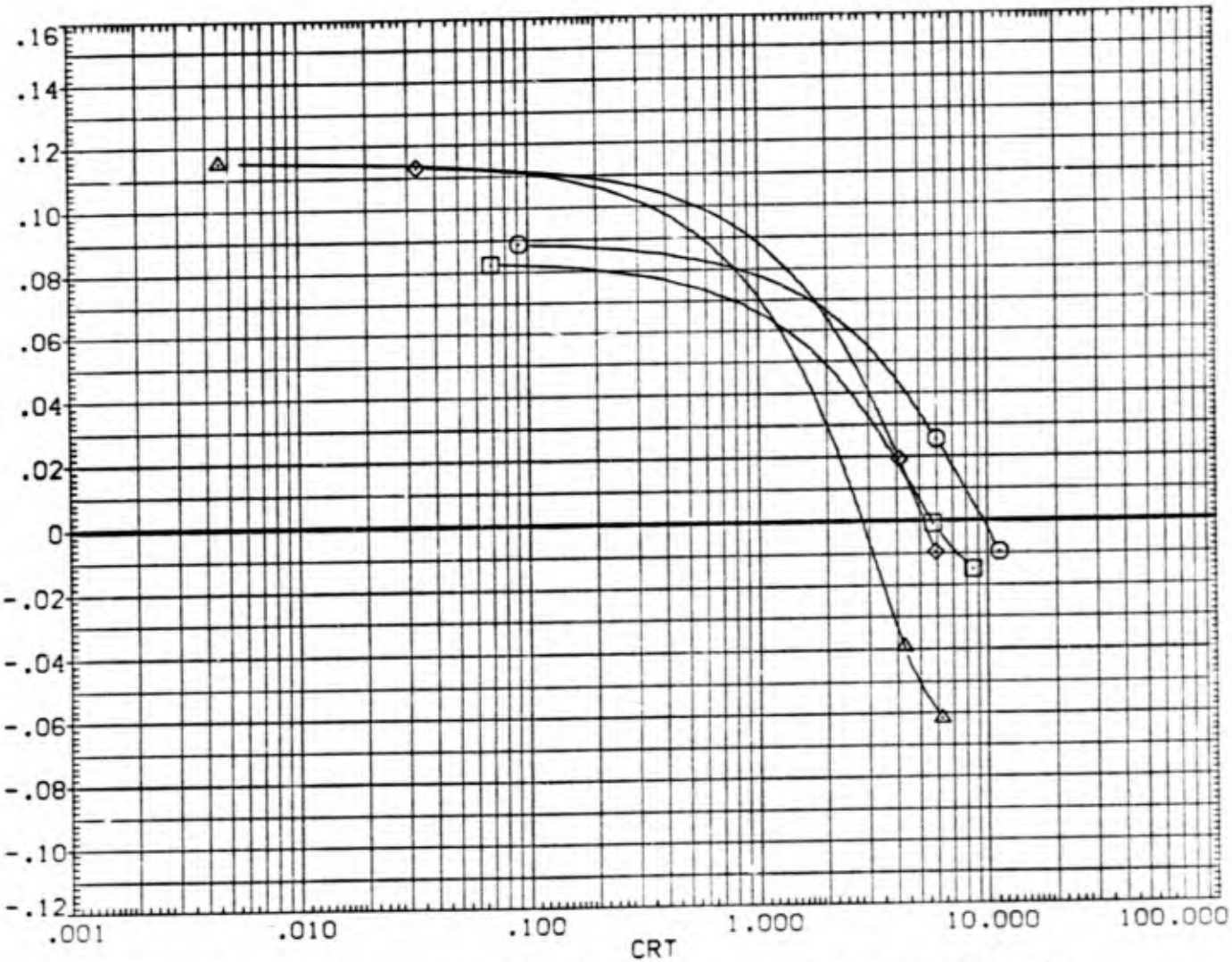


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8063)	□	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	.700
(AX8064)	◇	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	.900
(AX8065)	○	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	1.000
(AX8066)	△	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8067)

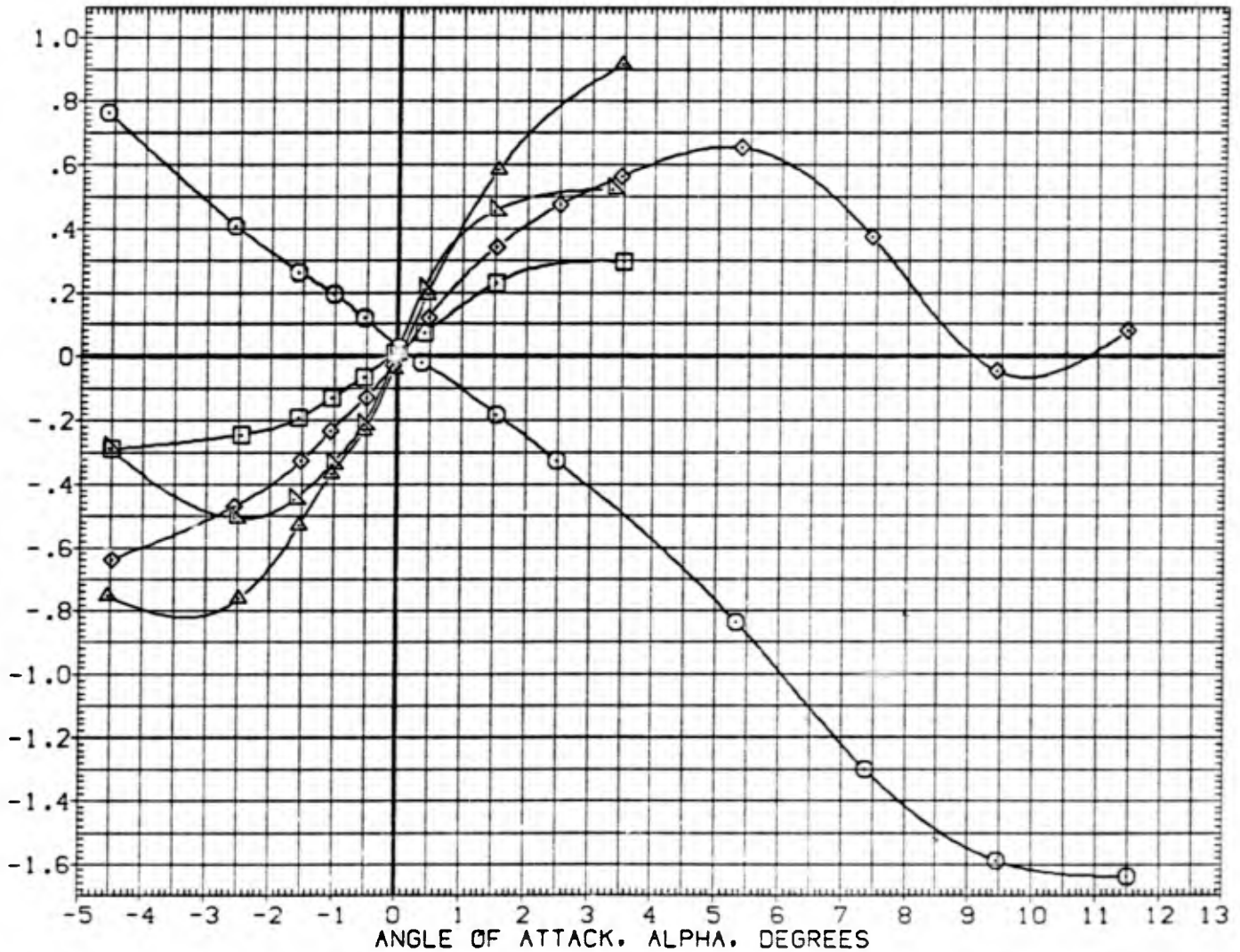
SYMBOL	CRT
○	.035
□	4.159
◇	5.788
△	10.526
▽	21.283

PARAMETRIC VALUES

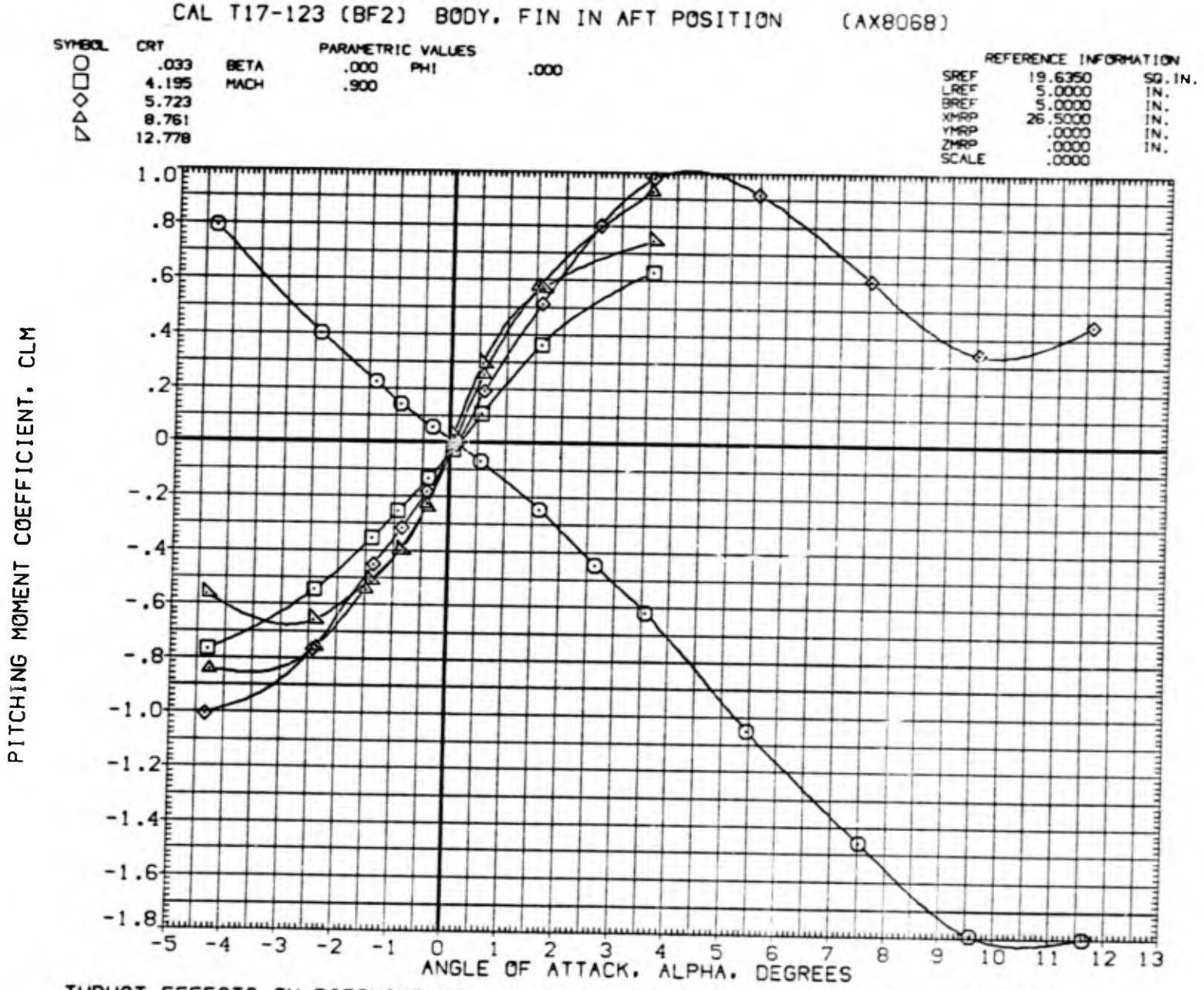
BETA	.000	PHI	.000
MACH	.700		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8069)

SYMBOL	CRT
○	.022
□	2.586
◇	4.042
△	6.063
▽	7.435

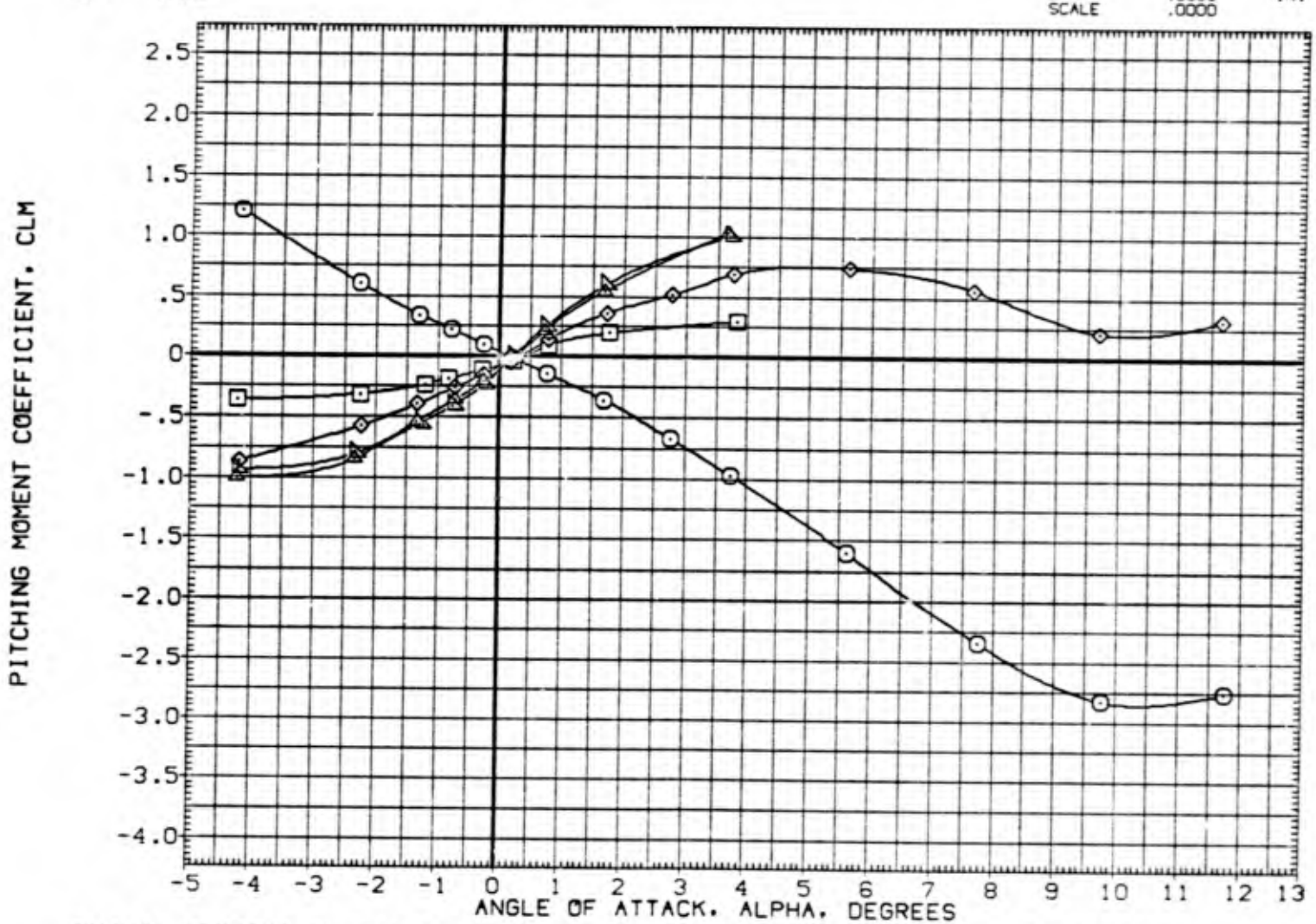
PARAMETRIC VALUES

BETA .000 PHI .000

MACH 1.000

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



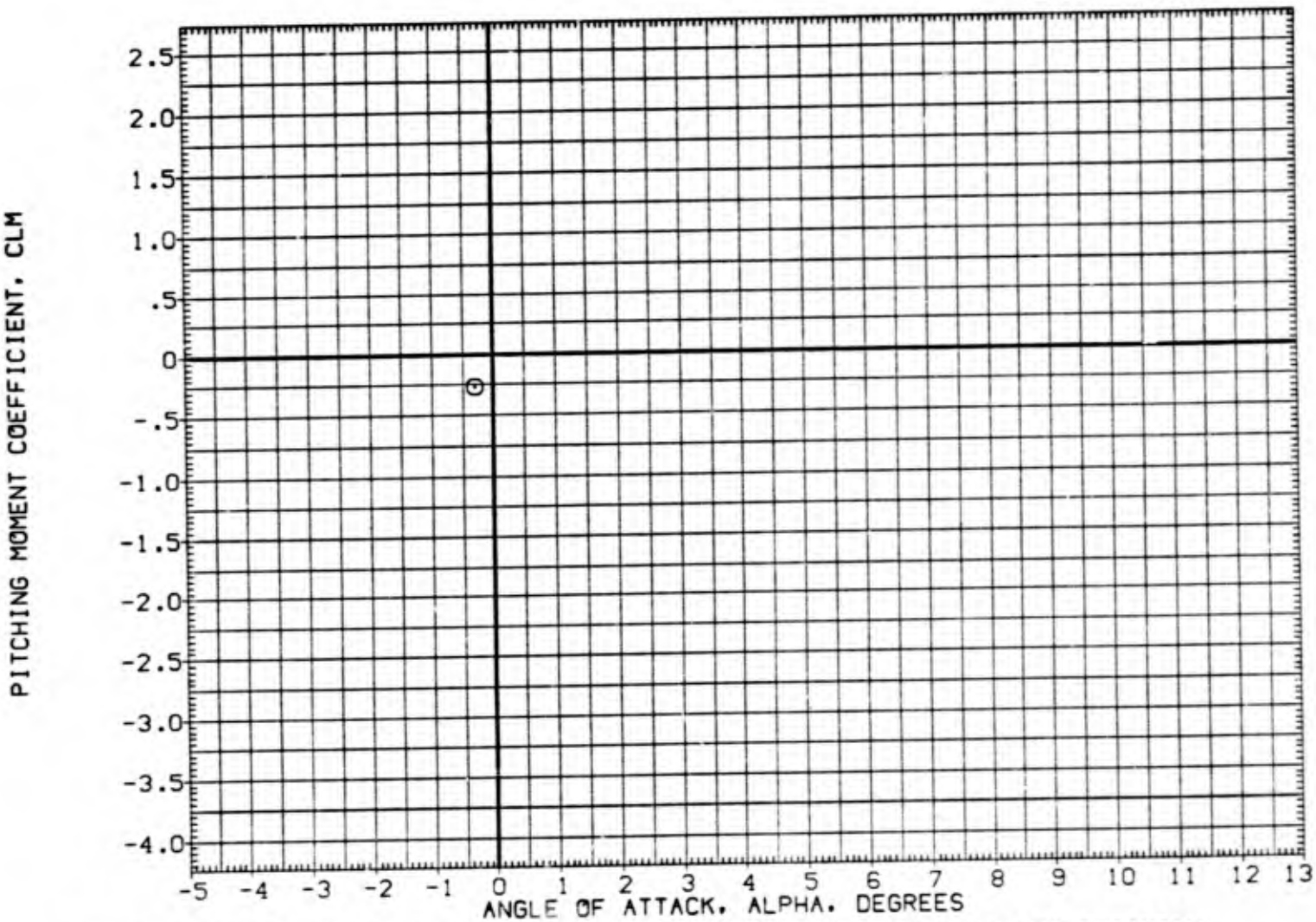
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8069)

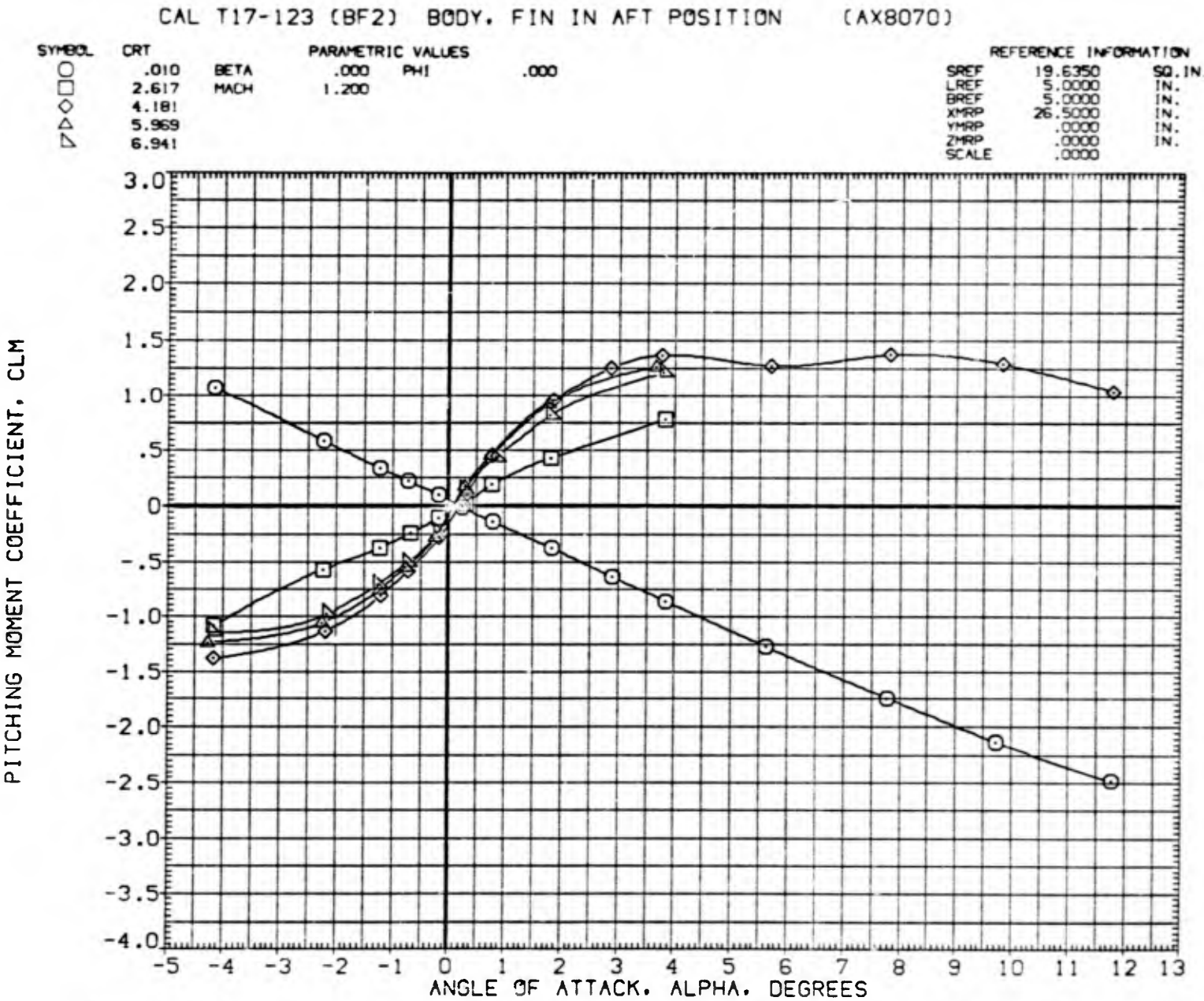
SYMBOL	CRT		PARAMETRIC VALUES		
O	10.859	BETA	.000	PHI	.000
		MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



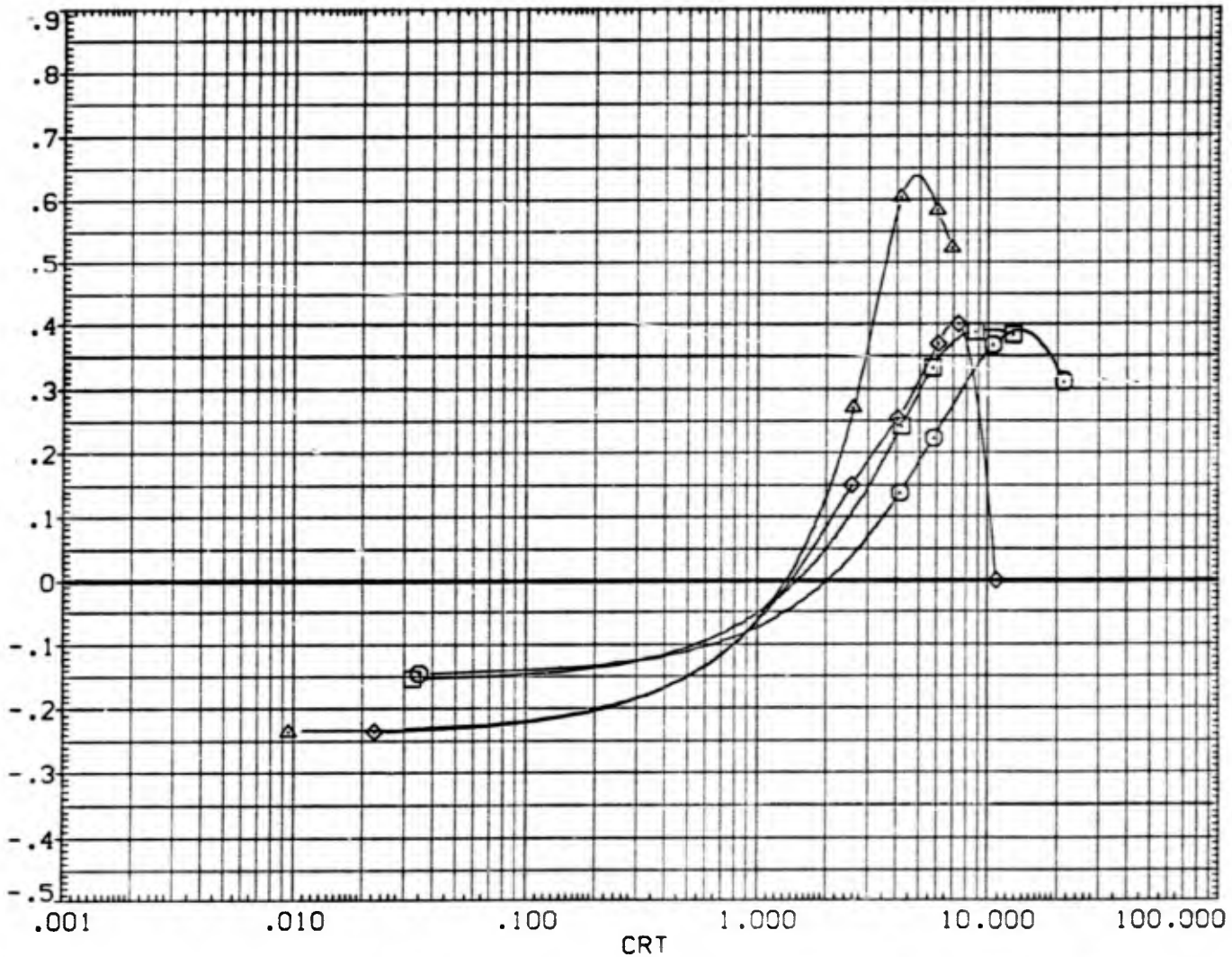
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8067)	□	CAL T17-123 (BF2) BODY, FIN IN AFT POSITION	.000	.700
(AX8068)	□	CAL T17-123 (BF2) BODY, FIN IN AFT POSITION	.000	.900
(AX8069)	◇	CAL T17-123 (BF2) BODY, FIN IN AFT POSITION	.000	1.000
(AX8070)	△	CAL T17-123 (BF2) BODY, FIN IN AFT POSITION	.000	1.200

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



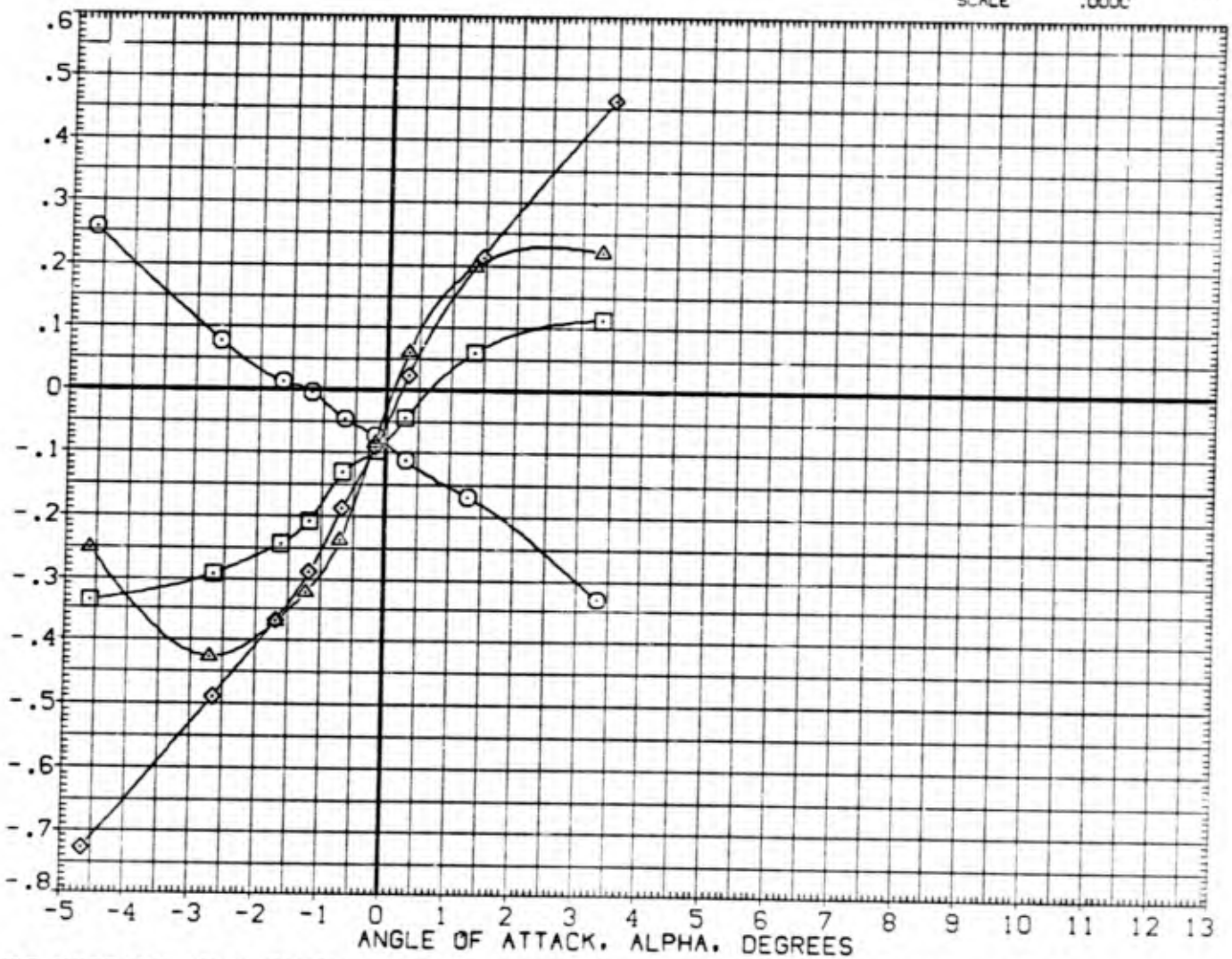
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8058)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.232	BETA	.000	PHI	.000
□	6.206	MACH	.400		
◇	16.272				
△	37.785				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



PITCHING MOMENT COEFFICIENT, CLM

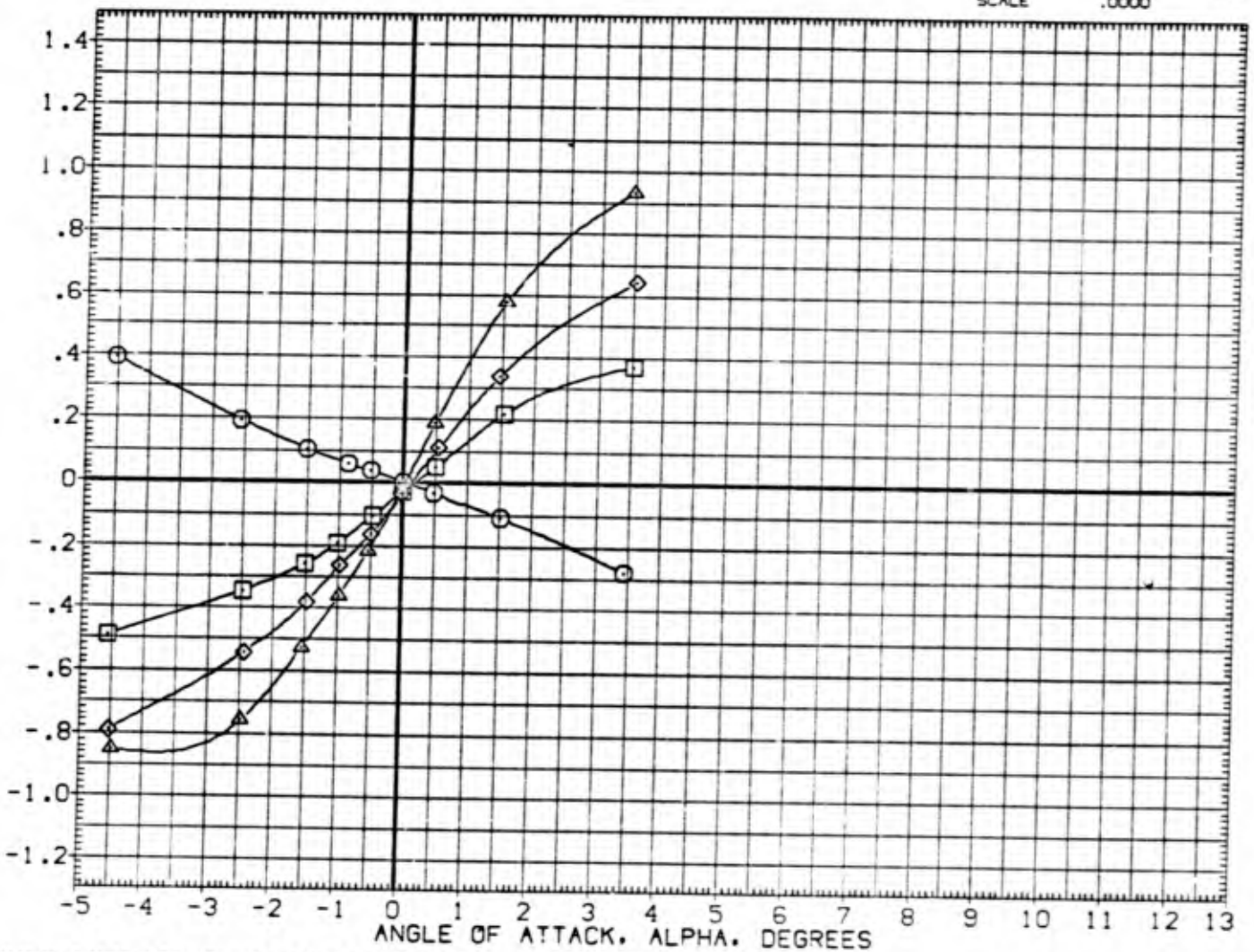
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8059)

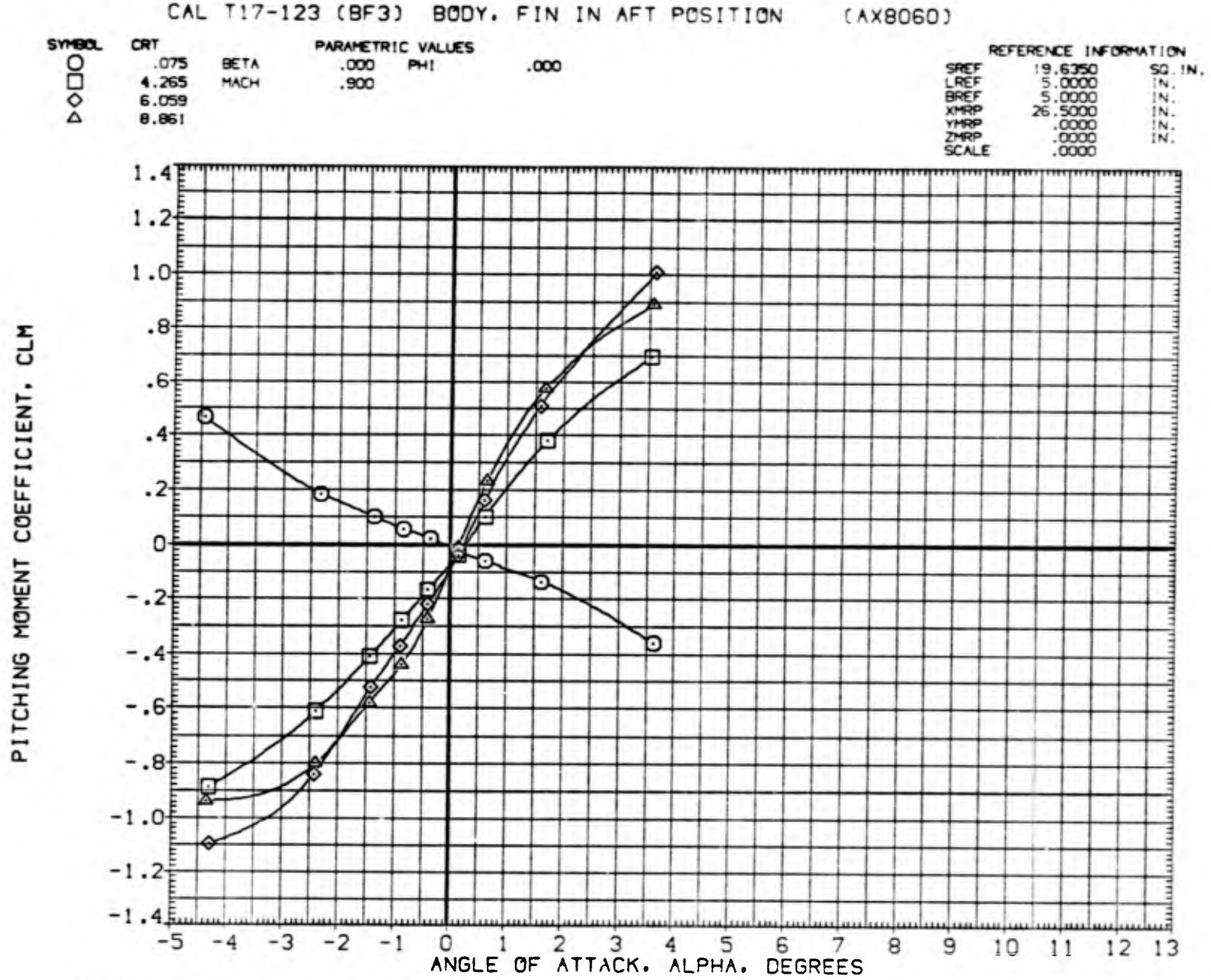
SYMBOL	CRT		PARAMETRIC VALUES		
○	.075	BETA	.000	PHI	.000
□	4.226	MACH	.700		
◇	6.017				
△	10.340				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

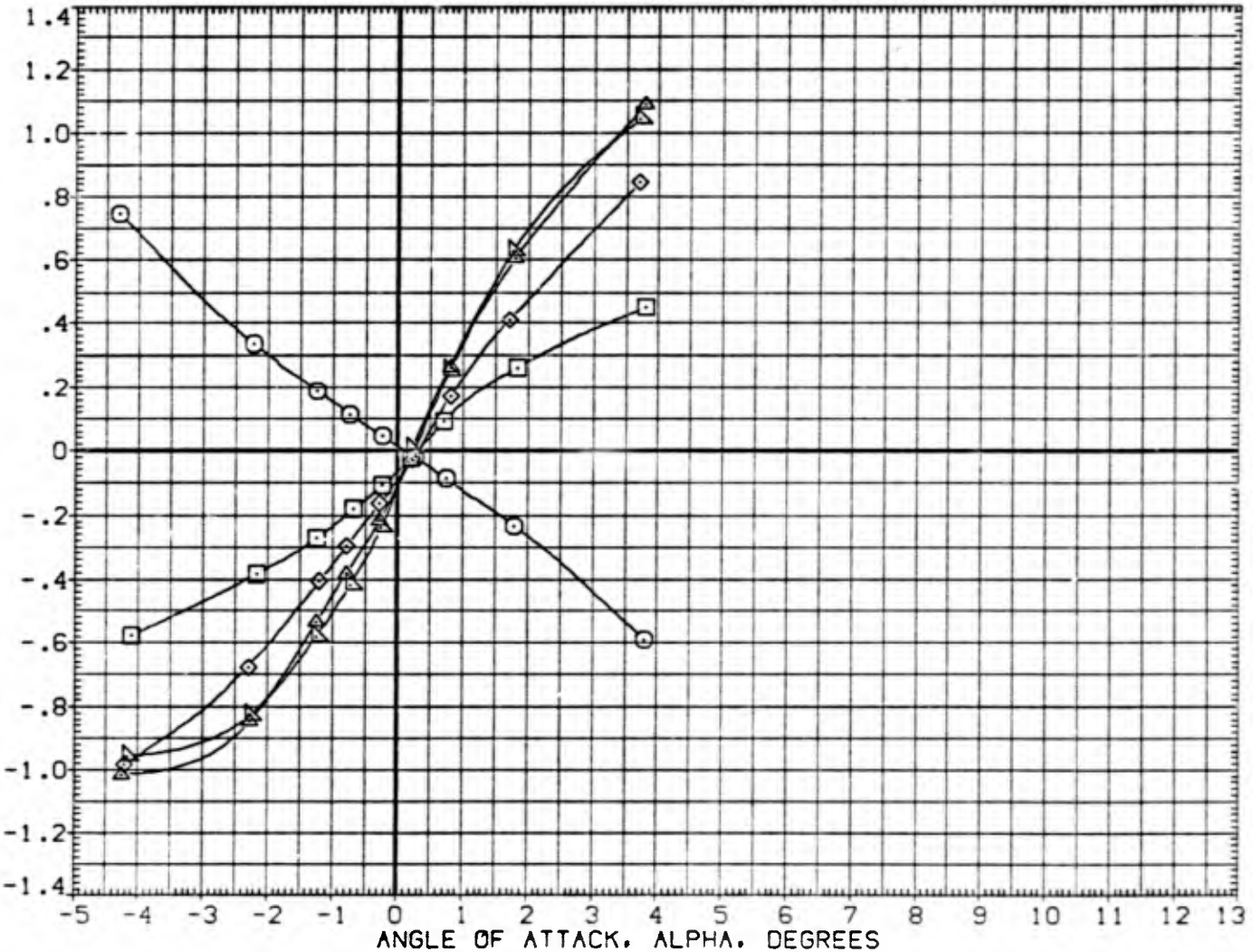


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

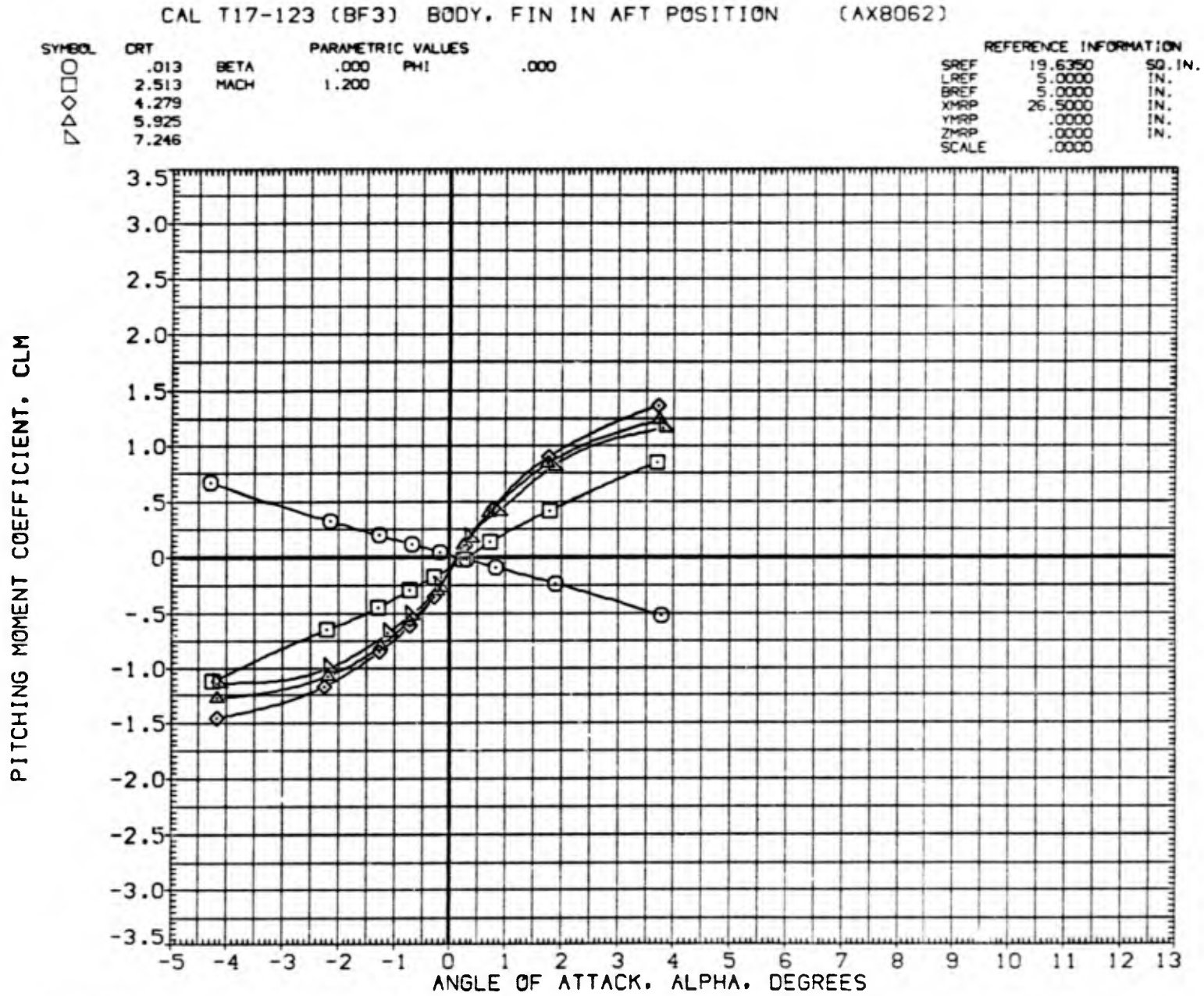
CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8061)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	.000
□	2.719	MACH	1.000		
◇	4.216				
△	6.081				
▽	7.322				

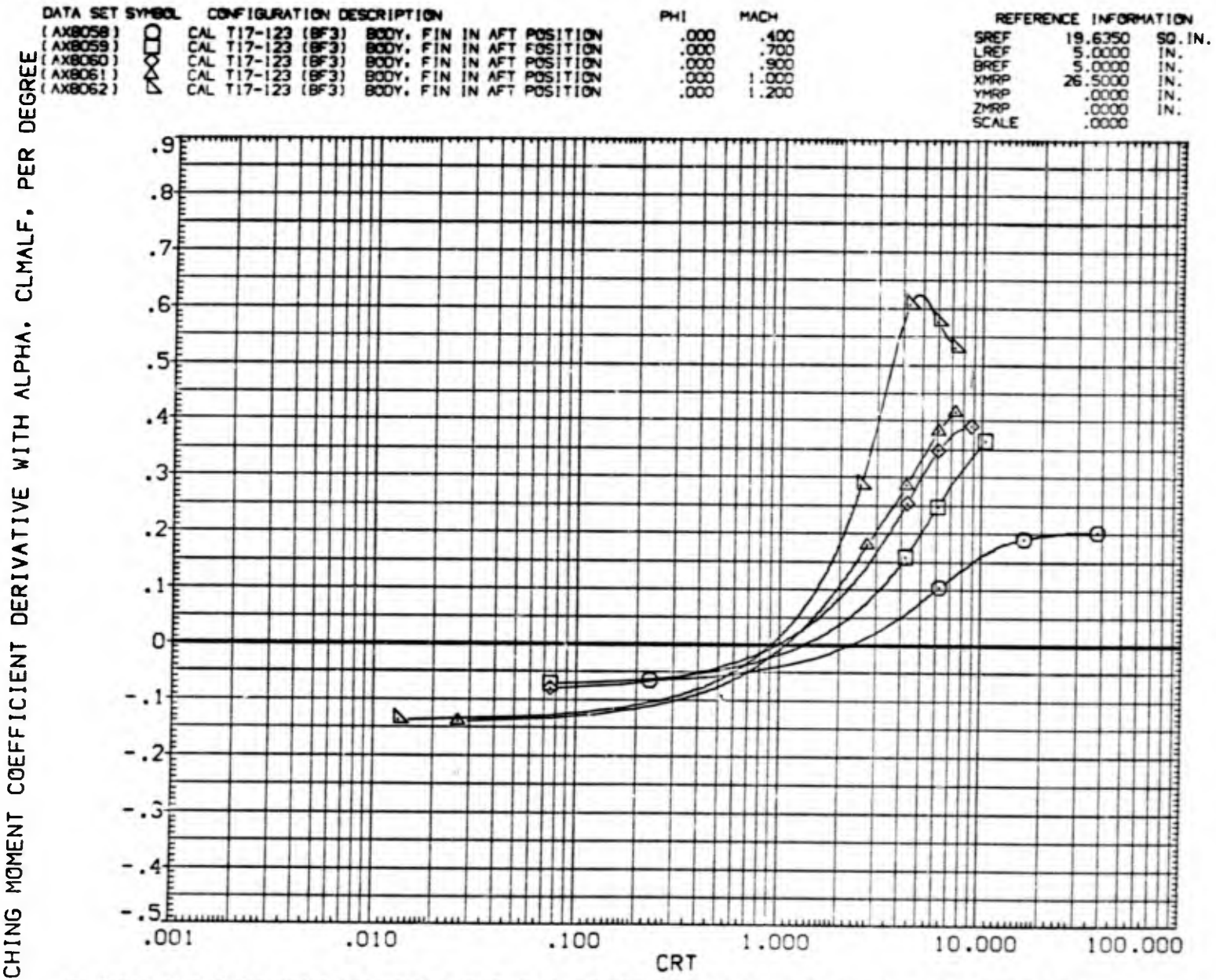
REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION



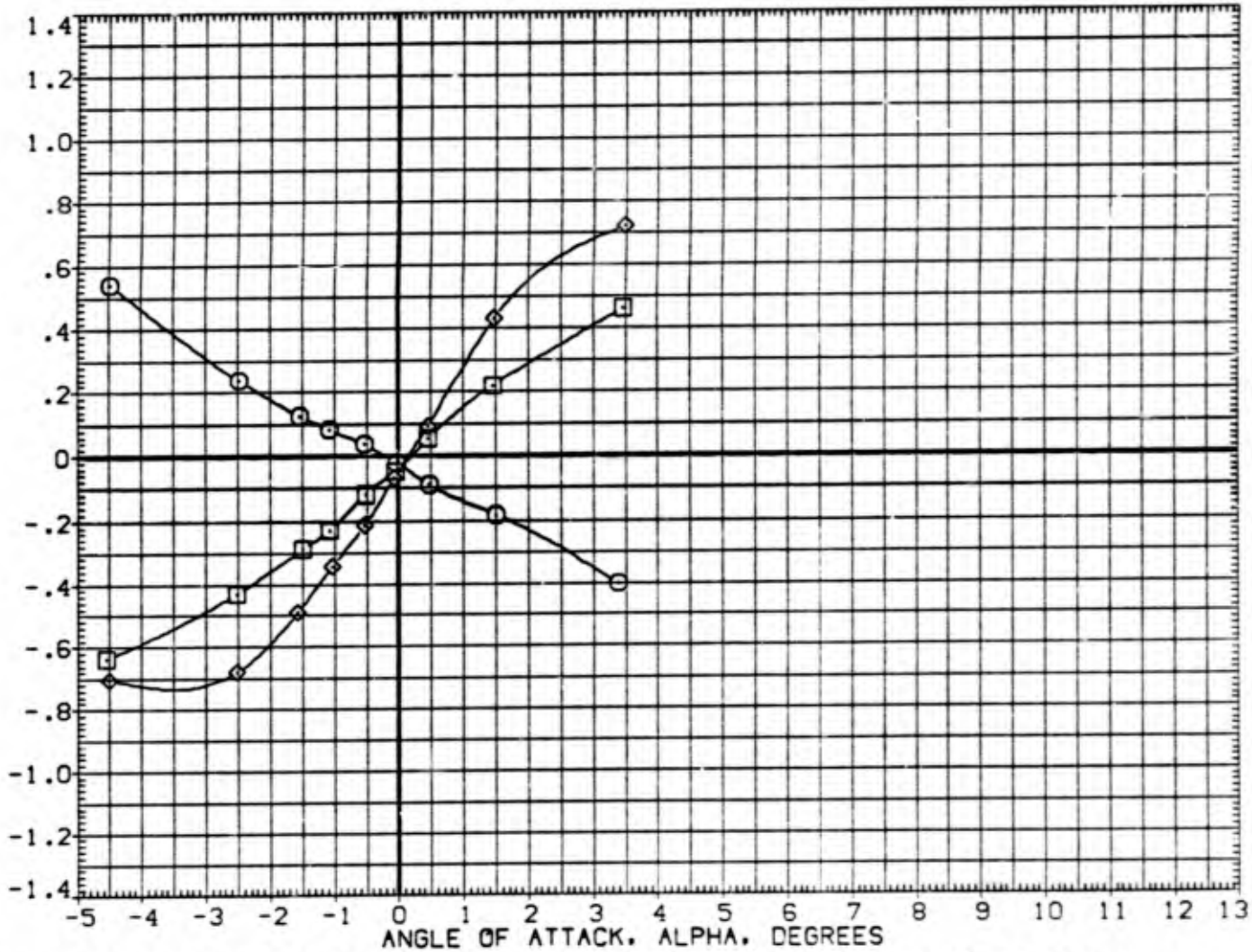
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8063)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.092	BETA	.000	PHI	.000
□	5.952	MACH	.700		
◇	11.155				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



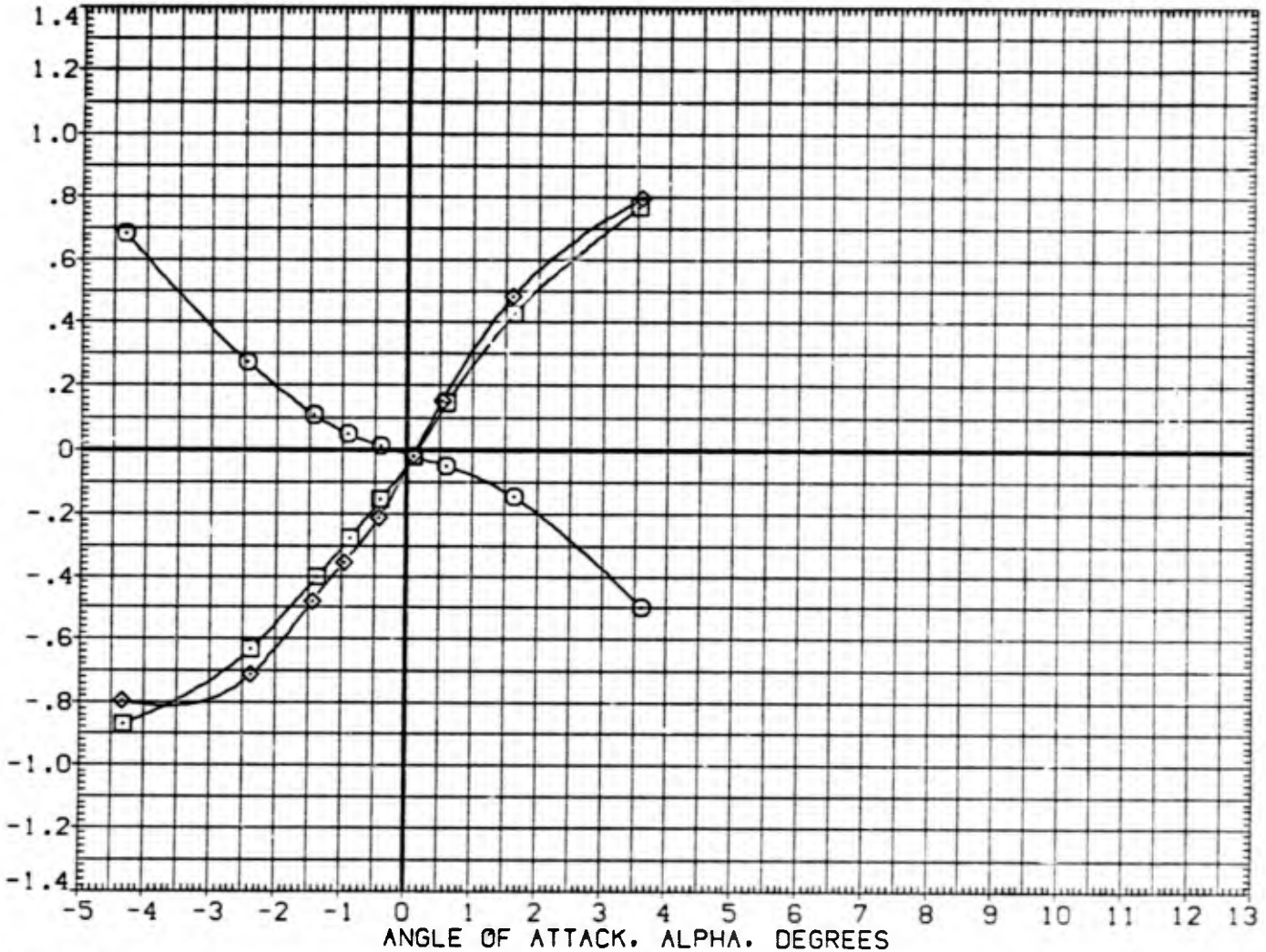
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8064)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.069	BETA	.000	PHI	.000
□	5.770	MACH	.900		
◇	8.520				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



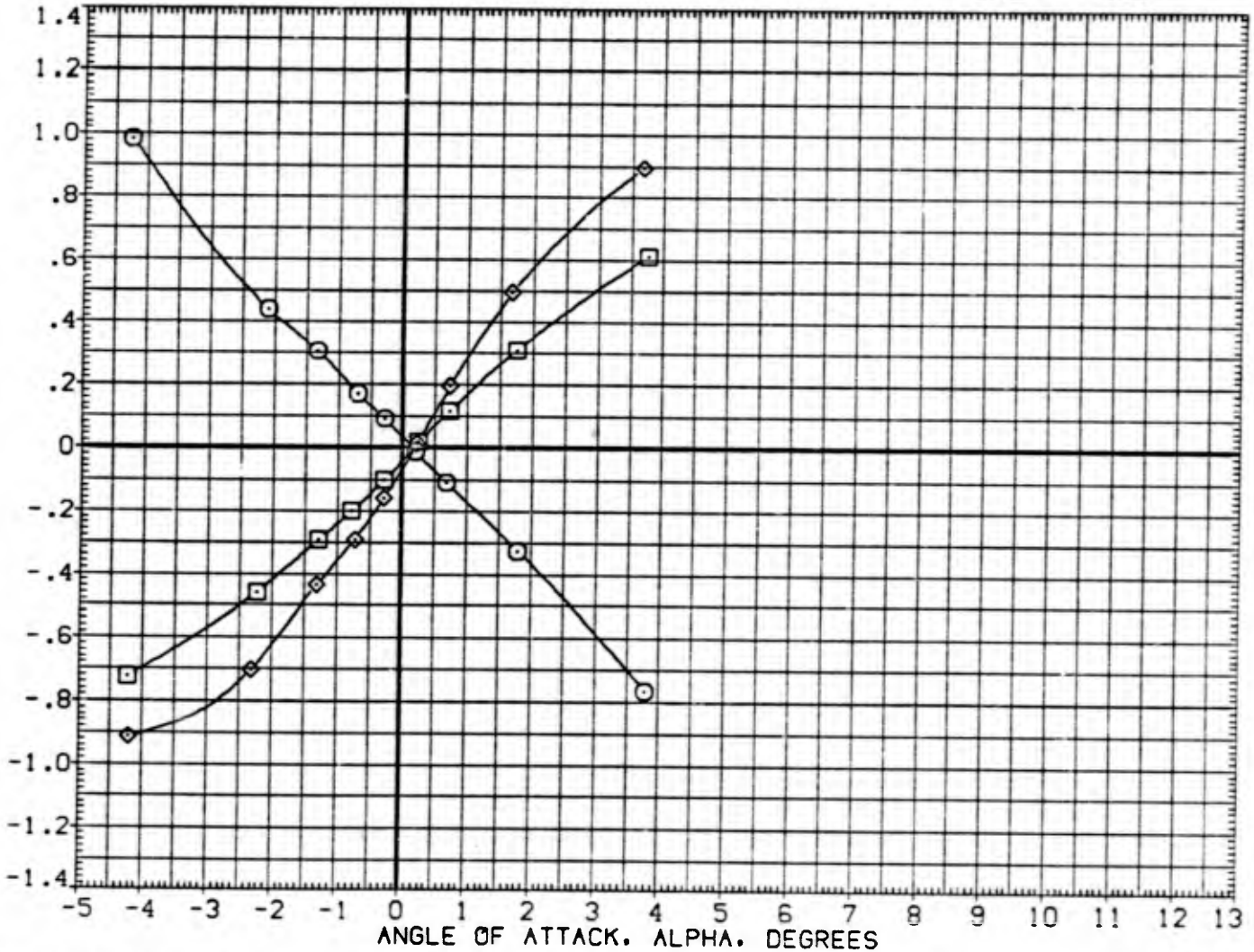
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8065)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.033	BETA	.000	PHI	.000
□	4.084	MACH	1.000		
◇	5.854				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



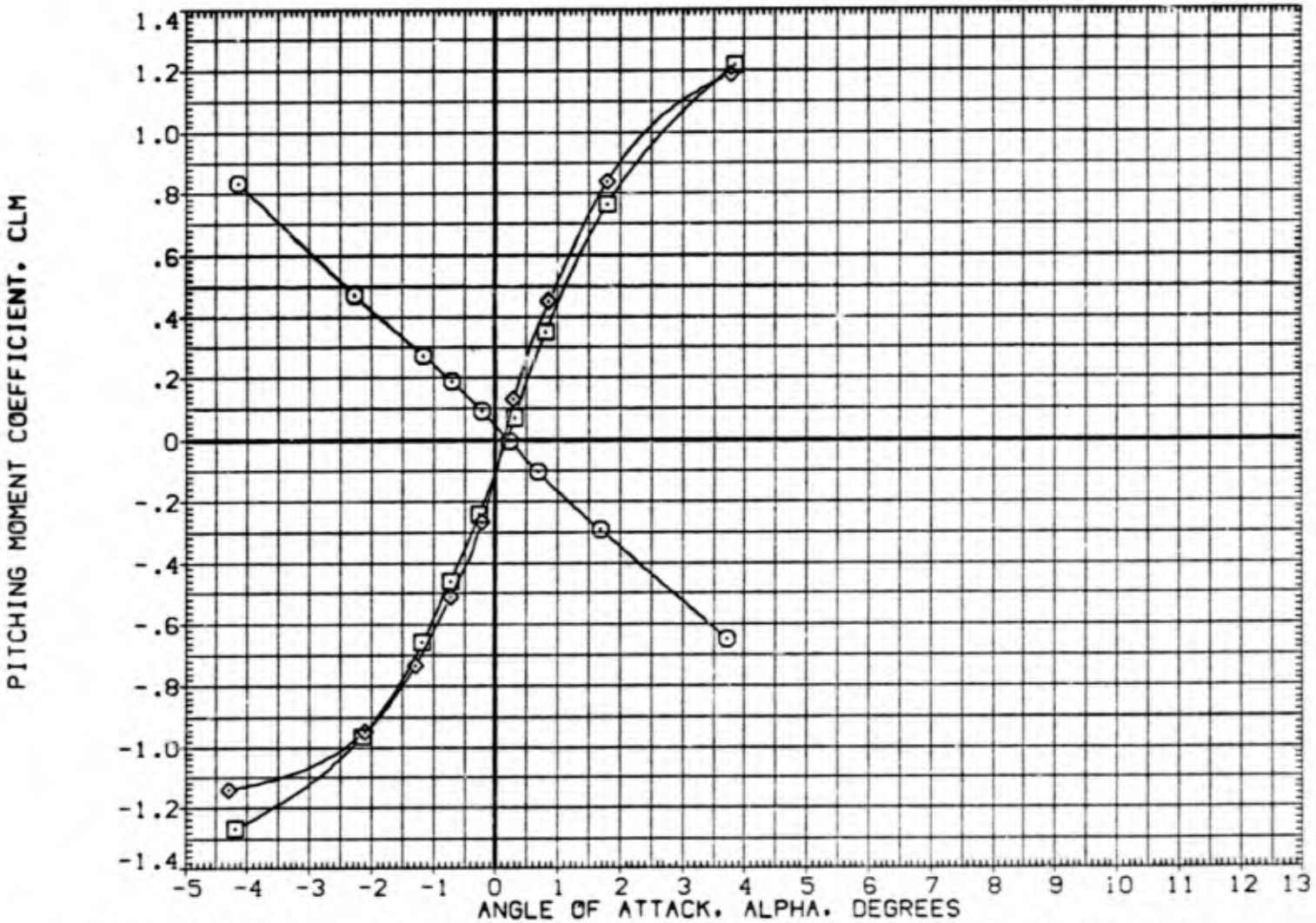
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8066)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.005	BETA	.000	PHI	.000
□	4.273	MACH	1.200		
◇	6.242				

REFERENCE INFORMATION

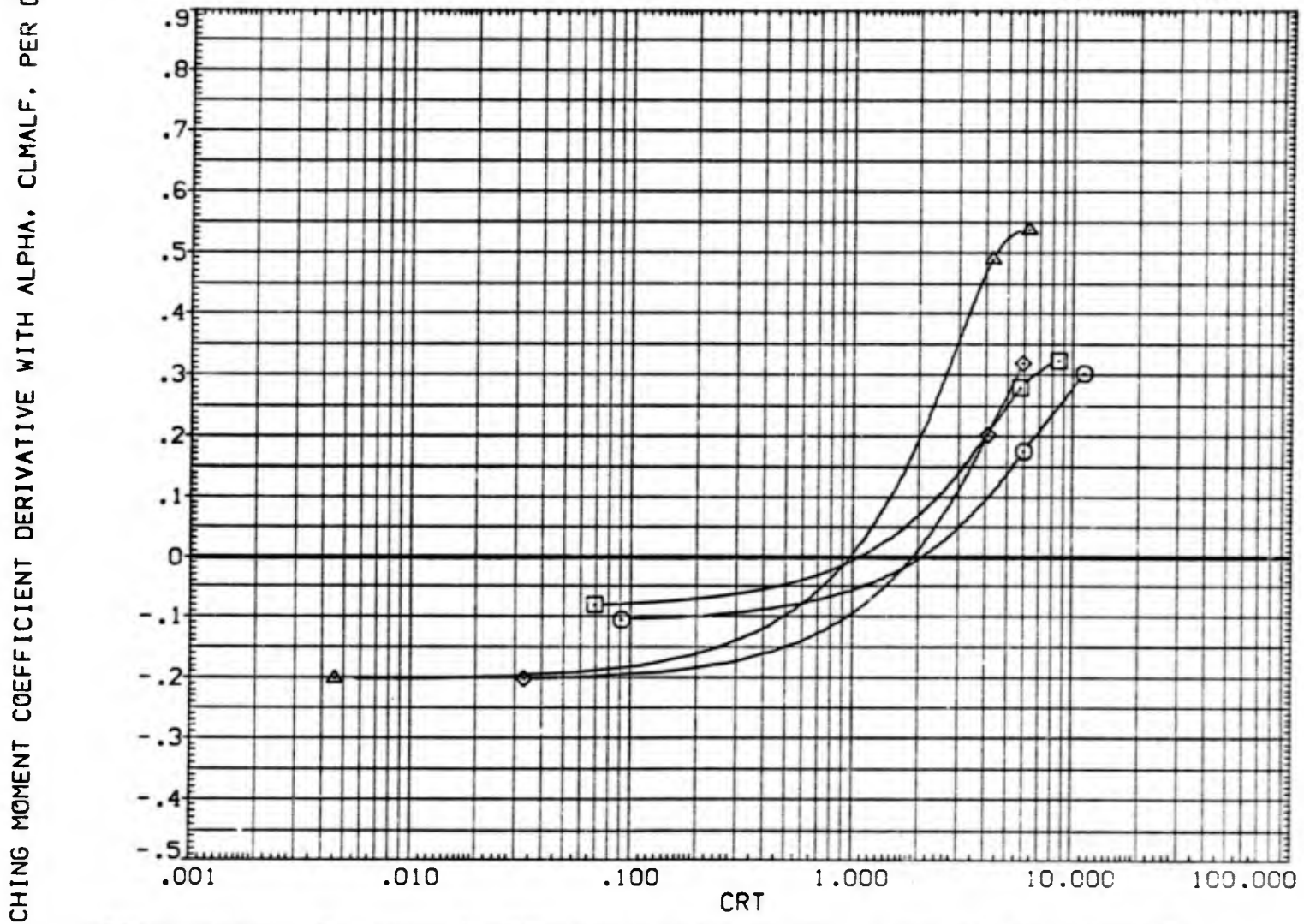
SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8063)	○	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	.700
(AX8064)	□	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	.900
(AX8065)	◇	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	1.000
(AX8066)	△	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	1.200

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

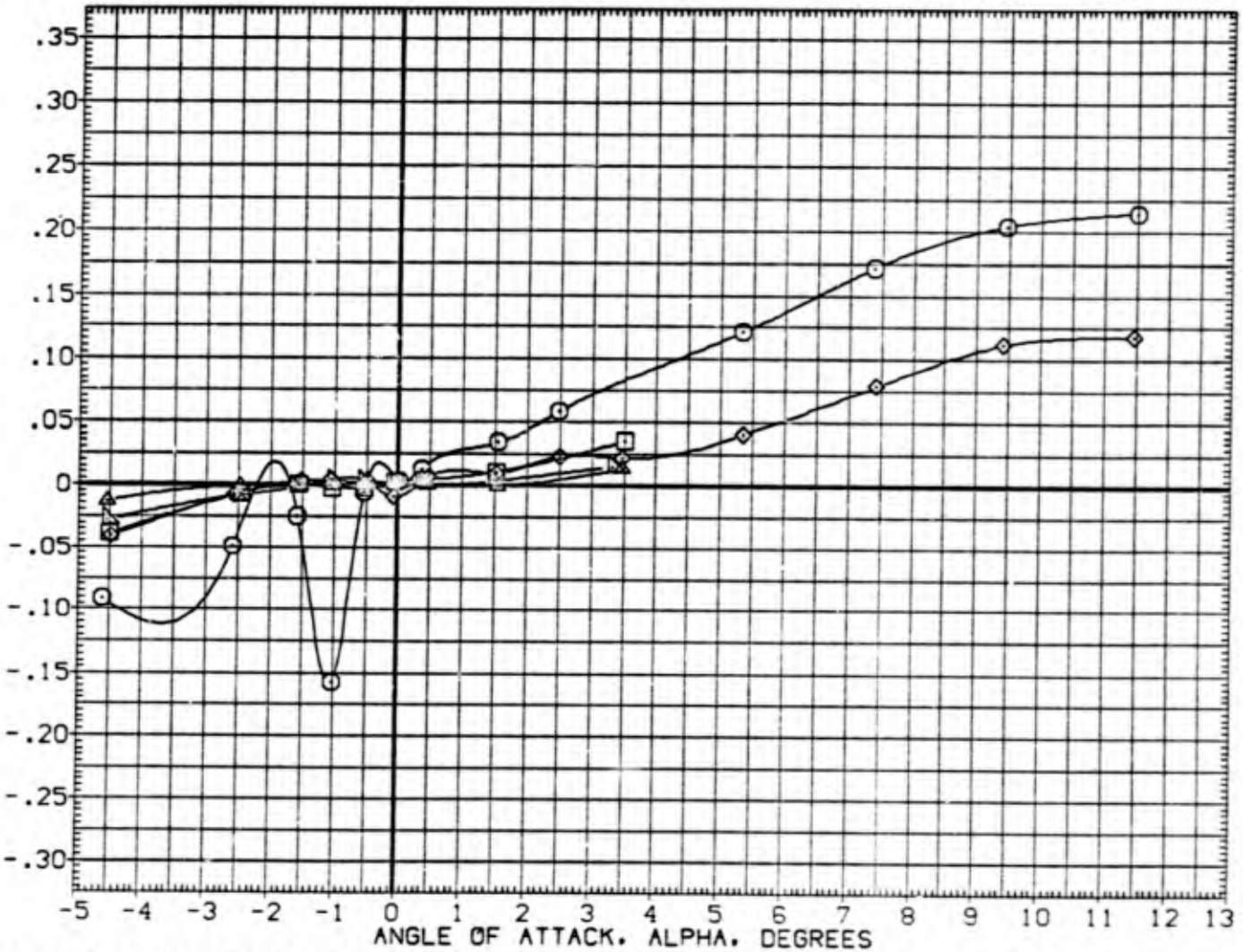


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN AFT POSITION

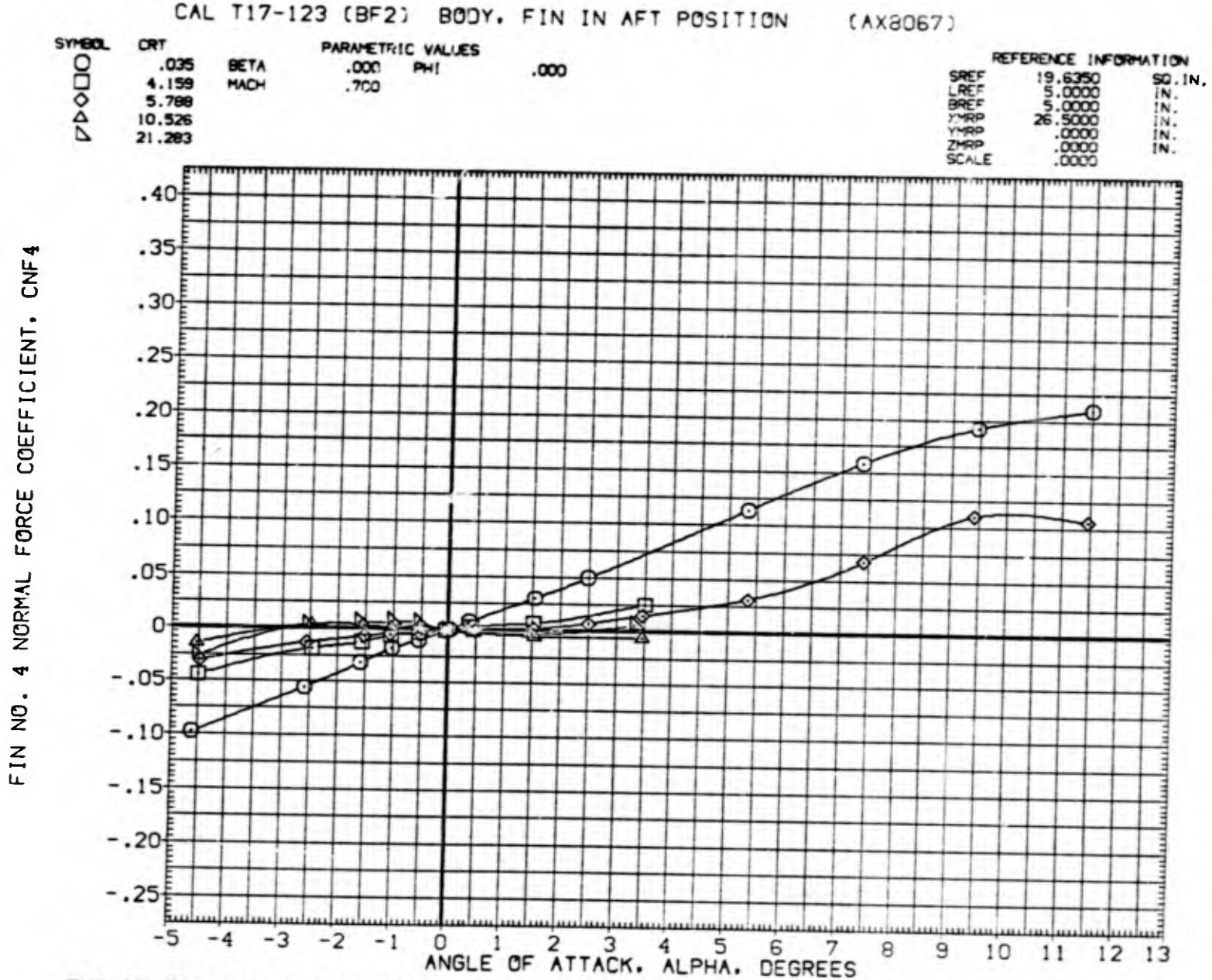
CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8067)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	.000
□	4.159	MACH	.700		
◇	5.788				
△	10.526				
▷	21.283				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8068)

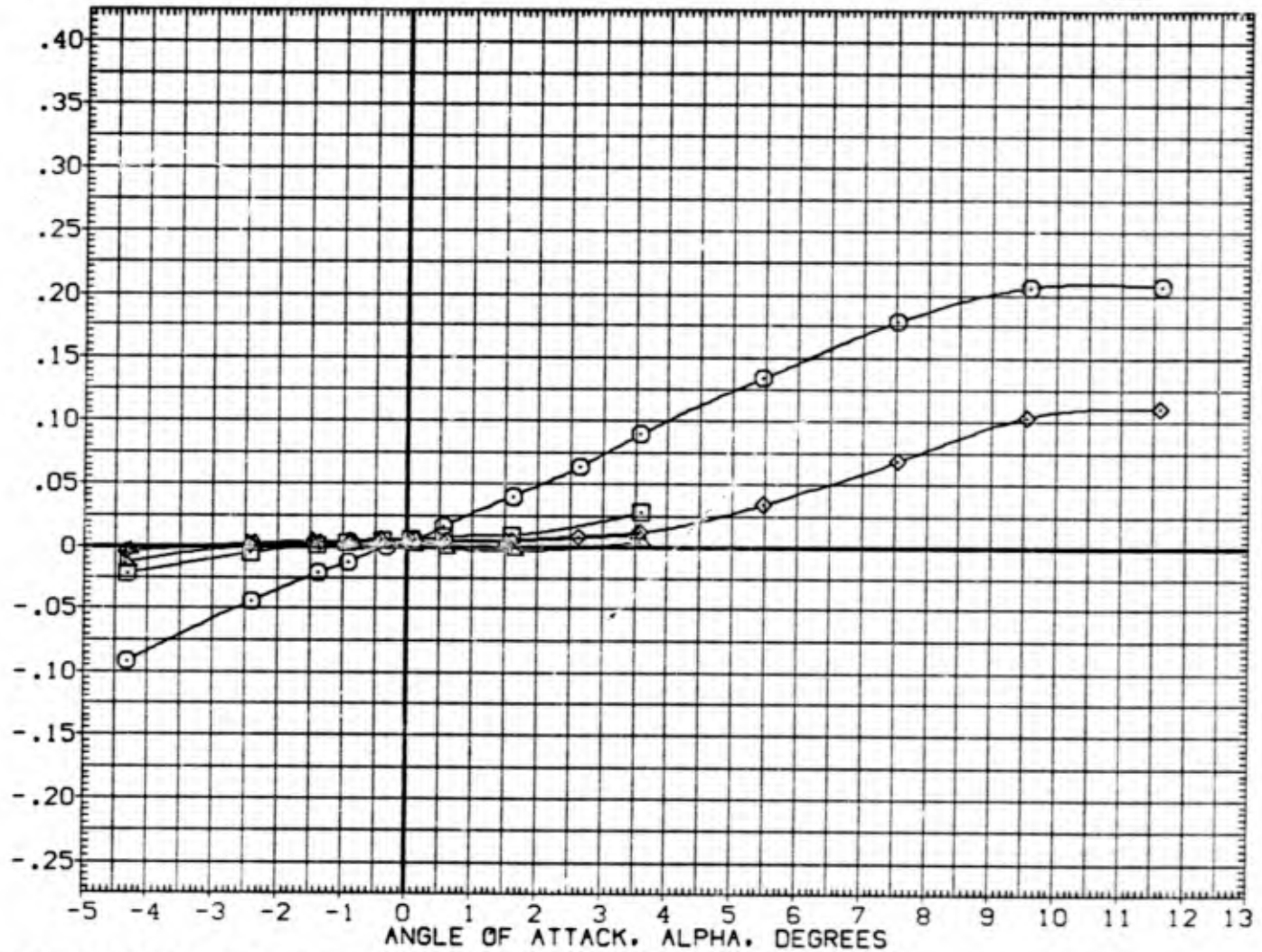
SYMBOL	CRT
○	.033
□	4.195
◇	5.723
△	8.761
▷	12.778

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

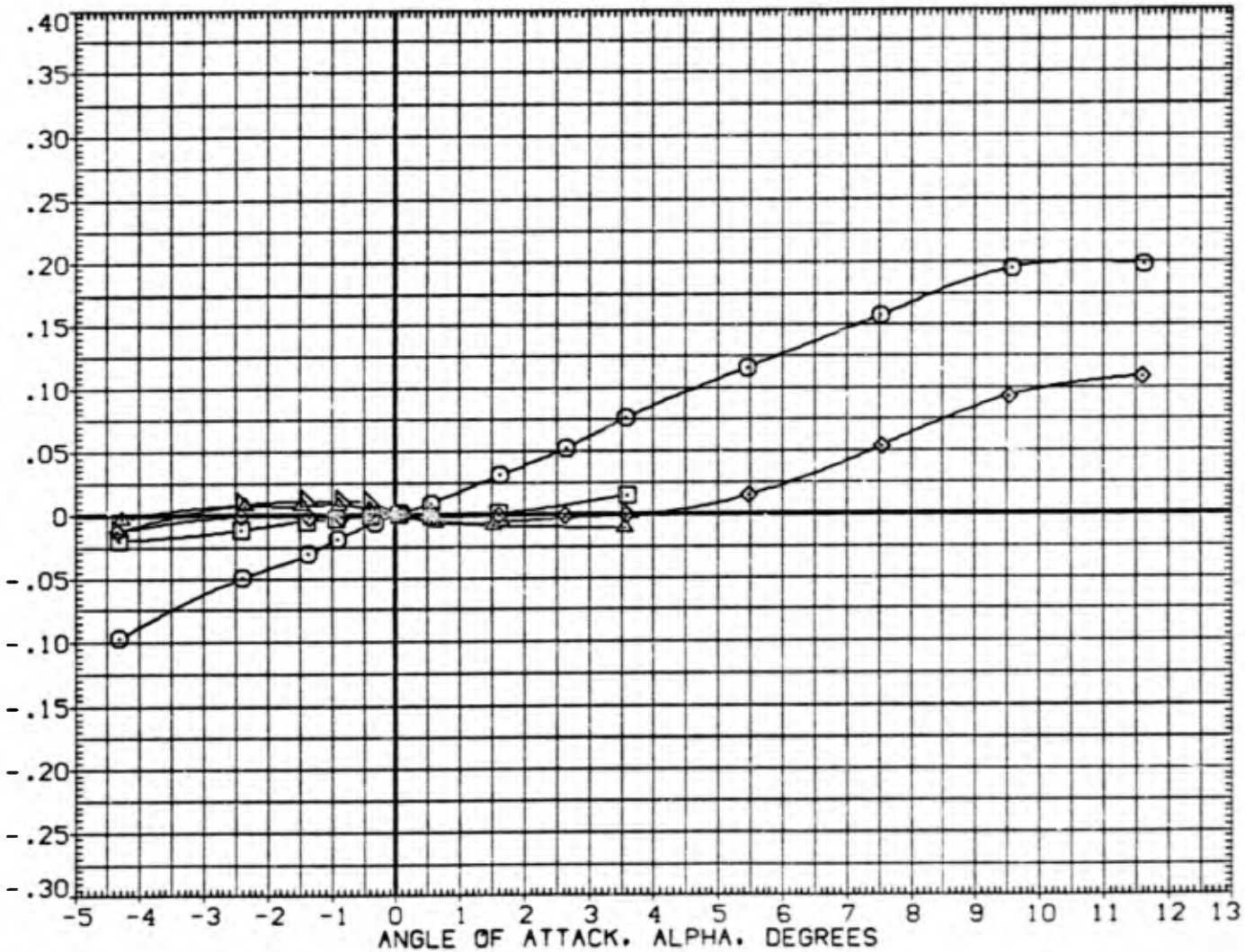


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8068)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.033	BETA	.000	PHI	.000
□	4.195	MACH	.900		
◇	5.723				
△	8.761				
△	12.778				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8069)

SYMBOL	CRT
○	.022
□	2.586
◇	4.042
△	6.063
▽	7.435

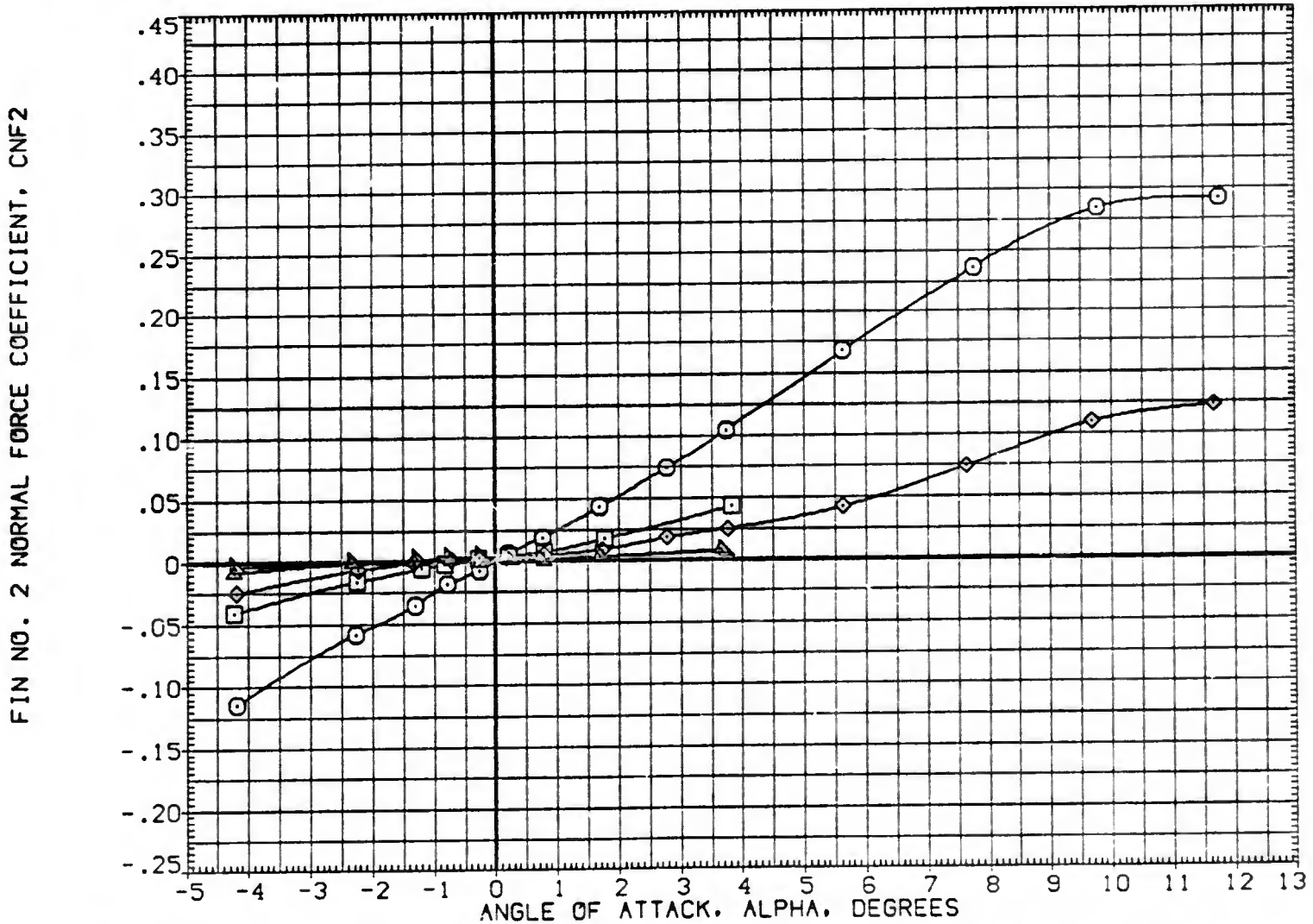
PARAMETRIC VALUES

BETA .000 PHI .000

MACH 1.000

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



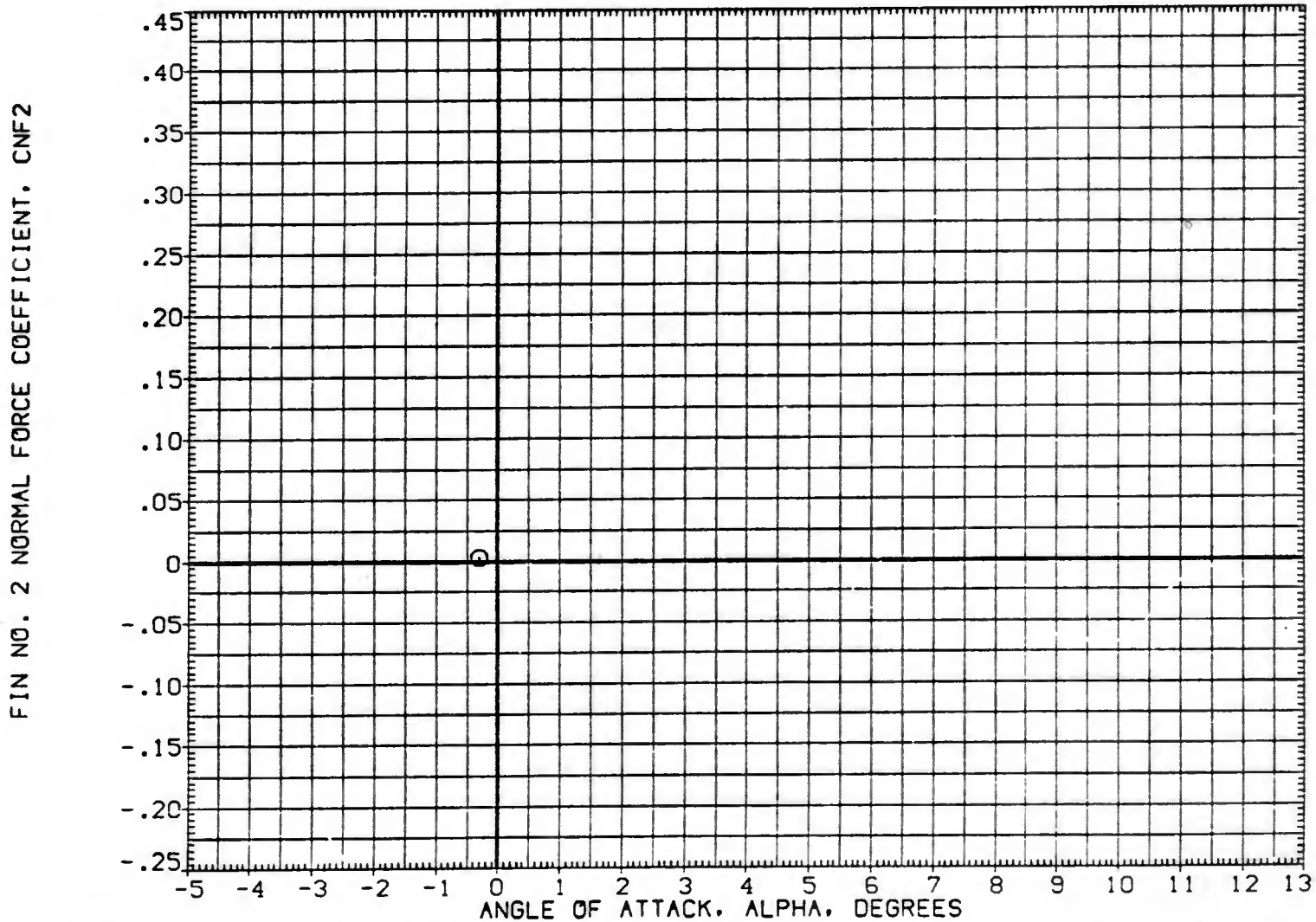
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8069)

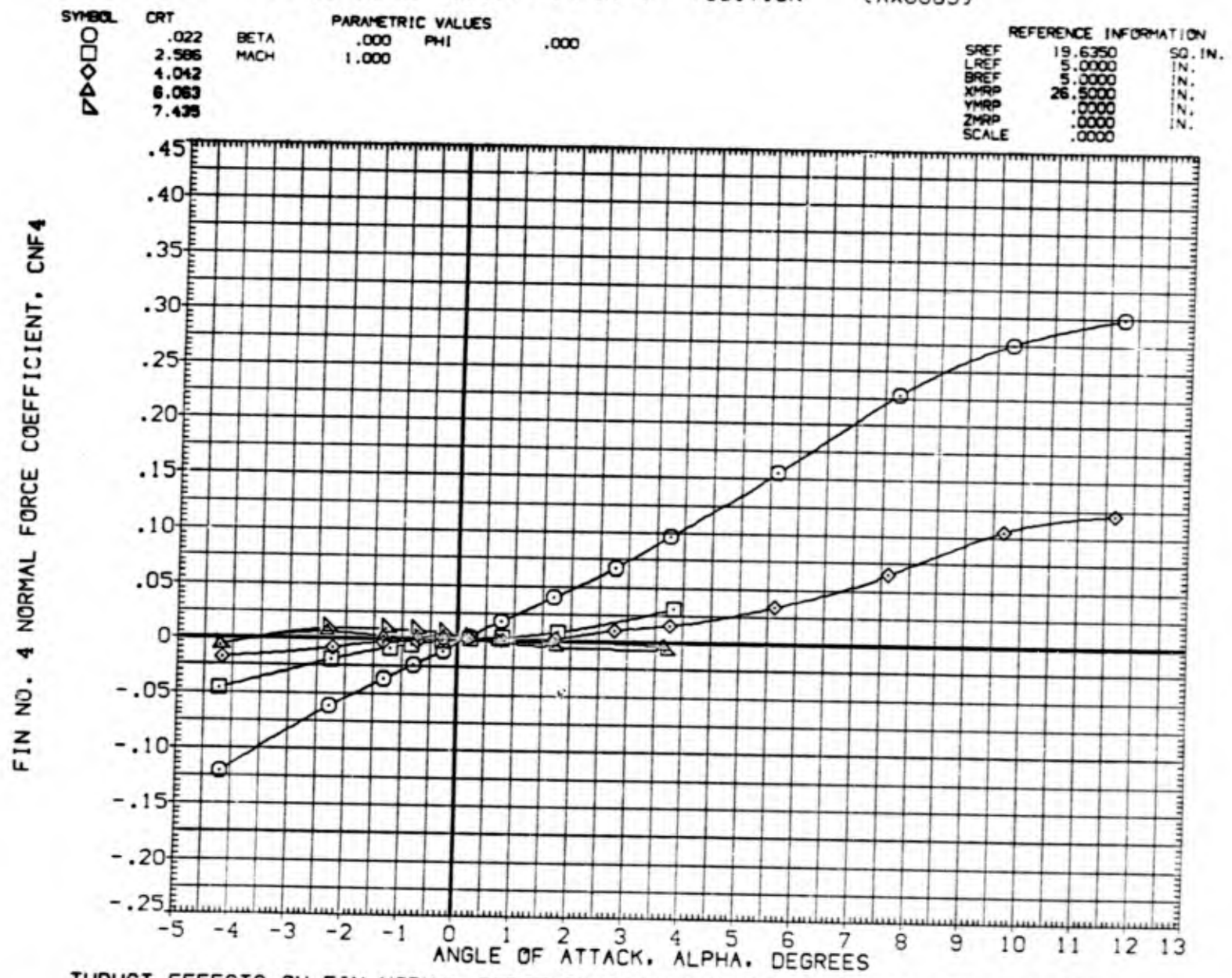
SYMBOL	CRT		PARAMETRIC VALUES		
○	10.859	BETA	.000	PHI	.000
		MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION



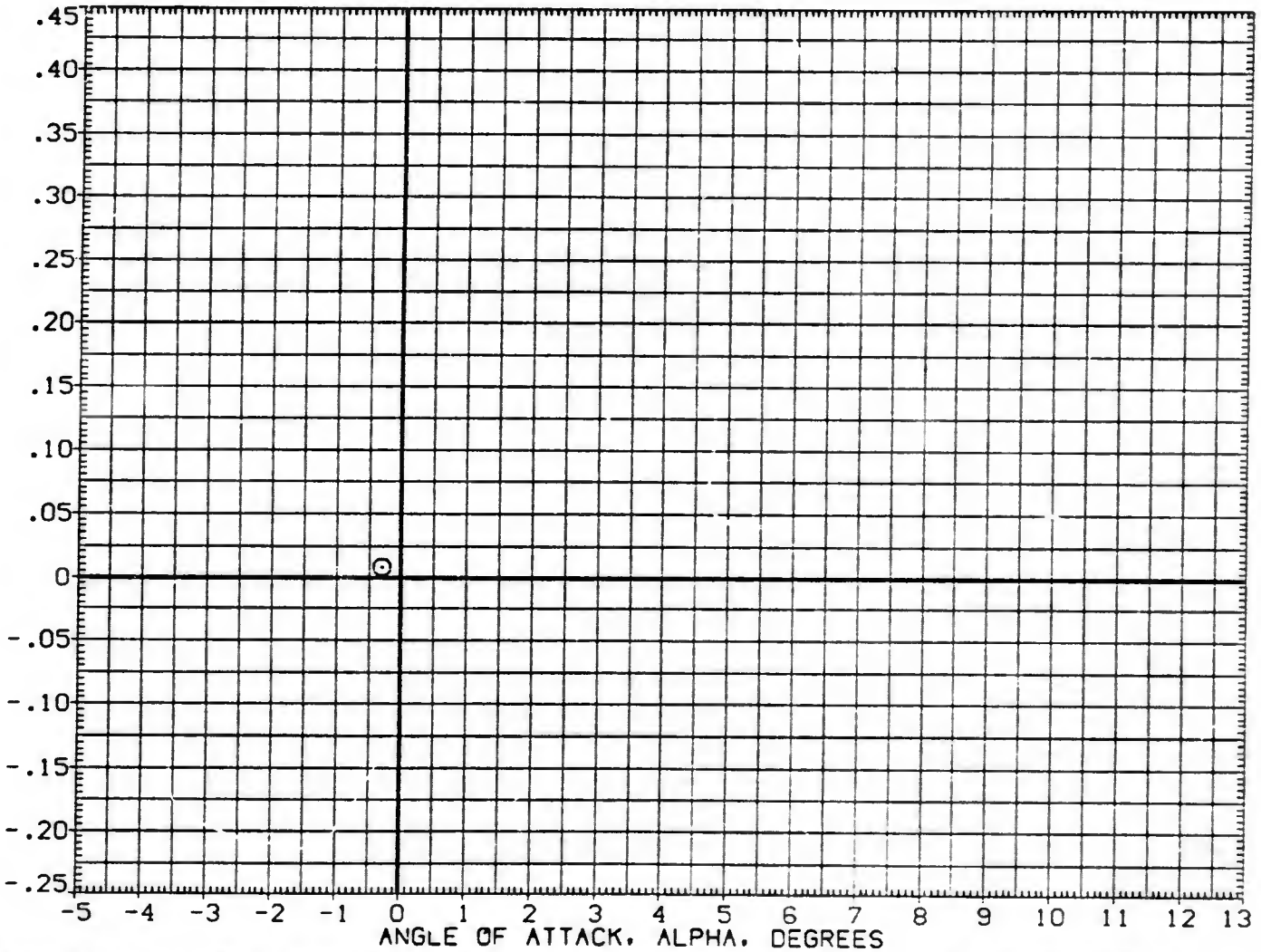
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY. FIN IN AFT POSITION (AX8069)

SYMBOL	CRT		PARAMETRIC VALUES		
○	10.859	BETA	.000	PHI	.000
		MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



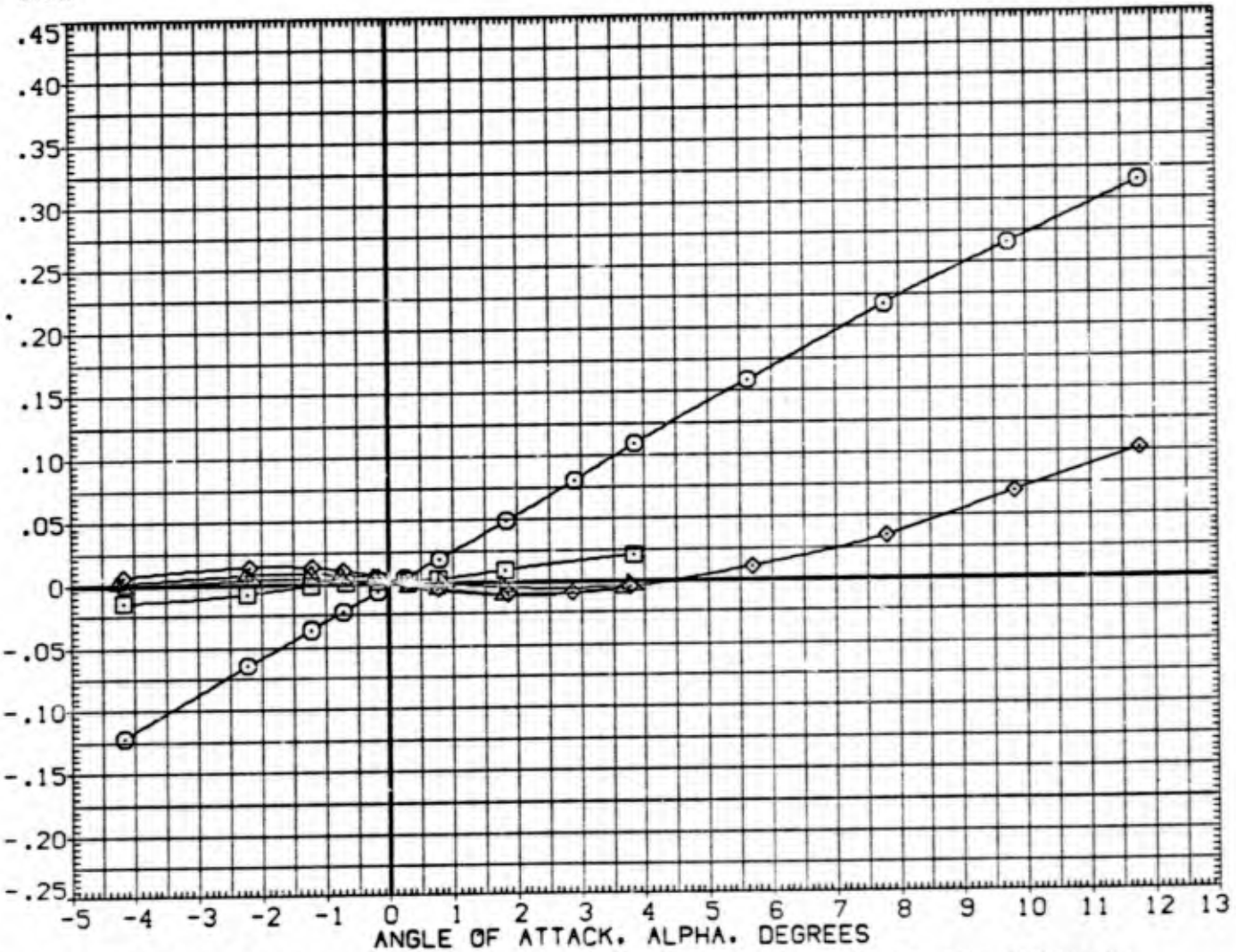
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8070)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.010	BETA	.000	PHI	.000
□	2.617	MACH	1.200		
◇	4.181				
△	5.969				
▷	6.941				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



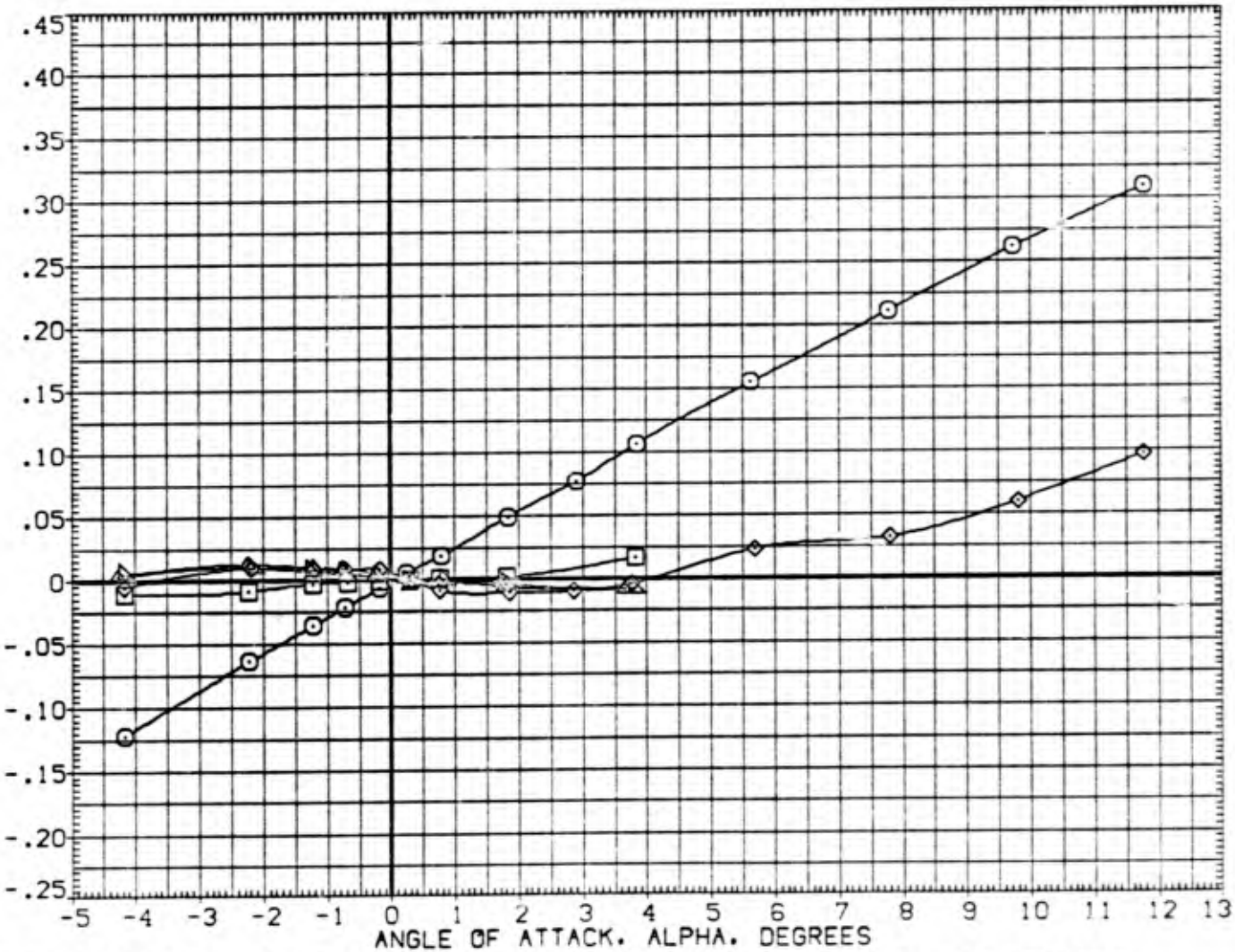
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF2) BODY, FIN IN AFT POSITION (AX8070)

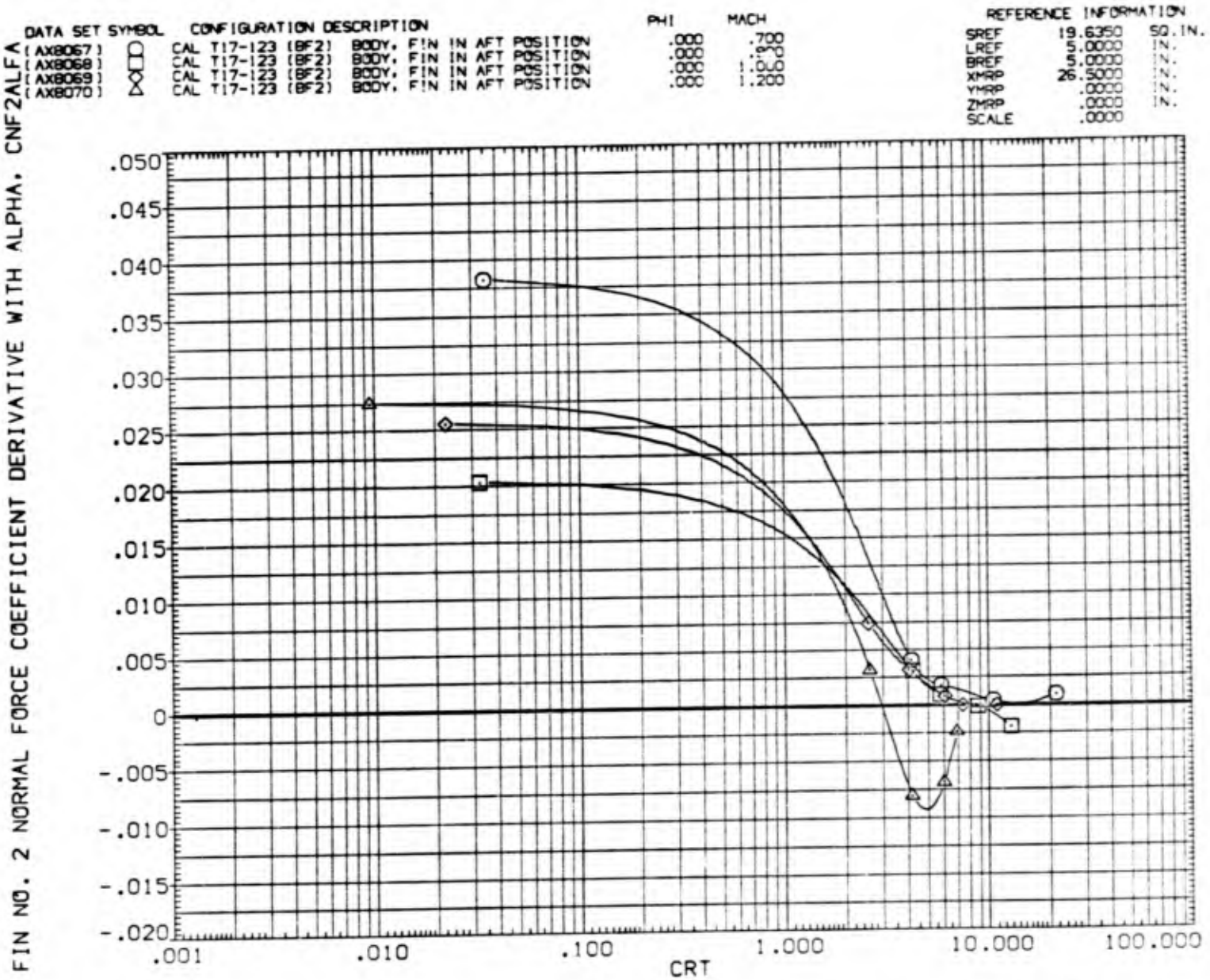
SYMBOL	CRT		PARAMETRIC VALUES		
○	.010	BETA	.000	PHI	.000
□	2.617	MACH	1.200		
◇	4.181				
△	5.969				
▷	6.941				

REFERENCE INFORMATION

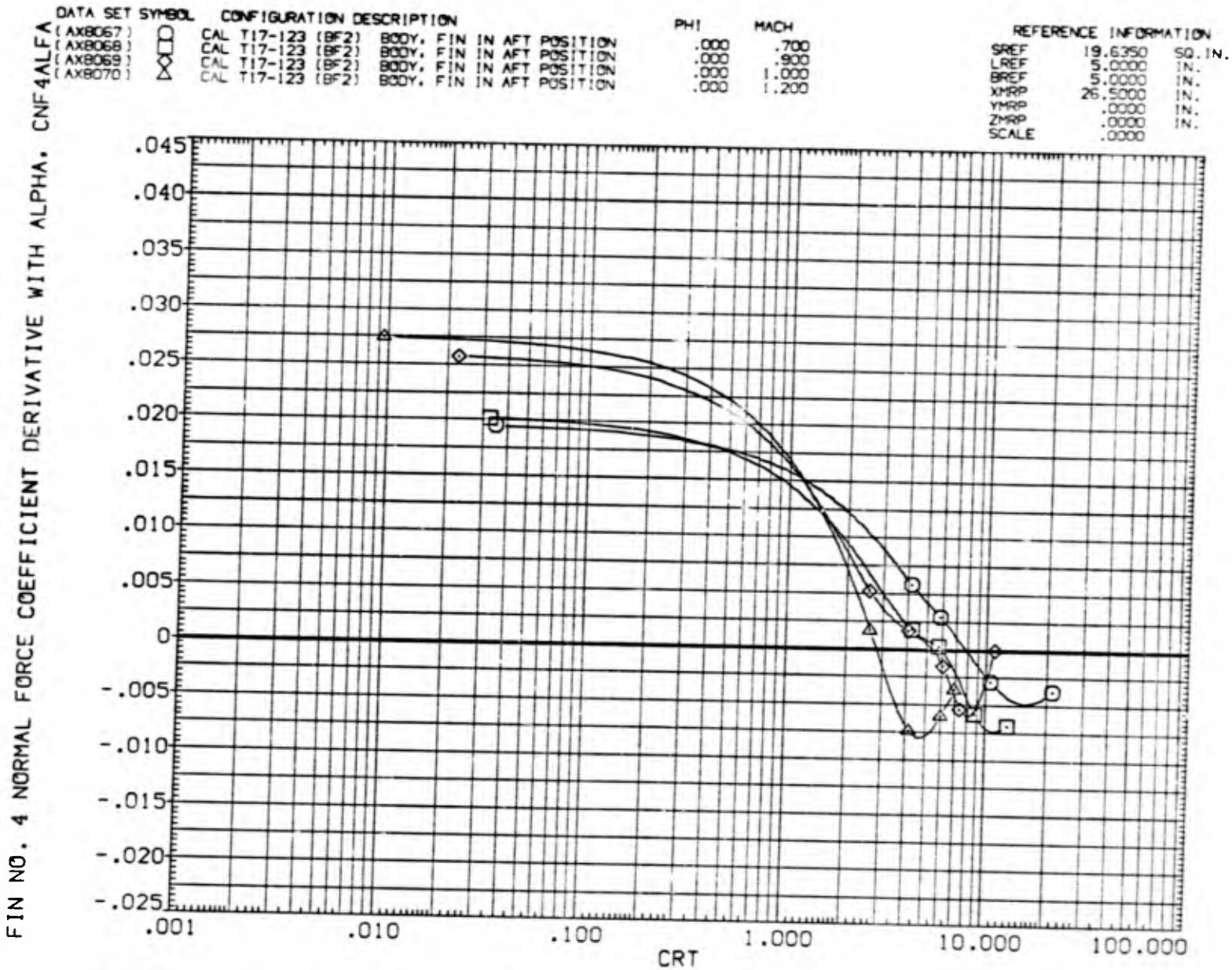
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION



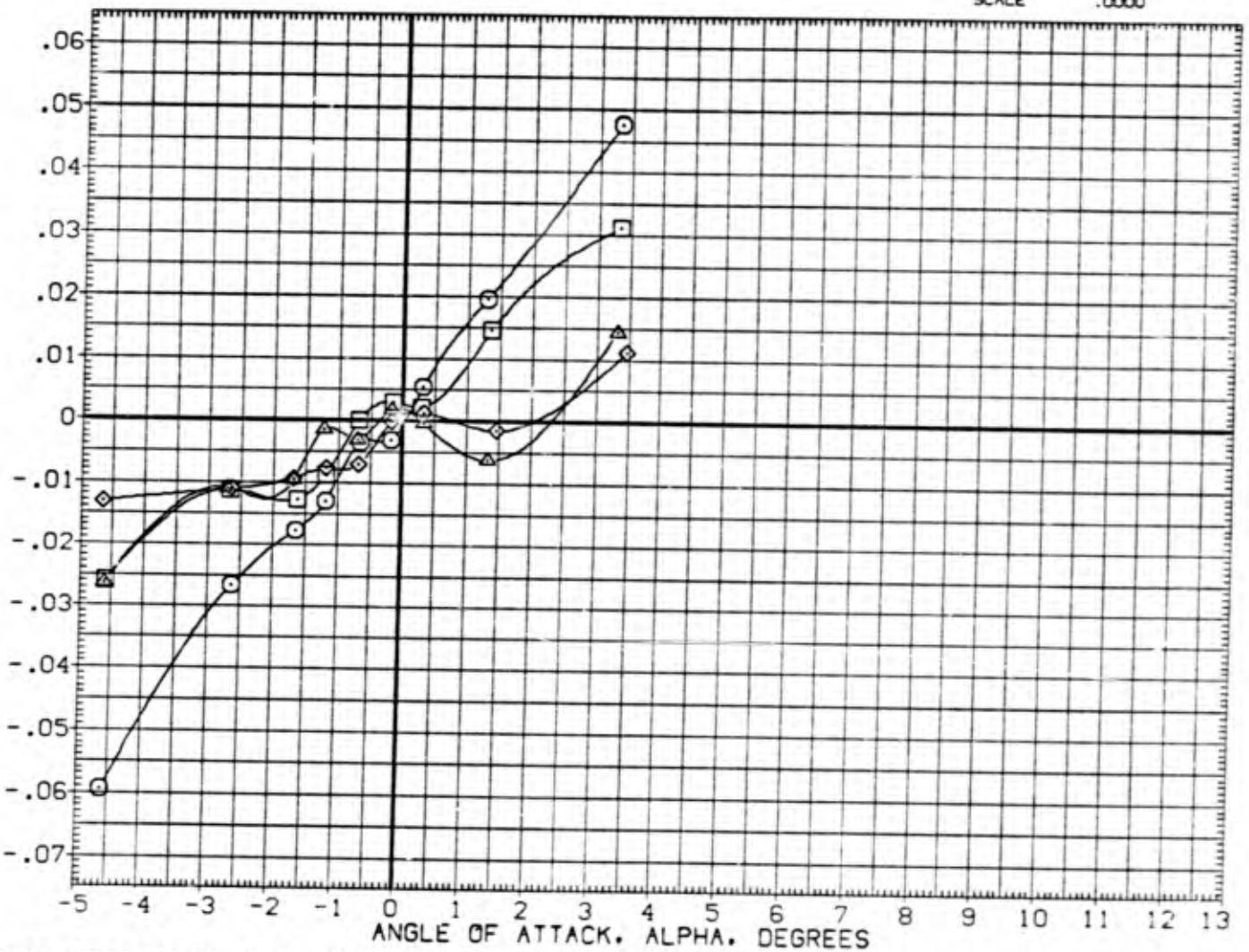
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL TI7-123 (BF3) BODY, FIN IN AFT POSITION (AX8058)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.232	BETA	.000	PHI	.000
□	6.206	MACH	.400		
◇	16.272				
△	37.785				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



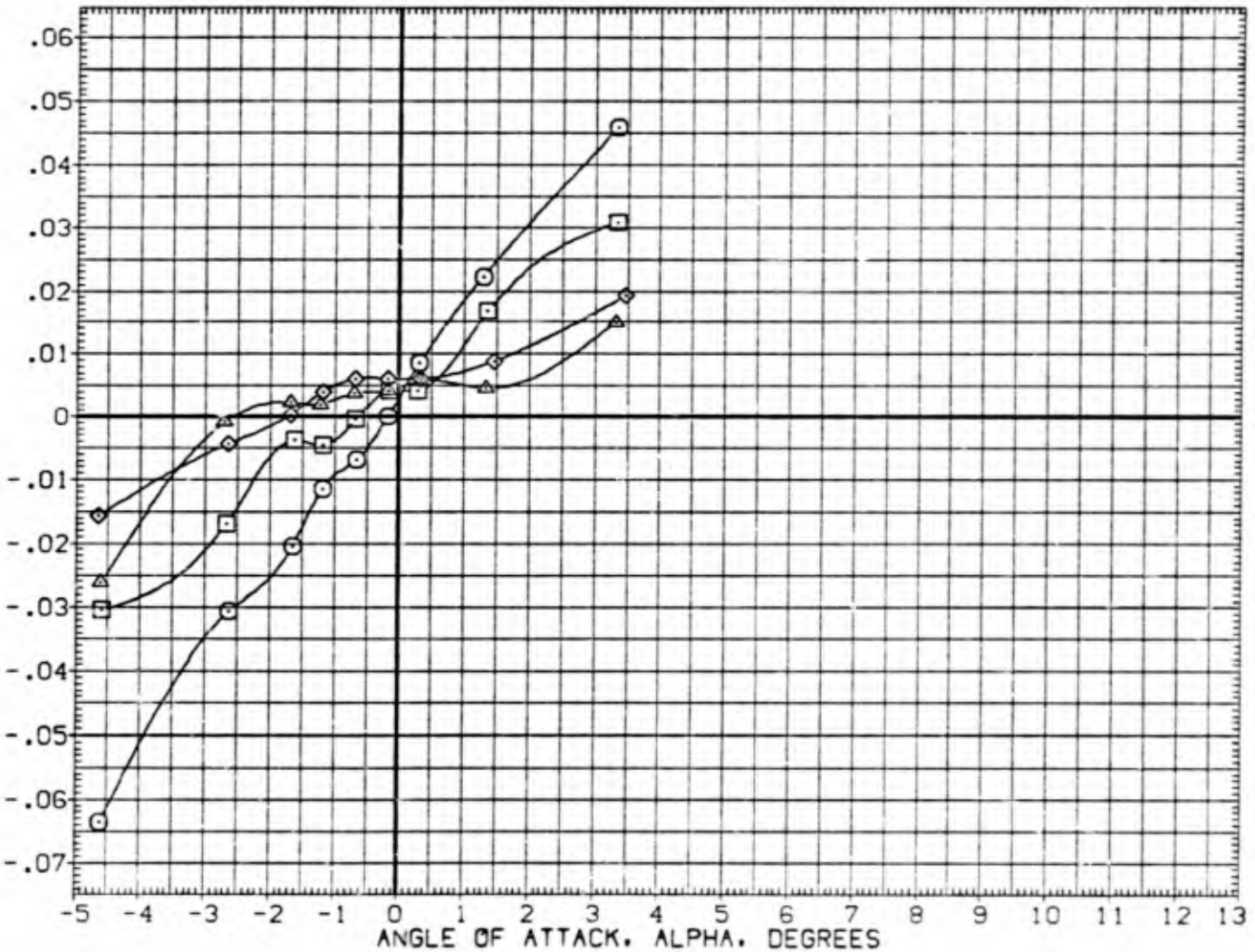
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8058)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.232	BETA	.000	PHI	.000
□	6.206	MACH	.400		
◇	16.272				
△	37.785				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



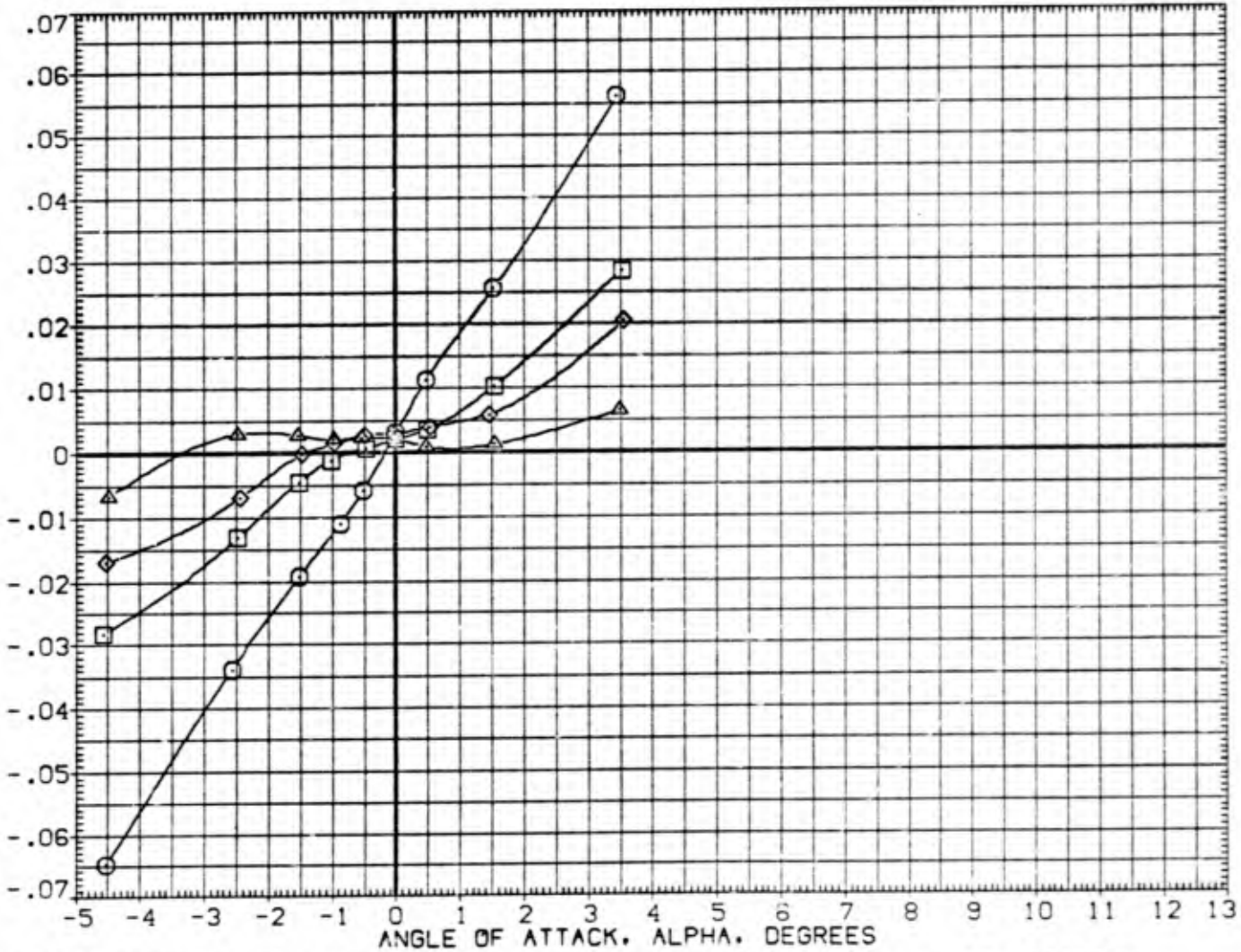
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8059)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.075	BETA	.000	PHI	.000
□	4.226	MACH	.700		
◇	6.017				
△	10.340				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



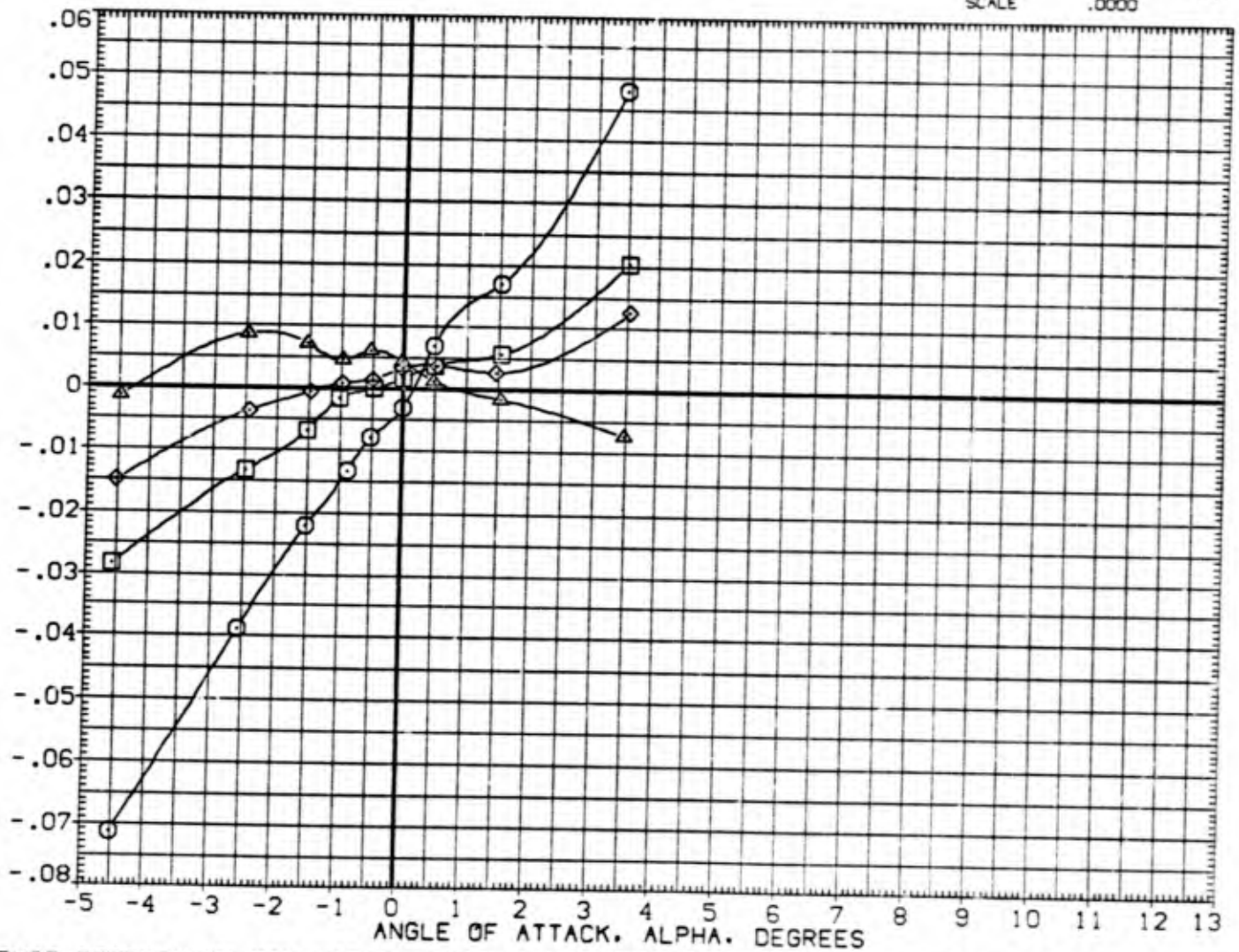
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8059)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.075	BETA	.000	PHI	.000
□	4.226	MACH	.700		
◇	6.017				
△	10.340				

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

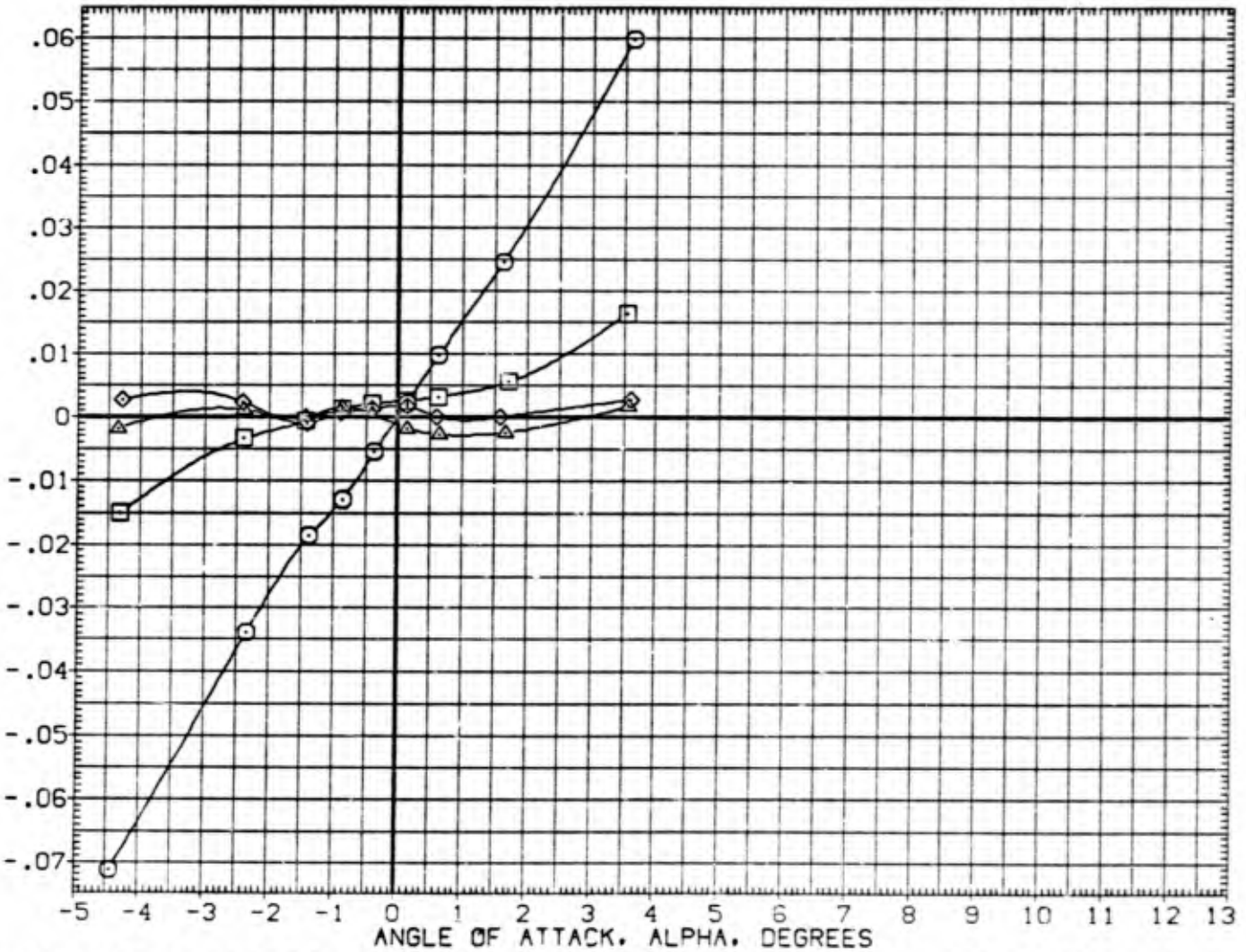


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8060)

SYMBOL	CRT		PARAMETRIC VAL		
○	.075	BETA	.000	PHI	.000
□	4.265	MACH	.900		
◇	6.059				
△	8.861				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



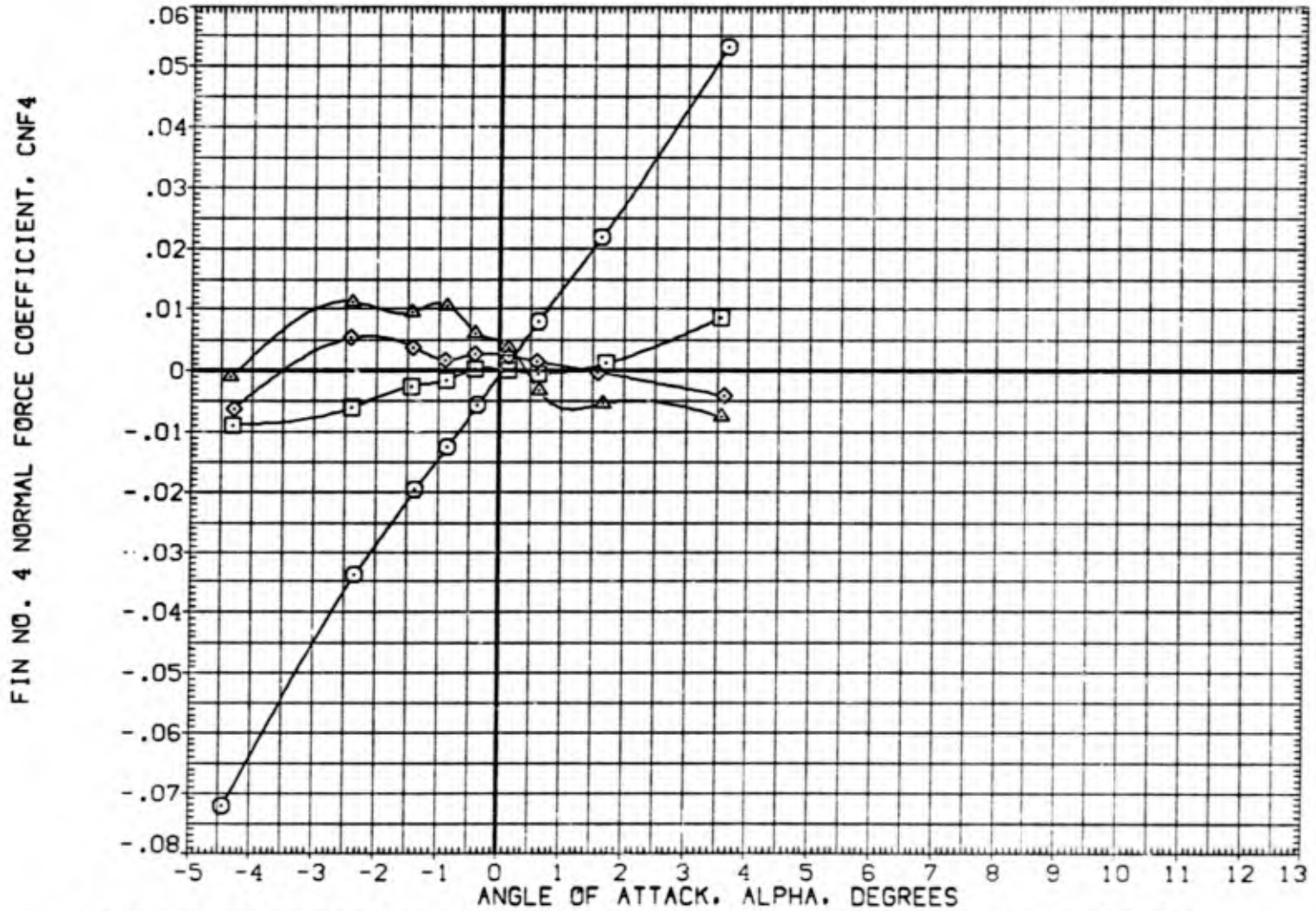
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8060)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.075	BETA	.000	PHI	.000
□	4.265	MACH	.900		
◇	6.059				
△	8.861				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

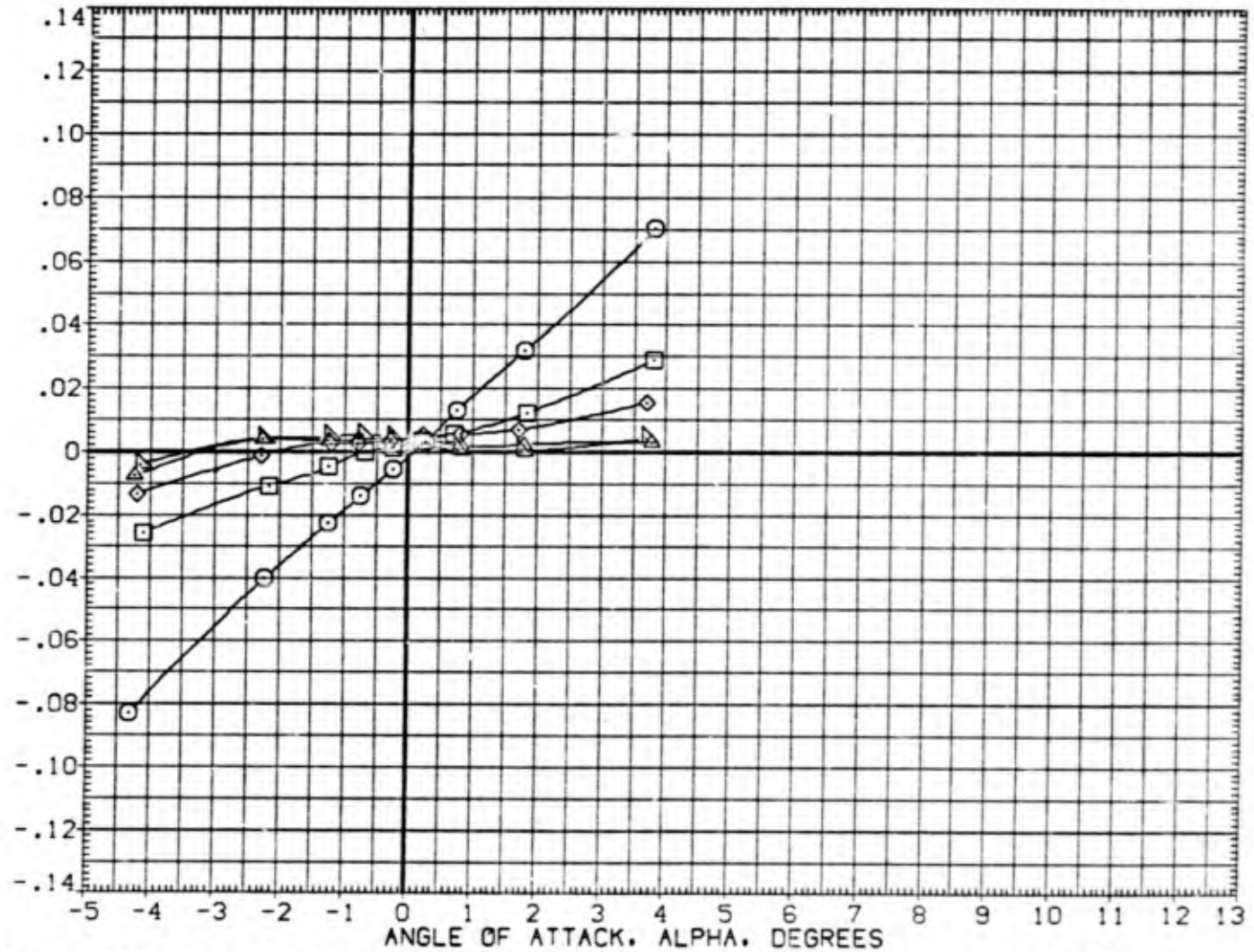


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8061)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	.000
□	2.719	MACH	1.000		
◇	4.216				
△	6.081				
▷	7.322				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY. FIN IN AFT POSITION (AX8061)

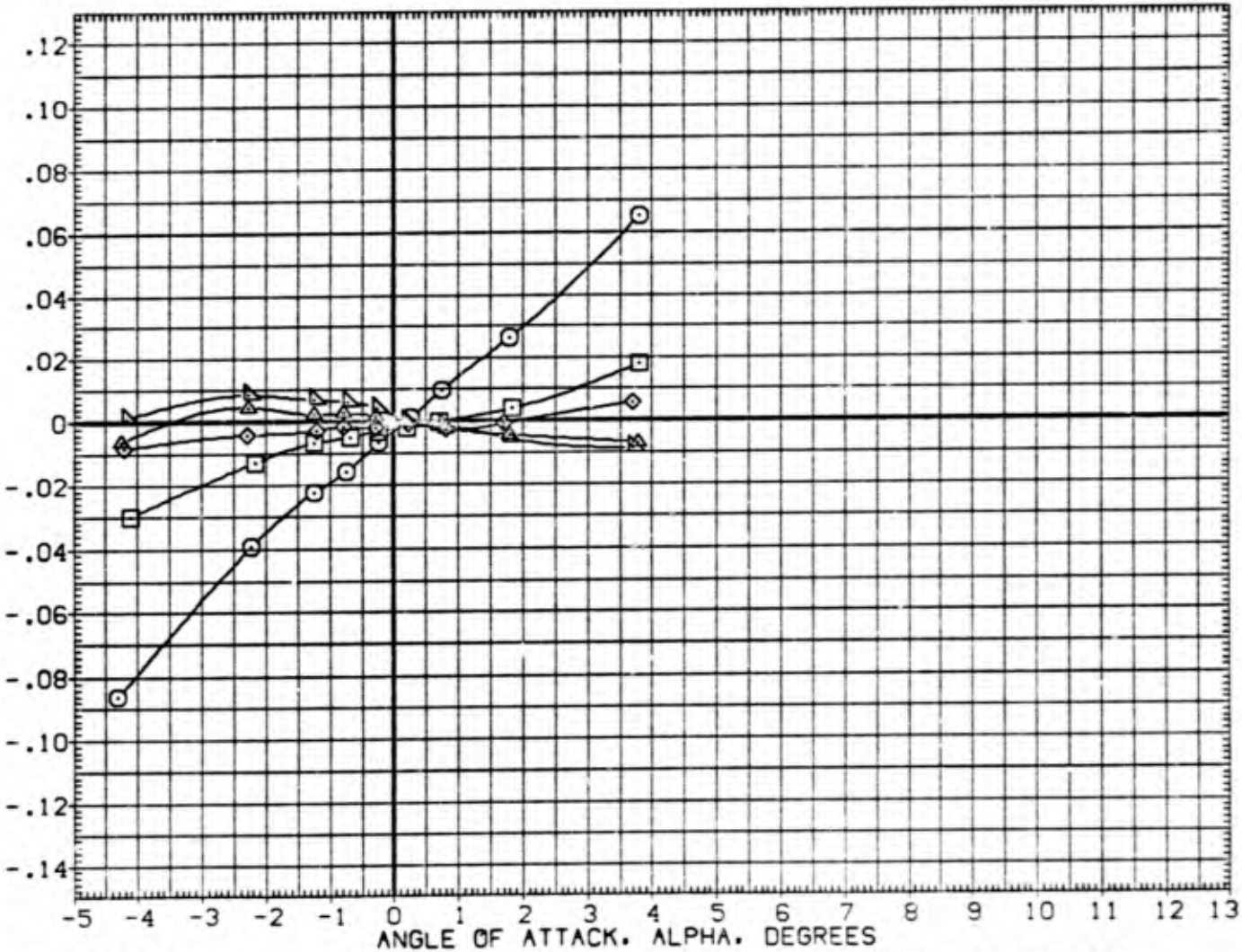
SYMBOL	CRT
▽	.026
△	2.719
◇	4.216
□	6.081
○	7.322

PARAMETRIC VALUES

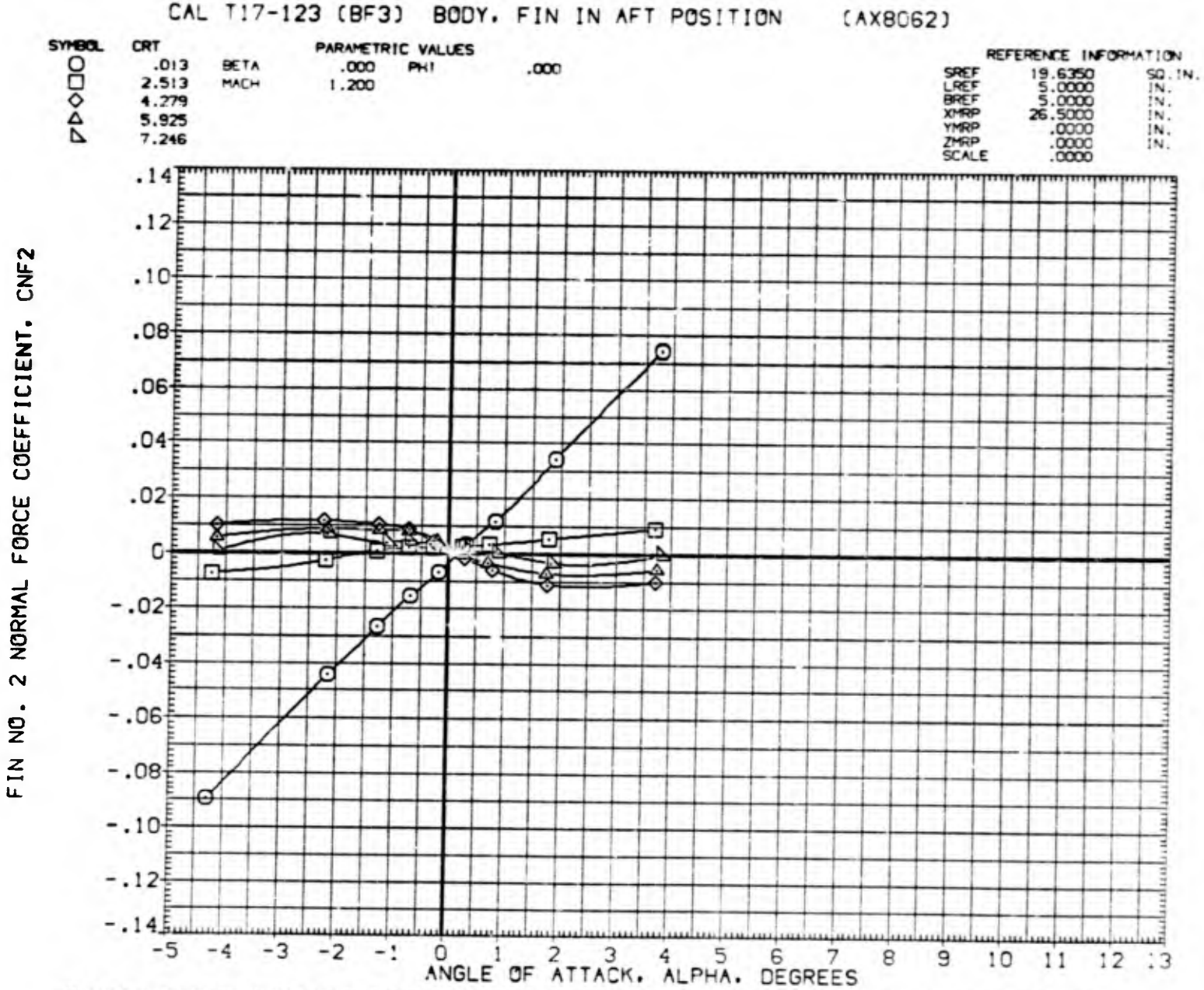
BETA	.000	PHI	.000
MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

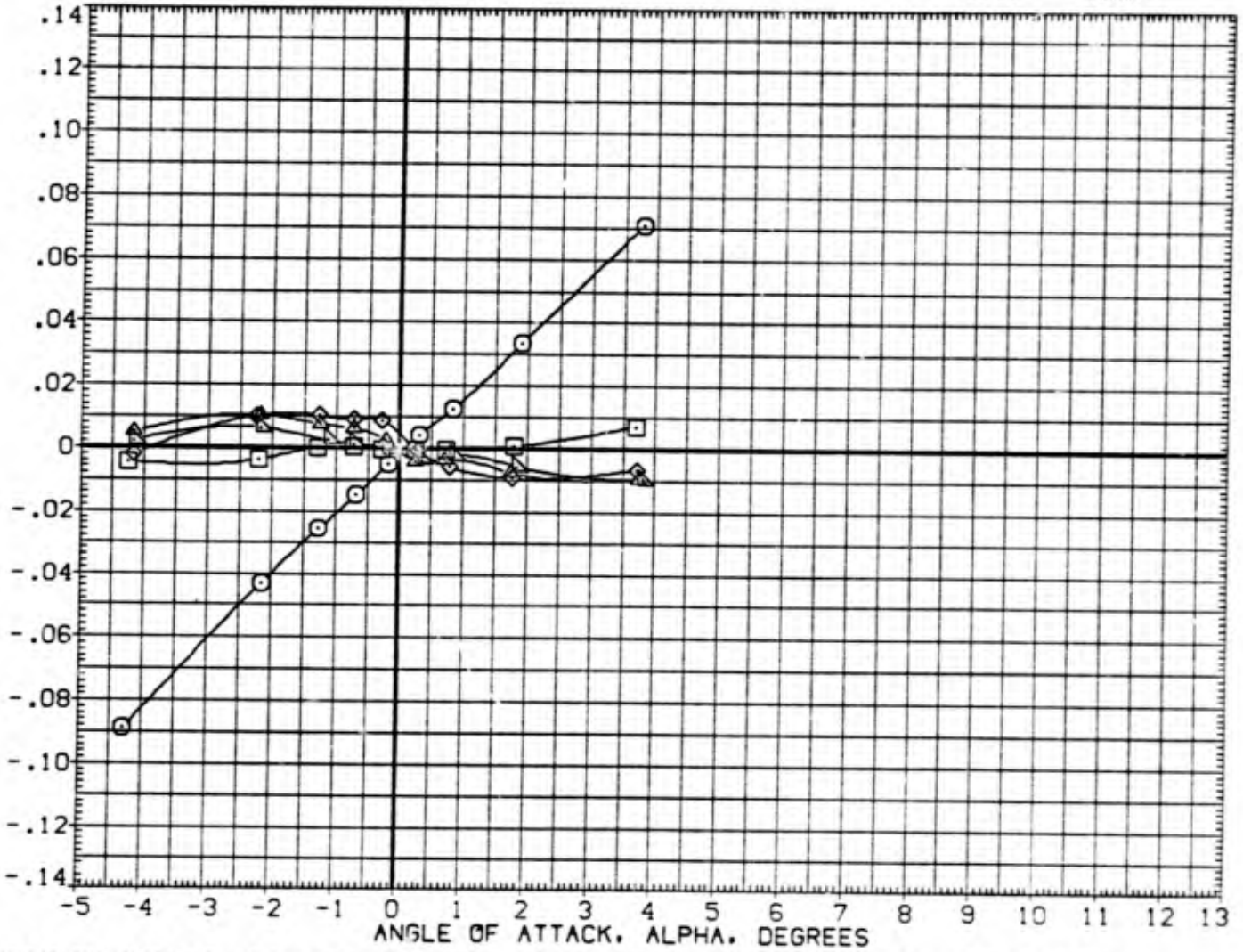


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF3) BODY, FIN IN AFT POSITION (AX8062)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	.000
□	2.513	MACH	1.200		
◇	4.279				
△	5.925				
▷	7.246				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

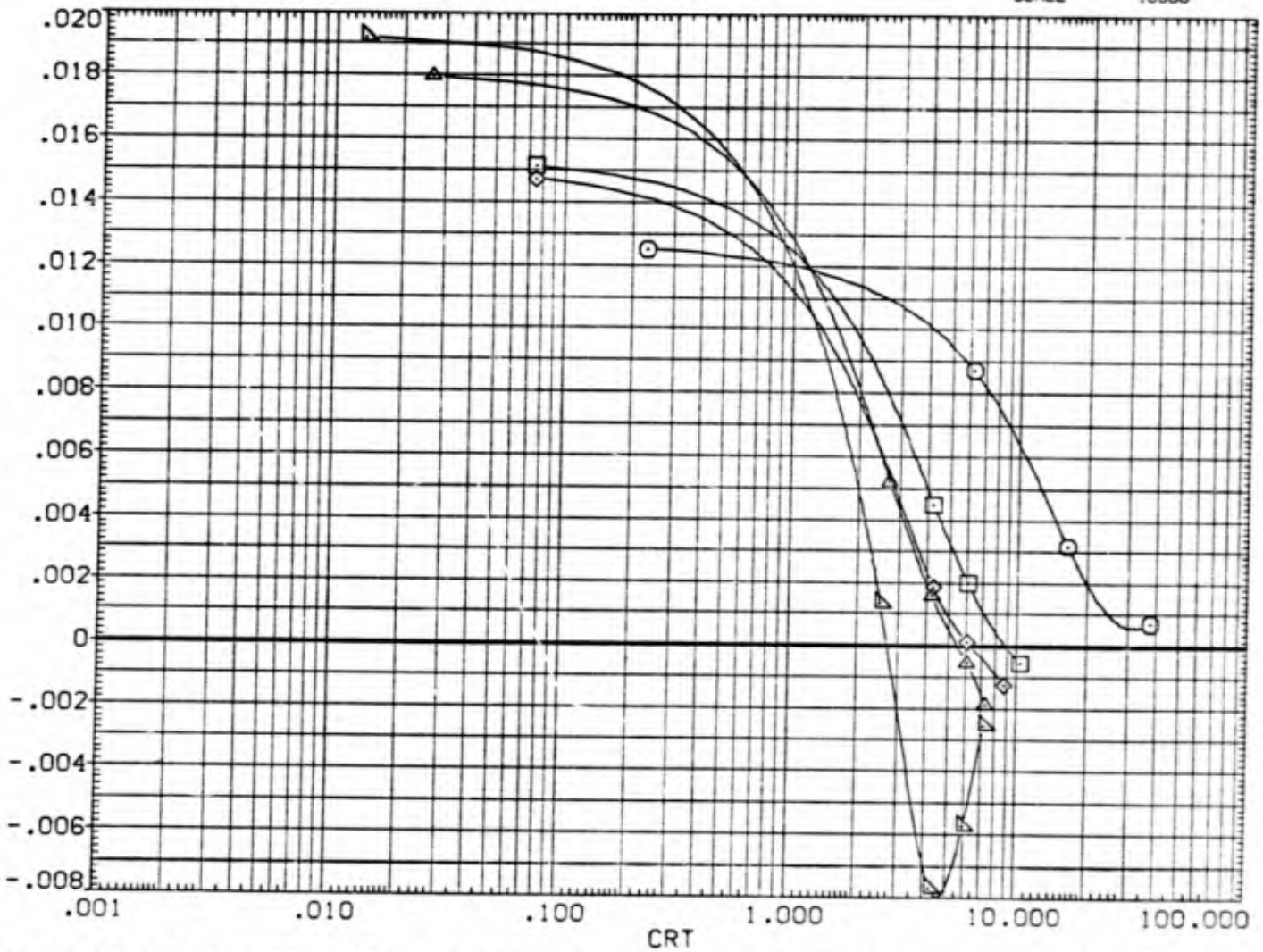


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8058)		CAL T17-123 (BF3) BODY, FIN IN AFT POSITION	.000	.400
(AX8059)		CAL T17-123 (BF3) BODY, FIN IN AFT POSITION	.000	.700
(AX8060)		CAL T17-123 (BF3) BODY, FIN IN AFT POSITION	.000	.900
(AX8061)		CAL T17-123 (BF3) BODY, FIN IN AFT POSITION	.000	1.000
(AX8062)		CAL T17-123 (BF3) BODY, FIN IN AFT POSITION	.000	1.200

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

FIN NO. 2 NORMAL FORCE COEFFICIENT DERIVATIVE WITH ALPHA, CNF2ALFA



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

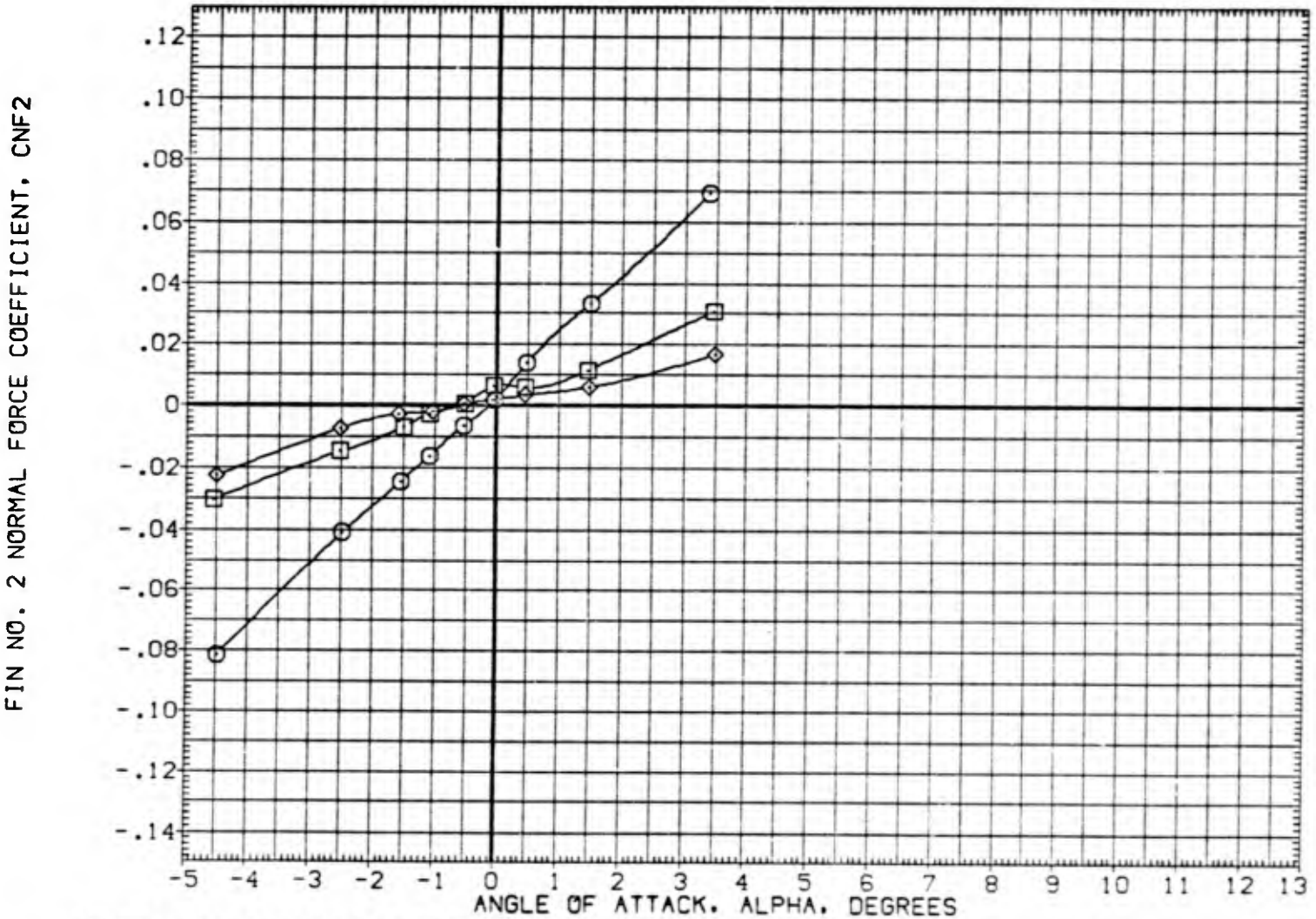
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8063)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.092	BETA	.000	PHI	.000
□	5.952	MACH	.700		
◇	11.155				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



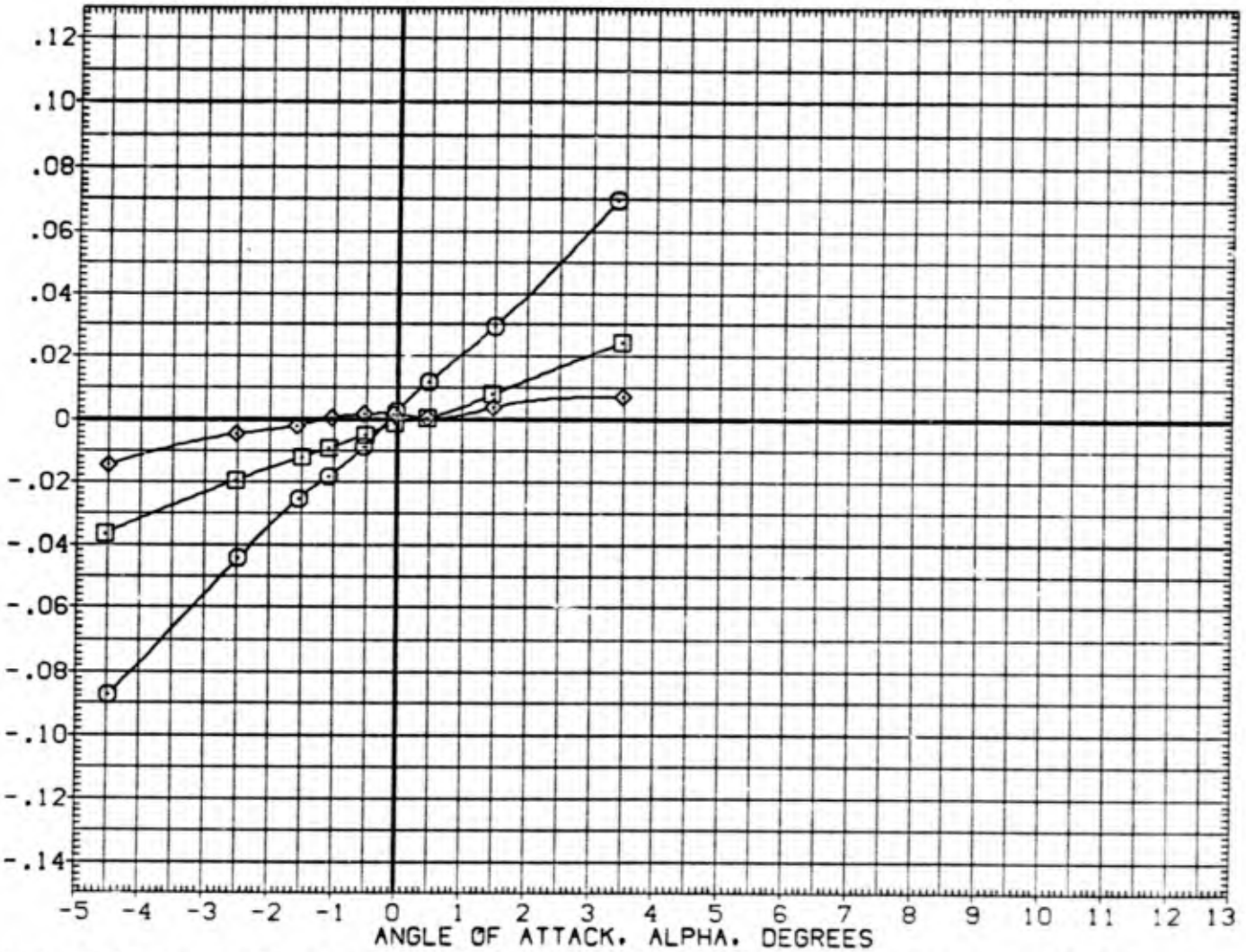
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY. FIN IN AFT POSITION (AX8063)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.092	BETA	.000	PHI	.000
□	5.952	MACH	.700		
◇	11.155				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



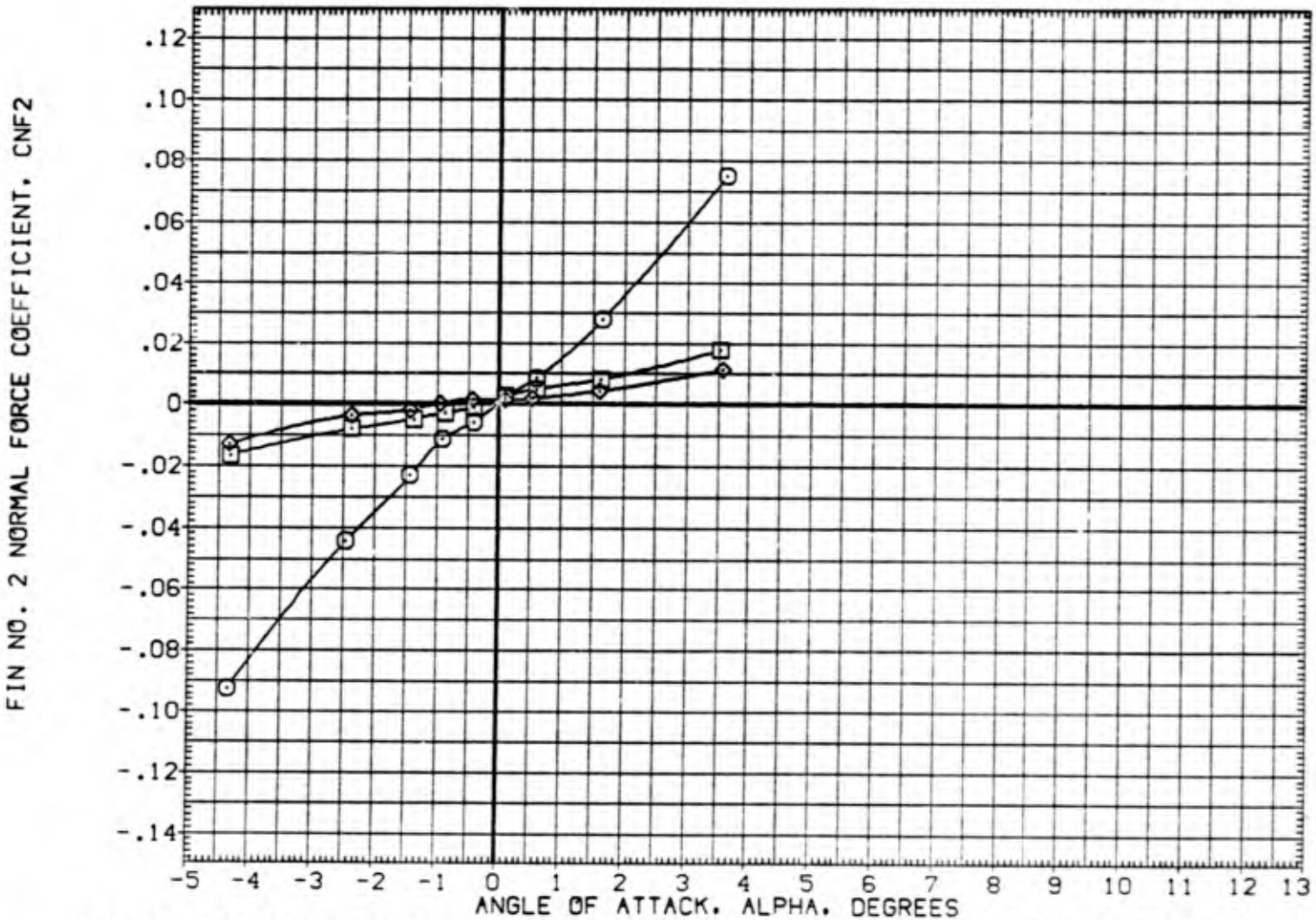
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8064)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.069	BETA	.000	PHI	.000
□	5.770	MACH	.900		
◇	8.520				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



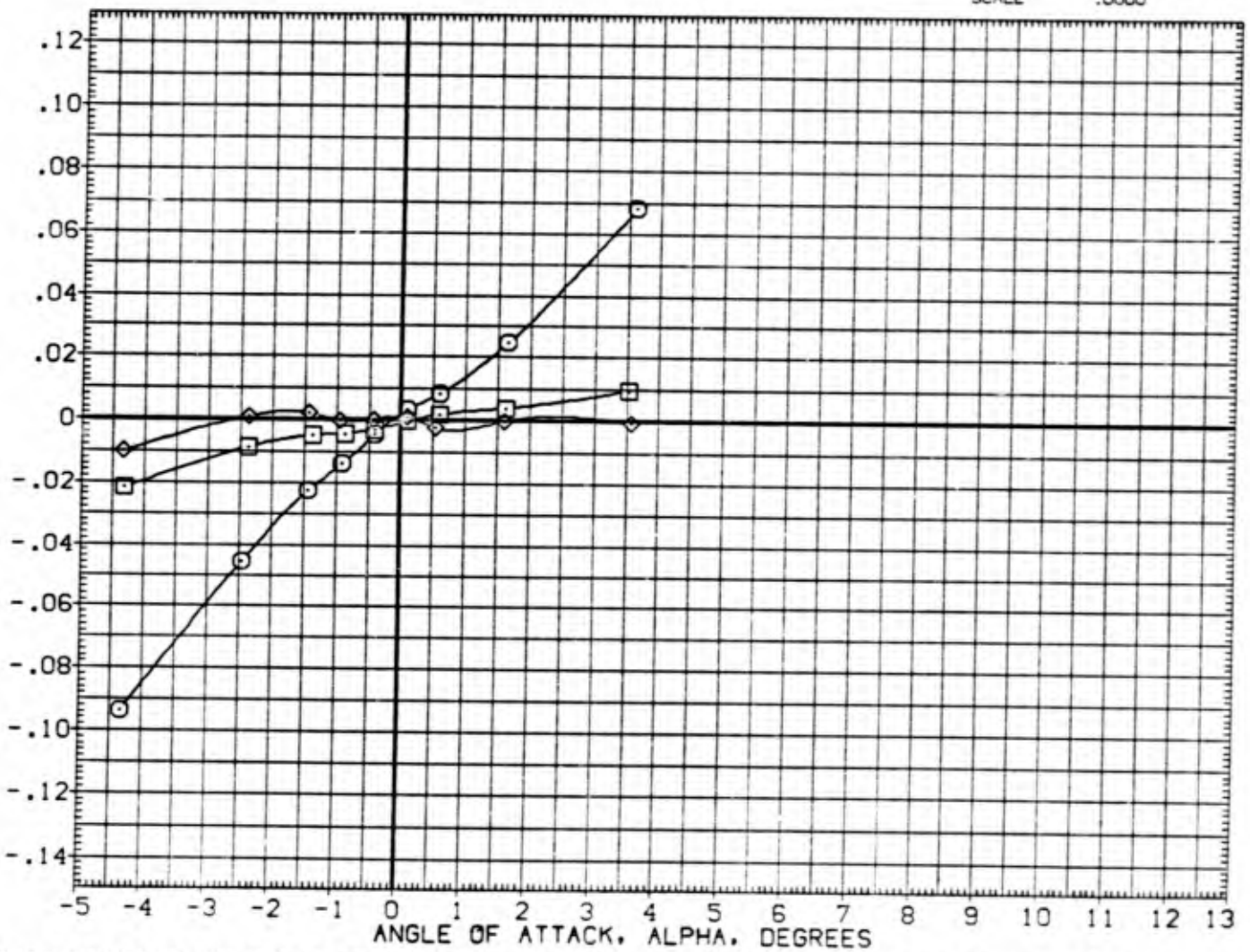
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8064)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.069	BETA	.000	PHI	.000
□	5.770	MACH	.900		
◇	8.520				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



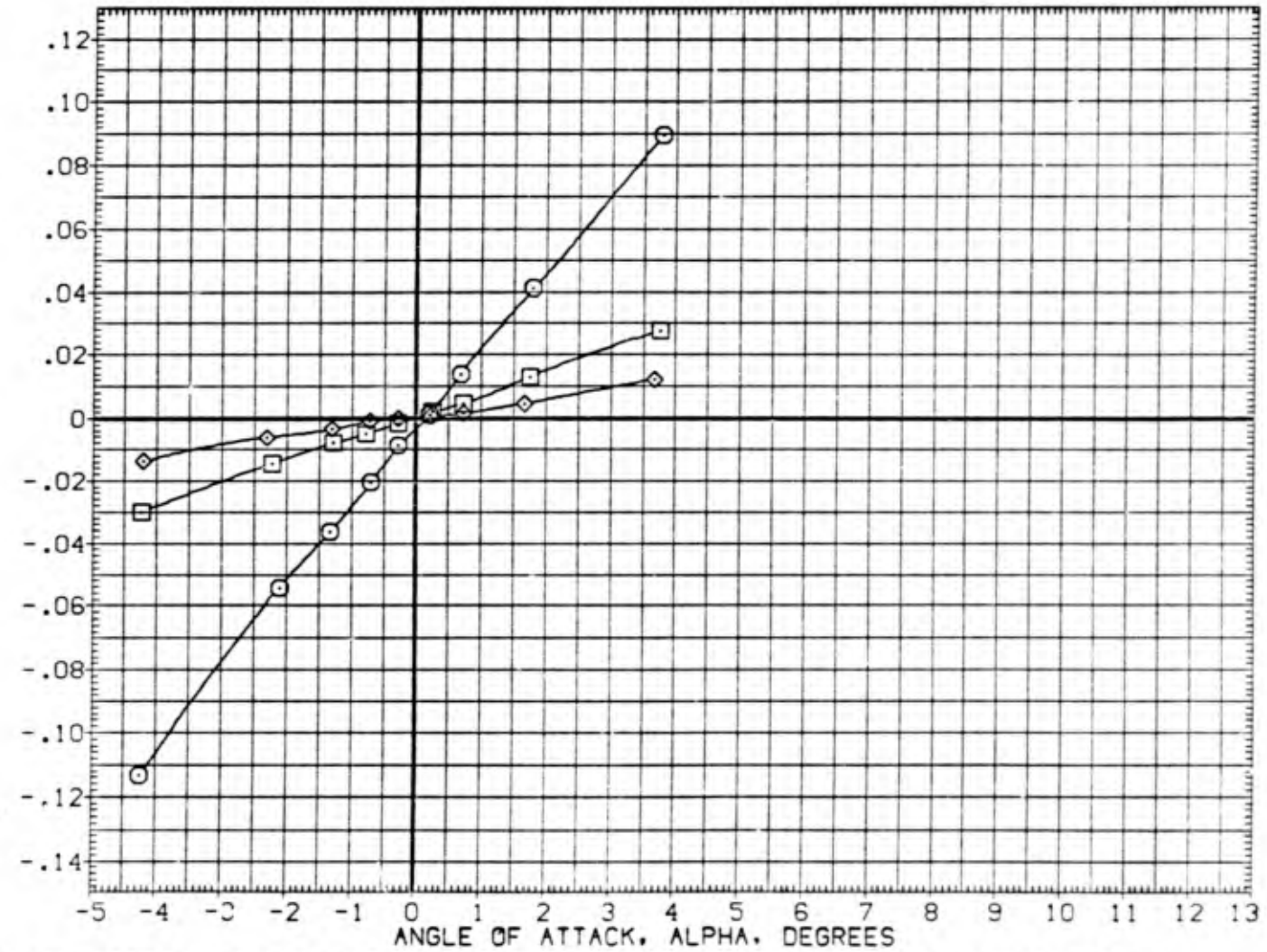
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8065)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.033	BETA	.000	PHI	.000
□	4.084	MACH	1.000		
◇	5.854				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



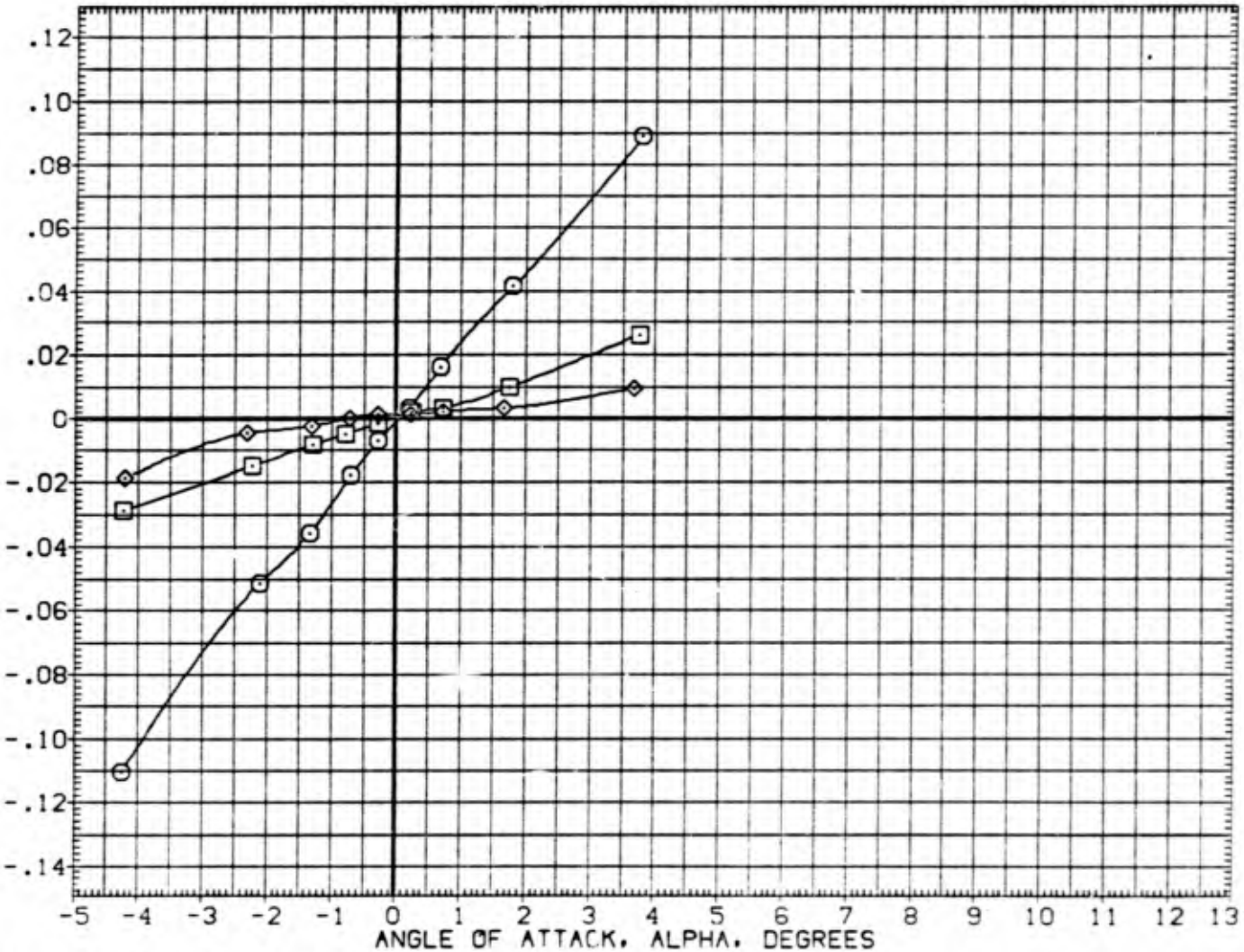
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY, FIN IN AFT POSITION (AX8065)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.033	BETA	.000	PHI	.000
□	4.084	MACH	1.000		
◇	5.854				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



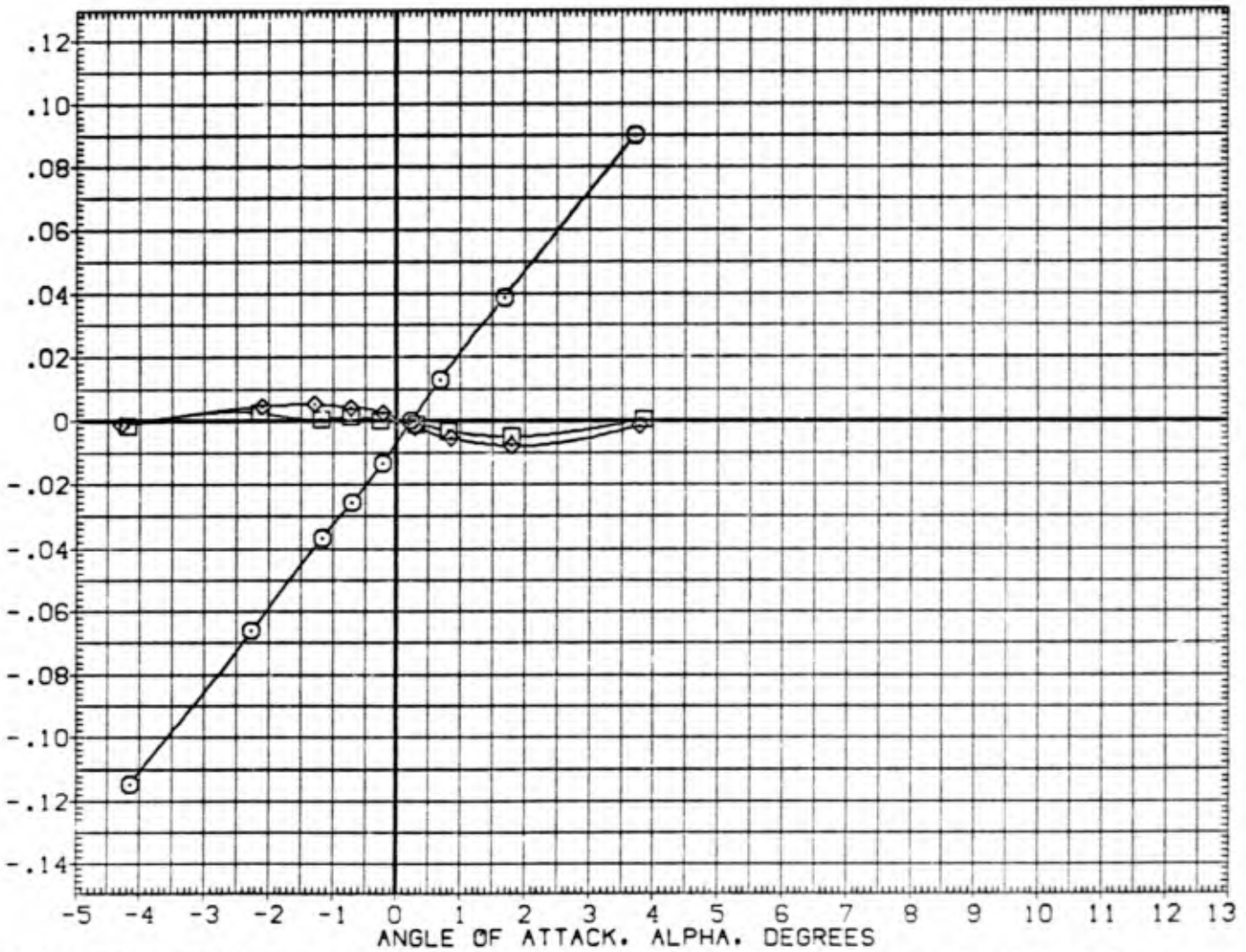
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY. FIN IN AFT POSITION (AX8066)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.005	BETA	.000	PHI	.000
□	4.273	MACH	1.200		
◇	6.242				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



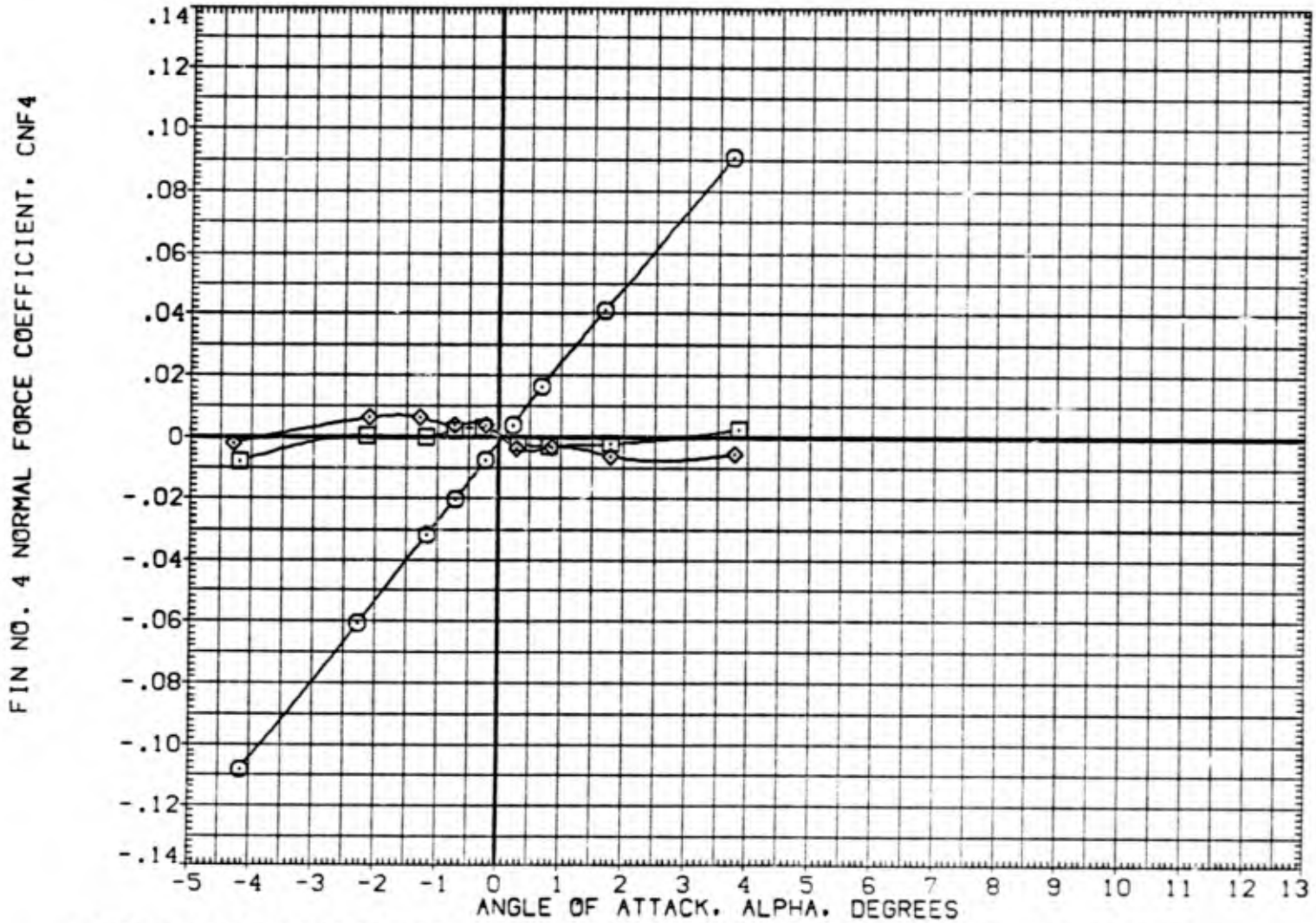
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF4) BODY. FIN IN AFT POSITION (AX8066)

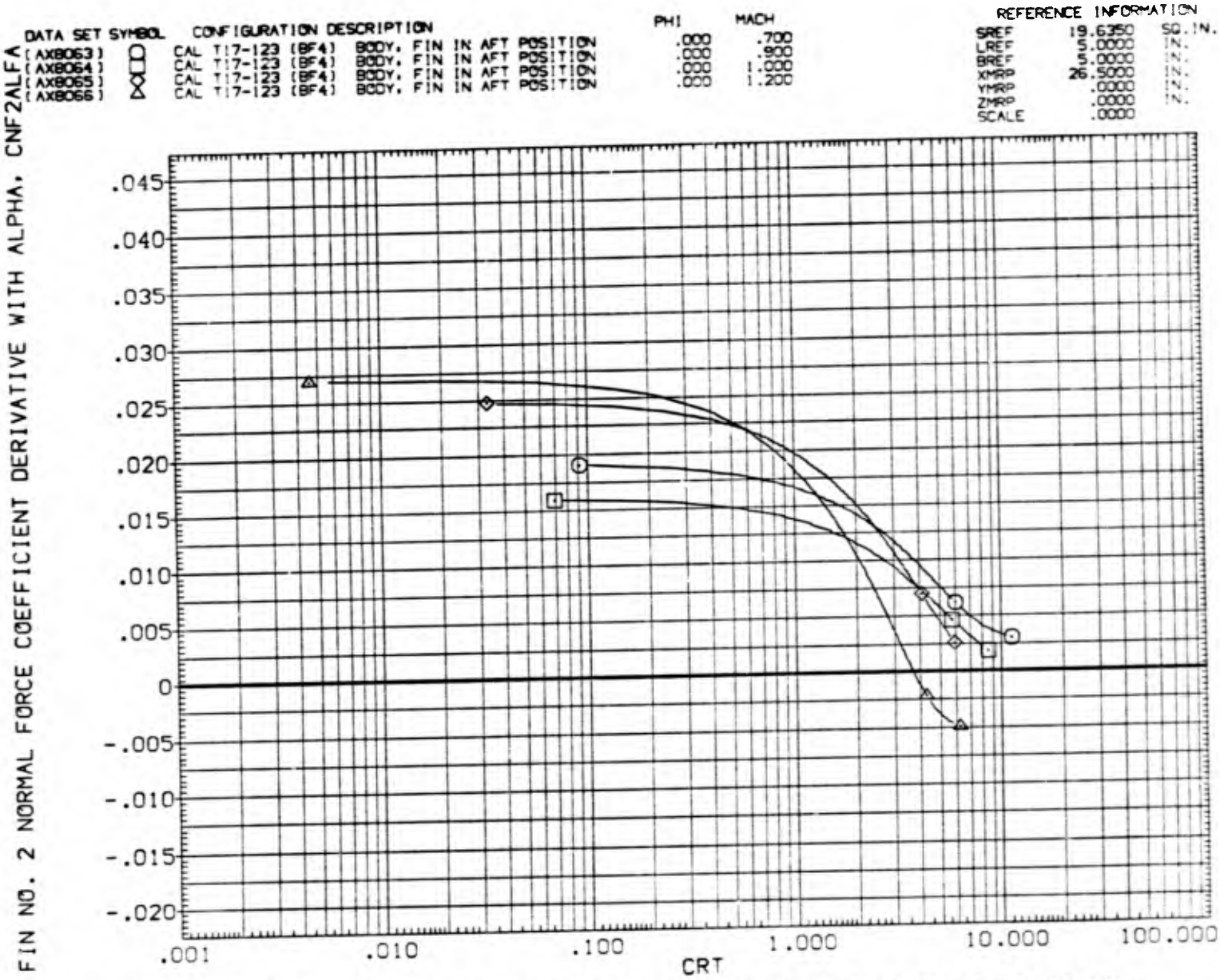
SYMBOL	CRT		PARAMETRIC VALUES		
○	.005	BETA	.000	PHI	.000
□	4.273	MACH	1.200		
◇	6.242				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

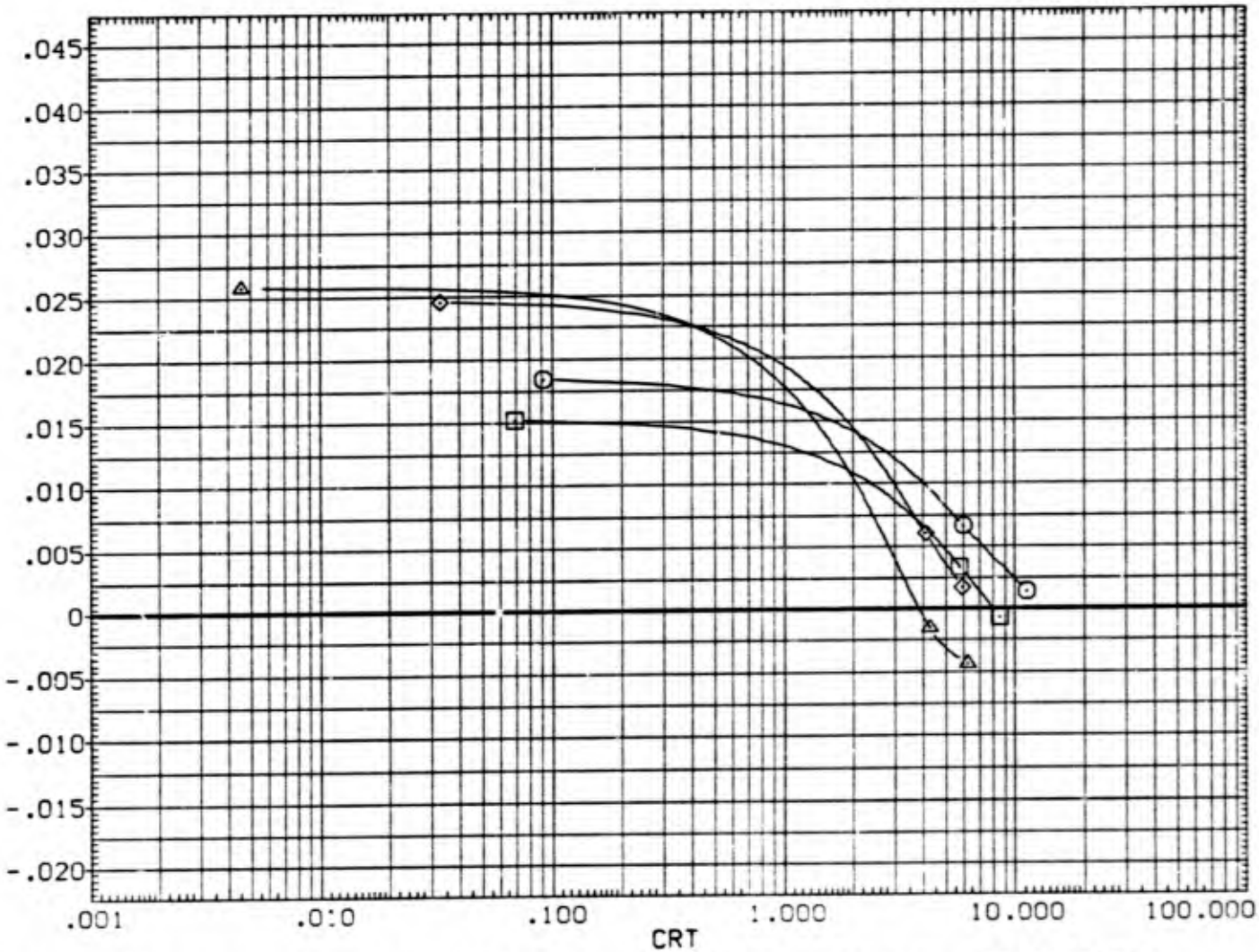


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PHI	MACH
(AX8063)	□	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	.700
(AX8064)	○	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	.900
(AX8065)	◇	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	1.000
(AX8066)	△	CAL T17-123 (BF4) BODY, FIN IN AFT POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



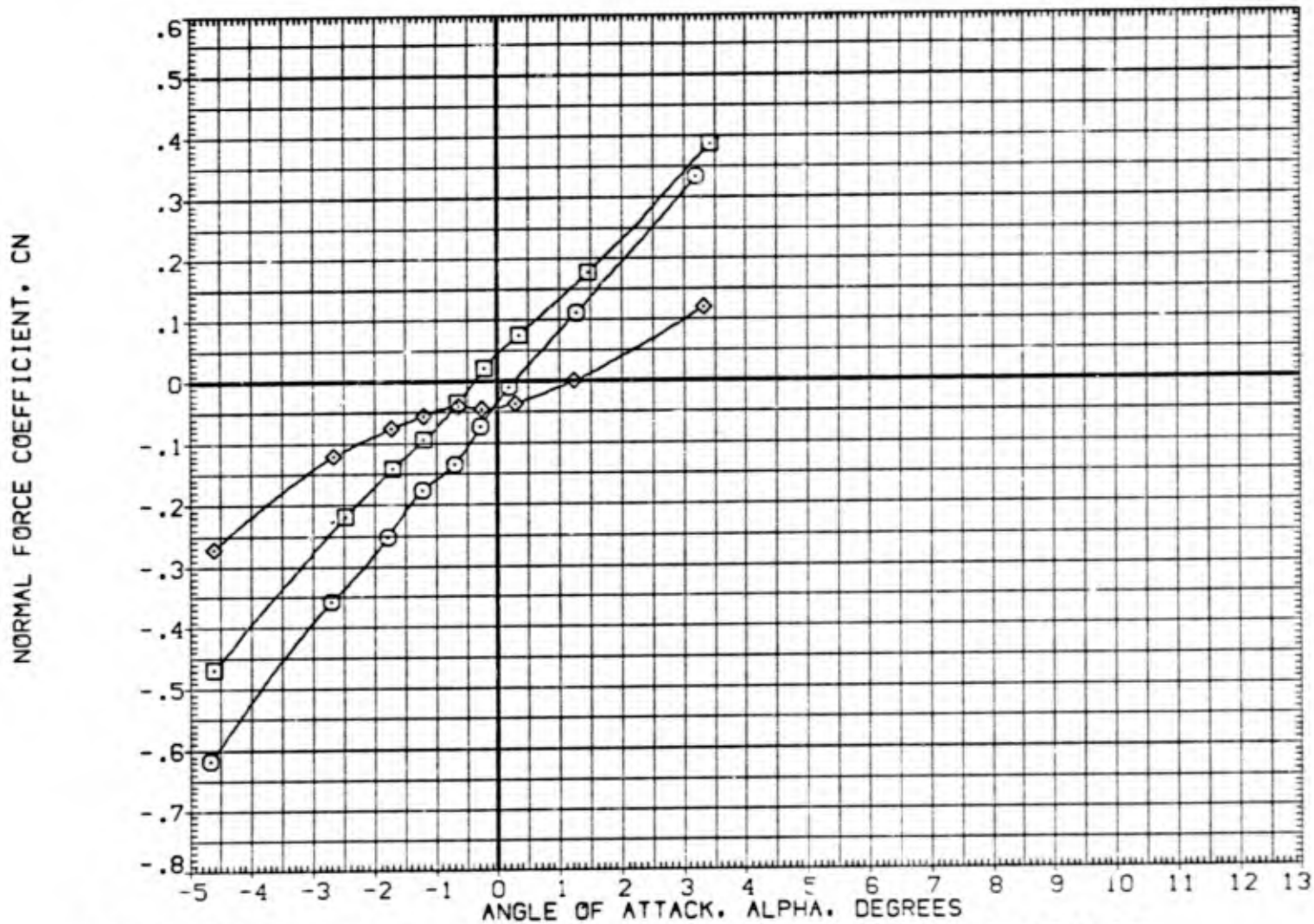
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN AFT POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8039)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.051	BETA	.000	PHI	.000
□	6.423	MACH	.400		
◇	36.823				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

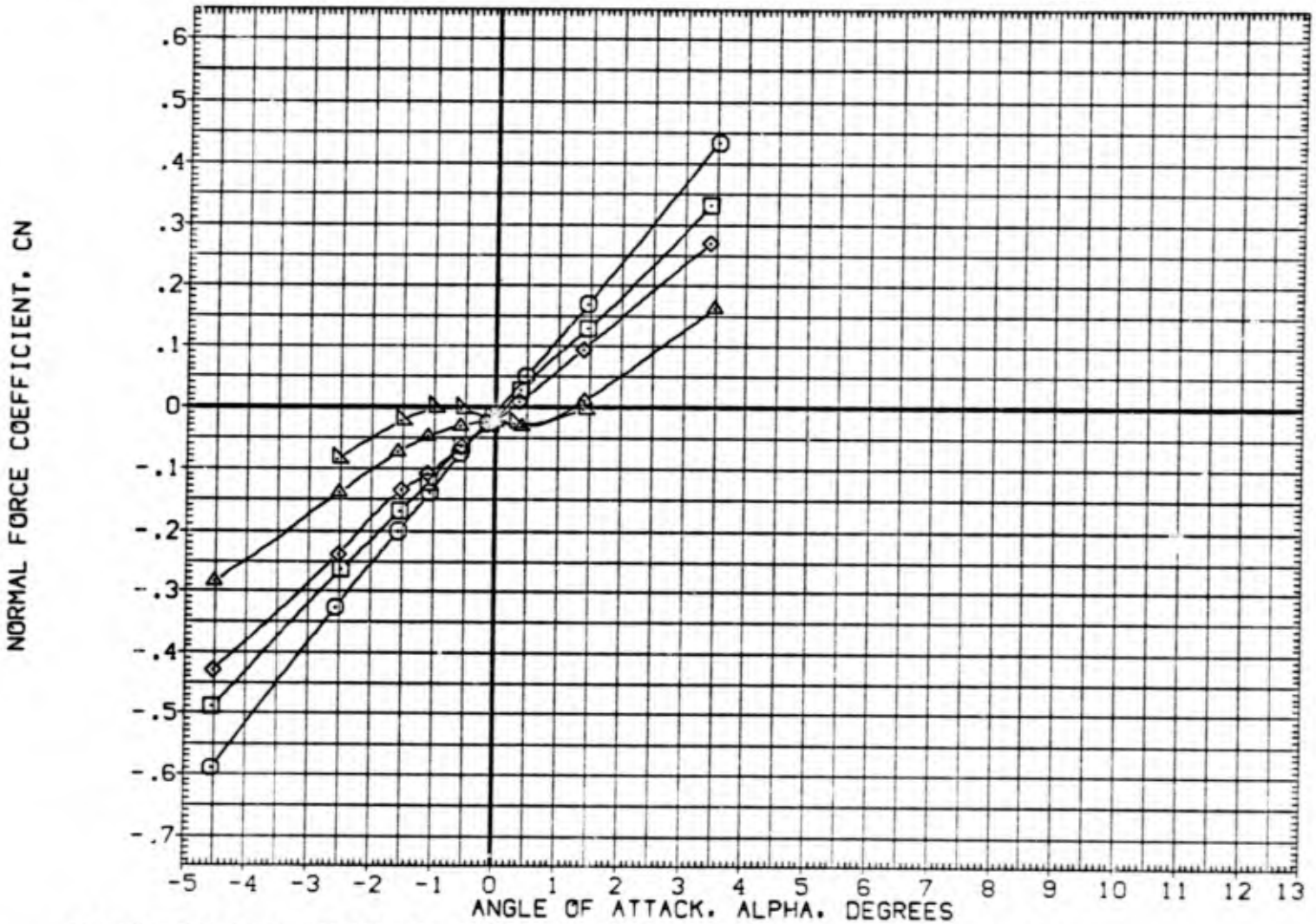


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8040)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.019	BETA	.000	PHI	.000
□	4.271	MACH	.700		
◇	5.936				
△	10.411				
▷	20.443				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



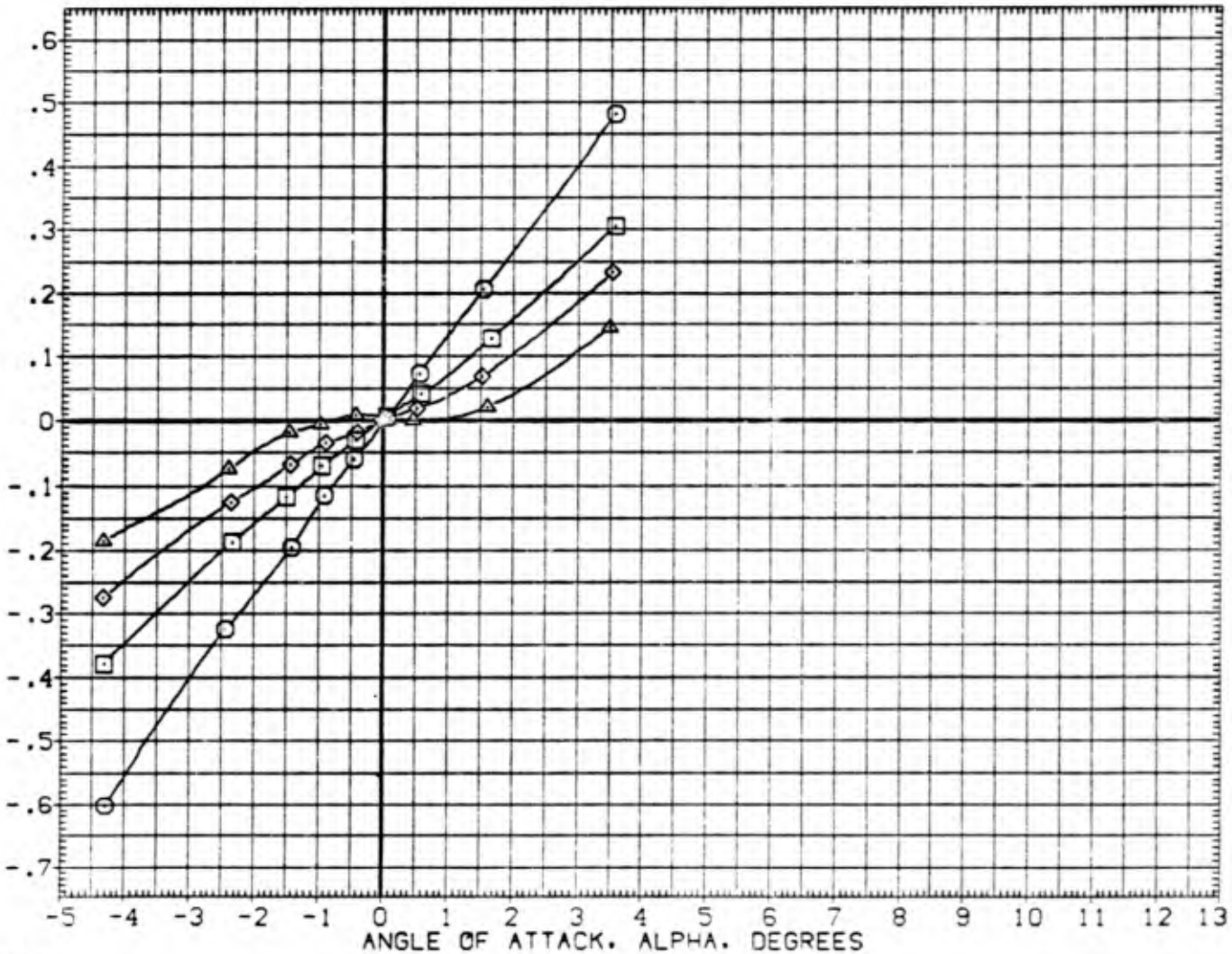
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY. FIN IN MID POSITION (AX8041)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.041	BETA	.000	PHI	.000
□	4.110	MACH	.900		
◇	5.781				
△	8.472				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

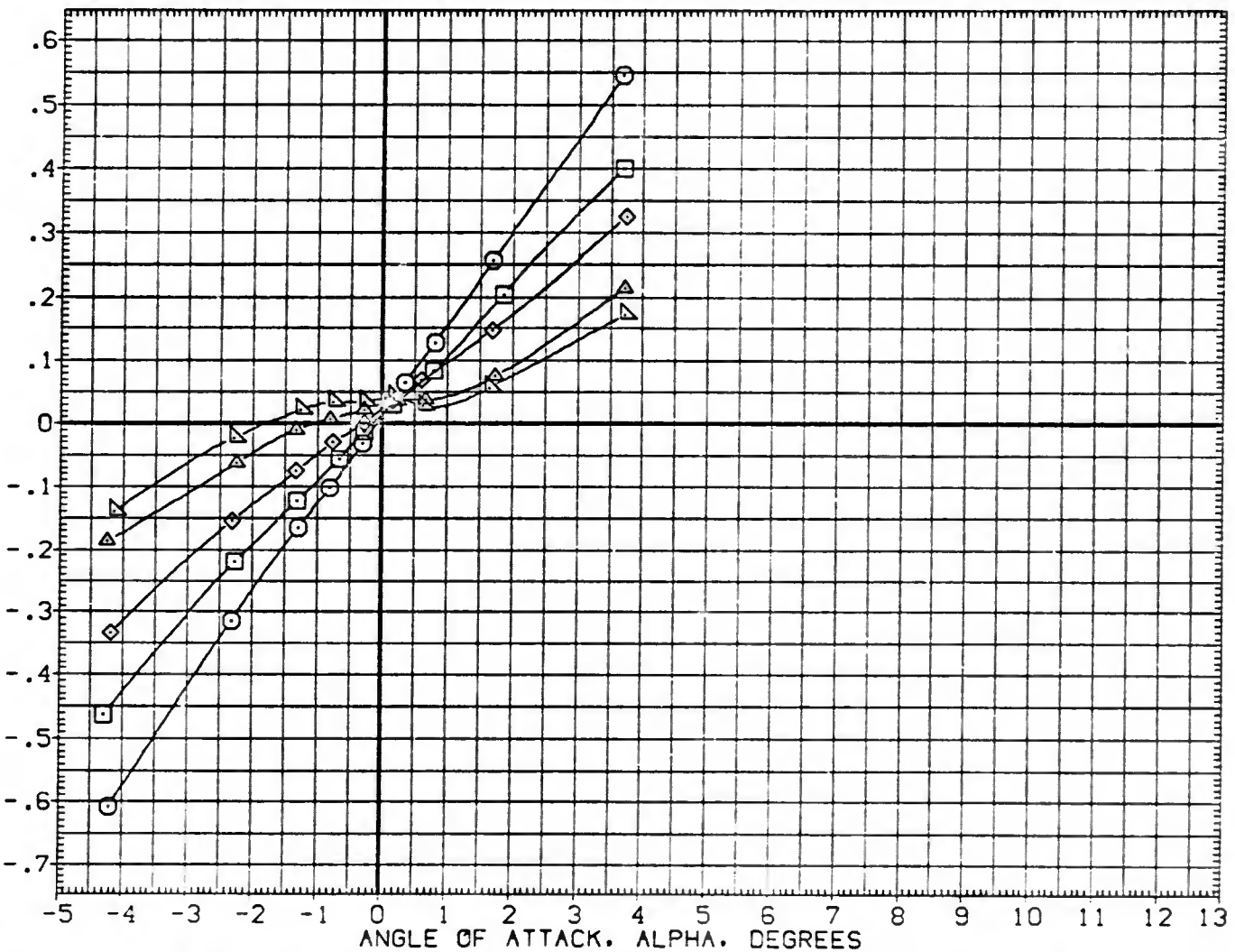


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8042)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.067	BETA	.000	PHI	.000
□	2.725	MACH	1.000		
◇	4.127				
△	6.050				
▷	6.970				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

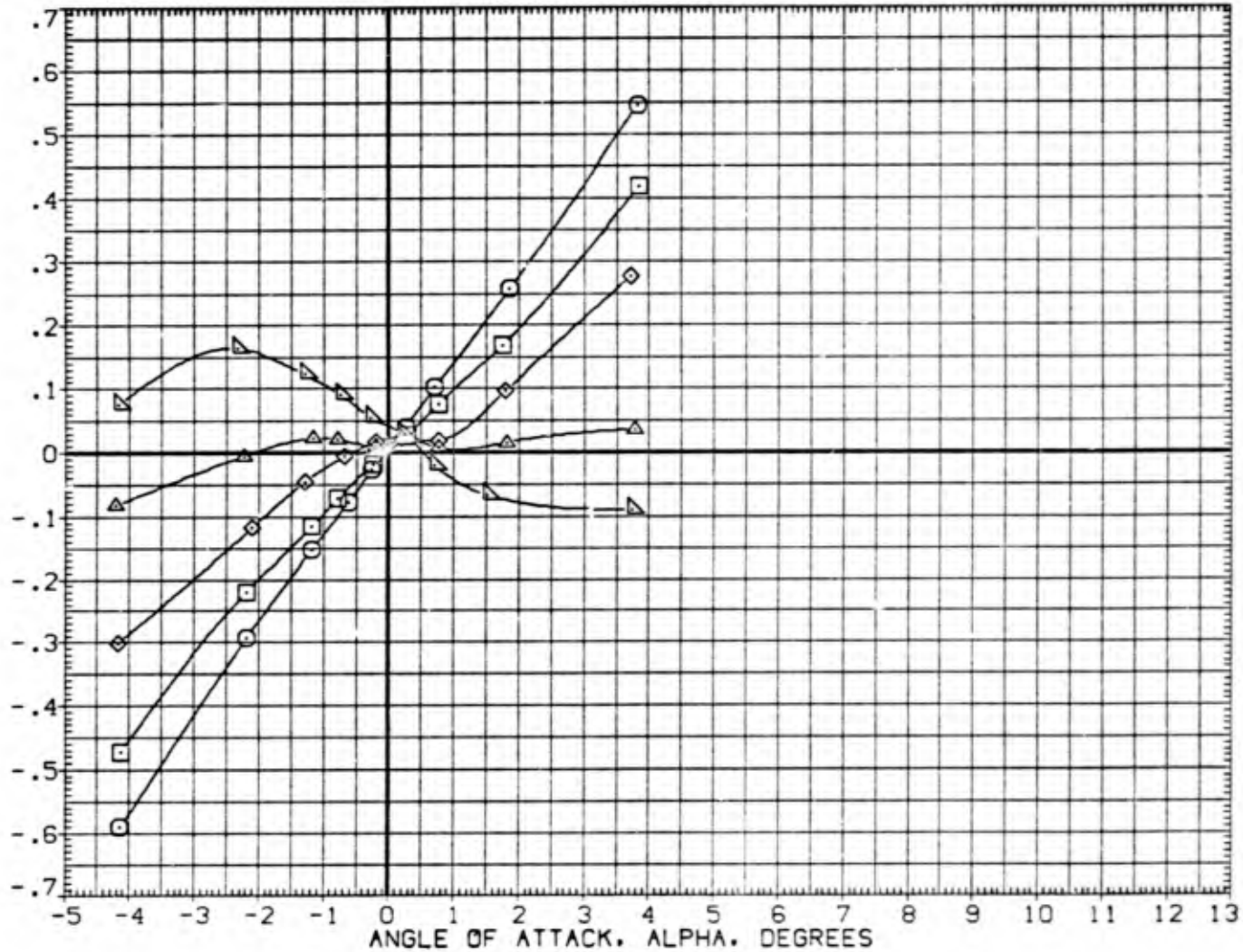


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8043)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.036	BETA	.000	PHI	.000
□	2.443	MACH	1.200		
◇	4.045				
△	6.023				
◿	7.172				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



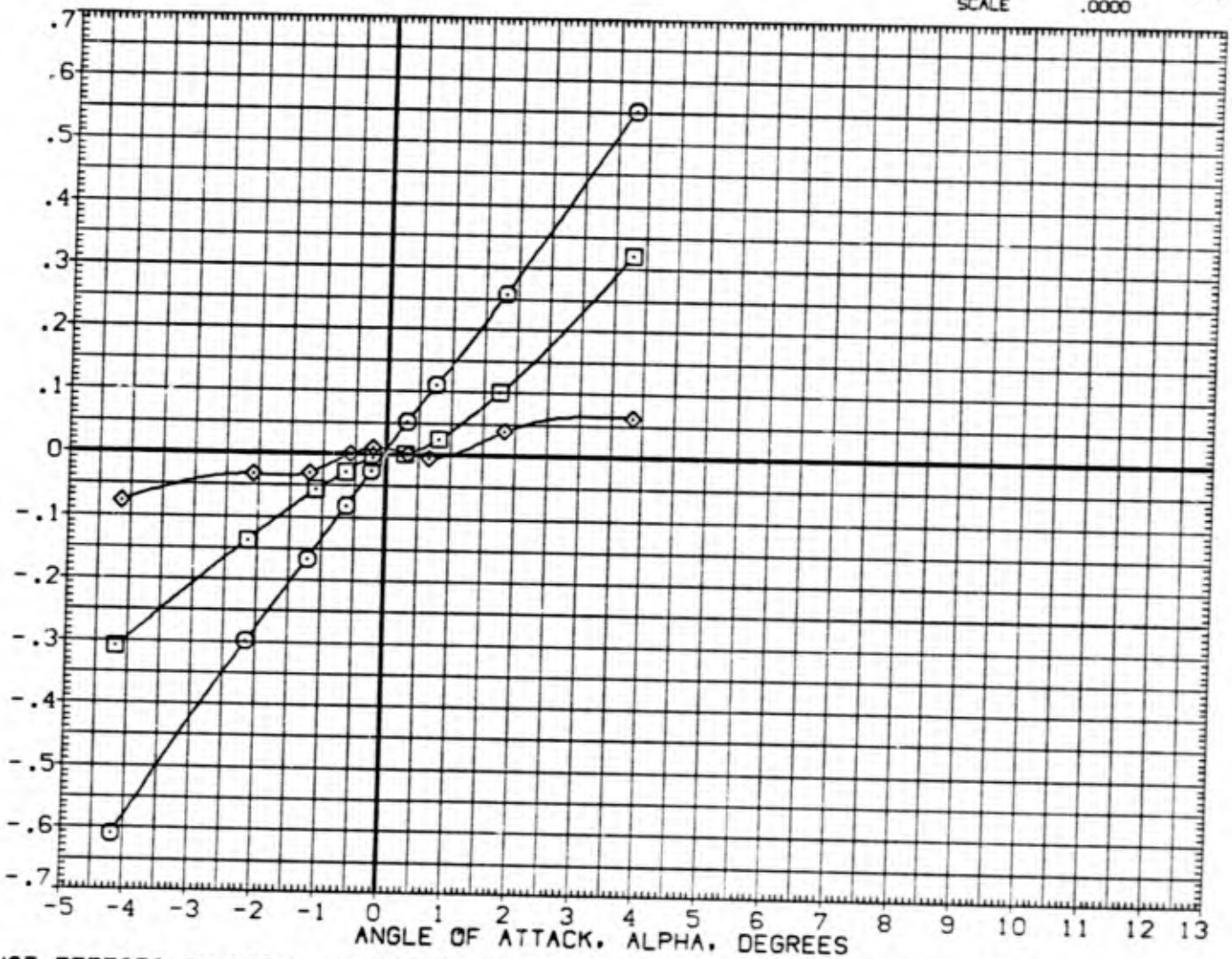
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8044)

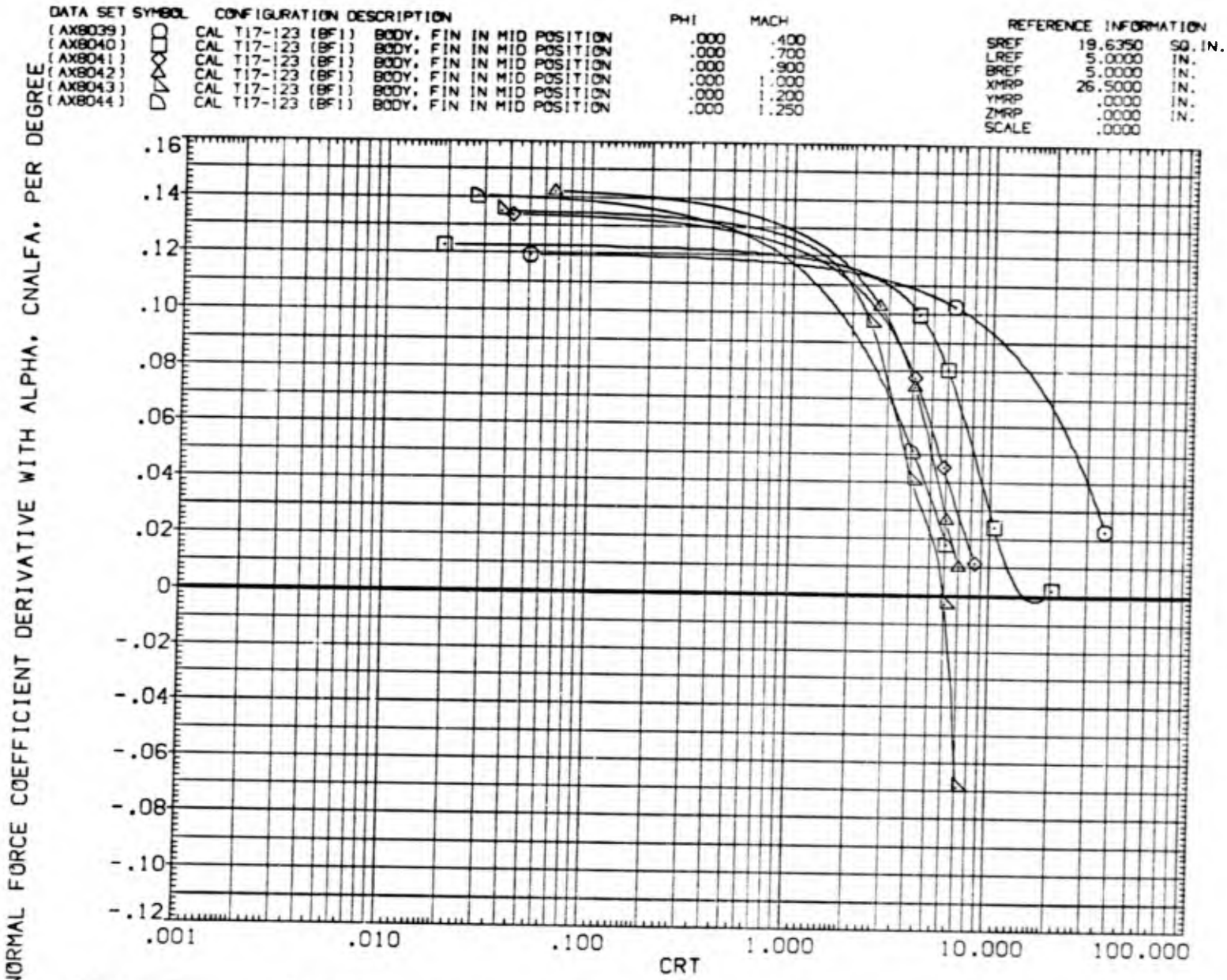
SYMBOL	CRT		PARAMETRIC VALUES		
○	.028	BETA	.000	PHI	.000
□	4.058	MACH	1.250		
◇	6.082				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

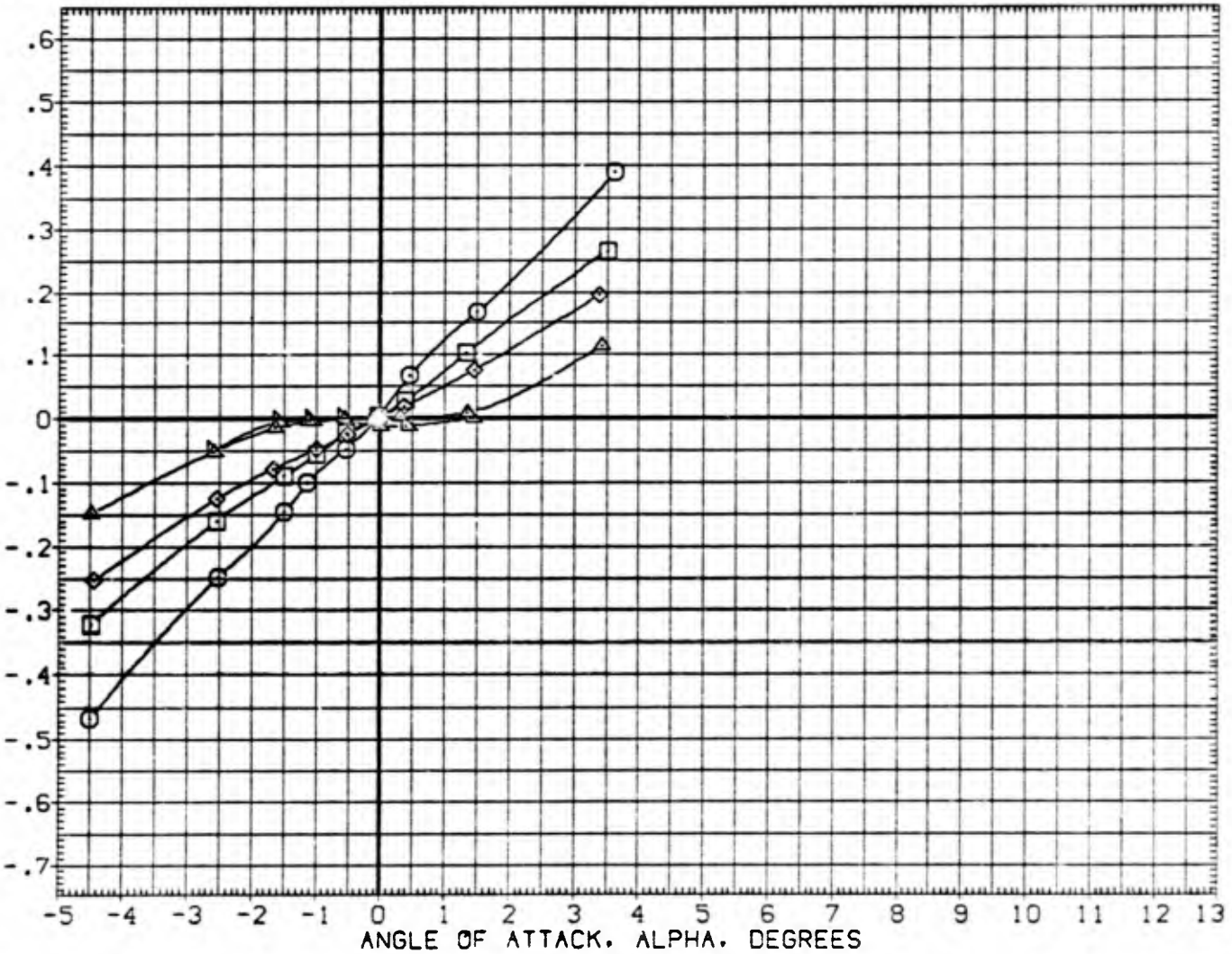


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY. FIN IN MID POSITION (AX8045)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.080	BETA	.000	PHI	.000
□	4.382	MACH	.700		
◇	5.874				
△	10.762				
▽	20.719				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

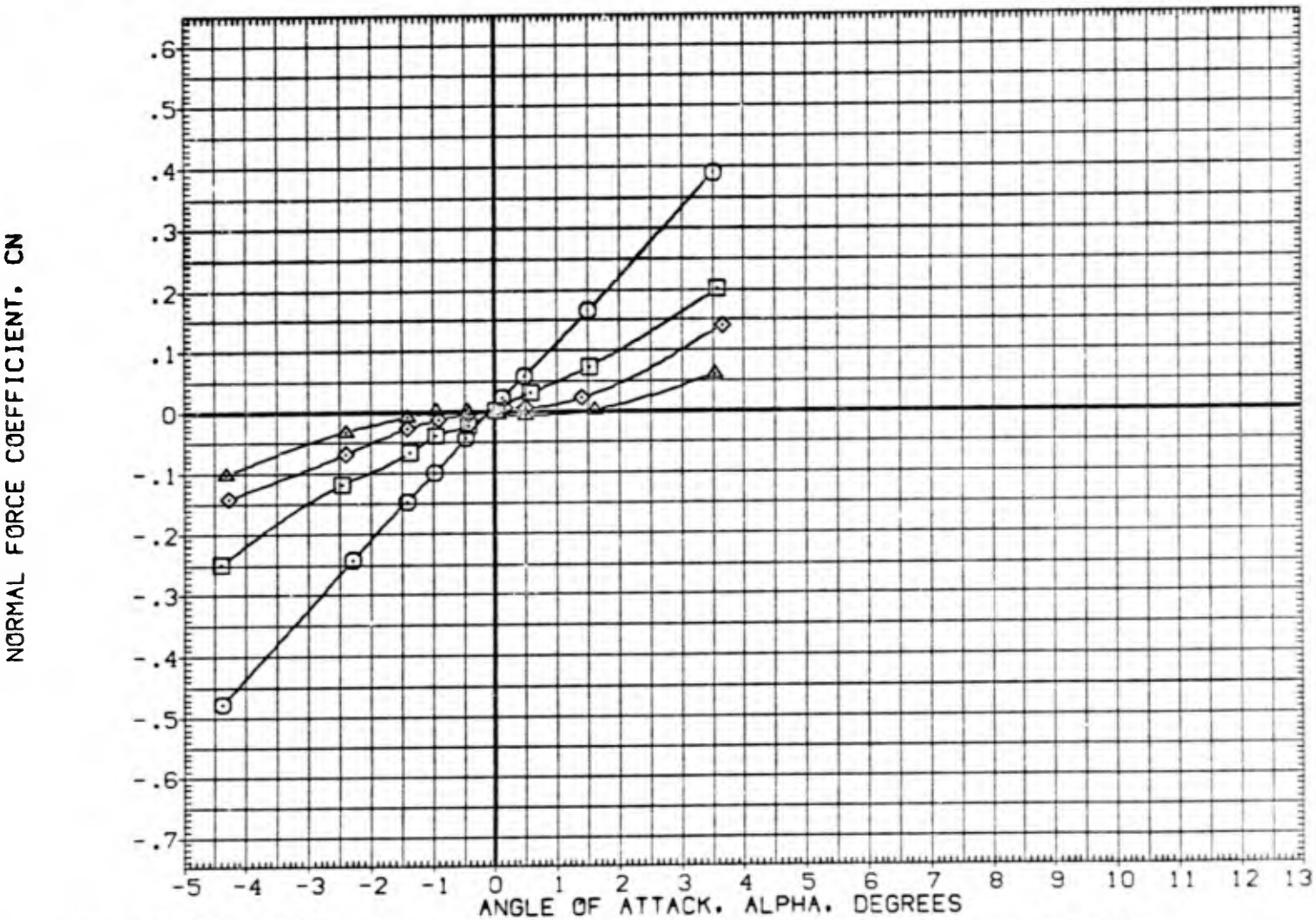


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8046)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.046	BETA	.000	PHI	.000
□	4.127	MACH	.900		
◇	5.650				
△	8.605				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



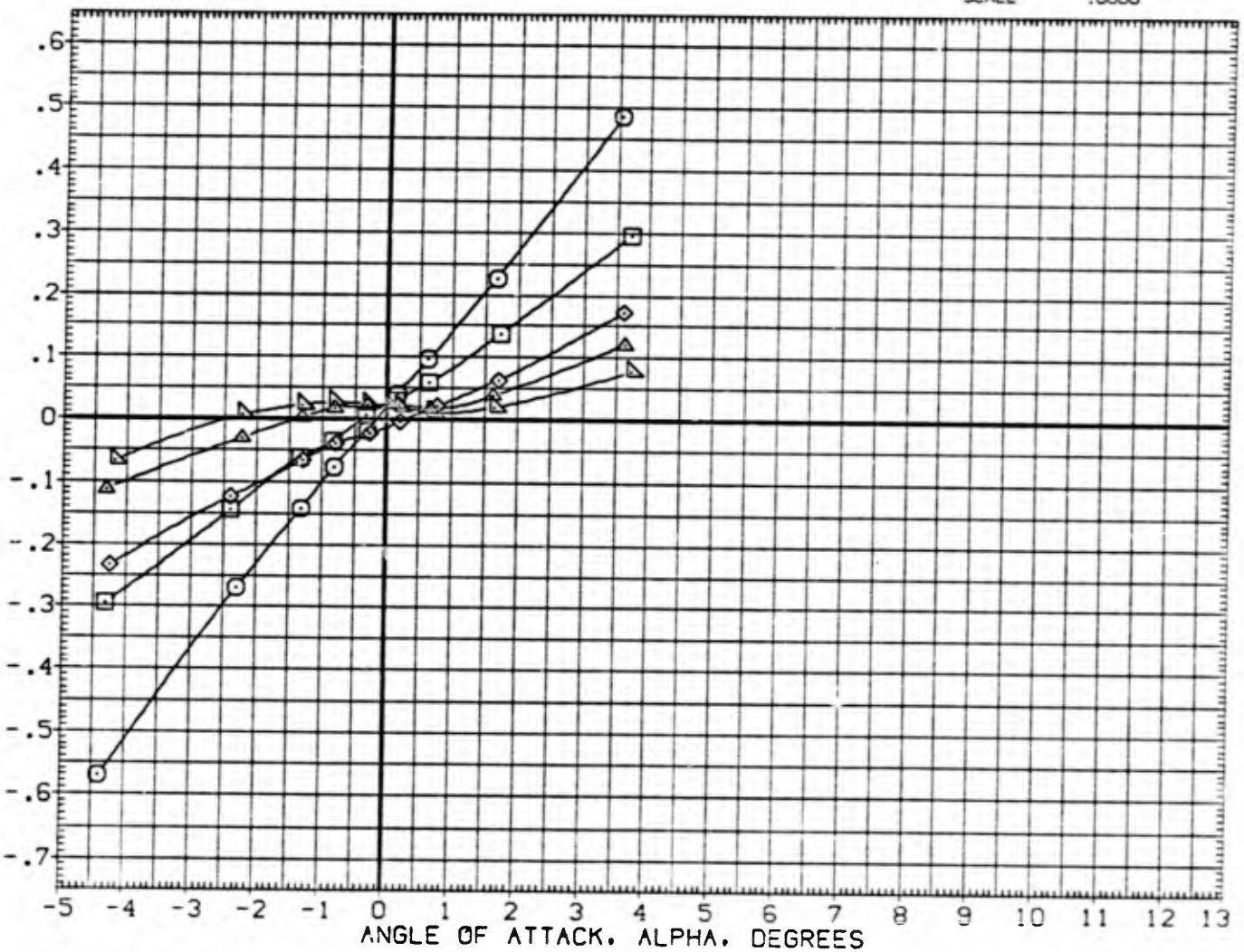
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8047)

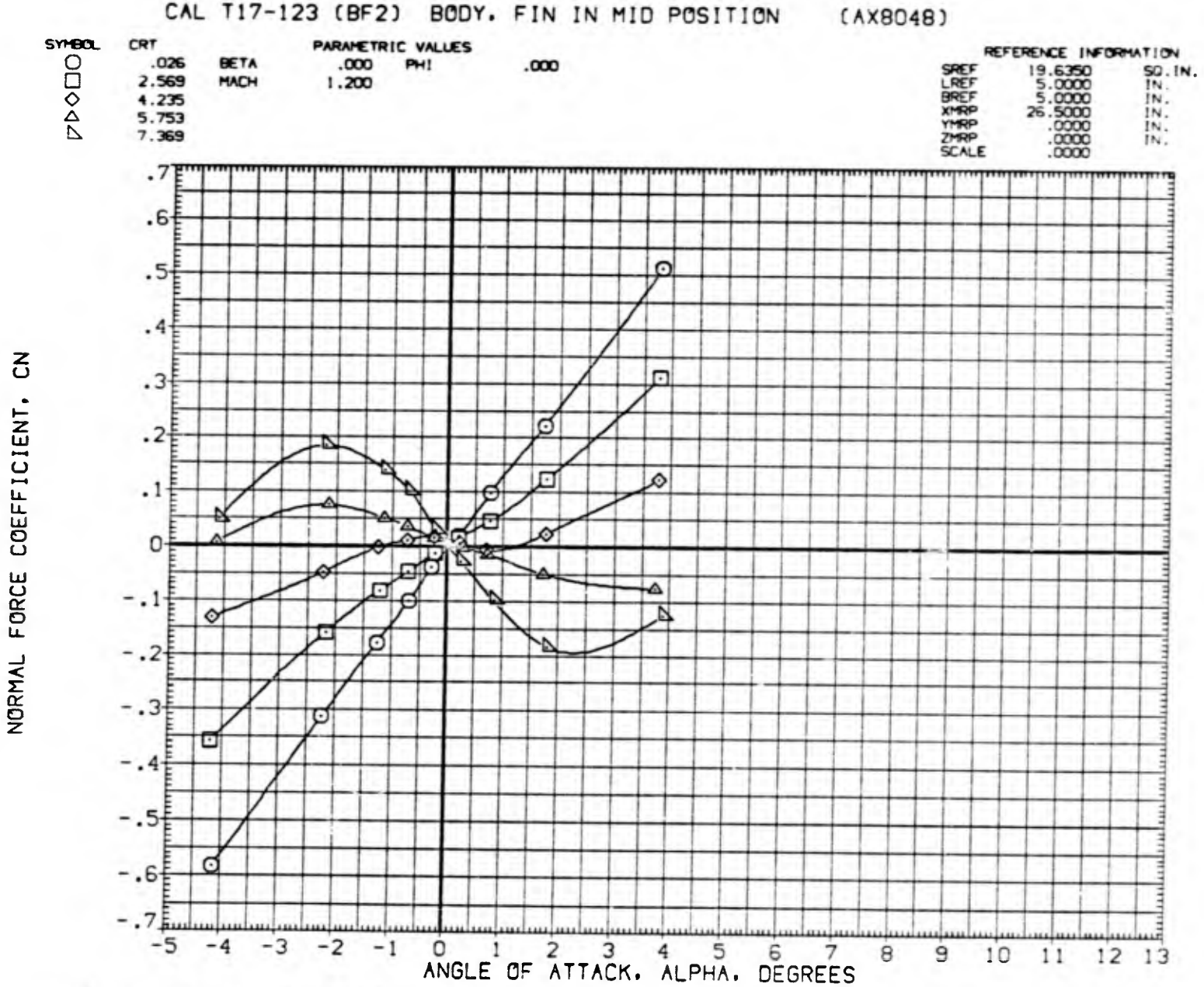
SYMBOL	CRT		PARAMETRIC VALUES		
○	.049	BETA	.000	PHI	.000
□	2.614	MACH	1.000		
◇	4.126				
△	5.709				
▽	7.029				

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

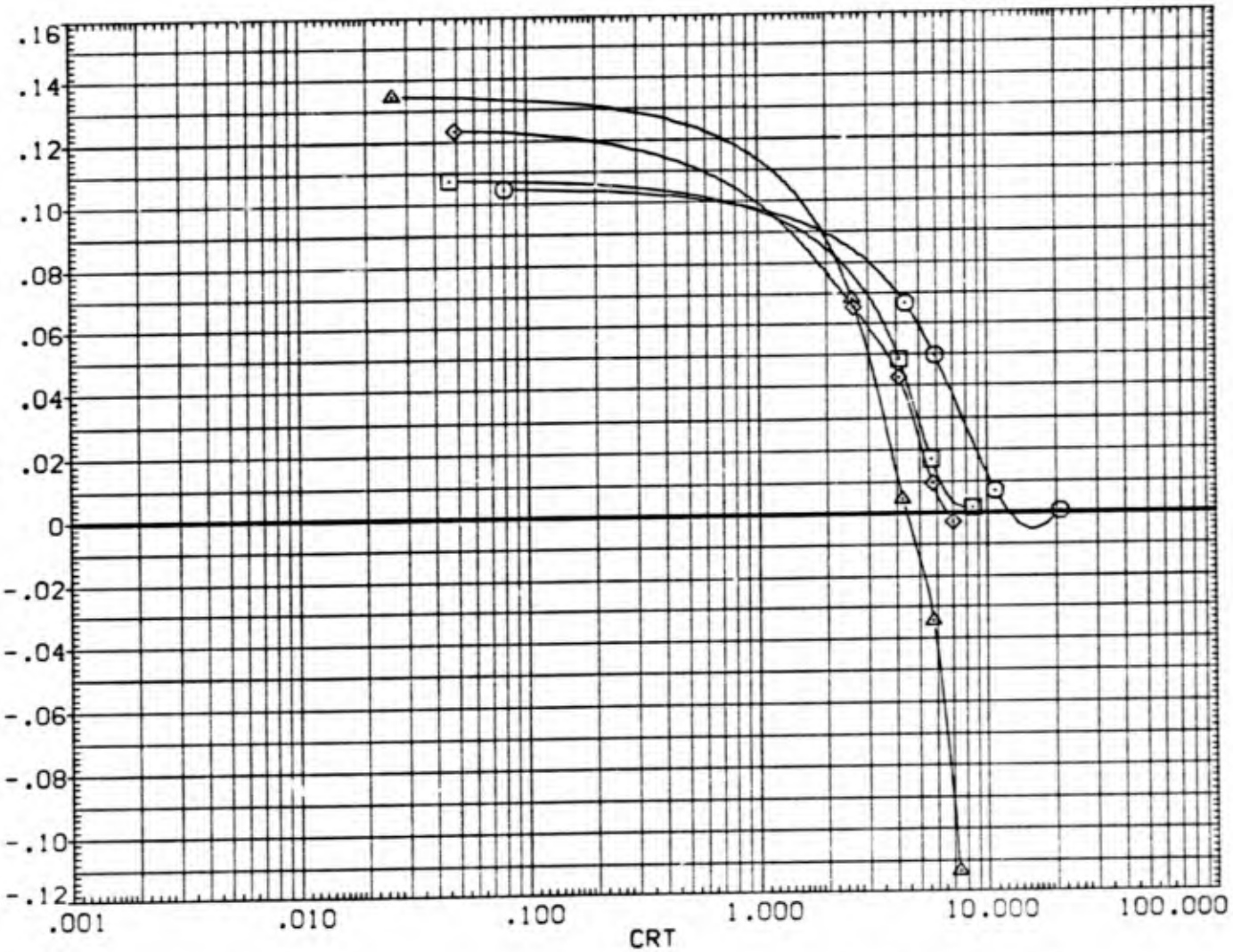


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AXB045)	□	CAL T17-123 (BF2) BODY, FIN IN MID POSITION	.000	.700
(AXB046)	◇	CAL T17-123 (BF2) BODY, FIN IN MID POSITION	.000	.900
(AXB047)	⊠	CAL T17-123 (BF2) BODY, FIN IN MID POSITION	.000	1.000
(AXB048)	△	CAL T17-123 (BF2) BODY, FIN IN MID POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



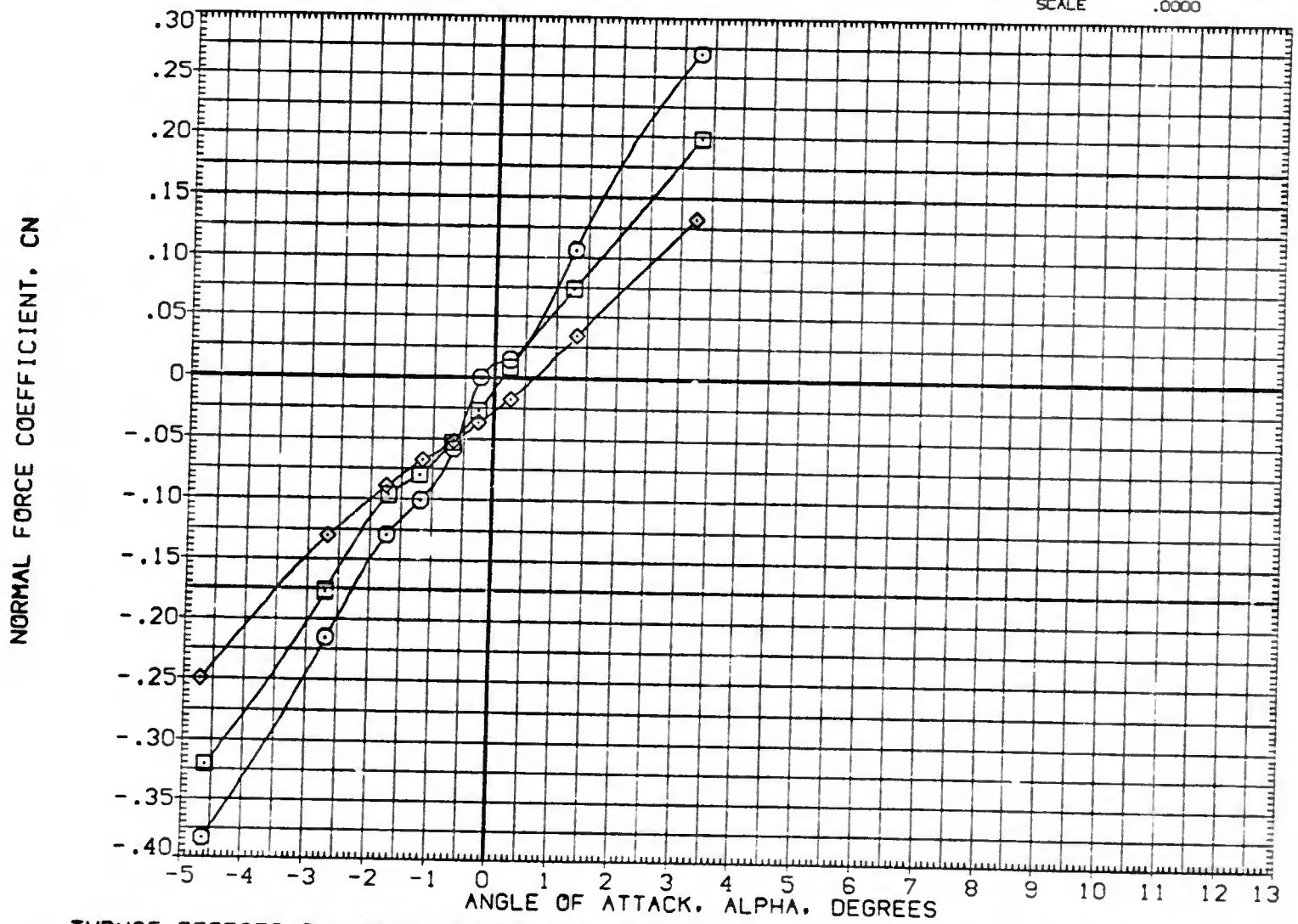
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8053)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.121	BETA	.000	PHI	.000
□	6.019	M/CH	.400		
◇	12.217				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



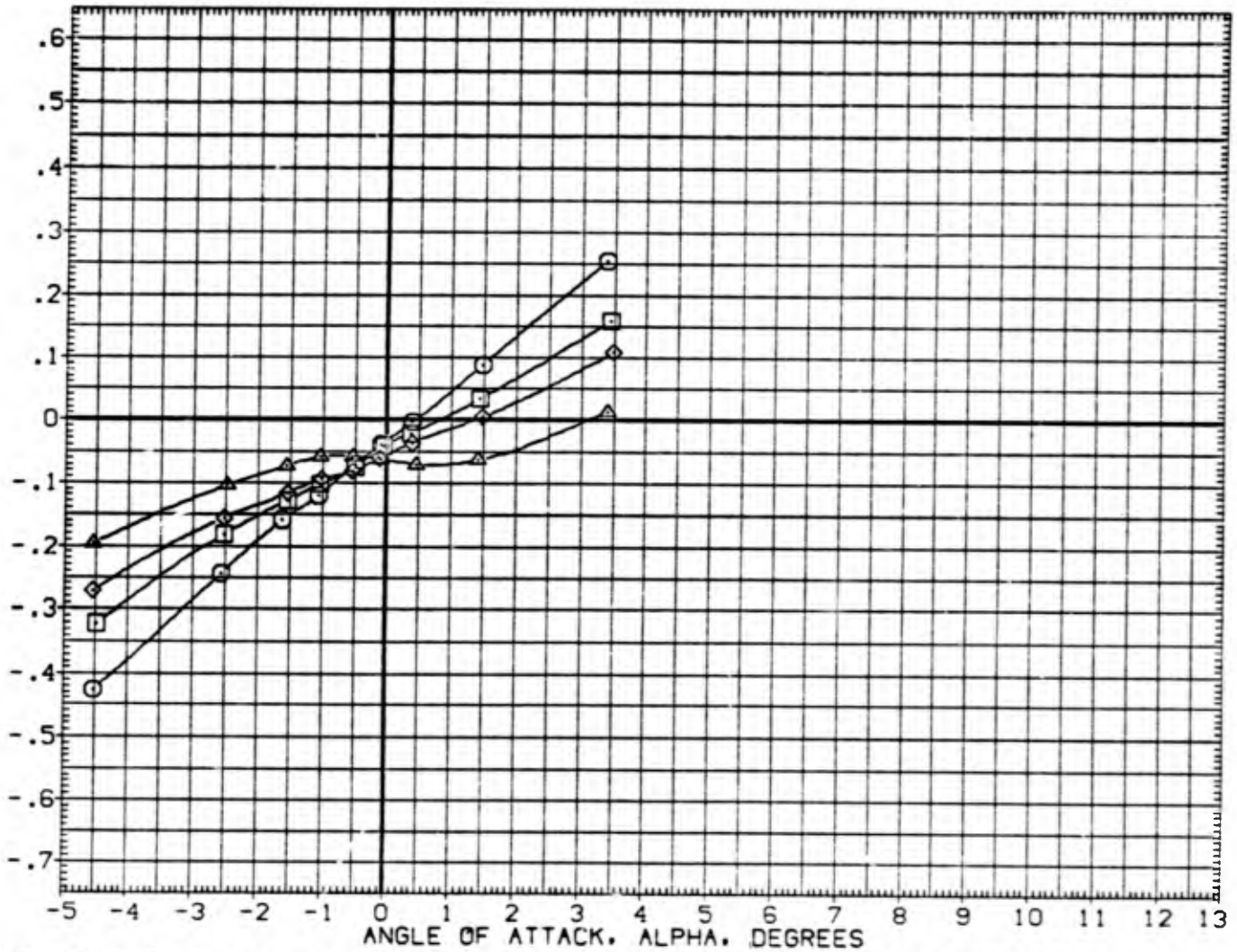
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY. FIN IN MID POSITION (AX8054)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.001	BETA	.000	PHI	.000
□	4.199	MACH	.700		
◇	5.854				
△	10.435				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



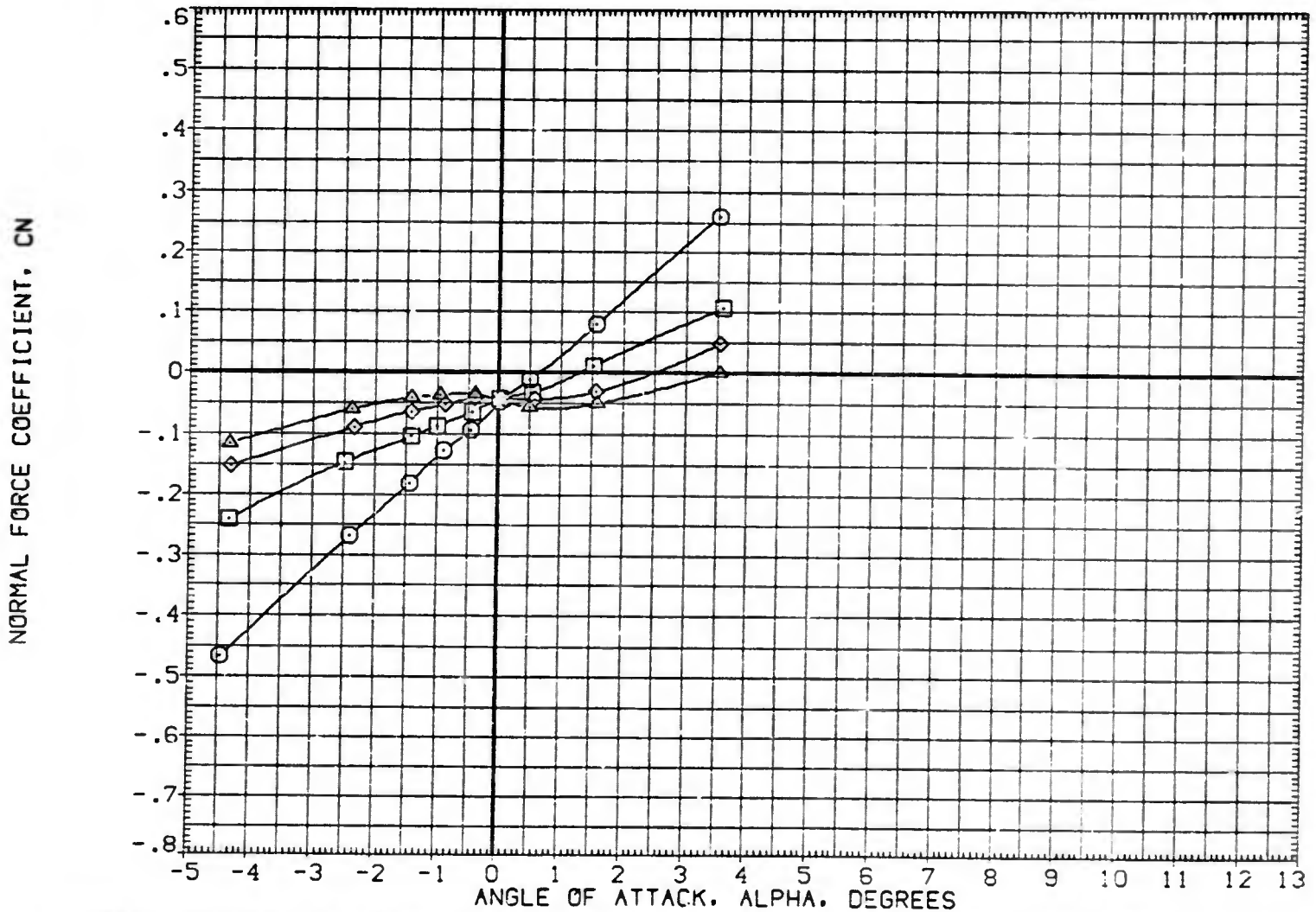
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MIC POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8055)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.008	BETA	.000	PHI	.000
□	4.050	MACH	.900		
◇	5.851				
△	9.015				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



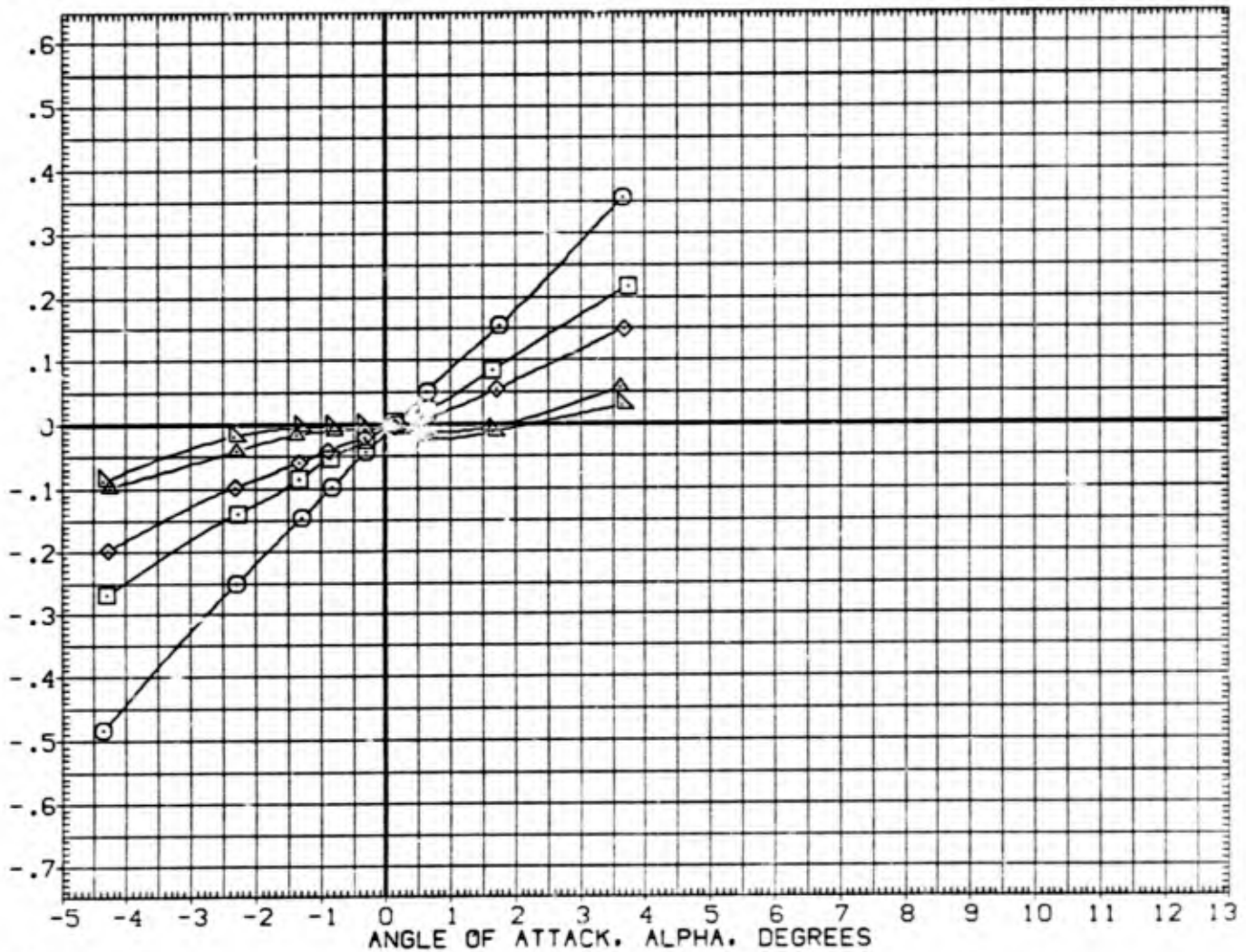
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8056)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	2.636	MACH	1.000		
◇	3.991				
△	5.872				
▷	7.056				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



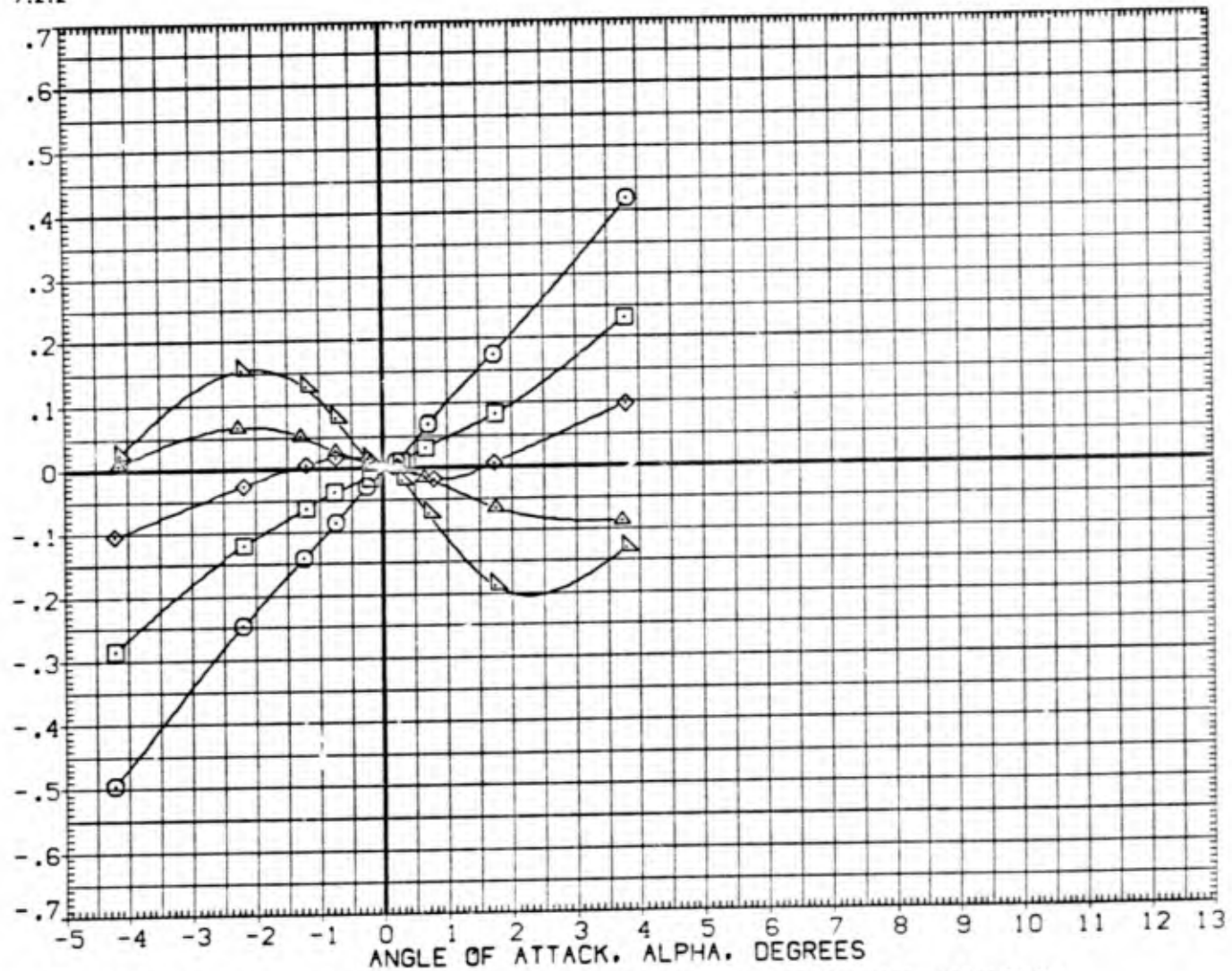
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8057)

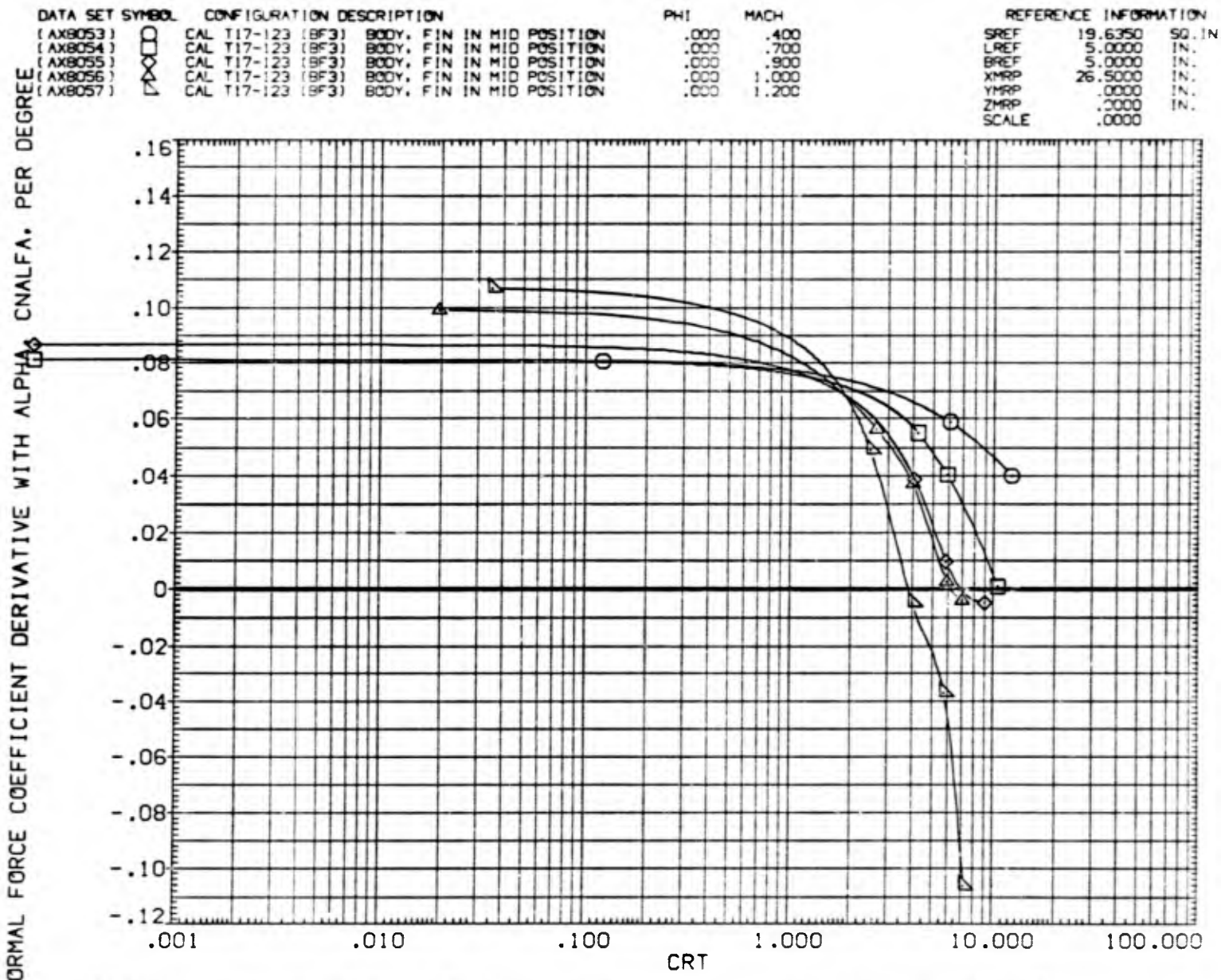
SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	.000
□	2.459	MACH	1.200		
◇	3.995				
△	5.737				
▷	7.212				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION



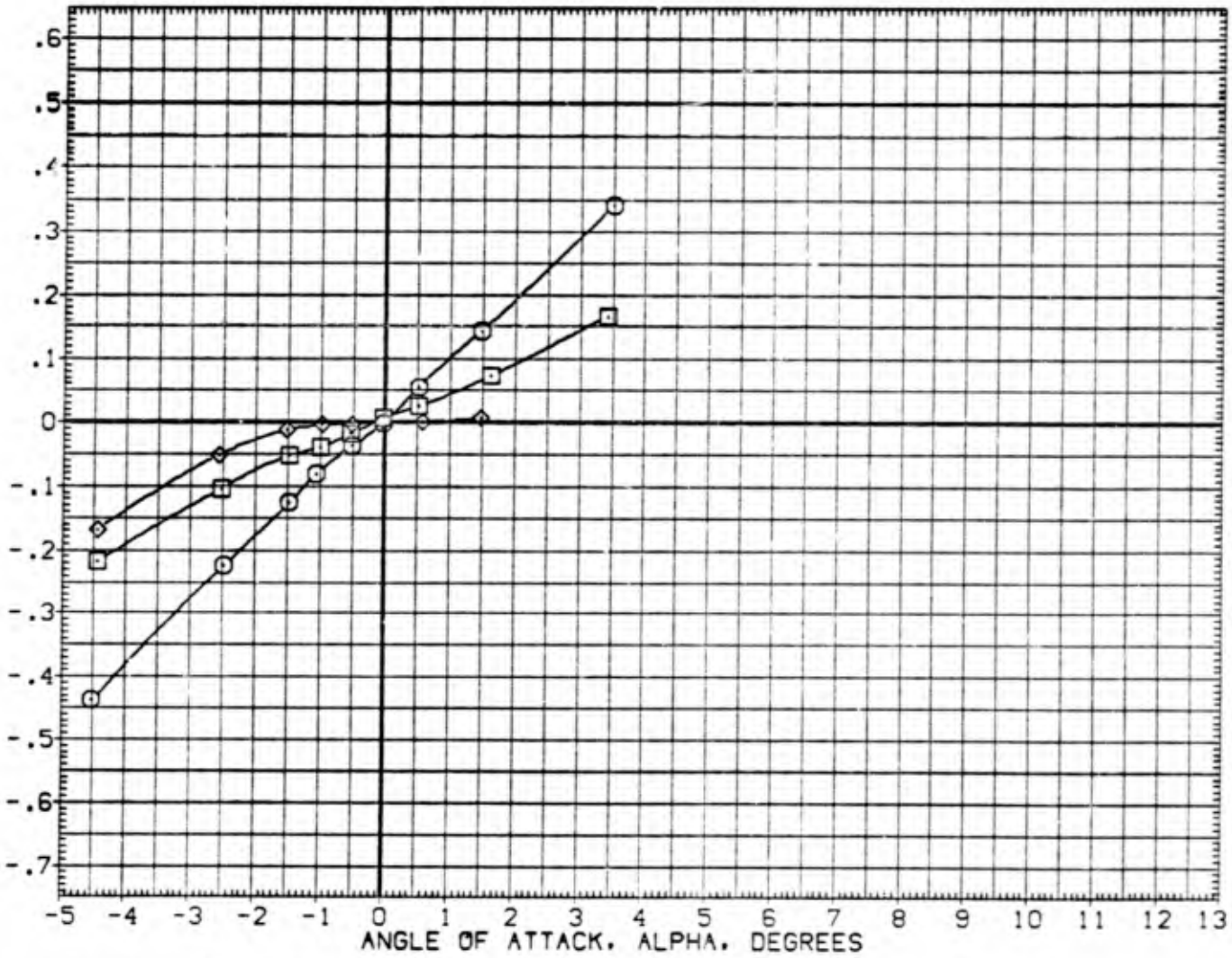
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8049)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.089	BETA	.000	PHI	.000
□	5.856	MACH	.700		
◇	10.318				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



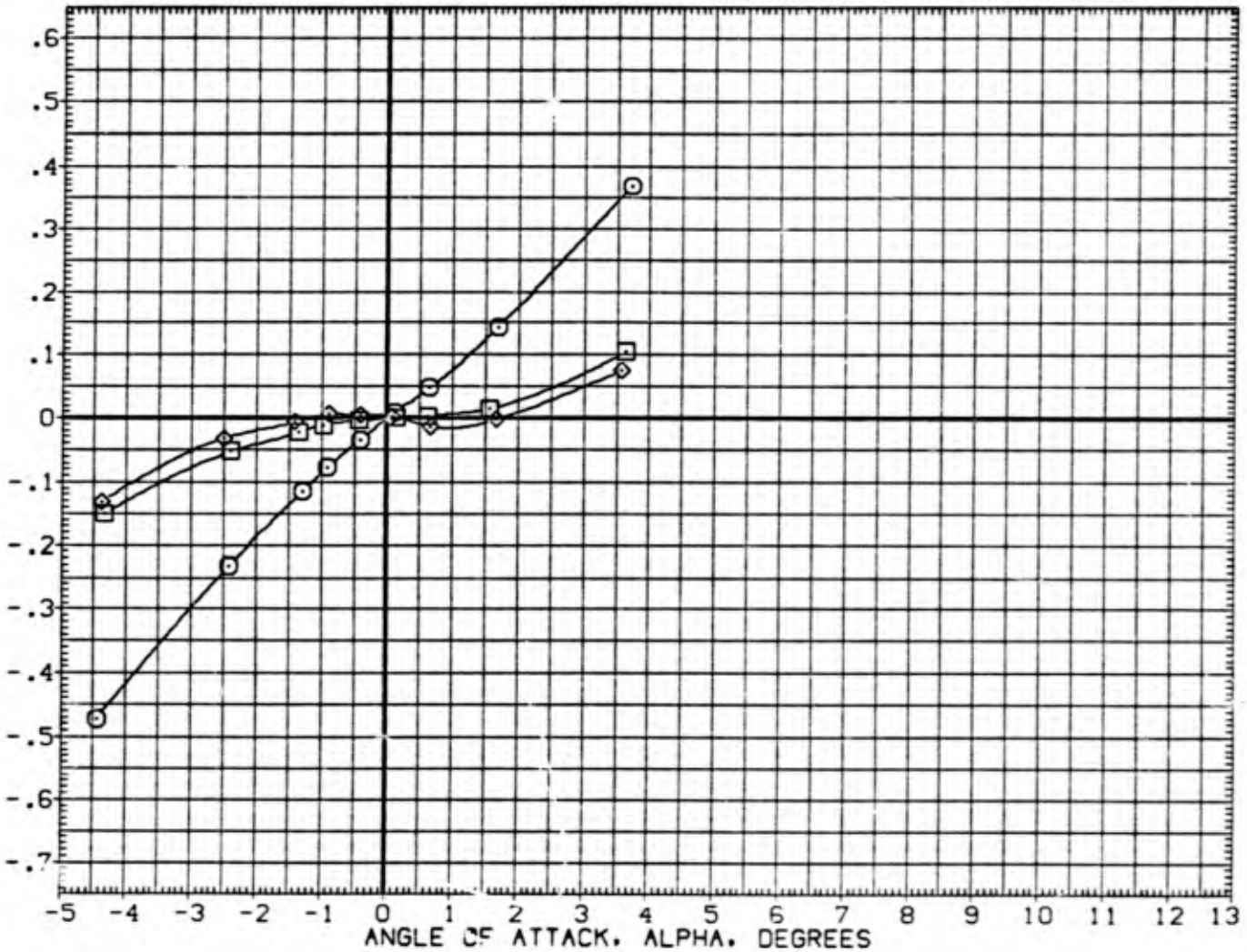
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8050)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.031	BETA	.000	PHI	.000
□	5.742	MACH	.900		
◇	8.725				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



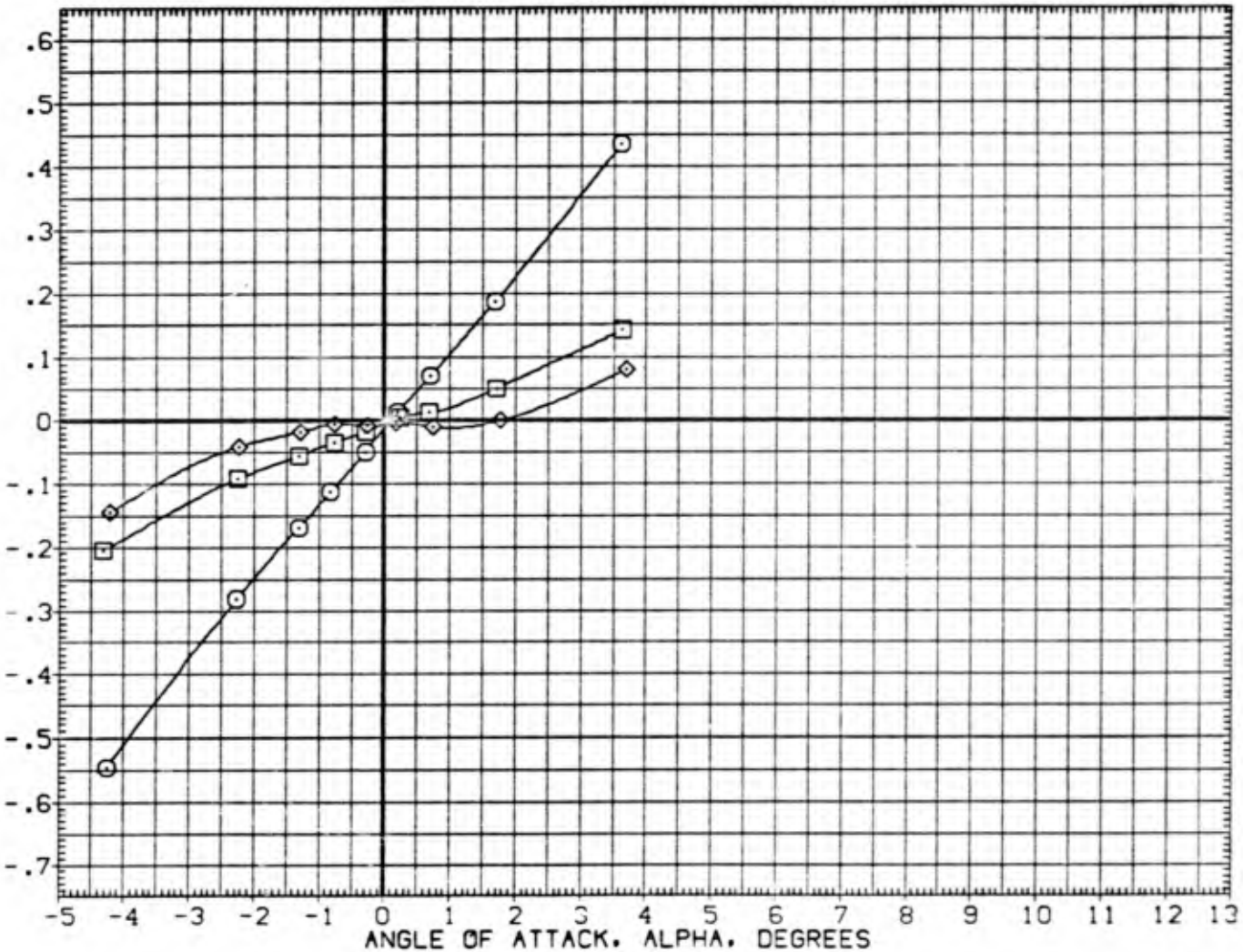
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8051)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.004	BETA	.000	PHI	.000
□	4.006	MACH	1.000		
◇	5.877				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



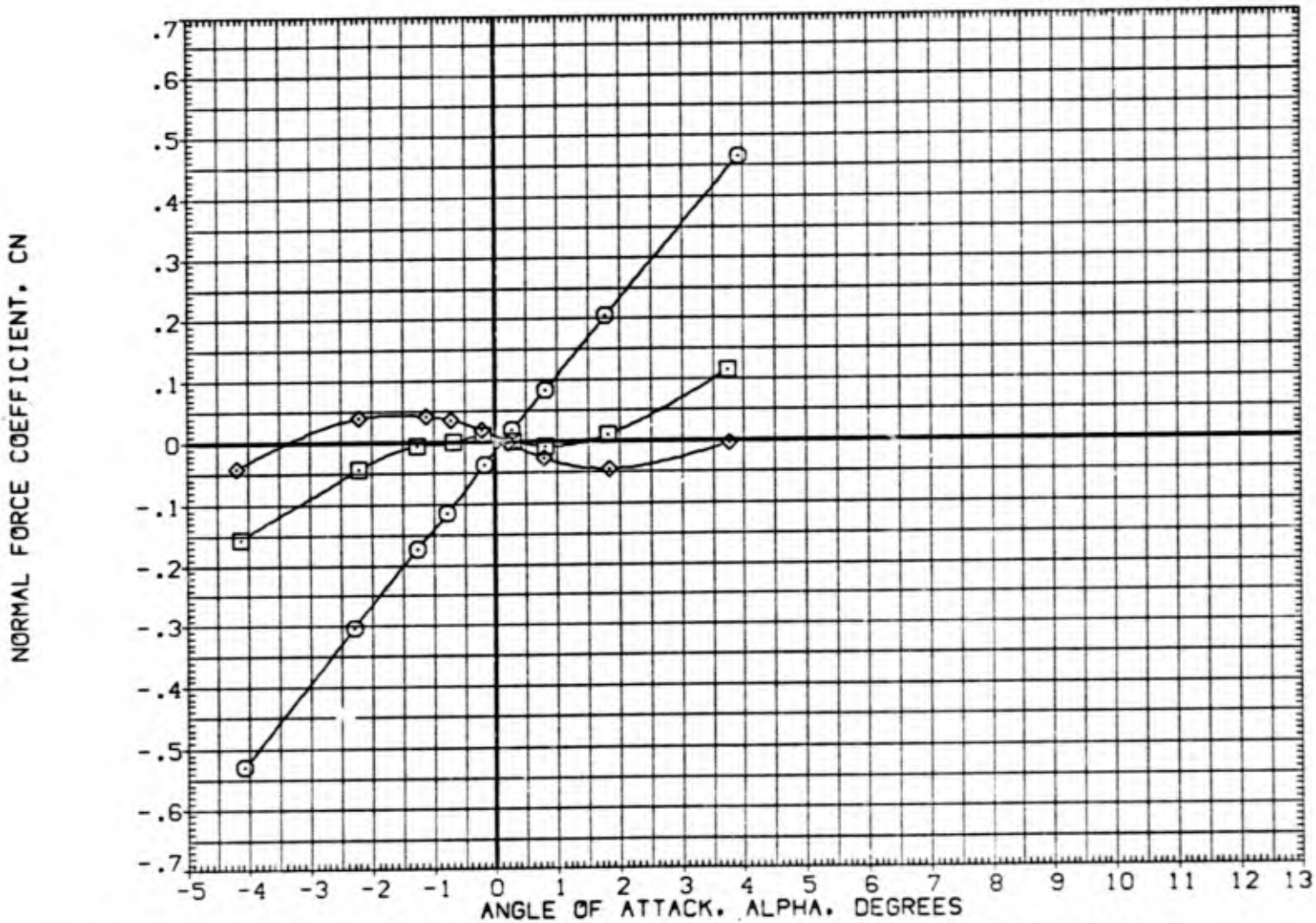
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8052)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.006	BETA	.000	PHI	.000
□	4.113	MACH	1.200		
◇	6.174				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

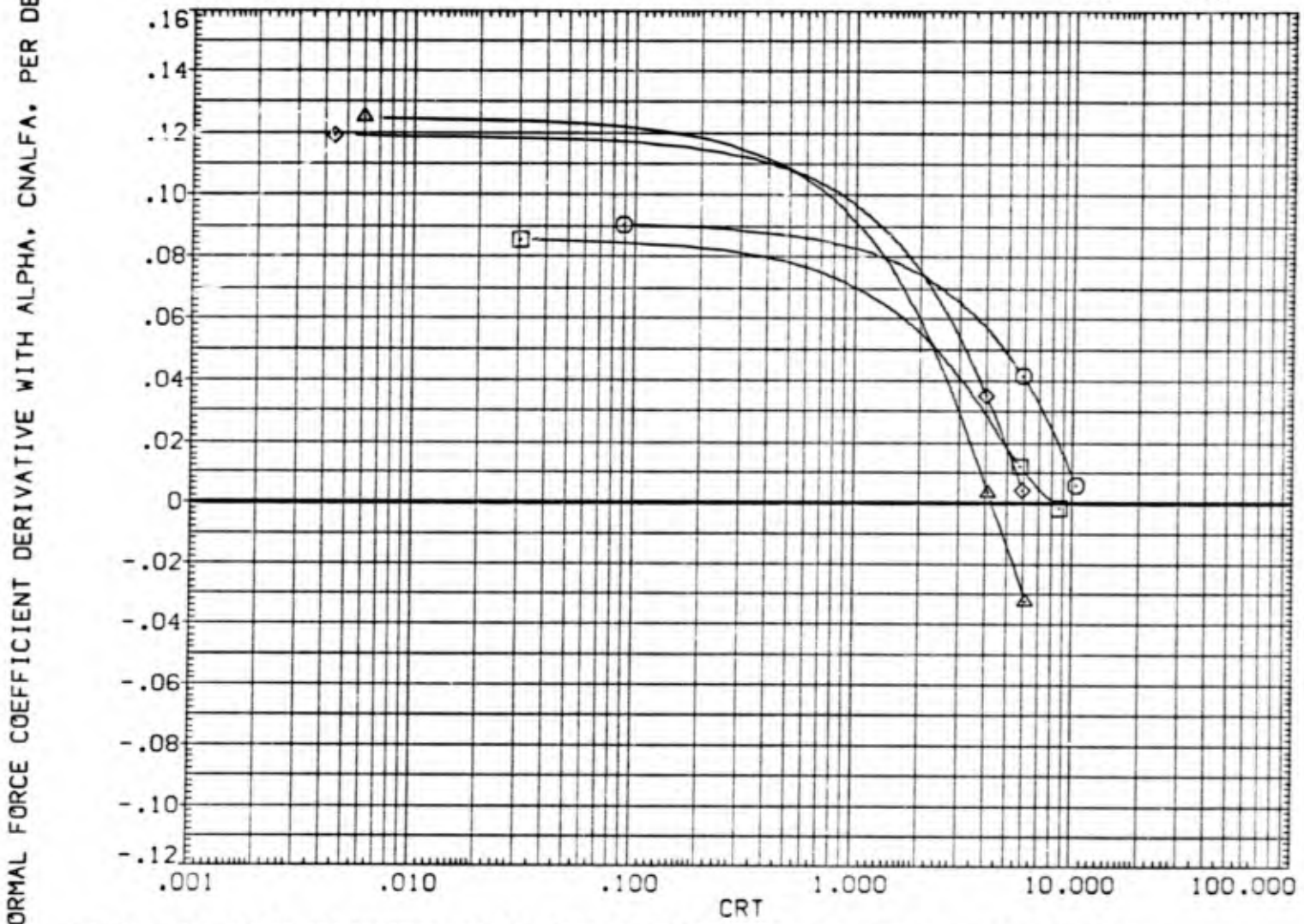


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8049)	○	CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	.700
(AX8050)	□	CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	.900
(AX8051)	◇	CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	1.000
(AX8052)	△	CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



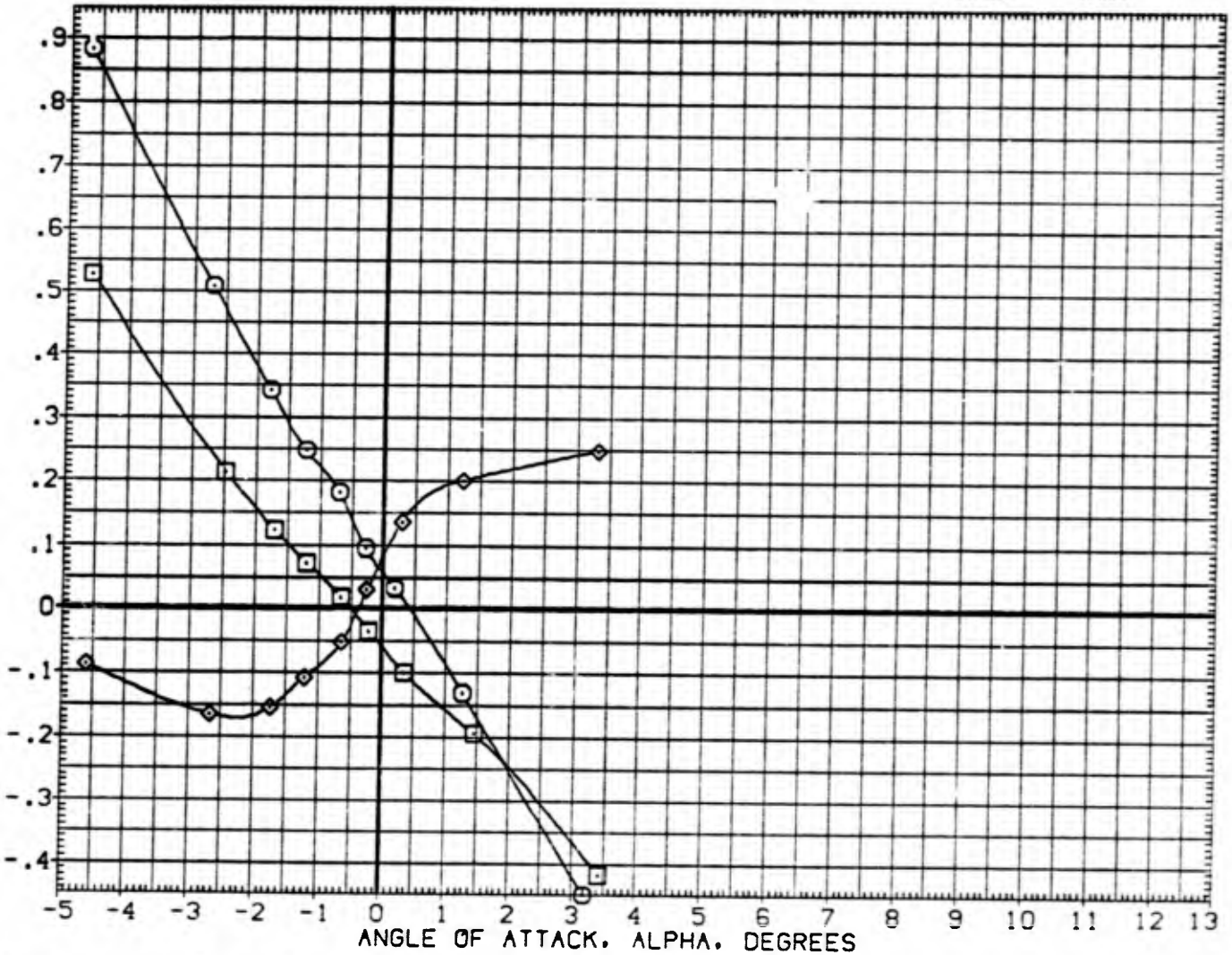
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8039)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.051	BETA	.000	PHI	.000
□	6.423	MACH	.400		
◇	36.823				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

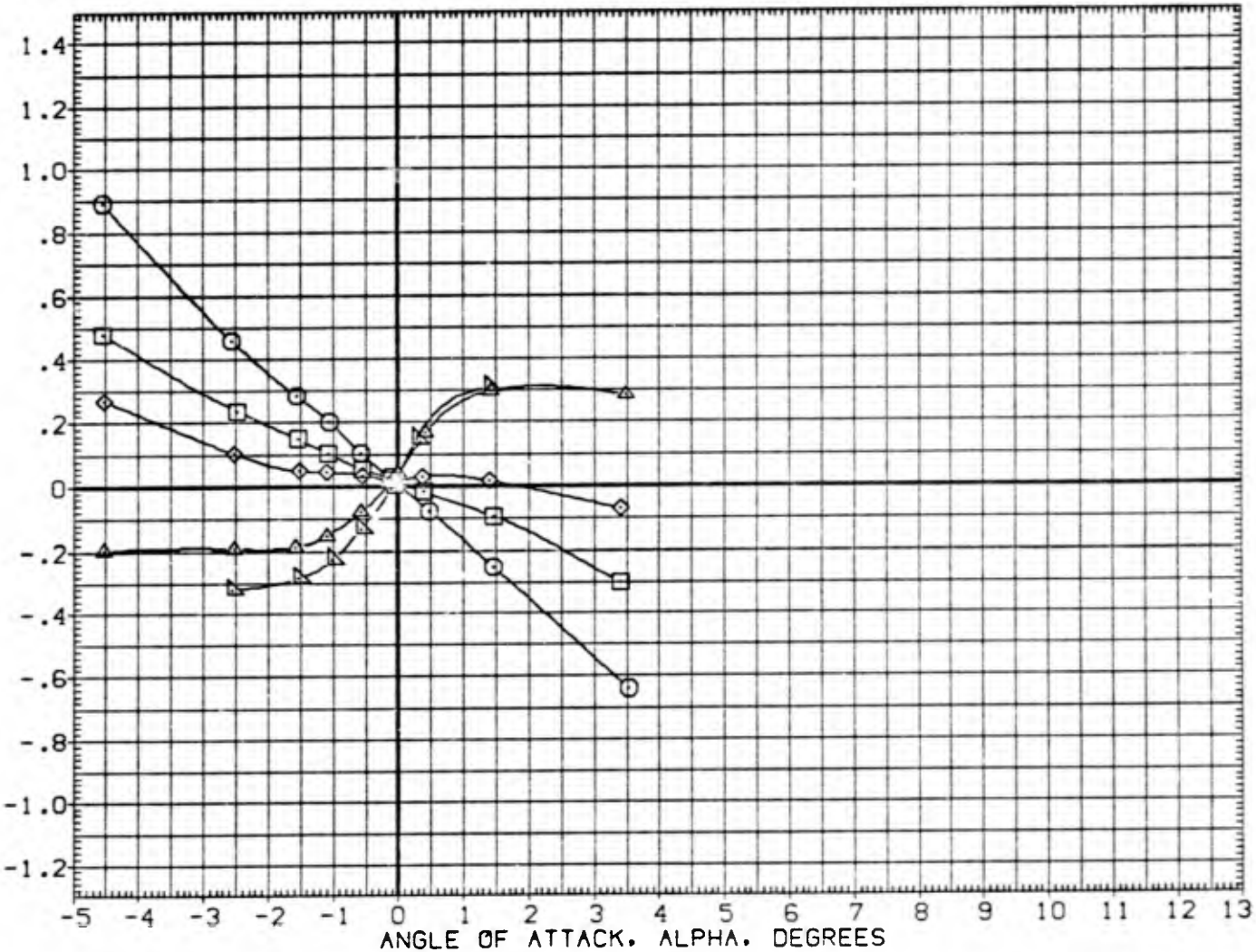


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8040)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.019	BETA	.000	PHI	.000
□	4.271	MACH	.700		
◇	5.936				
△	10.411				
▷	20.443				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

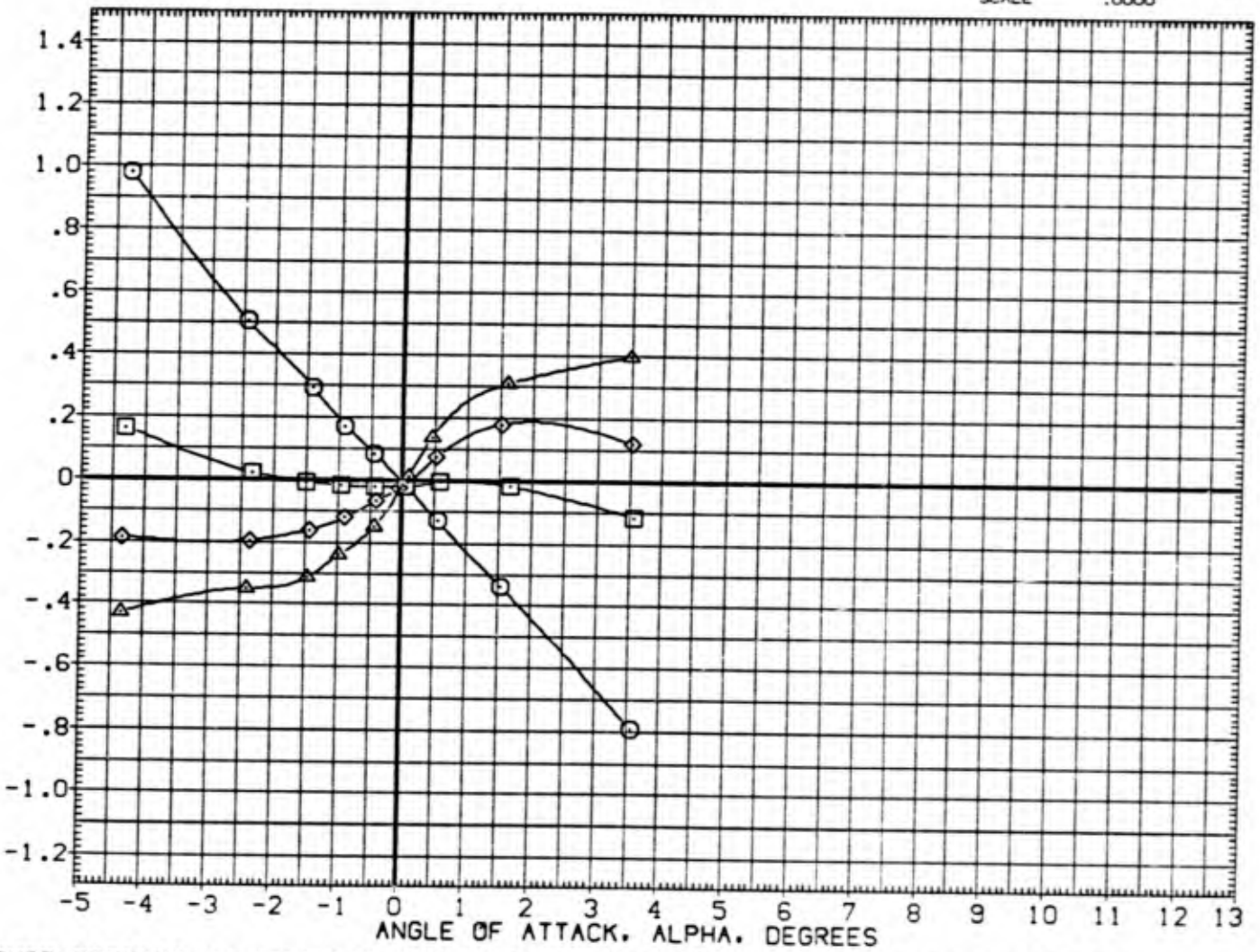


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8041)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.041	BETA	.000	PHI	.000
□	4.110	MACH	.900		
◇	5.781				
△	8.472				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

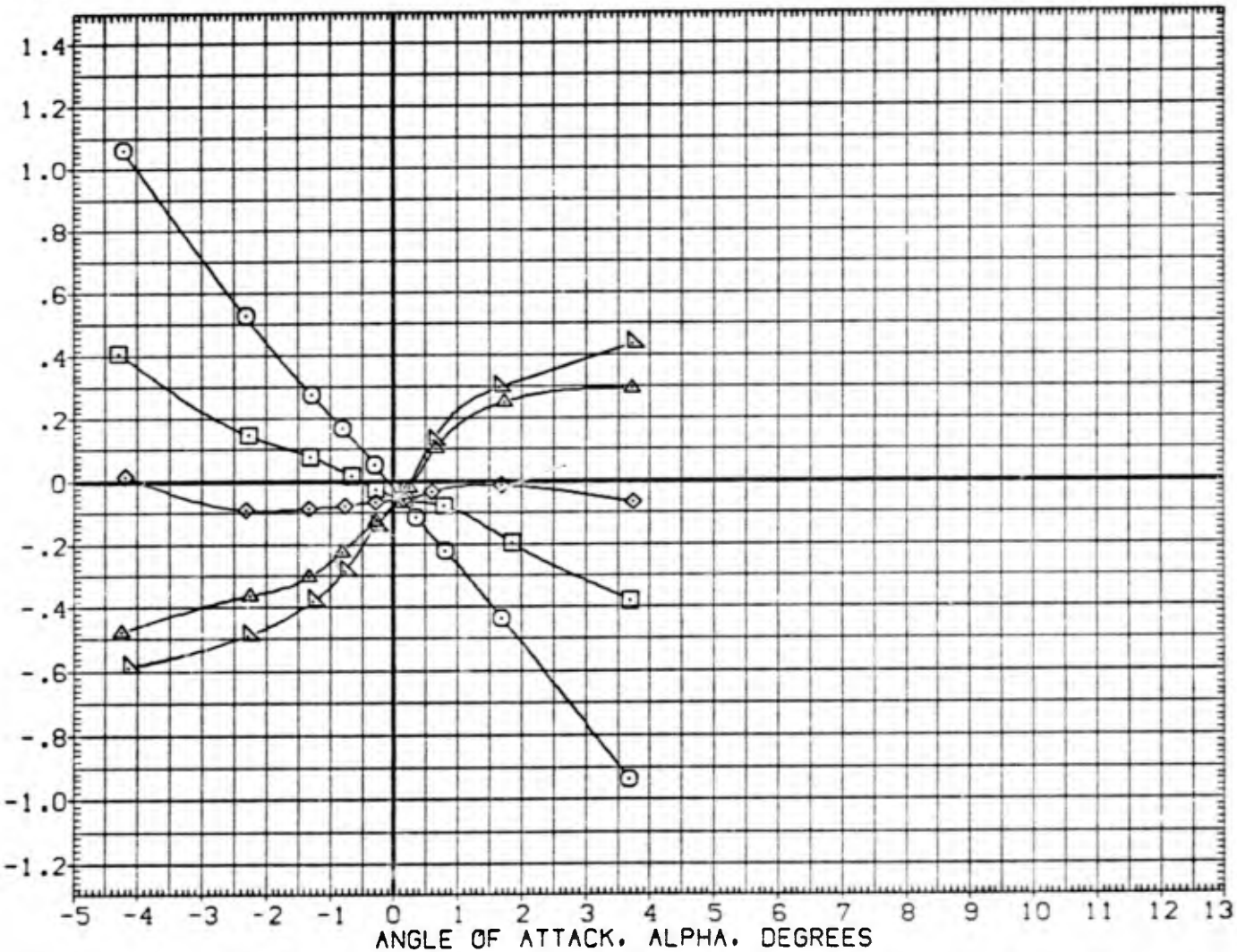


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

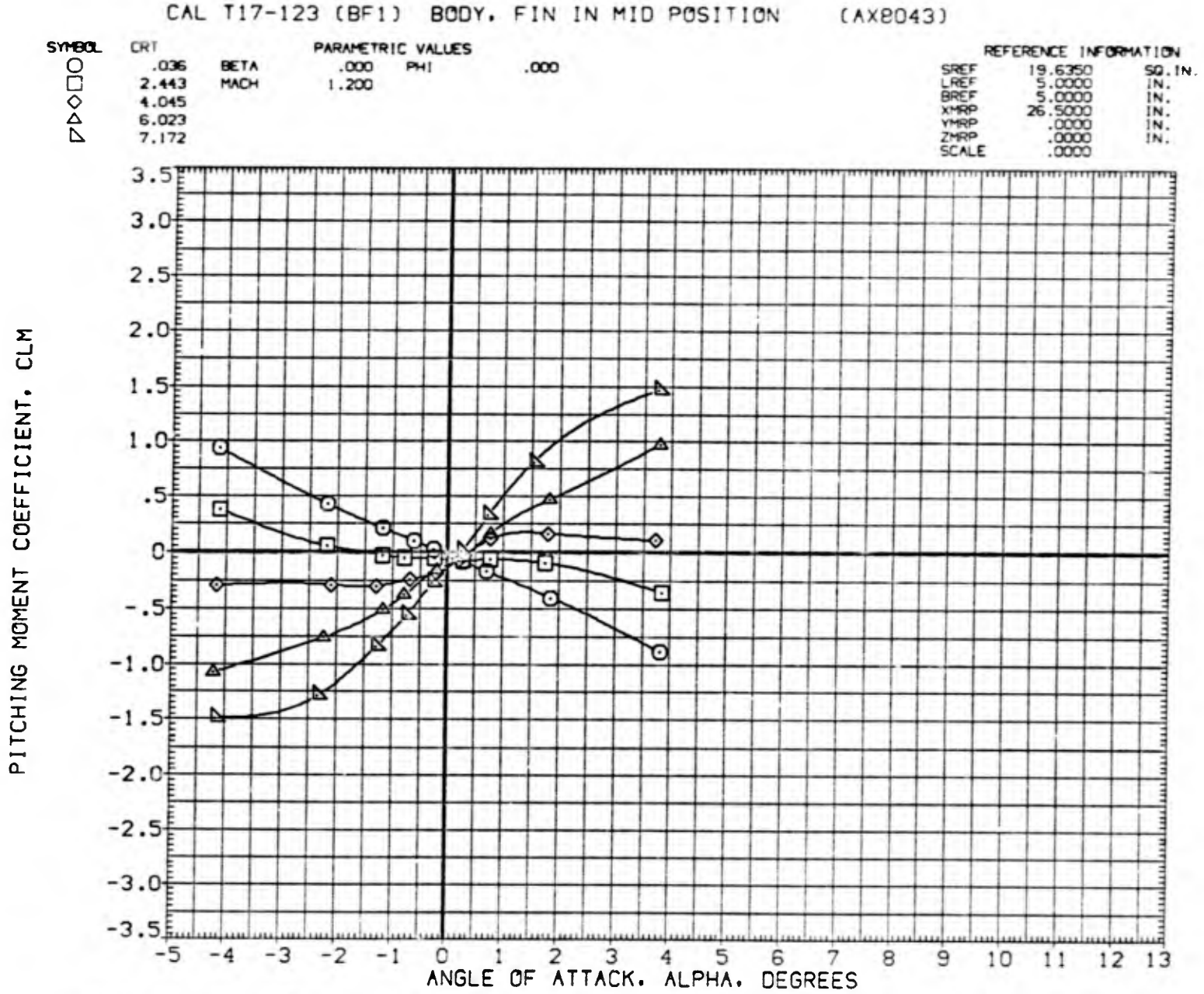
CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8042)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.067	BETA	.000	PHI	.000
□	2.725	MACH	1.000		
◇	4.127				
△	6.050				
▽	6.970				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION



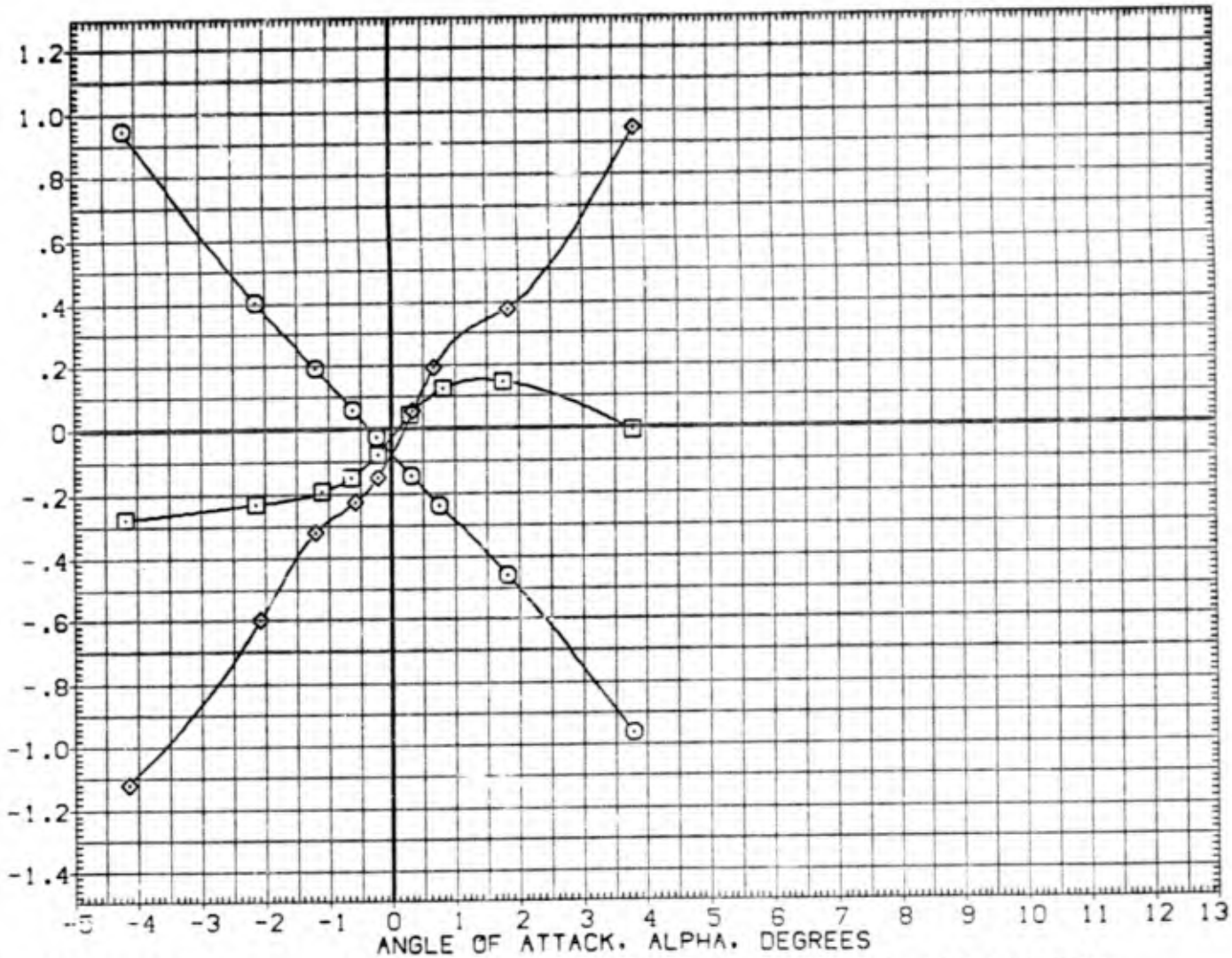
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8044)

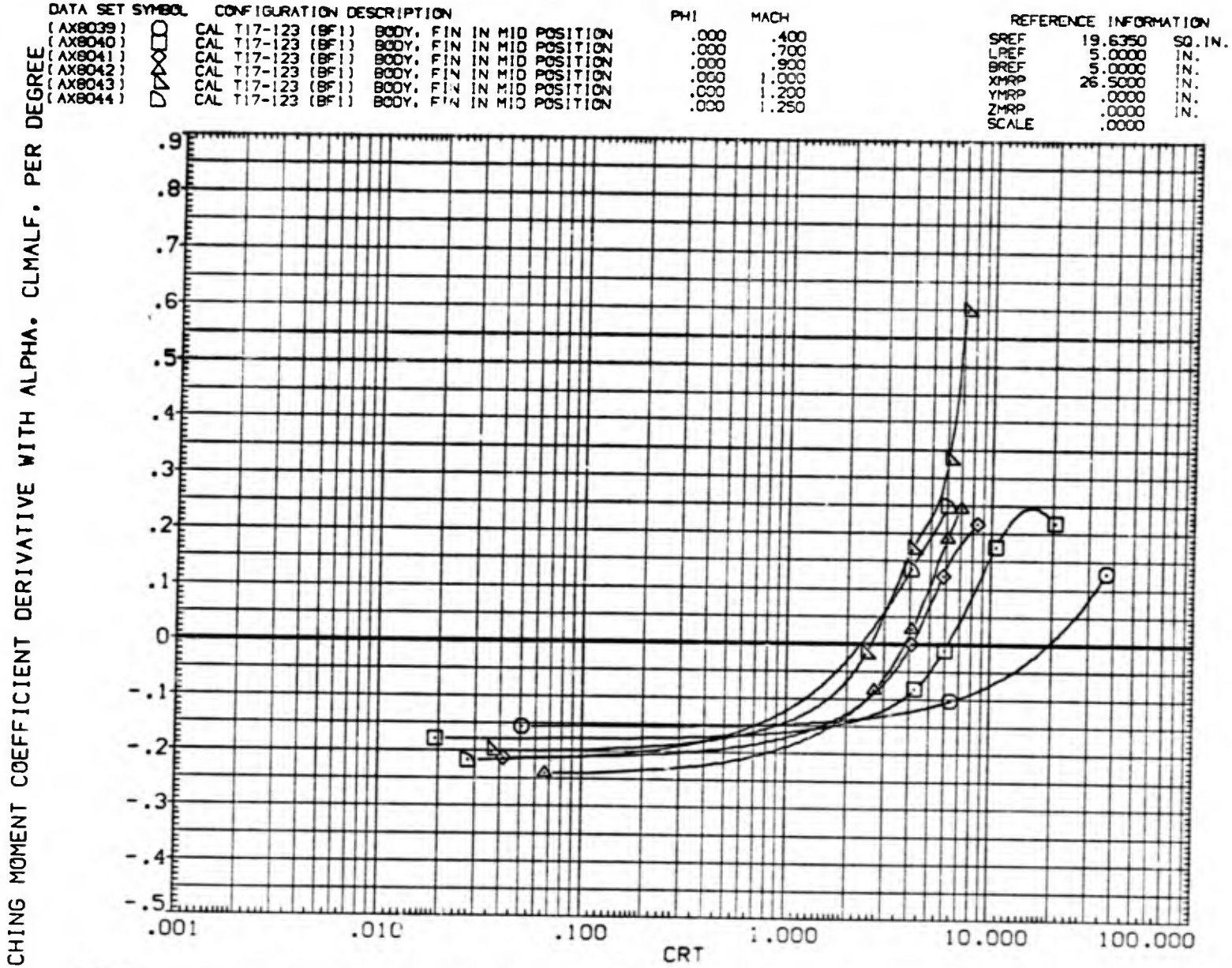
SYMBOL	CRT		PARAMETRIC VALUES		
○	.028	BETA	.000	PHI	.000
□	4.058	MACH	1.250		
◇	6.082				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION



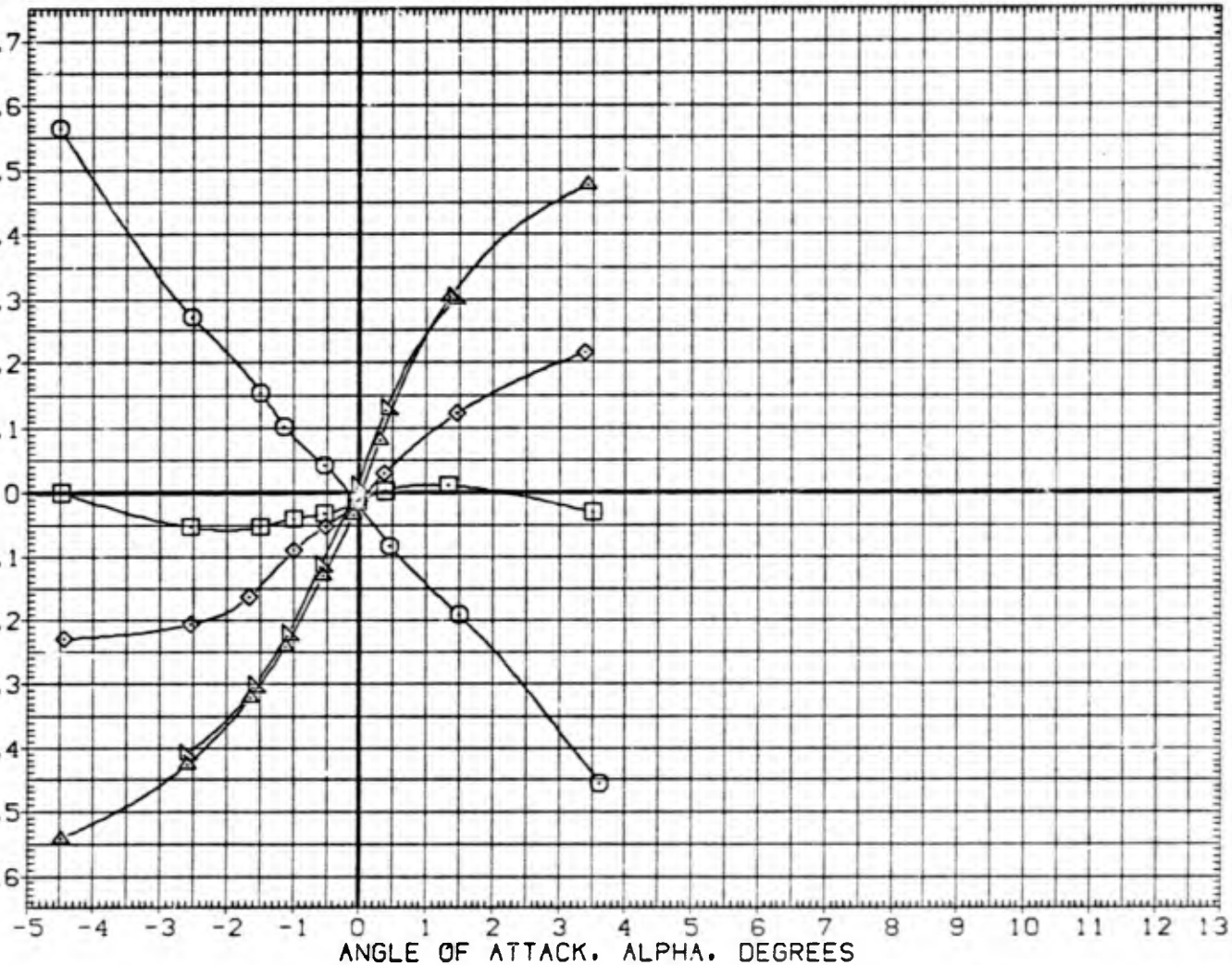
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8045)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.080	BETA	.000	PHI	.000
□	4.382	MACH	.700		
◇	5.874				
△	10.762				
▷	20.719				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



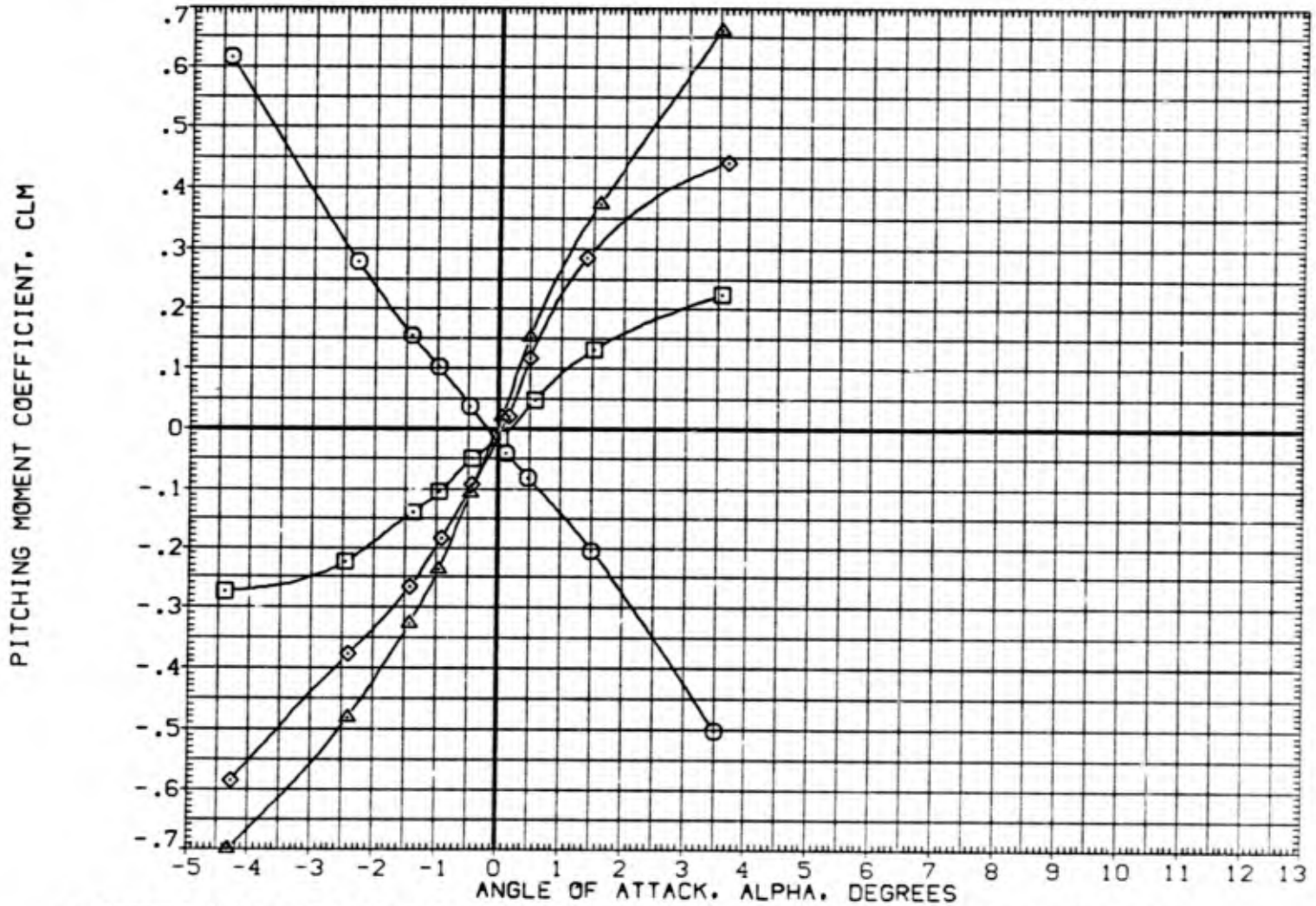
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY. FIN IN MID POSITION (AX8046)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.046	BETA	.000	PHI	.000
□	4.127	MACH	.900		
◇	5.650				
△	8.605				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



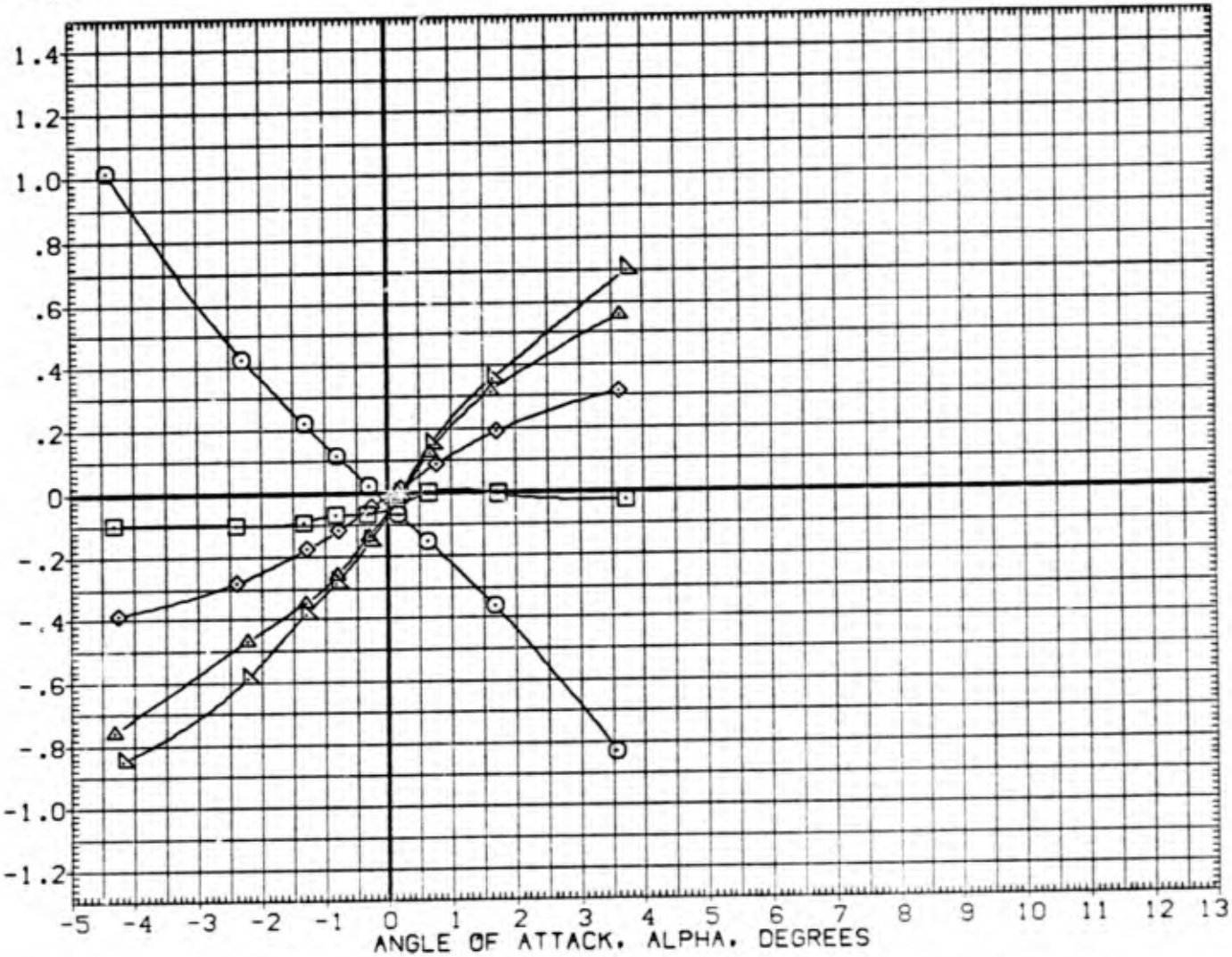
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8047)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.049	BETA	.000	PHI	.000
△	2.614	MACH	1.000		
◇	4.126				
□	5.709				
▽	7.029				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



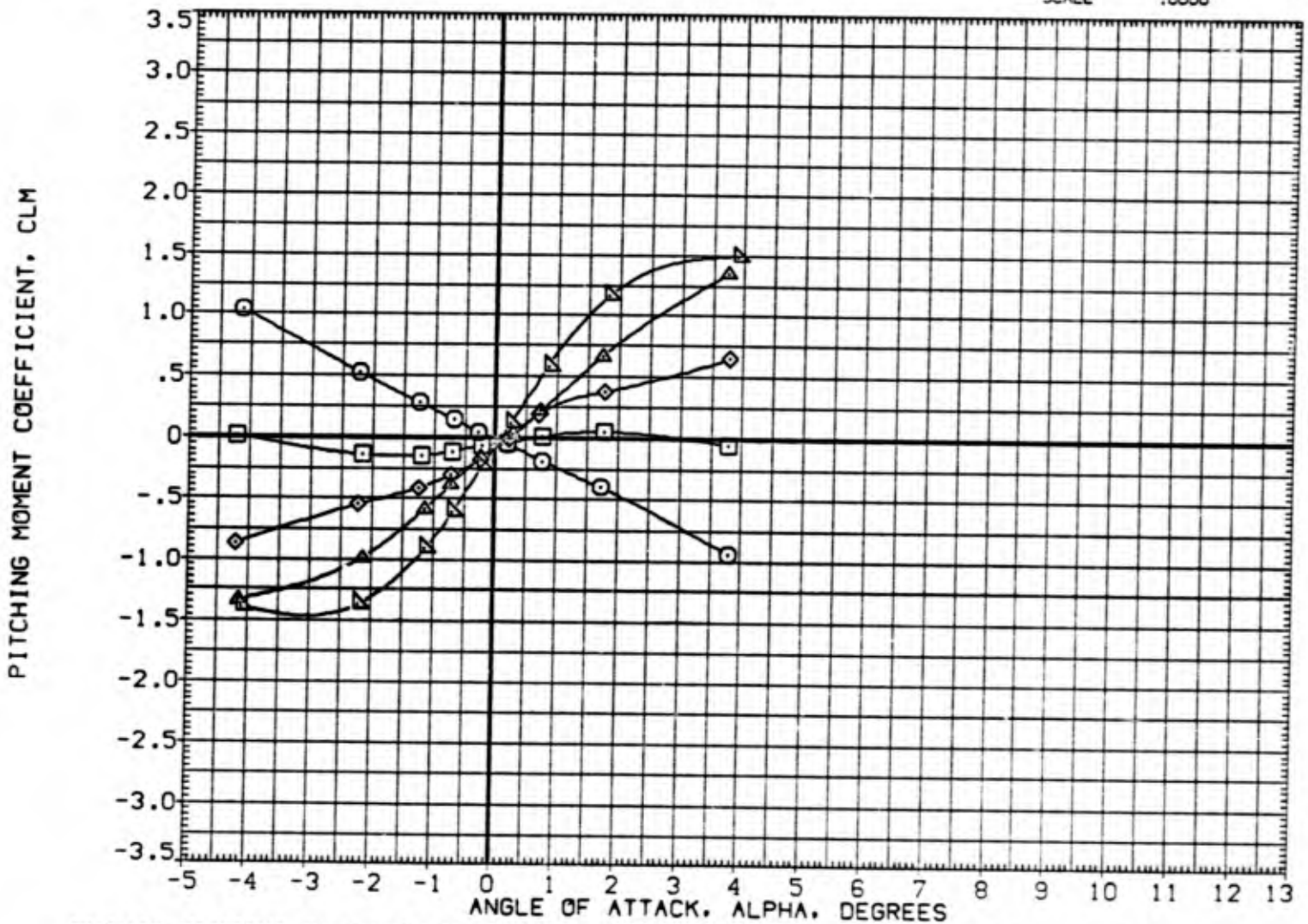
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8048)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	.000
□	2.569	MACH	1.200		
◇	4.235				
△	5.753				
▽	7.369				

REFERENCE INFORMATION

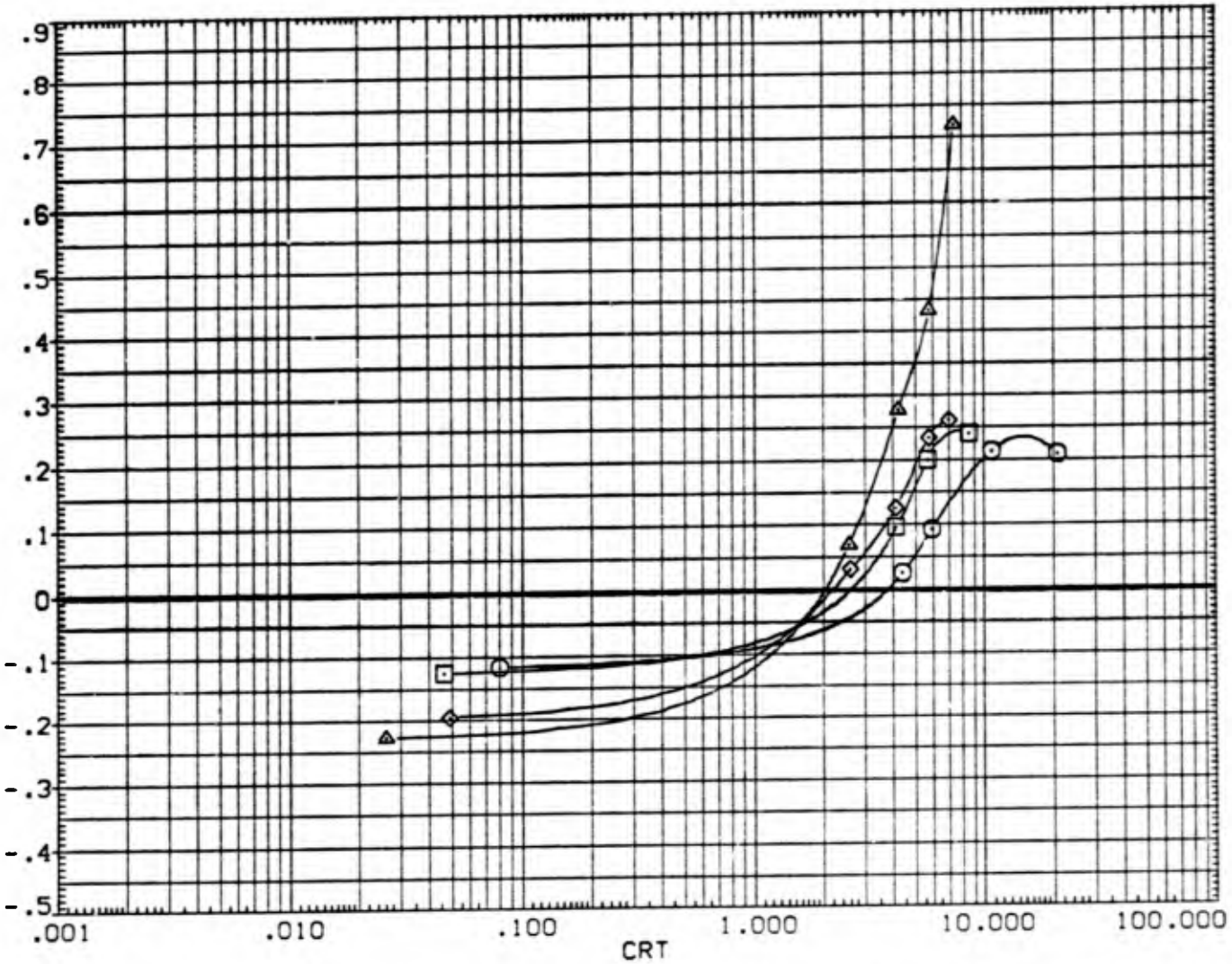
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AXB045)	CAL T17-123 (BF2) BODY, FIN IN MID POSITION	.000	.700
(AXB046)	CAL T17-123 (BF2) BODY, FIN IN MID POSITION	.000	.900
(AXB047)	CAL T17-123 (BF2) BODY, FIN IN MID POSITION	.000	1.000
(AXB048)	CAL T17-123 (BF2) BODY, FIN IN MID POSITION	.000	1.200

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



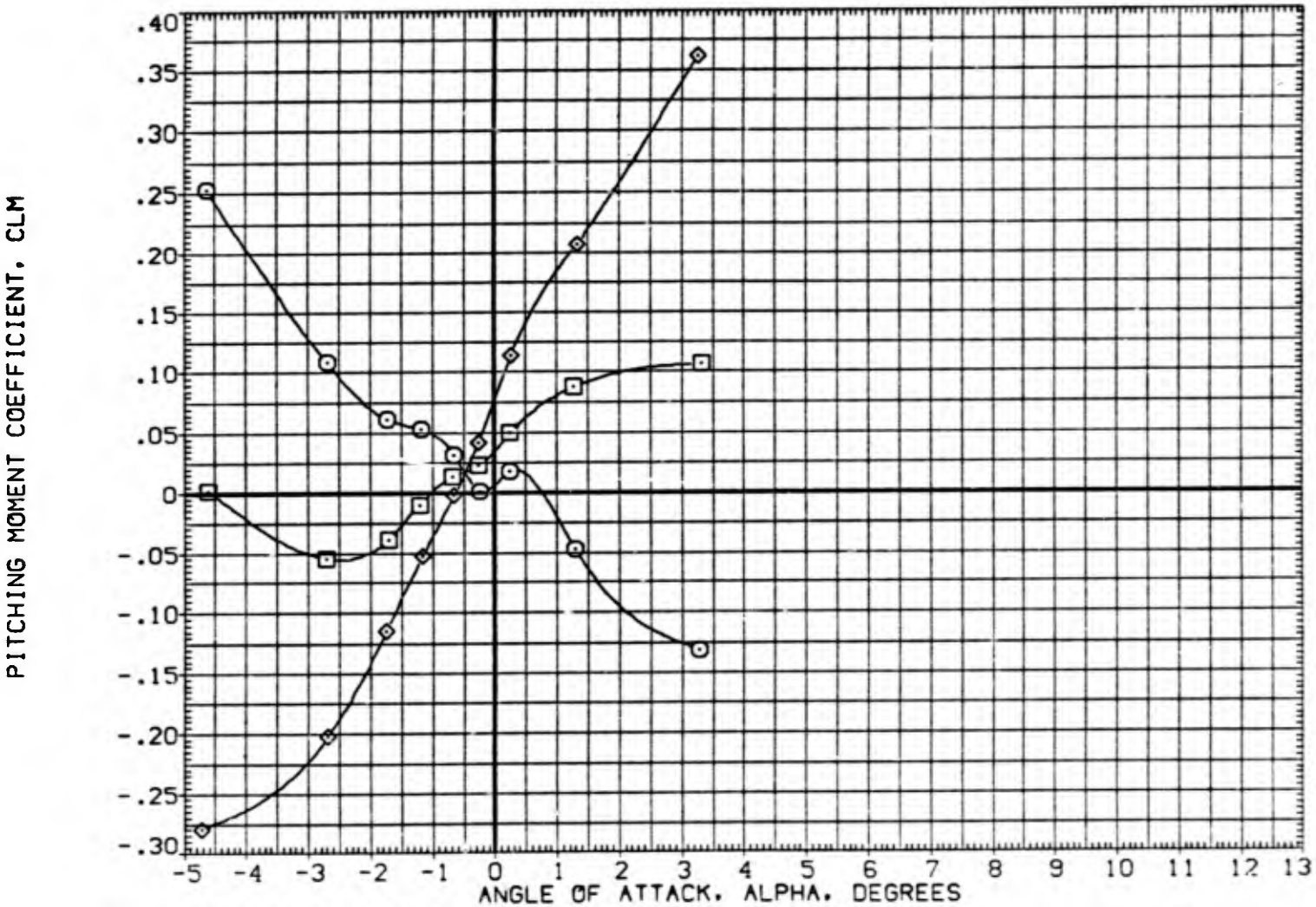
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8053)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.121	BETA	.000	PHI	.000
□	6.019	MACH	.400		
◇	12.217				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



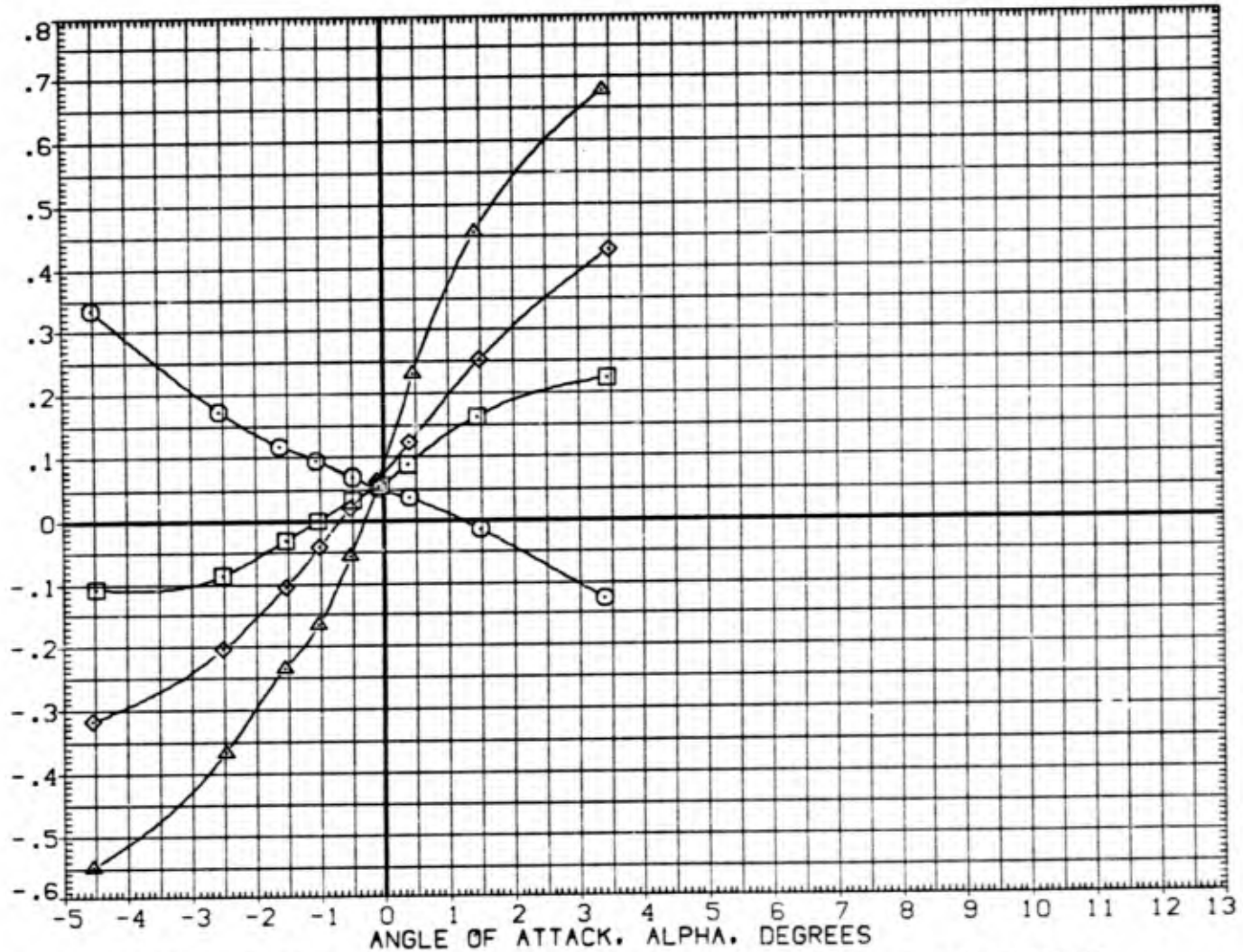
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8054)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.001	BETA	.000	PHI	.000
□	4.199	MACH	.700		
◇	5.854				
△	10.435				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



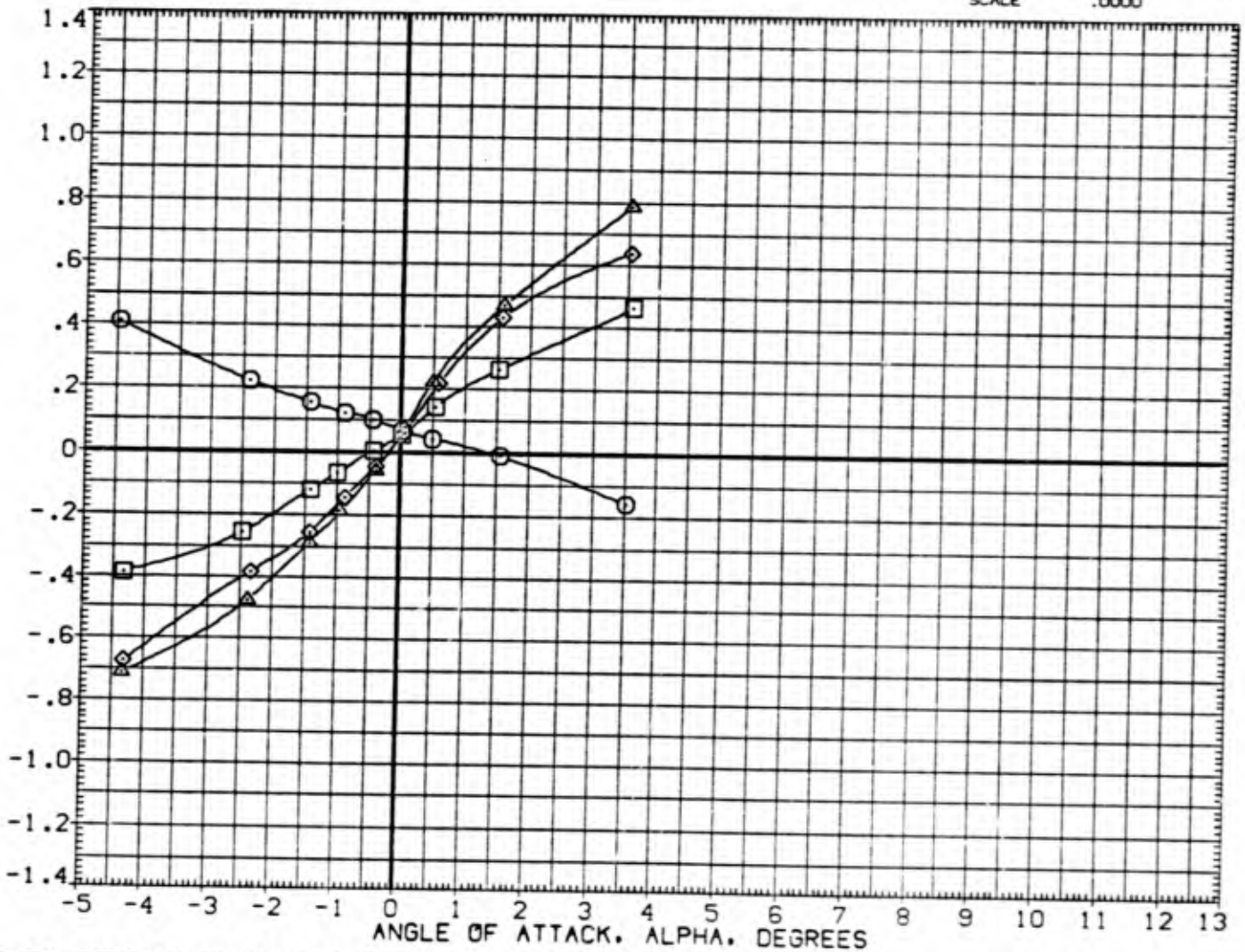
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8055)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.008	BETA	.000	PHI	.000
□	4.050	MACH	.900		
◇	5.851				
△	9.015				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



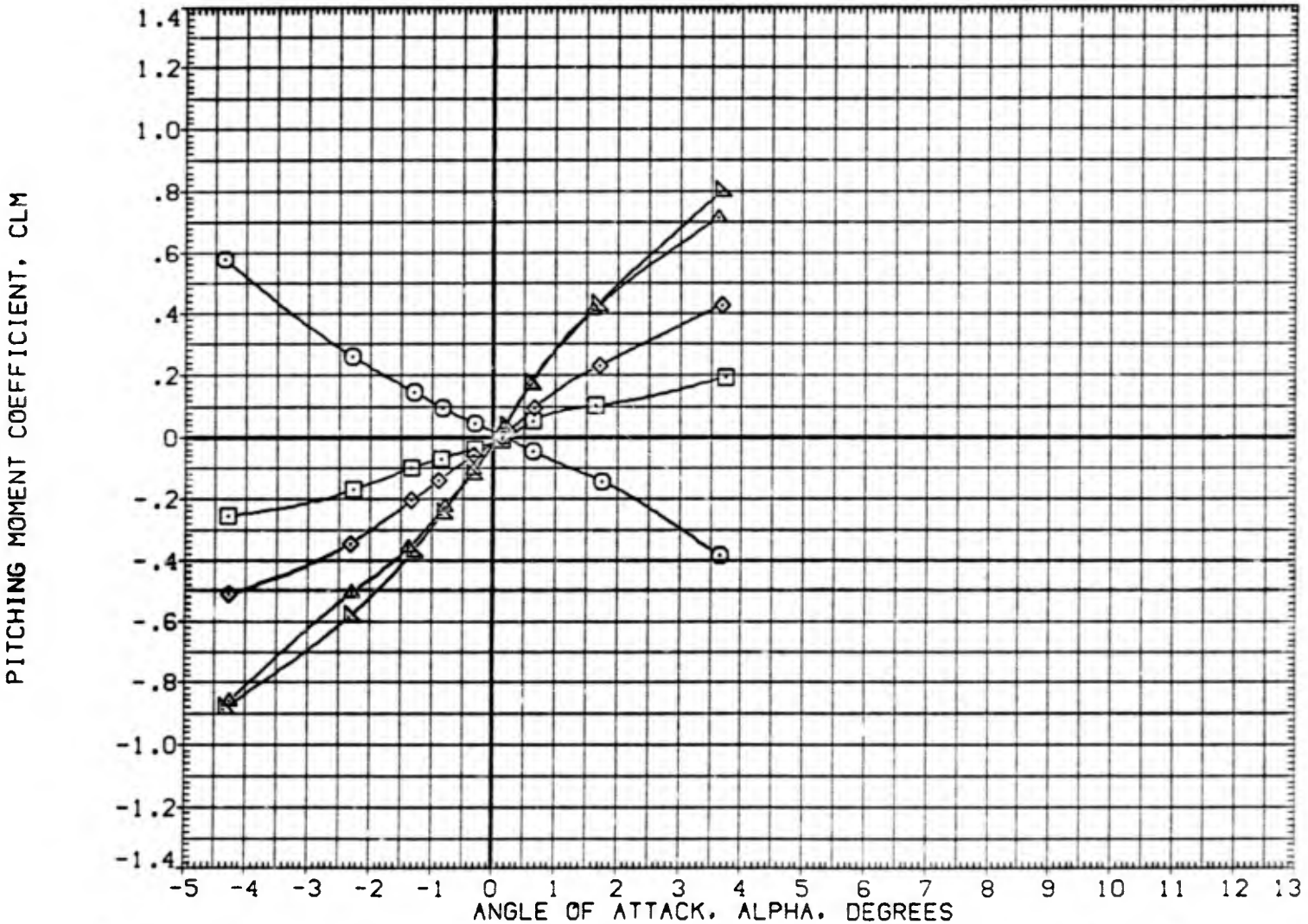
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8056)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	2.636	MACH	1.000		
◇	3.991				
△	5.872				
▽	7.056				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



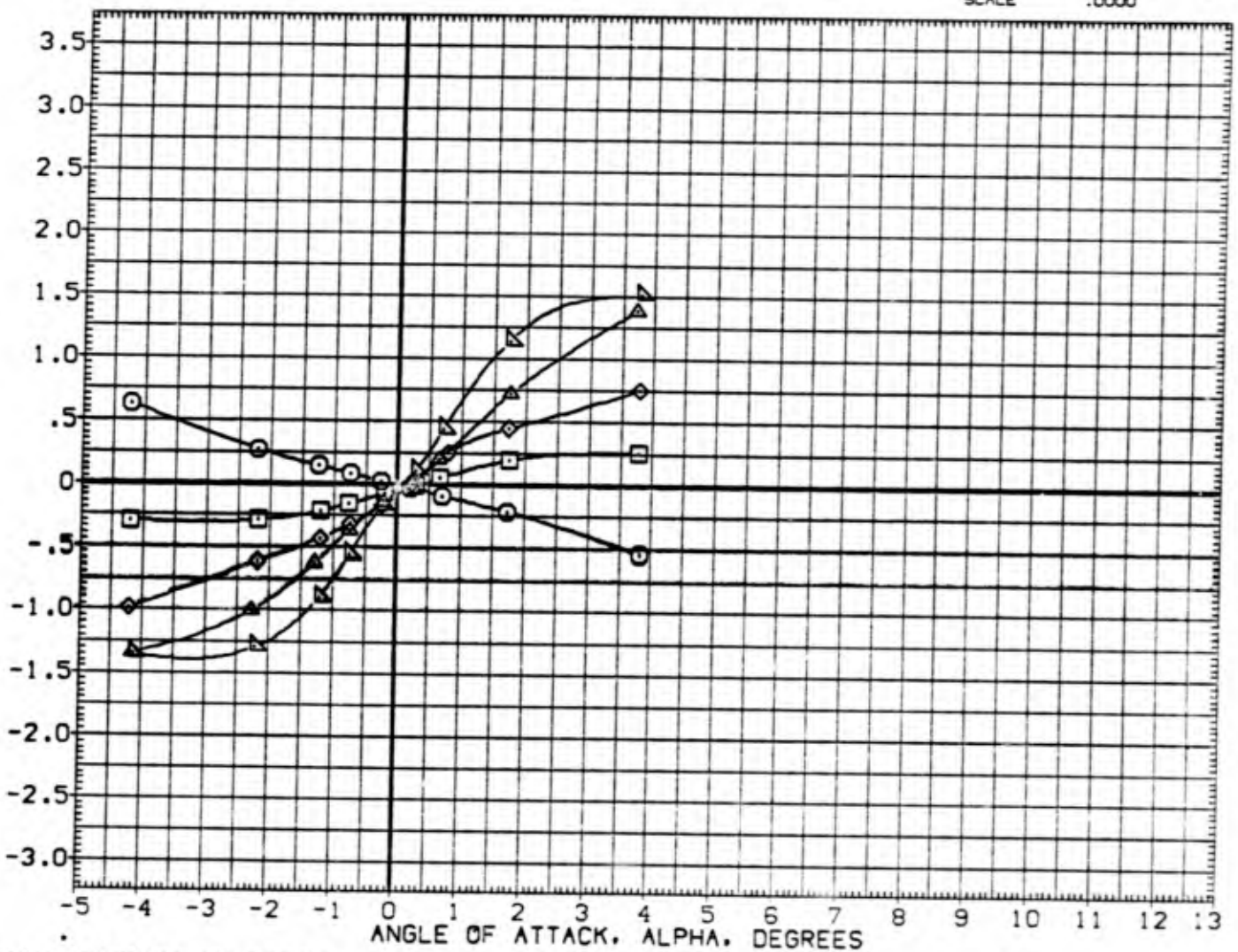
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8057)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	.000
□	2.459	MACH	1.200		
◇	3.995				
△	5.737				
▽	7.212				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

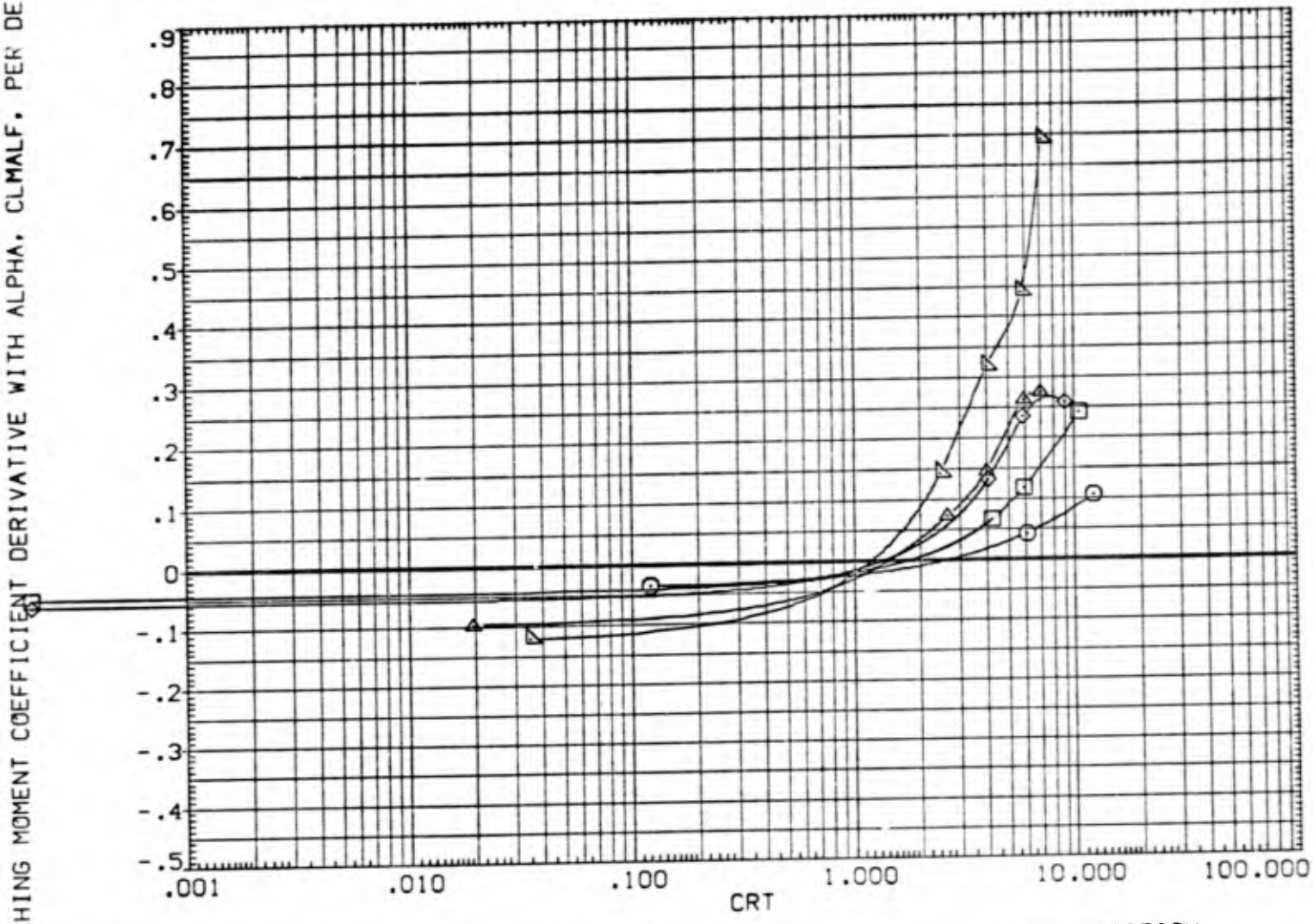


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8053)	CAL T17-123 (BF3) BODY, FIN IN MID POSITION	.000	.400
(AX8054)	CAL T17-123 (BF3) BODY, FIN IN MID POSITION	.000	.700
(AX8055)	CAL T17-123 (BF3) BODY, FIN IN MID POSITION	.000	.900
(AX8056)	CAL T17-123 (BF3) BODY, FIN IN MID POSITION	.000	1.000
(AX8057)	CAL T17-123 (BF3) BODY, FIN IN MID POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



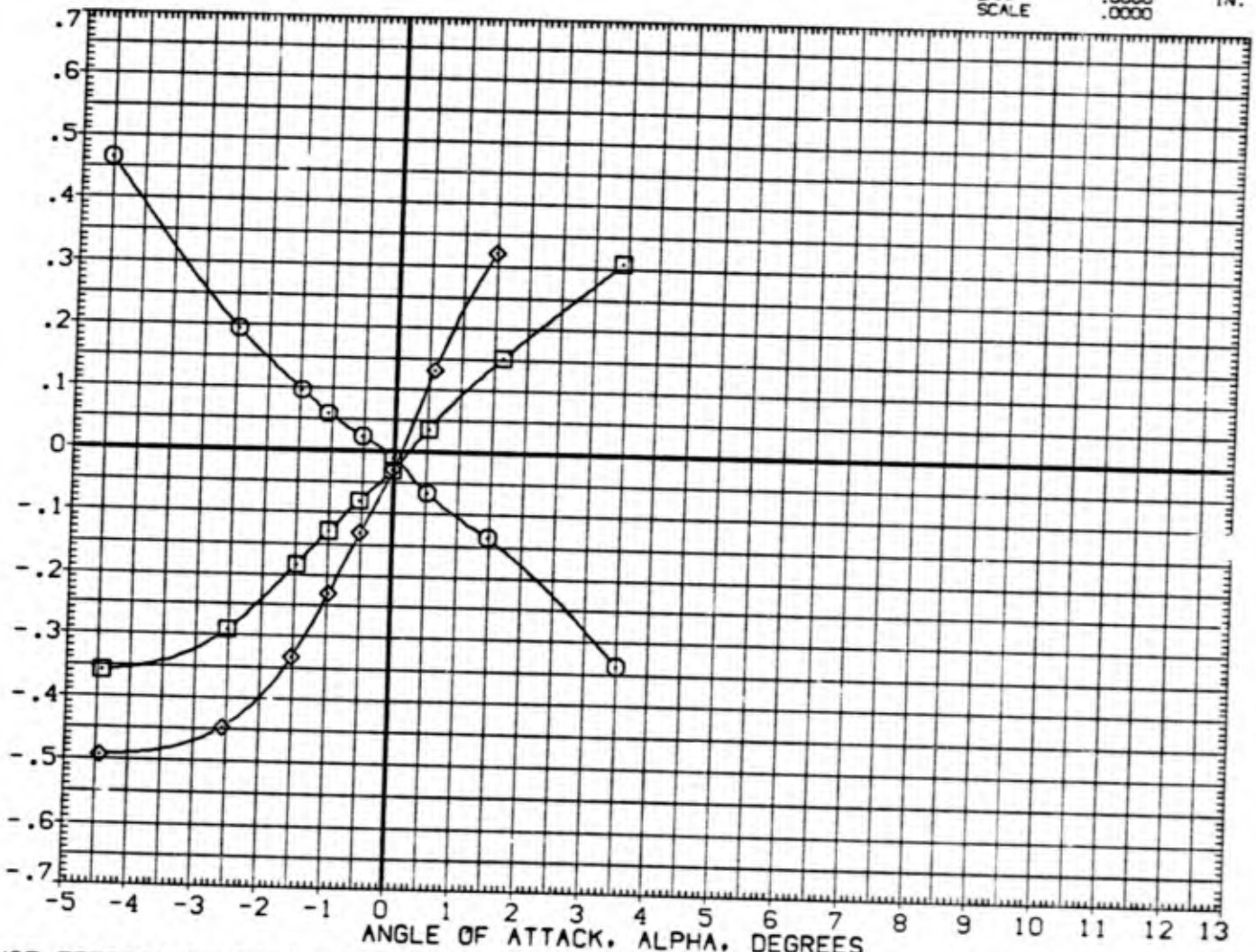
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8049)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.089	BETA	.000	PHI	.000
□	5.856	MACH	.700		
◇	10.318				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



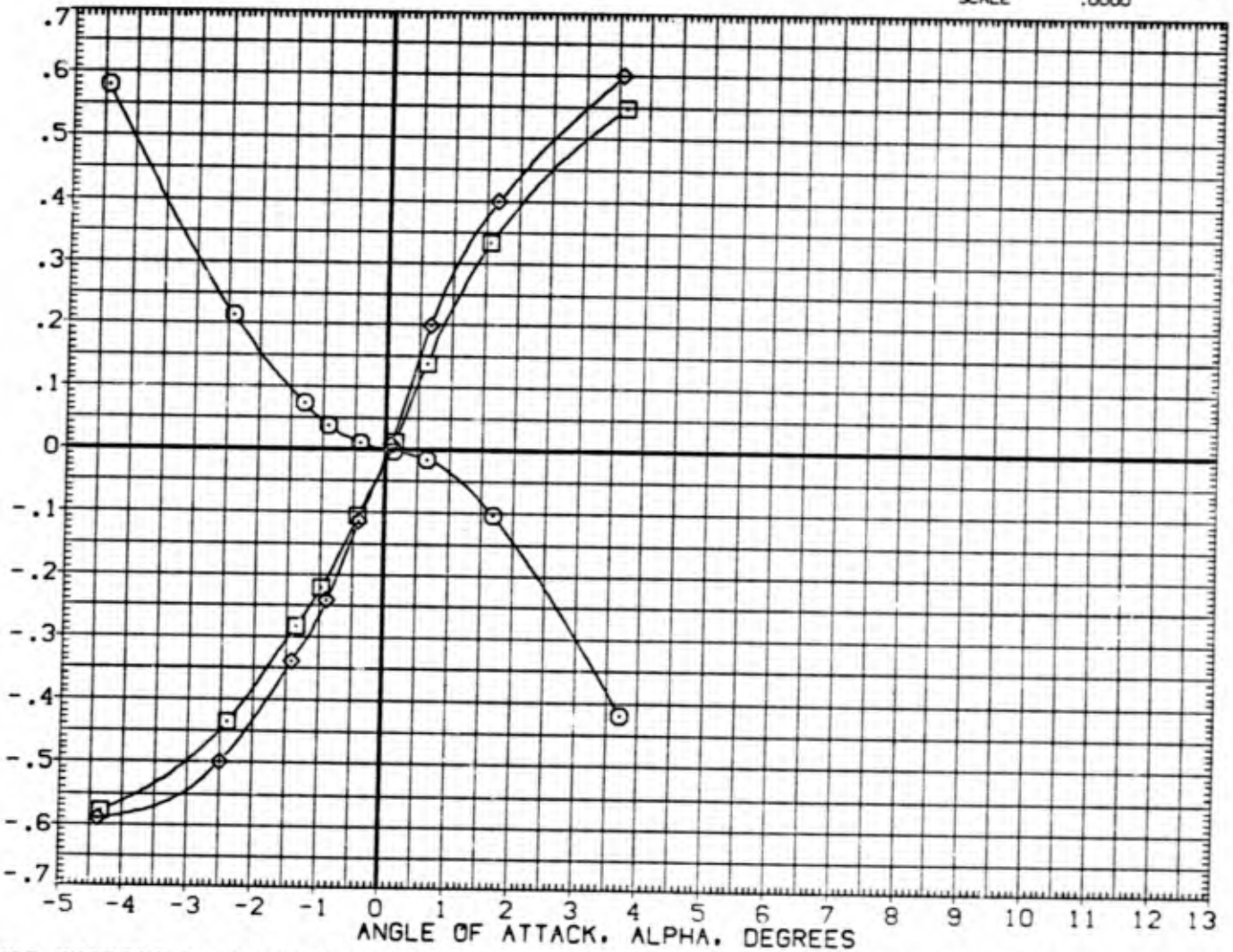
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY. FIN IN MID POSITION (AX8050)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.031	BETA	.000	PHI	.000
□	5.742	MACH	.900		
◇	8.725				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



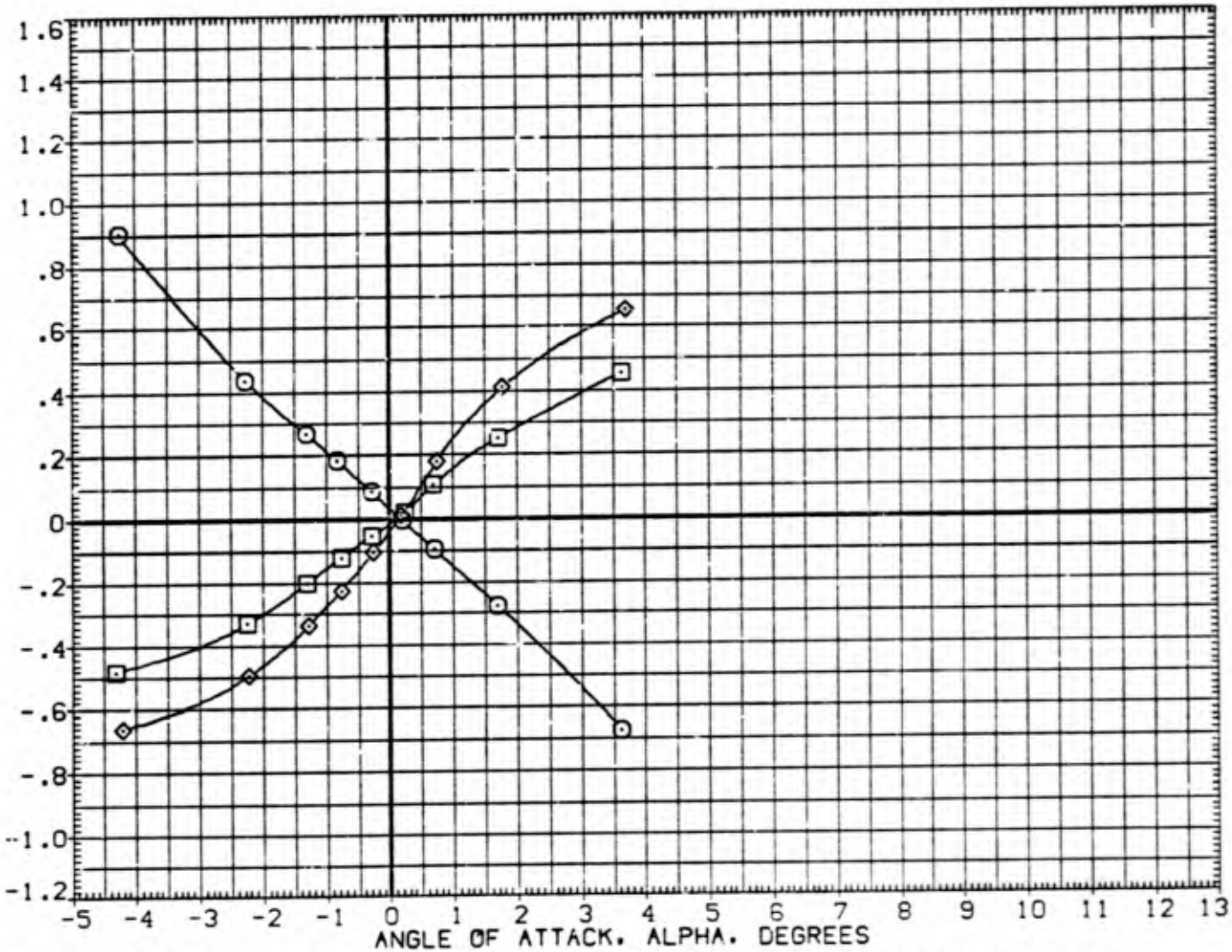
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8051)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.004	BETA	.000	PHI	.000
□	4.006	MACH	1.000		
◇	5.877				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



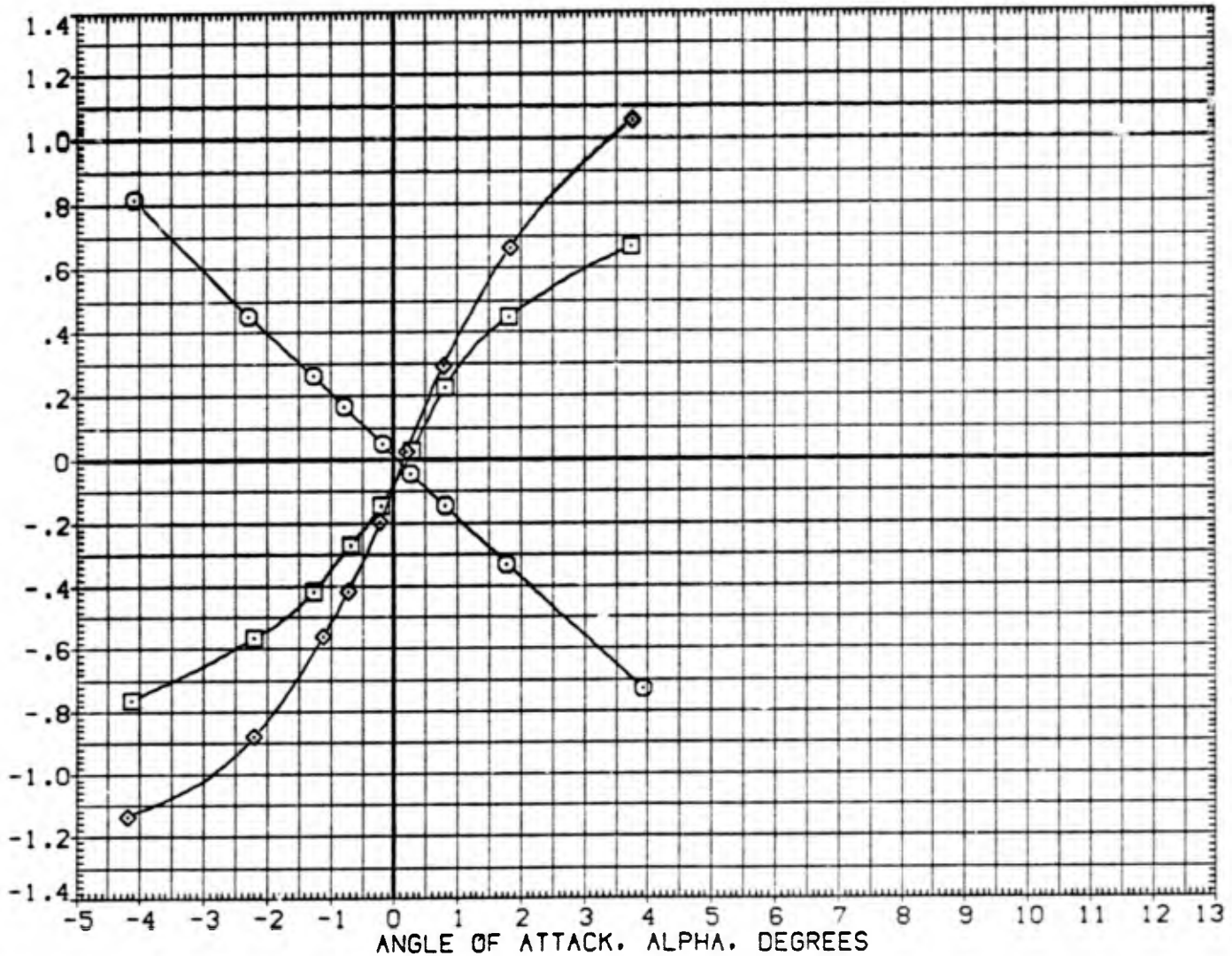
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8052)

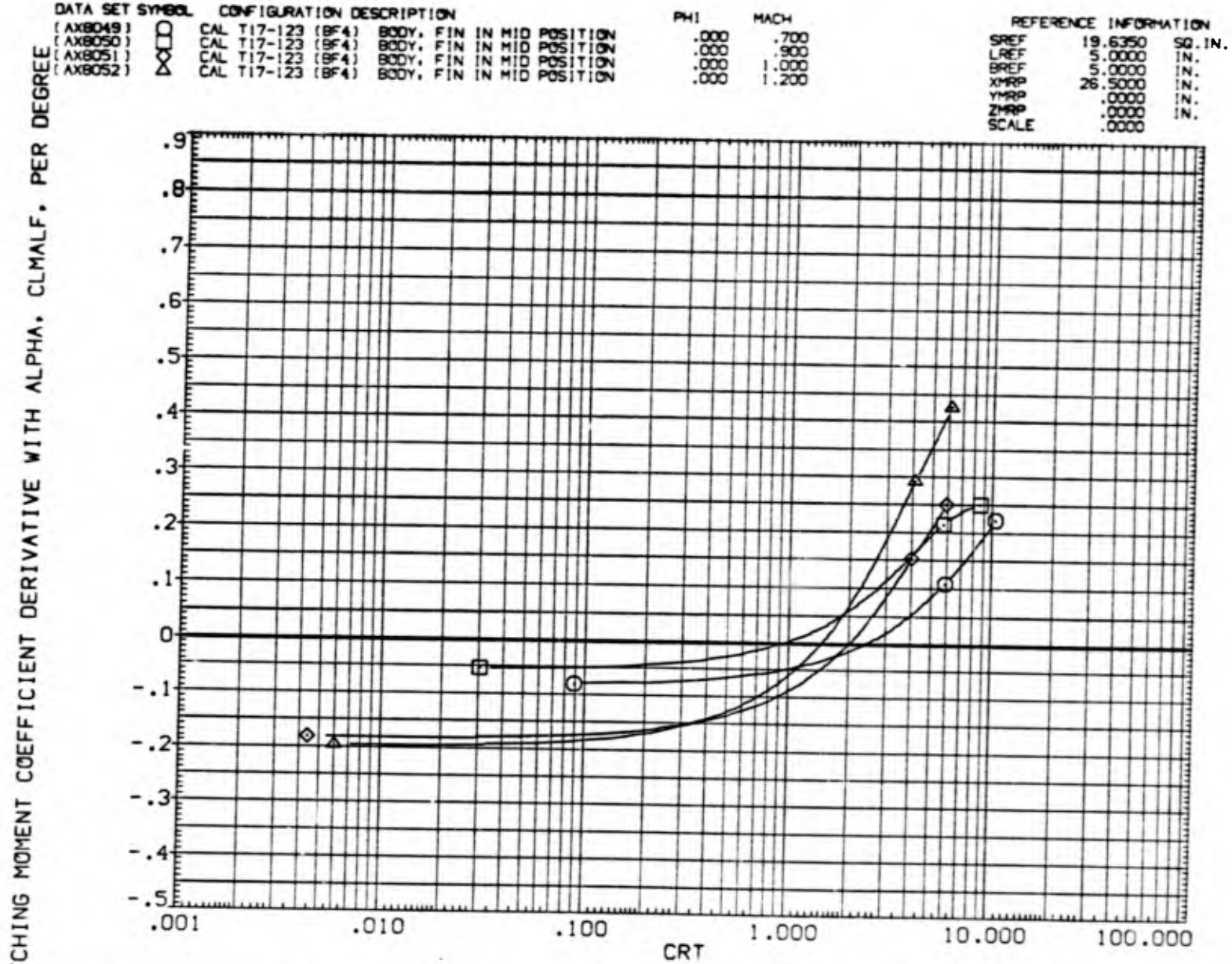
SYMBOL	CRT		PARAMETRIC VALUES		
○	.006	BETA	.000	PHI	.000
□	4.113	MACH	1.200		
◇	6.174				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION



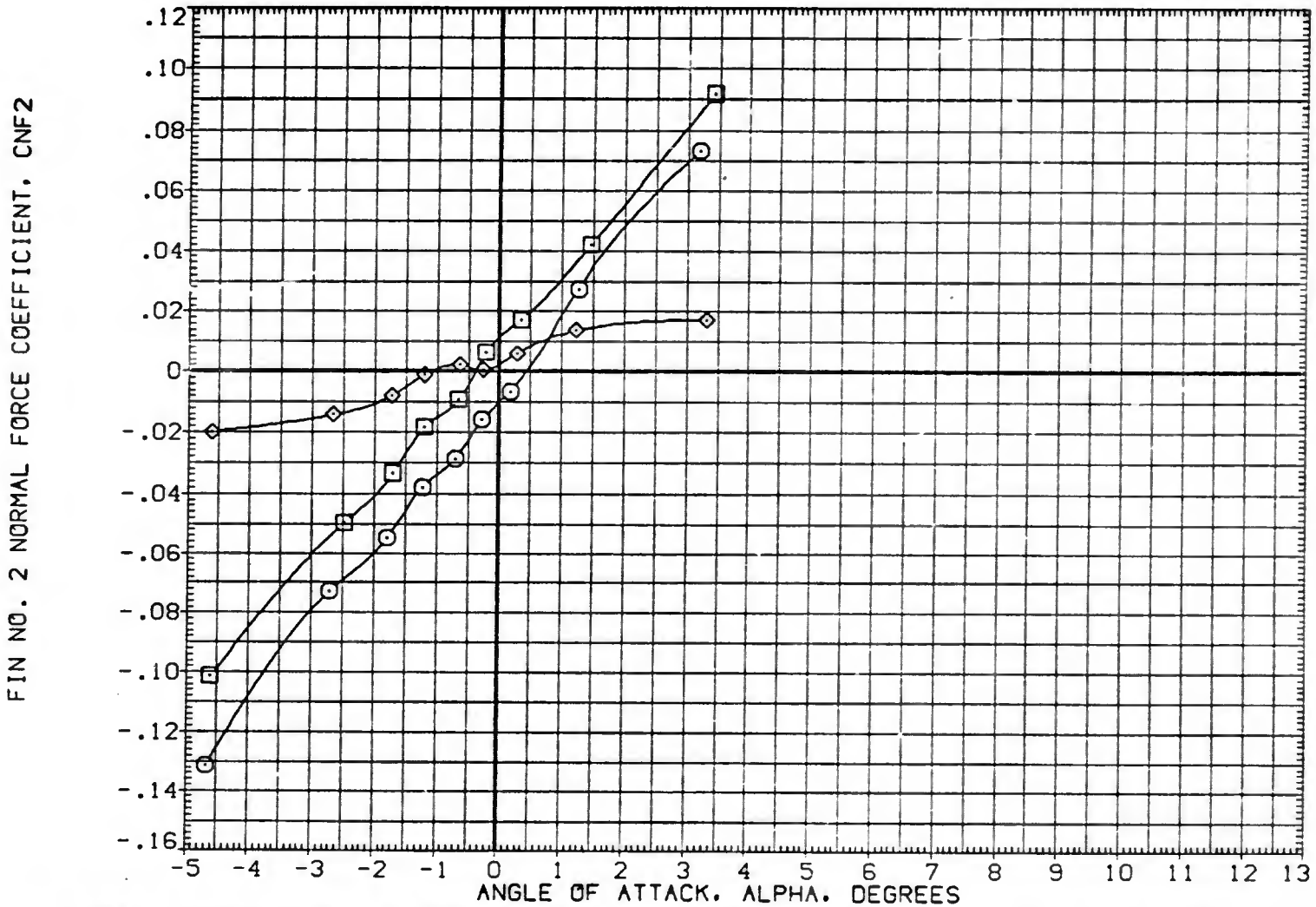
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY. FIN IN MID POSITION (AX8039)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.051	BETA	.000	PHI	.000
□	6.423	MACH	.400		
◇	36.823				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



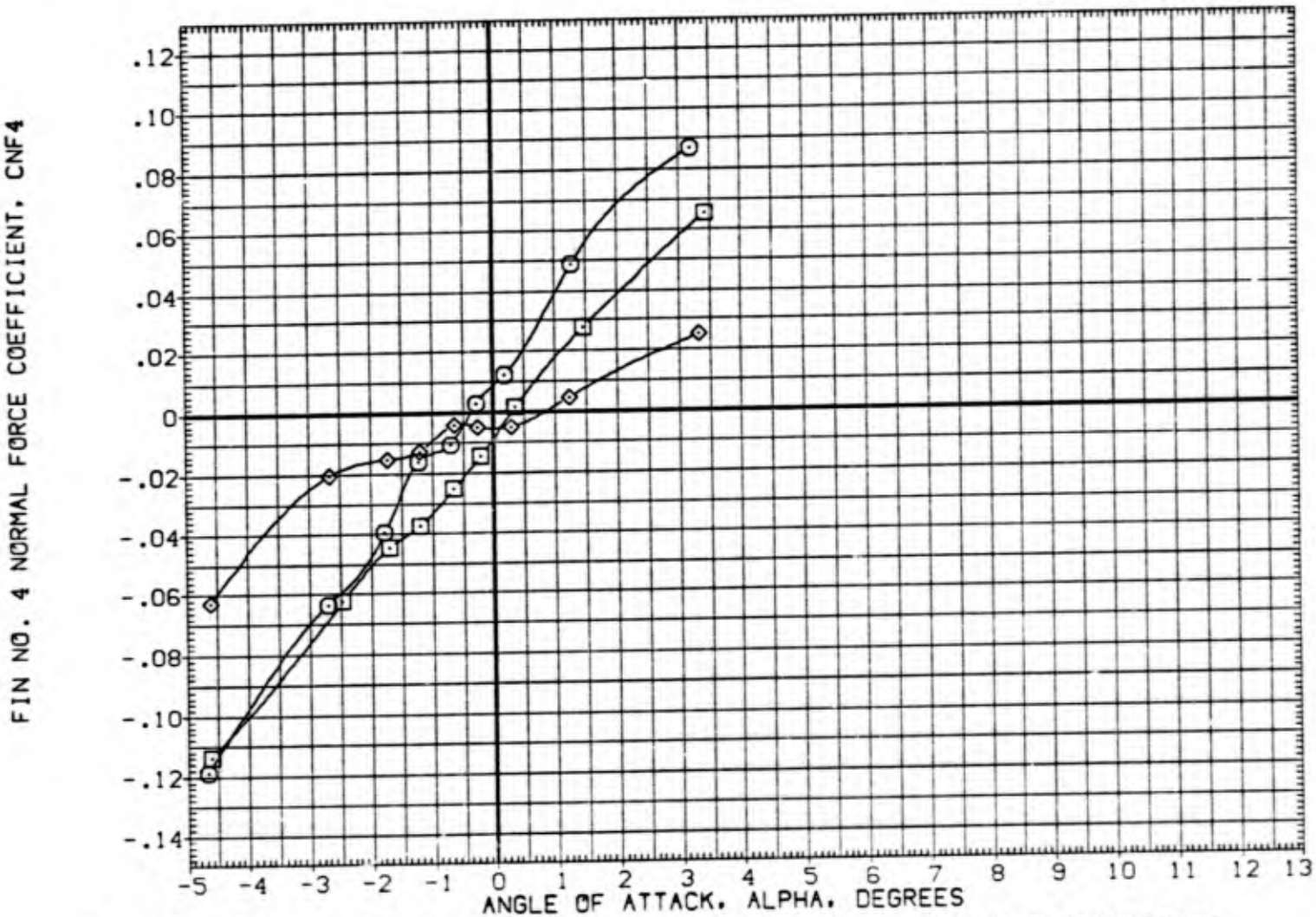
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY. FIN IN MID POSITION (AX8039)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.051	BETA	.000	PHI	.000
□	6.423	MACH	.400		
◇	36.823				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



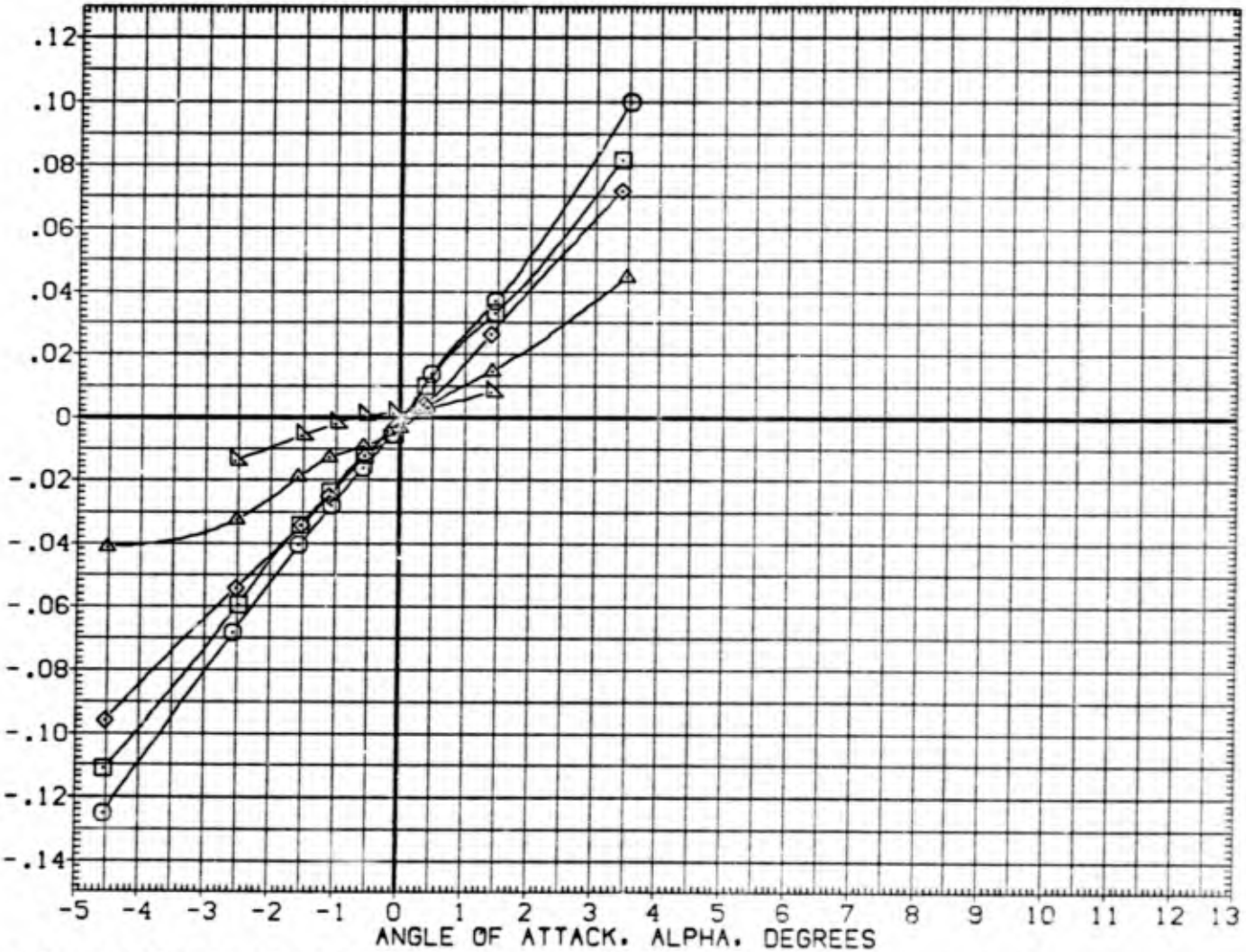
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8040)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.019	BETA	.000	PHI	.000
□	4.271	MACH	.700		
◇	5.936				
△	10.411				
▷	20.443				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



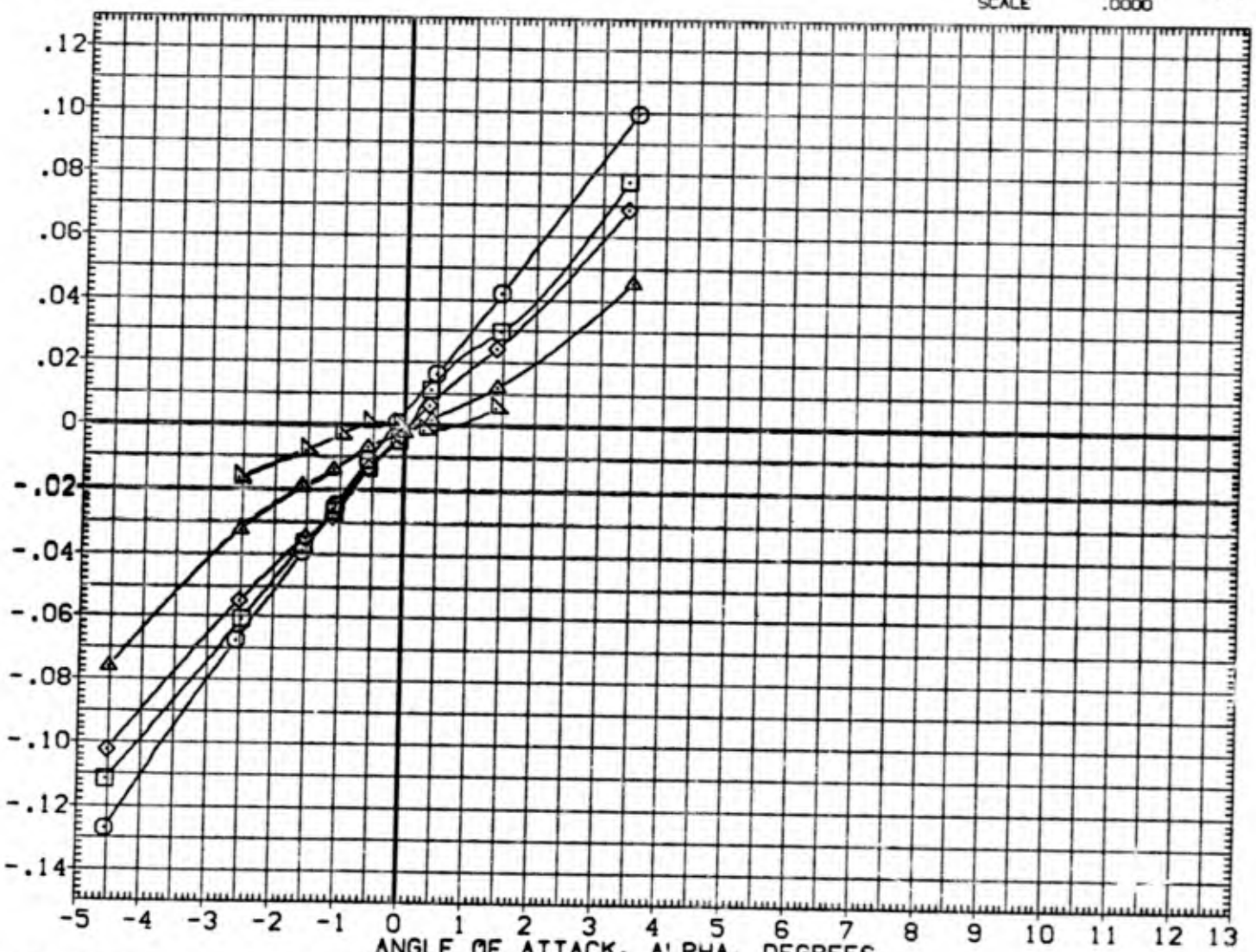
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8040)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.271	MACH	.700		
◇	5.936				
△	10.411				
◁	20.443				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



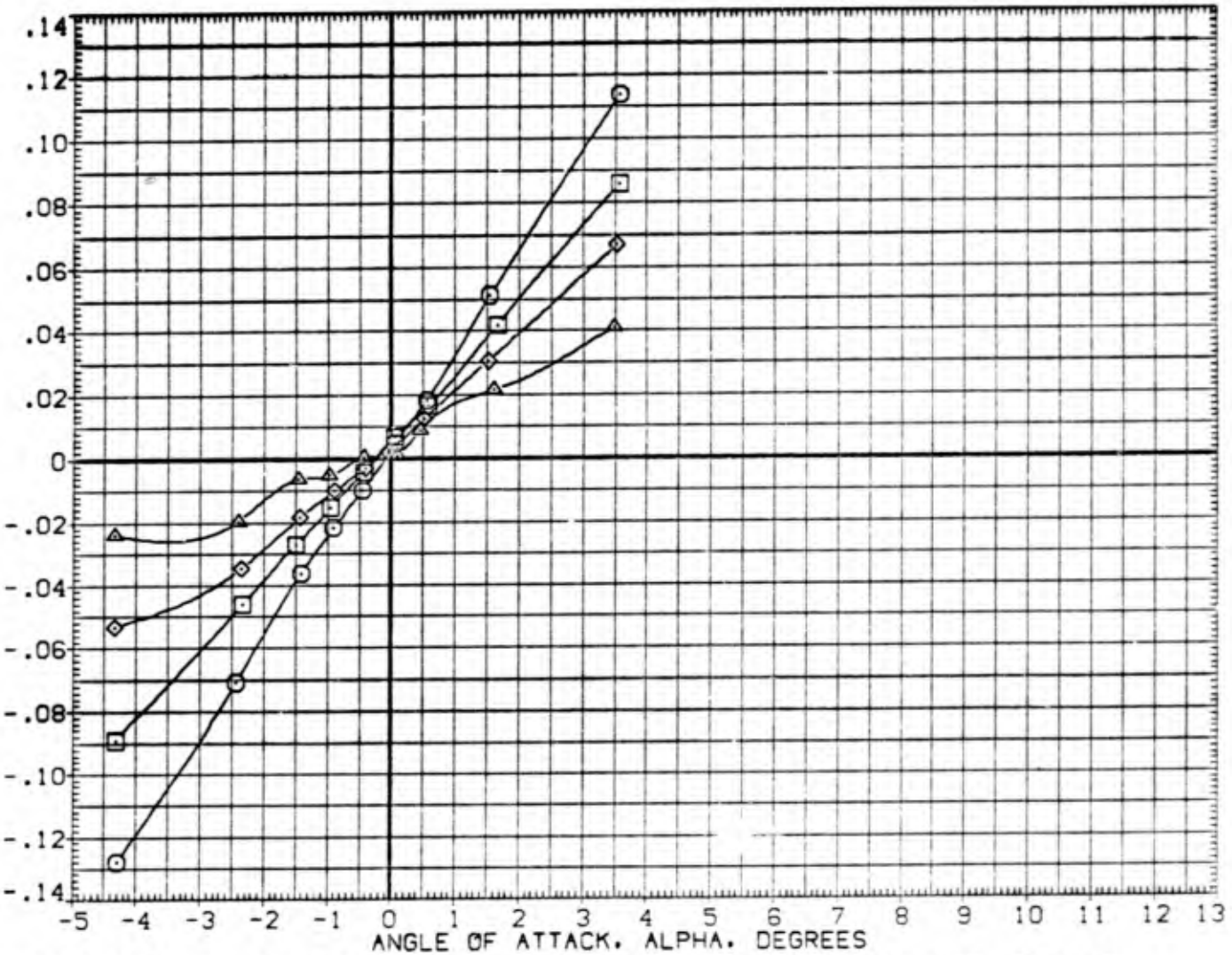
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8041)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.041	BETA	.000	PHI	.000
□	4.110	MACH	.900		
◇	5.781				
△	8.472				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



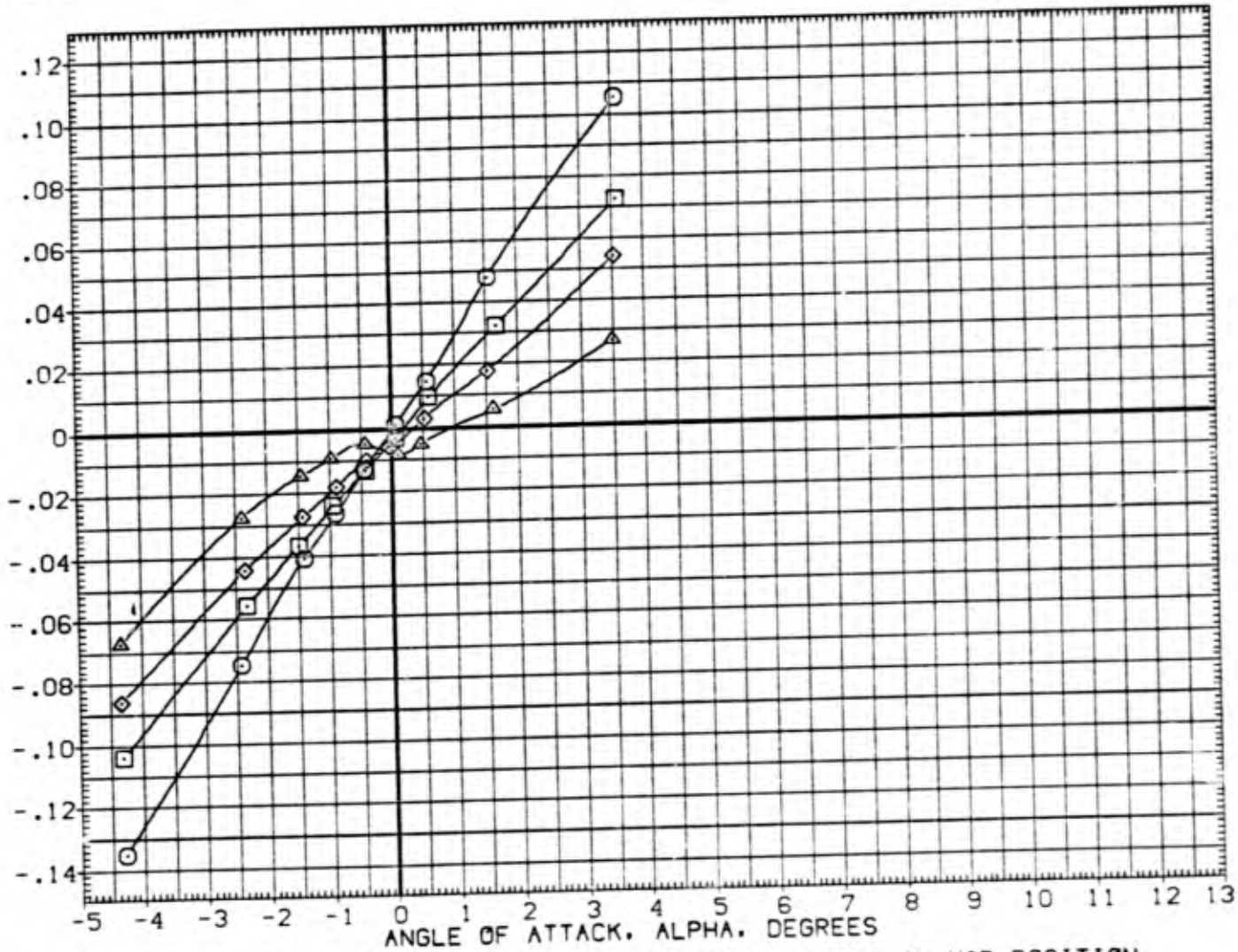
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8041)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.041	BETA	.000	PHI	.000
□	4.110	MACH	.900		
◇	5.781				
△	8.472				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

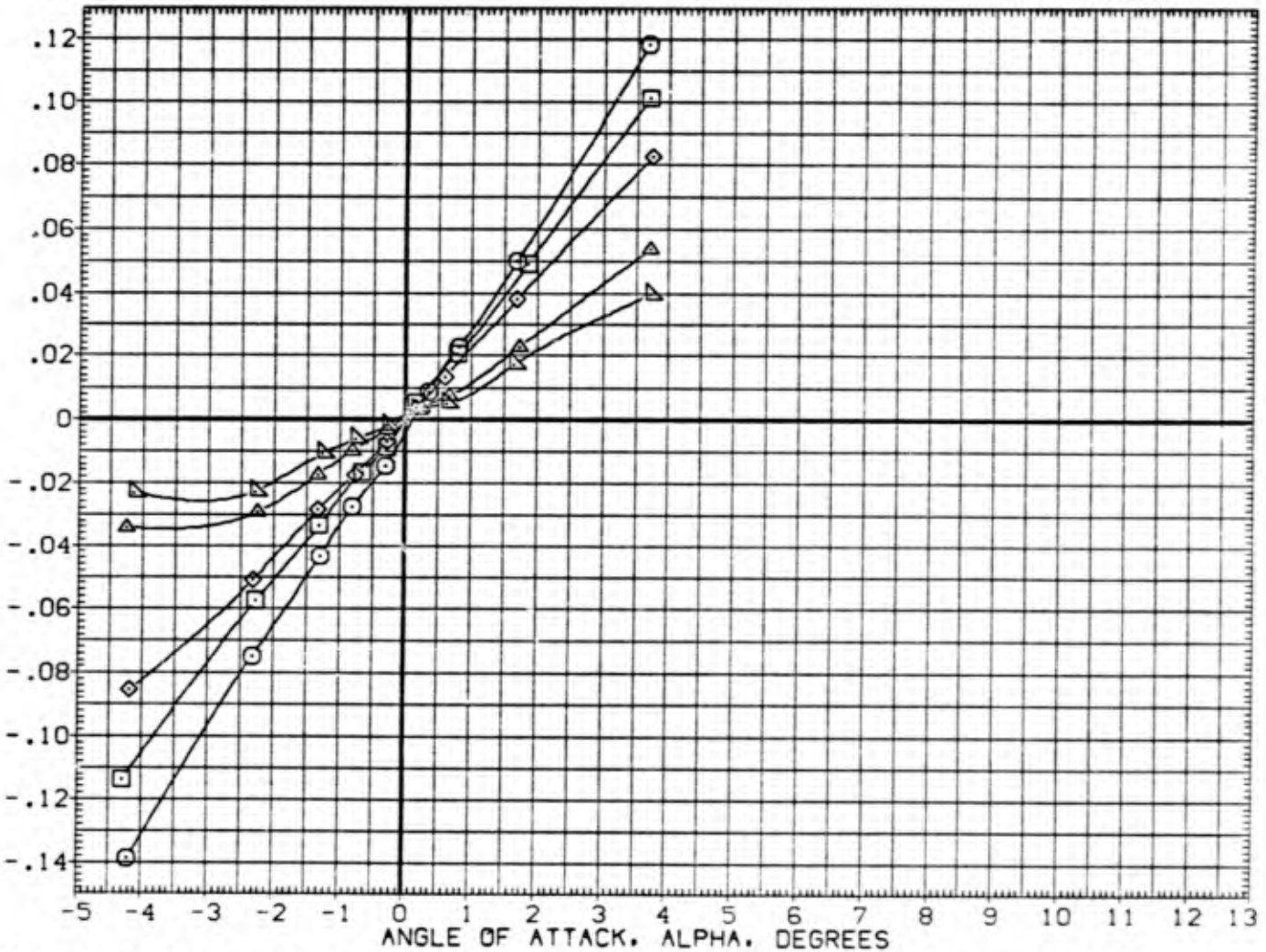


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8042)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.067	BETA	.000	PHI	.000
□	2.725	MACH	1.000		
◇	4.127				
△	6.050				
▷	6.970				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



FIN NO. 2 NORMAL FORCE COEFFICIENT, CNF2

THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8042)

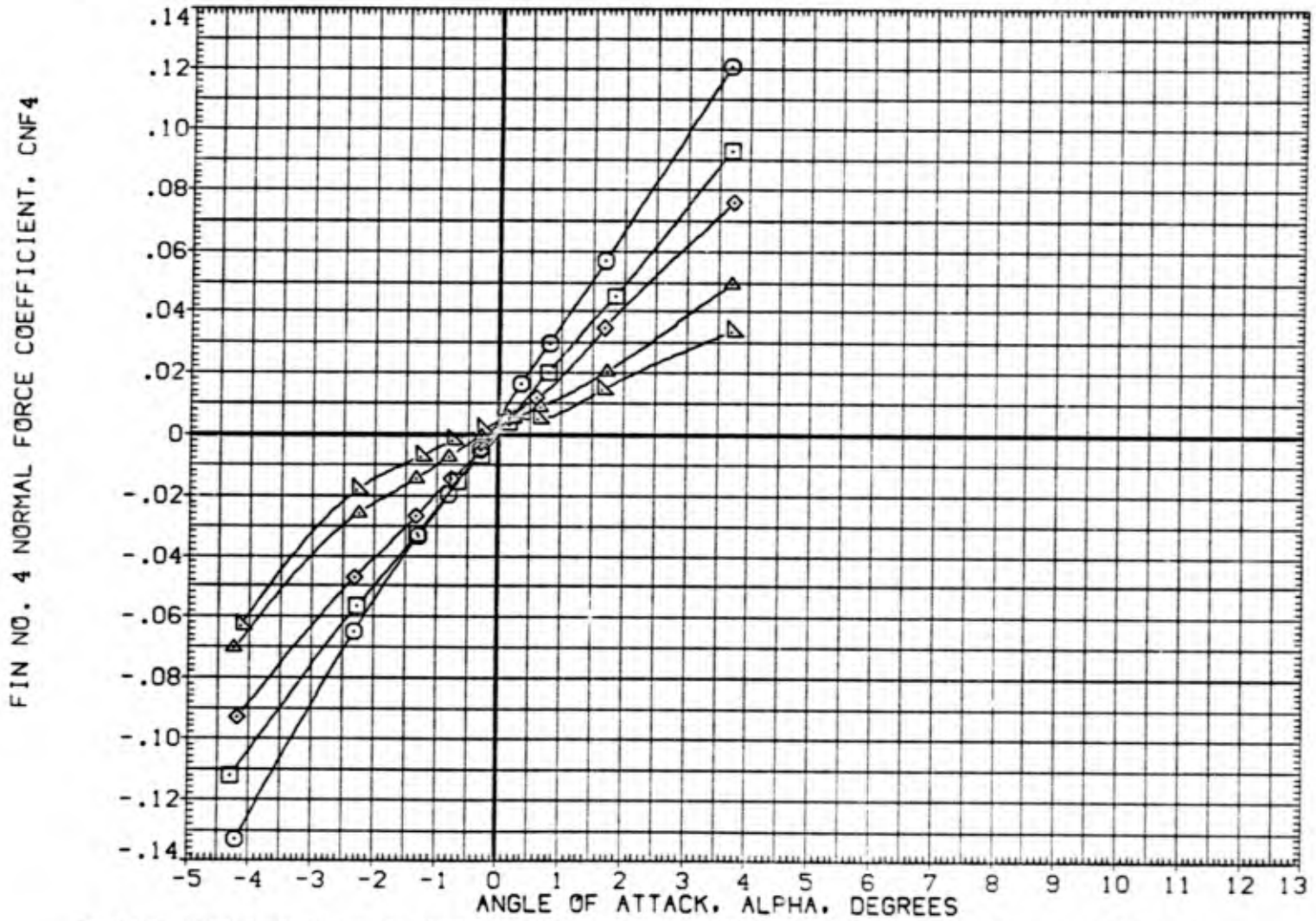
SYMBOL	CRT
○	.067
□	2.725
◇	4.127
△	6.050
▽	6.970

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



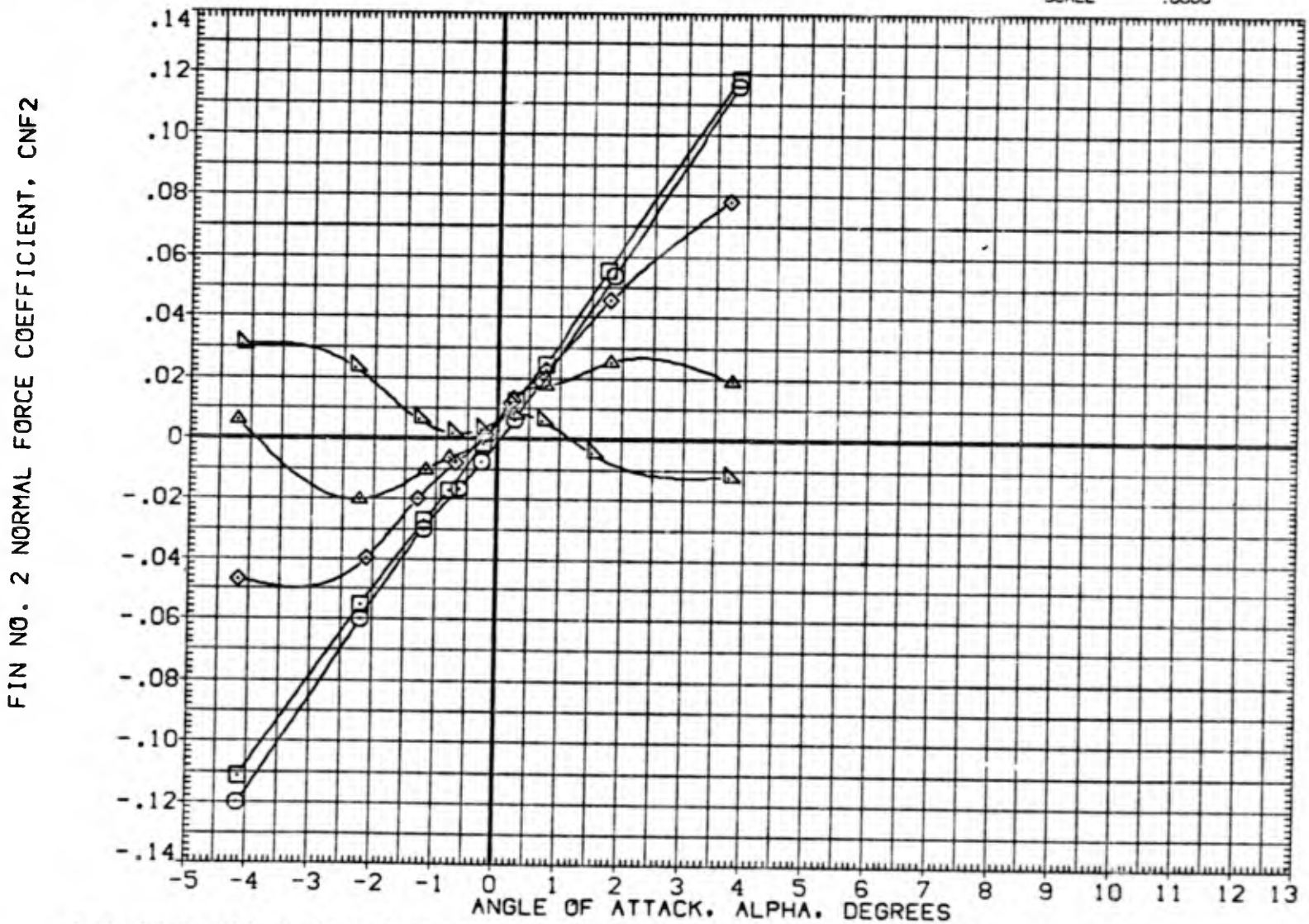
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8043)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.036	BETA	.000	PHI	.000
□	2.443	MACH	1.200		
◇	4.045				
△	6.023				
▷	7.172				

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



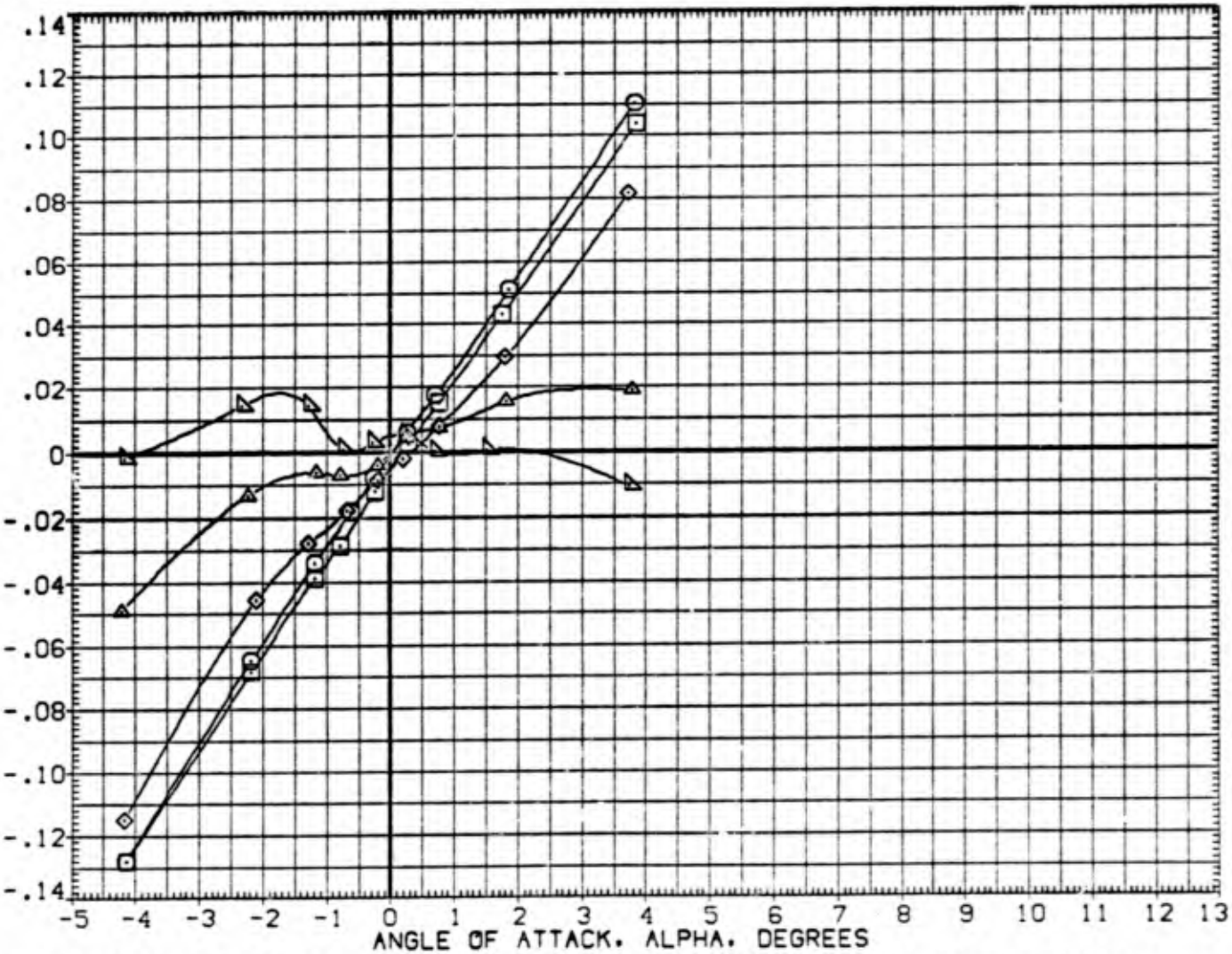
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8043)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.036	BETA	.000	PHI	.000
□	2.443	MACH	1.200		
◇	4.045				
△	6.023				
◁	7.172				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



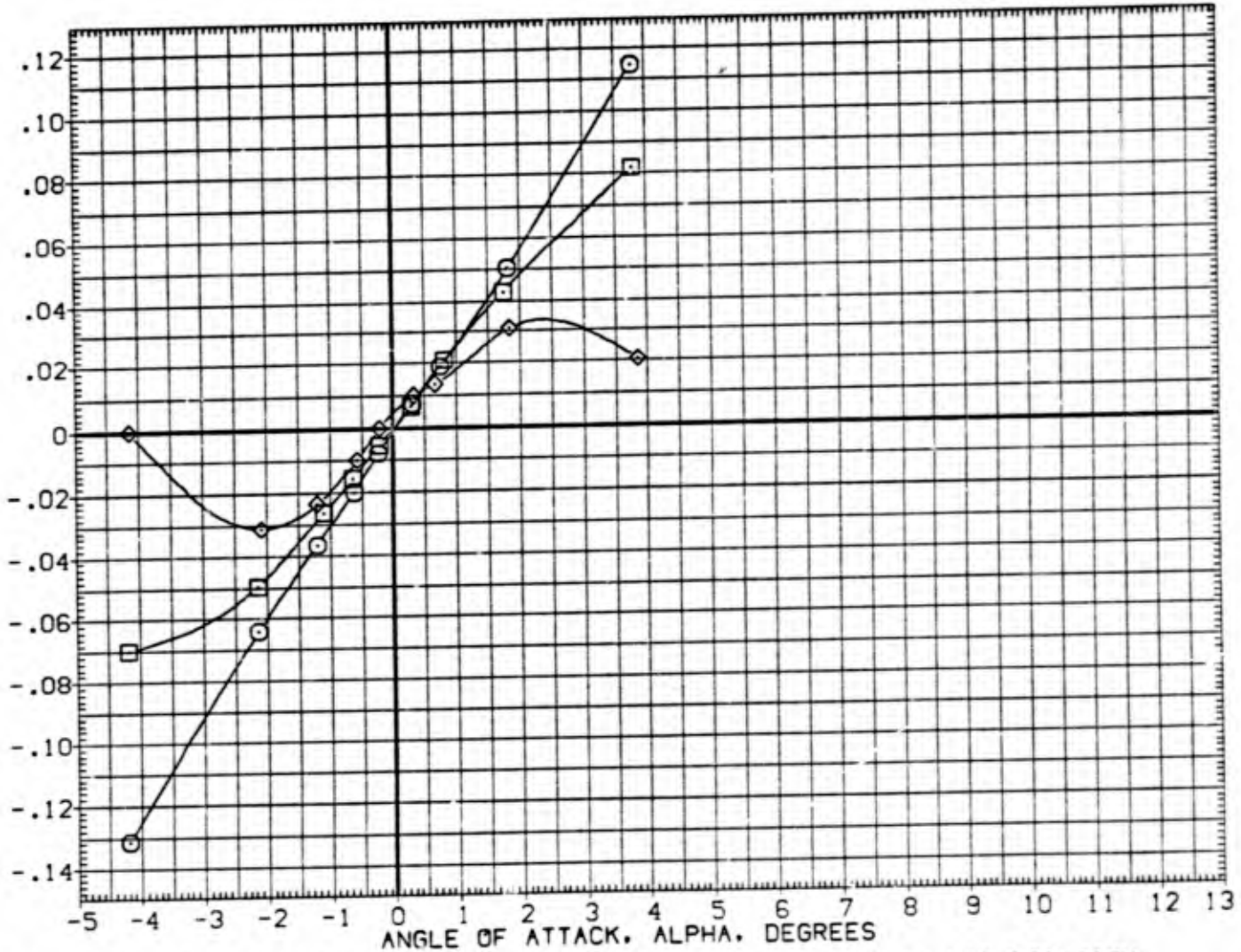
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8044)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.028	BETA	.000	PHI	.000
□	4.058	MACH	1.250		
◇	6.082				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



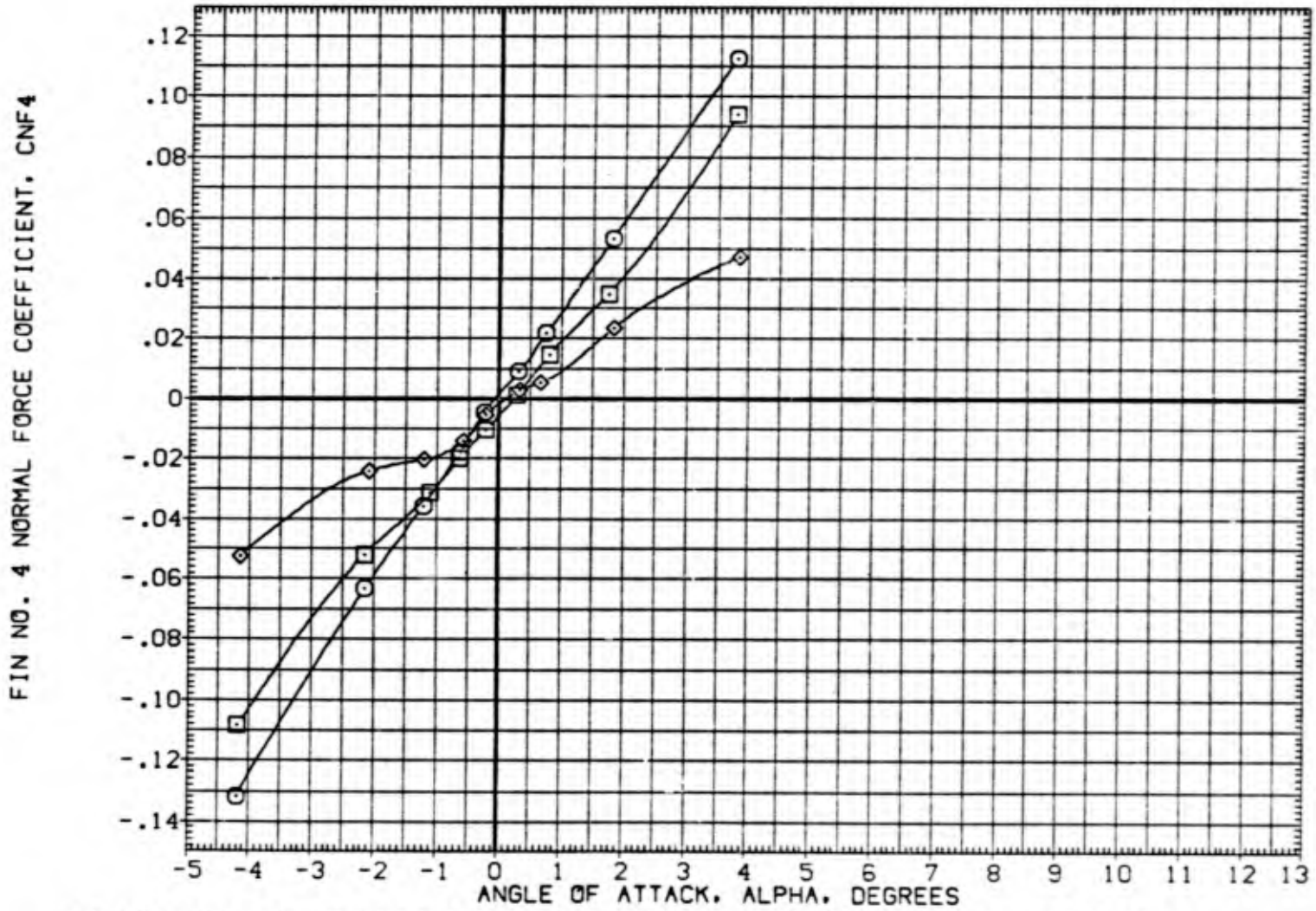
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN MID POSITION (AX8044)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.028	BETA	.000	PHI	.000
□	4.058	MACH	1.250		
◇	6.082				

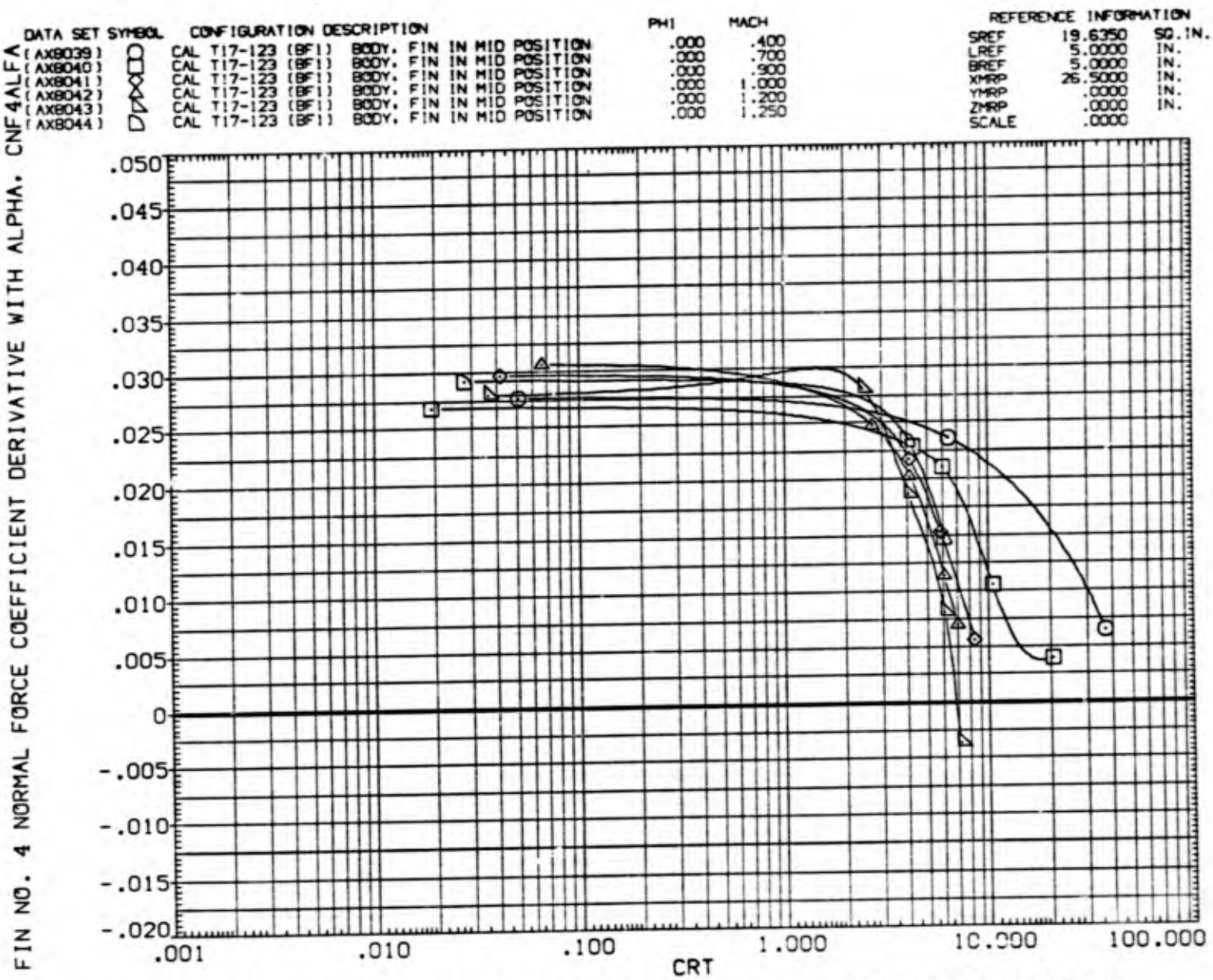
REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8045)

SYMBOL	CRT
○	.080
□	4.382
◇	5.874
△	10.762
▽	20.719

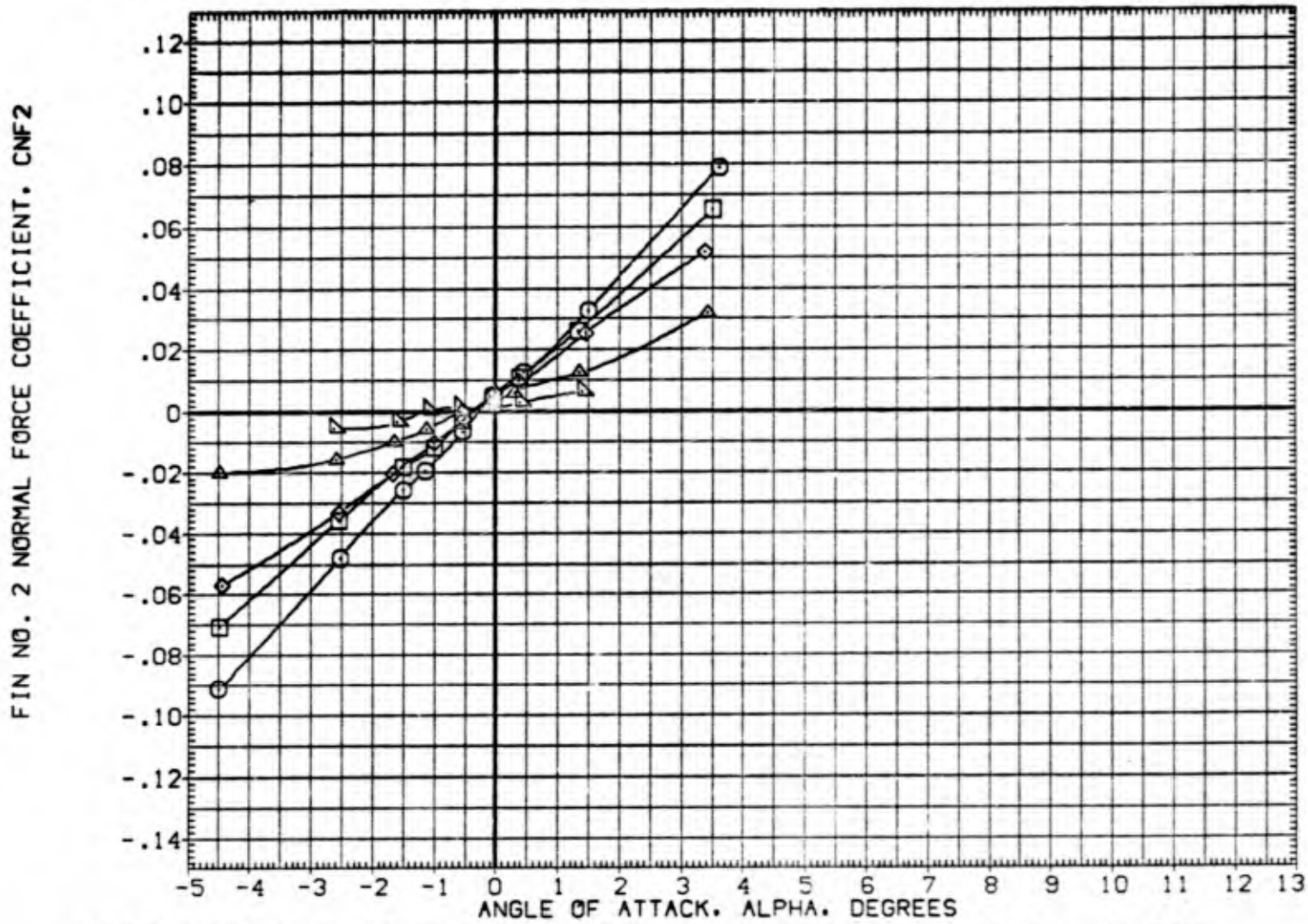
PARAMETRIC VALUES

BETA .000 PHI .000

MACH .700

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

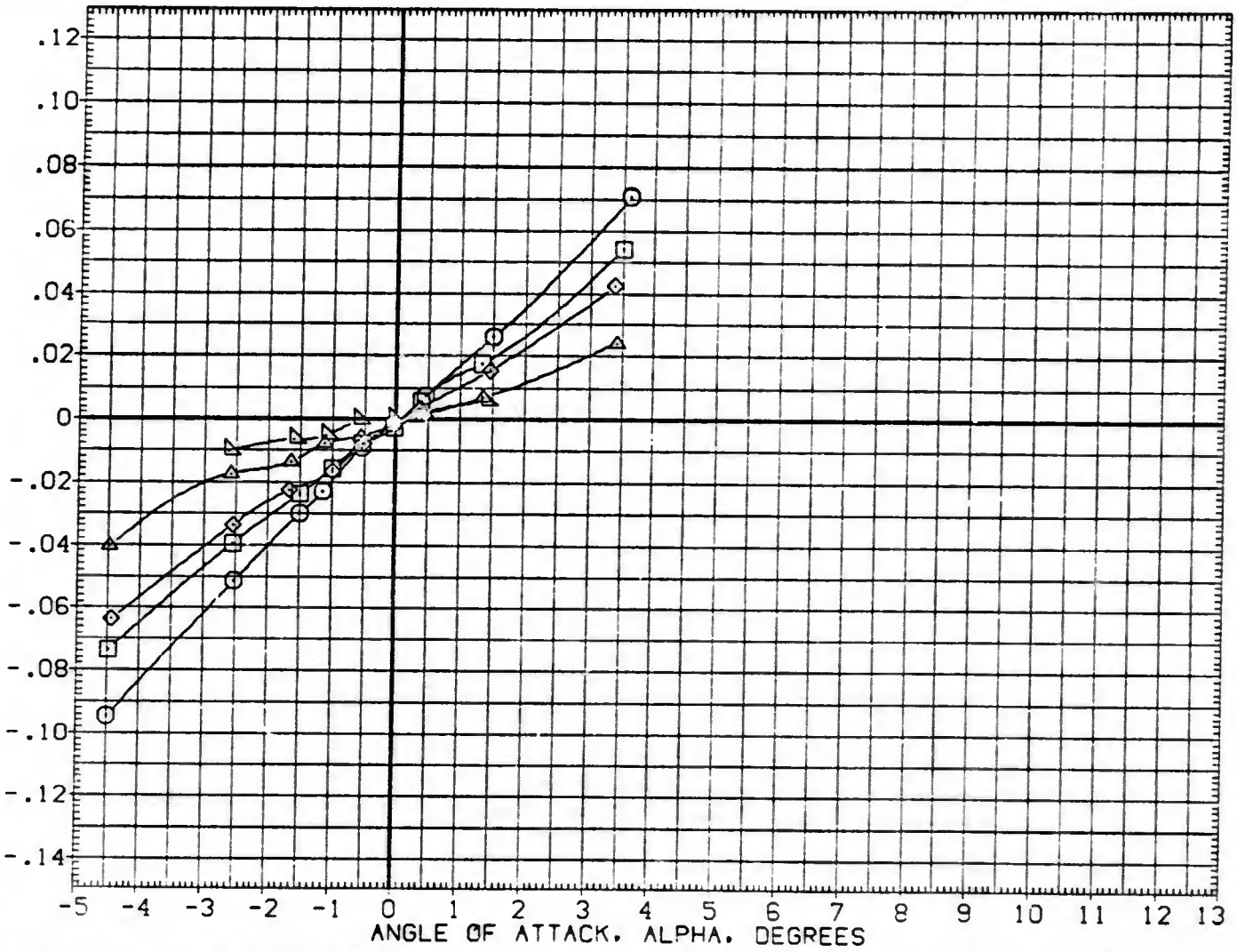


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8045)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.080	BETA	.000	PHI	.000
□	4.382	MACH	.700		
◇	5.874				
△	10.762				
▷	20.719				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



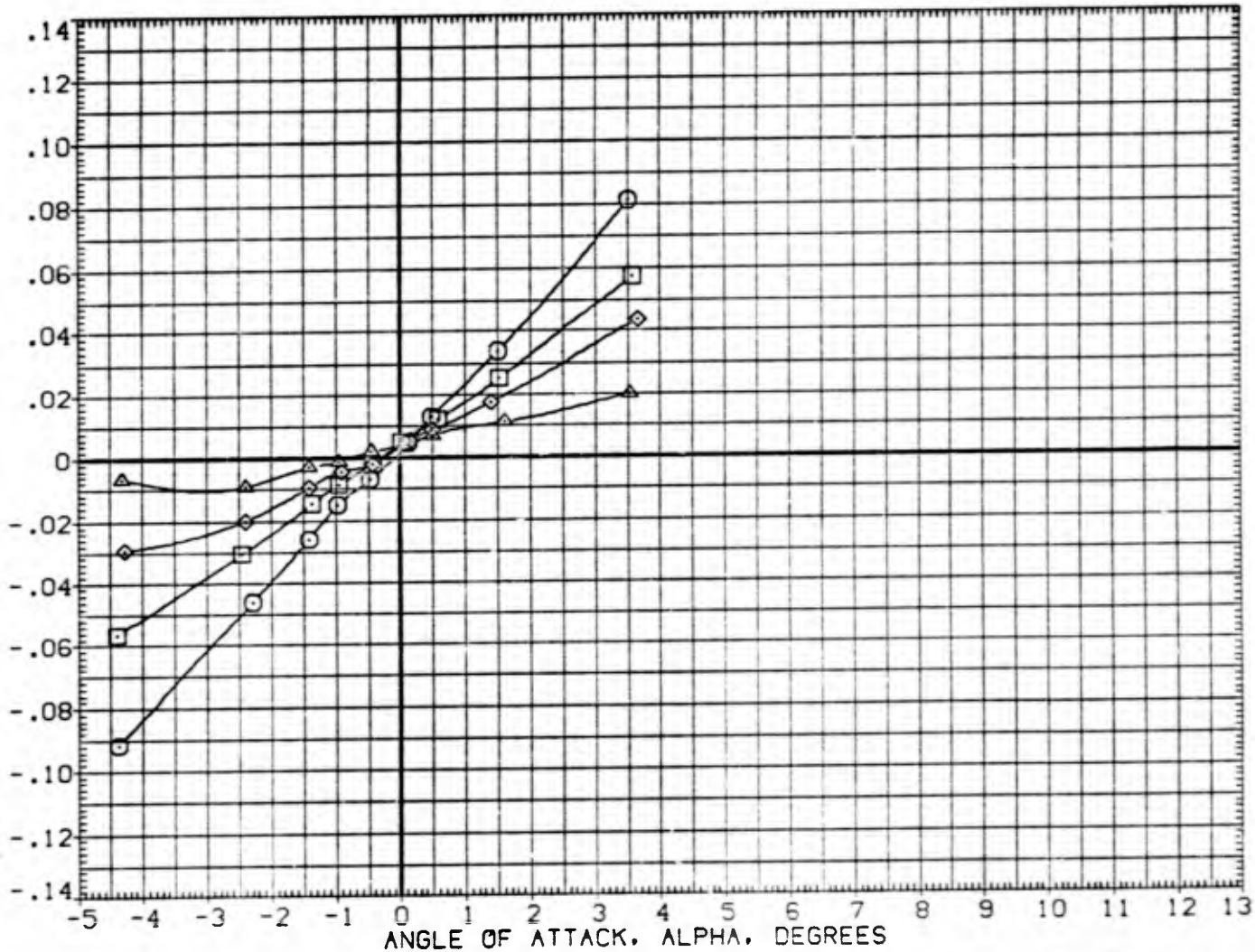
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8046)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.046	BETA	.000	PHI	.000
□	4.127	MACH	.900		
◇	5.650				
△	8.605				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



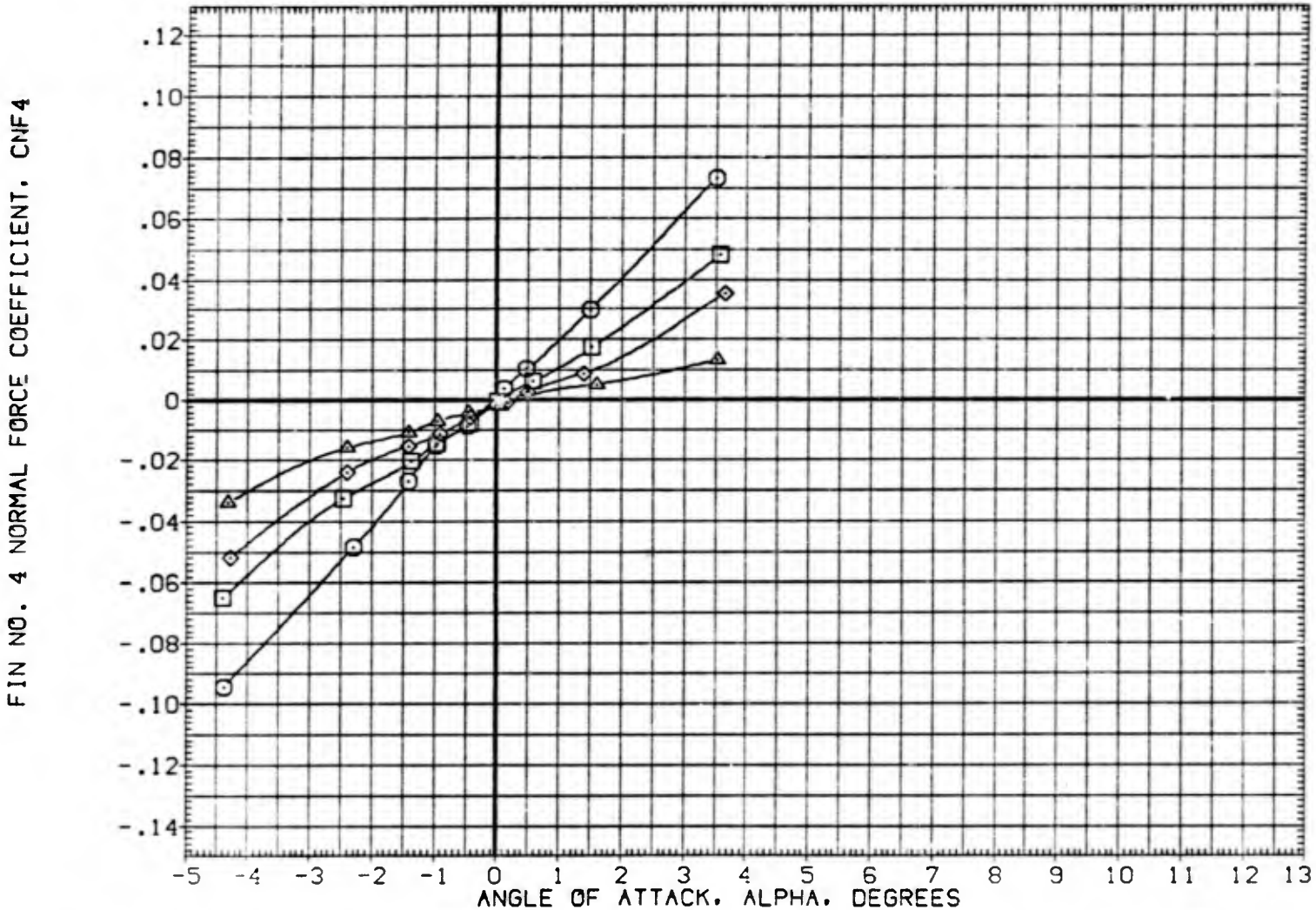
FIN NO. 2 NORMAL FORCE COEFFICIENT, CNF2

THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8046)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.046	BETA	.000	PHI	.000
□	4.127	MACH	.900		
◇	5.650				
△	8.605				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY. FIN IN MID POSITION (AX8047)

SYMBOL	CRT
○	.049
□	2.614
◇	4.126
△	5.709
▷	7.029

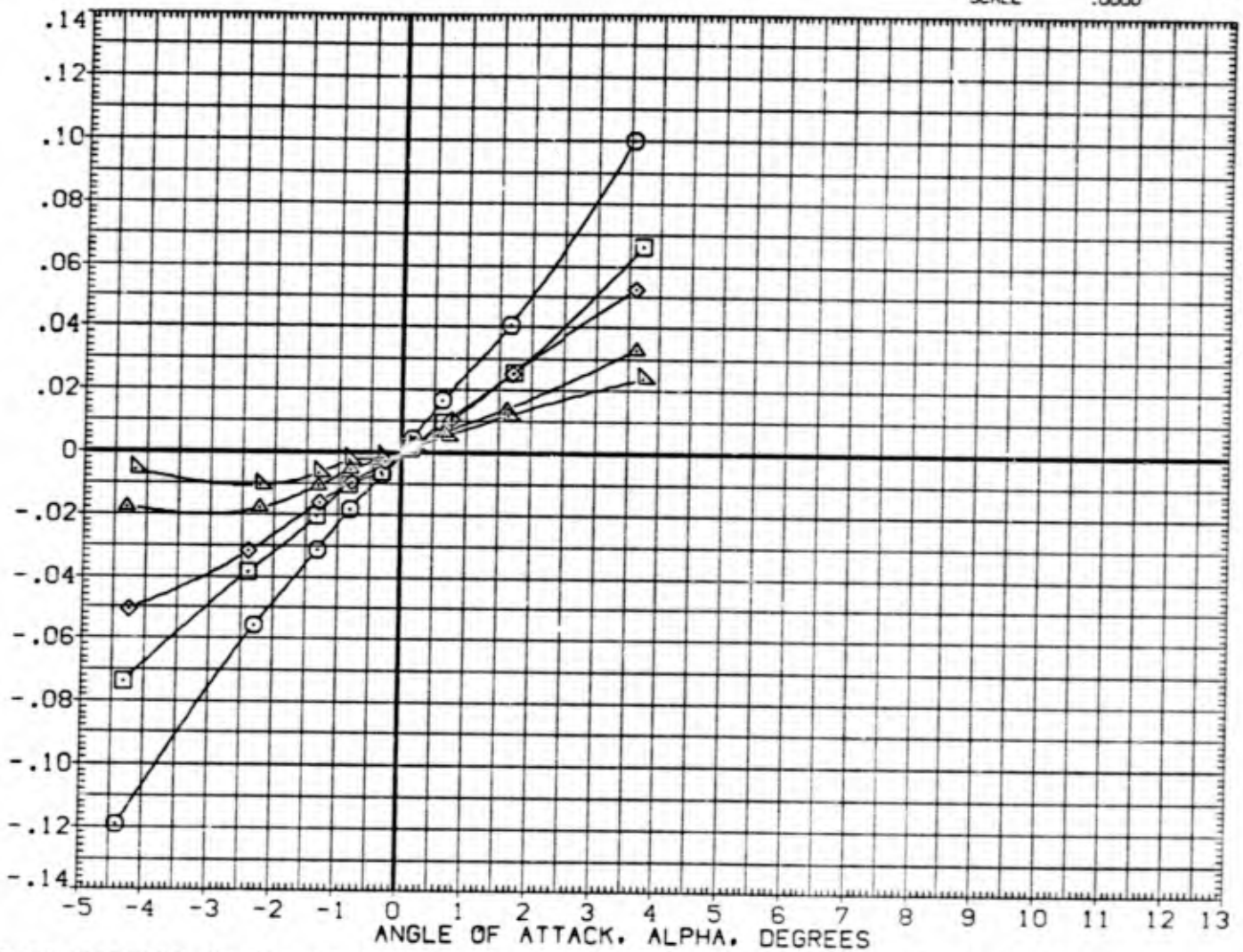
PARAMETRIC VALUES

BETA .000 PHI .000

MACH 1.000

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



FIN NO. 2 NORMAL FORCE COEFFICIENT, CNF2

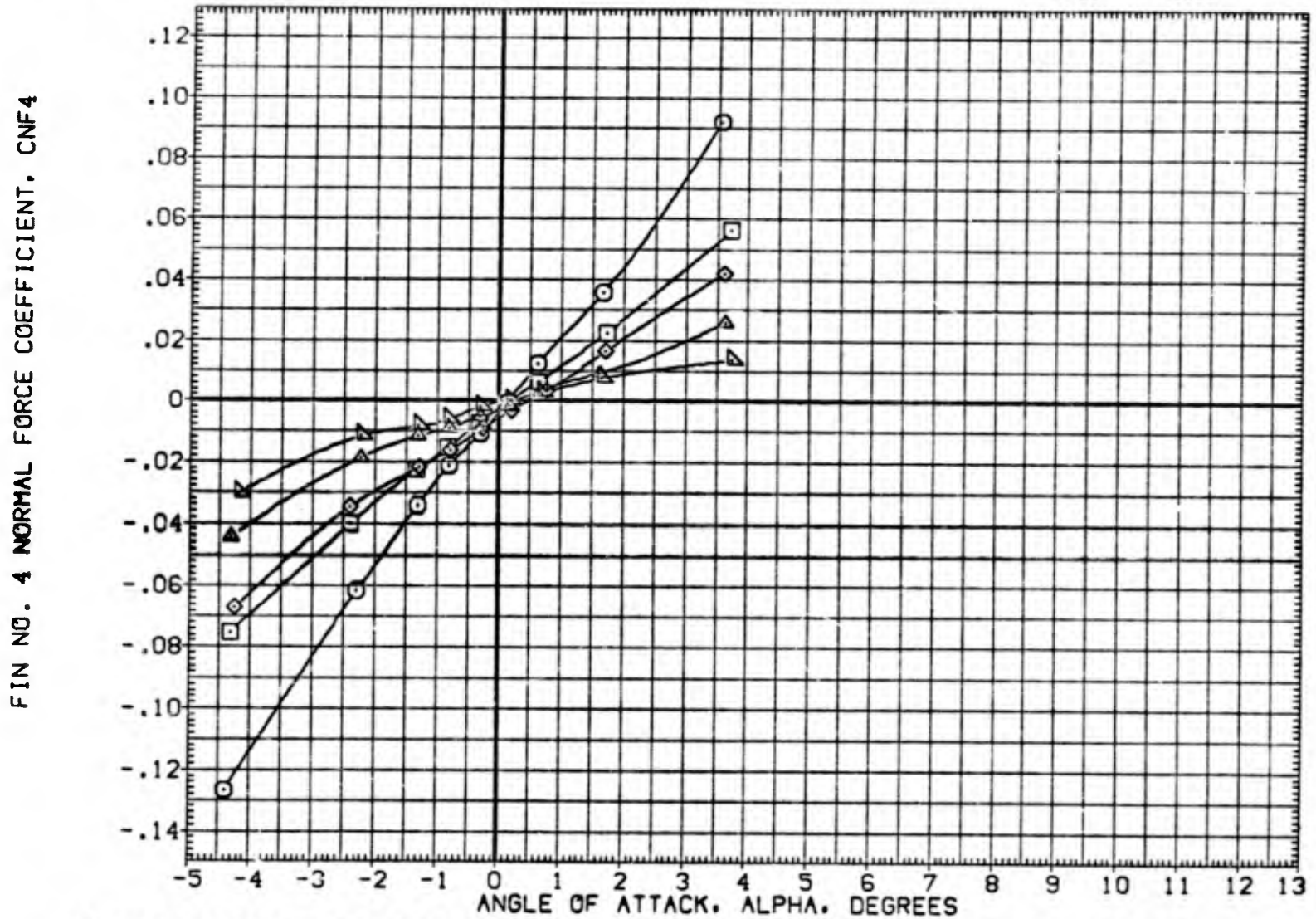
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8047)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.049	BETA	.000	PHI	.000
□	2.614	MACH	1.000		
◇	4.126				
△	5.709				
▽	7.029				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8048)

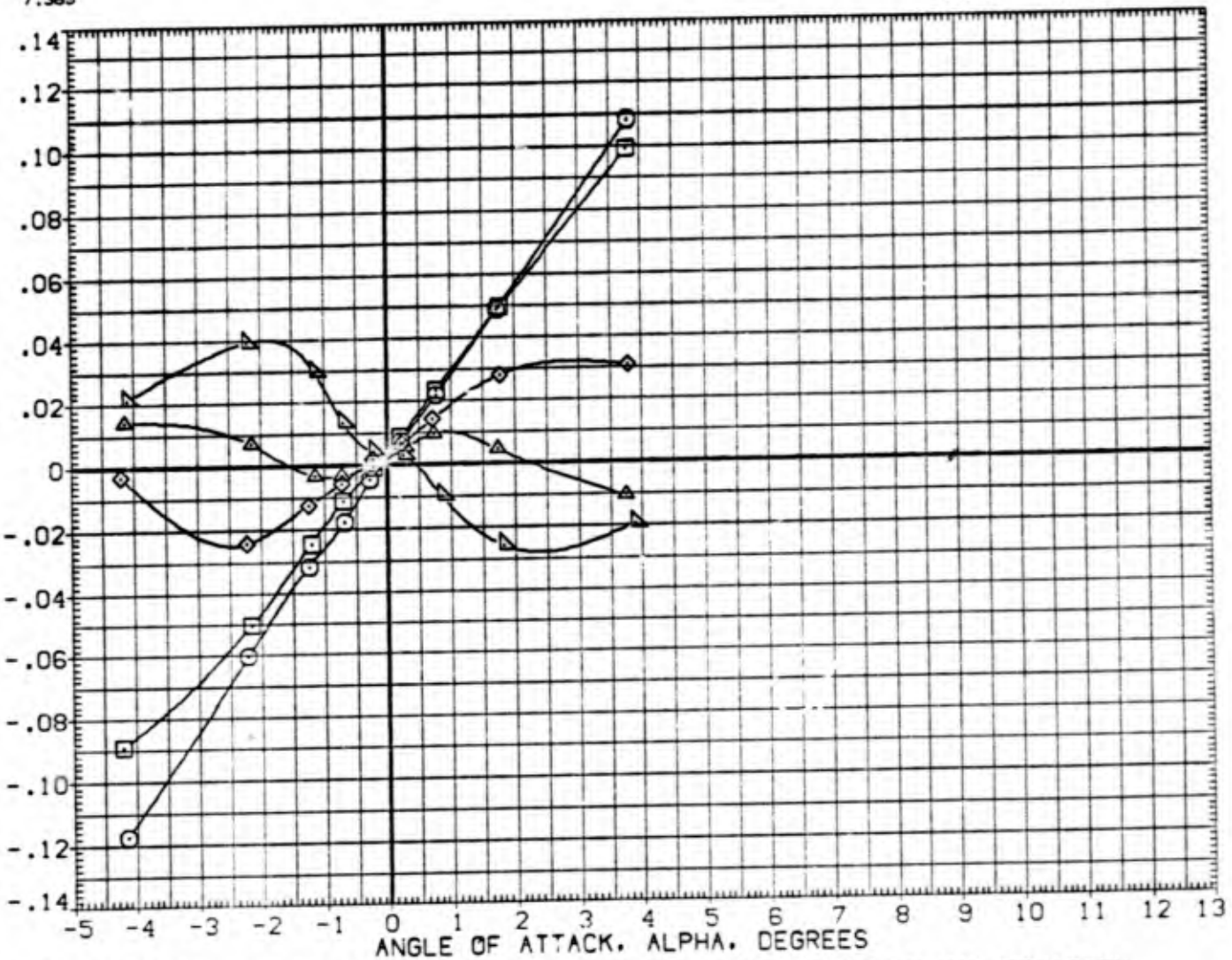
SYMBOL	CRT
▽	.026
△	2.569
◇	4.235
□	5.753
○	7.369

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF2) BODY, FIN IN MID POSITION (AX8048)

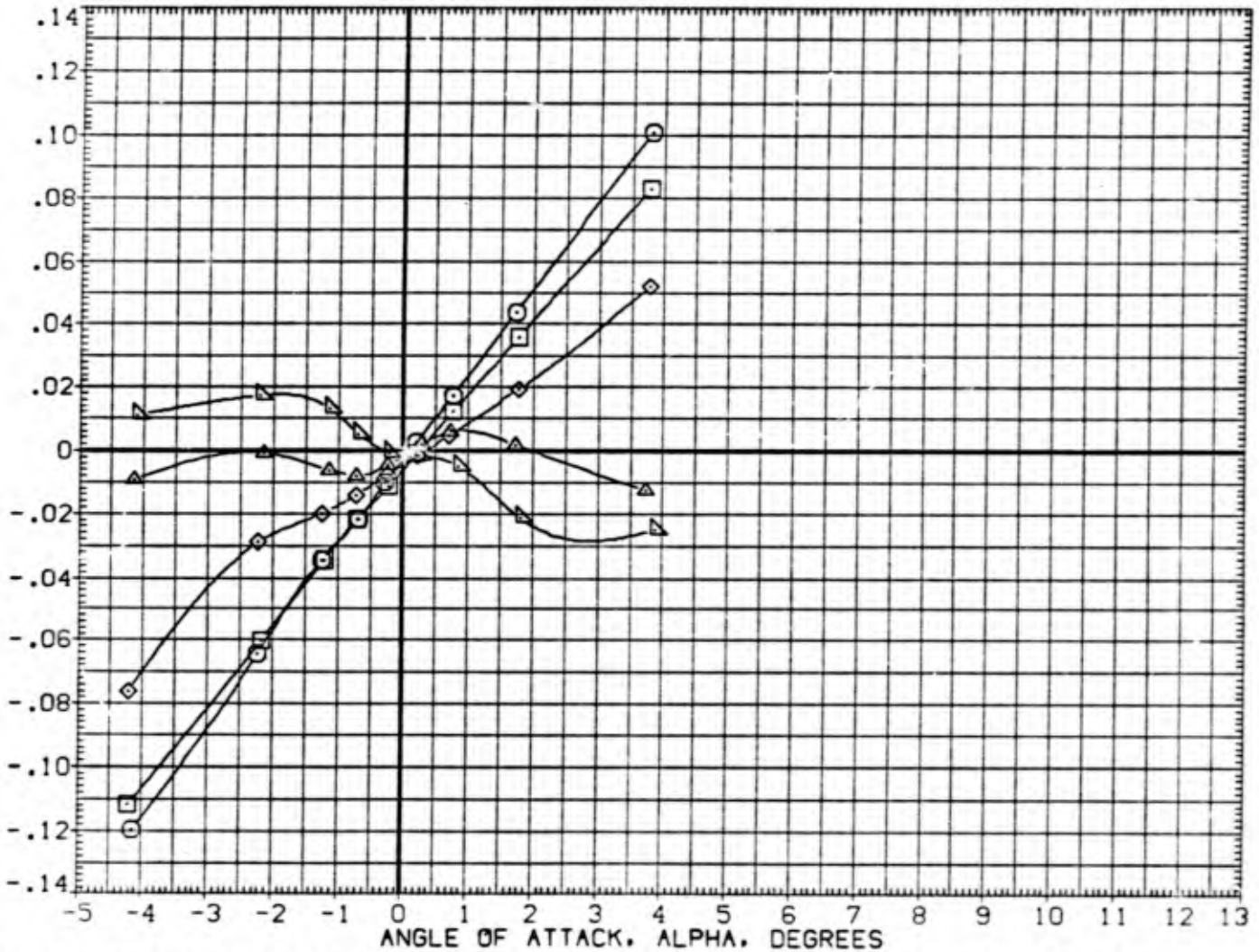
SYMBOL	CRT
○	.026
□	2.569
◇	4.235
△	5.753
▷	7.369

PARAMETRIC VALUES

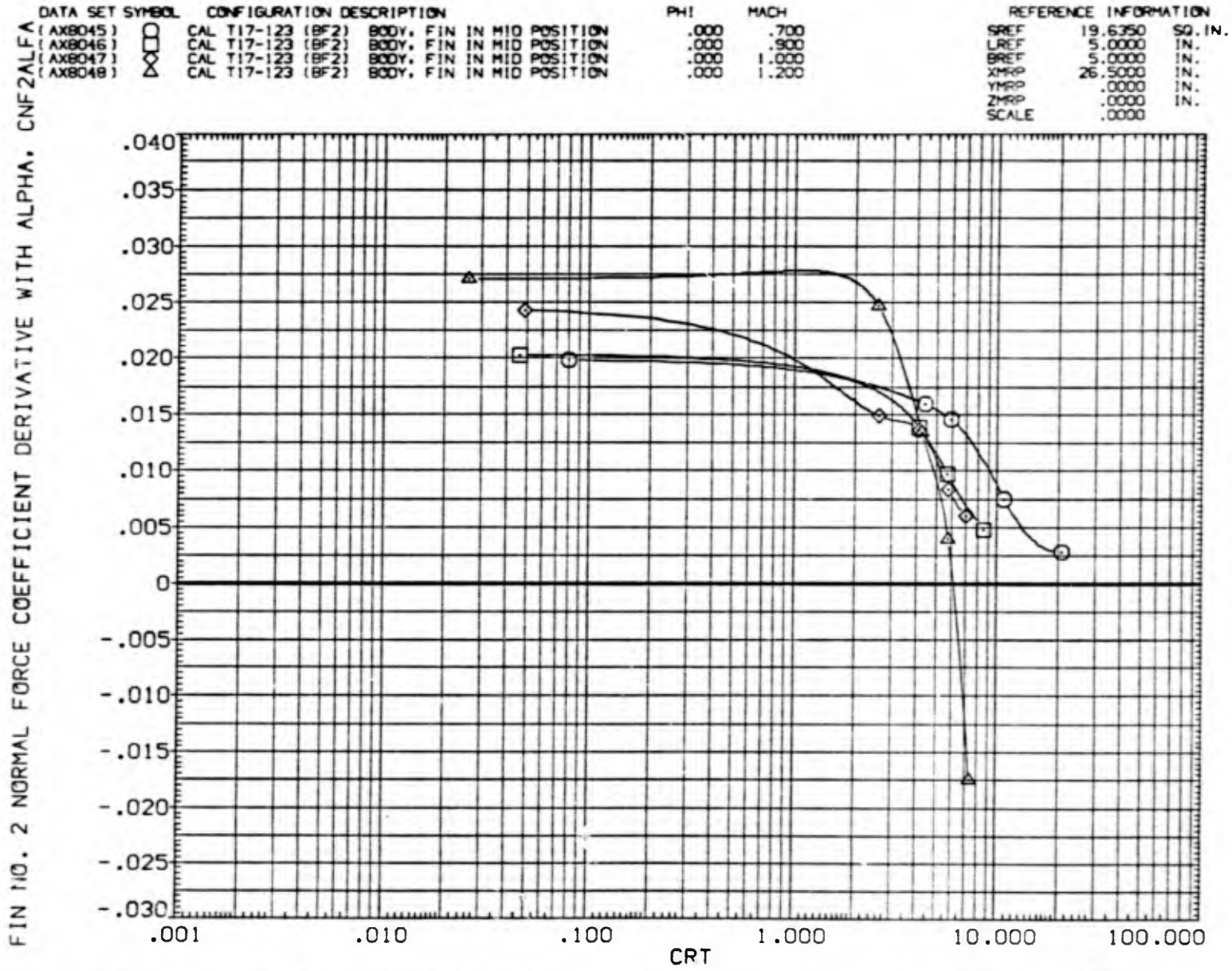
BETA	.000	PHI	.000
MACH	1.200		

REFERENCE INFORMATION

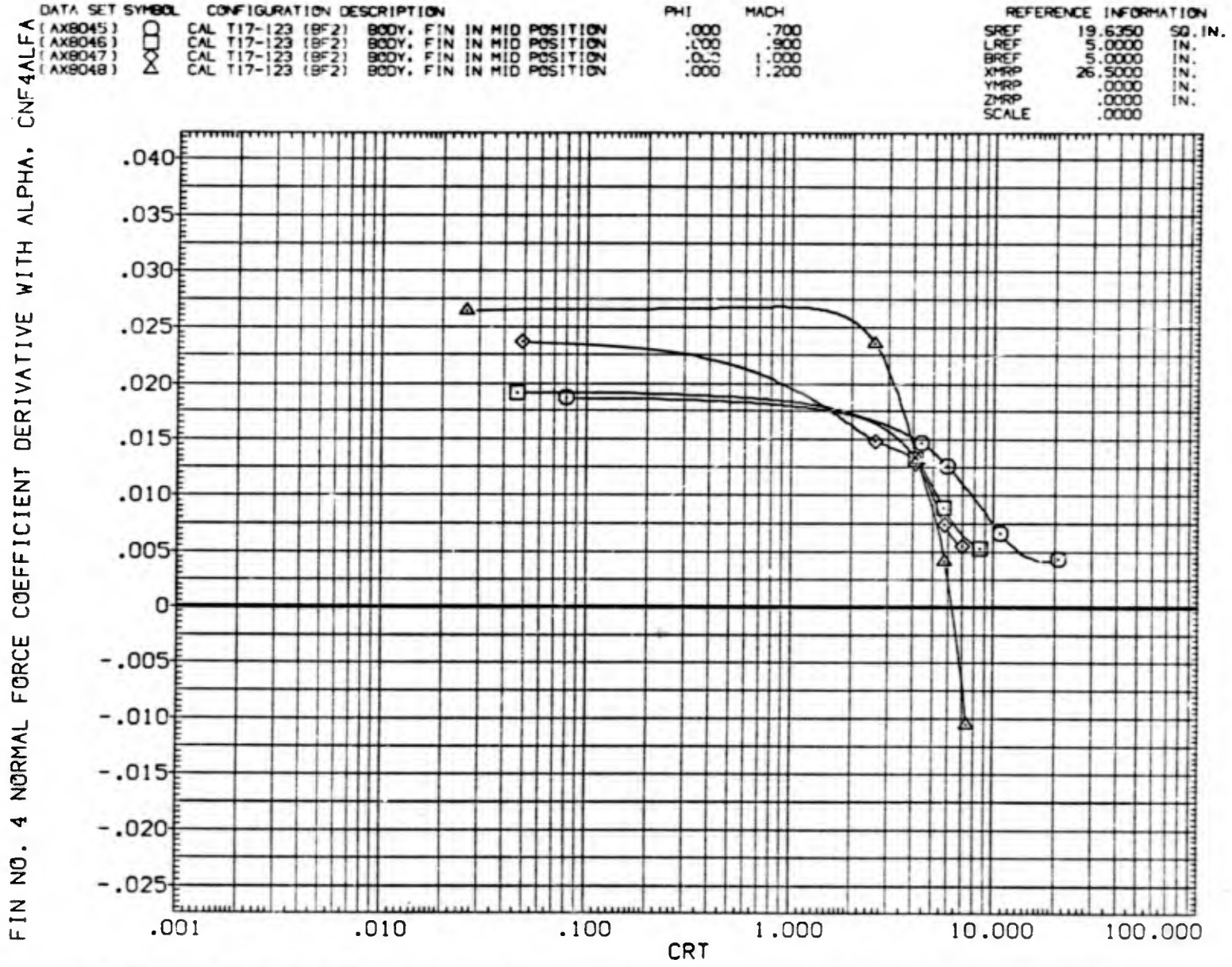
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION



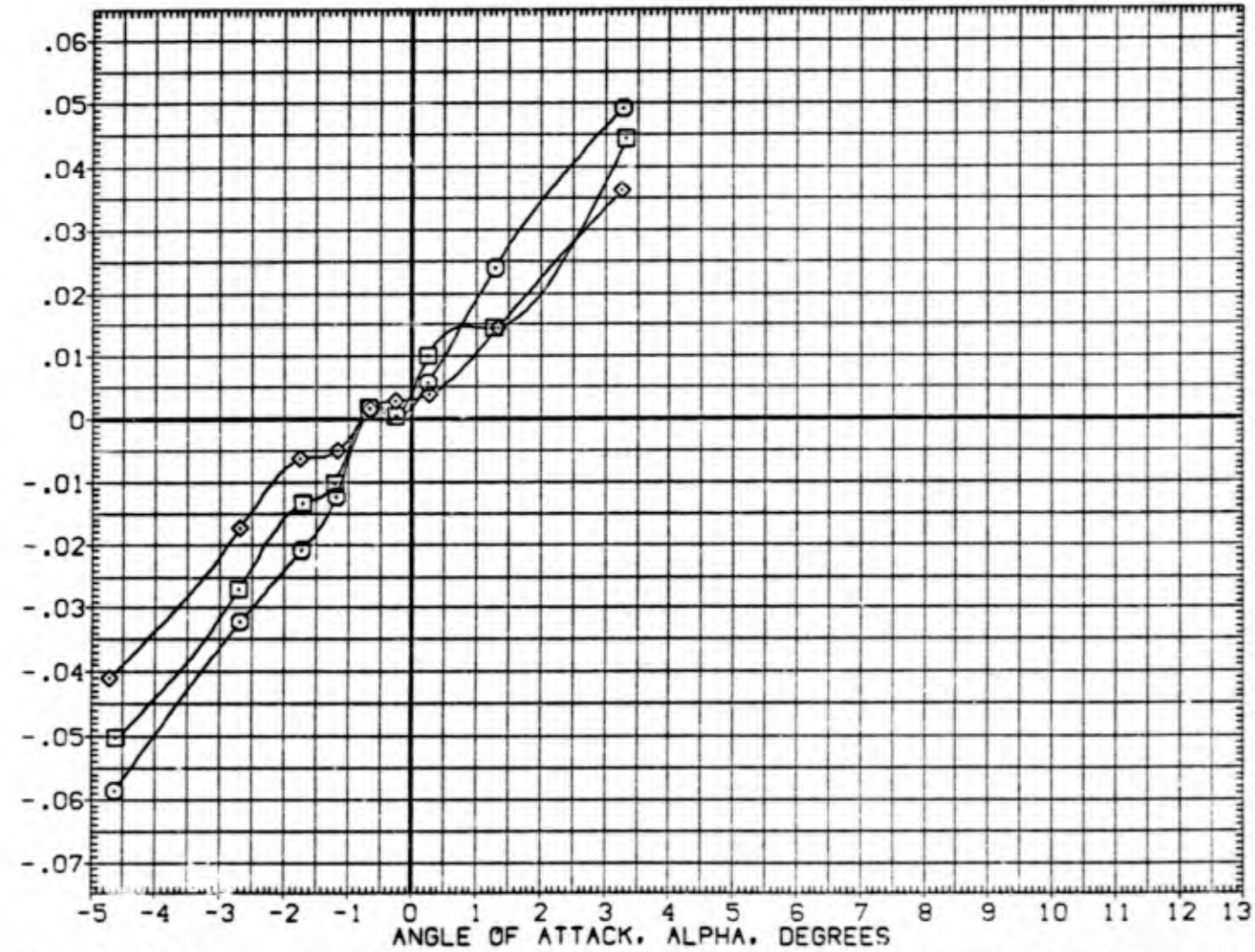
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8053)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.121	BETA	.000	PHI	.000
□	6.019	MACH	.400		
◇	12.217				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



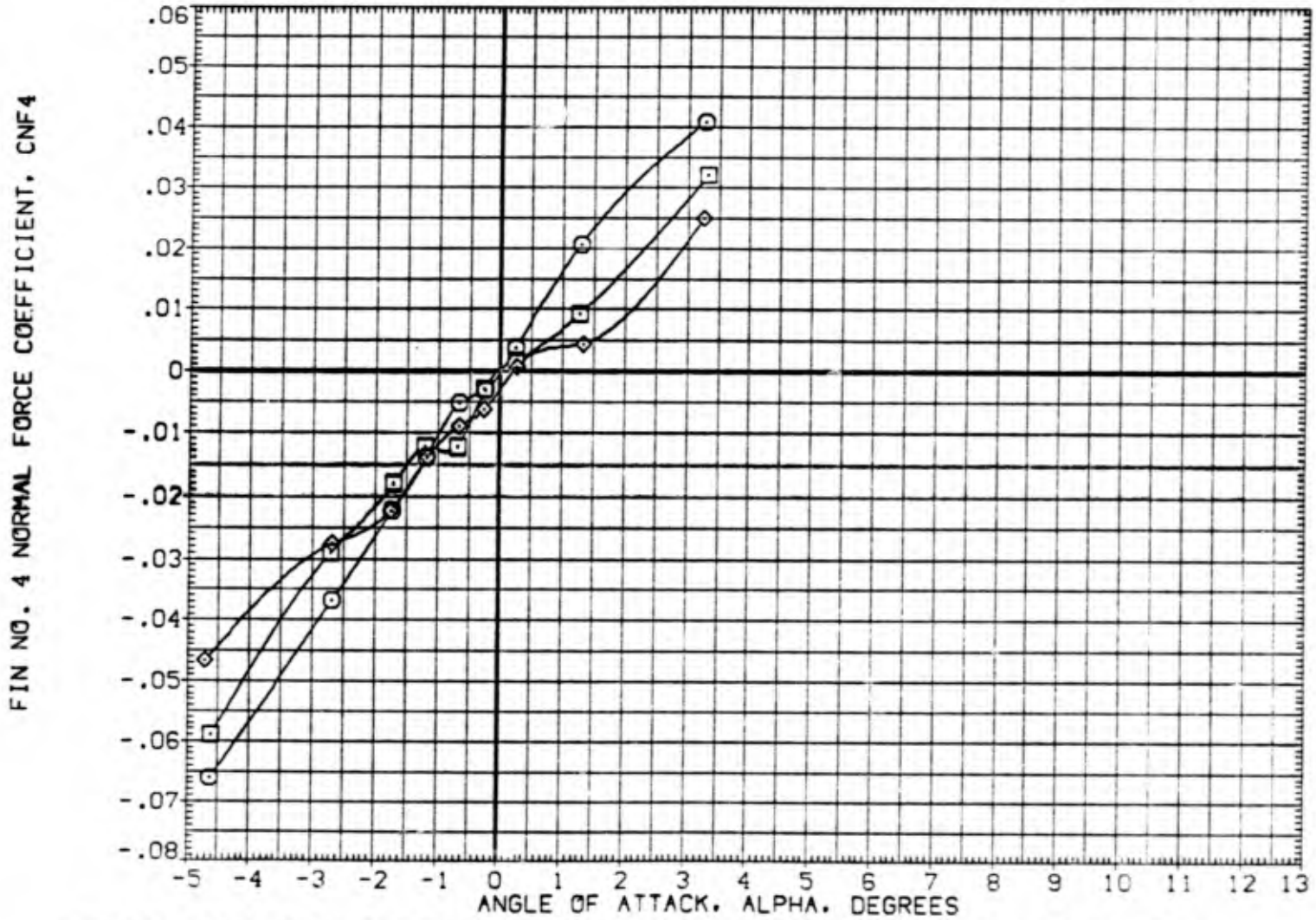
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8053)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.121	BETA	.000	PHI	.000
□	6.019	MACH	.400		
◇	12.217				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



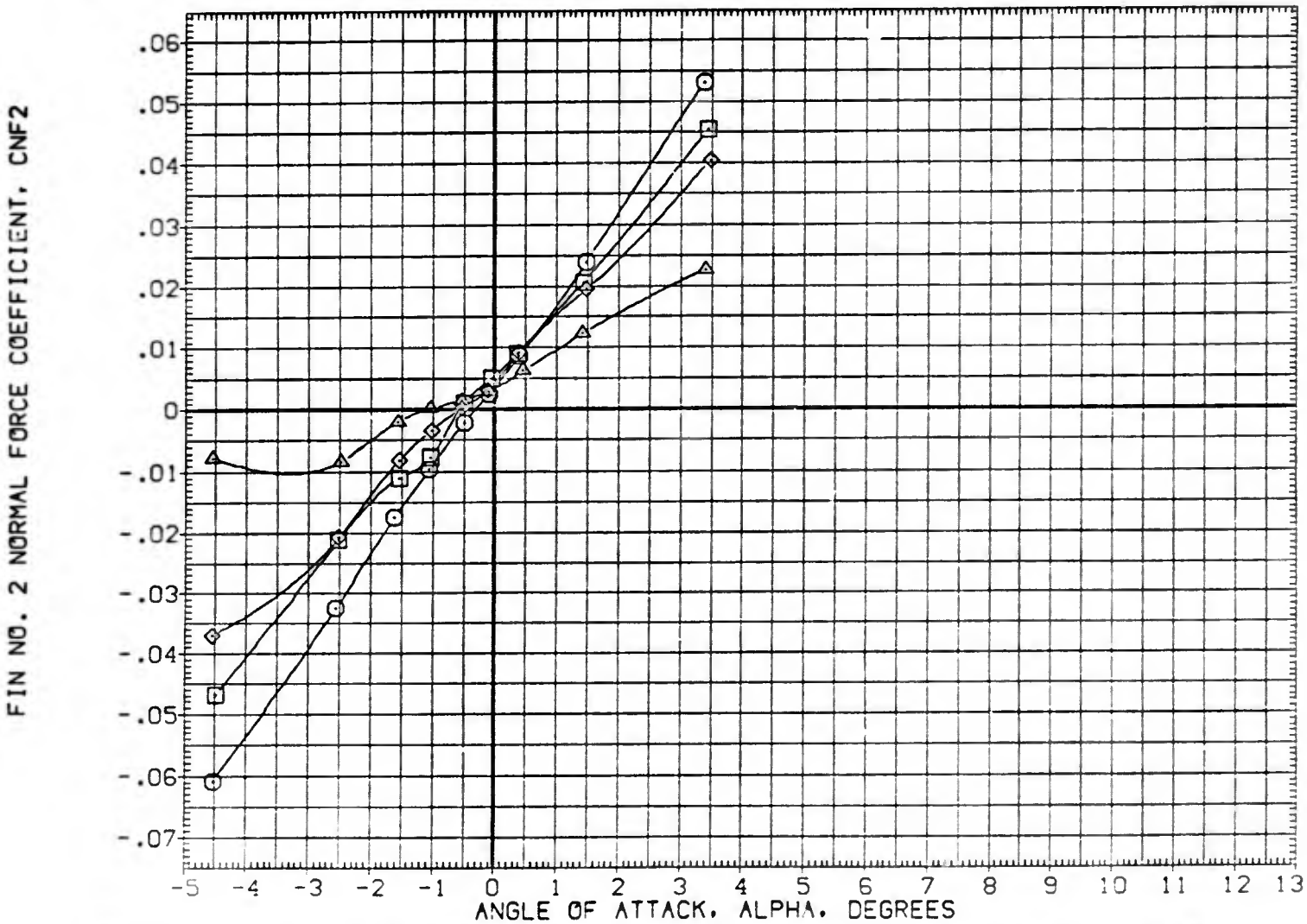
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY. FIN IN MID POSITION (AX8054)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.001	BETA	.000	PHI	.000
□	4.199	MACH	.700		
◇	5.854				
△	10.435				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



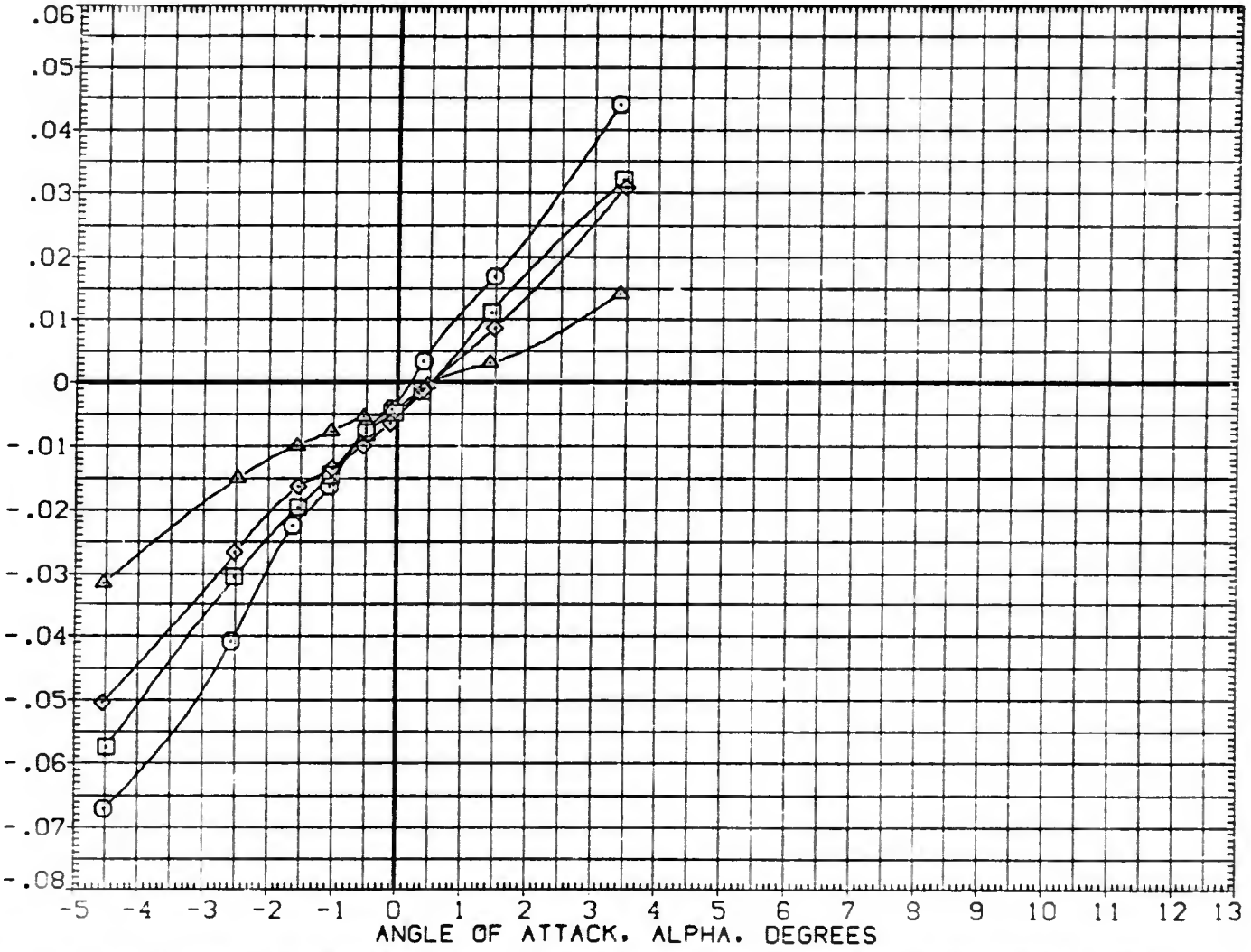
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8054)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.001	BETA	.000	PHI	.000
□	4.199	MACH	.700		
◇	5.854				
△	10.435				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



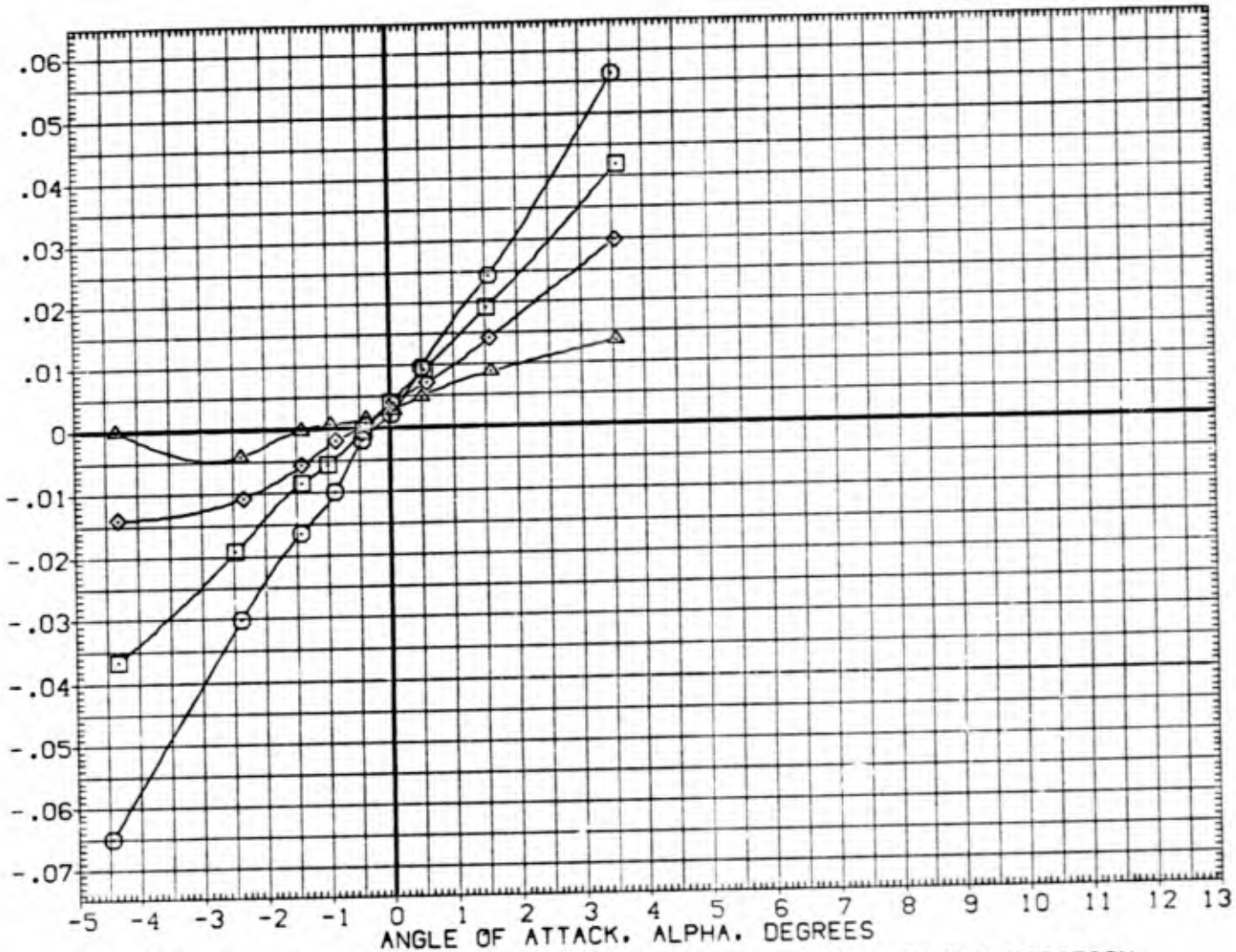
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8055)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.008	BETA	.000	PHI	.000
□	4.050	MACH	.900		
◇	5.851				
△	9.015				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

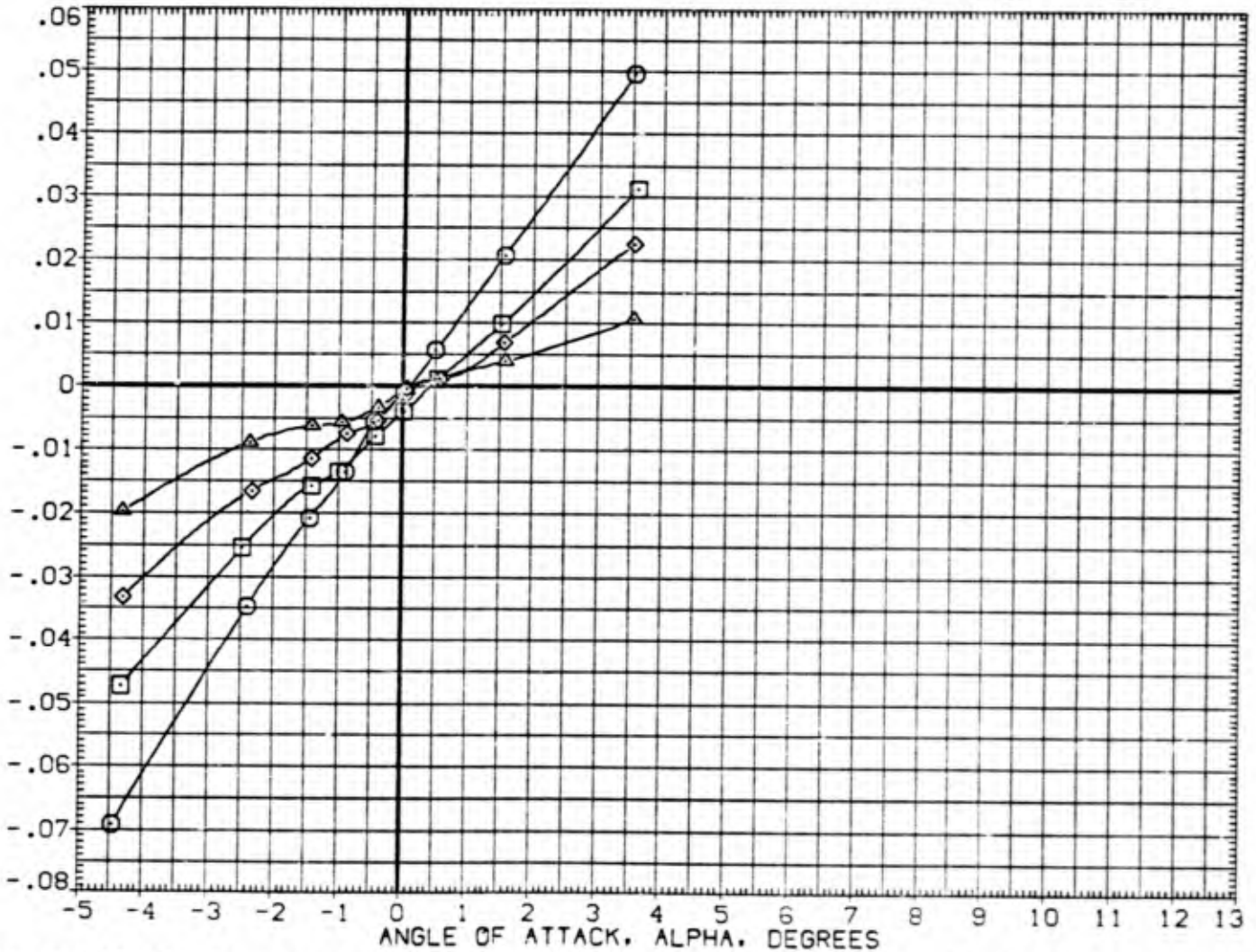


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8055)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.008	BETA	.000	PHI	.000
□	4.050	MACH	.900		
◇	5.851				
△	9.015				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



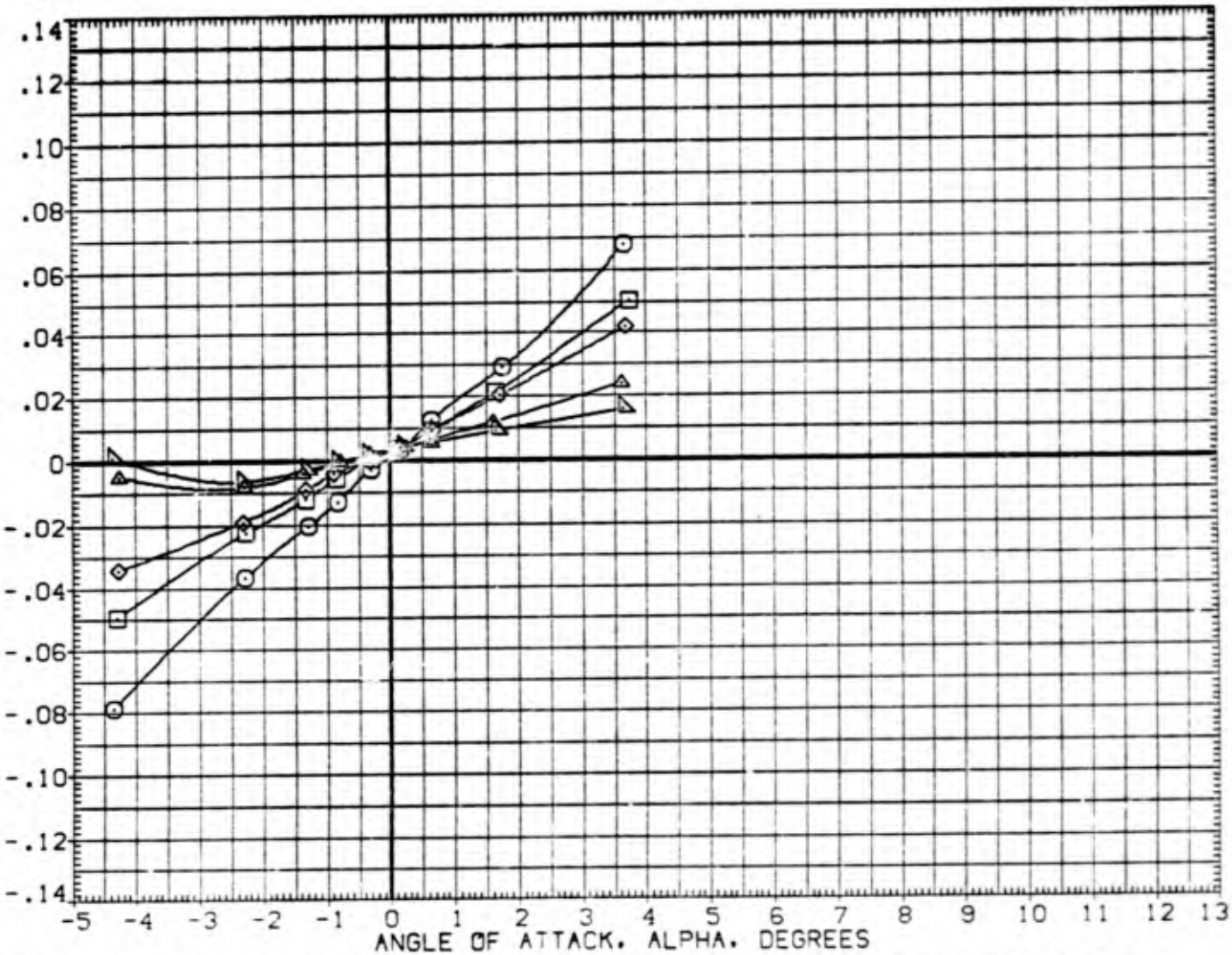
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8056)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.019	BETA	.000	PHI	.000
□	2.636	MACH	1.000		
◇	3.991				
△	5.872				
▷	7.056				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



FIN NO. 2 NORMAL FORCE COEFFICIENT, CNF2

THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY, FIN IN MID POSITION (AX8056)

SYMBOL	CRT
○	.019
□	2.636
◇	3.991
△	5.872
▽	7.056

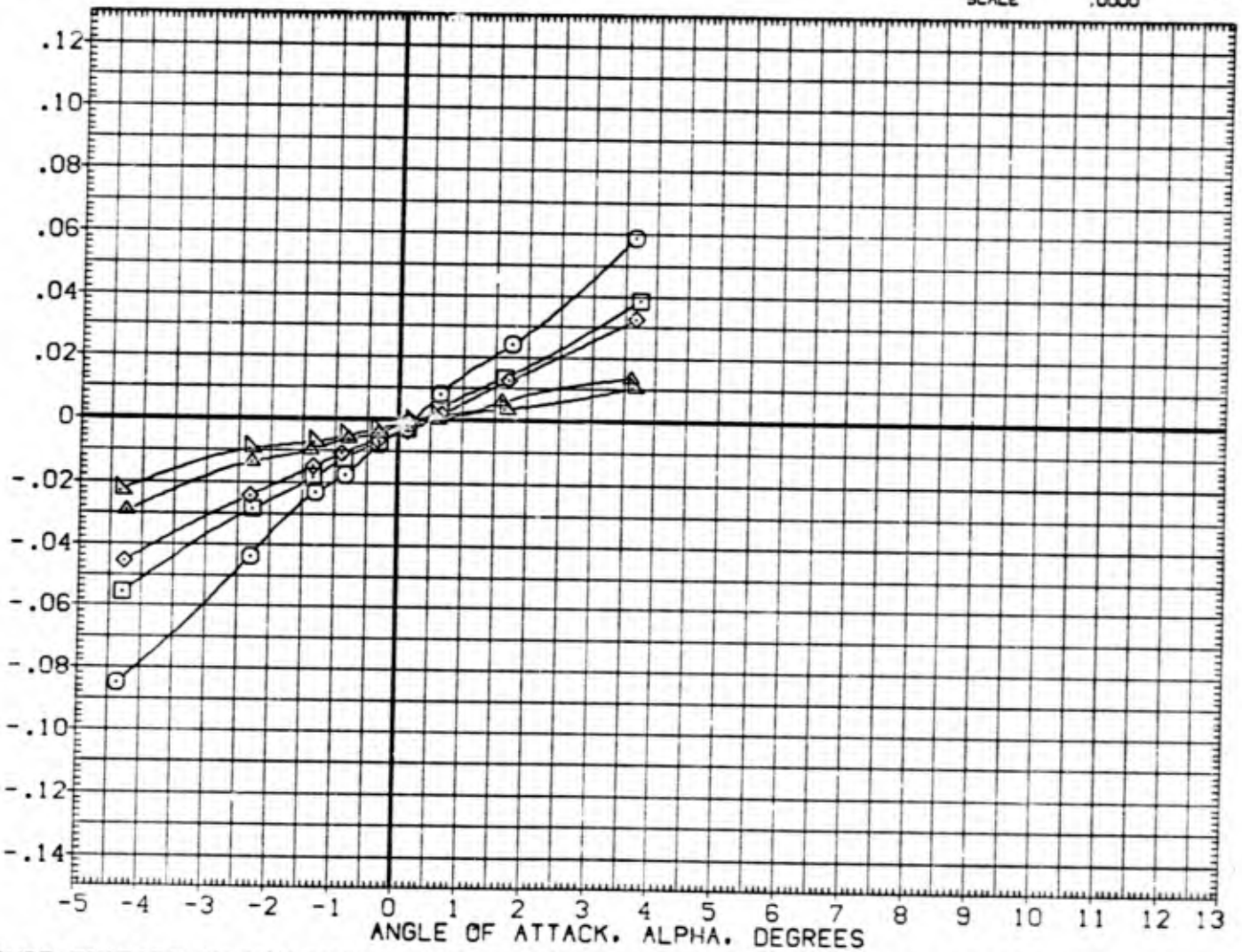
PARAMETRIC VALUES

BETA .000 PHI .000

MACH 1.000

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

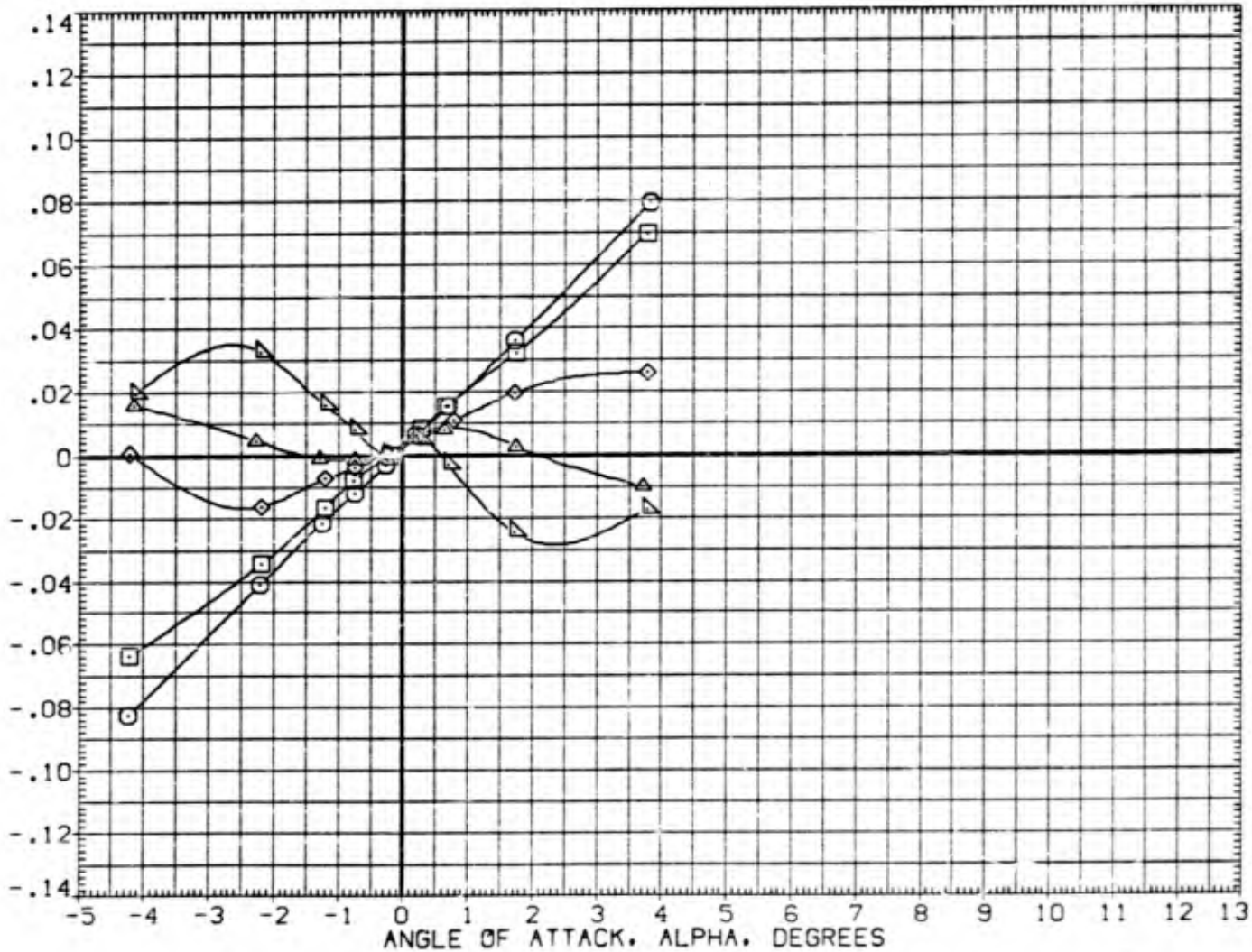


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY. FIN IN MID POSITION (AX8057)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	.000
□	2.459	MACH	1.200		
◇	3.995				
△	5.737				
▱	7.212				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



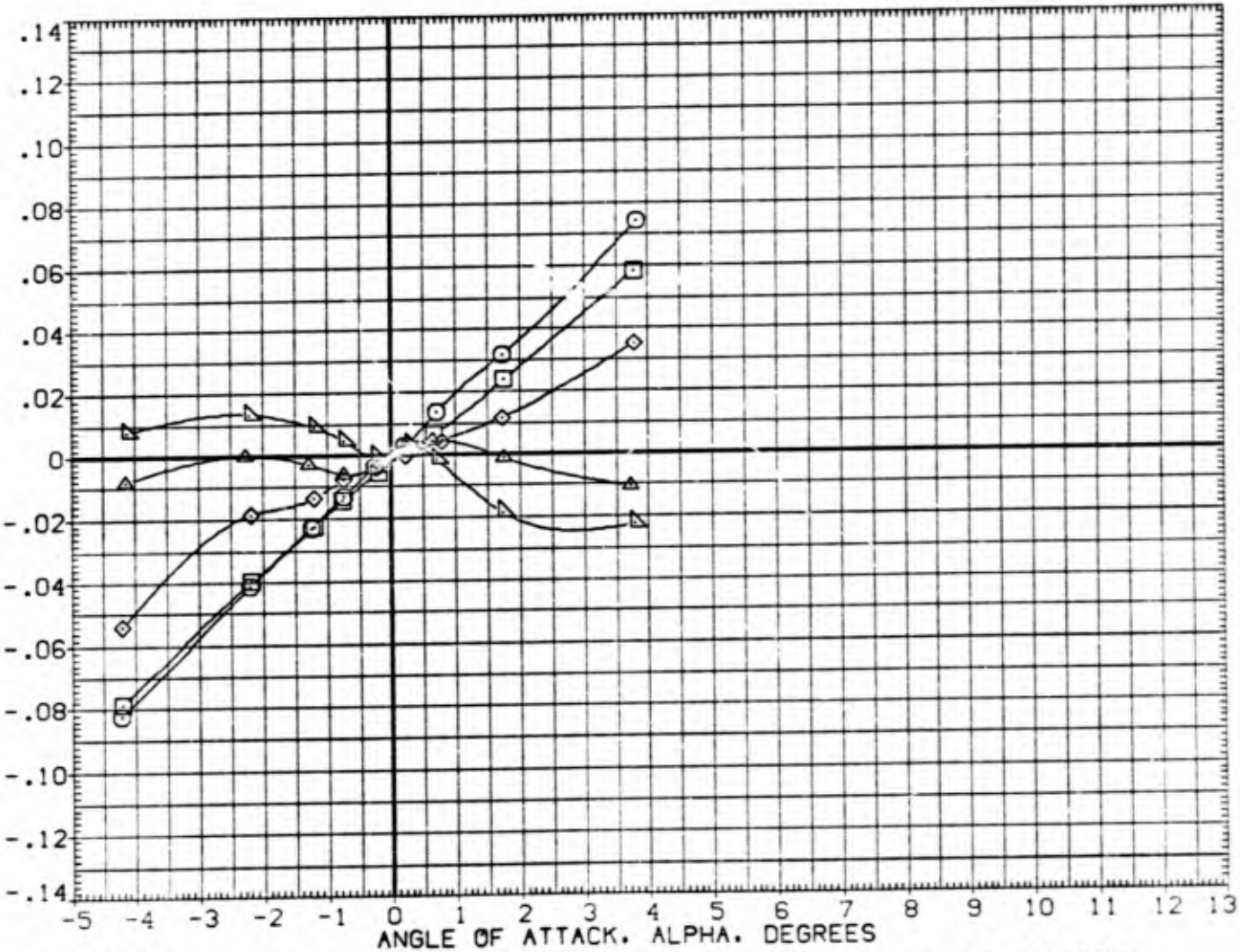
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF3) BODY. FIN IN MID POSITION (AX8057)

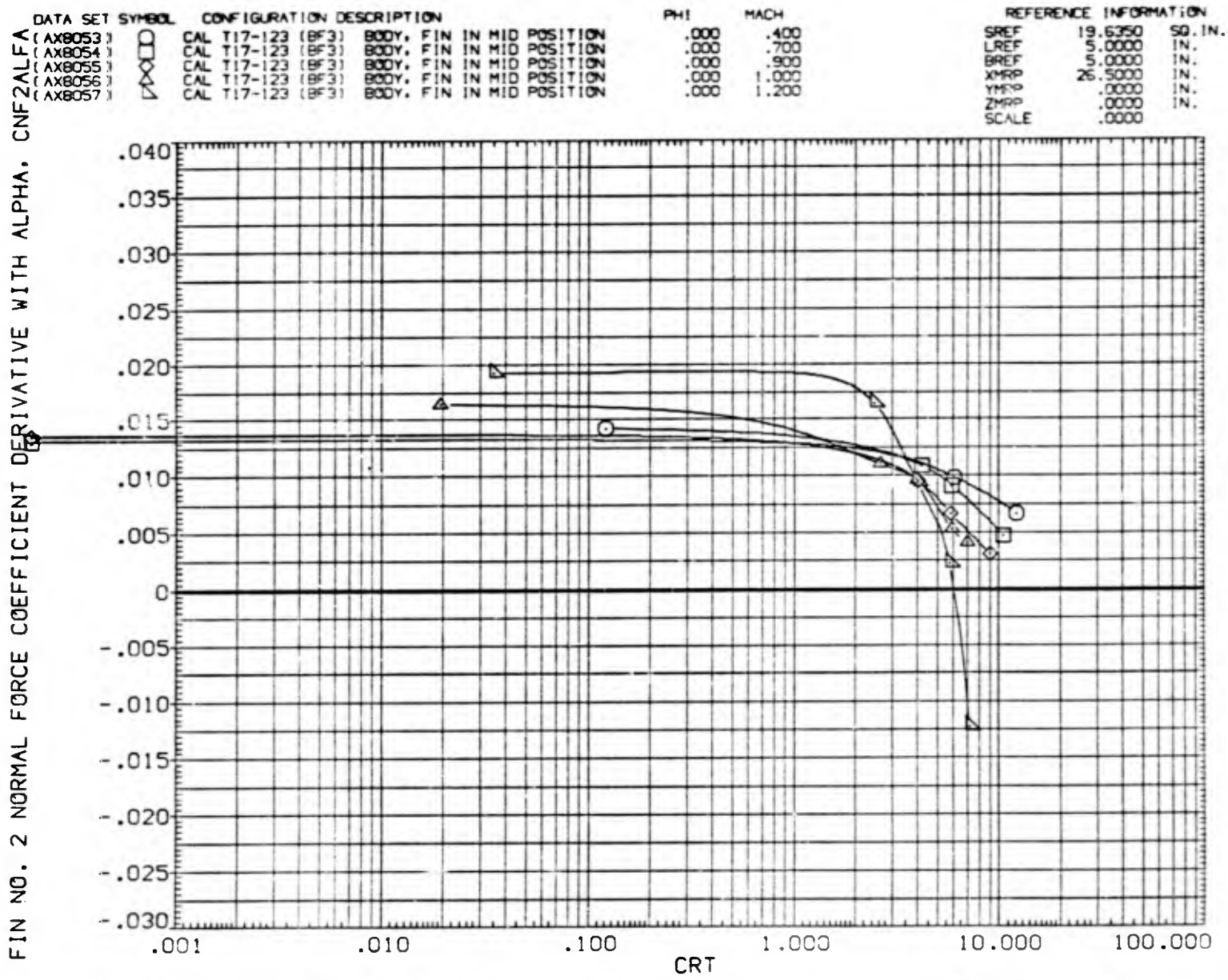
SYMBOL	CRT	PARAMETRIC VALUES			
▽	.035	BETA	.000	PHI	.000
△	2.459	MACH	1.200		
◇	3.995				
□	5.737				
○	7.212				

REFERENCE INFORMATION

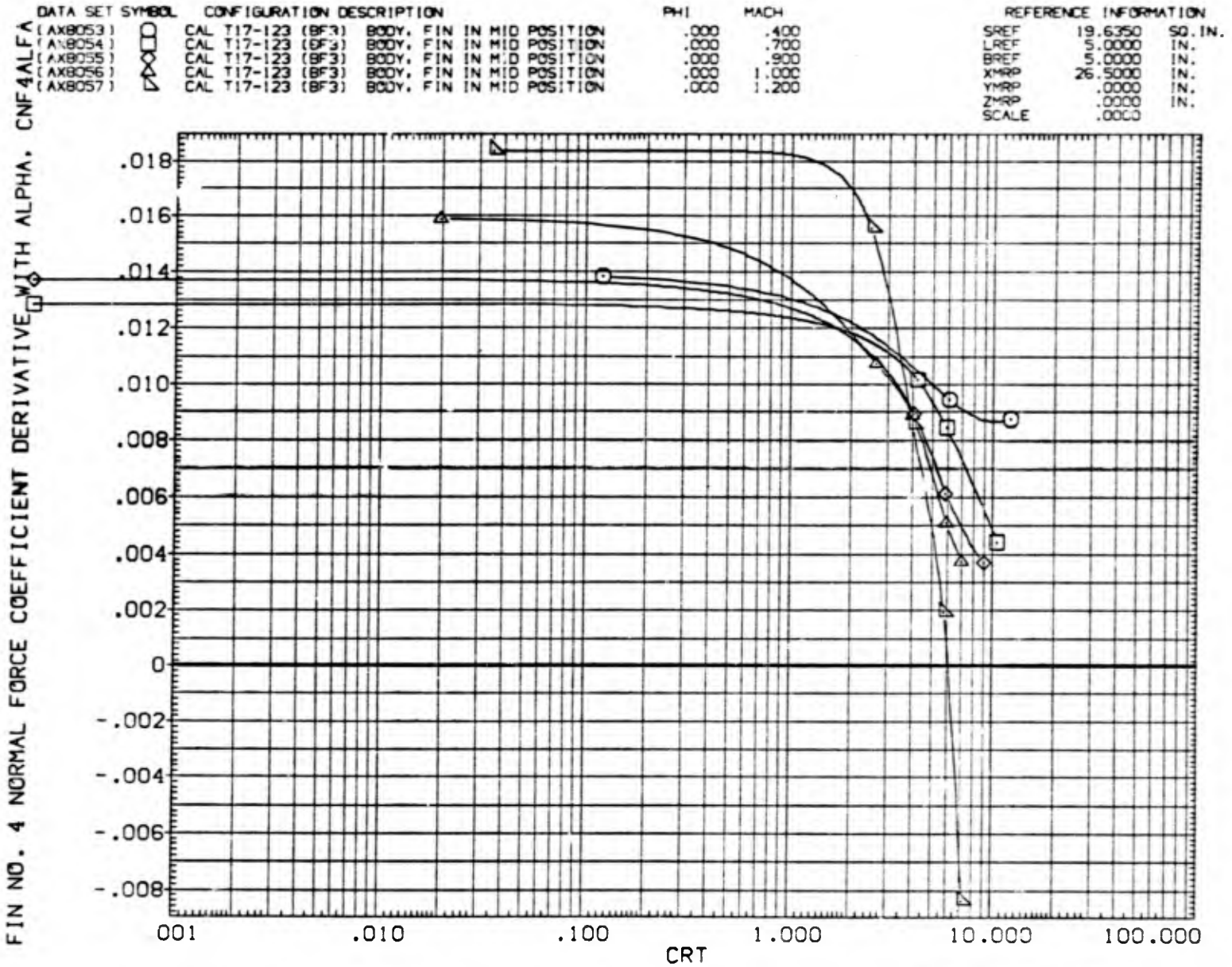
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION



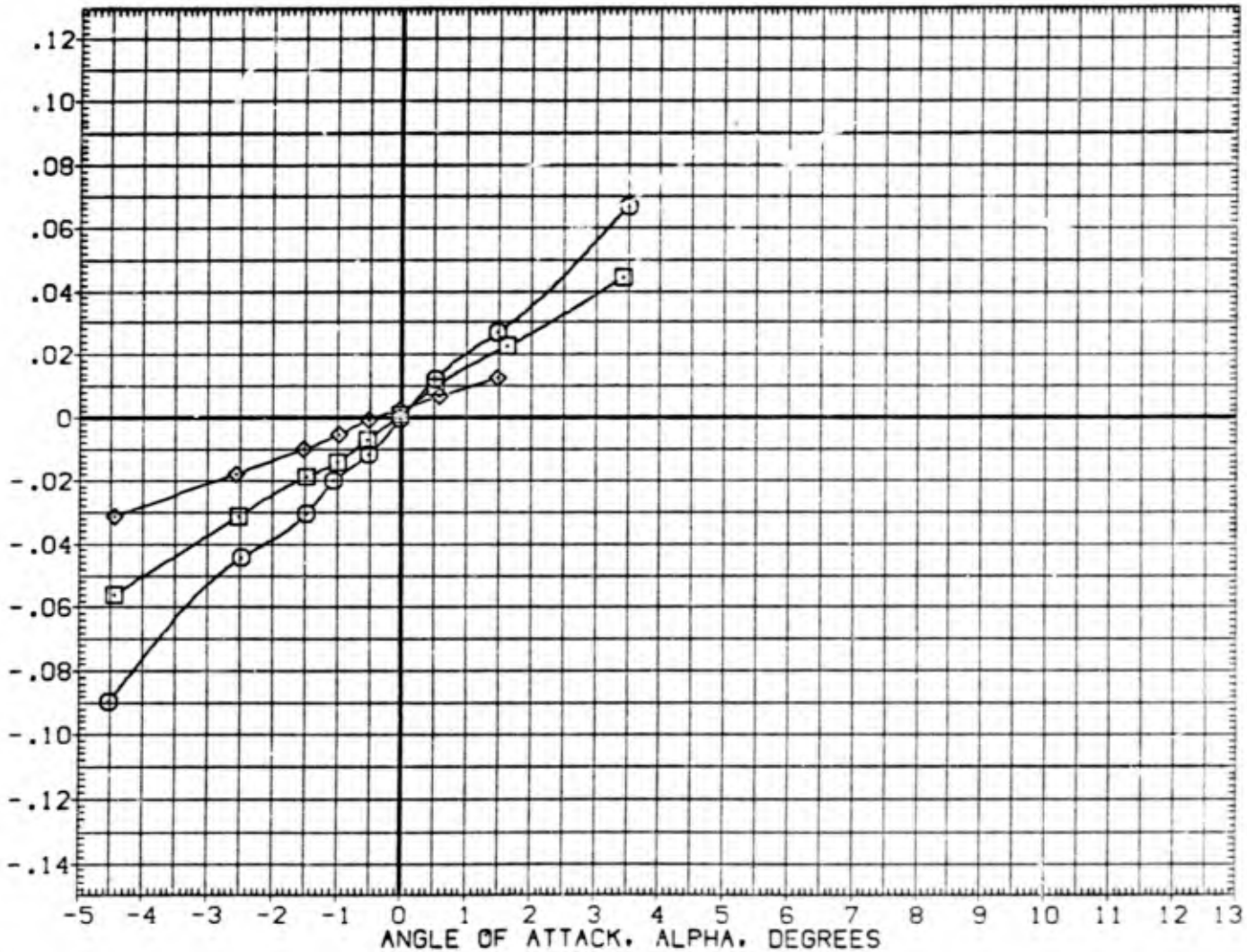
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8049)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.089	BETA	.000	PHI	.000
□	5.856	MACH	.700		
◇	10.318				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



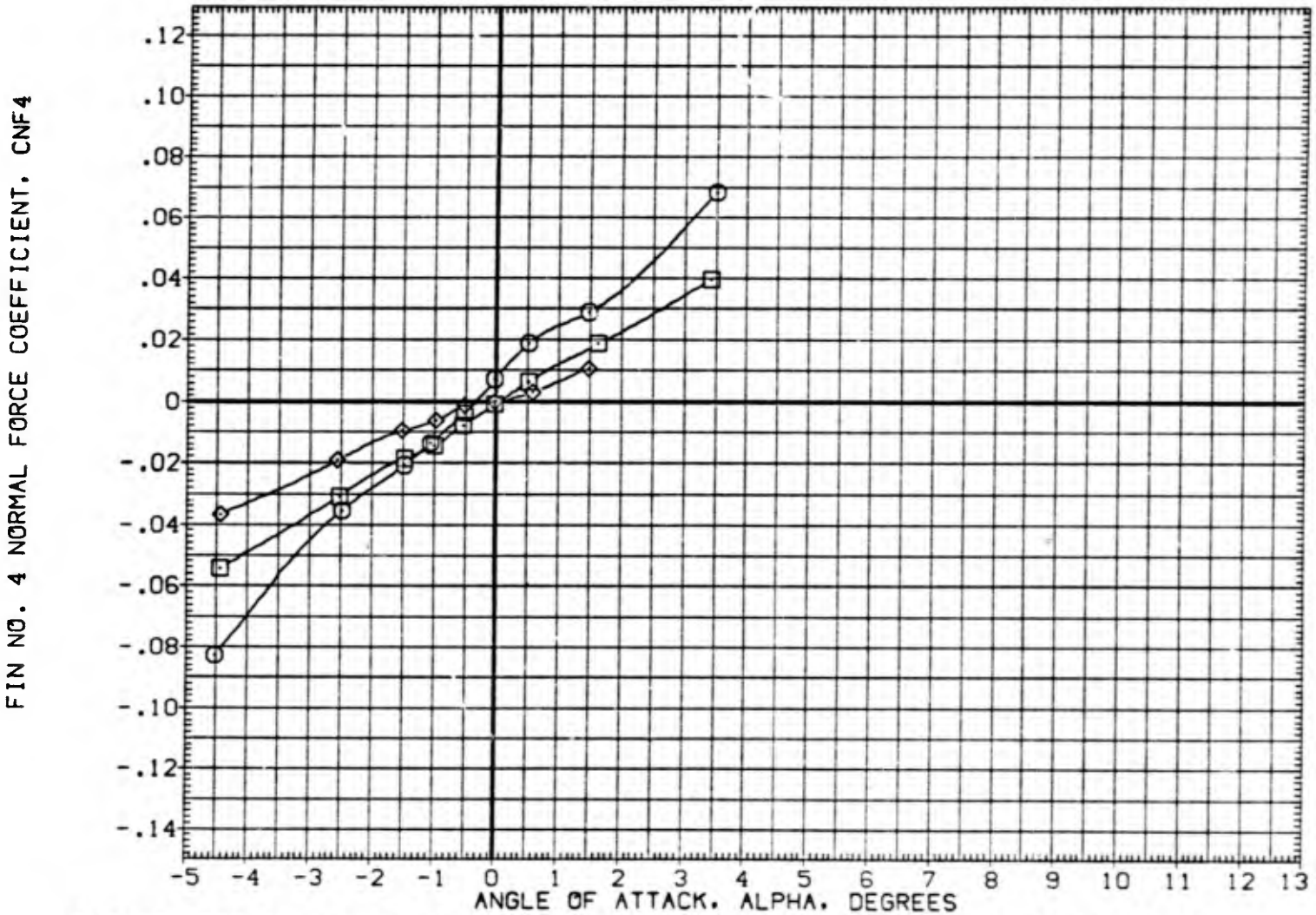
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8049)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.089	BETA	.000	PHI	.000
□	5.856	MACH	.700		
◇	10.318				

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



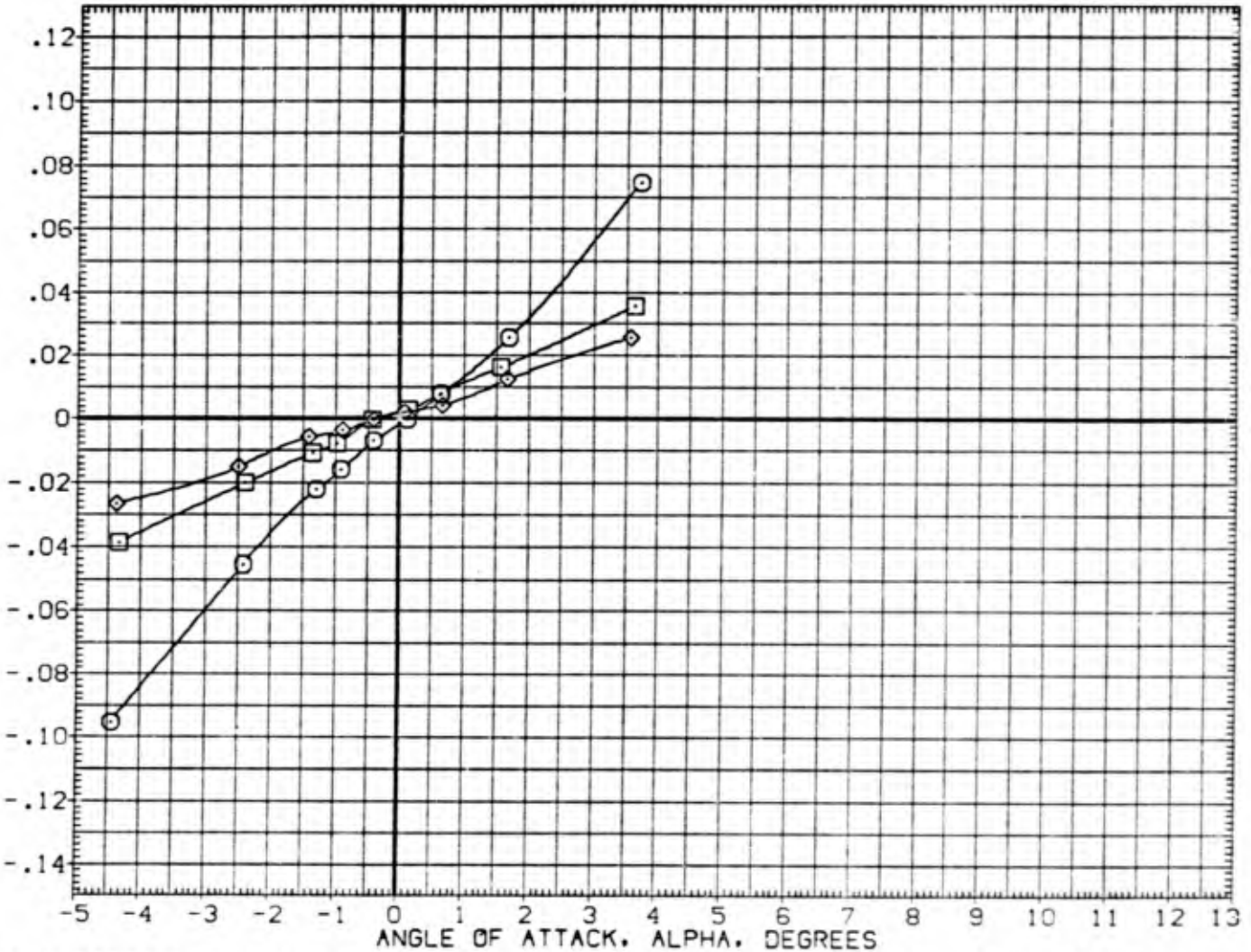
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8050)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.031	BETA	.000	PHI	.000
□	5.742	MACH	.900		
◇	8.725				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



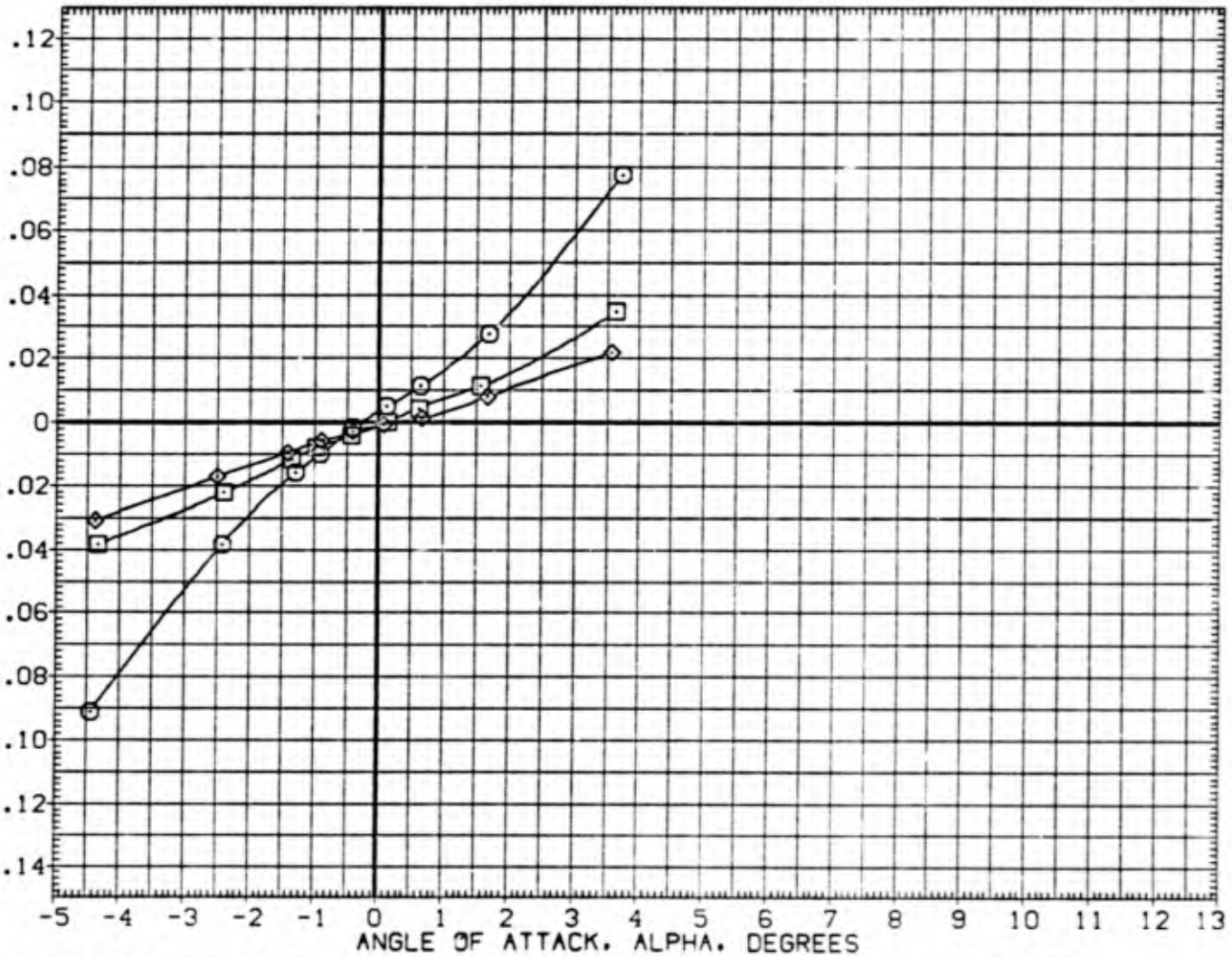
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY. FIN IN MID POSITION (AX8050)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.031	BETA	.000	PHI	.000
□	5.742	MACH	.900		
◇	8.725				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



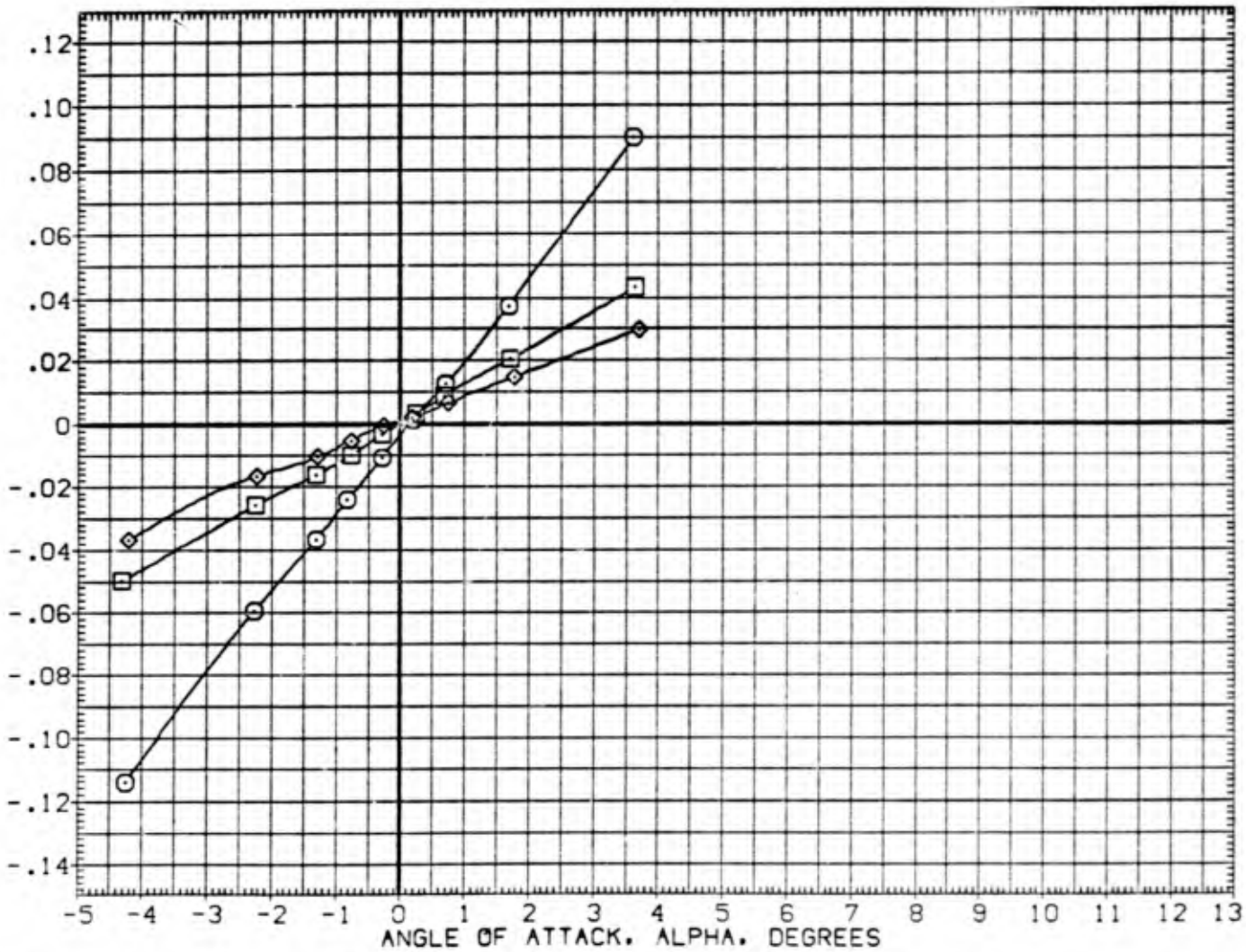
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8051)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.004	BETA	.000	PHI	.000
□	4.006	MACH	1.000		
◇	5.877				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



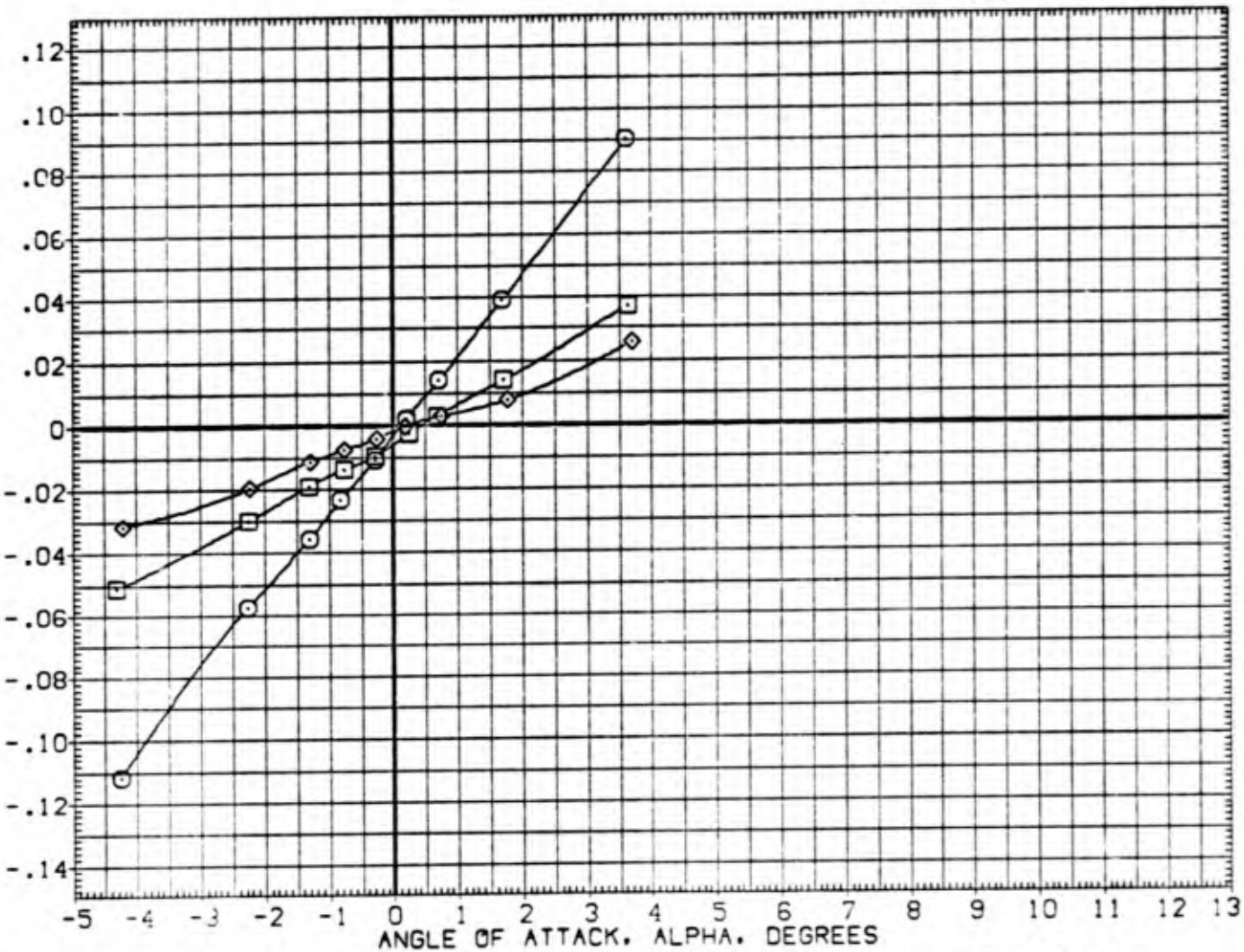
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8051)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.004	BETA	.000	PHI	.000
□	4.006	MACH	1.000		
◇	5.877				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



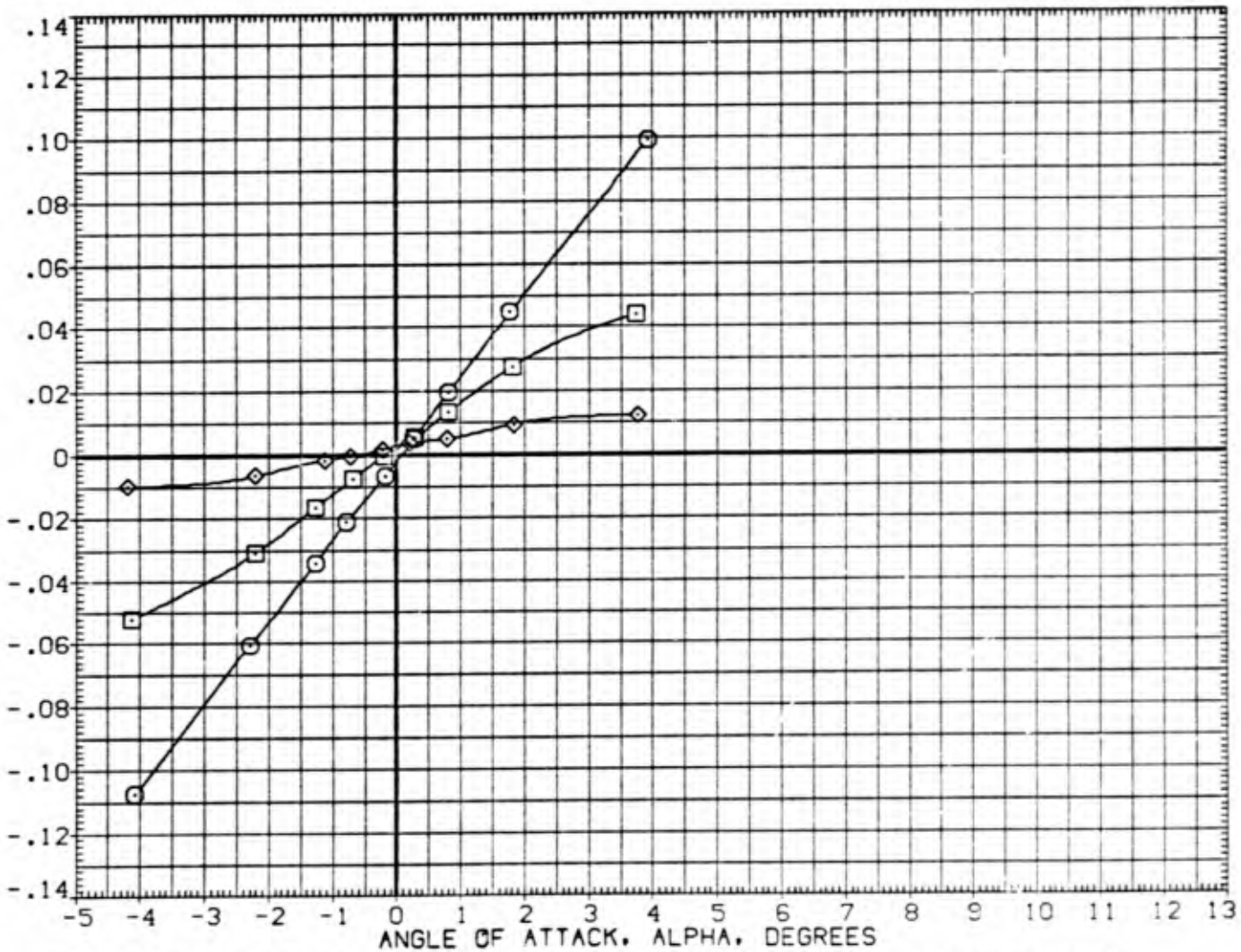
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8052)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.006	BETA	.000	PHI	.000
□	4.113	MACH	1.200		
◇	6.174				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



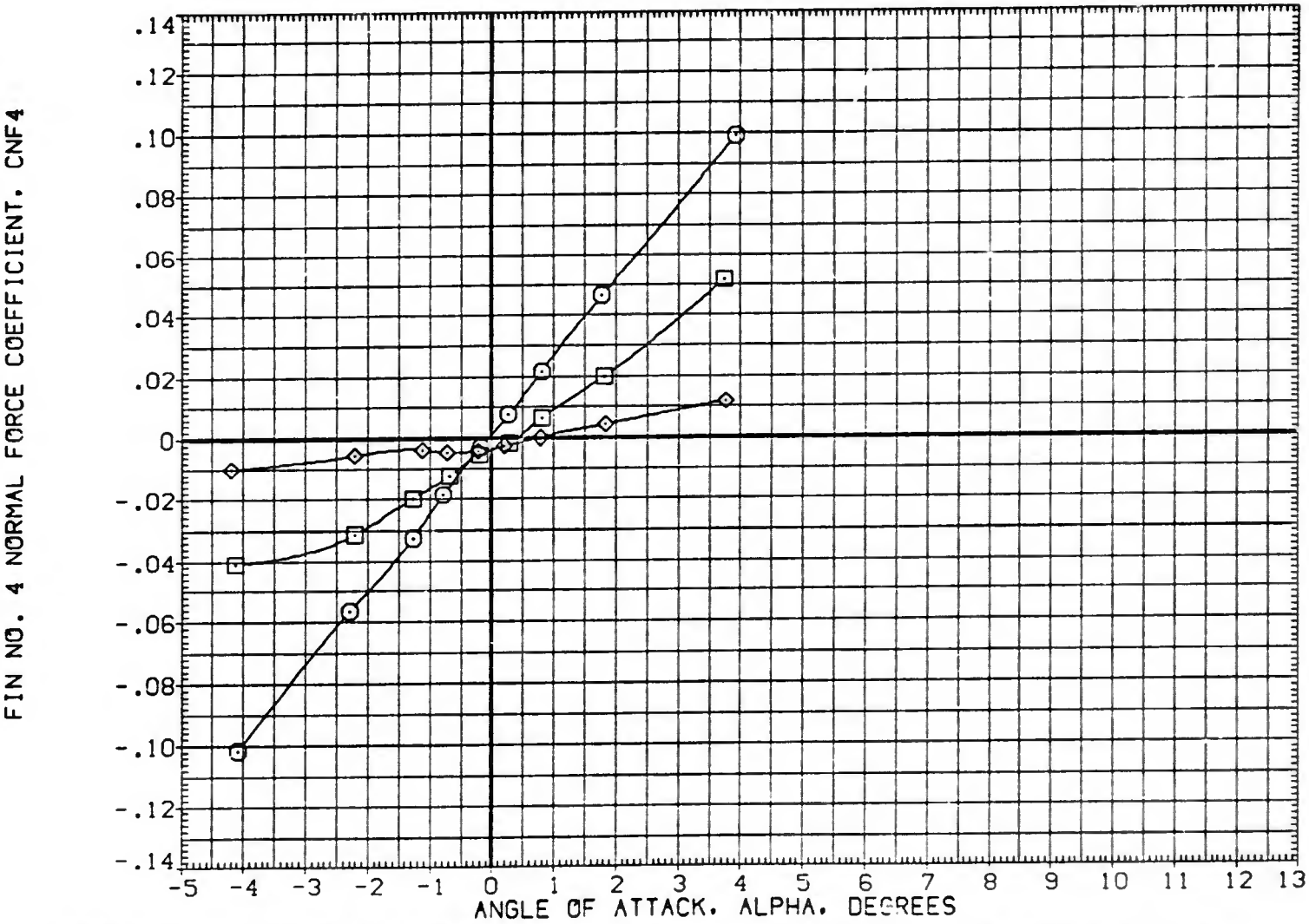
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF4) BODY, FIN IN MID POSITION (AX8052)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.006	BETA	.000	PHI	.000
□	4.113	MACH	1.200		
◇	6.174				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

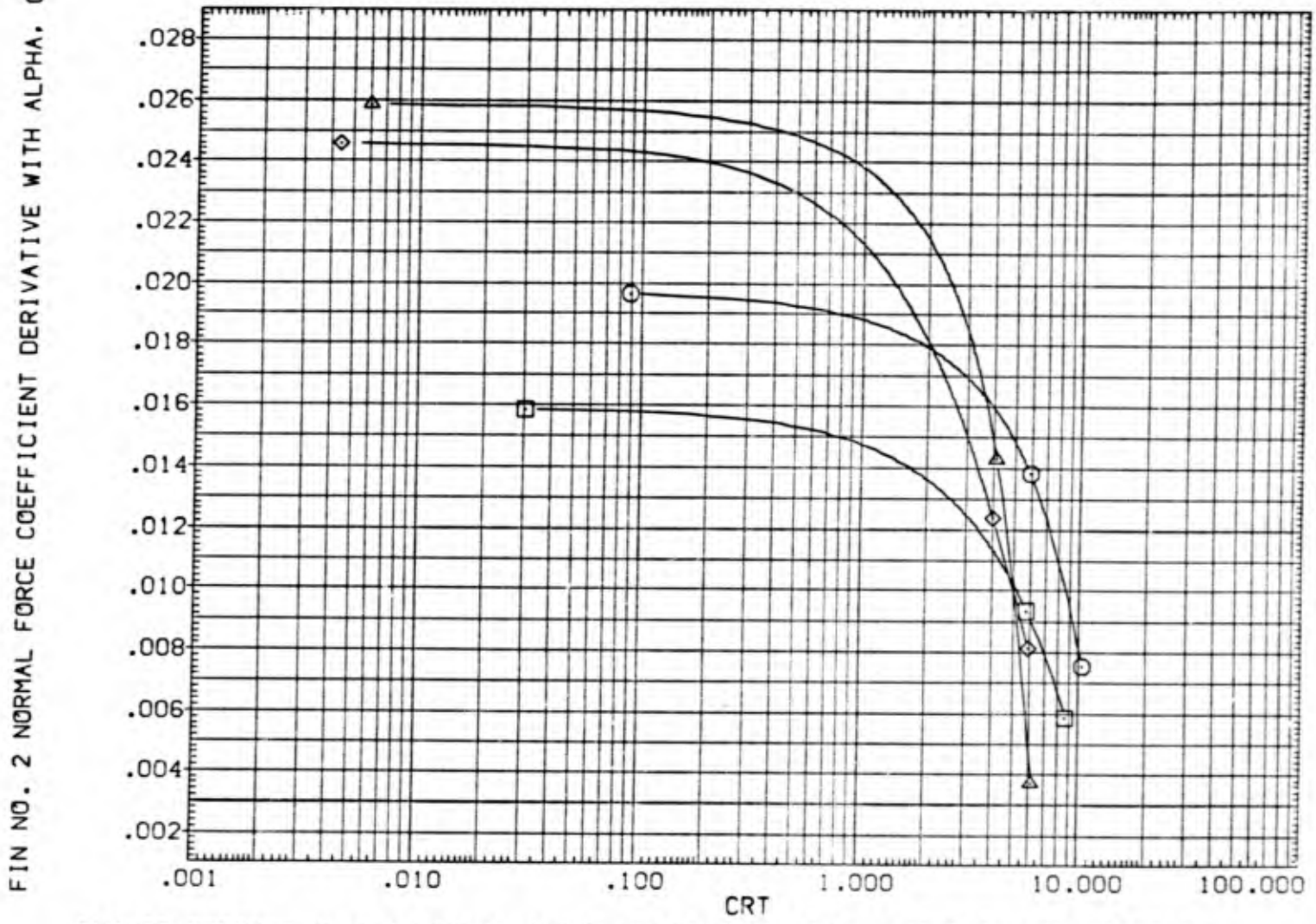


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8049)		CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	.700
(AX8050)		CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	.900
(AX8051)		CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	1.000
(AX8052)		CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

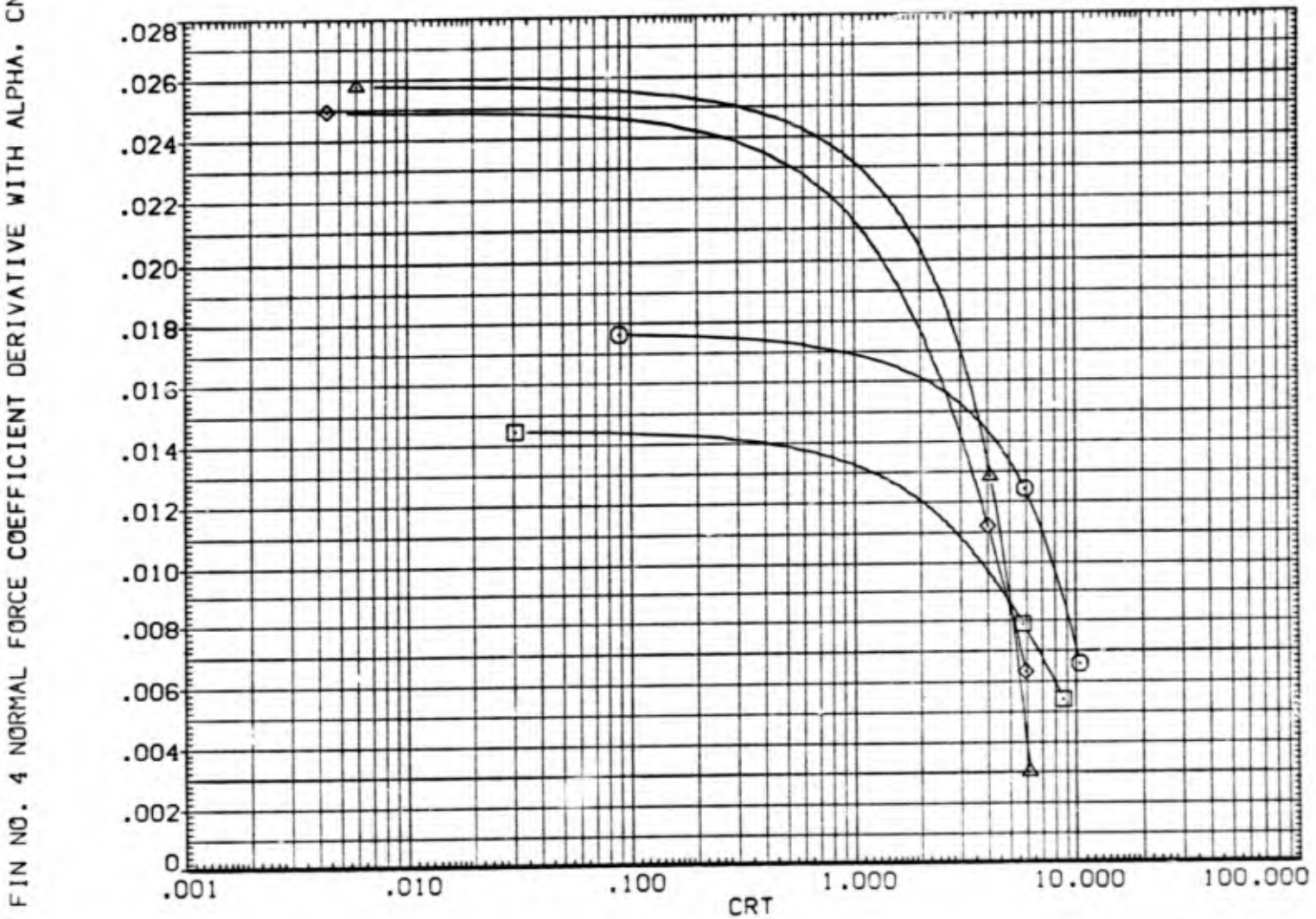


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8049)	○	CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	.700
(AX8050)	□	CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	.900
(AX8051)	◇	CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	1.000
(AX8052)	△	CAL T17-123 (BF4) BODY, FIN IN MID POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



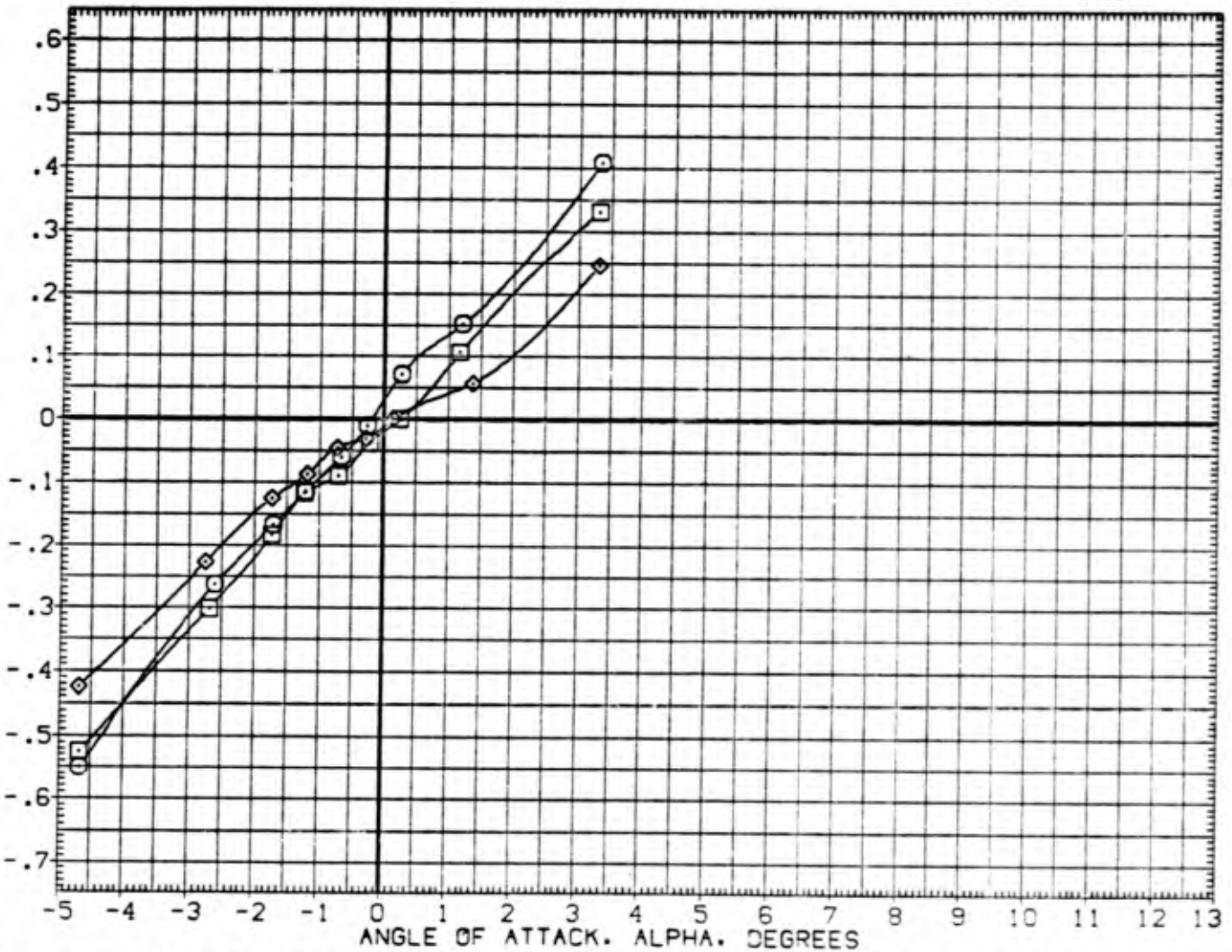
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN MID POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8032)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.143	BETA	.000	PHI	.000
□	6.125	MACH	.400		
◇	36.972				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



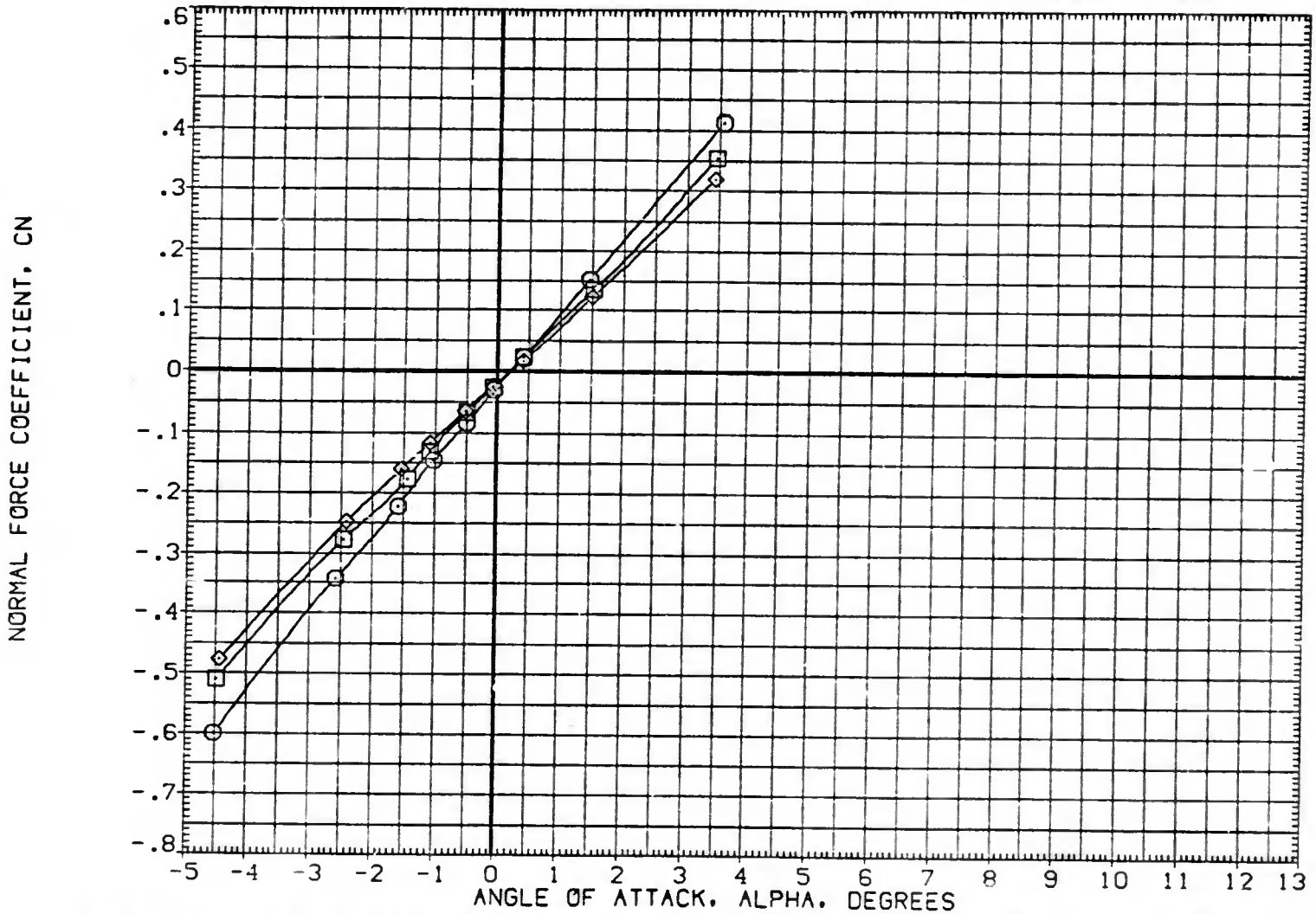
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8033)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.038	BETA	.000	PHI	.000
□	4.303	MACH	.700		
◇	5.844				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



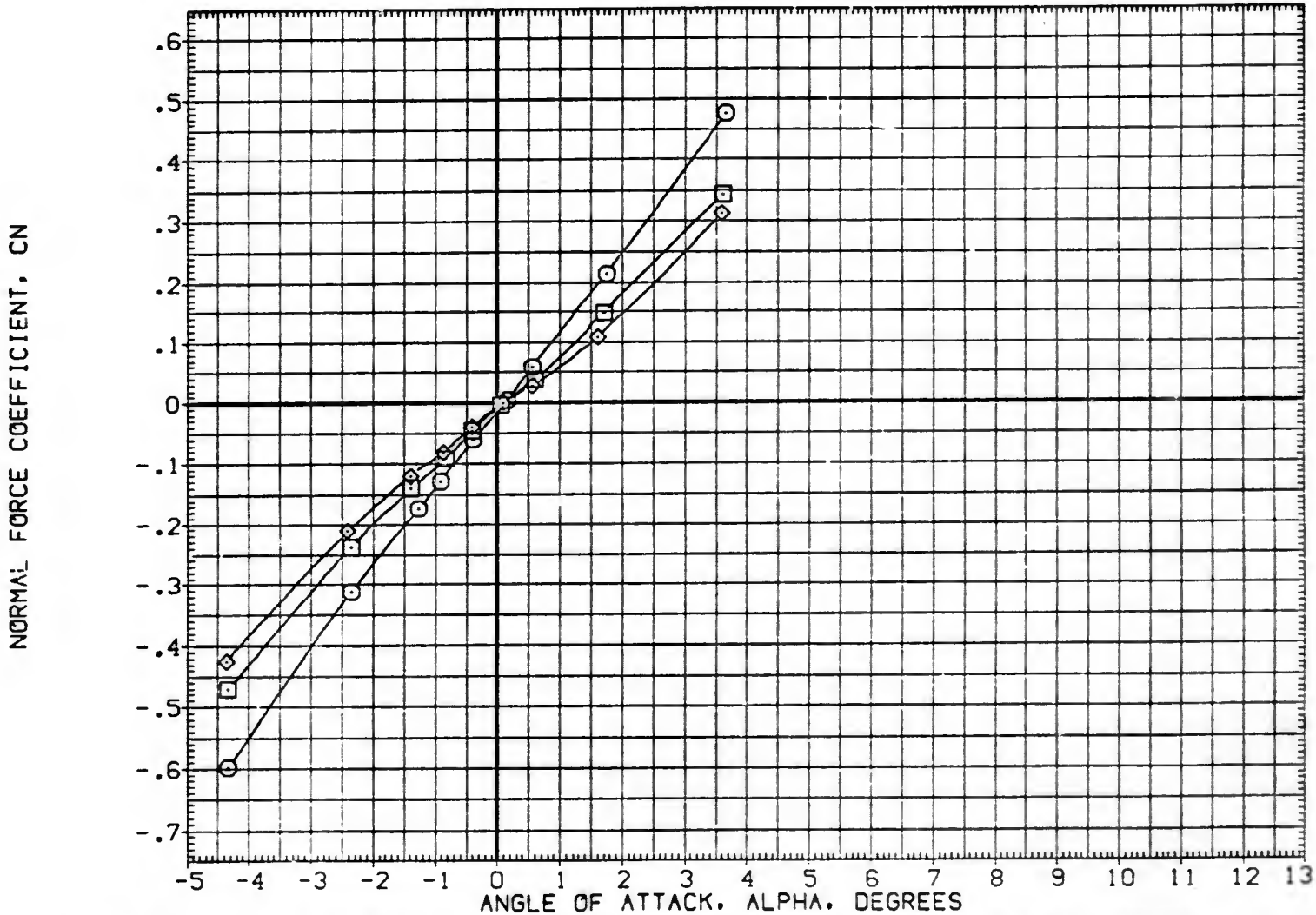
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8034)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.104	MACH	.900		
◇	5.736				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

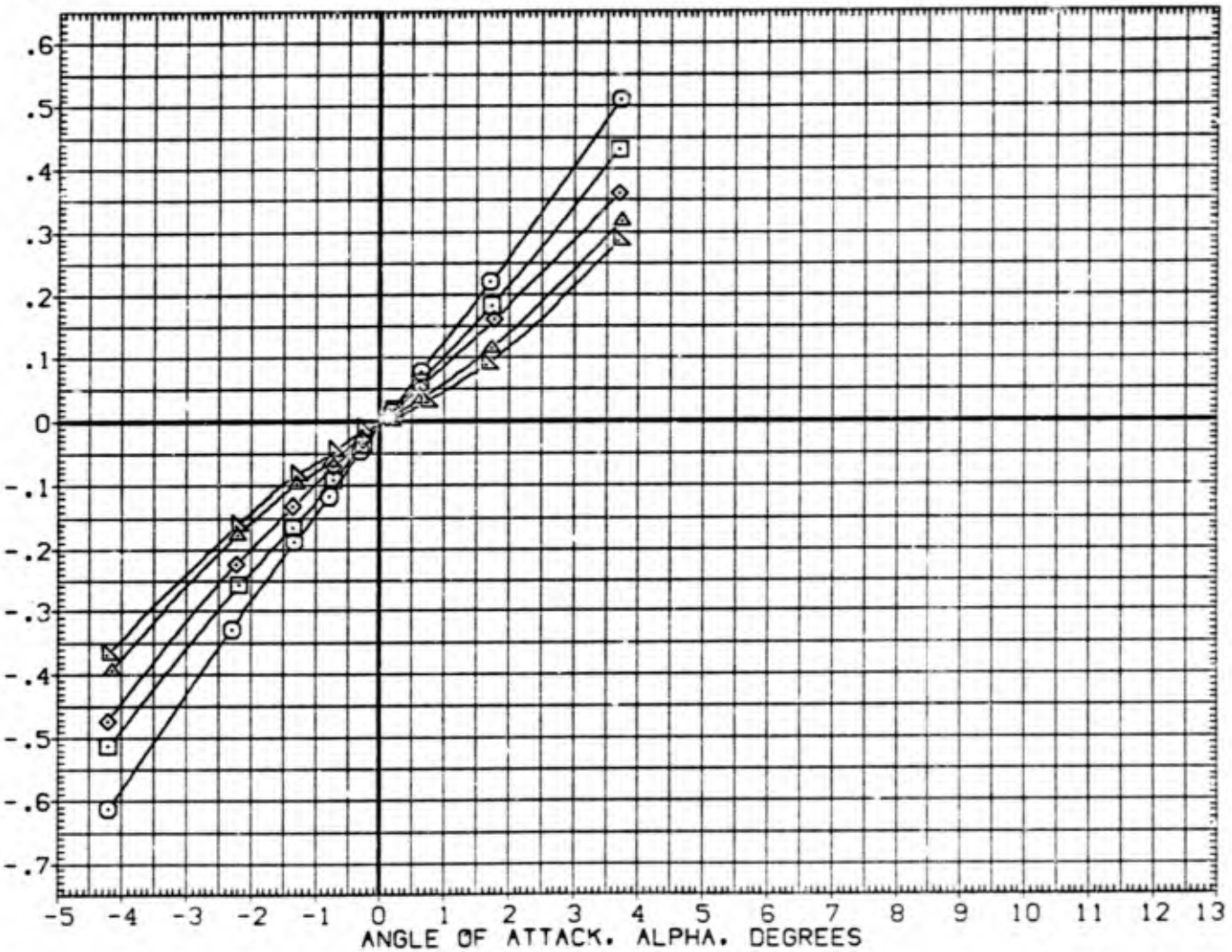


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8035)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.023	BETA	.000	PHI	.000
□	2.704	MACH	1.000		
◇	3.907				
△	5.878				
◁	7.261				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



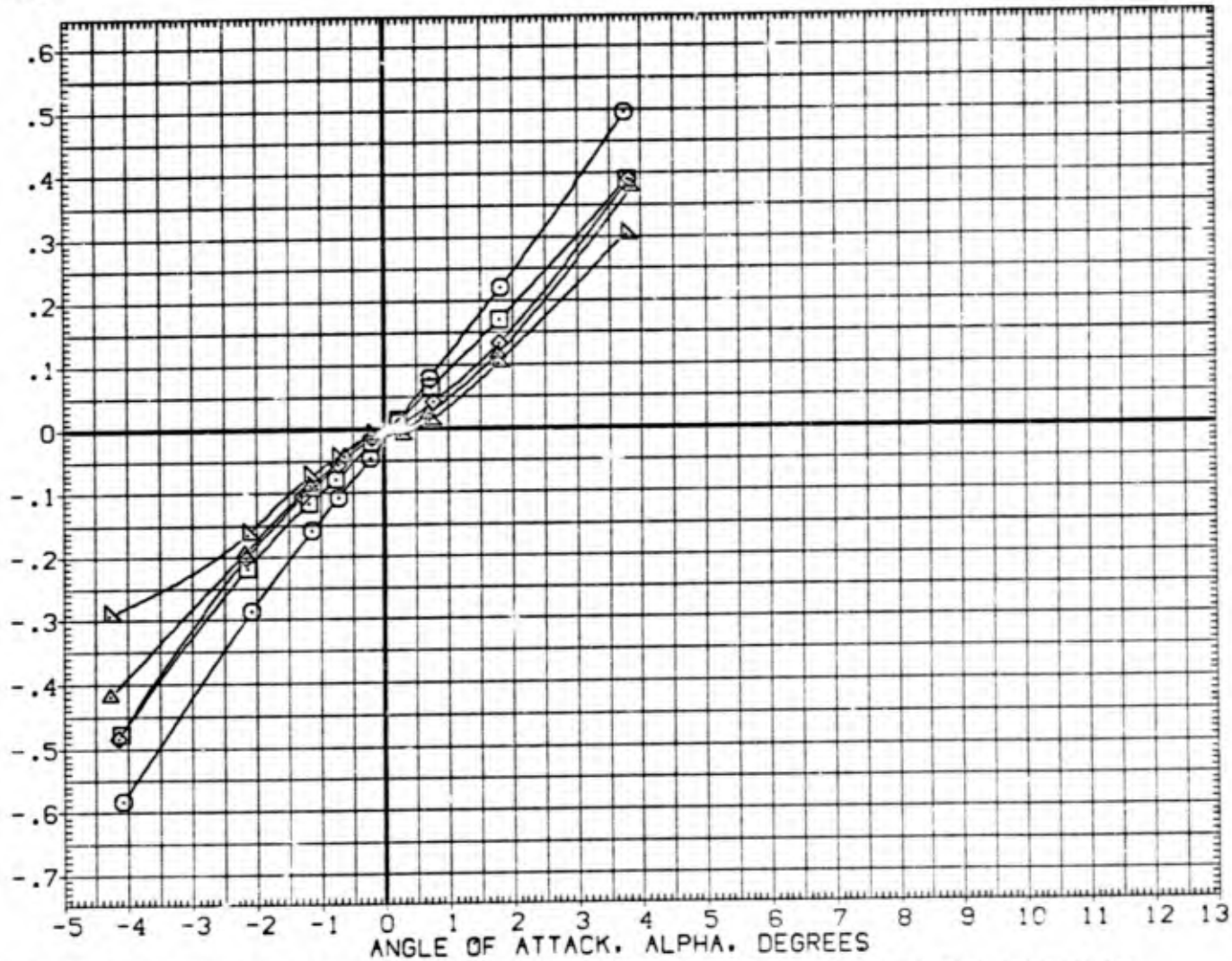
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8036)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.002	BETA	.000	PHI	.000
□	2.475	MACH	1.200		
◇	4.011				
△	6.015				
▽	7.441				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



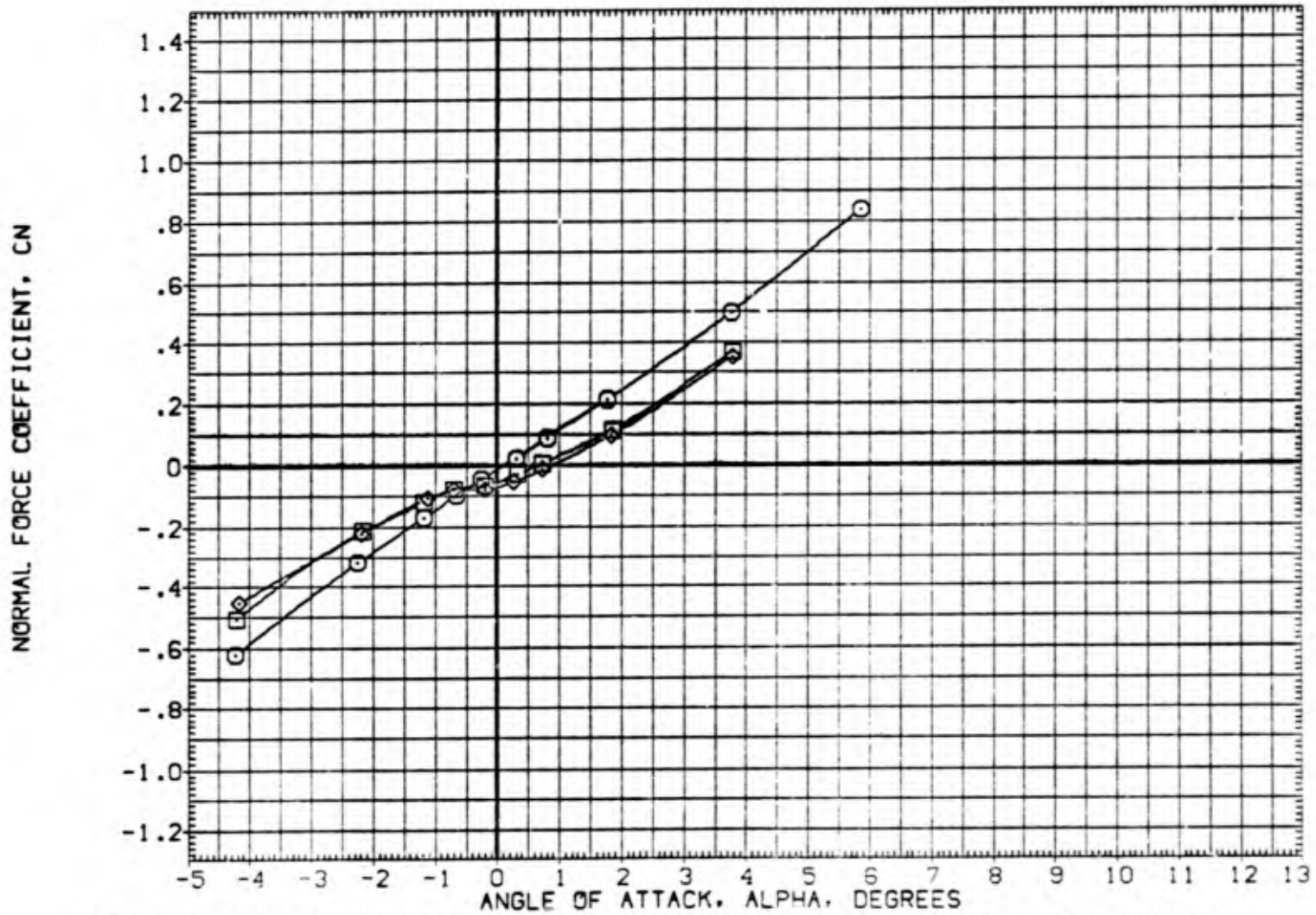
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(BX8037)

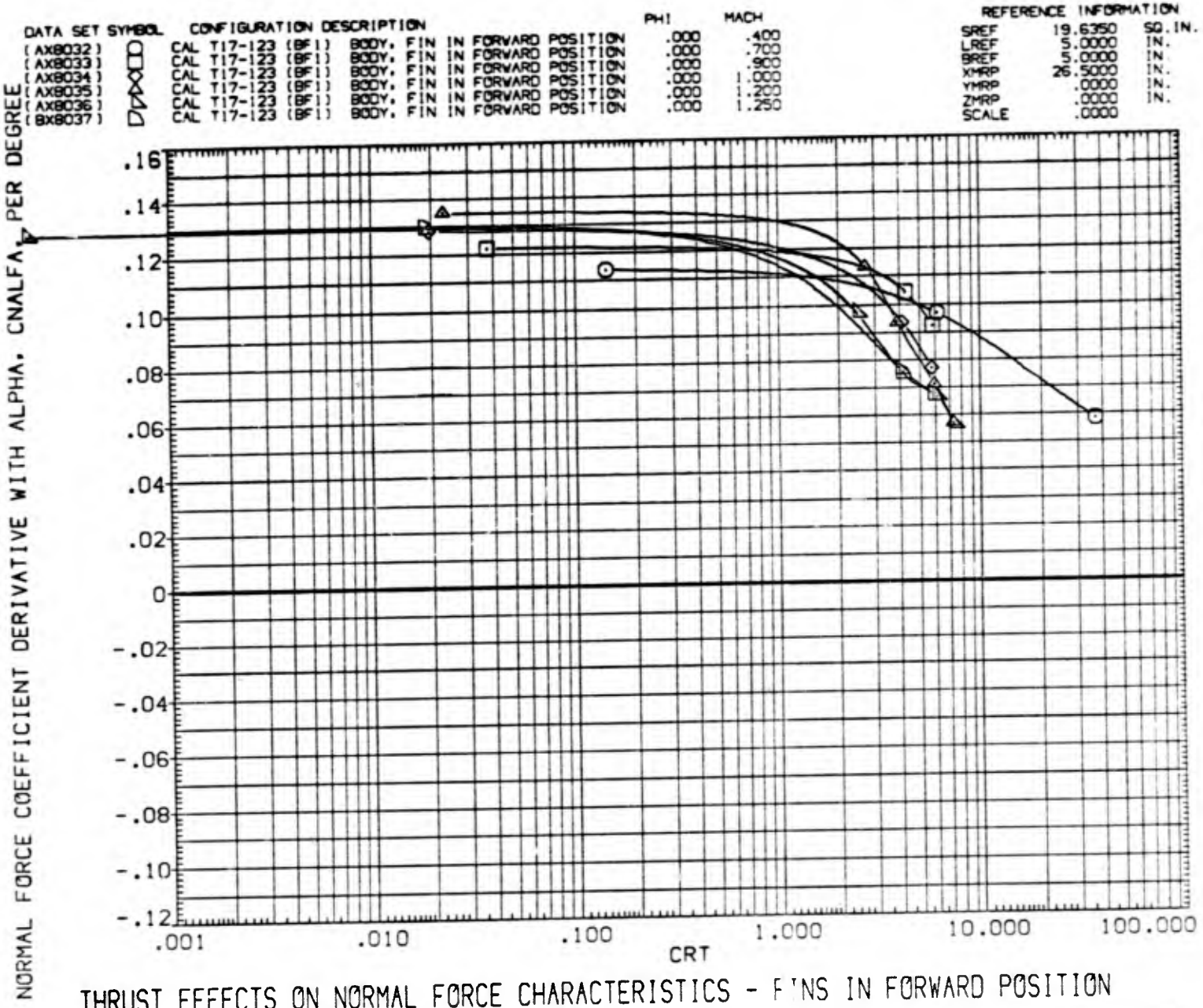
SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.135	MACH	1.250		
◇	5.952				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8013)

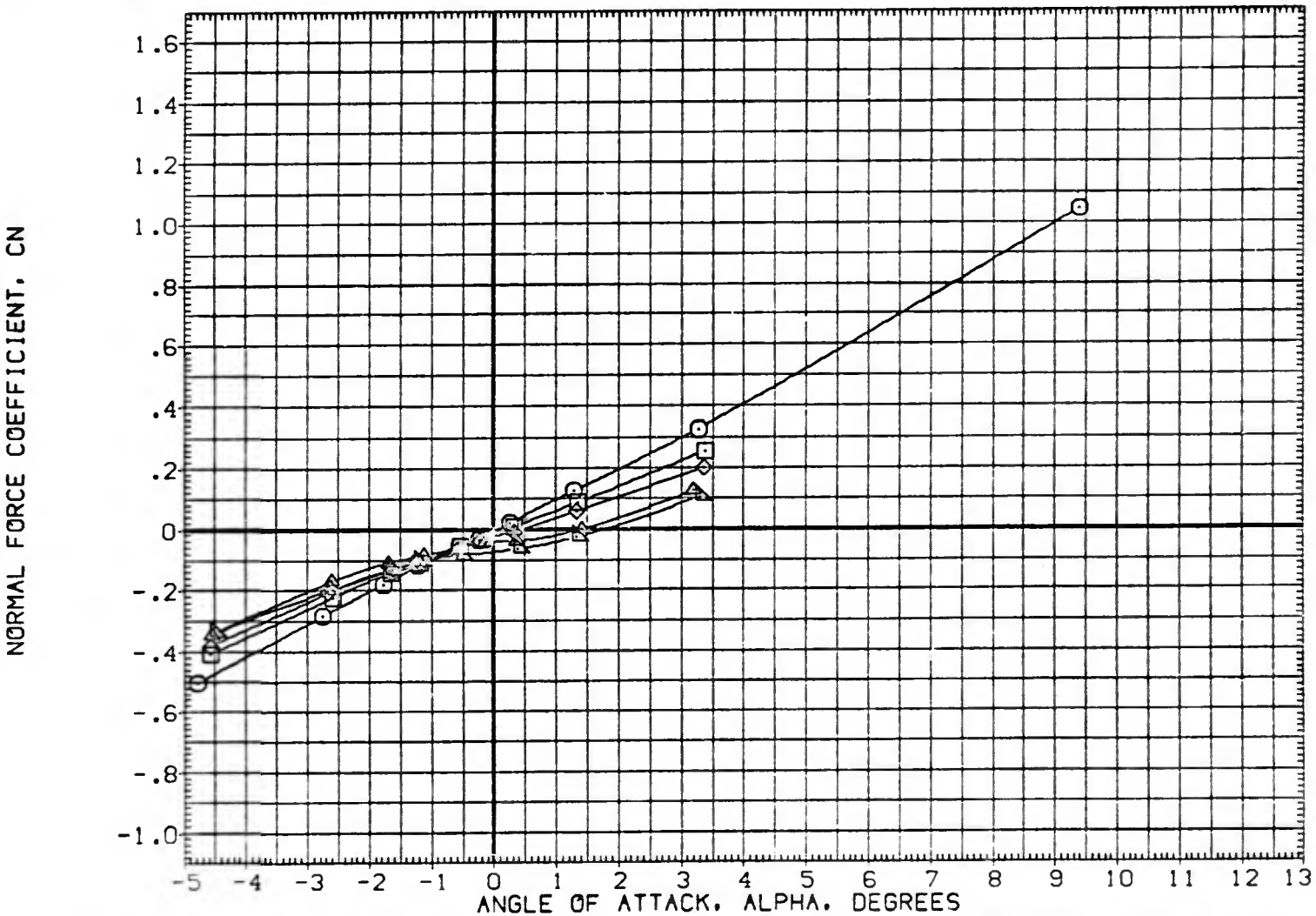
SYMBOL	CRT
○	.066
□	4.146
◇	5.906
△	10.047
▽	20.305

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	.700		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



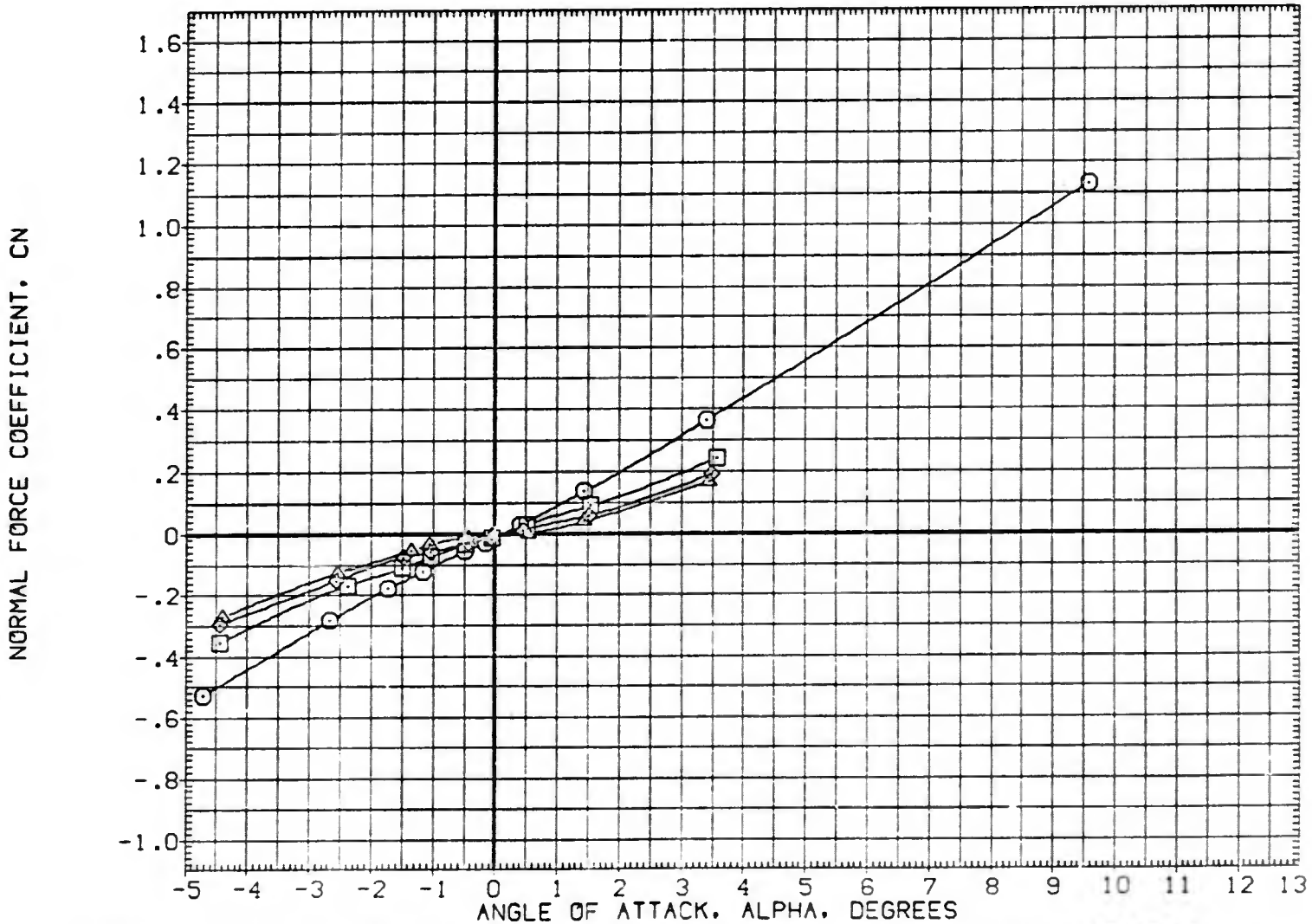
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8014)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.031	BETA	.000	PHI	.000
□	4.131	MACH	.900		
◇	5.833				
△	8.869				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



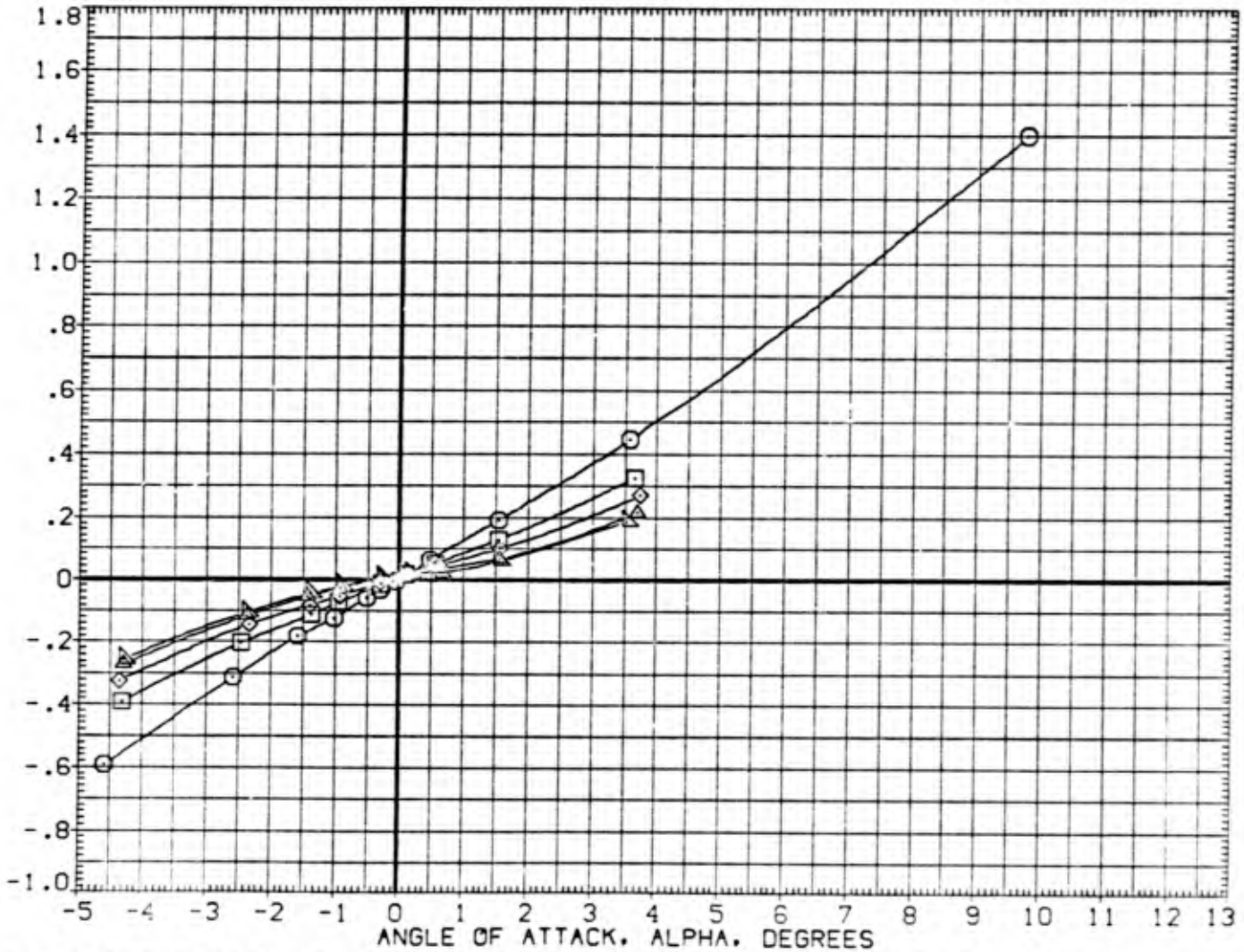
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8015)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	.000
□	2.633	MACH	1.000		
◇	4.177				
△	5.988				
◁	7.054				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

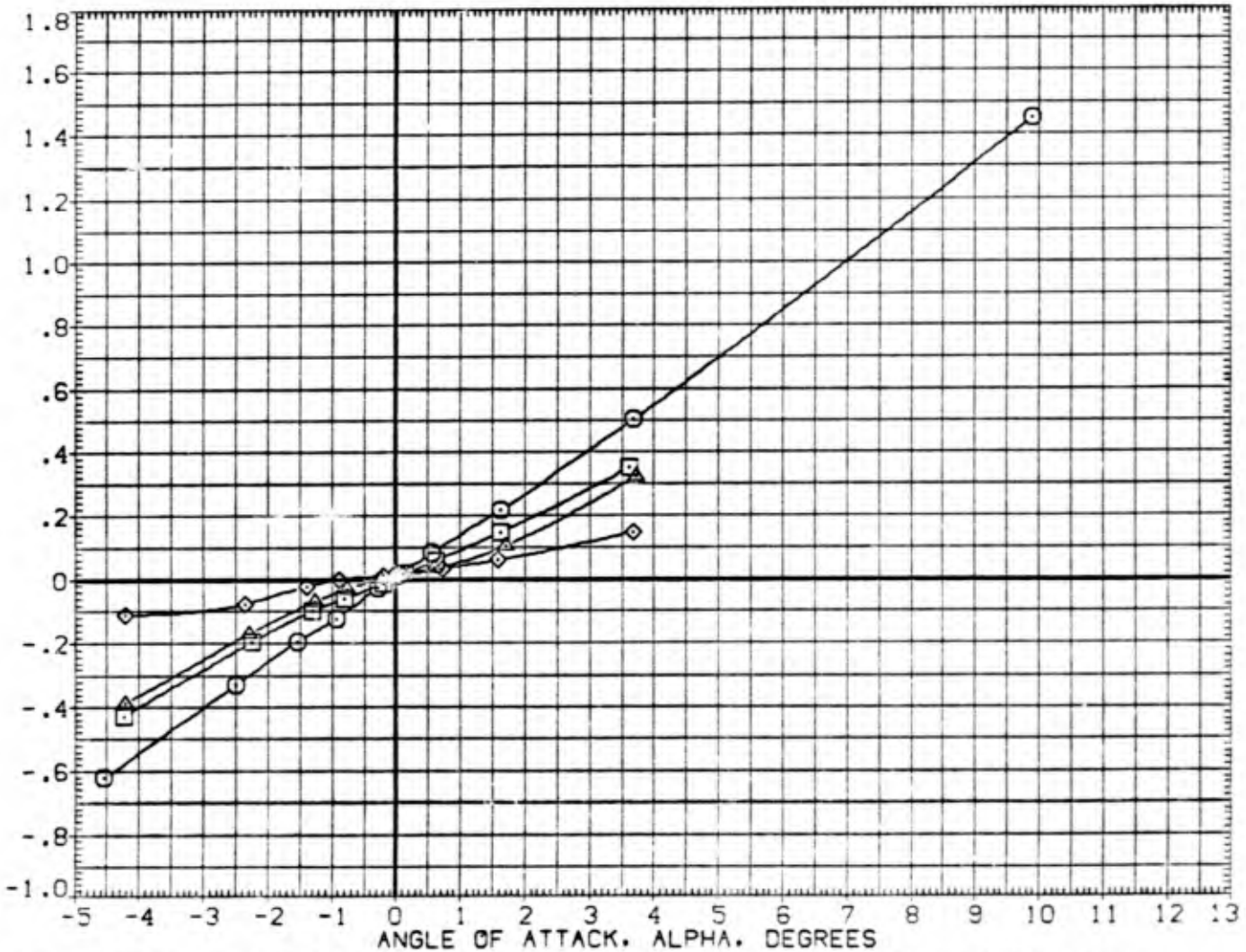


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

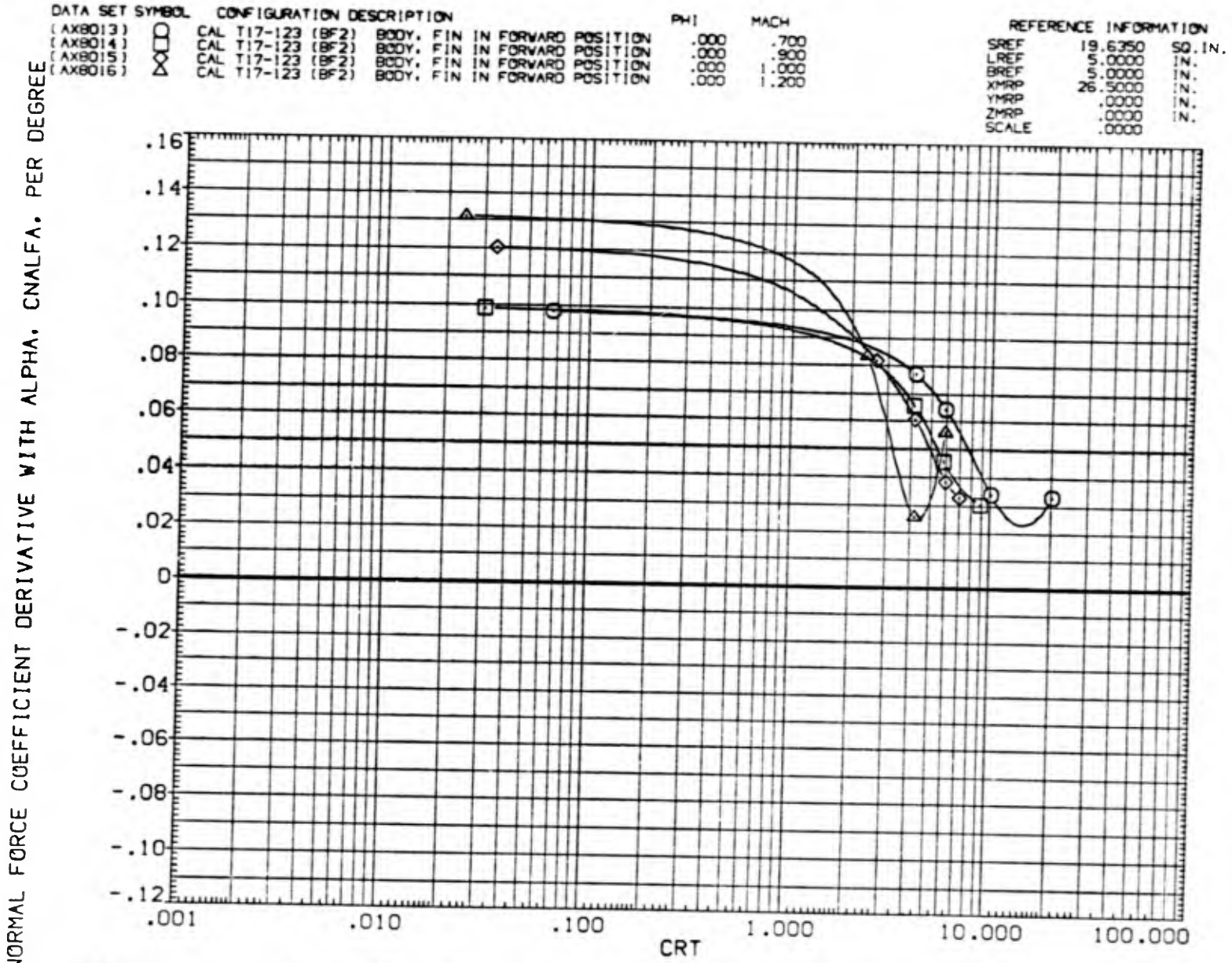
CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8016)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.024	BETA	.000	PHI	.000
□	2.370	MACH	1.200		
◇	4.197				
△	5.900				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



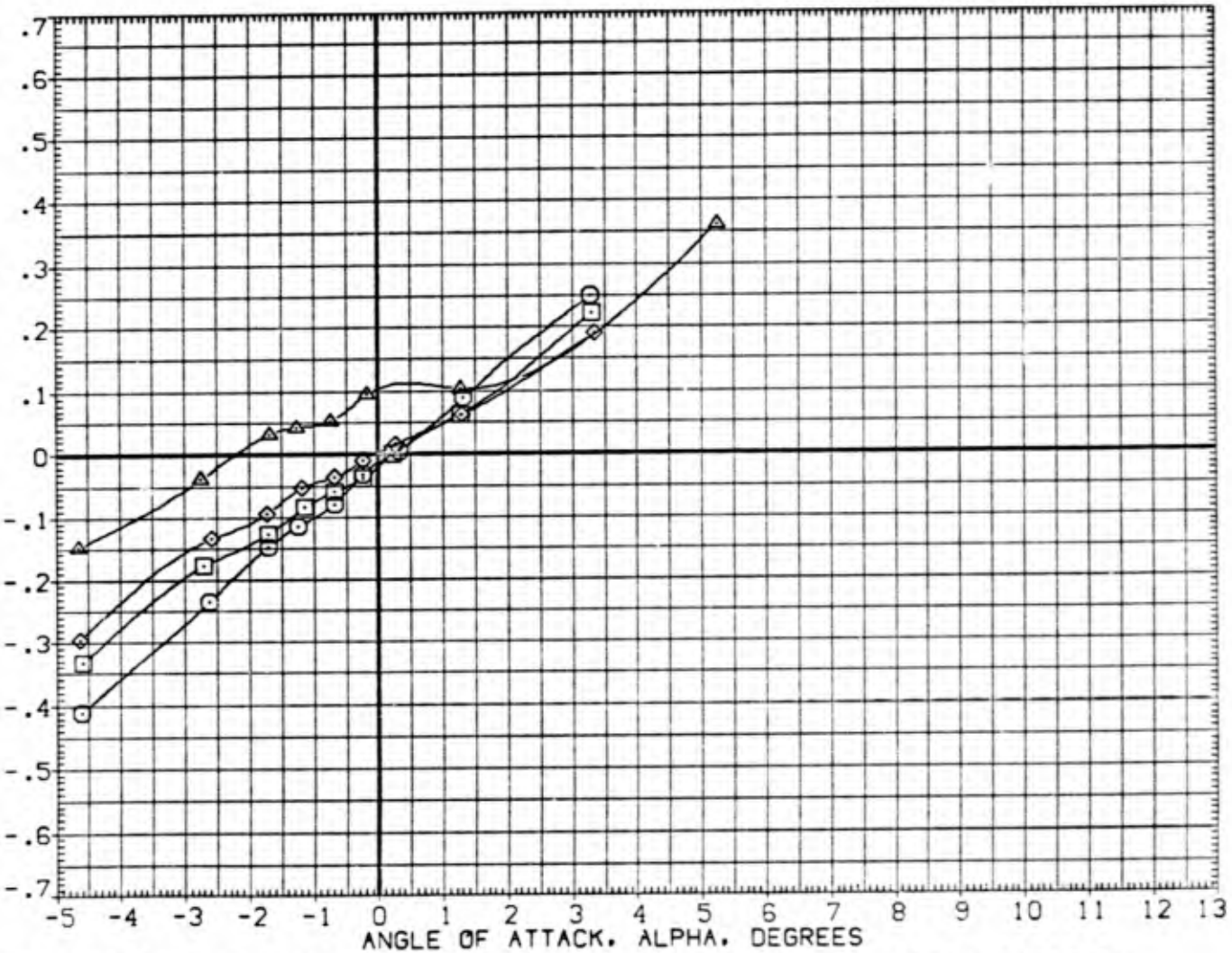
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8020)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.100	BETA	.000	PHI	.000
□	5.689	MACH	.400		
◇	12.146				
△	37.287				

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

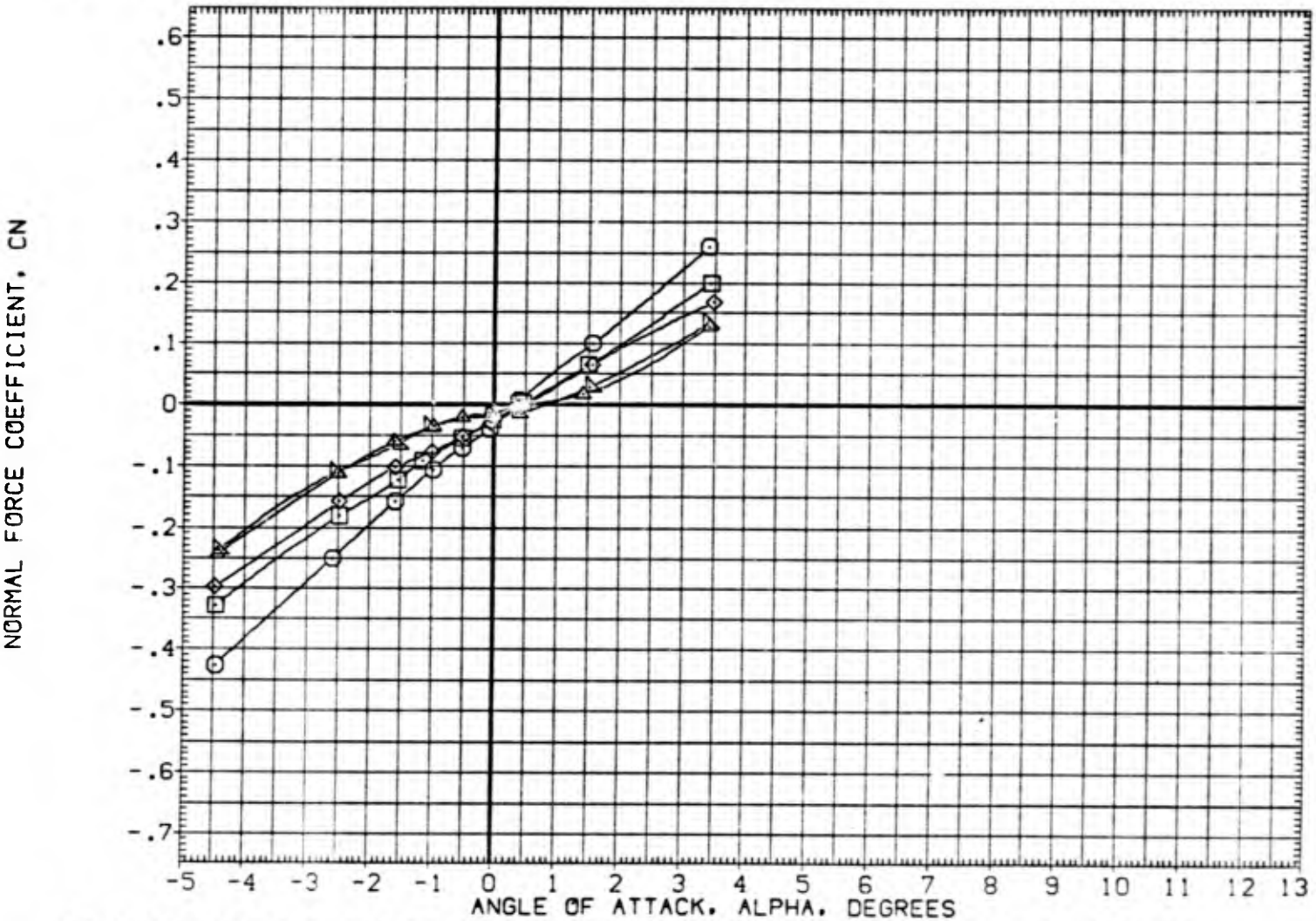


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8021)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	.000
□	4.235	MACH	.700		
◇	5.840				
△	10.396				
◸	20.597				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8022)

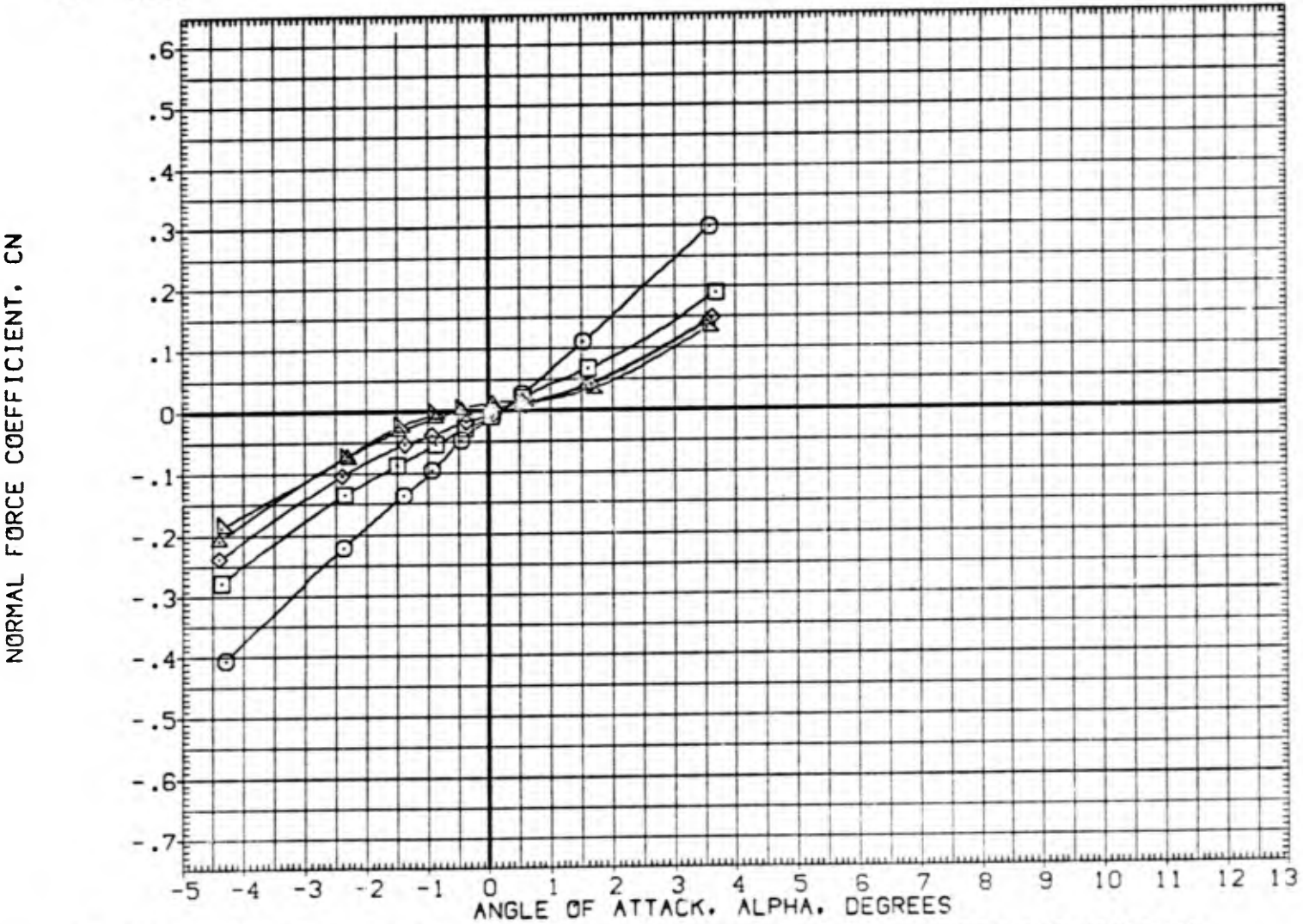
SYMBOL	CRT
○	.014
□	4.012
◇	5.898
△	8.655
▷	12.572

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



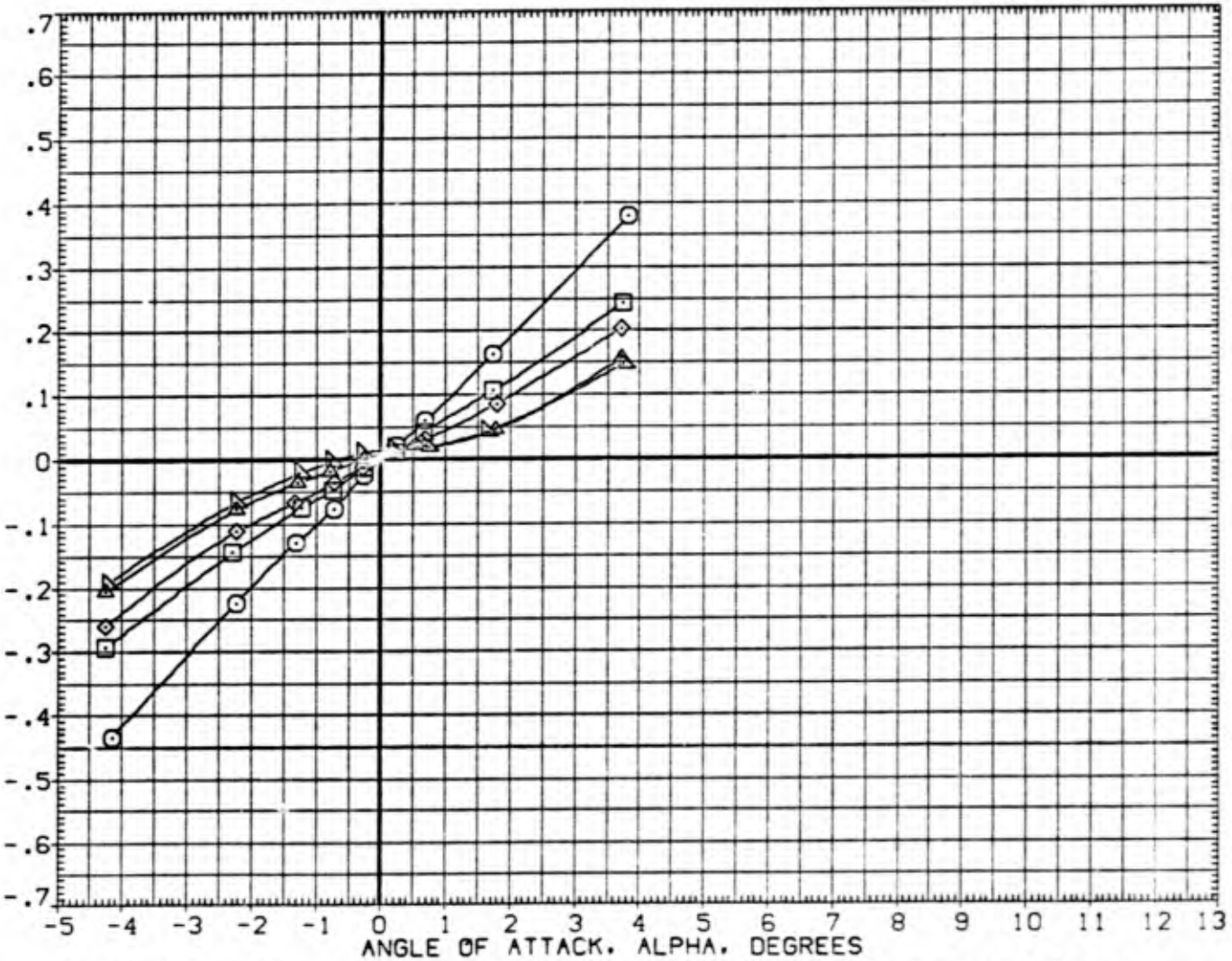
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY. FIN IN FORWARD POSITION(AX8023)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.037	BETA	.000	PHI	.000
□	2.794	MACH	1.000		
◇	4.122				
△	6.098				
◁	7.412				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



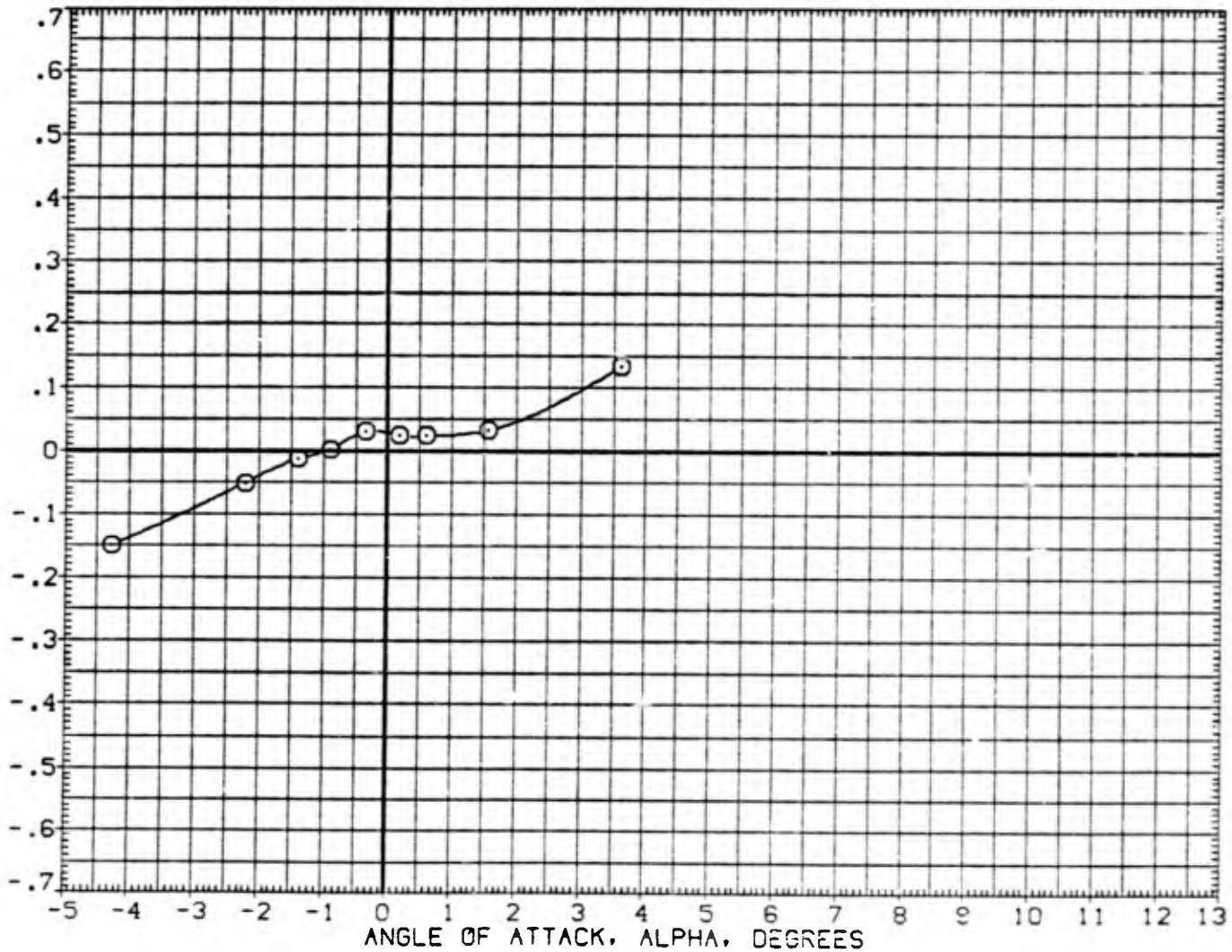
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8023)

SYMBOL	CRT		PARAMETRIC VALUES		
O	10.717	BETA	.000	PHI	.000
		MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



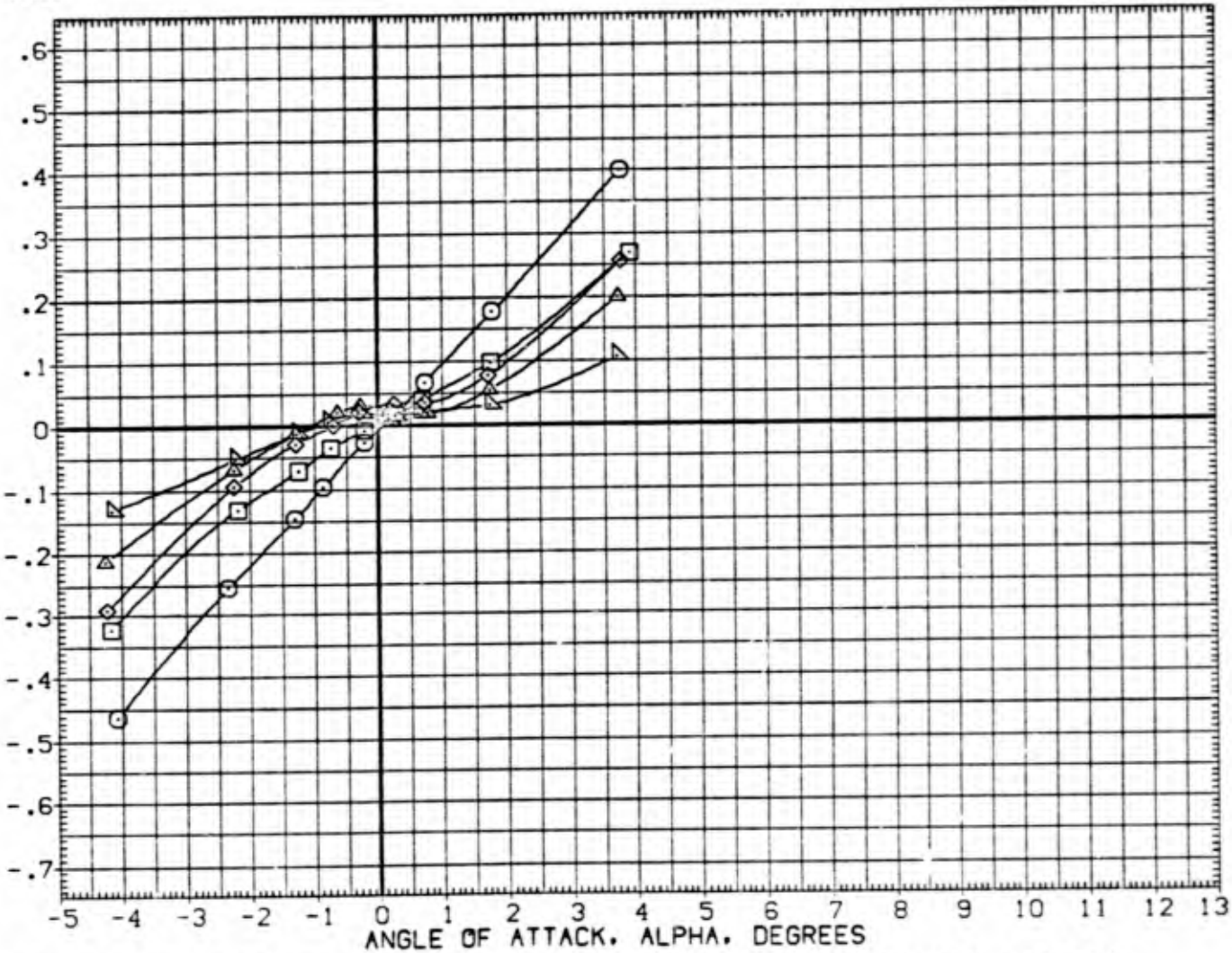
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8024)

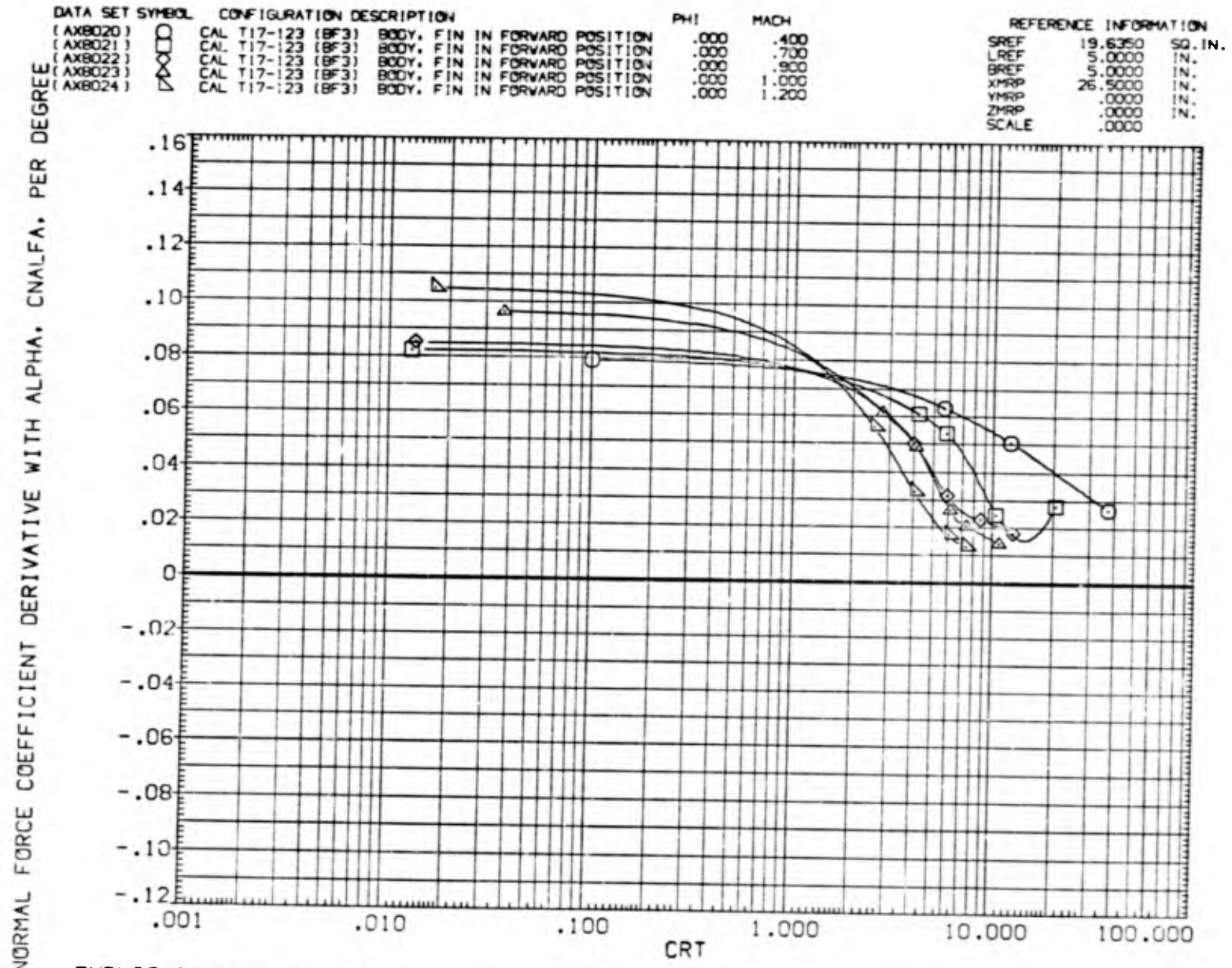
SYMBOL	CRT	PARAMETRIC VALUES			
○	.017	BETA	.000	PHI	.000
□	2.538	MACH	1.200		
◇	4.057				
△	6.025				
▷	7.352				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

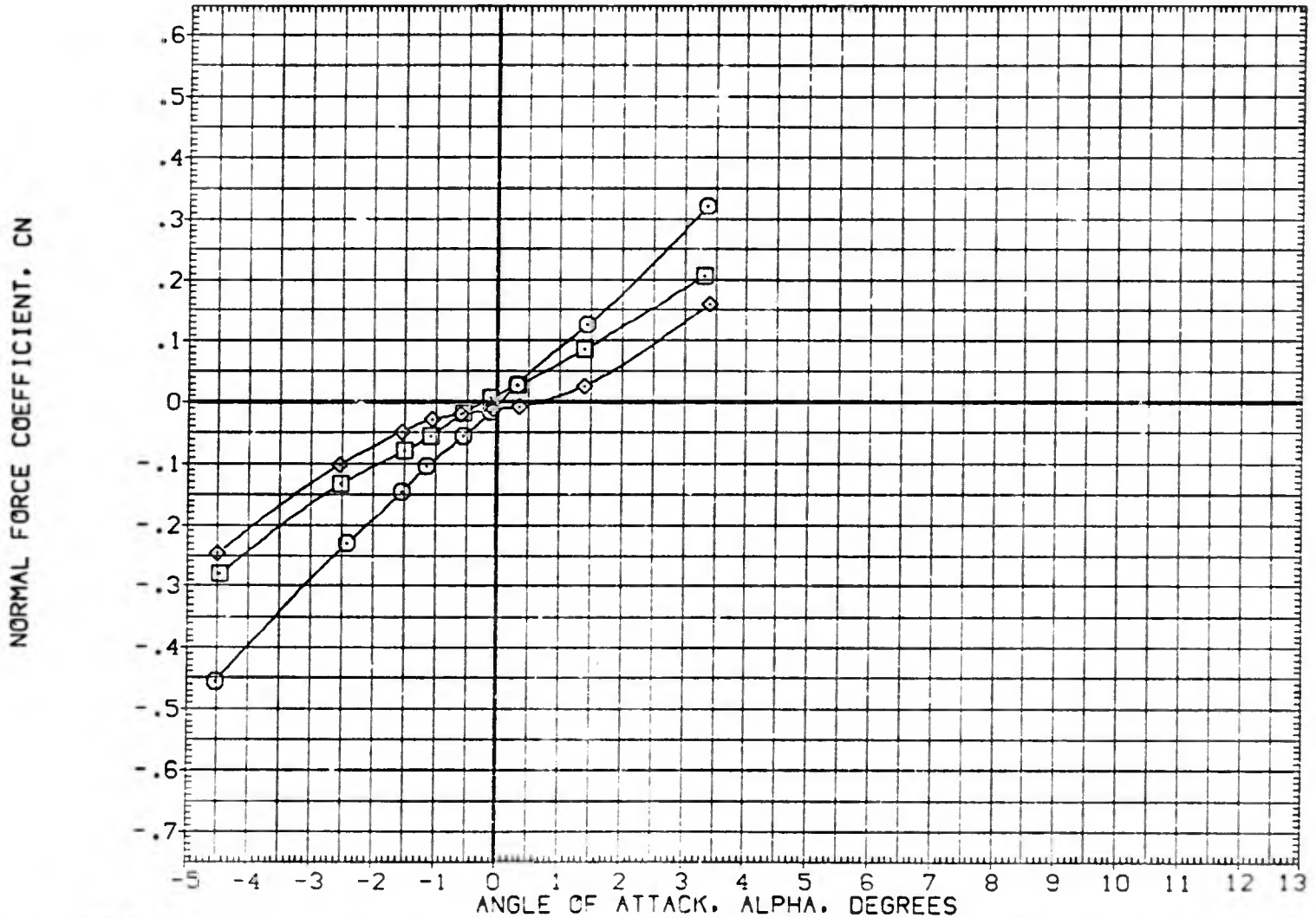


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8025)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.032	BETA	.000	PHI	.000
□	5.828	MACH	.700		
◇	10.418				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



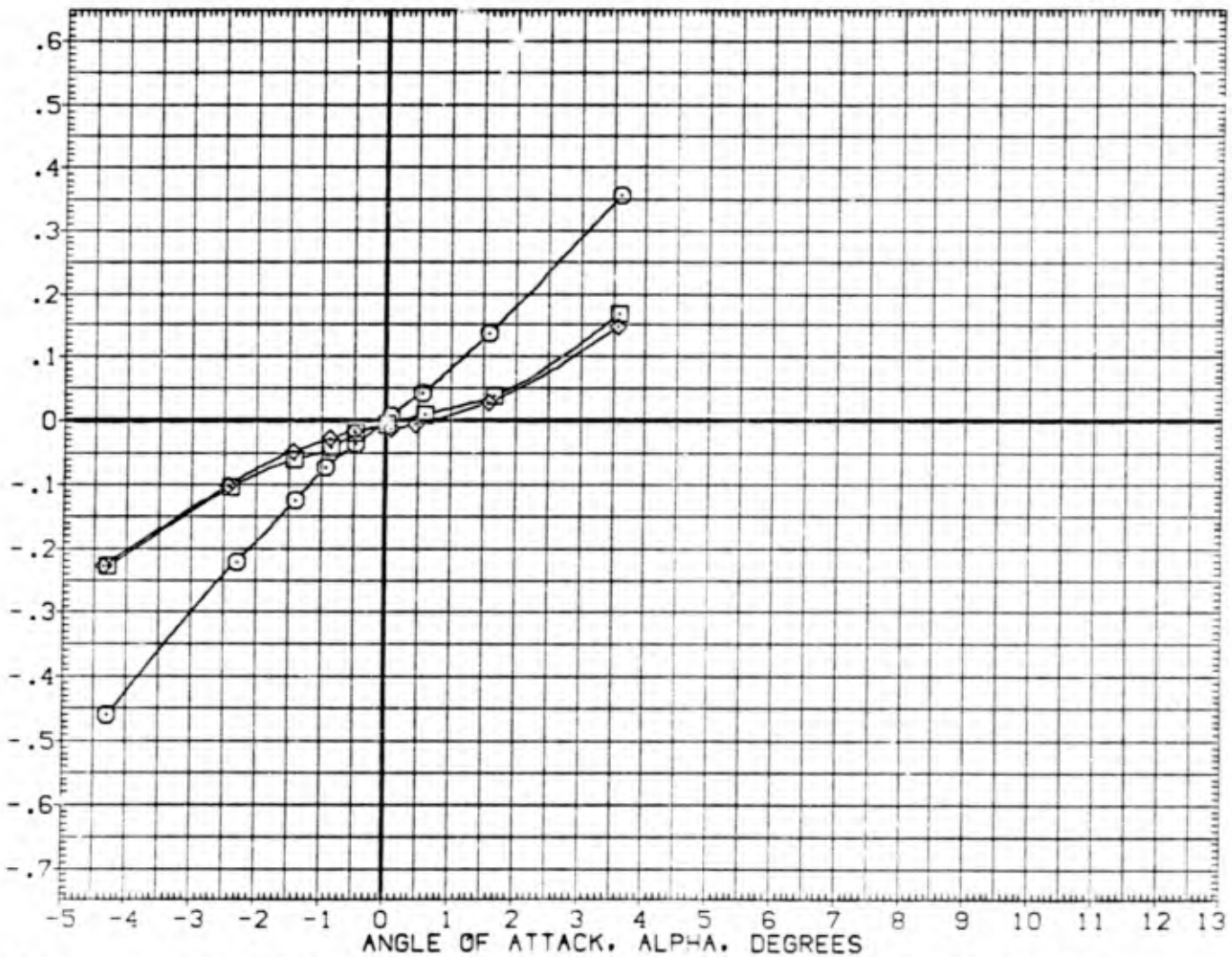
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY. FIN IN FORWARD POSITION(AX8026)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.045	BETA	.000	PHI	.000
□	5.748	MACH	.900		
◇	9.409				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



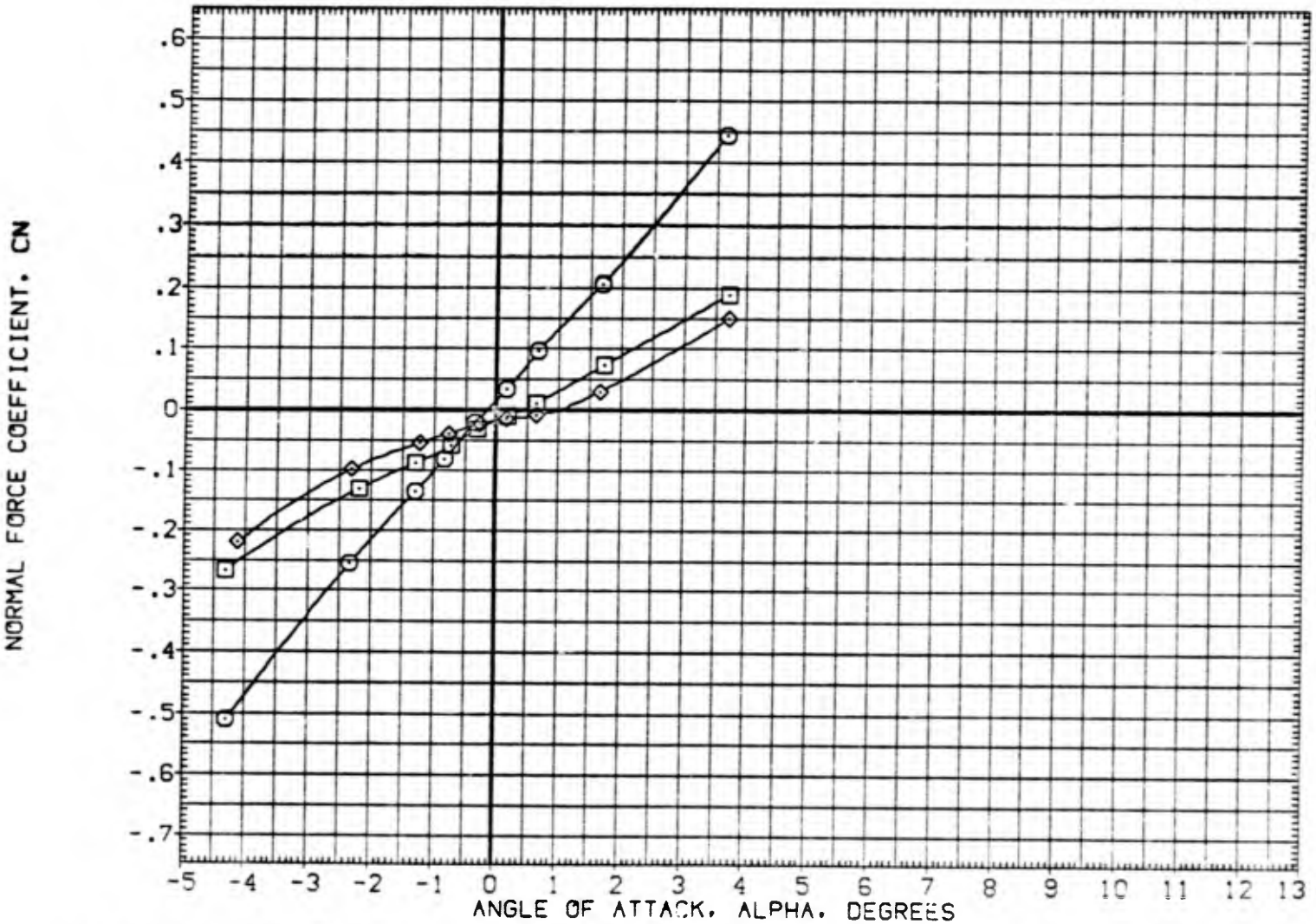
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8027)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.099	BETA	.000	PHI	.000
□	4.013	MACH	1.000		
◇	6.076				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



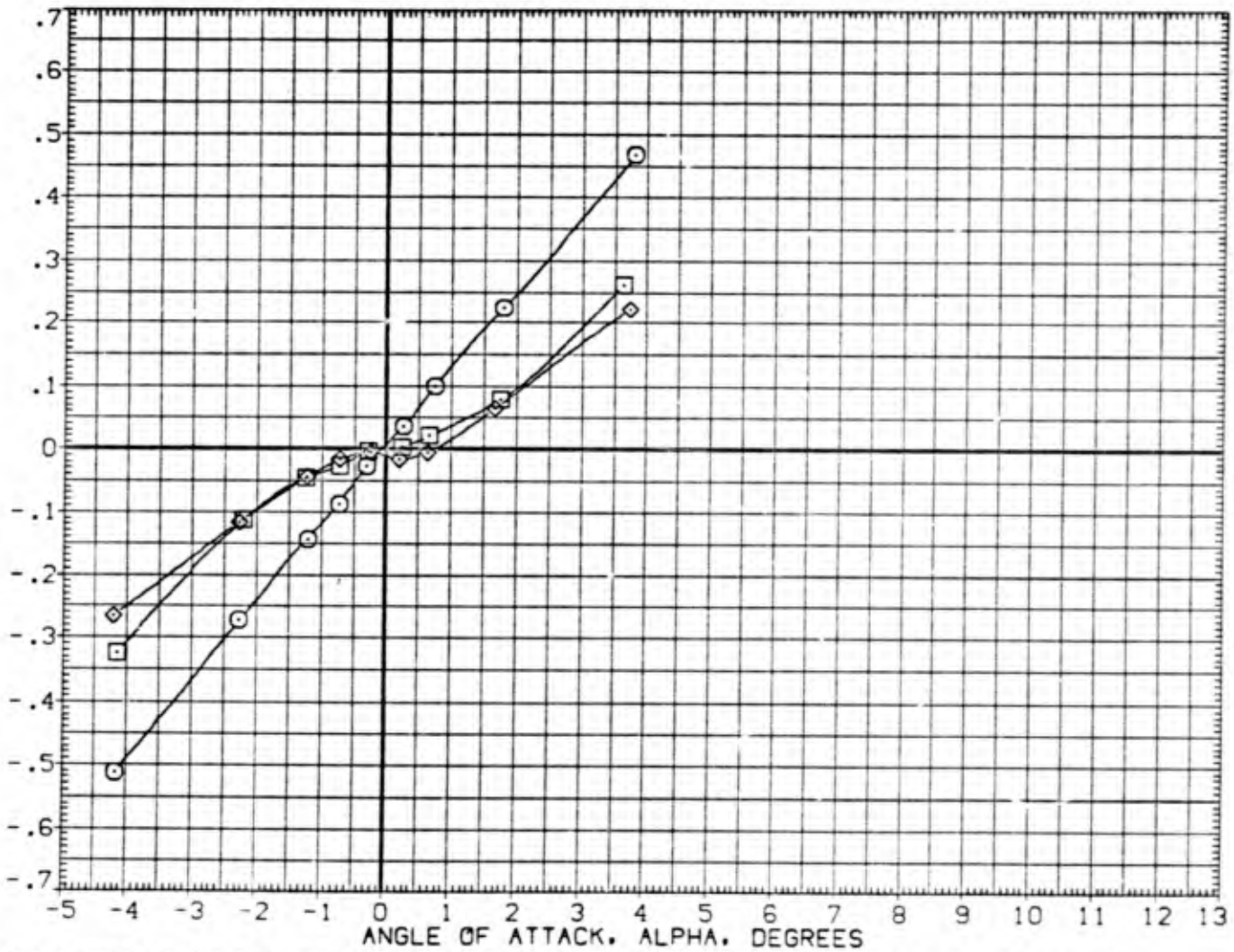
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY. FIN IN FORWARD POSITION(AX8028)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.060	BETA	.000	PHI	.000
□	4.146	MACH	1.200		
◇	6.001				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8025)	○	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	.000	.700
(AX8026)	□	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	.000	.900
(AX8027)	◇	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	.000	1.000
(AX8028)	△	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

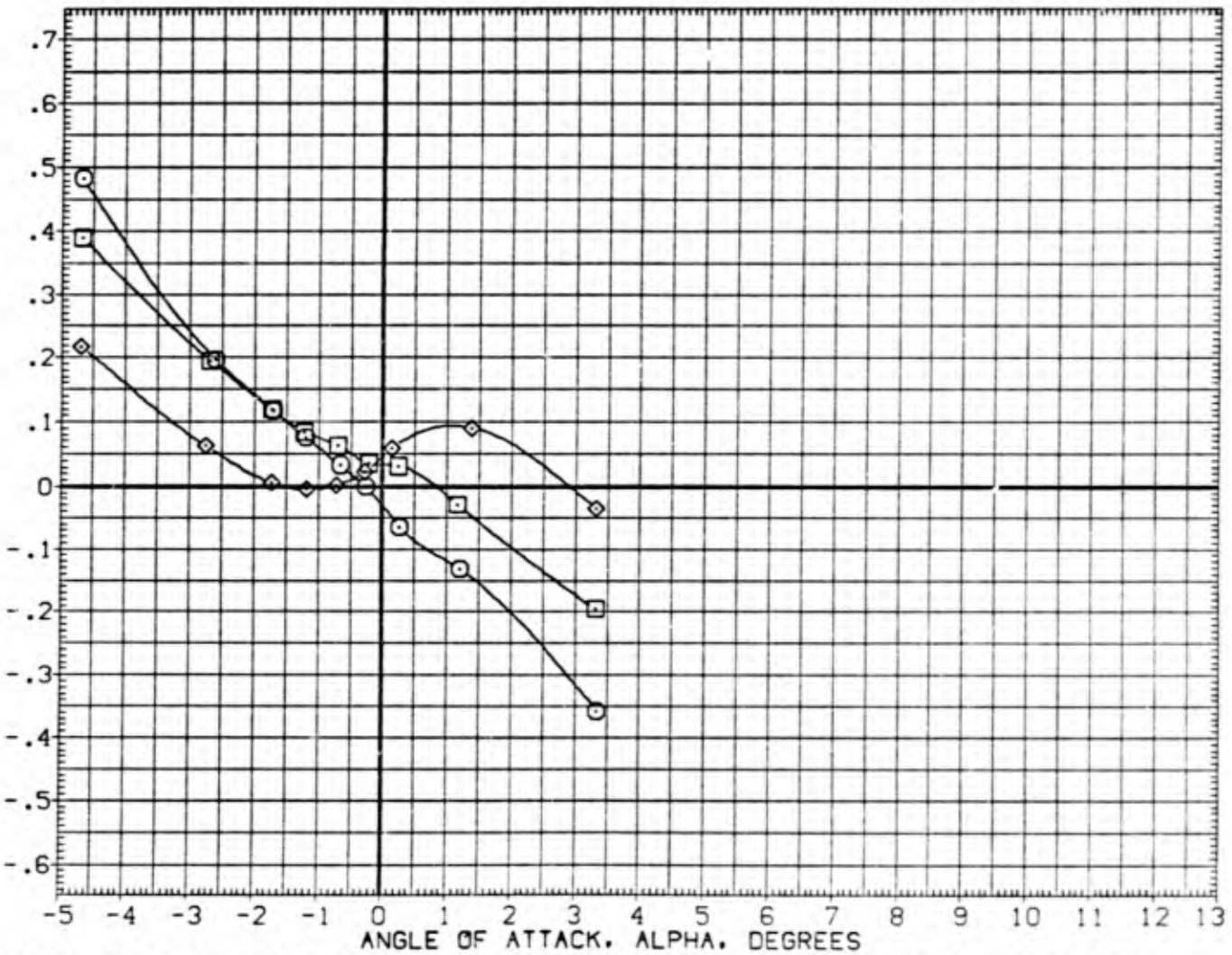
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8032)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.143	BETA	.000	PHI	.000
□	6.125	MACH	.400		
◇	36.972				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



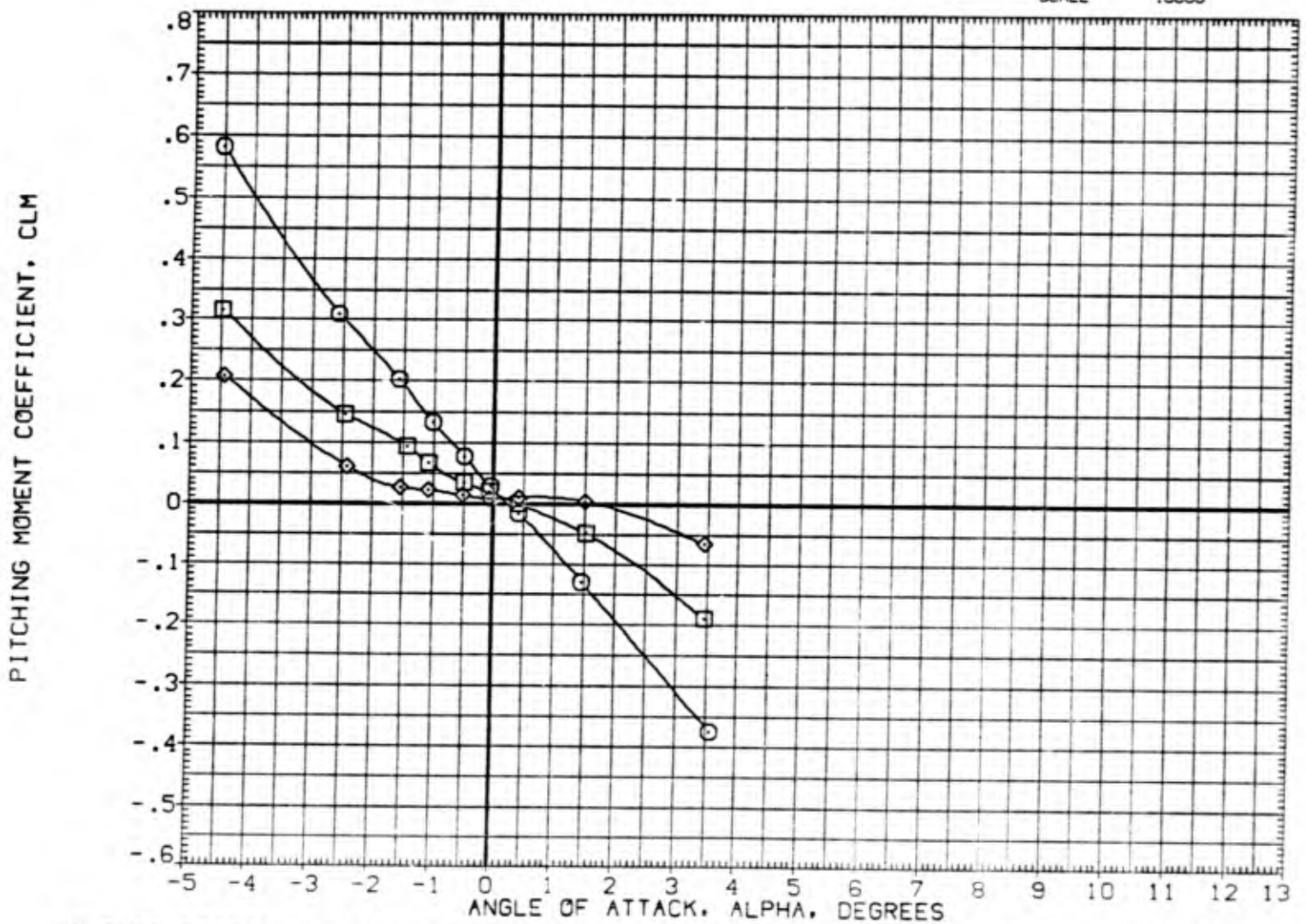
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8033)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.038	BETA	.000	PHI	.000
□	4.303	MACH	.700		
◇	5.844				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



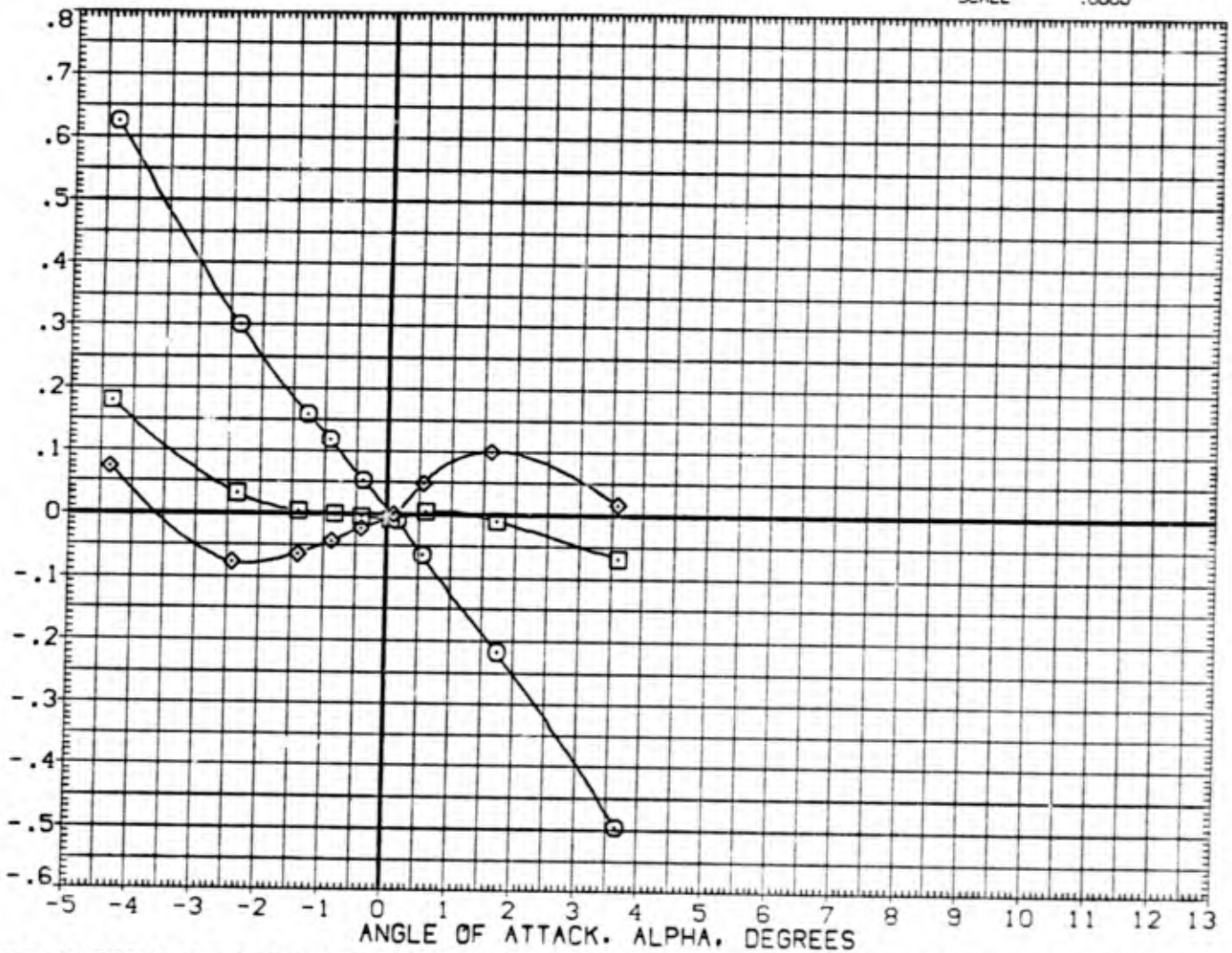
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8034)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.104	MACH	.900		
◇	5.736				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



PITCHING MOMENT COEFFICIENT, CLM

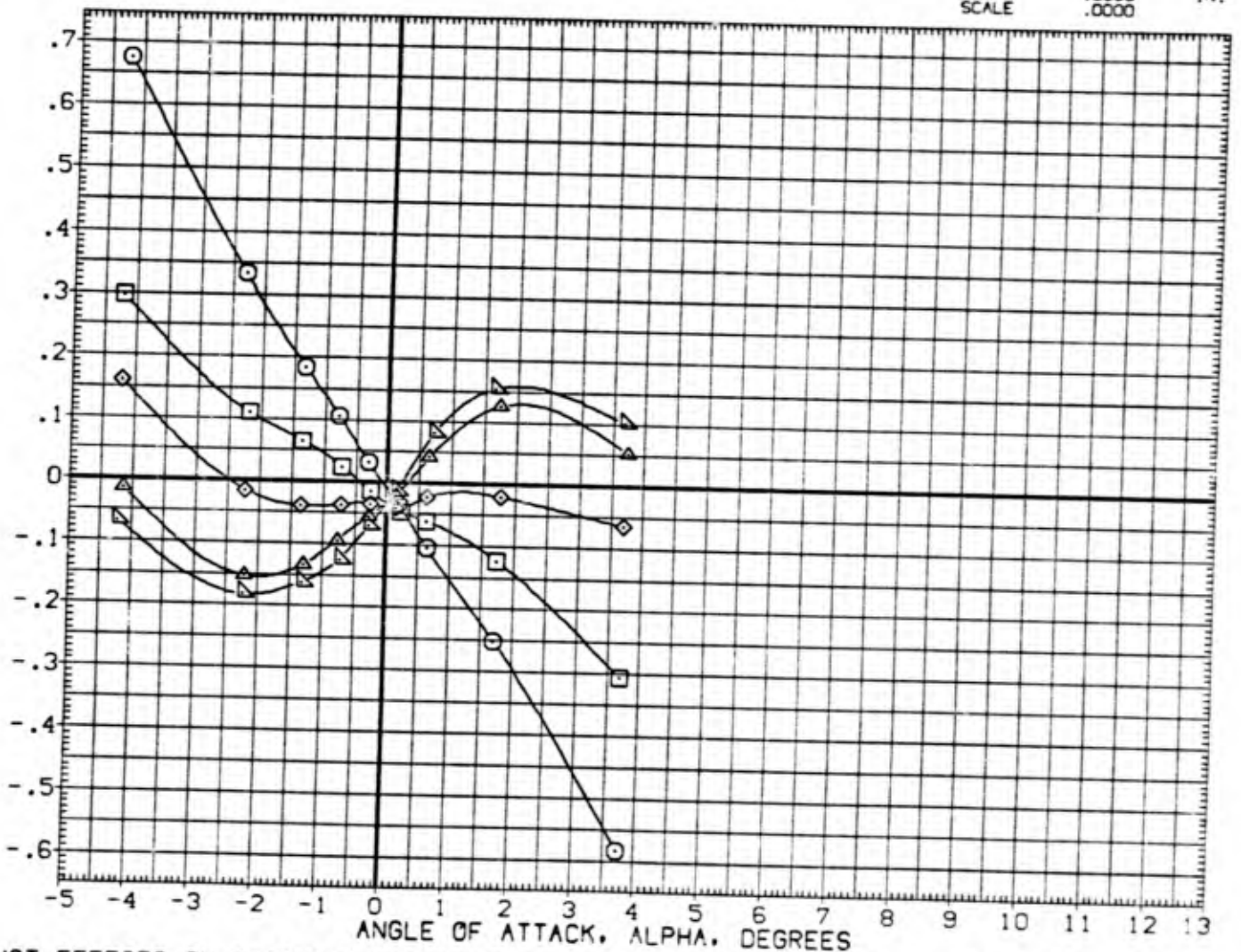
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8035)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.023	BETA	.000	PHI	.000
□	2.704	MACH	1.000		
◇	3.907				
△	5.878				
▷	7.261				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



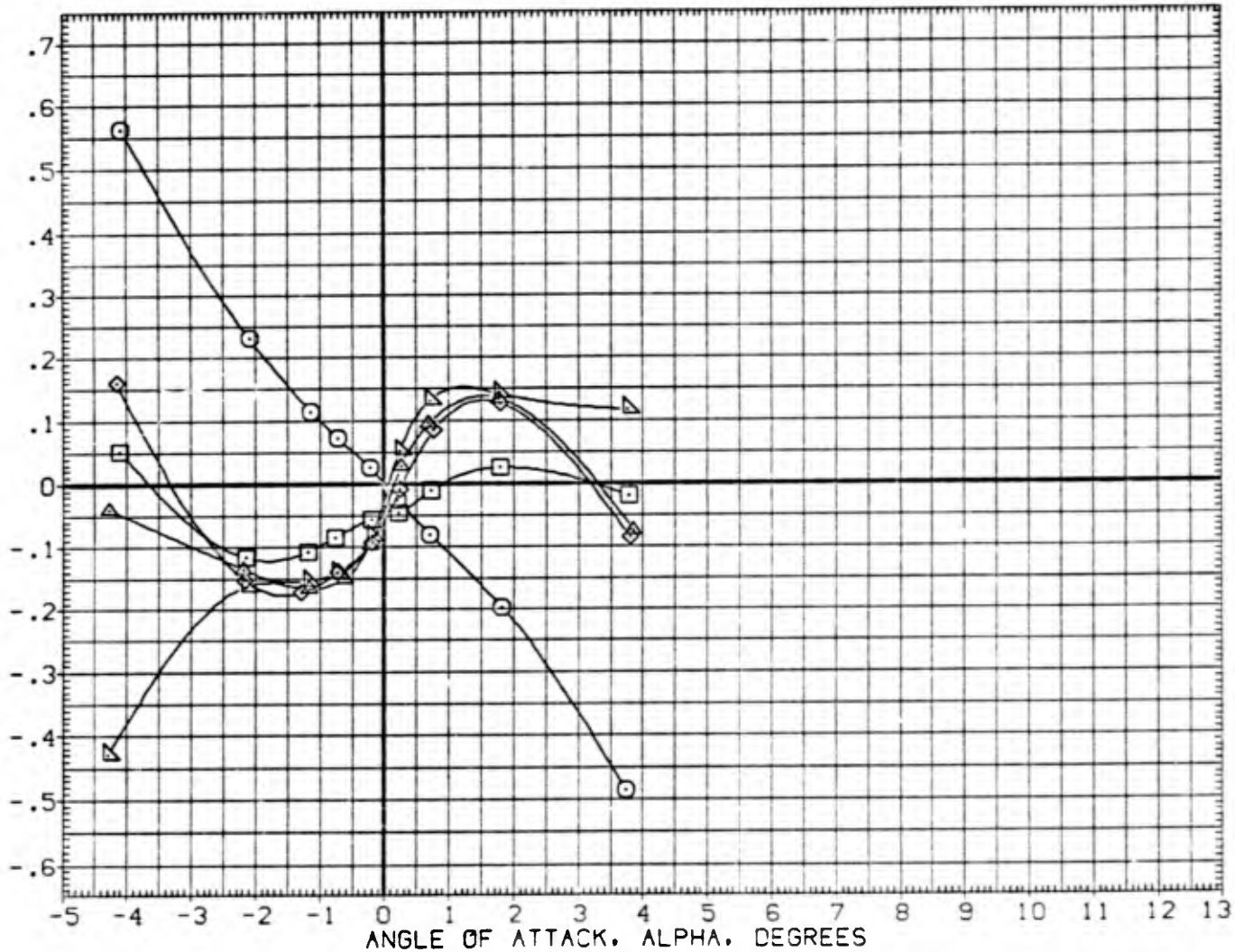
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8036)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.002	BETA	.000	PHI	.000
□	2.475	MACH	1.200		
◇	4.011				
△	6.015				
▷	7.441				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



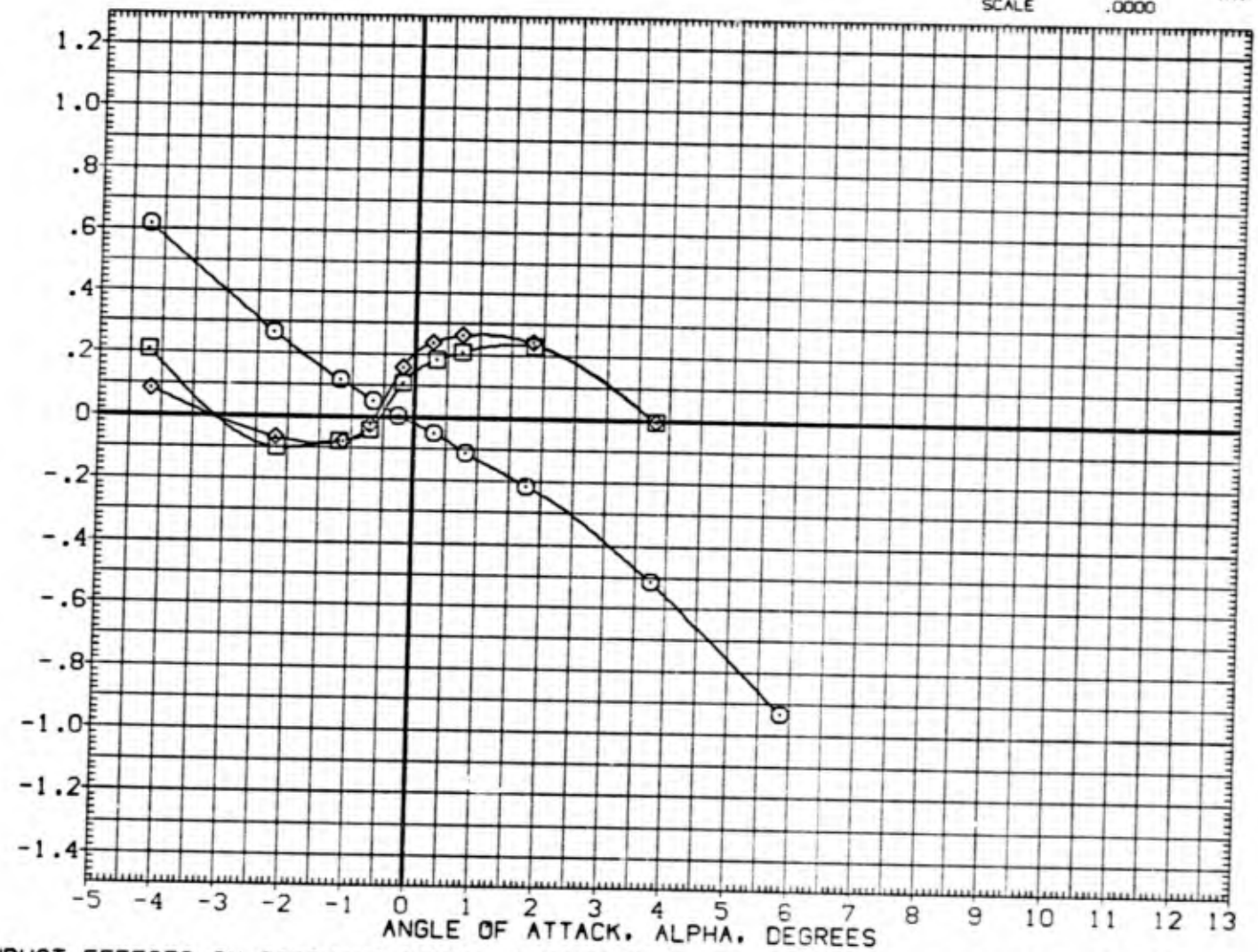
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY. FIN IN FORWARD POSITION(BX8037)

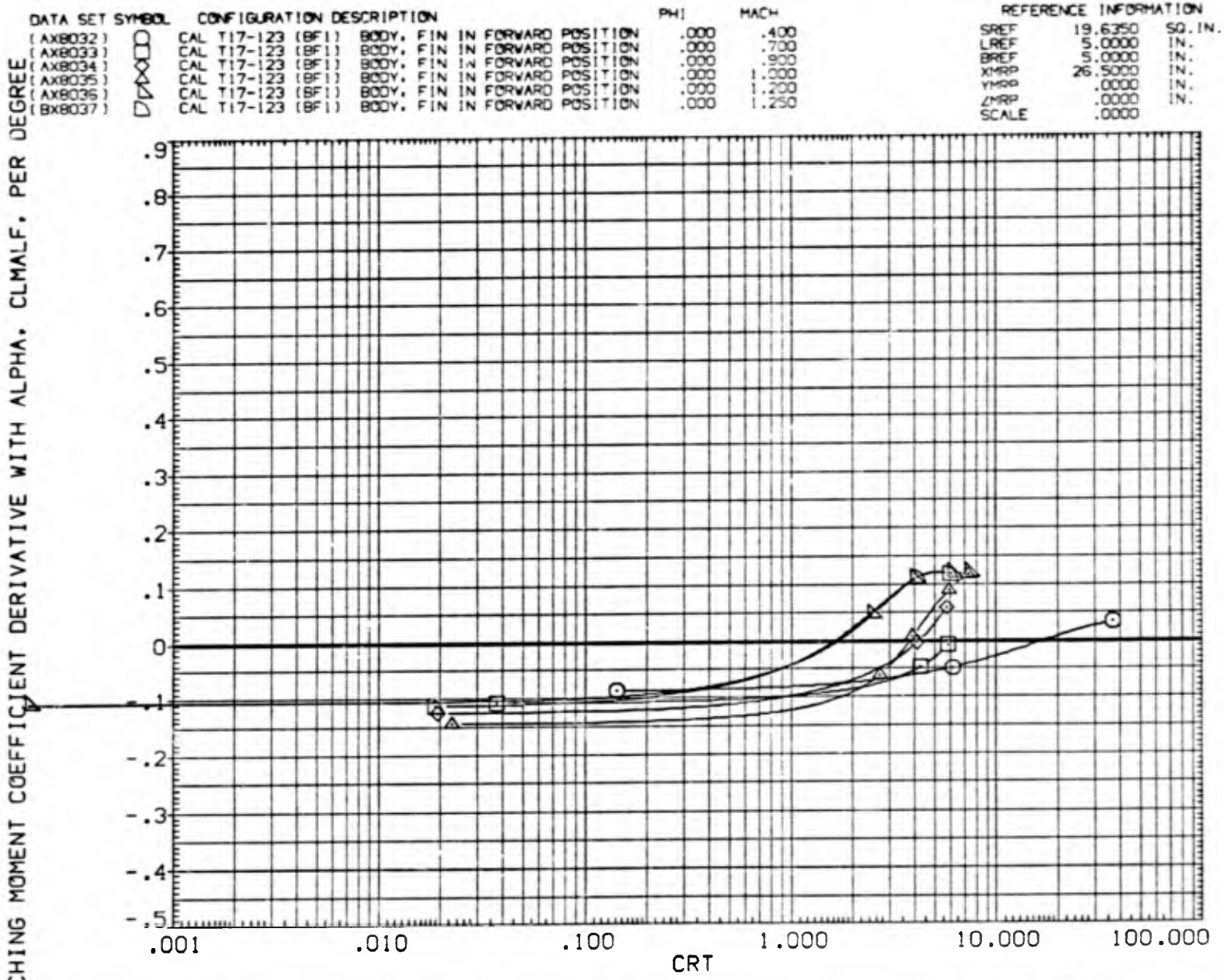
SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.135	MACH	1.250		
◇	5.952				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

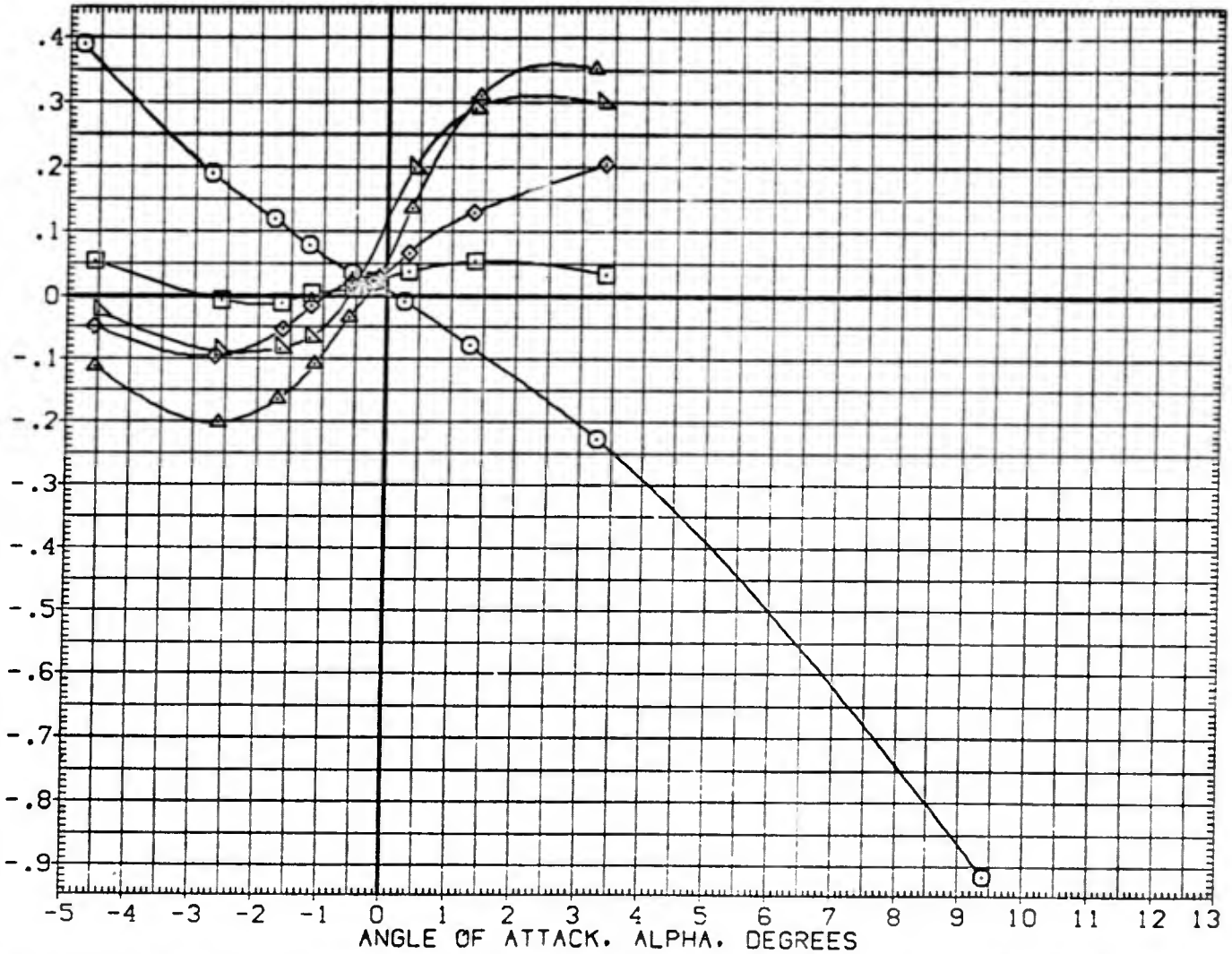


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8013)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.066	BETA	.000	PHI	.000
□	4.146	MACH	.700		
◇	5.906				
△	10.047				
▱	20.305				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



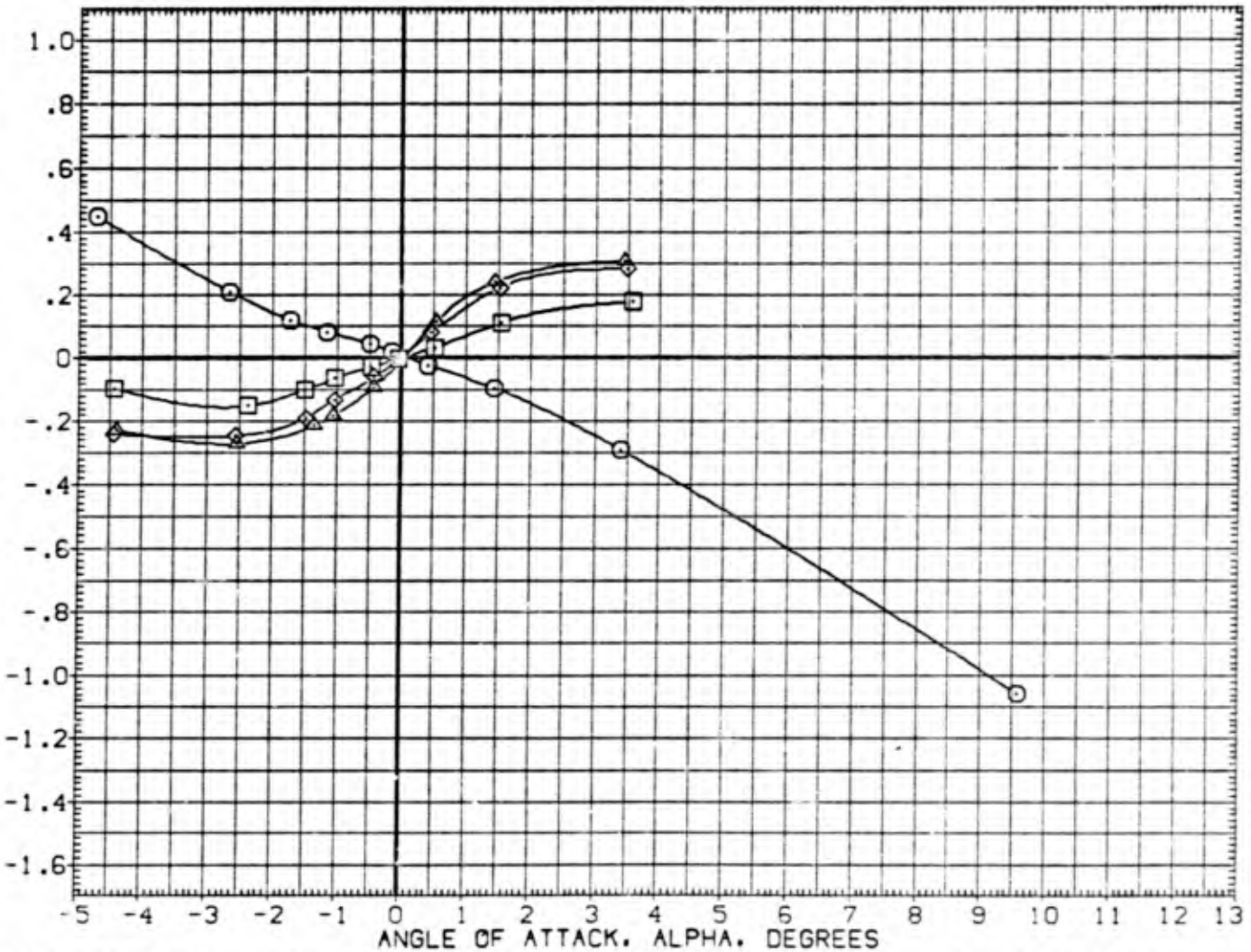
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8014)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.031	BETA	.000	PHI	.000
□	4.1[illegible]	MACH	.900		
◇	5.833				
△	8.869				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY. FIN IN FORWARD POSITION(AX8015)

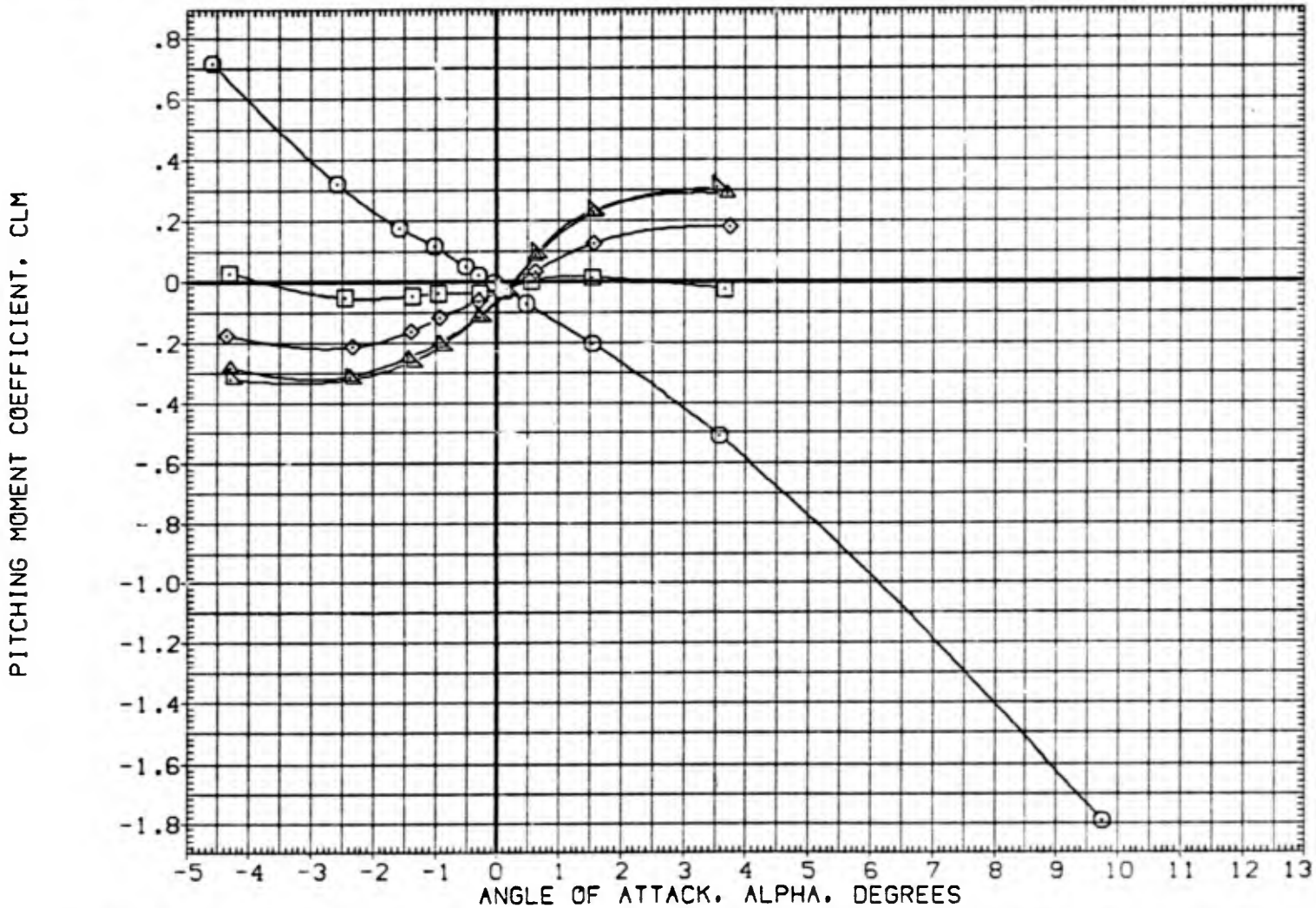
SYMBOL	CRT
○	.035
□	2.633
◇	4.177
△	5.988
▱	7.054

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

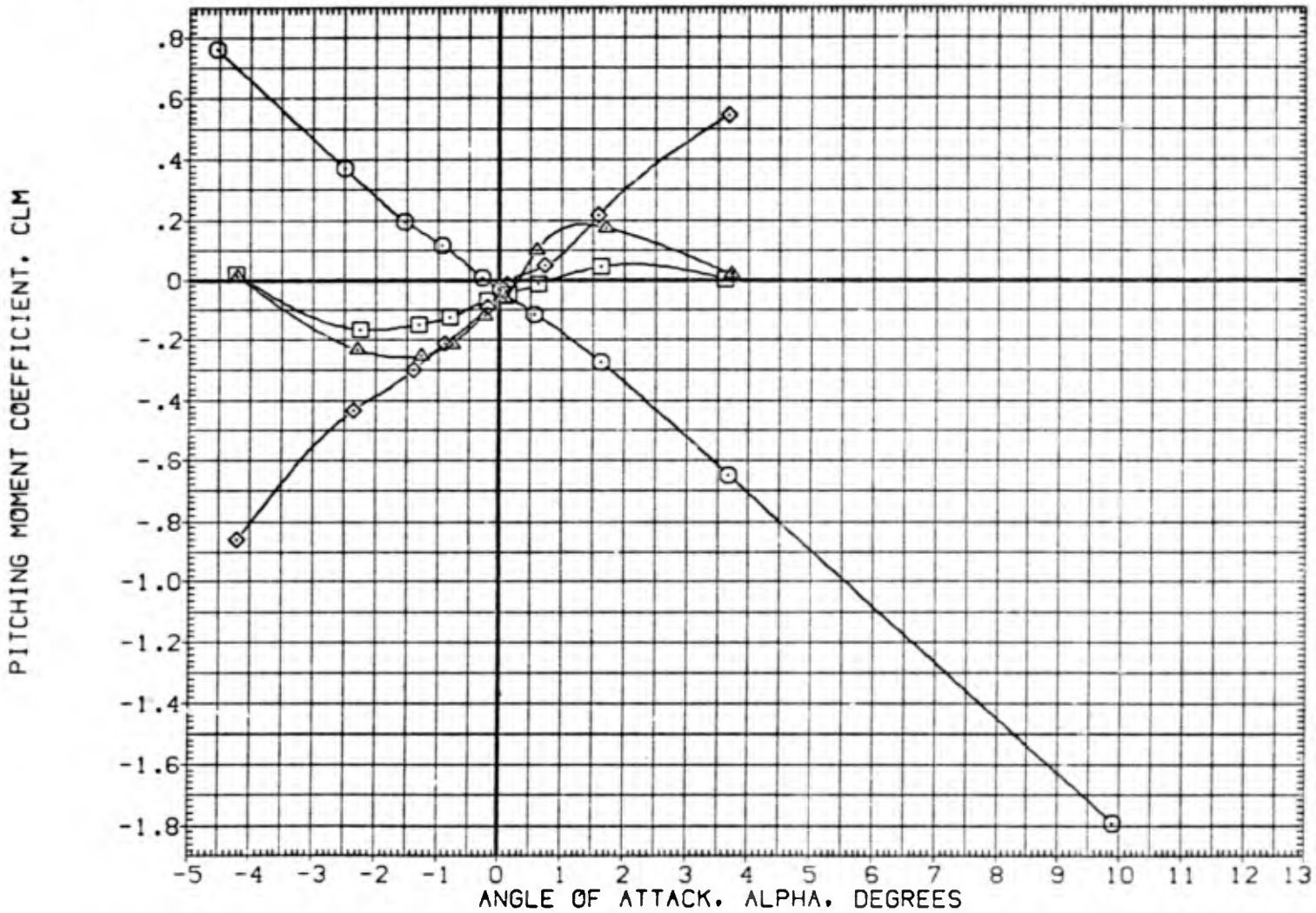


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8016)

SYMBOL	ORT		PARAMETRIC VALUES		
○	.024	BETA	.000	PHI	.000
□	2.370	MACH	1.200		
◇	4.197				
△	5.900				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

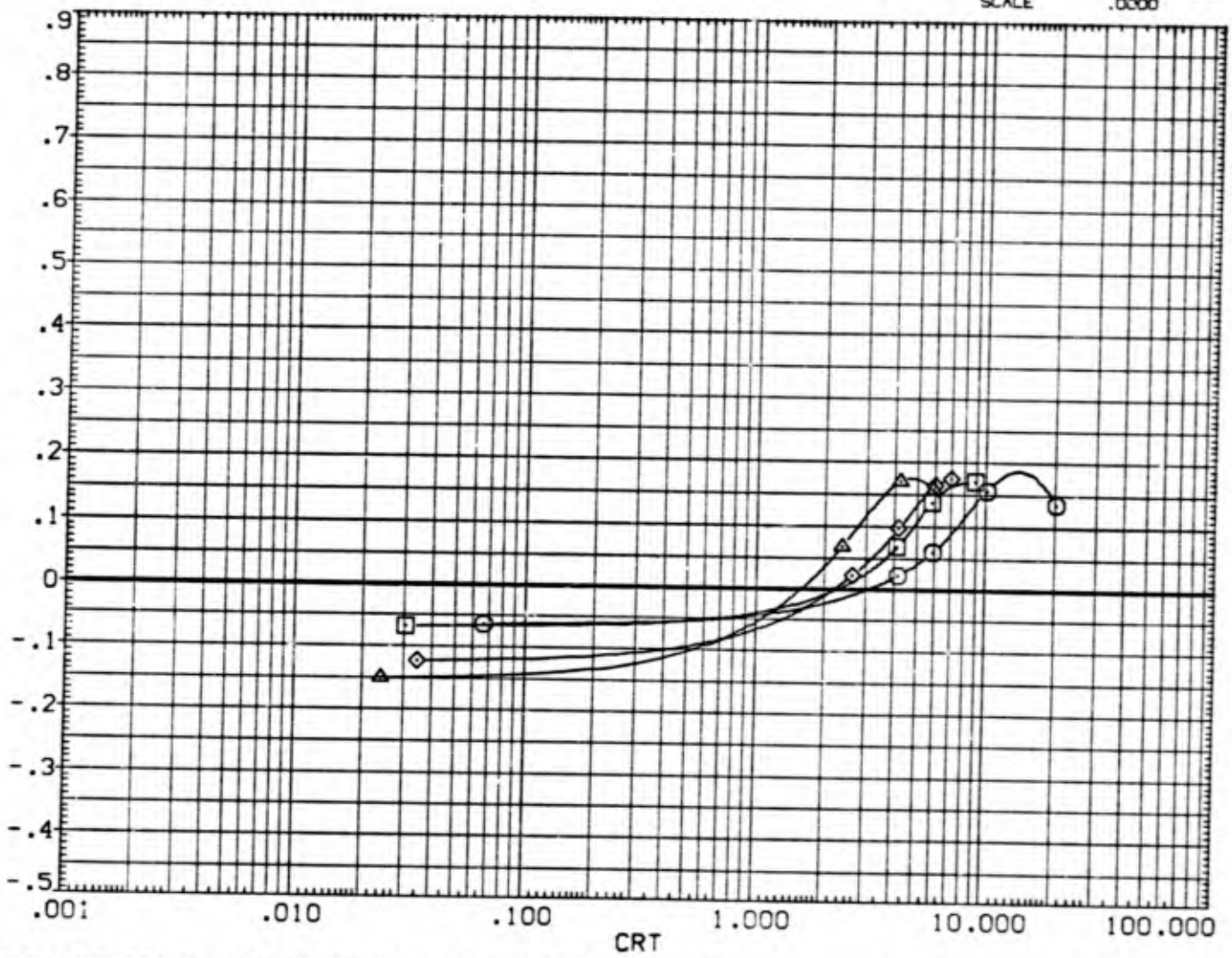


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PHI	MACH
(AX8013)	○	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	.000	.700
(AX8014)	□	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	.000	.900
(AX8015)	◇	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	.000	1.000
(AX8016)	△	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

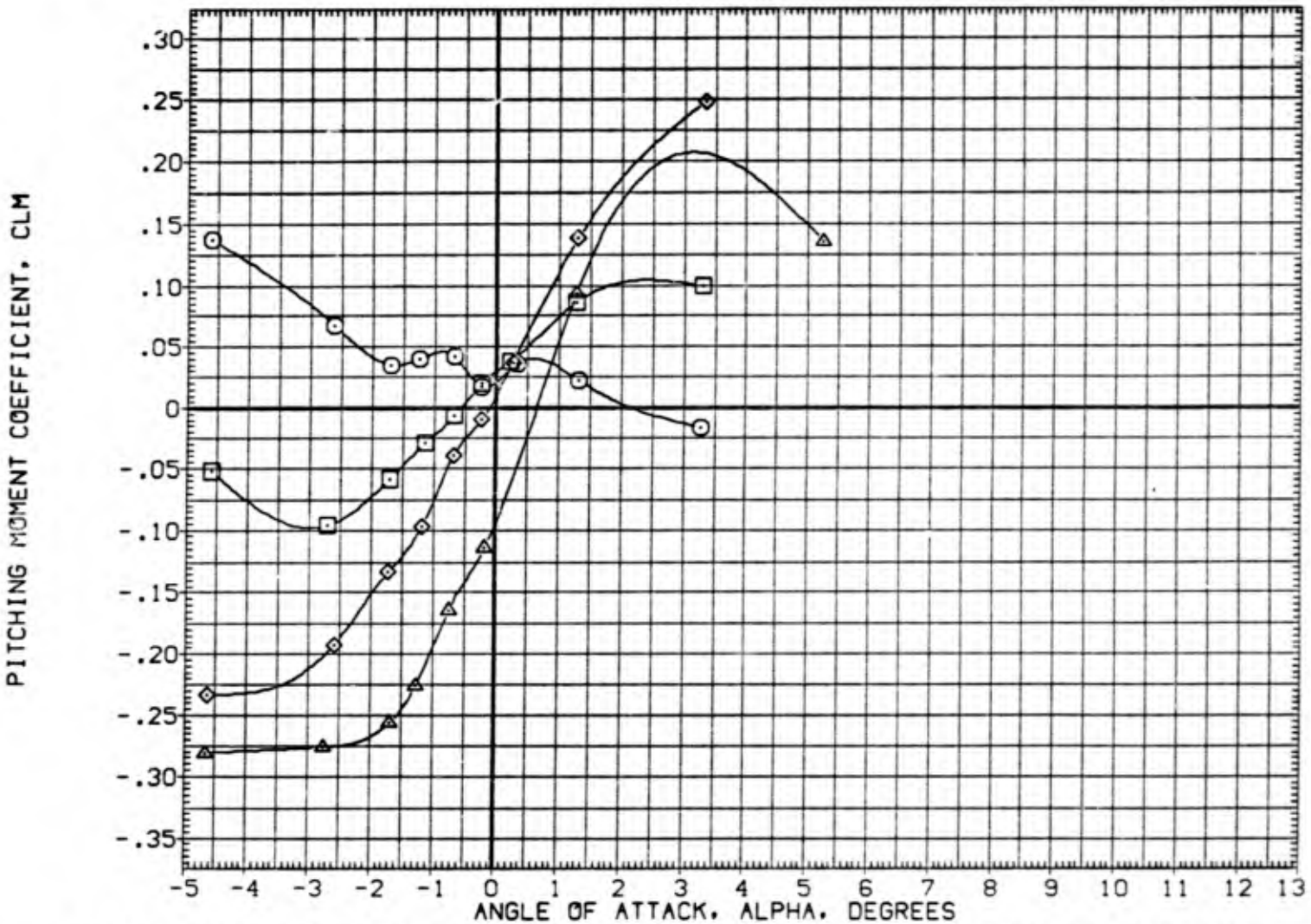


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8020)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.100	BETA	.000	PHI	.000
□	5.689	MACH	.400		
◇	12.146				
△	37.287				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY. FIN IN FORWARD POSITION(AX8021)

SYMBOL	CRT
○	.013
□	4.235
◇	5.840
△	10.396
▷	20.597

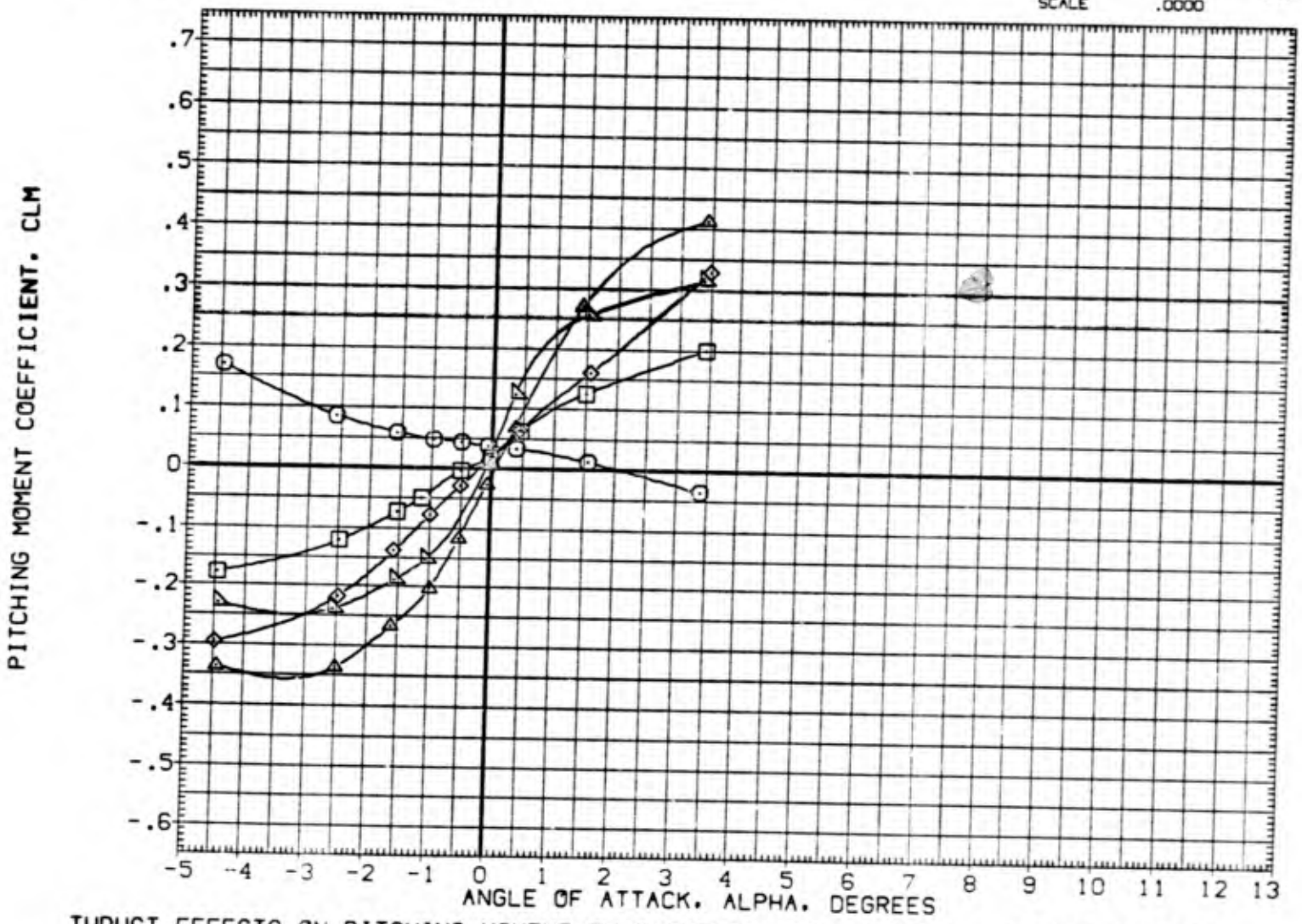
PARAMETRIC VALUES

BETA .000 PHI .000

MACH .700

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

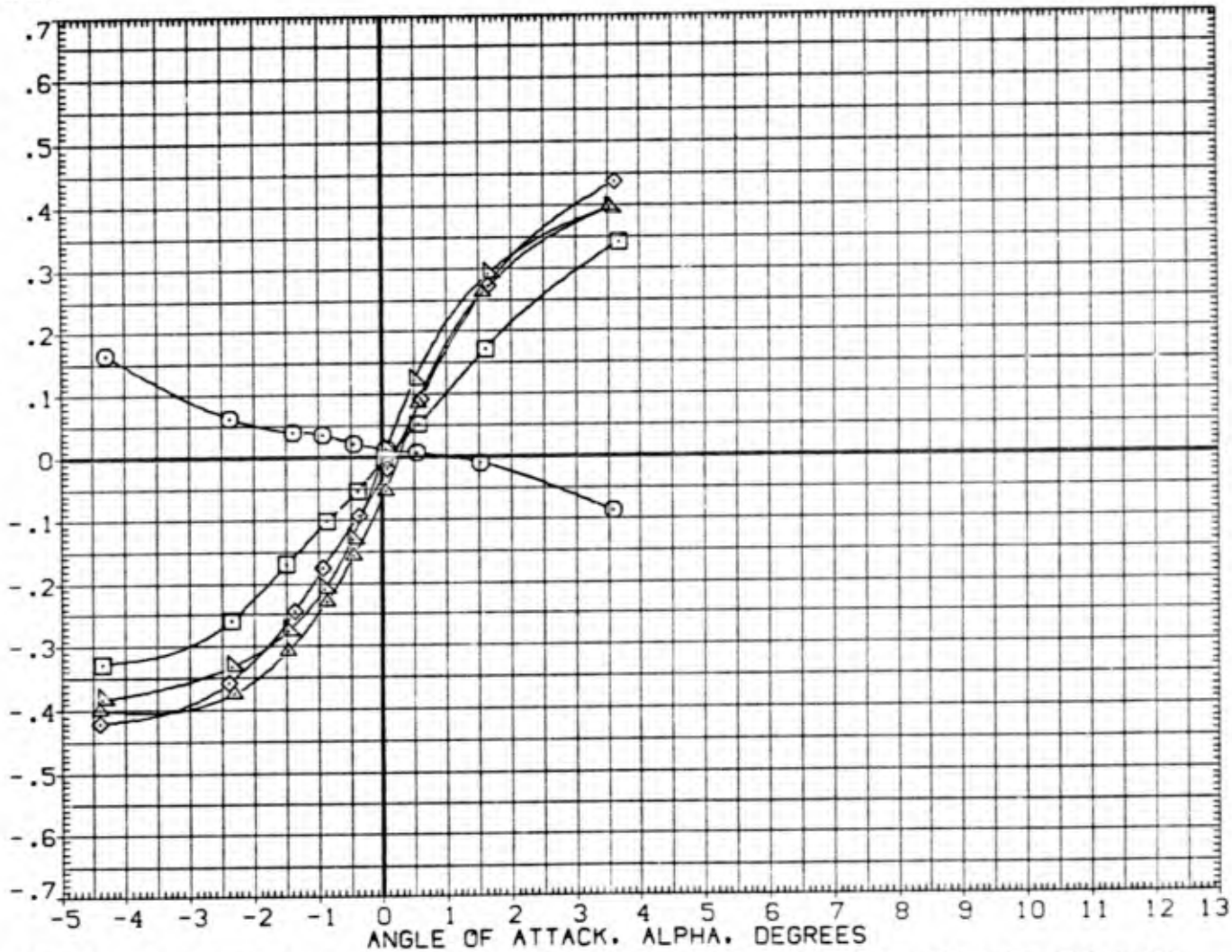


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8022)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.014	BETA	.000	PHI	.000
□	4.012	MACH	.900		
◇	5.898				
△	8.655				
◿	12.572				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



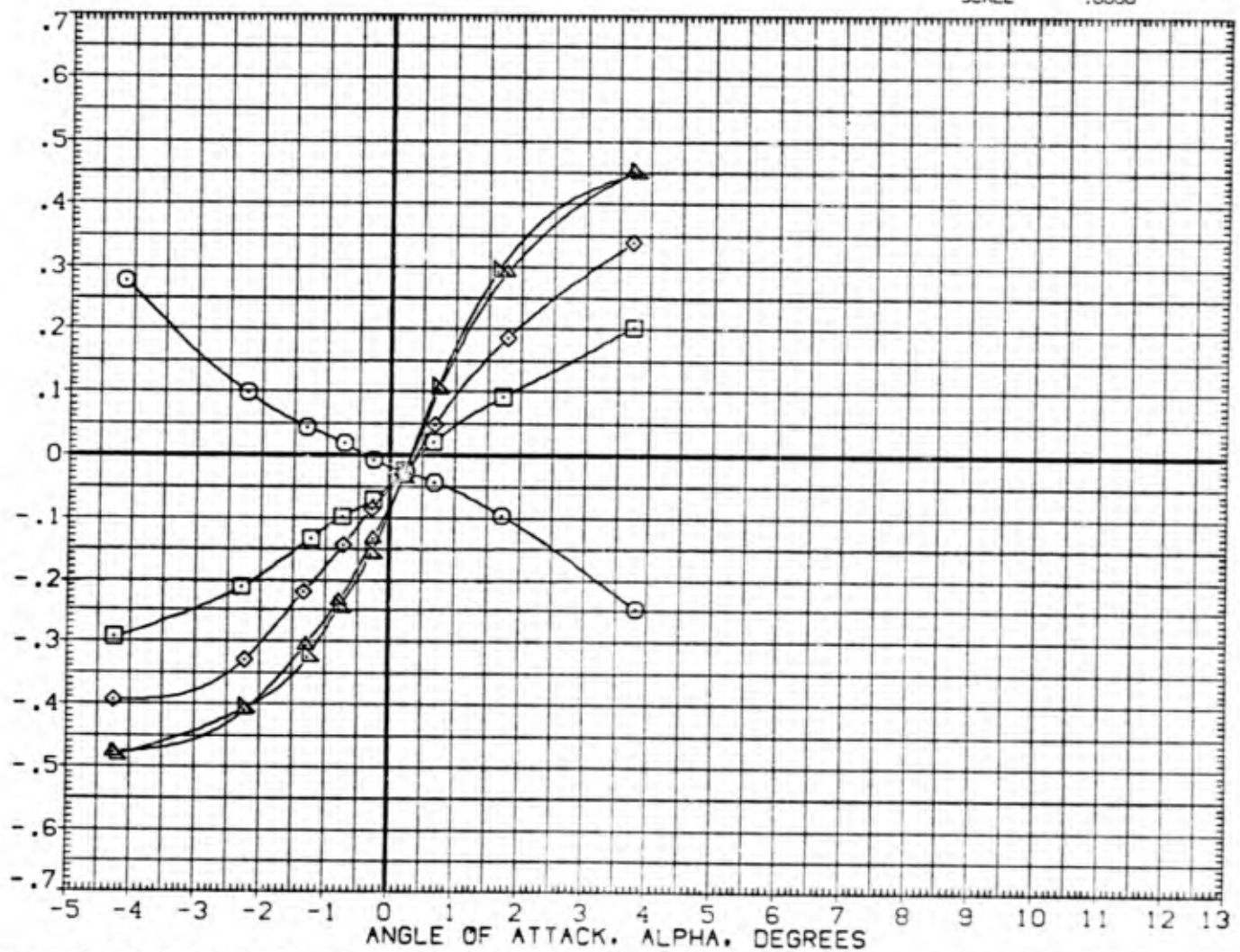
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8023)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.037	BETA	.000	PHI	.000
□	2.794	MACH	1.000		
◇	4.122				
△	6.098				
◿	7.412				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



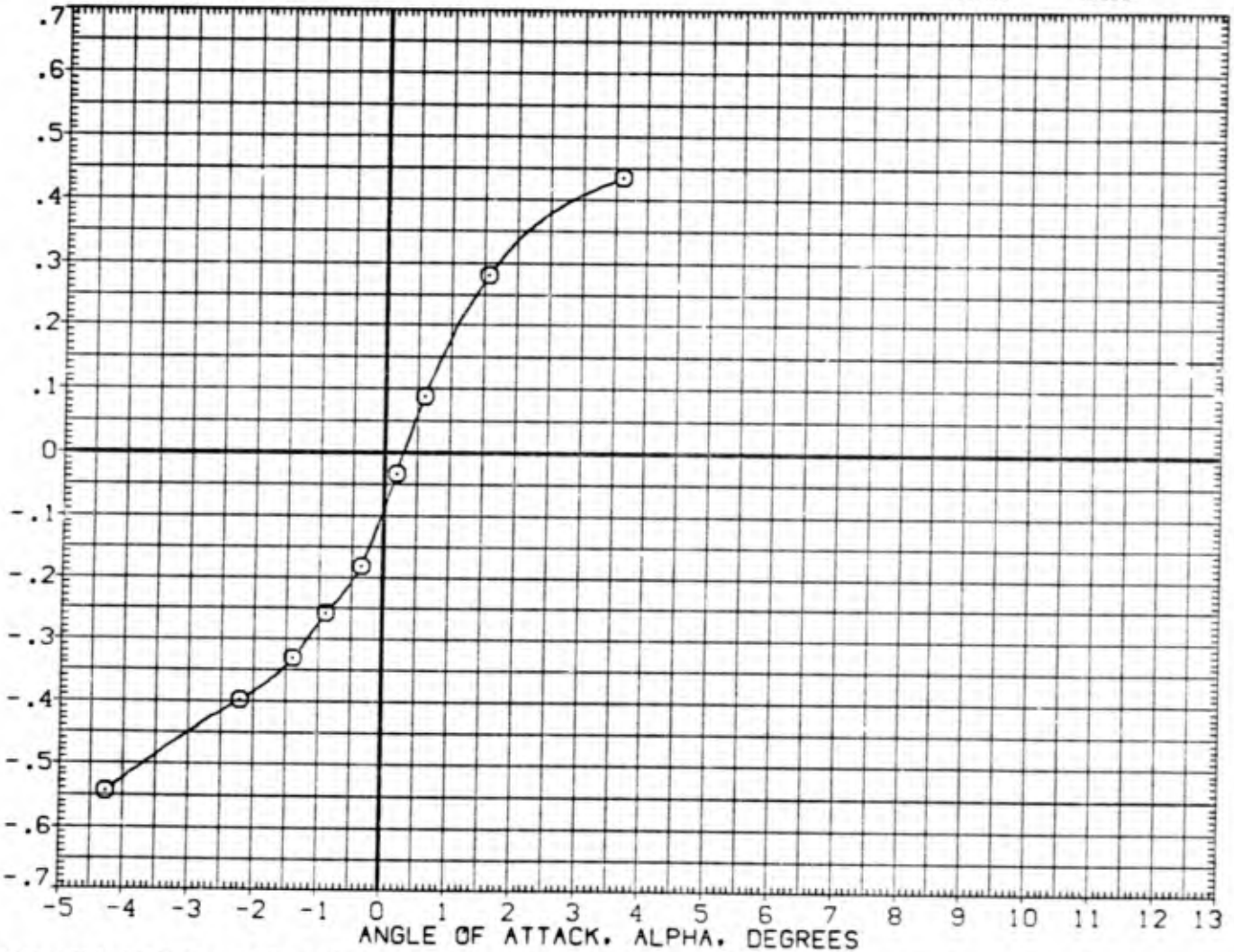
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8023)

SYMBOL	CRT		PARAMETRIC VALUES		
O	10.717	BETA	.000	PHI	.000
		MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



PITCHING MOMENT COEFFICIENT, CLM

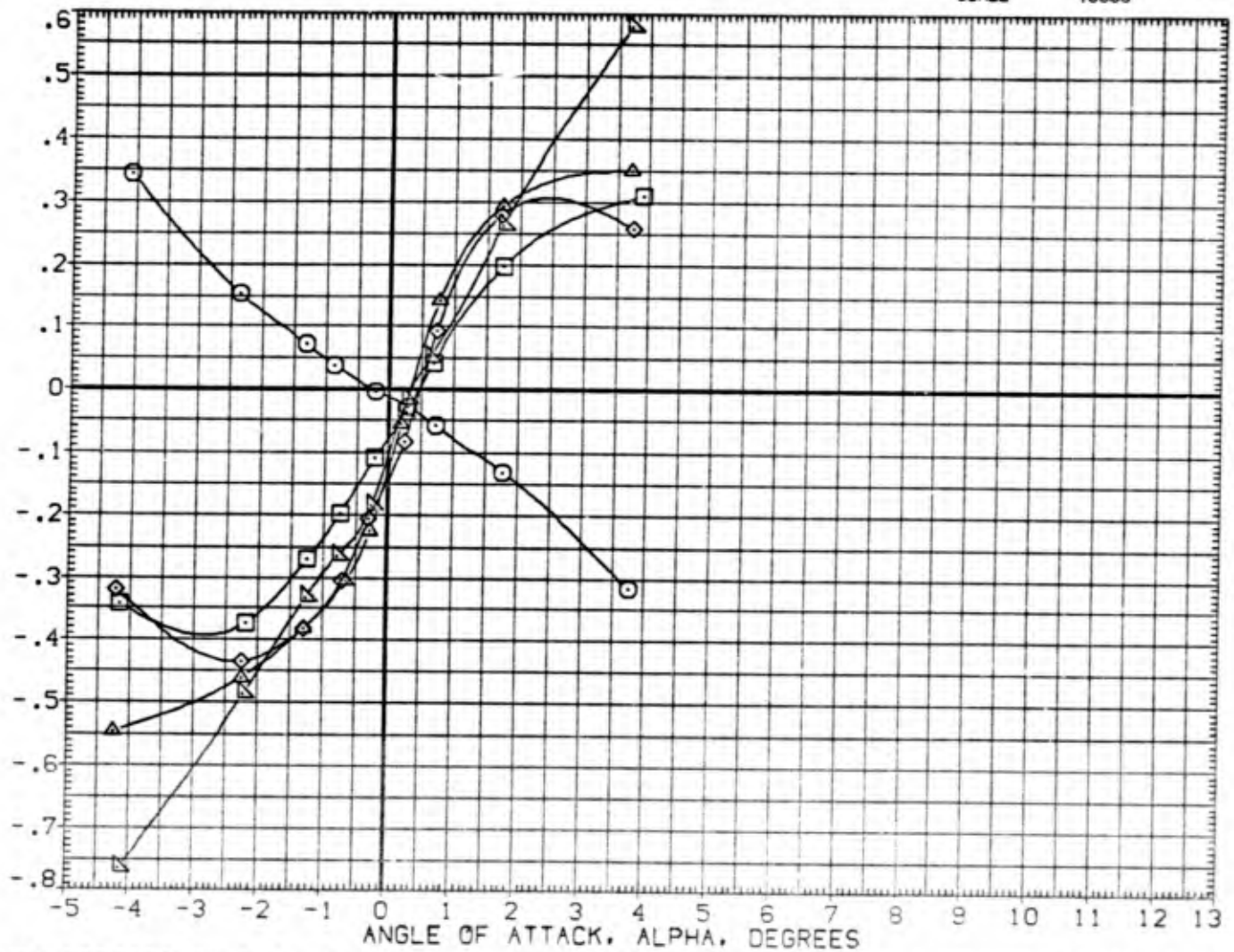
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8024)

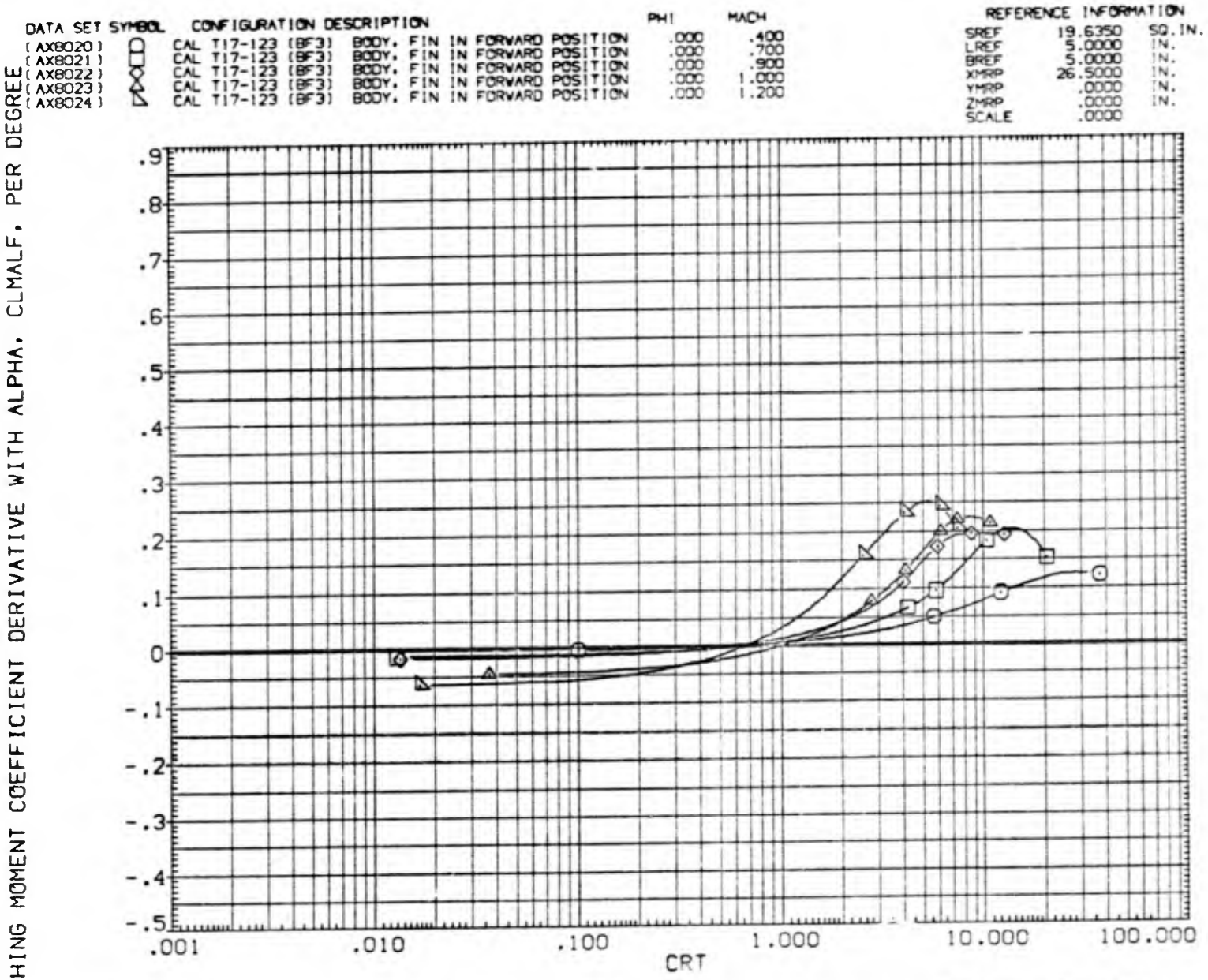
SYMBOL	CRT		PARAMETRIC VALUES		
○	.017	BETA	.000	PHI	.000
□	2.538	MACH	1.200		
◇	4.057				
△	6.025				
▷	7.352				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION



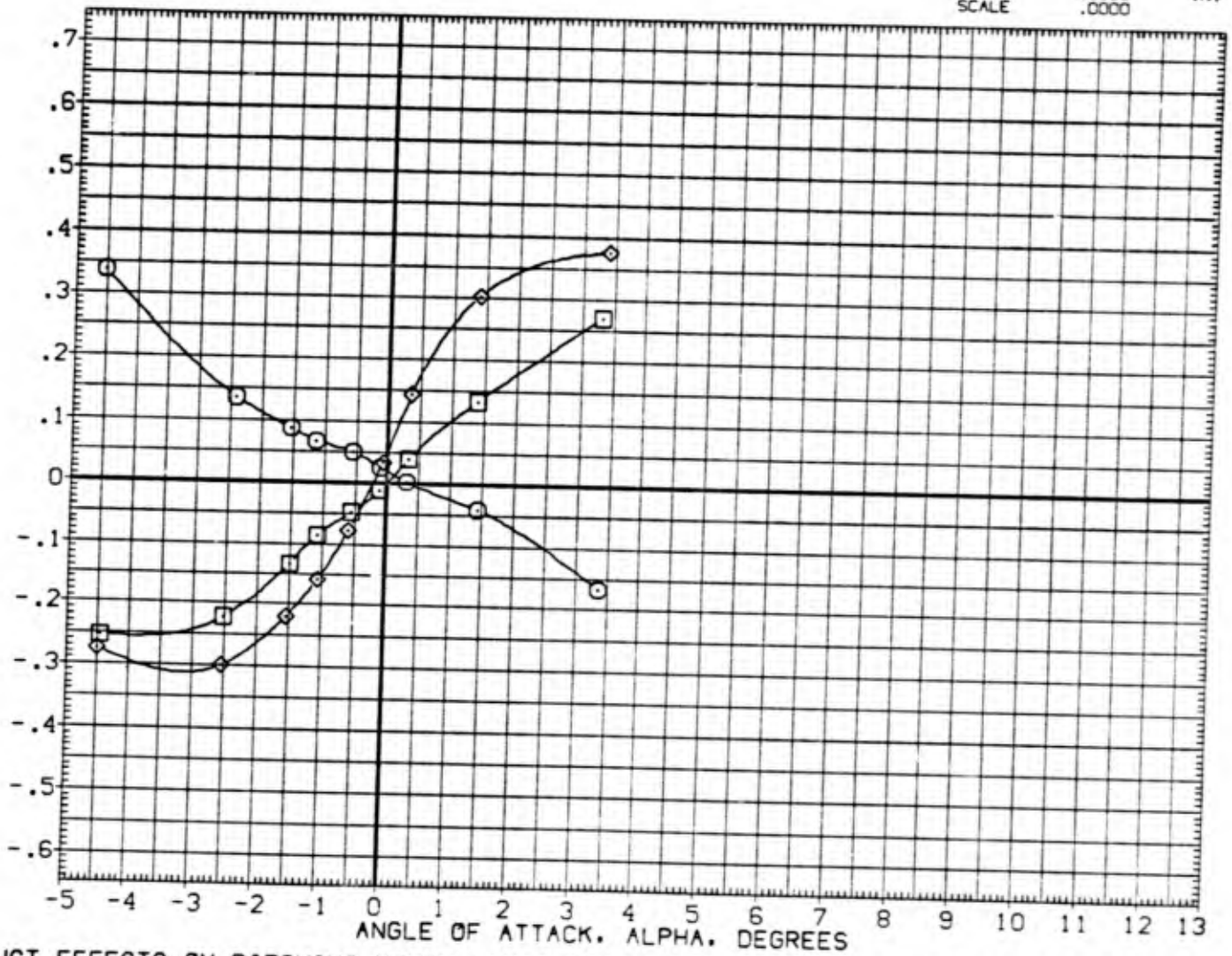
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8025)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.032	BETA	.000	PHI	.000
□	5.828	MACH	.700		
◇	10.418				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



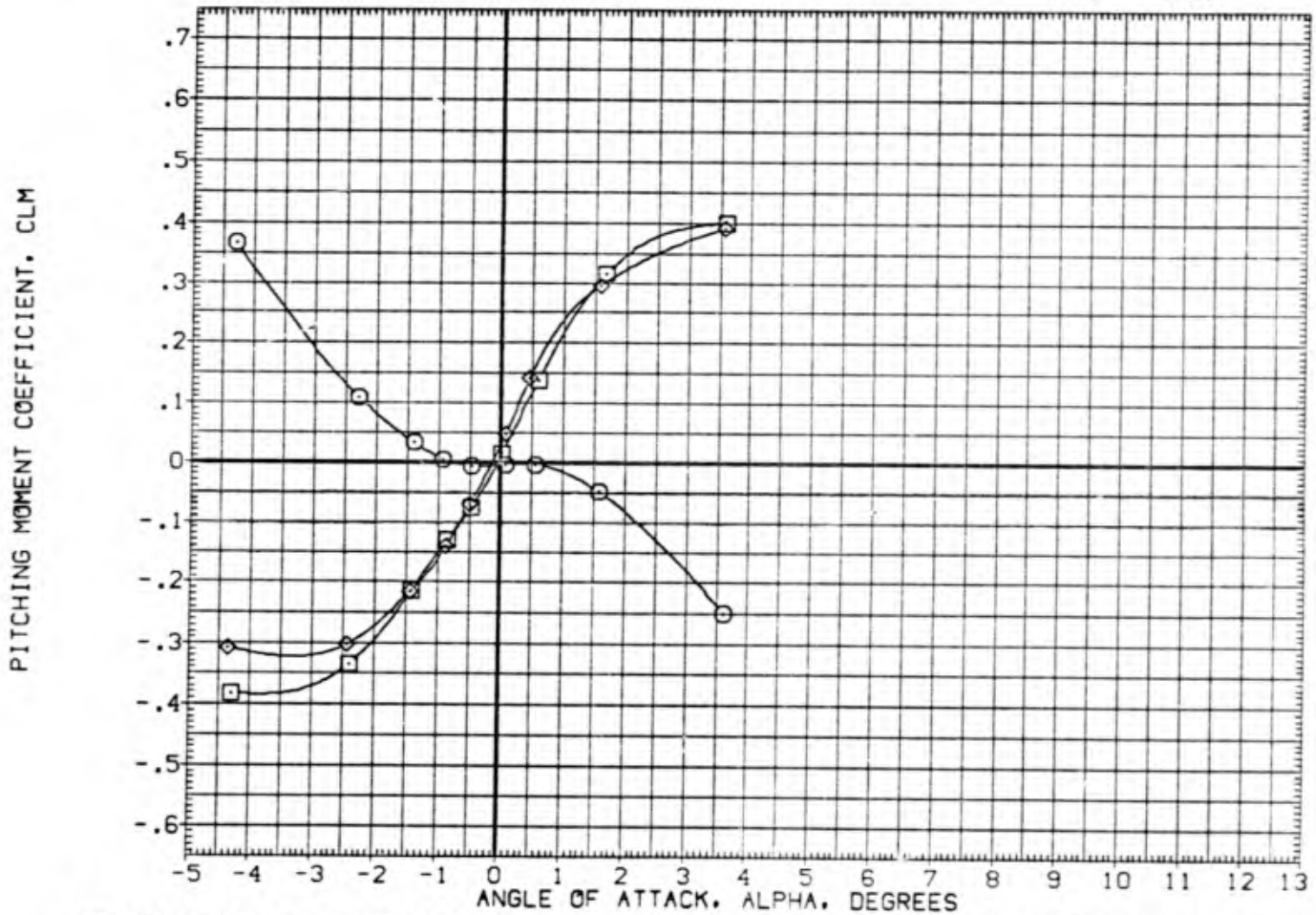
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8026)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.045	BETA	.000	PHI	.000
□	5.748	MACH	.900		
◇	9.409				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



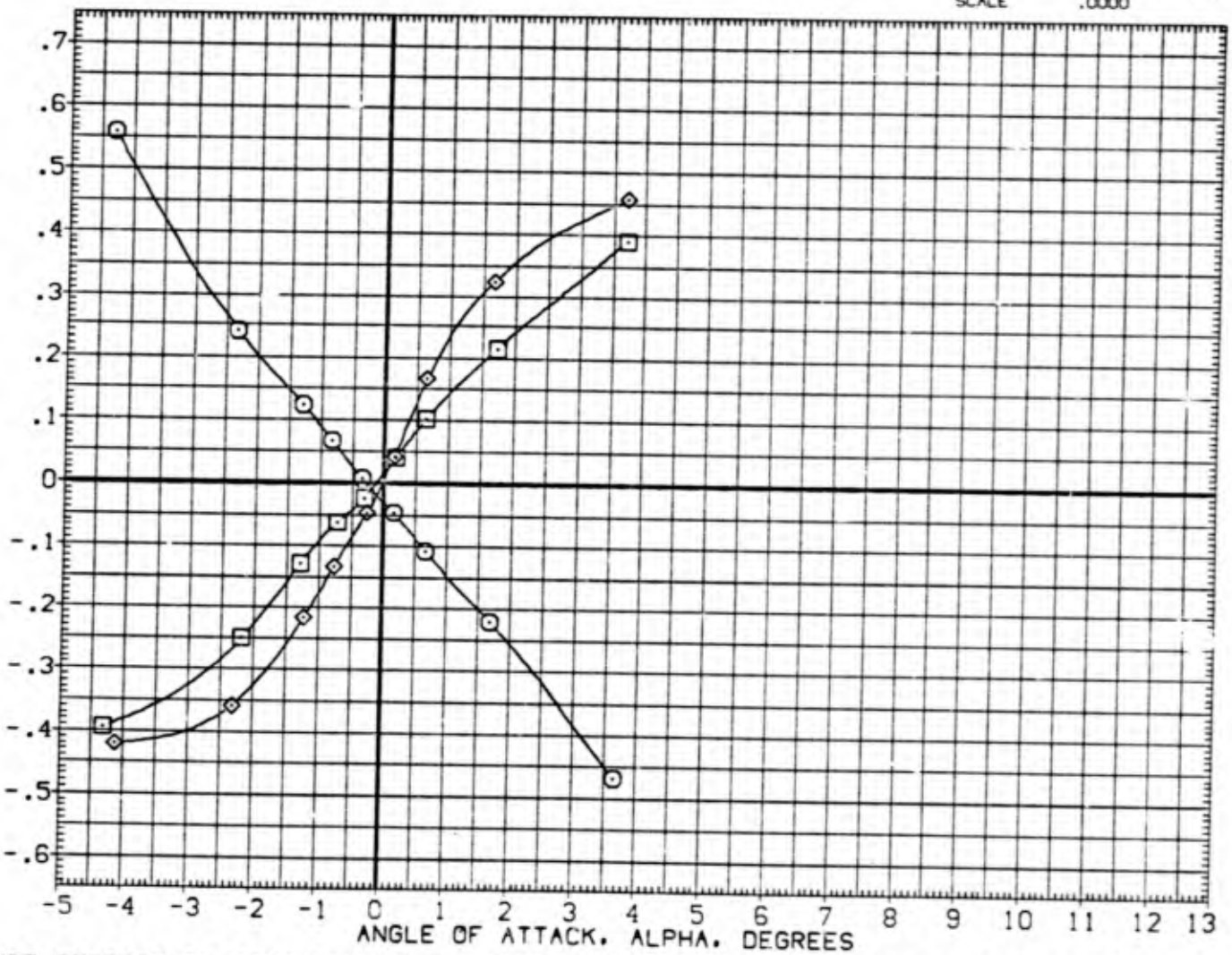
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8027)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.099	BETA	.000	PHI	.000
□	4.013	MACH	1.000		
◇	6.076				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



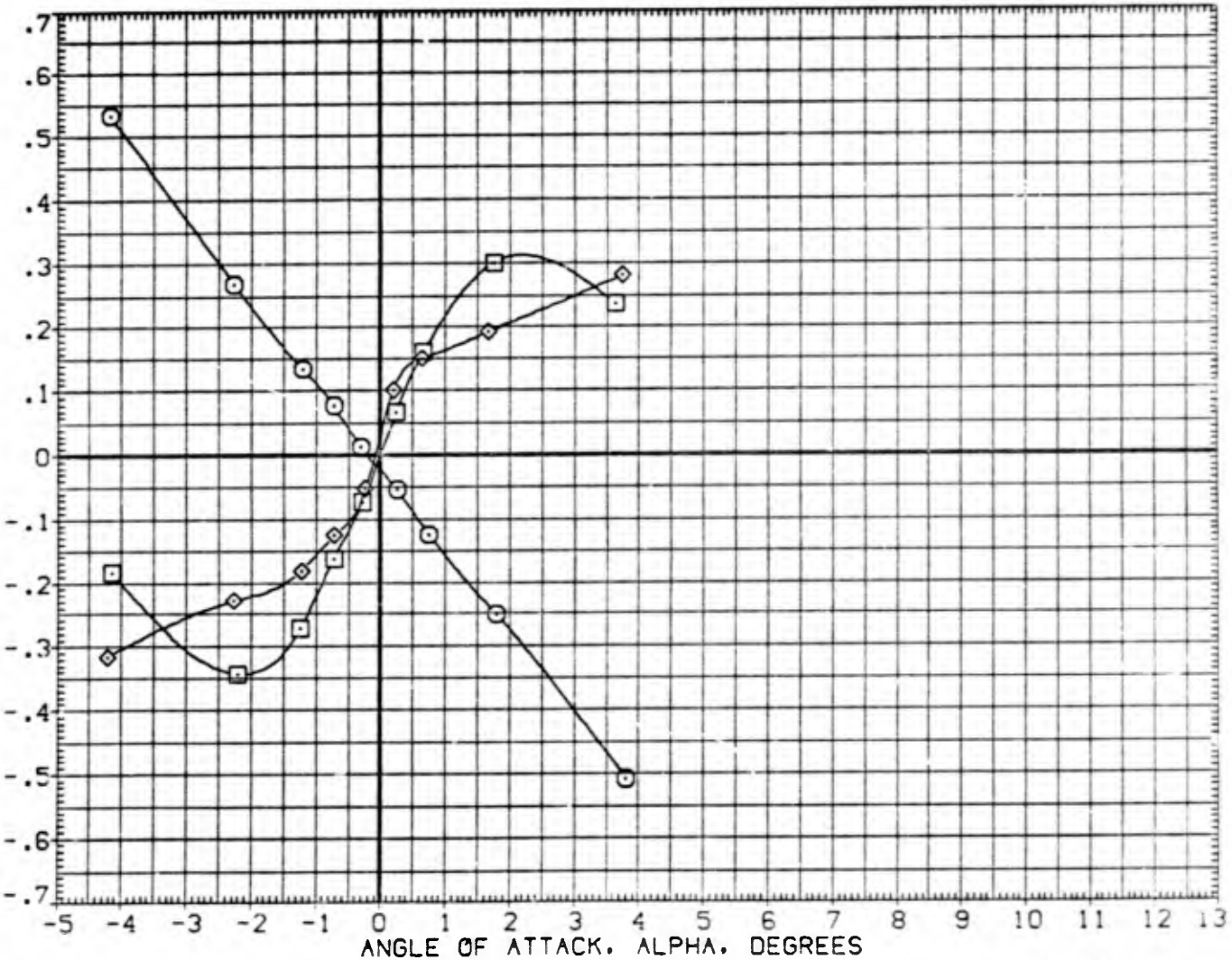
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8028)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.060	BETA	.000	PHI	.000
□	4.146	MACH	1.200		
◇	6.001				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

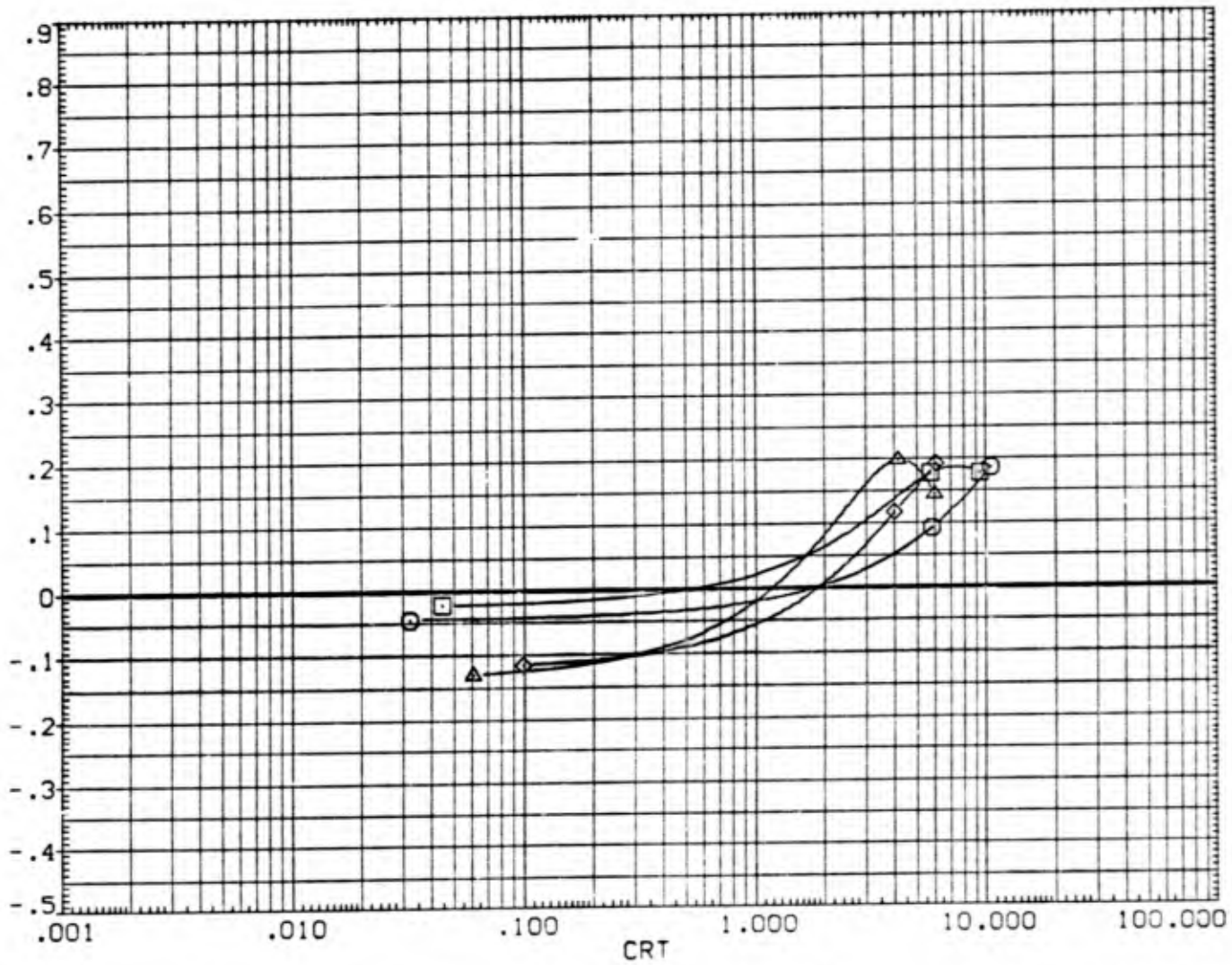


THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

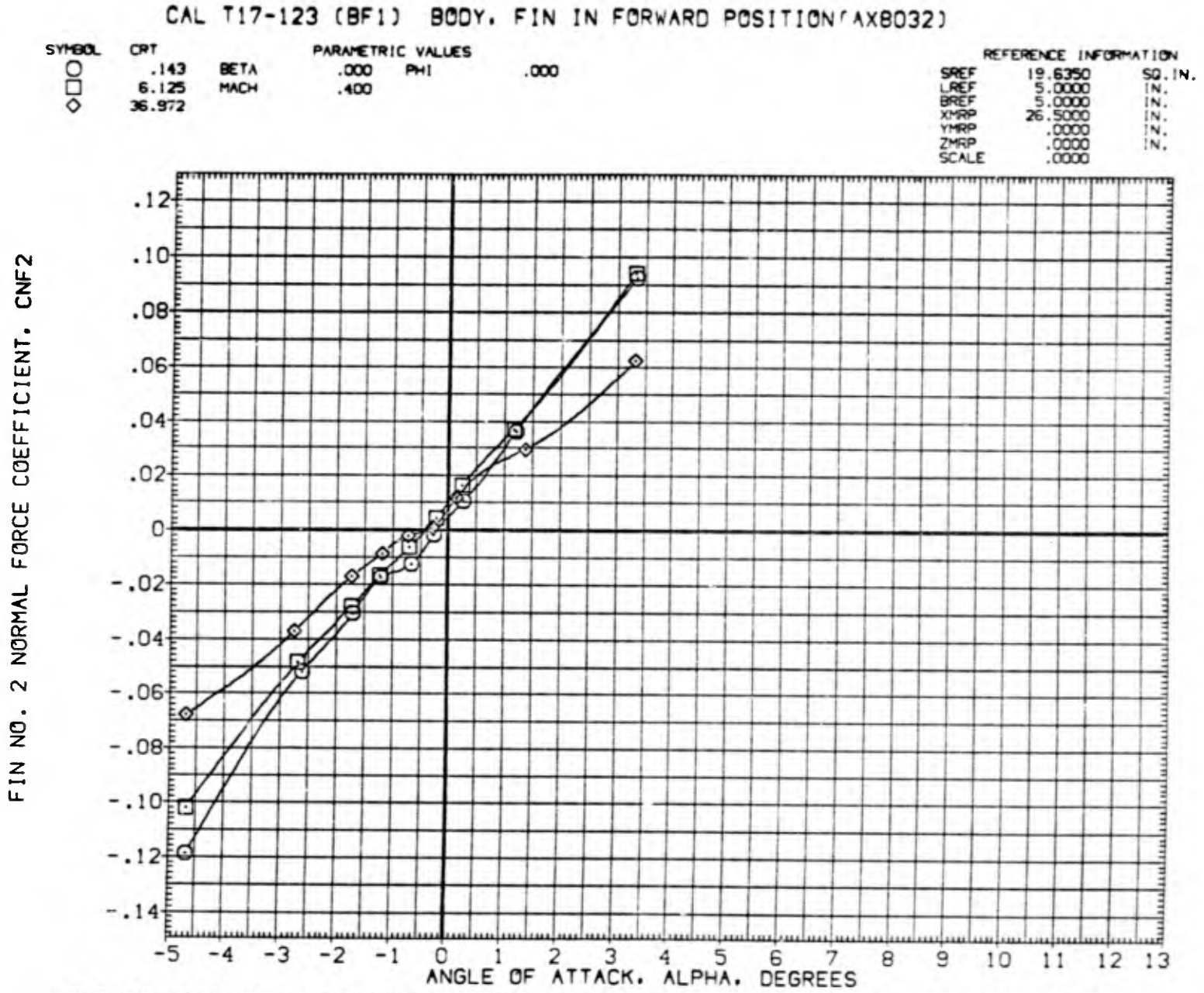
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8025)	□	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	.000	.700
(AX8026)	◇	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	.000	.900
(AX8027)	⊗	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	.000	1.000
(AX8028)	△	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION



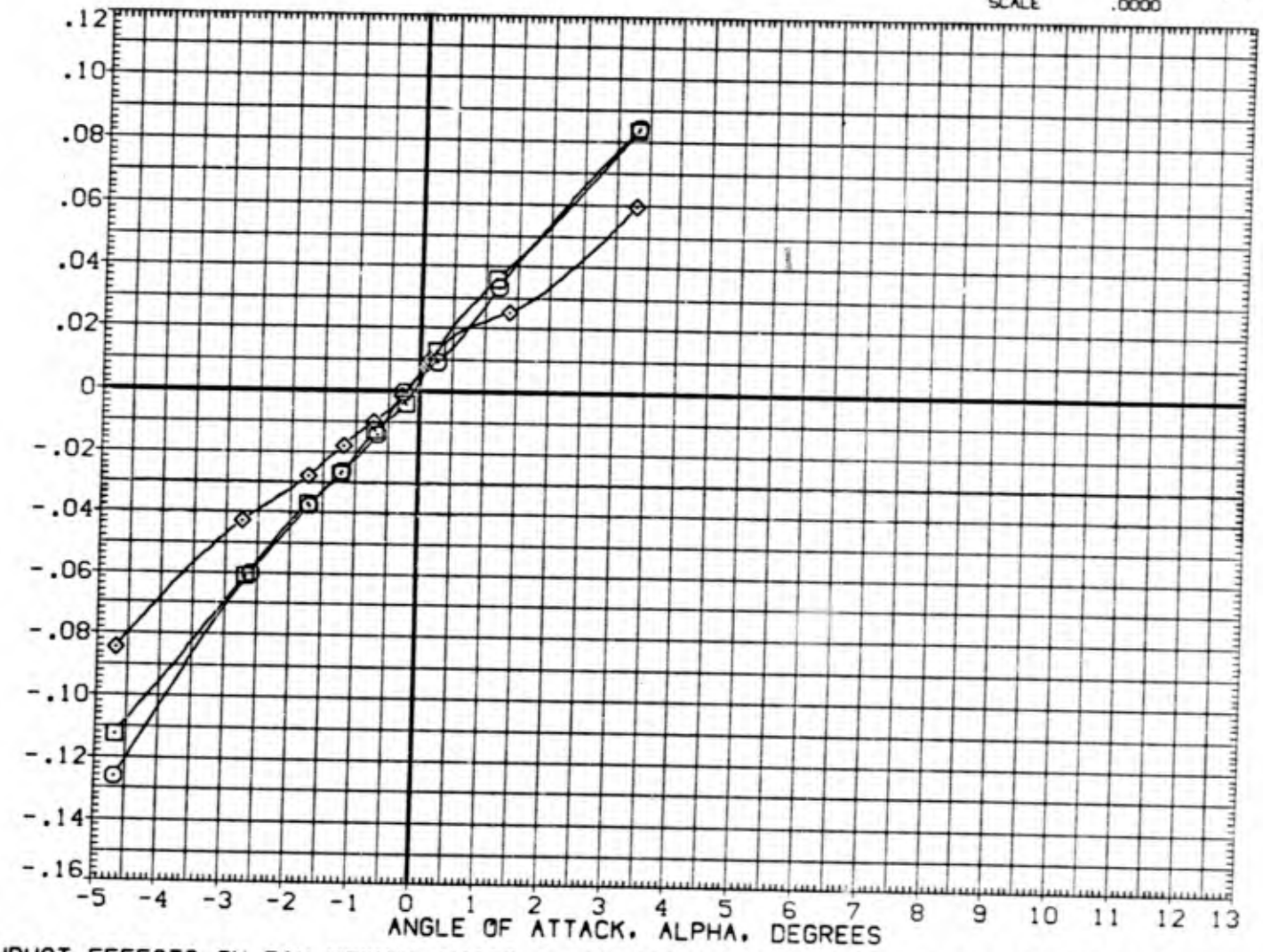
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8032)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.143	BETA	.000	PHI	.000
□	6.125	MACH	.400		
◇	36.972				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



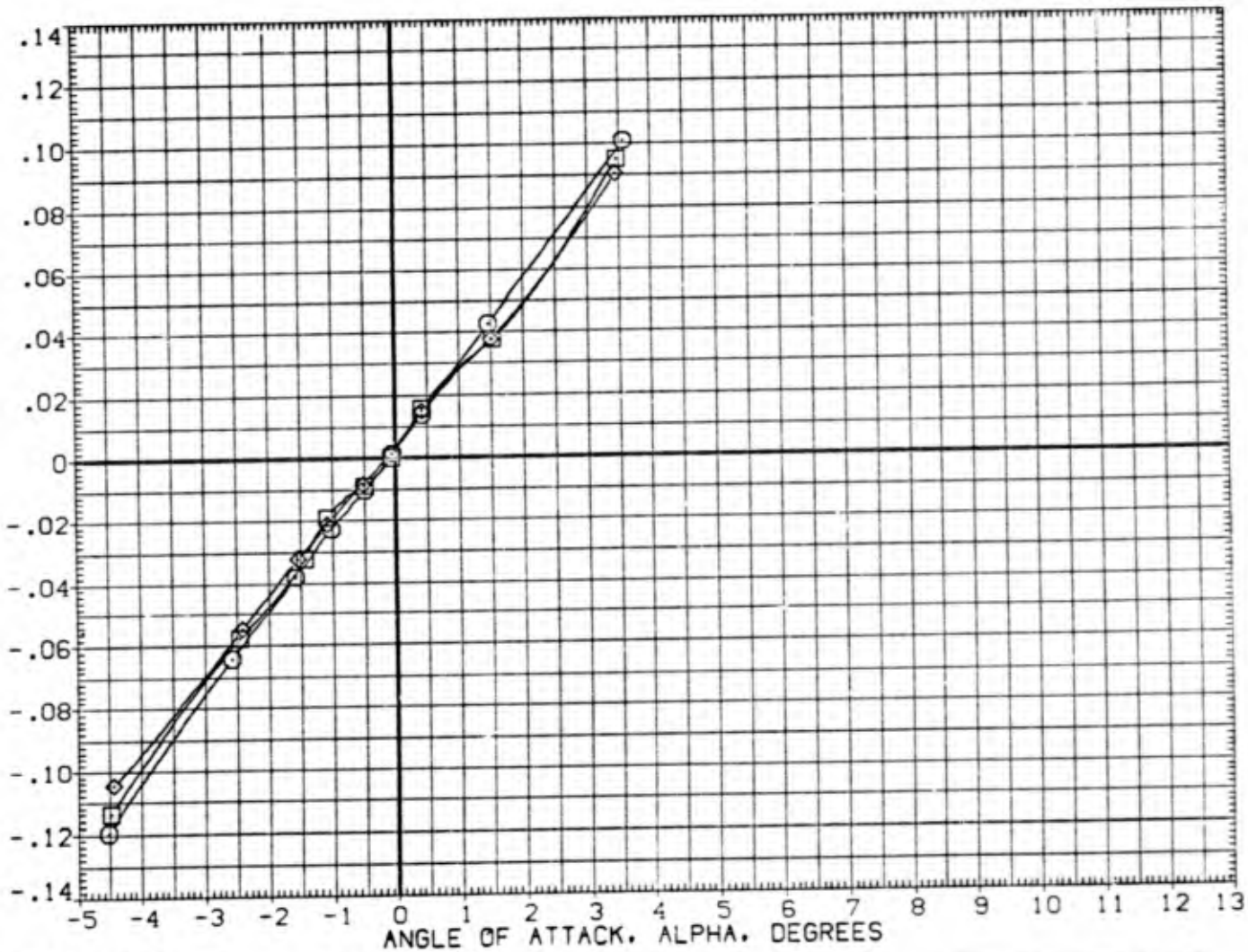
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8033)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.038	BETA	.000	PHI	.000
□	4.303	MACH	.700		
◇	5.844				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



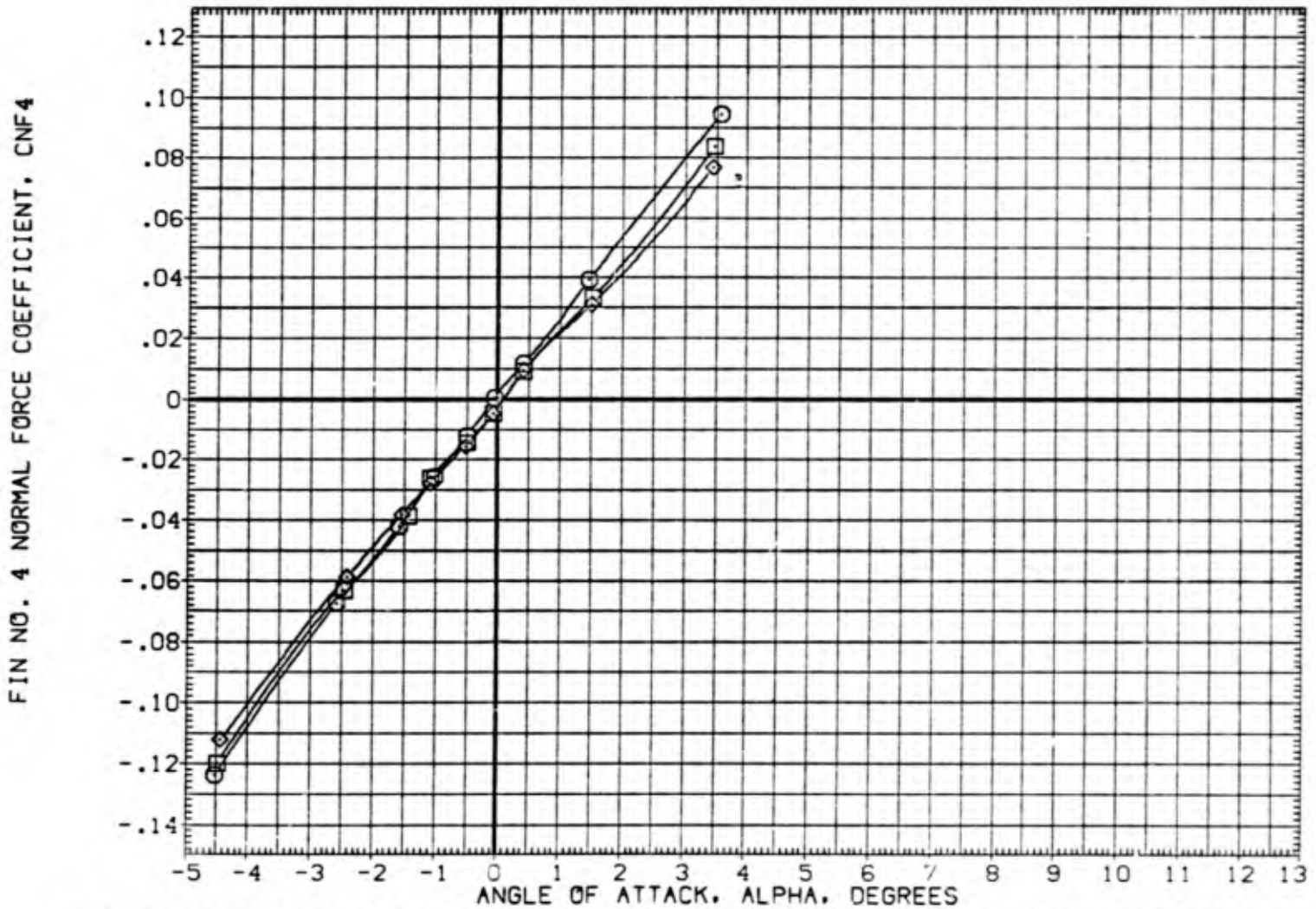
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8033)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.038	BETA	.000	PHI	.000
□	4.303	MACH	.700		
◇	5.844				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



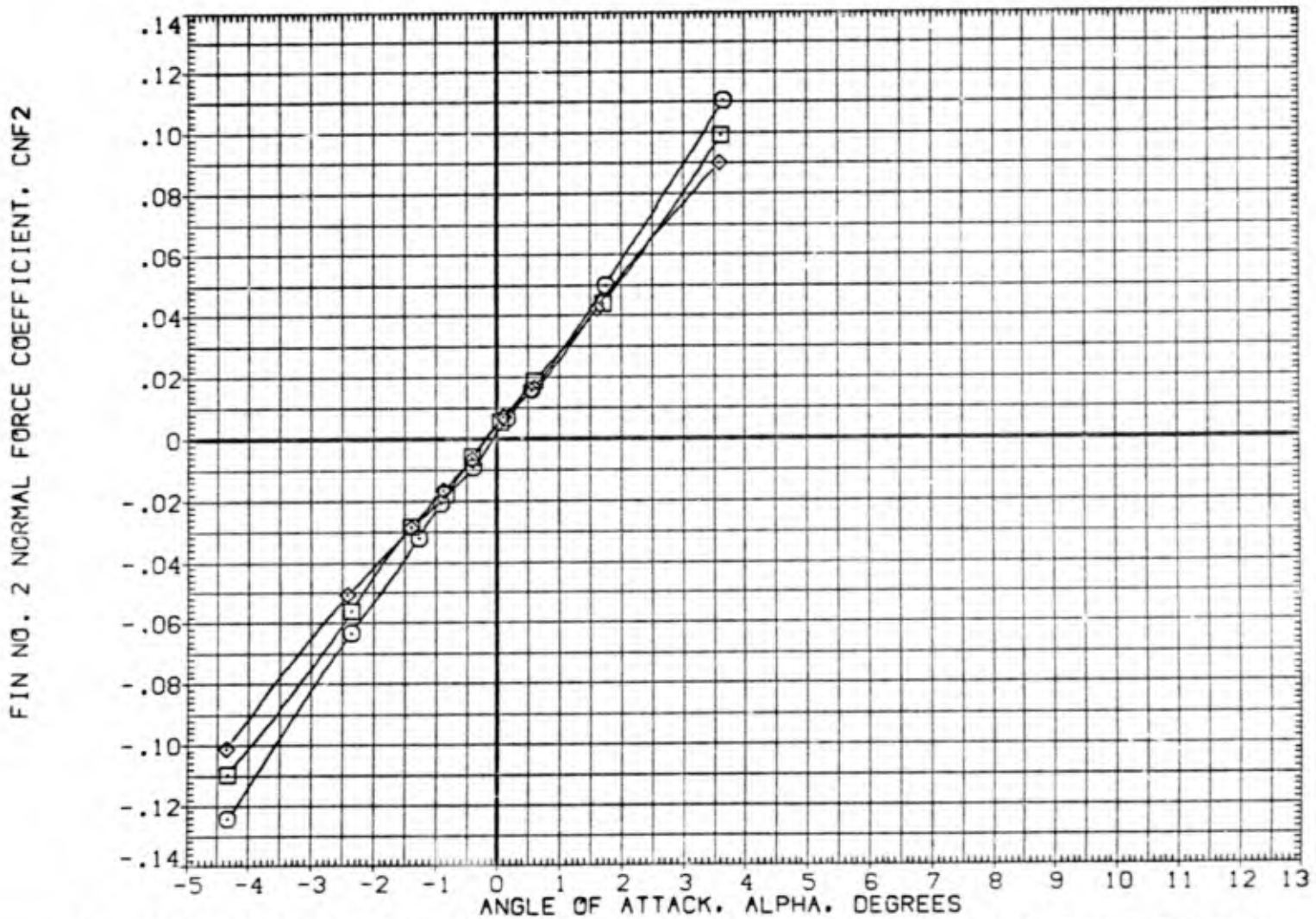
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY. FIN IN FORWARD POSITION(AX8034)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.104	MACH	.900		
◇	5.736				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



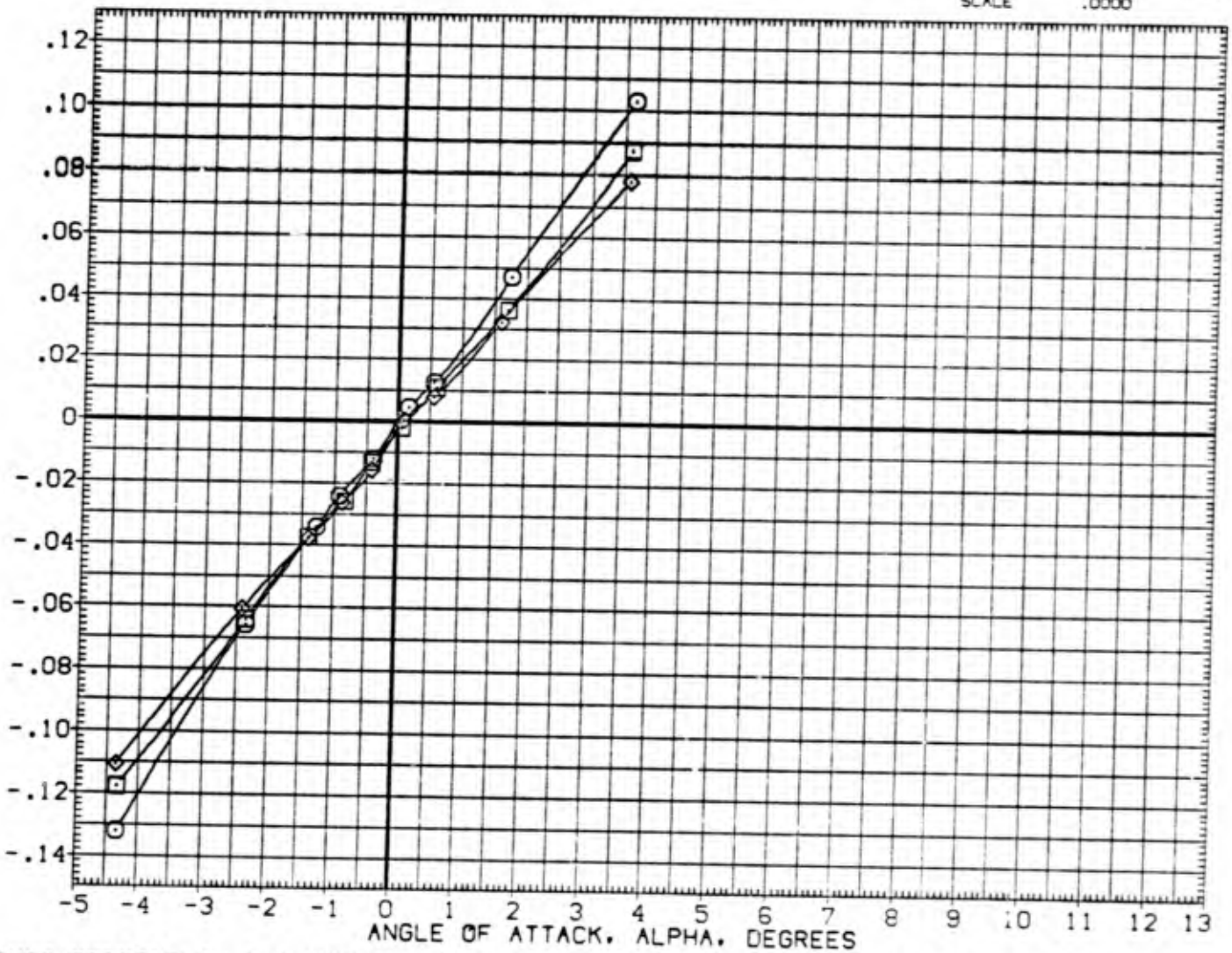
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8034)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.104	MACH	.900		
◇	5.736				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



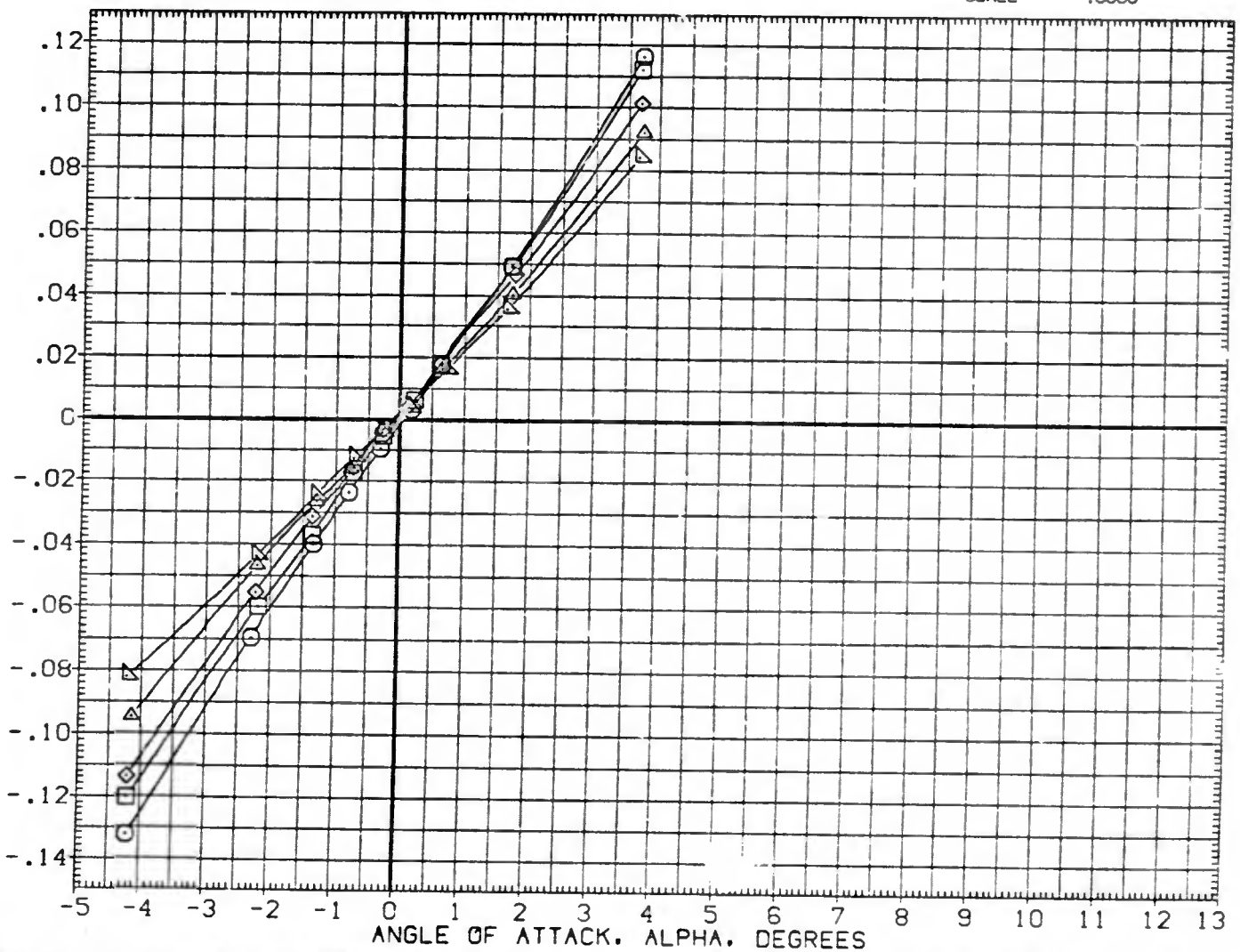
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8035)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.023	BETA	.000	PHI	.000
□	2.704	MACH	1.000		
◇	3.907				
△	5.878				
▽	7.261				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



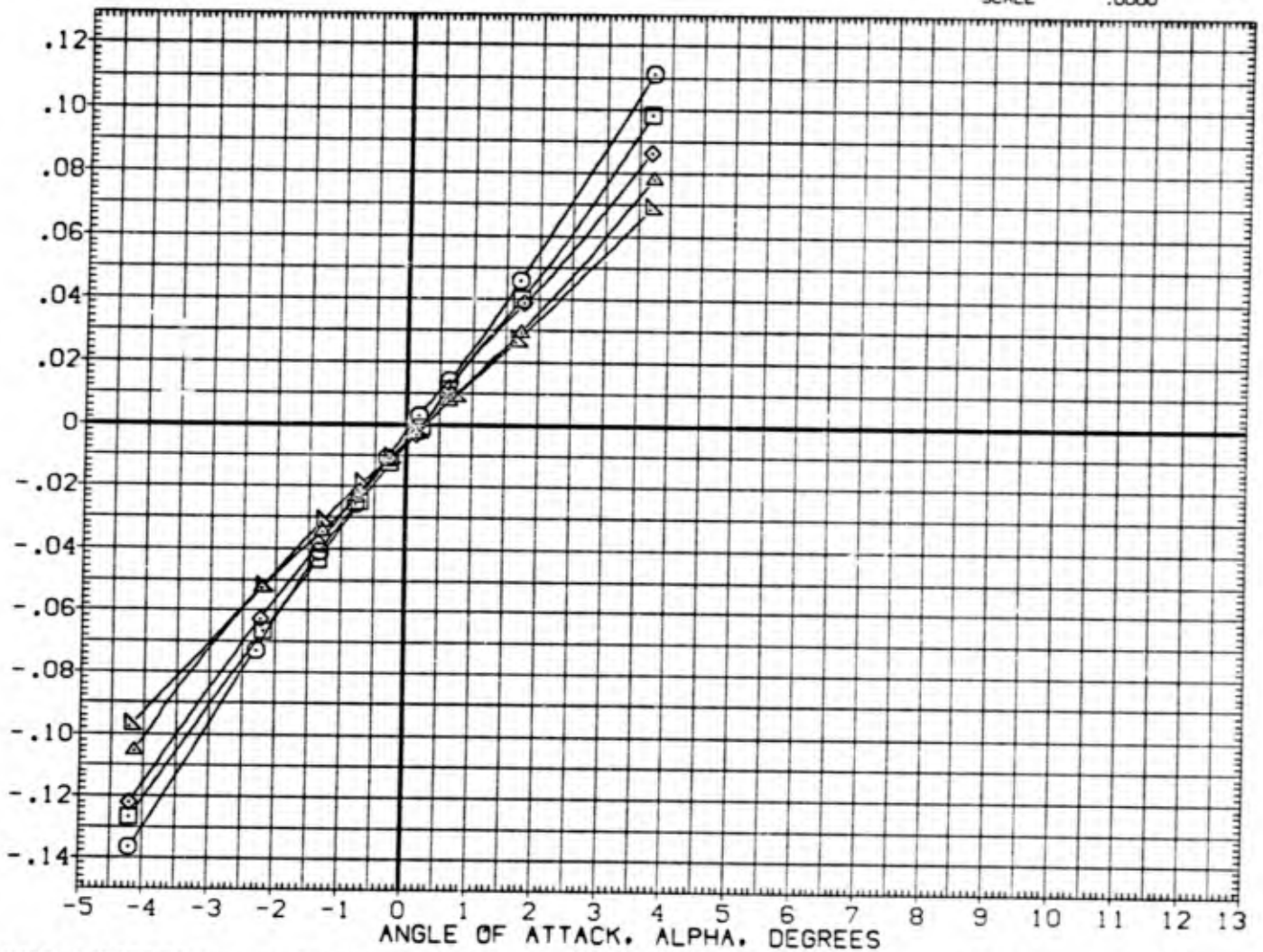
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8035)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.023	BETA	.000	PHI	.000
□	2.704	MACH	1.000		
◇	3.907				
△	5.878				
▱	7.261				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



FIN NO. 4 NORMAL FORCE COEFFICIENT, CNF4

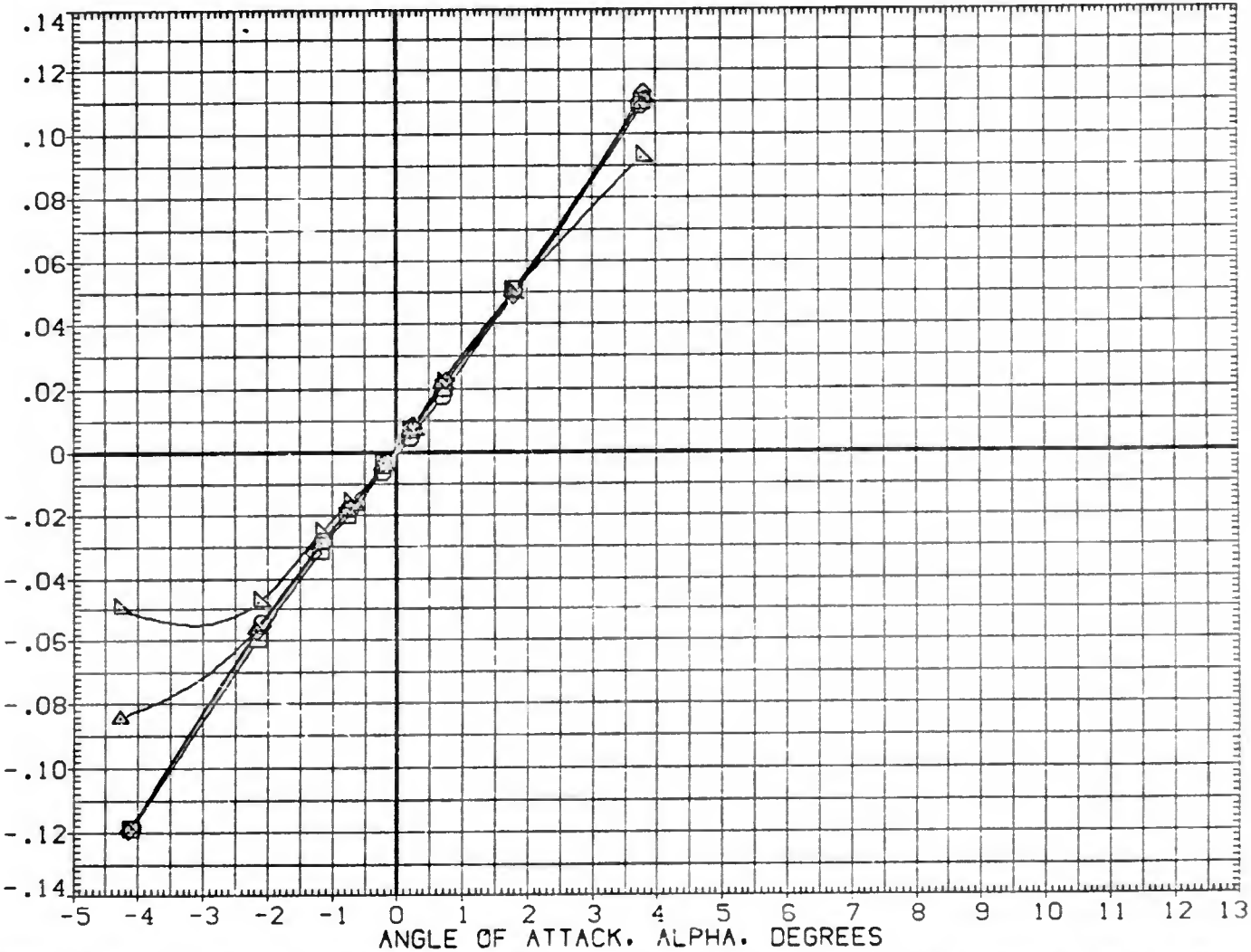
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8036)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.002	BETA	.000	PHI	.000
□	2.475	MACH	1.200		
◇	4.011				
△	6.015				
▷	7.441				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



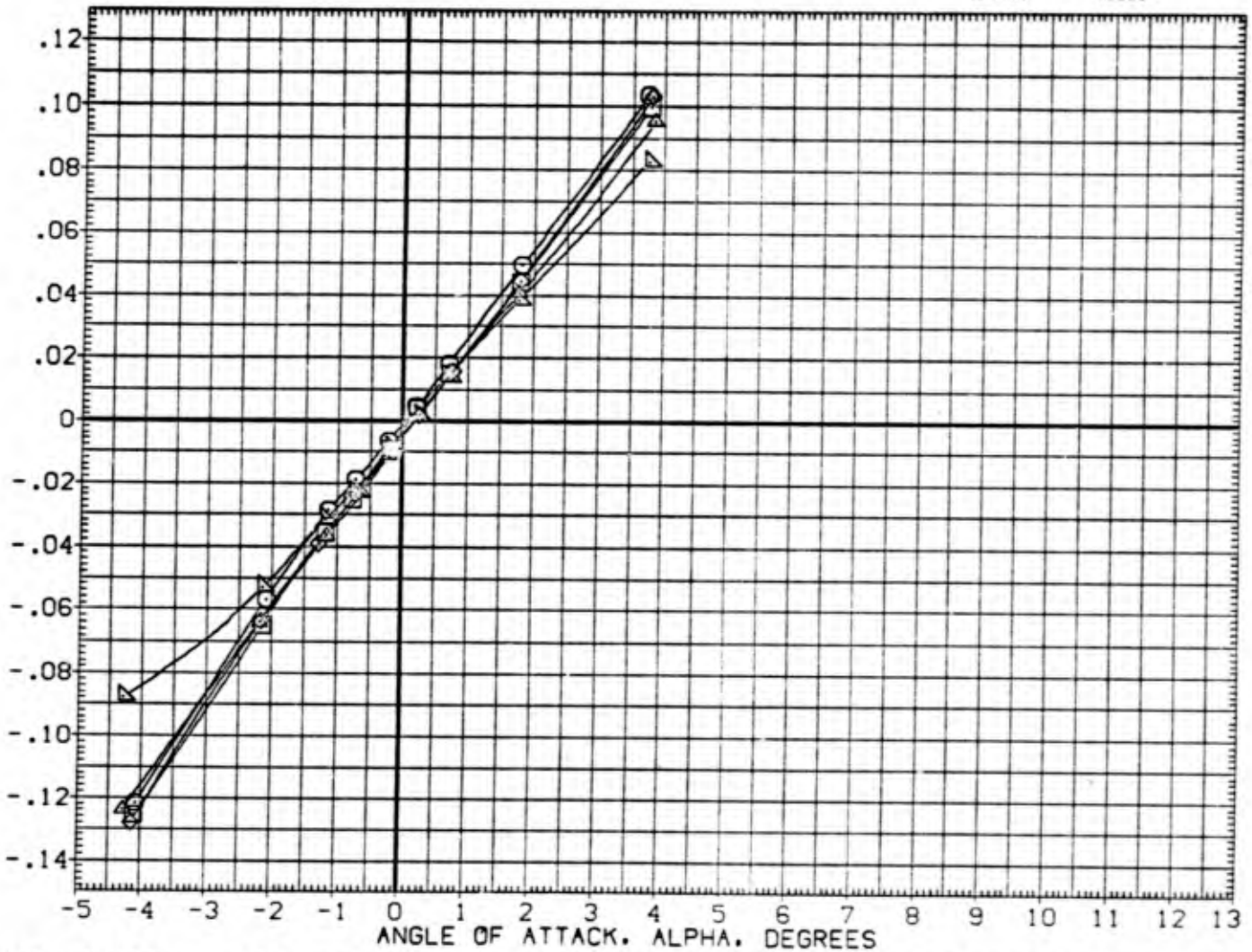
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(AX8036)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.002	BETA	.000	PHI	.000
□	2.475	MACH	1.200		
◇	4.011				
△	6.015				
▽	7.441				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



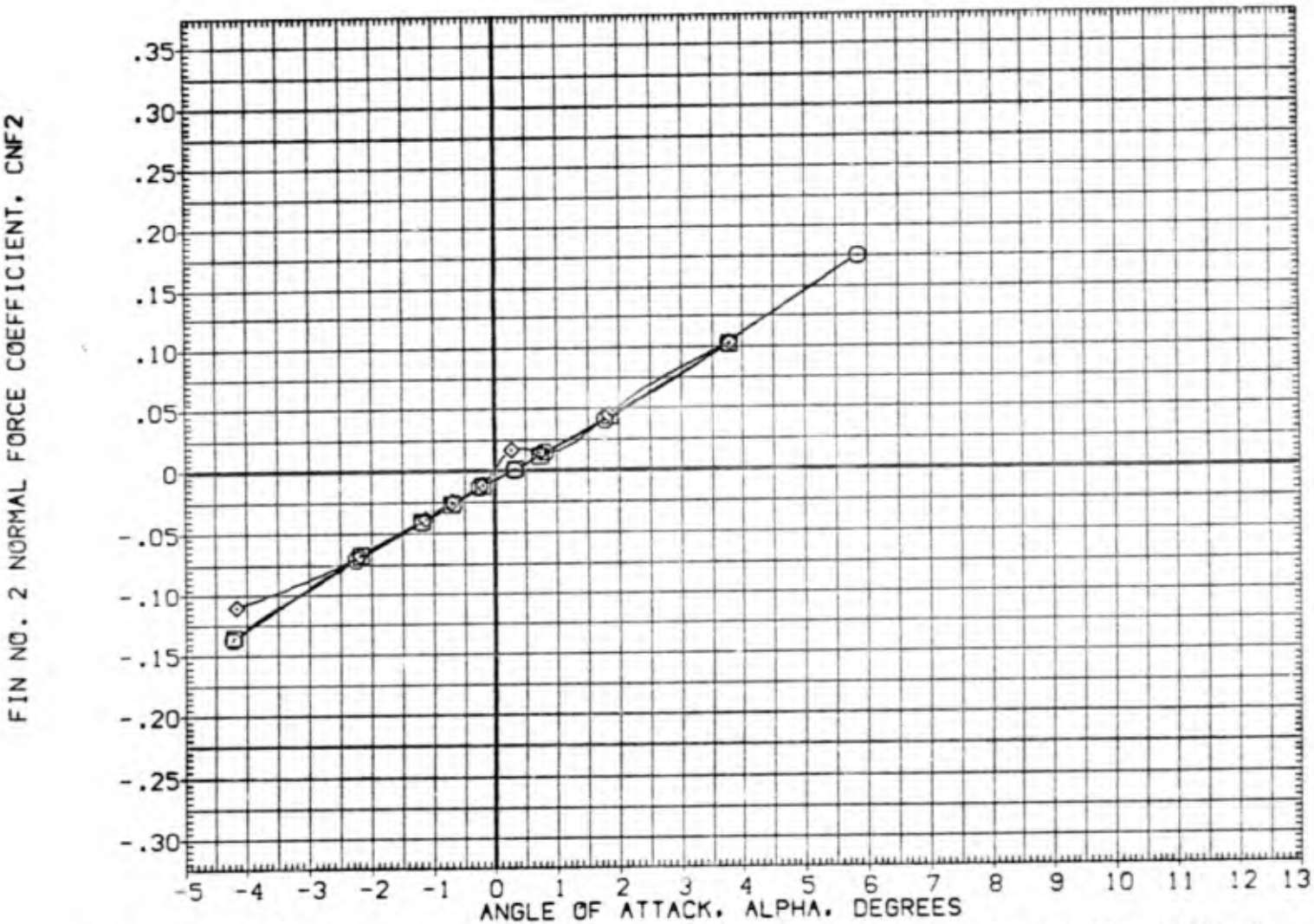
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY. FIN IN FORWARD POSITION(BX8037)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.135	MACH	1.250		
◇	5.952				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



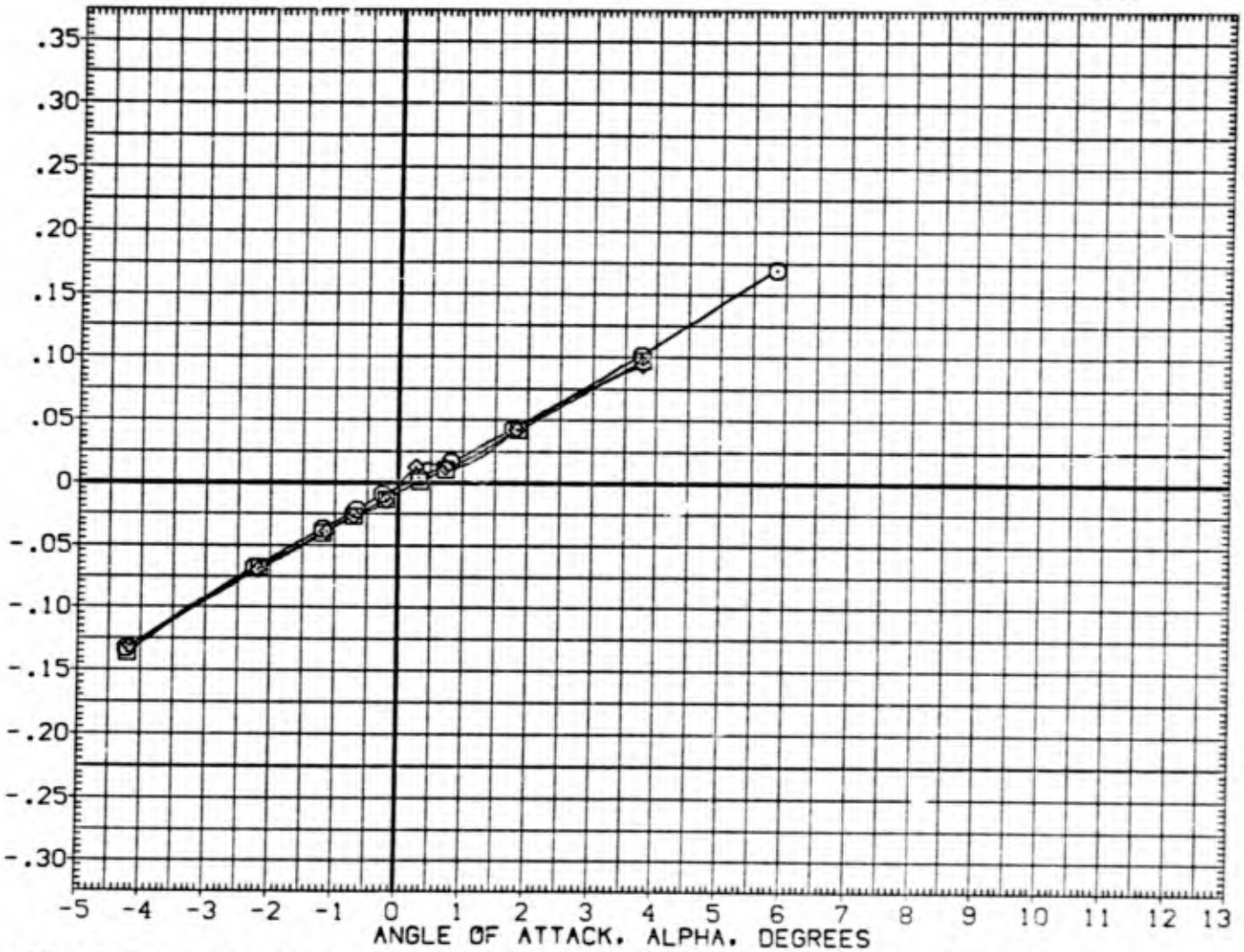
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF1) BODY, FIN IN FORWARD POSITION(BX8037)

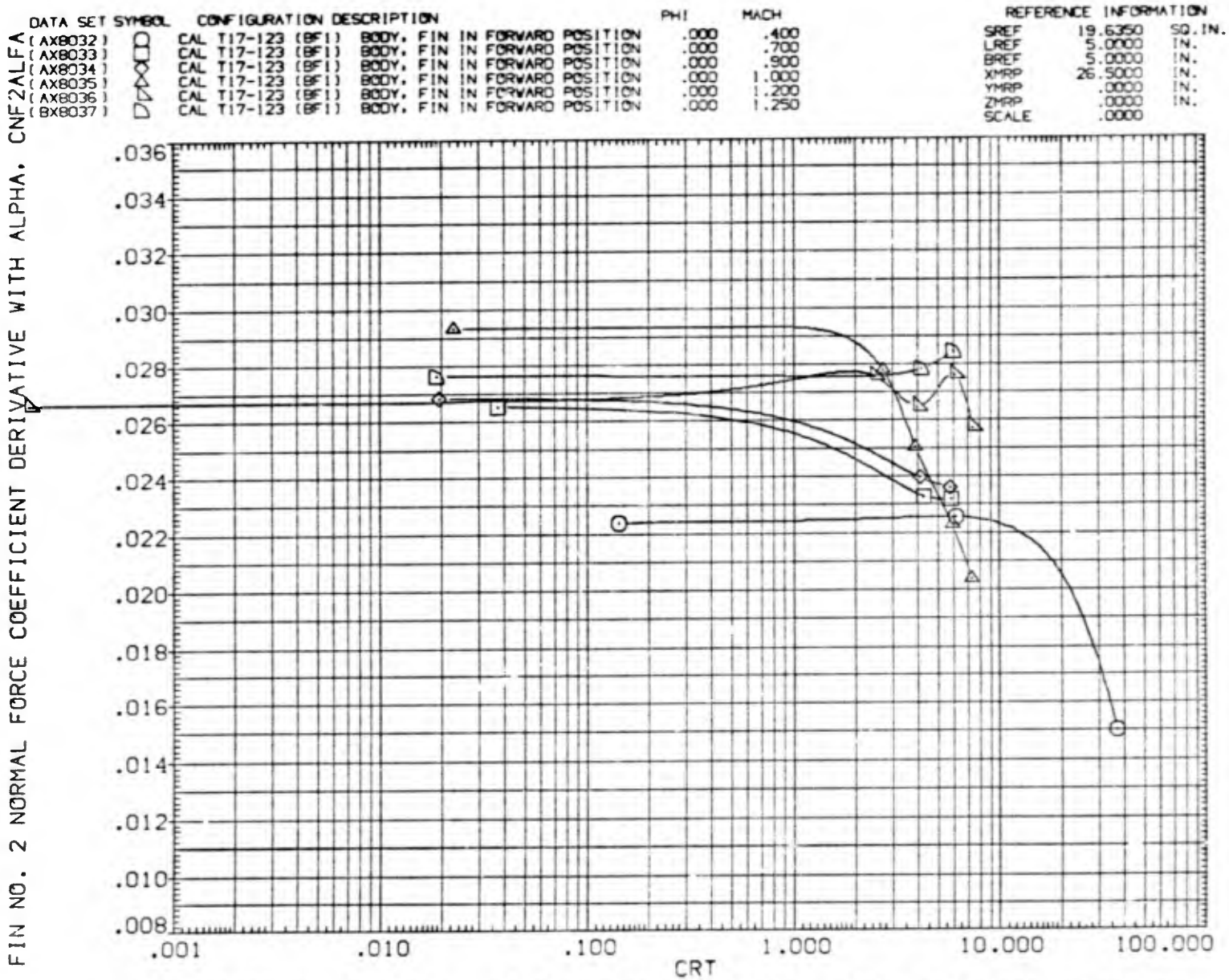
SYMBOL	CRT		PARAMETRIC VALUES		
○	.019	BETA	.000	PHI	.000
□	4.135	MACH	1.250		
◇	5.952				

REFERENCE INFORMATION

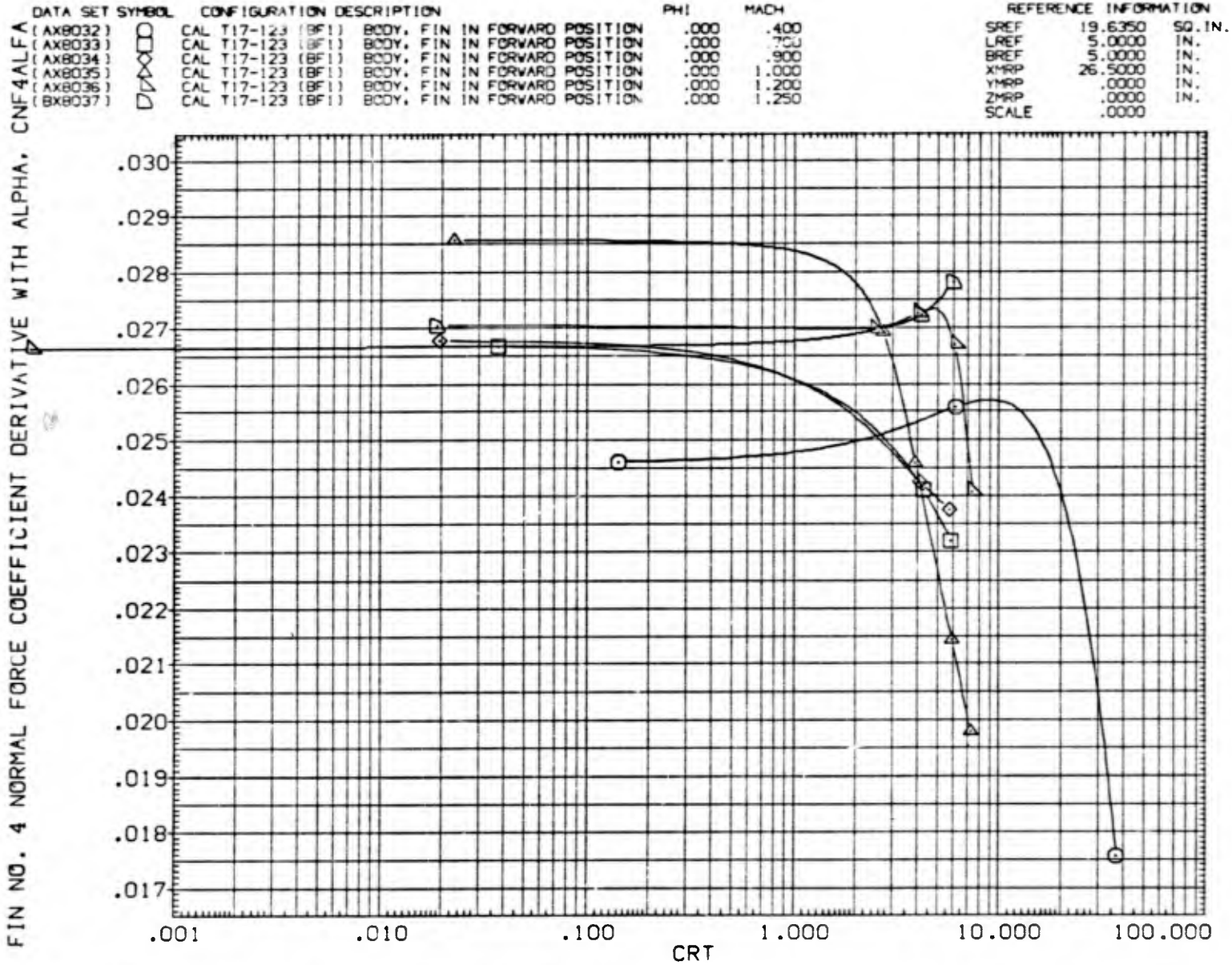
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

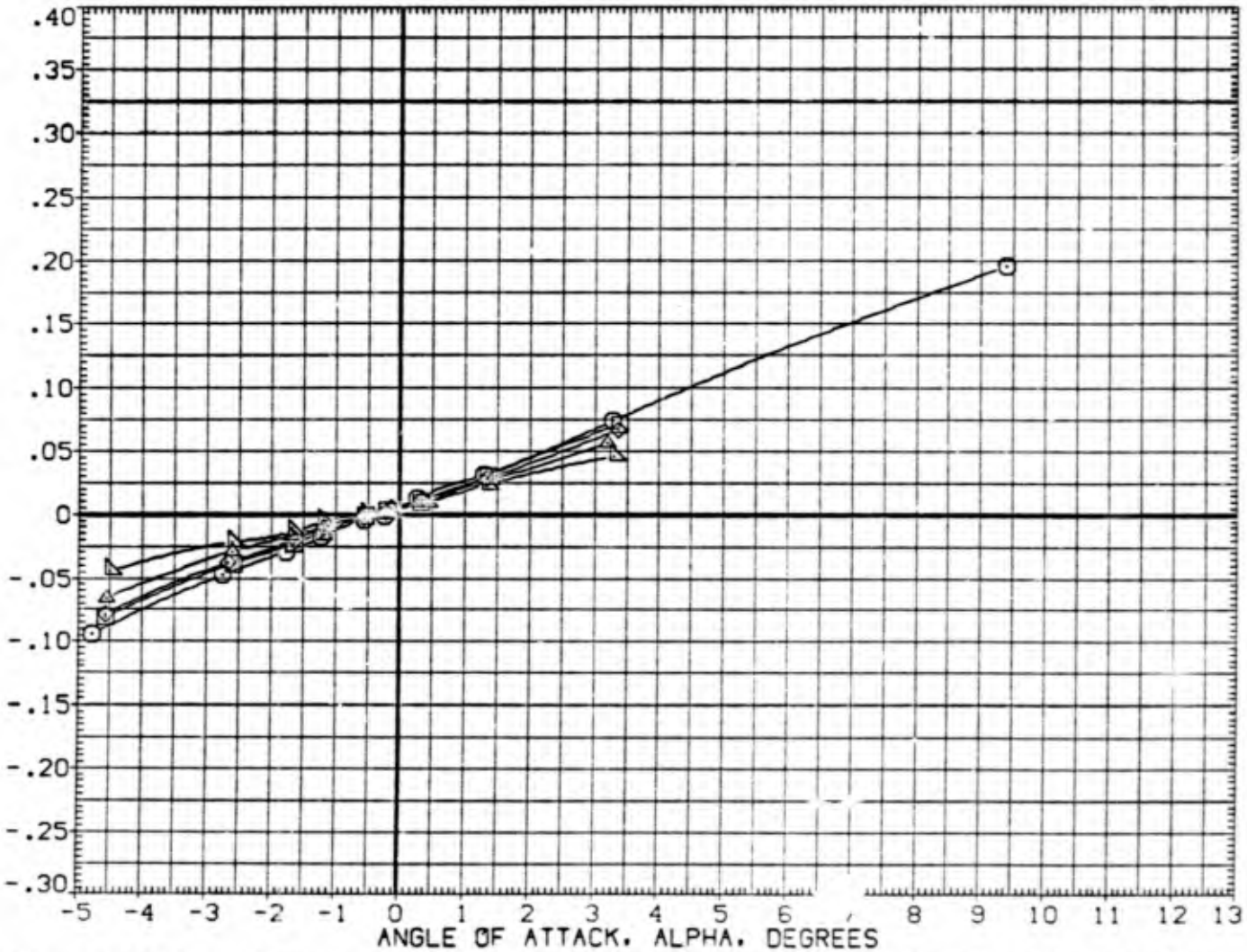


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8013)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.066	BETA	.000	PHI	.000
□	4.146	MACH	.700		
◇	5.906				
△	10.047				
◺	20.305				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

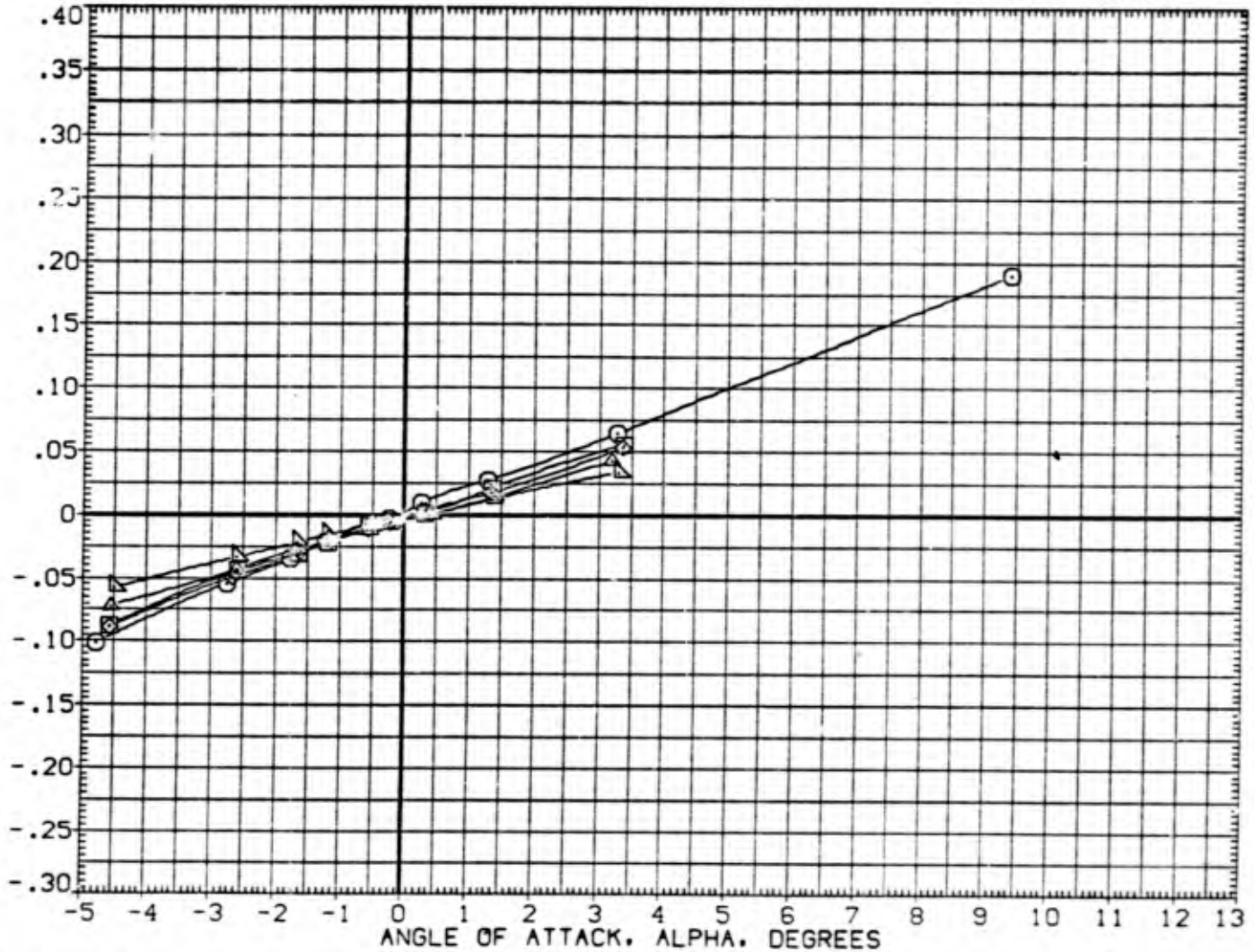


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY. FIN IN FORWARD POSITION(AX8013)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.066	BETA	.000	PHI	.000
□	4.146	MACH	.700		
◇	5.906				
△	10.047				
▽	20.305				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

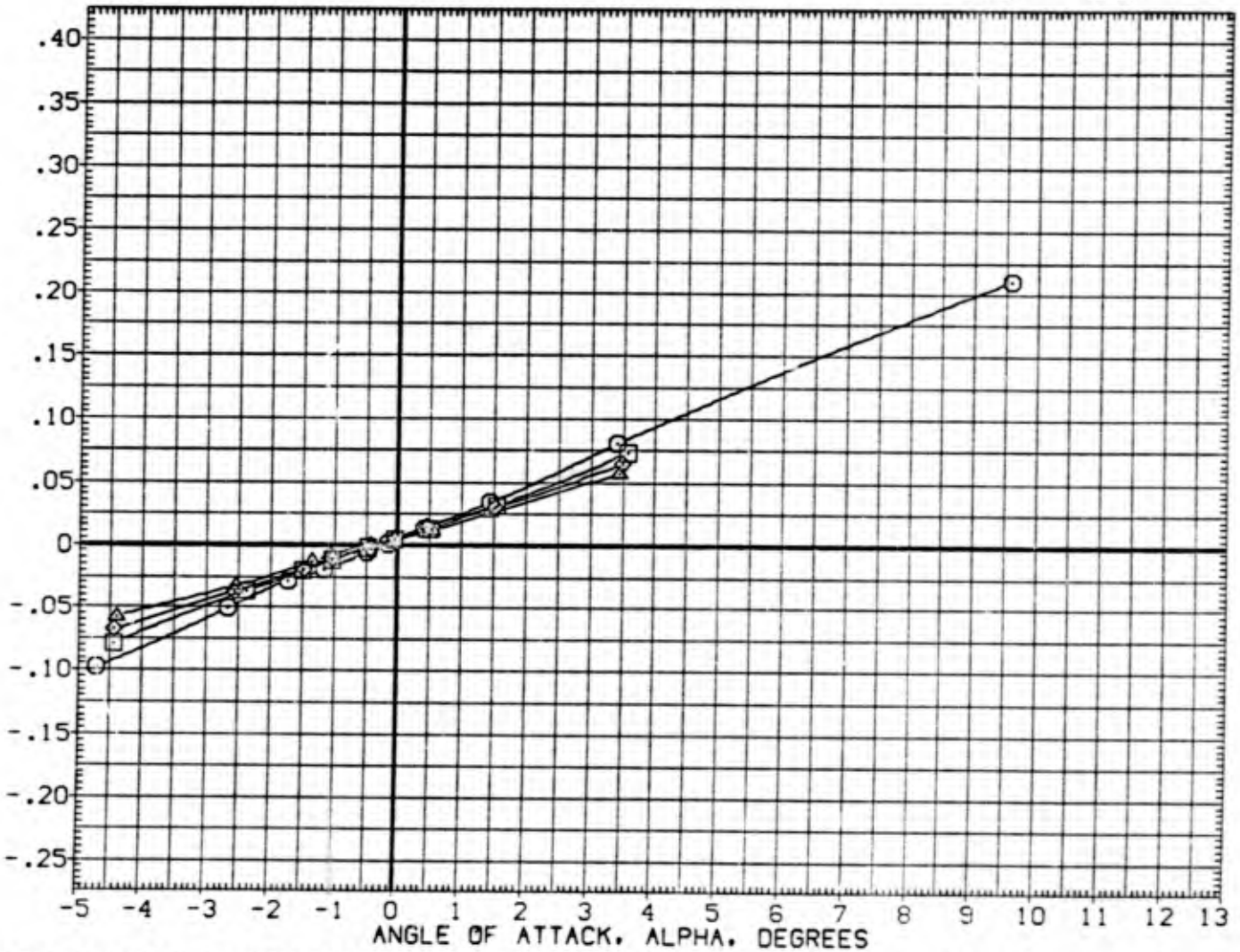


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

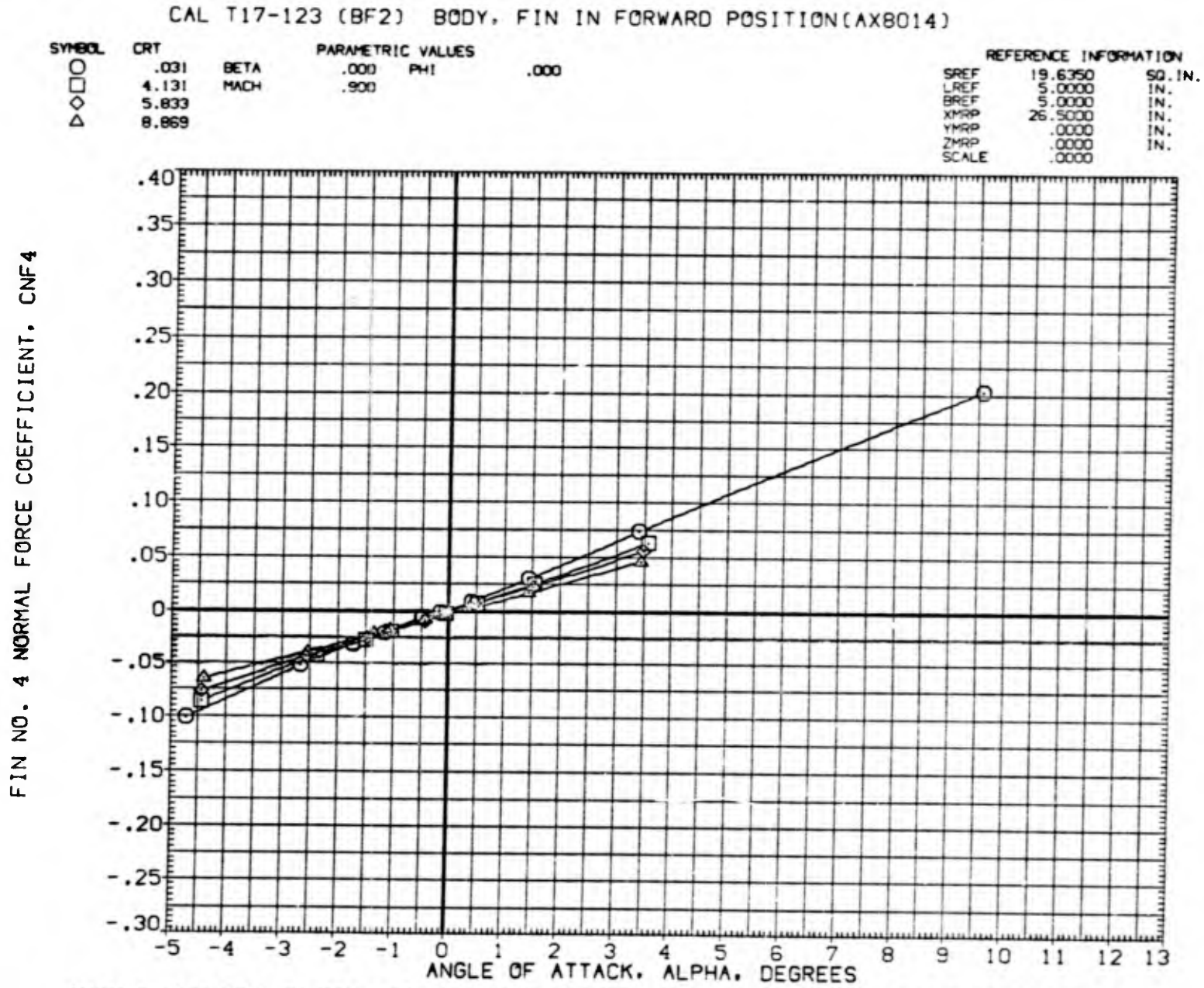
CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8014)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.031	BETA	.000	PHI	.000
□	4.131	MACH	.900		
◇	5.833				
△	8.869				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8015)

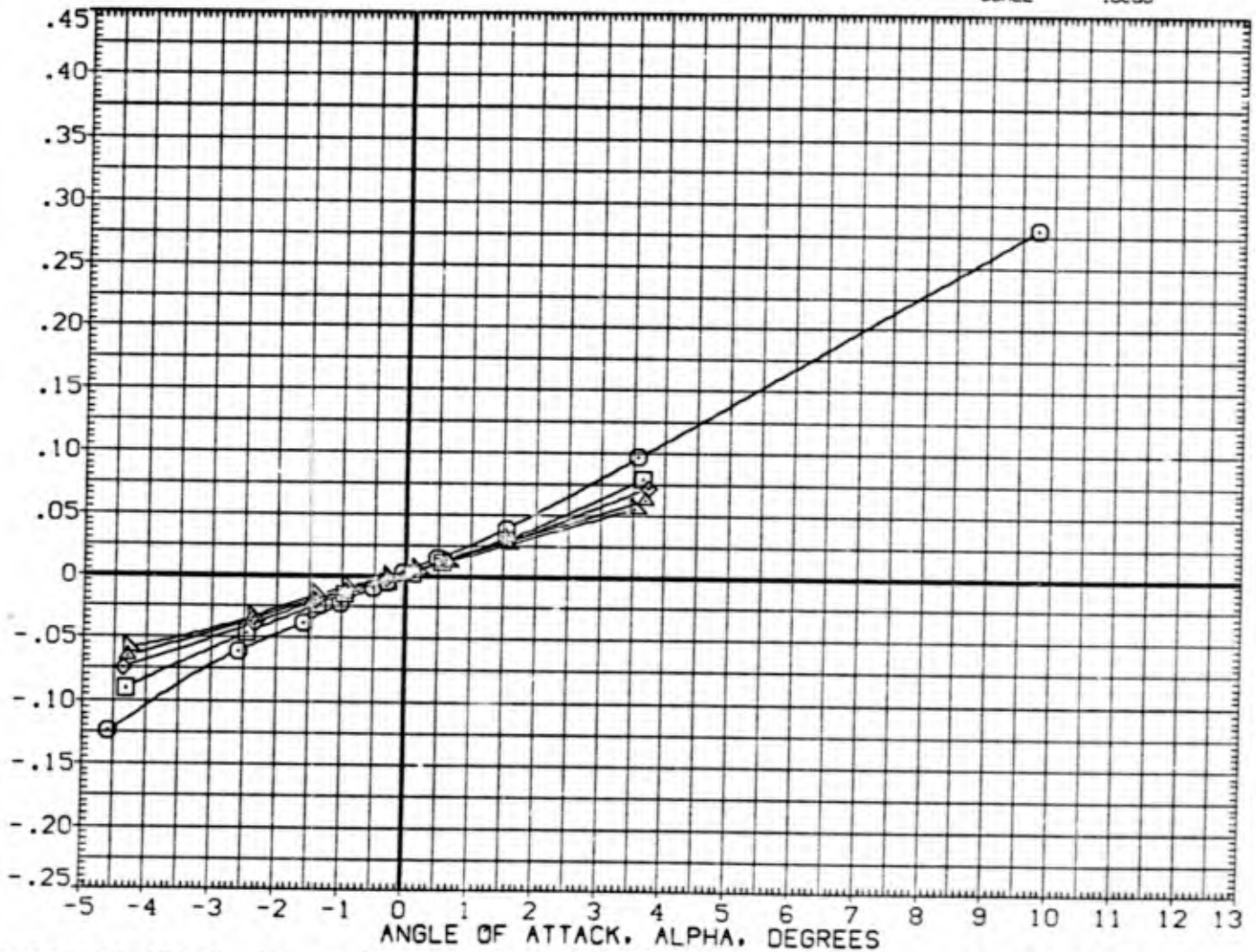
SYMBOL	CRT
○	.035
□	2.633
◇	4.177
△	5.988
▱	7.054

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



FIN NO. 2 NORMAL FORCE COEFFICIENT, CNF2

THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8015)

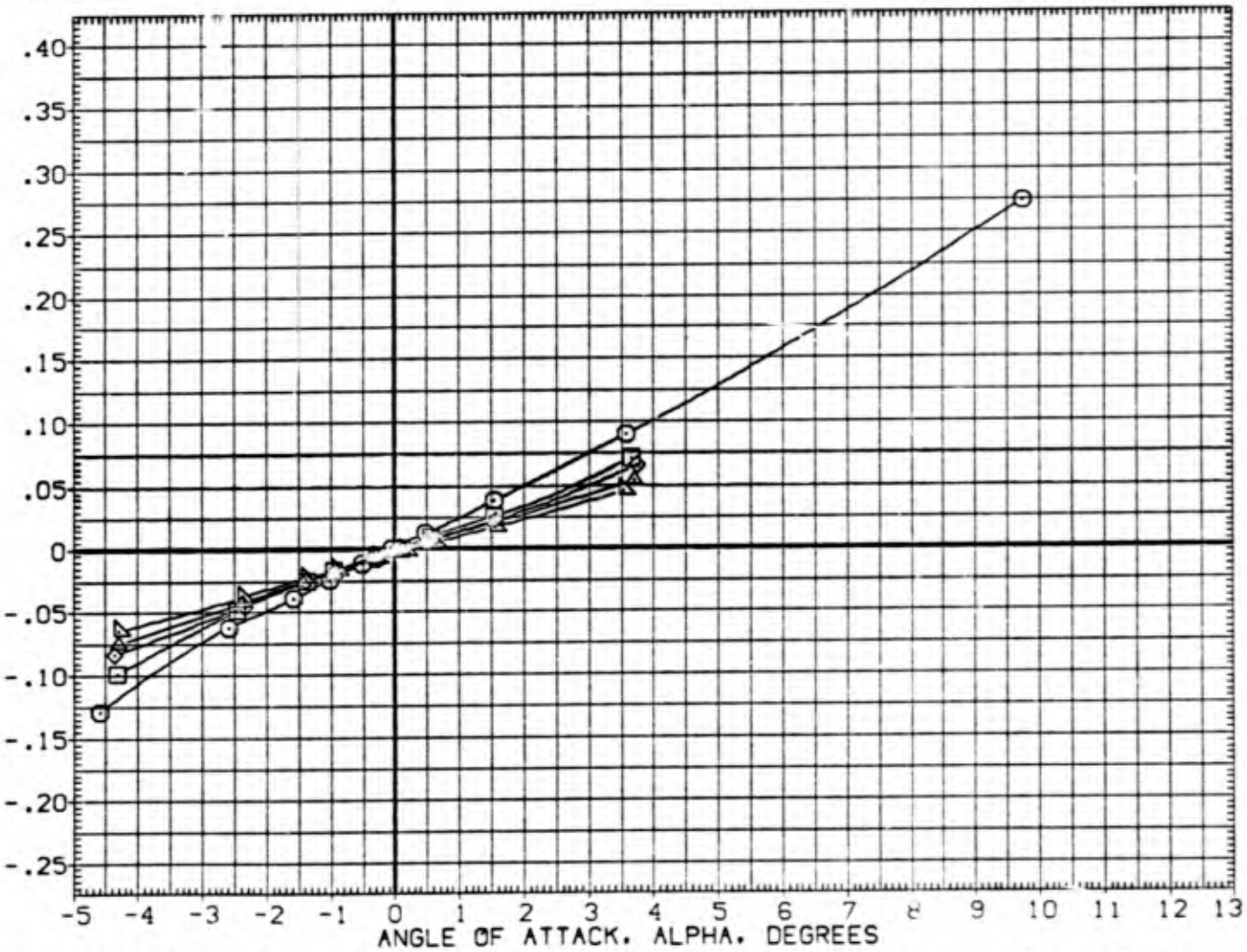
SYMBOL	CRT
○	.035
□	2.633
◇	4.177
△	5.988
◁	7.054

PARAMETRIC VALUES

BETA	.000	PHI	.000
MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



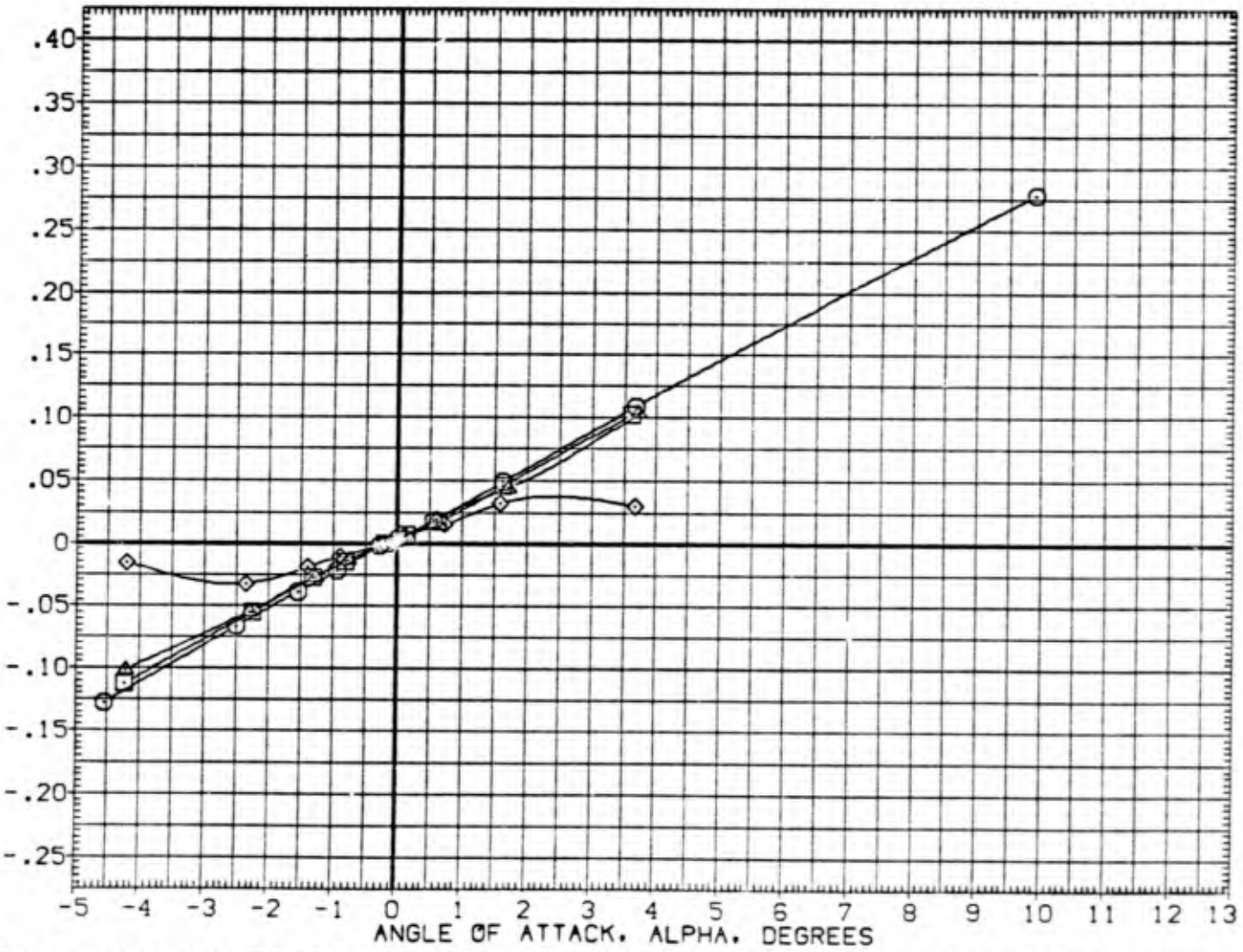
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8016)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.024	BETA	.000	PHI	.000
□	2.370	MACH	1.200		
◇	4.197				
△	5.900				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



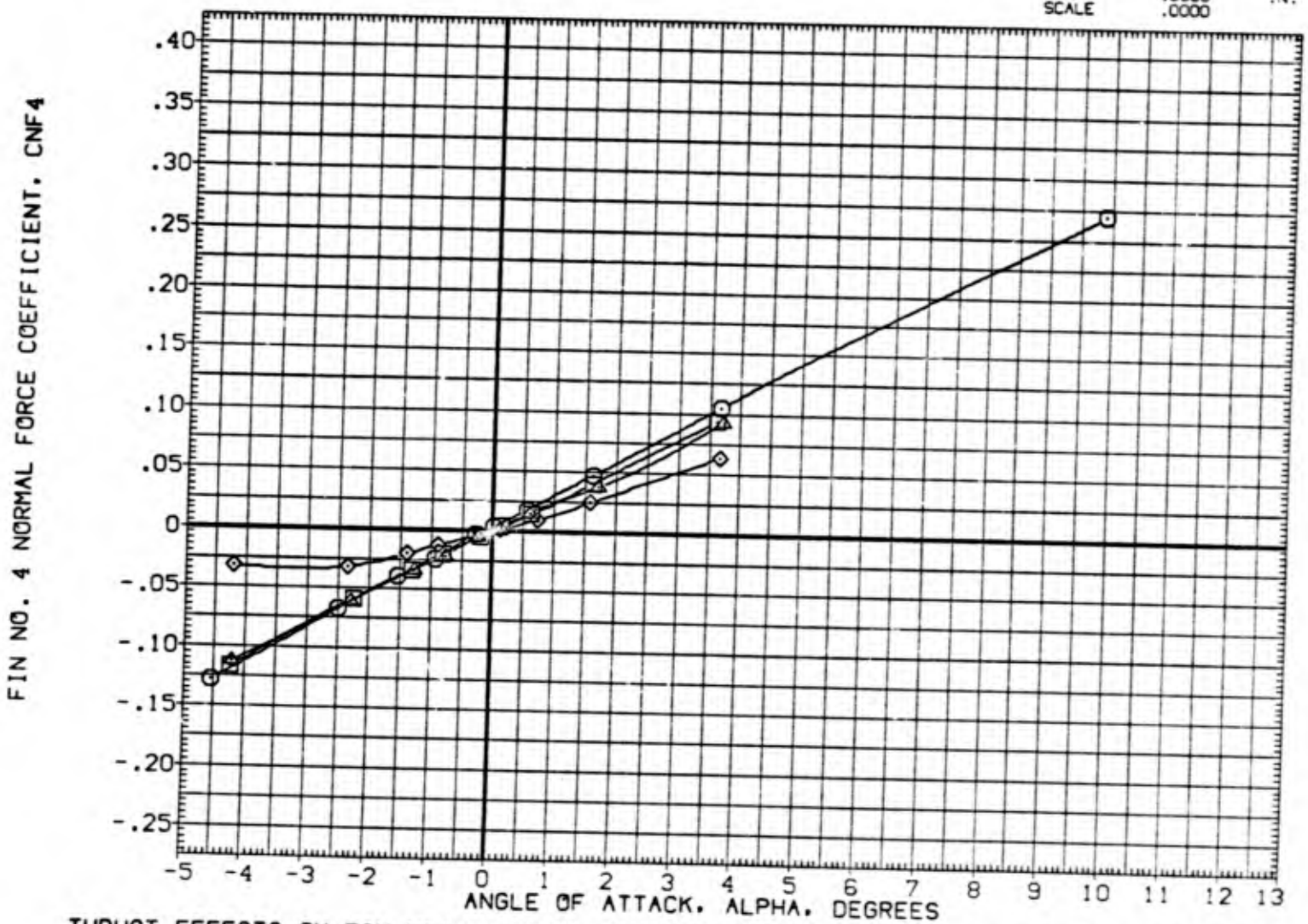
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8016)

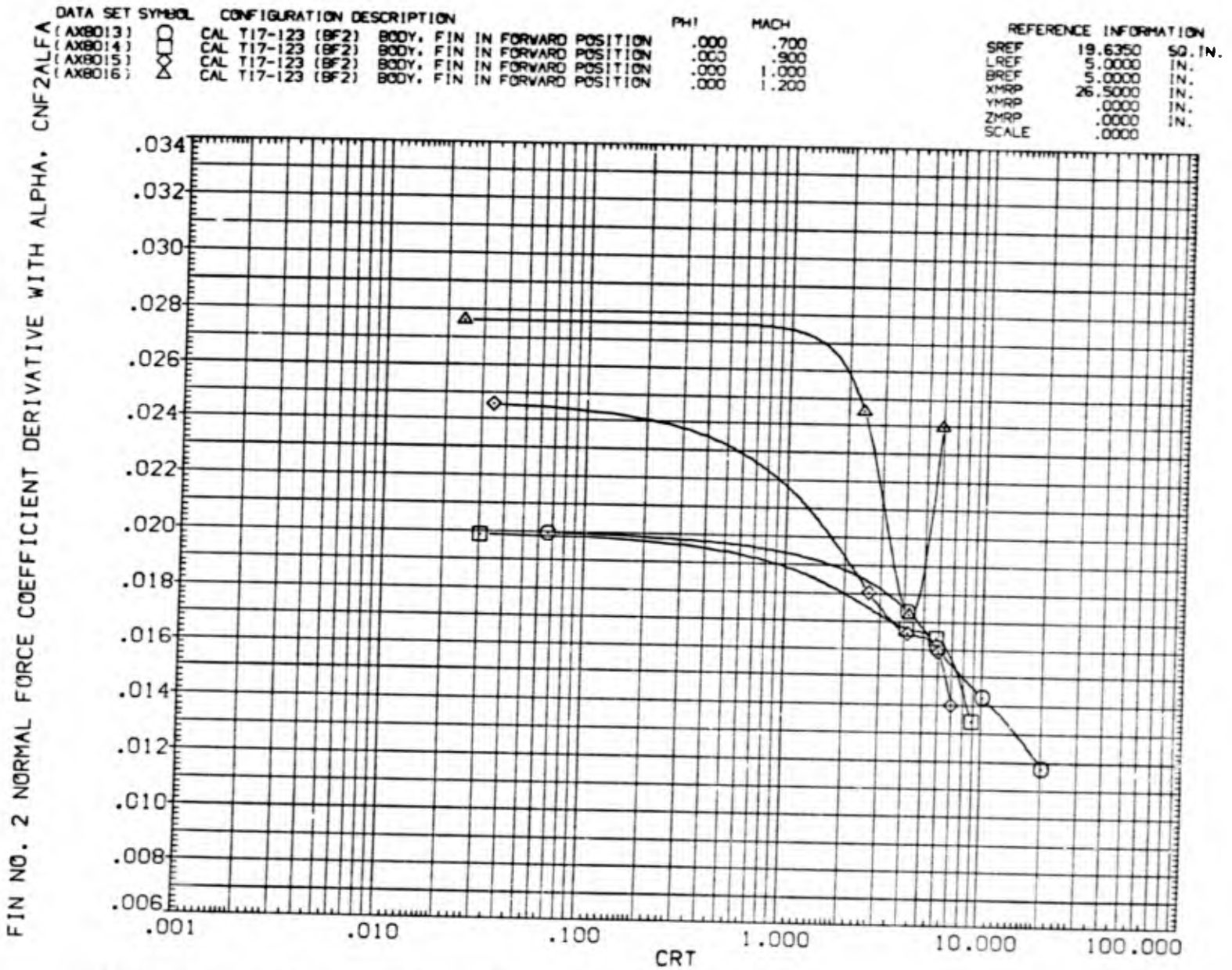
SYMBOL	CRT		PARAMETRIC VALUES		
○	.024	BETA	.000	PHI	.000
□	2.370	MACH	1.200		
◇	4.197				
△	5.900				

REFERENCE INFORMATION

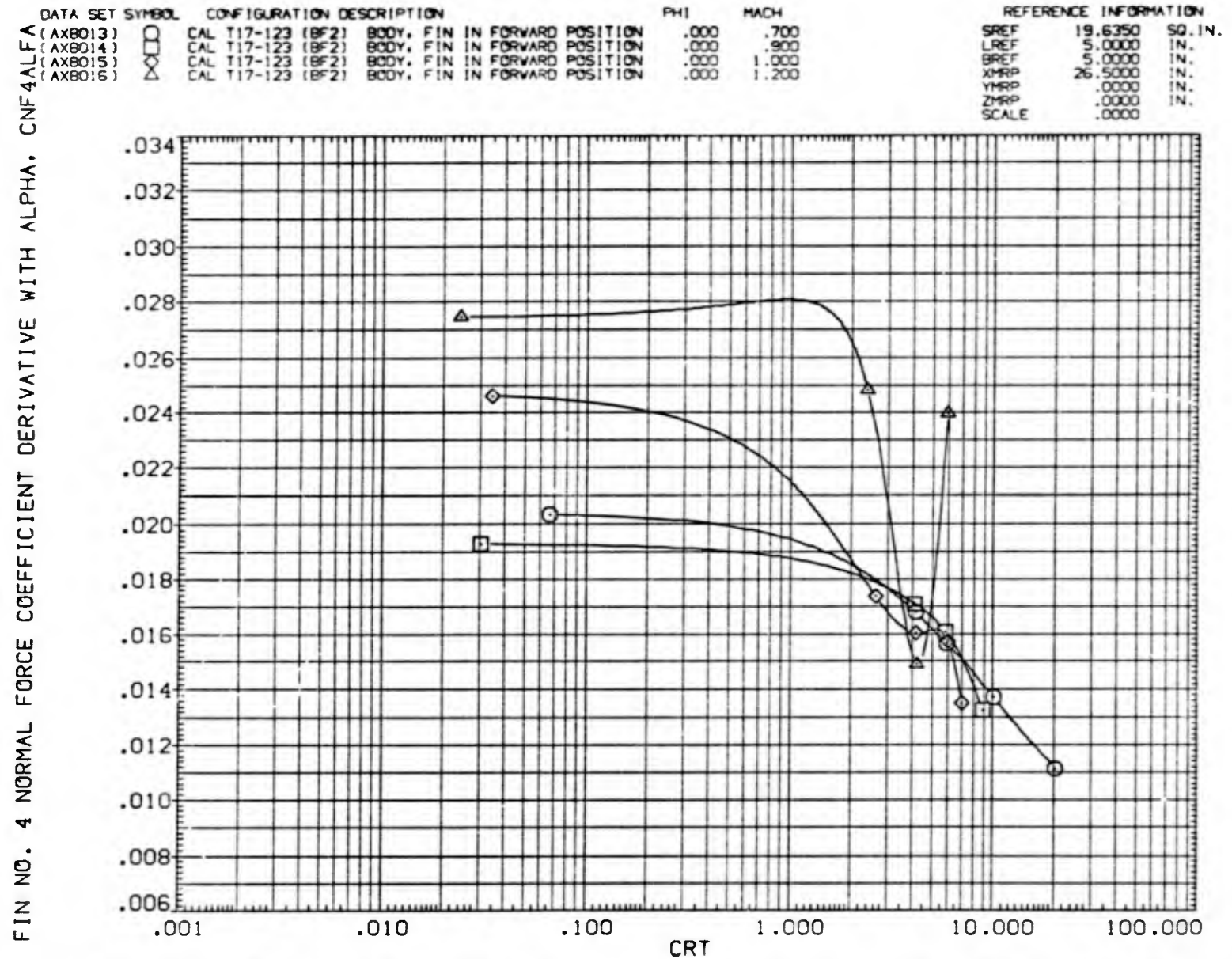
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



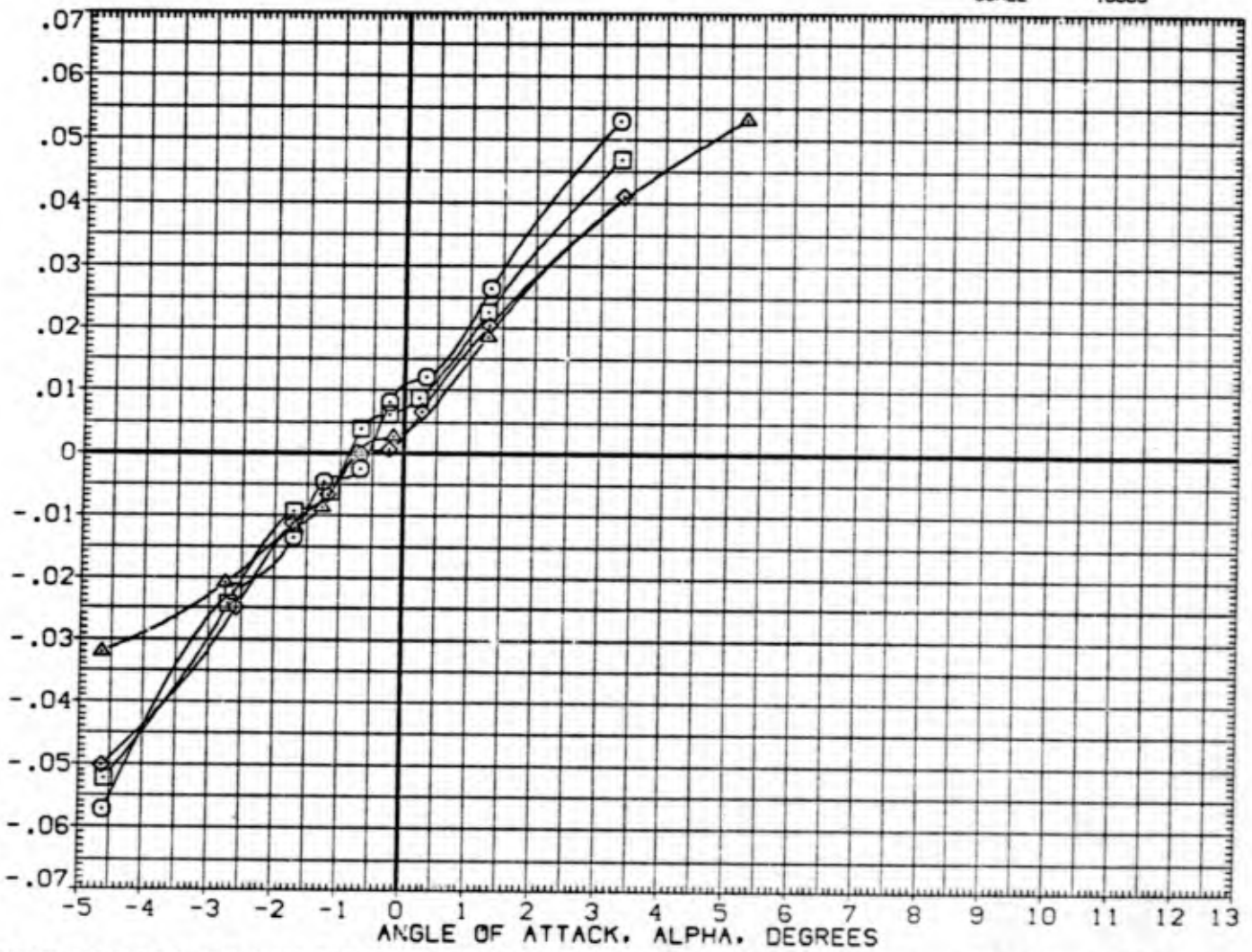
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8020)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.100	BETA	.000	PHI	.000
□	5.689	MACH	.400		
◇	12.146				
△	37.287				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



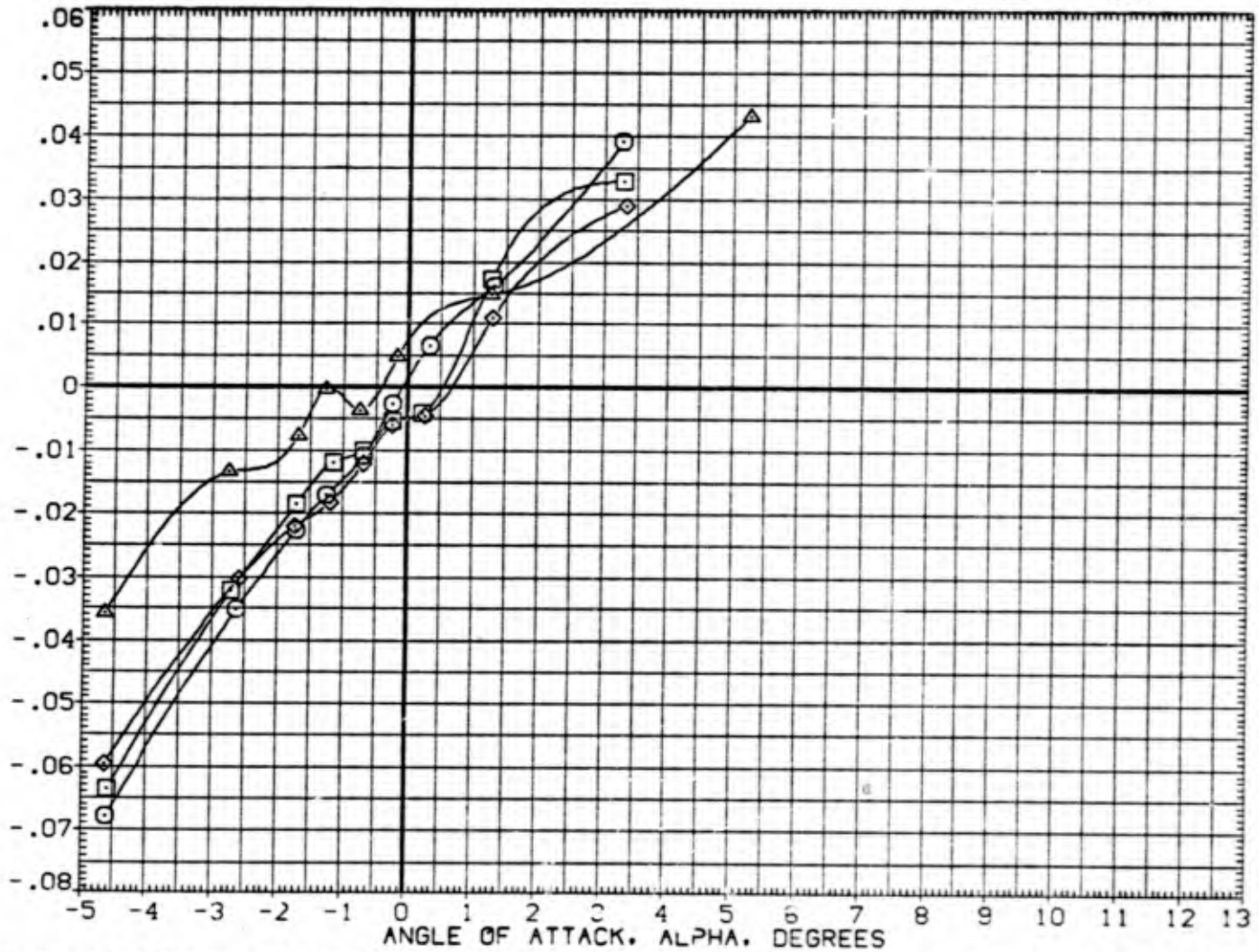
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8020)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.100	BETA	.000	PHI	.000
□	5.689	MACH	.400		
◇	12.146				
△	37.287				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



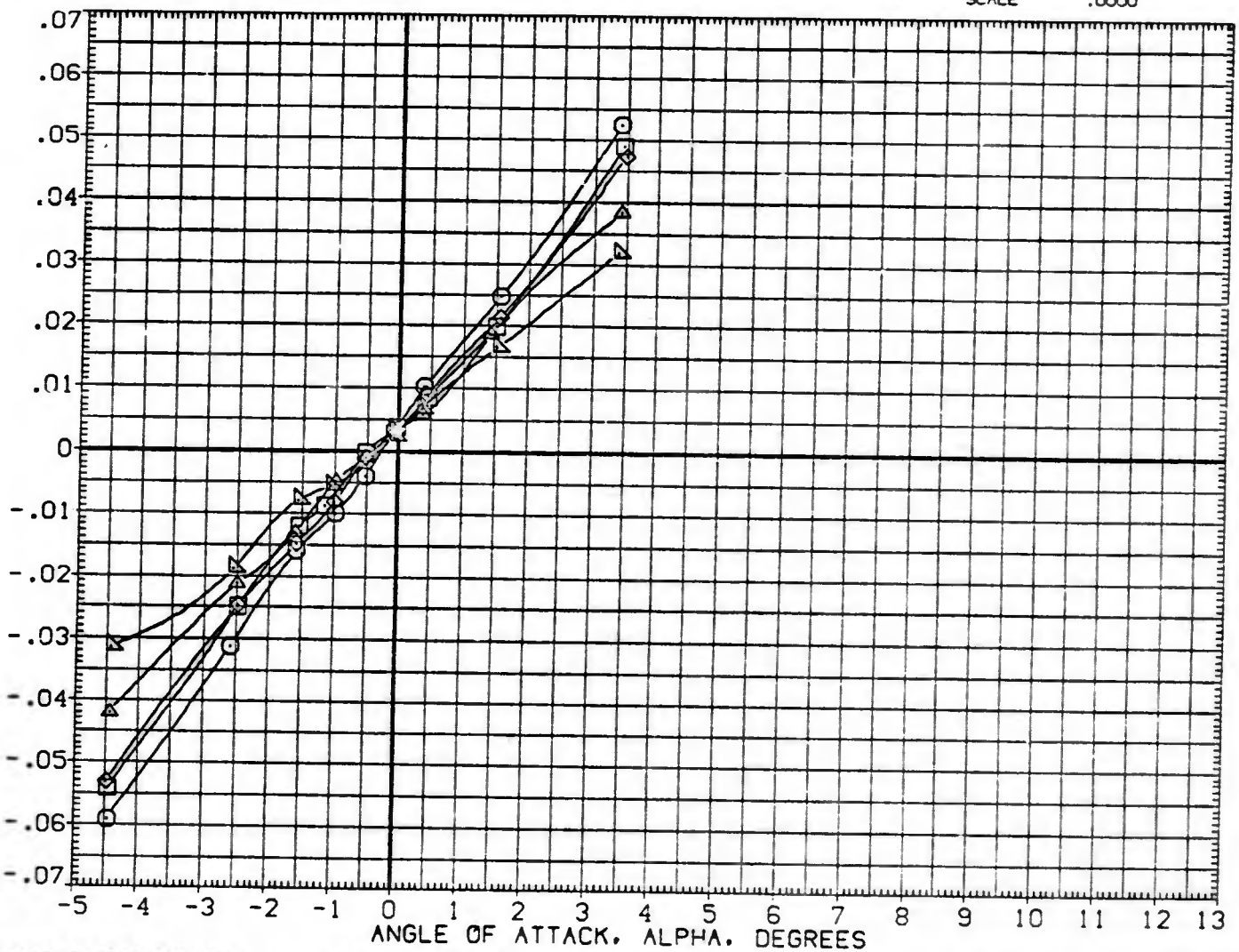
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8021)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	.000
□	4.235	MACH	.700		
◇	5.840				
△	10.396				
▷	20.597				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

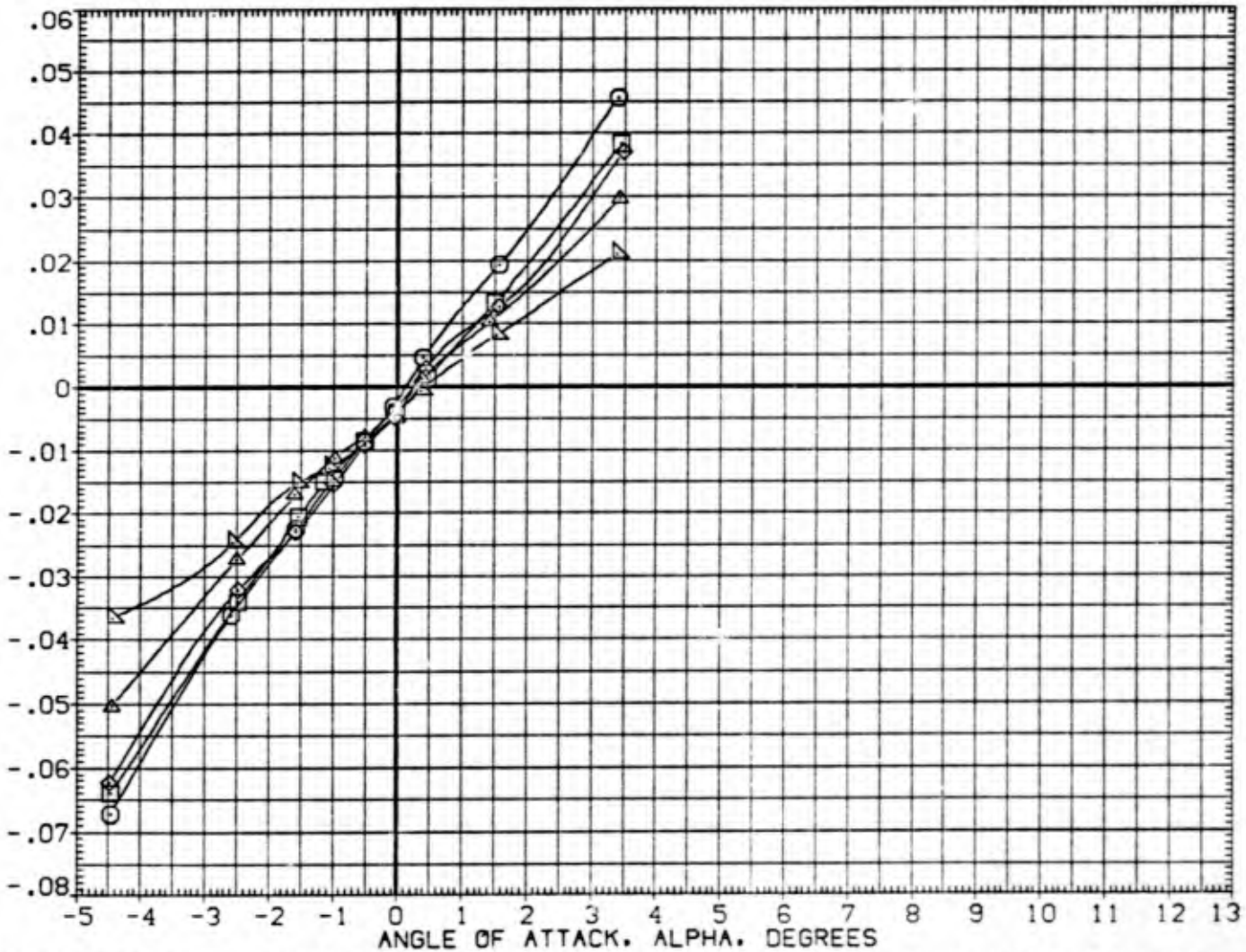


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8021)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	.000
□	4.235	MACH	.700		
◇	5.840				
△	10.396				
▷	20.597				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



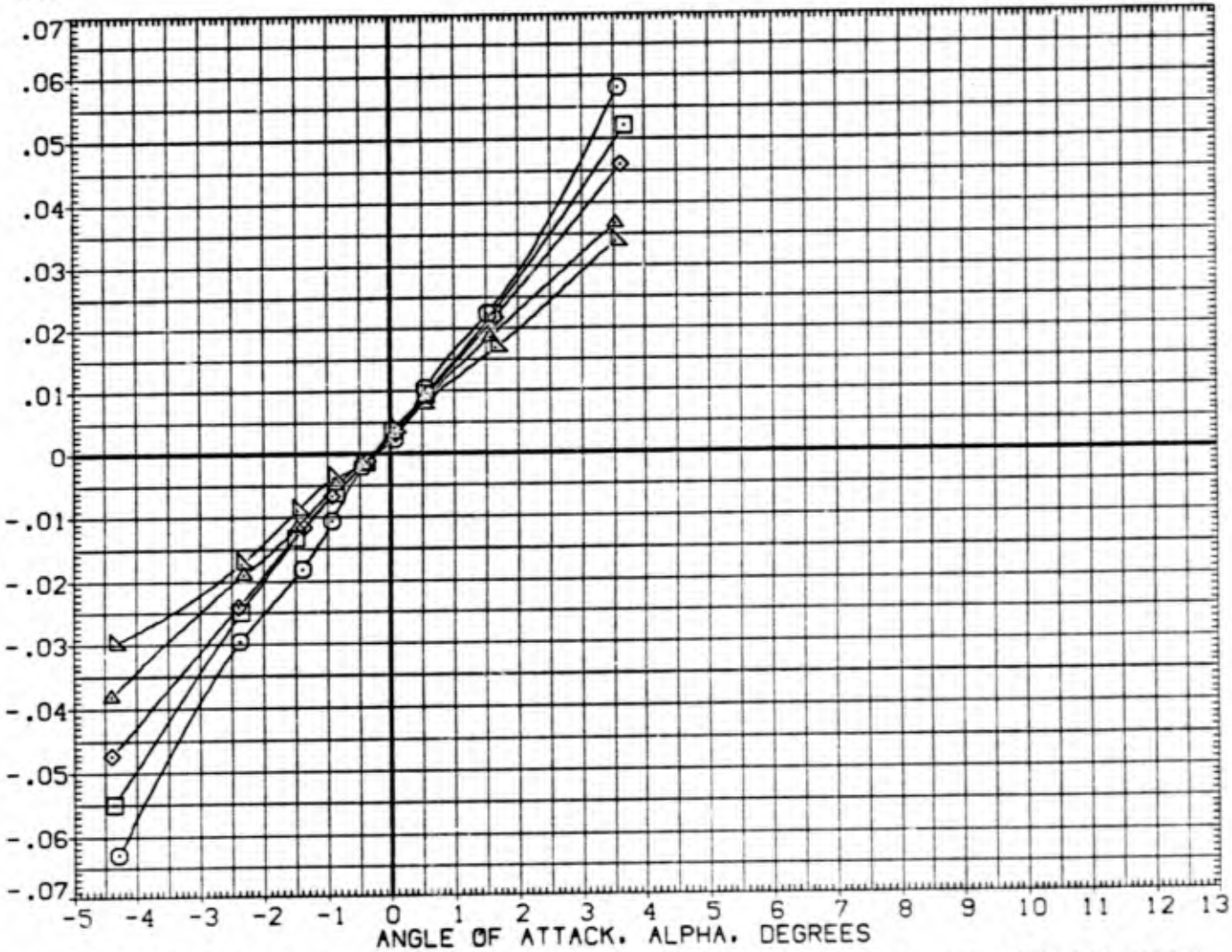
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8022)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.014	BETA	.000	PHI	.000
□	4.012	MACH	.900		
◇	5.898				
△	8.655				
▷	12.572				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8022)

SYMBOL	CRT
○	.014
□	4.012
◇	5.898
△	8.655
◺	12.572

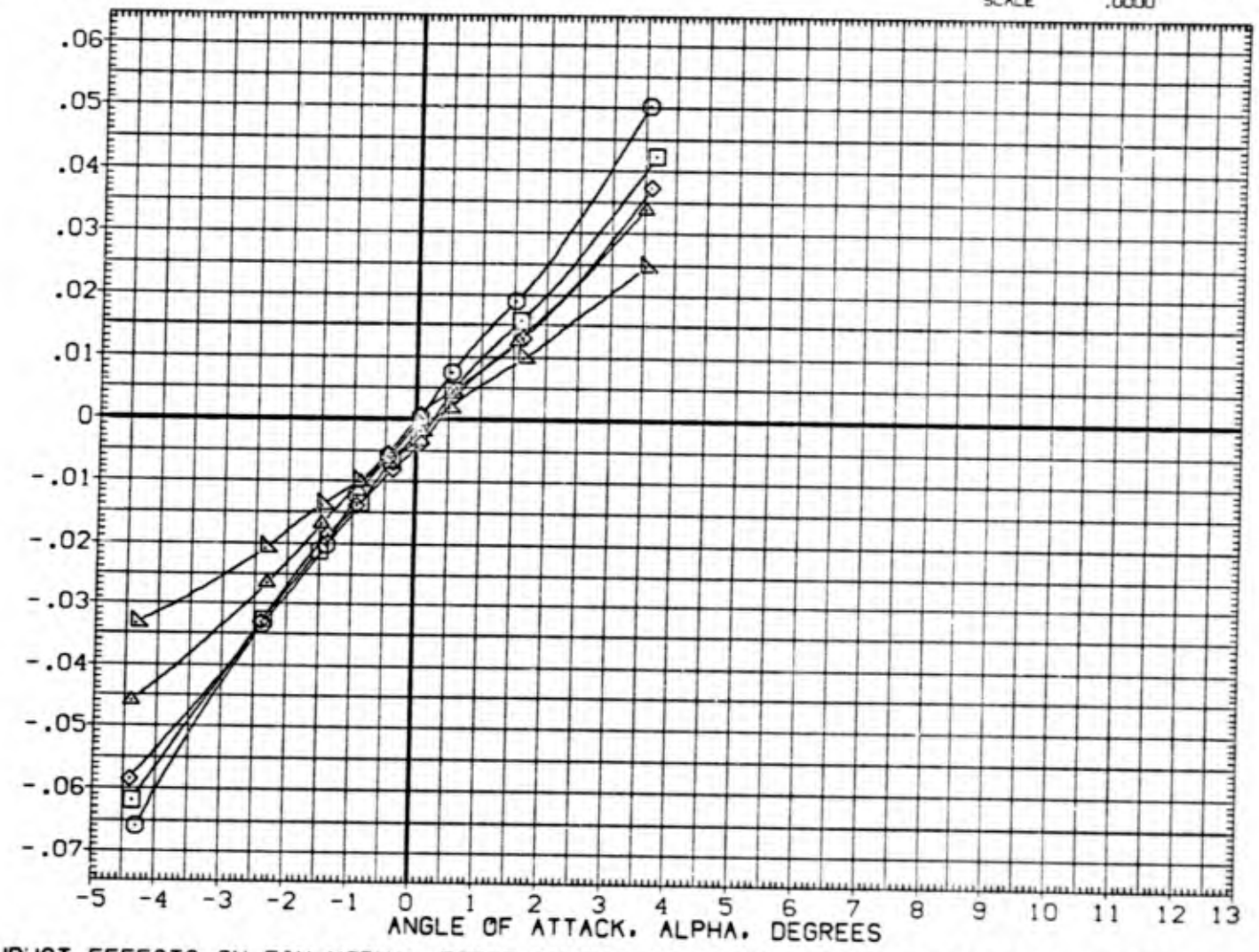
PARAMETRIC VALUES

BETA .000 PHI .000

MACH .900

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

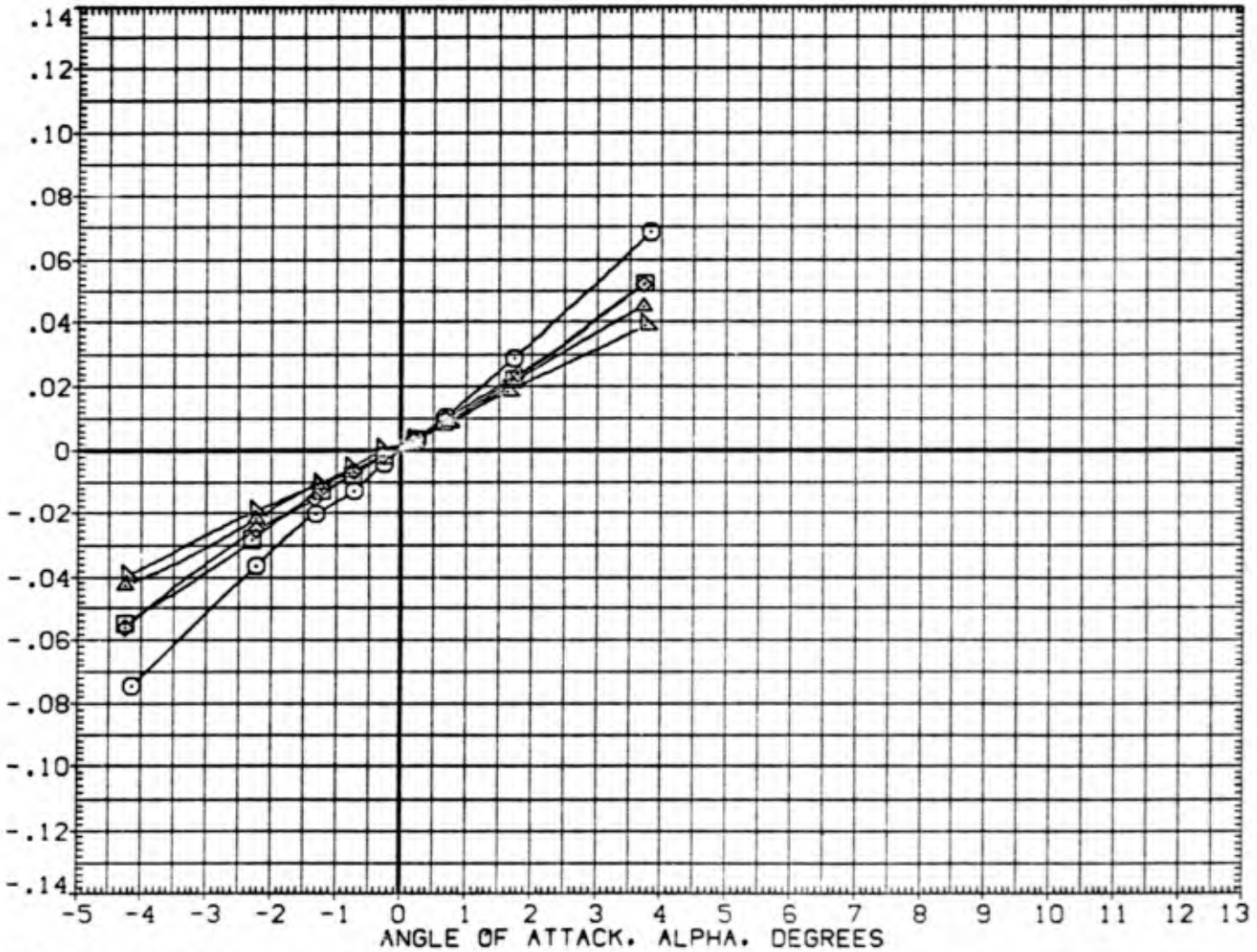


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8023)

SYMBOL	CRT	PARAMETRIC VALUES			
○	.037	BETA	.000	PHI	.000
□	2.794	MACH	1.000		
◇	4.122				
△	6.098				
▽	7.412				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



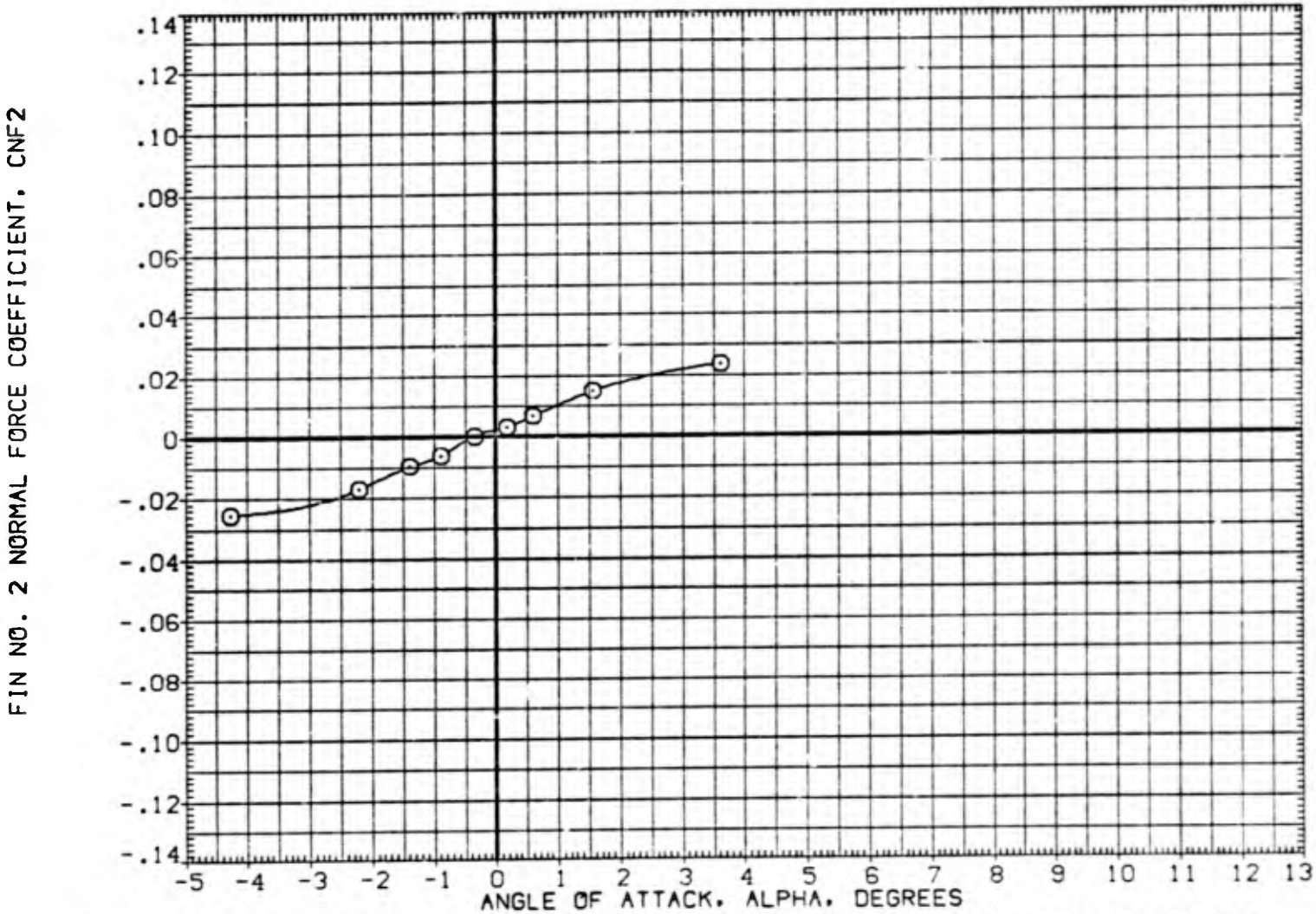
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8023)

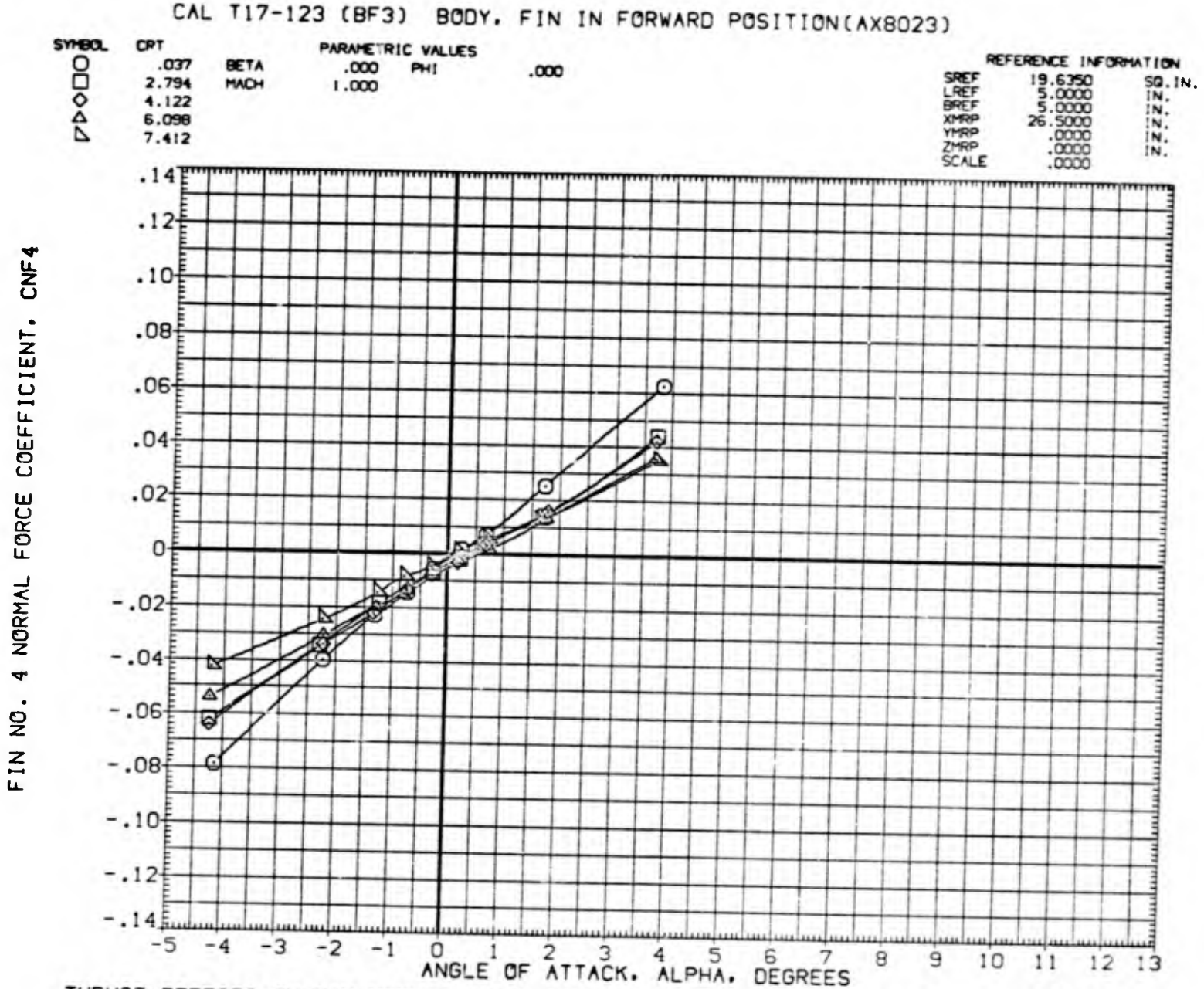
SYMBOL	CRT		PARAMETRIC VALUES		
○	10.717	BETA	.000	PHI	.000
		MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



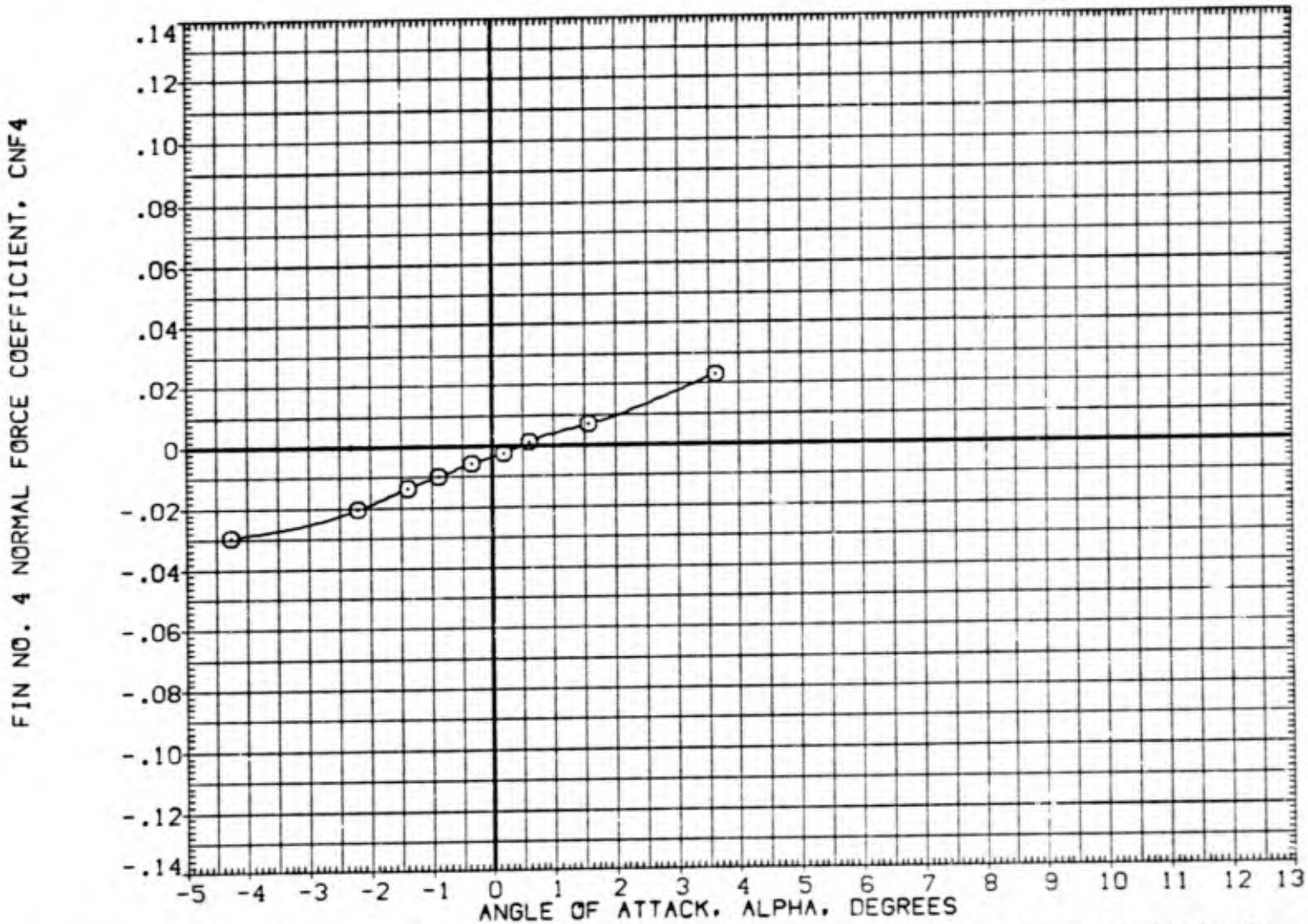
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8003)

SYMBOL	CRT		PARAMETRIC VALUES		
O	10.717	BETA	.000	PHI	.000
		MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

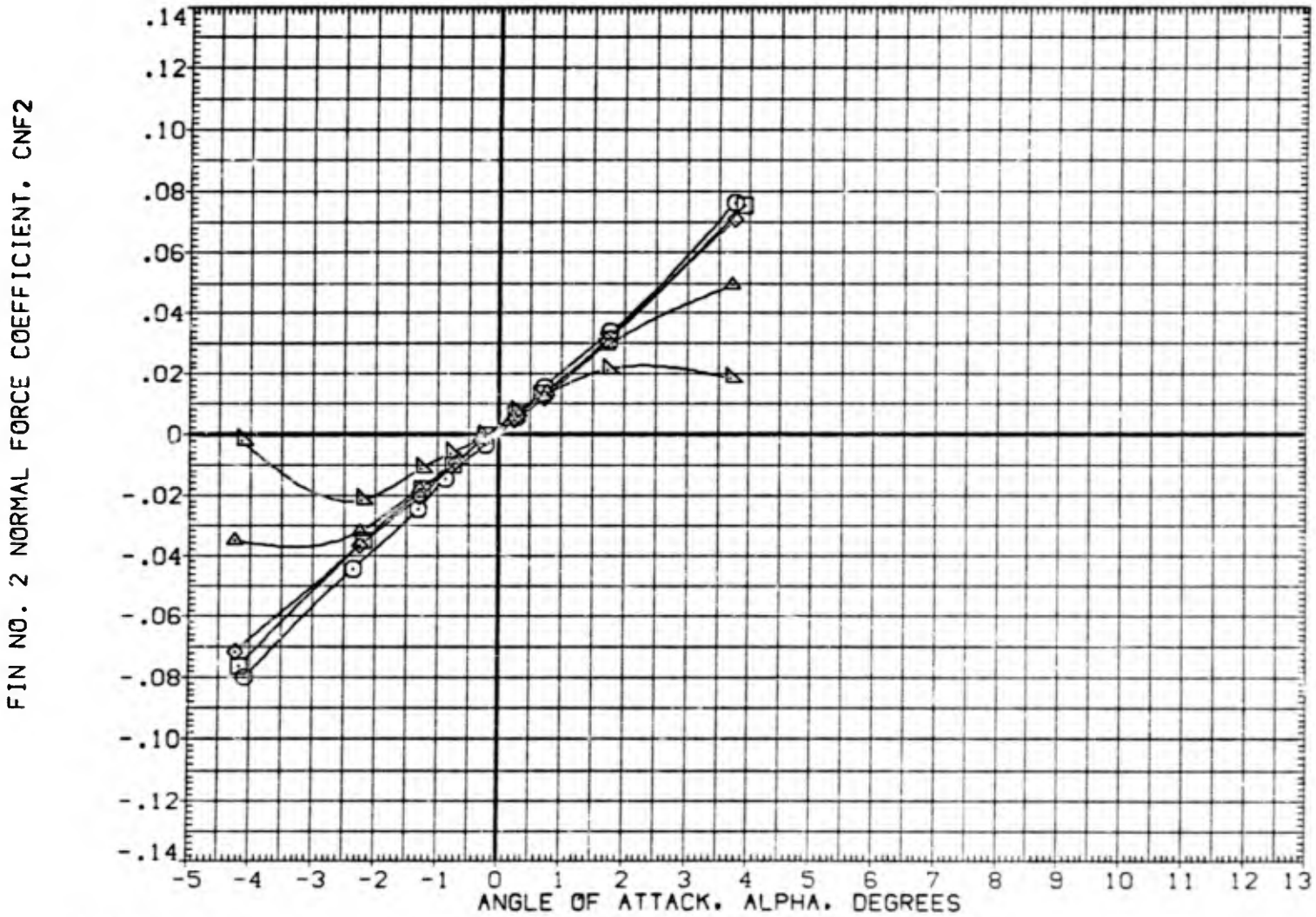


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8024)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.017	BETA	.000	PHI	.000
□	2.538	MACH	1.200		
◇	4.057				
△	6.025				
▷	7.352				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

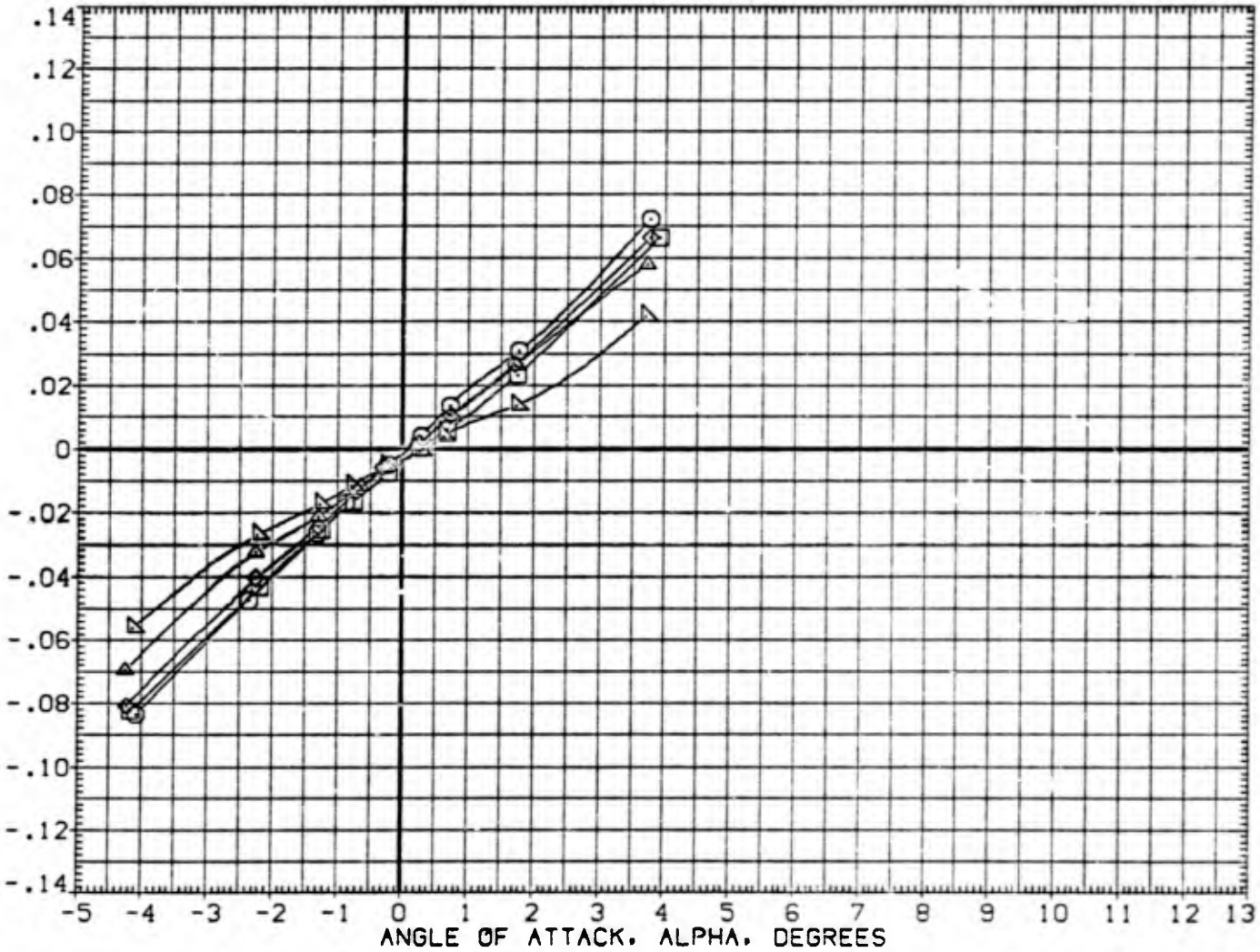


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

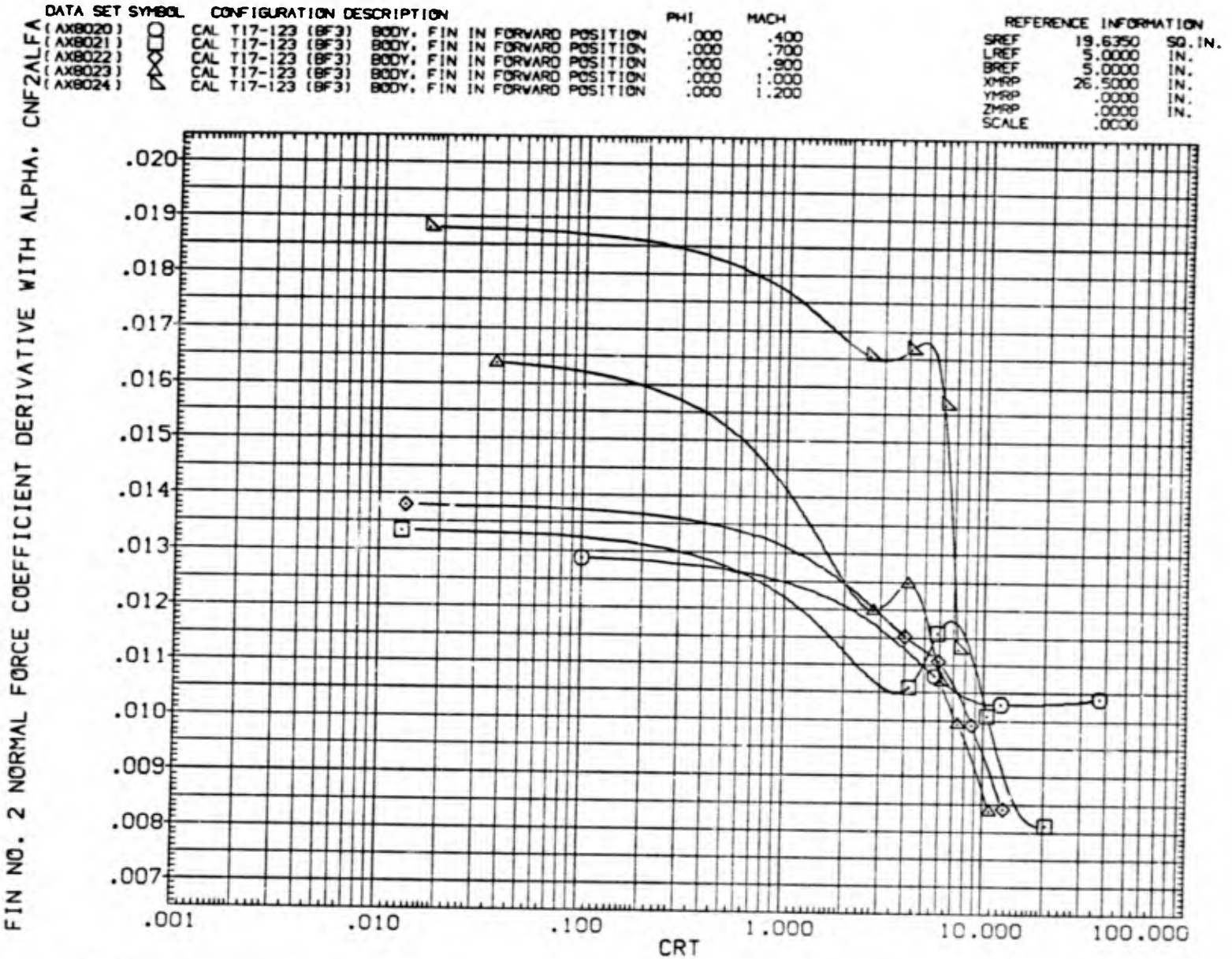
CAL T17-123 (BF3) BODY, FIN IN FORWARD POSITION(AX8024)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.017	BETA	.000	PHI	.000
□	2.538	MACH	1.200		
◇	4.057				
△	6.025				
▷	7.352				

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

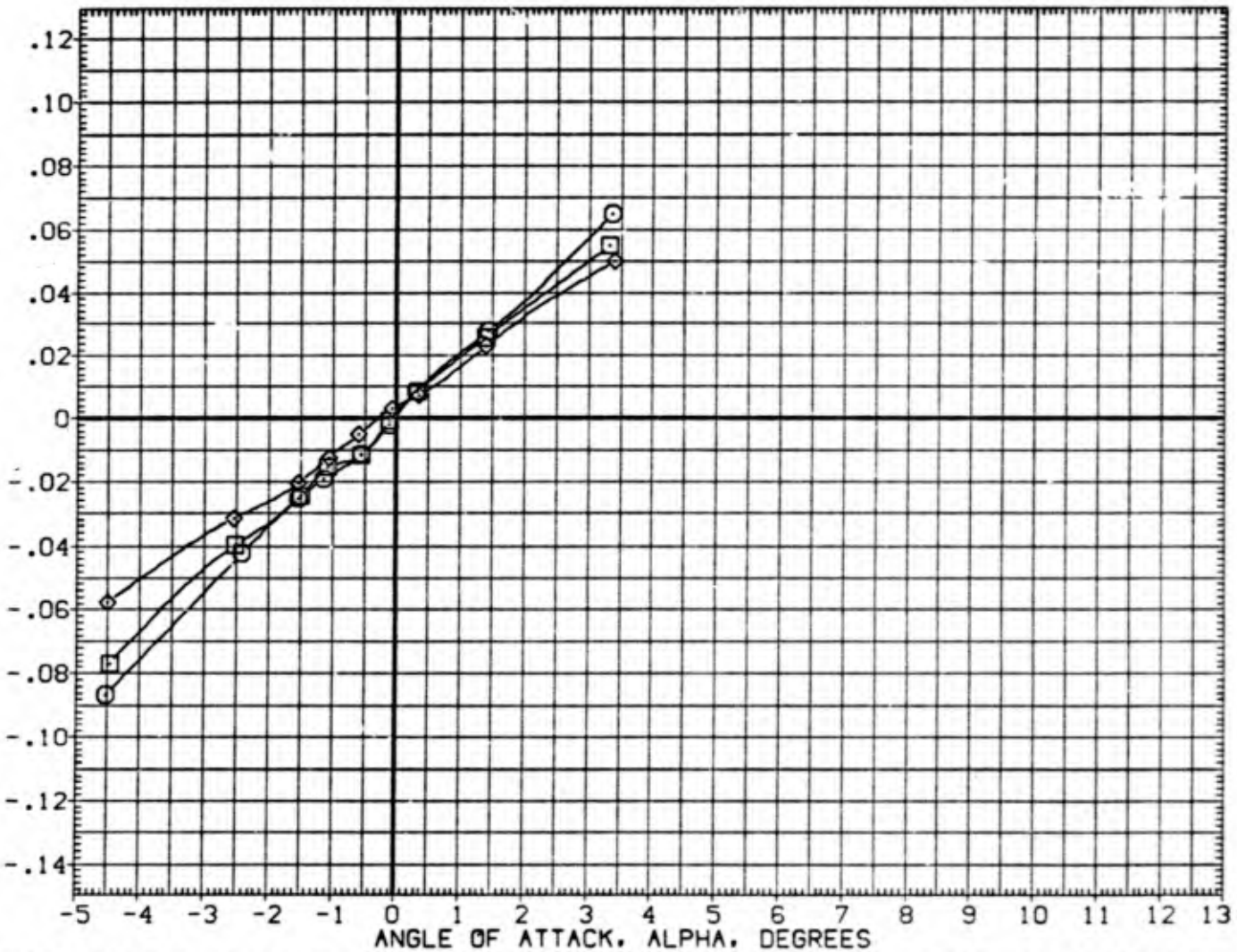
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8025)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.032	BETA	.000	PHI	.000
□	5.828	MACH	.700		
◇	10.418				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



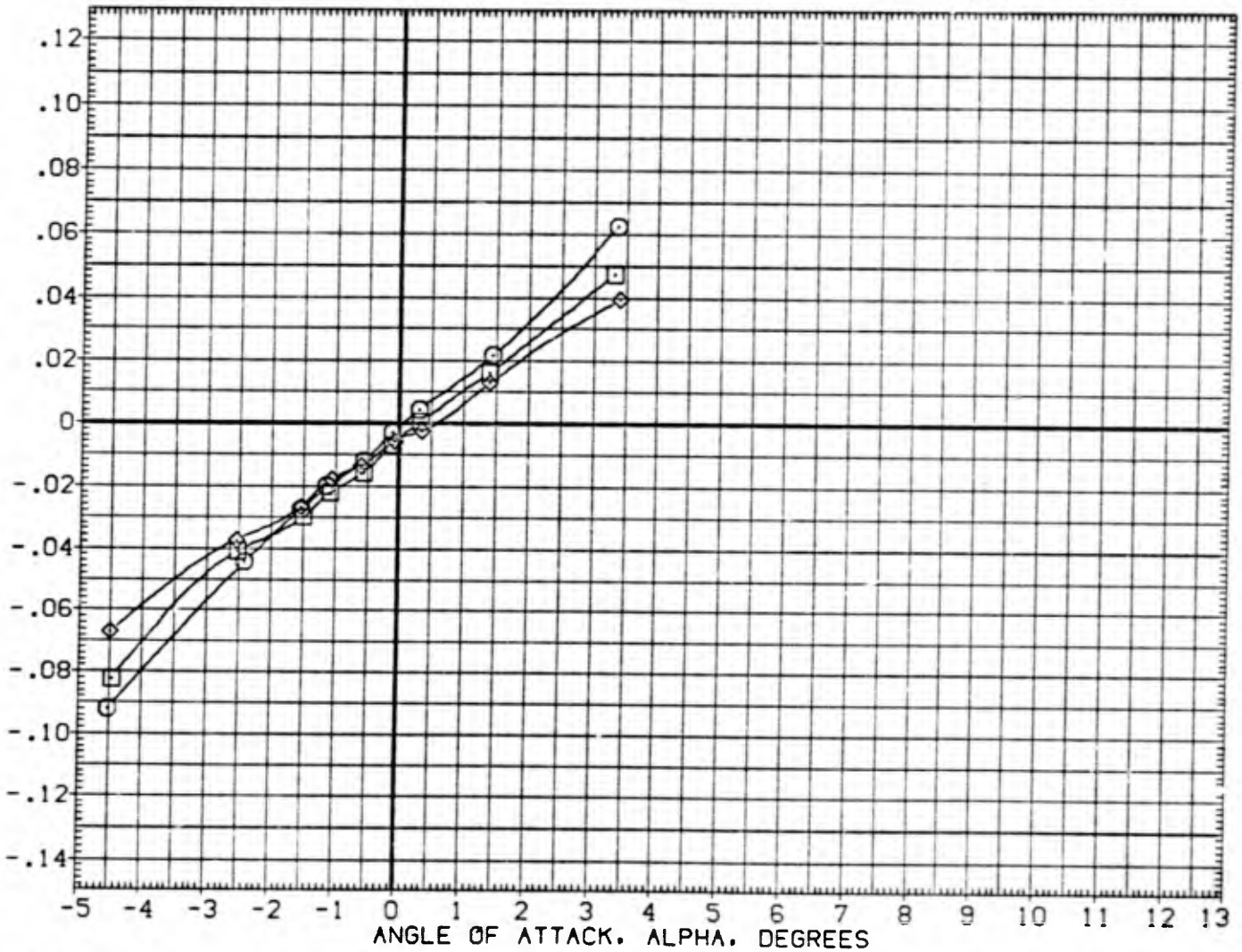
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8025)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.032	BETA	.000	PHI	.000
□	5.828	MACH	.700		
◇	10.418				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



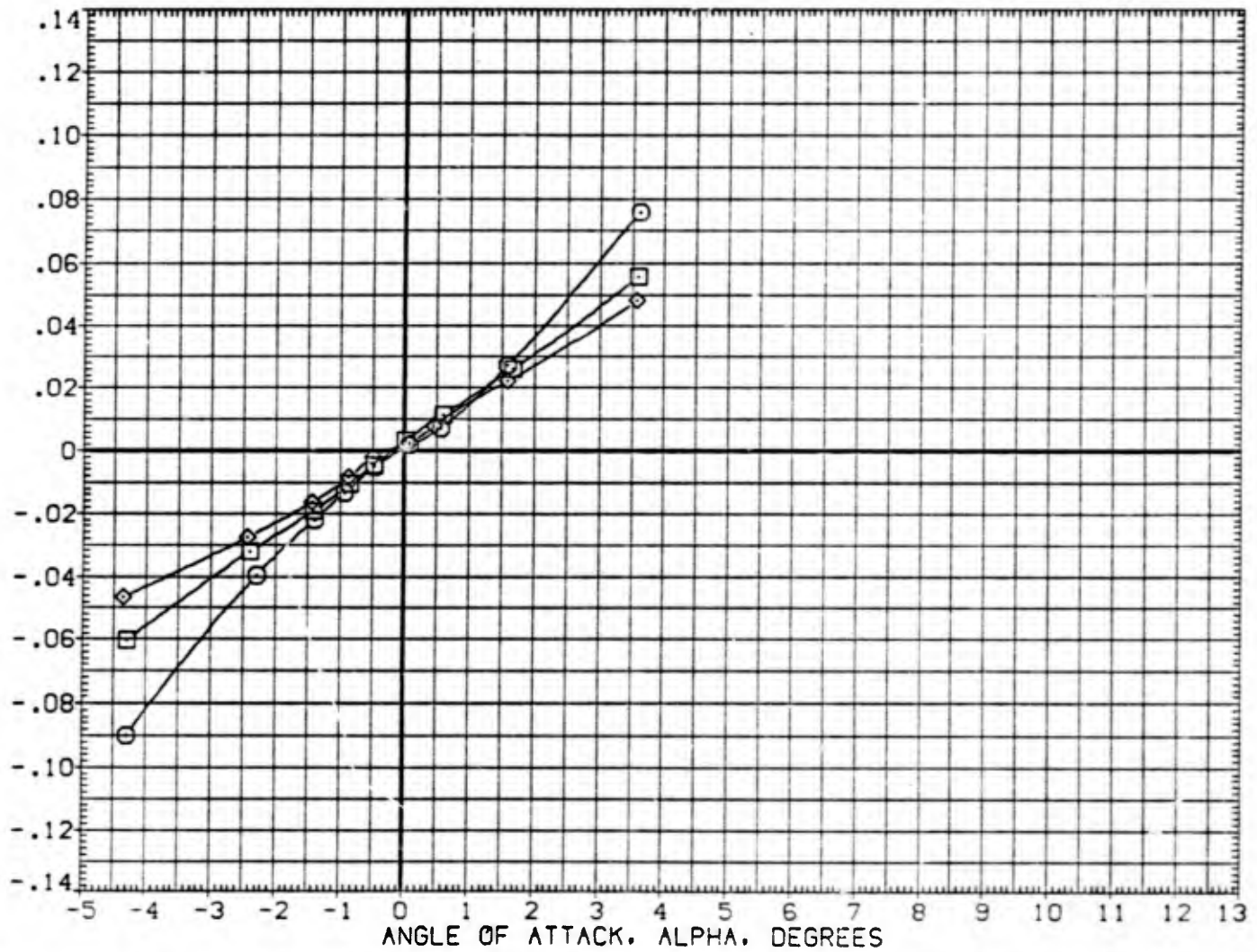
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY. FIN IN FORWARD POSITION(AX8026)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.045	BETA	.000	PHI	.000
□	5.748	MACH	.900		
◇	9.409				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



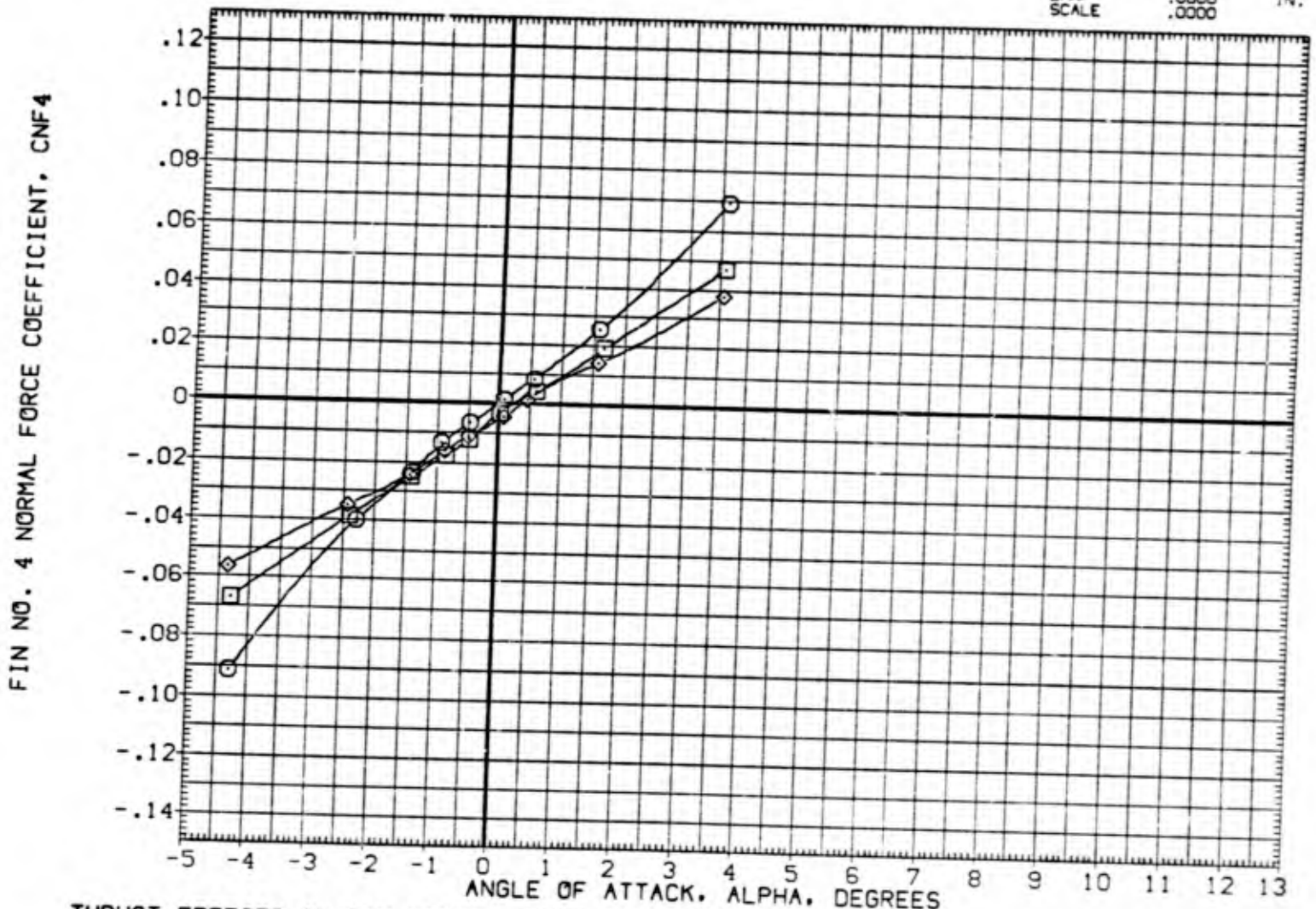
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8026)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.045	BETA	.000	PHI	.000
□	5.748	MACH	.900		
◇	9.409				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



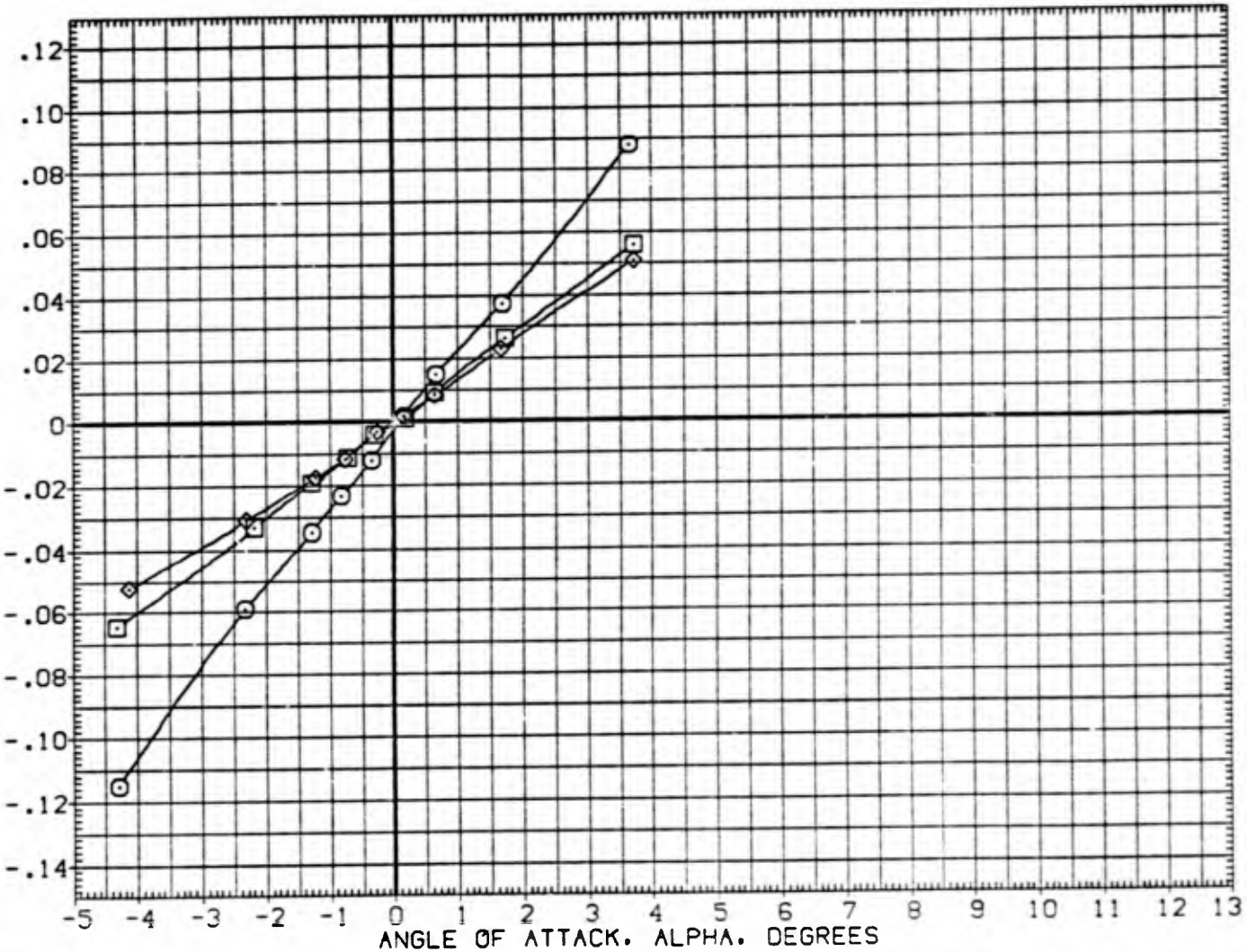
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8027)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.099	BETA	.000	PHI	.000
□	4.013	MACH	1.000		
◇	6.076				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



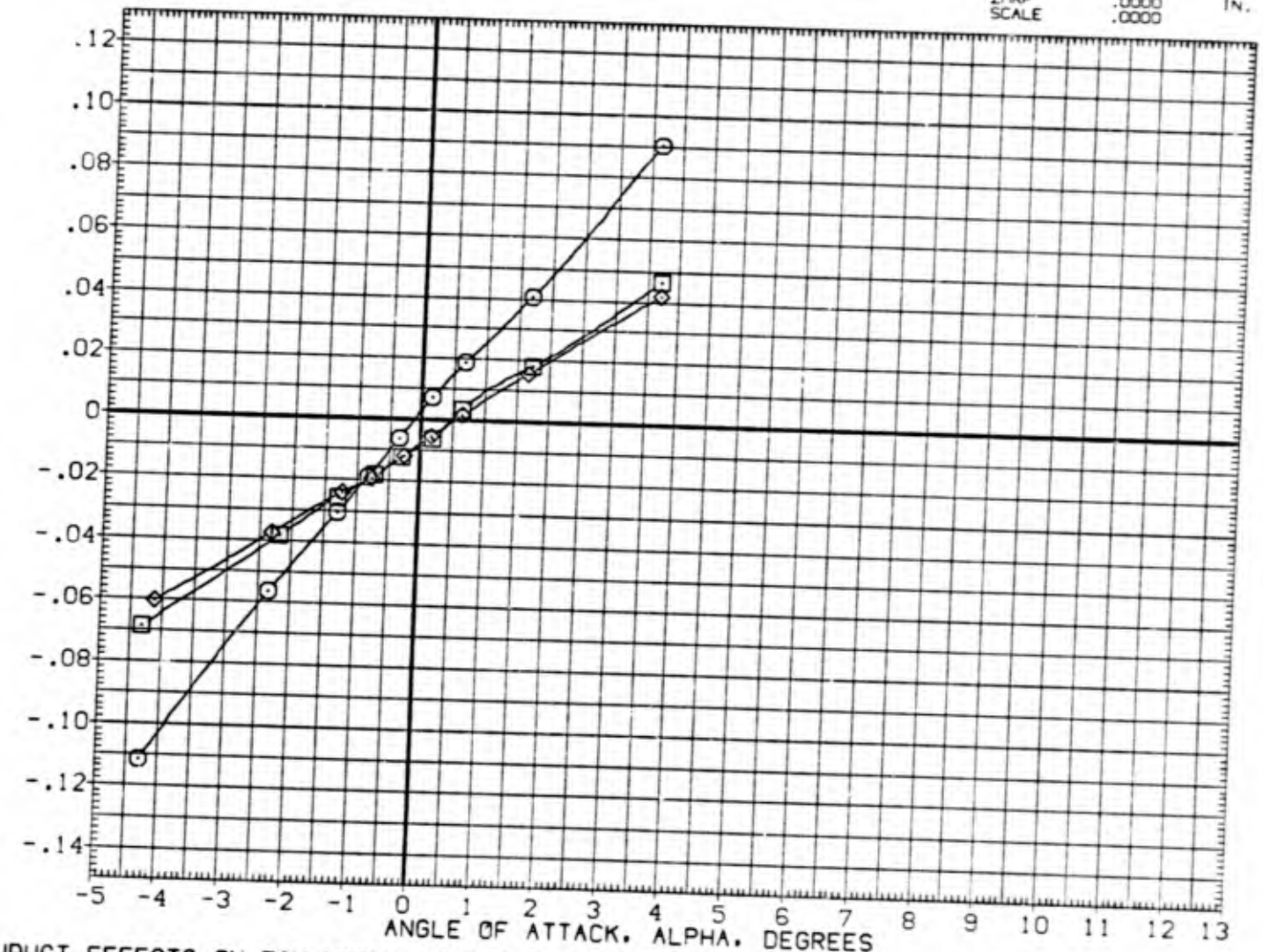
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8027)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.099	BETA	.000	PHI	.000
□	4.013	MACH	1.000		
◇	6.076				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



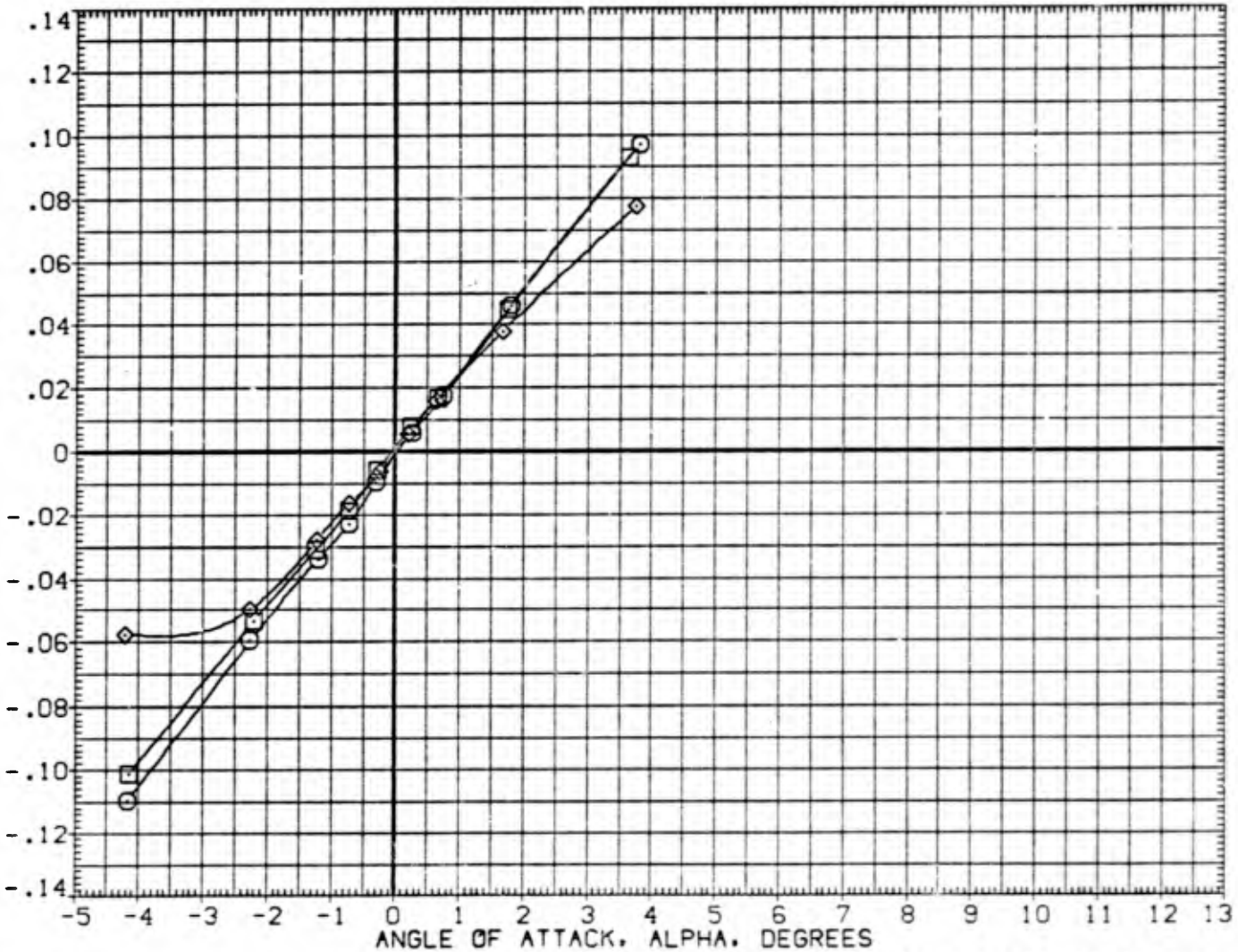
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8028)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.060	BETA	.000	PHI	.000
□	4.146	MACH	1.200		
◇	6.001				

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



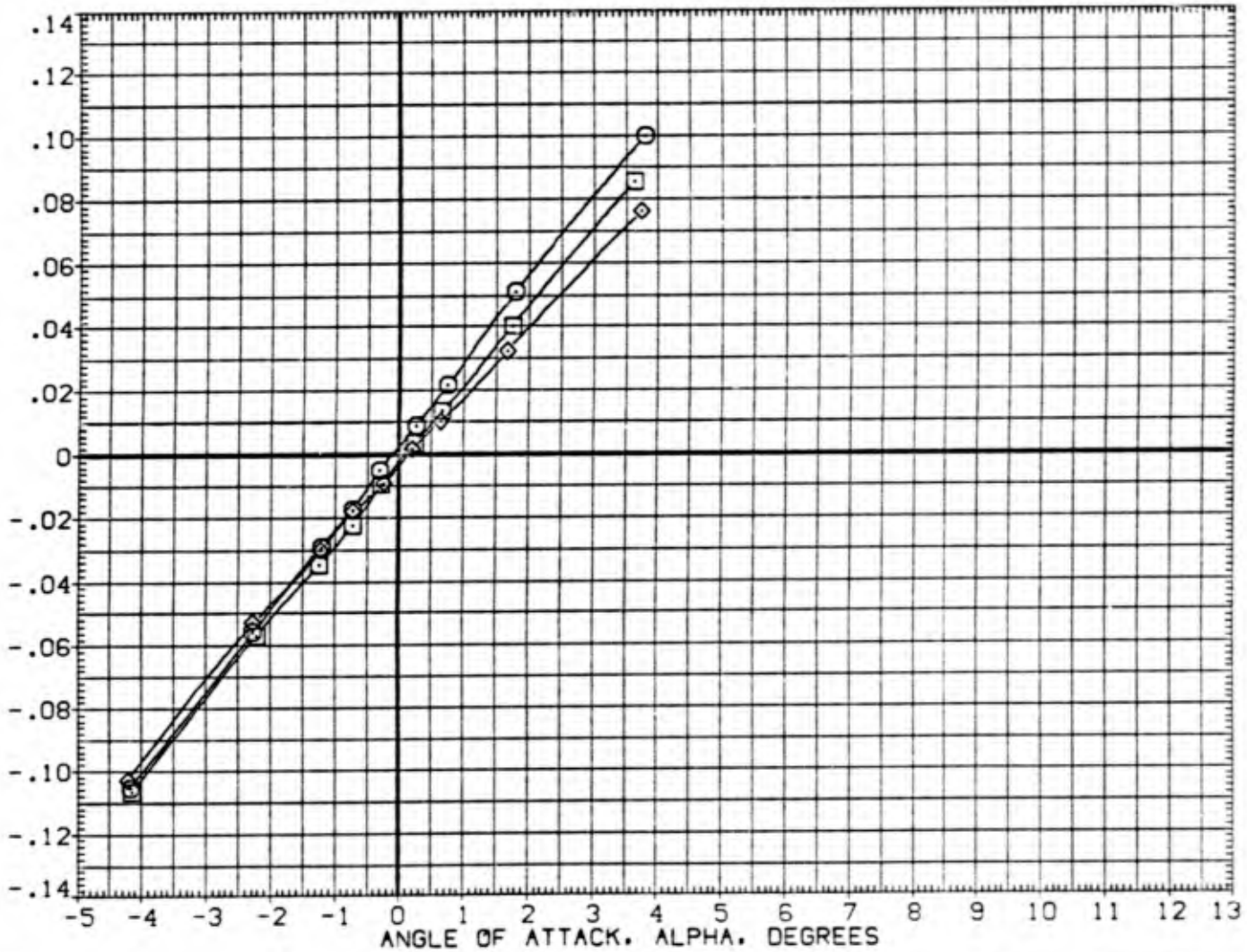
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8028)

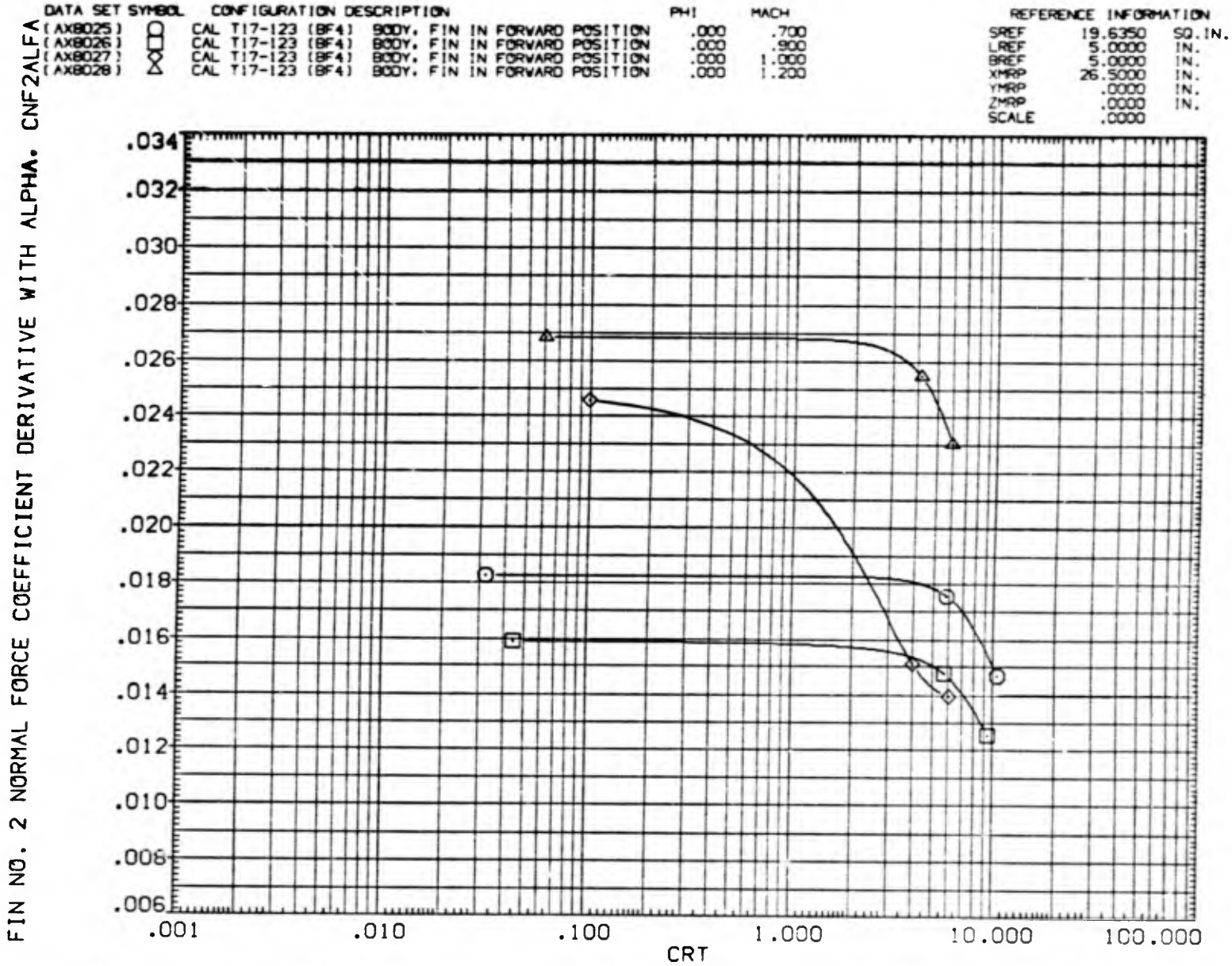
SYMBOL	CRT		PARAMETRIC VALUES		
○	.060	BETA	.000	PHI	.000
□	4.146	MACH	1.200		
◇	6.001				

REFERENCE INFORMATION

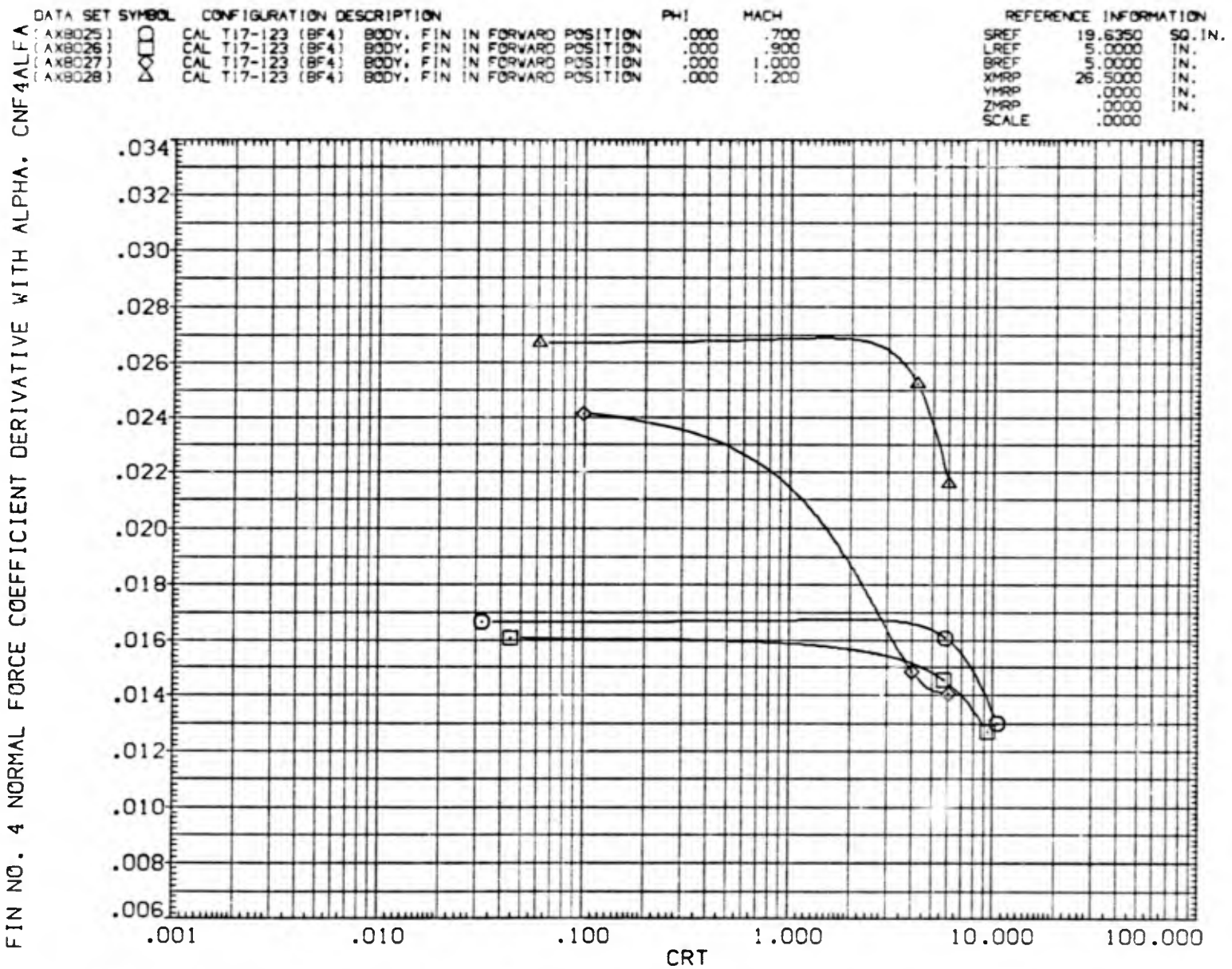
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



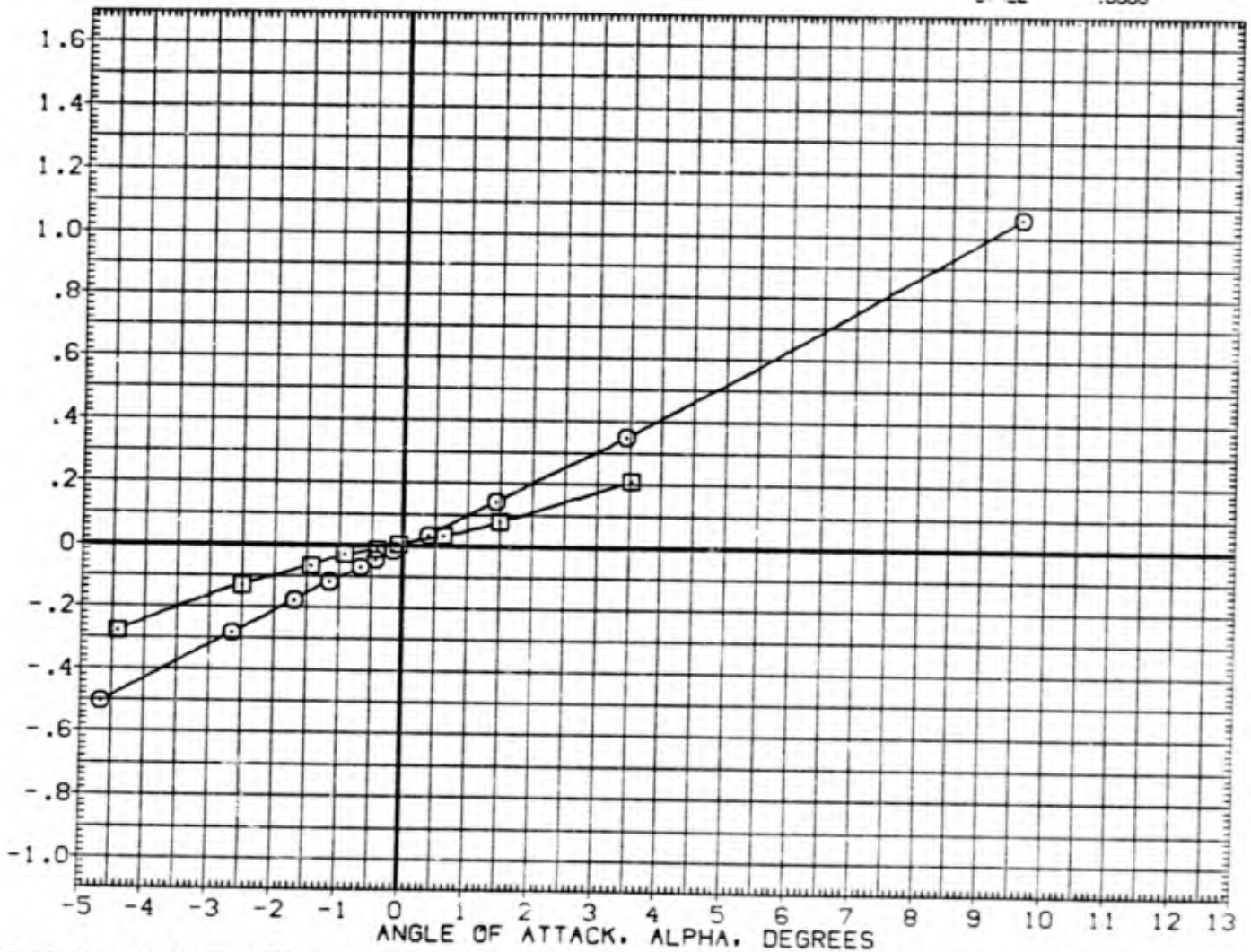
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8017)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.020	BETA	.000	PHI	45.000
□	5.918	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



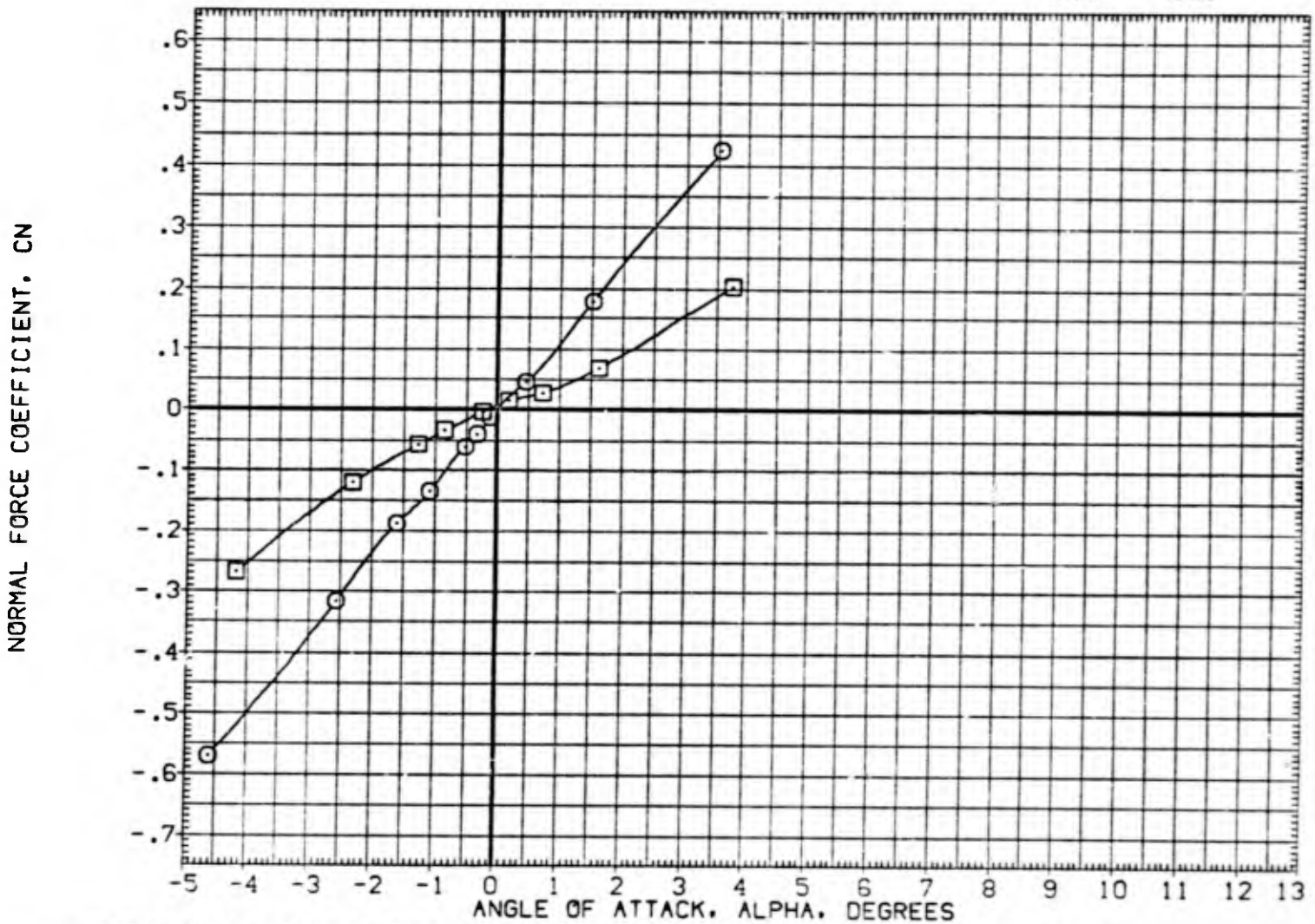
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8018)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	45.000
□	5.927	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



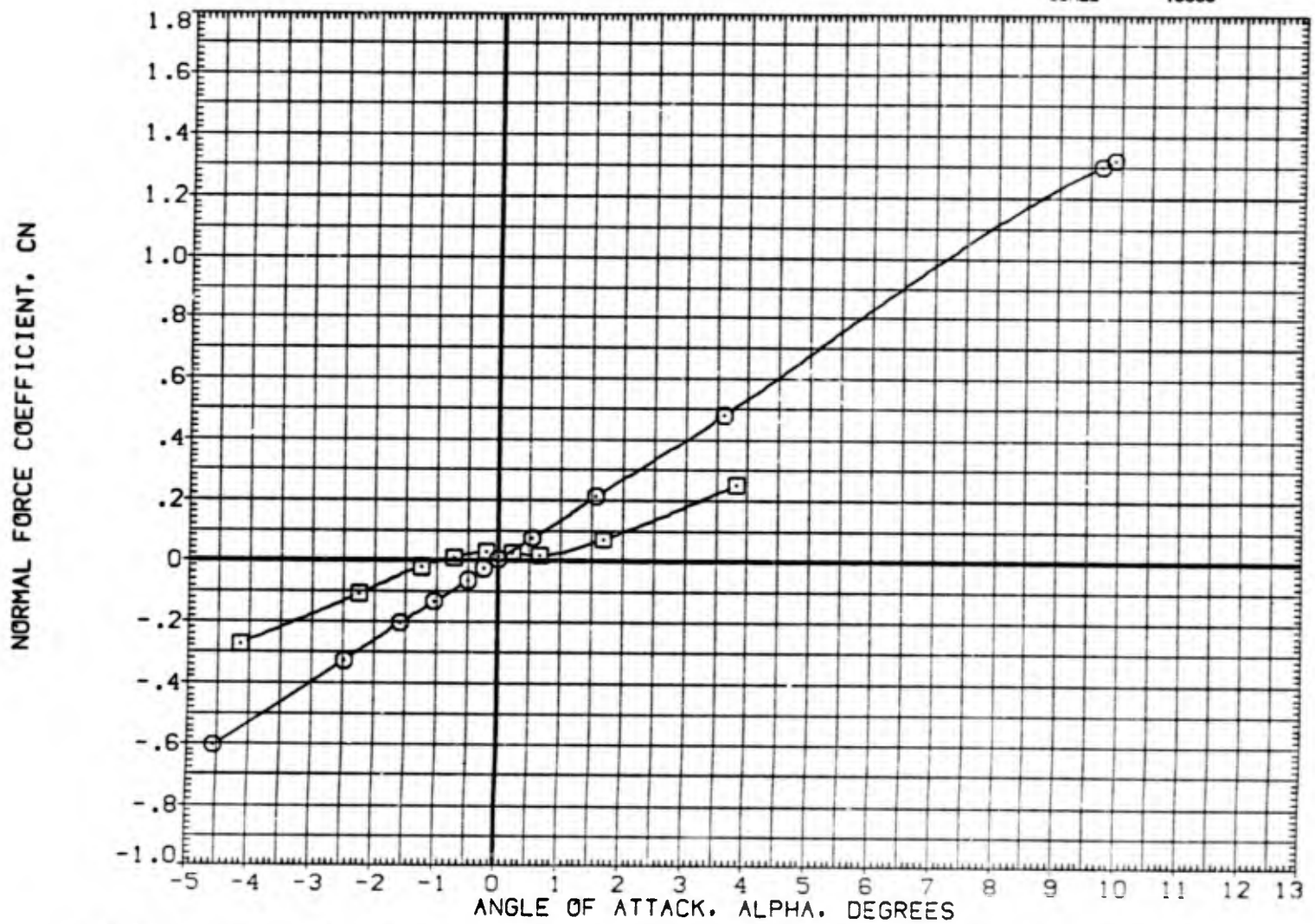
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY. FIN IN FORWARD POSITION(AX8019)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.003	BETA	.000	PHI	45.000
□	5.359	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

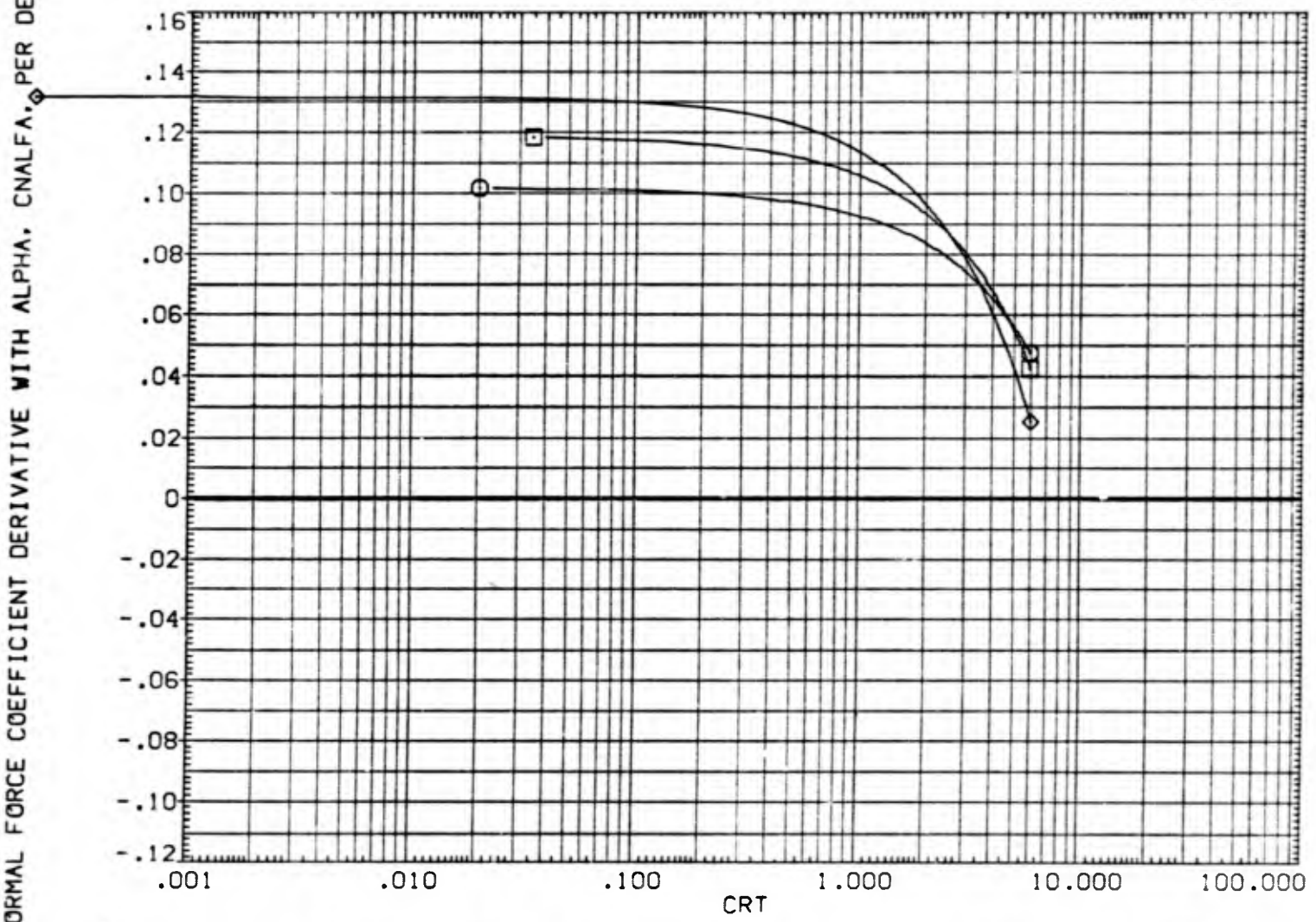


THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8017)	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	45.000	.900
(AX8018)	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	45.000	1.000
(AX8019)	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	45.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



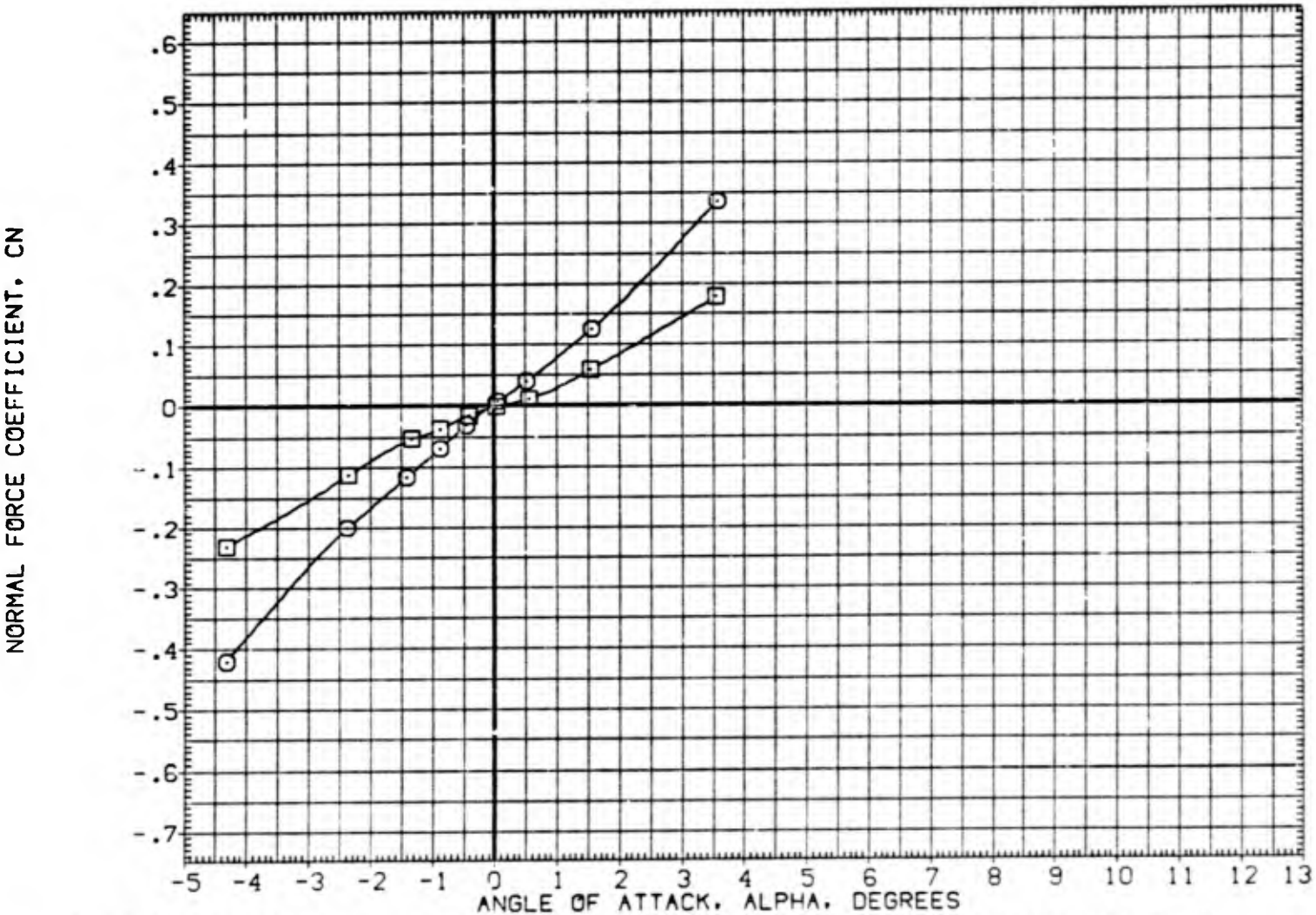
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8029)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	000	PHI	45.000
□	6.056	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



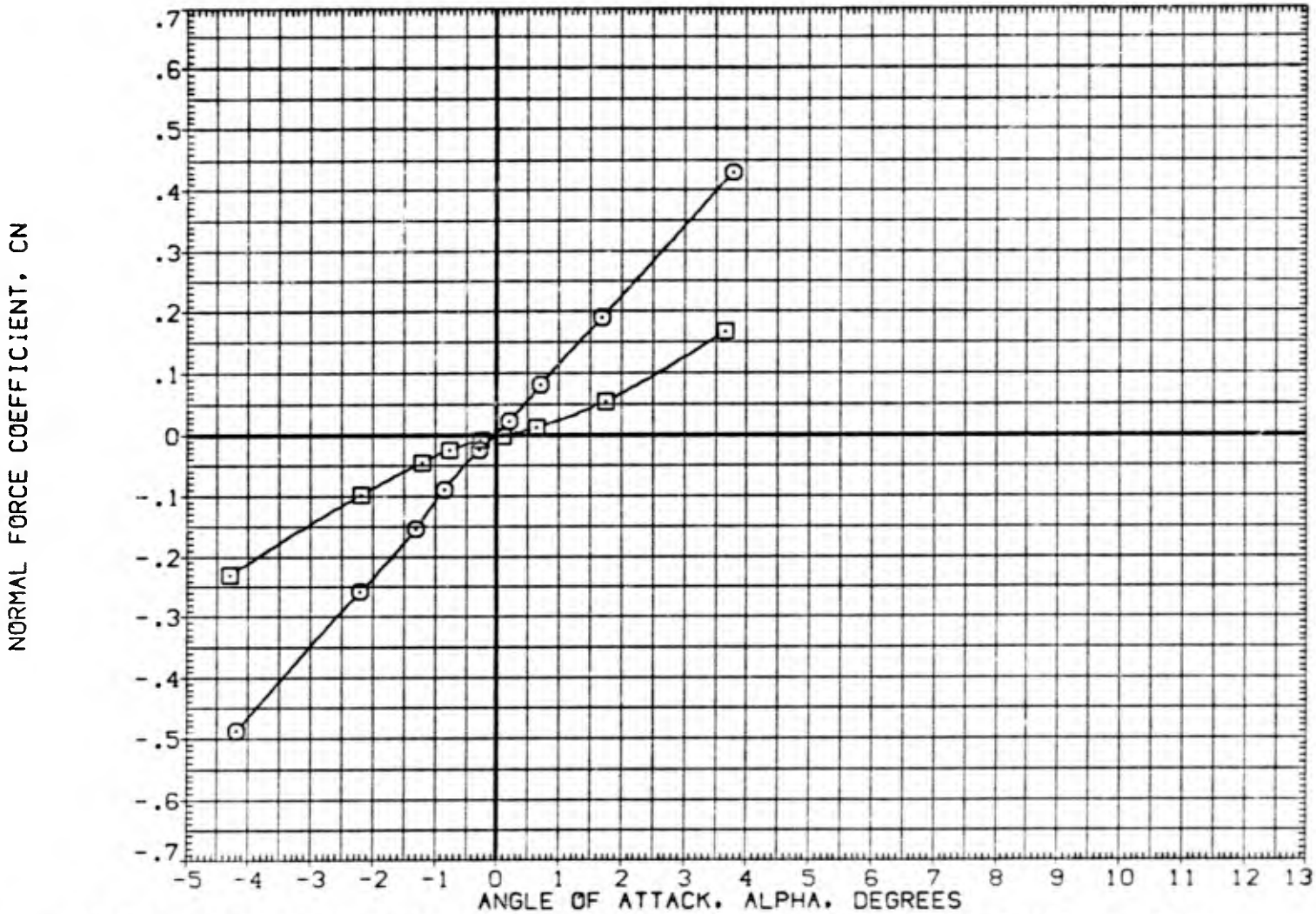
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8030)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.018	BETA	.000	PHI	45.000
□	5.956	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



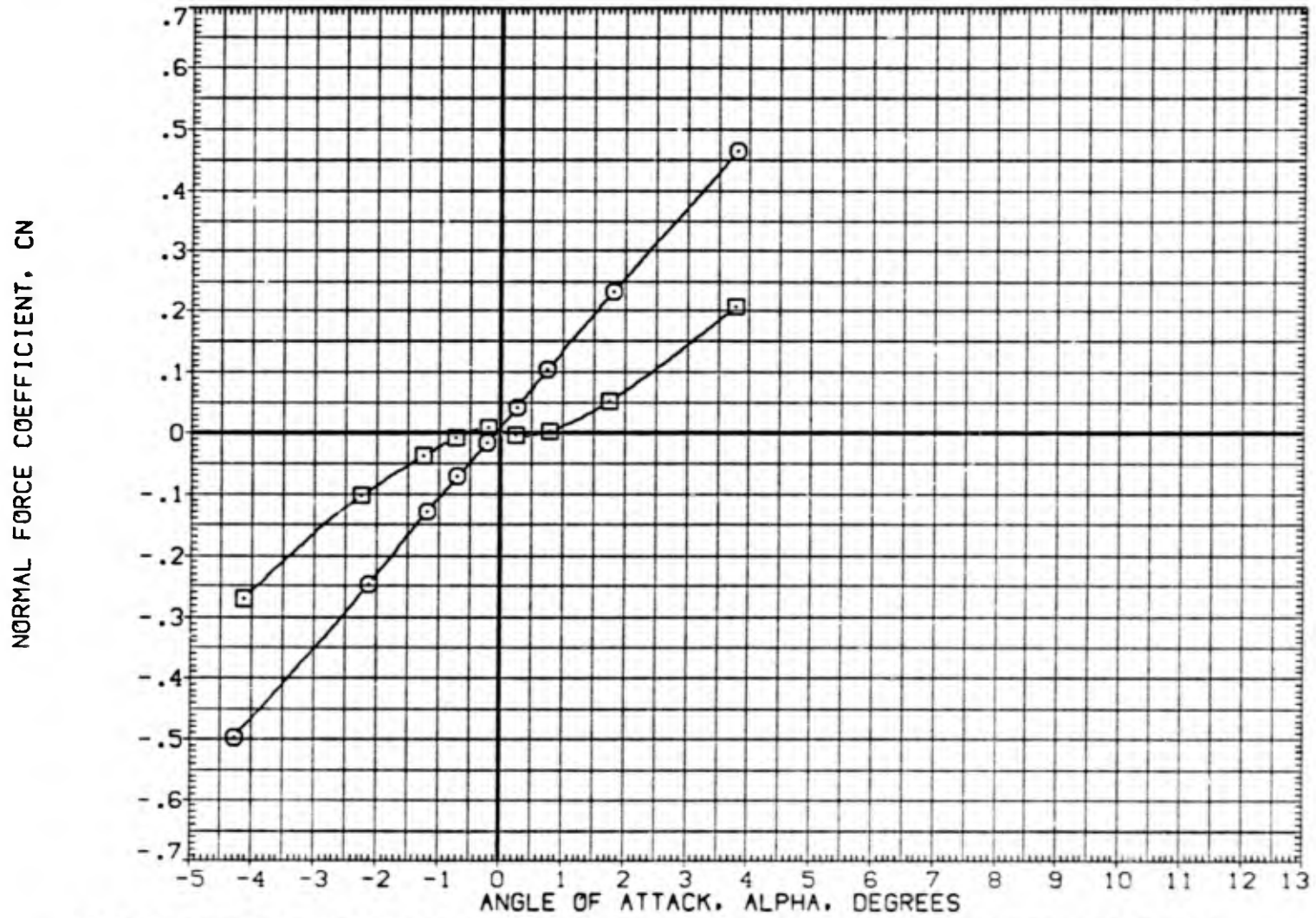
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8031)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	45.000
□	6.008	MACH	1.200		

REFERENCE INFORMATION

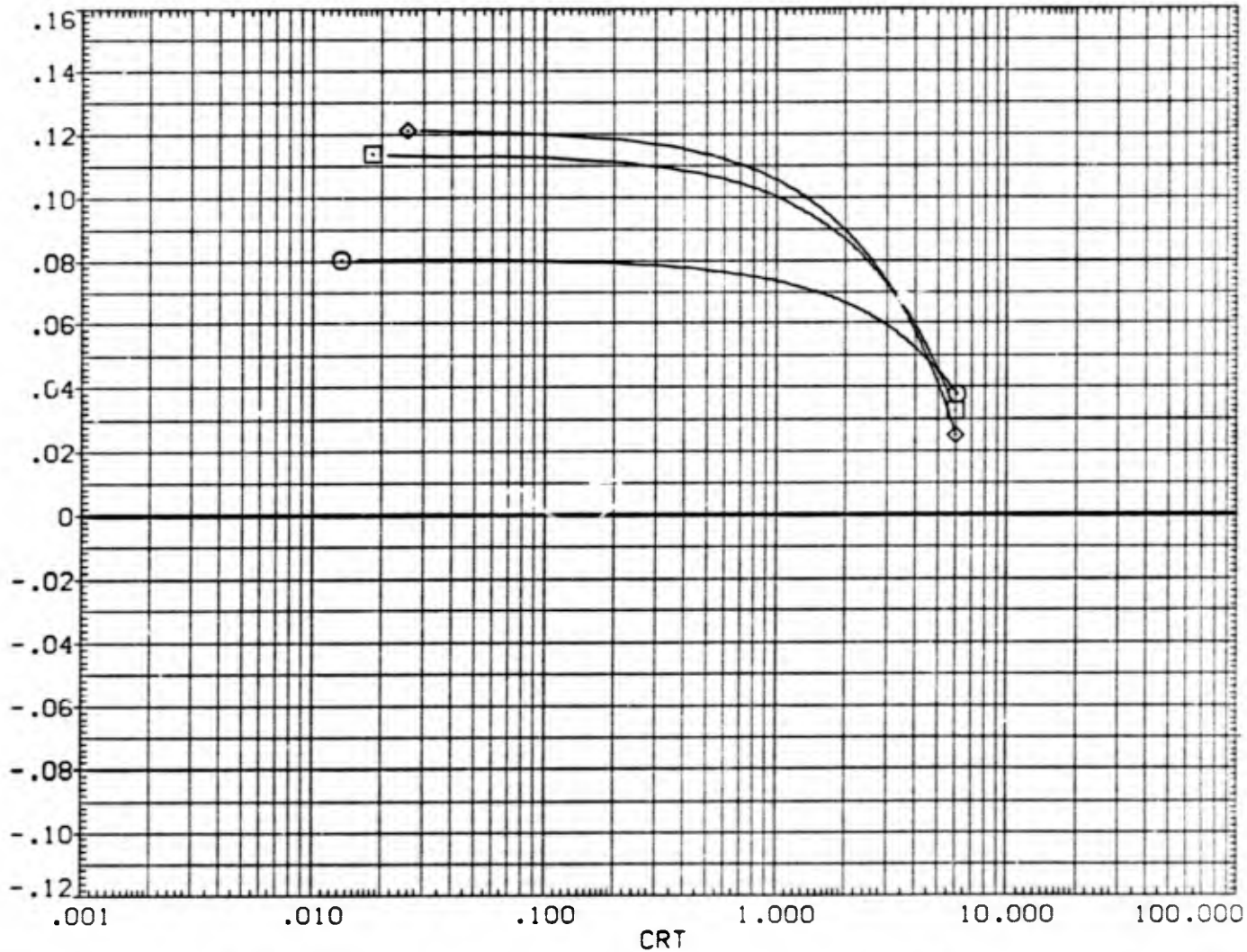
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AXB029)	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	.900
(AXB030)	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	1.000
(AXB031)	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	1.200

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



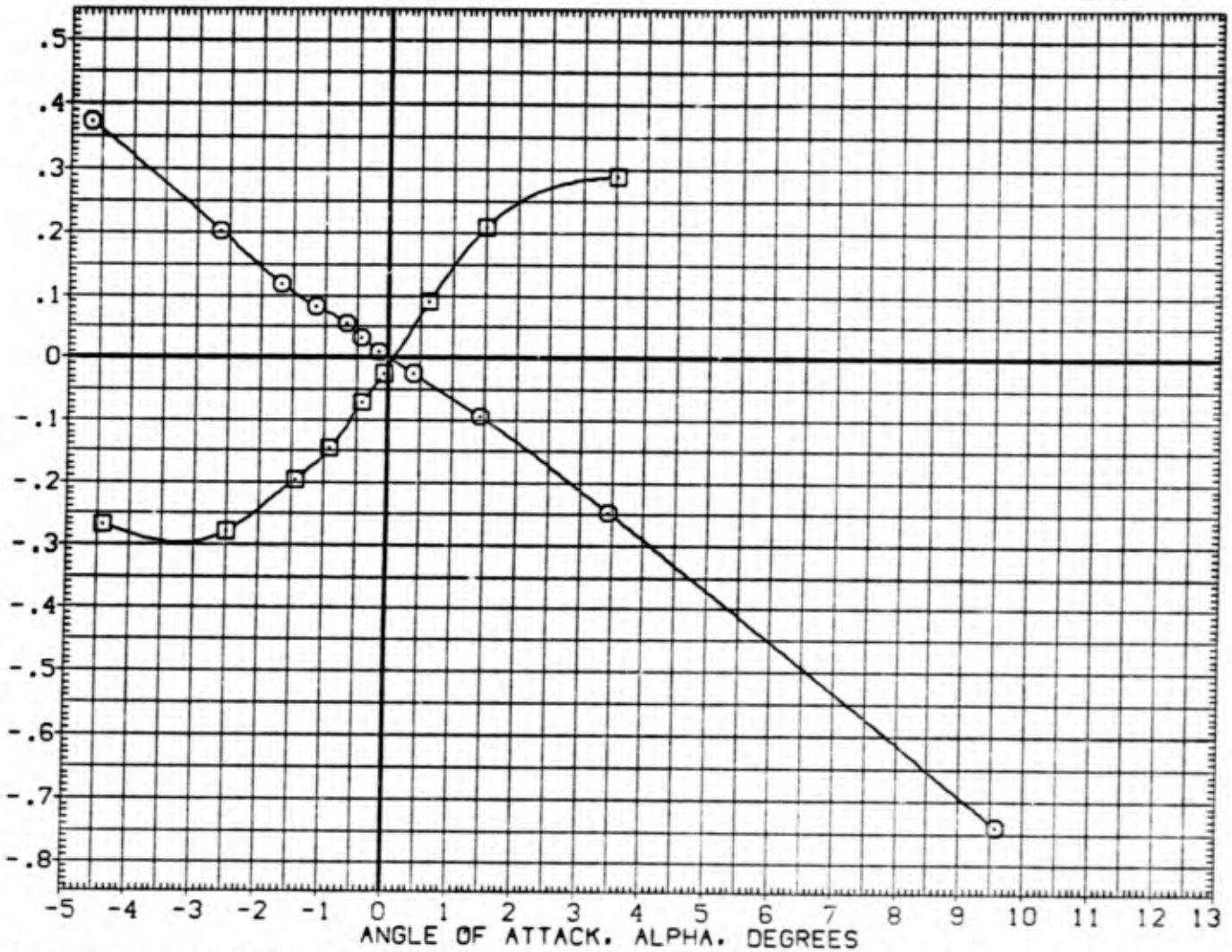
THRUST EFFECTS ON NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8017)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.020	BETA	.000	PHI	45.000
□	5.918	MACH	.900		

REFFRENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



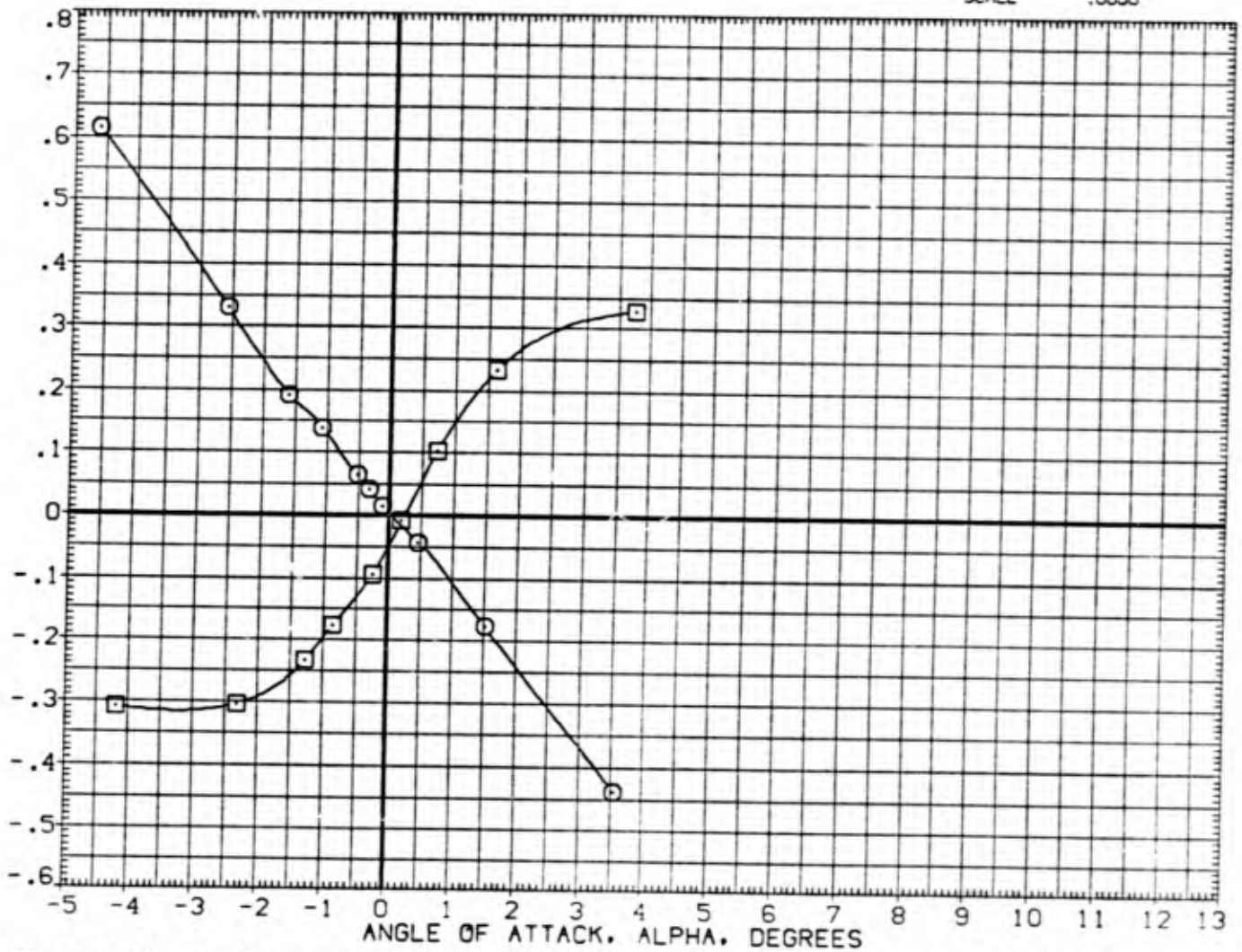
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8018)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	45.000
□	5.927	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



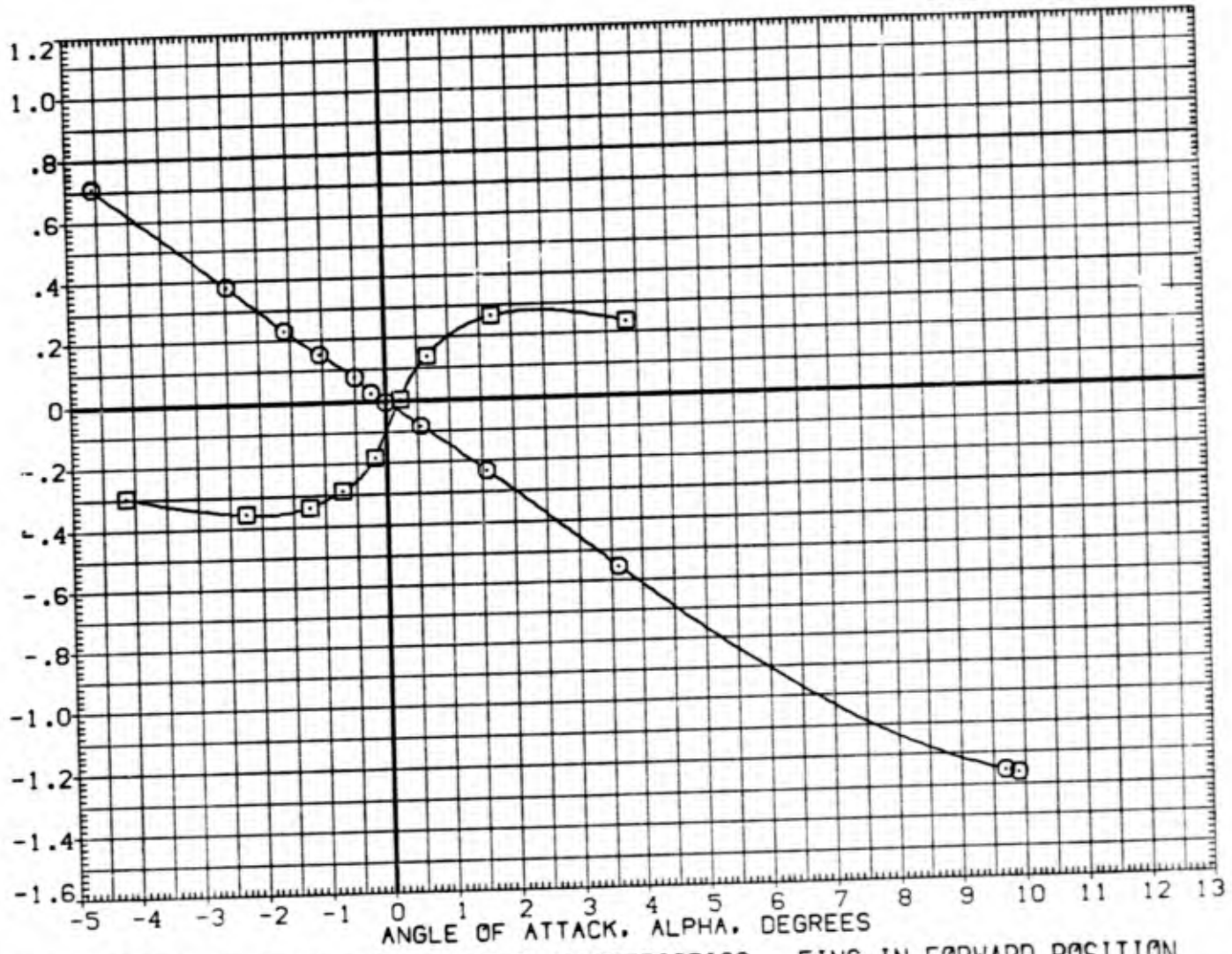
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY. FIN IN FORWARD POSITION(AX8019)

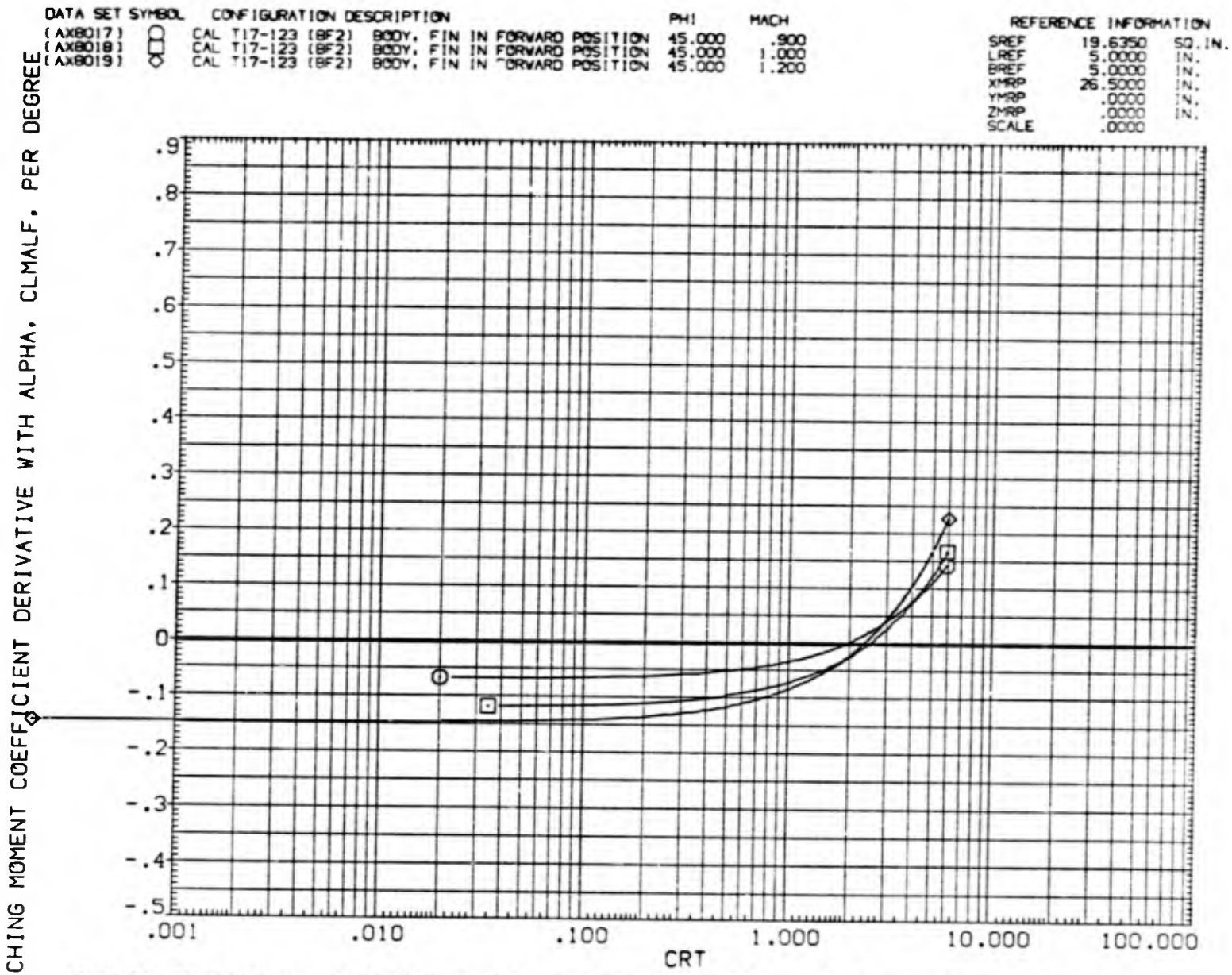
SYMBOL	CRT		PARAMETRIC VALUES		
□	-.003	BETA	.000	PHI	45.000
○	5.959	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION



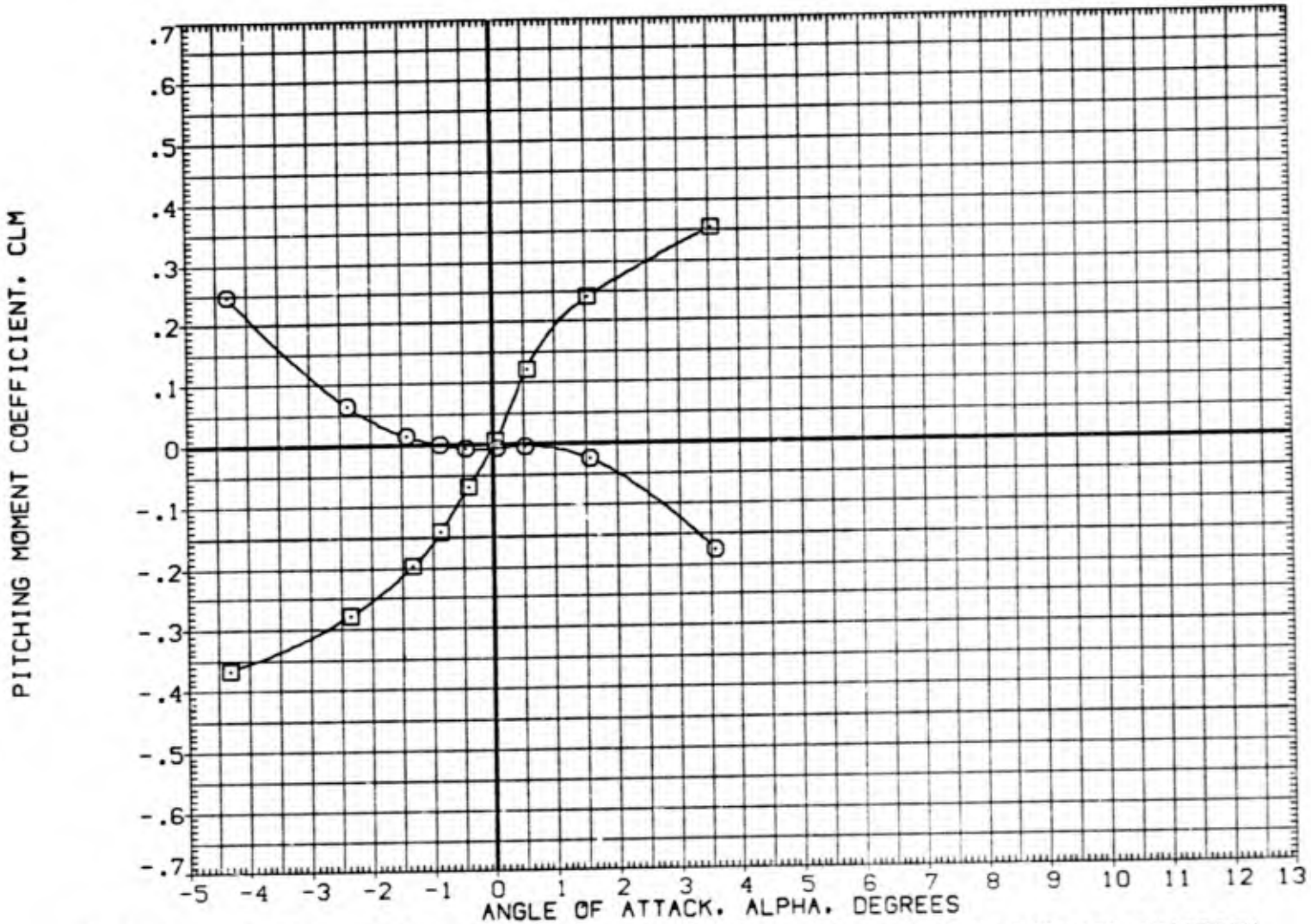
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY. FIN IN FORWARD POSITION(AX8029)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	45.000
□	6.056	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



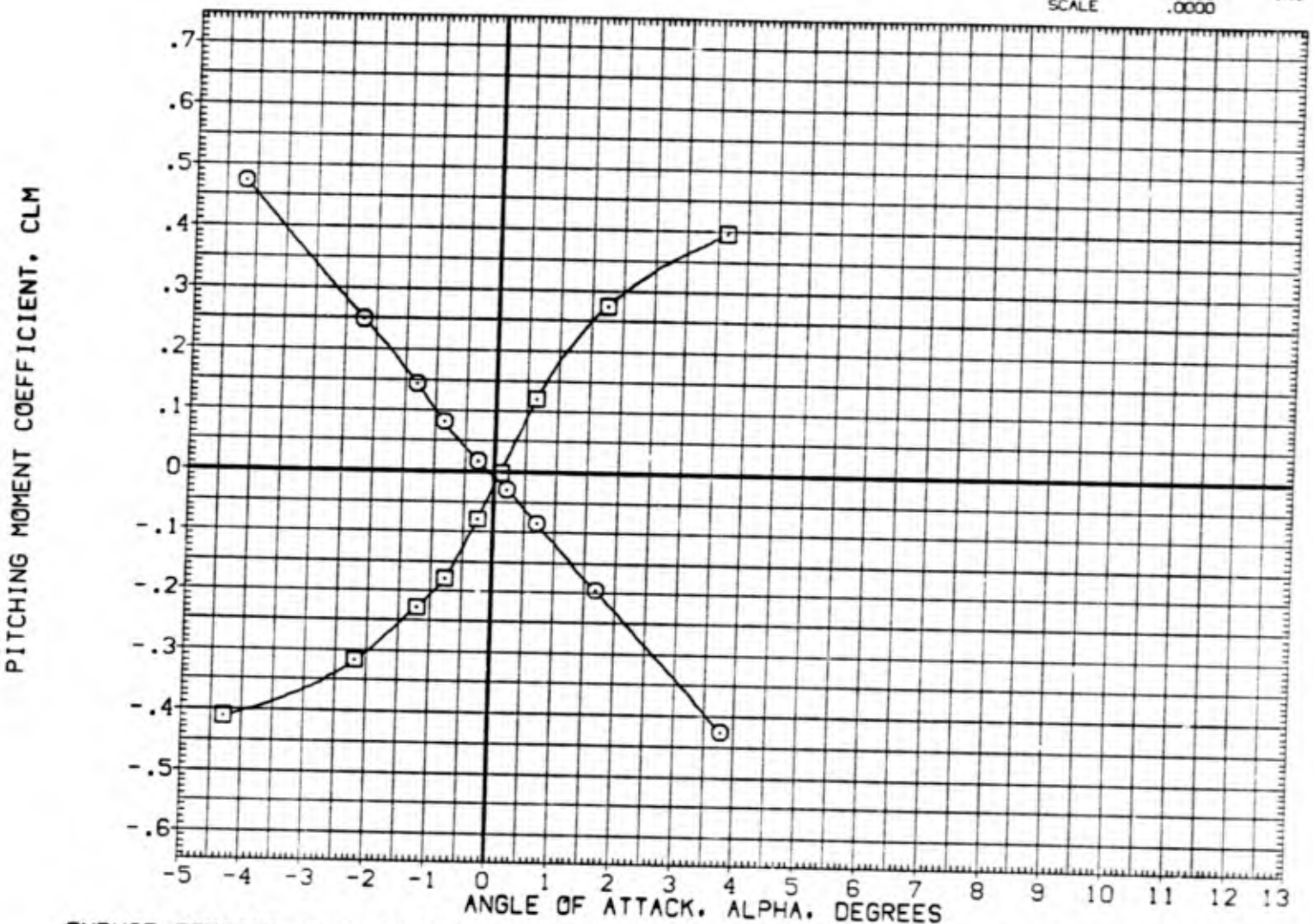
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8030)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.018	BETA	.000	PHI	45.000
□	5.956	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	IN.



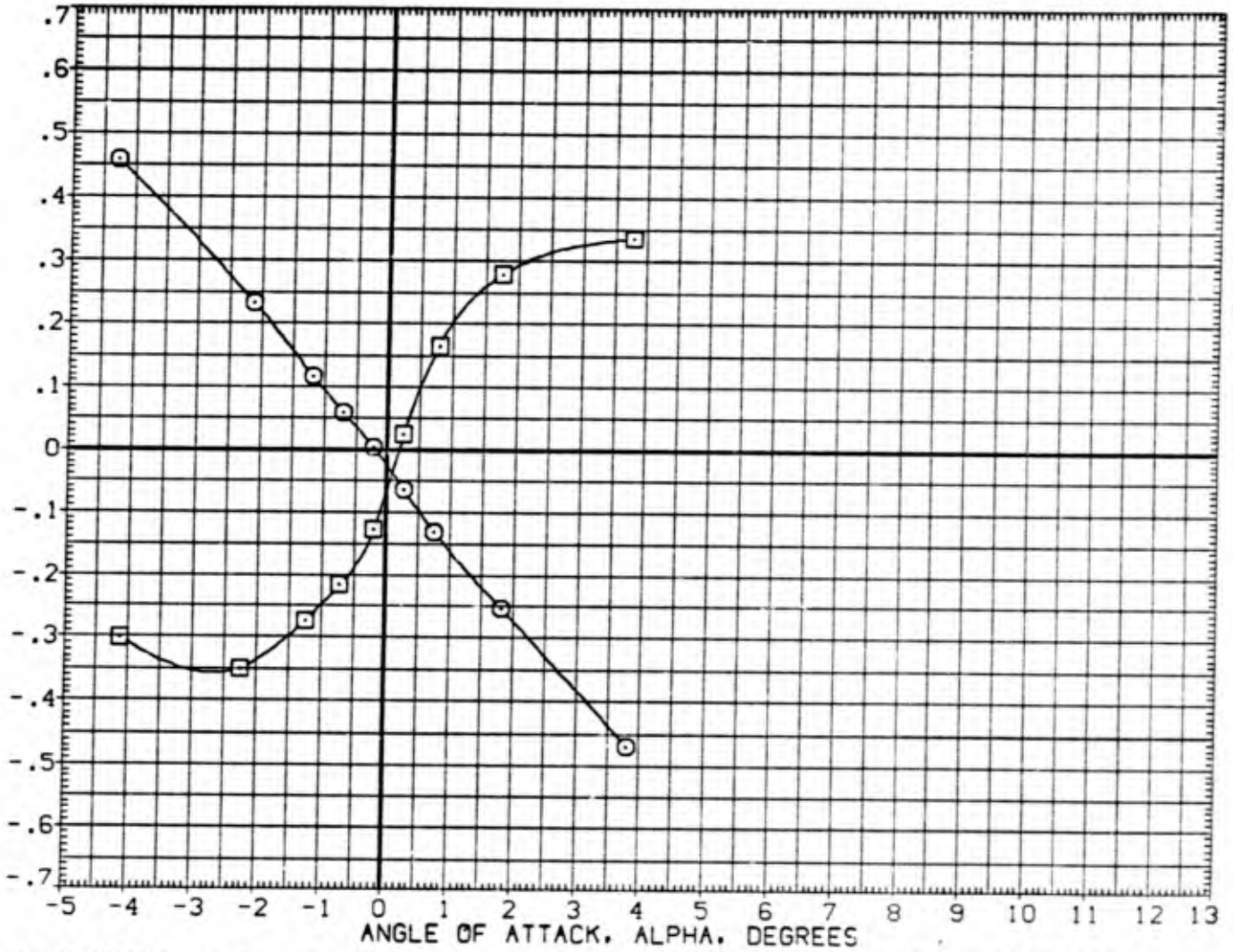
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8031)

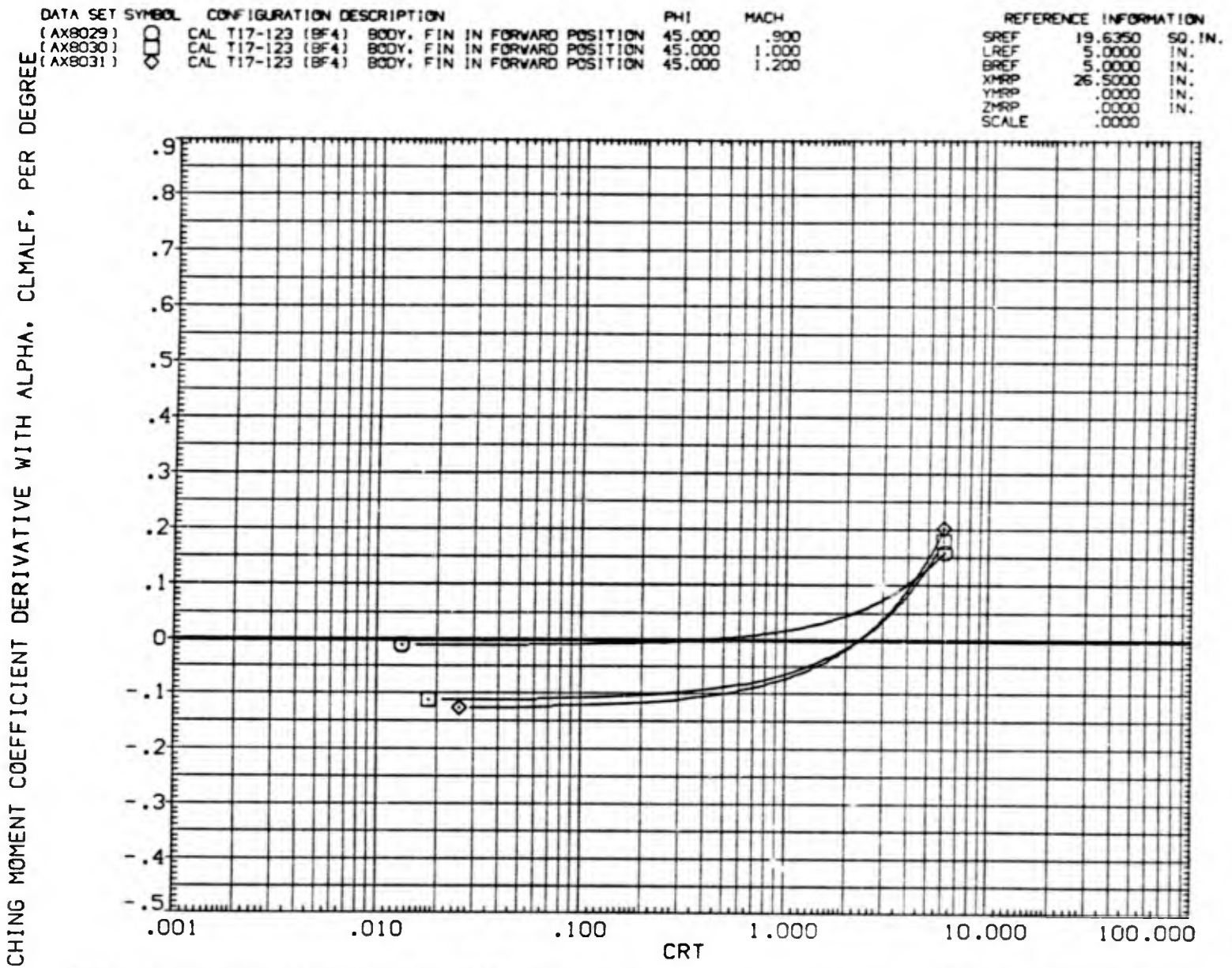
SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	45.000
□	6.008	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION



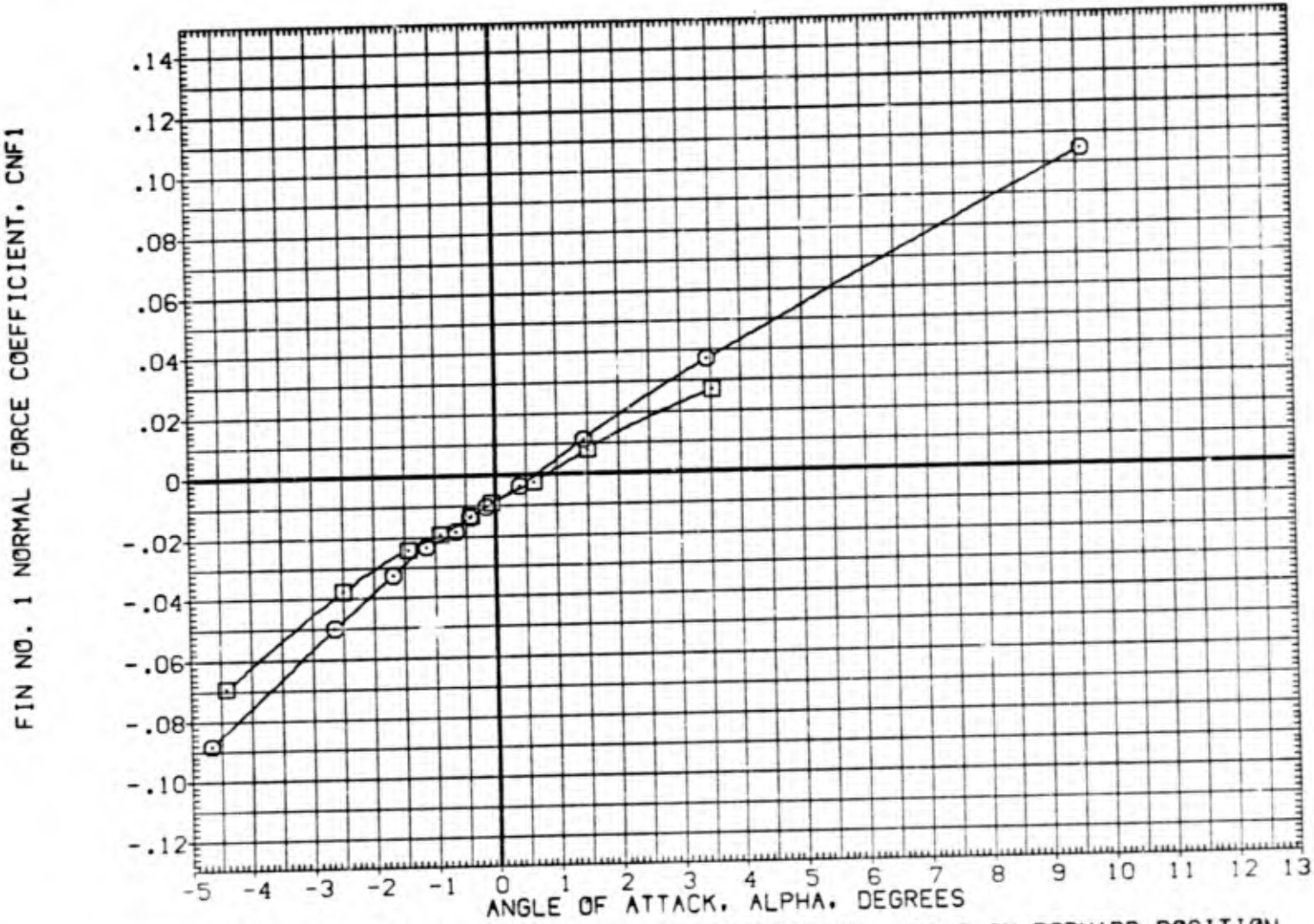
THRUST EFFECTS ON PITCHING MOMENT CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8017)

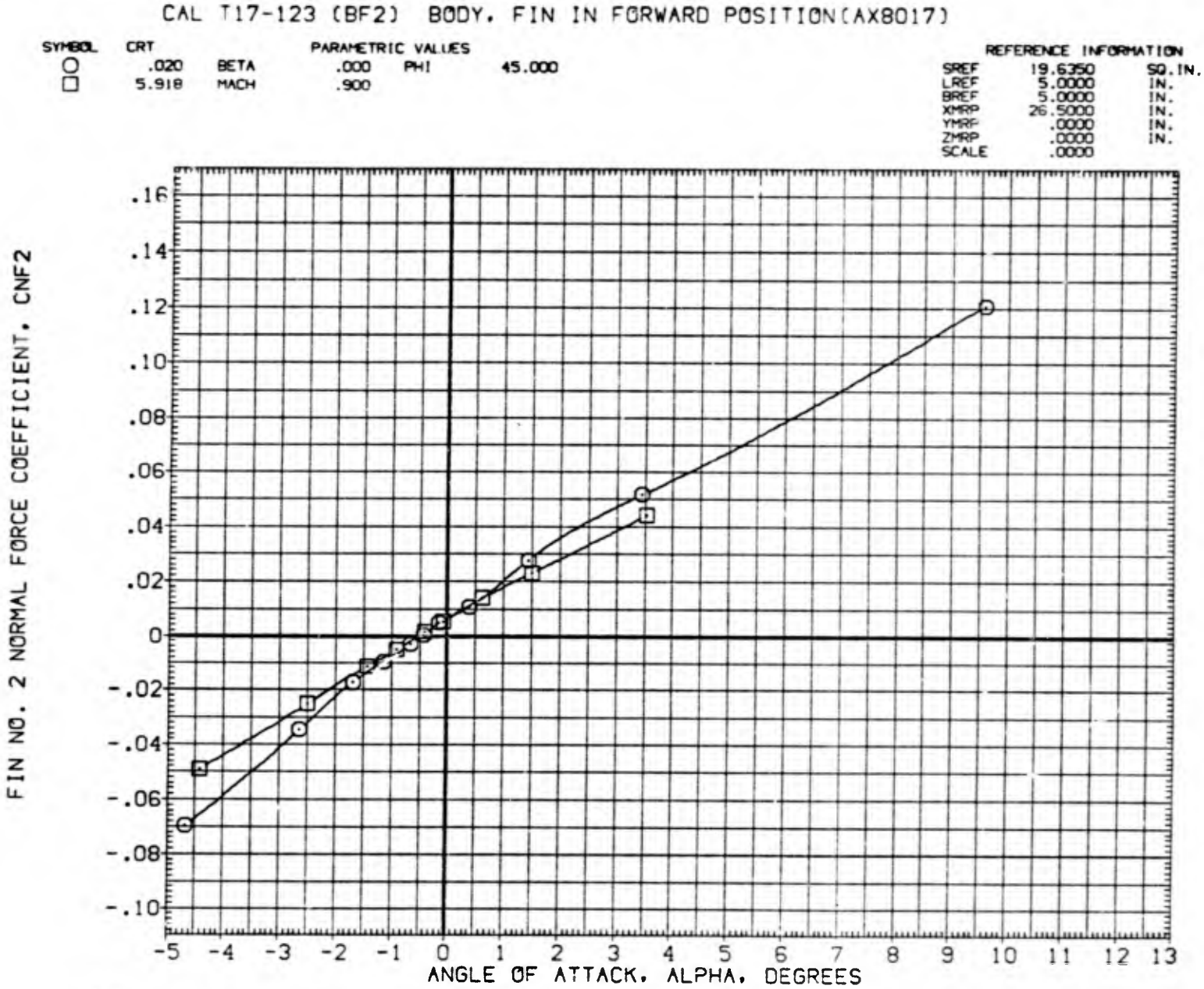
SYMBOL	CRT		PARAMETRIC VALUES		
○	.020	BETA	.000	PHI	45.000
□	5.918	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



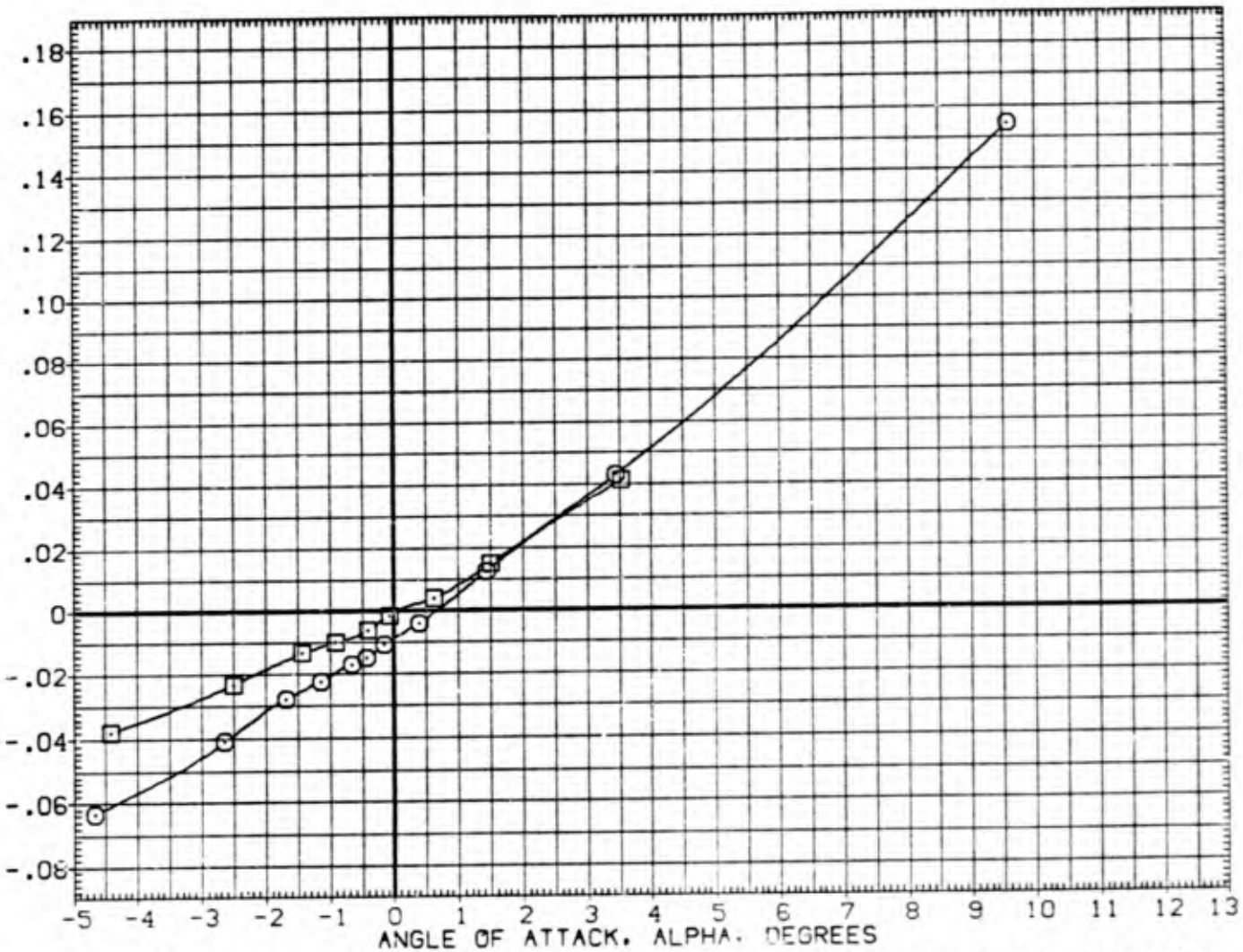
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8017)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.020	BETA	.000	PHI	45.000
□	5.918	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



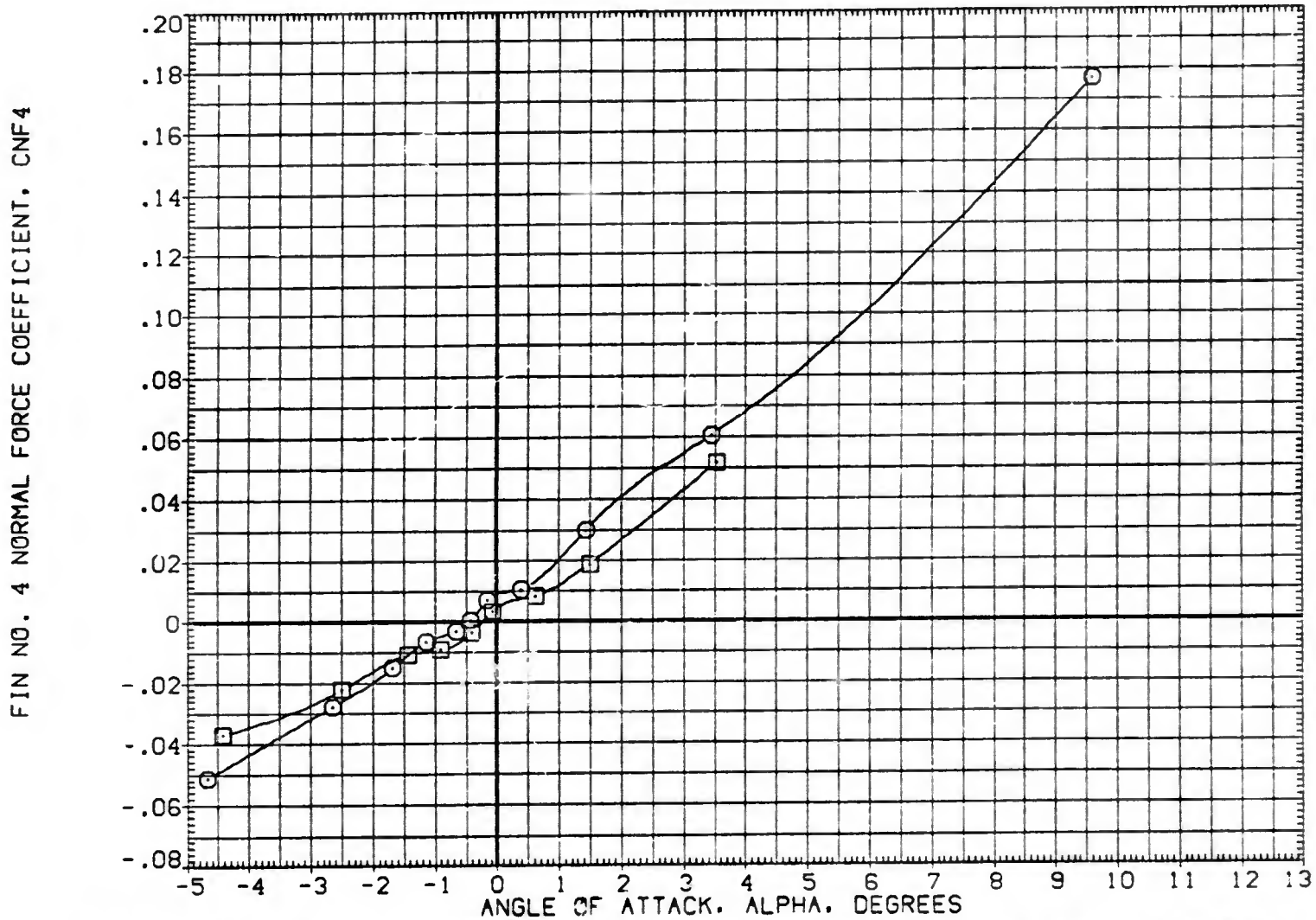
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8017)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.020	BETA	.000	PHI	45.000
□	5.918	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



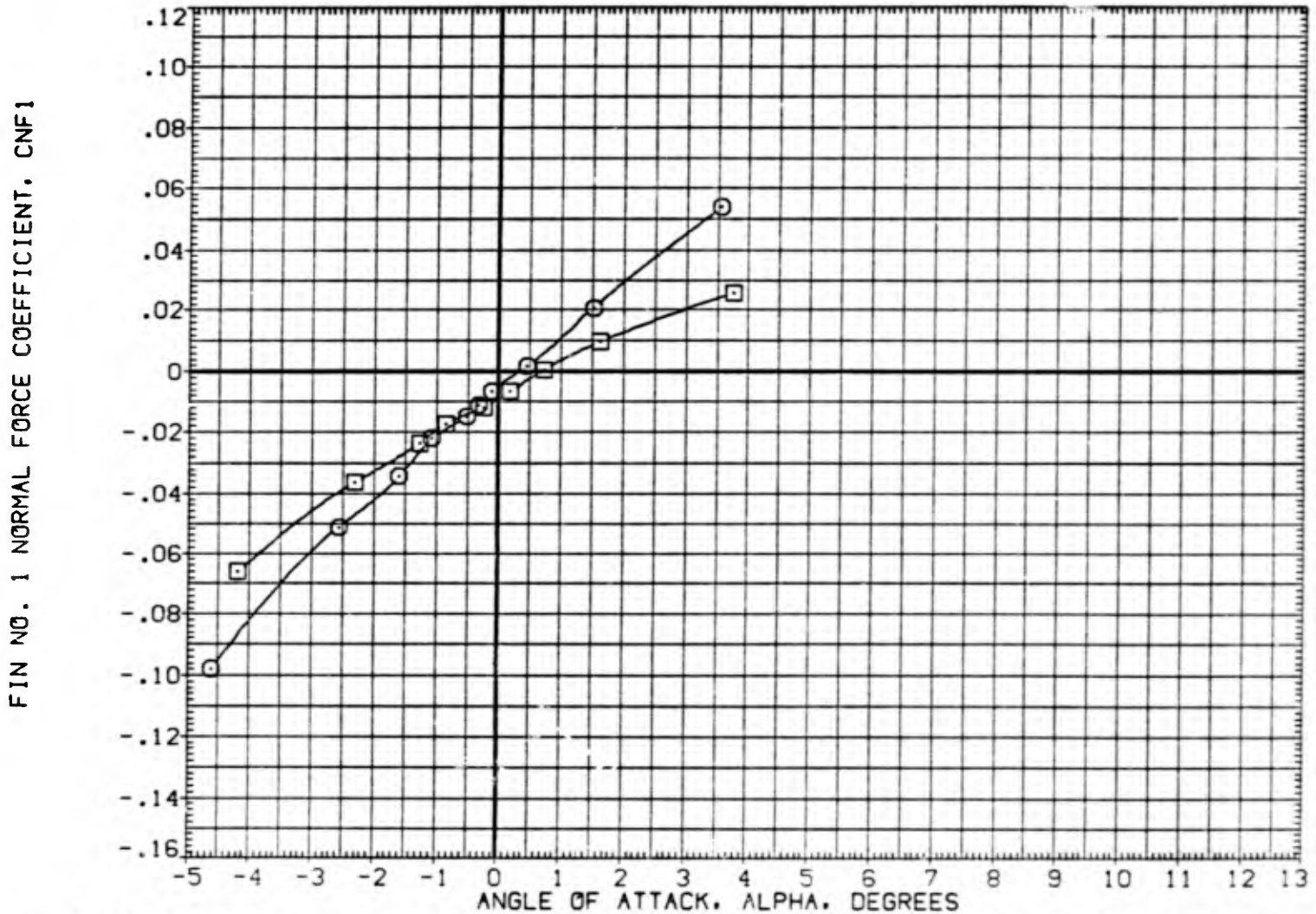
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8018)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	45.000
□	5.927	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



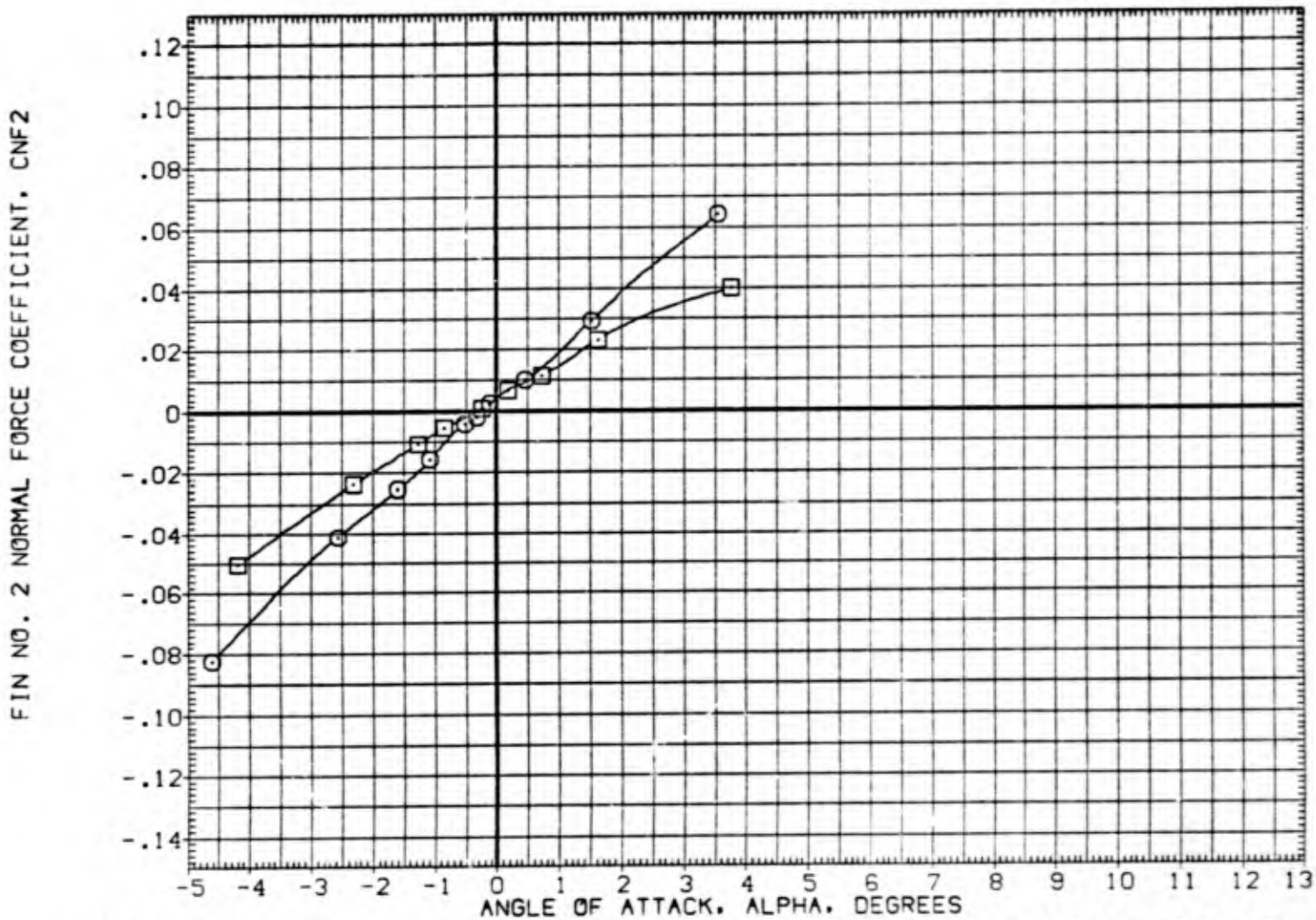
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8018)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	45.000
□	5.927	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



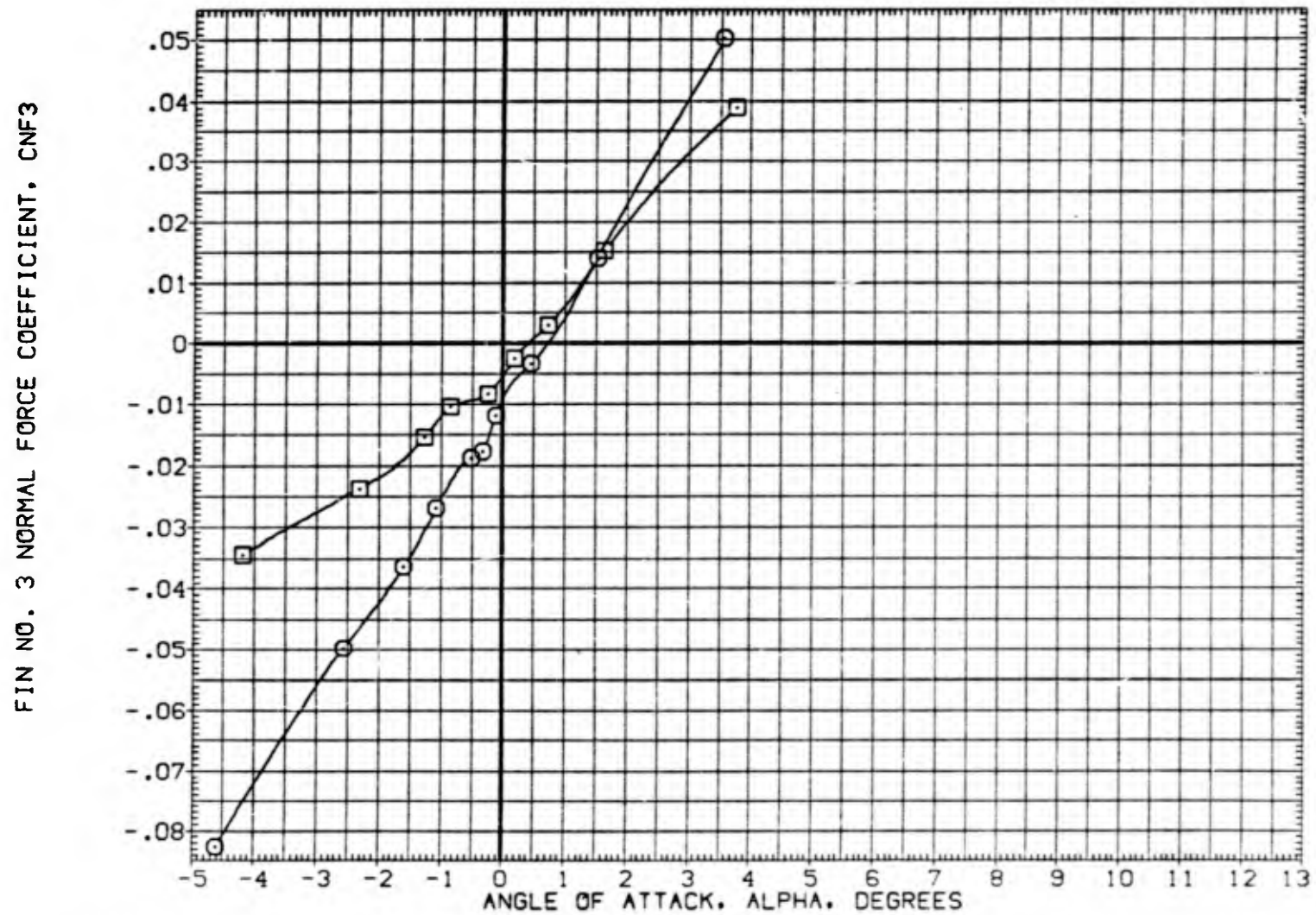
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8018)

SYMBOL	CRT		PARAMETNIC VALUES		
○	.035	BETA	.000	PHI	45.000
□	5.927	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



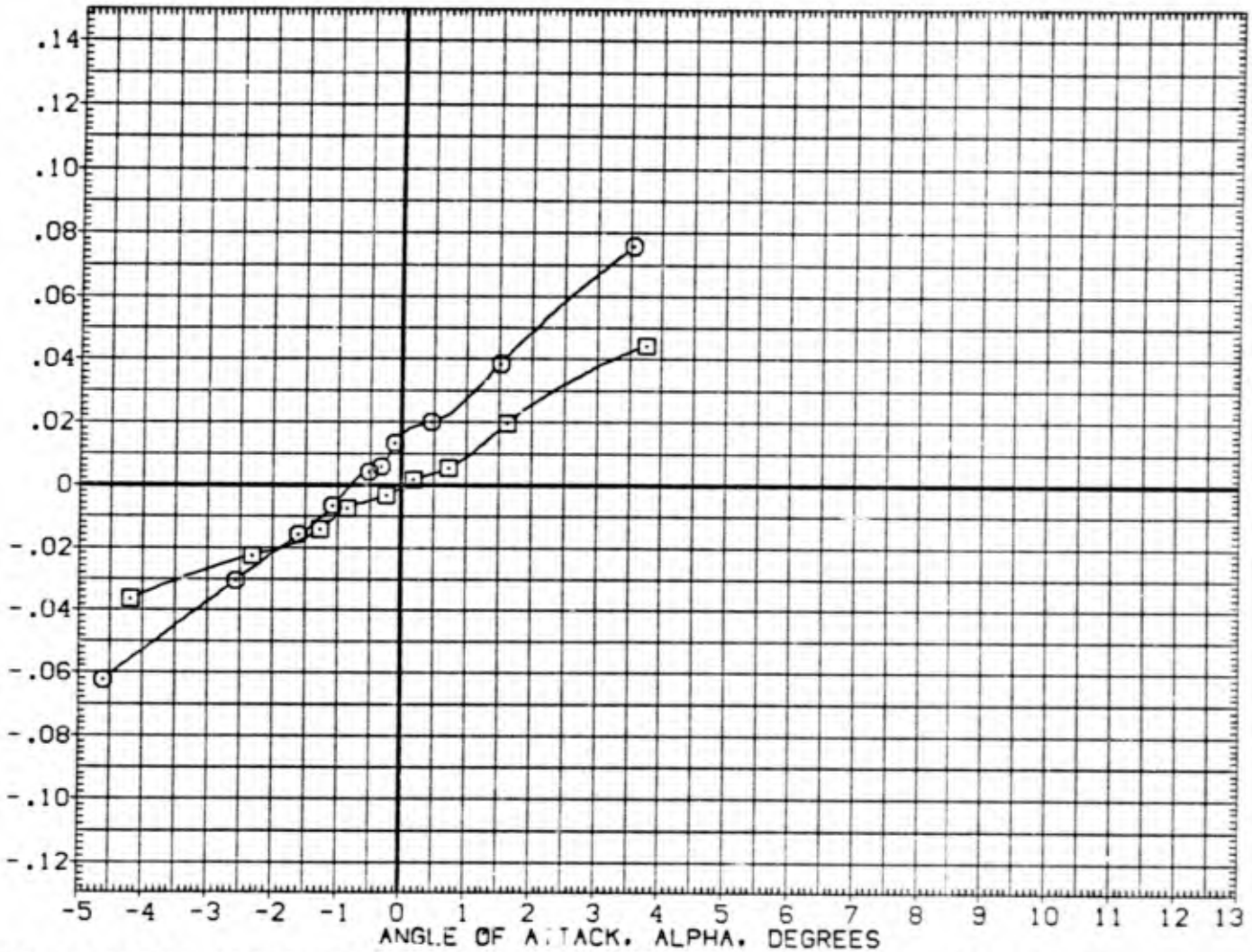
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8018)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.035	BETA	.000	PHI	45.000
□	5.927	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



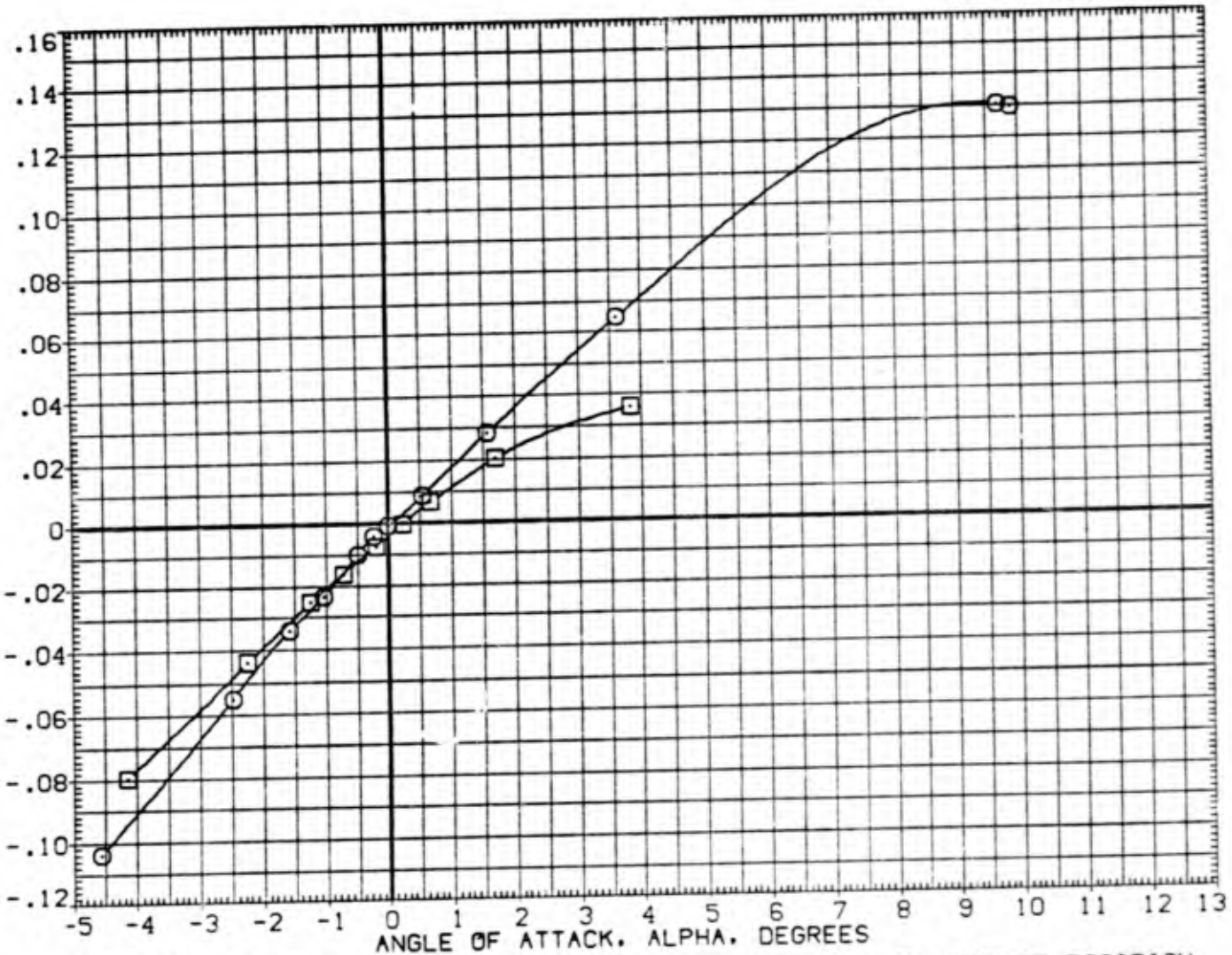
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8019)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.003	BETA	.000	PHI	45.000
□	5.959	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



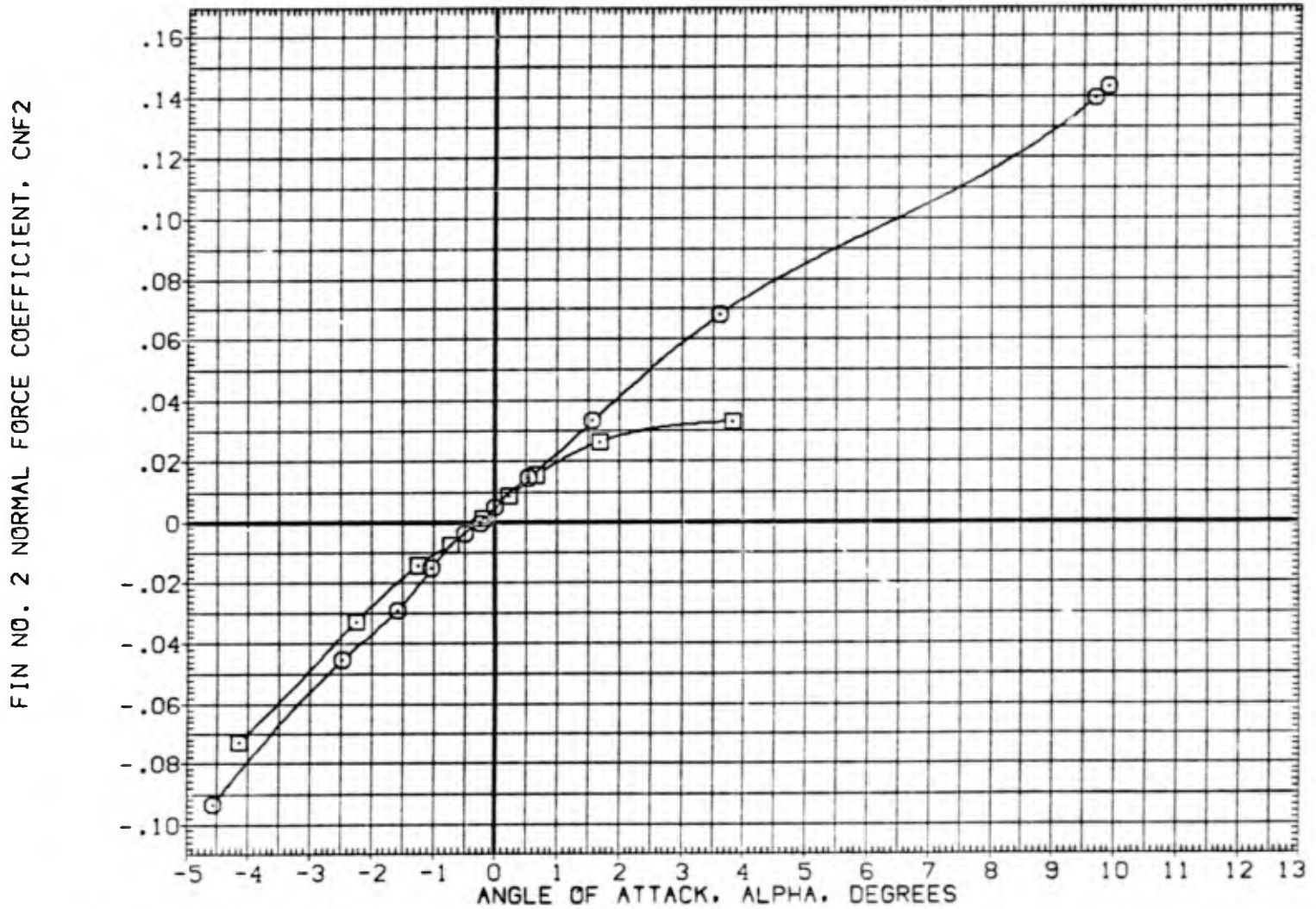
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8019)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.003	BETA	.000	PHI	45.000
□	5.959	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



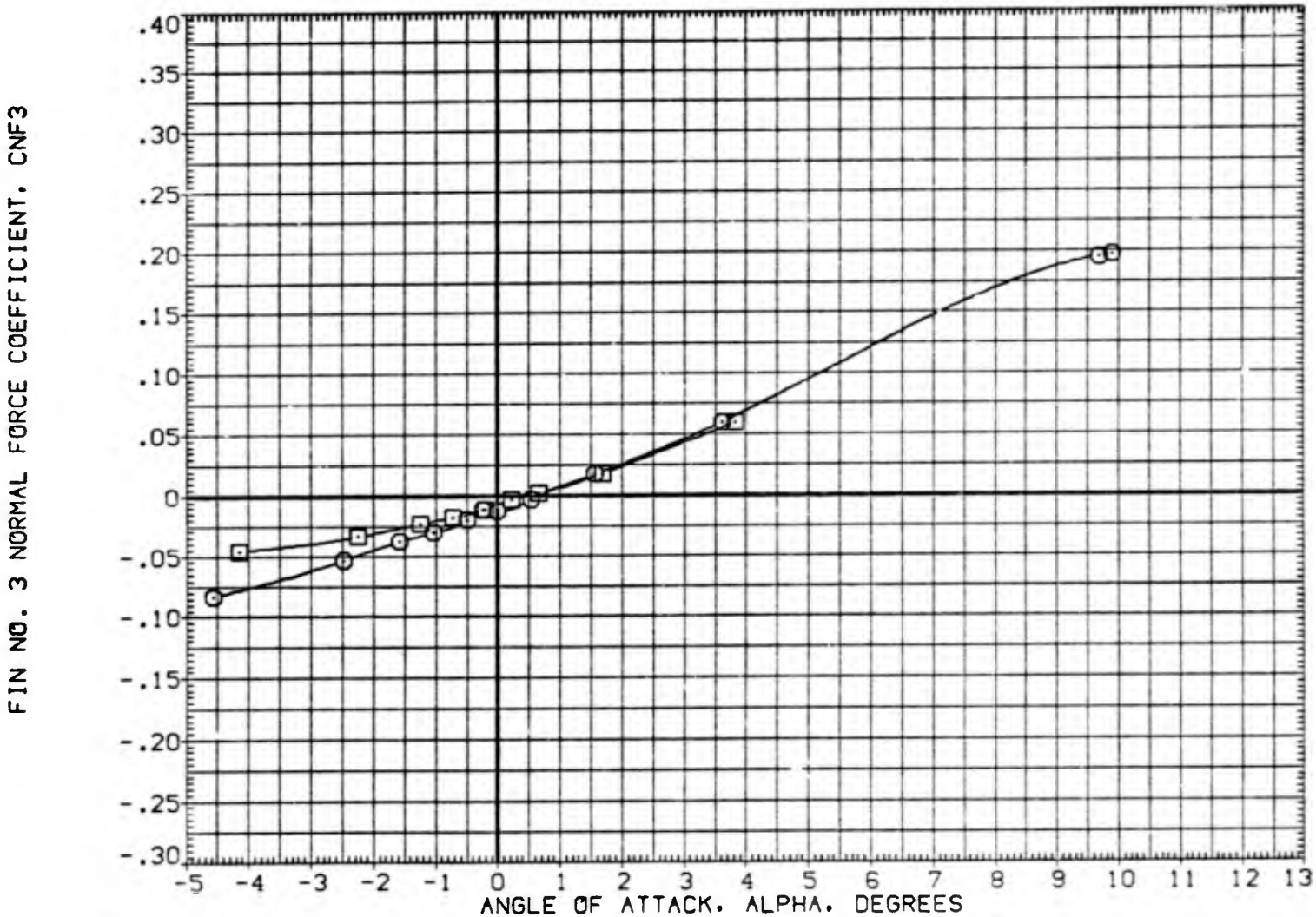
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY. FIN IN FORWARD POSITION(AX8019)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.003	BETA	.000	PHI	45.000
□	5.959	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



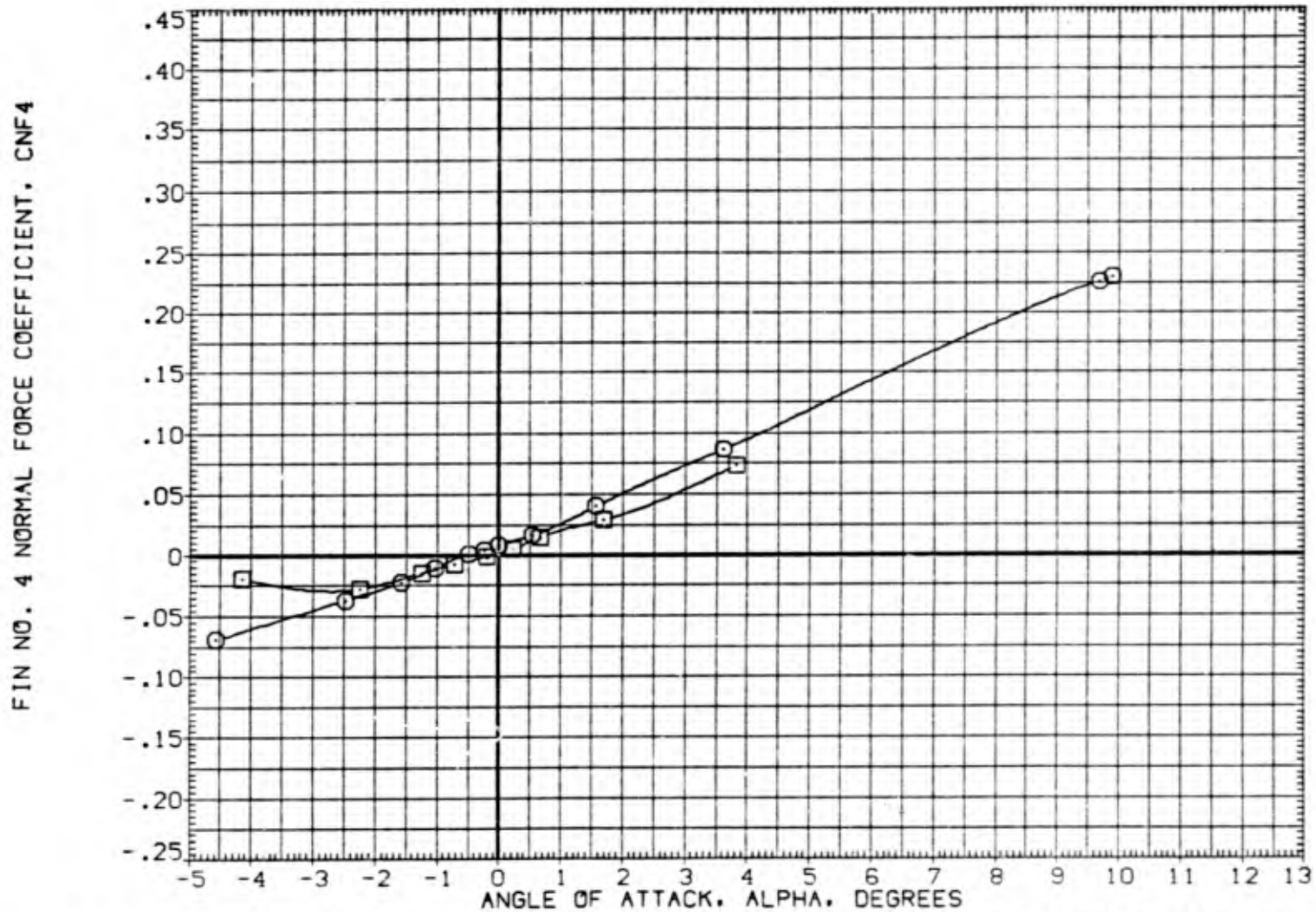
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION(AX8019)

SYMBOL	CRT		PARAMETRIC VALUES		
○	-.003	BETA	.000	PHI	45.000
□	5.959	MACH	1.200		

REFERENCE INFORMATION

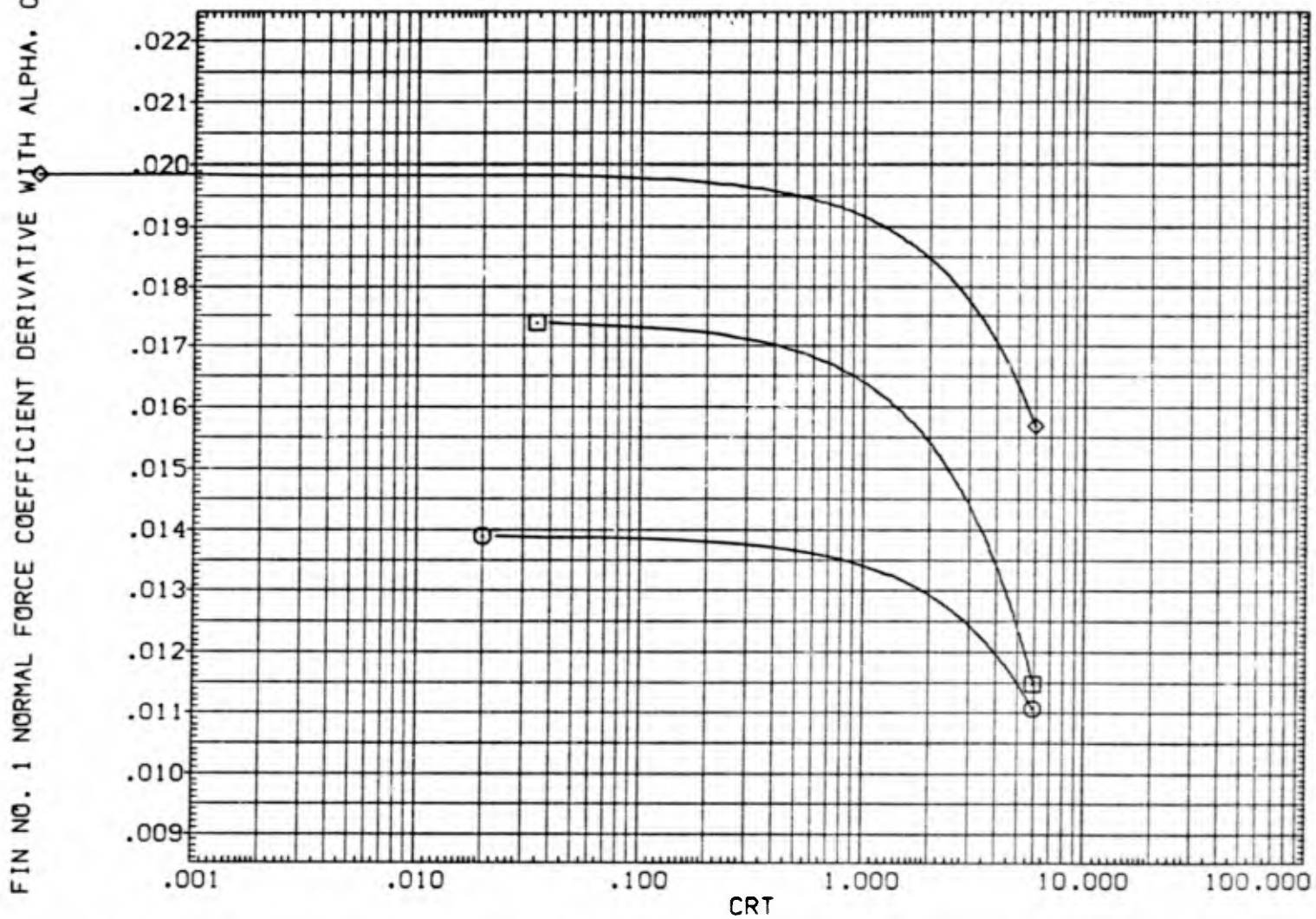
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	25.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



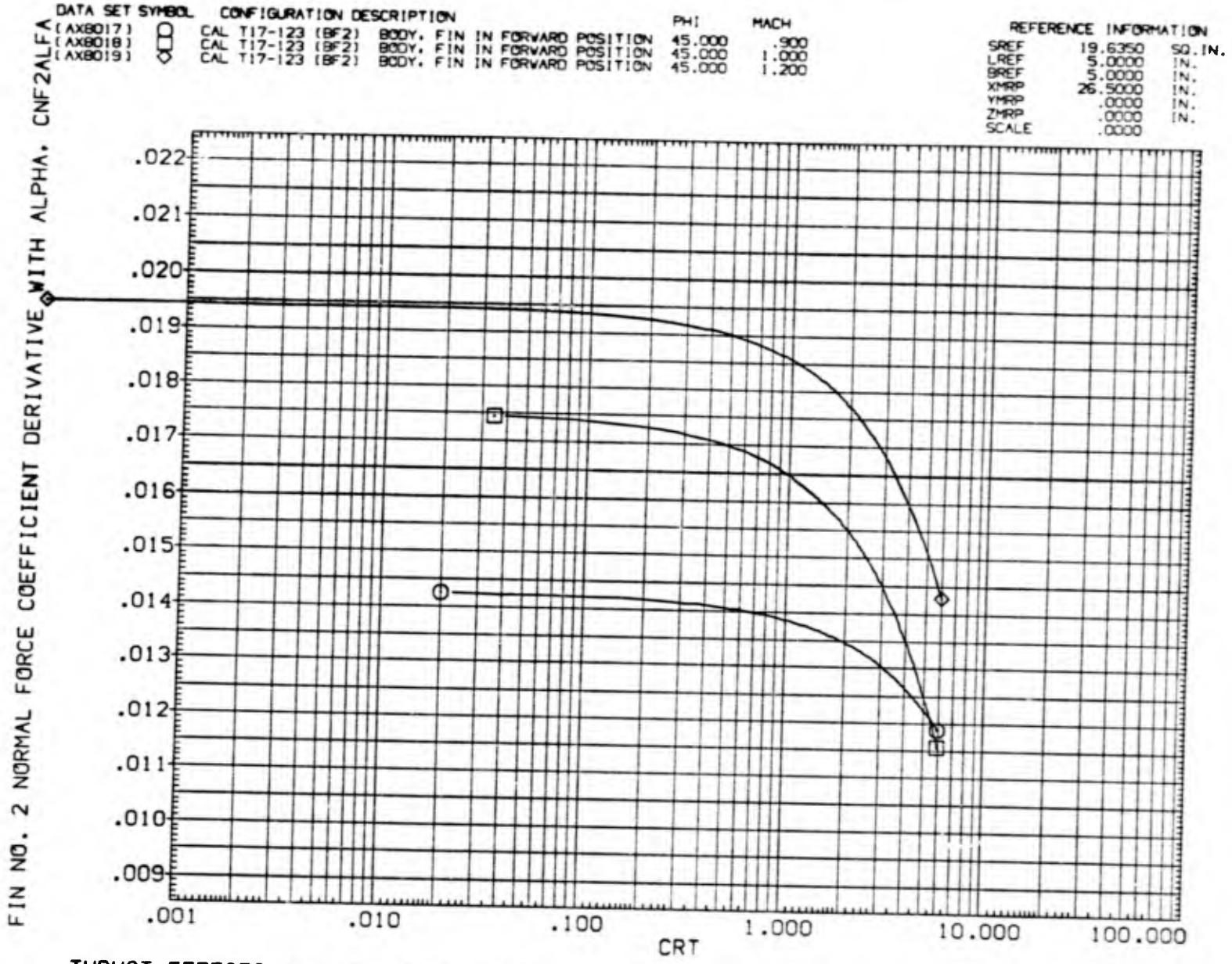
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8017)	◻	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	45.000	.900
(AX8018)	○	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	45.000	1.000
(AX8019)	◇	CAL T17-123 (BF2) BODY, FIN IN FORWARD POSITION	45.000	1.200

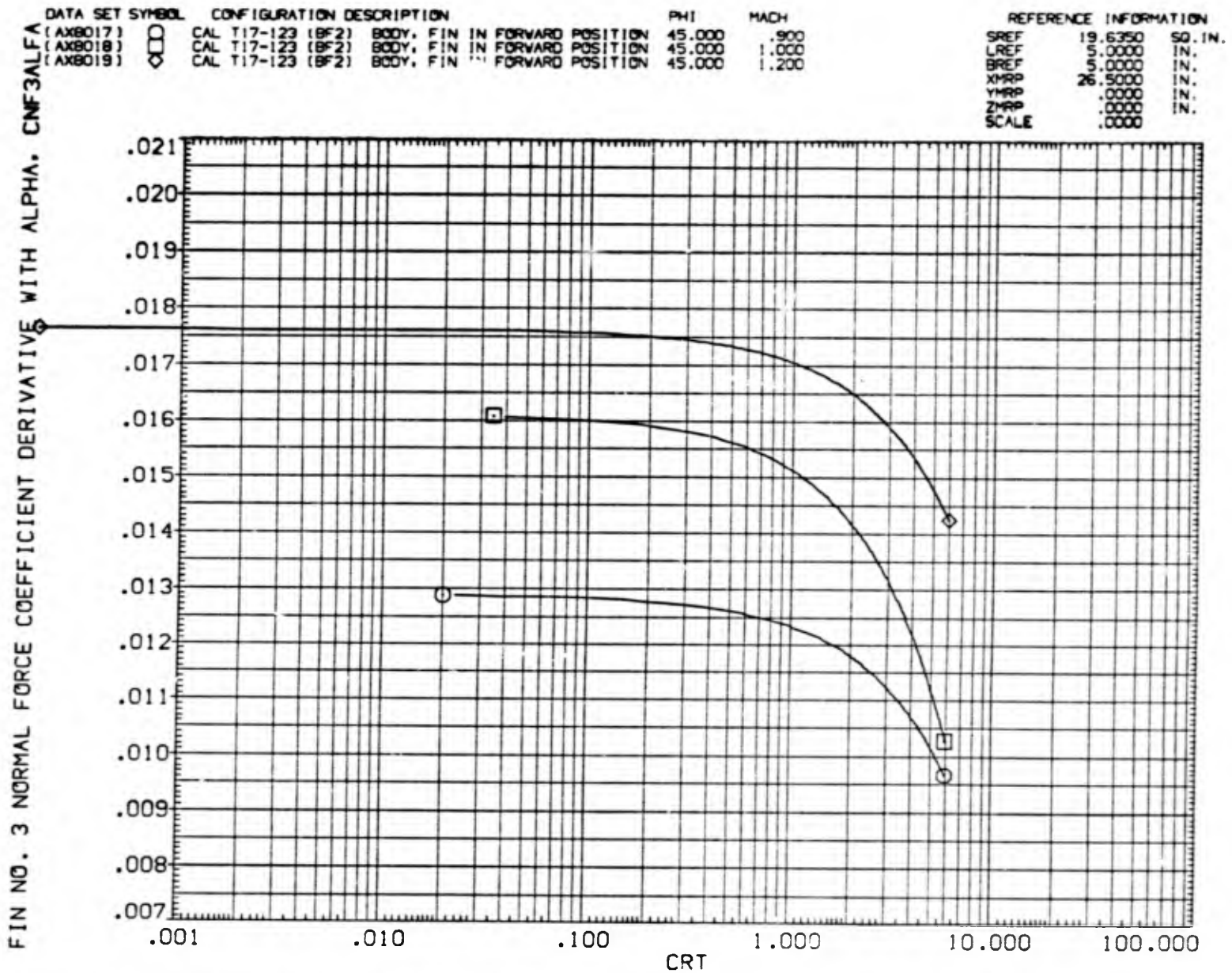
REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



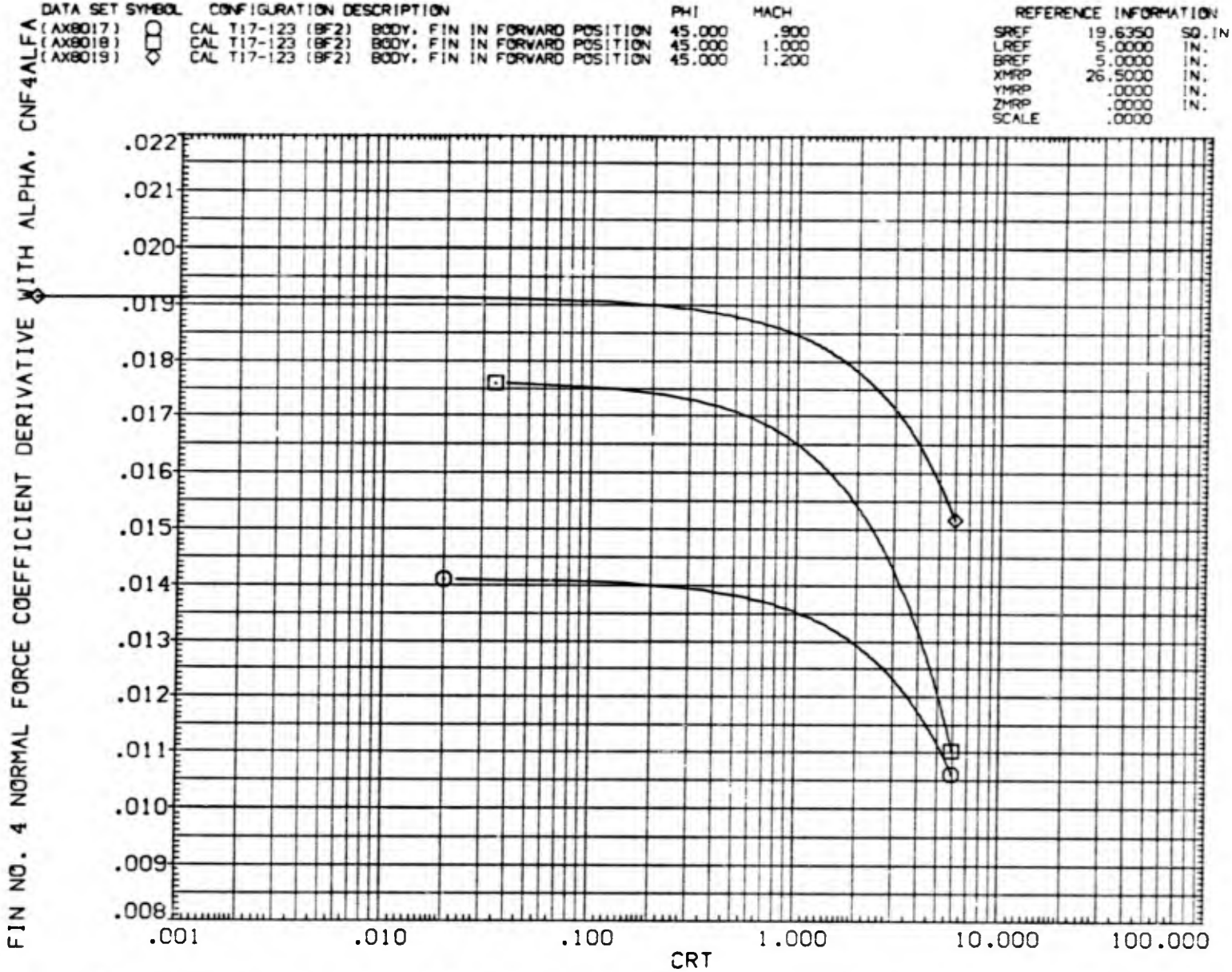
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



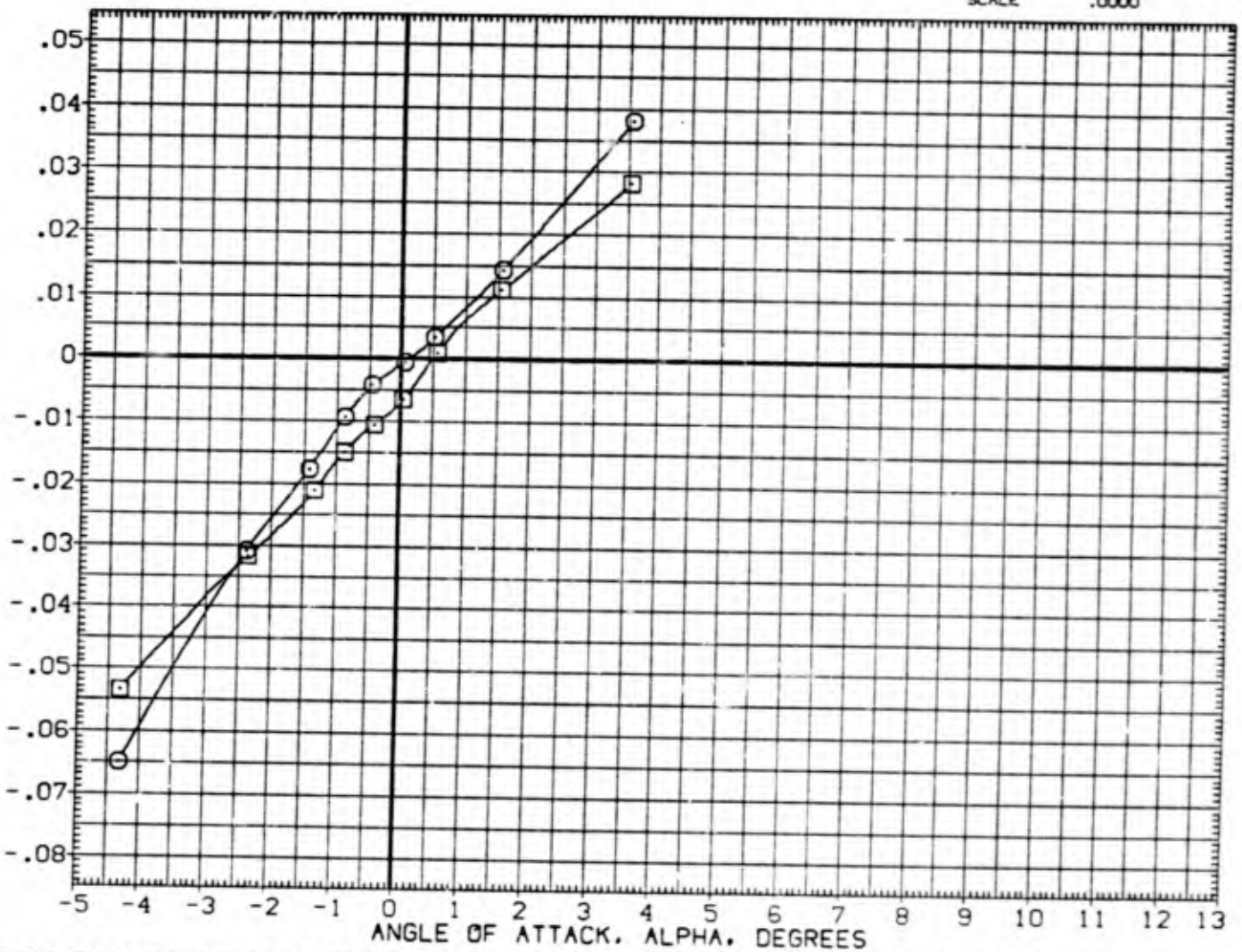
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8029)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	45.000
□	6.056	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



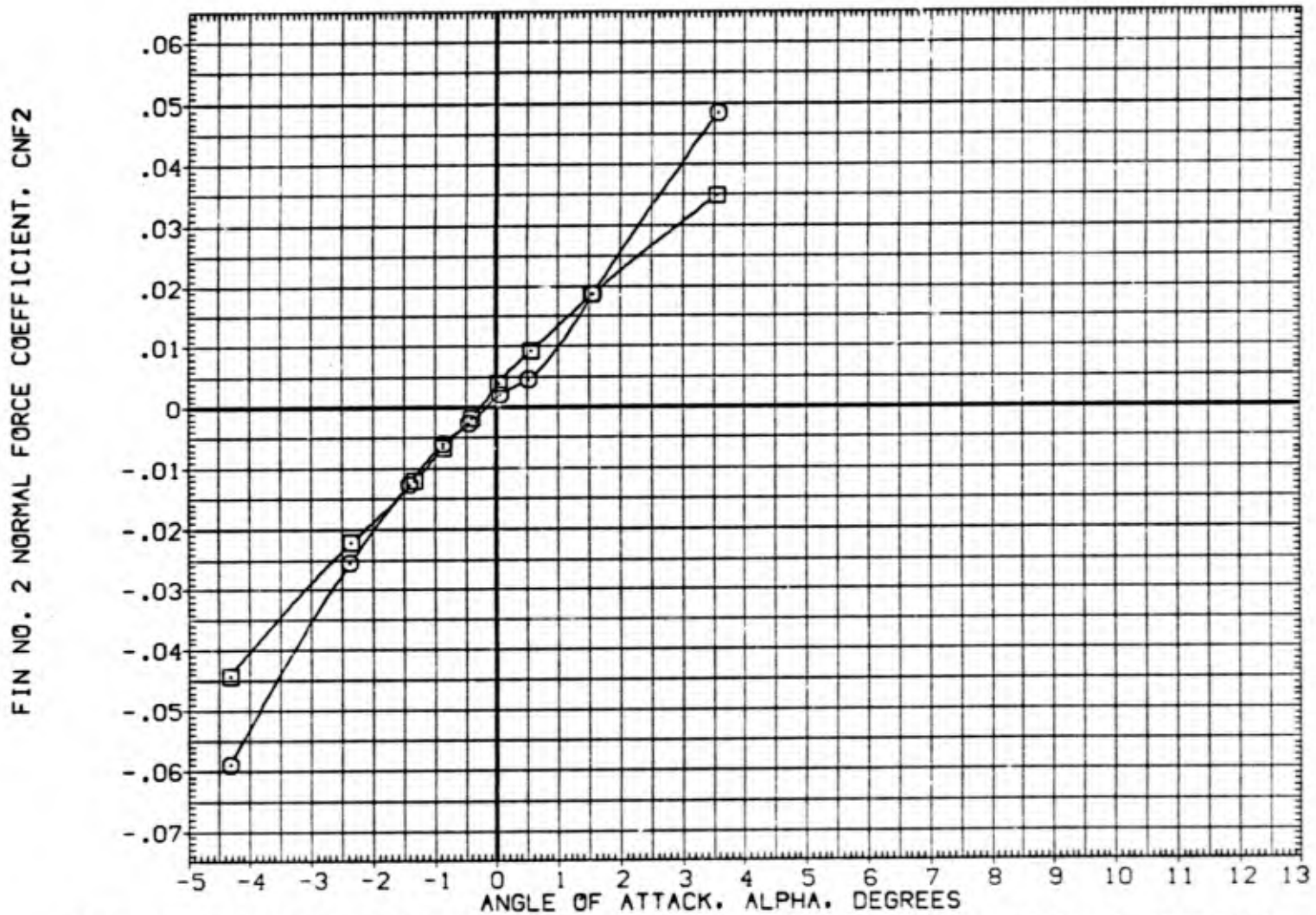
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8029)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	45.000
□	6.056	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



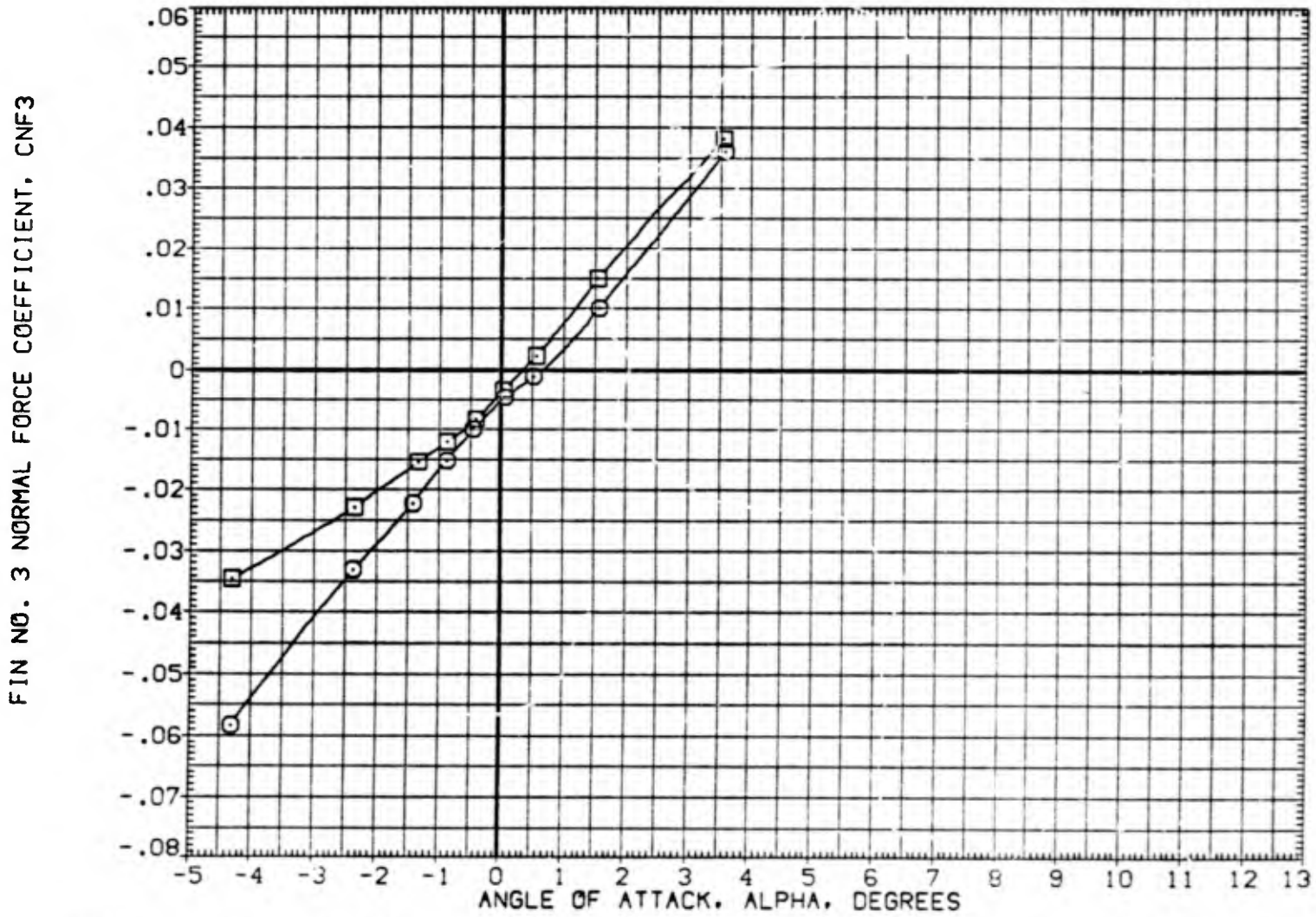
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8029)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	45.000
□	6.056	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



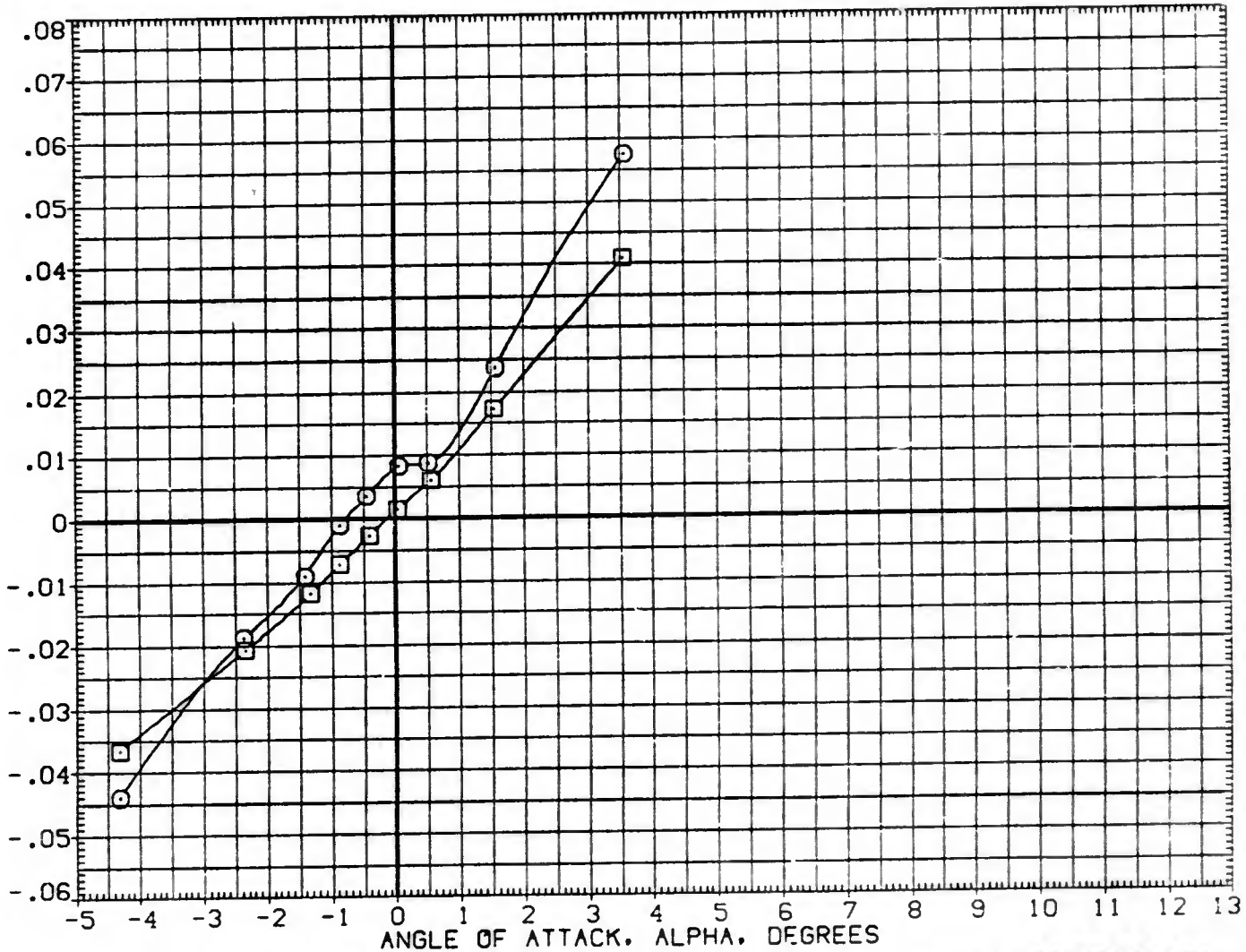
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8029)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.013	BETA	.000	PHI	45.000
□	6.056	MACH	.900		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



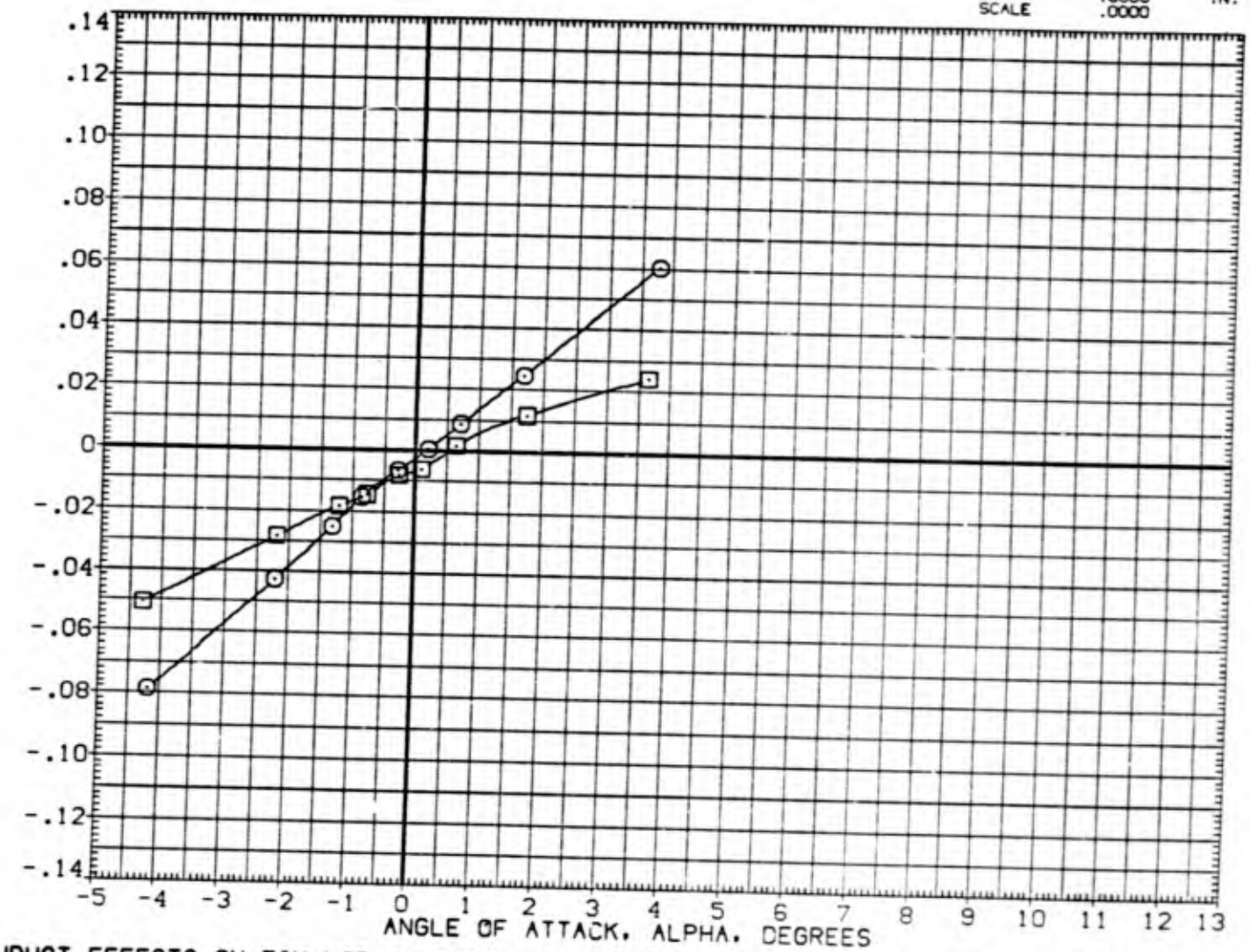
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8030)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.018	BETA	.000	PHI	45.000
□	5.956	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



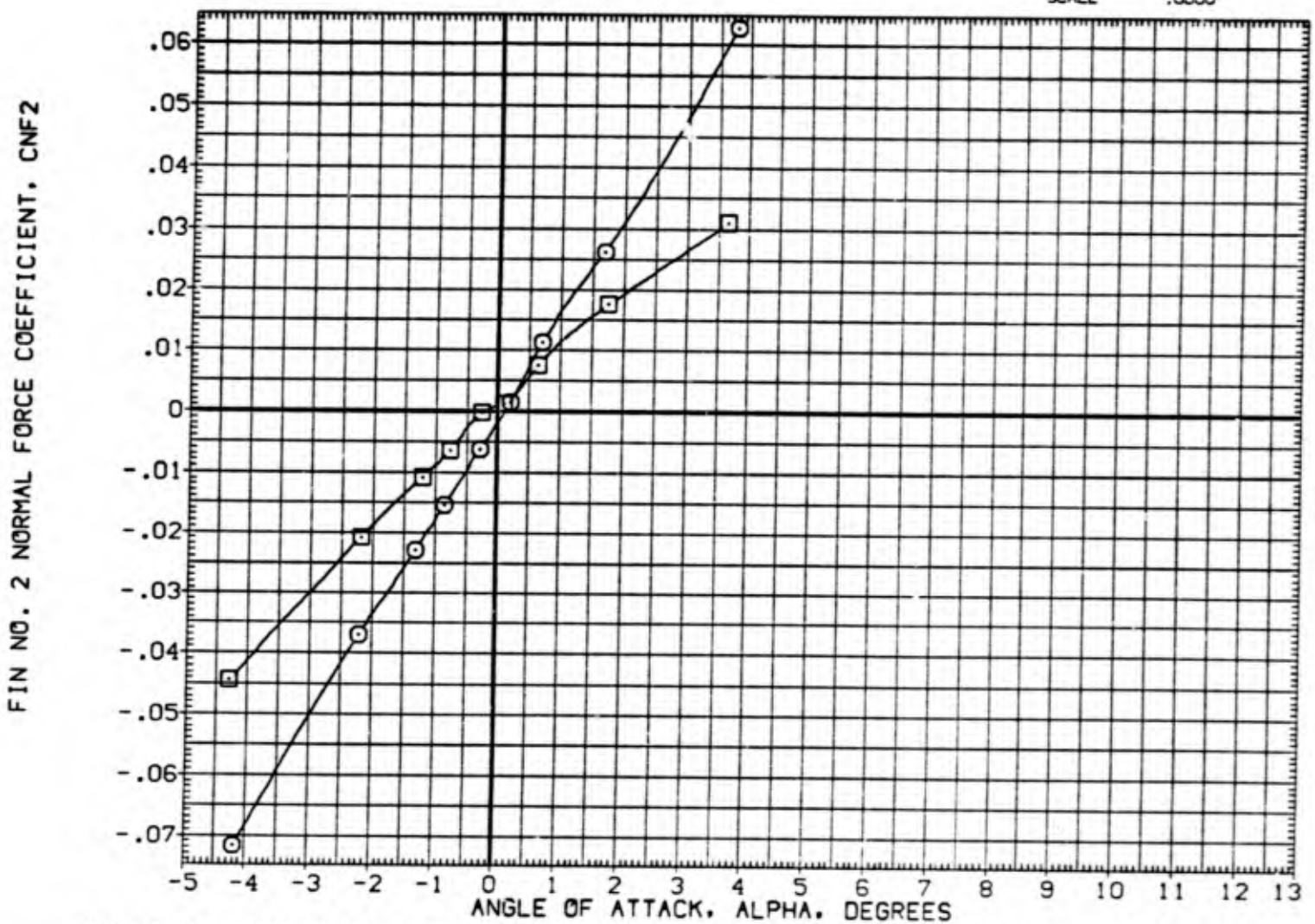
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8030)

SYMBOL	ORT		PARAMETRIC VALUES		
○	.018	BETA	.000	PHI	45.000
□	5.956	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



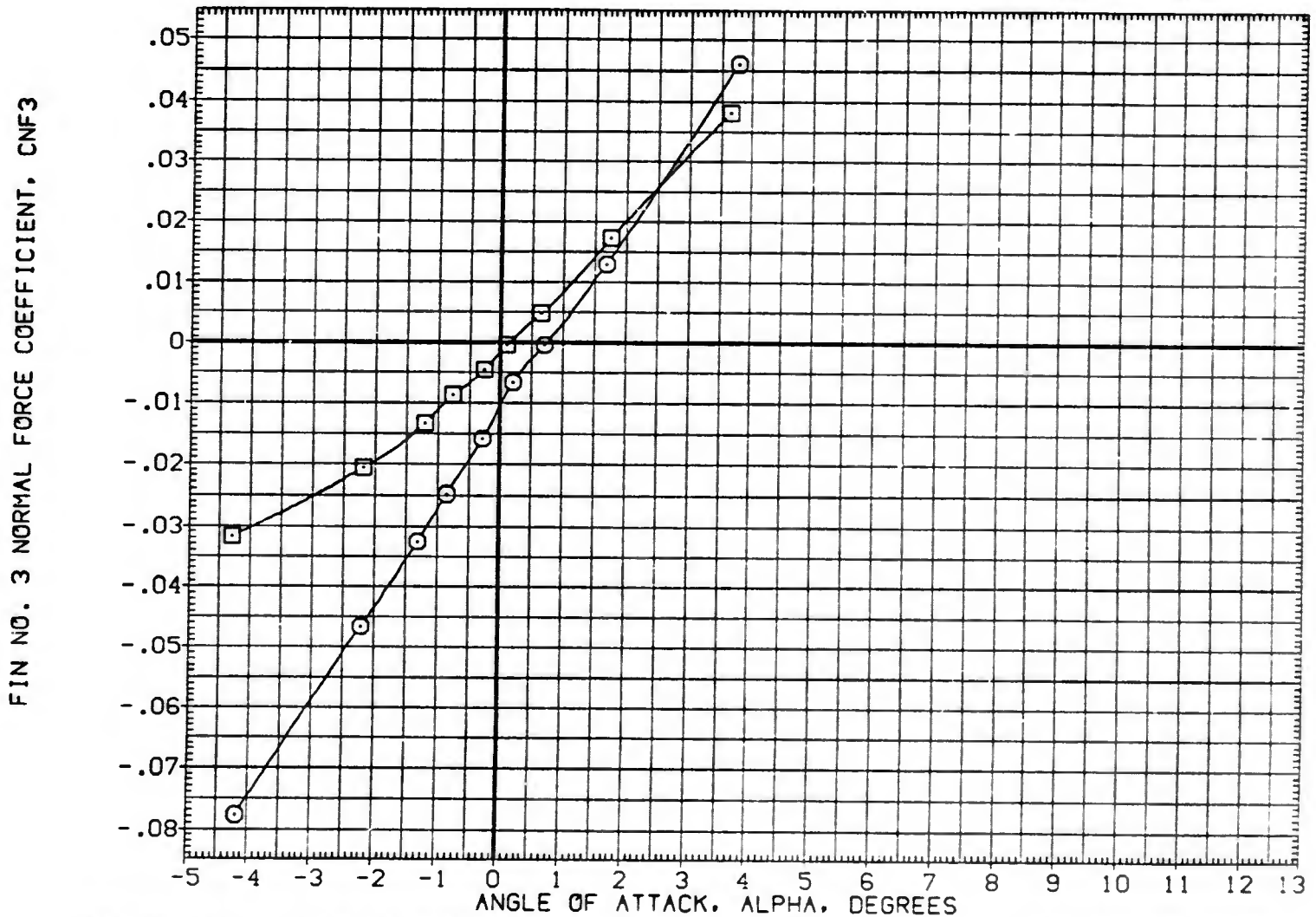
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8030)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.018	BETA	.000	PHI	45.000
□	5.956	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



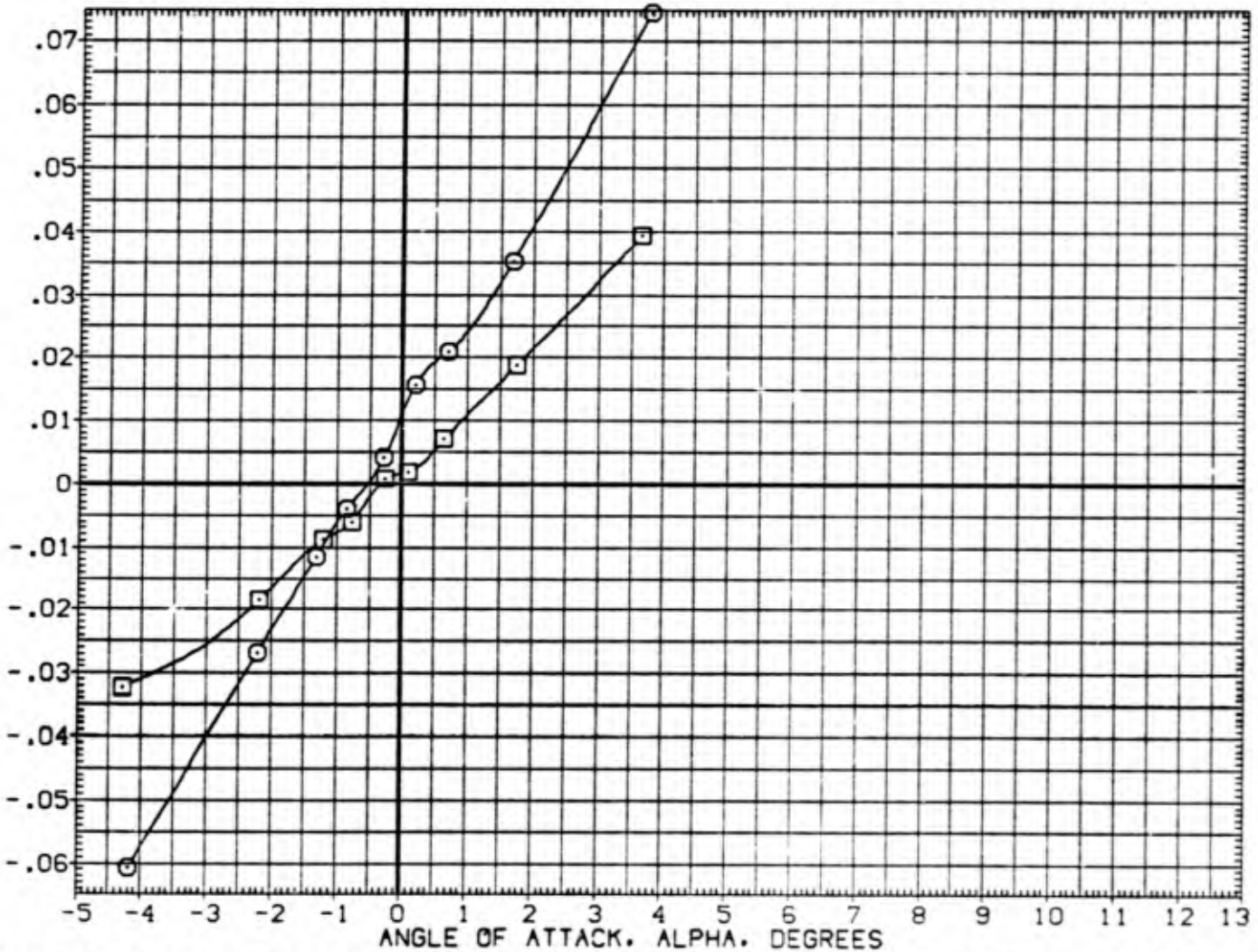
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8030)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.018	BETA	.000	PHI	45.000
□	5.956	MACH	1.000		

REFERENCE INFORMATION

SREF	19.6350	SQ. IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



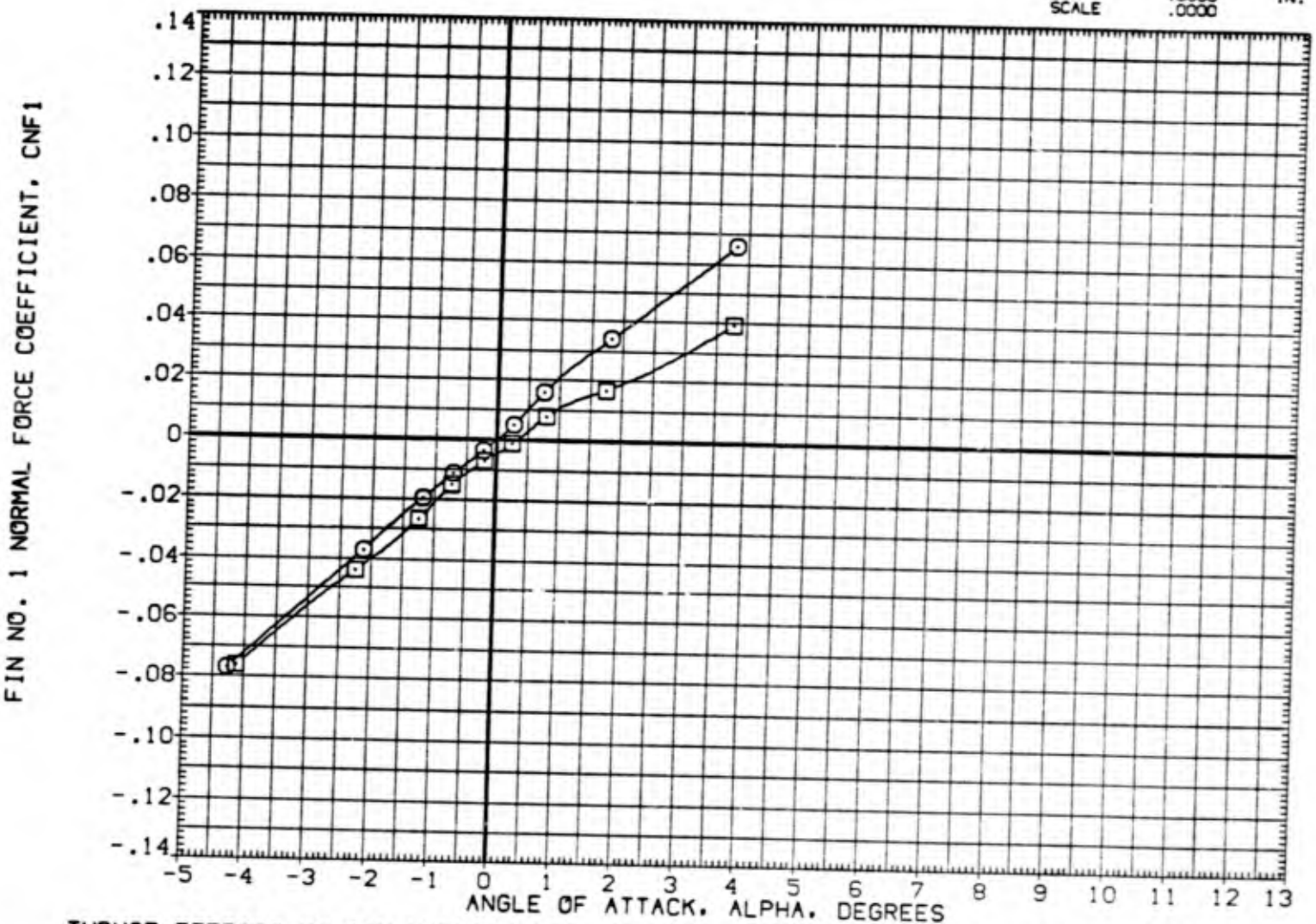
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8031)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	45.000
□	6.008	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



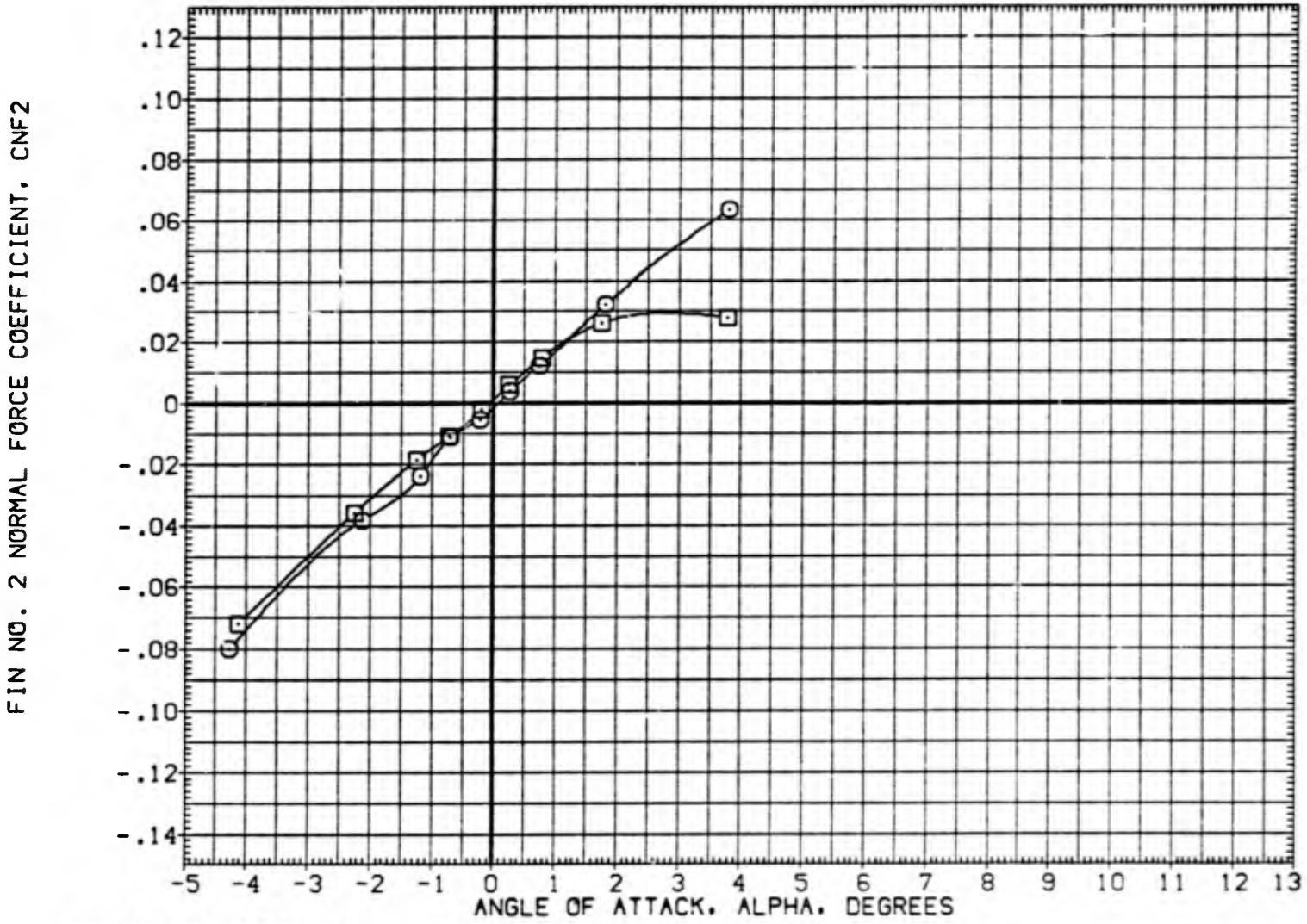
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY. FIN IN FORWARD POSITION(AX8031)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	45.000
□	6.008	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



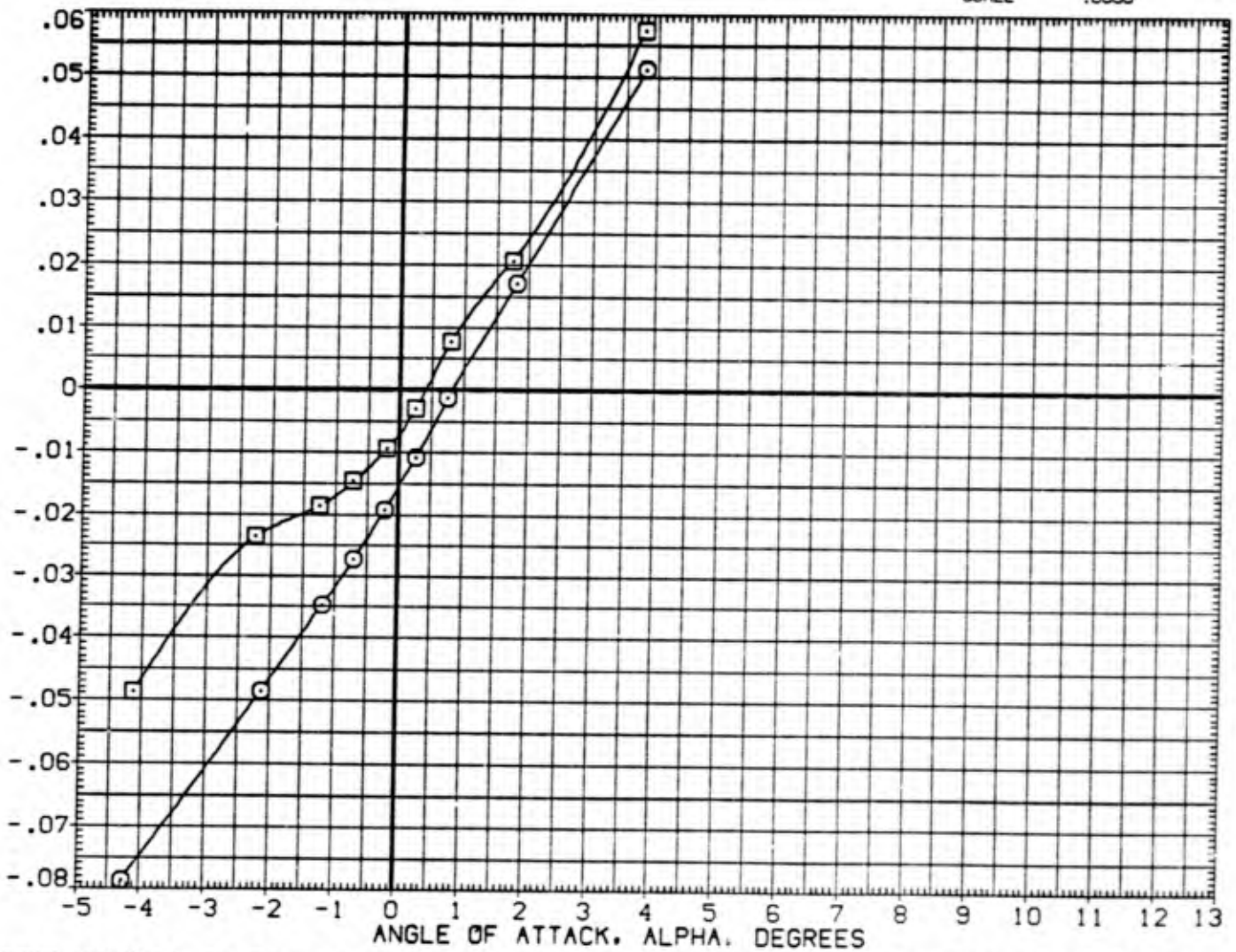
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8031)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	45.000
□	6.008	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



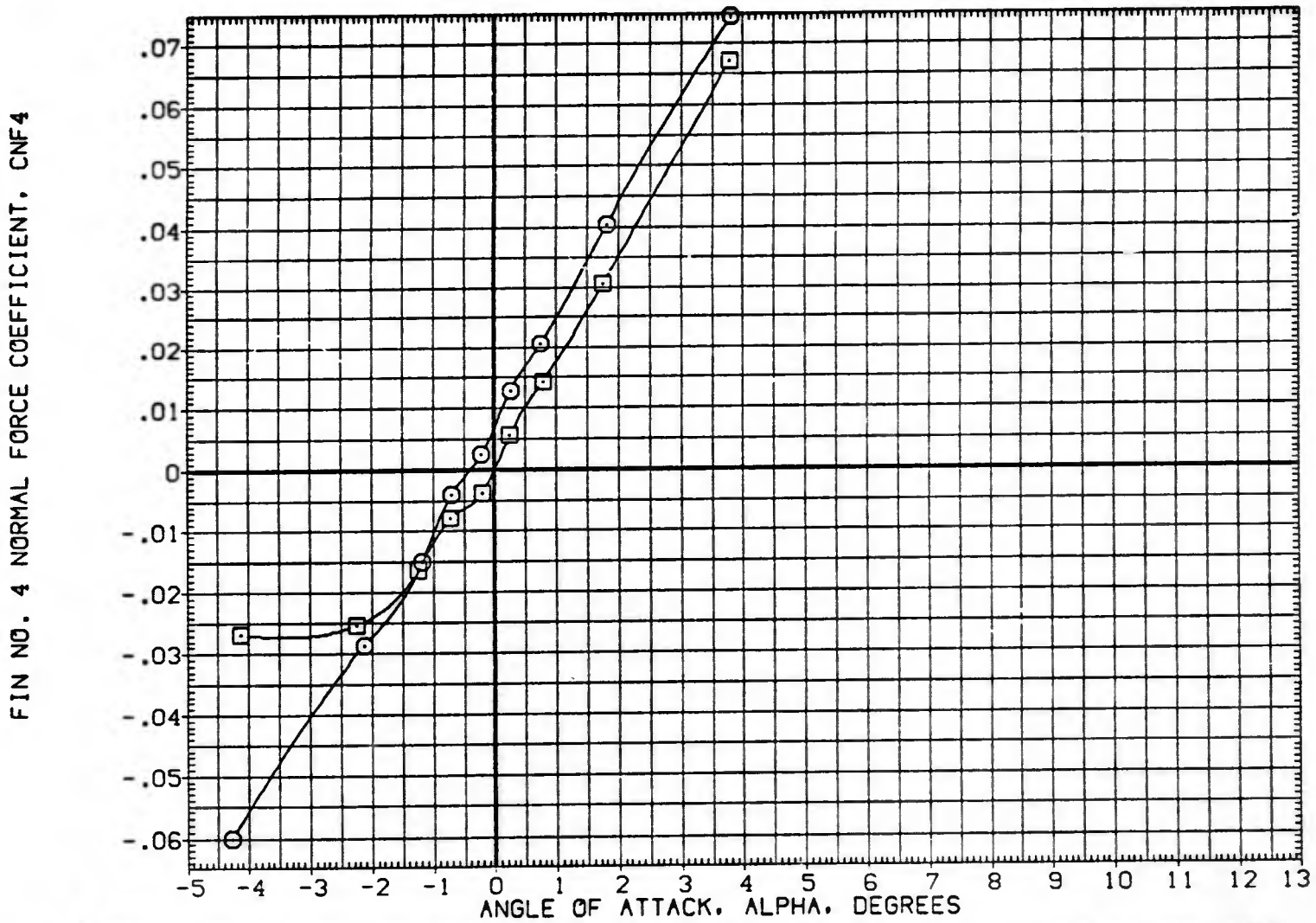
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION(AX8031)

SYMBOL	CRT		PARAMETRIC VALUES		
○	.026	BETA	.000	PHI	45.000
□	6.008	MACH	1.200		

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	

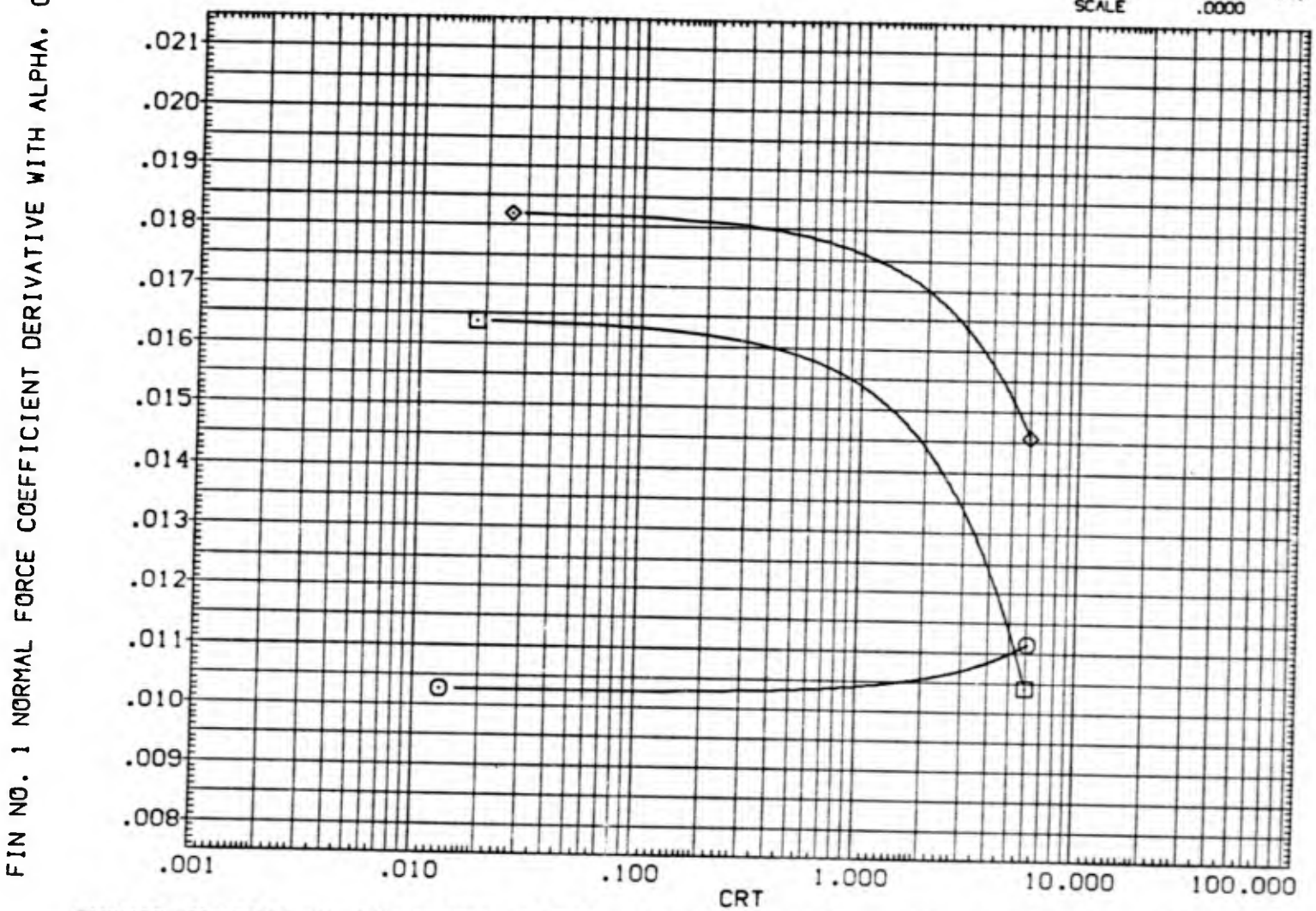


THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

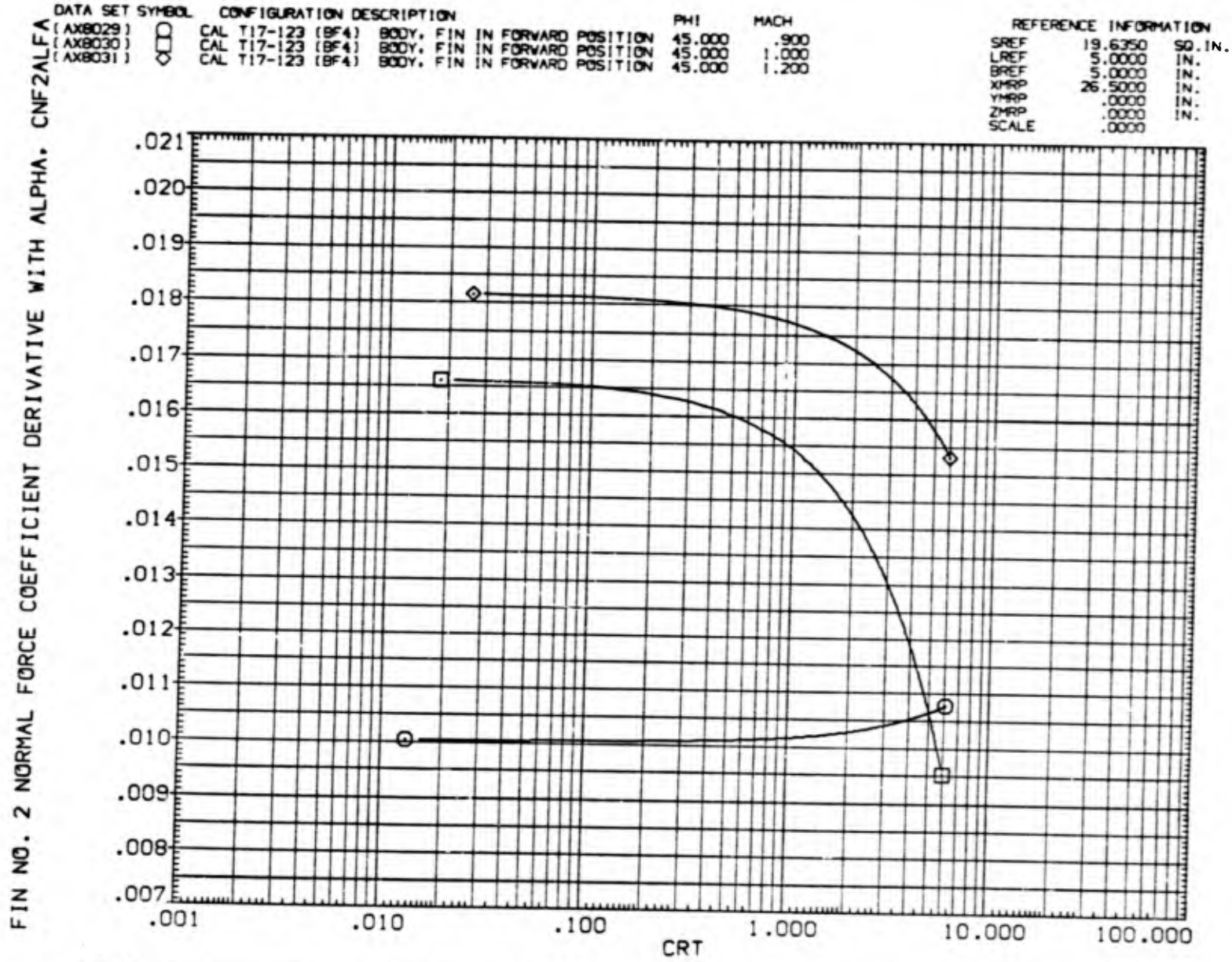
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8029)	○	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	.900
(AX8030)	□	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	1.000
(AX8031)	◇	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	1.200

REFERENCE INFORMATION

SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



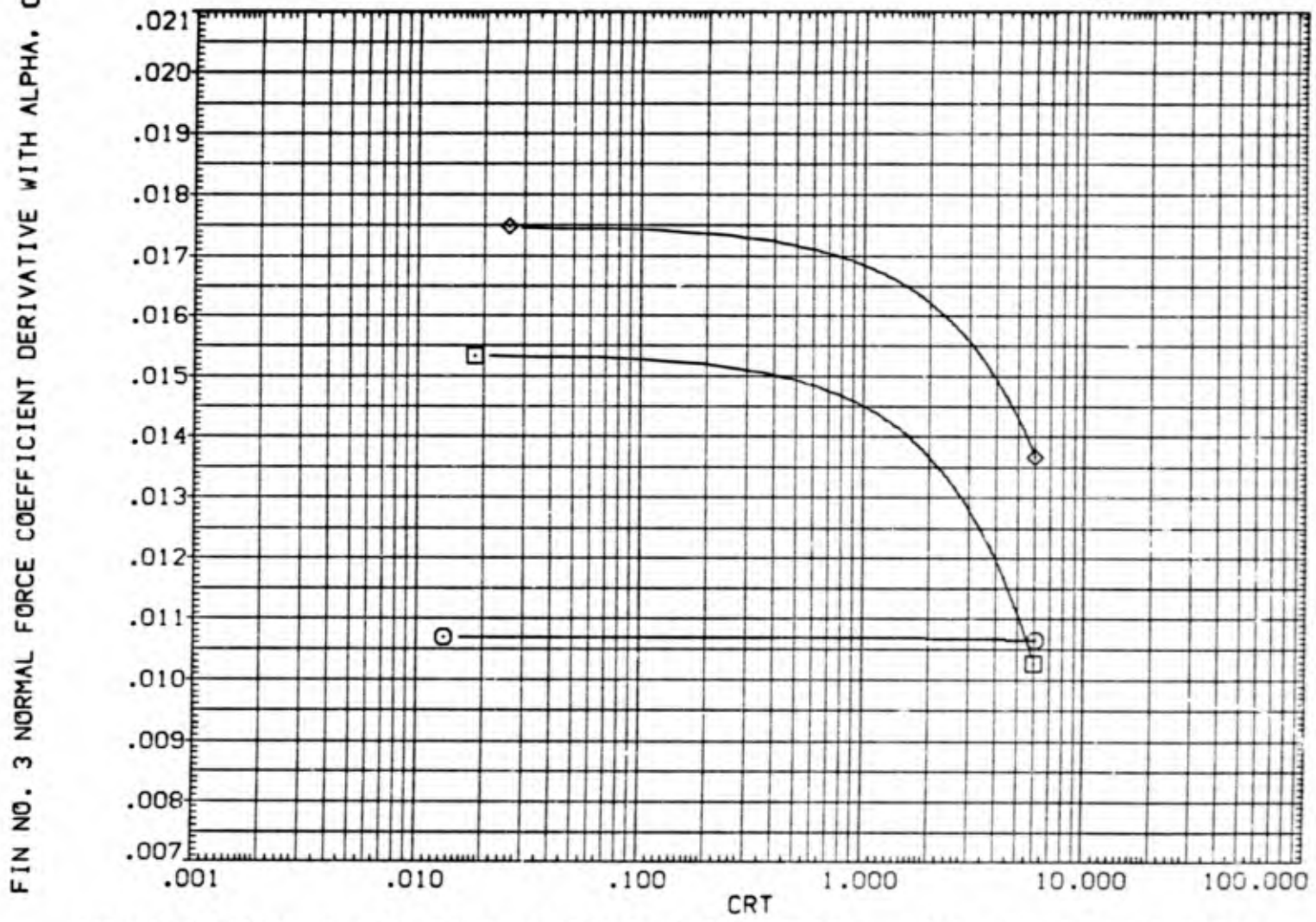
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



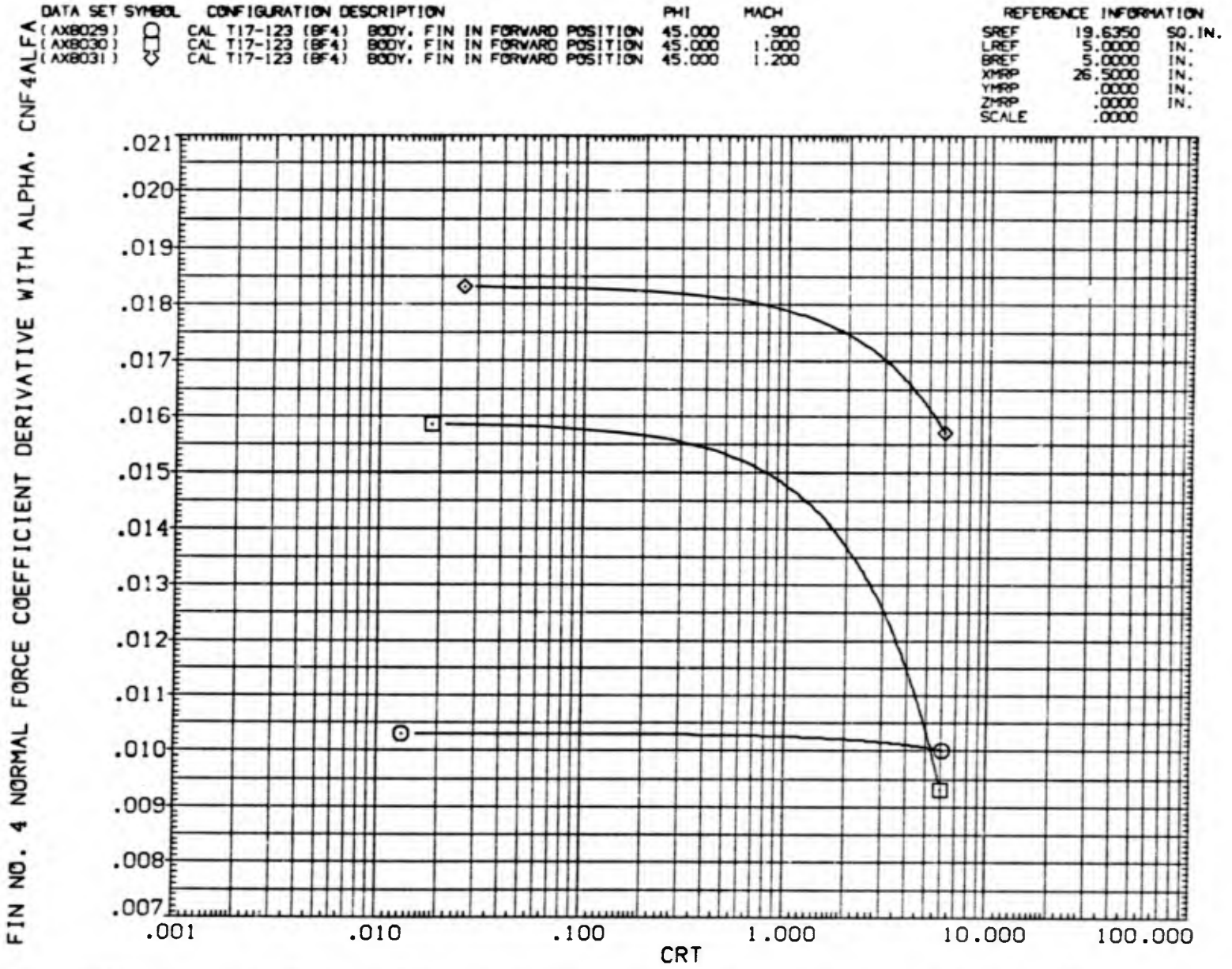
THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PHI	MACH
(AX8029)	□	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	.900
(AX8030)	⊡	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	1.000
(AX8031)	◇	CAL T17-123 (BF4) BODY, FIN IN FORWARD POSITION	45.000	1.200

REFERENCE INFORMATION		
SREF	19.6350	SQ.IN.
LREF	5.0000	IN.
BREF	5.0000	IN.
XMRP	26.5000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION



THRUST EFFECTS ON FIN NORMAL FORCE CHARACTERISTICS - FINS IN FORWARD POSITION