NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

REVISION A

DMS-DR-2137
NASA CR-134,103

RESULTS OF TESTS IN THE NASA/LaRC 31-INCH CFHT ON AN 0.010-SCALE MODEL (32-OT) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE THE RCS JET FLOWFIELD INTERACTION EFFECT ON AERODYNAMIC CHARACTERISTICS (IA60/OA105)

VOLUME 1 OF 2

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION CHRYSLER CORPORATION

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THE FOLLOWING CHANGES APPLY TO PUBLICATION: DMS Data Report

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NUMBER: DMS-DR-2137 DATE: May, 1974 BRANCH: Flight Technology

The attached Revision A of Volume 1 of DMS-DR-2137 completely replaces Volume 1 of DMS-DR-2137 dated May 1974.

This revision is published to correct the reference information labels in Volume 1 and does not affect the values of the plotted or tabulated data.

Ronald E. Poucher
D. E. Poucher
Data Management Services

FOR N. D. Kemp, Manager
Data Management Services

PAGE 1 OF 1

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SPACE DIVISION CHRYSLER CORPORATION

August, 1974

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VOLUME 1 OF 2

By

D. E. Thornton
Shuttle Aero Sciences
Rockwell International Space Division

Prepared under NASA Contract Number NAS9-13247

by

Data Management Services
Chrysler Corporation Space Division
New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number:	LaRC 31-inch CFHT-108 and 109
NASA Series Number:	IA60/OA105
Model Number:	32-OT
Test Dates:	IA60: 14 through 20 Feb. 1974
	OA105: 20 through 22 February 1974

FACILITY COORDINATOR:

David R. Stone
SSD, Hypersonic Analysis Section
Bldg 1247-8 Room 120B
Mail Stop 163-A
Langley Research Center
Hampton, Va. 23665

Phone: (804) 827-2483

PROJECT ENGINEER:

D. E. Thornton
Mail Code AC07
Rockwell International Space Div.
12214 Lakewood Blvd.
Downey, Ca. 90241

Phone: (213) 922-1432

AERODYNAMICS ANALYSIS ENGINEER:

P. H. Schwartz
Mail Code AC07
Rockwell International Space Div.
12214 Lakewood Blvd.
Downey, Ca. 90241

Phone: (213) 922-4820

DATA MANAGEMENT SERVICES

This Document has been prepared by:

for D. A. Sarver/M. J. Lanfranco
Liaison Operations

D. E. Poucher
Data Operations

This document has been reviewed and is approved for release.

for N. D. Kemp
Data Management Services

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RESULTS OF TESTS IN THE NASA/LaRC 31-INCH CFHT ON AN 0.010-SCALE MODEL (32-OT) OF THE SPACE SHUTTLE CONFIGURATION 3 TO DETERMINE THE RCS JET FLOWFIELD INTERACTION EFFECTS ON AERODYNAMIC CHARACTERISTICS (IA60/OA105)

By D. E. Thornton, Rockwell International Space Division

ABSTRACT

Tests were conducted in the NASA Langley Research Center 31-inch continuous Flow Hypersonic Wind Tunnel from 14 February to 22 February 1974, to determine RCS jet interaction effect on the hypersonic aerodynamic and stability and control characteristics prior to RTLS abort separation. The model used was an 0.010-scale replica of the Space Shuttle Vehicle Configuration 3. Hypersonic stability data were obtained from tests at Mach 10.3 and dynamic pressure of 150 psf for the integrated Orbiter and external tank and the Orbiter alone. RCS modes of pitch, yaw, and roll at free flight dynamic pressure simulation of 7, 20, and 50 psf were investigated. The effects of speedbrake, bodyflap, elevon, and aileron deflections were also investigated.

This report is published in two volumes. Volume 1 contains data from test IA60 and Volume 2 contains OA105 data.

Volume 2 utilizes selected data from test OA85 (LaRC CHFT 101) in both plotted and tabulated form. Test OA85 is completely documented in DMS-DR-2113.

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Note: See next page for Schedule of Coefficients Plotted.

SCHEDULE OF COEFFICIENTS PLOTTED:

(A) KND, KLMD, DCN, DCLM, CN, CLM versus ALPHA

(B) KNU, KLMU, KBLU, KM,BLU, KYN,LU, DCN, DCLM, DCBL, DCYN, CN, CLM, CBL, CYN versus ALPHA

(C) KBLU/D, KM,BL2, KYN,L2, DCBL, DCLM, DCYN, CBL, CLM CYN versus ALPHA

(D) KYN, KM,YN, KBL,YN, KY, DCYN, DCLM, DCBL, DCY, CYN, CLM, CBL, CY versus ALPHA

(E) KBLD, KM,BLD, KYN,LD, DCBL, DCLM, DCYN, CBL, CLM, CYN versus ALPHA

NOMENCLATURE
General

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

SUBSCRIPTS

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

NOMENCLATURE (Continued)

Body-Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
		Stability-Axis System
C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)

Symbol	SADSAC Symbol	Definition
ΔC_A	DCA	incremental axial-force Coefficient
ΔC_ℓ	DCBL	incremental rolling-moment coefficient
ΔC_m	DCLM	incremental pitching-moment coefficient
ΔC_N	DCN	incremental normal-force coefficient
ΔC_n	DCYN	incremental yawing-moment coefficient
ΔC_Y	DCY	incremental side-force coefficient
$K_{\ell_{u/D}}$	KBLU/D	amplification factor on rolling moment due to up and down firing coupled jets = $(\Delta C_\ell / C_{\ell_{JU/D}}) + 1$
K_{ℓ_D}	KBLD	amplification factor on rolling moment due to down firing jets = $(\Delta C_\ell / C_{\ell_{JD}}) + 1$
K_{ℓ_u}	KBLU	amplification factor on rolling moment due to up firing jets = $(\Delta C_\ell / C_{\ell_{JU}}) + 1$
$K_{\ell,n}$	KBL,YN	cross-coupling factor on rolling moment due to yaw jets = $\Delta C_\ell / \lvert C_{\ell_{JU/D}} \rvert$
K_{m_D}	KLMD	amplification factor on pitching moment due to down firing jets = $(\Delta C_m / C_{m_{JD}}) + 1$
K_{m_u}	KLMU	amplification factor on pitching moment due to up firing jets = $(\Delta C_m / C_{m_{JU}}) + 1$
$K_{m,\ell_{u/D}}$	KM,BL2	cross-coupling factor on pitching moment due to up and down firing coupled roll jets = $\Delta C_m / \lvert C_{m_{JD}} \rvert$
K_{m,ℓ_D}	KM,BLD	cross-coupling factor on pitching moment due to down firing roll jets = $\Delta C_m / \frac{1}{2} \lvert C_{m_{JD}} \rvert$
K_{m,ℓ_u}	KM,BLU	cross-coupling factor on pitching moment due to up firing roll jets = $\Delta C_m / \frac{1}{2} \lvert C_{m_{JU}} \rvert$
$K_{m,n}$	KM,YN	cross-coupling factor on pitching moment due to yaw jets = $\Delta C_m / \lvert C_{m_{JD}} \rvert$

NOMENCLATURE (Concluded)

K_{N_D}	KND	amplification factor on normal force due to down firing jet = $(\Delta C_N/C_{N_{JD}}) + 1$
K_{N_u}	KNU	amplification factor on normal force due to up firing jet = $(\Delta C_N/C_{N_{JU}}) + 1$
$K_{n,\ell_{u/D}}$	KYN,L2	cross-coupling factor on yawing moment due to up and down firing coupled roll jets = $\Delta C_n/\lvert C_{n_{JS}}\rvert$
K_{n,ℓ_D}	KYN,LD	cross-coupling factor on yawing moment due to down firing roll jets = $\Delta C_n/\frac{1}{2}\lvert C_{n_{JS}}\rvert$
K_{n,ℓ_u}	KYN,LU	cross-coupling factor on yawing moment due to up firing roll jets = $\Delta C_n/\frac{1}{2}\lvert C_{n_{JS}}\rvert$
K_n	KYN	amplification factor on yawing moment = $(\Delta C_n/C_{n_{JS}}) + 1$
K_Y	KY	amplification factor on side force = $(\Delta C_Y/C_{Y_{JS}}) + 1$
RCS		reaction control system
RTLS		return to launch site
δ_a	AILRON	aileron deflection angle, degrees
δ_e	ELEVON	elevon deflection angle, degrees
δ_f	BDFLAP	body flap deflection angle, degrees
δ_R	RUDDER	rudder deflection angle, degrees
δ_{SB}	SPDBRK	speed brake deflection angle, degrees
P_c	PCRCS	model RCS air supply system plenum chamber pressure, psi
	Q-SIM	free stream dynamic pressure for a simulated flight condition, psf

CONFIGURATIONS INVESTIGATED

Two configurations were tested. These were the second stage ascent configuration consisting of Orbiter with External Tank attached, and the RTLS configuration (Orbiter alone). The model used for this test was an 0.010-scale replica of Configuration 3 of the Space Shuttle Orbiter and External Tank.

For convenience the configuration nomenclature was abbreviated as follows: The symbols are defined in the Model Dimensional Data.

$$O = B_{19}\ C_7\ E_{23}\ F_5\ M_6\ N_{39}\ R_5\ V_7\ W_{107}$$

$$OT = B_{19}\ C_7\ E_{23}\ F_5\ M_6\ N_{39}\ R_5\ V_7\ W_{107}\ T_{10}$$

T_{10} included the attach structure and protruberances FL_7, FL_8, PT_{16}, PT_{17}, PT_{18}, AT_{21}, AT_{22}, and AT_{23}.

Control surface effectiveness was investigated with elevon deflections of +15° and -20°, aileron deflections of +5°, +10°, +15°, and -15°, rudder deflections of +20°, bodyflap deflections of +13.75° and -14.25°, and a speedbrake deflection of 55°.

INSTRUMENTATION

The LaRC 0.75-inch six-component 2019C internal balance was used for this test program.

No model base pressures or balance chamber pressures were measured during this test. The RCS supply pressure was set and monitored at the plenum chambers between the two RCS nozzle blocks.

TEST FACILITY DESCRIPTION

The Mach 10 nozzle of the Langley Continuous Flow Hypersonic Tunnel is designed to operate at stagnation pressures of 15 to 150 atmospheres at temperatures up to 1960°R. Air is preheated electrically by passing through a multi-tube heater. The nozzle has a 31-inch square test section which incorporates a moveable second minimum. Continuous operation is achieved by passing the air through a series of compressors. Additional information on this facility is given in NASA TM X-1130 entitled, "Characteristics of Major Active Wind Tunnels at the Langley Research Center", by William T. Schaefer, Jr.

DATA REDUCTION

Aerodynamic forces and moments were reduced to coefficient form using the following reference dimensions:

Reference area (S) = 0.269 ft^2 (38.736 in^2)

Reference Lengths

$\bar{c}$ = 4.748 in (used for C_m in OA105)

b = 9.367 in (used for C_n, C_ℓ in OA105)

ℓ_{Ref} = 12.90 in (used for $X_{c.p.}$ in OA105 & IA60 and for C_m, C_n, C_ℓ in IA60)

The moments were reduced about a moment reference center located as follows:

Orbiter Only

Orbiter station 10.767 at Y_o = 0.00 and Z_o = 3.75

Integrated Vehicle

X_T = ET station 17.258 (7.368 inches aft of orbiter nose)

Y_T = 0.00

Z_T = 6.336 (.994 inches below orbiter FRL)

Standard LaRC data reduction techniques were used for reducing the data to coefficient form.

TABLE I.

TEST : IA60/ 0A105 | DATE : 2/22/74

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
10.3	1.0×10^6	1.04	1350

BALANCE UTILIZED: LaRC 2019C

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	70 lbs	0.35 lbs	
SF	25 lbs	0.125 lbs	
AF	15 lbs	0.075 lbs	
PM	70 in-lbs	0.35 in-lbs	
RM	15 in-lbs	0.075 in-lbs	
YM	25 in-lbs	0.125 in-lbs	

COMMENTS:

TABLE II.

RCS OFF

TEST: IA60 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 2-20-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION q_∞	CONTROL DEFLECTION P_c	CONTROL DEFLECTION δ_e	CONTROL DEFLECTION δ_a	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) S_{hs}	S_{sb}	RUN NO.
RH101F	OT N51	A	0	150	OFF	15	0	1	0	0	3
02F	OT N52	~	~	~	~	0	0	1	0	0	32
03F	OT N51					-20	0	1	0	0	30
04F	OT N49 N52					0	15°L / 15°R	1	0	0	12
05F	OT N49 N52					0	15°L / +15°R	1	0	0	47
06F	OT N49 N52					0	5°L / 5°R	1	0	0	50
07F	OT N49 N52					-20	10°L / 10°R	1	0	0	53
08F	OT N49 N52	↓	↓	↓	↓	0	0	1	0	55	42

TEST RUN NUMBERS

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

α OR β SCHEDULES: A = -10° TO +20° IN 5° INCREMENTS

COEFFICENTS

IDVAR (1) IDVAR (2) NDV

TABLE II - Continued

RCS ON

TEST: IA60 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 2-20-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION δ_{00}	CONTROL DEFLECTION P_c	CONTROL DEFLECTION δ_e	CONTROL DEFLECTION δ_a	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) δ_{bf}	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) δ_{sb}	RUN NO.	TEST RUN NUMBERS
RHJ 01N	OT N51	A	0	150	179	15	0		0	0	4	
02N	OT N51	A	0	150	504	15	0		0	0	5	
03N	OT N49 N50	A	0	150	167	15	0		0	0	6	
04N	OT N49 N50	A	0	150	469	15	0		0	0	7	
05N	OT N49 N52	A	0	150	158	15	0		0	0	8	
06N	OT N49 N52	A	0	150	446	15	0		0	0	9	
07N	OT N52	A	0	150	158	15	0		0		10	
08N	OT N52	A	0	150	446	15	0		0	0	11	
09N	OT N52	A	0	150	158	0	0		0	0	23	
10N	OT N52	A	0	150	446	0	0		0	0	24	
11N	OT N49 N52	A	0	150	158	0	0		0	0	20	
12N	OT N49 N52	A	0	150	446	0	0		0	0	21	
13N	OT N49	A	0	150	158	0	0		0	0	26	
14N	OT N49	A	0	150	446	0	0		0	0	27	
15N	OT N51	A	0	150	179	0	0		0	0	28	
16N	OT N51	A	0	150	504	0	0		0	0	29	
17N	OT N51	A	0	150	179	-20	0		0	0	31	
18N	OT N51	A	0	150	504	-20	0		0	0	32	
19N	OT N49 N50	A	0	150	167	-20	0		0	0	34	
20N	OT N49 N50	A	0	150	469	-20	0		0	0	35	

α OR β SCHEDULES: α: -10 TO +30° IN 5° INCREMENTS

TABLE II - Continued

RCS ON

TEST: 1A60 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 2-20-84

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION γ_∞	CONTROL DEFLECTION Pc	CONTROL DEFLECTION δ_e	CONTROL DEFLECTION δ_a	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) ξ_{bf}	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) ξ_{sb}	RUN NO.	TEST RUN NUMBERS
RHI 21N	OT N49	A	0	150	158	-20	0		0	0	36	
22N	OT N49	A	0	150	446	-20	0		0	0	37	
23N	OT N49 NS2	A	0	150	158	-20	0		0	0	38	
24N	OT N49 NS2	A	0	150	446	-20	0		0	0	39	
25N	OT NS2	A	0	150	158	-20	0		0	0	40	
26N	OT NS2	A	0	150	446	-20	0		0	0	41	
27N	OT N49 NS2	A	0	150	158	0	0		0	55	43	
28N	OT N49 NS2	A	0	150	446	0	0		0	55	44	
29N	OT NS2	A	0	150	158	0	0		0	55	45	
30N	OT NS2	A	0	150	446	0	0		0	55	46	
31N	OT N49 NS2	A	0	150	158	0	-15L +15R		0	0	48	
32N	OT N49 NS2	A	0	150	446	0	-15L +15R		0	0	49	
33N	OT N49 NS2	A	0	150	158	0	+5L -5R		0	0	51	
34N	OT N49 NS2	A	0	150	446	0	+5L -5R		0	0	52	
35N	OT N49 NS2	A	0	150	158	-20	+10L -10R		0	0	54	
36N	OT N49 NS2	A	0	150	446	-20	+10L -10R		0	0	55	
37N	OT N49 NS2	A	0	150	158	0	-15L +15R		0	0	13	
38N	OT N49 NS2	A	0	150	446	0	-15L +15R					
39N	OT N49 NS2	A	0	150	158	0	+5L -5R				5	
↓ 40N	OT N49 NS2	A	0	150	446	0	+5L -5R		V	V	7	

α OR β SCHEDULES

TABLE II - Continued

RCS ON

TEST: T-60 | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE: 2-20-74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION η_0	CONTROL DEFLECTION P_L	CONTROL DEFLECTION δ_e	CONTROL DEFLECTION δ_a	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) δ_{bF}	δ_{SS}	K'_{NO}	TEST RUN NUMBERS
RH141N	OT N49 N50	A	0	150	167	0	0		0	0	18	
RH142N	"	A	0	150	469	0	0		0	0	17	

α OR β SCHEDULES

TABLE II – Continued

RCS OFF

TEST: OA105 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 2/21/74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION q_∞	PC	δ_e	δ_a	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) M_{bf}	M_{sb}	M_R	RUN NO.	TEST RUN NUMBERS
RH201F	O NS1	A	O	150	OFF	0	0		13.75	55	0	3	
02F	O NS2	A	O	150	OFF	0	0		-14.25	55	0	16	
03F	O NS1	A	O	150	OFF	0	0		0	55	0	25	
04F	O N49NS2	O	B	150	OFF	0	0		0	55	0	28	
05F	O N49	A	O	150	OFF	0	0		0	55	0	31	
06F	O NS2	A	O	150	OFF	-20	0		0	55	0	34	
07F	O N49NS2	A	O	150	OFF	0	+15L -15R		0	55	0	39	
08F	O N49NS2	A	O	150	OFF	0	-15L +15R		0	55	0	41	
09F	O N49NS2	A	O	150	OFF	0	0		0	0	+20	43	
10F	O N49NS2	A	O	150	OFF	0	0		0	0	-20	45	

α OR β SCHEDULES: A = -10° TO +25°, 5° INCREMENTS
B = -5°, -2°, 0°, +2°, +5°

TABLE II - Continued

RCS ON

TEST: OA105 | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE: 2/21/74

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION q_∞	CONTROL DEFLECTION Pc	CONTROL DEFLECTION δ_e	CONTROL DEFLECTION δ_a	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) δ_{bf}	δ_{sb}	δ_r	RUN NO.	TEST RUN NUMBERS
RH201N	0 NS1	A	0	150	72	0	0		13.75	55	0	4	
02N	0 NS1	A	0	150	179	0	0		13.75	55	0	5	
03N	0 NS1	A	0	150	504	0	0		13.75	55	0	6	
04N	0 N49 NS2	A	0	150	62	0	0		13.75	55	0	7	
05N	0 N49 NS2	A	0	150	158	0	0		13.75	55	0	8	
06N	0 N49 NS2	A	0	150	446	0	0		13.75	55	0	9	
07N	0 N49	A	0	150	62	0	0		13.75	55	0	10	
08N	0 N49	A	0	150	158	0	0		13.75	55	0	11	
09N	0 N49	A	0	150	446	0	0		13.75	55	0	12	
10N	0 NS2	A	0	150	62	0	0		13.75	55	0	13	
11N	0 NS2	A	0	150	158	0	0		13.75	55	0	14	
12N	0 NS2	A	0	150	446	0	0		13.75	55	0	15	
13N	0 NS2	A	0	150	158	0	0		-14.25	55	0	17	
14N	0 NS2	A	0	150	446	0	0		-14.25	55	0	18	
15N	0 N49	A	0	150	158	0	0		-14.25	55	0	19	
16N	0 N49	A	0	150	446	0	0		-14.25	55	0	20	
17N	0 N49 NS2	A	0	150	158	0	0		-14.25	55	0	21	
18N	0 N49 NS2	A	0	150	446	0	0		-14.25	55	0	22	
19N	0 NS1	A	0	150	179	0	0		-14.25	55	0	23	
20N	0 NS1	A	0	150	504	0	0		-14.25	55	0	24	

α OR β SCHEDULES: A = -10° TO +25° 5° INCREMENTS

B = -5°, -2°, 0°, +2°, +5°

TABLE II - Concluded

RCS ON

TEST: 0A105 — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 2/26

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION η_{oo}	CONTROL DEFLECTION Pc	CONTROL DEFLECTION ξ_e	CONTROL DEFLECTION δ_a	NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) δ_{bf}	δ_{sb}	δ_r	RUN NO.	TEST RUN NUMBERS
RH2 21N	O [illegible]	A	O	150	504	O	O		O	55	O	26	
22N	O N49 N52	A	O	150	446	O	O		O	55	O	27	
23N	O N49 N52	O	B	150	446	O	O		O	55	O	29	
24N	O N49	A	O	150	446	O	O		O	55	O	30	
25N	O N49	A	O	150	158	O	O		O	55	O	32	
26N	O N52	A	O	150	446	O	O		O	55	O	33	
27N	O N52	A	O	150	446	-20	O		O	55	O	35	
28N	O N49	A	O	150	446	-20	O		O	55	O	36	
29N	O N49 N52	A	O	150	446	-20	O		O	55	O	37	
30N	O N51	A	O	150	504	-20	O		O	55	O	38	
31N	O N49 N52	A	O	150	158	O	+15L -15R		O	55	O	40	
32N	O N49 N52	A	O	150	158	O	-15L +15R		O	55	O	42	
33N	O N49 N52	A	O	150	158	O	O		O	O	+20	44	
34N	O N49 N52	A	O	150	158	O	O		O	O	-20	46	
35N	O N51	25	O	150	C	O	O		O	55	O	[illegible]	
36N	O N49 N50	25	O	150	C	O	O		O	55	O	[illegible]	
37N	O N49 N50	25	O	15	C	O	O		O	55	O	48	
38N	O N51	25	O	15	C	O	O		O	55	O	[illegible]	

α OR β SCHEDULES: A = −10° TO +25° [illegible] INCREMENTS

B = [illegible] 0°, +10, +25°

Pc: C = 0, 100, 200, 300, 400, 500 psfa

TABLE III. - MODEL DIMENSIONAL DATA

MODEL COMPONENT: ATTACH STRUCTURE - AT_{21}

GENERAL DESCRIPTION: Attach structure, same as AT_{11} except only the forward attach structure.

MODEL SCALE: 0.010

DRAWING NO.: VL72-000089

DIMENSIONS:	FULL SCALE	MODEL SCALE
Orbiter to Tank		
Location- In.		
X_T	382.000	3.820
X_T	1133.000	11.330

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ATTACH STRUCTURE - AT_{22}

GENERAL DESCRIPTION: Right rear, Orbiter to External Tank

MODEL SCALE: 0.010

DRAWING NO.: VL72-000088B + VL72-000089 NOTE: Use first drawing for location and second drawing for detail of struts

DIMENSIONS:	FULL SCALE	MODEL SCALE
First strut		
Diameter - In. (Approx.)	8.0	0.08
Aft Location, In. (Attach to Orbiter)		
X_o	1307.0	13.070
X_T	2058.0	20.580
Fwd Location - In. (Approx.) (Attach to Orbiter)		
X_o	1108.0	11.080
X_T	1859	18.59
NOTE: This strut is the mirror image strut AT_{23}		
Second Strut		
Diameter, In. (Approx.)	8.0	0.08
Location - In.		
X_o	1307.0	13.070
X_T	2058	20.580
NOTE: This is a cross brace strut.		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ATTACH STRUCTURE - AT_{23}

GENERAL DESCRIPTION: Left rear, Orbiter to External Tank

MODEL SCALE: 0.010

DRAWING NO.: VL72-000088B & VL72-000089

NOTE: Use first drawing for location and second drawing for detail of struts

DIMENSIONS:	FULL SCALE	MODEL SCALE
Forward attach points:		
Orbiter to Tank		
No. of struts	1	1
Diameter - In. (Approx)	8.0	0.08
Location - In.		
X_o	1307	13.070
X_T	2058	20.580
Aft attach points:		
Location - In. (Approx.)		
X_o	1108	11.080
X_T	1859	18.590

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BODY - B_{19}

GENERAL DESCRIPTION : Fuselage, Configuration 3 per Rockwell Lines VL70-000139B.

NOTE: Identical to B_{17} except forebody.

MODEL SCALE: 0.010

DRAWING NUMBER : VL70-000139B

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	1290.3	12.903
Max Width - In.	267.6	2.676
Max Depth - In.	244.5	2.445
Fineness Ratio	4.82175	4.82175
Area - Ft^2		
Max. Cross-Sectional	386.67	0.0387
Planform		
Wetted		
Base		

TABLE III. -MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : CANOPY - C_7

GENERAL DESCRIPTION : Configuration 3 per Rockwell Lines VL70-000139.

MODEL SCALE: 0.010

DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (X_o=433 to X_o=578) In.F.S.	145	1.450
Max Width		
Max Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON - E_{23}

GENERAL DESCRIPTION: Configuration 3 per W_{107} Rockwell Lines Drawing VL70-000139B. Data for (1) of (2) sides.

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000139B

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
Area - Ft^2	205.52	0.0206
Span (equivalent) - In.	353.34	3.533
Inb'd equivalent chord - In.	114.78	1.148
Outb'd equivalent chord - In.	55.00	0.550
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.208	0.208
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	0.00	0.00
Trailing Edge	10.24	10.24
Hingeline	0.00	0.00
Area Moment (Normal to hinge line) - Ft^3	1548.07	0.00155

TABLE III.- MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : BODY FLAP- F_5

GENERAL DESCRIPTION : 3 Configuration per Rockwell Lines VL70-000139

MODEL SCALE: 0.010

DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	84.70	0.847
Max Width - In.	267.6	2.676
Max Depth		
Fineness Ratio		
Area - Ft^2		
Max. Cross-Sectional		
Planform	142.5	0.0143
Wetted		
Base	38.0958	0.0038

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: FEEDLINE - FL-7

GENERAL DESCRIPTION: LOX feedline between ET and Orbiter

MODEL SCALE: 0.010

DRAWING NO.: VL78-000050

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Centerline at:	X_T	2081.0	20.810
	Y_T	70.0	0.70
	X_o	1330.0	13.300
	Y_o	70.0	0.700
Diameter		18.5	0.185

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: FEEDLINE - FL_8

GENERAL DESCRIPTION: LH_2 feedline between ET and Orbiter

MODEL SCALE: 0.010

DRAWING NUMBER: VL78-000050

DIMENSIONS:		FULL SCALE	MODEL SCALE
Centerline at:	X_T	2081.0	20.810
	Y_T	- 70.0	- 0.700
	X_o	1330.0	13.300
	Y_o	- 70.0	- 0.700
Diameter		18.5	0.185

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : OMS POD - M_6

GENERAL DESCRIPTION : Basic configuration 3A OMS pods with non-metric RCS engine housing and nozzles. Same geometry as M_4

MODEL SCALE: 0.010

DRAWING NUMBER : VL70-000139B

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	346.0	3.460
Max Width - In.	108.0	1.080
Max Depth - In.	113.0	1.130
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		
Station of aft end of RCS nozzle block	1560.0	15.600

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: MPS NOZZLES - N_{39}

GENERAL DESCRIPTION: Configuration 3A MPS Nozzles

MODEL SCALE: 0.010

DRAWING NUMBER:

DIMENSIONS:		FULL SCALE		MODEL SCALE
MACH NO.				
Length - In.				
Gimbal Point to Exit Plane				
Throat to Exit Plane				
Diameter - In.				
Exit		94.000		0.940
Throat				
Inlet				
Area - ft^2				
Exit		48.193		0.0048
Throat				
Gimbal Point (Station) - In.				
Upper Nozzle				
X				
Y				
Z				
Lower Nozzles				
X		1462.0		14.620
Y	±	53.000	±	0.530
Z		342.7		3.427
Null Position - Deg.				
Upper Nozzle				
Pitch				
Yaw				
Lower Nozzle				
Pitch				
Yaw				

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RCS NOZZLE - N_{49}

GENERAL DESCRIPTION: RCS nozzle providing left-hand pitch-down control to simulate return to launch site (RTLS)

MODEL SCALE: 0.010

DRAWING NO.: SS-A01160-19

DIMENSIONS:	FULL SCALE	MODEL SCALE
Flight dynamic pressure simulation - PSF	20	20
Cant angle - Deg.		
Aft	12	12
Outboard	20	20
Diameter - In.		
Exit	14.10	0.141
Throat	6.70	0.0670
Area - In^2		
Exit	156.14	0.015614
Throat	35.25	0.003525
Area ratio	4.430	4.430
No. of Nozzle	2	2

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RCS Nozzles - N_{50}

GENERAL DESCRIPTION: RCS Nozzle providing right-hand pitch-down control to simulate return to launch site (RTLS).

MODEL SCALE: 0.010

DRAWING NO.: SS-A01160-20

DIMENSIONS:	FULL SCALE	MODEL SCALE
Flight dynamic pressure simulation - PSF	20	20
Cant angle - deg.		
Aft	12	12
Outboard	20	20
Diameter - In.		
Exit	14.10	0.141
Throat	6.70	0.0670
Area - $In.^2$		
Exit	15.614	0.015614
Throat	35.25	0.003525
Area Ratio	4.430	4.430
No. of Nozzles	2	2

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RCS NOZZLES - N_{51}

GENERAL DESCRIPTION: RCS Nozzle providing left-hand yaw control to simulate return to launch site (RTLS).

MODEL SCALE: 0.010

DRAWING NO.: SS-A01160-11

DIMENSIONS:

	MODEL SCALE
Flight dynamic pressure simulation- PSF	20
Cant angle - Deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - $In.^2$	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	4

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RCS NOZZLE - N_{52}

GENERAL DESCRIPTION: RCS Nozzle providing right-hand pitch-up control to simulate return to launch site (RTLS).

MODEL SCALE: 0.010

DRAWING NO.: SS-A01160-12

DIMENSIONS:	MODEL SCALE
Flight dynamic pressure simulation - PSF	20
Cant angle- deg.	
Aft	0
Outboard	0
Diameter - In.	
Exit	0.141
Throat	0.0670
Area - $In.^2$	
Exit	0.015614
Throat	0.003525
Area ratio	4.430
No. of nozzles	2

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ET PROTUBERANCE - PT_{16}

GENERAL DESCRIPTION: LOX vent line fairing

MODEL SCALE: 0.010

DRAWING NO.: VL78-000031A

DIMENSIONS:	FULL SCALE	MODEL SCALE
Leading edge at X_T	322.0	3.210
Y_T	0.0	0.0
Trailing edge at X_T	955.0	9.55
Y_T	70.0	0.70

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ET PROTUBERANCE- PT_{17}

GENERAL DESCRIPTION: LOX feedline fairing

MODEL SCALE: 0.010

DRAWING NO.: VL78-000031A

DIMENSIONS:		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	955.0	9.55
	Y_T	70.0	0.70
Trailing edge at:	X_T	2058.0	20.58
	Y_T	70.0	0.70

TABLE III.- MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ET PROTUBERANCE - PT_{18}

GENERAL DESCRIPTION: LH_2 vent line fairing

MODEL SCALE: 0.010

DRAWING NO.: VL78-000031A

DIMENSIONS:		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	947.0	9.47
	Y_T	- 70.0	- 0.70
Trailing edge at:	X_T	2058.0	20.58
	Y_T	- 70.0	- 0.700

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R_5

GENERAL DESCRIPTION: 2A, 3, 3A and 140A/B configurations

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000146A, VL70-000095, VL70-000139

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area - Ft^2	106.38	0.011
Span (equivalent) - In.	201.0	2.010
Inb'd equivalent chord - In.	91.585	0.916
Outb'd equivalent chord - In.	50.833	0.508
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	34.83	34.83
Trailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line) - Ft^3	526.13	0.00053

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT : EXTERNAL TANK - T_{10}

GENERAL DESCRIPTION : External Oxygen-Hydrogen Tank, 3 configuration, per Rockwell Lines drawing VL78-000041 and VL72-000088

MODEL SCALE: 0.010

DRAWING NUMBER : VL72-000088, VL78-000041

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (Nose @ X_T = 309)	1865	18.65
Max Width - In.	324	3.24
Max Depth	--	
Fineness Ratio	5.75617	5.75617
Area Ft^2		
Max. Cross-Sectional	572.555	0.0573
Planform		
Wetted		
Base		
W.P. of tank centerline (X_T) In.	400.0	4.000

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V_7

GENERAL DESCRIPTION: Centerline vertical tail, double-wedge airfoil with rounded leading edge.

NOTE: Same as V_5, but with manipulator housing removed.

MODEL SCALE: 0.010

DRAWING NUMBER: VL70-000139

DIMENSIONS:	FULL SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo) - Ft^2		
Planform	425.92	0.0426
Span (Theo) - In.	315.72	3.157
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep-Back Angles, Degrees.		
Leading Edge	45.000	45.000
Trailing Edge	26.249	26.249
0.25 Element Line	41.130	41.130
Chords:		
Root (Theo) WP	268.50	2.685
Tip (Theo) WP	108.47	1.085
MAC	199.81	1.998
Fus. Sta. of .25 MAC	1463.50	14.635
W.P. of .25 MAC	635.522	6.355
B.L. of .25 MAC	0.00	0.00
Airfoil Section		
Leading Wedge Angle - Deg.	10.000	10.000
Trailing Wedge Angle - Deg.	14.920	14.920
Leading Edge Radius	2.0	0.02
Void Area - Ft^2	13.17	0.0013
Blanketed Area	0.00	0.00

TABLE III. - MODEL DIMENSIONAL DATA - Concluded.

MODEL COMPONENT: $WING\text{-}W_{107}$

GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines VL70-000139B

NOTE: Same as W_{103} except cuff, airfoil and incidence angle.

MODEL SCALE: 0.010

TEST NO.

DWG. NO. VL70-000139B

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) Ft^2		
Planform	2690.0	0.269
Span (Theo In.	936.68	9.367
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	+ 3.000	+ 3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	- 10.24	- 10.24
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.0.0.	689.24	6.892
Tip, (Theo) B.P.	137.85	1.379
MAC	474.81	4.748
Fus. Sta. of .25 MAC	1136.89	11.368
W.P. of .25 MAC	299.20	2.992
B.L. of .25 MAC	182.13	1.821
EXPOSED DATA		
Area (Theo) Ft^2	1752.29	0.1752
Span, (Theo) In. BP108	720.68	7.207
Aspect Ratio	2.058	2.058
Taper Ratio	0.2451	0.2451
Chords		
Root BP108	562.40	5.624
Tip 1.00 $\frac{b}{2}$	137.85	1.379
MAC	393.03	3.930
Fus. Sta. of .25 MAC	1185.31	11.853
W.P. of .25 MAC	300.20	3.002
B.L. of .25 MAC	251.76	2.518
Airfoil Section (Rockwell Mod NASA) XXXX-64		
Root $\frac{b}{2}$ =	0.10	0.10
Tip $\frac{b}{2}$ =	0.12	0.12
Data for (1) of (2) Sides		
Leading Edge Cuff Planform Area Ft^2	118.333	0.0118
Leading Edge Intersects Fus M. L. @ Sta	500.0	5.000
Leading Edge Intersects Wing @ Sta	1083.4	10.834

TABLE IV.

JET COEFFICIENTS

JET COEFFICIENT	IA60		OA105/OA85		
	q = 7 PSF T = 953 #/JET	q = 20 PSF T = 965 #/JET	q = 7 PSF T = 953 #JET	q = 20 PSF T = 965 #/JET	q = 50 PSF T = 950 #/JET
C_{NJD}	.1866	.06612	.1866	.06612	.02604
C_{NJU}	-.1012	-.03588	-.1012	-.03588	-.01413
C_{YJS}	.2025	.07176	.2024	.07175	.02825
C_{mJU}	.04317	.0153	.09556	.03387	.01334
C_{mJD}	-.08392	-.02974	-.1817	-.06440	-.02536
C_{nJS}	-.08728	-.03093	-.09819	-.03480	-.01370
$C_{\ell JU}$	.01036	.003671	.01426	.005056	.001991
$C_{\ell JD}$	.01182	.004189	.01358	.004814	.001896
$C_{\ell JU/D}$	.02218	.00786	.02785	.009869	.003886

Subscripts:

JD - Down

JU - Up

JS - Side

JU/D - Combined up and down

Notes:

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

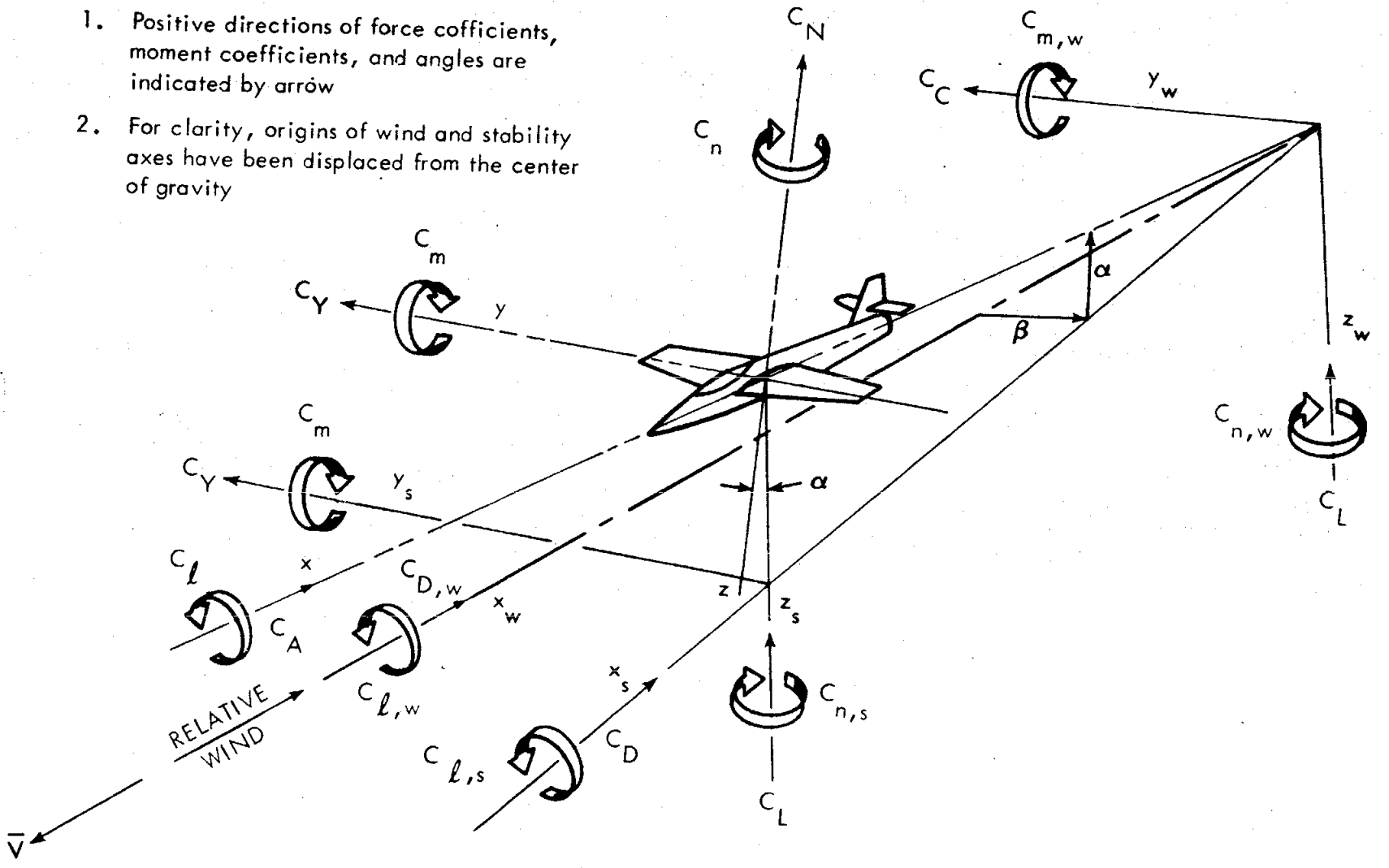
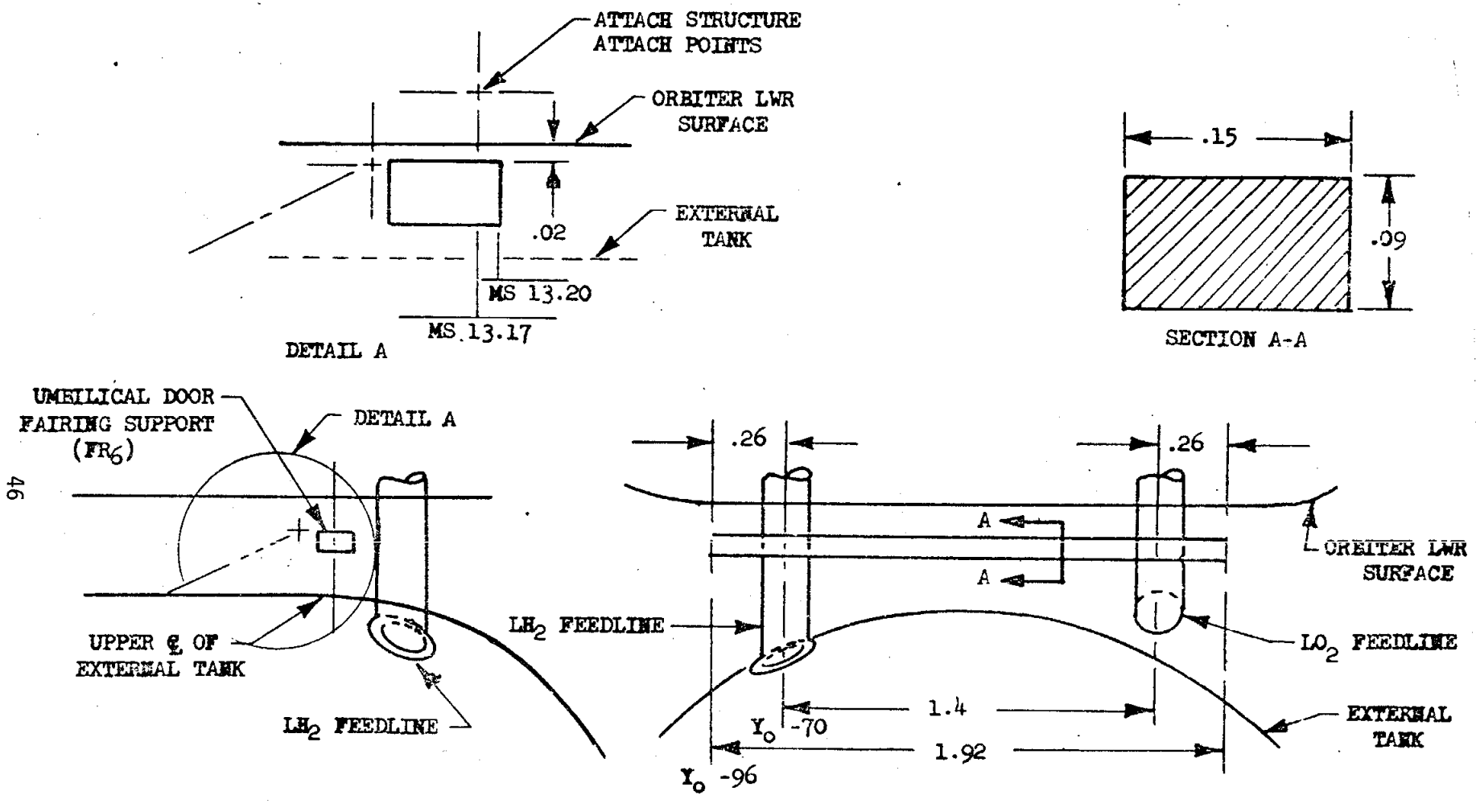


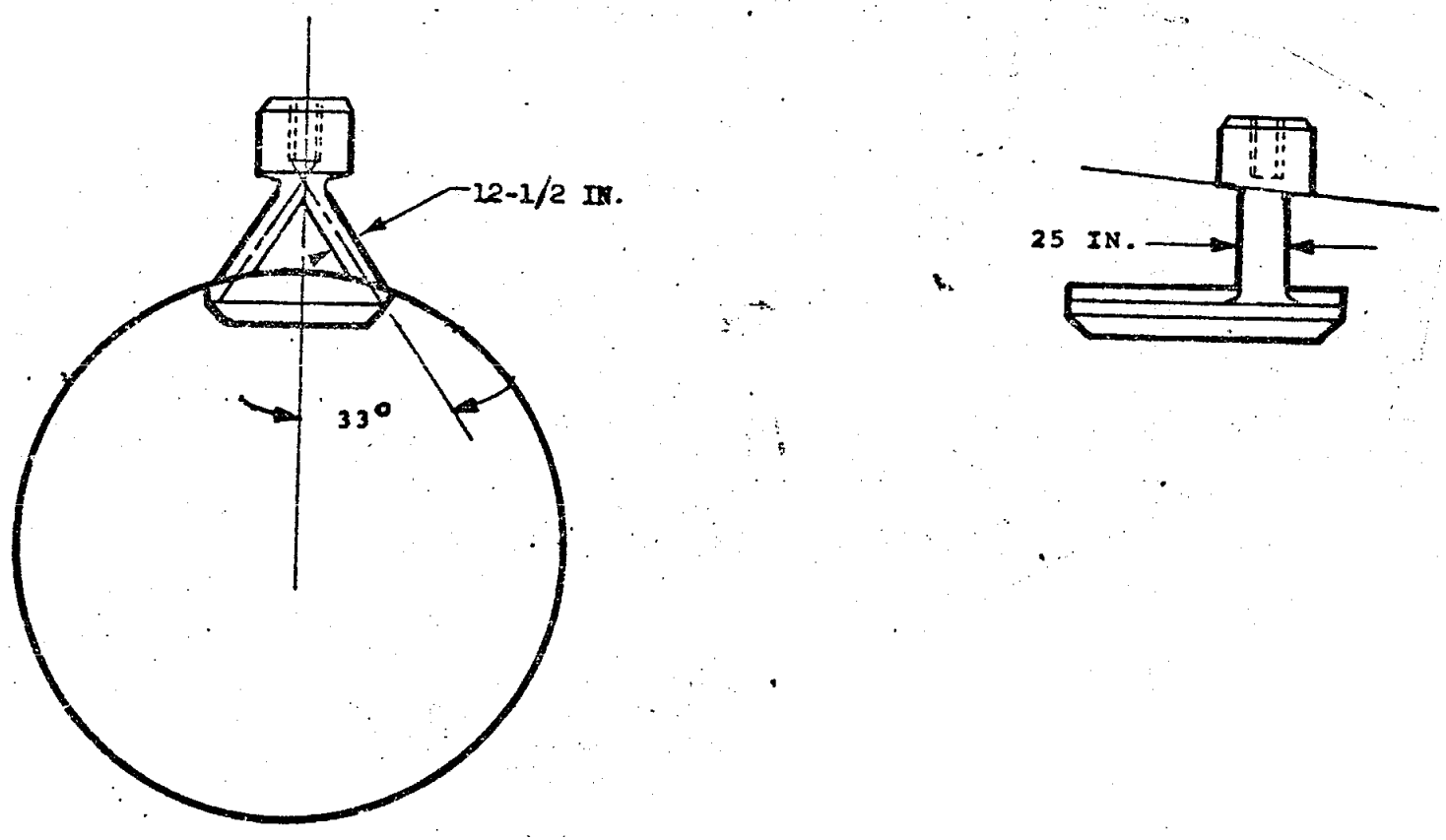
Figure 1. - Axis systems.



NOTE: ALL DIMENSIONS ARE APPROXIMATE AND IN INCHES

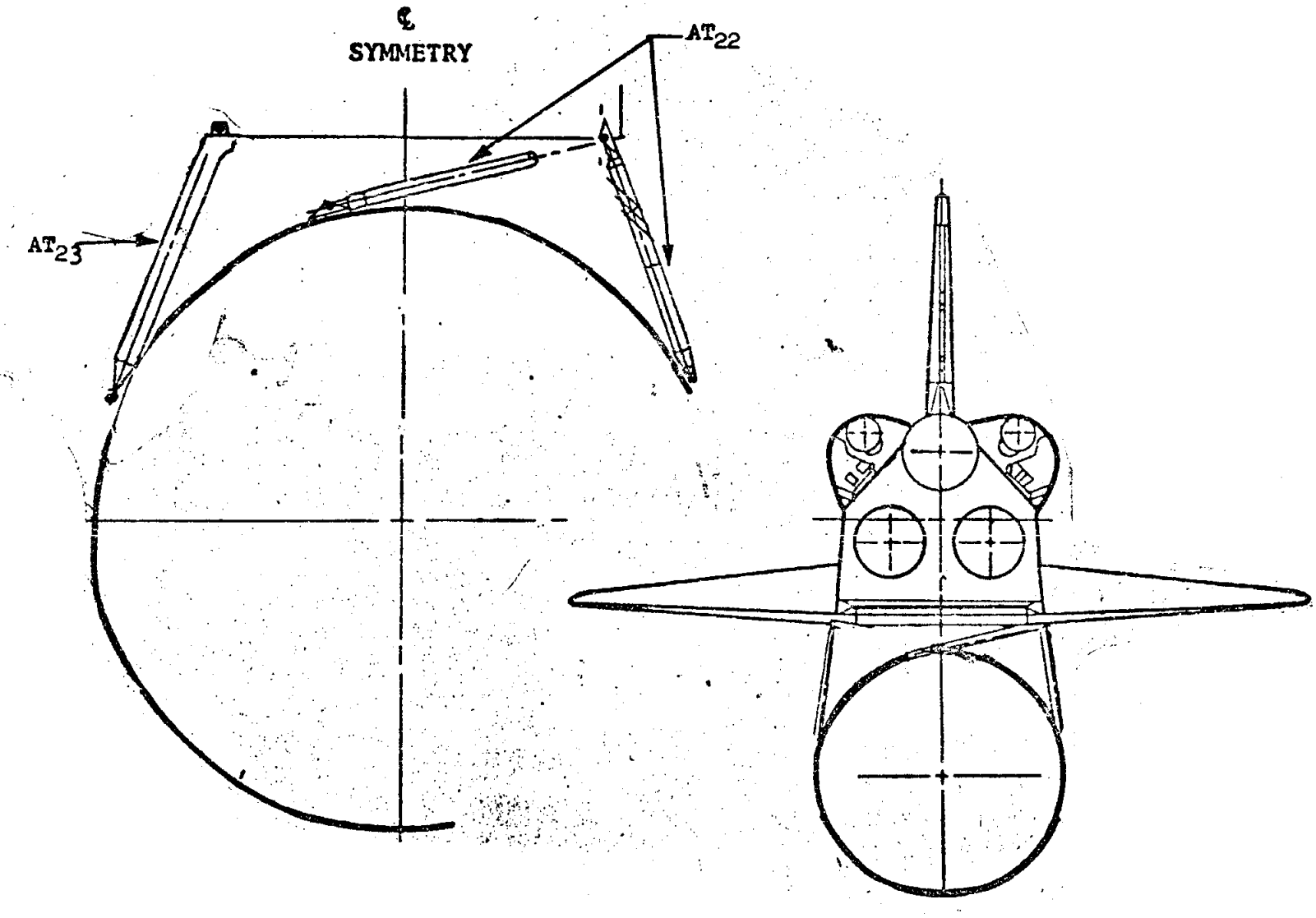
a. Orbiter umbilical door fairing support (FR_6) and LO_2(FL_7) and LH_2(FL_8) Feedlines

Figure 2. - Model Sketches.



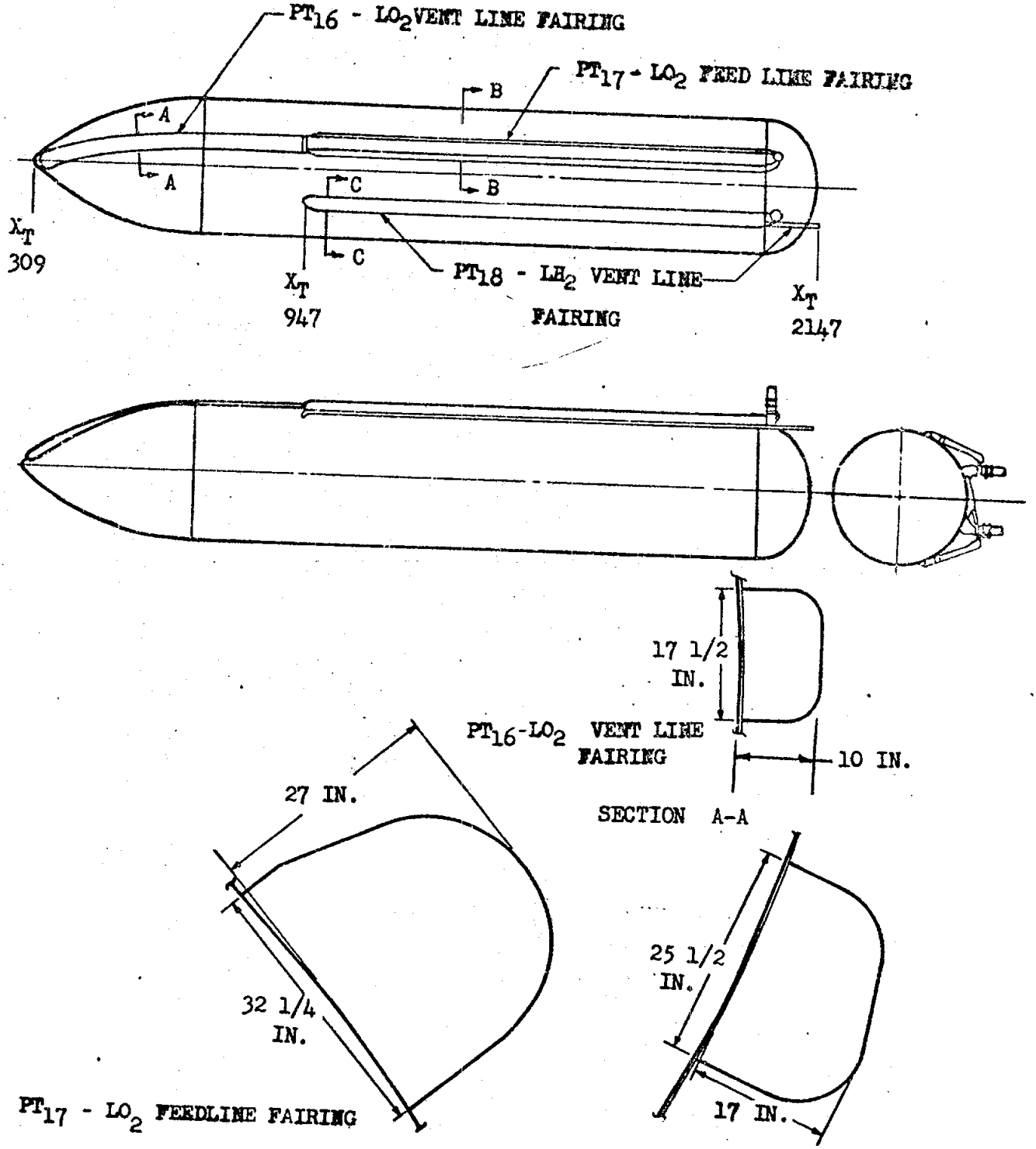
b. Forward attachment of the external tank to the orbiter (AT_{21})

Figure 2. - Continued.



c. Aft attachment of external tank to orbiter ($AT_{22,23}$)

Figure 2. - Continued.



d. External tank protuberance (PT_{16}, PT_{17}, PT_{18})

Figure 2. - Concluded.

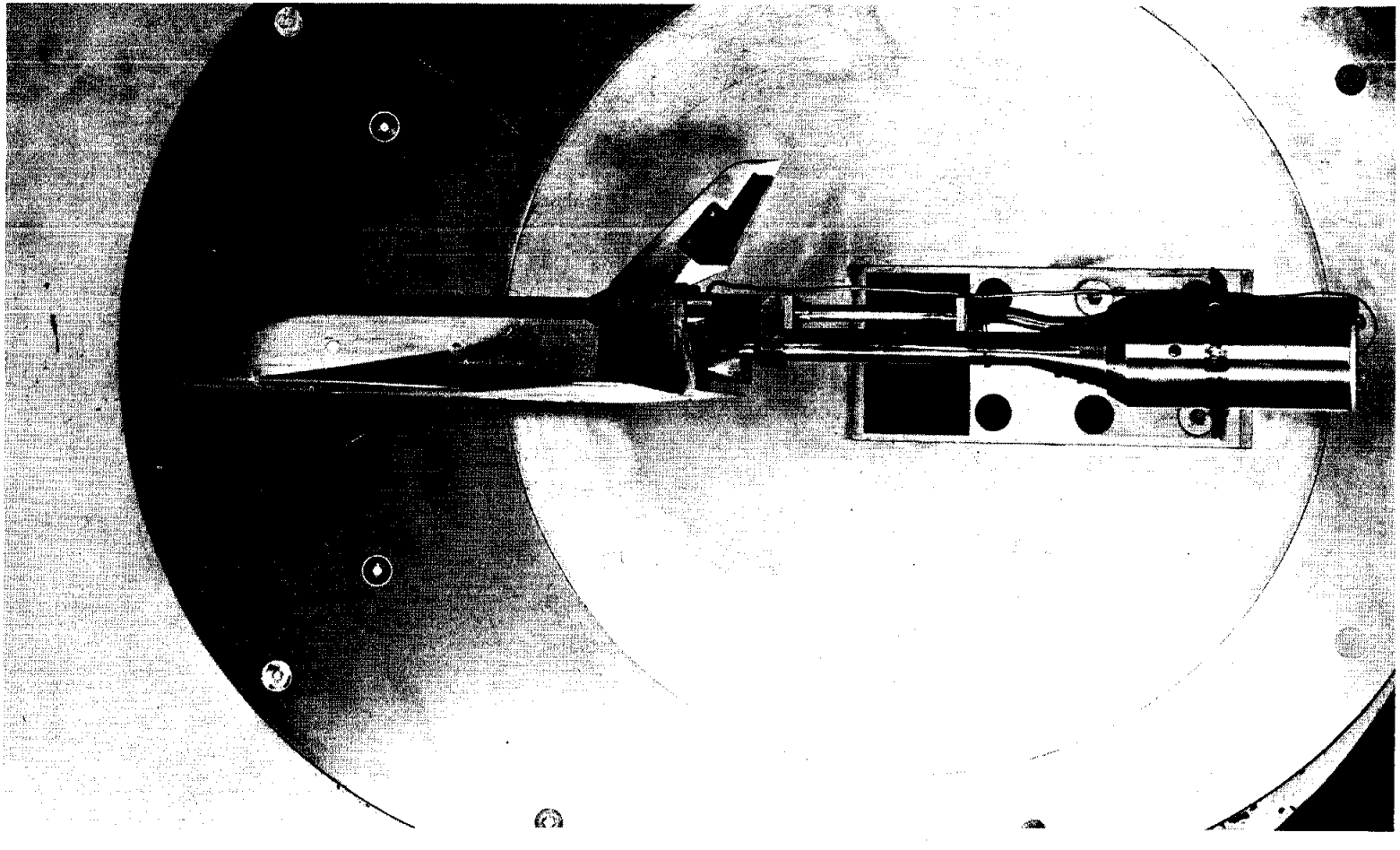


Figure 3. Model Installation Photograph

DATA FIGURES

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1020)	○	IA-60 CFHT108 MODEL 32-0T (0 TJN49 N50 PITCH DWN	469.000	-20.000	.000	.000
(CH1042)	□	IA-60 CFHT108 MODEL 32-0T (0 TJN49N50 PITCH DWN	469.000	.000	.000	.000
(CH1004)	◇	IA-60 CFHT108 MODEL 32-0T (0 TJN49 N50 PITCH DWN	469.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

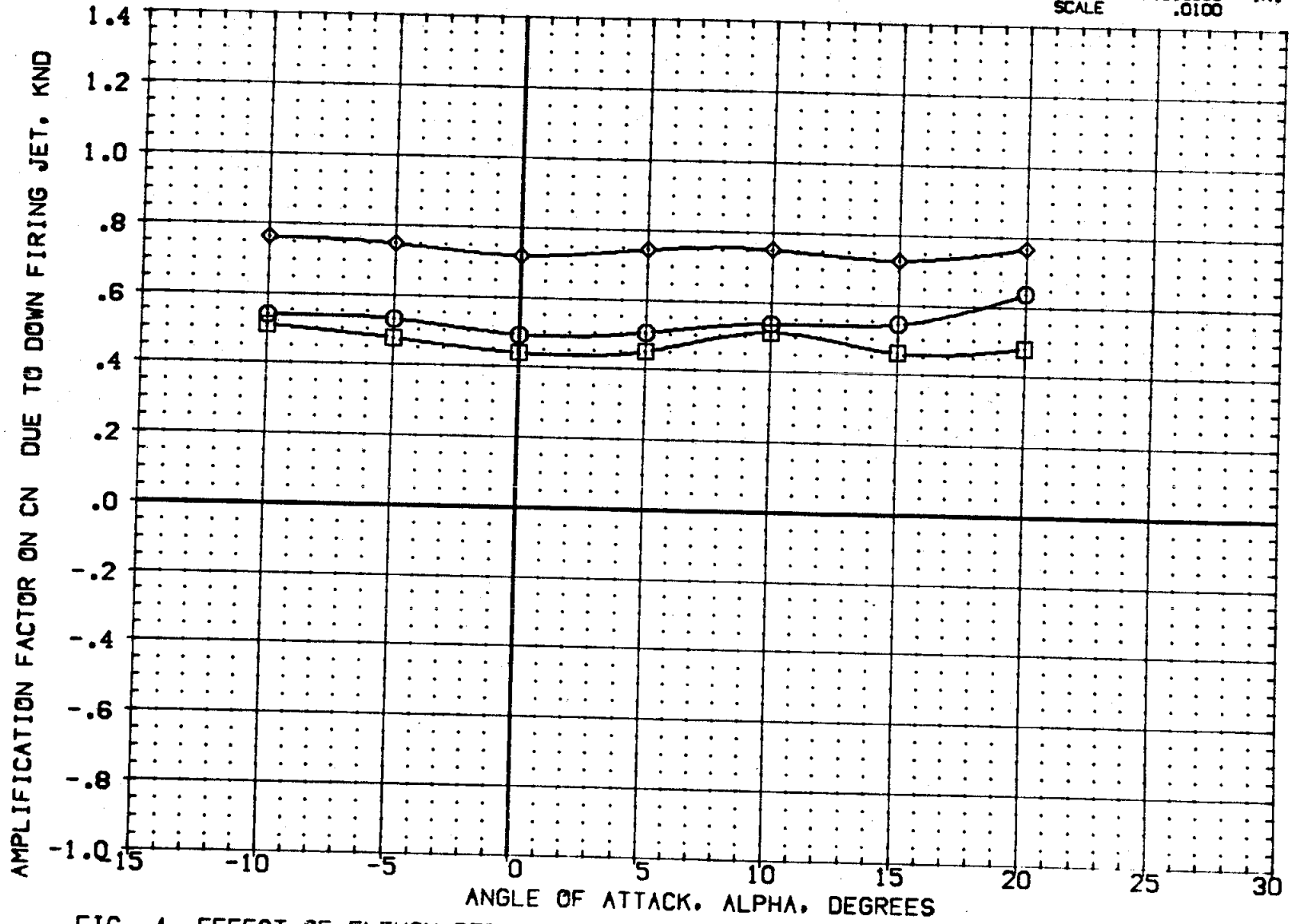


FIG 4 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1020)	○	IA-60 CFHT108 MODEL 32-DT (0 T)N49 N50 PITCH DWN	469.000	-20.000	.000	.000
(CH1042)	□	IA-60 CFHT108 MODEL 32-DT (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
(CH1004)	◇	IA-60 CFHT108 MODEL 32-DT (0 T)N49 N50 PITCH DWN	469.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

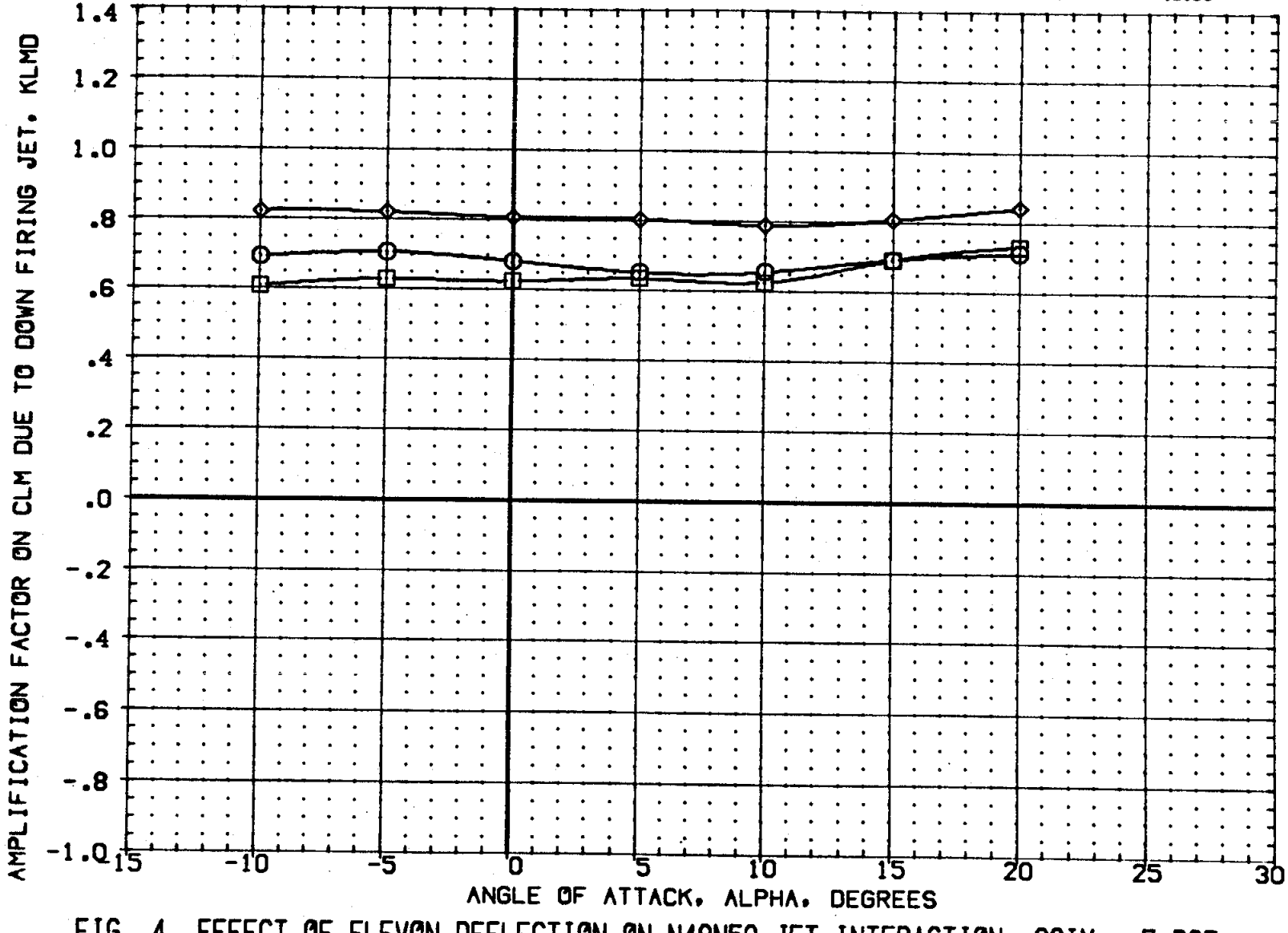


FIG 4 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1020)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	469.000	-20.000	.000	.000
(CH1042)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
(CH1004)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	469.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

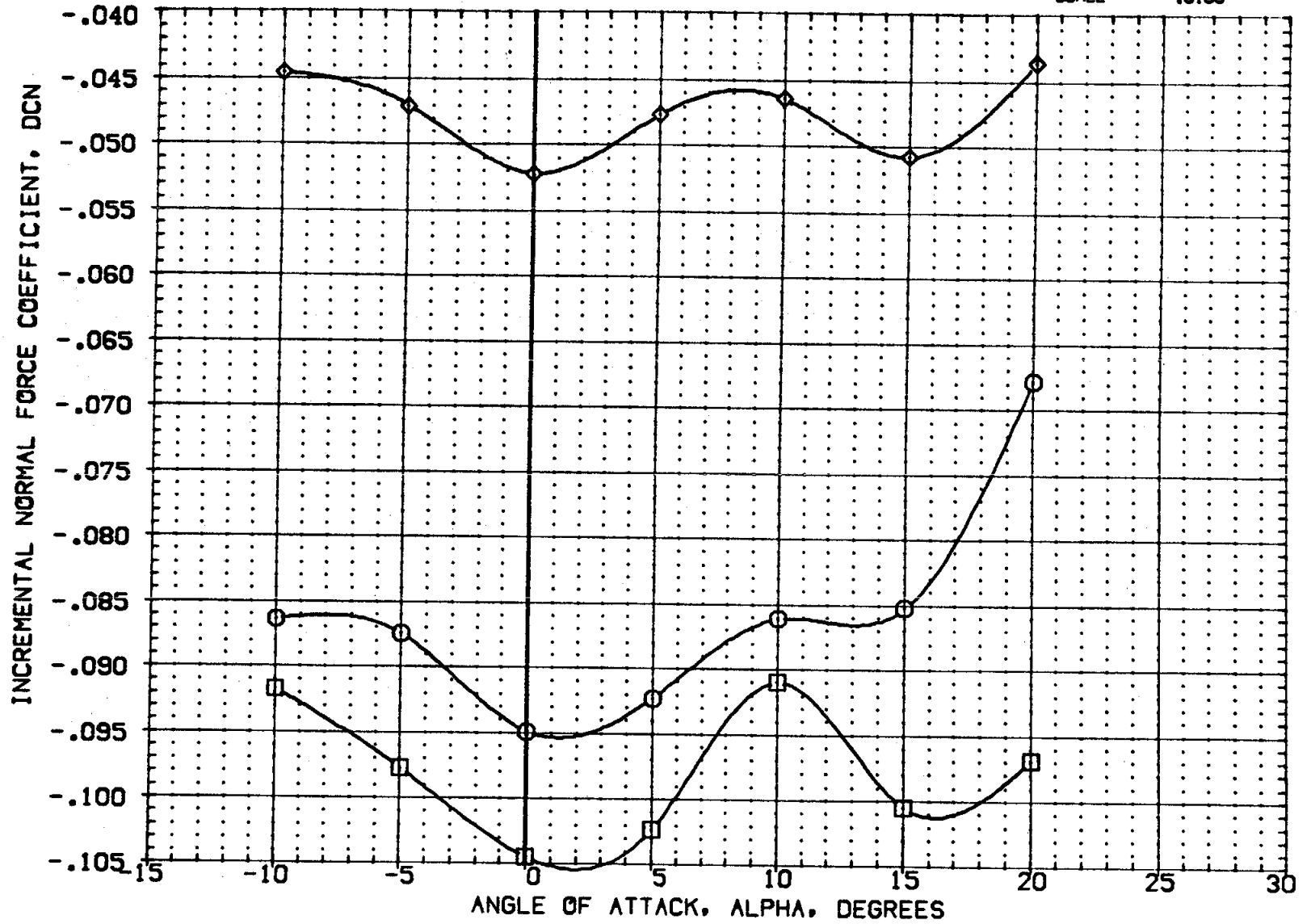


FIG 4 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1020)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	469.000	-20.000	.000	.000
(CH1042)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
(CH1004)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	469.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

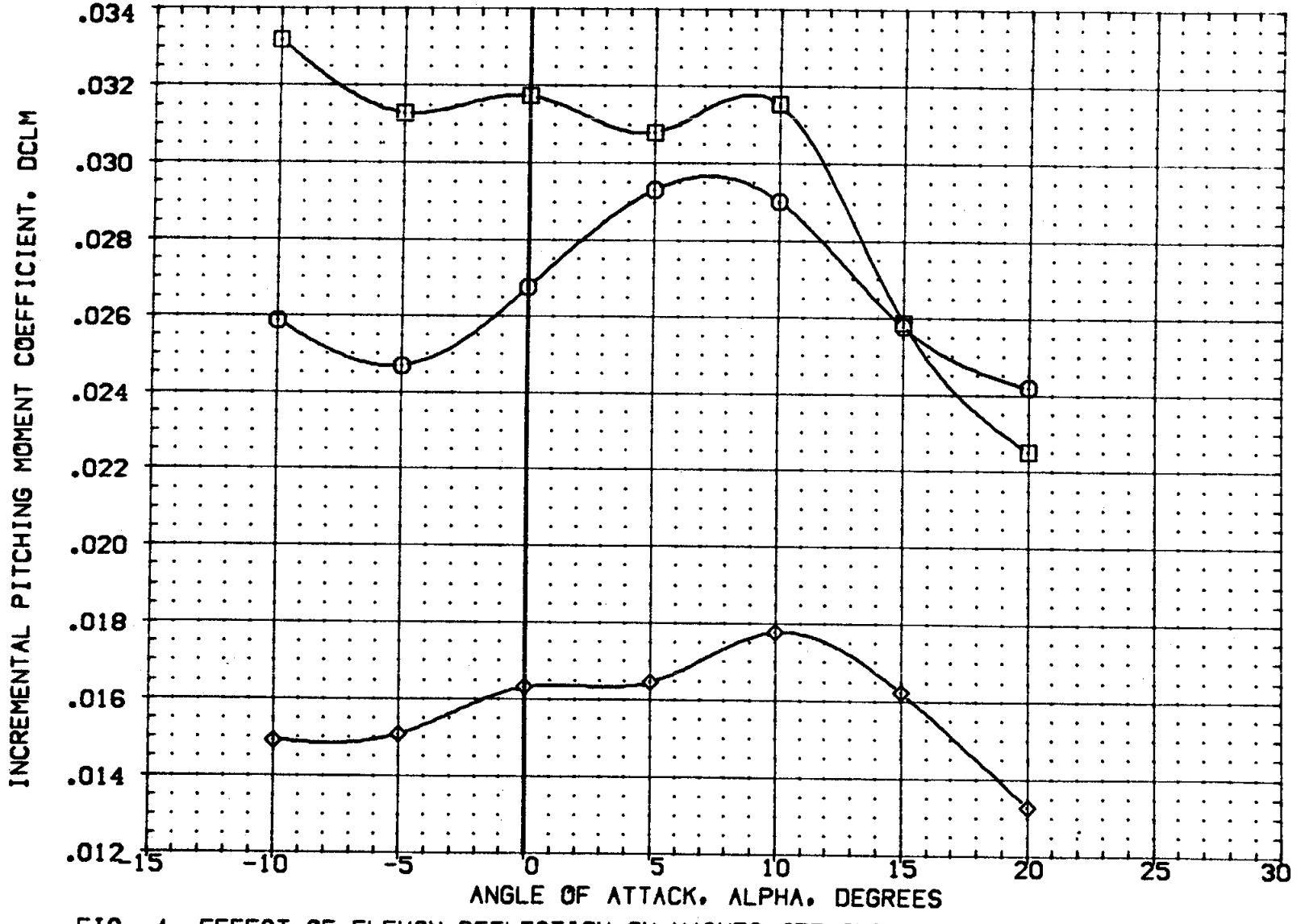


FIG 4 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH120N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	469.000	-20.000	.000	.000
(ZH142N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
(ZH104N)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	469.000	15.000	.000	.000
(ZH103F)	⊠	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	⊞	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH101F)	▷	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

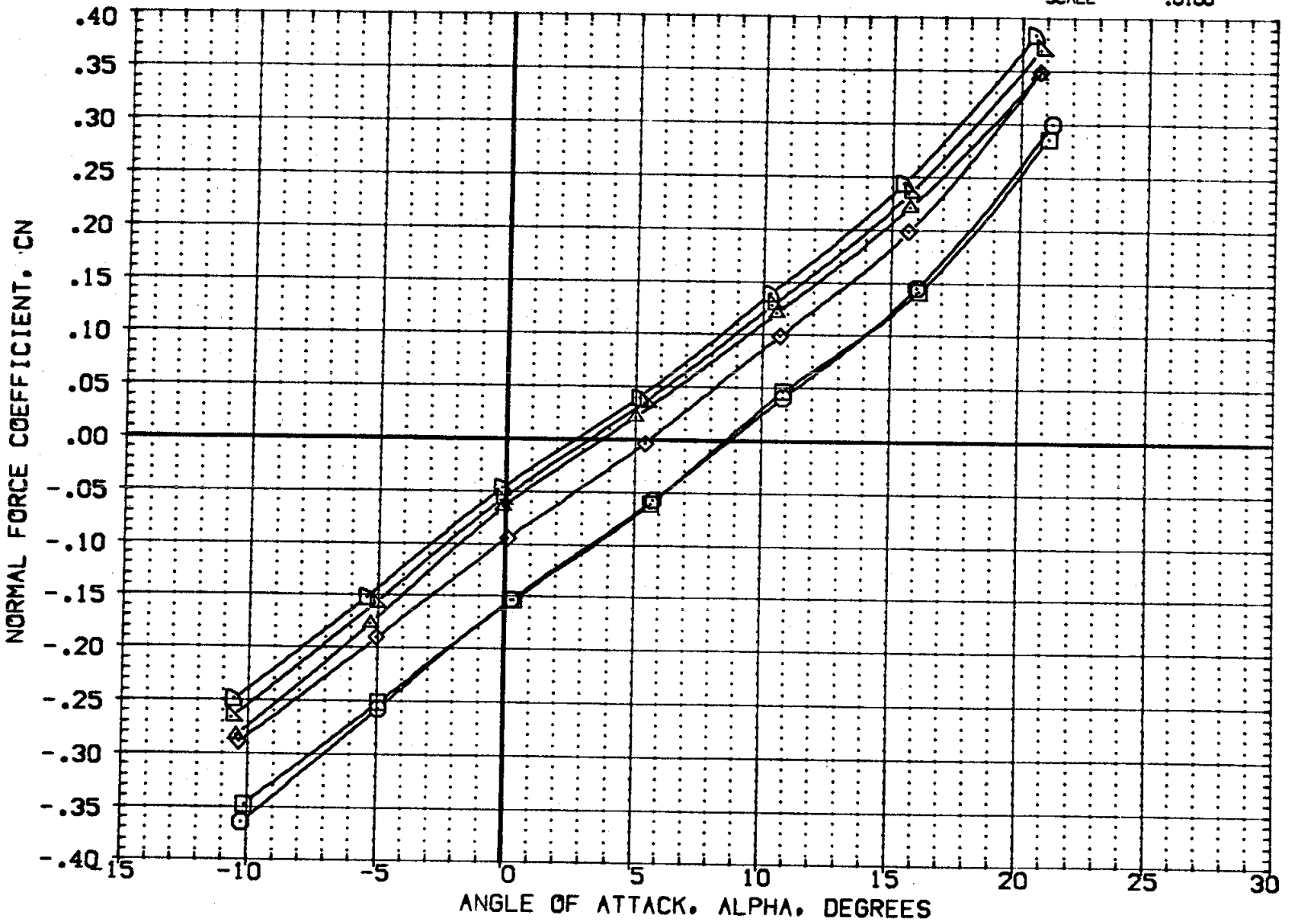


FIG 4 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH120N)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	469.000	-20.000	.000	.000
(ZH142N)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
(ZH104N)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	469.000	15.000	.000	.000
(ZH103F)	△	(A-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	▽	(A-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH101F)	▷	(A-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

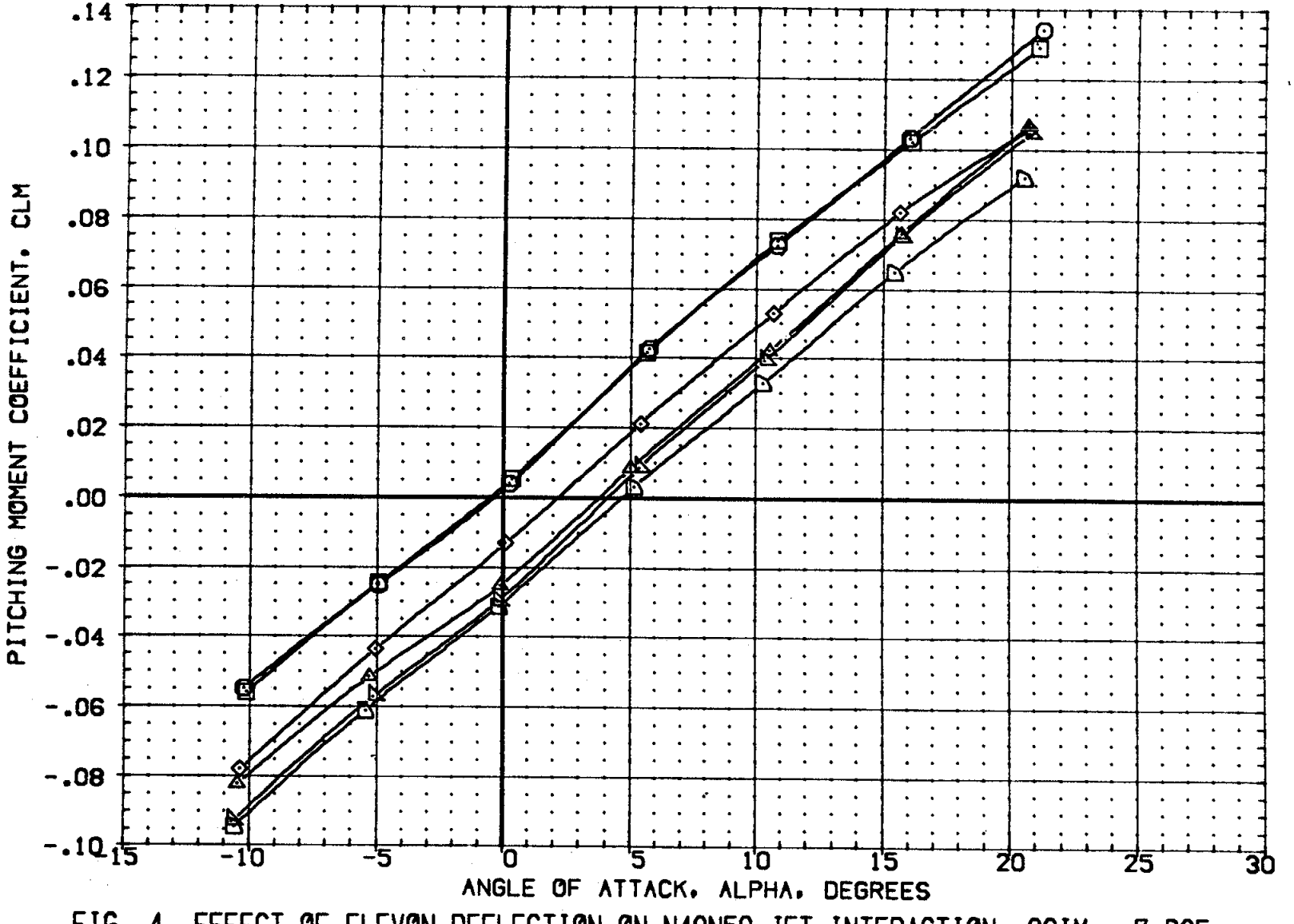


FIG 4 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1019)	○	IA-60 CFHT108 MODEL 32-0T (0 TJN49 N50 PITCH DWN	167.000	-20.000	.000	.000
(CH1041)	□	IA-60 CFHT108 MODEL 32-0T (0 TJN49N50 PITCH DWN	167.000	.000	.000	.000
(CH1003)	◇	IA-60 CFHT108 MODEL 32-0T (0 TJN49 N50 PITCH DWN	167.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

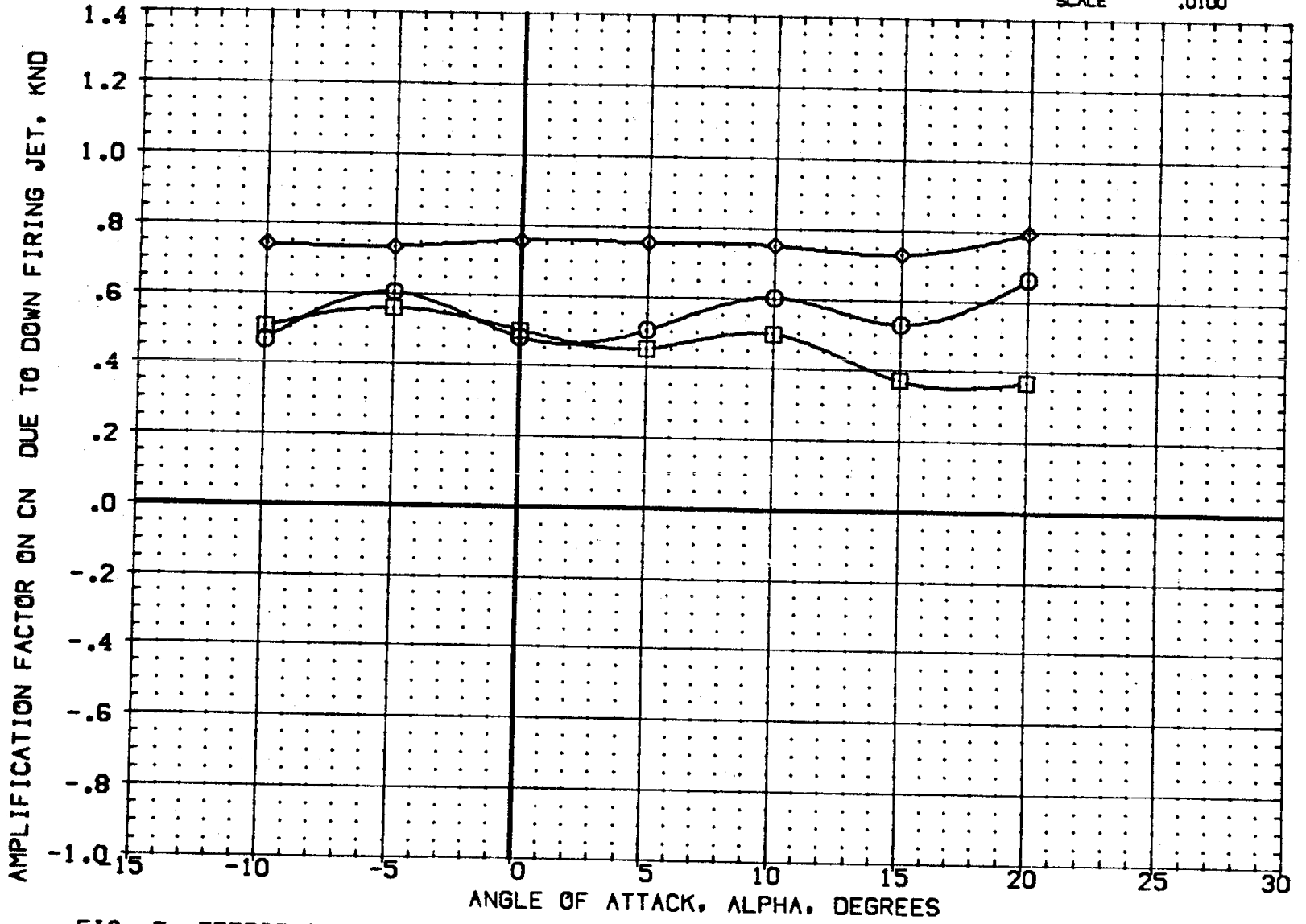


FIG 5 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1019)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	-20.000	.000	.000
(CH1041)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(CH1003)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

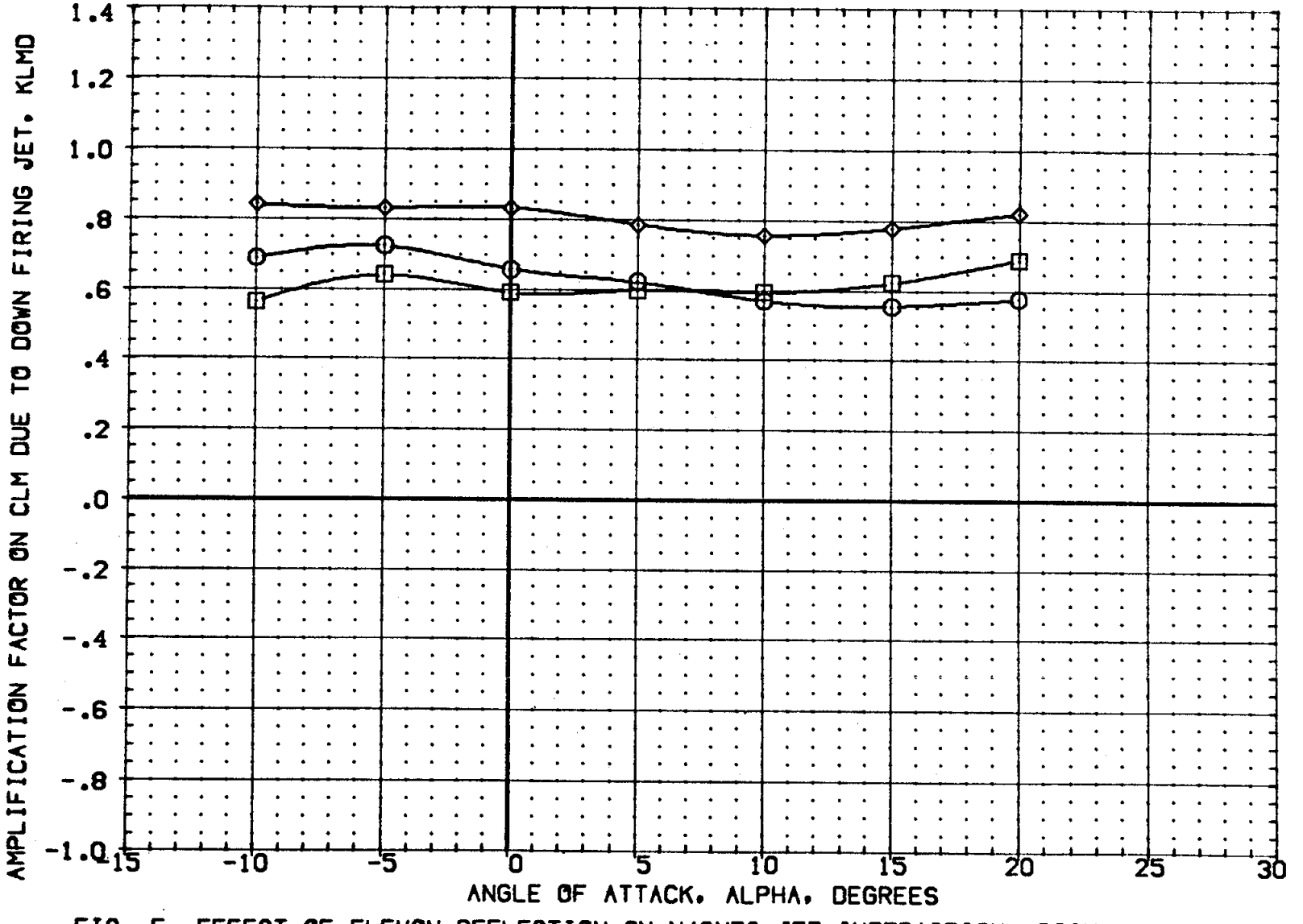


FIG 5 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1019)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	-20.000	.000	.000
(CH1041)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(CH1003)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

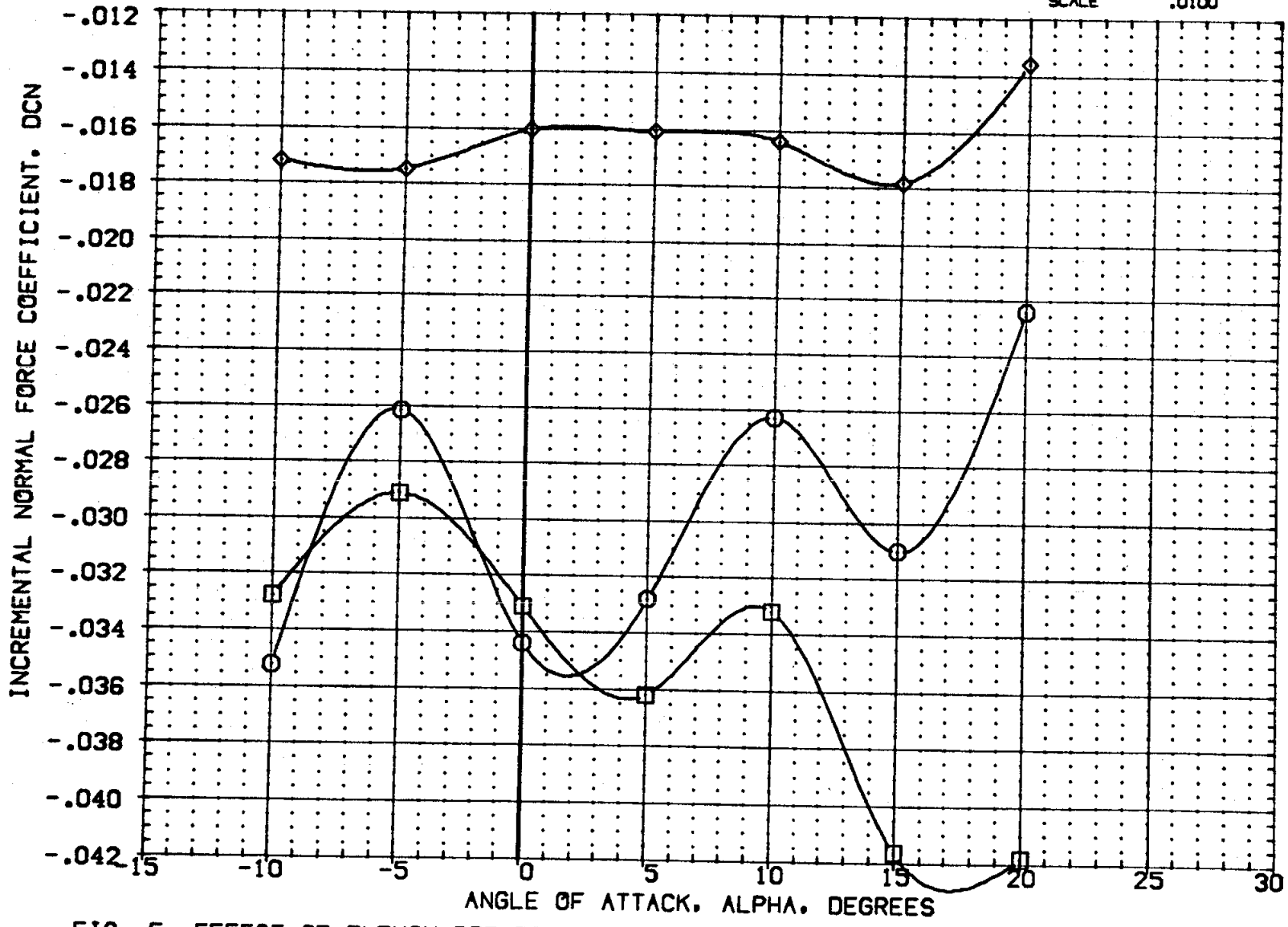


FIG 5 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1019)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	-20.000	.000	.000
(CH1041)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(CH1003)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

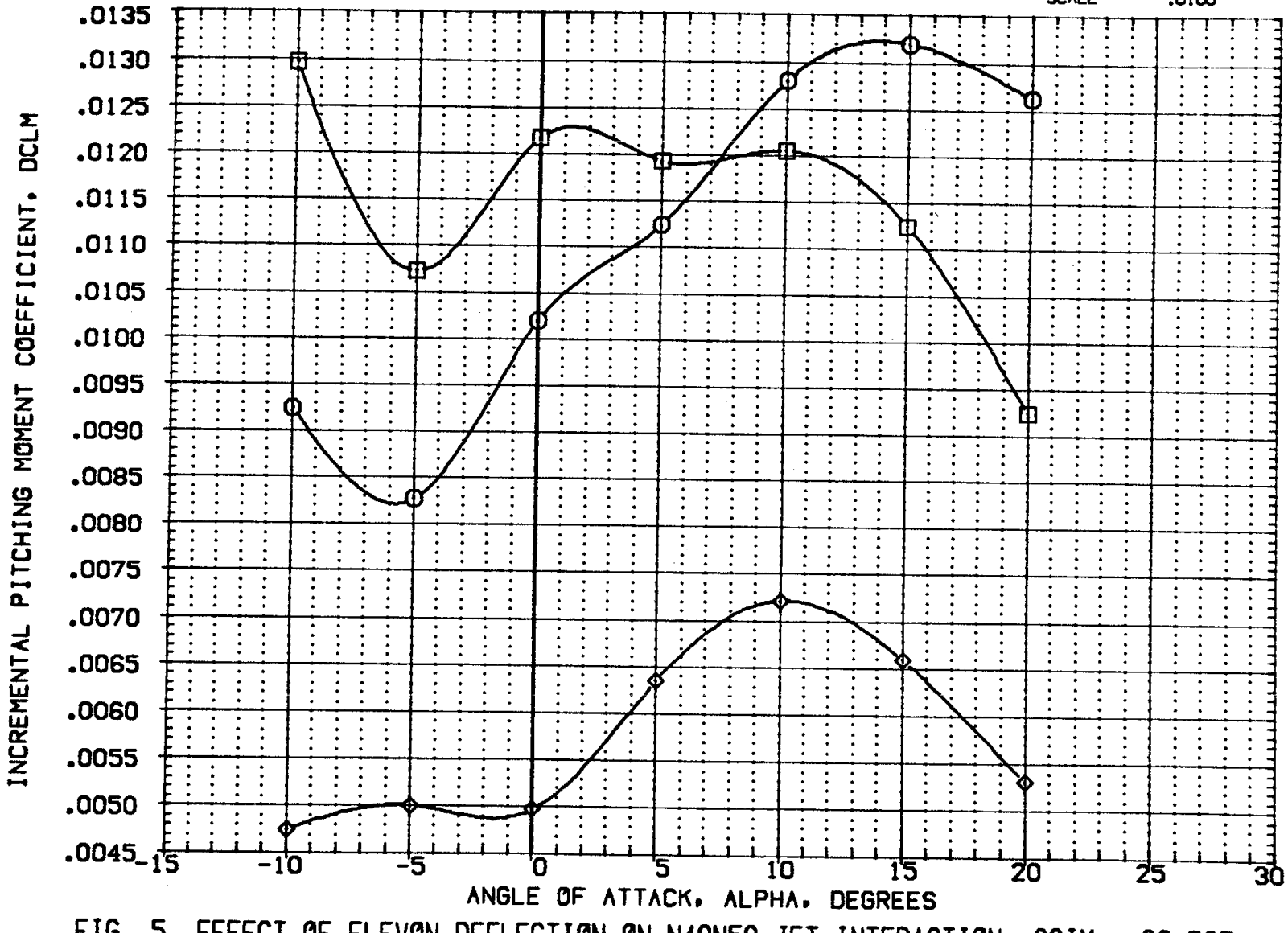


FIG 5 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH119N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	-20.000	.000	.000
(ZH141N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(ZH103N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	▽	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH101F)	▷	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

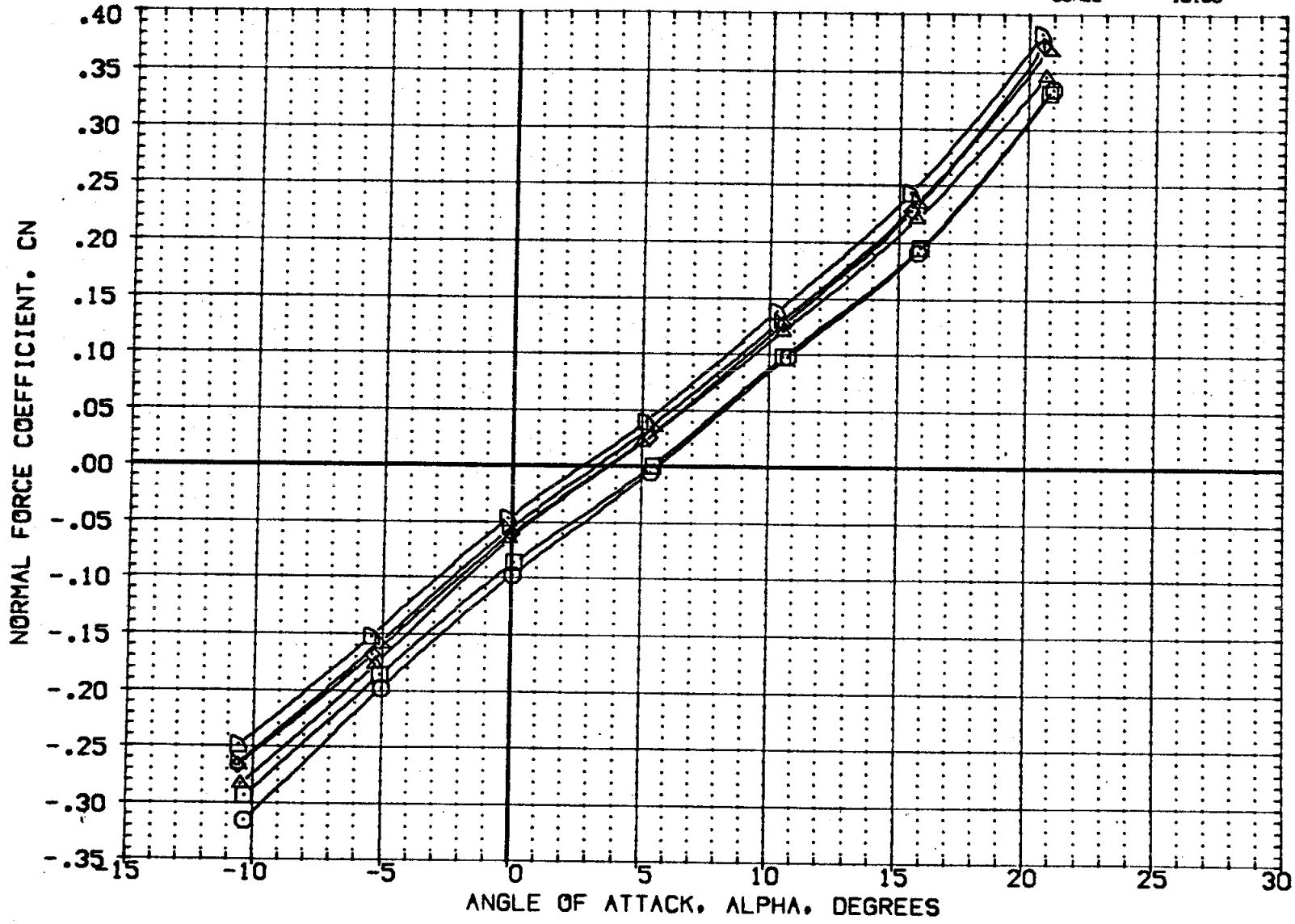


FIG 5 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH119N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	-20.000	.000	.000
(ZH141N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(ZH103N)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N50 PITCH DWN	167.000	15.000	.000	.000
(ZH103F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH101F)	▷	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

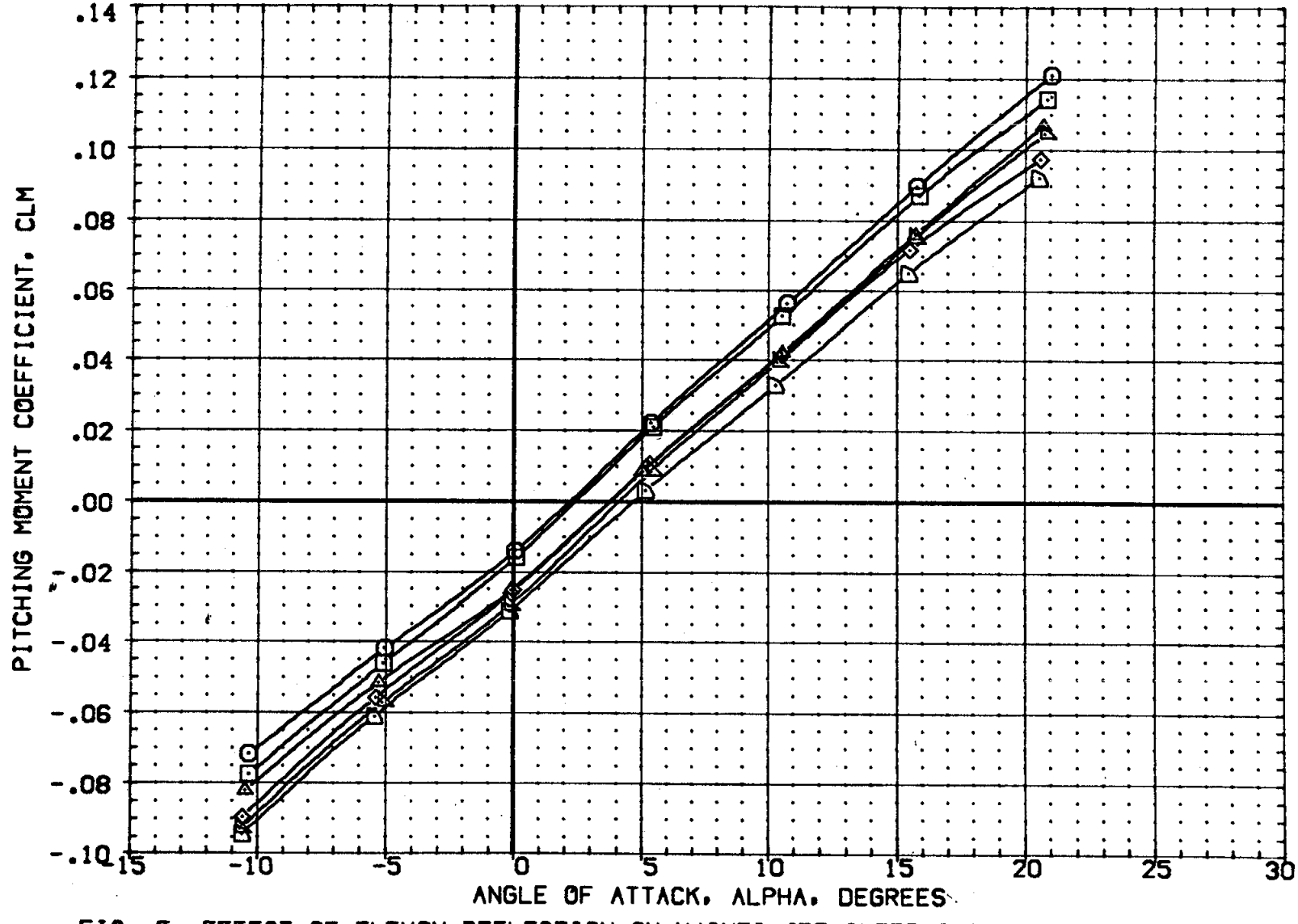


FIG 5 EFFECT OF ELEVON DEFLECTION ON N49N50 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1042)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
(CH1040)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.6000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

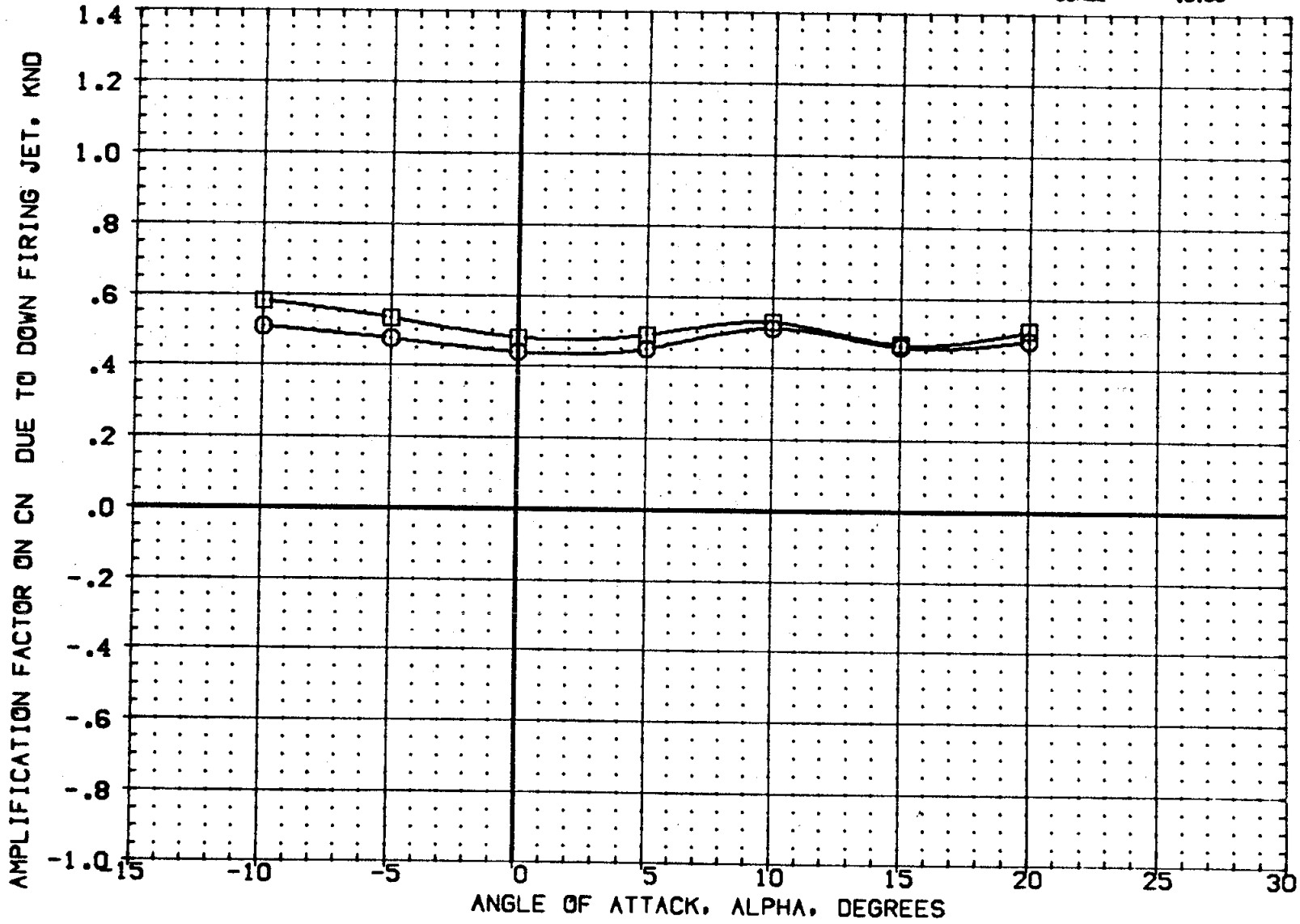


FIG 6 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1042]	IA-60 CFHT108 MODEL 32-0T [0 T]N49N50 PITCH DWN	469.000	.000	.000	.000
[CH1040]	IA-60 CFHT108 MODEL 32-0T [0 T]N49N50 PITCH DWN	469.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

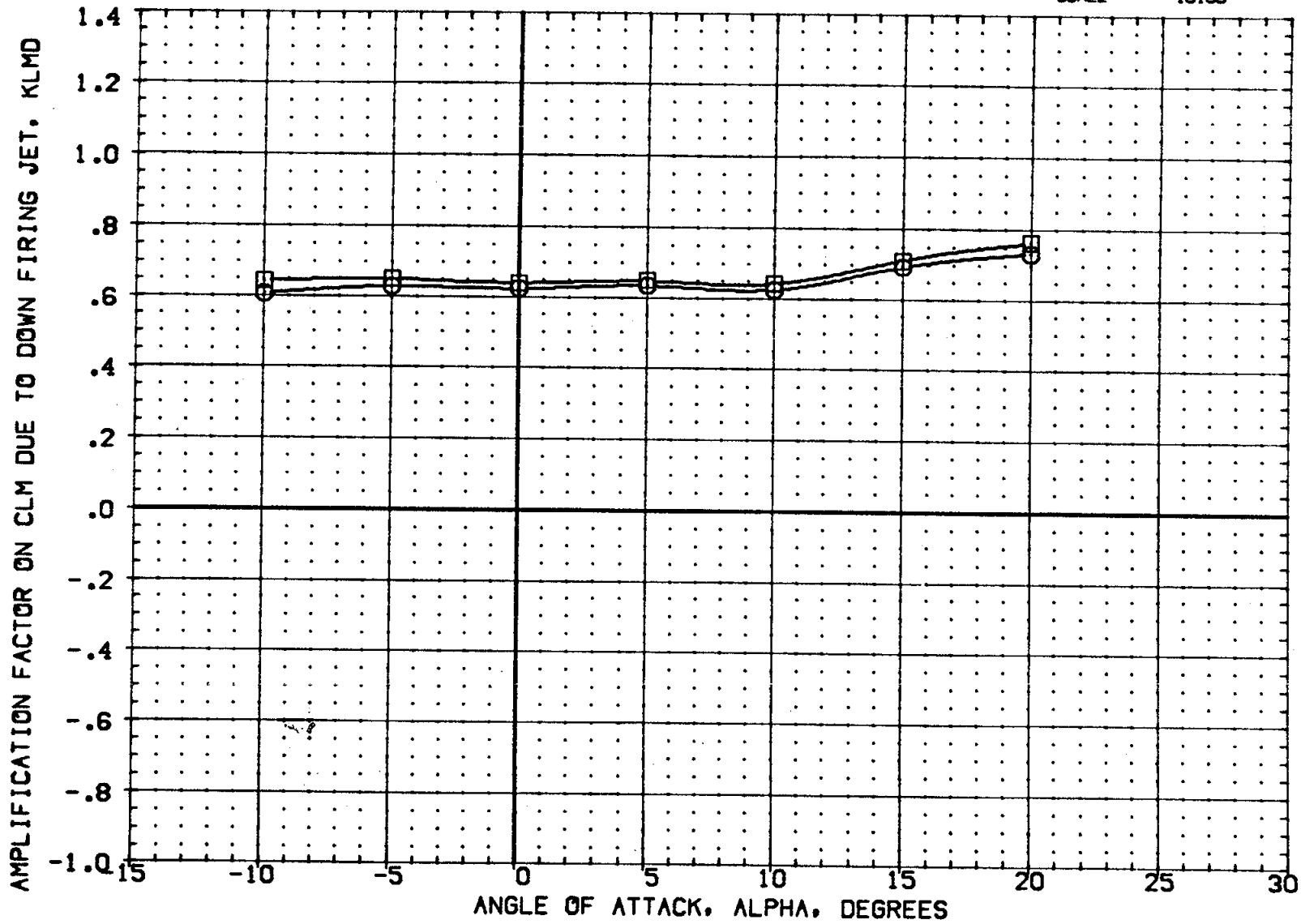


FIG 6 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1042]	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
[CH1040]	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

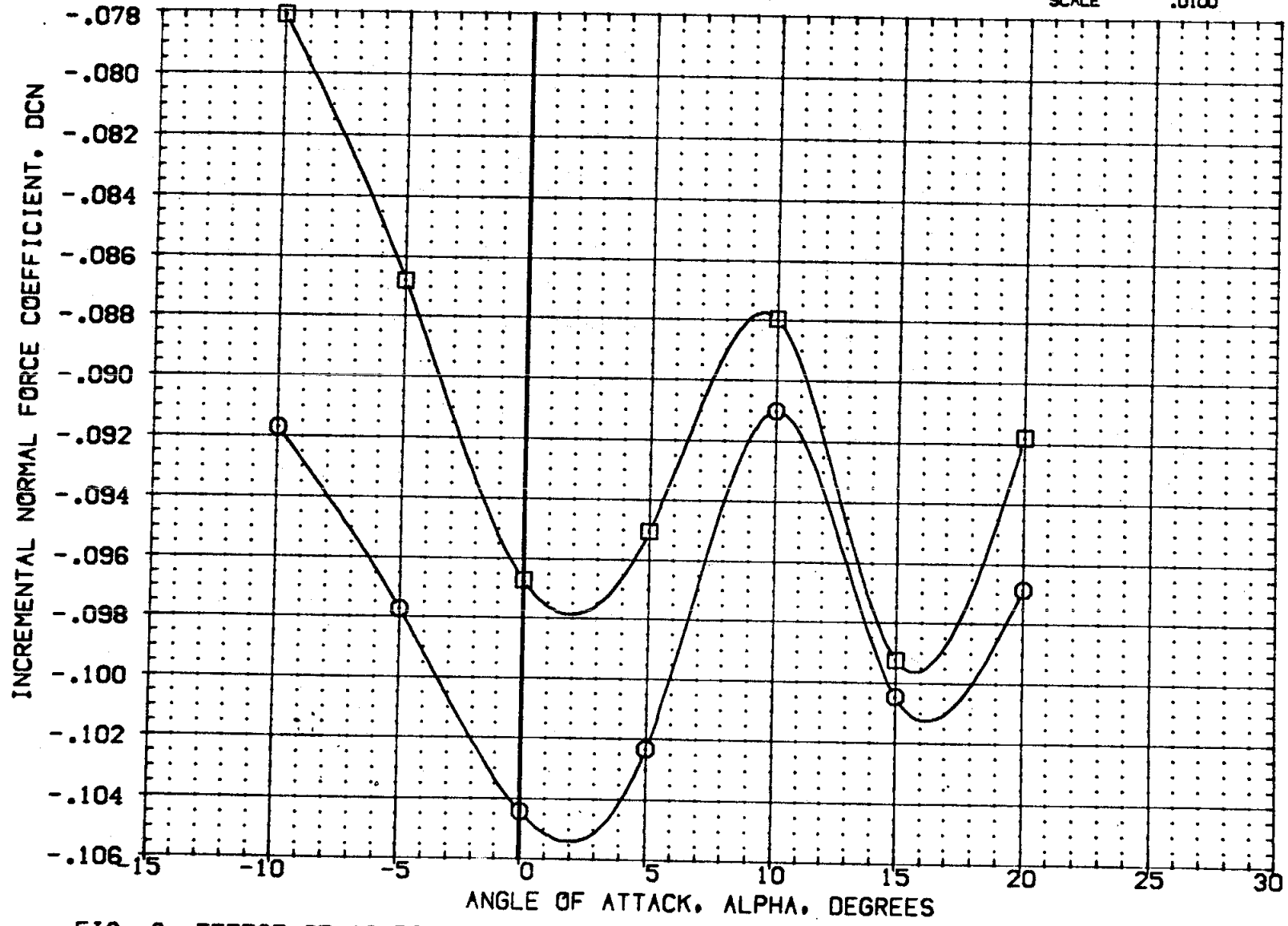


FIG 6 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1042] ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
[CH1040] □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

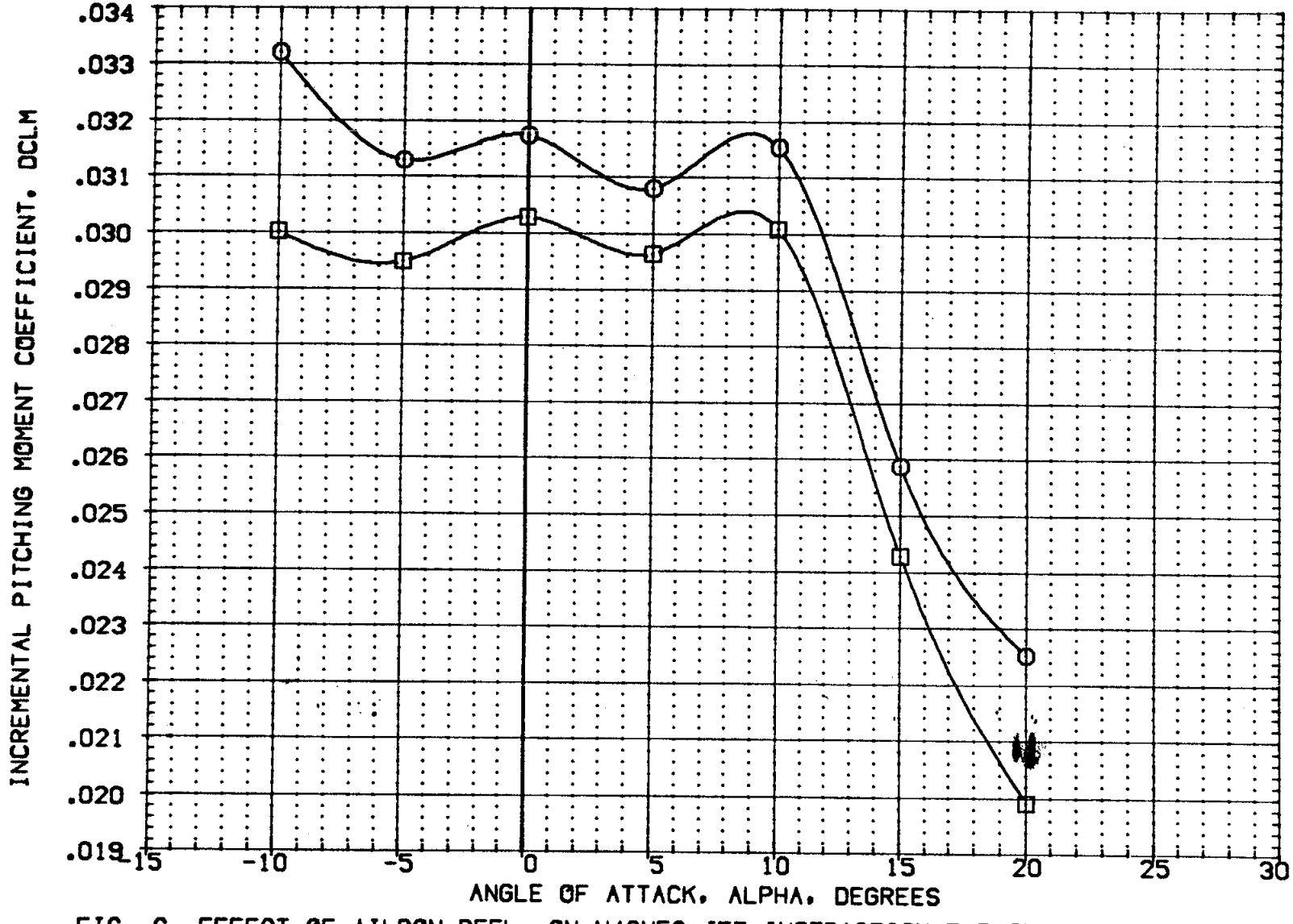


FIG 6 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH142N)	○	IA-60 CFHTI08 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
(ZH140N)	□	IA-60 CFHTI08 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	15.000	.000
(ZH102F)	◇	IA-60 CFHTI08 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH104F)	△	IA-60 CFHTI08 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

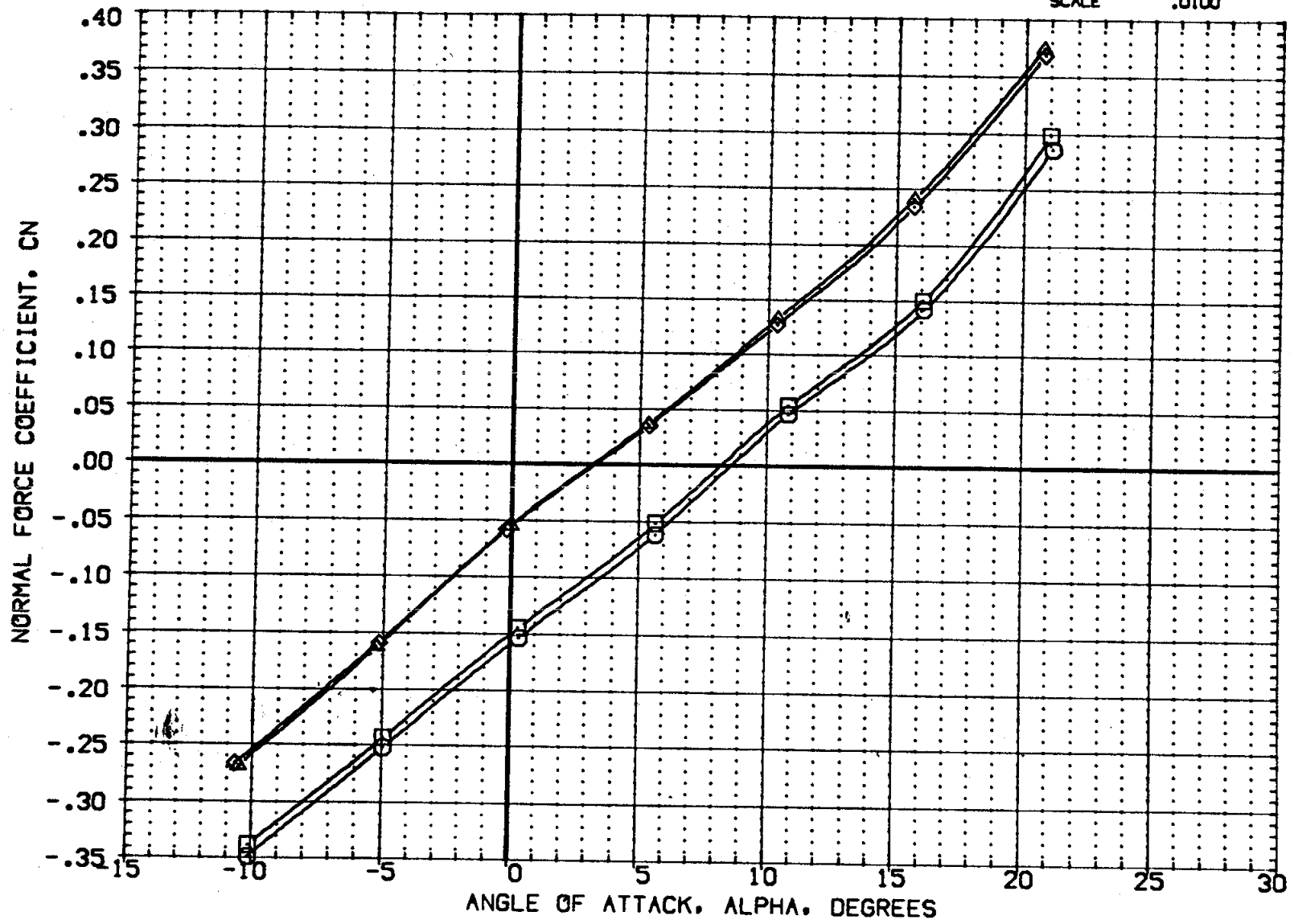


FIG 6 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH142N)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	.000	.000
(ZH140N)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	469.000	.000	15.000	.000
(ZH102F)	⋈	(A-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH104F)	△	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

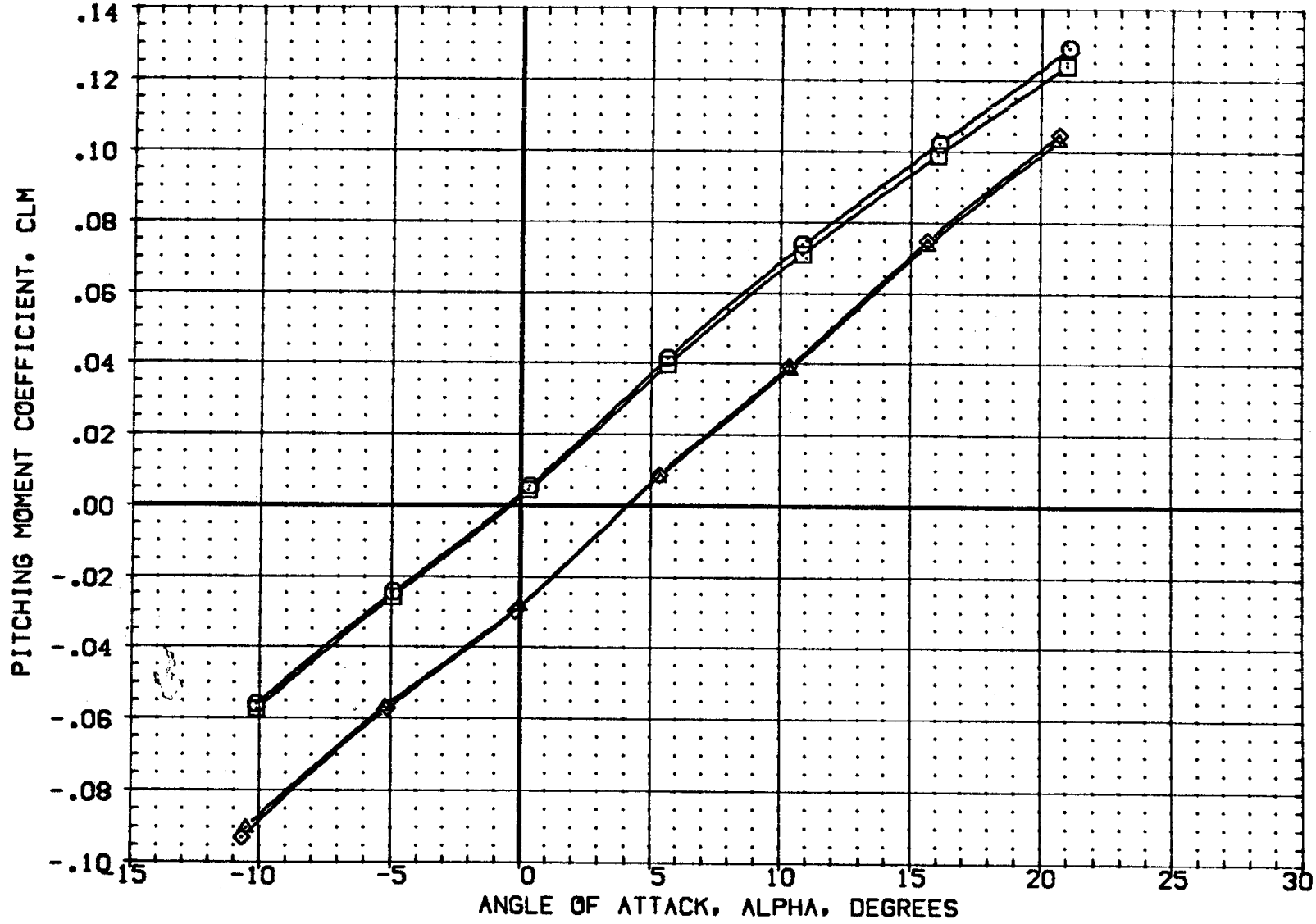


FIG 6 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

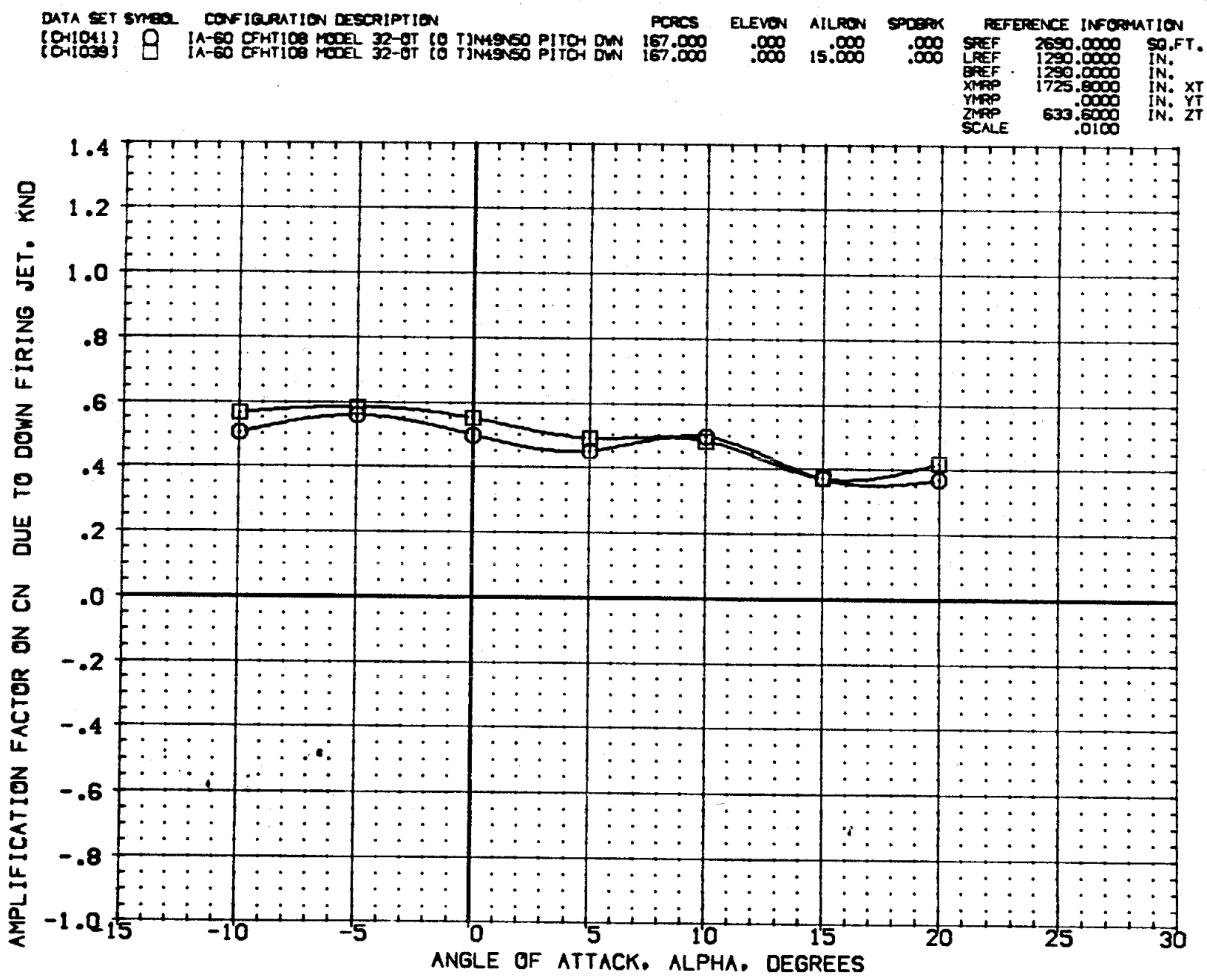


FIG 7 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0. QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1041)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(CH1039)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

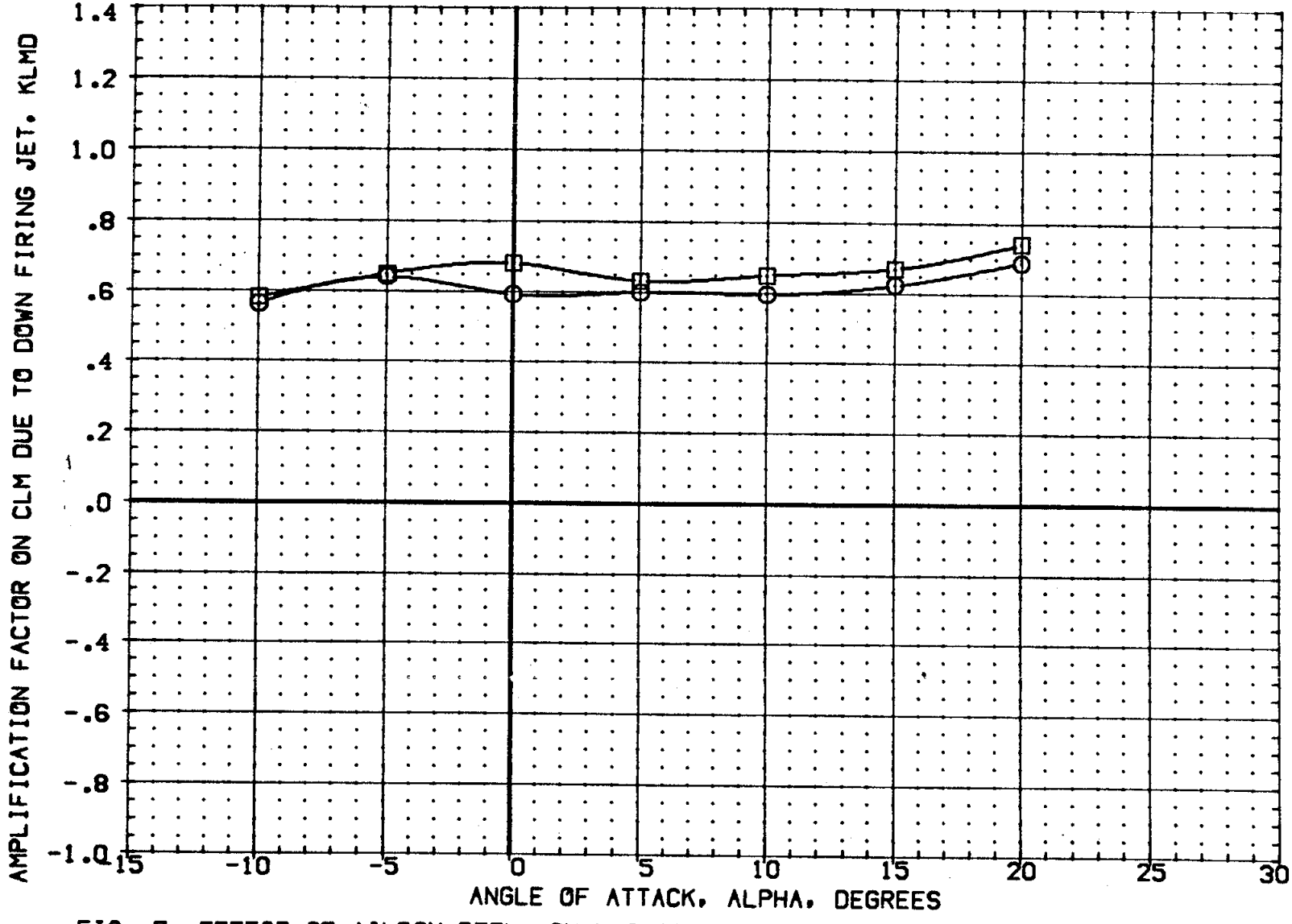


FIG 7 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1041]	IA-60 CFHT108 MODEL 32-0T [0 T]N49N50 PITCH DWN	167.000	.000	.000	.000
[CH1039]	IA-60 CFHT108 MODEL 32-0T [0 T]N49N50 PITCH DWN	167.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

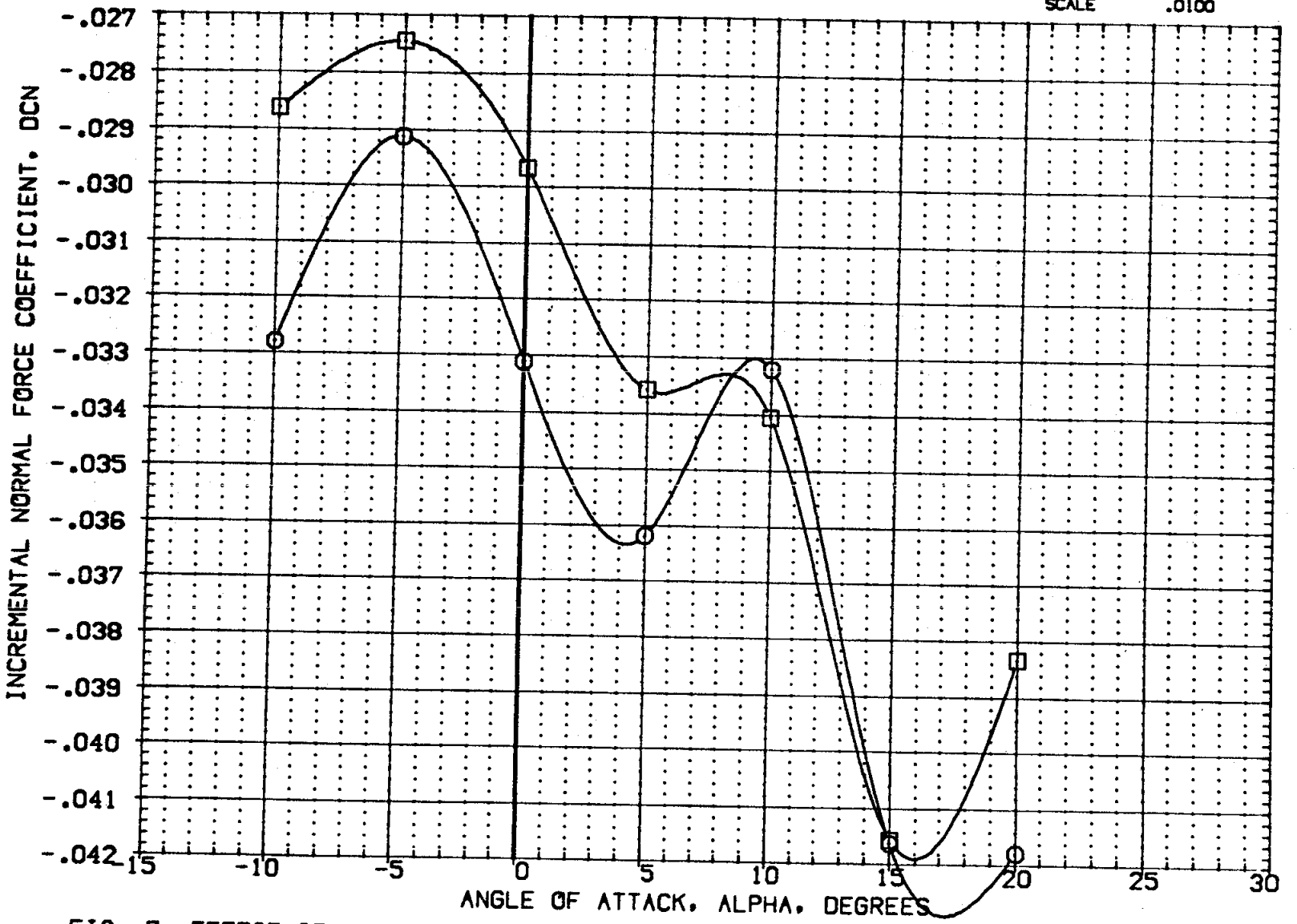


FIG 7 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(DH1041)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(DH1039)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

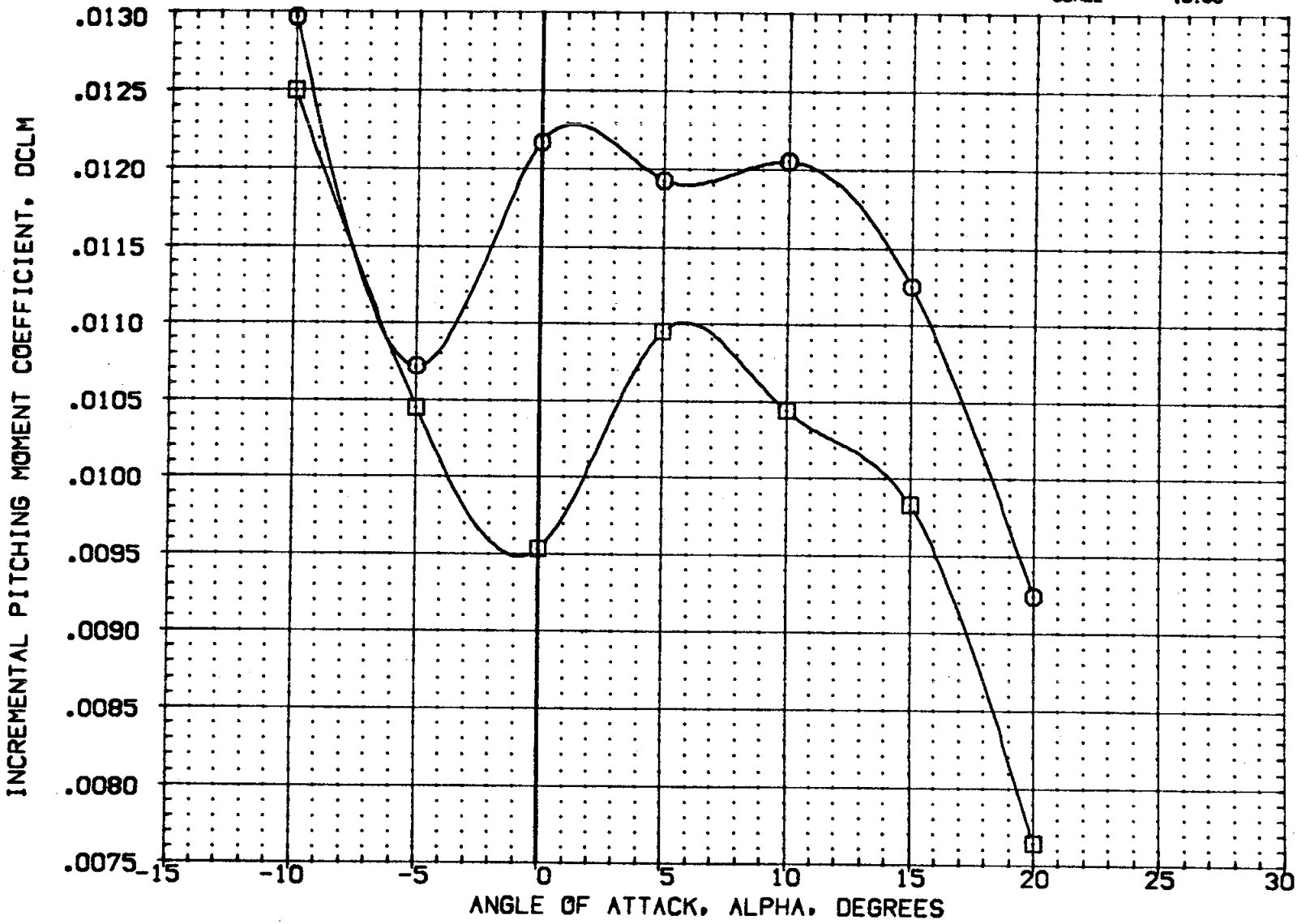


FIG 7 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH141N)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(ZH139N)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	15.000	.000
(ZH102F)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH104F)	△	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

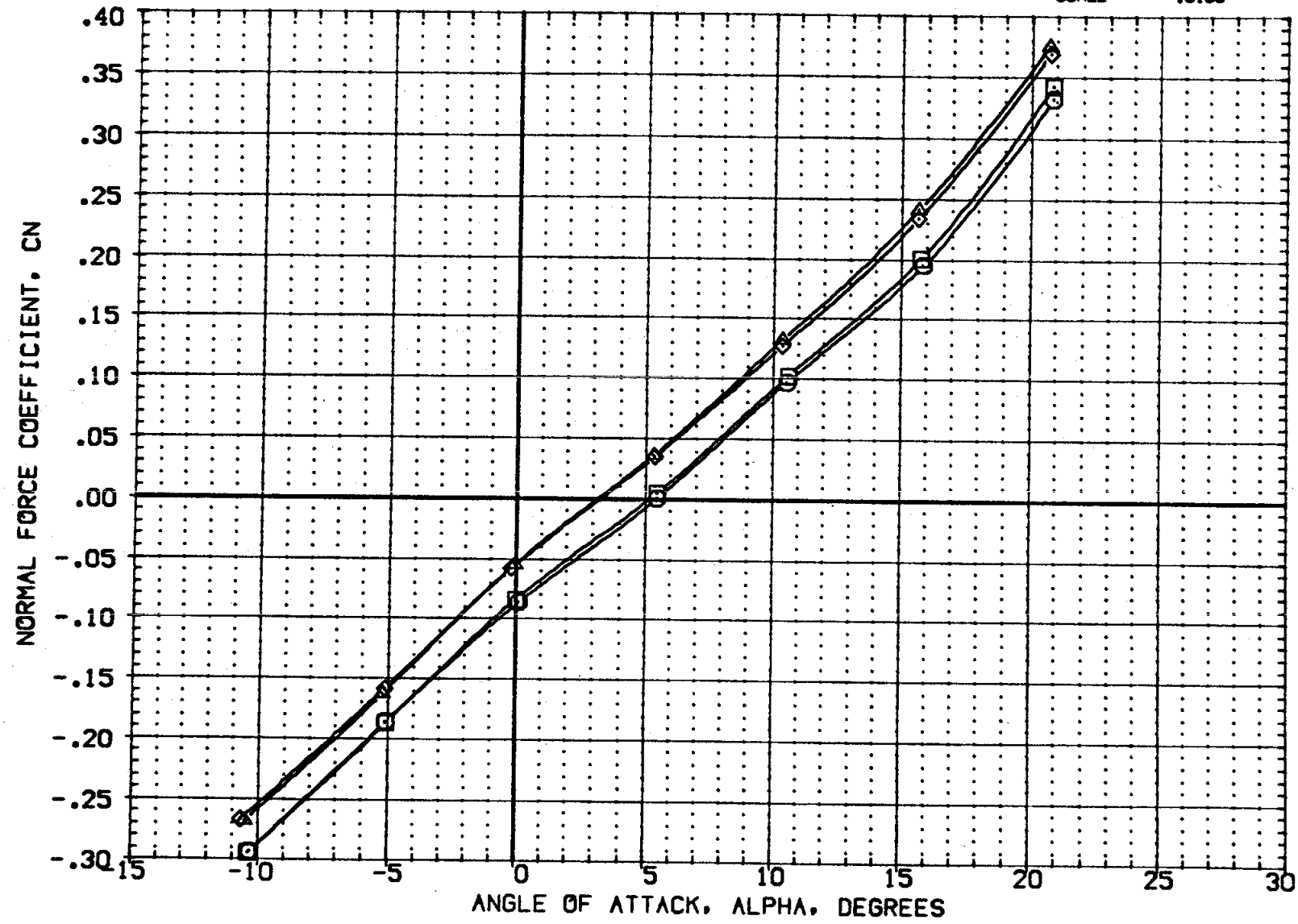


FIG 7 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH141N)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	.000	.000
(ZH139N)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N50 PITCH DWN	167.000	.000	15.000	.000
(ZH102F)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH104F)	△	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

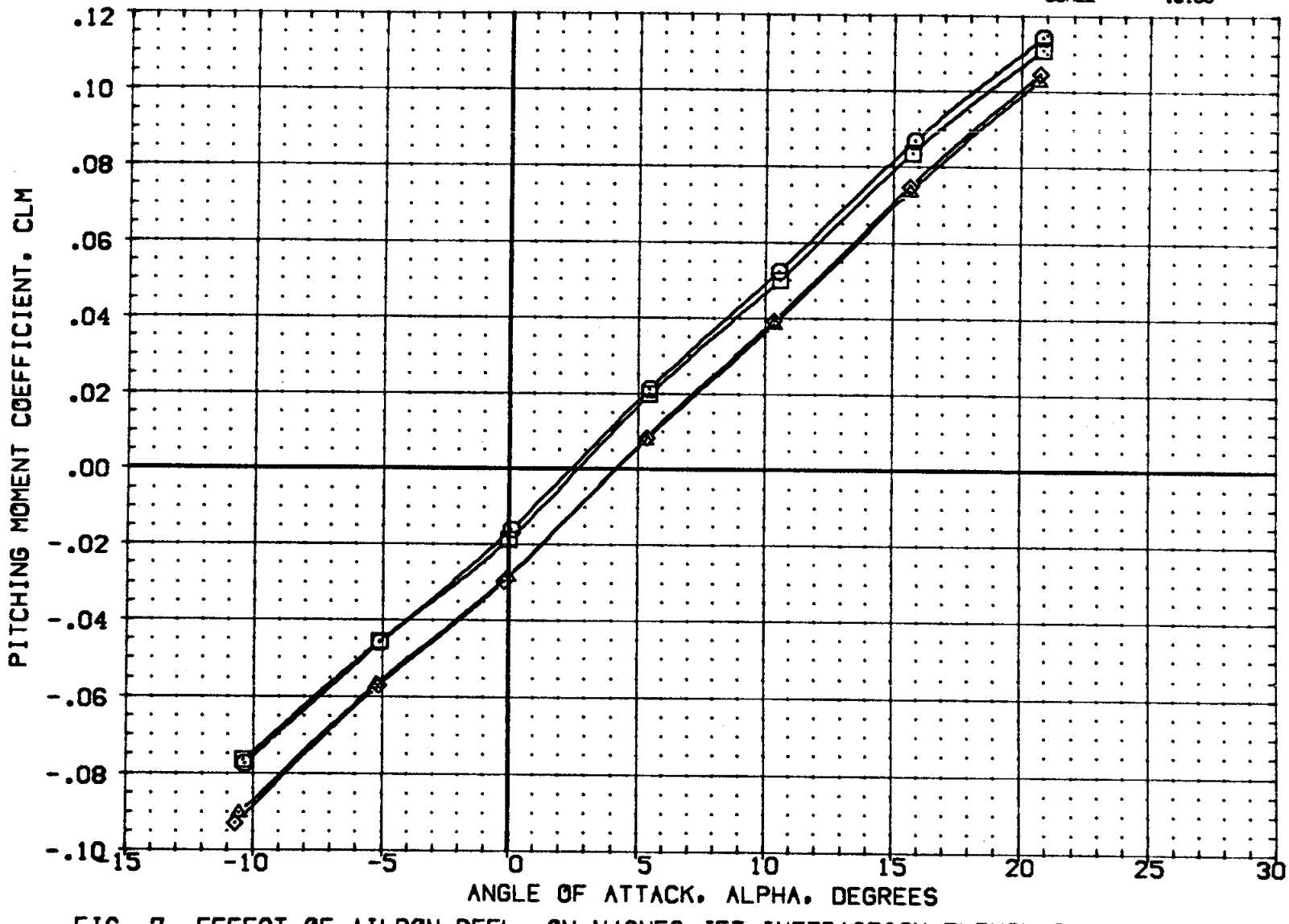


FIG 7 EFFECT OF AILRON DEFL. ON N49N50 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1026)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	446.000	-20.000	.000	.000
(CH1010)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	.000
(CH1008)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

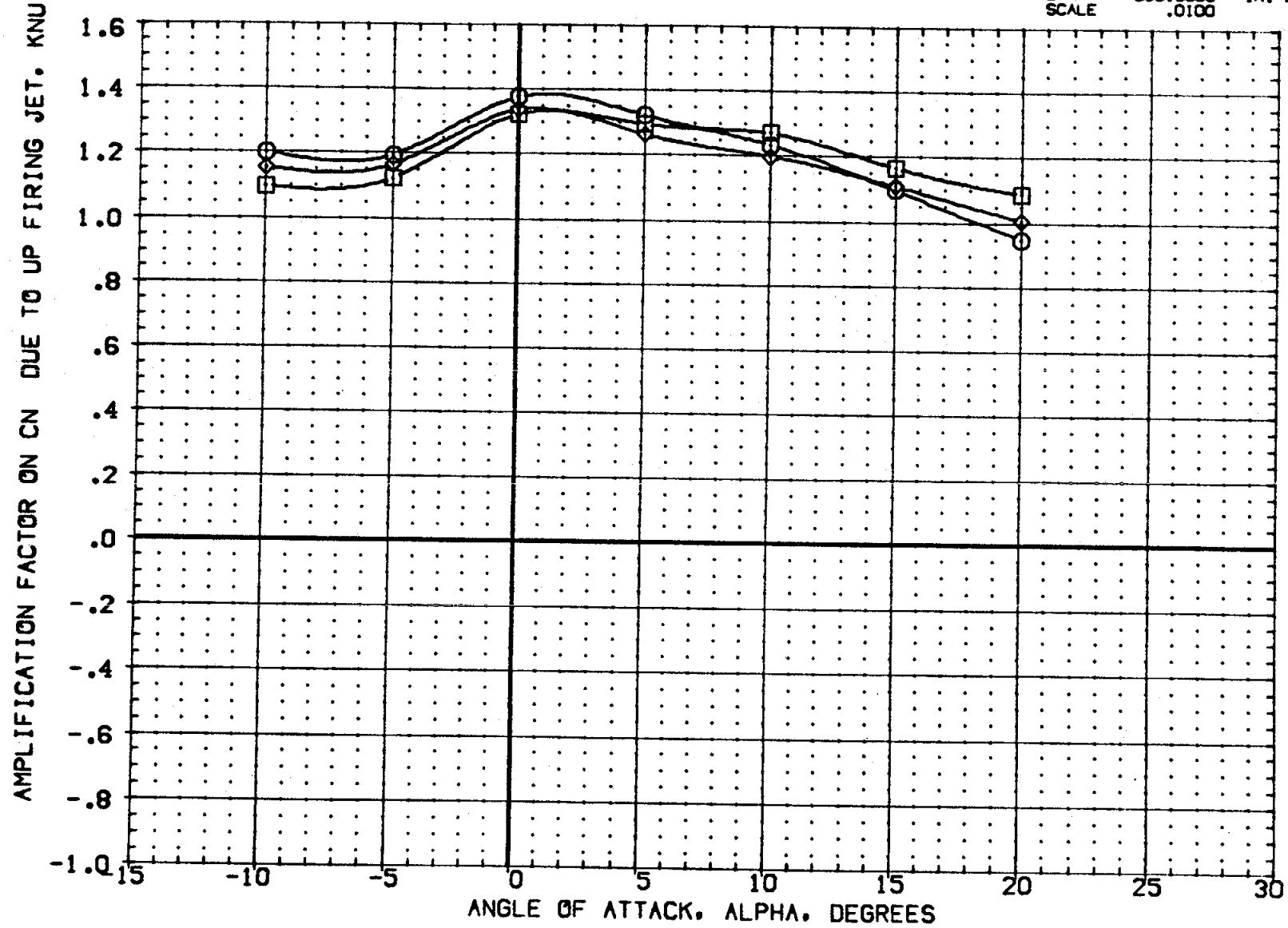


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION. QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1026)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	446.000	-20.000	.000	.000
(CH1010)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	.000
(CH1008)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

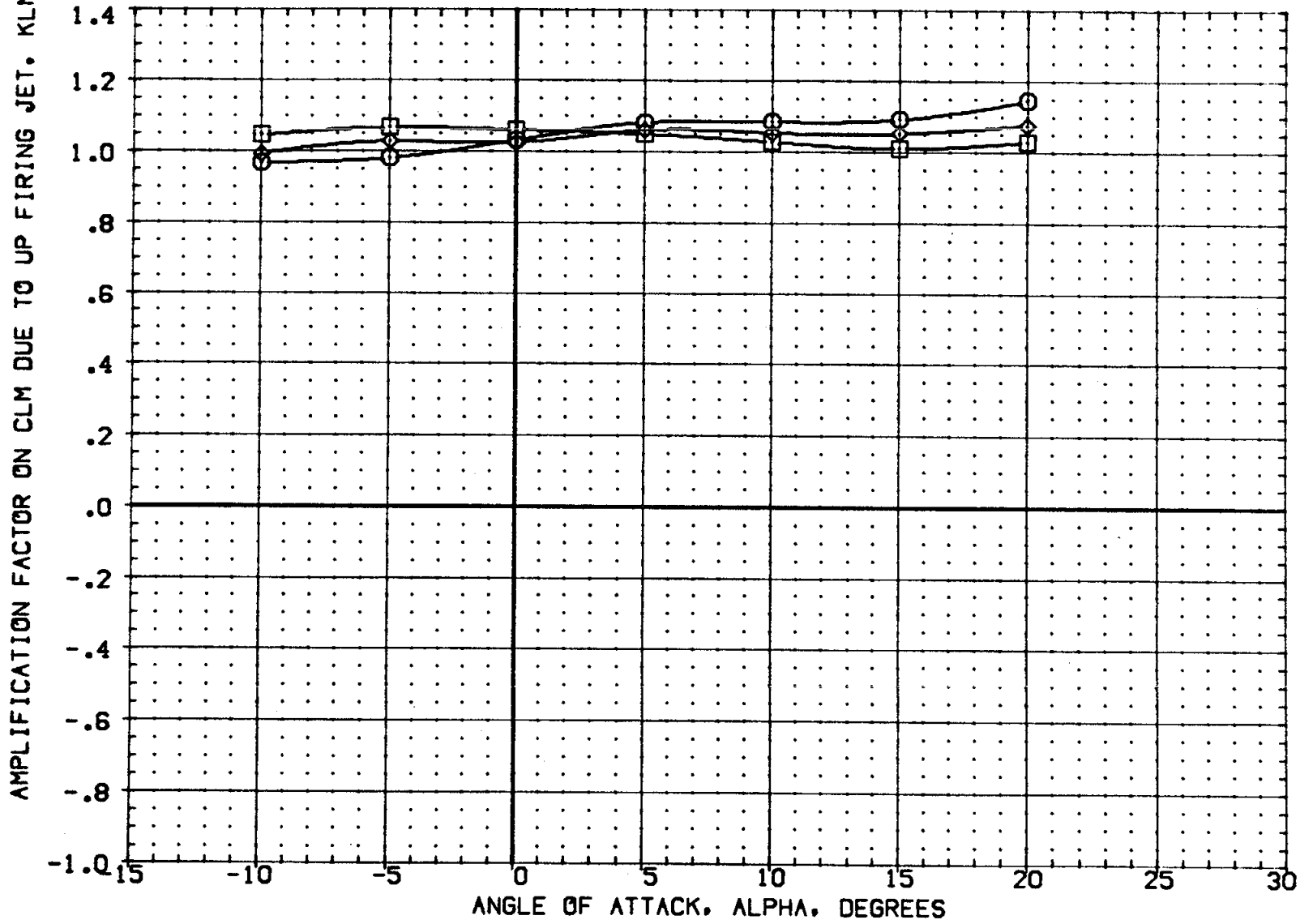


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

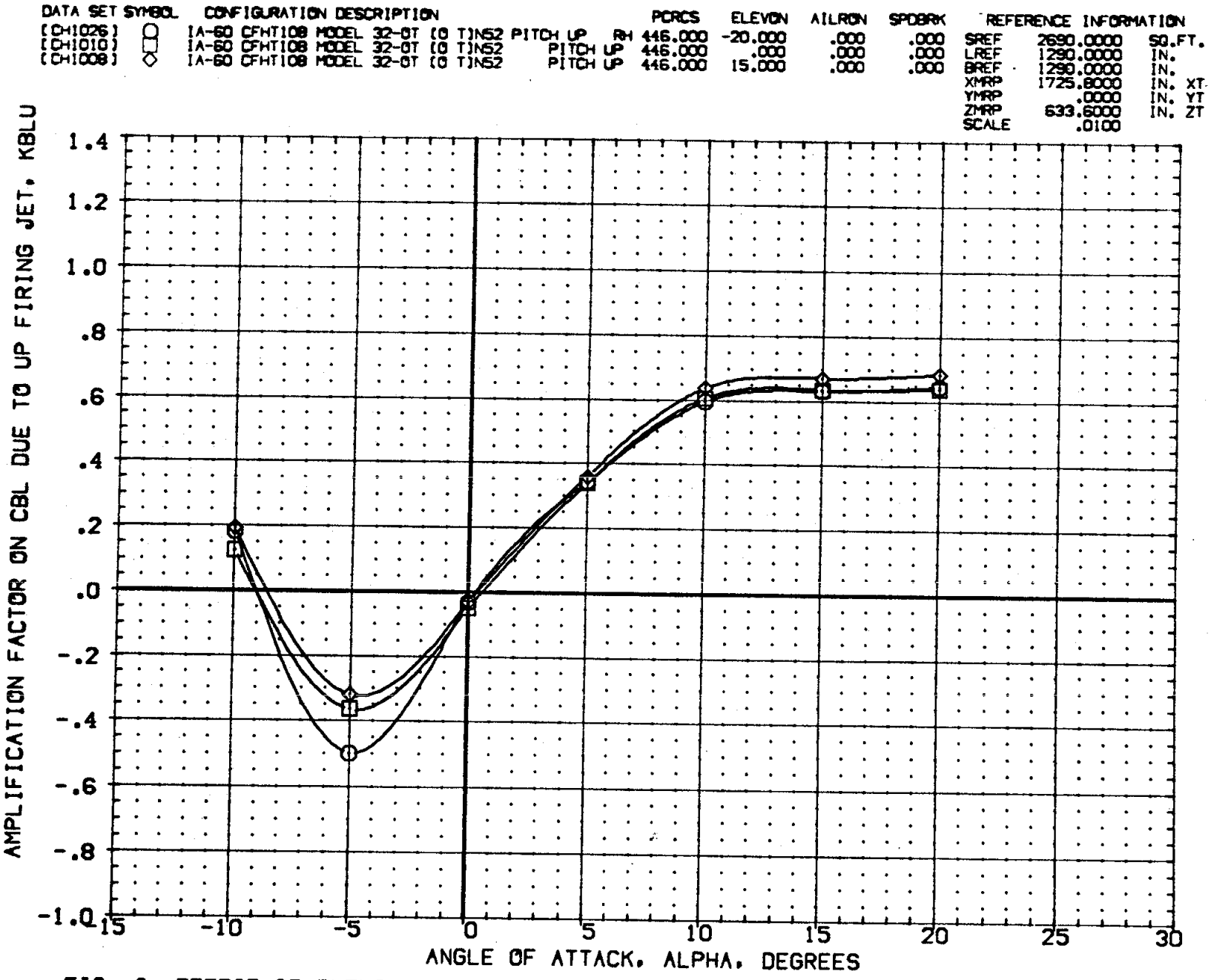


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1026]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP RH	446.000	-20.000	.000	.000
[CH1010]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	.000	.000	.000
[CH1009]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

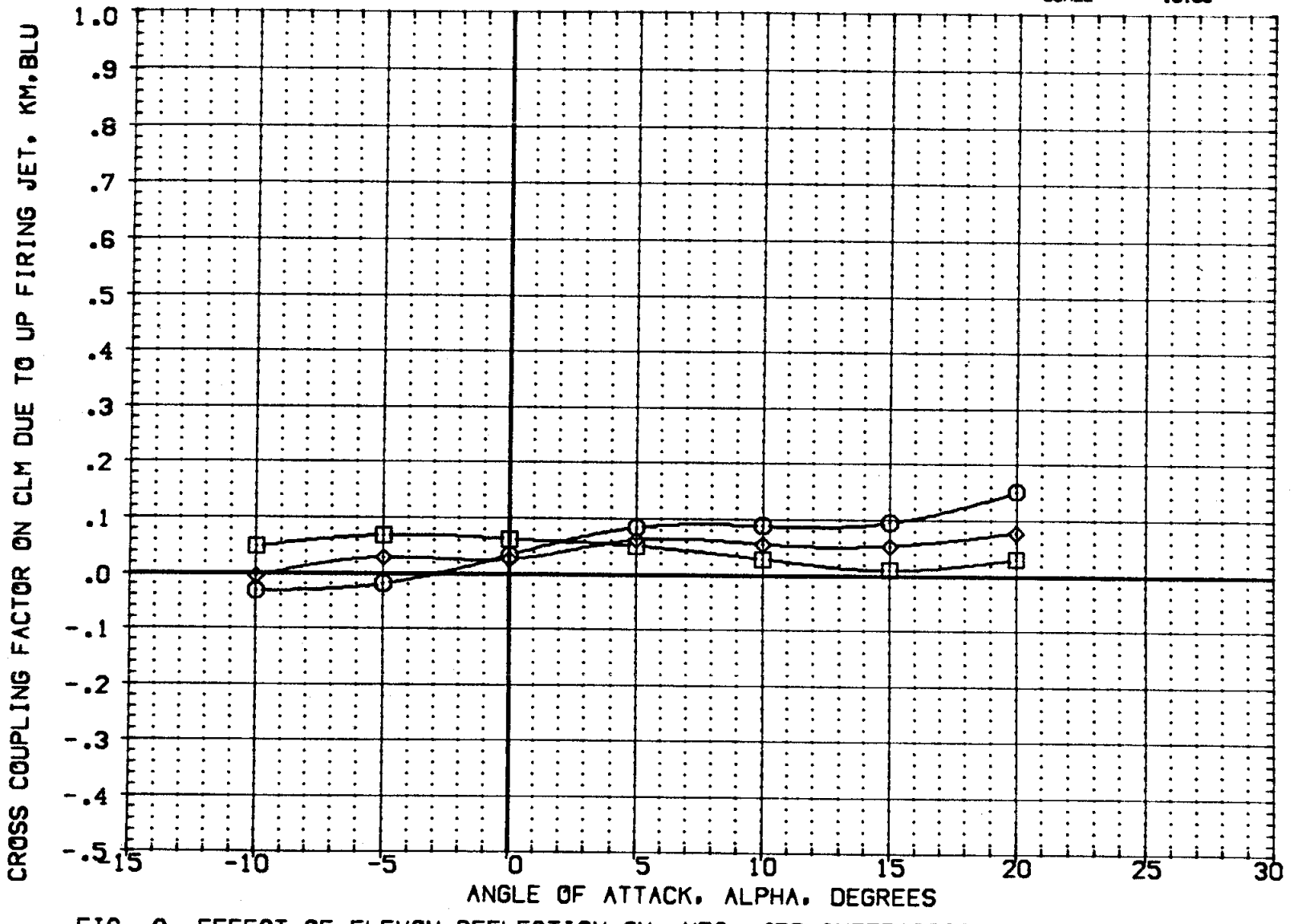


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION. QSIM = 7 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PORCS	ELEVON	AILRON	SPOBRK
[CH1026]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP RH	446.000	-20.000	.000	.000
[CH1010]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	.000	.000	.000
[CH1008]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

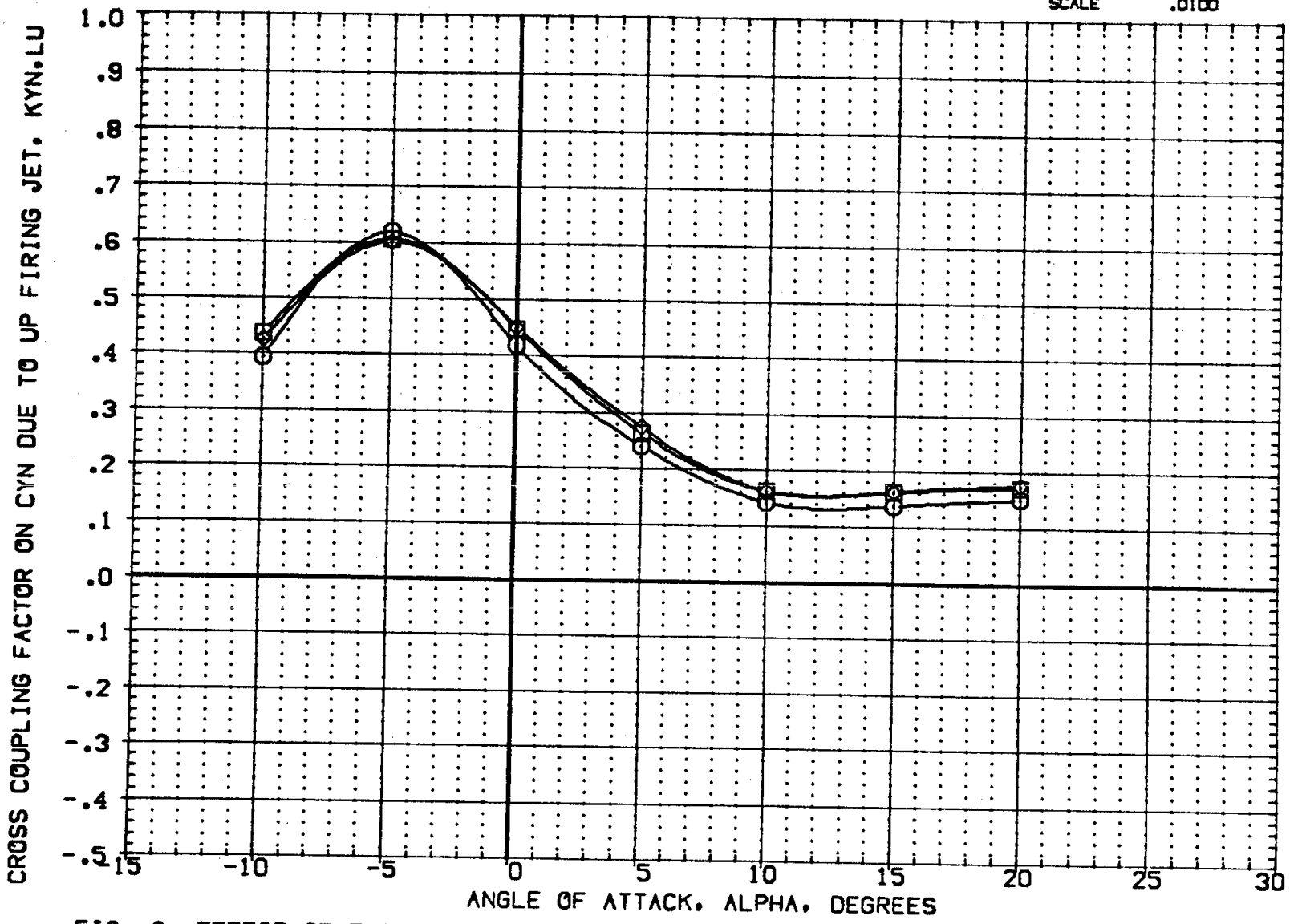


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1026)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	446.000	-20.000	.000	.000
(CH1010)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	.000
(CH1008)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

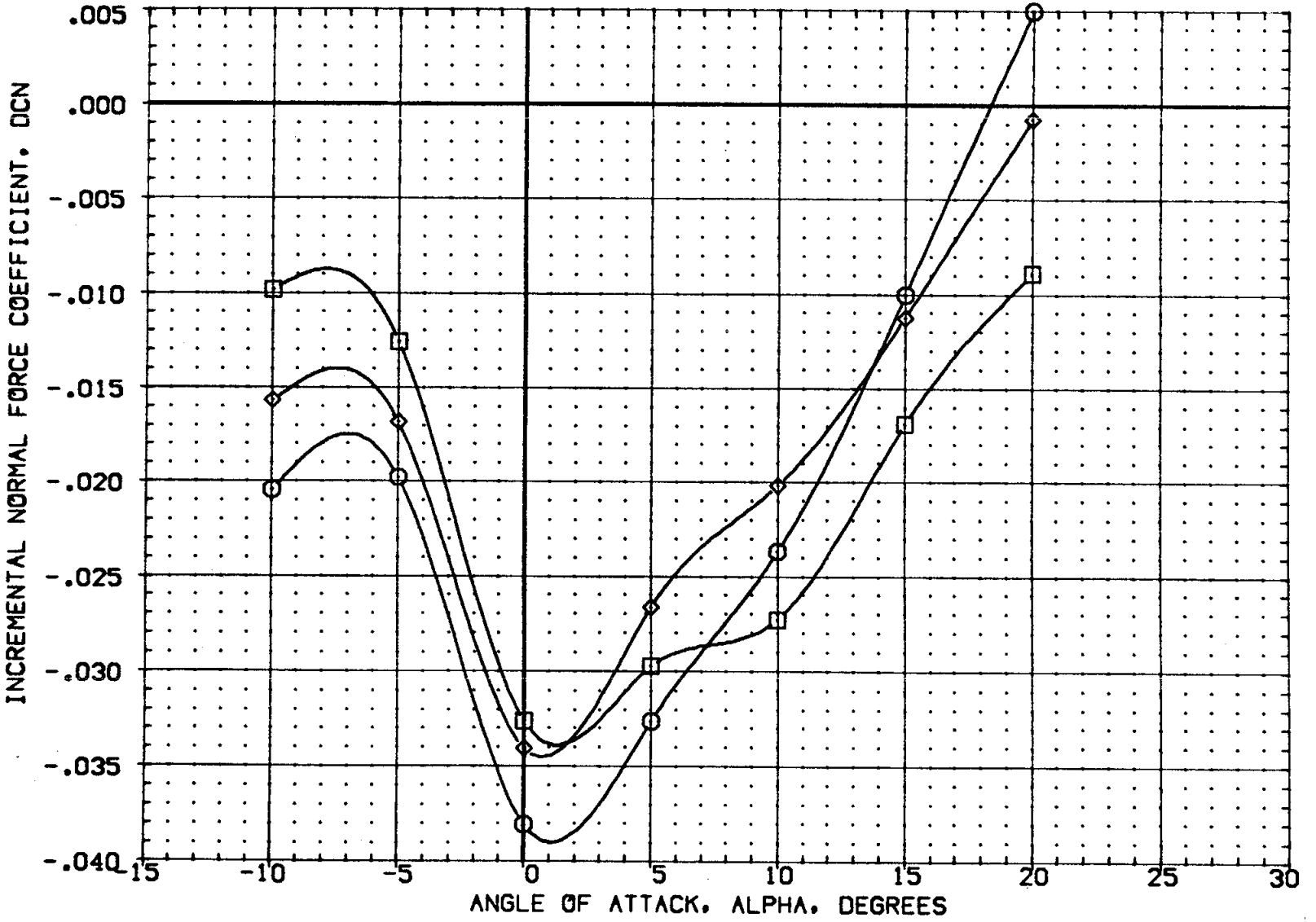


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1026]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP RH	446.000	-20.000	.000	.000
[CH1010]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	.000	.000	.000
[CH1008]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

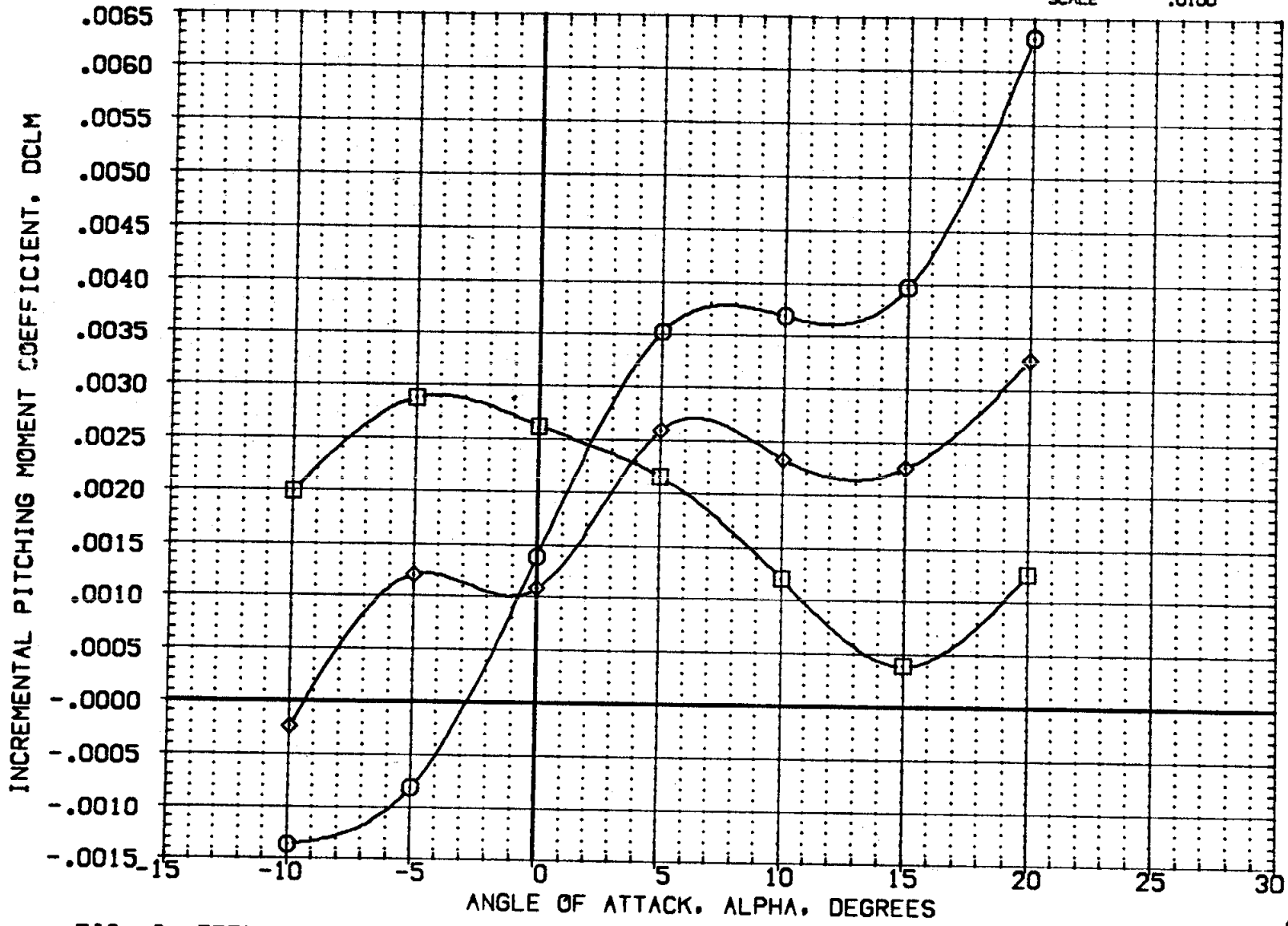


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1026)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	446.000	-20.000	.000	.000
(CH1010)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	.000
(CH1008)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

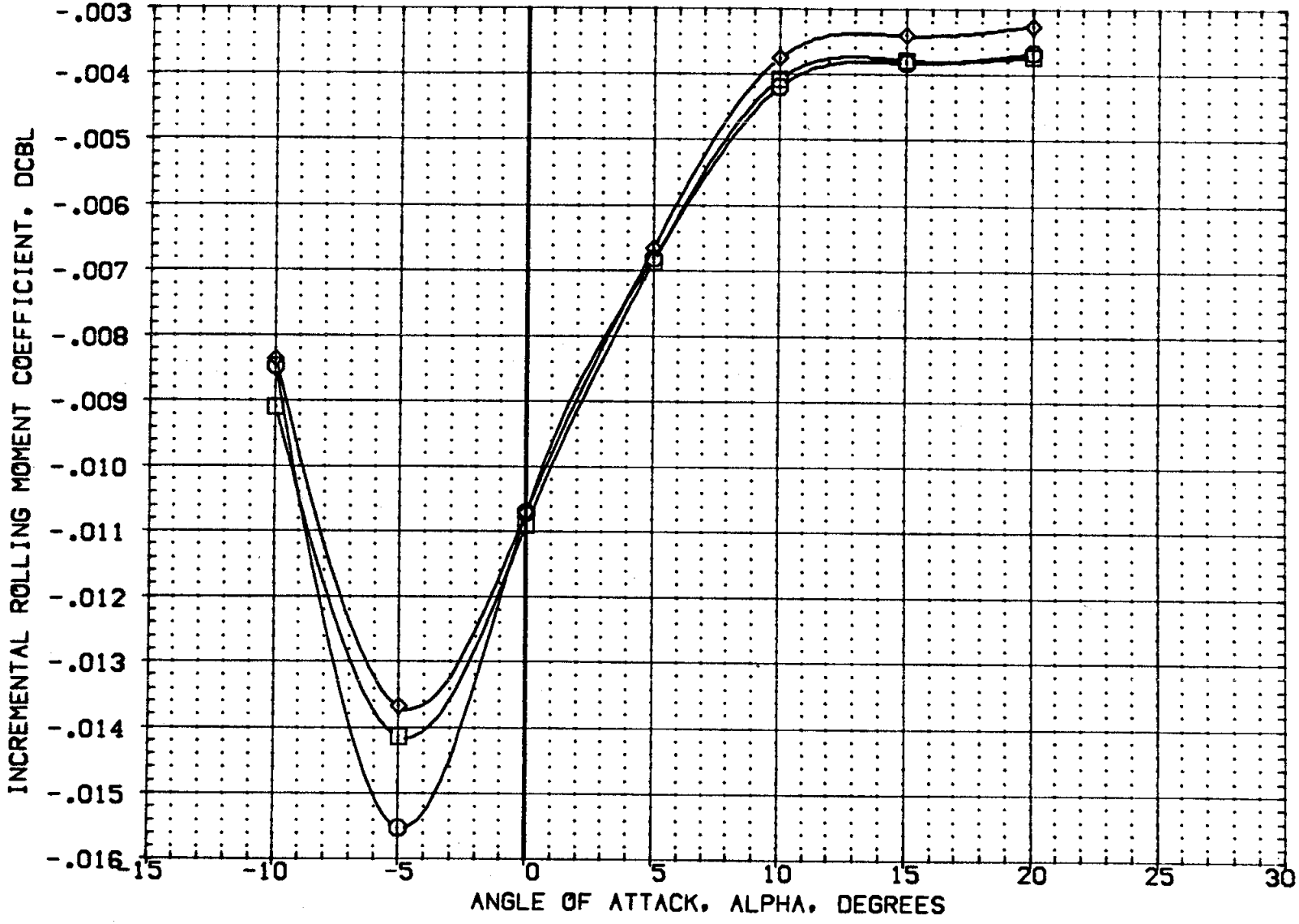


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1026]	○	[A-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP RH	446.000	-20.000	.000	.000
[CH1010]	□	[A-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	.000	.000	.000
[CH1008]	◇	[A-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

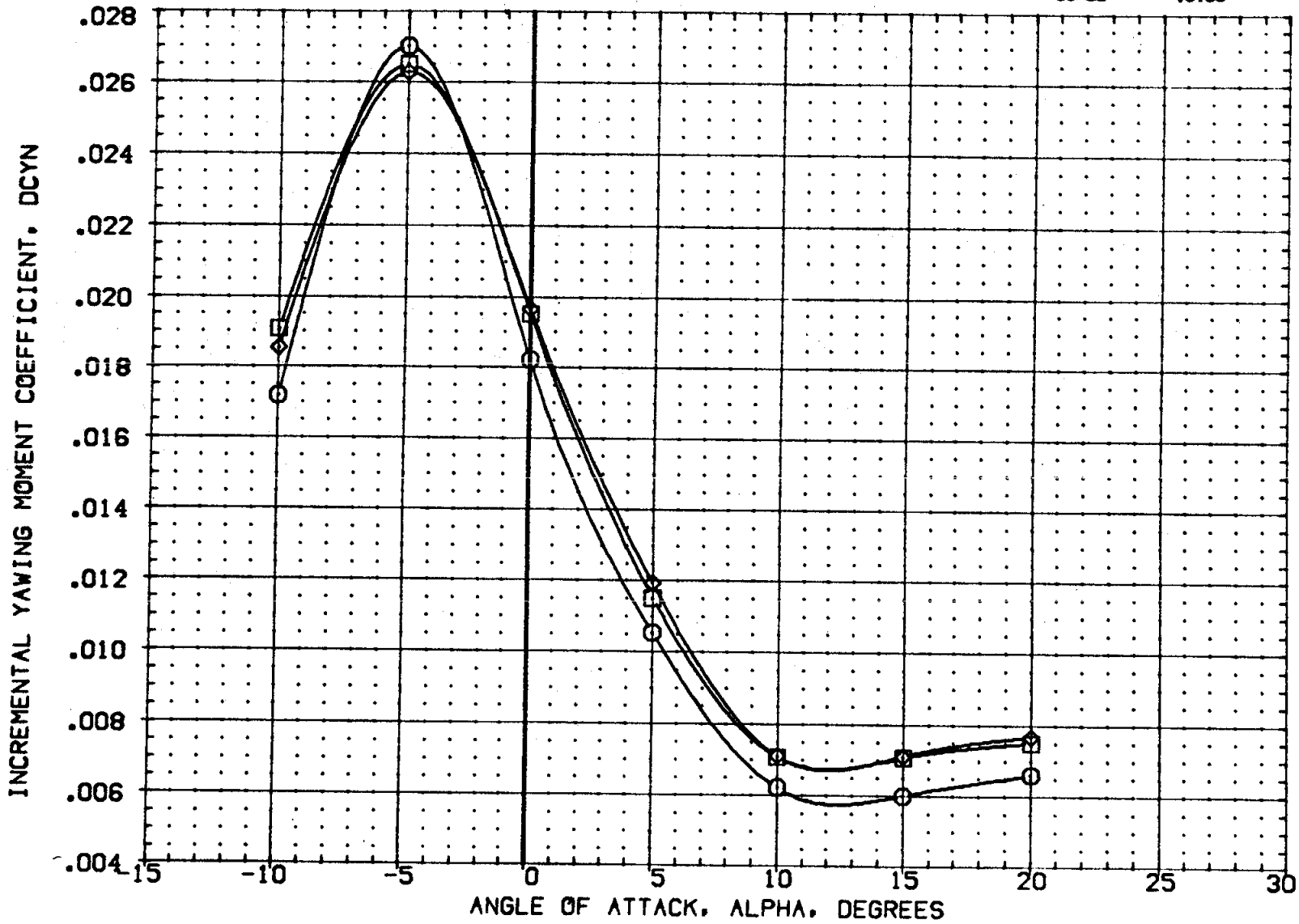


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH126N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	446.000	-20.000	.000	.000
(ZH110N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	.000
(ZH108N)	⊠	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	▽	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH101F)	◁	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

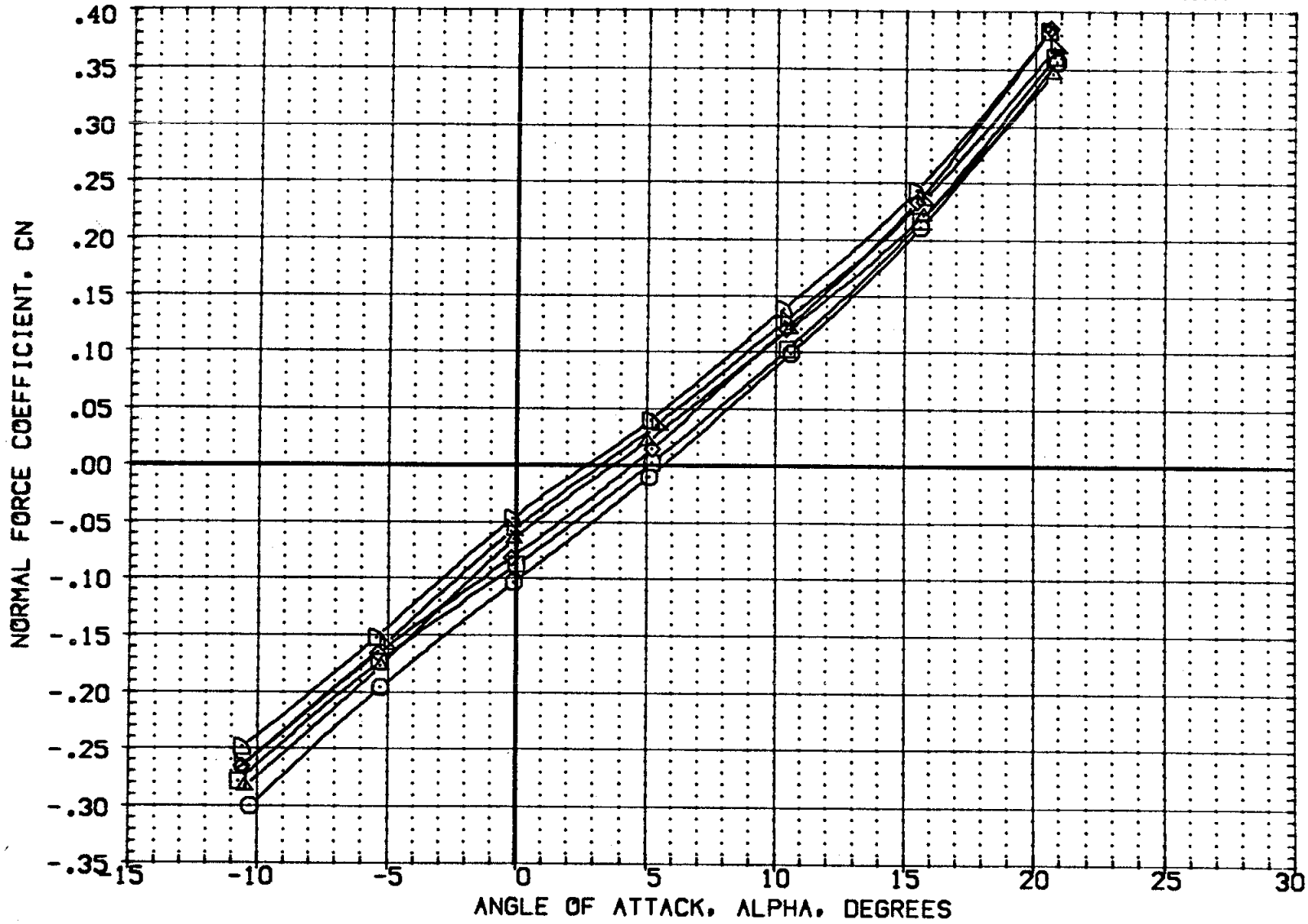


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(ZH126N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP RH	446.000	-20.000	.000	.000
(ZH110N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	.000
(ZH108N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	-20.000	.000	.000
(ZH102F)	▽	IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH101F)	▷	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

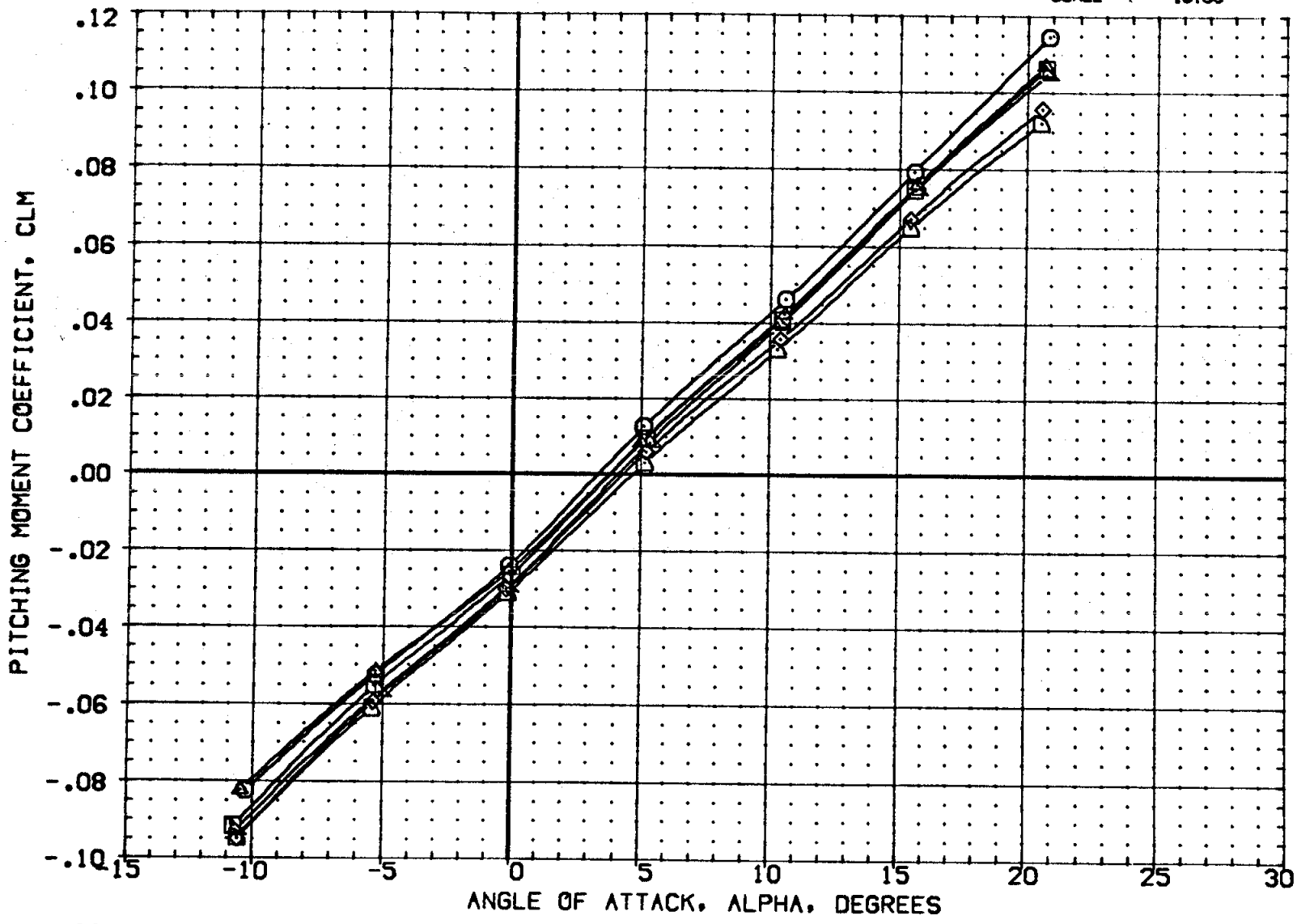


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(ZH126N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP RH	446.000	-20.000	.000	.000
(ZH110N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	.000
(ZH108N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	-20.000	.000	.000
(ZH102F)	▽	IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH101F)	D	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

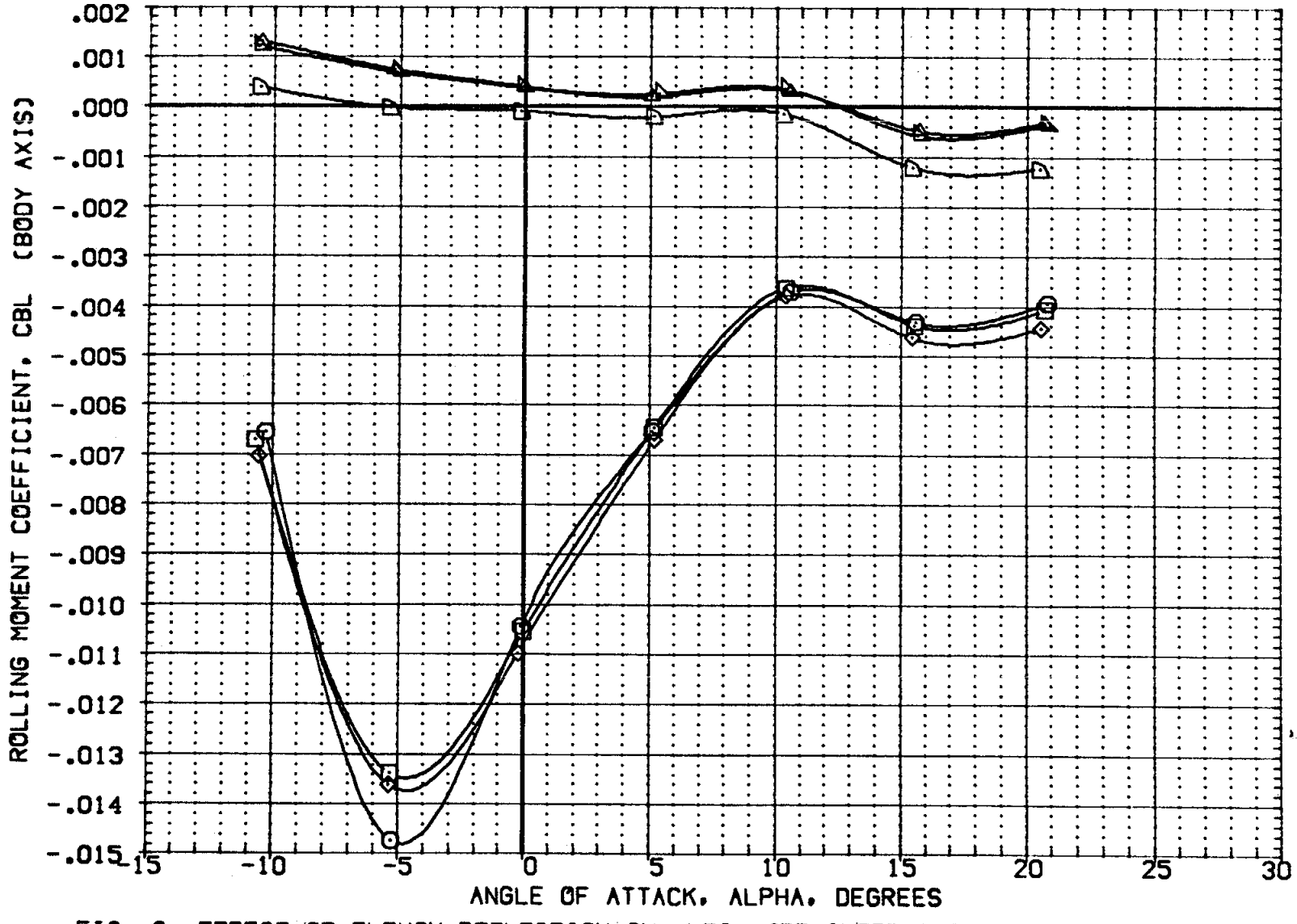


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

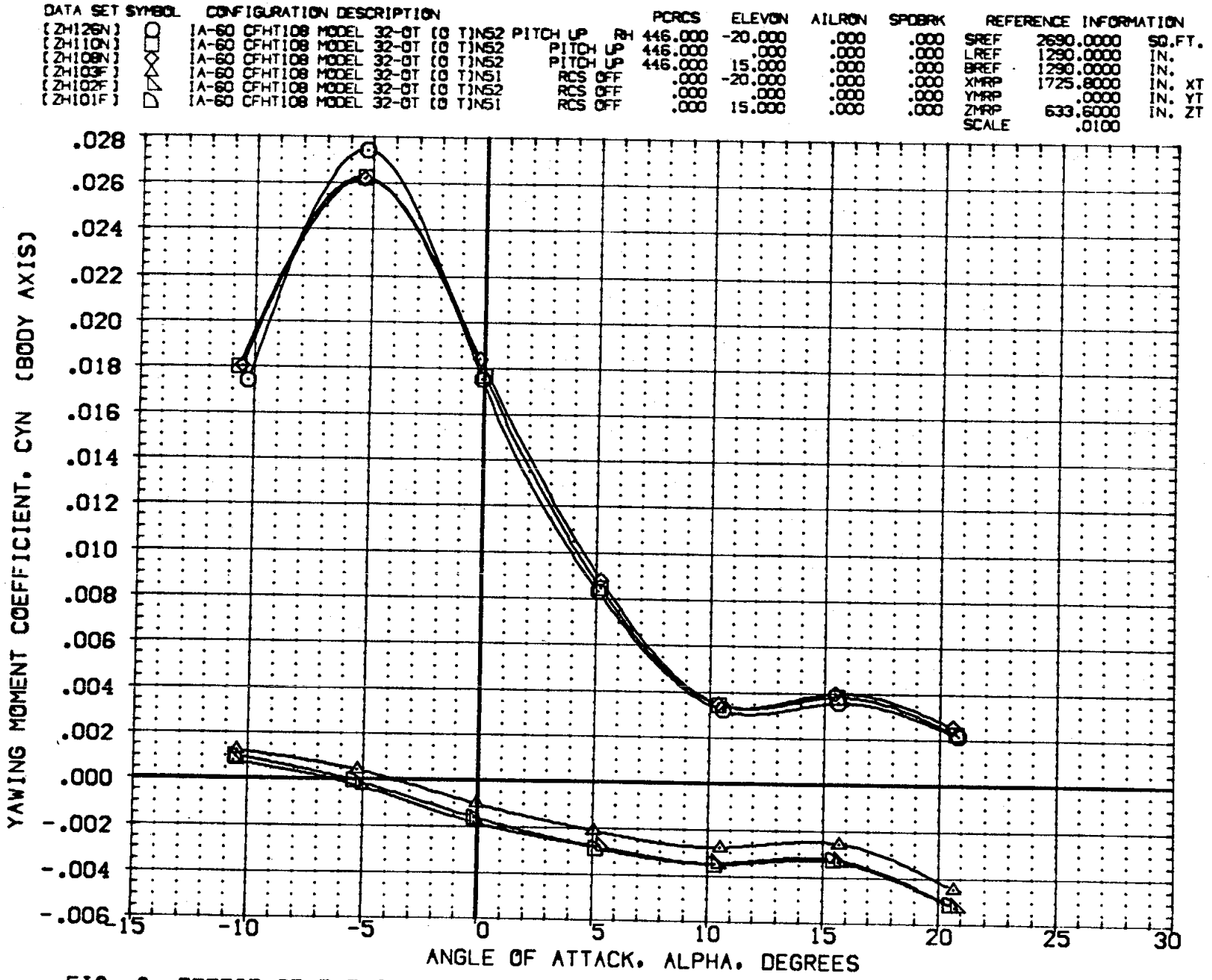


FIG 8 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1025)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	150.000	-20.000	.000	.000
(CH1009)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	150.000	.000	.000	.000
(CH1007)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	150.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

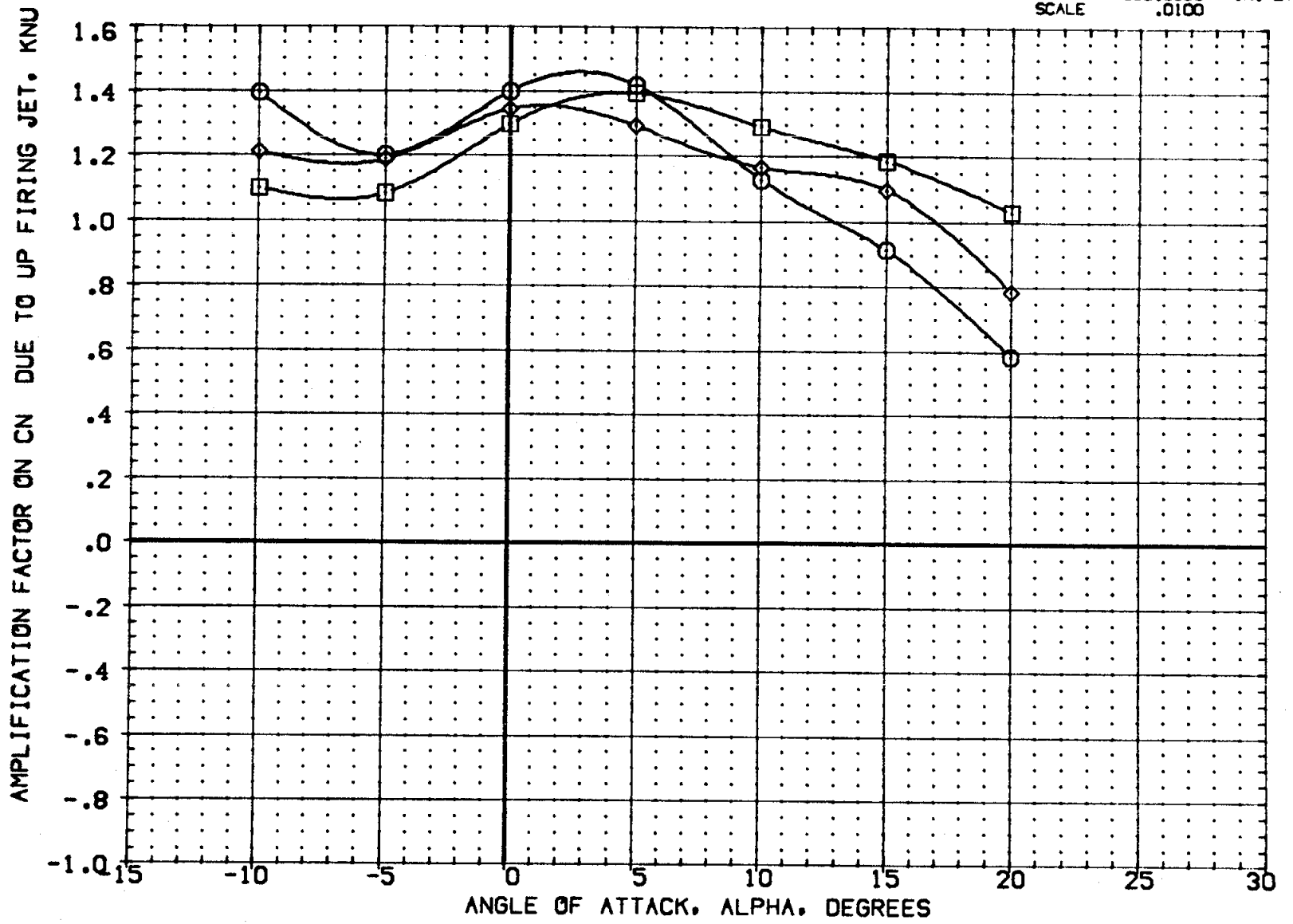


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

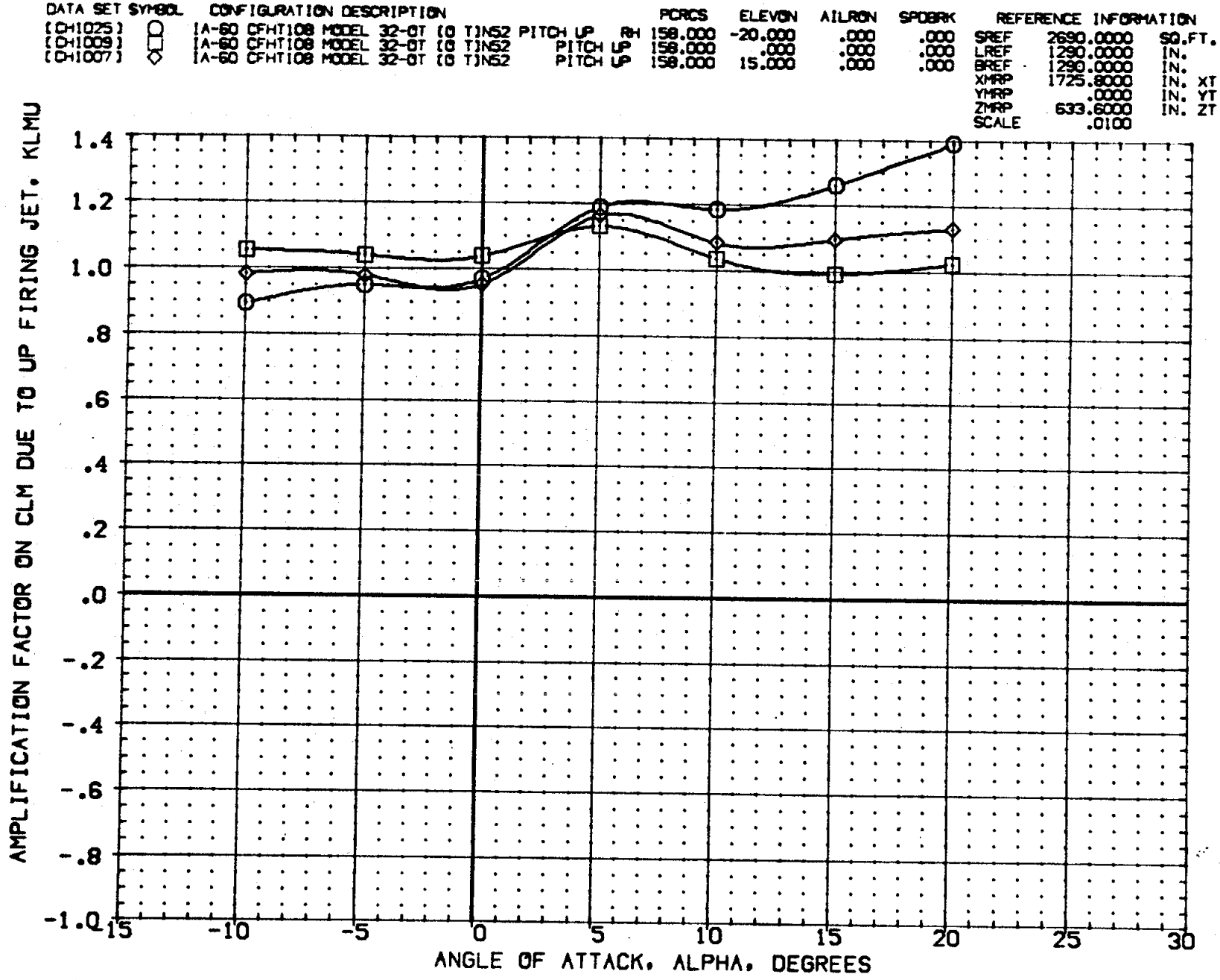


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1025)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	158.000	-20.000	.000	.000
(CH1009)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(CH1007)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

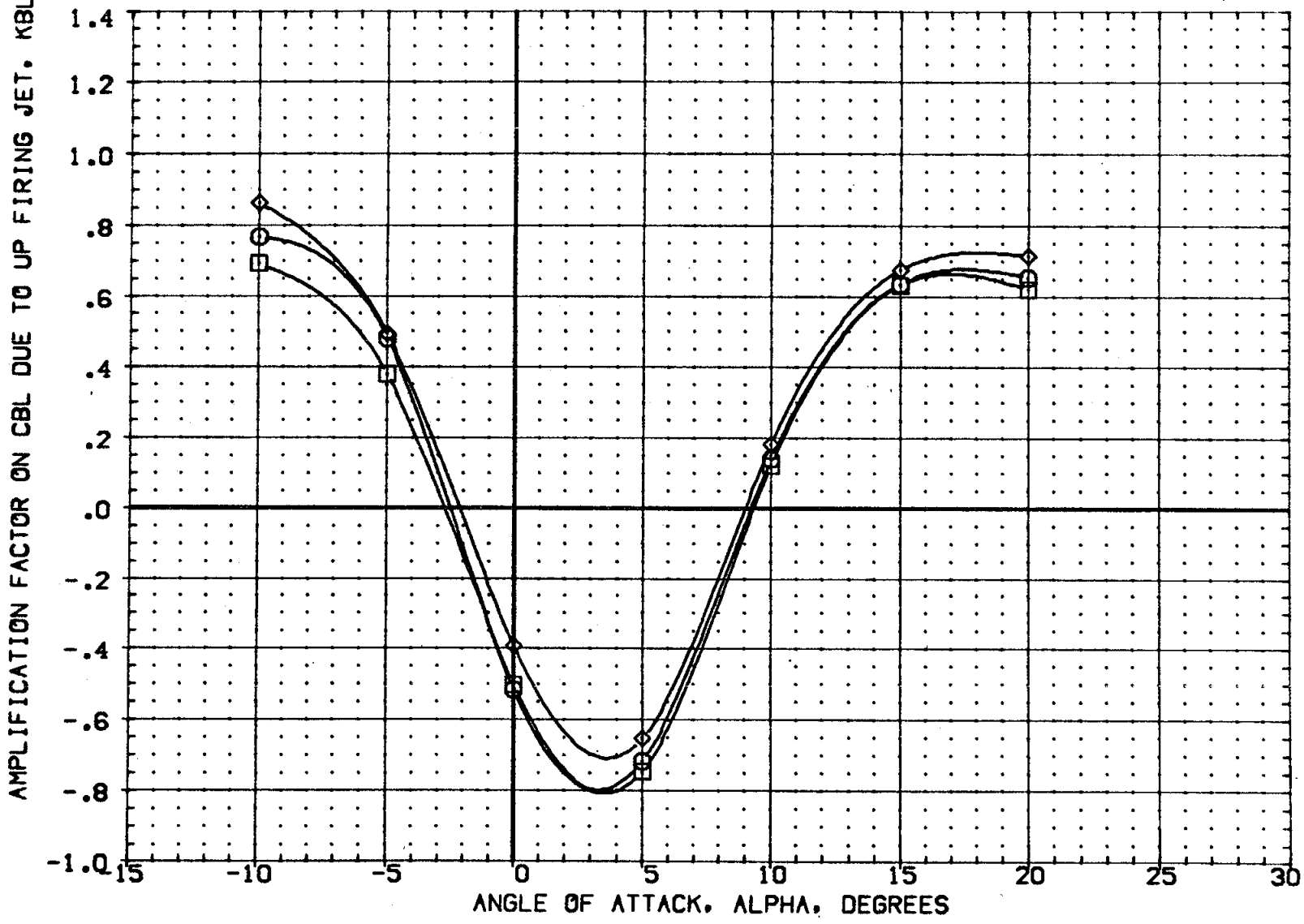


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1025)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	158.000	-20.000	.000	.000
(CH1009)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(CH1007)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1025)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	158.000	-20.000	.000	.000
(CH1009)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(CH1007)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

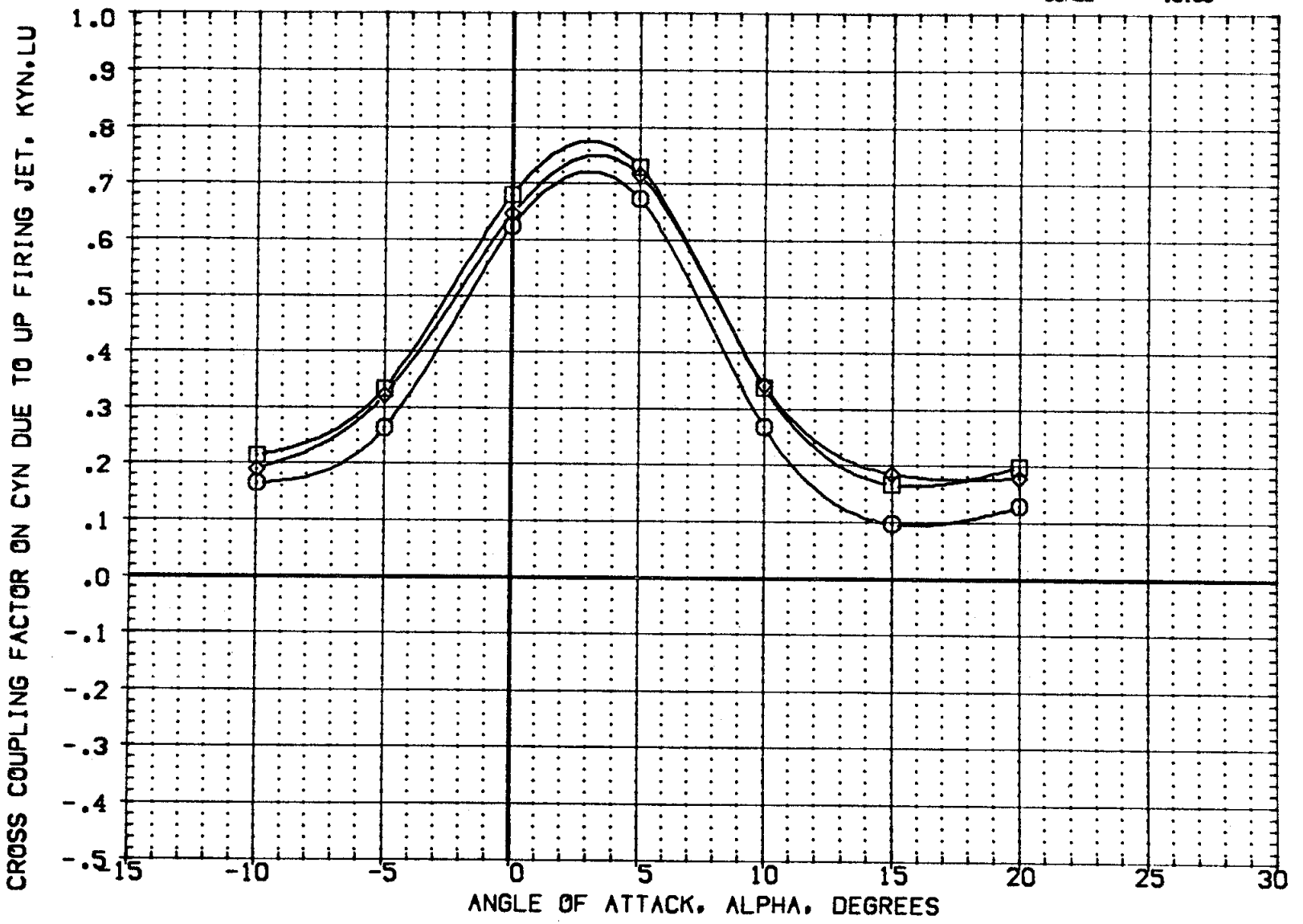


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1025)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	158.000	-20.000	.000	.000
(CH1009)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(CH1007)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

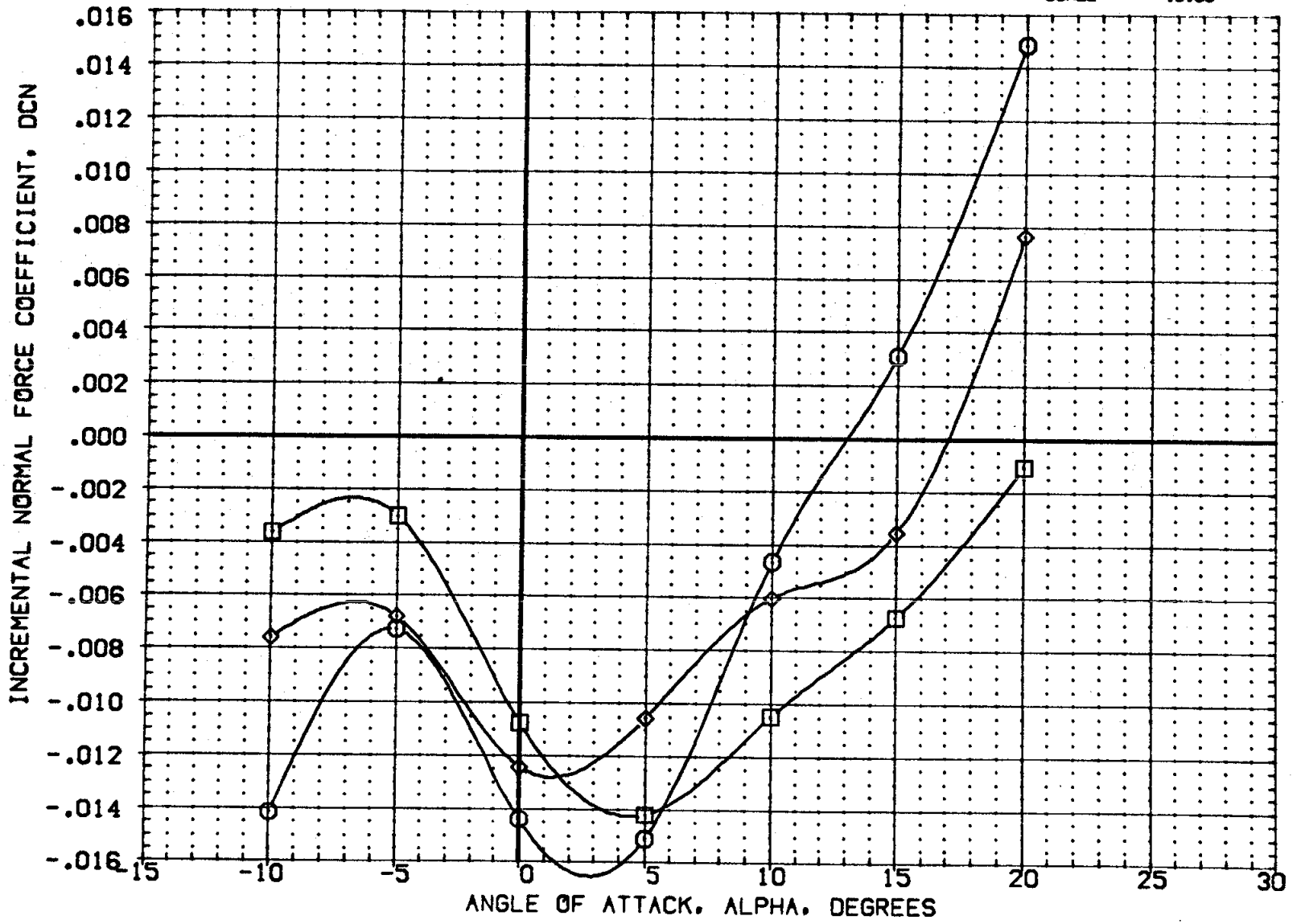


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1025)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	158.000	-20.000	.000	.000
(CH1009)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(CH1007)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

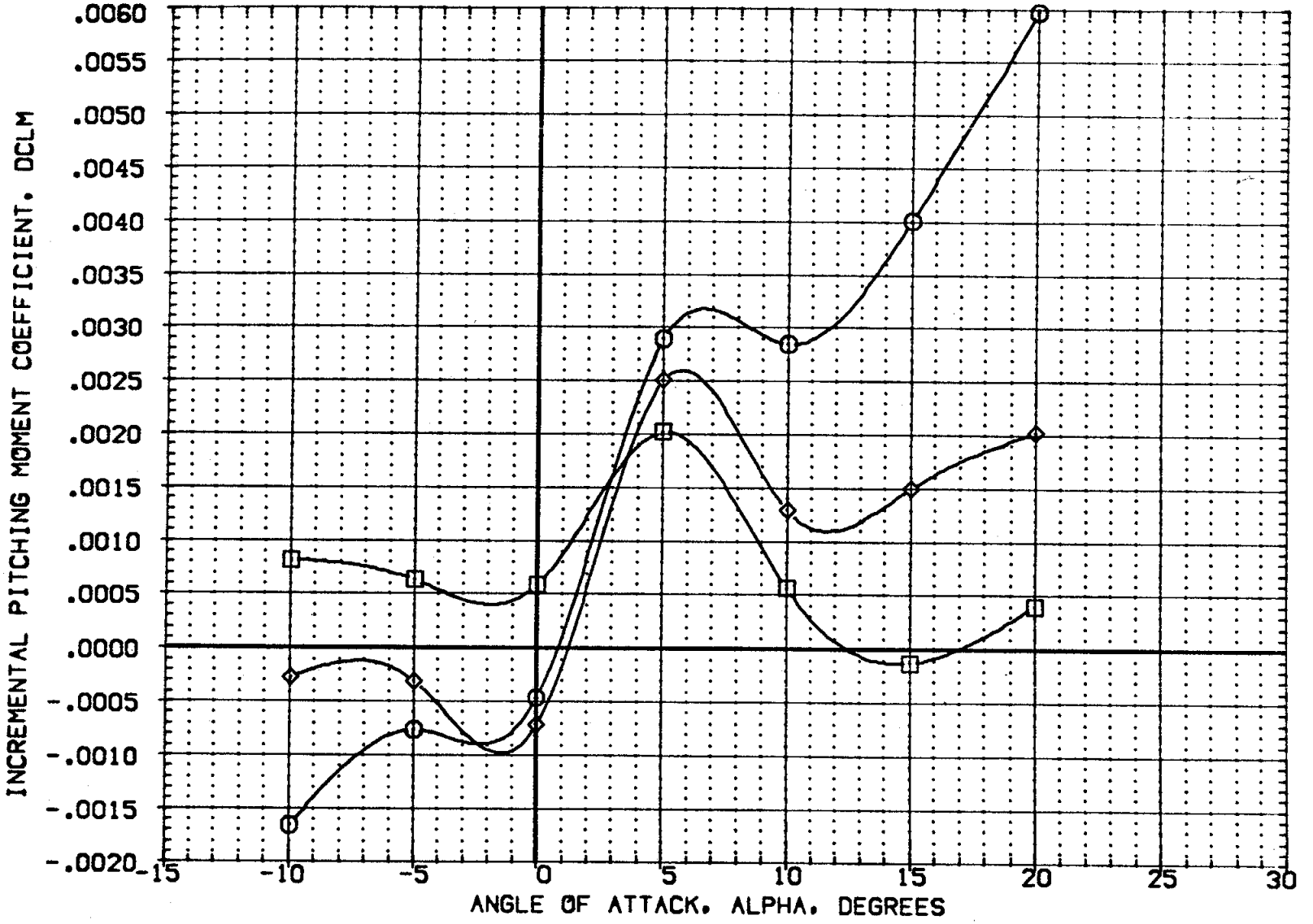


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1025]	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	158.000	-20.000	.000	.000
[CH1009]	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
[CH1007]	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

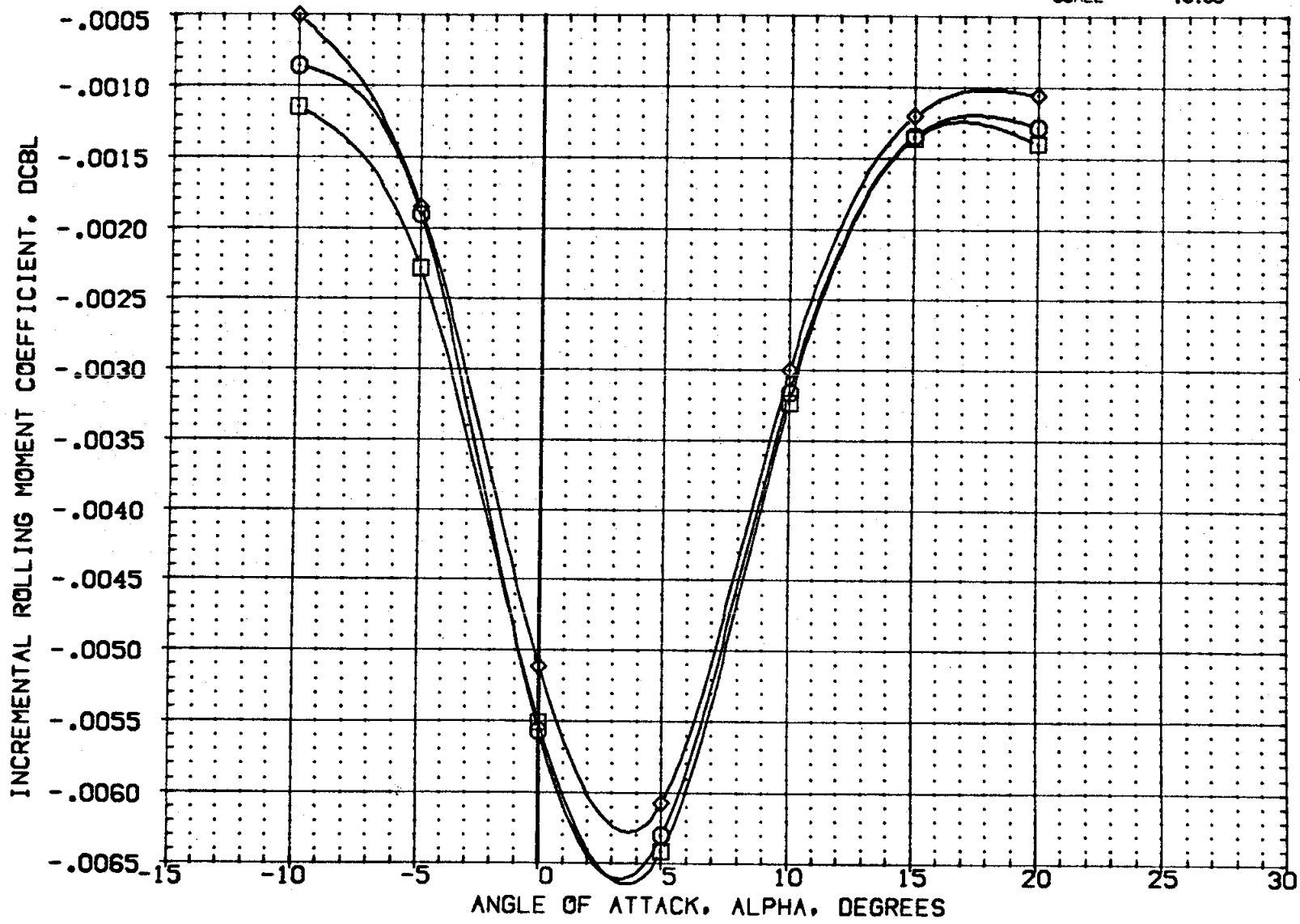


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1025)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	158.000	-20.000	.000	.000
(CH1009)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(CH1007)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

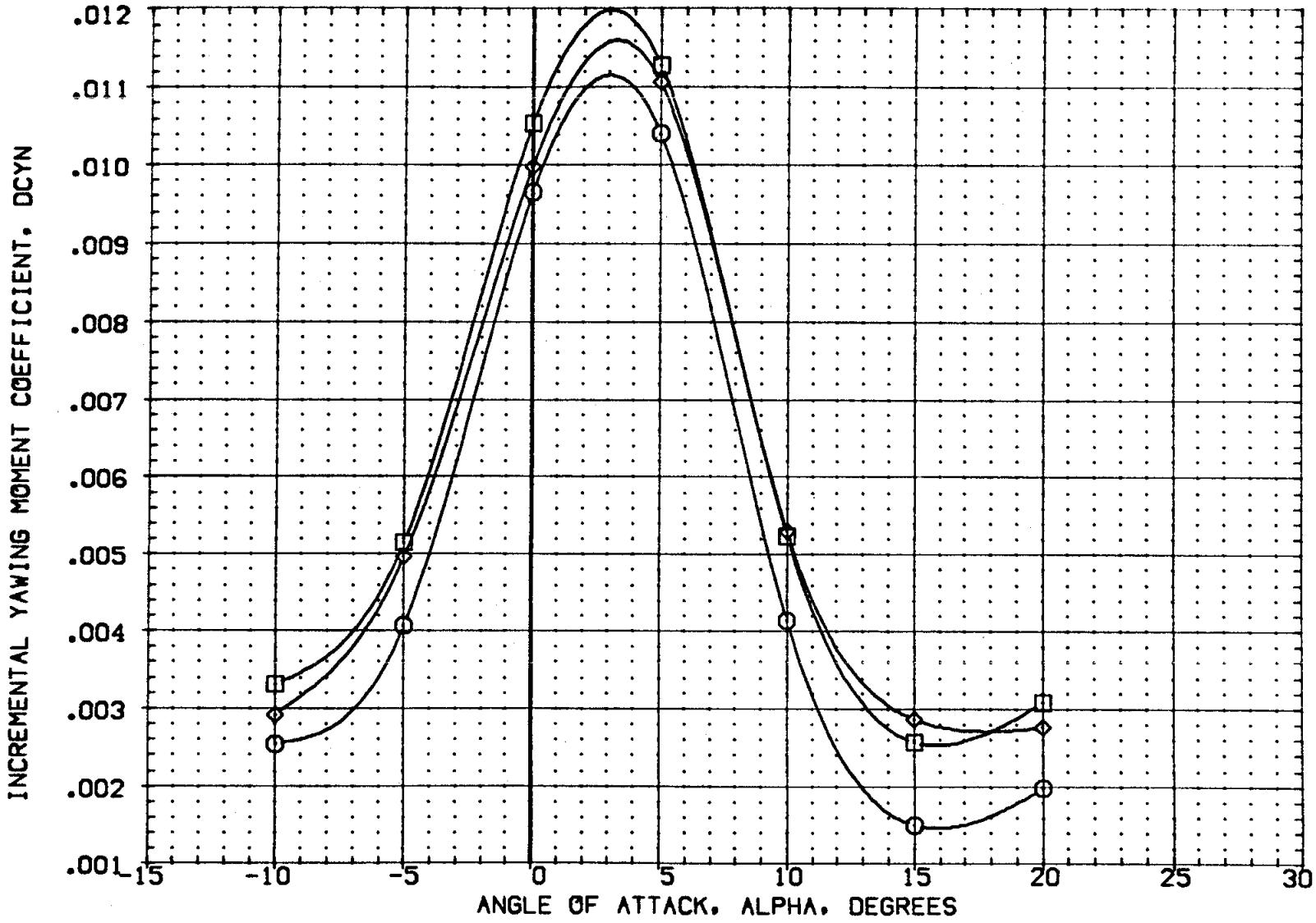


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

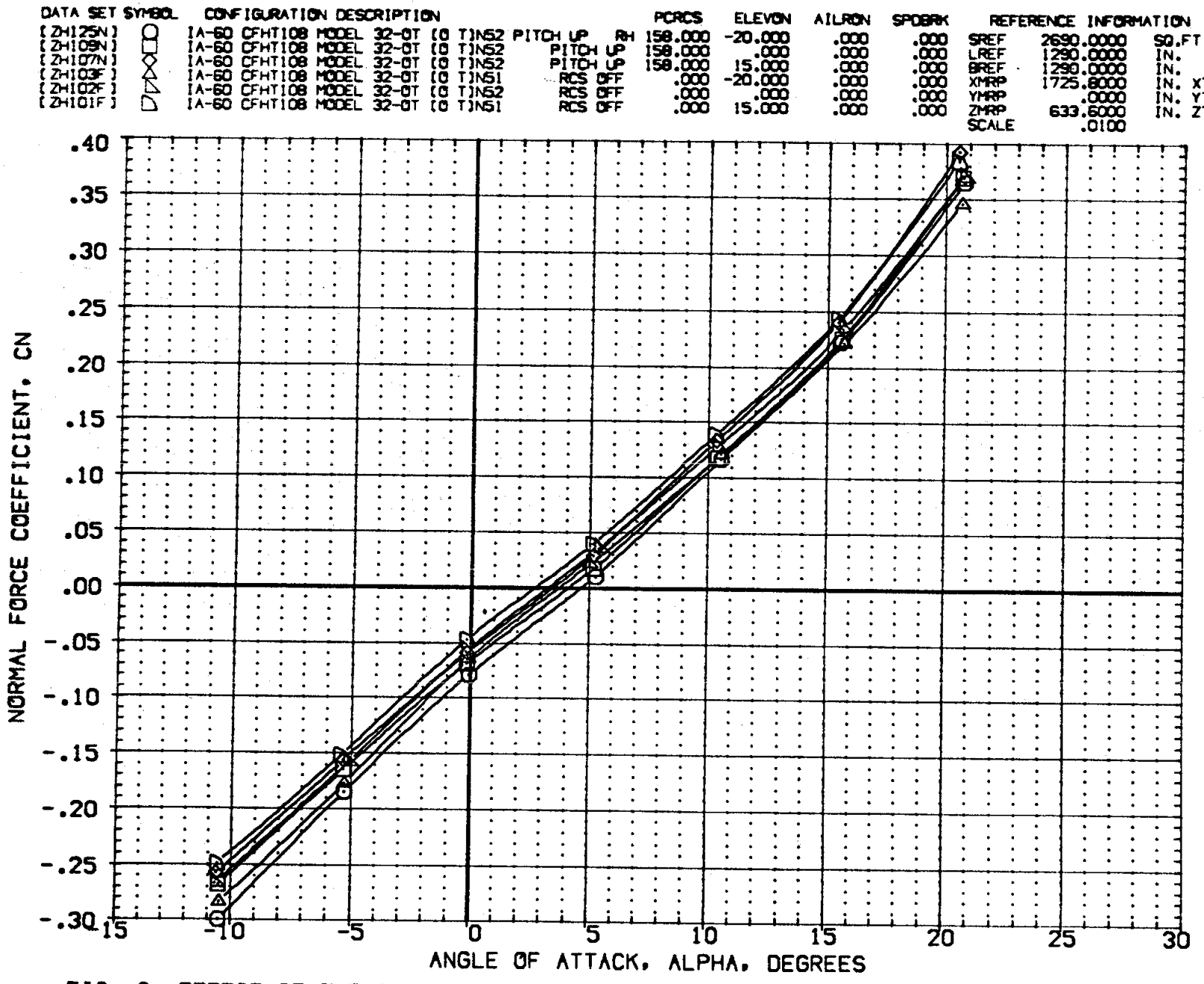


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH125N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP RH	150.000	-20.000	.000	.000
(ZH109N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	150.000	.000	.000	.000
(ZH107N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	150.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	⊠	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH101F)	▽	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

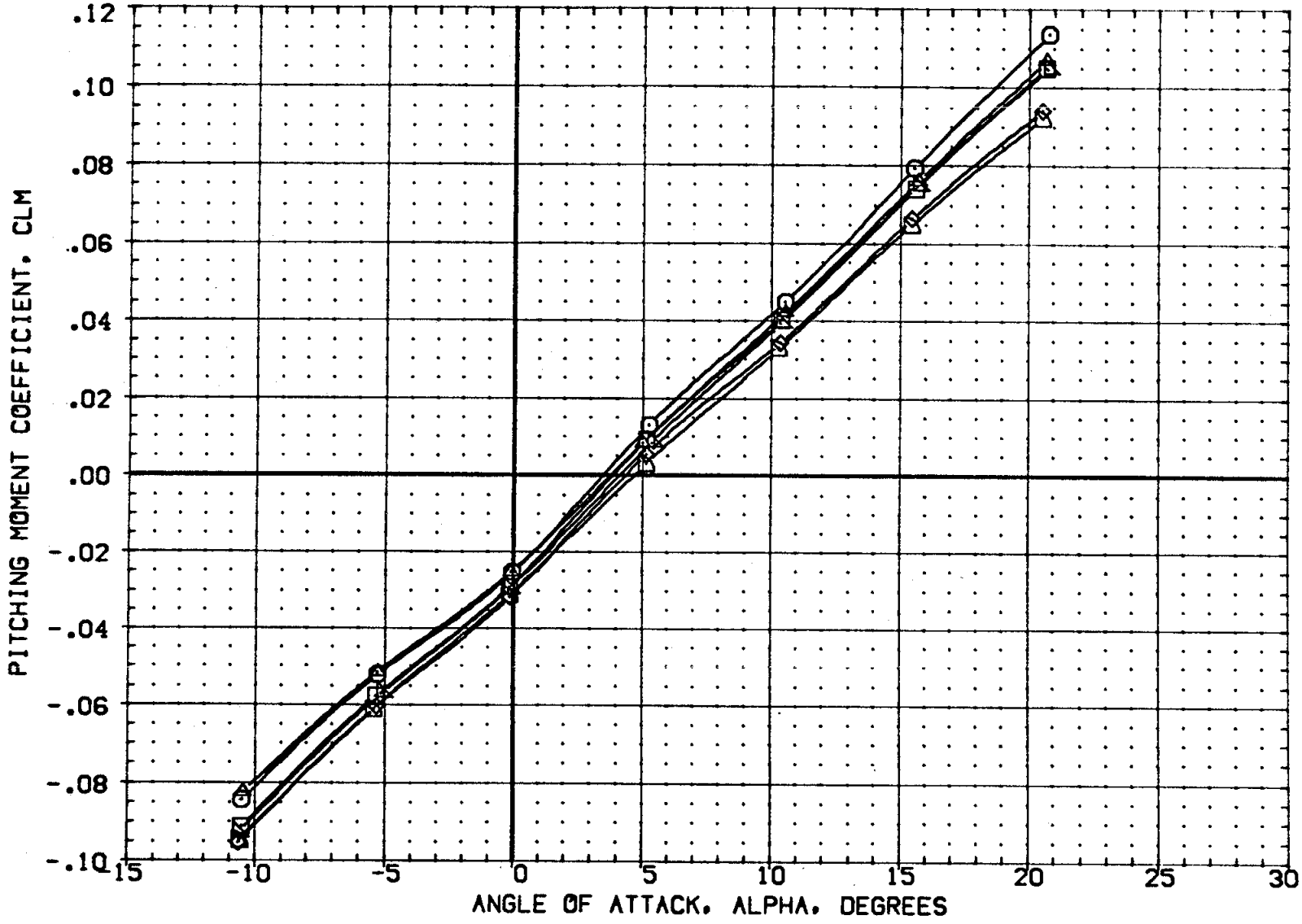


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

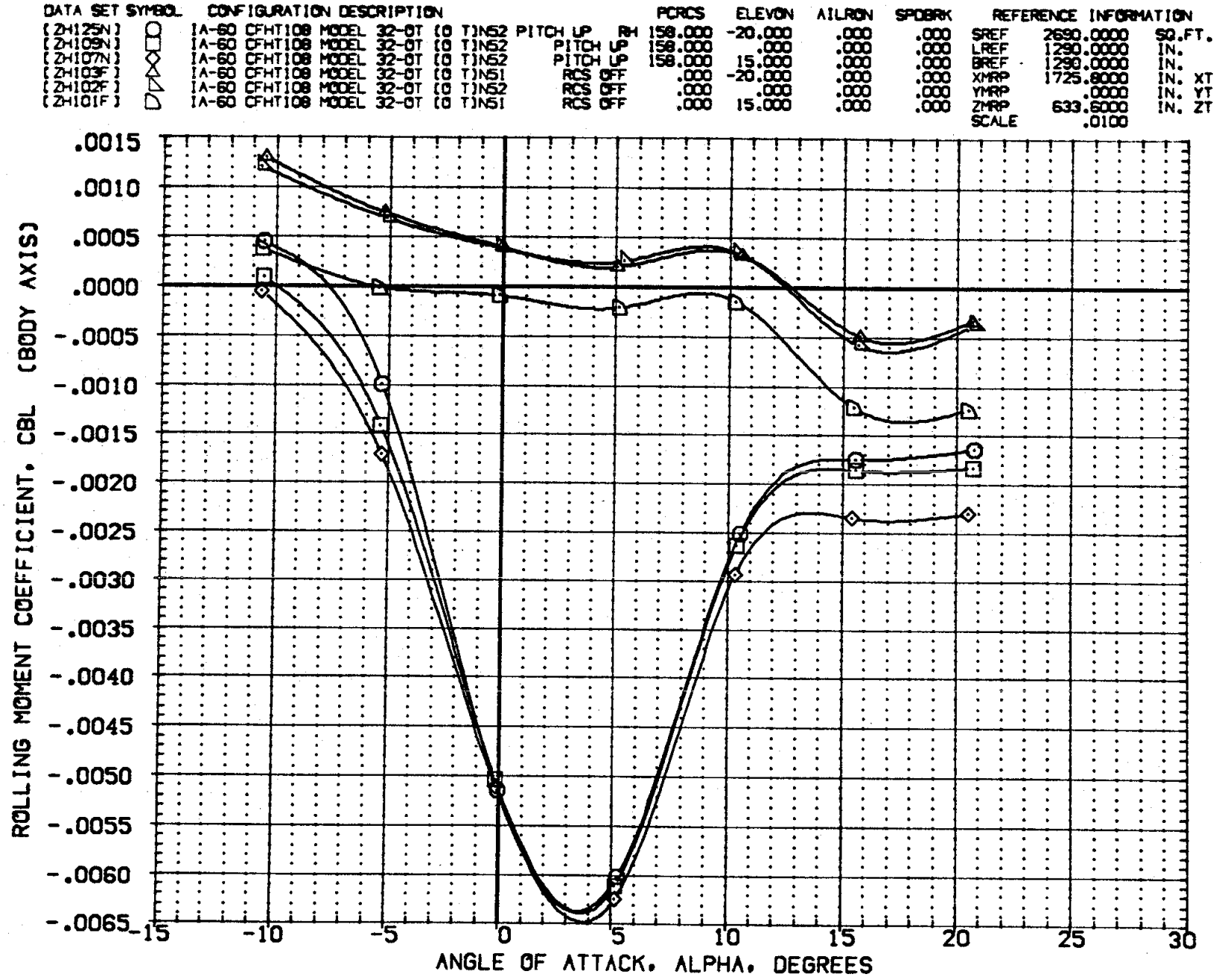


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

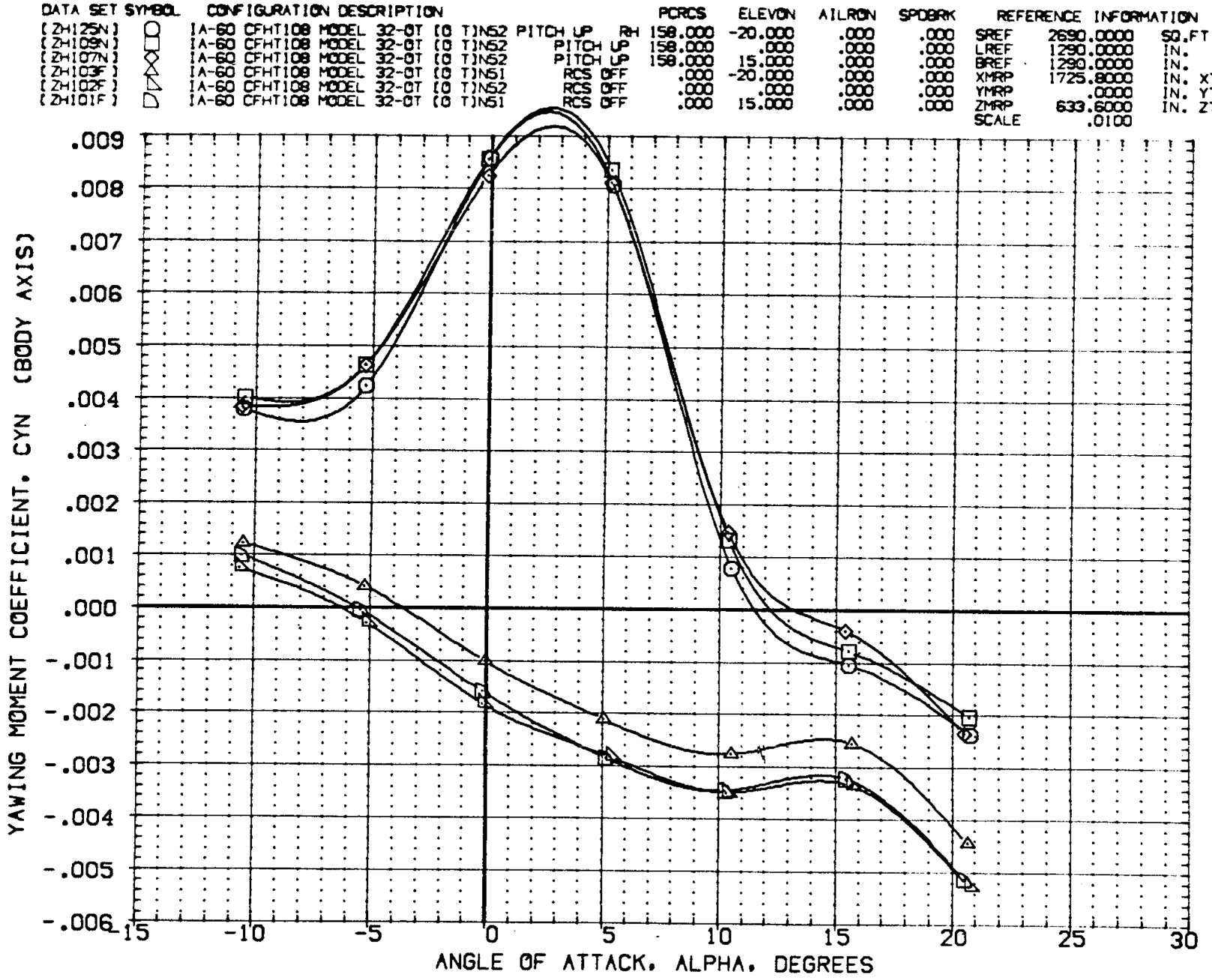


FIG 9 EFFECT OF ELEVON DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1010)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	.000
(CH1030)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1010)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	.000
(CH1030)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

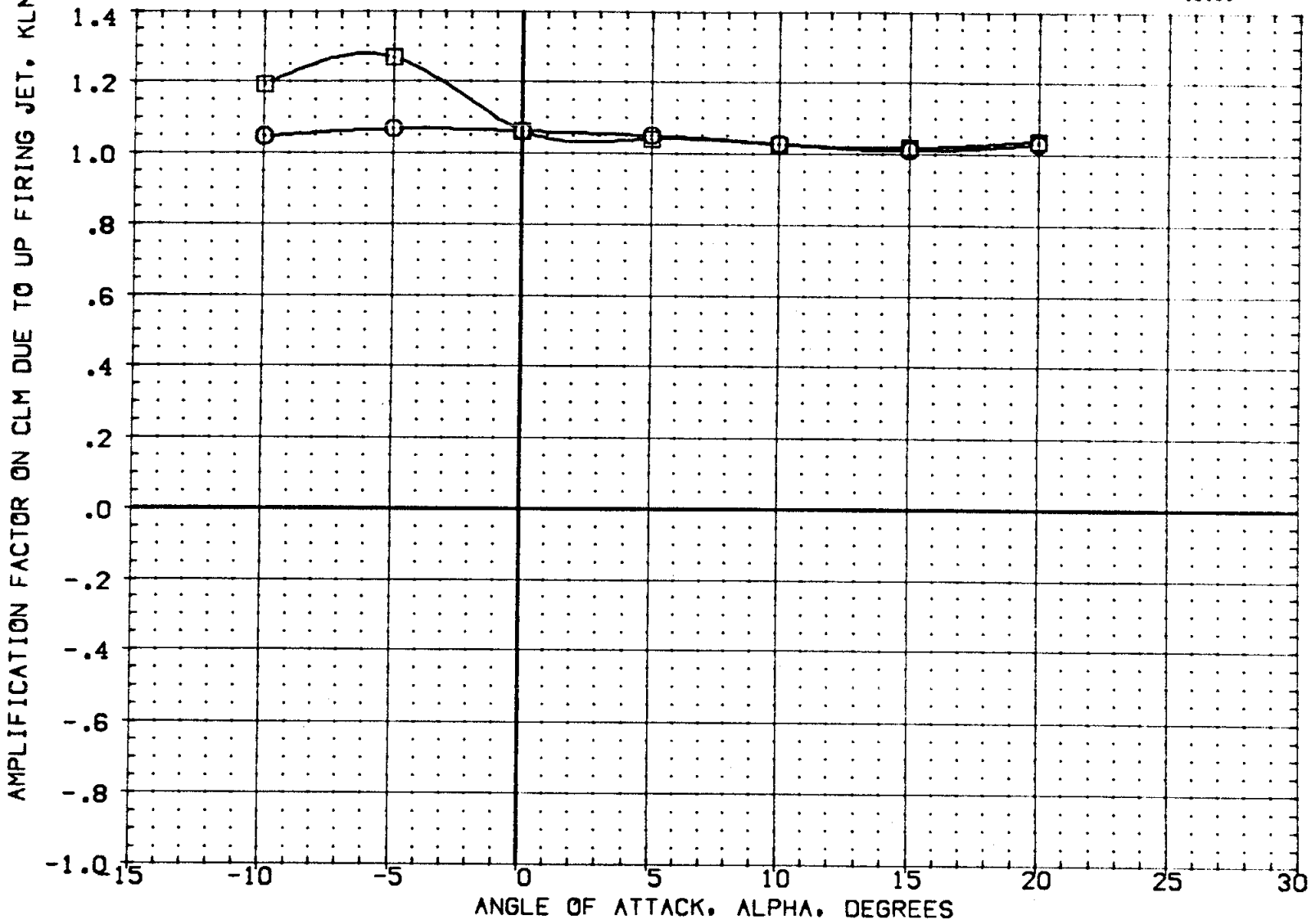


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1010] ○	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	.000	.000	.000
[CH1030] □	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

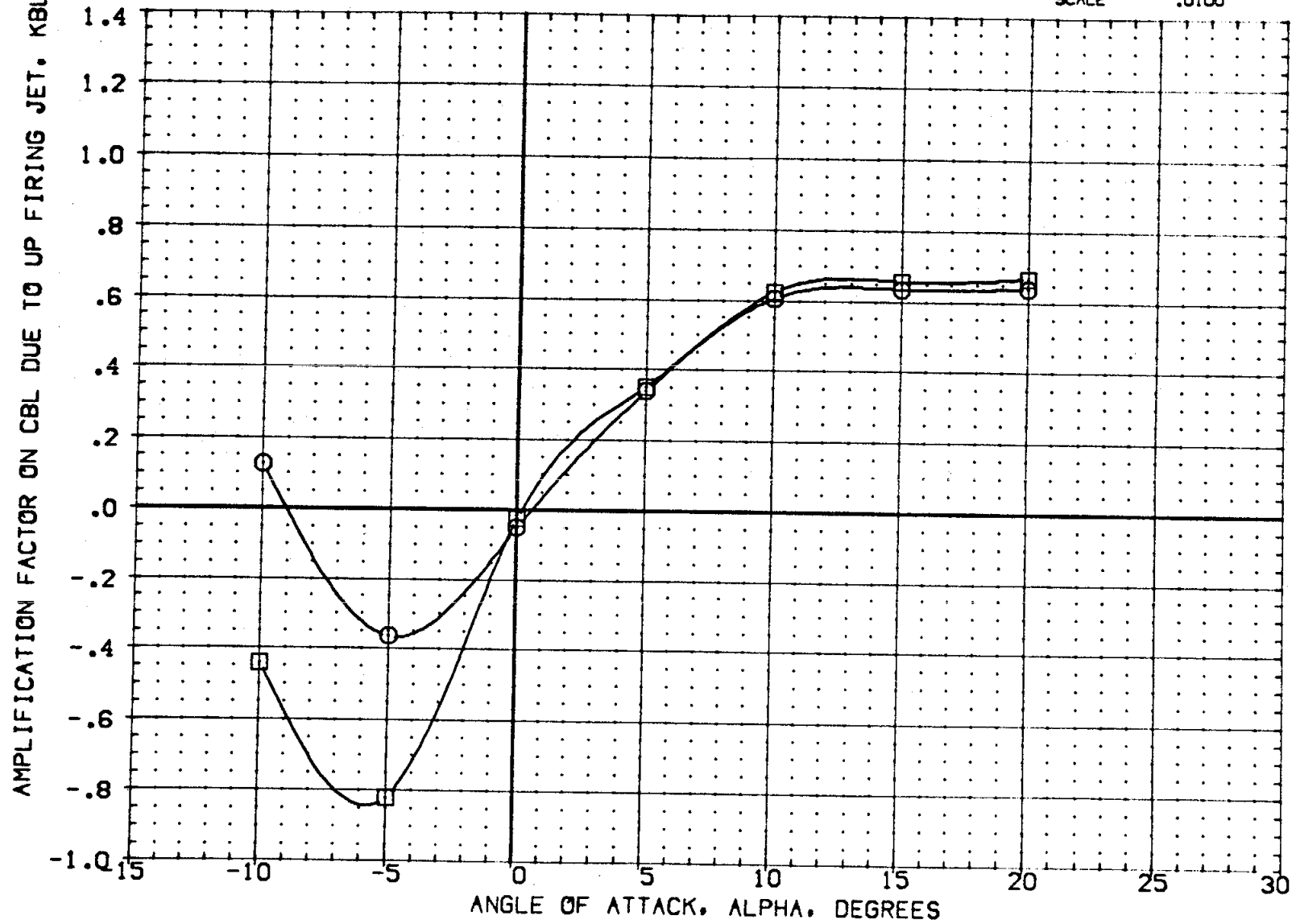


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1010)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	.000
(CH1030)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

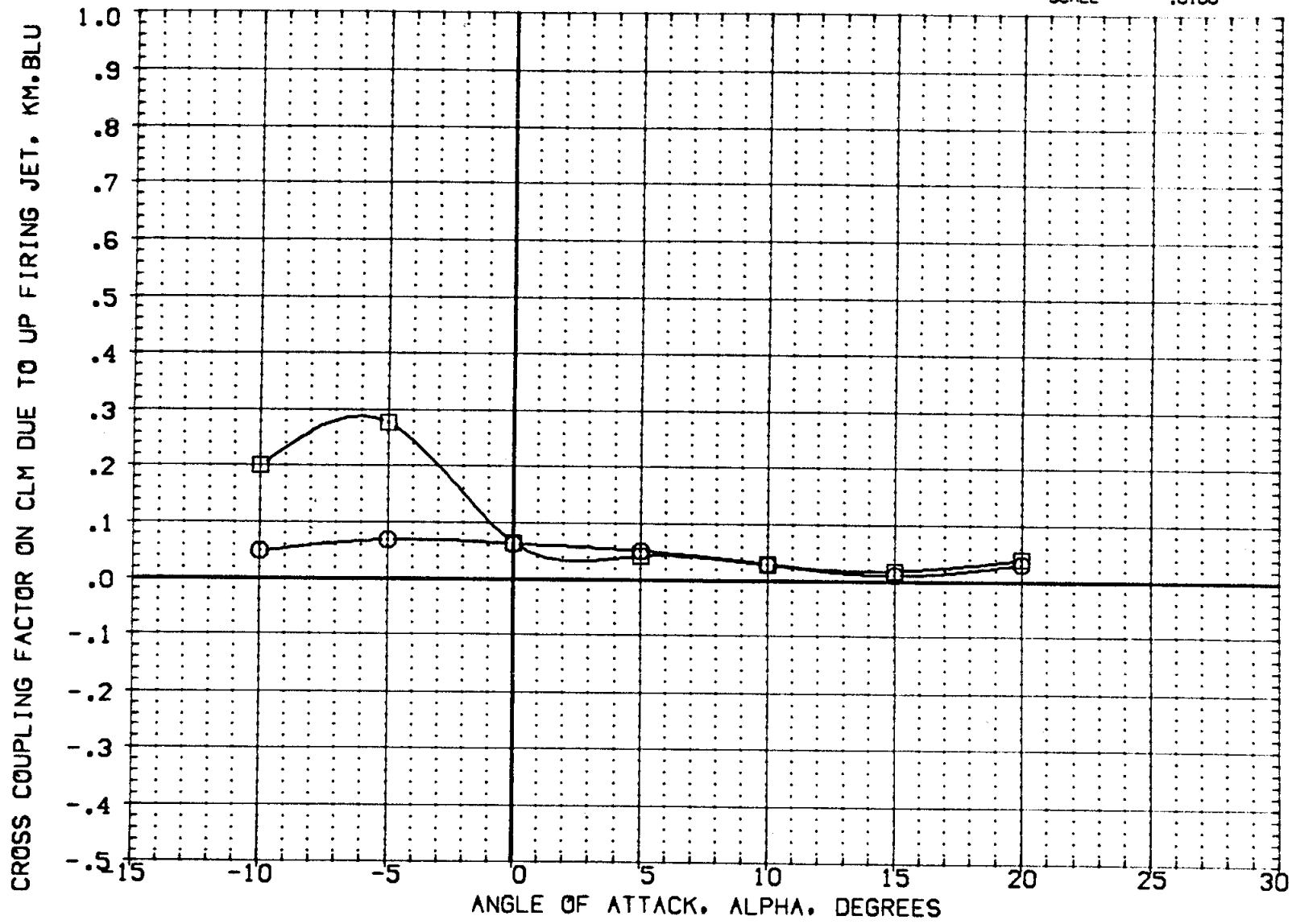


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
[CH1010]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N52	PITCH UP	446.000	.000	.000	.000
[CH1030]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N52	PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

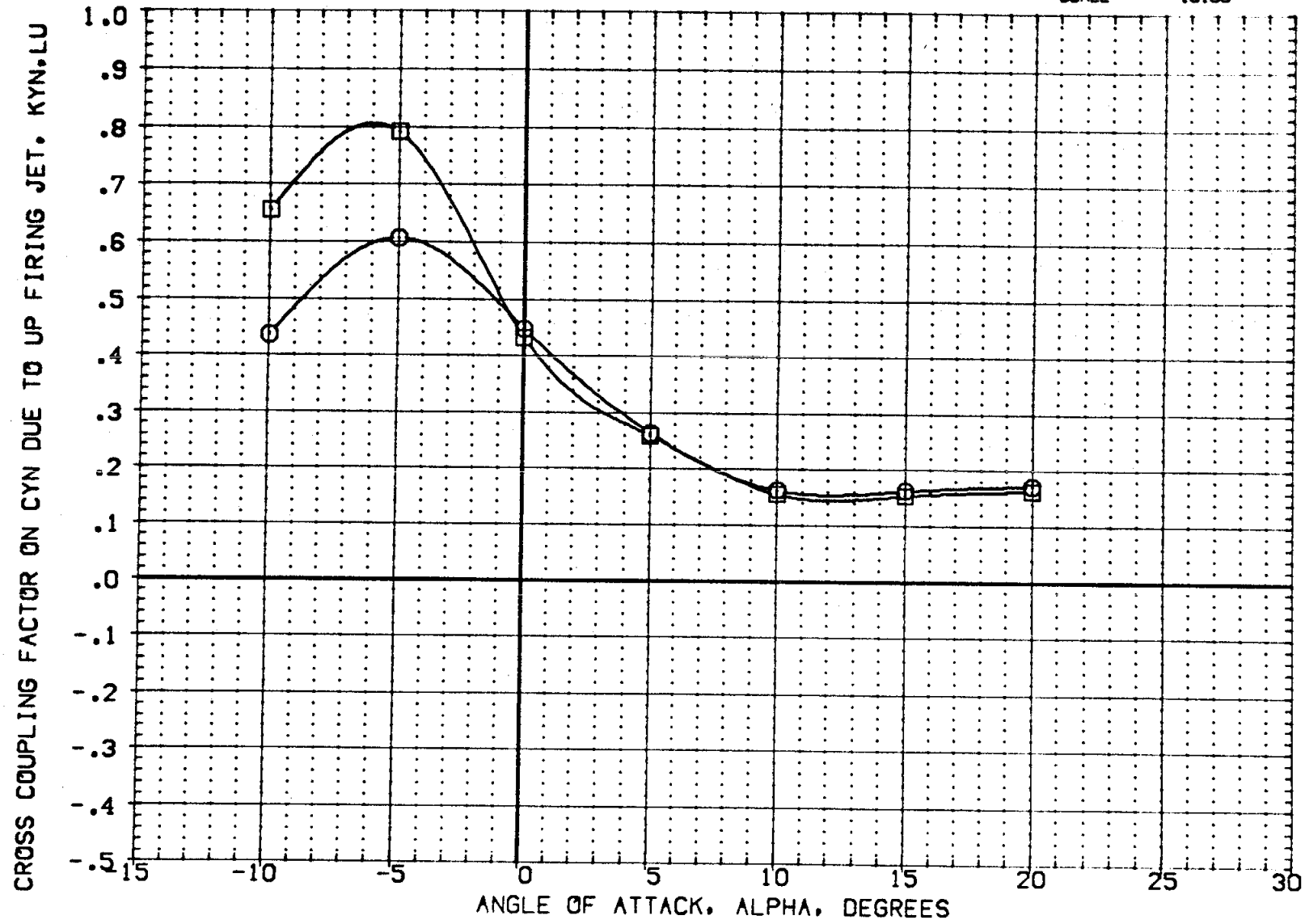


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
[CH1010]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N52	PITCH UP	446.000	.000	.000	.000
[CH1030]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N52	PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

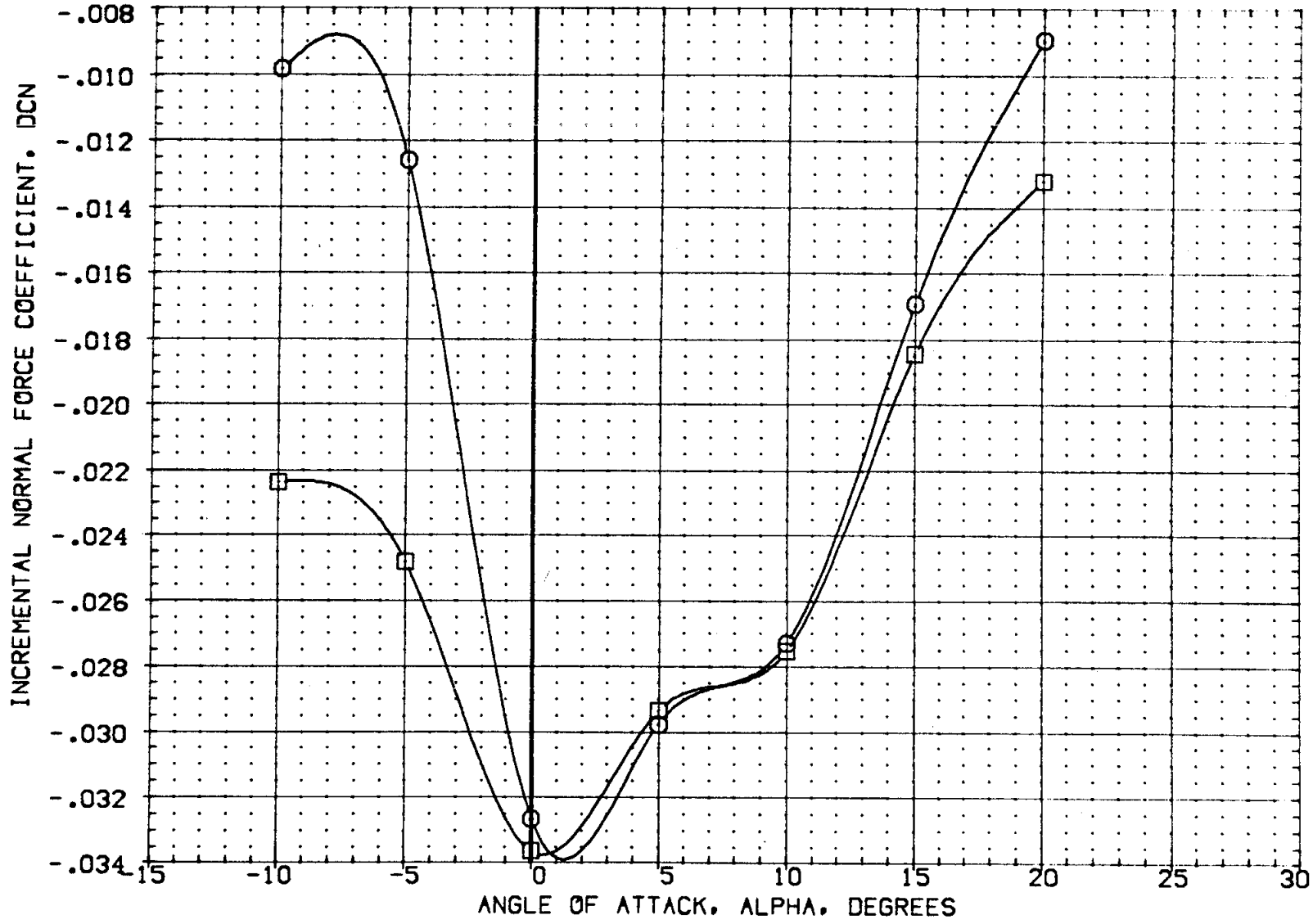


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1010]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	.000	.000	.000
[CH1030]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

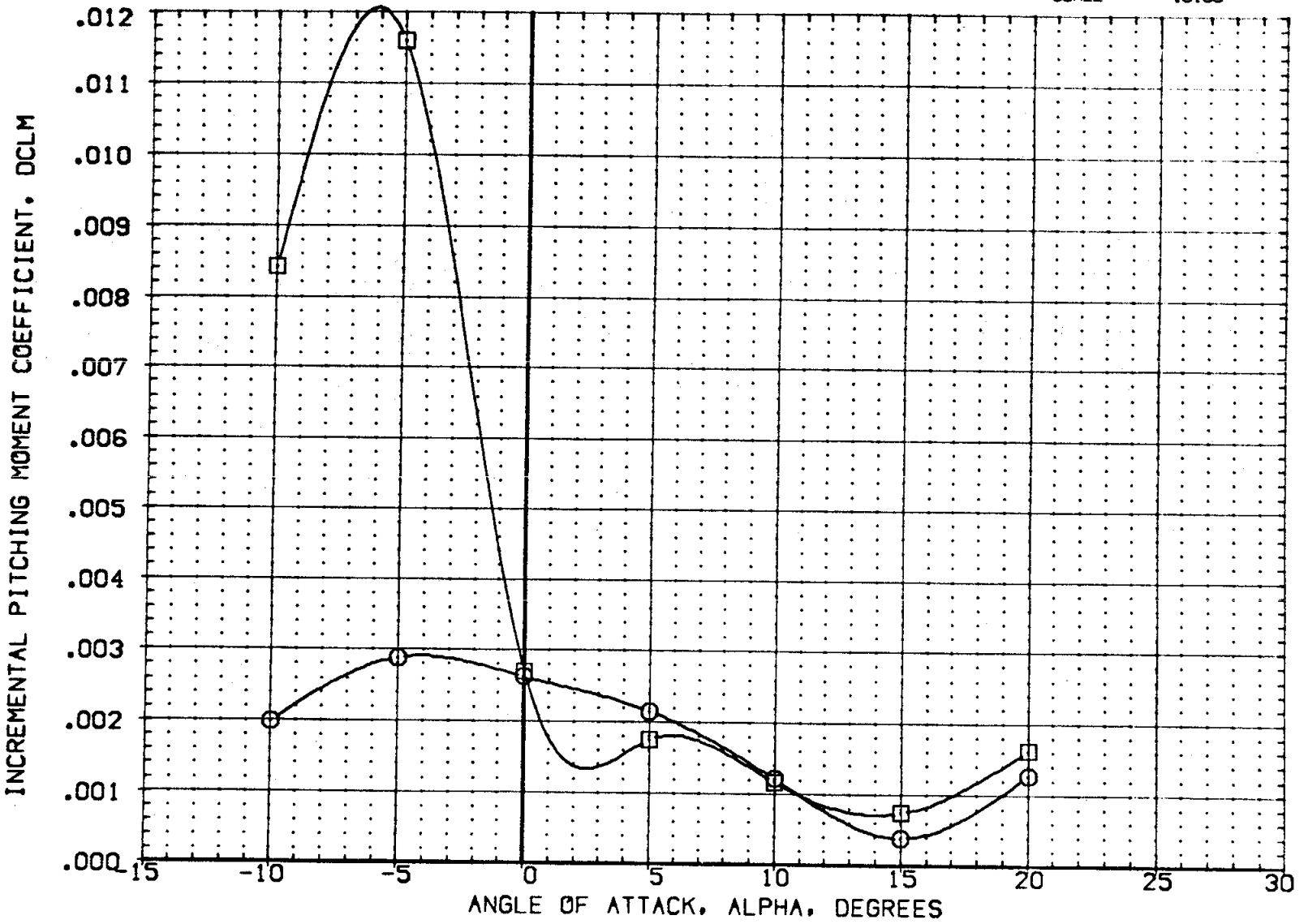


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1010] ○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	.000
[CH1030] □	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

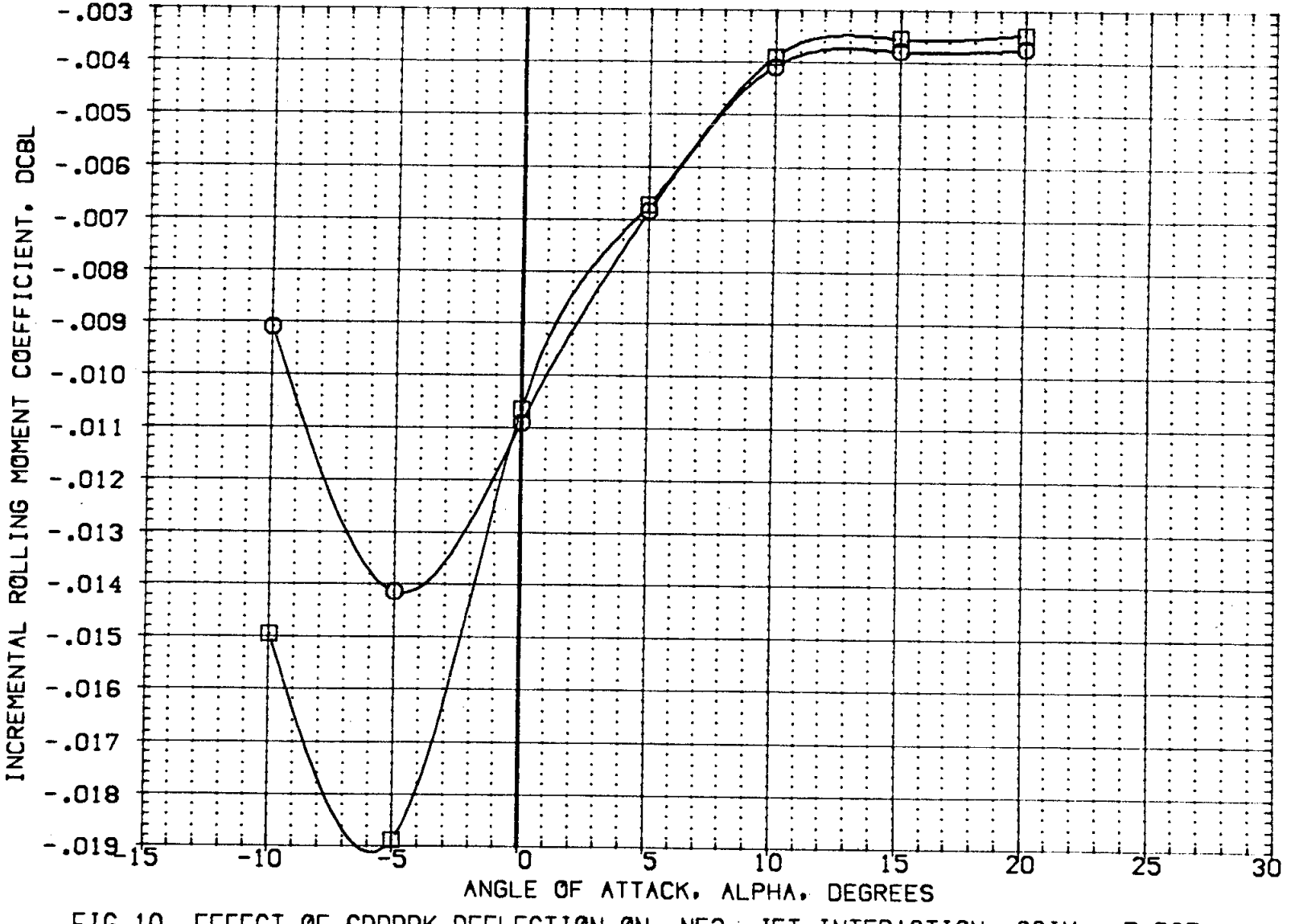


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
[CH1010]	○	[A-60 CFHT108 MODEL 32-0T [0 T]N52	PITCH UP	446.000	.000	.000	.000
[CH1030]	□	[A-60 CFHT108 MODEL 32-0T [0 T]N52	PITCH UP	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

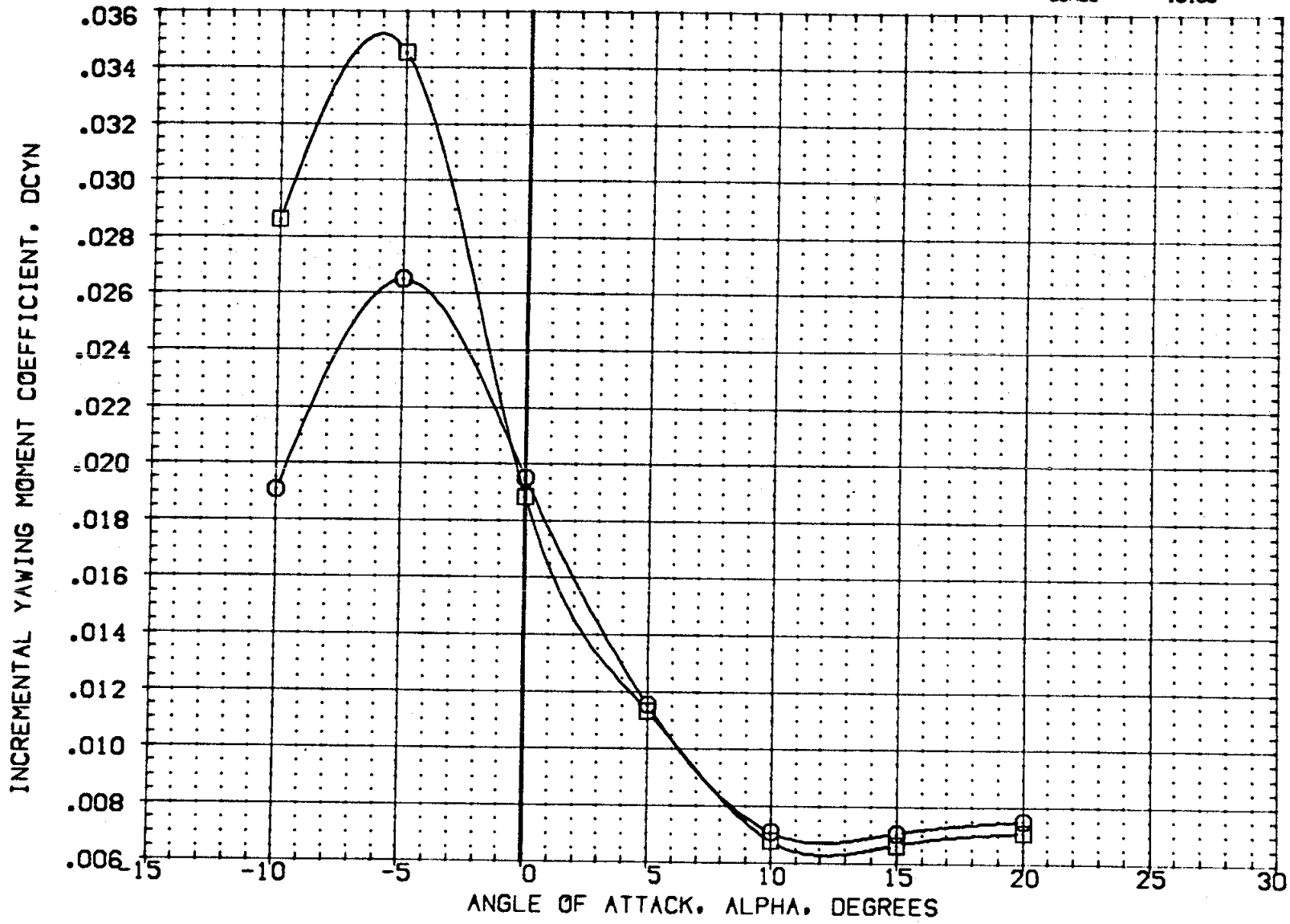


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[ZH110N]	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	.000
[ZH130N]	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	55.000
[ZH102F]	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
[ZH108F]	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

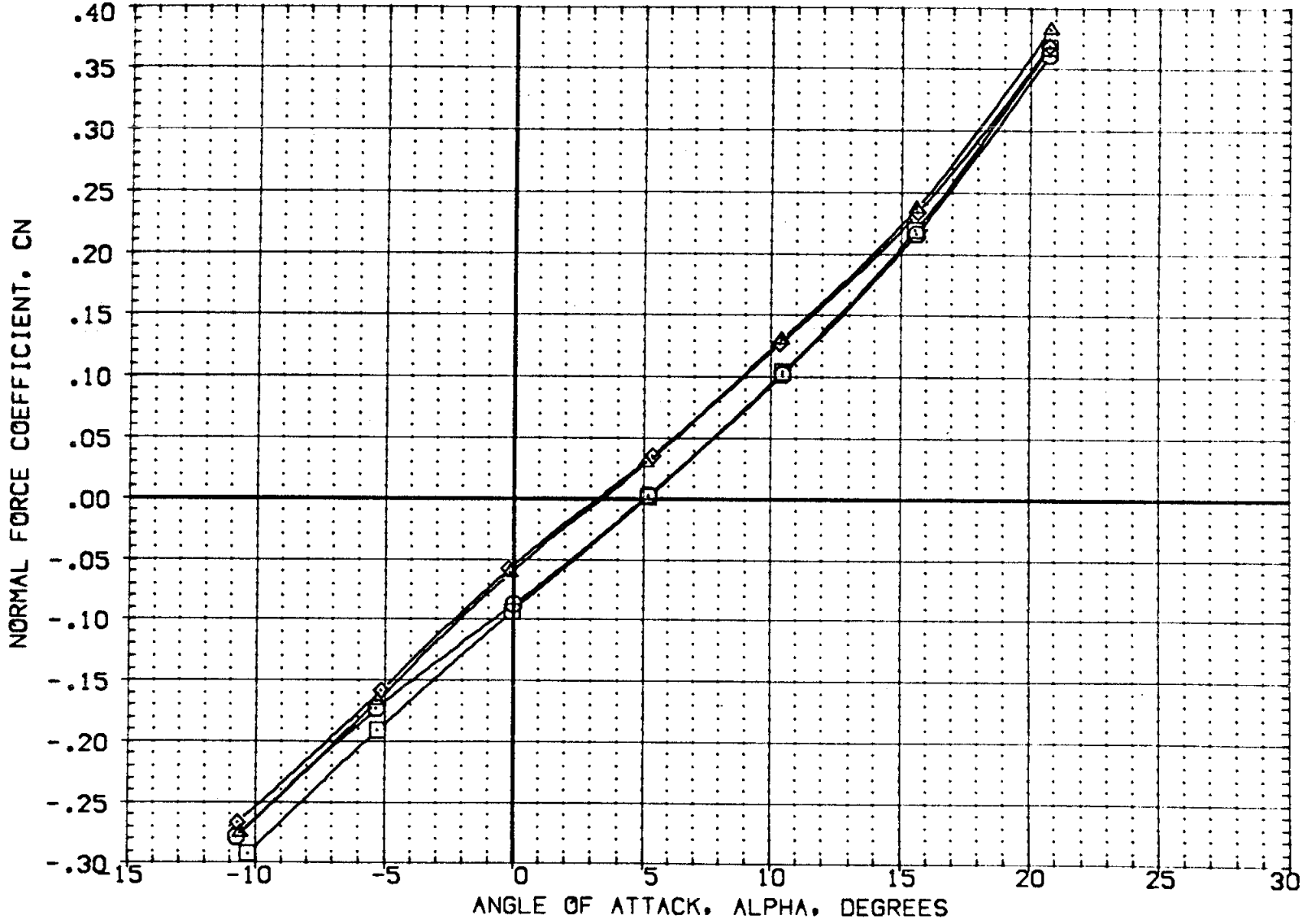


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(ZH110N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	.000
(ZH130N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	446.000	.000	.000	55.000
(ZH102F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH108F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52	RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

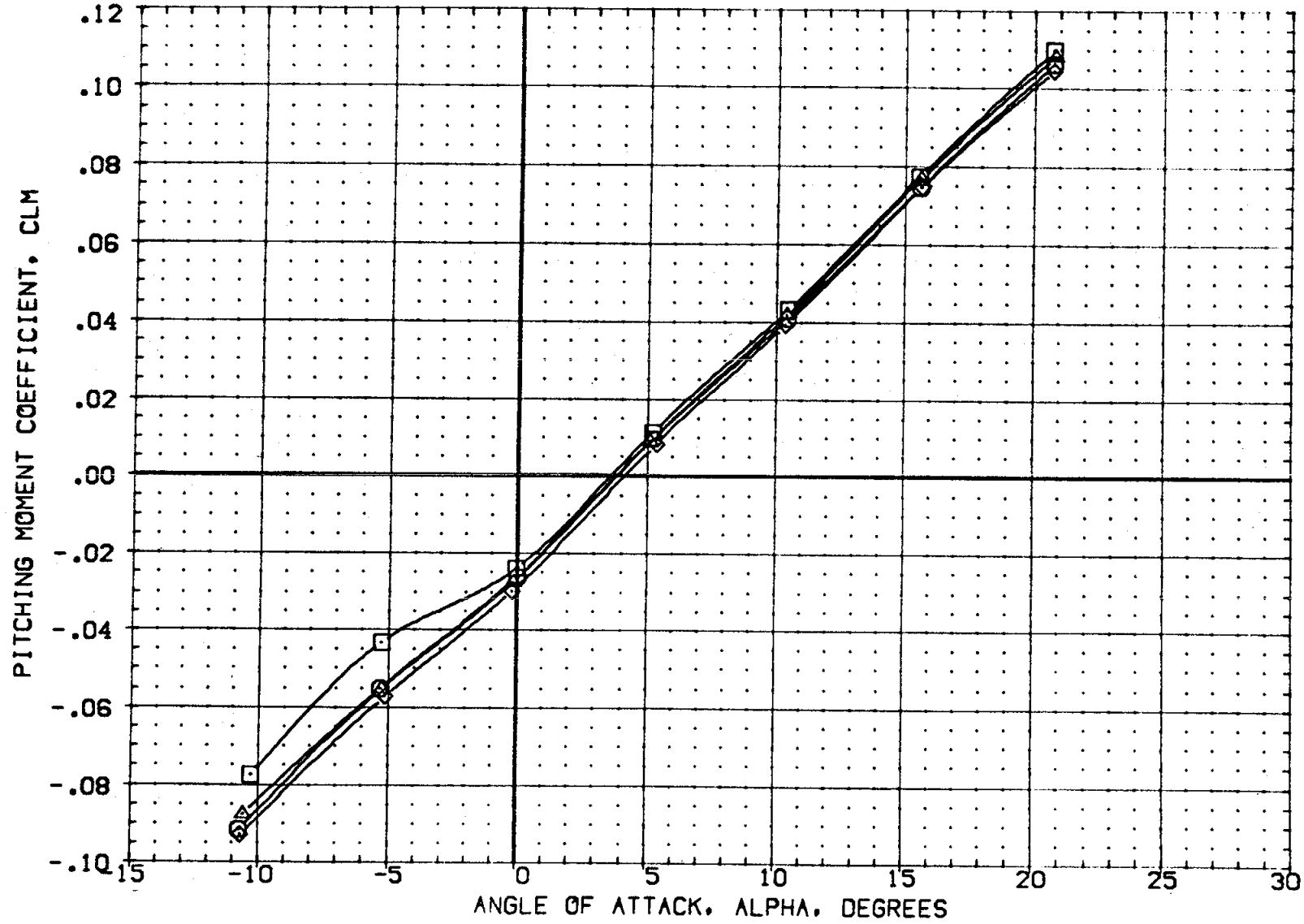


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH110N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	.000
(ZH130N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	446.000	.000	.000	55.000
(ZH102F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH108F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

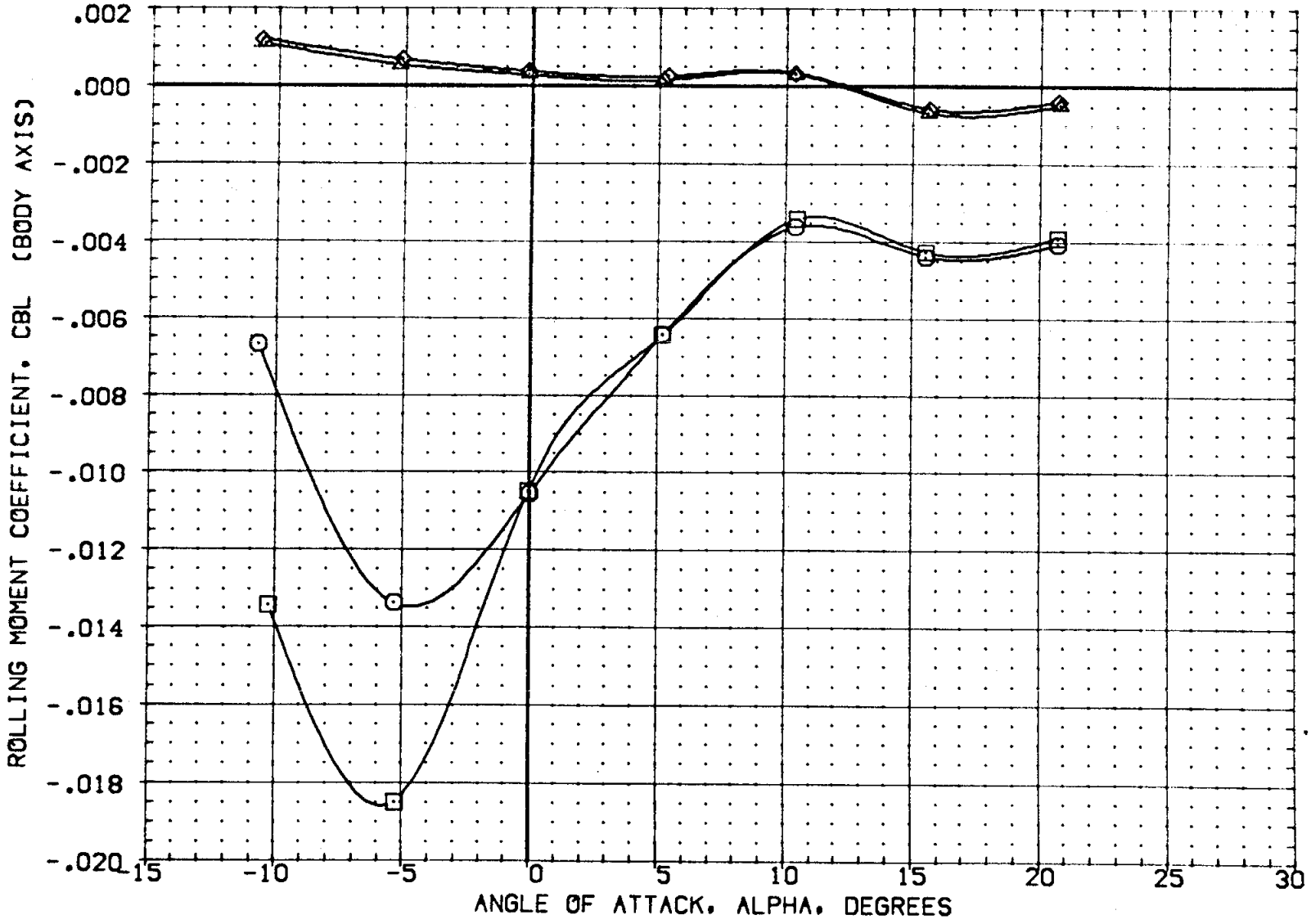


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

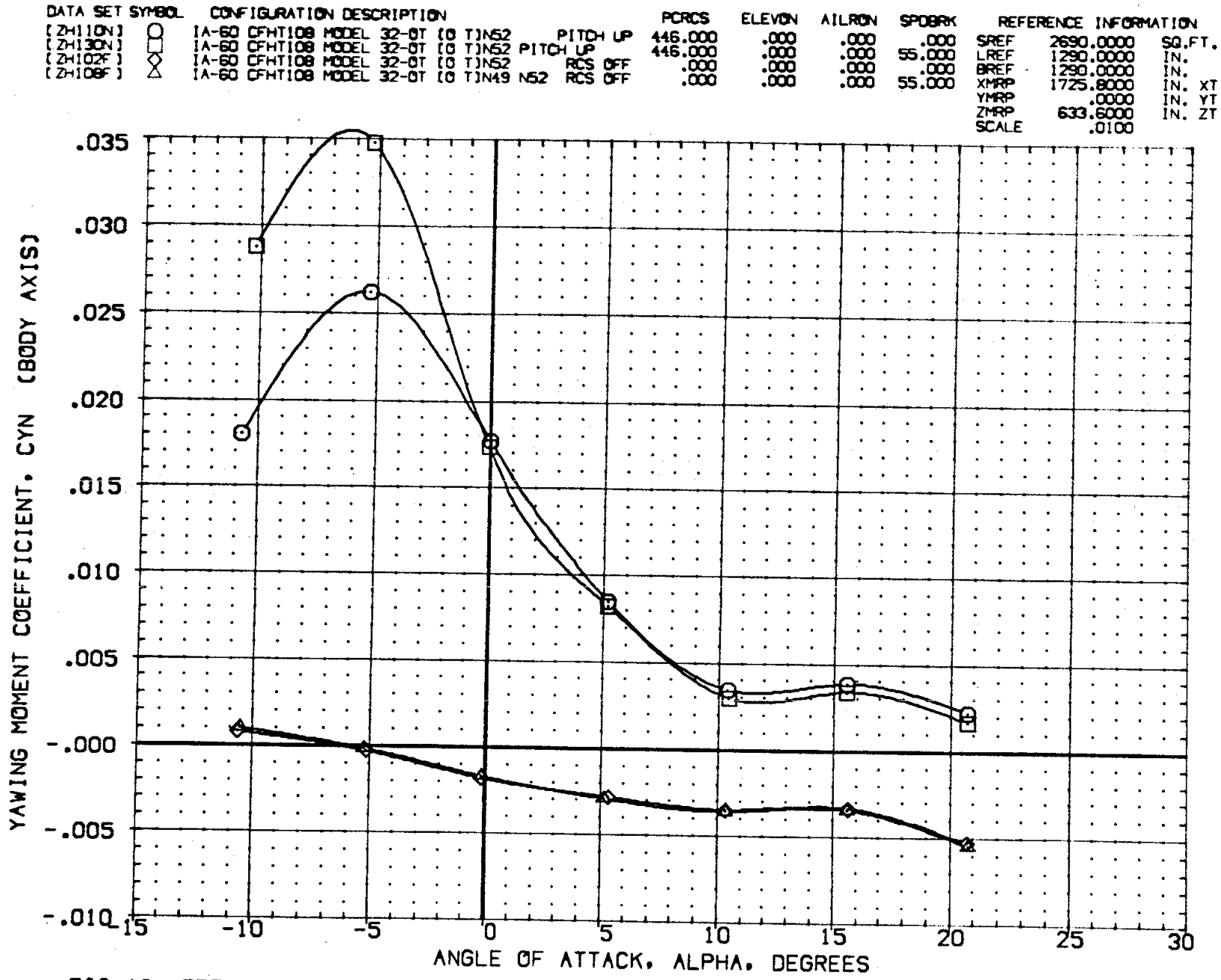


FIG 10 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1009)	○	IA-60 CFHTI08 MODEL 32-0T (0 TIN52	PITCH UP	158.000	.000	.000	.000
(CH1029)	□	IA-60 CFHTI08 MODEL 32-0T (0 TIN52	PITCH UP	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

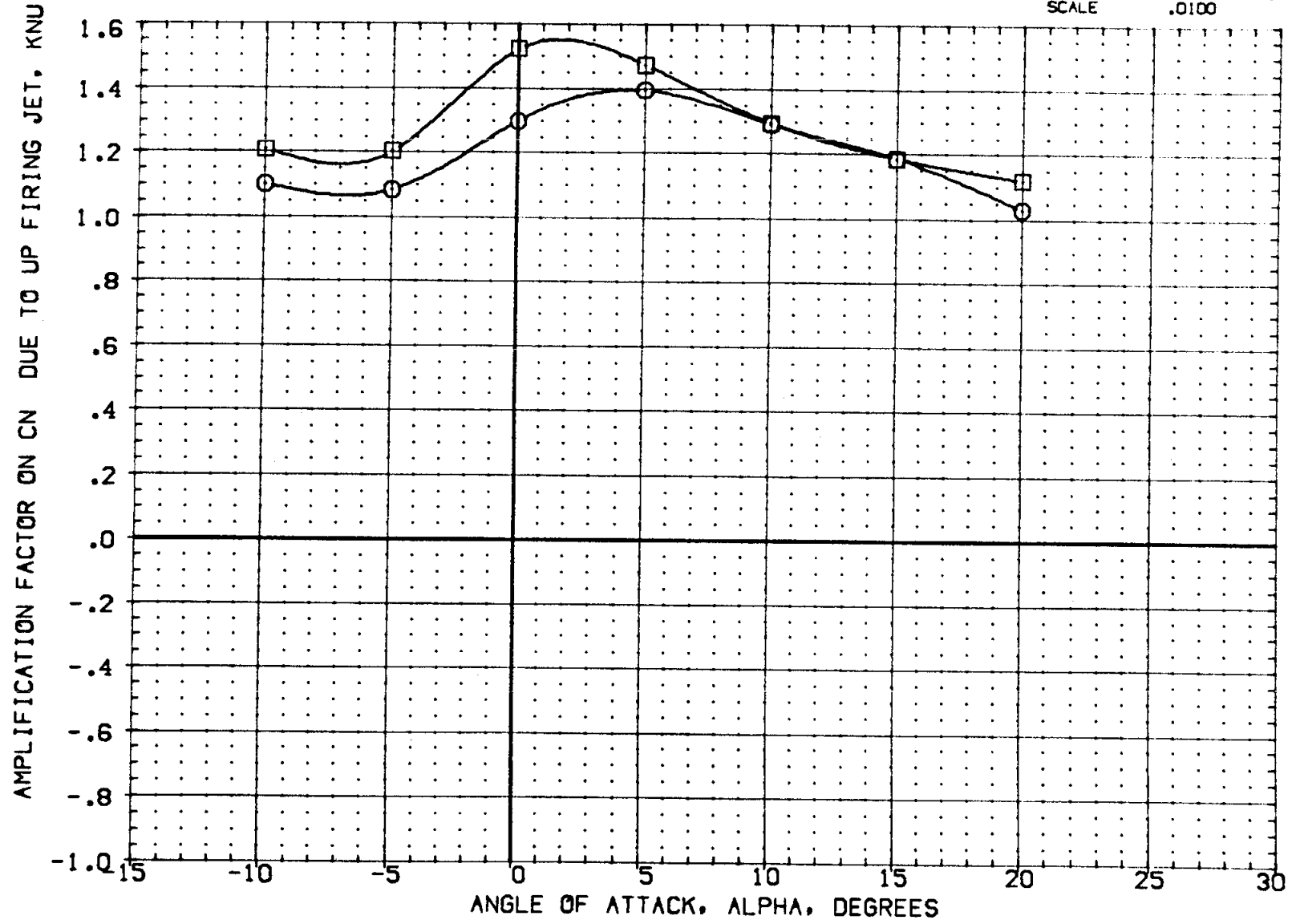


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1009]	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
[CH1029]	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

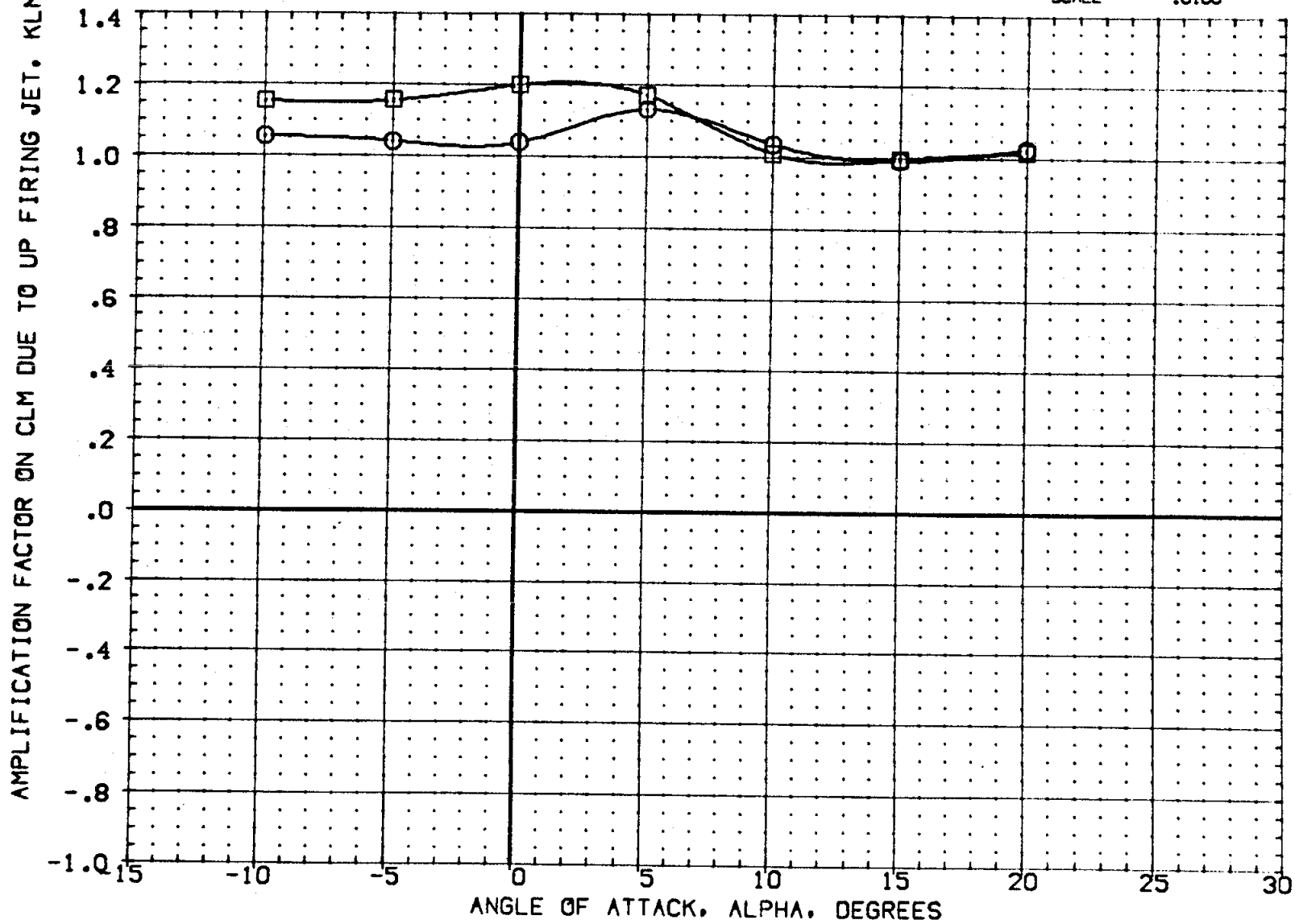


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1009]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	158.000	.000	.000	.000
[CH1029]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

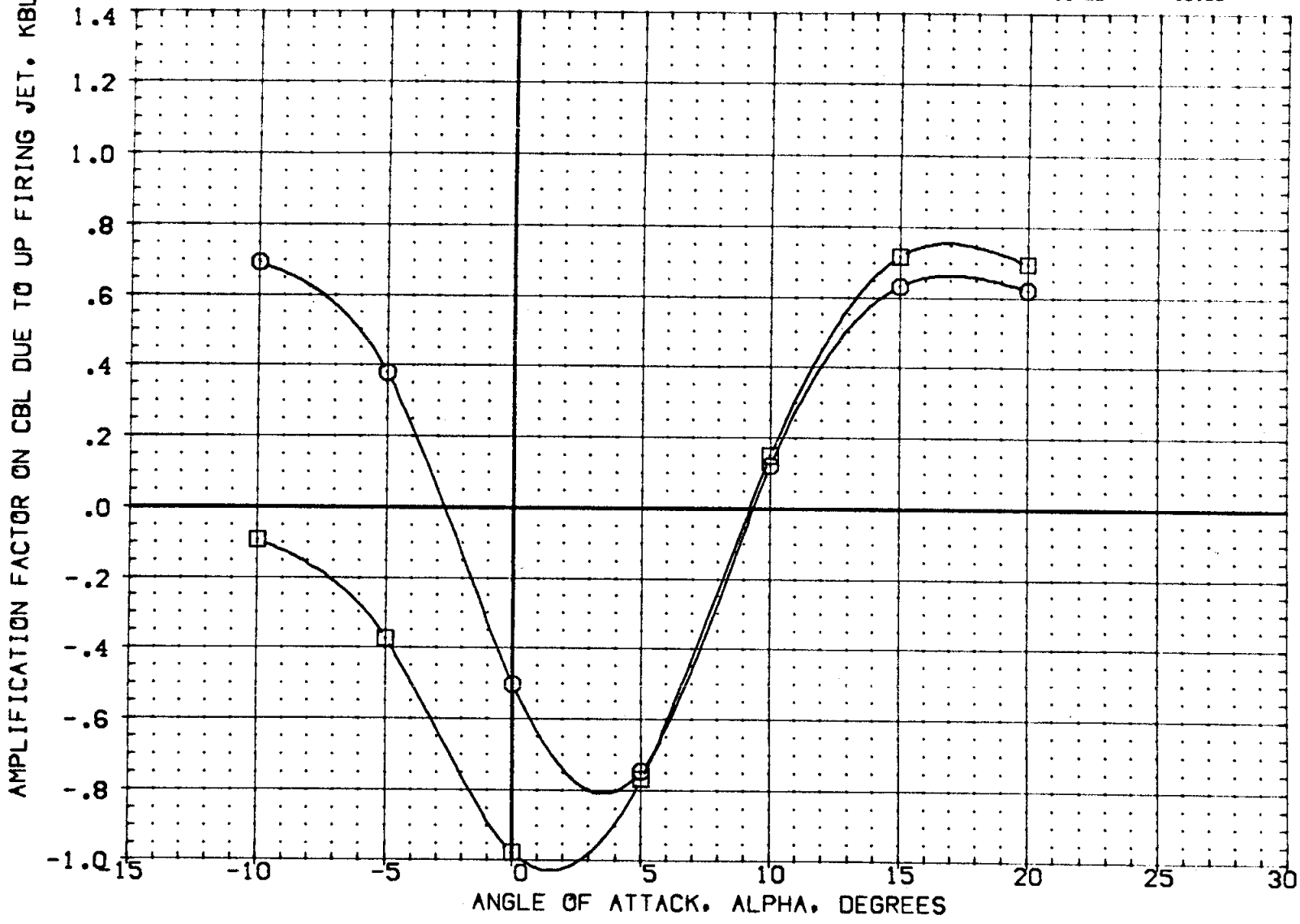


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1009)		IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(CH1029)		IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

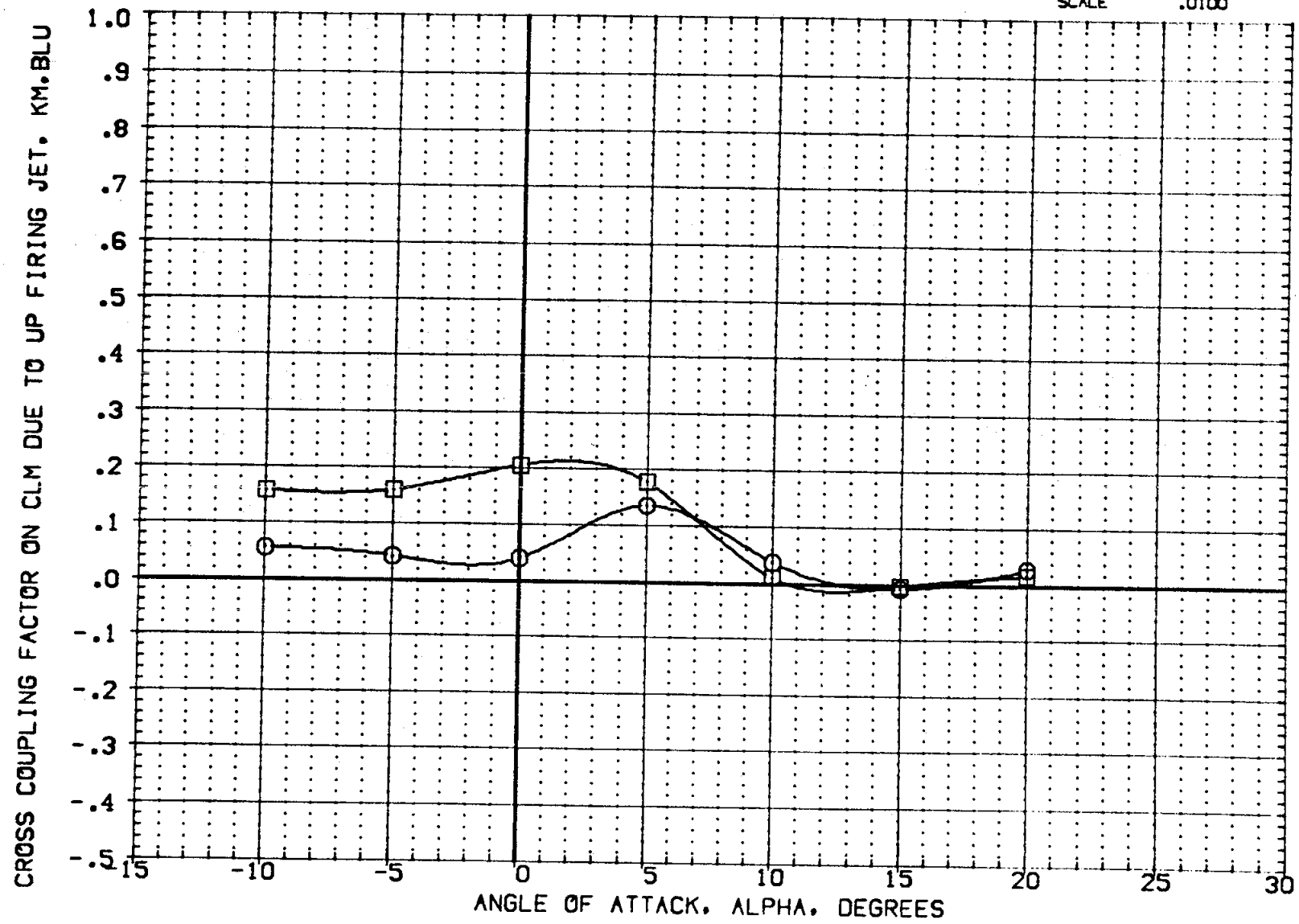


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1009)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	158.000	.000	.000	.000
(CH1029)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

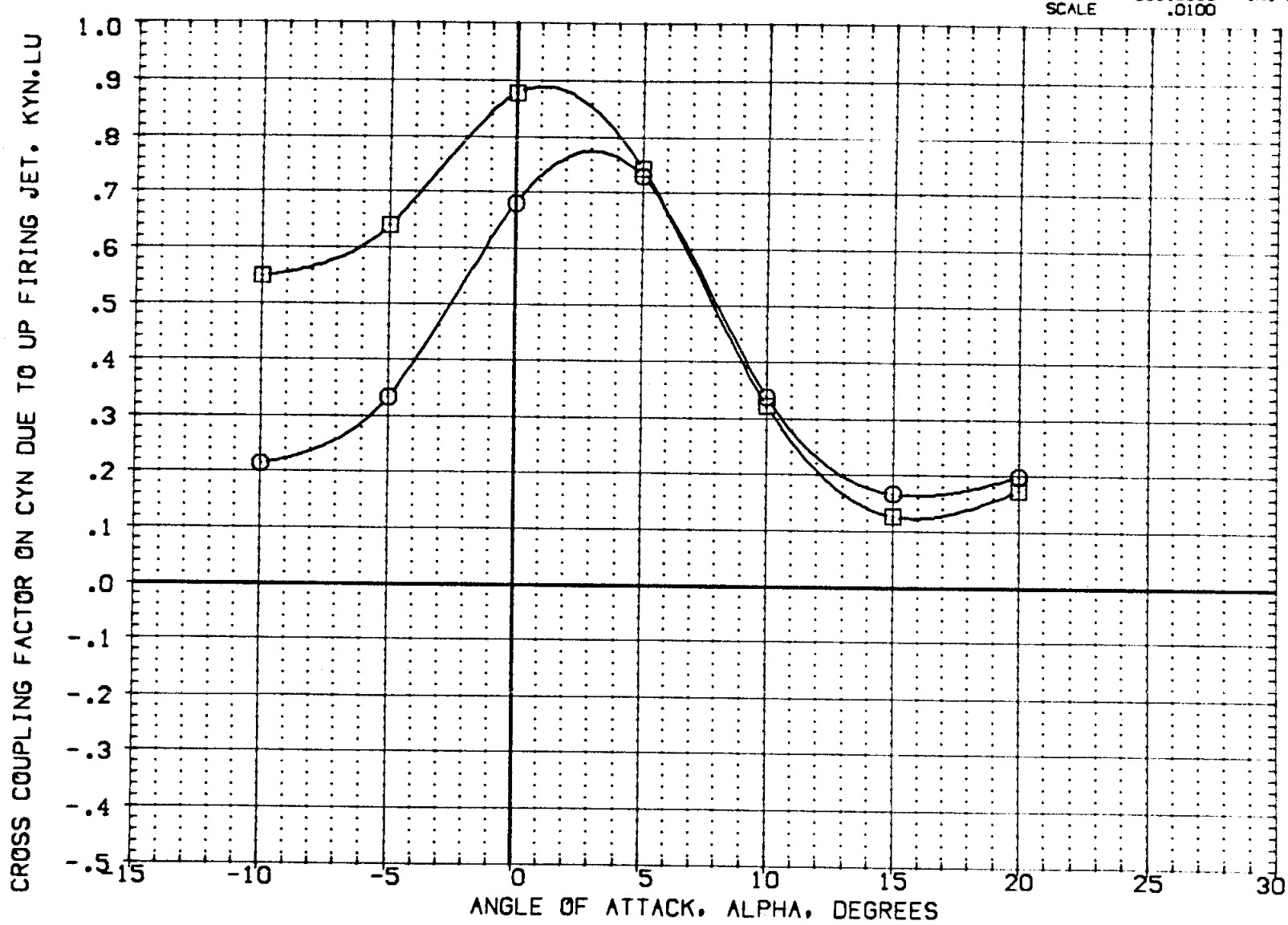


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1009]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	158.000	.000	.000	.000
[CH1029]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N52 PITCH UP	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

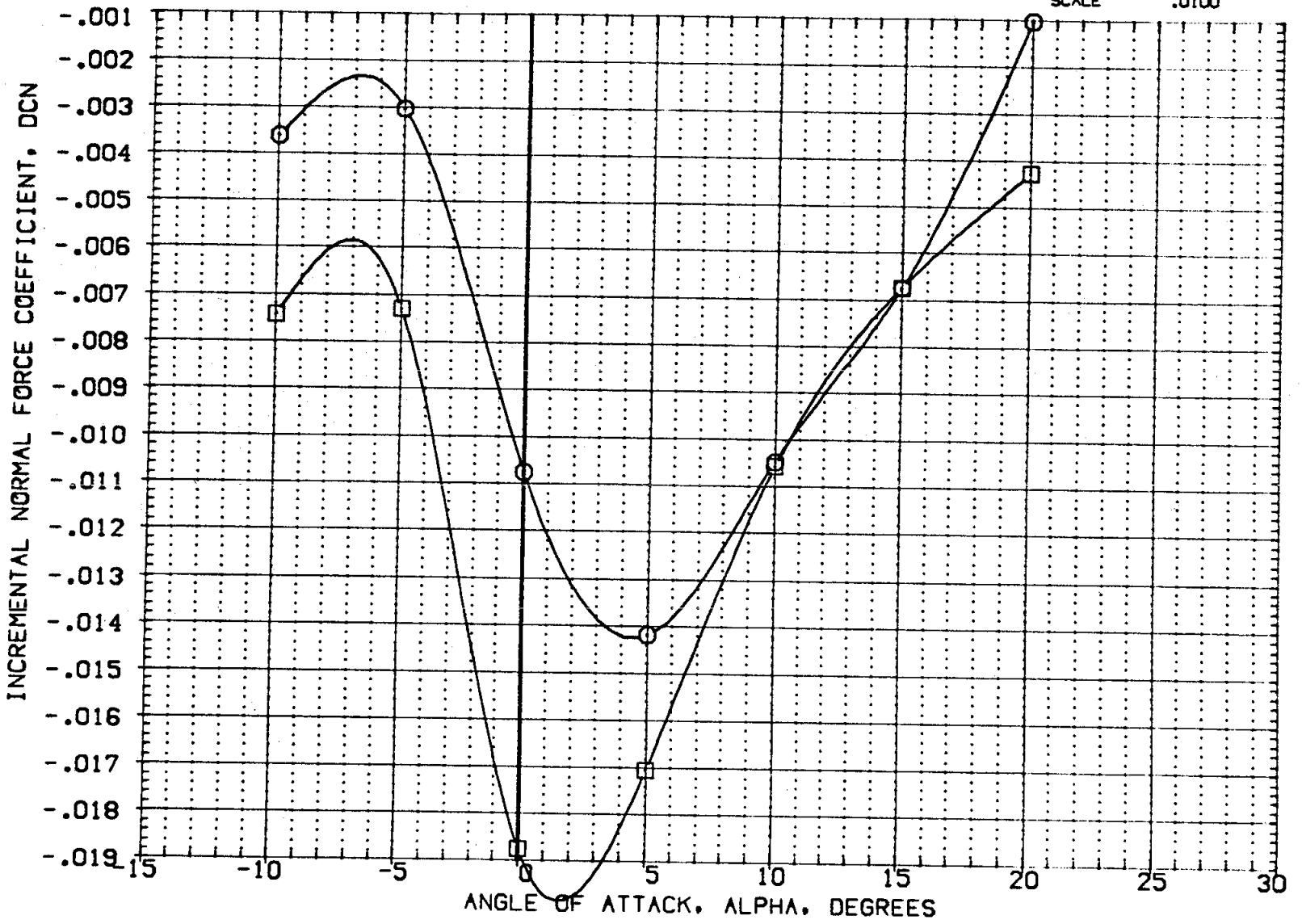


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1009)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	150.000	.000	.000	.000
(CH1029)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	150.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

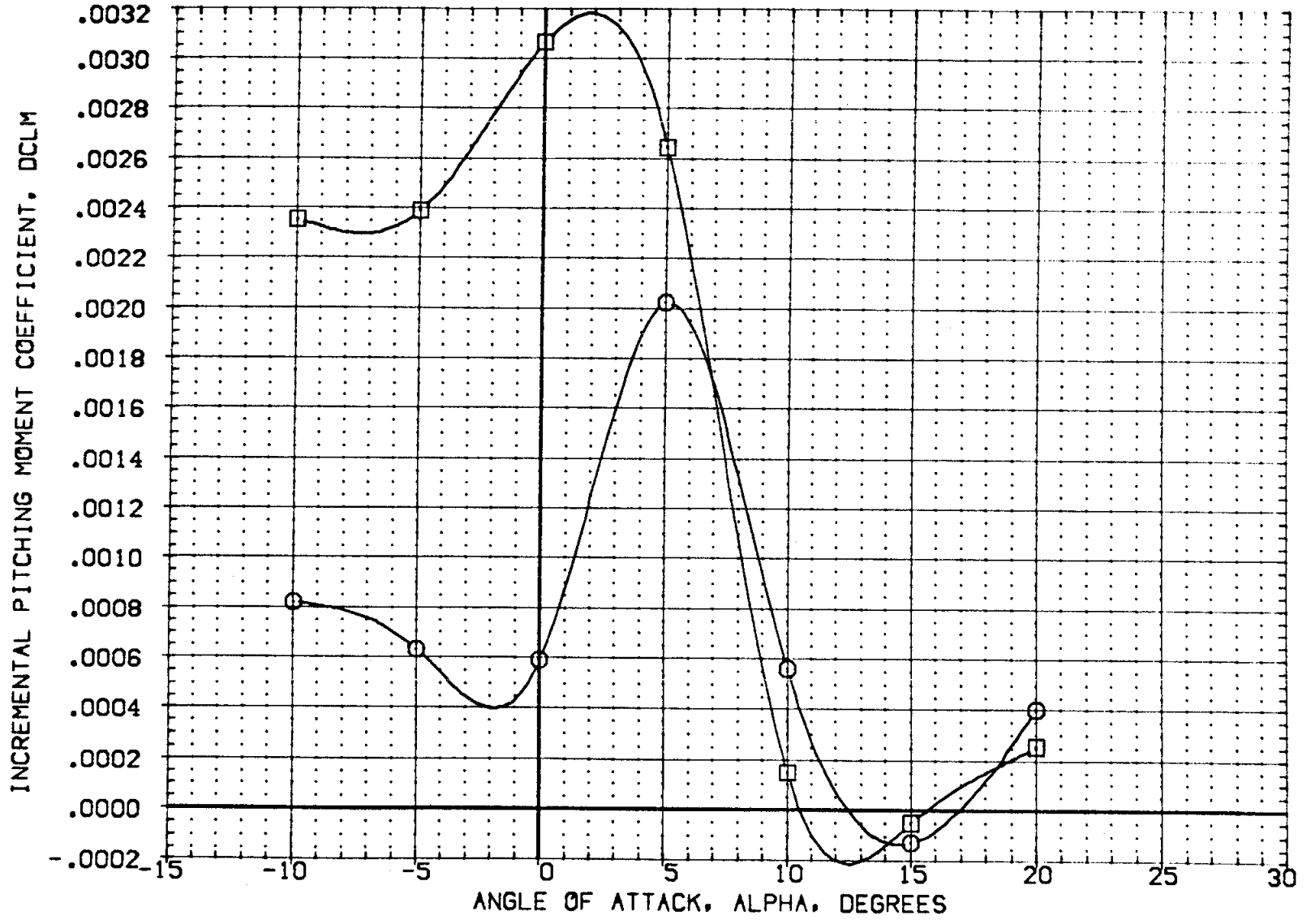


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1009)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	158.000	.000	.000	.000
(CH1029)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

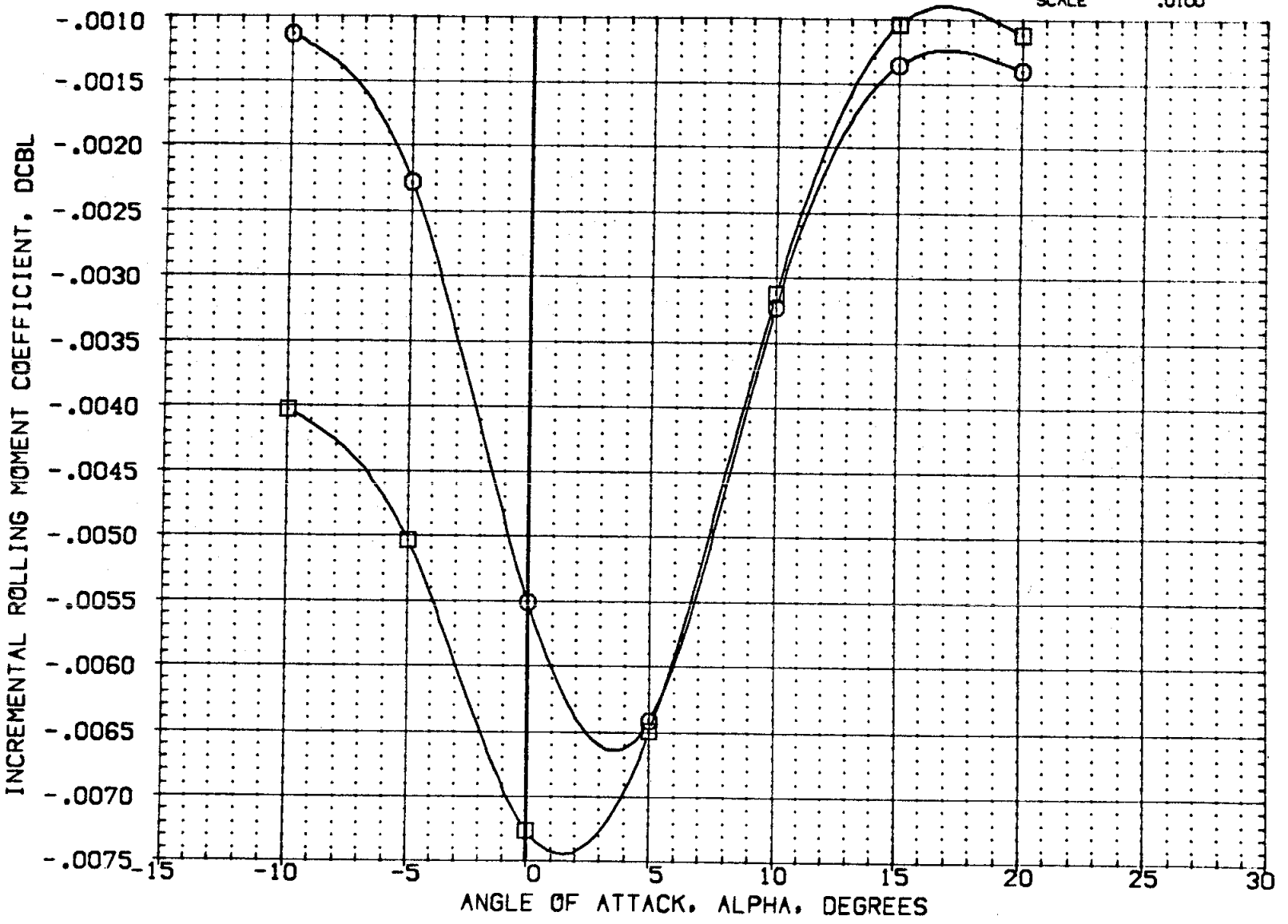


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1009)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(CH1029)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

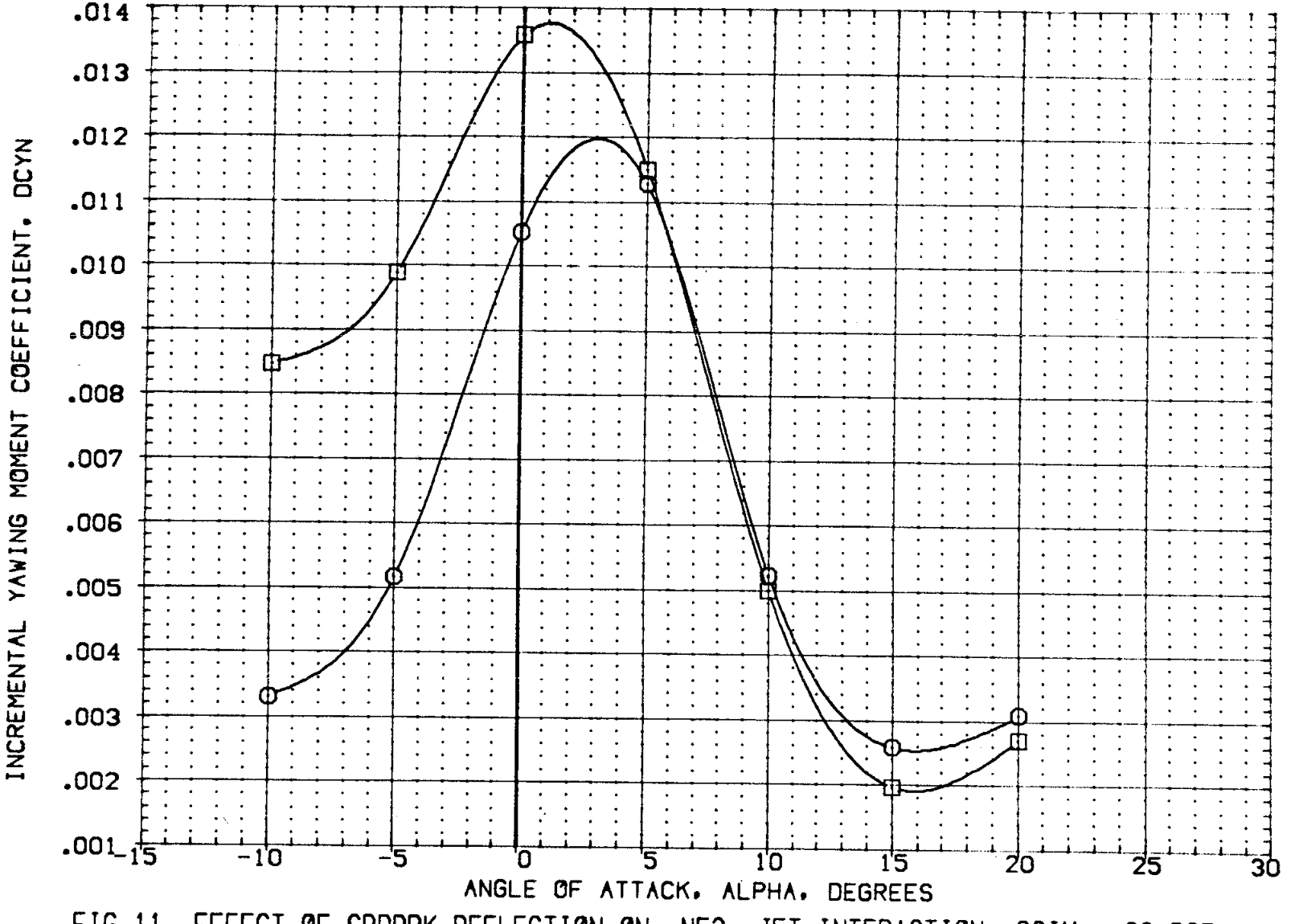


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(ZH109N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	158.000	.000	.000	.000
(ZH129N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52	PITCH UP	158.000	.000	.000	55.000
(ZH102F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH108F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52	RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

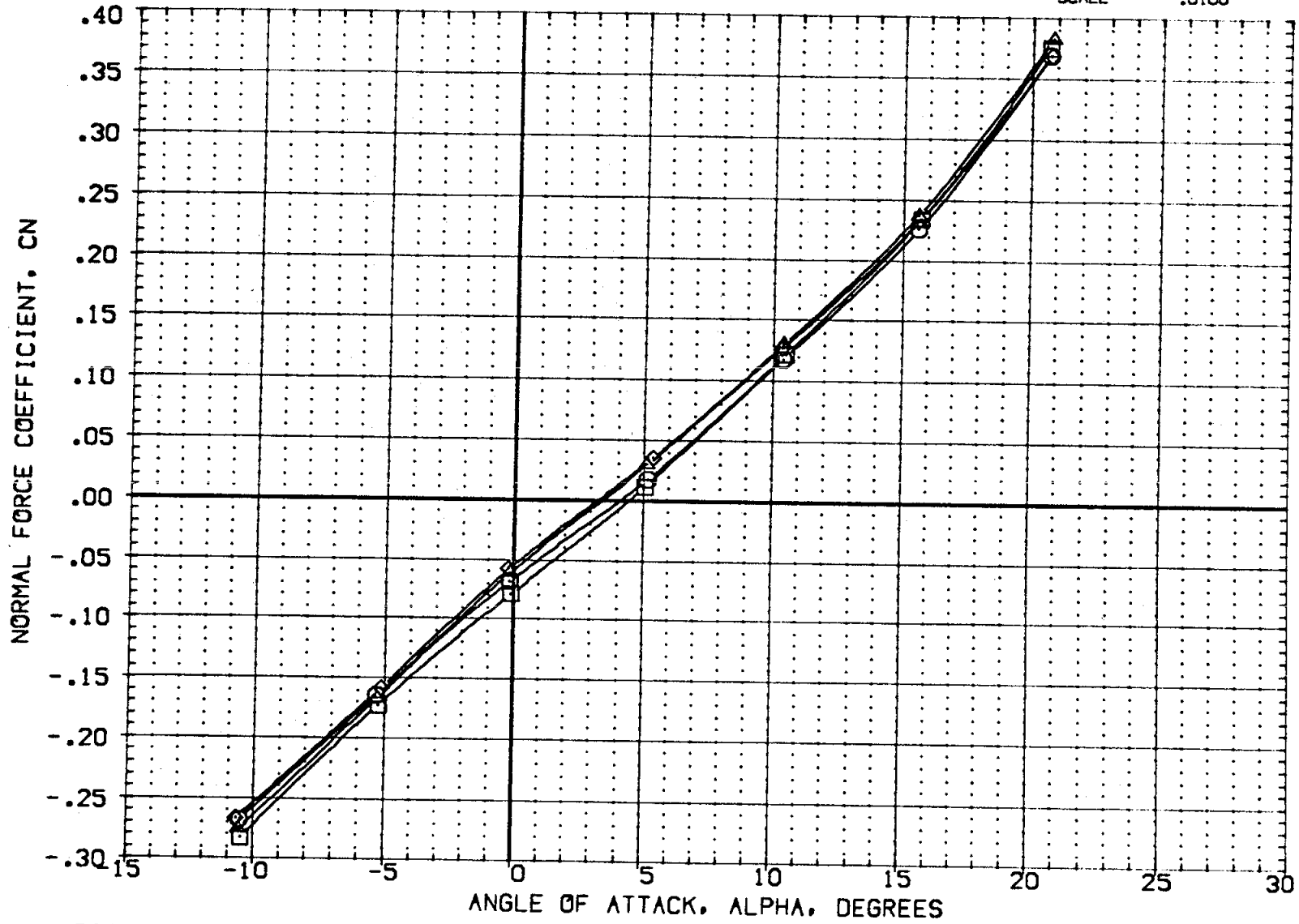


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH109N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(ZH129N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	55.000
(ZH102F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH108F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

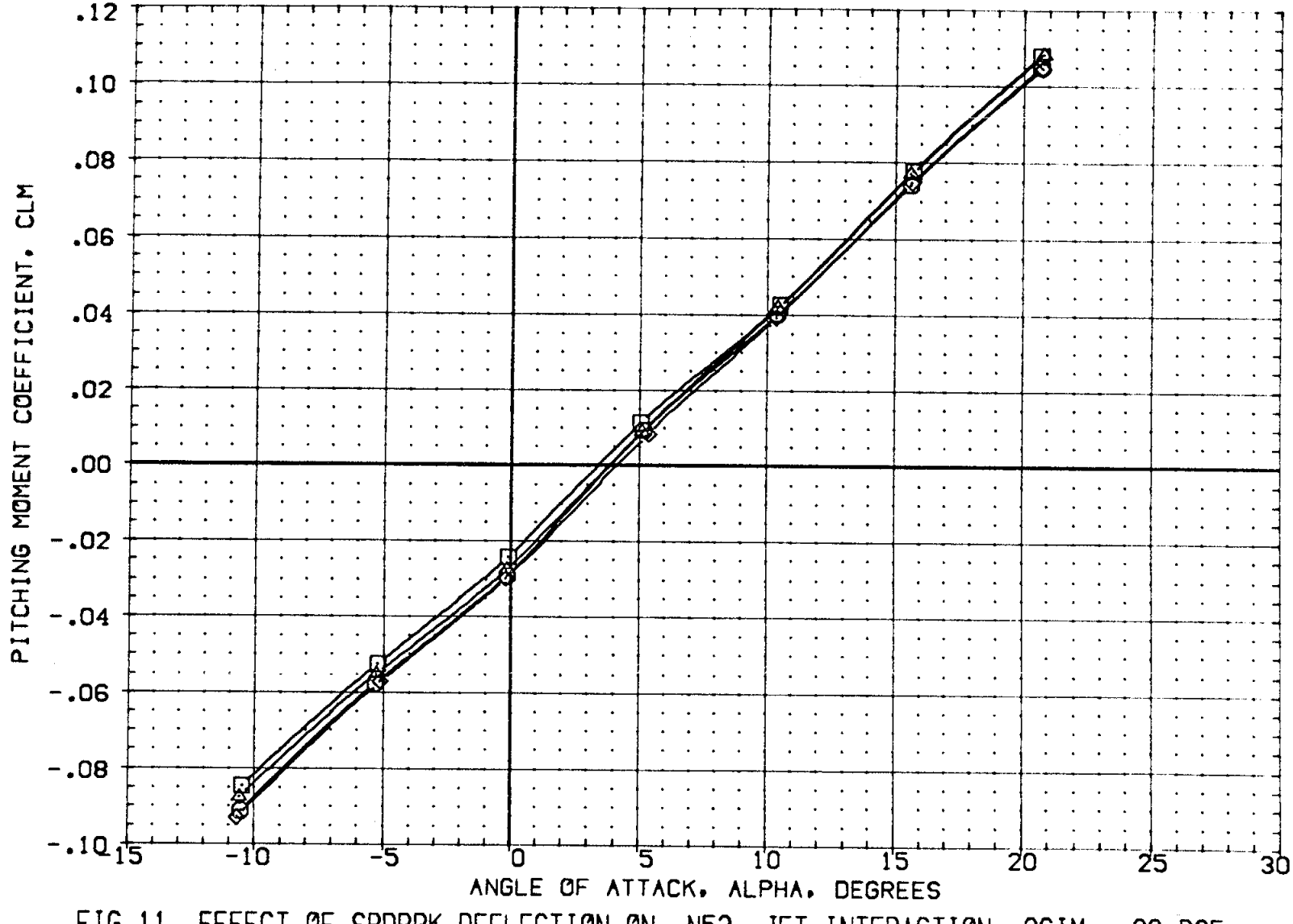


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH109N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(ZH129N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	55.000
(ZH102F)	⊠	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH108F)	⊠	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

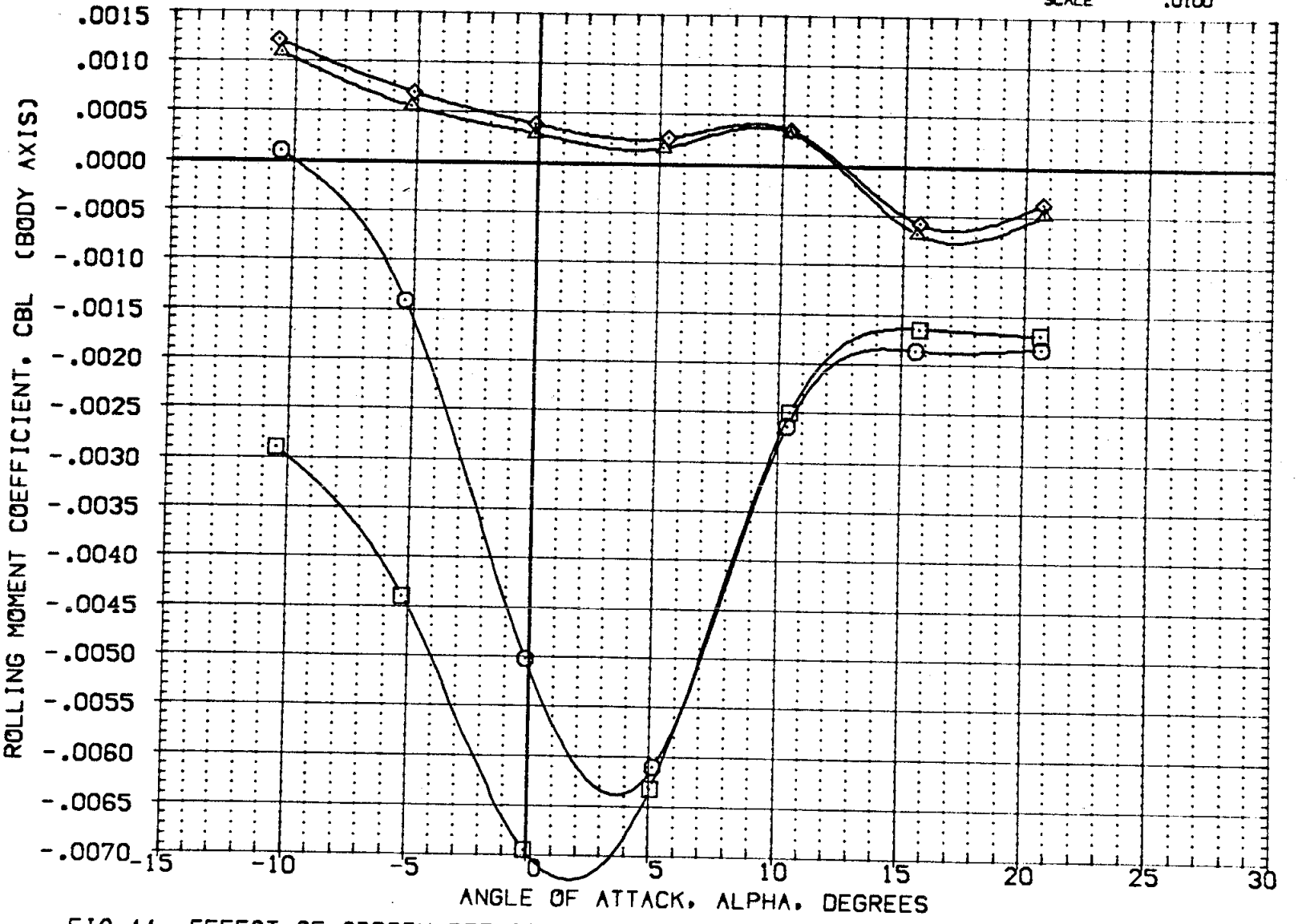


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH109N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	.000
(ZH129N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N52 PITCH UP	158.000	.000	.000	55.000
(ZH102F)	⋈	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH108F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

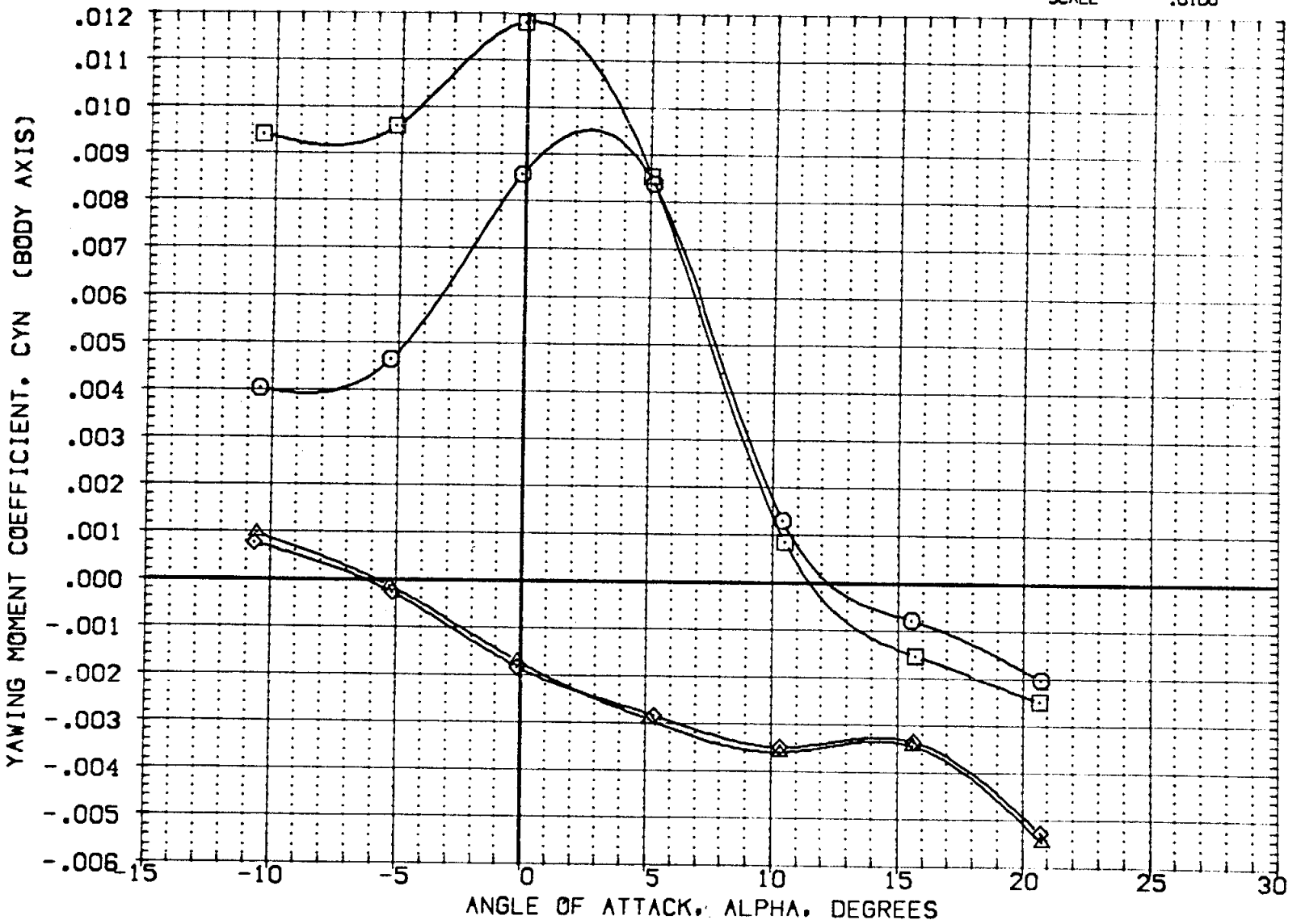


FIG 11 EFFECT OF SPDBRK DEFLECTION ON N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

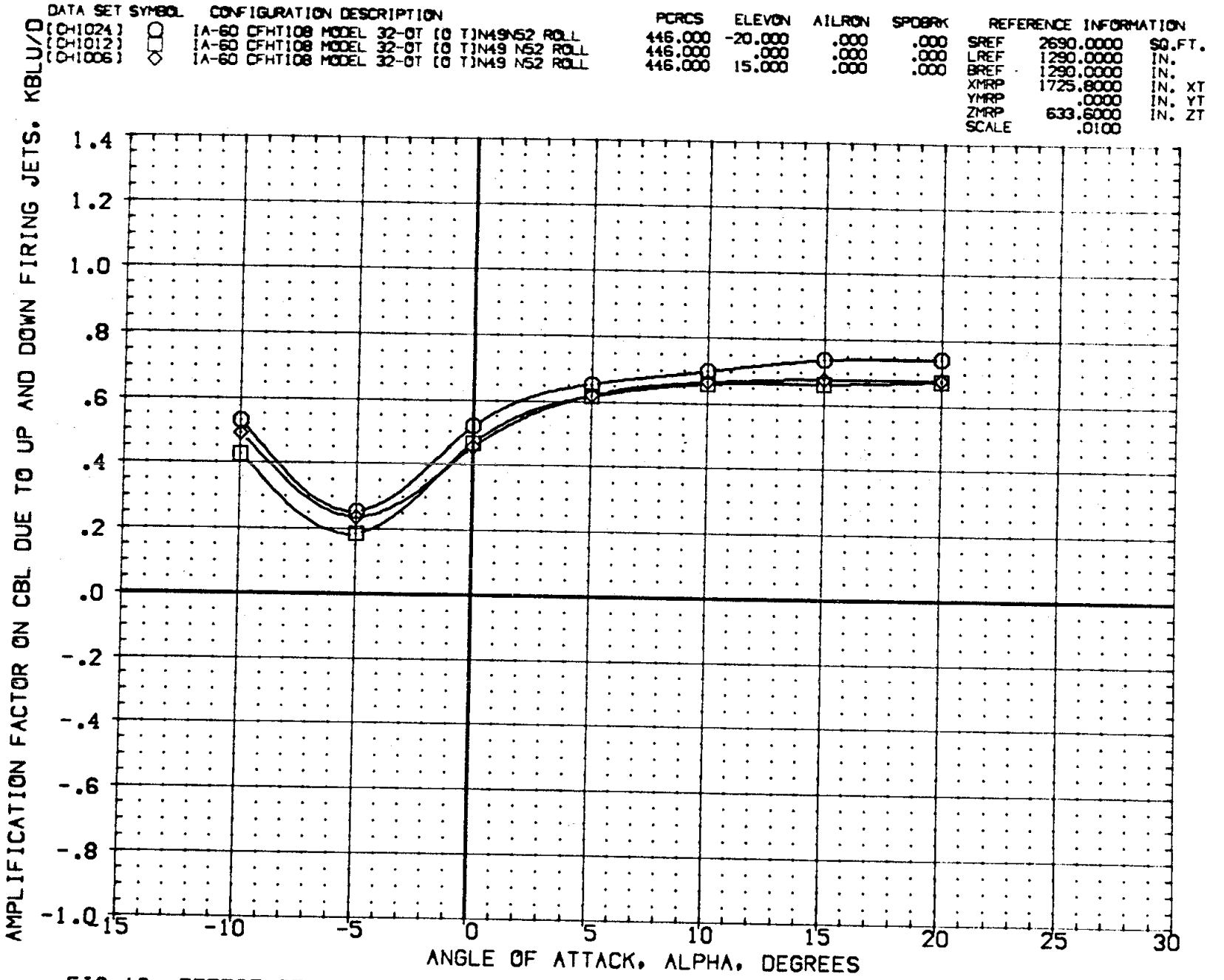


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1024)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000
(CH1012)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(CH1006)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

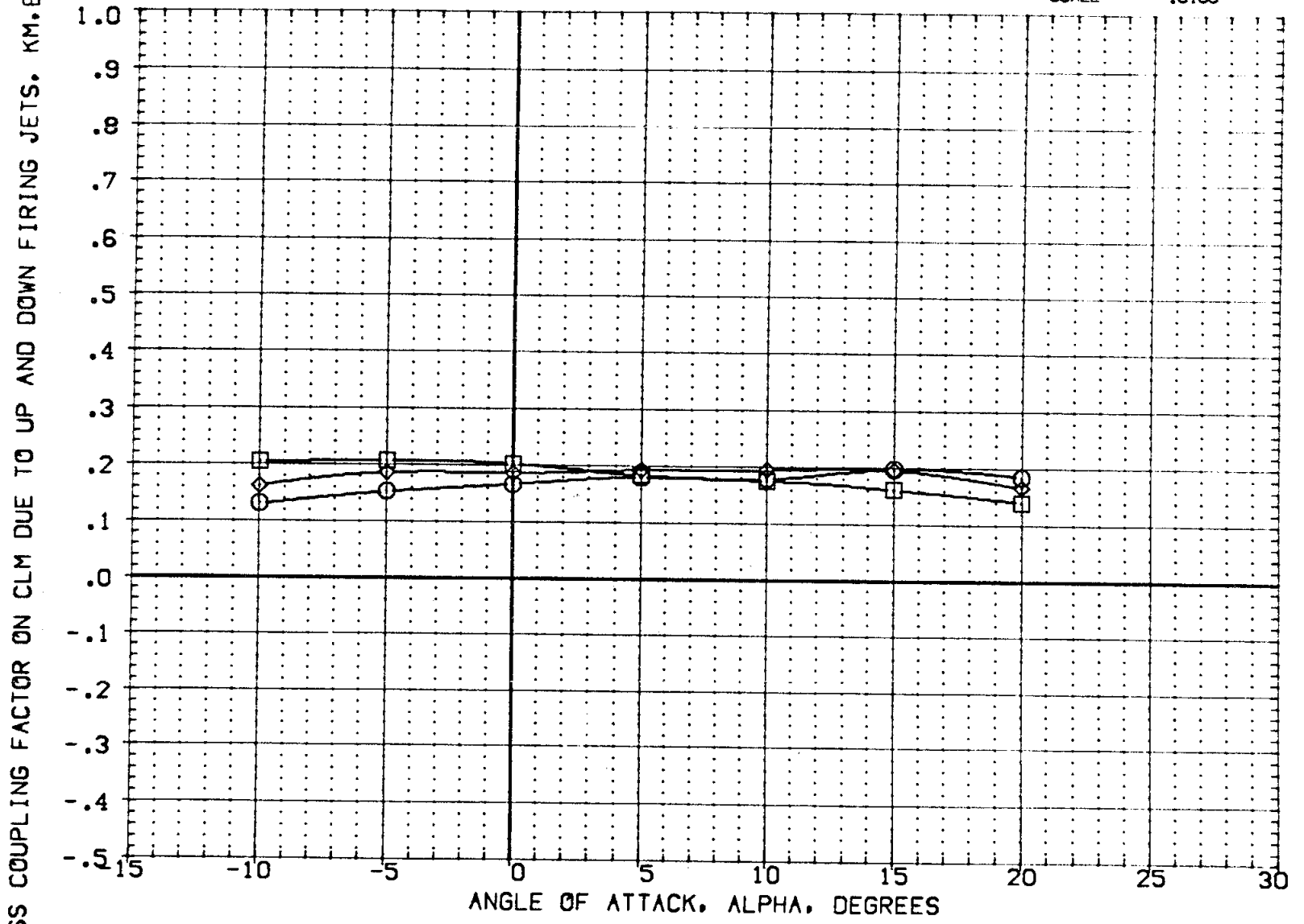


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

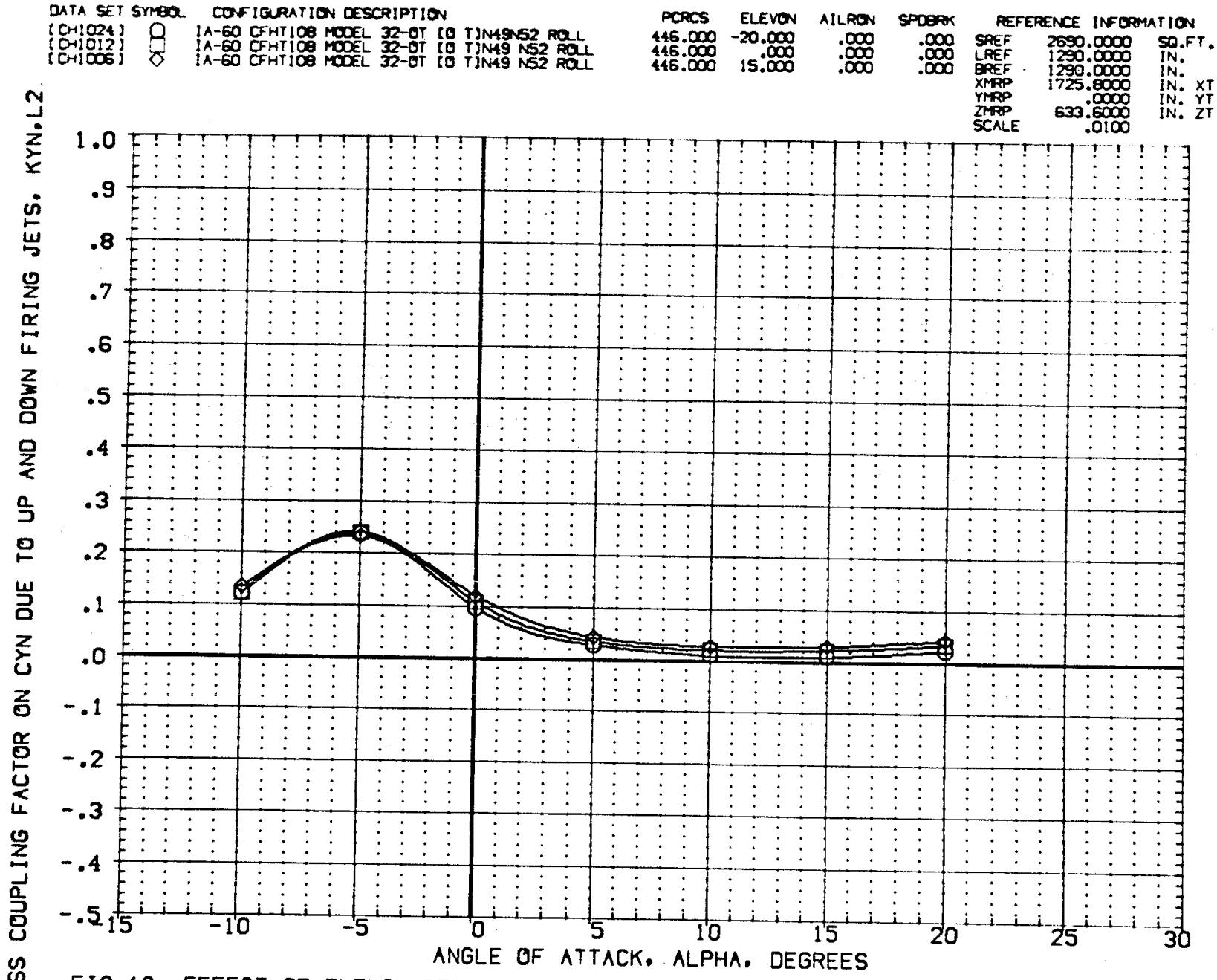


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1024)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000
(CH1012)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(CH1006)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

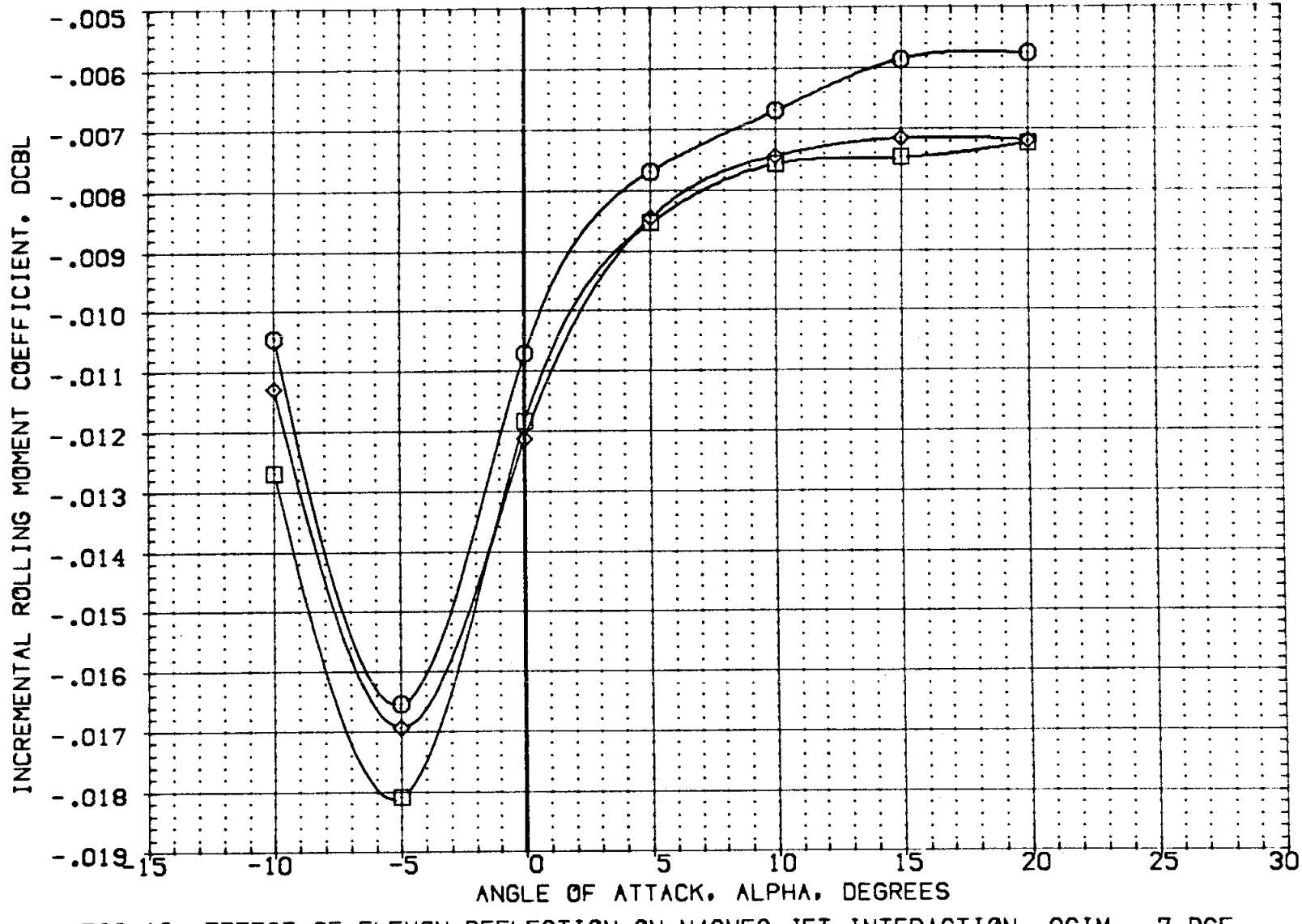


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1024]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	-20.000	.000	.000
[CH1012]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	446.000	.000	.000	.000
[CH1006]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

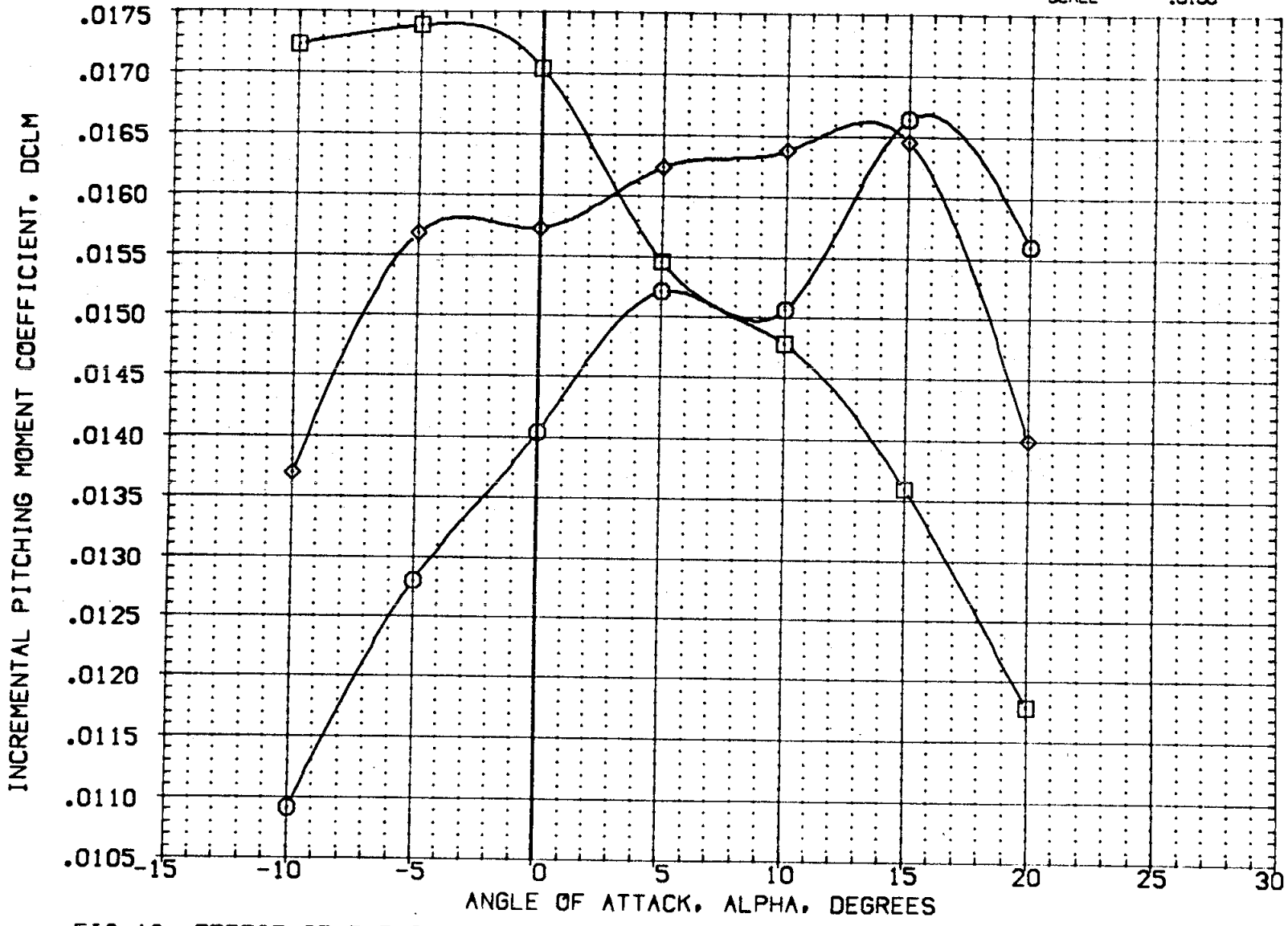


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1024) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000
(CH1012) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(CH1006) ◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

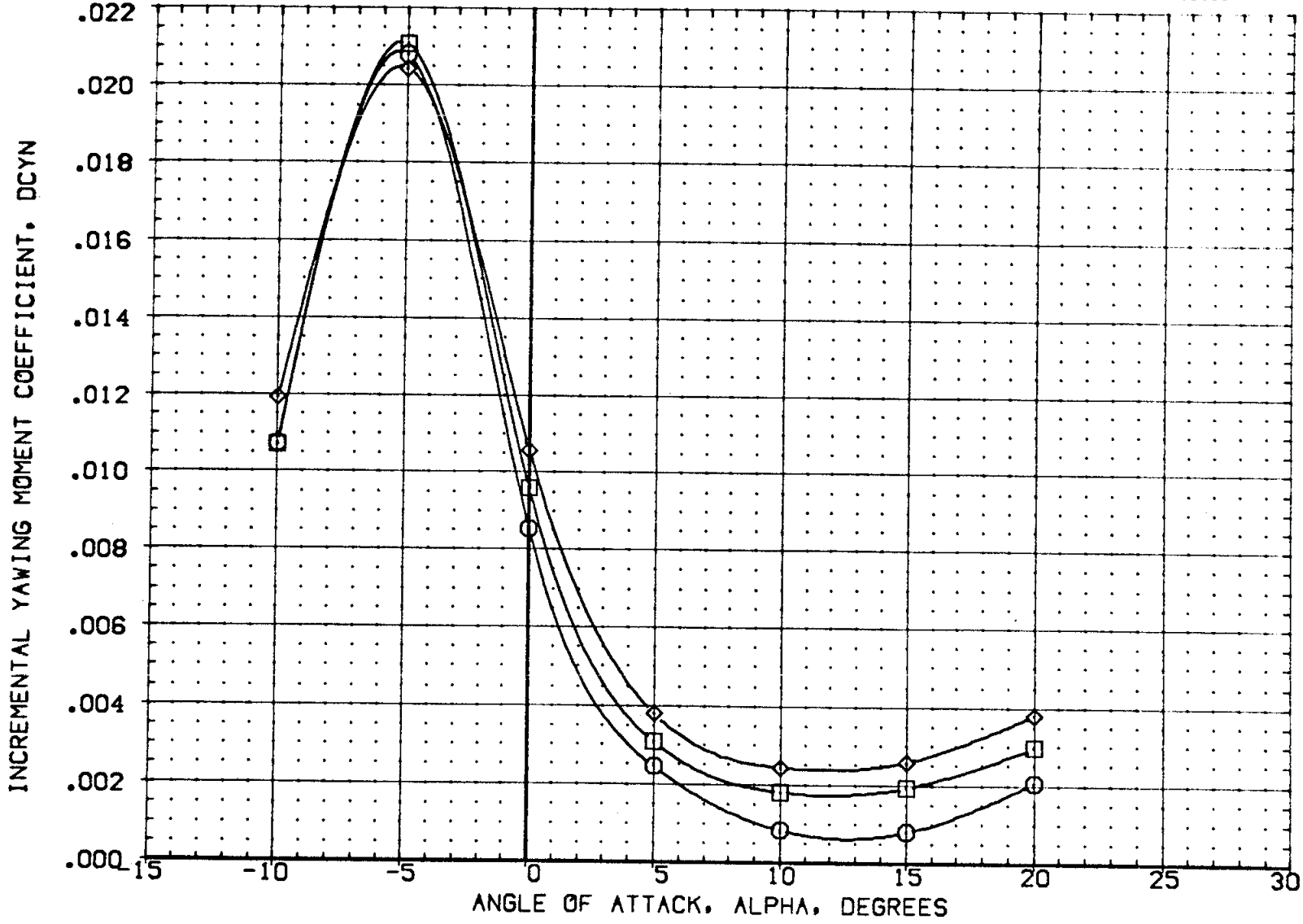


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

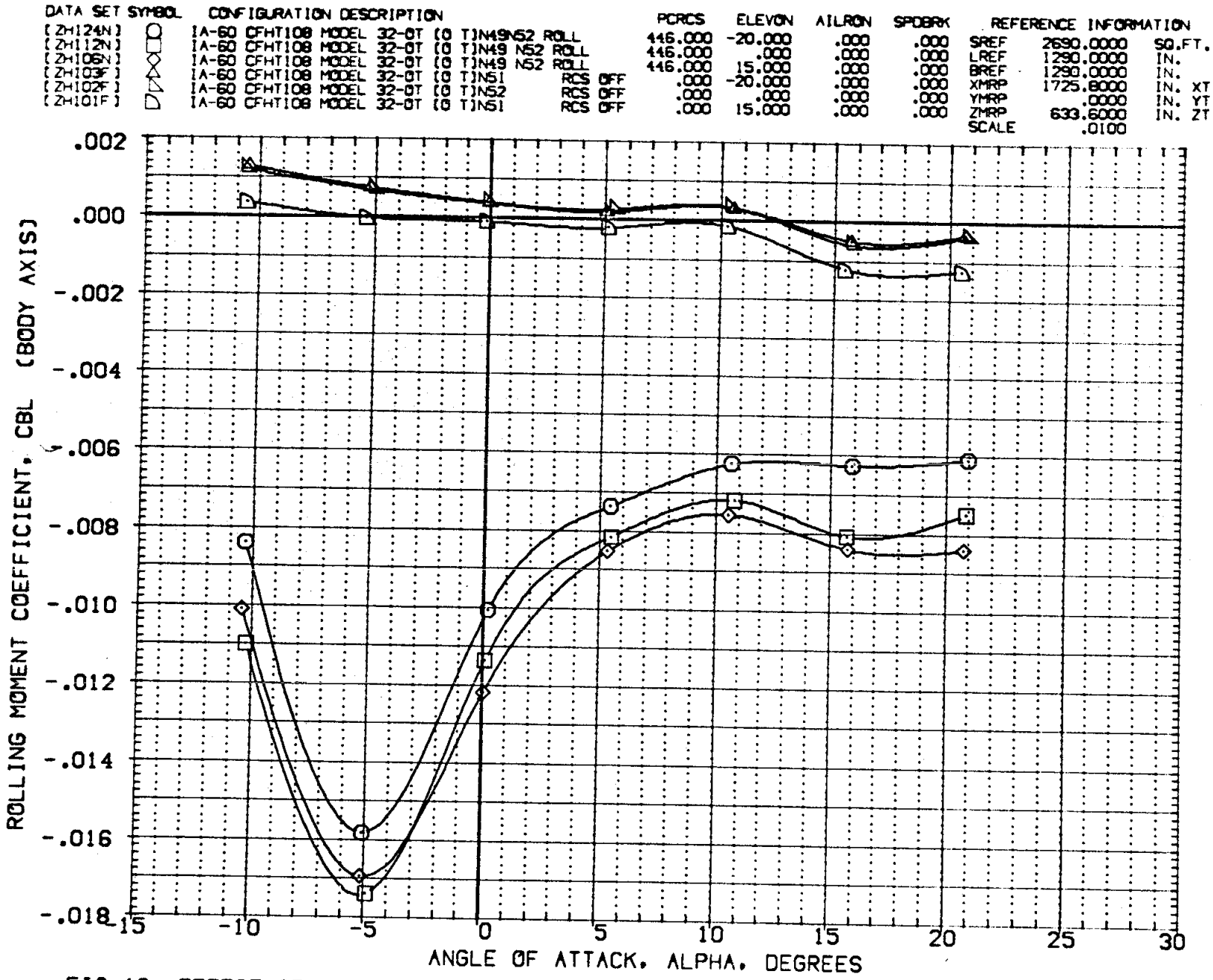


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(ZH124N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL		446.000	-20.000	.000	.000
(ZH112N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL		446.000	.000	.000	.000
(ZH106N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL		446.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	-20.000	.000	.000
(ZH102F)	▽	IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH101F)	◁	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

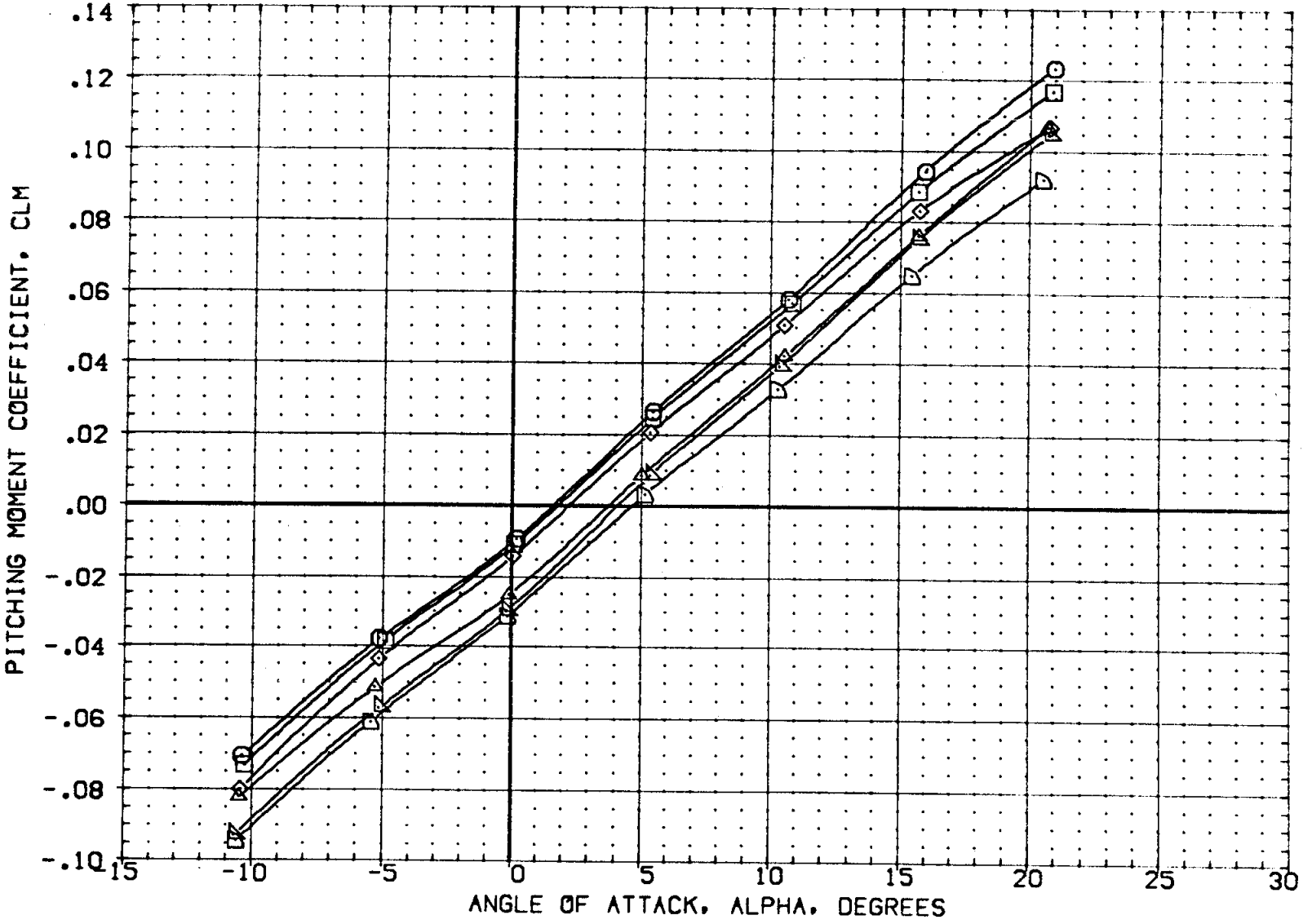


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

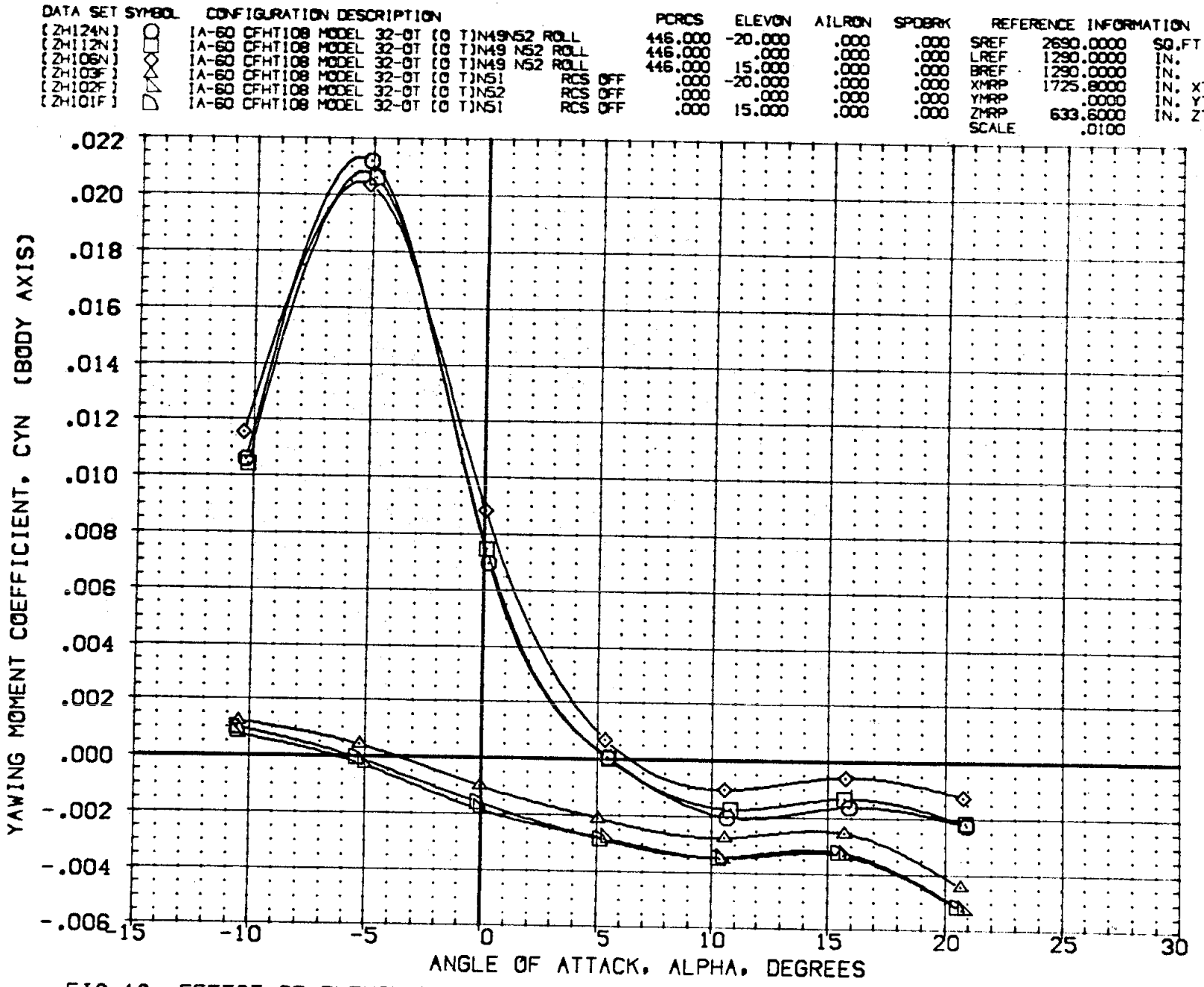


FIG 12 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

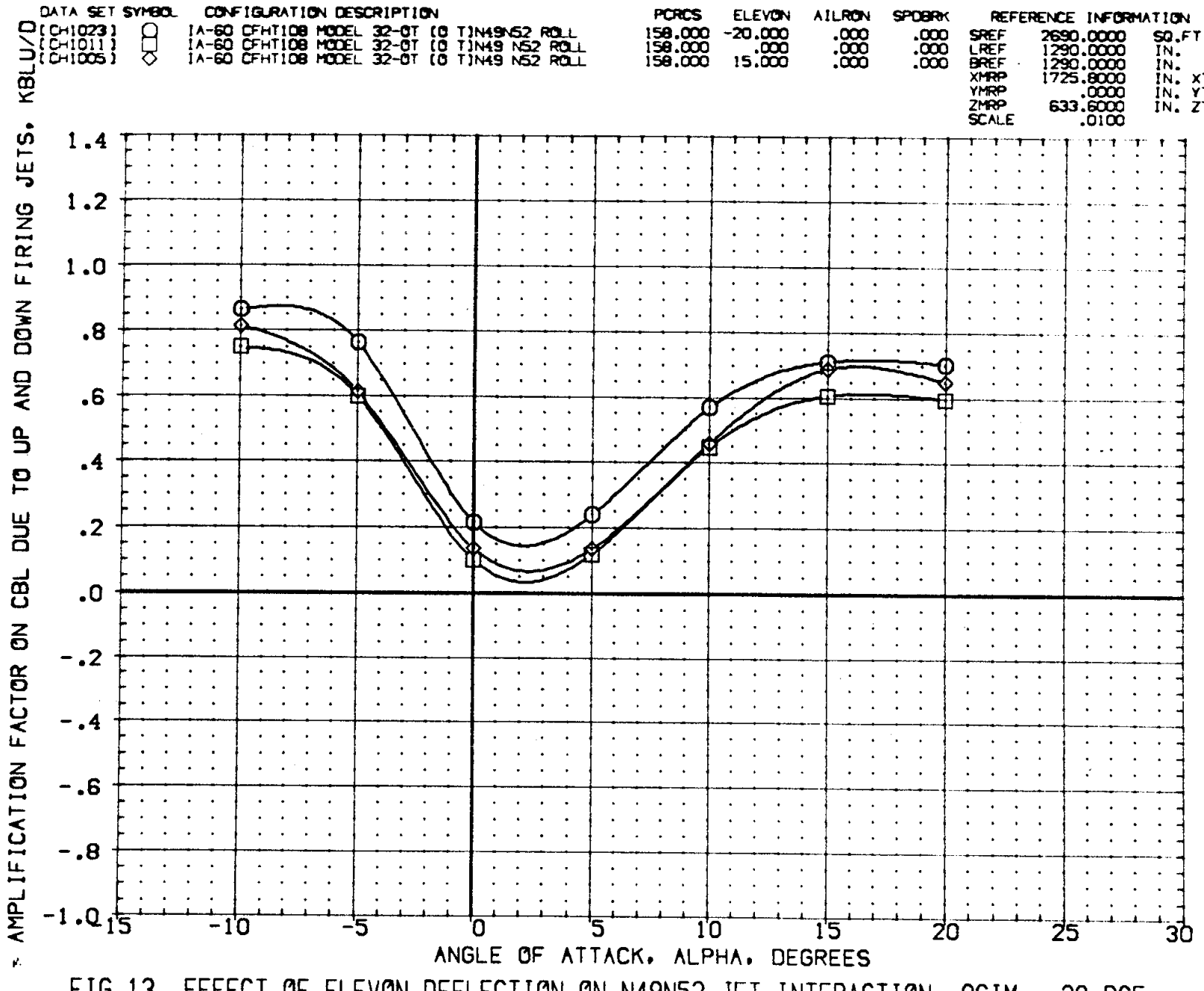


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

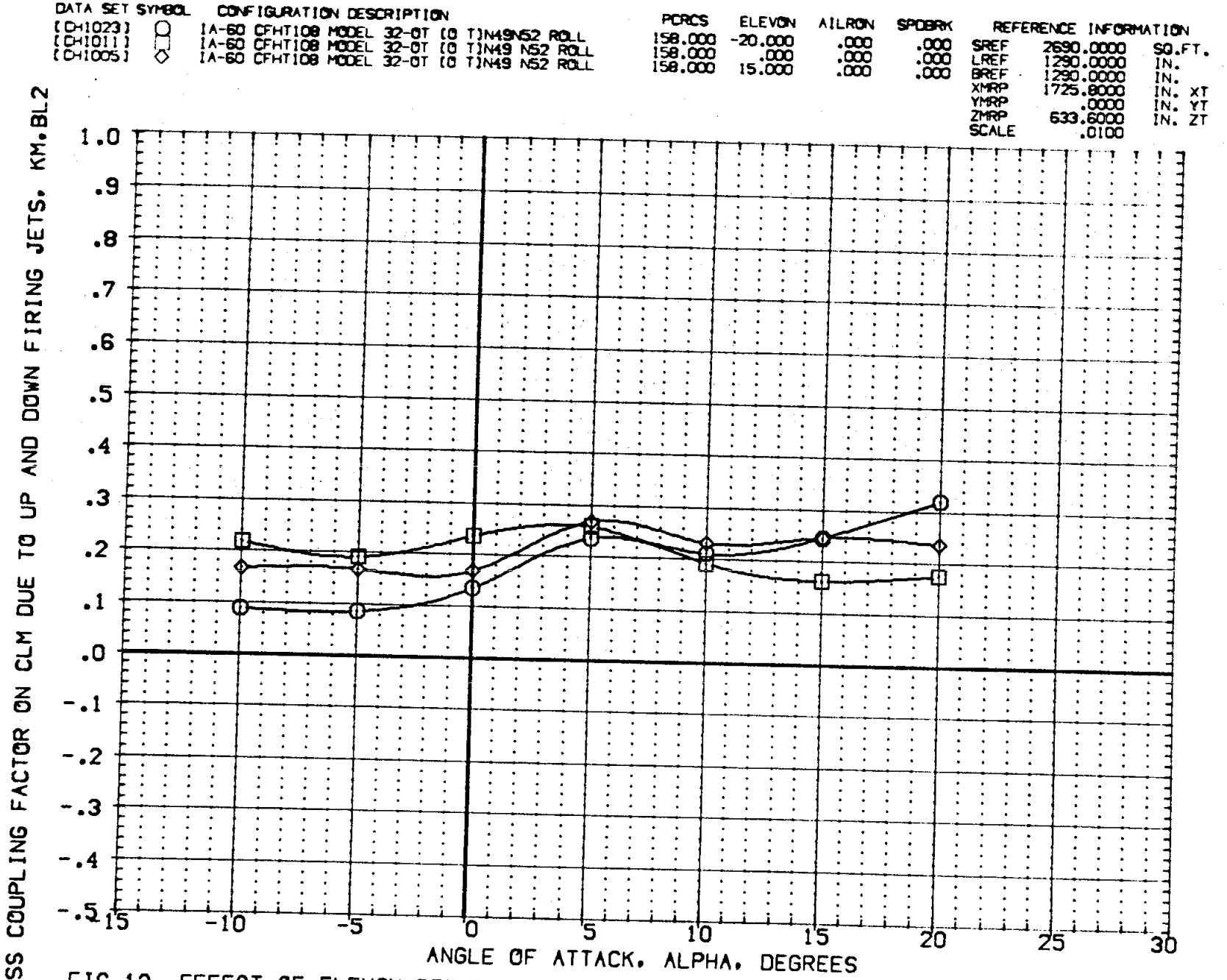


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION. QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1023)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	150.000	-20.000	.000	.000
(CH1011)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	150.000	.000	.000	.000
(CH1005)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	150.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

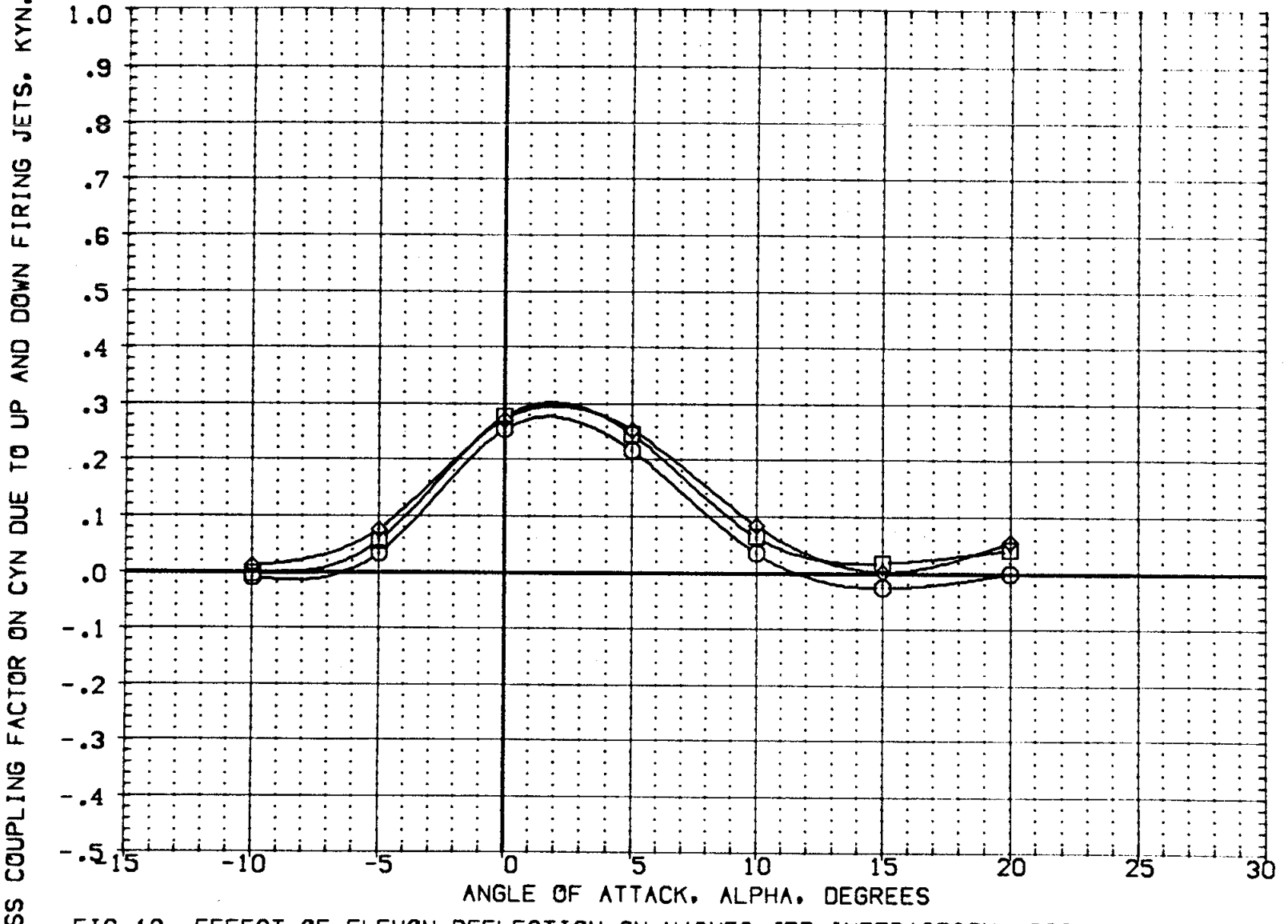


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION. QSIM = 20 PSF

(A)MACH = 10.33

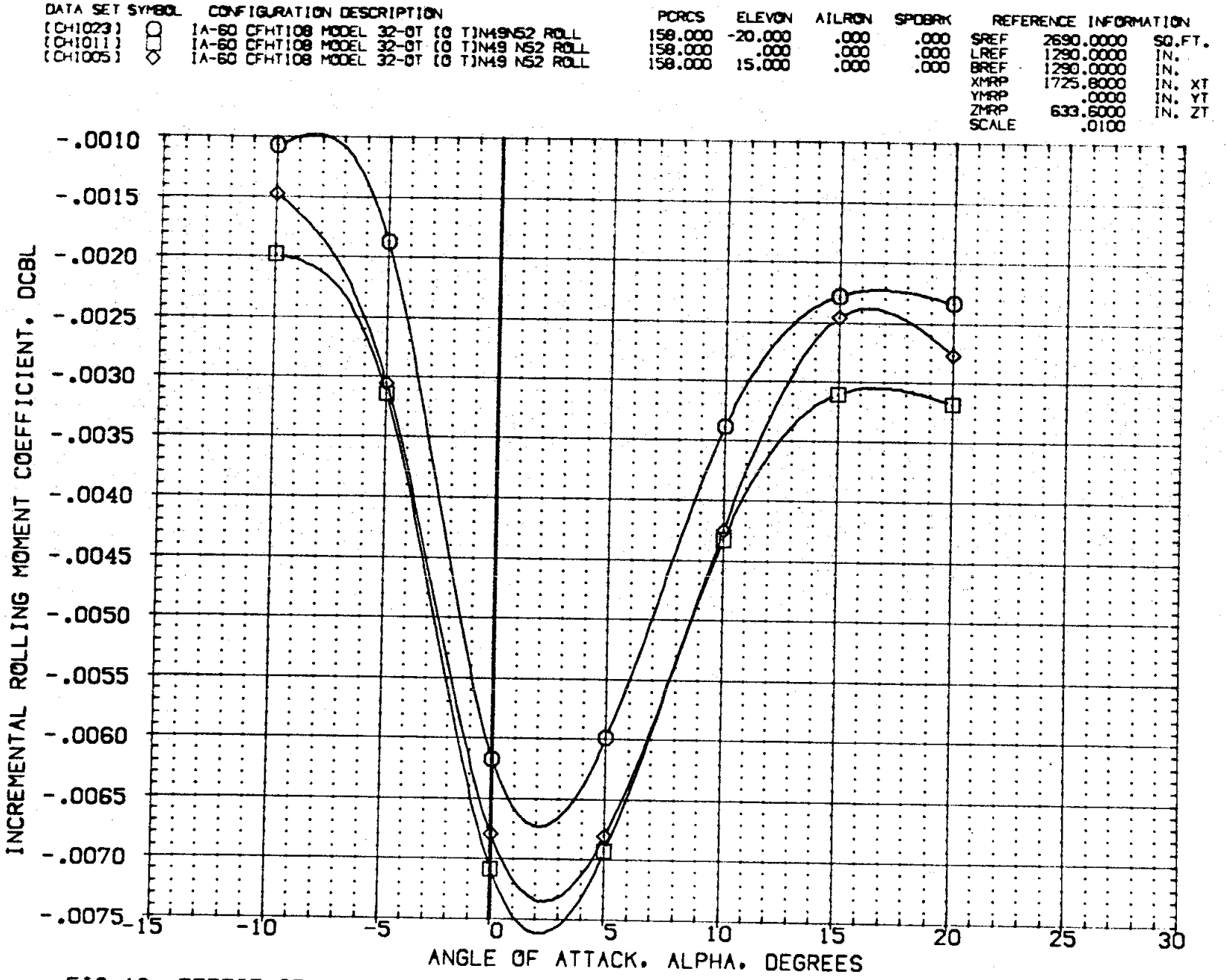


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1023]	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	-20.000	.000	.000
[CH1011]	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	.000	.000	.000
[CH1005]	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

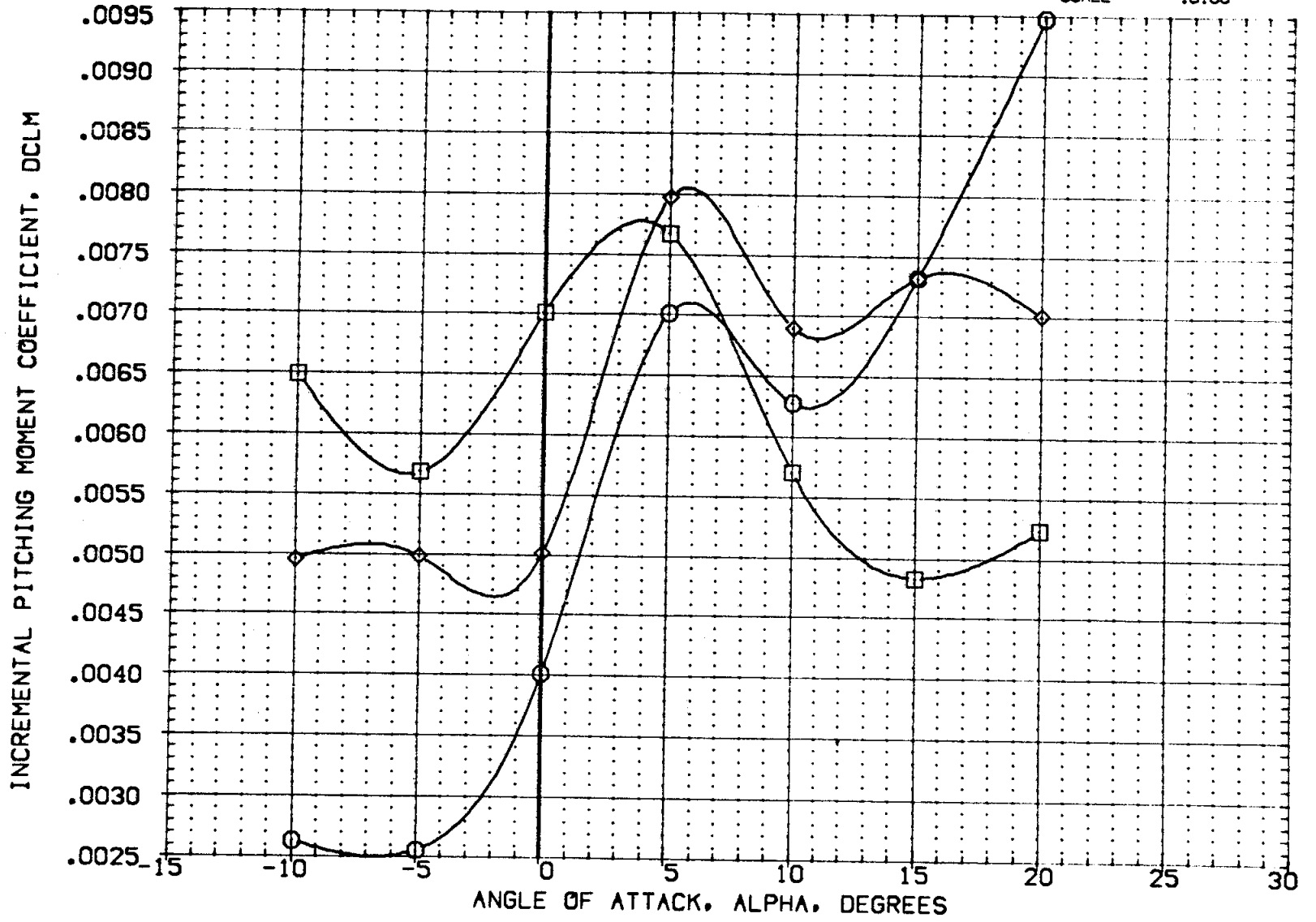


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1023)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	-20.000	.000	.000
(CH1011)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	.000	.000	.000
(CH1005)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

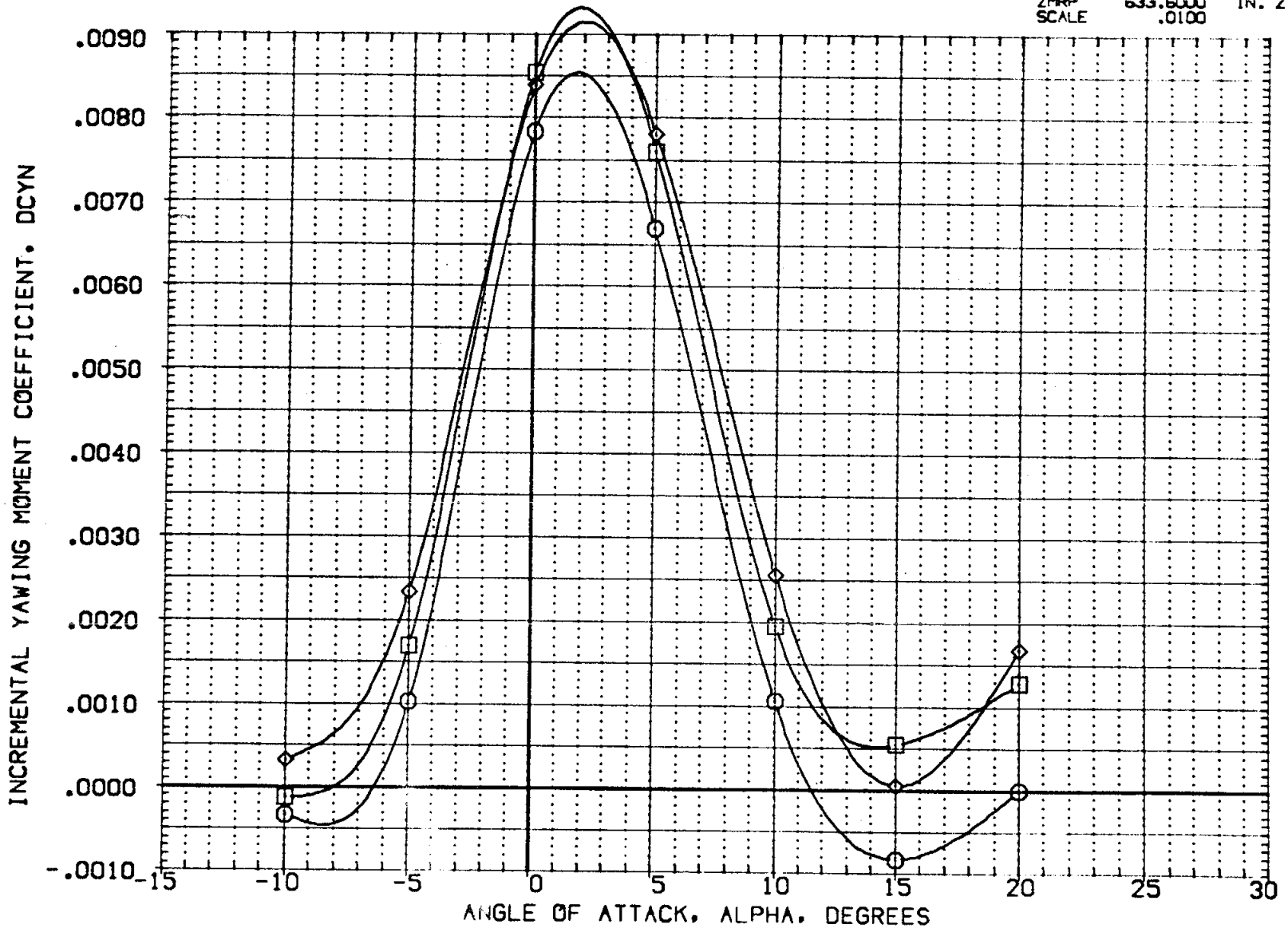


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

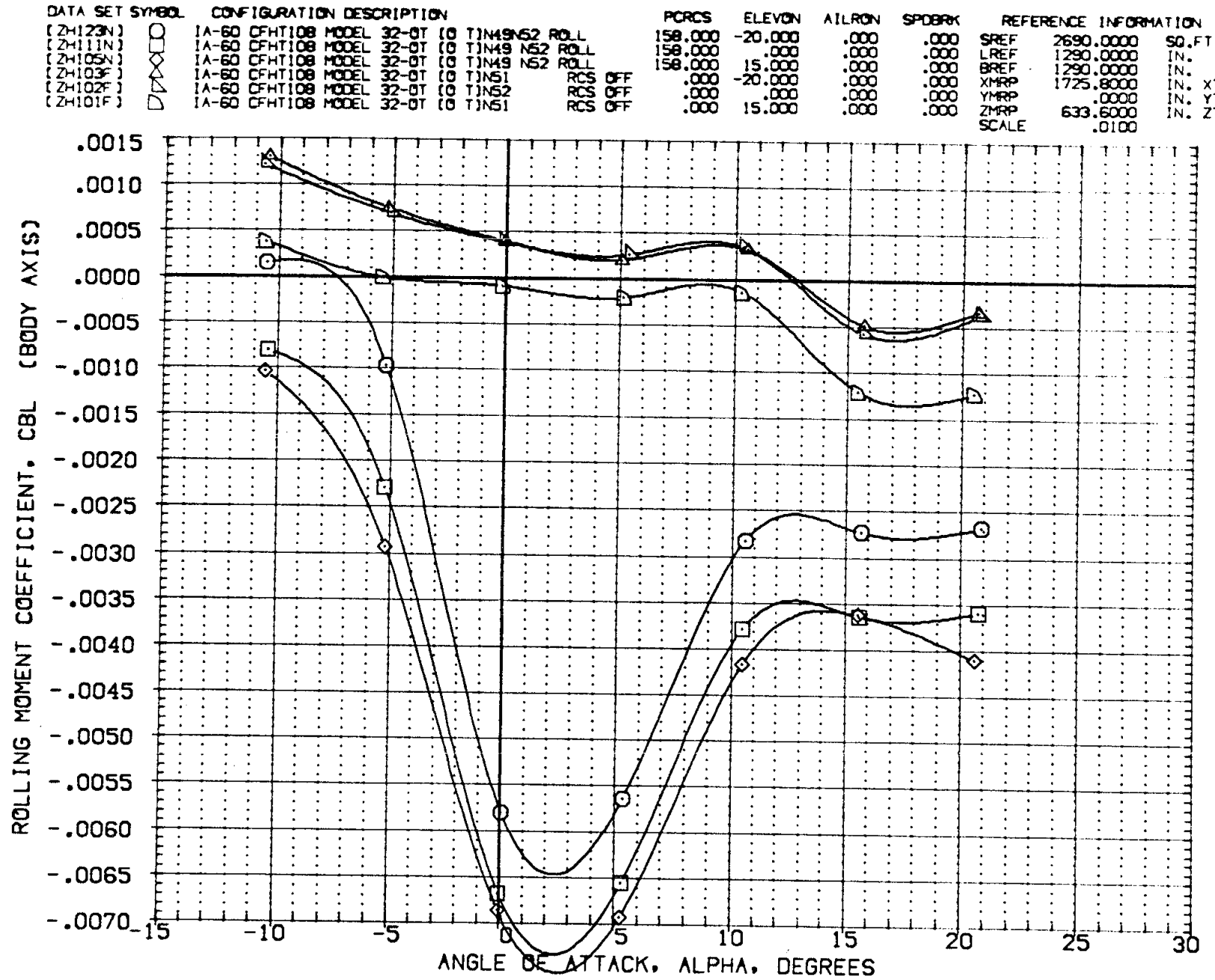


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

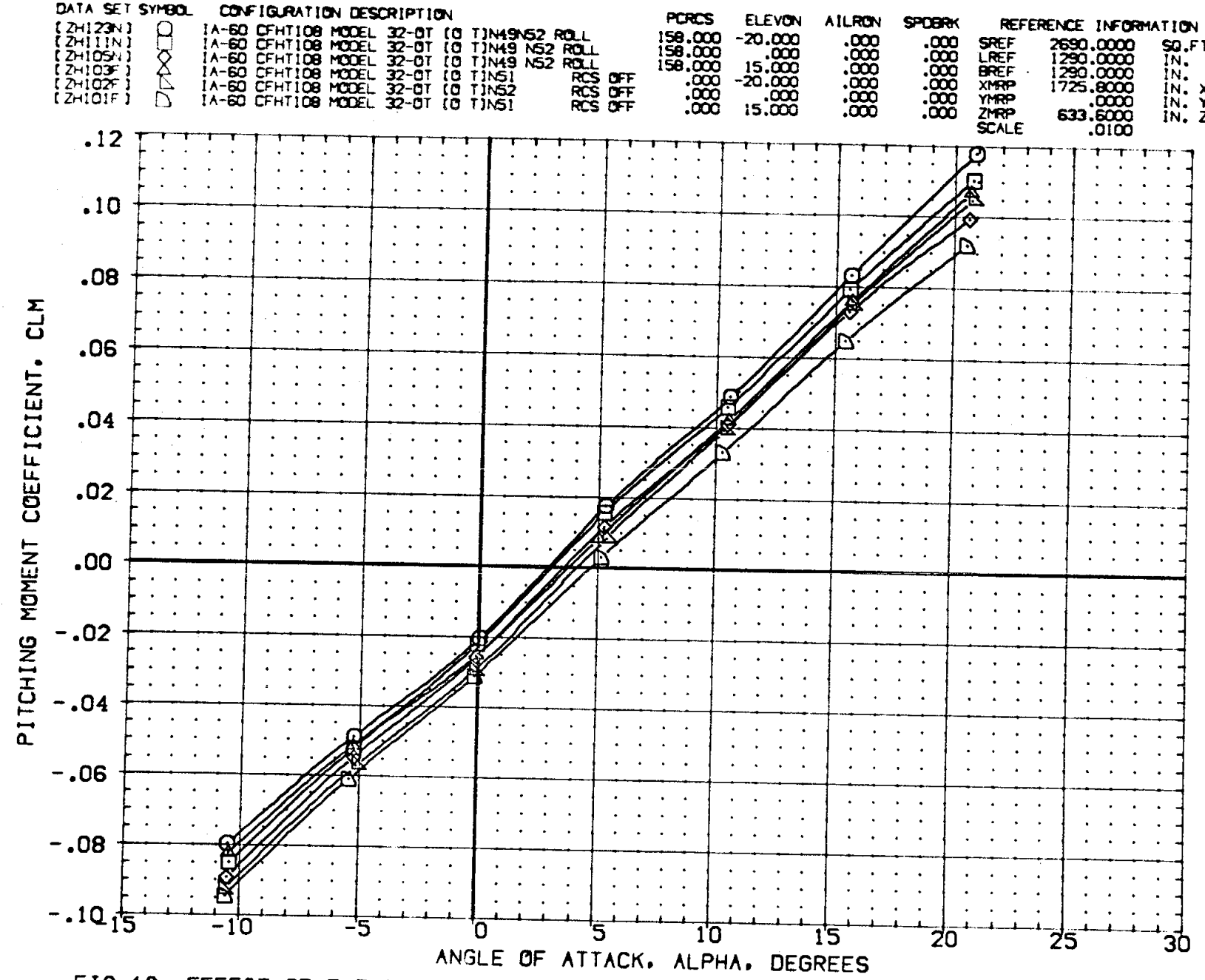


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

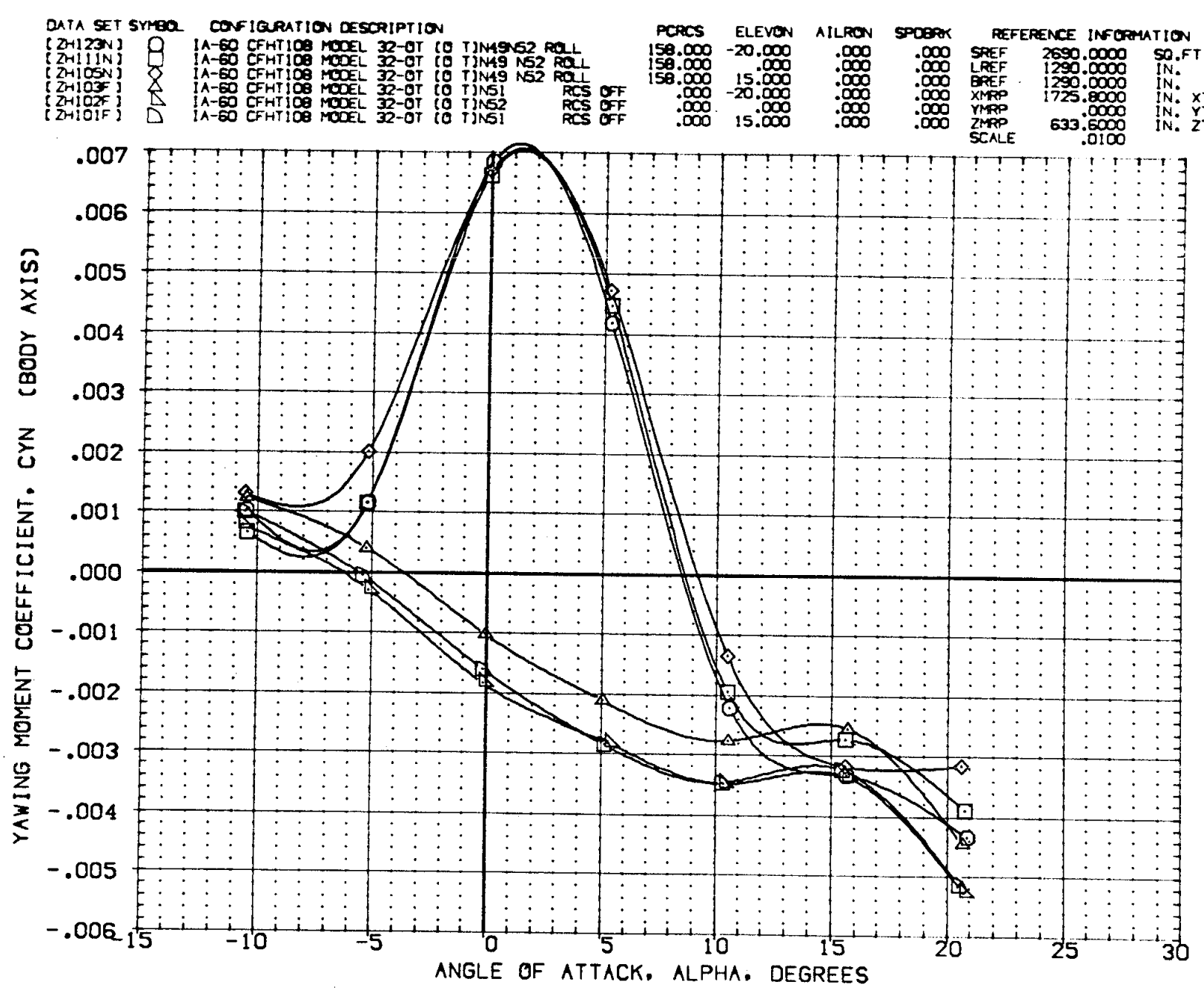


FIG 13 EFFECT OF ELEVON DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

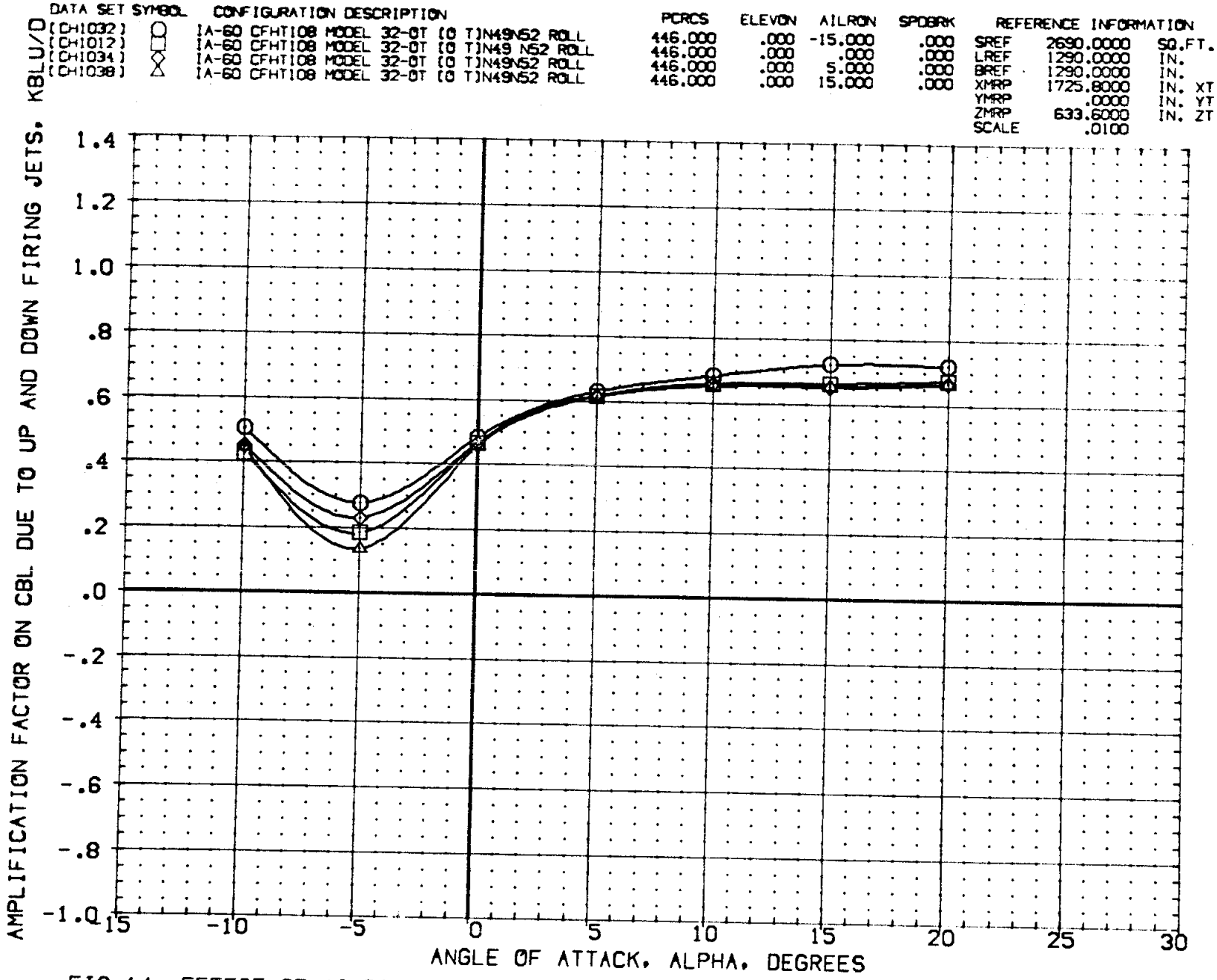


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1032]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	-15.000	.000
[CH1012]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	446.000	.000	.000	.000
[CH1034]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	5.000	.000
[CH1038]	△	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

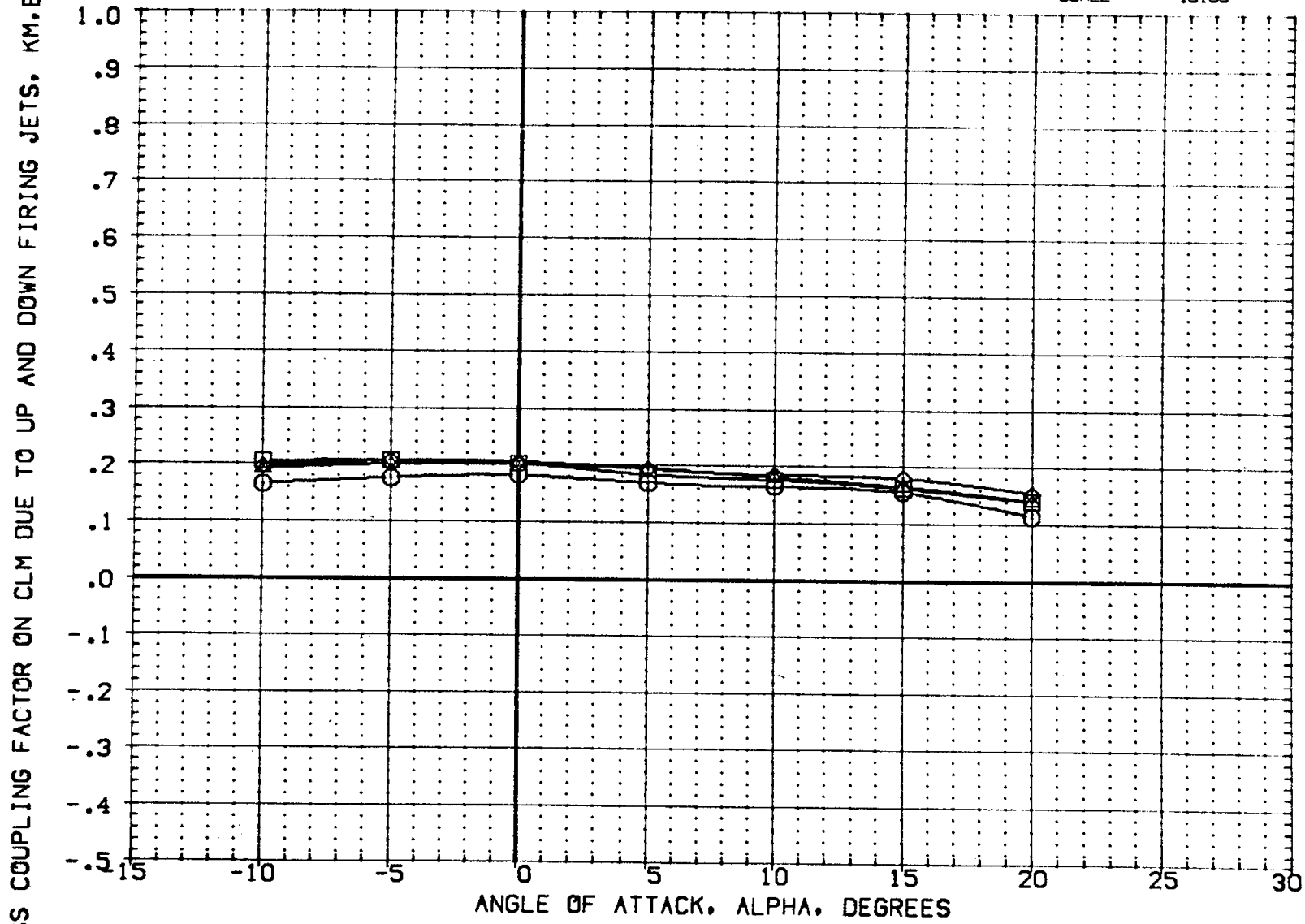


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

[A]MACH = 10.33

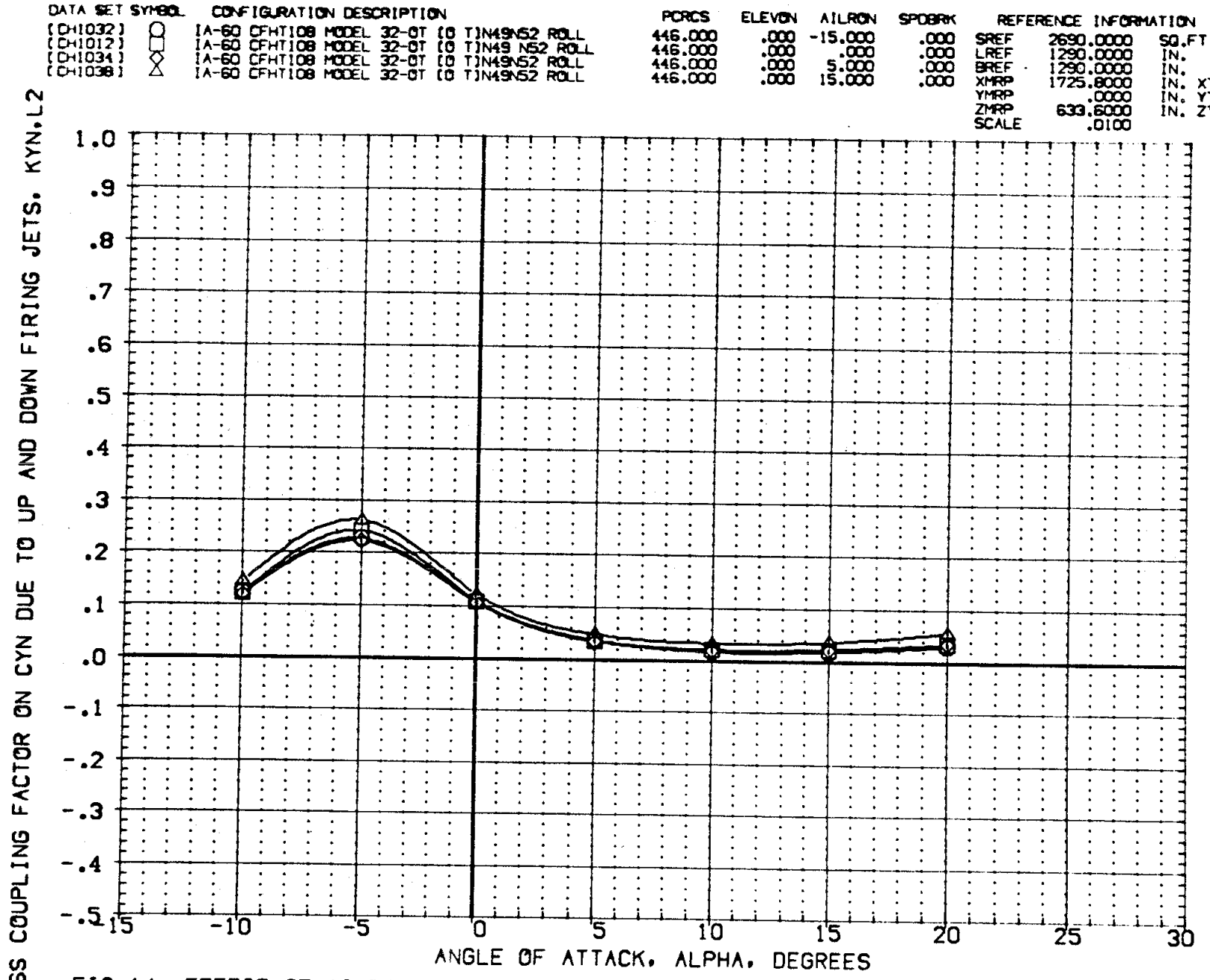


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.30

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1032)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	-15.000	.000
(CH1012)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(CH1034)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	5.000	.000
(CH1038)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

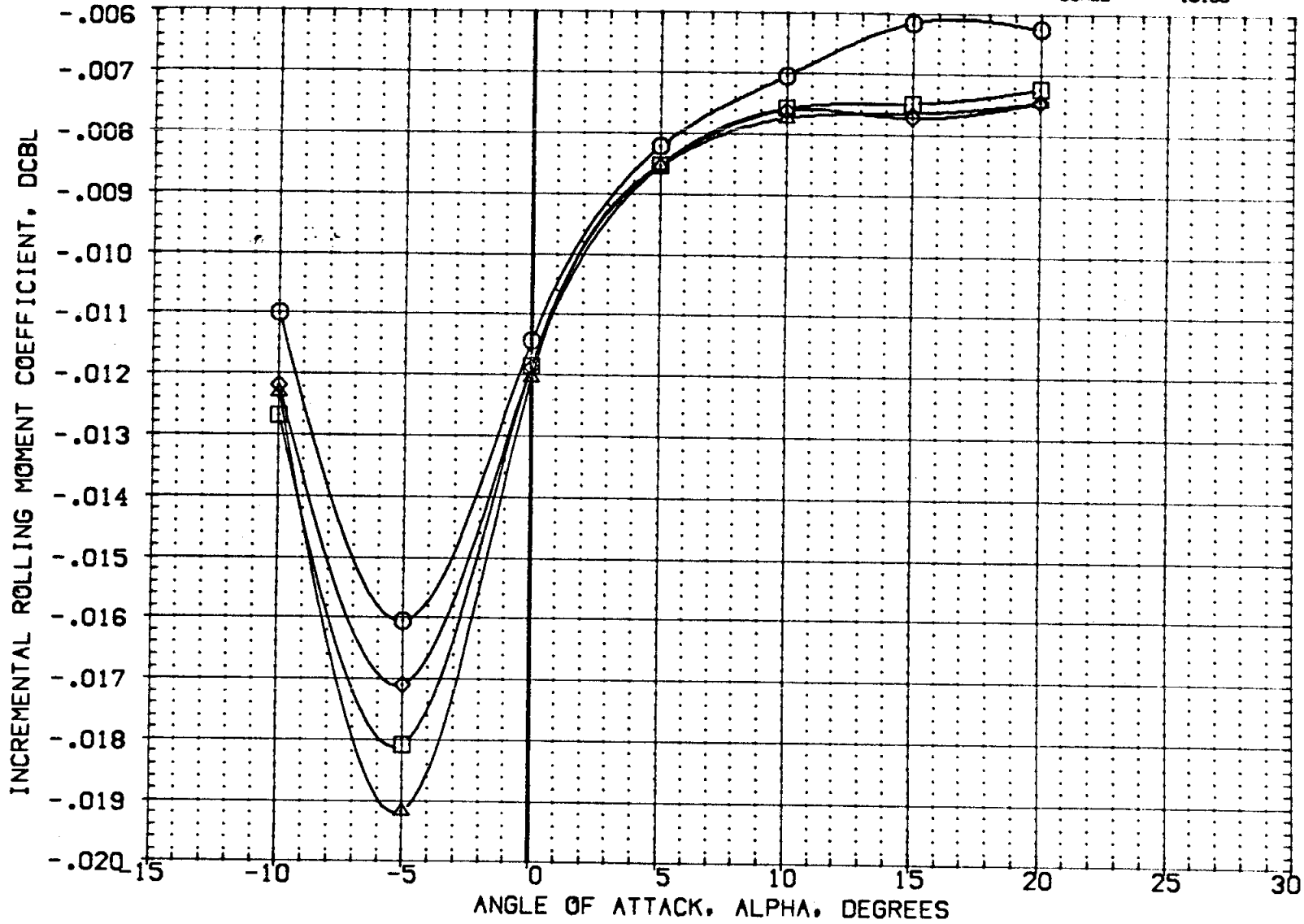


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1032]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	-15.000	.000
[CH1012]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	446.000	.000	.000	.000
[CH1034]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	5.000	.000
[CH1038]	△	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

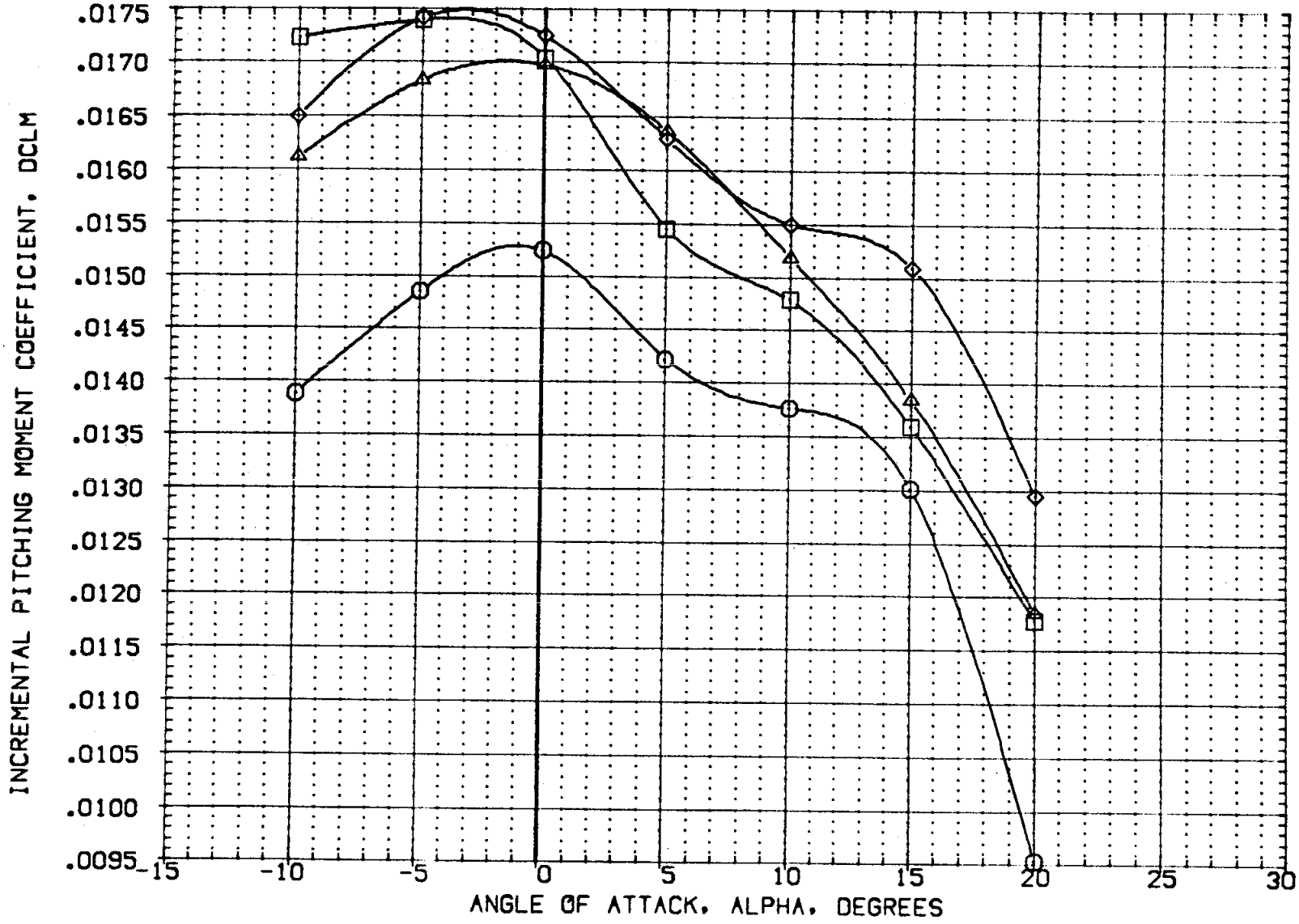


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1032)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	-15.000	.000
(CH1012)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(CH1034)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	5.000	.000
(CH1038)	△	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.0000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

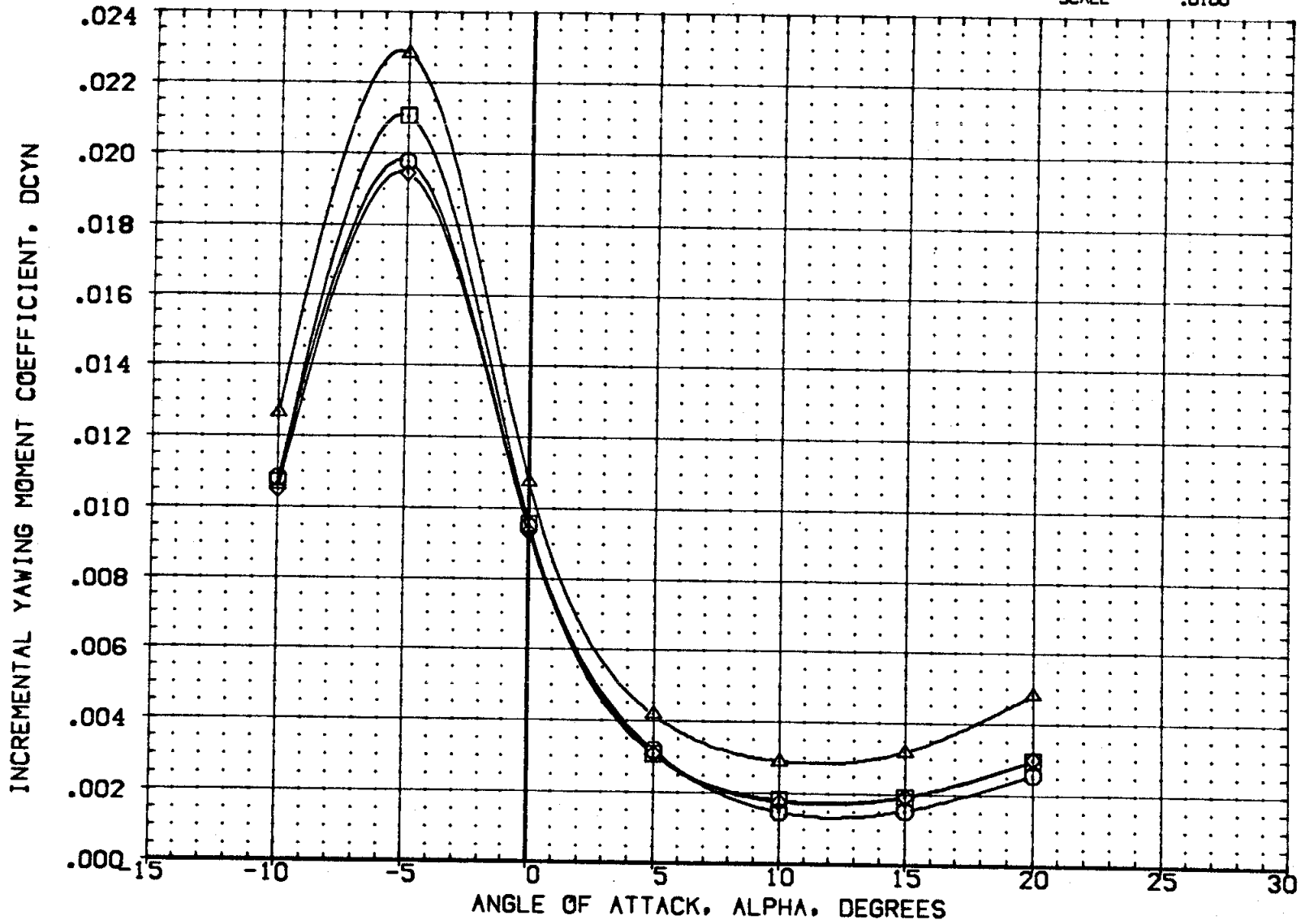


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH132N)	□	IA-60 CFHTI08 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	-15.000	.000
(ZH112N)	◇	IA-60 CFHTI08 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(ZH105F)	◇	IA-60 CFHTI08 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	-15.000	.000
(ZH102F)	△	IA-60 CFHTI08 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

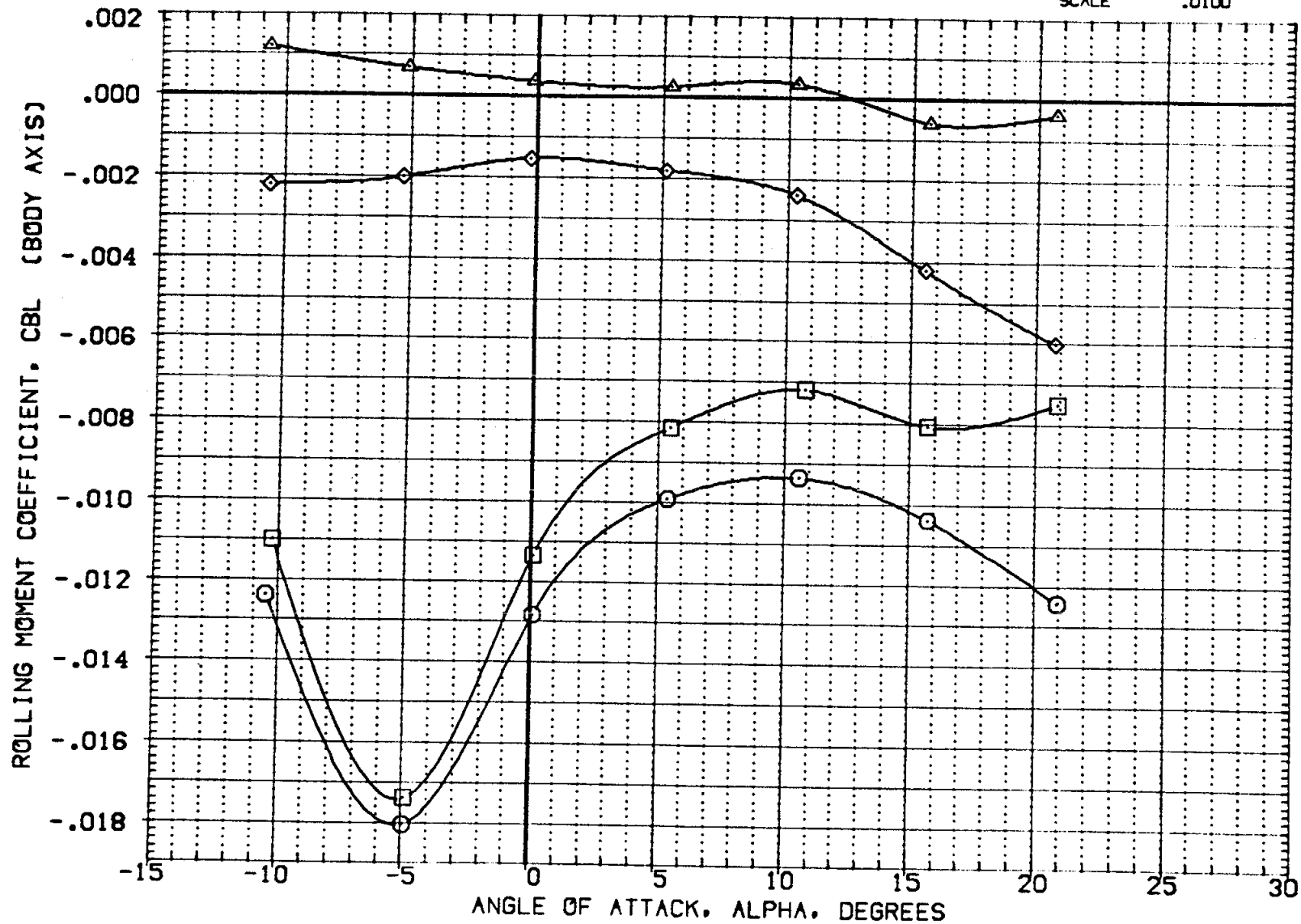


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH132N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	-15.000	.000
(ZH112N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(ZH105F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	-15.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

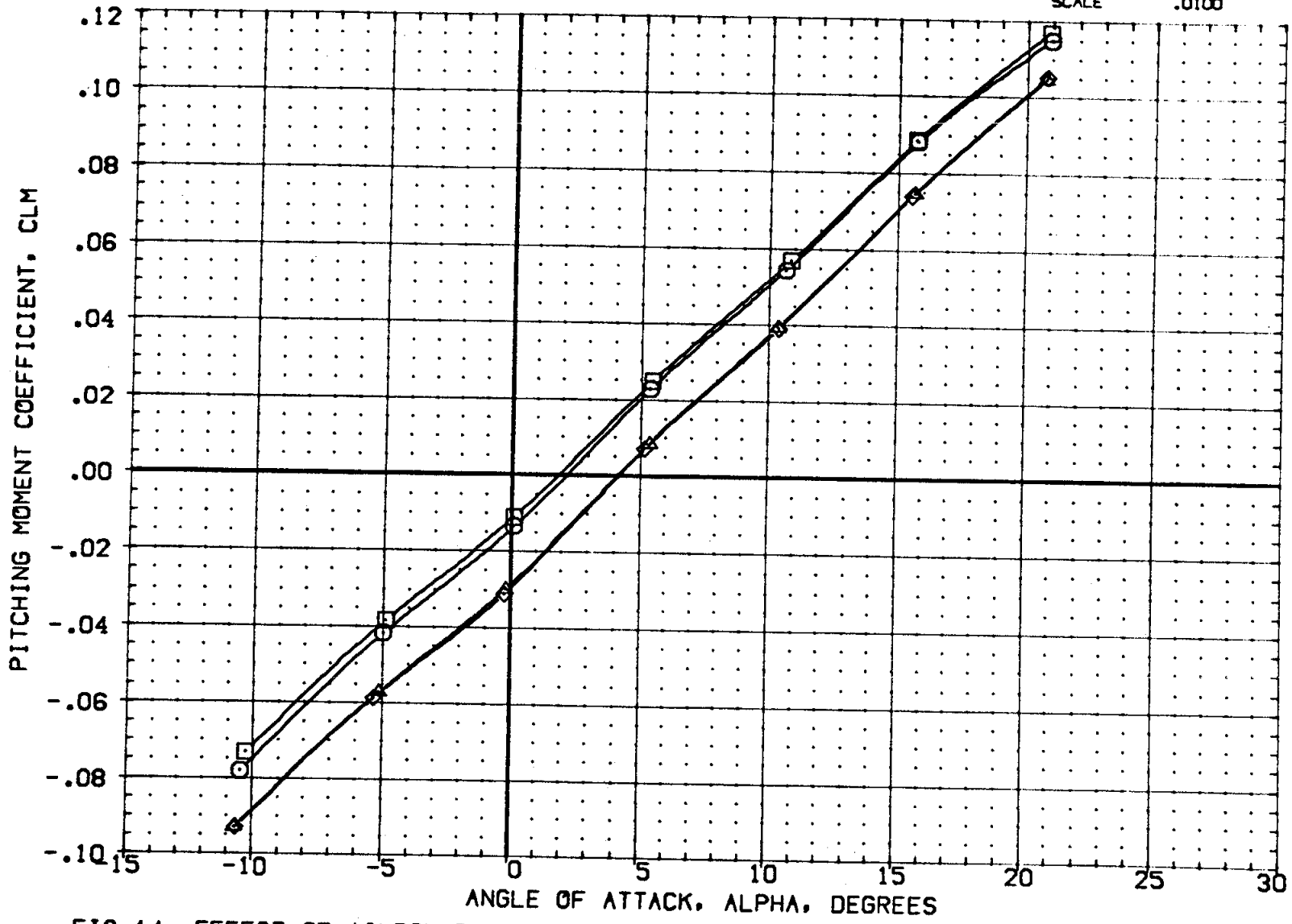


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH132N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	-15.000	.000
(ZH112N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(ZH105F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	-15.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

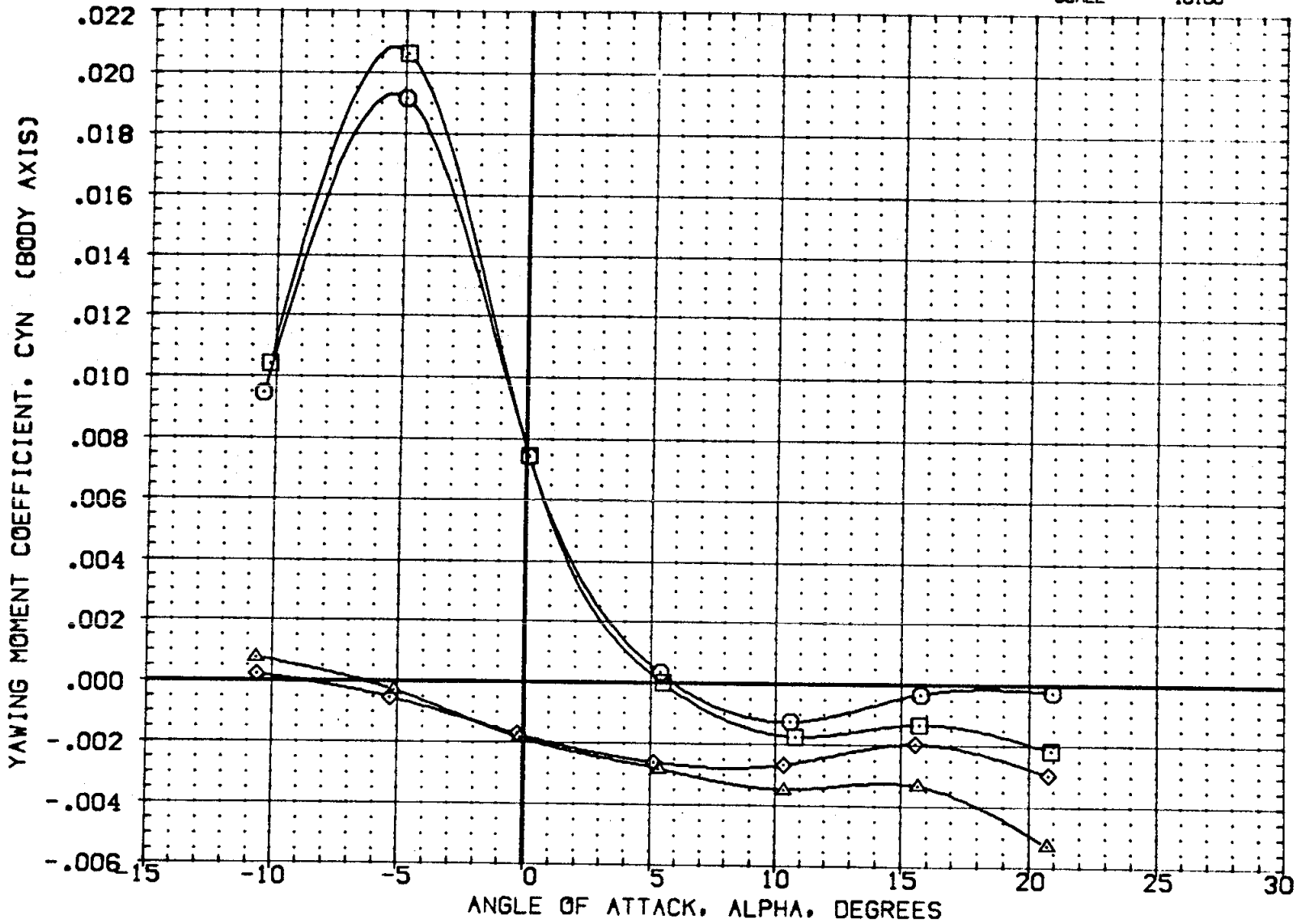


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH134N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	5.000	.000
(ZH138N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	15.000	.000
(ZH106F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	5.000	.000
(ZH104F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

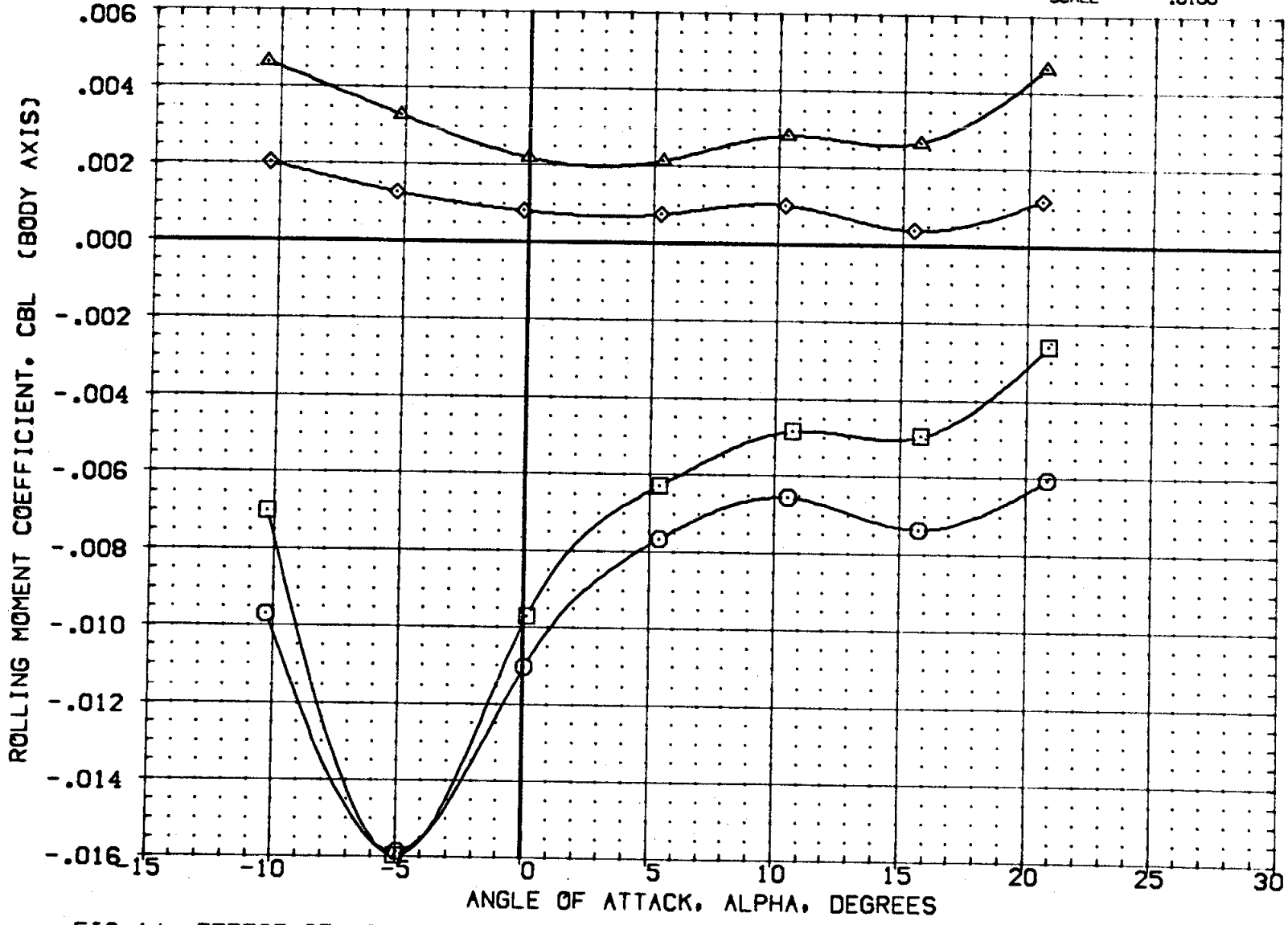


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH134N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	5.000	.000
(ZH138N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	15.000	.000
(ZH106F)	⊠	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	5.000	.000
(ZH104F)	⧖	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

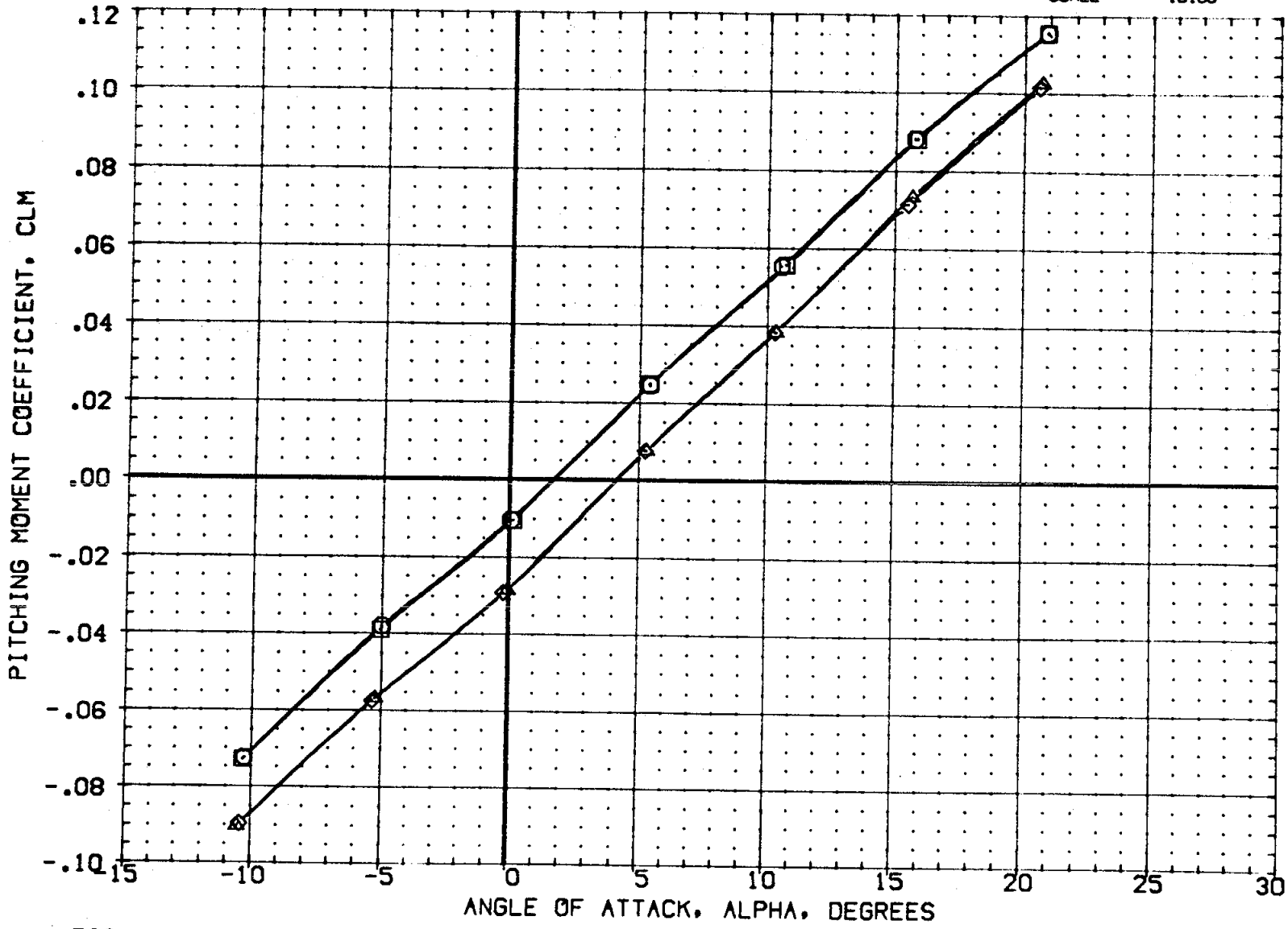


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[ZH134N]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	5.000	.000
[ZH138N]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	15.000	.000
[ZH106F]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 RCS OFF	.000	.000	5.000	.000
[ZH104F]	△	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

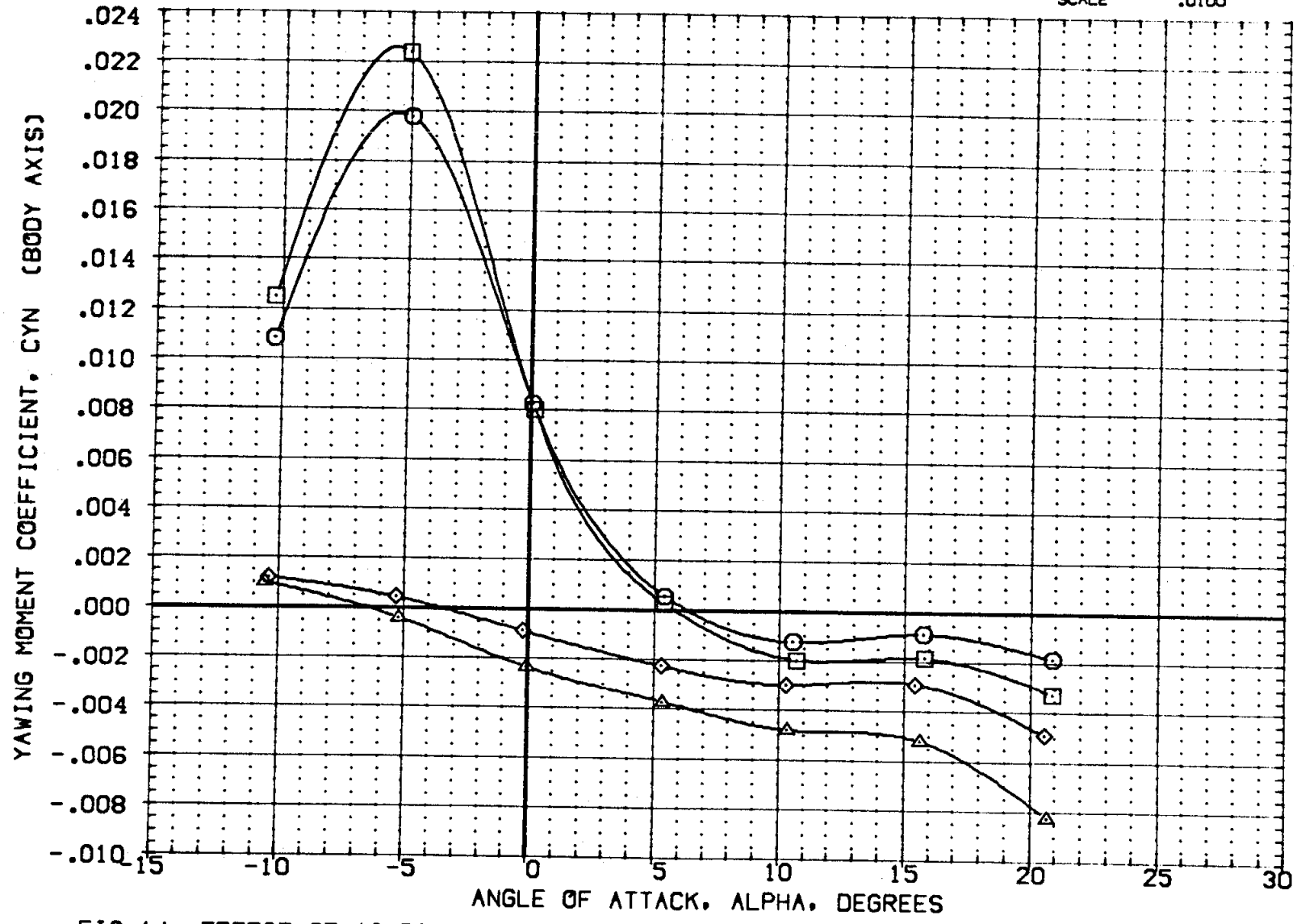


FIG 14 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 7 PSF

(A)MACH = 10.33

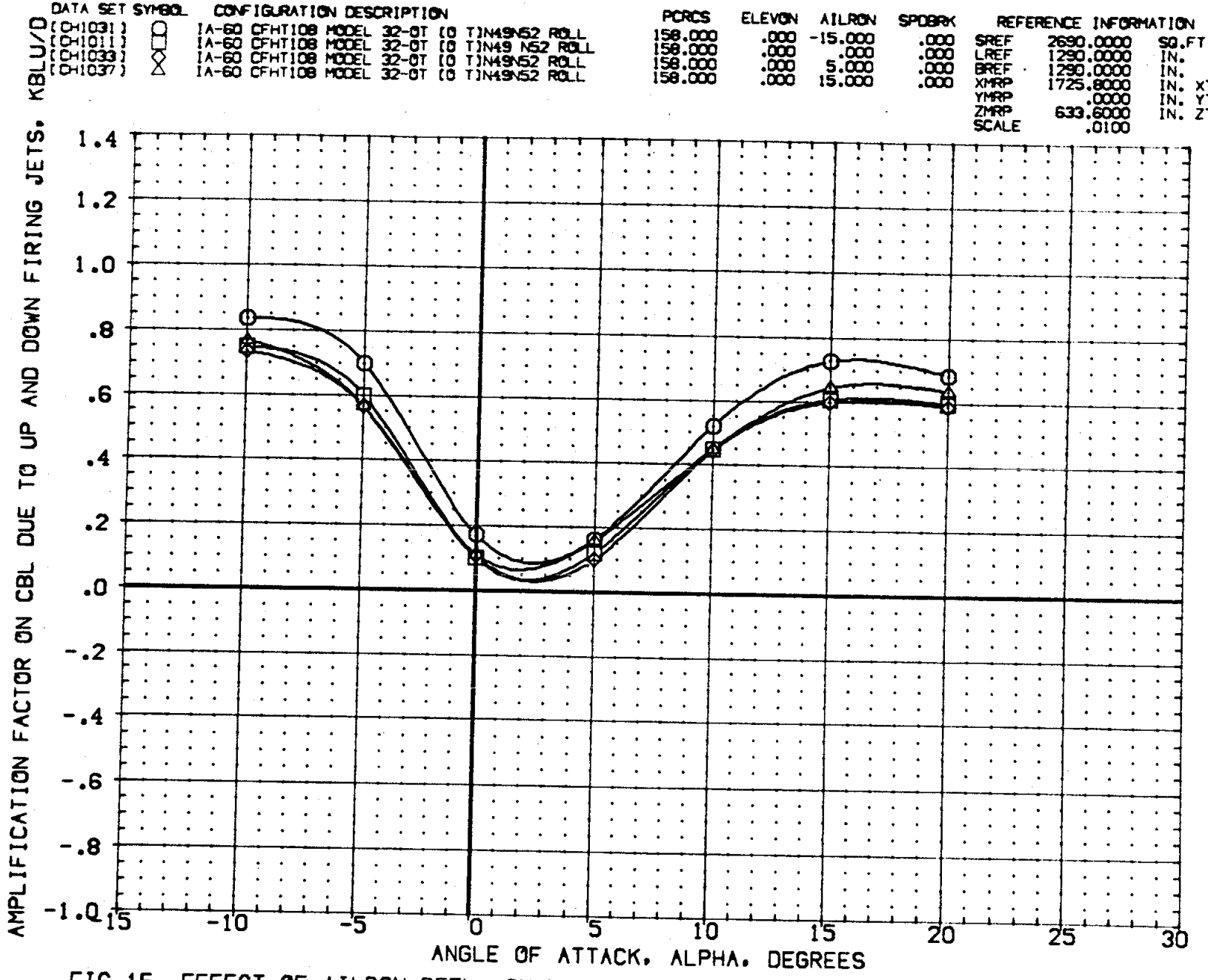


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1031]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	.000	-15.000	.000
[CH1011]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	158.000	.000	.000	.000
[CH1033]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	.000	5.000	.000
[CH1037]	△	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

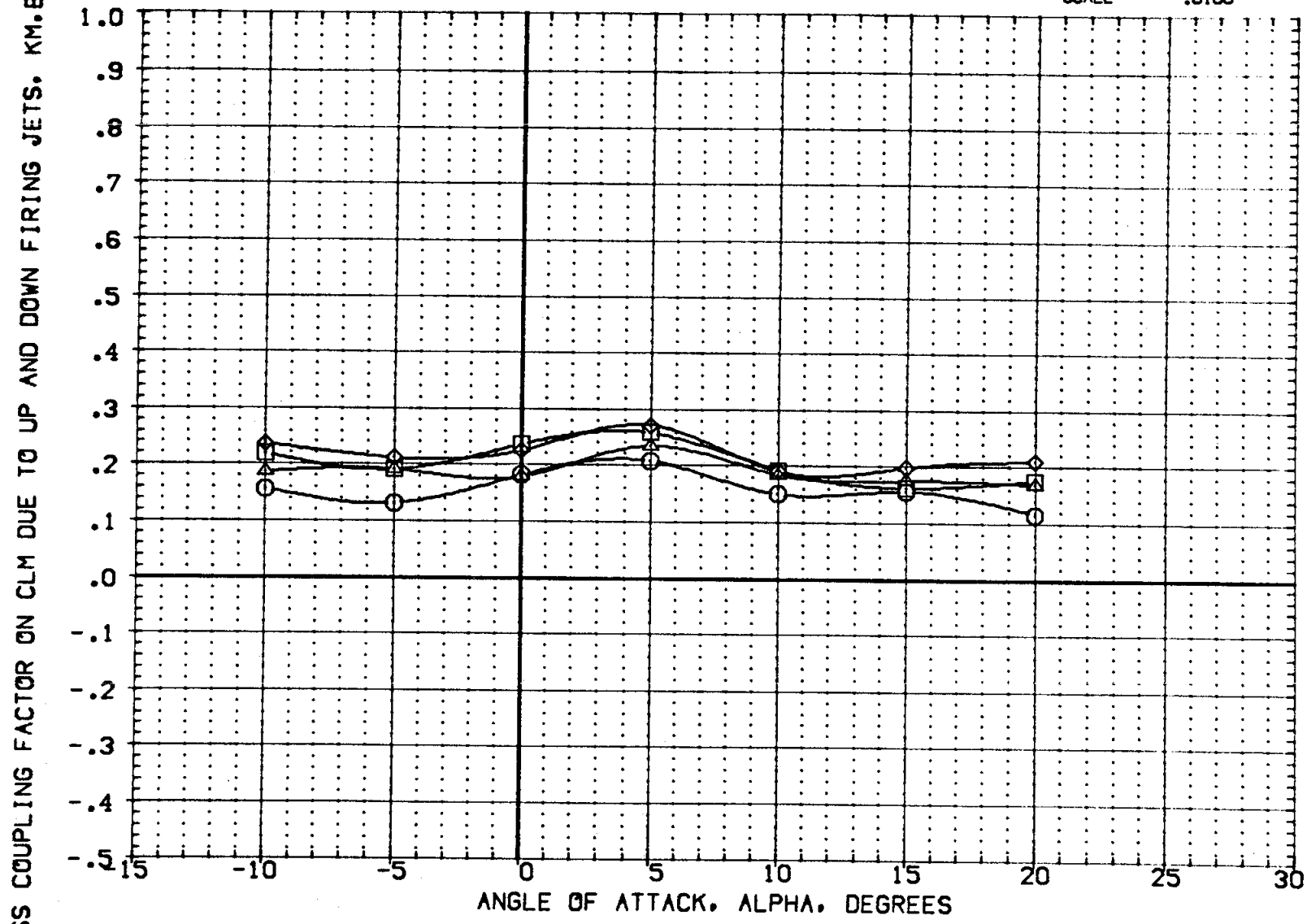


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

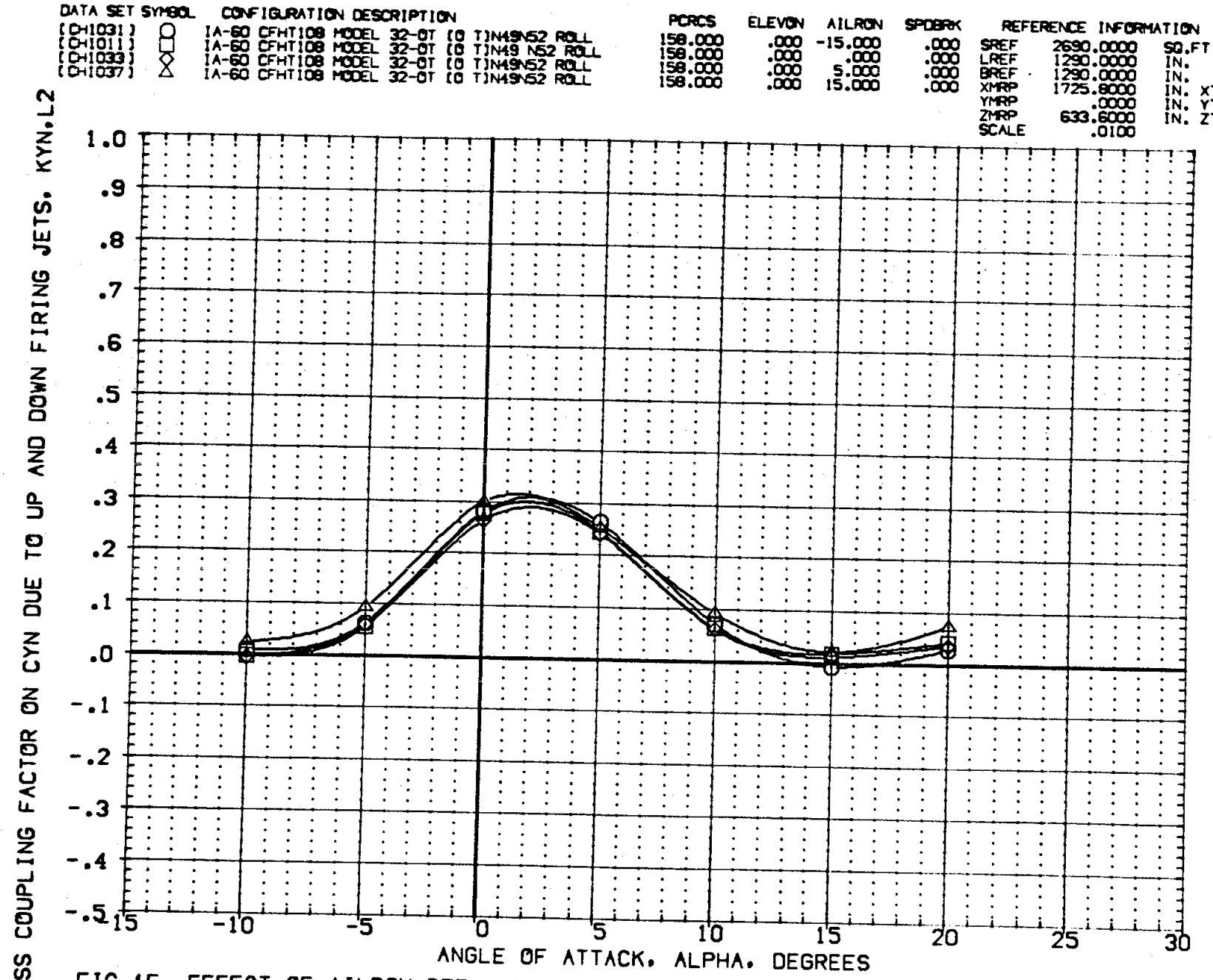


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION,ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1031)	○	IA-60 CFHT108 MODEL 32-0T (0 TJN49N52 ROLL	150.000	.000	-15.000	.000
(CH1011)	□	IA-60 CFHT108 MODEL 32-0T (0 TJN49 N52 ROLL	150.000	.000	.000	.000
(CH1033)	◇	IA-60 CFHT108 MODEL 32-0T (0 TJN49N52 ROLL	150.000	.000	5.000	.000
(CH1037)	△	IA-60 CFHT108 MODEL 32-0T (0 TJN49N52 ROLL	150.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

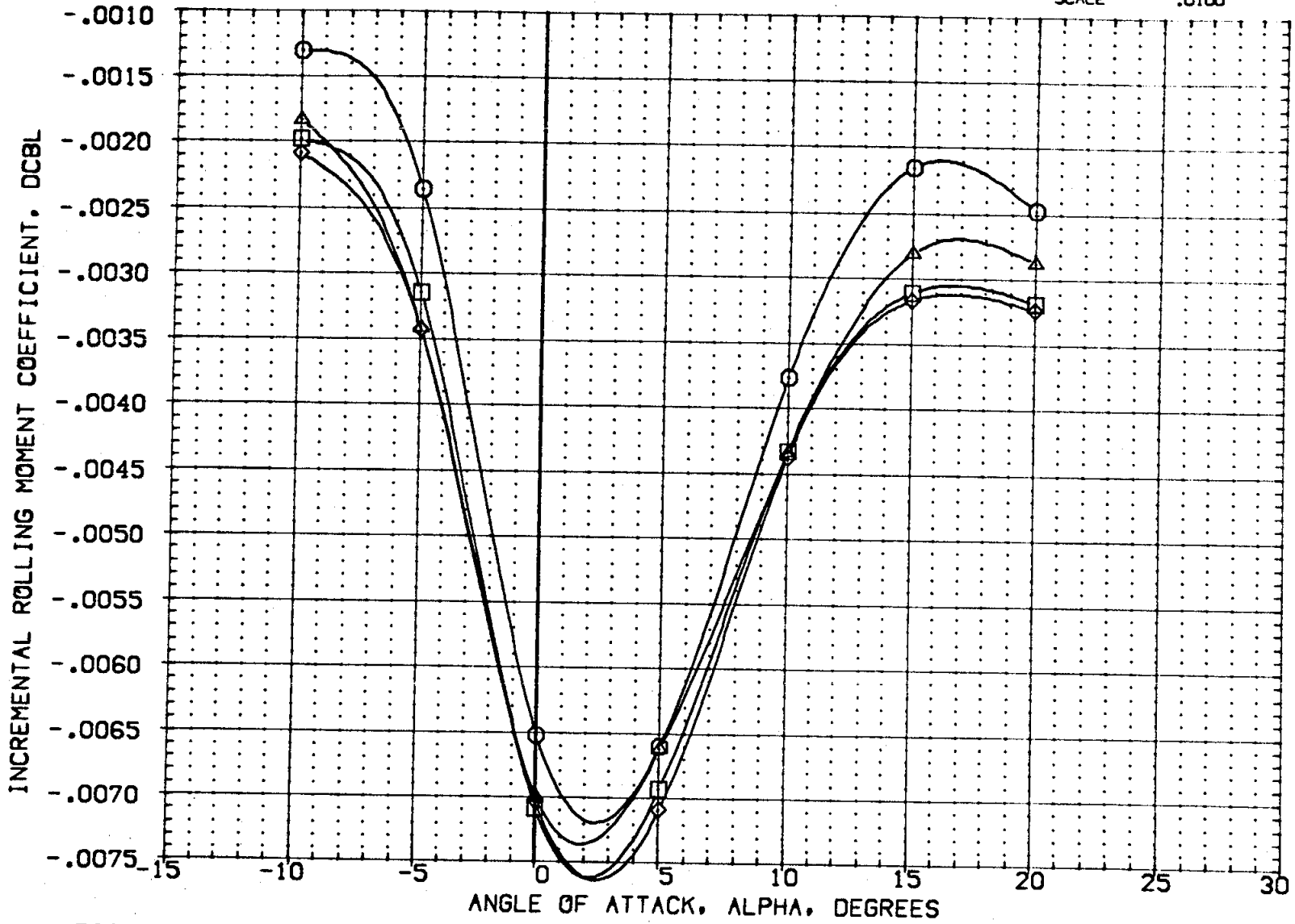


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1031)	○	IA-60 CFHT108 MODEL 32-0T (0 TJN49N52 ROLL	158.000	.000	-15.000	.000
(CH1011)	□	IA-60 CFHT108 MODEL 32-0T (0 TJN49 N52 ROLL	158.000	.000	.000	.000
(CH1033)	◇	IA-60 CFHT108 MODEL 32-0T (0 TJN49N52 ROLL	158.000	.000	5.000	.000
(CH1037)	△	IA-60 CFHT108 MODEL 32-0T (0 TJN49N52 ROLL	158.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

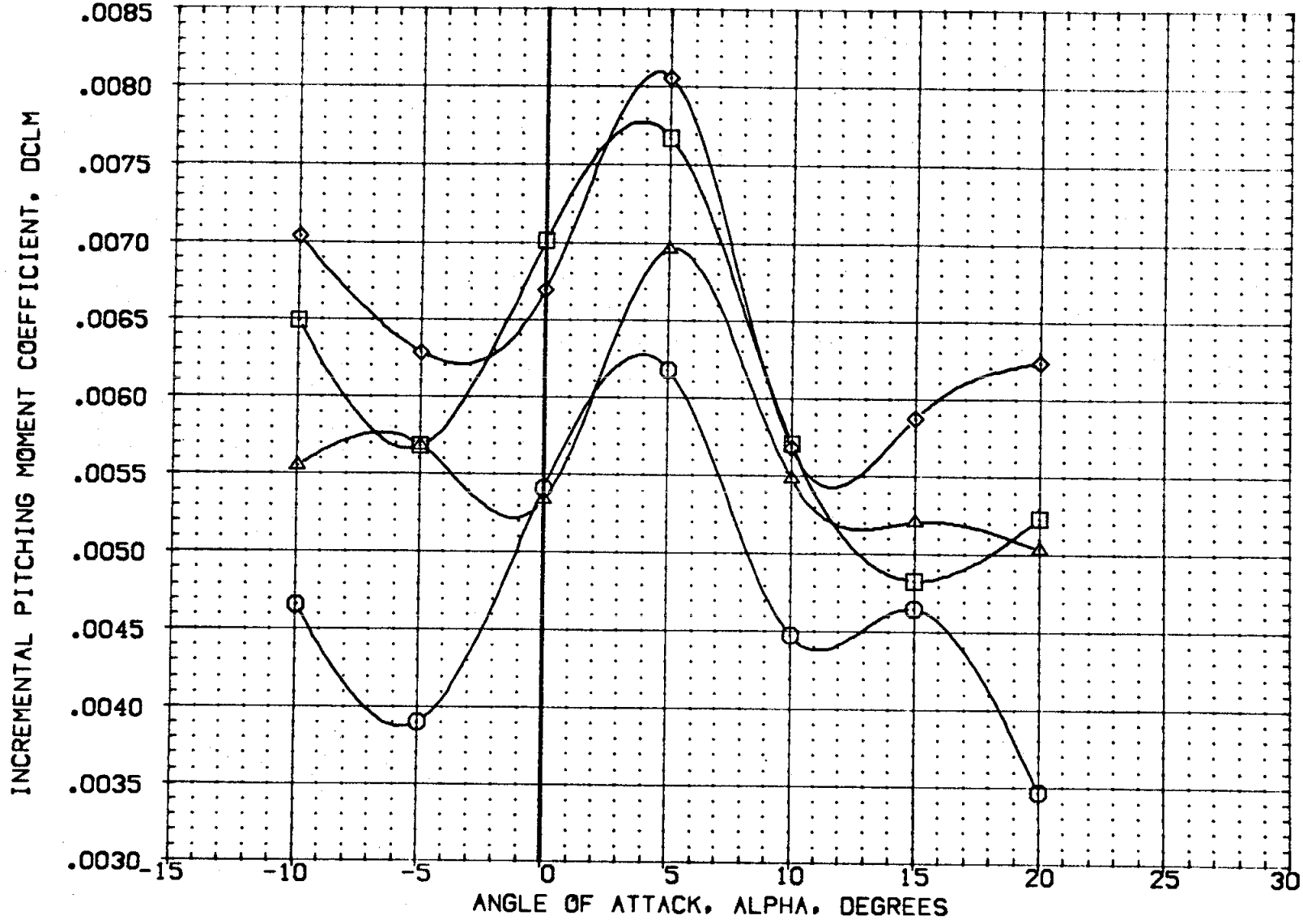


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1031] ○	[A-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	.000	-15.000	.000
[CH1011] □	[A-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	158.000	.000	.000	.000
[CH1033] ◇	[A-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	.000	5.000	.000
[CH1037] △	[A-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

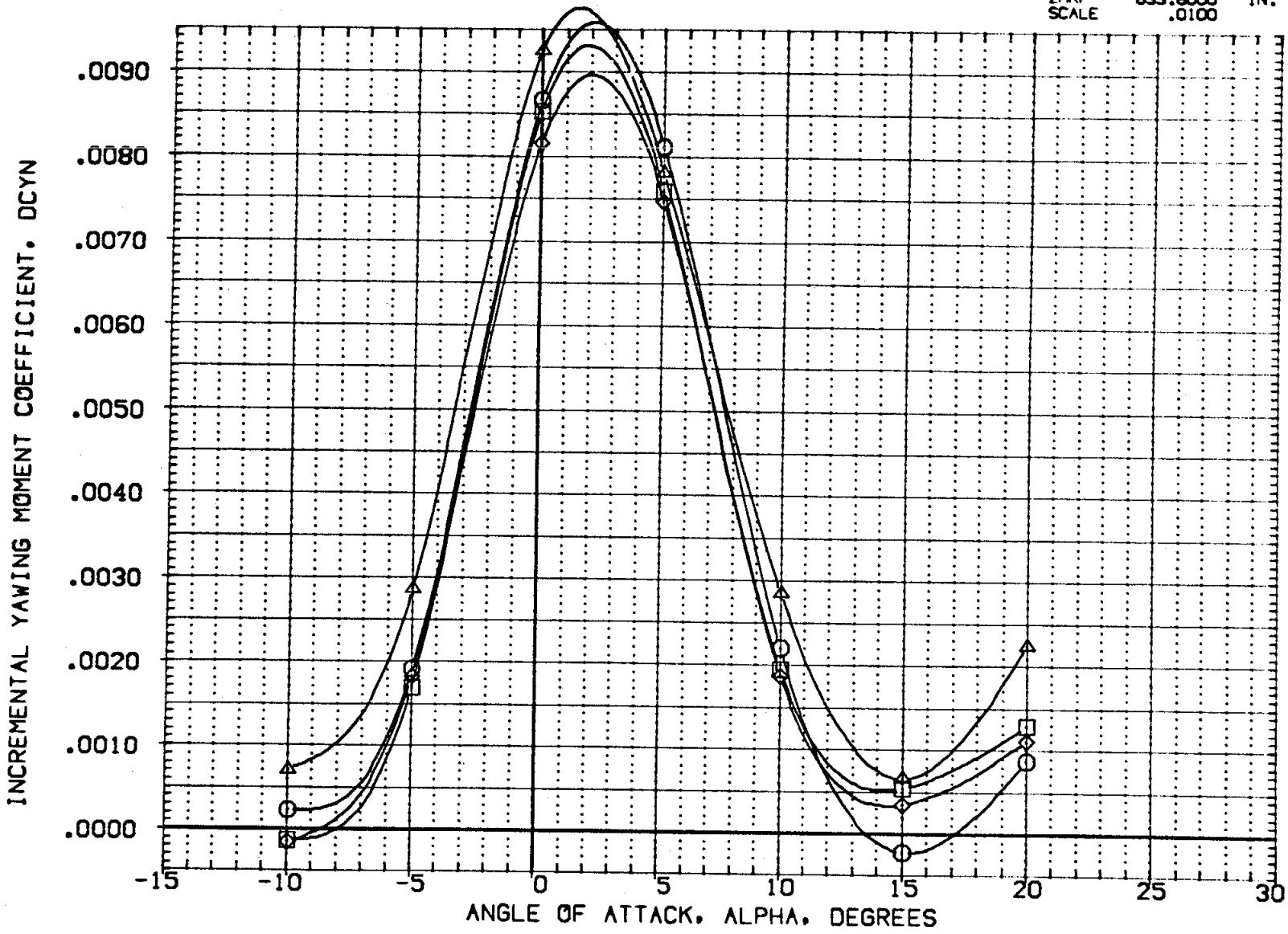


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH13IN)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	150.000	.000	-15.000	.000
(ZH11IN)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	150.000	.000	.000	.000
(ZH105F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	-15.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

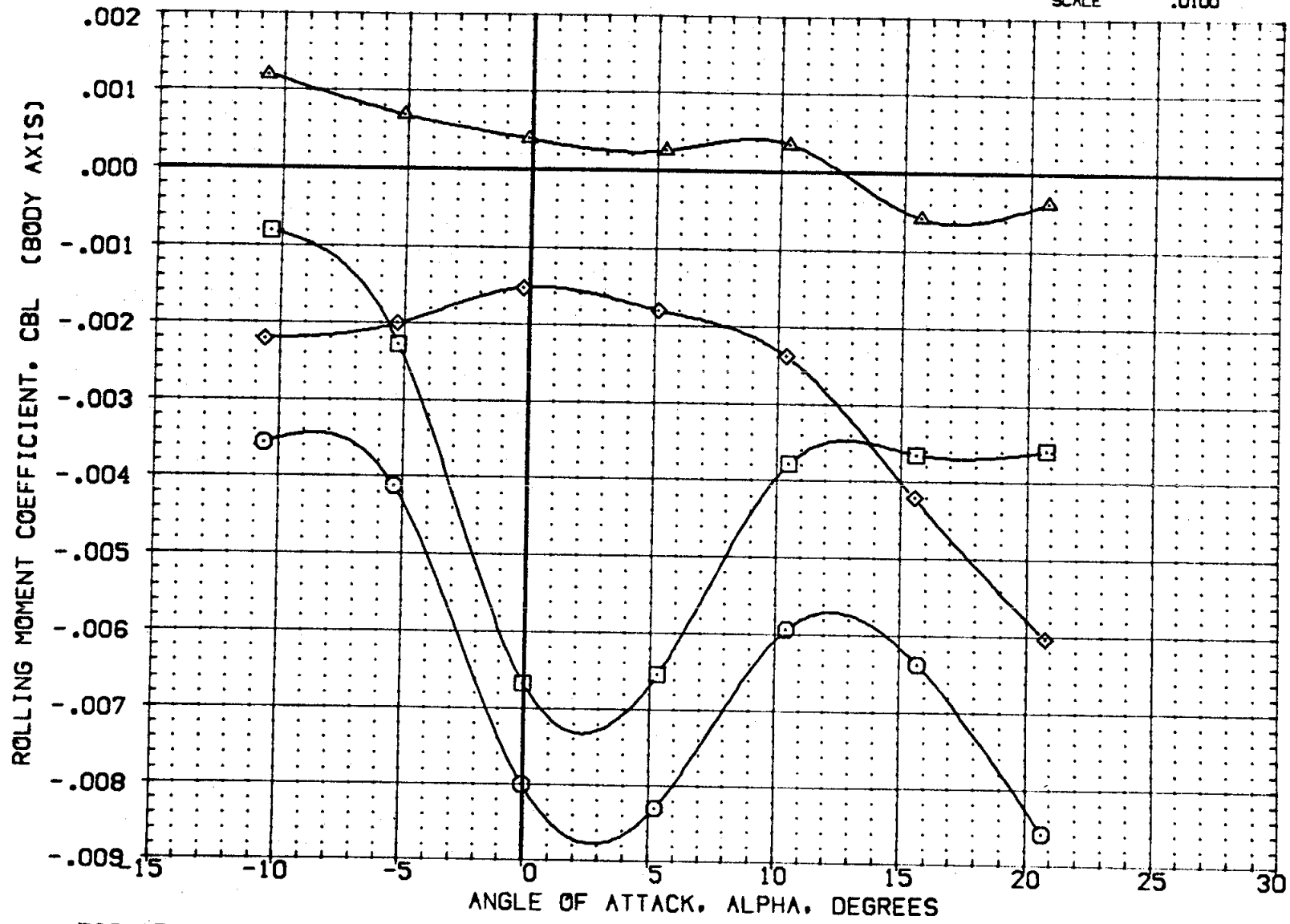


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH131N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	-15.000	.000
(ZH111N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	.000	.000	.000
(ZH105F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	-15.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

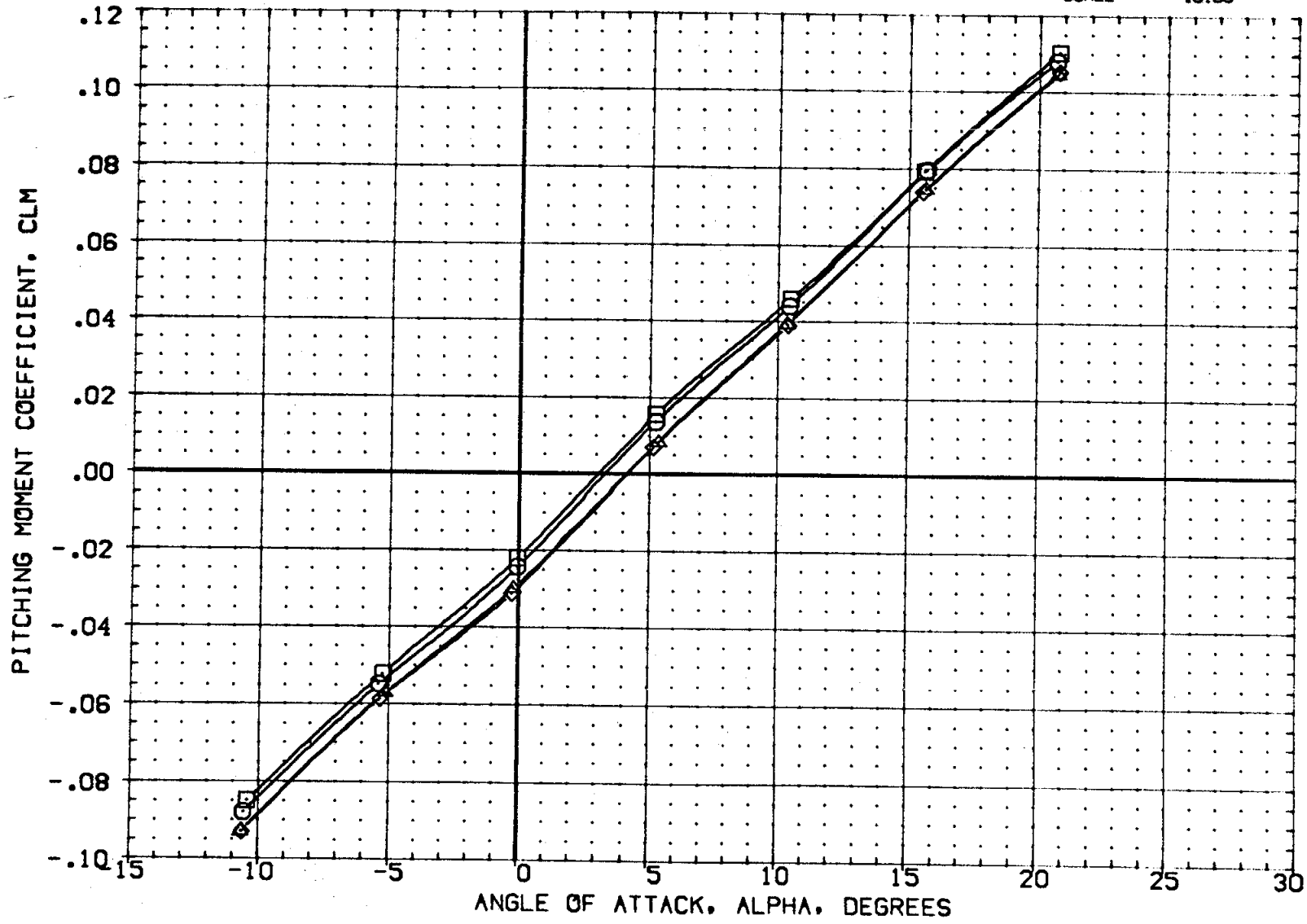


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

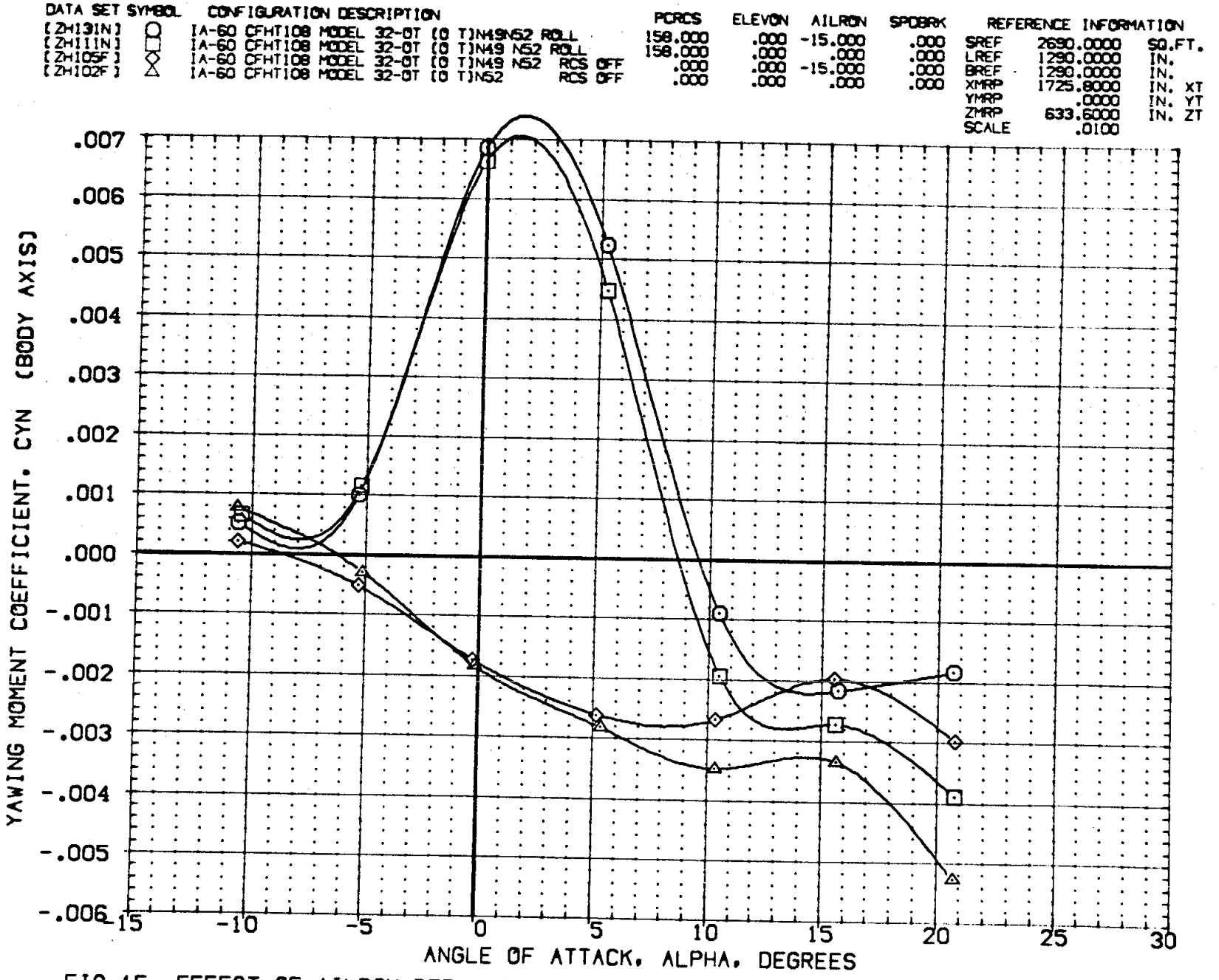


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH133N)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	5.000	.000
(ZH137N)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	15.000	.000
(ZH106F)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	5.000	.000
(ZH104F)	△	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

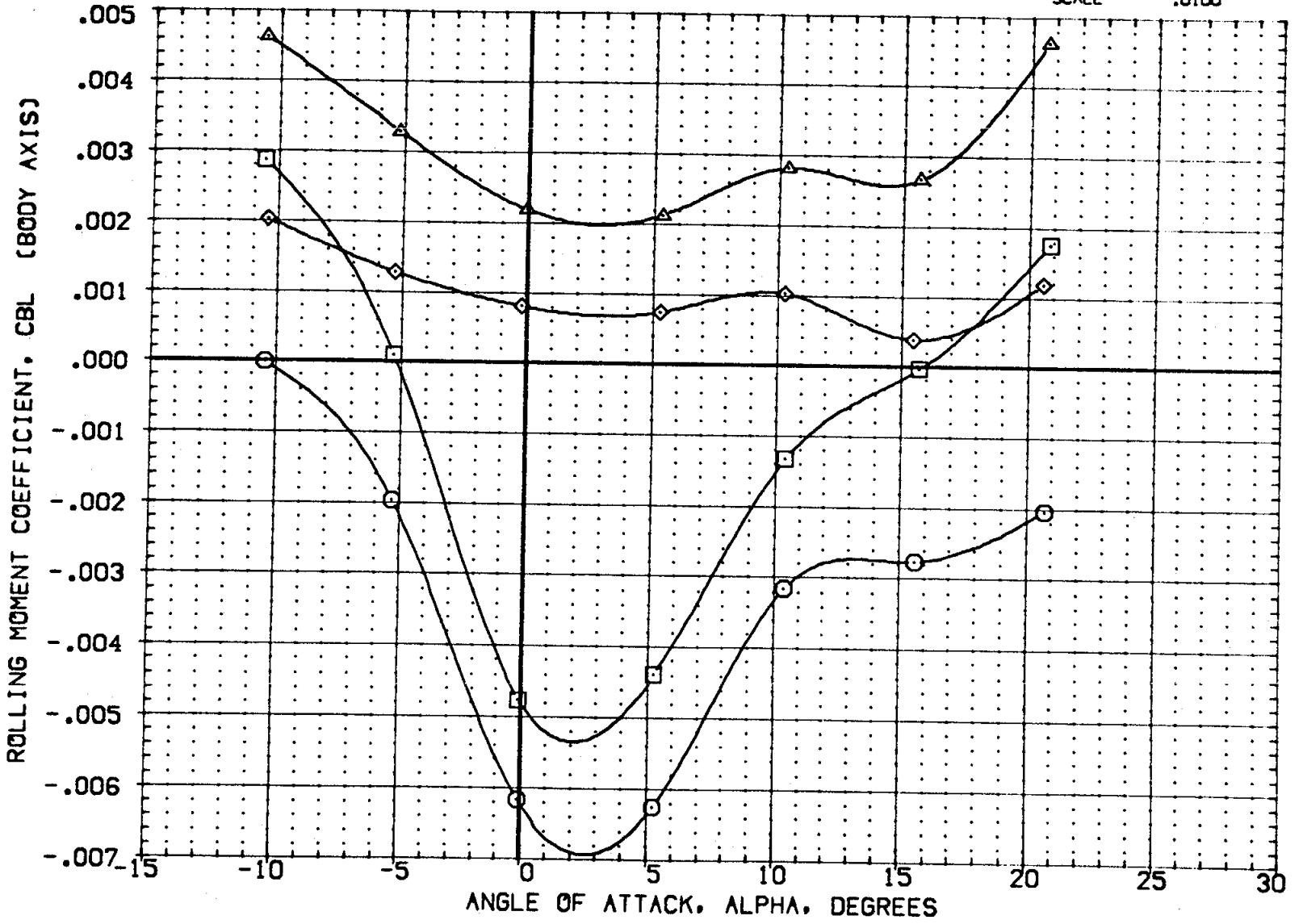


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[ZH133N]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	.000	5.000	.000
[ZH137N]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	.000	15.000	.000
[ZH106F]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 RCS OFF	.000	.000	5.000	.000
[ZH104F]	△	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

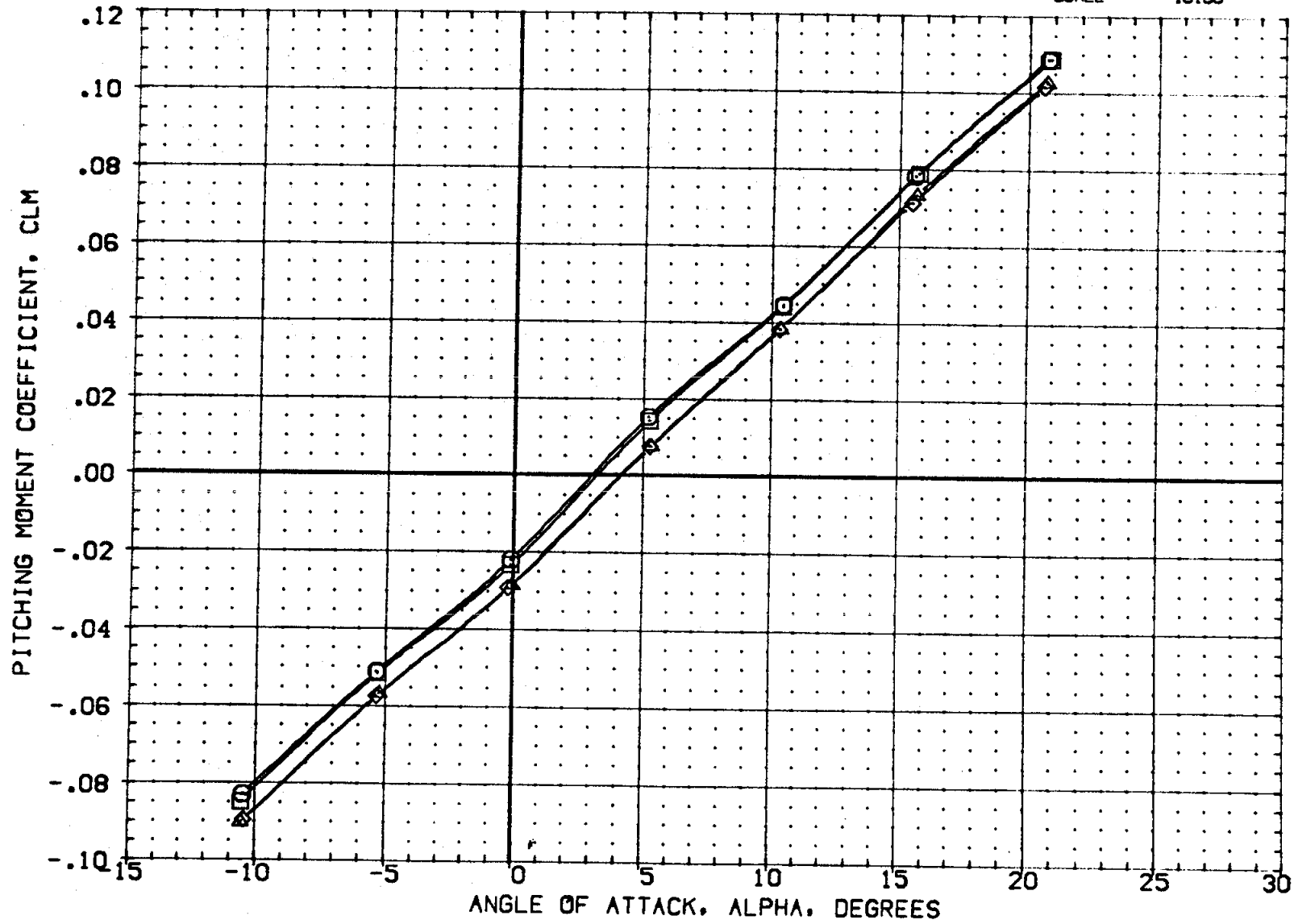


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH133N)	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	5.000	.000
(ZH137N)	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	15.000	.000
(ZH106F)	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	5.000	.000
(ZH104F)	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	15.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

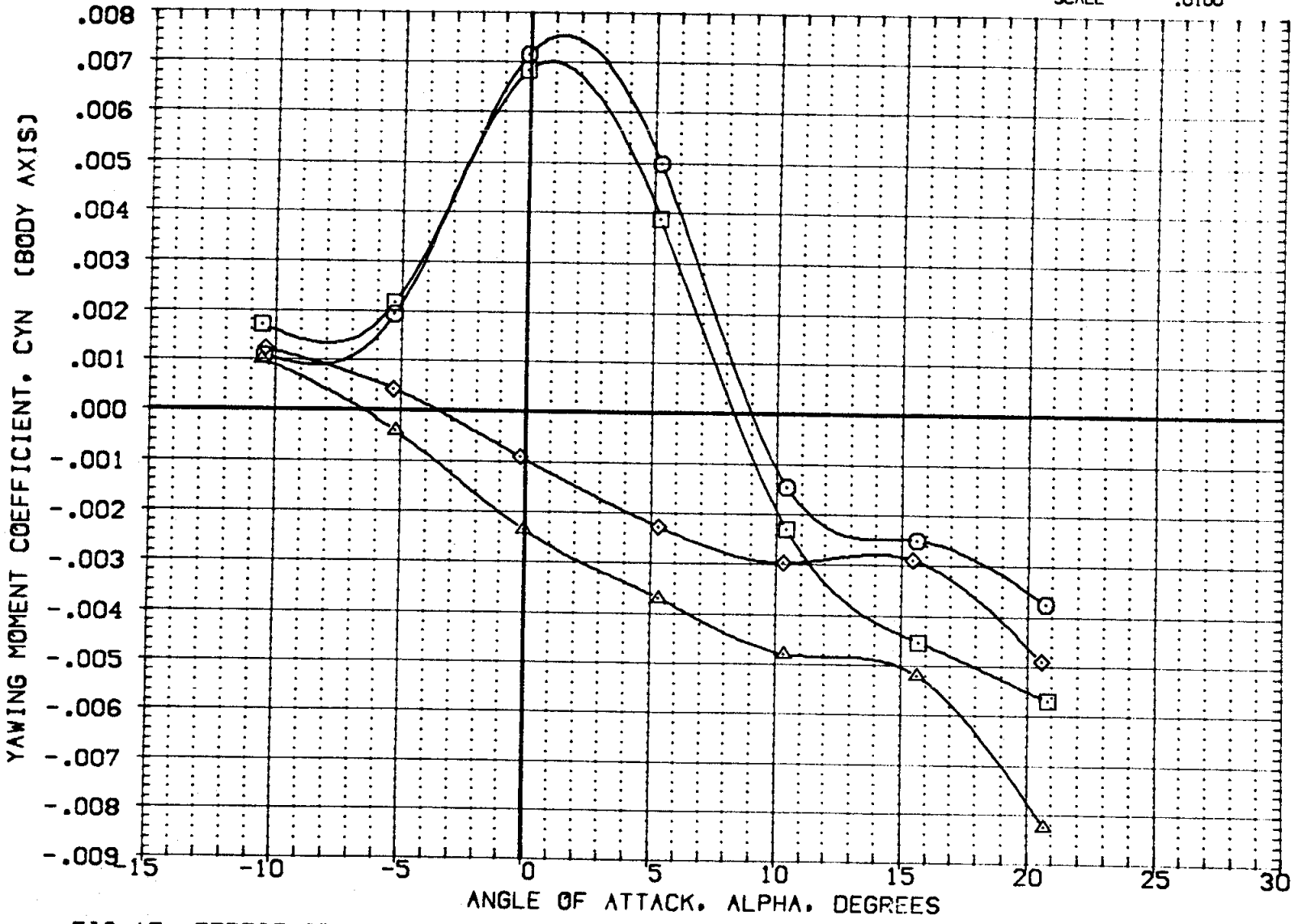


FIG 15 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=0, QSIM = 20 PSF

(A)MACH = 10.33

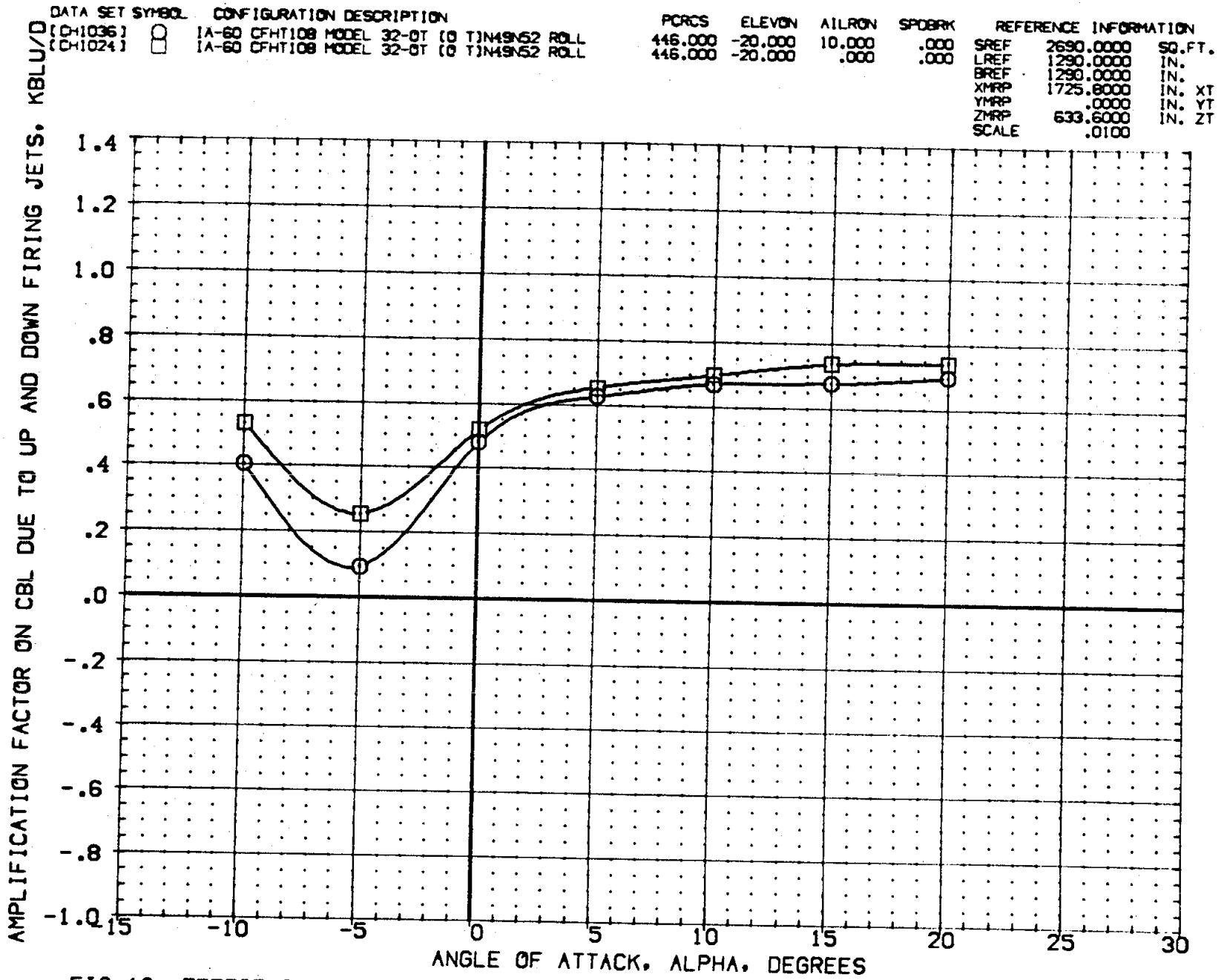


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1036)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	10.000	.000
(CH1024)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

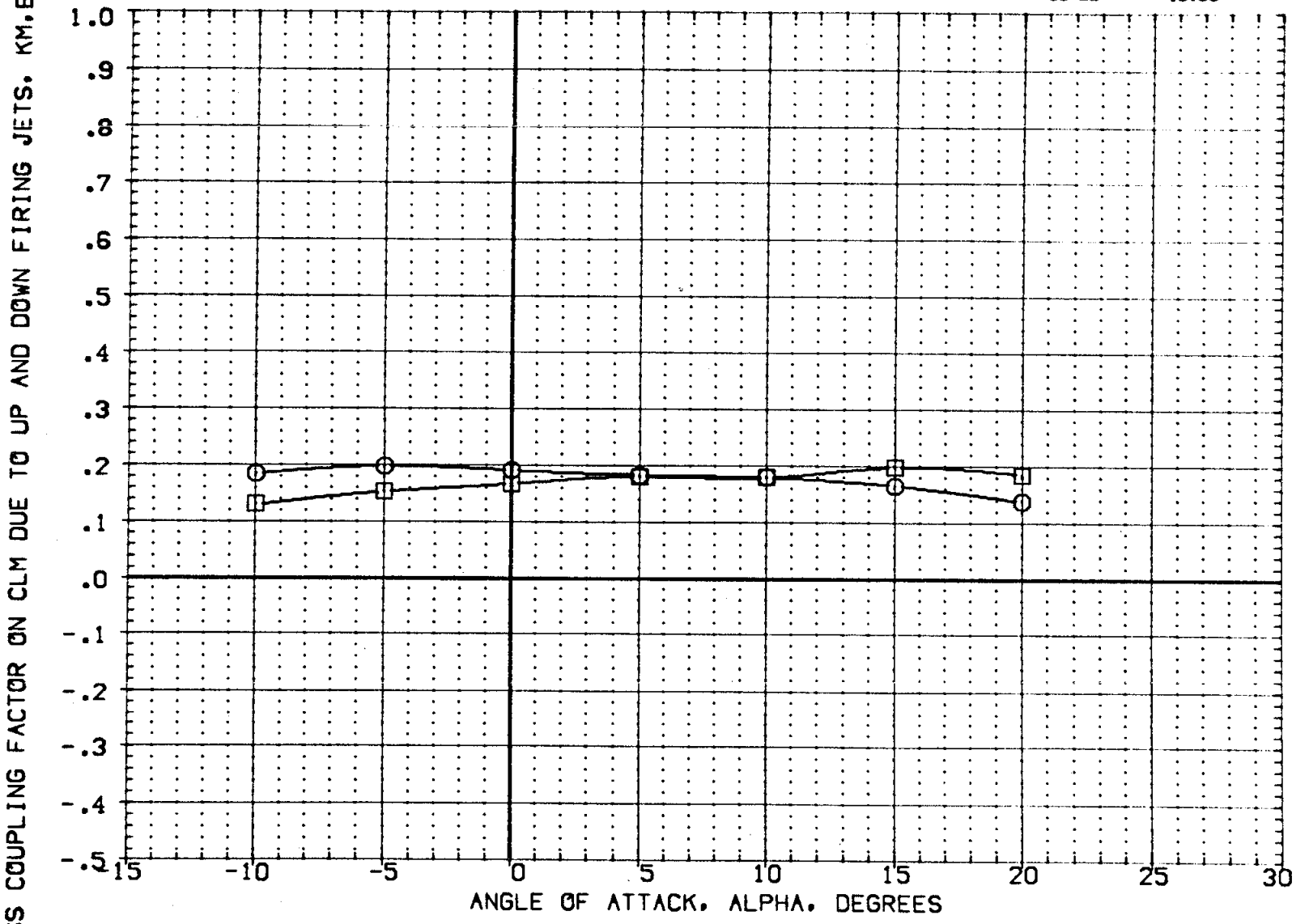


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION,ELEVON=-20,QSIM= 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1036) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	10.000	.000
(CH1024) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

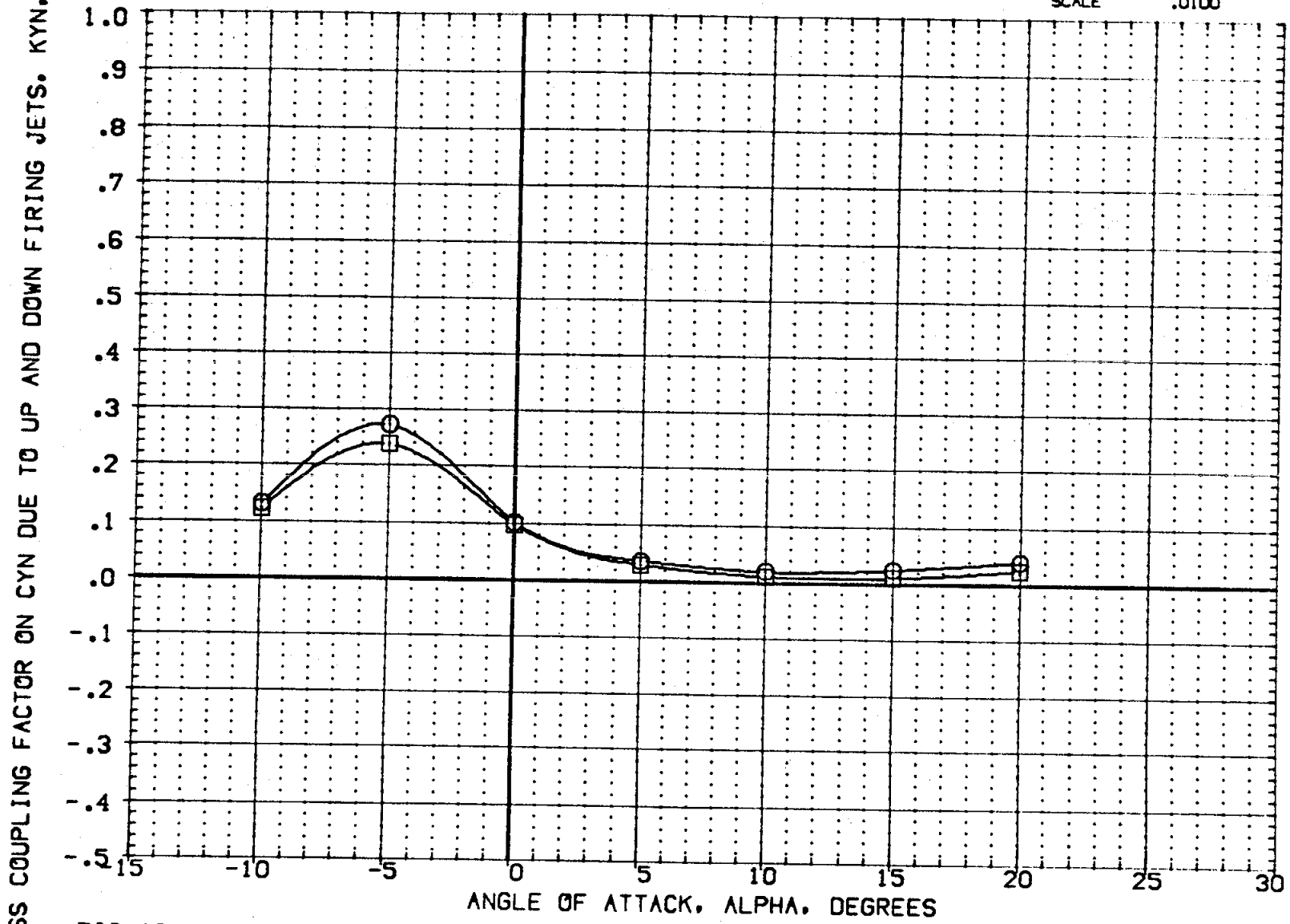


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION,ELEVON=-20,QSIM= 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1036)	○	IA-60 CFHTI08 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	10.000	.000
(CH1024)	□	IA-60 CFHTI08 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

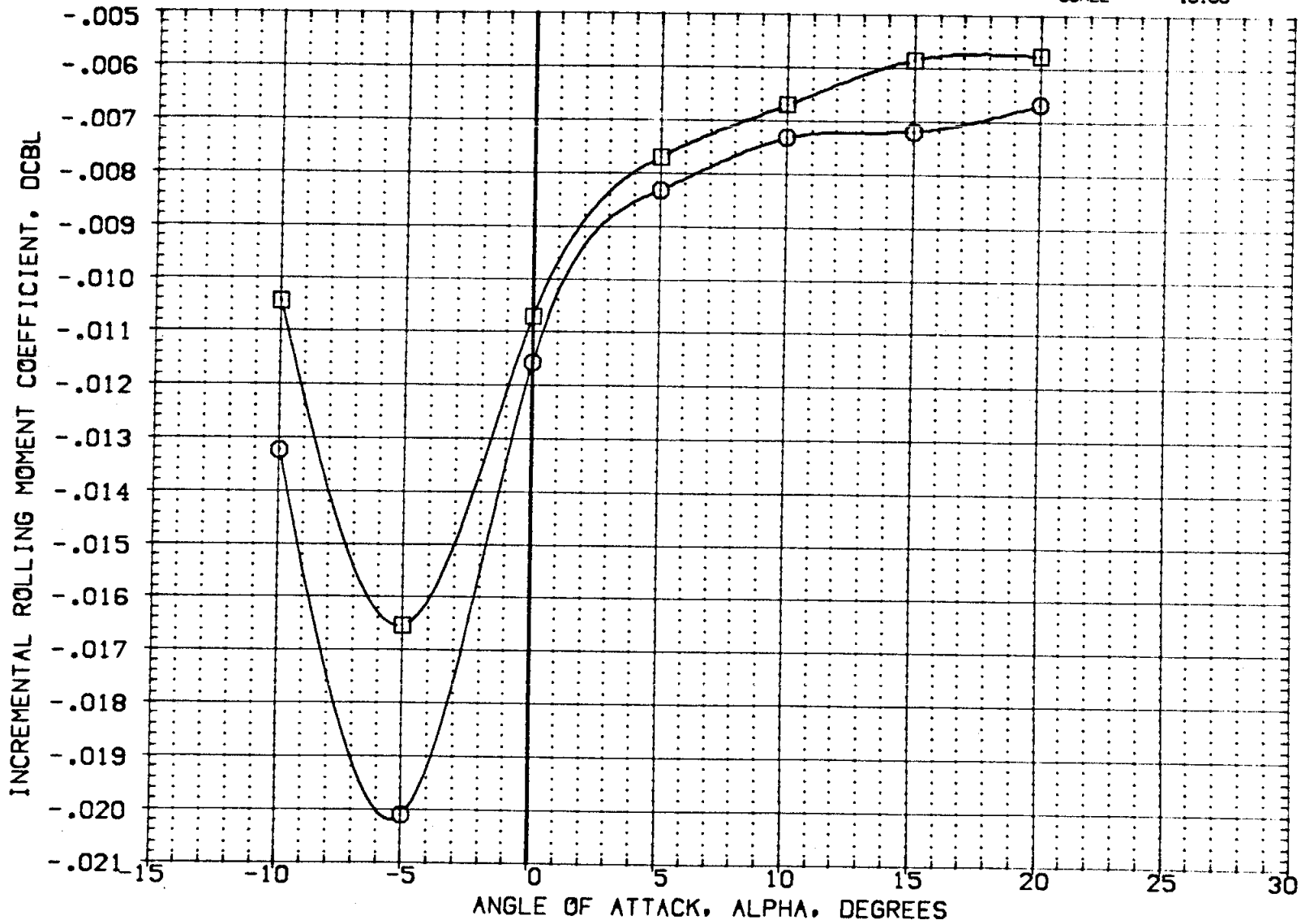


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1036]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	-20.000	10.000	.000
[CH1024]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

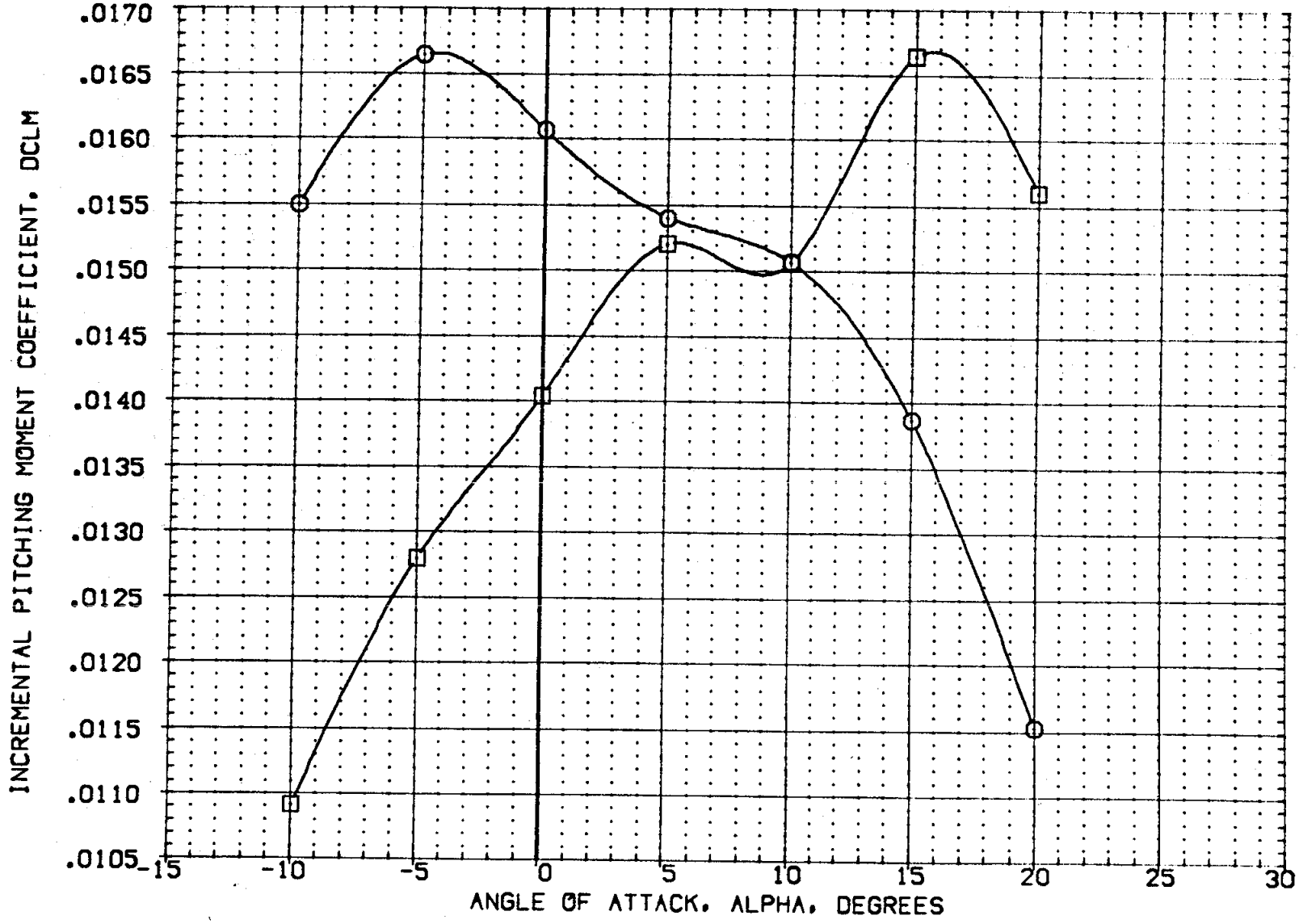


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1036]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	-20.000	10.000	.000
[CH1024]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

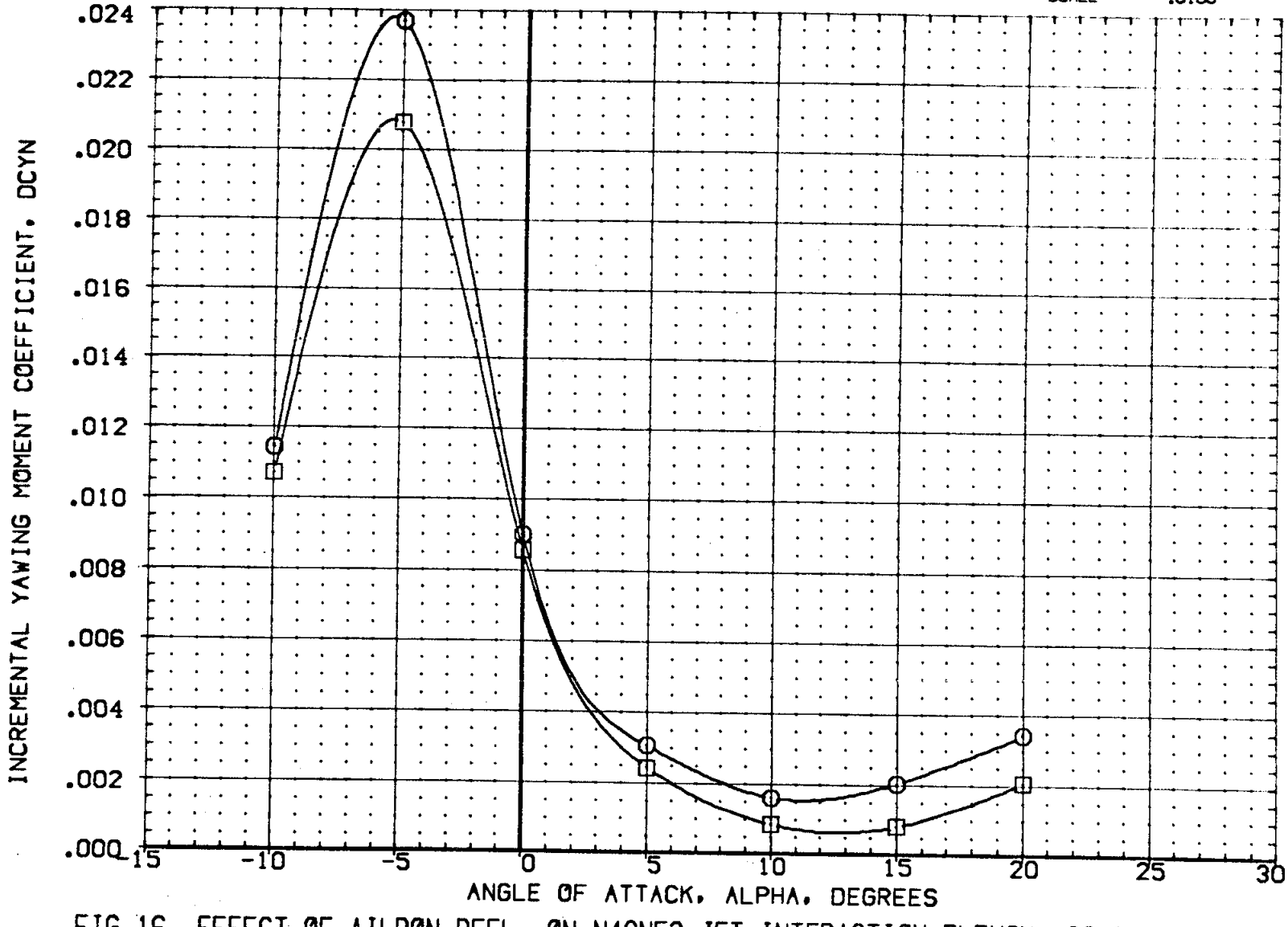


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH136N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	10.000	.000
(ZH124N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000
(ZH107F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	-20.000	10.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

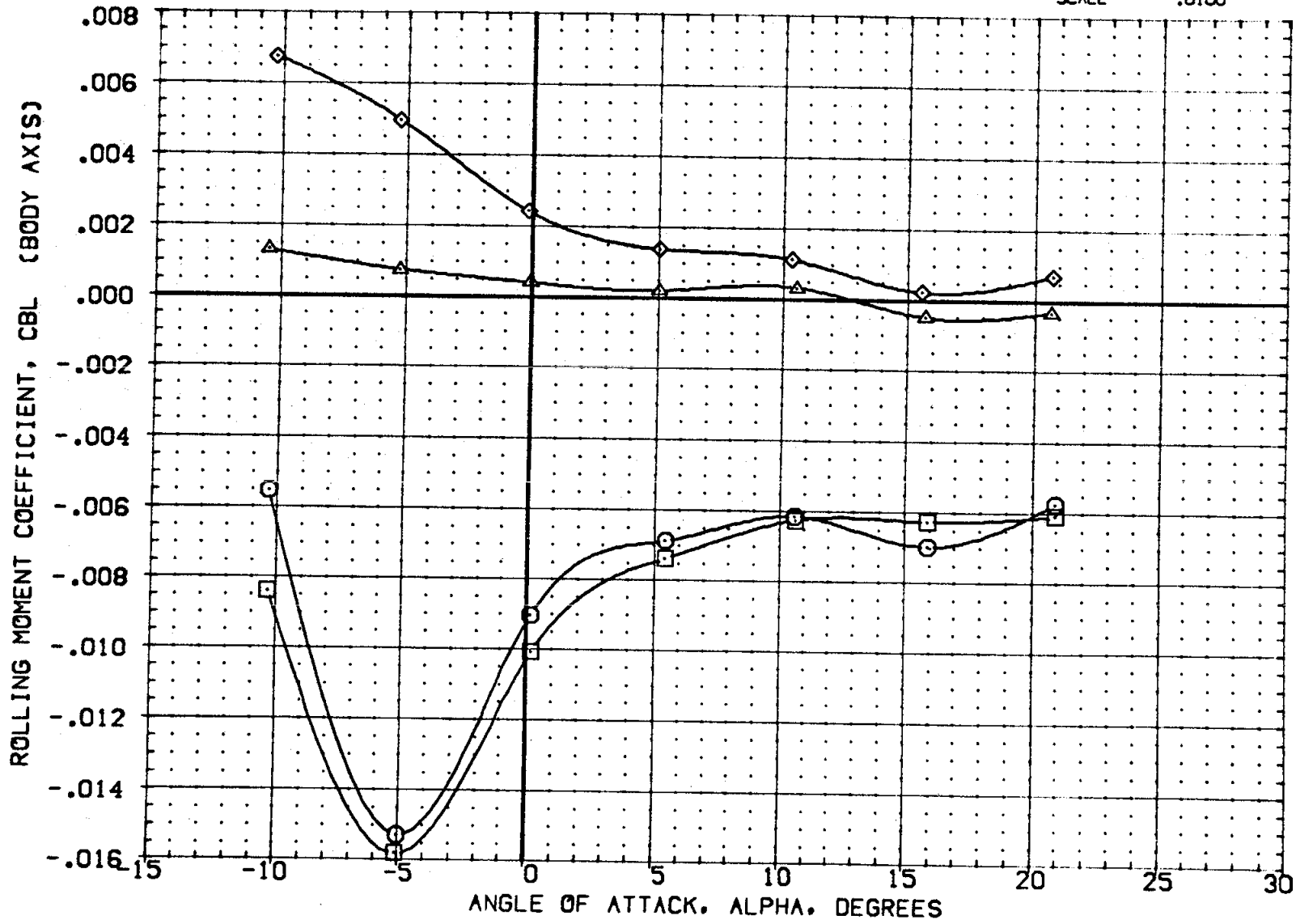


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH136N) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	10.000	.000
(ZH124N) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000
(ZH107F) ◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	-20.000	10.000	.000
(ZH103F) △	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

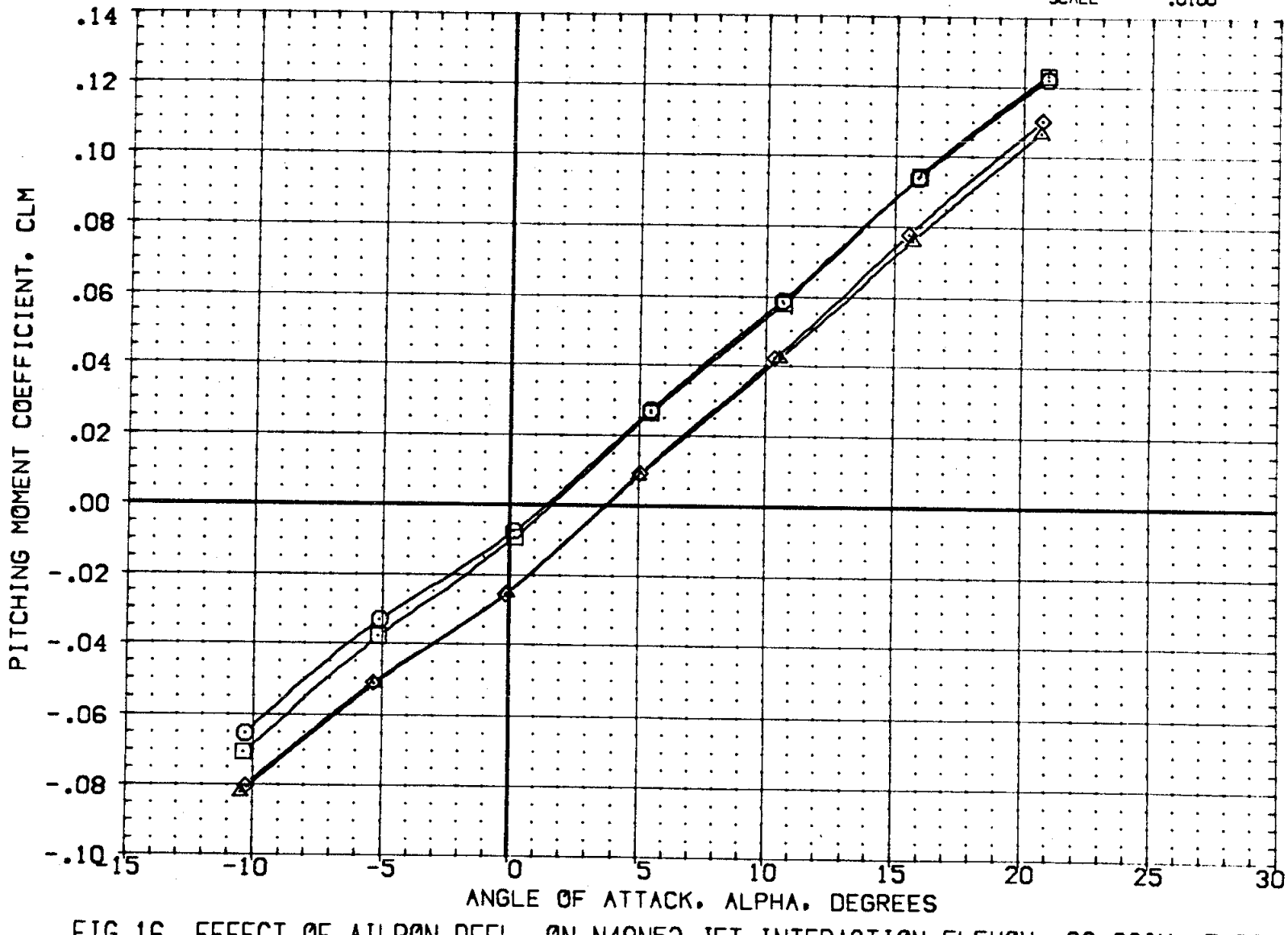


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH136N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	10.000	.000
(ZH124N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	-20.000	.000	.000
(ZH107F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	-20.000	10.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

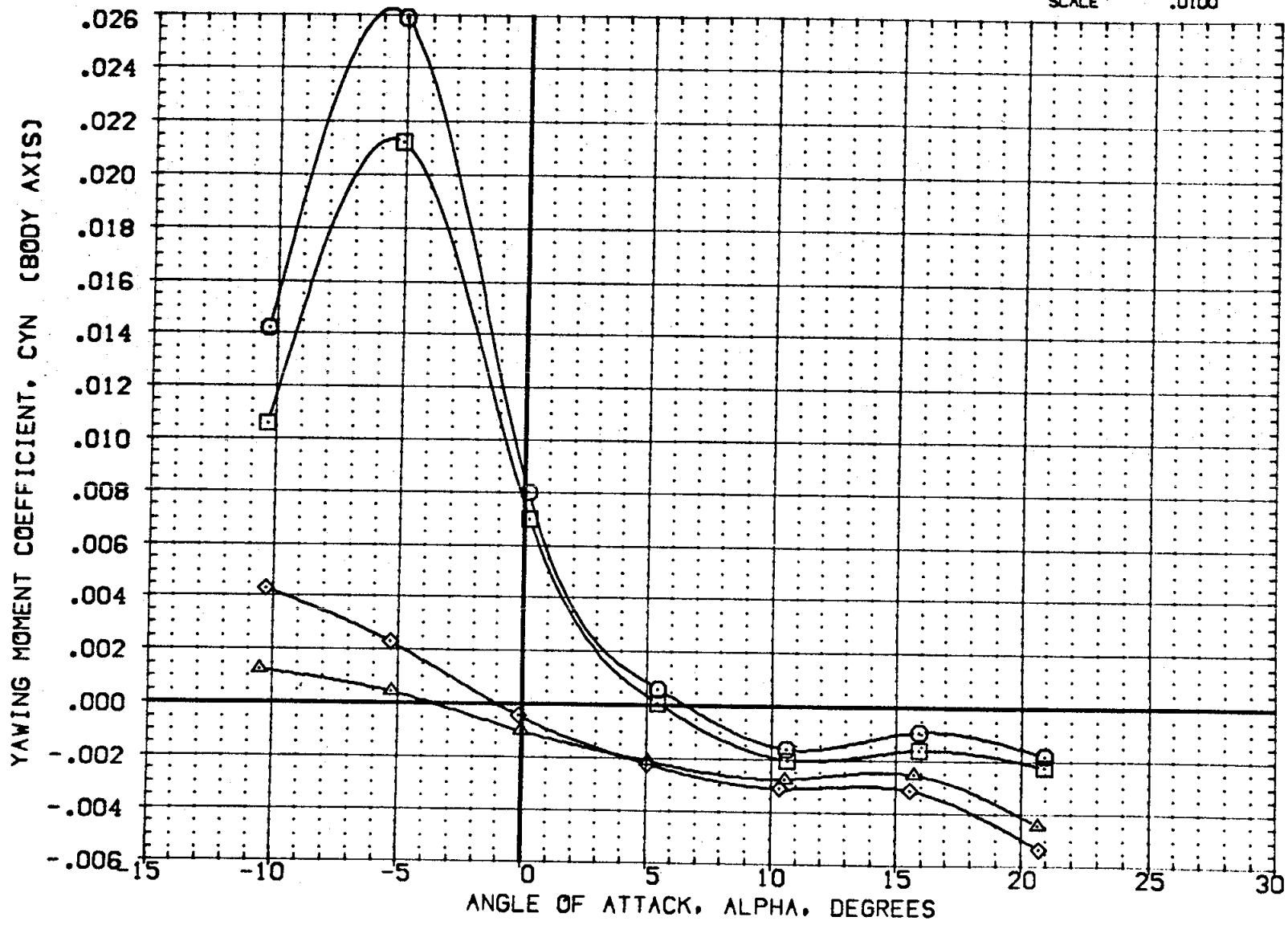


FIG 16 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 7 PSF

(A)MACH = 10.33

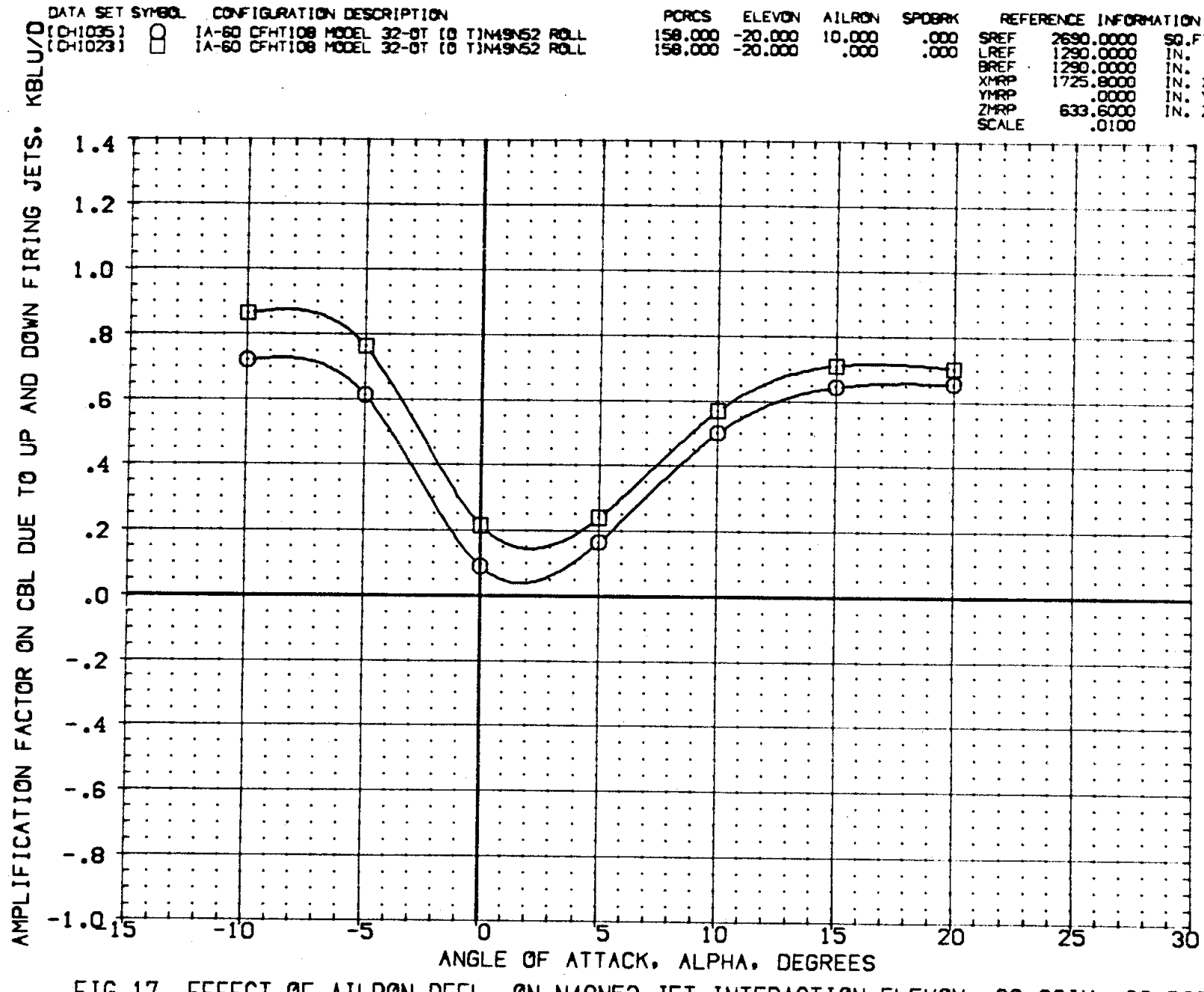


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 20 PSF

(A)MACH = 10.33

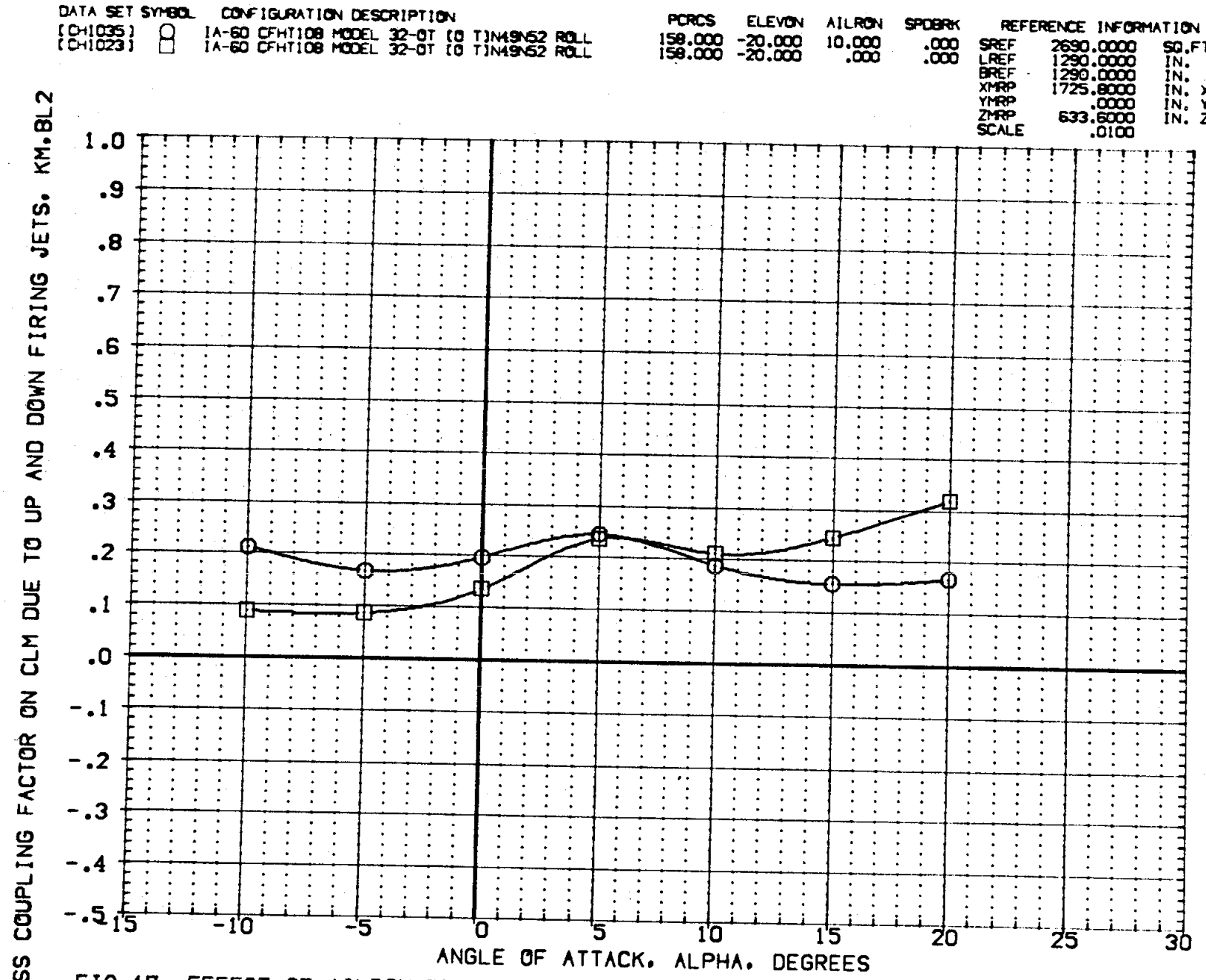


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1035) ○	1A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	150.000	-20.000	10.000	.000
(CH1023) □	1A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	150.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

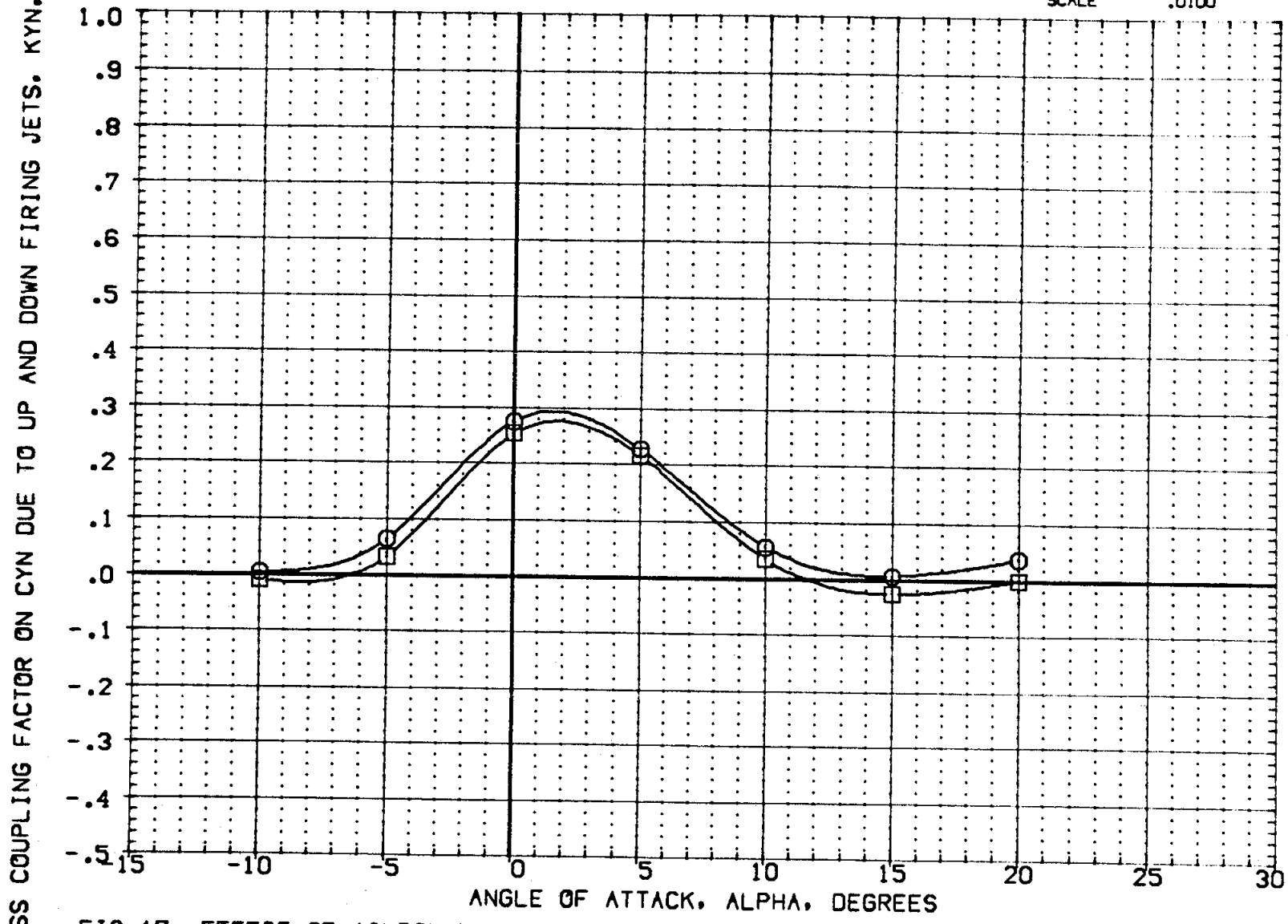


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION,ELEVON=-20,QSIM= 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1035]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	-20.000	10.000	.000
[CH1023]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	158.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

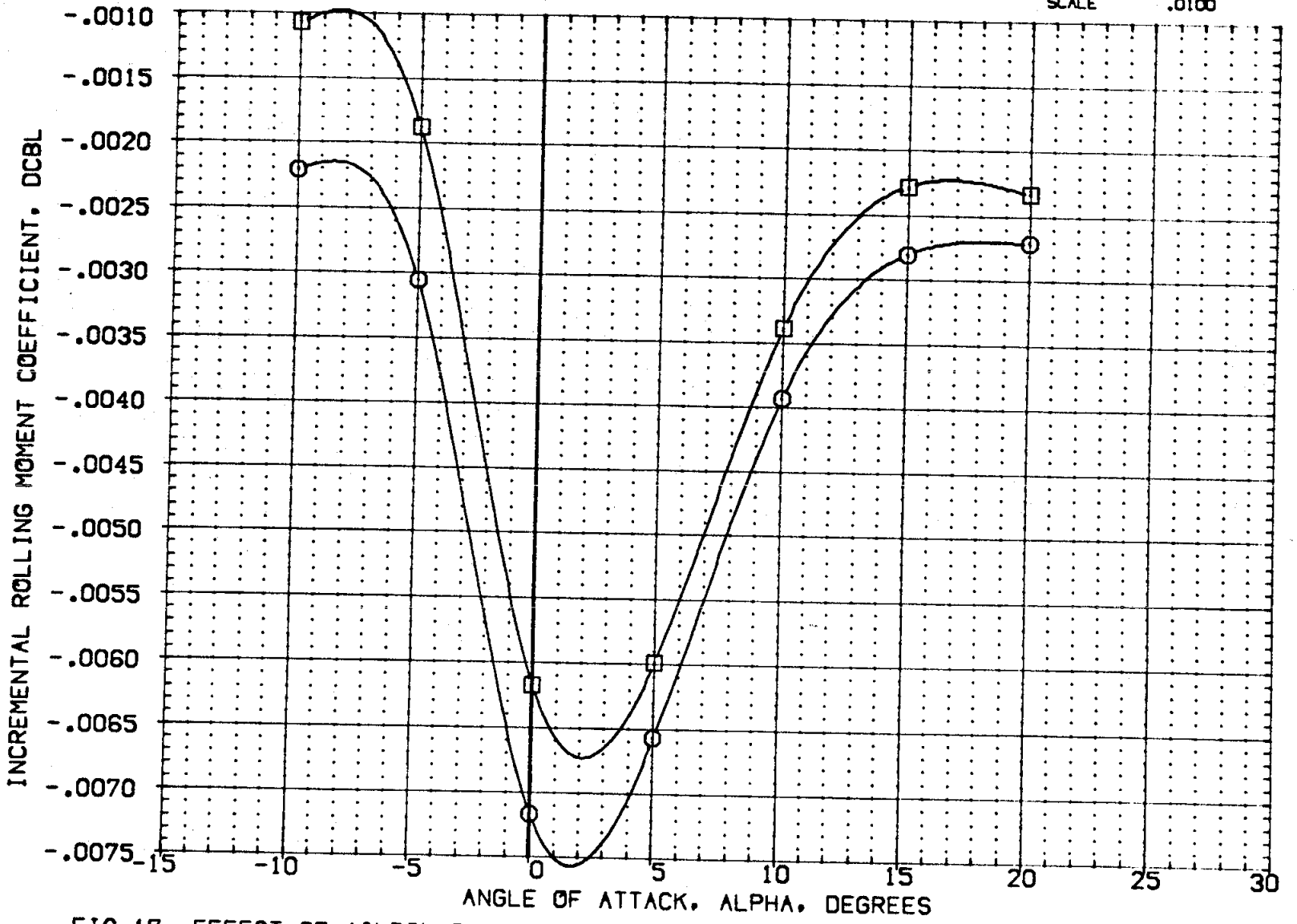


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1035]	○	IA-60 CFHTI08 MODEL 32-0T [0 TJN49N52 ROLL	158.000	-20.000	10.000	.000
[CH1023]	□	IA-60 CFHTI08 MODEL 32-0T [0 TJN49N52 ROLL	158.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

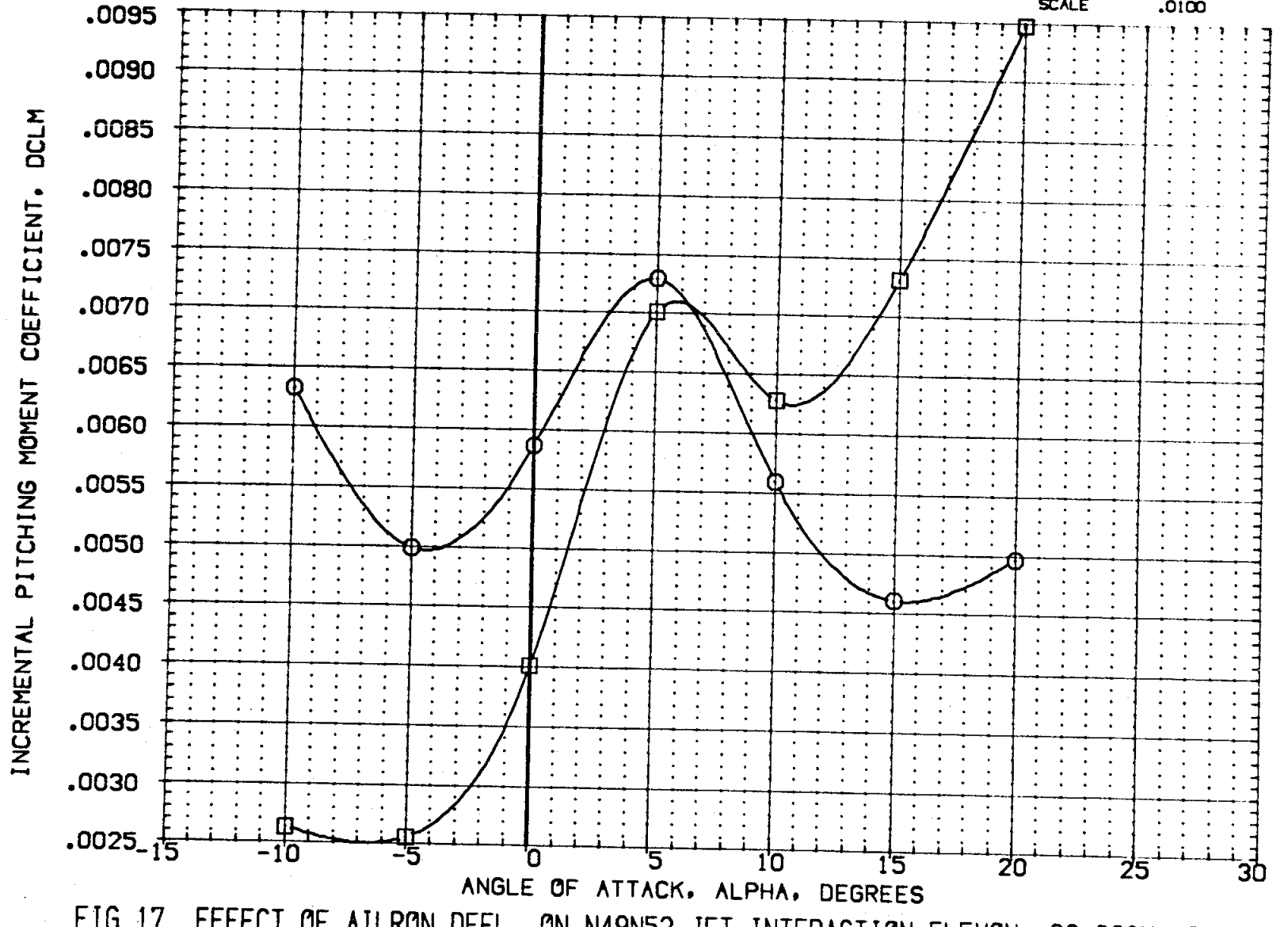


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1035]	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	-20.000	10.000	.000
[CH1023]	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

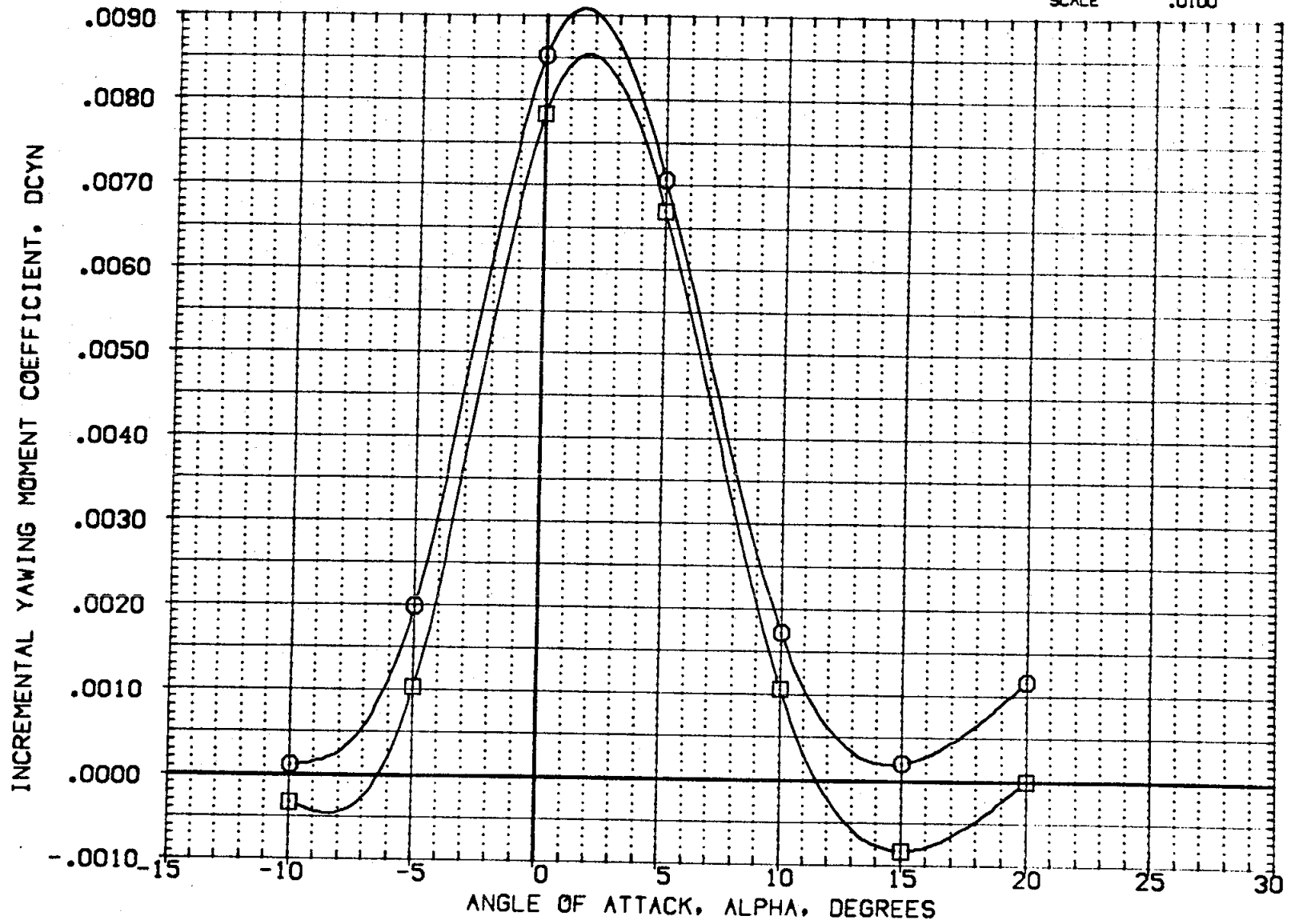


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH135N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	150.000	-20.000	10.000	.000
(ZH129N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	150.000	-20.000	.000	.000
(ZH107F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	-20.000	10.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

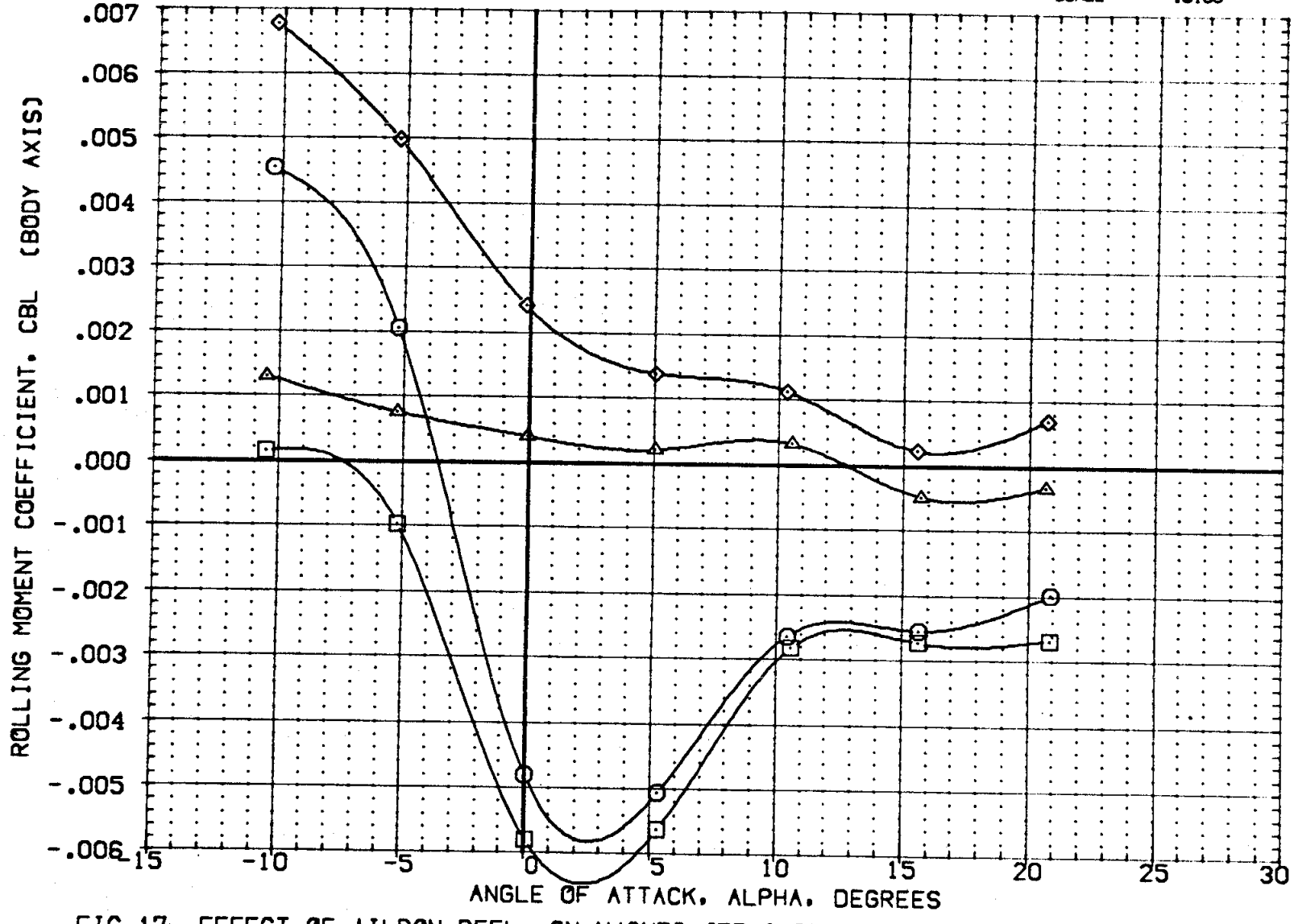


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH135N) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	-20.000	10.000	.000
(ZH123N) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	-20.000	.000	.000
(ZH107F) ◇	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	-20.000	10.000	.000
(ZH103F) △	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

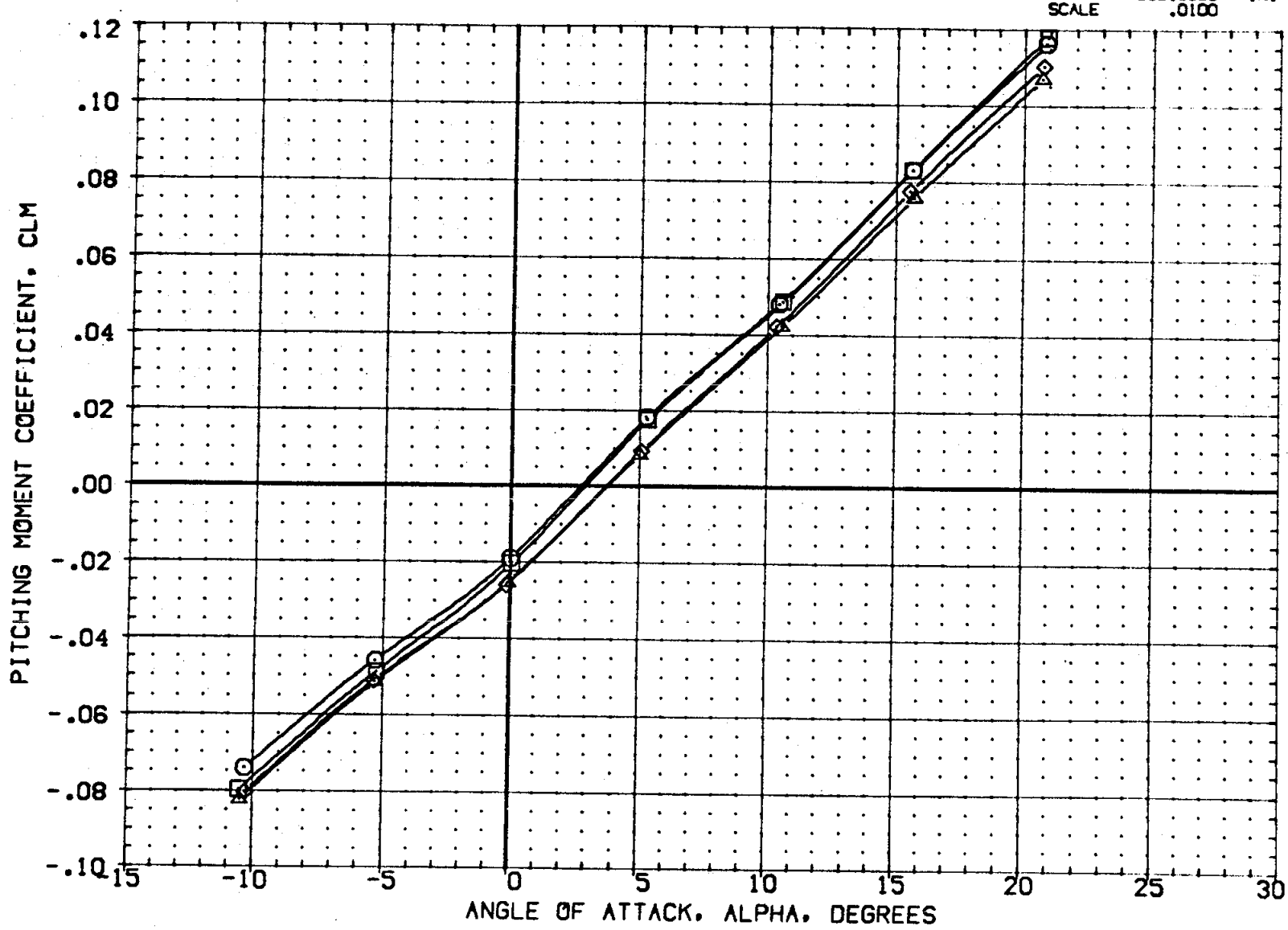


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH135N) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	-20.000	10.000	.000
(ZH123N) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	-20.000	.000	.000
(ZH107F) ⊠	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	-20.000	10.000	.000
(ZH103F) △	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

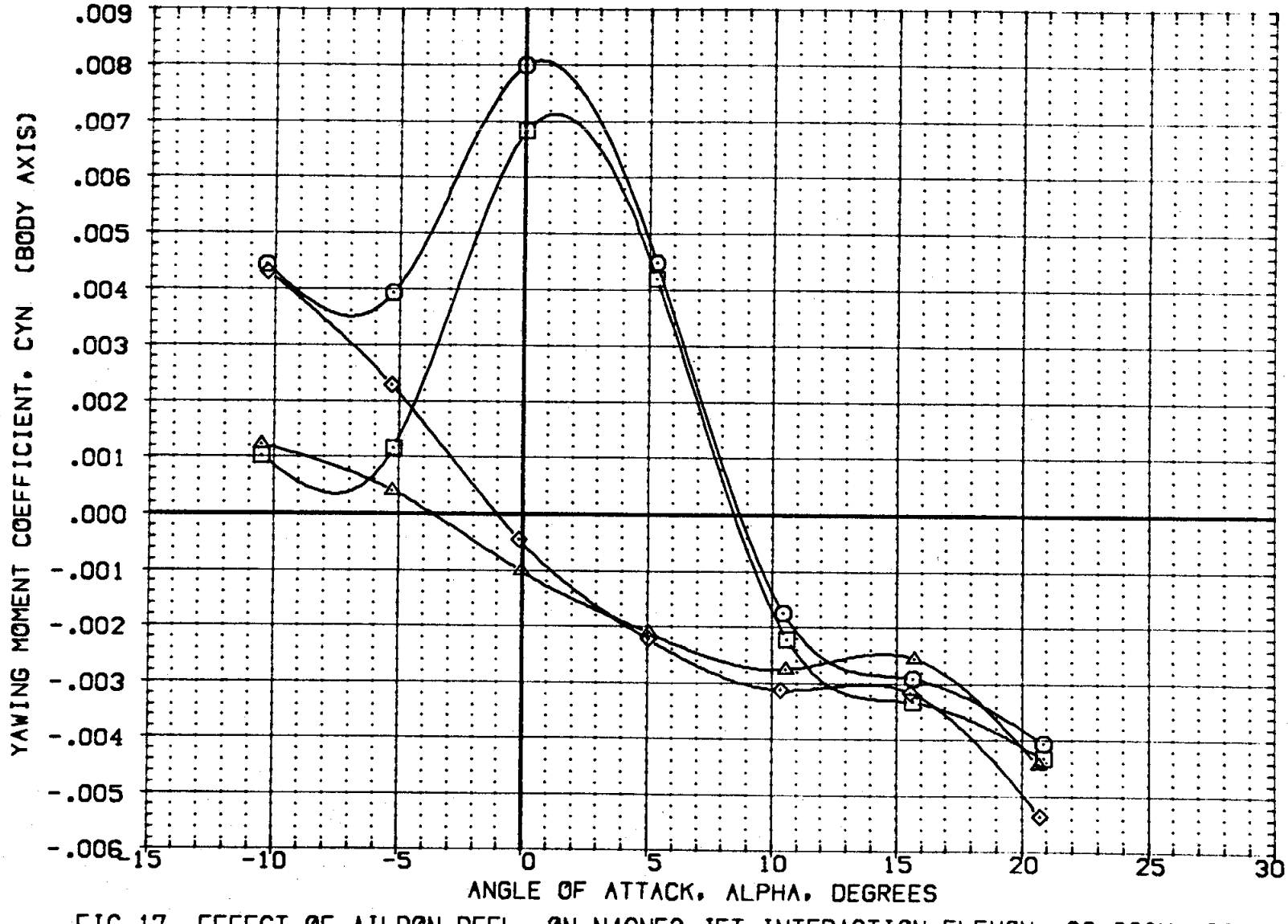


FIG 17 EFFECT OF AILRON DEFL. ON N49N52 JET INTERACTION, ELEVON=-20, QSIM= 20 PSF

(A)MACH = 10.33

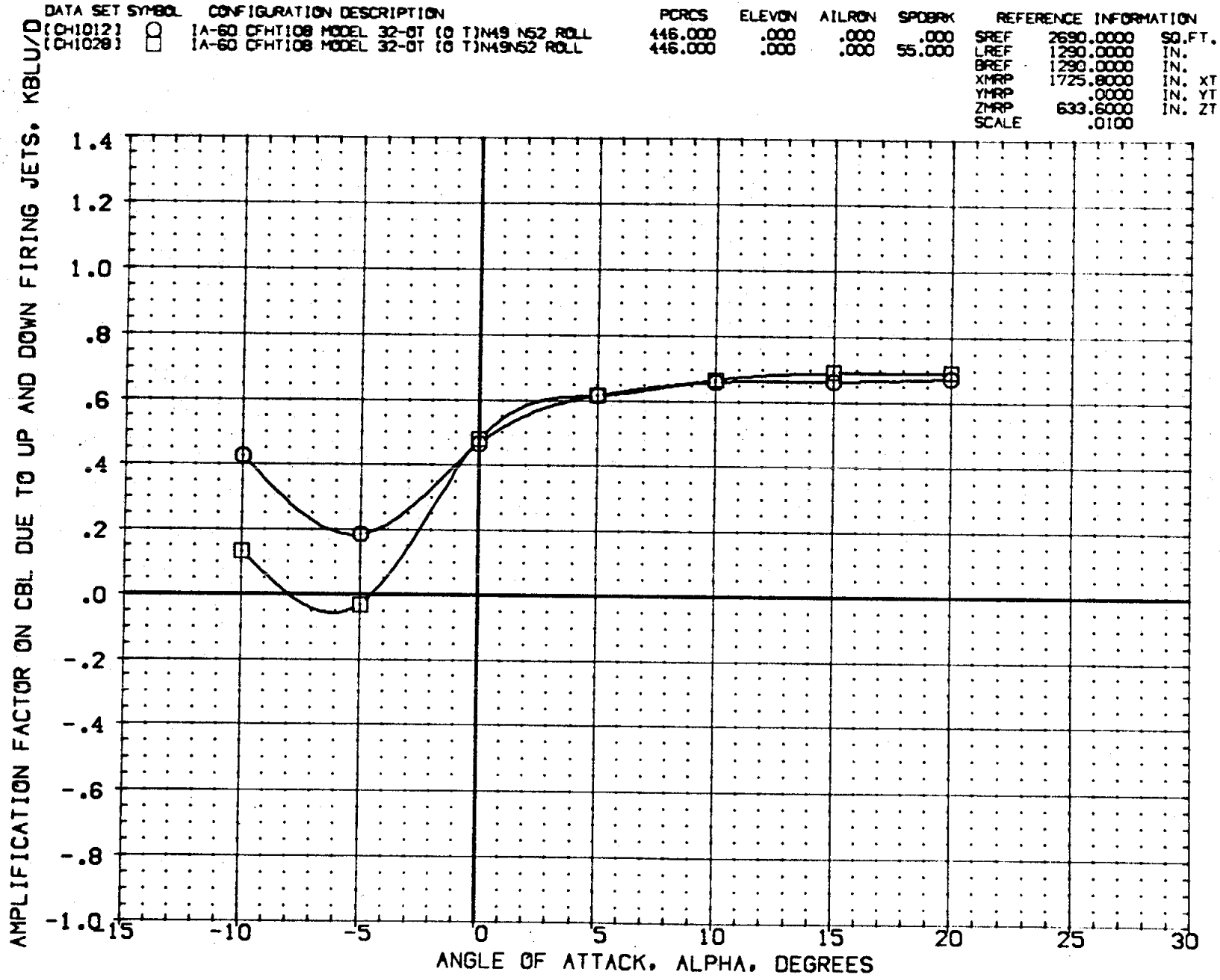


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1012] ○	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	446.000	.000	.000	.000
[CH1028] □	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

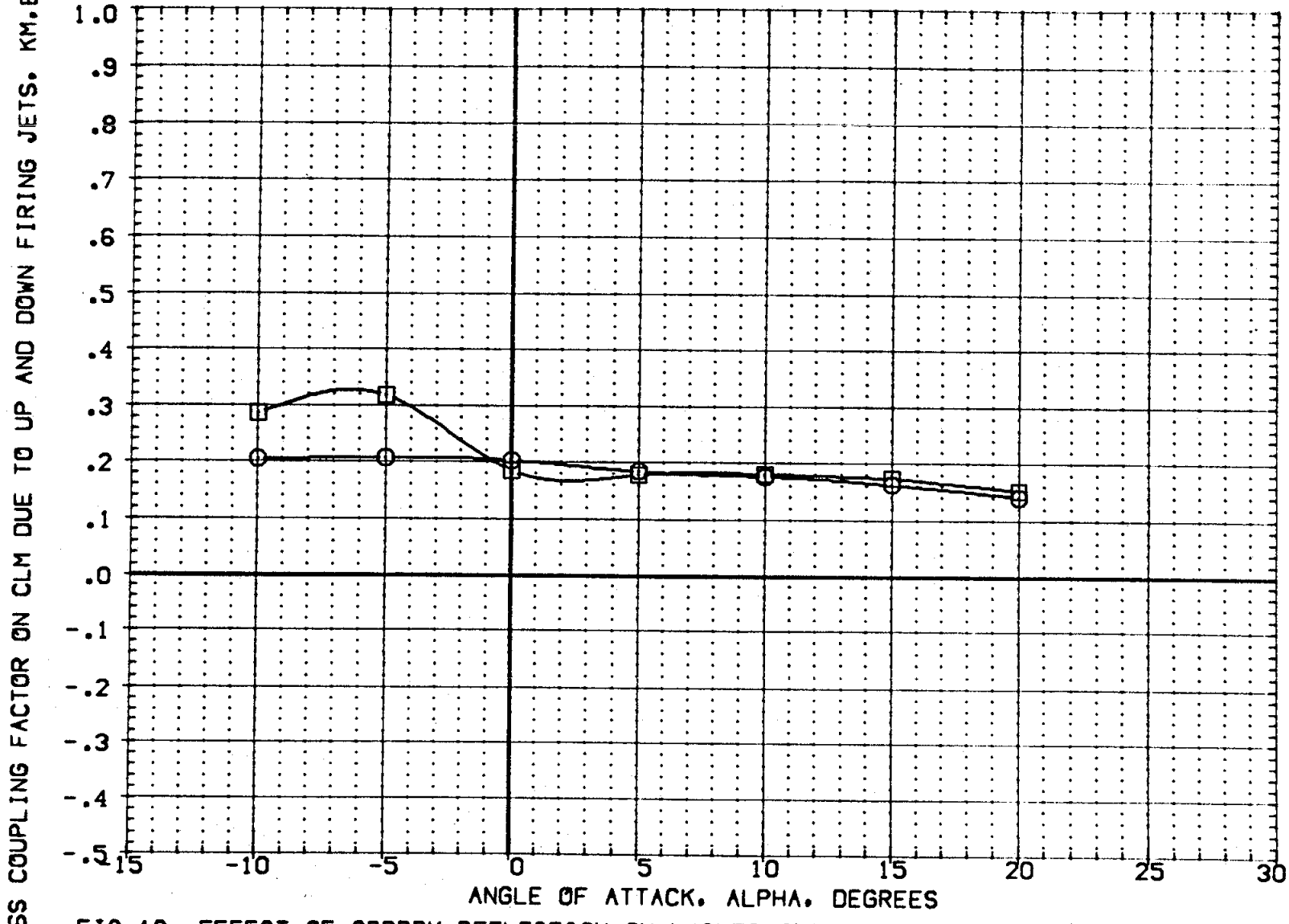


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1012)	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(CH1020)	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

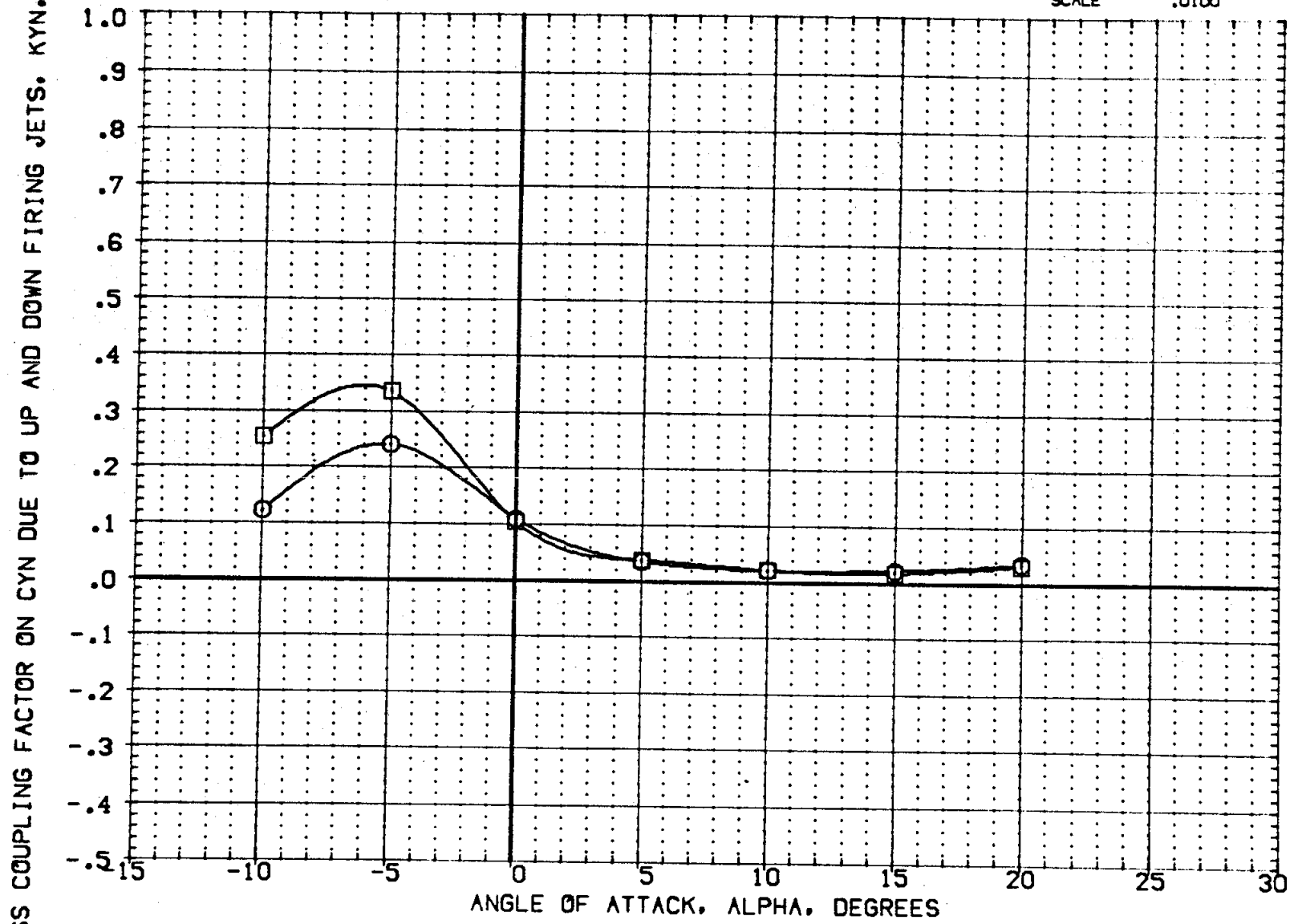


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1012] ○	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	446.000	.000	.000	.000
[CH1028] □	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

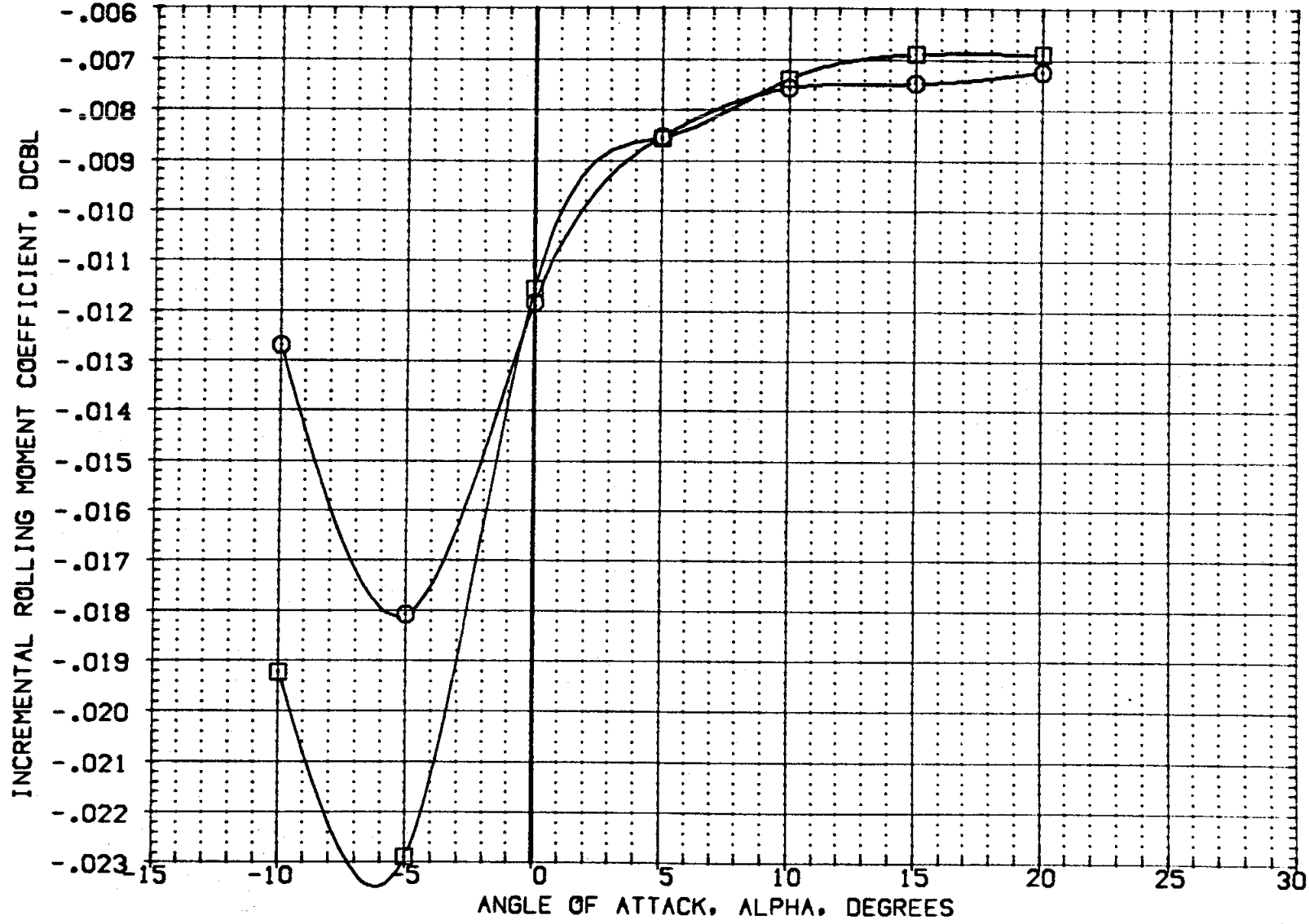


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1012)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(CH1028)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

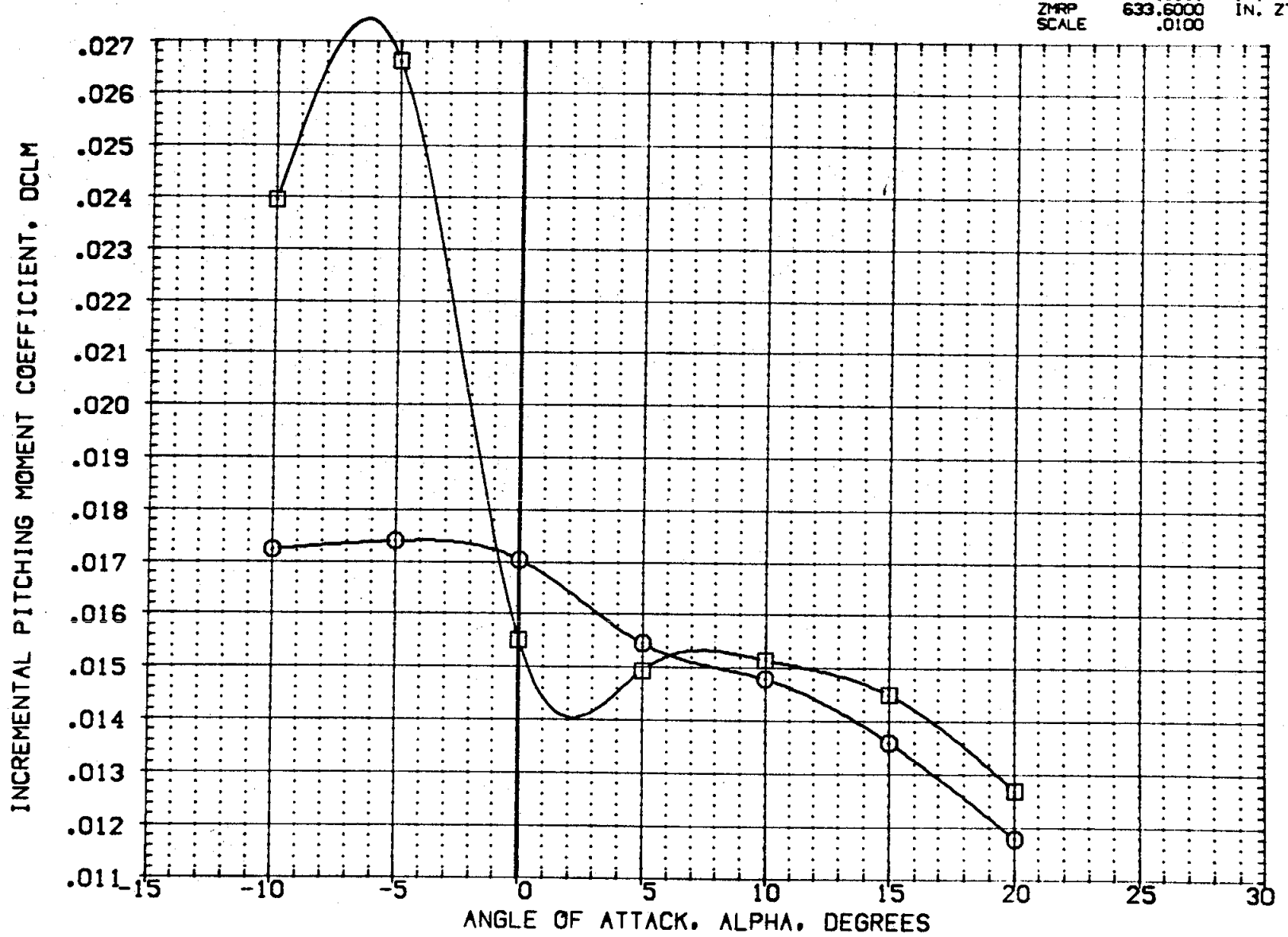


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1012] ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
[CH1028] □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

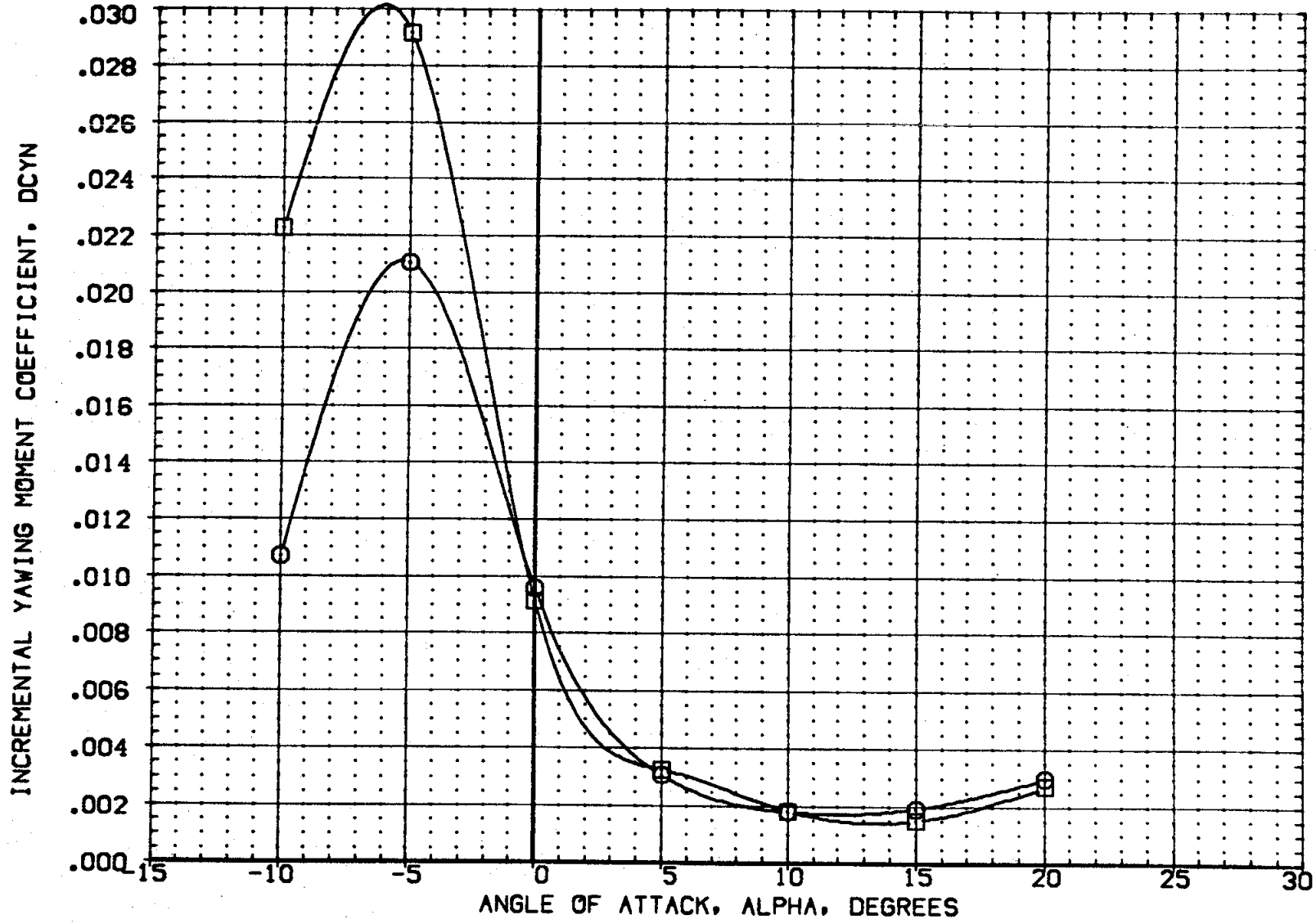


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

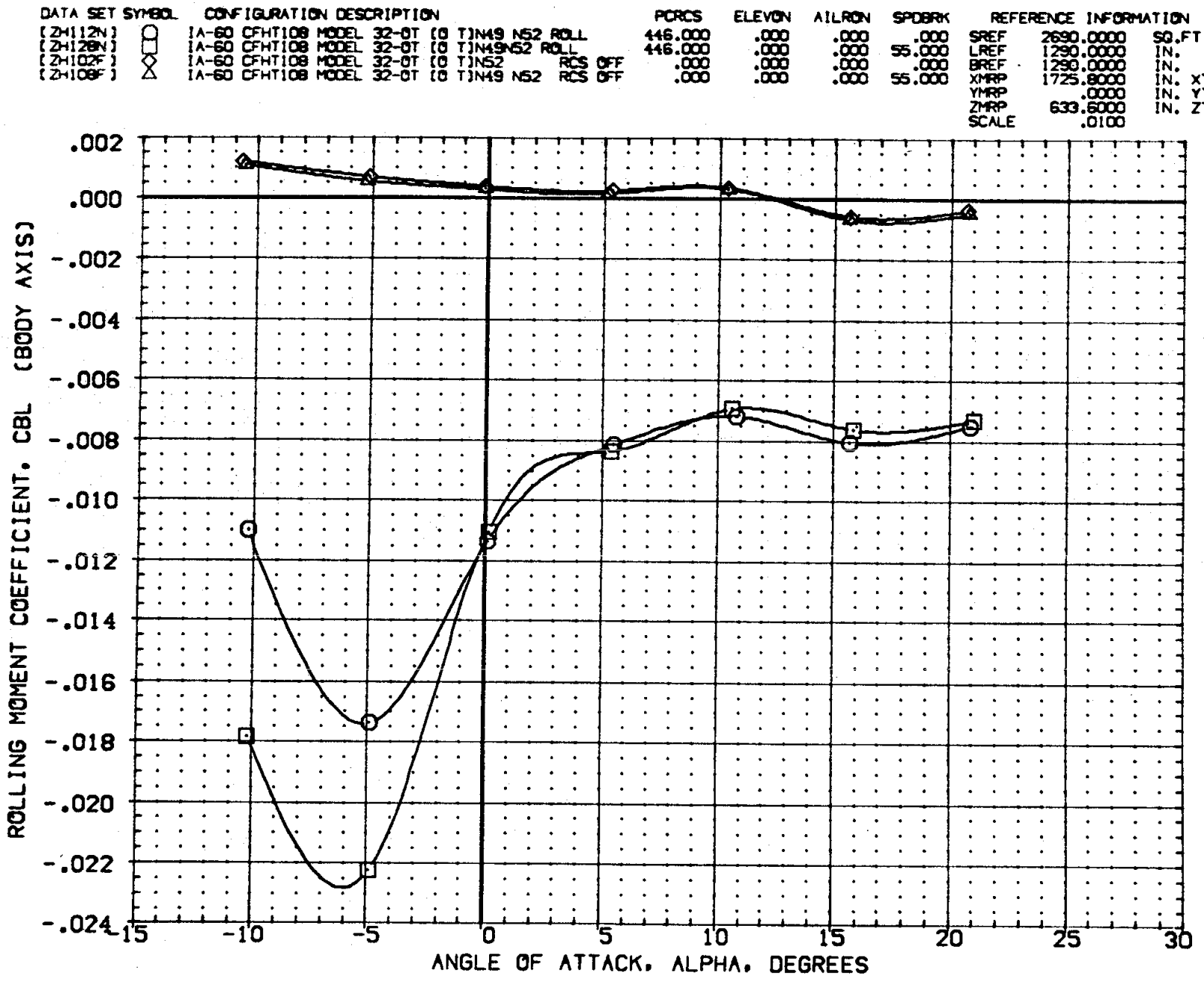


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH112N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	446.000	.000	.000	.000
(ZH128N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	446.000	.000	.000	55.000
(ZH102F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH108F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

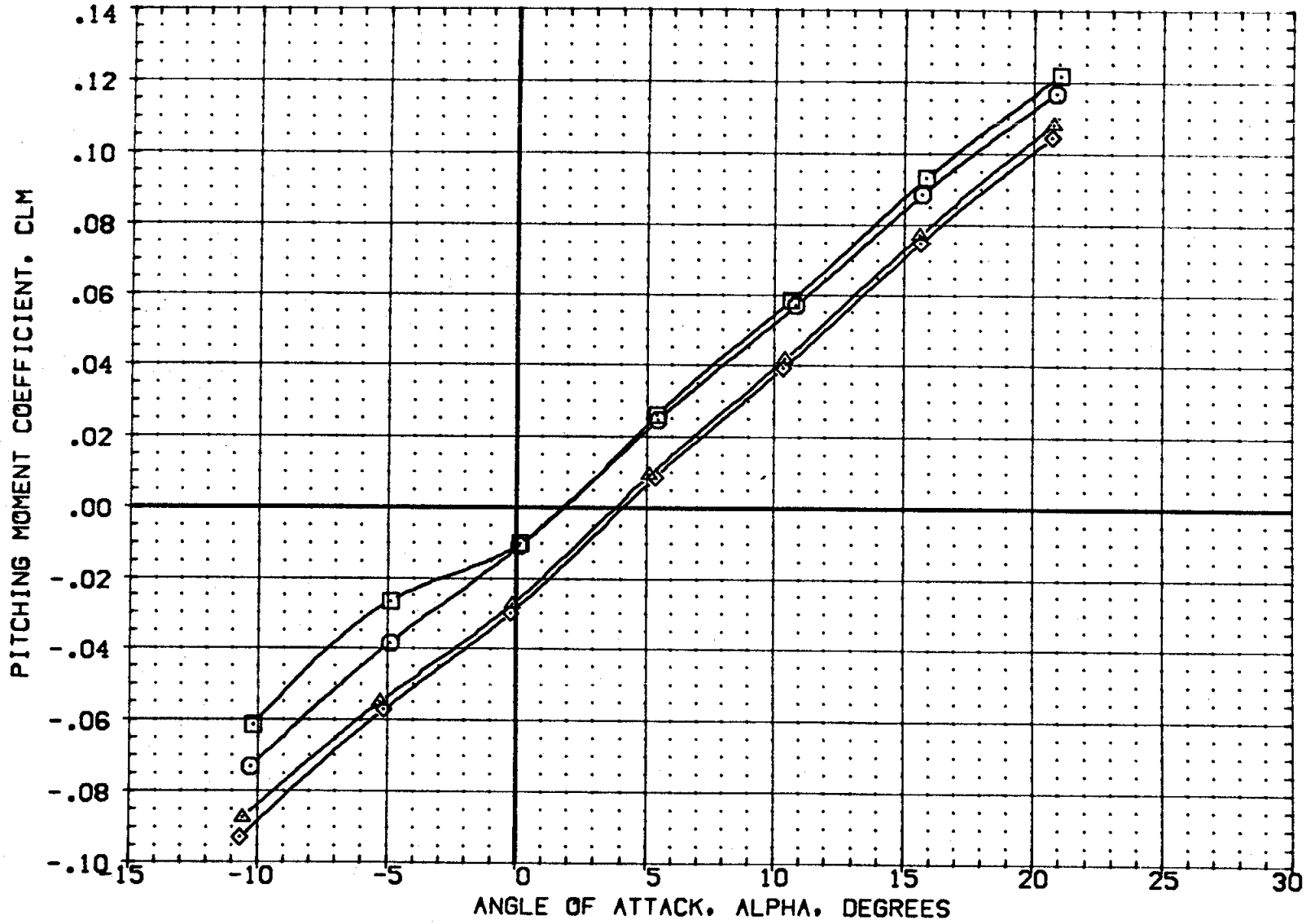


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[ZH112N]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 ROLL	446.000	.000	.000	.000
[ZH126N]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N49N52 ROLL	446.000	.000	.000	55.000
[ZH102F]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N52 RCS OFF	.000	.000	.000	.000
[ZH106F]	△	IA-60 CFHT108 MODEL 32-0T [0 T]N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

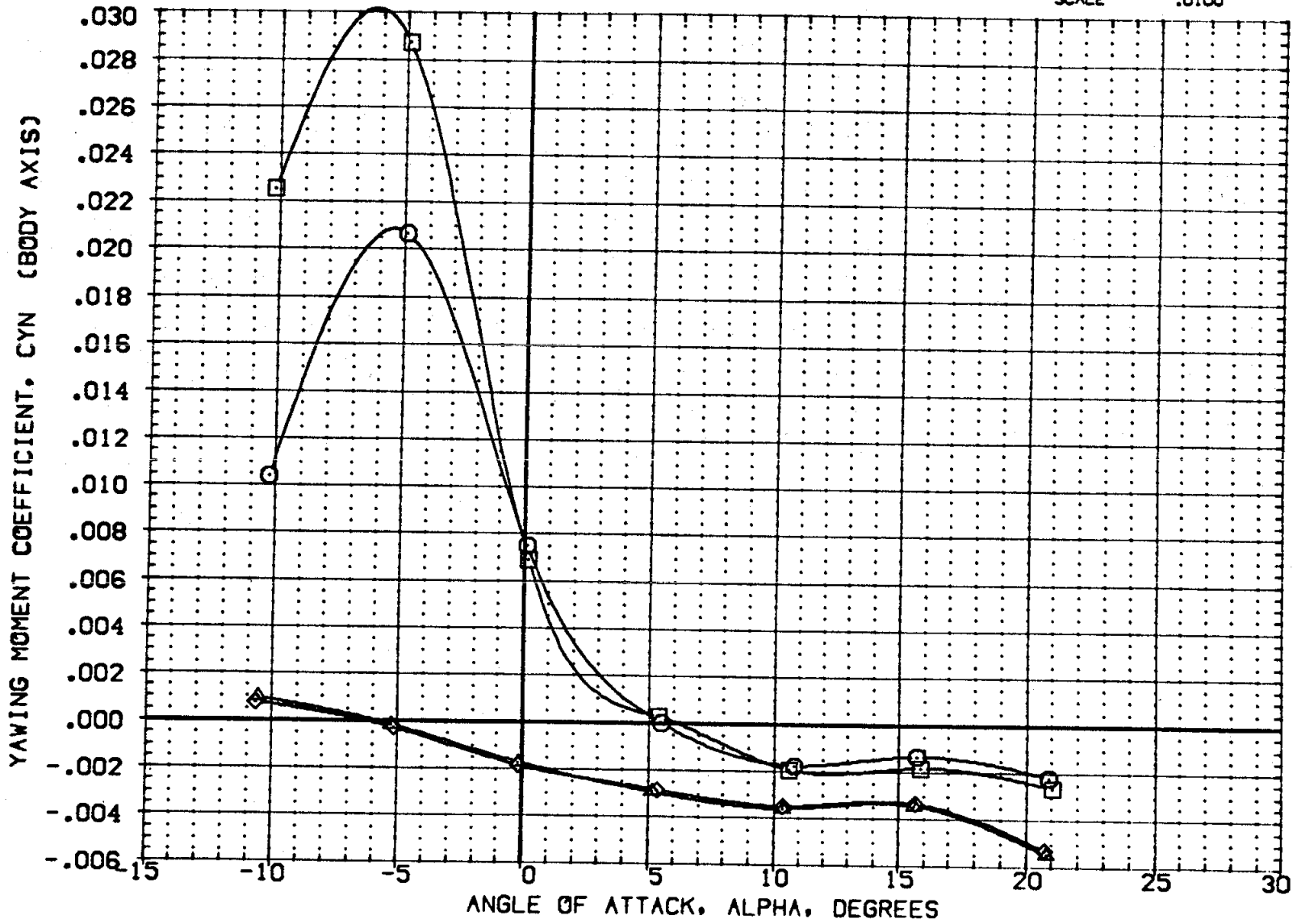


FIG 18 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

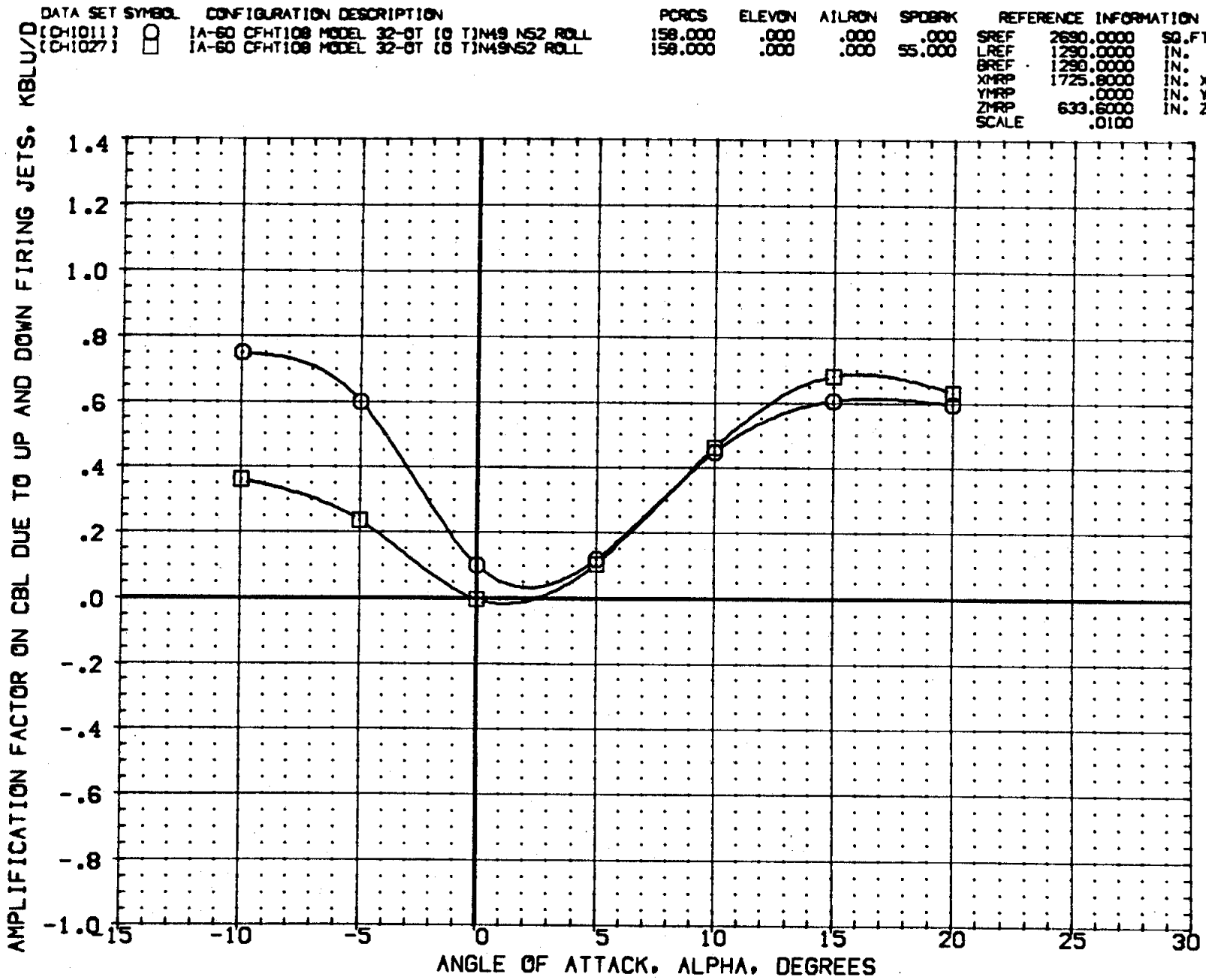


FIG 19 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION. QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1011) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	.000	.000	.000
(CH1027) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

FIG 19 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1011)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	150.000	.000	.000	.000
(CH1027)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	150.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

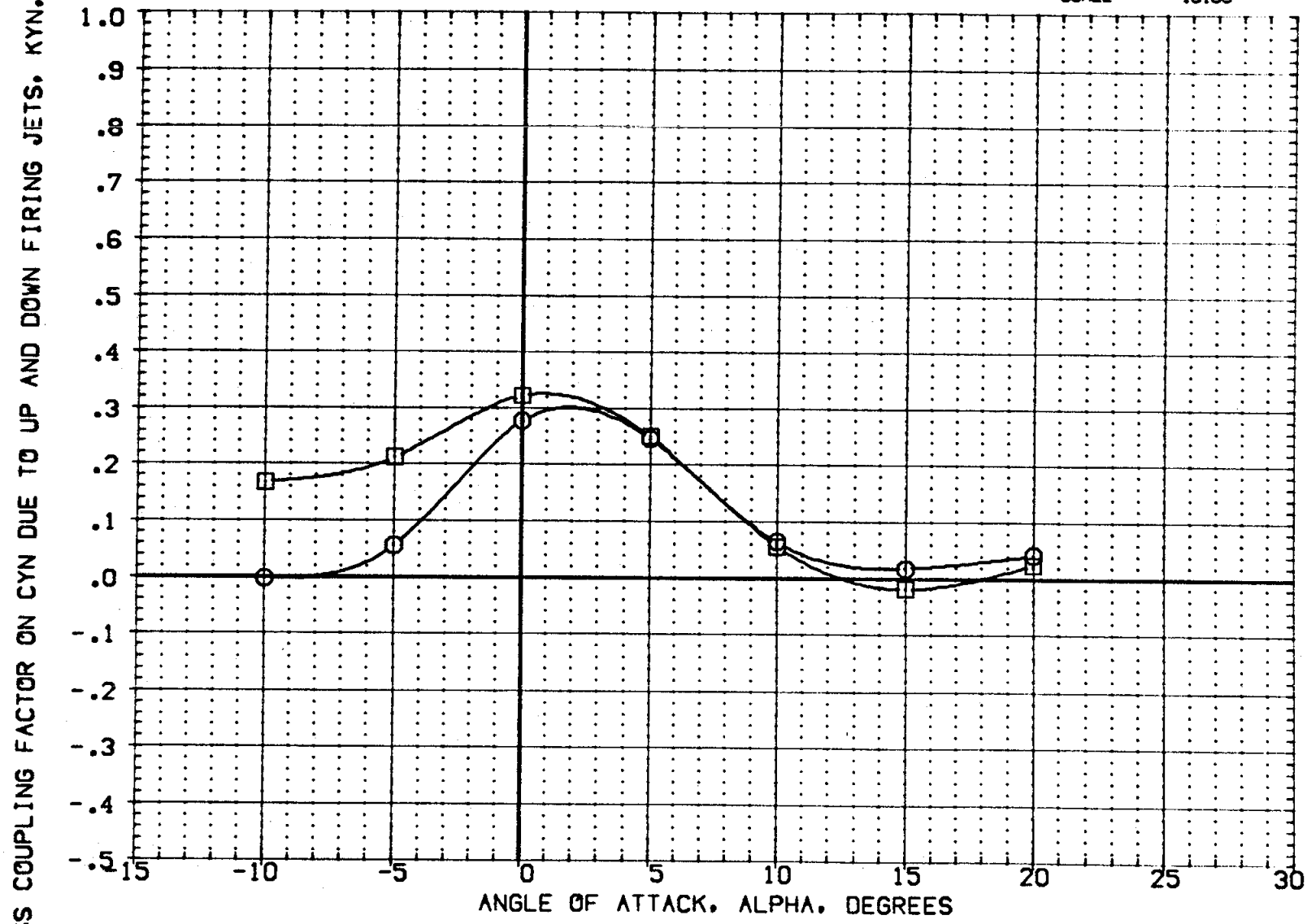


FIG 19 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1011) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	.000	.000	.000
(CH1027) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

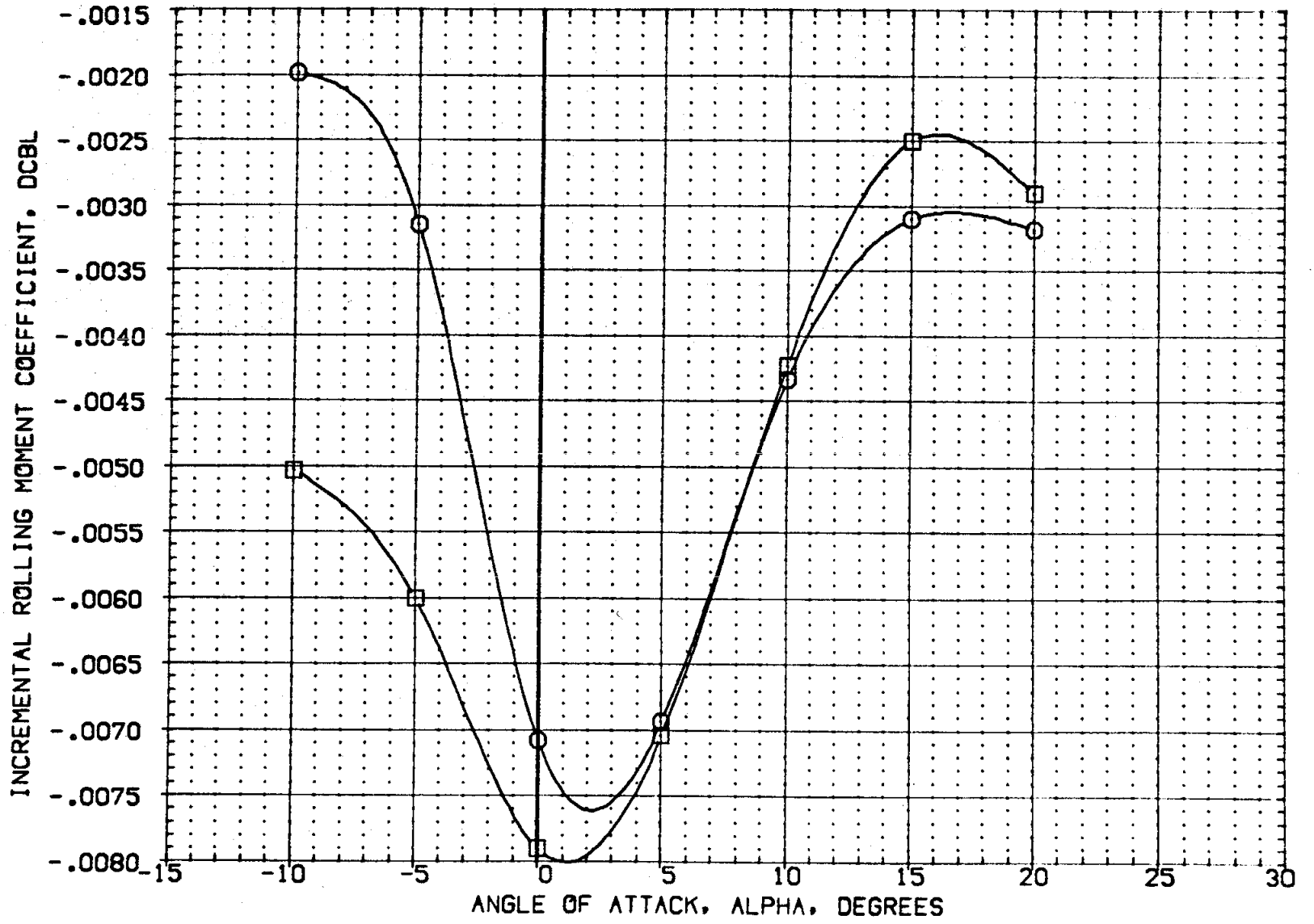


FIG 19 EFFECT OF SPOBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
[CH1011] ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	.000	.000	.000
[CH1027] □	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

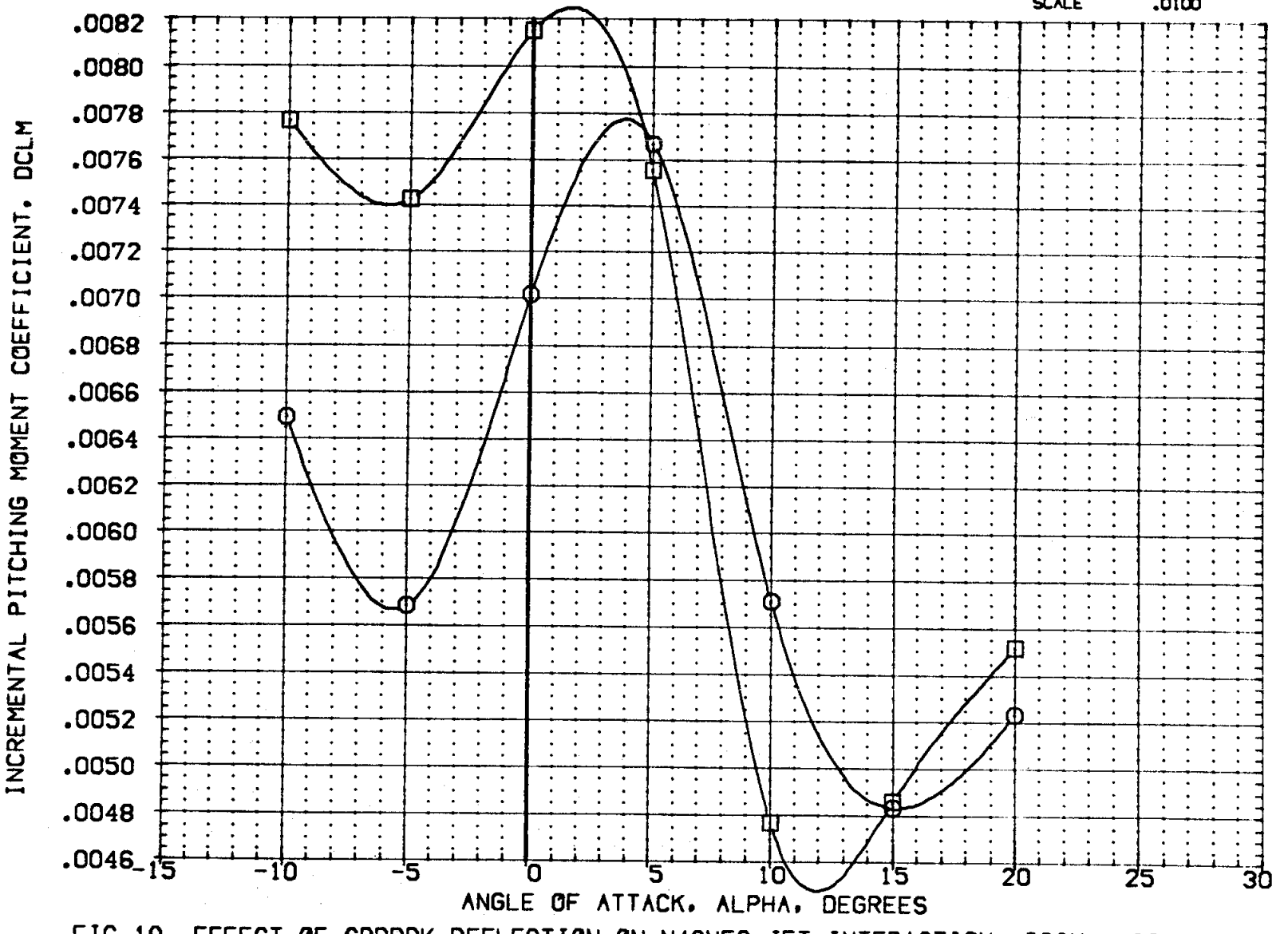


FIG 19 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

[A]MACH = 10.33

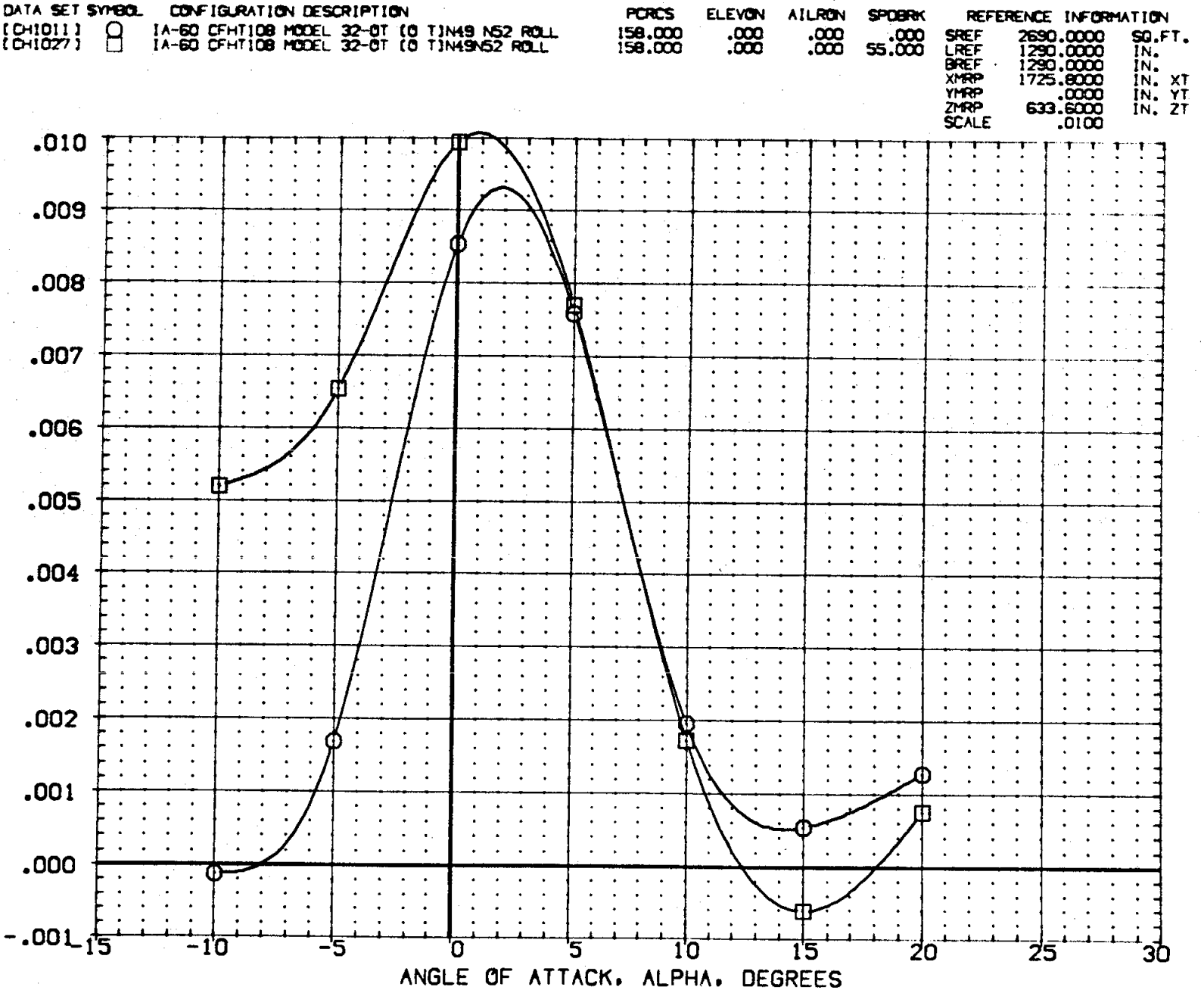


FIG 19 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH111N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	.000	.000	.000
(ZH127N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	.000	55.000
(ZH102F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH108F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

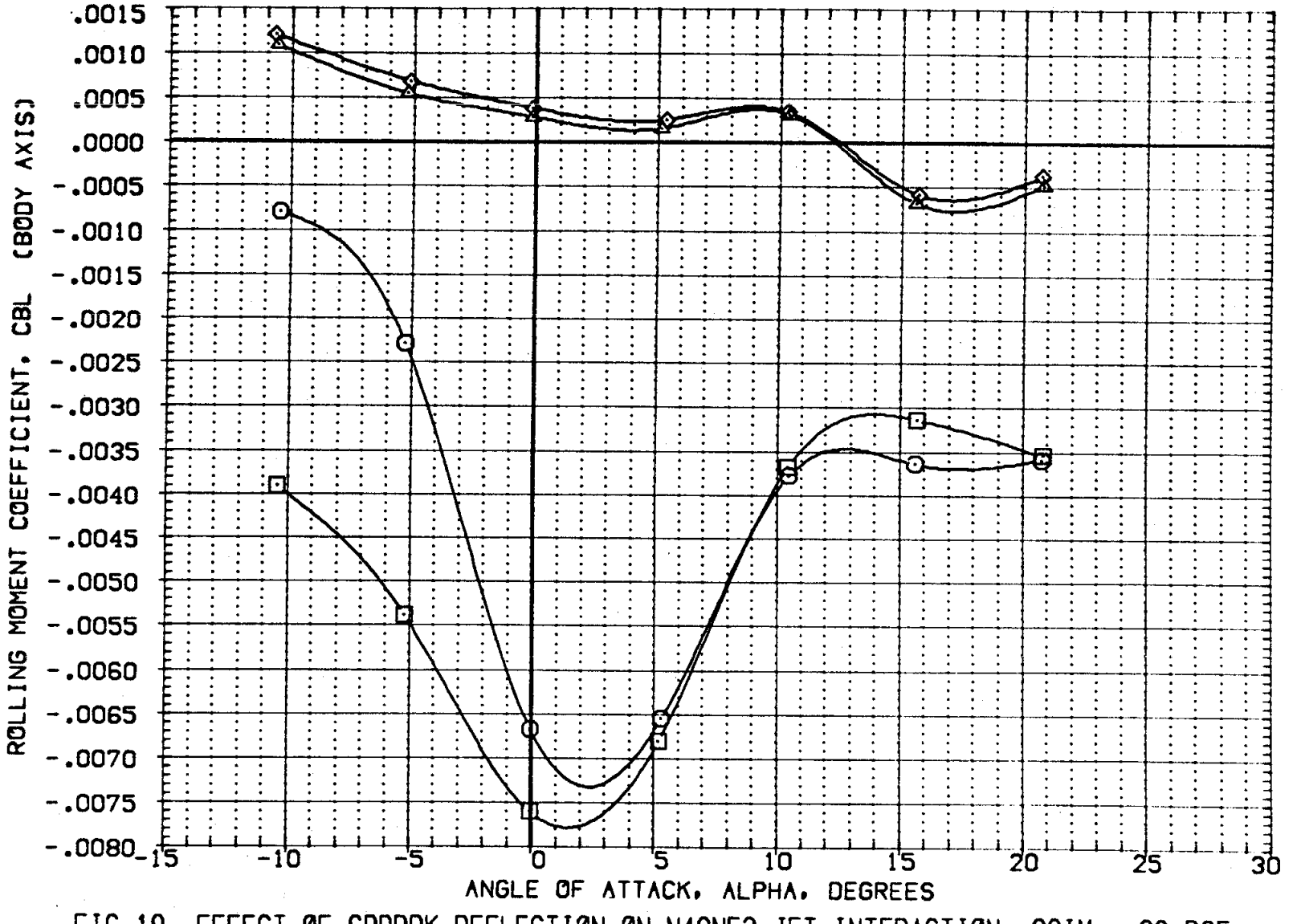


FIG 19 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH111N)	○	IA-60 CFHT108 MODEL 32-0T (0 TJN49 N52 ROLL	158.000	.000	.000	.000
(ZH127N)	□	IA-60 CFHT108 MODEL 32-0T (0 TJN49N52 ROLL	158.000	.000	.000	55.000
(ZH102F)	◇	IA-60 CFHT108 MODEL 32-0T (0 TJN52 RCS OFF	.000	.000	.000	.000
(ZH108F)	△	IA-60 CFHT108 MODEL 32-0T (0 TJN49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

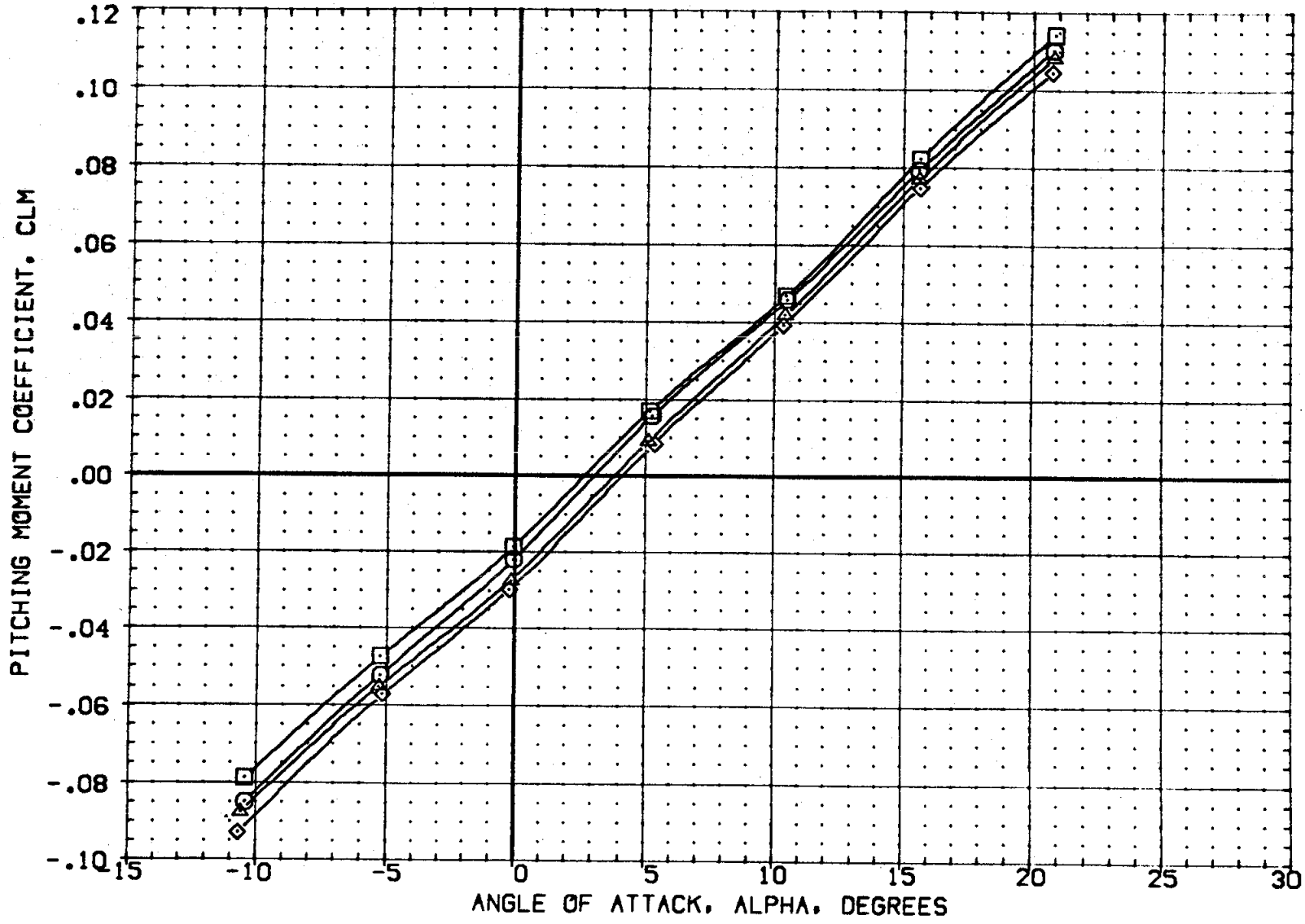


FIG 19 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH111N)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 ROLL	158.000	.000	.000	.000
(ZH127N)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49N52 ROLL	158.000	.000	.000	55.000
(ZH102F)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000
(ZH108F)	△	(A-60 CFHT108 MODEL 32-0T (0 T)N49 N52 RCS OFF	.000	.000	.000	55.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

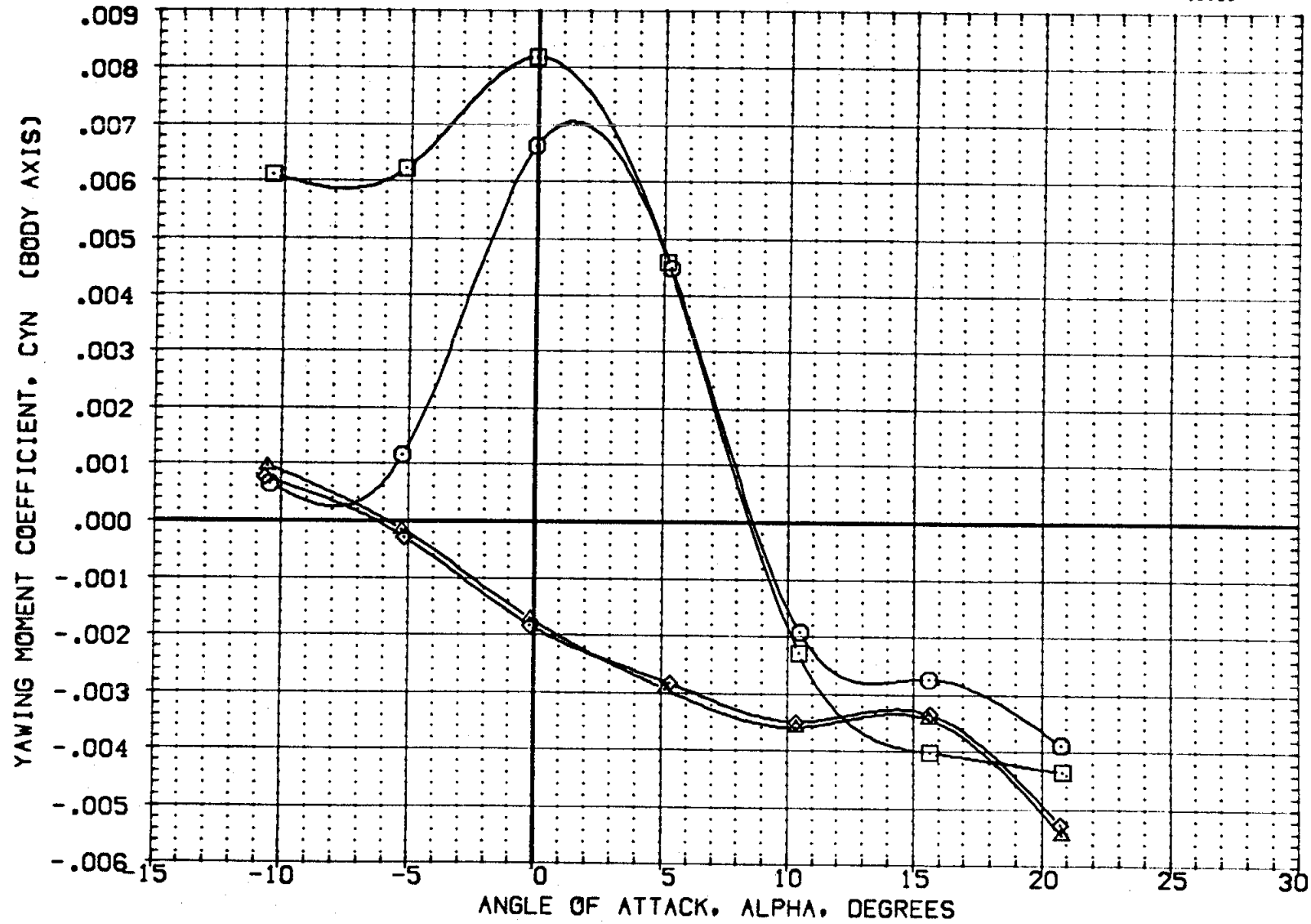


FIG 19 EFFECT OF SPDBRK DEFLECTION ON N49N52 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(CH1018)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	-20.000	.000	.000
(CH1016)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	.000	.000	.000
(CH1002)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	504.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

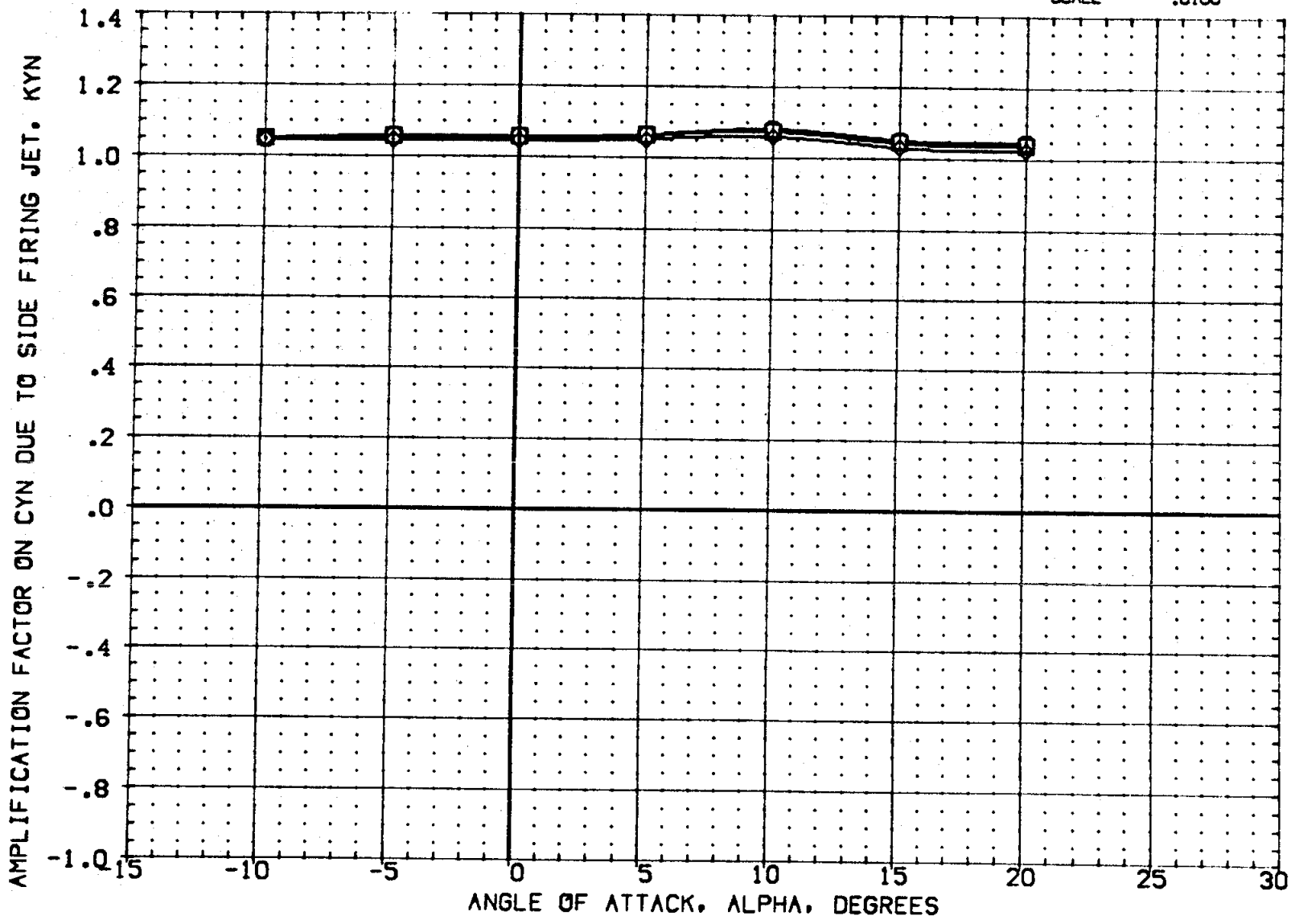


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
[CH1018]	○	[A-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH
[CH1016]	◇□	[A-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH
[CH1002]	◇	[A-60 CFHT108 MODEL 32-0T [0 T]N51	YAW

PCRCS	ELEVON	AILRON	SPOBRK
504.000	-20.000	.000	.000
504.000	.000	.000	.000
504.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

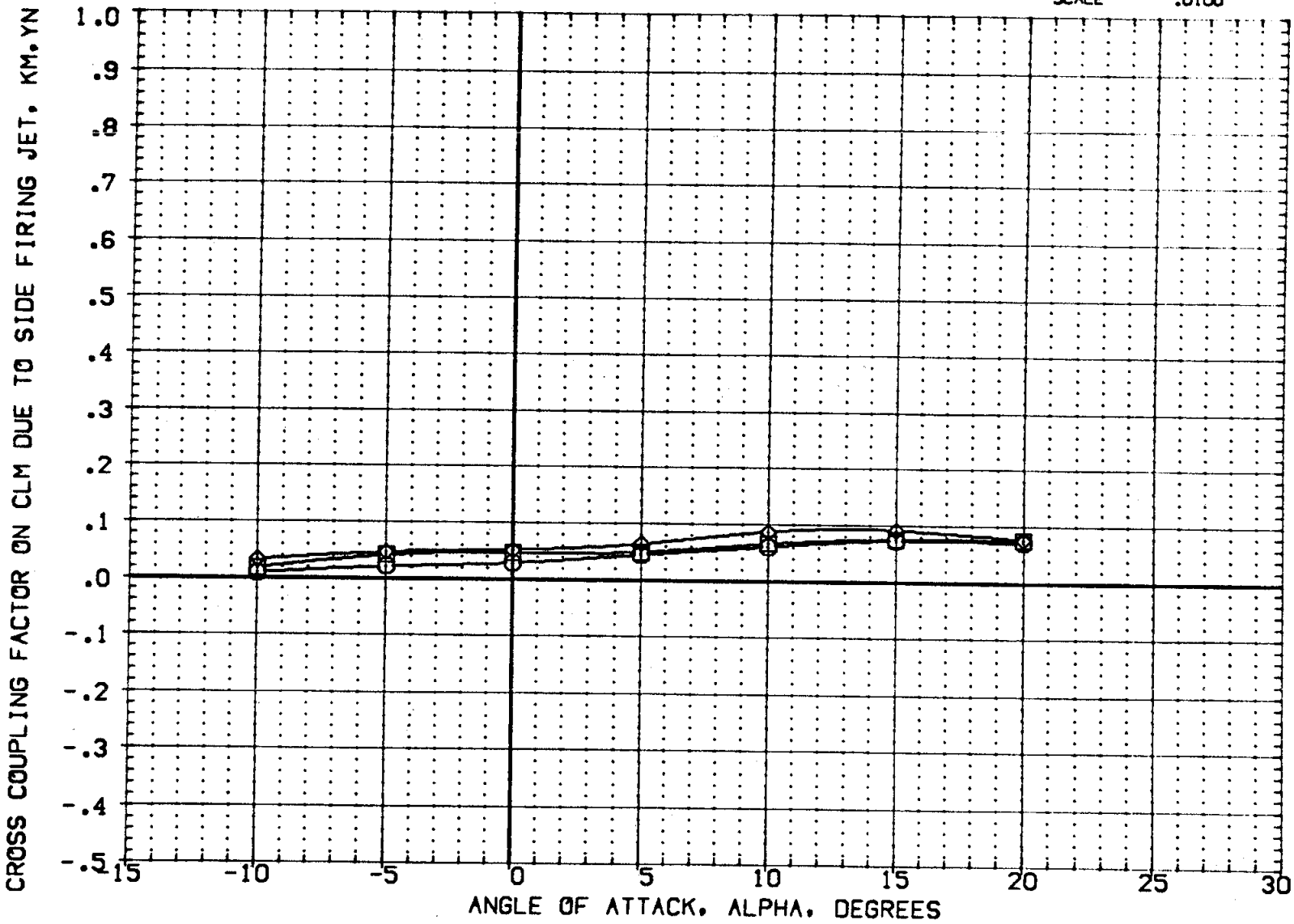


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(CH1018)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	-20.000	.000	.000
(CH1016)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	.000	.000	.000
(CH1002)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	504.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

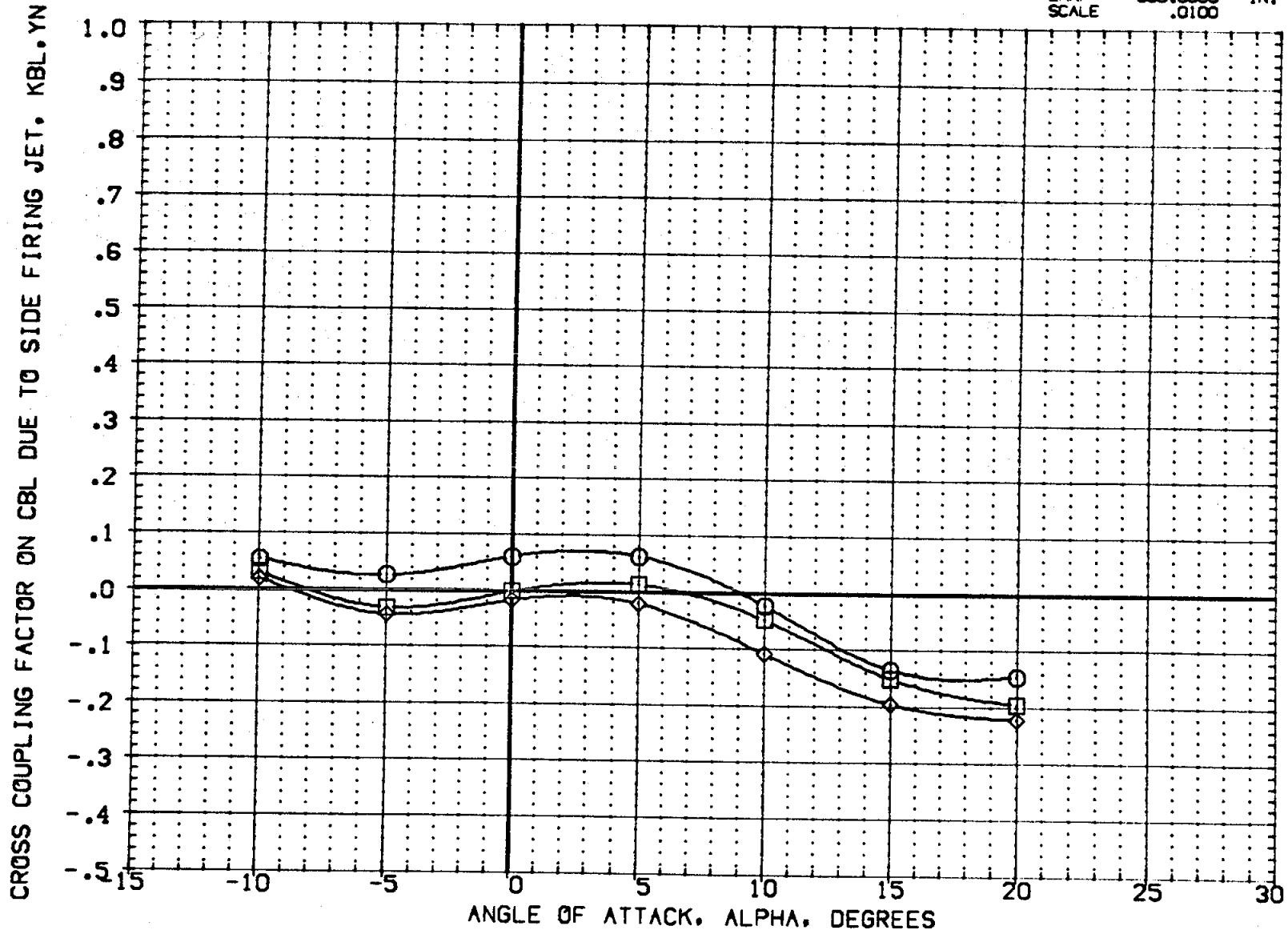


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(CH1018)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	-20.000	.000	.000
(CH1016)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	.000	.000	.000
(CH1002)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	504.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

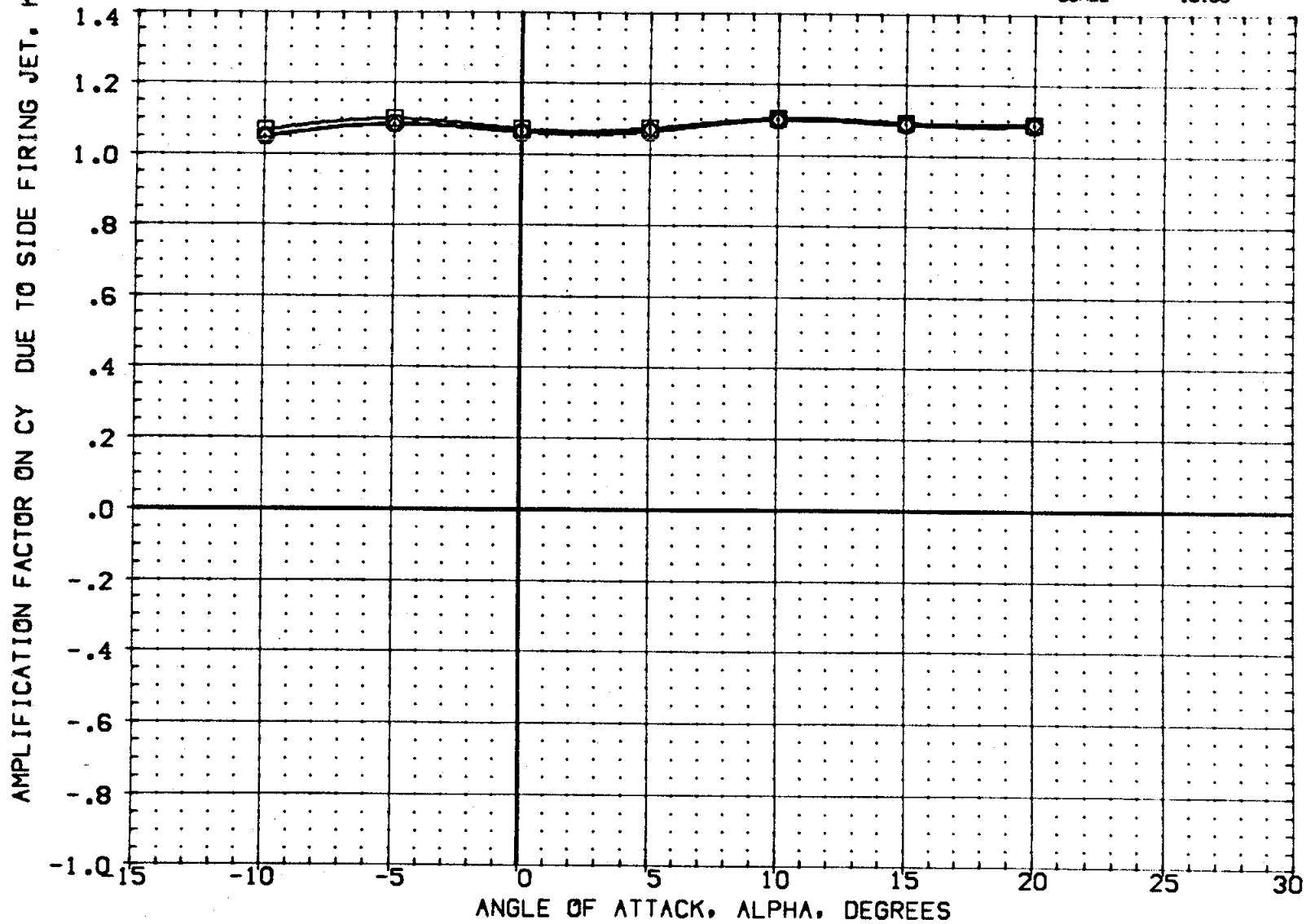


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(CH1018)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	-20.000	.000	.000
(CH1016)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	.000	.000	.000
(CH1002)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	504.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

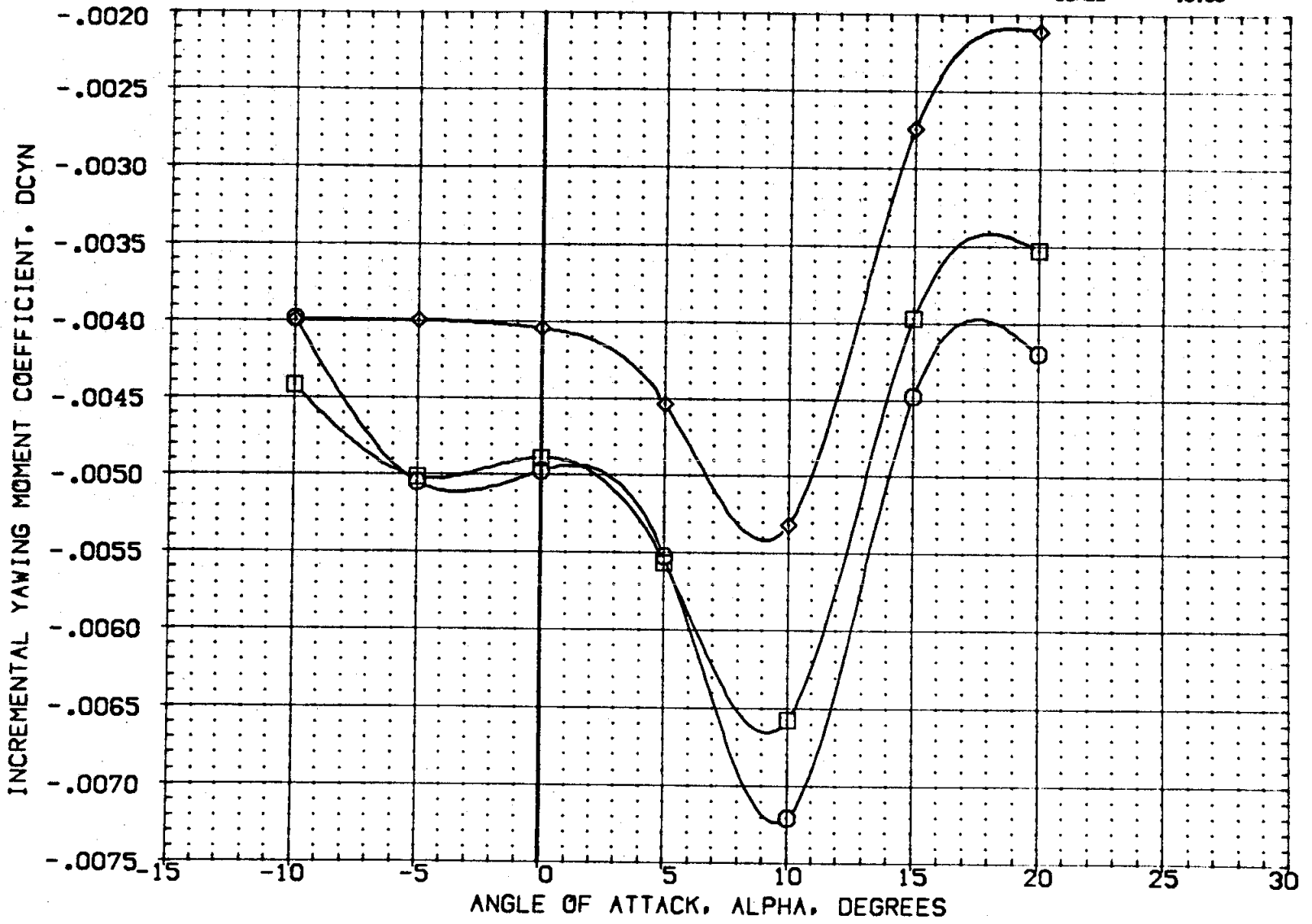


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(CH1018)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	-20.000	.000	.000
(CH1016)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	.000	.000	.000
(CH1002)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	504.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	639.6000	IN. ZT
SCALE	.0100	

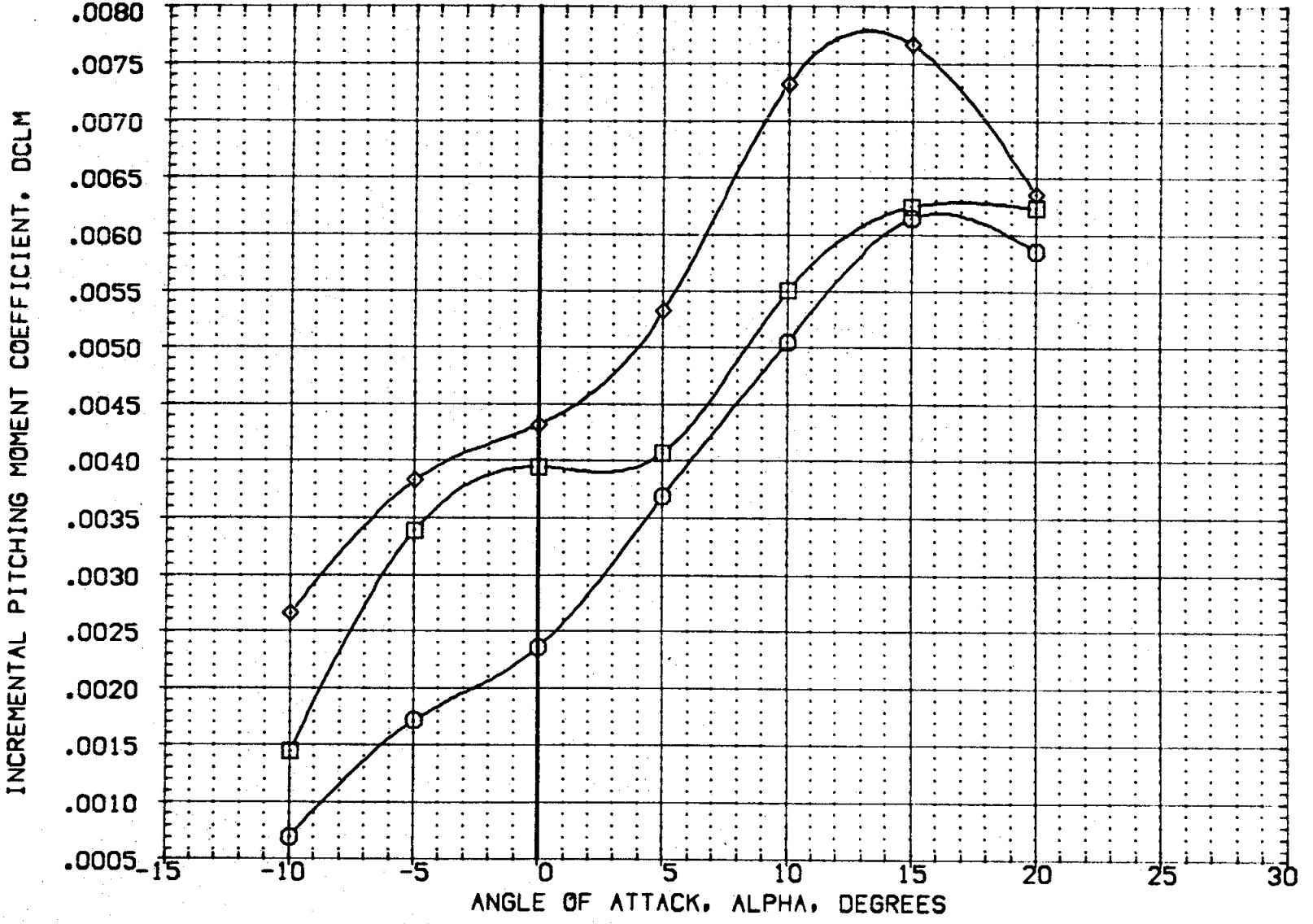


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1018)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	-20.000	.000	.000
(CH1016)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	.000	.000	.000
(CH1002)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	504.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

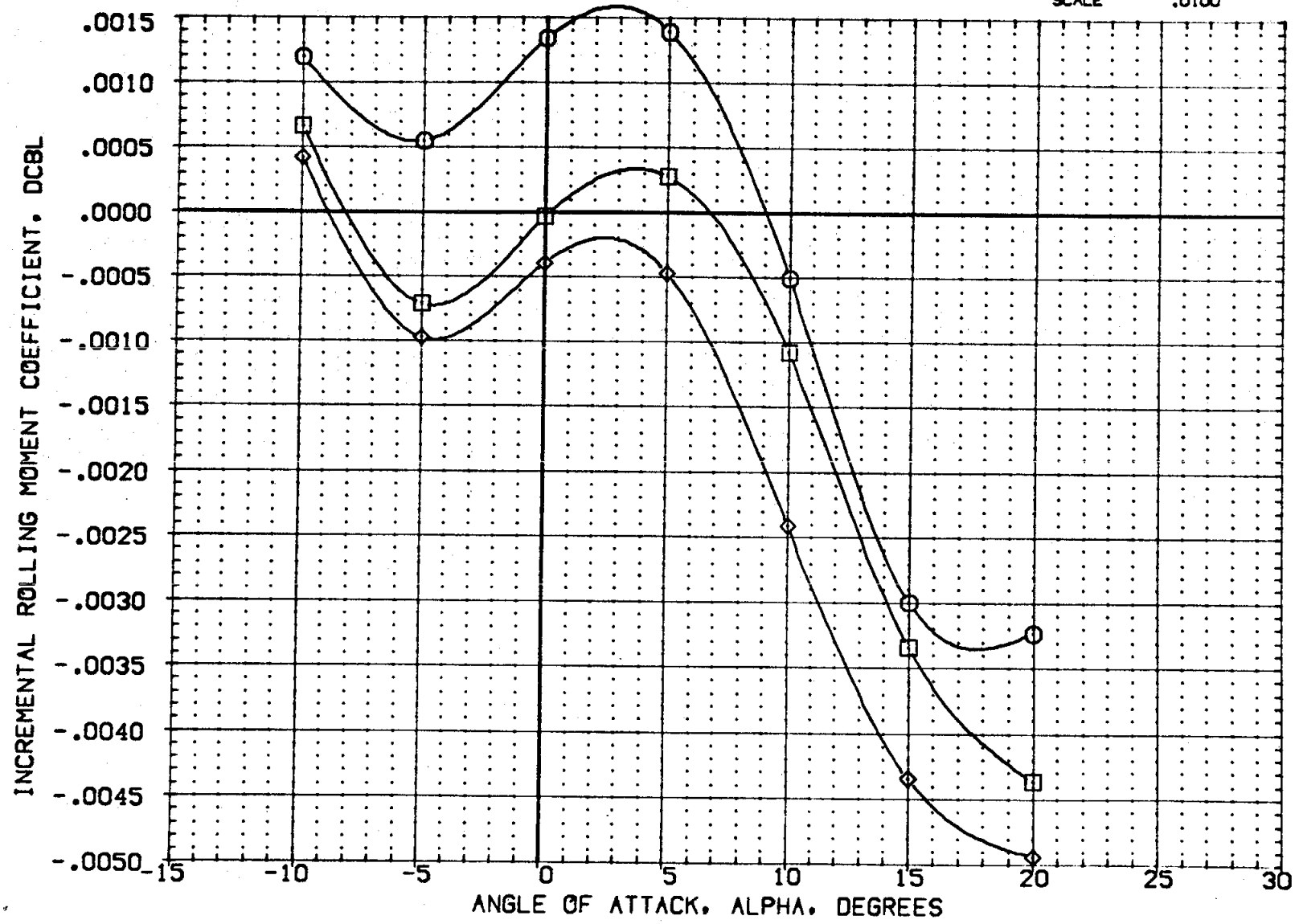


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1018)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	-20.000	.000	.000
(CH1016)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	.000	.000	.000
(CH1002)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	504.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

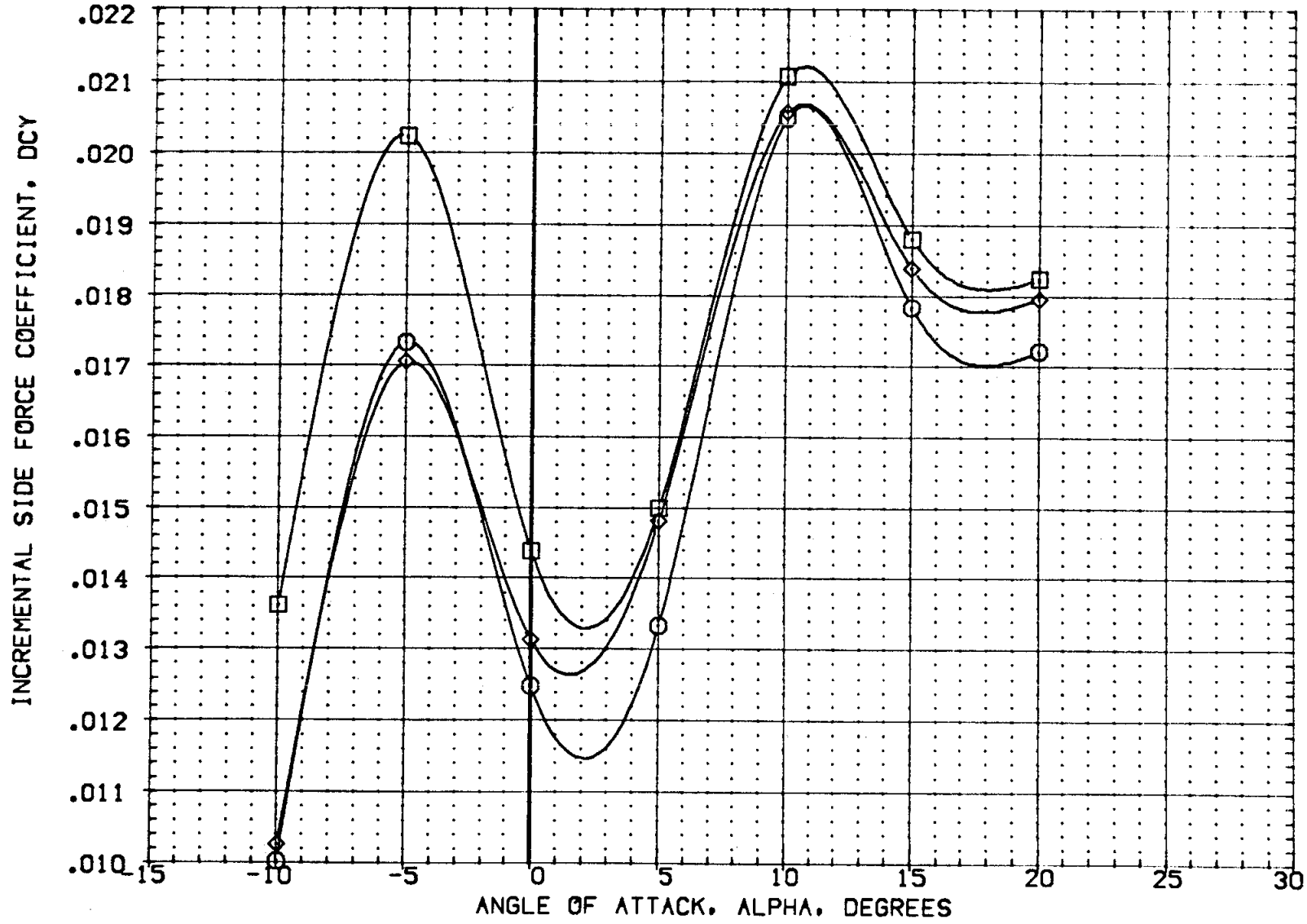


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

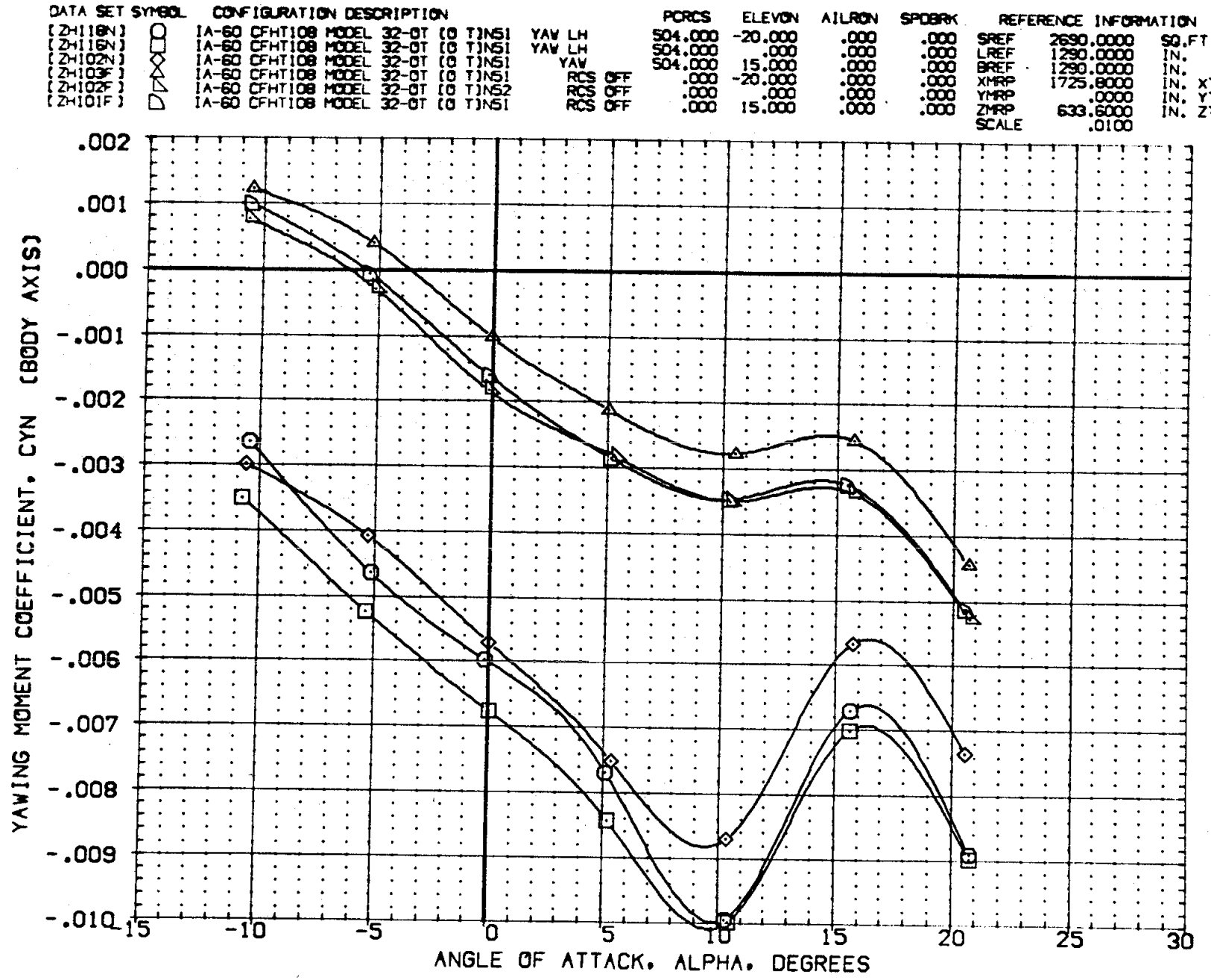


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(ZH118N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	-20.000	.000	.000
(ZH116N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	504.000	.000	.000	.000
(ZH102N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	504.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	-20.000	.000	.000
(ZH102F)	◁	IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH101F)	▷	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

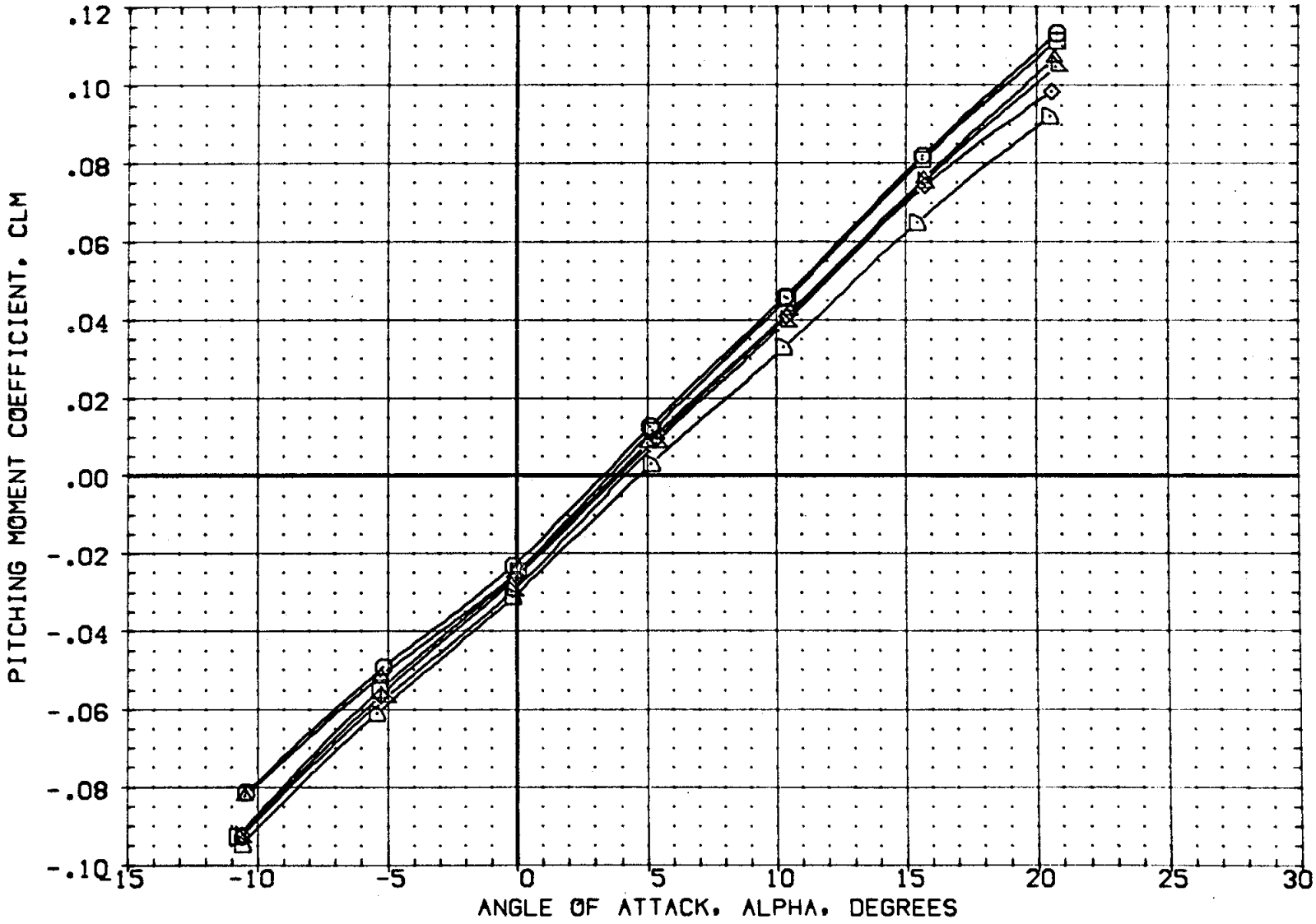


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

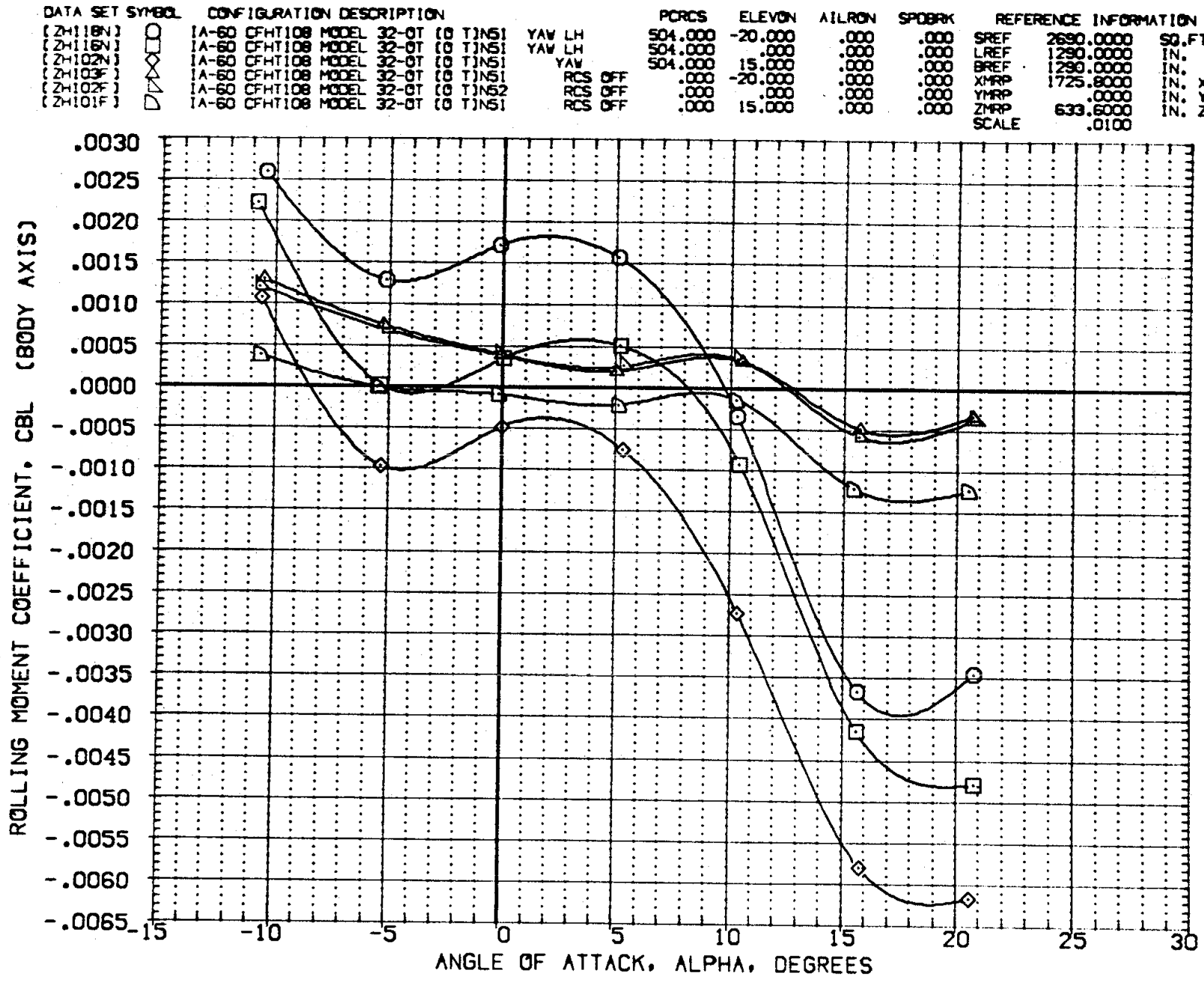


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
[ZH118N]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH	504.000	-20.000	.000	.000
[ZH116N]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH	504.000	.000	.000	.000
[ZH102N]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW	504.000	15.000	.000	.000
[ZH103F]	△	IA-60 CFHT108 MODEL 32-0T [0 T]N51	RCS OFF	.000	-20.000	.000	.000
[ZH102F]	▽	IA-60 CFHT108 MODEL 32-0T [0 T]N52	RCS OFF	.000	.000	.000	.000
[ZH101F]	◁	IA-60 CFHT108 MODEL 32-0T [0 T]N51	RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

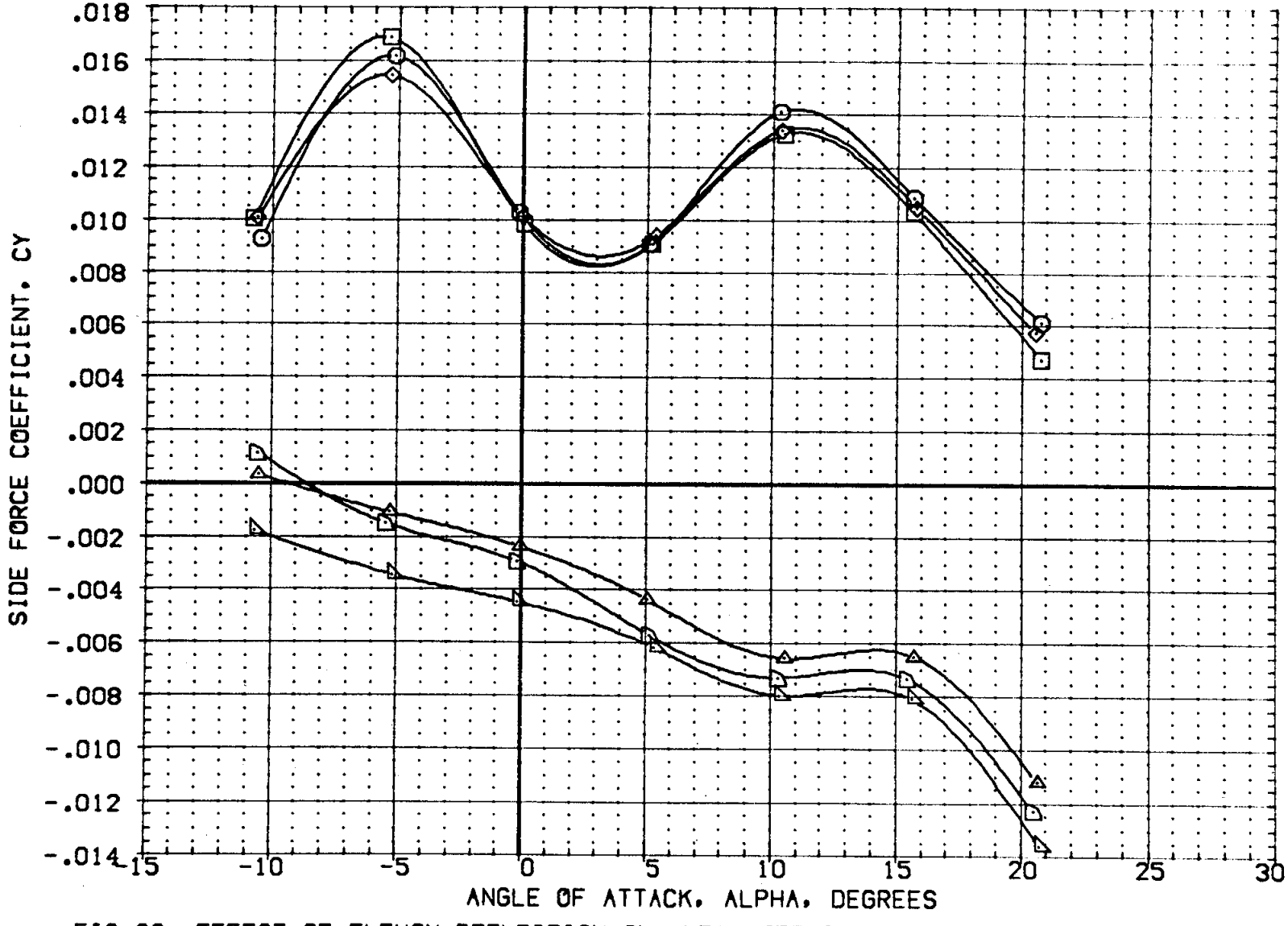


FIG 20 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 7 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(CH1017)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	-20.000	.000	.000
(CH1015)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	.000	.000	.000
(CH1001)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	179.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

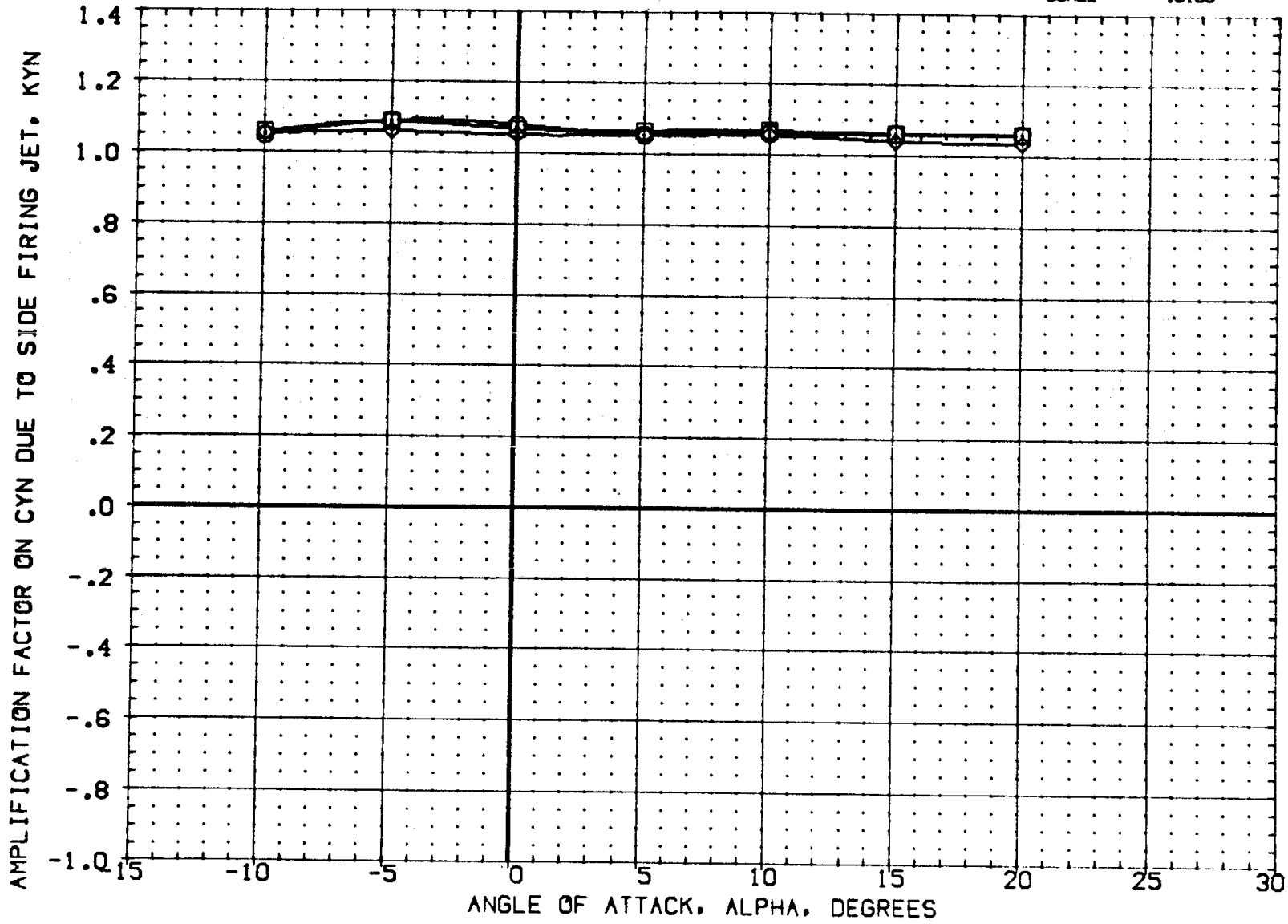


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
[CH1017] □	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH	179.000	-20.000	.000	.000
[CH1015] ◇□	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH	179.000	.000	.000	.000
[CH1001] ◇	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW	179.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

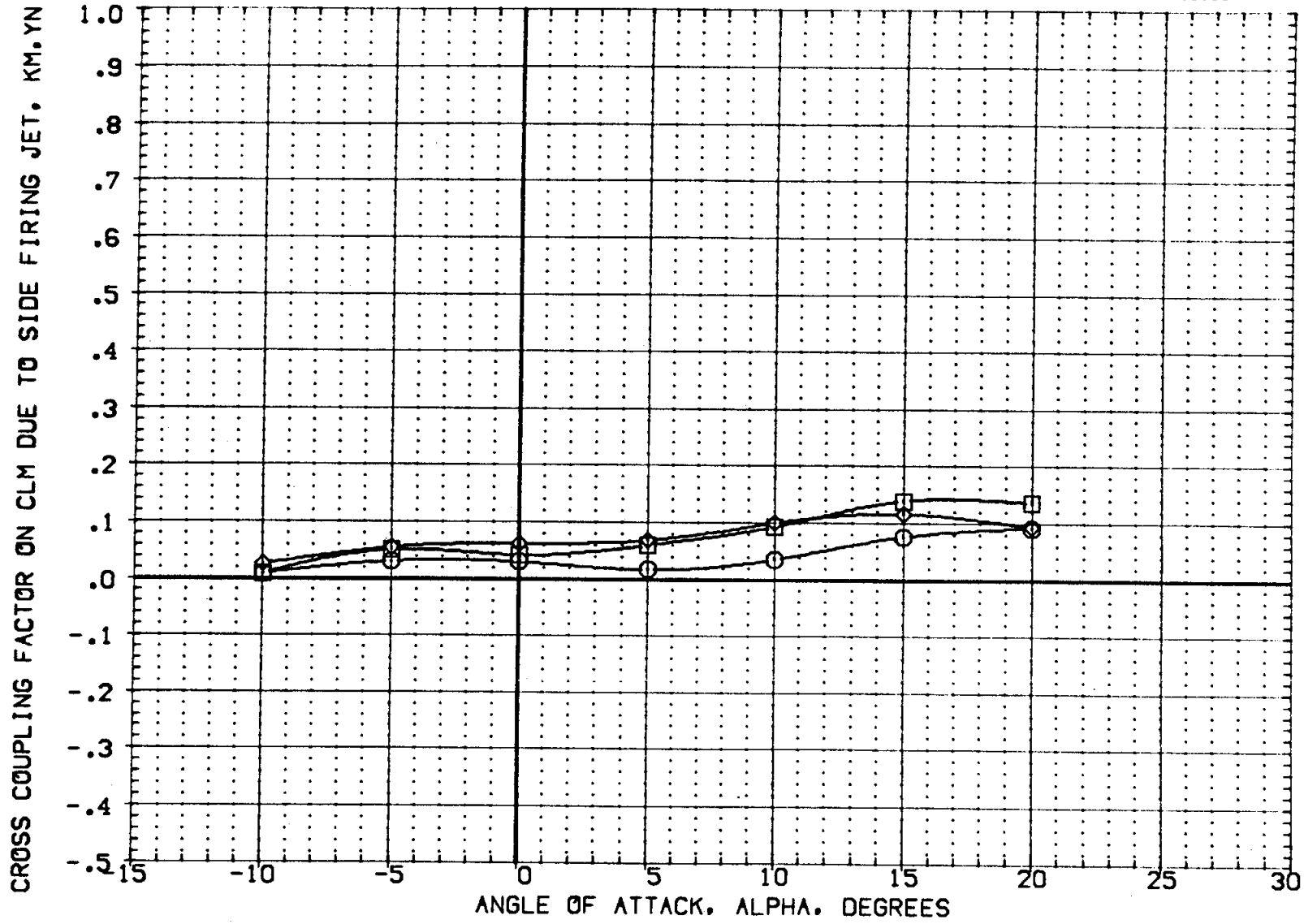


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(CH1017)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	-20.000	.000	.000
(CH1015)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	.000	.000	.000
(CH1001)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	179.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

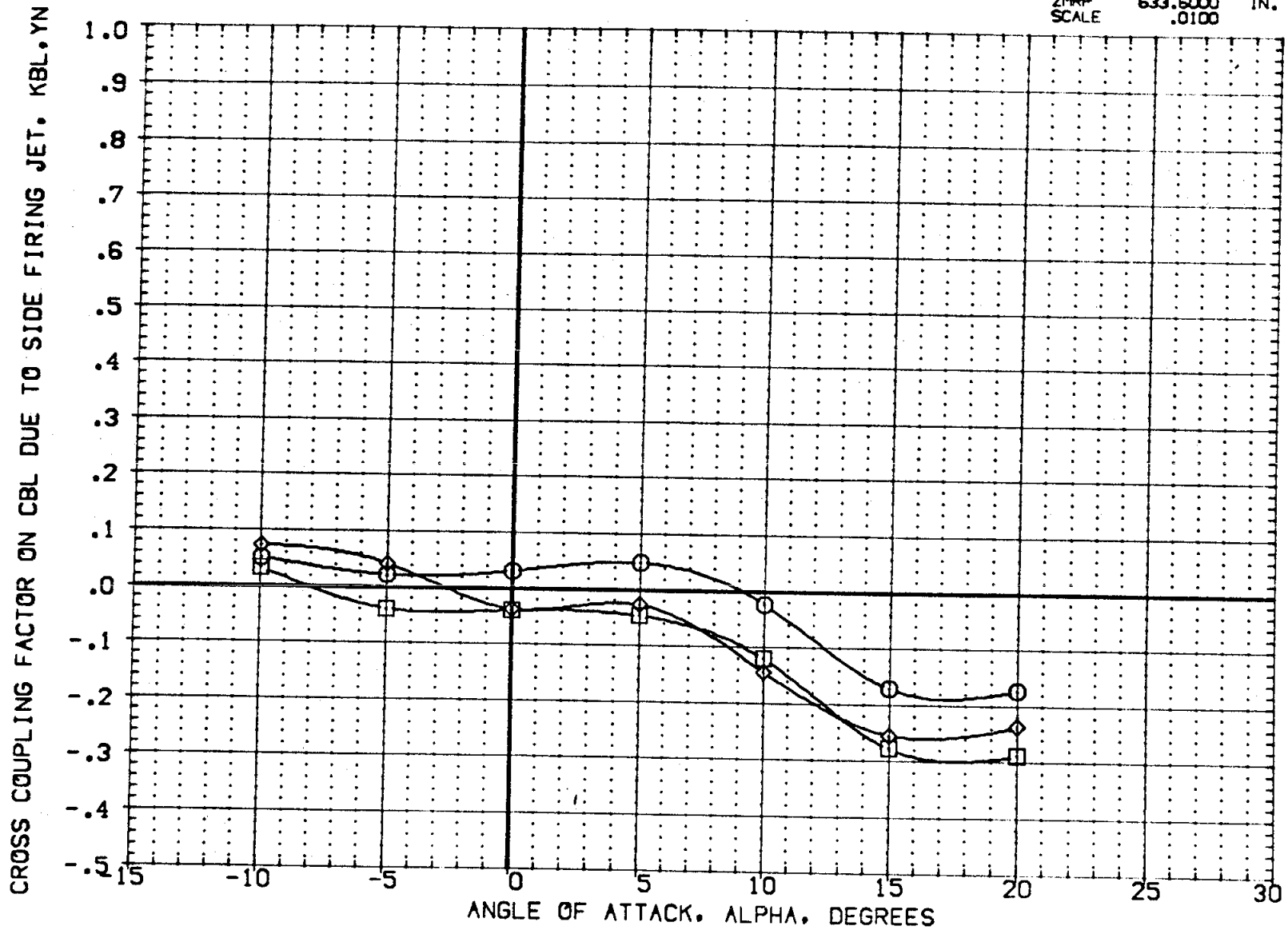


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
[CH1017]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH	179.000	-20.000	.000	.000
[CH1015]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH	179.000	.000	.000	.000
[CH1001]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW	179.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

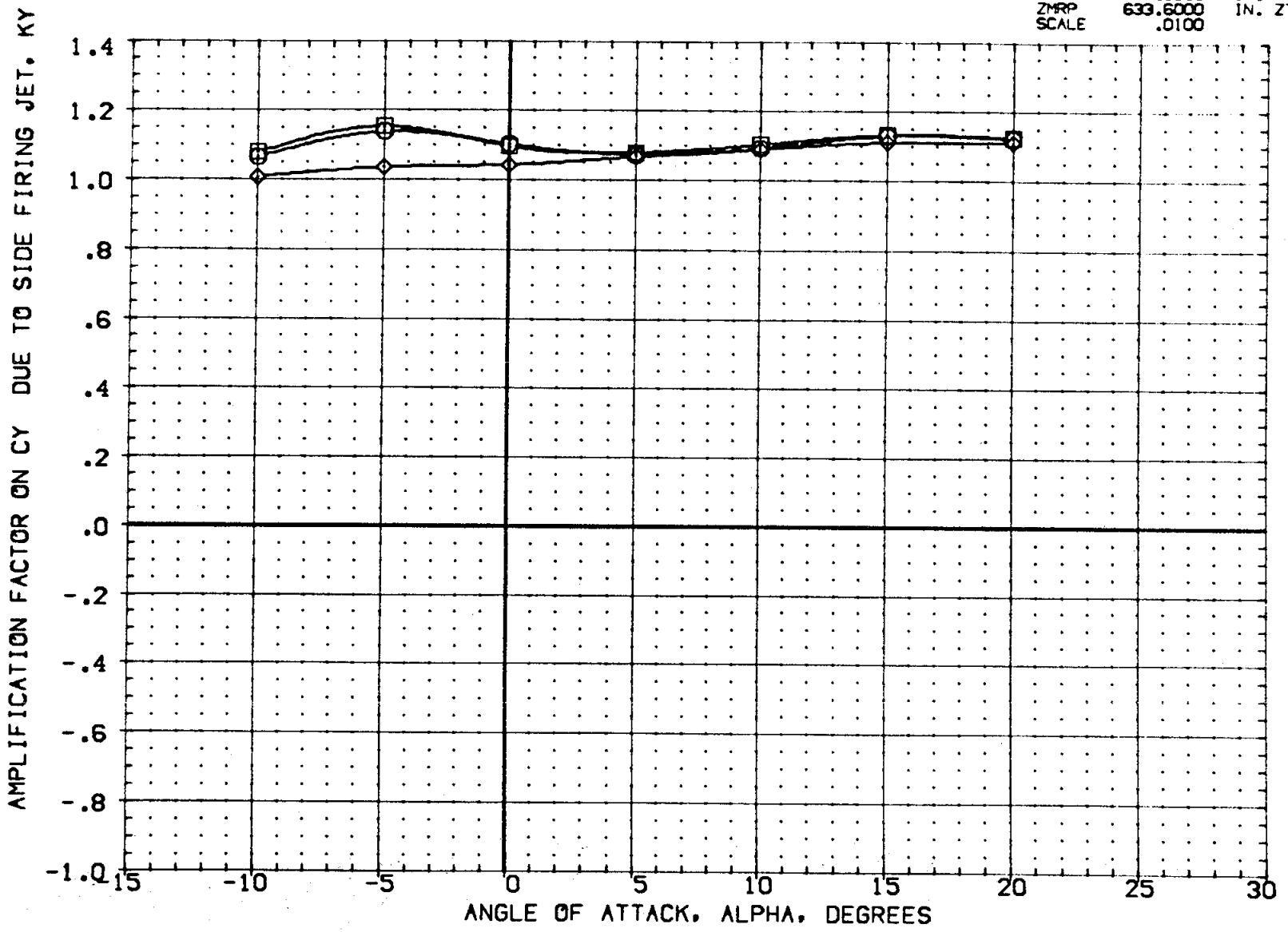


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

[A]MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1017)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	-20.000	.000	.000
(CH1015)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	.000	.000	.000
(CH1001)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	179.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

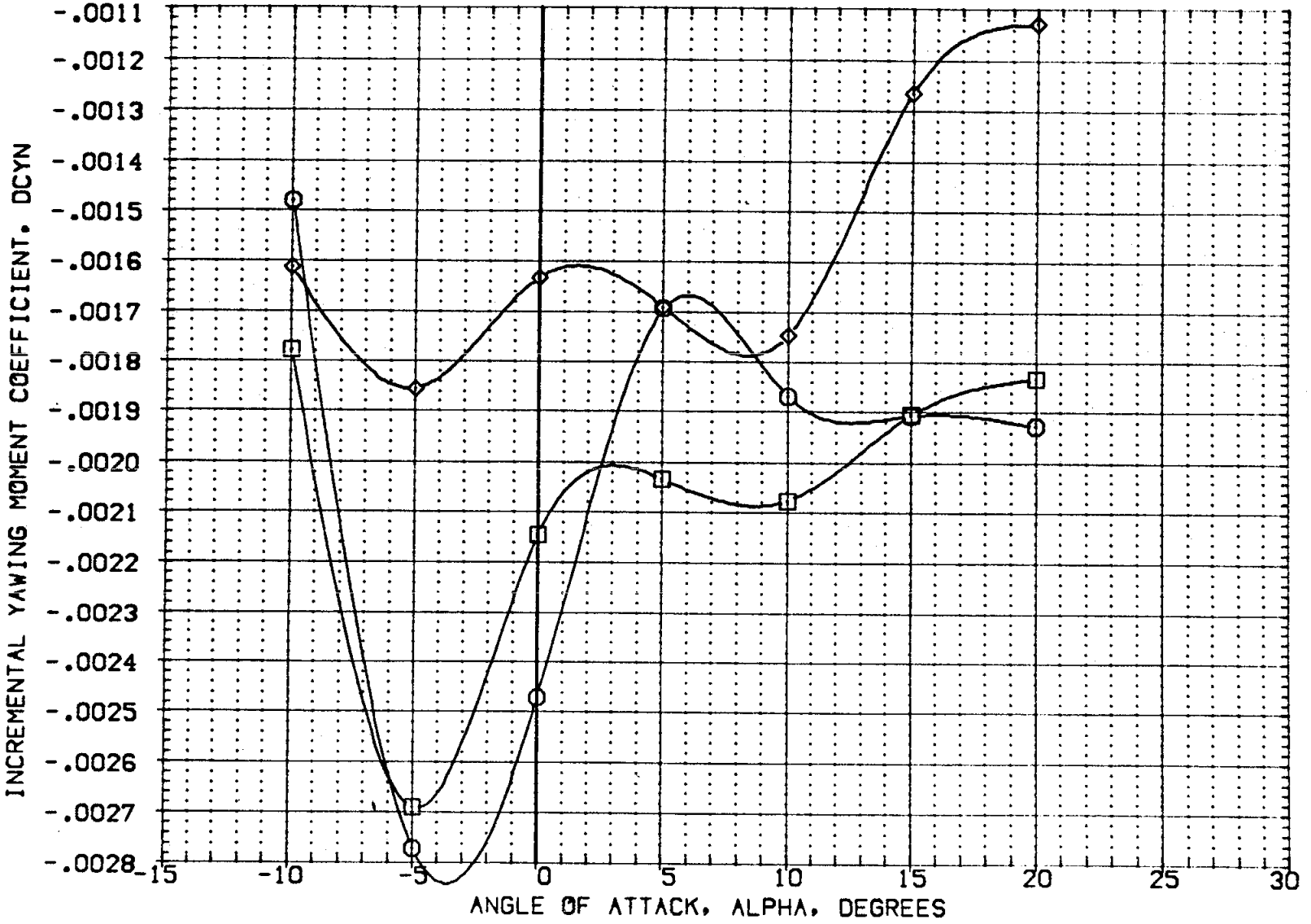


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(CH1017)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	-20.000	.000	.000
(CH1015)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	.000	.000	.000
(CH1001)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	179.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

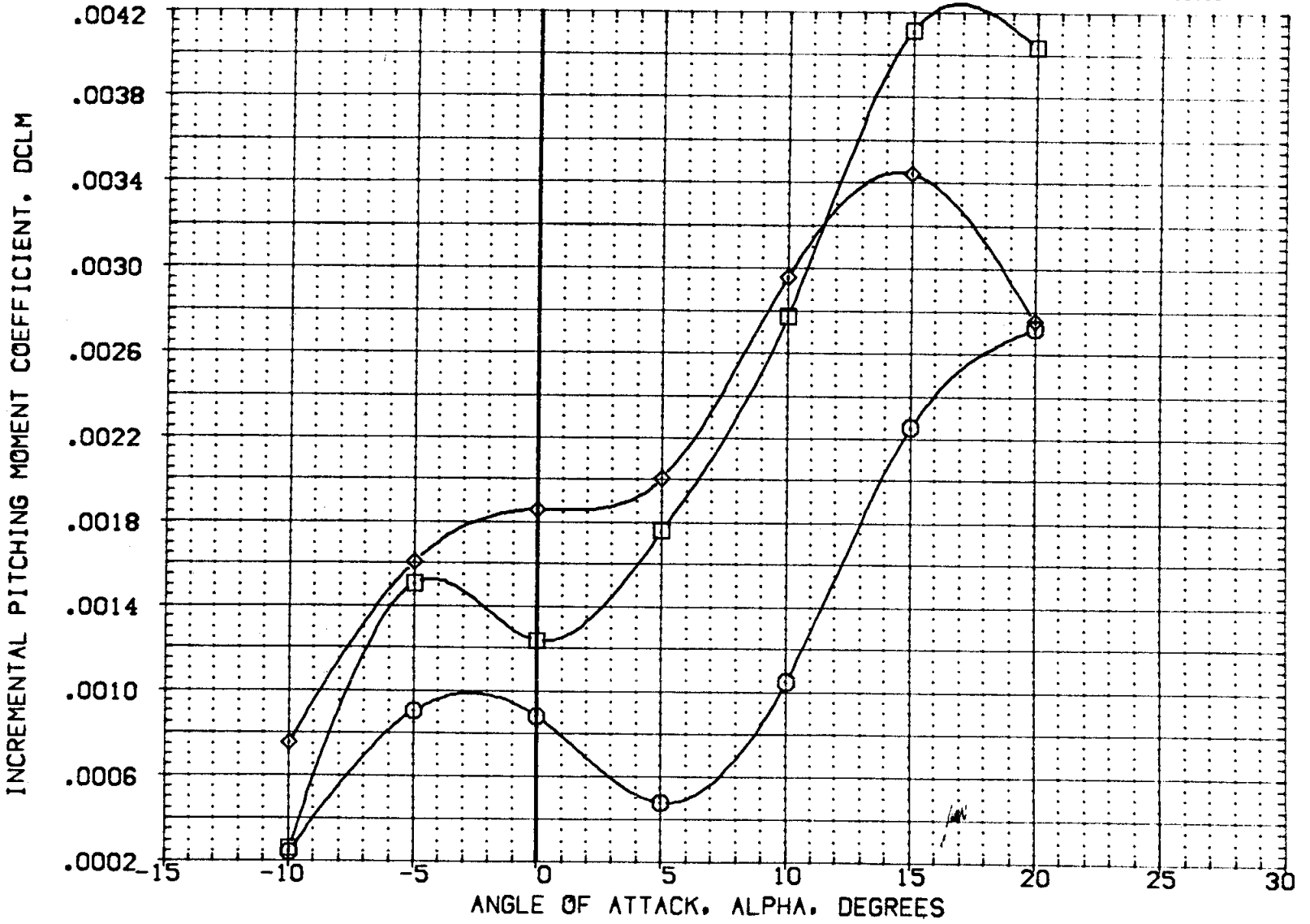


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
[CH1017]	○	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH	179.000	-20.000	.000	.000
[CH1015]	□	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW LH	179.000	.000	.000	.000
[CH1001]	◇	IA-60 CFHT108 MODEL 32-0T [0 T]N51	YAW	179.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

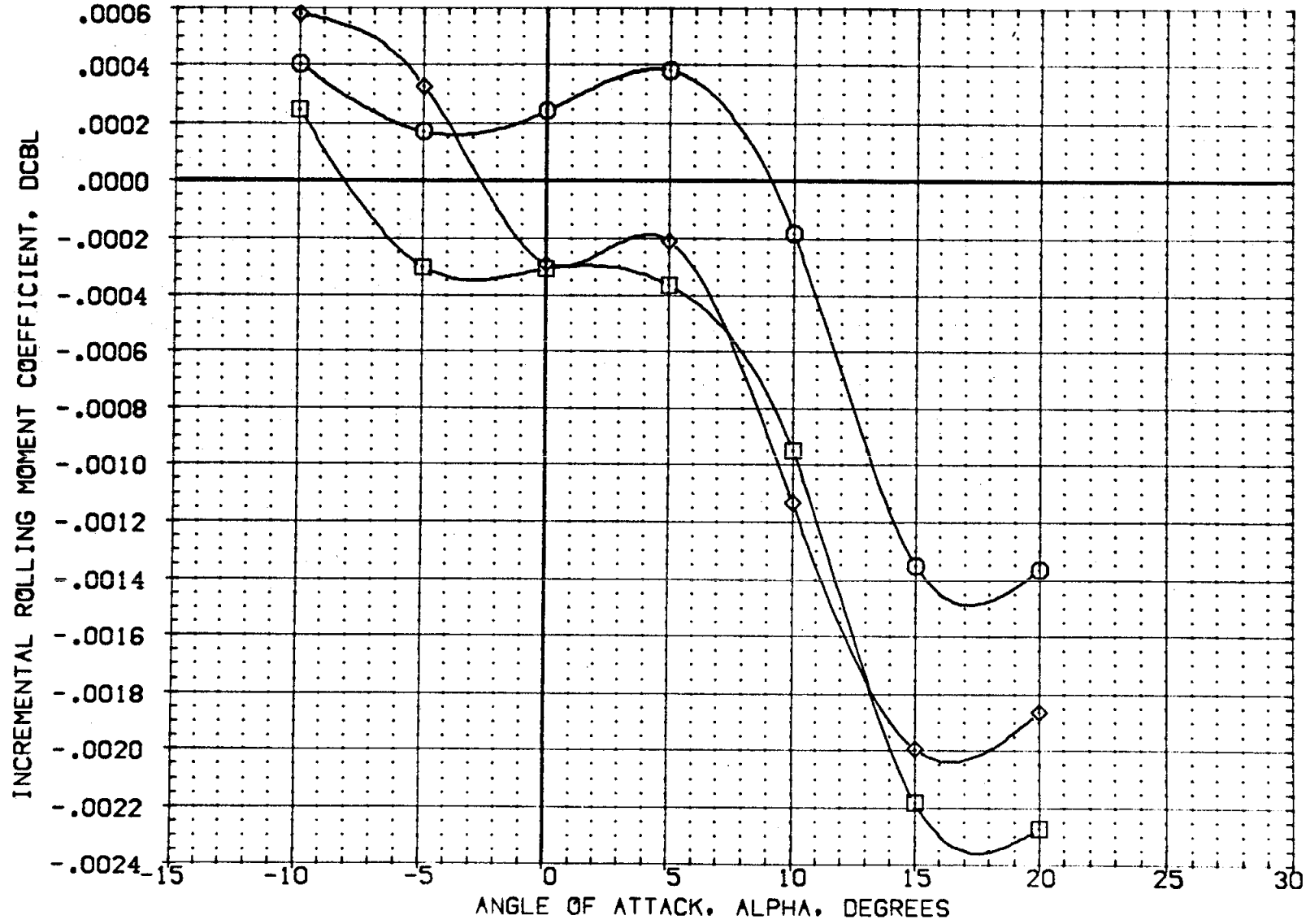


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
[CH1017]	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	-20.000	.000	.000
[CH1015]	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	.000	.000	.000
[CH1001]	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	179.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

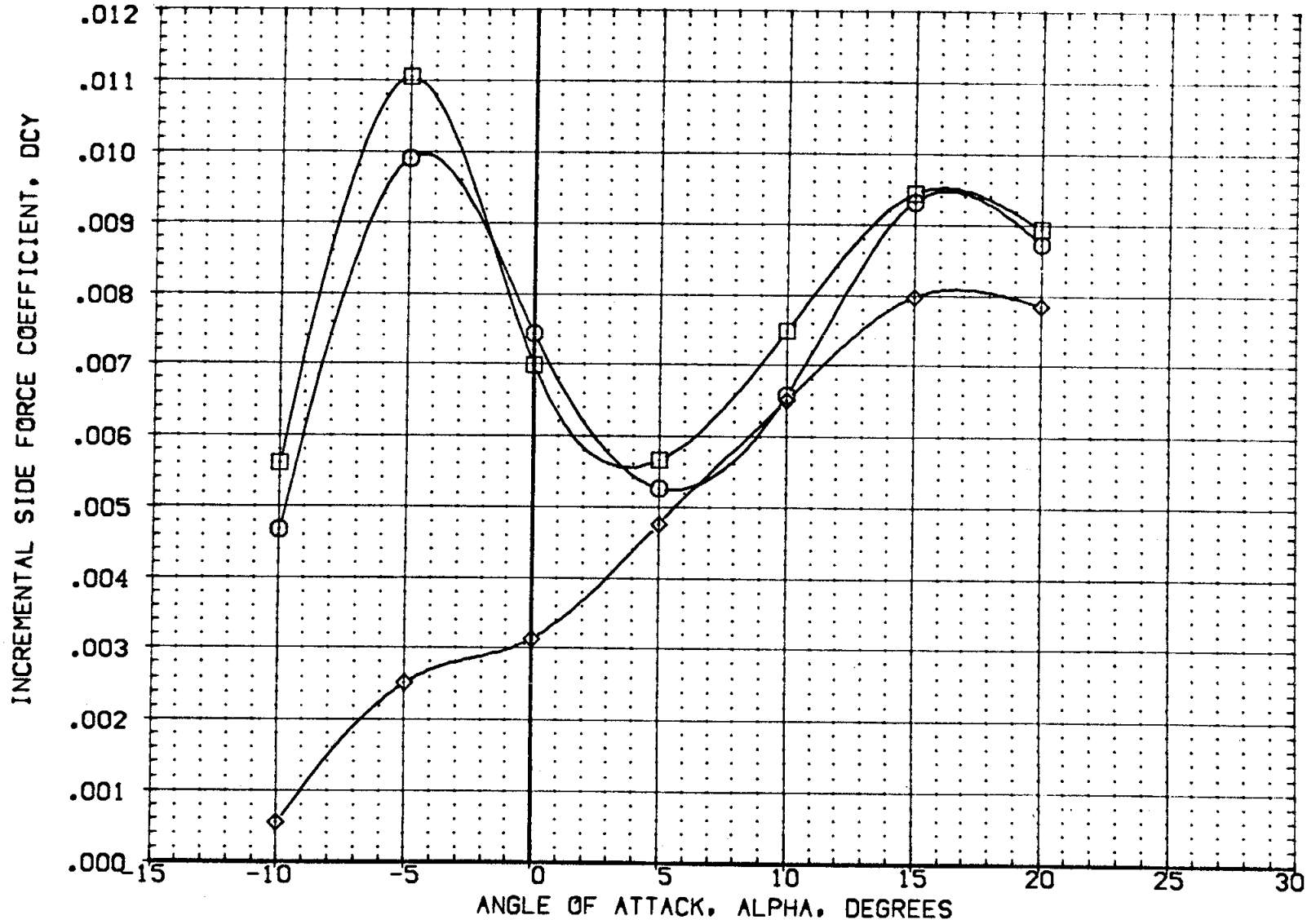


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(ZH117N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	-20.000	.000	.000
(ZH115N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	.000	.000	.000
(ZH101N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	179.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	-20.000	.000	.000
(ZH102F)	▷	IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH101F)	▽	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

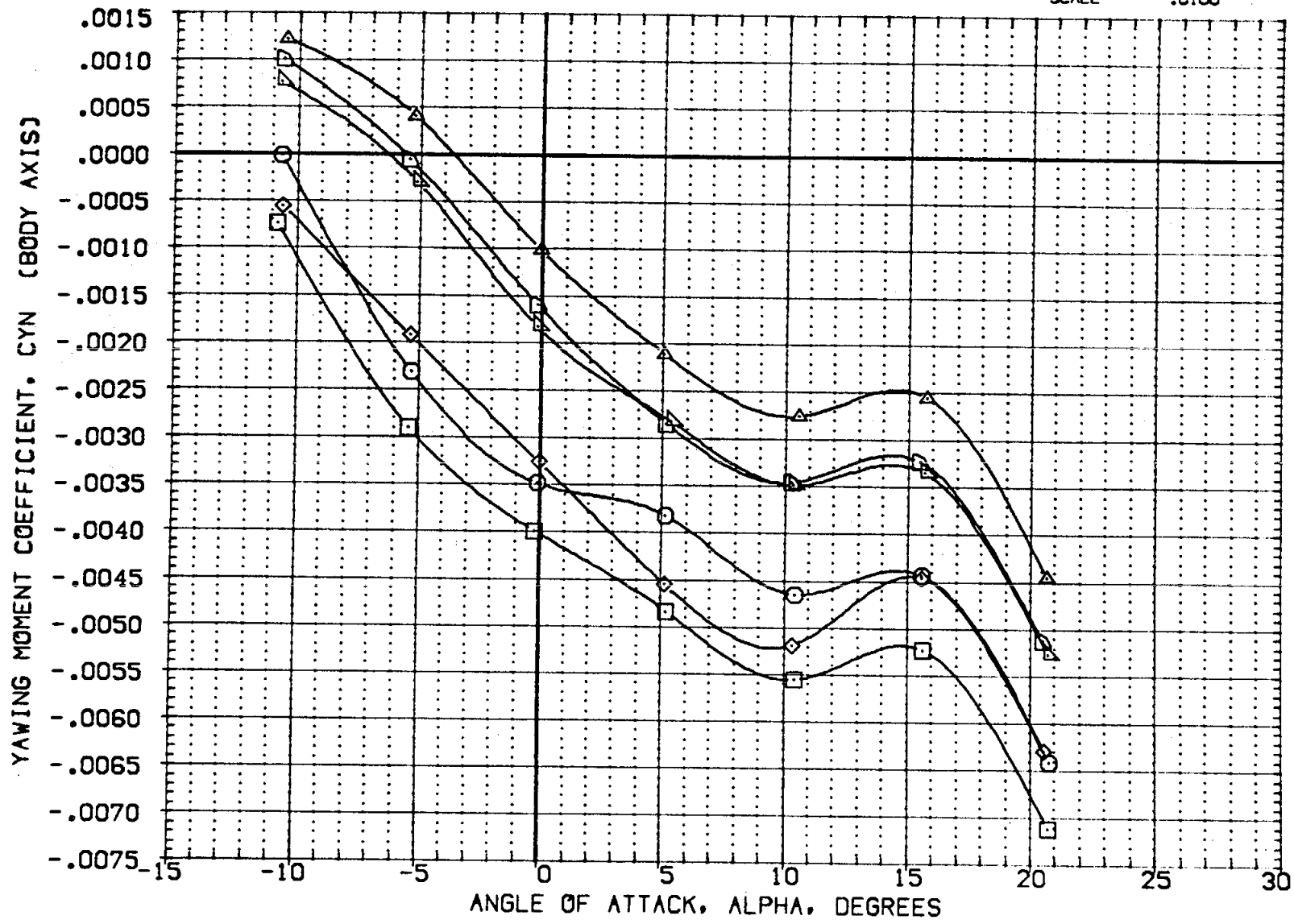


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPDBRK
(ZH117N)		IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	-20.000	.000	.000
(ZH115N)		IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	.000	.000	.000
(ZH101N)		IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	179.000	15.000	.000	.000
(ZH103F)		IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	-20.000	.000	.000
(ZH102F)		IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH101F)		IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

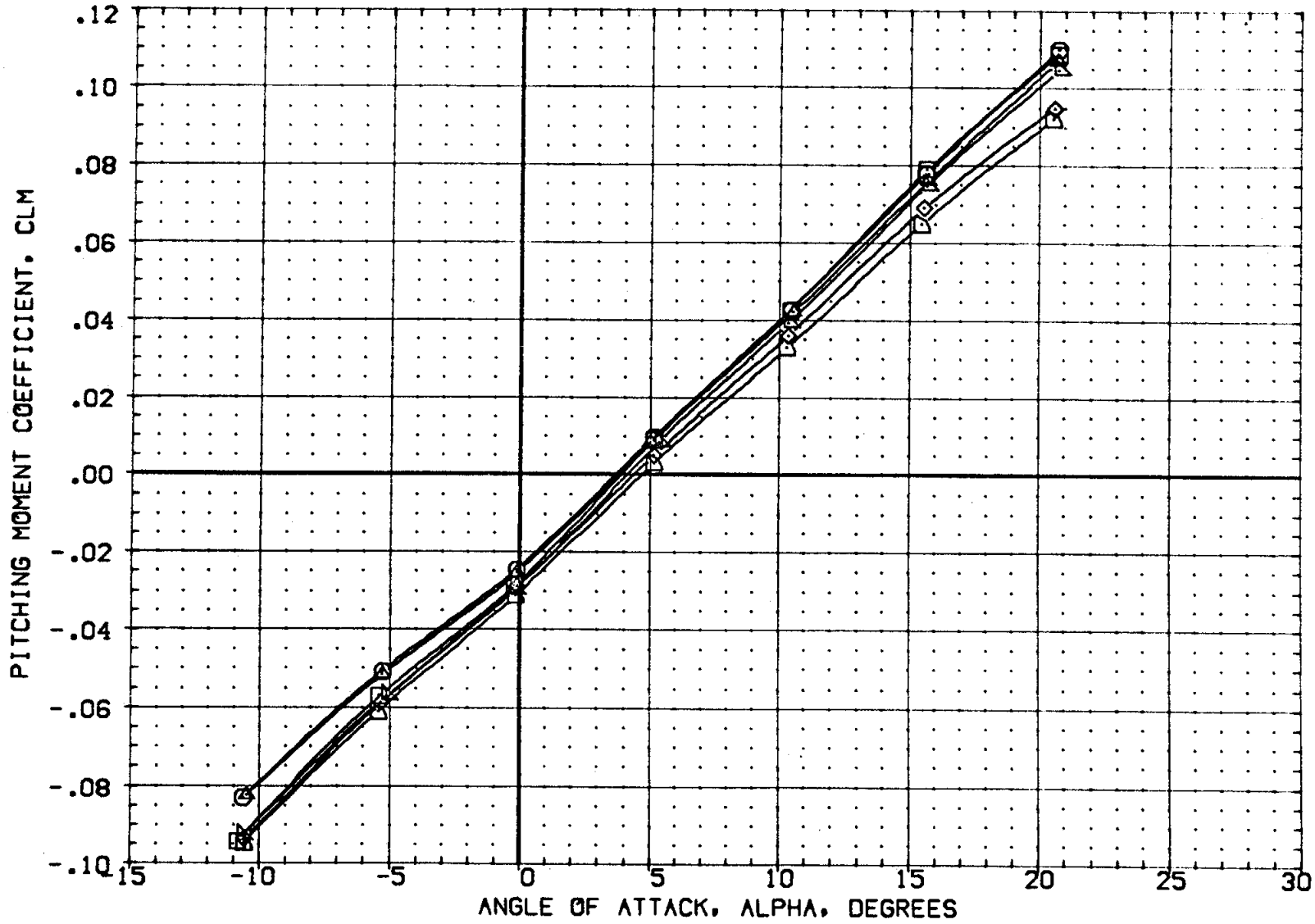


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

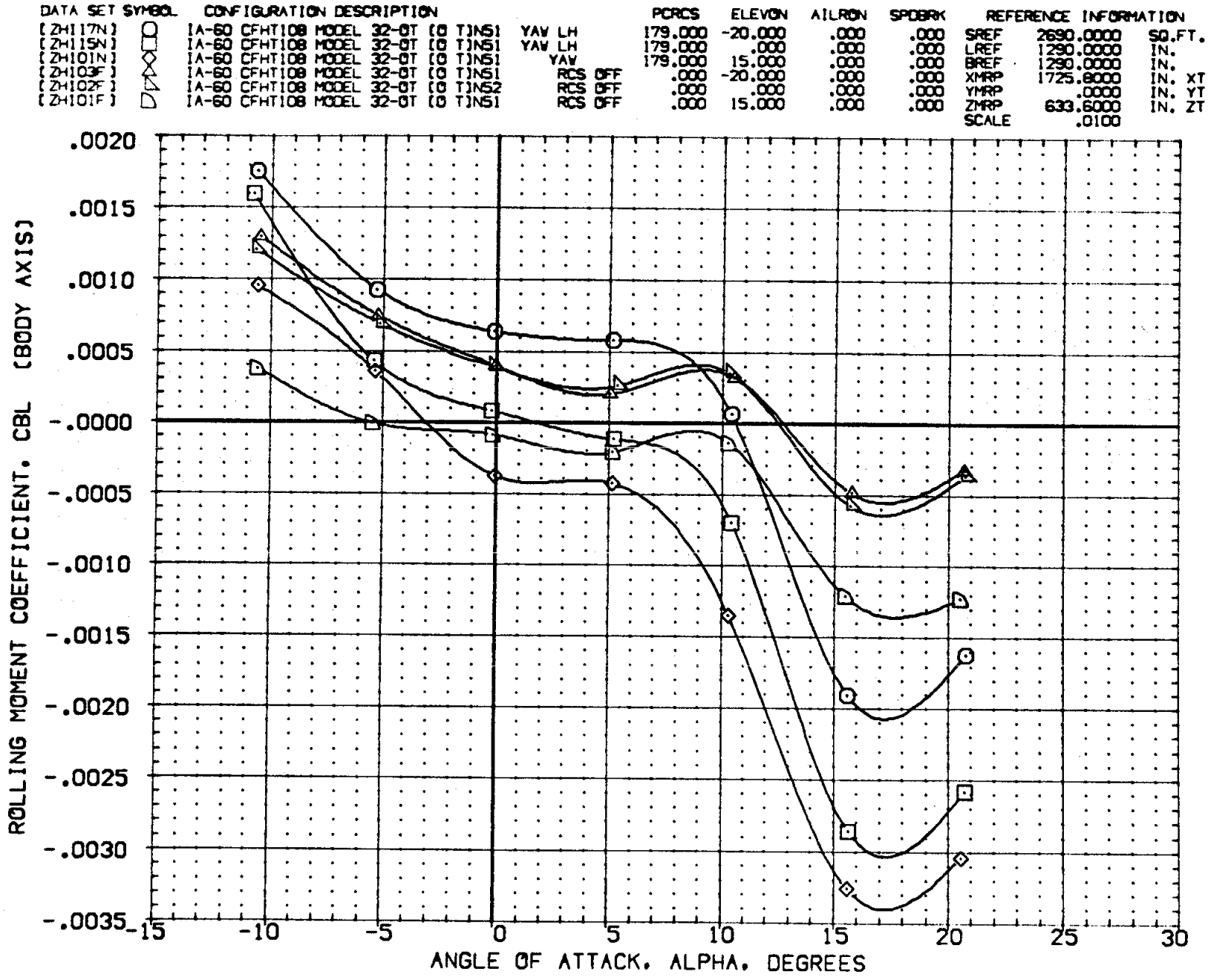


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		PCRCS	ELEVON	AILRON	SPOBRK
(ZH117N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	-20.000	.000	.000
(ZH115N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW LH	179.000	.000	.000	.000
(ZH101N)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51	YAW	179.000	15.000	.000	.000
(ZH103F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	-20.000	.000	.000
(ZH102F)	▷	IA-60 CFHT108 MODEL 32-0T (0 T)N52	RCS OFF	.000	.000	.000	.000
(ZH101F)	▷	IA-60 CFHT108 MODEL 32-0T (0 T)N51	RCS OFF	.000	15.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

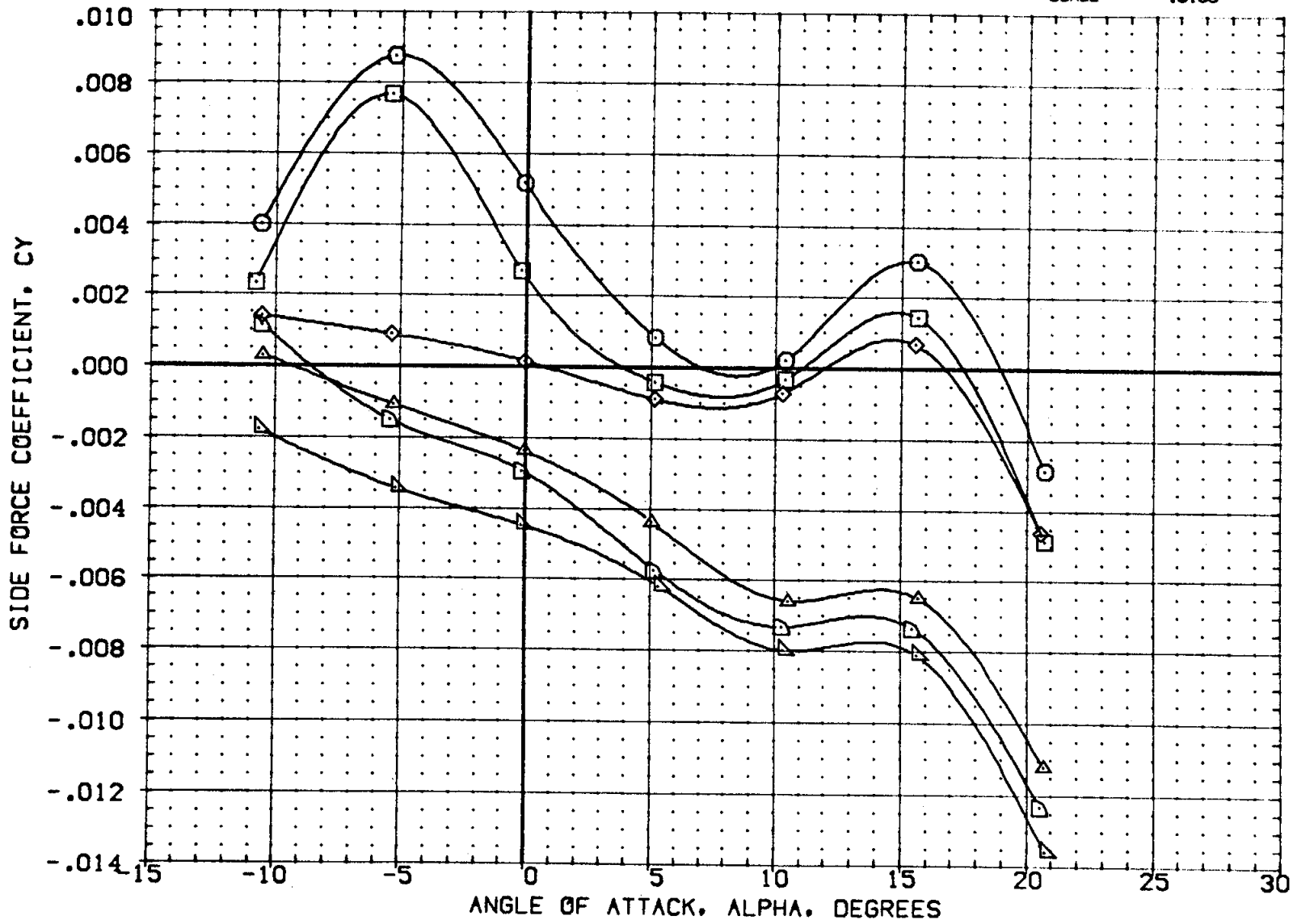


FIG 21 EFFECT OF ELEVON DEFLECTION ON N51 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1022]	○	IA-60 CFHT108 MODEL 32-0T [0 TJN49 PITCH DOWN LH	446.000	-20.000	.000	.000
[CH1014]	□	IA-60 CFHT108 MODEL 32-0T [0 TJN49 PITCH DWN LH	446.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

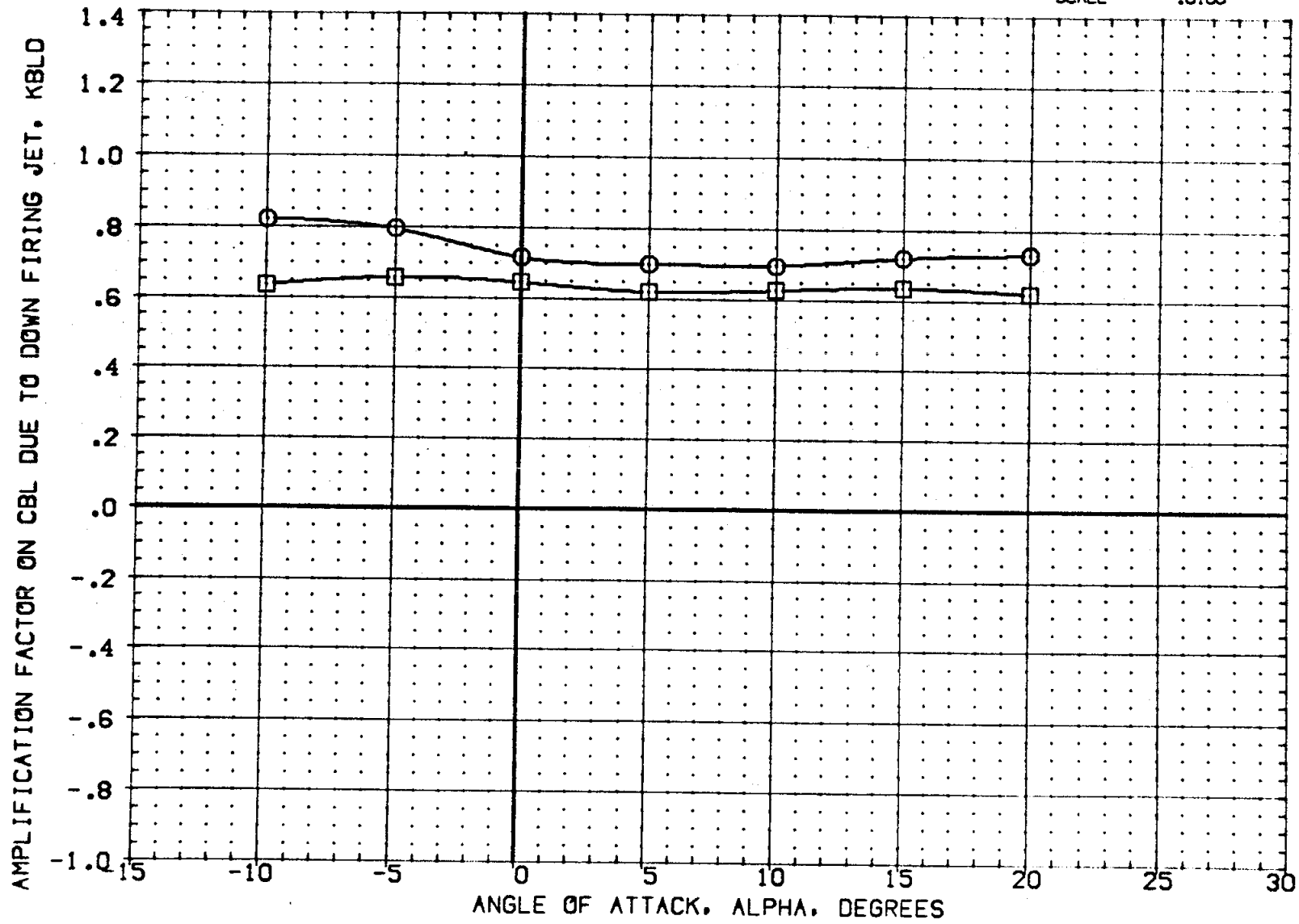


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1022)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	446.000	-20.000	.000	.000
(CH1014)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	446.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

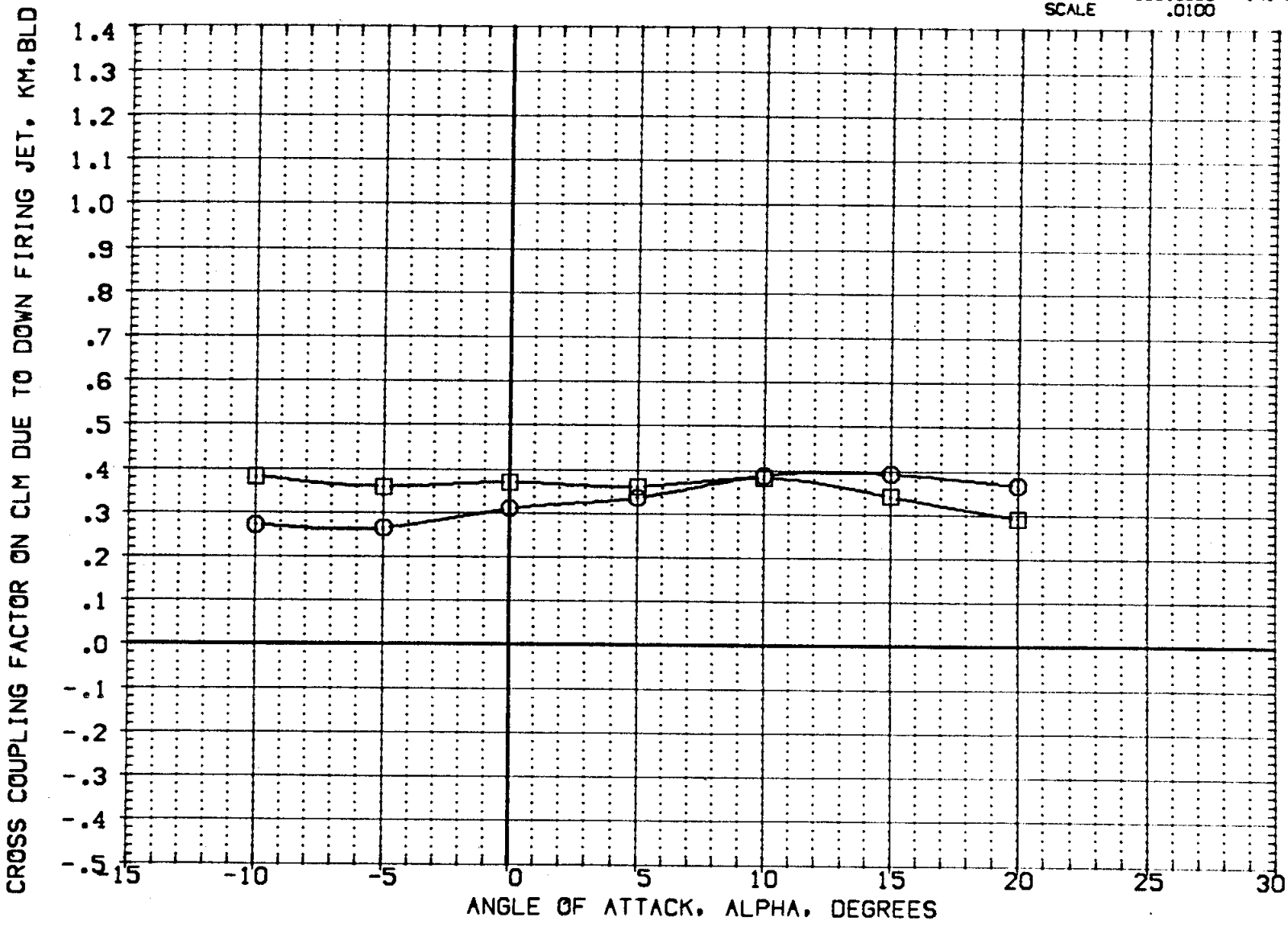


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1022)	○	IA-60 CFHT108 MODEL 32-DT (0 T)N49 PITCH DOWN LH	446.000	-20.000	.000	.000
(CH1014)	□	IA-60 CFHT108 MODEL 32-DT (0 T)N49 PITCH DWN LH	446.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

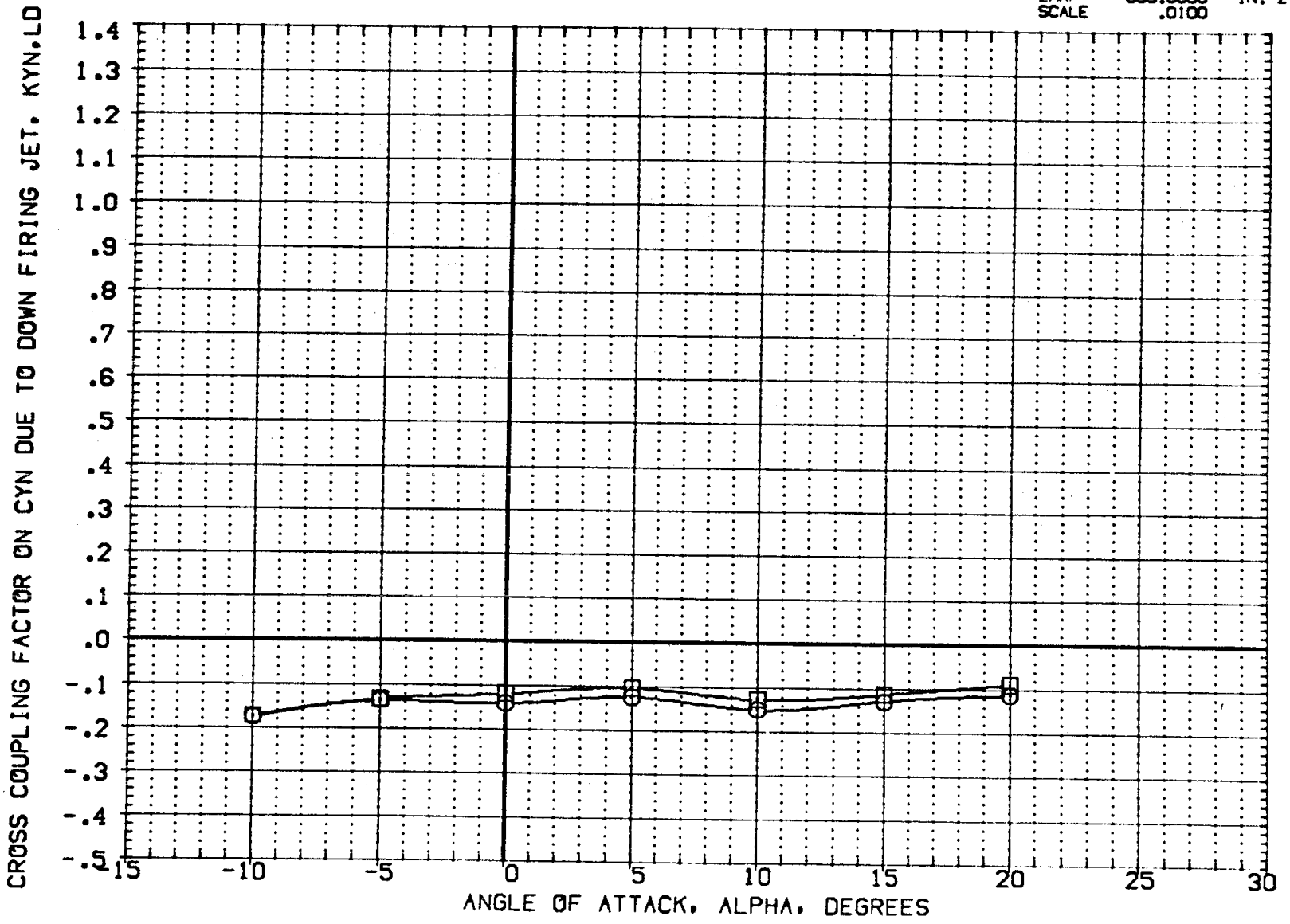


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1022]	○	IA-60 CFHT108 MODEL 32-0T [0 TJN49 PITCH DOWN LH	446.000	-20.000	.000	.000
[CH1014]	□	IA-60 CFHT108 MODEL 32-0T [0 TJN49 PITCH DWN LH	446.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

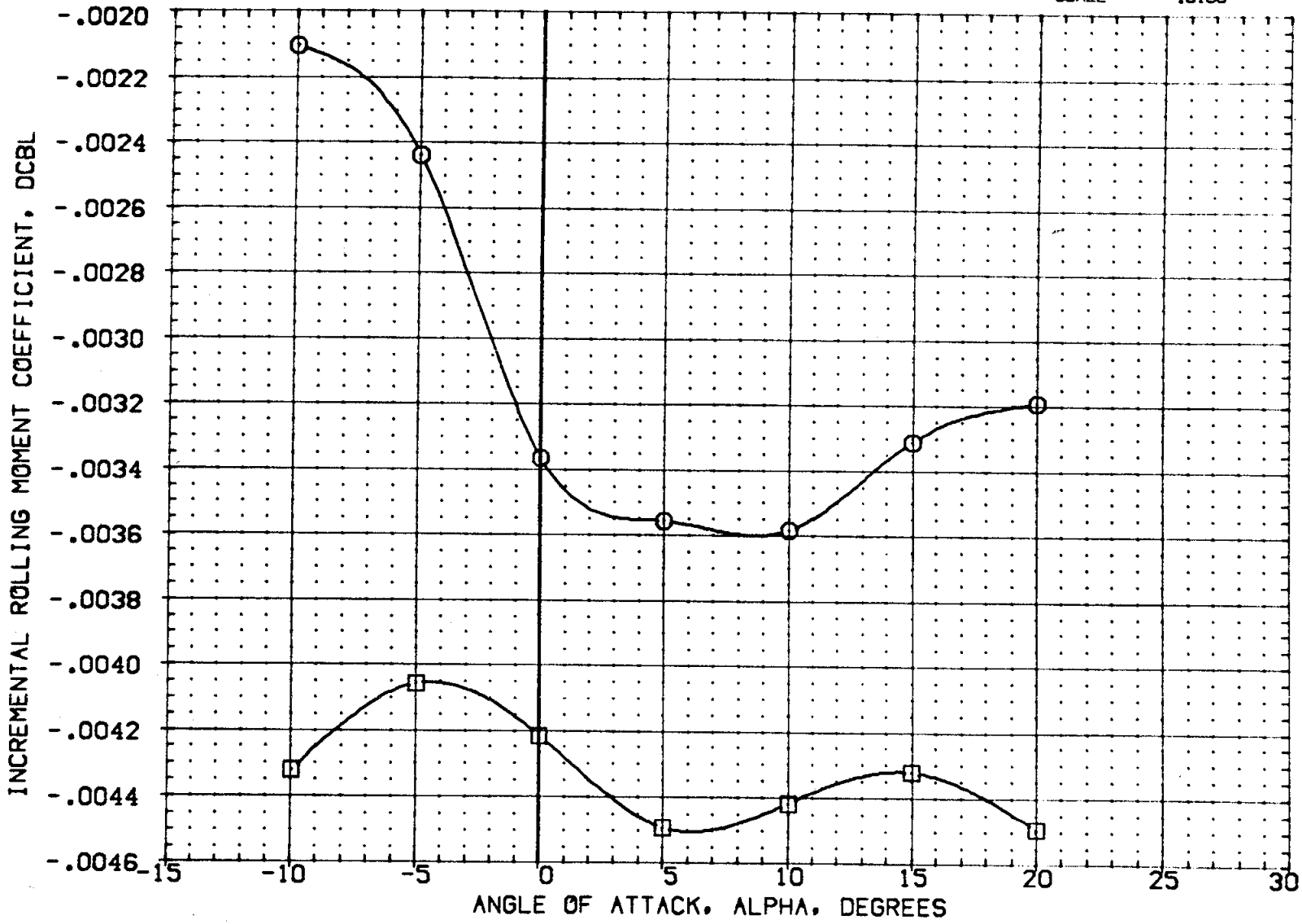


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1022)	○	IA-60 CFHT108 MODEL 32-0T (0 TIN49 PITCH DOWN LH	446.000	-20.000	.000	.000
(CH1014)	□	IA-60 CFHT108 MODEL 32-0T (0 TIN49 PITCH DWN LH	446.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

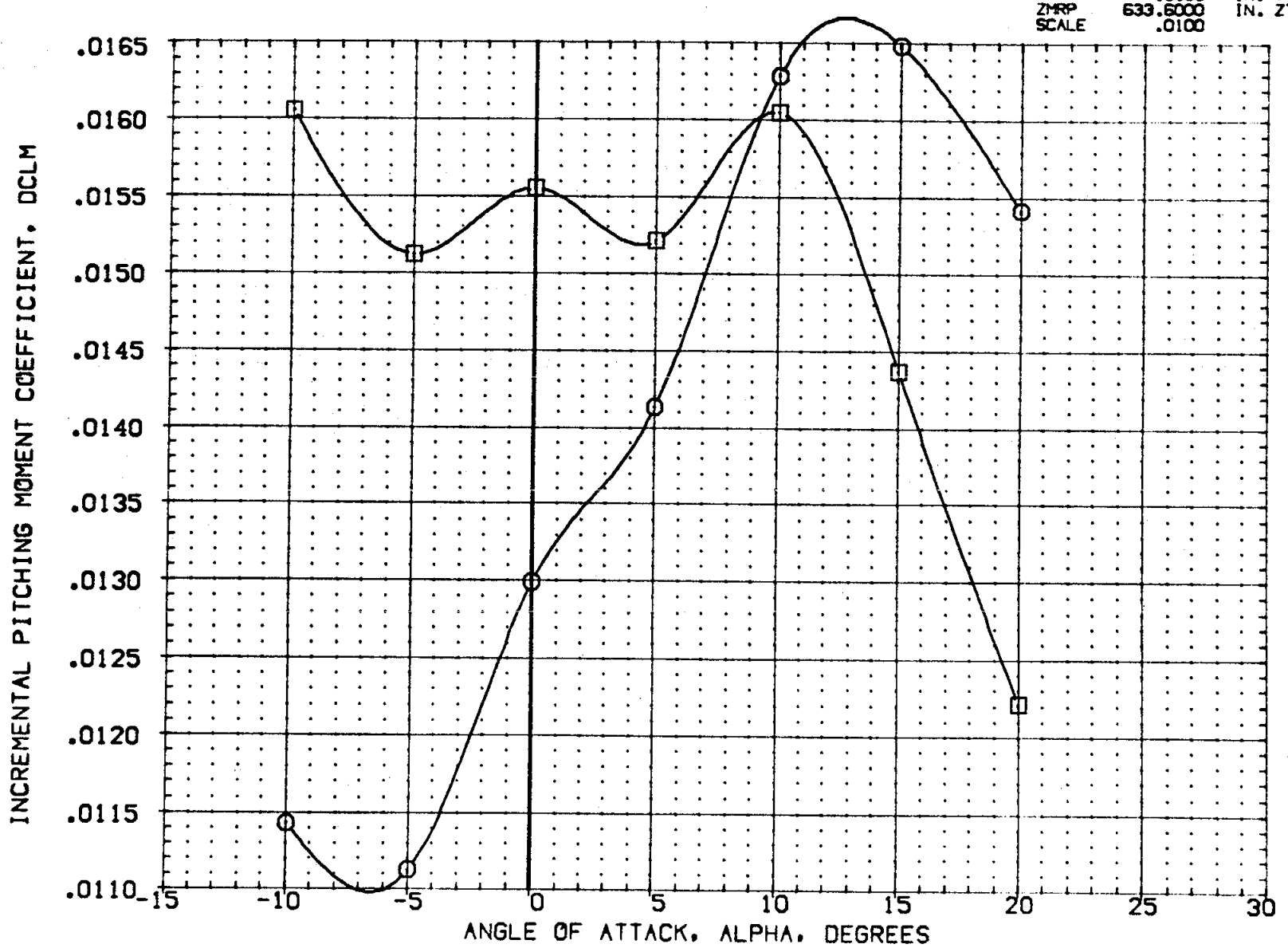


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1022] ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	446.000	-20.000	.000	.000
[CH1014] □	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	446.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

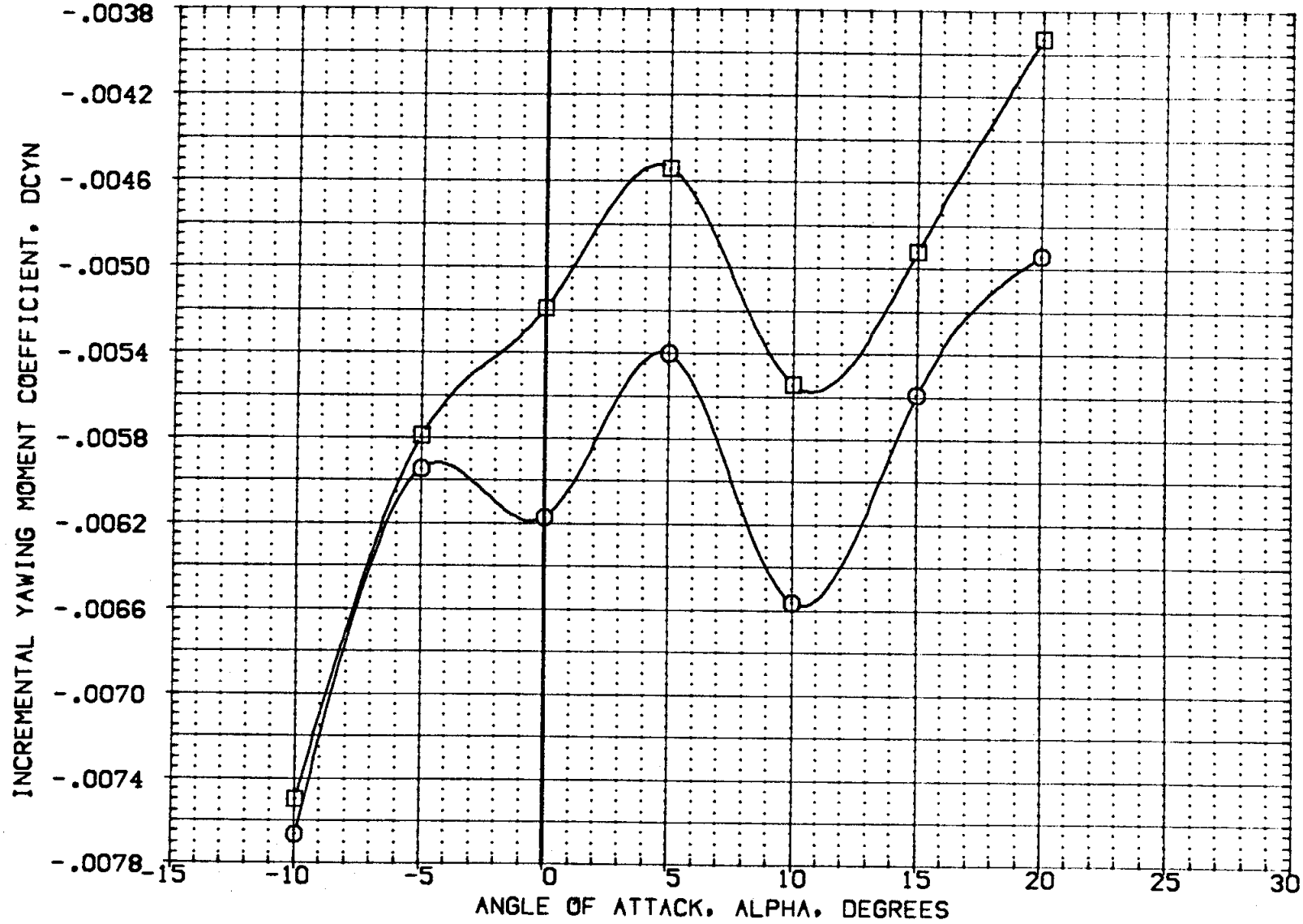


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH122N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	446.000	-20.000	.000	.000
(ZH114N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	446.000	.000	.000	.000
(ZH103F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

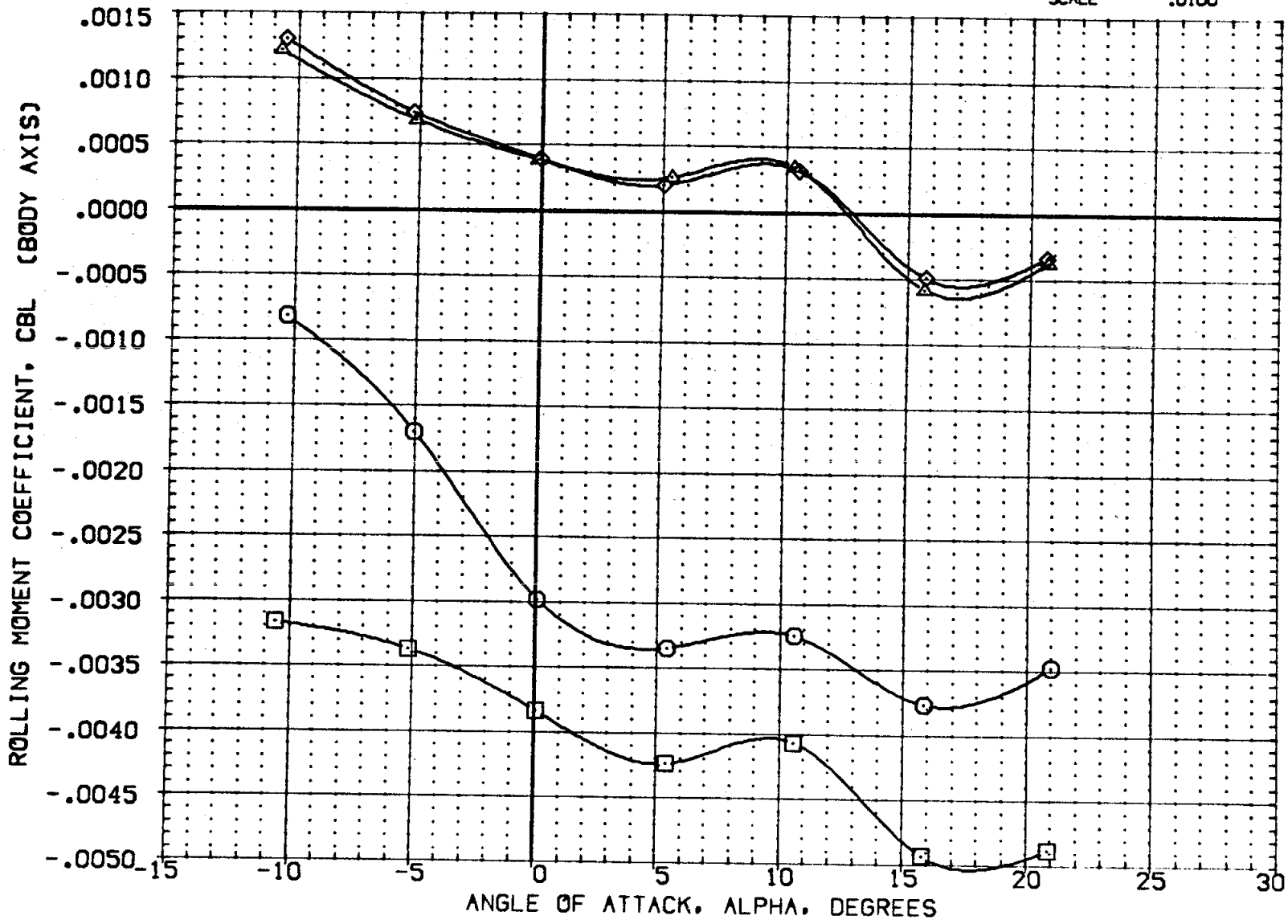


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH122N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	446.000	-20.000	.000	.000
(ZH114N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	446.000	.000	.000	.000
(ZH103F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

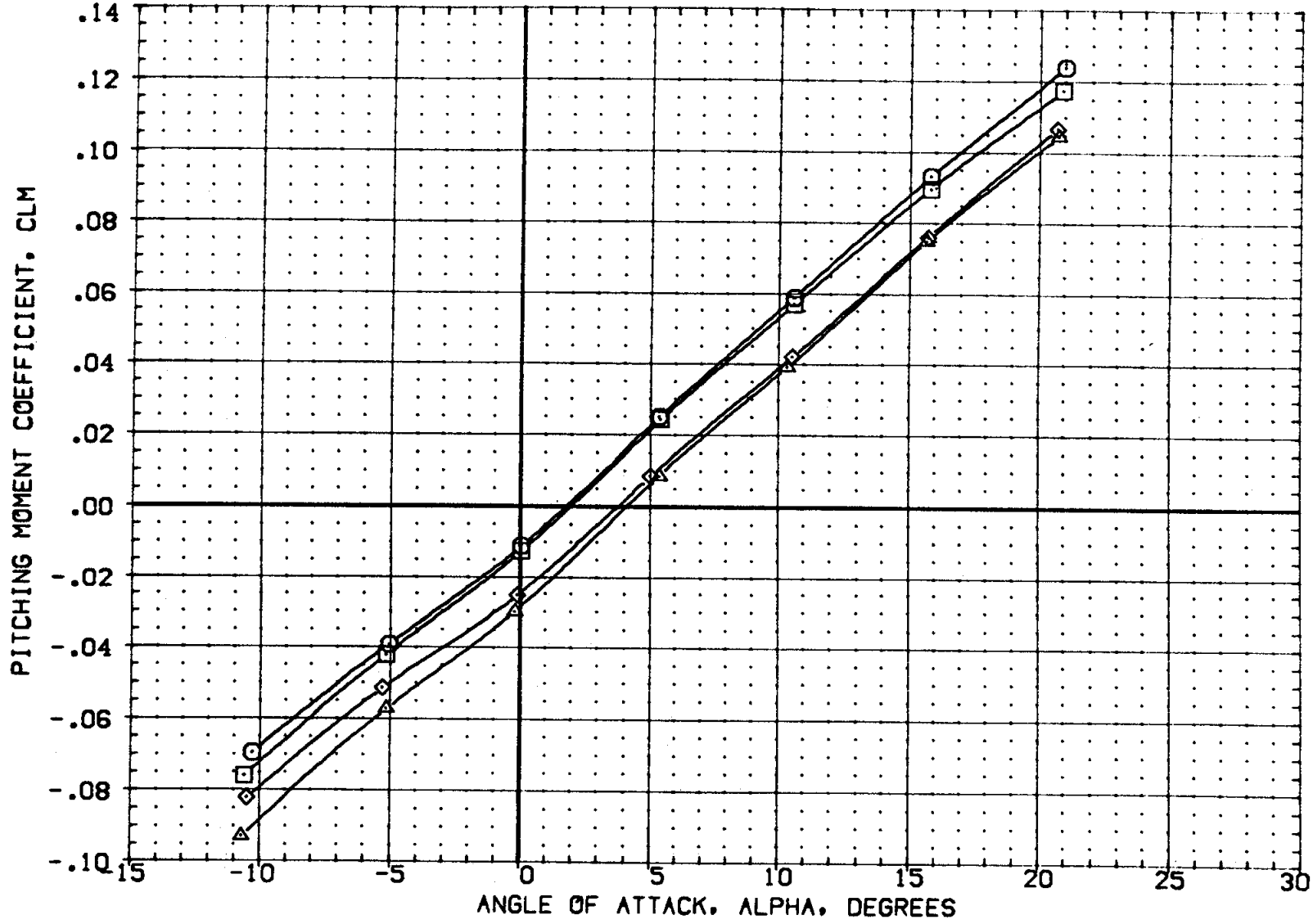


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH122N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	446.000	-20.000	.000	.000
(ZH114N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	446.000	.000	.000	.000
(ZH103F)	⋈	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	⧖	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

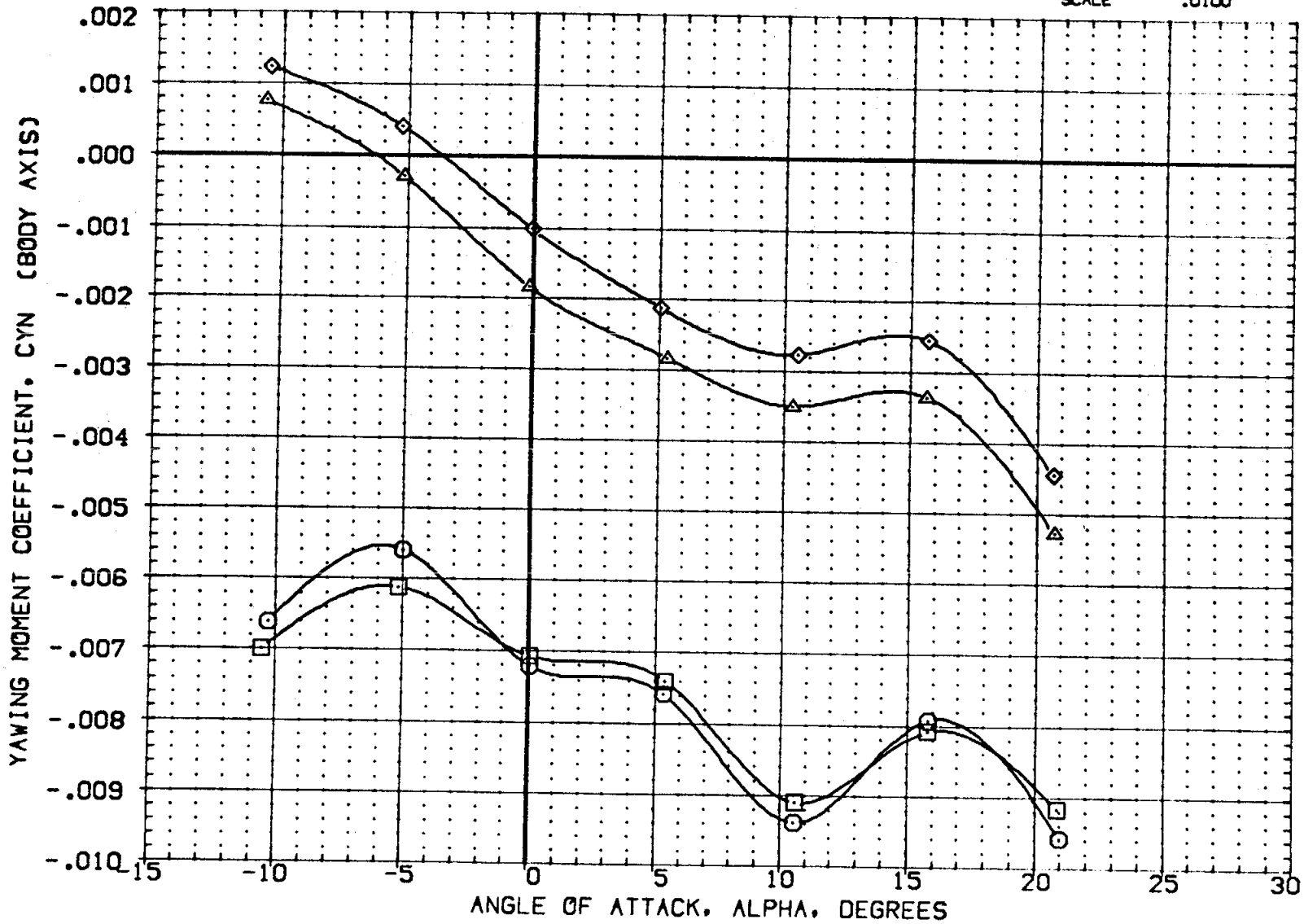


FIG 22 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 7 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(CH1021) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	158.000	-20.000	.000	.000
(CH1013) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	158.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

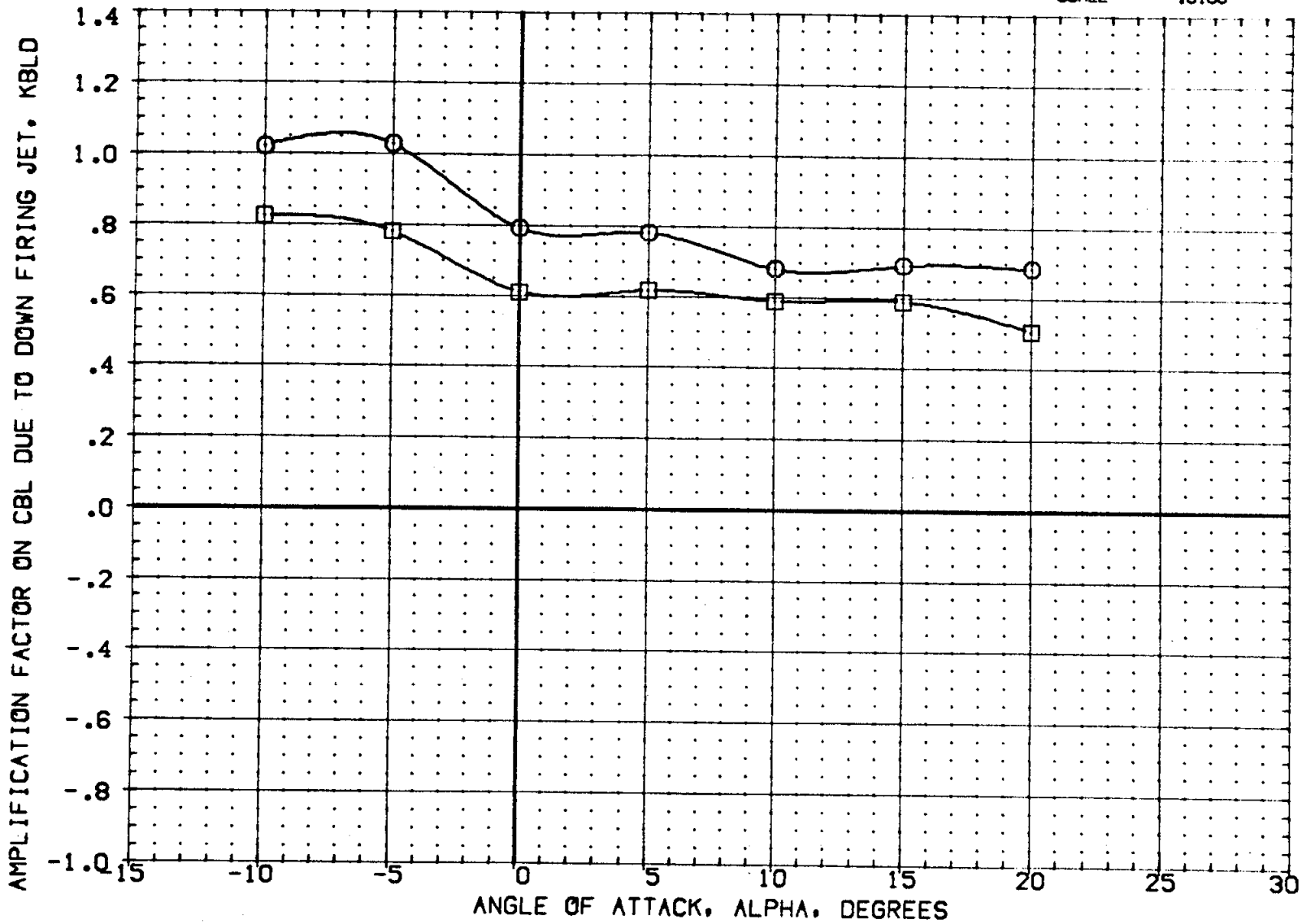


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL		CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
[CH1021]	○	[A-60 CFHT108 MODEL 32-0T [0 T]N49 PITCH DOWN LH	158.000	-20.000	.000	.000
[CH1013]	□	[A-60 CFHT108 MODEL 32-0T [0 T]N49 PITCH DWN LH	158.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

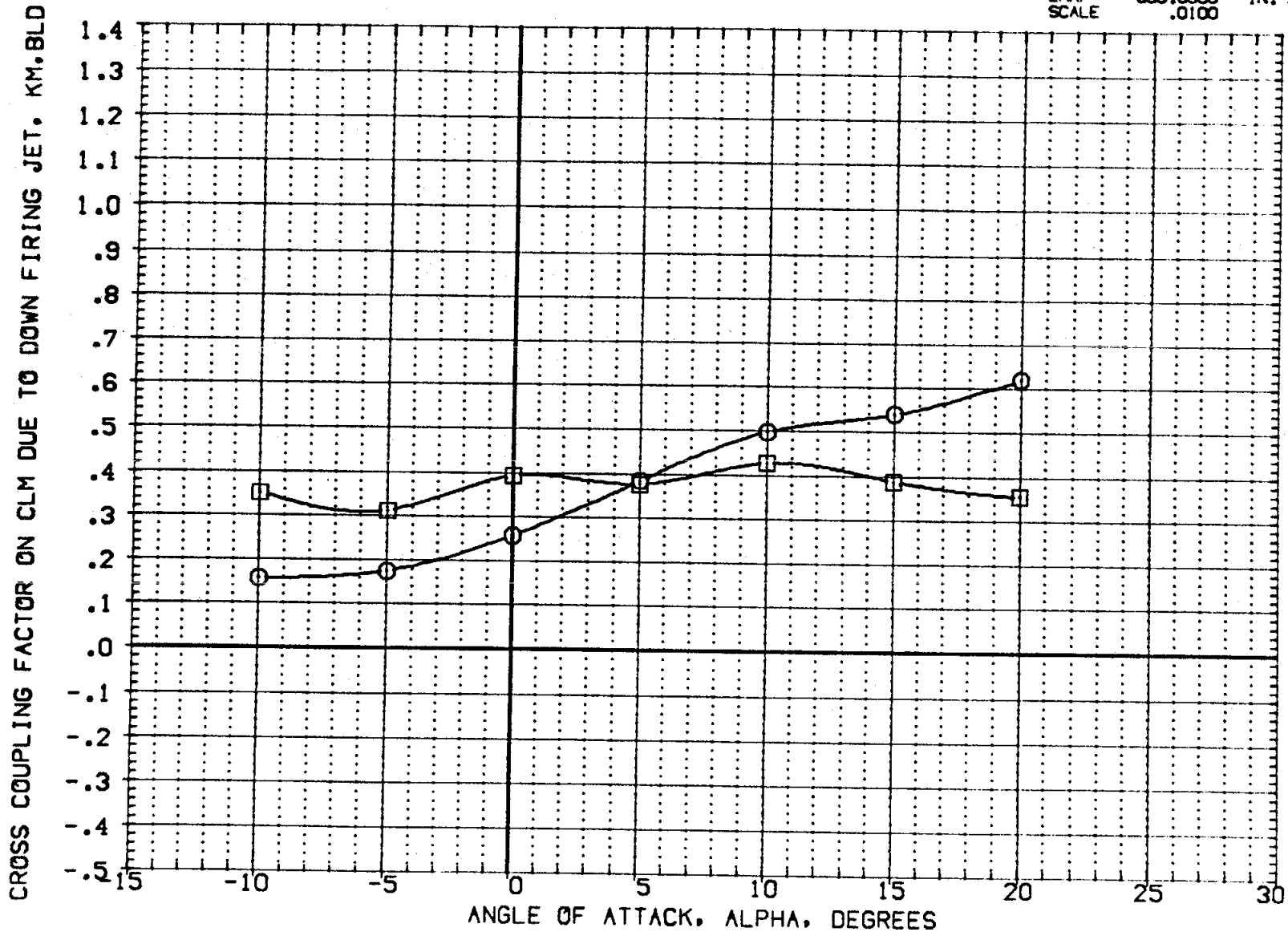


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1021)	○	IA-60 CFHT108 MODEL 32-0T (0 TIN49 PITCH DOWN LH	158.000	-20.000	.000	.000
(CH1013)	□	IA-60 CFHT108 MODEL 32-0T (0 TIN49 PITCH DOWN LH	158.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

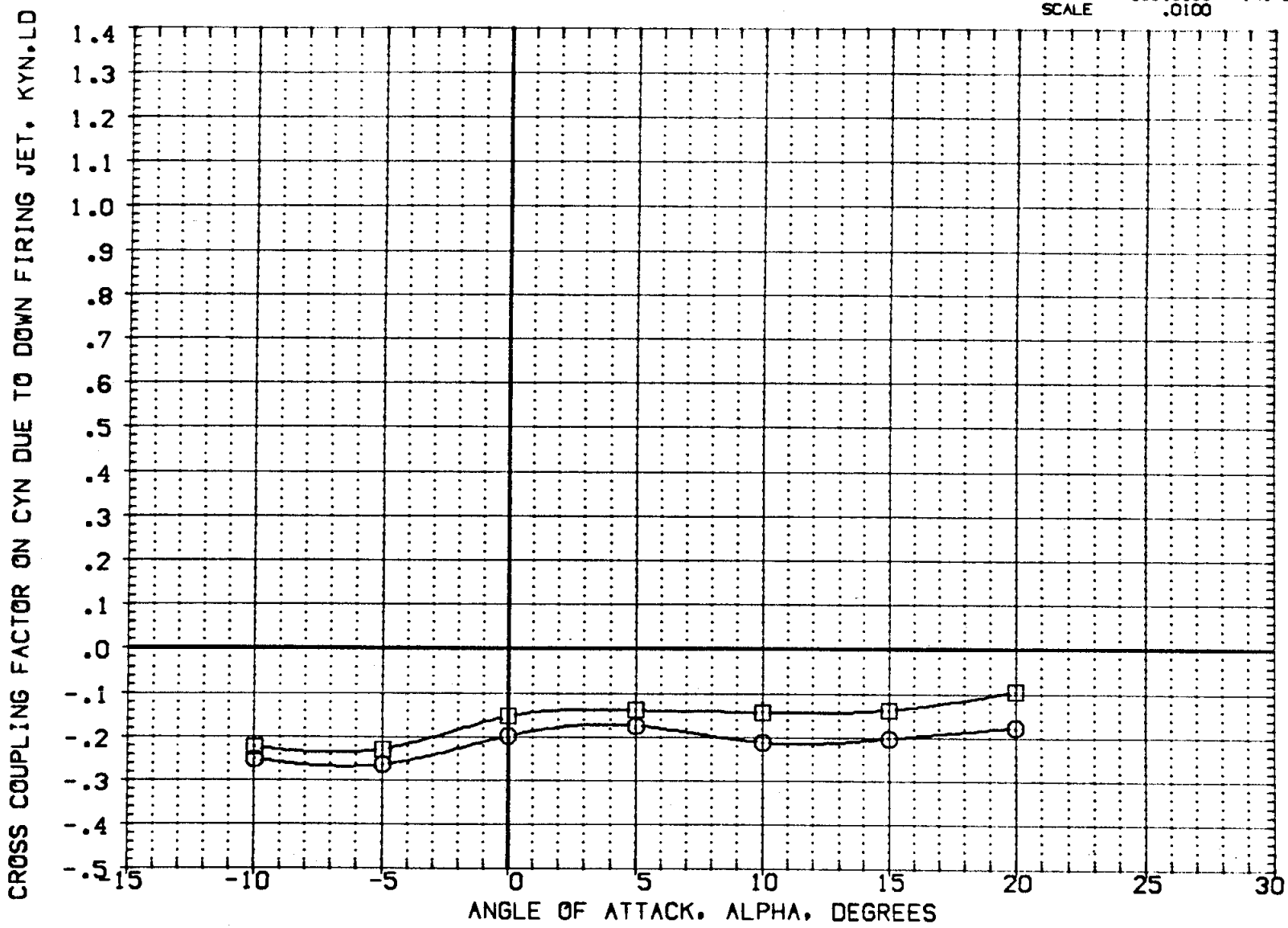


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

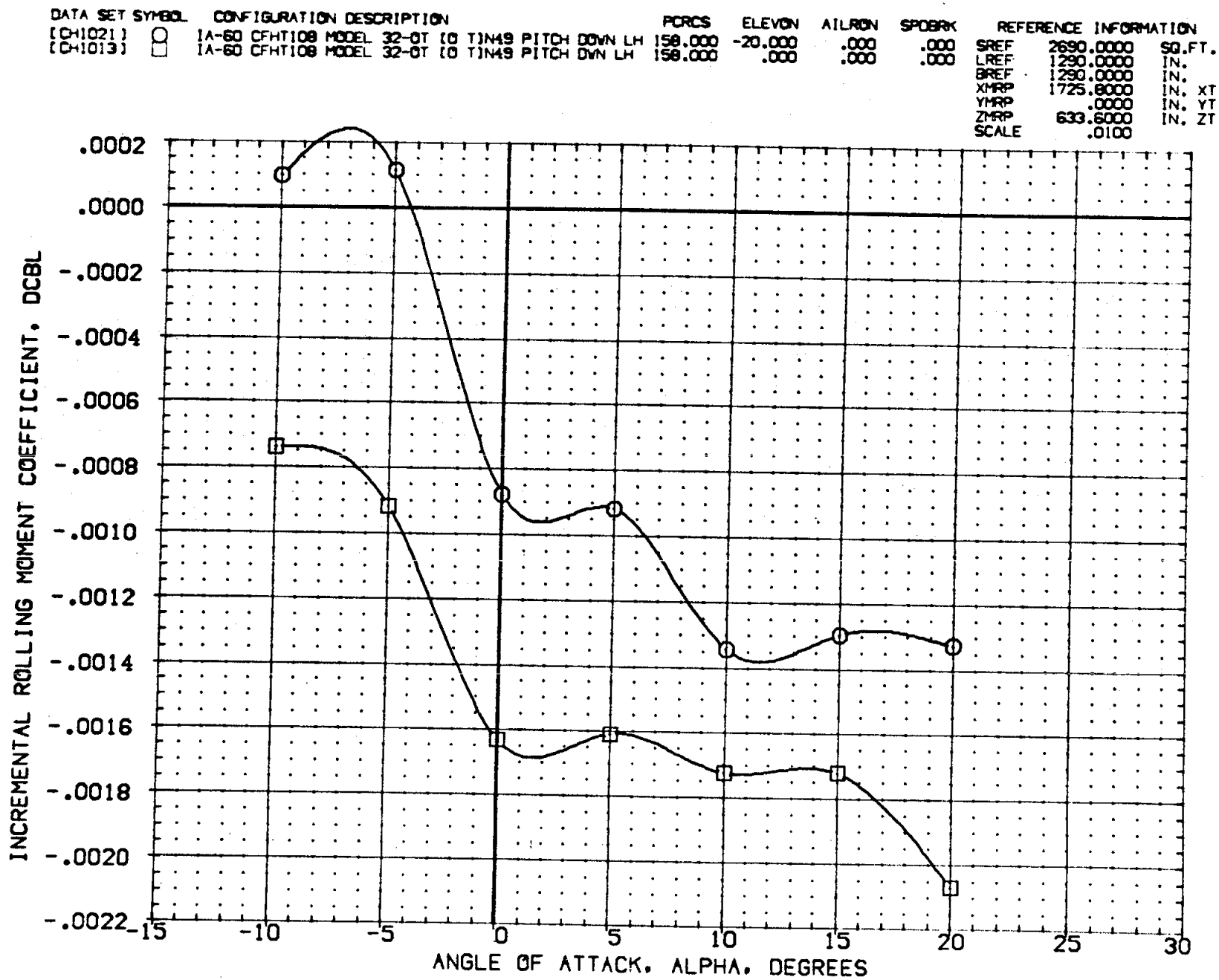


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1021) ○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	150.000	-20.000	.000	.000
(CH1013) □	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	150.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

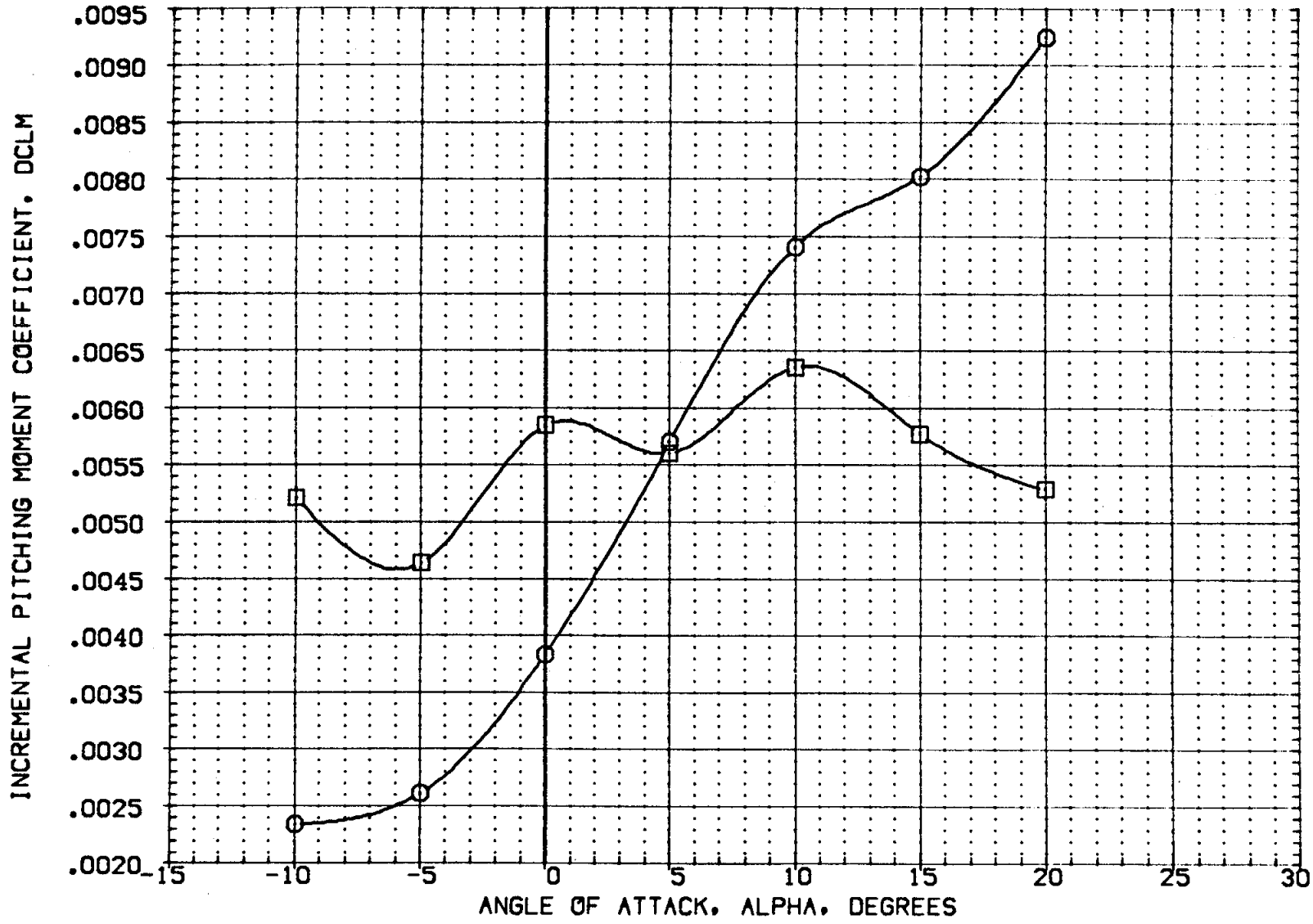


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(CH1021)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	158.000	-20.000	.000	.000
(CH1013)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	158.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

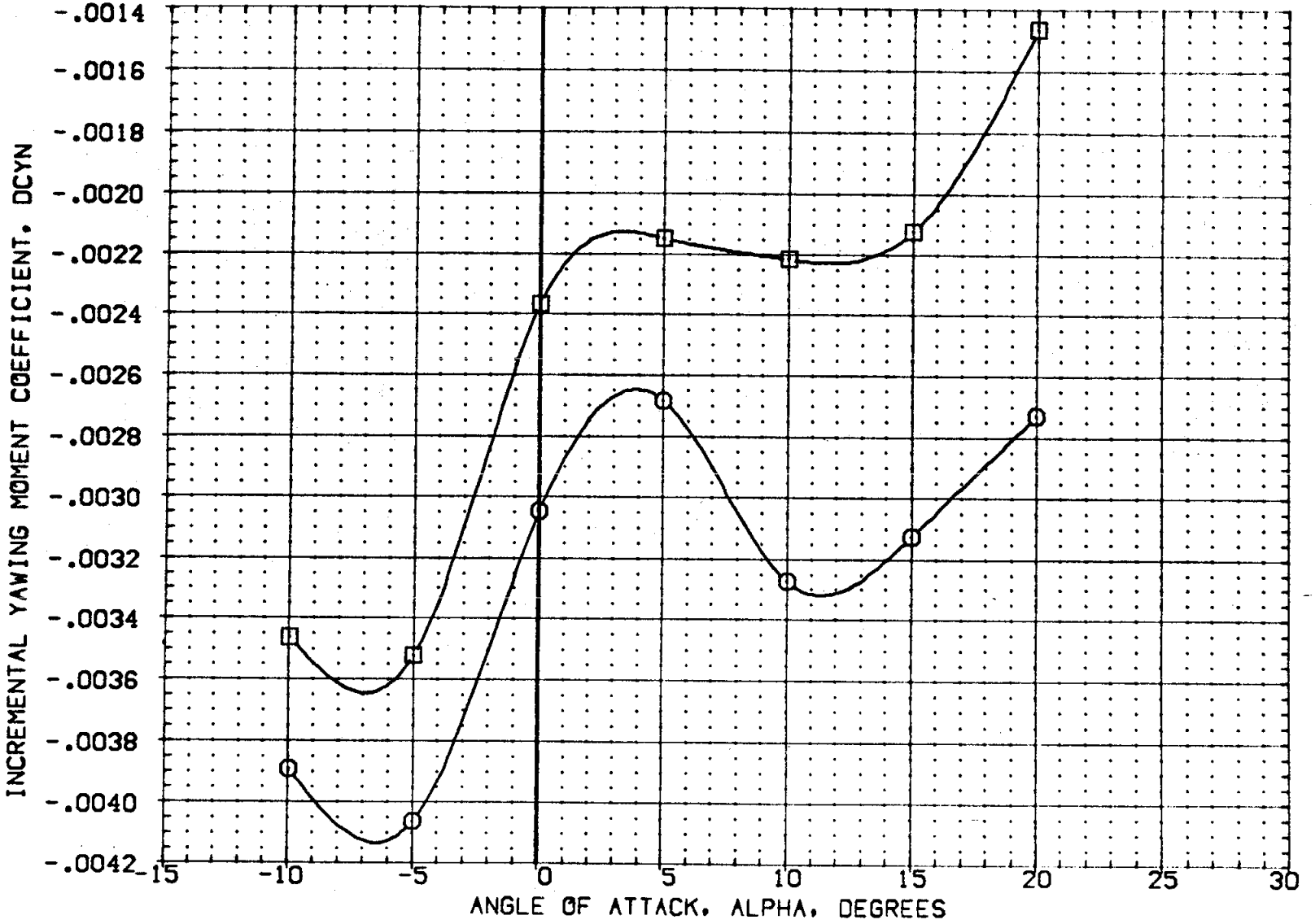


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH121N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	158.000	-20.000	.000	.000
(ZH113N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	158.000	.000	.000	.000
(ZH103F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

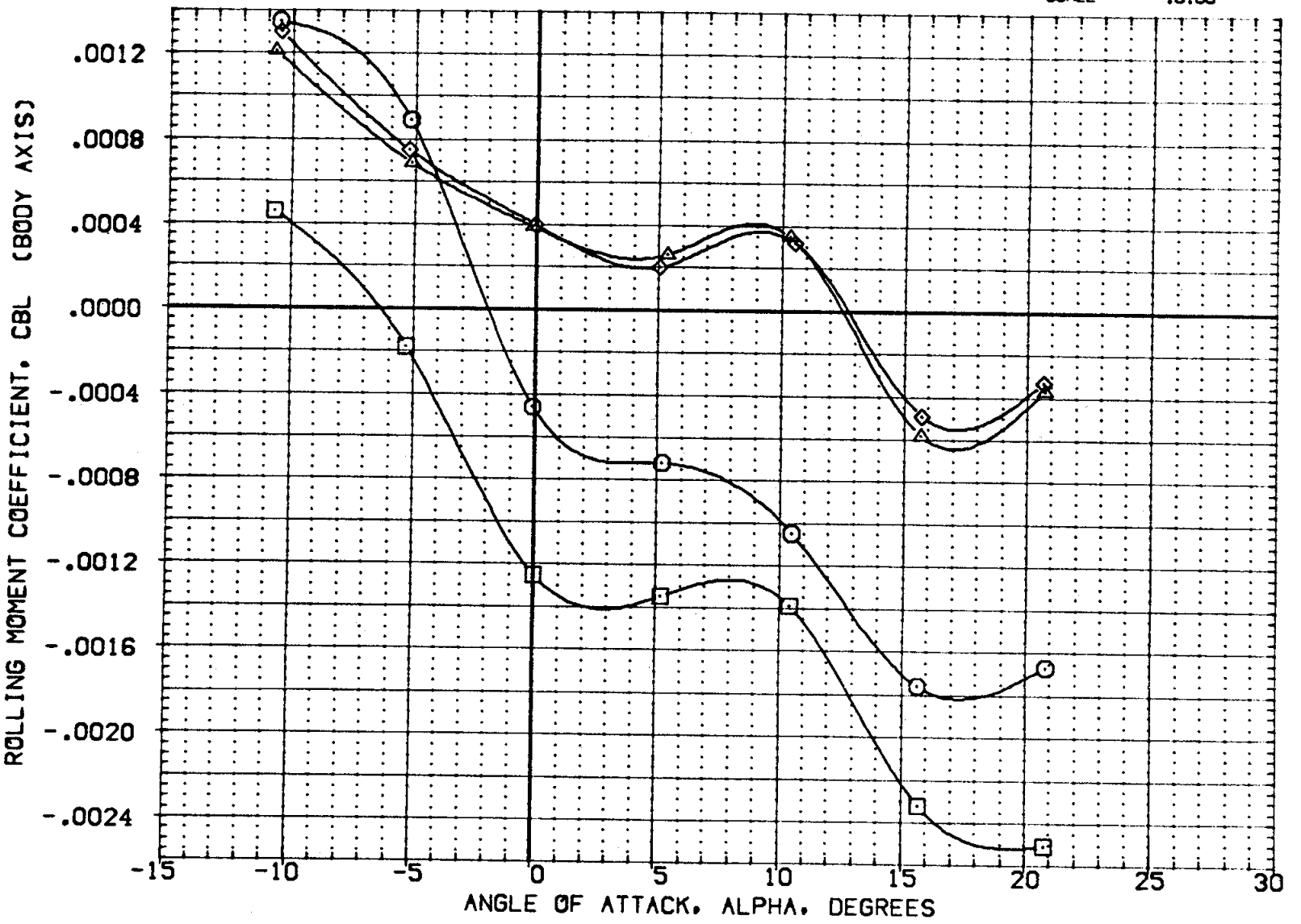


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPOBRK
(ZH121N)	○	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	150.000	-20.000	.000	.000
(ZH113N)	□	IA-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	150.000	.000	.000	.000
(ZH103F)	◇	IA-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	△	IA-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

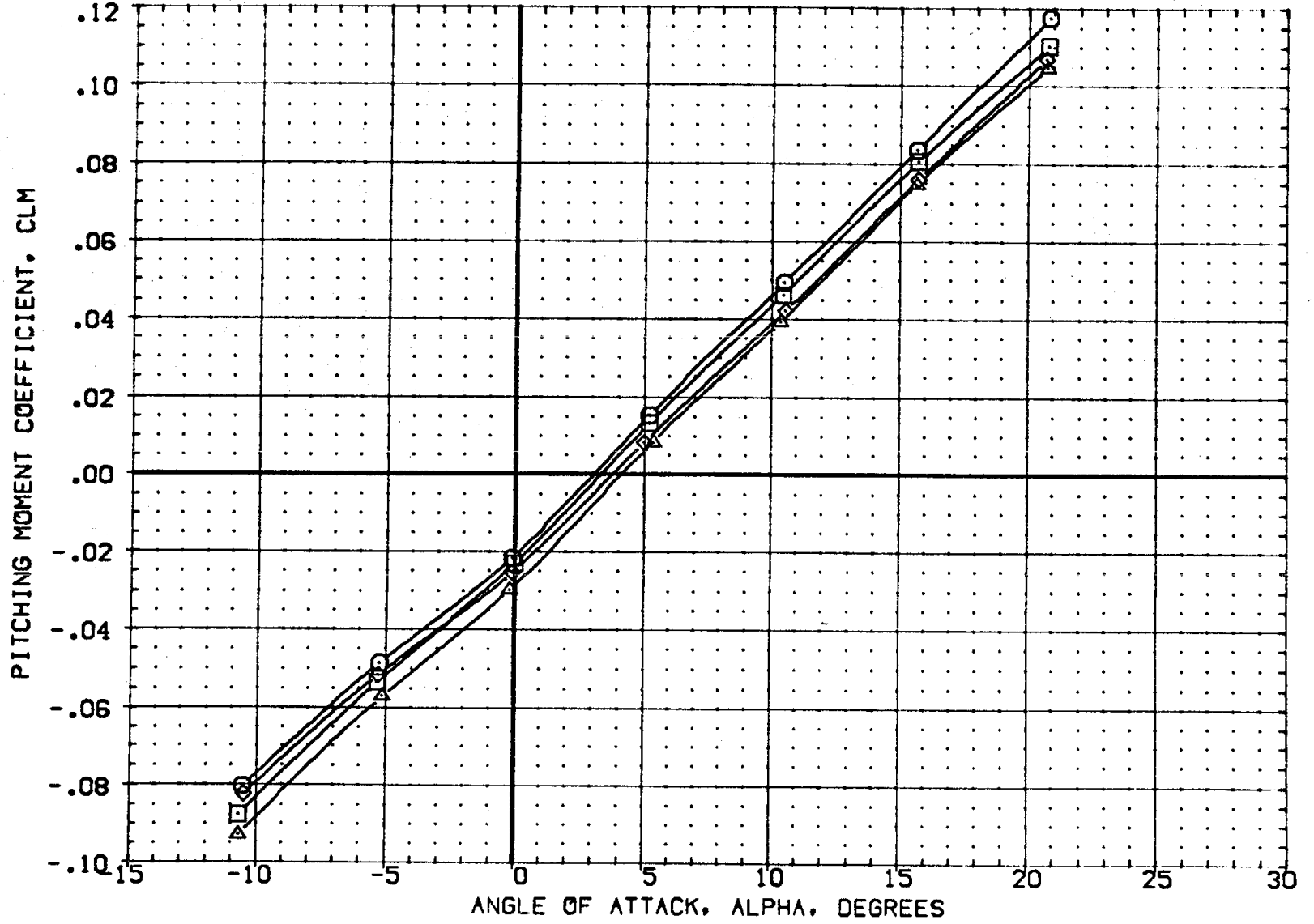


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	PCRCS	ELEVON	AILRON	SPDBRK
(ZH121N)	○	(A-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DOWN LH	150.000	-20.000	.000	.000
(ZH113N)	□	(A-60 CFHT108 MODEL 32-0T (0 T)N49 PITCH DWN LH	150.000	.000	.000	.000
(ZH103F)	◇	(A-60 CFHT108 MODEL 32-0T (0 T)N51 RCS OFF	.000	-20.000	.000	.000
(ZH102F)	△	(A-60 CFHT108 MODEL 32-0T (0 T)N52 RCS OFF	.000	.000	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1290.0000	IN.
BREF	1290.0000	IN.
XMRP	1725.8000	IN. XT
YMRP	.0000	IN. YT
ZMRP	633.6000	IN. ZT
SCALE	.0100	

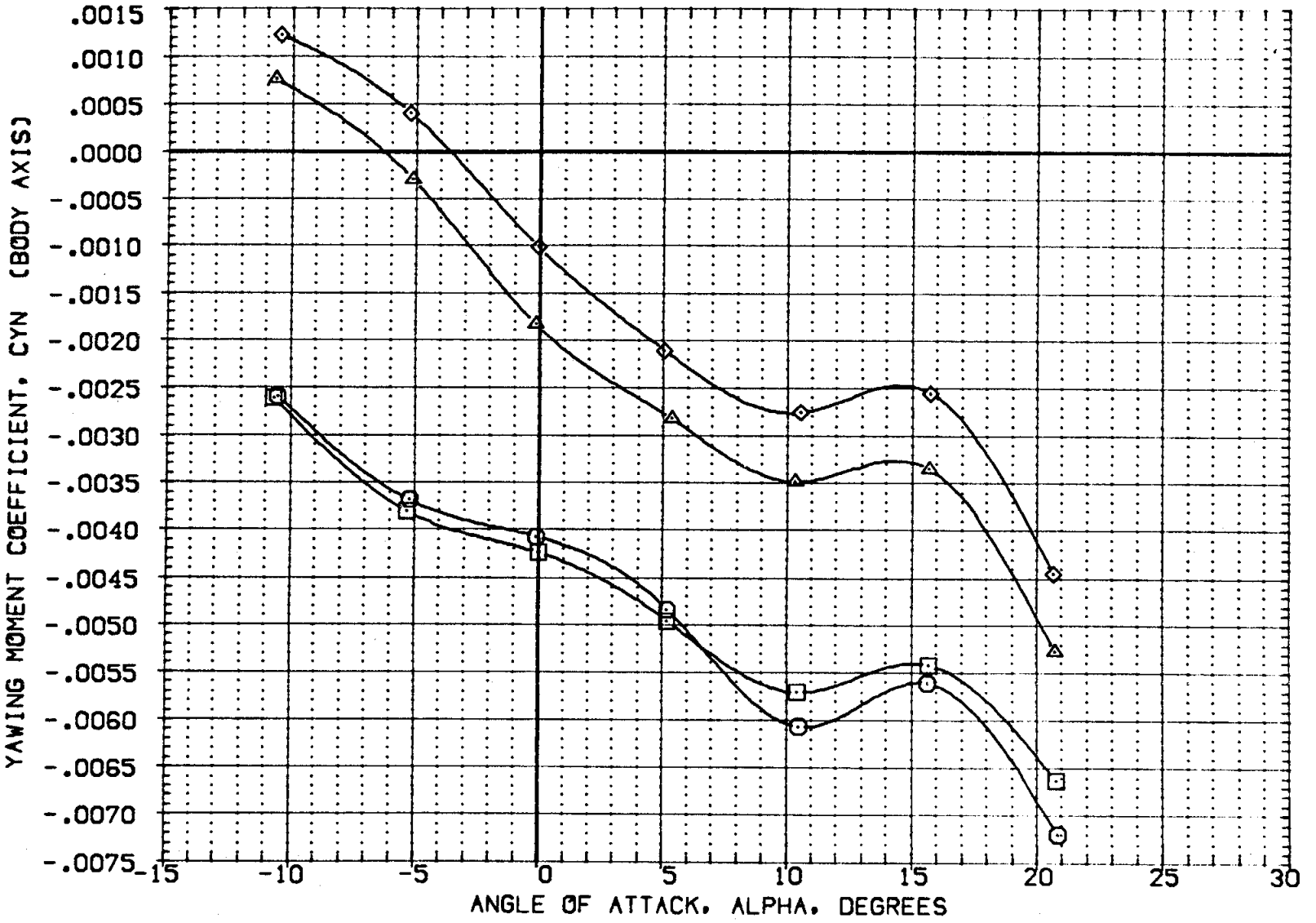


FIG 23 EFFECT OF ELEVON DEFLECTION ON N49 JET INTERACTION, QSIM = 20 PSF

(A)MACH = 10.33

APPENDIX
TABULATED SOURCE DATA

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

IA-60 CFHT108 MODEL 32-OT (O T)N51 RCS OFF (ZH101F) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = .000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 3/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.593	-.01309	-.24877	.22859	-.09441	.00038	.00101	.00116	-.20251	.27042	.45584
10.330	-5.436	-.00566	-.15169	.19768	-.06094	-.00001	-.00005	-.00151	-.13228	.21117	.45632
10.330	-.178	.00728	-.04716	.16485	-.03119	-.00009	-.00160	-.00292	-.04665	.16500	.41429
10.330	5.142	.01691	.03968	.14352	.00297	-.00021	-.00285	-.00572	.02666	.14650	.41417
10.330	10.288	.02268	.13855	.12989	.03289	-.00014	-.00346	-.00731	.11312	.15255	.41440
10.330	15.452	.01359	.24394	.12028	.06495	-.00121	-.00323	-.00733	.20308	.18092	.41429
10.330	20.521	.02409	.38389	.12153	.09209	-.00123	-.00513	-.01232	.31693	.24839	.37260
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N52 RCS OFF (ZH102F) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = .000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 22/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.688	-.02233	-.26662	.23189	-.09304	.00121	.00077	-.00177	-.21899	.27731	.12057
10.330	-5.151	-.00931	-.15831	.19685	-.05722	.00069	-.00029	-.00344	-.13999	.21027	.07862
10.330	-.184	.00423	-.05801	.16573	-.02969	.00039	-.00183	-.00446	-.05748	.16591	.07862
10.330	5.340	.01383	.03488	.14302	.00847	.00026	-.00283	-.00618	.02142	.14565	.07843
10.330	10.334	.01957	.12736	.12832	.03929	.00035	-.00349	-.00799	.10227	.14909	.07843
10.330	15.676	.01585	.23420	.11770	.07491	-.00058	-.00335	-.00811	.19369	.17660	.07862
10.330	20.702	.02917	.36910	.11333	.10466	-.00037	-.00527	-.01358	.30520	.23649	.12047
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N51 RCS OFF (ZH103F) (31 JUL 74)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	1725.8000 IN. XT		
LREF =	1290.0000 IN.	YMRP =	.0000 IN. YT		
BREF =	1290.0000 IN.	ZMRP =	633.6000 IN. ZT		
SCALE =	.0100				

PARAMETRIC DATA

BETA =	.000	Q(PSF) =	150.000
PCRCS =	.000	ELEVON =	-20.000
AILRON =	.000	BDFLAP =	.000
SPDBRK =	.000		

RUN NO. 30/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.510	-.02151	-.28334	.23261	-.08241	.00130	.00123	.00031	-.23616	.28039	.24564
10.330	-5.270	-.01261	-.17682	.19784	-.05142	.00075	.00041	-.00108	-.15790	.21325	.24554
10.330	-.084	.00061	-.06455	.16408	-.02503	.00040	-.00101	-.00236	-.06431	.16417	.28755
10.330	5.025	.01159	.02157	.14266	.00841	.00020	-.00211	-.00435	.00899	.14400	.28766
10.330	10.543	.01529	.12083	.12633	.04221	.00032	-.00276	-.00658	.09567	.14630	.24533
10.330	15.713	.01155	.22164	.11634	.07613	-.00049	-.00255	-.00650	.18185	.17201	.28755
10.330	20.678	.02500	.34637	.11217	.10692	-.00033	-.00445	-.01122	.28444	.22726	.24533
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 RCS OFF (ZH104F) (31 JUL 74)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	1725.8000 IN. XT		
LREF =	1290.0000 IN.	YMRP =	.0000 IN. YT		
BREF =	1290.0000 IN.	ZMRP =	633.6000 IN. ZT		
SCALE =	.0100				

PARAMETRIC DATA

BETA =	.000	Q(PSF) =	150.000
PCRCS =	.000	ELEVON =	.000
AILRON =	15.000	BDFLAP =	.000
SPDBRK =	.000		

RUN NO. 12/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.553	-.03828	-.26833	.23423	-.09045	.00464	.00100	-.00324	-.22089	.27941	.20404
10.330	-5.208	-.01383	-.16215	.20079	-.05678	.00329	-.00041	-.00496	-.14325	.21468	.16211
10.330	-.068	.01071	-.05459	.16757	-.02846	.00219	-.00236	-.00535	-.05439	.16764	.16191
10.330	5.332	.02666	.03645	.14508	.00775	.00213	-.00370	-.00698	.02281	.14784	.20394
10.330	10.343	.04445	.13250	.13112	.03840	.00282	-.00479	-.00816	.10680	.15277	.20394
10.330	15.665	.05145	.24100	.12106	.07354	.00267	-.00520	-.00838	.19936	.18164	.16211
10.330	20.653	.09158	.37526	.11787	.10286	.00463	-.00824	-.01389	.30957	.24265	.16211
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 RCS OFF (ZH105F) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = .000 ELEVON = .000
AILRON = -15.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 47/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.641	.00564	-.27250	.23879	-.09303	-.00221	.00021	-.00191	-.22372	.28501	-.00618
10.330	-5.337	.00717	-.16362	.20566	-.05859	-.00201	-.00052	-.00358	-.14378	.21999	-.00601
10.330	-.262	.01490	-.05805	.17164	-.03104	-.00152	-.00173	-.00482	-.05726	.17190	-.00636
10.330	5.161	.01846	.03735	.14858	.00704	-.00180	-.00262	-.00748	.02383	.15134	-.04812
10.330	10.361	.01255	.13736	.13310	.03908	-.00239	-.00267	-.00923	.11118	.15563	-.00627
10.330	15.548	-.00774	.24304	.12250	.07401	-.00421	-.00197	-.00970	.20131	.18316	-.00627
10.330	20.754	-.02140	.38913	.12196	.10533	-.00603	-.00297	-.01509	.32066	.25194	-.04821
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 RCS OFF (ZH106F) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = .000 ELEVON = .000
AILRON = 5.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 50/ 0 RN/L = 1.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.430	-.01380	-.25848	.22577	-.08975	.00203	.00122	-.00033	-.21334	.26884	.16151
10.330	-5.305	-.00309	-.15967	.19425	-.05733	.00128	.00042	-.00156	-.14102	.20818	.20373
10.330	-.229	.01158	-.05696	.16345	-.02921	.00081	-.00090	-.00246	-.05630	.16367	.16131
10.330	5.277	.02405	.03278	.14111	.00758	.00074	-.00227	-.00479	.01967	.14352	.16151
10.330	10.288	.03131	.12487	.12672	.03827	.00102	-.00297	-.00668	.10023	.14698	.16161
10.330	15.483	.03027	.22596	.11690	.07151	.00038	-.00289	-.00633	.18655	.17298	.24564
10.330	20.584	.05007	.35916	.11234	.10162	.00119	-.00490	-.01168	.29673	.23144	.16151
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 RCS OFF (ZH107F) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = .000 ELEVON = -20.000
AILRON = 10.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 53/ 0 RN/L = 1.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.323	-.06628	-.29512	.24200	-.08054	.00678	.00430	-.00302	-.24697	.29097	.11979
10.330	-5.342	-.03320	-.18778	.20832	-.05111	.00498	.00228	-.00394	-.16757	.22489	.07767
10.330	-.181	.00220	-.07039	.16962	-.02569	.00242	-.00044	-.00462	-.06985	.16984	.07777
10.330	5.051	.02130	.02122	.14608	.00925	.00138	-.00223	-.00628	.00828	.14738	.07767
10.330	10.341	.03126	.12055	.12906	.04210	.00112	-.00313	-.00823	.09542	.14861	.07786
10.330	15.541	.02906	.22500	.11940	.07780	.00022	-.00316	-.00807	.18478	.17532	.07786
10.330	20.707	.04821	.35994	.11419	.11026	.00070	-.00535	-.01307	.29631	.23408	.07758
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 RCS OFF (ZH108F) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = .000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = 55.000

RUN NO. 42/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.591	-.01556	-.27585	.24715	-.08754	.00109	.00097	-.00314	-.22573	.29365	-.04829
10.330	-5.270	-.00287	-.16638	.20919	-.05503	.00055	-.00015	-.00466	-.14647	.22358	-.13217
10.330	-.163	.01454	-.06129	.17462	-.02734	.00029	-.00171	-.00524	-.06080	.17479	-.04812
10.330	5.126	.02405	.02960	.15027	.00917	.00016	-.00293	-.00720	.01605	.15231	-.04821
10.330	10.382	.03113	.13009	.13306	.04176	.00032	-.00359	-.00853	.10398	.15432	-.09023
10.330	15.590	.02520	.23750	.12147	.07693	-.00068	-.00343	-.00891	.19612	.18083	-.04821
10.330	20.779	.03935	.38314	.11640	.10841	-.00048	-.00546	-.01481	.31692	.24475	-.09032
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N51 YAW (ZH101N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 179.000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 4/ 0 RN/L = .97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.590	-.00049	-.25154	.22622	-.09375	.00096	-.00055	.00141	-.20568	.26860	180.17342
10.330	-5.353	.01476	-.15454	.19507	-.05889	.00036	-.00193	.00090	-.13567	.20864	178.92075
10.330	-.084	.02863	-.05237	.16204	-.02876	-.00038	-.00326	.00016	-.05213	.16212	178.37447
10.330	5.158	.04089	.03418	.14027	.00510	-.00043	-.00455	-.00090	.02144	.14277	178.31290
10.330	10.317	.04174	.12889	.12624	.03608	-.00135	-.00519	-.00070	.10419	.14729	179.24562
10.330	15.571	.02339	.22897	.11642	.06908	-.00326	-.00446	.00068	.18931	.17361	178.69938
10.330	20.565	.03195	.37197	.11726	.09494	-.00304	-.00629	-.00461	.30708	.24045	178.08032
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N51 YAW (ZH102N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 504.000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 5/ 0 RN/L = .99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.624	.04017	-.25739	.22336	-.09212	.00107	-.00298	.01007	-.21180	.26699	504.70161
10.330	-5.299	.06515	-.16705	.18967	-.05636	-.00097	-.00408	.01547	-.14882	.20428	504.58641
10.330	.011	.07104	-.07956	.15492	-.02572	-.00048	-.00570	.01013	-.07959	.15491	505.00663
10.330	5.357	.08521	.01189	.13359	.00976	-.00076	-.00751	.00940	-.00063	.13412	504.64921
10.330	10.368	.09310	.11233	.12050	.04079	-.00273	-.00870	.01340	.08881	.13875	504.48157
10.330	15.765	.03410	.21467	.11153	.07436	-.00579	-.00566	.01049	.17630	.16566	504.85981
10.330	20.583	.03256	.35232	.11363	.09854	-.00617	-.00735	.00571	.28988	.23024	505.08088
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N50 PITCH DWN (ZH103N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 167.000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 6/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.599	.02878	-.26596	.22256	-.08976	.00009	-.00237	.00438	-.22049	.26768	167.24935
10.330	-5.370	.03946	-.16784	.19148	-.05554	-.00087	-.00328	.00528	-.14919	.20635	167.50149
10.330	-.023	.04553	-.06045	.15958	-.02528	-.00106	-.00453	.00212	-.06038	.15960	167.21787
10.330	5.318	.04108	.02662	.13629	.01051	-.00175	-.00476	-.00069	.01387	.13817	167.46982
10.330	10.540	.04223	.12702	.12119	.04160	-.00175	-.00532	-.00208	.10271	.14238	167.56464
10.330	15.511	.03531	.22759	.11160	.07179	-.00263	-.00546	-.00256	.18946	.16840	167.47003
10.330	20.596	.02638	.37339	.11214	.09760	-.00311	-.00609	-.00797	.31008	.23632	167.17584
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N50 PITCH DWN (ZH104N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 469.000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 7/ 0 RN/L = .97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.396	.09743	-.28967	.20625	-.07810	-.00275	-.00600	.01750	-.24770	.25513	468.78833
10.330	-5.041	.08718	-.19068	.17155	-.04356	-.00363	-.00568	.01599	-.17487	.18764	468.65814
10.330	.105	.08518	-.09435	.14278	-.01315	-.00438	-.00691	.01221	-.09461	.14261	468.62876
10.330	5.389	.07415	-.00335	.11991	.02102	-.00439	-.00726	.00772	-.01460	.11907	468.61612
10.330	10.664	.08158	.09915	.10638	.05291	-.00465	-.00865	.01045	.07776	.12289	468.65814
10.330	15.676	.04918	.19840	.09416	.08214	-.00559	-.00759	.00565	.16558	.14427	468.67488
10.330	20.734	.03393	.34870	.09663	.10595	-.00630	-.00806	.00127	.29191	.21382	468.12854
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 ROLL (ZH105N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 8/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.553	-.01645	-.26866	.21997	-.08921	-.00103	.00131	-.00165	-.22383	.26546	158.12017
10.330	-5.216	-.02808	-.16812	.18888	-.05465	-.00293	.00202	-.00431	-.15025	.20338	158.11804
10.330	-.083	-.10168	-.07676	.15675	-.02563	-.00685	.00670	-.01829	-.07653	.15686	158.18214
10.330	5.242	-.09204	.01057	.13620	.01163	-.00692	.00474	-.01857	-.00191	.13659	158.10806
10.330	10.485	-.01582	.12020	.11995	.04086	-.00416	-.00134	-.00803	.09636	.13982	158.18003
10.330	15.592	.00158	.22671	.11144	.07319	-.00362	-.00318	-.00640	.18841	.16827	158.14011
10.330	20.610	-.01347	.37623	.11227	.09941	-.00410	-.00316	-.01254	.31263	.23752	158.04609
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 ROLL (ZH106N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 9/ 0 RN/L = 1.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.466	-.11594	-.29751	.19787	-.08008	-.01009	.01154	-.01496	-.25662	.24862	443.20675
10.330	-5.149	-.24129	-.20121	.16789	-.04361	-.01695	.02037	-.03218	-.18533	.18527	447.67569
10.330	.030	-.12143	-.12465	.14010	-.01420	-.01218	.00884	-.01548	-.12472	.14003	447.12934
10.330	5.365	-.02991	-.03097	.11791	.02063	-.00852	.00068	-.00310	-.04186	.11450	444.87368
10.330	10.555	-.02111	.07534	.10346	.05087	-.00755	-.00105	-.00260	.05511	.11551	444.88781
10.330	15.773	-.04448	.18839	.09318	.08317	-.00840	-.00056	-.00436	.15597	.14088	446.30268
10.330	20.783	-.05901	.34467	.09551	.10680	-.00840	-.00123	-.01113	.28836	.21160	446.58286
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N52 PITCH UP (ZH107N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 10/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.645	-.05733	-.25783	.23052	-.09511	-.00005	.00384	-.00794	-.21081	.27418	149.08118
10.330	-5.305	-.07183	-.15561	.19800	-.06042	-.00171	.00464	-.01271	-.13664	.21154	154.25110
10.330	-.157	-.12584	-.05911	.16315	-.03184	-.00511	.00825	-.02327	-.05866	.16331	152.47968
10.330	5.141	-.13835	.02924	.14392	.00551	-.00624	.00812	-.02679	.01622	.14596	152.27560
10.330	10.344	-.05007	.13382	.12857	.03442	-.00293	.00148	-.01611	.10856	.15050	152.54095
10.330	15.438	-.02708	.24062	.12234	.06644	-.00235	-.00040	-.01333	.19938	.18198	157.30717
10.330	20.503	-.01397	.39245	.12327	.09405	-.00230	-.00235	-.01774	.32441	.25292	157.25521
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N52 PITCH UP (ZH108N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = 15.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 11/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.588	-.22113	-.26525	.22200	-.09487	-.00703	.01808	-.03217	-.21994	.26696	441.51134
10.330	-5.360	-.33578	-.16601	.19466	-.05931	-.01362	.02619	-.05001	-.14710	.20932	447.70359
10.330	-.192	-.26105	-.08120	.16209	-.03022	-.01096	.01840	-.04143	-.08066	.16236	446.68094
10.330	5.196	-.14333	.01438	.14074	.00594	-.00670	.00883	-.02510	.00158	.14147	443.17895
10.330	10.386	-.07489	.12078	.12685	.03576	-.00379	.00347	-.01720	.09594	.14655	447.08718
10.330	15.453	-.08652	.23369	.12013	.06727	-.00463	.00398	-.01911	.19323	.17806	445.47618
10.330	20.580	-.08345	.38613	.11973	.09583	-.00444	.00255	-.02523	.31941	.24781	447.88585
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N52 PITCH UP (ZH109N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 23/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.544	-.06206	-.26789	.22767	-.09124	.00009	.00402	-.00734	-.22170	.27285	157.68553
10.330	-5.338	-.07333	-.16489	.19501	-.05762	-.00141	.00464	-.01195	-.14604	.20951	157.75965
10.330	-.163	-.13257	-.06813	.16142	-.02901	-.00503	.00856	-.02298	-.06767	.16162	157.61365
10.330	5.150	-.14027	.01745	.14169	.00922	-.00611	.00837	-.02616	.00466	.14269	157.58156
10.330	10.392	-.04817	.11831	.12470	.04009	-.00263	.00131	-.01511	.09387	.14399	157.59151
10.330	15.581	-.02137	.22578	.11750	.07419	-.00186	-.00079	-.01221	.18592	.17382	157.56935
10.330	20.699	-.01639	.36887	.11279	.10516	-.00183	-.00204	-.01907	.30519	.23588	157.83157
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N52 PITCH UP (ZH110N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 24/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.740	-.22393	-.27828	.22068	-.09162	-.00670	.01801	-.03119	-.23228	.26868	446.06456
10.330	-5.306	-.34139	-.17309	.19141	-.05524	-.01339	.02625	-.05010	-.15465	.20660	446.91915
10.330	-.017	-.25261	-.08756	.15975	-.02602	-.01054	.01767	-.03879	-.08752	.15977	446.37263
10.330	5.201	-.13874	.00295	.13906	.00966	-.00645	.00847	-.02403	-.00967	.13876	445.92426
10.330	10.412	-.07398	.10198	.12334	.04090	-.00362	.00344	-.01649	.07801	.13974	446.06442
10.330	15.589	-.08675	.21660	.11425	.07474	-.00438	.00383	-.01877	.17793	.16826	445.63000
10.330	20.718	-.07953	.36144	.11098	.10624	-.00407	.00224	-.02526	.29880	.23167	445.74203
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 ROLL (ZH111N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 20/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.472	-.00939	-.28078	.21798	-.08492	-.00080	.00065	-.00038	-.23649	.26538	158.25411
10.330	-5.248	-.02098	-.17763	.18802	-.05211	-.00229	.00116	-.00296	-.15969	.20348	158.29615
10.330	-.061	-.10506	-.08806	.15589	-.02192	-.00667	.00663	-.01861	-.08790	.15598	158.05391
10.330	5.286	-.09076	-.00184	.13398	.01573	-.00655	.00449	-.01819	-.01418	.13324	157.95987
10.330	10.487	-.00718	.10406	.11698	.04578	-.00378	-.00194	-.00710	.08103	.13397	157.70767
10.330	15.613	-.00340	.20886	.10772	.07935	-.00364	-.00273	-.00562	.17216	.15996	157.80169
10.330	20.779	-.00477	.34875	.10446	.11042	-.00359	-.00389	-.01296	.28900	.22139	157.55941
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N52 ROLL (ZH112N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 21/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.295	-.09400	-.31495	.19499	-.07310	-.01100	.01041	-.01087	-.27503	.24814	446.65289
10.330	-4.900	-.25108	-.21172	.16488	-.03839	-.01739	.02066	-.03415	-.19686	.18236	445.46209
10.330	.087	-.10581	-.13523	.13948	-.01097	-.01135	.00746	-.01385	-.13545	.13928	445.22373
10.330	5.481	-.02505	-.04154	.11704	.02477	-.00814	-.00001	-.00375	-.05253	.11254	445.26577
10.330	10.818	-.01714	.06264	.10135	.05699	-.00719	-.00175	-.00374	.04250	.11130	446.13432
10.330	15.729	-.03833	.16496	.08938	.08864	-.00806	-.00132	-.00424	.13456	.13075	446.07835
10.330	20.860	-.04558	.31612	.08857	.11695	-.00749	-.00218	-.01122	.26386	.19534	446.03631
	GRADIENT	.02913	.01534	-.00509	.00550	.00121	-.00265	.00407	.01231	-.00864	-.04780

IA-60 CFHT108 MODEL 32-OT (O T)N49 PITCH DWN LH (ZH113N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 26/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.699	.02853	-.28230	.22428	-.08772	.00046	-.00261	.00589	-.23576	.27279	158.33818
10.330	-5.312	.04340	-.17693	.19282	-.05354	-.00018	-.00381	.00643	-.15832	.20837	158.29615
10.330	-.017	.04094	-.07280	.15937	-.02280	-.00125	-.00424	.00256	-.07275	.15939	158.30614
10.330	5.207	.04294	.01466	.13721	.01319	-.00135	-.00496	-.00017	.00215	.13798	158.34817
10.330	10.433	.04739	.11152	.12048	.04630	-.00139	-.00571	-.00090	.08786	.13868	158.34610
10.330	15.682	.03509	.21881	.10860	.08061	-.00232	-.00542	-.00174	.18131	.16371	158.26410
10.330	20.755	.03505	.35513	.10631	.11021	-.00251	-.00663	-.00789	.29441	.22525	158.21208
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 PITCH DWN LH (ZH114N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 27/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.580	.11400	-.31456	.21082	-.07605	-.00317	-.00699	.02197	-.27050	.26499	446.35867
10.330	-5.151	.09384	-.20698	.17599	-.04210	-.00337	-.00611	.01797	-.19034	.19387	446.33067
10.330	.037	.08455	-.10722	.14665	-.01275	-.00384	-.00707	.01120	-.10732	.14658	445.40571
10.330	5.405	.07284	-.01385	.12260	.02416	-.00424	-.00740	.00706	-.02534	.12075	445.63000
10.330	10.605	.08600	.08543	.10708	.05702	-.00407	-.00910	.01029	.06426	.12097	446.00847
10.330	15.803	.05809	.18728	.09350	.08972	-.00493	-.00808	.00636	.15474	.14097	446.03631
10.330	20.859	.05090	.33276	.09194	.11740	-.00488	-.00916	.00063	.27821	.20439	445.88222
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N51 YAW LH (ZH115N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 179.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 28/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.832	-.00035	-.27145	.23174	-.09413	.00160	-.00074	.00235	-.22307	.27863	178.72492
10.330	-5.410	.03806	-.17126	.19794	-.05721	.00043	-.00290	.00767	-.15184	.21321	178.48396
10.330	-.209	.03910	-.06548	.16521	-.02861	.00008	-.00399	.00271	-.06488	.16545	178.17847
10.330	5.173	.04341	.02595	.14168	.00914	-.00012	-.00484	-.00042	.01307	.14344	178.36616
10.330	10.418	.04949	.12220	.12607	.04271	-.00070	-.00556	-.00031	.09739	.14609	178.63259
10.330	15.644	.03573	.21799	.11422	.07891	-.00286	-.00523	.00144	.17911	.16877	178.59055
10.330	20.719	.04163	.35438	.11106	.10870	-.00258	-.00711	-.00487	.29217	.22925	178.69415
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N51 YAW LH (ZH116N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 504.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 29/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.799	.03948	-.27175	.22795	-.09276	.00223	-.00349	.01002	-.22423	.27483	504.15646
10.330	-5.345	.07508	-.17937	.19323	-.05503	.00001	-.00524	.01690	-.16059	.20910	503.27340
10.330	.024	.07940	-.08954	.15821	-.02444	.00035	-.00677	.00986	-.08960	.15817	503.31543
10.330	5.210	.09554	.00226	.13619	.01171	.00051	-.00843	.00910	-.01012	.13583	503.55718
10.330	10.440	.11035	.10699	.12076	.04558	-.00093	-.00998	.01326	.08334	.13815	502.87408
10.330	15.642	.05617	.20332	.11086	.08096	-.00415	-.00702	.01030	.16590	.16157	503.58876
10.330	20.792	.05342	.34069	.10855	.11137	-.00479	-.00899	.00475	.27997	.22241	503.47327
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N51 YAW LH (ZH117N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 179.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 31/ 0 RN/L = 1.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.640	-.00651	-.28763	.23107	-.08310	.00176	-.00001	.00400	-.24002	.28020	178.40525
10.330	-5.299	.02865	-.18358	.19561	-.05069	.00093	-.00232	.00877	-.16473	.21173	178.73014
10.330	-.132	.03702	-.07091	.16181	-.02442	.00064	-.00349	.00518	-.07054	.16197	178.65736
10.330	5.156	.03452	.02124	.13861	.00974	.00058	-.00382	.00084	.00870	.13996	178.74140
10.330	10.409	.04086	.11354	.12275	.04251	.00006	-.00465	.00024	.08950	.14125	178.66862
10.330	15.597	.03136	.20402	.11163	.07773	-.00191	-.00444	.00301	.16650	.16237	178.46680
10.330	20.746	.04179	.33667	.10849	.11008	-.00162	-.00642	-.00287	.27641	.22071	178.43603
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N51 YAW LH (ZH118N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 504.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 32/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.460	.02704	-.28451	.22672	-.08150	.00259	-.00263	.00927	-.23862	.27460	505.27946
10.330	-5.157	.06472	-.18645	.19126	-.04914	.00129	-.00465	.01621	-.16851	.20725	505.67897
10.330	-.148	.07014	-.09689	.15900	-.02307	.00172	-.00597	.01027	-.09648	.15925	505.45852
10.330	5.106	.08796	-.00512	.13658	.01266	.00157	-.00769	.00907	-.01726	.13559	505.80503
10.330	10.319	.11015	.09768	.12005	.04595	-.00034	-.00993	.01410	.07460	.13561	505.84782
10.330	15.652	.05401	.19309	.10942	.08192	-.00367	-.00671	.01087	.15640	.15746	505.30078
10.330	20.789	.06266	.32746	.10730	.11333	-.00345	-.00892	.00613	.26806	.21654	504.96461
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N50 PITCH DWN (ZH119N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 167.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 34/ 0 RN/L = 1.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.336	-.00245	-.31624	.21437	-.07193	.00136	.00020	-.00007	-.27265	.26763	186.52662
10.330	-5.024	.00391	-.19756	.18228	-.04188	.00097	-.00050	-.00349	-.18084	.19888	183.93288
10.330	.032	.02074	-.09676	.15039	-.01415	.00028	-.00197	-.00377	-.09685	.15033	184.85741
10.330	5.377	.02695	-.00482	.12520	.02205	.00039	-.00281	-.00633	-.01653	.12419	184.79210
10.330	10.711	.03541	.09771	.10777	.05621	.00038	-.00366	-.00748	.07597	.12405	182.30151
10.330	15.758	.03367	.19142	.09399	.08959	-.00038	-.00381	-.00823	.15870	.14245	181.91573
10.330	20.988	.04523	.33569	.09228	.12125	-.00015	-.00551	-.01268	.28036	.20640	181.40001
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 N50 PITCH DWN (ZH120N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 469.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 35/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.256	.00852	-.36486	.18802	-.05483	.00072	-.00006	.00339	-.32555	.24998	482.12857
10.330	-4.946	-.00316	-.25730	.15360	-.02504	.00032	.00005	-.00422	-.24310	.17522	483.79752
10.330	.235	.02195	-.15349	.12254	.00371	-.00007	-.00206	-.00288	-.15400	.12191	484.90879
10.330	5.745	.02800	-.05778	.09638	.04266	-.00002	-.00289	-.00574	-.06714	.09011	483.88852
10.330	10.831	.02082	.04058	.07575	.07255	-.00101	-.00182	-.00029	.02562	.08203	482.83786
10.330	16.022	.03714	.14459	.06104	.10337	-.00051	-.00421	-.00704	.12212	.09857	482.52519
10.330	21.213	.04371	.29989	.06107	.13412	-.00061	-.00541	-.01005	.25747	.16544	482.44115
	GRADIENT	.00485	.02004	-.00599	.00555	-.00008	-.00041	.00026	.01720	-.01029	.21449

IA-60 CFHT108 MODEL 32-OT (O T)N49 PITCH DOWN LH (ZH121N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 36/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.556	.03874	-.30645	.23189	-.08036	.00135	-.00259	.00617	-.25878	.28411	174.77164
10.330	-5.213	.04999	-.18986	.19706	-.04854	.00089	-.00369	.00556	-.17117	.21350	174.70760
10.330	-.123	.05049	-.08198	.16332	-.02146	-.00046	-.00407	.00189	-.08163	.16350	174.47748
10.330	5.205	.05326	.01052	.14005	.01537	-.00072	-.00484	-.00057	-.00223	.14042	174.38244
10.330	10.507	.06220	.11021	.12233	.04950	-.00105	-.00607	-.00066	.08606	.14037	174.30938
10.330	15.633	.04992	.21113	.10923	.08373	-.00176	-.00561	-.00175	.17388	.16209	174.21435
10.330	20.833	.05539	.35327	.10726	.11737	-.00167	-.00720	-.00838	.29203	.22588	174.19429
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49 PITCH DOWN LH (ZH122N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 37/ 0 RN/L = .99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.319	.11093	-.32708	.21755	-.06970	-.00082	-.00661	.02107	-.28282	.27262	461.89270
10.330	-5.034	.08984	-.21690	.18124	-.03908	-.00170	-.00559	.01552	-.20016	.19957	464.02286
10.330	.050	.09484	-.11147	.15157	-.01124	-.00298	-.00721	.01034	-.11160	.15148	462.72011
10.330	5.372	.08685	-.01747	.12628	.02494	-.00335	-.00759	.00679	-.02922	.12409	461.40428
10.330	10.579	.10035	.08458	.10939	.05888	-.00325	-.00938	.00874	.06306	.12306	463.51857
10.330	15.815	.07091	.18710	.09590	.09315	-.00377	-.00792	.00564	.15388	.14327	463.37953
10.330	20.993	.07382	.33559	.09338	.12397	-.00348	-.00957	-.00050	.27986	.20741	462.04773
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH123N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 38/ 0 RN/L = .99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.527	-.00906	-.30907	.22943	-.07984	.00015	.00102	-.00134	-.26195	.28203	158.07814
10.330	-5.241	-.01243	-.19309	.19525	-.04873	-.00097	.00117	-.00379	-.17445	.21207	158.04609
10.330	.037	-.09536	-.09502	.16101	-.02029	-.00580	.00683	-.01957	-.09512	.16095	158.00407
10.330	5.322	-.07335	-.00555	.13804	.01744	-.00563	.00419	-.01805	-.01833	.13693	157.98414
10.330	10.606	.01083	.10501	.11923	.04879	-.00282	-.00222	-.00751	.08127	.13652	157.98197
10.330	15.657	.01760	.20646	.10980	.08338	-.00273	-.00333	-.00612	.16917	.16145	157.87800
10.330	20.874	.01652	.35041	.10770	.11794	-.00268	-.00434	-.01333	.28904	.22548	157.80611
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH124N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 39/ 0 RN/L = .99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.389	-.09608	-.33578	.20770	-.07088	-.00839	.01059	-.01134	-.29282	.26484	446.49885
10.330	-5.114	-.24633	-.22825	.17590	-.03785	-.01582	.02122	-.03404	-.21166	.19555	446.20468
10.330	.199	-.08947	-.13577	.14705	-.00929	-.01007	.00697	-.01356	-.13628	.14658	445.86849
10.330	5.451	-.01587	-.04209	.12400	.02644	-.00738	.00006	-.00517	-.05367	.11944	445.74242
10.330	10.670	-.00118	.06130	.10654	.05813	-.00625	-.00203	-.00429	.04052	.11605	446.20468
10.330	15.930	-.01724	.17333	.09294	.09436	-.00627	-.00162	-.00642	.14117	.13695	446.07848
10.330	20.914	-.02551	.31488	.09240	.12343	-.00609	-.00224	-.01251	.26115	.19871	447.24121
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N52 PITCH UP RH (ZH125N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 40/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.555	-.05043	-.29972	.23827	-.08452	.00045	.00379	-.00811	-.25100	.28914	158.35025
10.330	-5.294	-.05816	-.18457	.20218	-.05231	-.00099	.00424	-.01214	-.16513	.21835	158.36024
10.330	-.054	-.12072	-.07830	.16607	-.02534	-.00514	.00859	-.02359	-.07814	.16615	158.31821
10.330	5.241	-.12584	.01038	.14459	.01281	-.00601	.00807	-.02580	-.00288	.14493	158.33027
10.330	10.526	-.03011	.11694	.12762	.04492	-.00251	.00079	-.01506	.09166	.14684	158.27618
10.330	15.568	-.00700	.22255	.12012	.07943	-.00175	-.00105	-.01281	.18215	.17544	158.28616
10.330	20.753	-.00212	.36537	.11531	.11363	-.00164	-.00237	-.02017	.30081	.23730	158.19212
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N52 PITCH UP RH (ZH126N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = -20.000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 41/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.302	-.20918	-.30028	.22843	-.08247	-.00654	.01742	-.03154	-.25459	.27845	446.83504
10.330	-5.280	-.34918	-.19610	.19367	-.05236	-.01473	.02743	-.05650	-.17745	.21089	447.18529
10.330	-.128	-.23561	-.10324	.16517	-.02390	-.01045	.01750	-.03770	-.10288	.16540	447.36738
10.330	5.107	-.12378	-.00949	.14242	.01250	-.00653	.00829	-.02319	-.02213	.14101	446.54083
10.330	10.588	-.06077	.09922	.12479	.04615	-.00371	.00320	-.01658	.07460	.14090	445.95254
10.330	15.596	-.07441	.21089	.11572	.07950	-.00432	.00356	-.01938	.17202	.16816	445.98050
10.330	20.808	-.06718	.35717	.11302	.11451	-.00393	.00214	-.02603	.29372	.23253	446.07861
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH127N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = 55.000

RUN NO. 43/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.463	-.06575	-.29610	.23585	-.07887	-.00391	.00612	-.01087	-.24835	.28570	158.78053
10.330	-5.222	-.07234	-.18688	.20116	-.04736	-.00538	.00623	-.01224	-.16780	.21733	158.76050
10.330	-.071	-.11461	-.09902	.16665	-.01862	-.00760	.00819	-.02155	-.09881	.16677	158.77051
10.330	5.169	-.08098	-.00745	.14070	.01694	-.00680	.00459	-.01866	-.02010	.13946	158.49836
10.330	10.434	.00670	.10284	.12008	.04671	-.00368	-.00228	-.00721	.07939	.13672	158.58039
10.330	15.654	.02300	.21275	.11048	.08235	-.00313	-.00402	-.00522	.17505	.16379	158.48836
10.330	20.824	.01068	.36148	.10813	.11424	-.00354	-.00436	-.01317	.29942	.22957	158.43430
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH128N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = 55.000

RUN NO. 44/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.199	-.23072	-.33594	.22169	-.06134	-.01784	.02255	-.03460	-.29138	.27767	447.35341
10.330	-4.893	-.33827	-.23042	.19129	-.02648	-.02224	.02871	-.04769	-.21327	.21025	448.01171
10.330	.127	-.08806	-.13766	.14788	-.01022	-.01103	.00691	-.01284	-.13798	.14757	448.13804
10.330	5.399	-.01813	-.04194	.12381	.02613	-.00836	.00025	-.00330	-.05341	.11932	445.67224
10.330	10.628	-.00305	.06146	.10786	.05835	-.00693	-.00193	-.00273	.04052	.11734	446.28873
10.330	15.864	-.01957	.17414	.09559	.09308	-.00761	-.00183	-.00376	.14137	.13955	446.27478
10.330	21.042	-.02865	.33097	.09442	.12204	-.00730	-.00261	-.01077	.27500	.20696	446.55489
	GRADIENT	.04984	.01848	-.00865	.00324	.00223	-.00434	.00694	.01500	-.01249	.02516

IA-60 CFHT108 MODEL 32-OT (O T)N52 PITCH UP (ZH129N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = 55.000

RUN NO. 45/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.514	-.11375	-.28228	.24574	-.08466	-.00290	.00941	-.01785	-.23270	.29312	158.42431
10.330	-5.231	-.12485	-.17249	.20877	-.05245	-.00440	.00958	-.02166	-.15274	.22363	158.38228
10.330	-.126	-.16363	-.07918	.17335	-.02406	-.00694	.01181	-.02932	-.07879	.17353	158.32029
10.330	5.041	-.13277	.01110	.14919	.01123	-.00632	.00855	-.02714	-.00205	.14959	158.25621
10.330	10.494	-.03121	.12223	.12872	.04246	-.00250	.00085	-.01501	.09674	.14883	158.27618
10.330	15.719	-.00301	.23422	.12082	.07782	-.00164	-.00154	-.01194	.19273	.17975	158.08812
10.330	20.661	-.00217	.37566	.11572	.10798	-.00170	-.00250	-.01935	.31066	.24083	158.08812
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N52 PITCH UP (ZH130N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = 55.000

RUN NO. 46/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.282	-.34197	-.29200	.24213	-.07756	-.01344	.02880	-.05343	-.24409	.29036	447.24130
10.330	-5.284	-.43697	-.19102	.21528	-.04326	-.01849	.03479	-.06666	-.17039	.23196	447.00314
10.330	-.079	-.23551	-.09334	.16870	-.02401	-.01048	.01733	-.03884	-.09311	.16883	447.46540
10.330	5.194	-.12597	.00160	.14503	.01140	-.00645	.00819	-.02401	-.01154	.14458	447.03117
10.330	10.435	-.05743	.10404	.12813	.04316	-.00342	.00297	-.01611	.07911	.14486	446.24670
10.330	15.568	-.07157	.21955	.11905	.07757	-.00426	.00336	-.01871	.17954	.17361	446.37278
10.330	20.713	-.06188	.36831	.11569	.10983	-.00389	.00167	-.02544	.30358	.23848	446.98910
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH131N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = .000
AILRON = -15.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 48/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.619	.01027	-.28953	.22634	-.08802	-.00356	.00052	-.00042	-.24286	.27582	158.73850
10.330	-5.373	-.00258	-.18133	.19441	-.05493	-.00413	.00101	-.00248	-.16233	.21053	158.40432
10.330	-.046	-.09541	-.08523	.16016	-.02428	-.00801	.00685	-.01884	-.08510	.16023	158.32029
10.330	5.250	-.09225	.00341	.13803	.01378	-.00830	.00525	-.01945	-.00923	.13777	158.16219
10.330	10.442	-.01636	.11303	.12102	.04397	-.00594	-.00090	-.00835	.08923	.13950	158.18214
10.330	15.708	-.01415	.22450	.11238	.07972	-.00637	-.00217	-.00685	.18569	.16896	157.84593
10.330	20.663	-.04708	.36535	.11093	.10798	-.00858	-.00184	-.01379	.30270	.23272	157.65793
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH132N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = .000
AILRON = -15.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 49/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.509	-.06622	-.31979	.20432	-.07829	-.01238	.00946	-.00890	-.27717	.25922	447.14326
10.330	-4.979	-.21561	-.21112	.17236	-.04174	-.01803	.01917	-.02932	-.19536	.19003	447.18521
10.330	.116	-.09774	-.12982	.14559	-.01343	-.01282	.00740	-.01531	-.13012	.14532	446.98910
10.330	5.385	-.02222	-.03430	.12301	.02273	-.00991	.00032	-.00461	-.04569	.11924	447.61938
10.330	10.620	-.02100	.07215	.10767	.05442	-.00936	-.00126	-.00400	.05107	.11912	446.63891
10.330	15.778	-.05101	.18233	.09566	.08823	-.01039	-.00031	-.00595	.14945	.14164	446.55485
10.330	20.940	-.08711	.34196	.09583	.11501	-.01242	-.00023	-.01182	.28513	.21172	446.82102
	GRADIENT	.02313	.01596	-.00525	.00556	.00102	-.00231	.00275	.01280	-.00878	-.03649

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH133N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = .000
AILRON = 5.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 51/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.481	-.00354	-.27533	.21571	-.08296	-.00002	.00108	.00078	-.23150	.26220	158.39434
10.330	-5.304	-.01478	-.17535	.18622	-.05101	-.00196	.00193	-.00219	-.15739	.20163	158.48836
10.330	-.120	-.09340	-.08643	.15449	-.02188	-.00617	.00714	-.01707	-.08611	.15467	158.48836
10.330	5.231	-.08111	-.00264	.13256	.01531	-.00626	.00500	-.01733	-.01471	.13177	158.37436
10.330	10.430	.00229	.10158	.11612	.04468	-.00316	-.00146	-.00641	.07388	.13259	158.61442
10.330	15.627	.01342	.20837	.10691	.07842	-.00276	-.00250	-.00451	.17187	.15908	158.65644
10.330	20.737	.01752	.34676	.10433	.10870	-.00204	-.00374	-.01133	.28735	.22035	158.61442
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH134N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = .000
AILRON = 5.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 52/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.300	-.09141	-.31122	.19405	-.07244	-.00970	.01082	-.01005	-.27151	.24657	445.54638
10.330	-4.975	-.22124	-.21037	.16399	-.03804	-.01585	.01979	-.02932	-.19536	.18162	445.88255
10.330	.041	-.10018	-.13306	.13902	-.01031	-.01102	.00828	-.01313	-.13316	.13892	446.30276
10.330	5.403	-.01634	-.04204	.11628	.02463	-.00766	.00057	-.00228	-.05280	.11181	446.16277
10.330	10.555	-.00614	.05742	.10160	.05536	-.00656	-.00125	-.00218	.03783	.11040	446.52689
10.330	15.763	-.02571	.16606	.08978	.08820	-.00736	-.00089	-.00330	.13542	.13151	446.61093
10.330	20.856	-.02546	.31134	.08838	.11558	-.00606	-.00186	-.01009	.25948	.19343	446.17670
	GRADIENT	.02413	.01541	-.00498	.00553	.00096	-.00229	.00323	.01240	-.00851	.08377

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH135N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = -20.000
AILRON = 10.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 54/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.353	-.05997	-.30931	.22944	-.07426	.00454	.00444	-.00213	-.26304	.28130	159.08666
10.330	-5.269	-.04680	-.20047	.19697	-.04574	.00206	.00393	-.00414	-.18153	.21455	159.12868
10.330	-.015	-.10821	-.10211	.16037	-.01886	-.00480	.00800	-.01935	-.10207	.16040	158.98256
10.330	5.285	-.07441	-.00939	.13760	.01809	-.00506	.00448	-.01772	-.02202	.13615	158.91857
10.330	10.449	.00408	.09863	.11865	.04820	-.00264	-.00175	-.00775	.07547	.13457	158.72849
10.330	15.678	.01545	.20645	.10943	.08335	-.00255	-.00292	-.00573	.16919	.16114	158.49836
10.330	20.849	.01783	.34400	.10651	.11616	-.00199	-.00405	-.01318	.28356	.22196	158.32029
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH136N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = -20.000
AILRON = 10.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 55/ 0 RN/L = 1.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.370	-.14512	-.34518	.20969	-.06544	-.00555	.01419	-.01296	-.30180	.26840	446.89106
10.330	-5.084	-.31209	-.24198	.17893	-.03317	-.01529	.02589	-.04373	-.22518	.19967	447.01718
10.330	.138	-.10195	-.14247	.14663	-.00779	-.00904	.00800	-.01491	-.14282	.14628	446.30276
10.330	5.451	-.02067	-.04886	.12172	.02730	-.00688	.00060	-.00511	-.06021	.11652	446.41480
10.330	10.630	-.00591	.05704	.10587	.05891	-.00615	-.00162	-.00452	.03653	.11457	446.37278
10.330	15.913	-.02769	.17013	.09385	.09387	-.00698	-.00094	-.00579	.13788	.13690	446.42883
10.330	20.904	-.02805	.30976	.09133	.12241	-.00576	-.00181	-.01242	.25678	.19584	445.99470
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH137N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 158.000 ELEVON = .000
AILRON = 15.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 13/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.573	-.03661	-.28721	.22149	-.08511	.00288	.00171	-.00220	-.24169	.27042	156.77302
10.330	-5.301	-.03537	-.18333	.18925	-.05158	.00009	.00216	-.00436	-.16506	.20537	156.38486
10.330	-.095	-.10320	-.08860	.15688	-.02331	-.00476	.00684	-.01822	-.08834	.15702	155.86798
10.330	5.274	-.07724	-.00065	.13526	.01435	-.00439	.00387	-.01707	-.01308	.13463	155.79645
10.330	10.428	.00545	.10664	.11838	.04429	-.00133	-.00230	-.00752	.08345	.13573	155.77408
10.330	15.730	.03385	.21692	.10904	.07920	-.00004	-.00453	-.00560	.17924	.16376	155.43780
10.330	20.805	.04978	.35945	.10841	.10865	.00176	-.00569	-.01290	.29751	.22901	155.58354
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N52 ROLL (ZH138N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 446.000 ELEVON = .000
AILRON = 15.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 14/ 0 RN/L = 1.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.330	-.14027	-.31255	.19720	-.07290	-.00699	.01248	-.01676	-.27212	.25005	444.66354
10.330	-5.043	-.28251	-.21913	.16596	-.03902	-.01594	.02240	-.04139	-.20369	.18458	445.44800
10.330	.123	-.11024	-.13412	.13865	-.01032	-.00970	.00801	-.01411	-.13442	.13836	445.26577
10.330	5.426	-.02407	-.04123	.11616	.02466	-.00629	.00025	-.00314	-.05203	.11174	445.68611
10.330	10.721	-.00555	.06429	.10123	.05576	-.00484	-.00198	-.00307	.04434	.11142	445.49003
10.330	15.836	-.01727	.17410	.08933	.08824	-.00495	-.00186	-.00454	.14312	.13345	445.44800
10.330	20.893	-.00176	.32018	.09085	.11559	-.00260	-.00326	-.01194	.26672	.19906	445.84001
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N50 PITCH DWN (ZH139N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.6000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 167.000 ELEVON = .000
AILRON = 15.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 15/ 0 RN/L = .97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.383	-.02553	-.29388	.20841	-.07664	.00418	.00036	-.00143	-.25150	.25797	167.00773
10.330	-5.062	-.01214	-.18649	.17789	-.04549	.00231	-.00034	-.00388	-.17006	.19365	166.98676
10.330	-.028	.01130	-.08348	.14756	-.01868	.00147	-.00216	-.00371	-.08340	.14760	167.12340
10.330	5.479	.02263	.00526	.12345	.01974	.00166	-.00321	-.00572	-.00655	.12339	167.02879
10.330	10.559	.03624	.10224	.10755	.05008	.00227	-.00420	-.00758	.08080	.12447	167.00782
10.330	15.746	.05083	.20066	.09512	.08373	.00237	-.00521	-.00773	.16732	.14601	167.00782
10.330	20.805	.07772	.34288	.09417	.11085	.00430	-.00690	-.01323	.28708	.20982	167.03933
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N50 PITCH DWN (ZH140N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 469.000 ELEVON = .000
AILRON = 15.000 BDFLAP = .000
SPDBRK = .000

RUN NO. 17/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.129	-.02295	-.33807	.17847	-.05760	.00258	.00099	-.00011	-.30141	.23514	467.87638
10.330	-4.933	-.00921	-.24327	.14559	-.02574	.00153	.00003	-.00100	-.22985	.16597	468.61167
10.330	.298	.00563	-.14480	.11489	.00406	.00042	-.00120	-.00133	-.14540	.11414	468.76306
10.330	5.668	.02000	-.05176	.09062	.03966	.00094	-.00272	-.00322	-.06046	.08506	469.22966
10.330	10.834	.03533	.05380	.07479	.07109	.00137	-.00383	-.00456	.03878	.08357	467.25366
10.330	16.060	.03667	.14942	.05905	.09901	.00121	-.00418	-.00565	.12725	.09808	467.85495
10.330	20.998	.06902	.29799	.06042	.12414	.00304	-.00633	-.00943	.25655	.16318	468.01912
	GRADIENT	.00284	.01882	-.00587	.00570	-.00021	-.00024	-.00006	.01614	-.00991	.02894

IA-60 CFHT108 MODEL 32-OT (O T)N49N50 PITCH DWN (ZH141N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 167.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 18/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.363	-.01136	-.29366	.20760	-.07757	.00110	.00018	.00005	-.25153	.25704	167.07083
10.330	-5.064	-.00204	-.18563	.17816	-.04601	.00085	-.00096	-.00274	-.16918	.19385	166.81864
10.330	.084	.00562	-.08630	.14779	-.01582	-.00028	-.00153	-.00394	-.08651	.14766	166.59796
10.330	5.459	.01383	.00086	.12384	.02118	.00010	-.00275	-.00624	-.01092	.12336	166.50338
10.330	10.520	.02306	.09746	.10767	.05250	.00024	-.00361	-.00694	.07616	.12366	166.21960
10.330	15.843	.02590	.19518	.09468	.08699	-.00029	-.00414	-.00859	.16192	.14437	166.26164
10.330	20.840	.03000	.33237	.09264	.11425	-.00056	-.00515	-.01258	.27767	.20482	166.24067
	GRADIENT	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000

IA-60 CFHT108 MODEL 32-OT (O T)N49N50 PITCH DWN (ZH142N) (31 JUL 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1725.8000 IN. XT
LREF = 1290.0000 IN. YMRP = .0000 IN. YT
BREF = 1290.0000 IN. ZMRP = 633.6000 IN. ZT
SCALE = .0100

PARAMETRIC DATA

BETA = .000 Q(PSF) = 150.000
PCRCS = 469.000 ELEVON = .000
AILRON = .000 BDFLAP = .000
SPDBRK = .000

RUN NO. 19/ 0 RN/L = .98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	PCRCS
10.330	-10.144	.00532	-.34780	.17804	-.05603	-.00032	-.00018	.00472	-.31101	.23651	468.19127
10.330	-4.922	-.01029	-.25146	.14656	-.02462	-.00014	.00004	-.00243	-.23796	.16760	468.59492
10.330	.319	.01268	-.15348	.11634	.00518	-.00019	-.00205	-.00209	-.15413	.11548	469.87286
10.330	5.652	.01431	-.06085	.09172	.04144	-.00035	-.00260	-.00469	-.06959	.08528	467.61542
10.330	10.852	.02251	.04649	.07494	.07365	-.00022	-.00342	-.00556	.03155	.08235	468.51085
10.330	16.108	.02127	.14170	.05931	.10229	-.00070	-.00379	-.00666	.11968	.09630	467.89699
10.330	21.059	.02657	.28630	.05988	.12890	-.00099	-.00480	-.00849	.24566	.15876	468.58228
	GRADIENT	.00438	.01869	-.00577	.00569	-.00001	-.00040	.00006	.01600	-.00994	.24384