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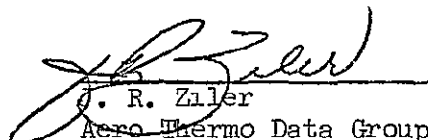


PUBLICATION CHANGE

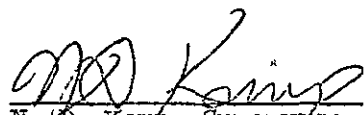
THE FOLLOWING CHANGES APPLY TO PUBLICATION • DATA REPORT
TITLE INVESTIGATION OF STATIC AERODYNAMIC CHARACTERISTICS OF THE MSC 251
BOOSTER
NUMBER DMS-DR-1033 DATE NOVEMBER, 1970 BRANCH AERO SPACE PHYSICS

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Aero Thermo Data Group

APPROVAL:


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Aero Thermo Data Group

PAGE 1 OF 13

DMS-DR-1033

November 1970

SADSAC/SPACE SHUTTLE
WIND TUNNEL TEST DATA REPORT
(MSC TEST S - XXIV)

CONFIGURATION: MSC Booster 251 Configuration, Model SB-15, 0.0132 Scale
TEST PURPOSE: Investigation of Static Longitudinal and Lateral Stability Charac-
teristics, Elevator Effectiveness, and the Effect of Wing
Location and Tail Incidence
TEST FACILITY: Texas A&M 7 x 10 Foot Low Speed Wind Tunnel
TESTING AGENCY: NASA Manned Spacecraft Center
TEST NO. & DATE: 20 April through 8 May 1970 MSC S-XXIV
PROJECT ENGINEER: Robert H. Moore, Jr.

DATA MANAGEMENT SERVICES

LIAISON: T. L. Mulkey DATA OPERATIONS: _____
T. L. Mulkey
Aero Thermo Data Group
RELEASE APPROVAL: J. T. Blaylock, Jr.
N. D. Kemp, Supervisor
Aero Thermo Data Group

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ABSTRACT

A 0.0132 scale model of the MSC Booster 251 Configuration (Model SB-15) was tested (MSC Test Series S-XXIV) in the Texas A&M Low Speed Wind Tunnel by the NASA Manned Spacecraft Center to determine the static longitudinal and lateral characteristics, elevator effectiveness, and the effect of wing location, tail location and tail incidence. These tests were run from 20 April 1970 through 8 May 1970. Three Vee tails were also tested on the model. All testing was conducted at a Mach number of 0.25, Reynolds number of 1.7×10^6 per foot, dynamic pressure of 0.632 psi, and stagnation temperature of 100°F.

TEST CONDITIONS
TEST MSC S-XXIV

[illegible]

BALANCE UTILIZED: TASK CORP MK XIII

CAPACITY:

NF	<u>1000</u> #
SF	<u>1000</u> #
AF	<u>150</u> #
PM	<u>2625</u> IN #
YM	<u>2125</u> IN #
RM	<u>120</u> IN #

ACCURACY:

$\frac{1}{2}$ $\frac{1}{2}$ of Max Load
11
11
11
11
11

COEFFICIENT
TOLERANCE:

[illegible]

COMMENTS :

DATA REDUCTION

The values used to reduce the measured data to coefficient form are listed and discussed below

$$S_{\text{ref}} = \text{Reference area} = 0.846 \text{ ft}^2 (121.82 \text{ in}^2)$$

$$l_{\text{ref}} = \text{Wing WB1 mean aerodynamic chord} = 0.381 \text{ ft} \\ (4.562 \text{ in})$$

$$b = \text{Wing WB1 span} = 2.463 \text{ ft} (29.55 \text{ in})$$

The value for S_{ref} that should have been used to reduce the data is 125.159 in^2 (wing area) as listed on the wing WB1 component sheet, the values of l_{ref} and b listed above were used to reduce the data and these values are correct. The moment reference point (MRP) applicable to the reduced data is 65 percent (22.146 in) of the body length aft of the model nose, on the model lateral centerline, and 67.55 percent (3.741 in) of the body height above the bottom of the body.

CONFIGURATIONS INVESTIGATED

NOMENCLATURE

BB1	=	0.0132 scale MSC Booster SB-15 body
WB1	=	MSC Booster 251 Model SB-15, 0.0132 scale, wing
HB1	=	MSC Booster 251 Model SB-15, 0.0132 scale, horizontal stabilizer (See Figure 2)
HB2	=	MSC Booster 251 Model SB-15, 0.0132 scale, horizontal stabilizer (See Figure 2)
VB1	=	MSC Booster 251 Model SB-15, 0.0132 scale vertical stabilizer (See Figure 2)
VB2	=	Vee tail (See Figure 4)
VB3	=	Vee tail (See Figure 4)
VB4	=	Vee tail (See Figure 4)

For detailed information on the above components refer to the immediately following pages and Figures 1 through 4.

COMBINATIONS TESTED

BB2	BB2VB1
BB2HB1	BB2WB1VB1
BB2VB1HB1	BB2WB1VB2
BB2WB1VB1HB1	BB2WB1VB3
BB2WB1VB1HB2	BB2WB1VB4

The above configurations were tested at an angle of attack range from -10° to 20° at a sideslip angle of zero and at an angle of sideslip range from -10° to 10° at fixed angle of attack values of 0° , 3° , 5° , 12° , and 15° . Test variables included horizontal tail incidence angles of -4° , -3° , -2° , -1° , 0° , 1° , 2° , 3° , and 4° , elevator deflections of -30° , -20° , -10° , 0° , 10° , 20° , and 30° , wing mean aerodynamic quarter chord locations at 64, 67, and 70 percent of the fuselage length, and horizontal stabilizer mean aerodynamic quarter chord locations at 92.9 and 97.3 percent of the fuselage length

NOT REPRODUCIBLE

MODEL COMPONENT: BODY - Br

GENERAL DESCRIPTION: C.0132158 - Scale MSC Booster 515-15

DRAWING NUMBER: SEY37100310

DIMENSIONS:

FULL-SCALE

MODEL SCALE

Length, ft.	<u>214.33 ft</u>	<u>2.339 ft</u>
Max. Width, inches	<u>383.64</u>	<u>5.074</u>
Max. Depth, inches	<u>4.904</u>	<u>5.533</u>
Fineness Ratio (L/W)	<u>6.720</u>	<u>6.120</u>
Area, ft ²		
Max. Cross-Sectional	<u>830 ft²</u>	<u>0.176 ft²</u>
Planform	<u>8045 ft²</u>	<u>1.604 ft²</u>
Wetted	<u>—</u>	<u>—</u>
Base	<u>780 ft²</u>	<u>0.156 ft²</u>

MODEL COMPONENT- WING (WB1)

GENERAL DESCRIPTION- MSC BOOSTER 251 MODEL SB-15, 0.0132158 SCALE

DRAWING NUMBER- SDY 37100315

DIMENSIONS

TOTAL DATA -----	FULL SCALE (FT)	MODEL (IN)
AREA	4976.4	125.159
SPAN (EQUIVALENT)	186.33	29.550
ASPECT RATIO	6.977	6.977
TAPER RATIO	0.352	0.352
DIEHEDRAL ANGLE, DEG	7.000	7.000
INCIDENCE ANGLE, DEG	4.000	4.000
SWEEP-BACK-ANGLE, DEG		
LEADING EDGE	14.000	14.000
TRAILING EDGE	-1.500	-1.500
0.25 ELEMENT LINE	9.276	9.276
CHORDS		
ROOT (WING STA. 0.0)	39.50	6.264
TIP, (EQUIVALENT)	13.92	2.207
MEAN AERODYNAMIC	28.75	4.562
.25 MAC COORDINATES		
X	127.30	20.188
Y	39.15	6.208
Z	4.77	0.757
AIRFOIL SECTION		
ROOT	NACA 0014-64	
TIP	NACA 0010-64	

EXPOSED DATA -----		
AREA	3781.8	95.114
SPAN (EQUIVALENT)	154.34	24.476
ASPECT RATIO	6.298	6.298
TAPER RATIO	0.397	0.397
CHORDS		
ROOT (WING STA. 0.0)	35.09	5.565
TIP, (EQUIVALENT)	13.92	2.207
MEAN AERODYNAMIC	26.04	4.130
.25 MAC COORDINATES		
X	129.08	20.471
Y	49.02	7.775
Z	4.77	0.757

DIMENSIONS OBTAINED FROM MODEL DRAWINGS

MODEL COMPONENT - HORIZONTAL STAB. (HB1)

GENERAL DESCRIPTION- MSC BOOSTER 251 MODEL SB-15, 0.0132158 SCALE

DRAWING NUMBER- SDY 37100316

DIMENSIONS

EXPOSED DATA -----	FULL SCALE (FT)	MODEL (IN)
AREA	2091.0	52.589
SPAN (EQUIVALENT)	74.00	11.736
ASPECT RATIO	2.619	2.619
TAPER RATIO	0.461	0.461
DIEHEDRAL ANGLE, DEG	0.000	0.000
INCIDENCE ANGLE, DEG	0.000	0.000
SWEEP BACK ANGLE, DEG		
LEADING EDGE	24.000	24.000
TRAILING EDGE	-6.739	-6.739
0.25 ELEMENT LINE	12.196	12.196
CHORDS		
ROOT (WING STA. 0.0)	38.68	6.134
TIP, (EQUIVALENT)	17.83	2.828
MEAN AERODYNAMIC	29.55	4.687
.25 MAC COORDINATES		
X	209.07	33.156
Y	16.23	2.573
Z	0.00	0.000
AIRFOIL SECTION		
ROOT	NACA 0012-64	
TIP	NACA 0012-64	

DIMENSIONS OBTAINED FROM MODEL DRAWINGS

MODEL COMPONENT- HORIZONTAL STAB. (HB2)

GENERAL DESCRIPTION- MSC BOOSTER 251 MODEL SB-15, 0.0132158 SCALE

DRAWING NUMBER- SDY 37100316

DIMENSIONS

TOTAL DATA -----	FULL SCALE (FT)	MODEL (IN)
AREA	3474.4	87.385
SPAN (EQUIVALENT)	106.03	16.816
ASPECT RATIO	3.236	3.236
TAPER RATIO	0.374	0.374
DIEHEDRAL ANGLE, DEG	-0.000	-0.000
INCIDENCE ANGLE, DEG	-0.000	-0.000
SWEEP BACK ANGLE, DEG		
LEADING EDGE	23.995	23.995
TRAILING EDGE	-6.745	-6.745
0.25 ELEMENT LINE	14.559	14.559
CHORDS		
ROOT (WING STA. 0.0)	47.70	7.565
TIP, (EQUIVALENT)	17.83	2.828
MEAN AERODYNAMIC	35.05	5.559
.25 MAC COORDINATES		
X	206.10	32.685
Y	22.48	3.565
Z	0.00	0.000
AIRFOIL SECTION		
ROOT	NACA 0012-64	
TIP	NACA 0012-64	

EXPOSED DATA -----		
AREA	2091.0	52.589
SPAN (EQUIVALENT)	74.00	11.736
ASPECT RATIO	2.619	2.619
TAPER RATIO	0.461	0.461
CHORDS		
ROOT (WING STA. 0.0)	38.68	6.134
TIP, (EQUIVALENT)	17.83	2.828
MEAN AERODYNAMIC	29.55	4.687
.25 MAC COORDINATES		
X	209.07	33.156
Y	32.24	5.113
Z	0.00	0.000

DIMENSIONS OBTAINED FROM MODEL MEASUREMENTS

MODEL COMPONENT-VERTICAL STAB (VB1)

GENERAL DESCRIPTION- MSC BOOSTER 251 MODEL SB-15, 0.0132158 SCALE

DRAWING NUMBER- SDY 37100316

DIMENSIONS

EXPOSED DATA -----	FULL SCALE (FT)	MODEL (IN)
AREA	1005.8	25.322
SPAN (EQUIVALENT)	63.01	4.996
ASPECT RATIO	0.985	0.986
TAPER RATIO	0.455	0.455
DIEHEDRAL ANGLE, DEG	0.000	0.000
INCIDENCE ANGLE, DEG	0.000	0.000
SWEEP BACK ANGLE, DEG		
LEADING EDGE	45.000	45.000
TRAILING EDGE	13.539	13.539
0.25 ELEMENT LINE	34.824	34.824
CHORDS		
ROOT (WING STA. 0.0)	43.92	6.965
TIP, (EQUIVALENT)	20.00	3.172
MEAN AERODYNAMIC	33.47	5.308
.25 MAC COORDINATES		
X	198.85	31.537
Y	0.00	0.000
Z	48.71	7.724
AIRFOIL SECTION		
ROOT	NACA 0012-64	
TIP	NACA 0012-64	

DIMENSIONS OBTAINED FROM MODEL DRAWINGS

MODEL-COMPONENT-VERTICAL STAB (VB2)

GENERAL DESCRIPTION- MSC BOOSTER 251 MODEL SB-15, 0.0132158 SCALE

DRAWING NUMBER- SDY 37100316

DIMENSIONS

EXPOSED DATA -----	FULL SCALE (FT)	MODEL (IN)
- AREA - -	1371.2	34.487
SPAN (EQUIVALENT)	97.74	7.750
ASPECT RATIO	1.742	1.742
TAPER RATIO	0.348	0.348
DIEHEDRAL ANGLE, DEG	0.000	0.000
INCIDENCE ANGLE, DEG	0.000	0.000
SWEEP-BACK ANGLE, DEG		
LEADING EDGE	45.000	45.000
TRAILING EDGE	23.997	23.997
0.25 ELEMENT LINE	39.616	39.616
CHORDS		
ROOT (WING STA. 0.0)	41.62	6.600
TIP, (EQUIVALENT)	14.50	2.300
MEAN AERODYNAMIC	30.26	4.799
.25 MAC COORDINATES		
X	207.07	32.840
Y	0.00	0.000
Z	55.42	8.789
~~AIRFOIL SECTION~~		
ROOT	NACA 0012-64	
TIP	NACA 0012-64	

DIMENSIONS OBTAINED FROM MODFL DRAWINGS

----MODEL COMPONENT-VERTICAL STAB (VB3)

GENERAL DESCRIPTION- MSC BOOSTER 251 MODEL SB-15, 0.0132158 SCALE

DRAWING NUMBER- SDY 37100316

DIMENSIONS

EXPOSED DATA -----	FULL SCALE (FT)	MODEL (IN)
AREA	1206.5	30.344
SPAN (EQUIVALENT)	78.82	6.250
ASPECT RATIO	1.287	1.287
TAPER RATIO	0.471	0.471
DIEHEDRAL ANGLE, DEG	0.000	0.000
INCIDENCE ANGLE, DEG	0.000	0.000
~~SWEEP BACK ANGLE, DEG~~		
LEADING EDGE	45.000	45.000
TRAILING EDGE	23.825	23.826
0.25 ELEMENT LINE	37.487	37.487
CHORDS		
ROOT (WING STA. 0.0)	41.62	6.600
--TIP, (EQUIVALENT)	19.61	3.110
MEAN AERODYNAMIC	31.95	5.067
0.25 MAC COORDINATES		
X	204.34	32.406
Y	0.00	0.000
Z	52.25	8.289
AIRFOIL SECTION		
ROOT	NACA 0012-64	
TIP	NACA 0012-64	

DIMENSIONS OBTAINED FROM MODEL DRAWINGS

--- - ~~MODEL COMPONENT-VERTICAL-STAB (V84)~~

GENERAL DESCRIPTION- MSC BOOSTER 251 MODEL SB-15, 0.0132158 SCALE

DRAWING NUMBER- SDY 37100316

- -- DIMENSIONS

EXPOSED DATA -----	FULL SCALE (FT)	MODEL (IN)
AREA	1001.0	25.175
SPAN (EQUIVALENT)	59.90	4.750
ASPECT RATIO	0.896	0.896
TAPER RATIO	0.605	0.606
DIEHEDRAL ANGLE, DEG	0.000	0.000
INCIDENCE ANGLE, DEG	0.000	0.000
SWEEP BACK ANGLE, DEG		
LEADING EDGE	45.000	45.000
TRAILING EDGE	24.353	24.353
0.25 ELEMENT LINE	33.634	33.634
CHORDS		
ROOT (WING STA. 0.0)	41.62	6.600
TIP, (EQUIVALENT)	25.22	4.000
MEAN AERODYNAMIC	34.11	5.409
.25 MAC COORDINATES		
X	201.29	31.922
Y	0.00	0.000
Z	48.67	7.719
AIRFOIL SECTION		
ROOT	NACA 0012-64	
TIP	NACA 0012-64	

DIMENSIONS OBTAINED FROM MODEL DRAWINGS

Force Test MSC Booster 251

☒ POSTTEST

[illegible]

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1	7	13	19	25	31	37	43	49	55	61	67	73	76
CA	CY	KN	KBL	KLM	CYN								
COEFFICIENTS.										IDPVAR(1) IDPVAR(2) NDV			
A -10 -20													
α or β													
B -10 -10													
SCHEDULES													

TEST MSC S-XXIV DATA SET COLLATION SHEET
Force Test msc Booster 251

☐ PRETEST
☒ POSTTEST

DATA SLT IDENTIFIER	CONFIGURATION	SCUD		CONTROL DEFLECTION				NO of RUNS	WING LOCATION			MACH NUMBERS			Cw/q (CBRW)		
		α	β	S_e	$C_{H/4}$	L_T			.64	.67	.70						
RG4014	BB2 WBI	A	0	-	-	-			63	40	17						*
RG4015	BB2 WBI VBI			-	-	-			61	42	16						
RG4016	BB2 WBI VB2			-	-	-			66	67	39						
RG4017	BB2 WBI HBI			0	.973	0			62	41	18						
RG4018	BB2 WBI VBI HBI	V	V	0	.929	0			65	68	37						
RG4019	BB2 WBI VBI HB2	A	0	0	.973	0			64	69	38						

14

1 7 13 19 25 31 37 43 49 55 61 67 75 76
CA ICY KN ICB L ICLM ICYN

COEFFICIENTS.

α or β

SCHEDULES

IDPVAR(1) IDPVAR(2) NDV

$C_{H/4}$ A = 0.973 OF BODY LENGTH

$C_{H/4}$ F = 0.929 OF BODY LENGTH

ILST MSC 5-XXIV DATA SET DESCRIPTOR SHEET
Force Test MSC Booster 251

DATA SET IDENTIFIER	DATA SET DESCRIPTOR				CURVE	CURVE SLOPE RANGE	
	1	2	3	4		LOWER LIMIT	UPPER LIMIT
RG4001	MSC BOOSTER 251	BB2WB1VB1HB1			1.1	-4.0	4.0
2		BB2VB1HB1					
3		BB2HB1					
4		BB2WB1VB1HB1					
5		BB2WB1VB1HB1					
6		BB2					
7		BB2HB1					
8		BB2VB1					
9		BB2WB1VB1HB1					
10		BB2WB1VB3					
11		BB2WB1VB4			1.1		
12		BB2WB1VB3			2.1		
13		BB2WB1VB4			2.1		
14		BB2VB1			1.1		
15		BB2WB1VB1					
16		BB2WB1VB2					
17		BB2WB1HB1					
18		BB2WB1VB1HB1					
19		BB2WB1VB1HB2			1.1		
RG4020	MSC BOOSTER 251	BB2WB1VB1HB1			2.1	-4.0	4.0

1	SREF(1)	11	SREF(2)	21	LRLF(1)	31	LRLF(2)	41	BREF(1)	51	BREF(2)	61	XMRP(1)	71	XMRP(2)
	0.846		1FT. 50		0.381		1FT.		2.463		1FT.		65.0		PCT. 1B
	0.0				67.55		PCT. 2B		1.32158		PCT.				
	YMRP(1)		YMRP(2)		ZMRP(1)		ZMRP(2)		SCALE(1)		SCALE(2)				FILREF

Force Test MSC Booster 251

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1	SREF(1)	11	SREF(2)	1	LREF(1)	31	LREF(2)	41	BREF(1)	51	BREF(2)	61	XMRF(1)	71	XMRF(2)
	0.846		FT SQ		0.381		FT		2.463		FT		65.0		PCT 2B
	0.0				67.55		PCT 2B		1.32158		PCT				
	YMRF(1)		YMRF(2)		ZMRF(1)		ZMRF(2)		SCALE(1)		SCALE(2)				FILEF

TEST FACILITY DESCRIPTION

The Texas A&M University Low Speed Wind Tunnel is a continuous closed circuit horizontal single return facility. The overall circuit length is 397.5 feet; the tunnel is constructed of steel supported above the ground on concrete pillars. The rectangular 7 foot by 10 foot test section is 16 feet long, and it is operated at atmospheric pressure through a speed range from zero to 300 feet per second. The tunnel is powered by a 1250 KVA synchronous electric motor which drives a $12\frac{1}{2}$ -foot diameter Curtiss Electric propeller, the controls for the motor and its auxiliaries are located in the control room. Cooling of the tunnel circuit during warm weather is accomplished by spraying the outside of the tunnel shell with water, this keeps the tunnel circuit temperature within 10°F of ambient temperatures to protect models and to maintain tolerable test section working conditions for model configuration changes. The 7 x 10 test section incorporates an external pyramid balance system which separates and independently measures the aerodynamic components; a variety of support systems for this balance are available. Internal balances are also available for use in this tunnel. For a more detailed description of this tunnel refer to the Low Speed Wind Tunnel Facility Handbook published by the Space Technology Division, Texas A&M University, College Station, Texas.

NOMENCLATURE

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
A_b		base area; m^2 , ft^2 , in^2
a		speed of sound; m/sec, ft/sec
AR	ASPECT	aspect ratio, b^2/S
b	REFB	wing span or reference span; m, ft, in
c		wing chord; m, ft, in
$\bar{c}$		wing mean aerodynamic chord or reference chord; m, ft, in (see ℓ_{ref} or refl)
c.g.		center of gravity
C.P.		center of pressure
C_A	CA	axial force coefficient, F_A/qS_{ref}
C_{A_b}	CAB	base axial force coefficient, $[(p_\infty - p_b)/q] (A_b/S_{ref})$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_D	CDTOTL	drag force coefficient in the wind axis system, $F_D/q S_{ref}$

NOMENCLATURE (continued)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C'_D	CD	drag force coefficient in the stability axis system, $F'_D/q S_{ref}$
C_L	CL	lift force coefficient (stability or wind axis) $F_L/q S_{ref}$
C_l	CBL	rolling moment coefficient in body axis system, $M_x/q S_{ref} b$
$C_{l,s}$	CSL	rolling moment coefficient in the stability axis system, $M_{x,s}/q S_{ref} b$
$C_{l,w}$	CWL	rolling moment coefficient in the wind axis system, $M_{x,w}/q S_{ref} b$
C_m	CLM	pitching moment coefficient in the body axis system, $M_y/q S_{ref} \ell_{ref}$
$C_{m,s}$	CLM	pitching moment coefficient in the stability axis system, $C_{m,s} = C_m$
$C_{m,w}$	CPM	pitching moment coefficient in the wind axis system, $M_{y,w}/q S_{ref} \ell_{ref}$
C_N	CN	normal force coefficient in the body axis system, $F_N/q S_{ref}$

NOMENCLATURE (continued)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_n	CYN	yawing moment coefficient in the body axis system, $M_z/q S_{ref} b$
$C_{n,s}$	CLN	yawing moment coefficient in the stability axis system, $C_{n,s} = C_n$
$C_{n,w}$	CLN	yawing moment coefficient in the wind axis system, $M_{z,w}/q S_{ref} b$
C_p	CP	pressure coefficient, $(p-p_\infty)/q$
C_y	CY	side force coefficient (body or stability axis system), $F_y/q S_{ref}$
C_c	CC	side force coefficient (wind axis system), $F_y/q S_{ref}$
F_A		axial force; N, lb
F_D		drag force in wind axis system; N, lb
F'_D		drag force in the stability axis system; N, lb
F_L		lift force (stability or wind axis system); N, lb
F_N		normal force; N, lb

NOMENCLATURE (continued)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
F_Y		side force; N, lb
	N/A	normal to axial force ratio
ℓ_{ref}	REFL	reference length; m, ft, in (see $\bar{c}$)
L/D	L/D	lift-to-drag ratio, C_L/C_D (stability axis system)
L/D	CL/CD	lift-to-drag ratio, C_L/C_D (wind axis system)
M	MACH	Mach number
MRP	MRP	abbreviation for moment reference point
	XMRP	abbreviation for moment reference point on x-axis
	YMRP	abbreviation for moment reference point on y-axis
	ZMRP	abbreviation for moment reference point on z-axis
M_x		rolling moment in the body axis system; N-m, ft-lb
$M_{x,s}$		rolling moment in the stability axis system; N-m, ft-lb

NOMENCLATURE (continued)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$M_{x,w}$		rolling moment in the wind axis system; N-m, ft-lb
M_y		pitching moment in the body (or stability) axis system; N-m, ft-lb
$M_{y,w}$		pitching moment in the wind axis system; N-m, ft-lb
M_z		yawing moment in the body axis system; N-m, ft-lb
$M_{z,w}$		yawing moment in the wind axis system; N-m, ft-lb
p		static pressure; N/m ² ; psi
P		total pressure; N/m ² ; psi
q	Q(PSI) Q(PSF)	dynamic pressure; N/m ² , psi, psf
RN/L	RN/L	Reynold's number per unit length; million/ft.
S		wing area; m ² , ft ²
S_{ref}	REFS	reference area; m ² , ft ²
T		temperature; °K, °C, °R, °F
V		speed of vehicle relative to surrounding atmosphere; m/sec, ft/sec

NOMENCLATURE (continued)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
i_T	(see additional nomenclature)	tail incidence positive when trailing edge down, deg
$\bar{V}$		velocity of vehicle relative to surrounding atmosphere; m/sec, ft/sec
α	ALPHA	angle of attack, angle between the projection of the wind X_W -axis on the body X, Z-plane and the body X-axis; deg
β	BETA	sideslip angle, angle between the wind X_W -axis and the projection of this axis on the body X-Z-plane; deg
γ		ratio of specific heats
Γ	DIHDRL	wing dihedral angle; deg
δ		control surface deflection angle; deg
		positive deflections are:
	AILRON	aileron - left aileron trailing edge down
	ELVATR	elevator - trailing edge down
	RUDDER	rudder - trailing edge to the left
	FLAP	flap - trailing edge down
	TAB	tab - trailing edge down with respect to control surface
ρ		air density; K_g/m^3 , slugs/ft ³

NOMENCLATURE (continued)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
θ		pitch angle, angle of rotation about the body Y-axis, positive when the positive Z-axis is rotated toward the positive X-axis; deg
ϕ	PHI	roll angle, angle of rotation about the body X-axis, positive when the positive Y-axis is rotated toward the positive Z-axis; deg
ψ	PSI	yaw angle, angle of rotation about the body Z-axis, positive when the positive X-axis is rotated toward the positive Y-axis; deg

NOMENCLATURE (continued)

<u>SUBSCRIPTS</u>	<u>DEFINITION</u>
a	aileron
b	base
c	canard
e	elevator or elevon
f	flap
r	rudder or ruddervator
s	stability axis system
t	tail, or total conditions
w	wind axis system
ref	reference conditions
∞	freestream condition

ADDITIONAL
NOMENCLATURE

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
i_T	IT	tail incidence positive when trailing edge down, deg.
$\bar{c}_w/4$	CBRW	parameter name for wing mean aerodynamic quarter chord location on the fuselage, this is a non-dimensional parameter based on fuselage length.
$\bar{c}_h/4$	CBRH	parameter name for horizontal stabilizer mean aerodynamic quarter chord location on the fuselage, this is a non-dimensional parameter based on fuselage length.

FIGURES

Attitude	Normal (lbs)	Pitching(in.lb)	Axial (lbs)
$\alpha = 90^\circ$	380	890	25
$\alpha = 90^\circ$			
$\alpha = 0^\circ$ $\delta_e = -30^\circ$			

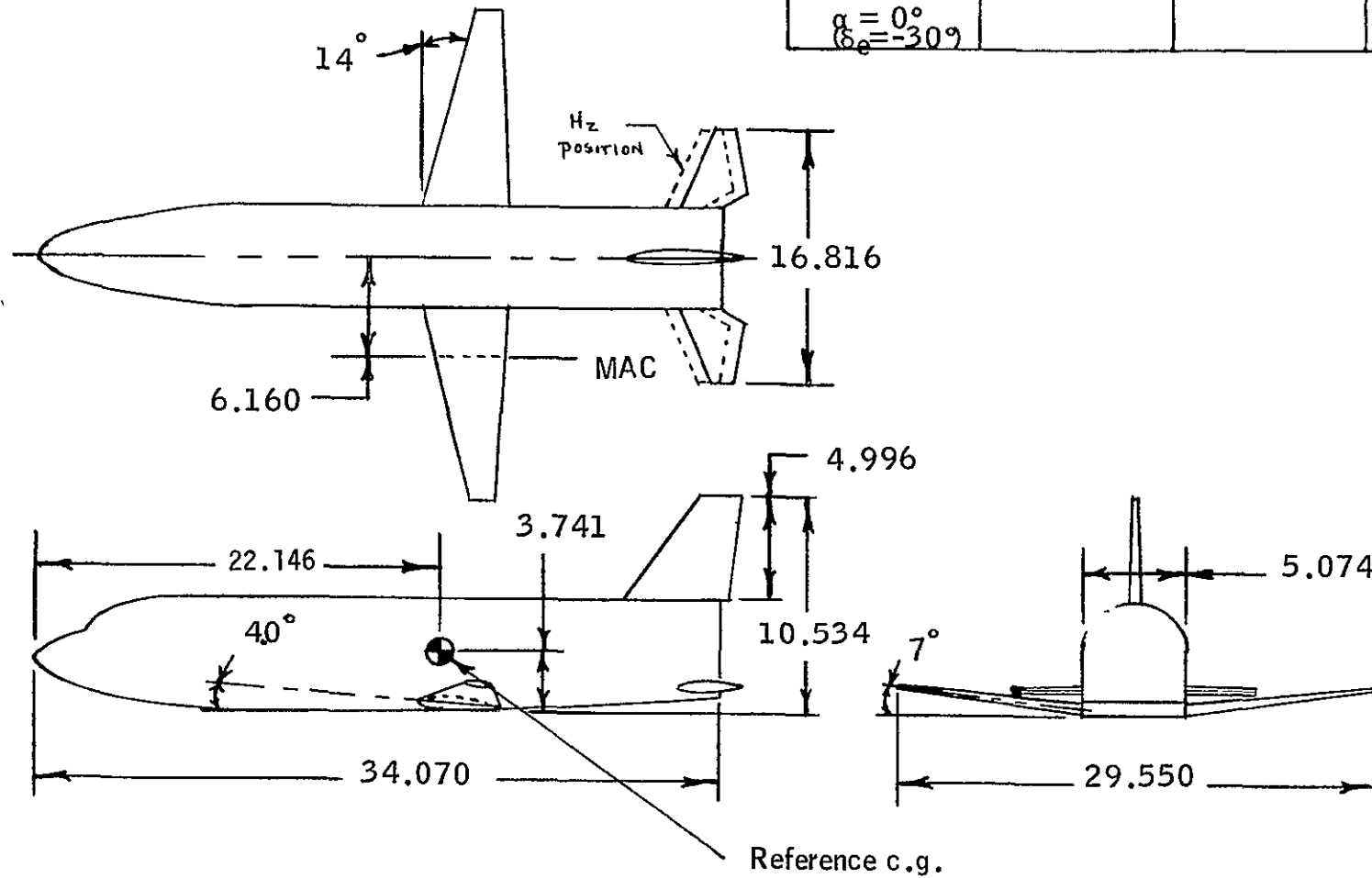
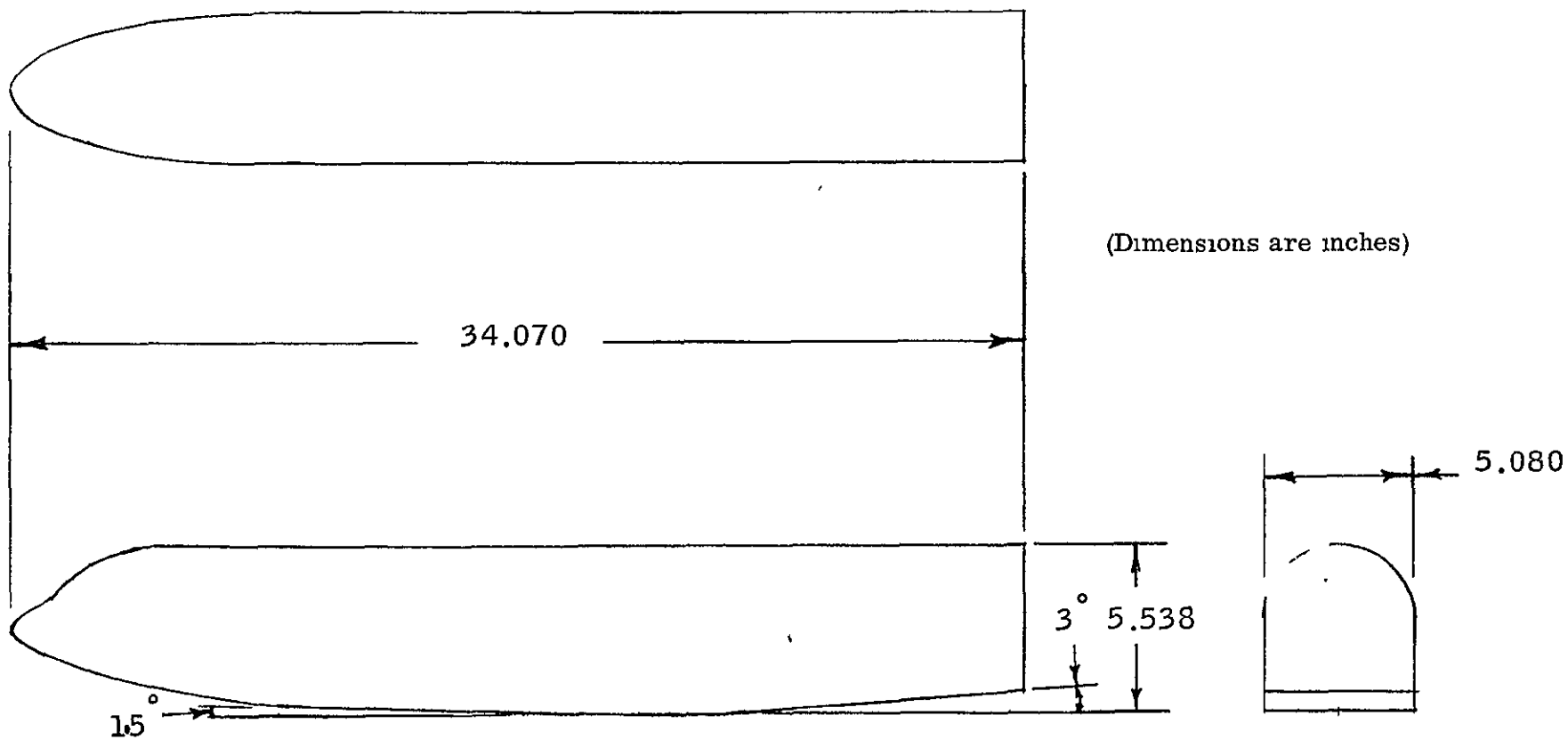
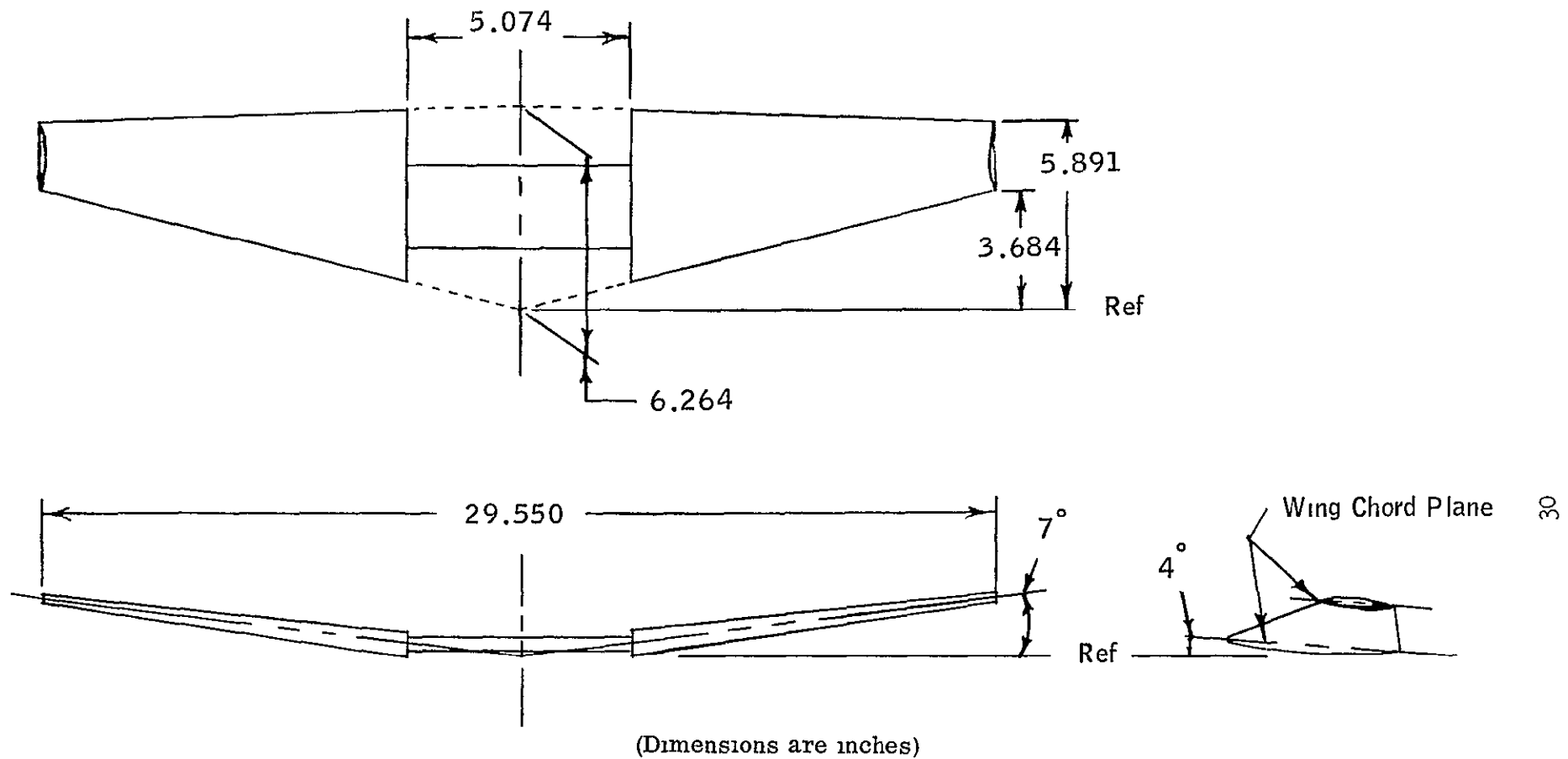


Figure 1.- Assembled model geometry and maximum loads. Configuration $B_{B_1} W_{B_1} V_{B_1} H_{B_1}$
(All dimensions in inches model values).



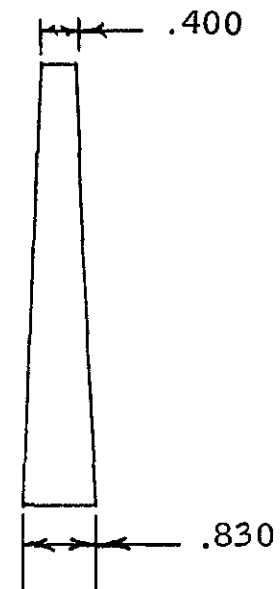
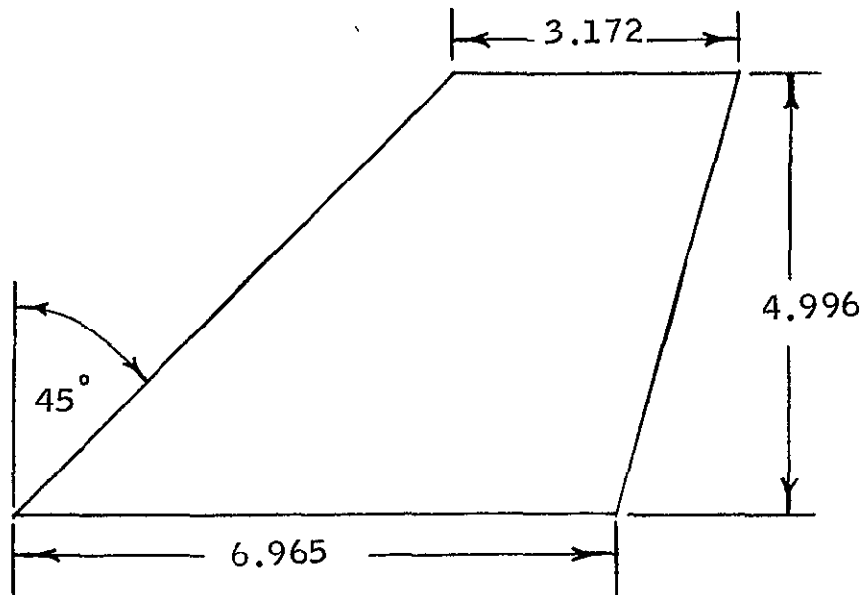
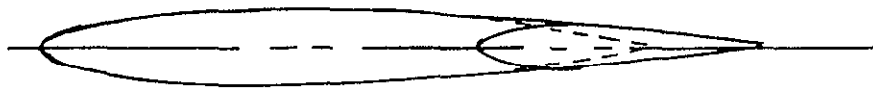
(a) Fuselage (B_{B1}) (Drawing number SEY37100310)

Figure 2.- Model components.



(b) Wing (W_{B_1}) (Drawing number SEY37100315)

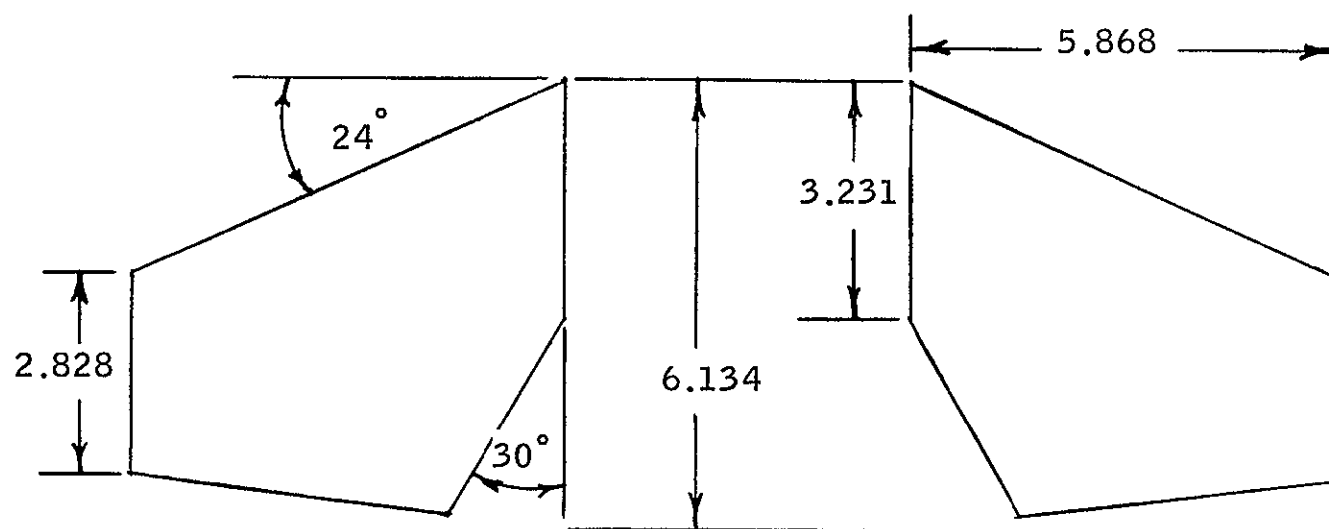
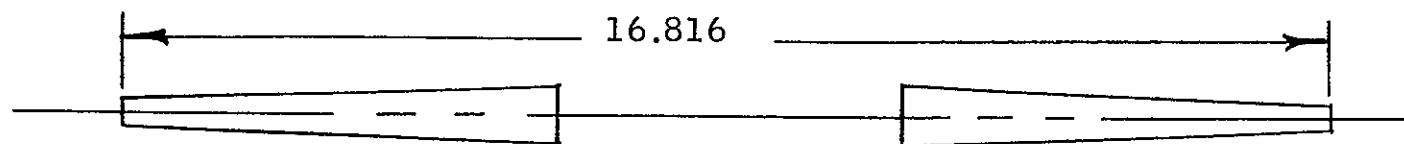
Figure 2.- Continued.



(Dimensions are inches)

(c) Vertical stabilizer (V_{B1}) (Drawing number SEY 37100314)

Figure 2.- Continued.

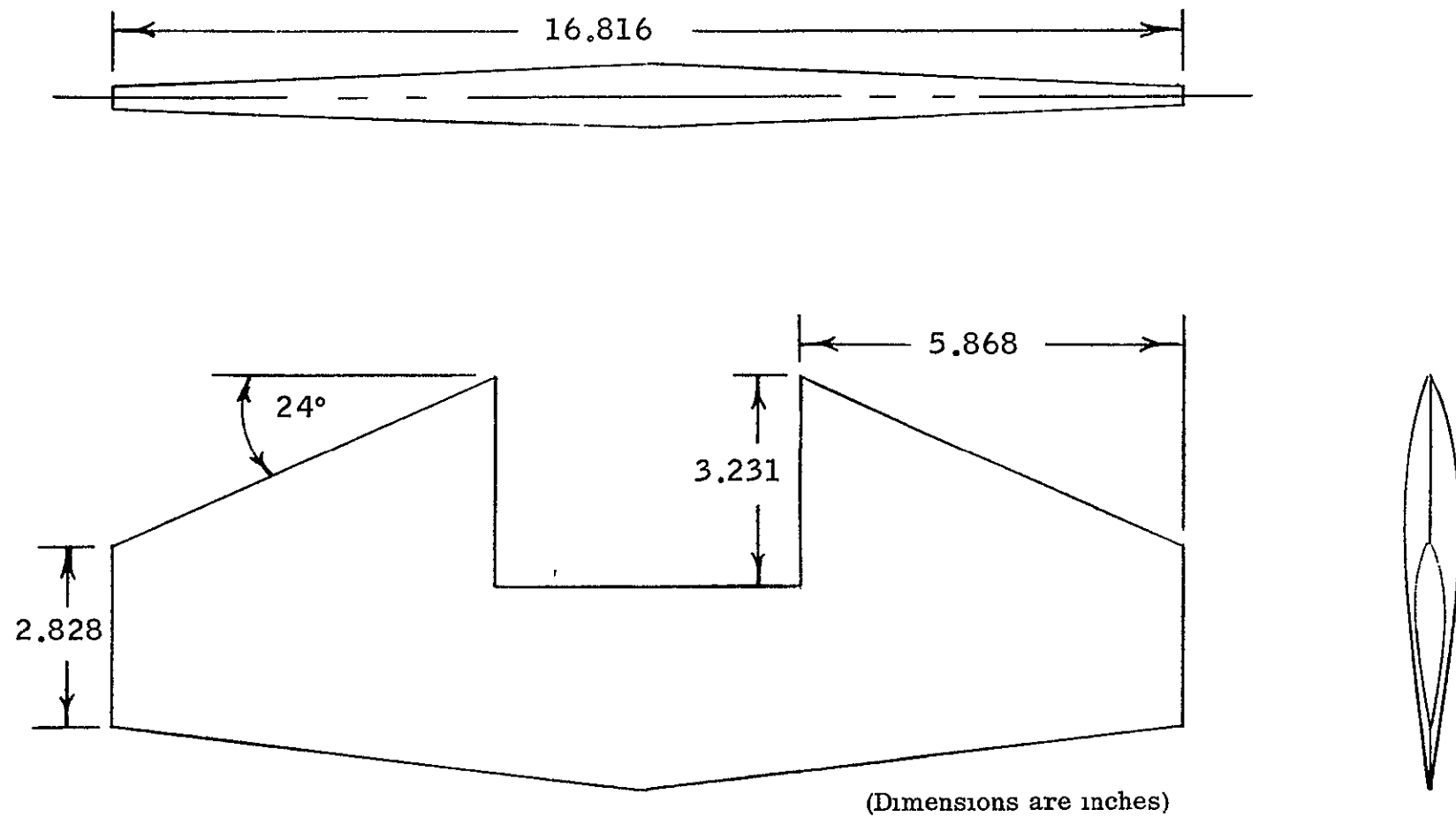


(Dimensions are inches)

(d) Horizontal stabilizer (H_{B1}) (Drawing SEY37100316)

Figure 2.- Continued.





(e) Horizontal stabilizer (HB₂)

Figure 2.- Concluded.

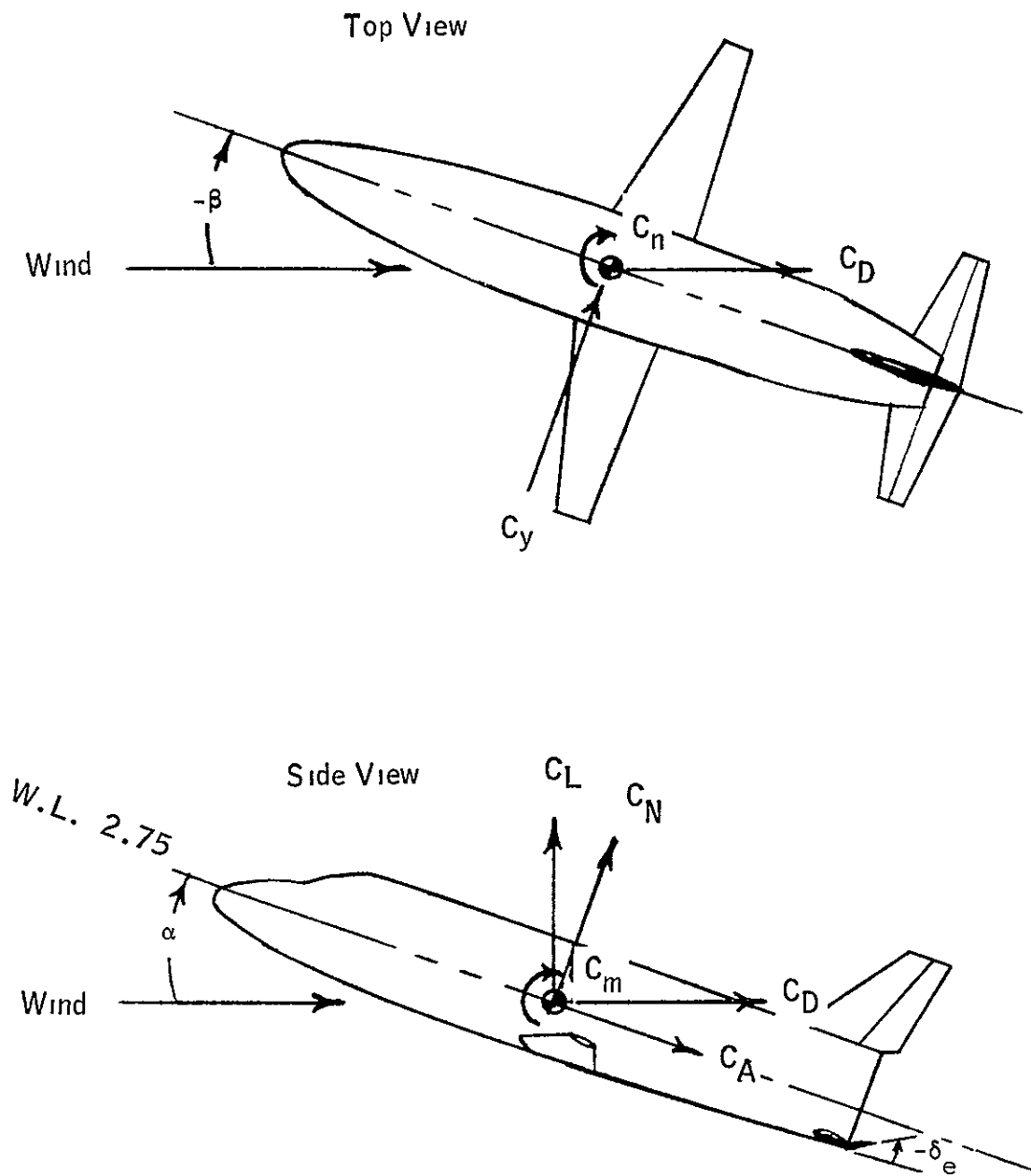


Figure 3. Coefficient and angle definition.

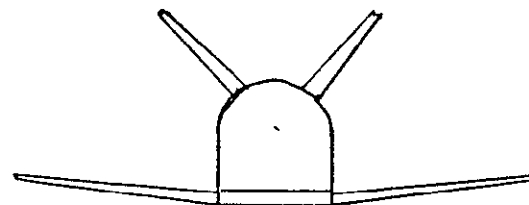
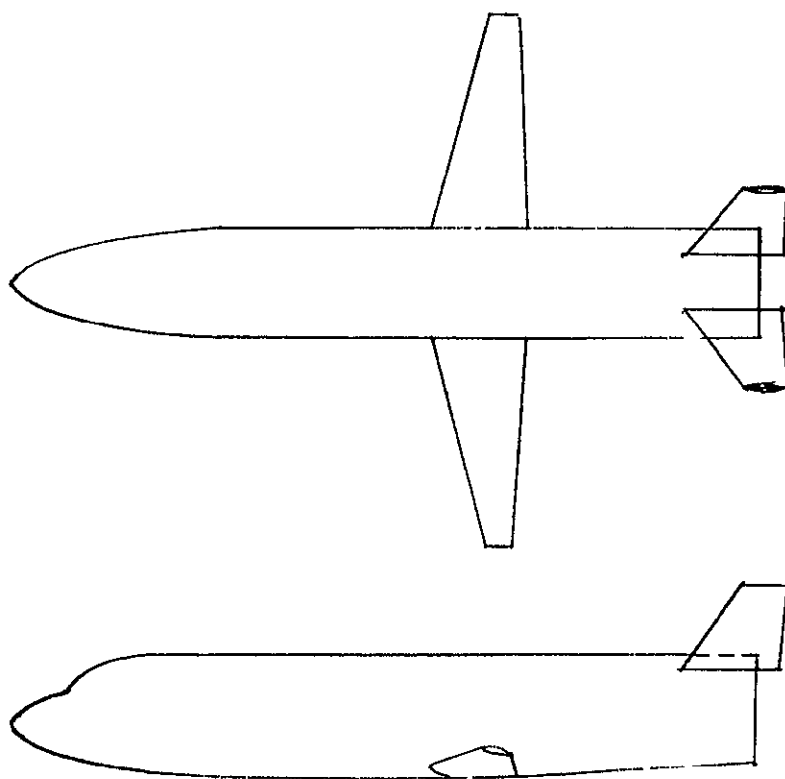
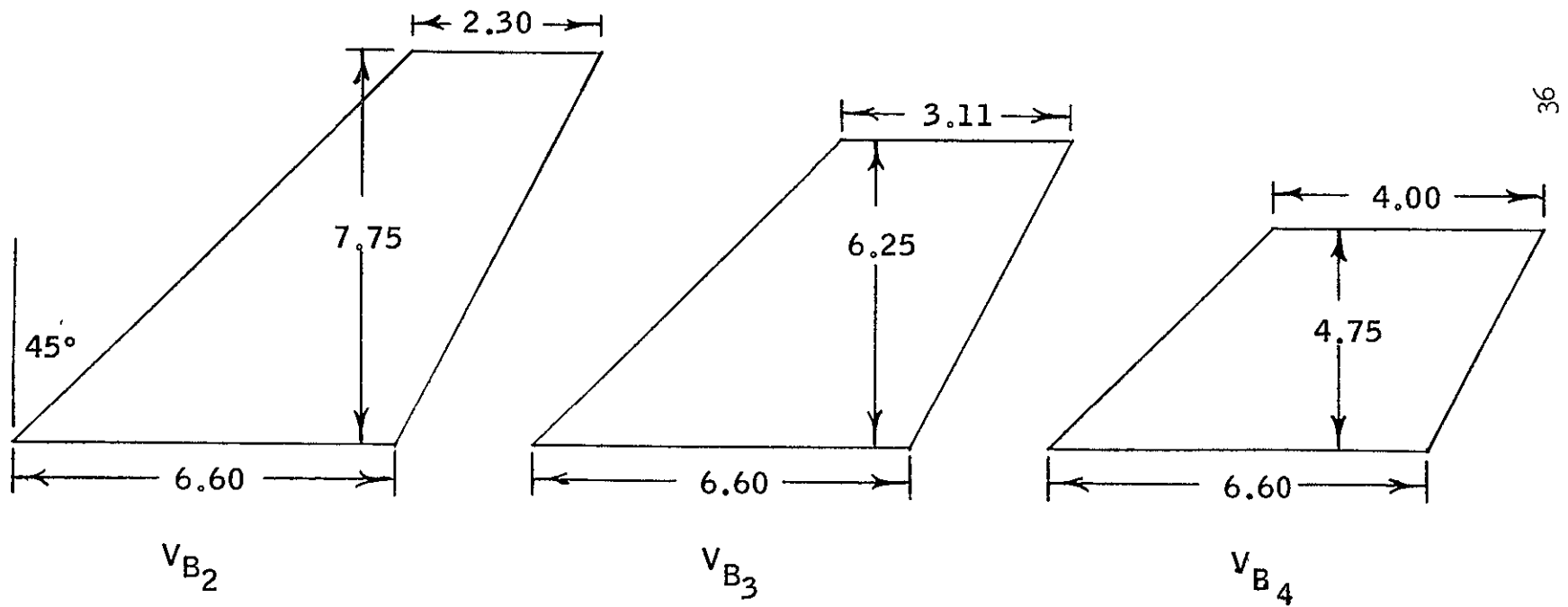


Figure 4. - General arrangement of "Vee" tail.



(Dimensions are inches)

Figure 4. - Concluded.

Notes:

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

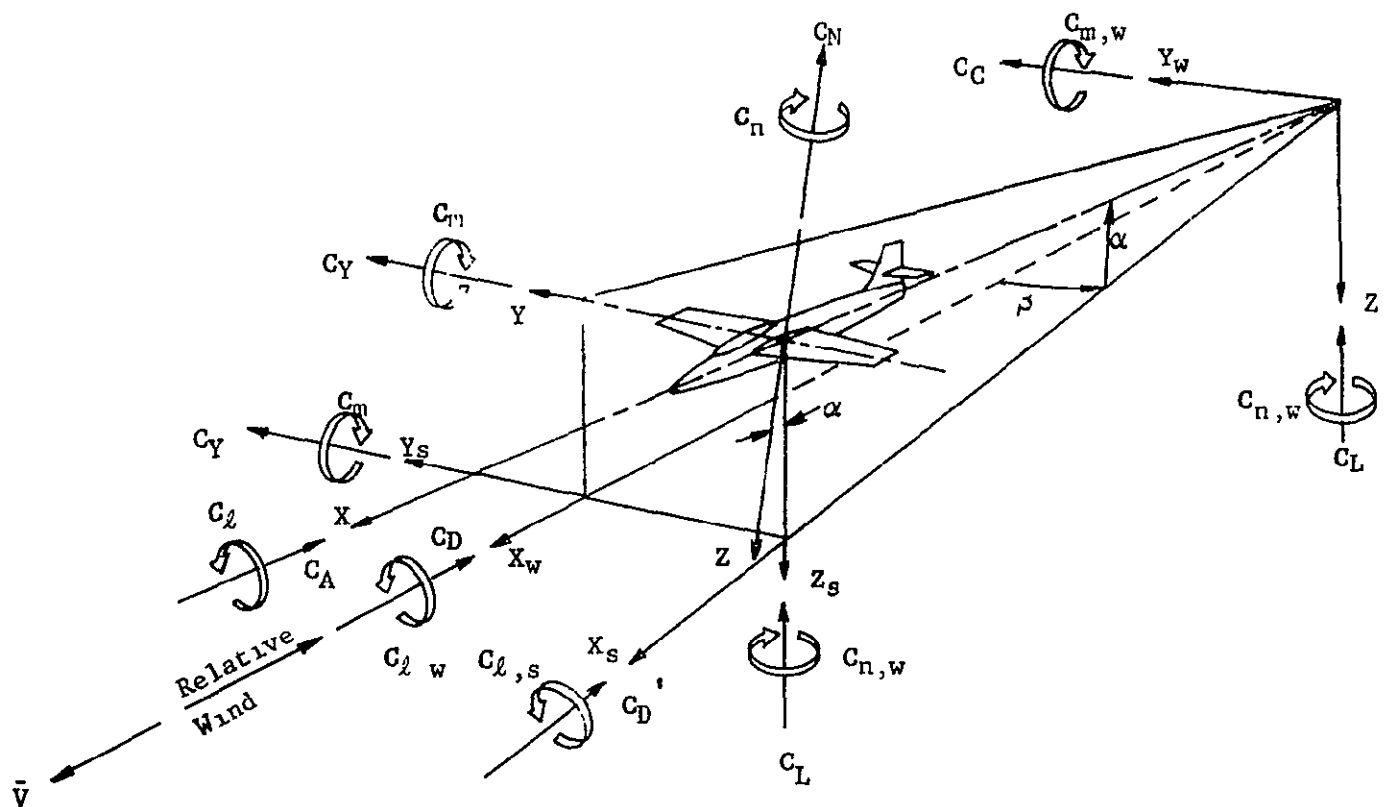


Figure 5. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

DATA DISPLAY INDEX

DATA PLOT INDEX

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

DEPENDENT VARIABLE VS INDEPENDENT VARIABLE, PARAMETRIC STUDY

DATASETS PLOTTED:

QG4004 QG4005 QG4001

DEPENDENT VARIABLE	INDEPENDENT VARIABLE	PLOT PAGE	
		BEGINNING /	ENDING
CN	ALPHA	1	9
CLM	ALPHA	10	18
CA	ALPHA	19	27
CY	ALPHA	28	36
CYN	ALPHA	37	45
CBL	ALPHA	46	54
CL	ALPHA	55	63
CD	ALPHA	64	72
L/D	ALPHA	73	81

DATA PLOT INDEX

EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251

DEPENDENT VARIABLE VS DEPENDENT VARIABLE, PARAMETRIC STUDY

DATASETS PLOTTED:

QG4004 QG4005 QG4001

DEPENDENT VARIABLE	DEPENDENT VARIABLE	PLOT PAGE	
		BEGINNING /	ENDING
CN	CLM	82	90
CL	CLM	91	99
CL	CD	100	108

DATA PLOT INDEX

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH PLANE

DEPENDENT VARIABLE VS INDEPENDENT VARIABLE, MULTIPLE DATASETS

DATASETS PLOTTED:

QG4006 QG4007 QG4008 QG4009 QG4010 QG4011

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CLM	ALPHA	110	110
CA	ALPHA	111	111
CY	ALPHA	112	112
CYN	ALPHA	113	113
CBL	ALPHA	114	114
CL	ALPHA	115	115
CD	ALPHA	116	116
L/D	ALPHA	117	117

DATA PLOT INDEX

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251

DEPENDENT VARIABLE VS DEPENDENT VARIABLE, MULTIPLE DATASETS

DATASETS PLOTTED:

QG4006 QG4007 QG4008 QG4009 QG4010 QG4011

DEPENDENT VARIABLE	DEPENDENT VARIABLE	PLOT PAGE	
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CN	CLM	118	118
CL	CLM	119	119
CL	CD	120	120

DATA PLOT INDEX

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP

DEPENDENT VARIABLE VS INDEPENDENT VARIABLE, MULTIPLE DATASETS

DATASETS PLOTTED:
QG4020 QG4022

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CA	BETA	131	135
CY	BETA	136	140
CYN	BETA	141	145
CBL	BETA	146	150
CL	BETA	151	155
CD	BETA	156	160
L/D	BETA	161	165

DATA PLOT INDEX

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP

DEPENDENT VARIABLE VS INDEPENDENT VARIABLE, MULTIPLE DATASETS

DATASETS PLOTTED:
QG4021 QG4023

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CA	BETA	176	180
CY	BETA	181	185
CYN	BETA	186	190
CBL	BETA	191	195
CL	BETA	196	200
CD	BETA	201	205
L/D	BETA	206	210

DATA PLOT INDEX

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1

DEPENDENT VARIABLE VS INDEPENDENT VARIABLE, MULTIPLE DATASETS

DATASETS PLOTTED:

QG4014 QG4017

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CY	ALPHA	220	222
CYN	ALPHA	223	225
CBL	ALPHA	226	228
CL	ALPHA	229	231
CD	ALPHA	232	234
L/D	ALPHA	235	237

DATA PLOT INDEX

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1

DEPENDENT VARIABLE VS DEPENDENT VARIABLE, MULTIPLE DATASETS

DATASETS PLOTTED:

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DEPENDENT VARIABLE	DEPENDENT VARIABLE	PLOT PAGE BEGINNING / ENDING	
CN	CLM	238	240
CL	CLM	241	243
CL	CD	244	246

DATA PLOT INDEX

EFFECT OF VERTICAL STABILIZER VARIATION (VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS
DEPENDENT VARIABLE VS INDEPENDENT VARIABLE, MULTIPLE DATASETS

DATASETS PLOTTED:
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CY	ALPHA	256	258
CY1	ALPHA	259	261
CBL	ALPHA	262	264
CL	ALPHA	265	267
CD	ALPHA	268	270
L/D	ALPHA	271	273

DATA PLOT INDEX

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251
DEPENDENT VARIABLE VS DEPENDENT VARIABLE, MULTIPLE DATASETS

DATASETS PLOTTED:
QG4015 QG4016

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		BEGINNING	ENDING
CN	CLM	274	276
CL	CLM	277	279
CL	CD	280	282

DATA PLOT INDEX

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BR2WB1VB1HB1

DEPENDENT VARIABLE VS INDEPENDENT VARIABLE, PARAMETRIC STUDY

DATASETS PLOTTED:

AG4024 QG4025

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CA	ALPHA	295	300
CY	ALPHA	301	306
CYN	ALPHA	307	312
CEL	ALPHA	313	318
CL	ALPHA	319	324
CD	ALPHA	325	330
L/D	ALPHA	331	336

DATA PLOT INDEX

STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1

DEPENDENT VARIABLE VS DEPENDENT VARIABLE, PARAMETRIC STUDY

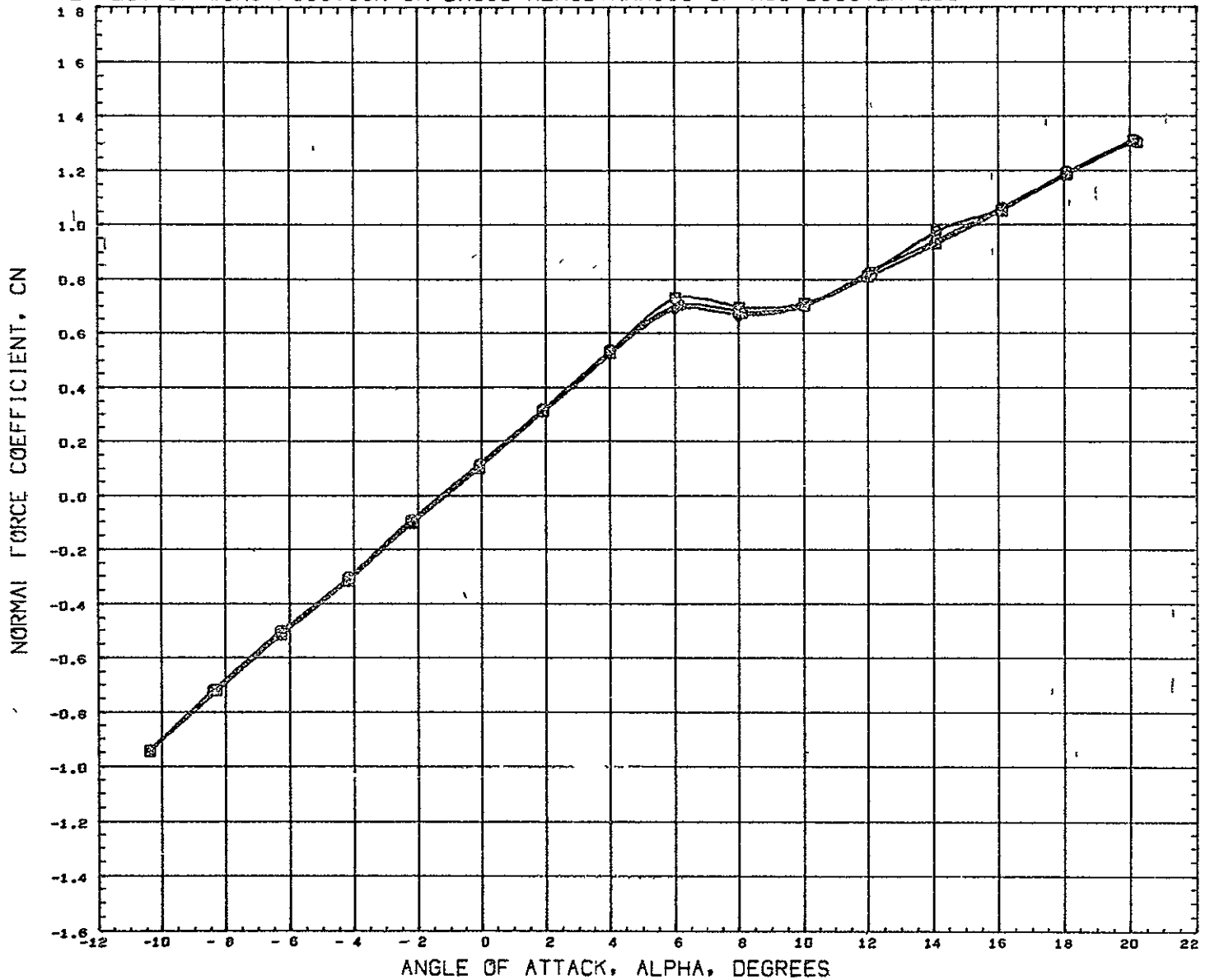
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CL	CD	349	354

DATA

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
○	0.640	IT - 4 000 BETA 0 000
□	0.670	MACH 0 250 CBRH 0 973
◇	0.700	ELEVTR 0 000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
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YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

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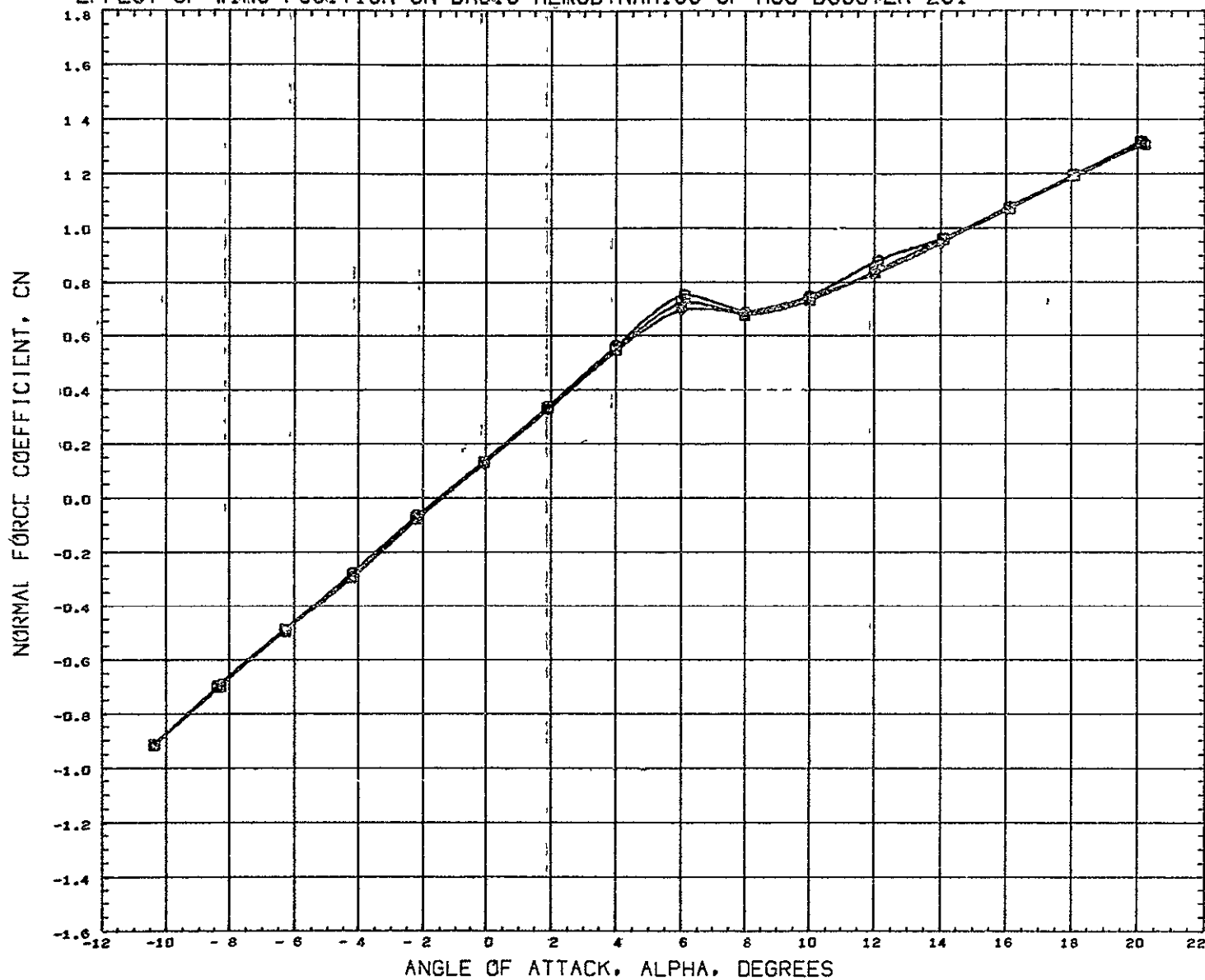
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	II	- 3 000	BETA	0 000
□	0.670	MACH	0 250	CBRH	0 975
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
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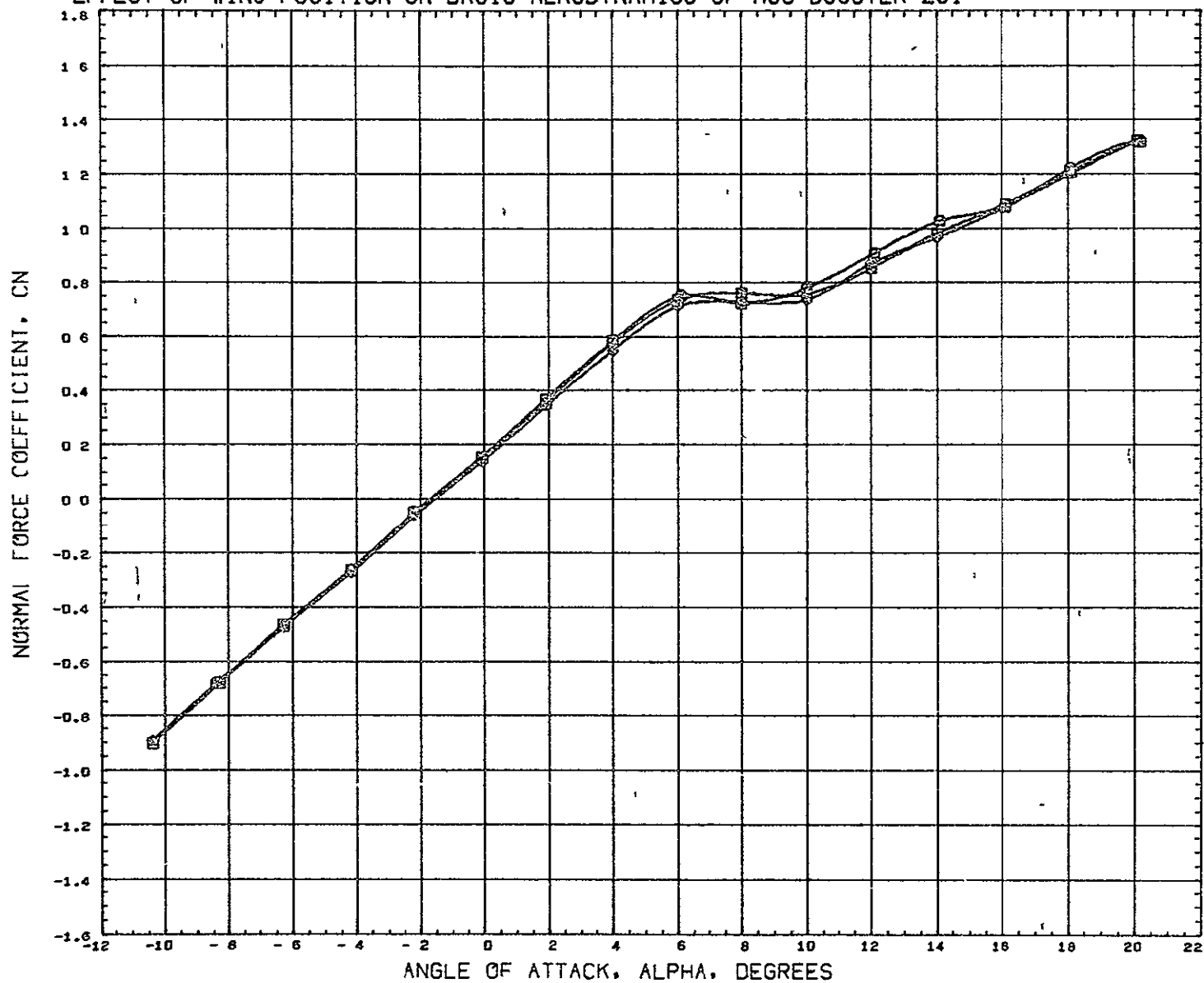
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

(064004) 21 NOV 70

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		BETA	0.000
○	0.640		- 2 000			
□	0.670	MACH	0 250	CBRH	0 973	
◇	0.700	ELEVTR	0 000			

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
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YHRP	0 0000	
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SCALE	1 3215	PCT

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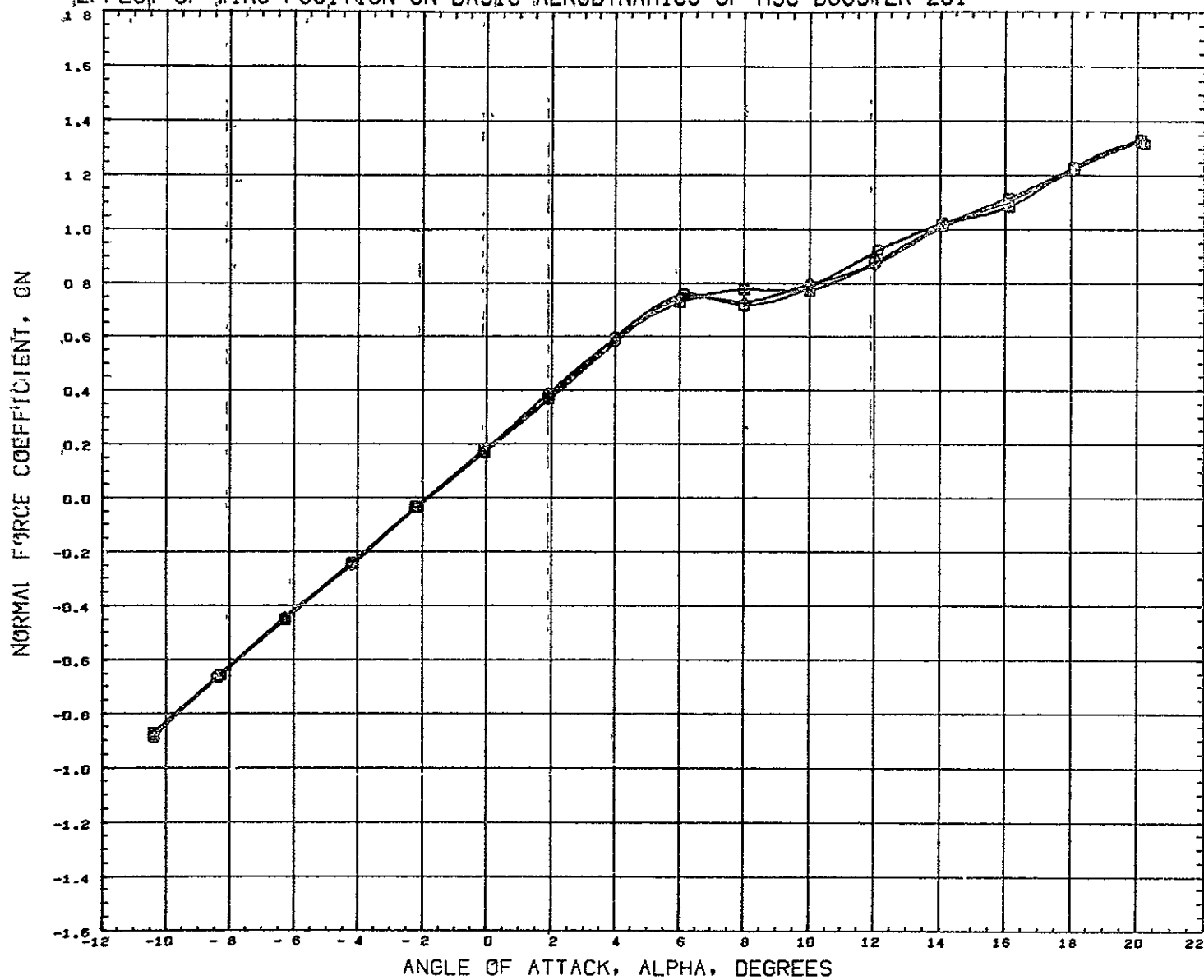
MSC S-XXIV BOOSTER 251 -BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0 640	IT	- 1 000	BEYA	0 000
□	0 670	MACH	0 250	CBRH	0 973
◇	0 700	ELEVTR	0.000		

REFERENCE INFORMATION		
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REFL	0 3810	FT
REFB	2 4630	FT
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YNRP	0 0000	
ZNRP	67 5500	PCT ZB
SCALE	1 3215	PCT

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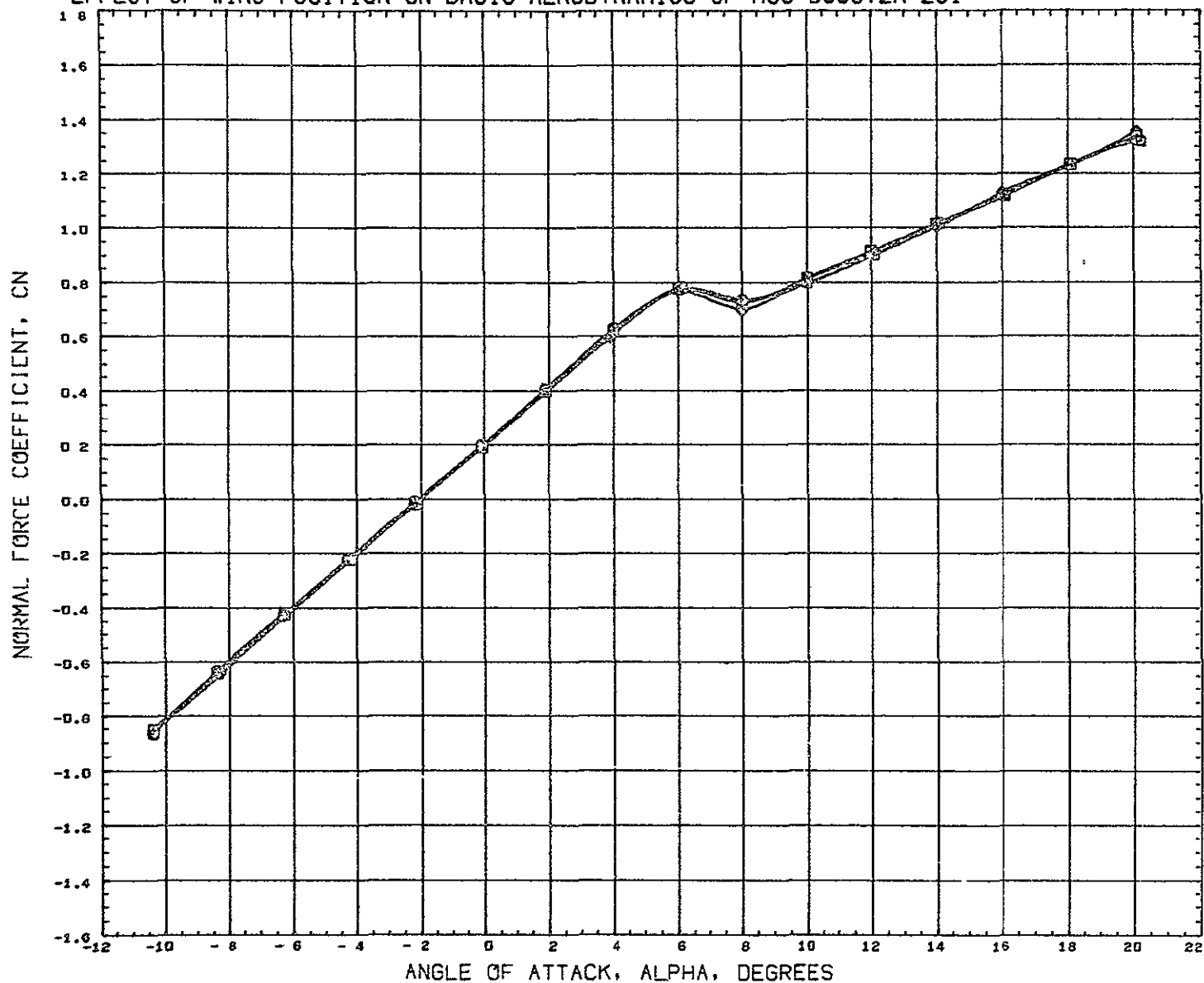
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

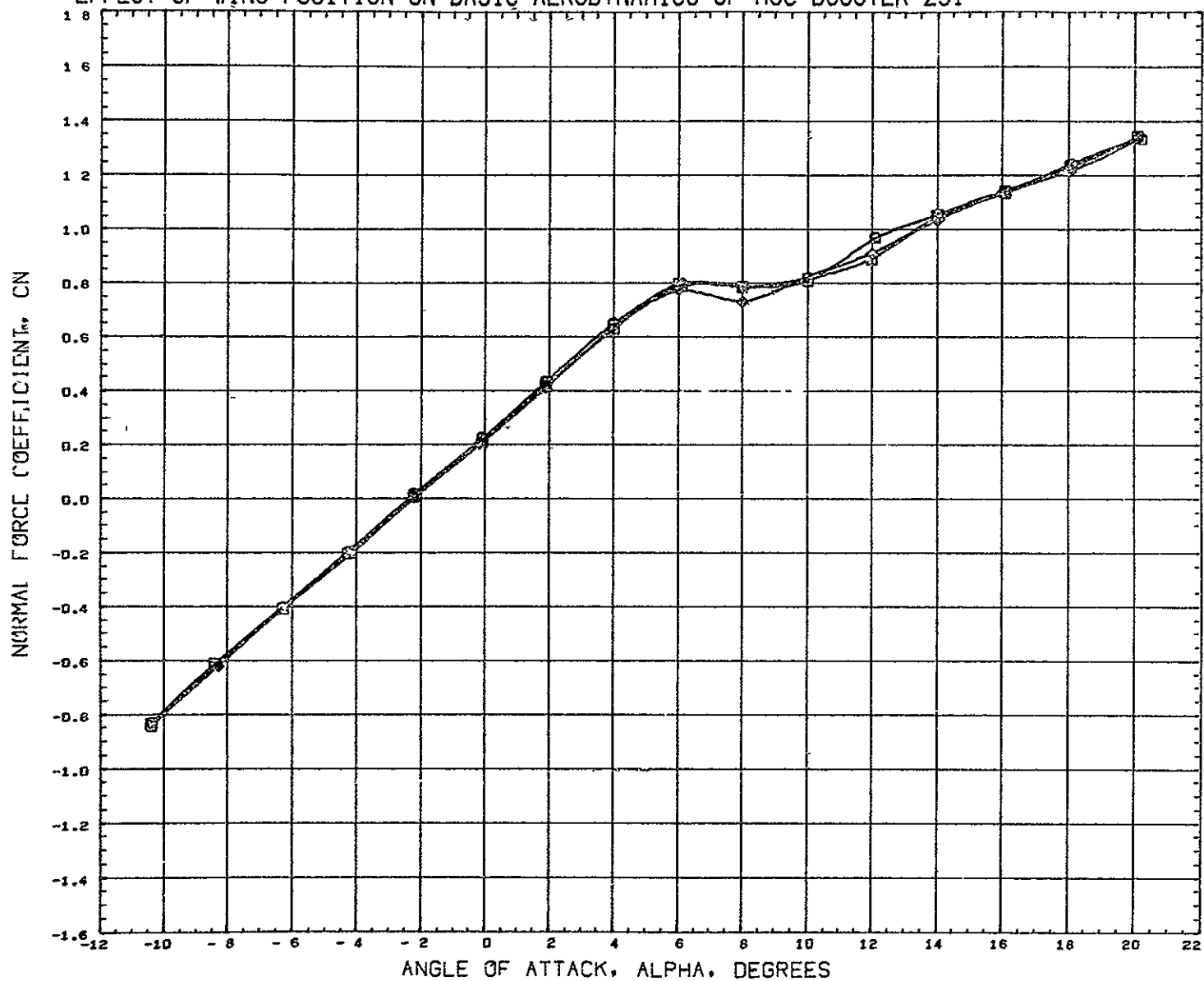


SYMBOL	CBRW		PARAMETRIC VALUES		
○	0 640	IT	0 000	BETA	0 000
□	0 670	MACH	0 250	CBRW	0 973
◇	0 700	ELEVTR	0 000		

REFERENCE INFORMATION		
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REFL	0 3810	FT
REFB	2 4630	FT
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YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.645	IT	1.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
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REFL	0 3810	FT
REFB	2 4630	FT
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YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

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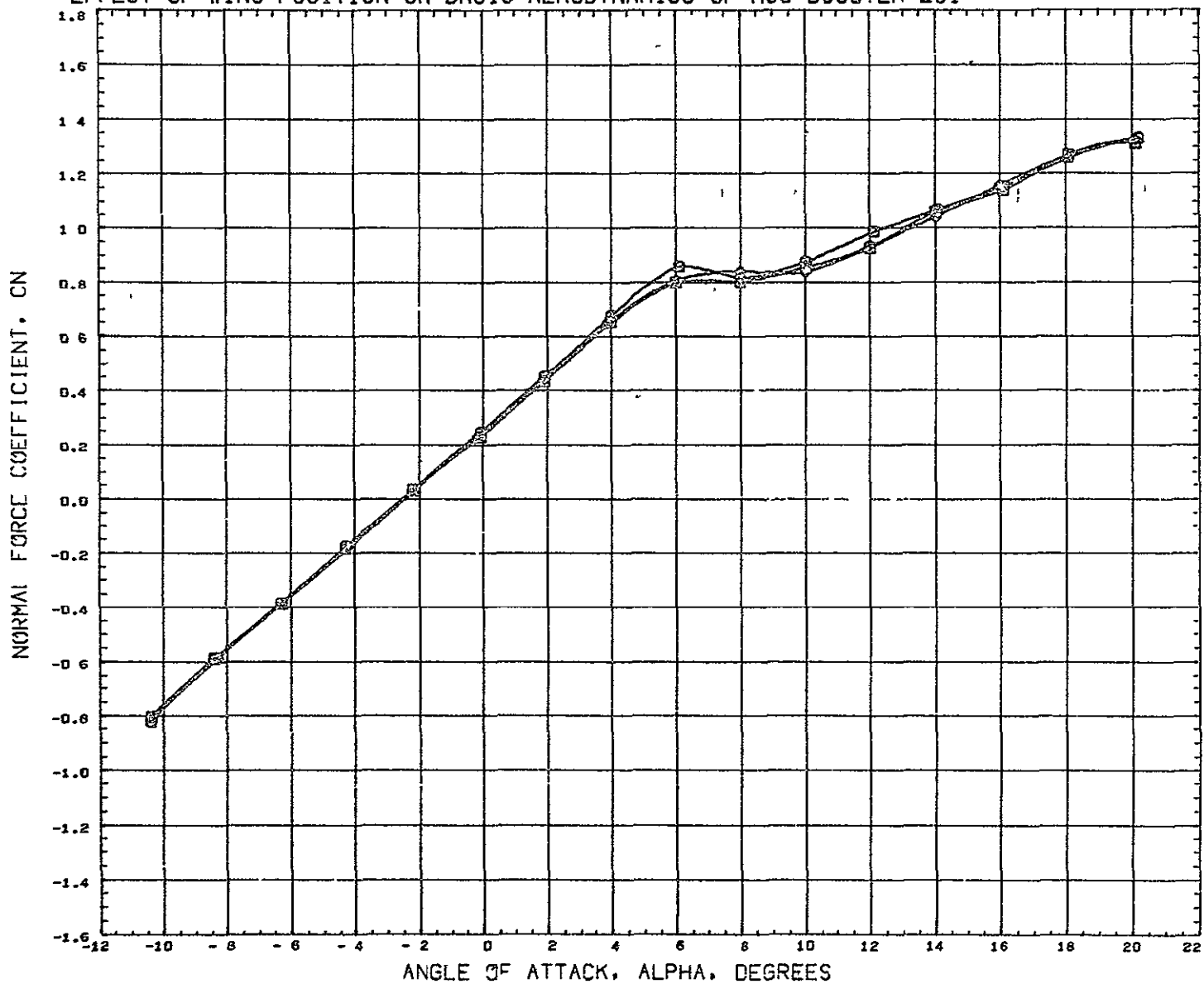
*SC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	2 000	BETA	0 000
□	0.670	MACH	0 250	CBRW	0 973
◇	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
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YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

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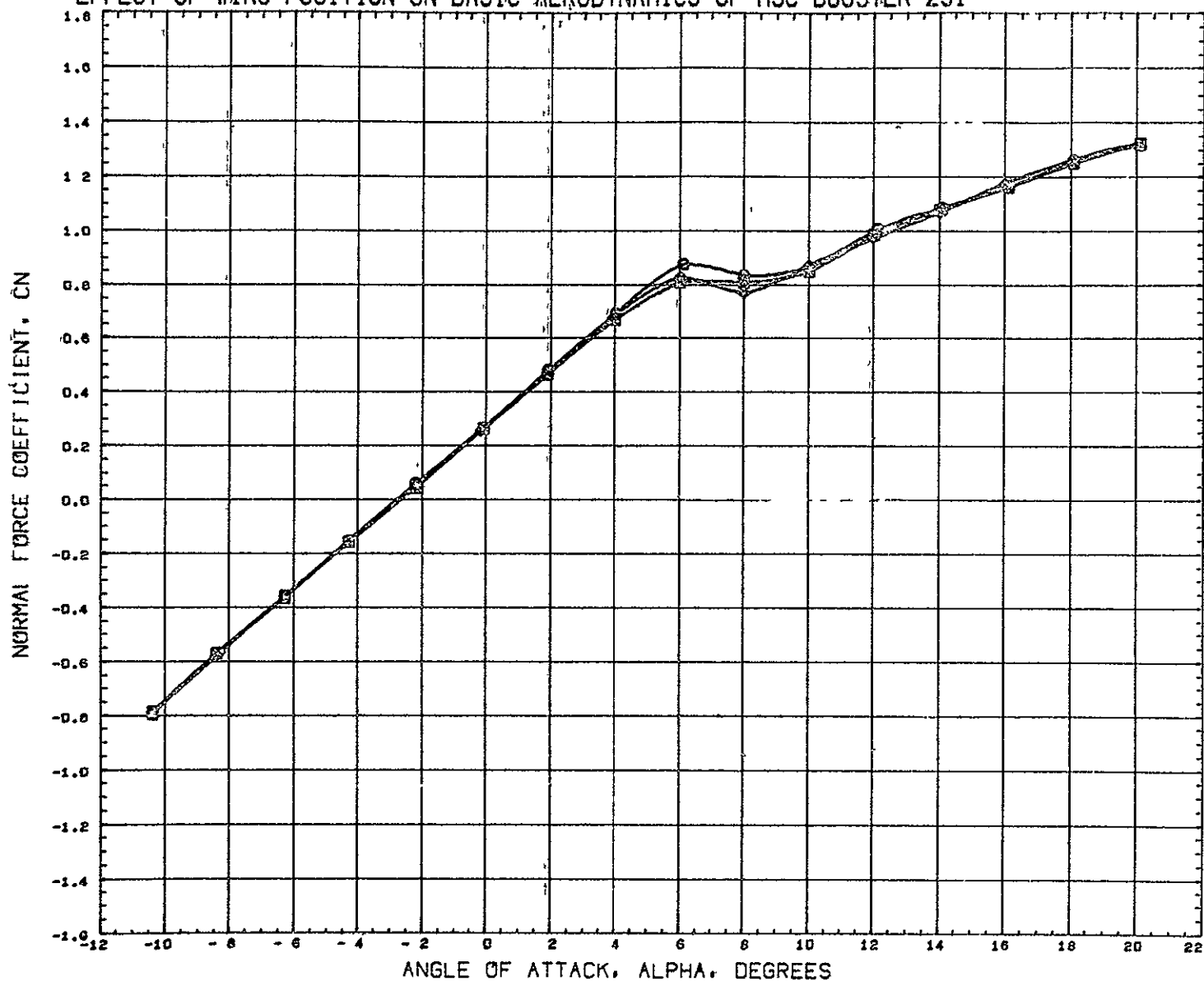
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	3.000	BETA	0.000
□	0.670	HACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
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SCALE	1.3215	PCT

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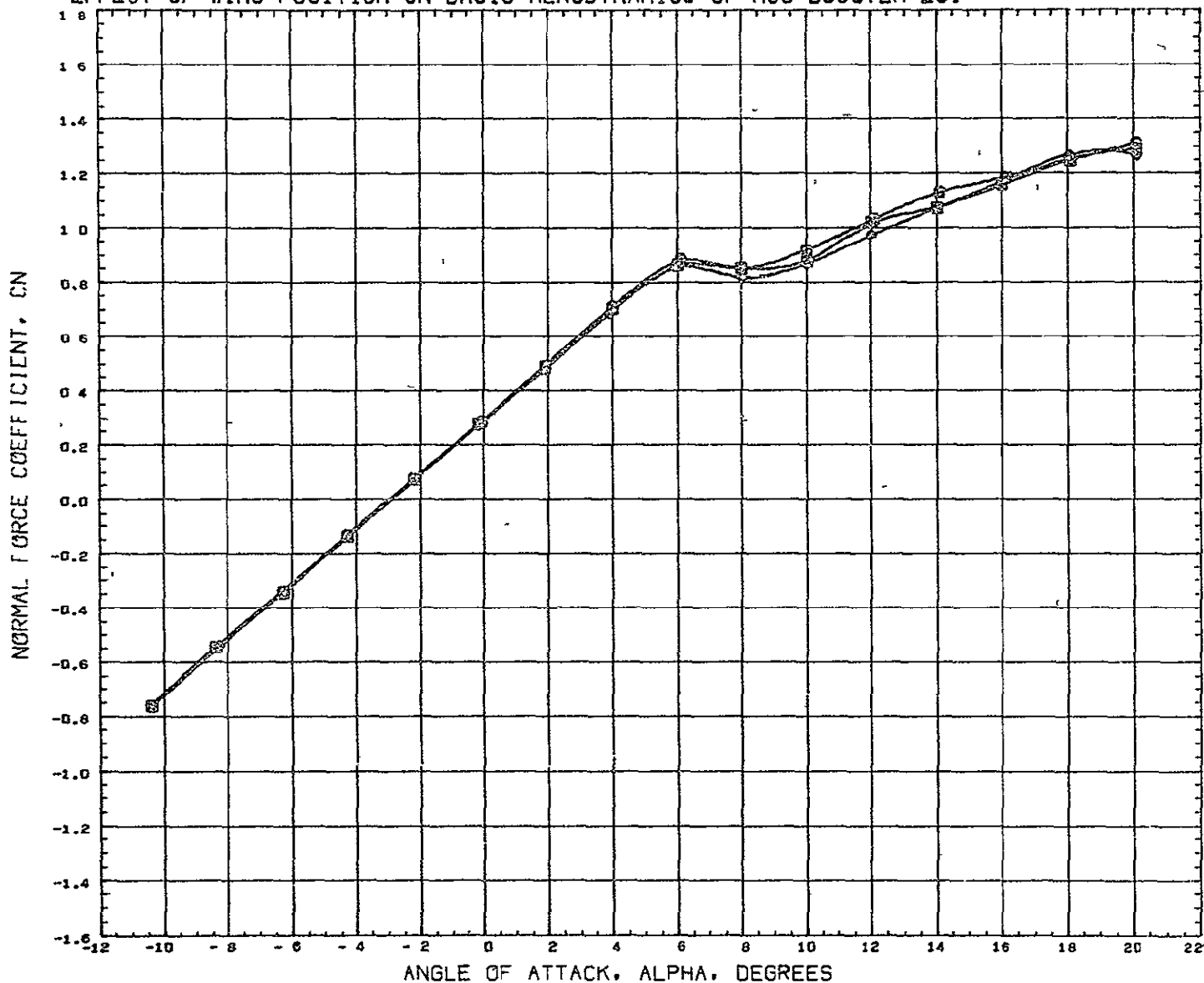
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		
□	0.640	IT	4.000	BETA	0.000
□	0.670	MACH	0.250	CBRW	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
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REFL	0 3810	FT
REFB	2 4630	FT
XNRF	65 0000	PCT LB
YNRF	0 0000	
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SCALE	1 3215	PCT

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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

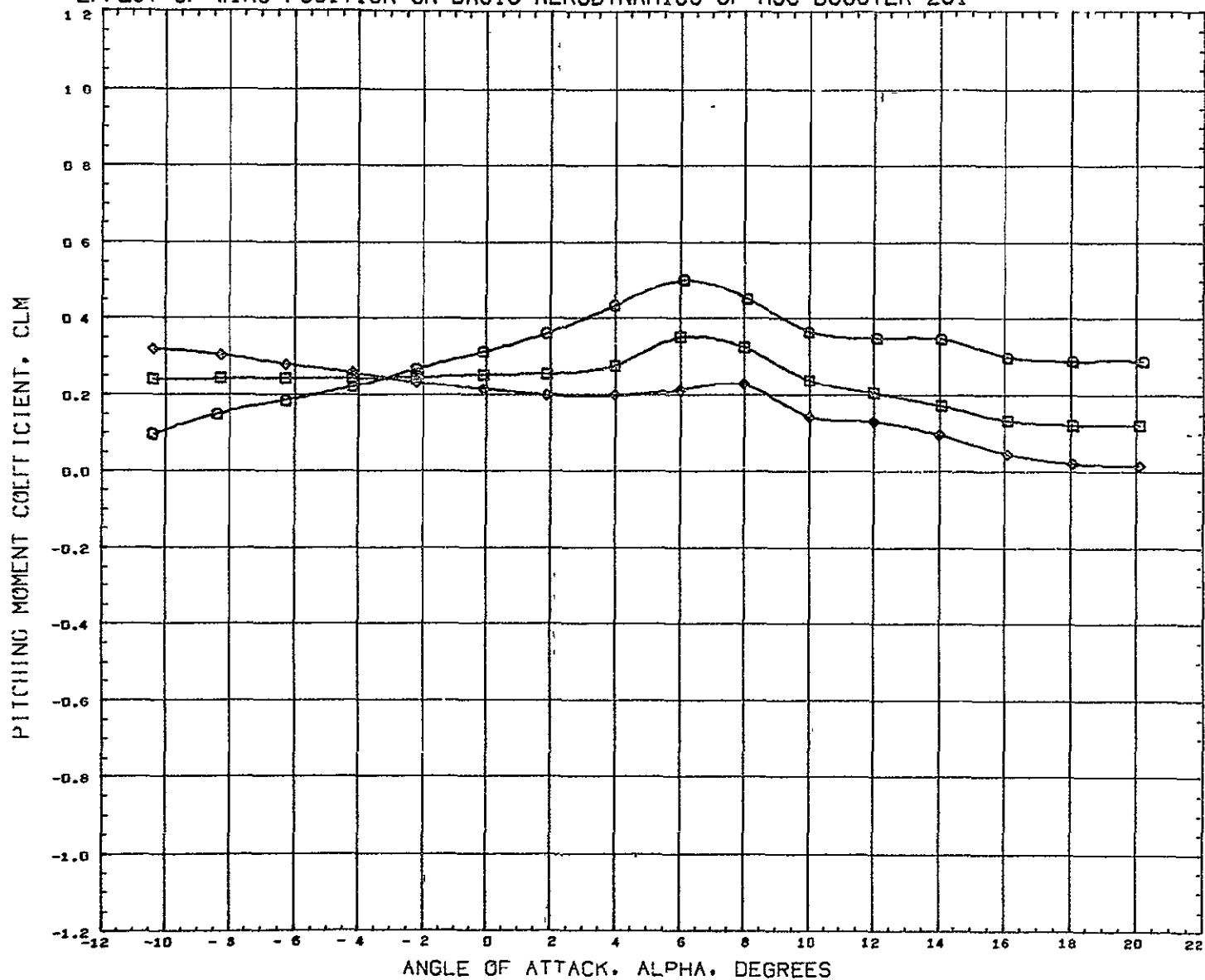
(064004) 21 NOV 70

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
◇	0.640	IT	- 4.000	BETA	0 000
□	0.670	MACH	0 250	CBRH	0 973
○	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

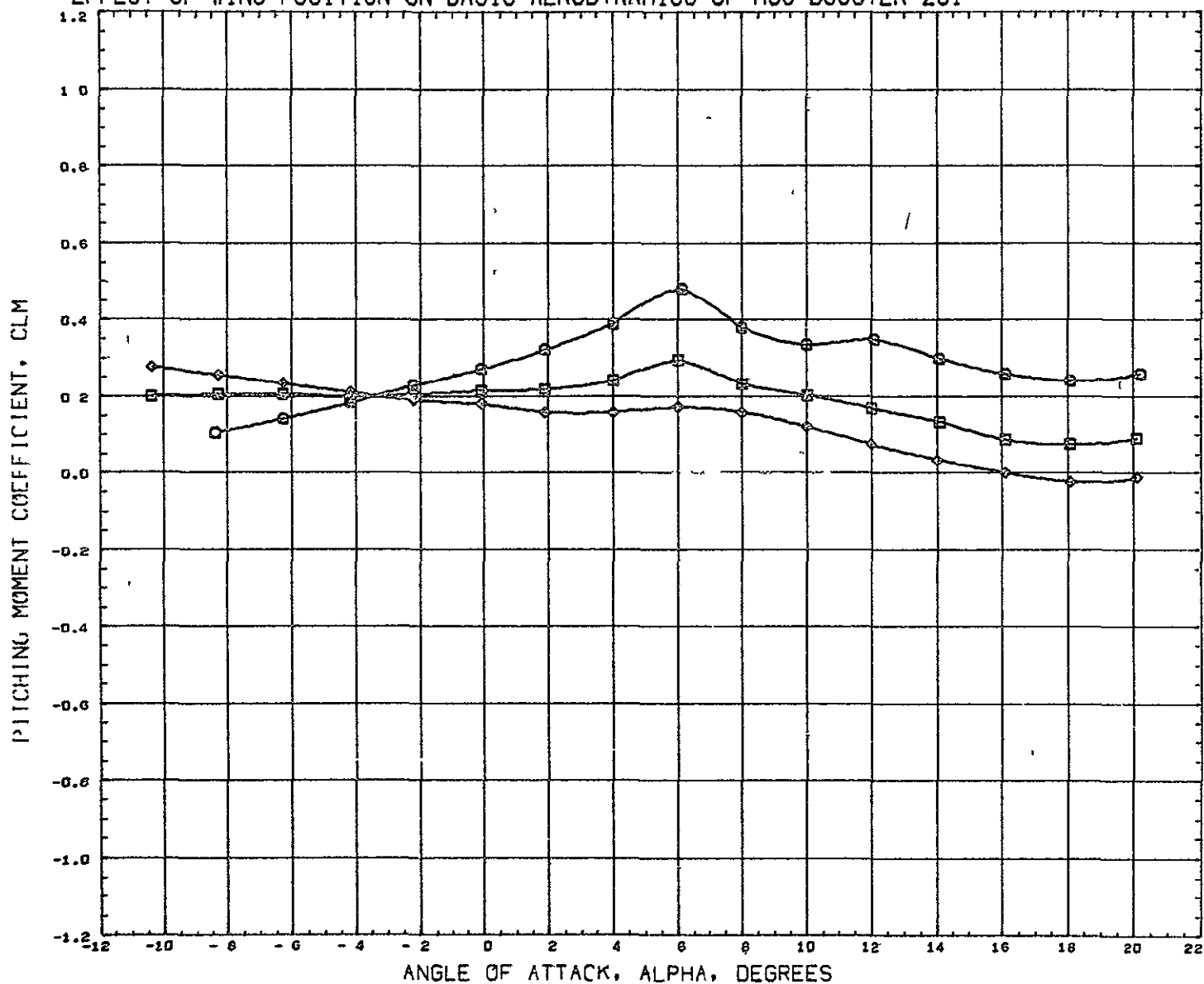
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CSRW	PARAMETRIC VALUES			
○	0.640	IT	- 3.000	BETA	0.000
□	0.670	MACH	0.250	CSRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
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REFL	0 3810	FT
REFB	2 4630	FT
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YNRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

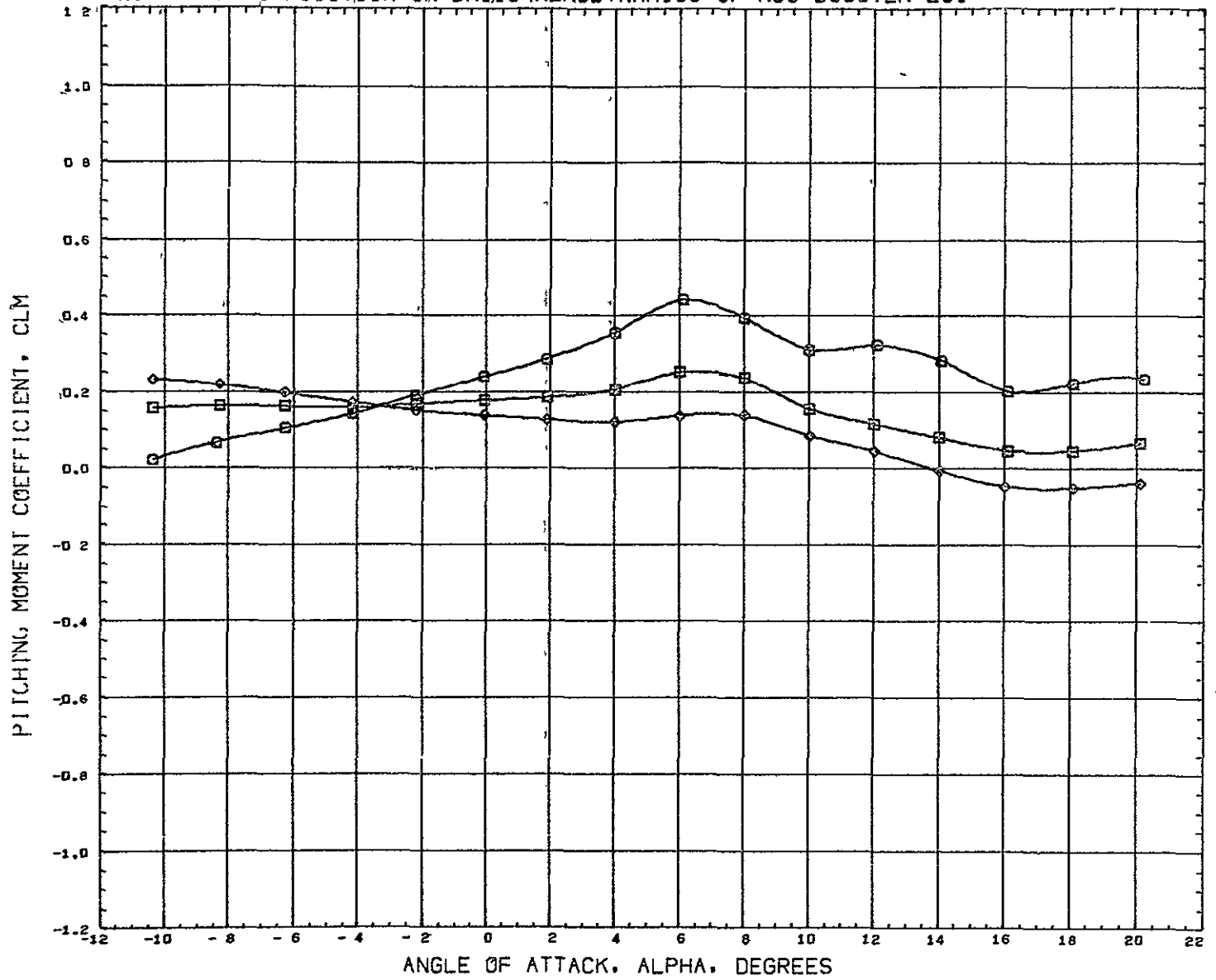
DATA HIST CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 2.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XNRF	65 0000	PCT LB
YNRF	0 0000	
ZNRF	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E

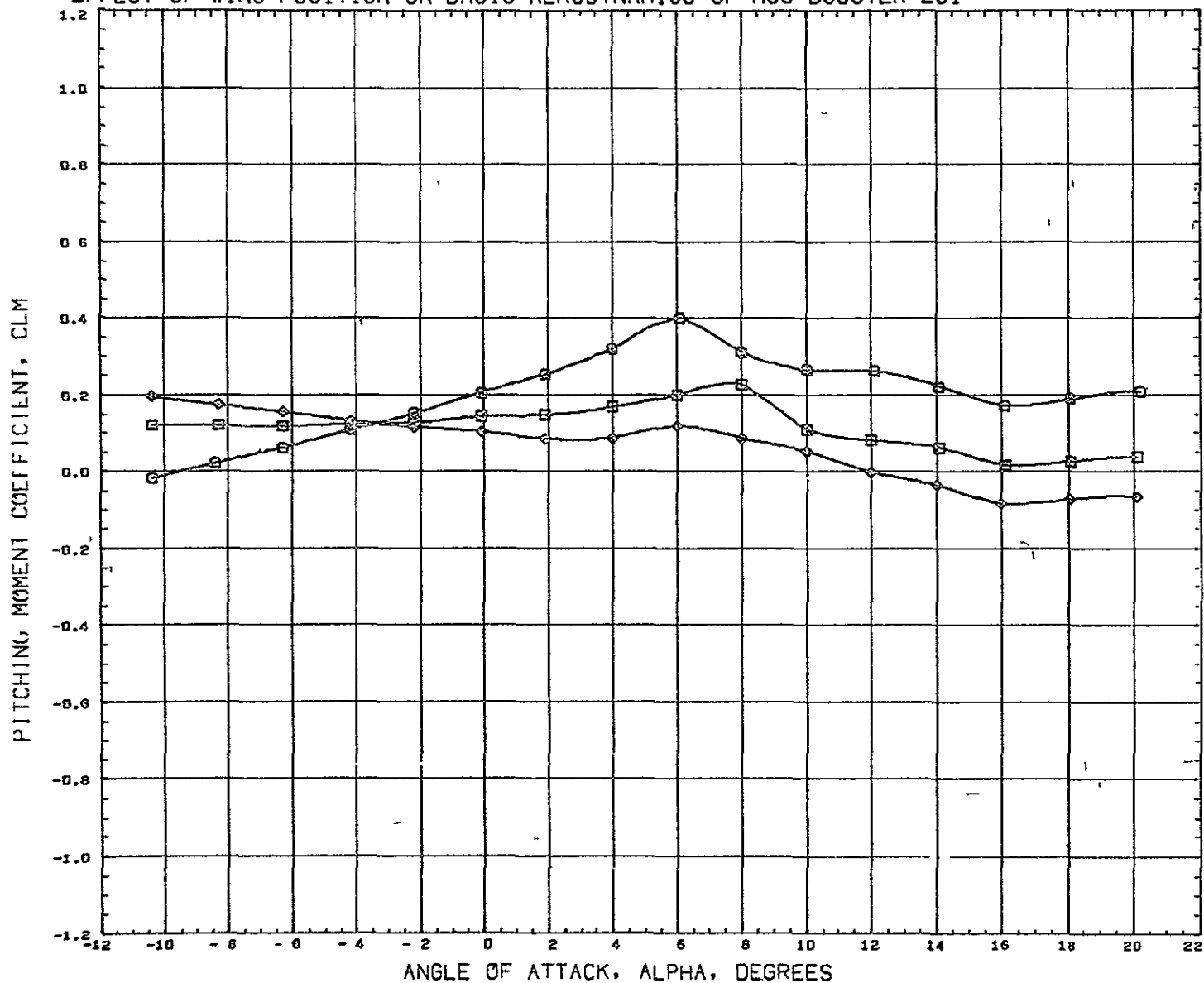
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

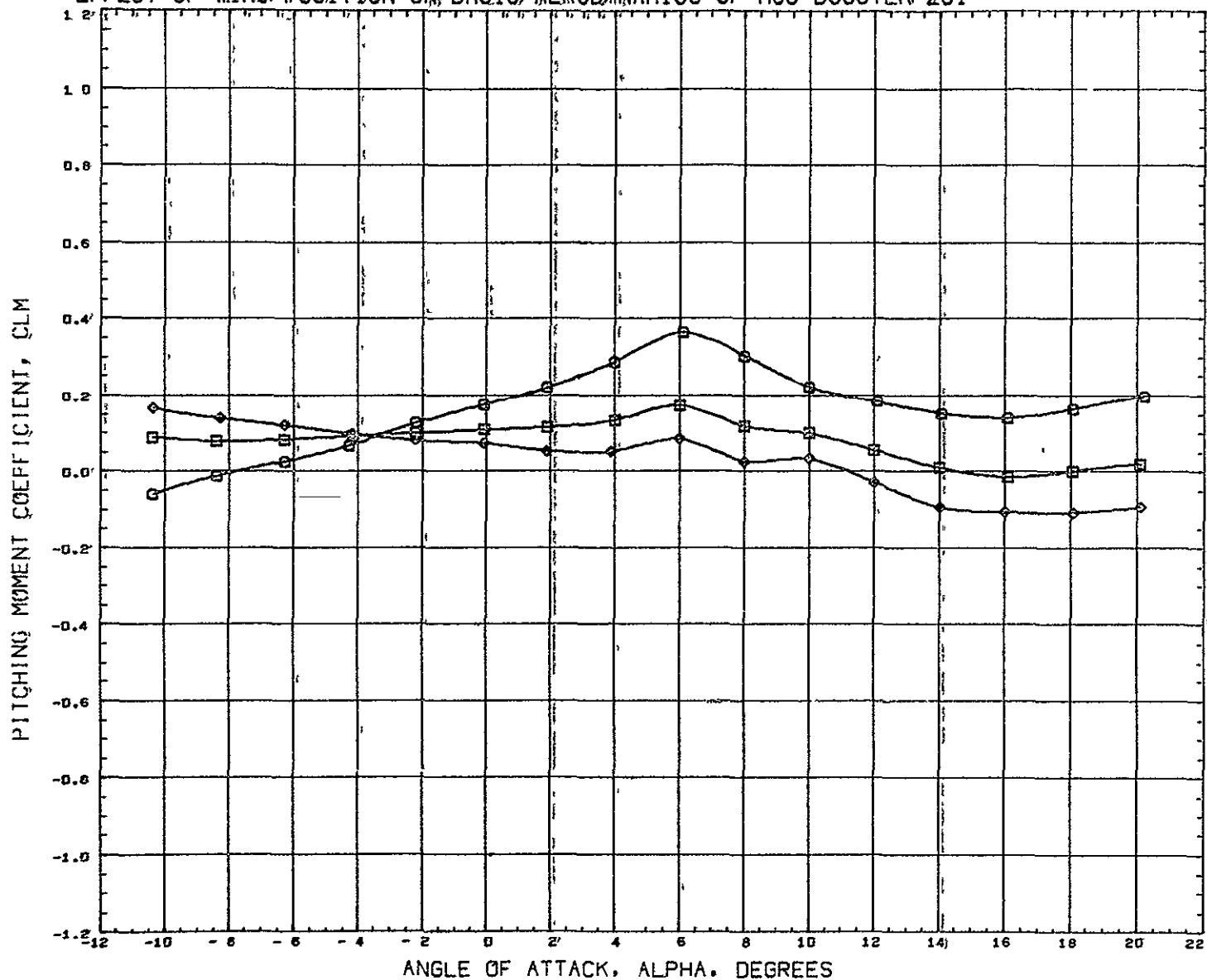


SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 1 000	BETA	0 000
◇	0.670	MACH	0 250	CBRH	0.973
○	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT 28
SCALE	1 3215	PCT

DATA HIST. CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
0	0.640	IT	0.000	BETA	0.000
0.0	0.670	MACH	0.250	CBRH	0.973
0.0	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

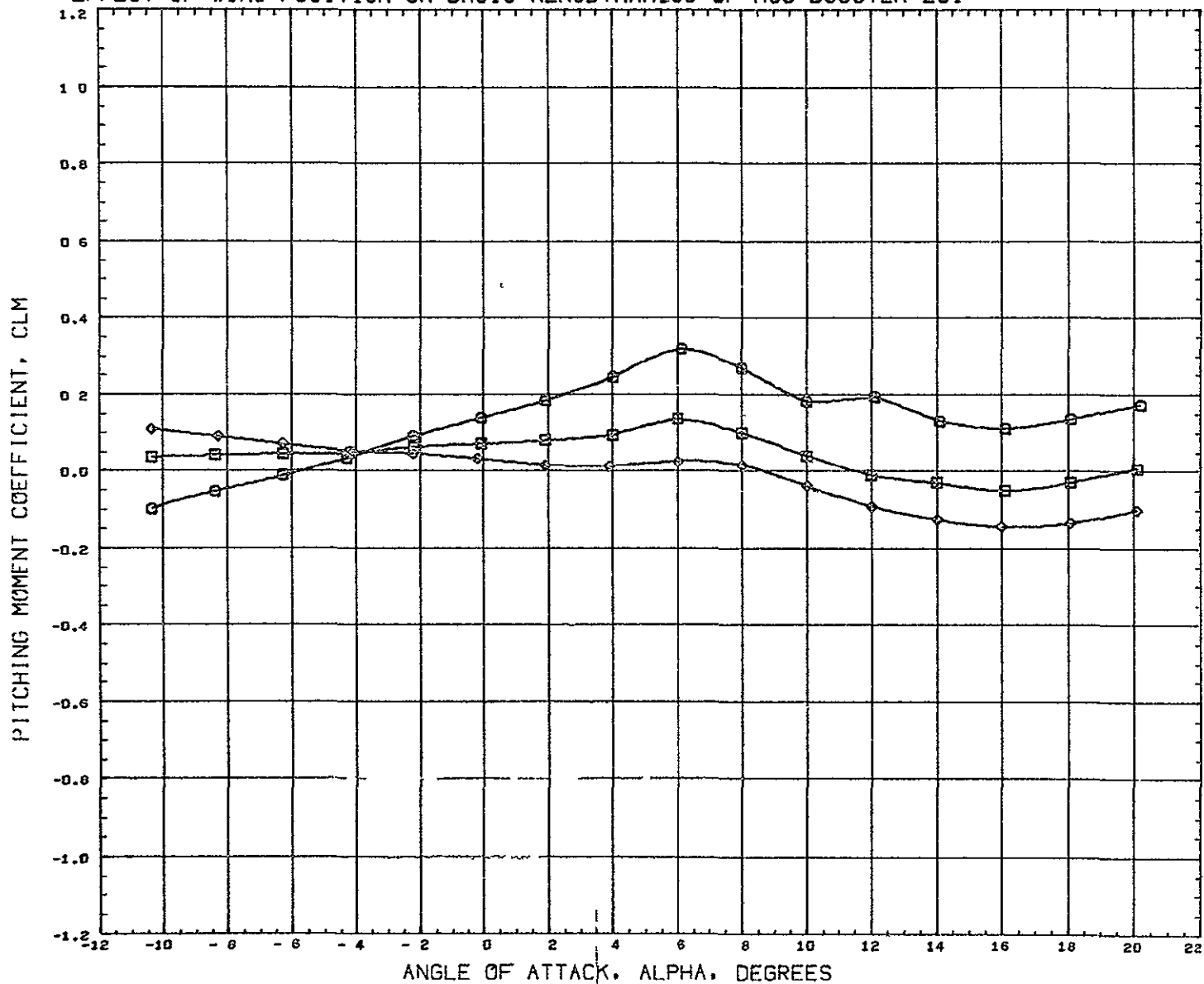
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
◇	0.640	IT	1.000	BETA	0.000
□	0.670	MACH	0.250	CBRW	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XHRF	65.0000	FCT LB
YHRF	0.0000	
ZHRF	67.5500	FCT ZB
SCALE	1.3215	FCT

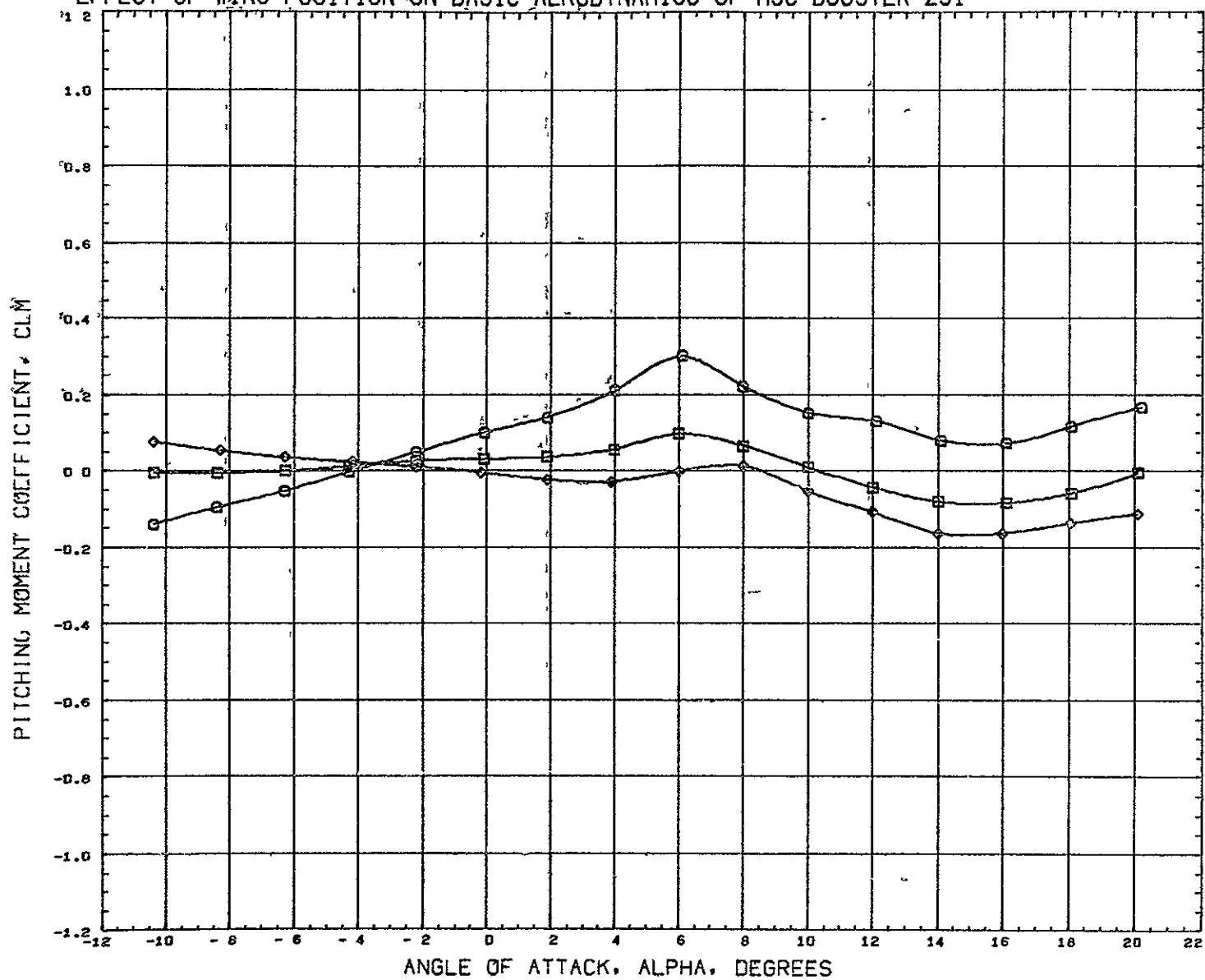
DATA HIST CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		BETA	0.000
□	0.640	MACH	0.250	CBRH	0.973	
◇	0.700	ELEVTR	0.000			

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XNRP	65.0000	FCT LB
YNRP	0.0000	
ZNRP	67.5500	FCT ZB
SCALE	1.3215	FCT

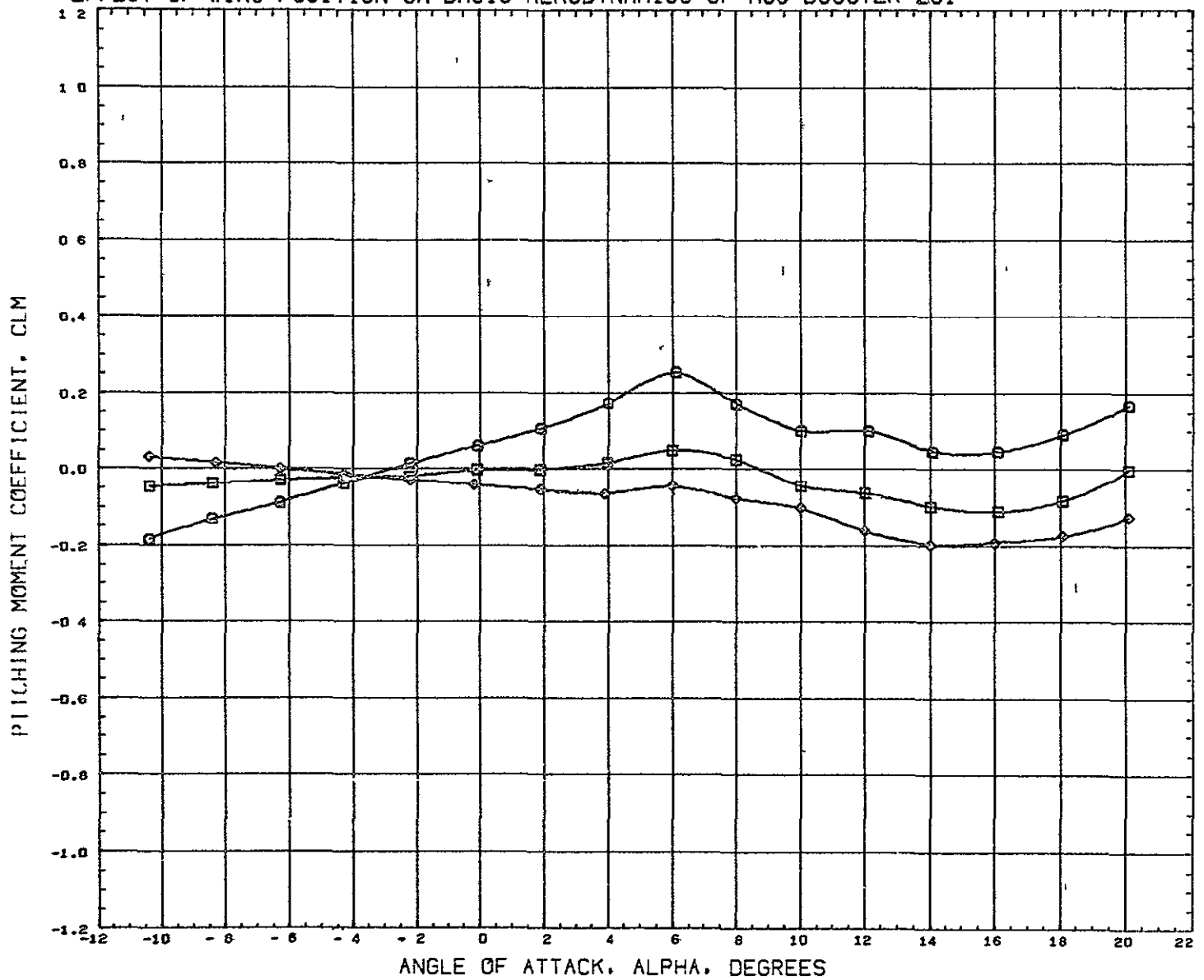
DATA HIST CODE #E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARANETRIC VALUES	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

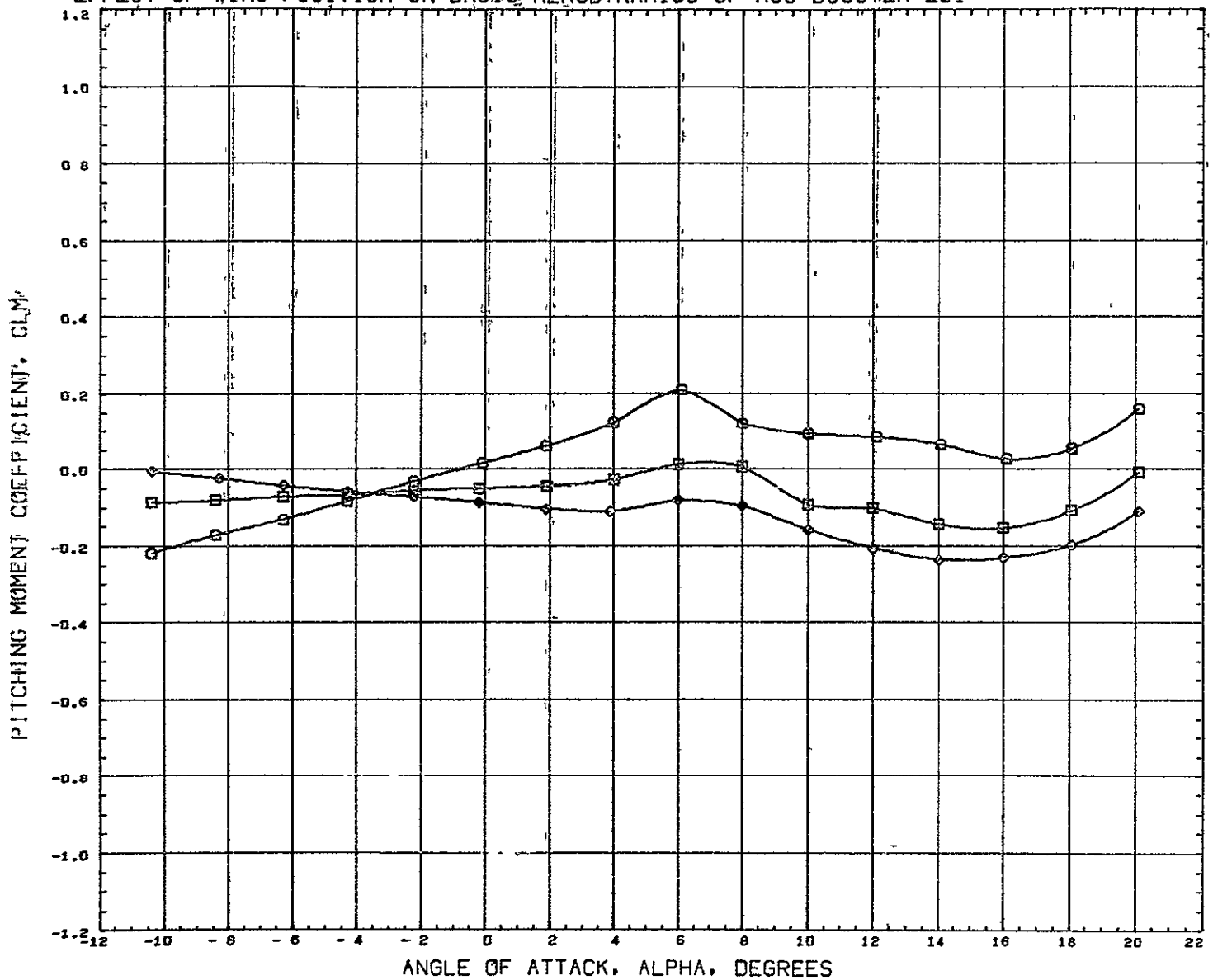
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MSC S-XXIV BOOSTER 251 BB2WB1VB1PB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
	0.640	IT	4 000	BETA	0 000
	0 670	MACH	0 250	CBRH	0.973
	0.700	ELEVTR	0.000		

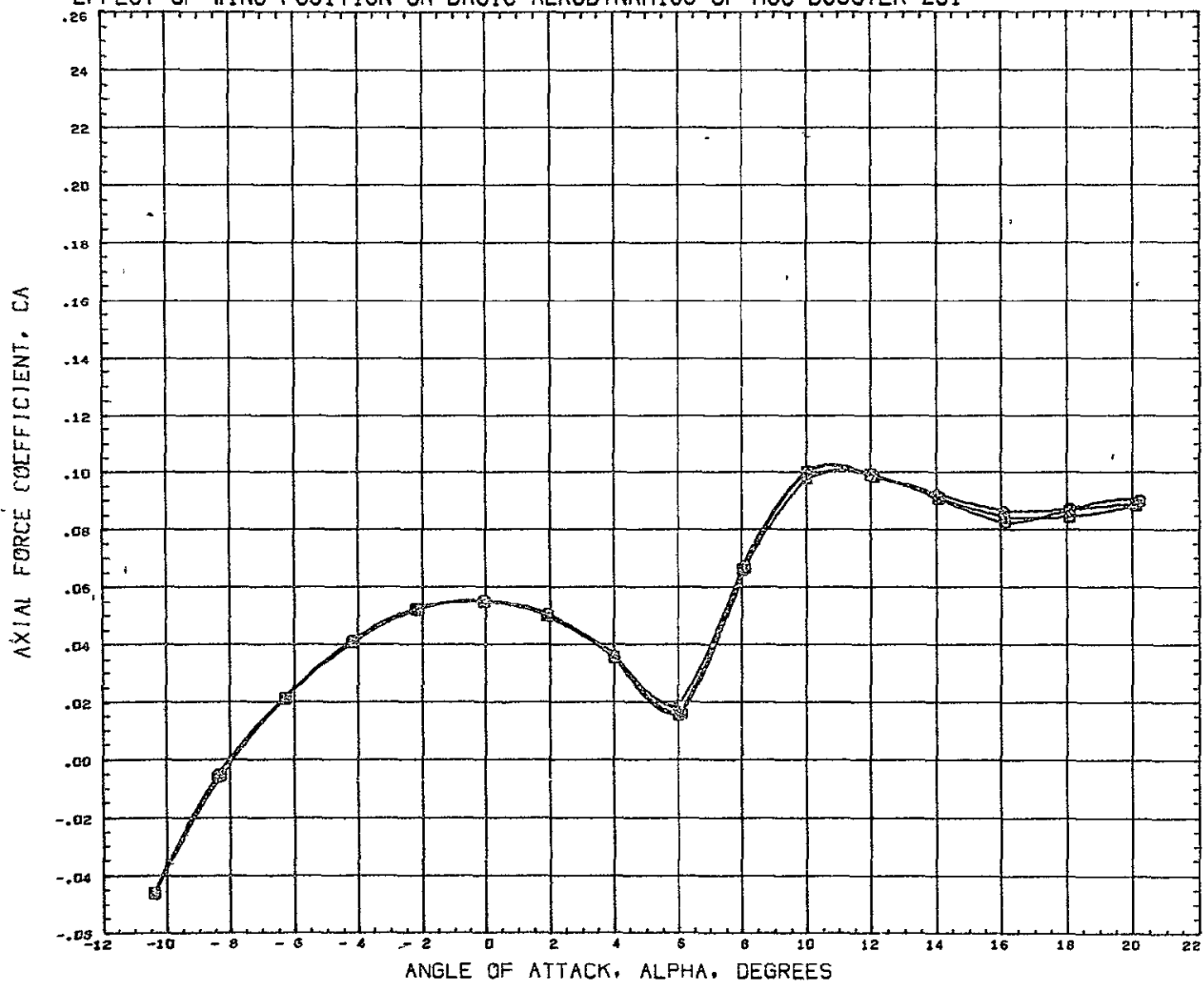
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

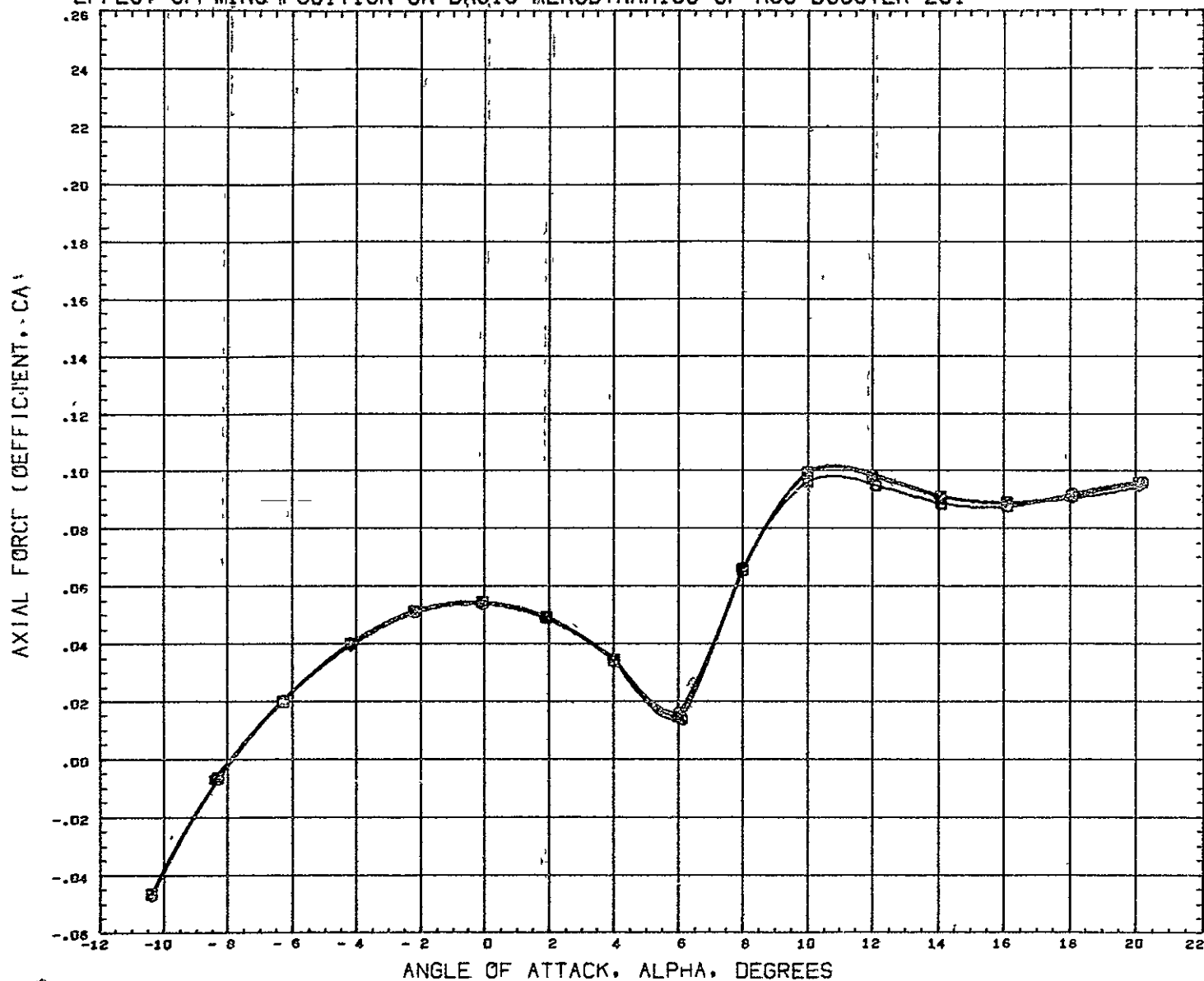


SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	- 4.000	DET _h	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE #E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	Q 999
0.640	0.670	MACH	0.250	CBRH	0.973
0.700	ELEVTR	0.000			

REFERENCE INFORMATION		
REFS	0 8460	FT 'SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

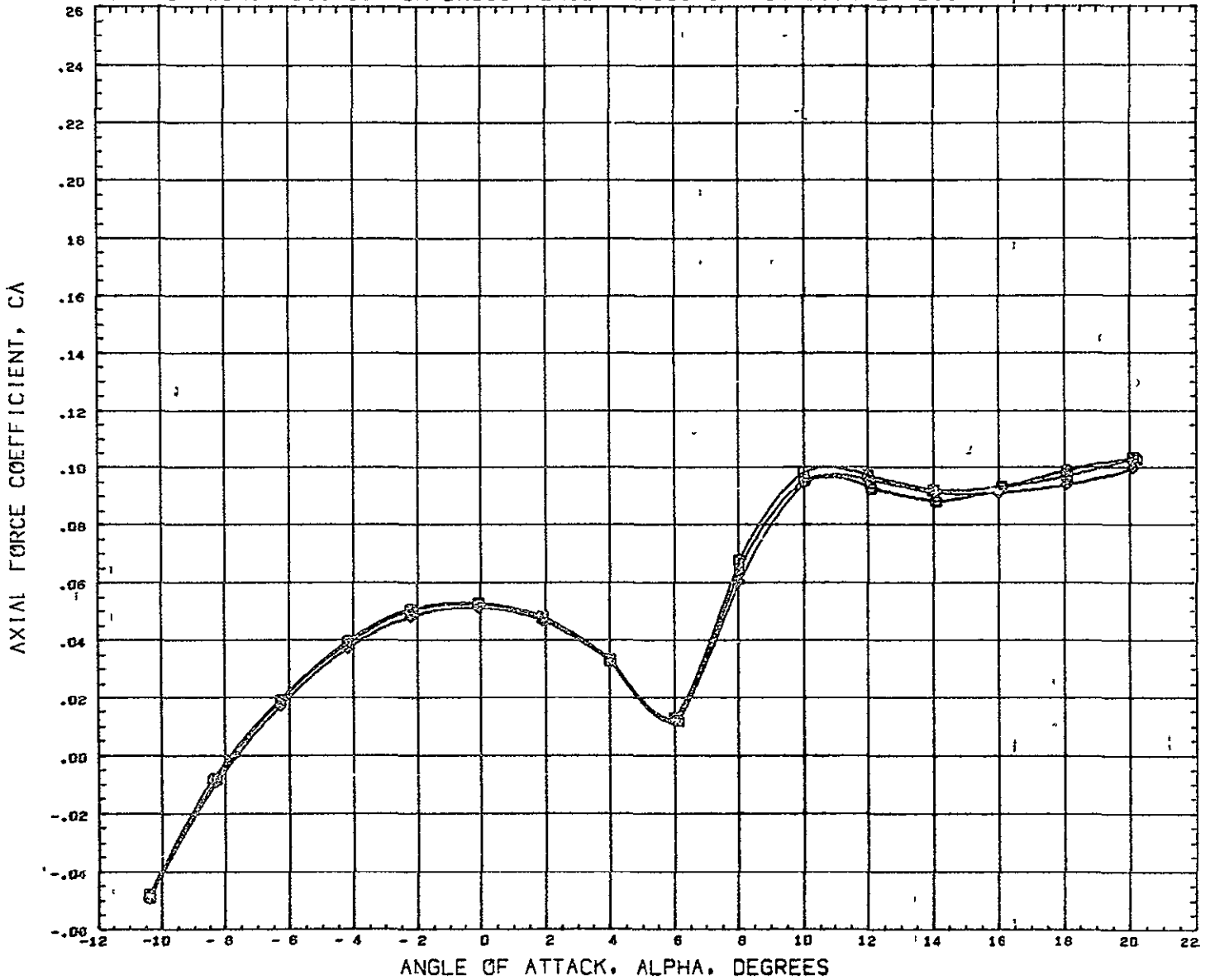
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EFFECT OF WING POSITION-ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	- 2.000	BETA	0.000
□	0.670	MACH	0.250	CBRW	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YNRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

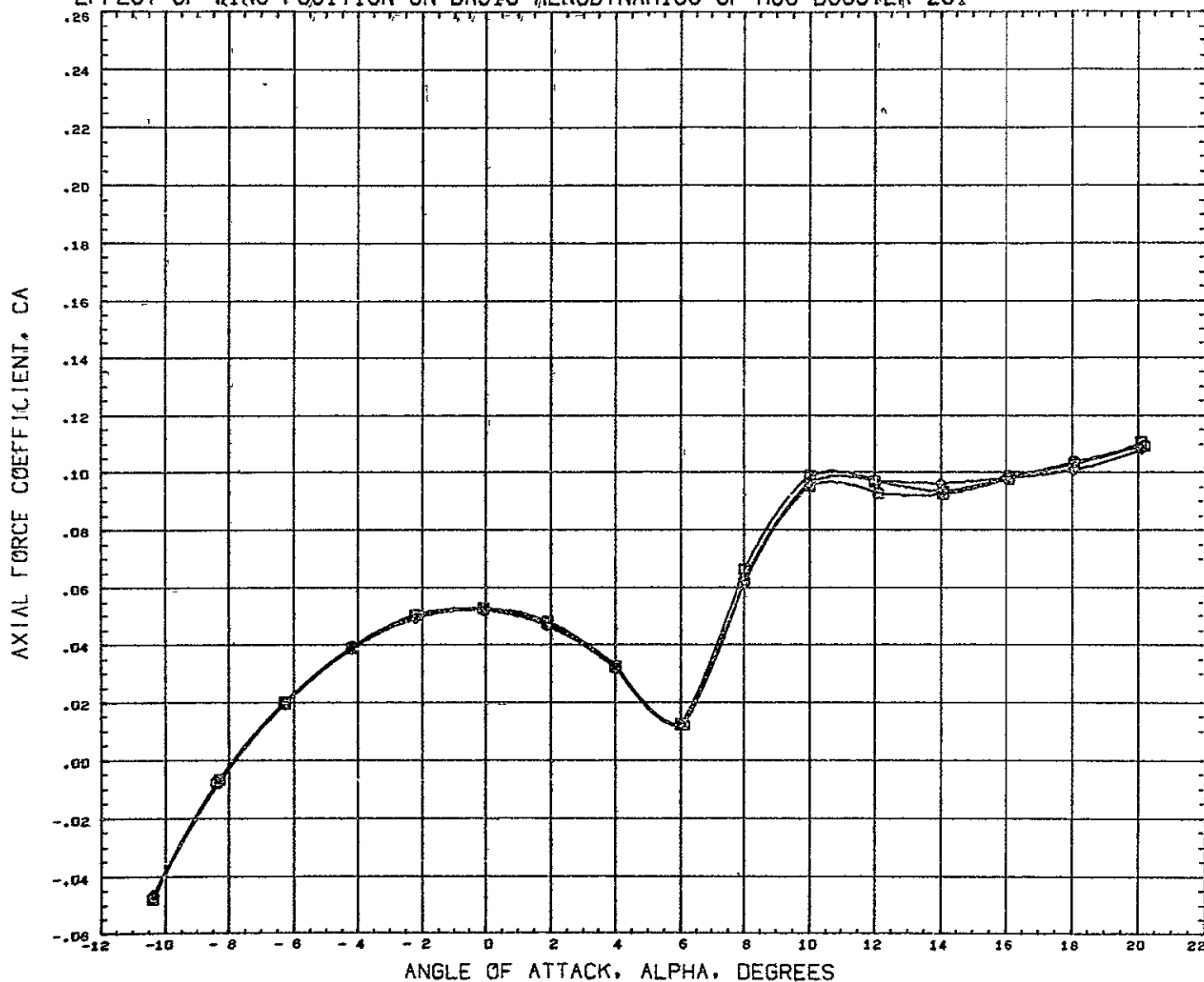
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
□	0.640	IT - 1 000 BETA 0 000
□	0.670	MACH 0 250 CBRH 0.973
◇	0.700	ELEVTR 0 000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

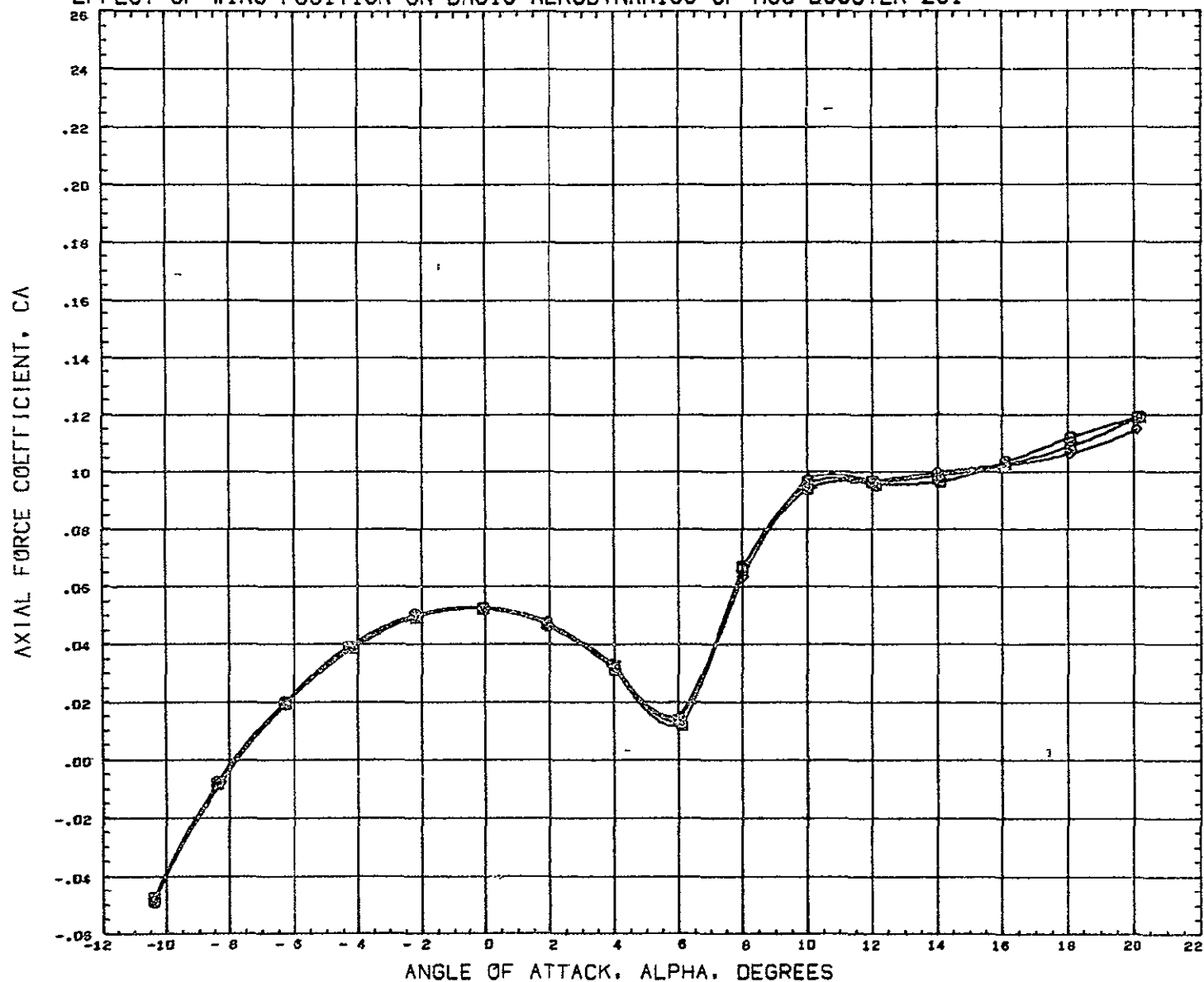
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

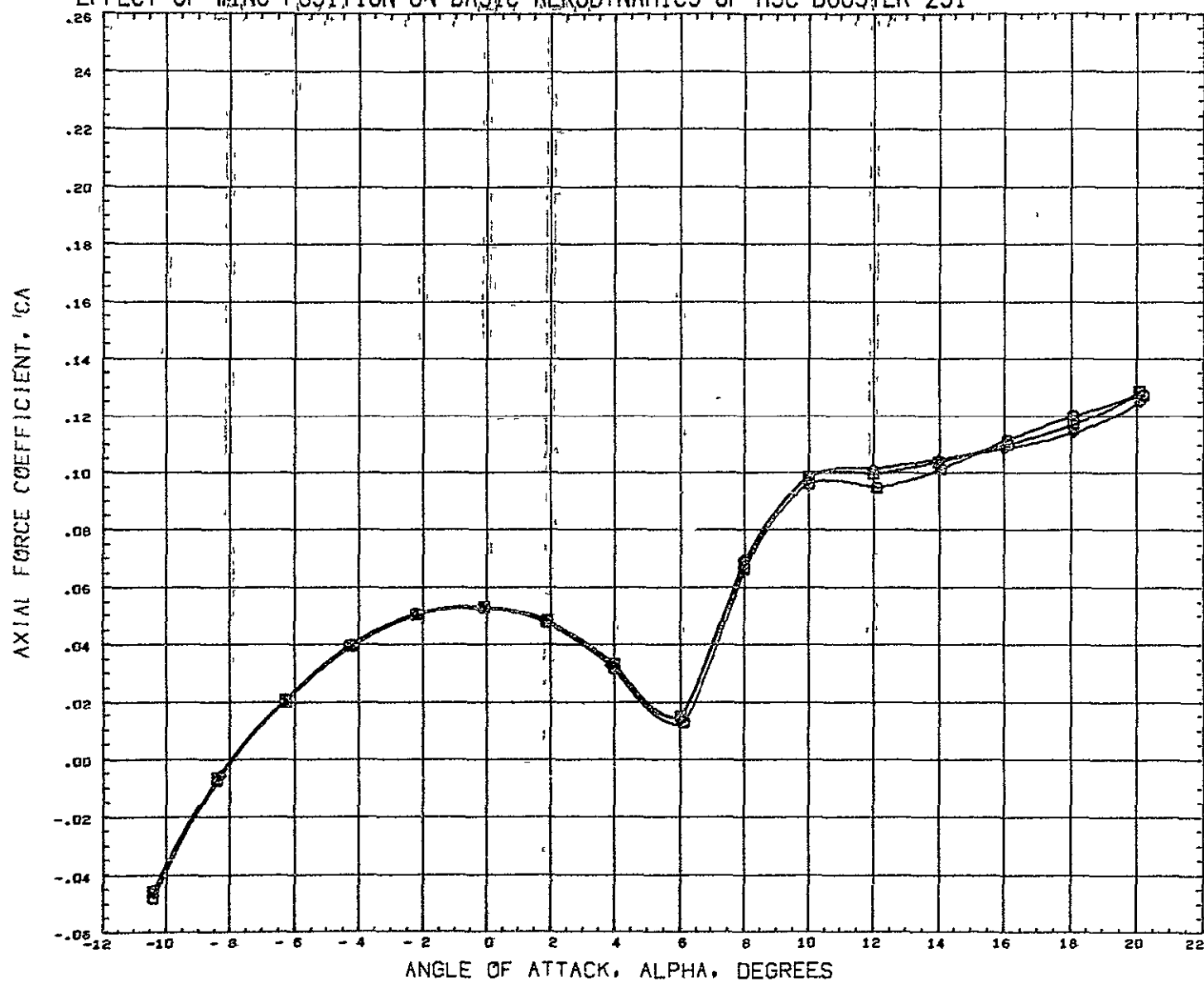


SYMBOL	CBRW	PARAMETRIC VALUES			
○	0 640	IT	0.000	BETA	0 000
□	0 670	MACH	0.250	CBRH	0.973
◇	0 700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0.3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67.5500	PCT 28
SCALE	1 3215	PCT

DATA HIST CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	
□	0.640	IT	1.000	BETA 0.000
□	0.670	MACH	0.250	CBRH 0.973
○	0.700	ELEVTR	0.000	

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
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YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE VE

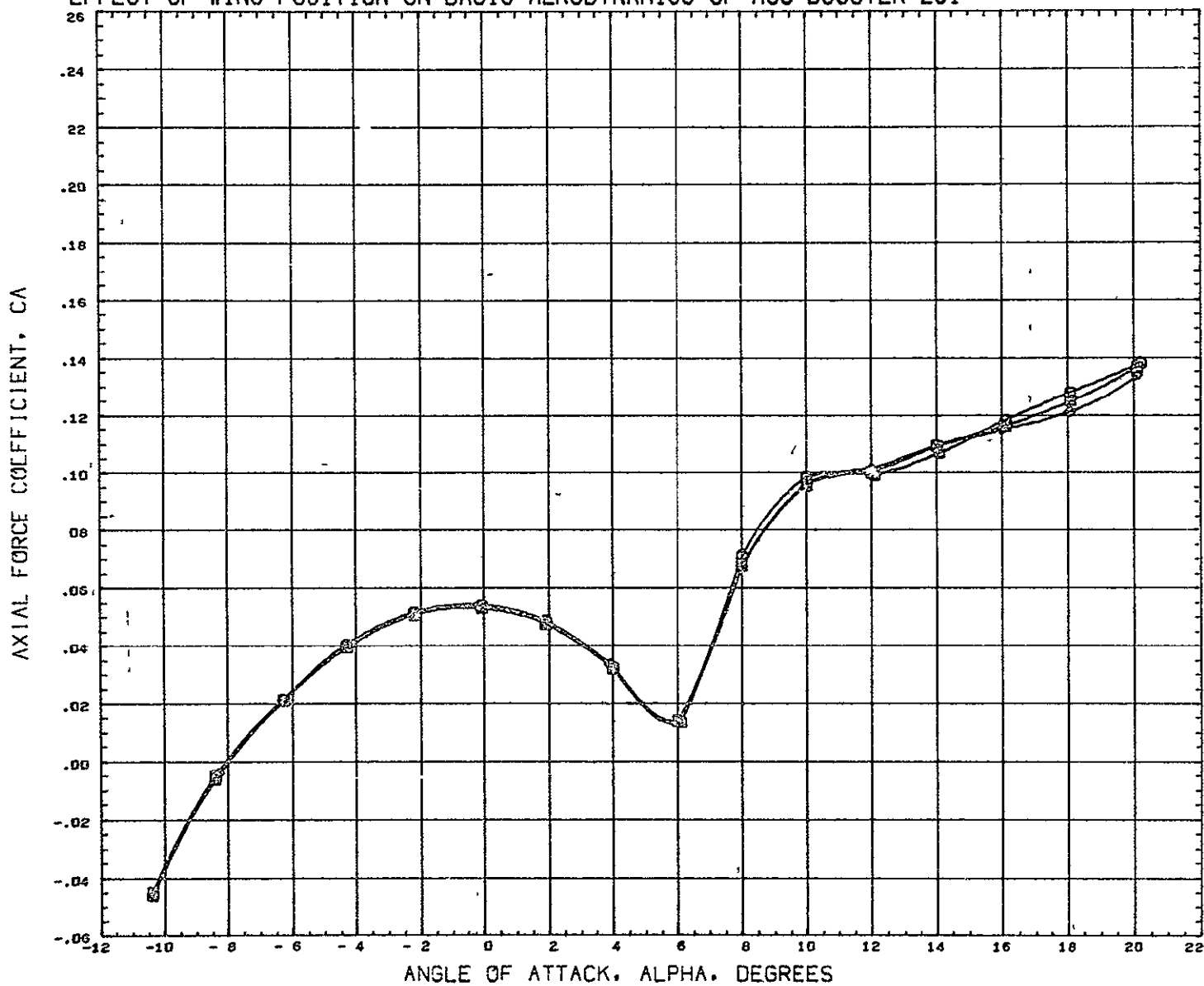
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	2.000	BETA	0.000
◇	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT 2B
SCALE	1.3215	PCT

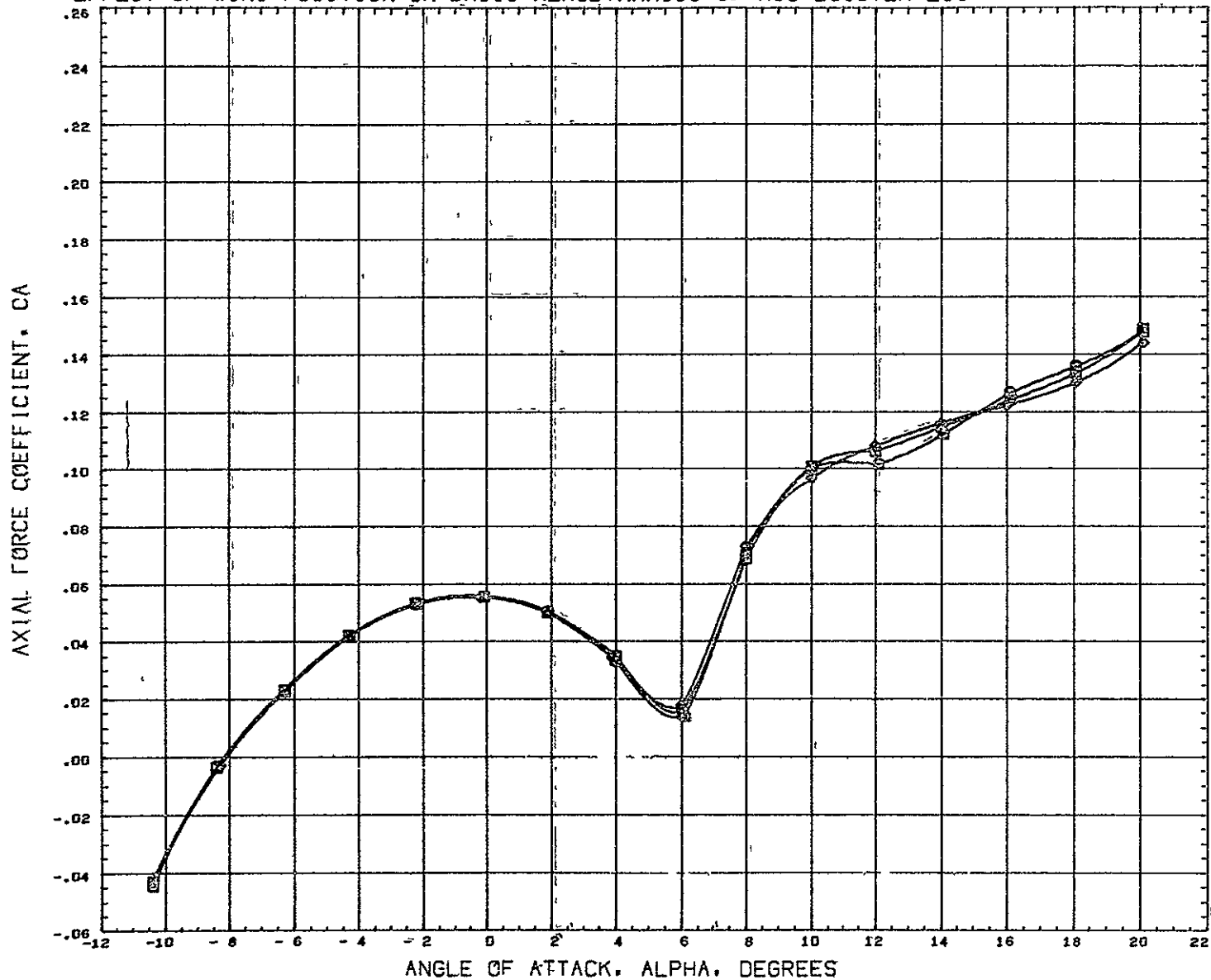
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	3.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRF	65.0000	PCT LB
YHRF	0.0000	
ZHRF	67.5500	PCT ZB
SCALE	1.3215	PCT

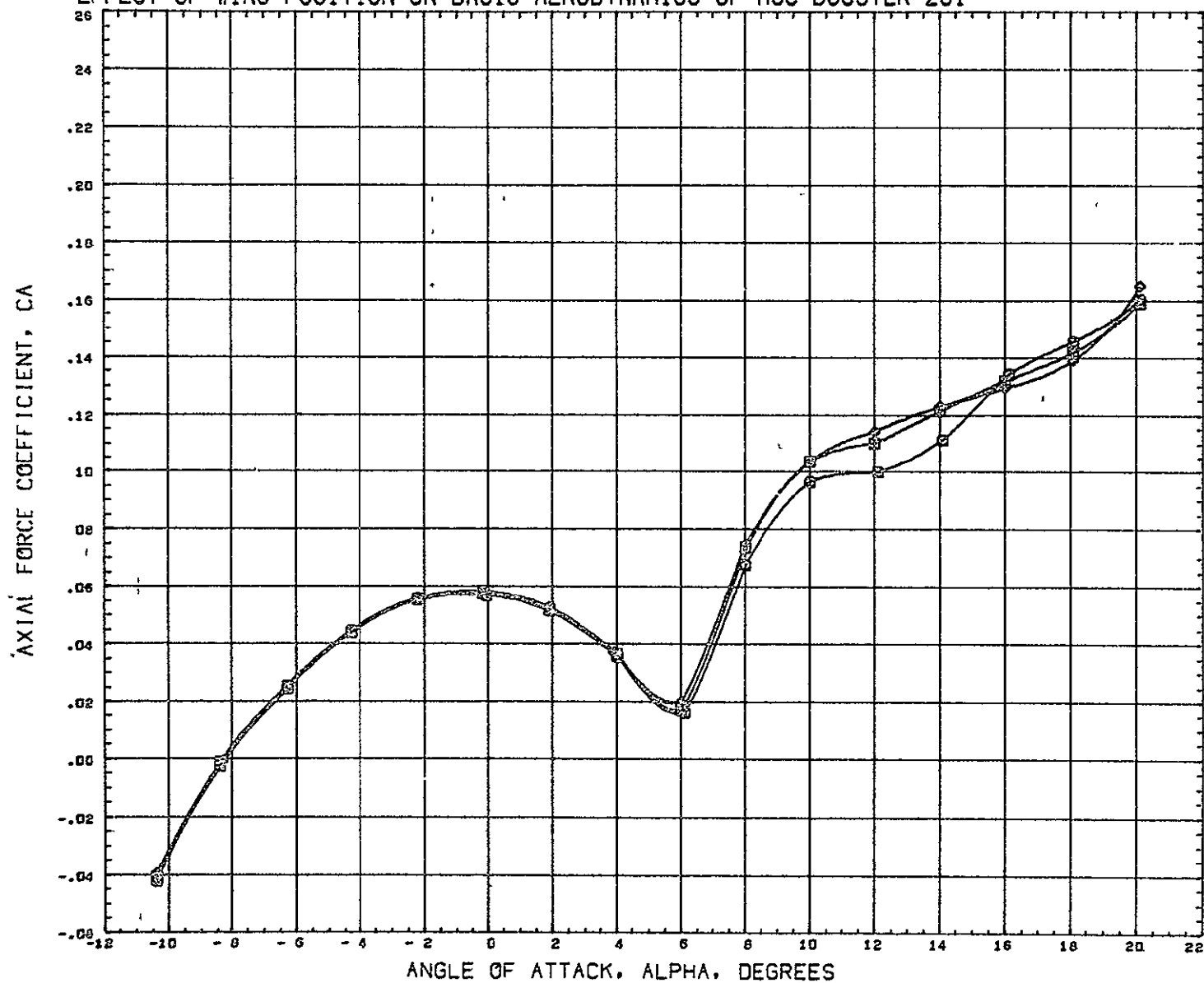
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
□	0.640	IT 4.000 BETA 0.900
◇	0.670	NACH 0.250 CBRH 0.973
○	0.700	ELEVTR 0.000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0.3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

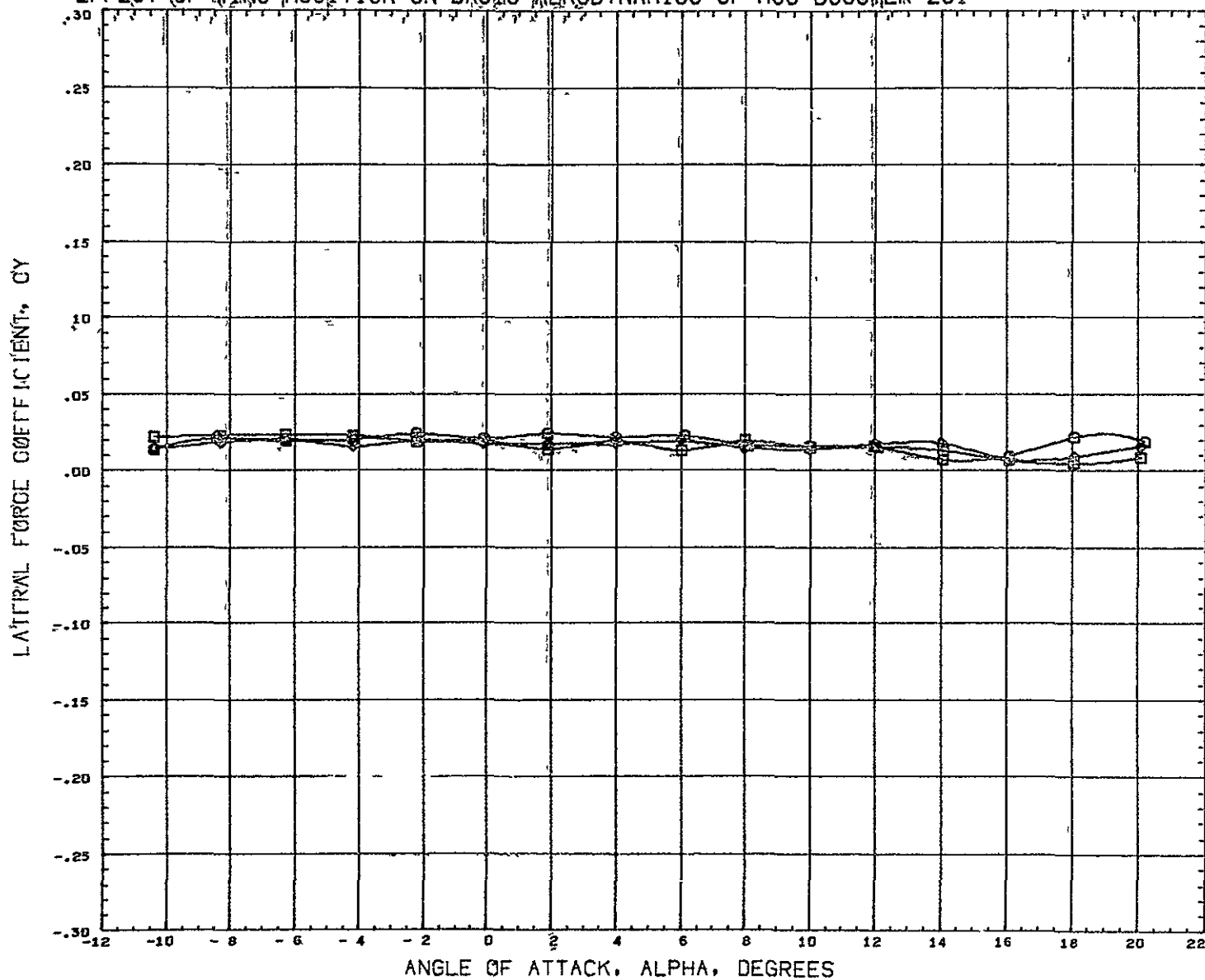
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 4 000	BETA	0 000
◇	0.670	MACH	0.250	CBRH	0 973
○	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT 2B
SCALE	1 3215	PCT

DATA HIST. CODE *E

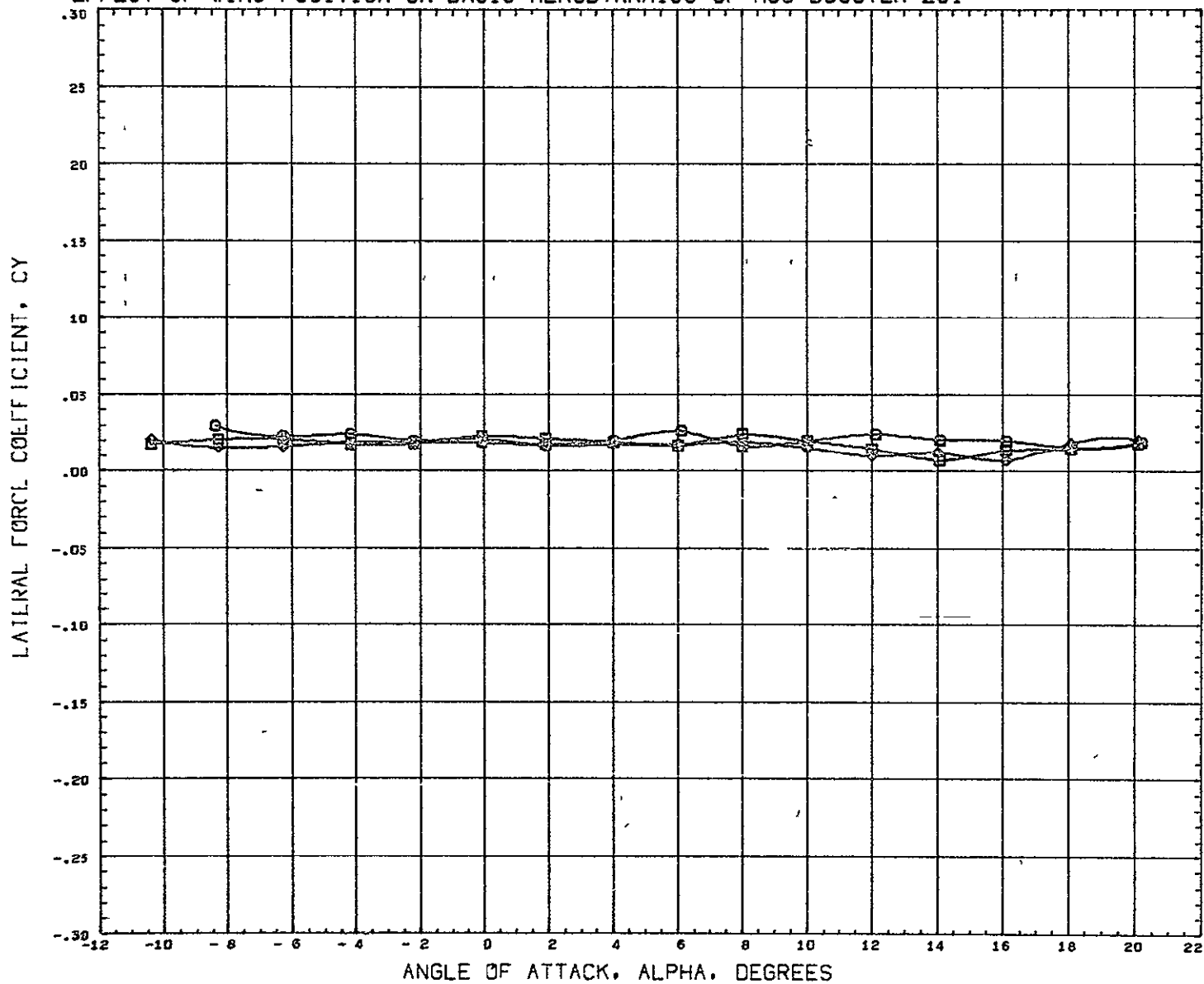
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.646	IT	- 3.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

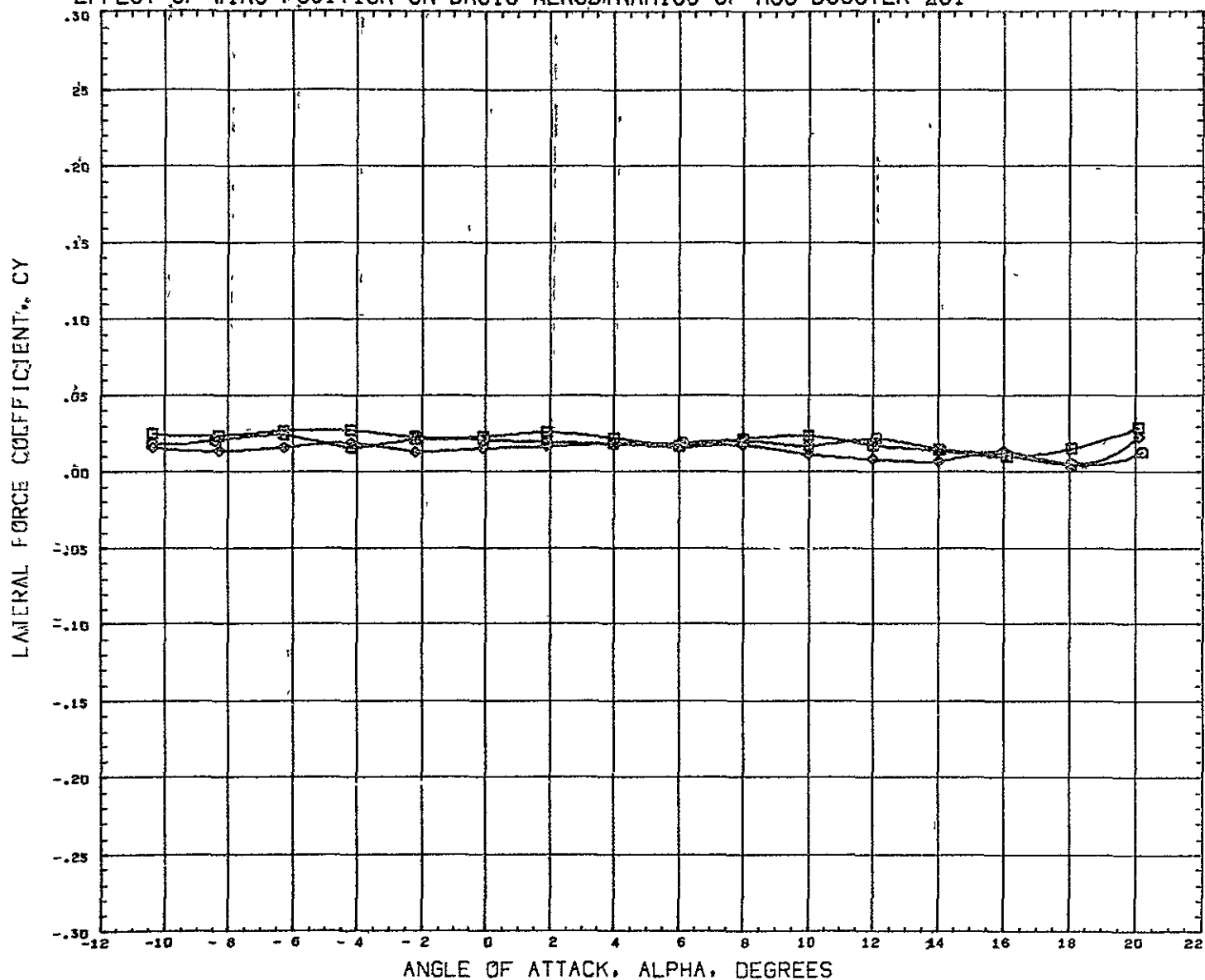
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 2.000	BETA	0.000
○	0.670	MACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT 5Q
REPL	0 3810	FT
REFB	2 4830	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT 2B
SCALE	1 3215	PCT

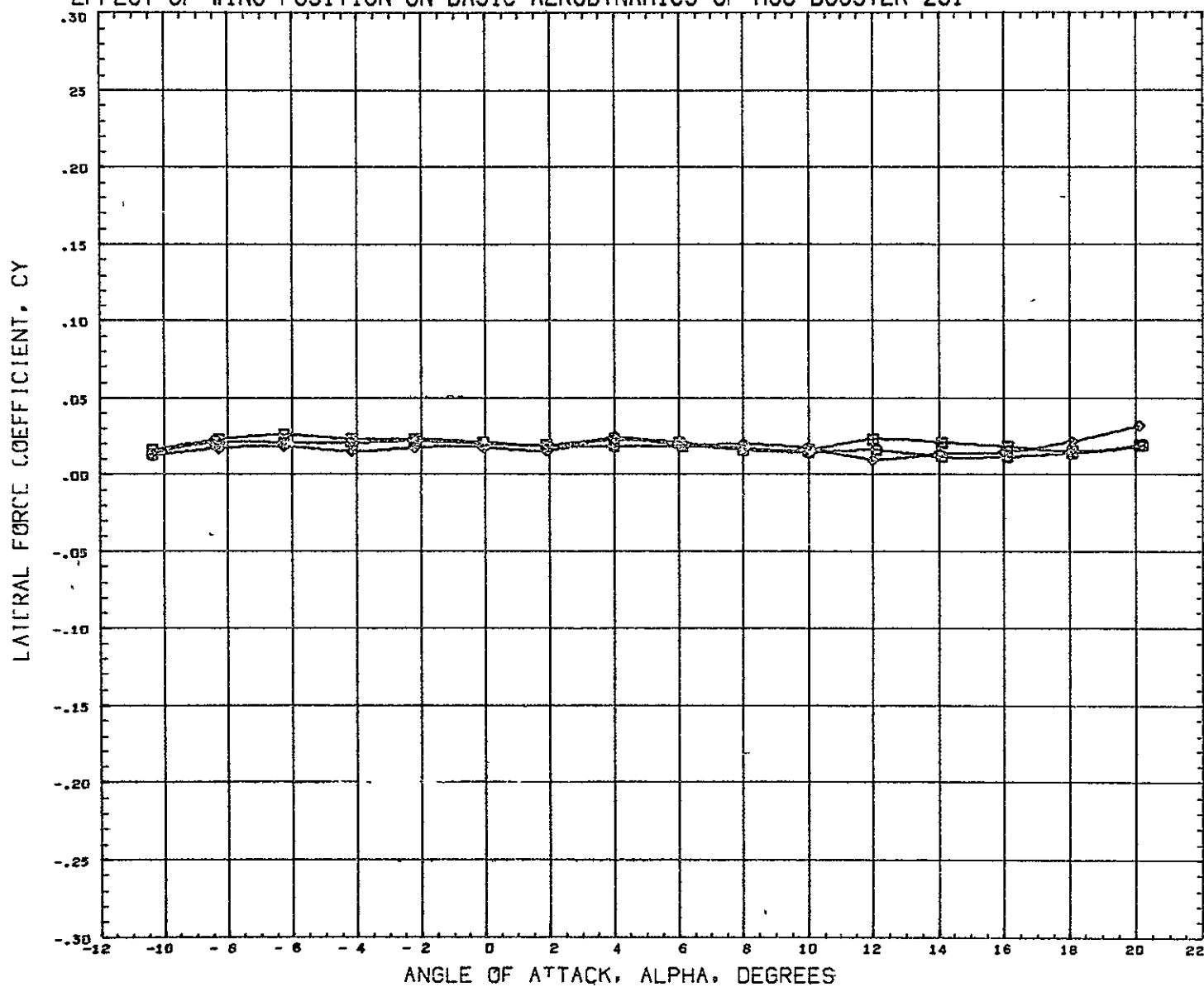
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

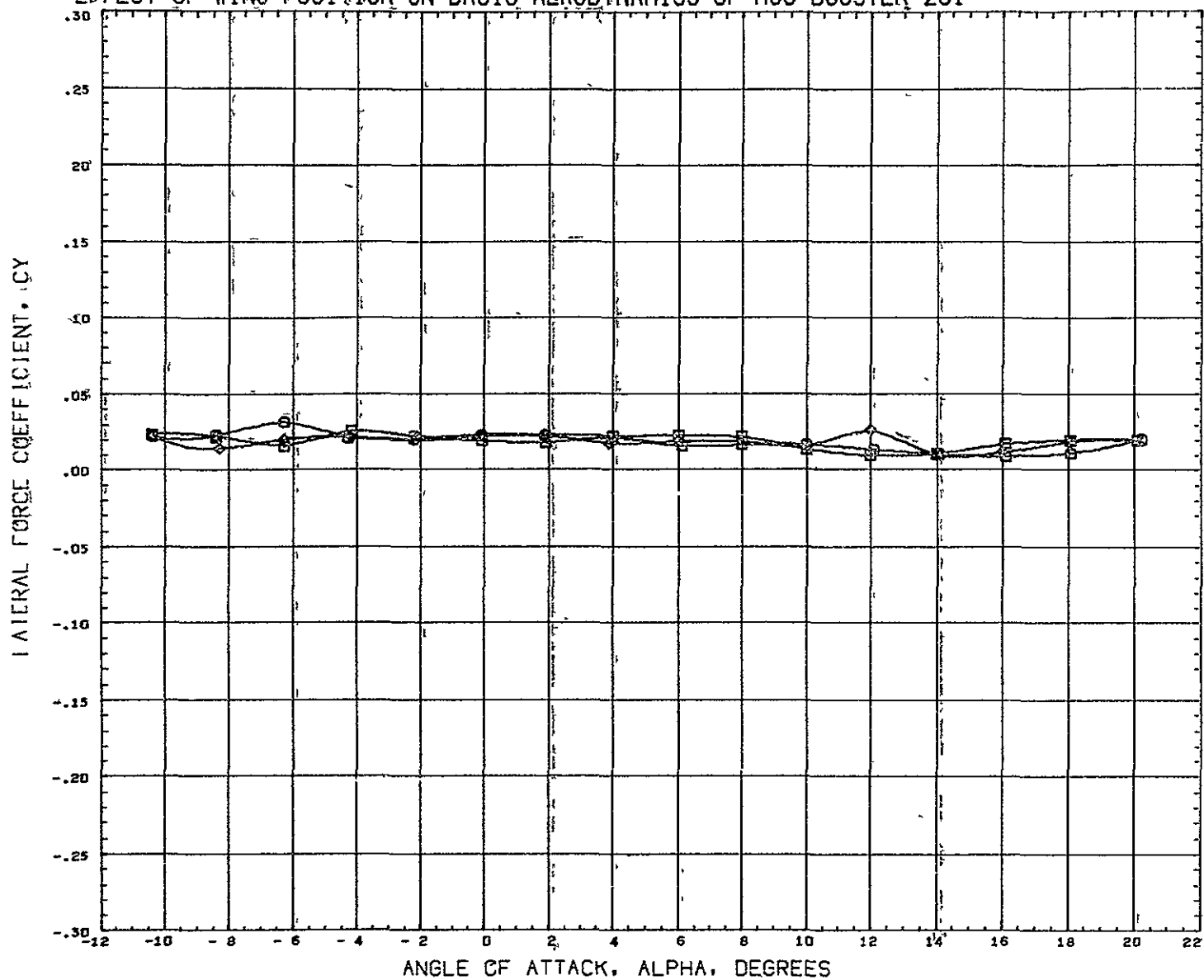


SYMBOL	CBRH	PARAMETRIC VALUES		
○	0.640	IT	- 1 000	BETA 0 000
□	0.670	MACH	0.250	CBRH 0.973
◇	0.700	ELEVTR	0 000	

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	0.003	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ'
REFL	0.3810	FT
REFB	2.4630	FT
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YHRP	0.0000	
ZHRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E

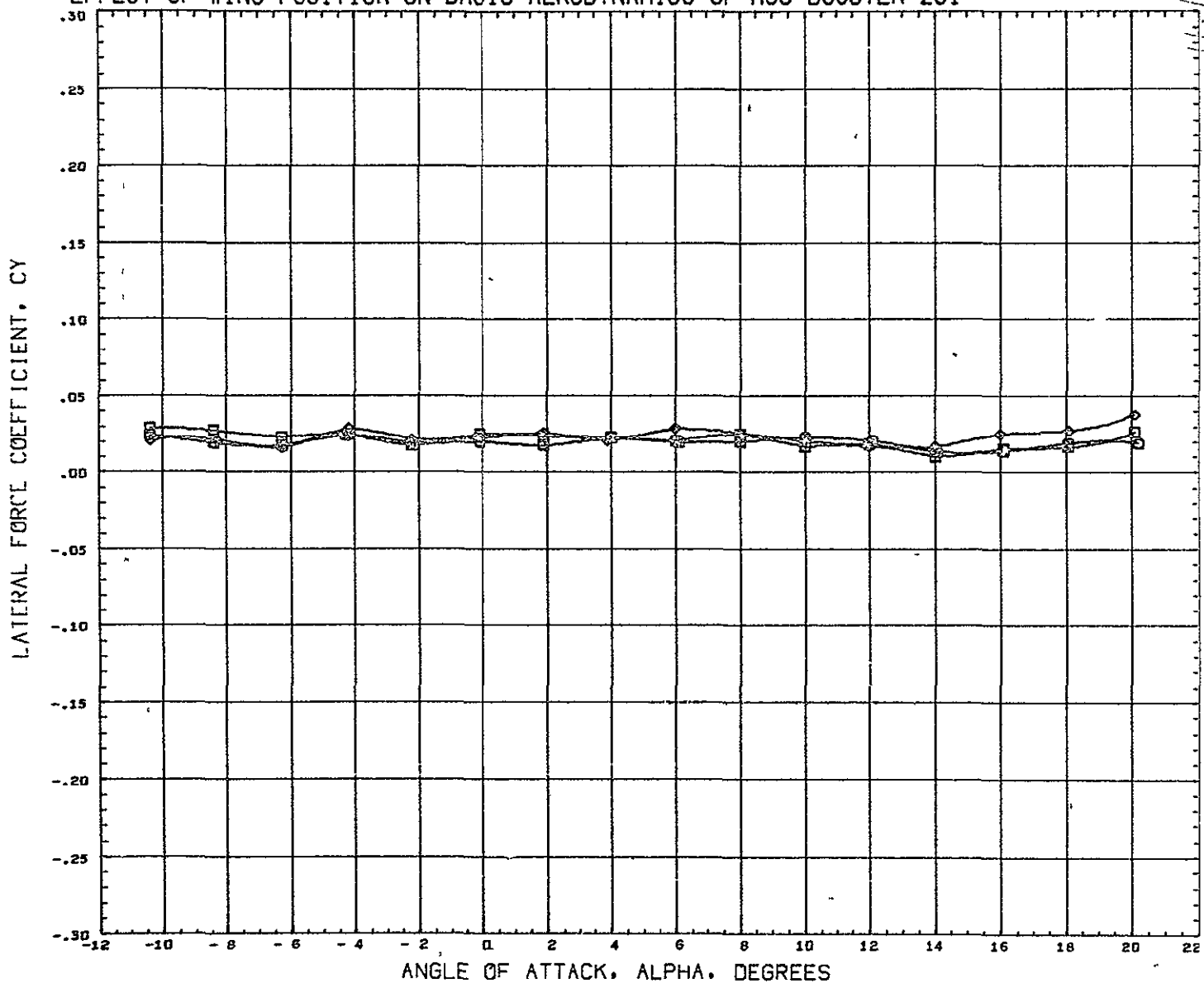
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRH	IT	PARAMETRIC VALUES	
○	0.640	17	1 000	BETA 0 000
□	0.670	MACH	0 250	CBRH 0 973
◊	0.700	ELEVTR	0 000	

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRF	65 0000	PCT LB
YMRF	0 0000	
ZMRF	67 5500	PCT ZB
SCALE	1 3215	PCT

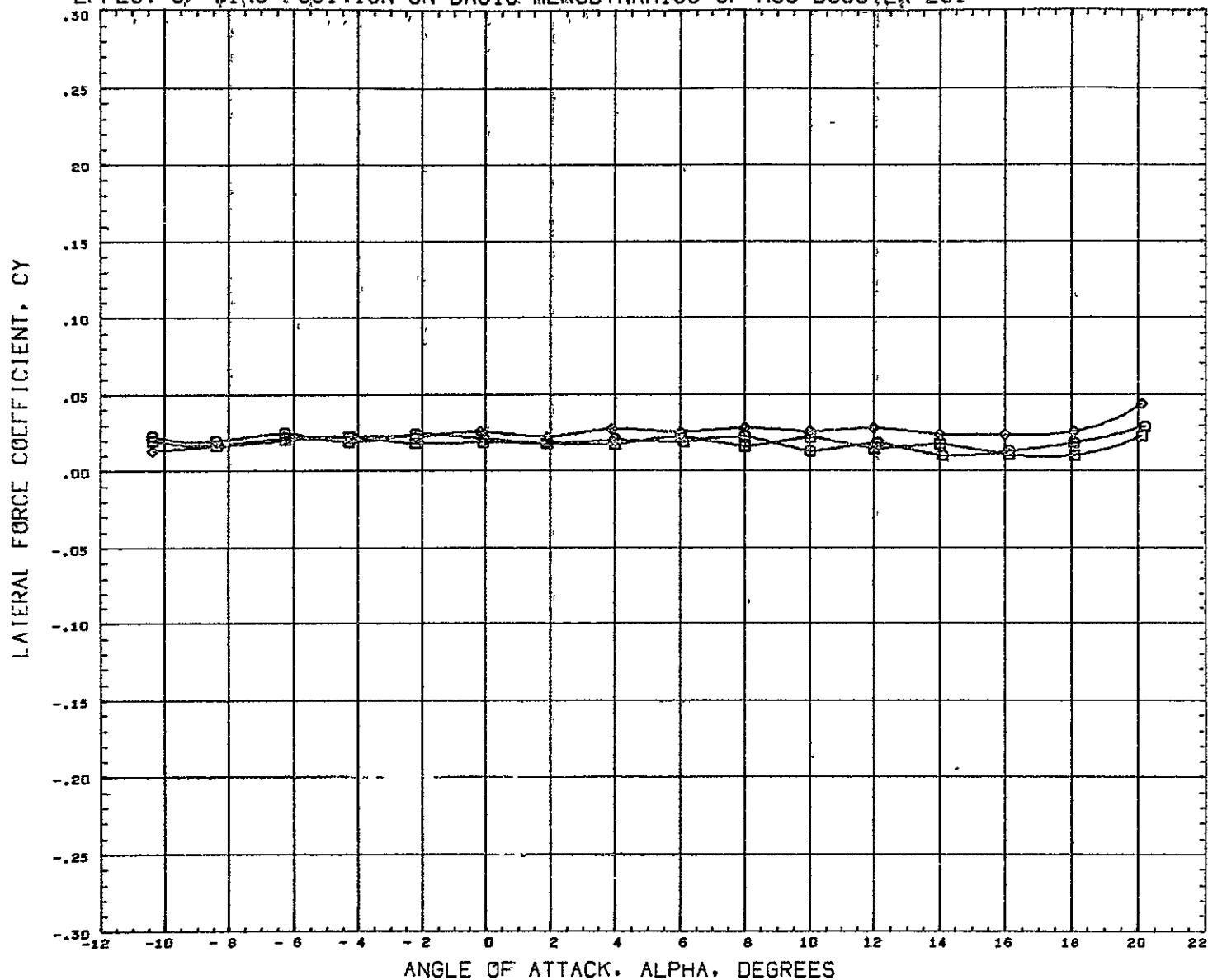
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		
□	0.640	1T	2.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4830	FT
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YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E

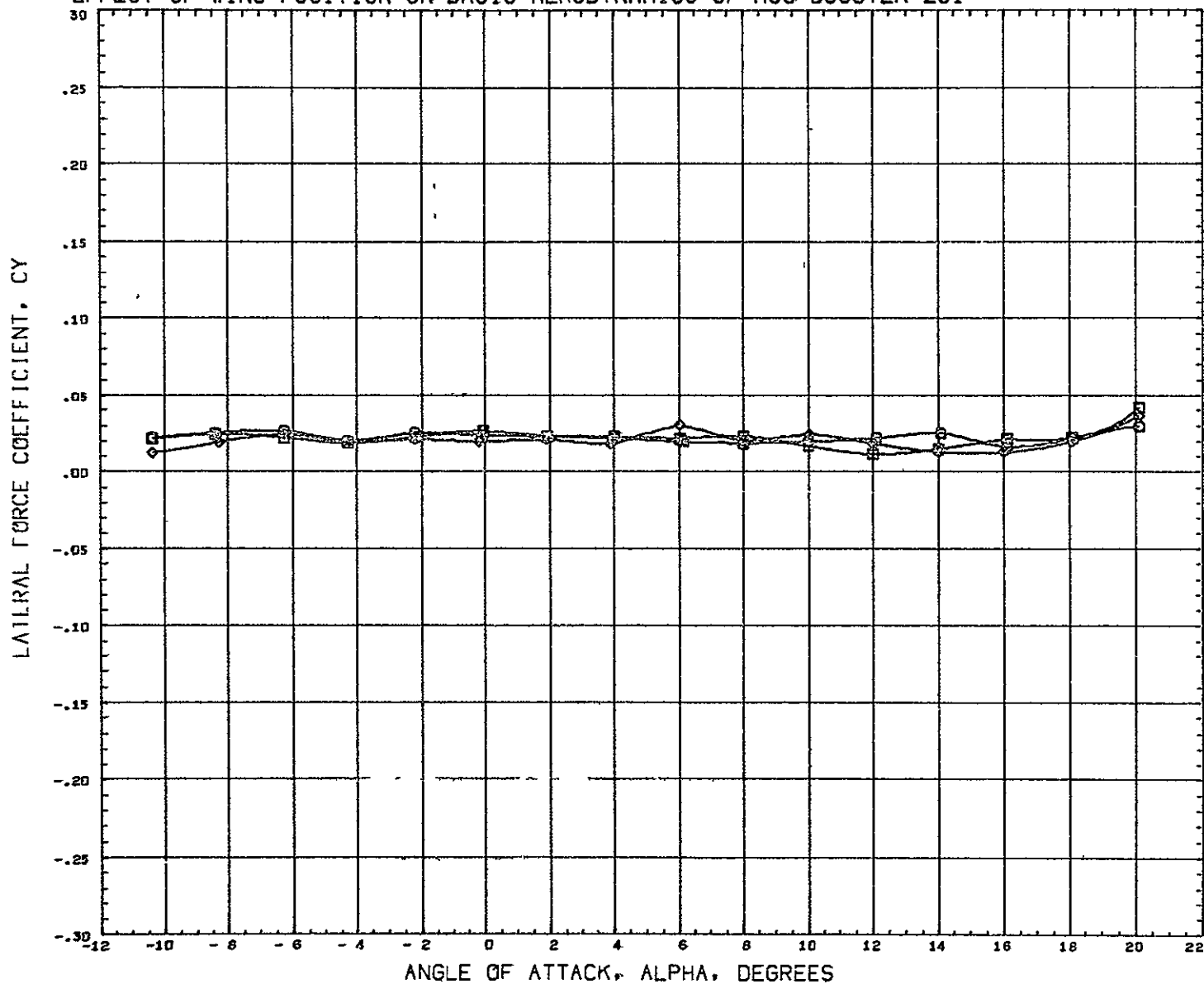
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

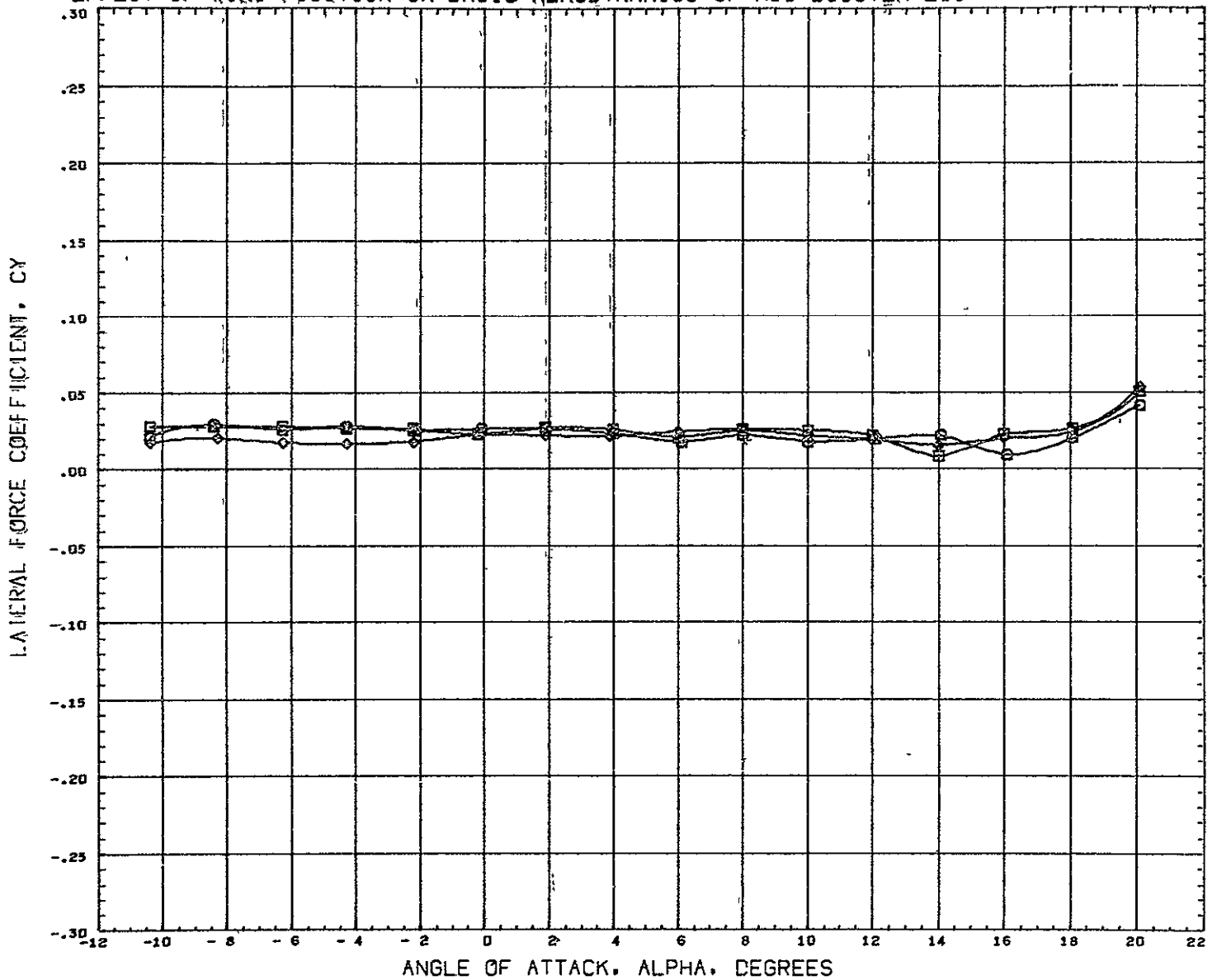


SYMBOL	CBRW		PARAMETRIC VALUES		
○	0.640	IT	3.000	BETA	0.000
◻	0.670	MACH	0.250	CBRH	0.973
◊	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	4 000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XNRP	65 0000	PCT LB
YHRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

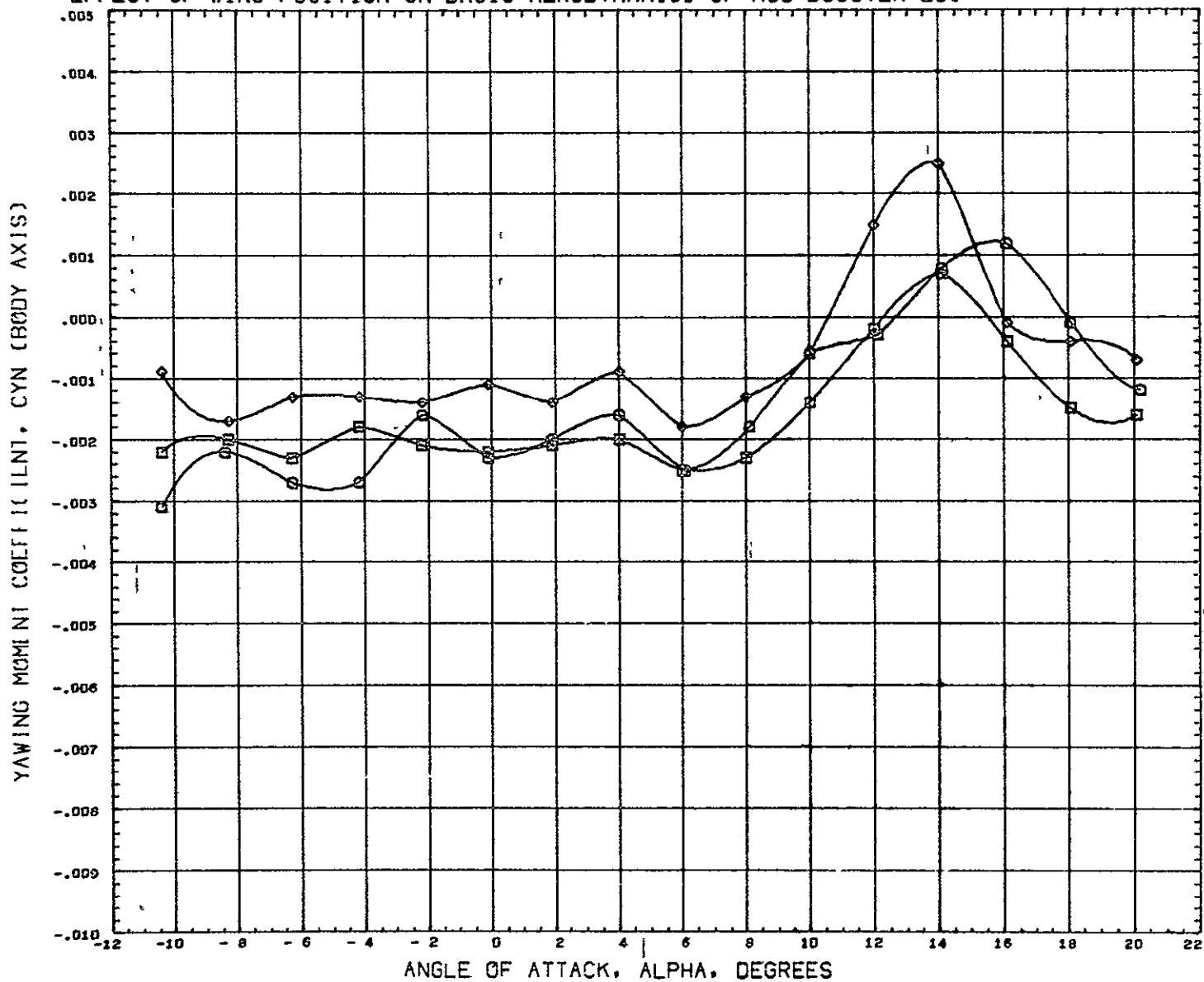
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL		PARAMETRIC VALUES			
◇	CBRW	IT	- 4.000	BETA	0.000
□	0.640	MACH	0.250	CBRH	0.973
○	0.670	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

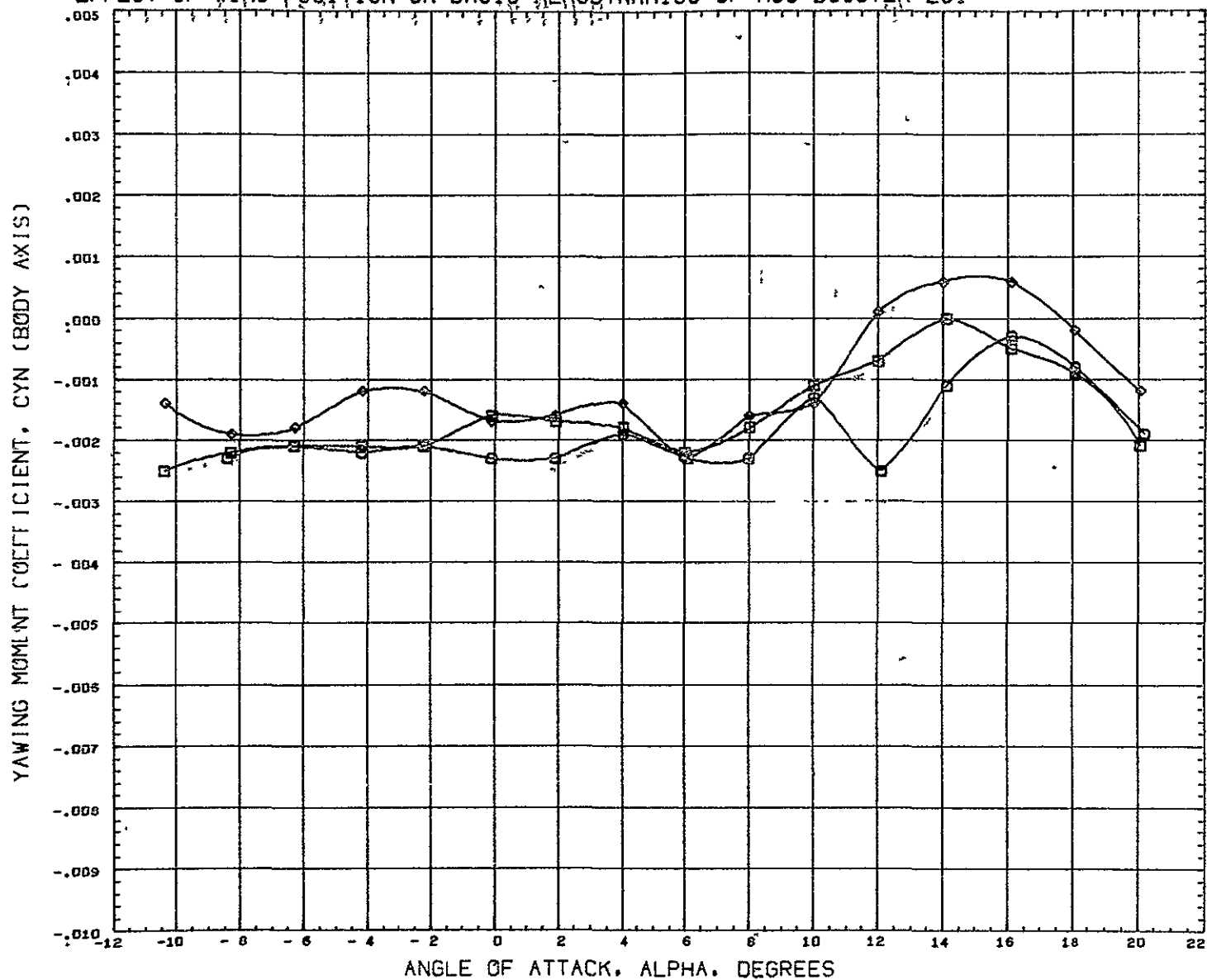
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.643	IT	- 3.000	BETA	0.000
◇	0.670	MACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E

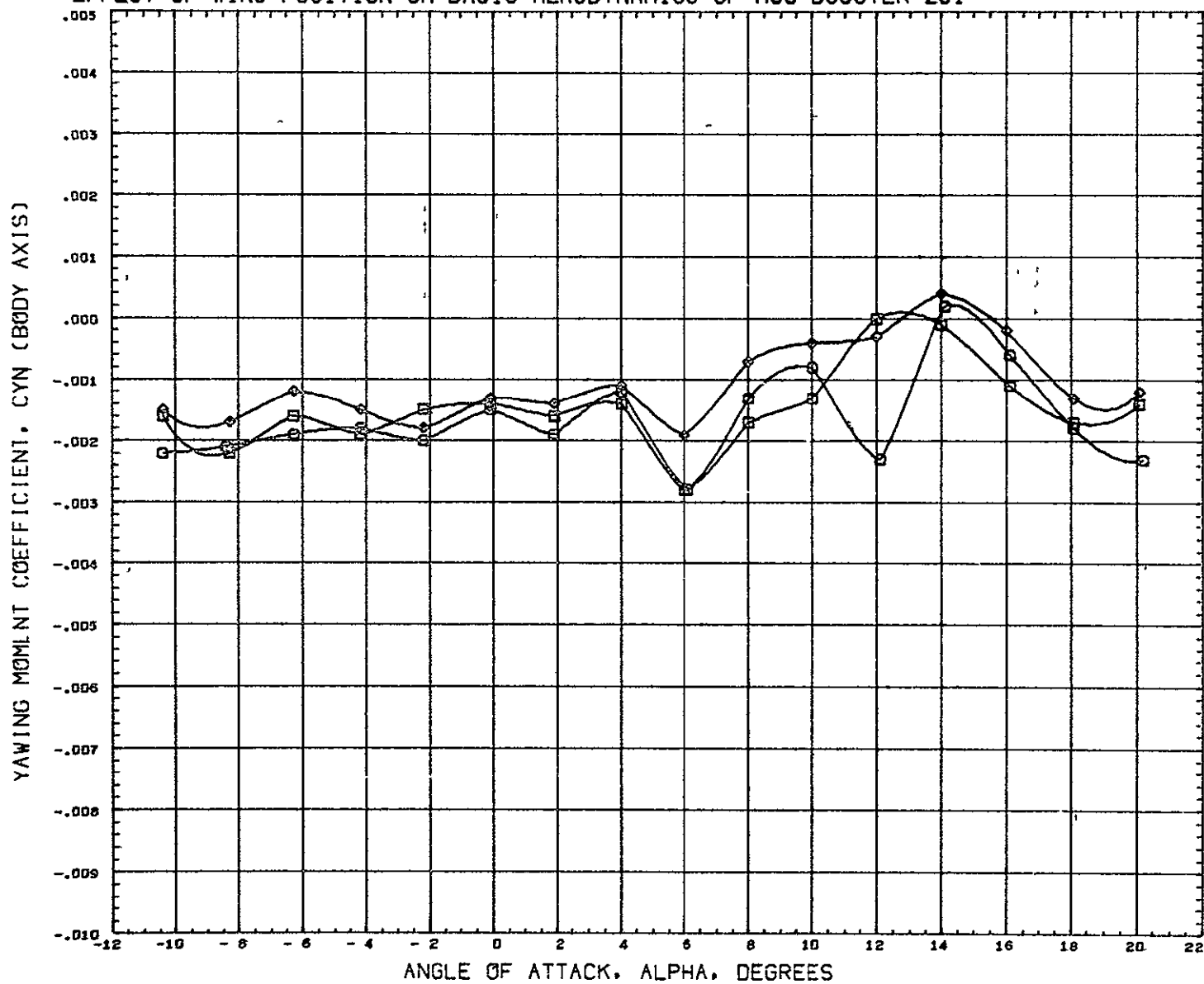
*SC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 2.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1.3215	PCT

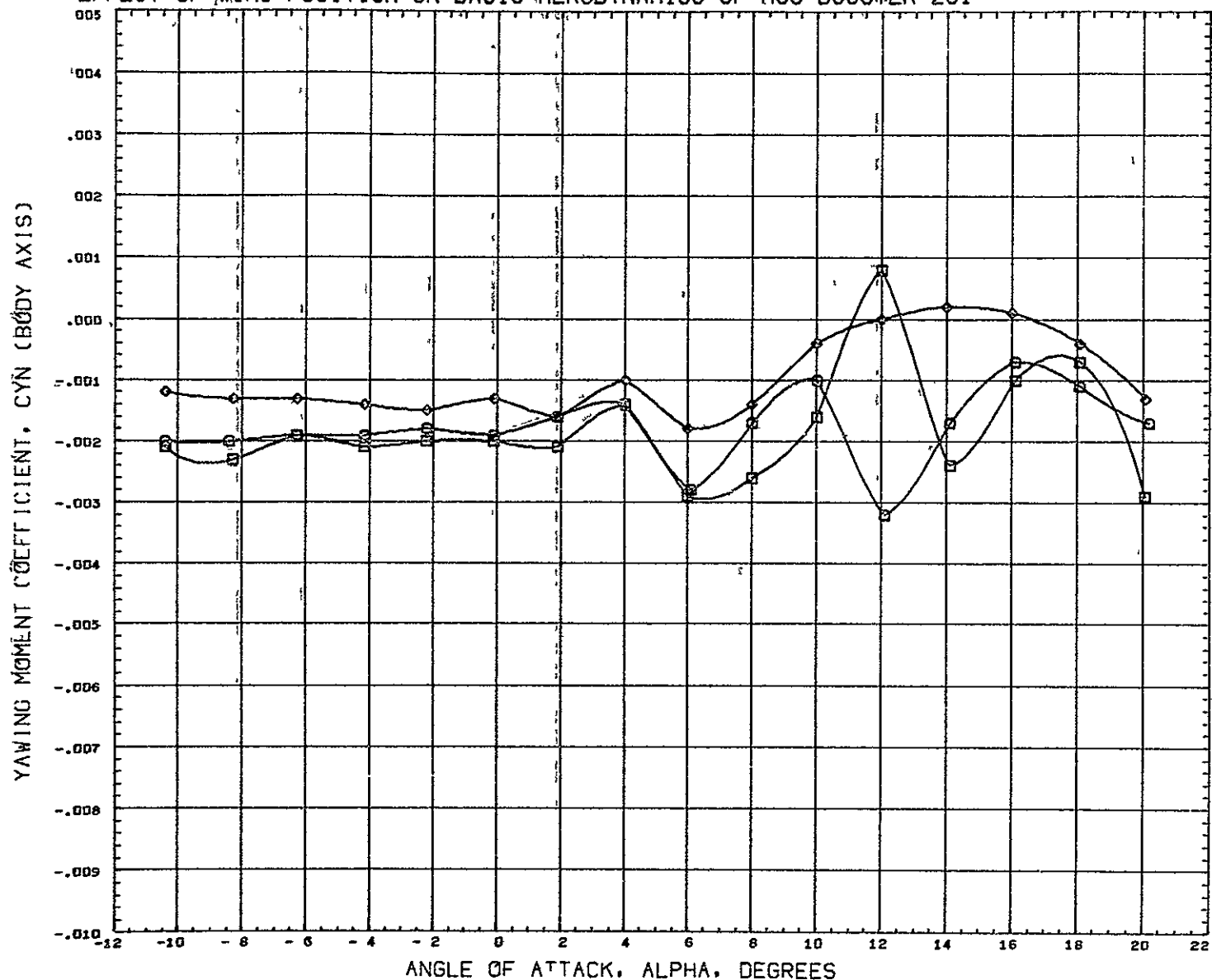
DATA HIST. CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRH	PARAMETRIC VALUES			
◇	0.640	IT	- 1.000	BETA	0.500
□	0.670	MACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

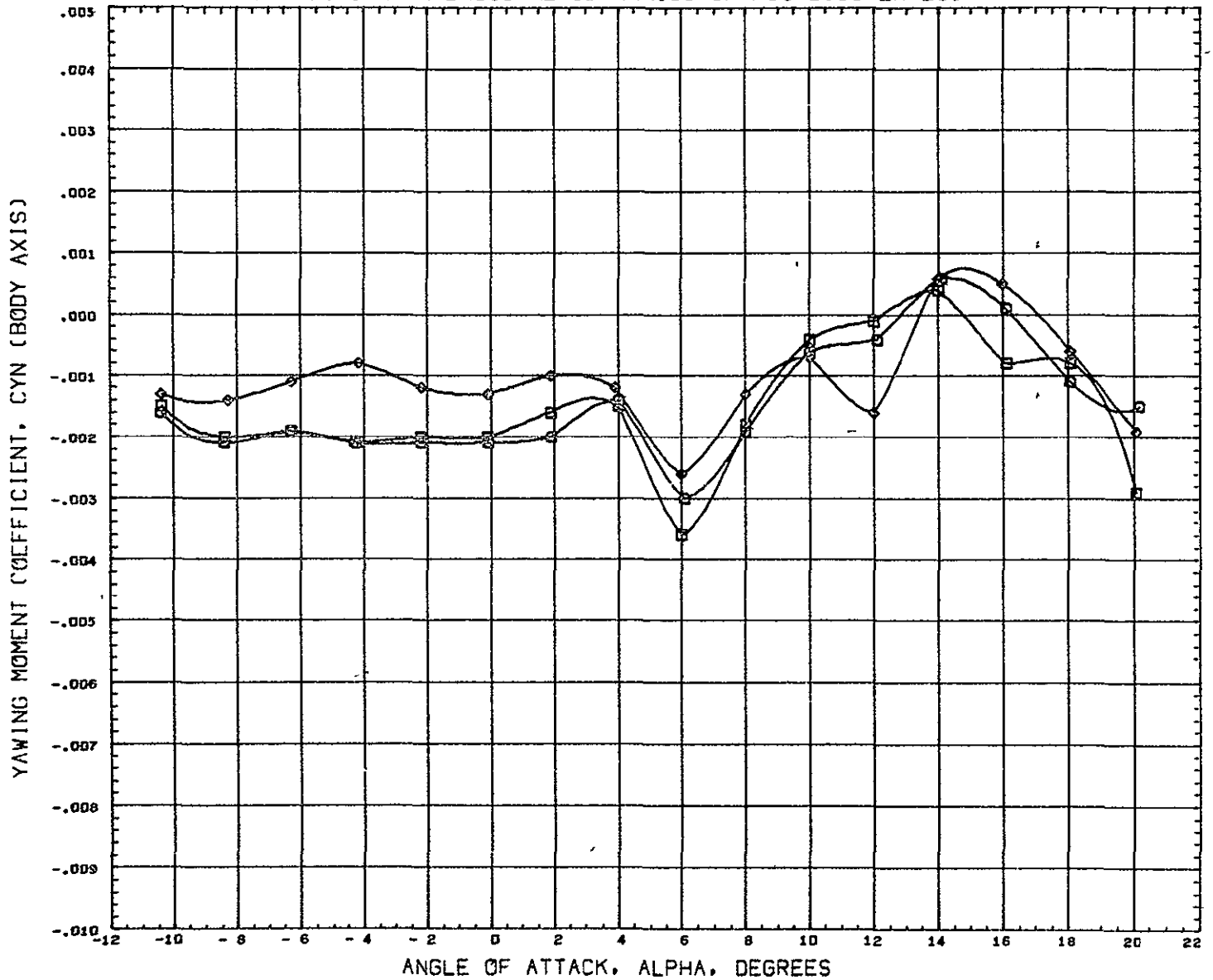
REFERENCE INFORMATION		
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REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE #E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

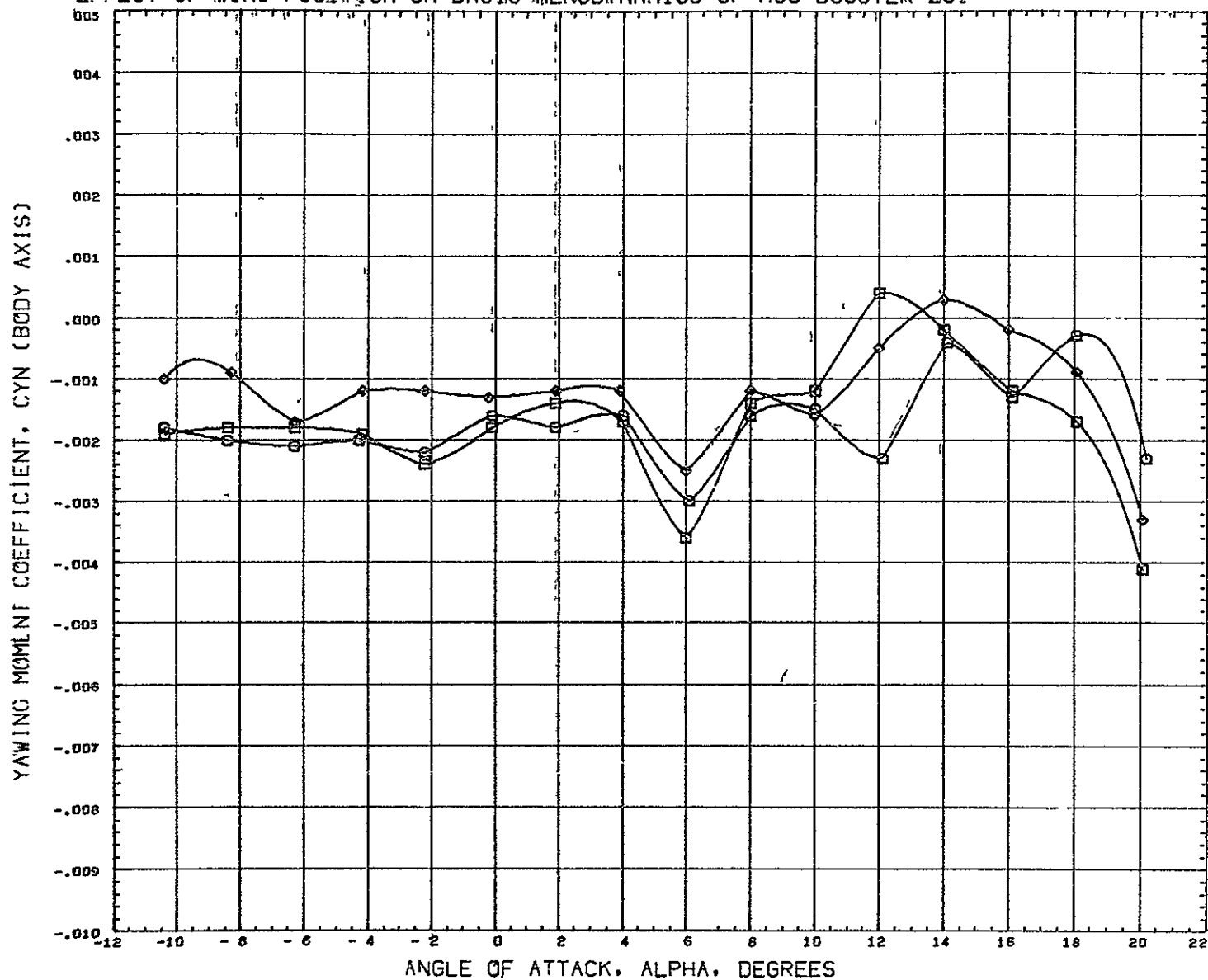


SYMBOL	CBRW	PARAMETRIC VALUES
◇	0.640	IT 0.000 BETA 0.000
□	0.670	MACH 0.250 CBRH 0.973
○	0.700	ELEVTR 0.000

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		BETA	0 000
○	0.640	HACH	0 250	CBRH	0 973	
◇	0.700	ELEVTR	0 000			

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

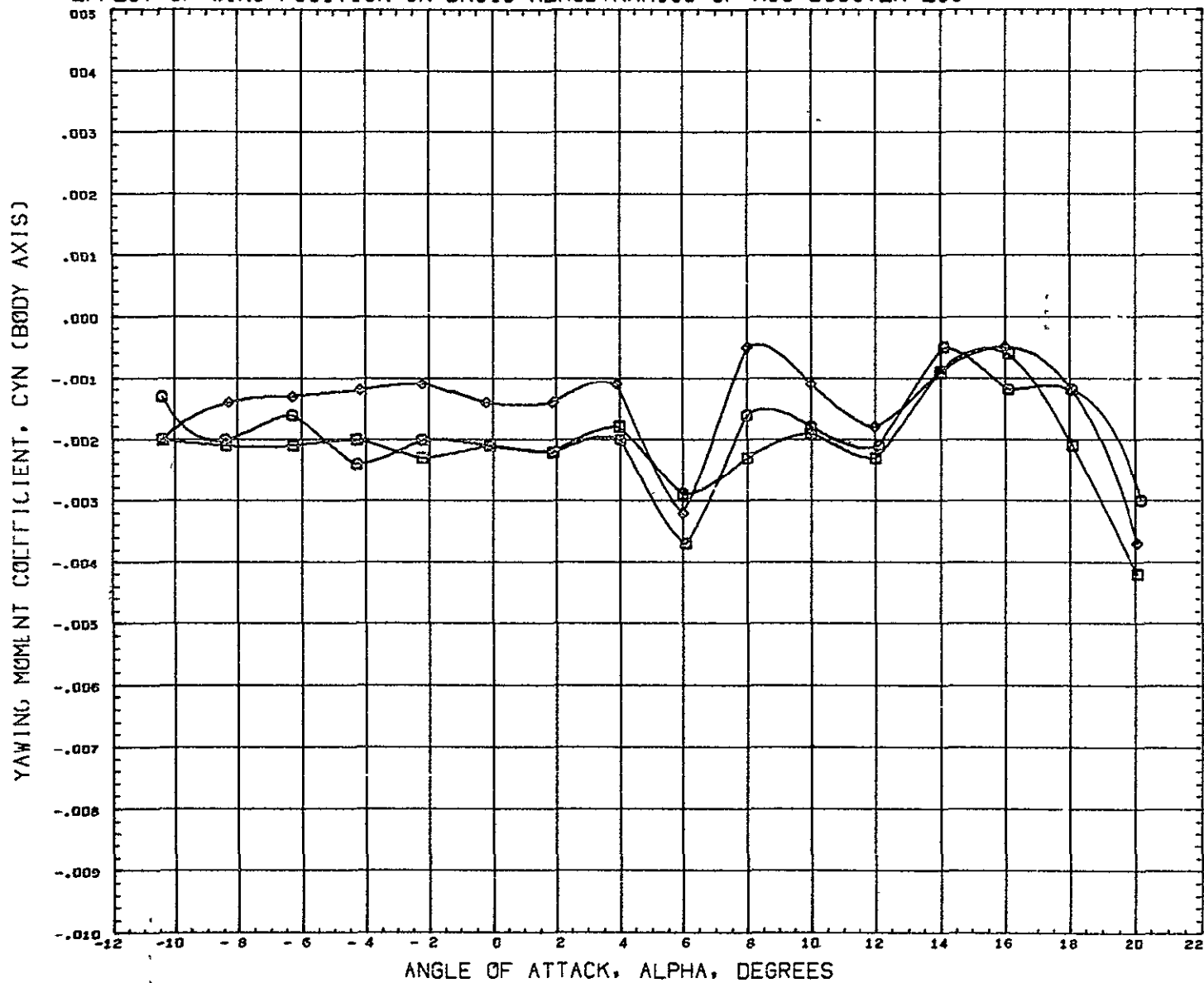
DATA HIST. CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
◇	0.640	IT	2 000	BETA	0.000
□	0.670	MACH	0 250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

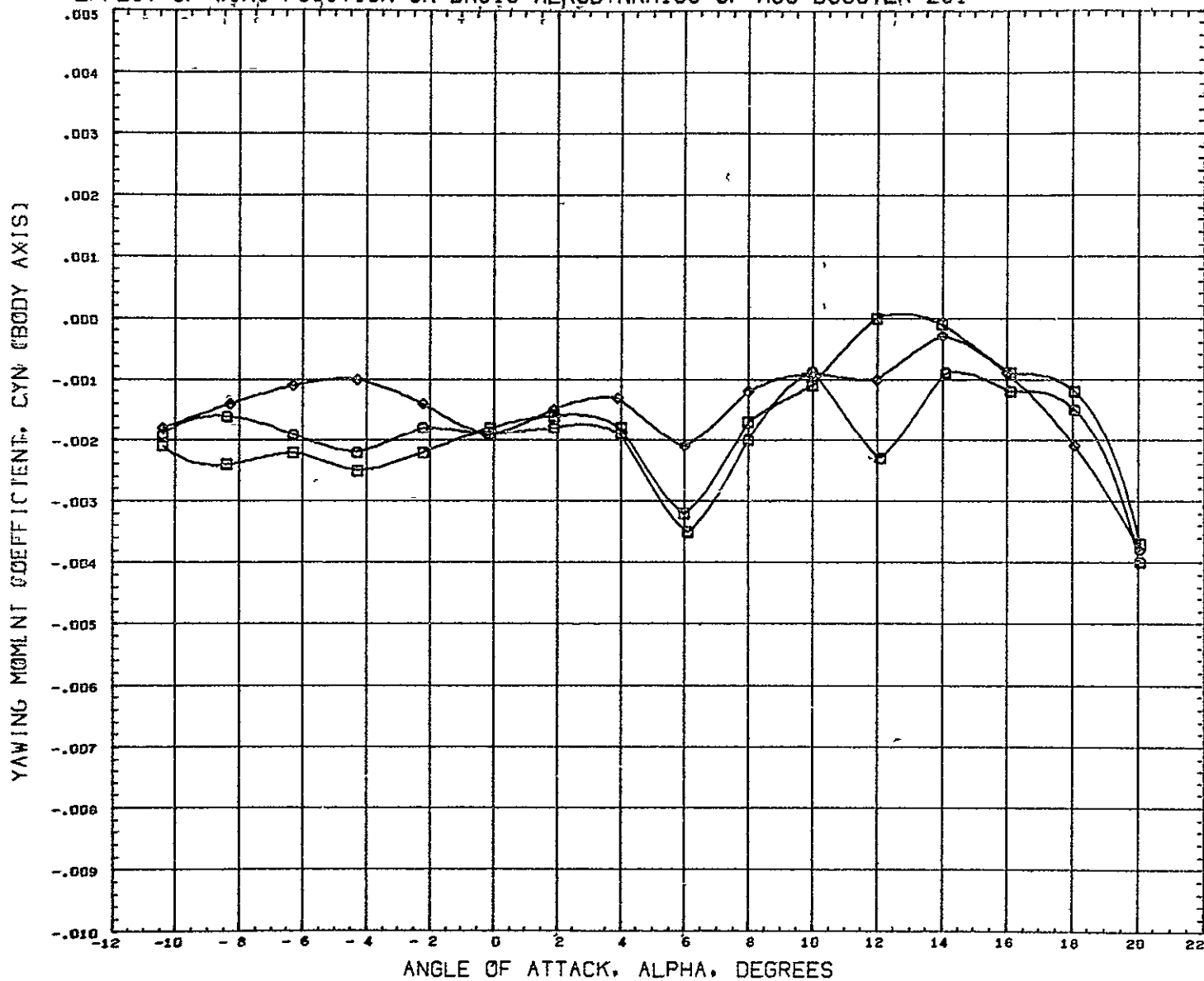
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
◇	0 640	IT	3.000	BETA	0 000
□	0 670	MACH	0 250	CBRH	0 973
○	0 700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT Sq
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT 2B
SCALE	1 3215	PCT

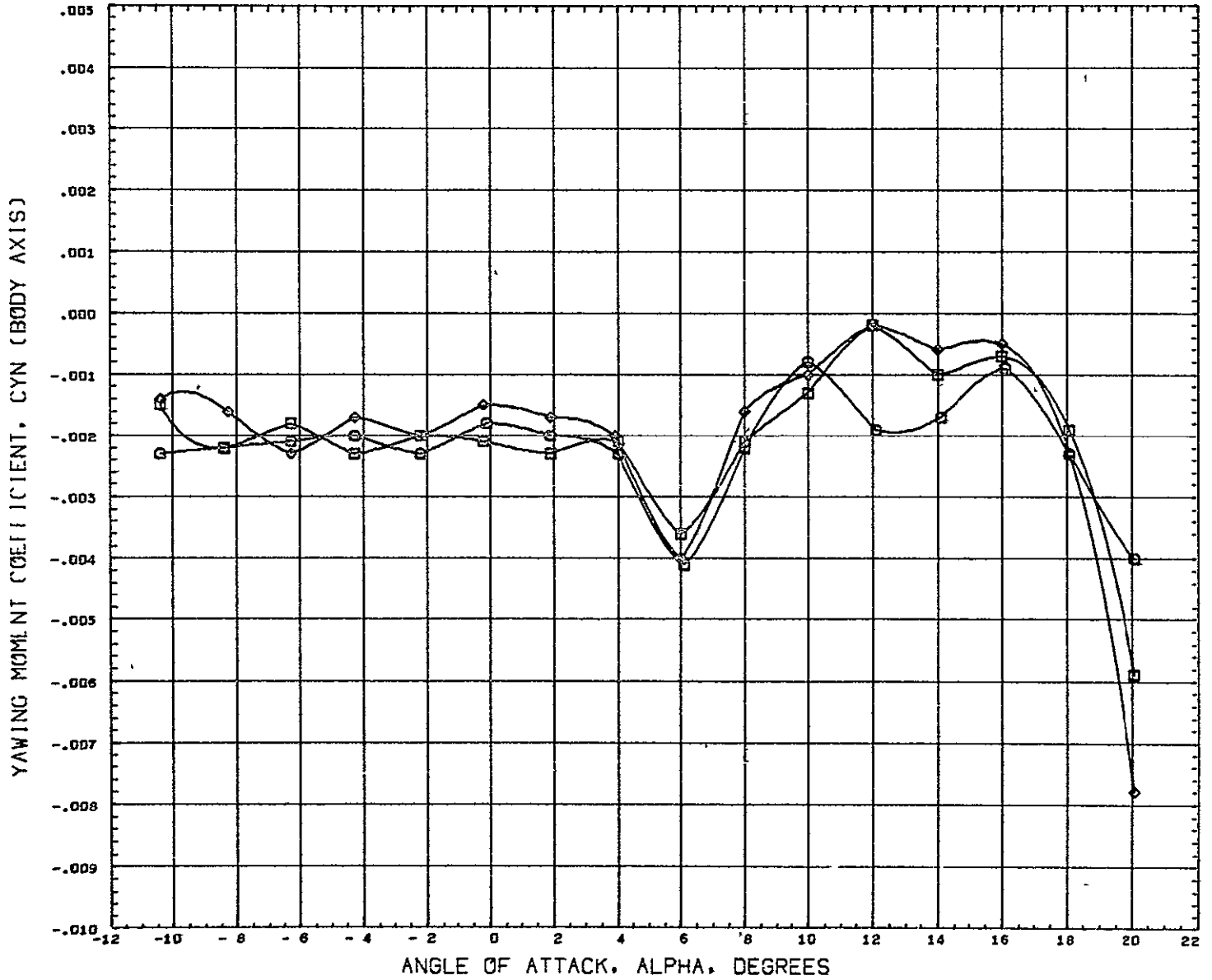
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	4.000	BETA	0.000
◇	0.670	HACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

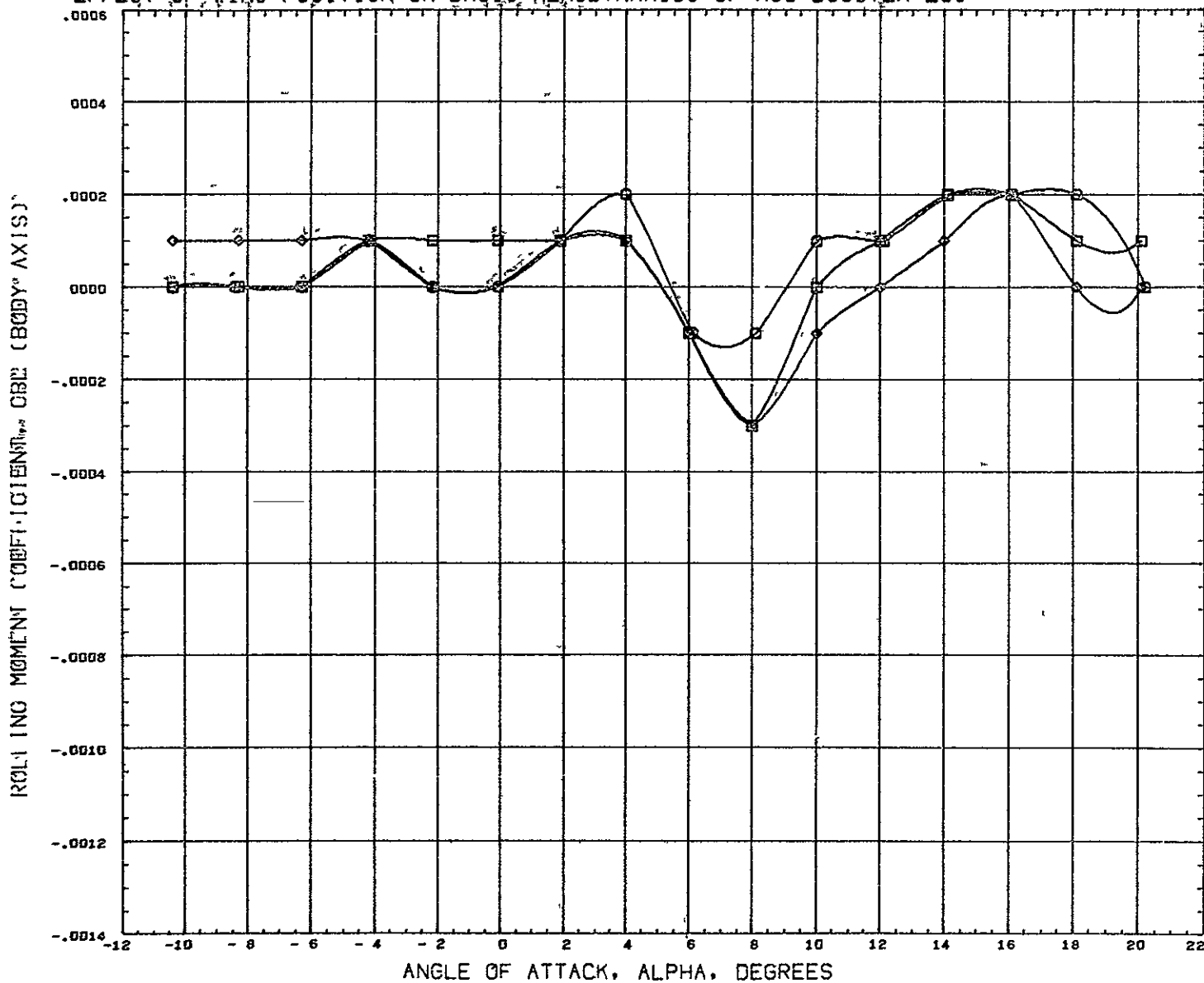
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION		
C-110	CBRW	0.640	1Y	- 4.000	BETA	0.000	REFS	0 8460 FT SQ
		0.670	MACH	0.250	CBRH	0.973	REFL	0 3810 FT
		0.700	ELEVTR	0.000			REFB	2 4630 FT
							XHRP	65 0000 PCT LB
							YHRP	0 0000
							ZHRP	67 5500 PCT ZB
							SCALE	1 3215 PCT

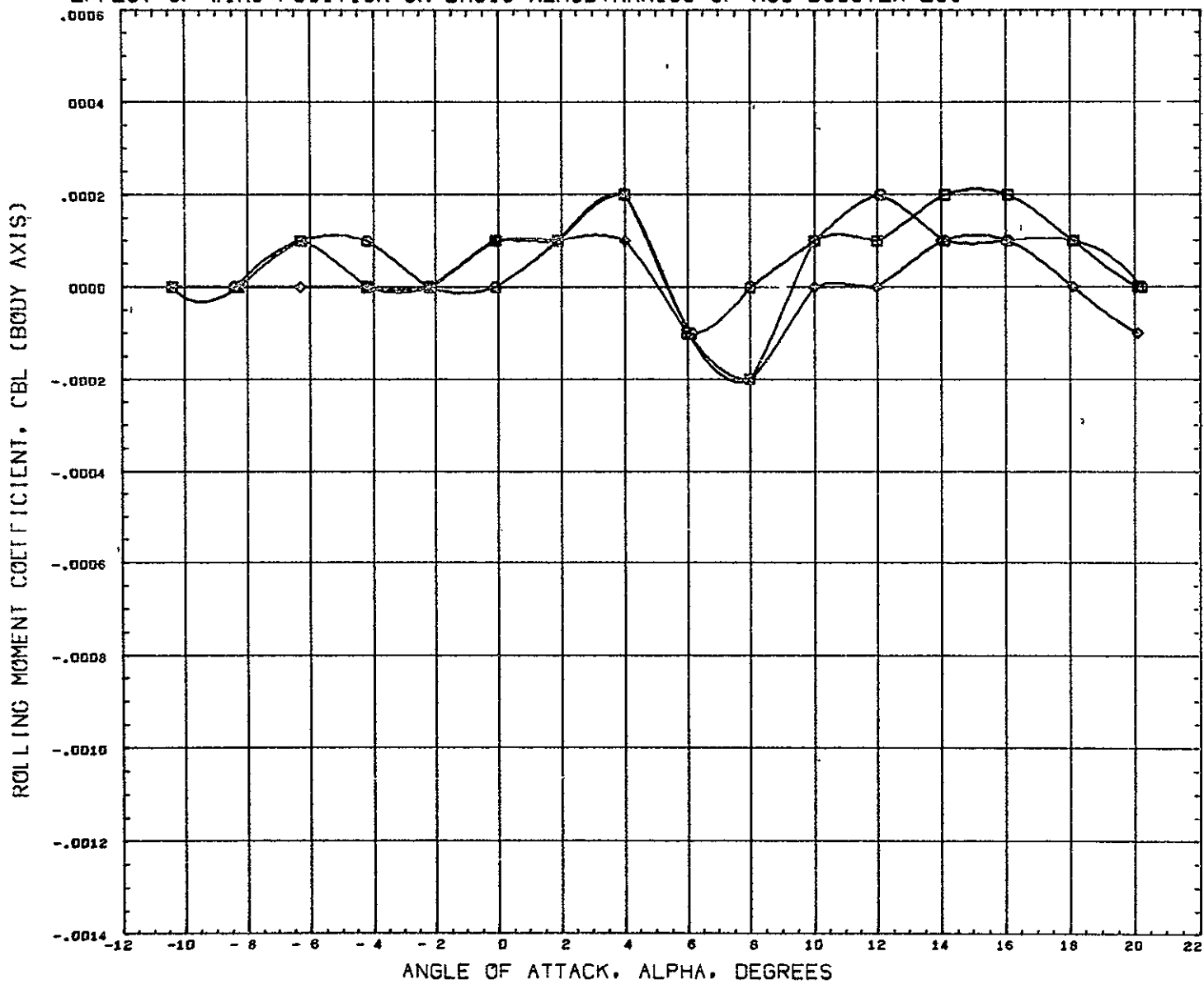
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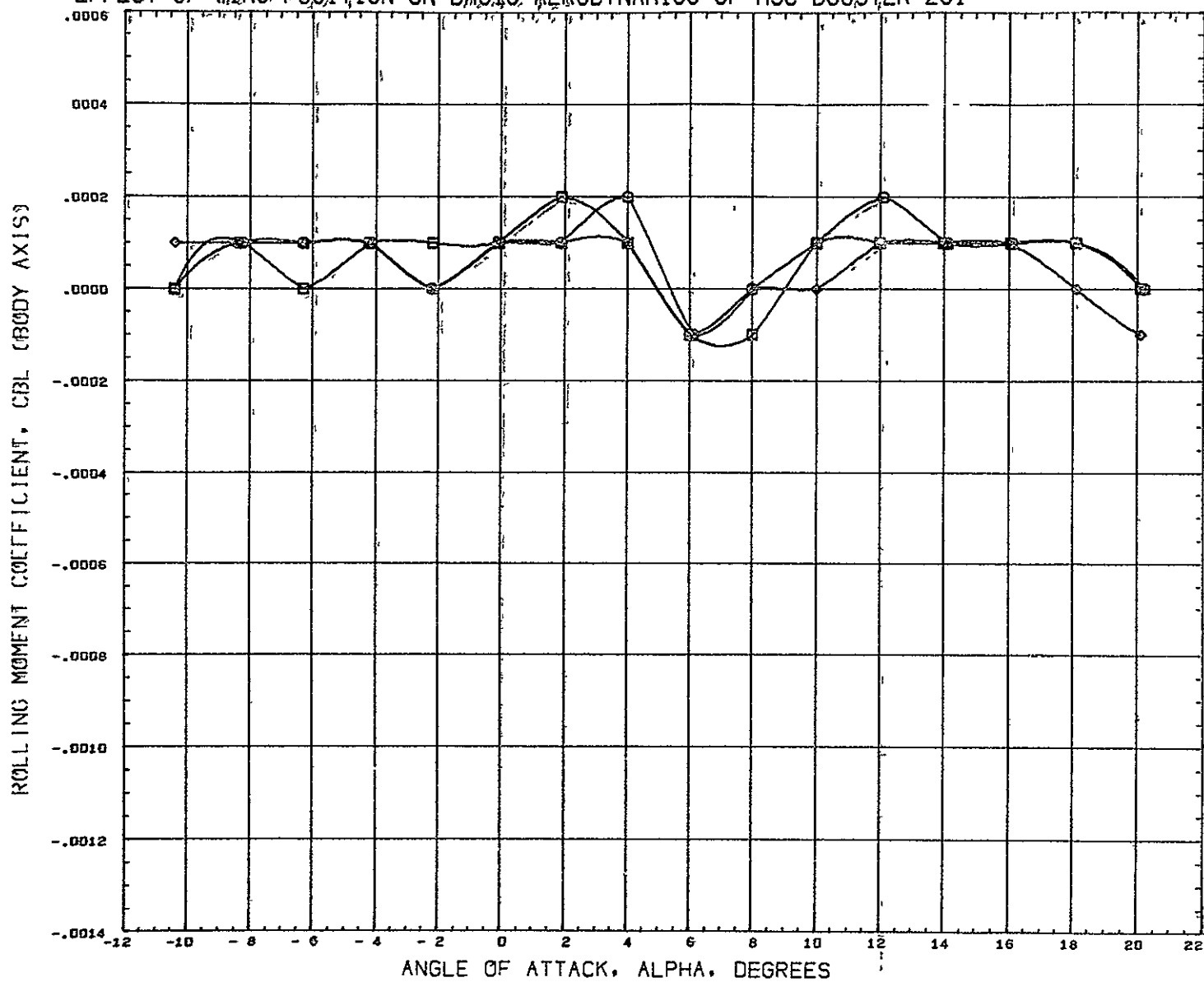
EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL		PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.640	IT	- 3.000	BETA	0.000	REFS	0 8460	FT SQ
□	0.670	MACH	0 250	CBRH	0 973	REFL	0 3810	FT
◇	0.700	ELEVTR	0 000			REFB	2 4630	FT
						XNRP	65 0000	PCT LB
						YNRP	0 0000	
						ZNRP	67 5500	PCT ZB
						SCALE	1 3215	PCT

DATA HIST CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 2.000	BETA	0.000
◇	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

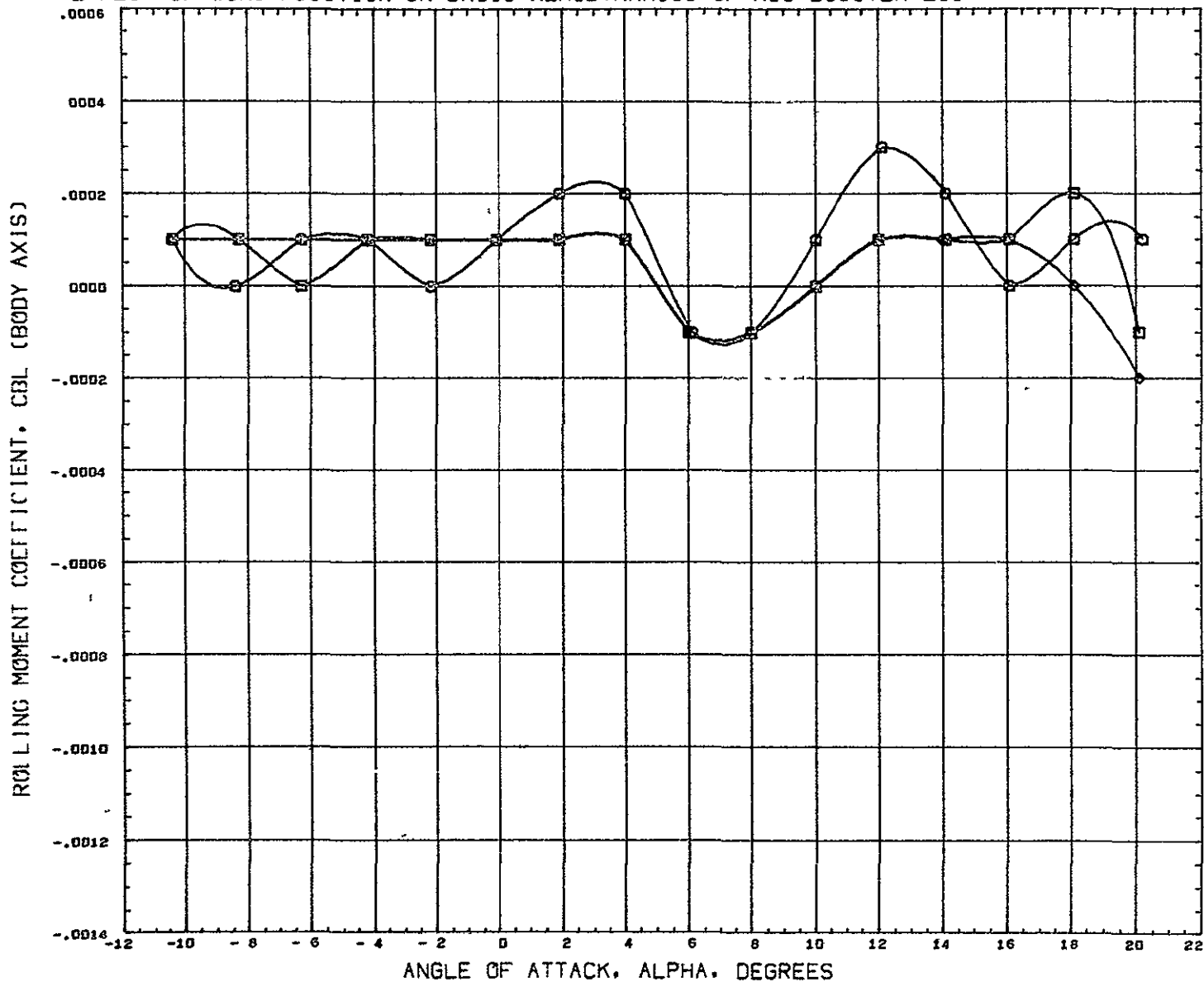
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REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	FT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

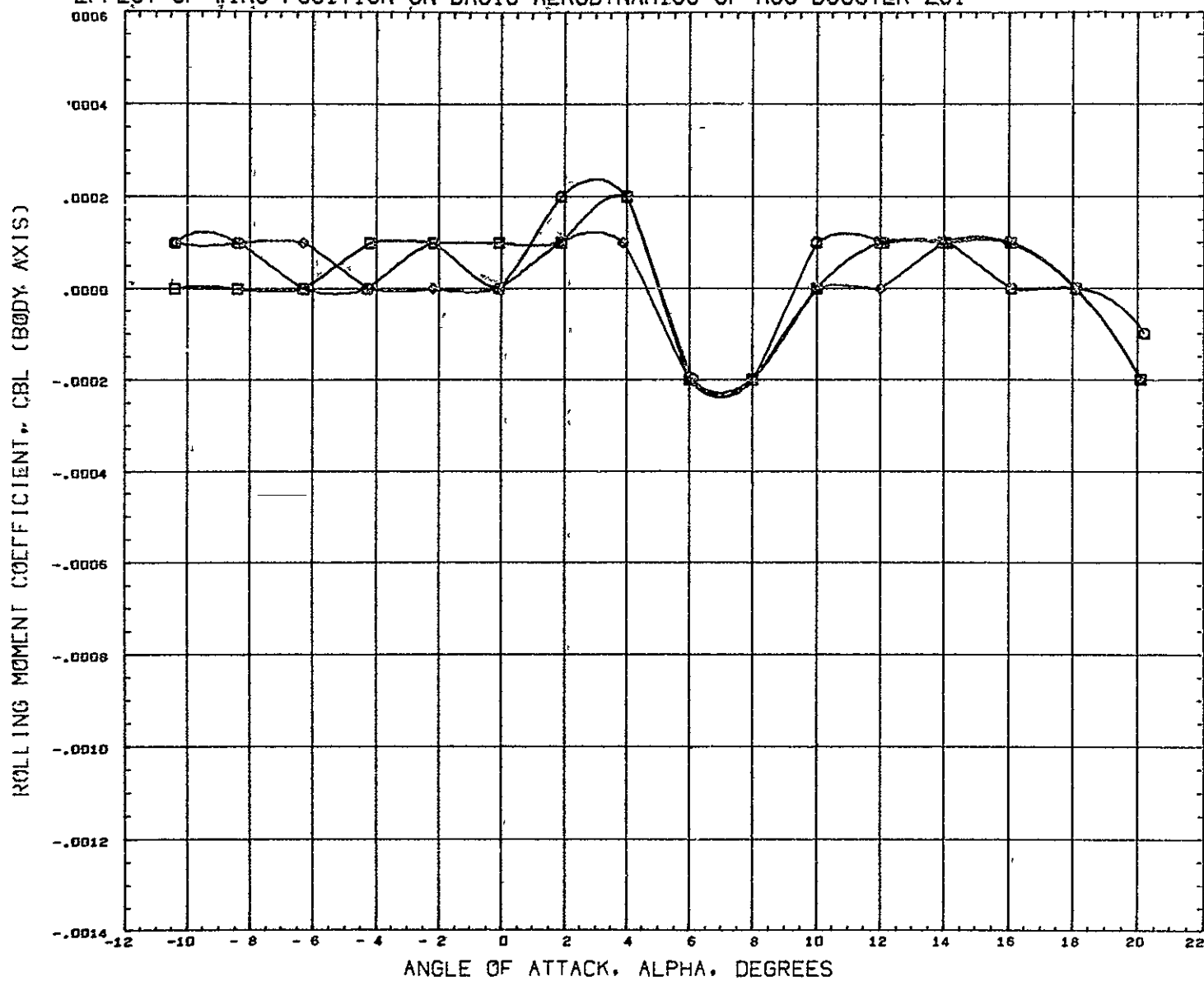


SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	- 1.000	BETA	0.000
□	0.670	MACH	0.250	CBRW	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XNRF	65 0000	PCT LB
YNRF	0 0000	
ZNRF	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
0	0 640	IT	0 000	BETA	0 000
0	0 670	MACH	0 250	CBRH	0.973
0	0 700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

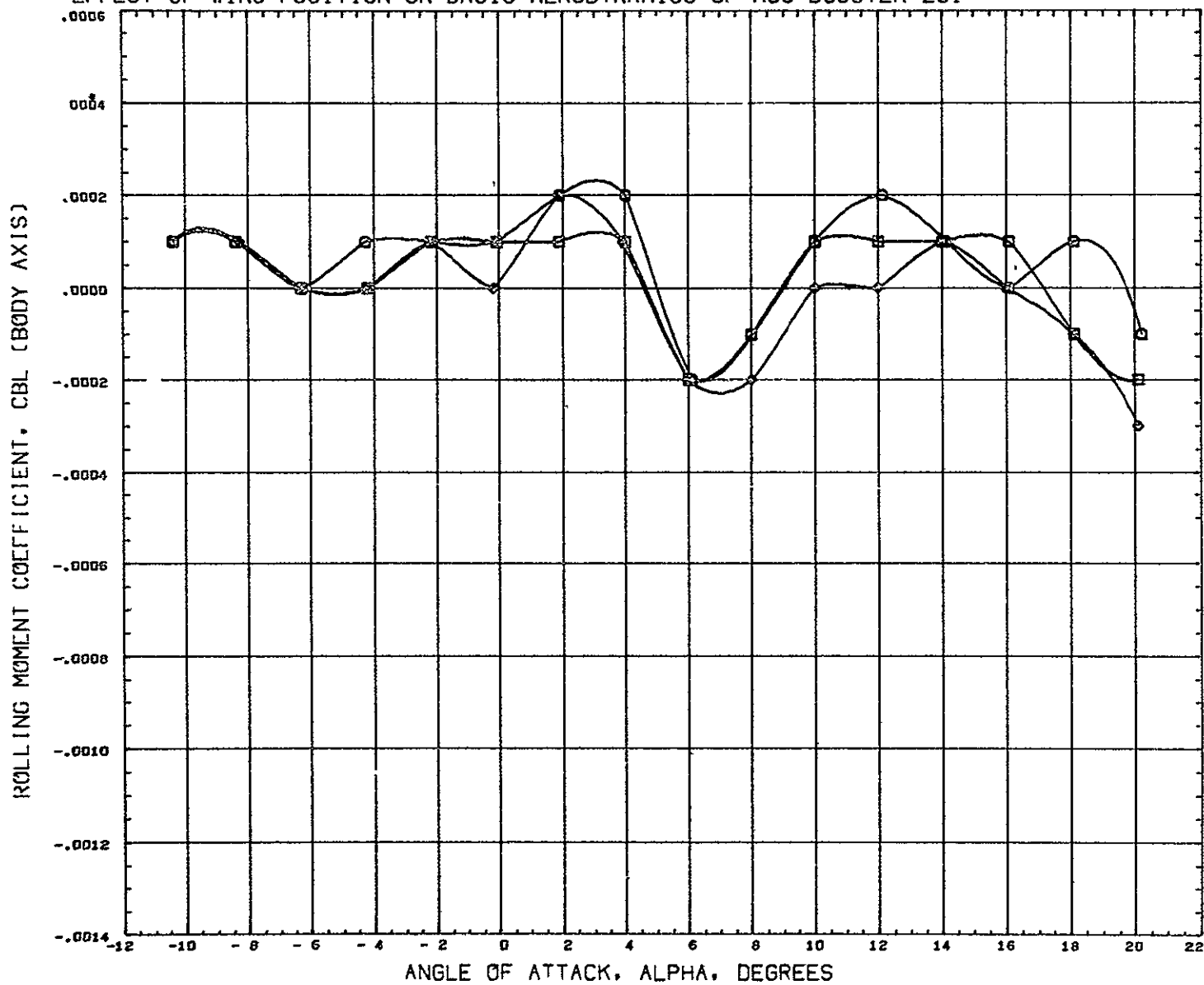
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

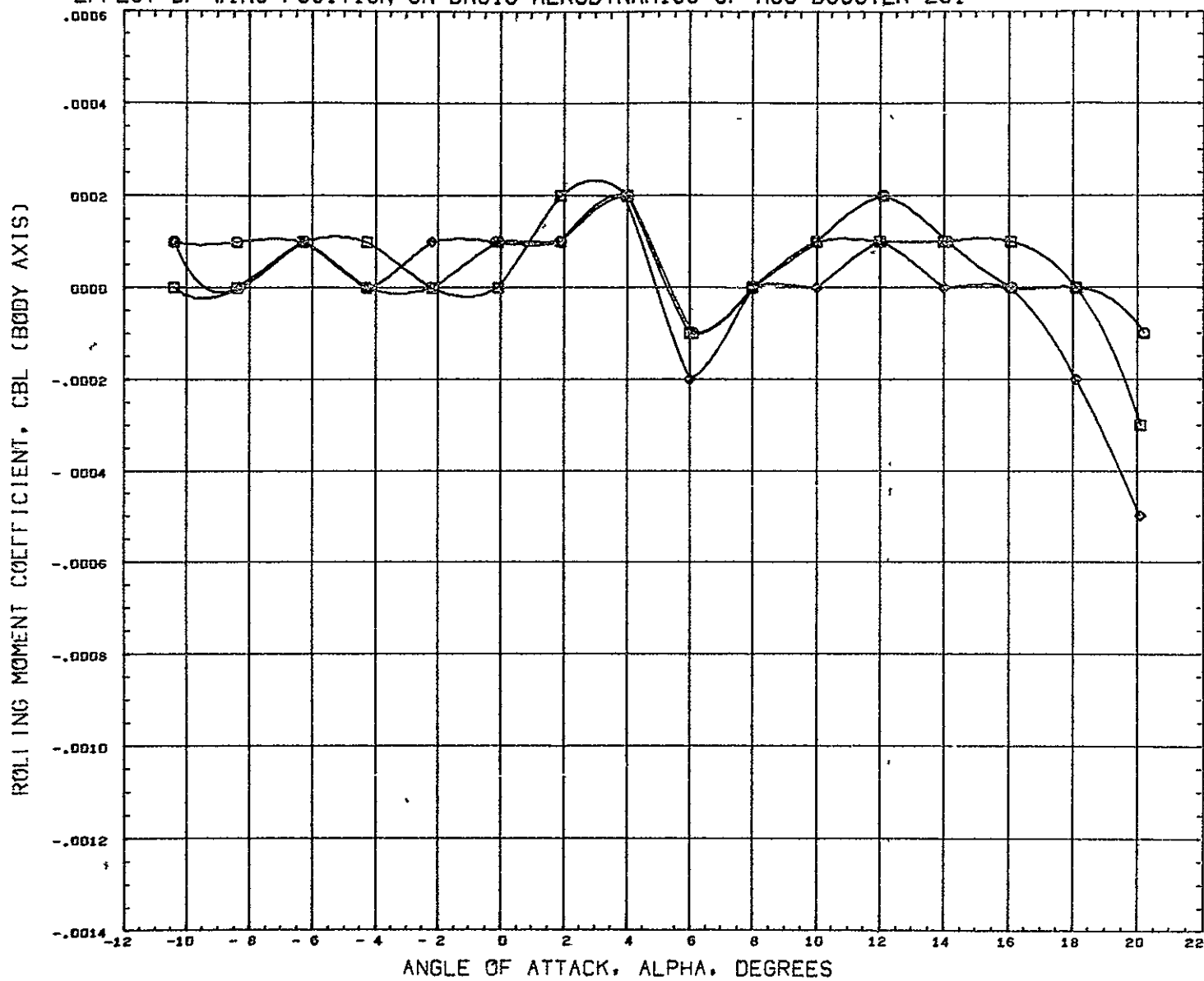


SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	1.000	BETA	0.000
○	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	2.000	BETA	0.000
□	0.670	HACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

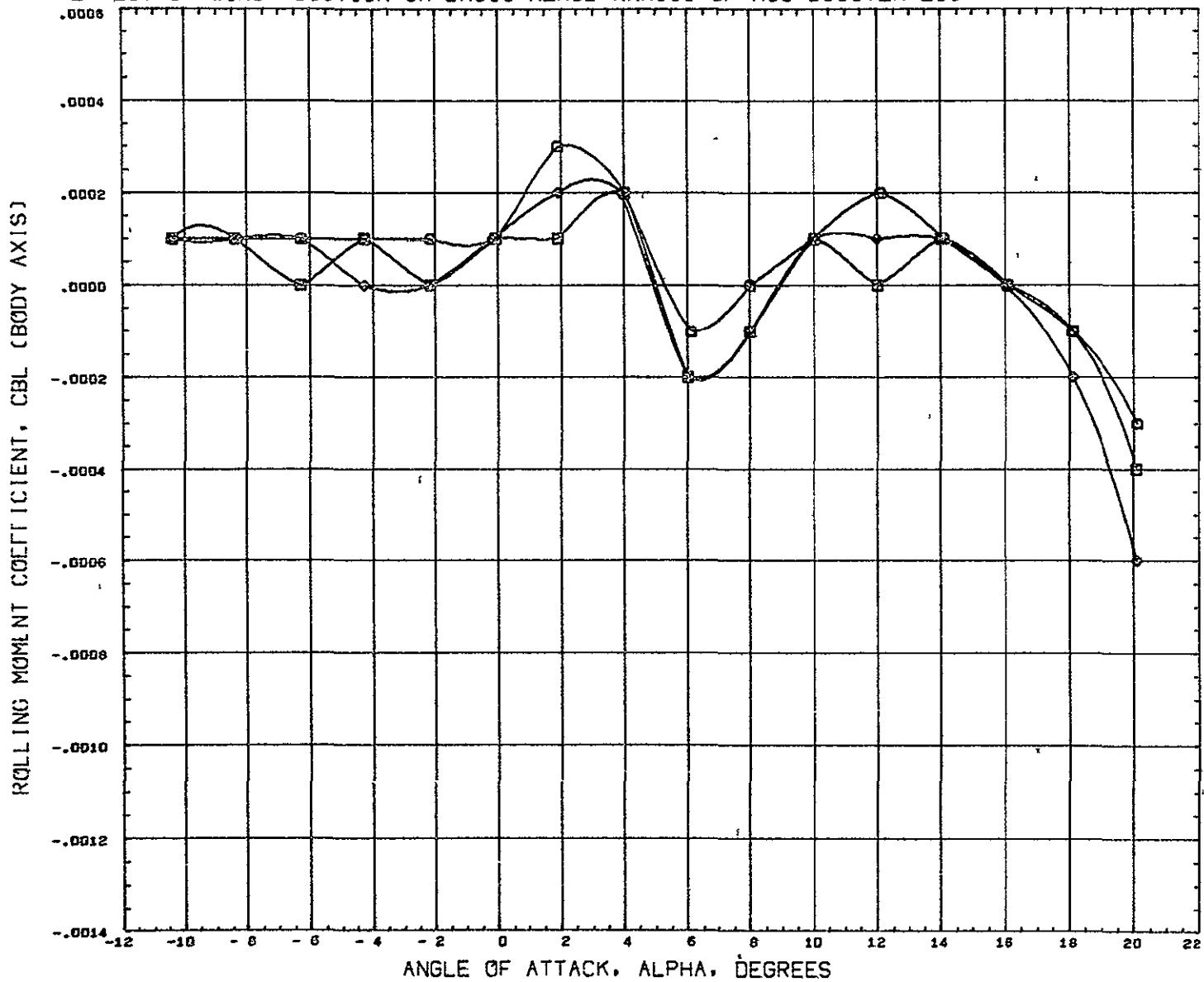
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES		
○	0.540	IT	3.000	BETA 0.000
□	0.670	MACH	0.250	CBRW 0.975
◇	0.700	ELEVTR	0.000	

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

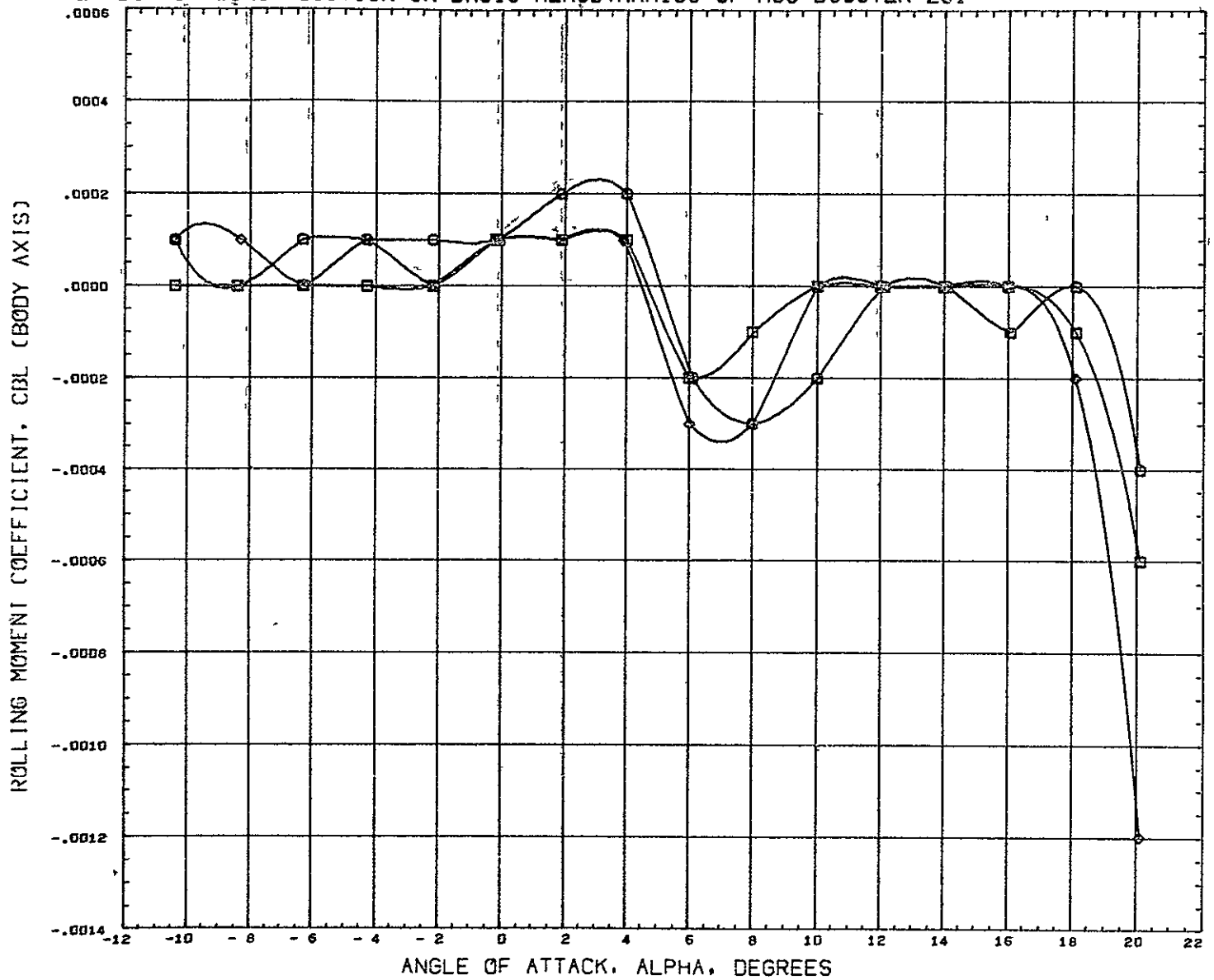
DATA HIST CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	
□	0.640	17	+ 000	SETA 0 000
○	0.670	MACH	0.250	CBRH 0 973
◇	0.700	ELEVTR	0.000	

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2.4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	PCT
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

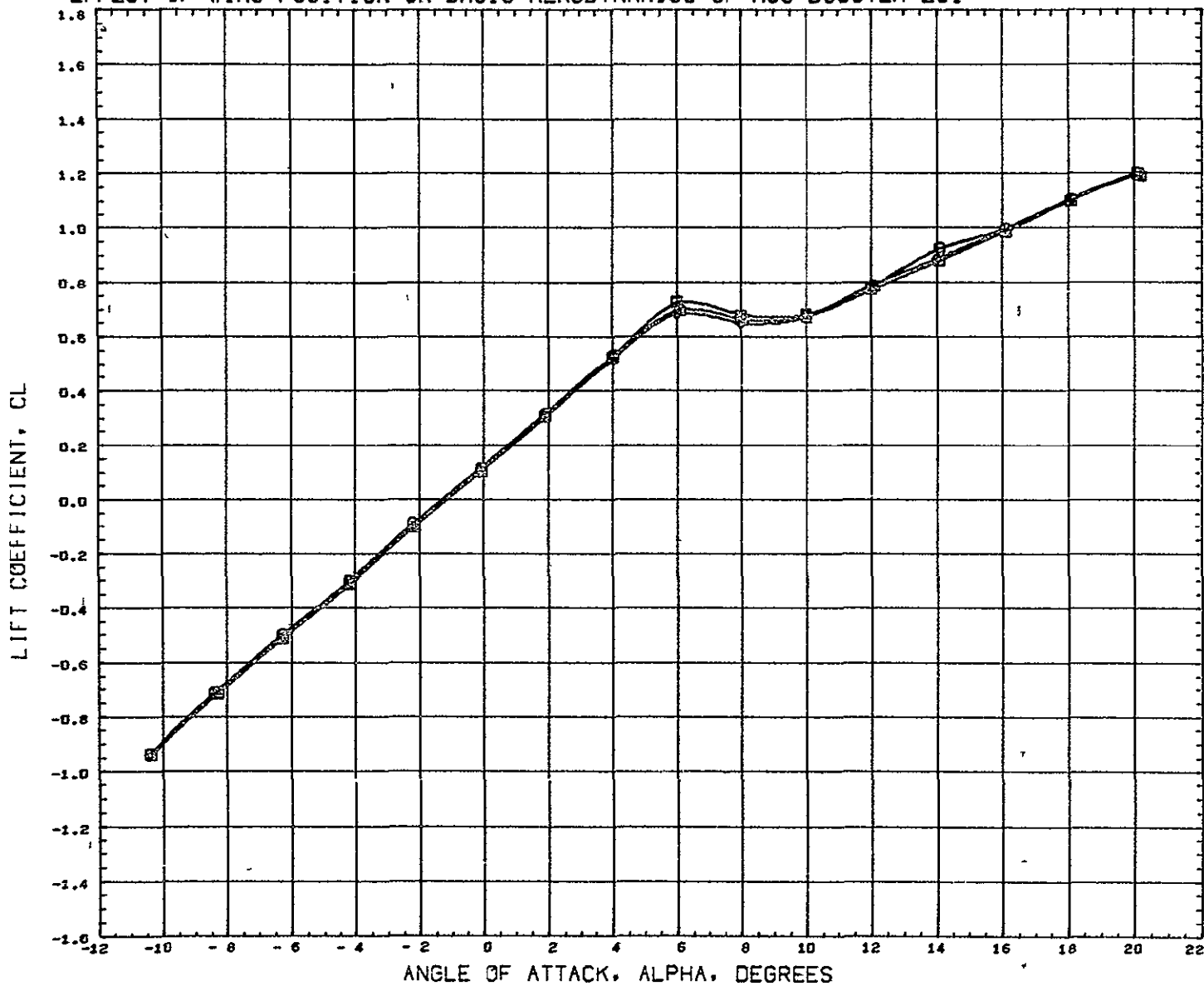
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251

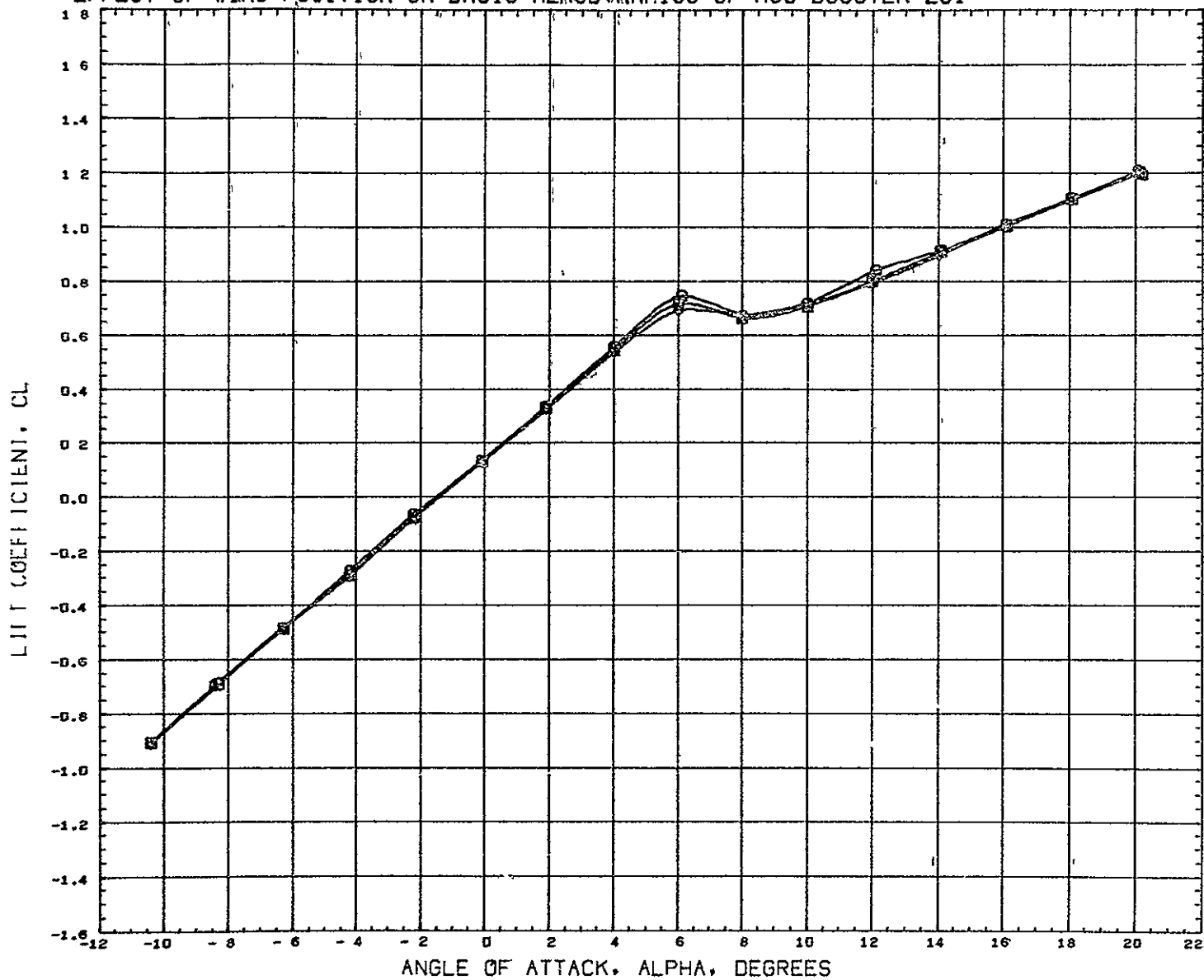


SYMBOL	CBRW	IT	PARAMETRIC VALUES		
□	0.645	IT	- 4.800	DETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
□	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E

EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



YMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 3.000	BETA	0.000
◇	0.670	MACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

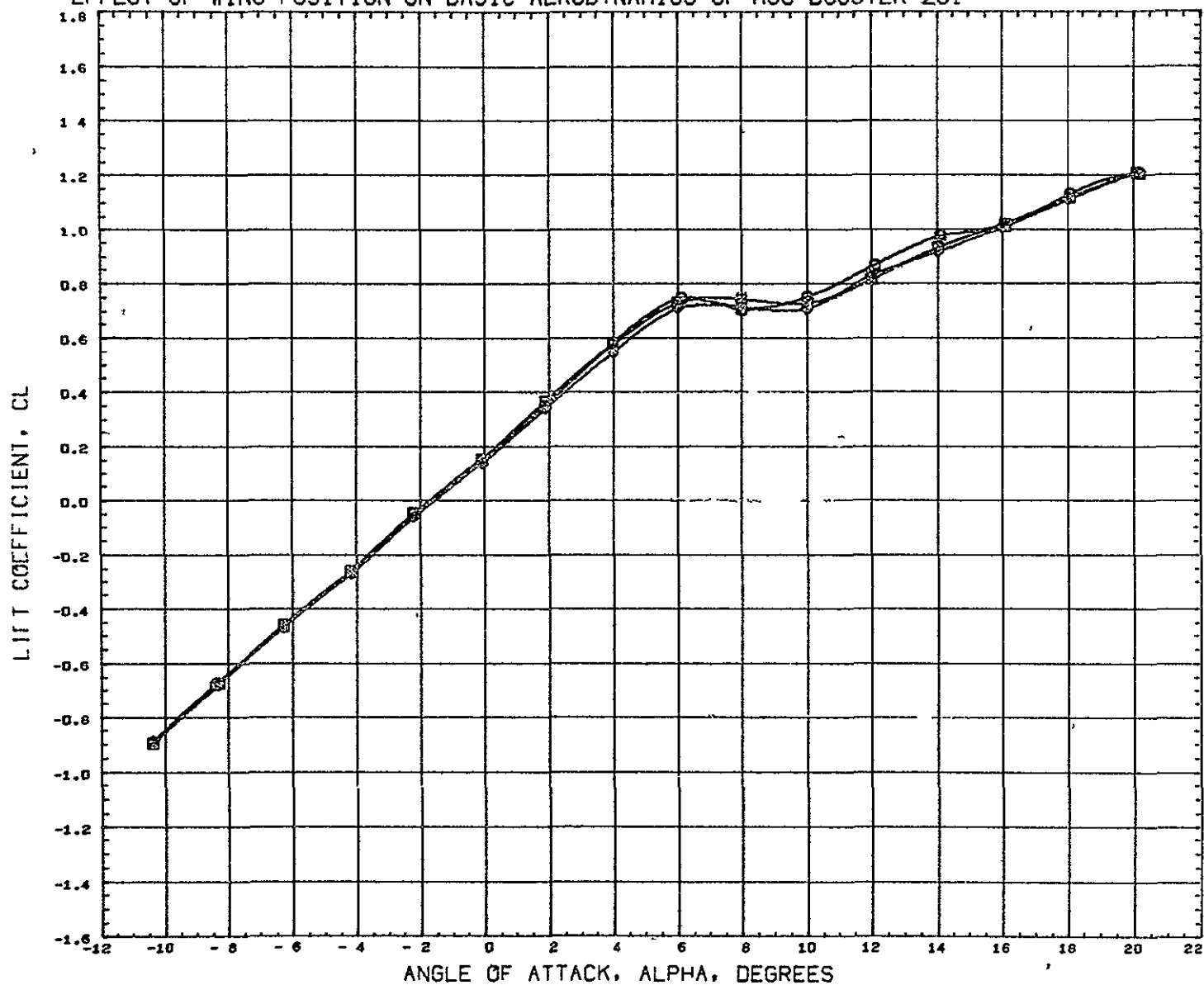
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'SC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

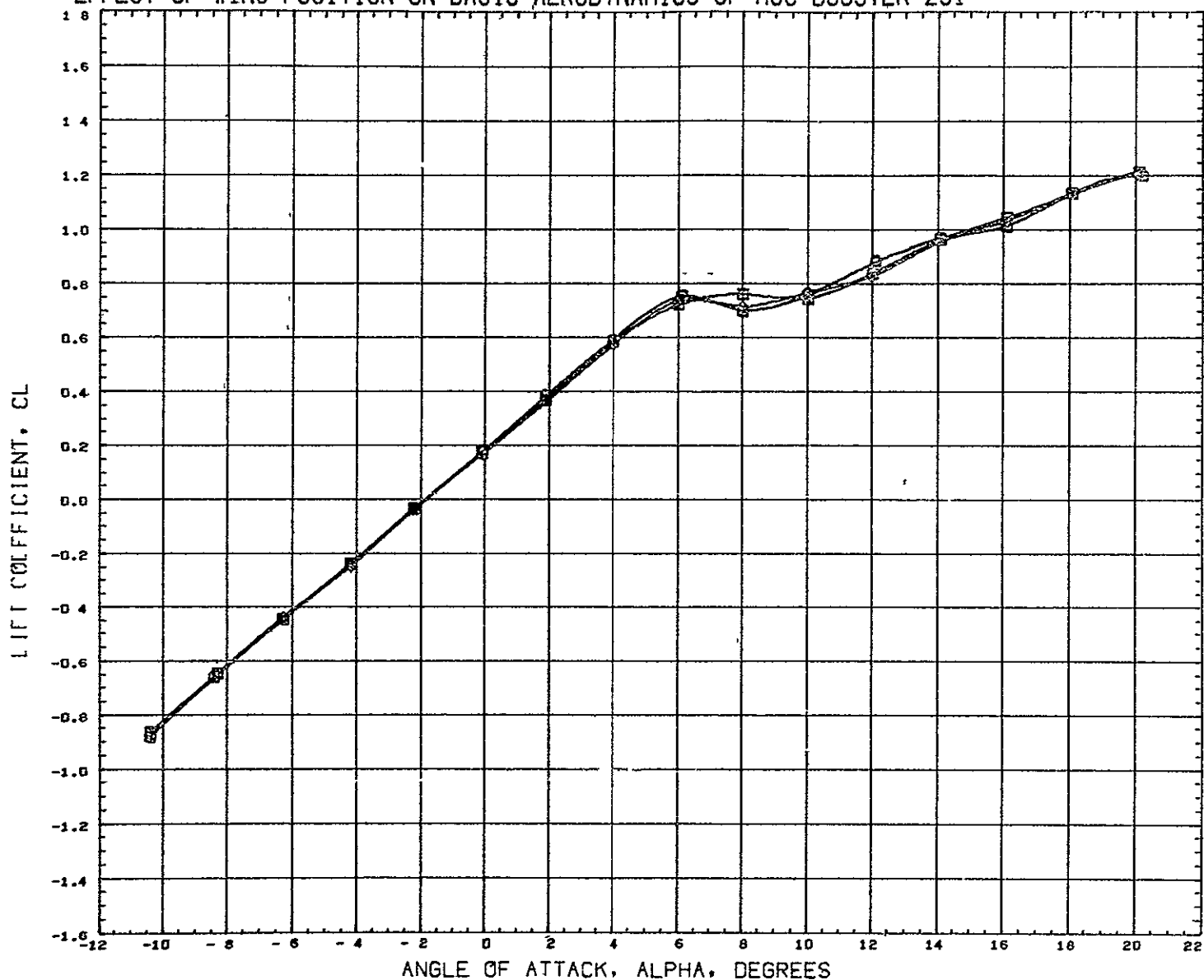
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
○	0.640	11 - A 000 BETA 0 000
□	0.670	MACH 0.250 CBRH 0.973
◇	0.700	ELEVTR 0 000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XHRP	65 0000	PCT LB
YHRP	0 0000	
ZHRP	67 5500	PCT ZB
SCALE	1 3215	PCT

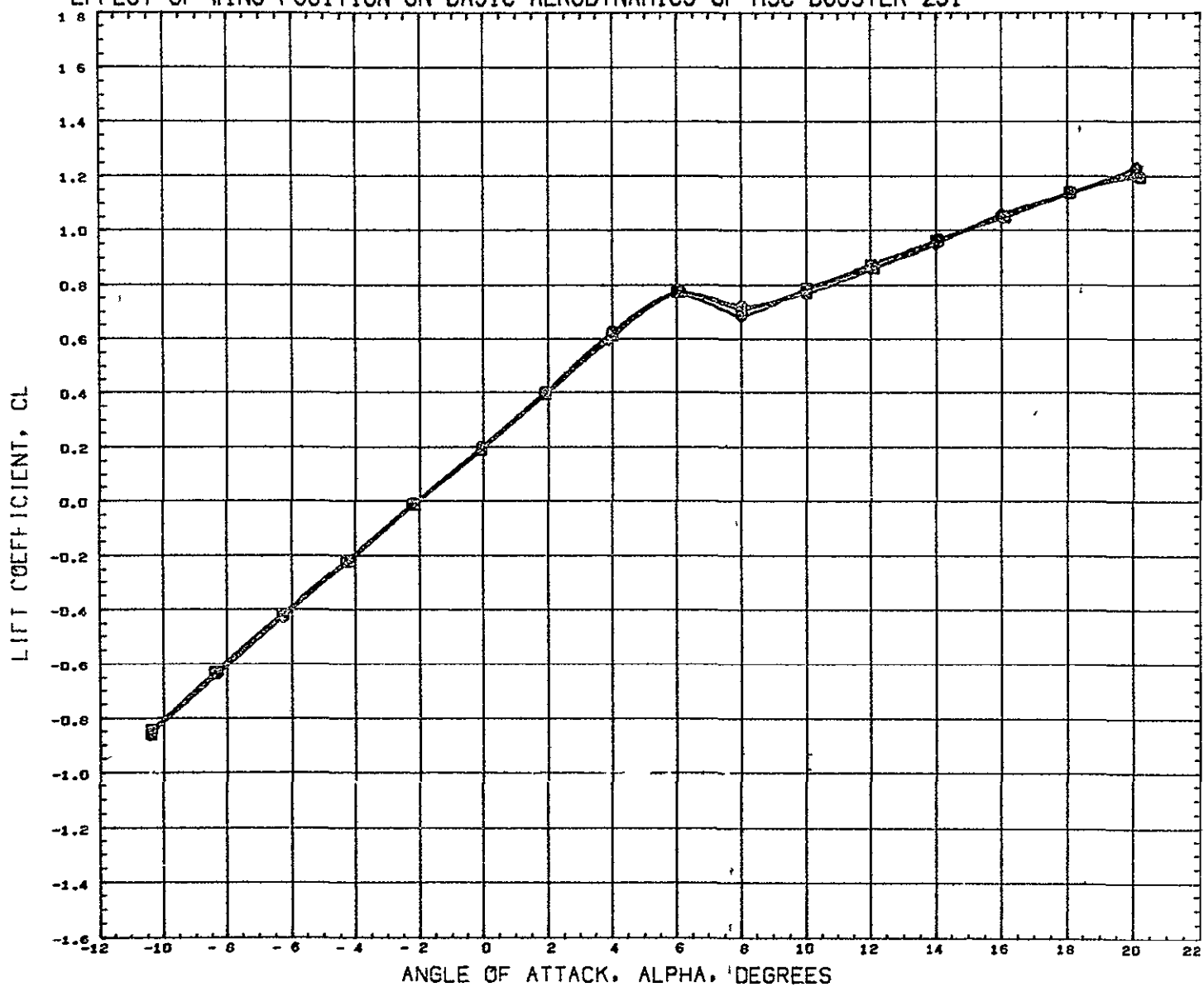
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	0.500	DETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

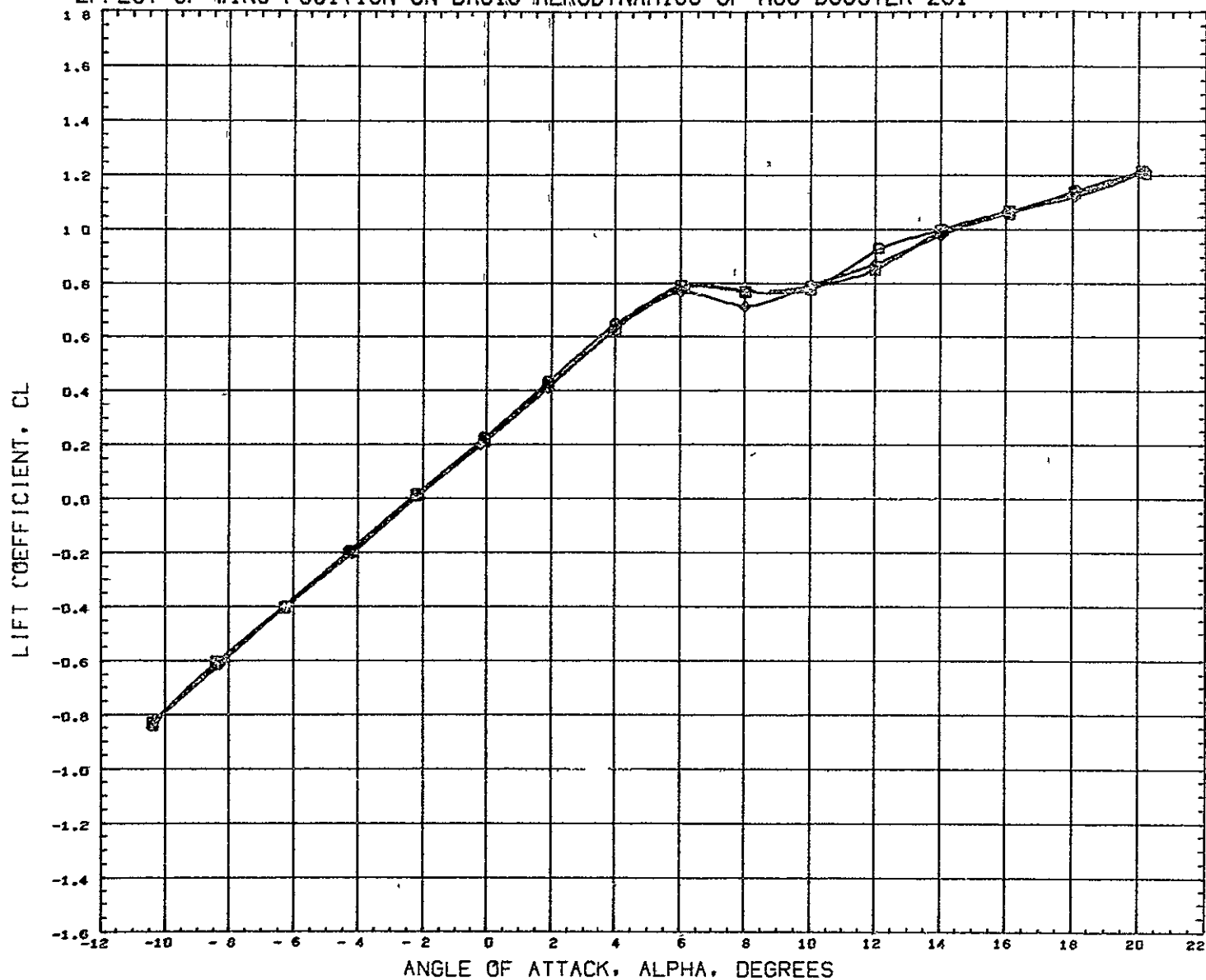
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
○	0.640	1T 1.000 BETA 0.000
□	0.670	MACH 0.250 CBRN 0.973
◇	0.700	ELEVTR 0.000

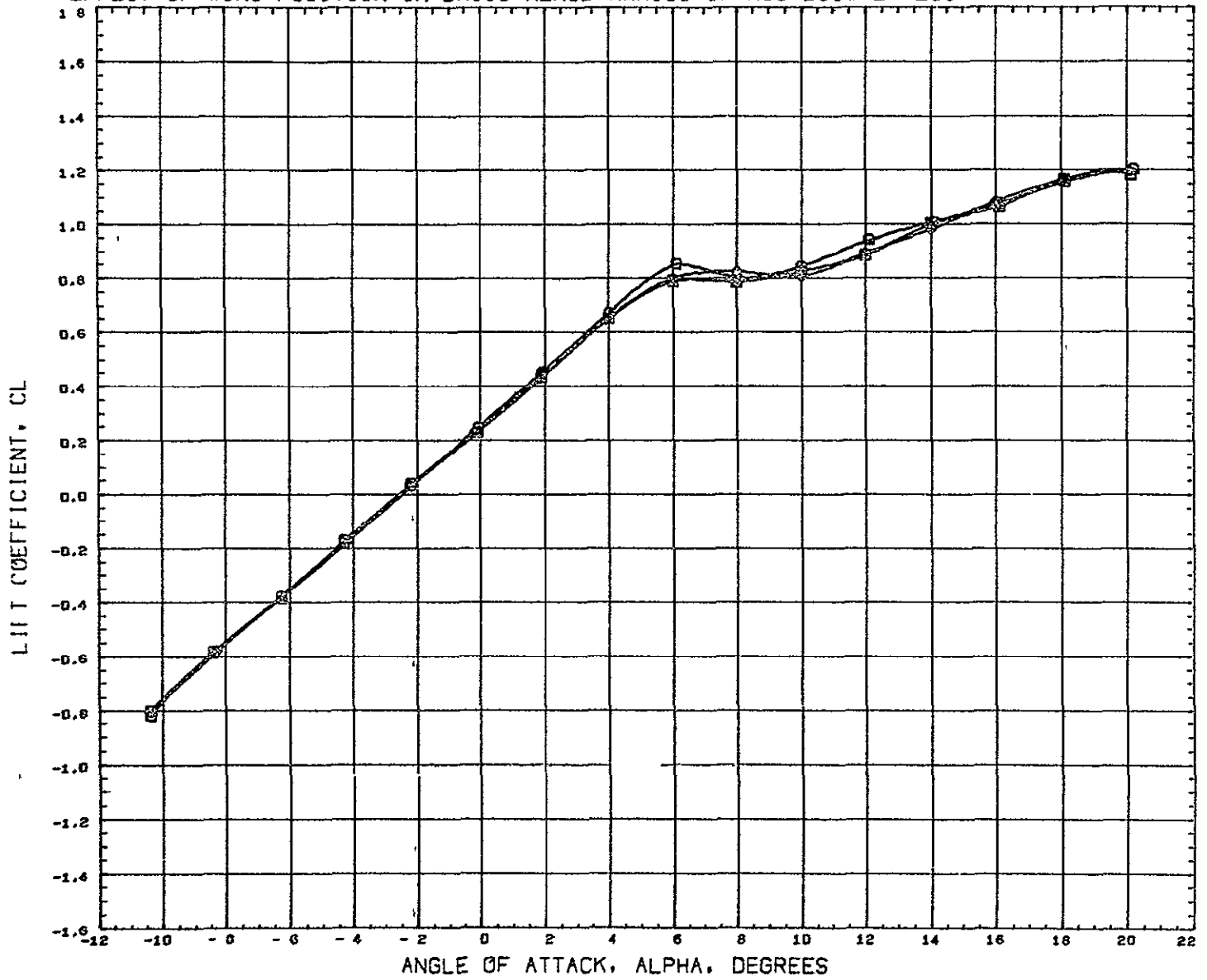
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES		
○	0.640	IT	2.000	DETA 0.900
□	0.670	MACH	0.250	CBRH 0.973
◇	0.700	ELEVTR	0.000	

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2.4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1.3215	PCT

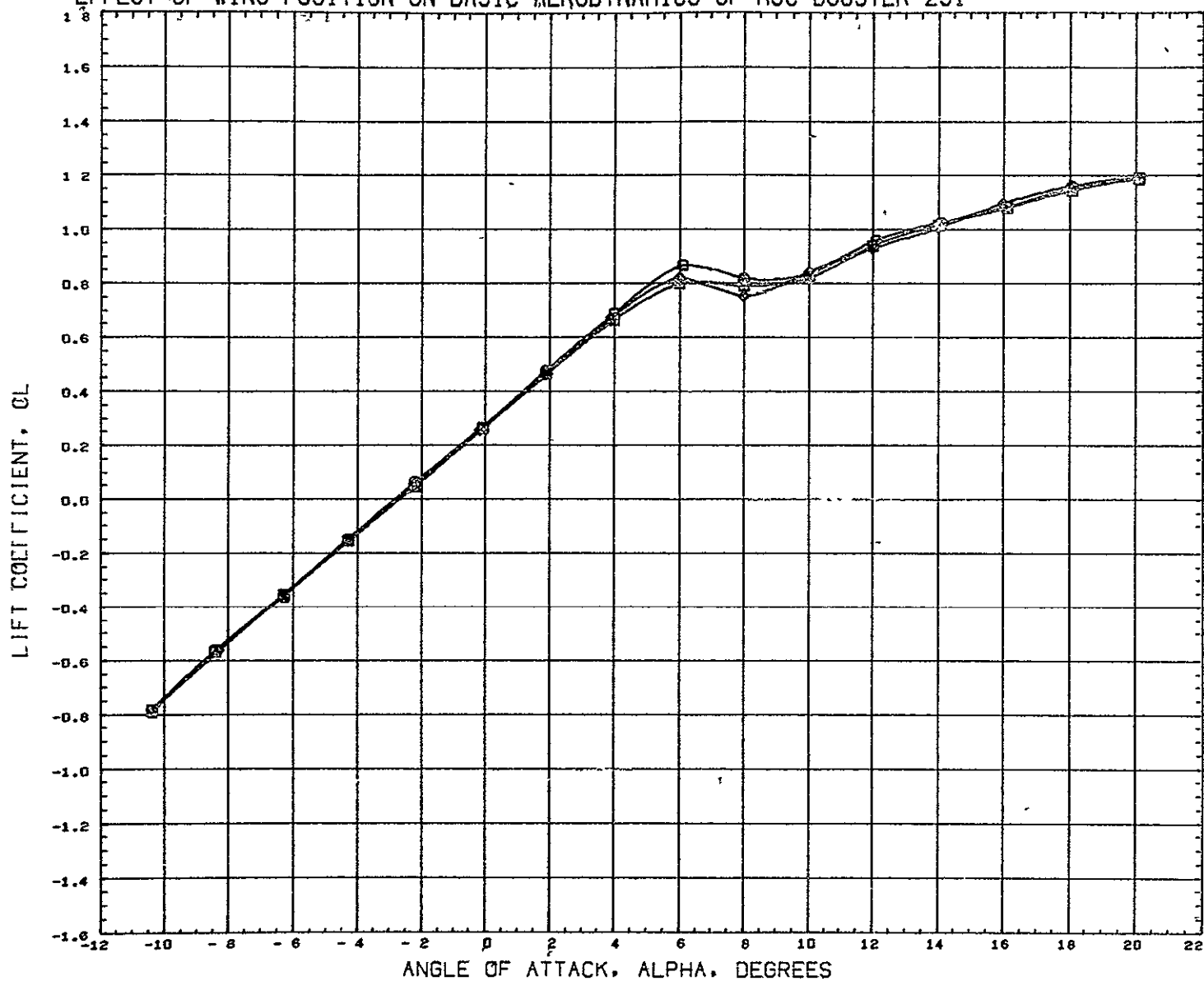
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES		
	0.640	LT	3 500	BETA 0.000
	0.670	MACH	0 250	CBRH 0.973
	0.700	ELEVTR	0 000	

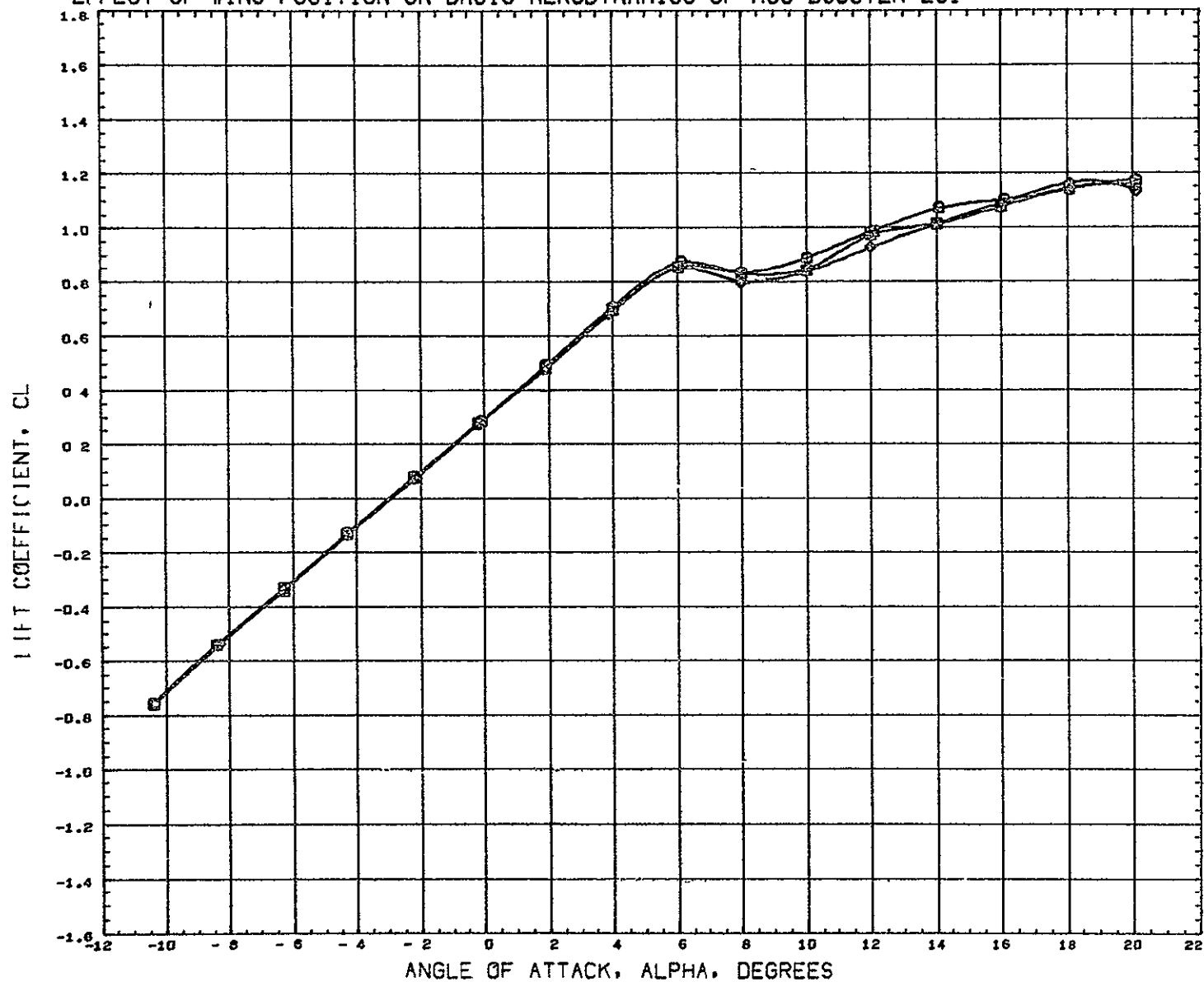
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E

*SC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	0 000
○	0.640	IT	4 000	BETA	0 000
□	0.670	MACH	0.250	CBRW	0 973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XNRP	65 0000	PCT LB
YNRP	0 0000	
ZNRP	67 5500	PCT ZB
SCALE	1 3215	PCT

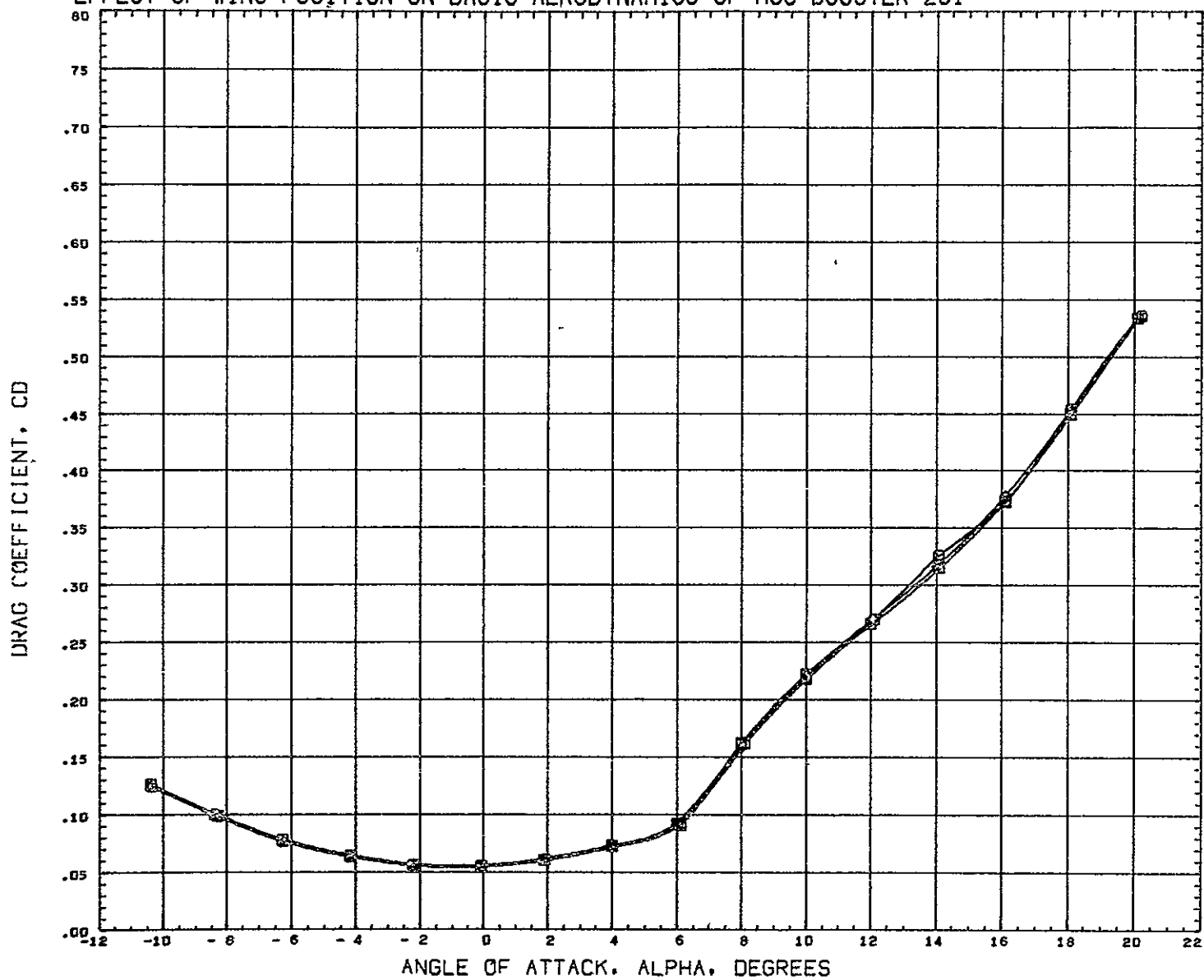
DATA HIST. CODE *E

*SC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 4.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT 5Q
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

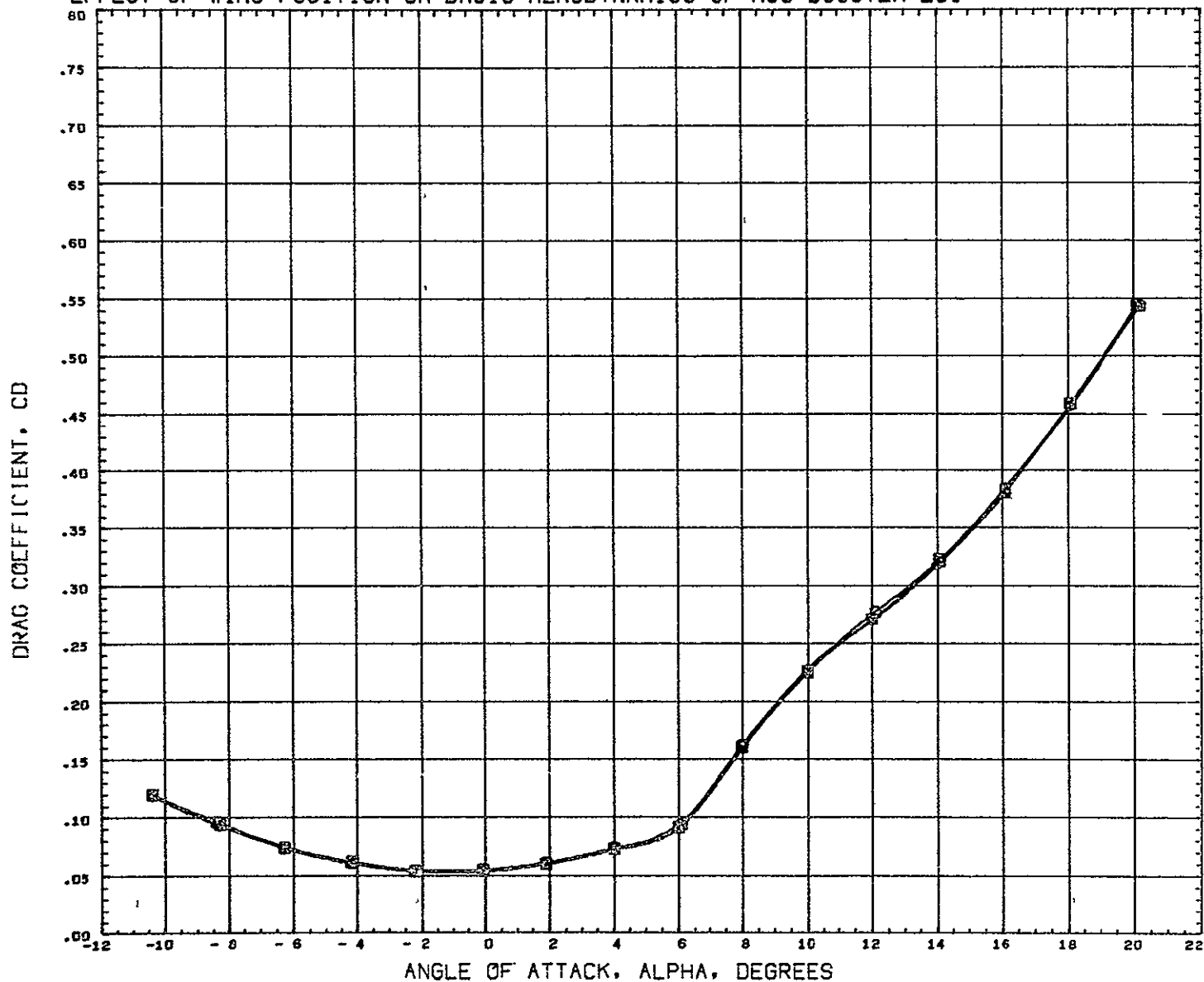
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 3 000	BETA	0 000
□	0.670	MACH	0.250	CBRH	0 973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
NEFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

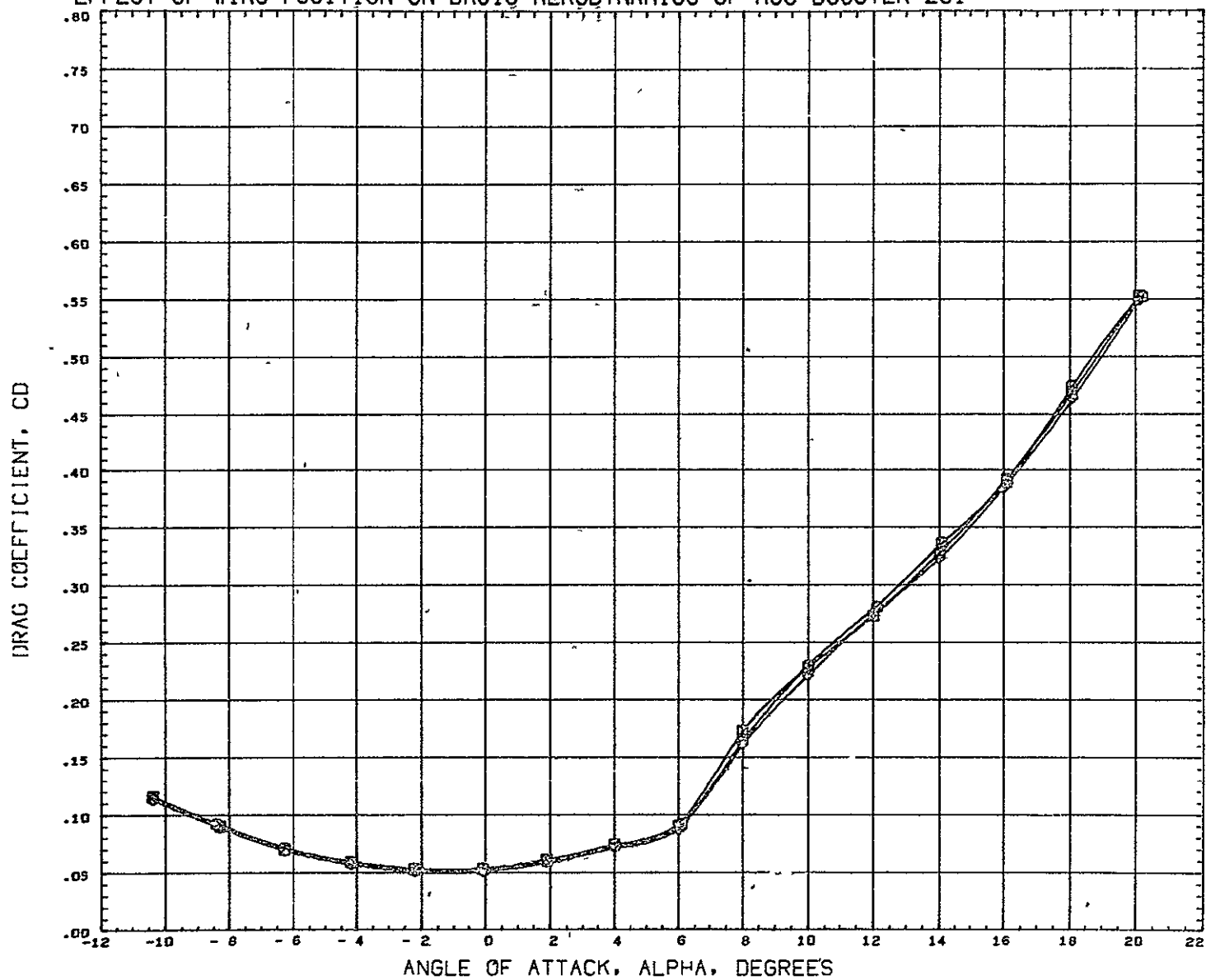
DATA HIST. CODE #E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CDRW	PARAMETRIC VALUES			
○	0.6-0	IT	- 2 000	BETA	0 000
□	0.670	MACH	0.250	CBRH	0 973
◇	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XHRP	65 0000	PCT LB
YHRP	0 0000	
ZHRP	67 5500	PCT ZB
SCALE	1 3215	PCT

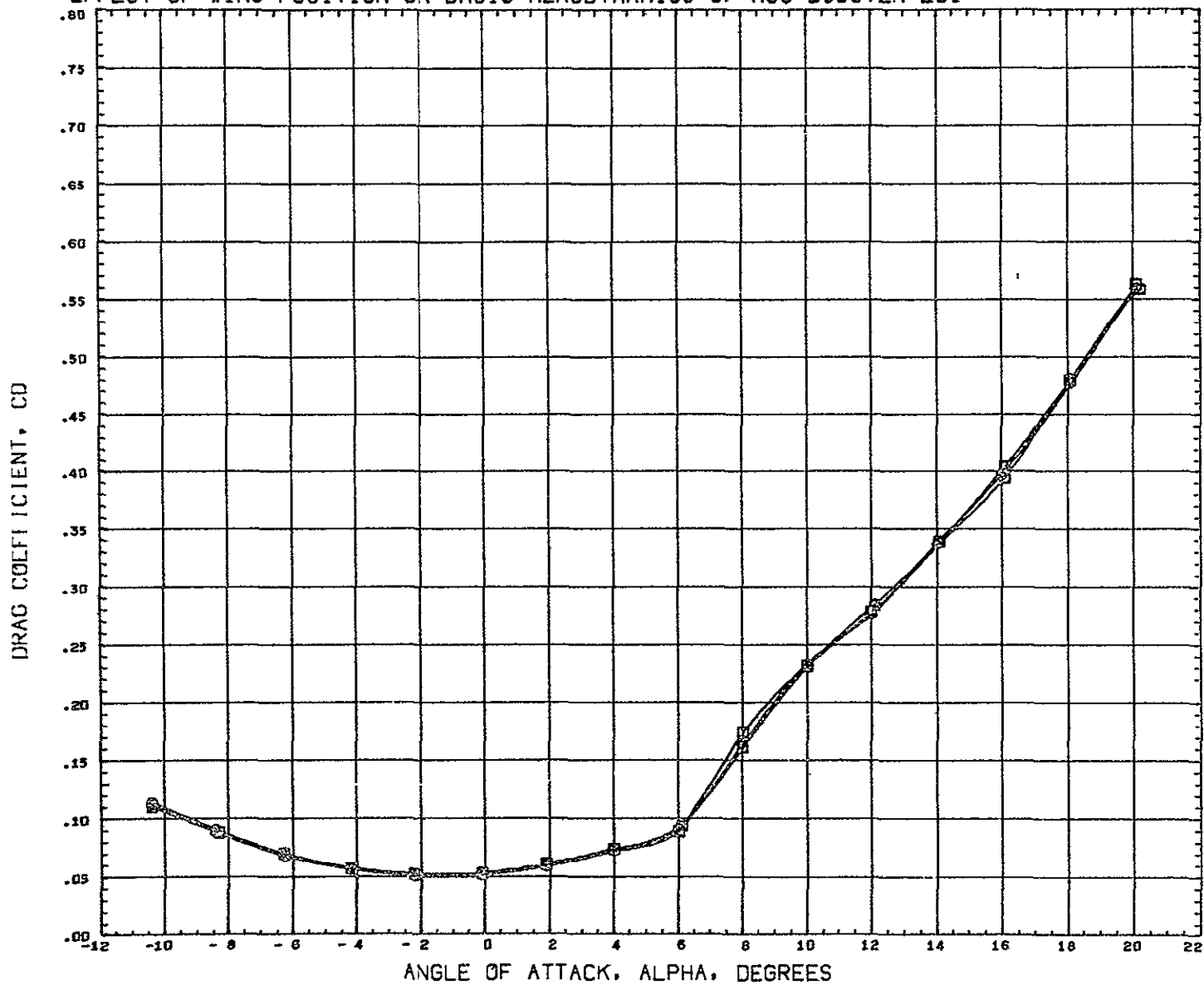
DATA HIST CODE #E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	0.000
□	0.640	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0.3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E

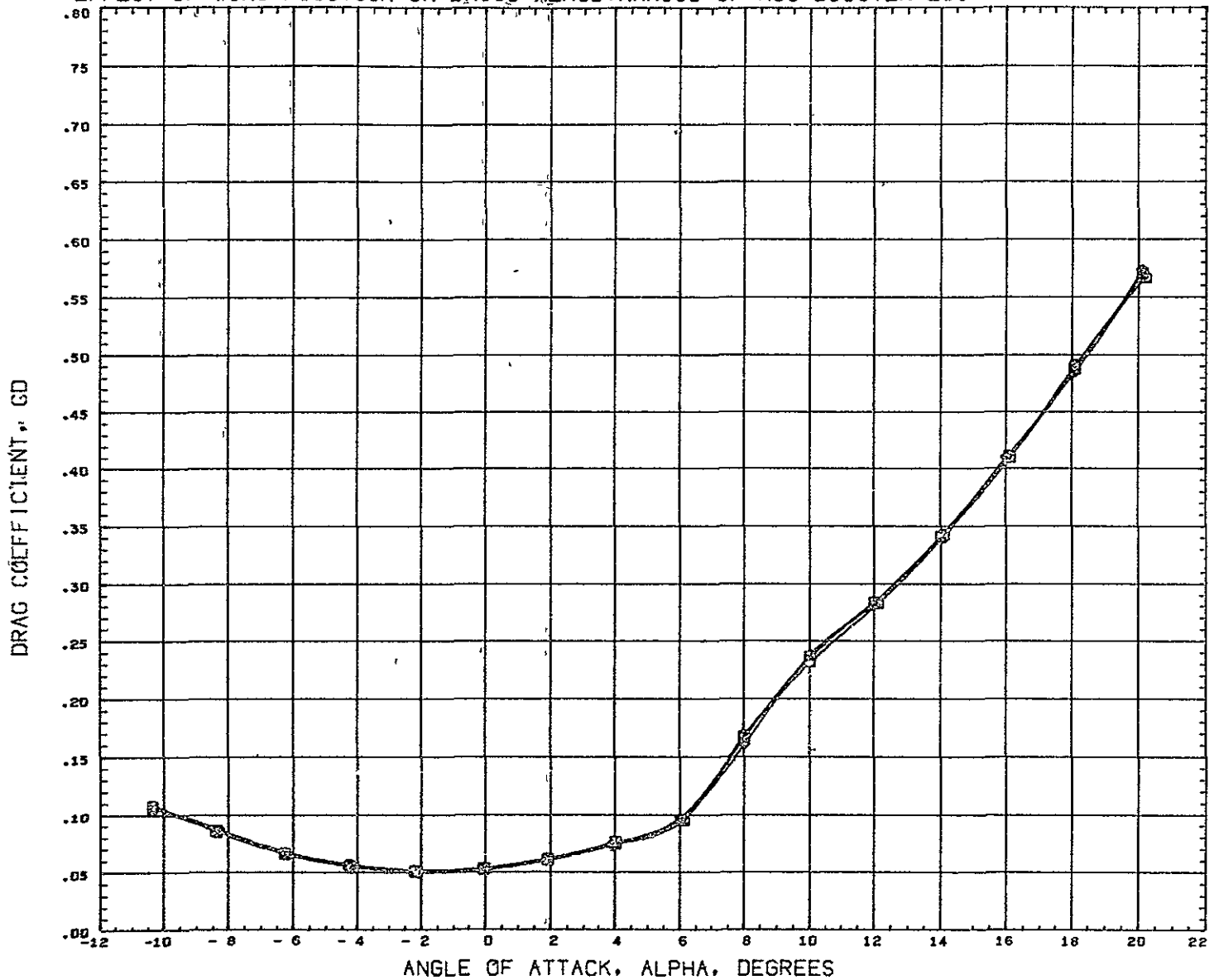
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		BETA	D 000
	0.640		0 000		0 000	
	0.670	MACH	0 250	CBRH	0 973	
	0.700	ELEVTR	0.000			

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	FCT LB
YMRP	0 0000	
ZMRP	67 5500	FCT ZB
SCALE	1 3215	FCT

DATA HIST CODE #E

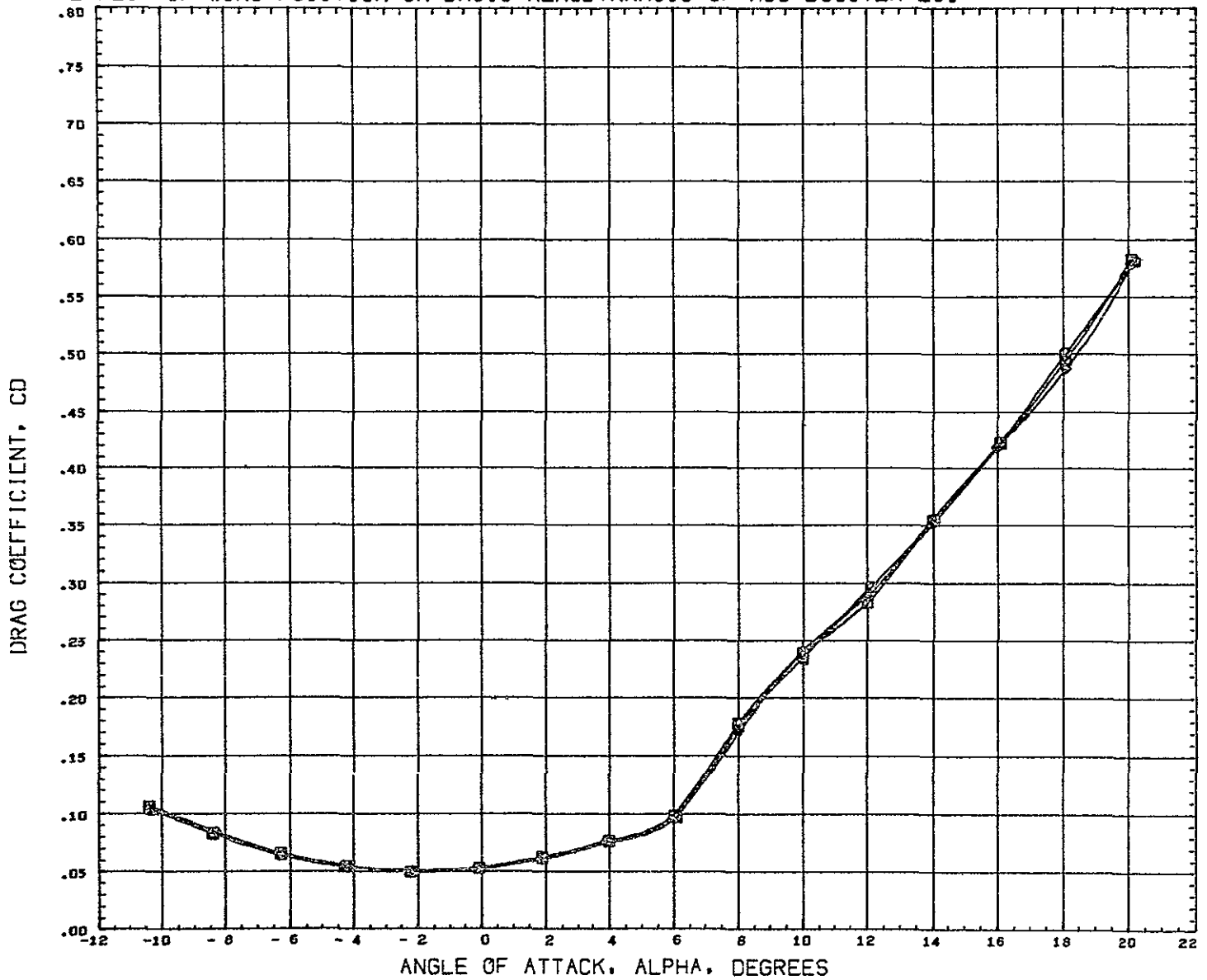
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRH	PARAMETRIC VALUES
○	0 640 IT	1.000 BETA 1 0 000
□	0 670 MACH	0.250 CBRH 1 0.973
◇	0 700 ELEVTR	0 000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

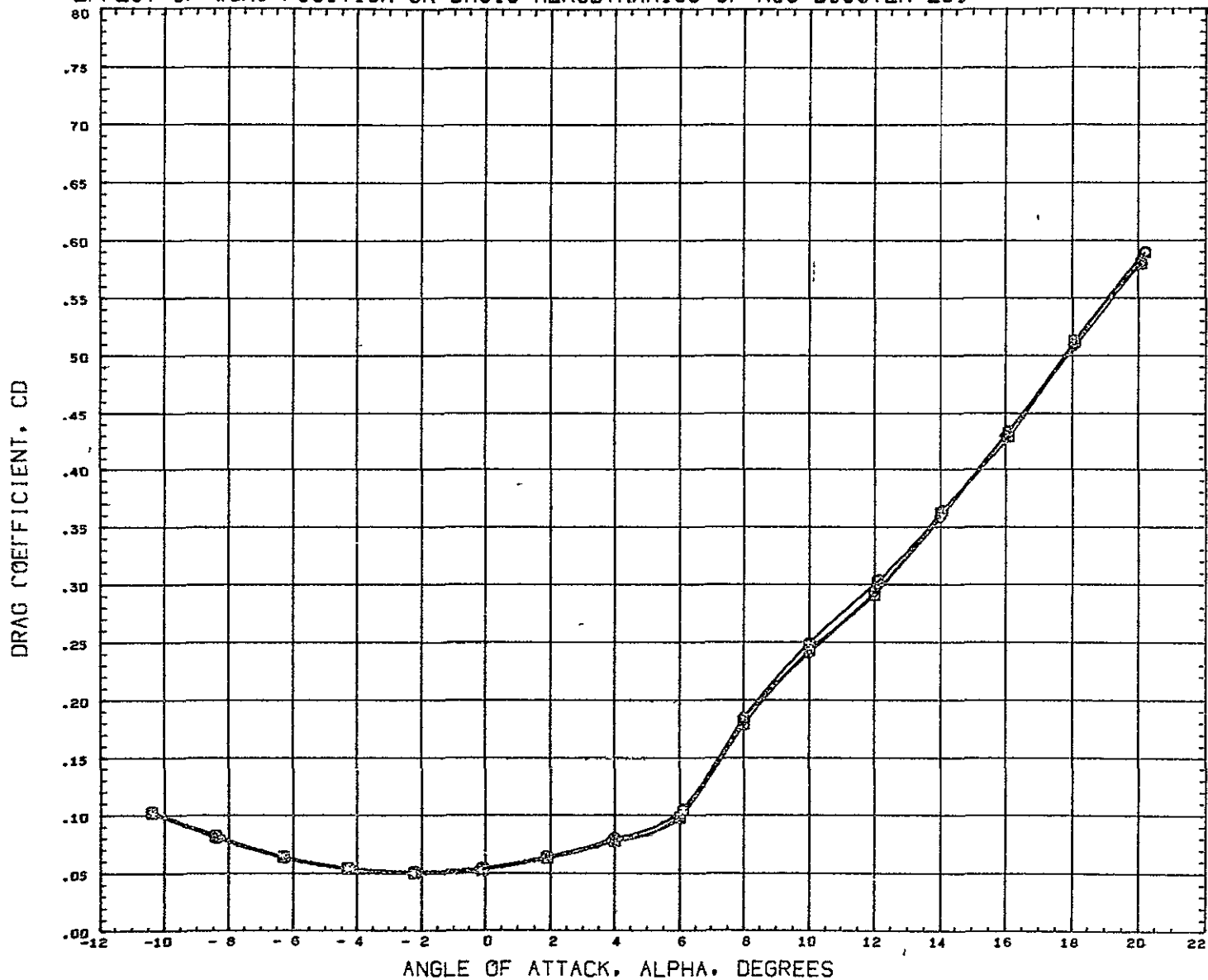
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	2.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E

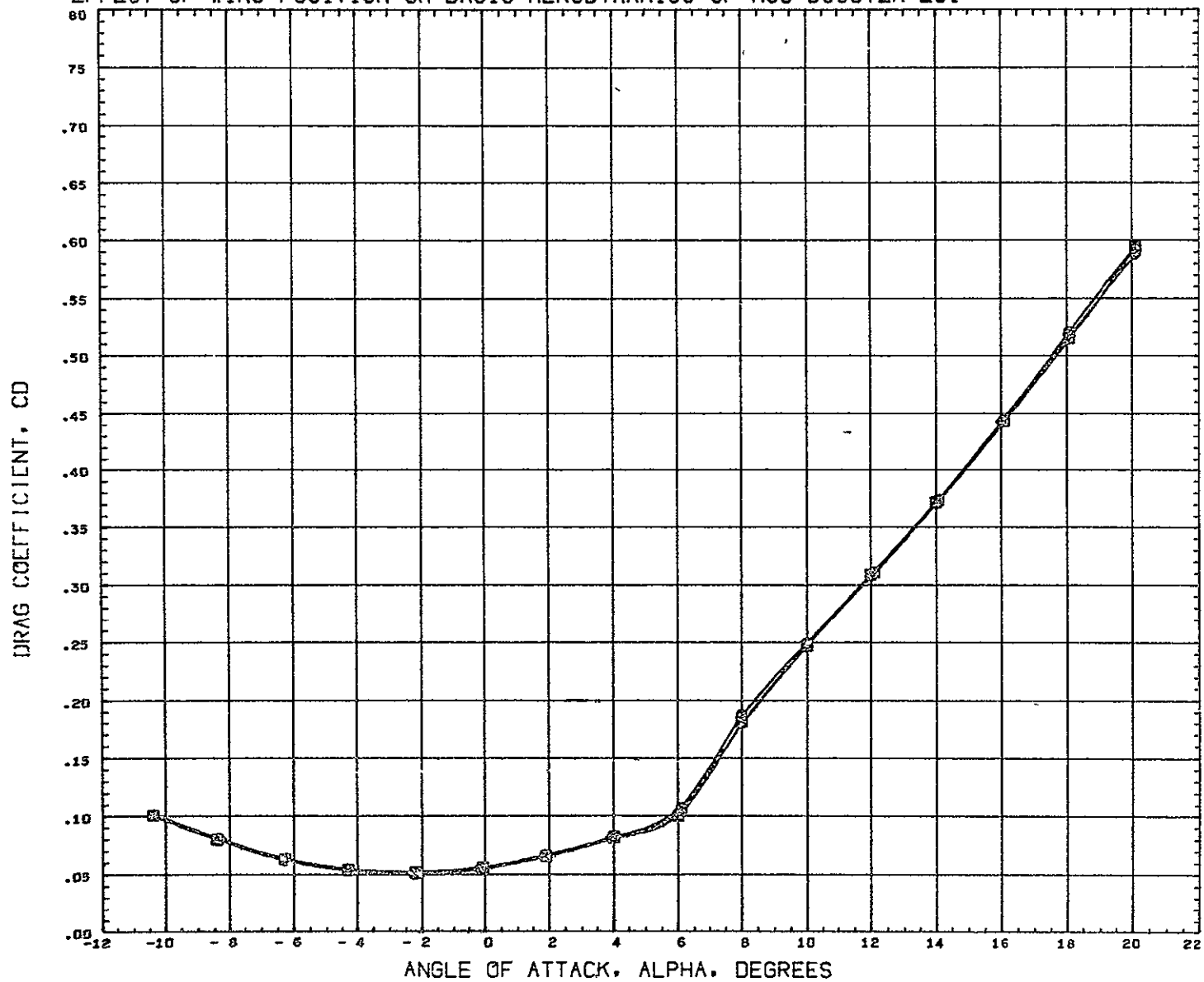
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES		
○	0.640	IT	3 000	BETA 0 000
□	0.670	MACH	0.250	CBRH 0 973
◇	0.700	ELEVTR	0 000	

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT L8
YMRP	0 0000	
ZMRP	67 5500	PCT Z8
SCALE	1 3215	PCT

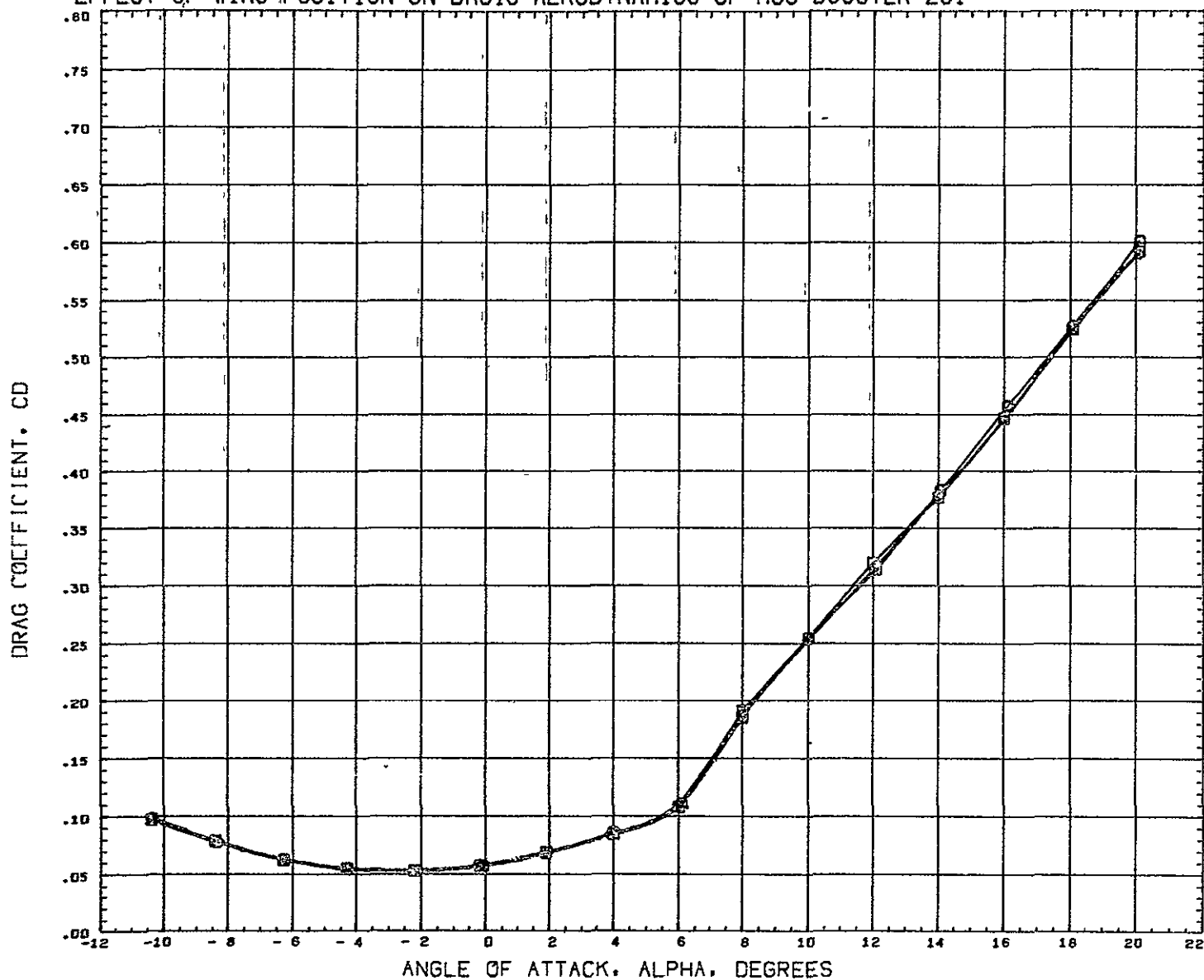
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	
○	0.640	4 000	BETA	0 000
□	0.670	MACH	0.250	CBRH
◇	0.700	ELEVTR	0 000	0 973

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT 28
SCALE	1 3215	PCT

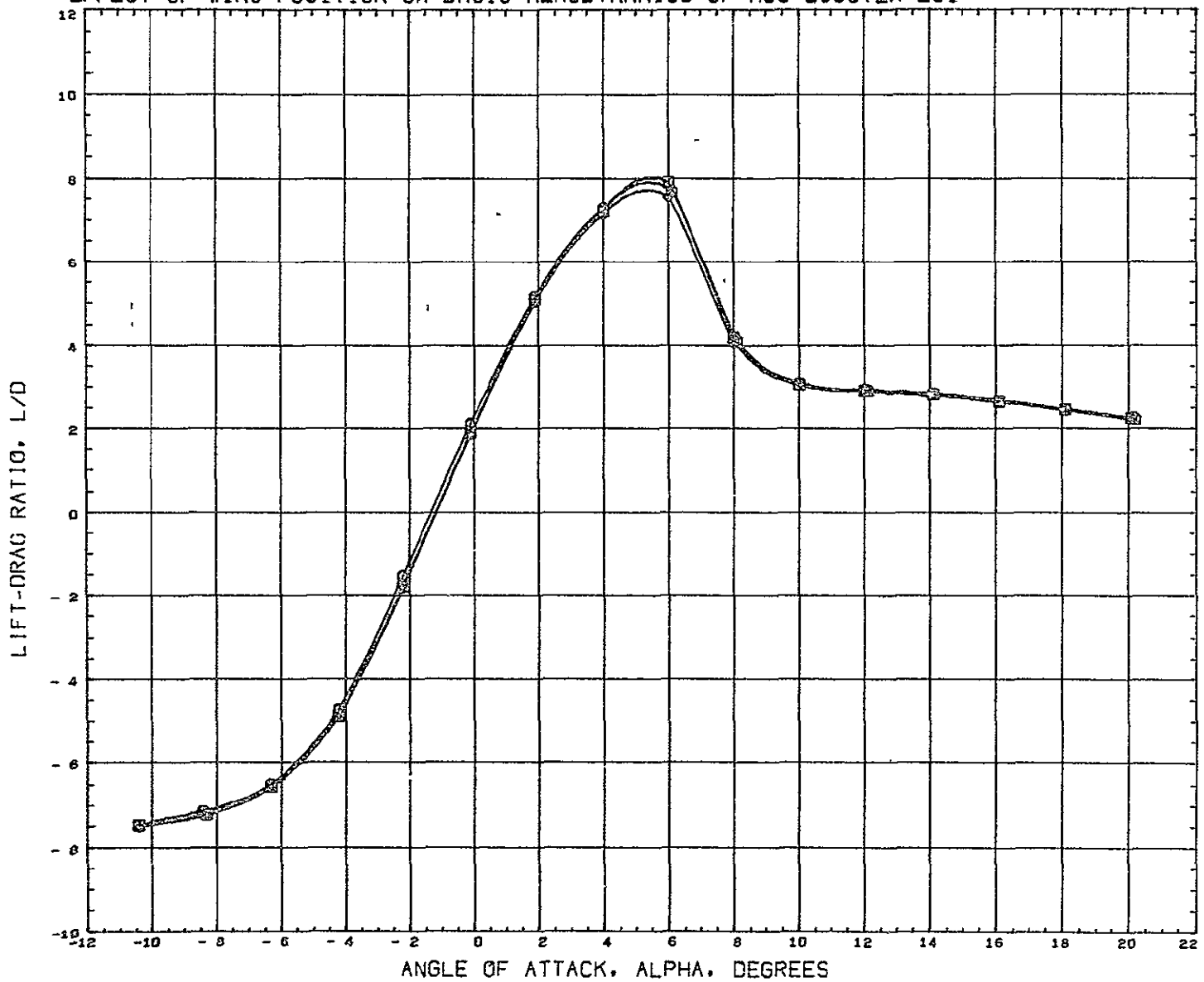
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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	G 640	IT	- 4.000	BETA	0 000
□	0 670	MACH	0.250	CBRH	0 973
◇	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
PEFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

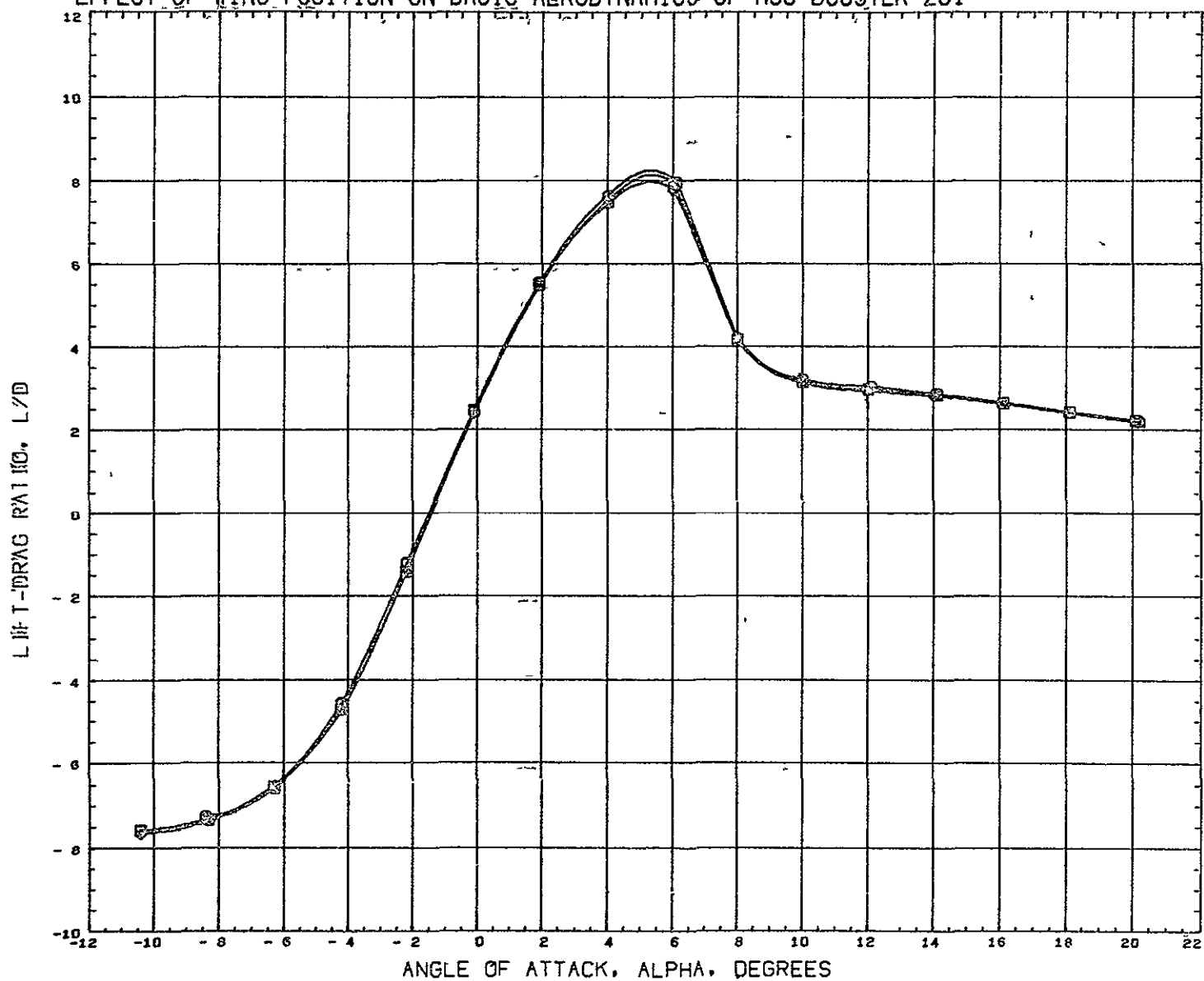
DATA HIST. CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
	0 840	IT	3 000	BETA	0.000
	0 670	MACH	0 250	CBRH	0 973
	0 700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XNRF	65 0000	PCT LB
YNRF	0 0000	
ZNRF	67 5500	PCT 2B
SCALE	1 3215	PCT

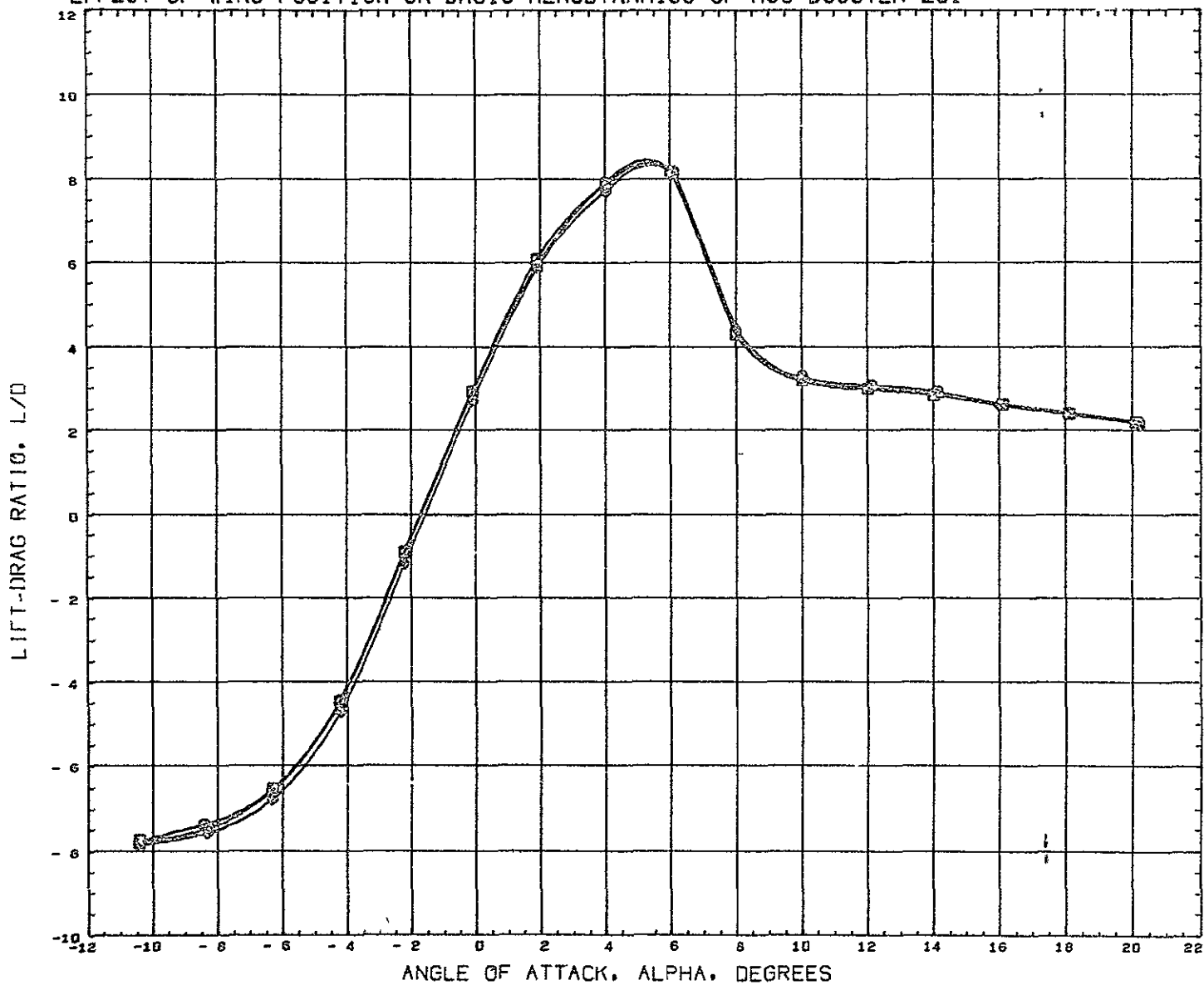
DATA HIST CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	3.640	IT	-2.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

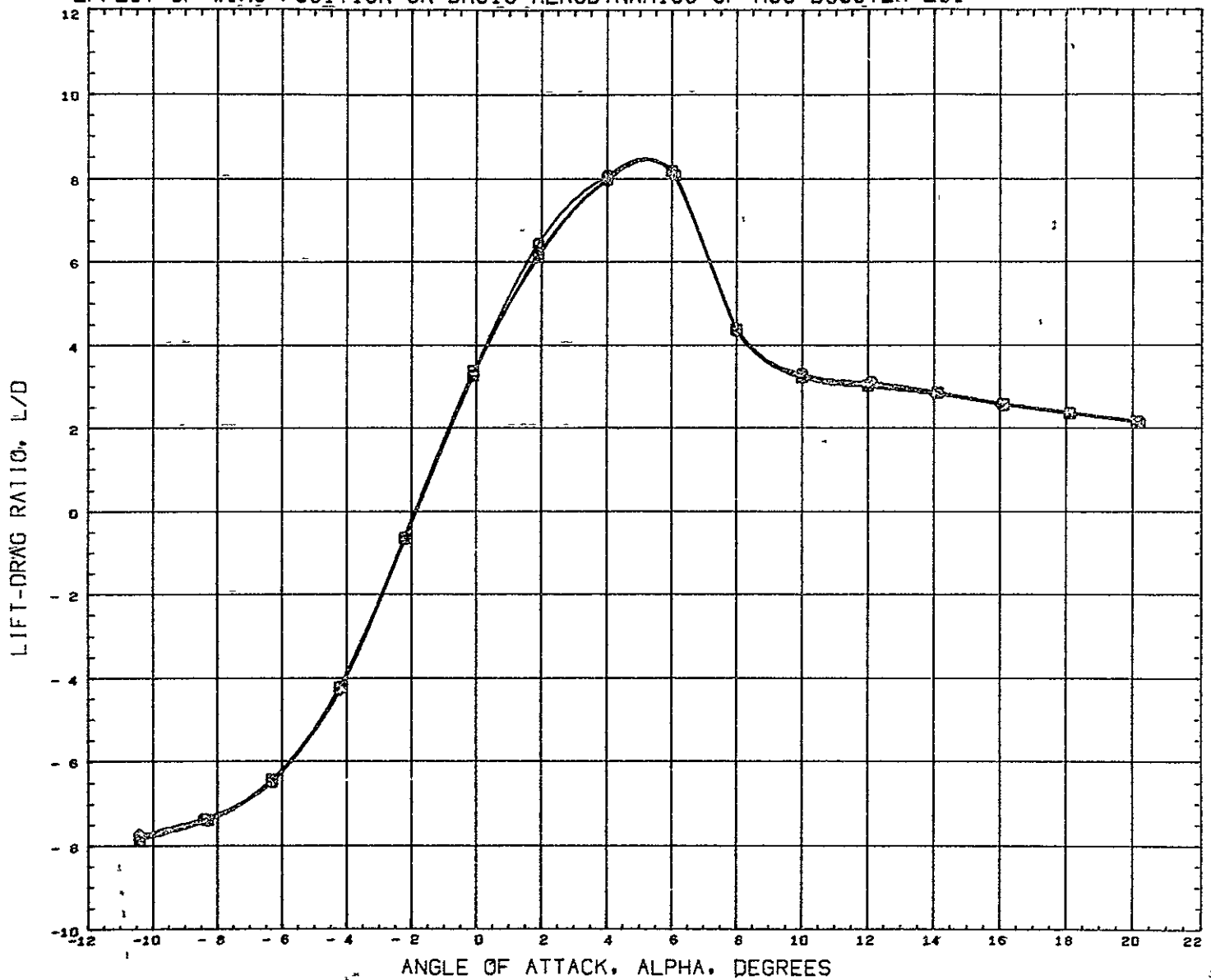
DATA HIST. CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.600	IT	- 1.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0.3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E

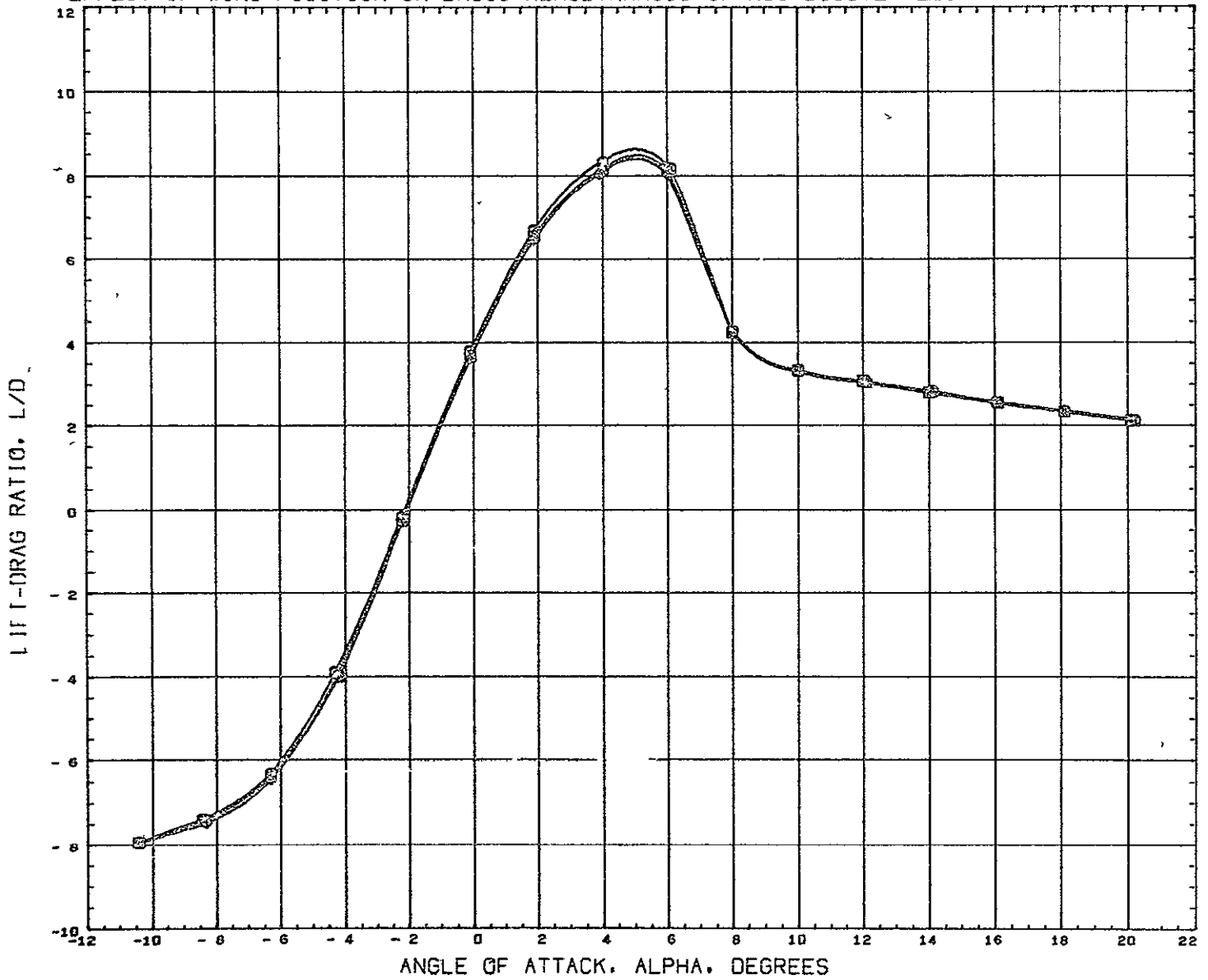
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	0.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	FCT LB
YMRP	0.0000	
ZMRP	67.5500	FCT ZB
SCALE	1.3215	PCT

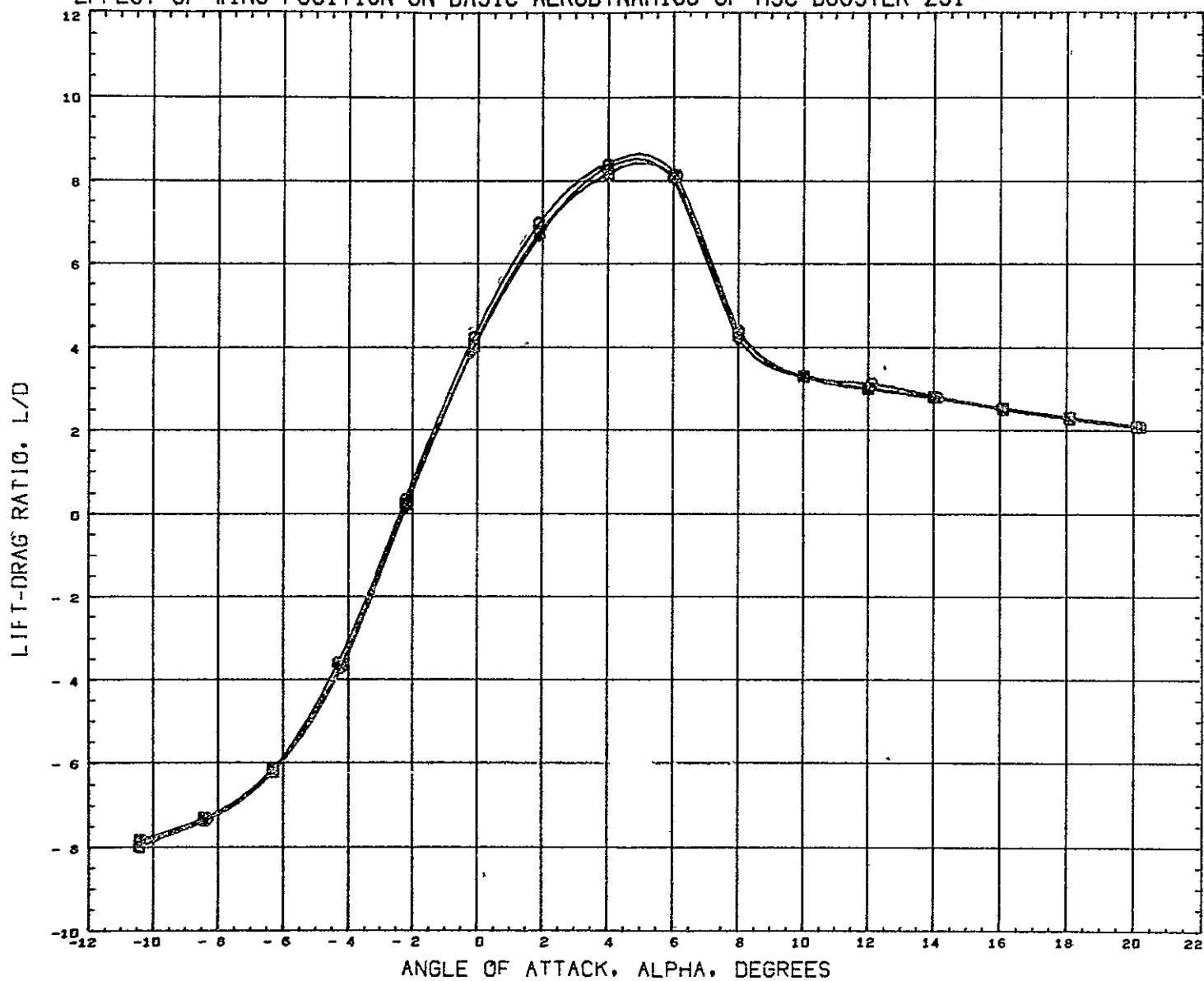
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL:	CBRW	PARAMETRIC VALUES			
□	0 640	IT	1 000	BETA	0 000
■	0 670	MACH	0 250	CBRH	0 973
○	0 700	ELEVTR	0 000		

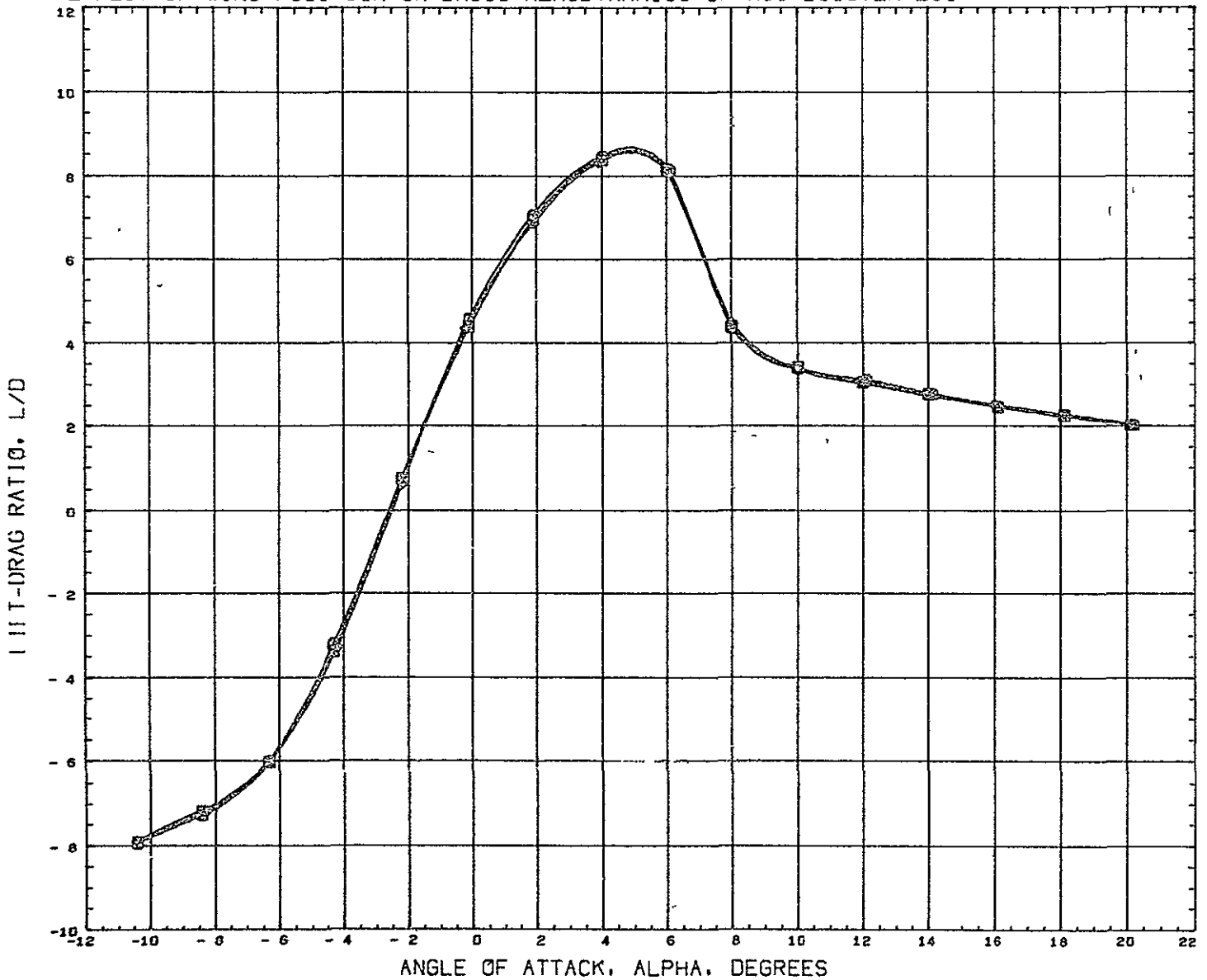
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XHRF	65 0000	PCT LB
YHRF	0 0000	
ZHRF	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW		PARAMETRIC VALUES		
□	0 640	IT	2.000	BETA	0 000
□	0 670	MACH	0 250	CBRH	0 973
◇	0 700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

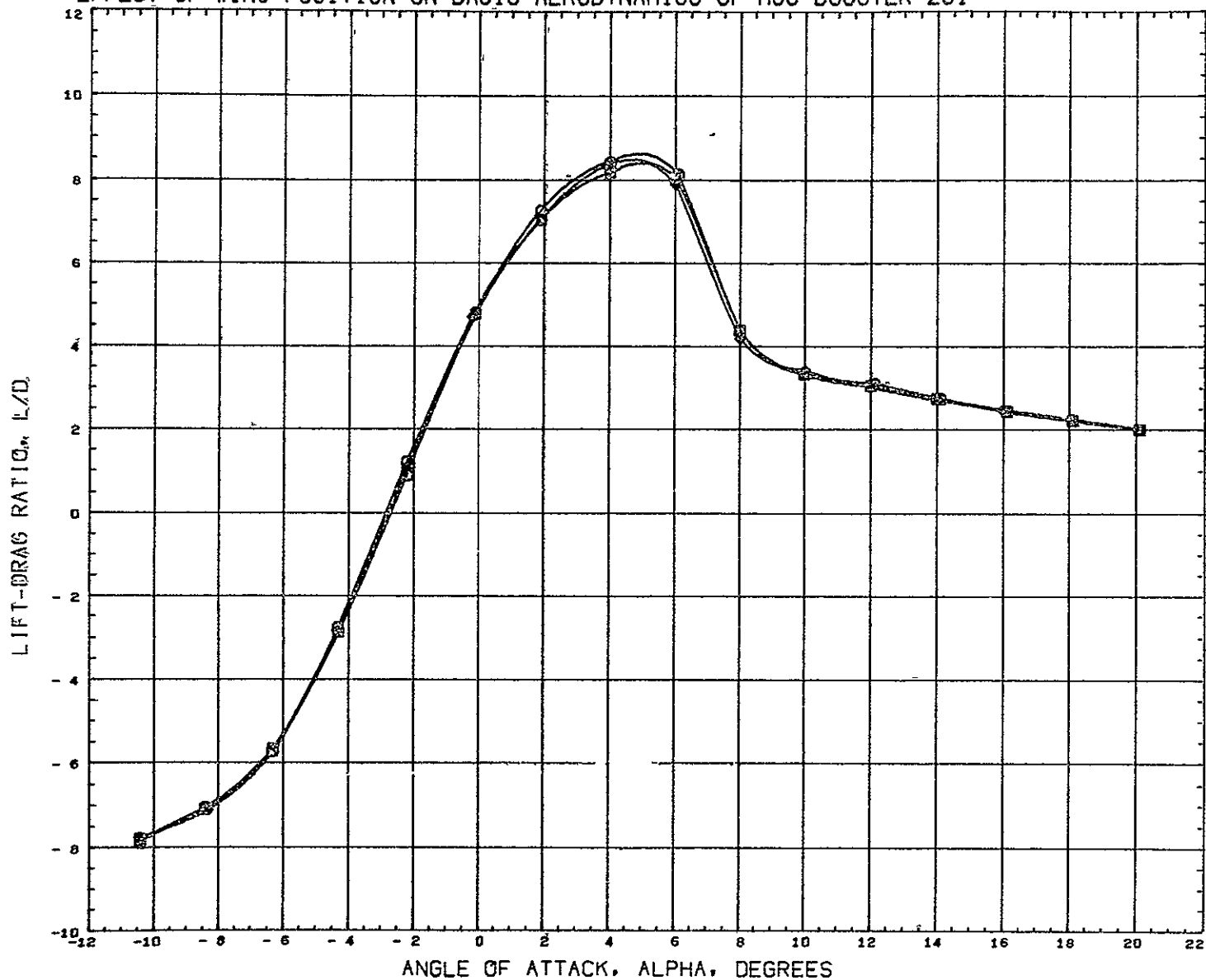
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*SC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL:	CBRW	PARAMETRIC VALUES			
□	0.640	IT	3 000	BETA	0 000
□	0.670	MACH	0 250	CBRH	0 973
□	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT 5Q
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

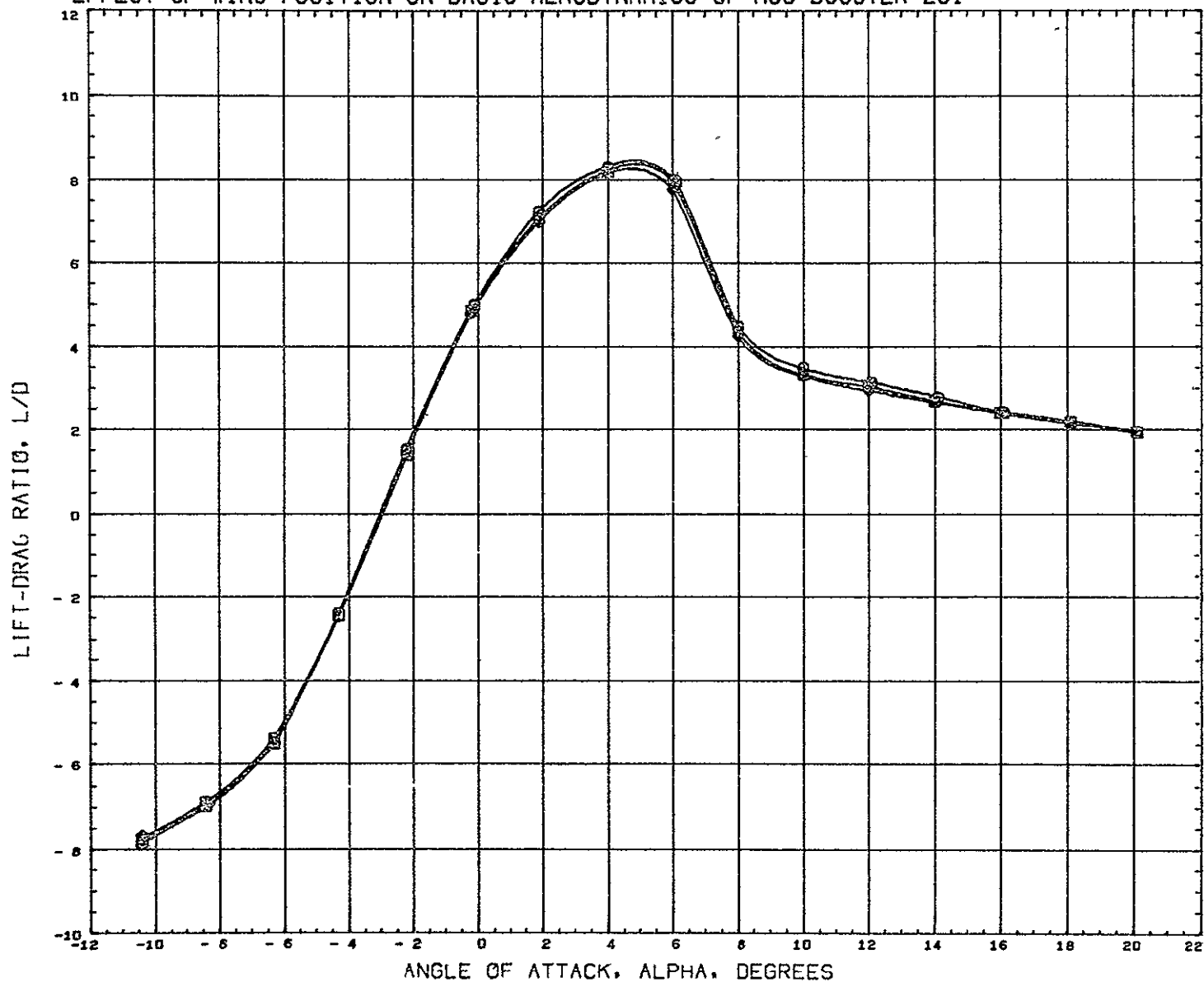
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON BASIC AERODYNAMICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.643	1"	4.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.373
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT 28.
SCALE	1.3215	PCT

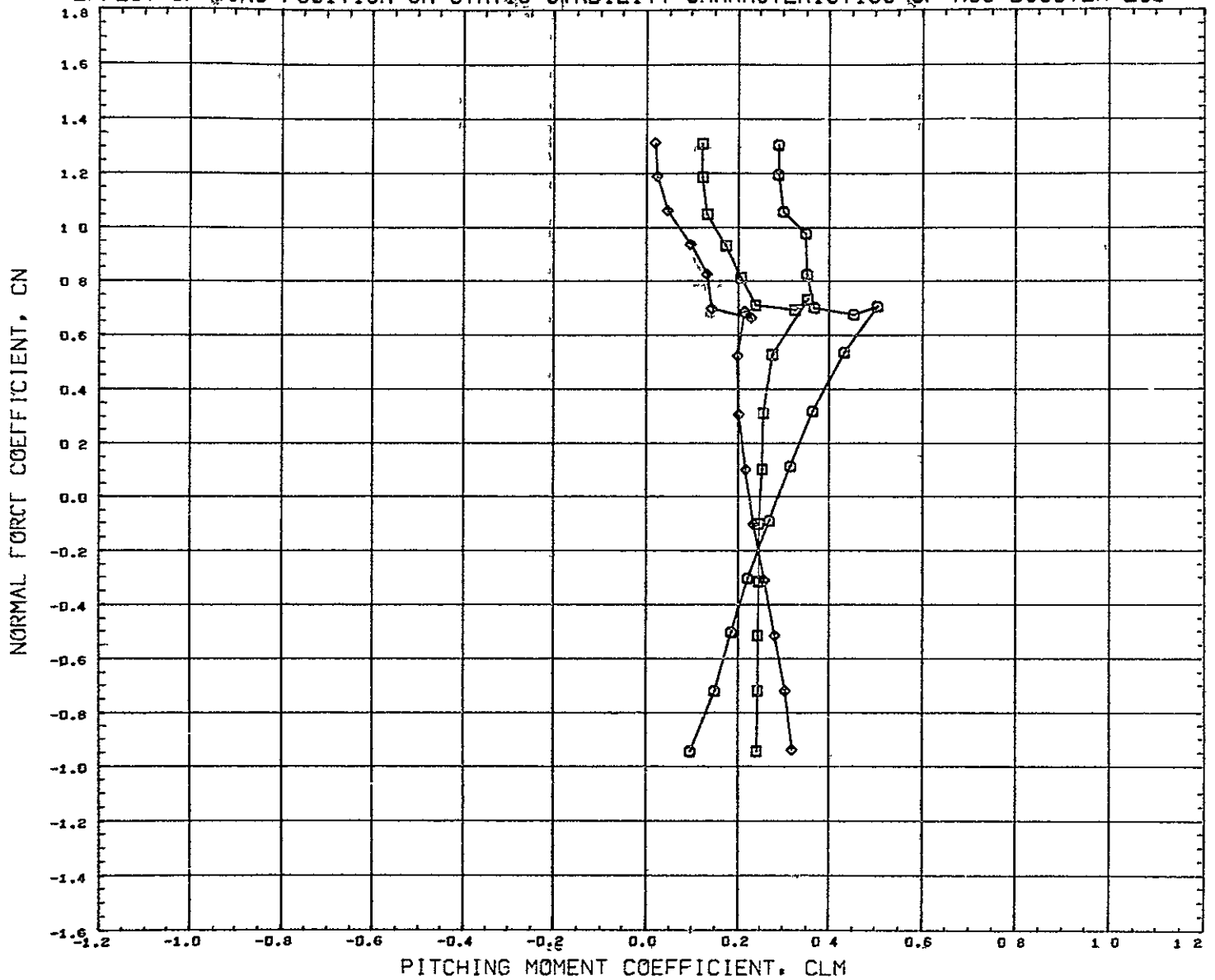
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
○	0.640	IT - 4.000 BETA 0.000
□	0.670	MACH 0.250 CBRH 0.973
◇	0.700	ELEVTR 0.000

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

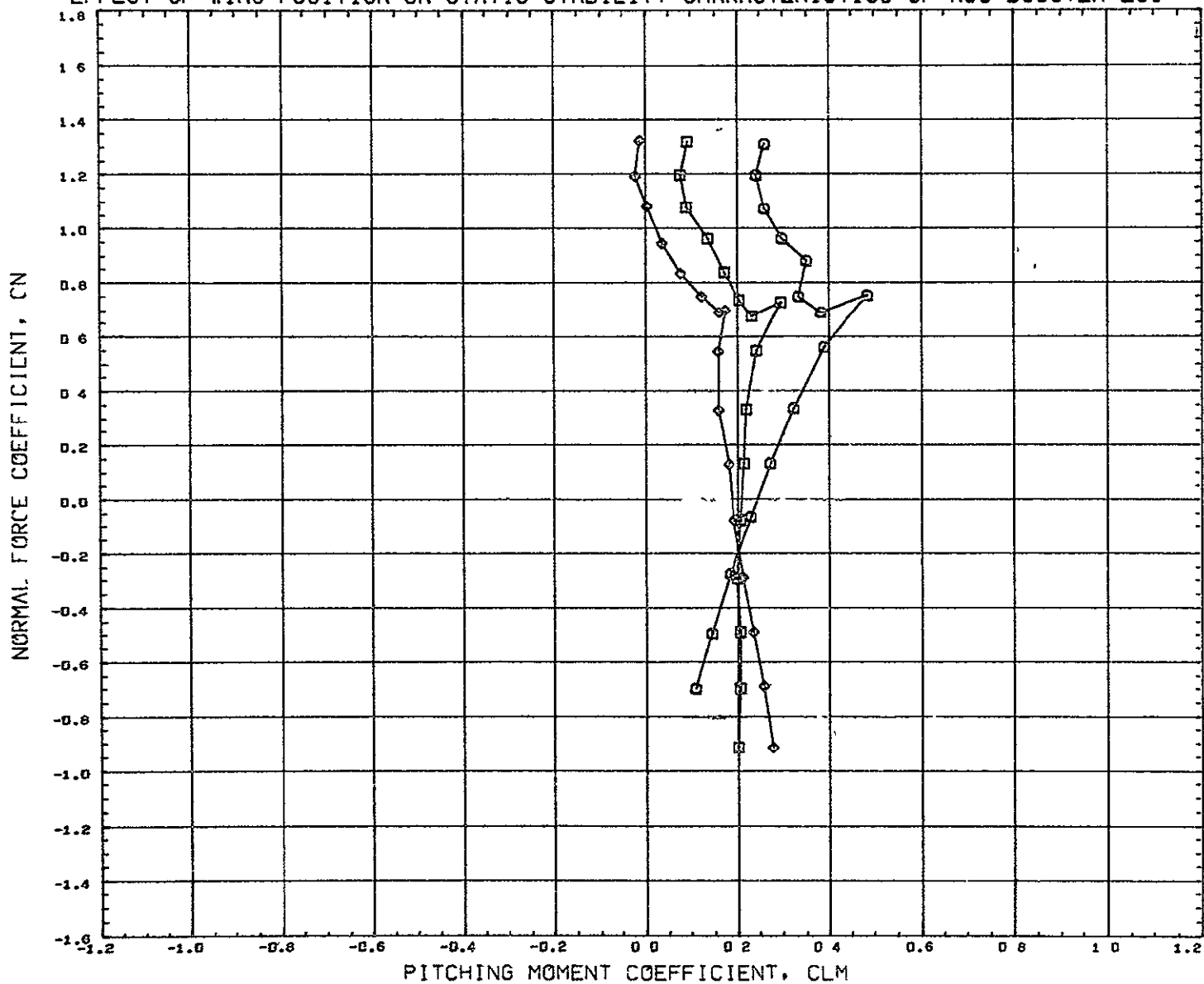
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251

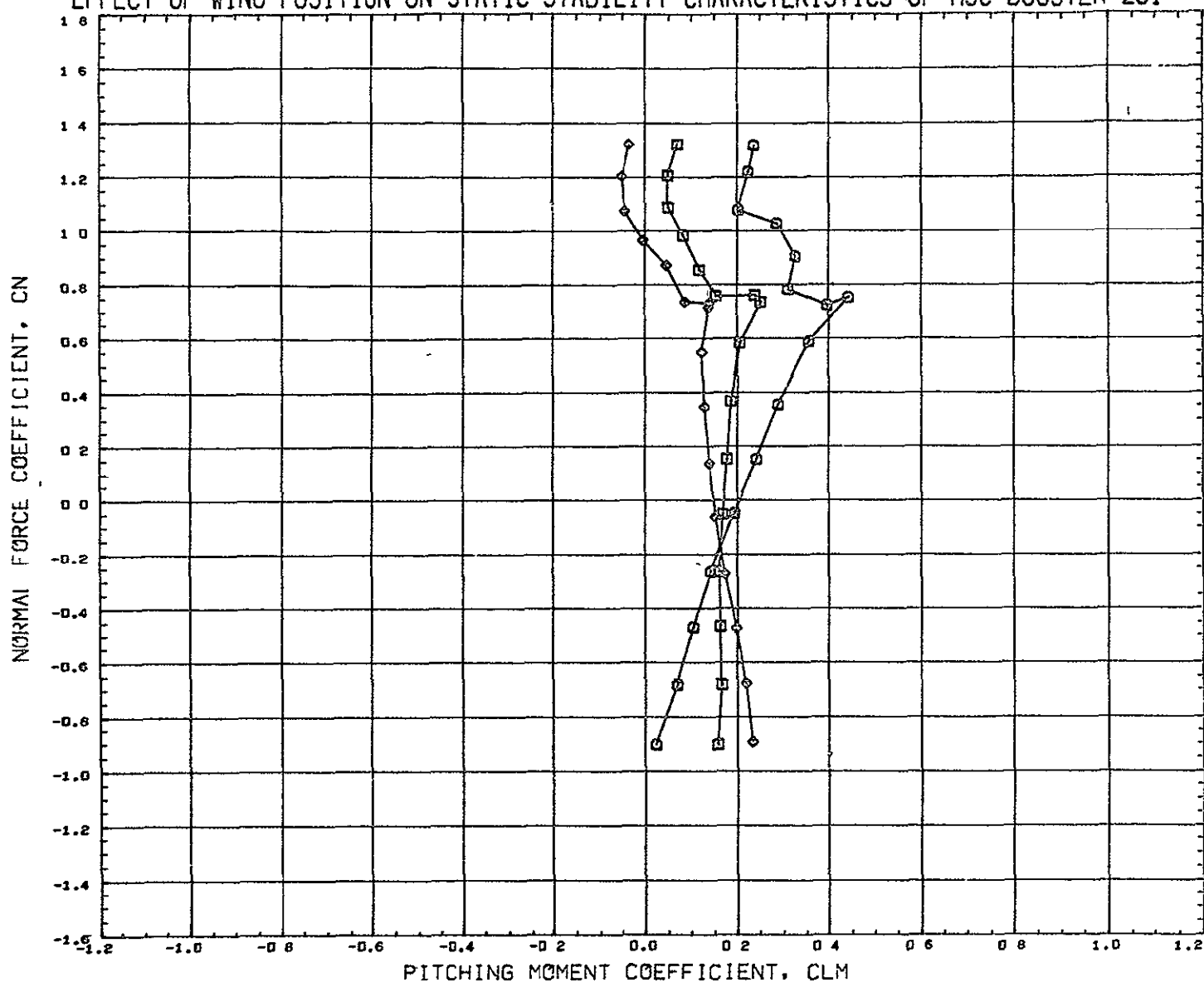


SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	- 3.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8450	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E

EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	MACH	ELEVTR	PARAMETRIC VALUES	BETA	CBRW
○	0.640	-	2.000	0.000	0.000	0.000	0.973
□	0.670	-	2.000	0.000	0.000	0.000	0.973
◇	0.700	-	2.000	0.000	0.000	0.000	0.973

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
YMRP	65.0000	PCT LB
ZMRP	67.5500	PCT 2B
SCALE	1.3215	PCT

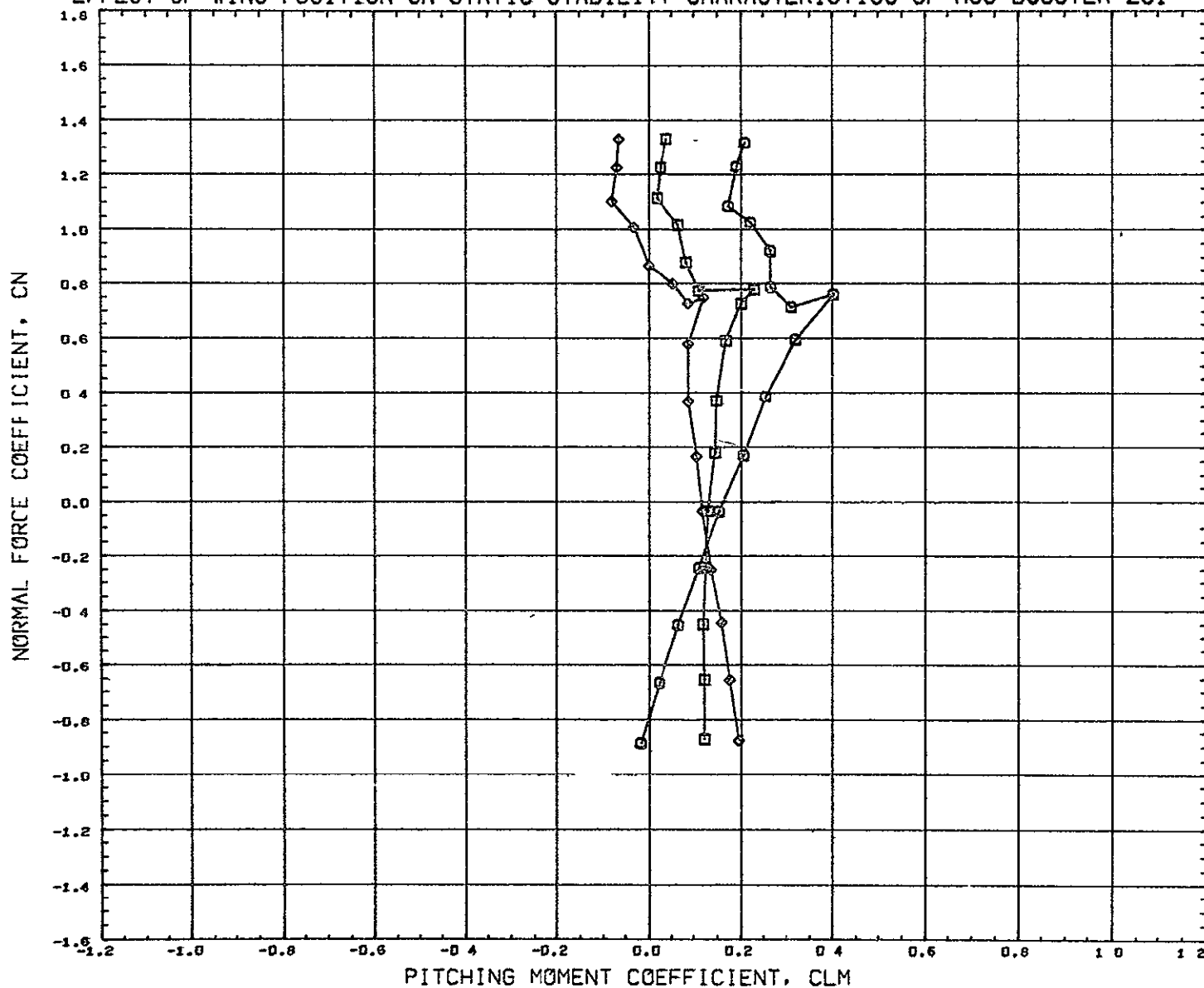
DATA HIST CODE *E

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	LT	- 1.000	BETA	0.000
◇	0.670	HACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

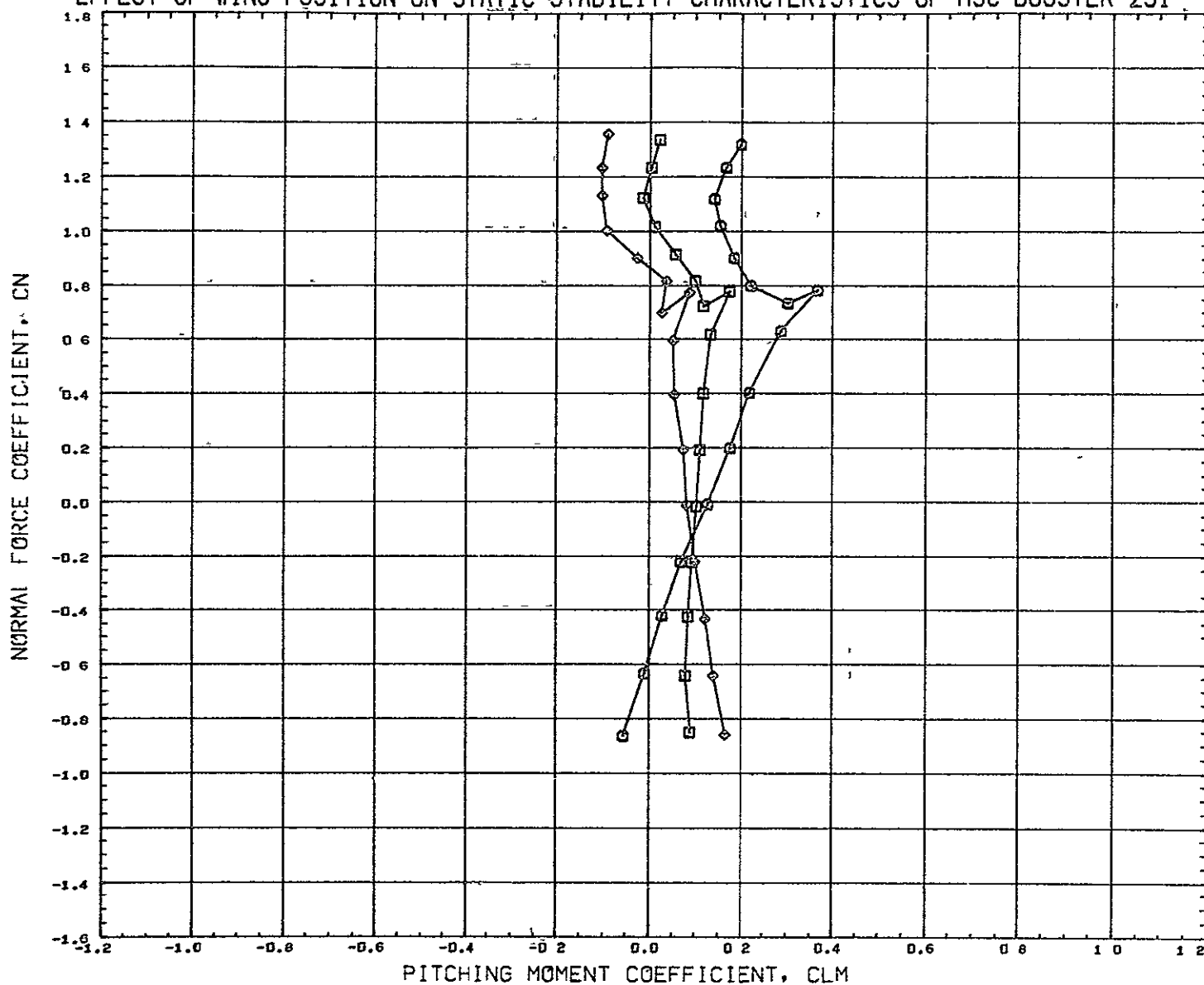
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	0.000
□	0.640	MACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XNRF	65 0000	FCT LB
YNRF	0 0000	
ZNRF	67 5500	FCT ZB
SCALE	1 3215	FCT

DATA HIST. CODE *E

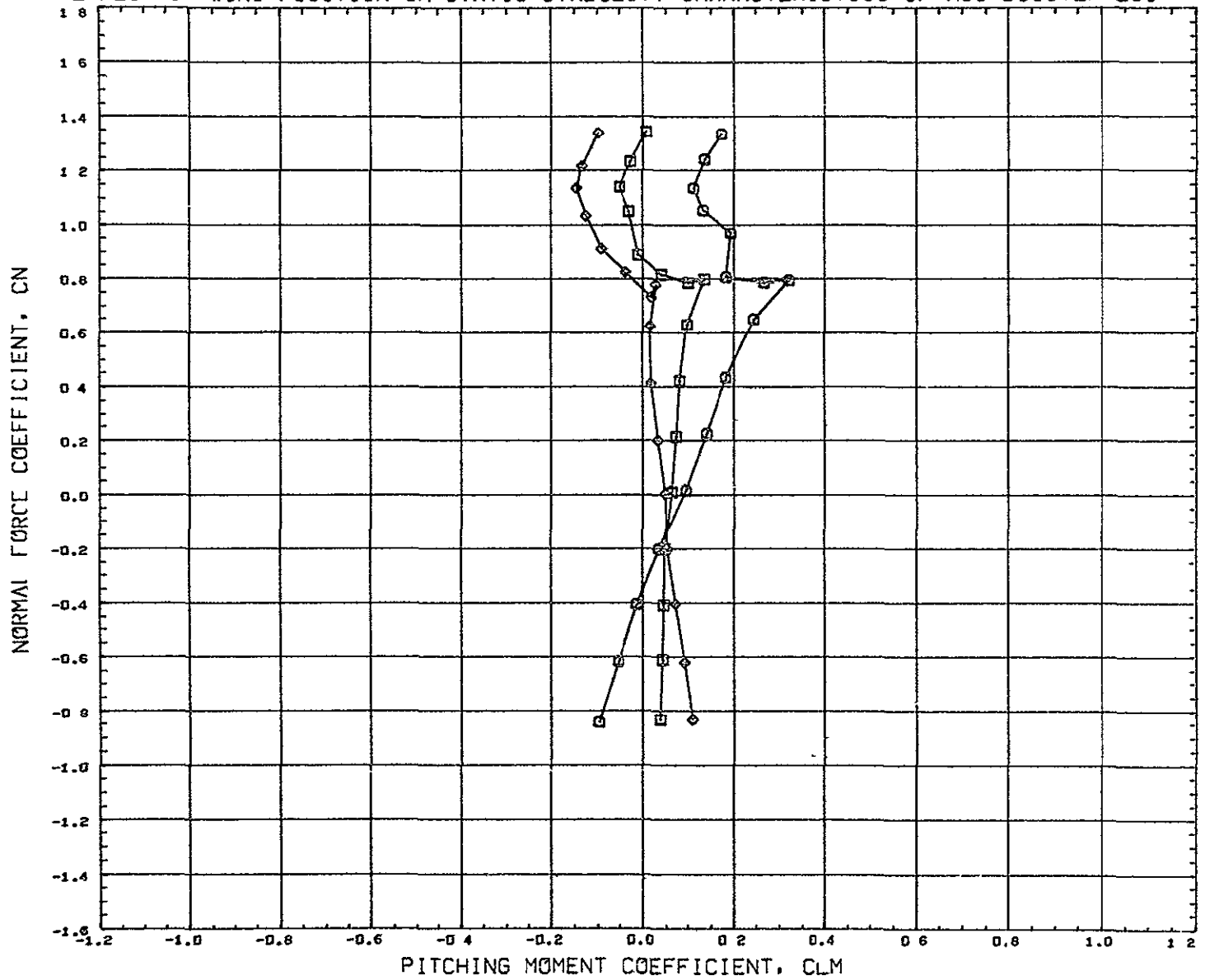
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
◇	0.640	IT 1.000 BETA 0.000
□	0.670	MACH 0.250 CBRH 0.973
○	0.700	ELEVTR 0.000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

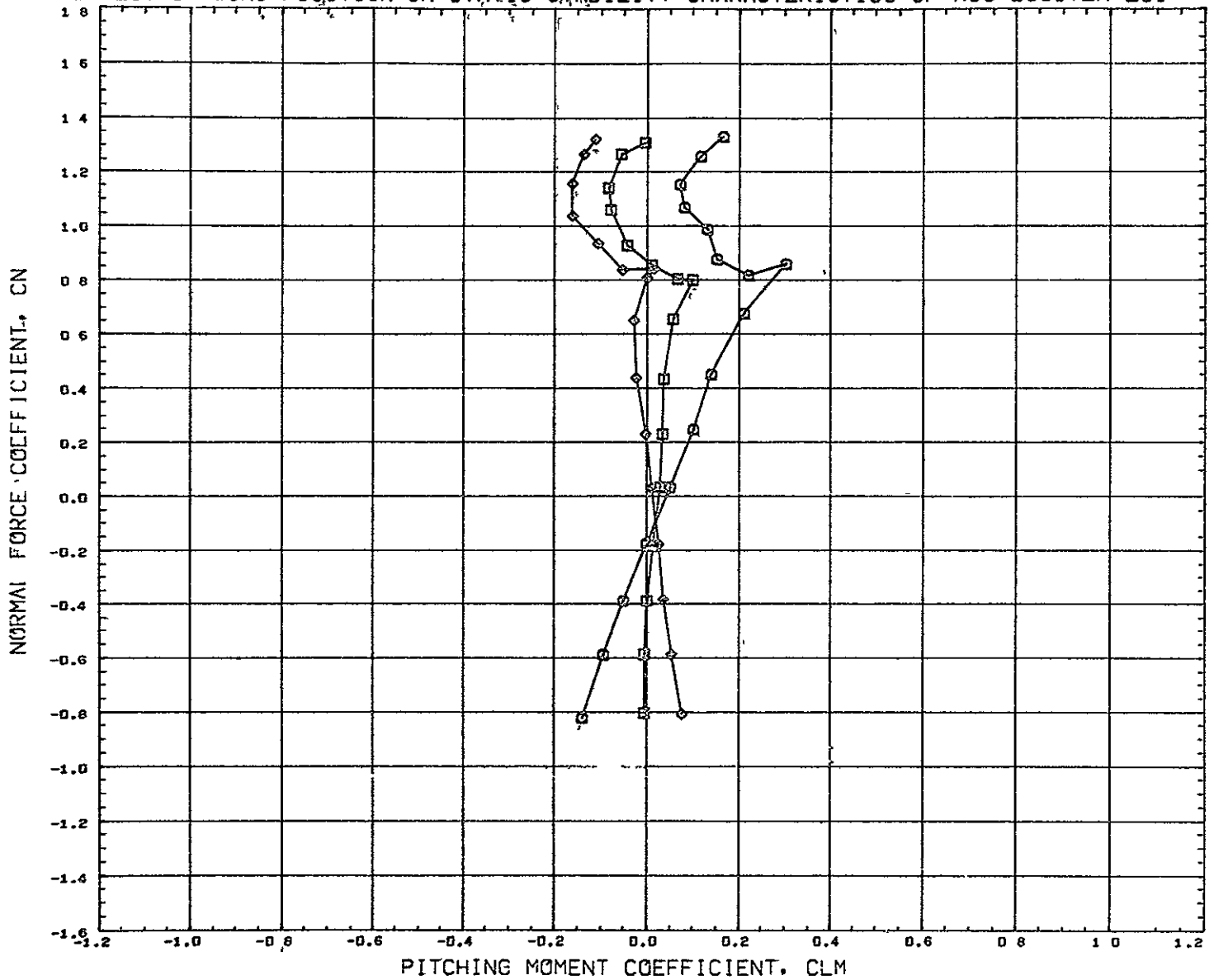
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MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	0.000
○	0.640	2.000	0.250	CBRW	0.973
□	0.670	2.250	0.000		
◇	0.700	2.500	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRF	65.0000	PCT LB
YMRF	0.0000	
ZMRF	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E

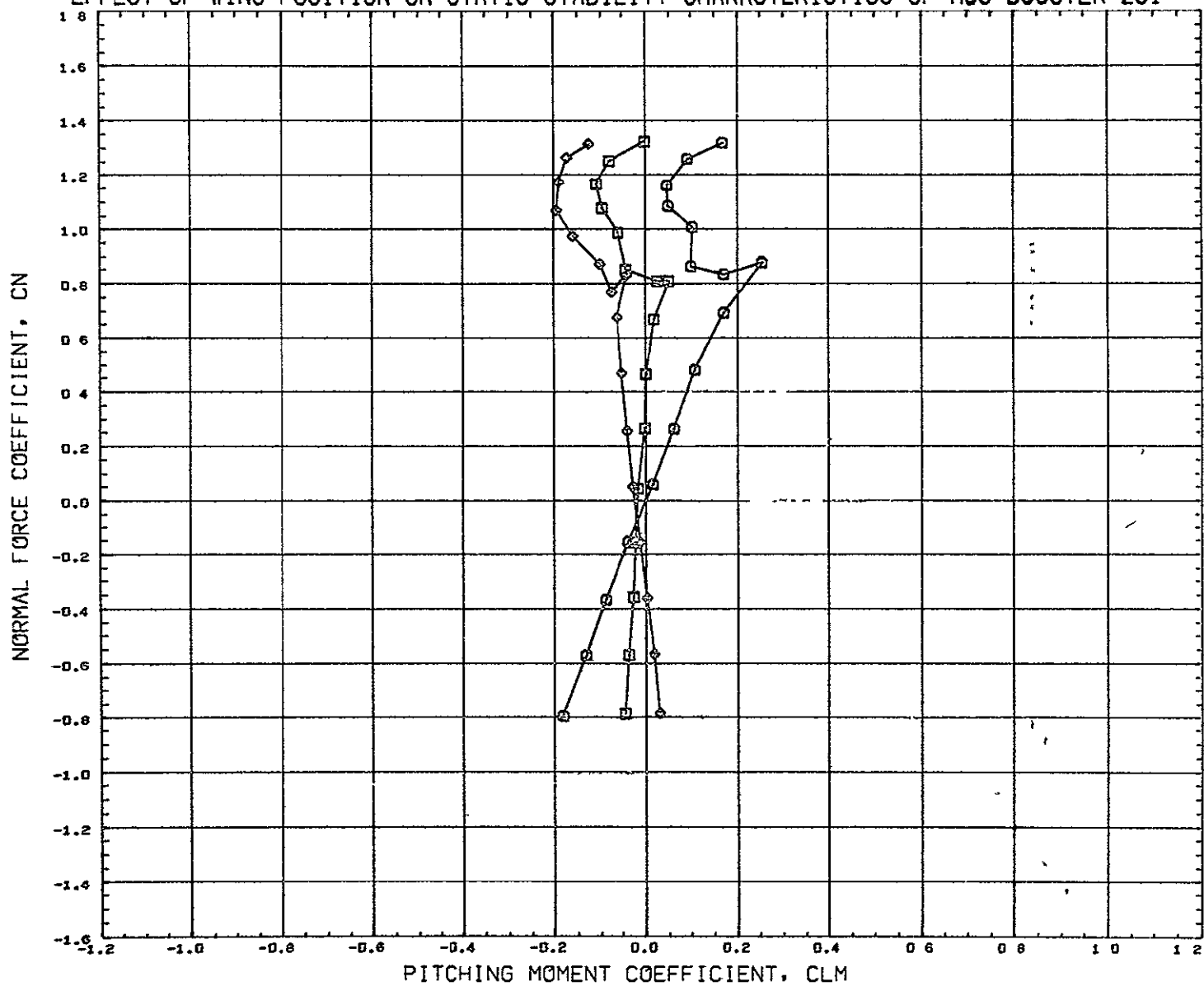
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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBPW	PARAMETRIC VALUES
○	0.640	17 3.900 BETA 0.000
□	0.670	MACH 0.250 CBRH 0.973
◇	0.700	ELEVTR 0.000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0.3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

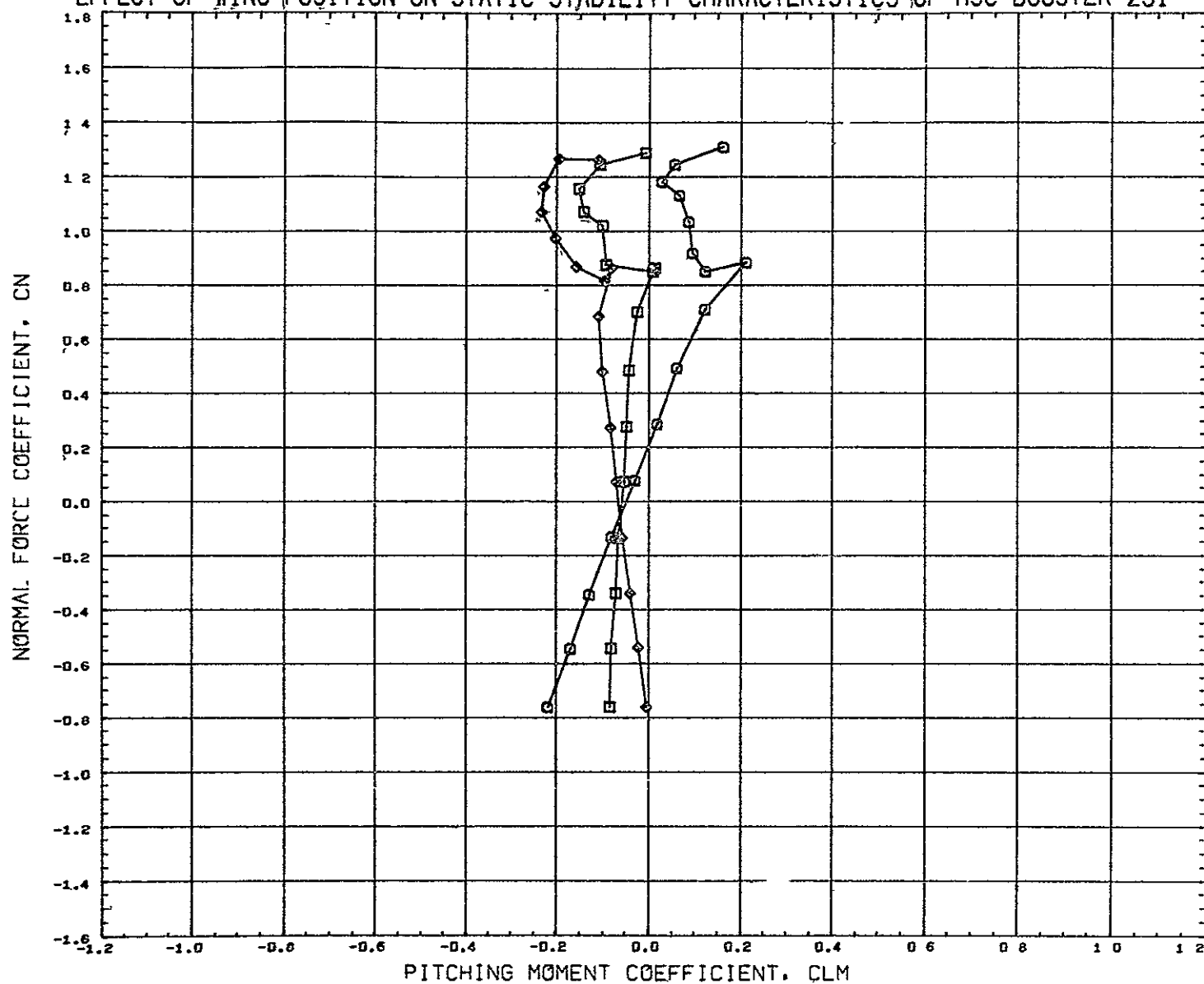
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF KING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.610	IT	4.000	BETA	0.000
◻	0.670	MACH	0.250	CBRH	0.973
◊	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

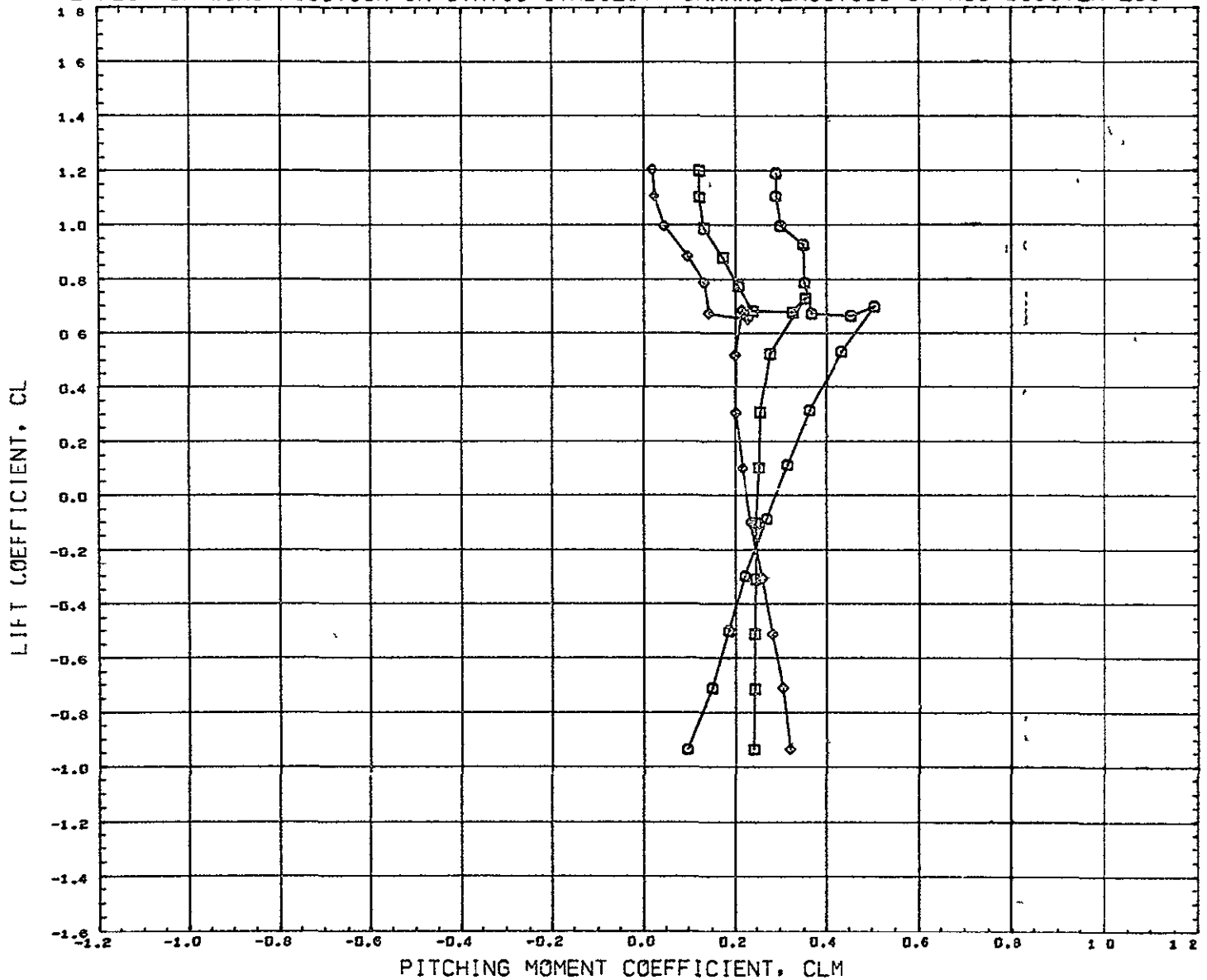
DATA HIST. CODE #E

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	- 4 000	BETA	0 030
□	0.670	MACH	0.250	CBRH	0 973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRF	65 0000	PCT LB
YMRF	0 0000	
ZMRF	67 5500	PCT ZB
SCALE	1 3218	PCT

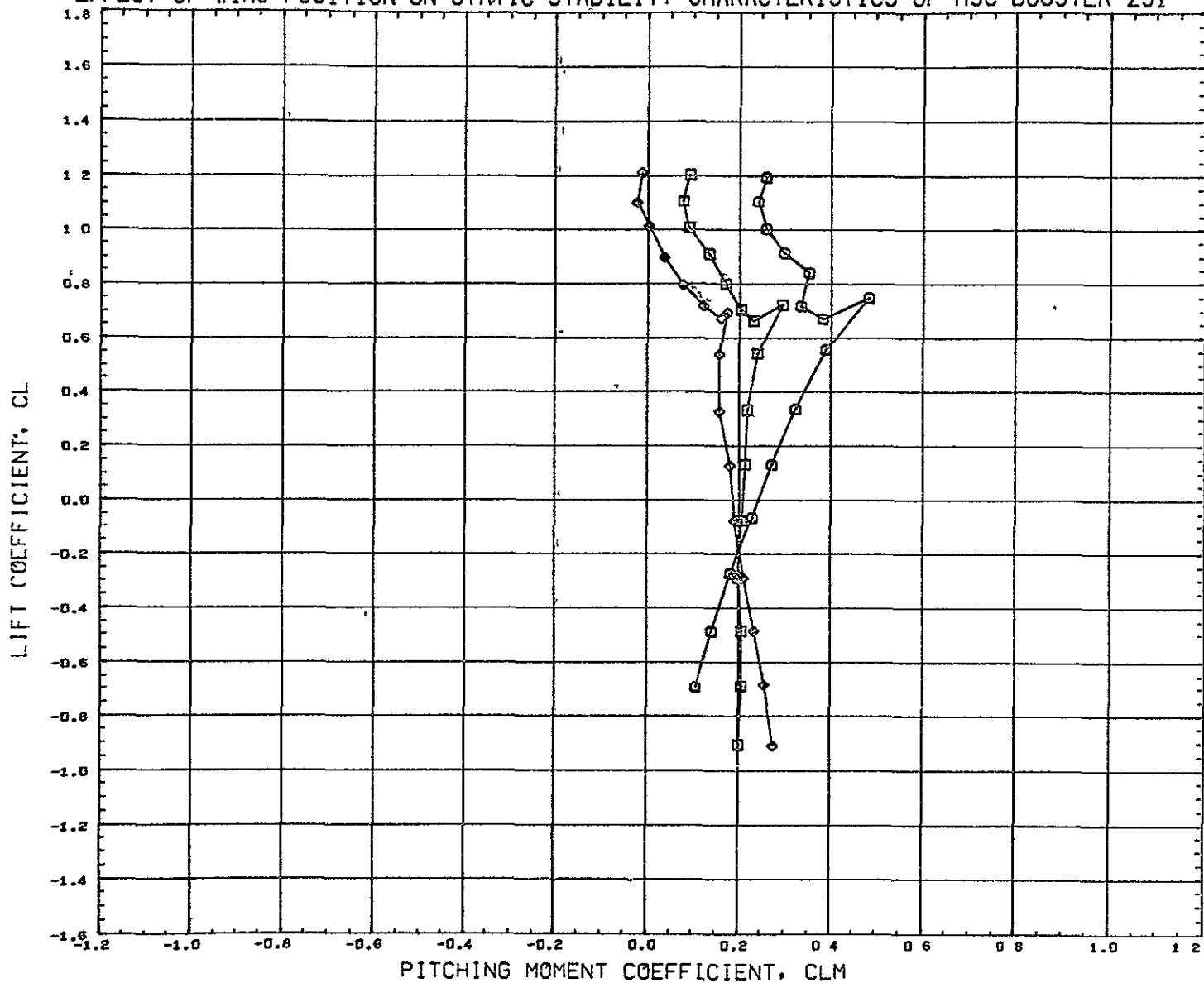
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
◇	0.640	IT - 3.000 BETA 0 000
□	0.670	MACH 0 250 CBRH 0 973
○	0.700	ELEVTR 0 000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XNRF	65 0000	FCT LB
YNRF	0 0000	
ZNRF	67 5500	FCT ZB
SCALE	1 3215	FCT

DATA HIST CODE #E

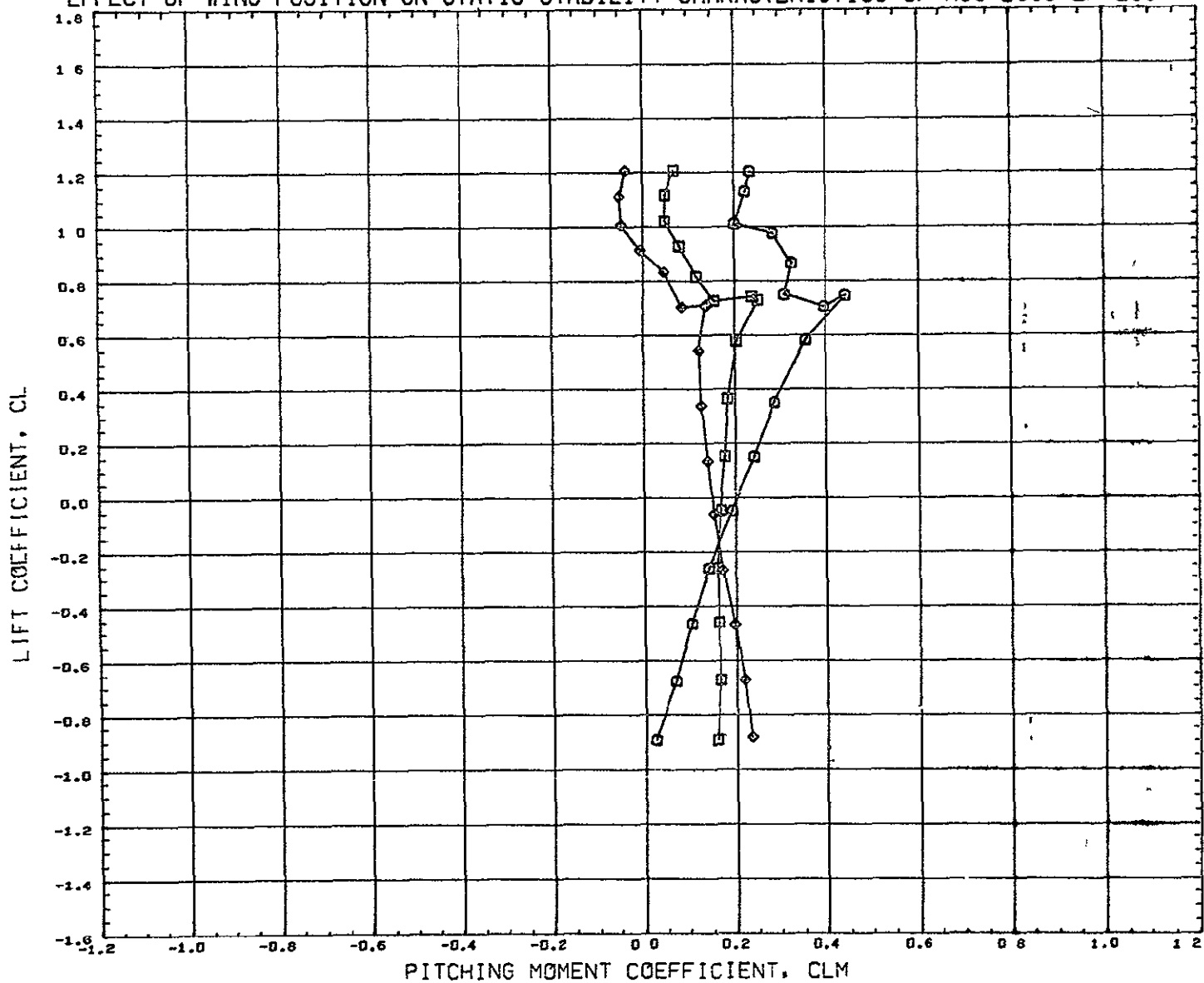
MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 2.000	BETA	0.000
◇	0.670	NACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5900	PCT ZB
SCALE	1.3215	PCT

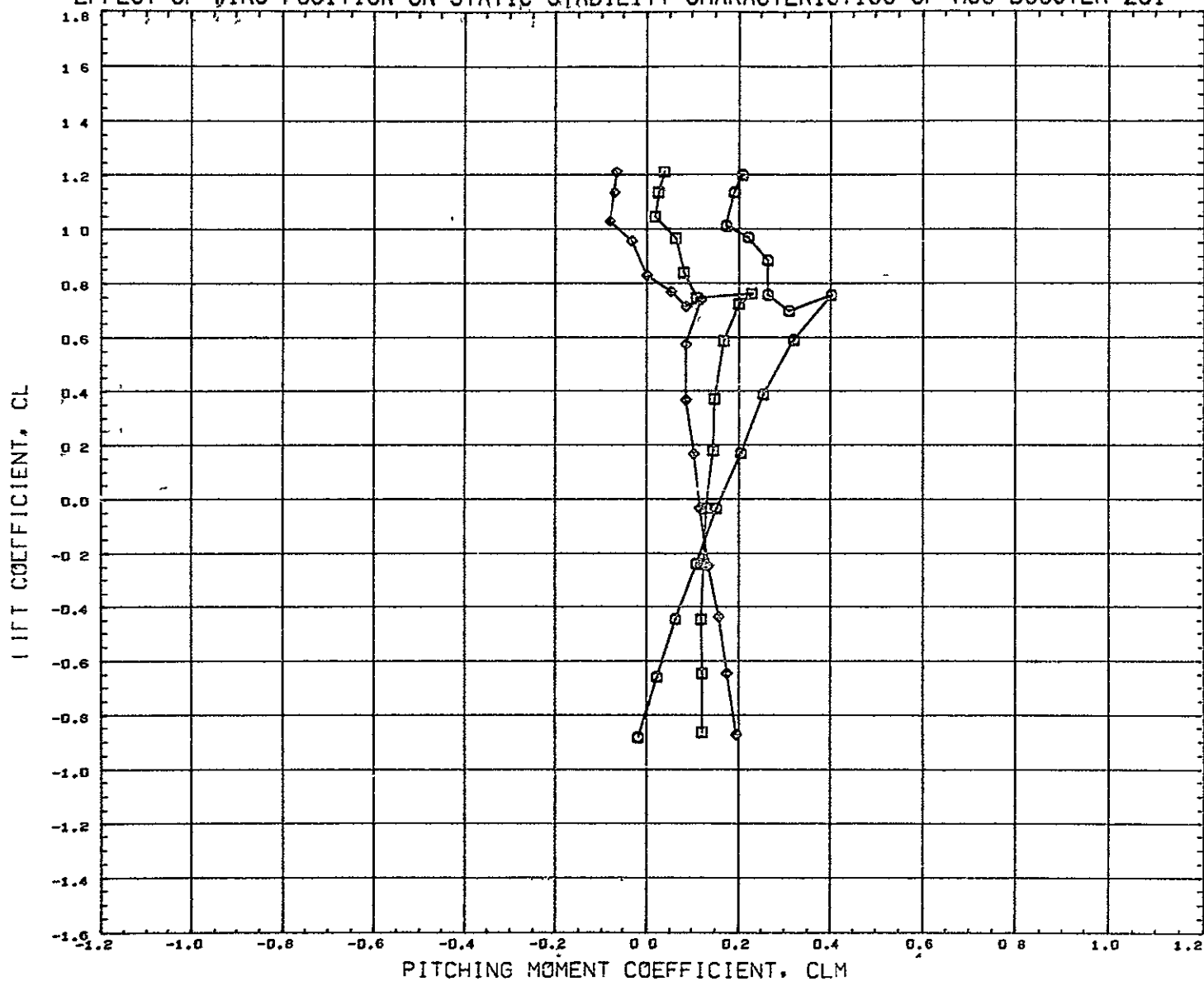
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	G 000
○	0.640	IT	- 1 000	BETA	G 000
□	0.670	MACH	0.250	CBRW	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRF	65 0000	PCT LB
YMRF	0 0000	PCT
ZMRF	67 5500	PCT ZB
SCALE	1 3215	PCT

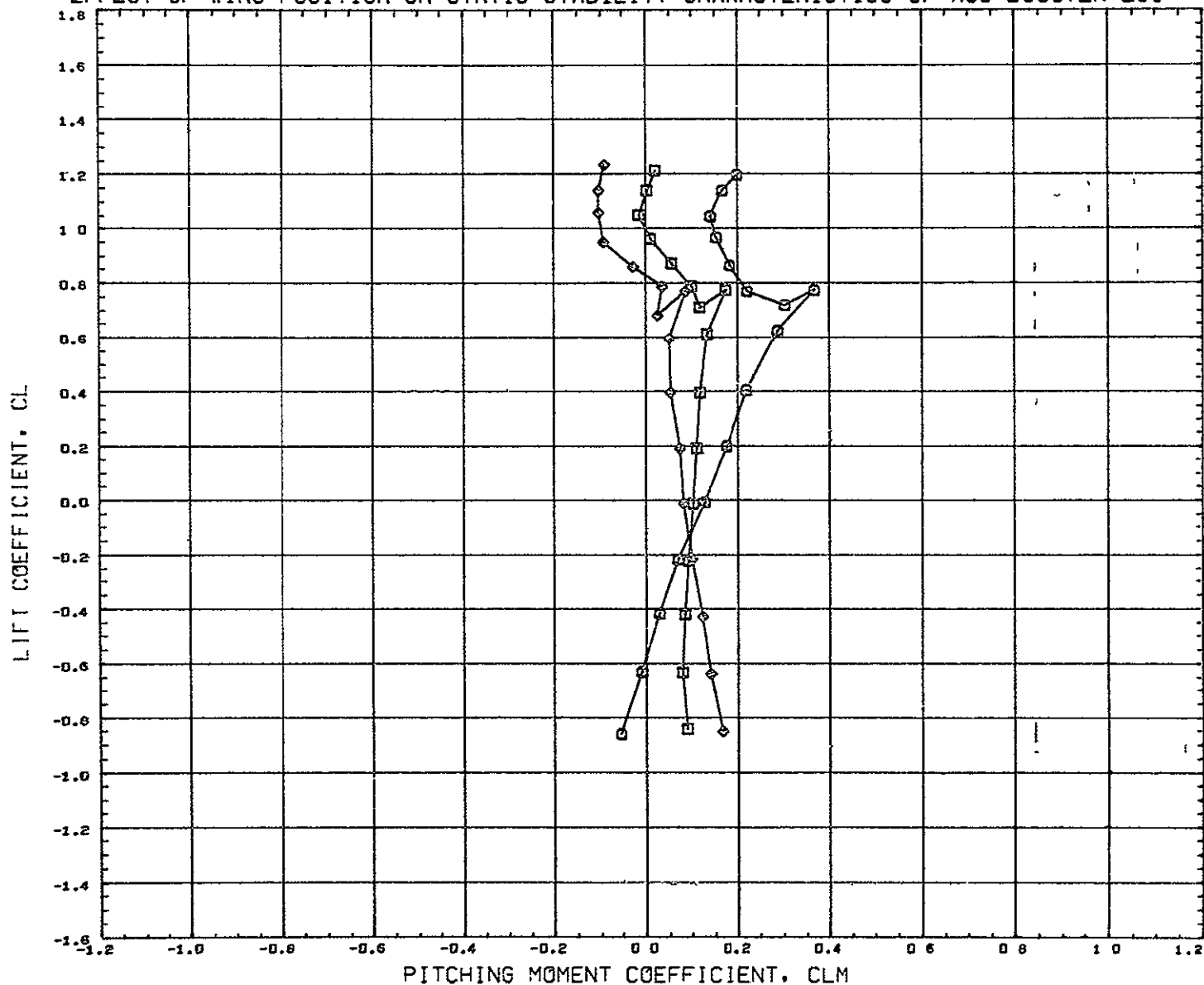
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251

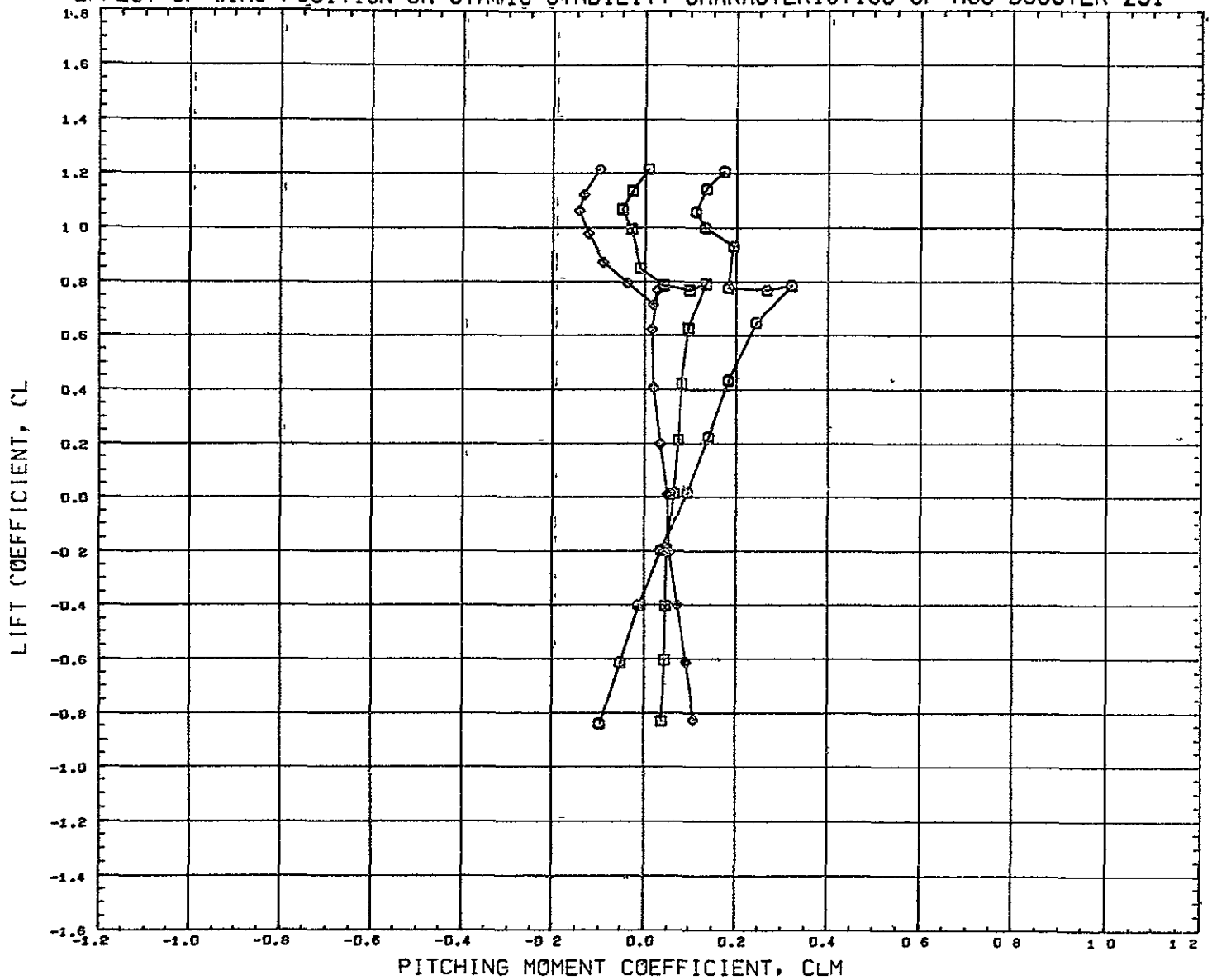


SYMBOL		CBRW		PARAMETRIC VALUES			
◇	0.640	IT	0.000	BETA	0.000		
□	0.670	MACH	0.250	CBRH	0.973		
○	0.700	ELEVTR	0.000				

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE #E

EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	0.000
○	0.640	IT	1.000	BETA	0.000
□	0.670	HACH	0.250	CBRW	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	FCT

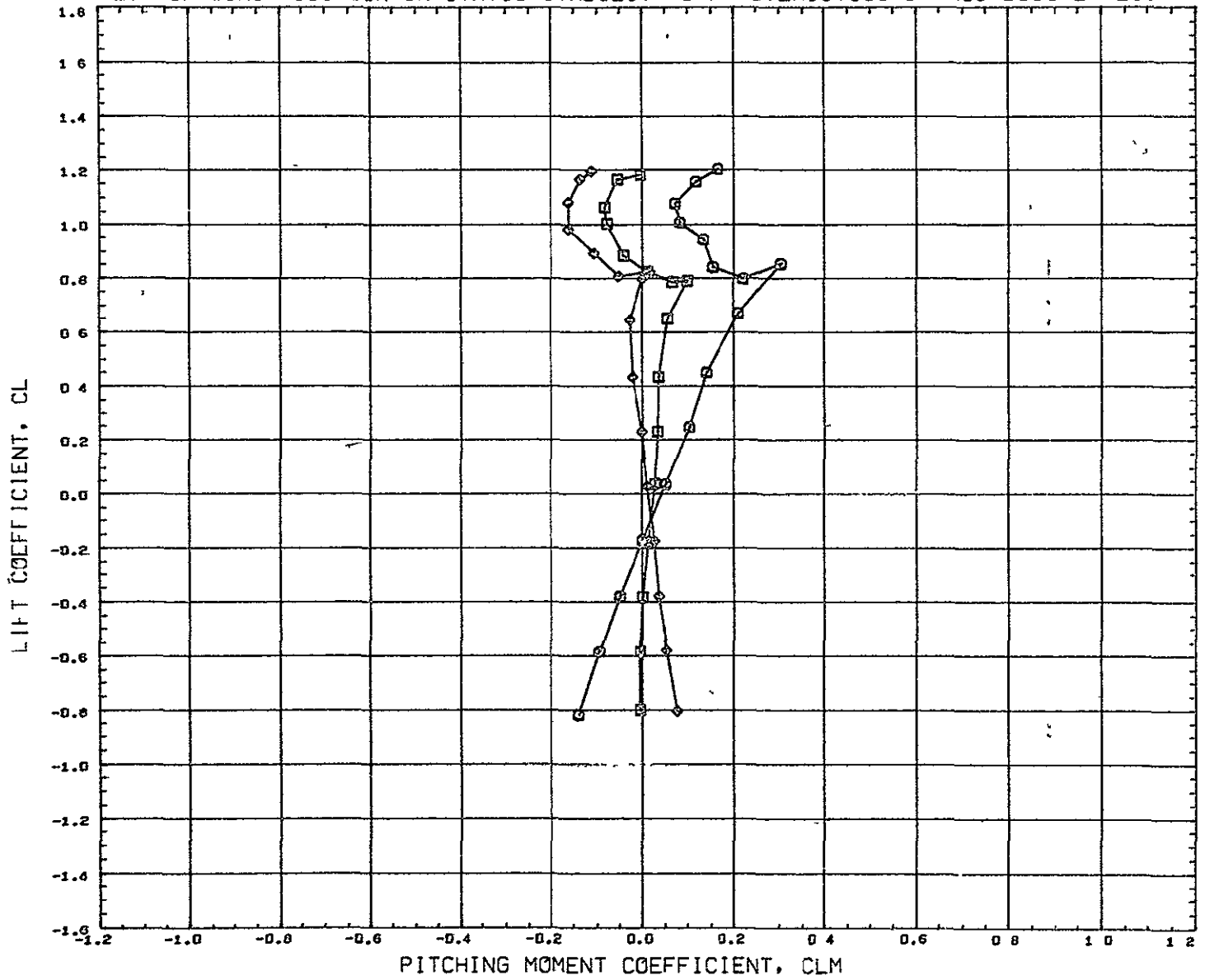
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	2.000	BETA	0.000
◇	0.670	MACH	0.250	CBRH	0.973
○	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
PEFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	FCT

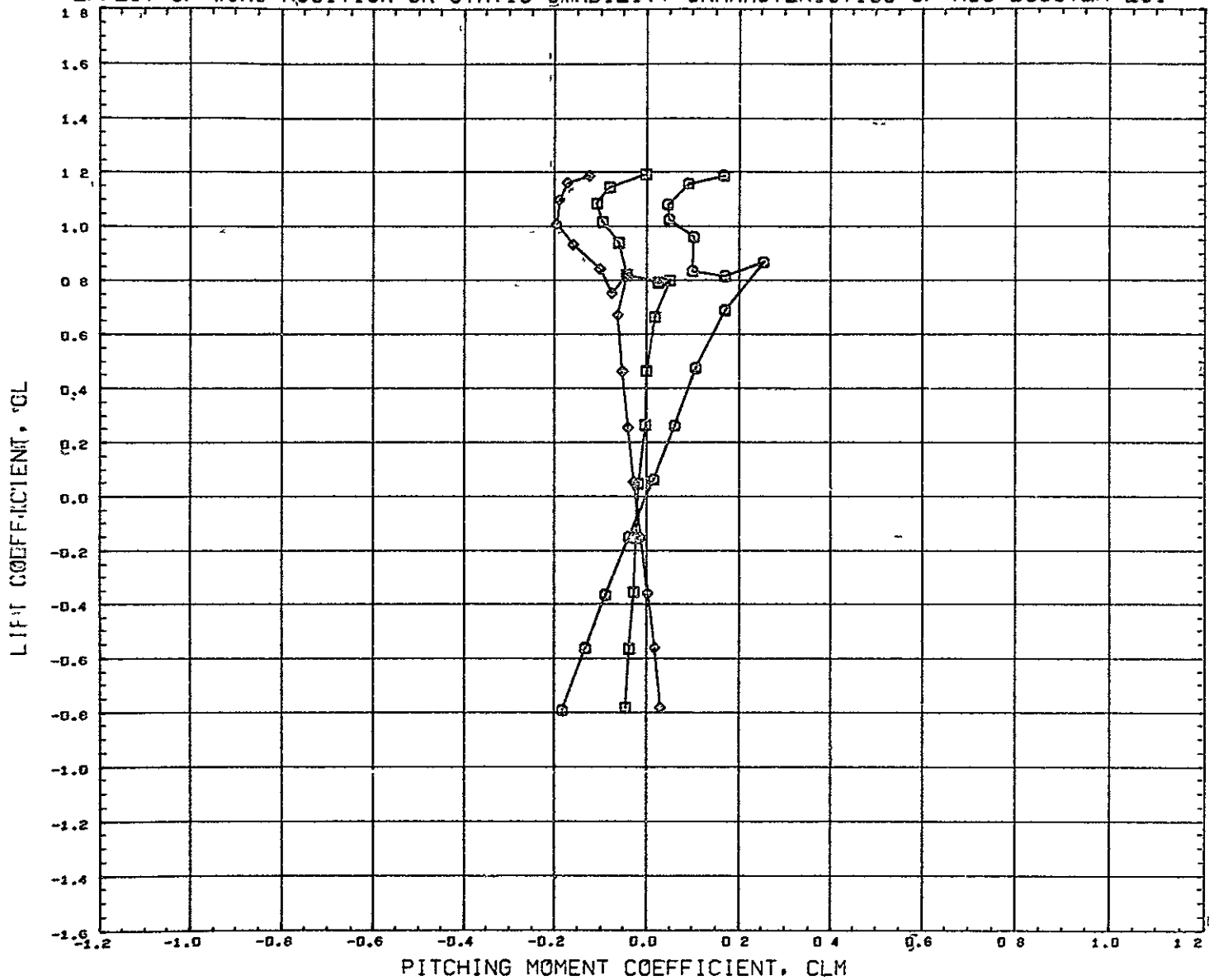
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		
○	0.640	17	3 000	BETA	0 000
□	0.670	MACH	0 250	CBRW	0 973
◇	0.790	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REPL	0 3810	FT
REFB	2.4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

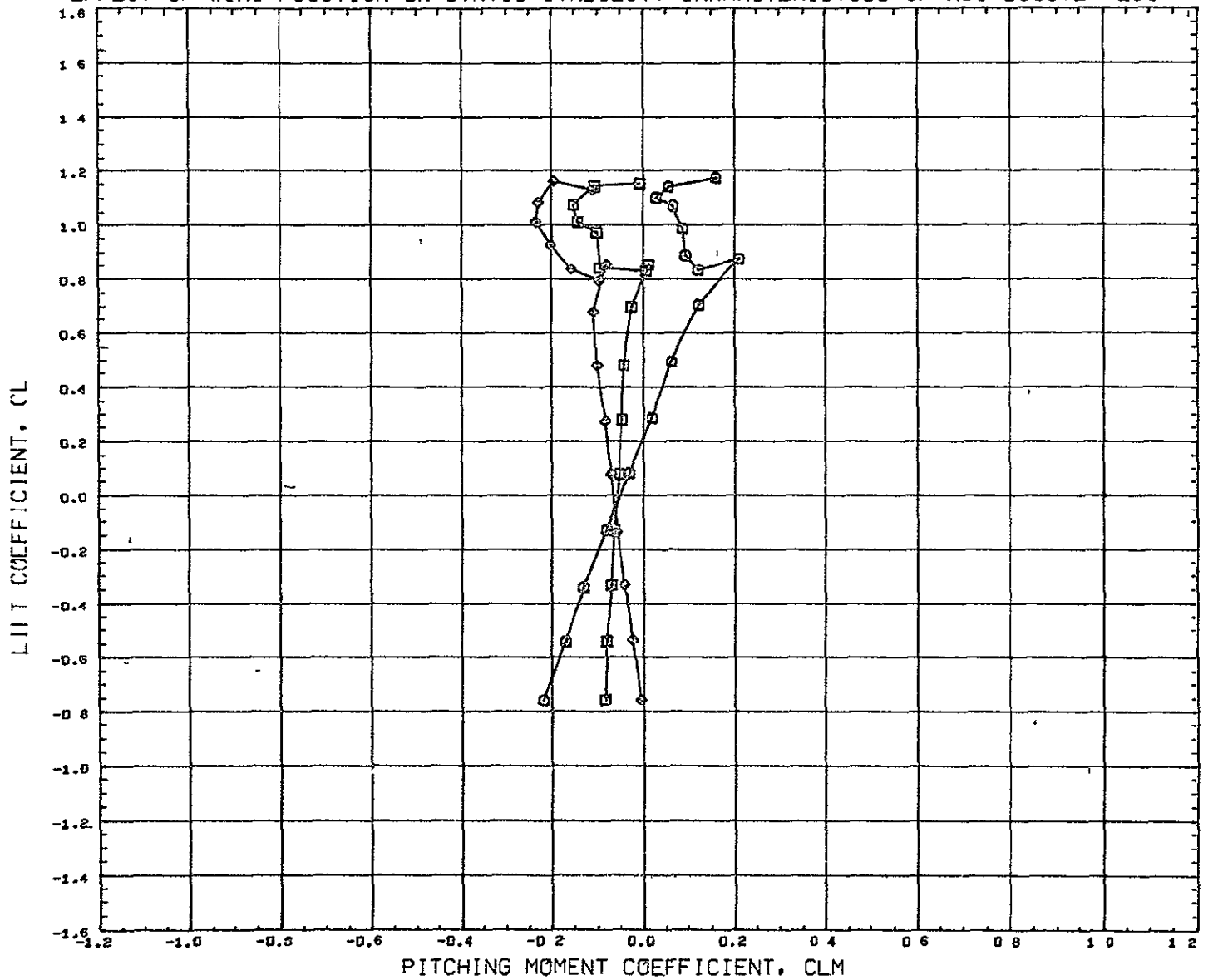
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		
○	0.640	IT	4.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
NEFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

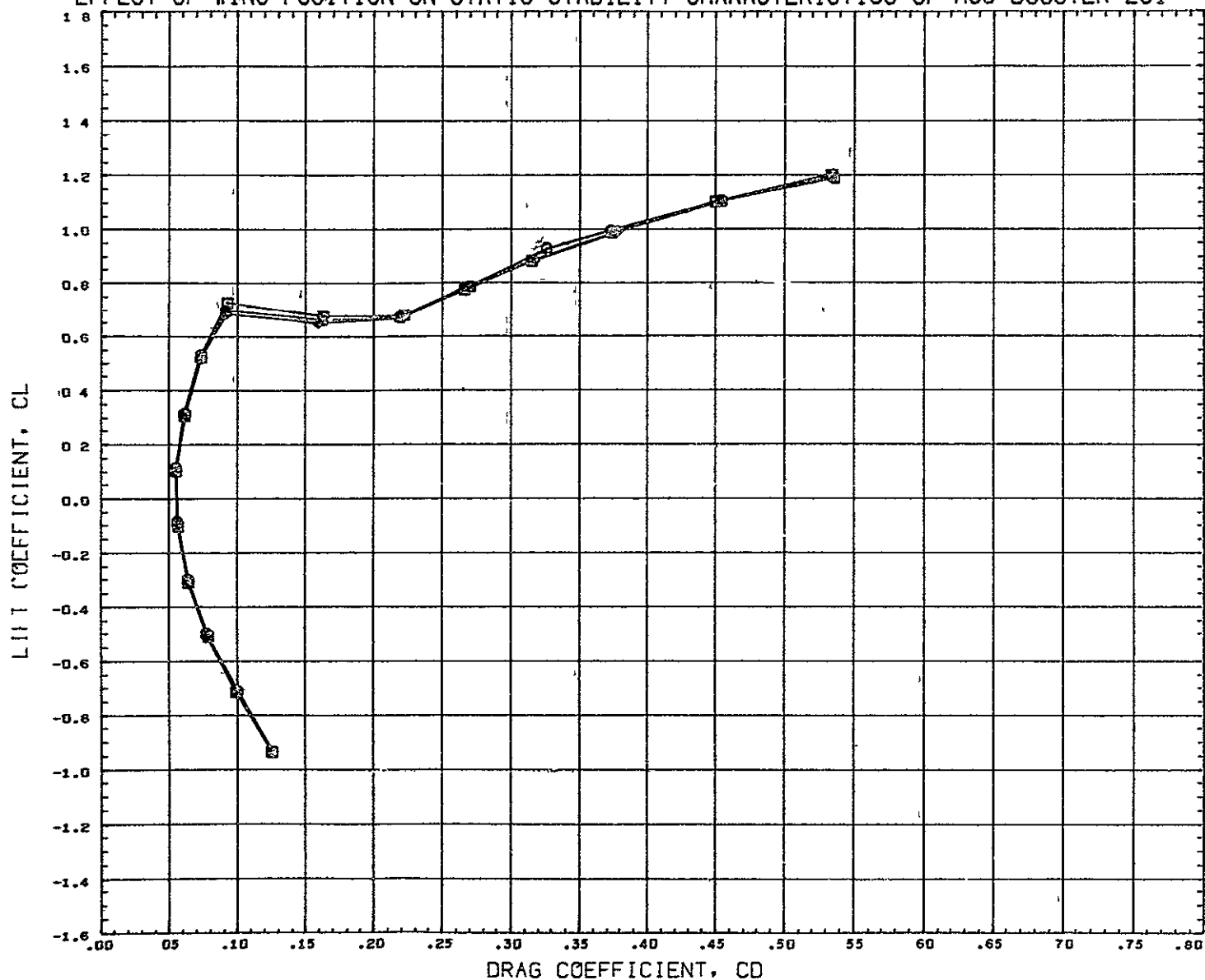
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	- 4 000	BETA	0 000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

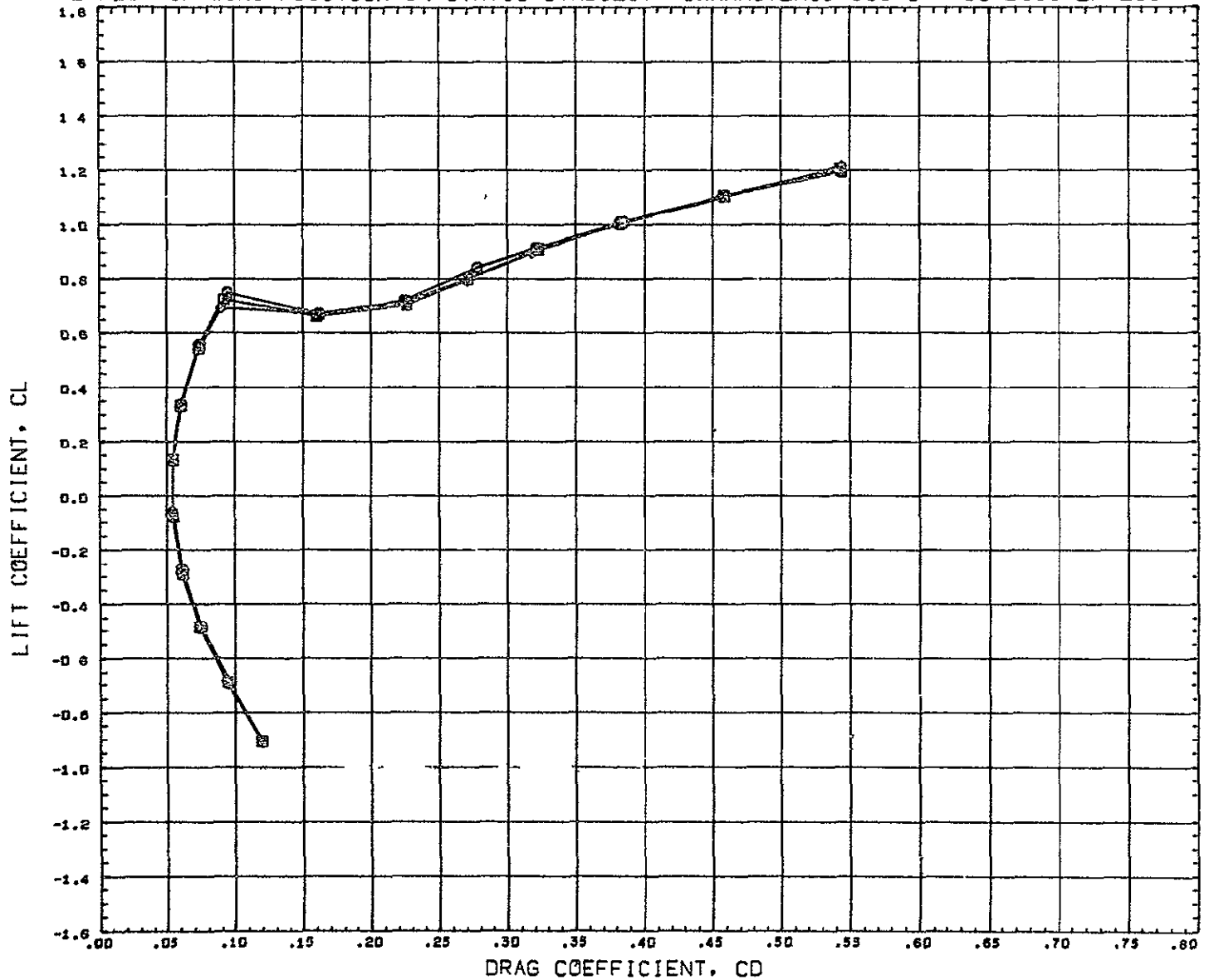
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	- 3.000	BETA	0.000
□	0.670	MACH	0.250	CBRW	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

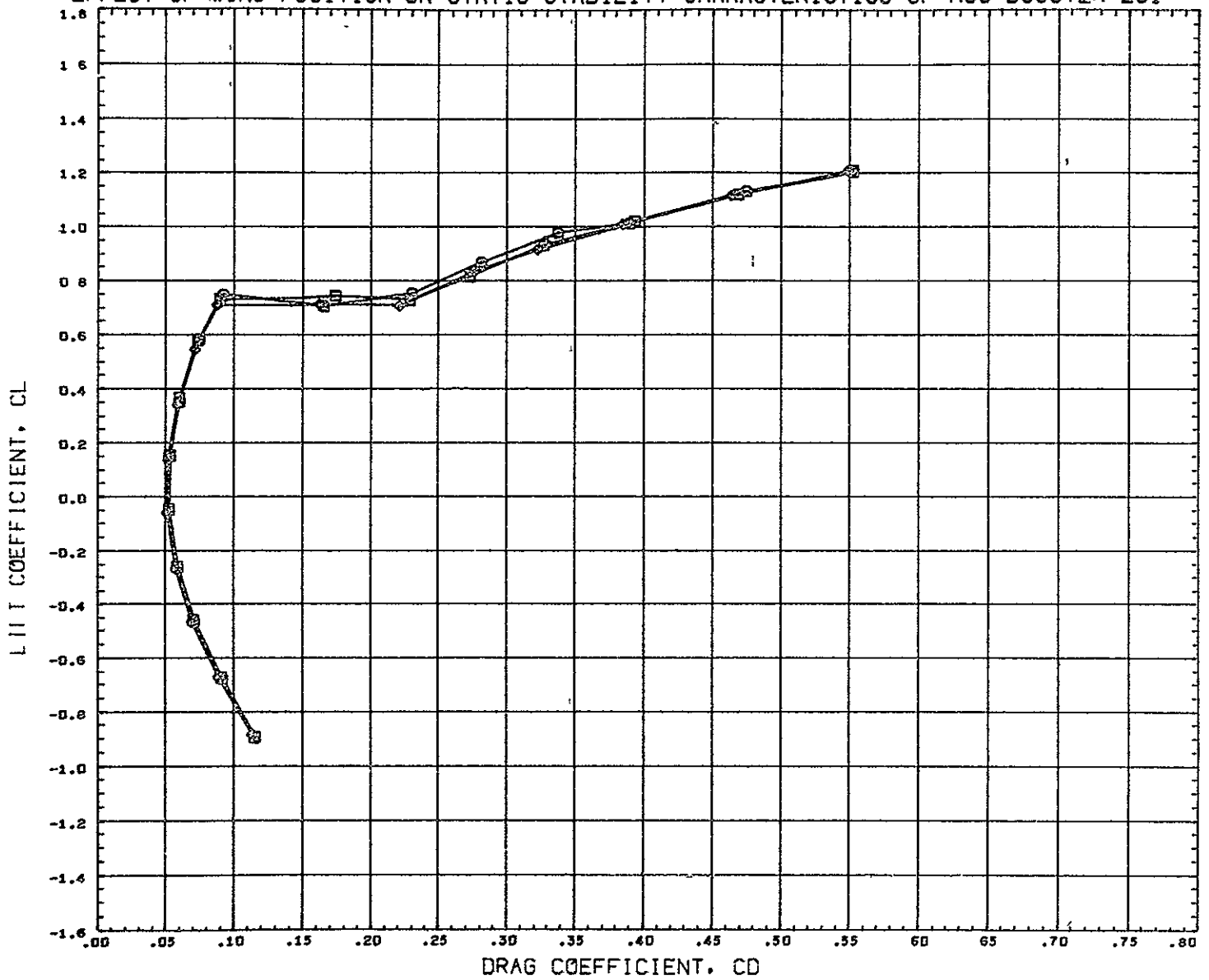
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
○	0.640	IT - 2 000 BETA 0 000
□	0.670	MACH 0 250 CBRH 0 973
◇	0.700	ELEVTR 0.000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YNRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

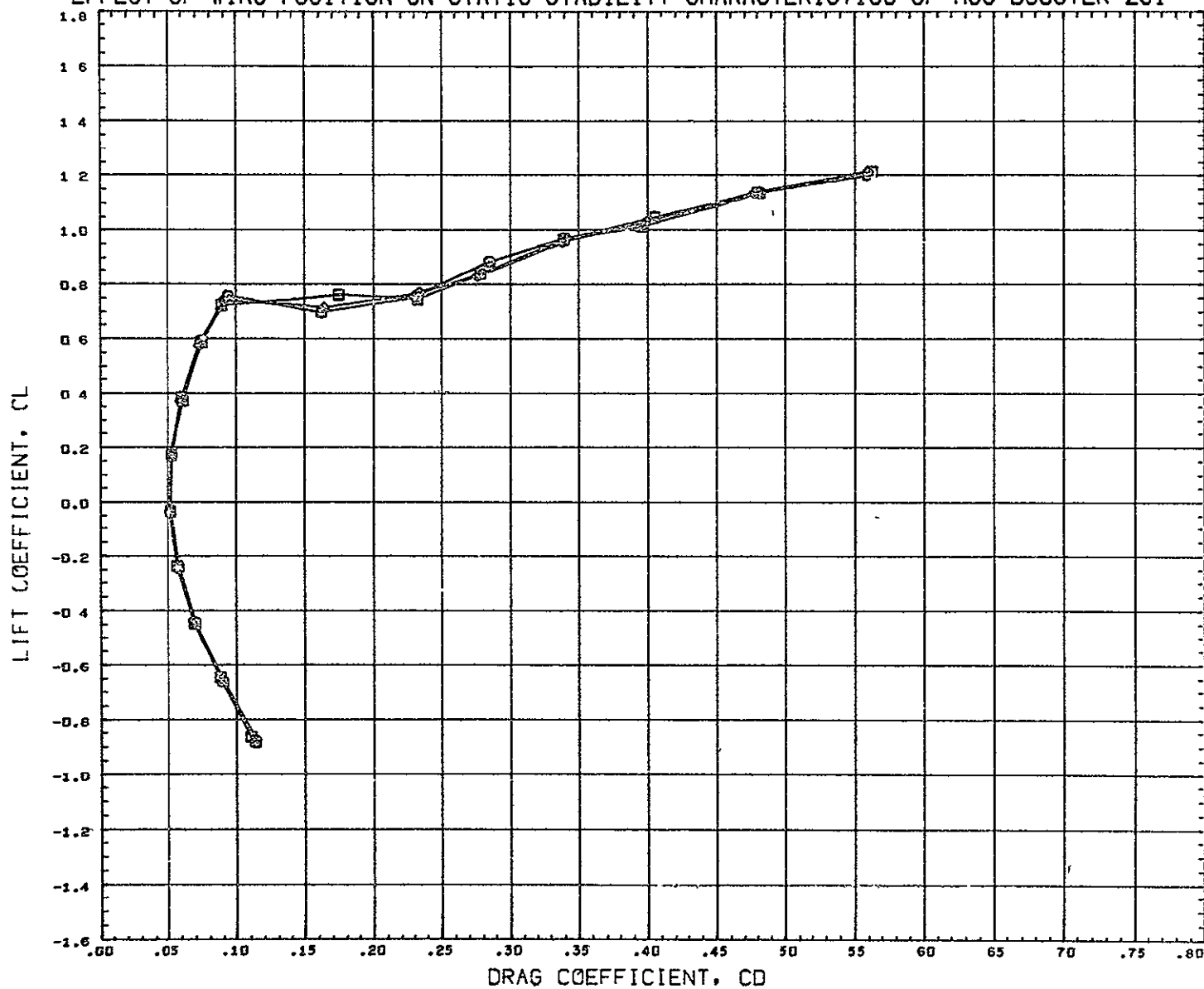
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
□	0.640	IT	- 1 000	BETA	0 000
◇	0.670	MACH	0 250	CBRH	0 973
◇	0.700	ELEVTR	0 000		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

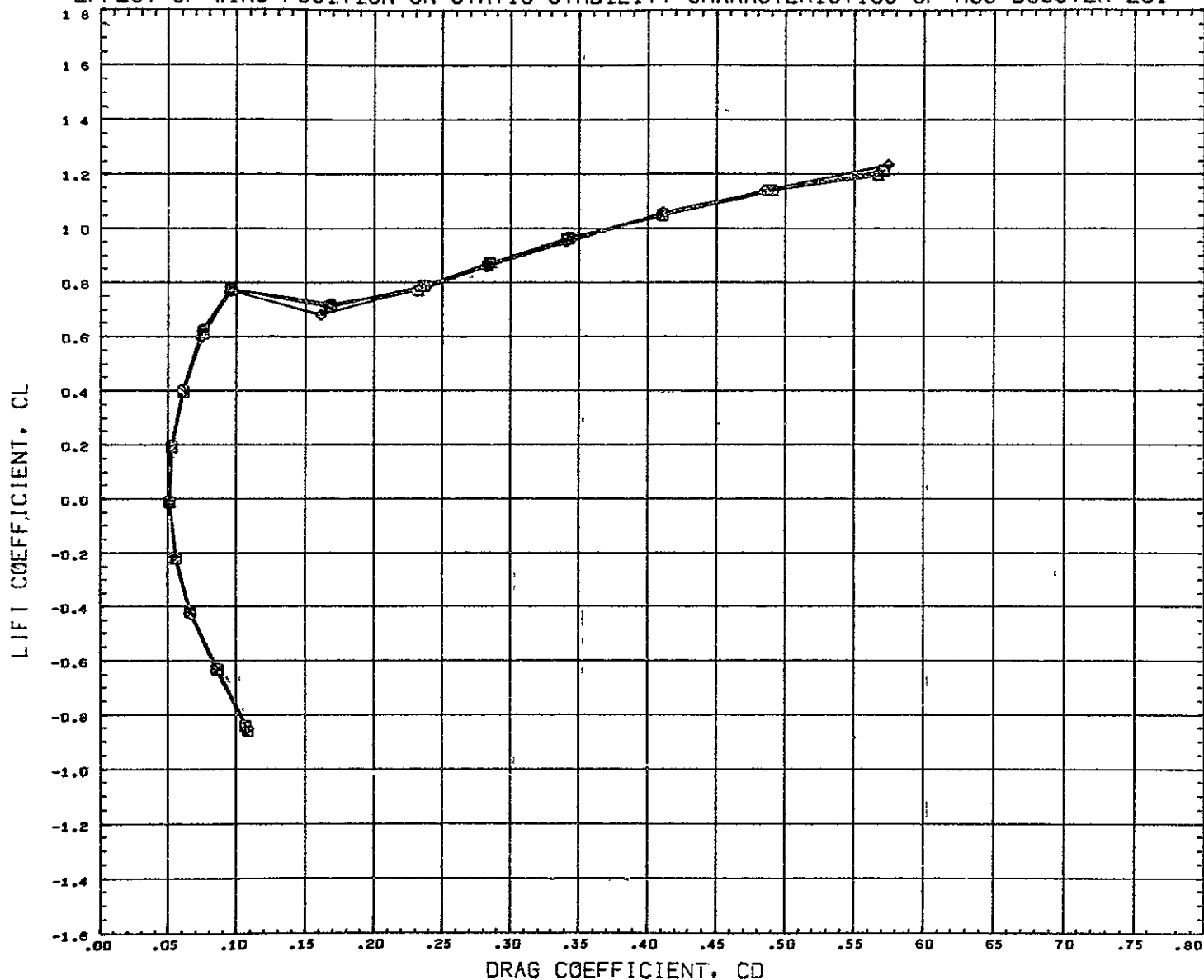
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES		BETA	0.000
□	0.640	HACH	0.250	CBRH	0.973	0.000
◇	0.700	ELEVTR	0.000			

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

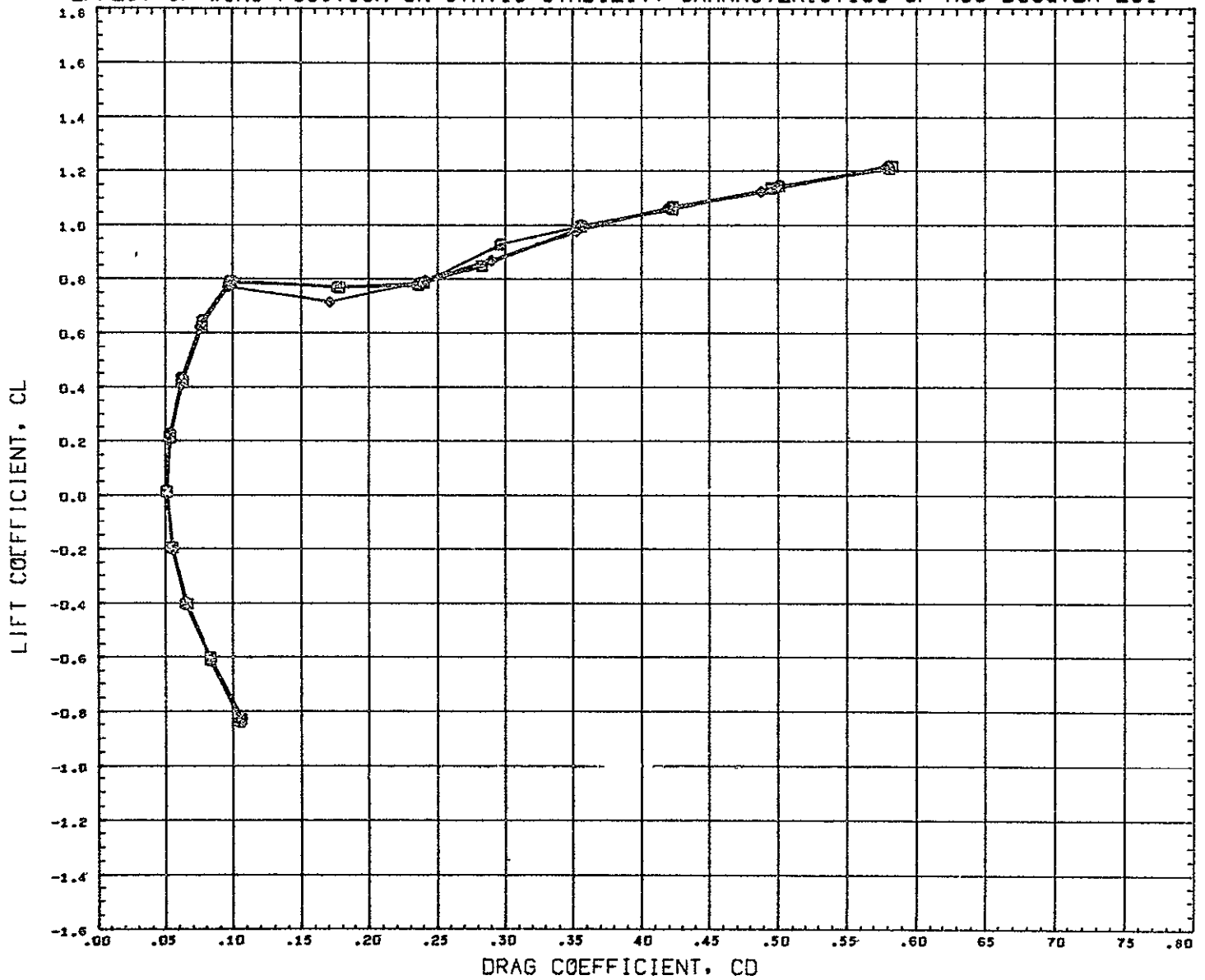
DATA HIST. CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	1.000	BEYA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
PEFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YNRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

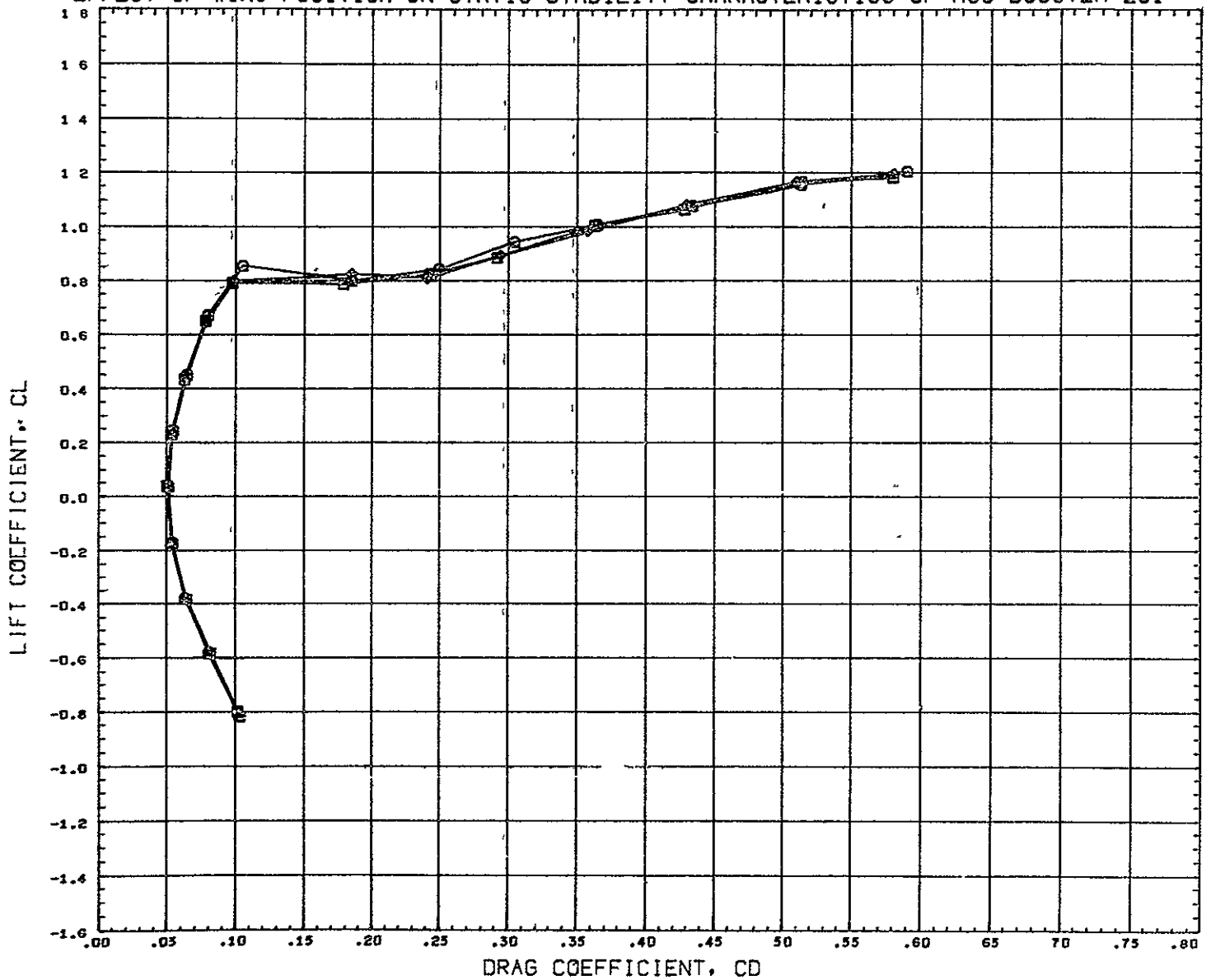
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES
□	0.640	IT 2.000 BETA 0.000
◇	0.670	MACH 0.250 CBRH 0.973
◇	0.700	ELEVTR 0.000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

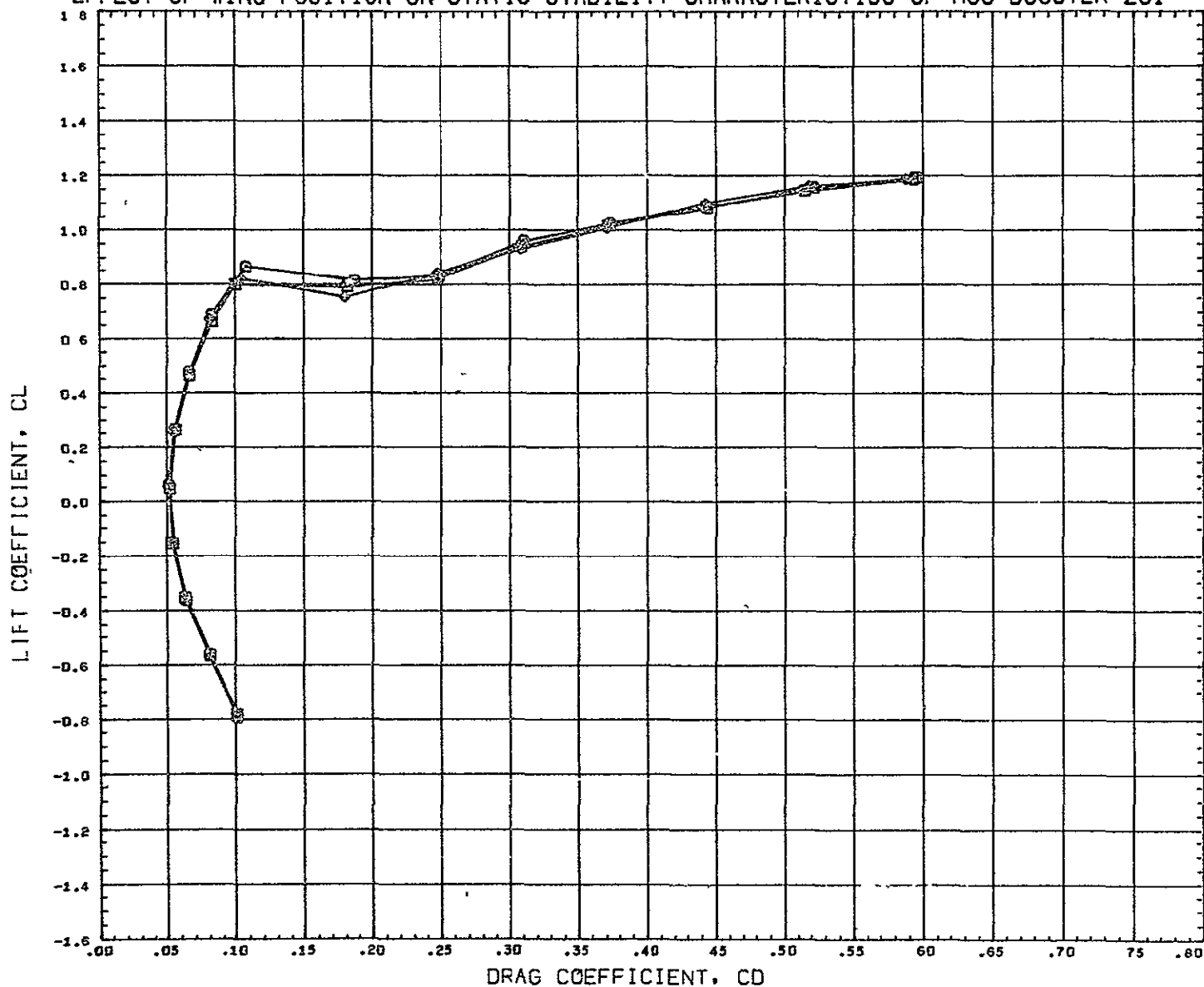
DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.640	IT	3.000	BETA	0.000
□	0.670	MACH	0.250	CBRH	0.973
◇	0.700	ELEVTR	0.000		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

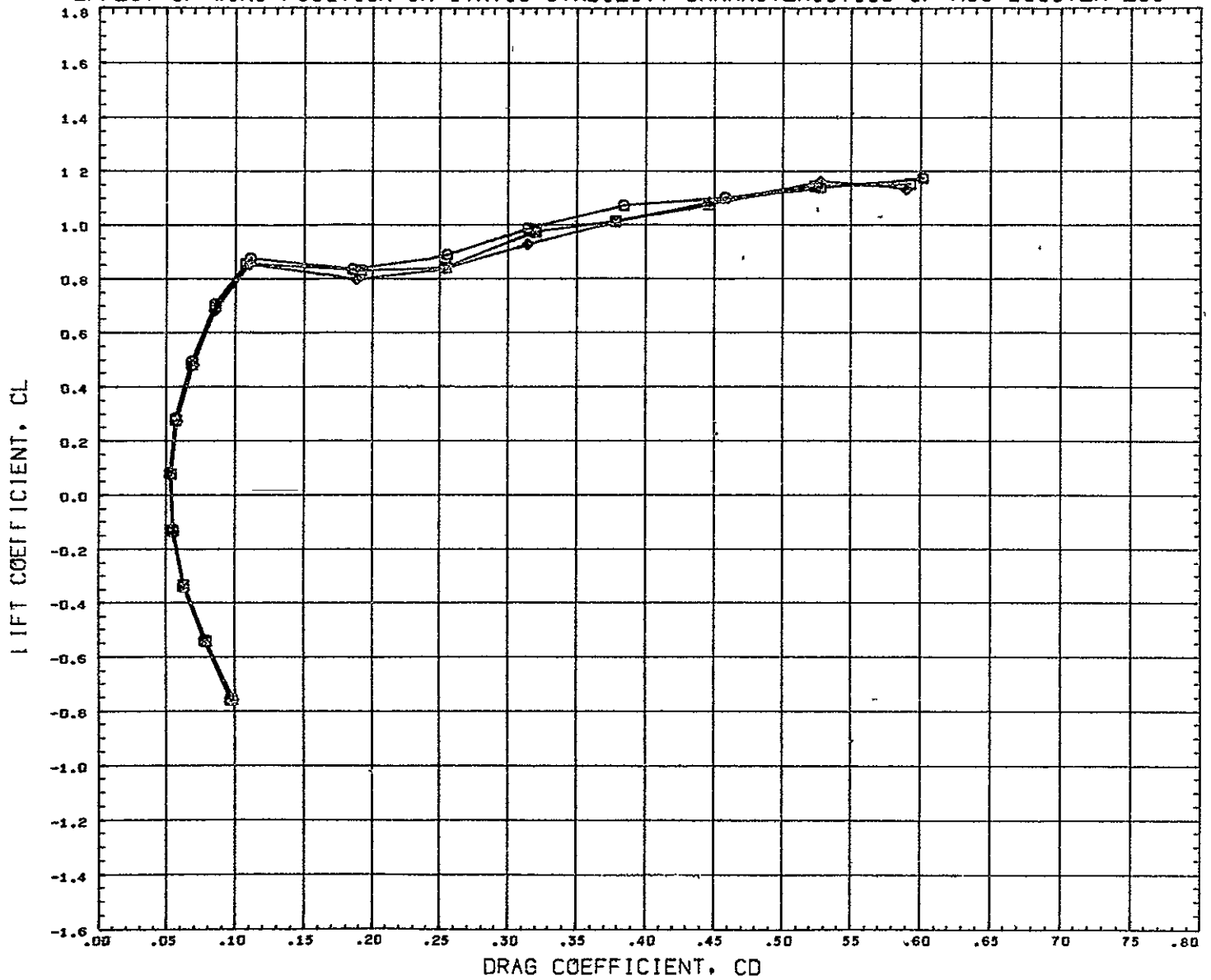
DATA HIST. CODE #E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF WING POSITION ON STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



SYMBOL	CBRW	IT	PARAMETRIC VALUES	BETA	0.000
□	0 640	IT	4 000	BETA	0.000
□	0 670	HACH	0.250	CBRH	0 973
◇	0 700	ELEVTR	0 000		

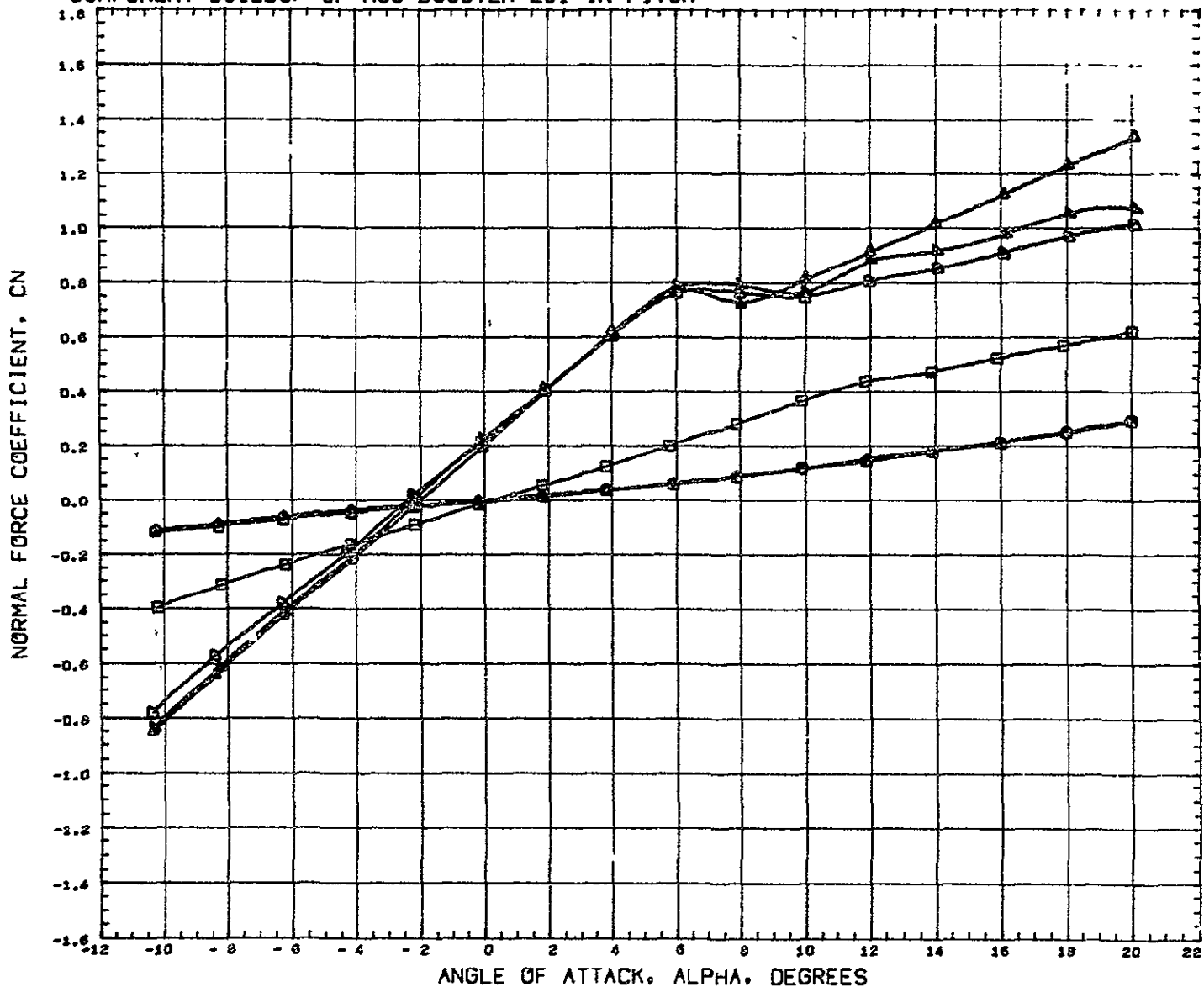
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E

MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1

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COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(Q64006)	MSC S-XXIV BOOSTER 251 BB2
(Q64007)	MSC S-XXIV BOOSTER 251 BB2HB1
(Q64008)	MSC S-XXIV BOOSTER 251 BB2VB1
(Q64009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(Q64010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(Q64011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

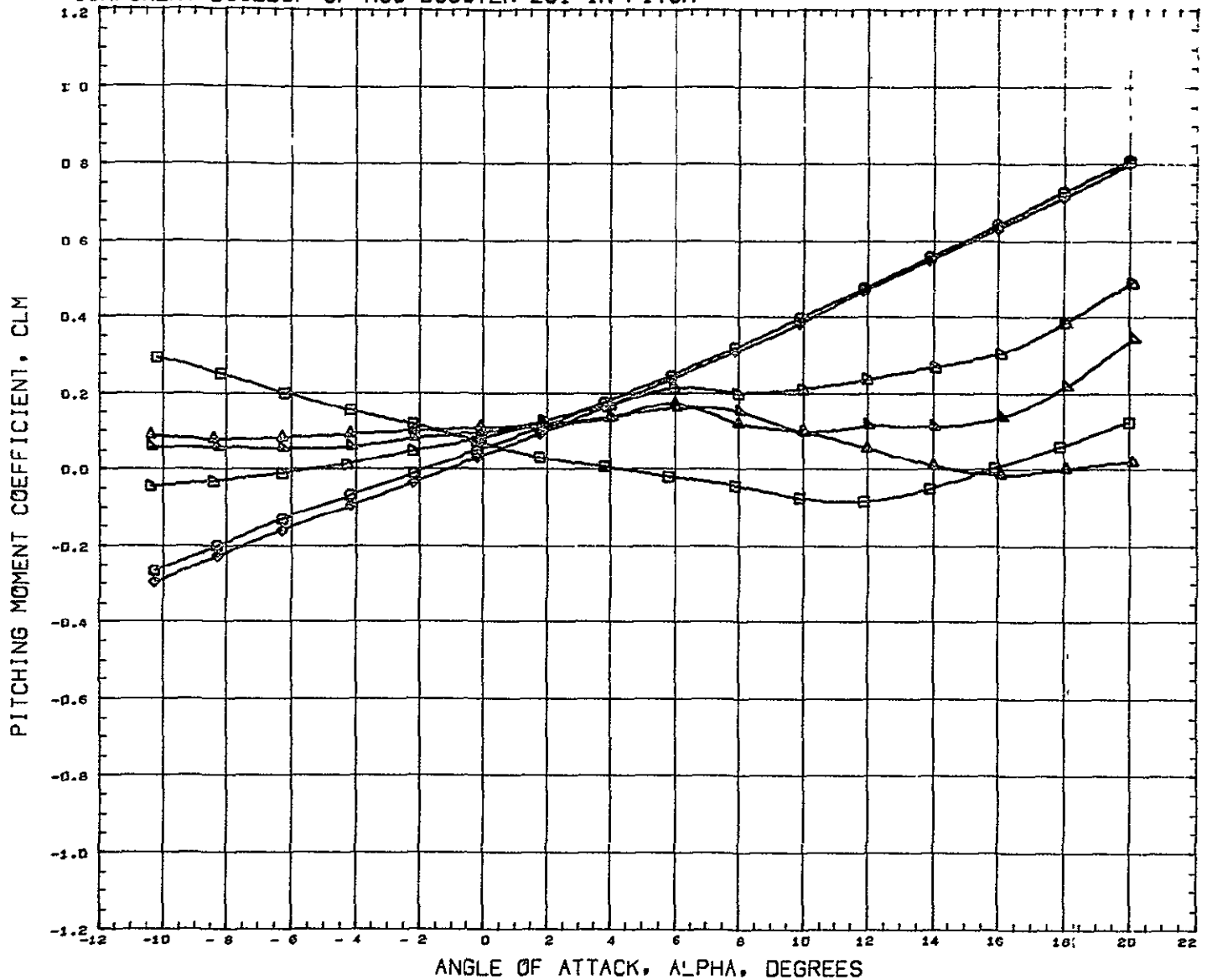
MACH 0.250

PARAMETRIC VALUES
BETA 0.000

REFERENCE INFORMATION

REFS	0.8460	FT SQ
REFL	0.3010	FT
REFB	2.4630	FT
XNRP	65.0000	PCT LB
YNRP	0.0000	
ZHRP	67.3500	PCT ZB
SCALE	1.3215	PCT

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



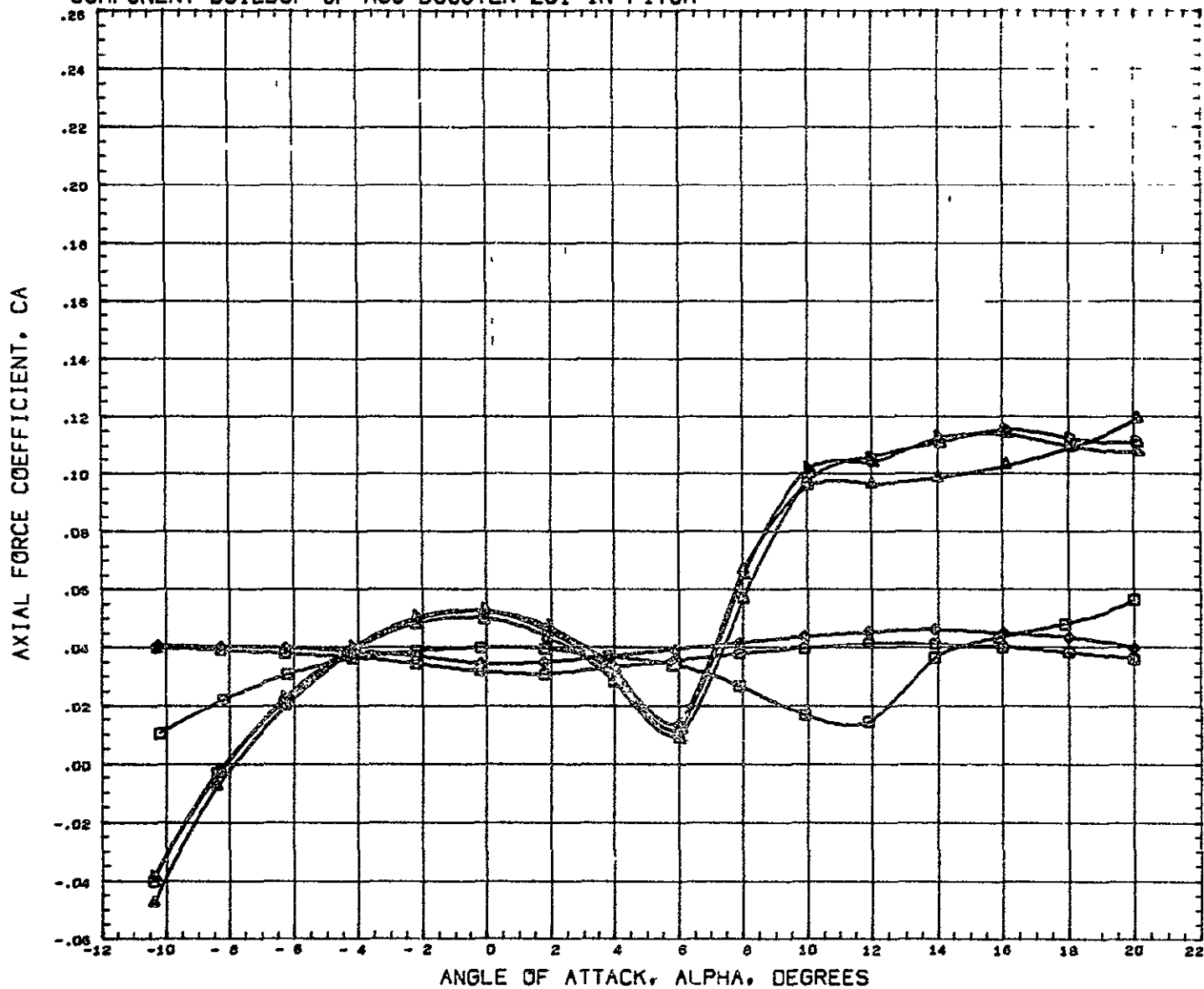
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(064006)	MSC S-XXIV BOOSTER 251 BB2
(064007)	MSC S-XXIV BOOSTER 251 BB2HB1
(064008)	MSC S-XXIV BOOSTER 251 BB2VB1
(064009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(064010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(064011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

HACH 0 250

PARAMETRIC VALUES
BETA 0.000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



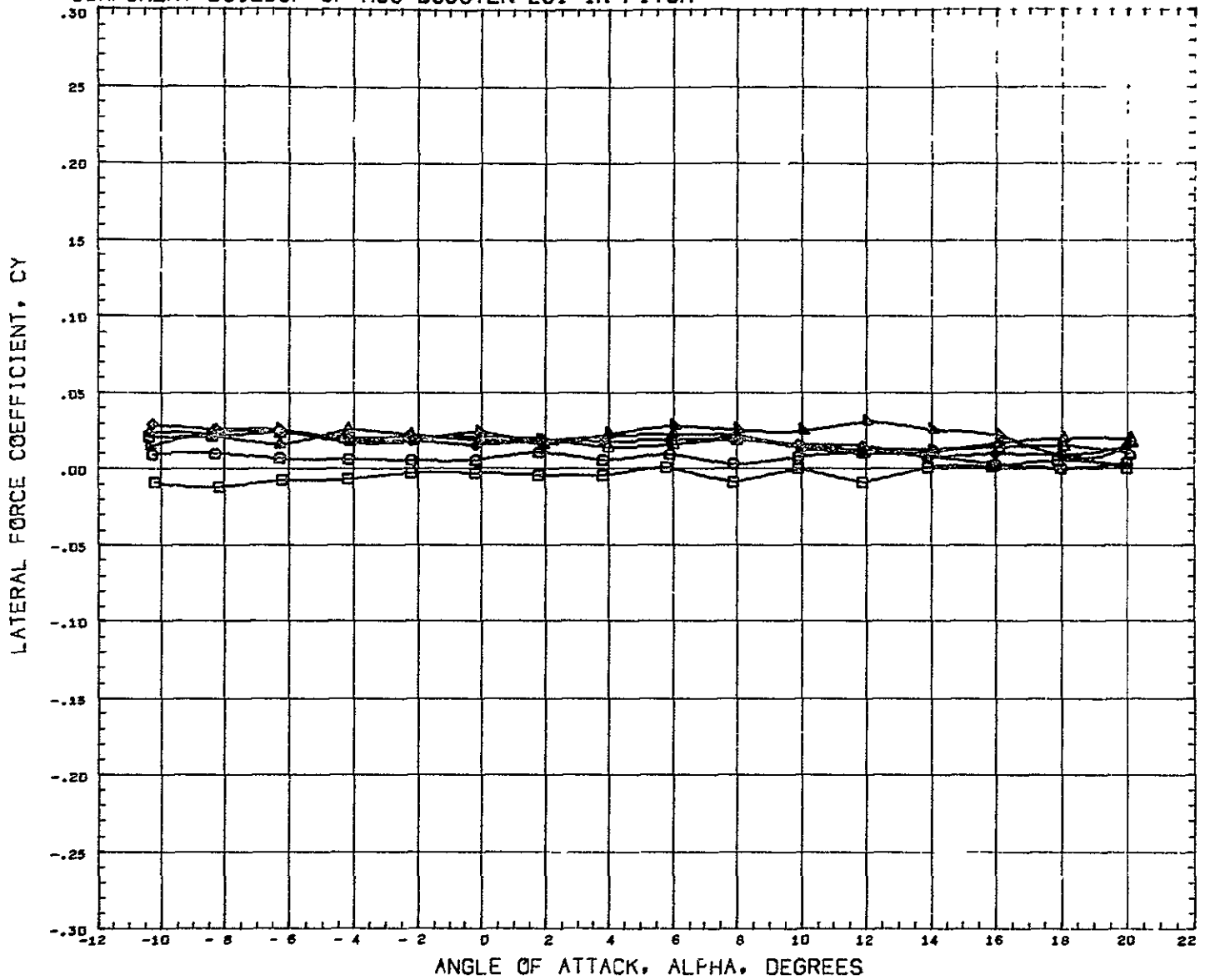
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(QC4006)	MSC S-XXIV BOOSTER 251 BB2
(QC4007)	MSC S-XXIV BOOSTER 251 BB2HB1
(QC4008)	MSC S-XXIV BOOSTER 251 BB2VB1
(QC4009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(QC4010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(QC4011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

MACH 0.250

PARAMETRIC VALUES
BETA 0.000

REFERENCE INFORMATION
REFS 0 8460 FT SQ
REFL 0 3010 FT
REFB 2.4630 FT
XMRP 65 0000 PCT LB
YMRP 0 0000
ZMRP 67 5500 PCT ZB
SCALE 1 3215 PCT

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(004006)	MSC S-XXIV BOOSTER 251 BB2
(004007)	MSC S-XXIV BOOSTER 251 BB2HB1
(004008)	MSC S-XXIV BOOSTER 251 BB2VB1
(004009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(004010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(004011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

HACH 0.250

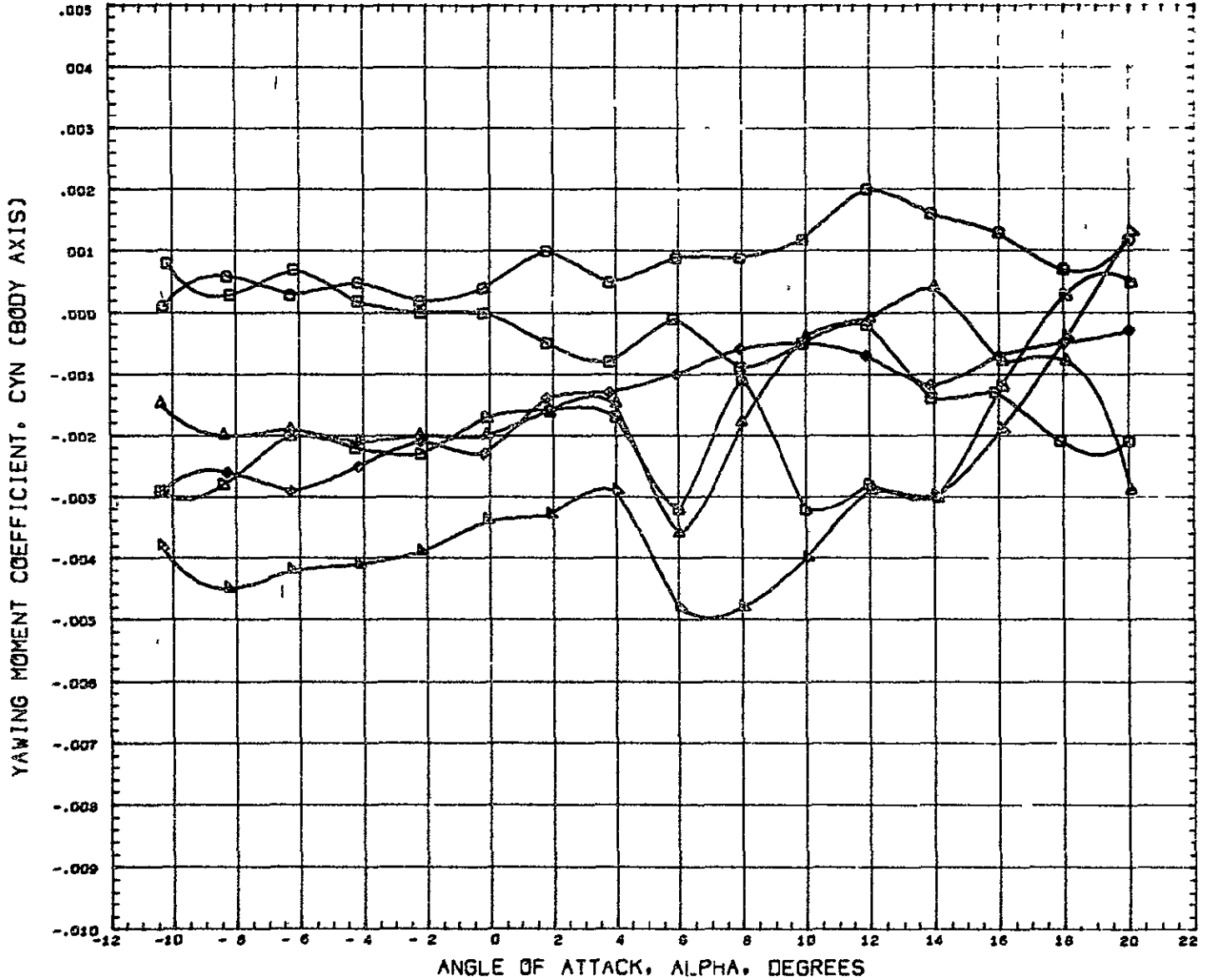
PARAMETRIC VALUES

BETA 0.000

REFERENCE INFORMATION

REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



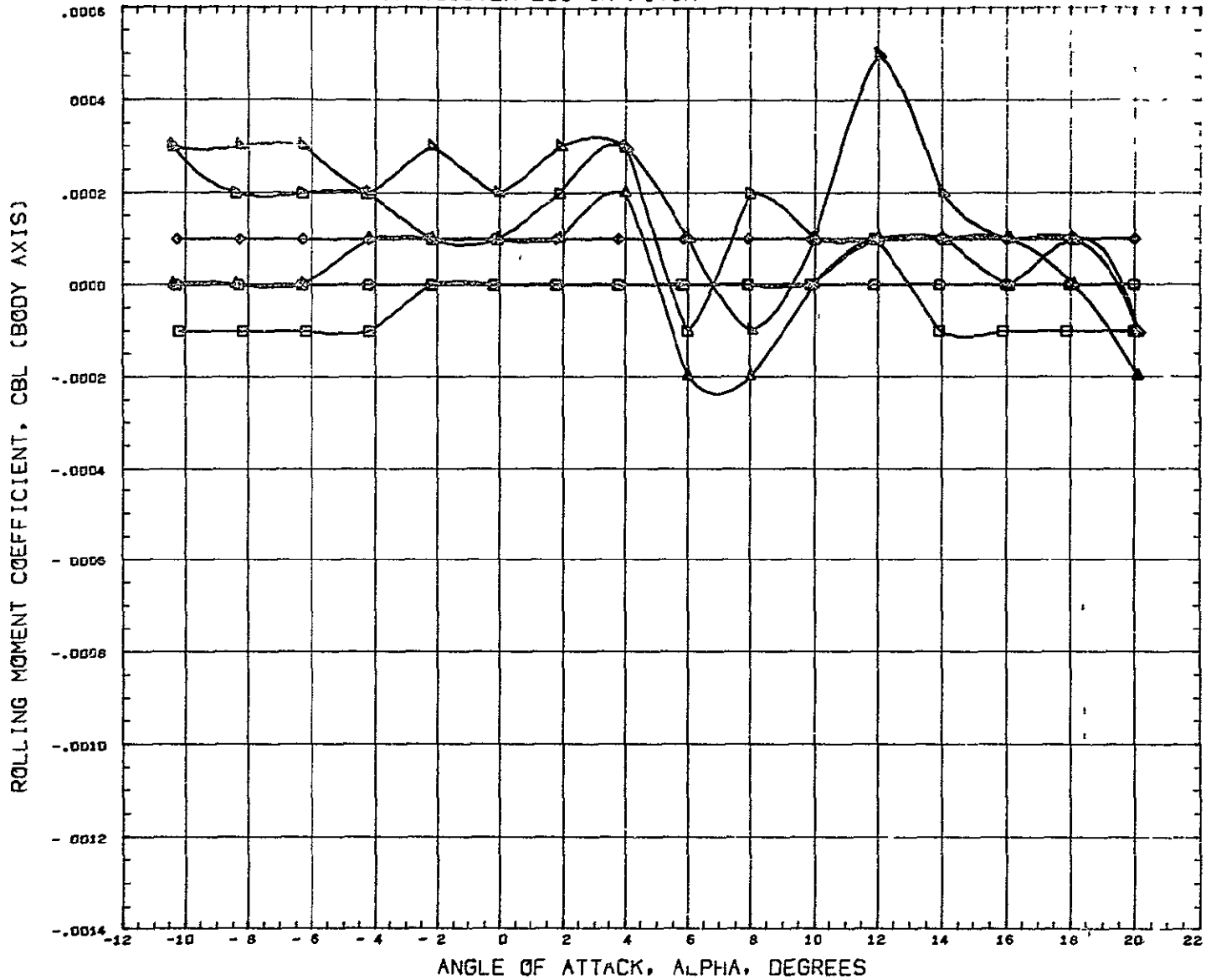
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(Q64006)	MSC S-XXIV BOOSTER 251 BB2
(Q64007)	MSC S-XXIV BOOSTER 251 BB2HB1
(Q64008)	MSC S-XXIV BOOSTER 251 BB2VB1
(Q64009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(Q64010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(Q64011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

MACH 0.250

PARAMETRIC VALUES
BETA 0.000

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XHRP	65.0000	PCT LB
YHRP	0.0000	
ZHRP	67.5500	PCT ZB
SCALE	1.3215	PCT

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



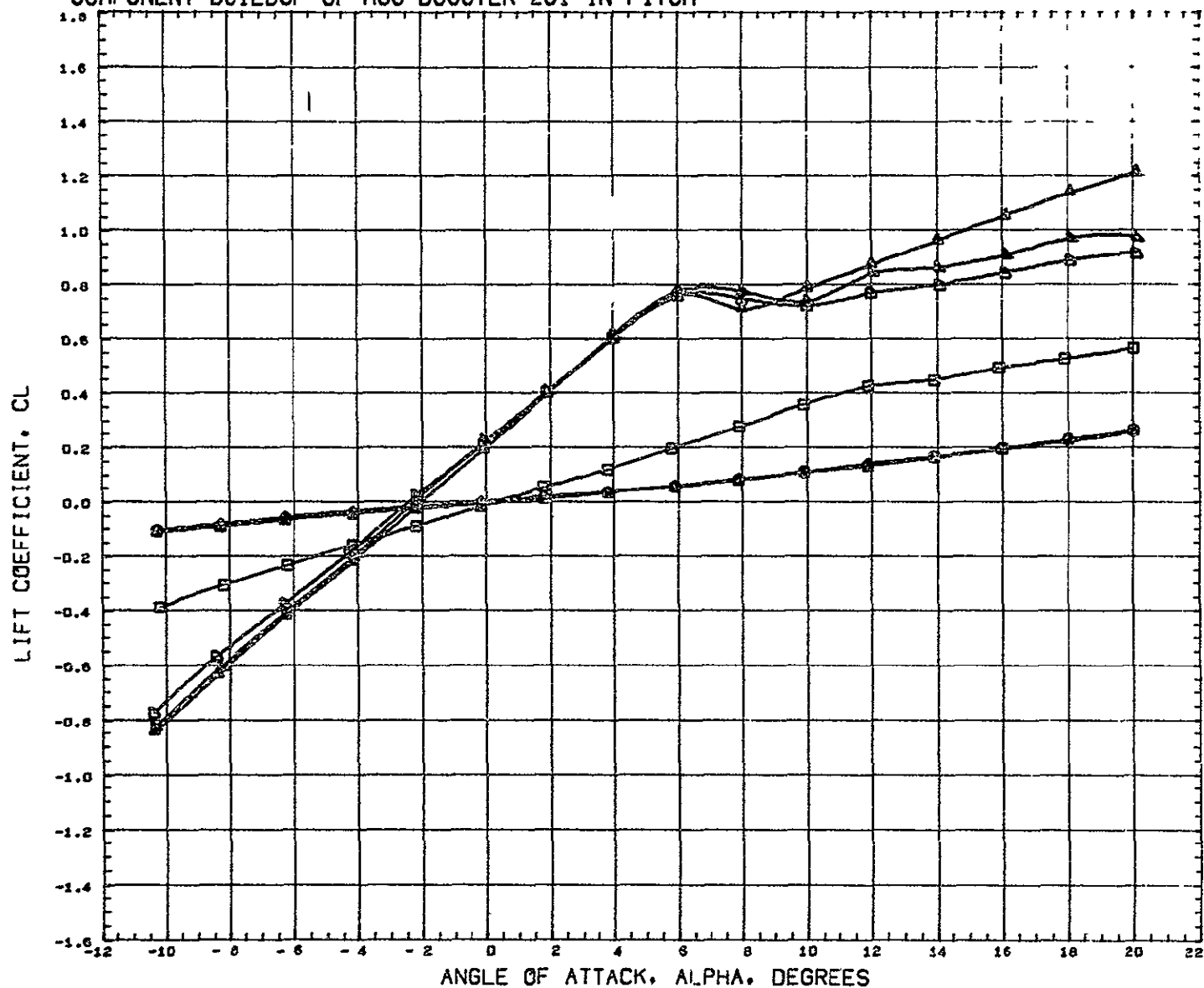
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(064006)	MSC S-XXIV BOOSTER 251 BB2
(064007)	MSC S-XXIV BOOSTER 251 BB2HB1
(064008)	MSC S-XXIV BOOSTER 251 BB2VB1
(064009)	MSC S-XXIV BOOSTER 251 BB2WB1VB1
(064010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(064011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

"ACP 0 250

PARAMETRIC VALUES
BETA 0 000

REFERENCE INFORMATION
REFS 0 6460 FT SQ
REFL 0 3810 FT
REFB 2 4630 FT
XHRP 65 0000 PCT LB
YHRP 0 0000
ZHRP 67 5500 PCT ZB
SCALE 1 3215 PCT

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(004006)	MSC S-XXIV BOOSTER 251 BB2
(004007)	MSC S-XXIV BOOSTER 251 BB2HB1
(004008)	MSC S-XXIV BOOSTER 251 BB2VB1
(004009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(004010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(004011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

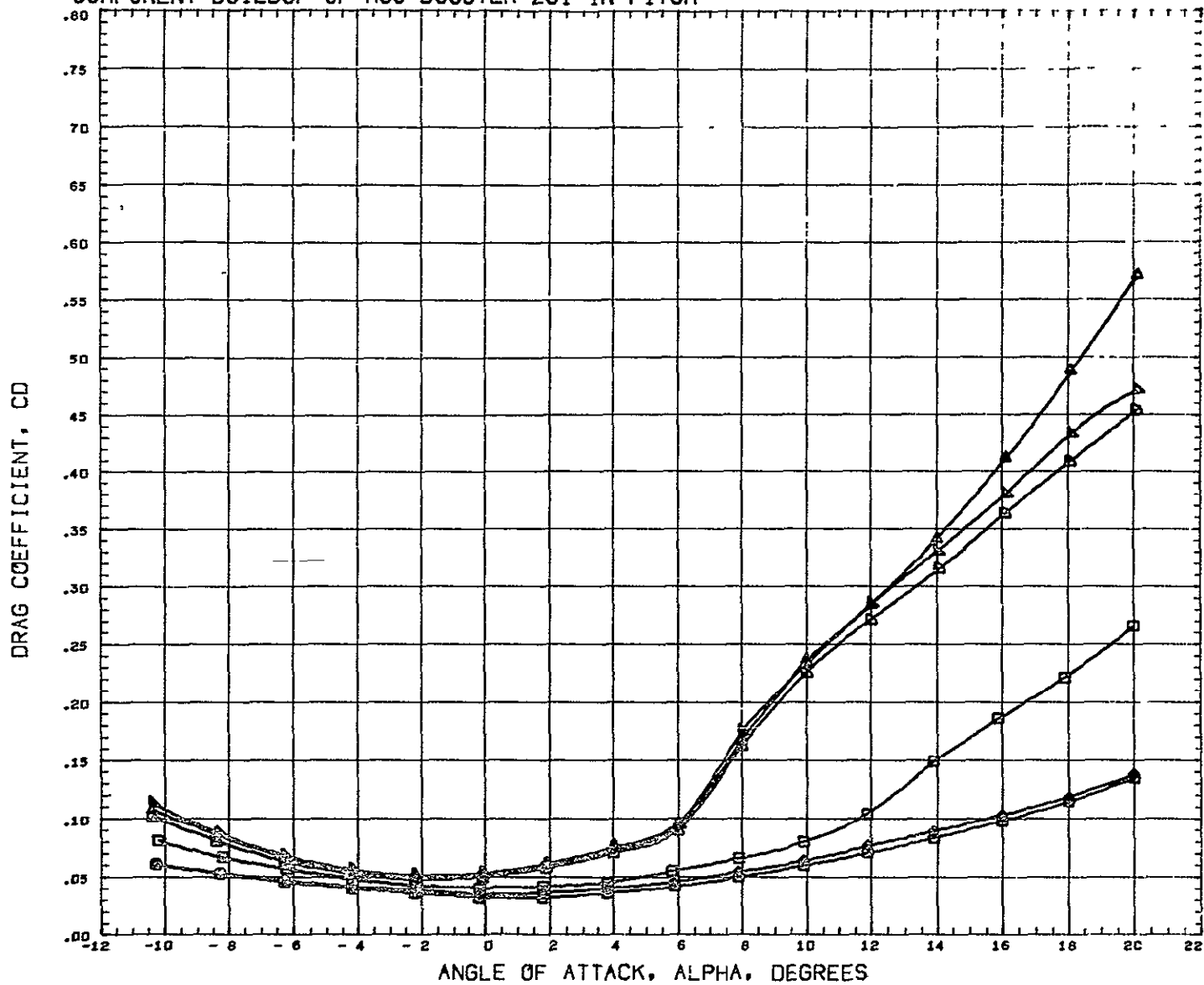
MACH 0.250

PARAMETRIC VALUES
BETA 0.000

REFERENCE INFORMATION

REFS	0 0460	FT SQ
REFL	0 3010	FT
REFB	2 4630	FT
XHRF	65 0000	PCT LB
YHRF	0 0000	
ZHRF	67 3500	PCT ZB
SCALE	1 3215	PCT

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(064006) □ MSC S-XXIV BOOSTER 251 BB2
 (064007) □ MSC S-XXIV BOOSTER 251 BB2HB1
 (064008) ◇ MSC S-XXIV BOOSTER 251 BB2VB1
 (064009) △ MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
 (064010) ▽ MSC S-XXIV BOOSTER 251 BB2WB1VB3
 (064011) ⊕ MSC S-XXIV BOOSTER 251 BB2WB1VB4

MACH 0.250

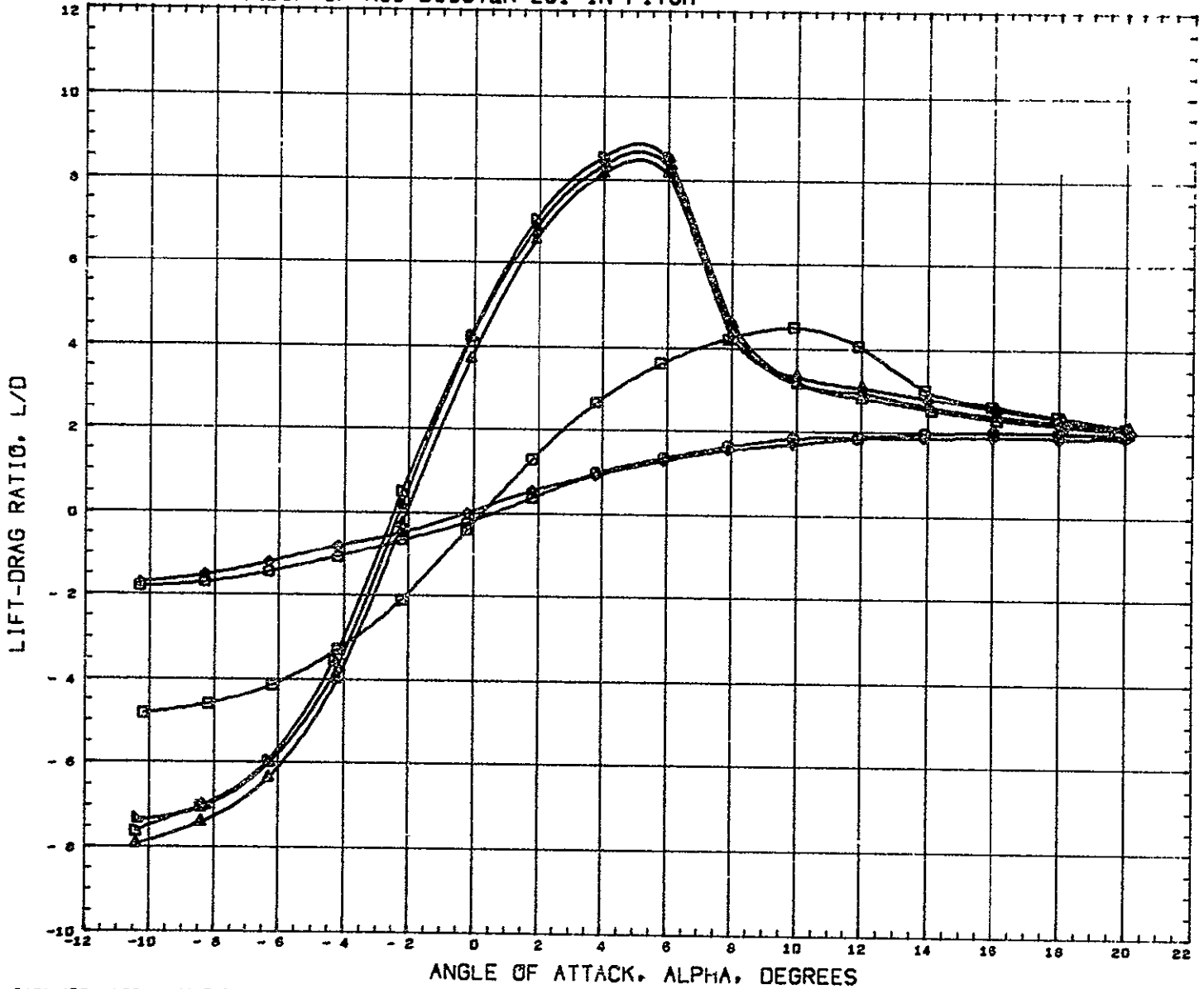
PARAMETRIC VALUES

BETA 0.000

REFERENCE INFORMATION

REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALF 1.3215 PCT

COMPONENT BUILDUP OF MSC BOOSTER 251 IN PITCH



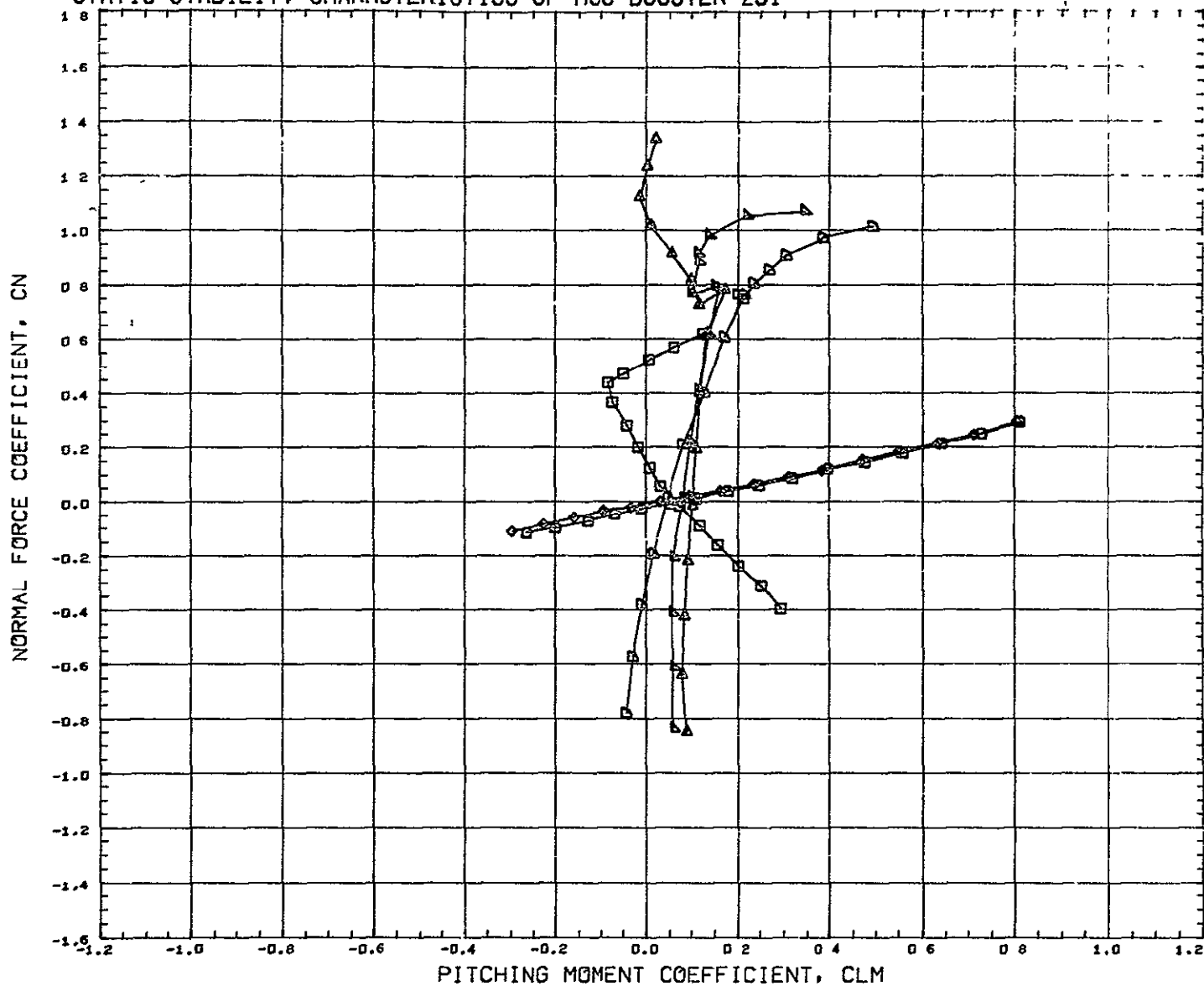
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(064006)	MSC S-XXIV BOOSTER 251 BB2
(064007)	MSC S-XXIV BOOSTER 251 BB2HB1
(064008)	MSC S-XXIV BOOSTER 251 BB2VB1
(064009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(064010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(064011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

MACH 0.250

PARAMETRIC VALUES
BETA 0.000

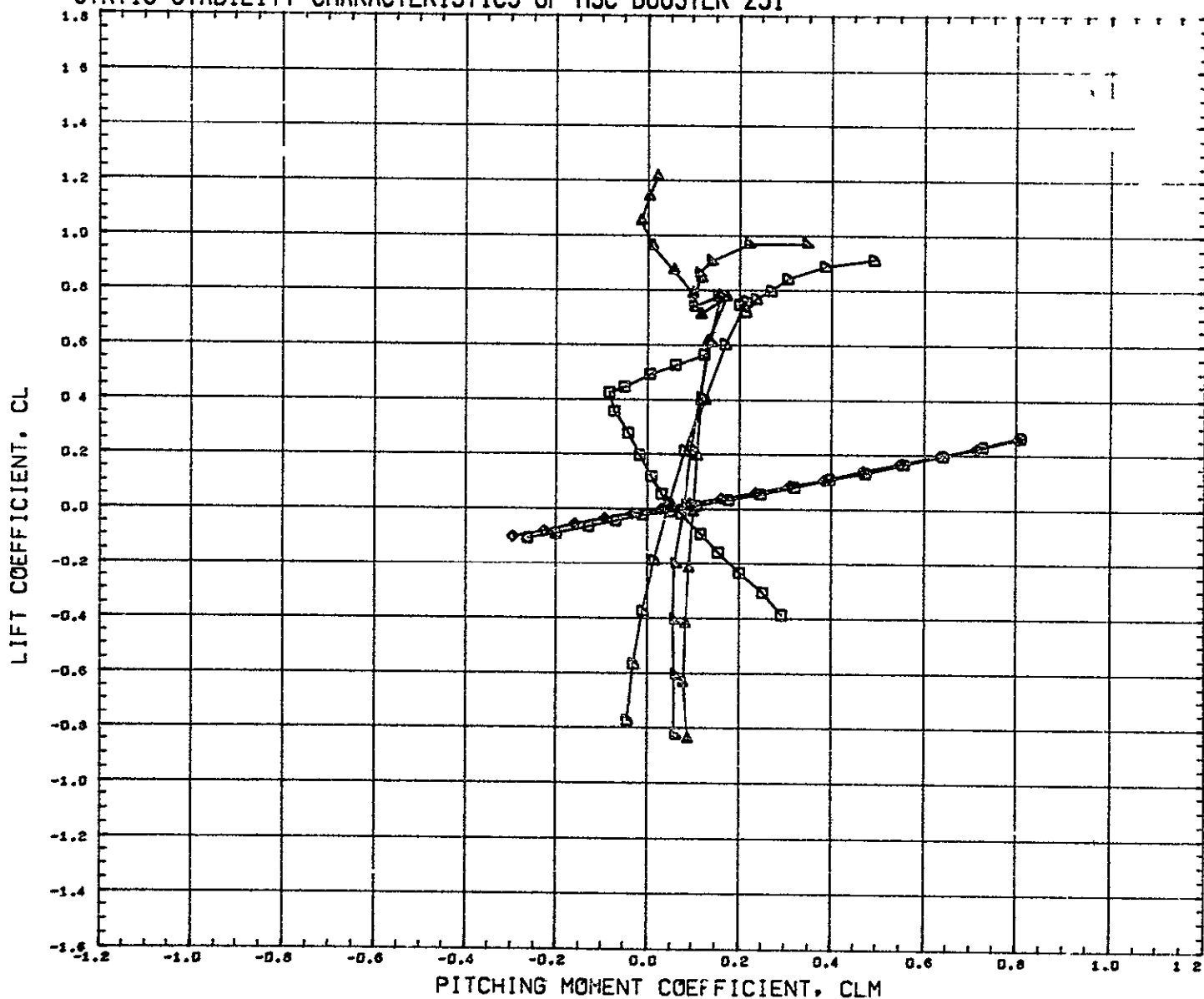
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	PARAMETRIC VALUES	REFERENCE INFORMATION
(Q64006)	MSC S-XXIV BOOSTER 251 BB2	BETA 0.000	REFS 0 8460 FT SQ
(Q64007)	MSC S-XXIV BOOSTER 251 BB2HB1		REFL 0 3810 FT
(Q64008)	MSC S-XXIV BOOSTER 251 BB2VB1		REFB 2 4630 FT
(Q64009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1		XMRP 65 0000 PCT LB
(Q64010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3		YMRP 0 0000
(Q64011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4		ZMRP 67 5500 PCT ZB
			SCALE 1 3215 PCT
	MACH 0.250		

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



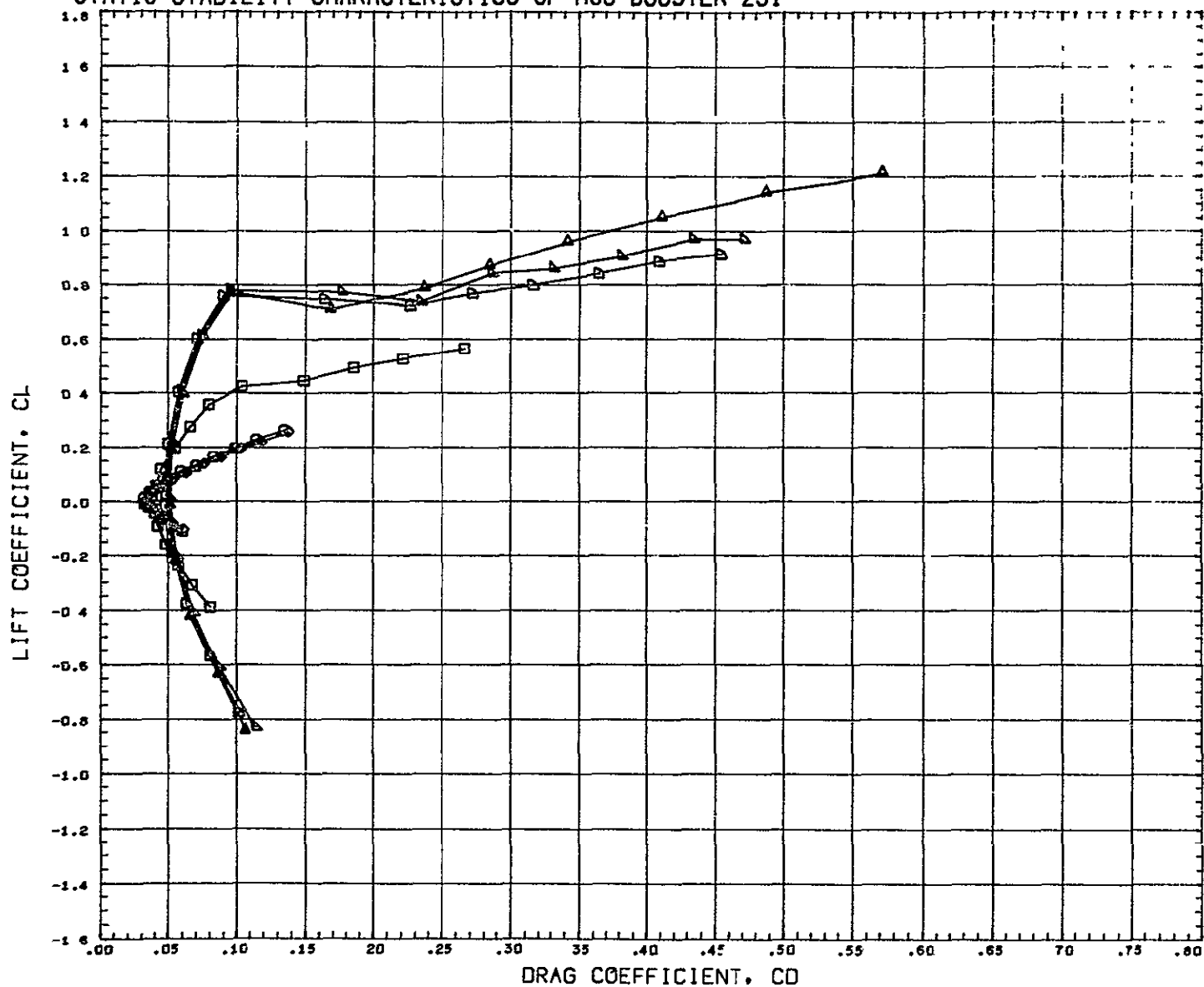
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(064006)	MSC S-XXIV BOOSTER 251 BB2
(064007)	MSC S-XXIV BOOSTER 251 BB2HB1
(064008)	MSC S-XXIV BOOSTER 251 BB2VB1
(064009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(064010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(064011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

MACH 0.250

PARAMETRIC VALUES
BETA 0.000

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRF	65 0000	PCT LB
YMRF	0 0000	
ZMRF	67 5500	PCT ZB
SCALE	1 3215	PCT

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251



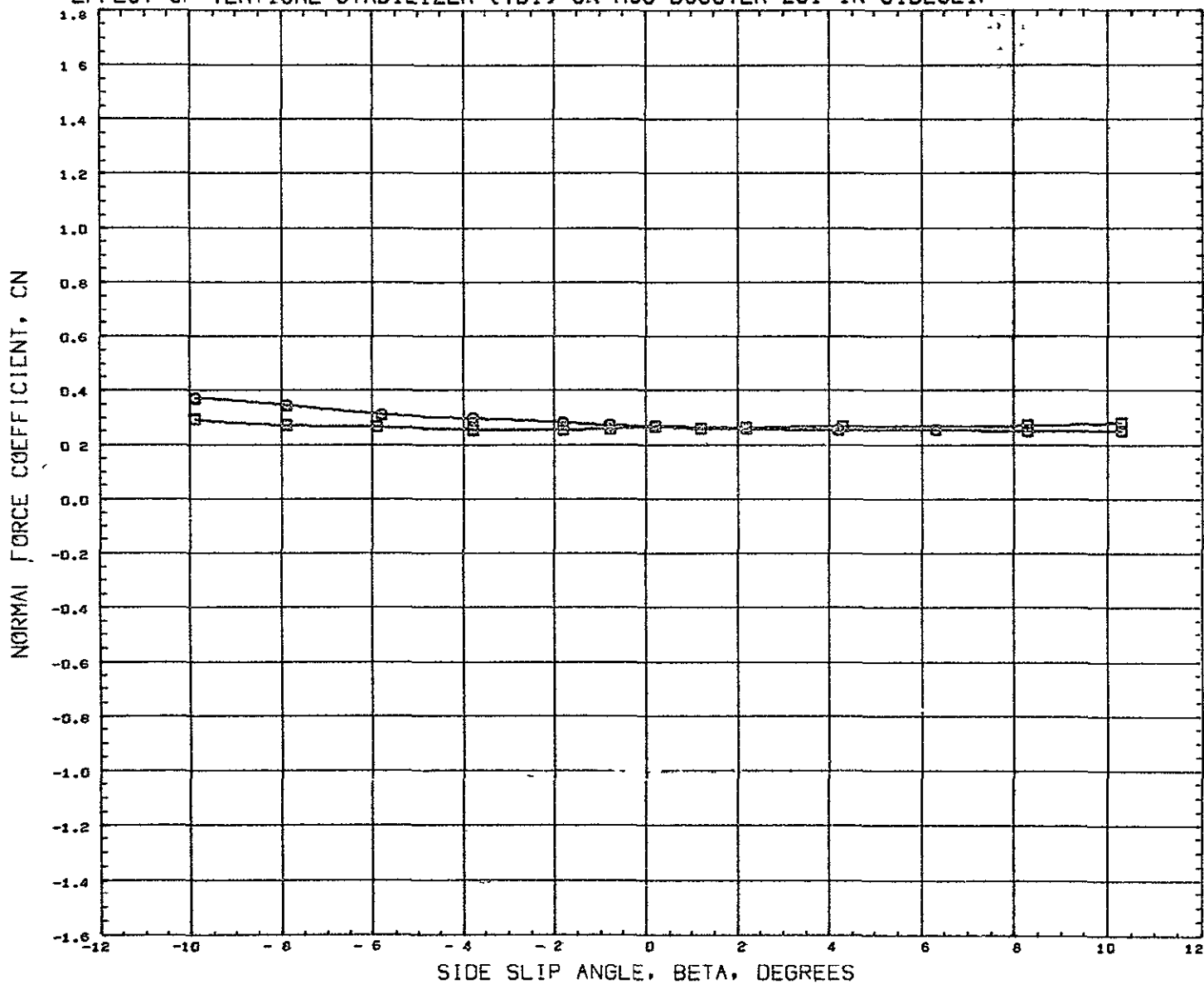
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(QG4006)	MSC S-XXIV BOOSTER 251 BB2
(QG4007)	MSC S-XXIV BOOSTER 251 BB2HB1
(QG4008)	MSC S-XXIV BOOSTER 251 BB2VB1
(QG4009)	MSC S-XXIV BOOSTER 251 BB2WB1HB1VB1
(QG4010)	MSC S-XXIV BOOSTER 251 BB2WB1VB3
(QG4011)	MSC S-XXIV BOOSTER 251 BB2WB1VB4

MACH 0.250

PARAMETRIC VALUES
BETA 0.000

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XHRP	65.0000	PCT LB
YHRP	0.0000	
ZHRP	67.5500	PCT ZB
SCALE	1.3215	PCT

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



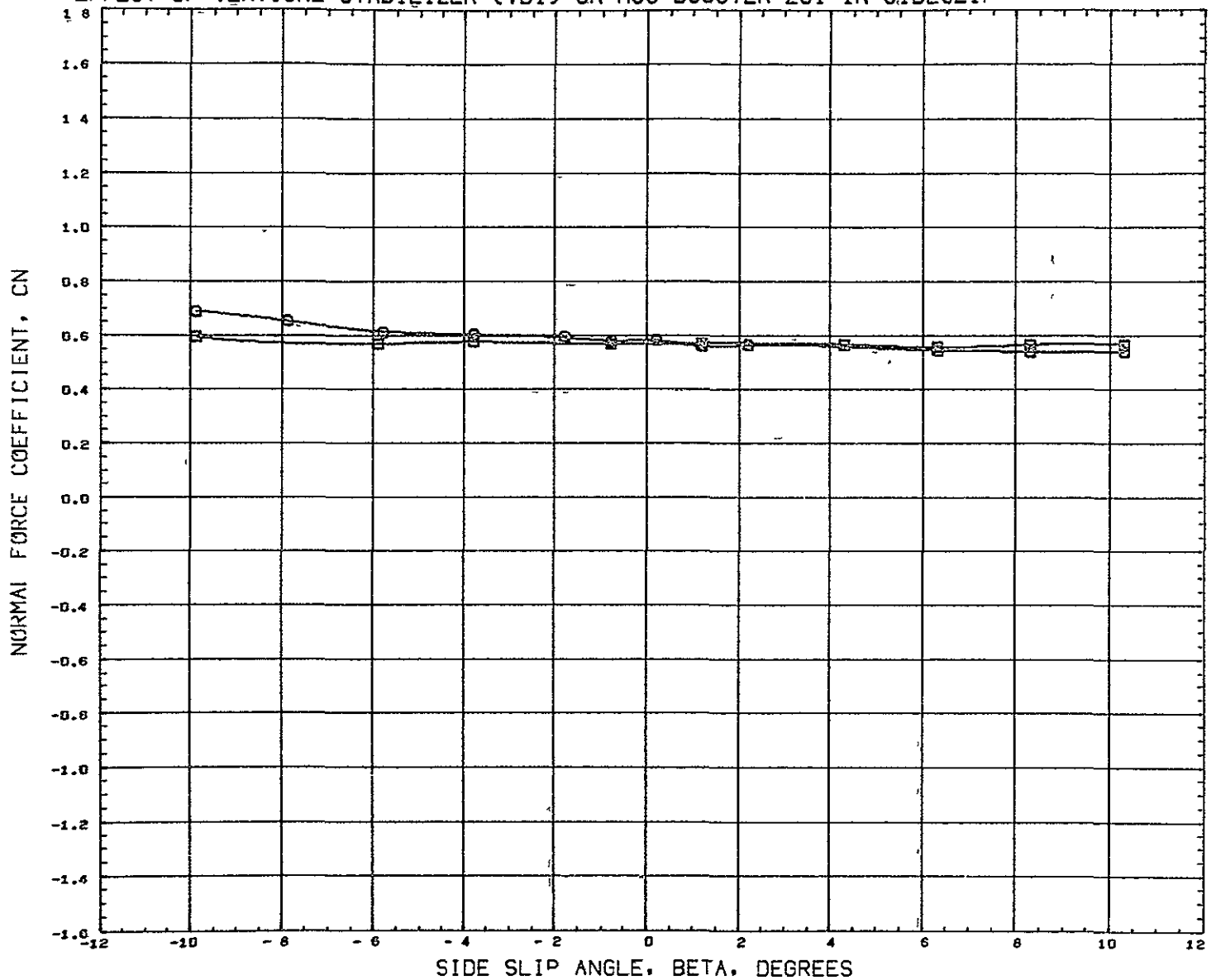
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (464020) ○ MSC S-XXIV BOOSTER 251 882WB1VB1H2.
 (464022) □ MSC S-XXIV BOOSTER 251 882VB1H81

PARAMETRIC VALUES
 MACH 0.250 CBFW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4830 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5300 PCT ZB
 SCALE 1.3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



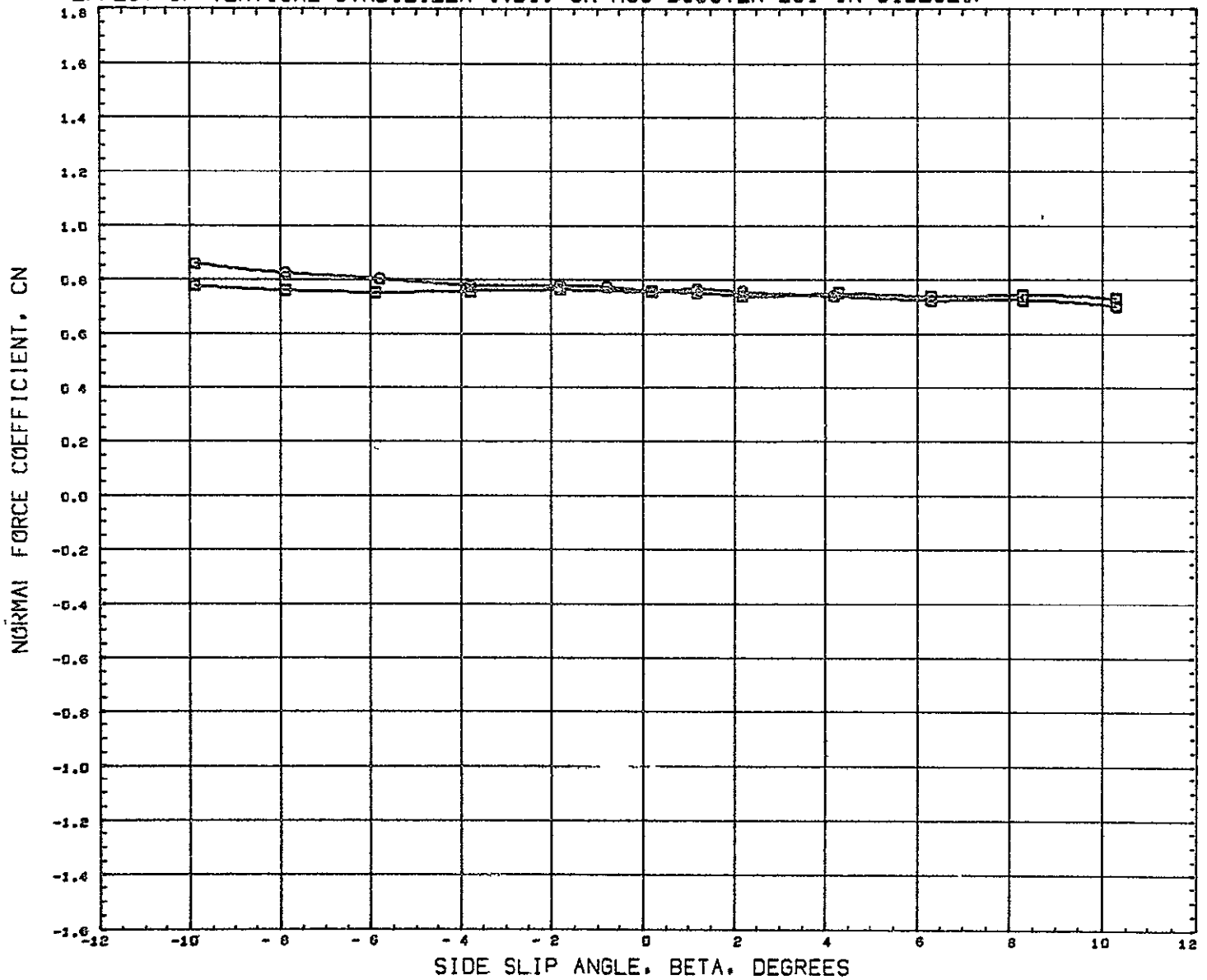
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 (064020) □ MSC S-XXIV BOOSTER 251 BB2WS.Y51HB1
 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 HAC1 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



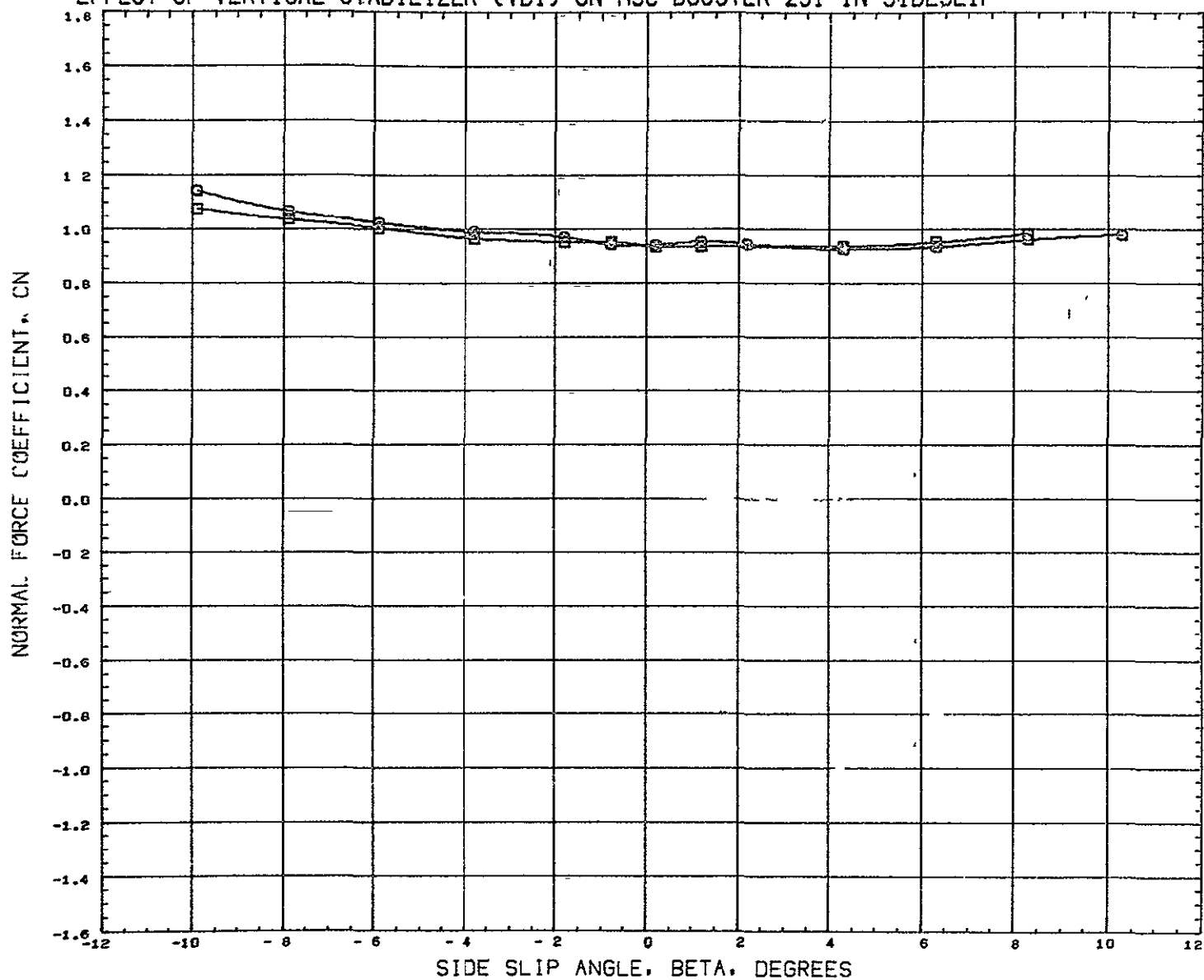
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 (064020) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XHRP 65.0000 PCT LB
 YHRP 0.0000
 ZHRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VBI) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (QC4020) C MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (QC4022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

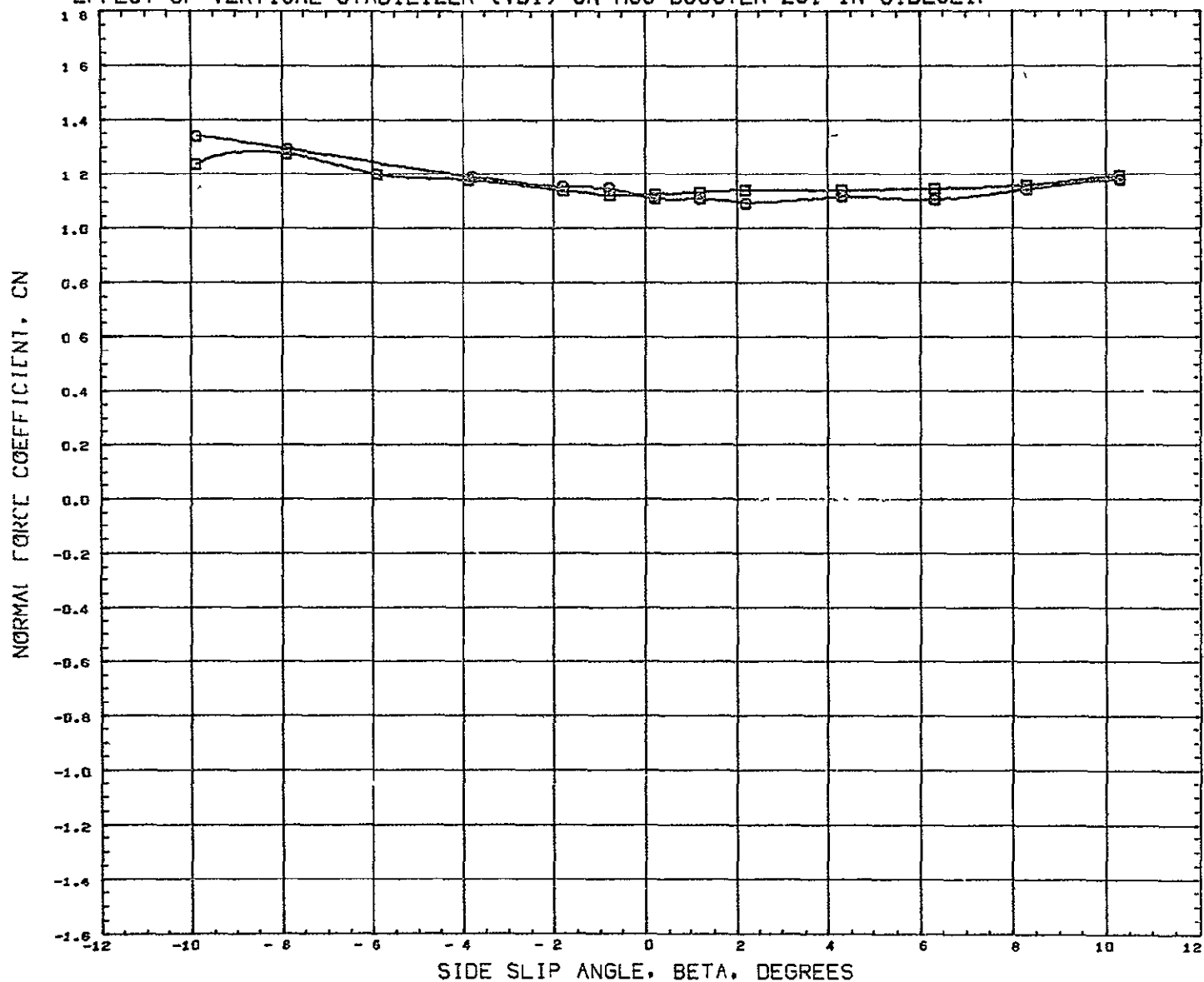
PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 12.000



EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



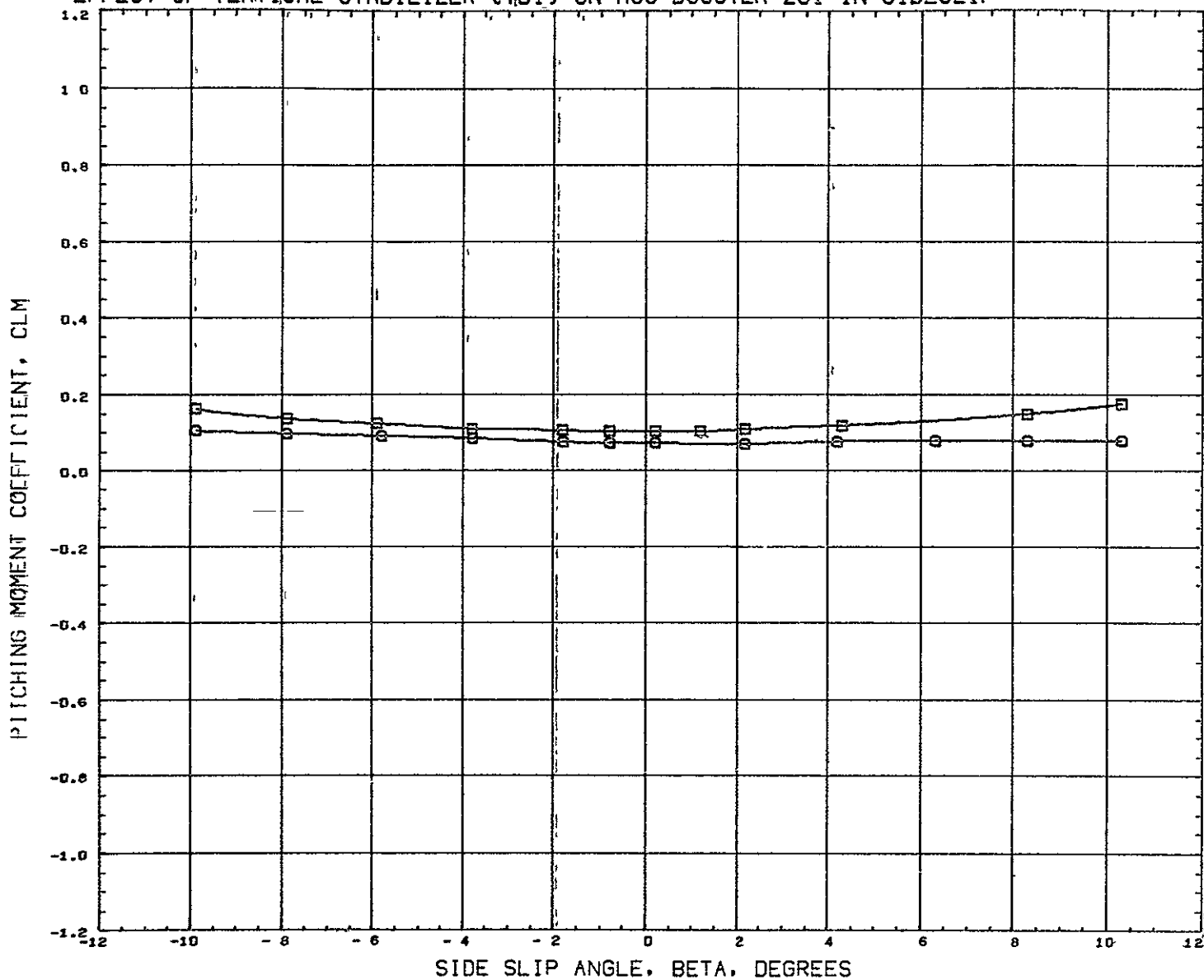
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (004020) □ MSC S-XXIV BOOSTER 251 882WB1VB1HB1
 (004022) □ MSC S-XXIV BOOSTER 251 882VB1HB1

PARAMETRIC VALUES
 MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRF 65 0000 FCT LB
 YHRF 0 0000
 ZHRF 67.5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15 000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



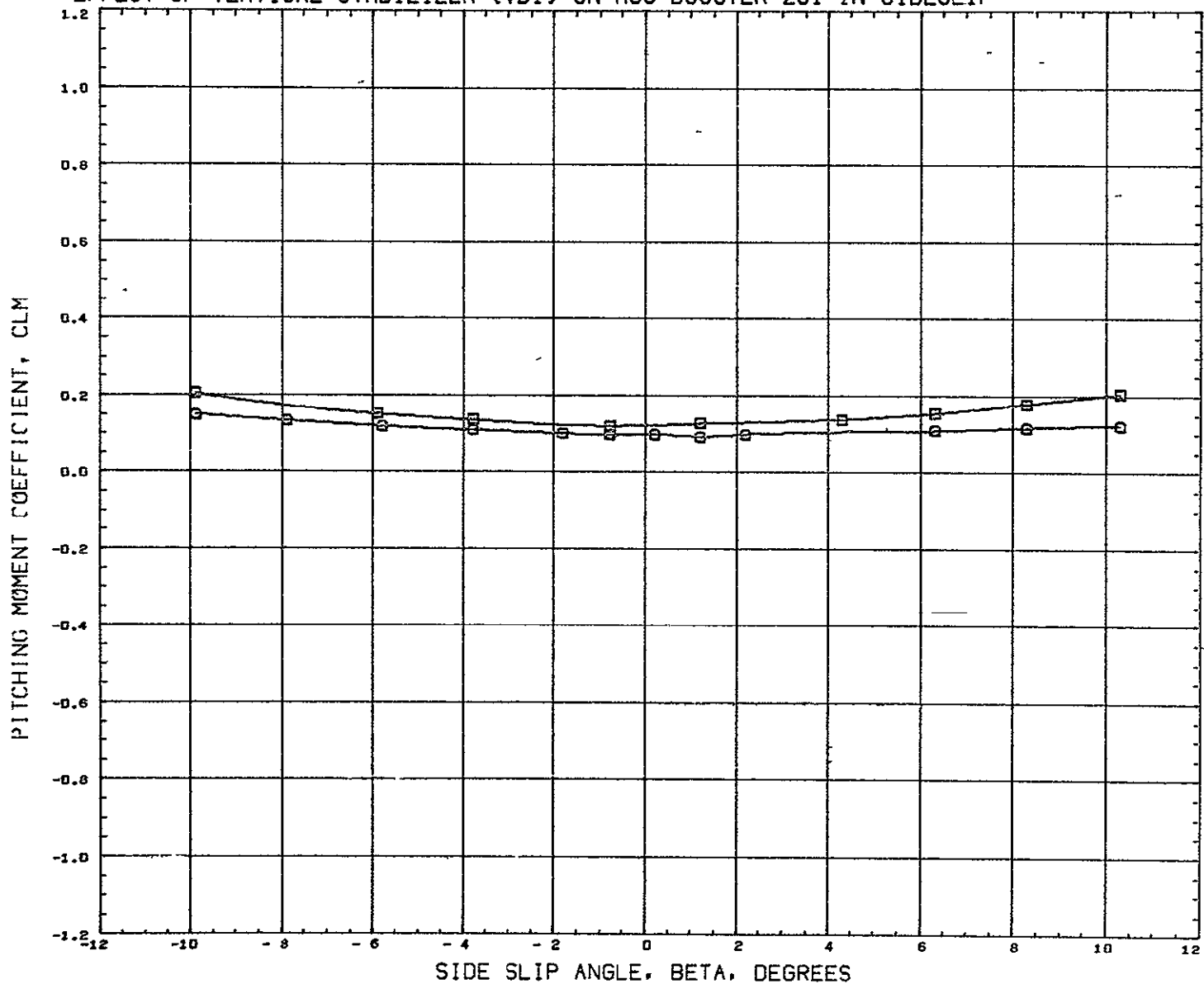
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 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 FCT LB
 YMRP 0.0000
 ZMRP 67.5500 FCT ZB
 SCALE 1.3215 FCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(QG4020) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
(QG4022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES

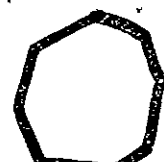
MACH 0.250 CBRW 0.670
ELEVTR 0.000 CBRH 0.973
IT 0.000

REFERENCE INFORMATION

REFS 0 8460 FT SQ
REFL 0 3810 FT
REFB 2 4630 FT
XMRP 65 0000 PCT LB
YMRP 0 0000
ZMRP 67 5500 PCT 2B
SCALE 1 3215 PCT

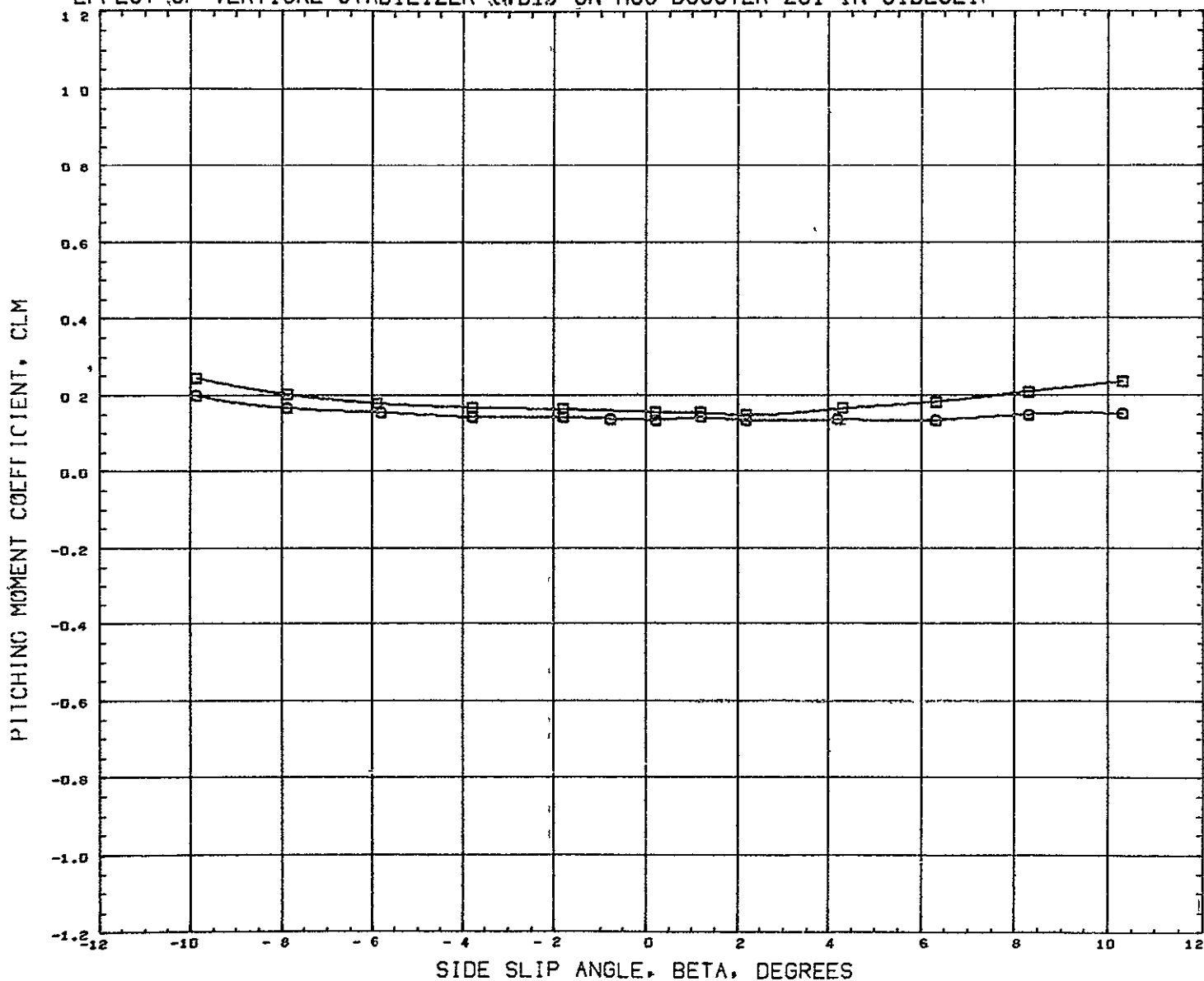
ALPHA 3.000

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EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



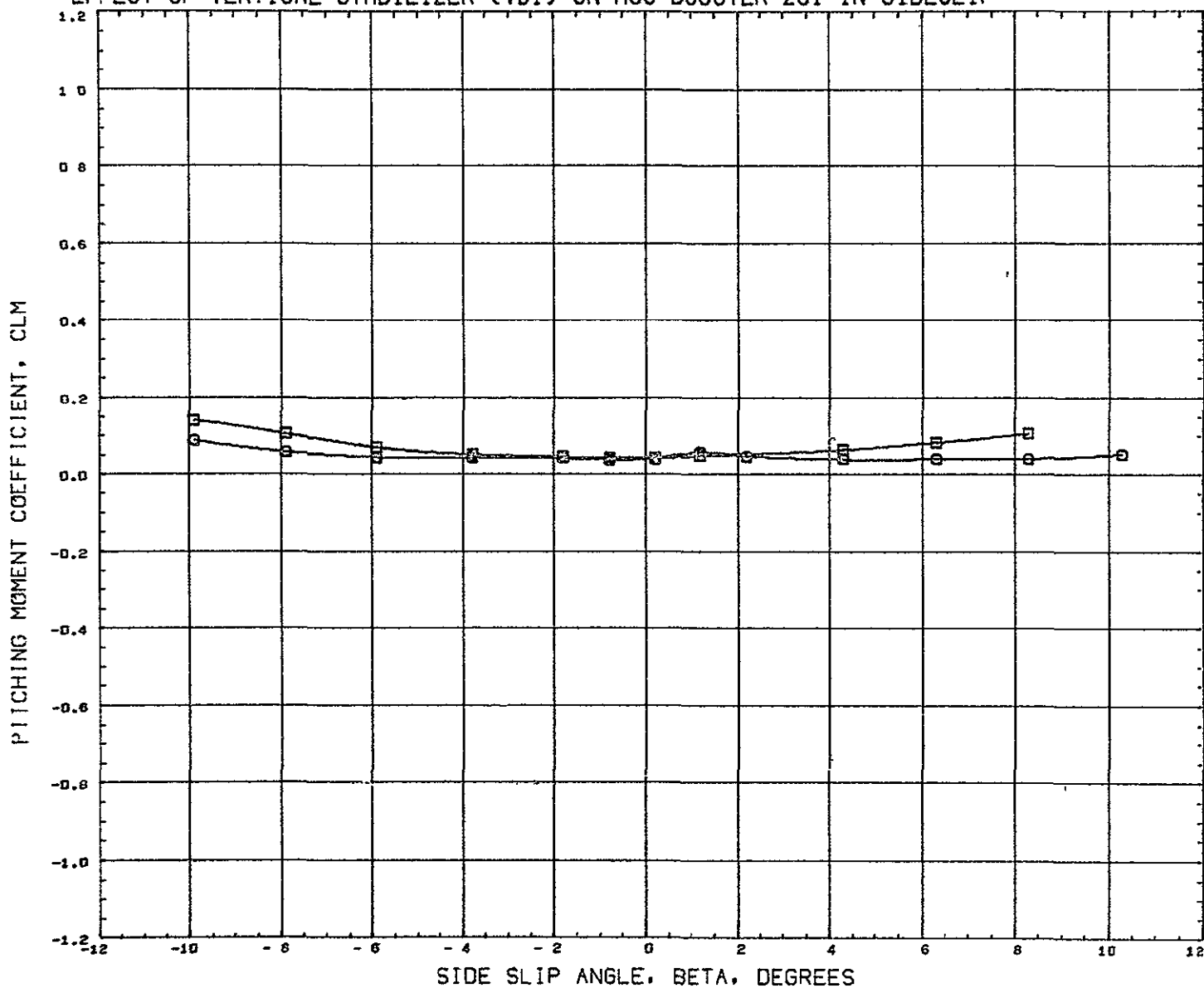
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 (064020) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.870
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



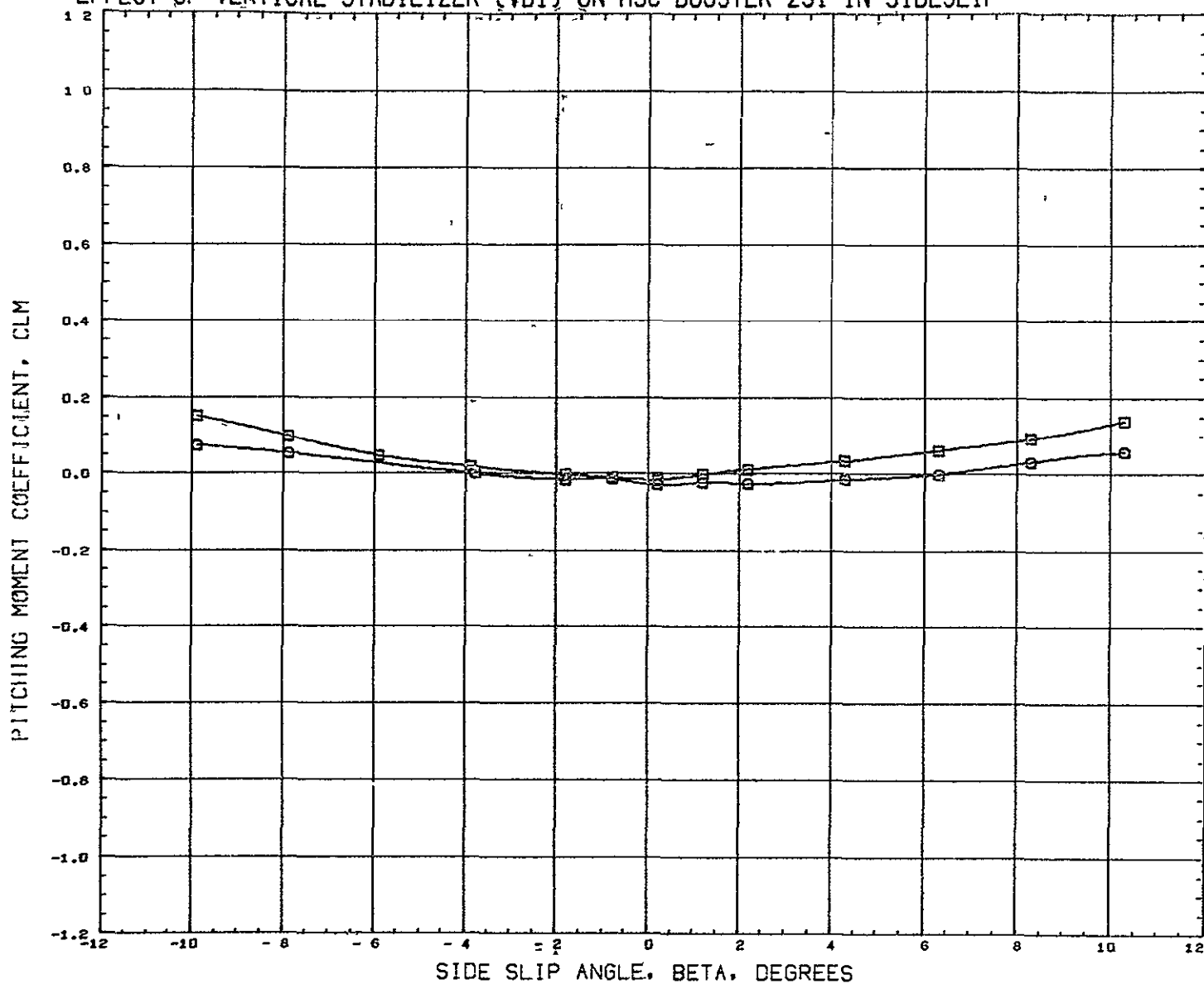
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 (064020) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRF 65.0000 PCT LB
 YMRF 0.0000
 ZMRF 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(064022) □ MSC S-XX.V BOOSTER 251 BB2WB1VB1HB1
(064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES

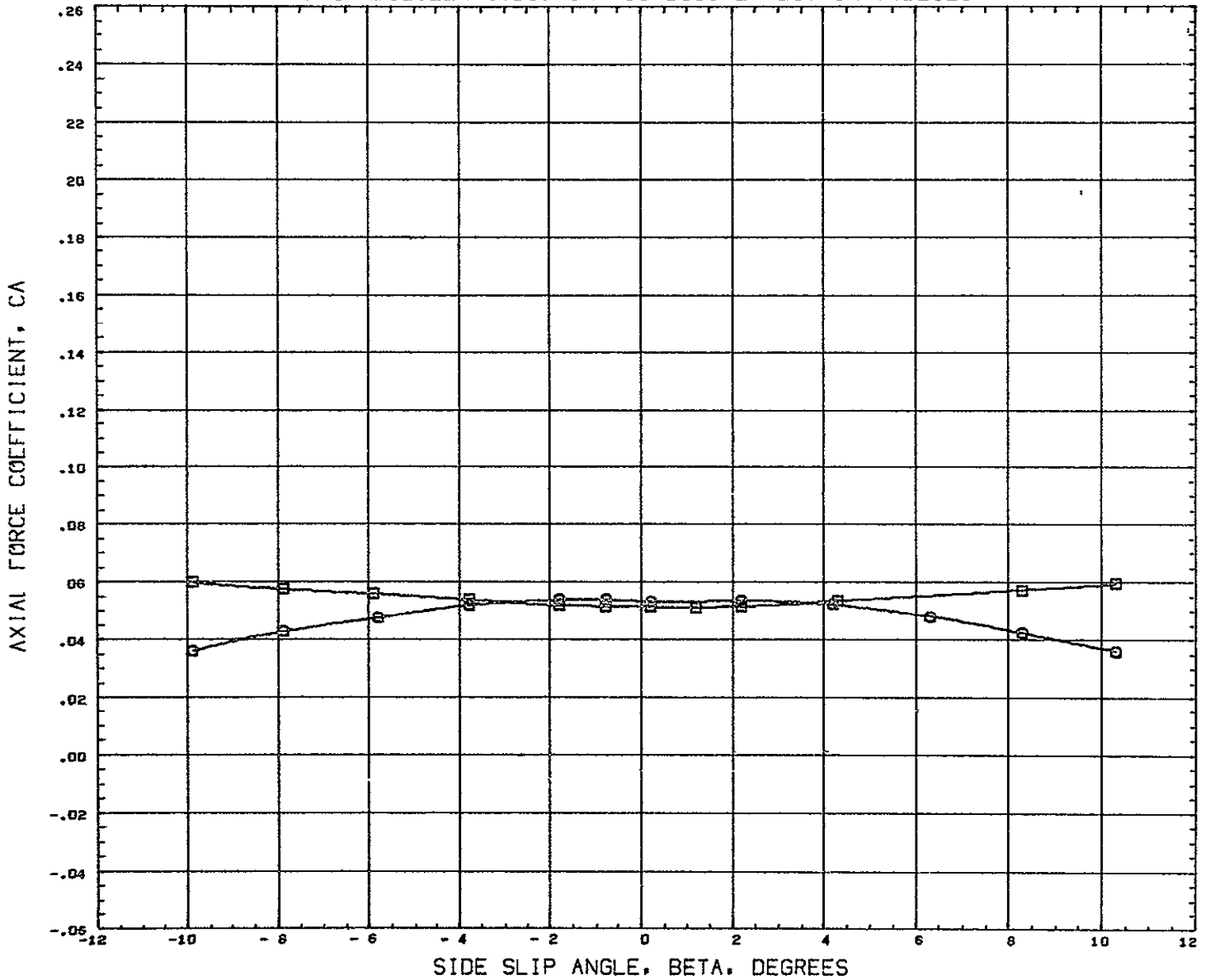
MACH 0 250 CBRW 0 670
ELEVTR 0 000 CBRH 0 973
IT 0 000

REFERENCE INFORMATION

REFS 0 8460 FT SQ
REFL 0 3810 FT
REFB 2 4630 FT
XMRP 65 0000 PCT LB
YMRP 0 0000
ZMRP 67 5500 PCT ZB
SCALE 1 3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



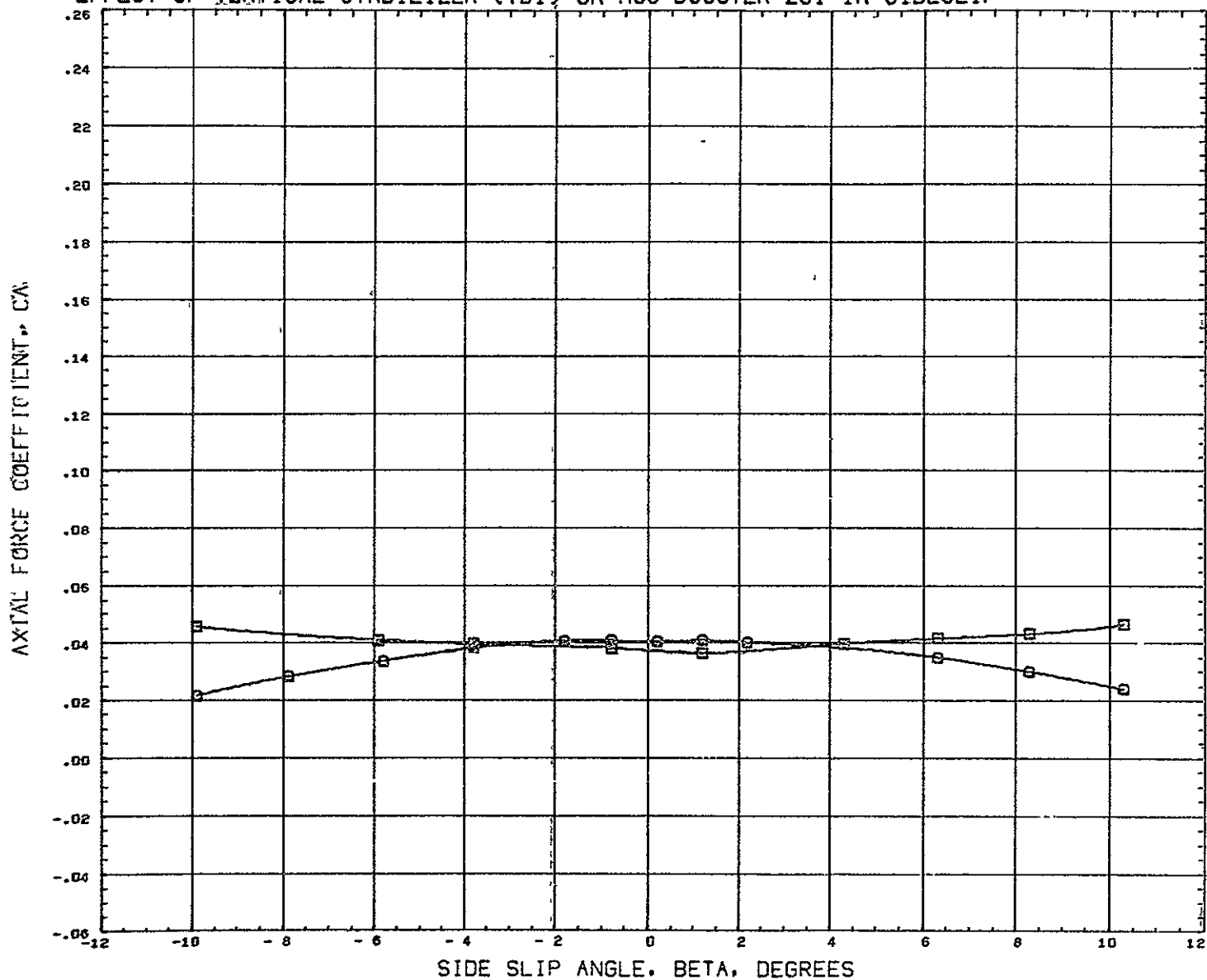
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 (064020) □ MSC S-XXIV BOOSTER 251 882W31VB1HB1
 (064022) □ MSC S-XXIV BOOSTER 251 882V81HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 FCT ZB
 SCALE 1 3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



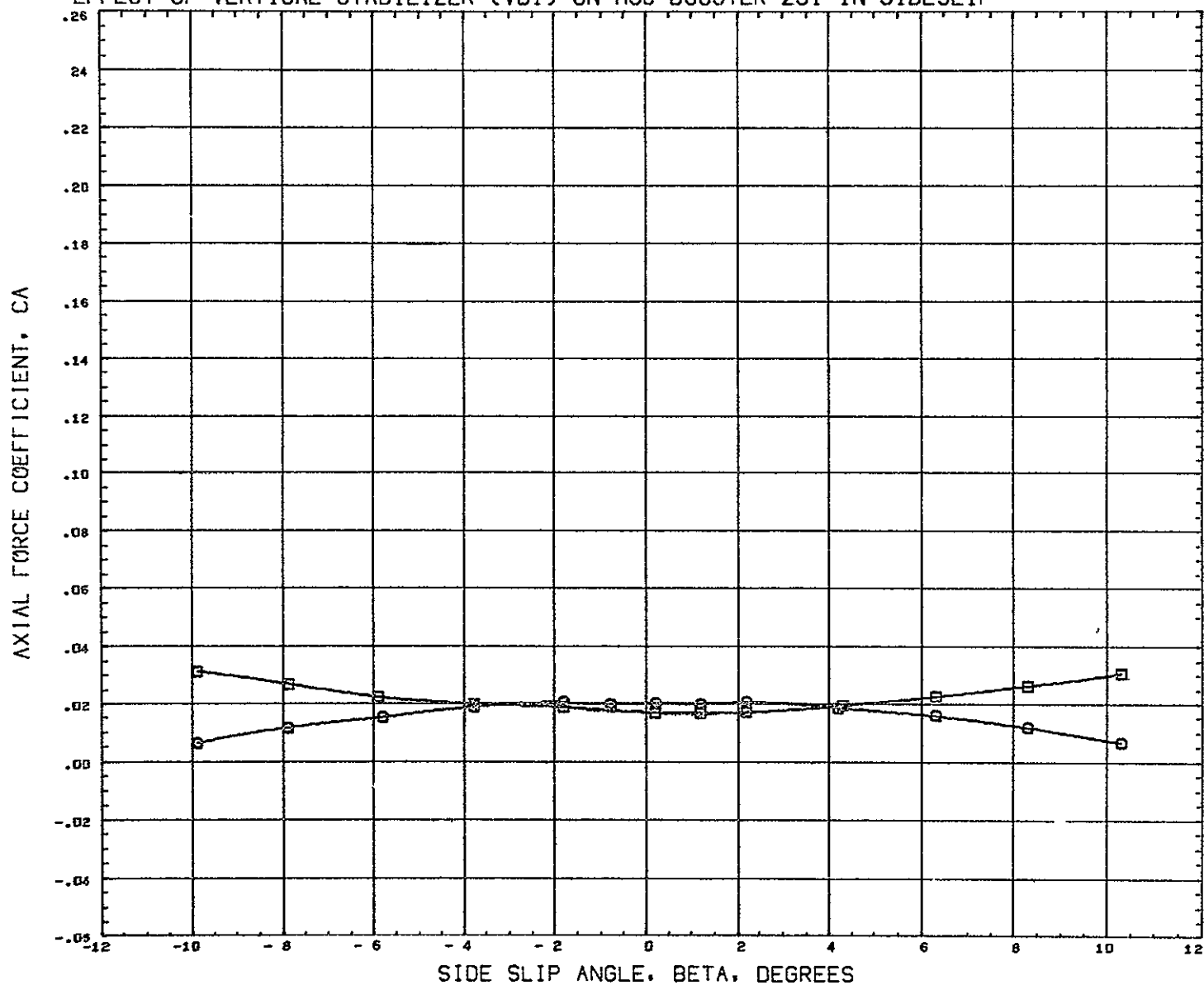
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 (004025) C MSC S-XXIV BOOSTER 251 882WB1VB1HB1
 (004022) □ MSC S-XXIV BOOSTER 251 882VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW -0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0 8460 F/T SQ
 REFL 0 3810 F/T
 REFB 2 4630 F/T
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



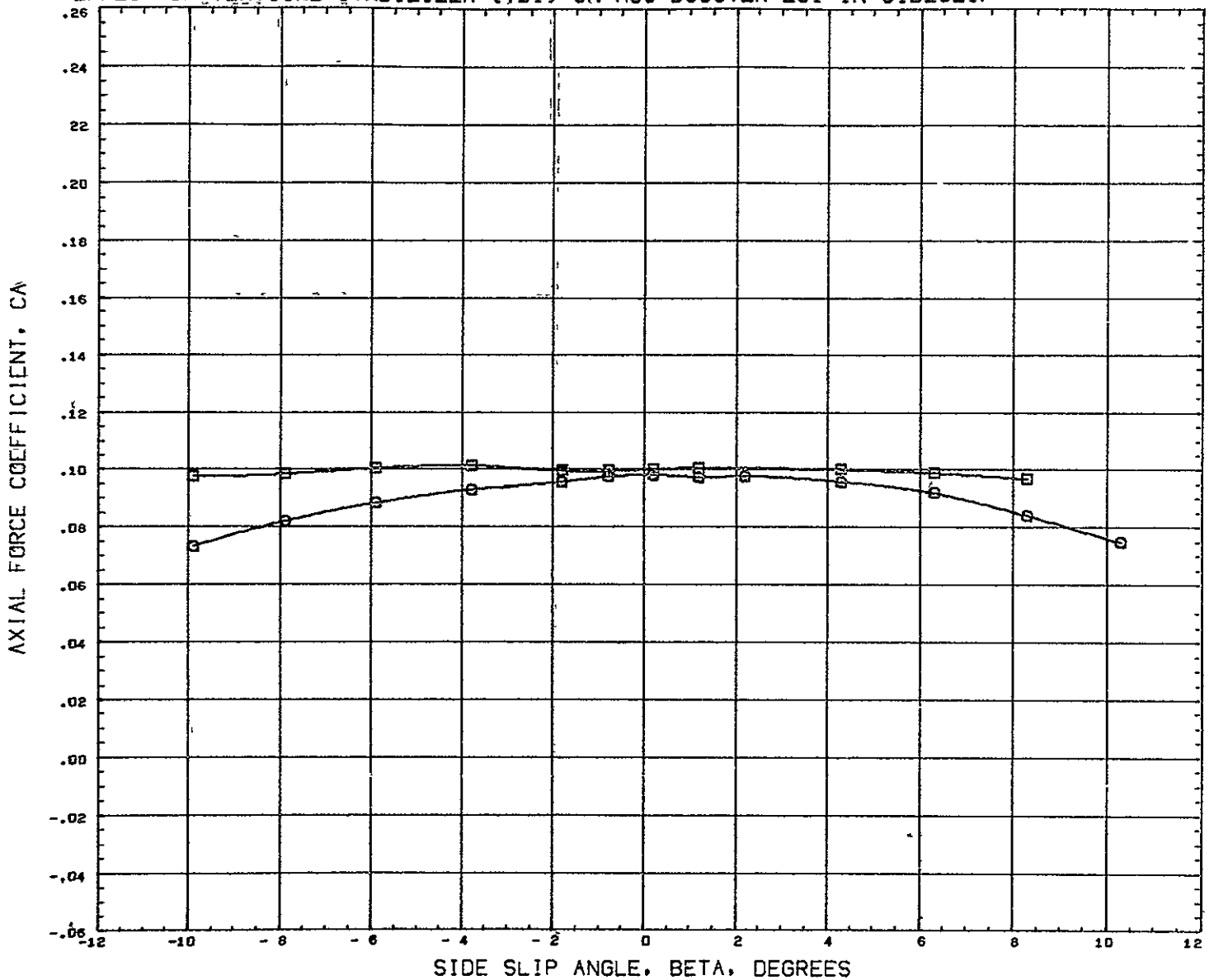
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 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



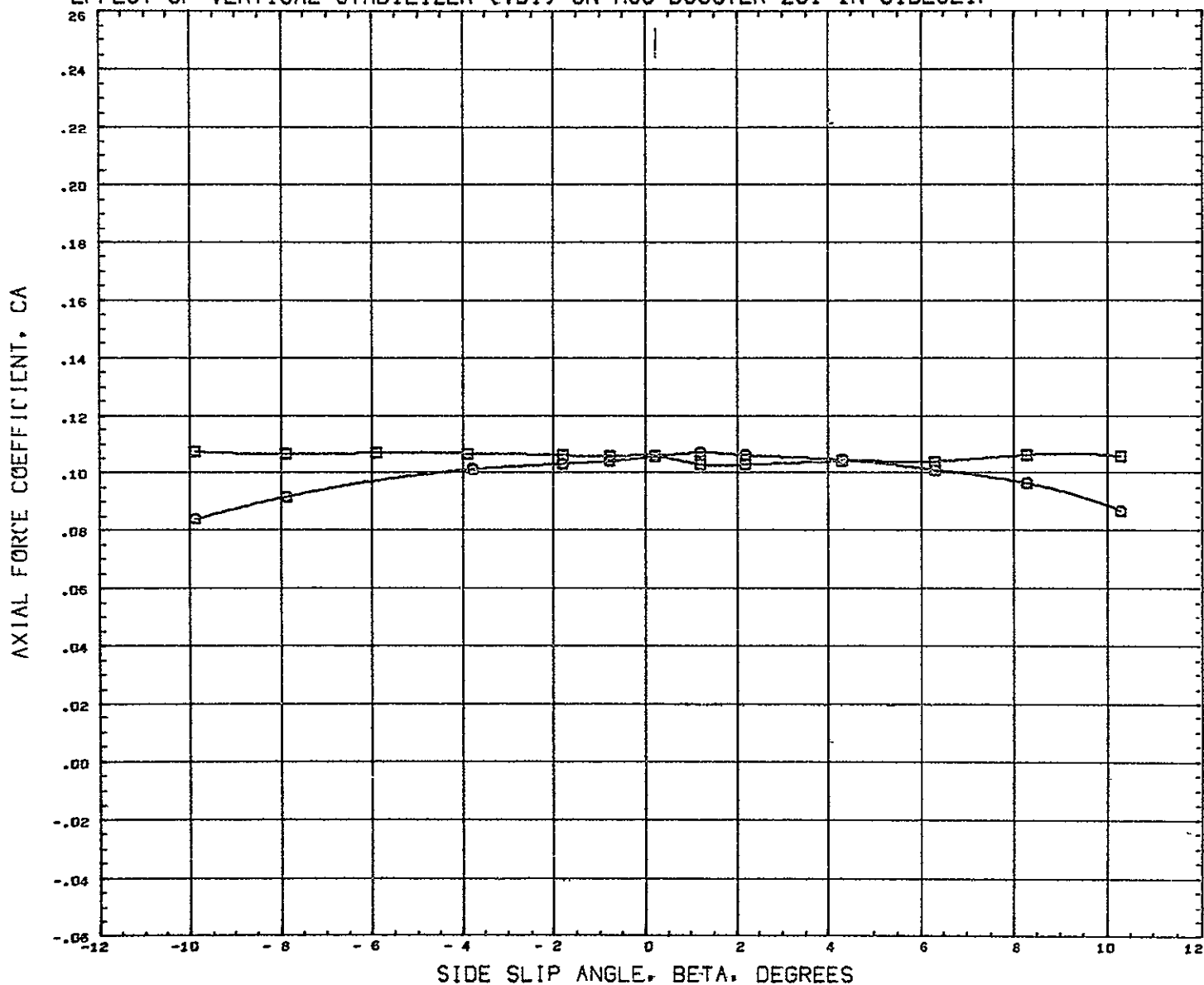
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 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 FCT LB
 YMRP 0.0000
 ZMRP 67.5500 FCT ZB
 SCALE 1.3215 FCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(064020) ○ MSC S-XXIV BOOSTER 251 BB2WB1V51HB1
 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES

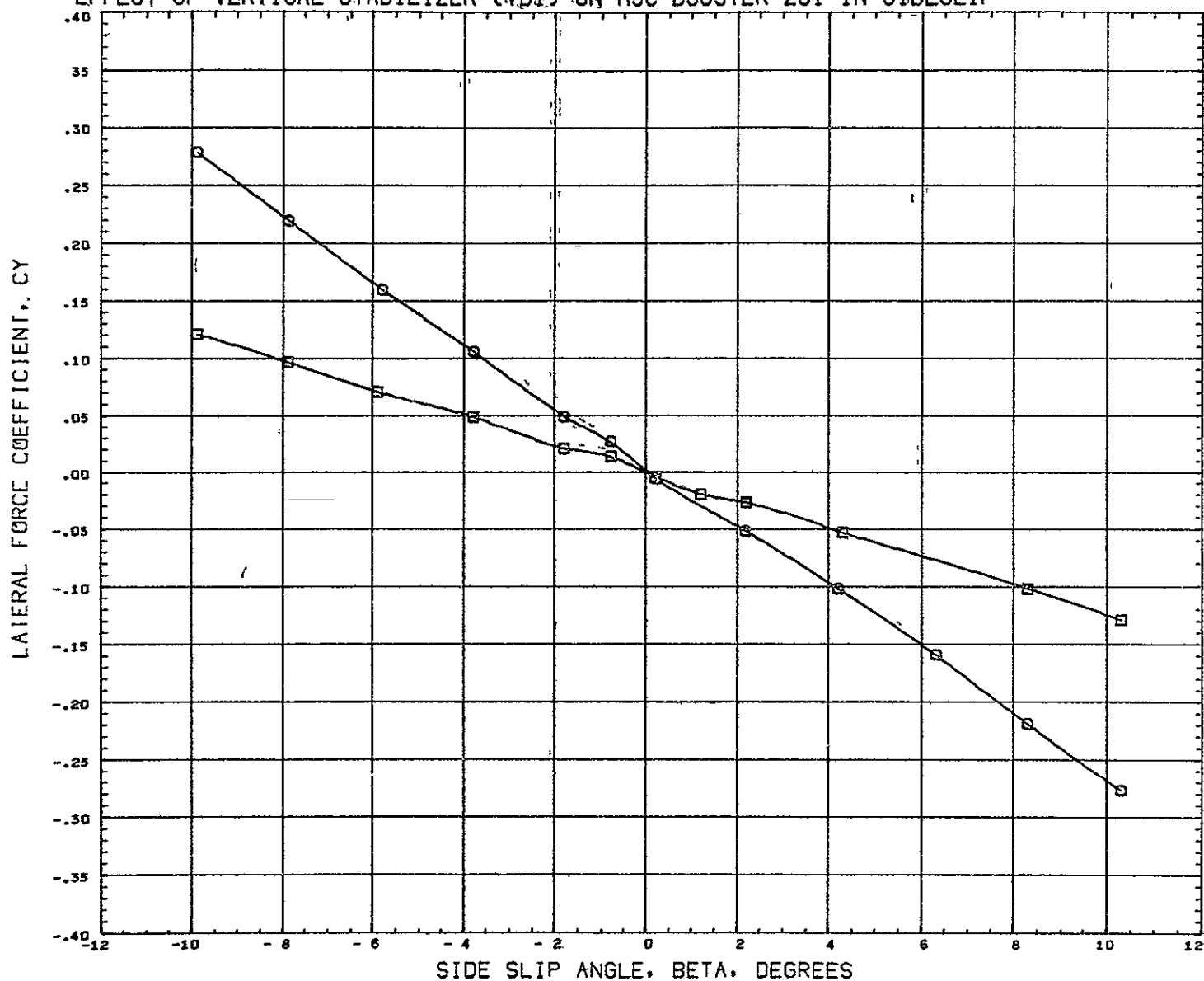
MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION

REFS 0.8460 FT SQ
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 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
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 SCALE 1.3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VBL) ON MSC BOOSTER 251 IN SIDESLIP



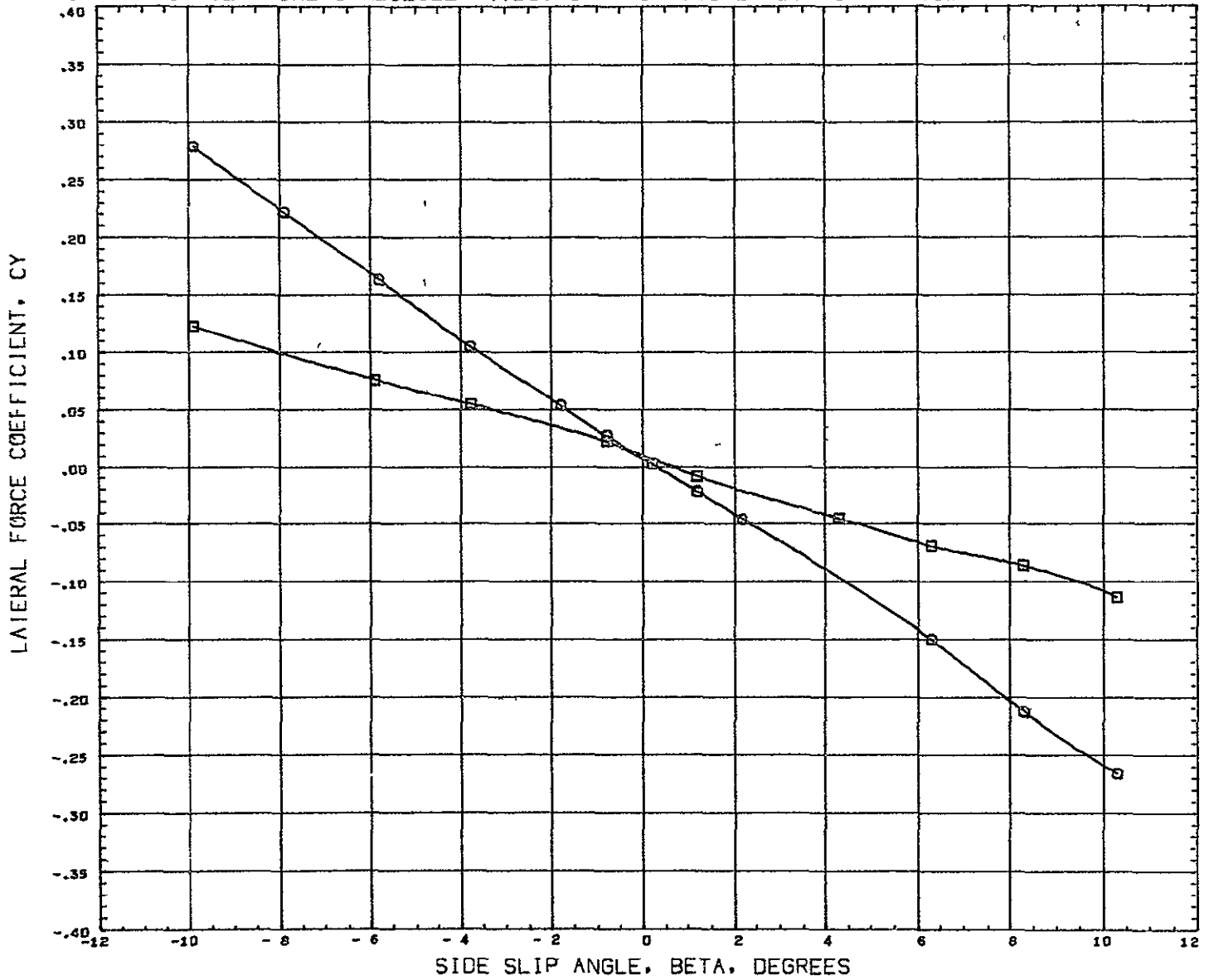
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 (864020) $\circ$ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (864022) $\square$ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 FCT LB
 YMRP 0.0000
 ZMRP 67.5500 FCT ZB
 SCALE 1.3215 FCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



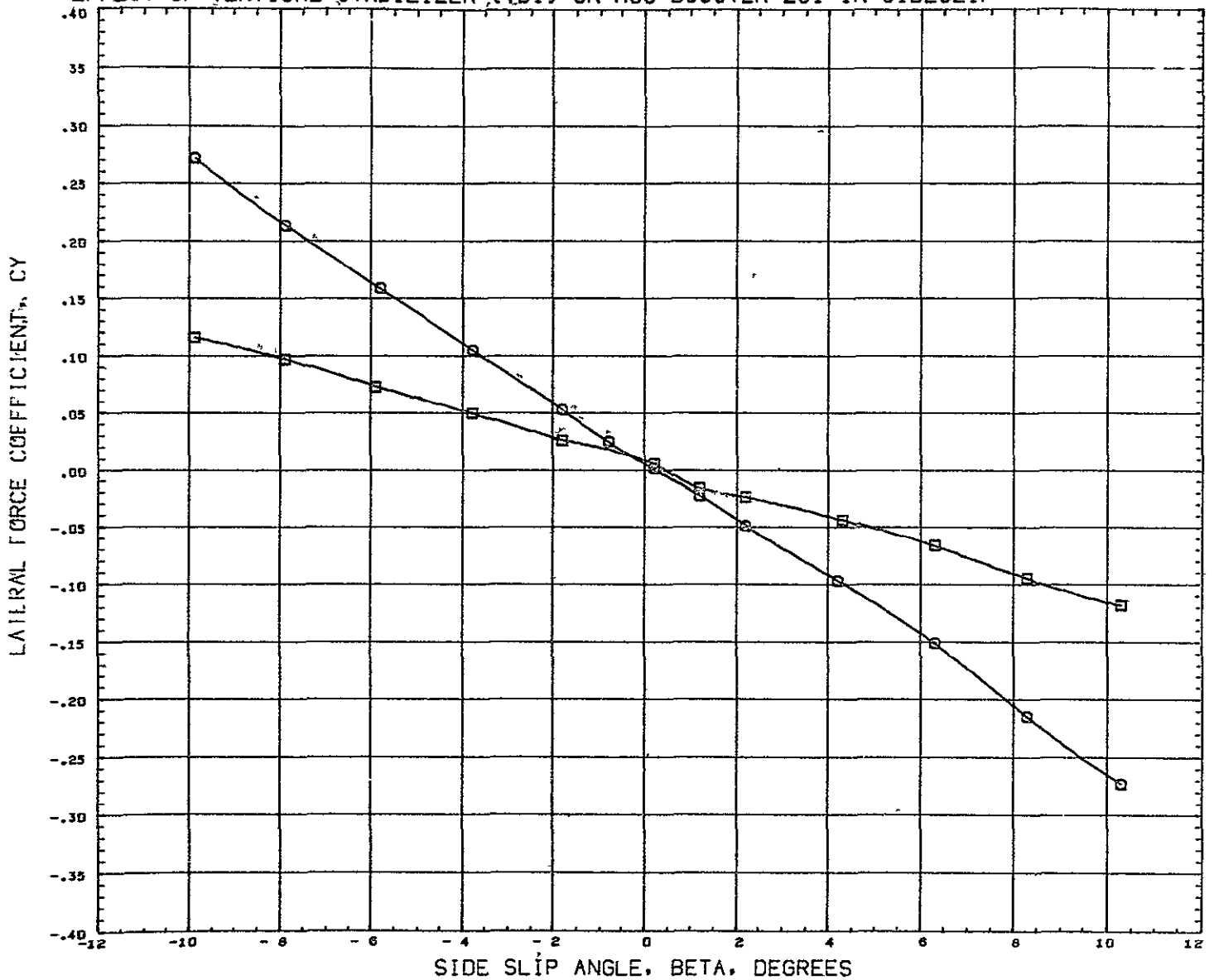
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064020) - O MSC S-XXIV BOOSTER 251 BB2WB1VB14B1
 (064022) - □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.1810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
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 SCALE 1.3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



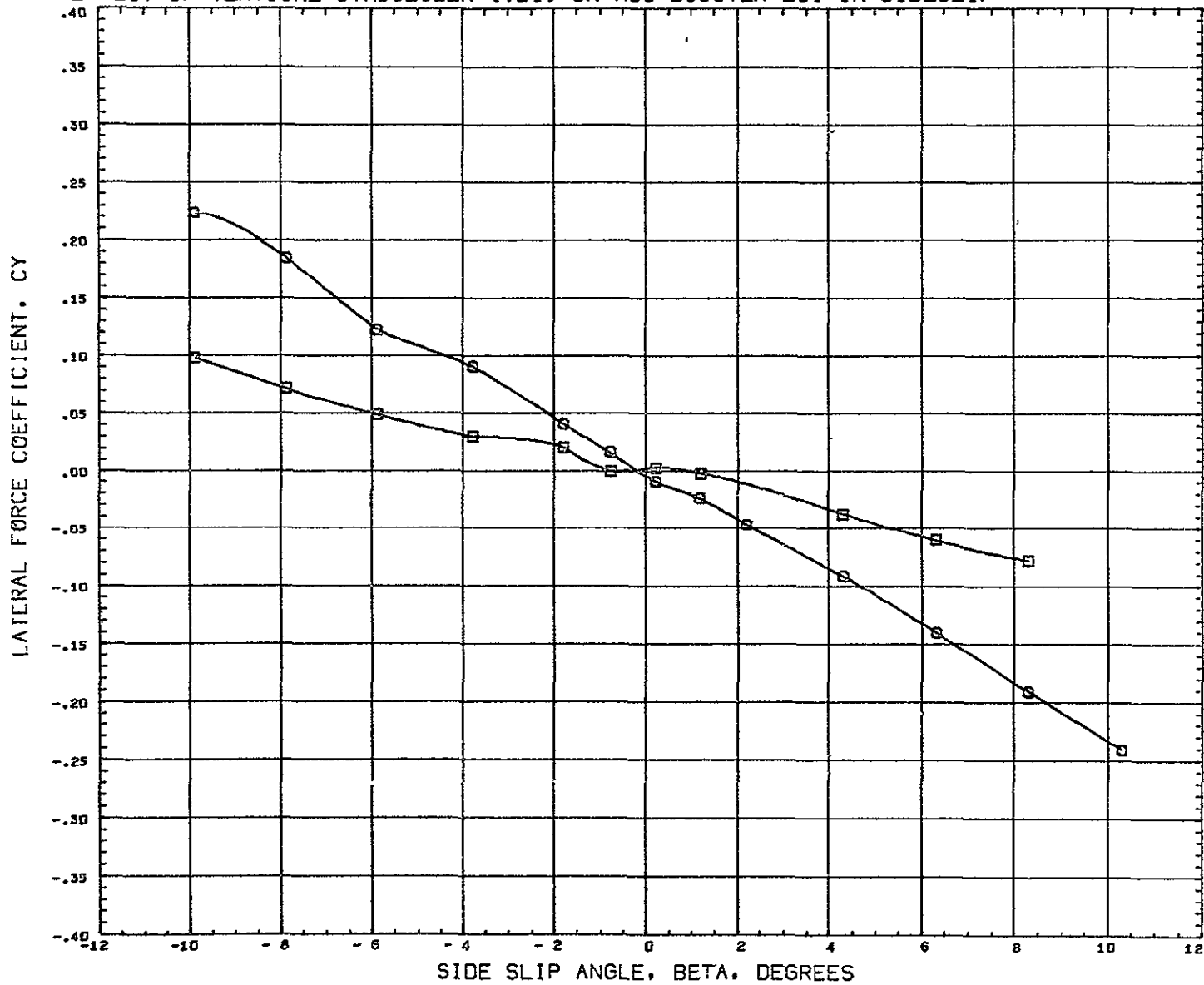
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 (064022) (S) HSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

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 (064022) C MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES

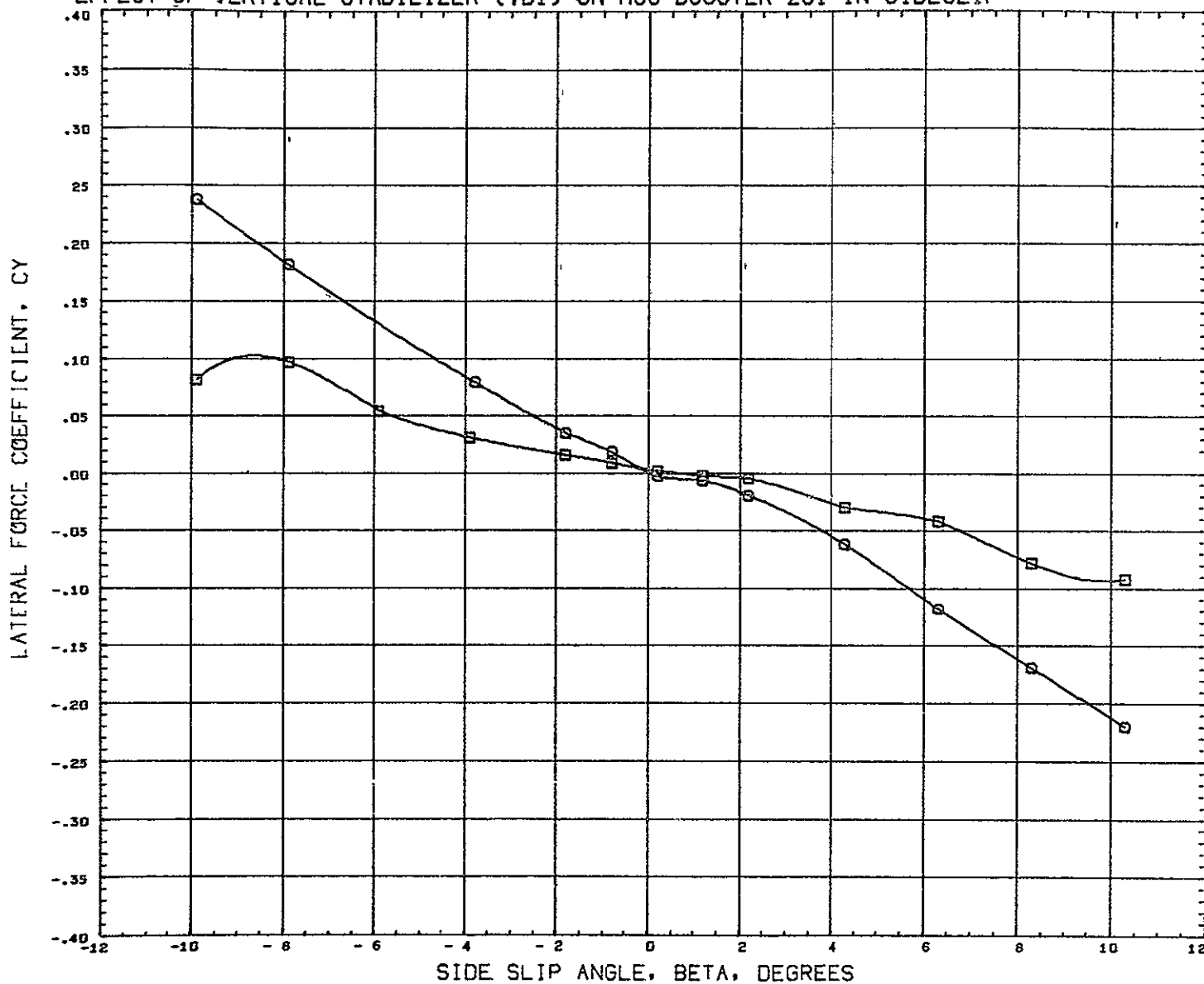
MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION

REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



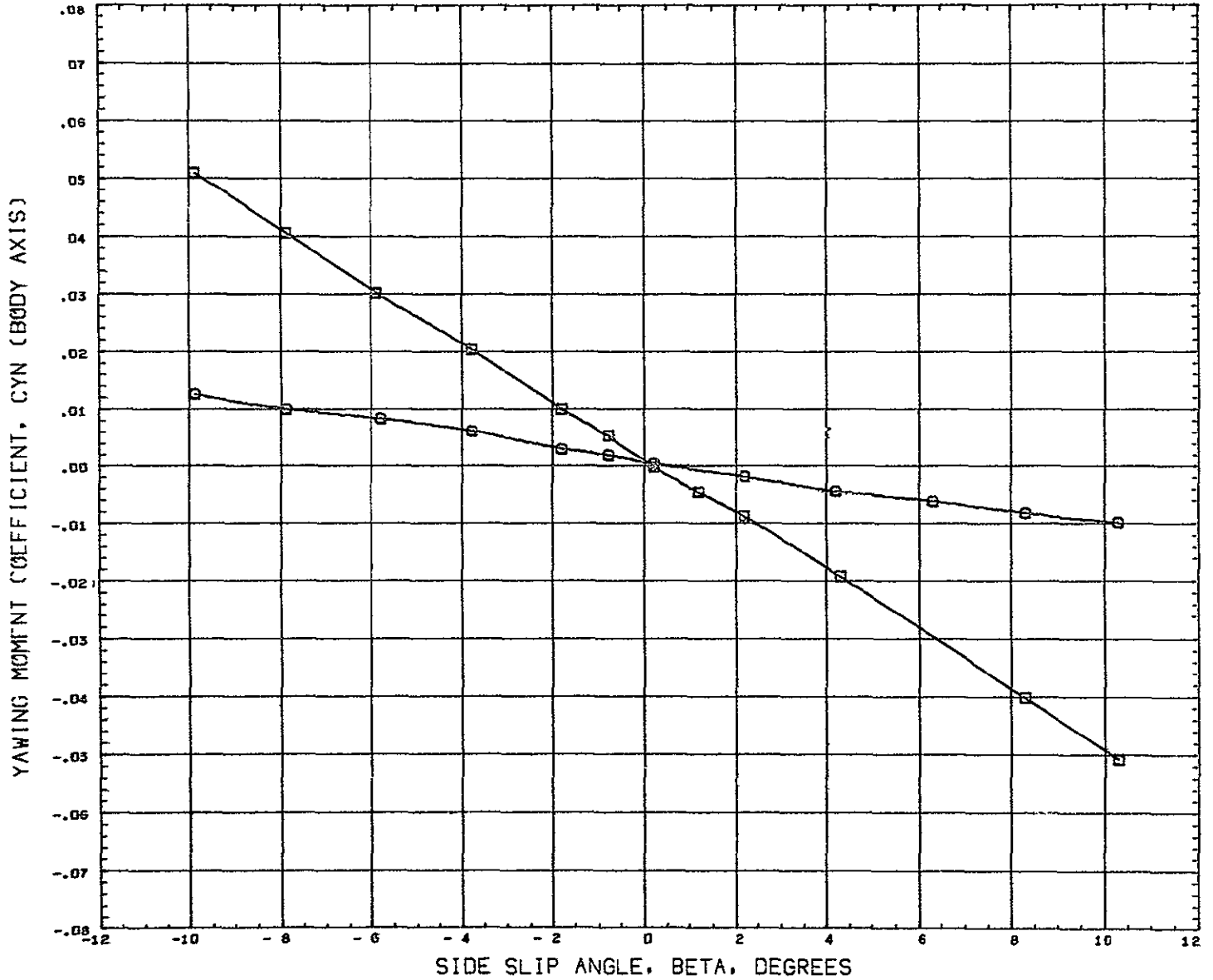
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064020) C MSC S-XXIV BOOSTER 251 BB2WB1VB1H81
 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1H81

PARAMETRIC VALUES
 MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFO 2.4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



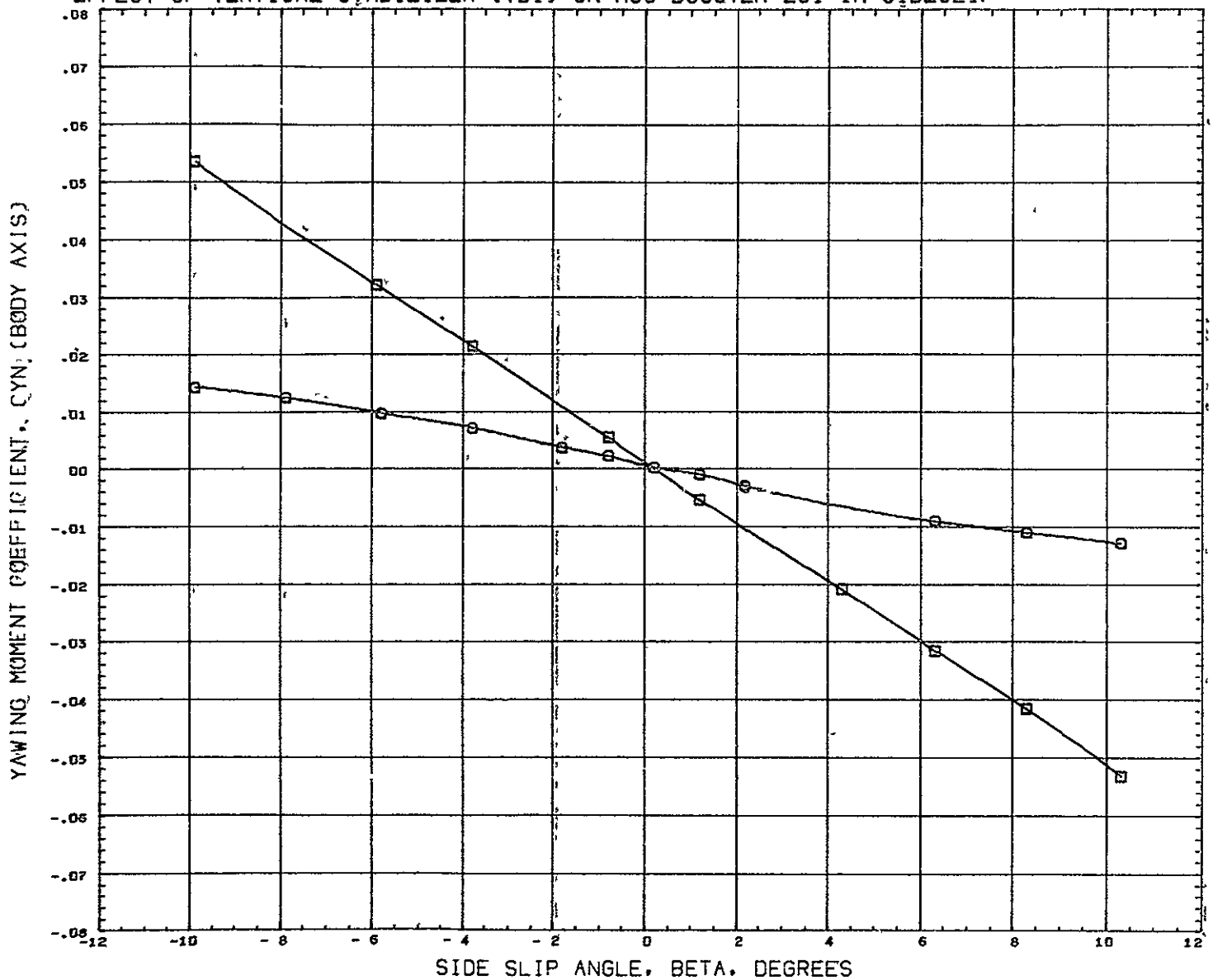
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 (Q6402C) [7] MSC S-XXIV BOOSTER 251 BB2WB1VB1HR1
 (Q64022) [7] MSC S-XXIV BOOSTER 251 BB2VB1HS

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0.0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



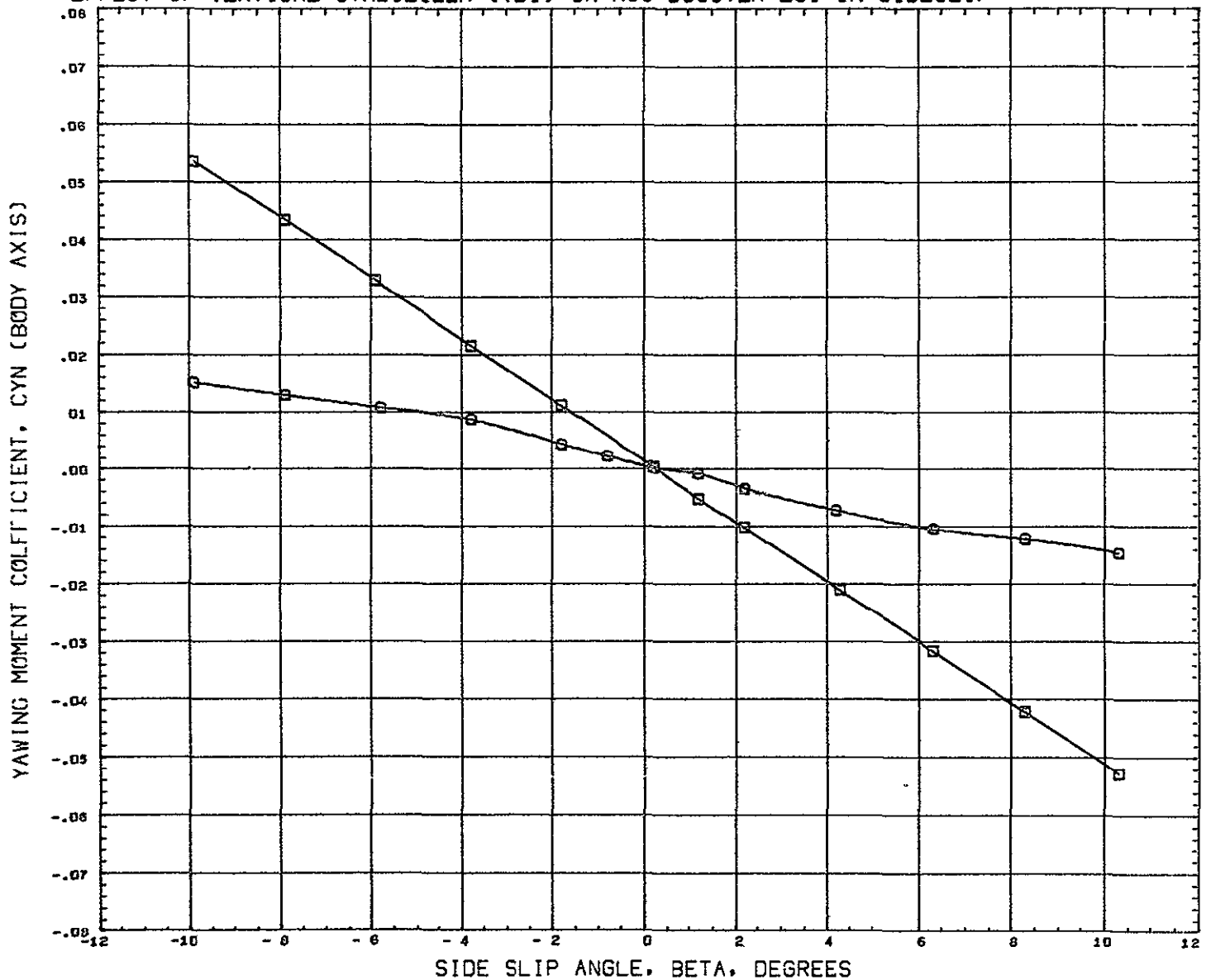
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (204020) ○ MSC S-XXIV BOOSTER 251 BD2WB.JB1HB1
 (204022) □ MSC S-XXIV BOOSTER 251 BD2VB1HB1

PARAMETRIC VALUES
 WICH 0.250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0.000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 62 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



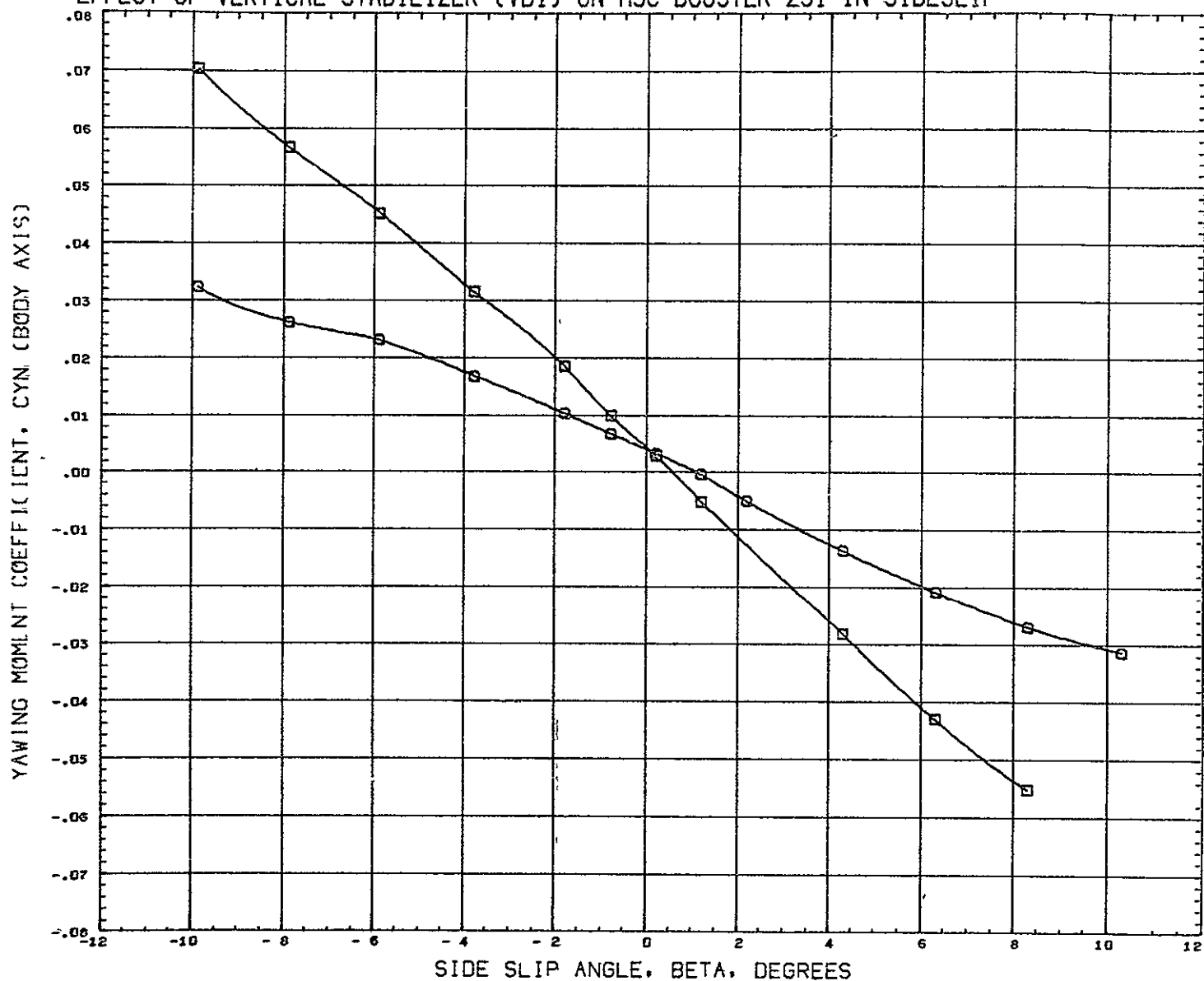
DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1H81

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT 28
 SCALE 1.3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(064020) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1MB1
(064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES

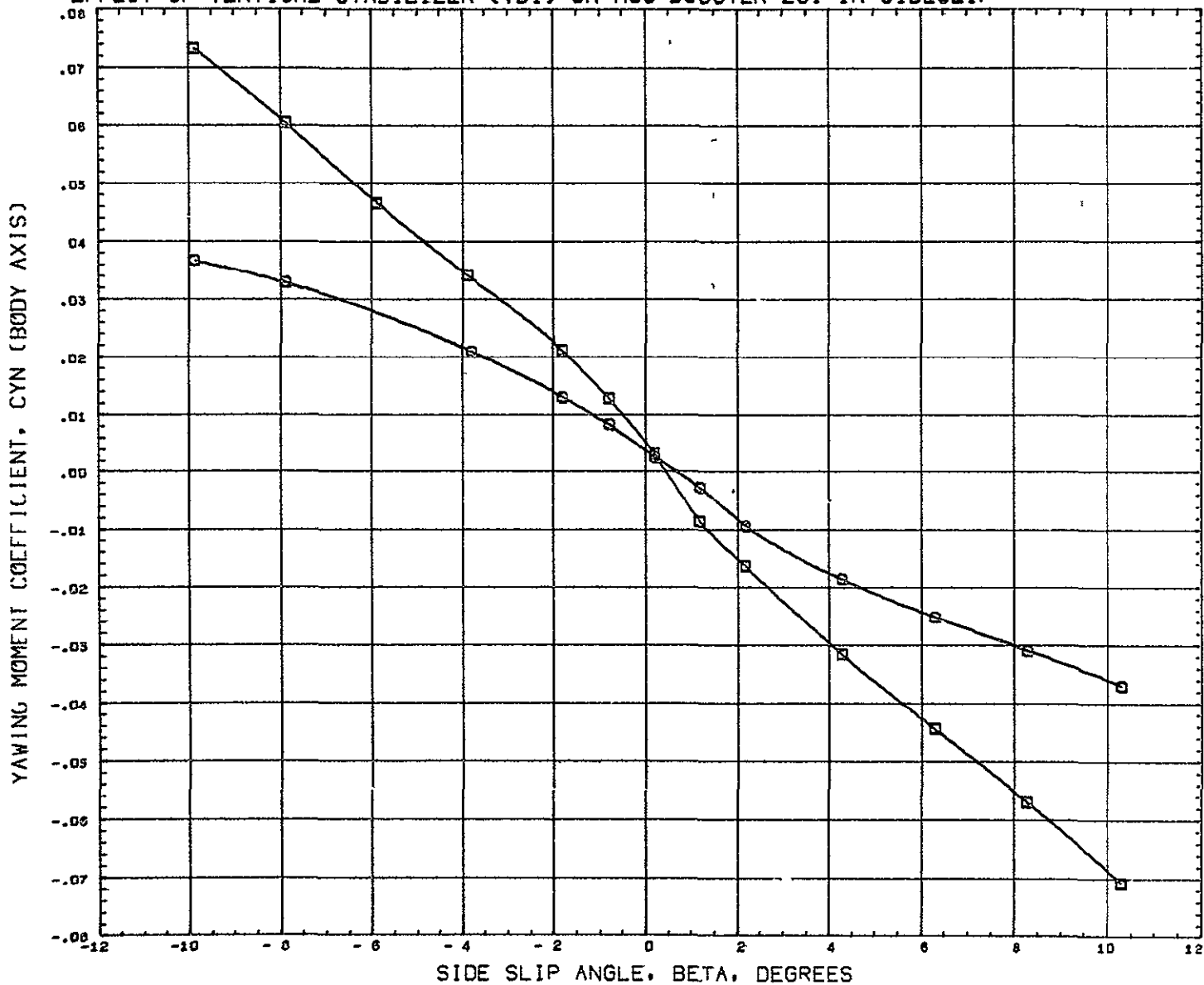
MACH 0.250 CBRW 0.670
ELEVTR 0.000 CBRH 0.973
IT 0.000

REFERENCE INFORMATION

REFS 0.8460 FT SQ
REFL 0.3810 FT
REFB 2.4630 FT
XMRP 65.0000 PCT LB
YMRP 0.0000
ZMRP 67.5500 PCT ZB
SCALE 1.3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



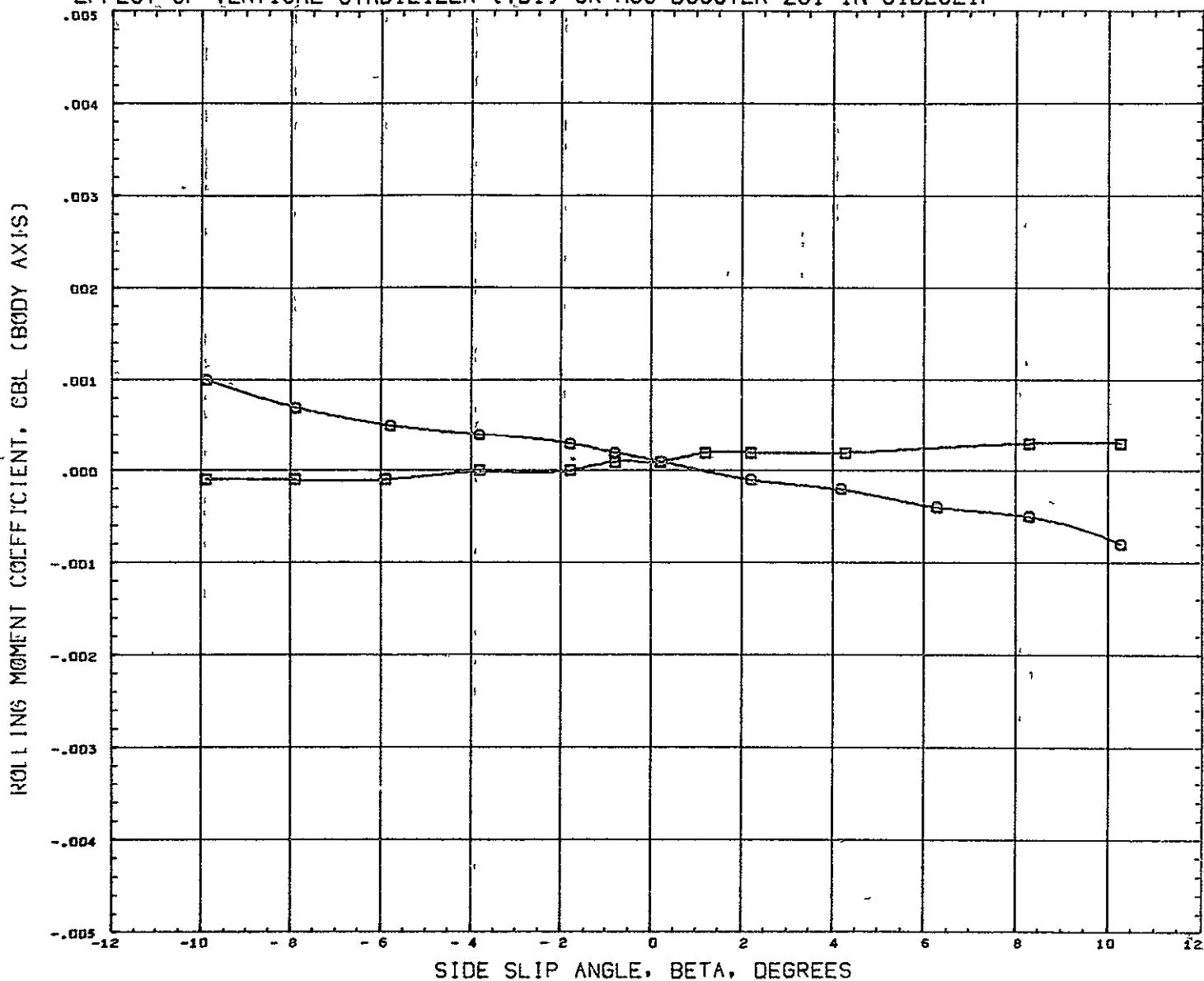
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (Q64020) □ MSC 5-XXIV BOOSTER 251 BB2WB1VB1HB1
 (Q64022) □ MSC 5-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0 670
 ELEVTR 0.000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(004020) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (004022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES

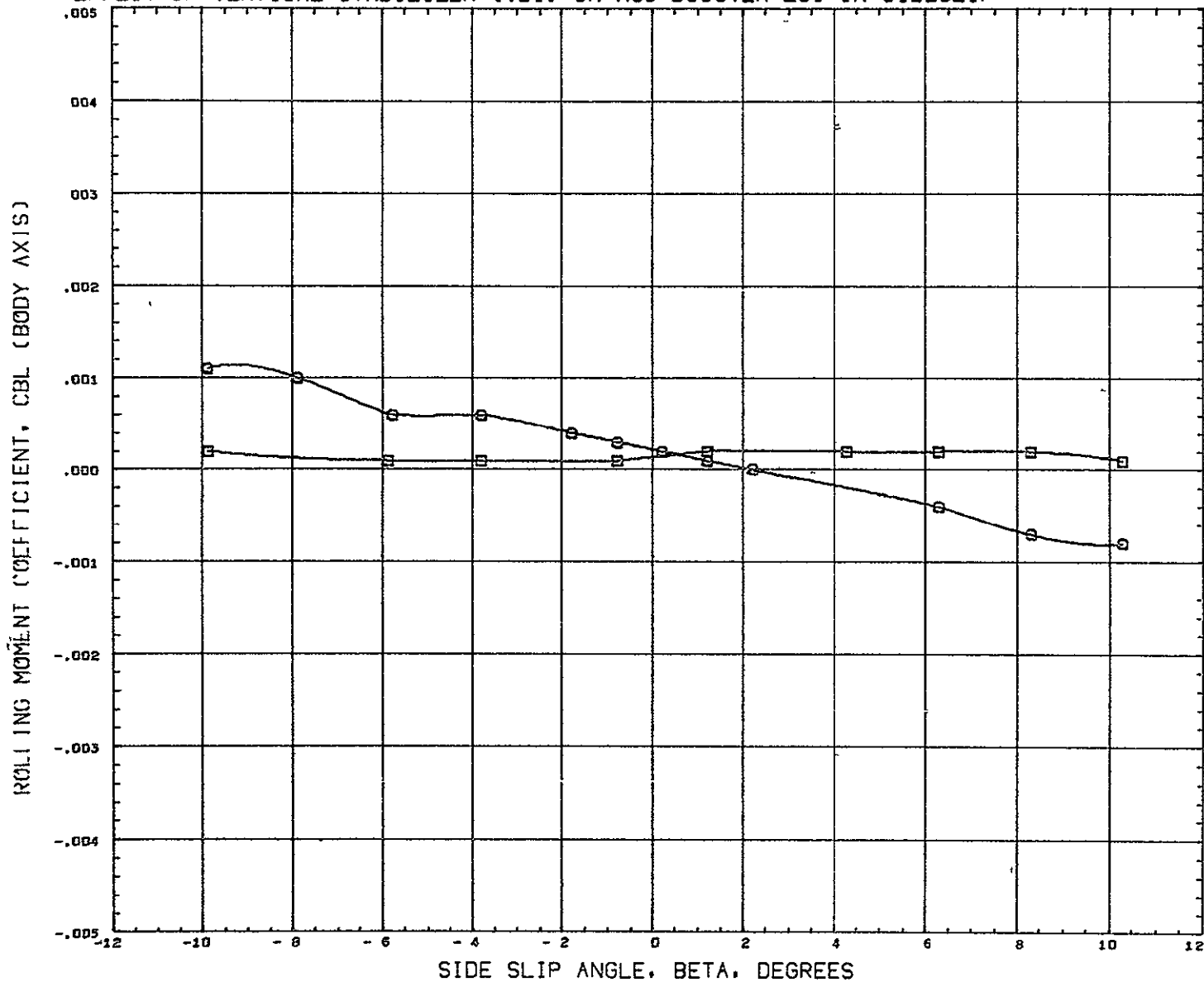
MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION

REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



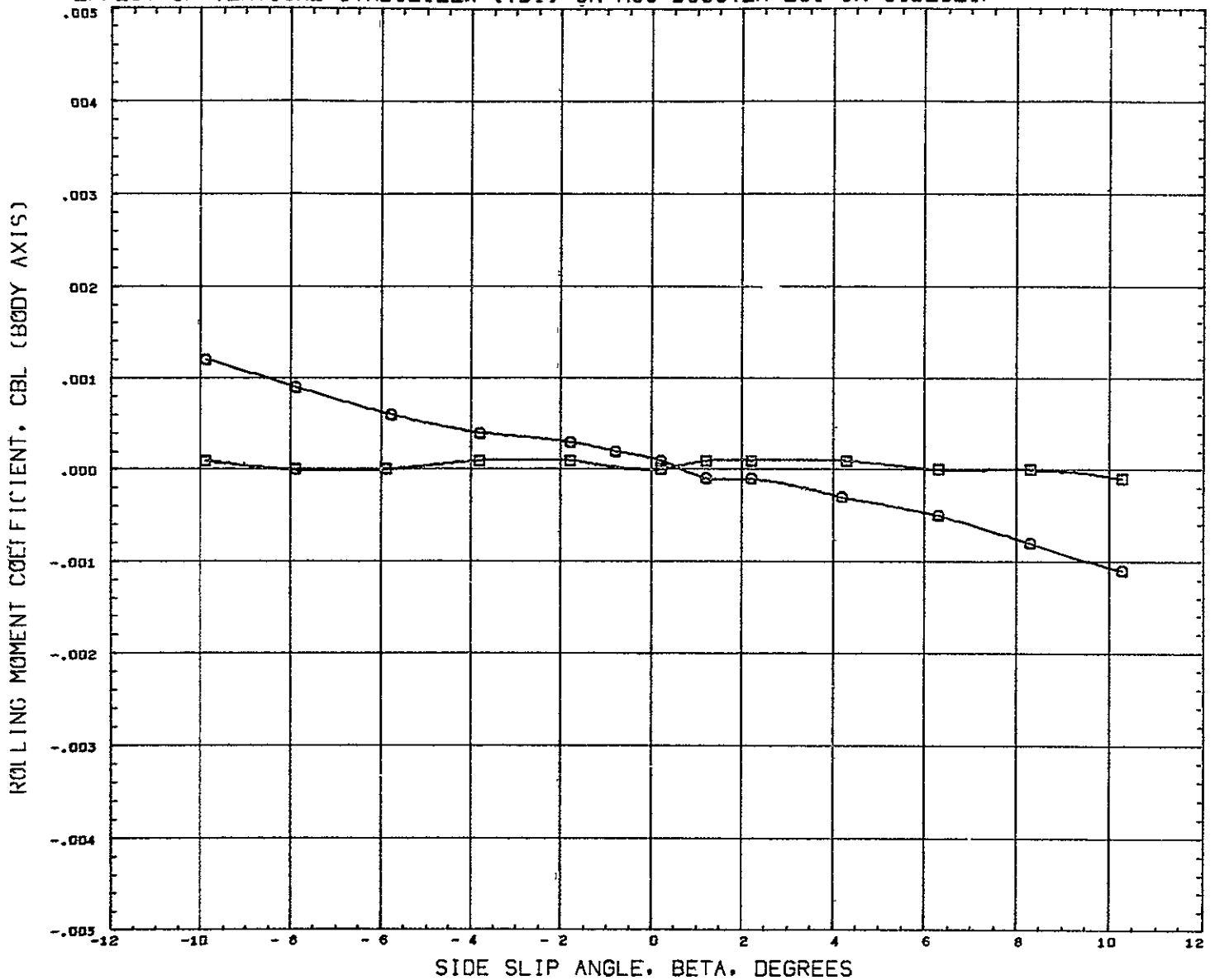
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064020) O MSC S-XXIV BOOSTER 251 BB2W81V81H81
 (064022) □ MSC S-XXIV BOOSTER 251 BB2V81H81

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 FCT ZB
 SCALE 1 3215 FCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



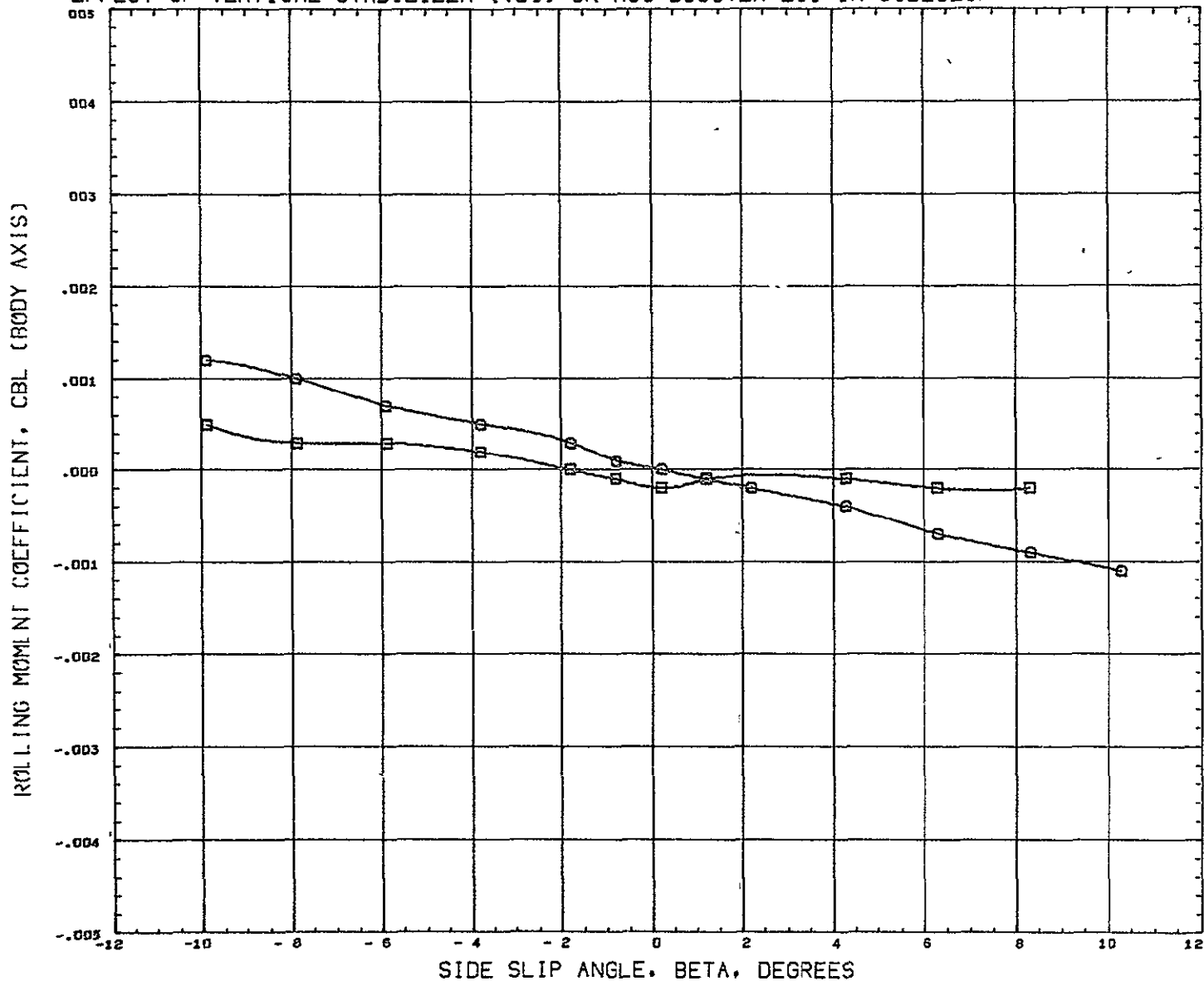
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (004020) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1HD
 (004022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT Sq
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT Lb
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



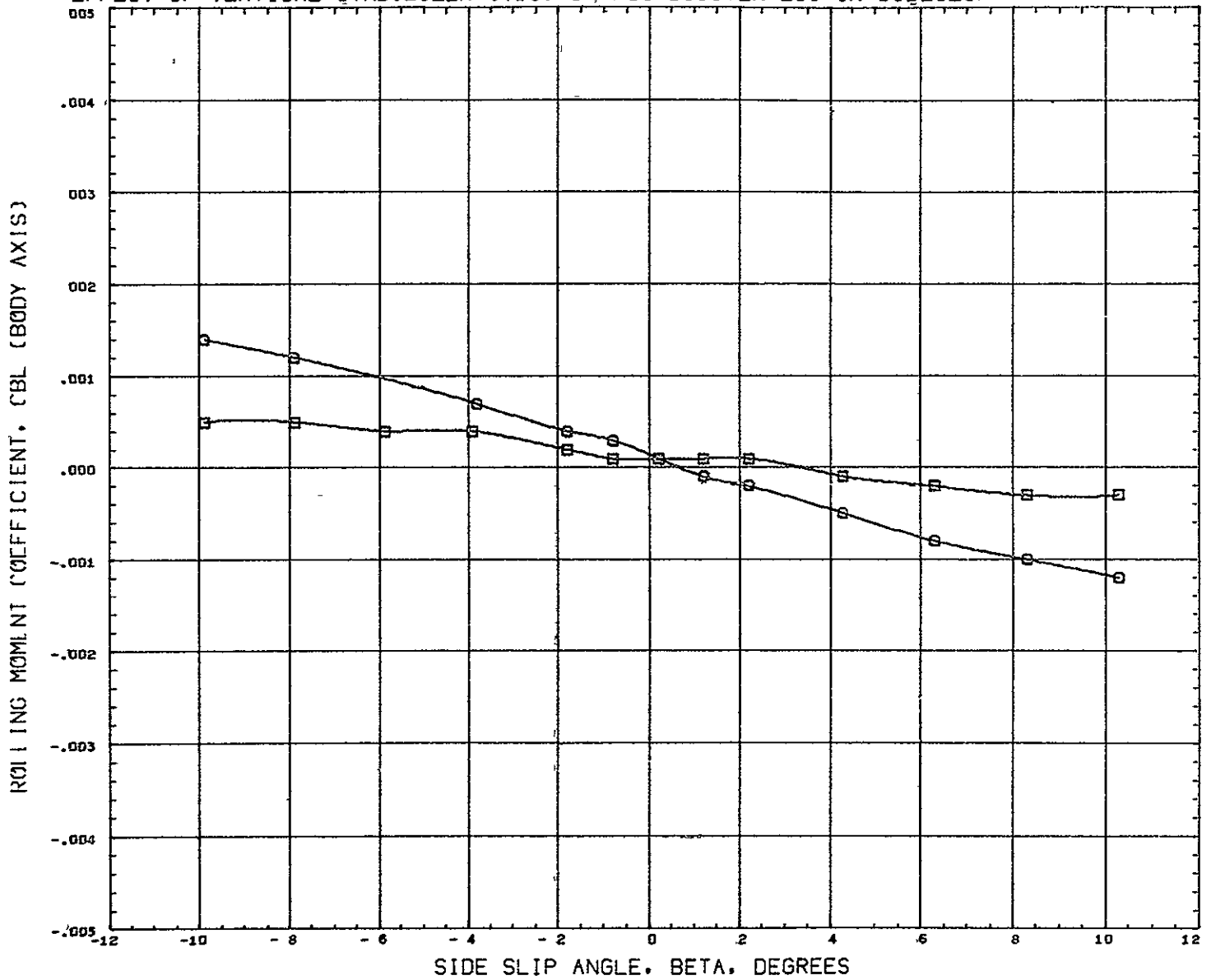
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064020) ○ MSC S-XXIV BOOSTER 251 882WB1VB1HB1
 (064022) □ MSC S-XXIV BOOSTER 251 882VB1HB1

PARAMETRIC VALUES
 MAC' 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(QC4020) ○ MSC S-XXIV BOOSTER 251 882WB1VB1HB1
(QC4022) □ MSC S-XXIV BOOSTER 251 882VB1HB1

PARAMETRIC VALUES

MACH 0.250 CBRW 0.670
ELEVTR 0.000 CBRH 0.973
IT 0.000

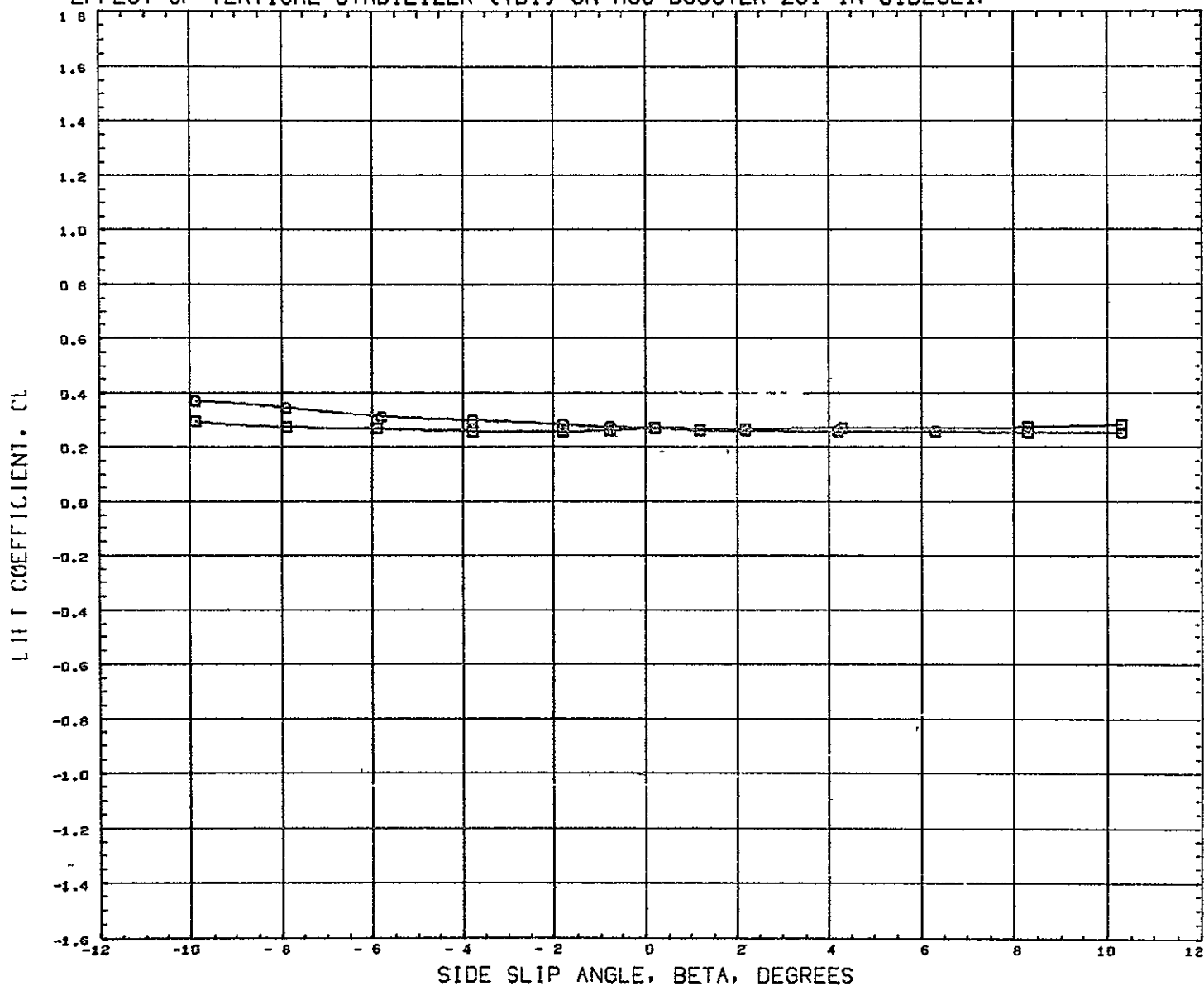
REFERENCE INFORMATION

REFS 0.8460 FT SQ
REFL 0.3810 FT
REFB 2.4630 FT
XHRF 65.0000 PCT LB
YHRF 0.0000
ZHRF 67.5500 PCT ZB
SCALE 1.3215 PCT

ALPHA 15.000

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EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(064020) □ MSC S-XXIV BOOSTER 251 B92WB1VB1HB1
 (064022) □ MSC S-XXIV BOOSTER 251 B92VB1HB1

PARAMETRIC VALUES

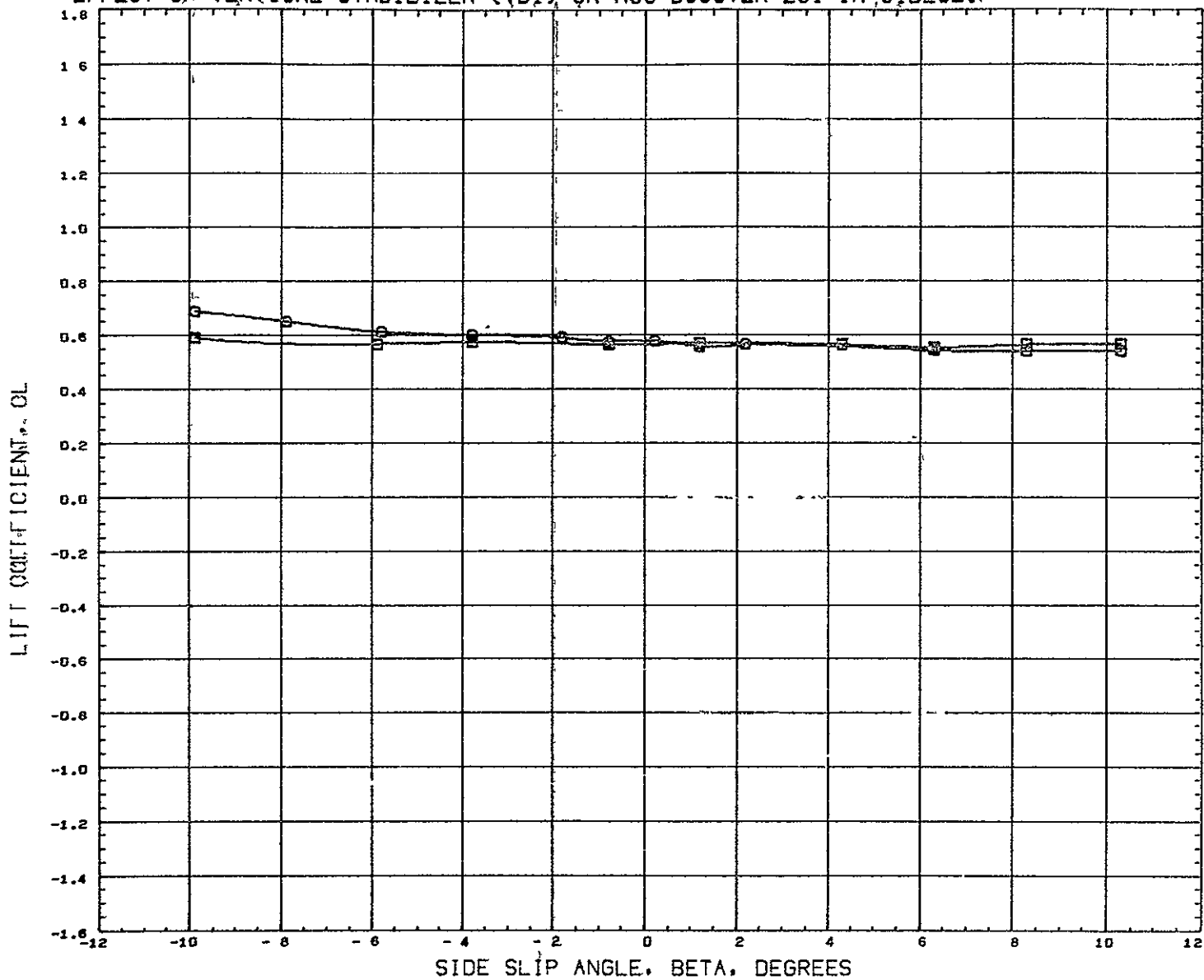
MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION

REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 FCT LB
 YMRP 0.0000
 ZMRP 67.5500 FCT ZB
 SCALE 1.3215 FCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



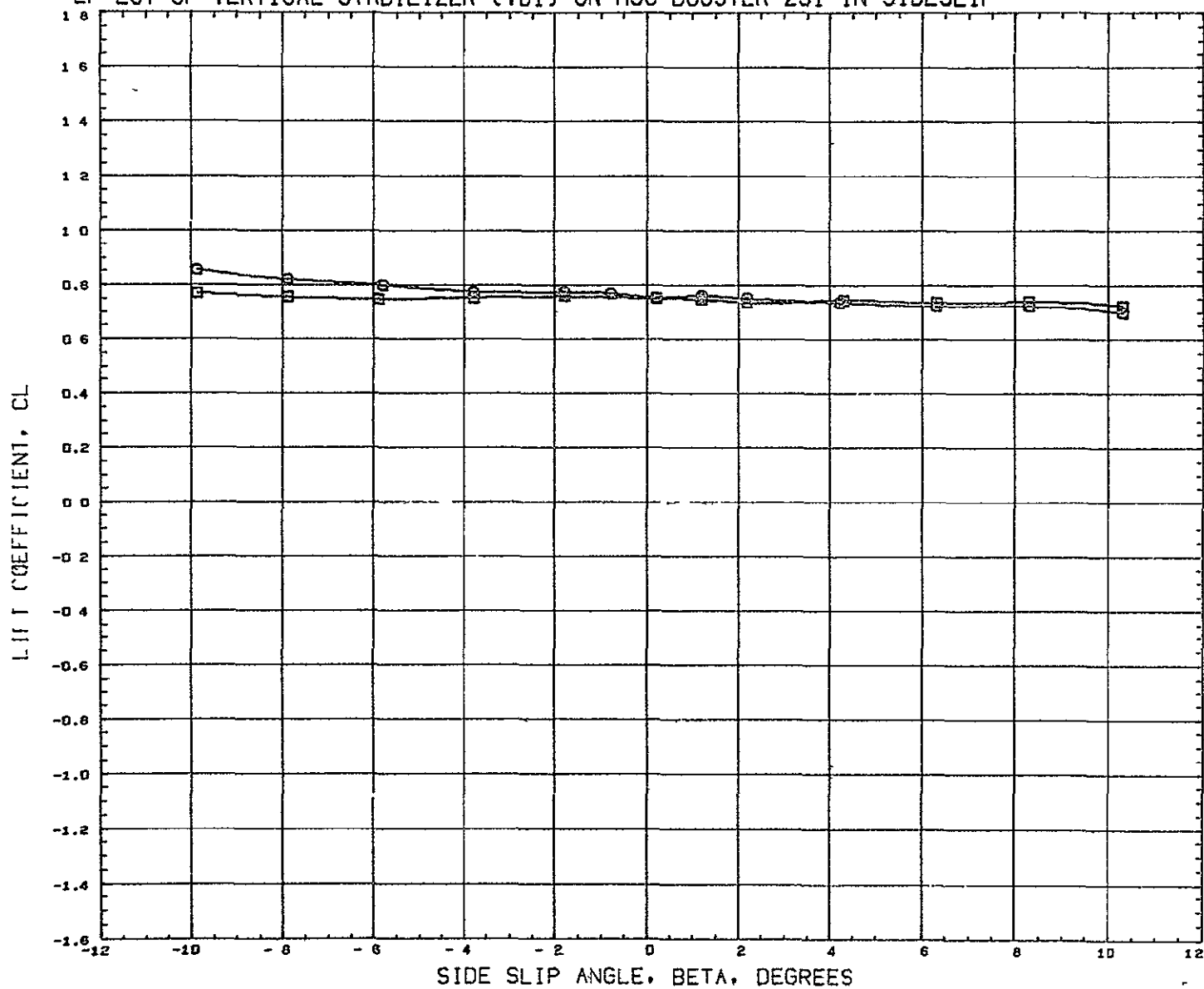
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064020) MSC S-XXIV BOOSTER 251 8B2WB1VB1HB1
 (064022) MSC S-XXIV BOOSTER 251 8B2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XNRF 65.0000 PCT LB
 YNRF 0.0000
 ZNRF 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(064020) 882WB1VB1H81 MSC S-XXIV BOOSTER 251
(064022) 882VB1H81 MSC S-XXIV BOOSTER 251

PARAMETRIC VALUES

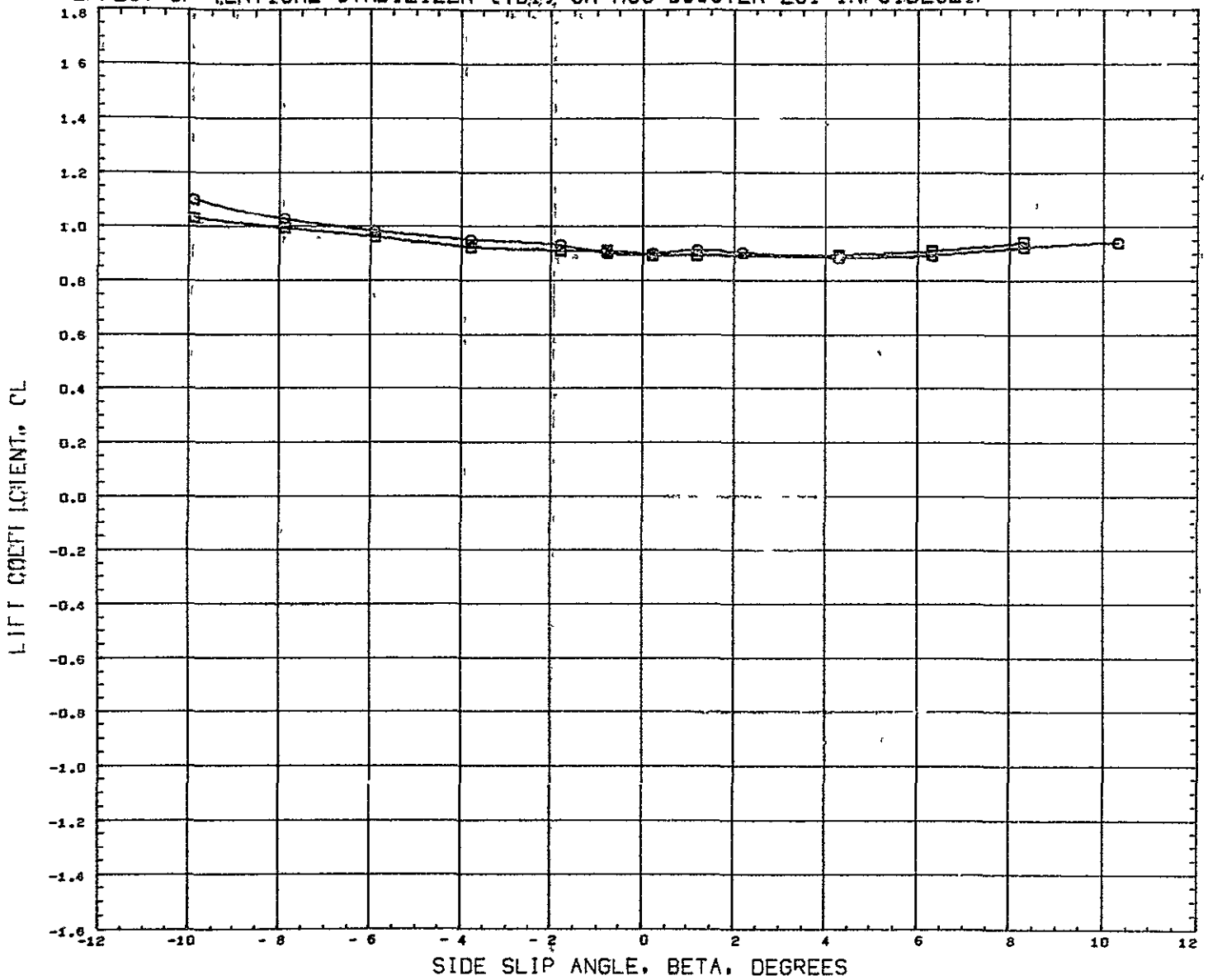
MACH 0.250 CBRW 0.670
ELEVTR 0.000 CBRH 0.973
IT 0.000

REFERENCE INFORMATION

REFS 0.8460 FT SQ
REFL 0.3810 FT
REFB 2.4630 FT
XNRP 65.0000 PCT LB
YNRP 0.0000
ZNRP 67.5500 PCT ZB
SCALE 1.3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



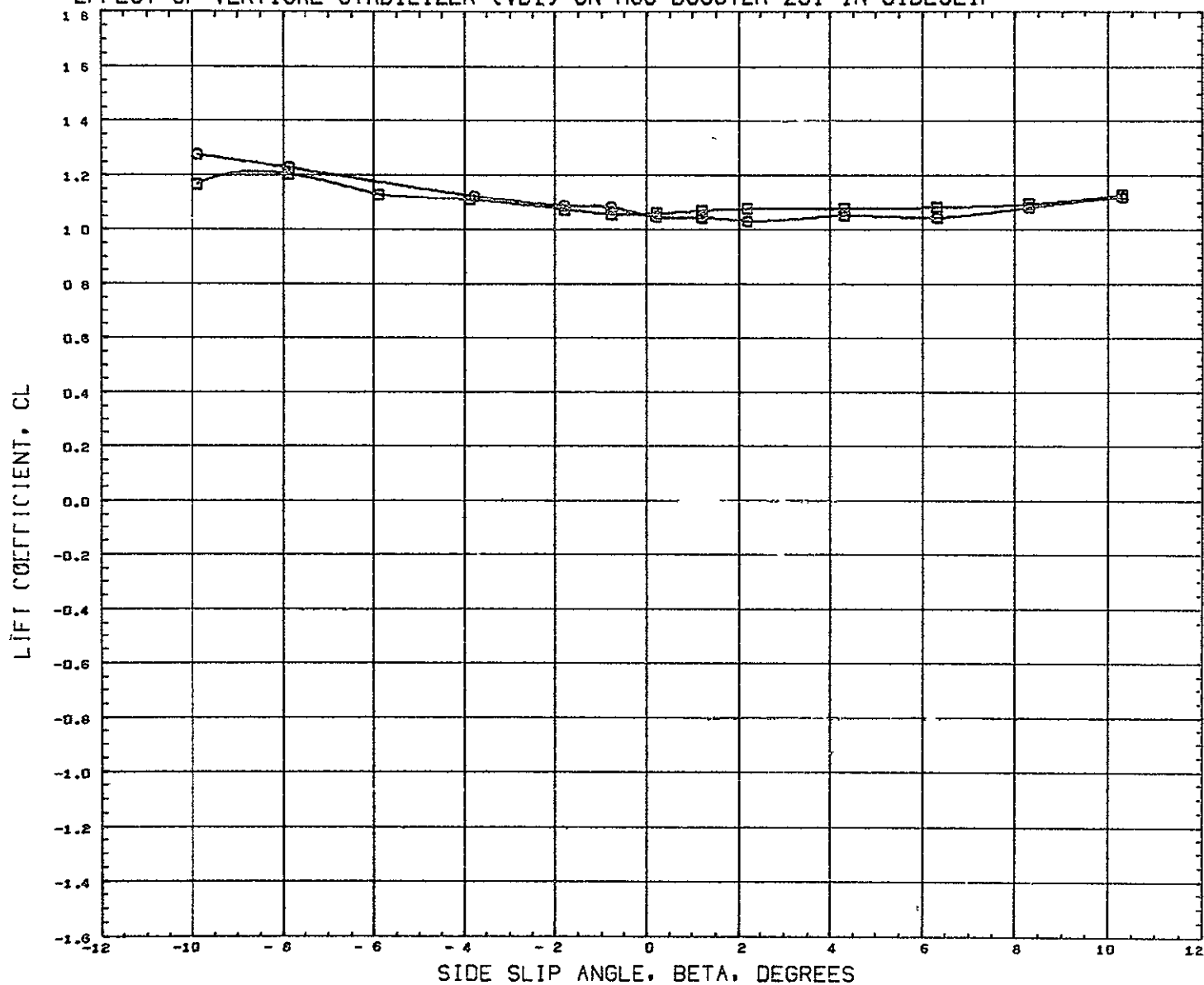
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (004020) MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (004022) MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 12 000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



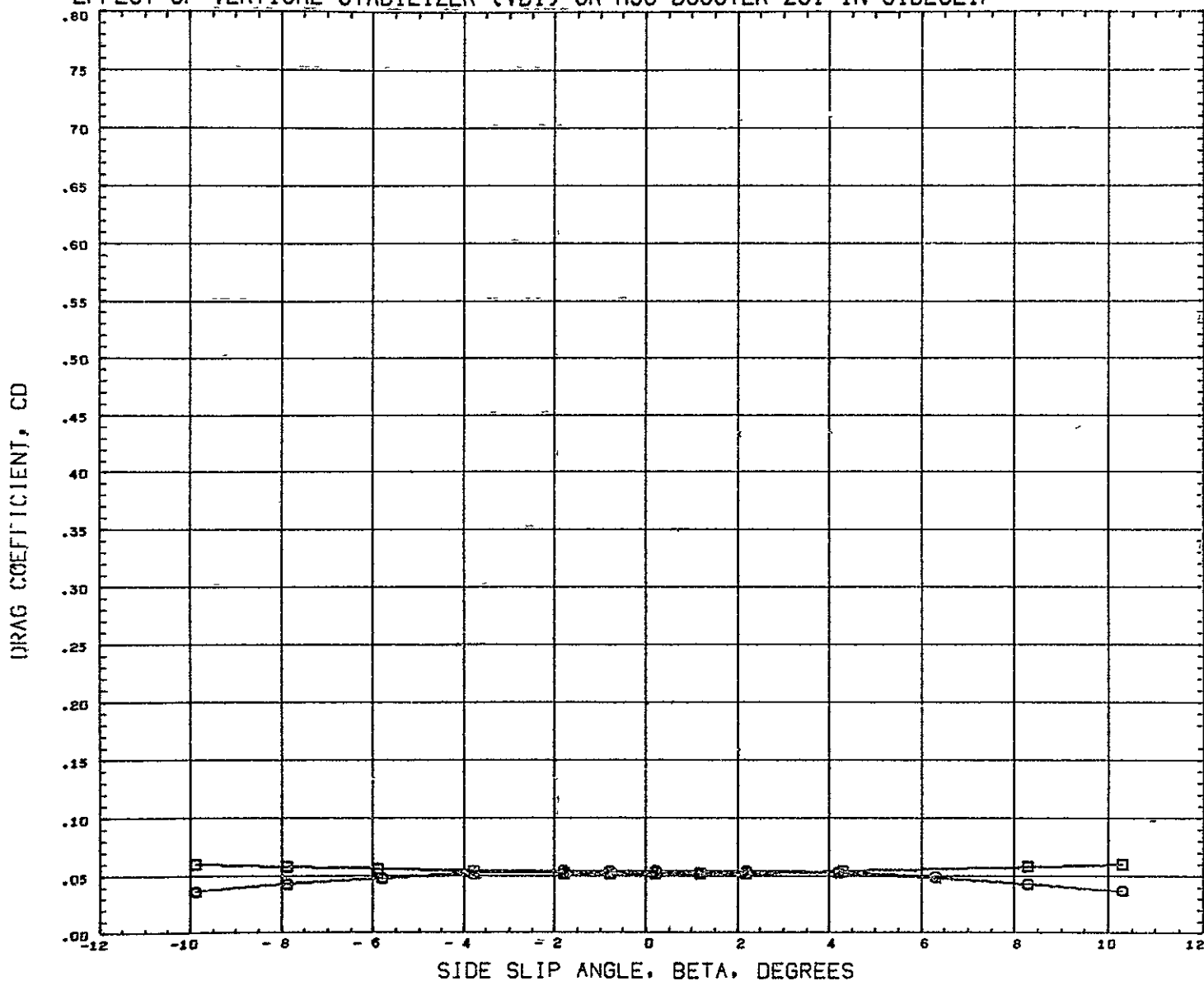
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (QG4020) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (QG4022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(064021) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES

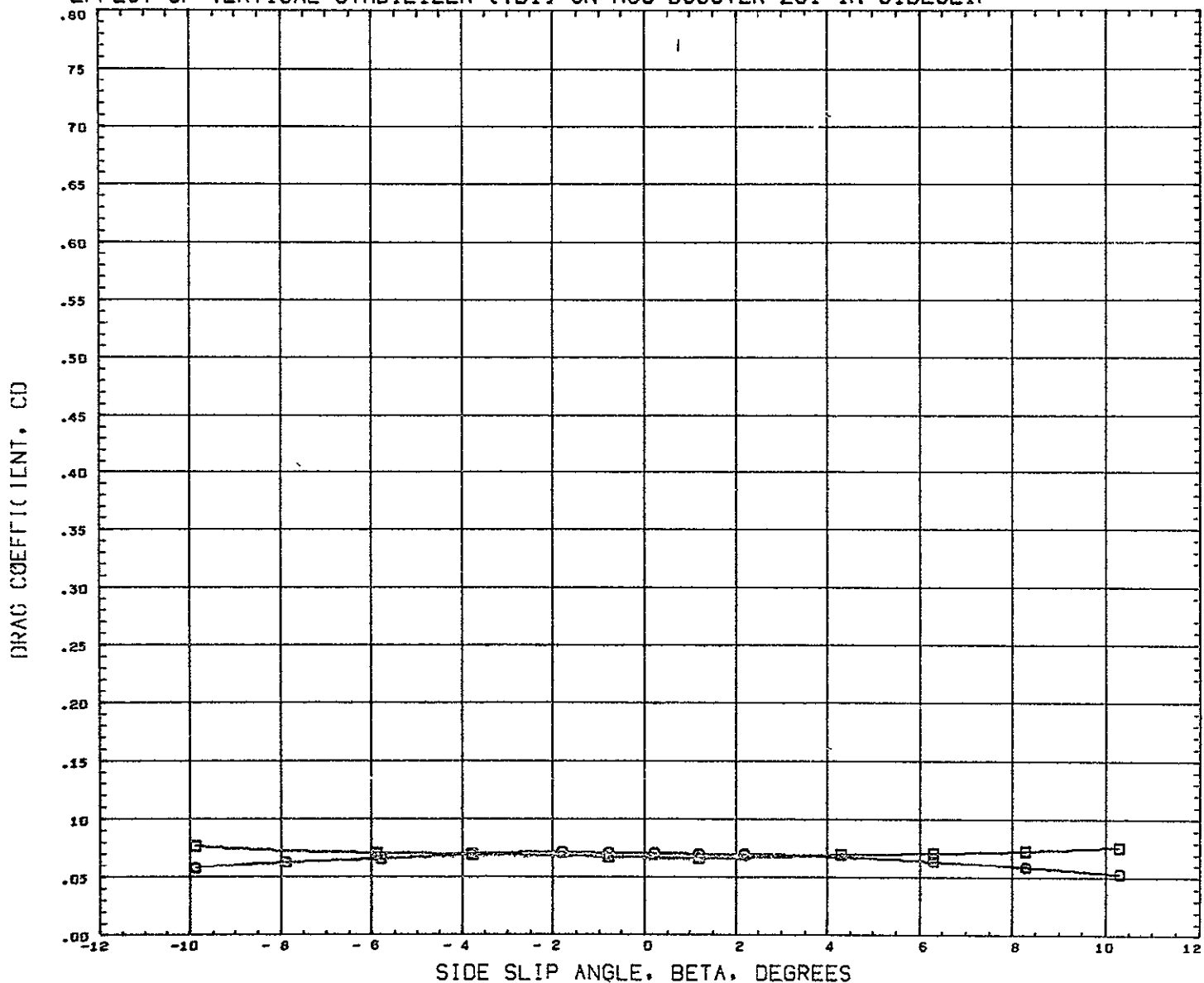
H-CH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION

REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67.5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



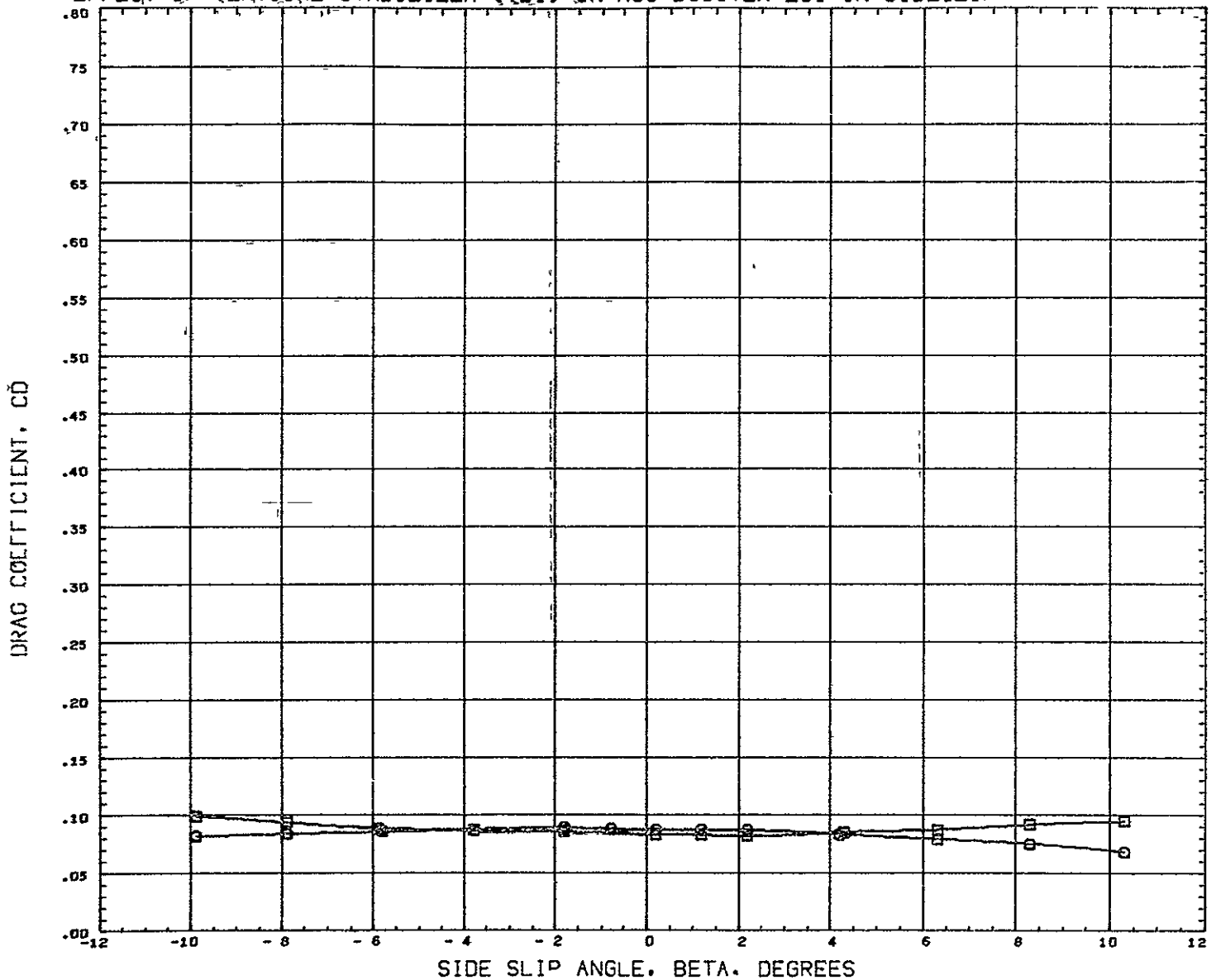
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064020) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (064022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRF 65 0000 PCT LB
 YHRF 0 0000
 ZHRF 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



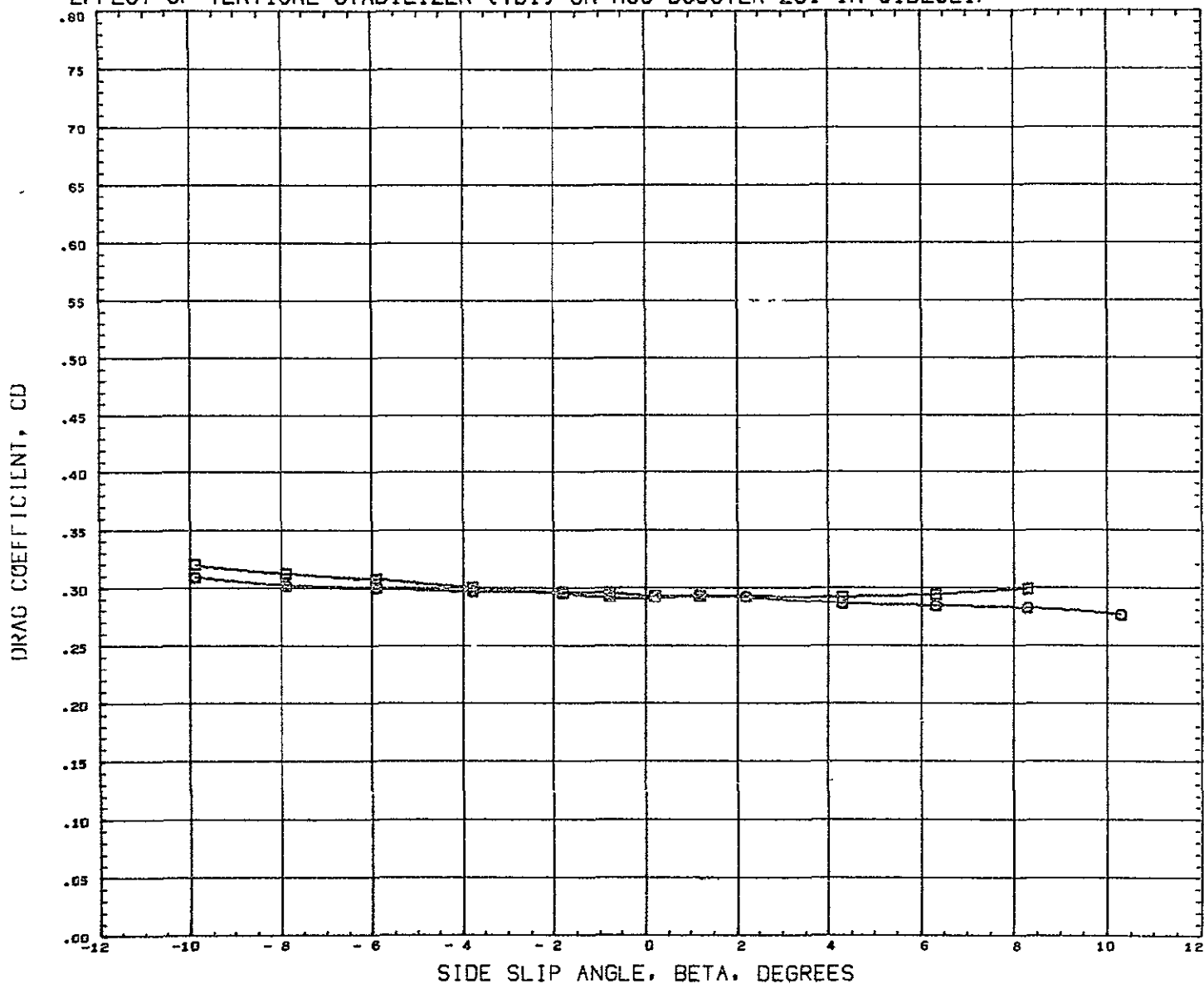
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (264020) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (264022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFS 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



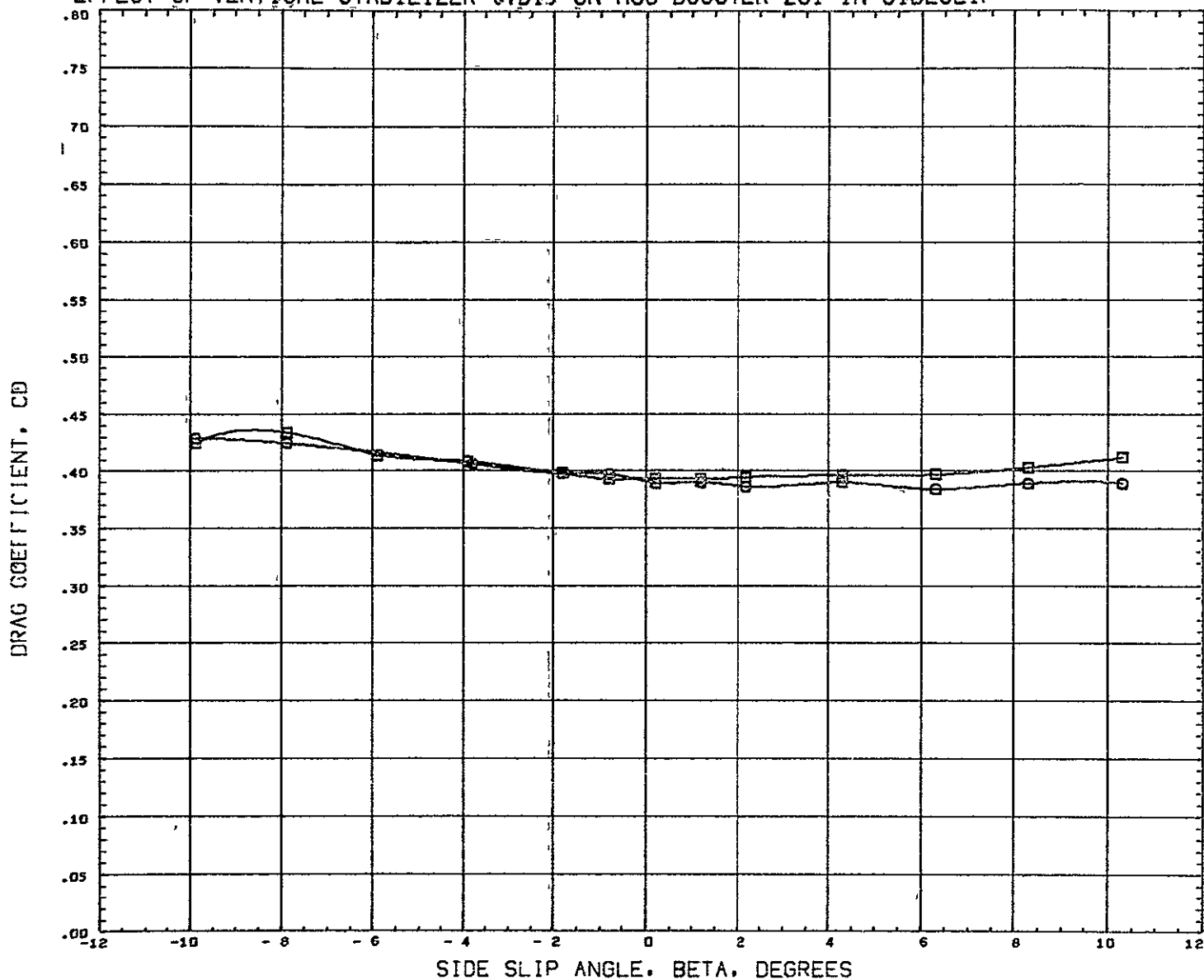
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (QC4020) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (QC4022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 12 000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



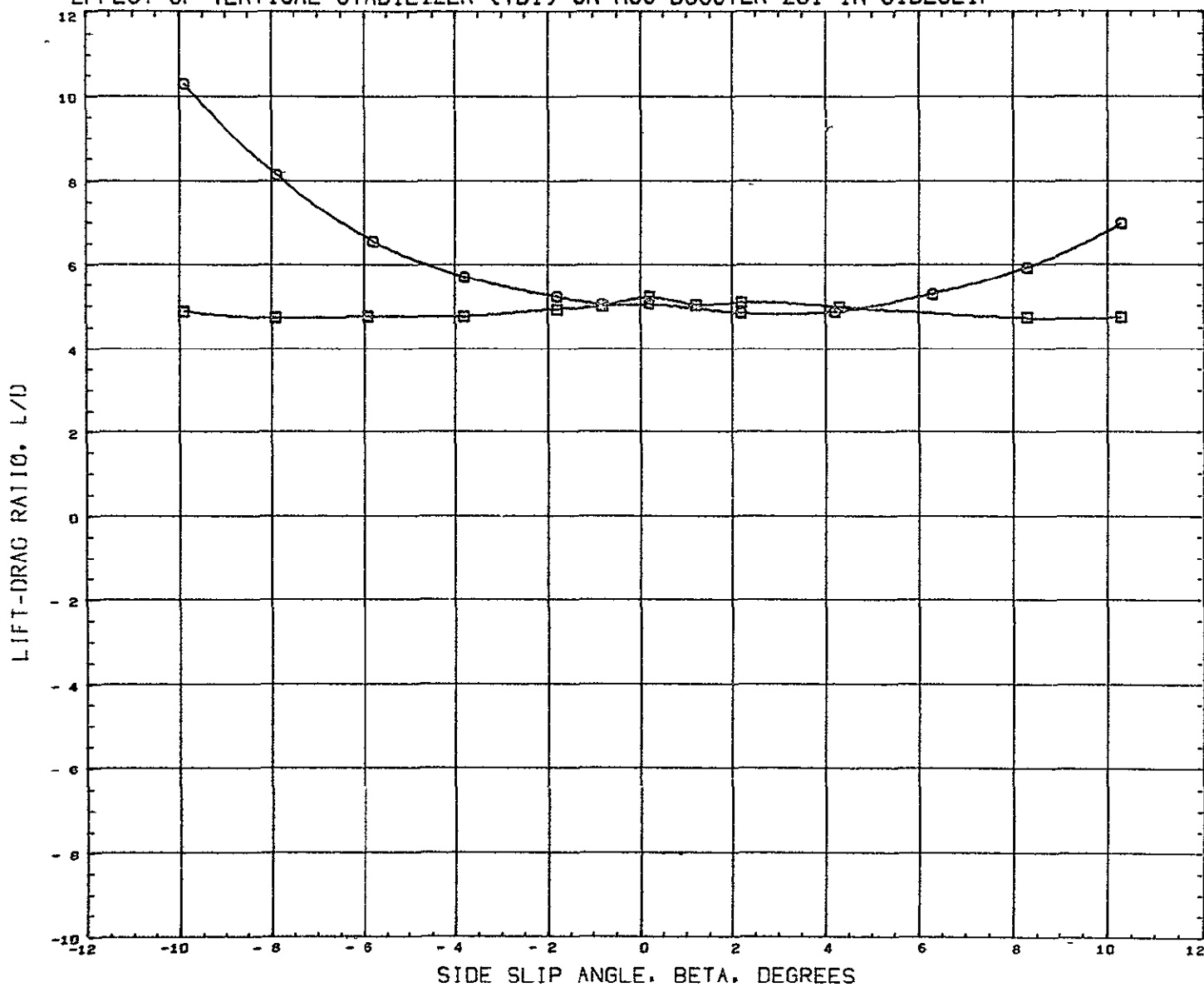
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064020) [] MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (064022) [] MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



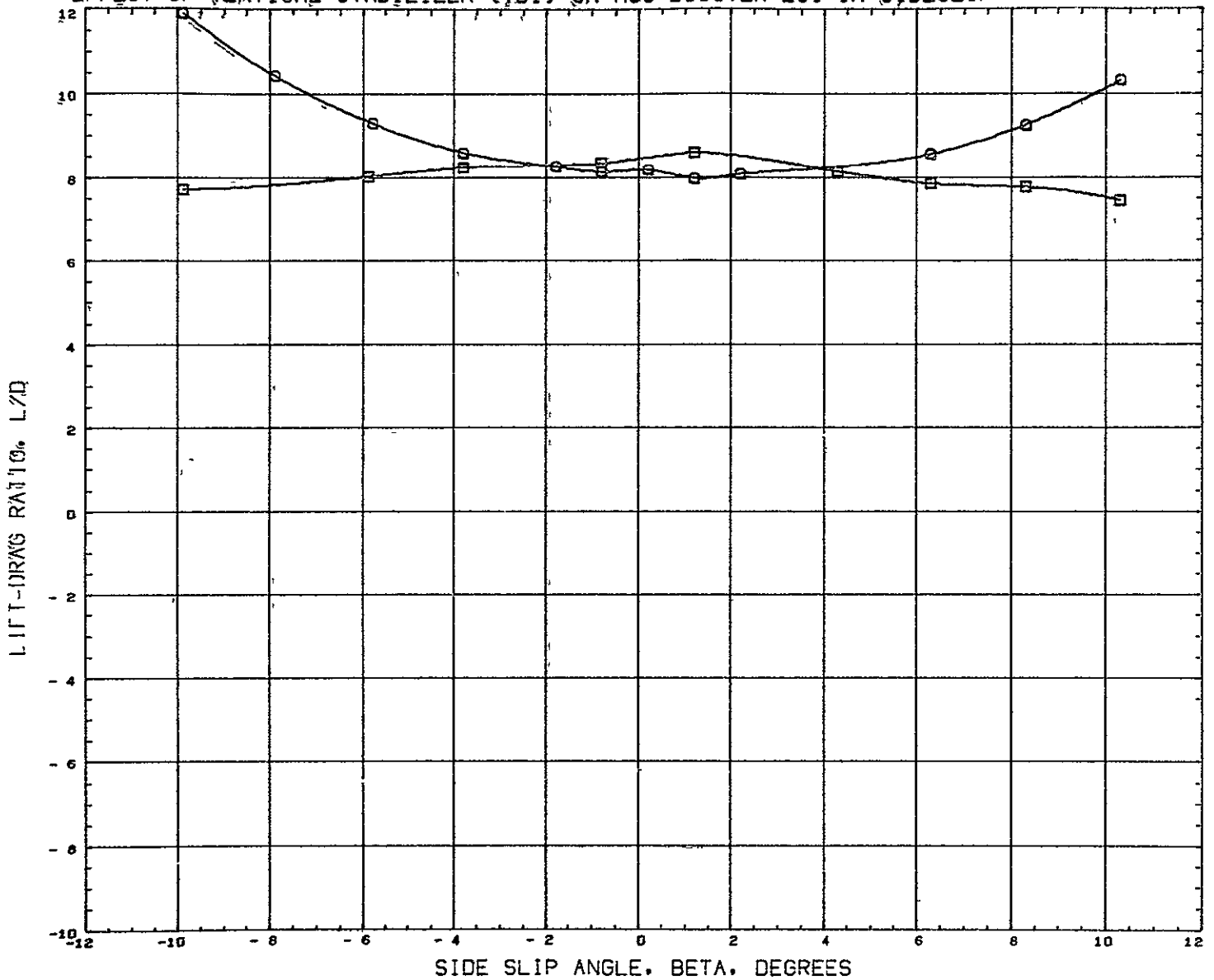
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (Q64020) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (Q64022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0.0000
 ZMRP 67 5500 FCT ZB
 SCALE 1 3215 FCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



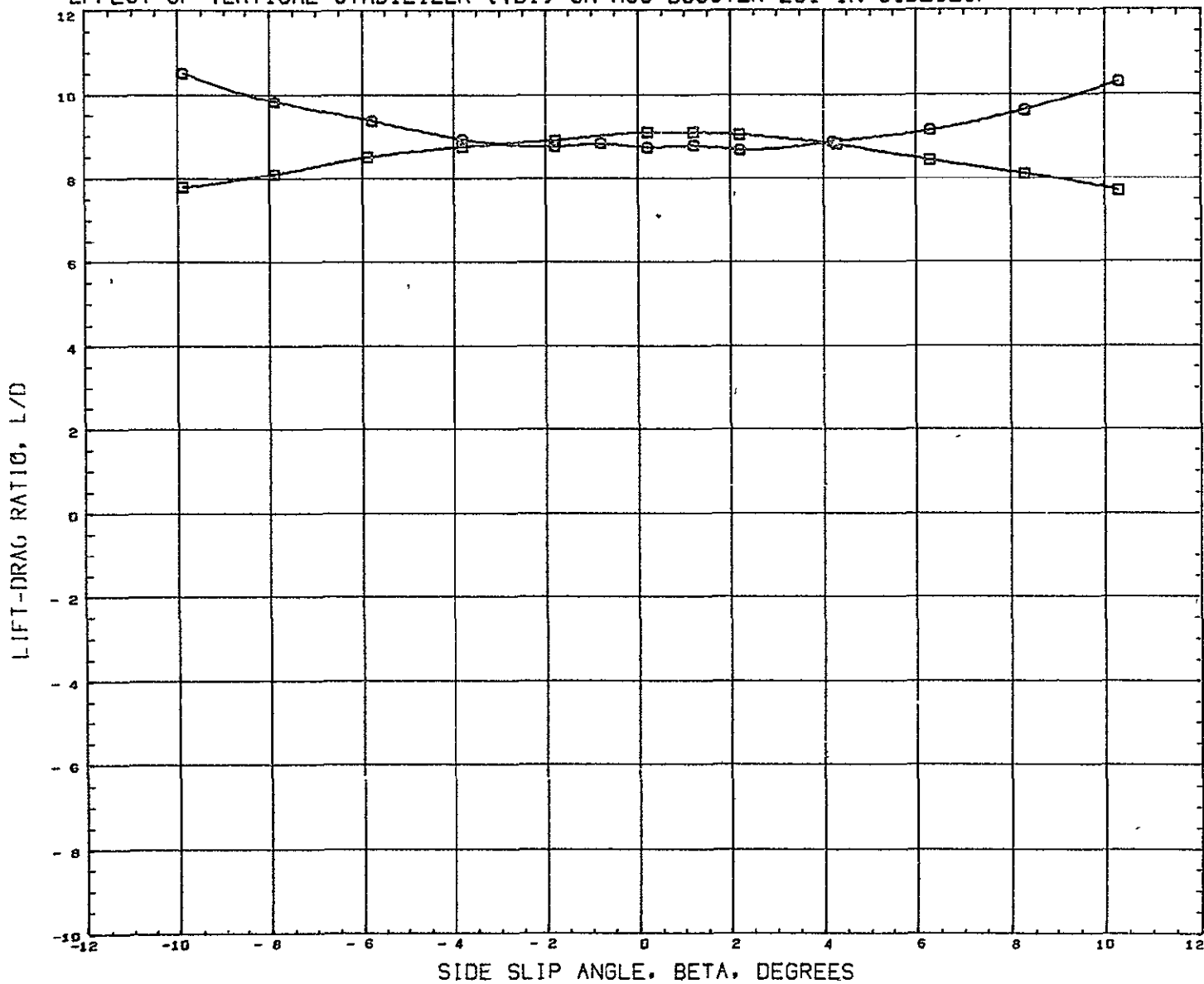
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (882WB1) ○ MSC S-XXIV BOOSTER 251 882WB1VB1HB1
 (882VB1) □ MSC S-XXIV BOOSTER 251 882VB1HB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670
 ELEVTR 0.000 CBRH 0.973
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(QG4020) ☐ MSC S-XXIV BOOSTER 251 BB2WB1-01H81
 (QG4022) ☐ MSC S-XXIV BOOSTER 251 BB2VB1H81

PARAMETRIC VALUES

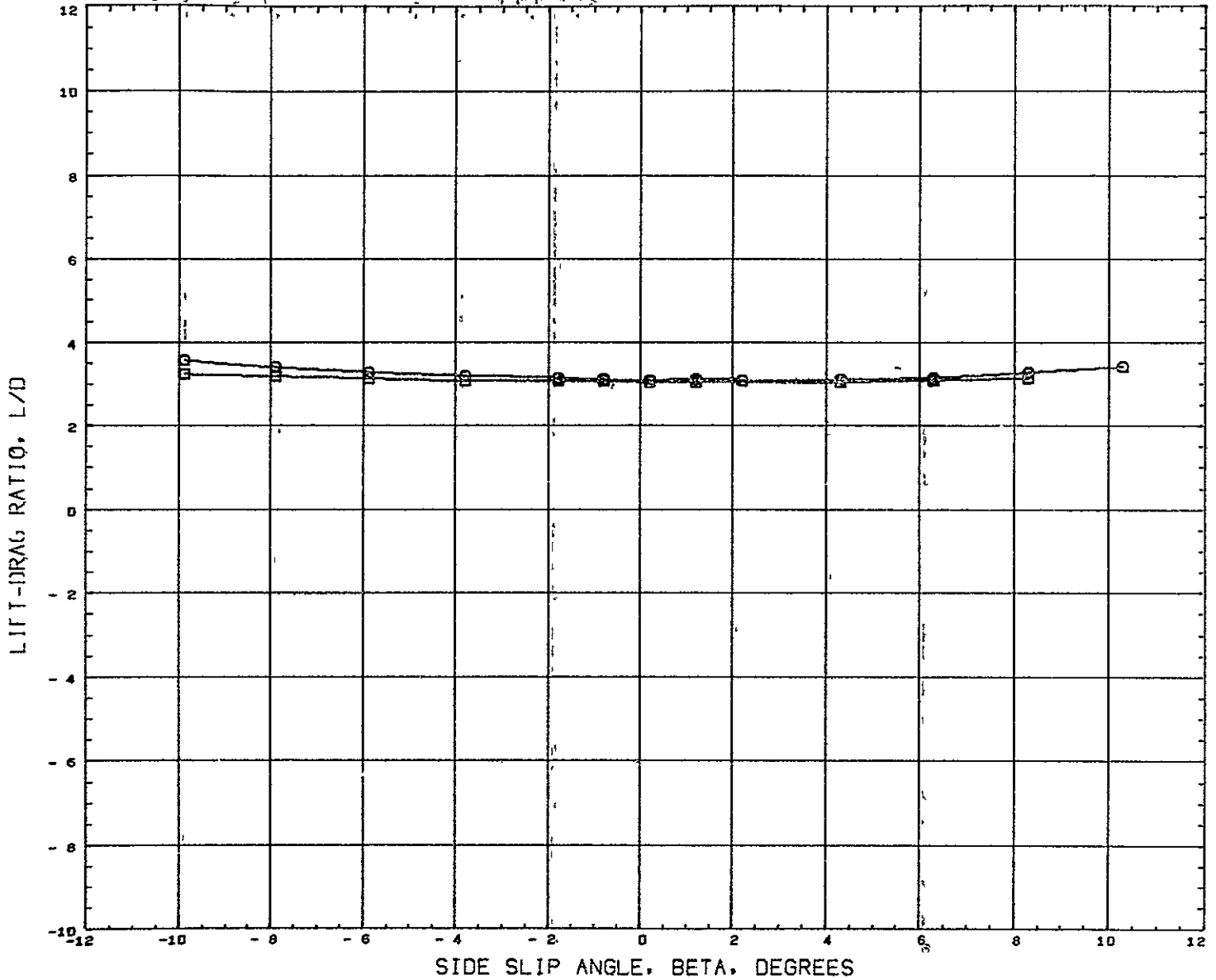
MACH 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION

REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2.4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5 000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



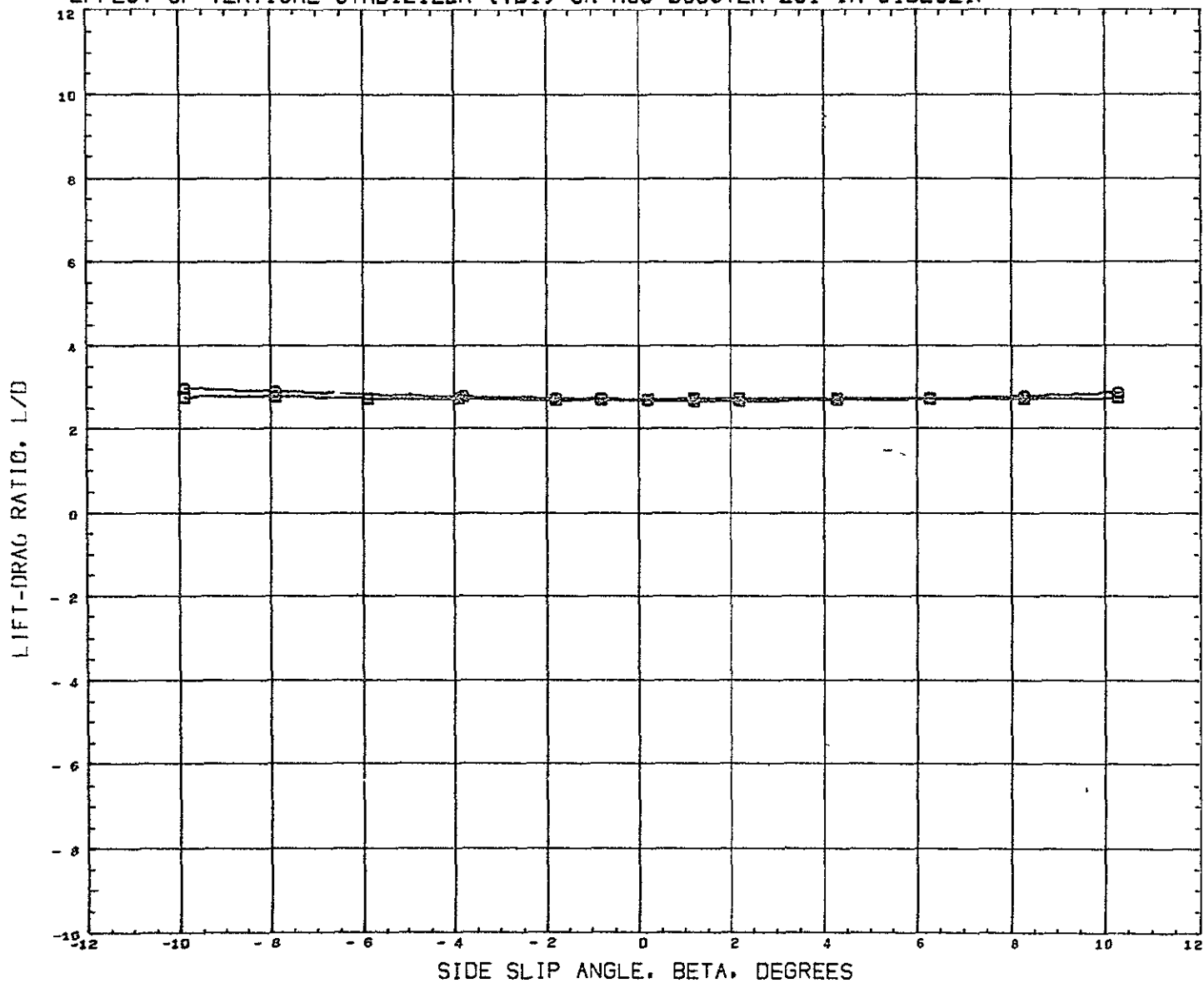
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(064020) ○	MSC S-XXIV BOOSTER 251 BB2WB+VB1HB1
(064022) □	MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES		
PACH	0 250	CBRW 0 670
ELEVTR	0.000	CBRH 0 973
IT	0 000	

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

ALPHA 12 000

EFFECT OF VERTICAL STABILIZER (VB1) ON MSC BOOSTER 251 IN SIDESLIP



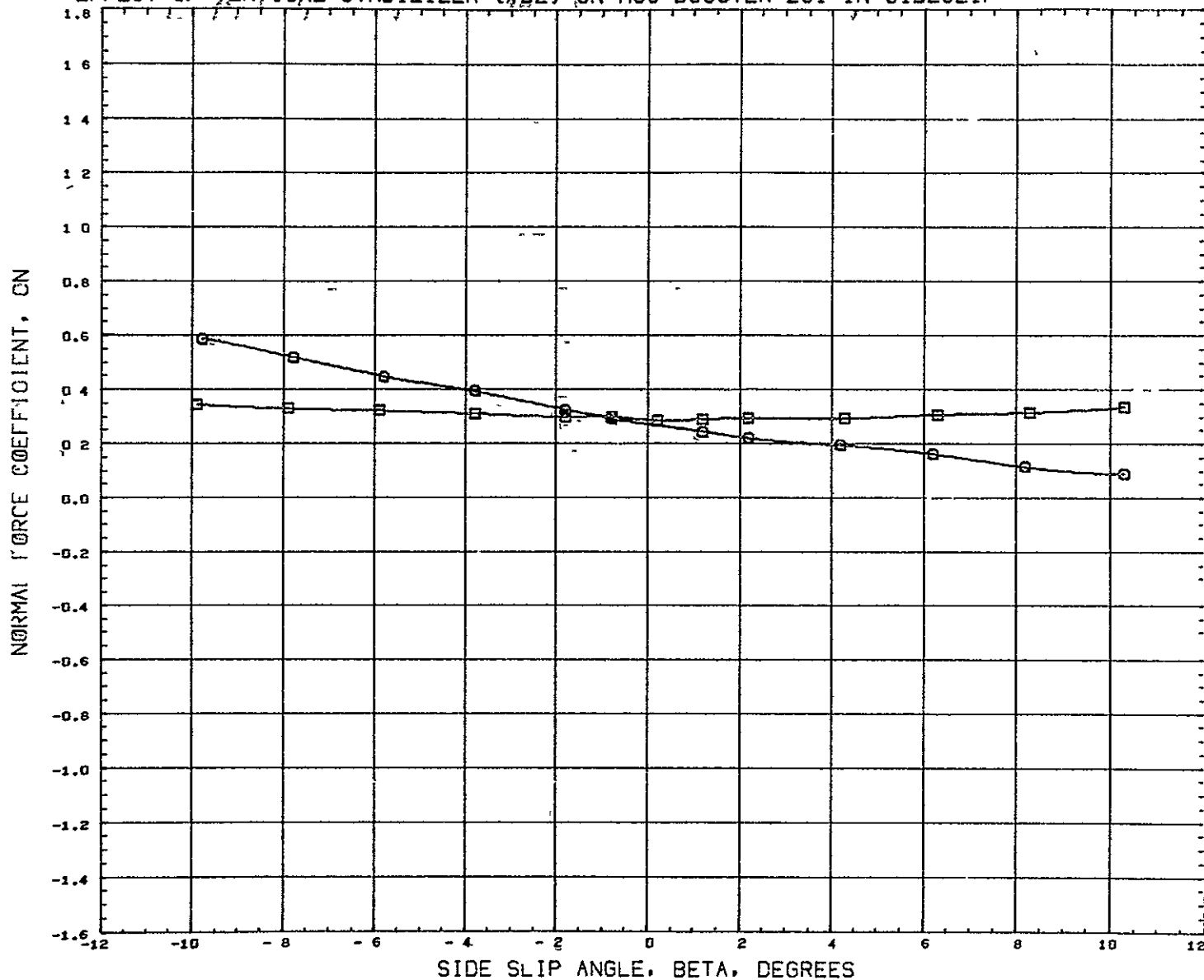
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (004020) C MSC S-XXIV BOOSTER 251 BB2WB1VB1HB1
 (004022) □ MSC S-XXIV BOOSTER 251 BB2VB1HB1

PARAMETRIC VALUES
 P1/H 0 250 CBRW 0 670
 ELEVTR 0 000 CBRH 0 973
 IT 0 000

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XNRF 65 0000 PCT LB
 YNRF 0 0000
 ZNRF 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



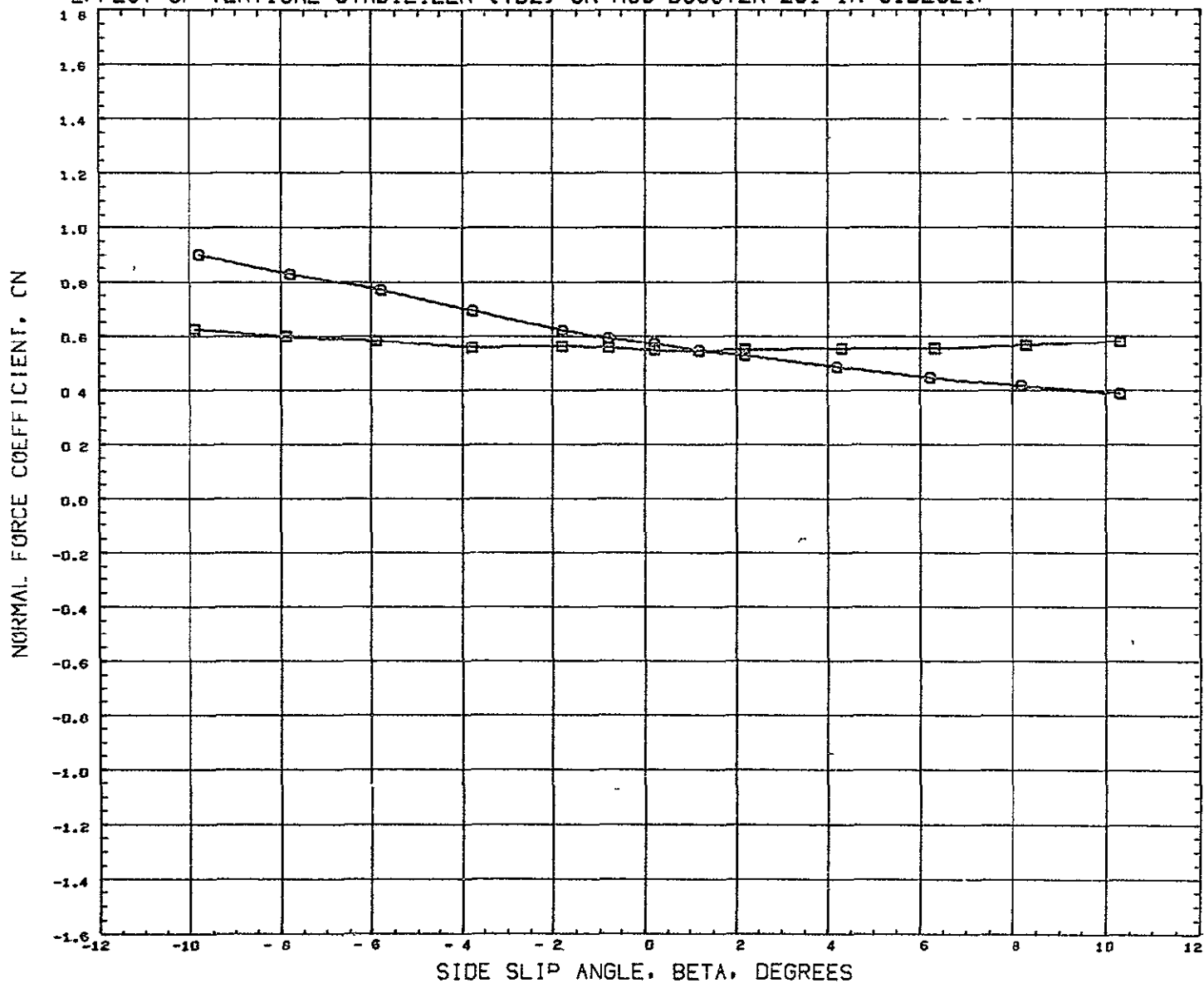
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (04021) MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (04023) MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



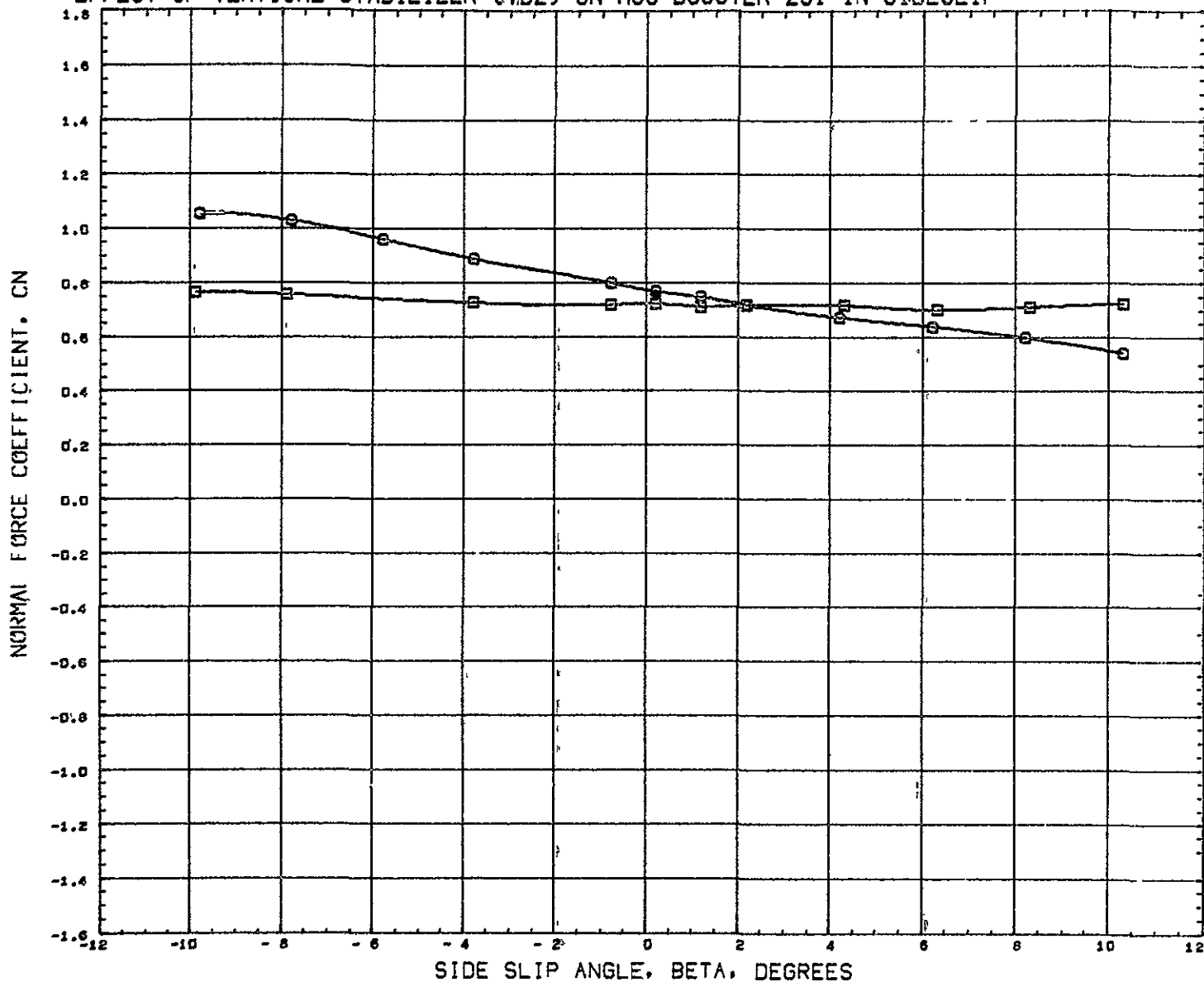
DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (QG4023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 FCT ZB
 SCALE 1 3215 FCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



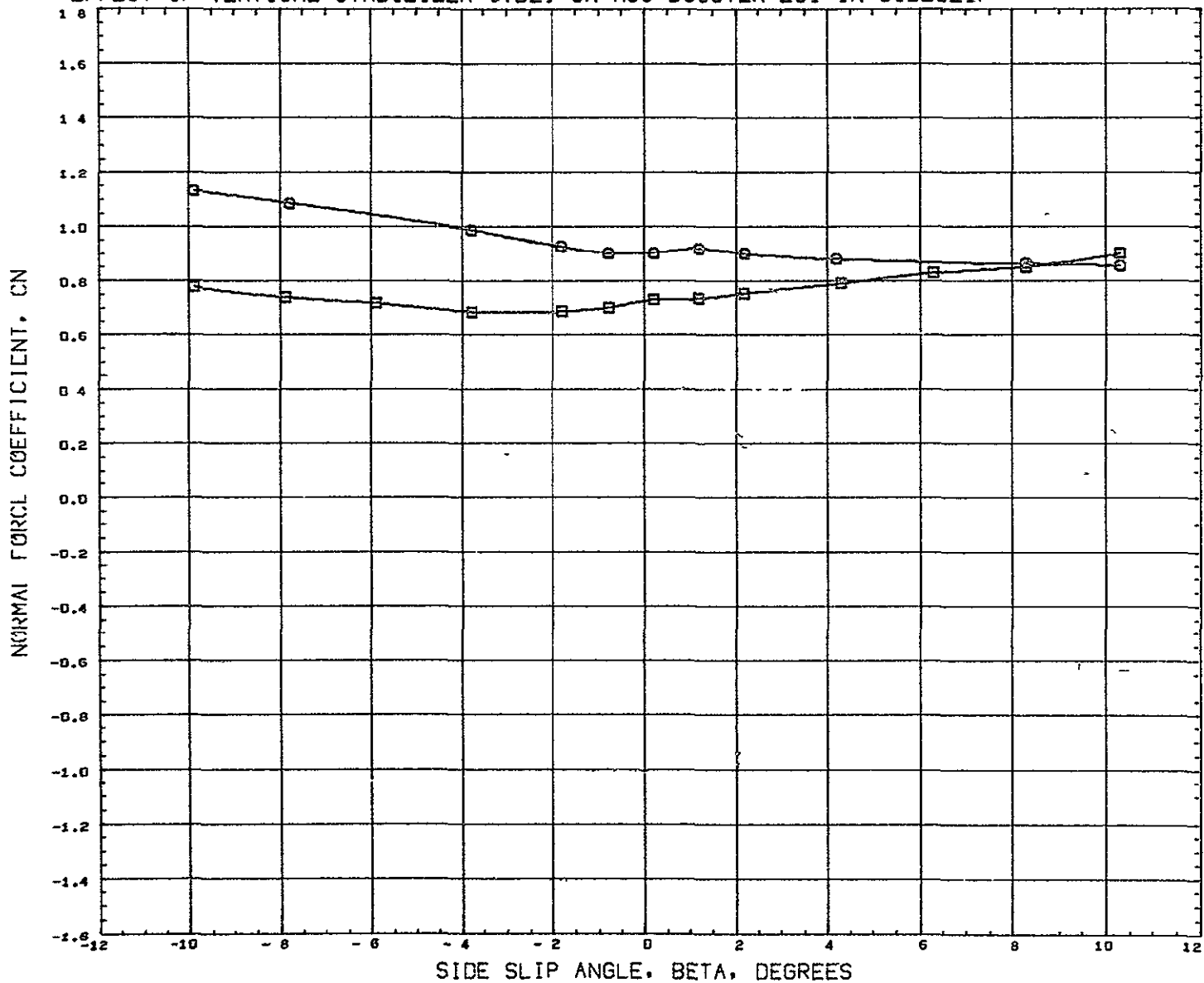
DATA SET: SYMBOL CONFIGURATION DESCRIPTION
 (004020) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (004023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8480 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



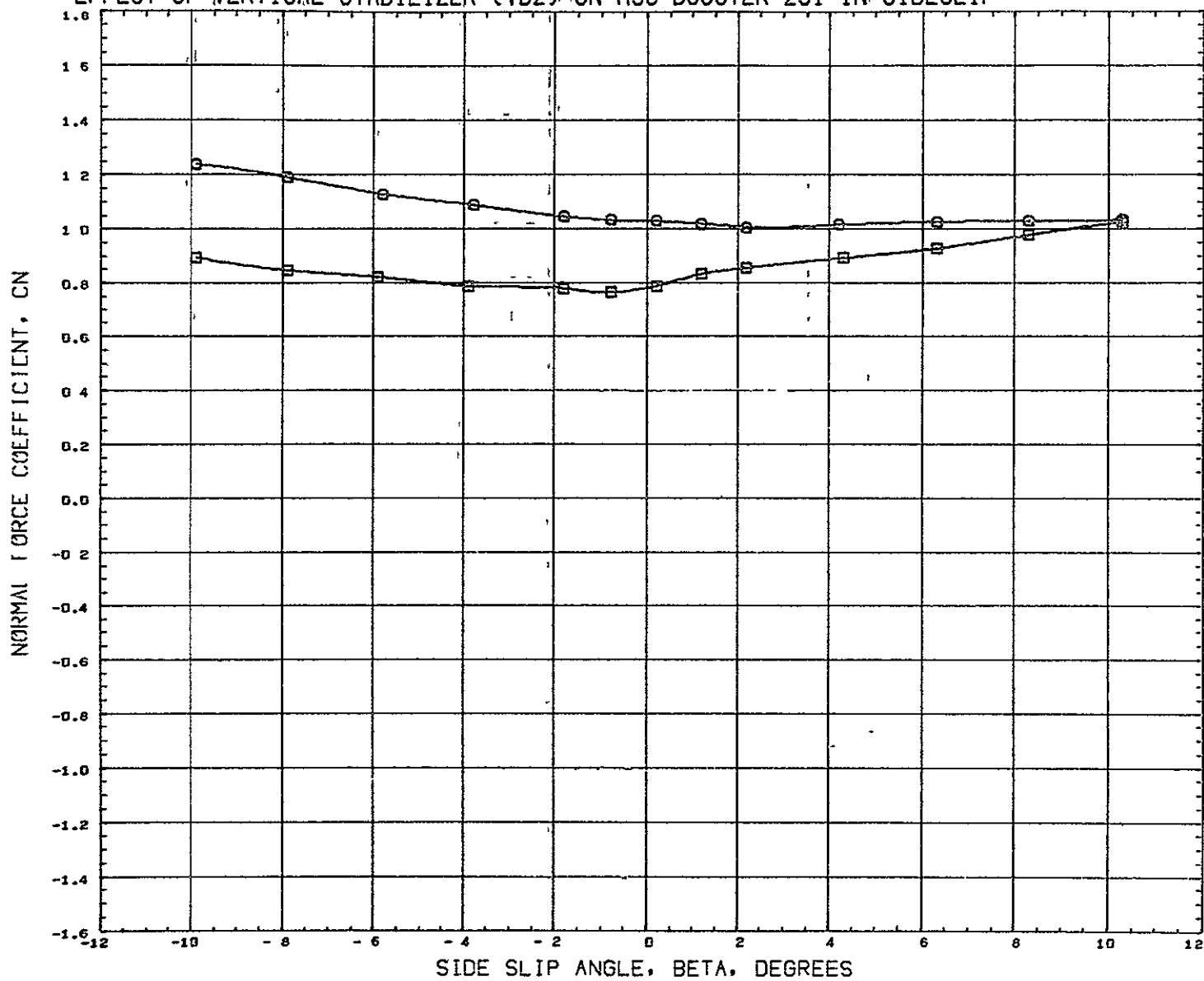
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064021) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (064023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.220 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB -2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(064021) □ MSC S-XXIV BOOSTER 251 BB2W91V92
 (064023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES

MACH 0.250 CBRW 0.670

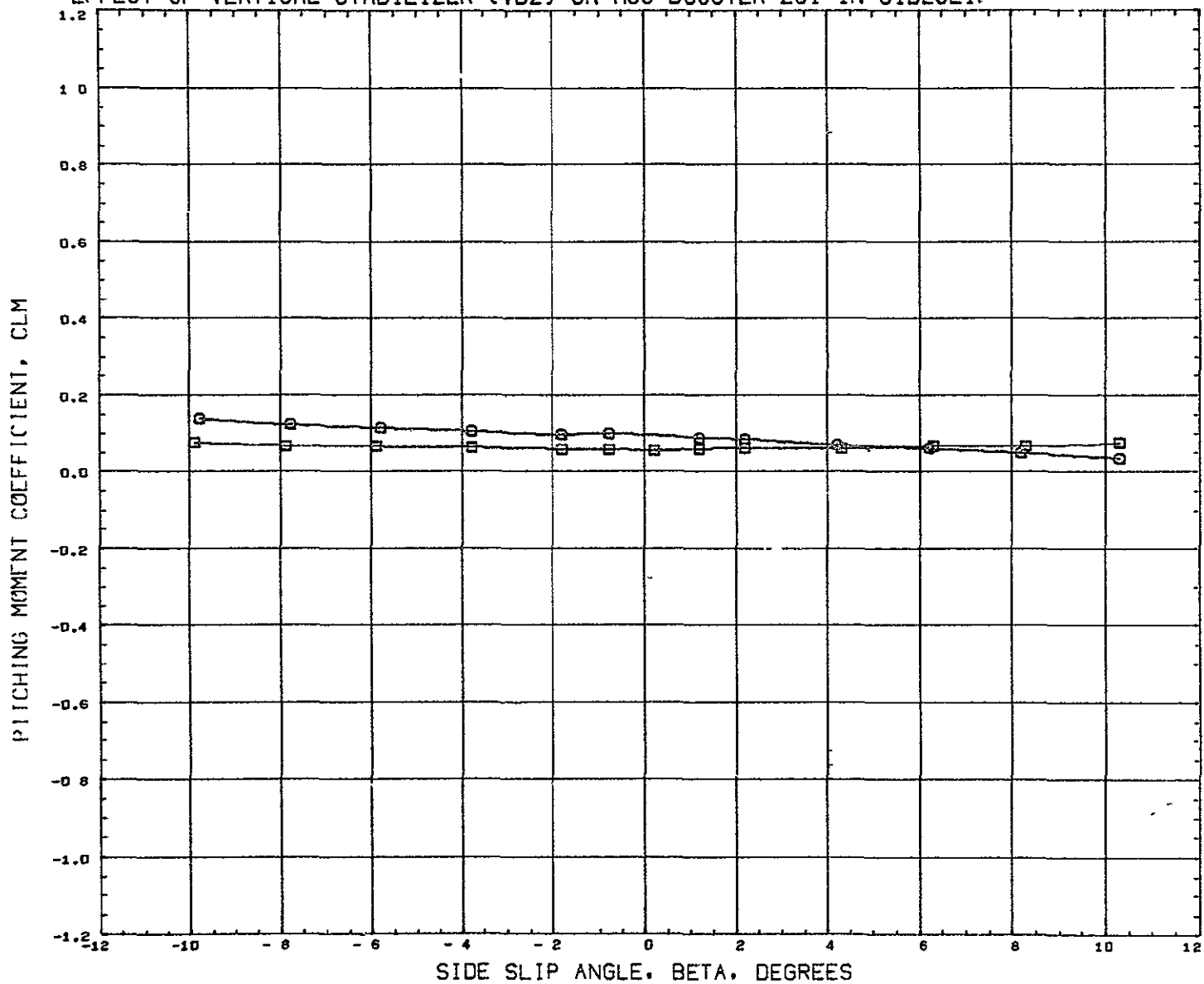
REFERENCE INFORMATION

REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15 000

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EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



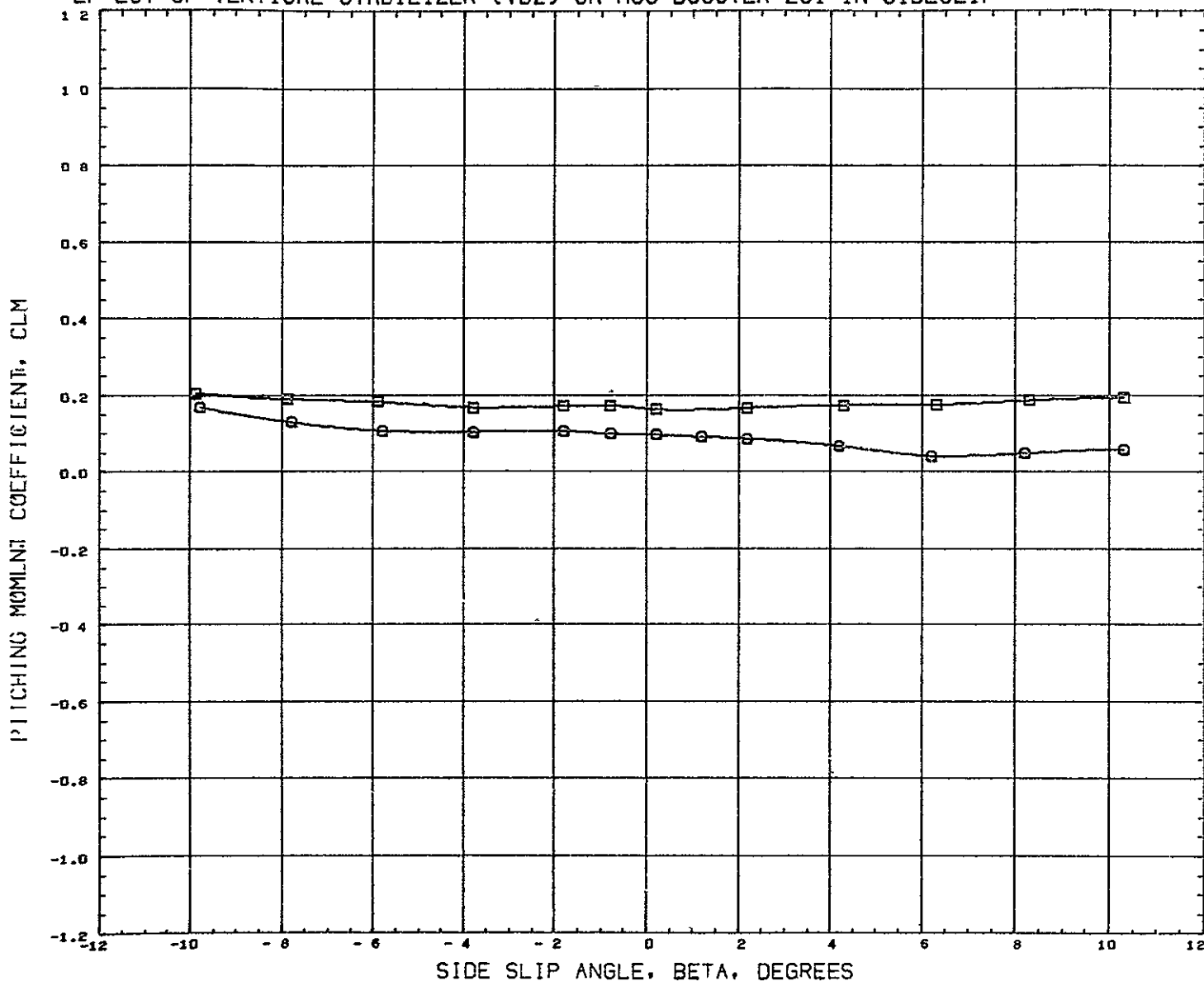
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064021) S MSC S-XXIV BOOSTER 251 882W81VB2
 (064023) □ MSC S-XXIV BOOSTER 251 882W81

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



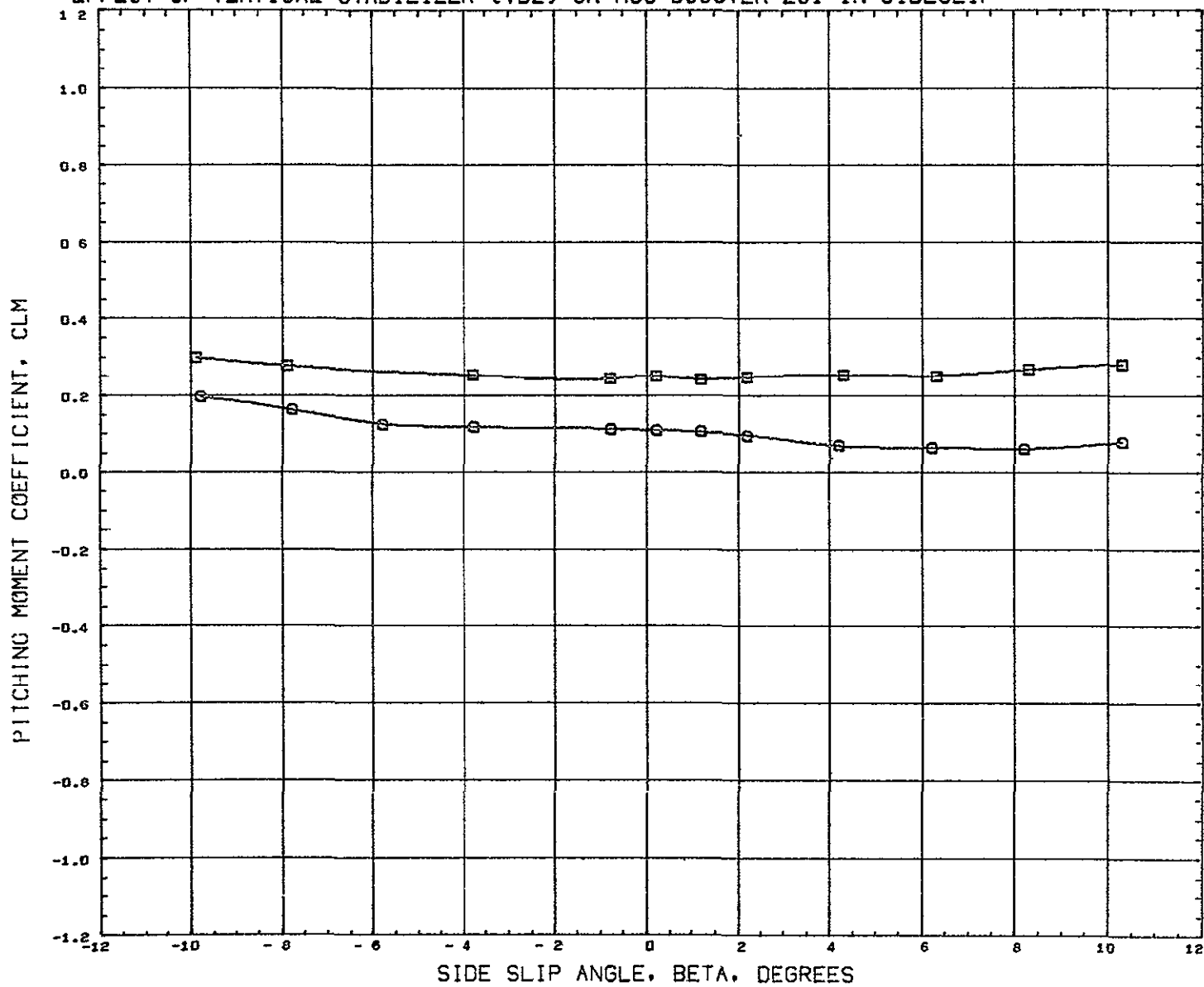
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (864021) ○ MSC S-XXIV BOOSTER 251 882WB1VB2
 (864023) □ MSC S-XXIV BOOSTER 251 882WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT 3Q
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



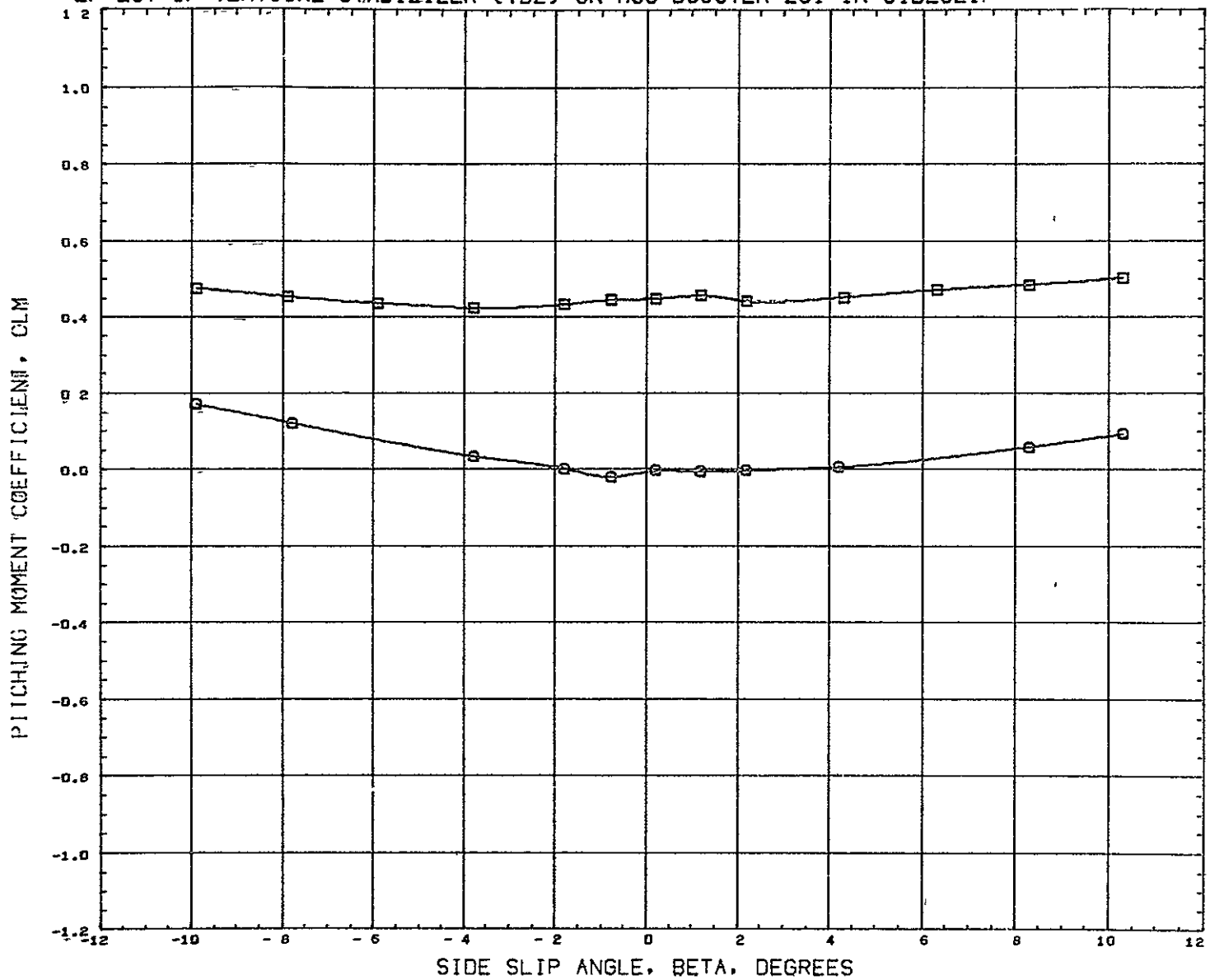
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 (064021) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (064023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



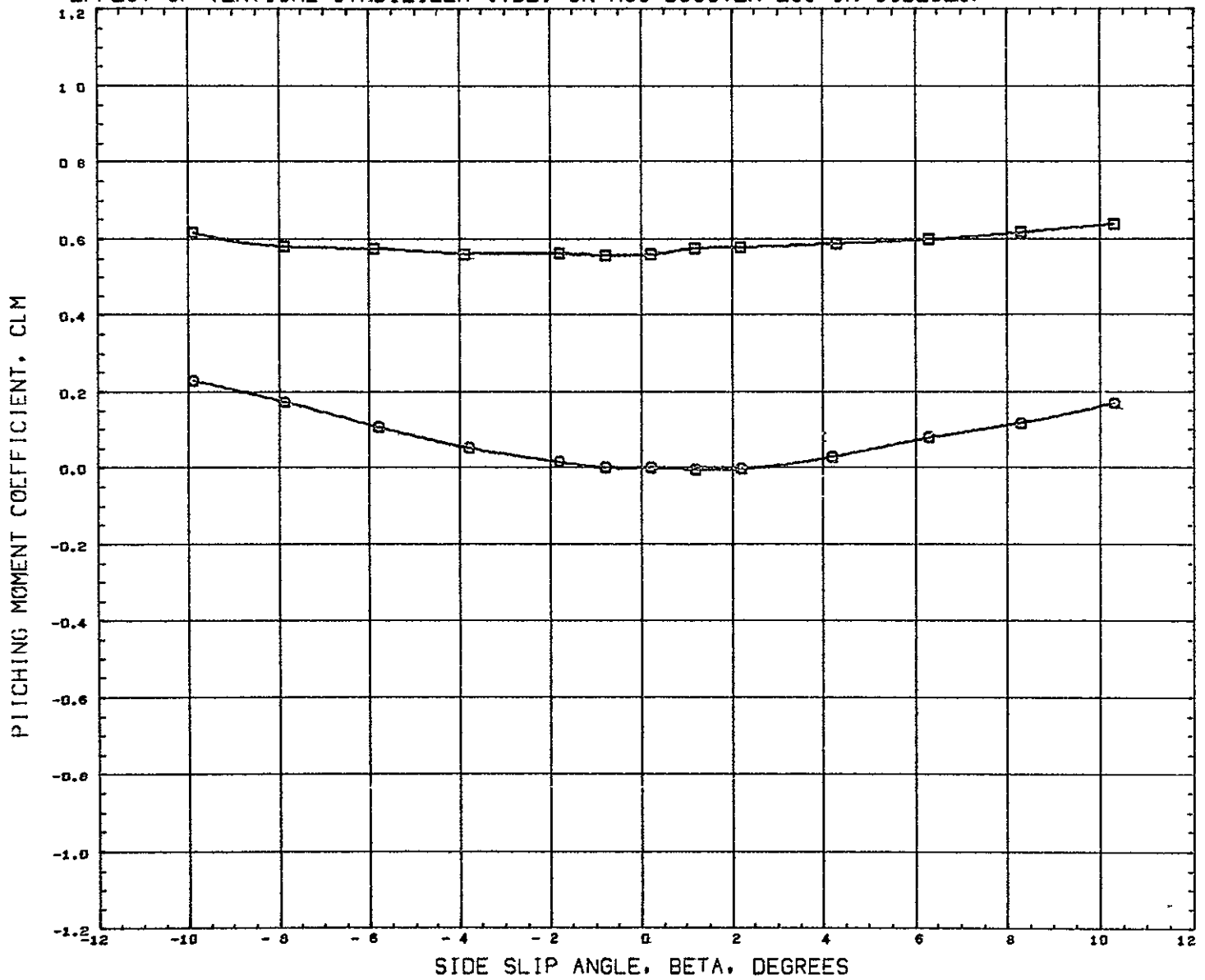
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 (064021) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (064023) □ MSC S-XXIV BOOSTER 251 BB2WB

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
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 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YHRF 0 0000
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 SCALE 1 3215 FCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



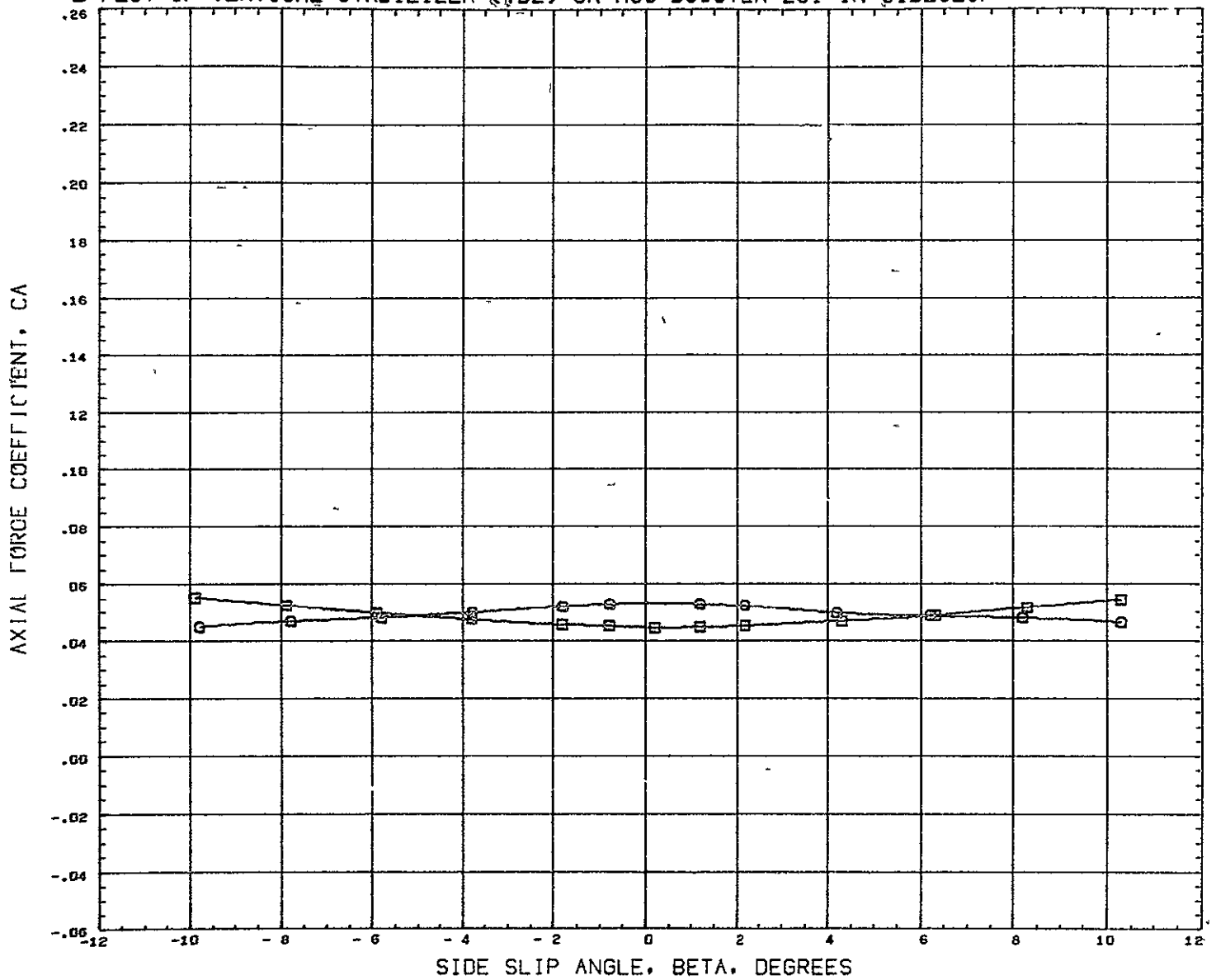
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 (004023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
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REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



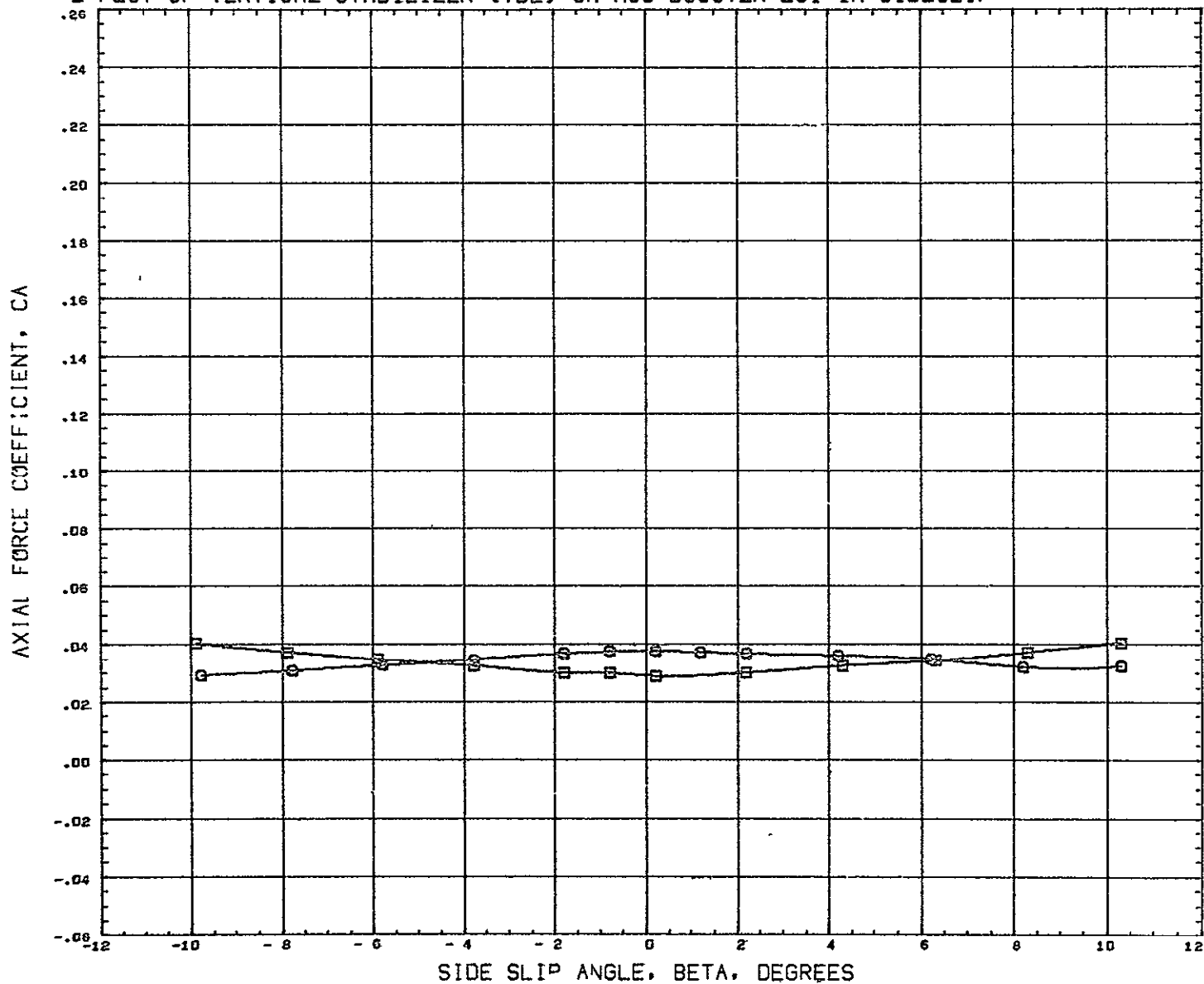
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PARAMETRIC VALUES
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REFERENCE INFORMATION
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 REFL 0.3816 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



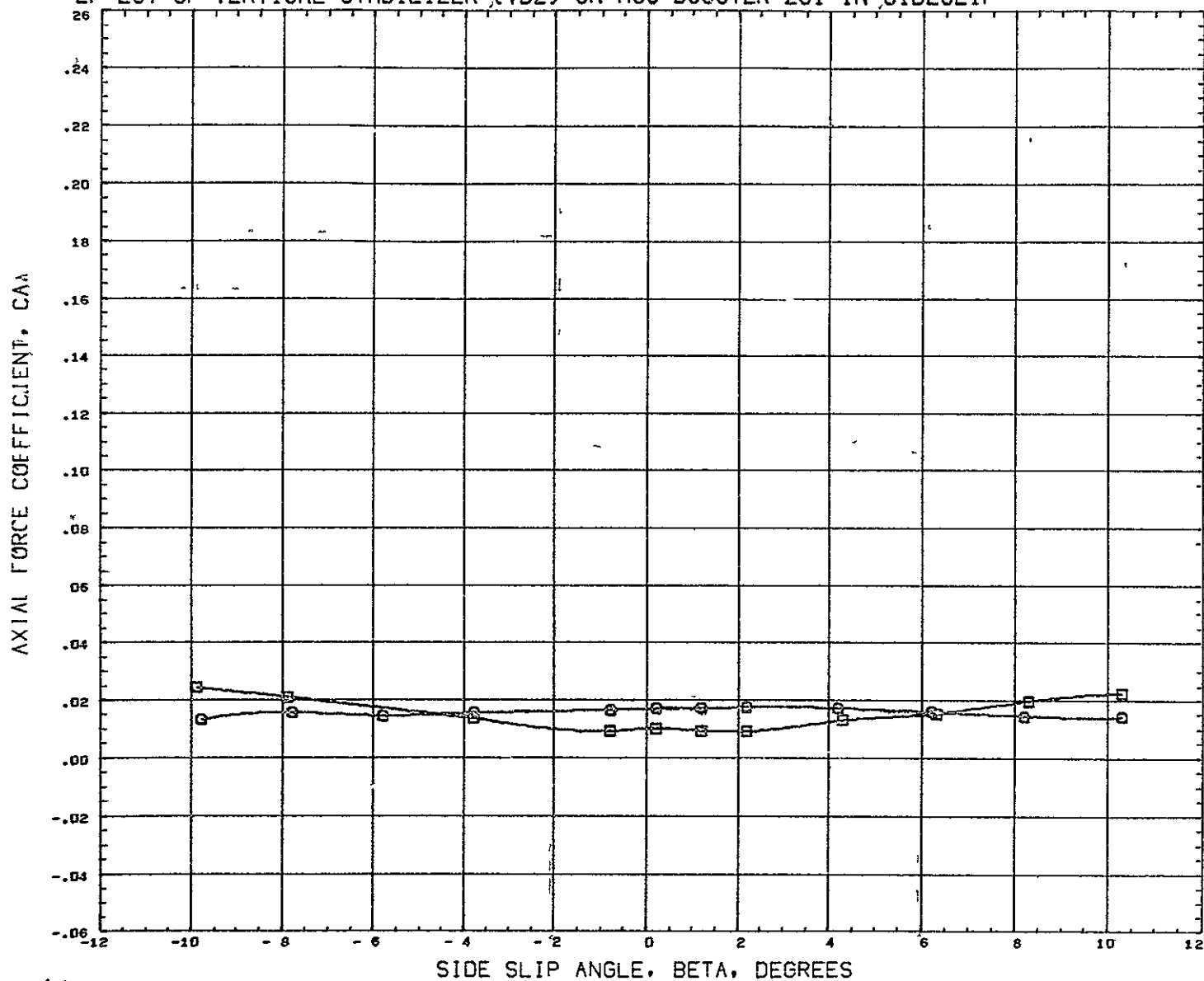
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 (064023) □ MSC S-XXIV BOOSTER 251 B82WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW

REFERENCE INFORMATION
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 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
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 SCALE 1.3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



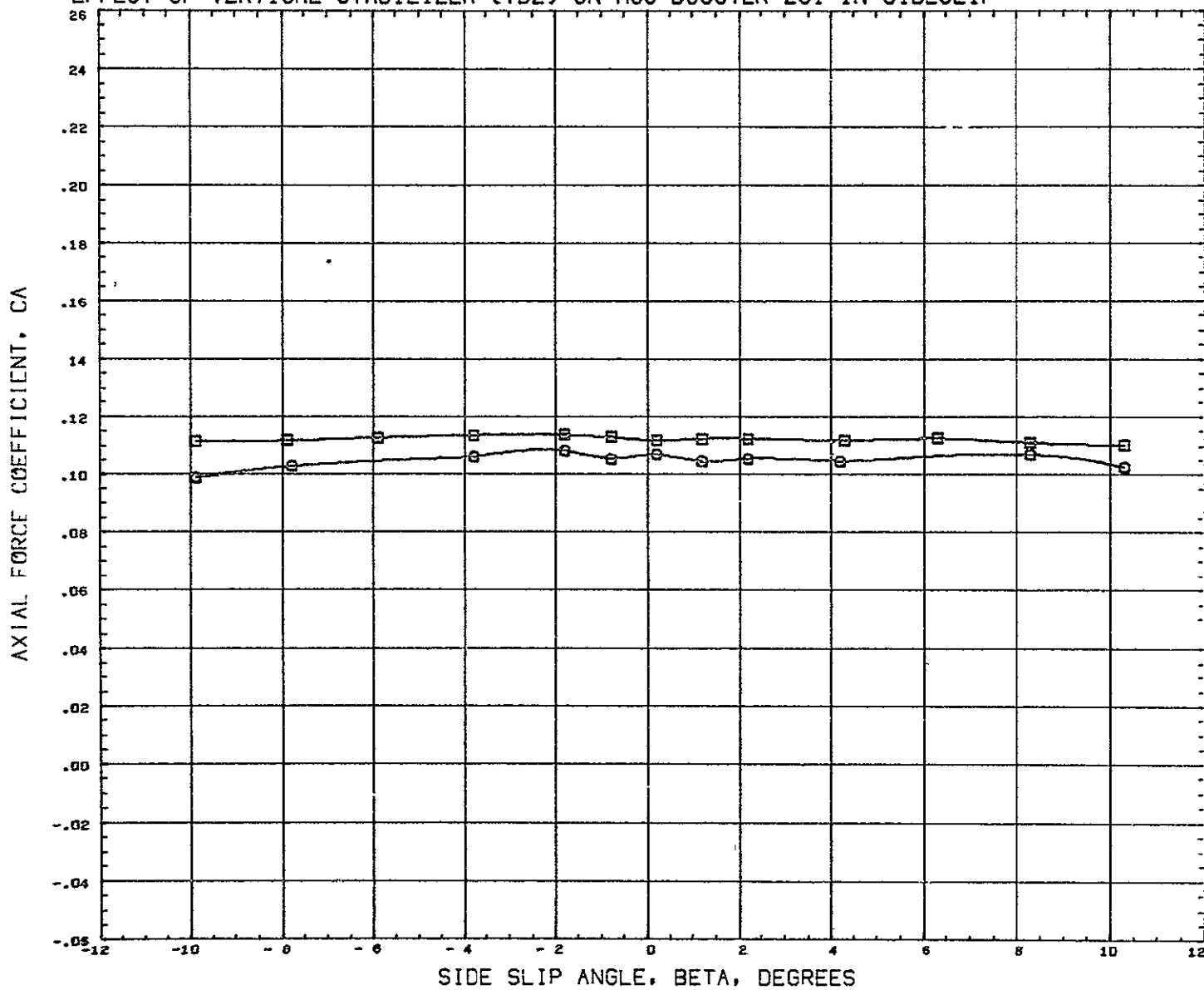
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 (964023) □ MSC S-XXIV BOOSTER 251 8B2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRF 65 0000 PCT LB
 YHRF 0 0000
 ZHRF 67 5500 PCT 2B
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



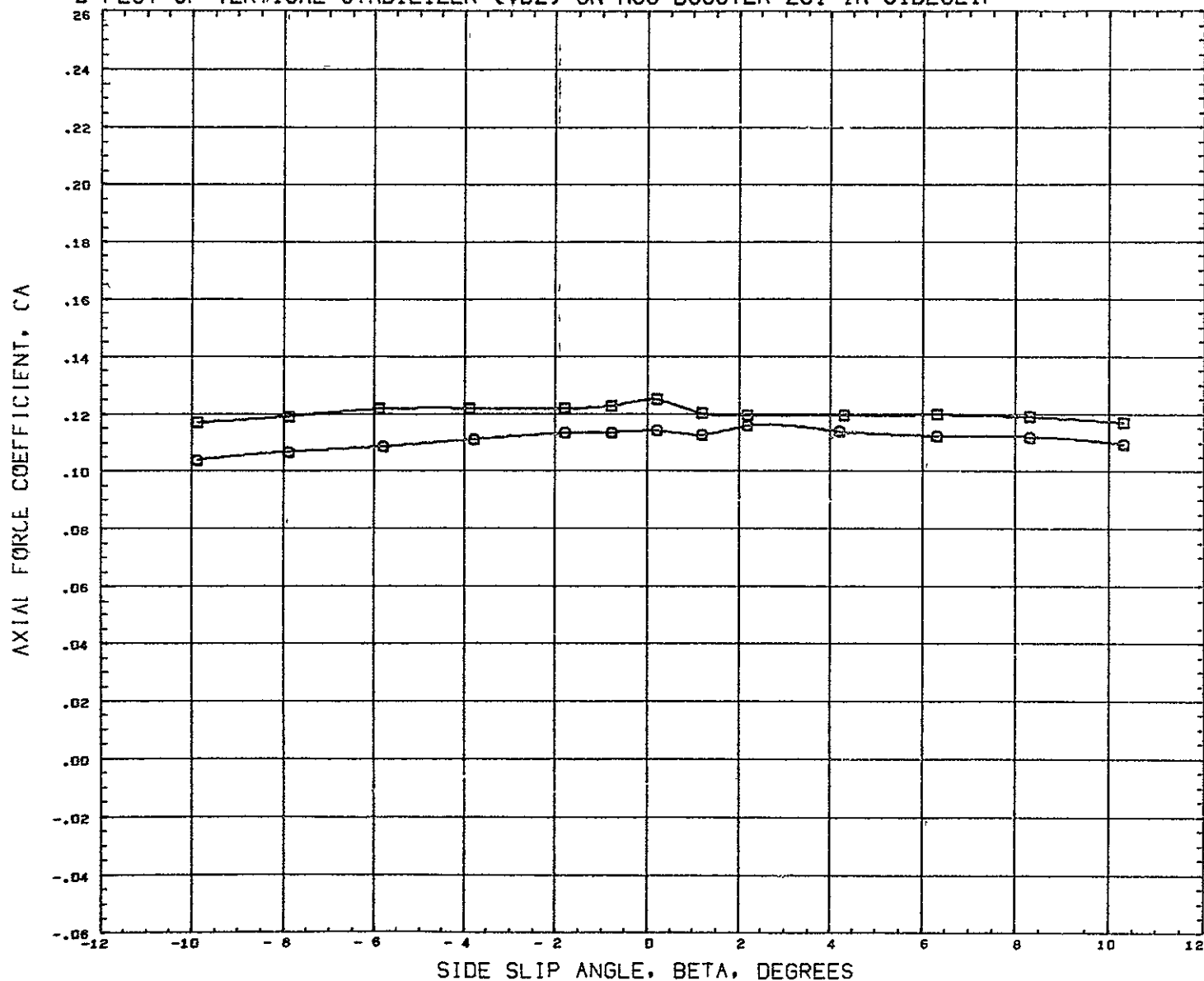
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PARAMETRIC VALUES
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REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



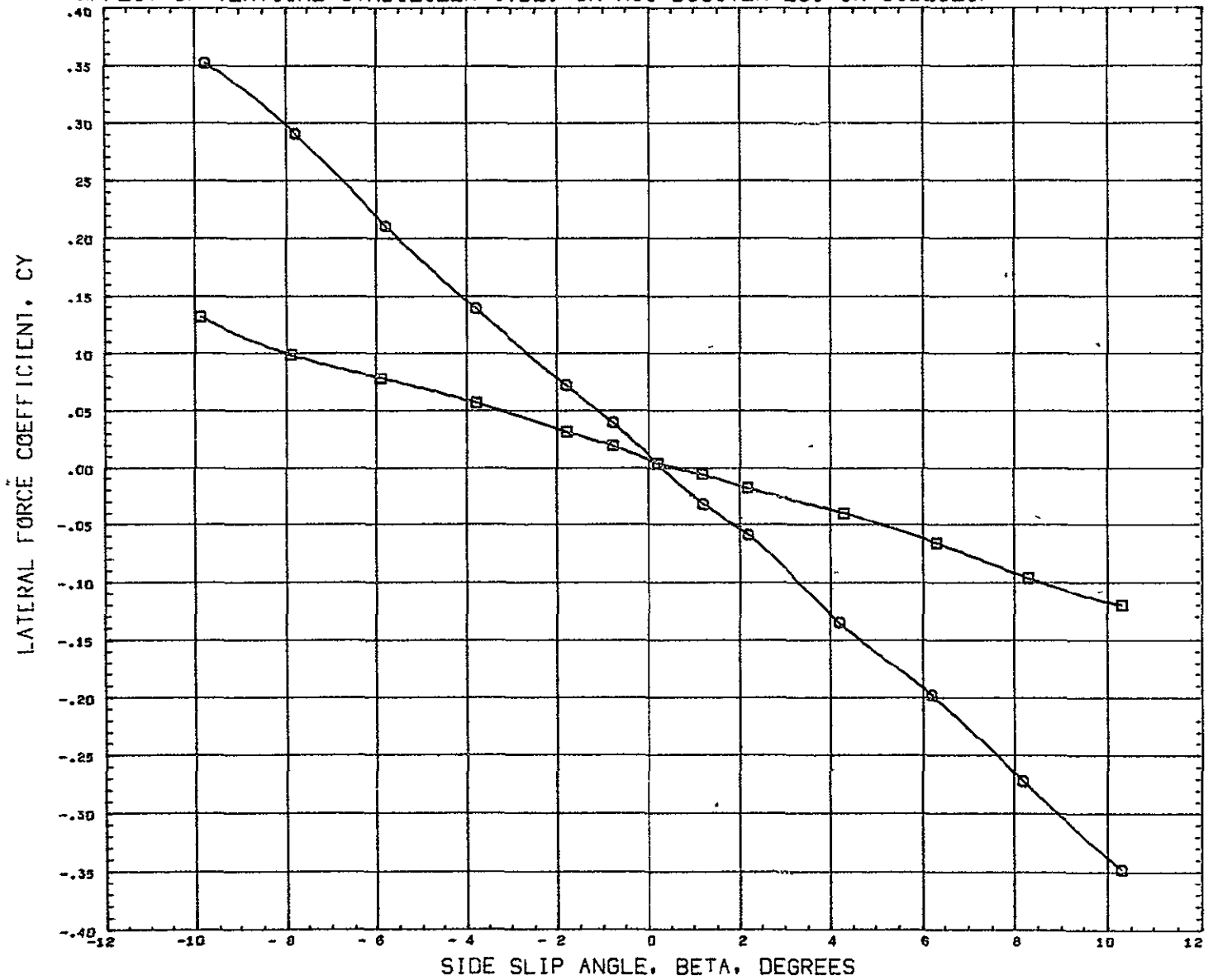
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PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



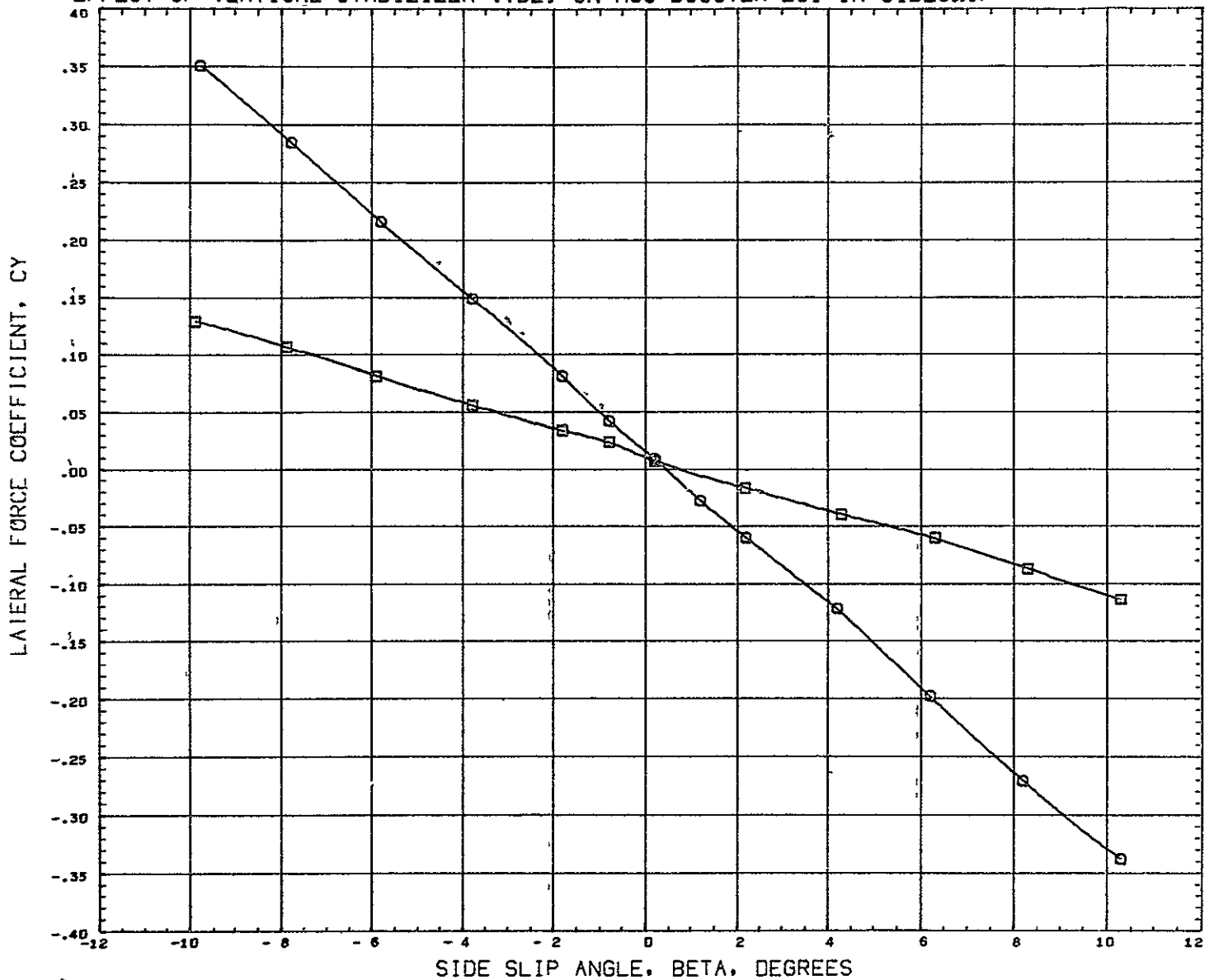
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PARAMETRIC VALUES
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REFERENCE INFORMATION
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 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



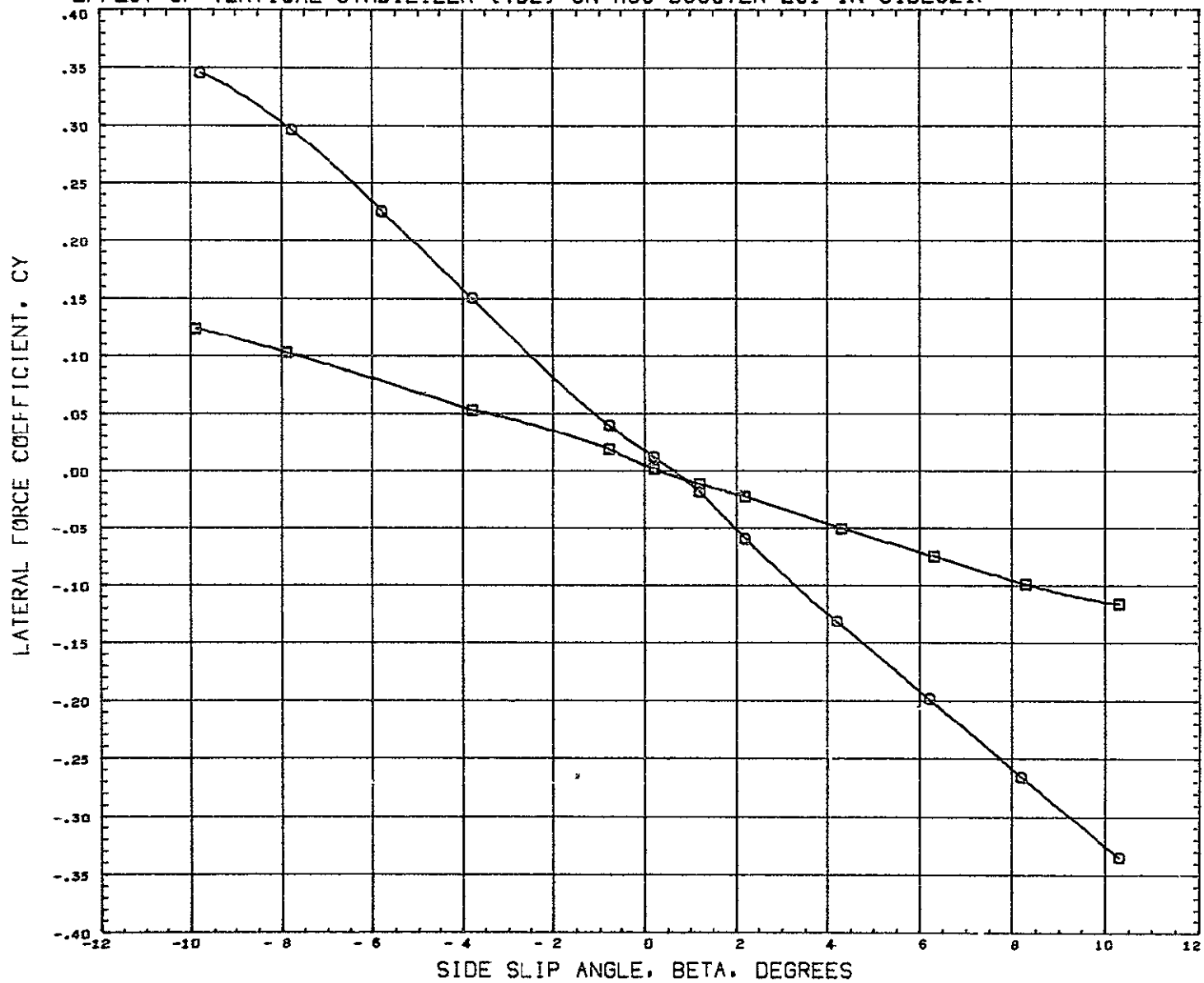
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PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRF 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



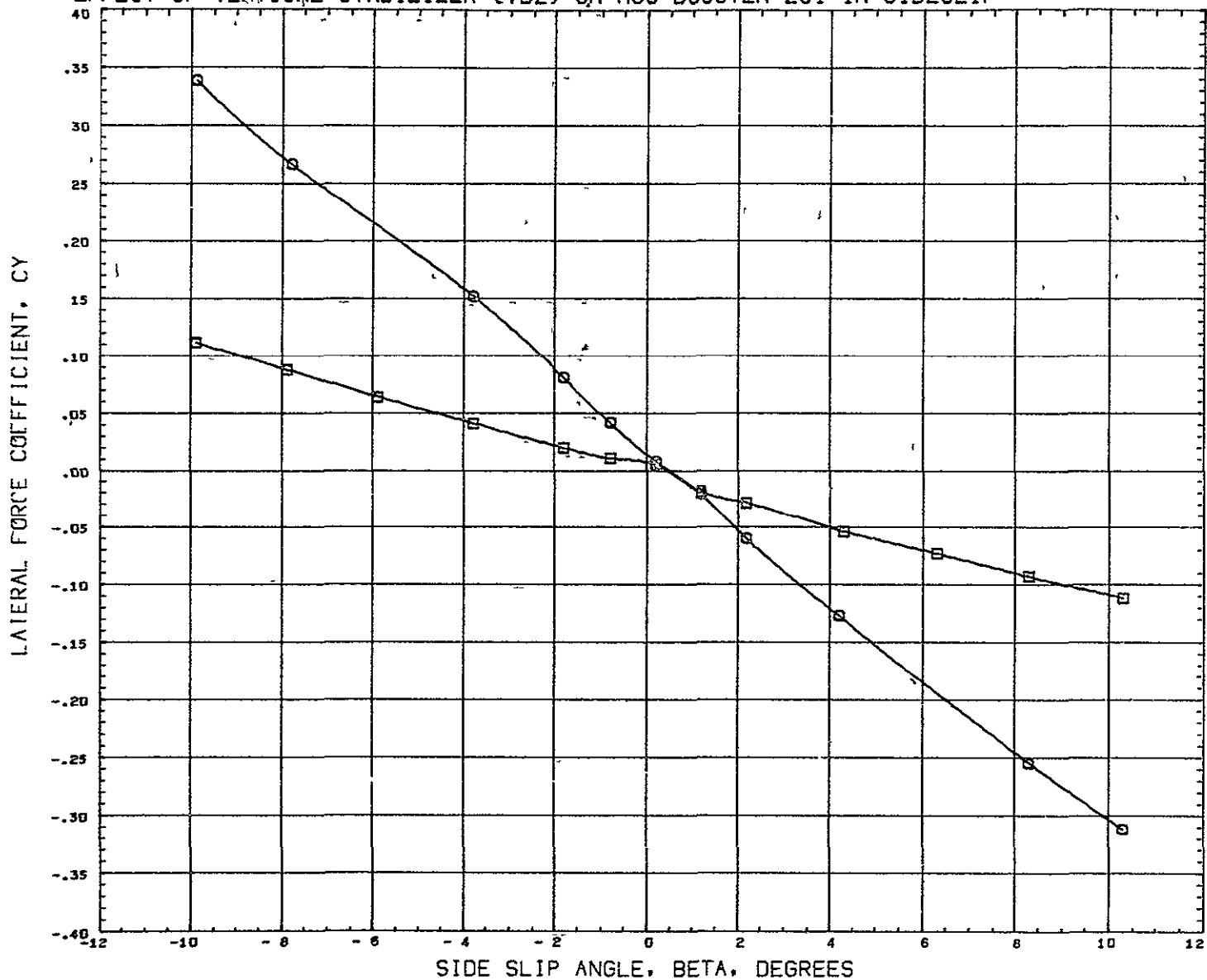
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 (064023) □ MSC S-XXIV BOOSTER 251 882WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REF8 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



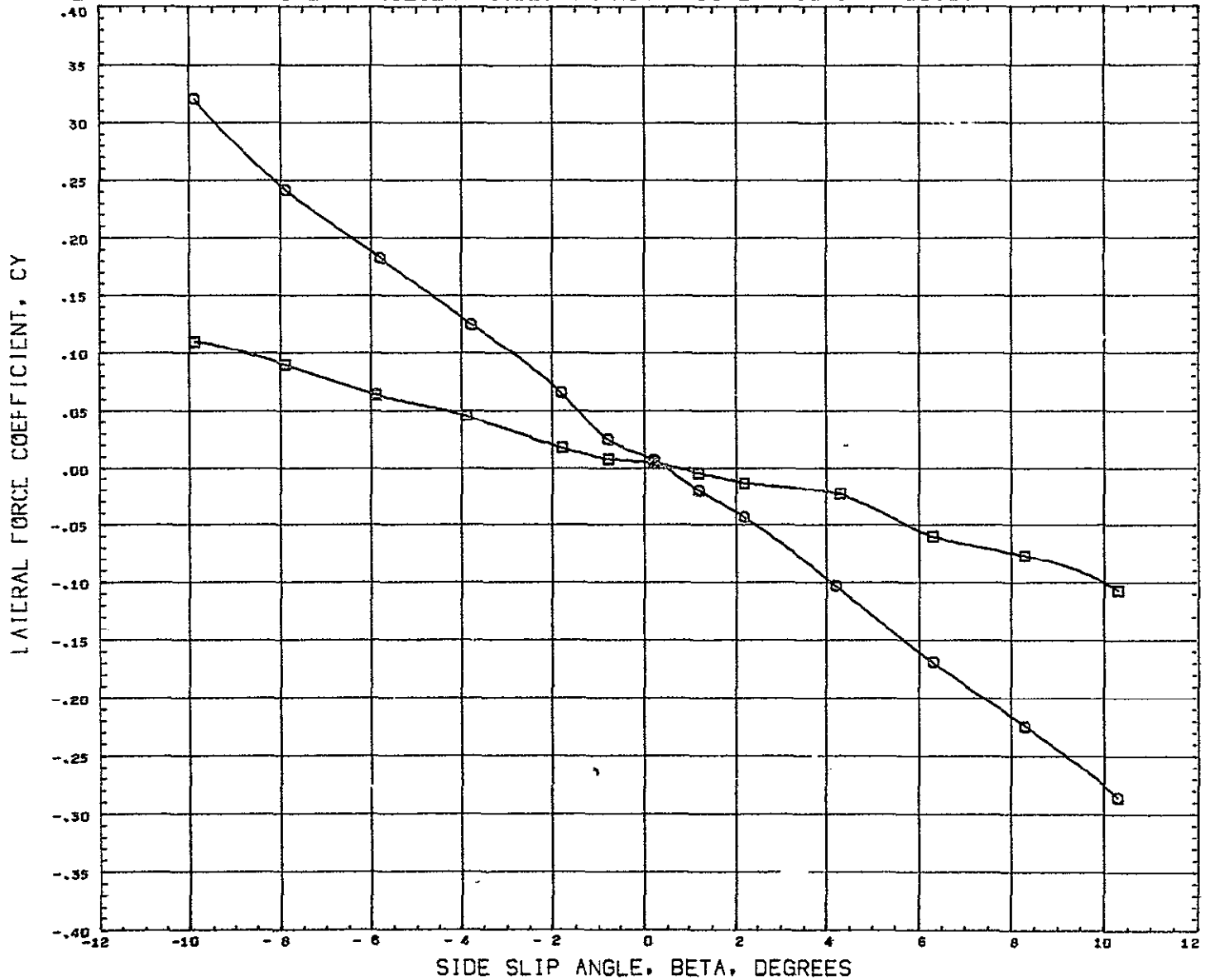
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 (064023) □ MSC S-XXIV BOOSTER 251 882WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT 28
 SCALE 1 3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



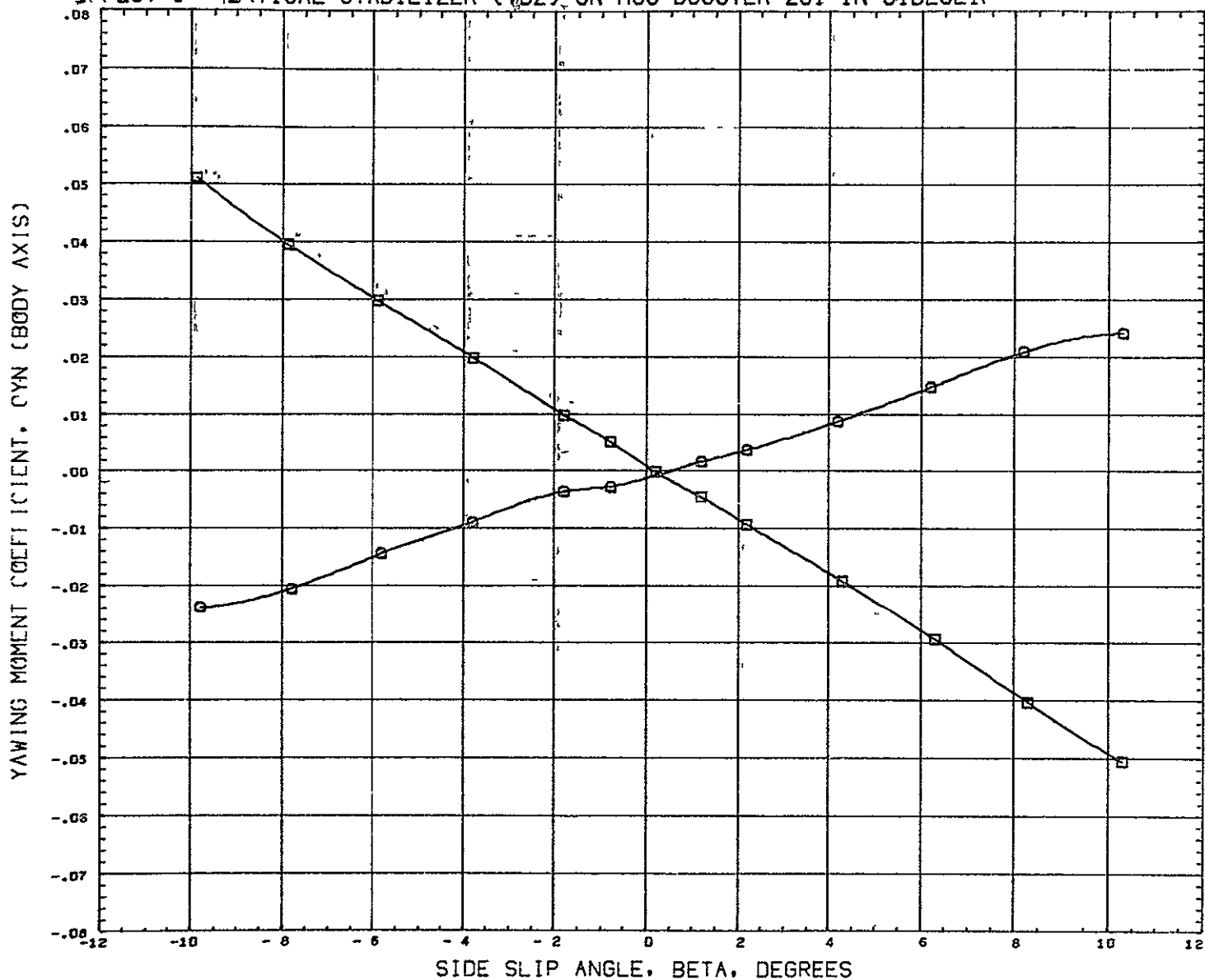
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 (064023) □ MSC S-XXIV BOOSTER 251 882WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



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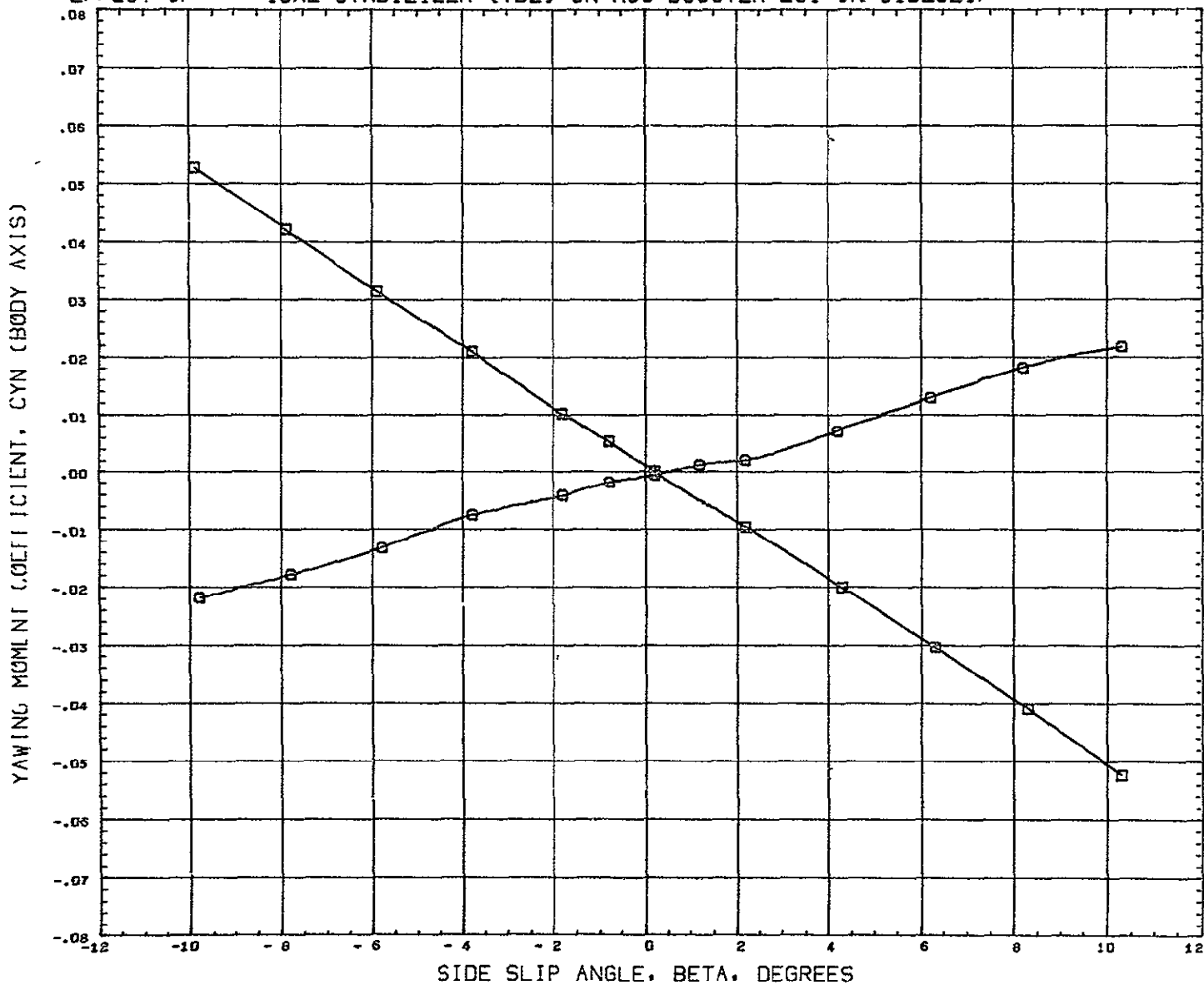
PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
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 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRF 65 0000 PCT LB
 YHRF 0 0000
 ZHRF 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 0.000



EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



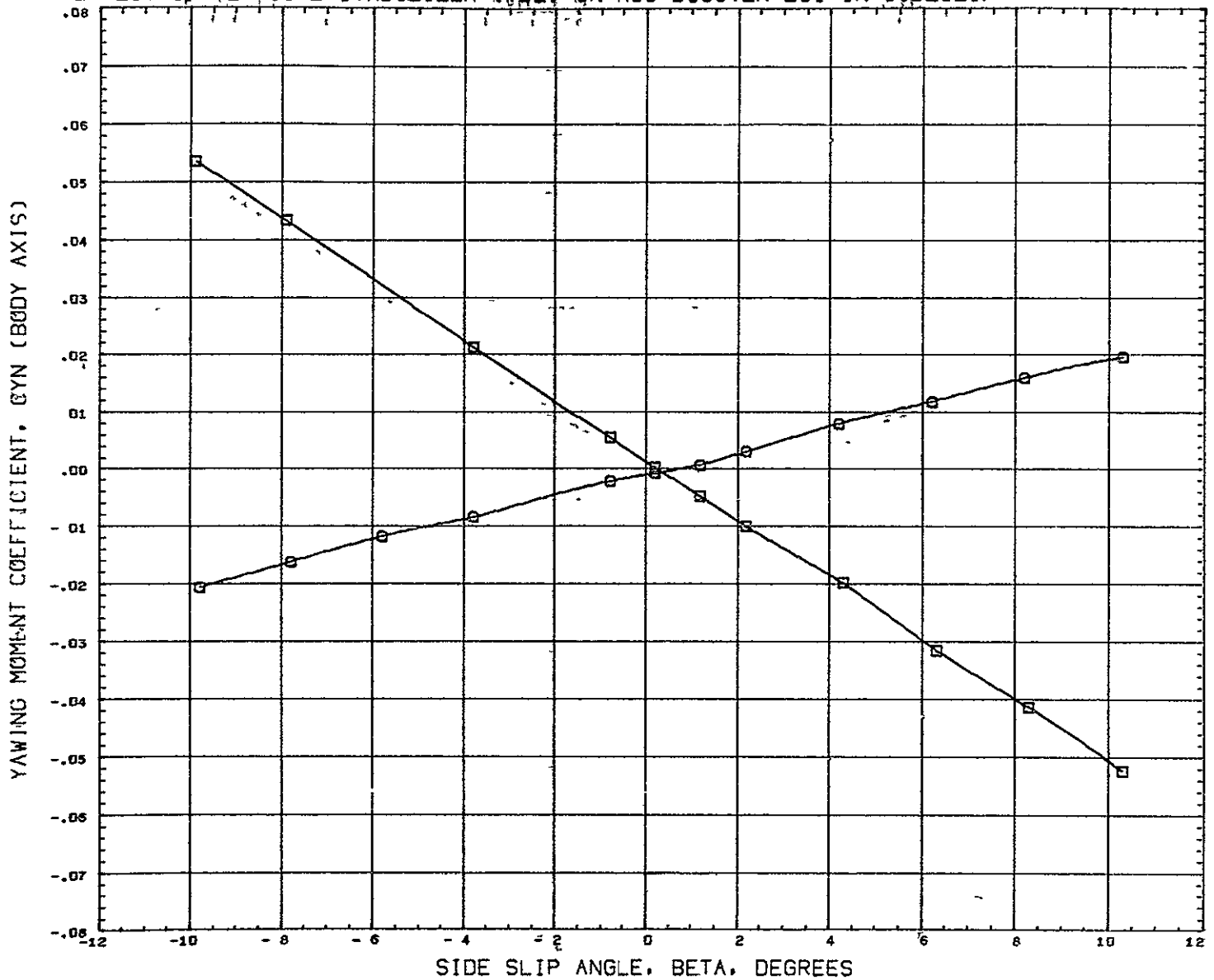
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PARAMETRIC VALUES
 MACH 0.250 CBRW 0 670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRF 65 0000 PCT LB
 YMRF 0 0000
 ZMRF 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



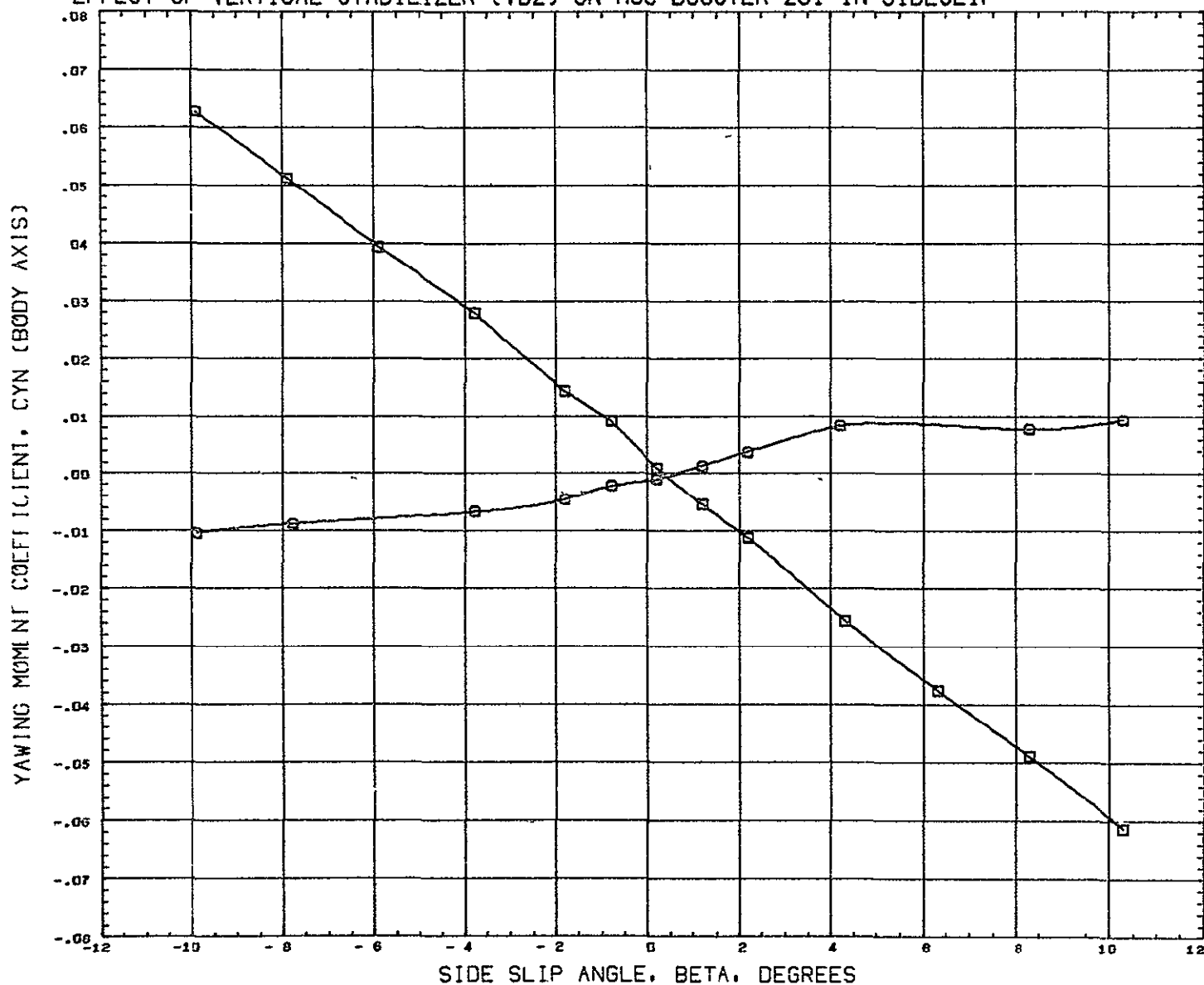
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PARAMETRIC VALUES
 MACH 0.250 CBRW 0 670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



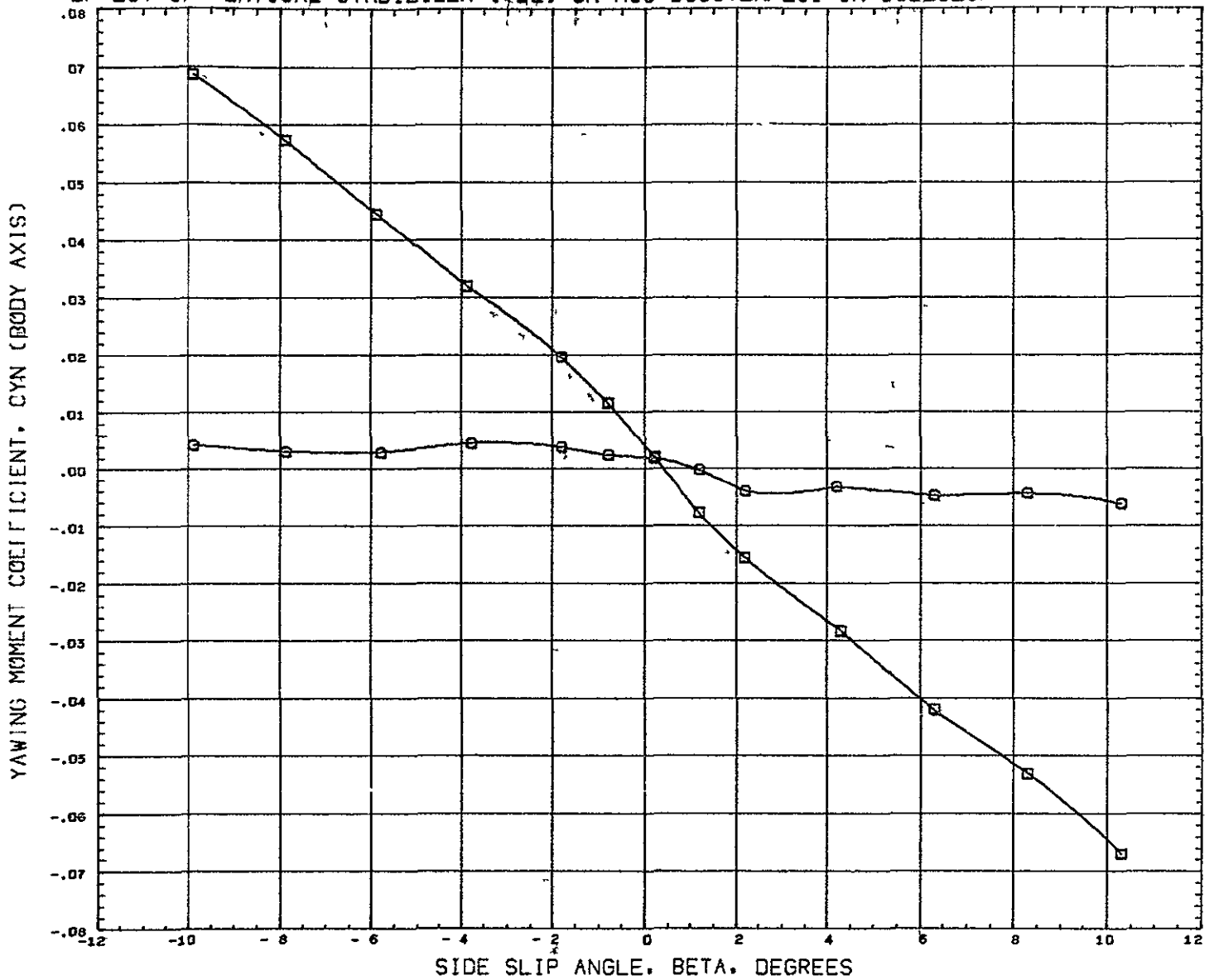
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 (064023) [] MSC S-XXIV BOOSTER 251 882WB1

PARAMETRIC VALUES
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REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



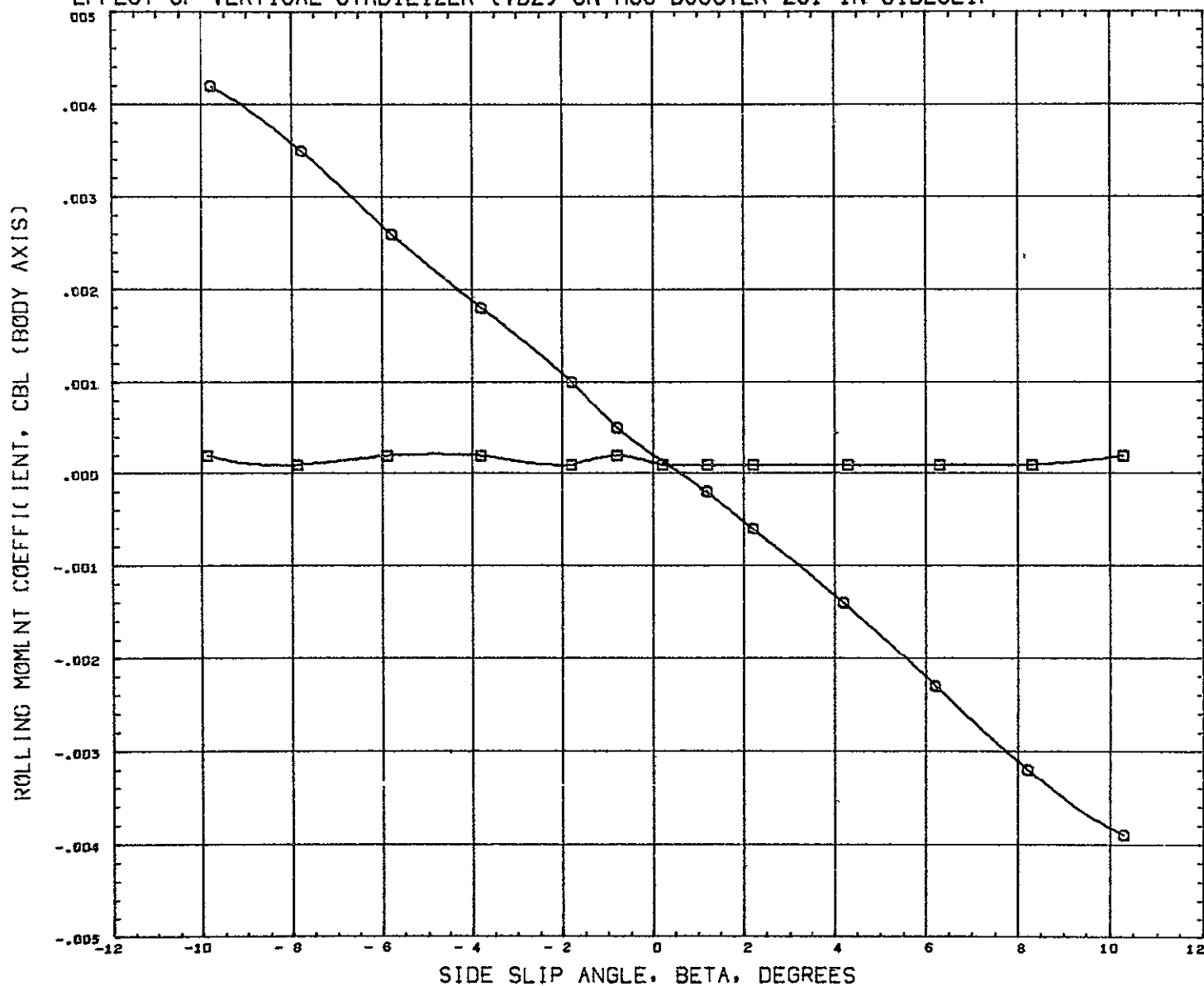
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PARAMETRIC VALUES
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REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFI 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



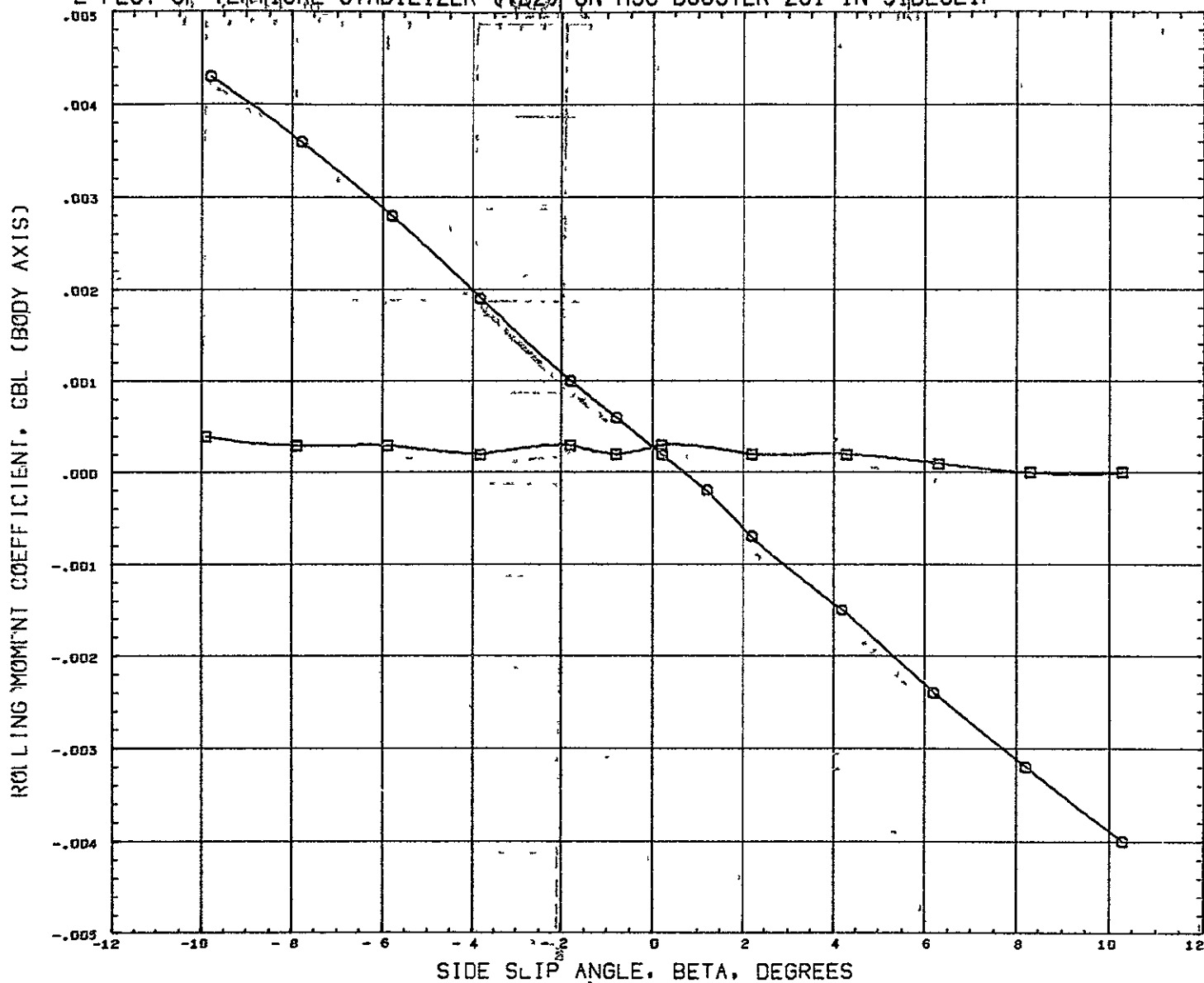
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 (064023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
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REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



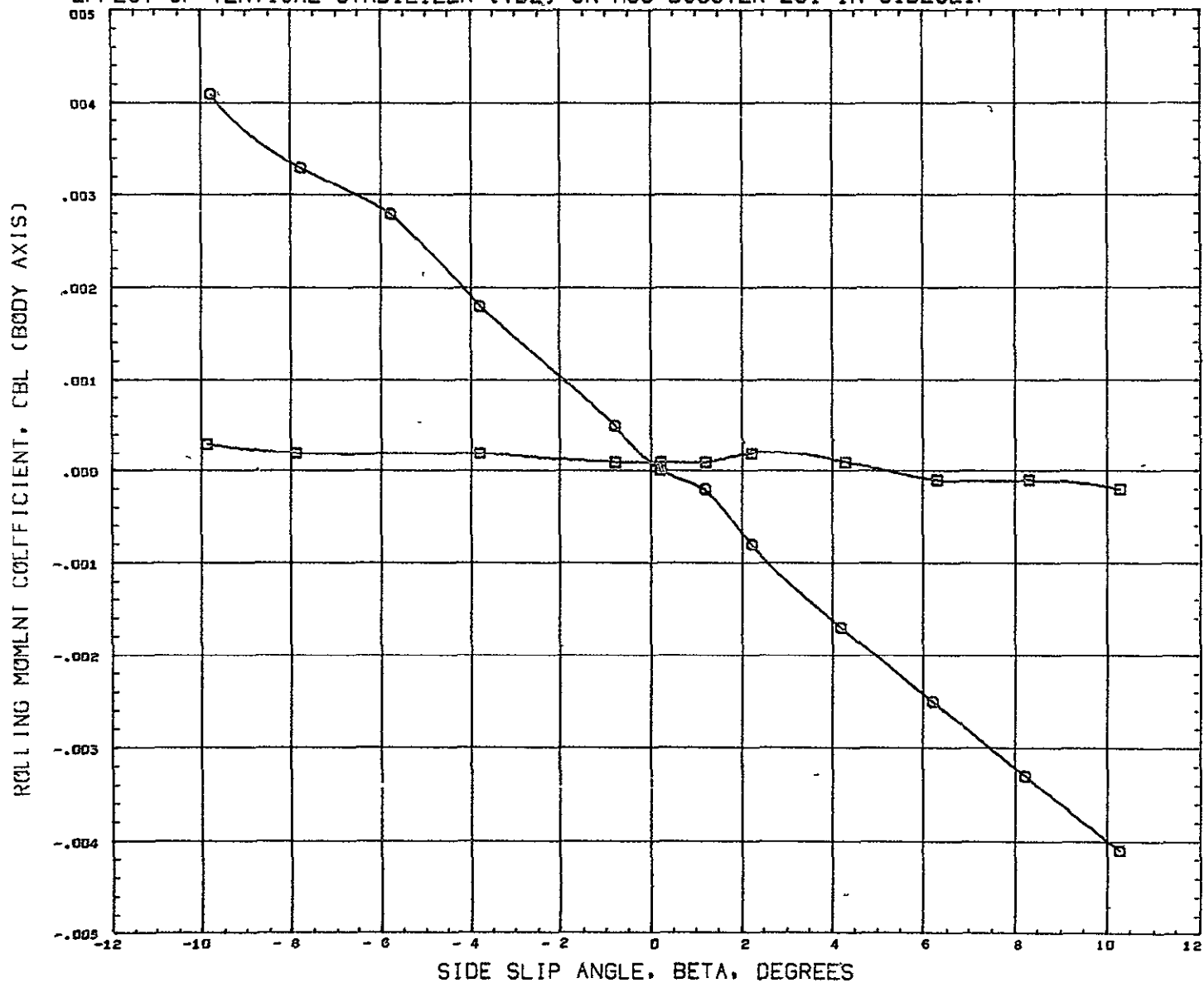
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 (964023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
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 REFL 0.3810 FT²
 REFB 2.4636 FT²
 XMRP 65.0000 PCT LB
 YMRP 0.0000 1 LB
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



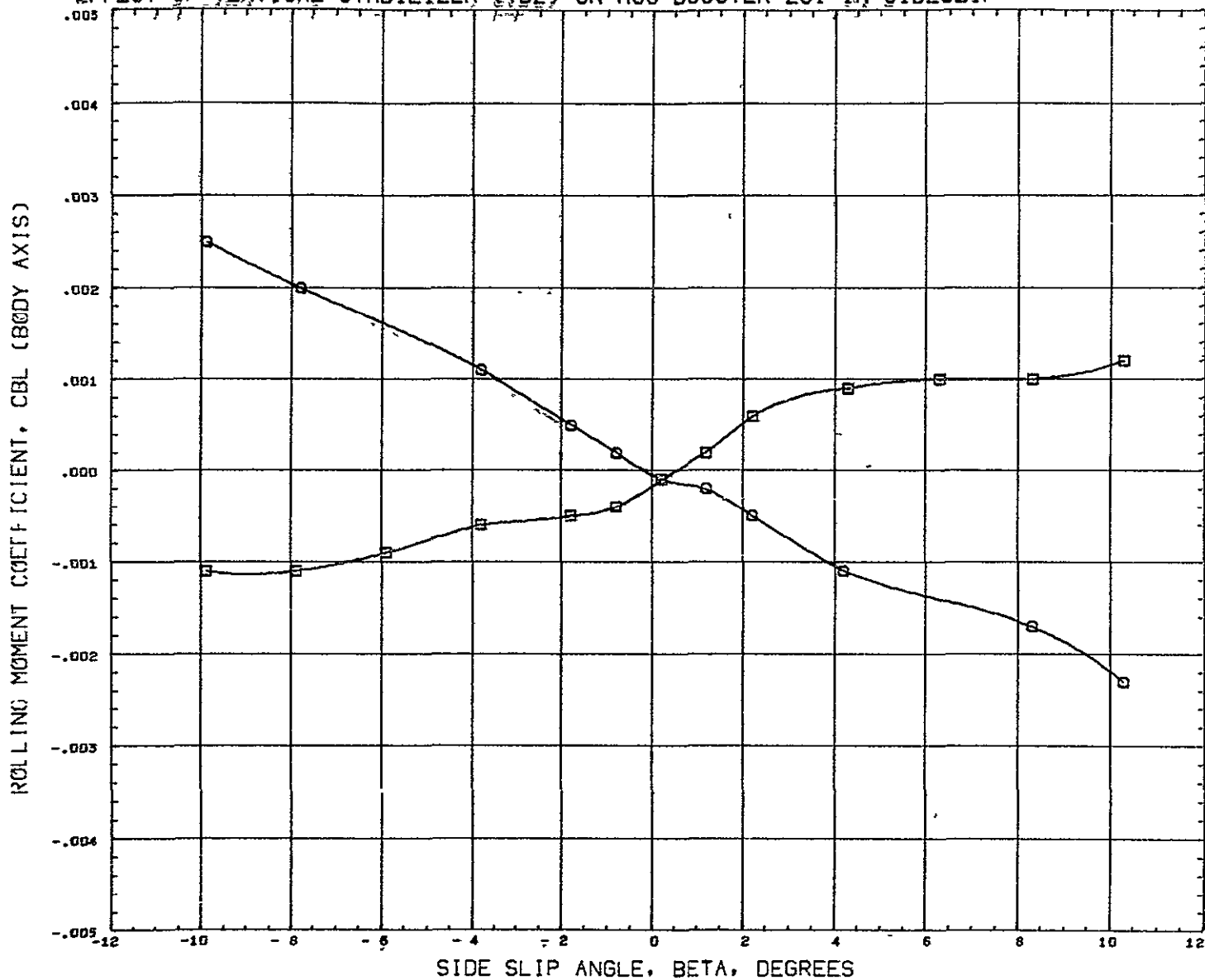
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PARAMETRIC VALUES
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REFERENCE INFORMATION
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 REFL 0 3610 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



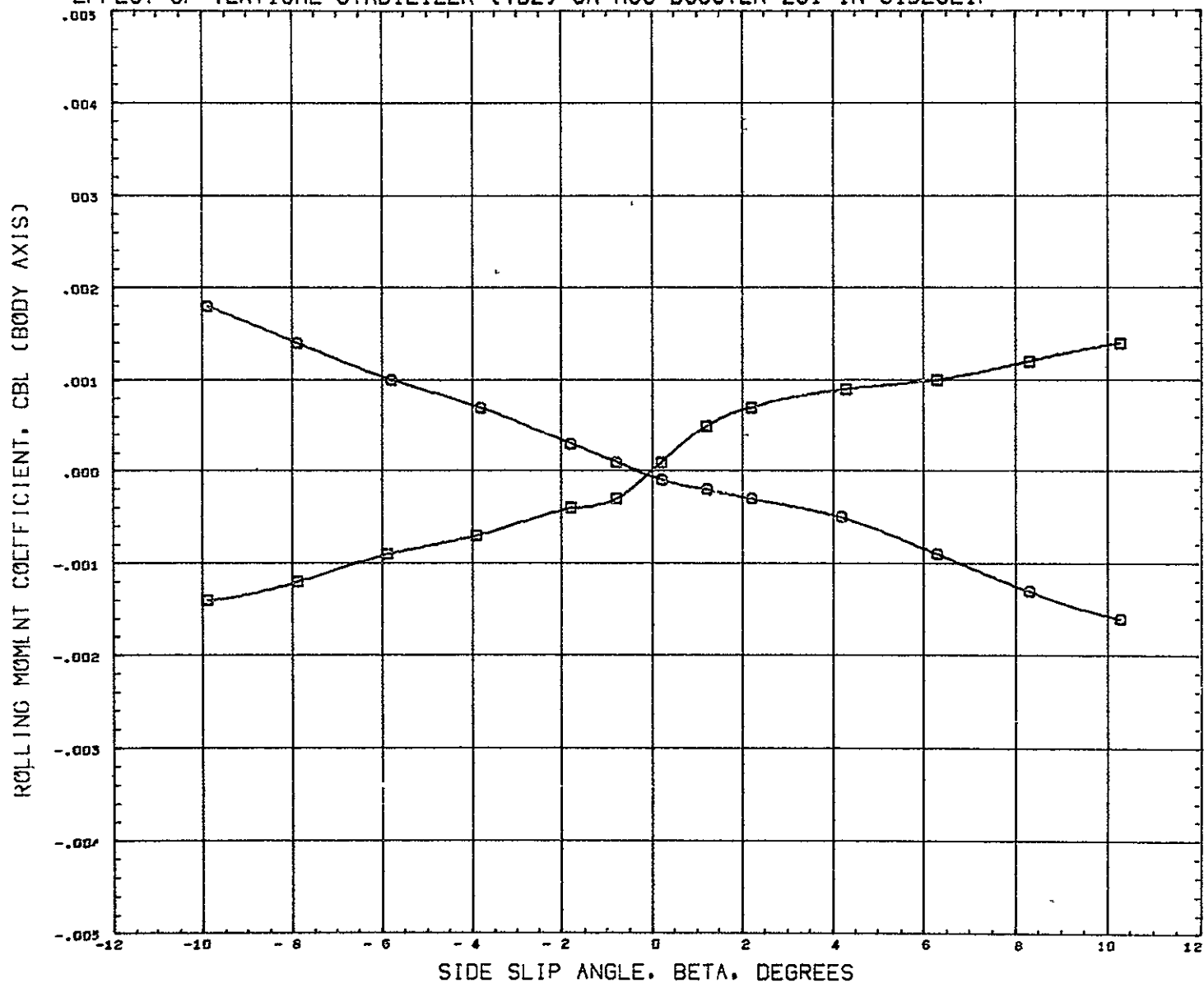
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PARAMETRIC VALUES
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REFERENCE INFORMATION
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 REFL 0 3810 FT
 REFB 2.4630 FT
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 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 12.006

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



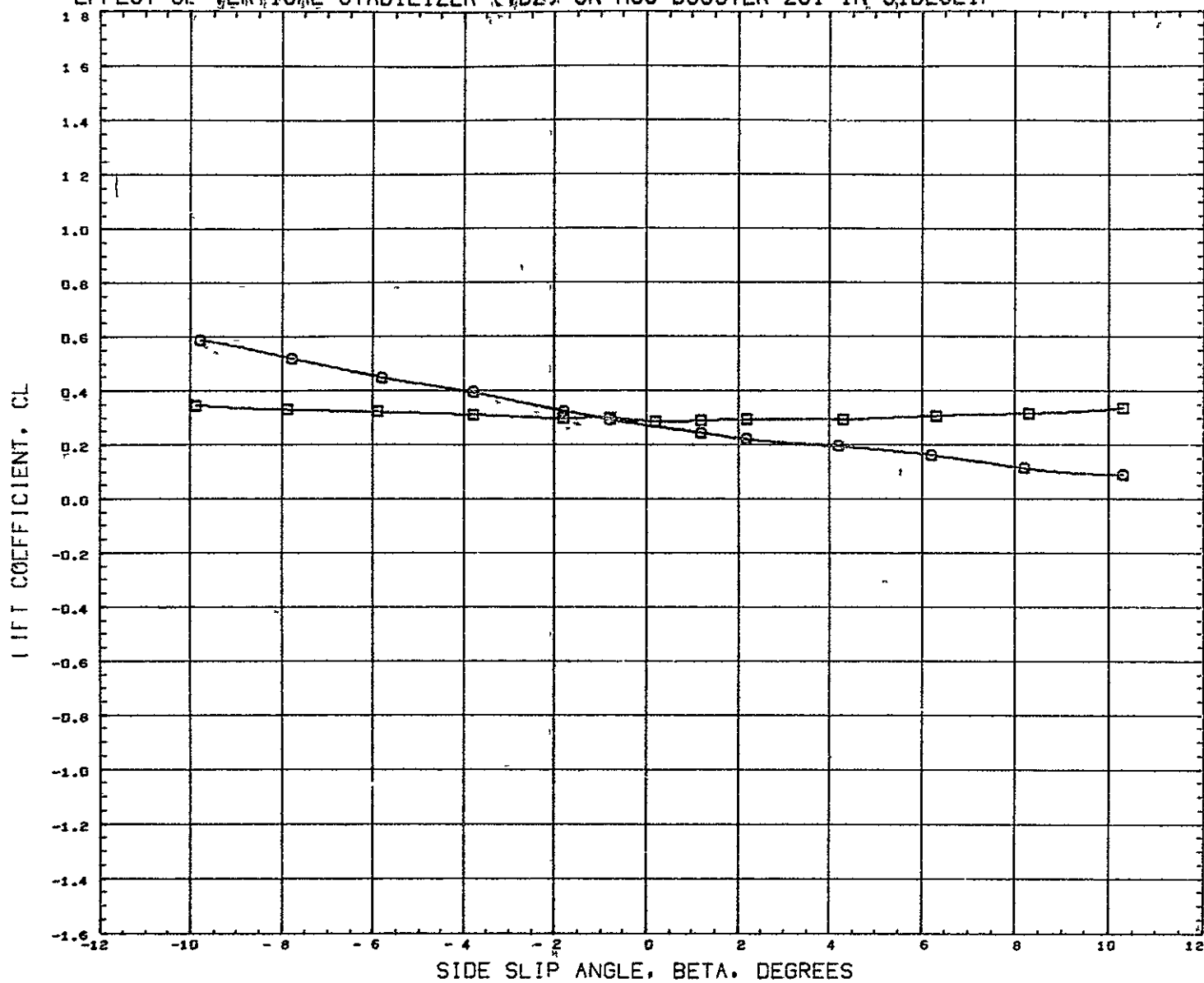
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 (004023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15 000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



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PARAMETRIC VALUES

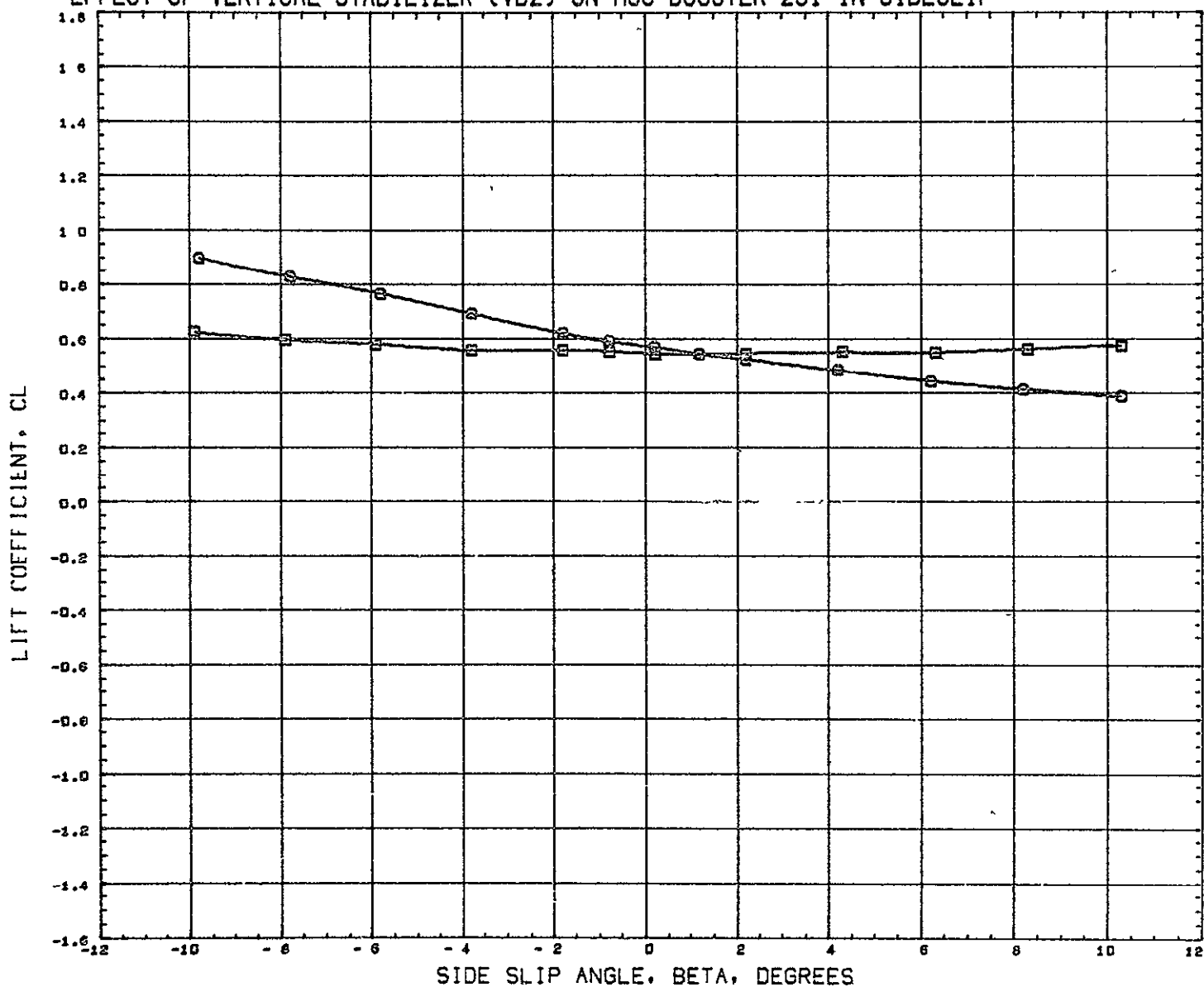
MACH 0.250 CBRW 0.670

REFERENCE INFORMATION

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 REFL 0.3810 FT² S_q
 REFB 2.4630 FT²
 XMRP 65.0000 PCJ LB
 YMRP 0.0000
 ZMRP 67.5500 PCJ ZB
 SCALE 1.3215 PCJ

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



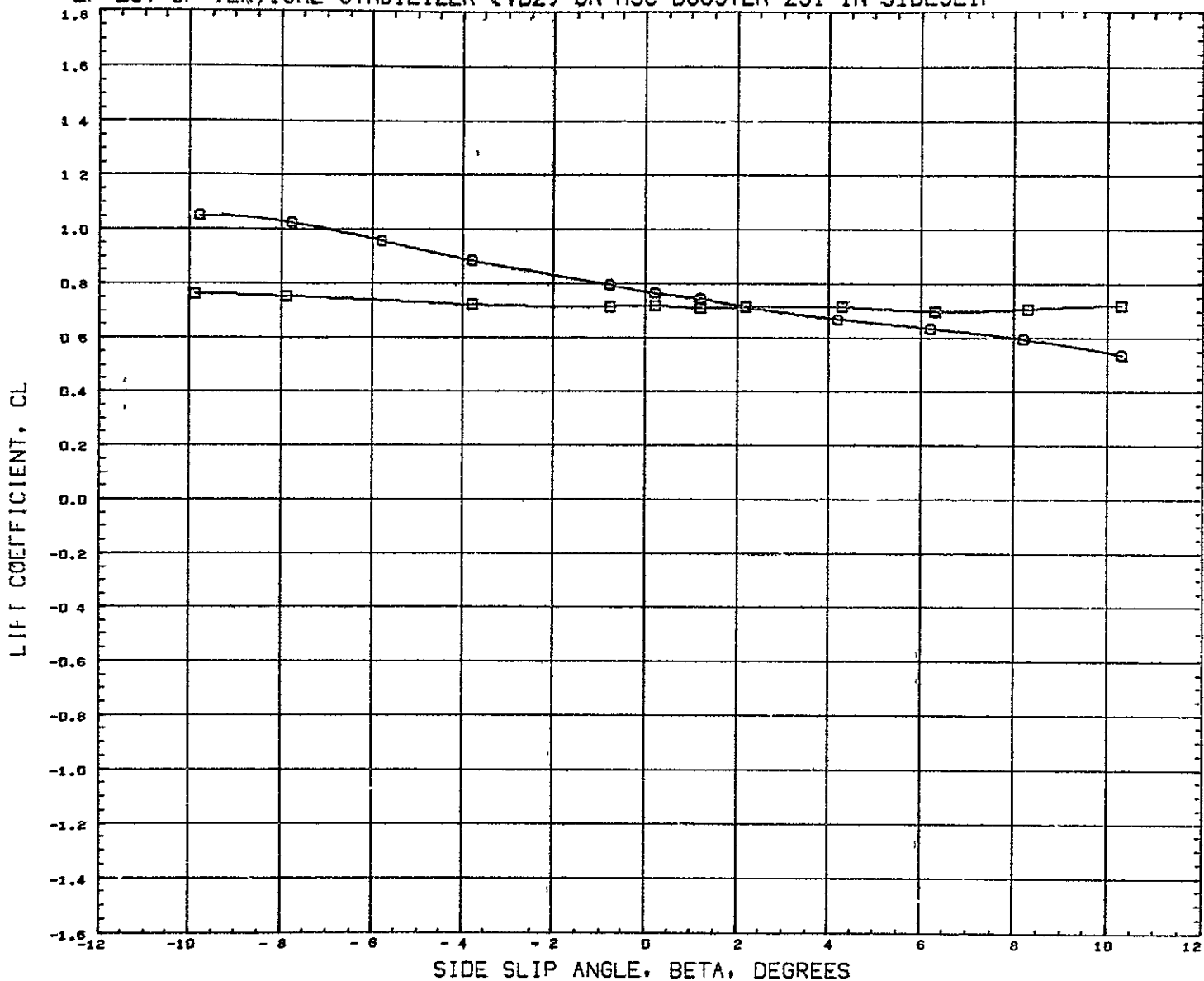
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 (004023) □ MSC S-XXIV BOOSTER 251 B82WB1

PARAMETRIC VALUES
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REFERENCE INFORMATION
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 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0.0000
 ZMRP 67 5500 PCT 2B
 SCALE 1.3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



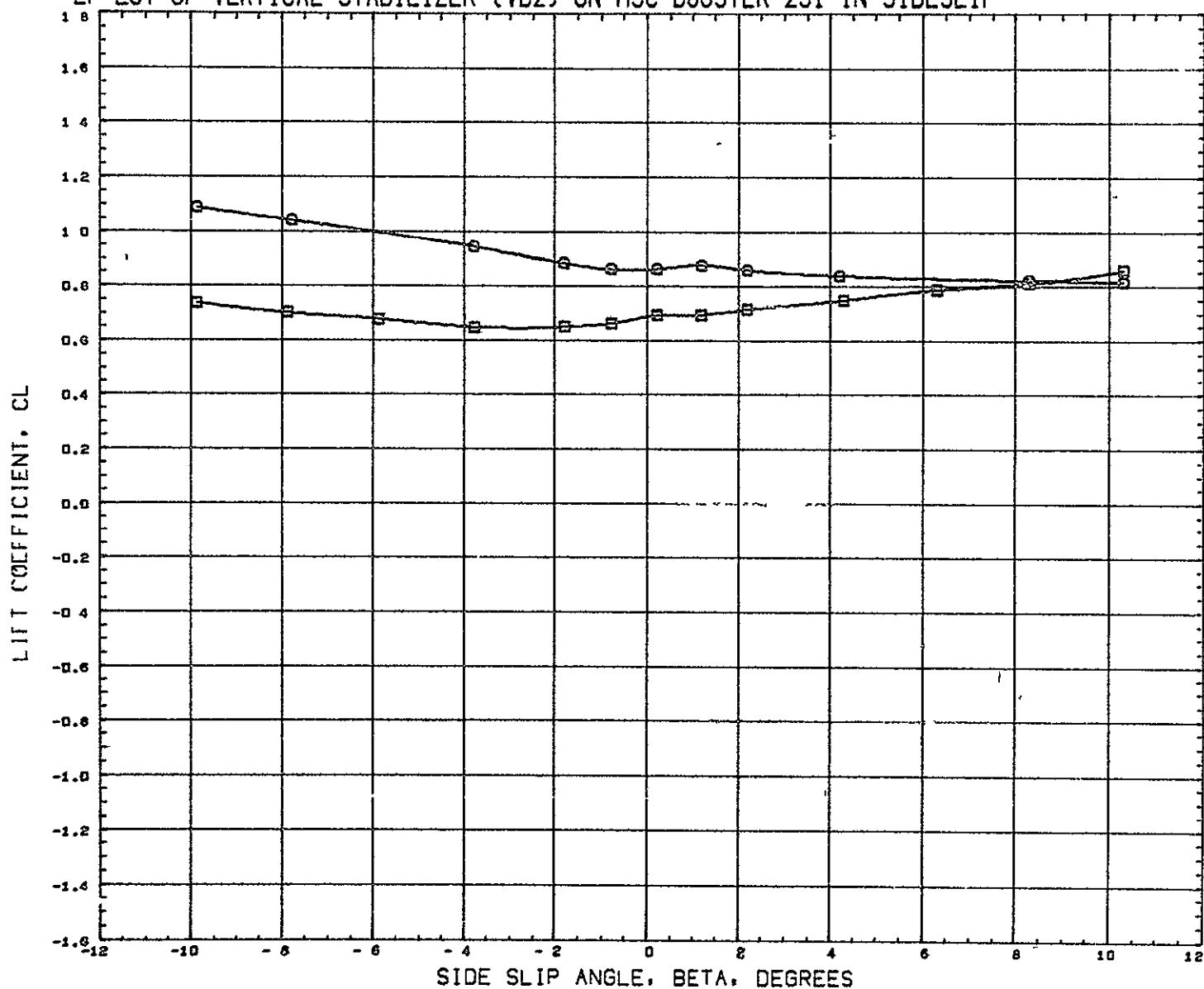
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PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFS 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



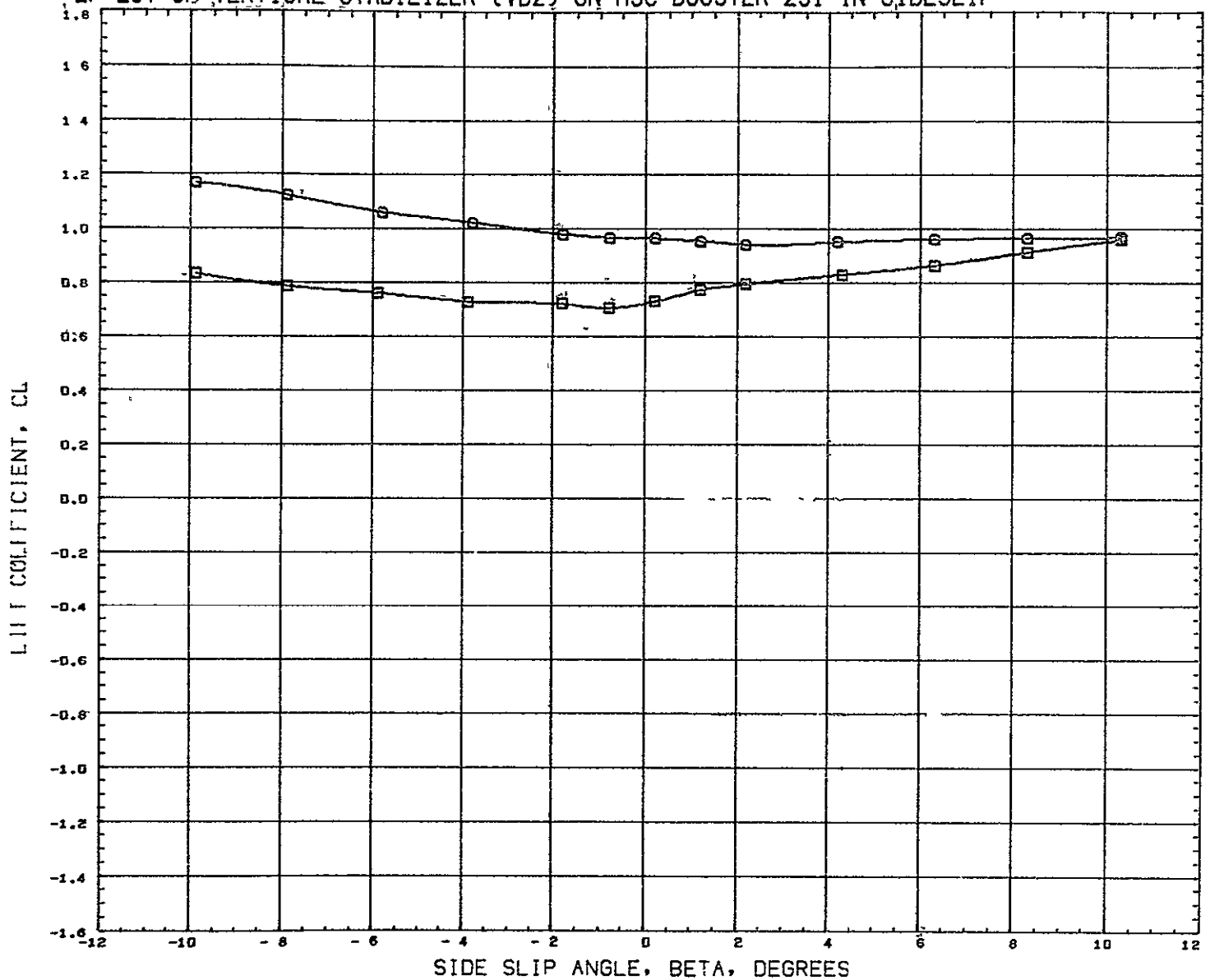
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PARAMETRIC VALUES
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REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



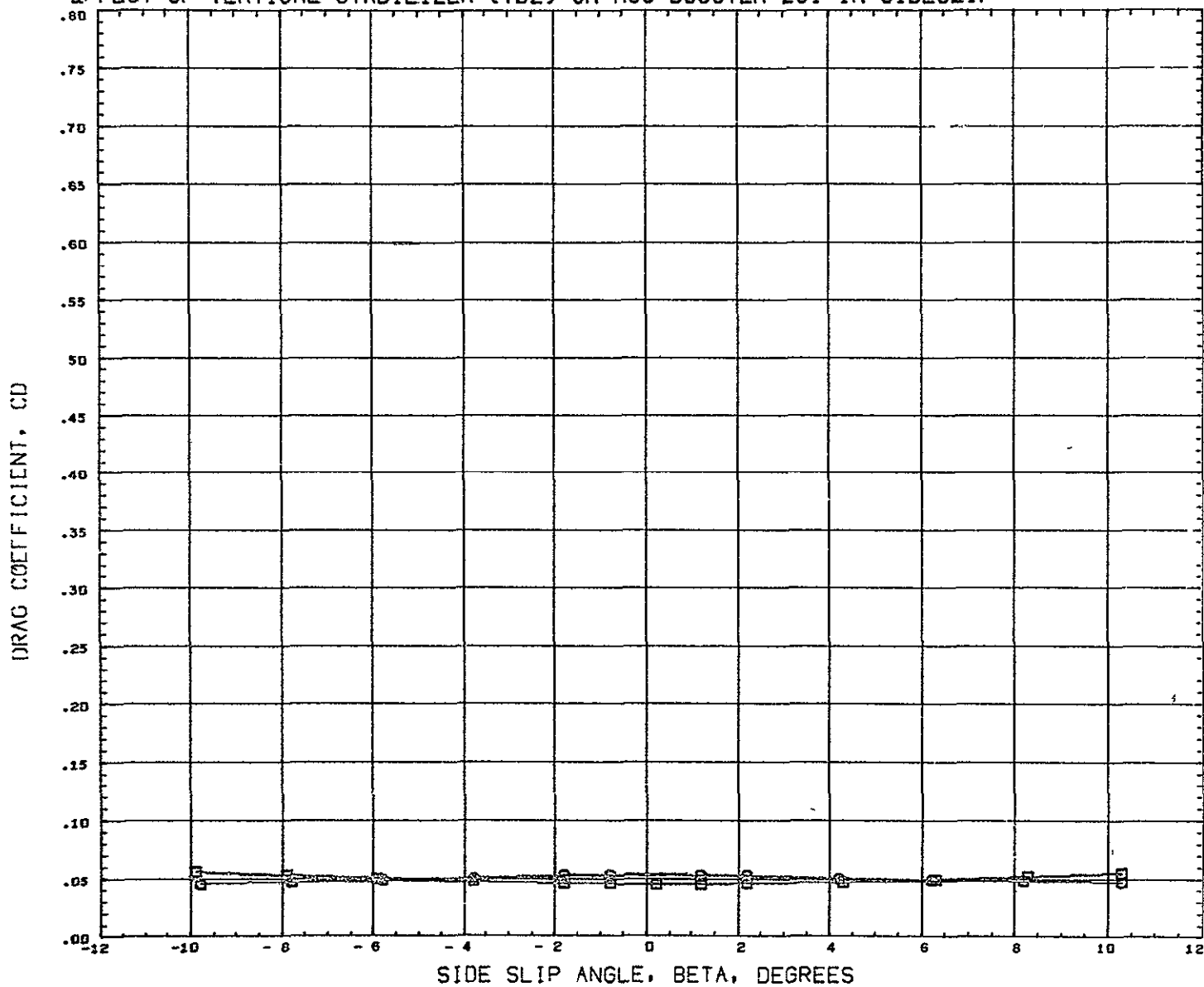
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 (064023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



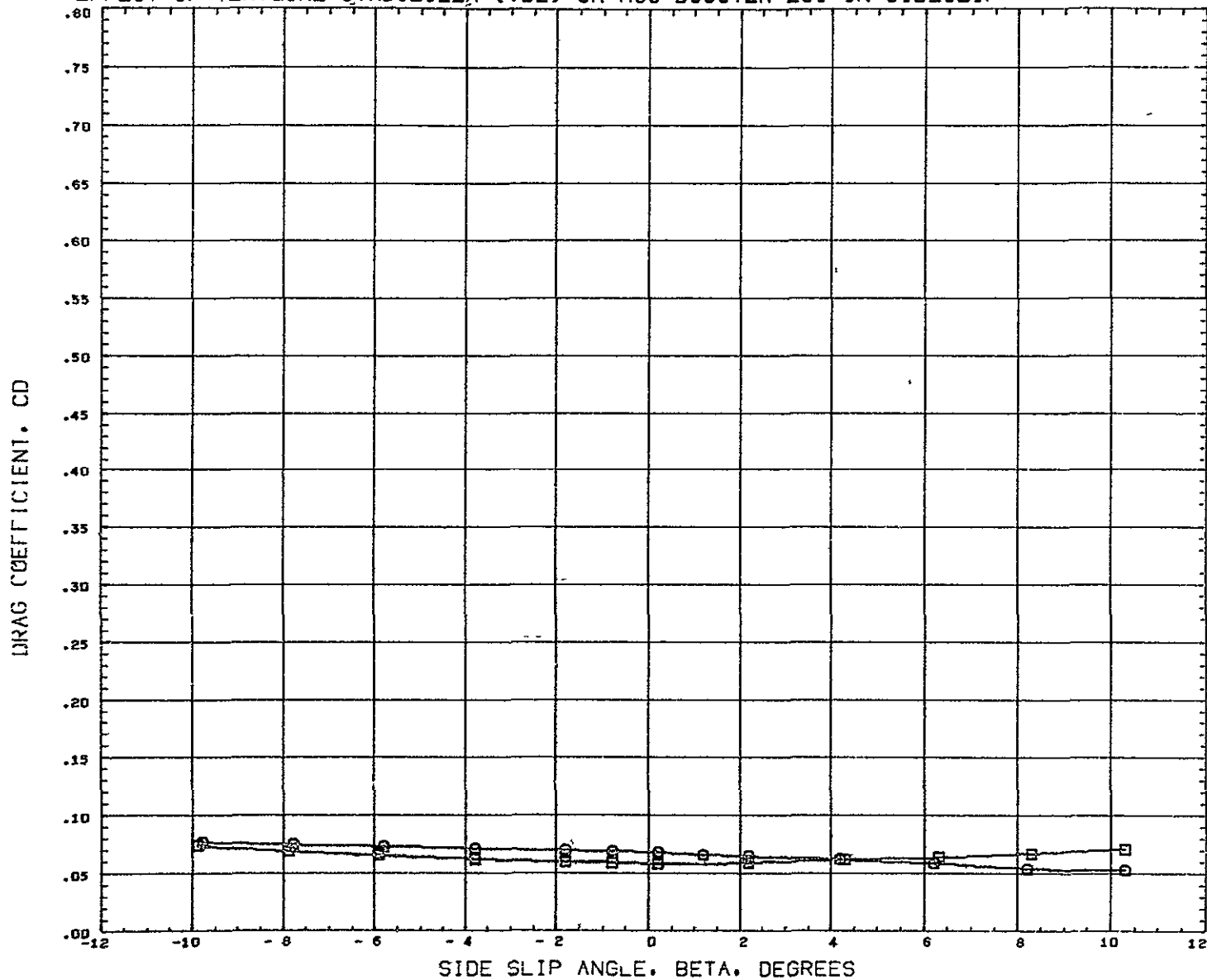
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 (Q64023) MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



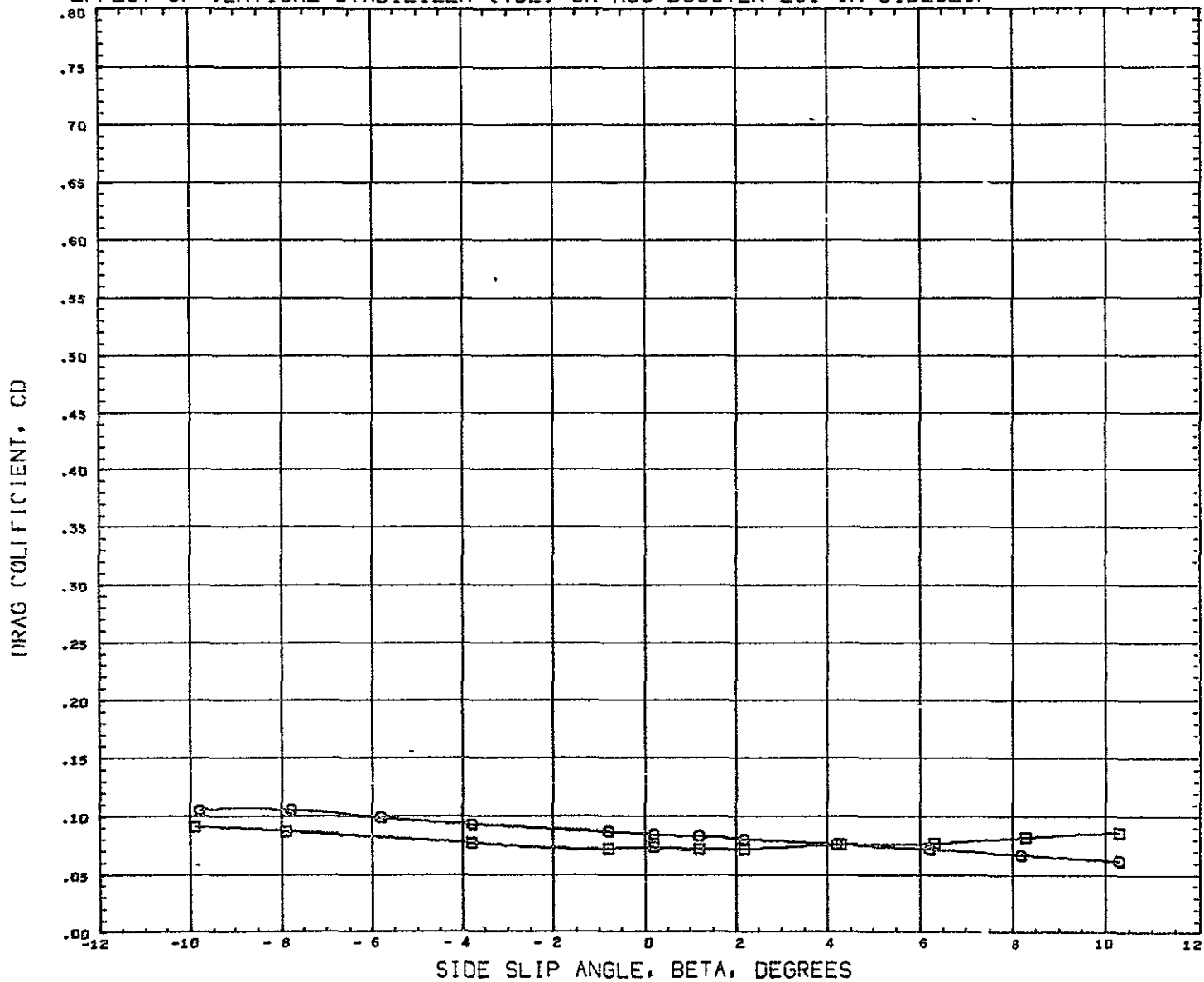
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 (064023) [S] MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



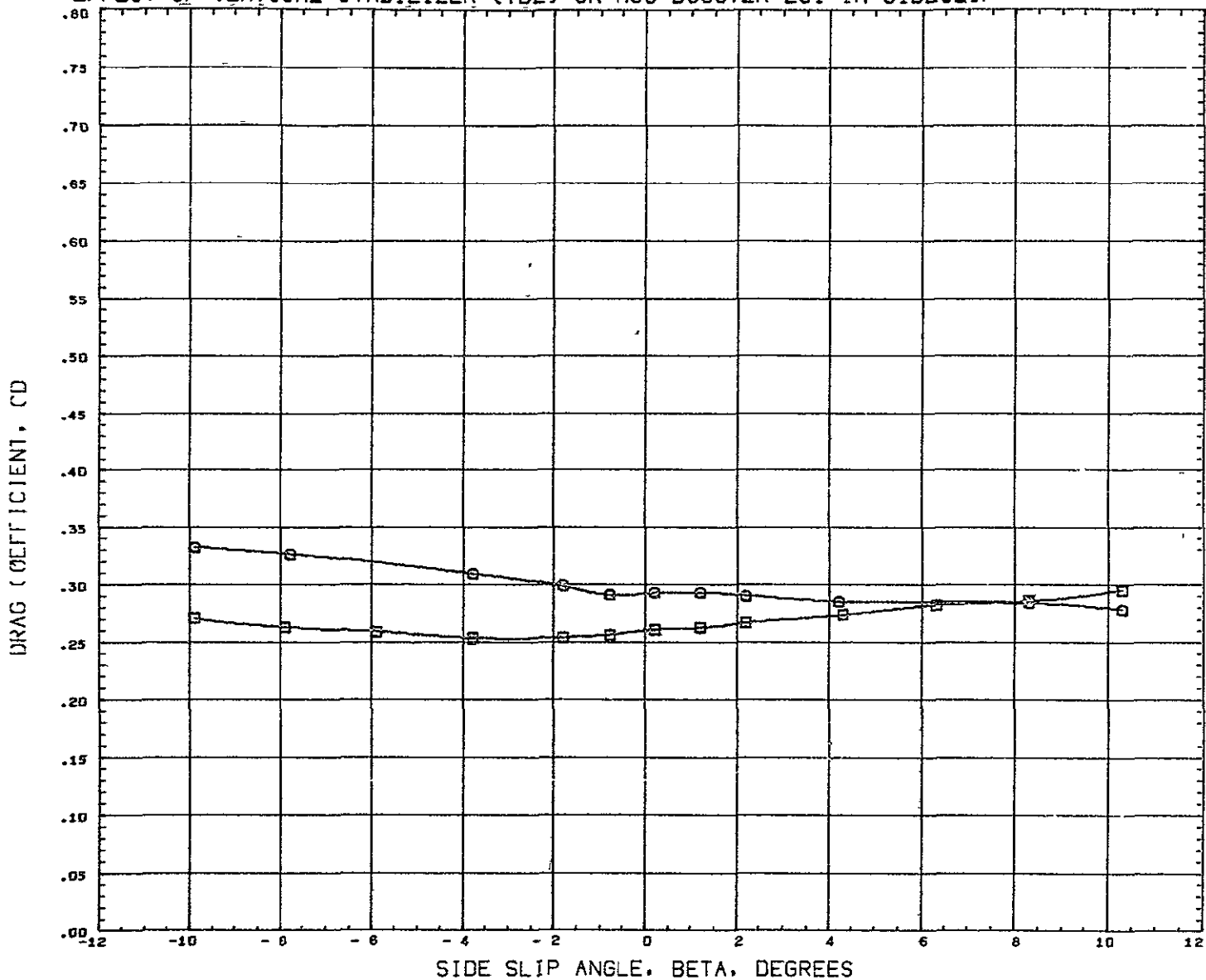
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 (064023) ID MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



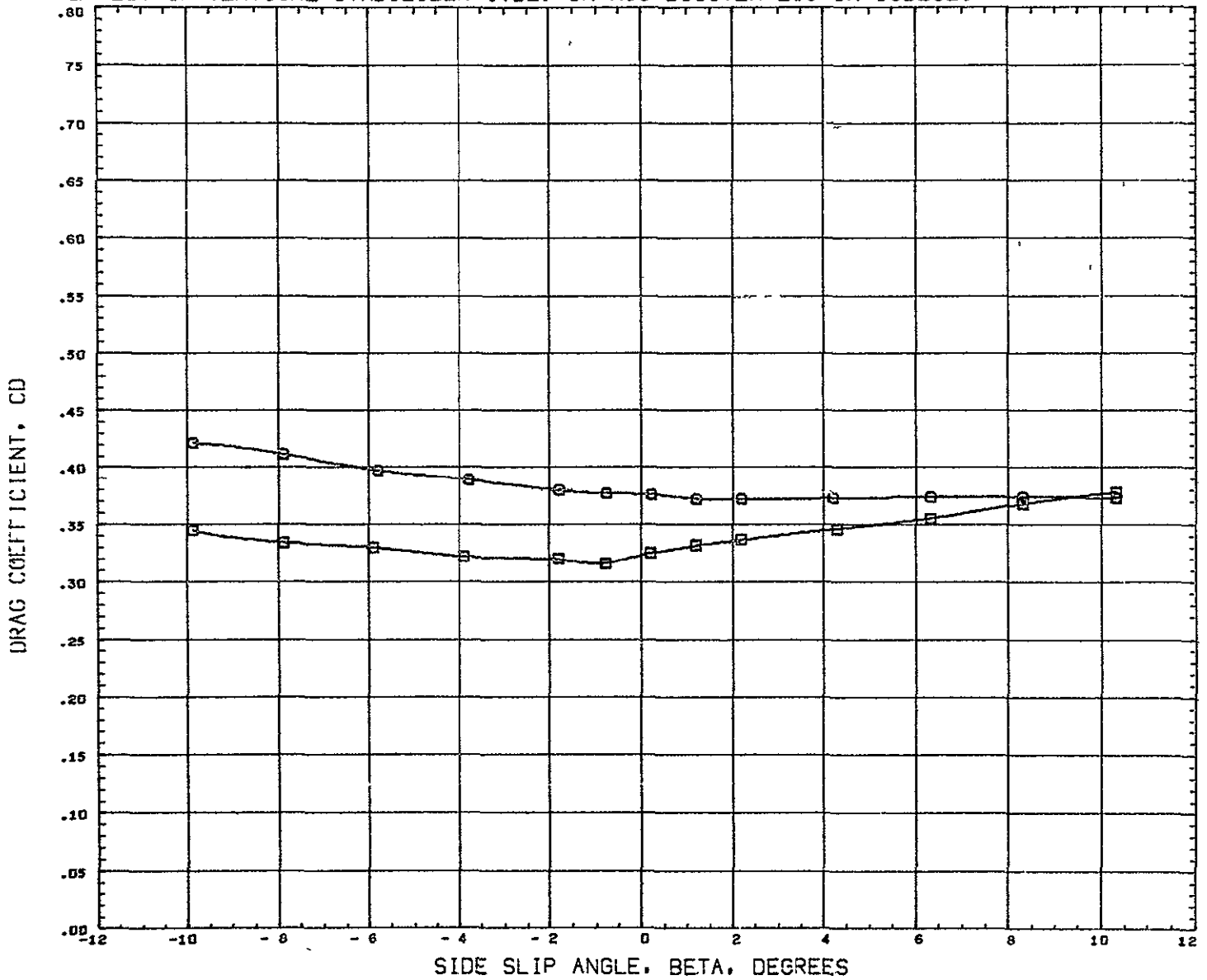
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 (864021) (C) MSC S-XXIV BOOSTER 251 882WB1VB2
 (864023) (S) MSC S-XXIV BOOSTER 251 882WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT 2B
 SCALE 1 3215 PCT

ALPHA 12.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



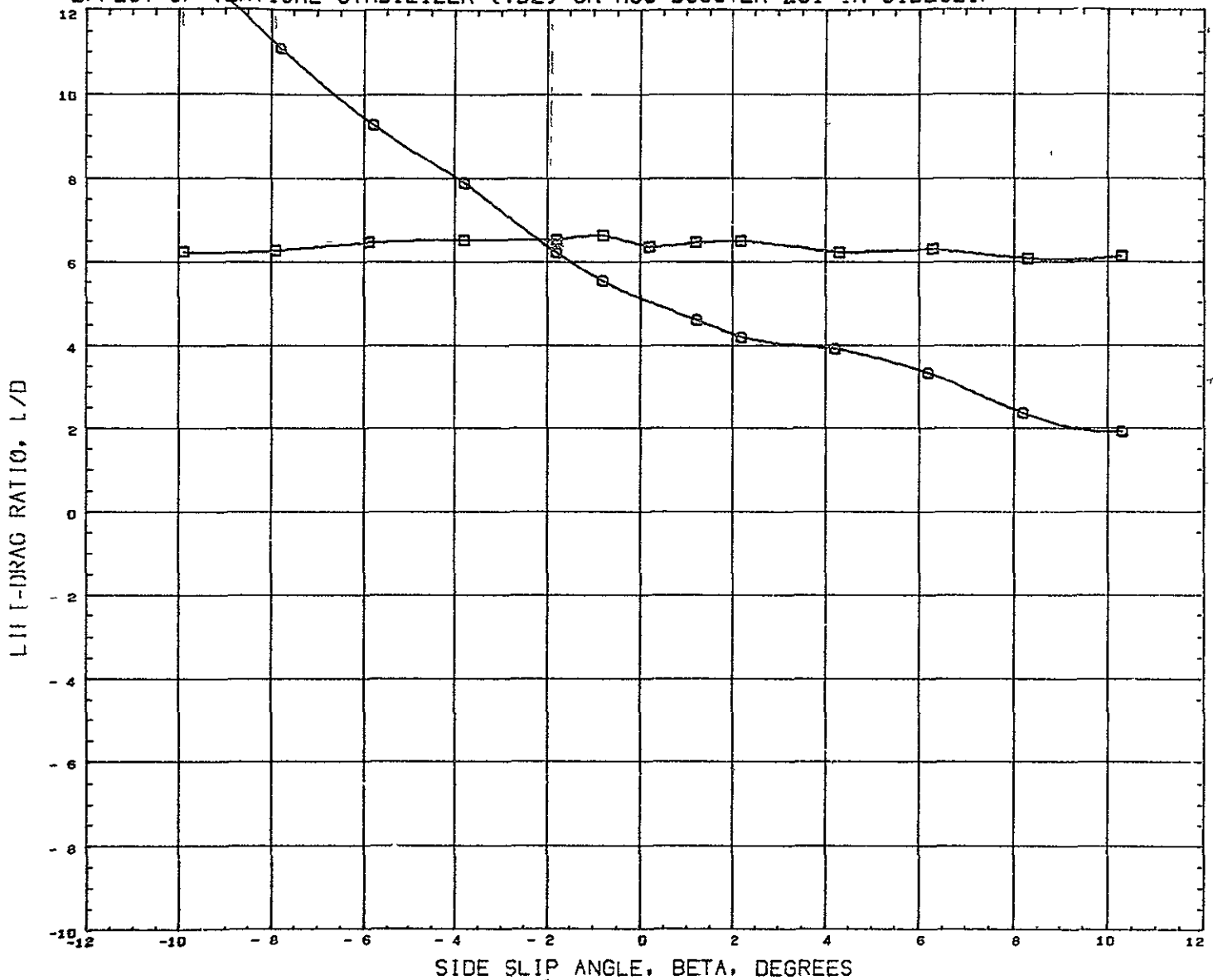
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 (QG4021) D MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (QG4023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 15.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



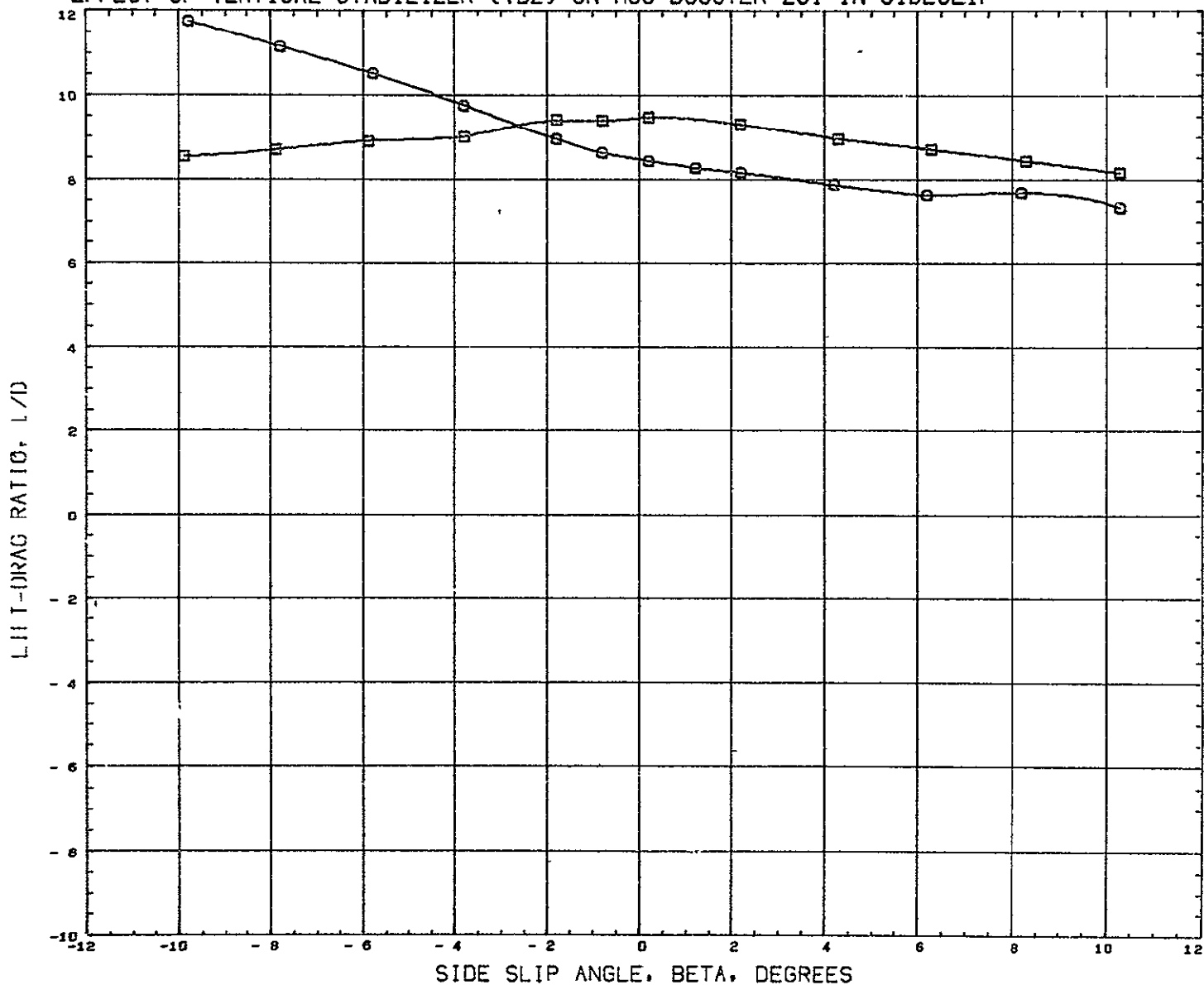
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 (064021) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (064023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SG
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 FCT ZB
 SCALE 1 3215 FCT

ALPHA 0.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



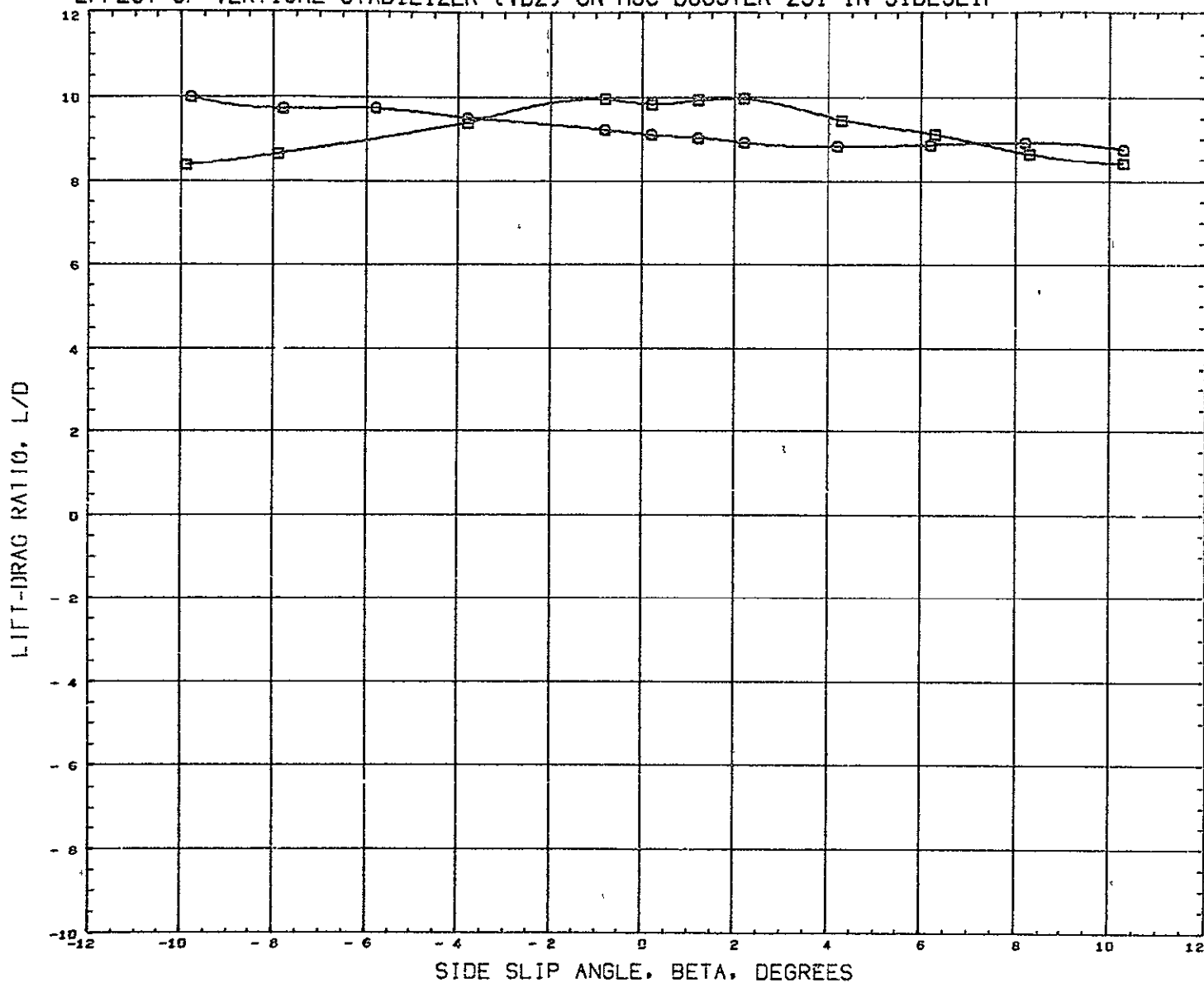
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 (064021) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (064023) □ MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRP 65 0000 PCT LB
 YHRP 0 0000
 ZHRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

ALPHA 3.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(06402) (10) MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (064023) (10) MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES

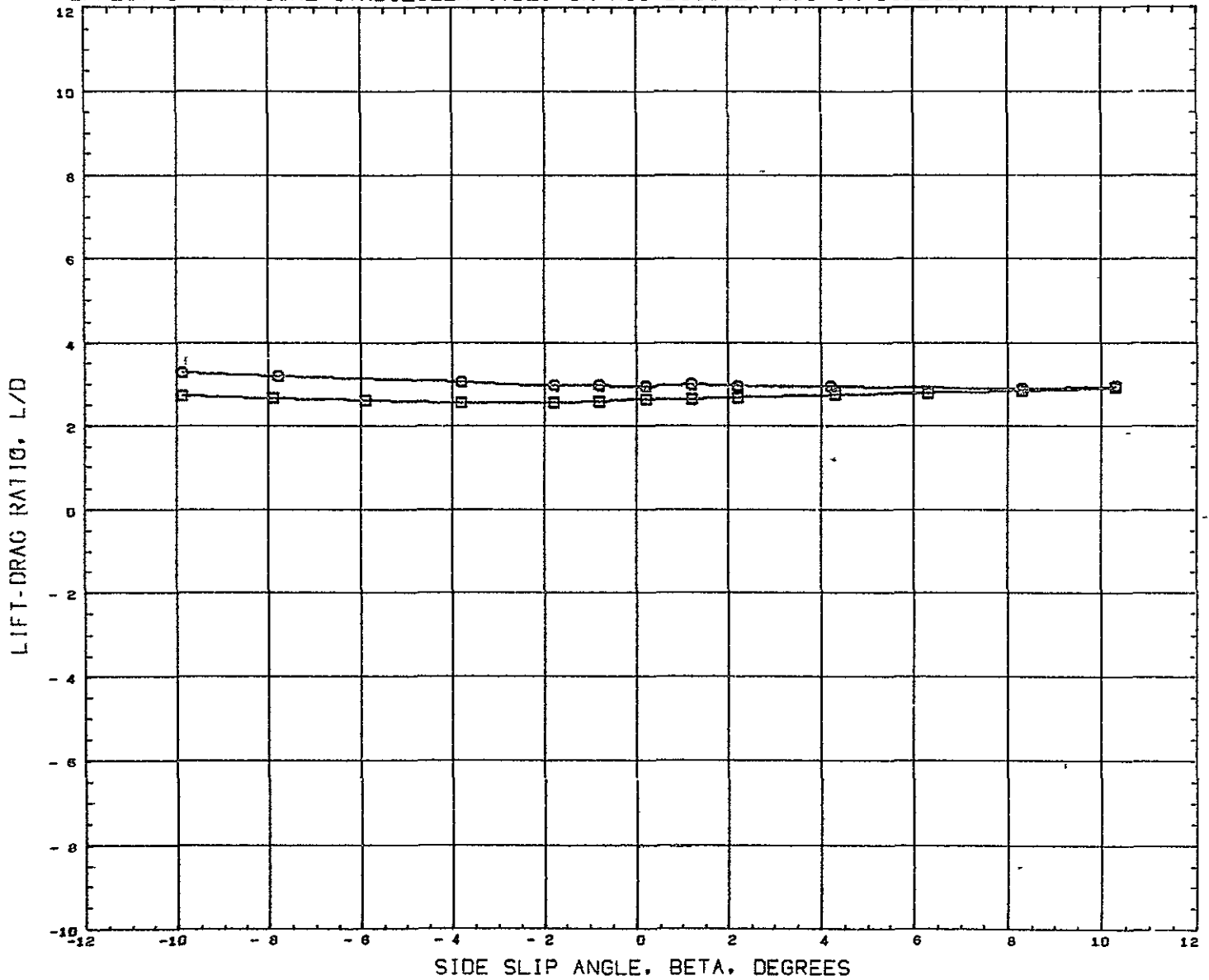
MACH 0.250 CBRW 0.670

REFERENCE INFORMATION

REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

ALPHA 5.000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(Q6402) $\square$ MSC S-XXIV BOOSTER 251 BB2W81VB2

(Q64023) $\square$ MSC S-XXIV BOOSTER 251 BB2W81

PARAMETRIC VALUES

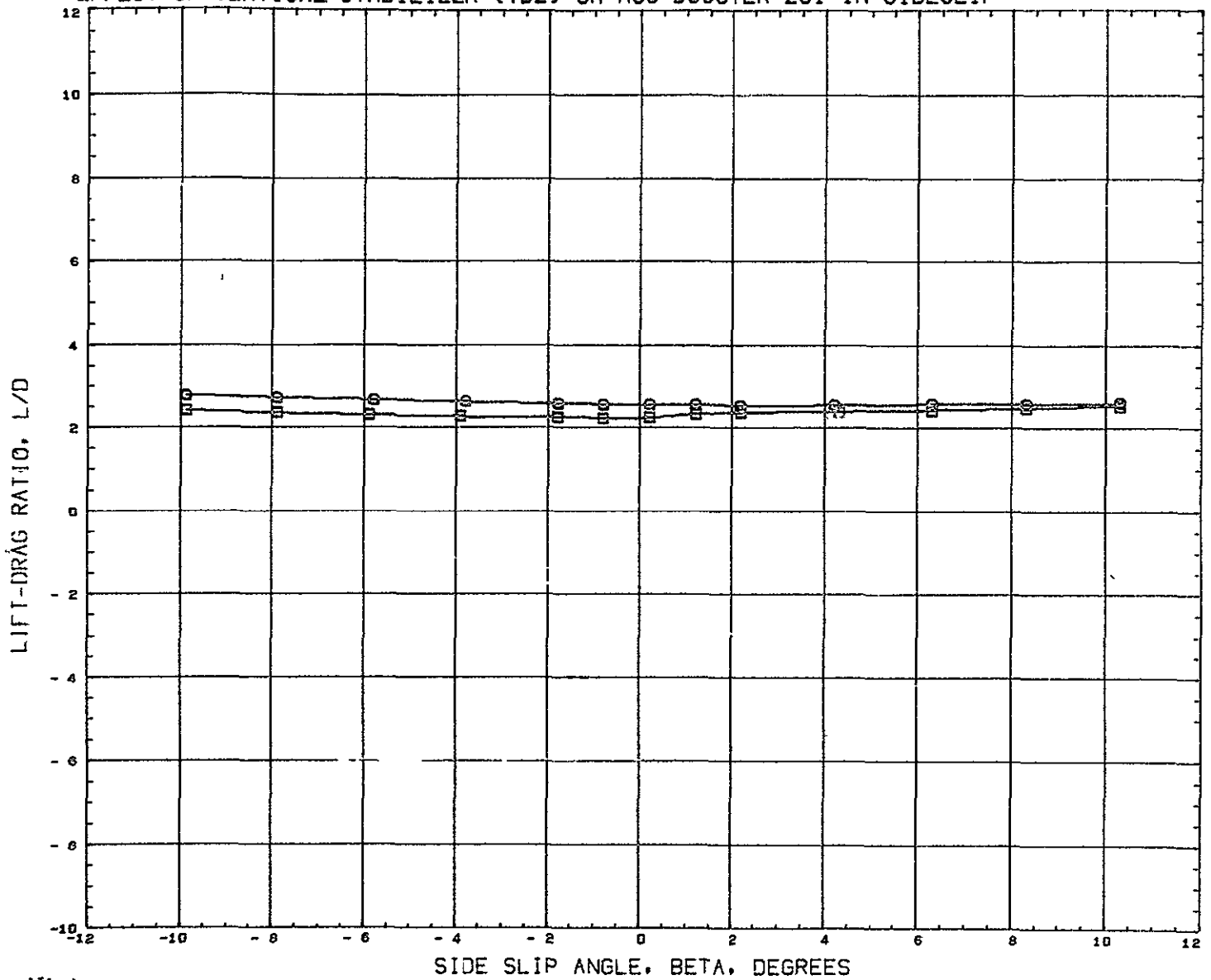
MACH 0.250 CBRW 0 670

REFERENCE INFORMATION

REFS 0 8460 FT SQ
REFL 0 3810 FT
REFB 2 4630 FT
XMRP 65 0000 PCT LB
YMRP 0 0000
ZMRP 67 5500 PCT ZB
SCALE 1 3215 PCT

ALPHA 12 000

EFFECT OF VERTICAL STABILIZER (VB2) ON MSC BOOSTER 251 IN SIDESLIP



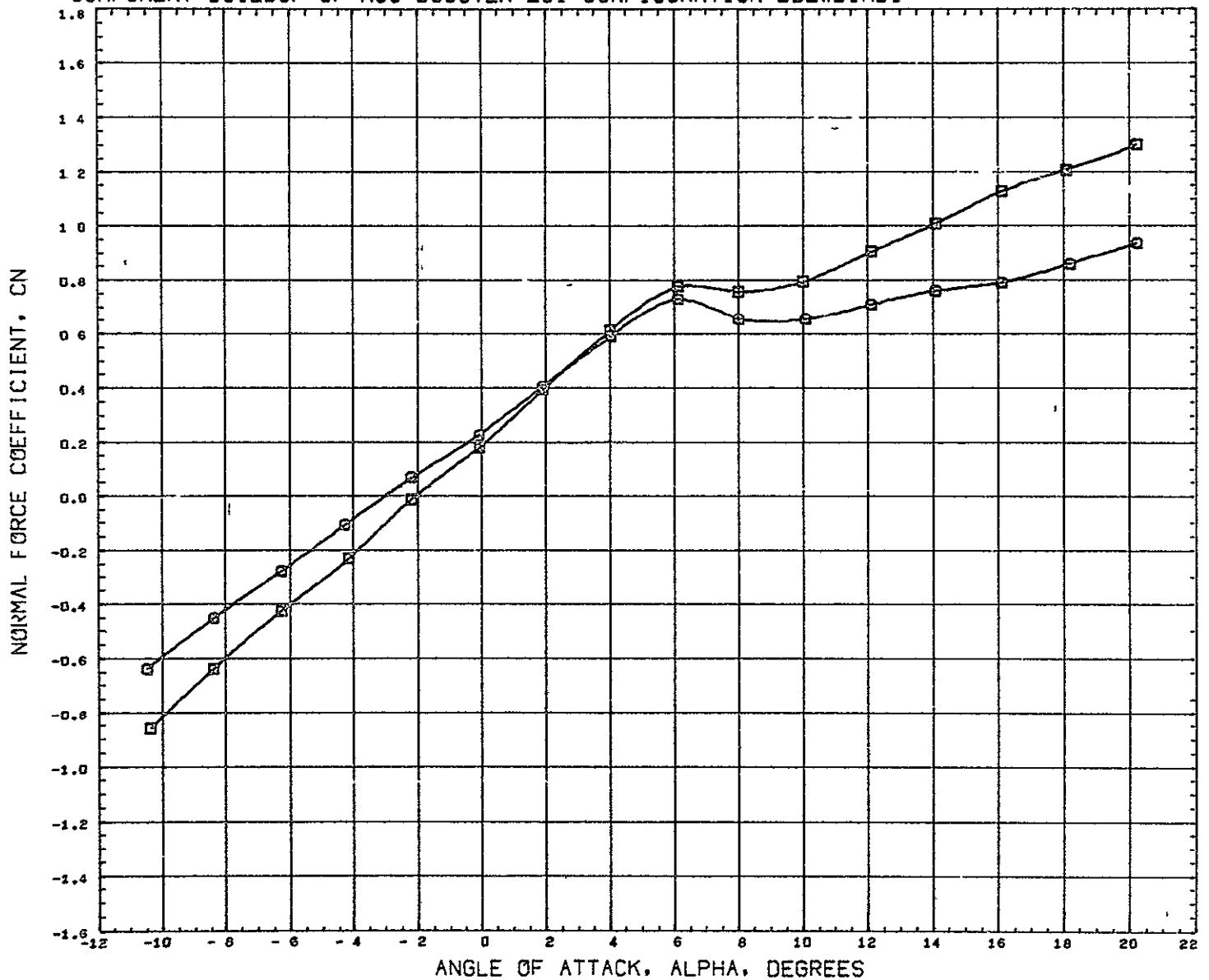
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 (064021) Q MSC S-XXIV BOOSTER 251 BB2WB1VB2
 (064023) Q MSC S-XXIV BOOSTER 251 BB2WB1

PARAMETRIC VALUES
 MACH 0.250 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 FCT

ALPHA 15.000

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



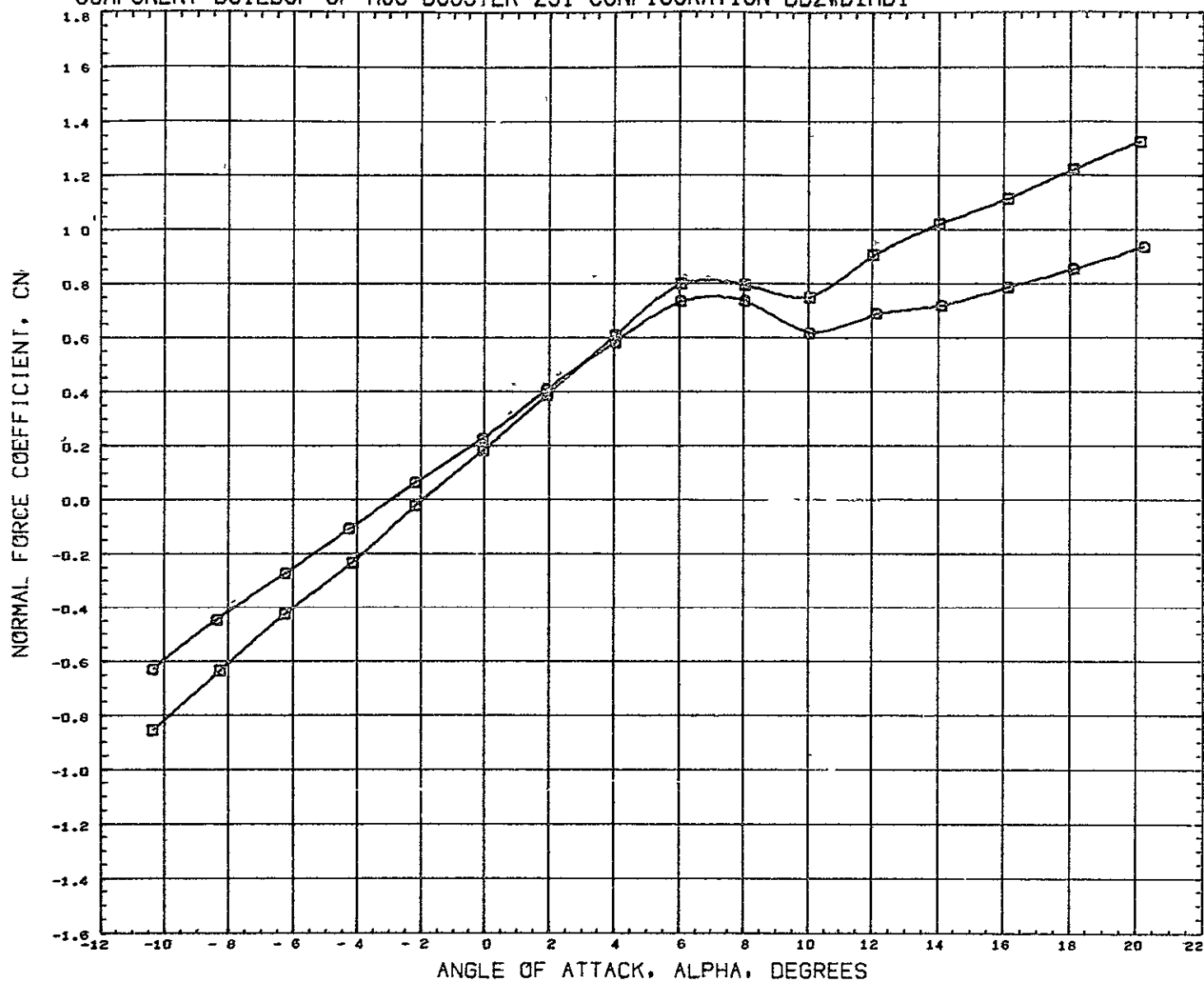
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064014) MSC S-XXIV BOOSTER 251 BB2WB1
 (064017) MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



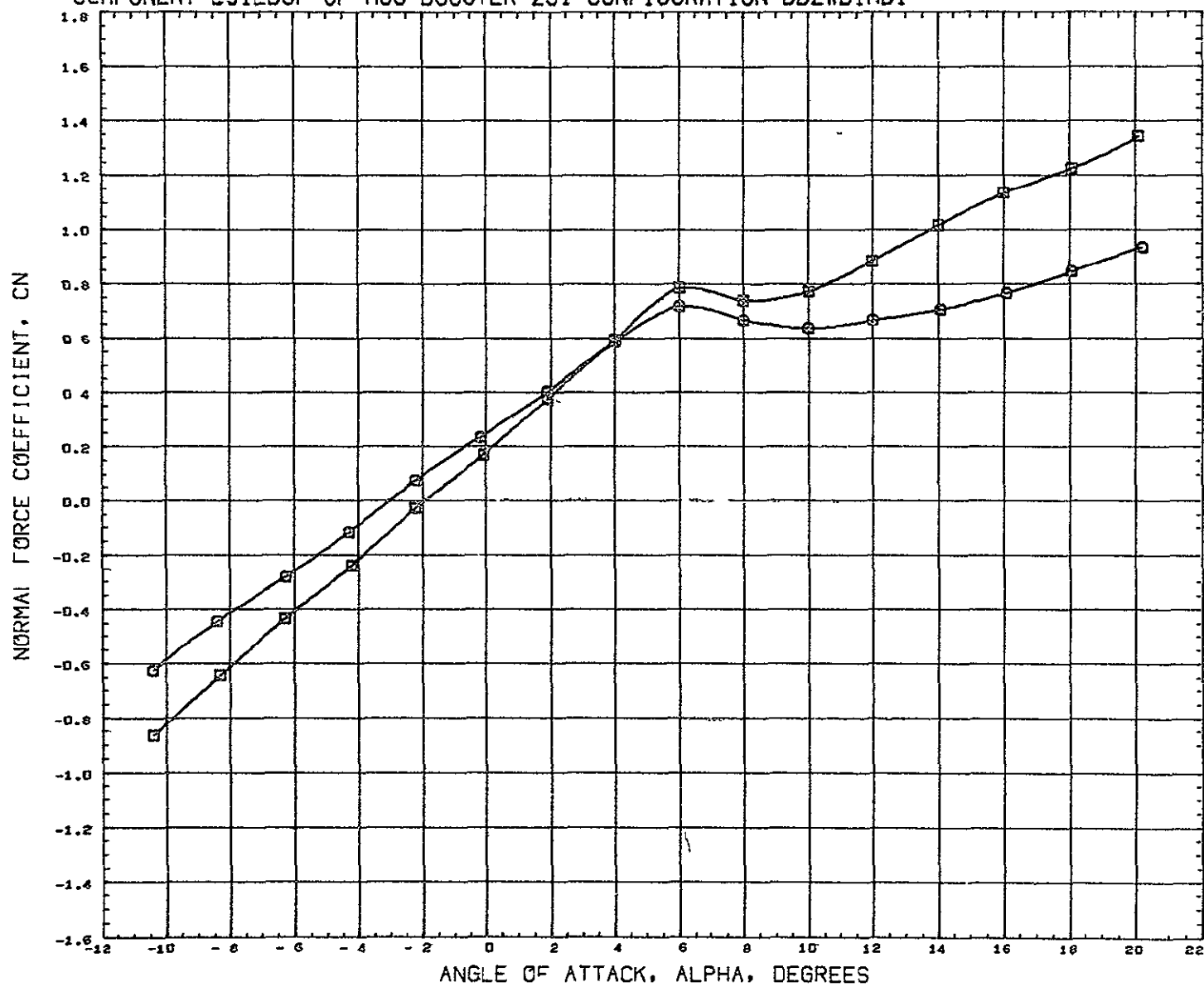
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 (064014) ○ MSC S-XXIV BOOSTER 251 BB2WB1
 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0 000 MACH 0 250

REFERENCE INFORMATION
 REFS 0 8460 FT Sq
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



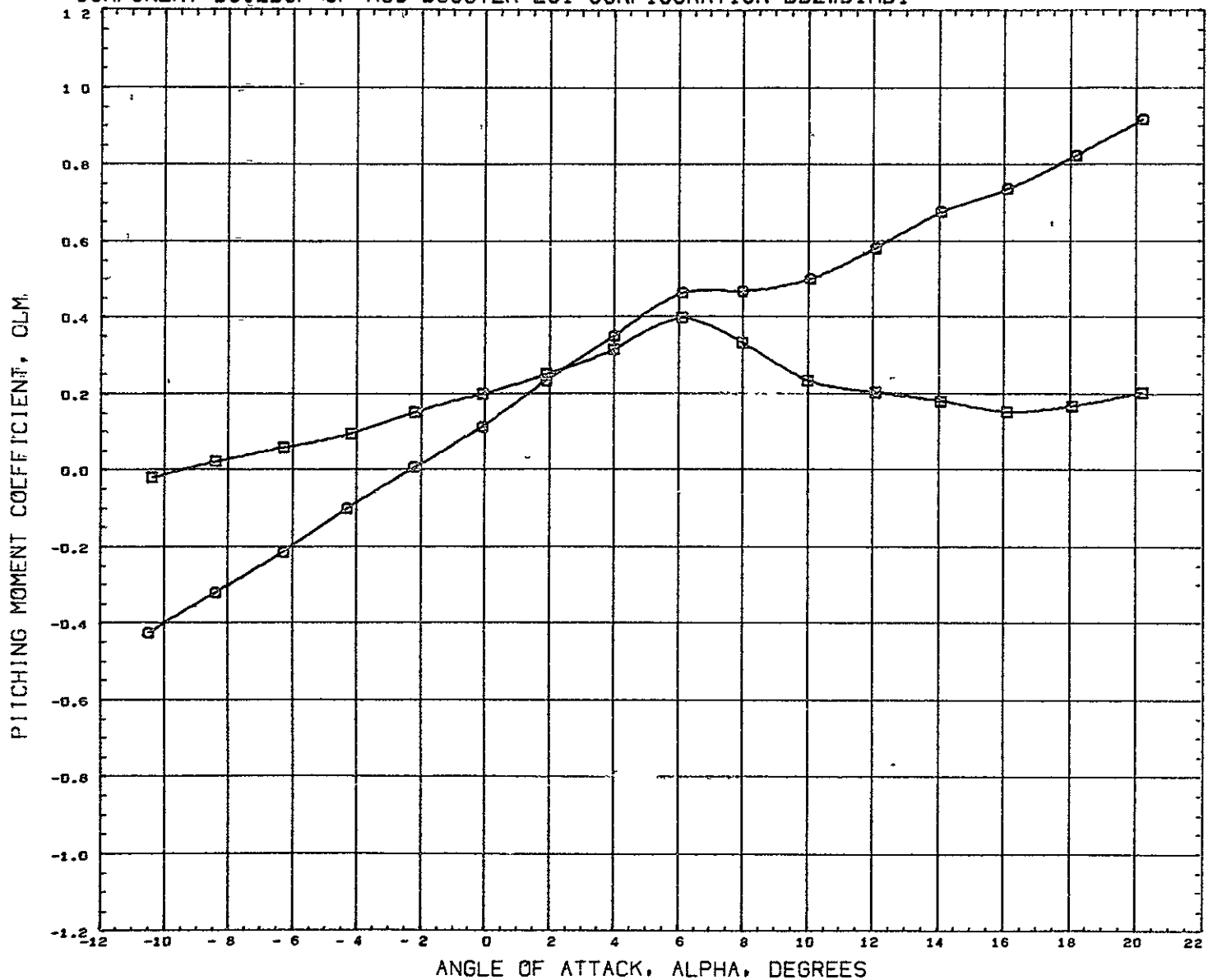
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 (Q64014) ○ MSC S-XXIV BOOSTER 251 BB2WB1
 (Q64017) □ MSC S-XXIV BOOSTER 251 BB2WB1 HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REF8 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



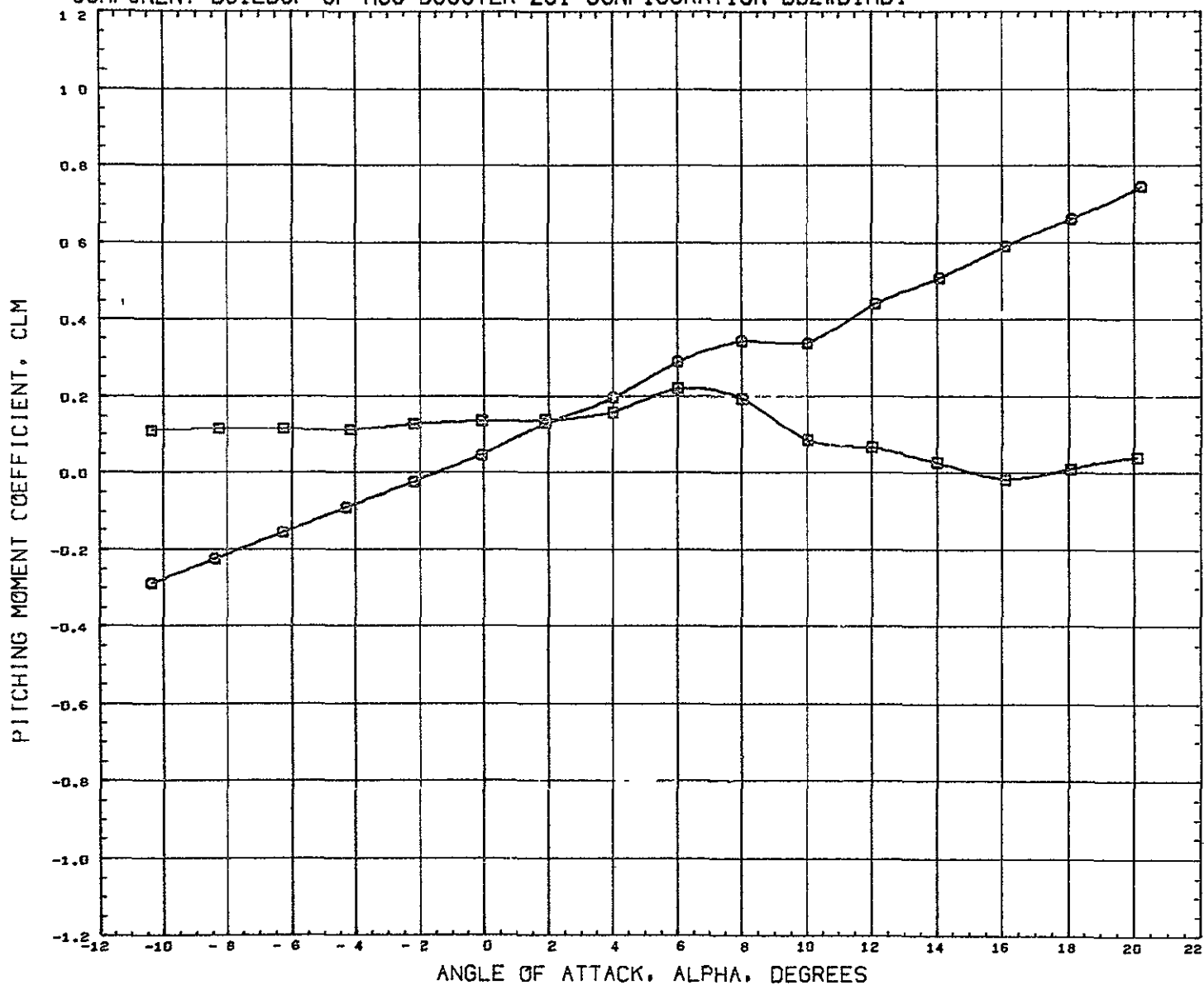
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 (QG4014) □ MSC S-XXIV BOOSTER 251 BB2WB1
 (QG4017) ○ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



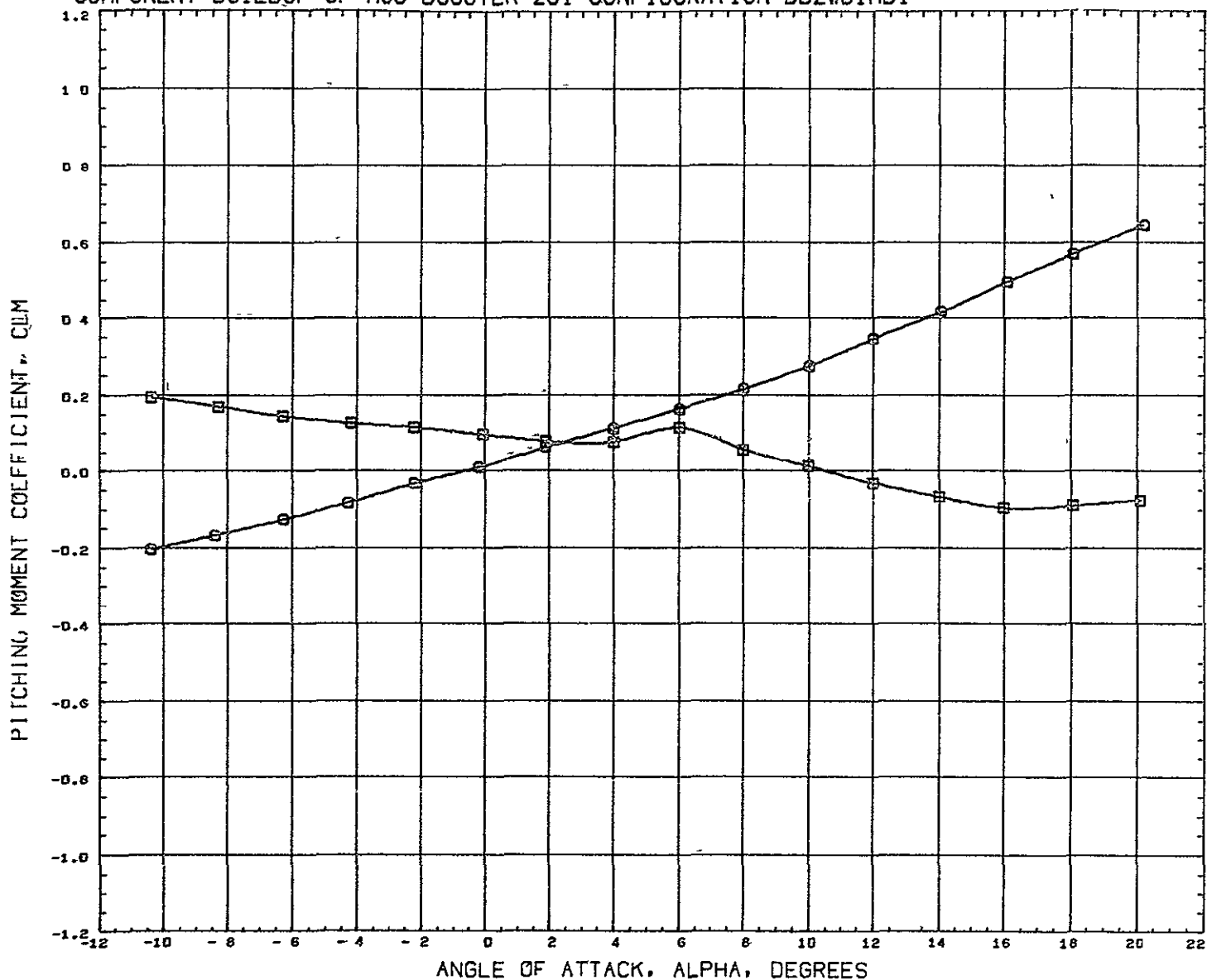
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PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1.3215 PCT

C8RW 0.670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



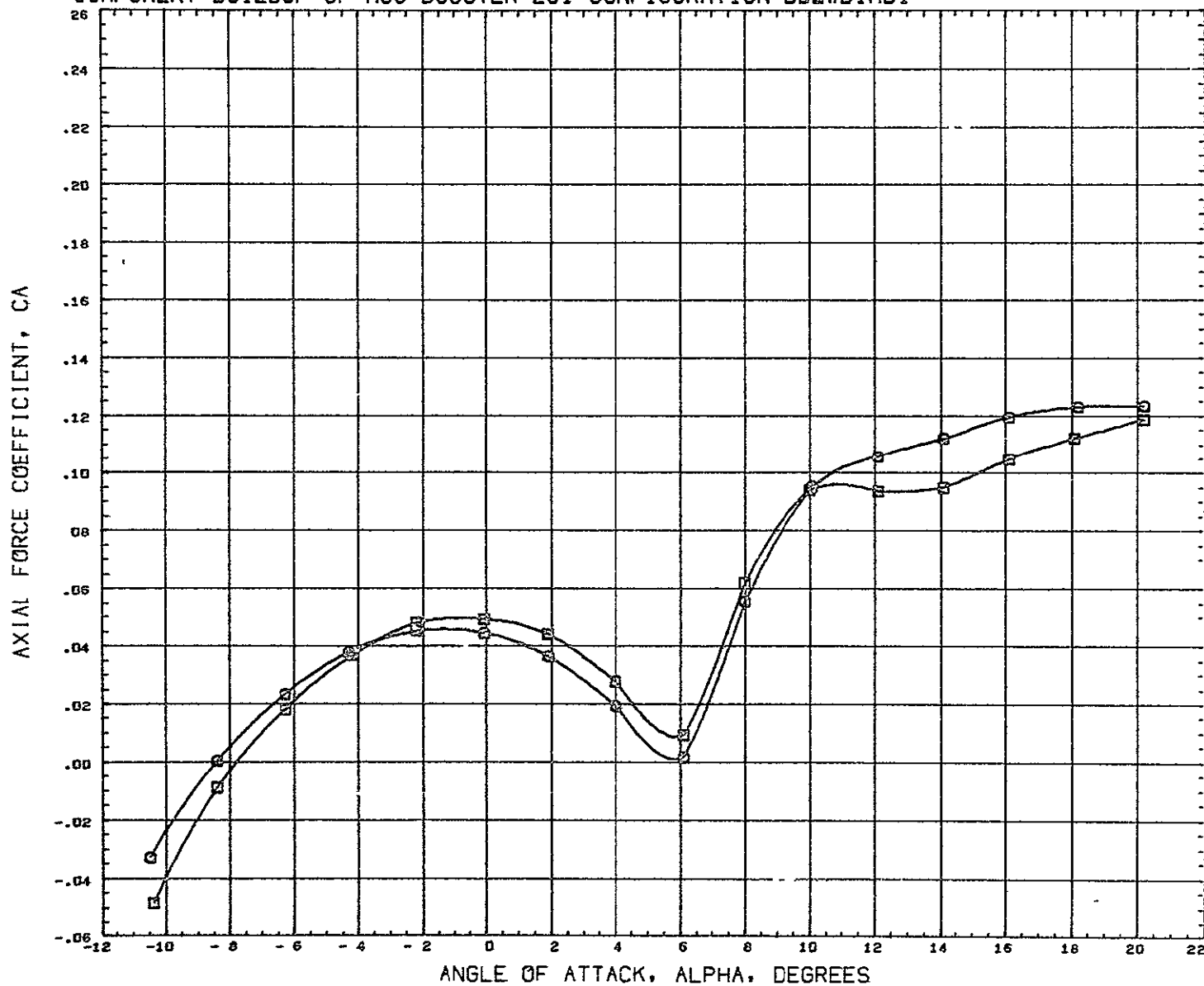
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 (064017) $\square$ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
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REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.700

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



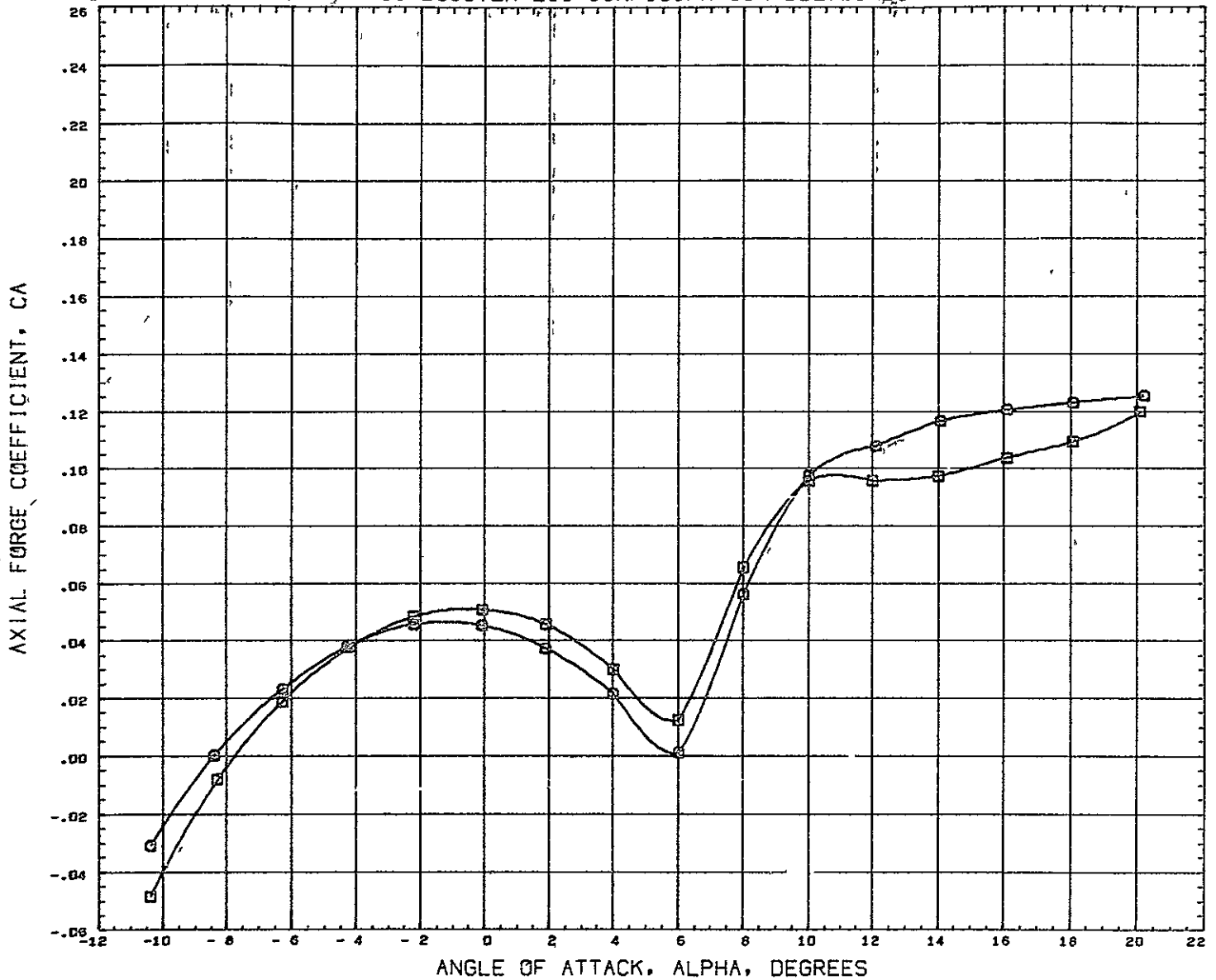
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 (004017) MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRF 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



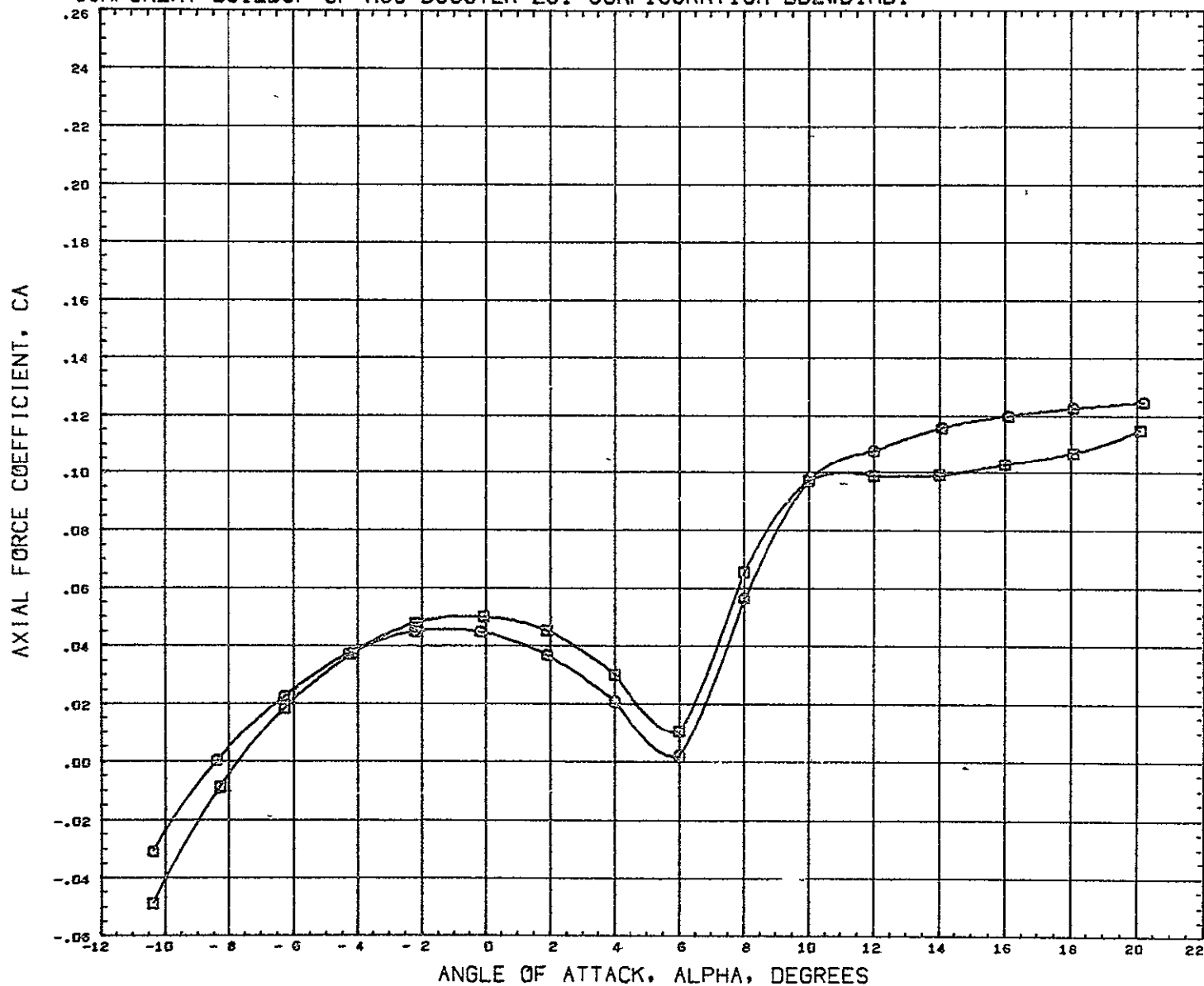
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 (Q64017) □ MSC S-XXIV BOOSTER 251 BB2WB1P91

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 FCT ZB
 SCALE 1 3215 FCT

CBRW 0.670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



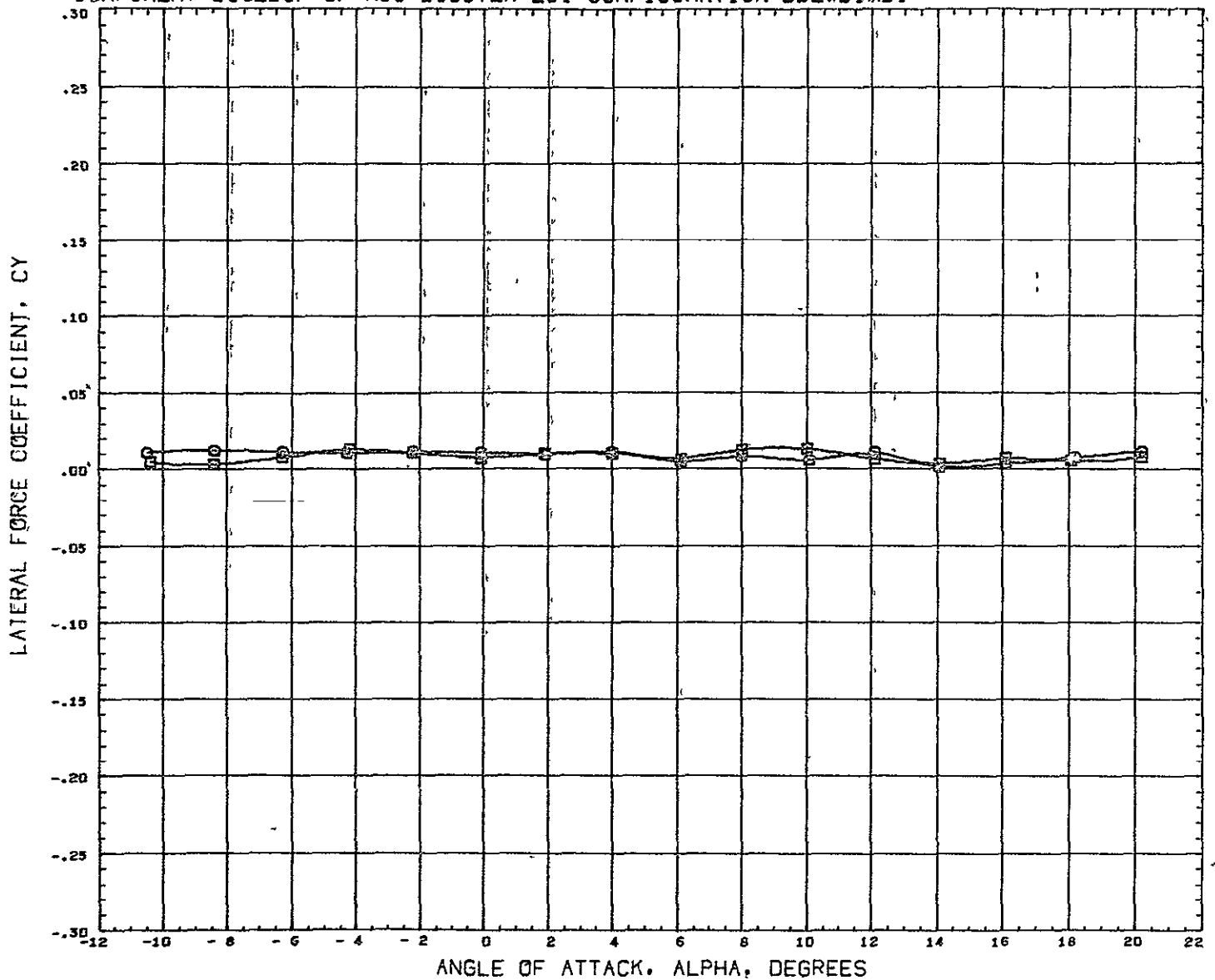
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 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
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REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0 700

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



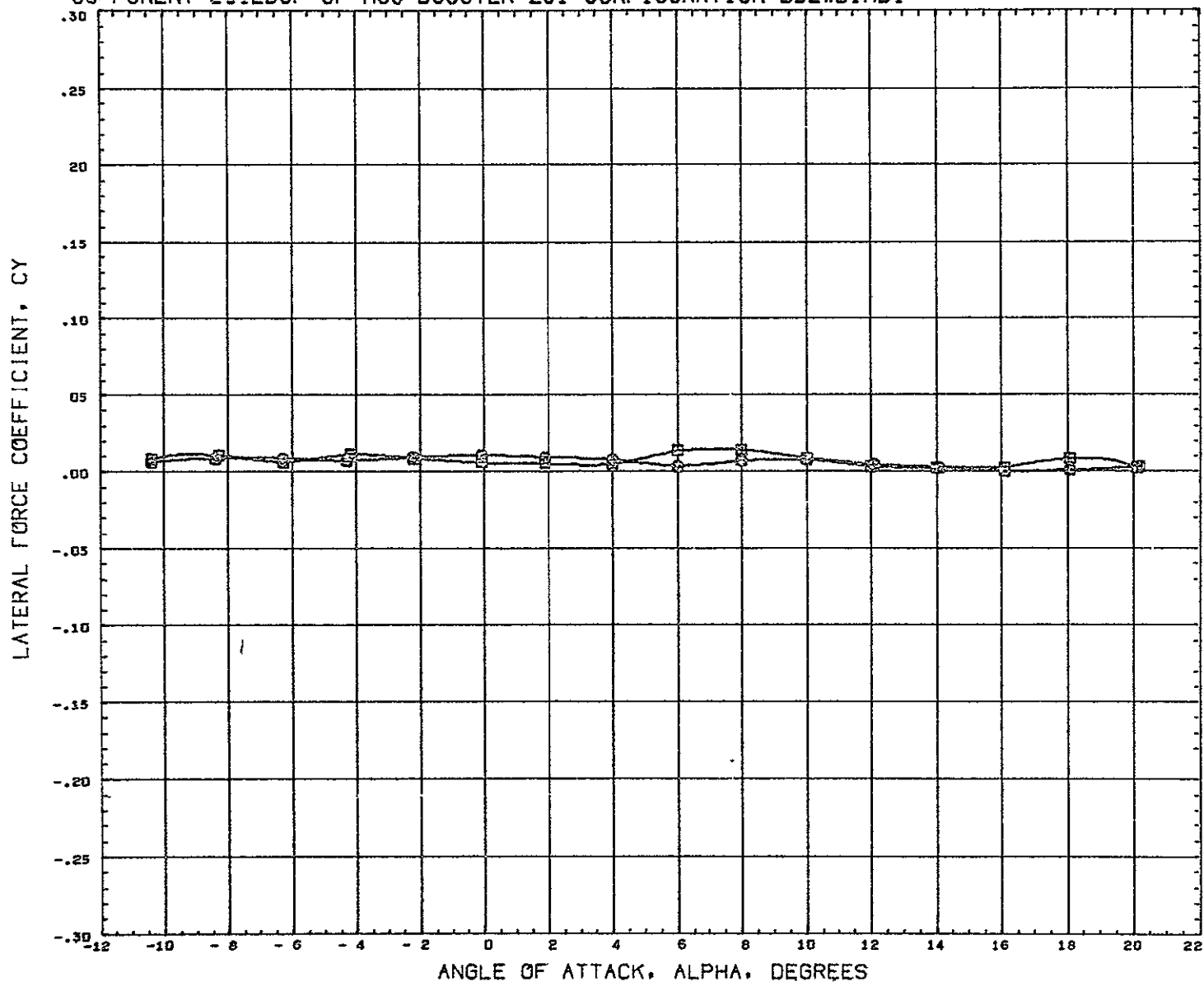
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 (004017) □ MSC S-XXIV BOOSTER 251 BB2WB1nB.

PARAMETRIC VALUES
 BETA 0.000 MACH 0 250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRF 65 0000 PCT LB
 YHRF 0 0000
 ZHRF 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRM 0 640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



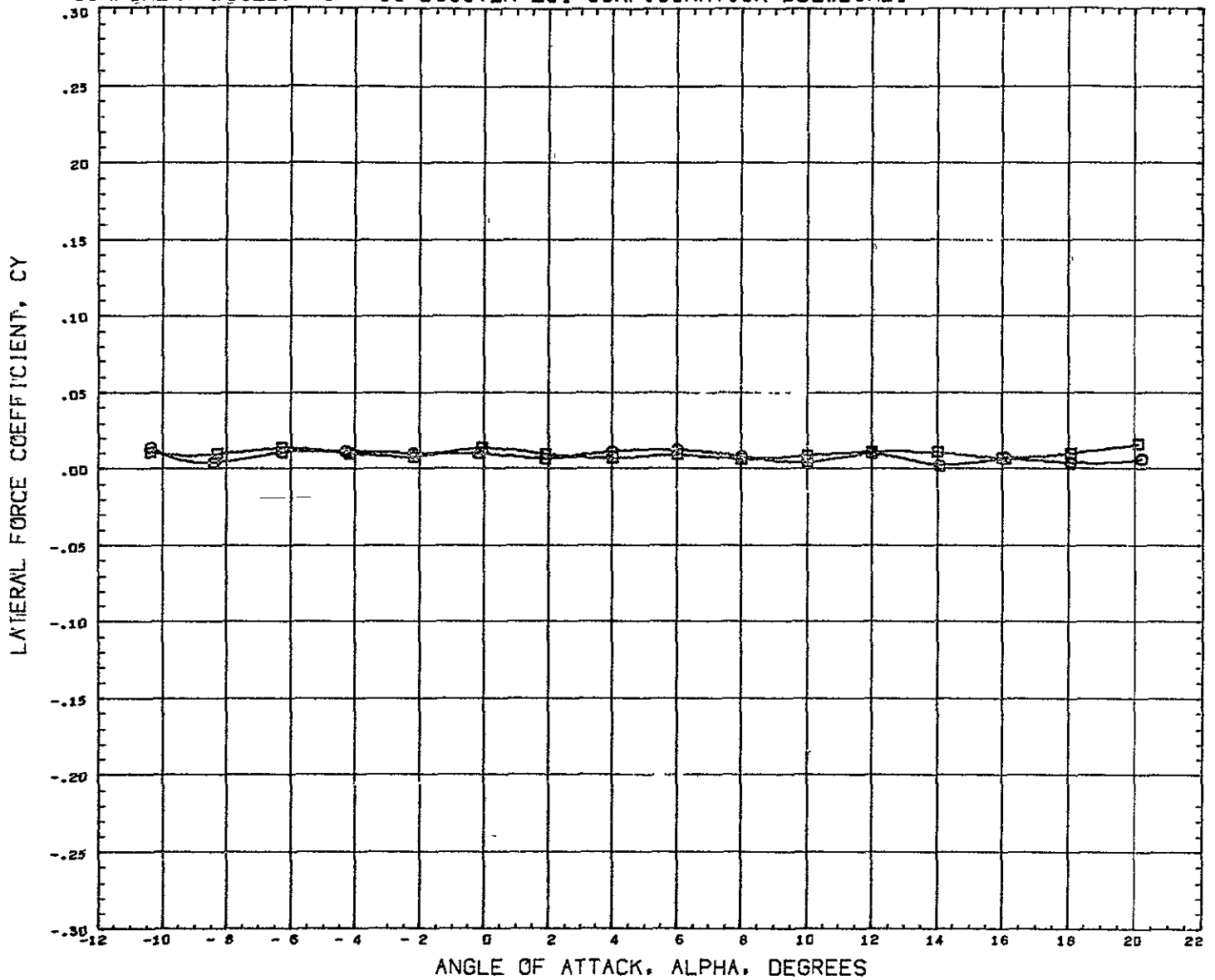
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 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 DELTA 0.000 MACH 0 250

REFERENCE INFORMATION
 REFS 0 8469 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



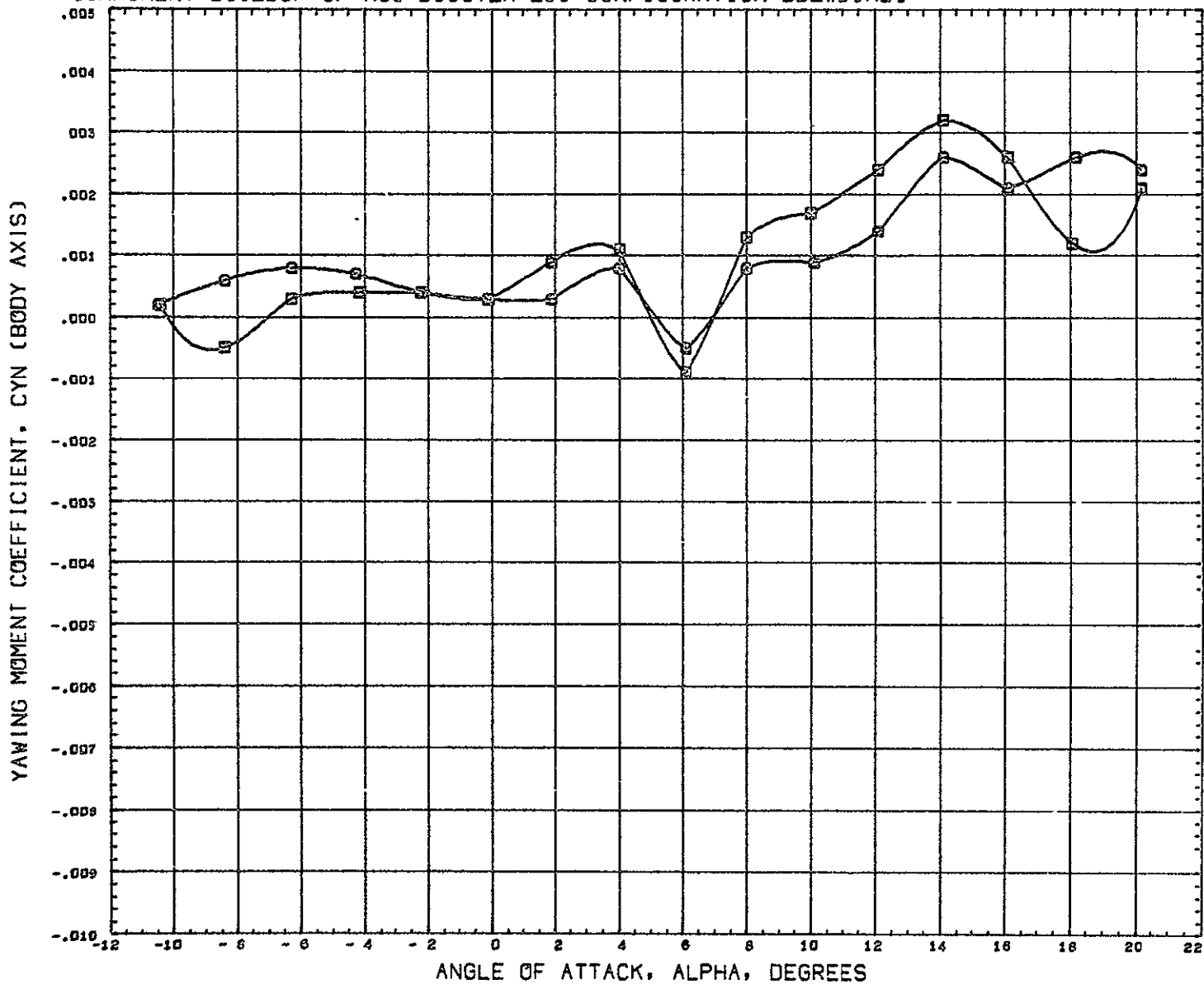
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 (000014) C MSC S-XXIV BOOSTER 251 BB2WB1
 (000017) S MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.700

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



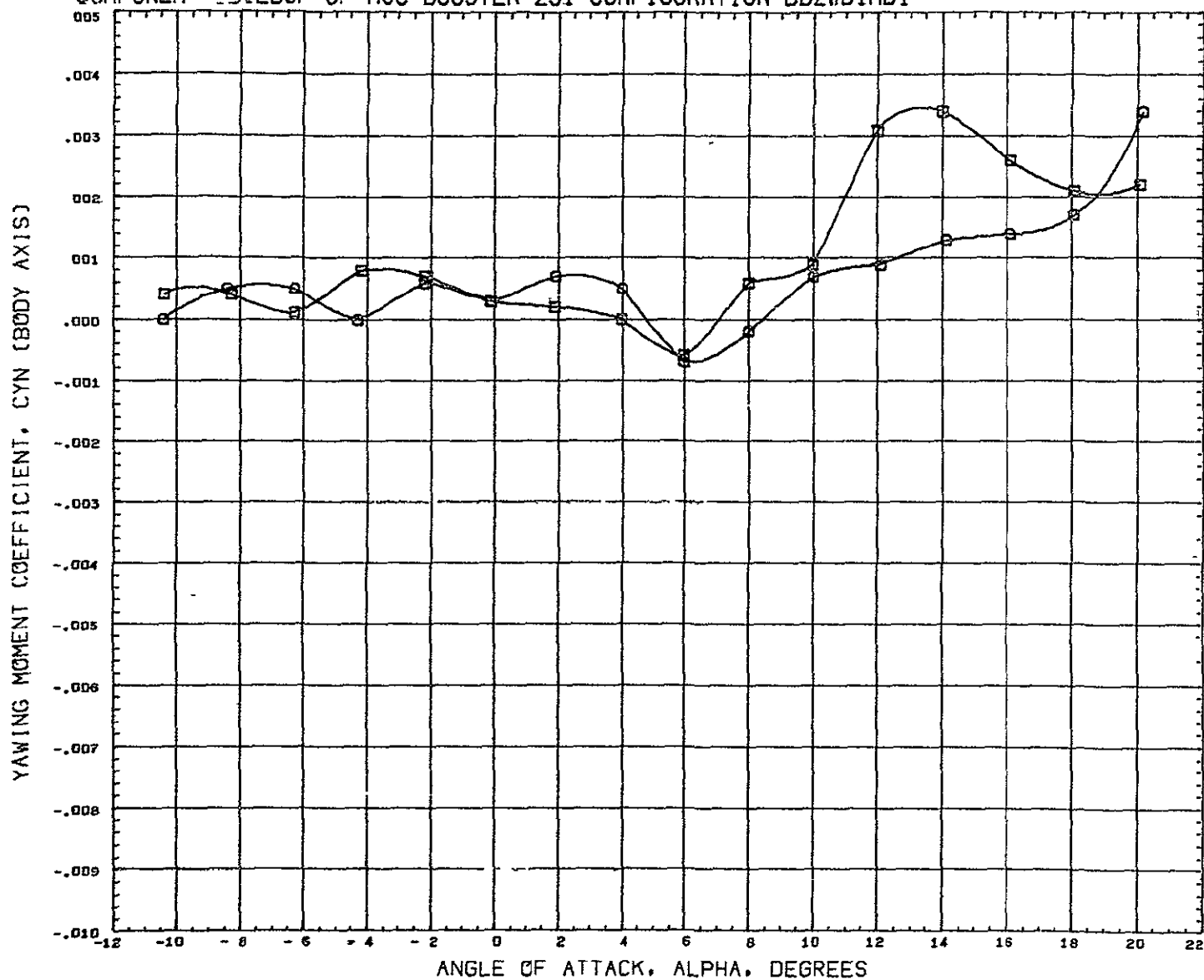
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 (664017) $\square$ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67.5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



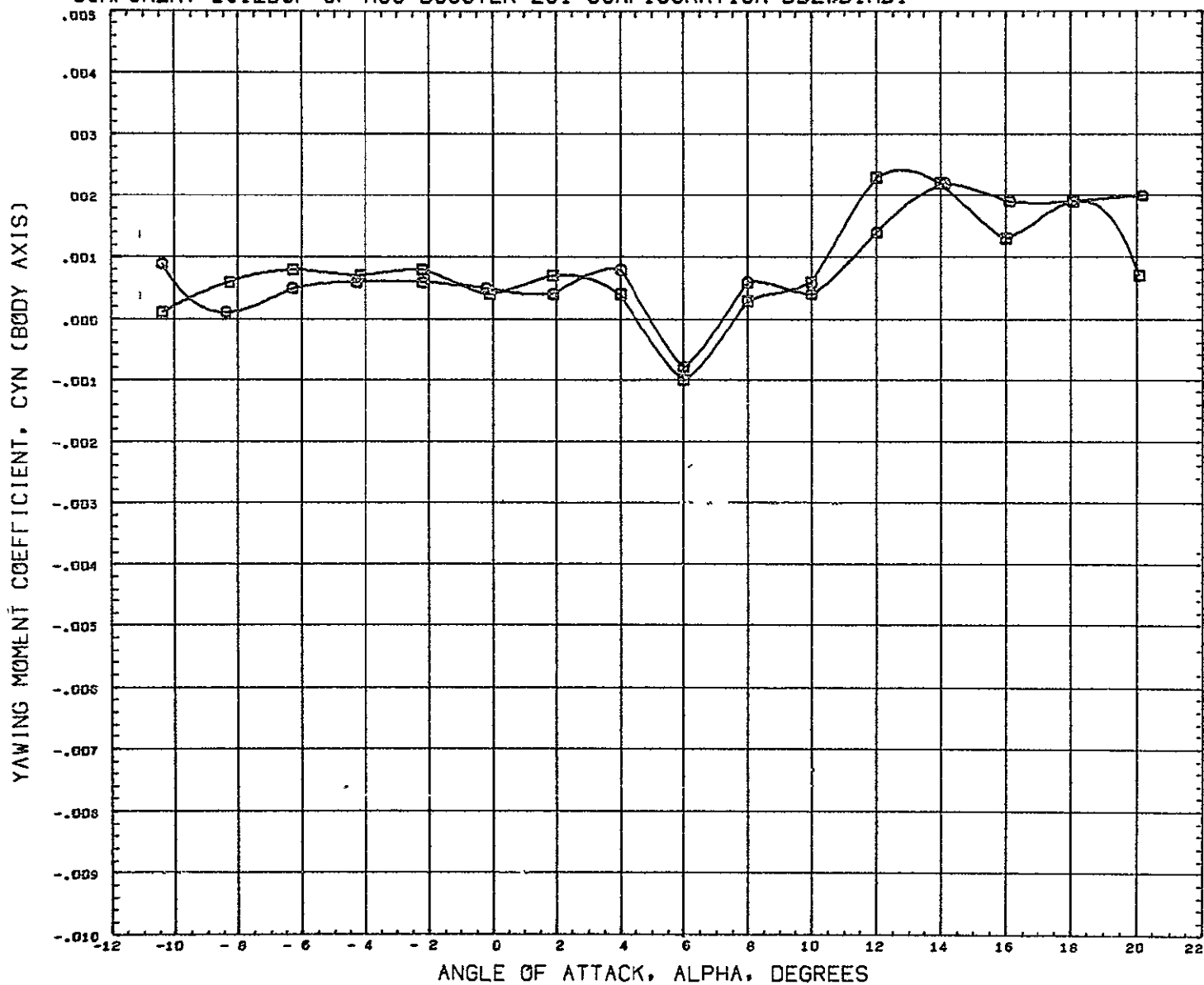
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PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XNRF 65 0000 PCT LB
 YNRF 0 0000
 ZNRF 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



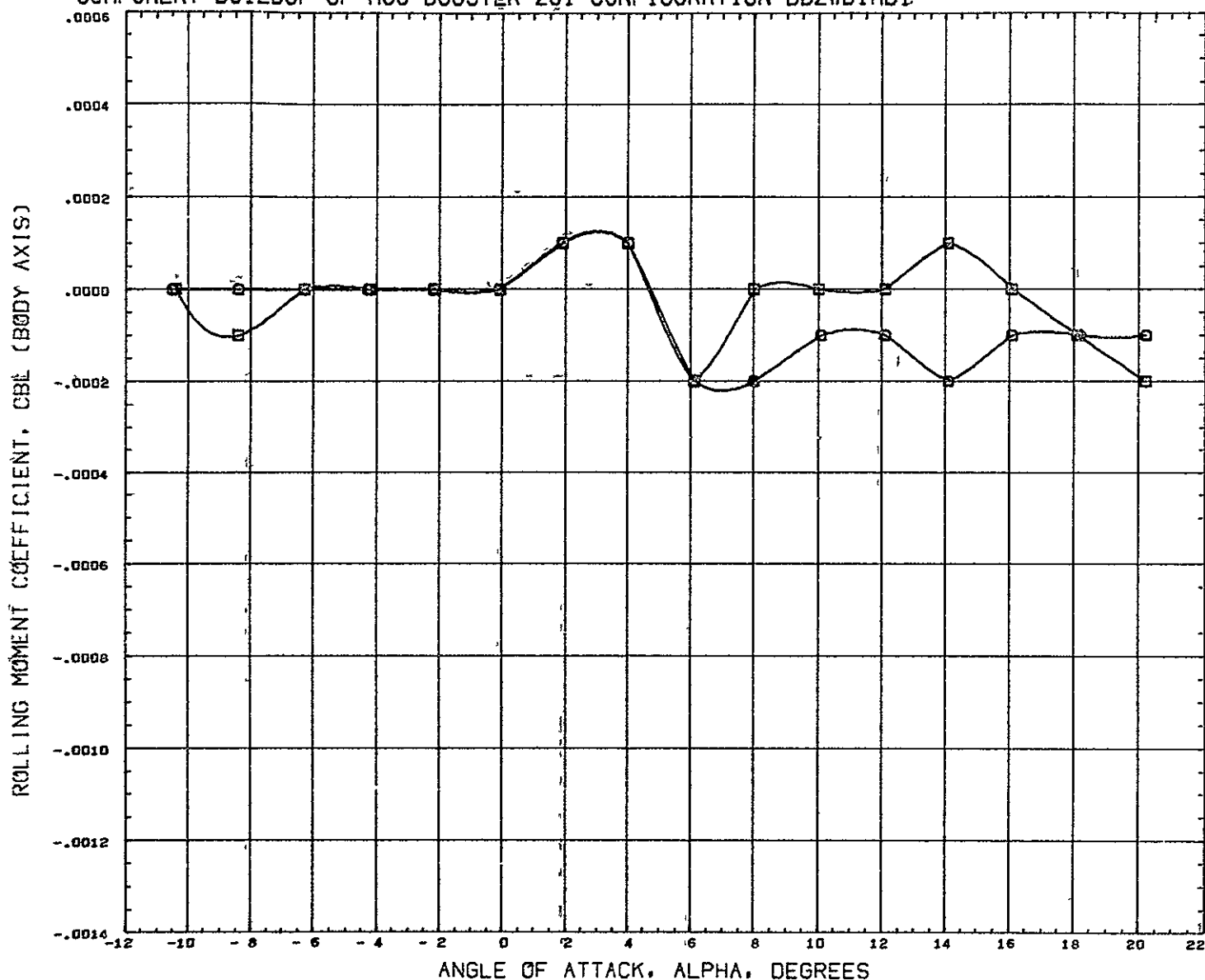
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 (QC4017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HBL



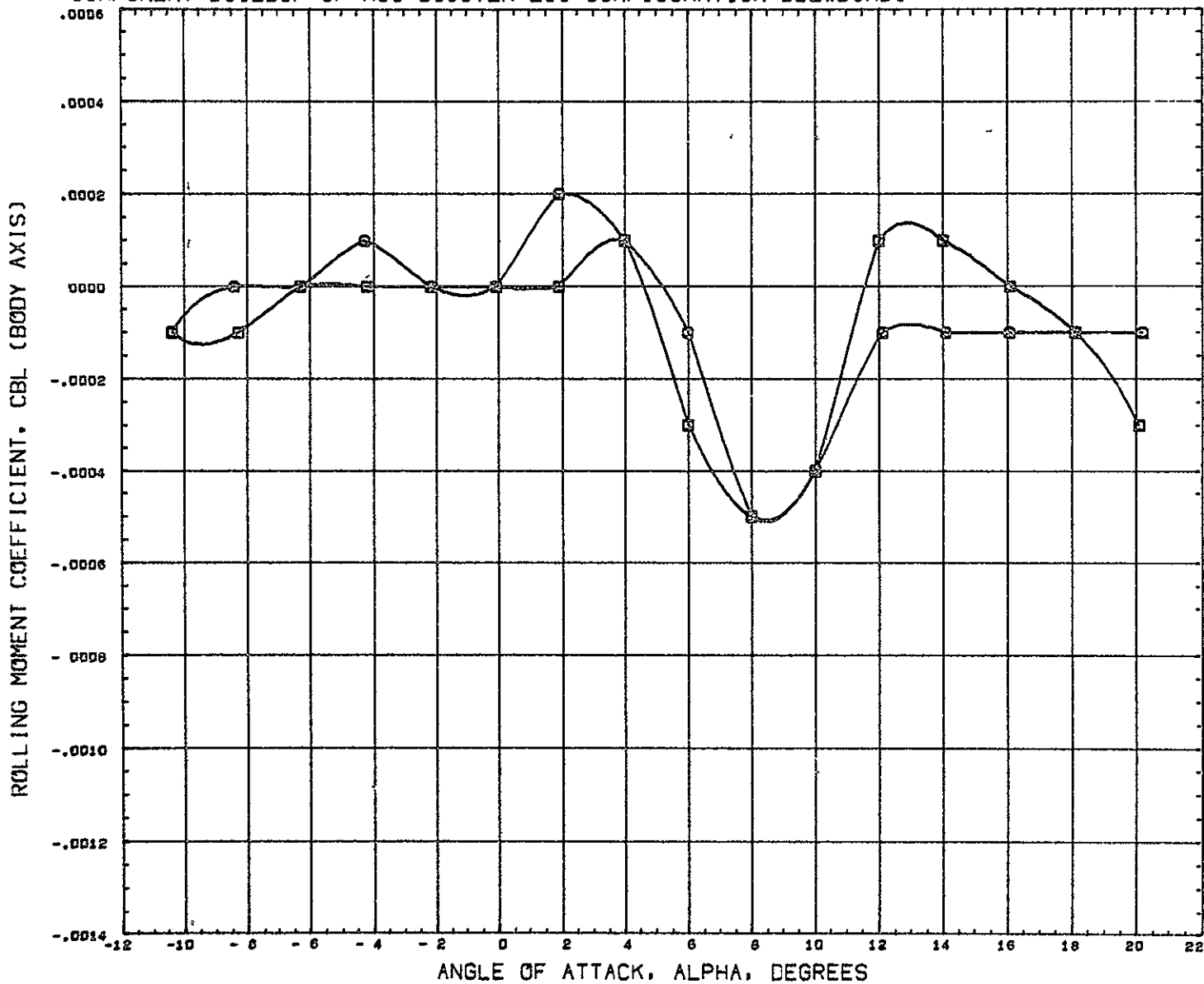
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064014) O MSC S-XXIV BOOSTER 251 BB2WB1
 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HBL

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT :SP
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT :UB
 YMRP 0.0000
 ZMRP 67.5500 PCT :ZB
 SCALE 1.3215 PCT

CBRW 0.640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



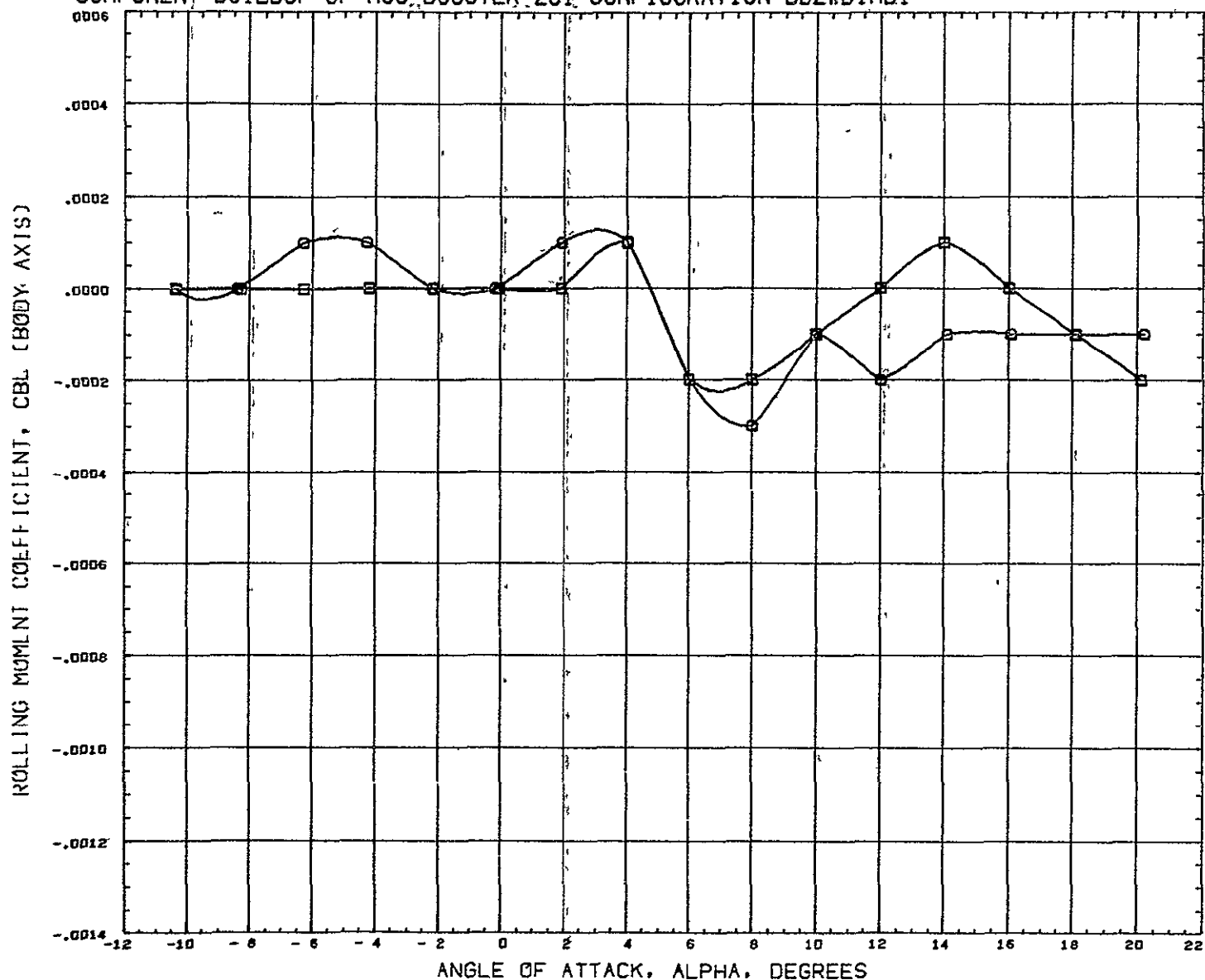
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 (064014) ○ MSC S-XXIV BOOSTER 251 BB2WB1
 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 6480 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRF 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67.5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



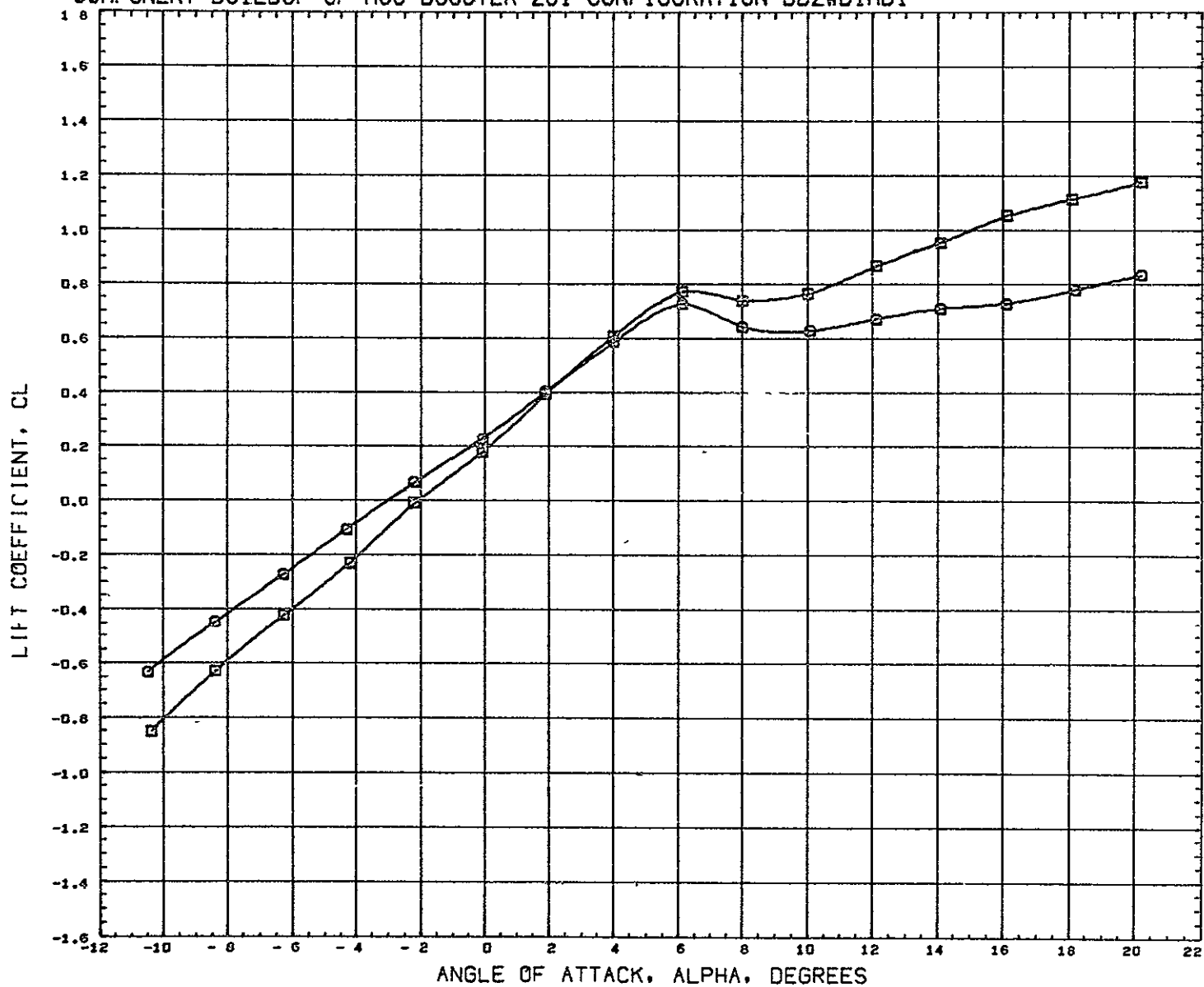
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 (864014) □ MSC S-XXIV BOOSTER 251 BB2WB1
 (864017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 700

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



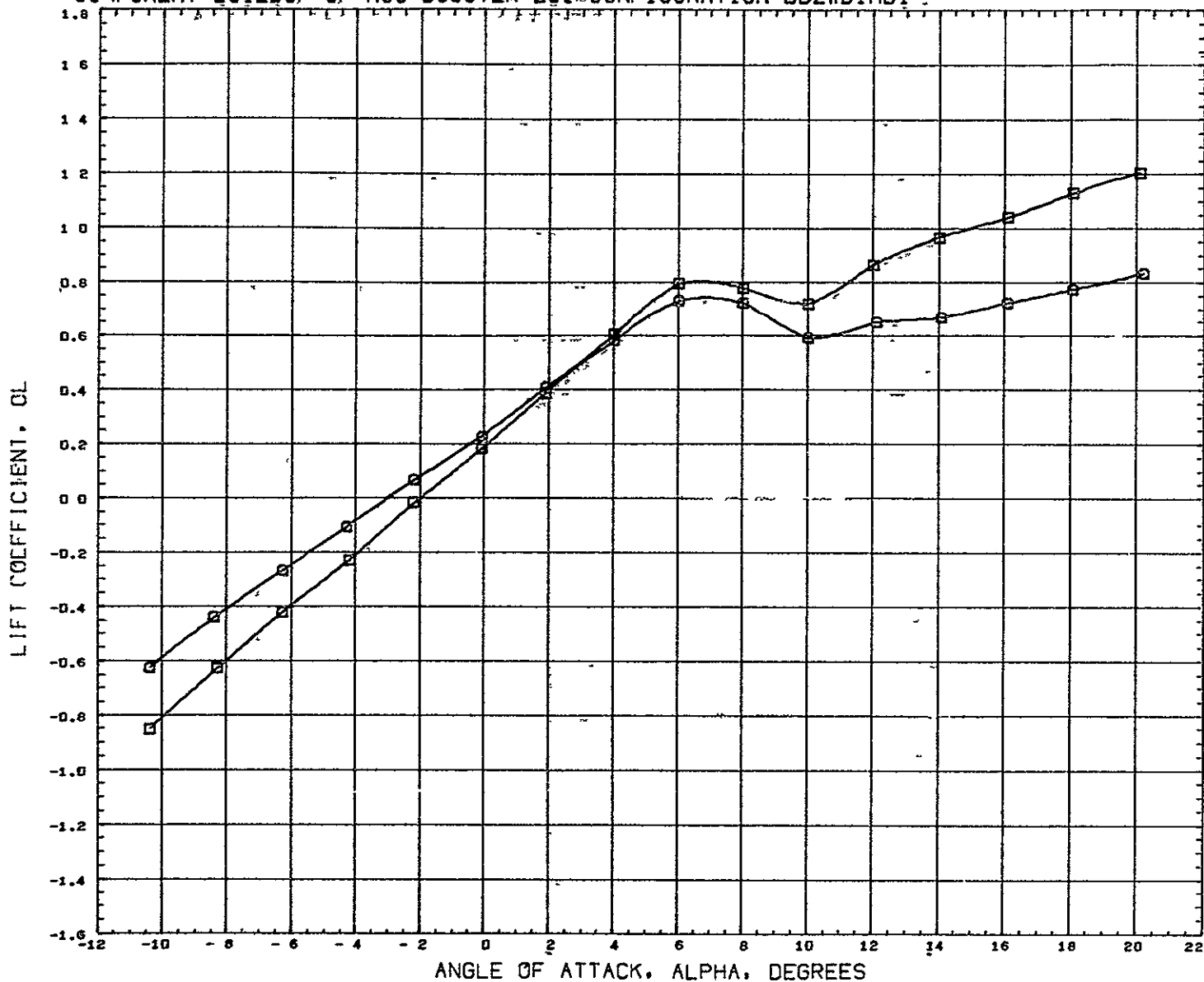
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 (Q64017) $\square$ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



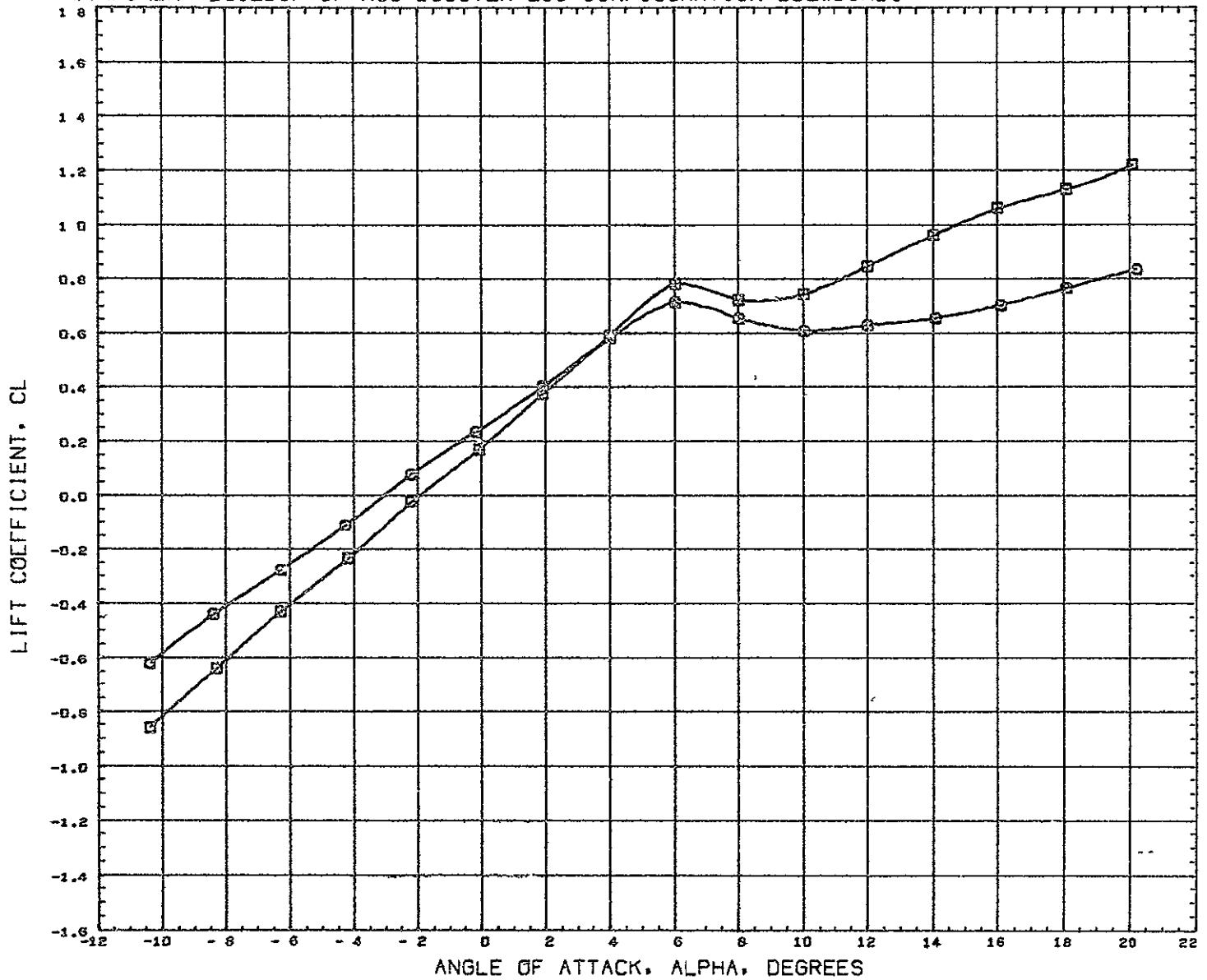
DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (964017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0 000 MACH 0 250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



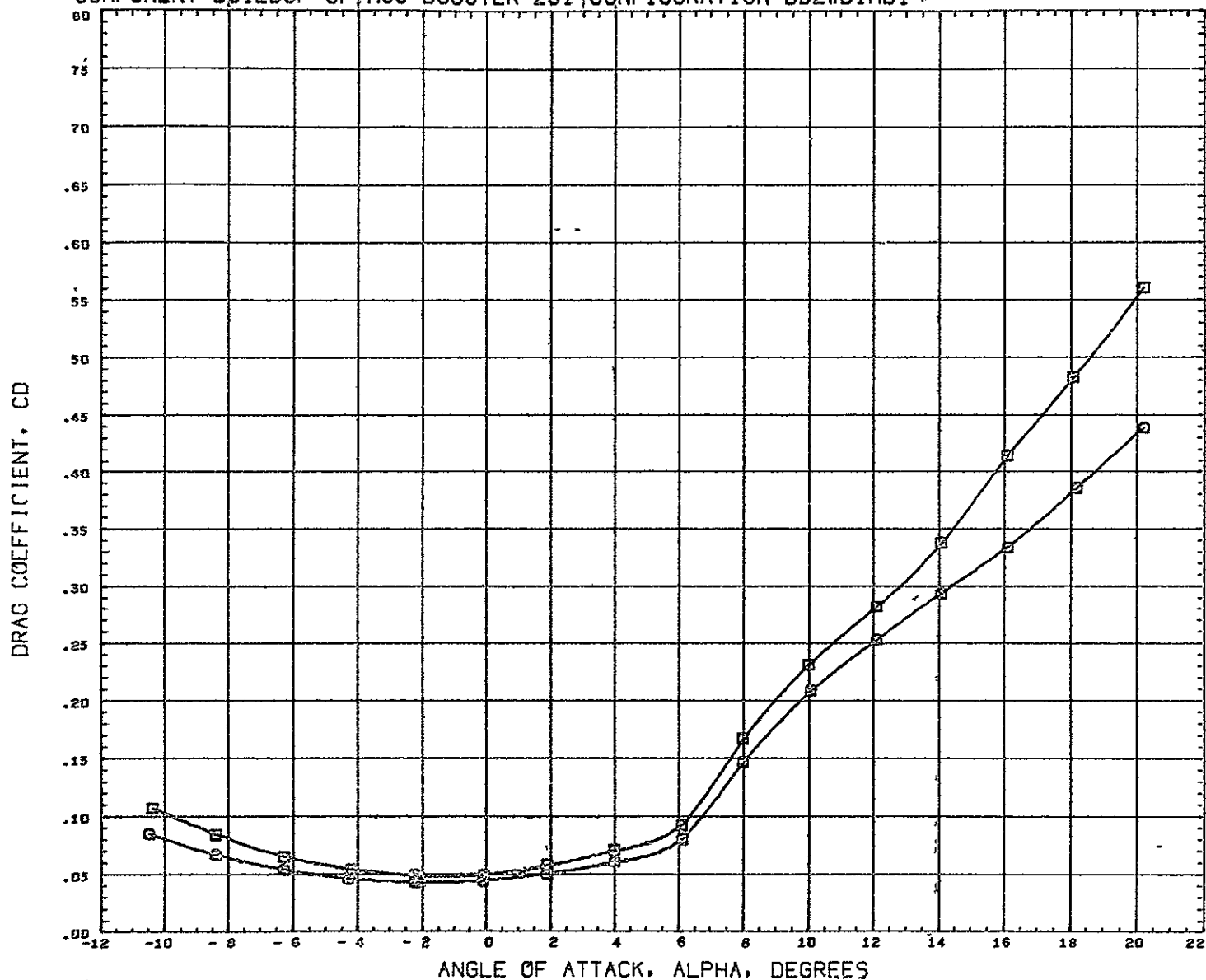
DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (Q64017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1.



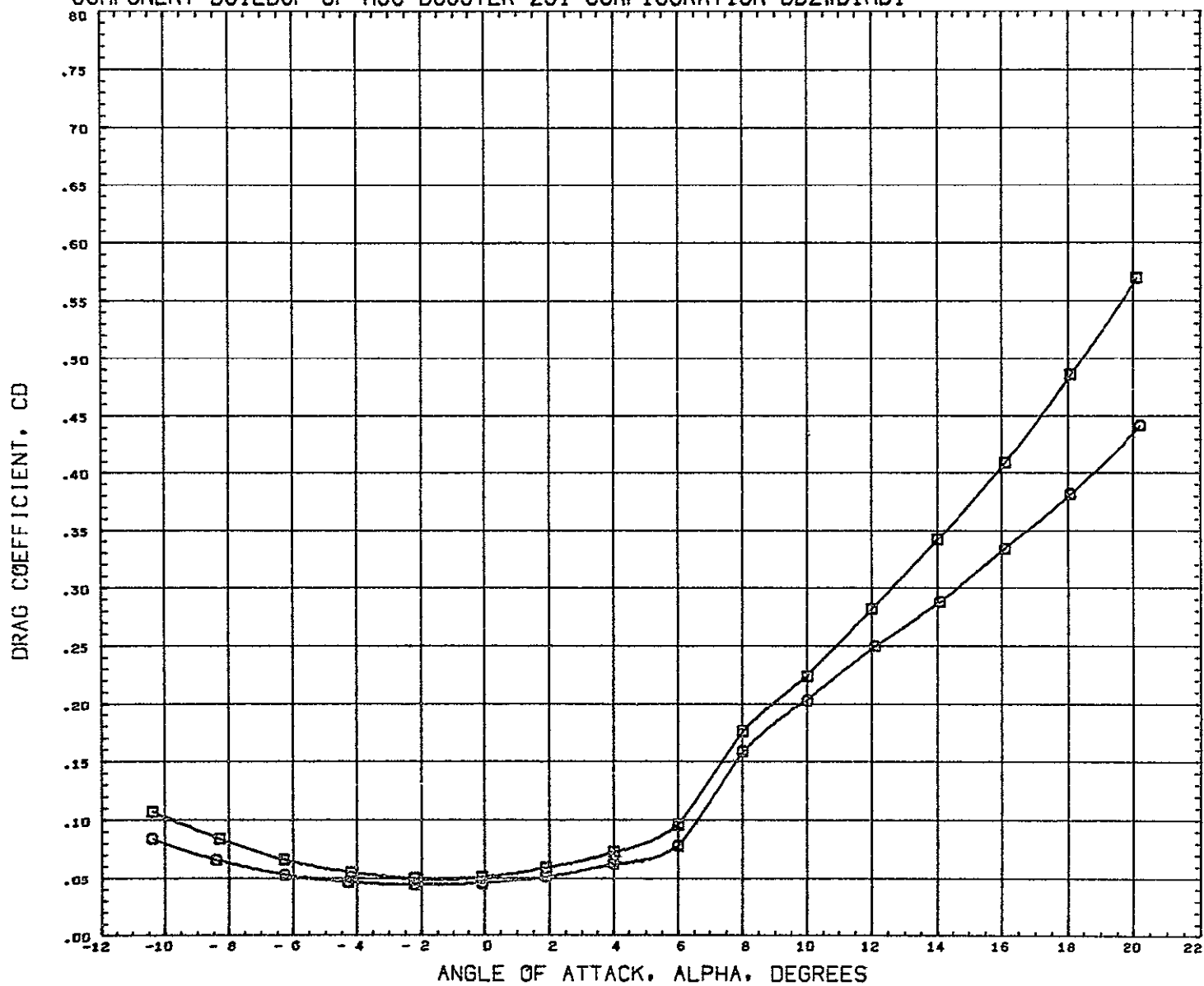
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 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



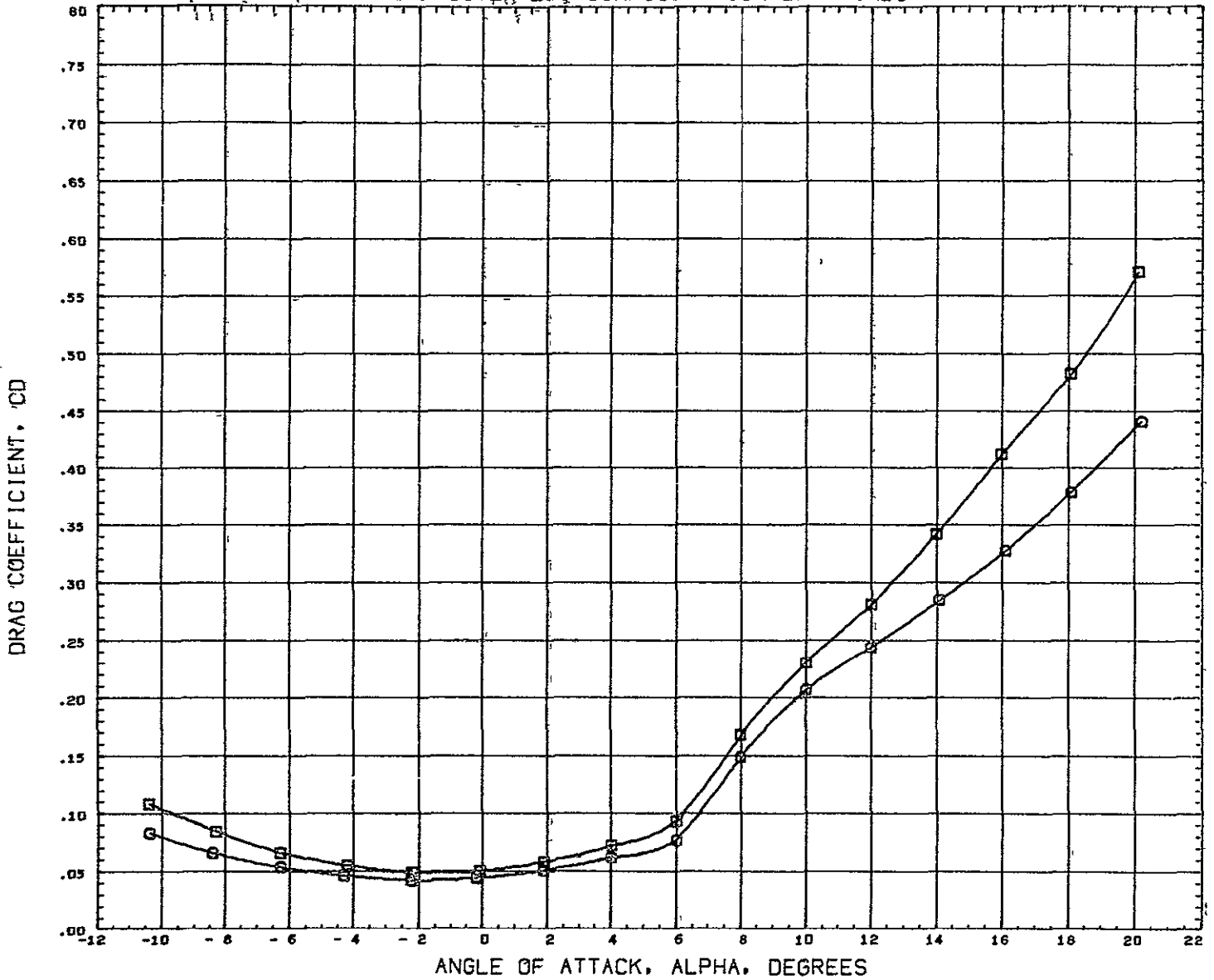
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 (004017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT-LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



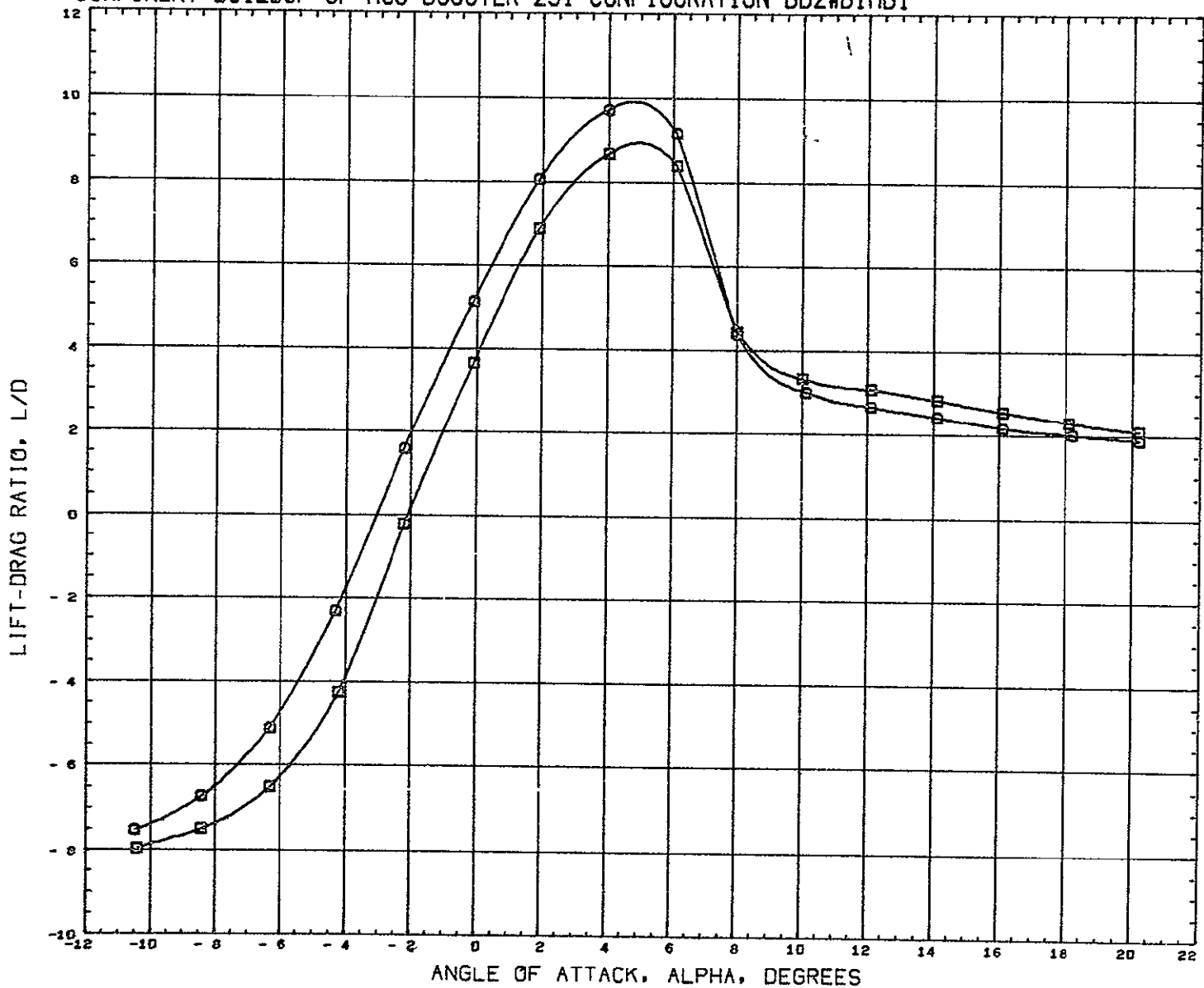
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 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 700

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



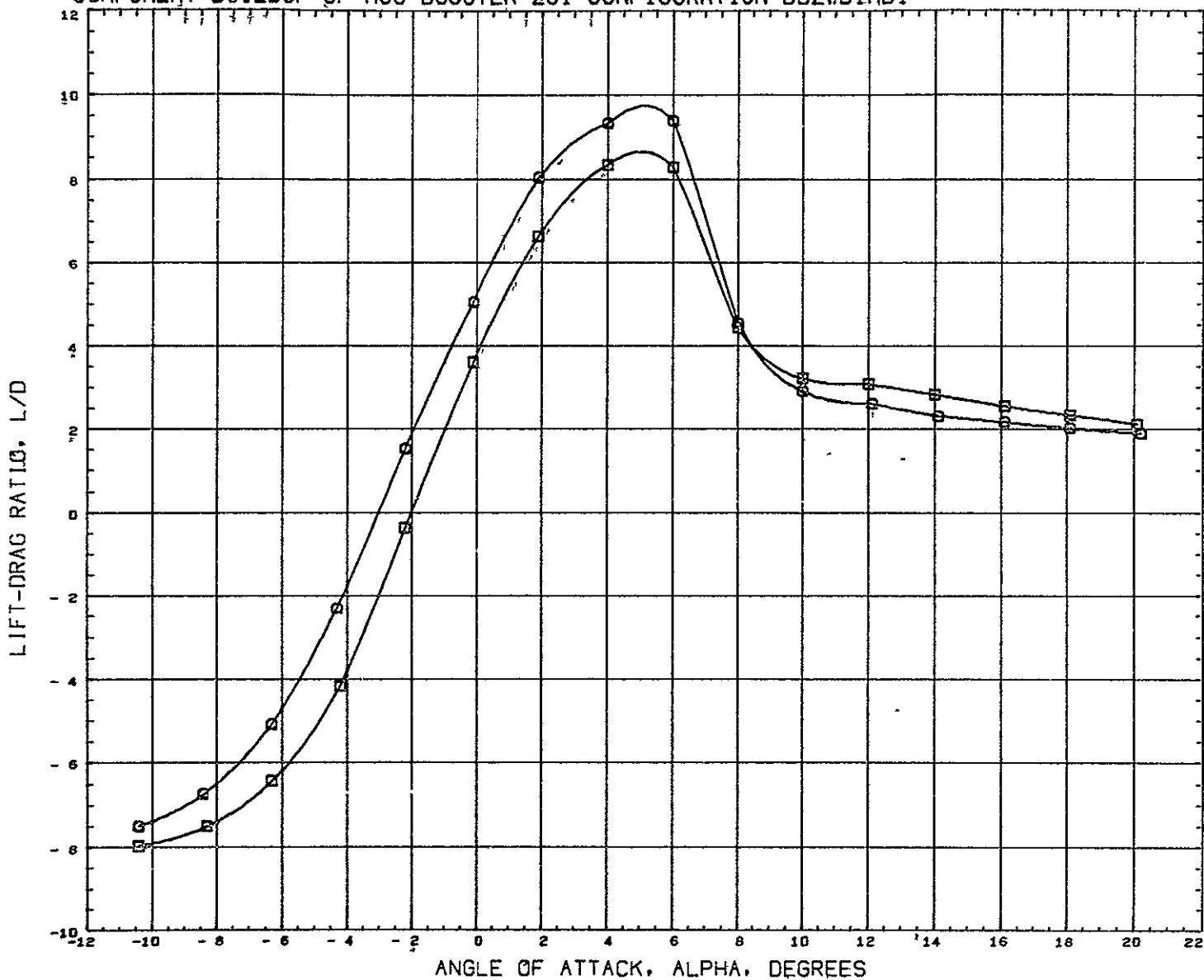
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 (004017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRF 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.640

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



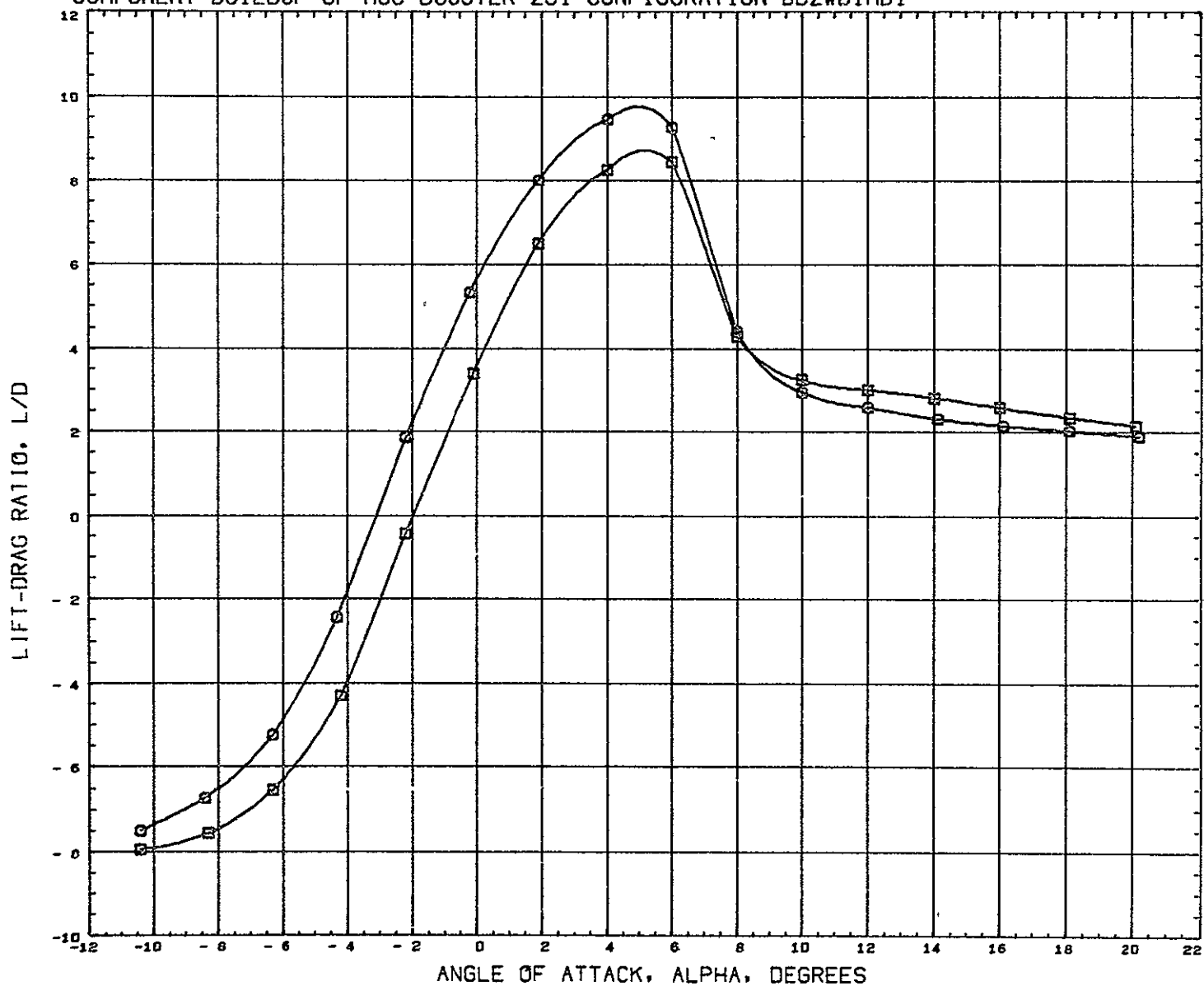
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (QC4014) O MSC S-XXIV BOOSTER 251 BB2WB1
 (QC4017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT² SQ
 REFL 0.3810 FT³
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000 PCT
 ZMPF 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.670

COMPONENT BUILDUP OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



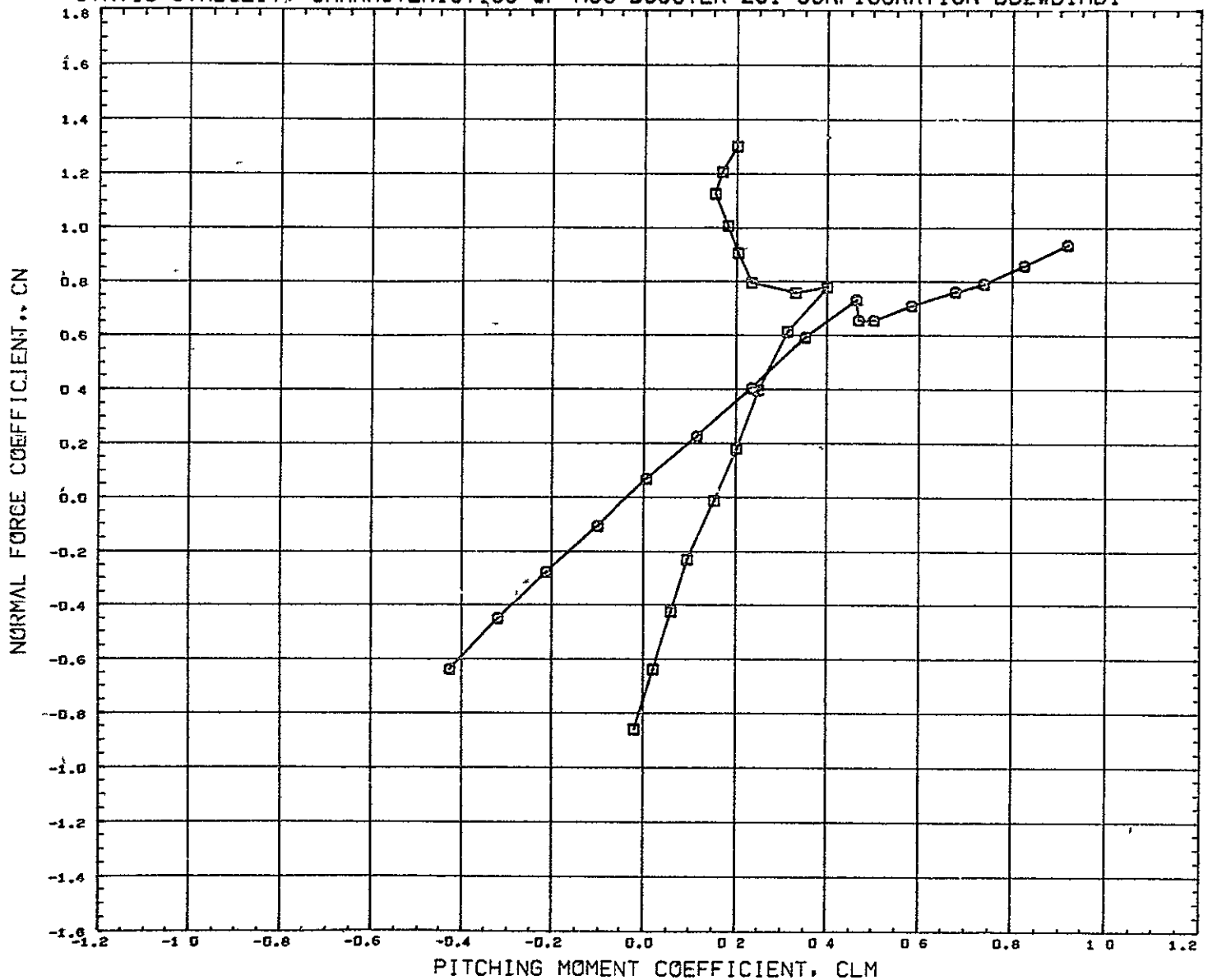
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064014) MSC S-XXIV BOOSTER 251 BB2WB1
 (064017) MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



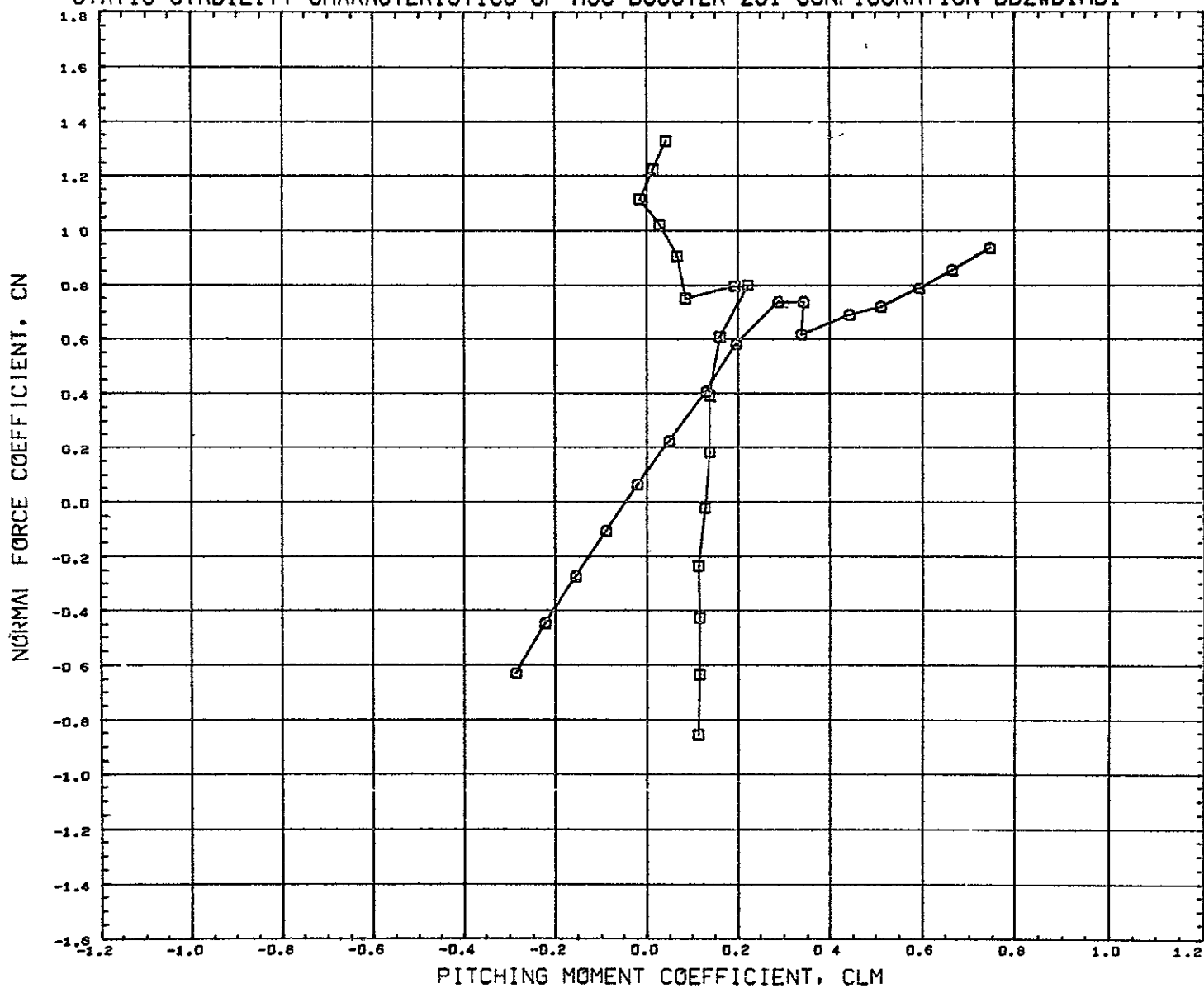
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 (064014) □ MSC S-XXIV BOOSTER 251 BB2WB1
 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT
 5

CBRW 0.640

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



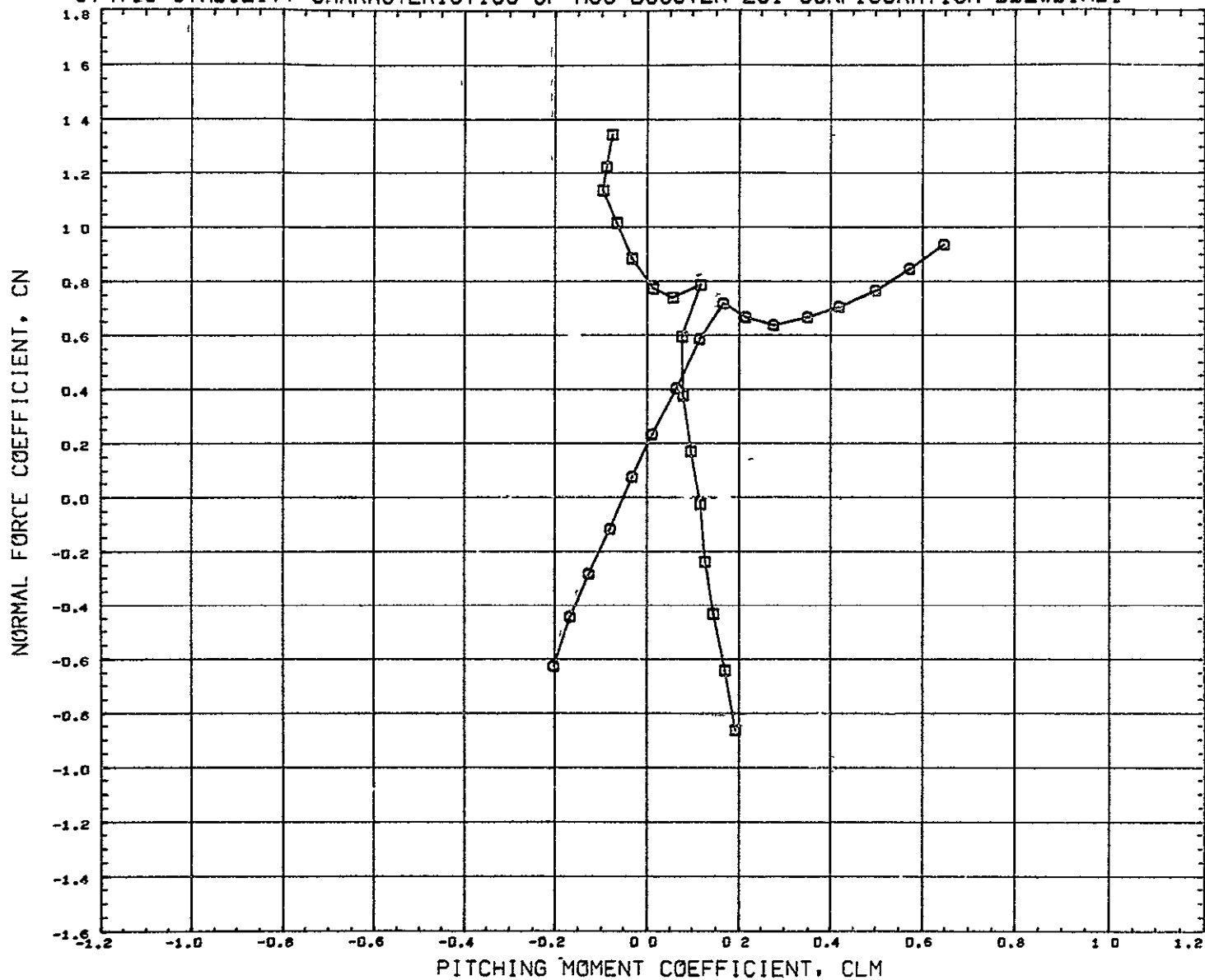
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 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



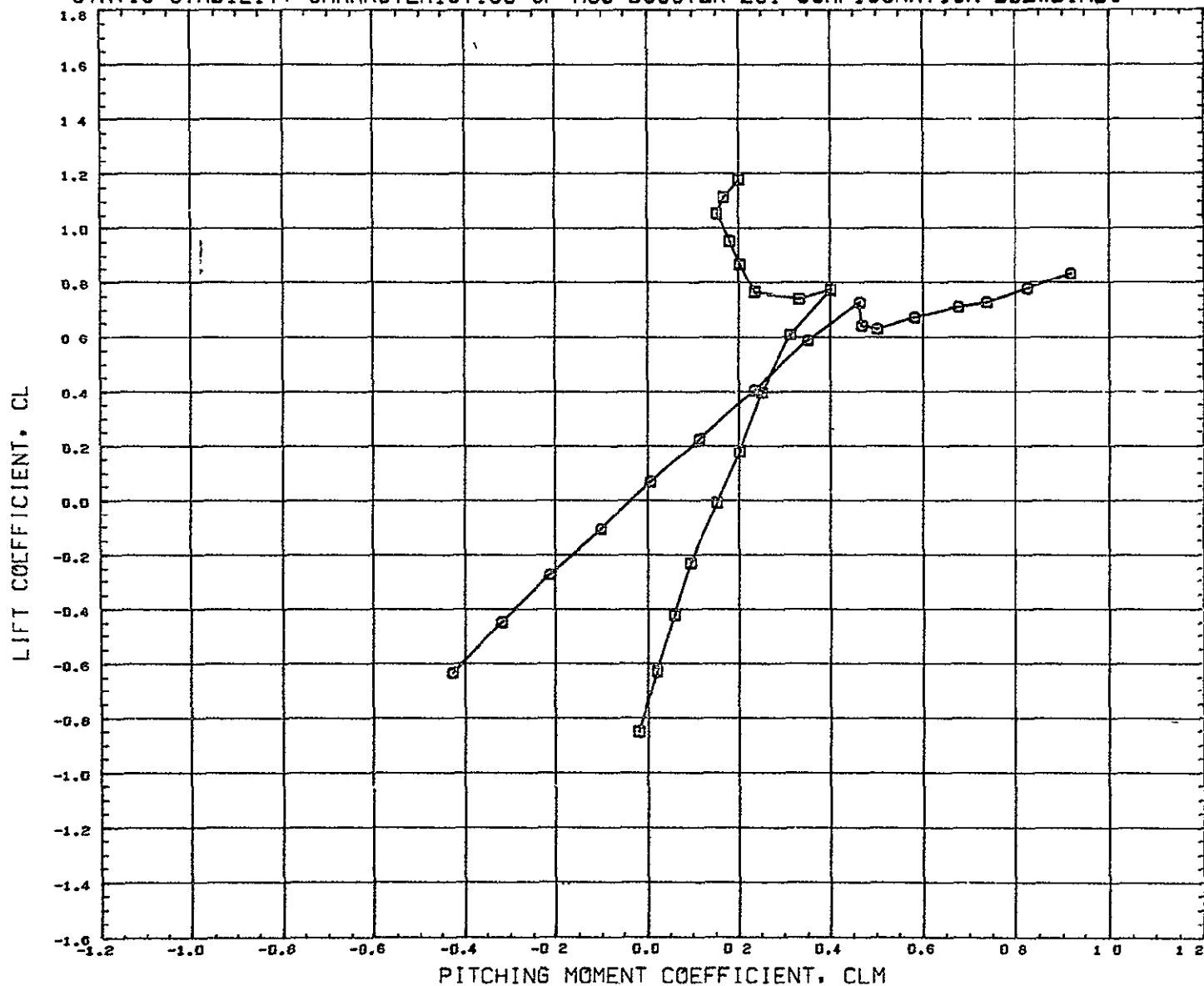
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 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



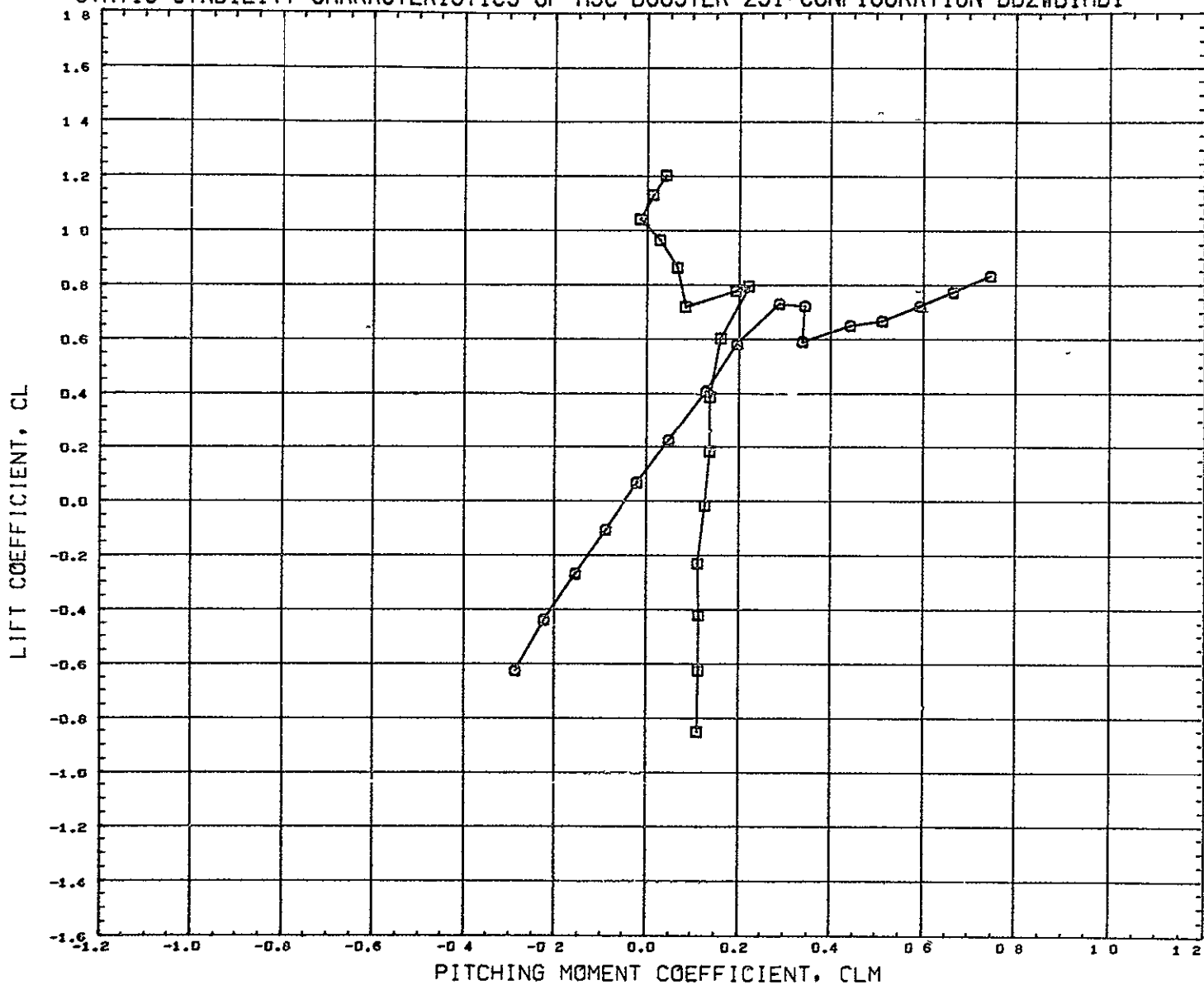
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 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT 2B
 SCALE 1 3215 FCT

CBRW 0 640

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



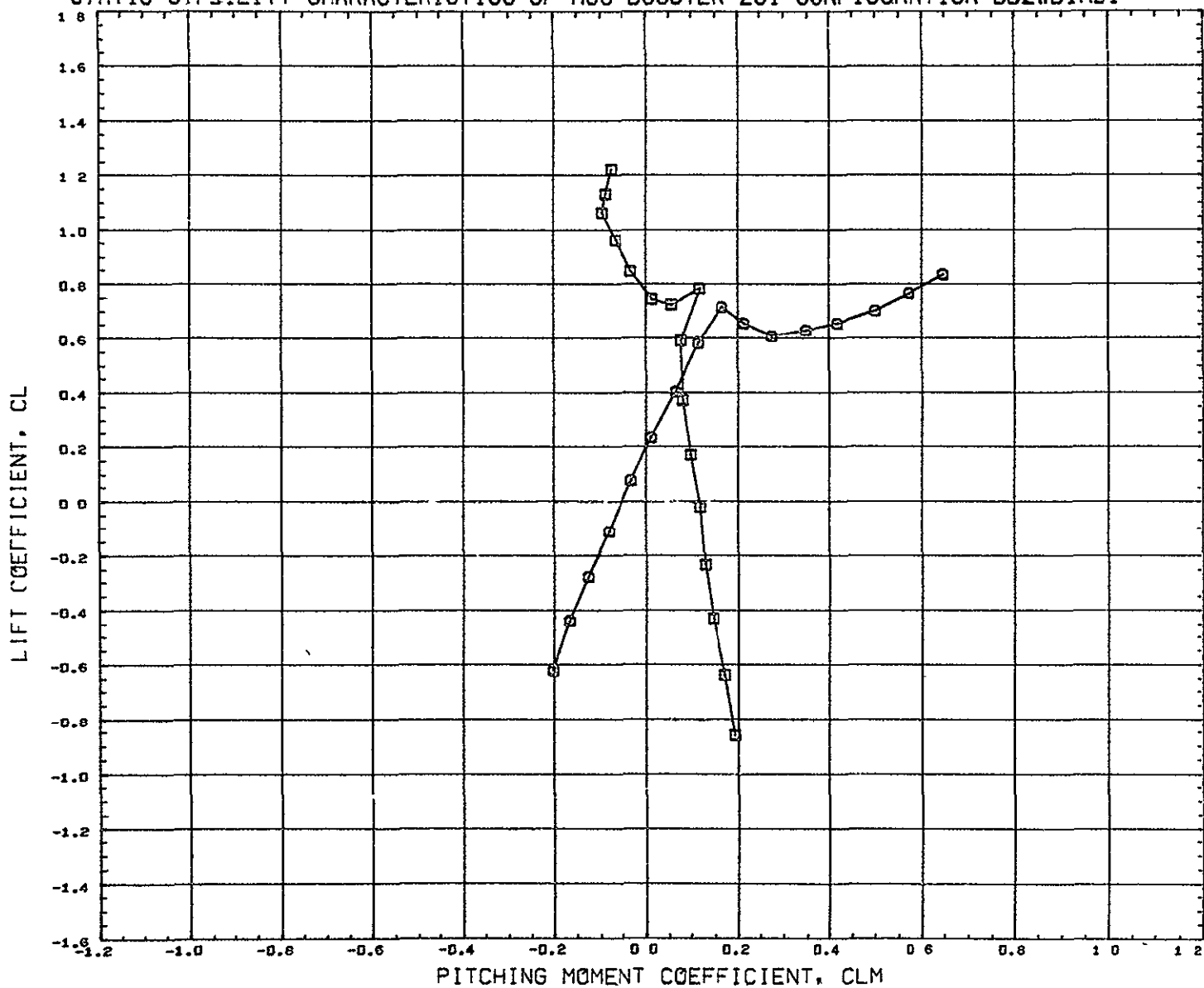
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 (064014) C MSC S-XXIV BOOSTER 251 BB2WB1
 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRP 65 0000 PCT LB
 YHRP 0 0000
 ZHRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



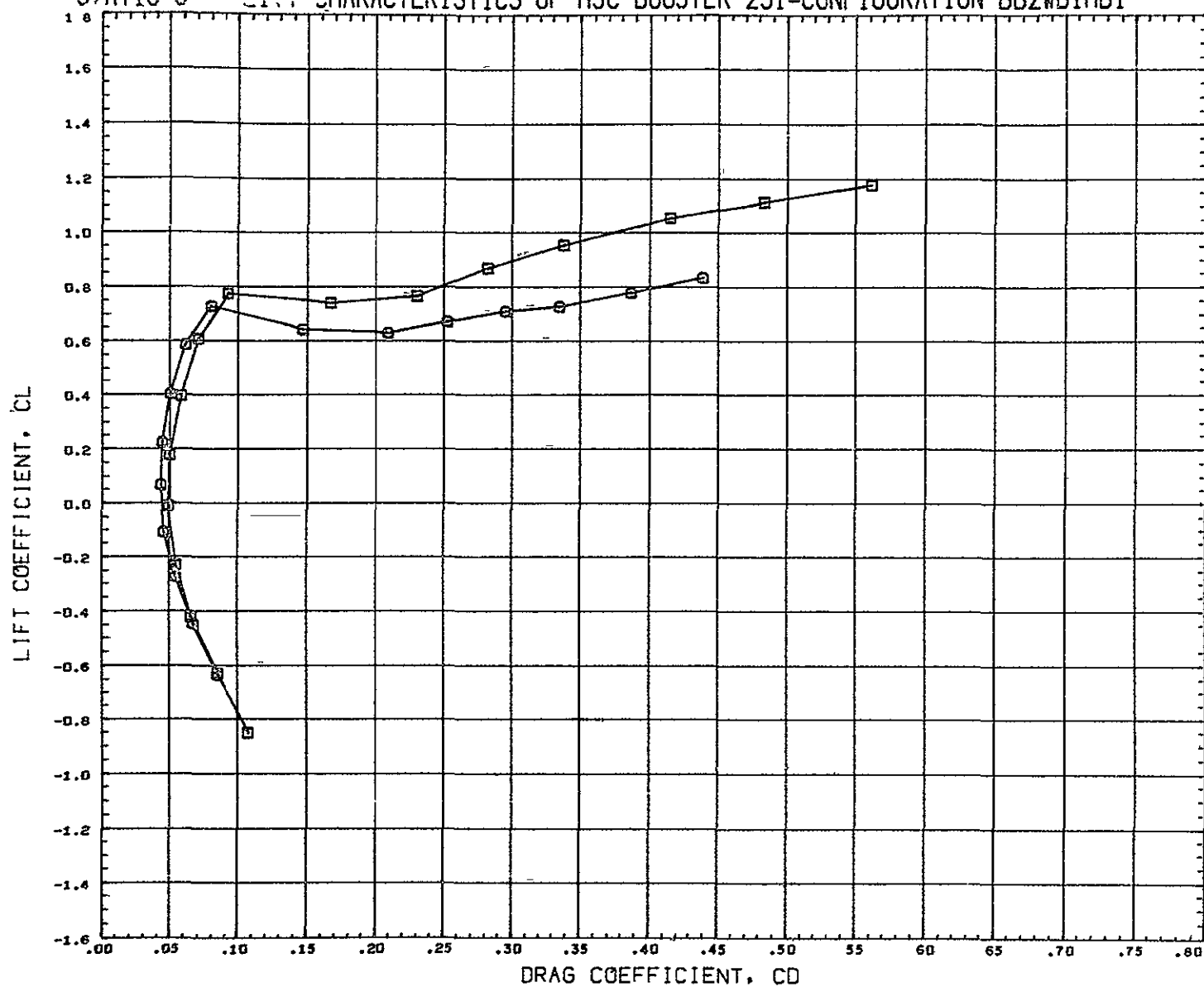
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 (064017) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 700

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



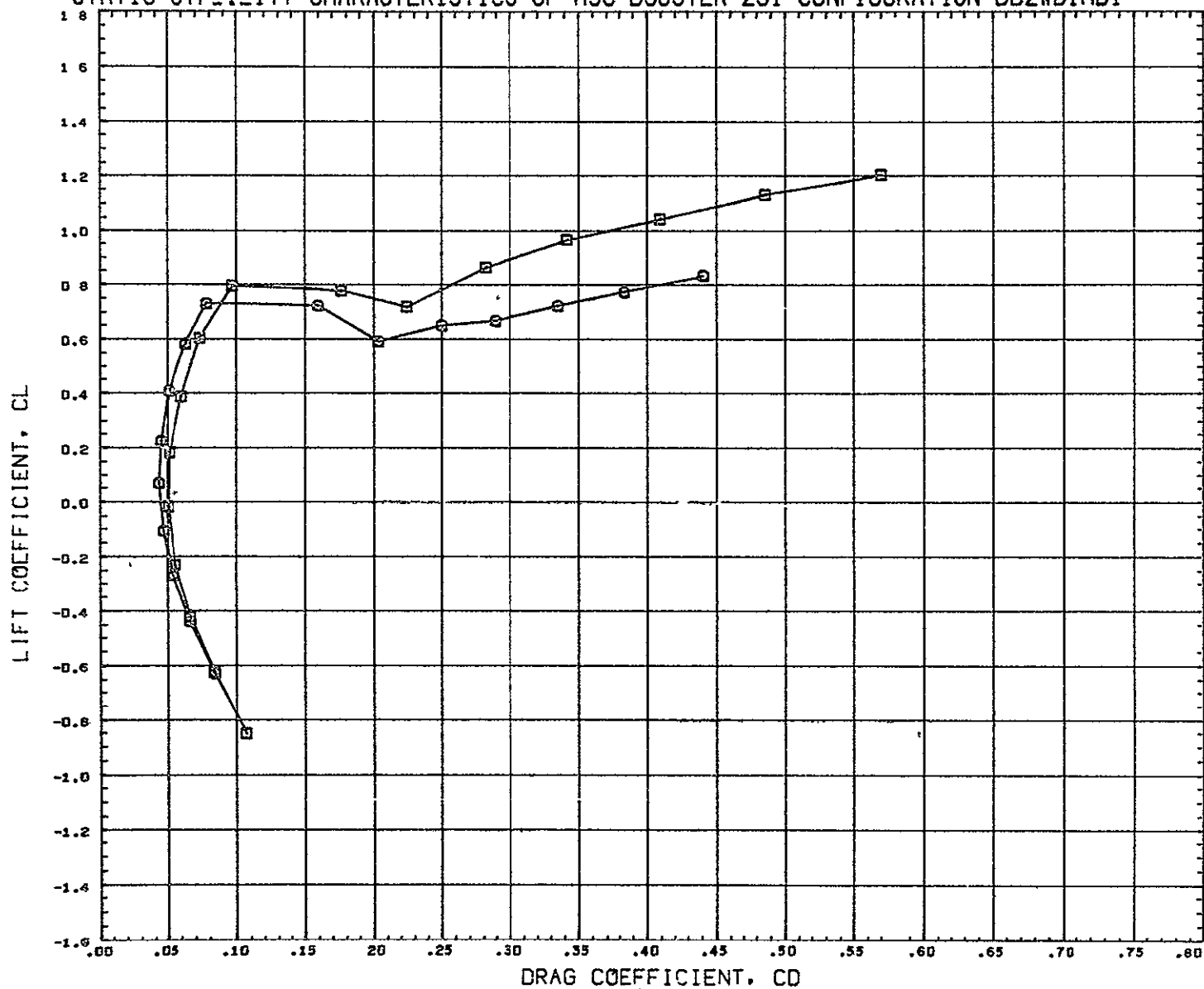
DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (064015) □ MSC S-XXIV BOOSTER 251 BB2WB1HB1

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67.5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.640

STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064014) MSC S-XXIV BOOSTER 251 BB2WB1
 (064017) MSC S-XXIV BOOSTER 251 BB2WB1HB1

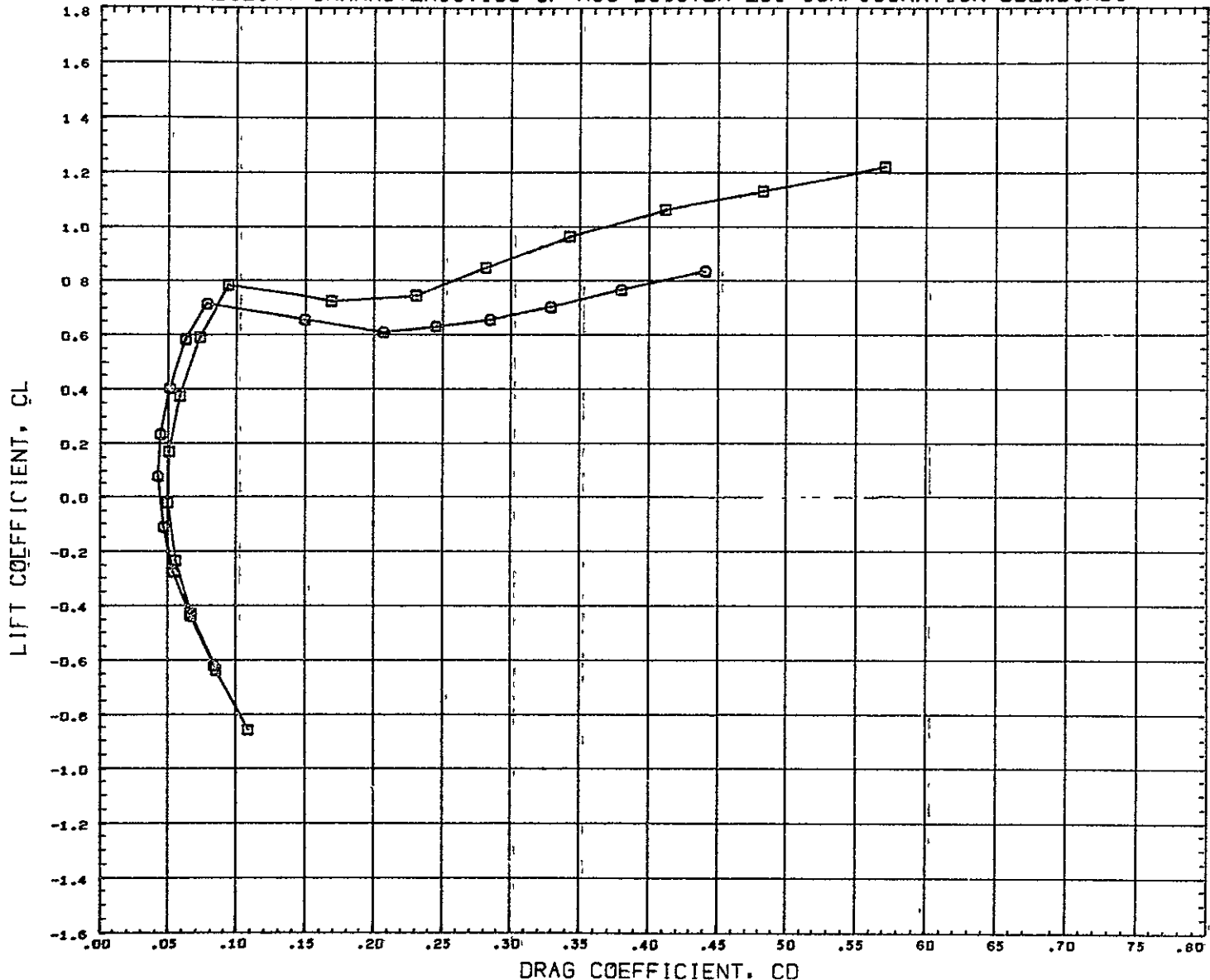
PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.670



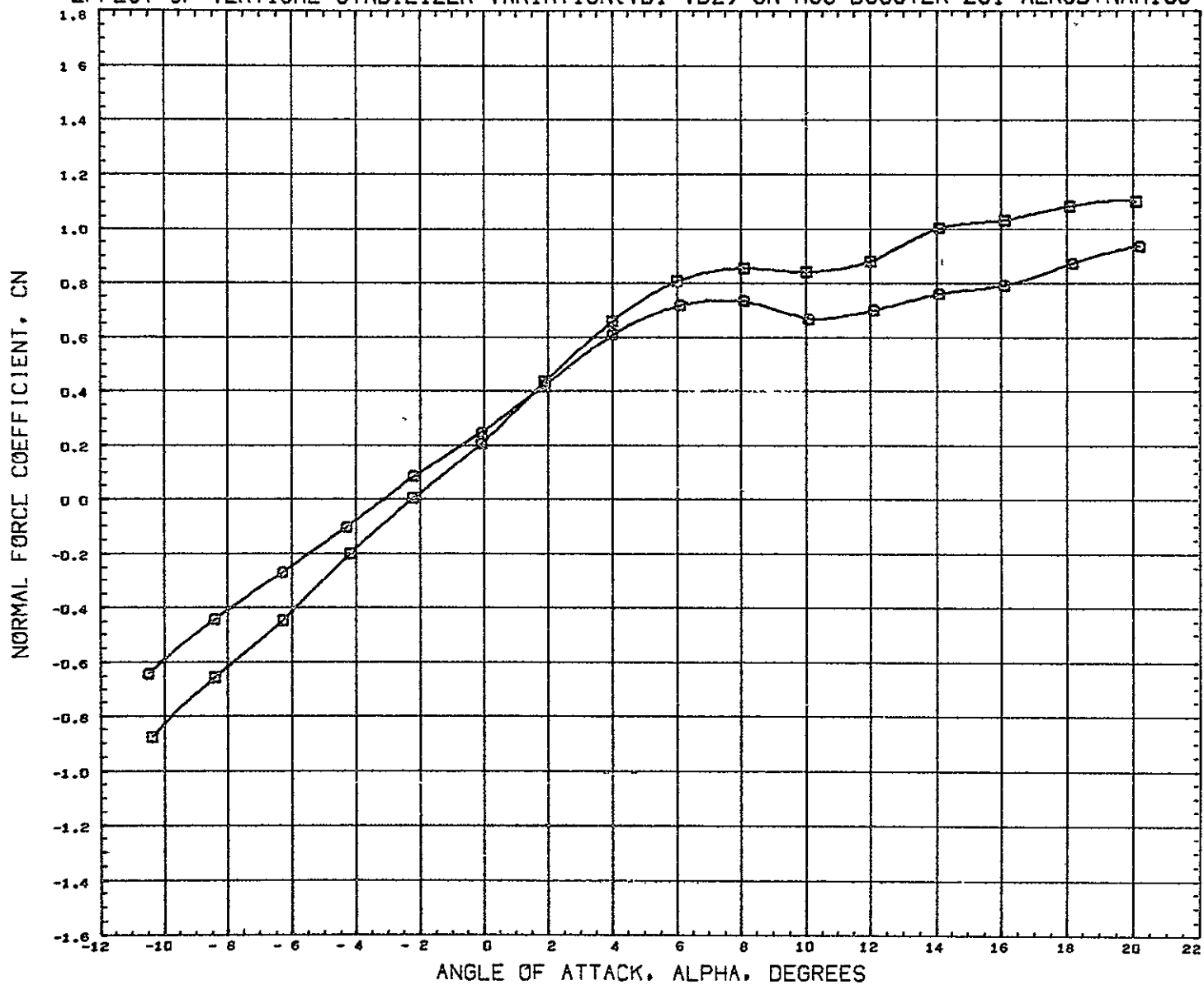
STATIC STABILITY CHARACTERISTICS OF MSC BOOSTER 251-CONFIGURATION BB2WB1HB1



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		PARAMETRIC VALUES			REFERENCE INFORMATION		
(064014)	□	MSC S-XXIV BOOSTER 251	BB2WB1	BETA	0.000	MACH	0.250	REFS	0 8460 FT SQ
(064017)	□	MSC S-XXIV BOOSTER 251	BB2WB1HB1					REFL	0 3810 FT
								REFB	2 4630 FT
								XMRP	65 0000 PCT LB
								YMRP	0 0000
								ZMRP	67 5500 PCT ZB
								SCALE	1 3215 PCT

CBRW 0.700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



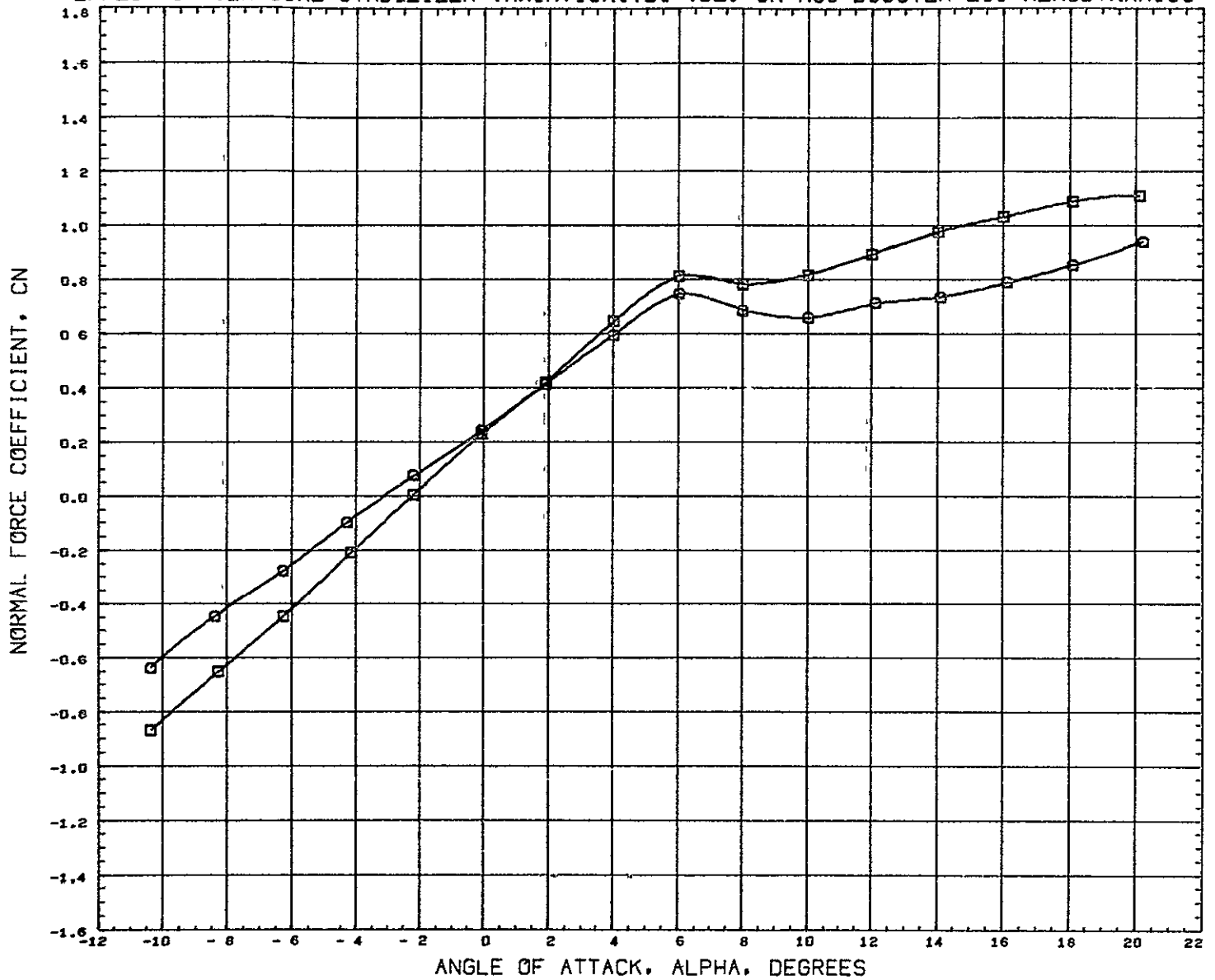
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (004015) □ MSC S-XXIV BOOSTER 251 882WB1VB1
 (004016) □ MSC S-XXIV BOOSTER 251 882WB1VB2

PARAMETRIC VALUES
 REFLTA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



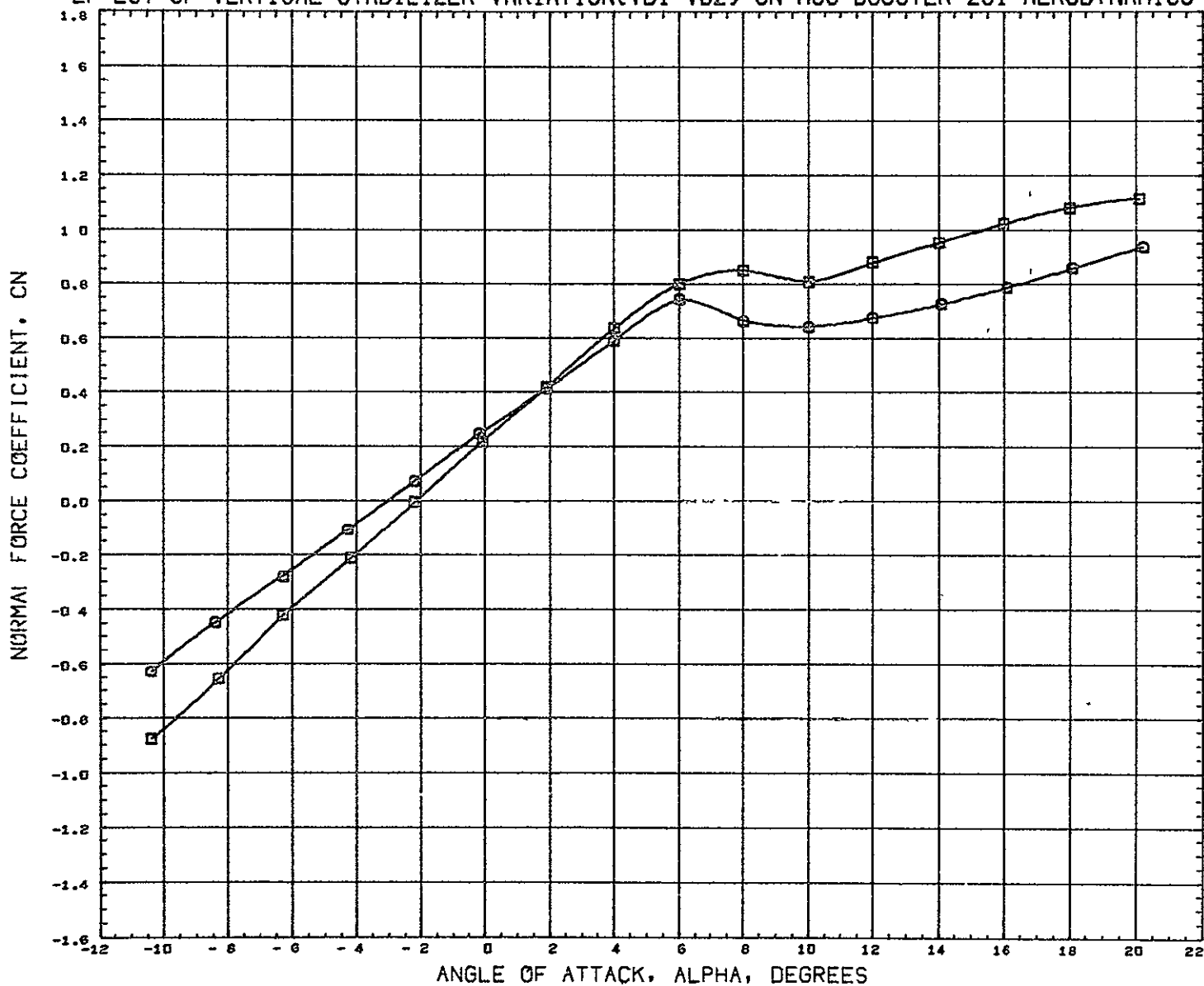
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (QC4015) ○ MSC S-XXIV BOOSTER 251 852WB1VB1
 (QC4016) □ MSC S-XXIV BOOSTER 251 852WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



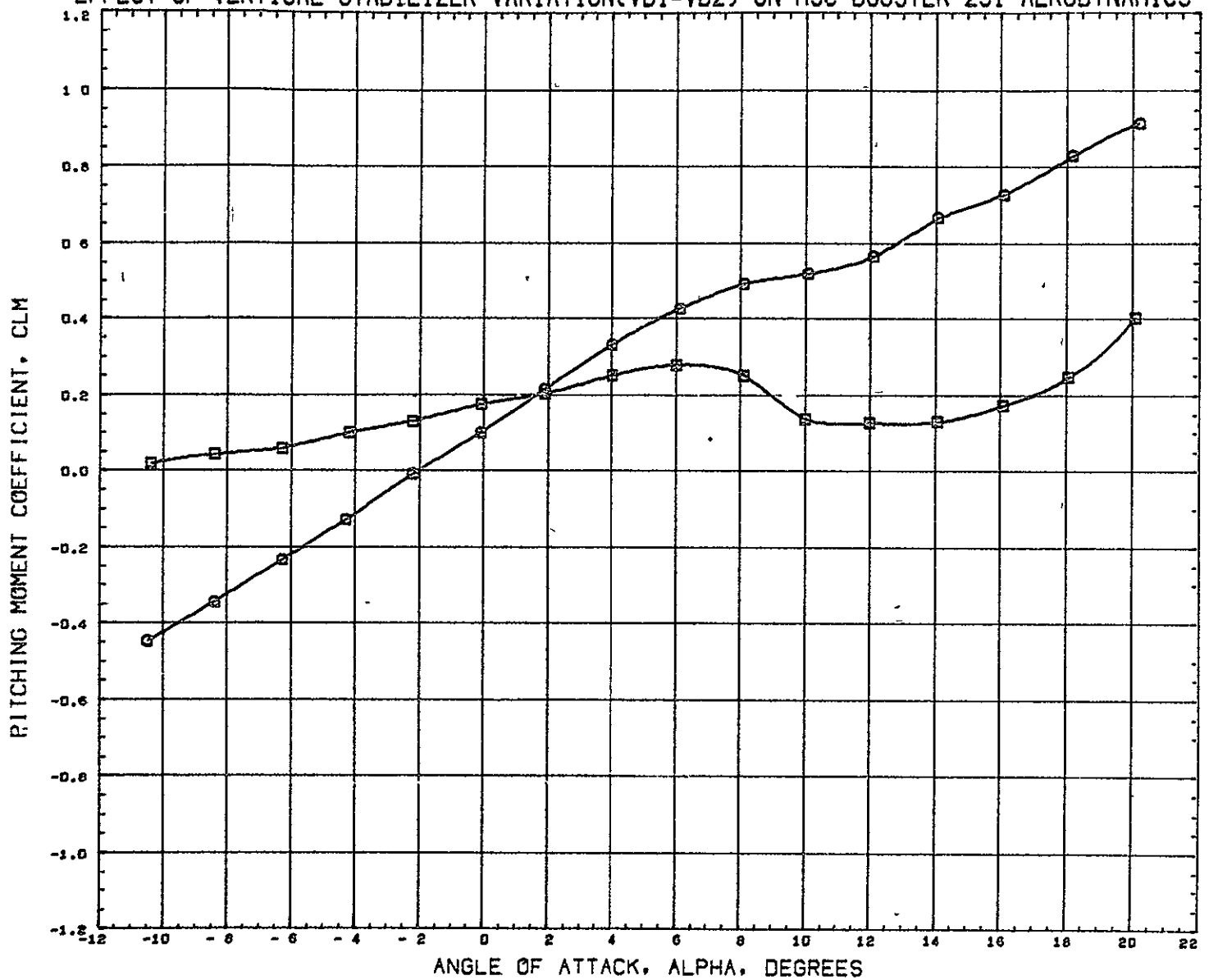
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (864015) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (864016) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0.0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



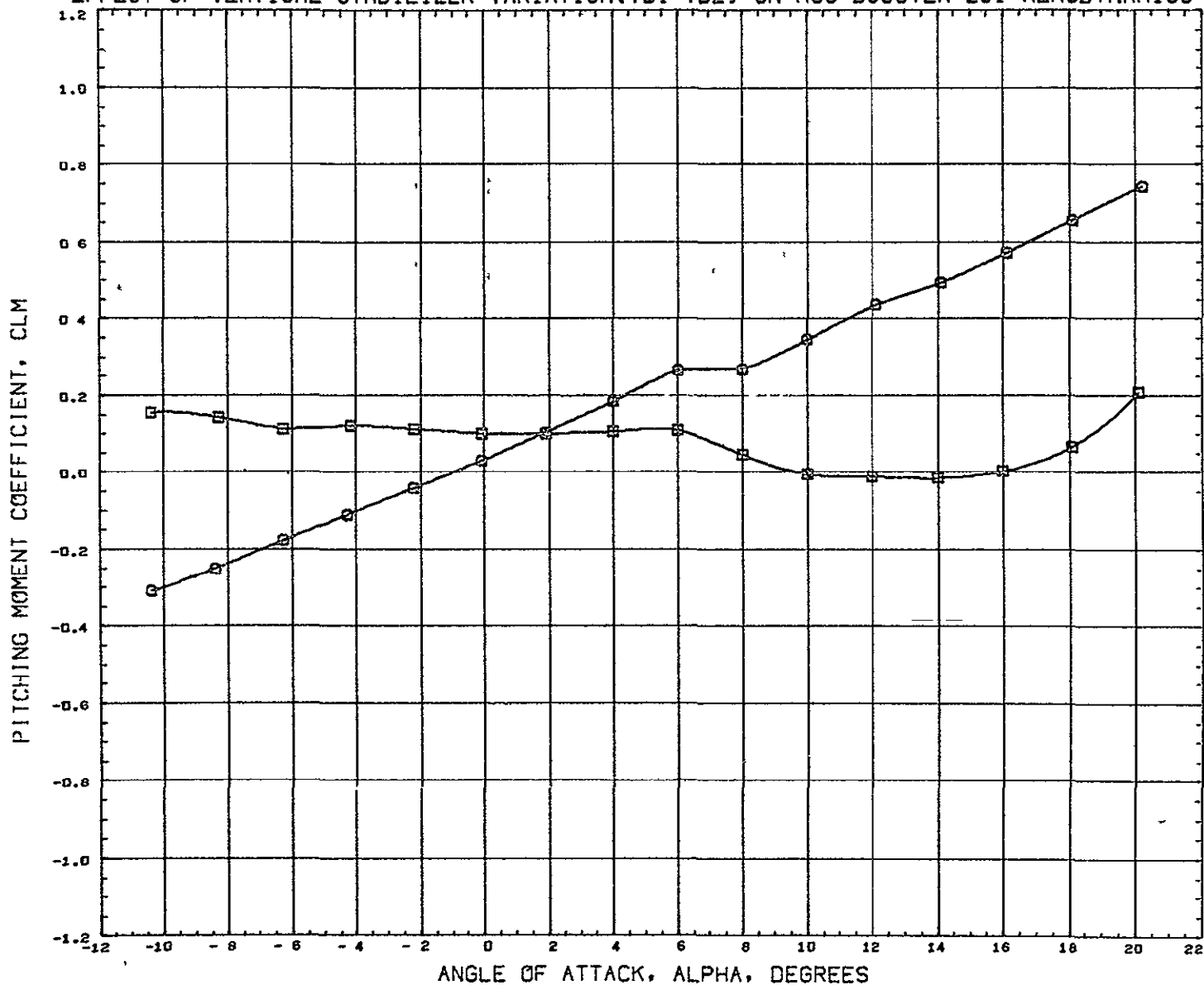
DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (064018) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT_V

CBRW 0.640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



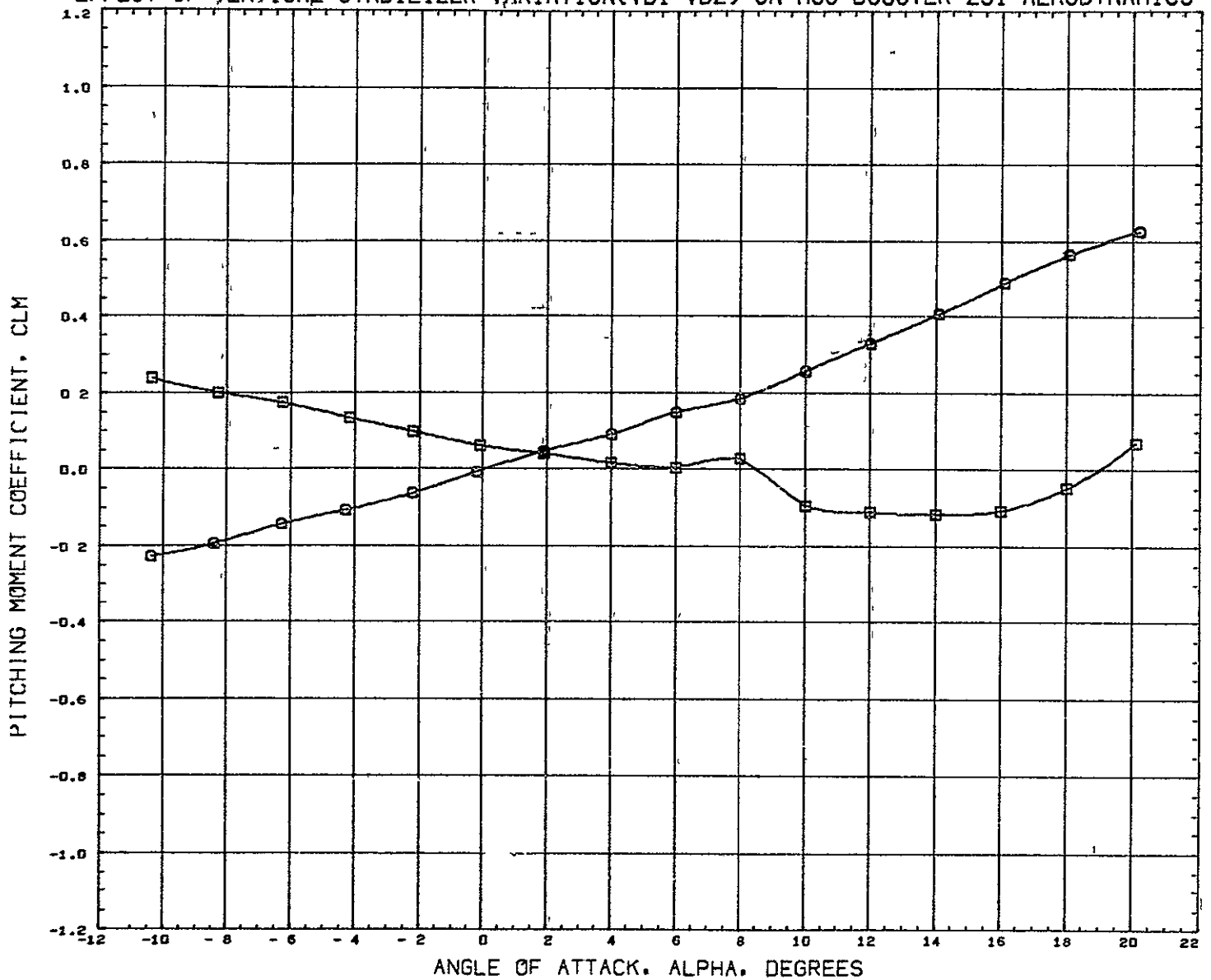
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064016) MSC S-VXIV BOOSTER 251 BB2WB1VB1
 (064016) MSC S-VXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT 2B
 SCALE 1 3215 PCT

CBRW 0.670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



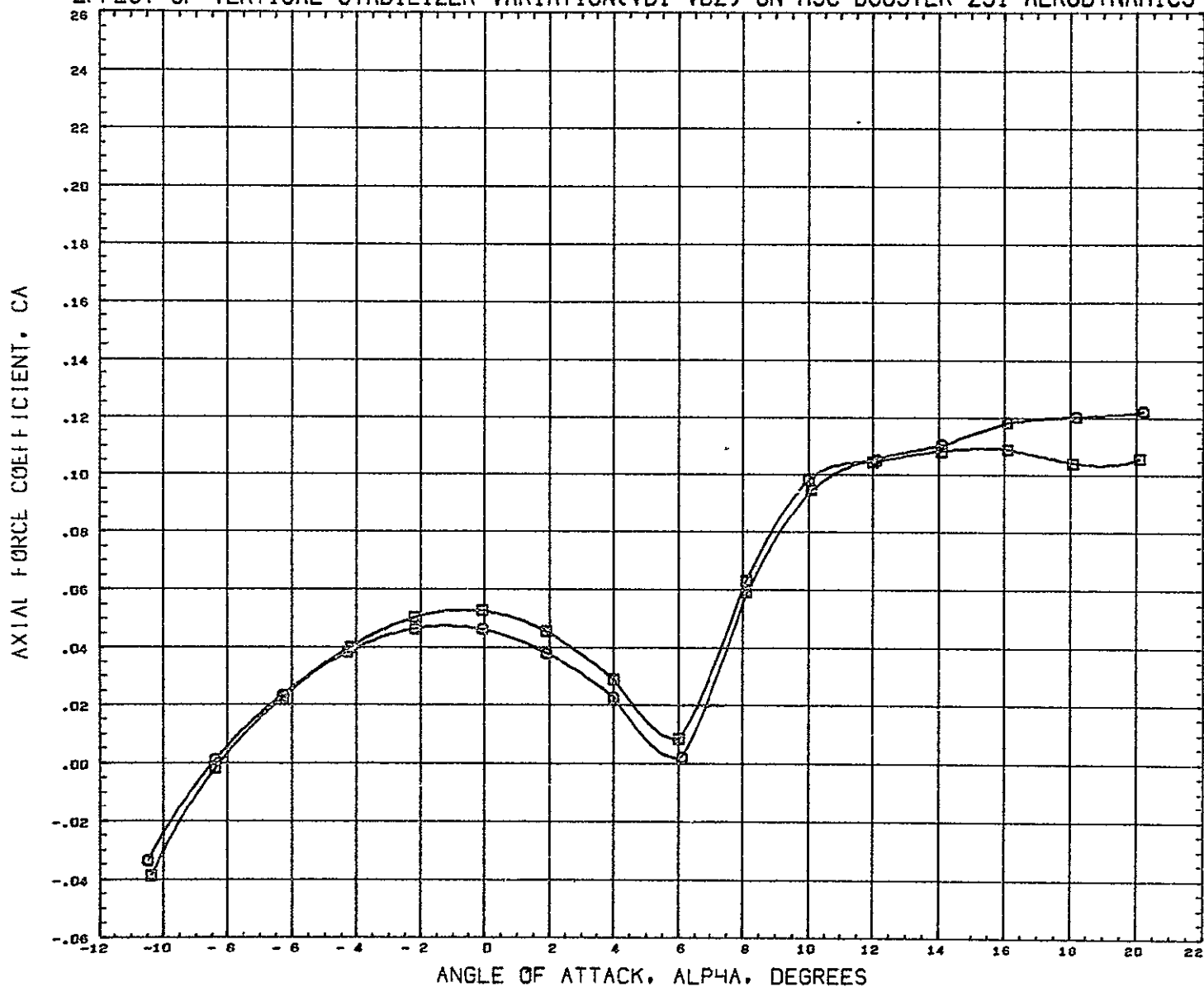
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064015) ○ MSC S-XXIV BOOSTER 251 B82W81VB1
 (064016) □ MSC S-XXIV BOOSTER 251 B82W81VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



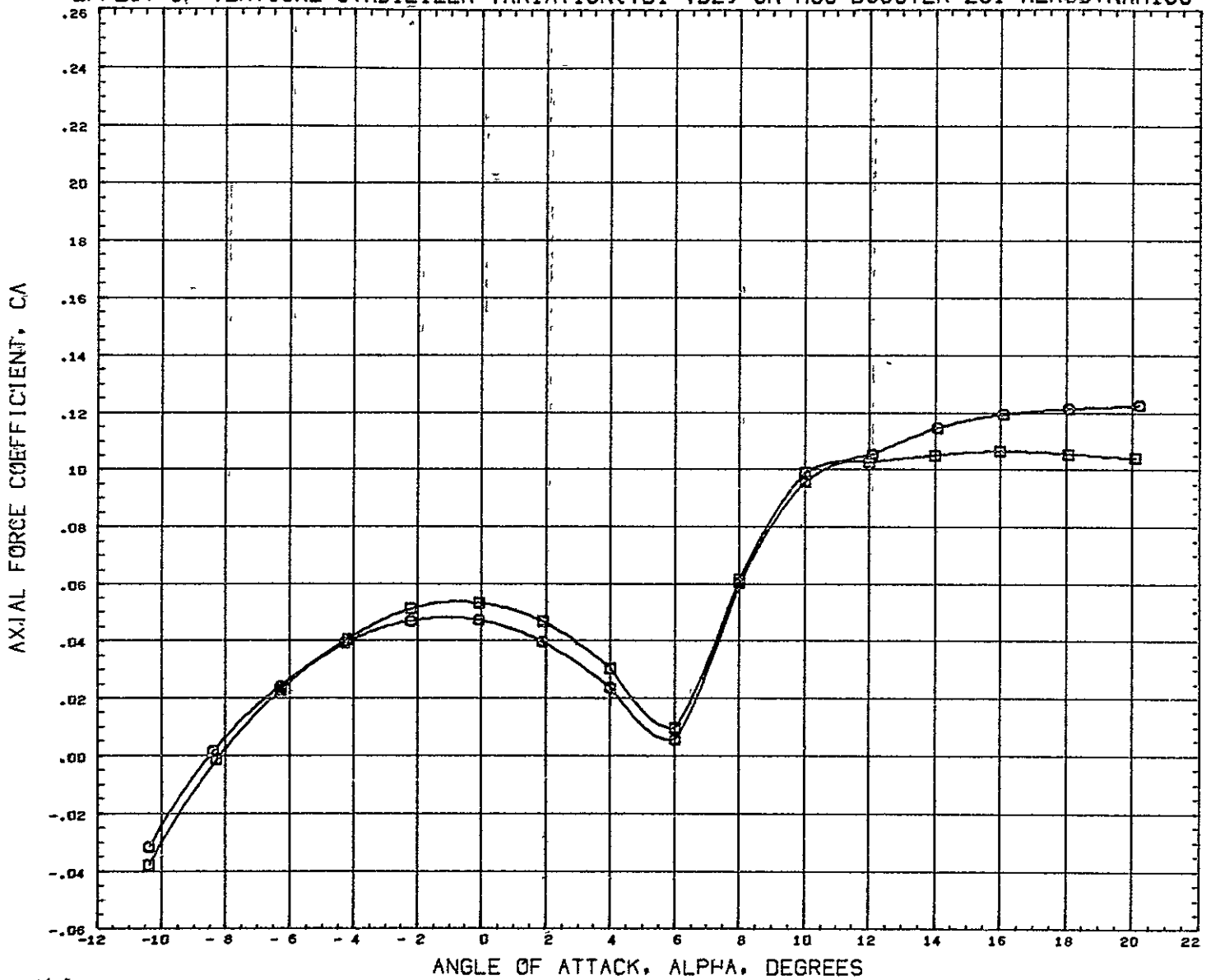
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 (QC4016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



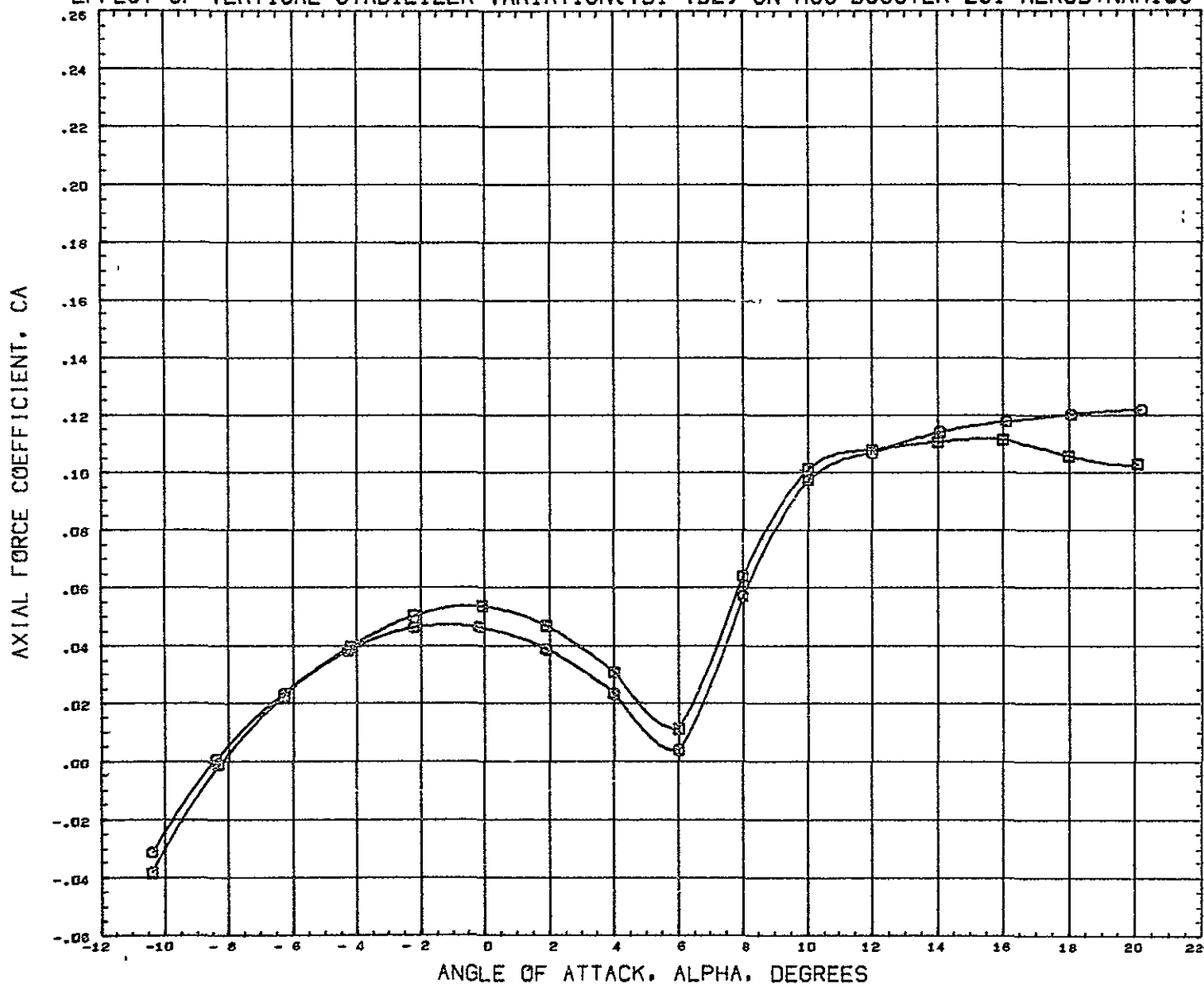
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PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SR
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT ILB
 YMRP 0 0000
 ZMRP 67 5500 PCT 2B
 SCALE 1 3215 PCT

CBRW 0.670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



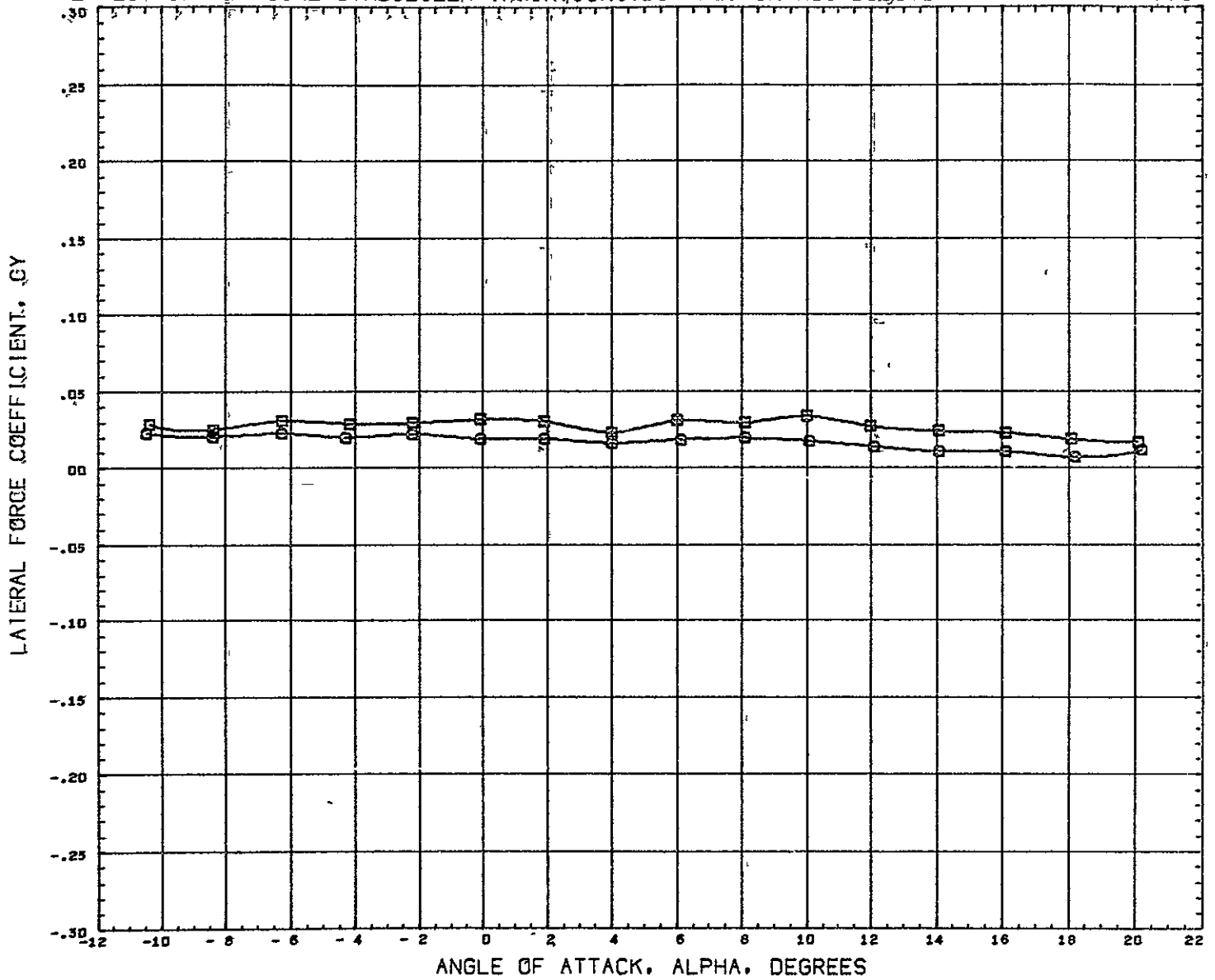
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 (004016) □ MSC 3-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRF 65 0000 PCT LB
 YMRF 0 0000
 ZMRF 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



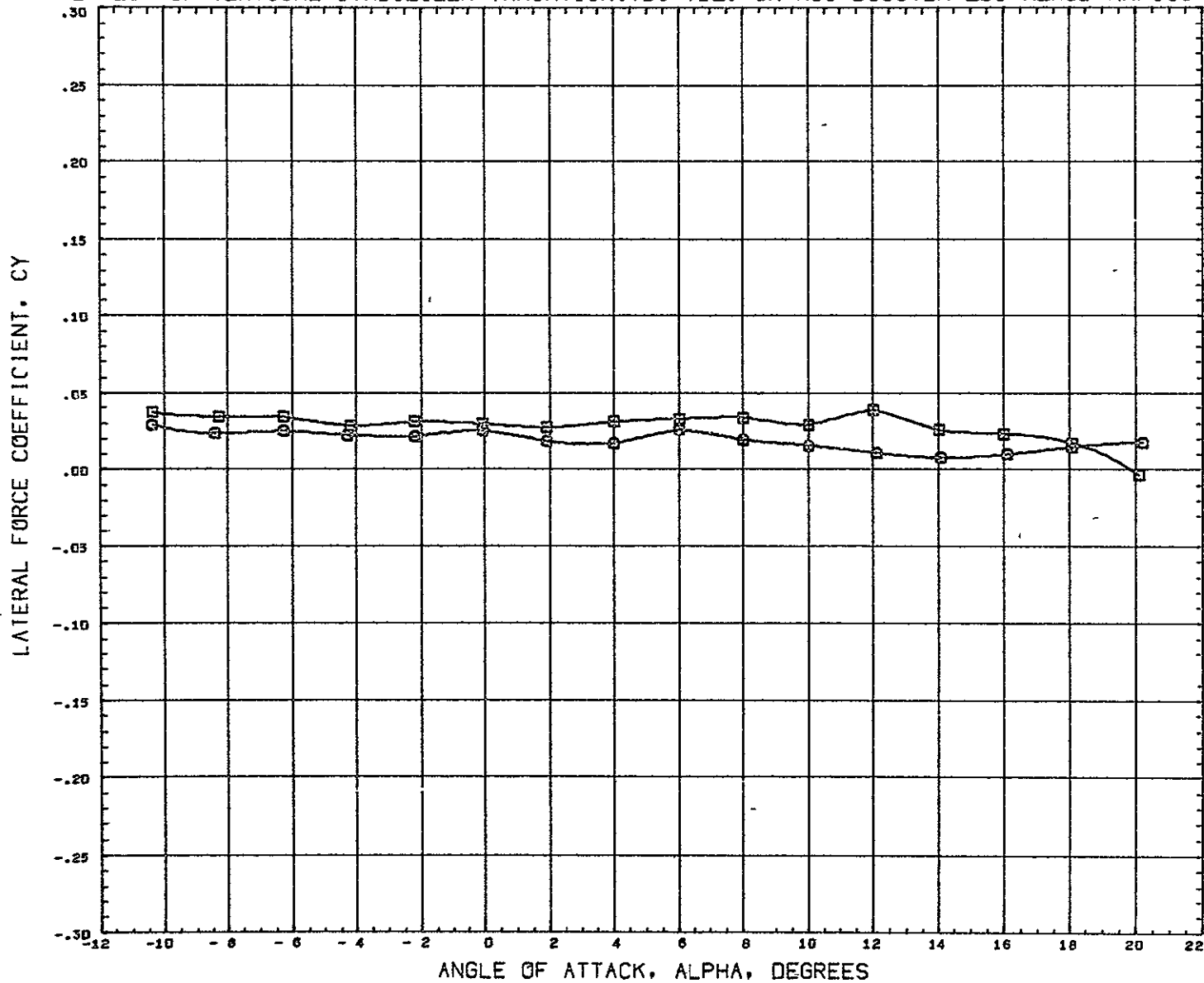
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 (004016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2.4830 FT
 XMRP 65 0000 PCT LB
 YMRP 0.0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



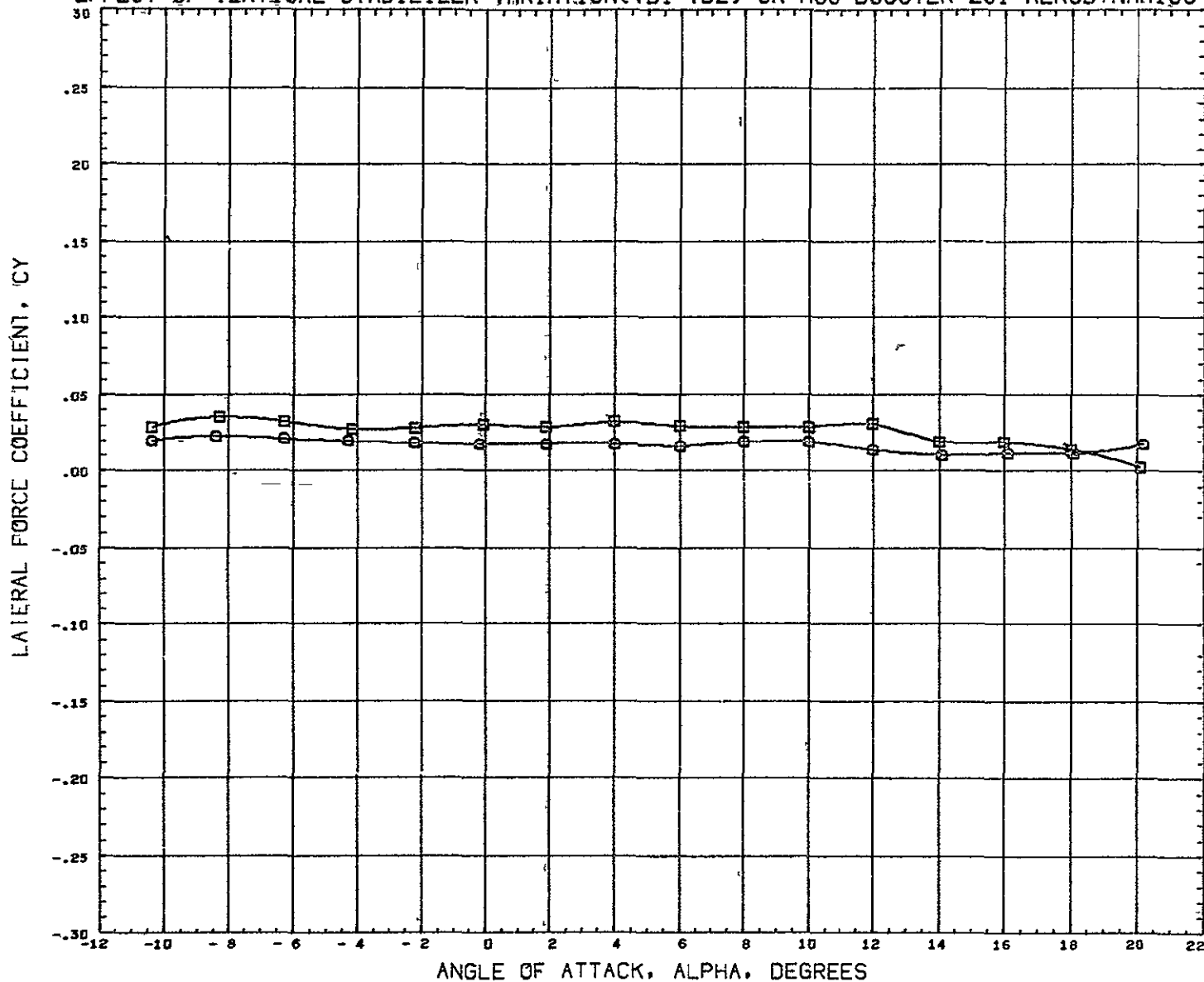
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 (QG4016) □ MSC S-XXIV BOOSTER 251 B82WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



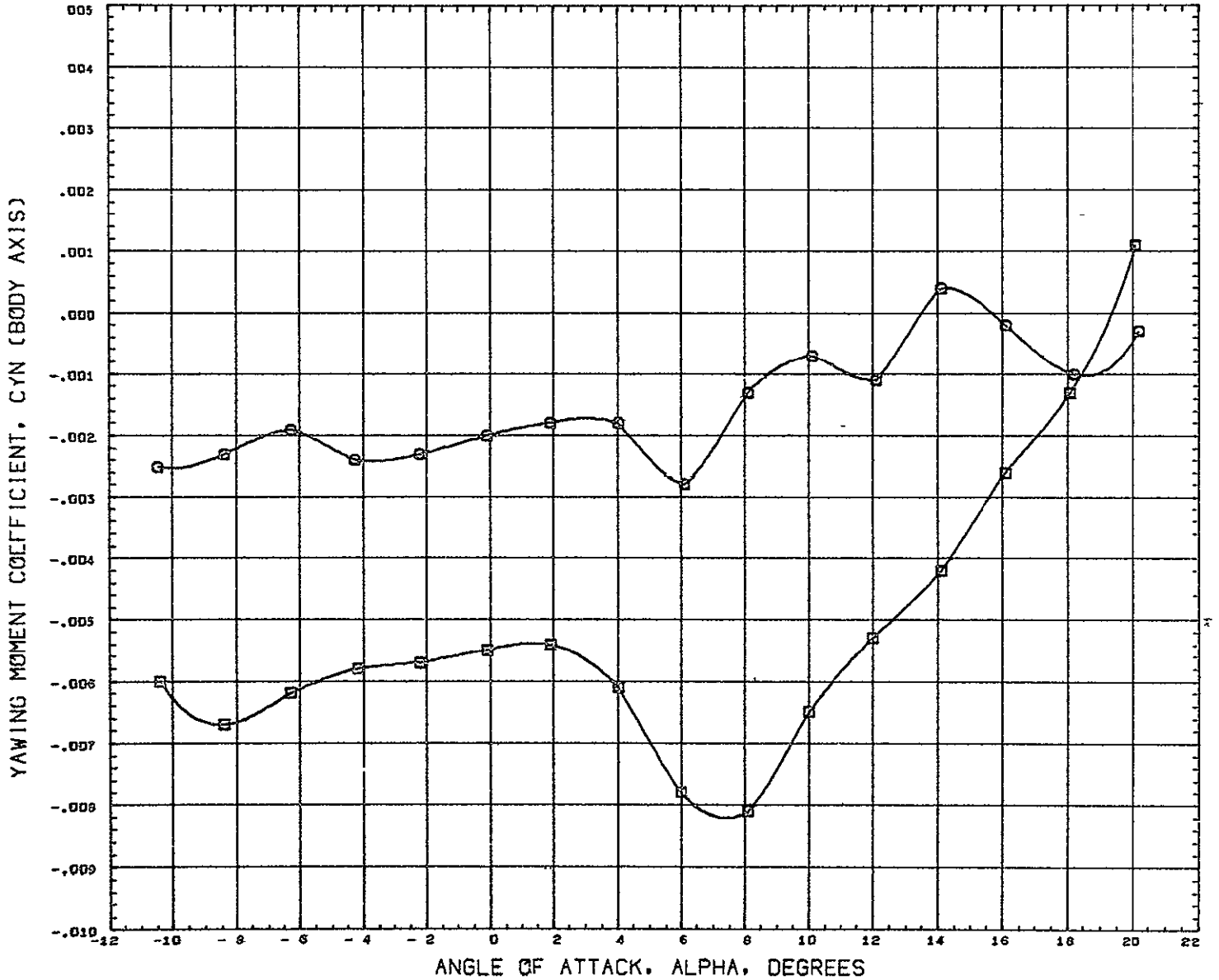
DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (064016) □ MSC S-XXIV BOOSTER 251 882WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



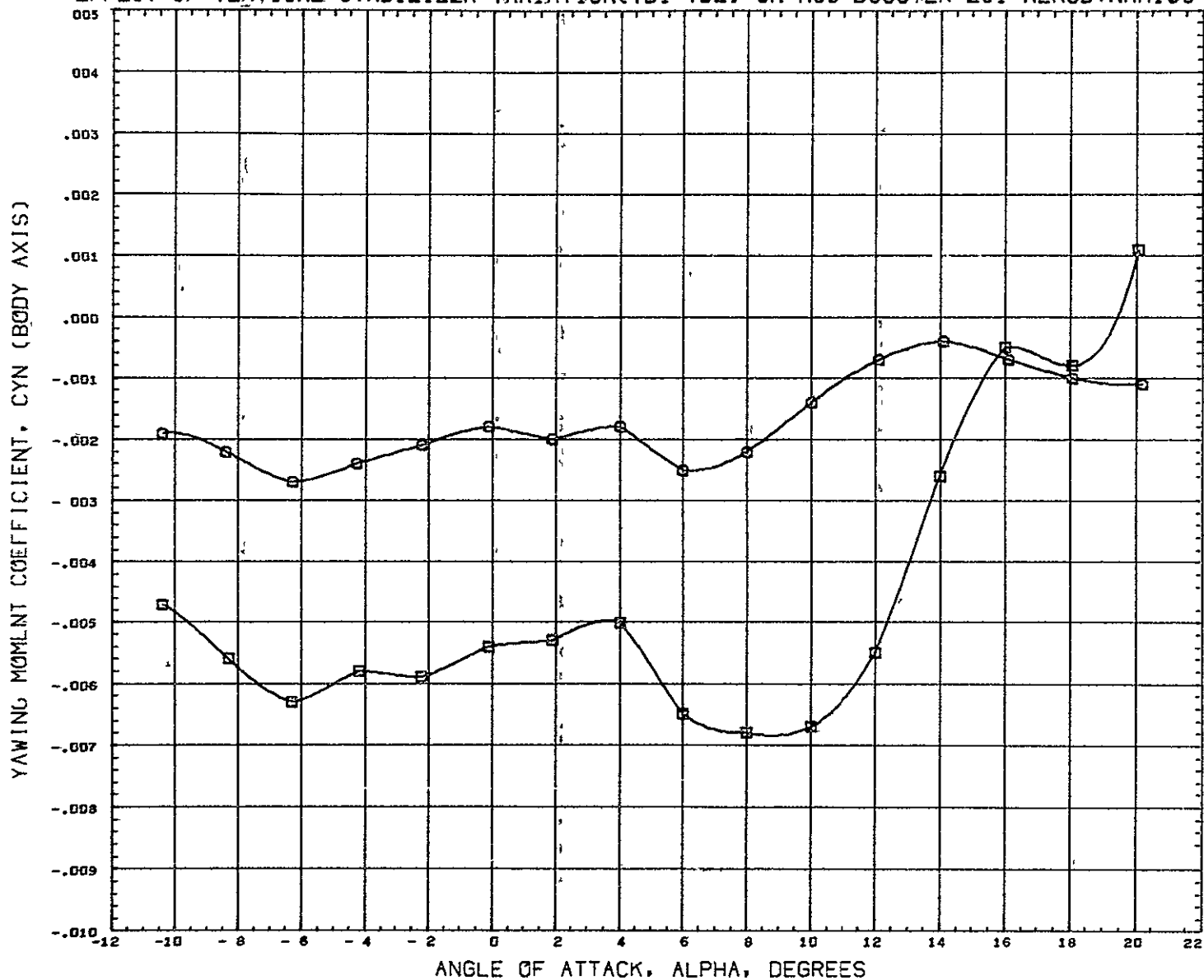
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 (004016) MSC S-XXIV BOOSTER 251 882WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



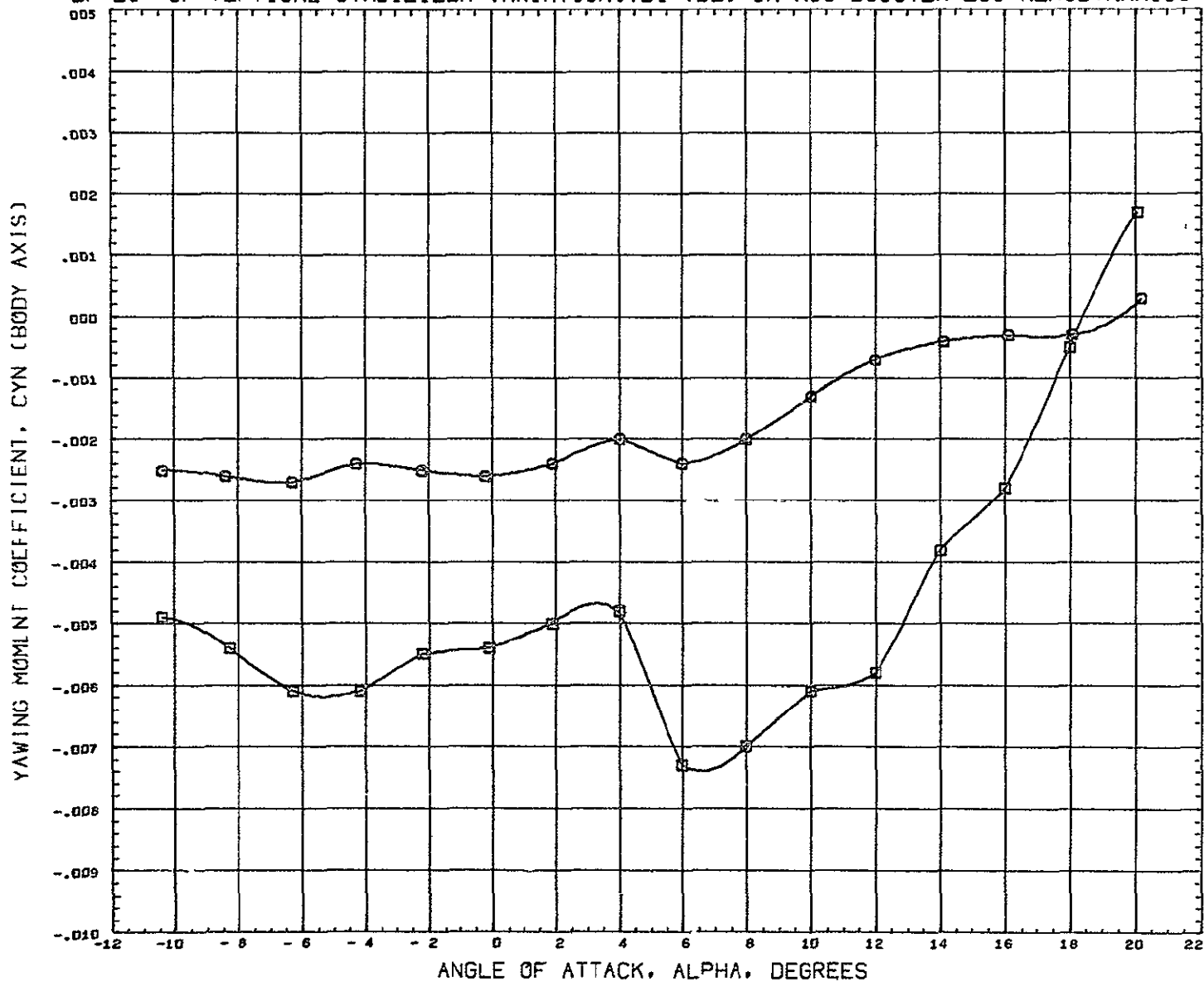
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 (Q64016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 FCT ZB
 SCALE 1 3215 FCT

CBRW 0.670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



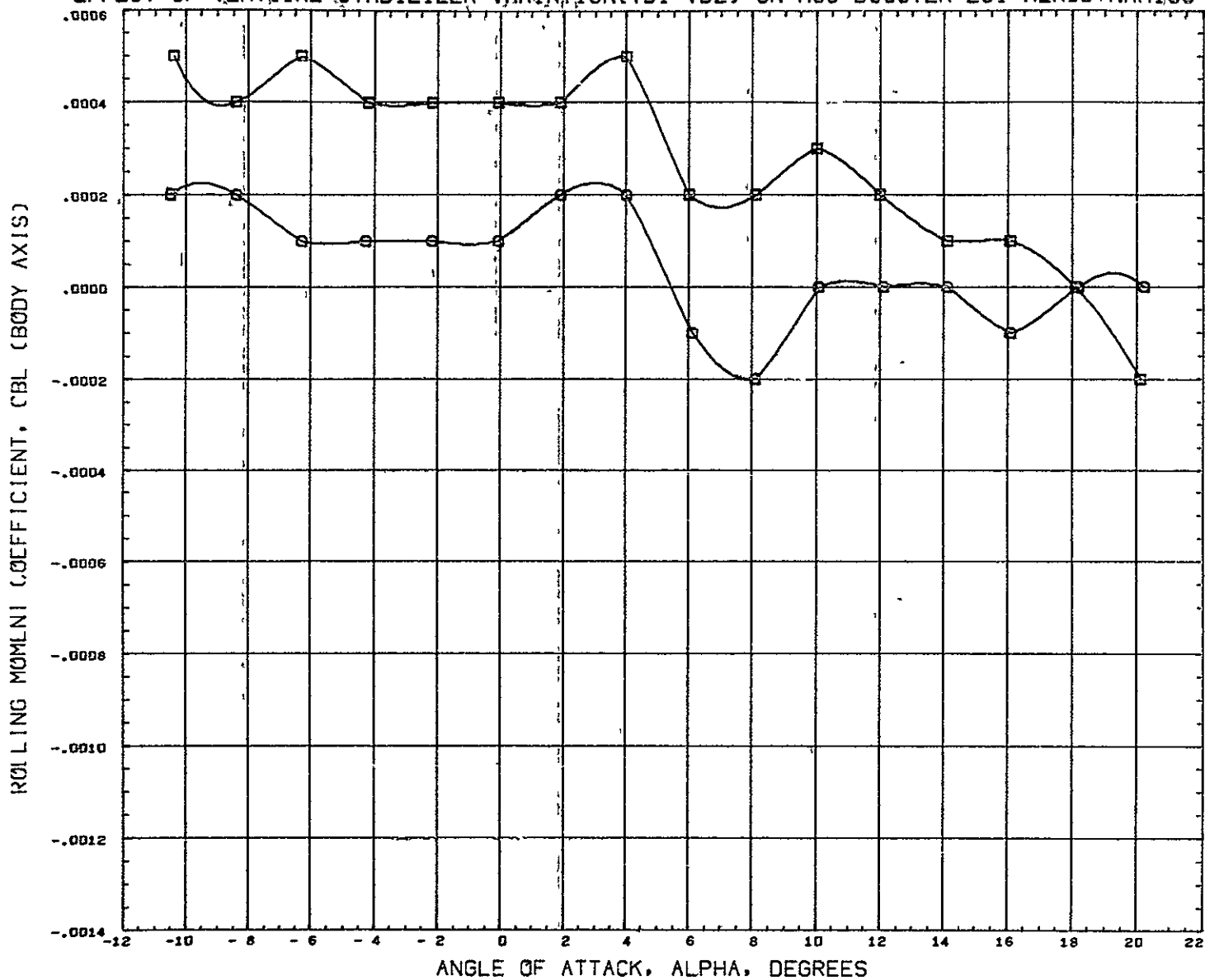
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 (004016) [] MSC S-XXIV BOOSTER 251 992WB1V32

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8450 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



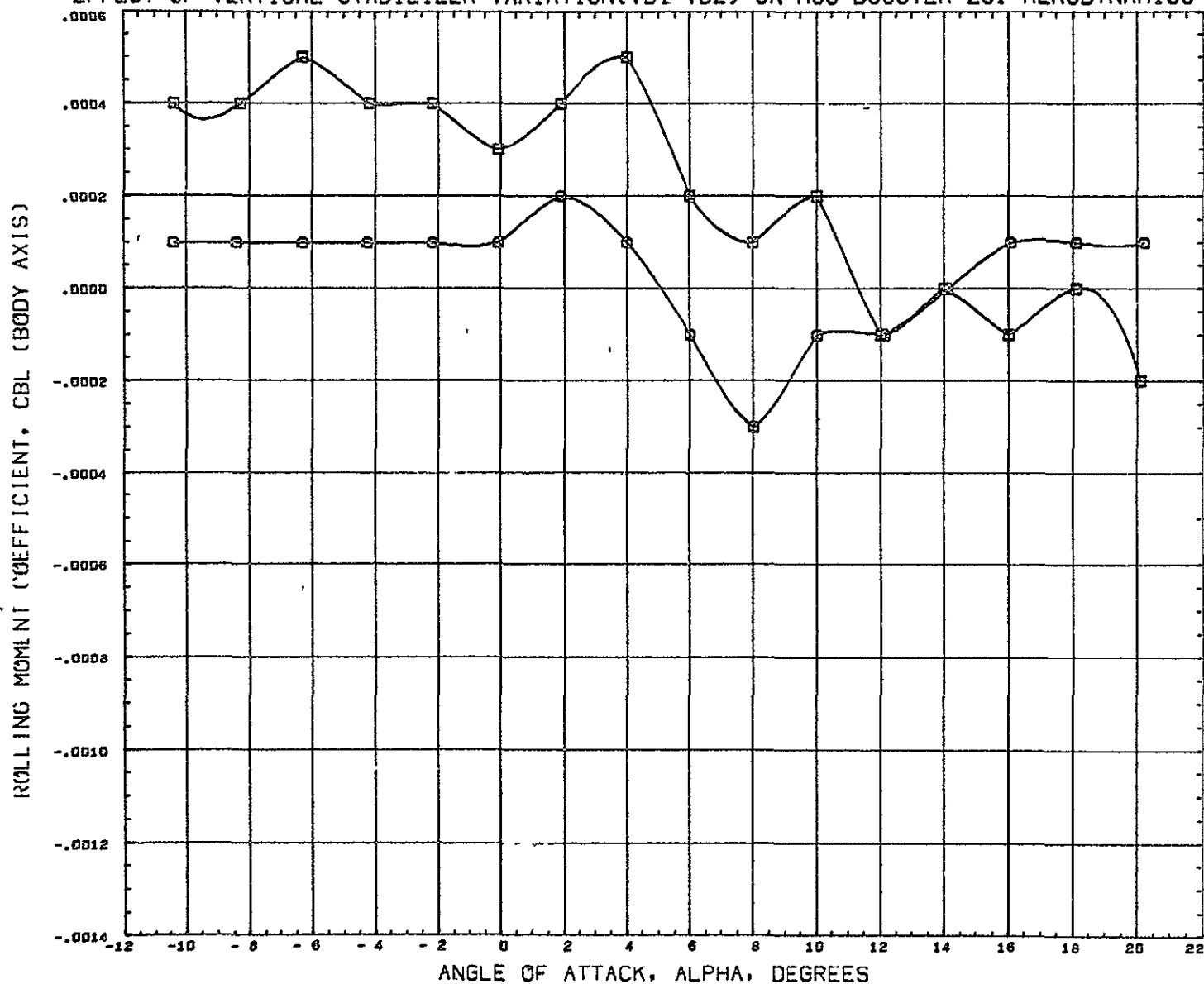
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 (QC4015) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (QC4016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



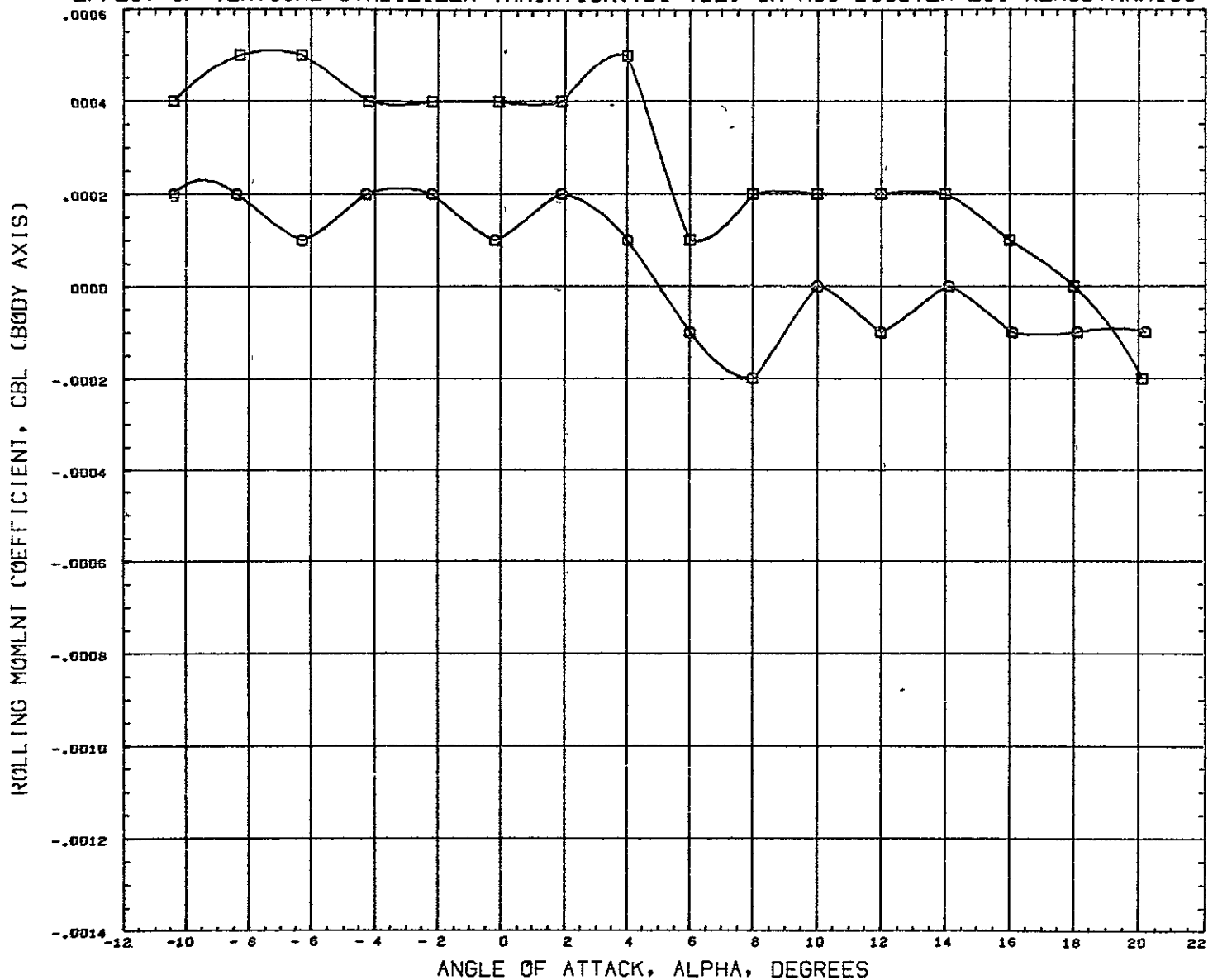
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064015) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (064016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5000 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



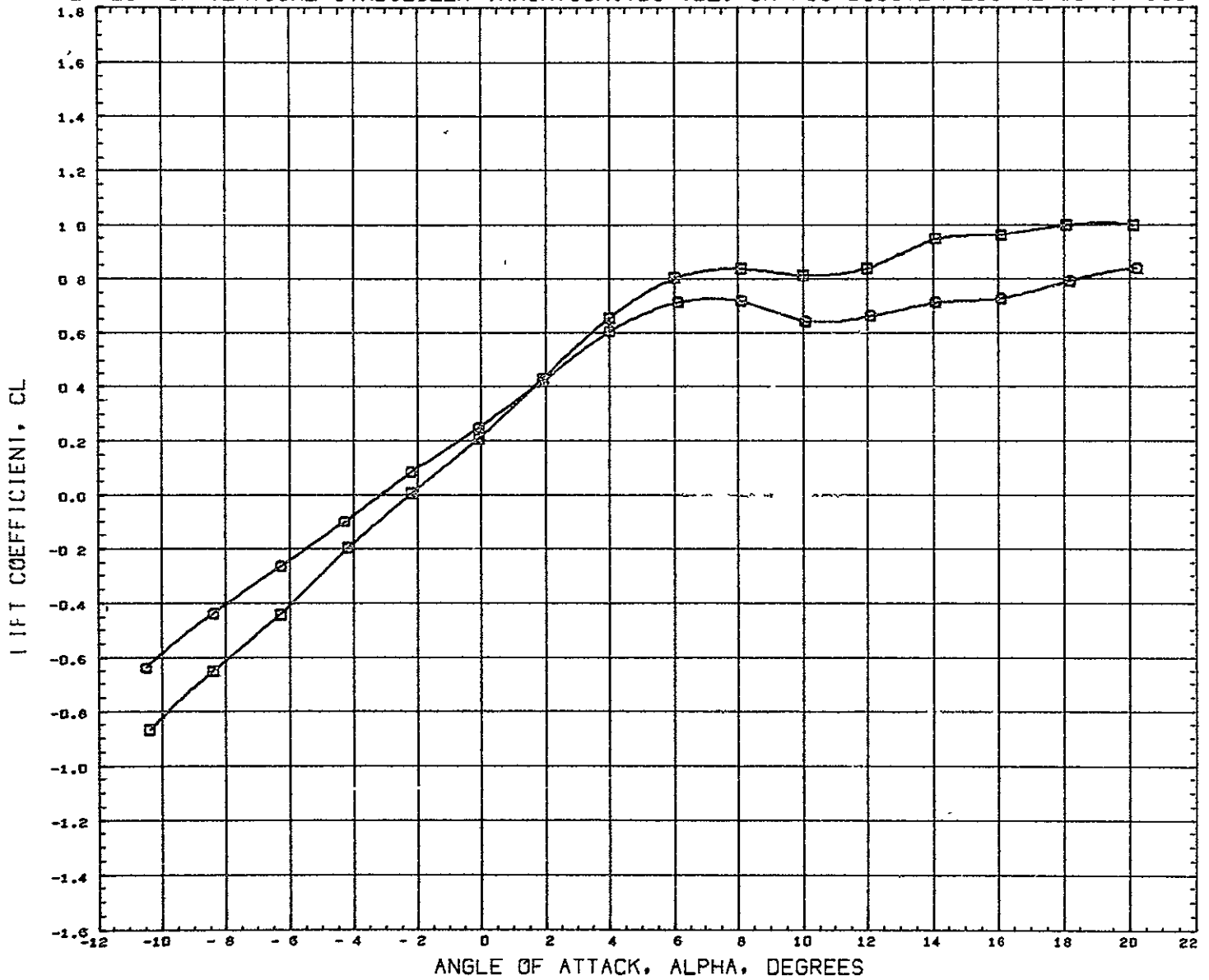
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 (064016) $\square$ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 SET: 0.000 MACH 0 250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



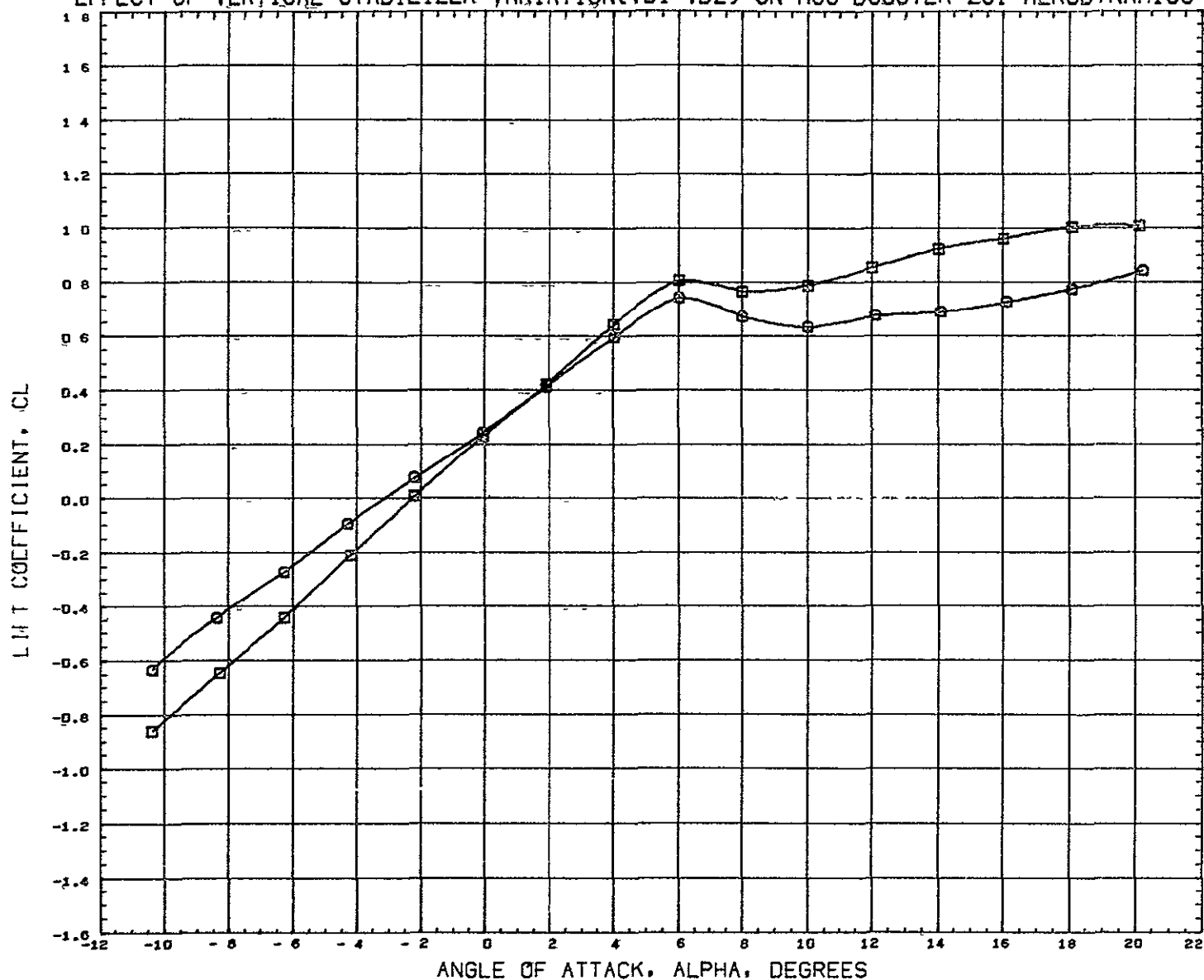
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(064015) ○	MSC S-XXIV BOOSTER 251 BB2WB1VB1
(064016) □	MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES		
BETA	0.000	MACH
	0.250	

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

CBRW 0.640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



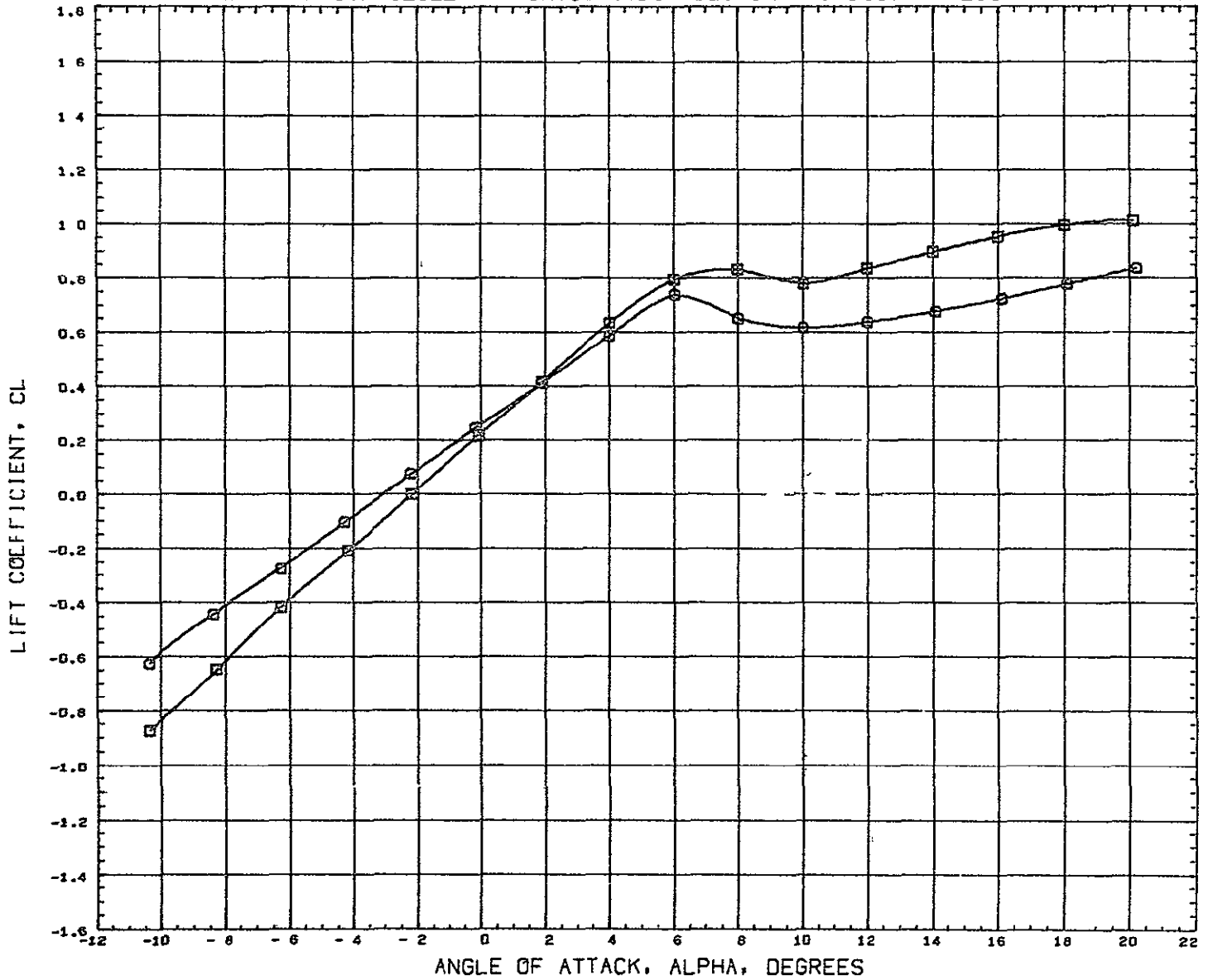
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064015) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (064016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



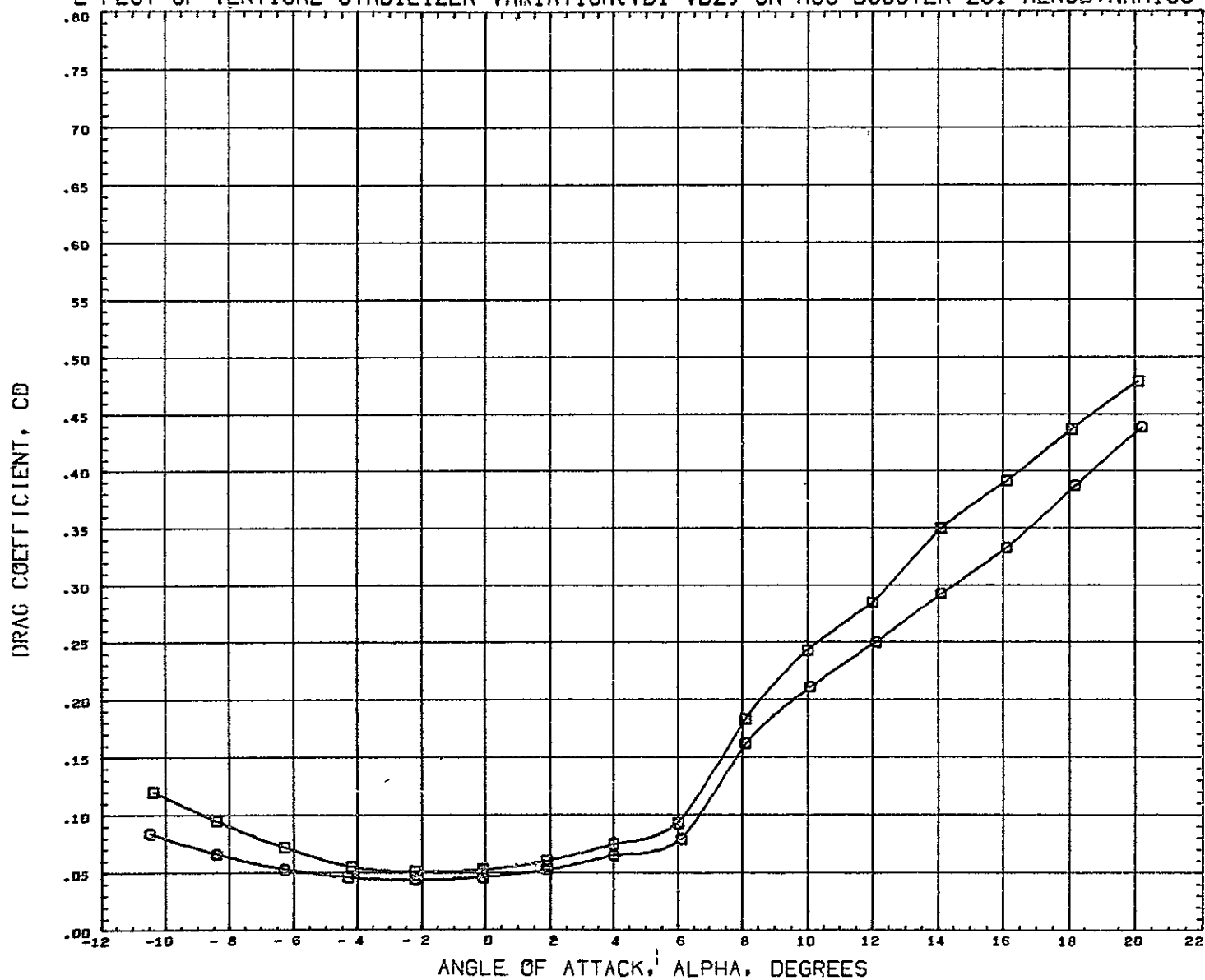
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064015) ○ MSC S-XXIV BOOSTER 251 882WB1VB1
 (064016) □ MSC S-XXIV BOOSTER 251 882WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



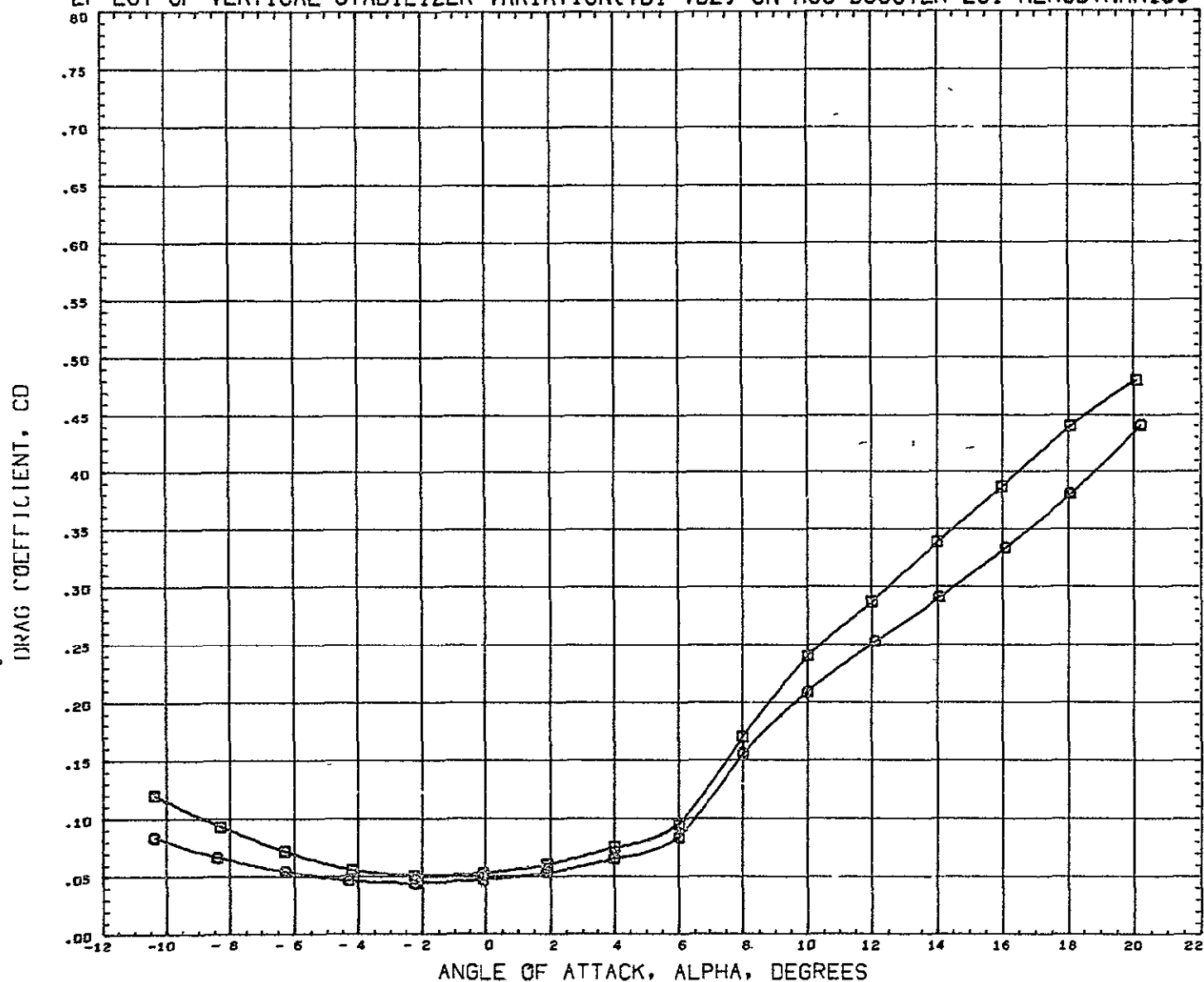
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (QC4015) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (QC4016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XHRF 65.0000 PCT LB
 YHRF 0.0000
 ZHRF 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



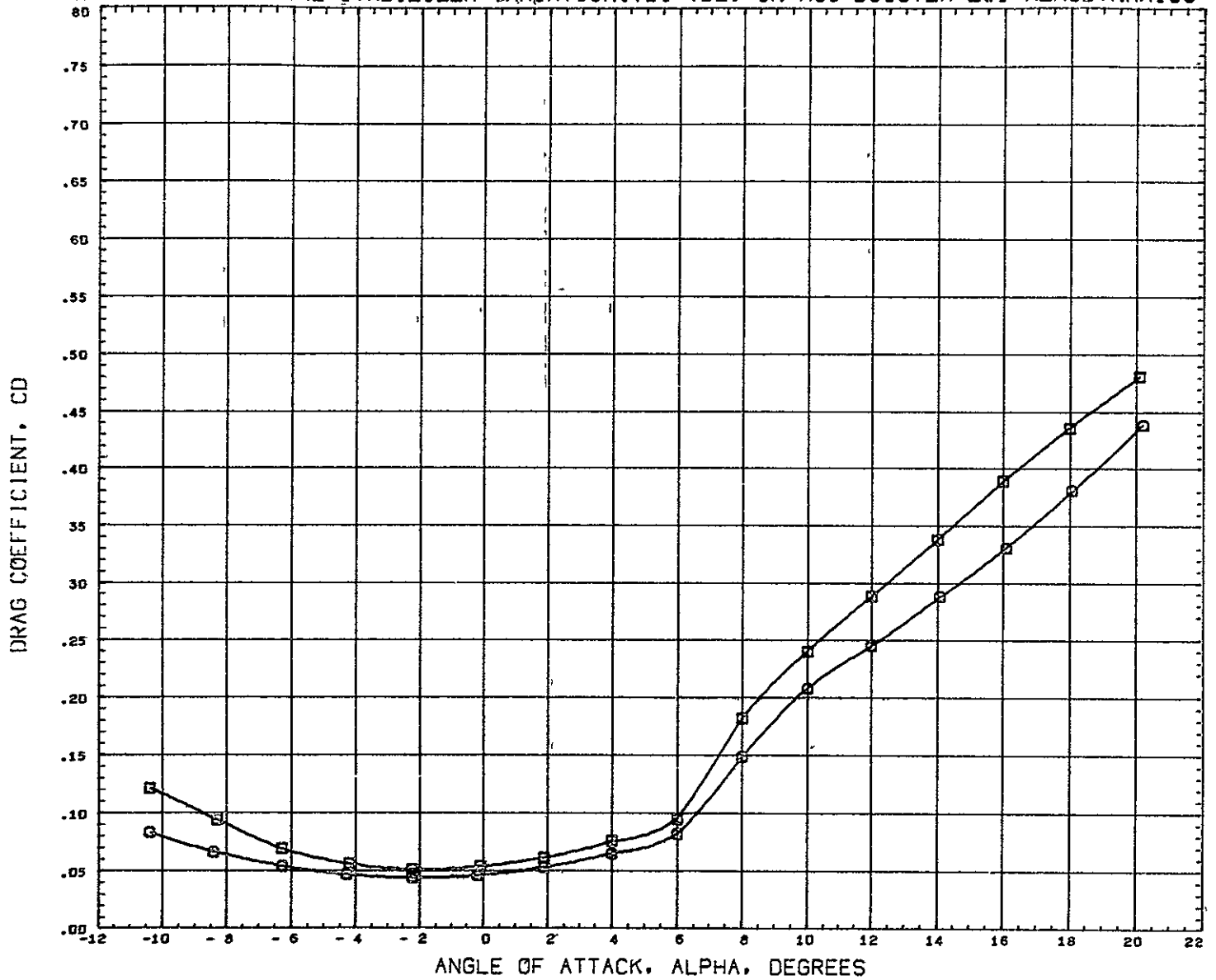
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064015) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (064016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT 50
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRF 65 0000 PCT LB
 YMRF 0 0000
 ZMRF 67 5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0 670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



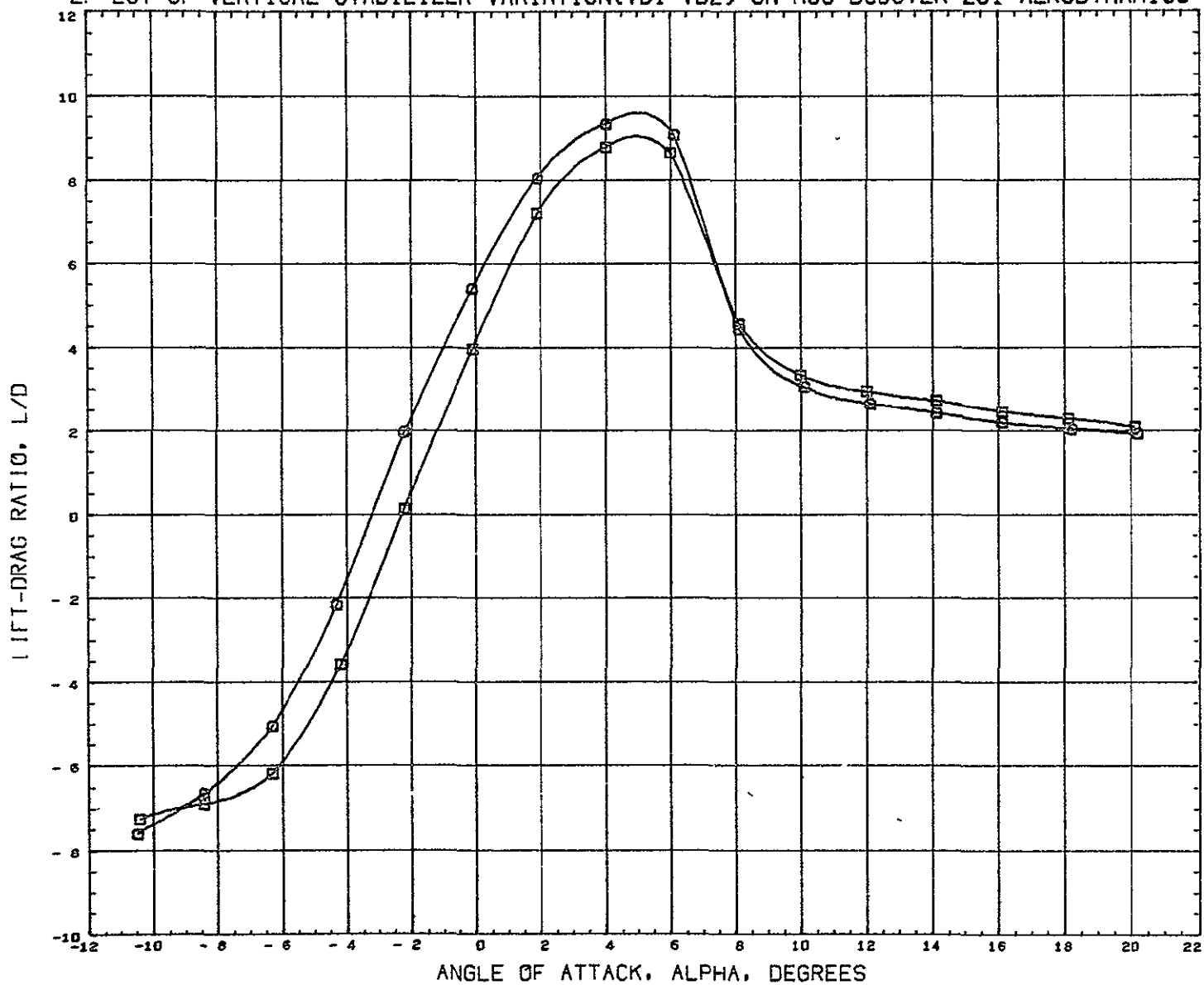
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 (064015) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (064016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BFT4 9 000 MACH 0 250

REFERENCE INFORMATION²
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0.700

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



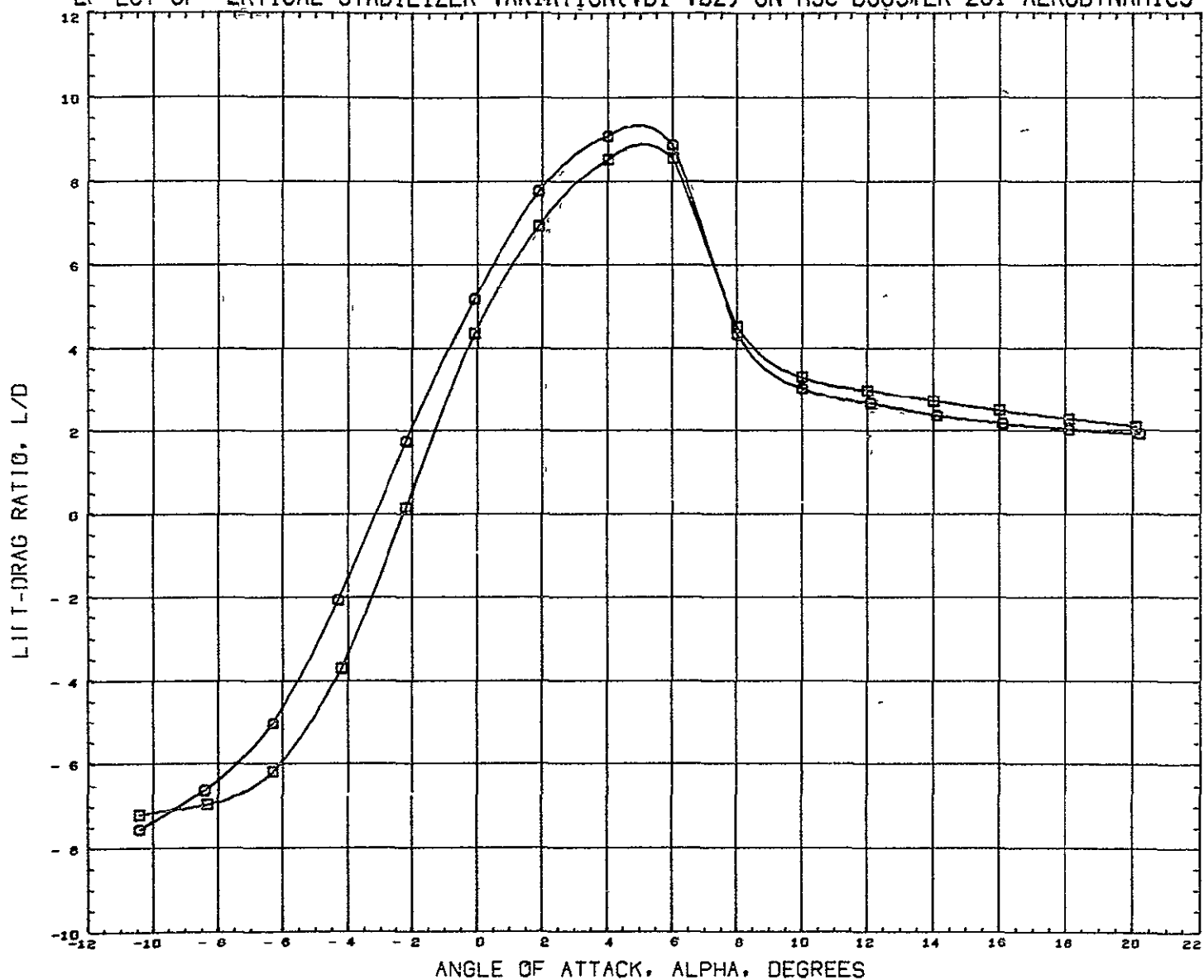
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064015) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (064016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 640

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



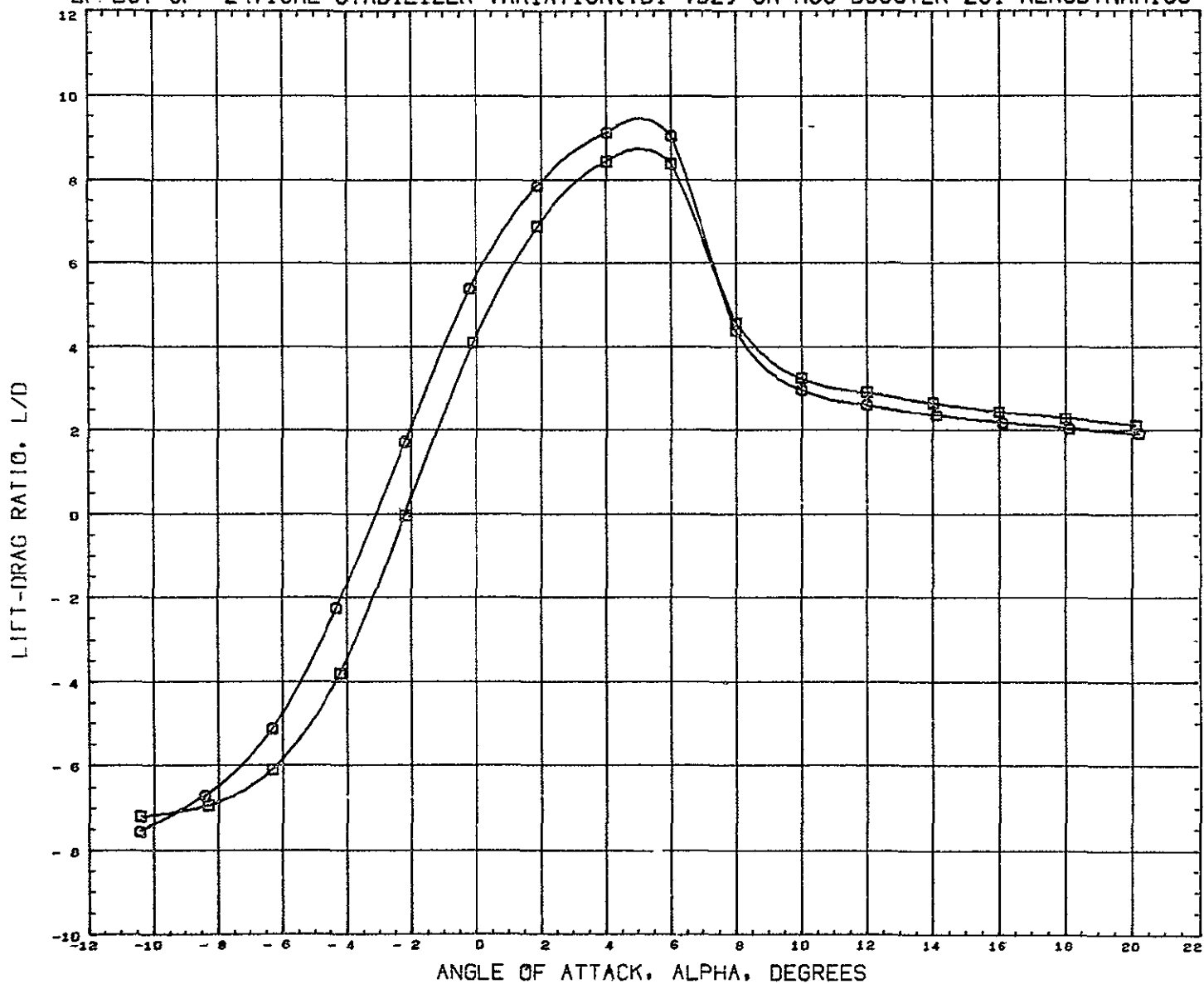
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 (004015) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (004016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFI 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.670

EFFECT OF VERTICAL STABILIZER VARIATION(VB1-VB2) ON MSC BOOSTER 251 AERODYNAMICS



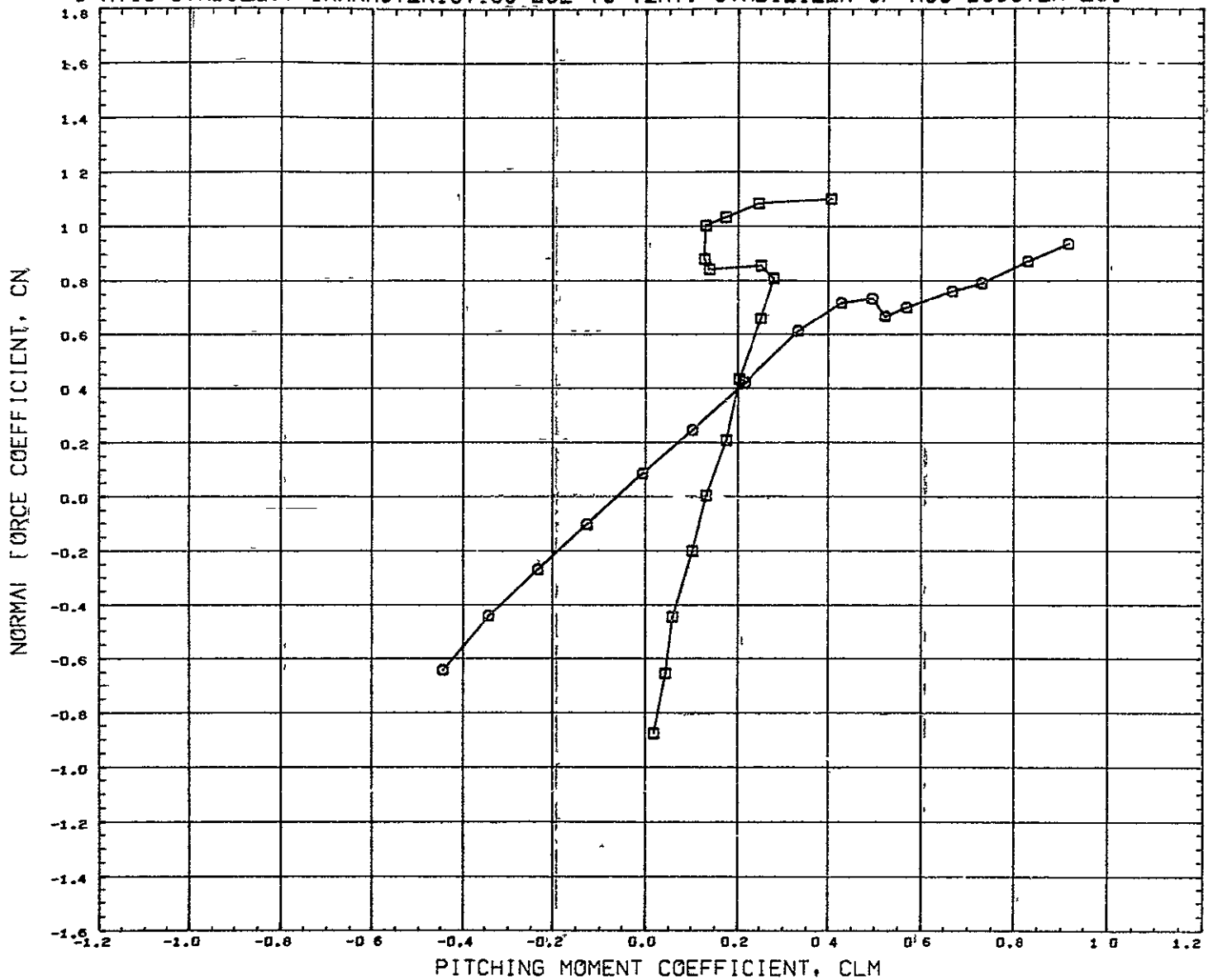
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064015) ID MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (064016) ID MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 SETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.700

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



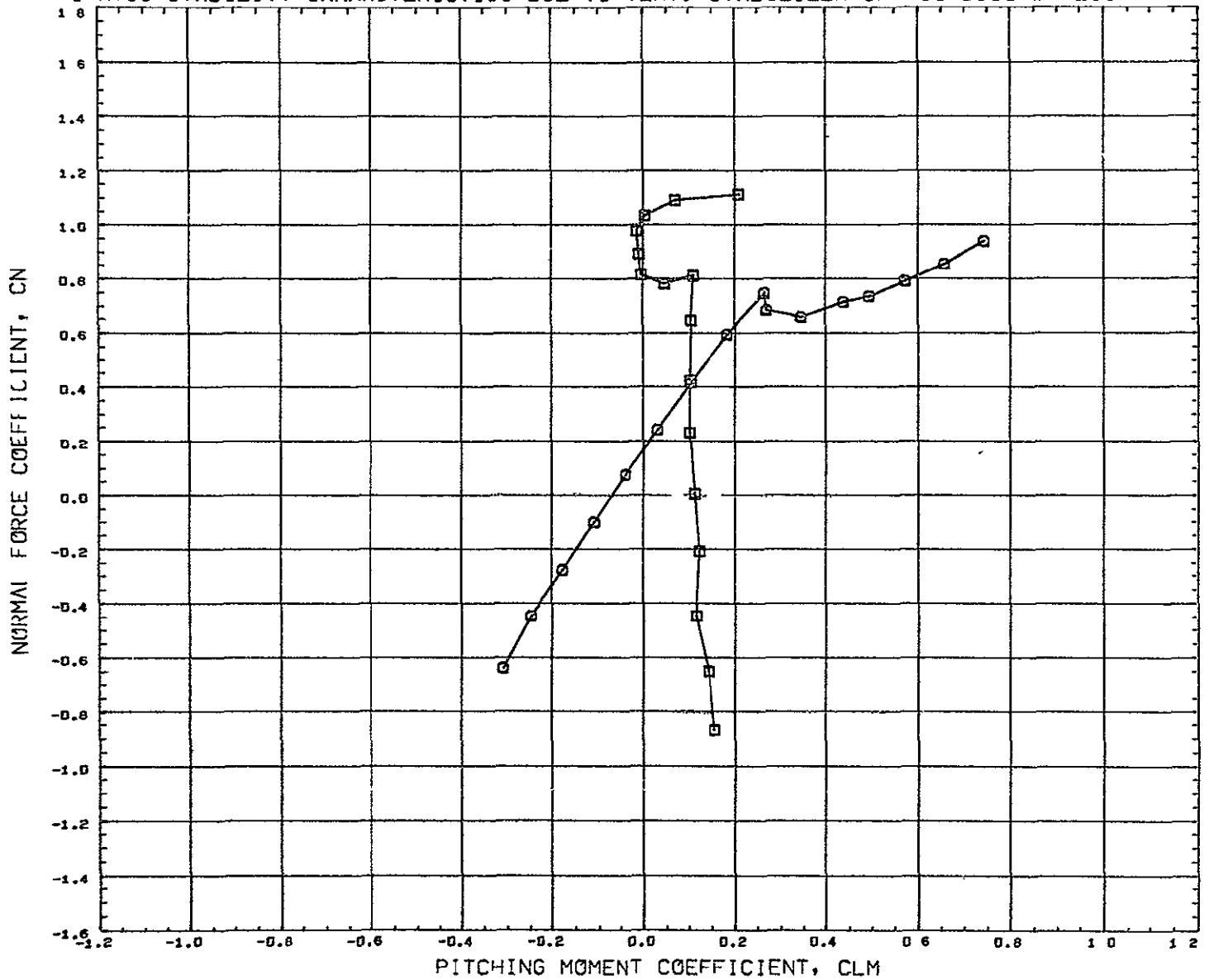
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (QC4015) ○ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (QC4016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT Sq
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT 1B
 YMRP 0 0000
 ZMRP 67 5500 PCT 2B
 SCALE 1 3215 PCT

CBRW 0 640

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



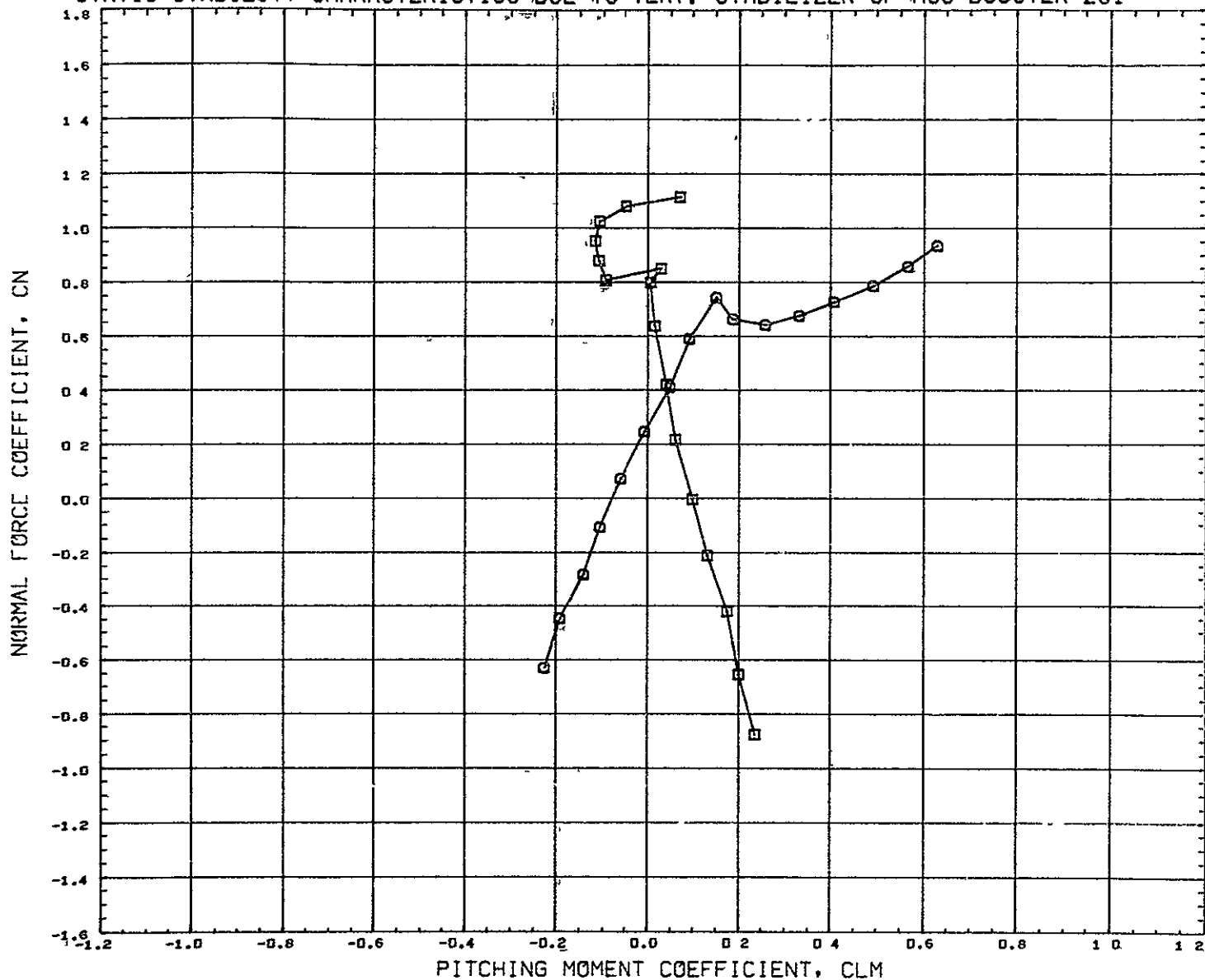
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (004015) MSC S-XXIV BOOSTER 251 882WB1V81
 (004016) MSC S-XXIV BOOSTER 251 882WB.V82

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 FCT ZB
 SCALE 1 3215 FCT

CBRW 0.670

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(064015)	MSC S-XXIV BOOSTER 251 BB2WB1VB1
(064016)	MSC S-XXIV BOOSTER 251 BB2WB1VB2

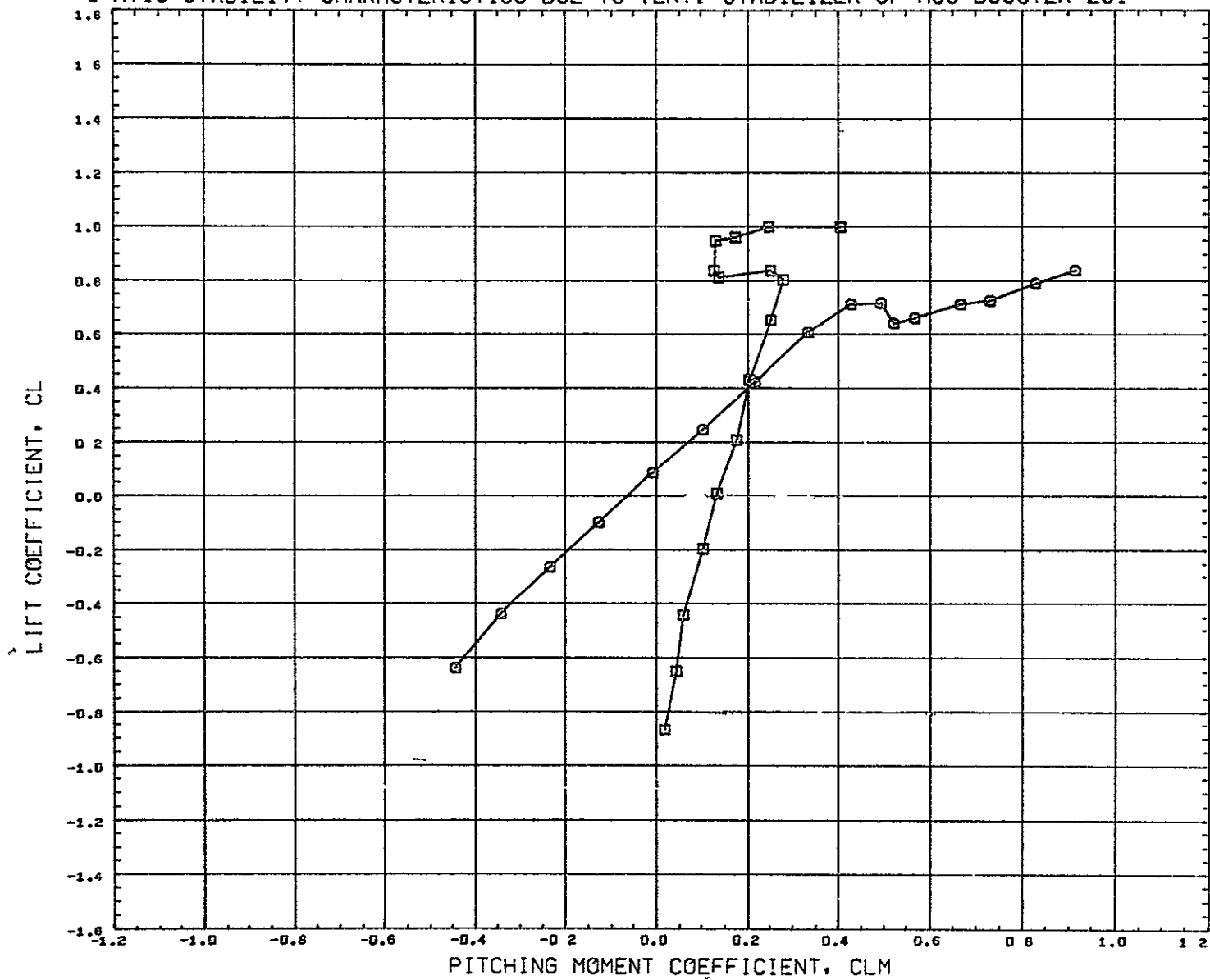
PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION

REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

CBRW 0.700

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



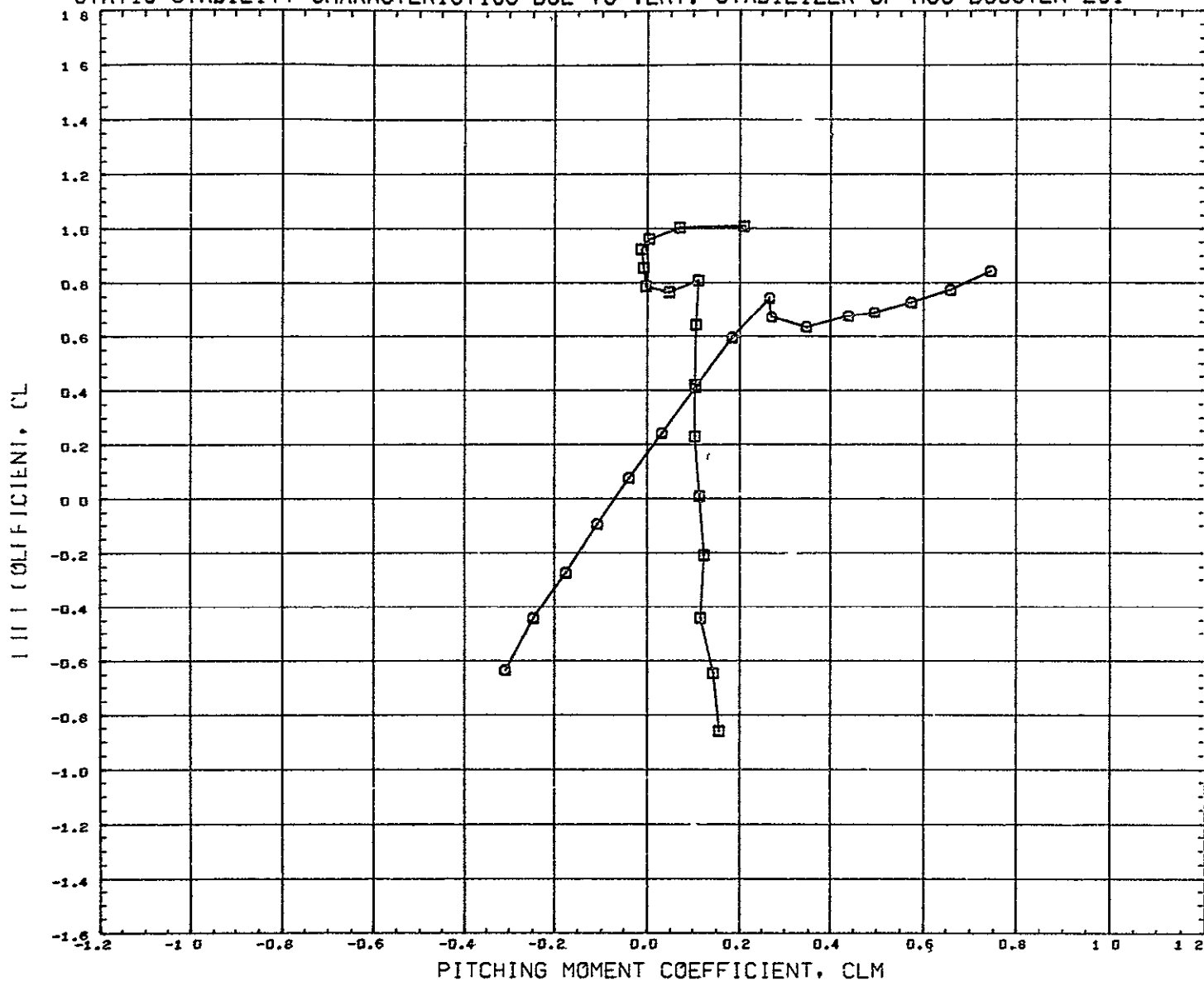
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(Q64015)	MSC S-XXIV BOOSTER 251 BB2WB1VB1
(Q64016)	MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES		
BETA	0.000	MACH
		0.250

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

CBRW 0.640

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



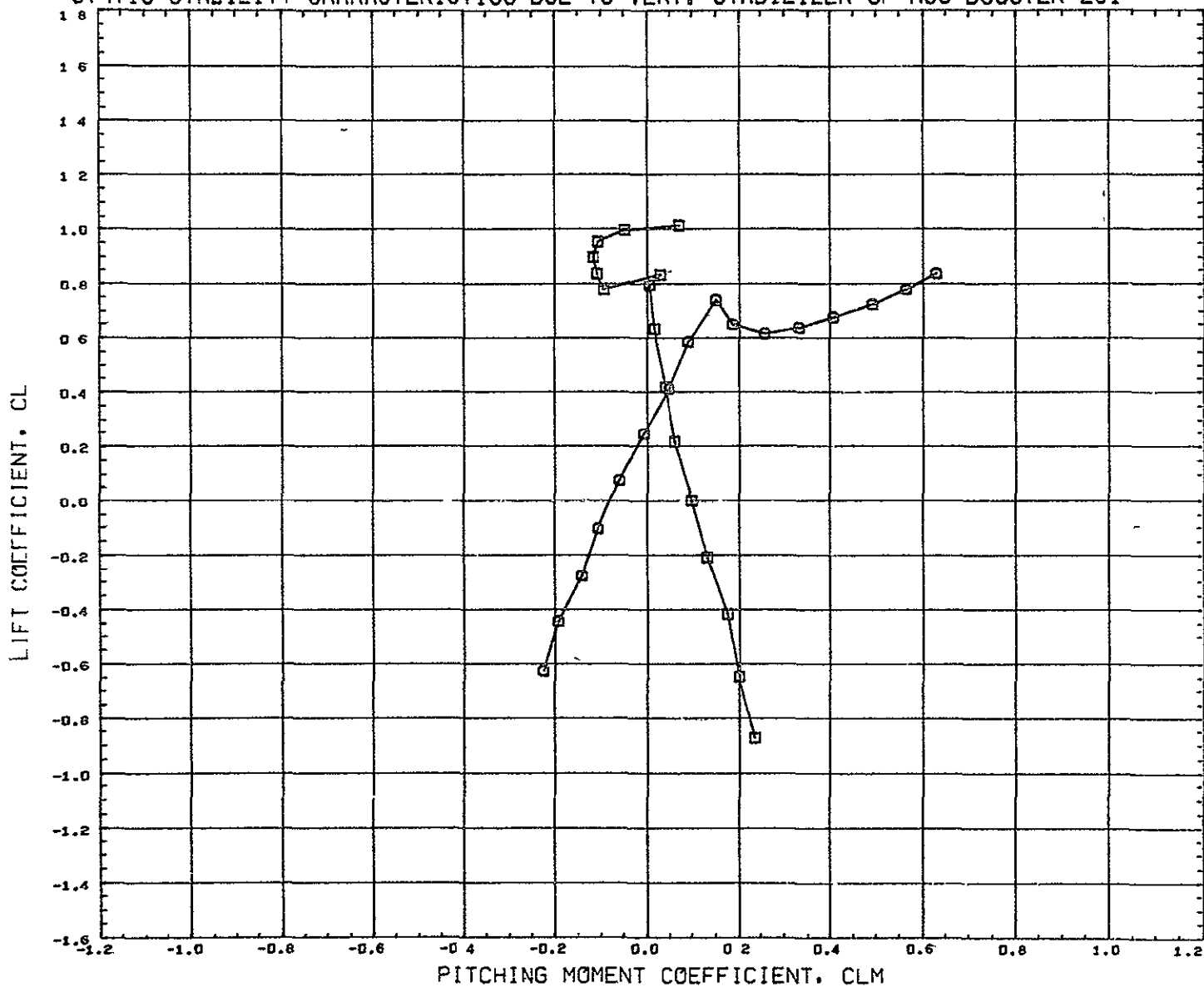
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (064015) □ MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (064016) □ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRF 65 0000 FCT LB
 YHRF 0 0000
 ZHRF 67 5500 FCT ZB
 SCALE 1 3215 PCT

CBRW 0.670

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



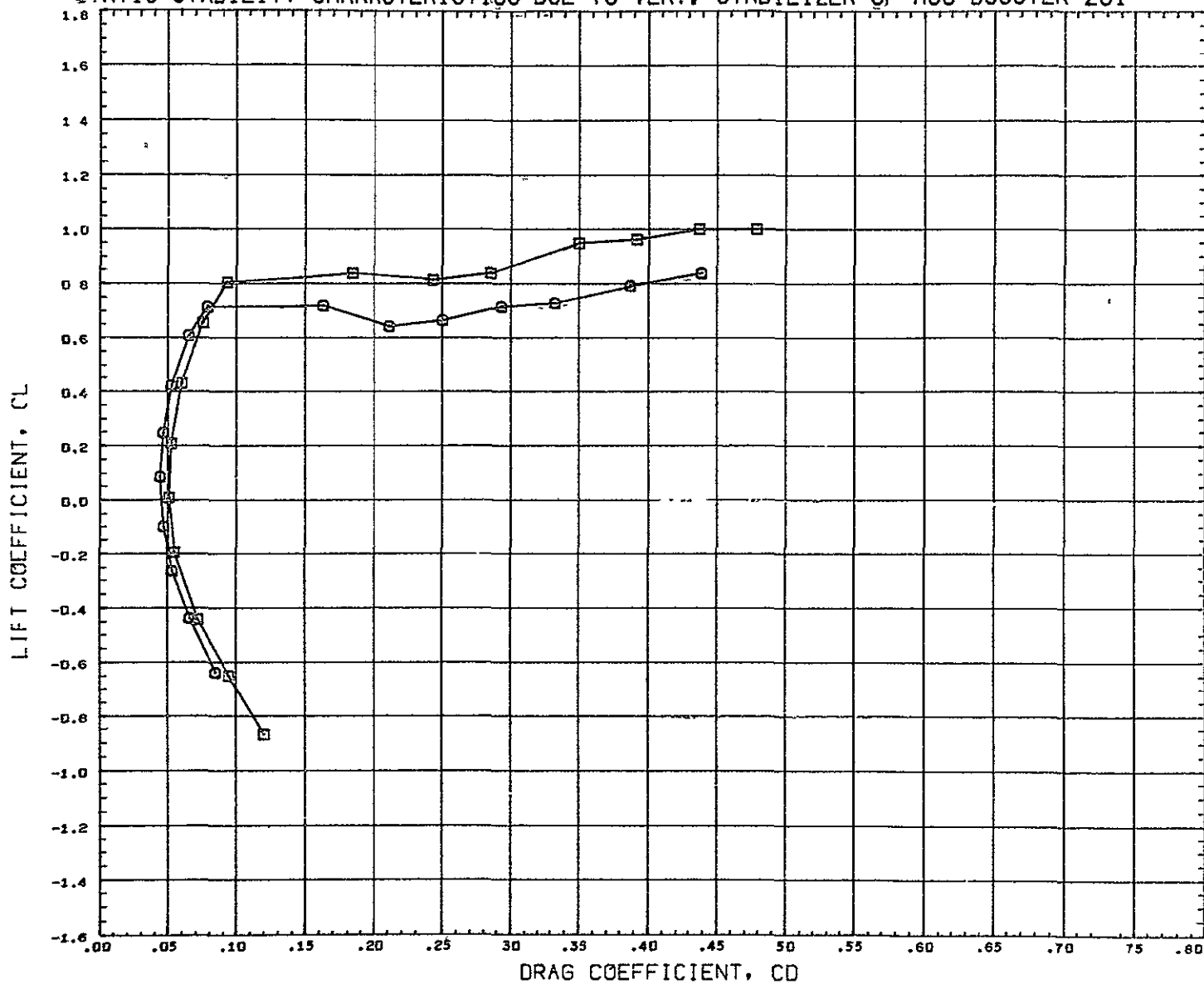
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (004015) Q MSC S-XXIV BOOSTER 251 BB2WS1V81
 (004016) Q MSC S-XXIV BOOSTER 251 BB2WS1V82

PARAMETRIC VALUES
 DELTA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0.0000
 ZMRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

CBRW 0 700

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



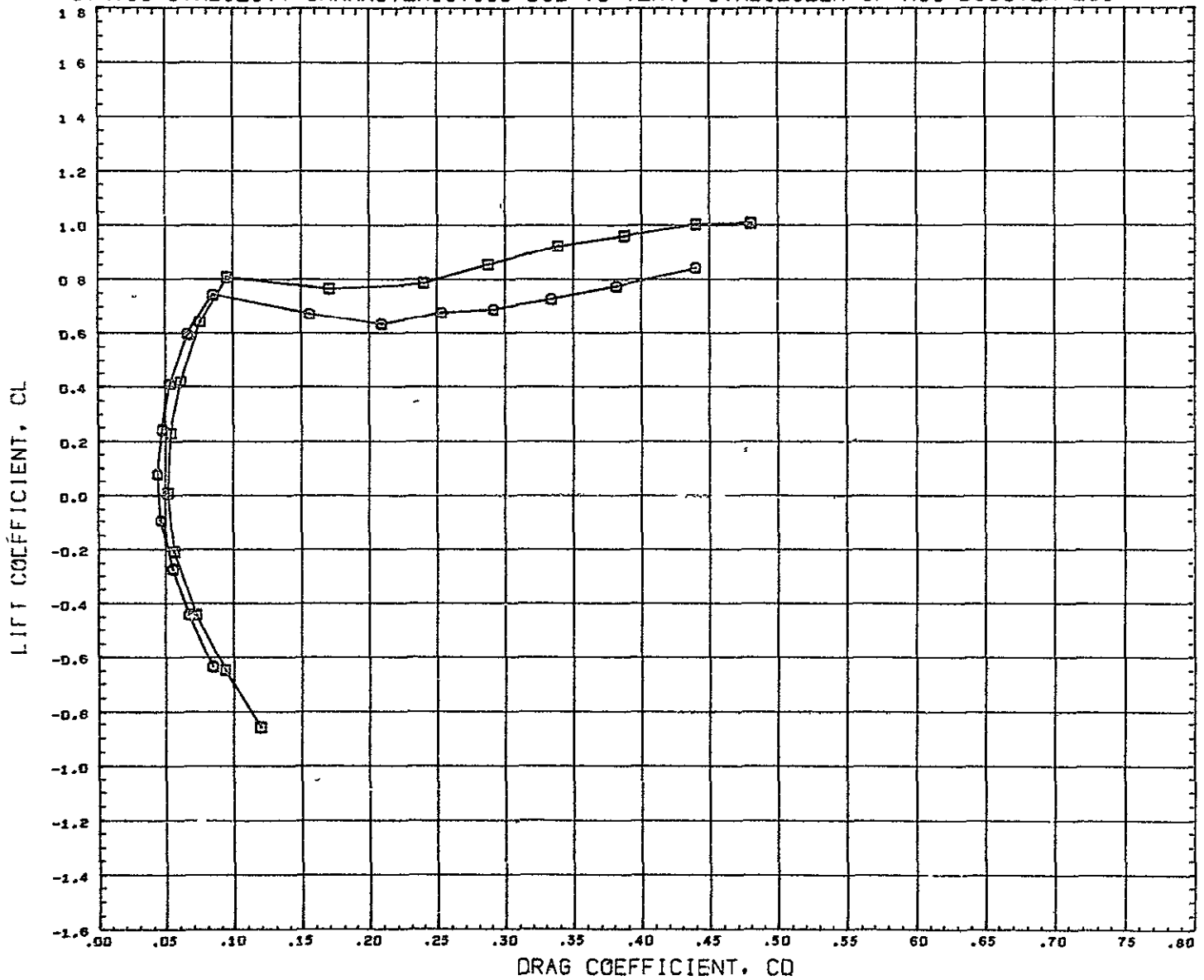
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(QC4015)	○ MSC S-XXIV BOOSTER 251 BB2WB1VB1
(QC4016)	□ MSC S-XXIV BOOSTER 251 BB2WB1VB2

PARAMETRIC VALUES		
BETA	Q	MACH
0.000	0.250	0.250

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
PEFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

CBRW 0.640

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



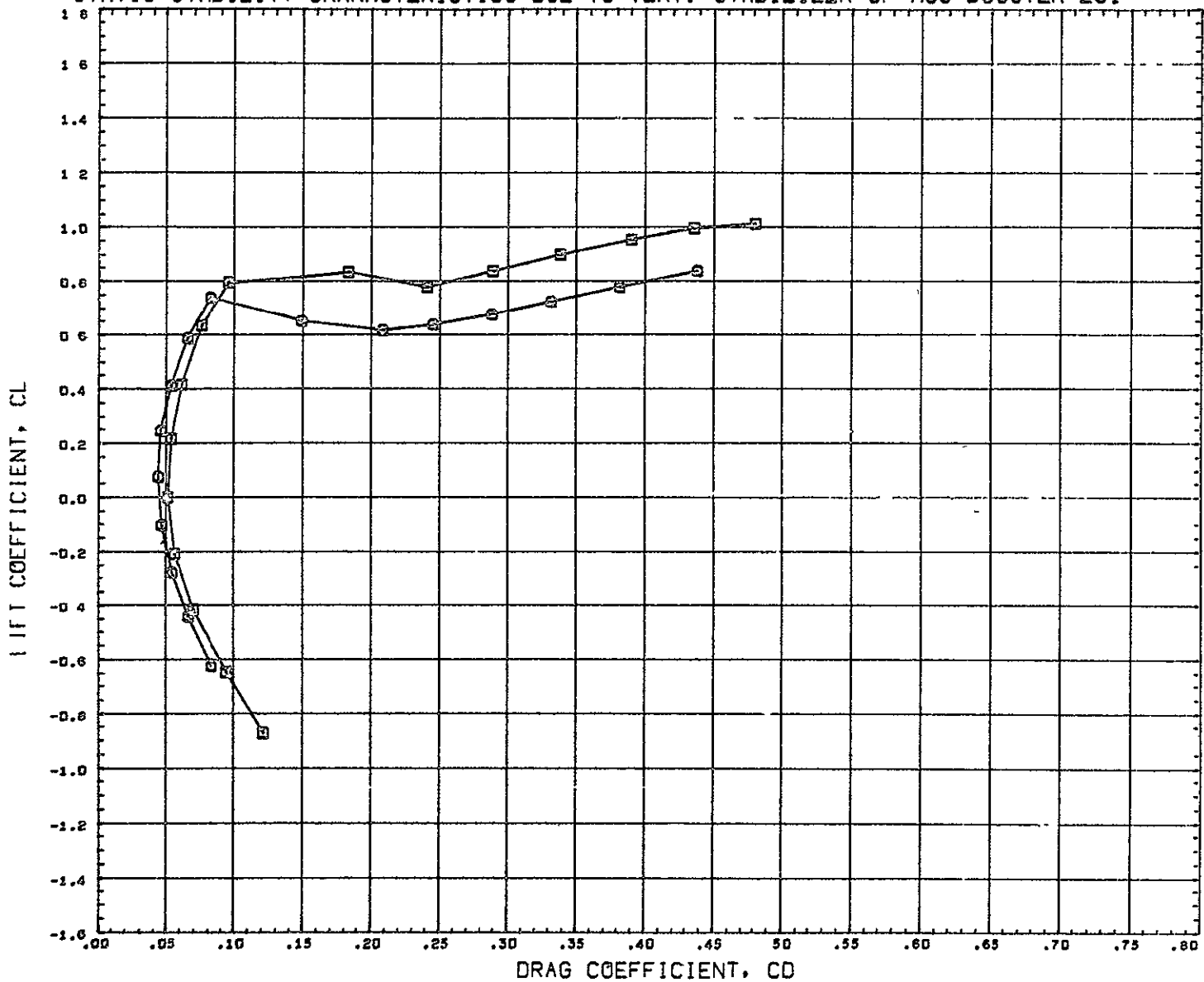
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (QG4015) C MSC S-XXIV BOOSTER 251 BB2WB1VB1
 (QG4016) □ MSC S-XXIV BOOSTER 251 BB2WB1B2

PARAMETRIC VALUES
 BETA 0.000 MACH 0.250

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

CBRW 0.670

STATIC STABILITY CHARACTERISTICS DUE TO VERT. STABILIZER OF MSC BOOSTER 251



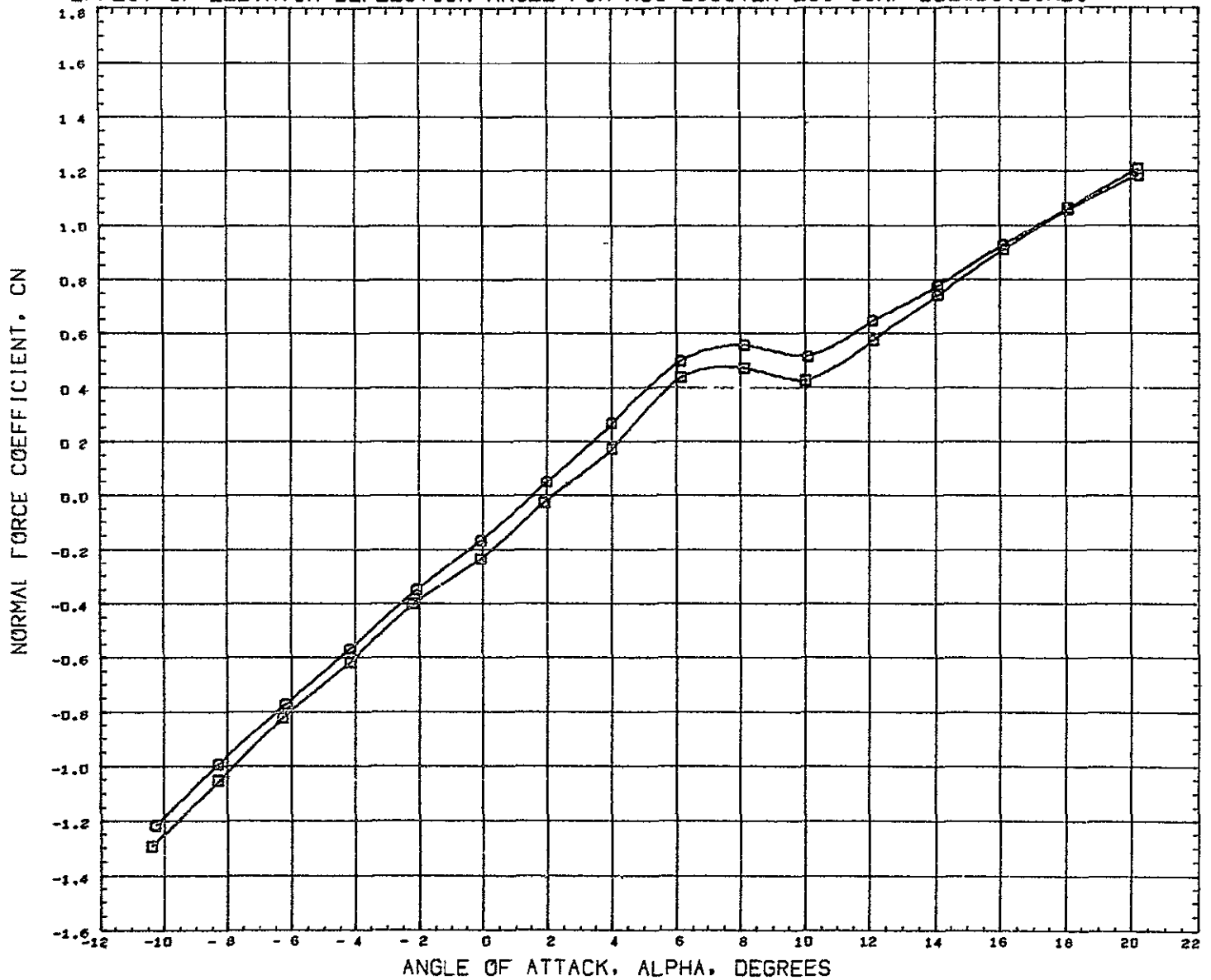
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(864015)	MSC S-XXIV BOOSTER 251 BB2WB1V91
(864016)	MSC S-XXIV BOOSTER 251 BB2WB1V82

PARAMETRIC VALUES		
BETA	0.000	NACH
		D 250

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT '2B
SCALE	1 3215	PCT

CBRW 0.700

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1

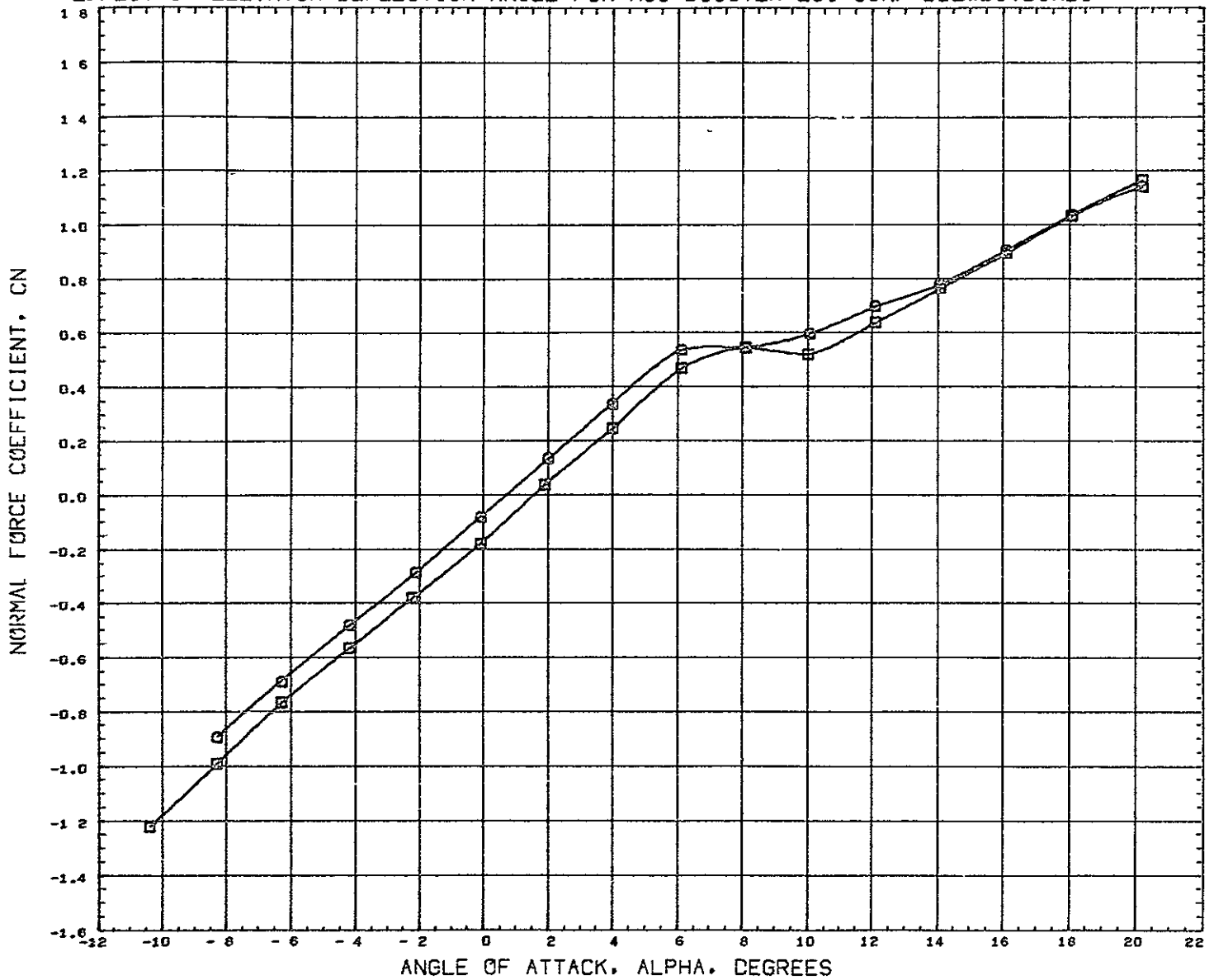


SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 30 000	BETA	0.000
□	0.929	MACH	0 250	IT	0 000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E#A

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0 9°3	ELEVTR	- 20 000	BETA	0 000
□	0 929	MACH	0 250	IT	0 000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

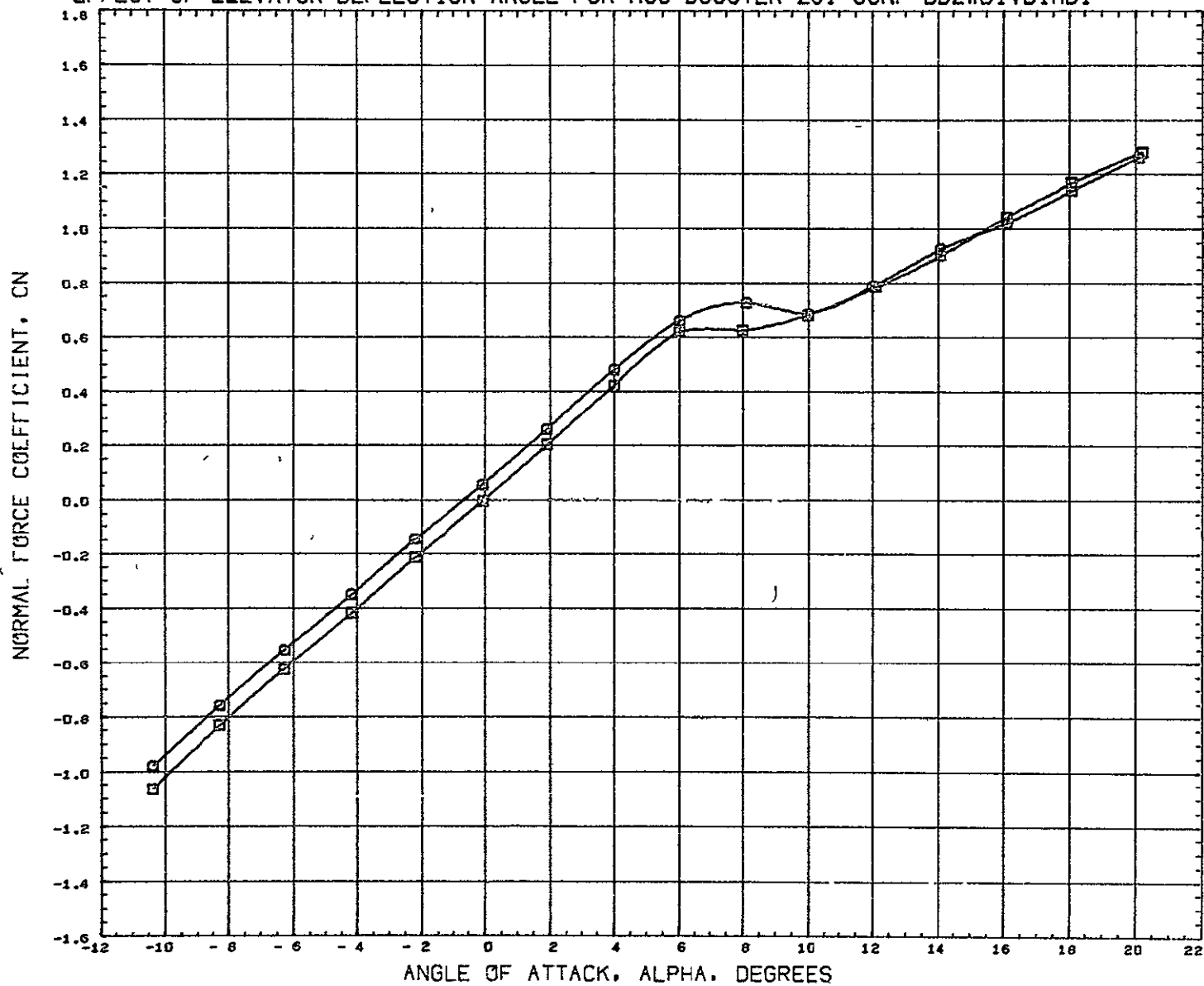
DATA HIST. CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
□	0.973	ELEVTR	-10.000	BETA	0.000
○	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRF	65.0000	PCT LB
YMRF	0.0000	
ZMRF	67.5500	PCT ZB
SCALE	1.3215	PCT

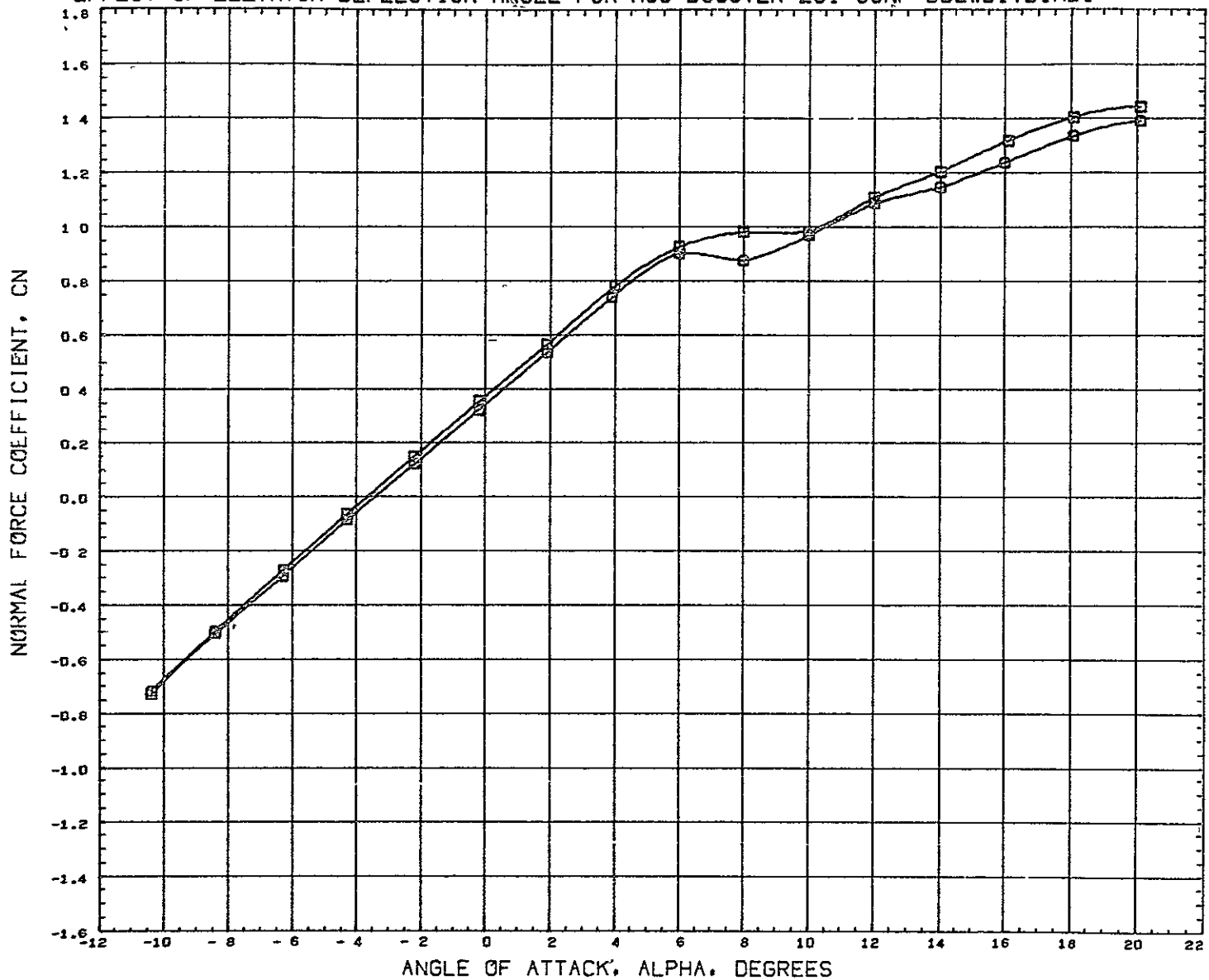
DATA HIST. CODE #E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
UO	0 973	ELEVTP	10 000	BETA	0 000
UJ	0 929	MACH	0.250	IT	0 000
		CBRW	0.670		

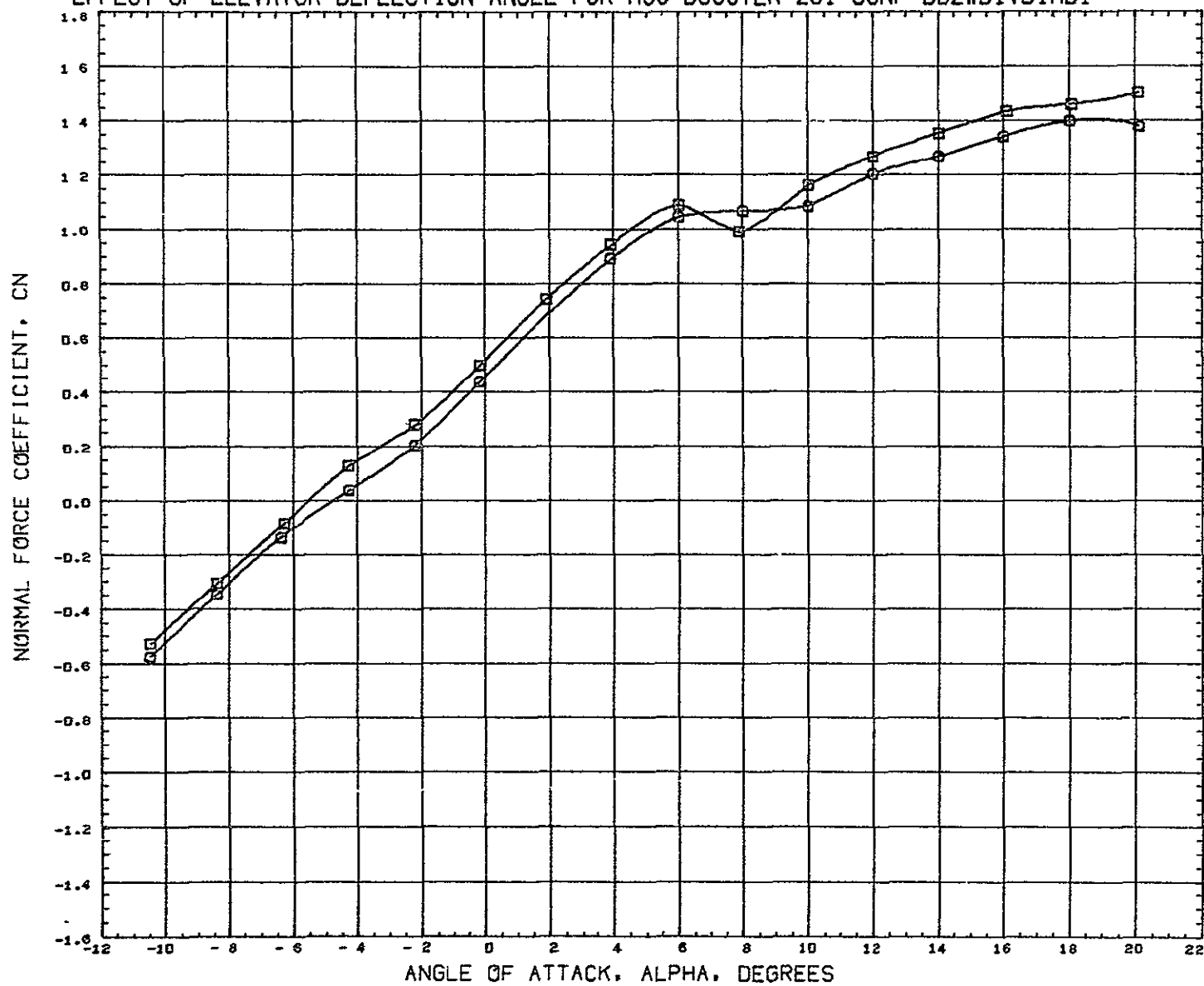
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0 973	ELEVTP	20 000	BETA	0.000
□	0 929	MACH	0.250	IT	0 000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67.5500	PCT ZB
SCALE	1 3215	PCT

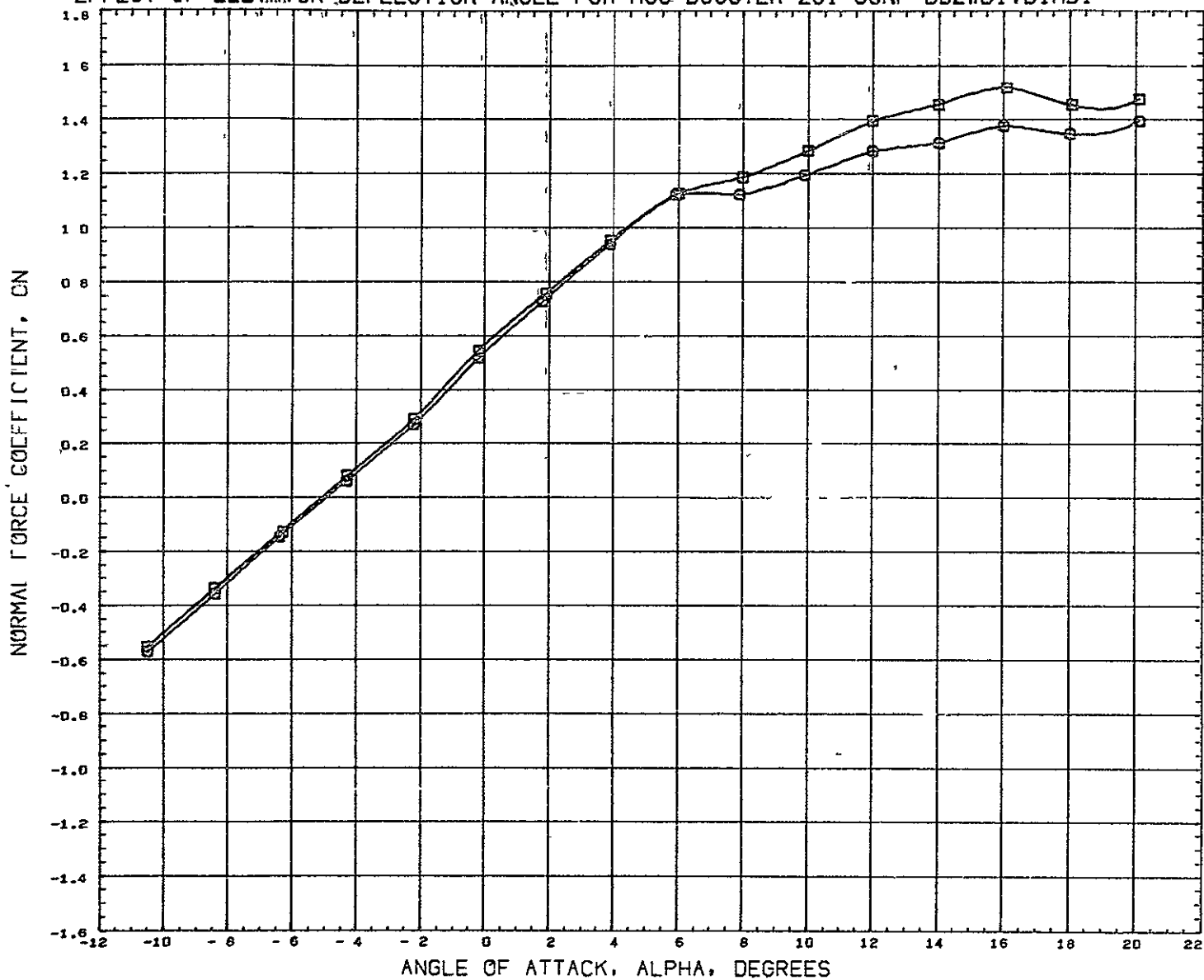
DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
110	0.973	ELEVTR	30.000	BETA	0 000
111	0.929	MACH	0.250	IT	0 000
		CBRW	0.670		

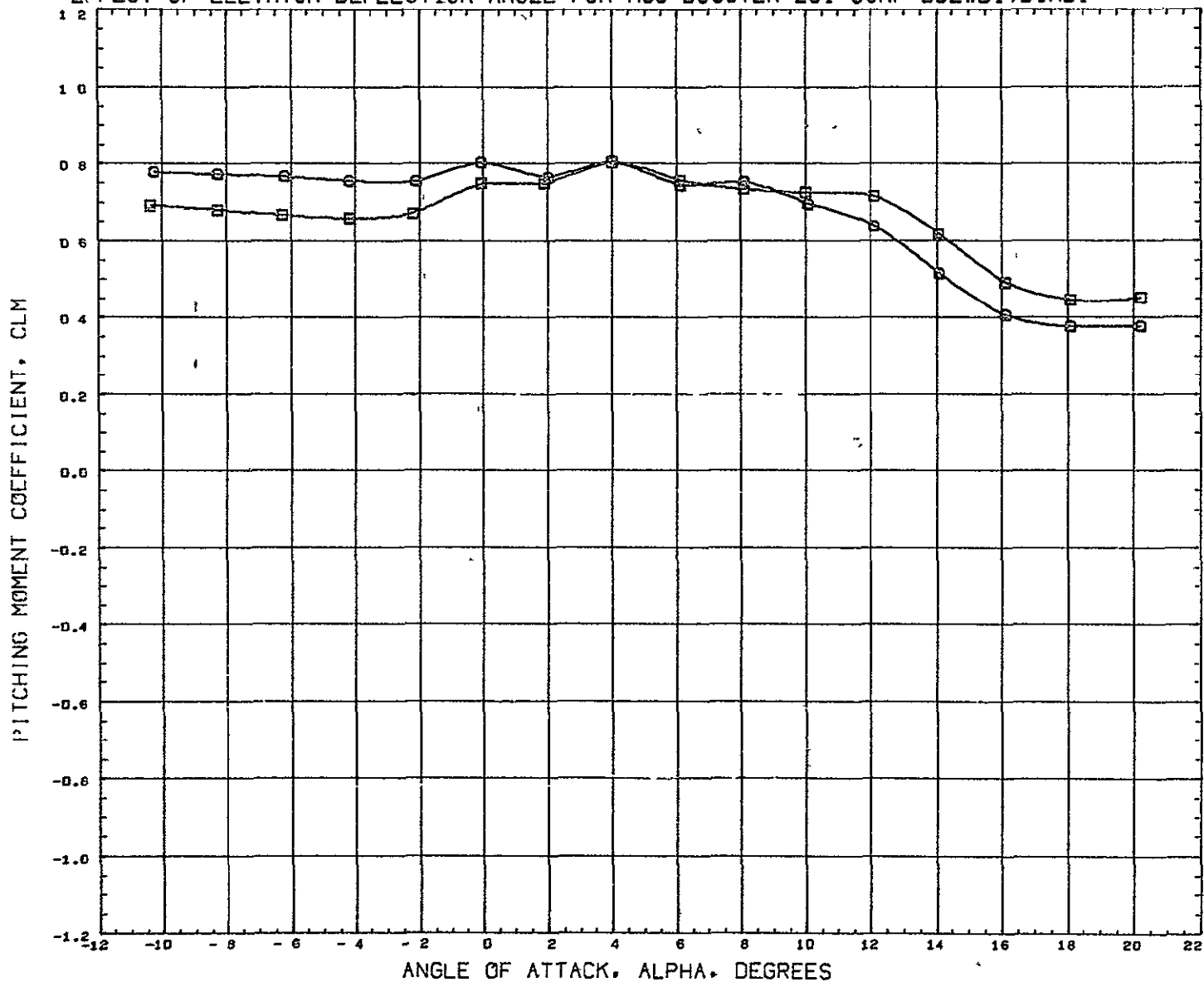
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	-30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

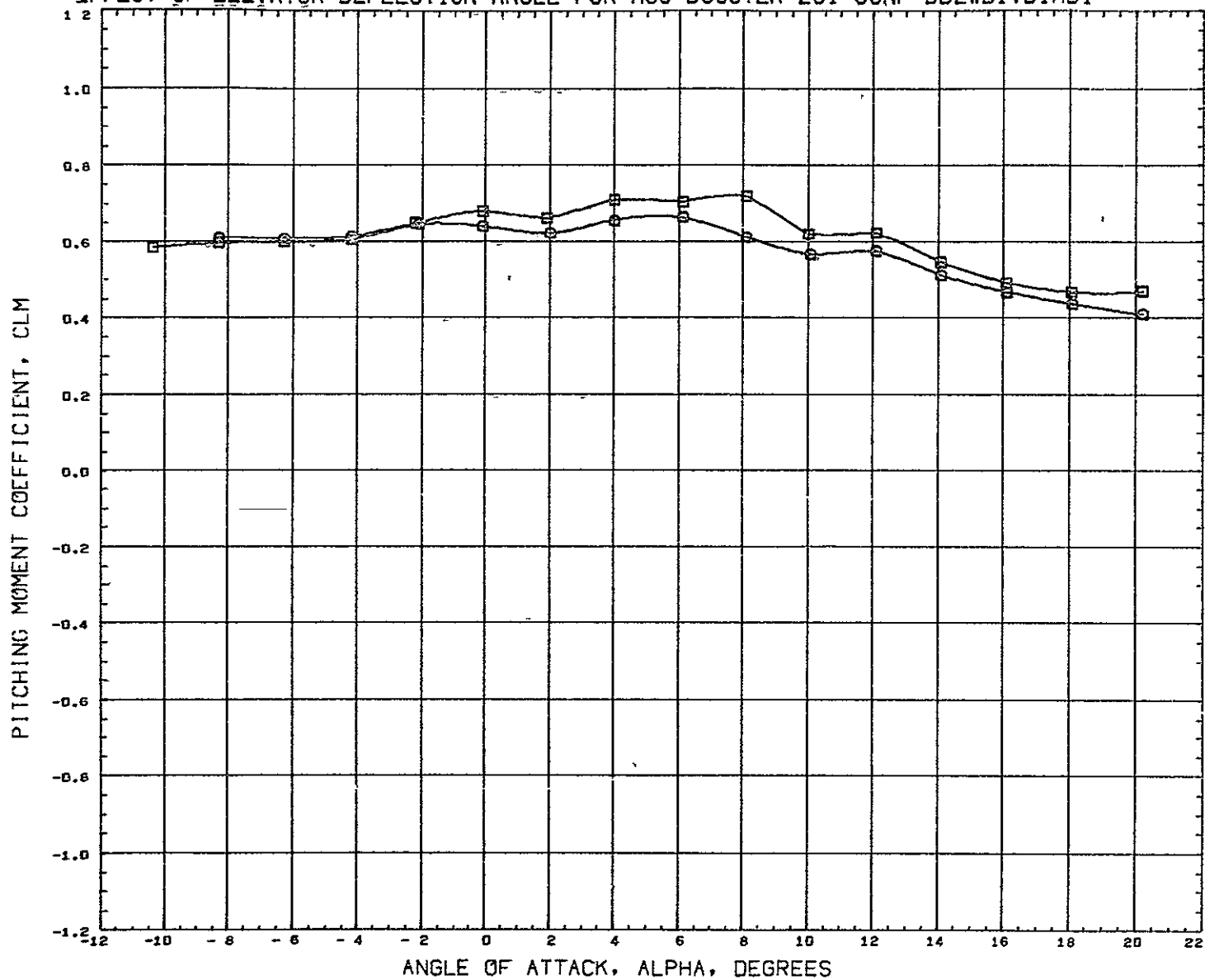
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	C9RH	PARAMETRIC VALUES			
○	0 973	ELEVTR	- 20.000	BETA	0 000
□	0 929	MACH	0.250	IT	0.000
		C9RW	0 670		

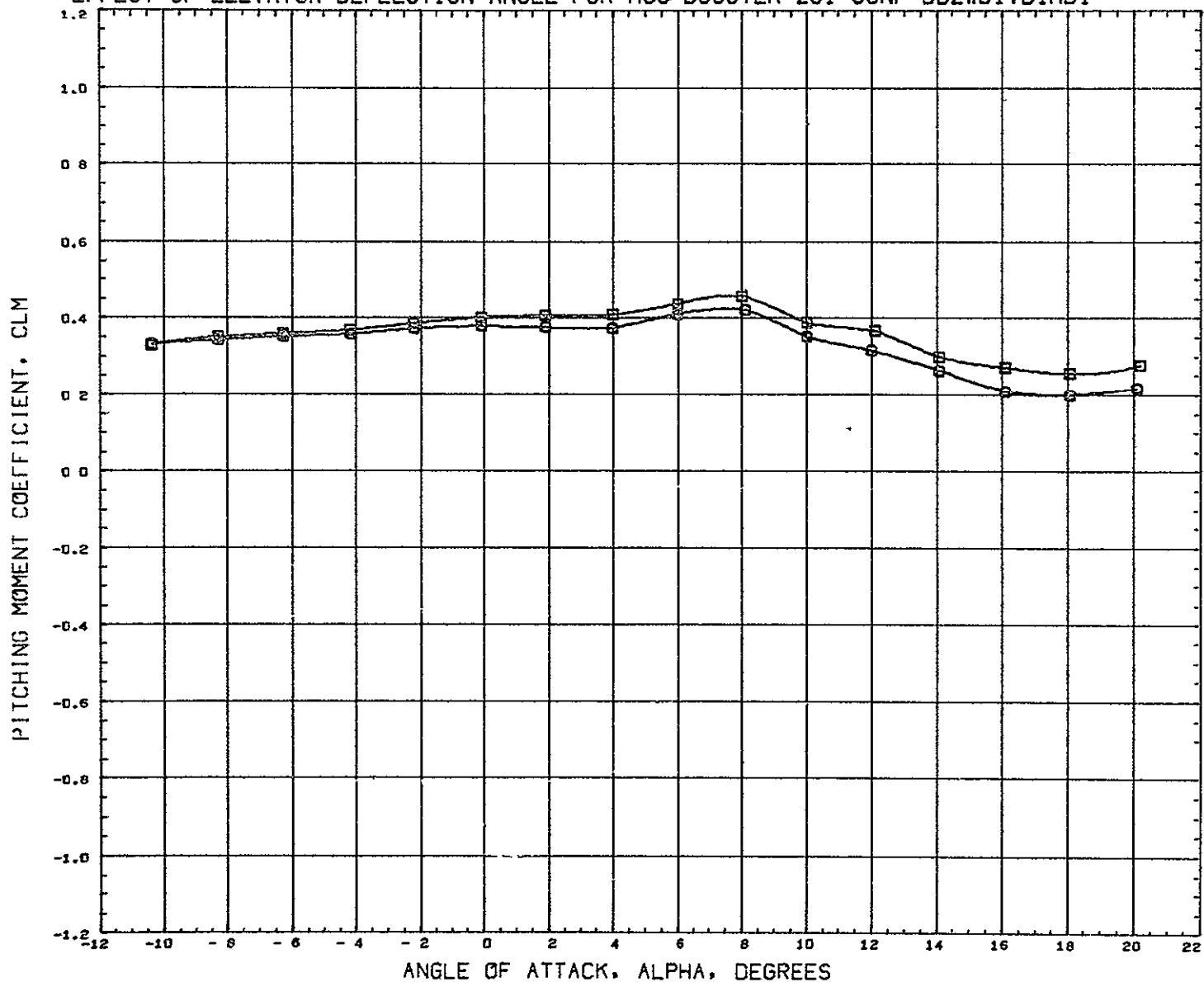
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRF	65 0000	PCT LB
YMRF	0 0000	
ZMRF	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1

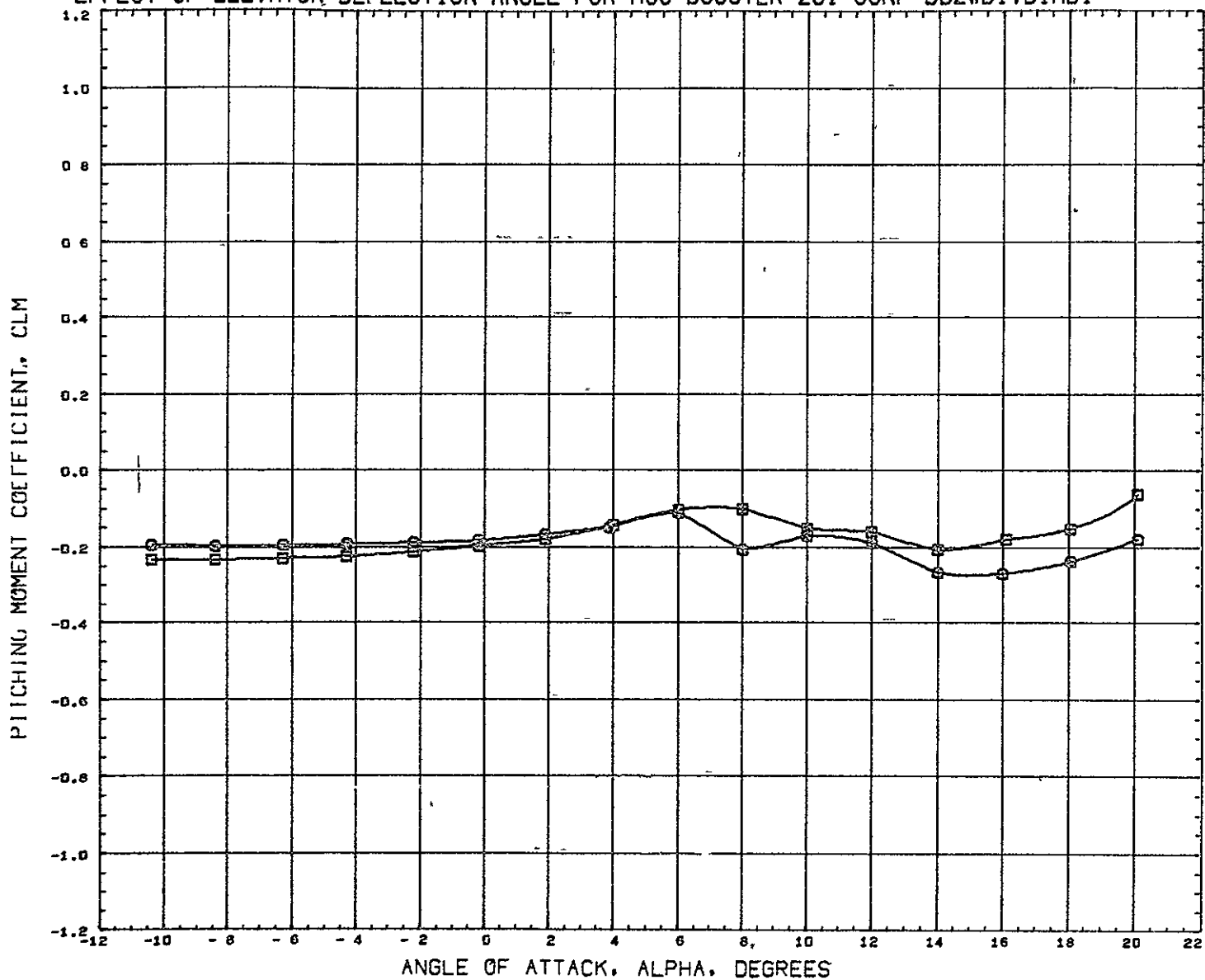


SYMBOL	CBRH	PARAMETRIC VALUES			
□	0.973	ELEVTR	-10.000	BETA	0.000
○	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E*A

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



YMBOL	CBRH	PARAMETRIC VALUES			
00	0.973	ELFVTR	10 000	BETA	0 000
00	0.929	MACH	0 250	IT	0 000
		CBRW	0 670		

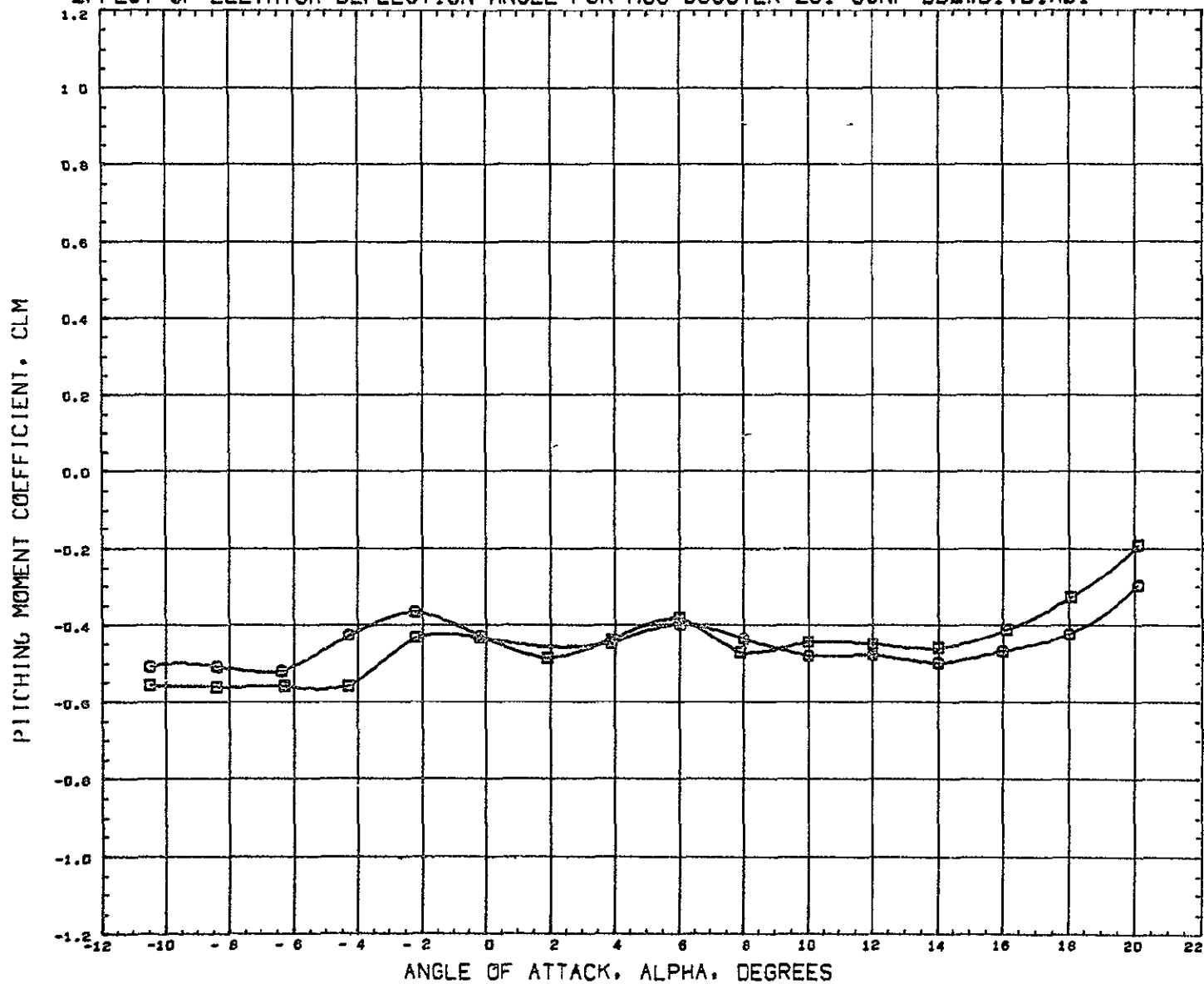
REFERENCE INFORMATION		
REFS	0 6460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL CBRM
 O 0.973
 □ 0.929
 ELEVTR 20 000
 MACH 0.250
 CBRW 0.670
 BETA 0.000
 IT 0.000

REFERENCE INFORMATION
 REFS 0.8460 FT Sg
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65 0000 PCT LB
 YMRP 0 0000
 ZMRP 67 5500 PCT 2B
 SCALE 1 3215 PCT

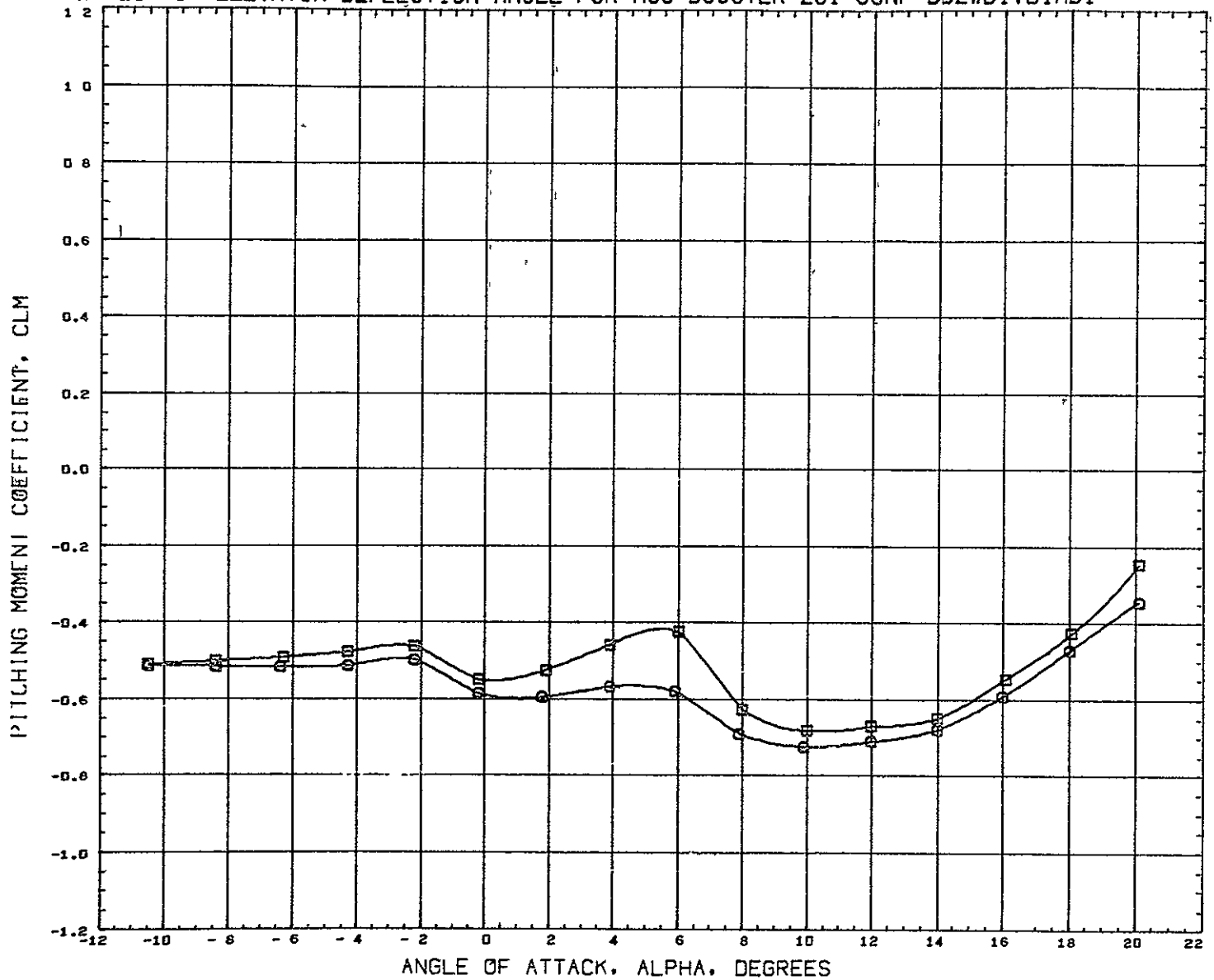
DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRN	PARAMETRIC VALUES			
○	0 973	ELEVTR	30 000	BETA	0.000
□	0 929	NACH	0.250	IT	0.000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XHRP	65 0000	PCT LB
YHRP	0 0000	
ZHRP	67 5500	PCT 2B
SCALE	1 3215	PCT

DATA HIST CODE *E*A

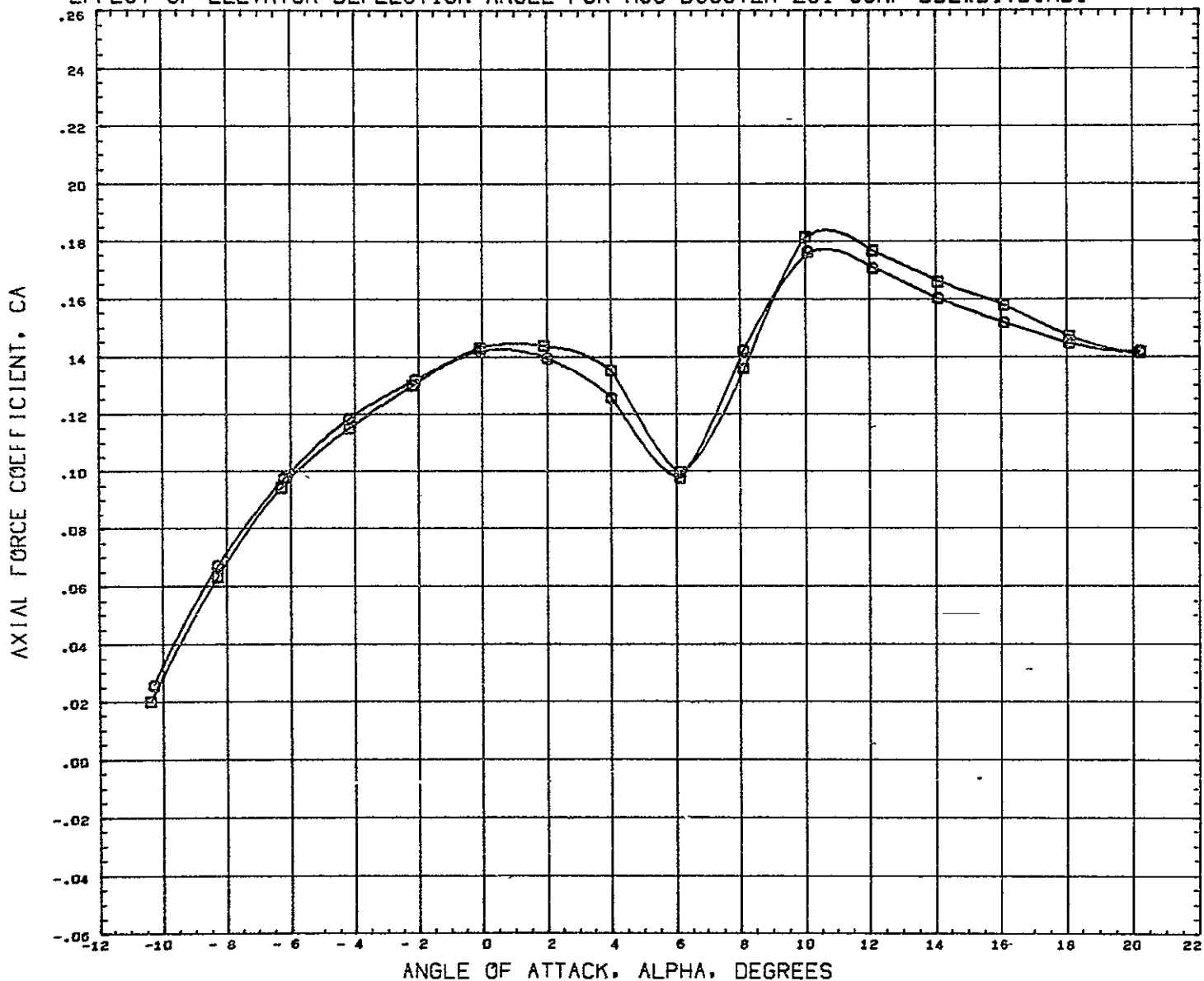
MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



YMBOL	CBRH	PARAMETRIC VALUES			
□	0.973	ELEVTR	-30.000	BETA	0.000
□	0.929	MACH	0.230	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
RLFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

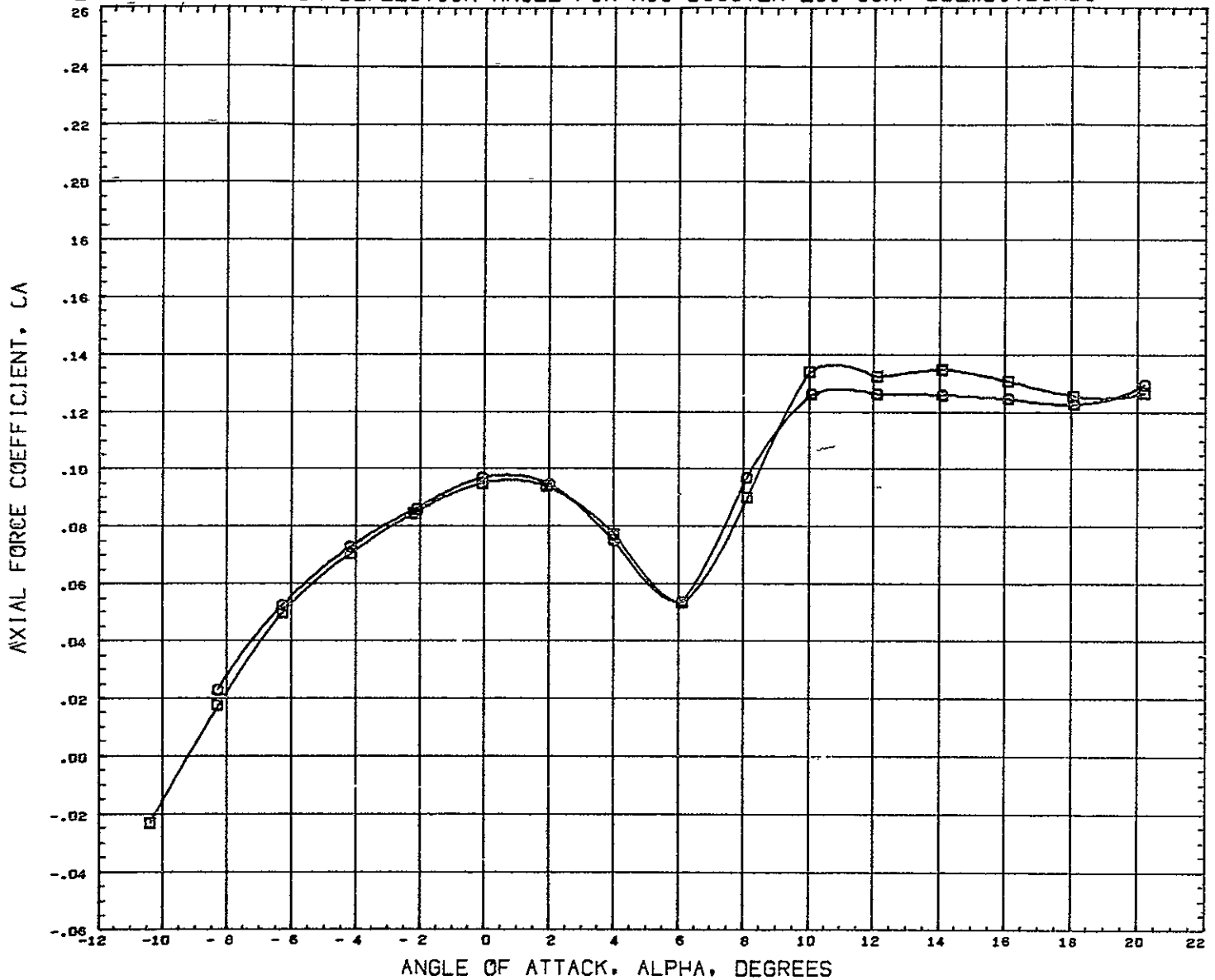
DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
0.0	0.973	ELEVTR	-20.000	BETA	0.000
0.0	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

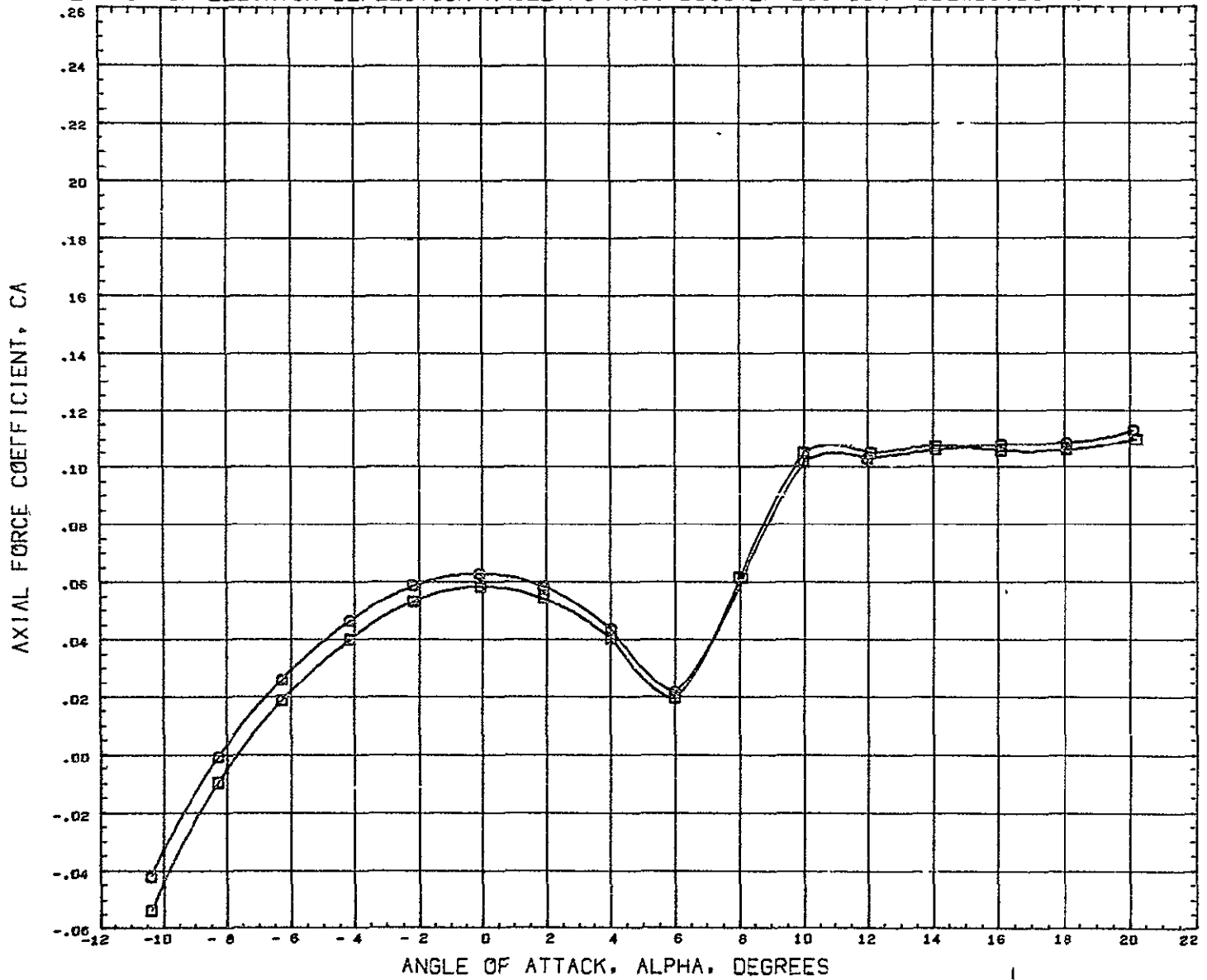
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0 973	ELEVTR	- 10 000	BETA	0 000
□	0 929	MACH	0 250	IT	0,000
		CBRW	0 670		

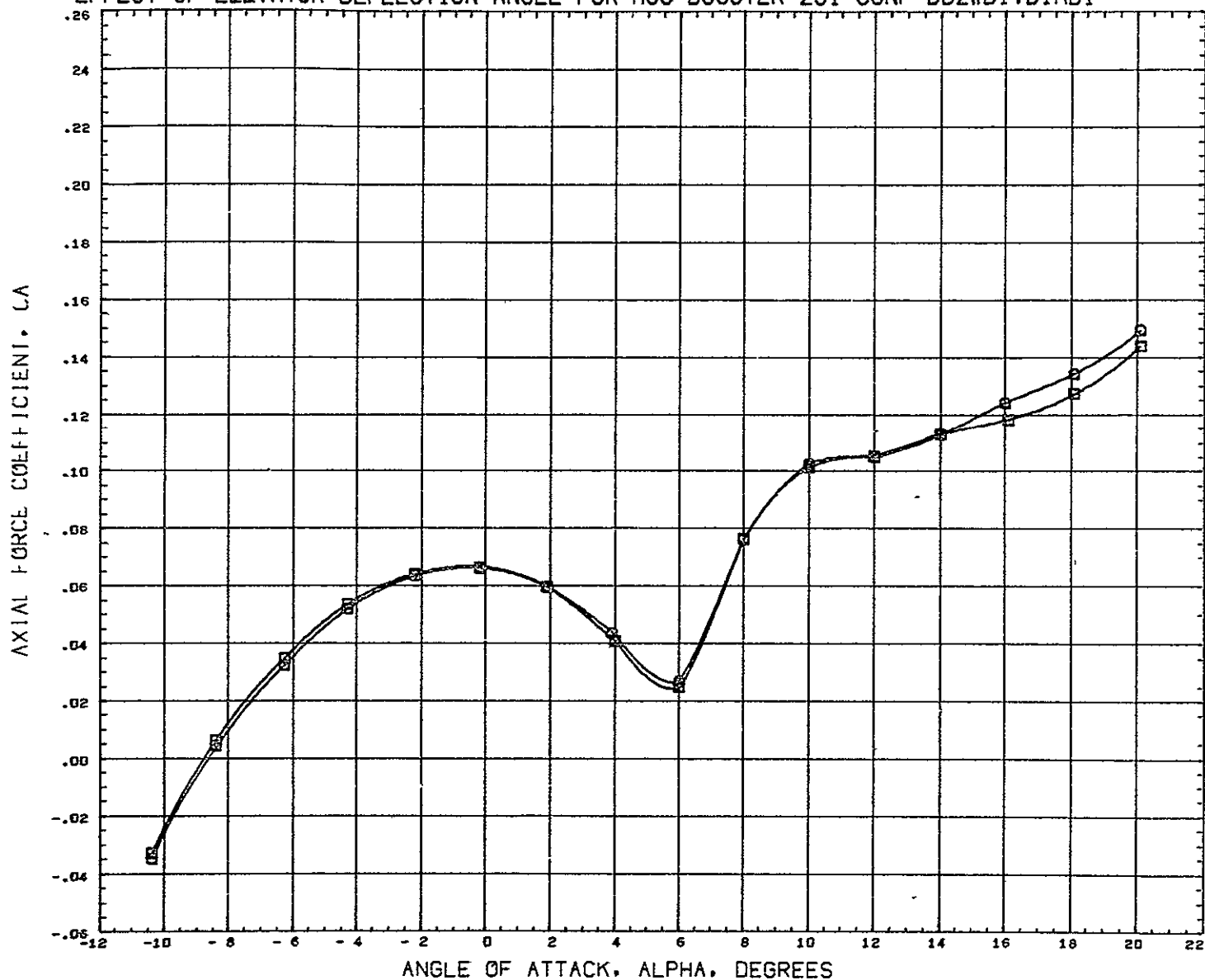
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



YMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	10.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

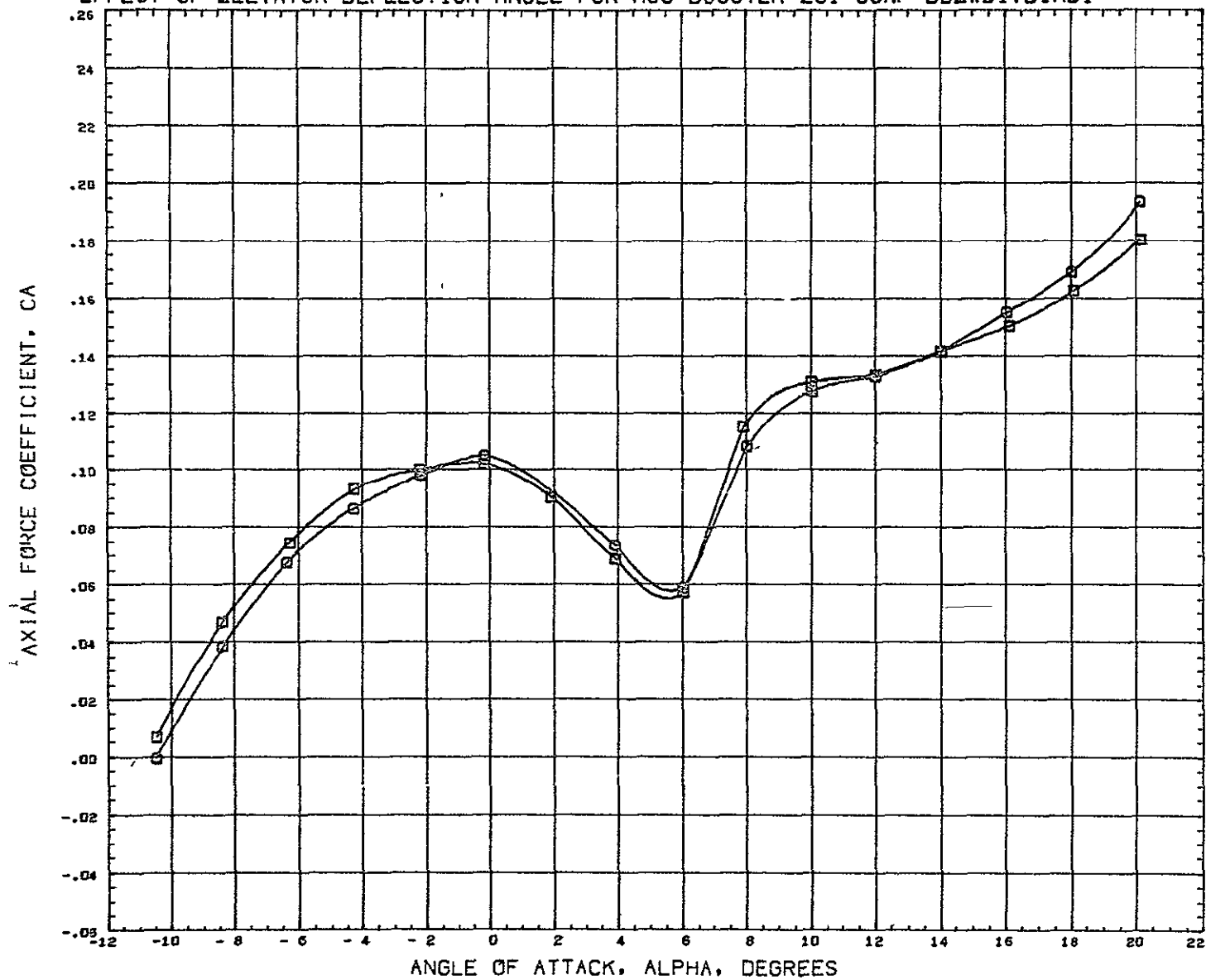
DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
LI	0.973	ELEVTR	20.000	BETA	0.000
	0.929	HACH	0.250	IT	0.000
		CBRW	0.670		

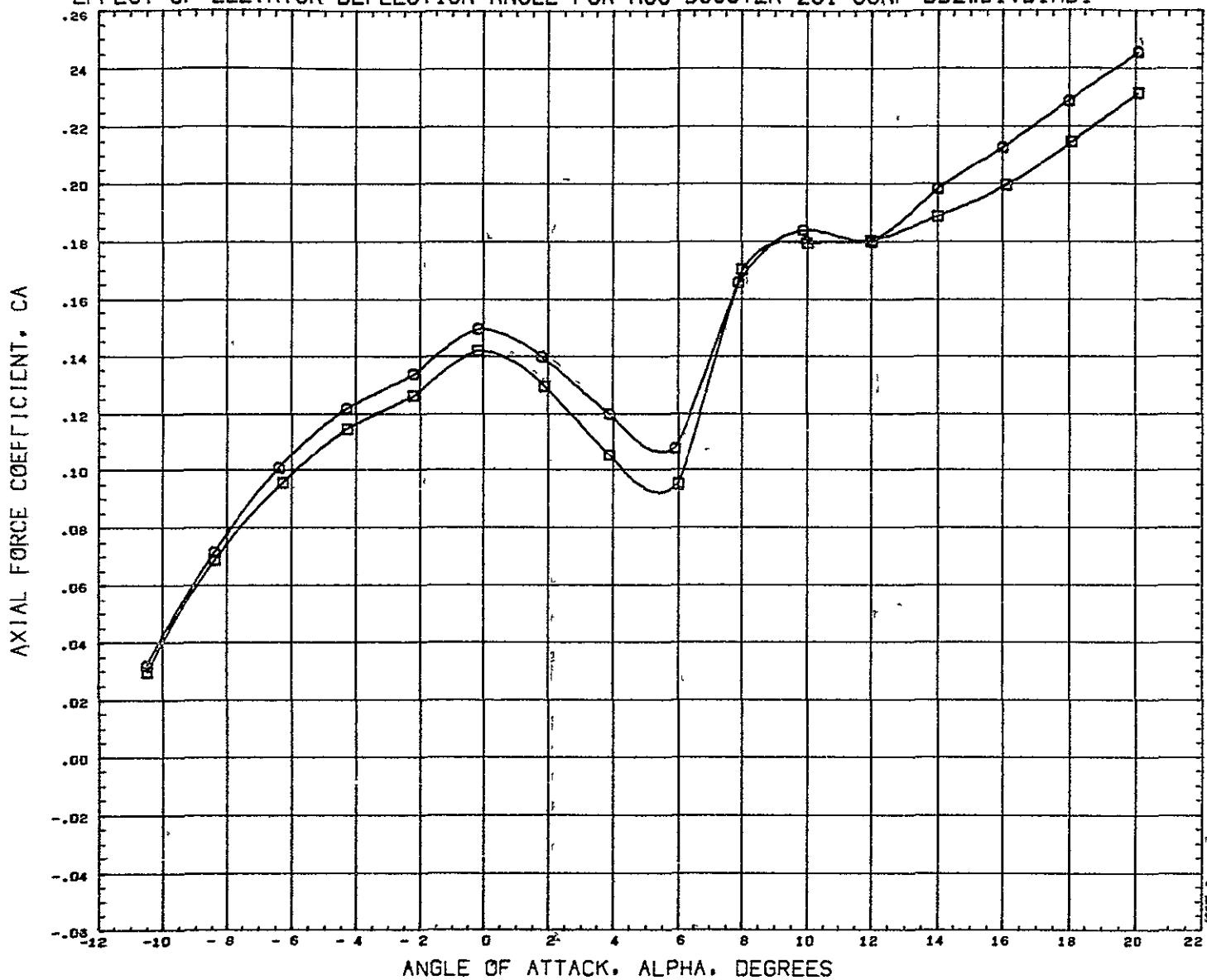
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XHRF	65.0000	PCT LB
YHRF	0.0000	
ZHRF	67.5500	PCT 2B
SCALE	1.3215	PCT

DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEV°	30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

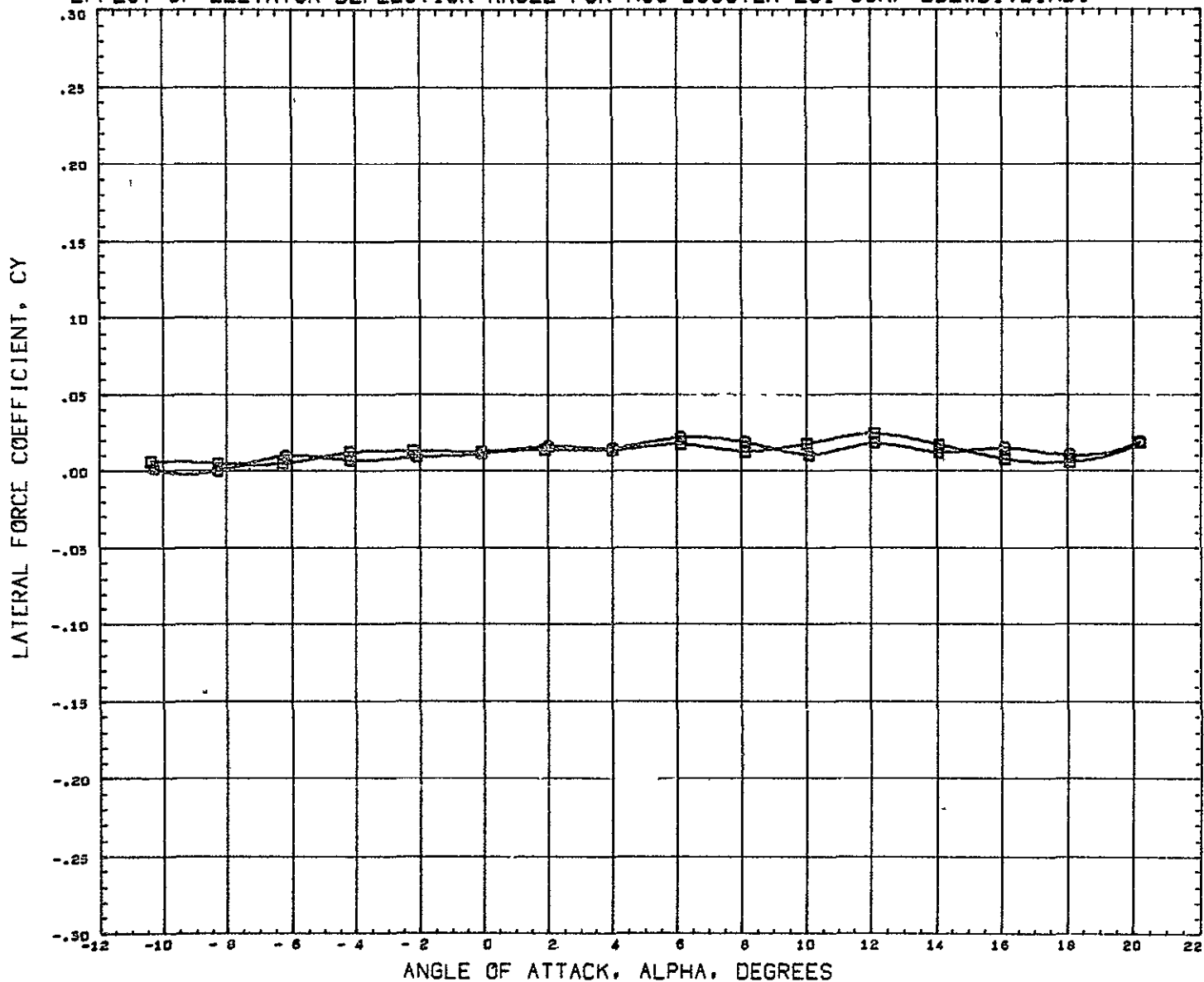
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.070		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

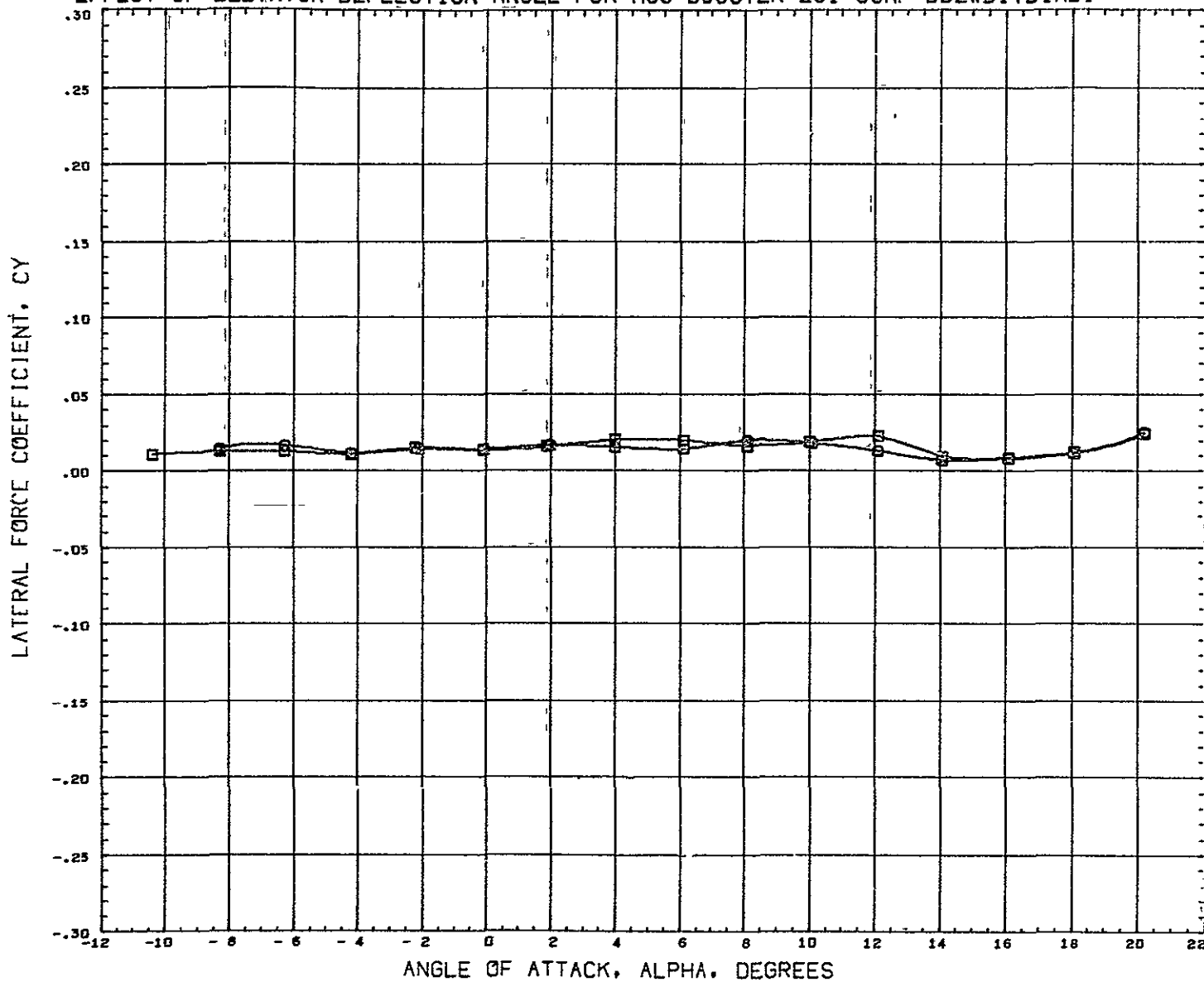
DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0 973	ELEVTR	- 20 000	BETA	0.000
□	0 929	MACH	0 250	IT	0 000
		CBRW	0.670		

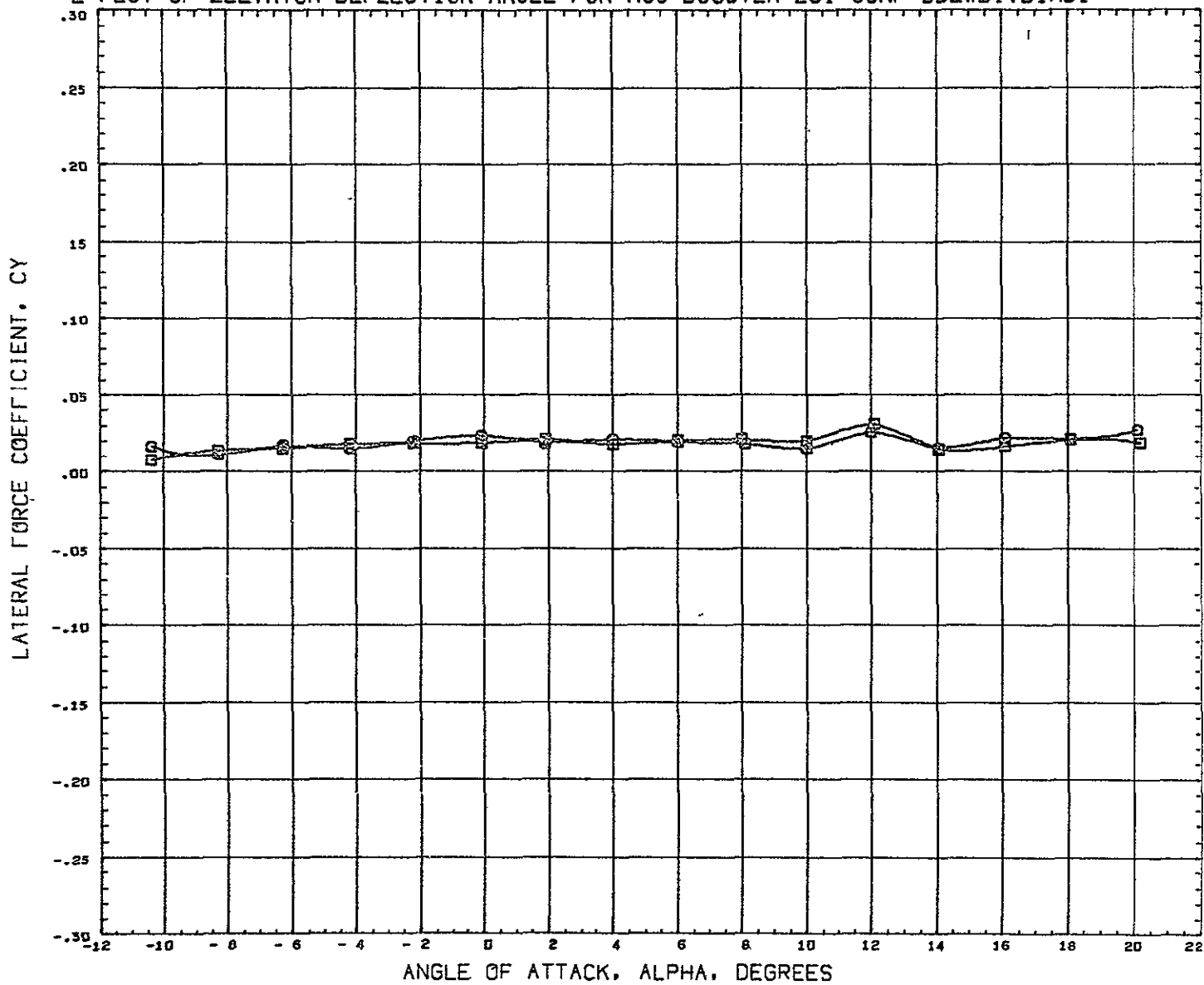
REFERENCE INFORMATION		
REFS	0 8460	FT Sq
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT 'LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1

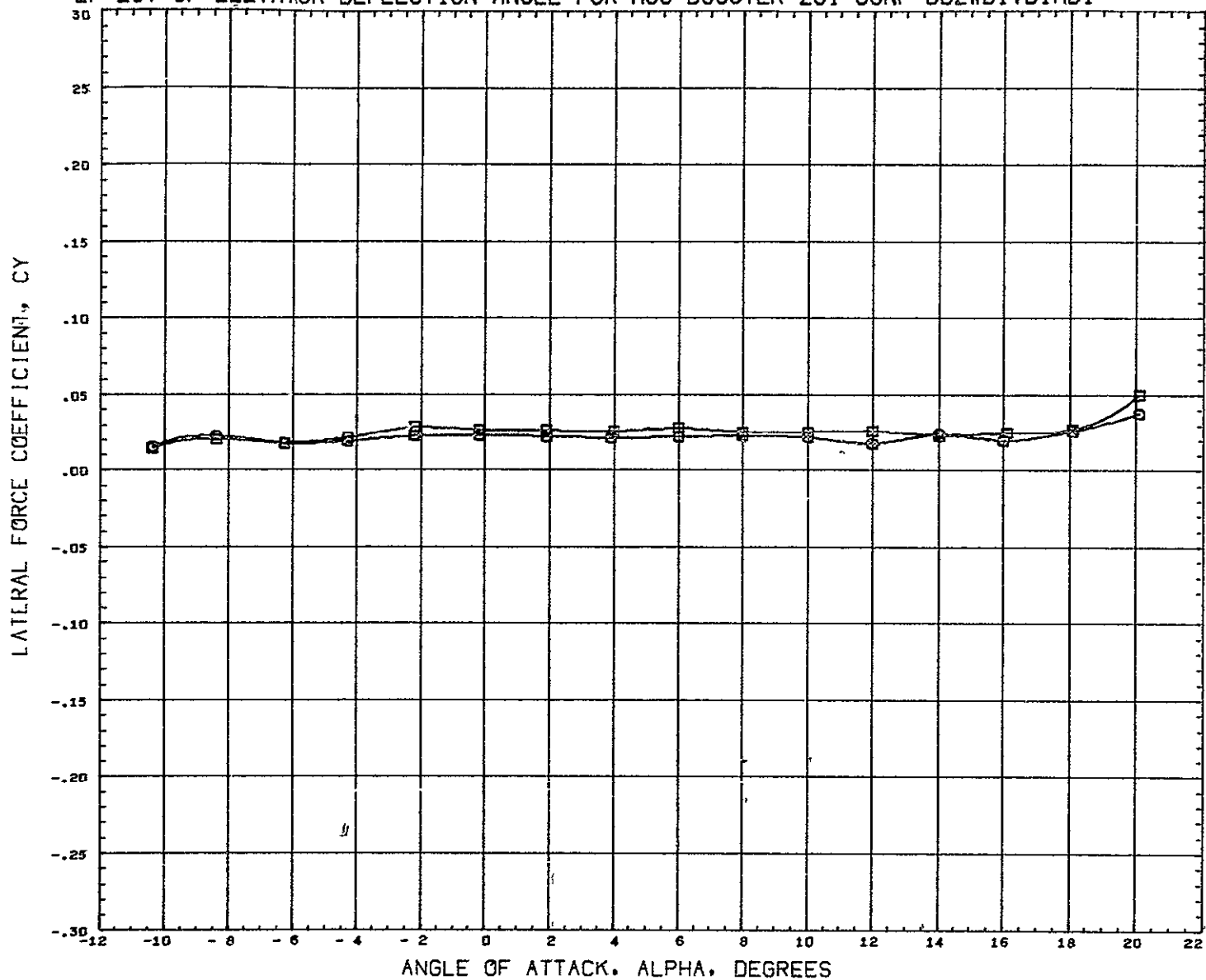


SYMBOL CBRH PARAMETRIC VALUES
 O 0.973 ELEVTR - 10.000 BETA 0.000
 □ 0.929 MACH 0.250 IT 0.000
 CBRW 0.670

REFERENCE INFORMATION
 REFS 0.8460 FT SQ
 REFL 0.3810 FT
 REFB 2.4630 FT
 XMRP 65.0000 PCT LB
 YMRP 0.0000
 ZMRP 67.5500 PCT ZB
 SCALE 1.3215 PCT

DATA HIST CODE *E#A

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0 973	ELEVTR	10.000	BETA	0.000
□	0 929	MACH	0 250	IT	0.000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT 50
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	FCT LB
YMRP	0 0000	
ZMRP	67 5500	FCT ZB
SCALE	1 3215	FCT

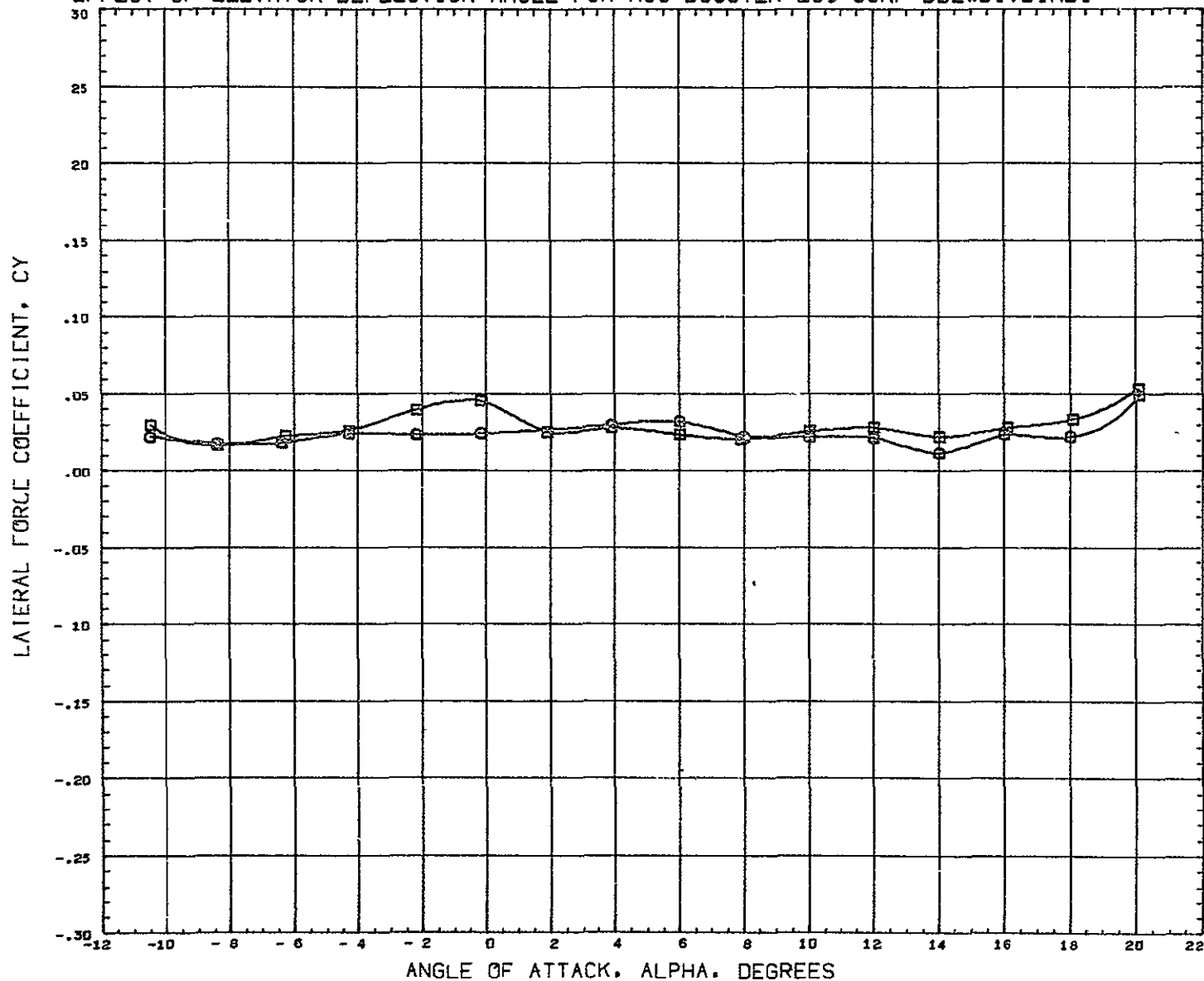
DATA HIST. CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
LID	0 973	ELEVTP	20.000	BETA	0 000
LID	0 929	MACH	0 250	IT	0 000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

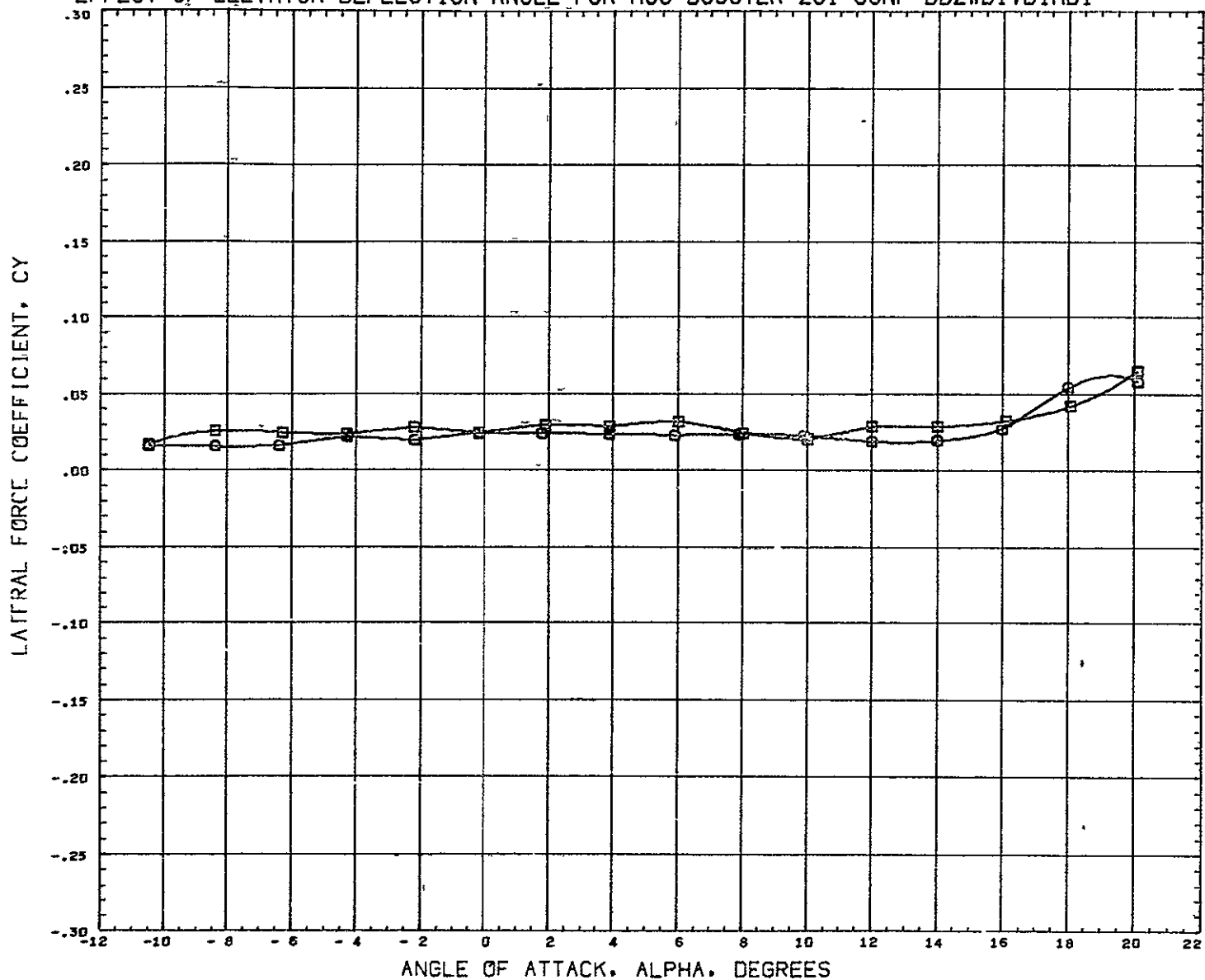
DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	30 000	BETA	0 000
□	0.929	MACH	0 250	IT	0.000
		CBRW	0 670		

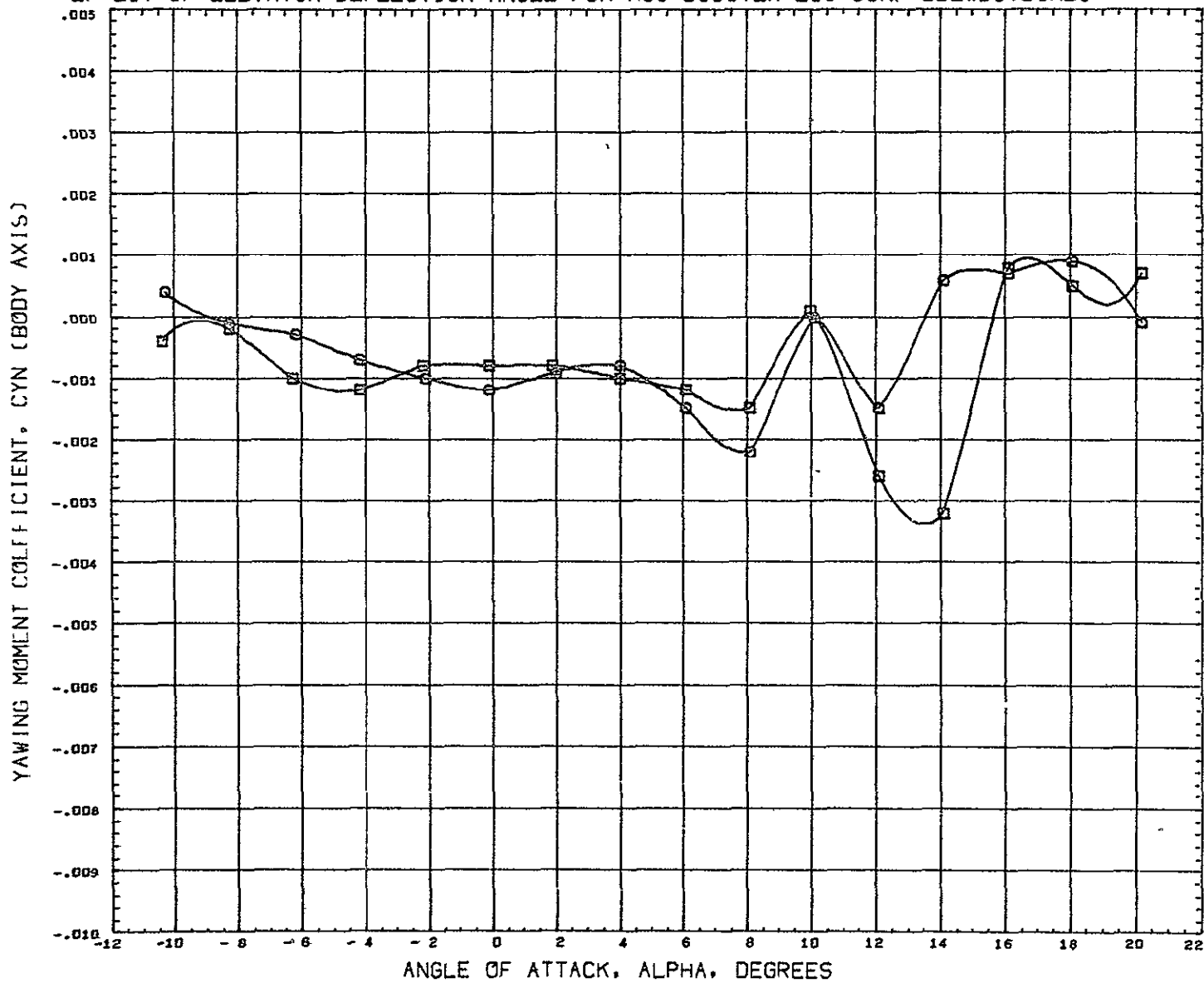
REFERENCE INFORMATION		
REFS	0 8460	FT S8
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT L8
YMRP	0 0000	
ZMRP	67 5500	PCT 28
SCALE	1 3215	PCT

DATA HIST. CODE *E*A

*SC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	-30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

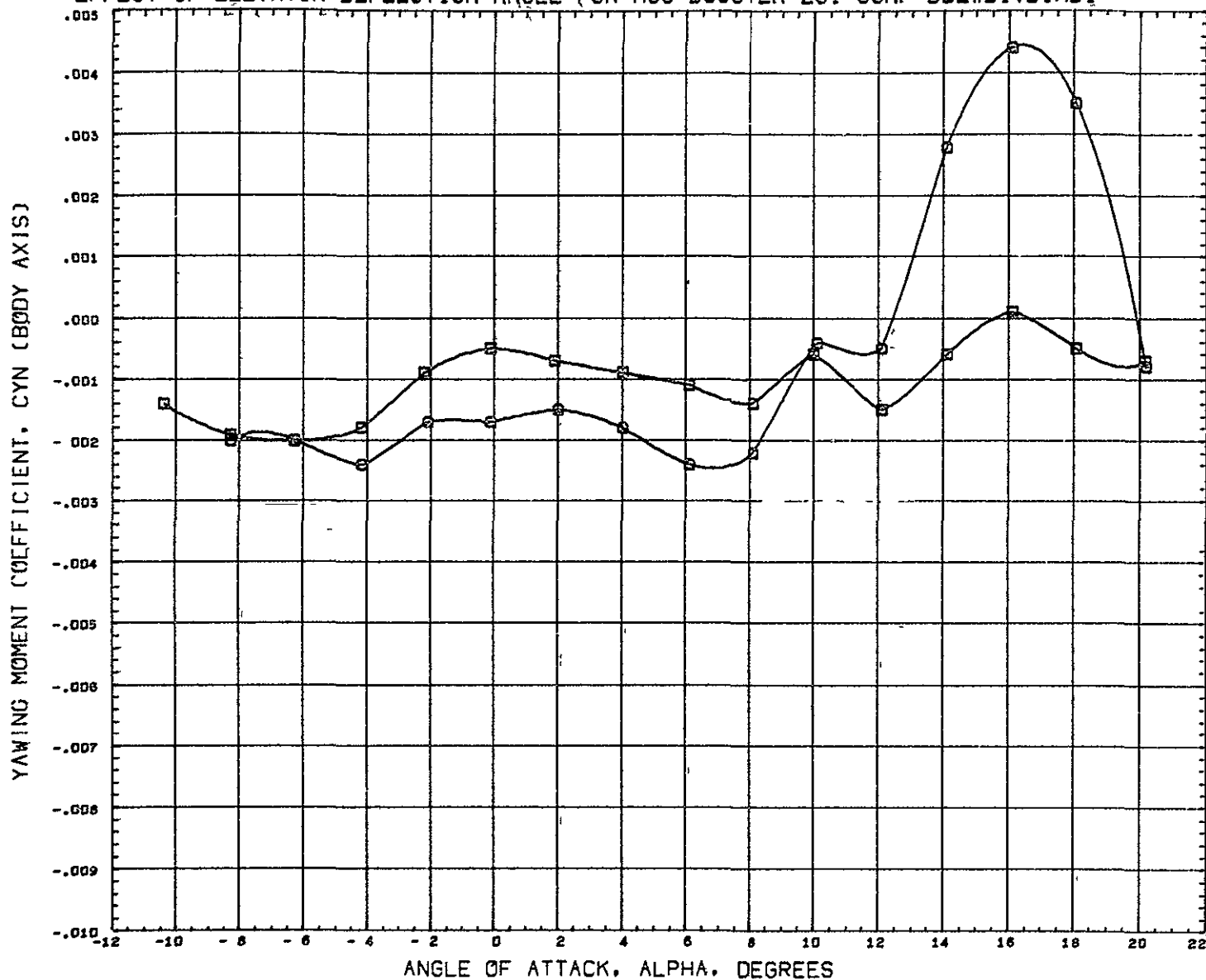
DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL CBRH PARAMETRIC VALUES
 □ 0.973 ELEVTR - 20.000 BETA 0 000
 □ 0.929 MACH 0 250 IT 0 000
 CBRW 0.670

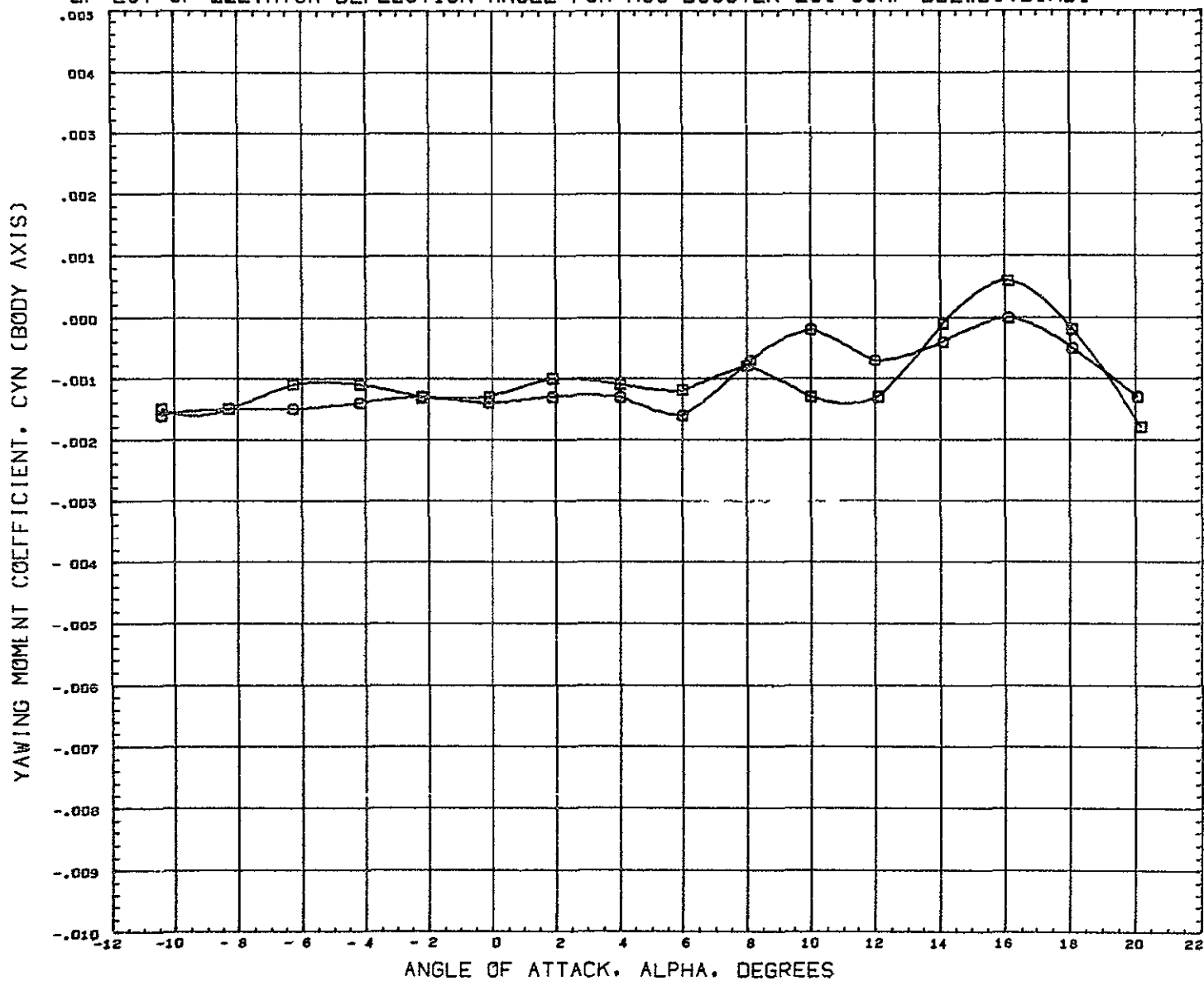
REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XHRP 55.0000 PCT LB
 YHRP 0 0000
 ZHRP 57 5500 PCT ZB
 SCALE 1 3215 PCT

DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1

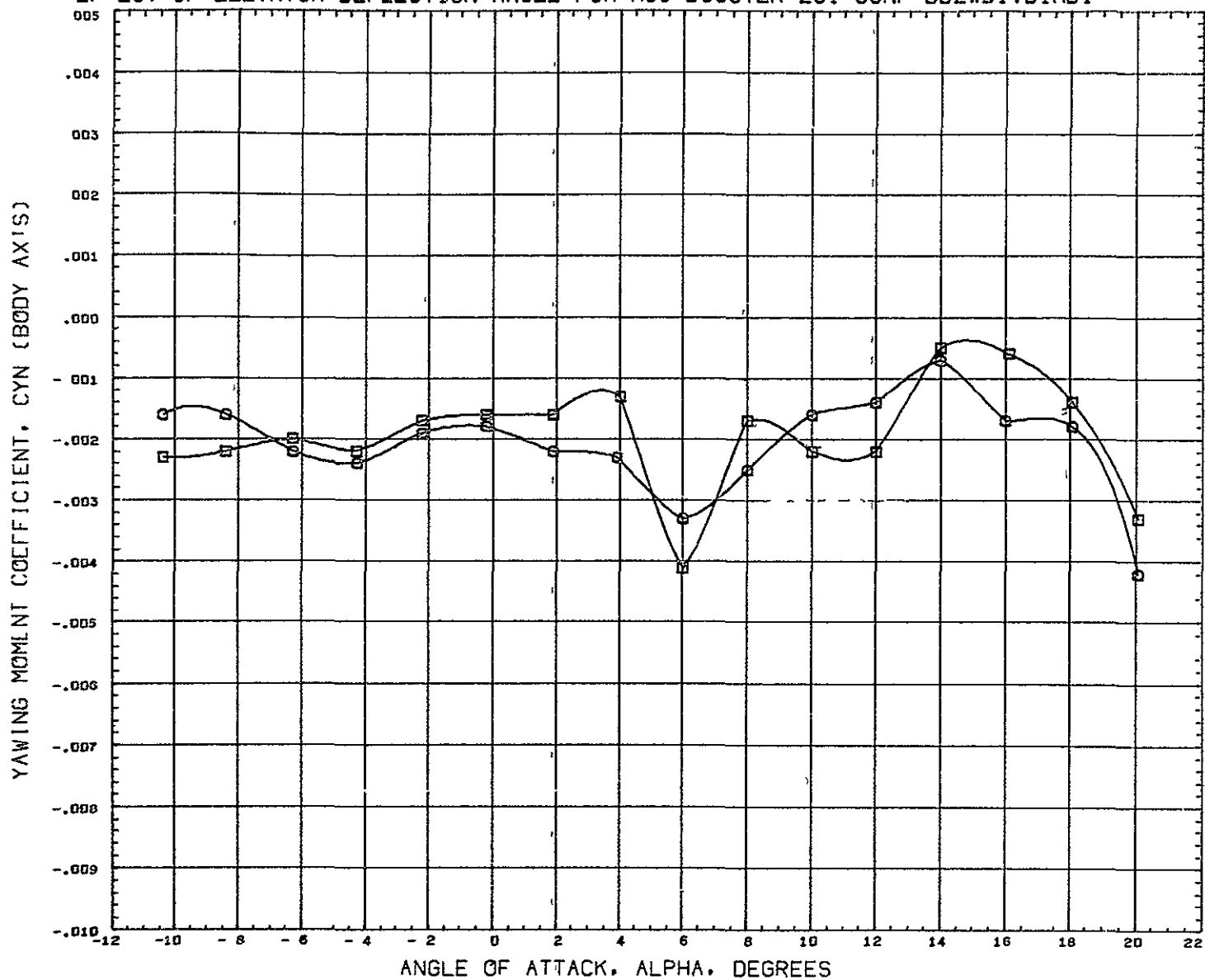


SYMBOL	CBRW	PARAMETRIC VALUES		
○	0.973	ELEVTR	- 10 000	BETA 0 000
□	0.929	MACH	0 250	11 0 000
		CBRW	0 670	

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E*A

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0 973	ELEVTR	10.000	BETA	0.000
□	0 929	MACH	0 250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRF	65 0000	FCT LB
YMRF	0 0000	
ZMRF	67 5500	PCT ZB
SCALE	1 3215	PCT

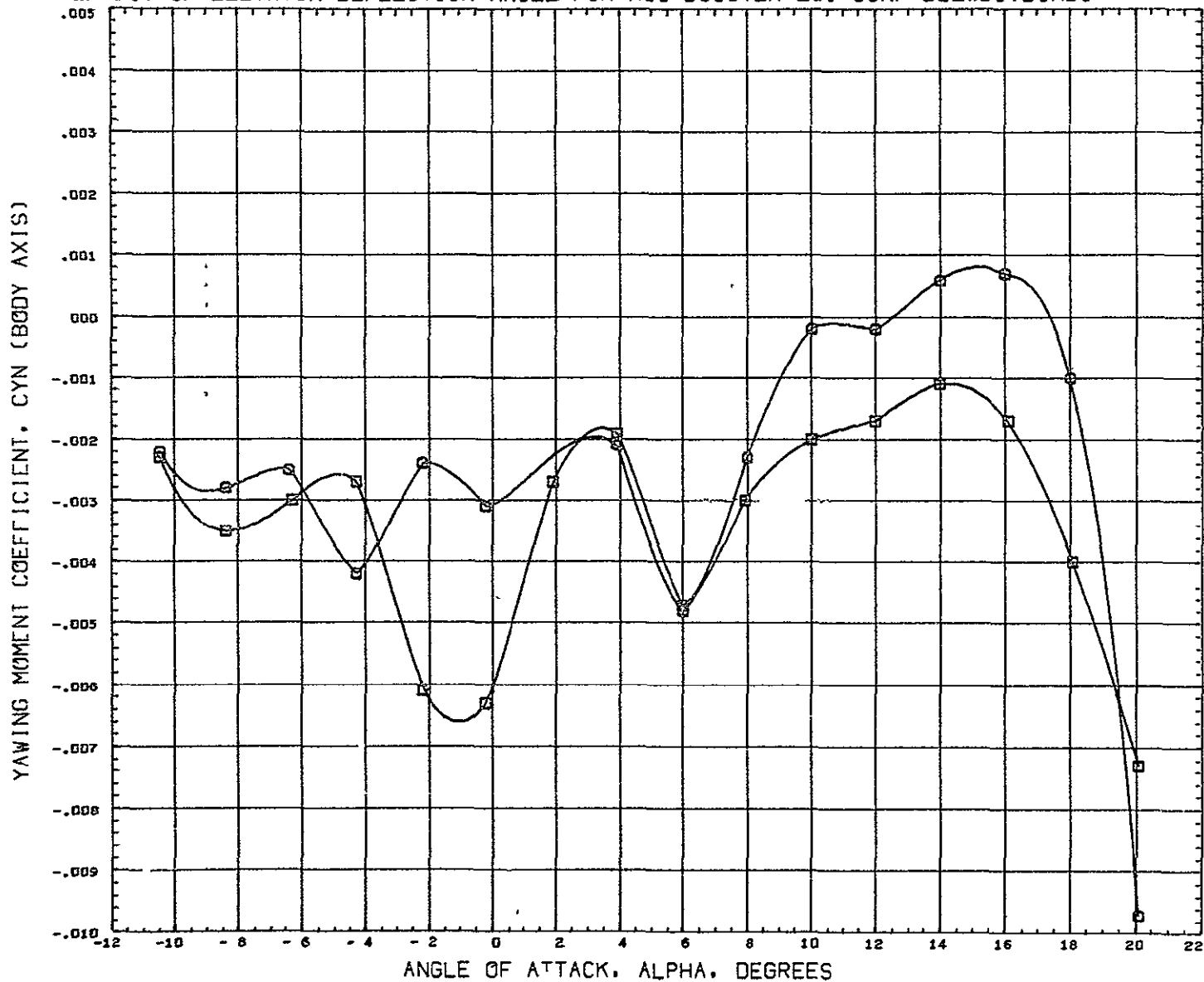
DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	20.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

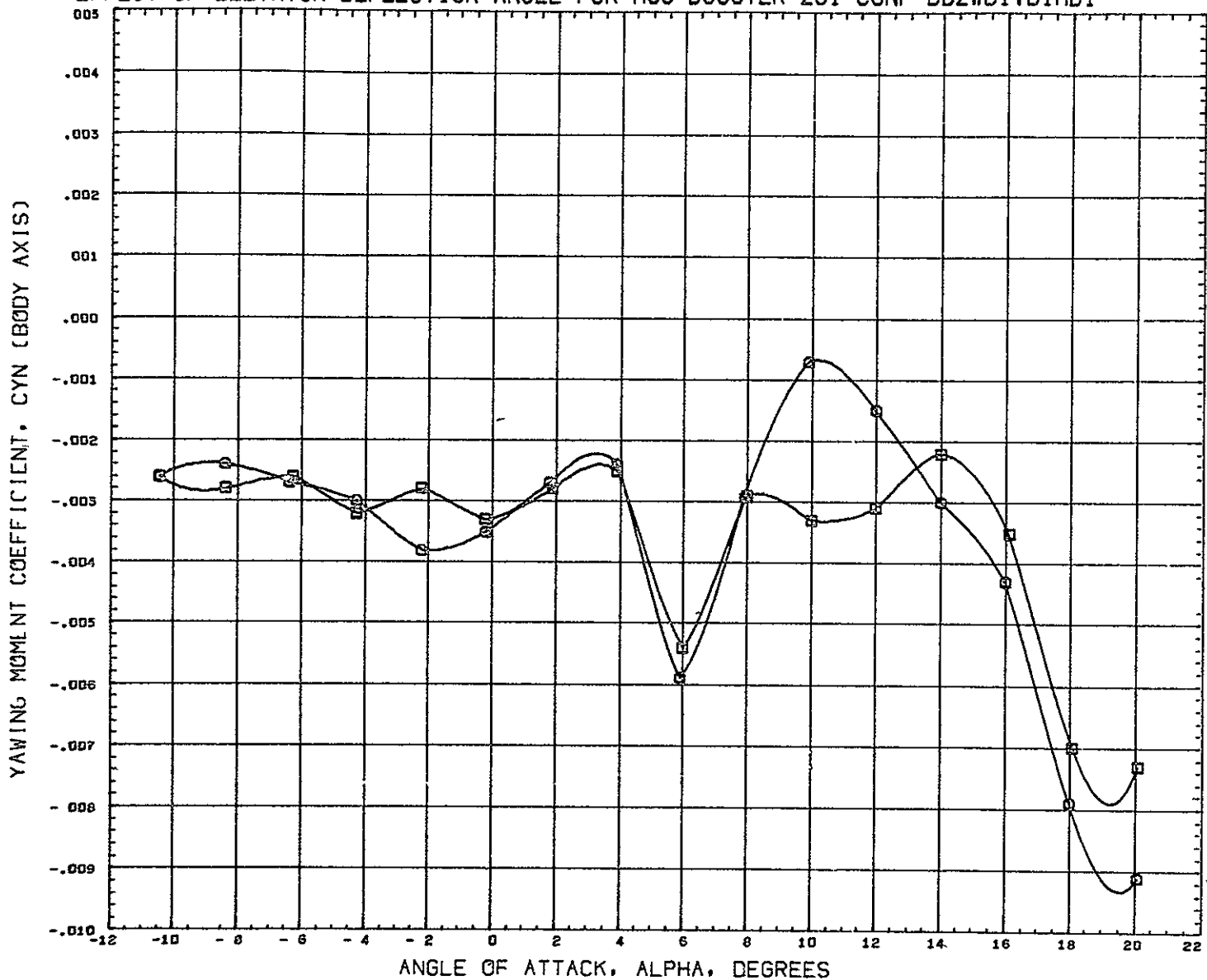
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.973	ELEVTR	30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

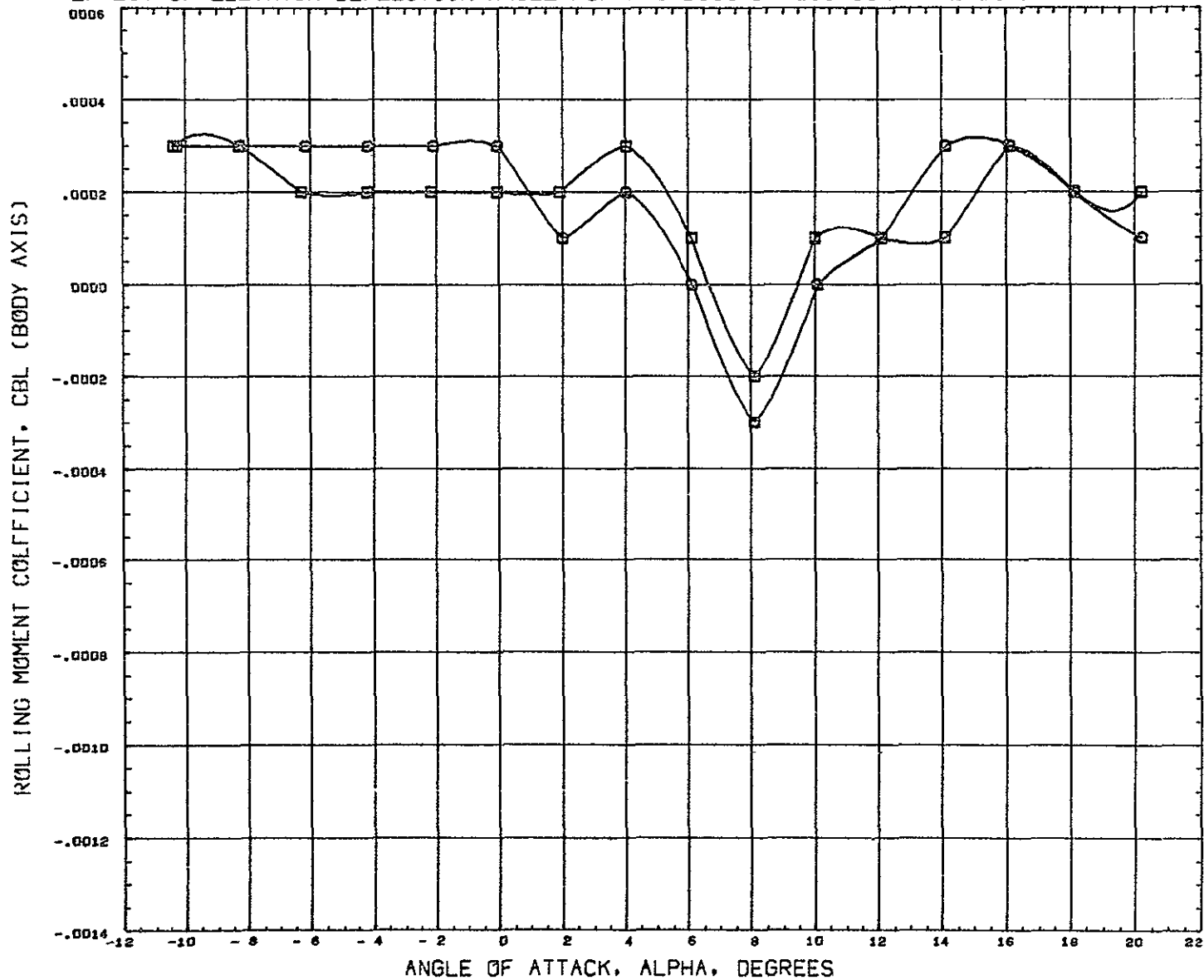
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1

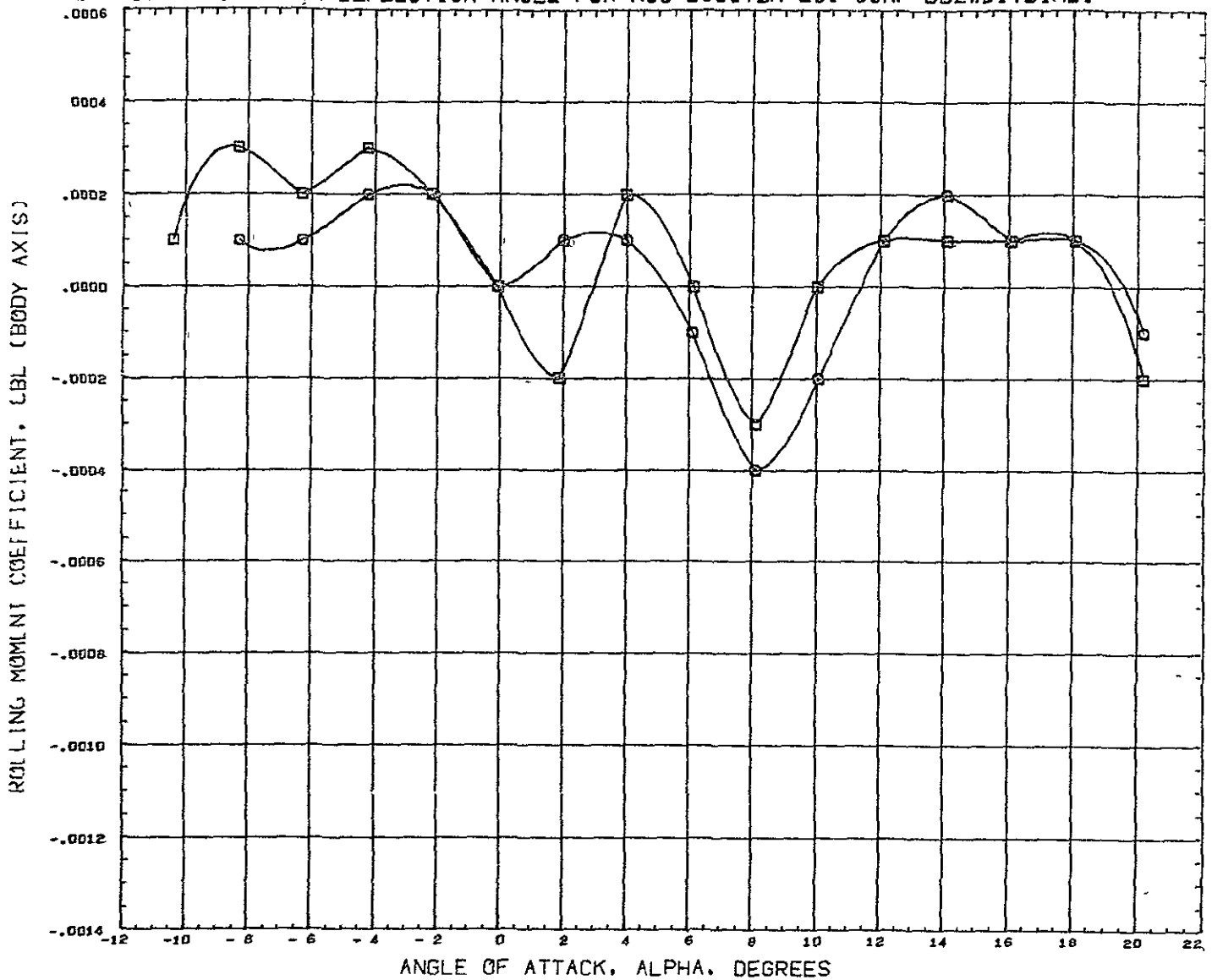


SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



YMBOL CBRH
 O 0.973
 U 929
 ELEVTR - 20.000
 MACH 0.250
 CBRW 0.670
 BETA 0.000
 IT 0.000

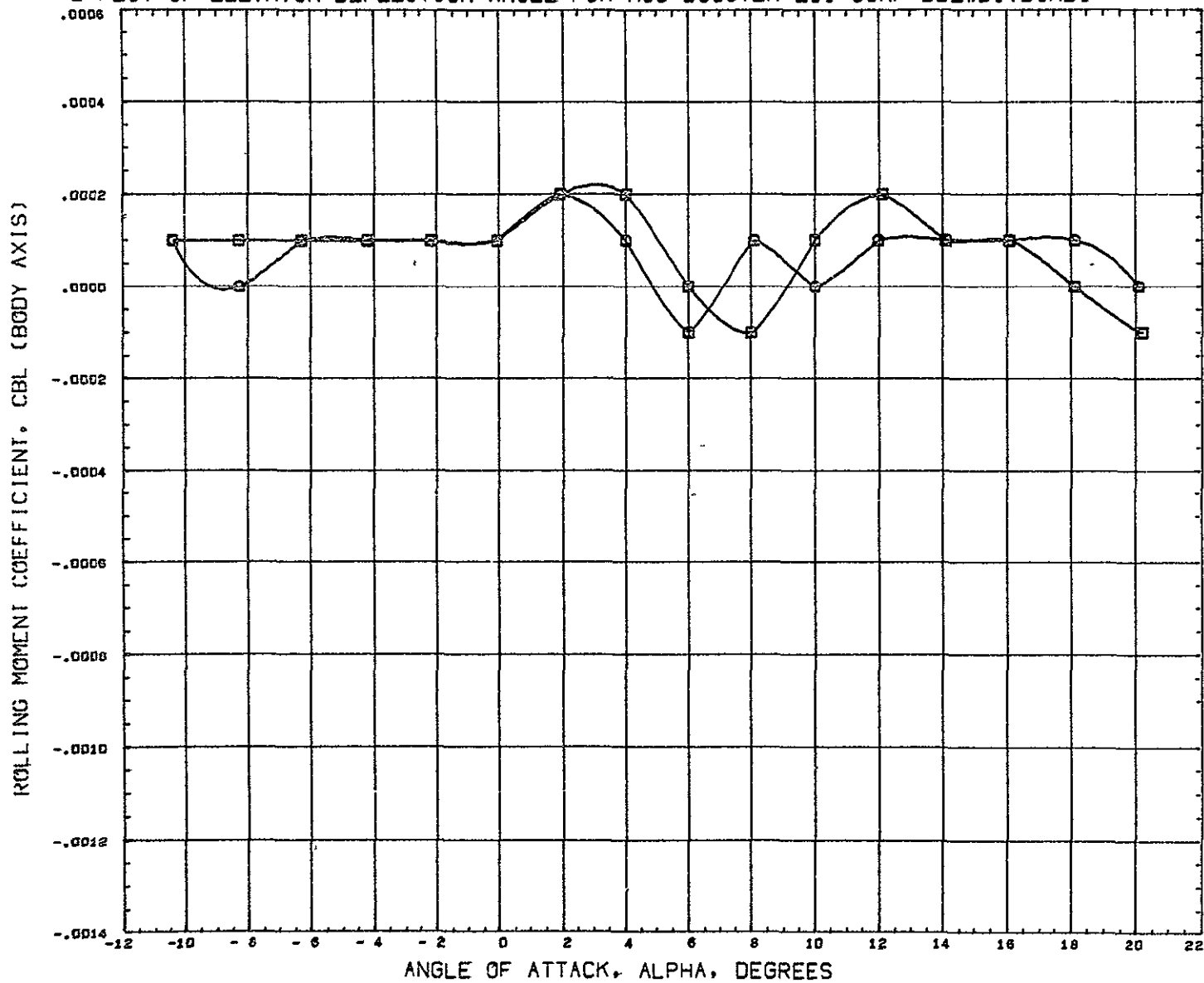
DATA HIST CODE *E#A

REFERENCE INFORMATION
 REFS 0 8460 FT SQ
 REFL 0 3810 FT
 REFB 2 4630 FT
 XMRP 55 0000 FCT LB
 YMRP 0 0000
 ZMRP 67 5500 FCT ZS
 SCALE 1 3215 FCT

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
00	0 973	ELEVTR	- 10.000	BETA	0 000
01	0 929	MACH	0.250	IT	0 000
		CBRW	0 670		

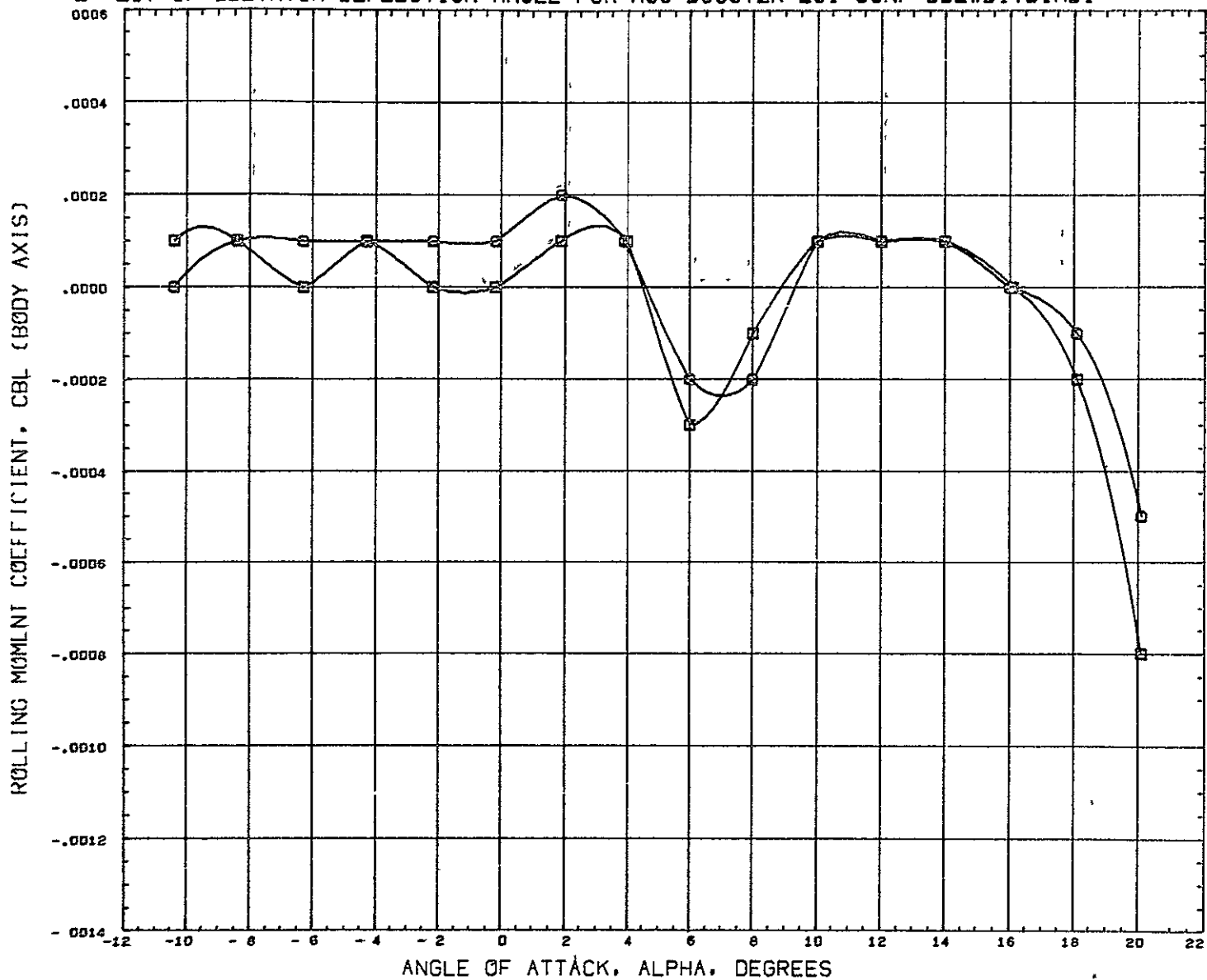
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67.5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	10 000	BETA	0 000
□	0.929	HACH	0 250	IT	0 036
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

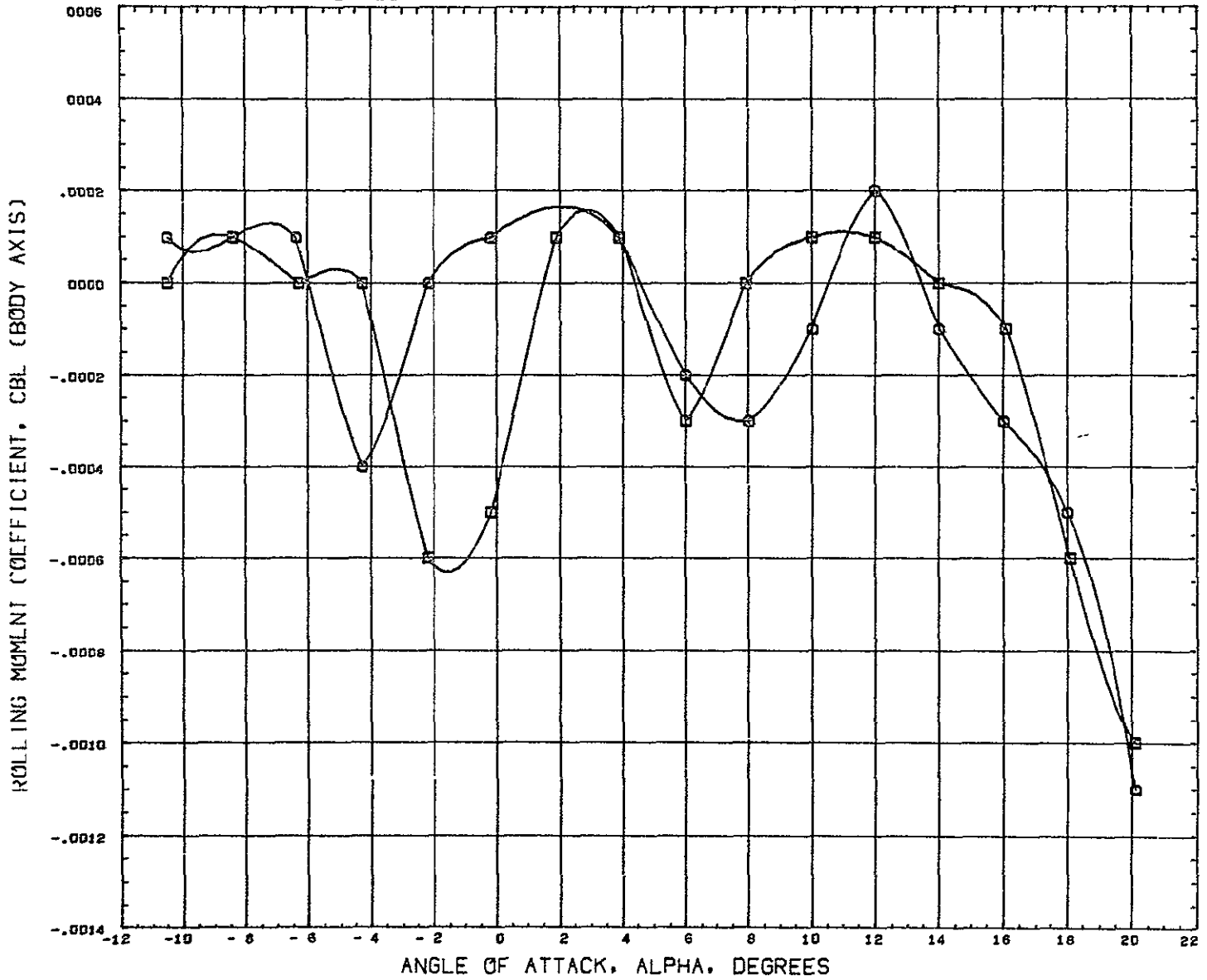
DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



YMBOL	CBRH	PARAMETRIC VALUES			
00	0.973	ELEVTR	20.000	BETA	0.000
01	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	F1 SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

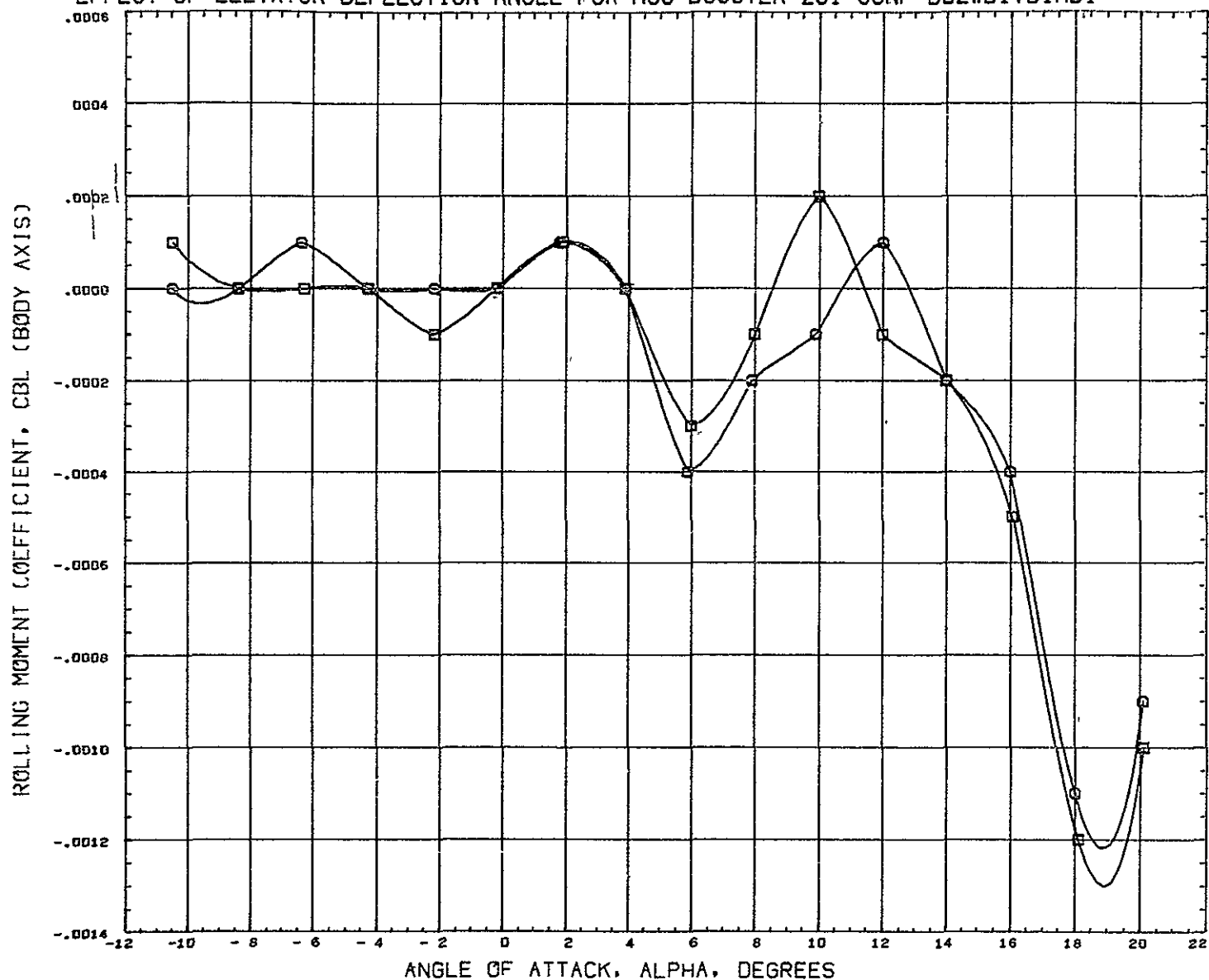
DATA HIST CODE #E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	3.973	ELEVTR	30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

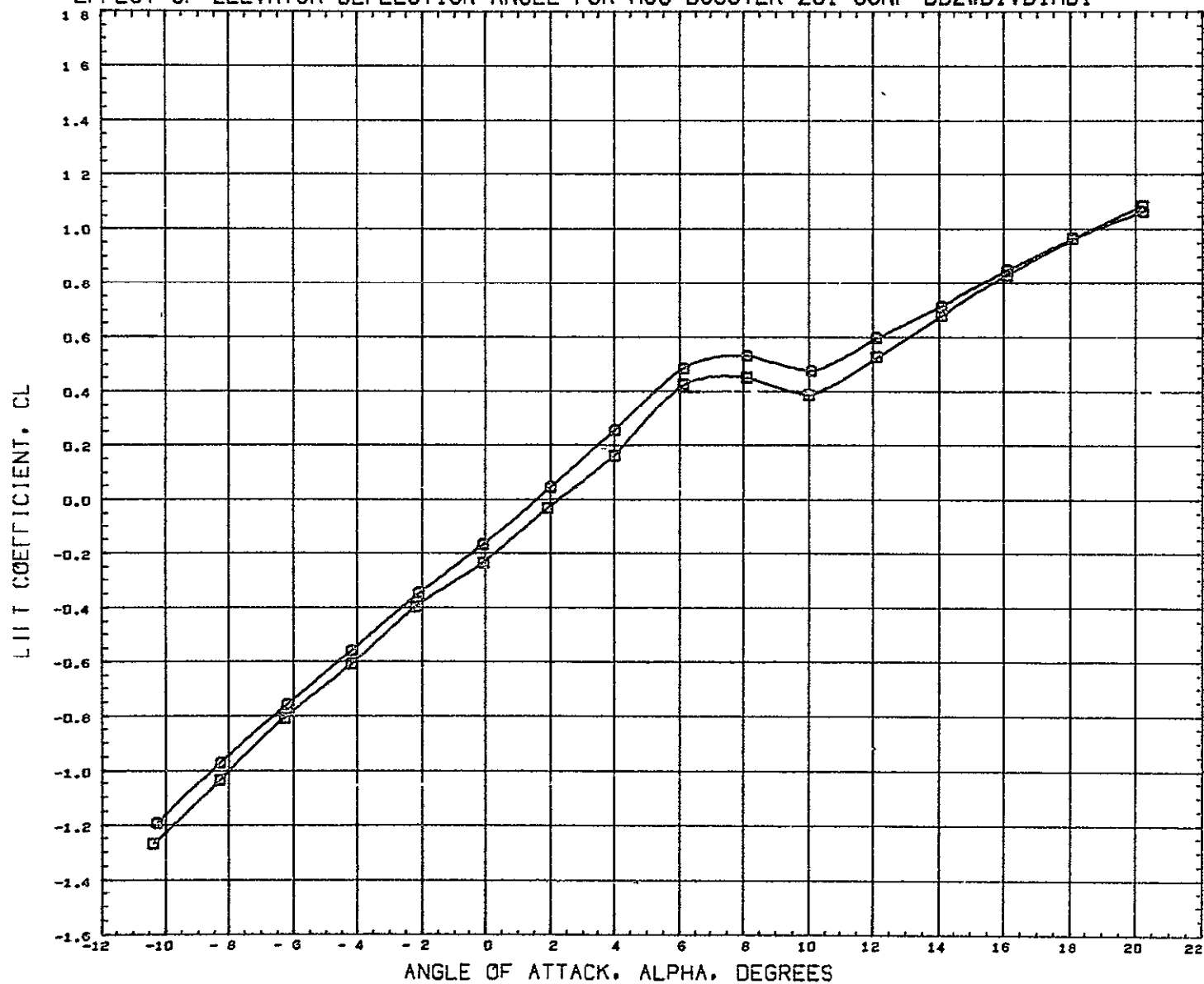
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 30 000	BETA	0.000
□	0.929	HACH	0 250	IT	0.000
		CBRW	0 670		

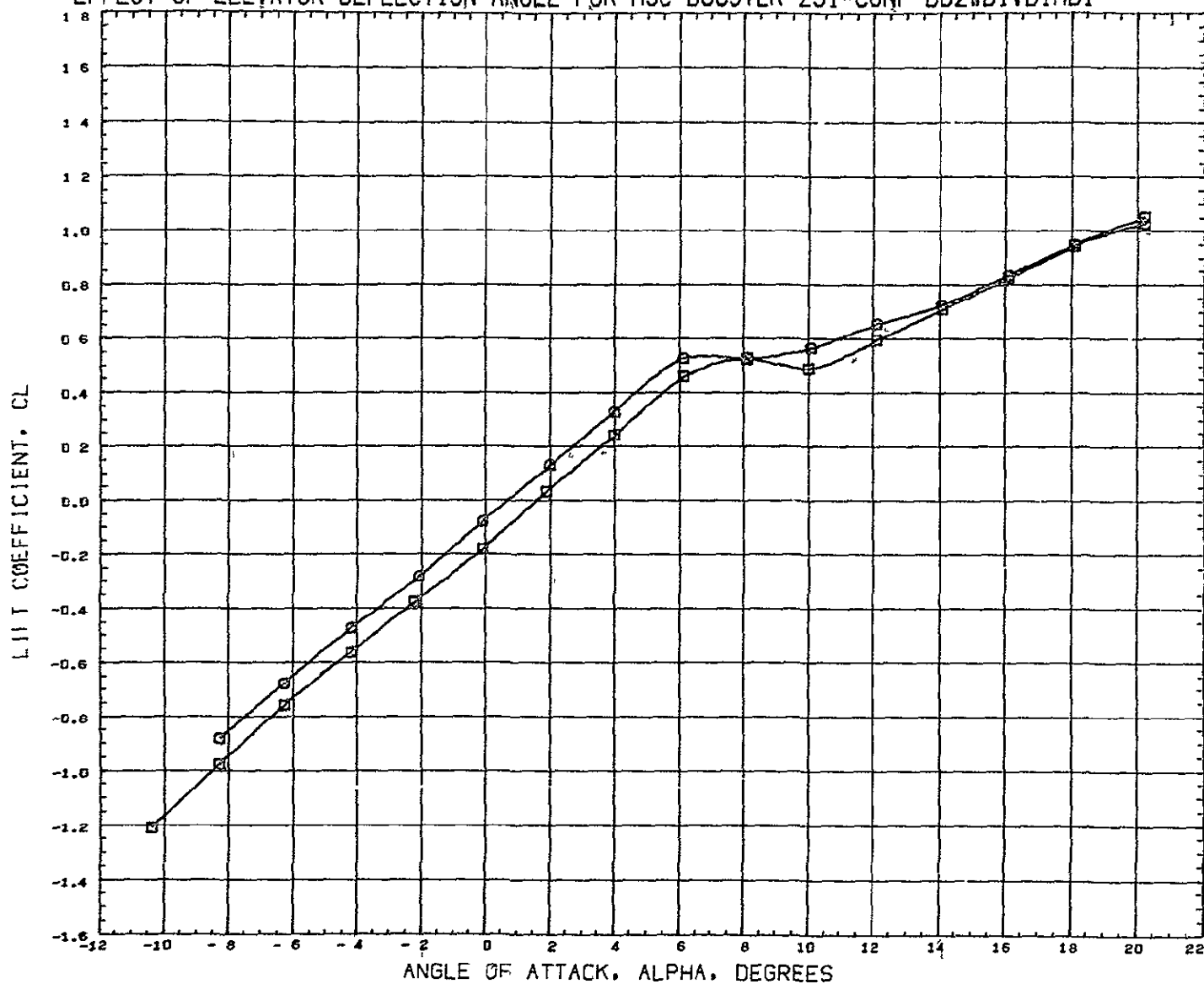
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.971	ELEVTR	- 20 000	BETA	0 000
□	0.929	MACH	0 250	IT	0.000
		CBRW	0.670		

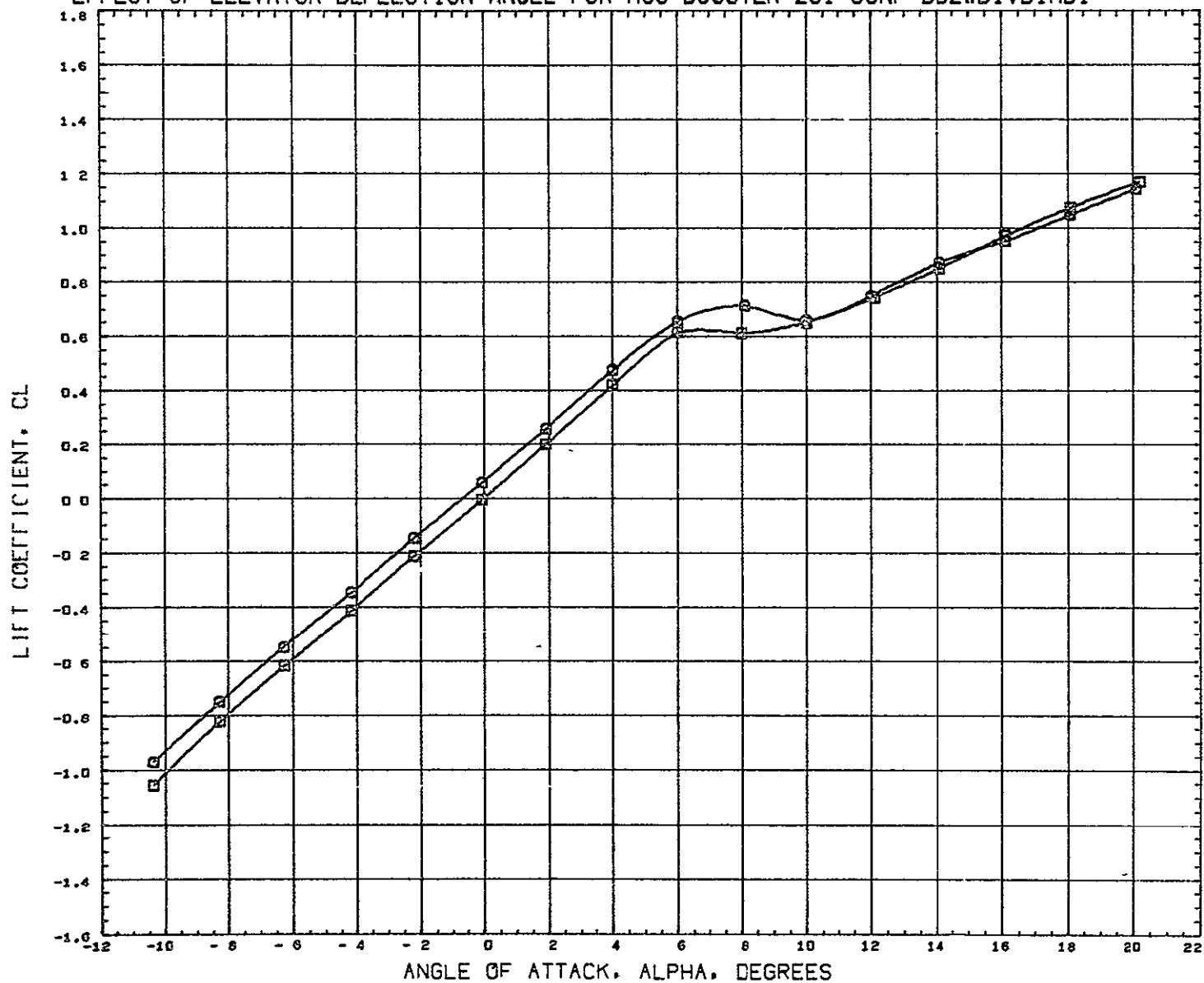
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0.0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E+A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.973	ELEVTP	-10.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

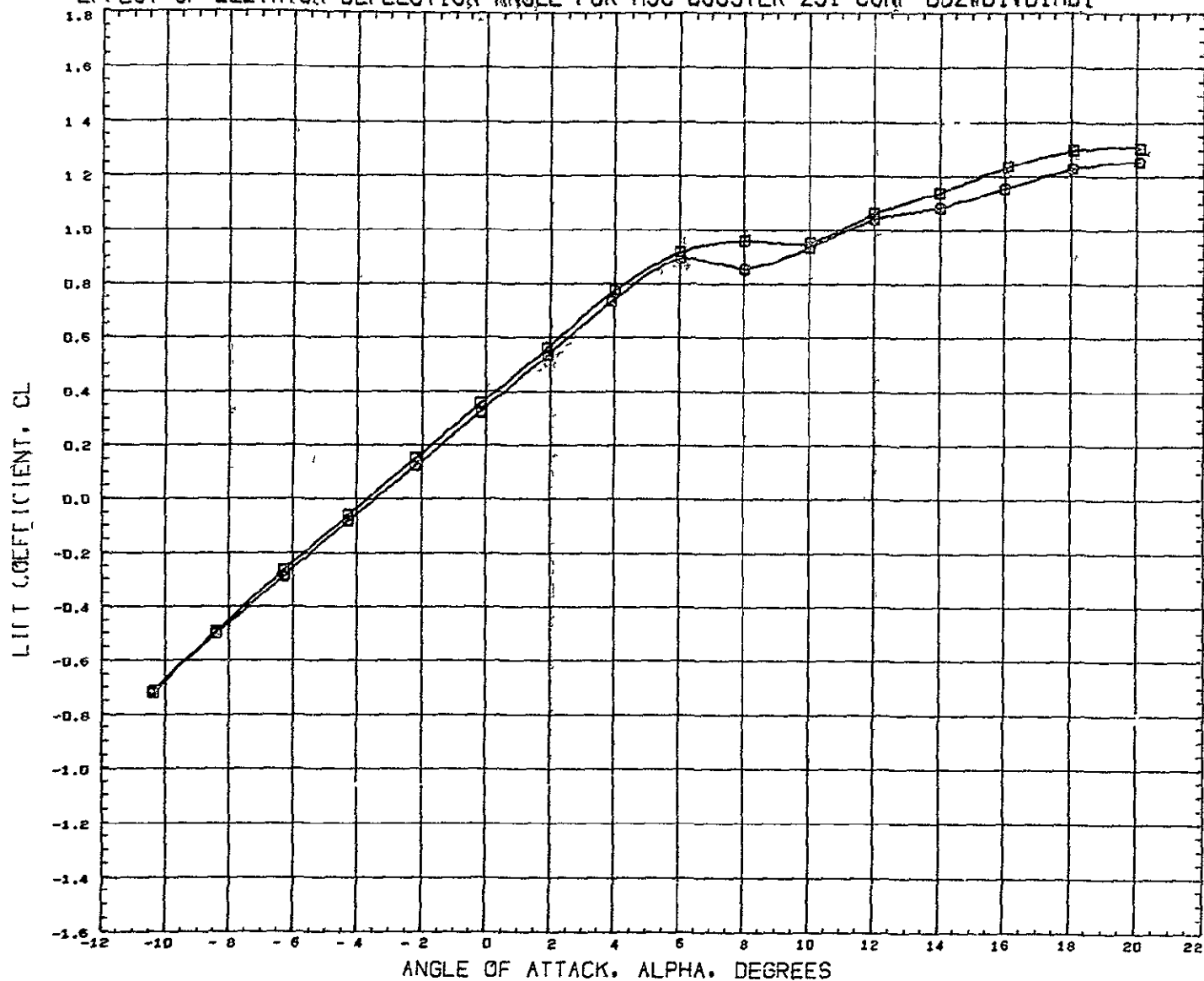
REFERENCE INFORMATION		
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REFL	0.3810	FT
REFB	2.4630	FT
XMRF	65.0000	PCT LB
YMRF	0.0000	
ZMRF	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
00	0.973	ELEV ⁰	10 000	BETA	0 000
00	0.929	MACH	0 250	IT	0 000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

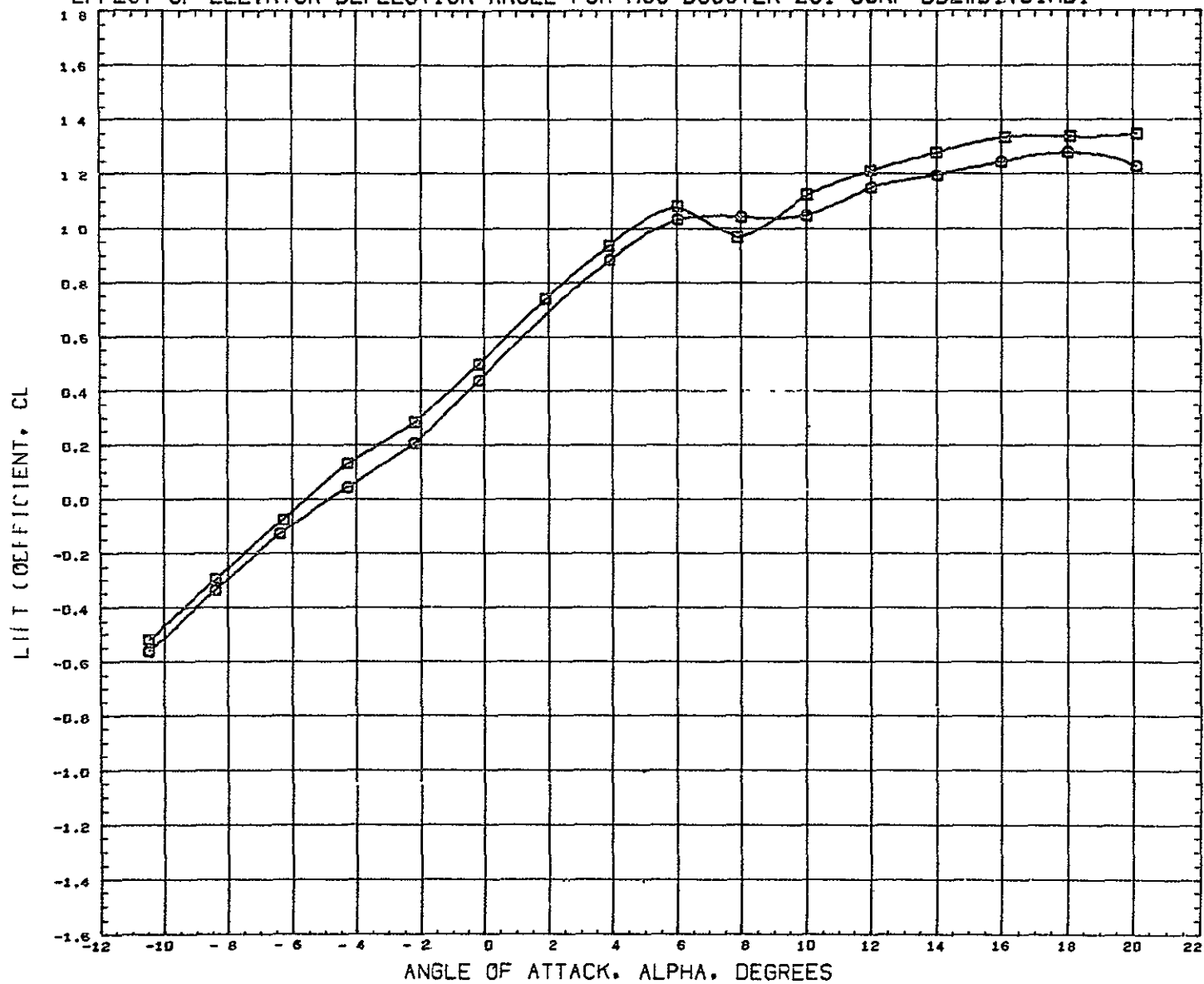
DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	ELEVTR	PARAMETRIC VALUES	BETA	0 000
11	0.97	0.250	IT	0 000	
	0.929	0.670			

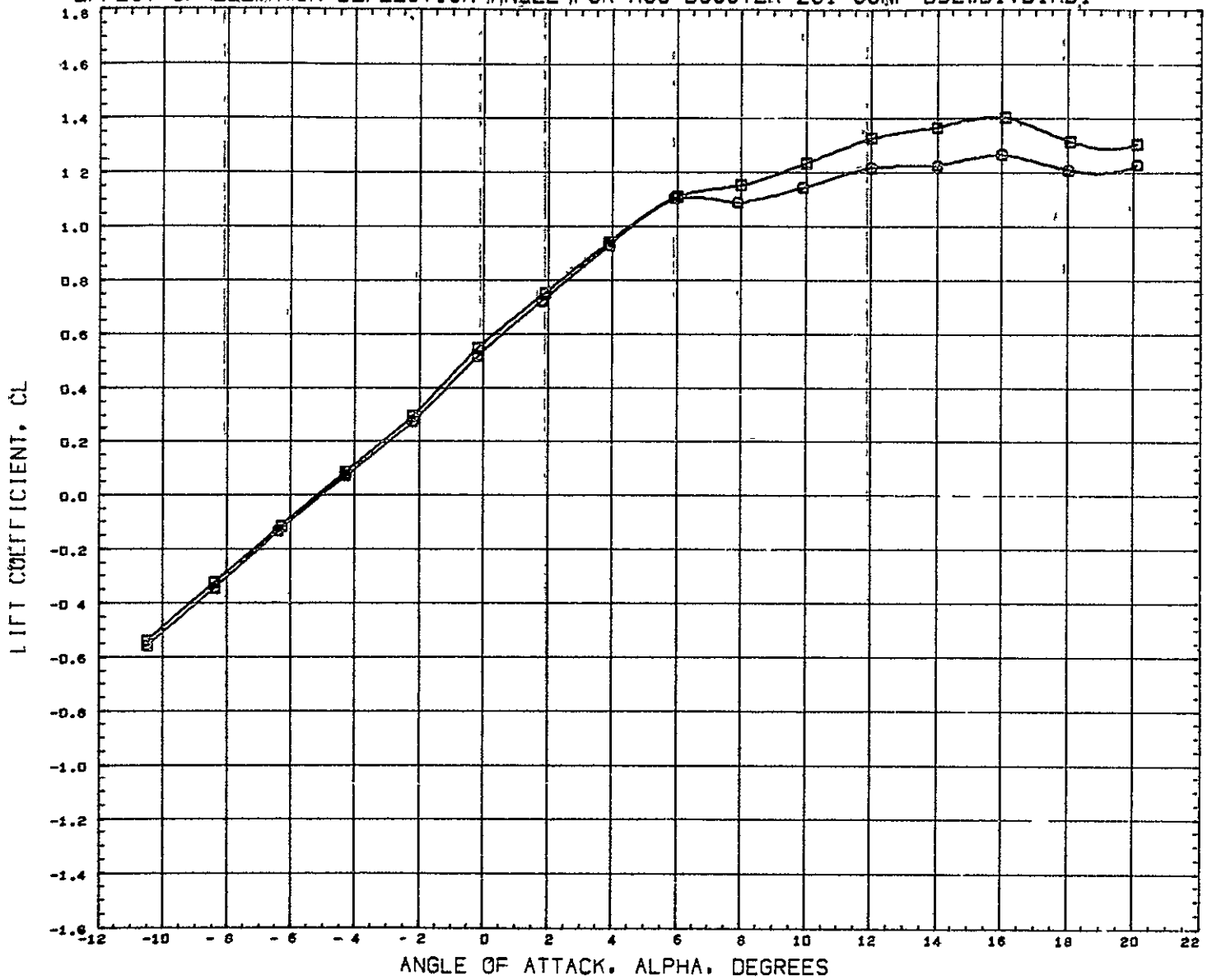
DATA HIST. CODE *E*A

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1.3215	PCT

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
O	0.973	ELEVTR	30 000	BETA	0 000
□	0.929	HACH	0 250	IT	0 000
		CBRW	0 670		

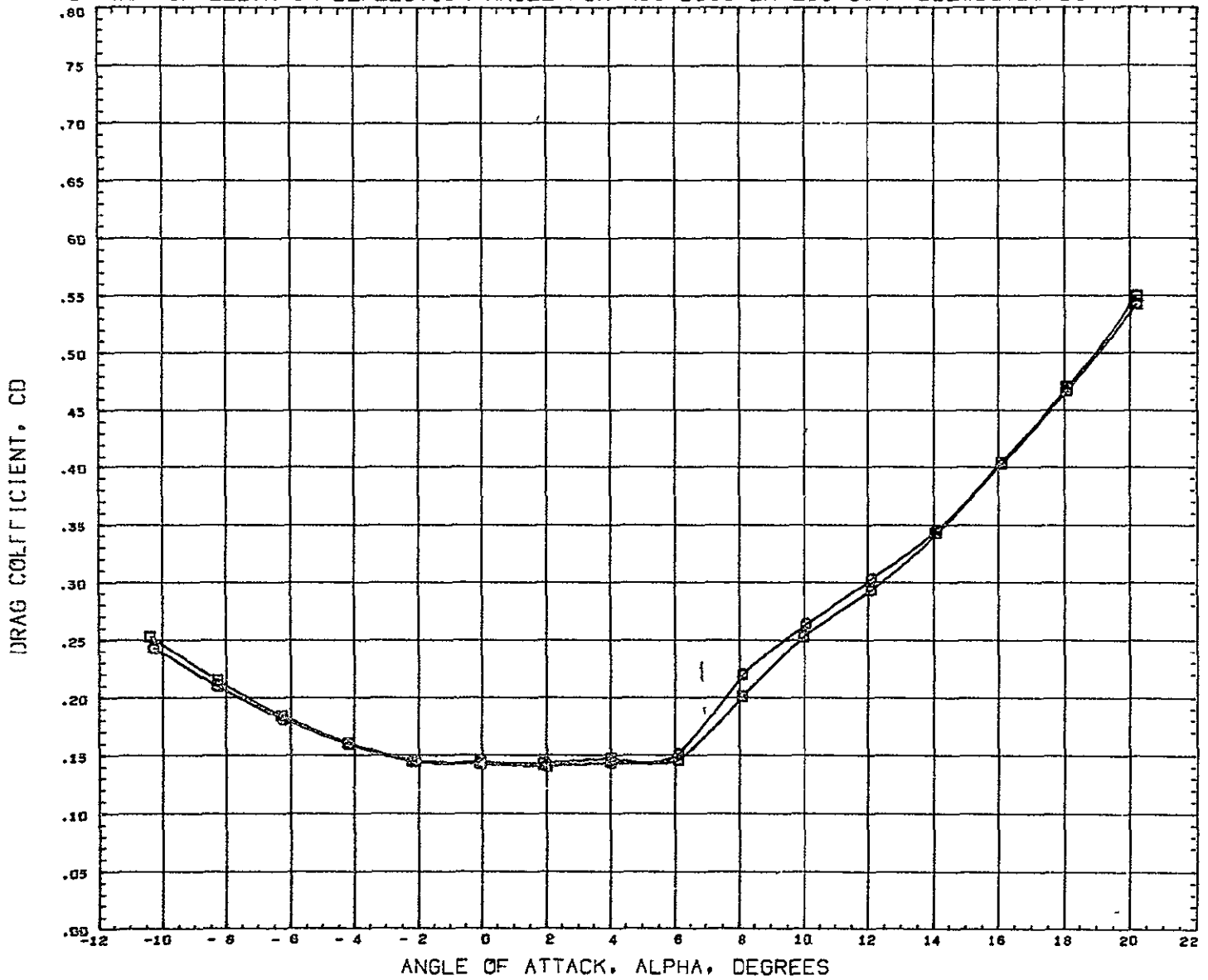
REFERENCE INFORMATION		
REFS	0.8460	Ft 5q
REFL	0.3810	FT
REFB	2.4630	FT
XHRP	65.0000	PCT Lb
YHRP	0.0000	
ZHRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

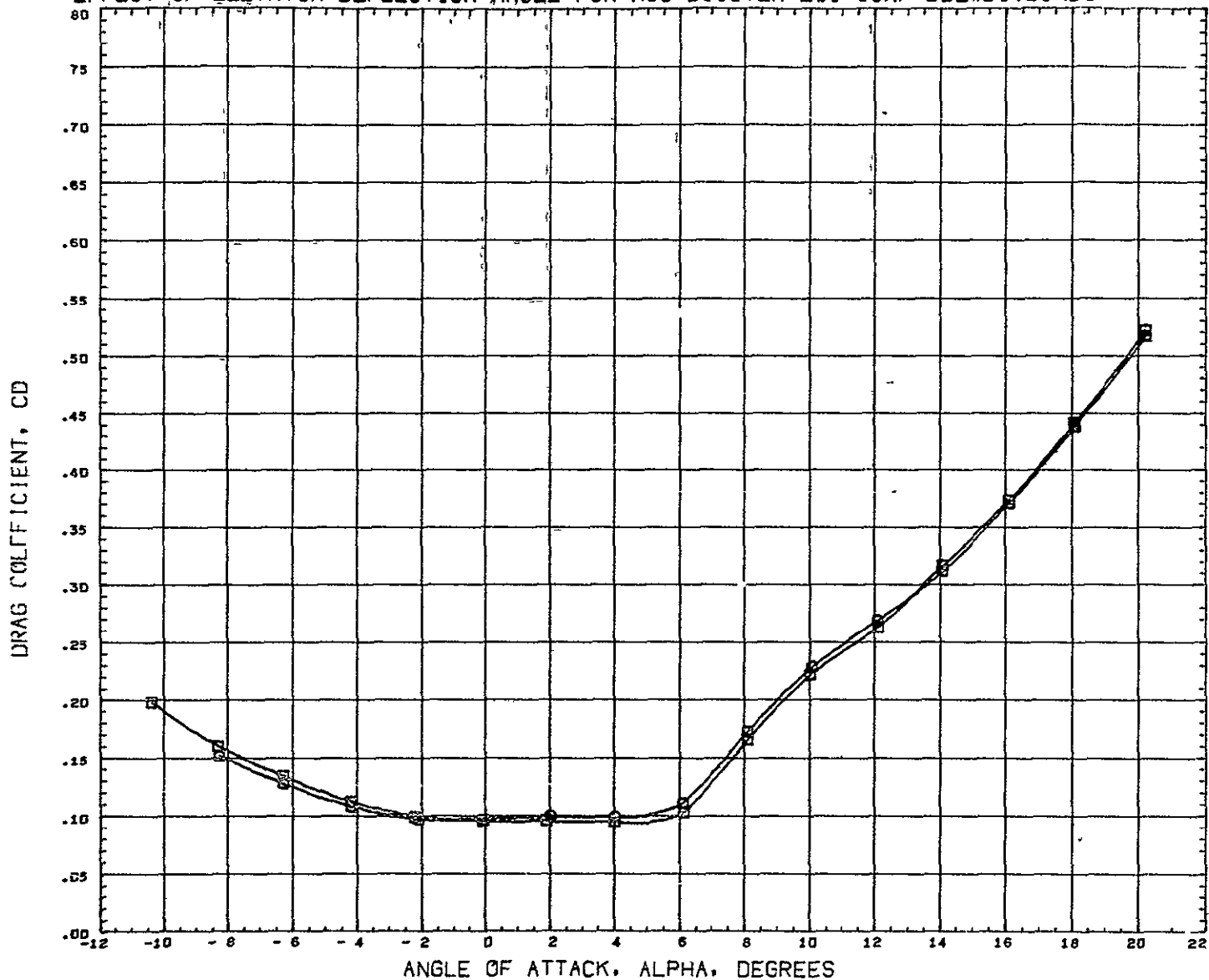
DATA HIST CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
□	0.973	ELEVTP	-20.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
YMRP	65.0000	PCT LB
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

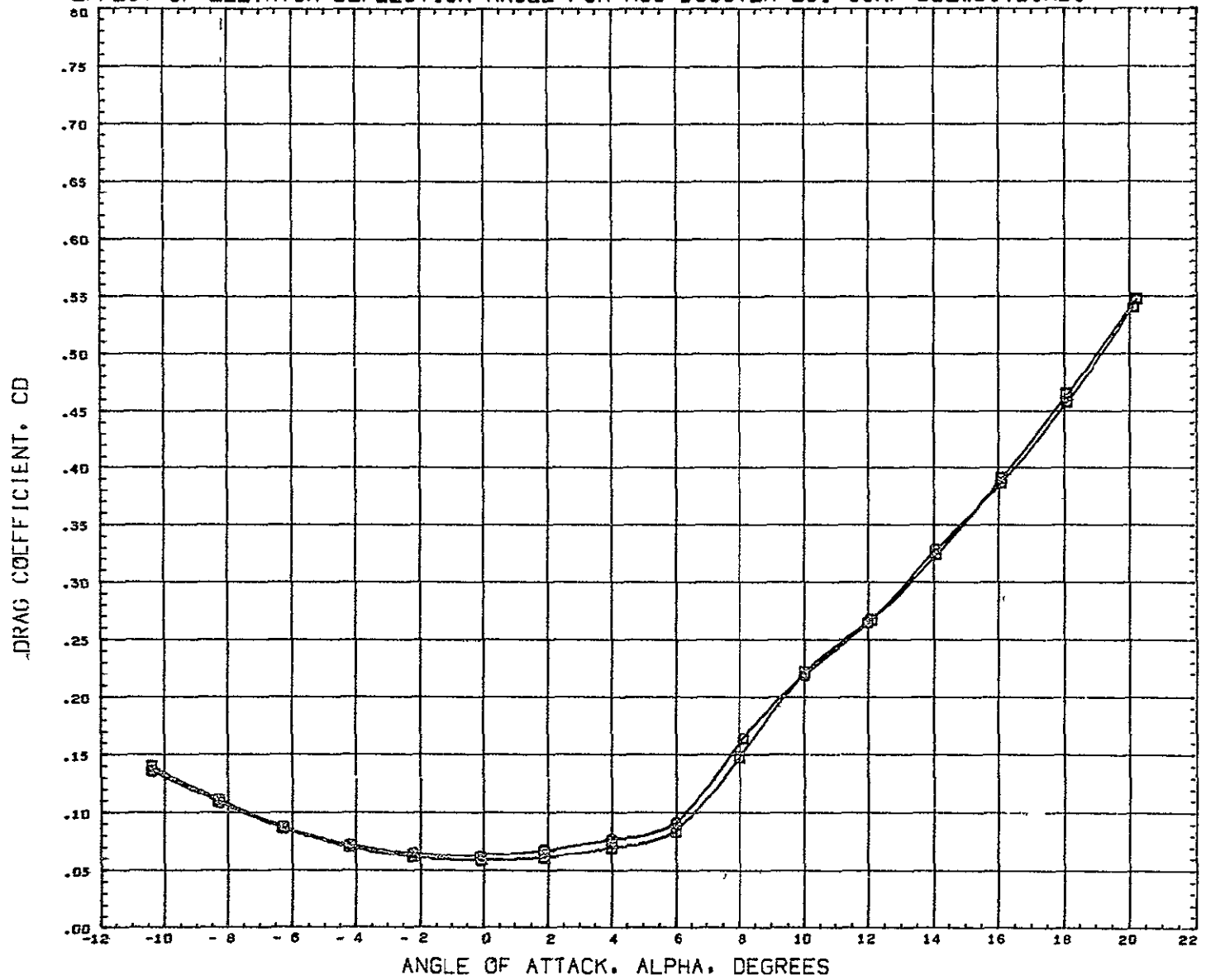
DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1

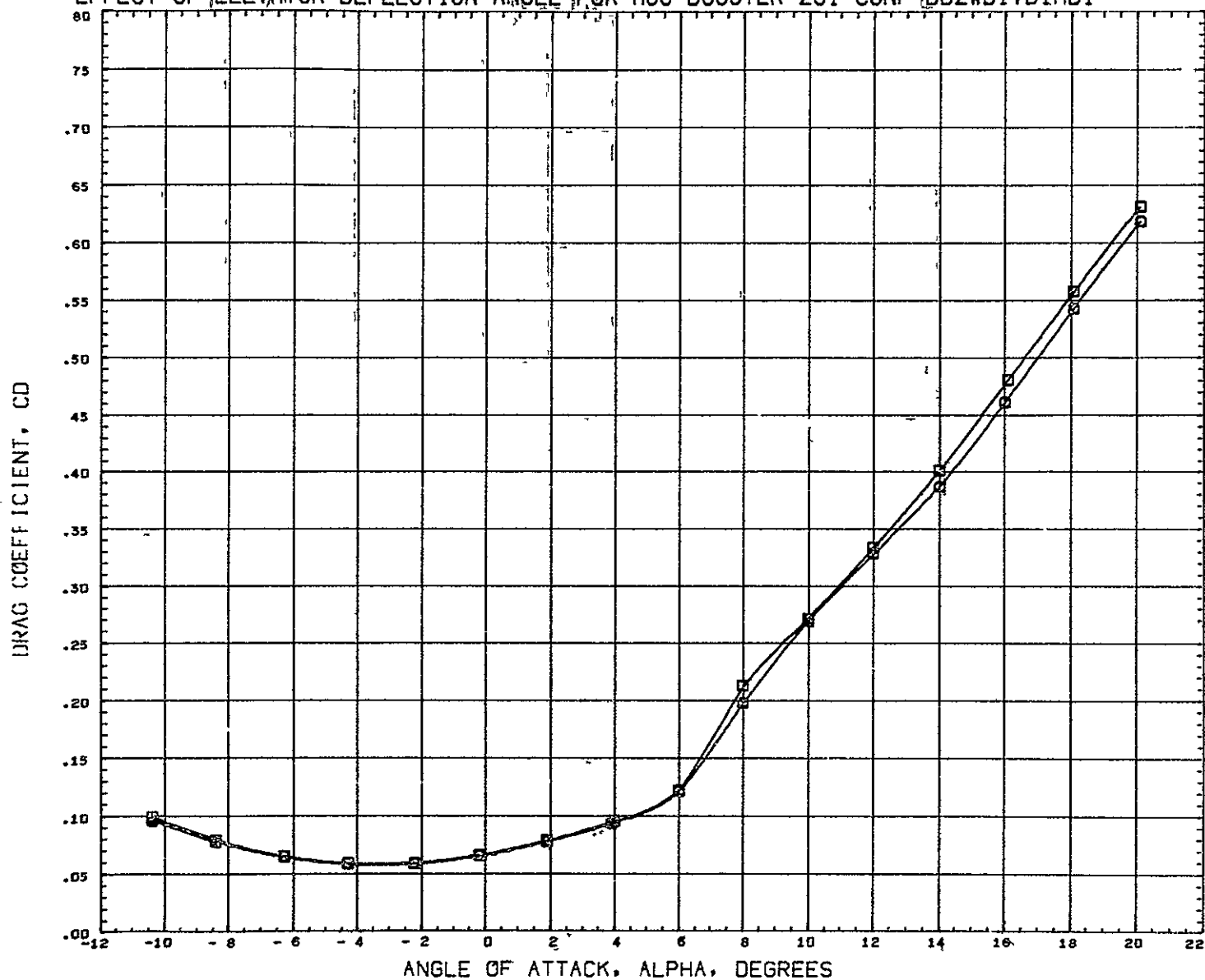


SYMBOL	CBRN	PARAMETRIC VALUES			
○	0.973	ELEVTR	-10.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.676		

DATA HIST. CODE *E#A

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
□	2.9°J	ELEVTR	10 000	BETA	0 000
	0.929	MACH	0 250	IT	0.000
		CBRW	0 670		

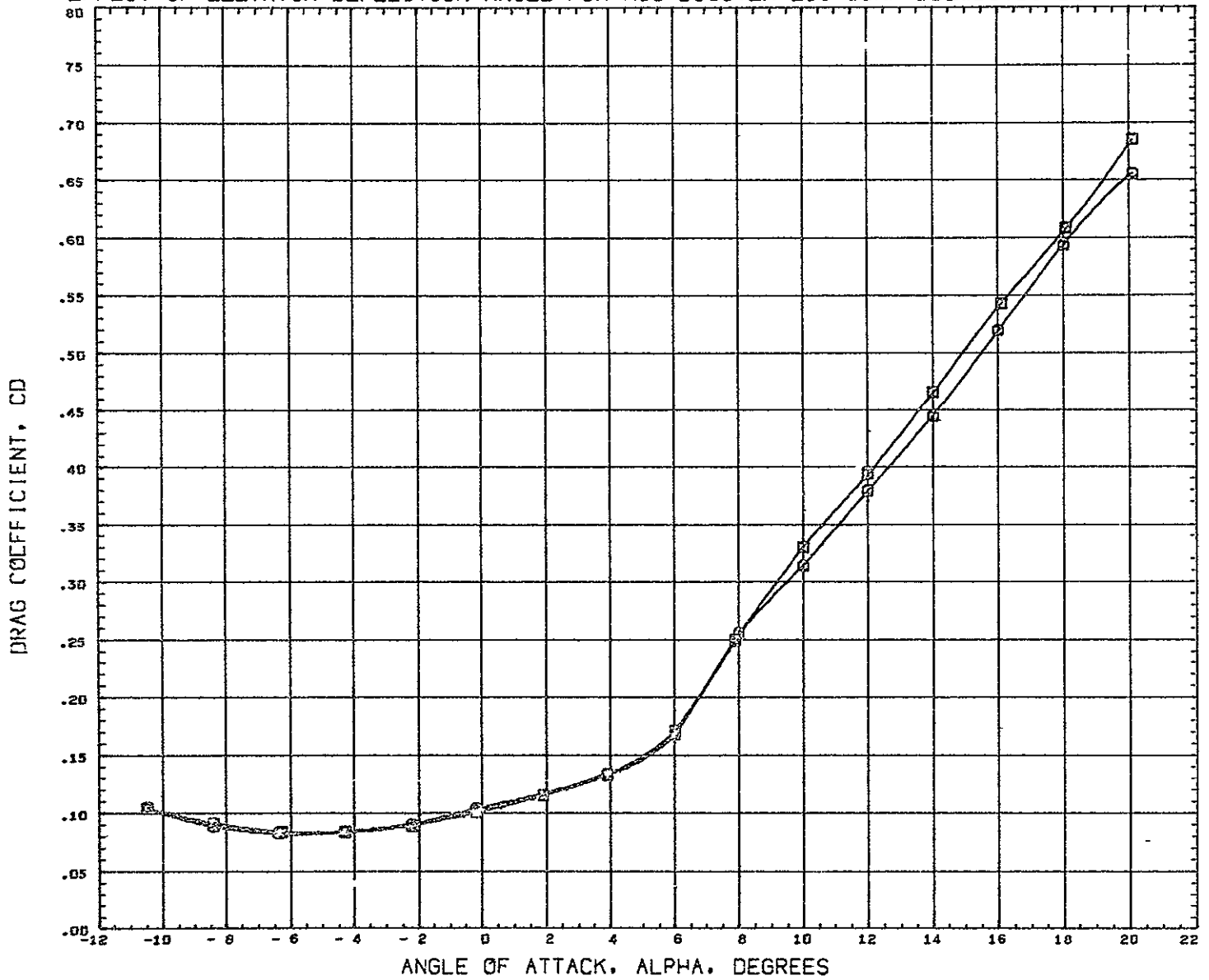
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REFL	0 3610	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1

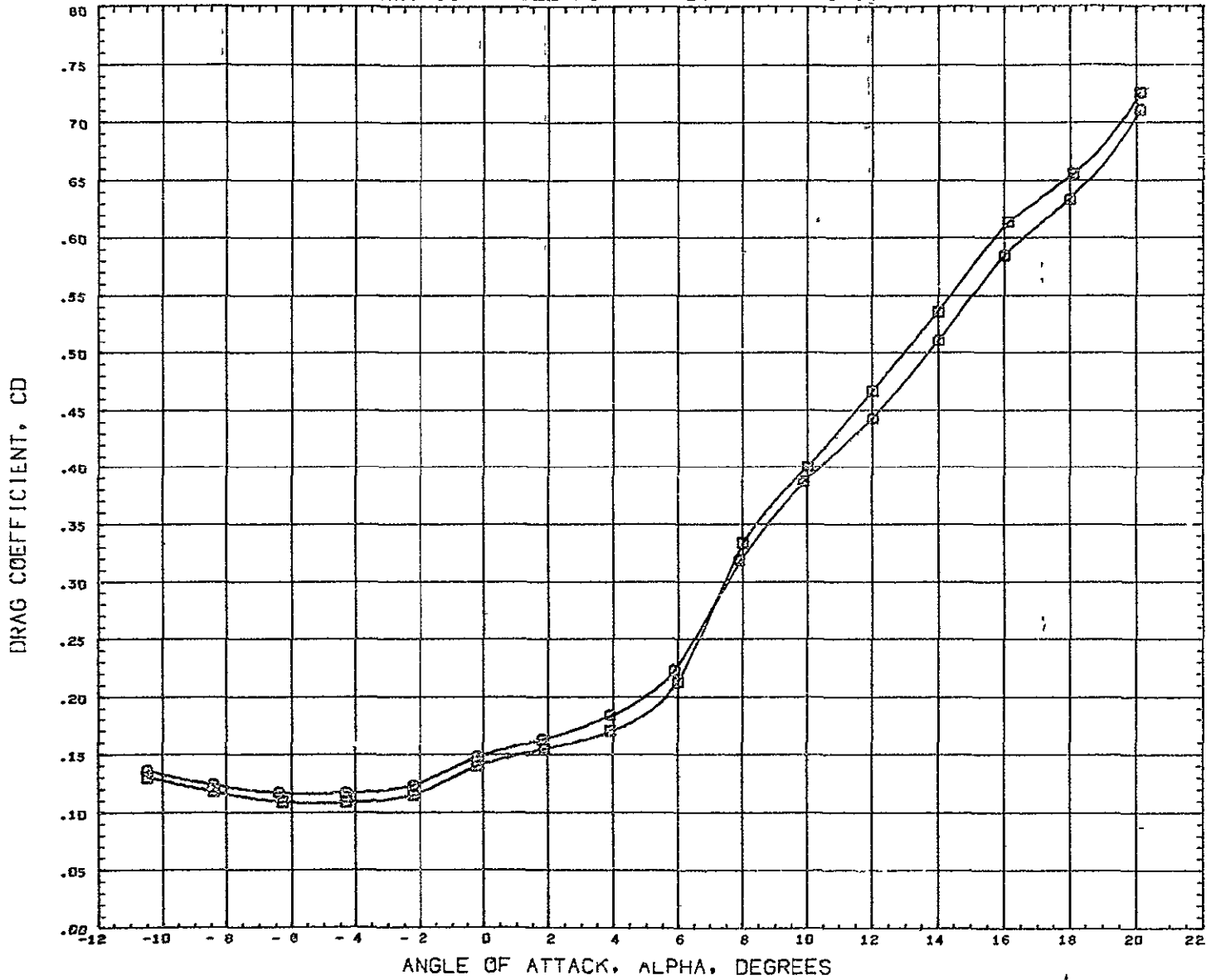


SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTP	20.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E=A

EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	C8RH	PARAMETRIC VALUES			
○	0.973	ELEVTR	30 000	BETA	0 000
□	0.929	MACH	0 250	IT	0 000
		CBPW	0.670		

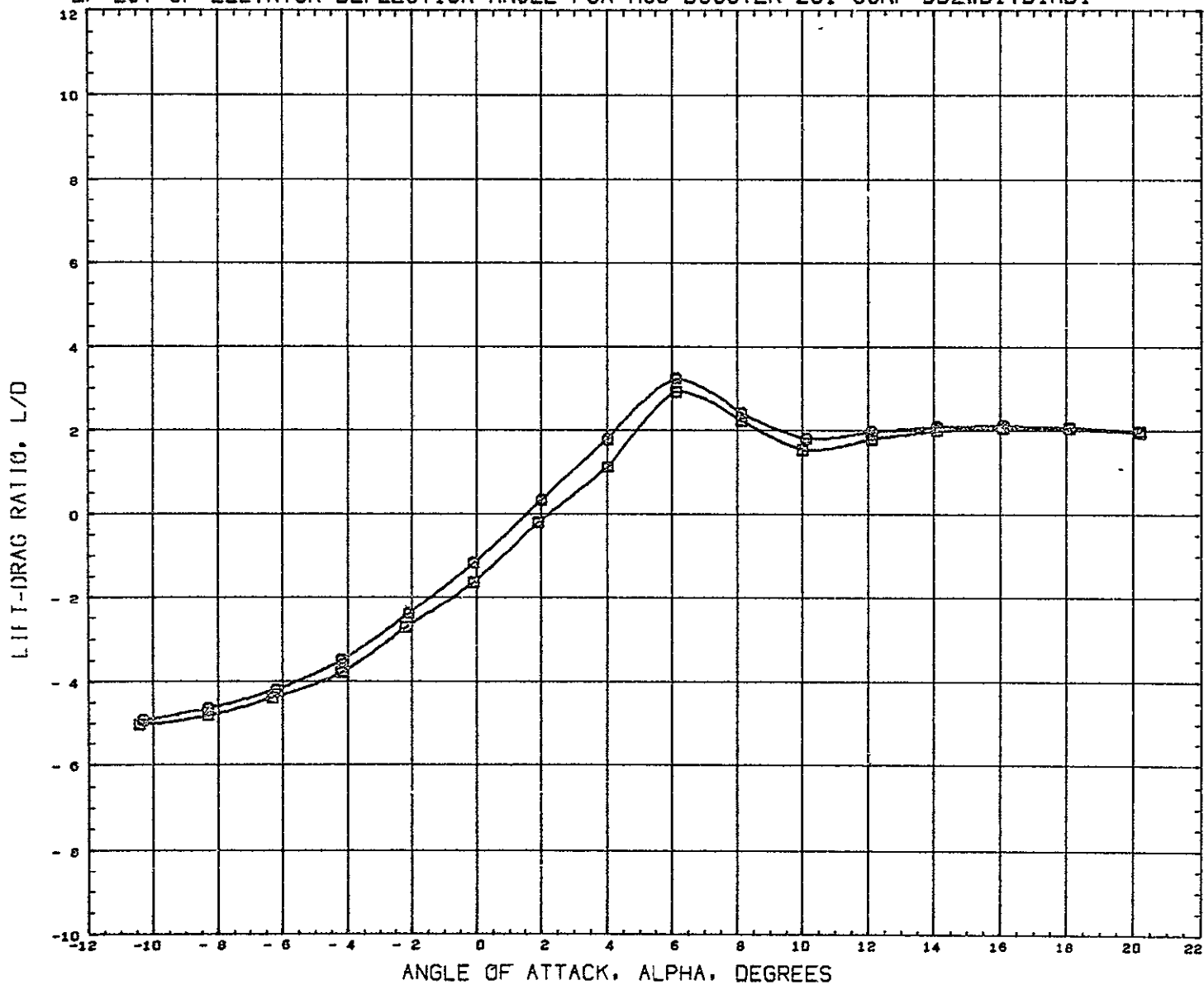
REFERENCE INFORMATION		
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REFL	0 3810	FT
REFB	2 4630	FT
XMRF	65 0000	PCT LB
YNRF	0 0000	
ZNRF	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 30.000	BETA	0.000
□	0.929	NACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

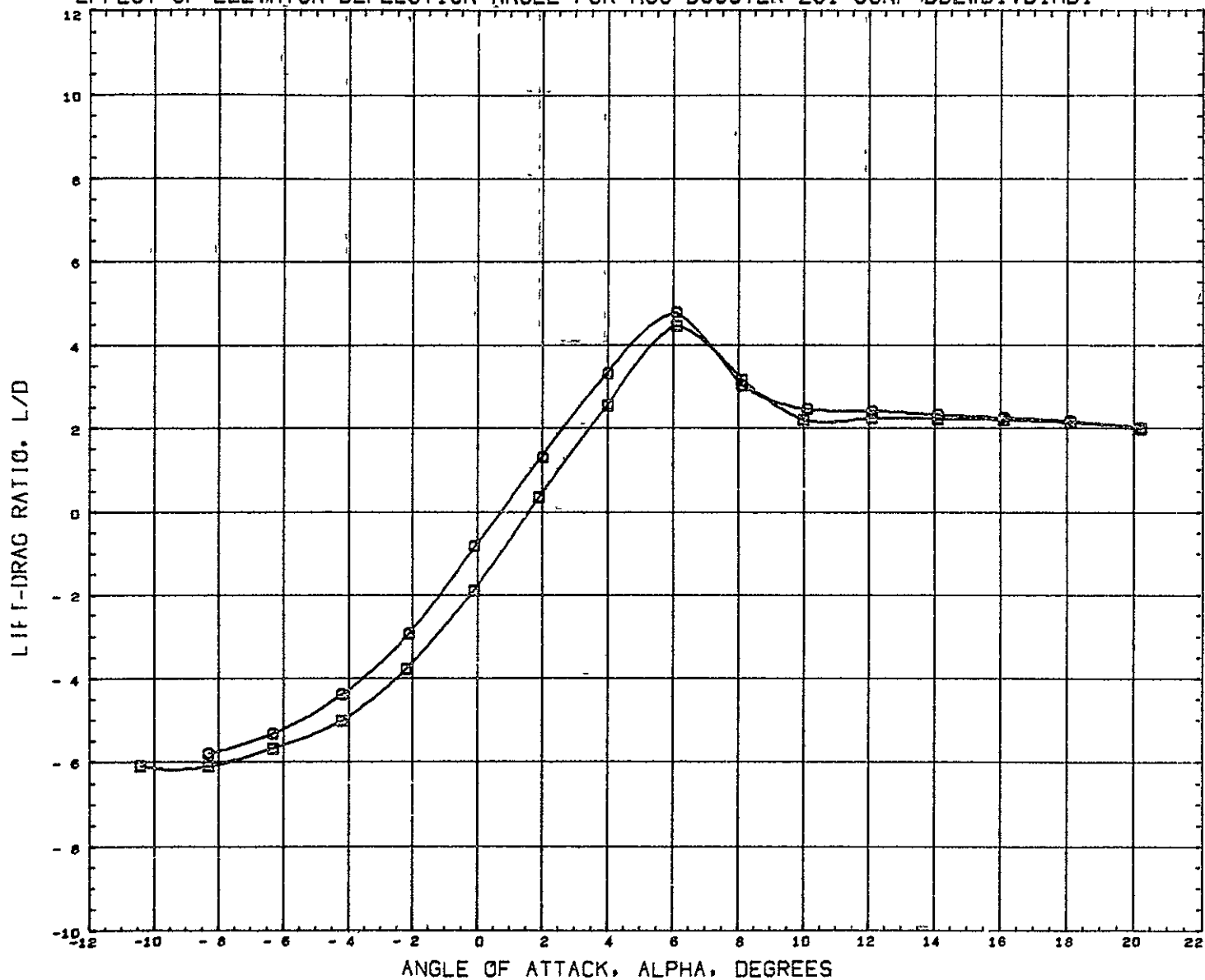
DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	CBRH	PARAMETRIC VALUES			
□	0 973	ELEVTR	- 20 000	BETA	0 000
□	0 929	MACH	0.250	IT	0.000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

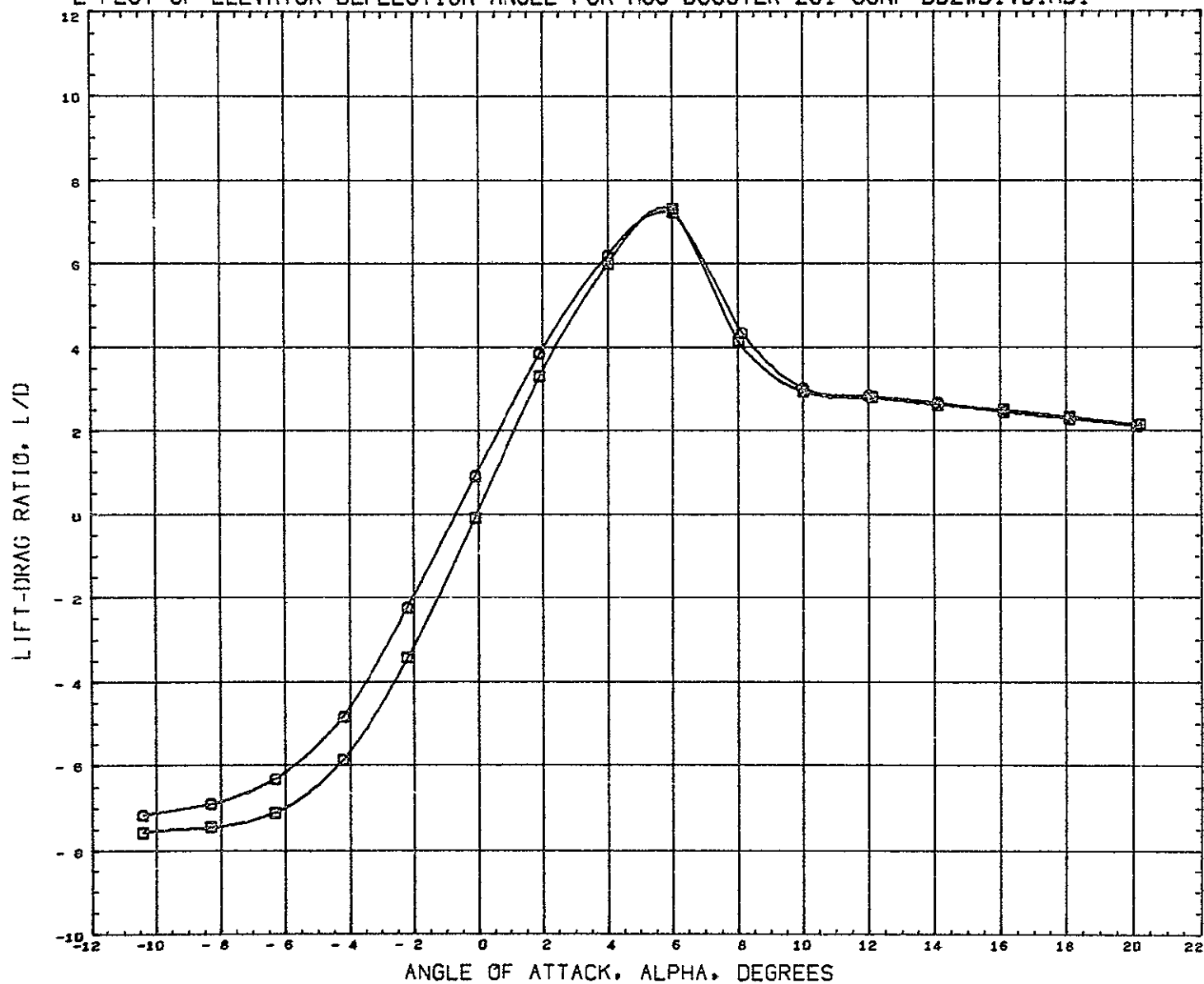
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MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 10.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

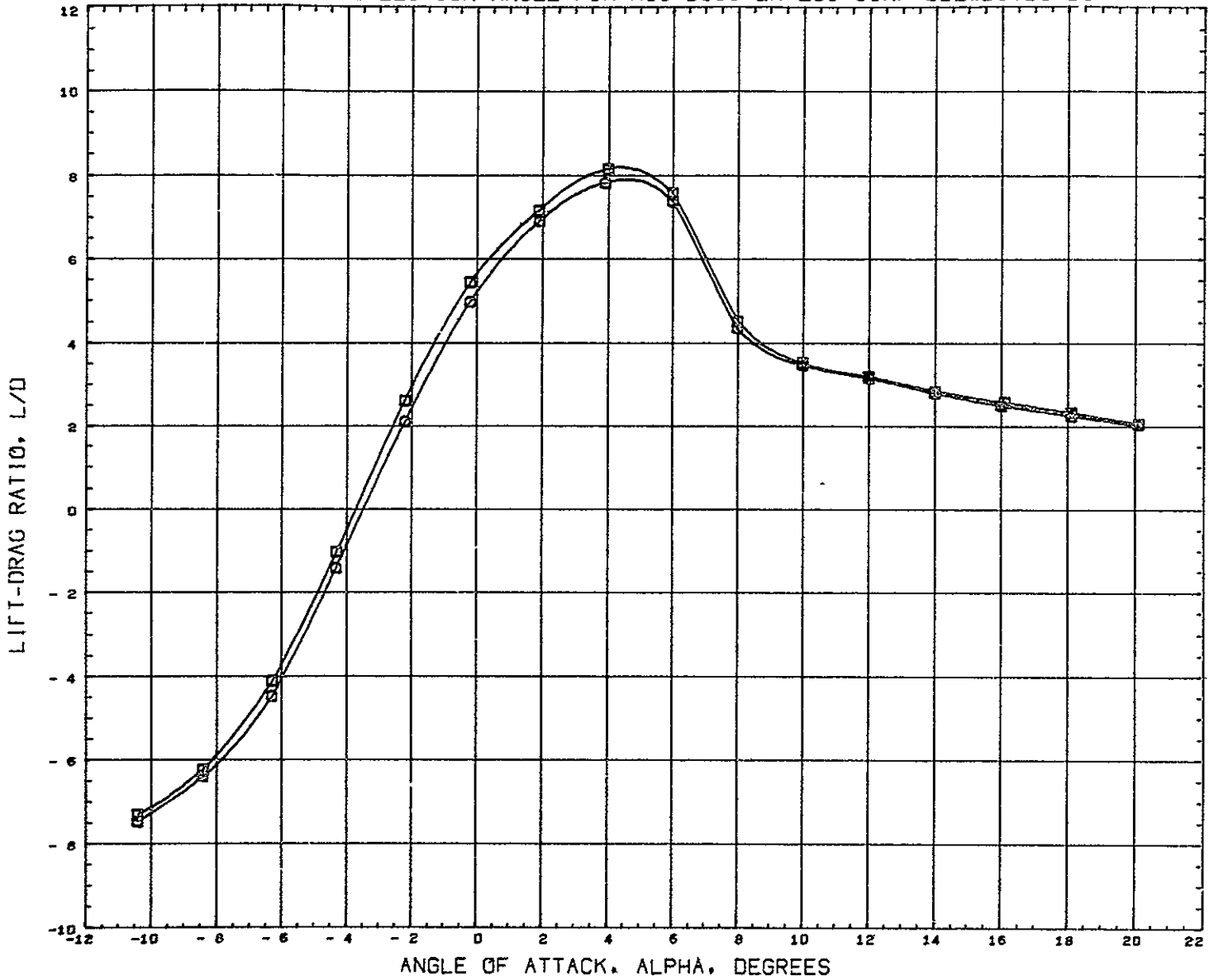
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MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	10 000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT 50
REFL	0 3810	FT
REFS	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT 26
SCALE	1 3215	PCT

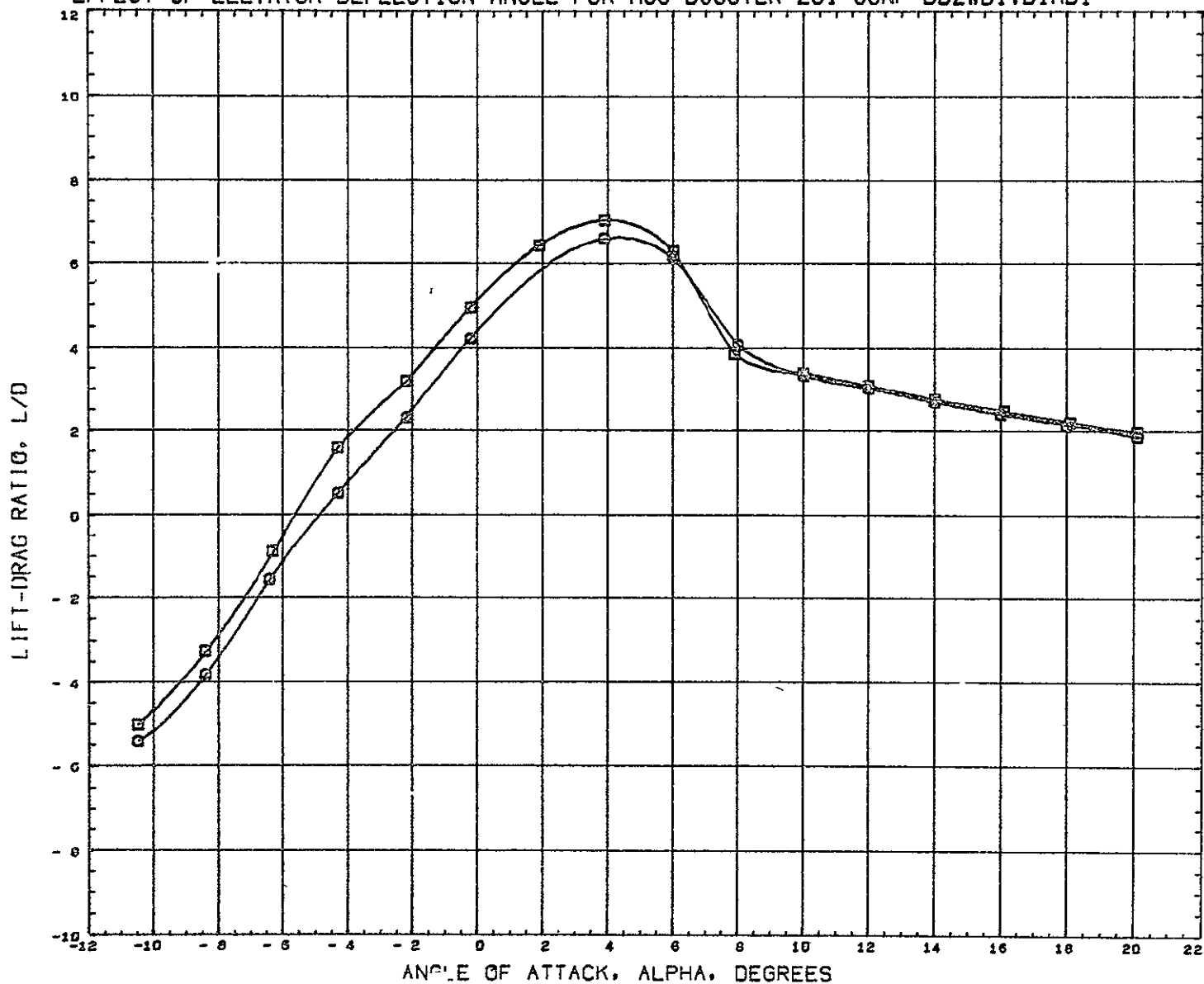
DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	20.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

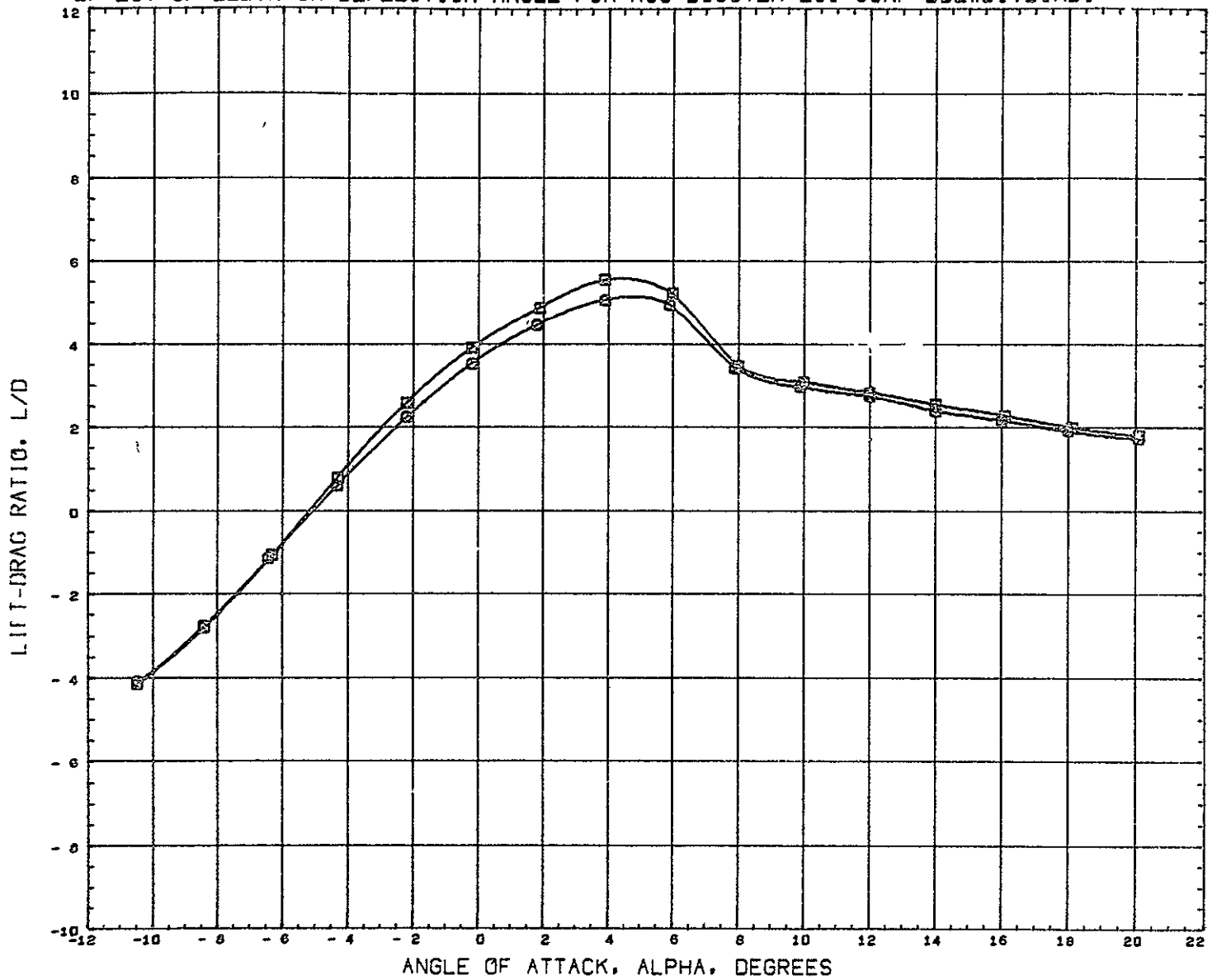
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REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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EFFECT OF ELEVATOR DEFLECTION ANGLE FOR MSC BOOSTER 251-CONF BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
□	0.973	ELEVTR	30 000	BETA	0 000
○	0.929	MACH	0 250	IT	0 000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT 2B
SCALE	1 3215	PCT

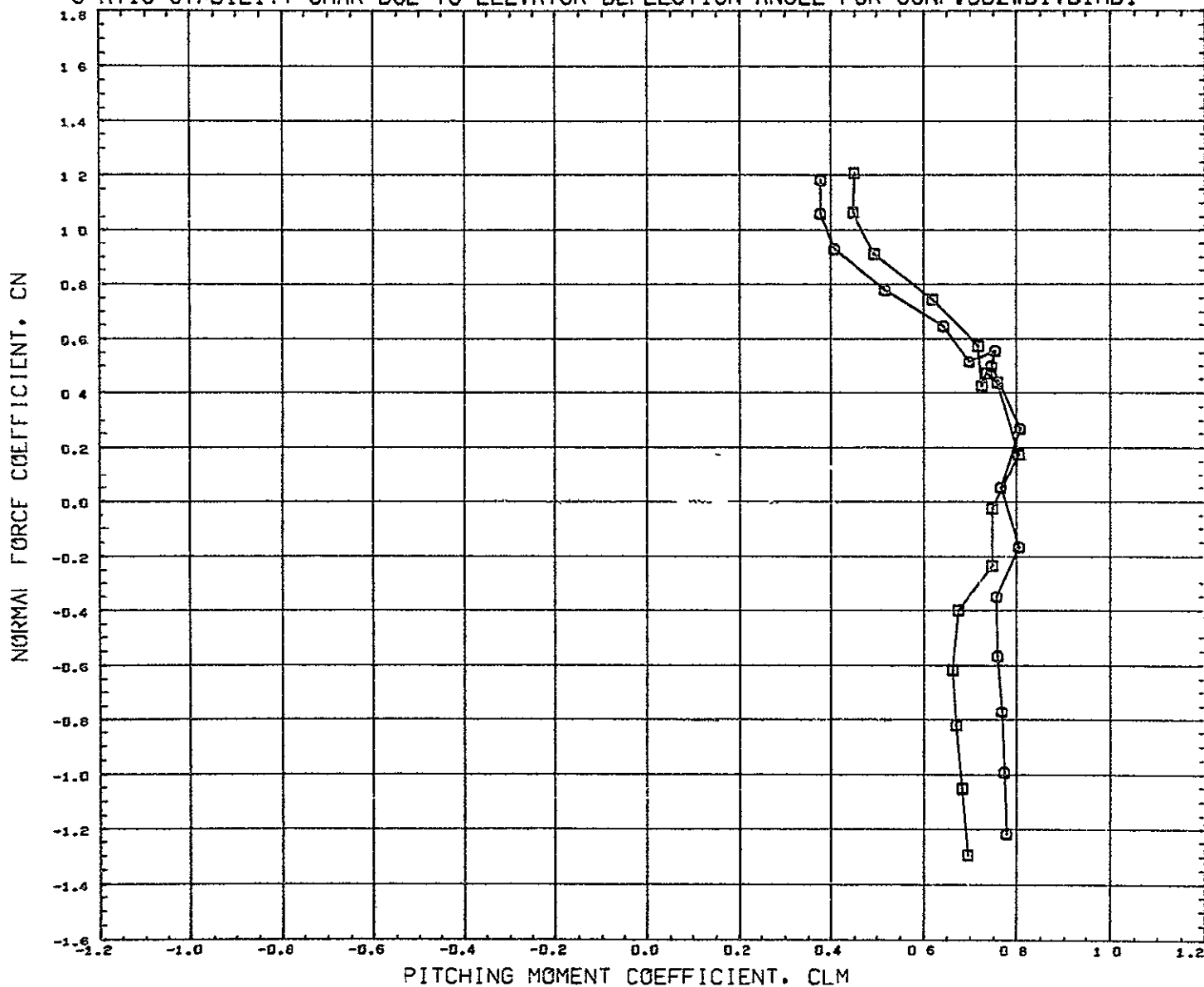
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*SC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



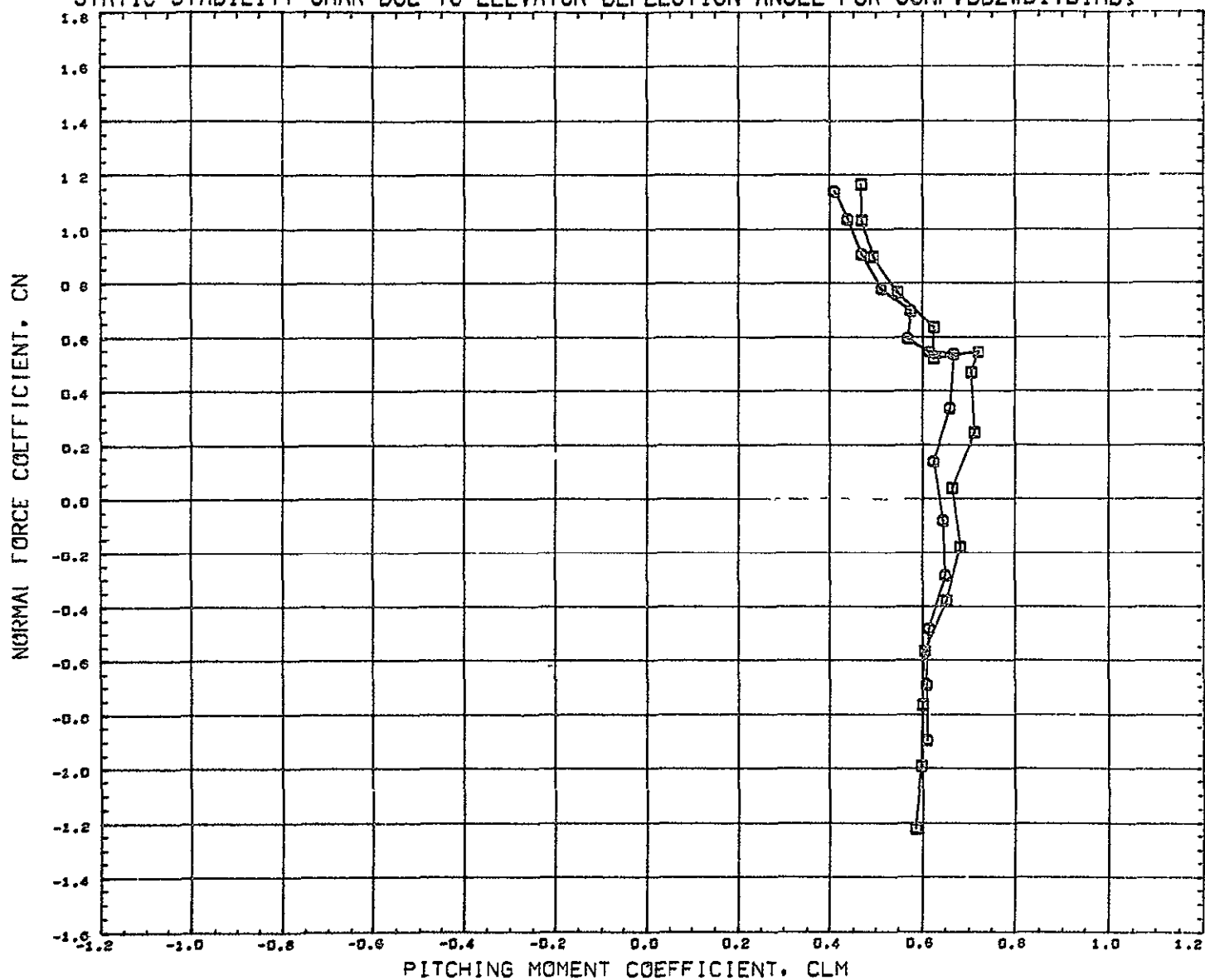
PITCHING MOMENT COEFFICIENT, CLM

SYMBOL	CBRW	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 30.000	BETA	0 000
□	0.929	NACH	0.250	IT	0 000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XNRP	65 0000	PCT LB
YNRP	0 0000	
ZNRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E*A

STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 20.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65.0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

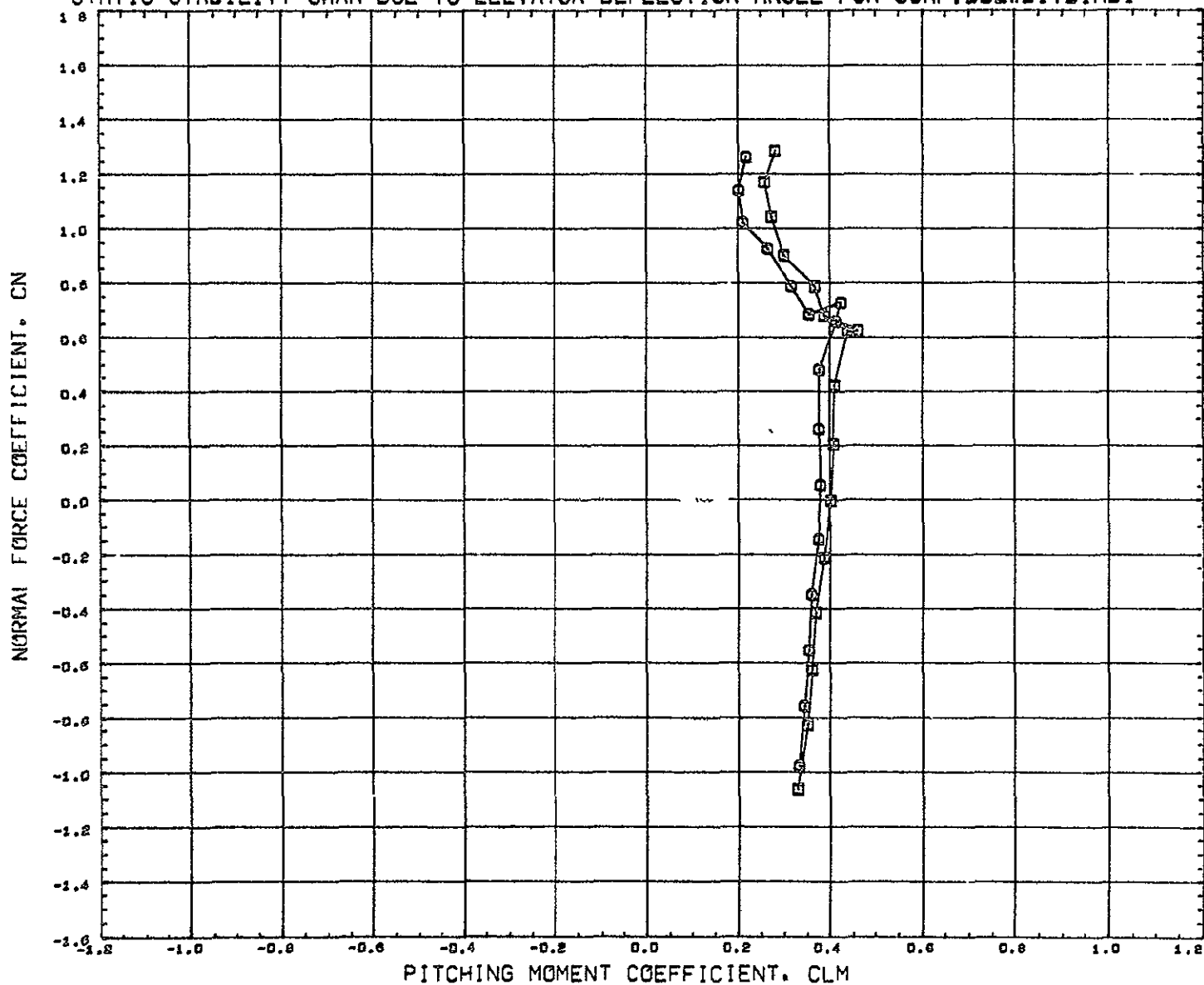
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MSC BOOSTER 251 BB2WB1VB1HB1

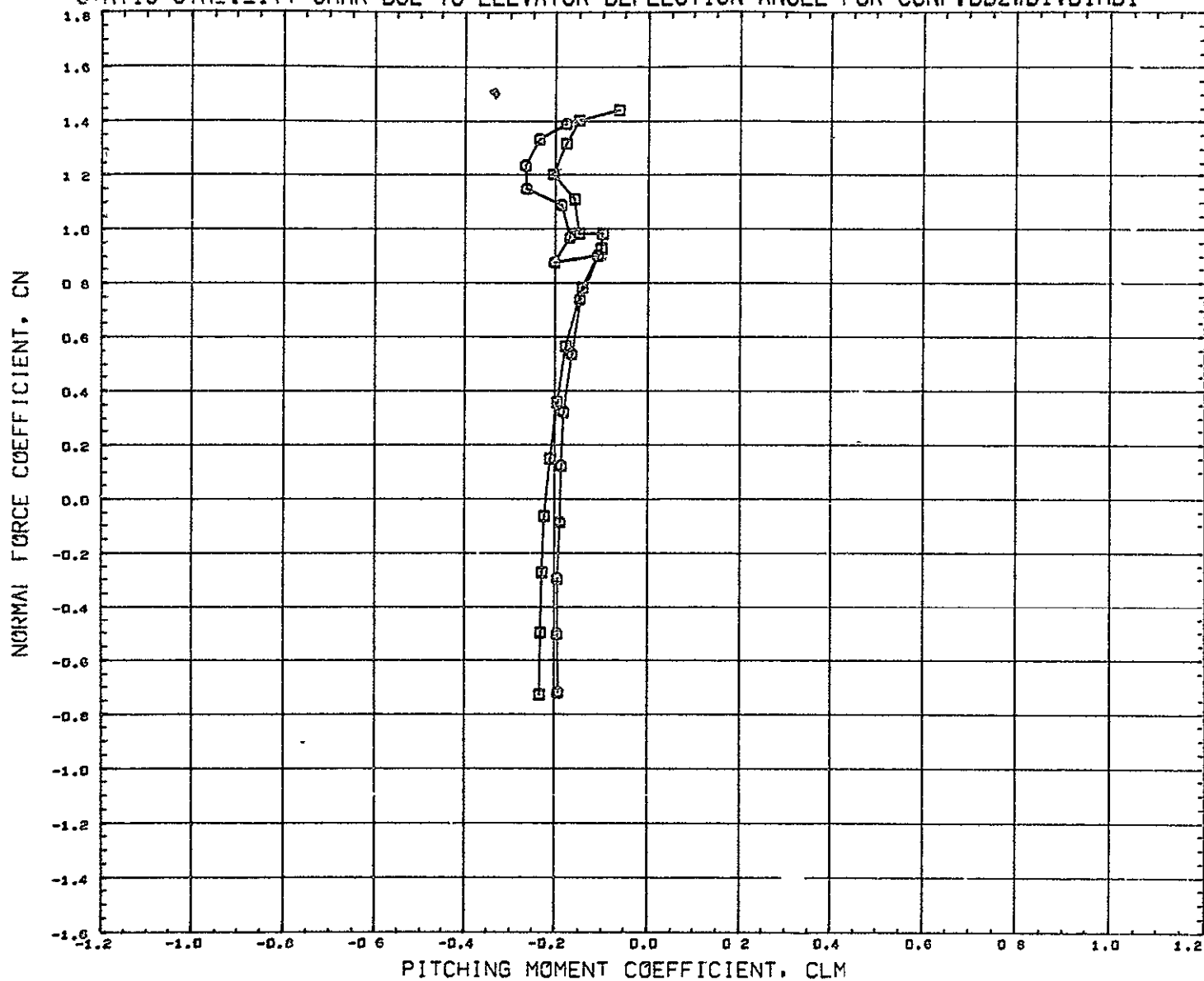
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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBRH	ELEVTR	PARAMETRIC VALUES	BETA	IT
□	0.973	10.000	0.000	0.000	0.000
□	0.929	0.250	0.670	0.630	0.630

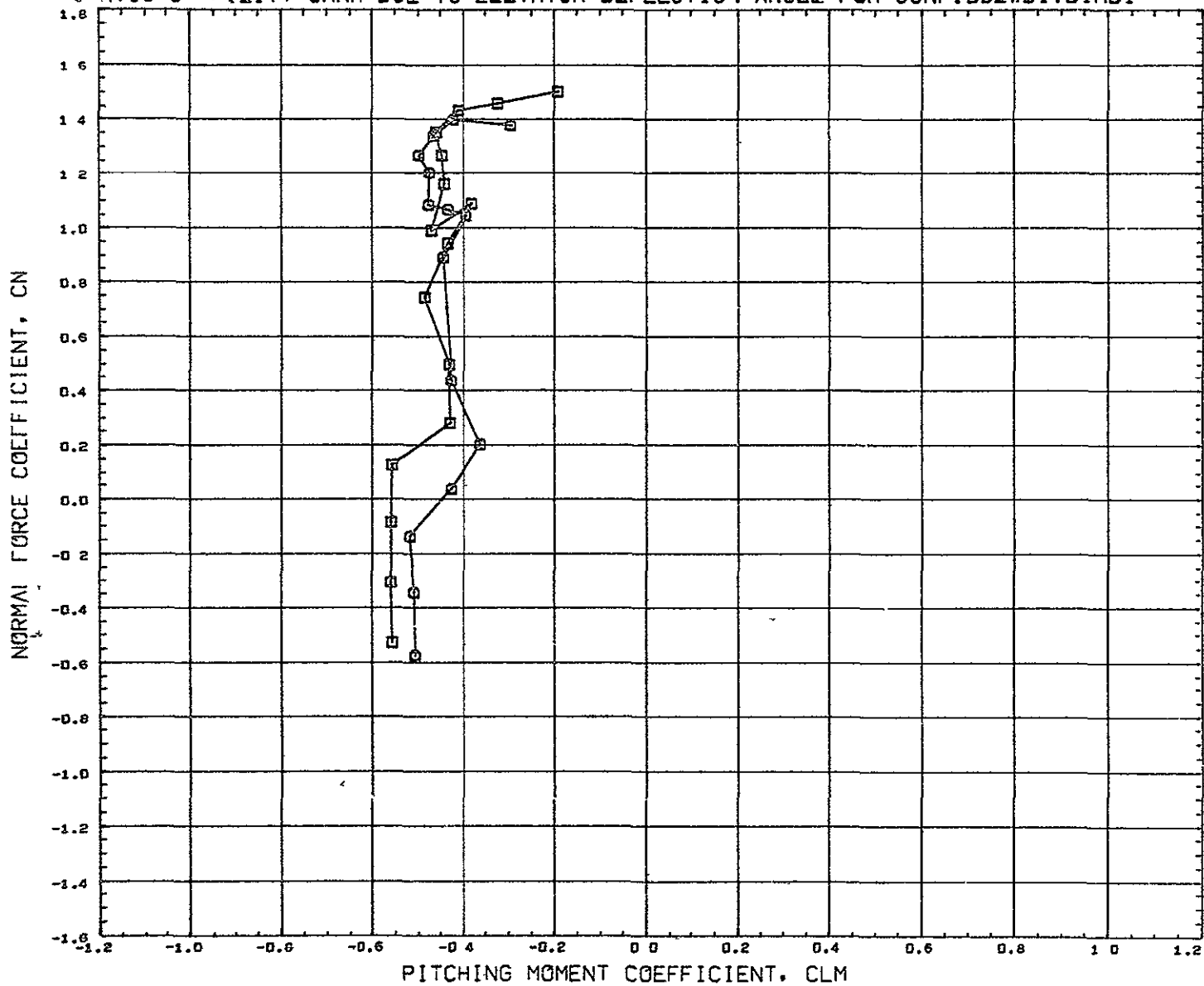
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REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF. BB2WB1VB1HB1

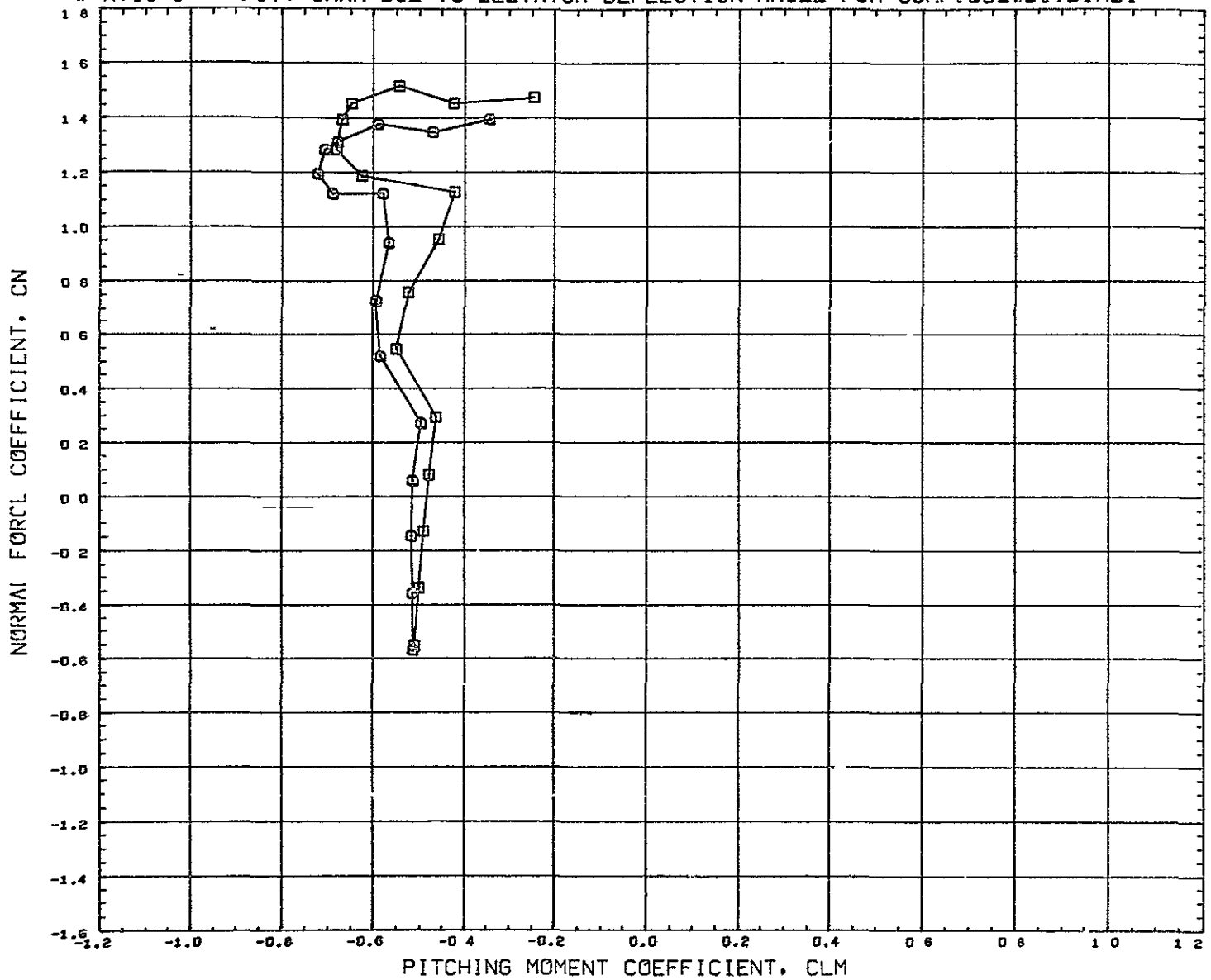


SYMBOL	CBRW	PARAMETRIC VALUES			
□	0 973	ELEVTR	20 000	BETA	0 000
□	0 929	MACH	0 250	IT	0 000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT 50
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
□	0.973	ELEVTR	30.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRH	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

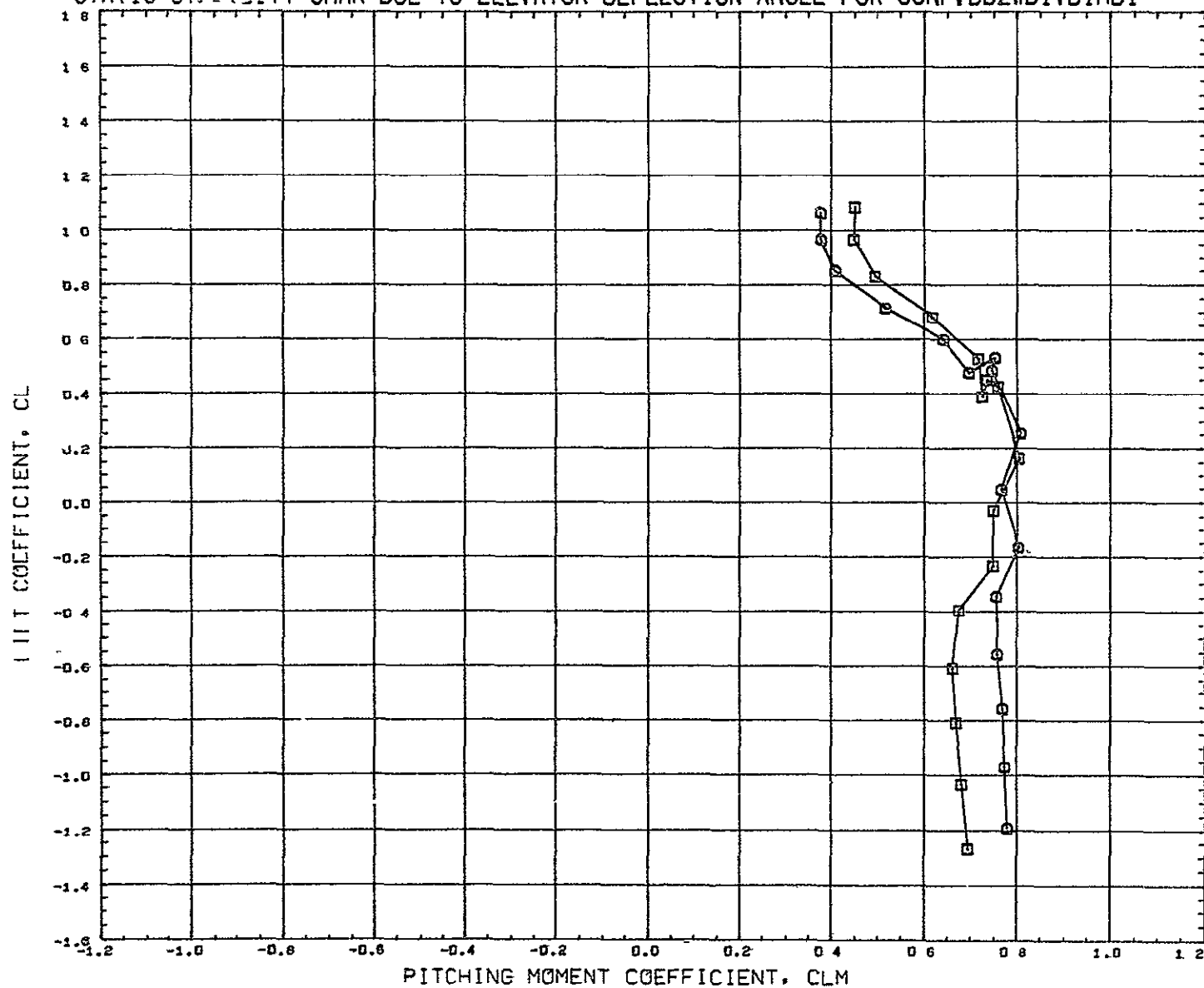
DATA HIST CODE *E#A

YSC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



S/HBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	- 30.000	BETA	0.000
□	0.929	MACH	0.230	LT	0.000
		CBRW	0.670		

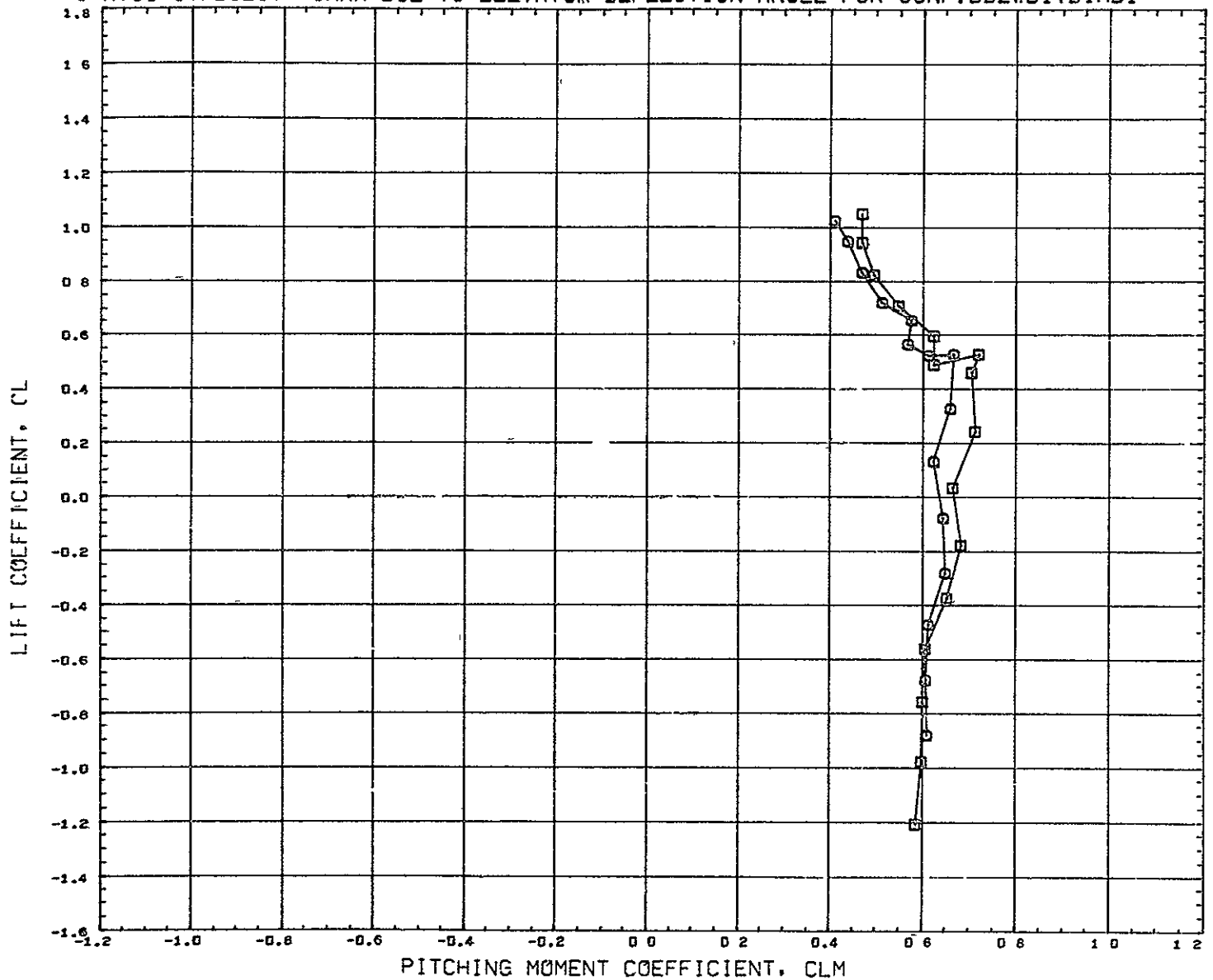
REFERENCE INFORMATION		
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REFL	0 3810	FT
REFB	2 4630	FT
XHRP	63 0000	PCT LB
YHRP	0 0000	
ZHRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE #E#A

YSC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0 973	ELEVTR	- 20 000	BETA	0 000
□	0 929	MACH	0 250	IT	0 000
		CBRW	0.670		

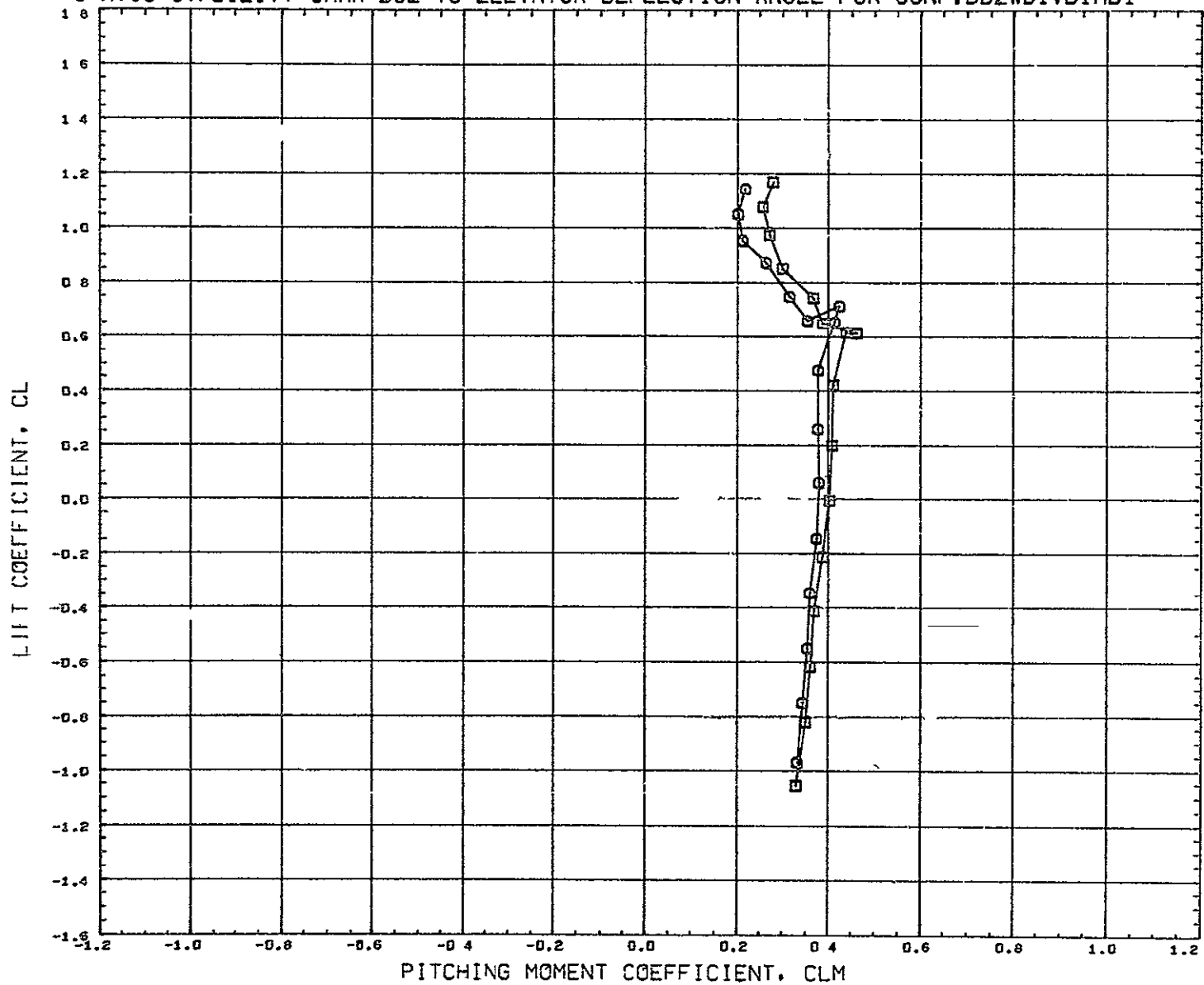
REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

YSC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1

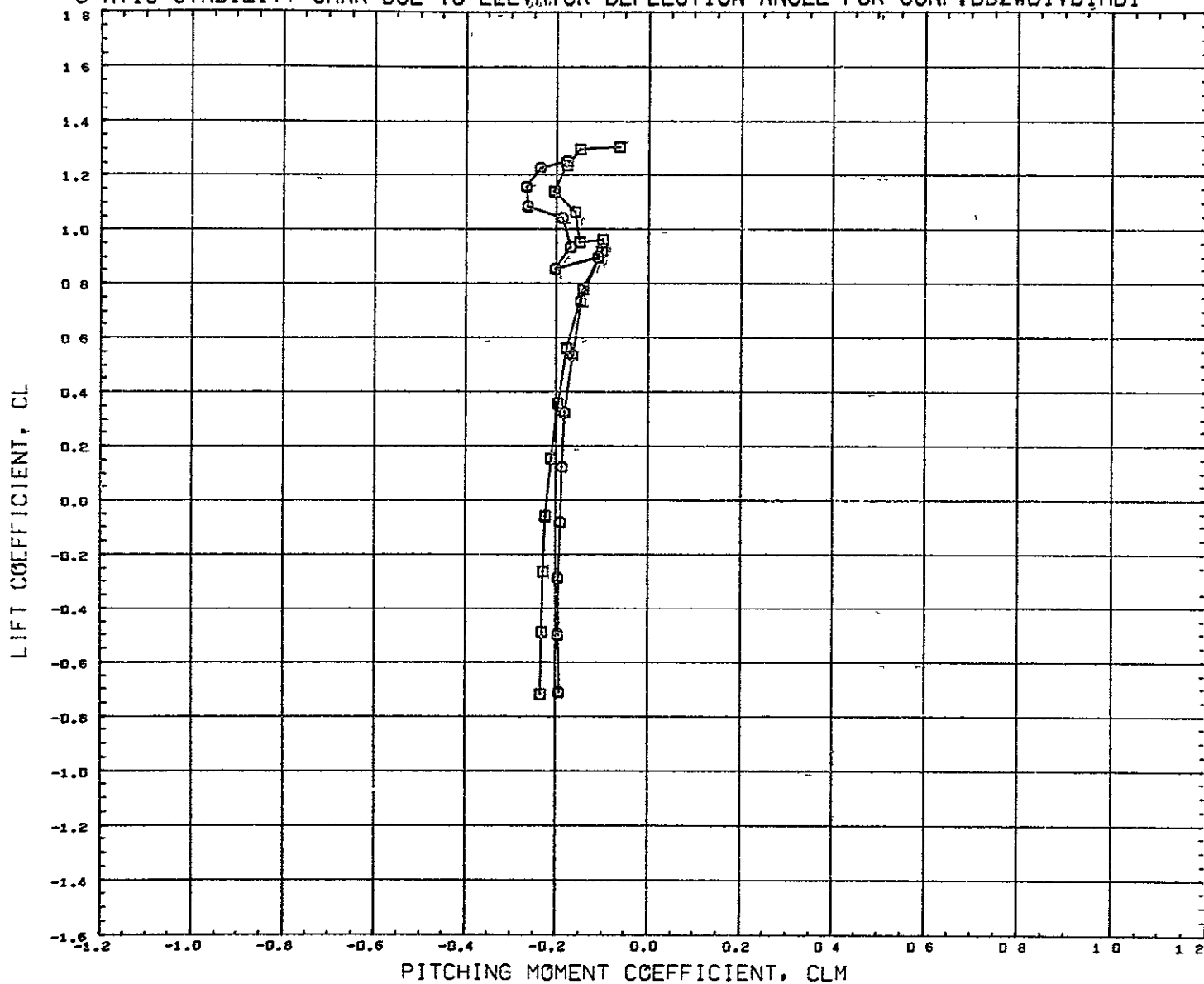


SYMBOL	CBRW	PARAMETRIC VALUES			
○	0 973	ELEVTR	- 10.000	BETA	0 000
□	0 929	MACH	0 250	IT	0 000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2.4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBPH	PARAMETRIC VALUES			
○	0.973	ELEVTR	10.000	BETA	0.000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

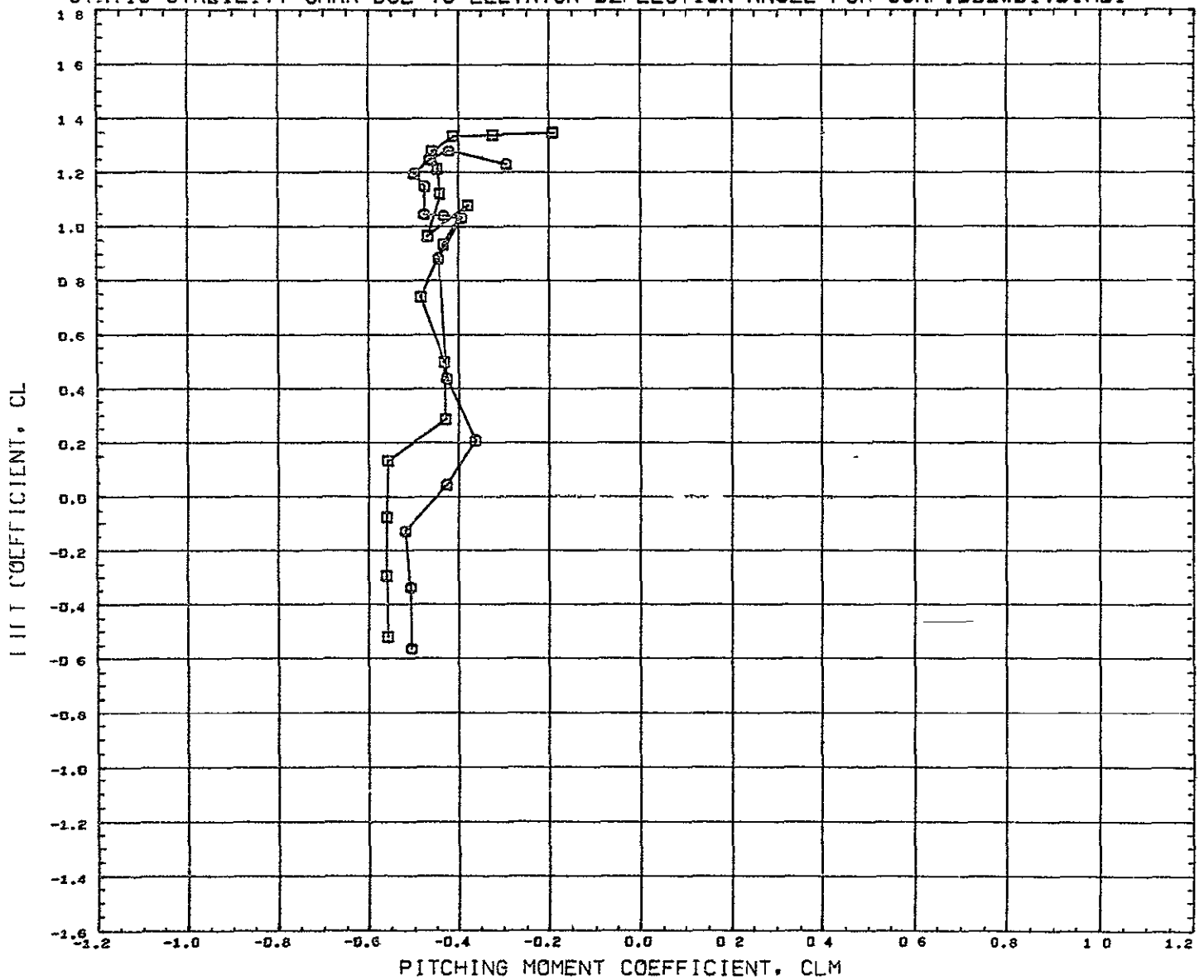
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REFD	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E#A

YSC B03STER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBRW	PARAMETRIC VALUES			
○	0 973	ELEVTR	20 000	BETA	0 000
□	0 929	MACH	0 250	IT	0 000
		CBRW	0 670		

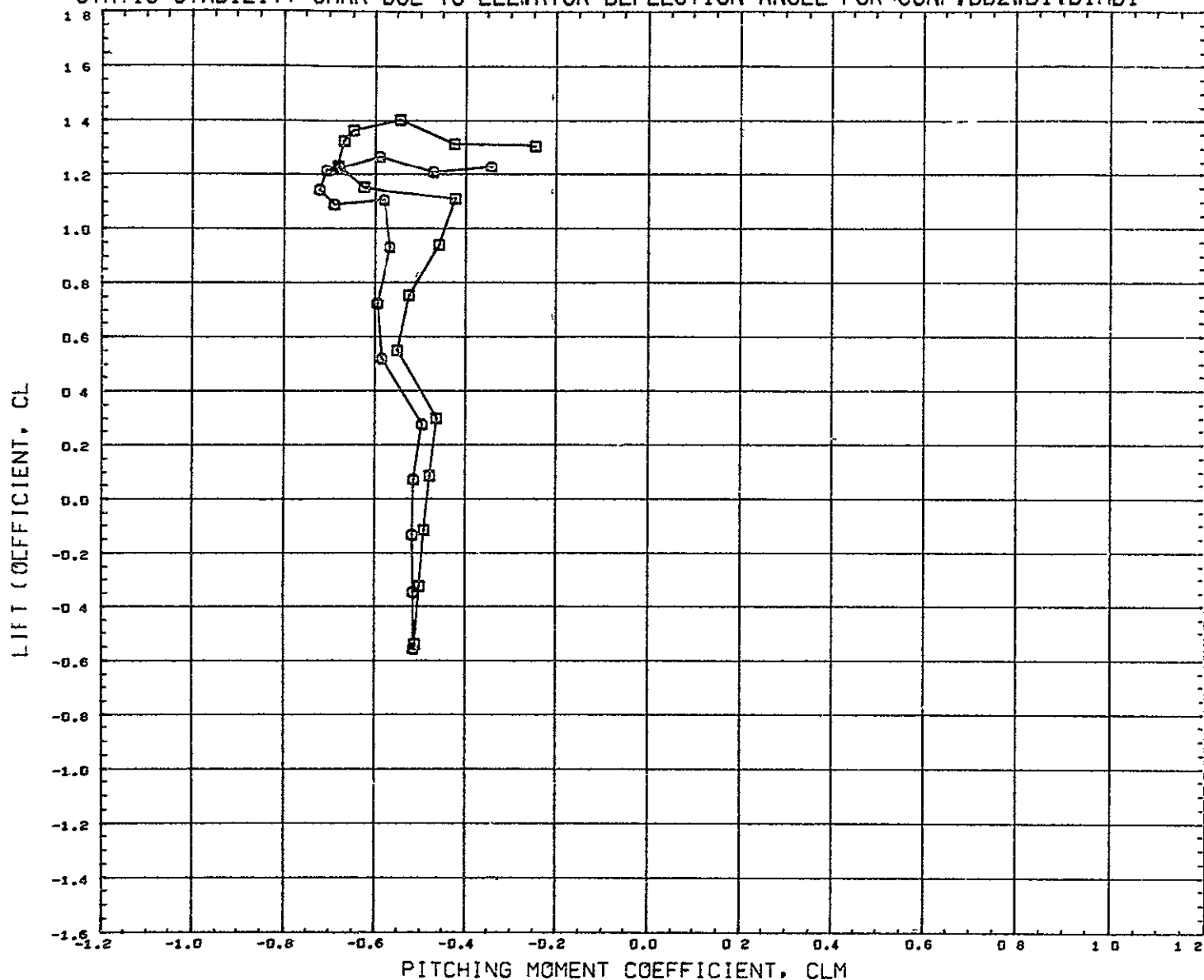
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REFL	0 3810	FT
REFB	2 4630	FT
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YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

YSC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF. BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
○	0.973	ELEVTR	30.000	BETA	0.000
□	0.979	MACH	0.250	IT	0.000
		CBRW	0.670		

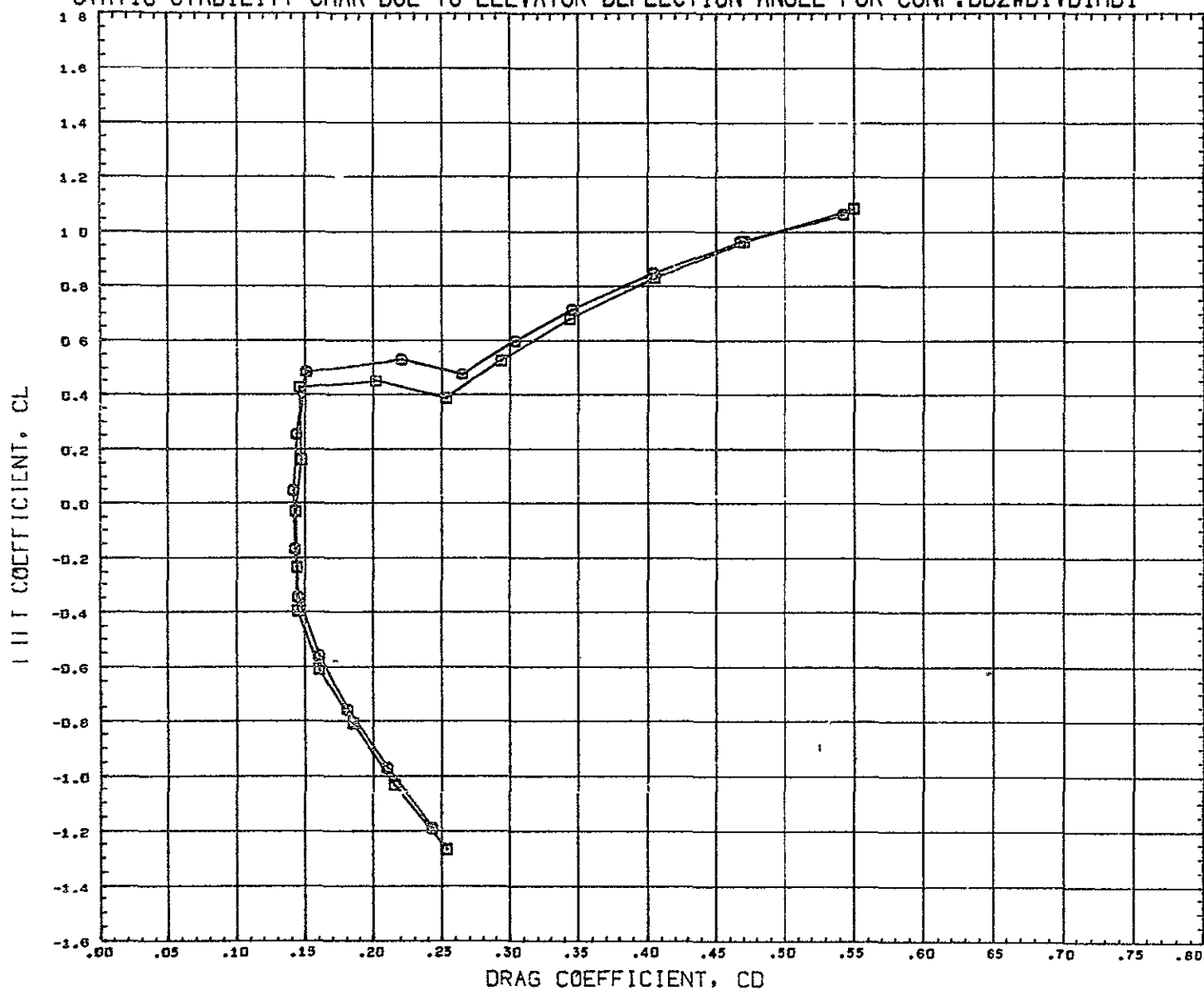
REFERENCE INFORMATION		
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REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST. CODE *E*A

MSC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1

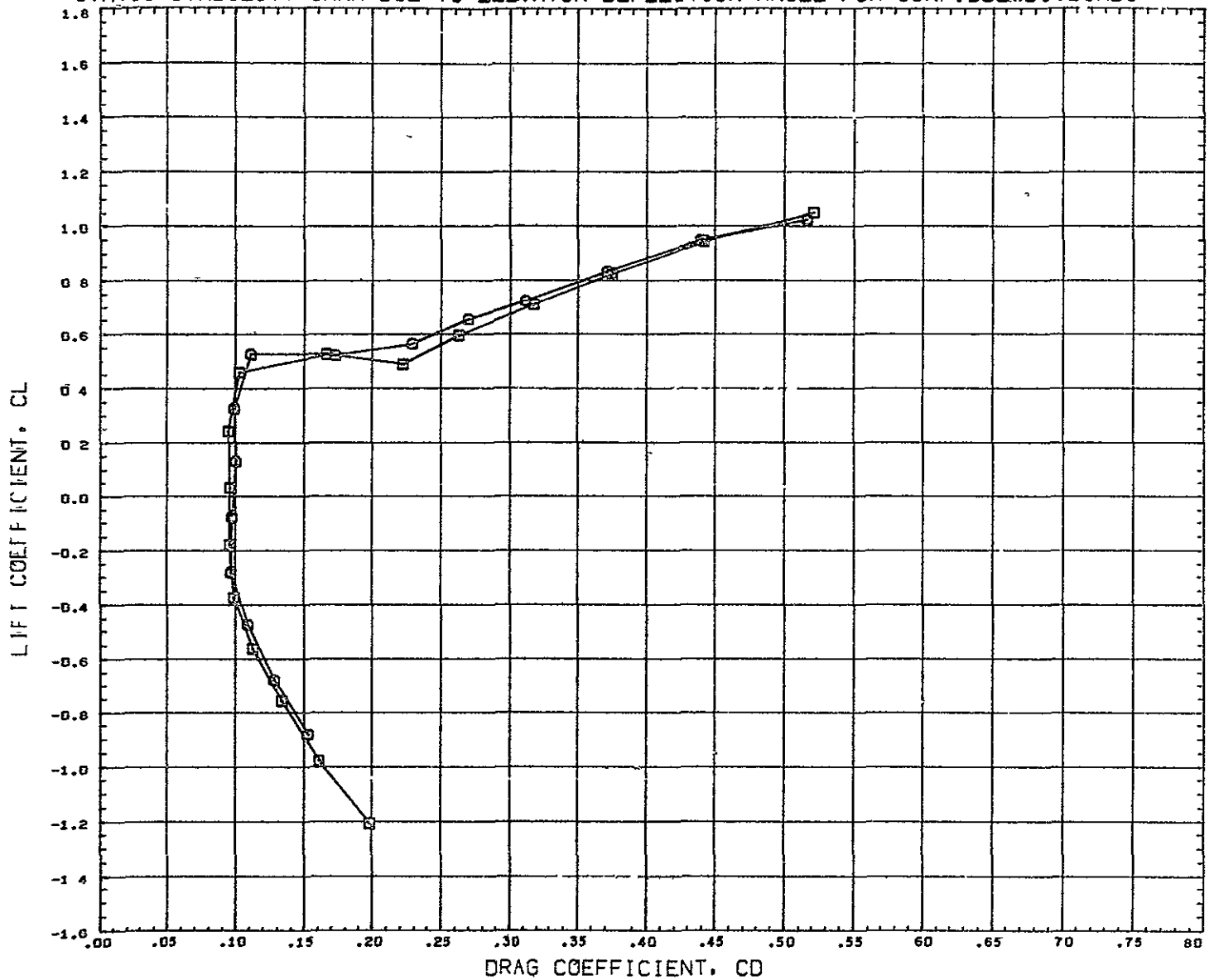


SYMBOL	CBRH	PARAMETRIC VALUES			
O	0.973	ELEVTP	- 30 000	BETA	0 000
□	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E#A

STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
00	0 973	ELEVTR	- 20.000	BETA	0.000
00	0 929	MACH	0 250	IT	0 000
		CBRW	0 670		

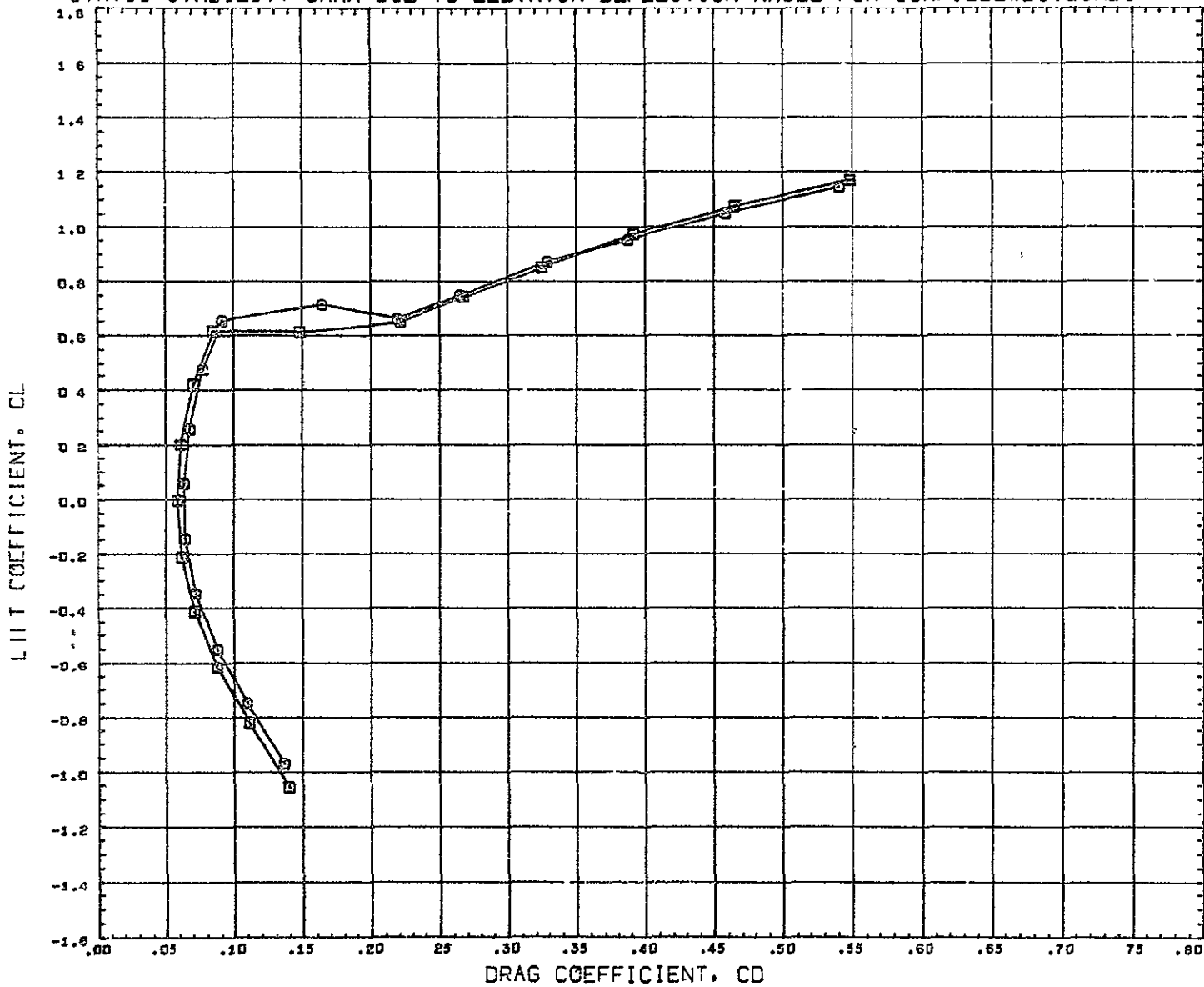
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REFL	0 3810	FT
REFB	2 4630	FT
XNRF	65 0000	PCT LB
YNRF	0 0000	
ZNRF	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E*A

MSC BC3STER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL CBRH PARAMETRIC VALUES
 O 0 975 ELEVTR - 10 000 BETA 0 000
 □ 0 929 MACH 0.250 IT 0.000
 CBRW 0.670

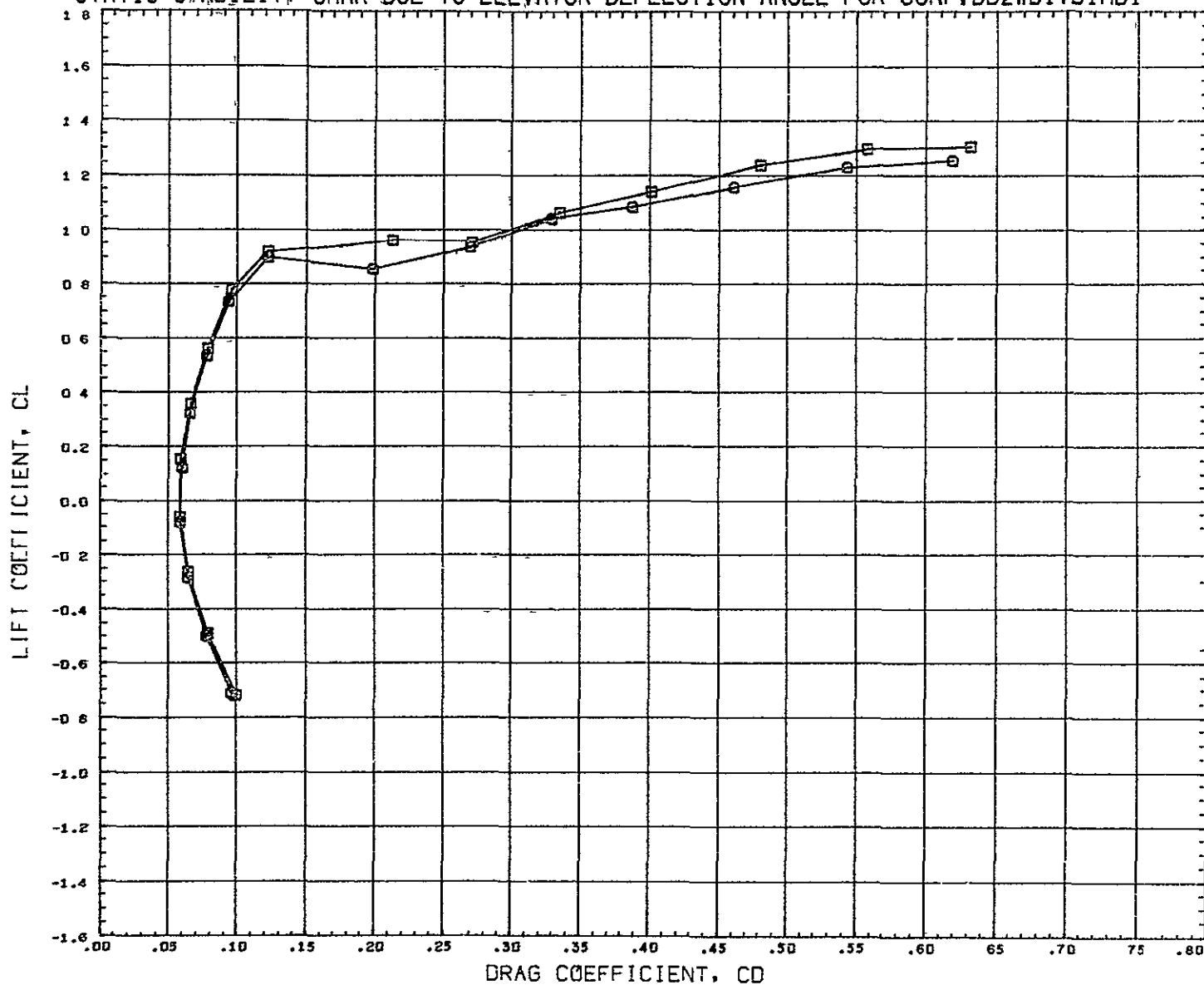
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 REFL 0.3810 FT
 REFB 2.4630 FT
 XHRP 65 0000 PCT LB
 YHRP 0 0000
 ZHRP 67 5500 PCT ZB
 SCALE 1 3215 PCT

DATA HIST. CODE *E*A

*SC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CDRH	PARAMETRIC VALUES			
110	0.973	ELEVTR	10.000	BETA	1.000
111	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

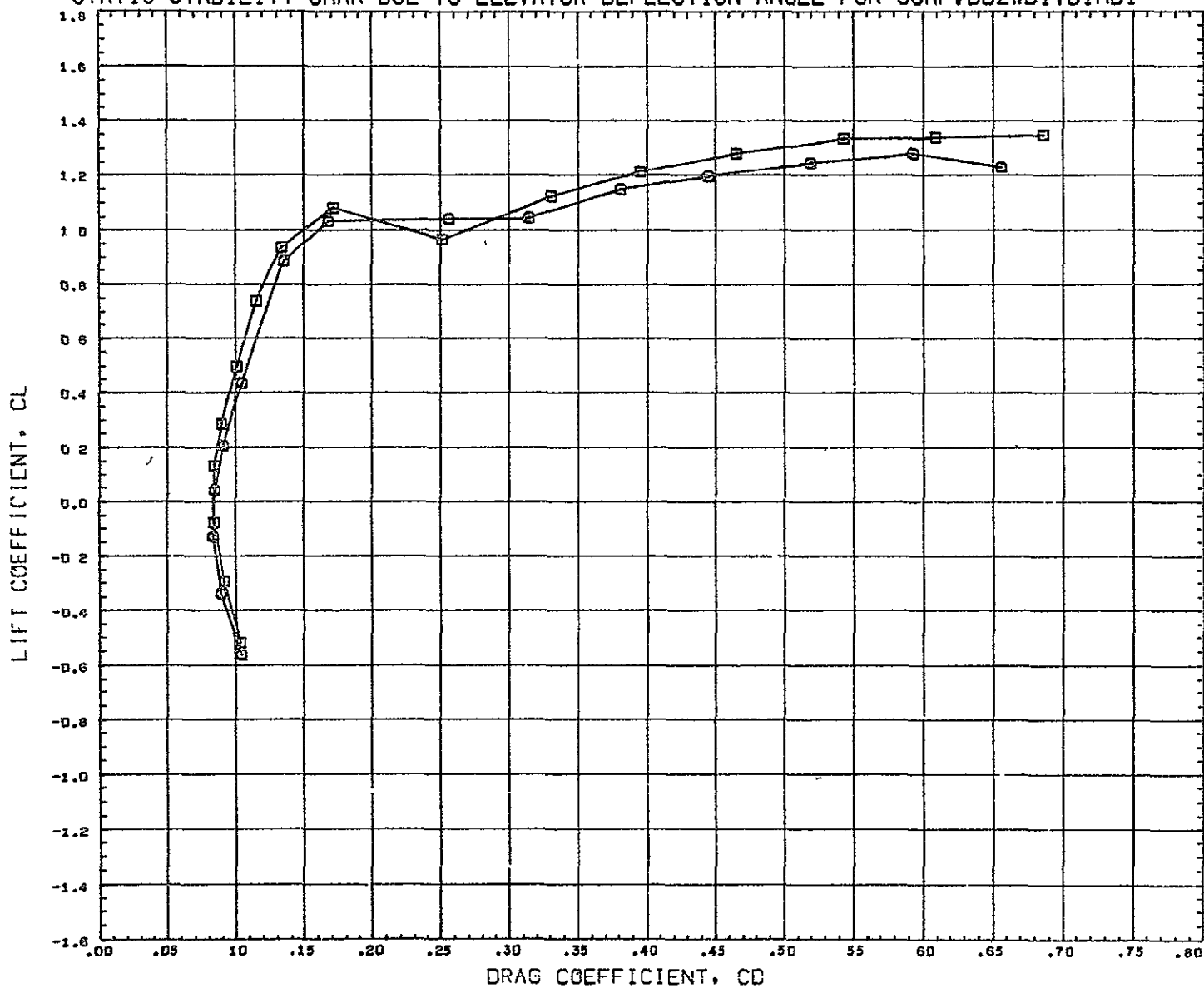
REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

DATA HIST CODE *E#A

MSC BOOSTER 25: BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBRH	PARAMETRIC VALUES			
Q	0.973	ELEVTR	20.000	BETA	0.000
U	0.929	MACH	0.250	IT	0.000
		CBRW	0.670		

REFERENCE INFORMATION		
REFS	0.8460	FT SQ
REFL	0.3810	FT
REFB	2.4630	FT
XMRP	65.0000	PCT LB
YMRP	0.0000	
ZMRP	67.5500	PCT ZB
SCALE	1.3215	PCT

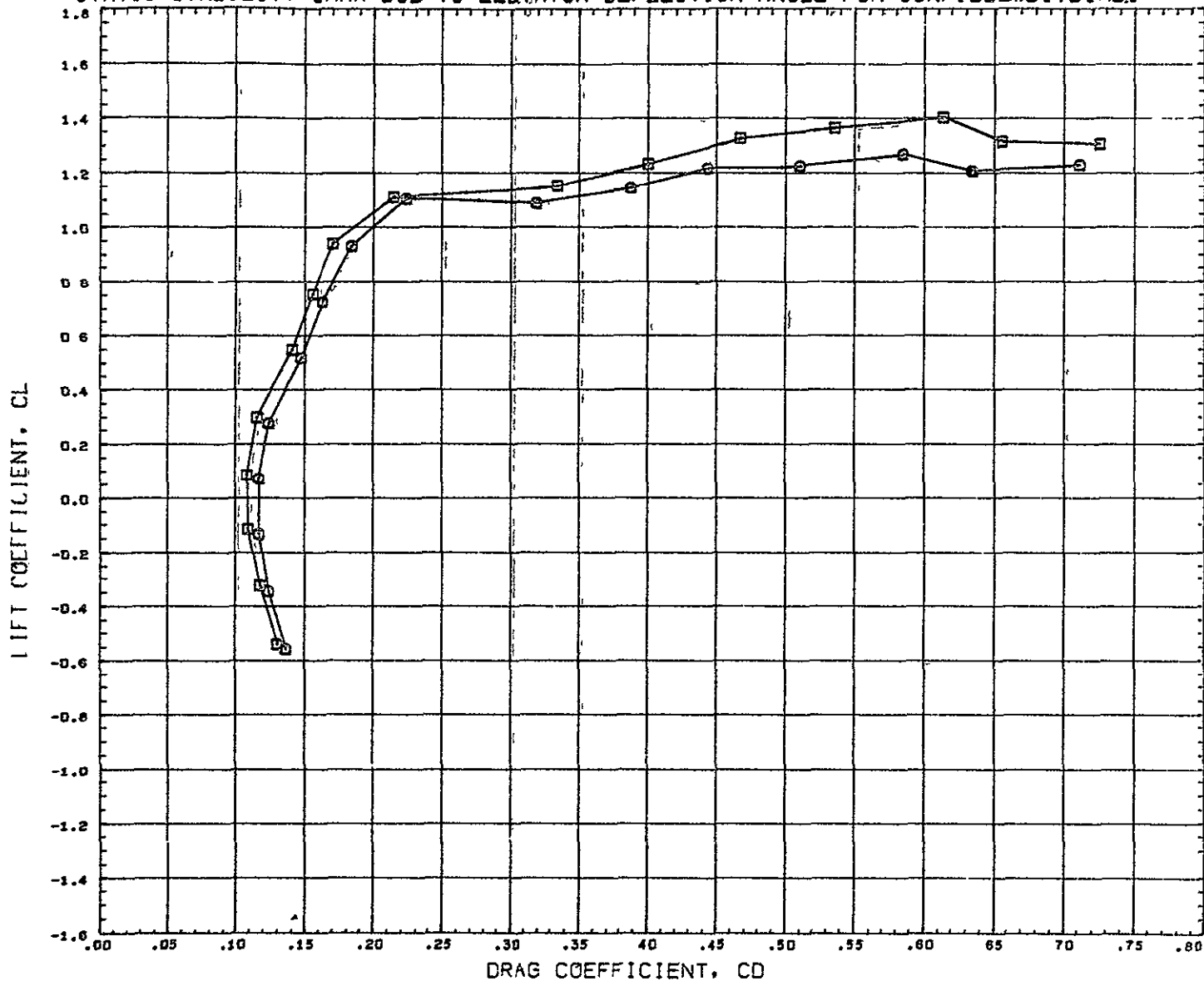
DATA HIST. CODE *EWA

MSC BOOSTER 251 BB2WB1VB1HB1

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STATIC STABILITY CHAR DUE TO ELEVATOR DEFLECTION ANGLE FOR CONF.BB2WB1VB1HB1



SYMBOL	CBPH	PARAMETRIC VALUES			
110	0.975	ELEVTR	30 000	BETA	0 000
111	0.929	MACH	0 250	IT	0 000
		CBRW	0 670		

REFERENCE INFORMATION		
REFS	0 8460	FT SQ
REFL	0 3810	FT
REFB	2 4630	FT
XMRP	65 0000	PCT LB
YMRP	0 0000	
ZMRP	67 5500	PCT ZB
SCALE	1 3215	PCT

DATA HIST CODE *E*A

