N72-14876 (NASA-CR-120022) DETERMINATION OF LONGITUDINAL AND LATERAL DIRECTIONAL AERODYNAMIC CHARACTERISTICS OF THE B19B PRESSURE-FED R.F. McGinnis, et al
Unclas 11463 (Chrysler Corp.) Dec. 1971 589 p CSCL 22B G3/31

MS-DR-1204
CR-120,022
CEMBER 1971

—SPACE SHUTTLE—

DETERMINATION OF LONGITUDINAL AND LATERAL DIRECTIONAL AERODYNAMIC CHARACTERISTICS OF THE B19B PRESSURE-FED BOOSTER AND THE B19B BOOSTER/040A ORBITER LAUNCH CONFIGURATION

by

R. F. McGinnis, GD/C
and
F. W. Eder, GD/C

JAN 1972
RECEIVED
NASA STI FACILITY
INPUT BRANCH

MSFC
14 x 14 INCH TRISONIC
WIND TUNNEL

SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM

MARSHALL SPACE
FLIGHT CENTER

N A S A

CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER

SPACE DIVISION CHRYSLER CORPORATION

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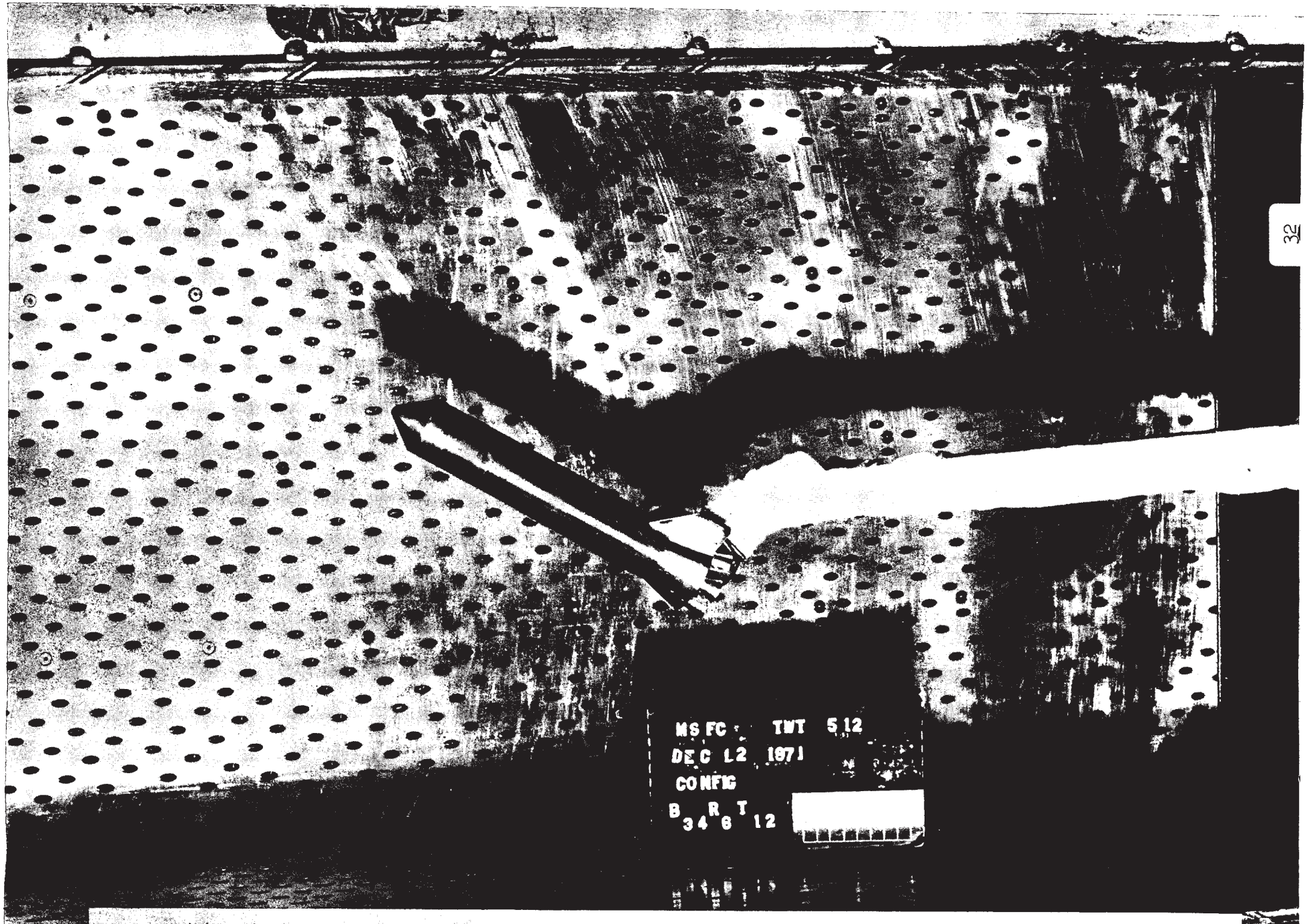

Figure 14. B34R6T12 Configuration - Alpha Range +40 to +60 Degrees; Tunnel Closed, Except Side Port Open

NASA-MSFC
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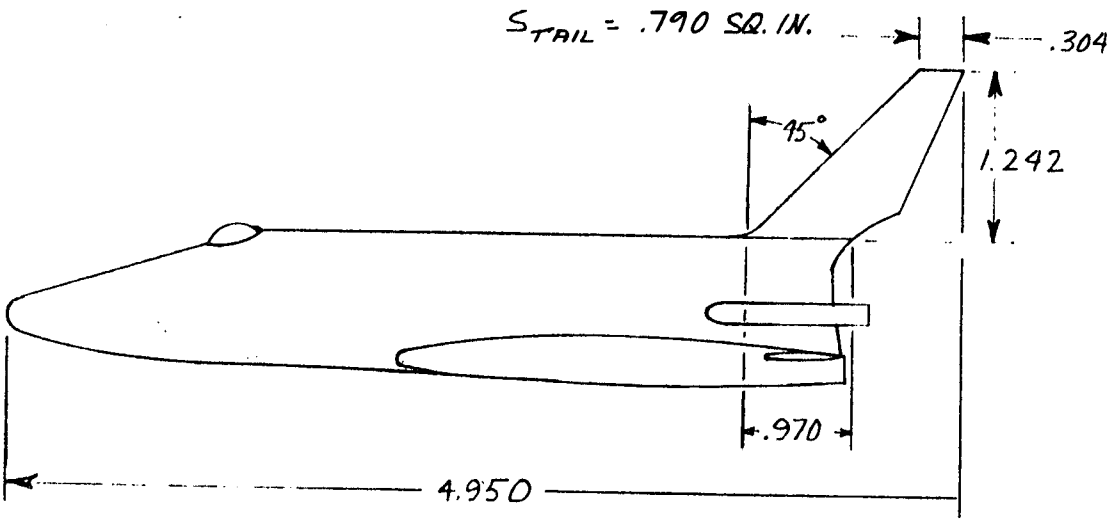
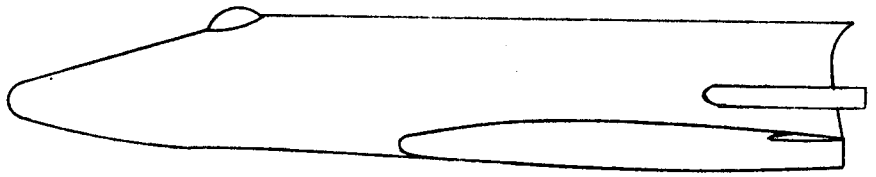
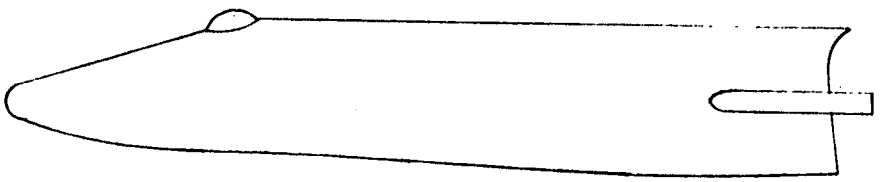
184-3-71



ORBITER 02



ORBITER 03



ORBITER 04

FIGURE 13. ORBITER 02, 03, 04

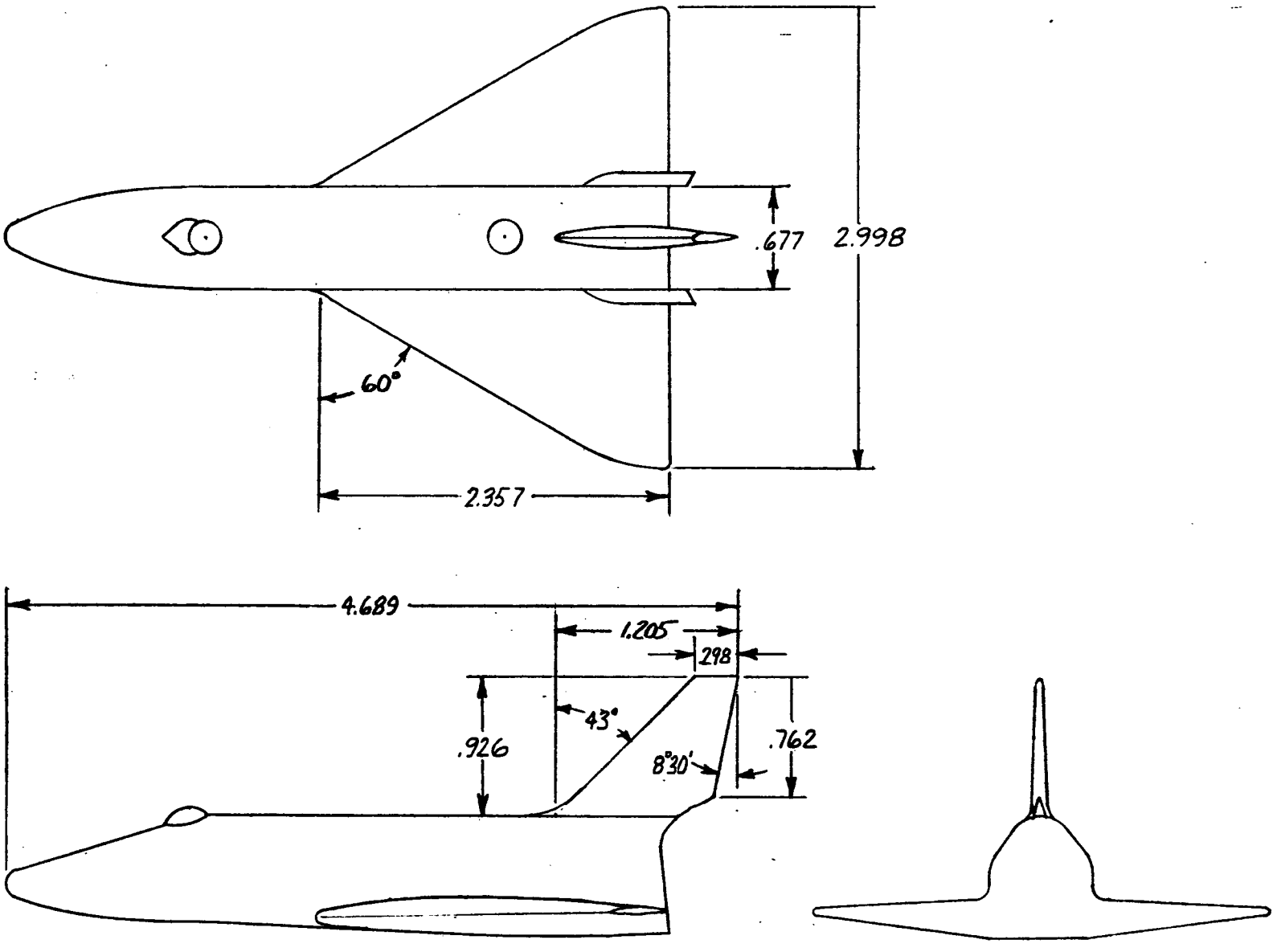
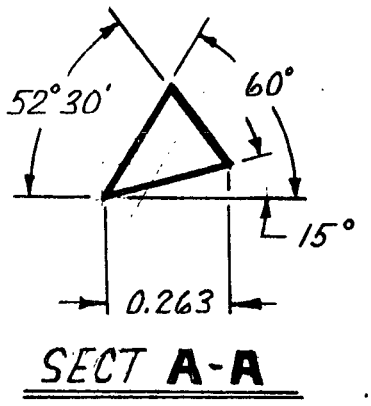


FIGURE 12. ORBITER 01



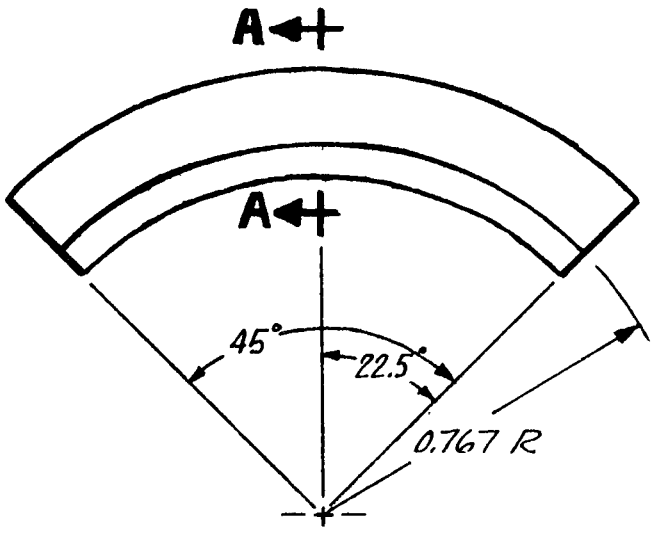


FIGURE 11. DRAG SKIRT S3

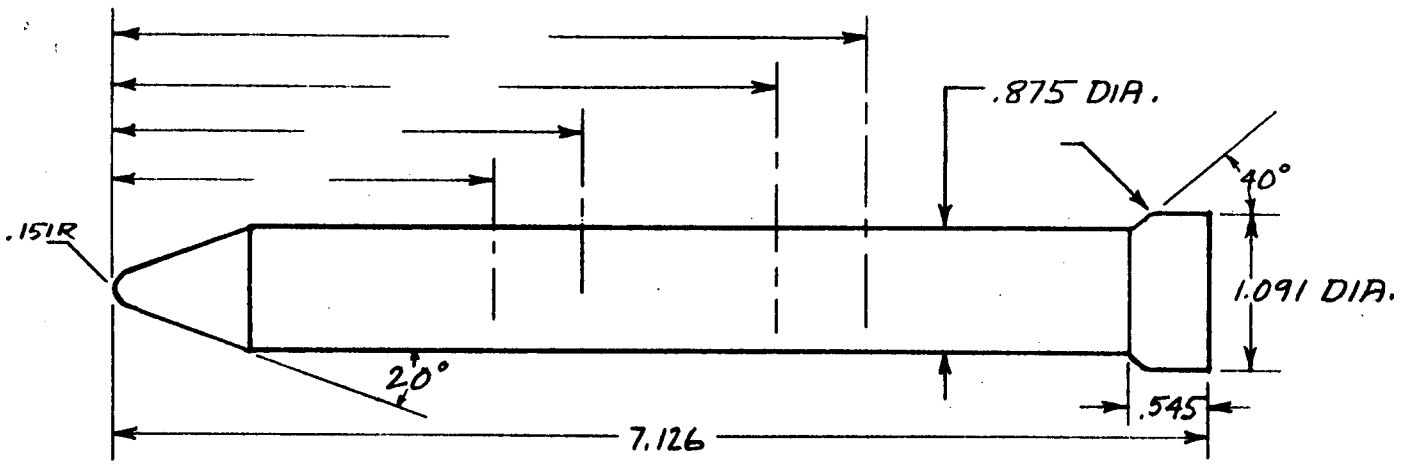


FIGURE 10. TANK T3

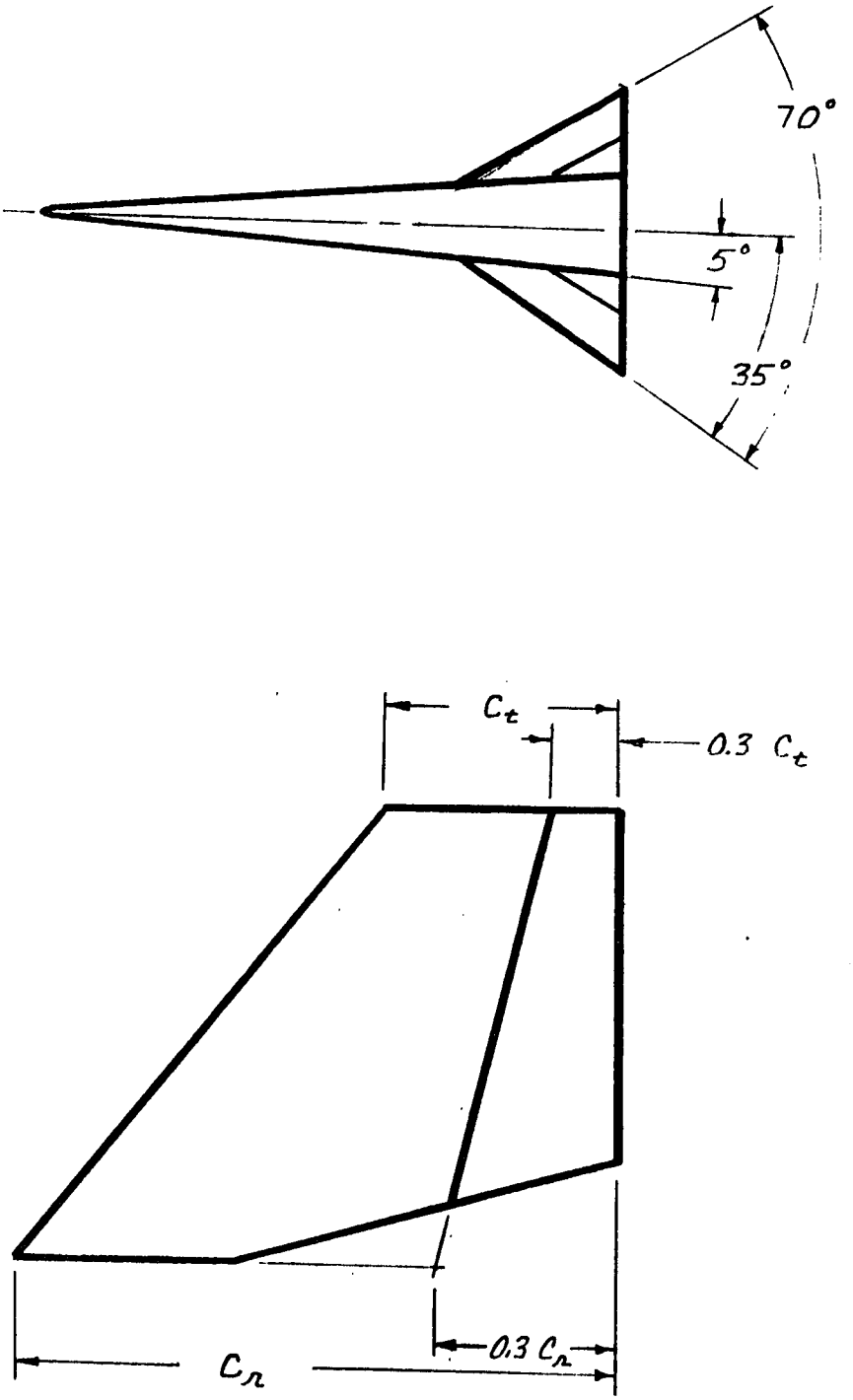
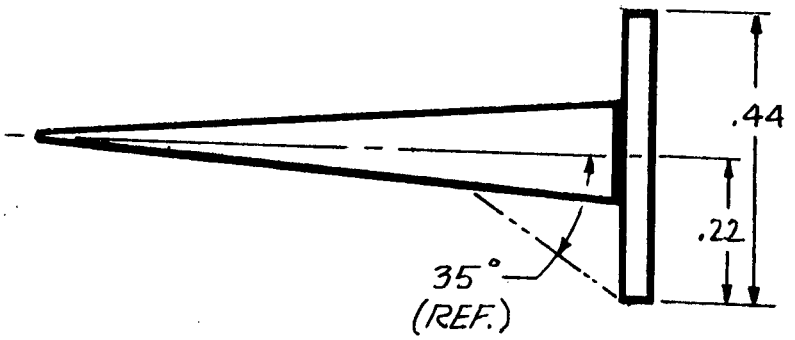


FIGURE 9. TAIL T17



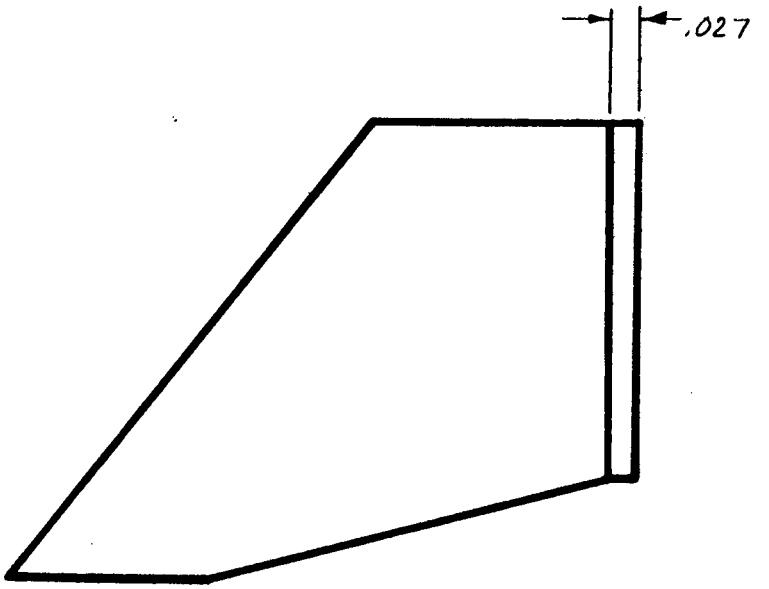


FIGURE 8. TAIL T15

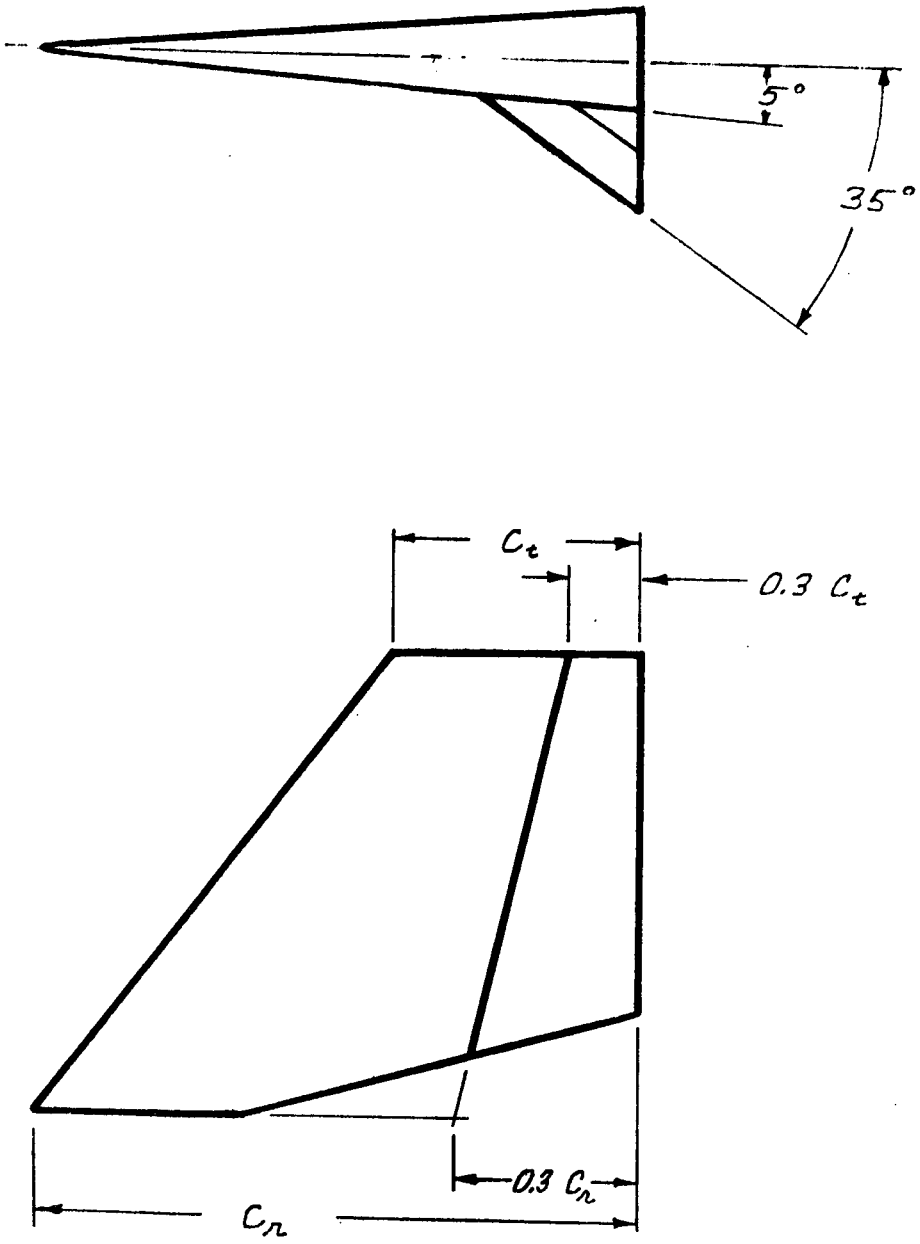


FIGURE 7. TAIL T14

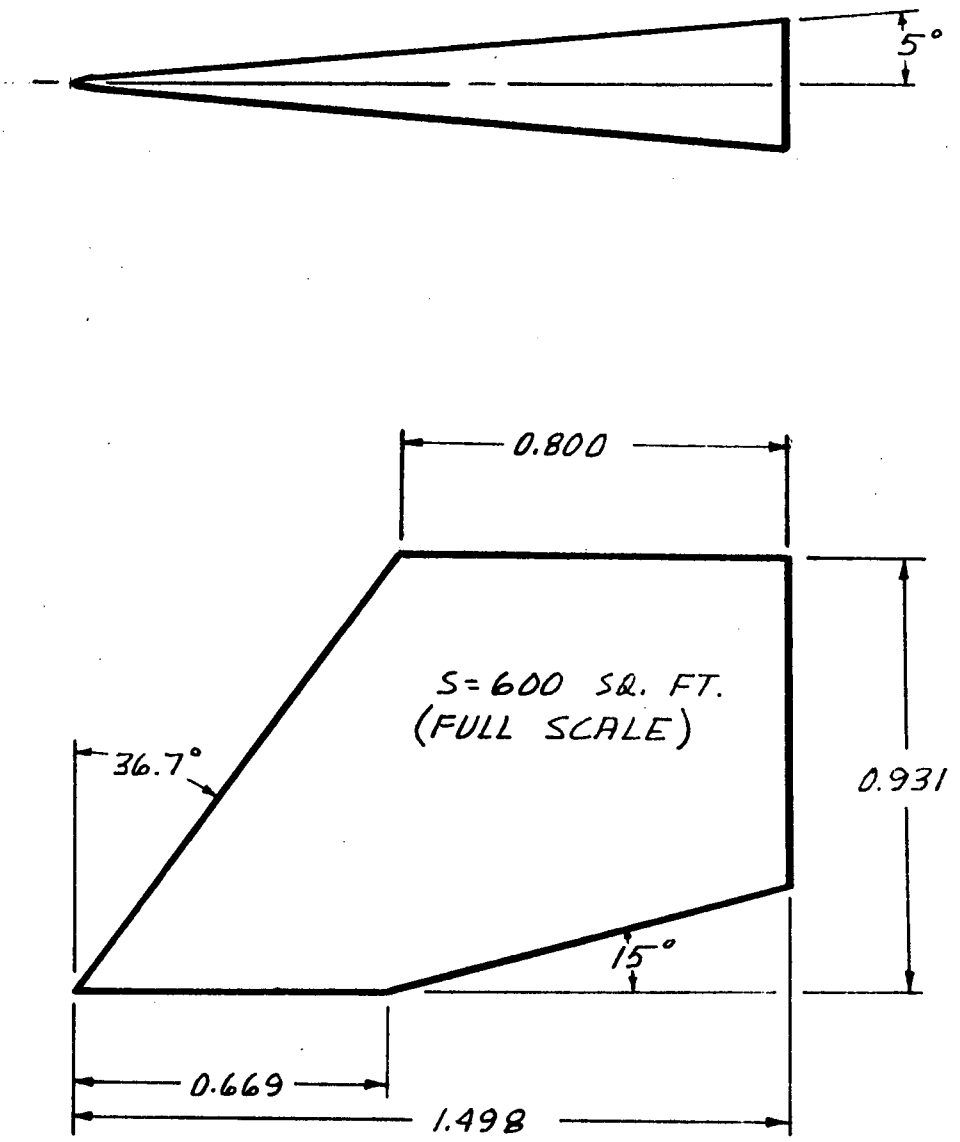
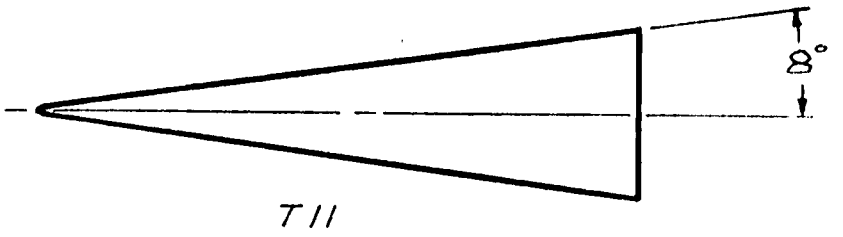
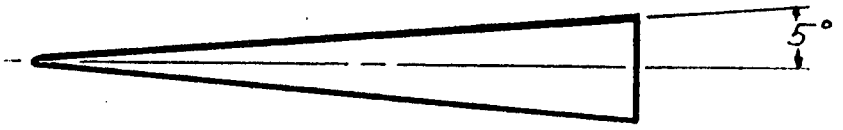


FIGURE 6. TAIL T13



T11



T10

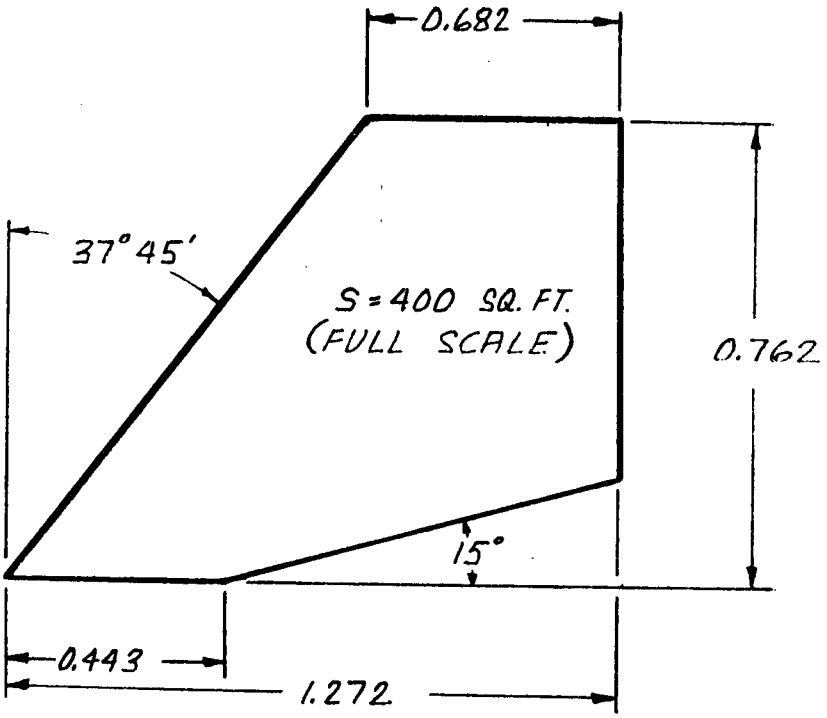


FIGURE 5. TAILS T10 AND T11

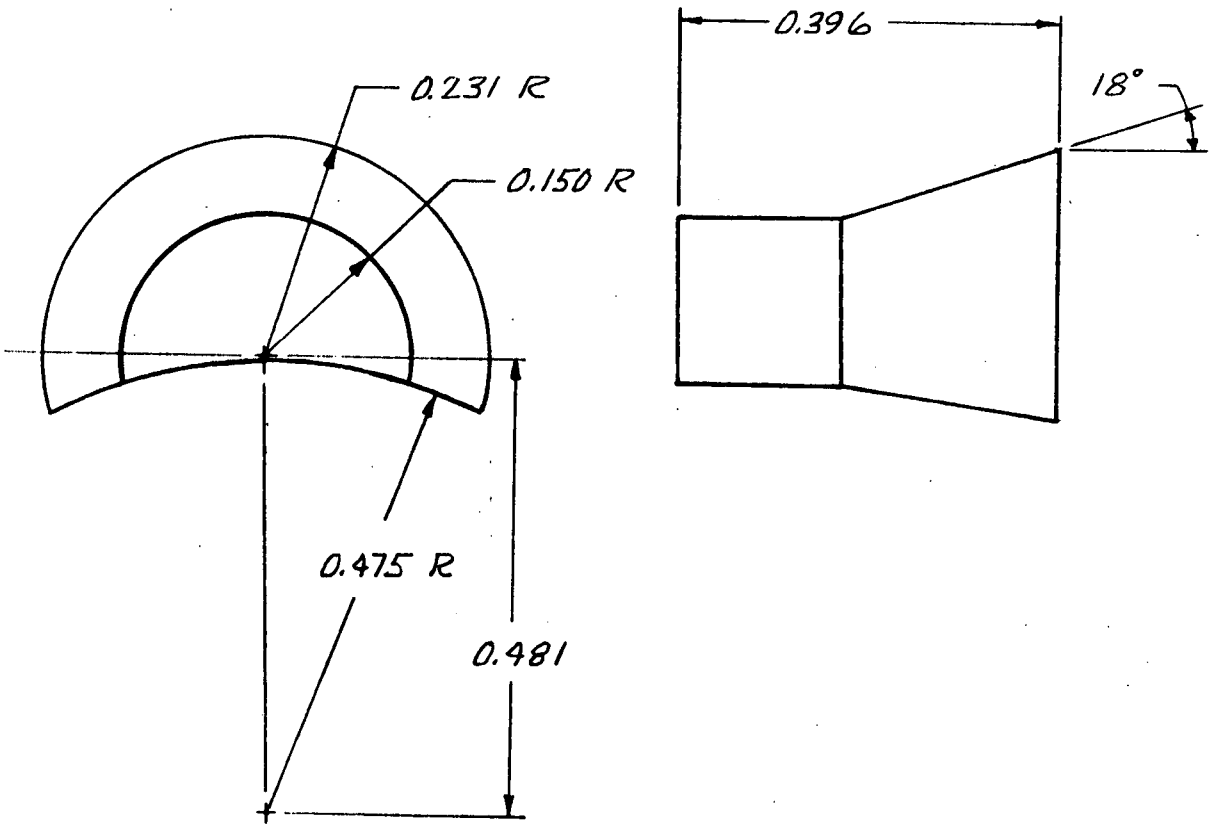
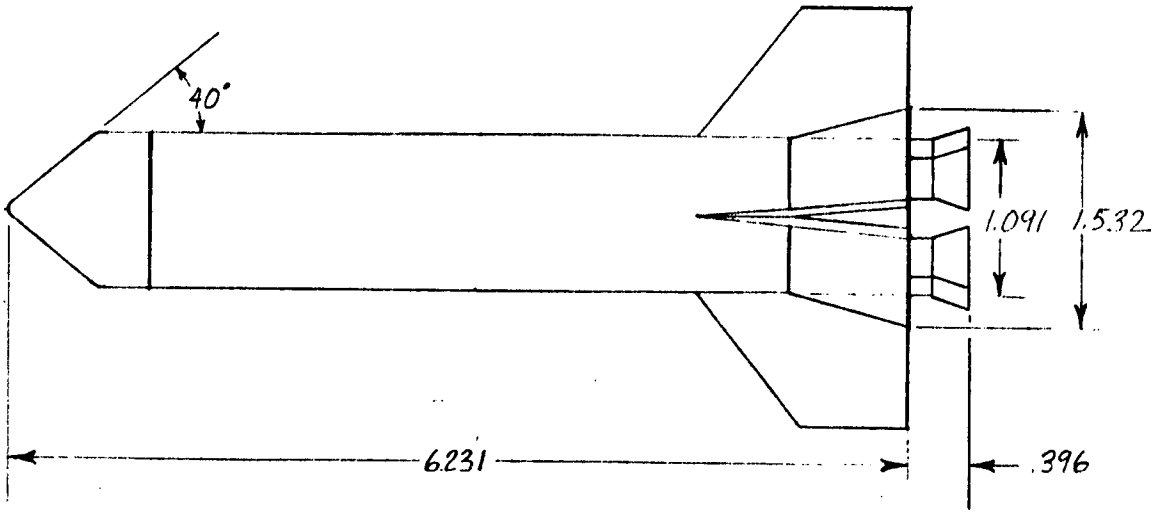
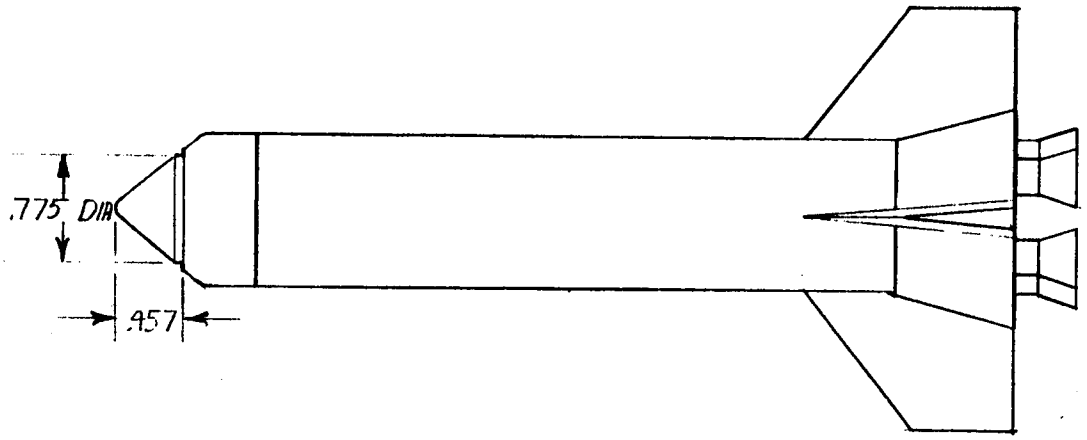


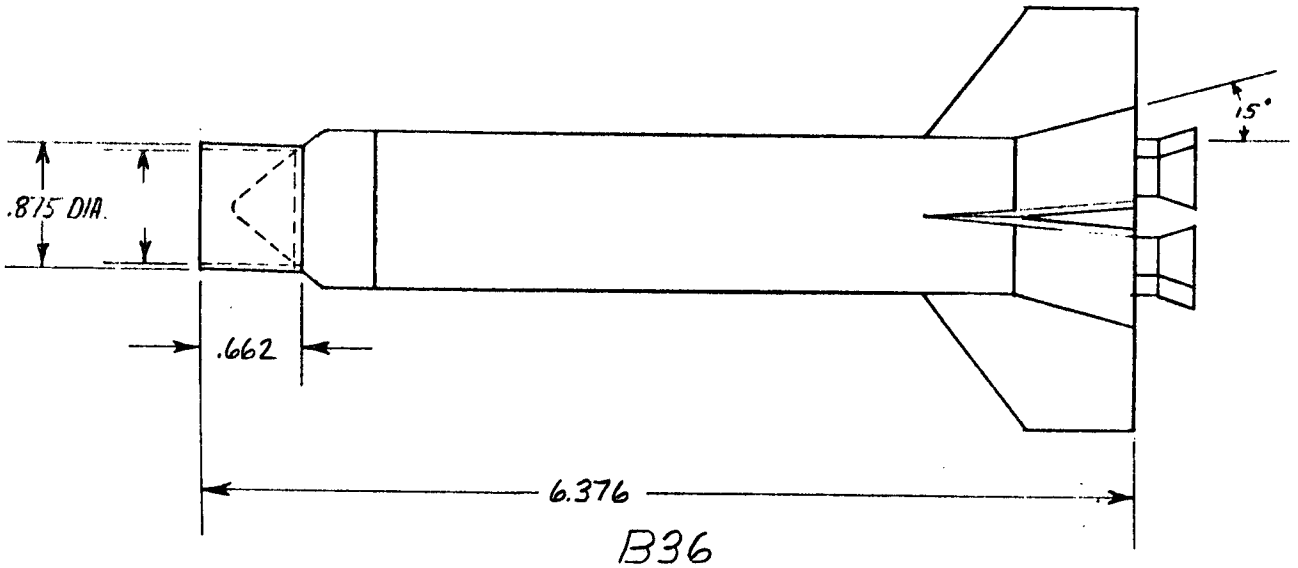
FIGURE 4. ROCKET ENGINE R6



B34



B35



B36

FIGURE 3. BODY B34, B35, B36

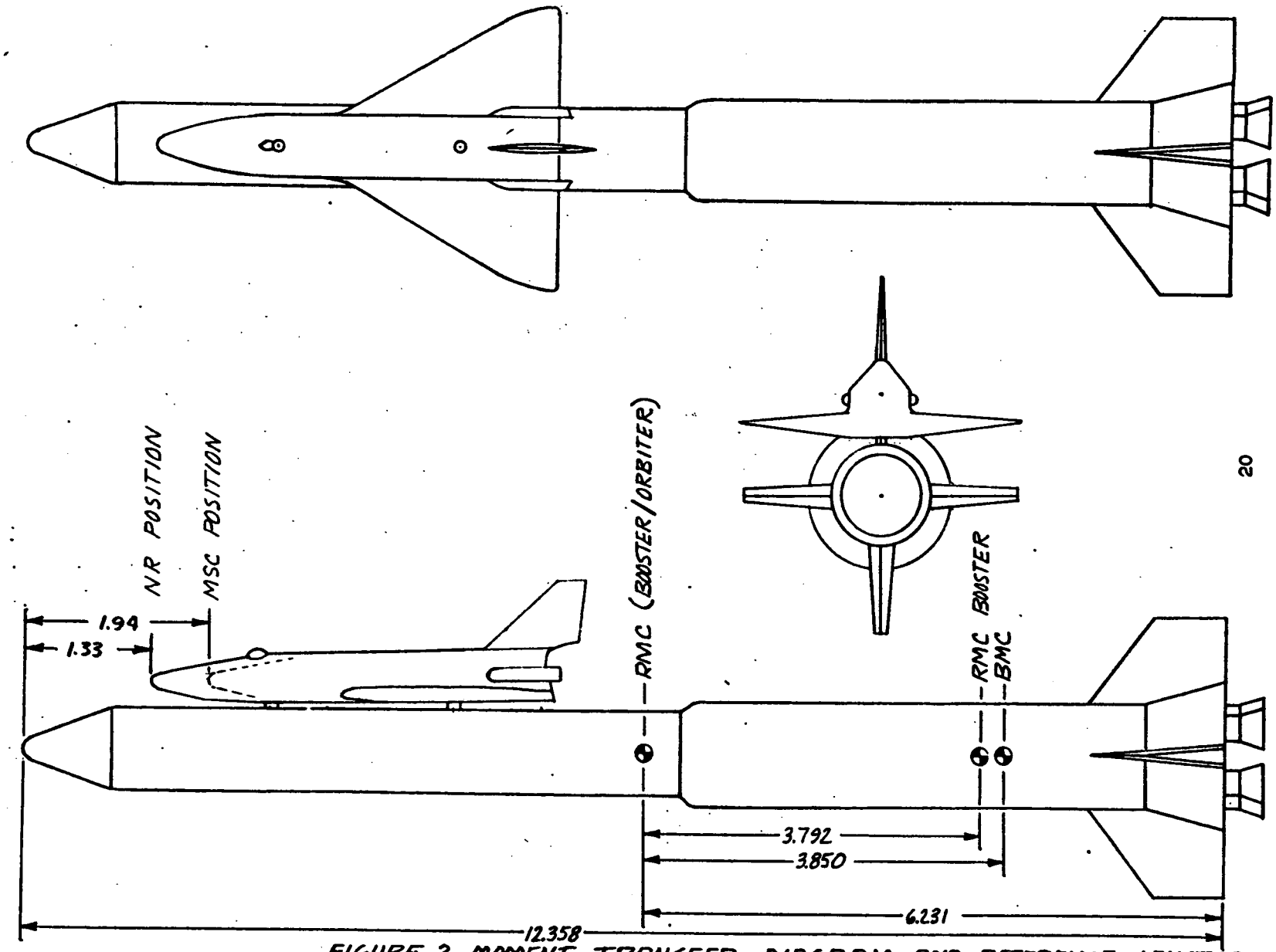


FIGURE 2. MOMENT TRANSFER DIAGRAM AND REFERENCE LENGTHS

Notes:

1. Positive directions of force coefficients moment coefficients, and angles are indicated by arrows.

2. For clarity, origins of wind and stability axes have been displaced from the center of gravity.

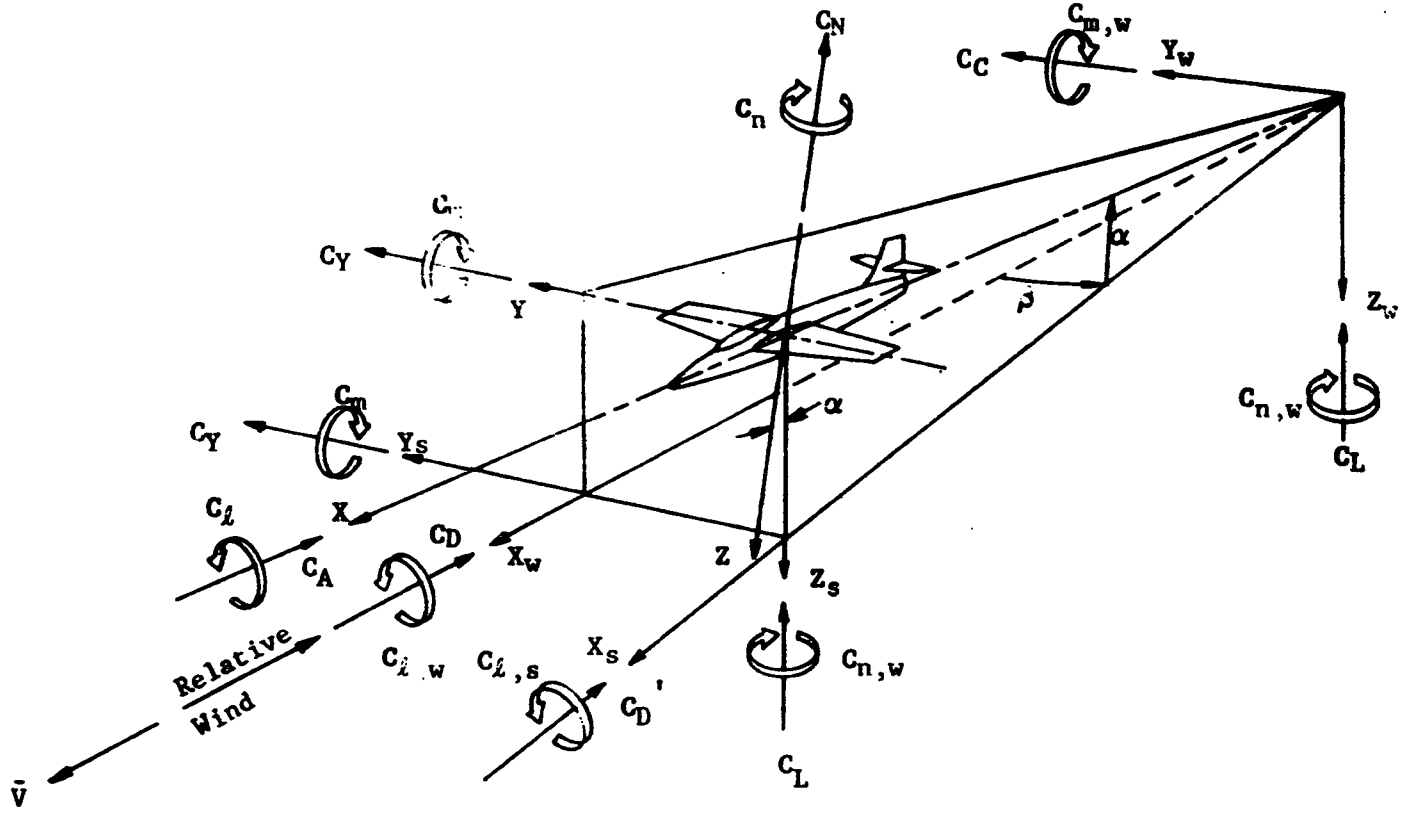


Figure 1. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

F I G U R E S

TABLE I.

SUMMARY OF SADSAC NOMENCLATURE - AERODYNAMIC FORCE AND MOMENT COEFFICIENTS

COEFFICIENT	COEFFICIENT NAME	SADSAC NOMENCLATURE		
		BODY AXIS	STABILITY AXIS	WIND AXIS
C_A	Total Axial Force	CA	-	-
C_{AB}	Base Axial Force	CAB	--	-
C_{AF}	Forebody Axial Force	CAF	-	-
C_D	Total Drag Force	-	CD	CDTOTL
C_{DB}	Base Drag Force	-	CDB	CDBASE
C_{DF}	Forebody Drag Force	-	CDF	CDFORE
C_L	Lift Force	-	CL	CL
C_N	Normal Force	CN	-	-
C_Y	Side Force	CY	CY	CC
C_ℓ	Rolling Moment	CBL	CSL	CWL
C_m	Pitching Moment	CLM	CLM	CPM
C_n	Yawing Moment	CYN	CLN	CLN
L/D	Lift-To-Drag Force Ratio	-	L/D	CL/CD
L/D	Lift-To-Forebody Drag Force Ratio	-	L/DF	CL/CDF
N/A	Normal-To-Axial Force Ratio	N/A	-	-
N/A	Normal-To-Forebody Axial Force Ratio	CN/CAF	-	-

SUMMARY DATA PLOT INDEX
(CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Effects of Booster Tail Size on Launch Configuration	A	Configuration	525-551
Component Buildup for Basic Booster/Fwd Position Orbiter	B	Configuration	552-575
Effects of Booster Tail Size on Launch Configuration	B	Configuration	576-587

PLOTTED COEFFICIENTS SCHEDULE:

(A) CN, CLM, CA, CL, CD, & L/D vs. Alpha

CL vs. CD
CL vs. CLM
CN vs. CLM

(B) CY, CYN, & CBL vs. Beta

CYN vs. CY

SUMMARY DATA PLOT INDEX

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Effects of Varying Booster Tail Wedge Angle	A	Configuration	1-36
Effects of Fin Size and V Tail on Configuration	A	Configuration	37-108
Effects of Thirty-Five Degree Control Flap Deflection (Single or Double)	A	Configuration	109-180
Effects of Tail Spoilers and Double Thirty-Five Degree Wedges	A	Configuration	181-225
Effects of Horizontal Control Flap Deflection	A	Configuration	226-234
Effects of Skirt and Double Wedge Drag Devices	A	Configuration	235-279
Component Buildup for Interstage Adapter	A	Configuration	280-333
Component Buildup for Basic Booster/Aft Position Orbiter	A	Configuration	334-369
Effects of Various Booster Tail Configurations	A	Configuration	370-405
Component Buildup for Basic Booster/Aft Position Orbiter	B	Configuration	406-421
Effects of Booster Tail Positions on Launch Configuration	B	Configuration	422-433
Effects of Orbiter Tail Size at Alpha = 0 and 2 Degrees	B	Configuration	434-449
Effects of Model Phi = 0, 45 Degrees at Alpha = 0, -6 Degrees	B	Configuration	450-461
Component Buildup for Basic Booster/Fwd Position Orbiter	A	Configuration	462-524

DATA REDUCTION

The calculation of the aerodynamic coefficients was about the body and stability axis reference systems. Data reduction included static tare, base pressure, balance cavity pressure, and where applicable a blade sting slot correction to the balance recorded data. The model dimensional data utilized in computing the aerodynamic coefficients are listed below:

S_{ref} = booster body cylinder cross sectional area = 0.935 in^2

ℓ_{ref} = booster body length; from nose to aft end of 15° flare = 6.231 in. (measured)

b_{ref} = booster body cylinder diameter = 1.091 in. (measured)

Two sting arrangements were employed; straight and a blade sting extending through a slot on the aft end of the booster model. Applicable model base, balance cavity, and slot planform areas utilized in the data reduction program are listed below:

	TOP BASE AREA	BOTTOM BASE AREA	CAVITY AREA	SLOT PLANFORM AREA
Straight	.5709	.5709	.7088	0
Blade	.4780	.5709	.7579	.1685

The moment reference point (MRP) for the booster alone configuration is on a line coincident with the body longitudinal centerline, 3.792 inches aft of the nose.

The moment reference point (MRP) for the booster/orbiter configuration is on a line coincident with the body longitudinal centerline, 6.231 inches forward of the booster body base (aft end of 15° flare).

TEST CONDITIONS
TEST MSFC TWT 512

MACH NUMBER	REYNOLDS NUMBER per unit length	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.6	6.4×10^6/FT	5.51	96
0.9	6.9×10^6/FT	8.03	94
1.1	6.6×10^6/FT	8.76	99
1.2	6.7×10^6/FT	9.18	98
1.46	6.6×10^6/FT	9.48	97
1.96	7.1×10^6/FT	10.20	99
2.74	5.2×10^6/FT	6.37	102
5.00	5.8×10^6/FT	3.25	100

BALANCE UTILIZED: MSFC #232 Balance

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	300 LBS		
SF	143 LBS		
AF	50 LBS		
PM	400 IN-LBS		
YM	192 IN-LBS		
RM	100 IN-LBS		

COMMENTS:

TEST FACILITY DESCRIPTION
(Continued)

The diffuser section has movable floor and ceiling panels which are the primary means of controlling the subsonic Mach numbers and permit more efficient running supersonically. The sector assembly and supersonic diffuser telescope into the subsonic diffuser to allow easy access to the model and test section.

Tunnel flow is exhausted through an acoustically damped tower to atmosphere or into the vacuum field of 42,000 cubic feet. The vacuum tanks are evacuated by vacuum pumps driven by a total of 500 hp.

Data is recorded by a solid state digital data acquisition system. The digital data is transferred to punched cards during the run to be reduced later by a computer to proper coefficient form.

The tunnel components and performance are discussed in more detail in NASA TM X-53185, dated December 22, 1964, and NASA TM X-53113, dated August 20, 1964.

TEST FACILITY DESCRIPTION

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

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

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

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

RUN SCHEDULE DEVIATION

MSC launch configuration dictated booster tails below booster centerline for T12 vee tail. Runs 129 and 130 were inadvertently run with vee tails above the centerline.

Booster alone configuration dictated vee tail T12 above booster centerline. Run 150 was inadvertently run with vee tails below centerline.

TEST MSFC TWT 512 DATA SET COLLA

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES ϕ_m				NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.1	1.2	1.46	1.96	2.74	5.0				
R50410	B34 R6 T12	F	0	45									154/0							

1 7 13 19 25 31 37 43 49 55 67 75/6

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

α or β SCHEDULES

TEST 11SEC TWT 512 DATA SET COLLATION SHEET

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES ϕ_{TR}	INSERD/WORD	INSERD/WORD	INCID. ANGLE	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.1	1.2	1.46	1.96	2.74	5.0
R50 210	B34 R6 T10 ϕ1 T3	-6	D	0	✓		-3.0				039 0		021 0			
220	B34 R6 T10 ϕ2 T3	-6	D	0	✓		↑				038 0		022 0			
230	↓	0	D	45	✓						102 0	103 0	142 0			
240	B34 R6 ϕ2 T3	A	0	0	✓					109 0	108 0	109 0	140 0			
250	↓	0	D	0	✓					106 0	105 0	104 0	141 0			
260	B34 R6 T12 ϕ2 T3	A	0	0	✓							130 0	131 0			
270	↓	0	D	0	✓							129 0	132 0			
280	B34 R6 T10 ϕ3 T3	0	D	0	✓					124 0	123 0	122 0	135 0			
290	B34 R6 T10 ϕ4 T3	A	0	0	✓					118 0	119 0	116 0	137 0			
300	↓	0	D	0	✓		↓			119 0	120 0	121 0	136 0			
310	B34 R6 T18 ϕ2 T3	0	D	0	✓		-3.0				128 0		133 0			
320	B34 R6 T10 T3	A	0	0						113 0	114 0	115 0	138 0			
330	B34 R6 T3	A	0	0						112 0	111 0	110 0	139 0			
340	B34 R6 T10 ϕ2 T3	-6	D	45	✓		-3.0				039 0					
350	B34 R6 T10 ϕ2 T3	A	0	0		✓	0		076 0	097 0	078 0		147 0		069 0	068 0
360	↓	0	D	0		✓	0		081 0	080 0	079 0		146 0		070 0	091 0
370	B34 R6 T10 ϕ2 T3	A	0	0		✓	-3.0		089 0	086 0	085 0		148 0		066 0	069 0
380	↓	0	D	0		✓	-3.0		082 0	083 0	084 0		149 0		065 0	064 0
390	B34 R6 T13 ϕ2 T3	0	D	0		✓	0			090 0		091 0			073 0	092 0
400	↓	A	0	0		✓	0			089 0		088 0			074 0	095 0

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

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

α or β

SCHEDULES

TEST MSFC TWT 512 DATA SET COLLATION SHEET

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES ϕ_m	NRORB	NPORB	ROLL ANGLE	NO. of RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 0.6	0.9	1.1	1.2	1.46	1.96	2.74	5.00
R50010	B34R6T10	B	0	0					001/0	002/0	003/0	004/0	014/0	023/0	041/0	040/0
R50020	B34R6T12	C	0	45					166/0	167/0	168/0	169/0	151/0	170/0	158/0	157/0
R50030	↕	52	B	45									152/0	171/0	159/0	160/0
R50040	B34R6T11	B	0	0									015/0	024/0	047/0	046/0
R50050	B34R6T13	B	0	0									016/0	025/0	050/0	049/0
R50060	B34R6T14	B	0	0												048/0
R50070	B34R6T15	B	0	0									017/0	026/0	056/0	055/0
R50080	B34R6T16	B	0	0												057/0
R50090	B34R6T17	B	0	0					036/0				018/0	027/0	052/0	051/0
R50100	B34R6S3T10	B	0	0									013/0	028/0	059/0	058/0
R50110	B34R6	B	0	45					008/0	009/0	010/0	011/0	012/0	029/0	054/0	053/0
R50120	↕	C	0	45									153/0	173/0	155/0	156/0
R50130	B34R6T10	E	0	0						007/0	006/0	005/0				
R50140	B35R6T10	B	0	0					032/0	031/0	030/0					
R50150	B36R6T10	B	0	0					033/0	034/0	035/0		020/0		045/0	044/0
R50160	B34R6T12	F	0	45					165/0	164/0	163/0	162/0	150/0	172/0	161/0	
R50170	B34R6T10Ø2T3	A	0	0	✓		-3.0		096/0	097/0	098/0	099/0	144/0		061/0	060/0
R50180	↕	A	0	45	✓		↕				101/0	100/0	143/0			
R50190	↕	0	D	0	✓		↕		095/0	094/0	092/0	093/0	145/0		063/0	062/0
R50200	B34R6T10ØIT3	0	D	0	✓		↕			125/0	126/0	127/0	134/0			

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

CM	CN	CY	CBL	CYN	CA	CAB	CAF	CAC	XCP	–	–	
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

α or β SCHEDULES

αA = -10 TO +10 DEG. αE = +14 TO -4 DEG.

αB = -4 TO +14 DEG. αF = +20 TO +40 DEG.

αC = +40 TO +60 DEG. βD = -10 TO +10 DEG.

CONFIGURATIONS INVESTIGATED
(Continued)

T_3	Orbiter tank with a length of 176.5 ft. and a diameter of 21.7 ft. Tank mounted tandem on booster.
O_1	Orbiter with small planform vertical tail.
O_2	Same as O_1 except large planform vertical tail.
O_3	Same as O_1 except vertical tail removed.
O_4	Same as O_1 except vertical tail and wing removed.

Pertinent dimensional information for each of these components is given in the Model Component Description Sheets which follow the Figures. The Dataset Collation Sheets show the various component combinations tested and summarizes the total test conditions.

CONFIGURATIONS INVESTIGATED

The following model components were utilized during the test (see Figures 2-13):

Symbol	DESCRIPTION
B_{34}	Basic body with 40 degree nose cone and 15 degree aft flare full scale length is 154.3 ft with 27.0 ft diameter.
B_{35}	Same as B_{34} except notched nose cone.
B_{36}	Same as B_{35} except cylindrical interstage attached to 40 degree nose cone.
R_6	Rocket engines in cluster of six located around base. No center engine.
T_{10}	Wedge section clipped delta tail. 5 degree half angle of wedge. $S = 400$ ft^2. Four panels.
T_{11}	Same as T_{10} only an 8^o half angle of wedge.
T_{12}	Same as T_{10} only two panels mounted in Vee arrangement. Vee above centerline for booster configuration, below centerline for booster/orbiter configuration.
T_{13}	Wedge section clipped delta tail with 5 degree half angle of wedge. $S = 600$ ft^2. Four panels.
T_{14}	Same as T_{10} with a 35 degree wedge on left side of all fins.
T_{15}	Same as T_{10} with a spoiler at fin trailing edge to simulate a 35^o wedge deflection.
T_{16}	Same as T_{10} with a 35 degree wedge on the top of the two horizontal fins.
T_{17}	Same as T_{10} with 35 degree wedge on both sides of all fins.
T_{18}	Same as T_{10} except top vertical tail removed ($\phi_m = o$).

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

This report presents the results, in plotted form, for MSFC Test 512 utilizing the 0.003366 scale Convair Space Shuttle Pressure-Fed Booster B19B. The isolated booster was tested to represent the re-entry configuration. The booster with the 040A orbiter in a tandem arrangement was tested to represent the launch configuration. This test was conducted in the Marshall Space Flight Center 14 x 14 inch Trisonic Wind Tunnel starting 22 November 1971. (Test TWT 512).

The primary purpose of this test was to determine the longitudinal and lateral-directional characteristics of both the booster and the launch configuration. The test was conducted over a Mach range of 0.6 to 5.0 and an angle of attack range of -4 to 16 degrees and a yaw range of -10 to +10 degrees. In addition the booster was tested from 40 to 60 degrees angle of attack.

Data acquisition technique was divided into the following categories:

a) Force and moment data

b) Balance cavity pressure data

c) Base pressure data

d) Schlieren photographs

e) Tunnel conditions

A six component force and moment balance was furnished by the Marshall Space Flight Center.

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A B S T R A C T

The 0.003366 scale models of the General Dynamics/Convair Aerospace Space Shuttle Pressure Fed Booster and Booster/Orbiter configurations were tested in the MSFC 14-inch Trisonic Wind Tunnel during the period from November 23 to December 1, 1971. The test was conducted as a static stability and control investigation over a Mach range of 0.60 to 5.00. The booster alone configuration was tested with various tail sizes, tail wedge angles, tail flaps, spoilers, and a body flare drag skirt. Two launch configurations were tested; one being the MSC orbiter location on the booster tank and the other being the North American Rockwell orbiter location. Orbiter buildup, longitudinal position, incidence angle, and booster tail on and off were the variables for launch configuration. Booster alone models were pitched over an angle of attack range of -4 to +14 and +20 to +60 degrees at zero degrees yaw angle and yawed over an angle of sideslip range of -10 to +10 degrees at 52 degrees angle of attack. Models were rolled 45 degrees during selected runs. Launch configuration models were yawed -10 to +10 degrees at zero degrees angle of attack and yawed -10 to +10 degrees at zero and minus six degrees angle of attack. Models were rolled 45 degrees during selected runs.

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NASA Series Number: S-0250

DMS-DR-1204
December, 1971

SADSAC/SPACE SHUTTLE

WIND TUNNEL TEST DATA REPORT

CONFIGURATION: 0.003366 Scale Space Shuttle Pressure Fed Booster B19B and B19B Booster/040A Orbiter

TEST PURPOSE: To Determine the Longitudinal and Lateral-Directional Characteristics of Both the Booster and the Launch Configuration.

TEST FACILITY: NASA/MSFC 14" x 14" Trisonic Wind Tunnel

TESTING AGENCY: General Dynamics/Convair Aerospace Division

TEST NO. & DATE: MSFC TWT 512; November 22, 1971

FACILITY COORDINATOR: Mr. Jim Weaver - NASA/MSFC

PROJECT ENGINEER(S): Mr. R. F. McGinnis - (GD/C)

Mr. F. W. Eder - (GD/C)

DATA MANAGEMENT SERVICES

LIAISON: for V. W. Sparks, Liaison Operations

DATA OPERATIONS: Albert D. Martin, Aero Thermo Data Group

RELEASE APPROVAL: for N. D. Kemp, Supervisor, Aero Thermo Data Group

CONTRACT NAS 8-4016 AMENDMENT 153 DRL 184-58

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

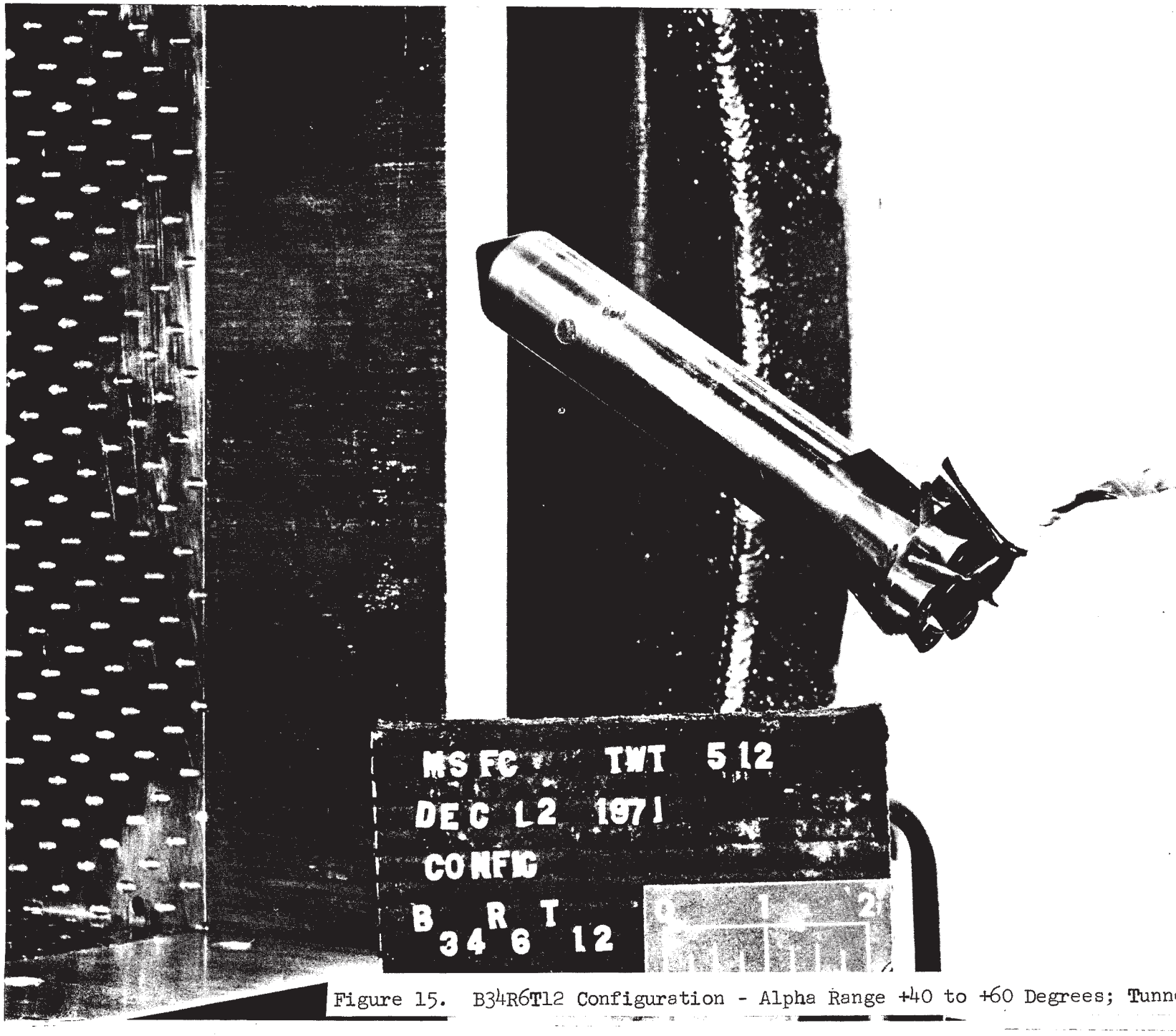
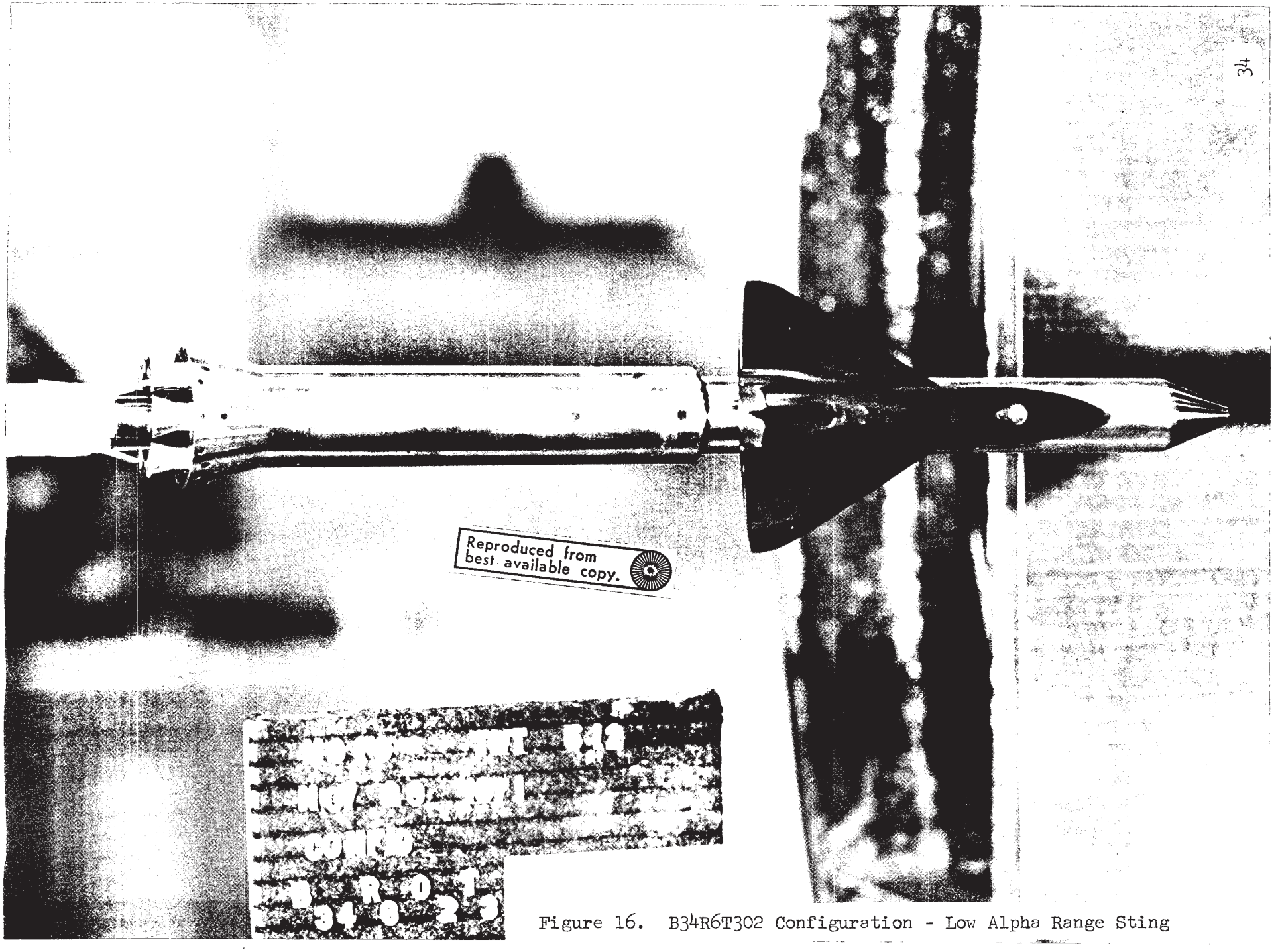


Figure 15. B34R6T12 Configuration - Alpha Range +40 to +60 Degrees; Tunnel Open



Reproduced from best available copy.

Figure 16. B34R6T302 Configuration - Low Alpha Range Sting

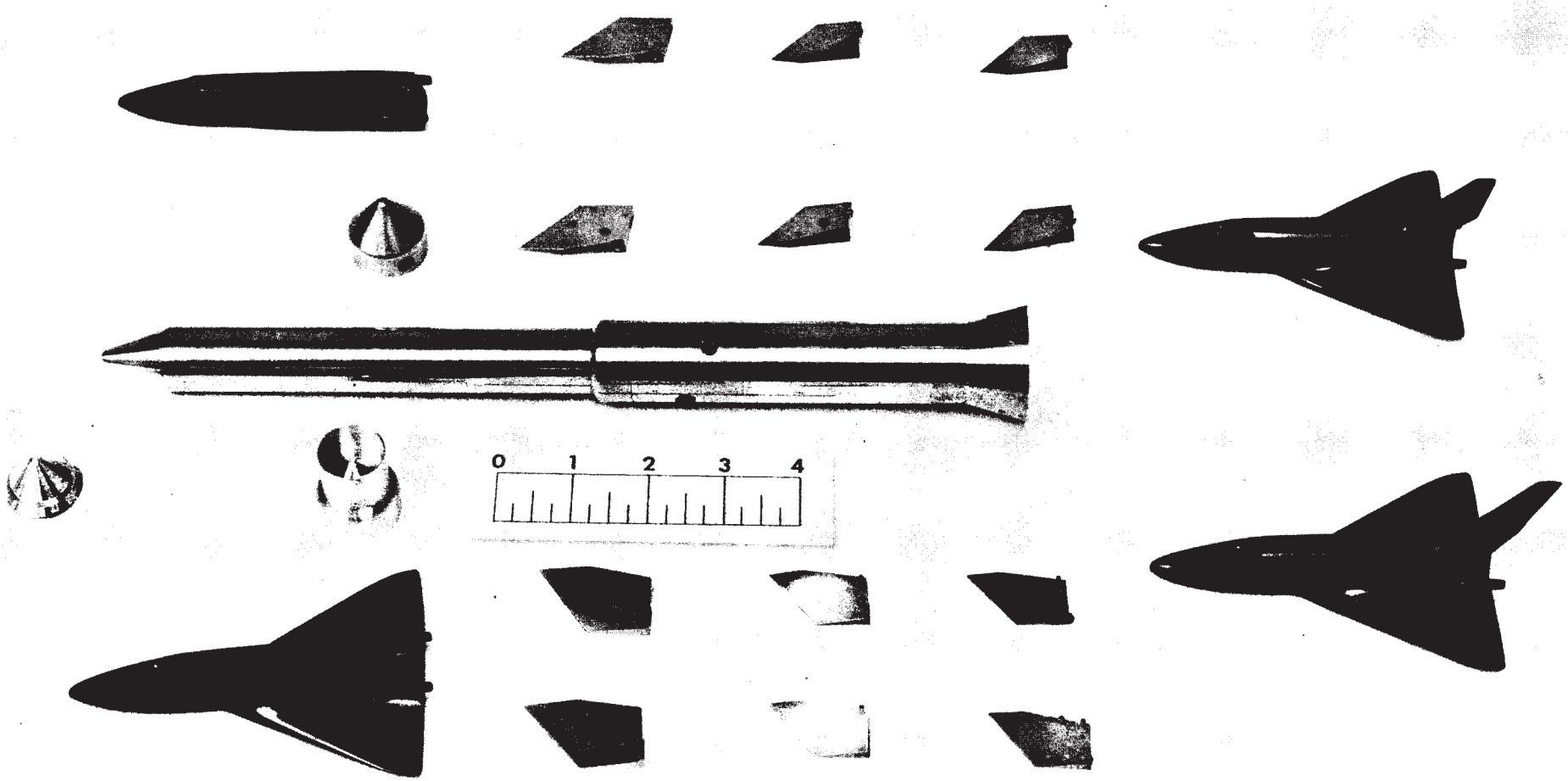


Figure 17. MSFC TWT 512 Model Components

MODEL COMPONENT DESCRIPTION SHEETS

MODEL COMPONENT: BODY - B_{34}

GENERAL DESCRIPTION: 0.003366 Scale Cylindrical Body with 40 Degree Cone Nose and 15 degree flare at aft end.

DRAWING NUMBER: WT-71-105230

DIMENSIONS:	FULL-SCALE FT/FT^2	MODEL SCALE IN/IN^2
Length	153.9	6.216
Max. Width, Cylinder (Flare)	27.0 (38.0)	1.091 (1.535)
Max. Depth, Cylinder (Flare)	27.0 (38.0)	1.091 (1.535)
Fineness Ratio	5.7/1	5.7/1
Area		
Max. Cross-Sectional, Cylinder	573.1	0.935
Planform		
Wetted		
Base	1134.5	1.851

MODEL COMPONENT: BODY - B35

GENERAL DESCRIPTION: Same as B34 except notched nose where interstage adapter attaches.

DRAWING NUMBER: WT-71-105230

DIMENSIONS:

	FULL-SCALE FT/FT^2	MODEL SCALE IN/IN^2
Length	154.3	6.231
Max. Width, Cylinder (Flare)	27.0 (38.0)	1.091 (1.532)
Max. Depth, Cylinder (Flare)	27.0 (38.0)	1.091 (1.532)
Fineness Ratio	5.7/1	5.7/1
Area		
Max. Cross-Sectional, Cylinder	573.1	0.935
Planform		
Wetted		
Base	1134.5	1.851

MODEL COMPONENT: BODY - B36

GENERAL DESCRIPTION: Same as B34 except cylindrical interstage adapter attached to nose.

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE FT/FT^2	MODEL SCALE IN/IN^2
Length	157.9	6.376
Max. Width, Cylinder (Flare)	27.0 (38.0)	1.091 (1.532)
Max. Depth, Cylinder (Flare)	27.0 (38.0)	1.091 (1.532)
Fineness Ratio	5.8/1	5.8/1
Area		
Max. Cross-Sectional, Cylinder	573.1	0.935
Planform		
Wetted		
Base	1134.5	1.851

MODEL COMPONENT: BODY - Rocket Engine R_6

GENERAL DESCRIPTION: Rocket engine. A total of six are located on outside ring of base plate. Dimensions given are for exposed model combustion chamber and nozzle.

DRAWING NUMBER: WT-71-105230

DIMENSIONS:

	FULL-SCALE Ft/Ft^2	MODEL SCALE in/in^2
Length	9.8	0.396
Max. Width (Diameter)	11.4	0.461
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional	57.6	0.094
Planform	85.2	0.139
Wetted		
Base		

MODEL COMPONENT: Tail - T_{10}

GENERAL DESCRIPTION: 0.003366 scale clipped delta tail 5° wedge half angle. Four panels.

DRAWING NUMBER: WT-71-105230

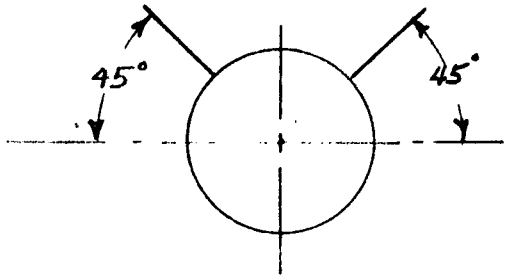
DIMENSIONS:	FULL-SCALE	MODEL SCALE
	Ft/Ft^2	in/in^2
Area	400	0.652
Span (equivalent)	18.9	0.762
Inb'd equivalent chord	31.5	1.272
Outb'd equivalent chord	16.9	0.682
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	0.30	0.30
At Outb'd equiv. chord	0.30	0.30
Sweep Back Angles, degrees		
Leading Edge	$37^{\circ}45'$	$37^{\circ}45'$
Tailing Edge	0	0
Hingeline		
Area Moment (Normal to hinge line)		

T_{11}

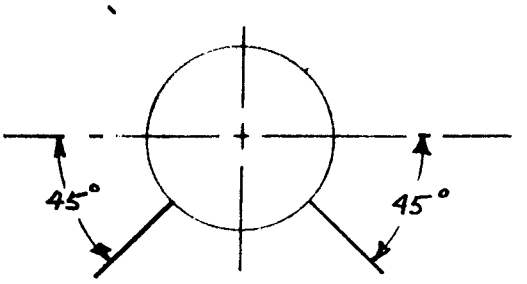
Same as T_{10} only with 8 degree wedge half angle.

T_{12}

Same as T_{10} only 2 panels mounted in Vee Arrangement.



Booster Alone
Configuration



Booster/Orbiter
Configuration

MODEL COMPONENT: Tail - T_{13}

GENERAL DESCRIPTION: 0.003366 scale clipped delta tail 5° wedge half angle. Four panels

DRAWING NUMBER: WT-71-105230

DIMENSIONS:

	FULL-SCALE Ft/Ft²	MODEL SCALE in/in²
Area	600	0.979
Span (equivalent)	23.0	0.931
Inb'd equivalent chord	37.1	1.498
Outb'd equivalent chord	19.8	0.800
Leading Edge	36.8	36.8
Trailing Edge	0	0

T_{14}

Same as T_{10} with 35 degree wedge on left side of all fins.

T_{15}

Same as T_{10} with spoiler at T. E. edge on all fins.

T_{16}

Same as T_{10} with 35 degree wedge on top of two horizontal films.

T_{17}

Same as T_{10} with 35 degree wedge on both surfaces of all fins.

T_{18}

Same as T_{10} with top vertical tail removed. Three panels total.

MODEL COMPONENT: Tank - T_3

GENERAL DESCRIPTION: 0.003366 scale HO tank at 0° incidence

DRAWING NUMBER: WT-71-105230

DIMENSIONS:	FULL-SCALE Ft/Ft²	MODEL SCALE in/in²
Length	128.7	5.200
Diameter	21.7	0.875
Inb'd equivalent chord		
Outb'd equivalent chord		
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord		
At Outb'd equiv. chord		
Sweep Back Angles, degrees		
Leading Edge		
Tailing Edge		
Hingeline		
Area Moment (Normal to hinge line)		
Incidence Angle	0°	0°

MODEL COMPONENT: BODY - Drag Skirt S3

GENERAL DESCRIPTION: A total of four are located on the 15° aft body flare between tail panels. Eacn skirt makes a 60 degree flare with a 45° included angle

DRAWING NUMBER: WT-71-105230

DIMENSIONS:	FULL-SCALE FT/FT^2	MODEL SCALE IN/IN^2
Length		
Max. Width		
Max. Depth		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

MODEL COMPONENT: Orbiter 01

GENERAL DESCRIPTION: Modified MSC 040A orbiter. Overall length shortened by reducing trailing edge angle from a swept forward to zero degrees.

DRAWING NUMBER:

DIMENSIONS - EXPOSED:	FULL SCALE FT/FT^2	MODEL SCALE IN/IN^2
Area		
Span (equivalent)	74.0	2.998
Aspect Ratio		
Taper Ratio	0	0
Dihedral Angle	+7.0 DEG	+7.0 DEG
Incidence Angle	+2.0 DEG	+2.0 DEG
Sweep Back Angles		
Leading Edge	60 DEG	60 DEG
Trailing Edge	0 DEG	0 DEG
0.25 Chord Line		
Chords		
Root, Exposed	58.3	2.357
Tip	0	0
MAC		
Airfoil Section		
Root		
Tip		
Fuse. Sta. of .25 MAC		
W.L. of .25 MAC		
B.L. of .25 MAC		
Pivot Location		
Percent root chord		
Fuselage station		
Water line		

MODEL COMPONENT: Orbiter 02

GENERAL DESCRIPTION: Same as 01 except larger vertical tail.

DRAWING NUMBER:

DIMENSIONS - EXPOSED:	FULL SCALE FT/FT^2	MODEL SCALE IN/IN^2
Area		
Span (equivalent)	74.0	2.998
Aspect Ratio		
Taper Ratio	0	0
Dihedral Angle	7.0 DEG	7.0 DEG
Incidence Angle	2.0 DEG	2.0 DEG
Sweep Back Angles		
Leading Edge	60 DEG	60 DEG
Trailing Edge	0 DEG	0 DEG
0.25 Chord Line		
Chords		
Root, Exposed	58.3	2.357
Tip	0	0
MAC		
Airfoil Section		
Root		
Tip		
Fuse. Sta. of .25 MAC		
W.L. of .25 MAC		
B.L. of .25 MAC		
Pivot Location		
Percent root chord		
Fuselage station		
Water line		

MODEL COMPONENT: Orbiter 03

GENERAL DESCRIPTION: Same as 01 except vertical tail removed.

DRAWING NUMBER:

DIMENSIONS - EXPOSED:	FULL SCALE FT/FT^2	MODEL SCALE IN/IN^2
Area		
Span (equivalent)	74.0	2.998
Aspect Ratio		
Taper Ratio	0	0
Dihedral Angle	7.0 DEG	7.0 DEG
Incidence Angle	2.0 DEG	2.0 DEG
Sweep Back Angles		
Leading Edge	60 DEG	60 DEG
Trailing Edge	0 DEG	0 DEG
0.25 Chord Line		
Chords		
Root	58.3	2.357
Tip	0	0
MAC		
Airfoil Section		
Root		
Tip		
Fuse. Sta. of .25 MAC		
W.L. of .25 MAC		
B.L. of .25 MAC		
Pivot Location		
Percent root chord		
Fuselage station		
Water line		

MODEL COMPONENT: Orbiter 04

GENERAL DESCRIPTION: Same as 01 except vertical tail and wing removed.

DRAWING NUMBER:

DIMENSIONS - EXPOSED:	FULL SCALE	MODEL SCALE
Area		
Span (equivalent)		
Aspect Ratio		
Taper Ratio		
Dihedral Angle		
Incidence Angle		
Sweep Back Angles		
Leading Edge		
Trailing Edge		
0.25 Chord Line		
Chords		
Root		
Tip		
MAC		
Airfoil Section		
Root		
Tip		
Fuse. Sta. of .25 MAC		
W.L. of .25 MAC		
B.L. of .25 MAC		
Pivot Location		
Percent root chord		
Fuselage station		
Water line		

NOMENCLATURE

(General)

SYMBOL	SADSAC SYMBOL	DEFINITION
α	ALPHA	angle of attack, angle between the projection of the wind X_w-axis on the body X, Z-plane and the body X-axis; degrees
β	BETA	sideslip angle, angle between the wind X_w-axis and the projection of this axis on the body X-Z-plane; degrees
ψ	PSI	yaw angle, angle of rotation about the body Z-axis, positive when the positive X-axis is rotated toward the positive Y-axis; degrees
ϕ	PHI	roll angle, angle of rotation about the body X-axis, positive when the positive Y-axis is rotated toward the positive Z-axis; degrees
ρ		air density; K_g/m^3, slugs/ft^3
a		speed of sound; m/sec, ft/sec
V		speed of vehicle relative to surrounding atmosphere; m/sec, ft/sec
q	Q(PSI) Q(PSF)	dynamic pressure; $1/2\rho V^2$, psi, psf
M	MACH	Mach number; V/a
RN/L	RN/L	Reynolds number per unit length; million/ft
p		static pressure; psi
P		total pressure; psi
C_p	CP	pressure coefficient; $(p-p_\infty)/q$

NOMENCLATURE (Continued)

Reference & C. G. Definitions

SYMBOL	SADSAC SYMBOL	DEFINITION
S		wing area; m^2, ft^2
S	SREF	reference area; m^2, ft^2
$\bar{c}$		wing mean aerodynamic chord or reference chord; m, ft, in (see ℓ_{ref} or LREF)
ℓ_{ref}	LREF	reference length; m, ft, in.; (see $\bar{c}$)
b_{ref}	BREF	wing span or reference span; m, ft, in
A_b		base area; m^2, ft^2, in^2
c. g.		center of gravity
MRP	MRP	abbreviation for moment reference point
	XMRP	abbreviation for moment reference point on X-axis
	YMRP	abbreviation for moment reference point on Y-axis
	ZMRP	abbreviation for moment reference point on Z-axis

NOMENCLATURE (Continued)

Axis System General

SYMBOL	DEFINITION
F	force; F, lbs
M	moment; M, in-lb

Subscript	Definition
N	normal force
A	axial force
L	lift force
D	drag force
Y	force or moment about the Y axis
Z	moment about the Z axis
X	moment about the X axis
s	stability axis system
w	wind axis system
ref	reference conditions
∞	free stream conditions
t	total conditions
b	base

NOMENCLATURE (Continued)

Body & Stability Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
		Body Axis System
C_N	CN	normal force coefficient; F_N/qS
C_A	CA	axial force coefficient; F_A/qS
C_{A_b}	CAB	base axial force coefficient; $\left[-1\right]\ \left[(p_b - p_\infty)/q\right]\ (A_b/S)$
C_{A_f}	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
C_n	CYN	yawing moment coefficient; $M_Z/qS\ b_{ref}$
C_ℓ	CBL	rolling moment coefficient; $M_X/qS\ b_{ref}$
		Common to Both Axis Systems
C_m	CLM	pitching moment coefficient; $M_Y/qS\ \ell_{ref}$
C_y	CY	side force coefficient; F_Y/qS
		Stability Axis System
C_L	CL	lift force coefficient; F_L/qS
C_D	CD	drag force coefficient; F_D/qS
C_{D_b}	CDB	base drag coefficient
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_n	CLN	yawing moment coefficient; $M_{Z,s}/qS\ b_{ref}$
C_ℓ	CSL	rolling moment coefficient; $M_{X,s}/qS\ b_{ref}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)

Surface Definitions

SYMBOL	SADSAC SYMBOL	DEFINITION
i_t	HORIZT	horizontal tail incidence; positive when trailing edge down; degrees
δ		symmetrical surface deflection angle; degrees; positive deflections are:
	AILRON	aileron - total aileron deflection; (left aileron - right aileron)/2
	CANARD	canard - trailing edge down
	ELEVON	elevon - trailing edge down
	ELEVTR	elevator - trailing edge down
	FLAP	flap - trailing edge down
	RUDDER	rudder - trailing edge to the left
	SPOILR	spoiler - trailing edge down
	TAB	tab - trailing edge down with respect to control surface
δ		antisymmetrical surface deflection angle, degrees; positive trailing edge down:
	AIL-L	left aileron - trailing edge down
	AIL-R	right aileron - trailing edge down
	ELVN-L	left elevon - trailing edge down
	ELVN-R	right elevon - trailing edge down
	SPLR-L	left spoiler - trailing edge down
	SPLR-R	right spoiler - trailing edge down

SURFACE SUBSCRIPTS	DEFINITION
a	aileron
b	base
c	canard
e	elevator or elevon
f	flap
r	rudder or ruddervator
s	spoiler
t	tail

ADDITIONS TO NOMENCLATURE

PLOT PARAMETRIC NOMENCLATURE

SYMBOL	DEFINITION
HFLAP	Booster horizontal tail flap angle (top side only), degrees
INCID. ANGLE	Orbiter incidence angle, measured in orbiter vertical plane from orbiter top fuselage surface to tank top surface, degrees
LFLAP	Booster tail flap angle, left side looking forward, degrees
NASORB	NASA (MSC) orbiter incidence angle, degrees
NRORB	North American Rockwell orbiter incidence angle, degrees
PHIMOD	Booster body roll angle (ϕ_m = 0 when tails coincident with tunnel Y and Z axes), degrees
RFLAP	Booster tail flap angle, right side looking forward, degrees
SKIRT	S3 drag skirt total angle, degrees
SPOILR	Tail T15 simulated half angle (one side only), degrees
VFLAP	Booster vertical tail flap angle (either side), degrees

TABULATED DATA LISTING

A tabulated data listing, consisting of all aero data sets, both original and those created in arriving at the plotted material to be presented subsequently, is available as an addendum to this report. The tabular listing is made up in two sections:

(a) a brief summary list of all data sets containing the identifier, the descriptor, and the resident dependent variables.

(b) a full list of all data sets containing all resident or selected aerodynamic coefficients of the data sets as well as the above mentioned information.

The listing is currently sent on limited distribution to the following organizations:

NASA AMES	Mr. V. Stevens
NASA MSFC	Mr. J. Weaver
GD/C	Mr. R. Lanflisi

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

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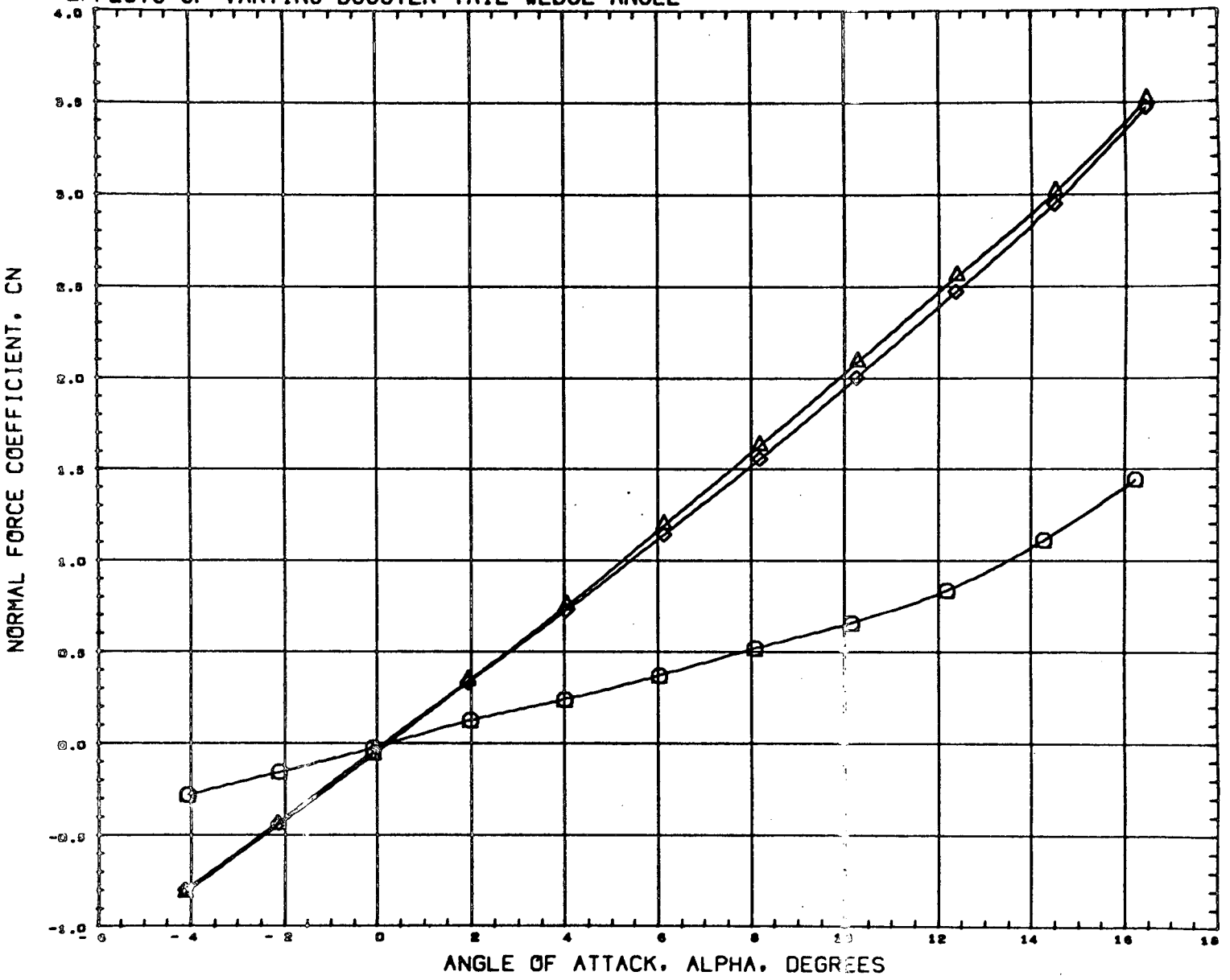
P. O. Box 29200
New Orleans, Louisiana 70129

Phone: (504) 255-2304

PLOTTED DATA

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

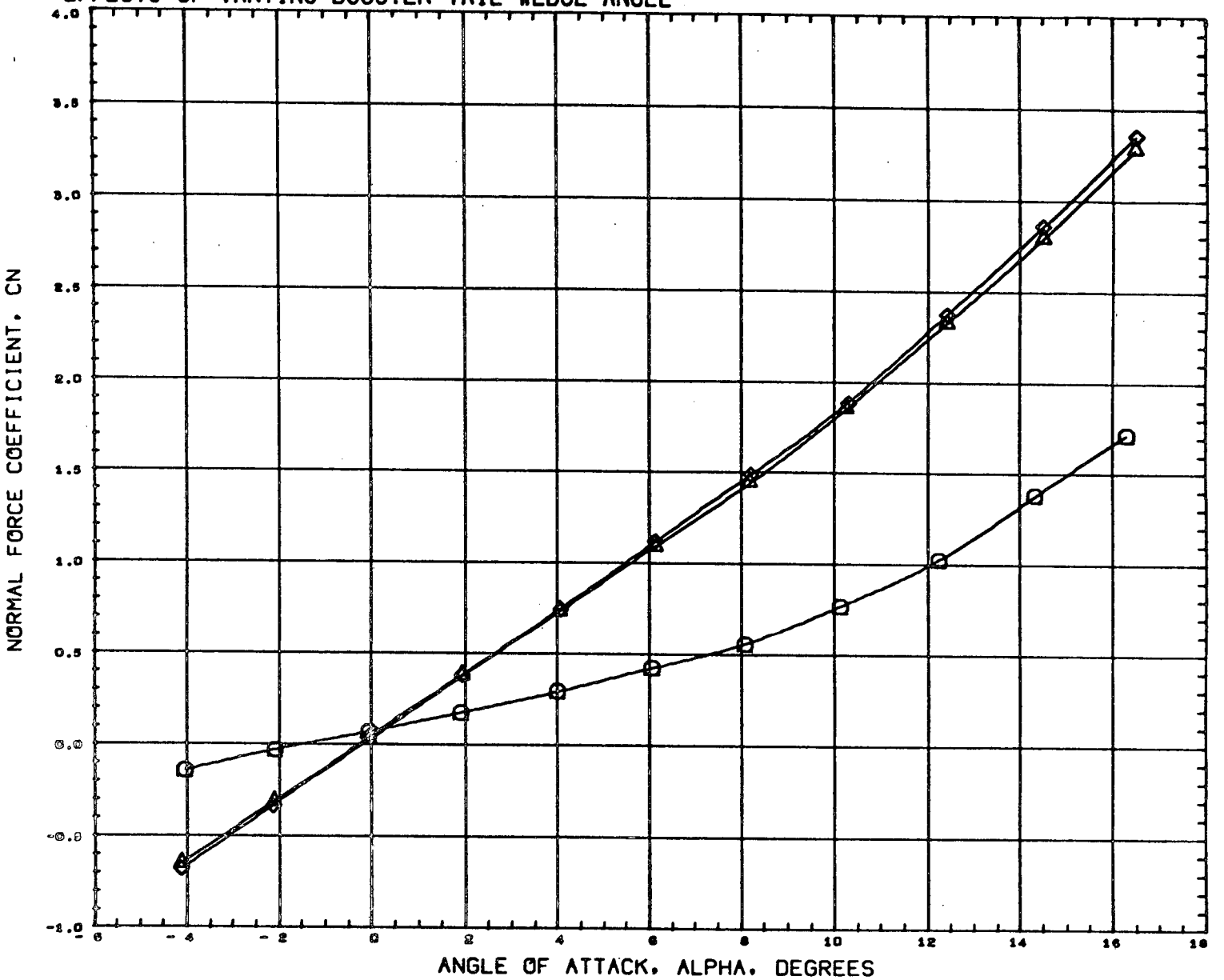


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E90110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E90010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D90040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

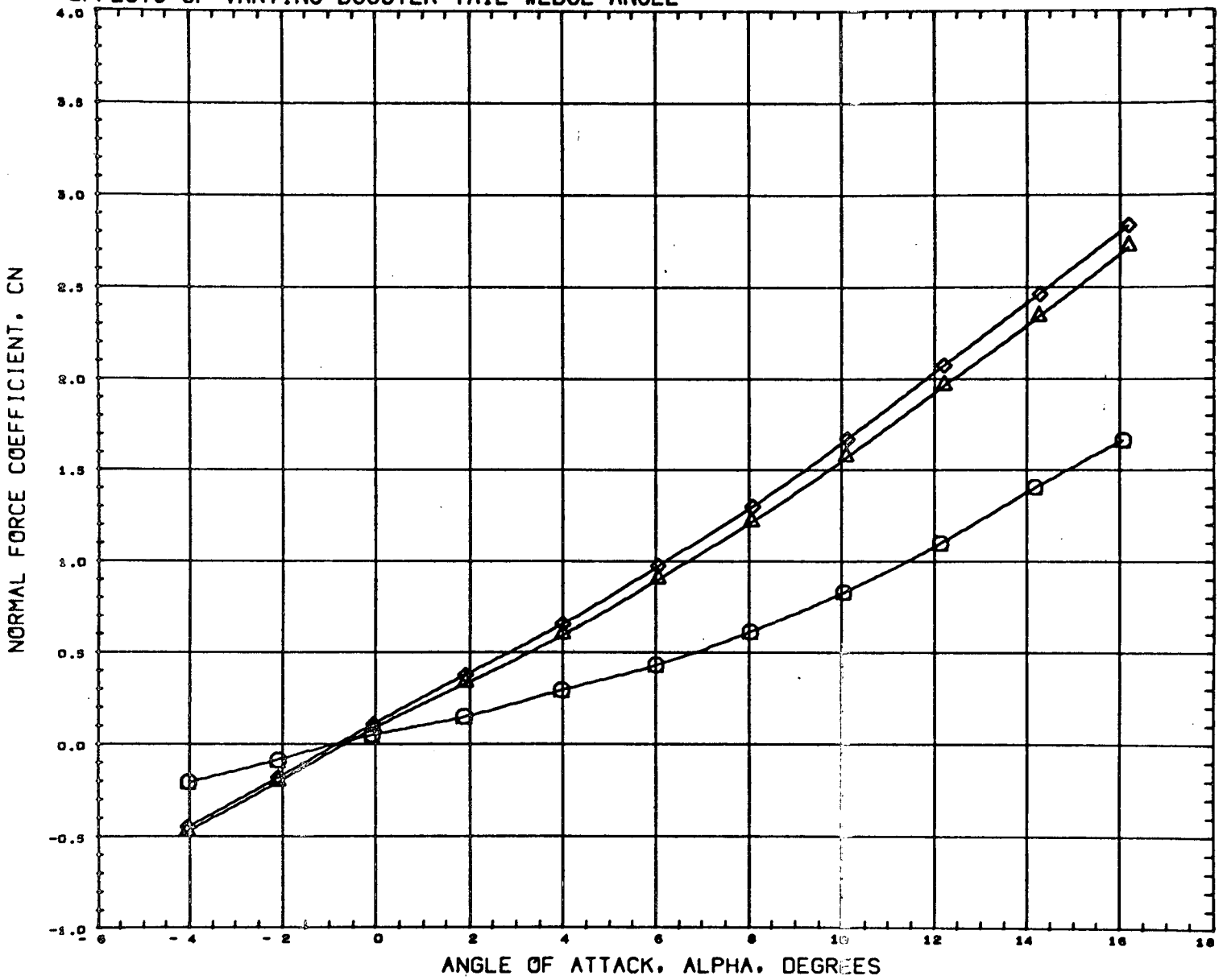


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)		MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

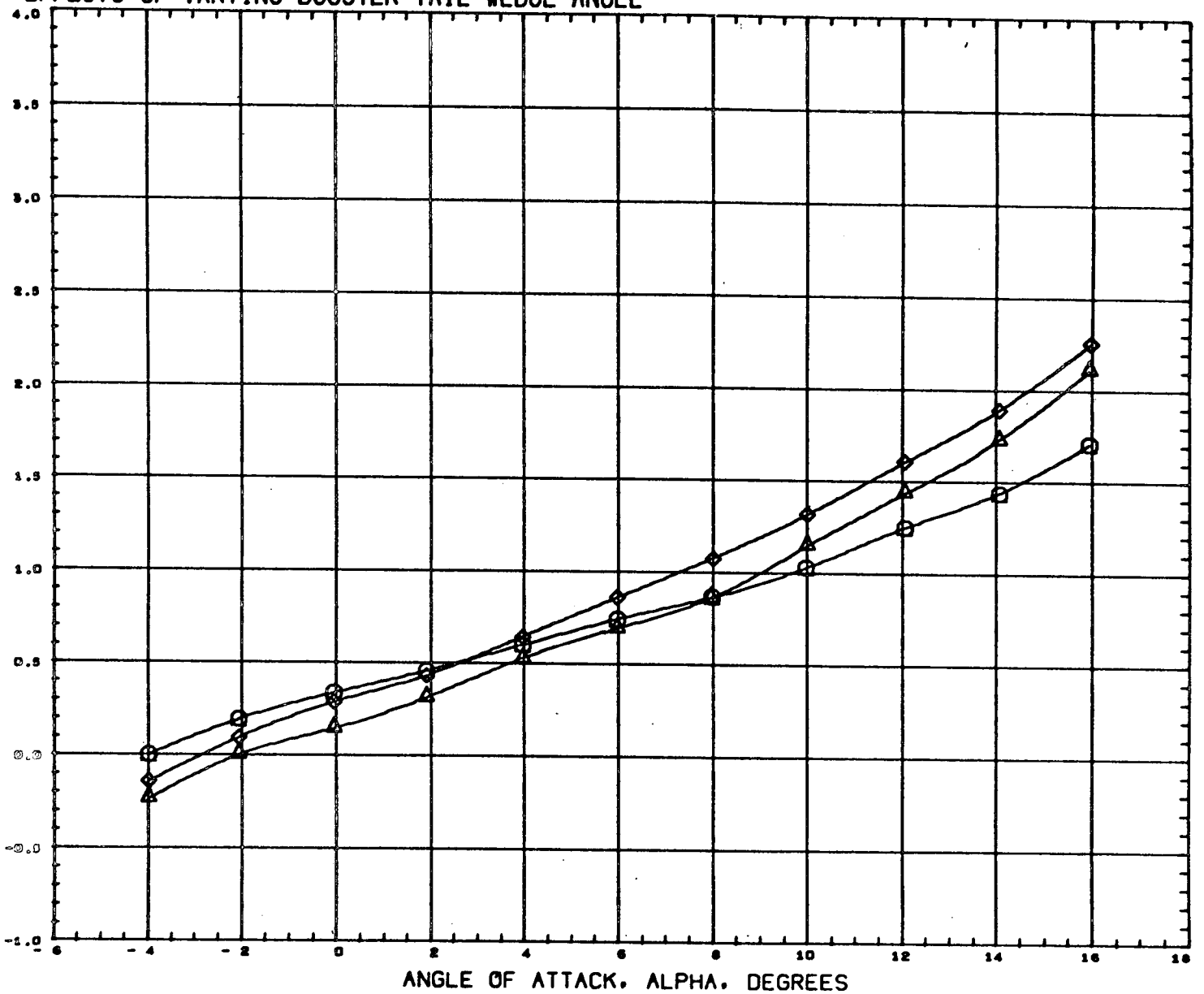


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

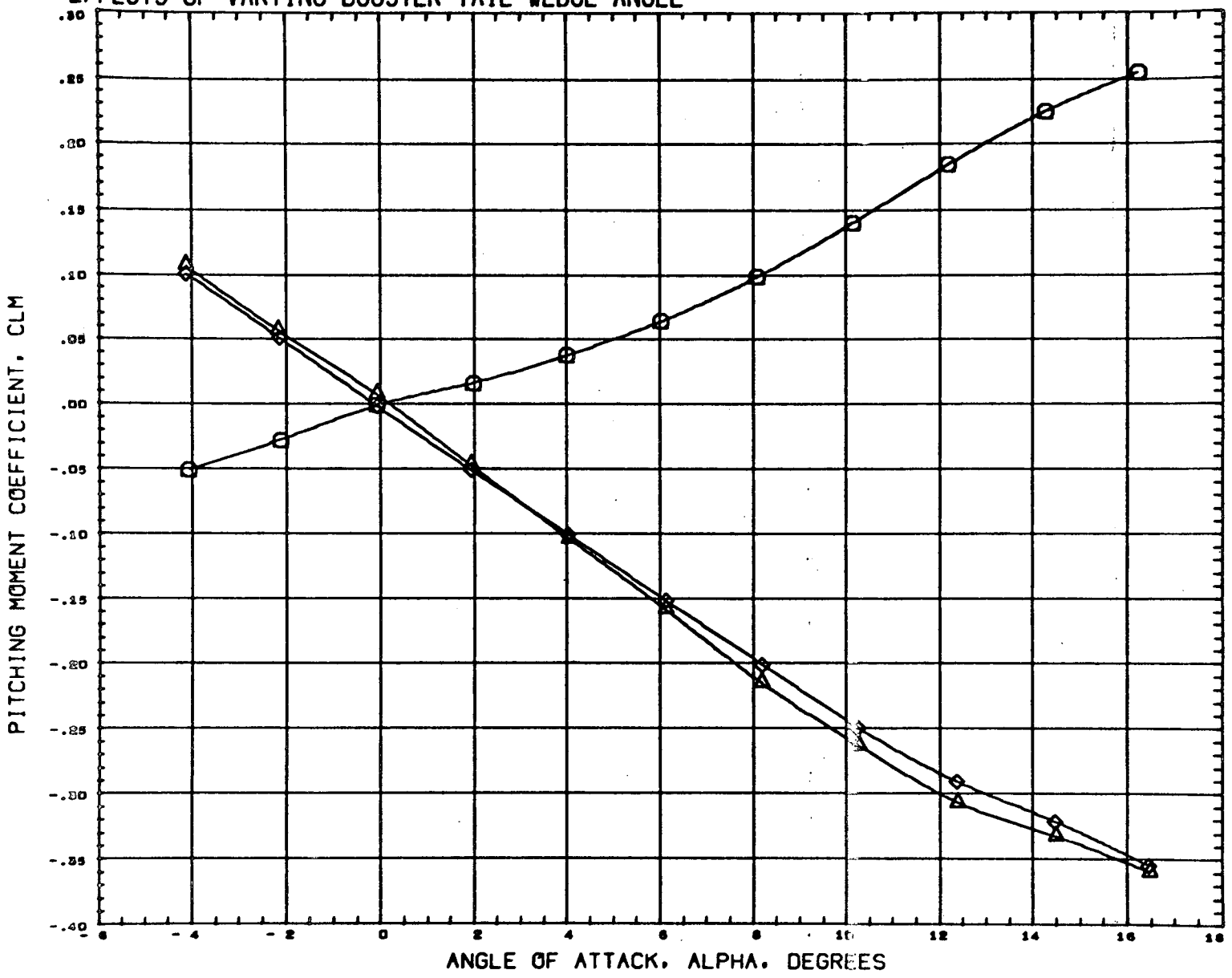


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

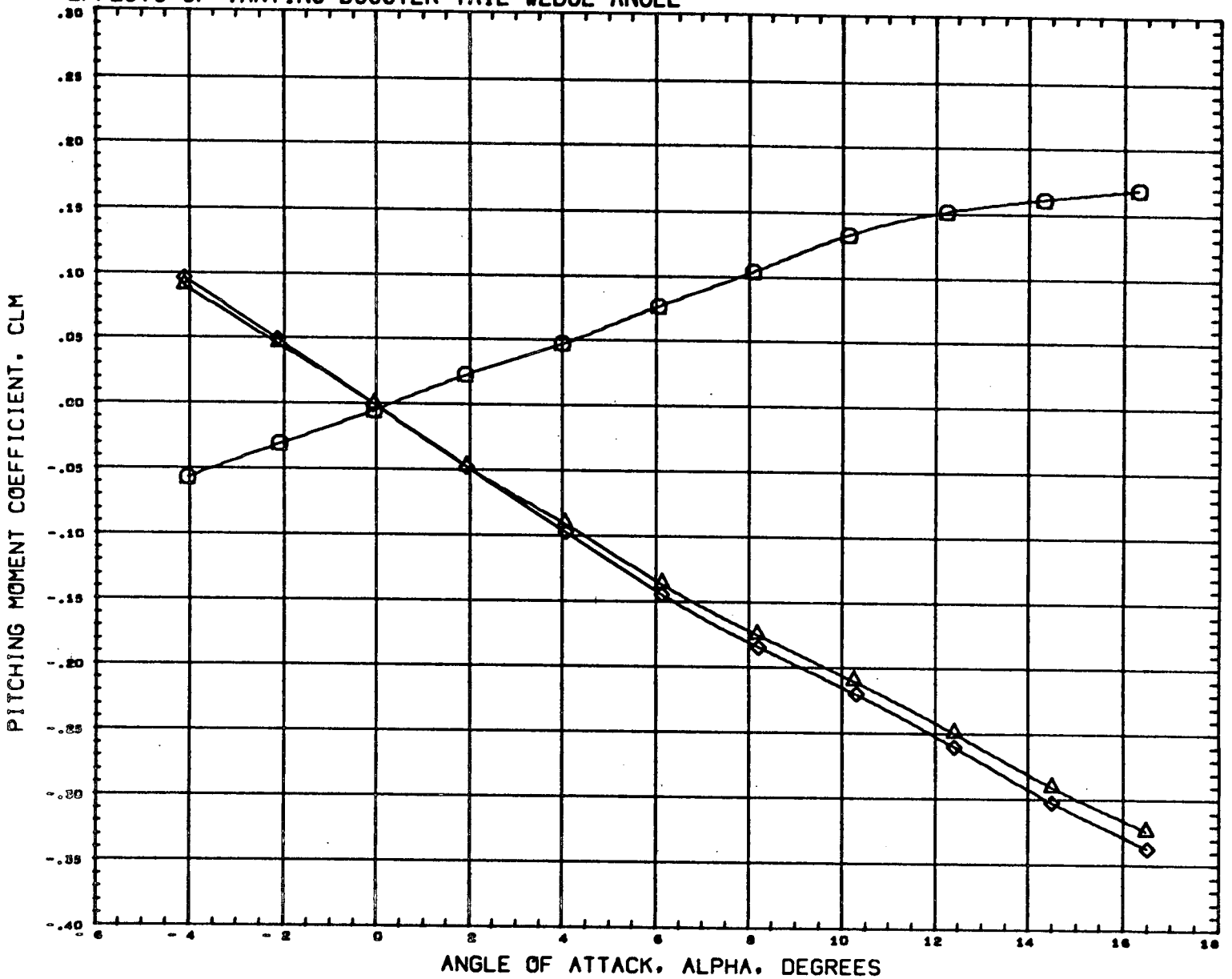


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

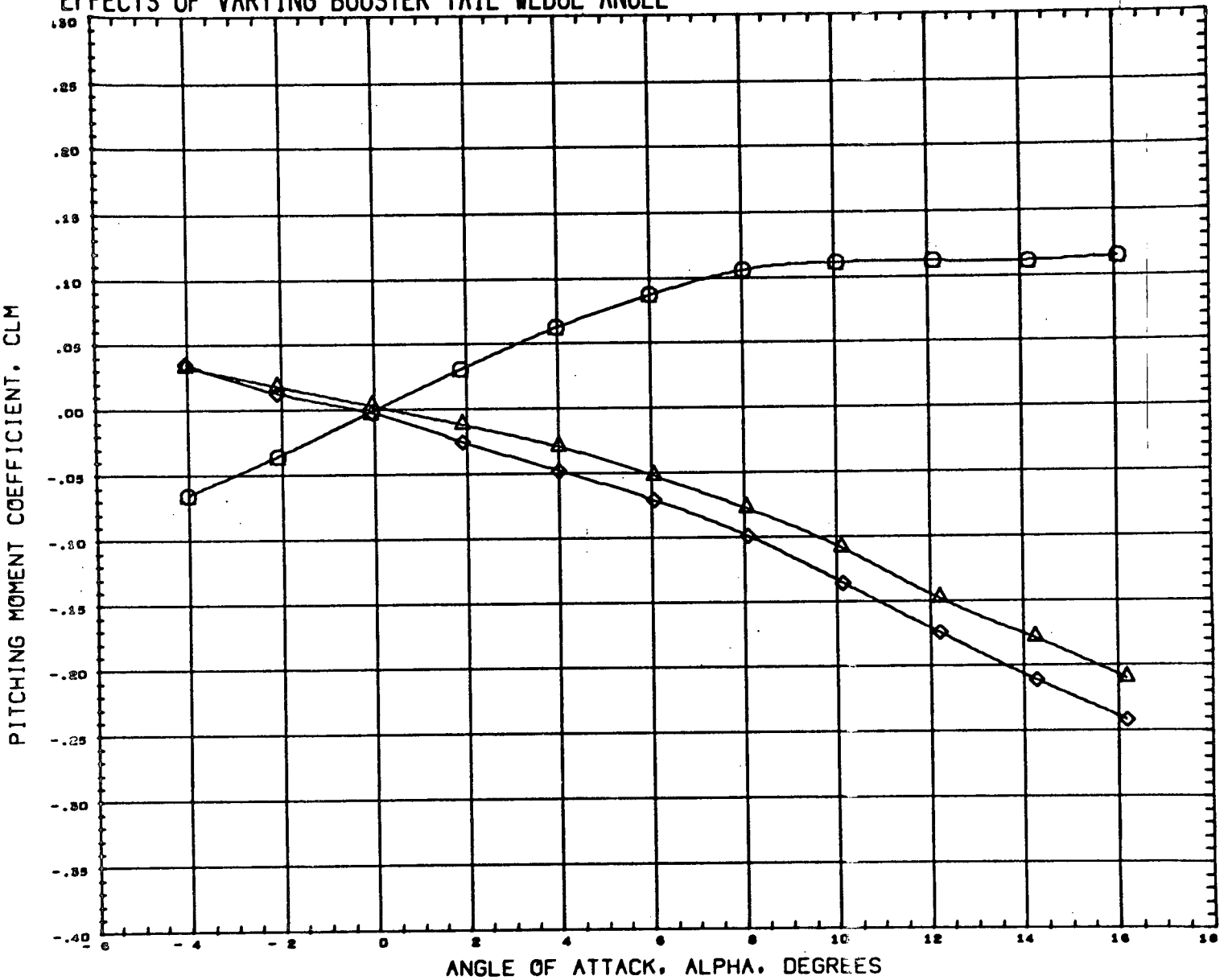


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

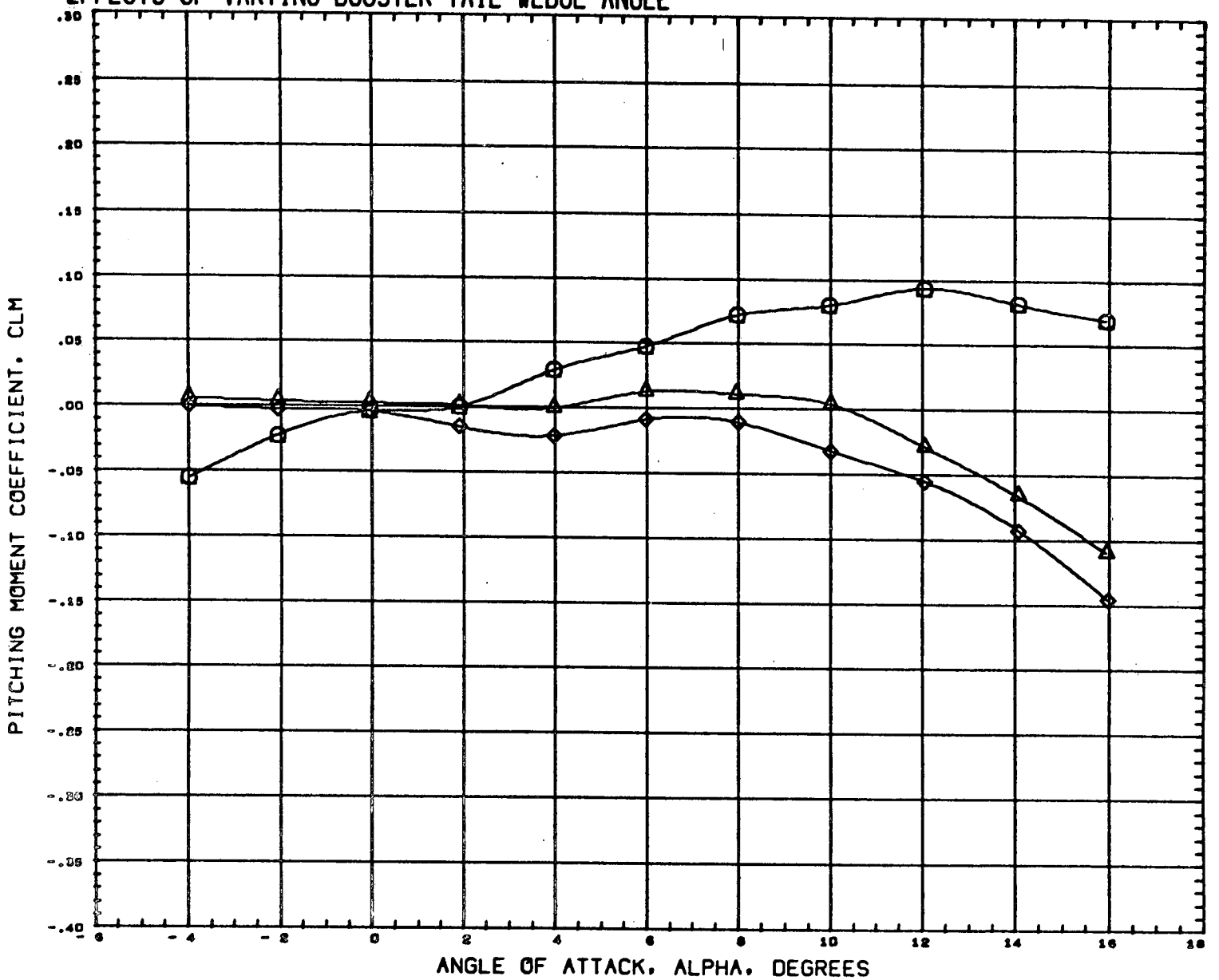


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

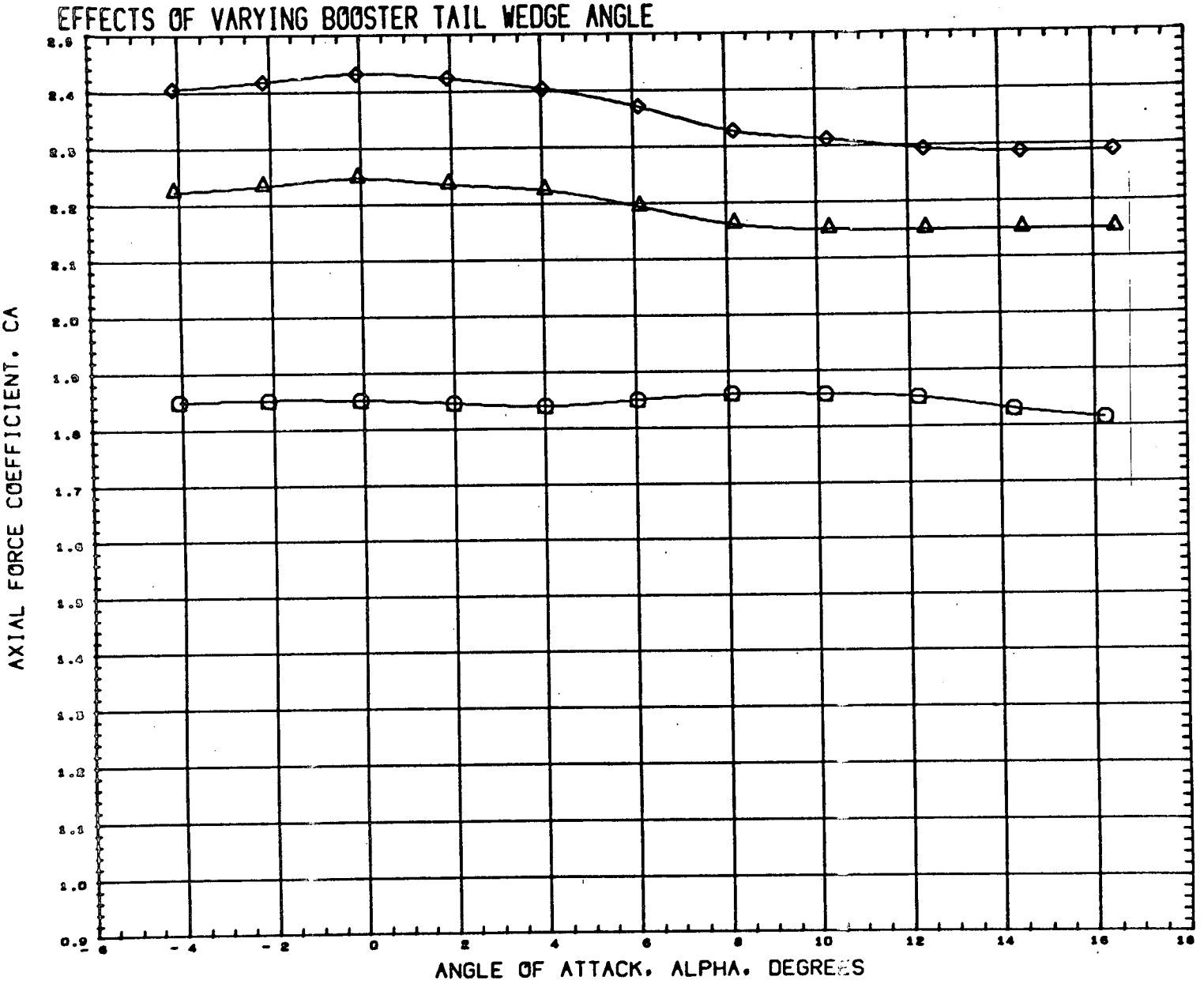


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES0110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES0010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

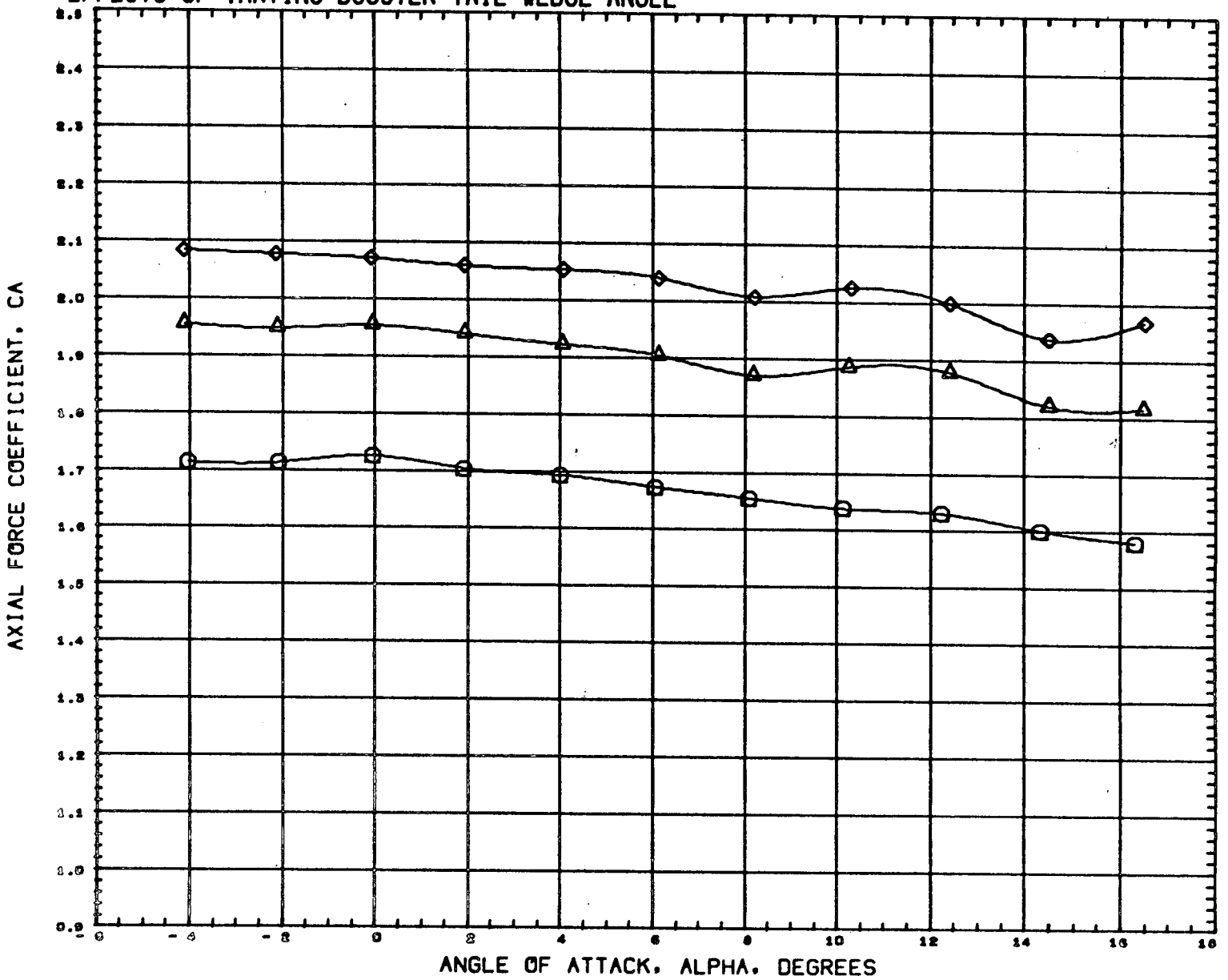


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003566 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003566 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.458

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

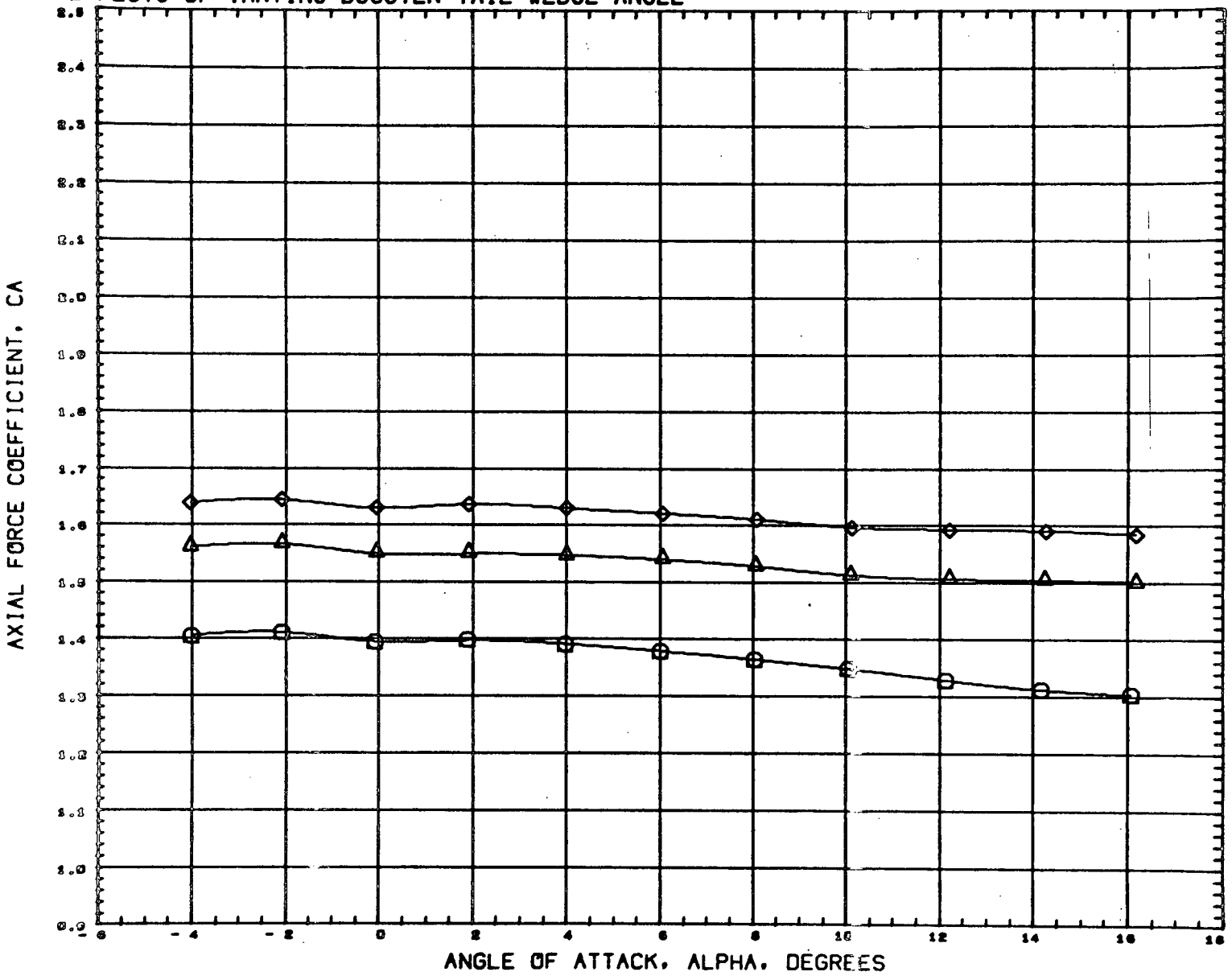


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

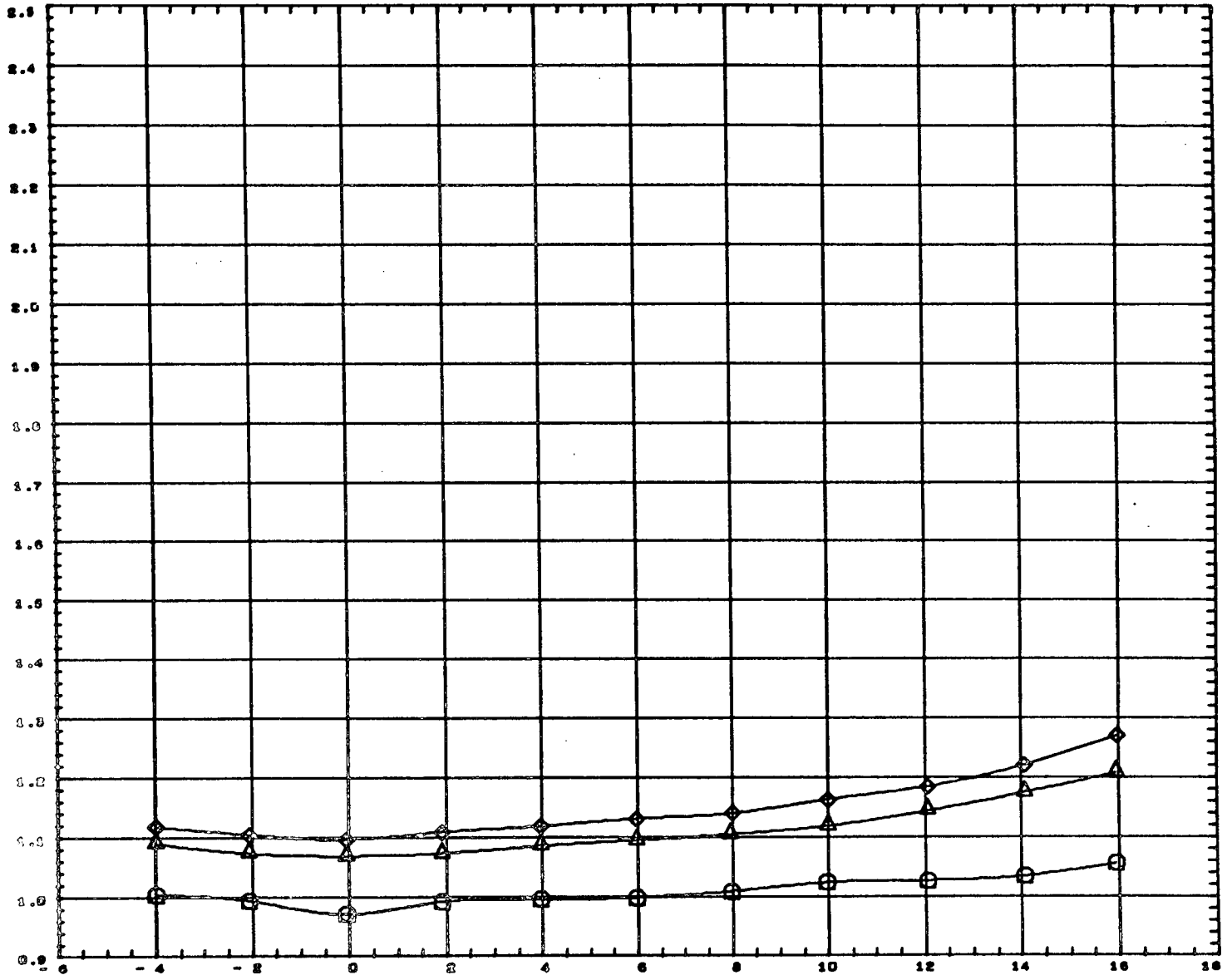


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS004D)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

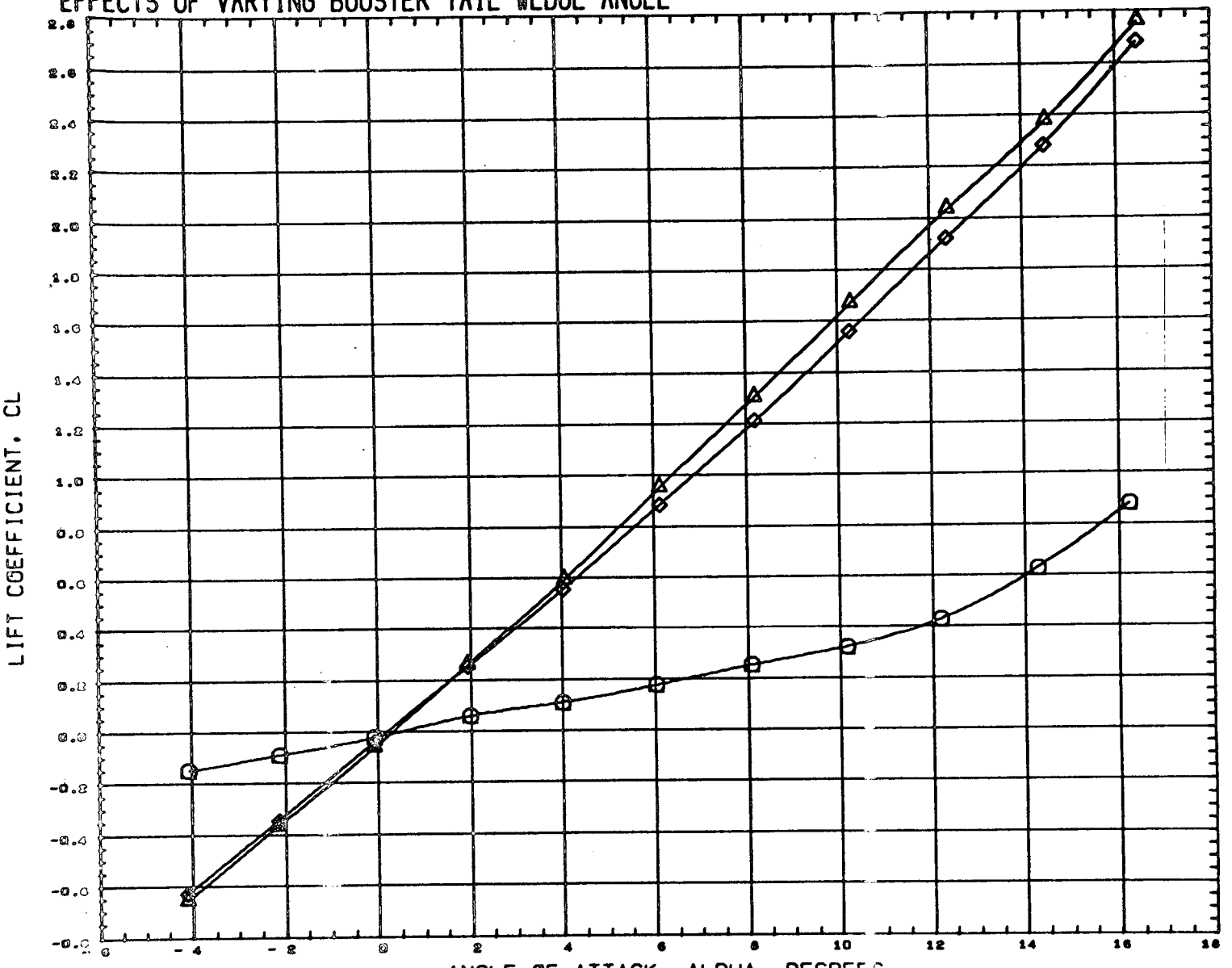


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(Z50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(Z50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

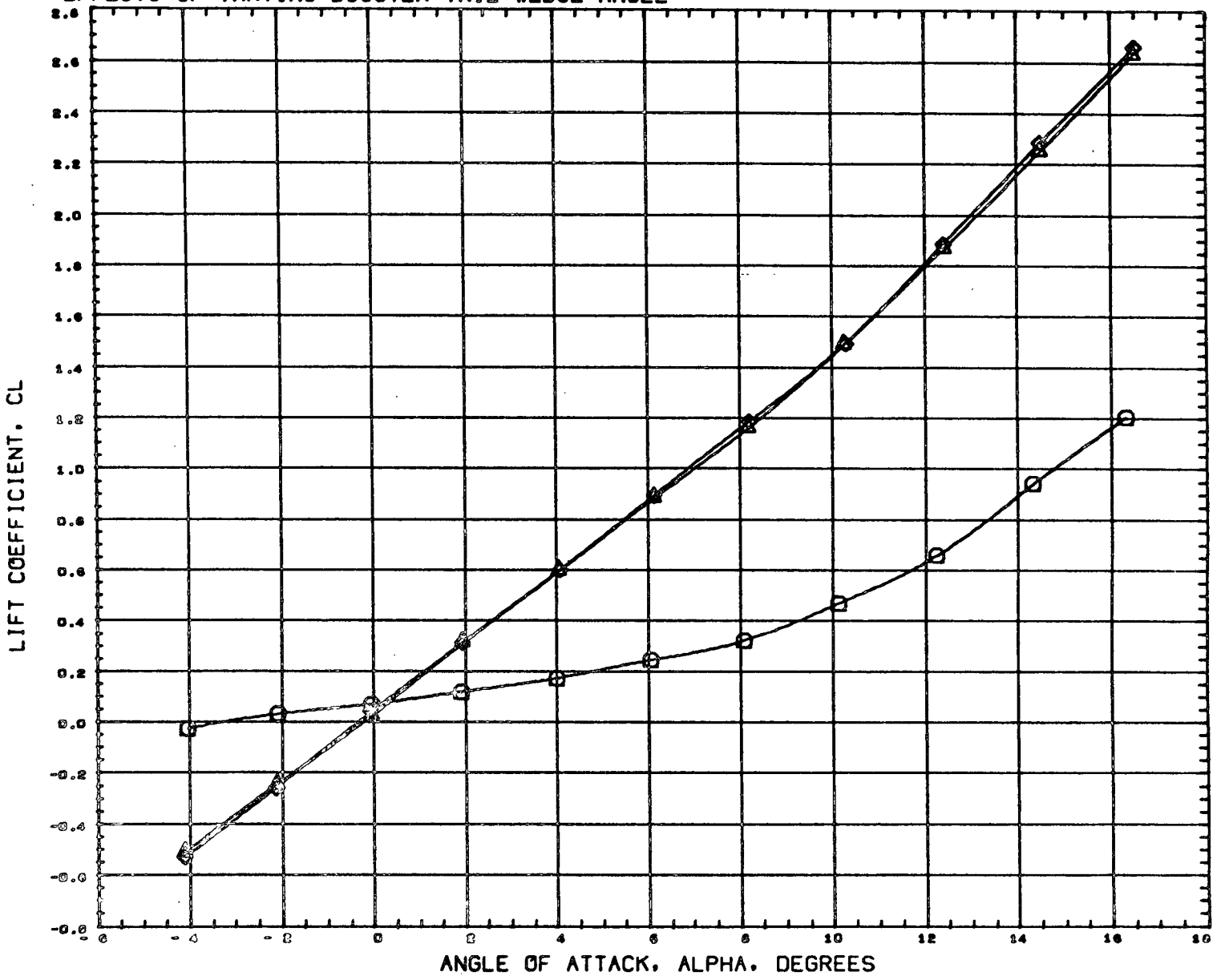


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.458

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

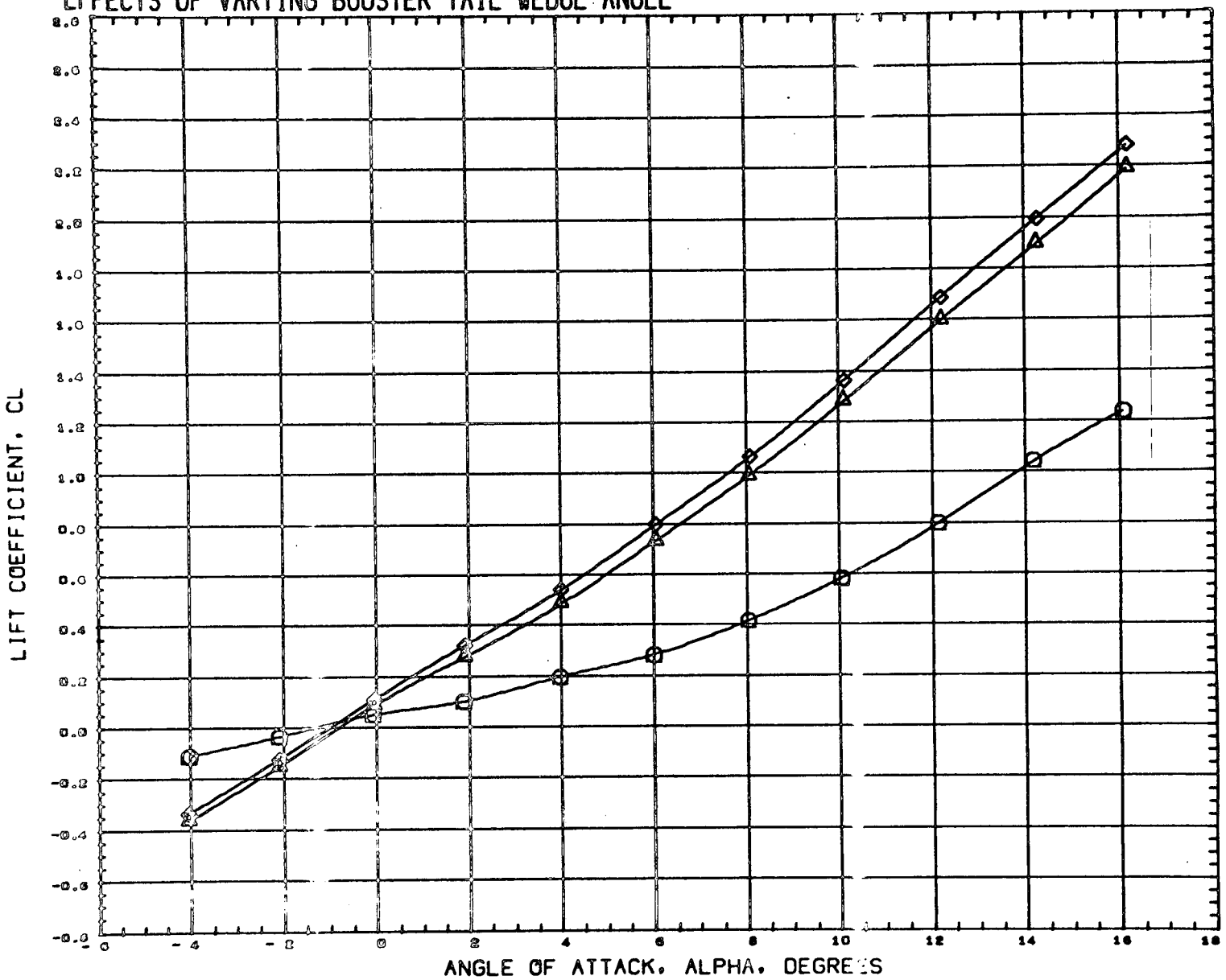


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E90110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E90010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)		MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.960

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

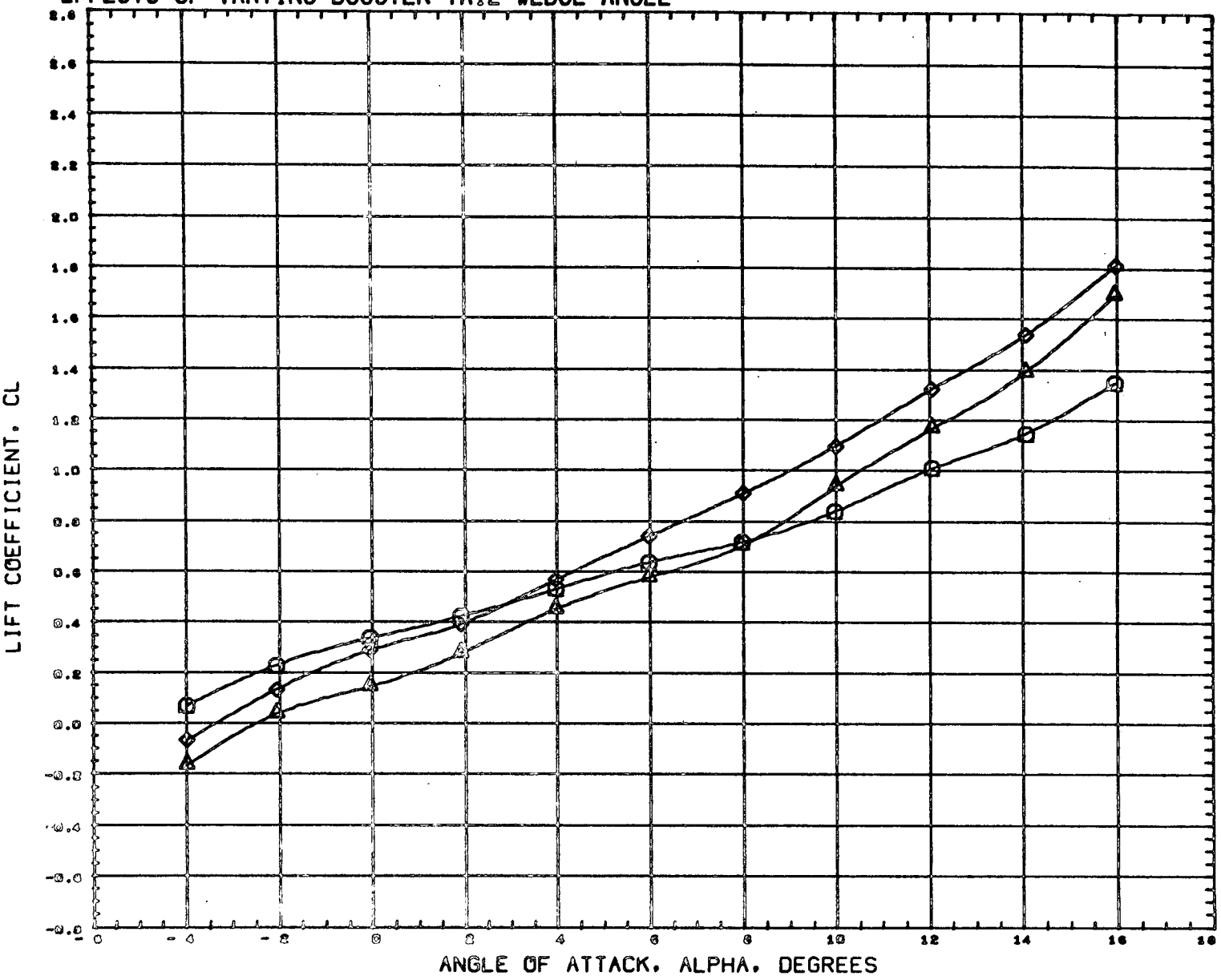


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		DETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

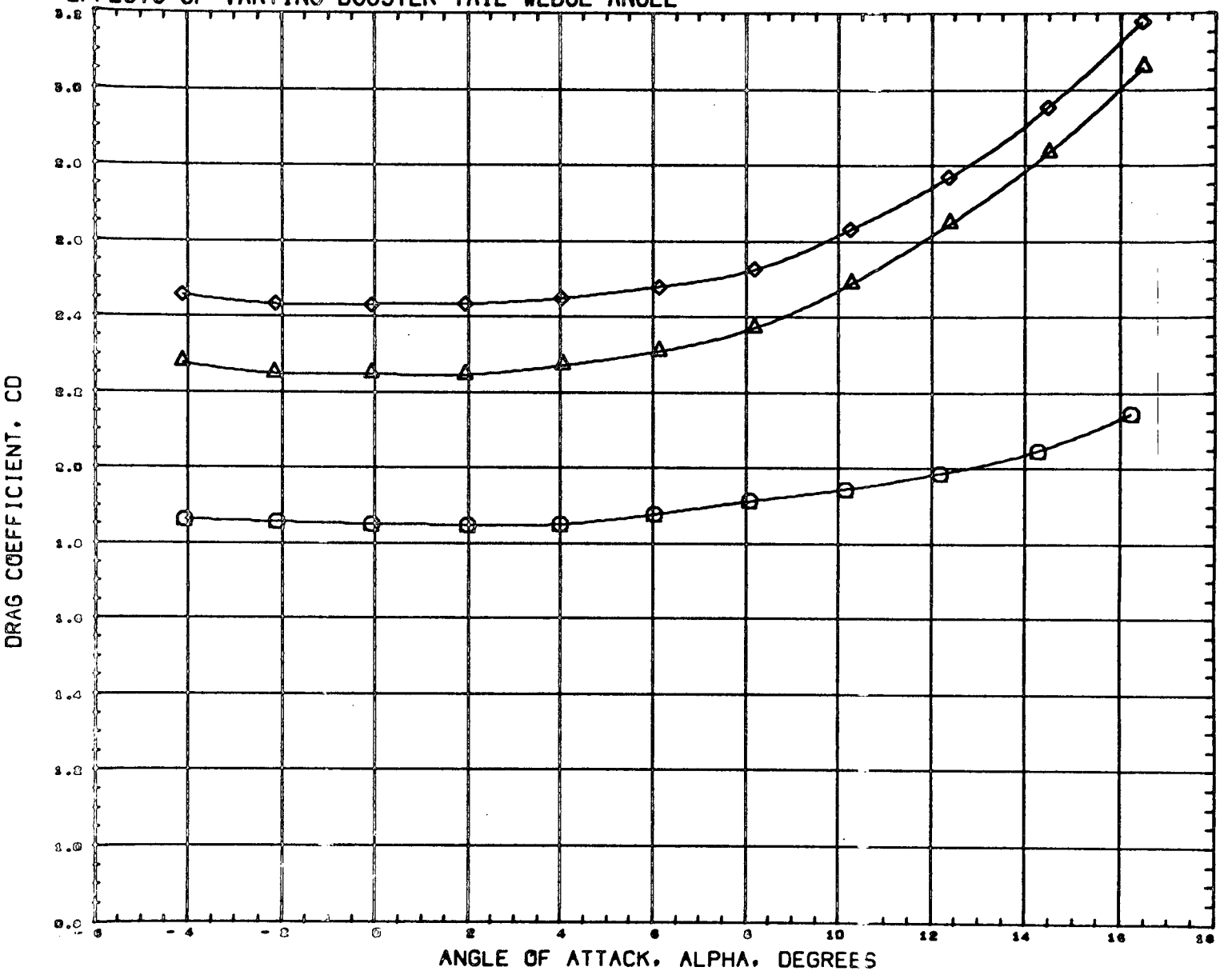


DATA KEY SYMBOL		CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E30110)	○	M8FC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E30010)	△	M8FC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D30040)	◇	M8FC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

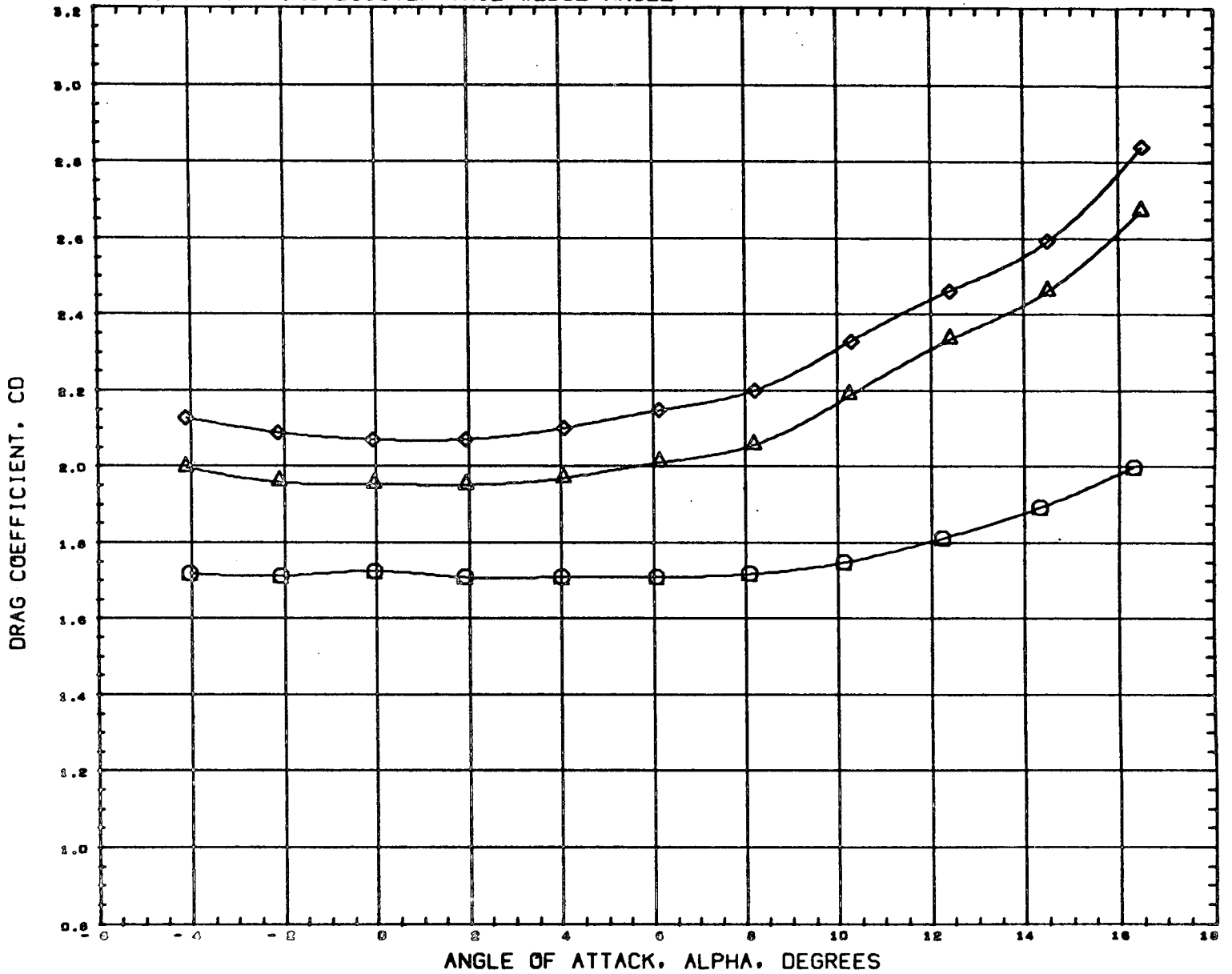


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES0110)	○	MSFC 512 GD/C .009366 BOOSTER	B34R6	0.000	45.000		
(ES0010)	△	MSFC 512 GD/C .009366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0040)	◇	MSFC 512 GD/C .009366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

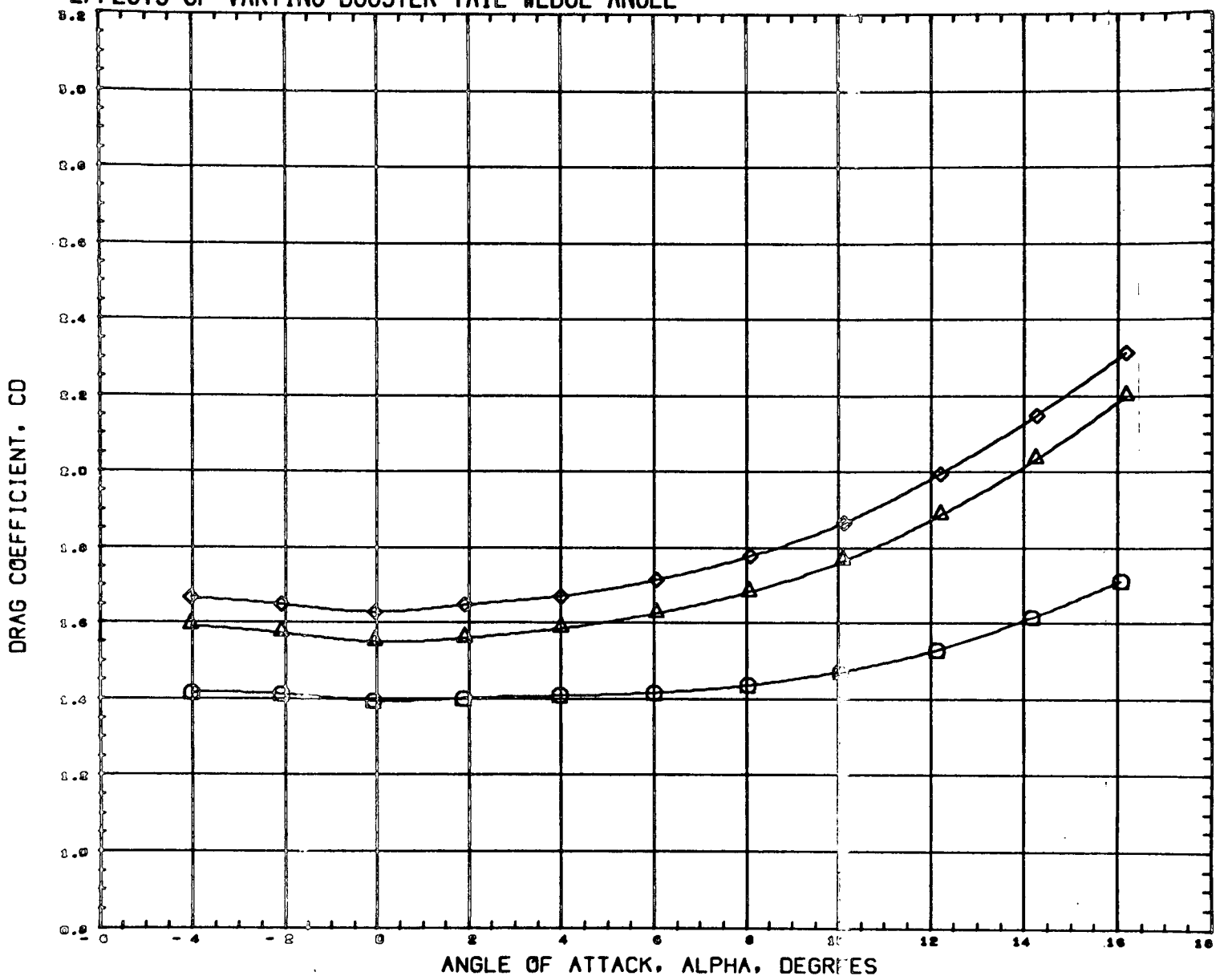


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)		MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.960

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

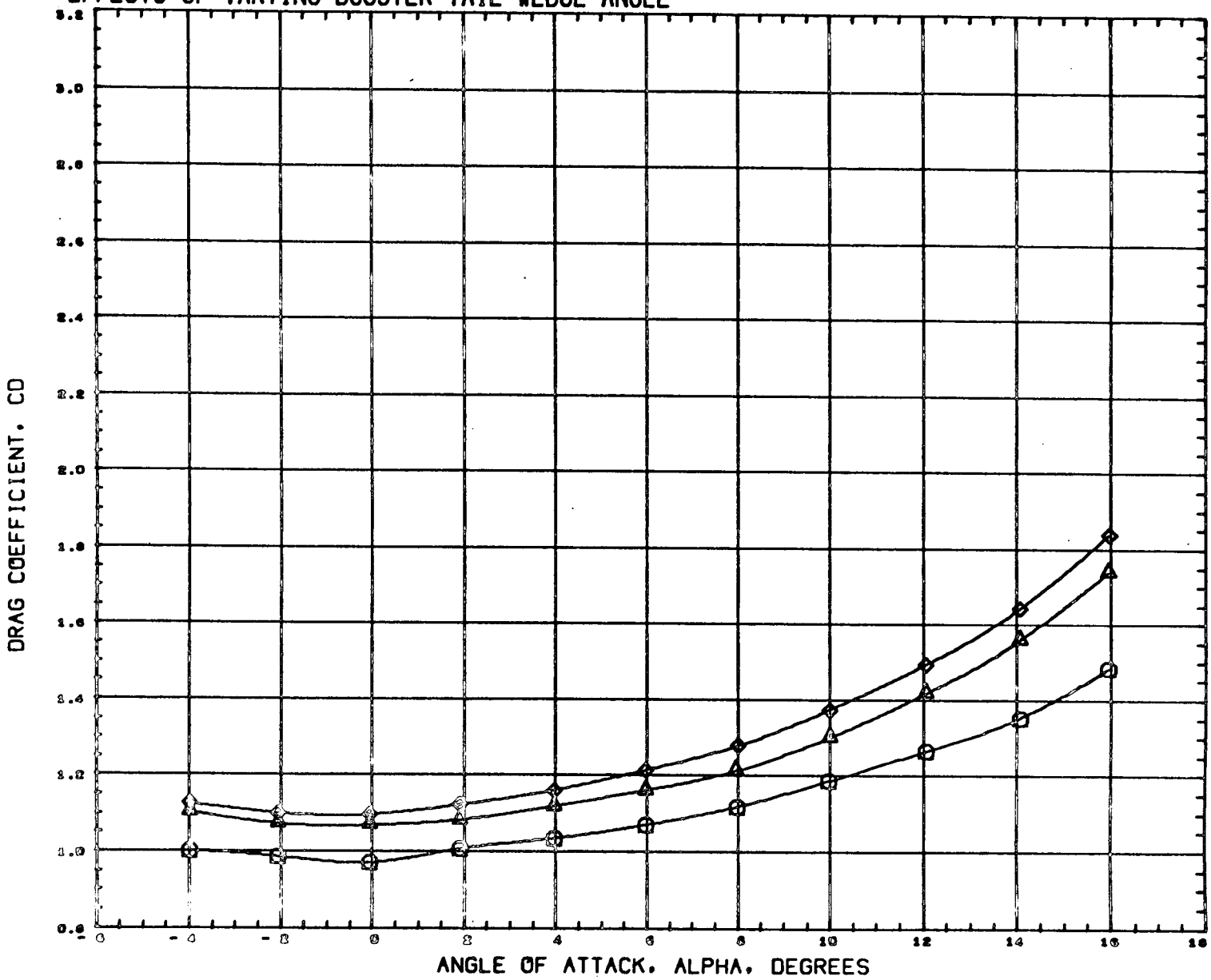


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

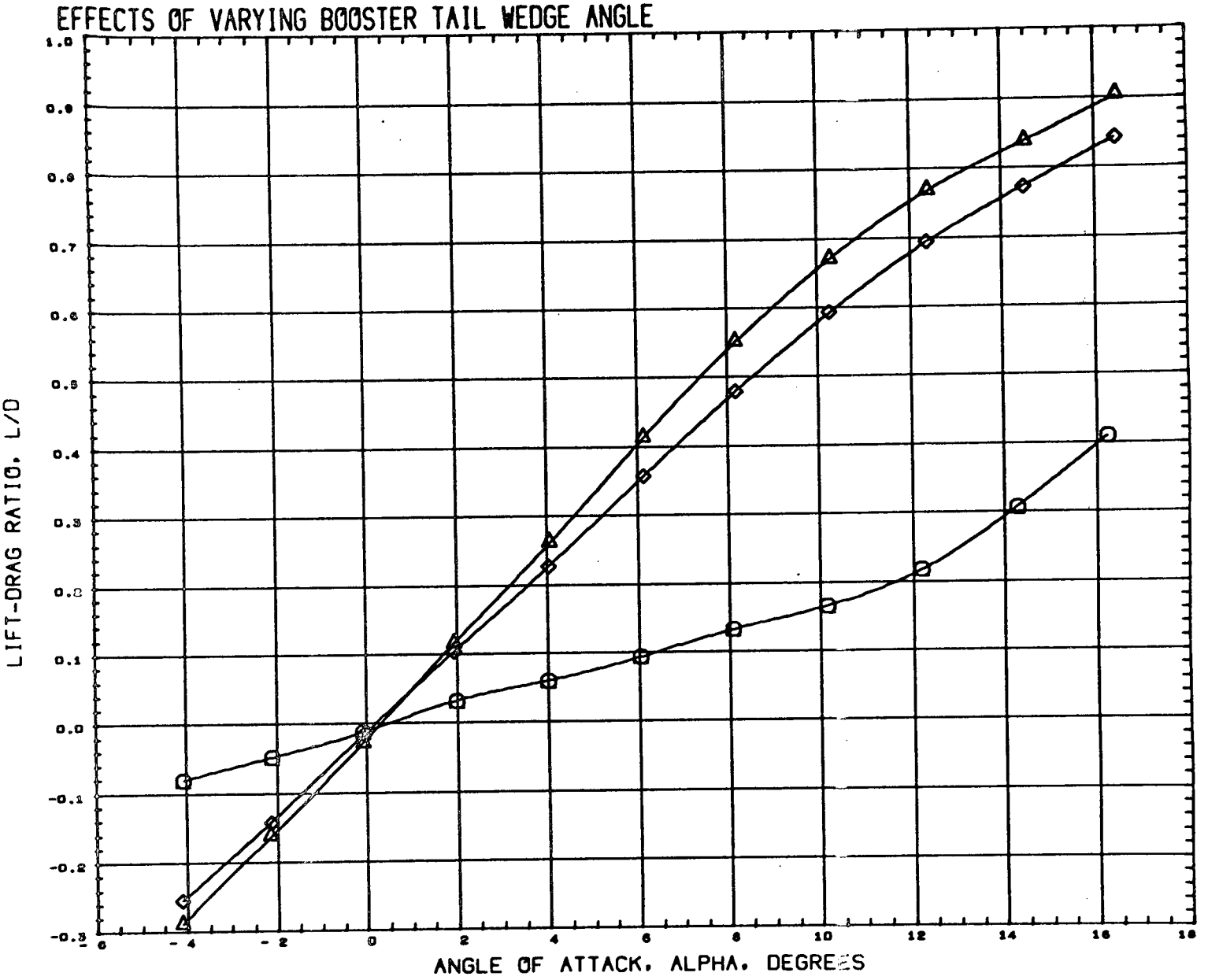


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E30110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E90010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.950

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

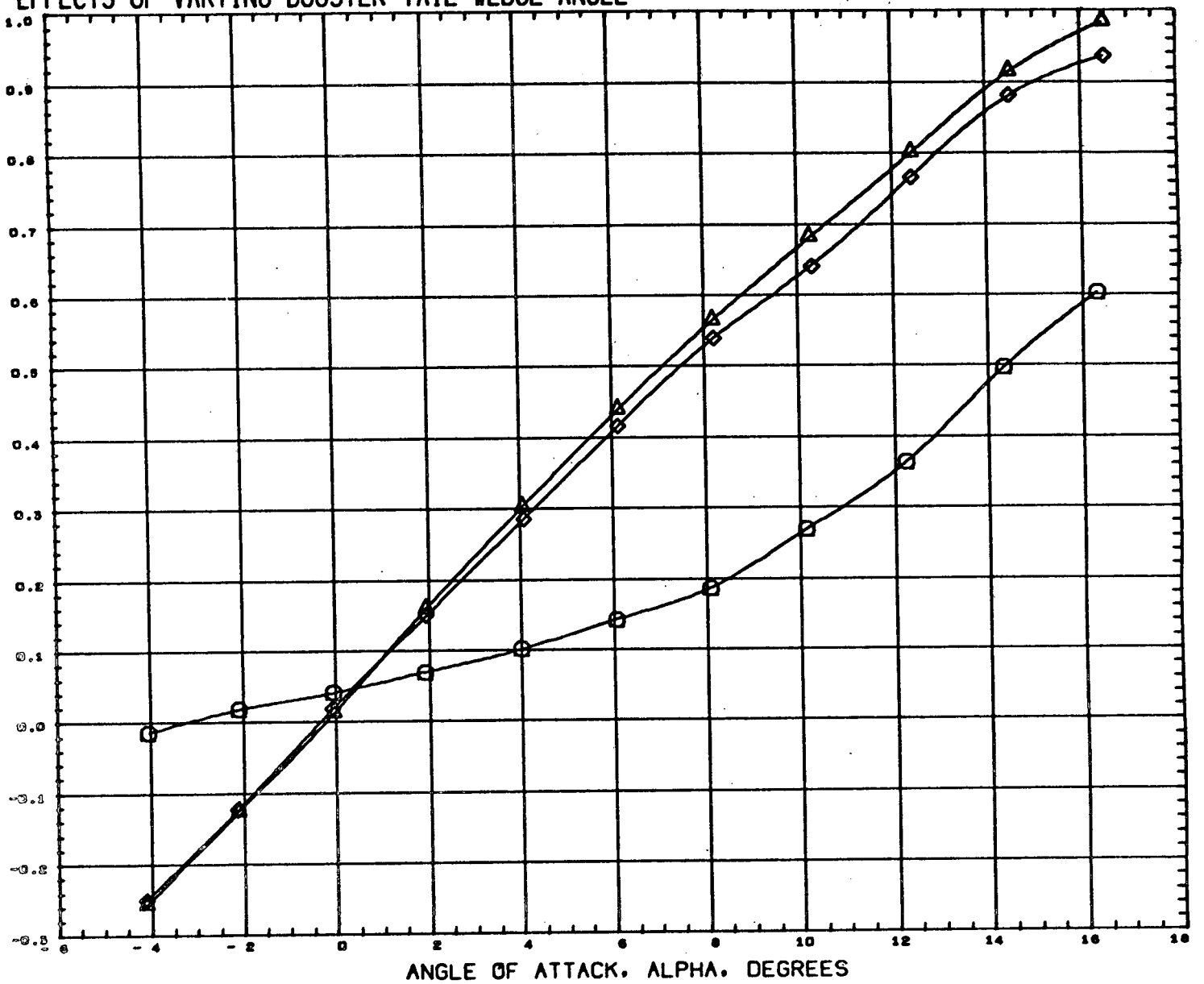


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.458

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

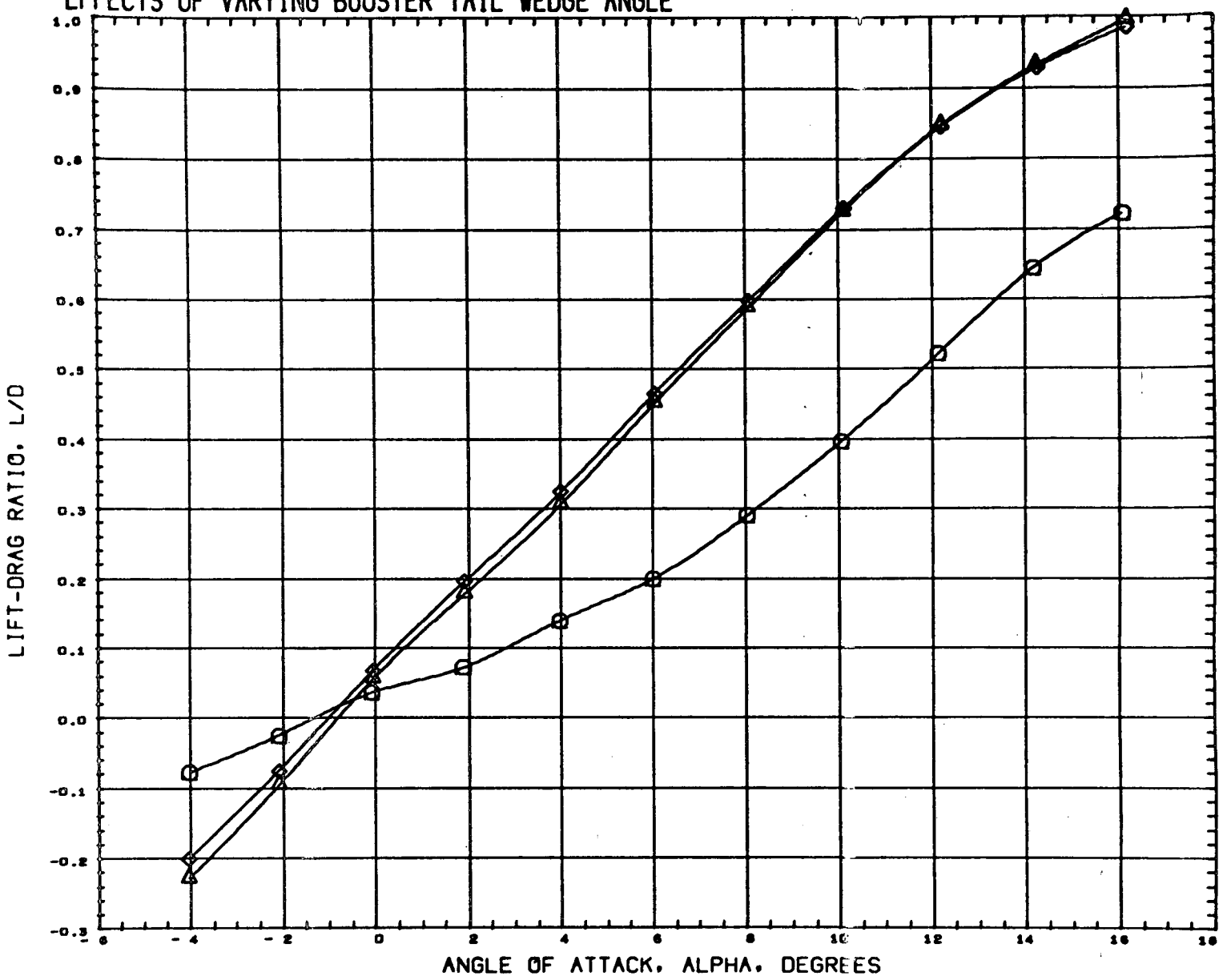


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES0110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES0010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0040)		MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.966

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

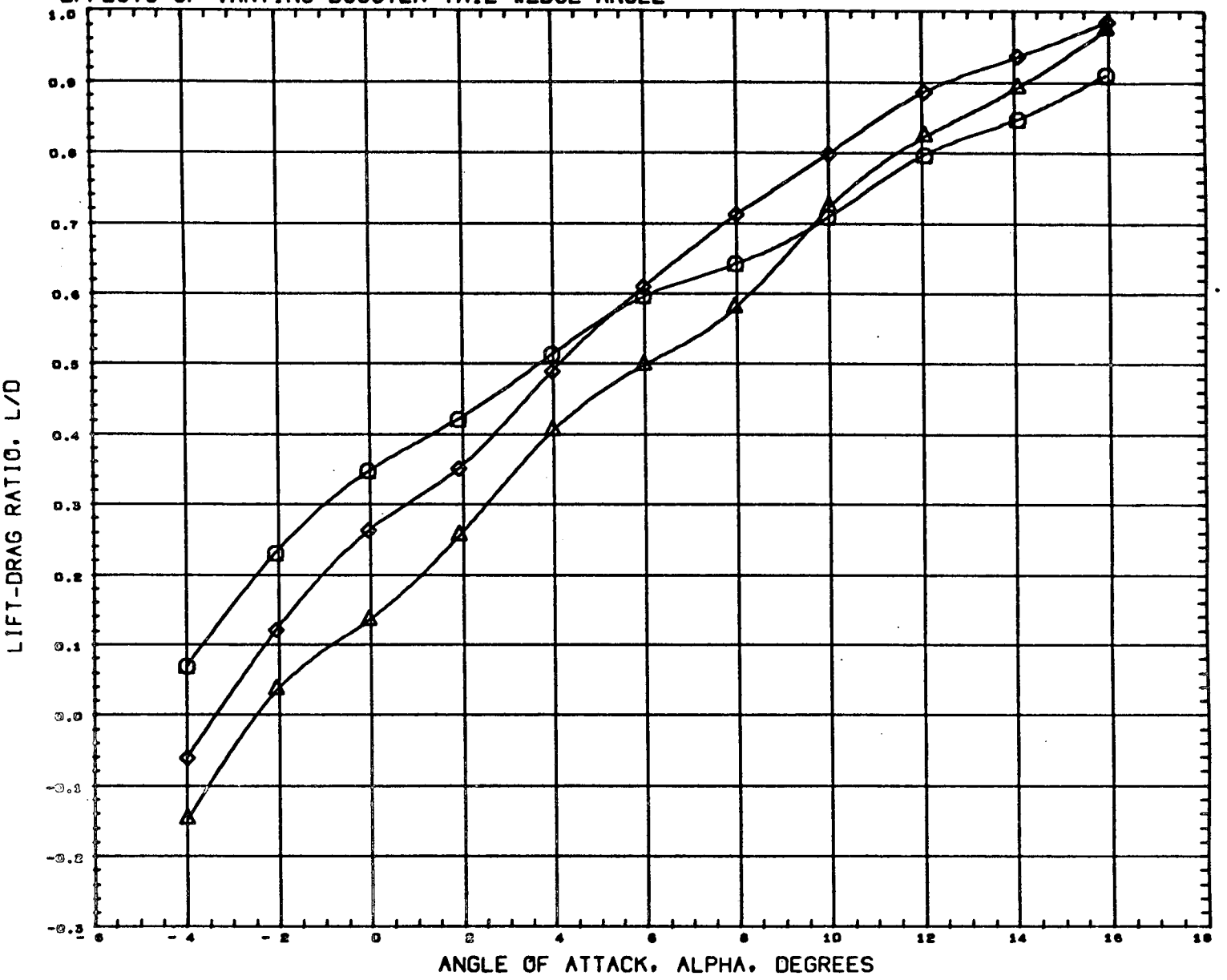


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

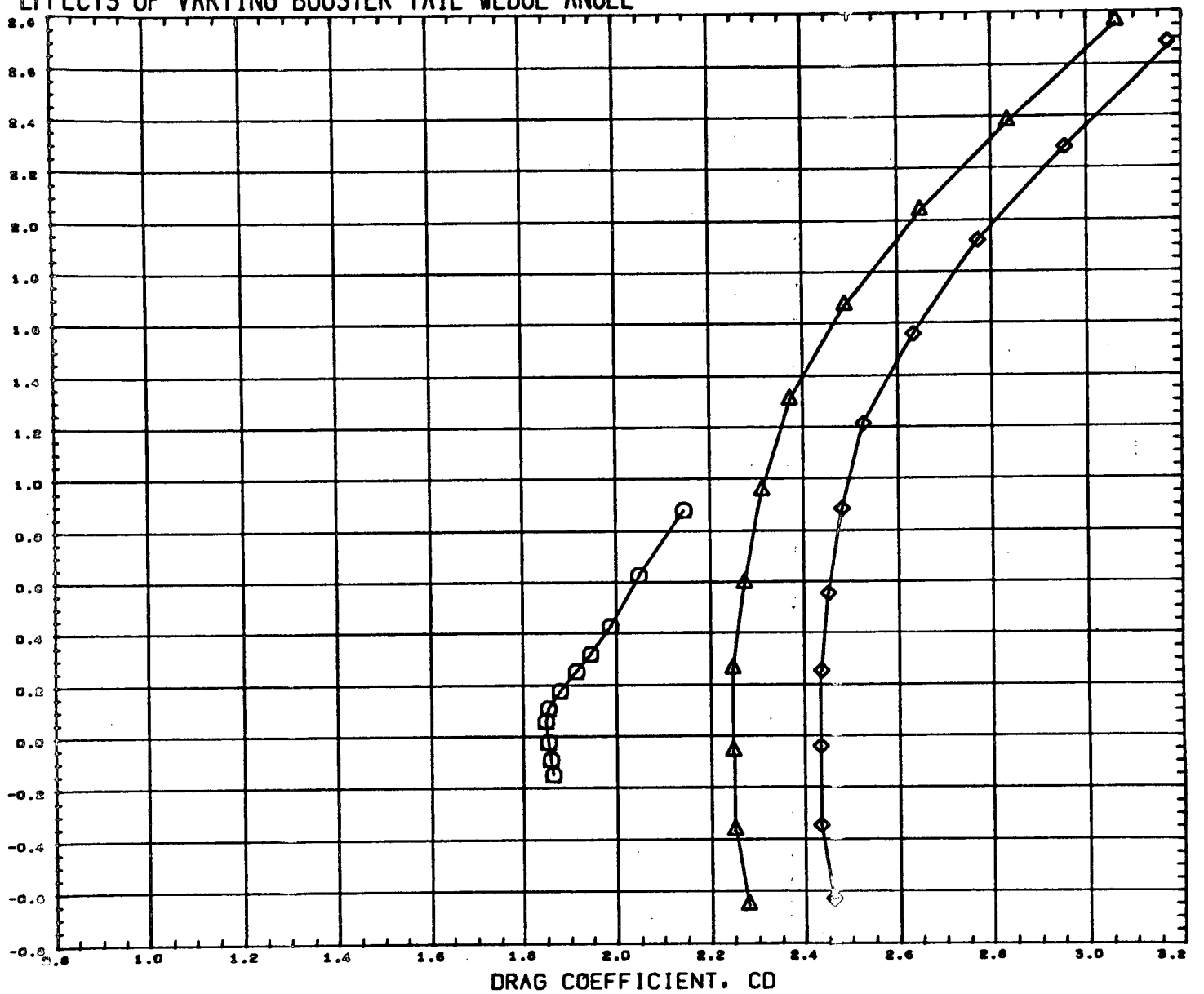


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(C50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

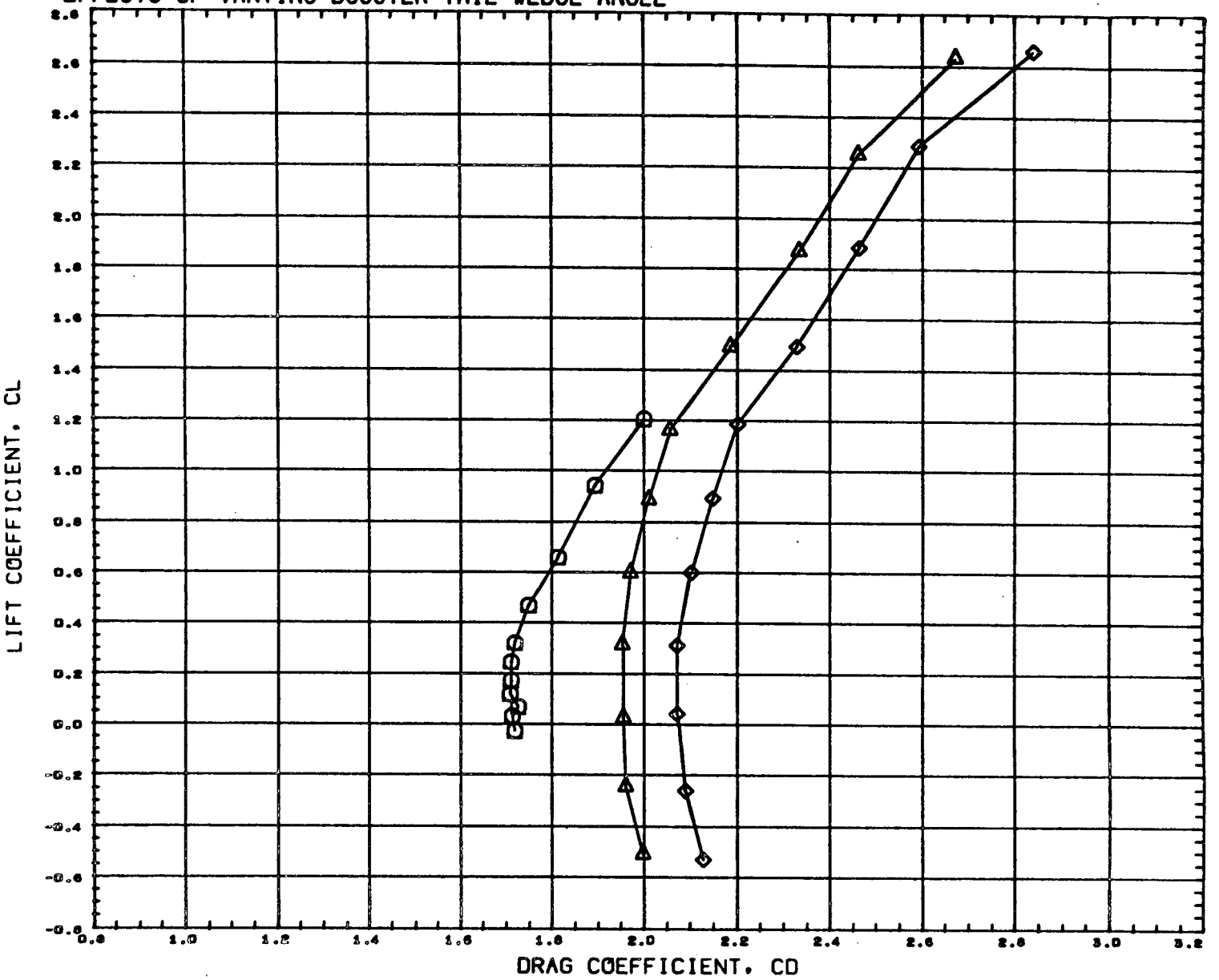


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.458

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

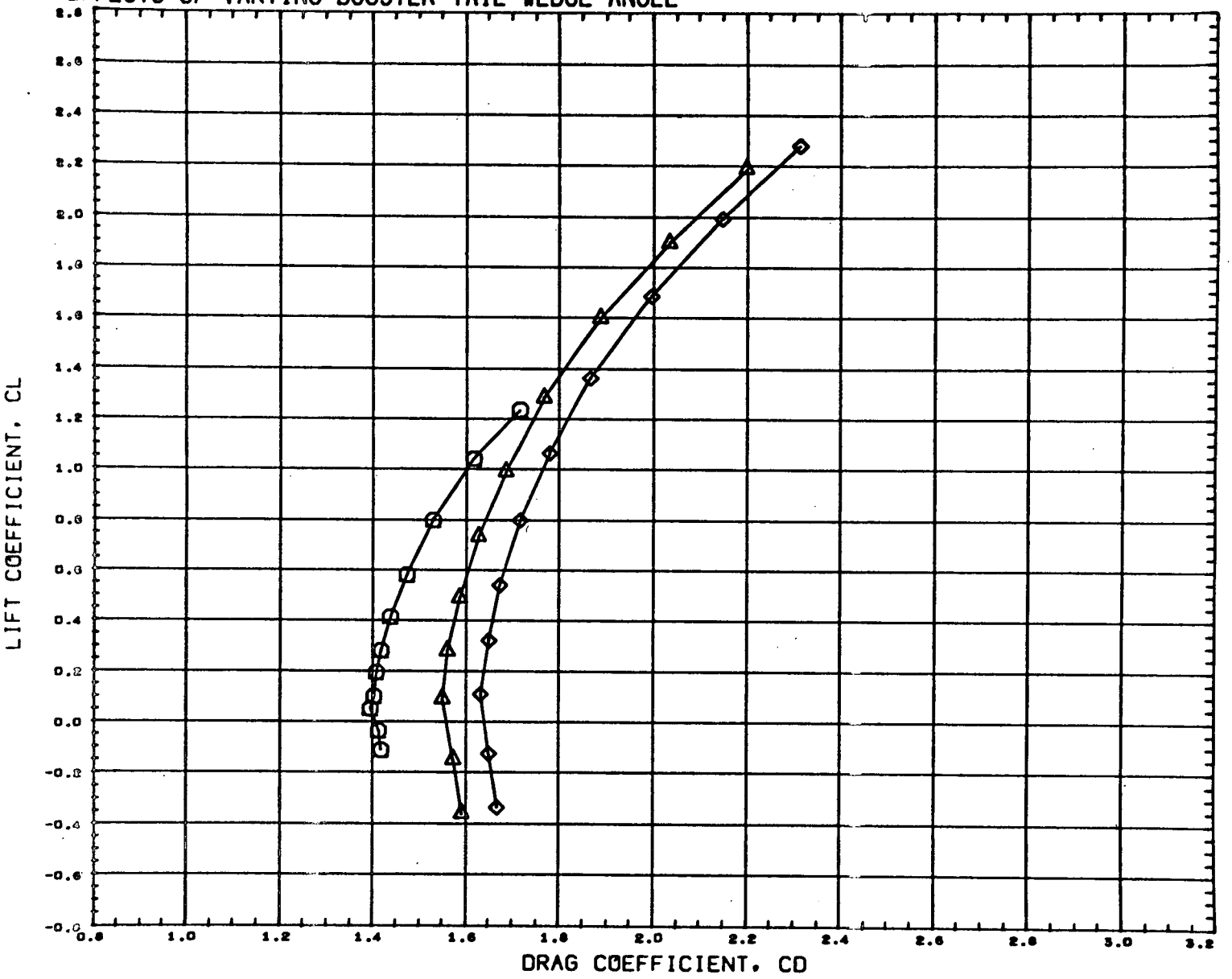


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5004D)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.966

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

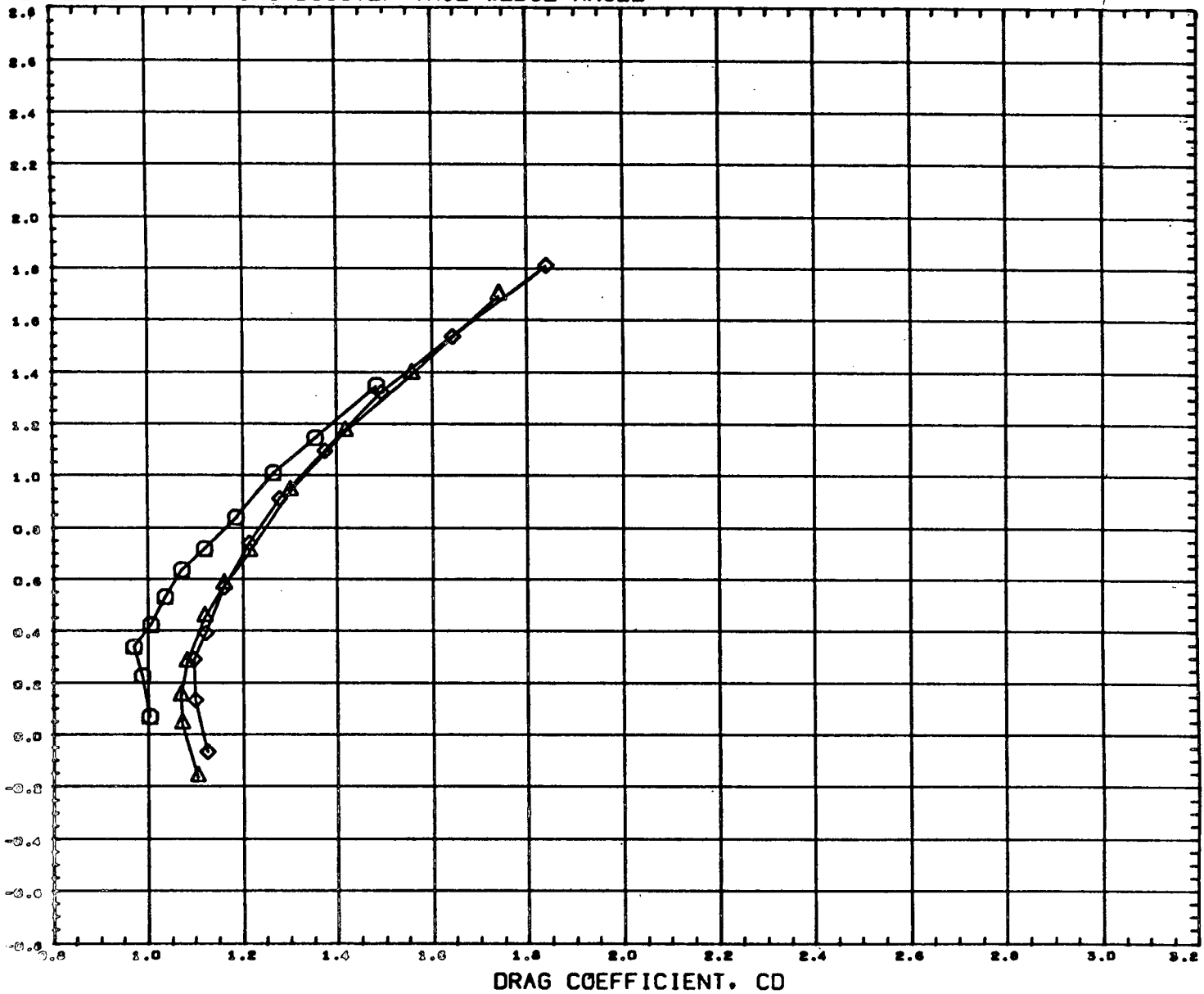


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

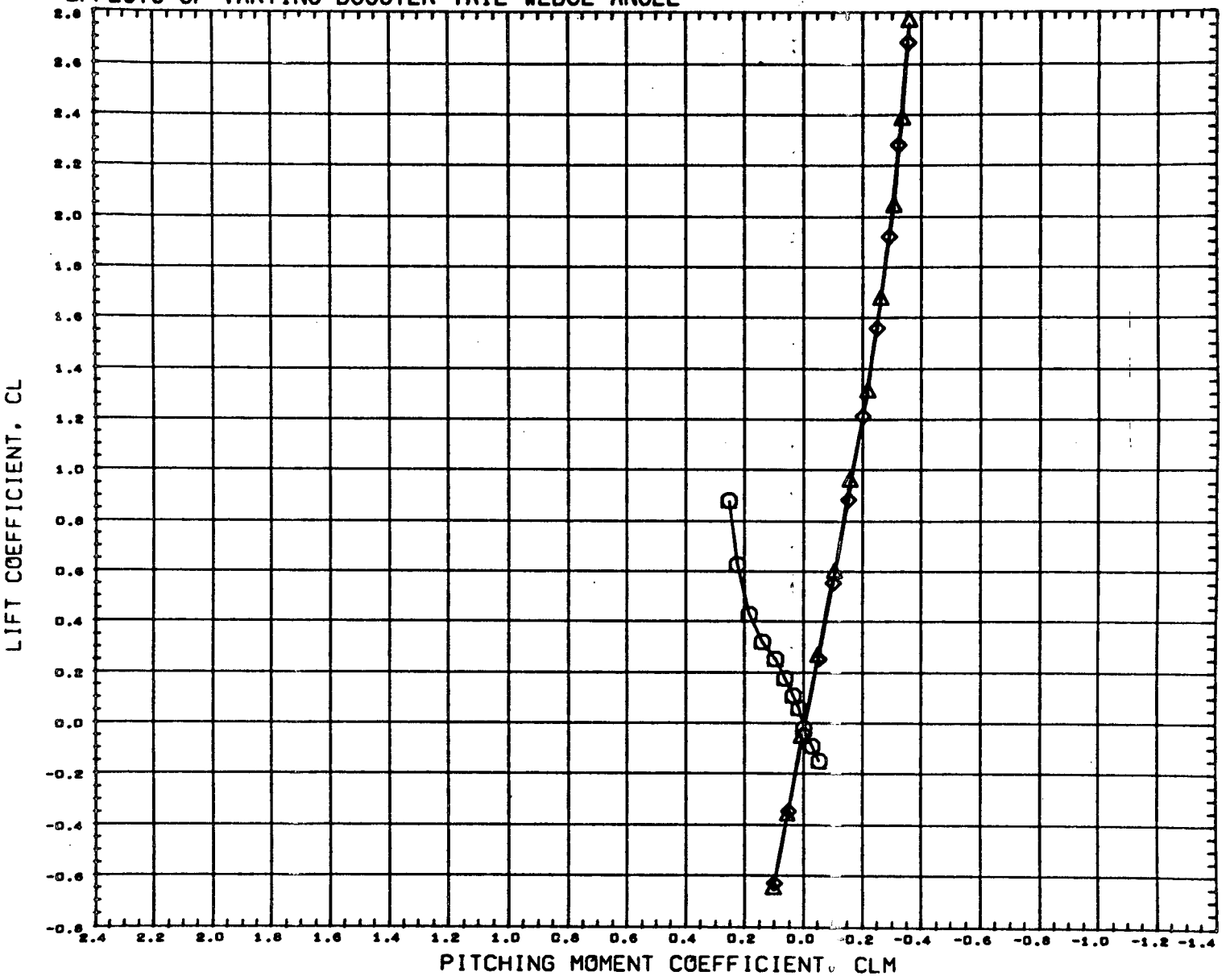


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(130110)	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(230010)	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(330040)	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

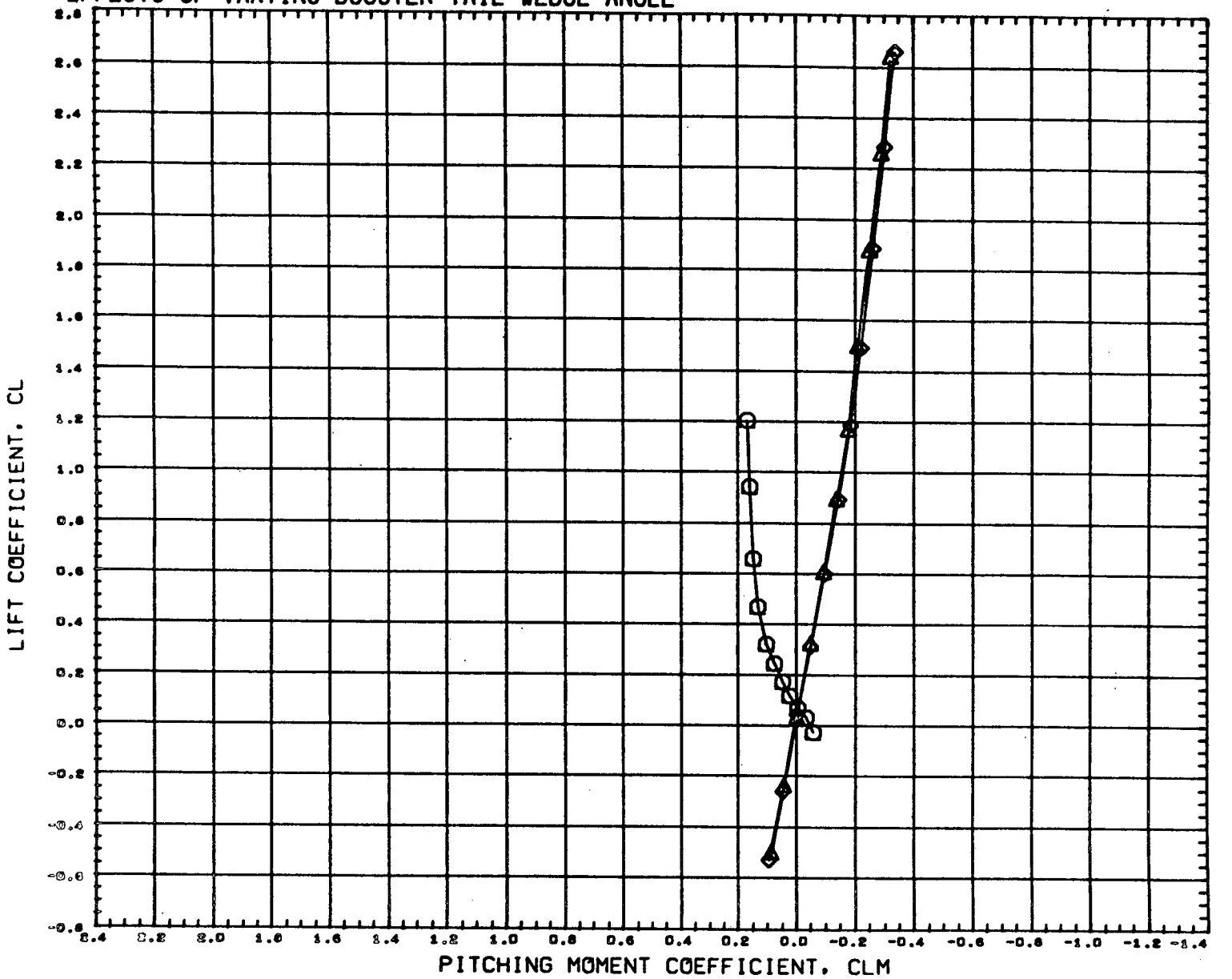


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

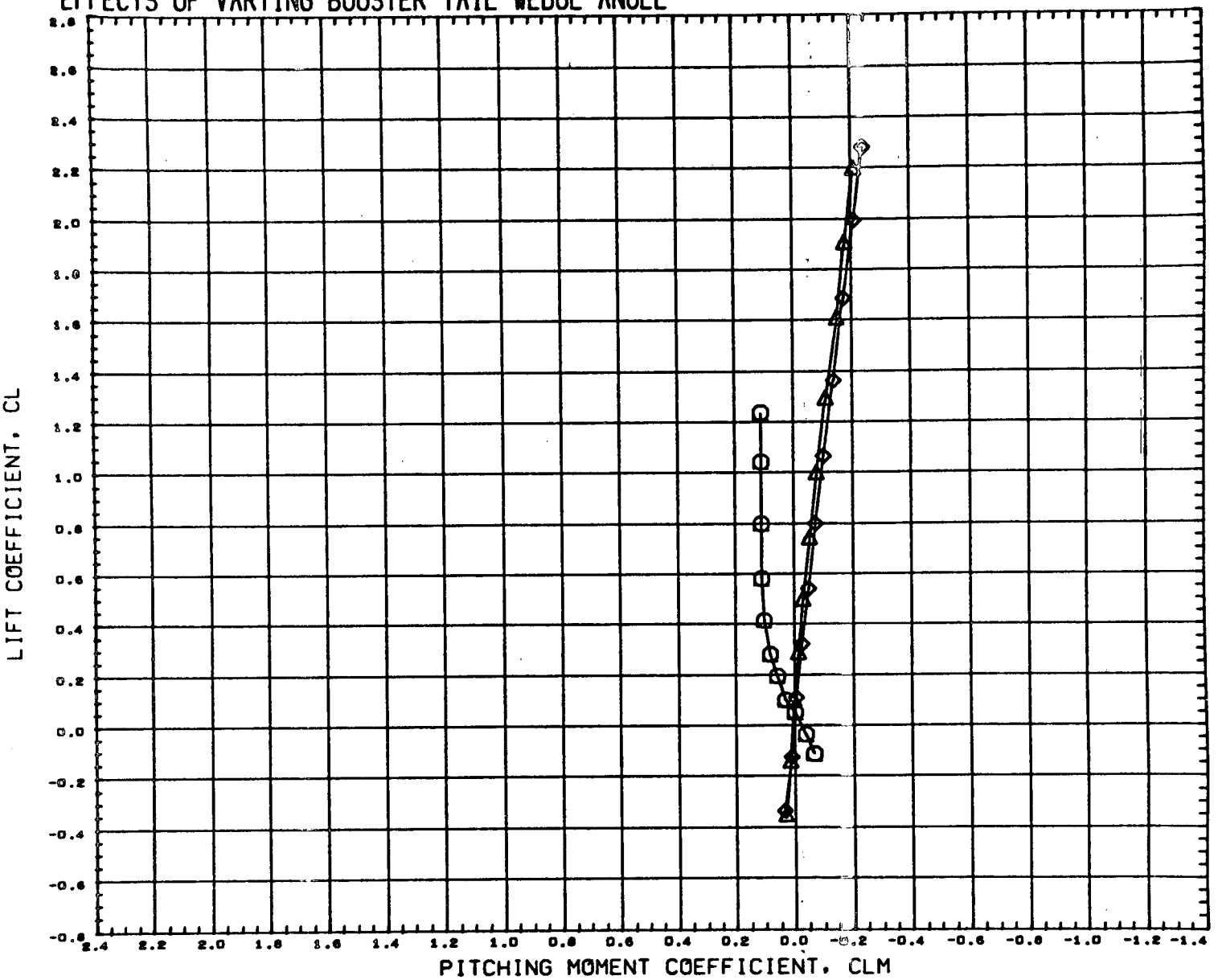


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.966

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

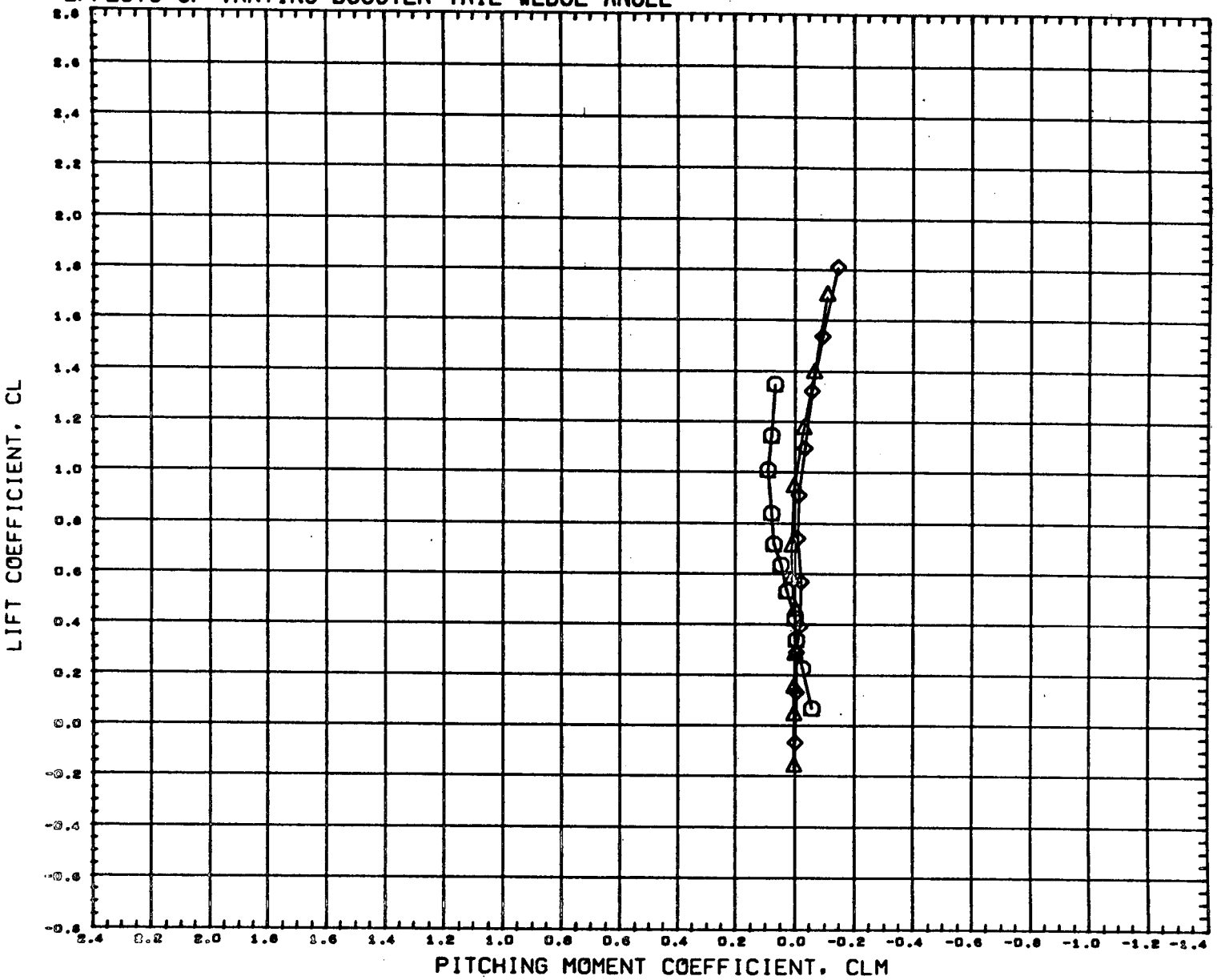


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

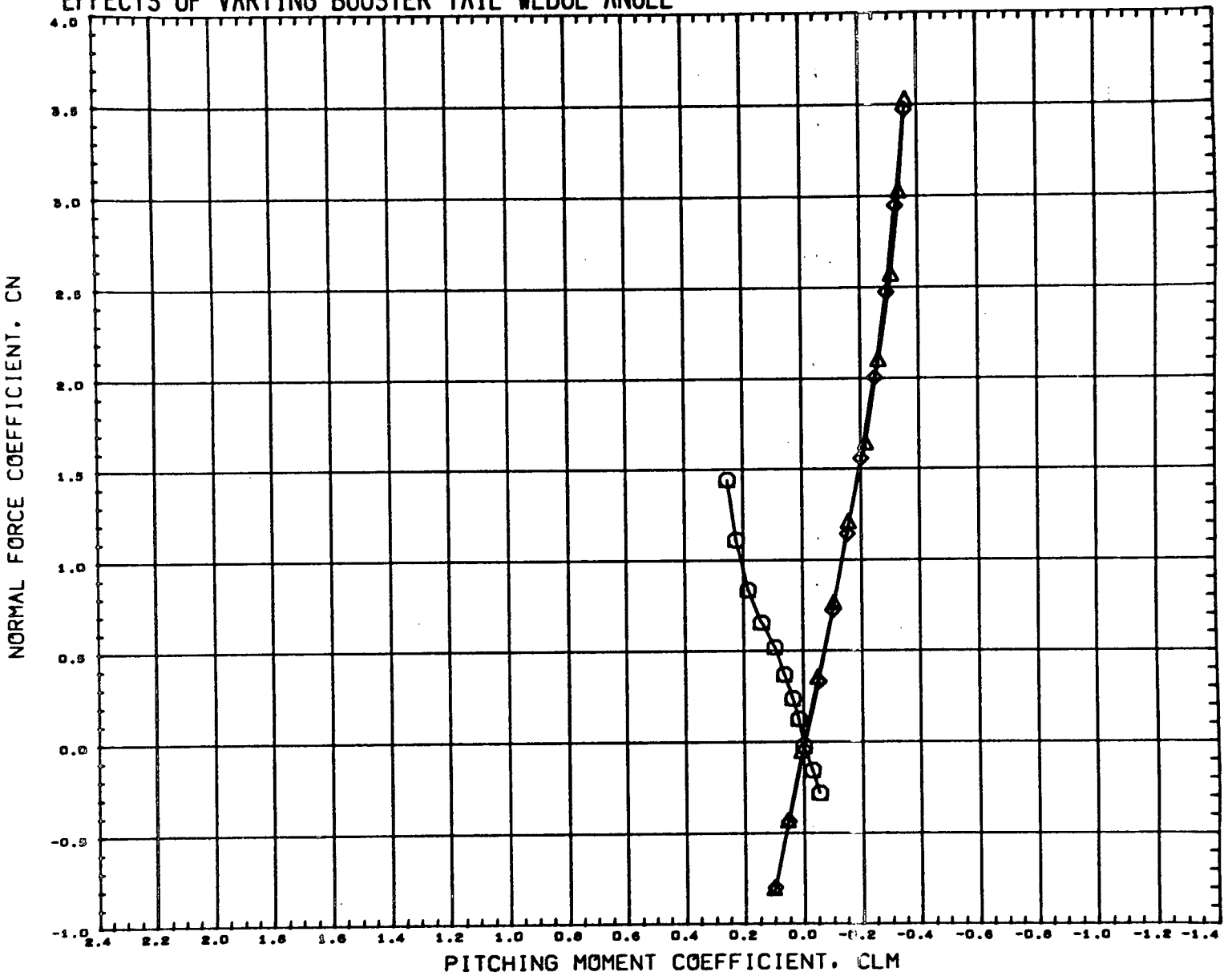


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES0110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES0010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0040)		MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

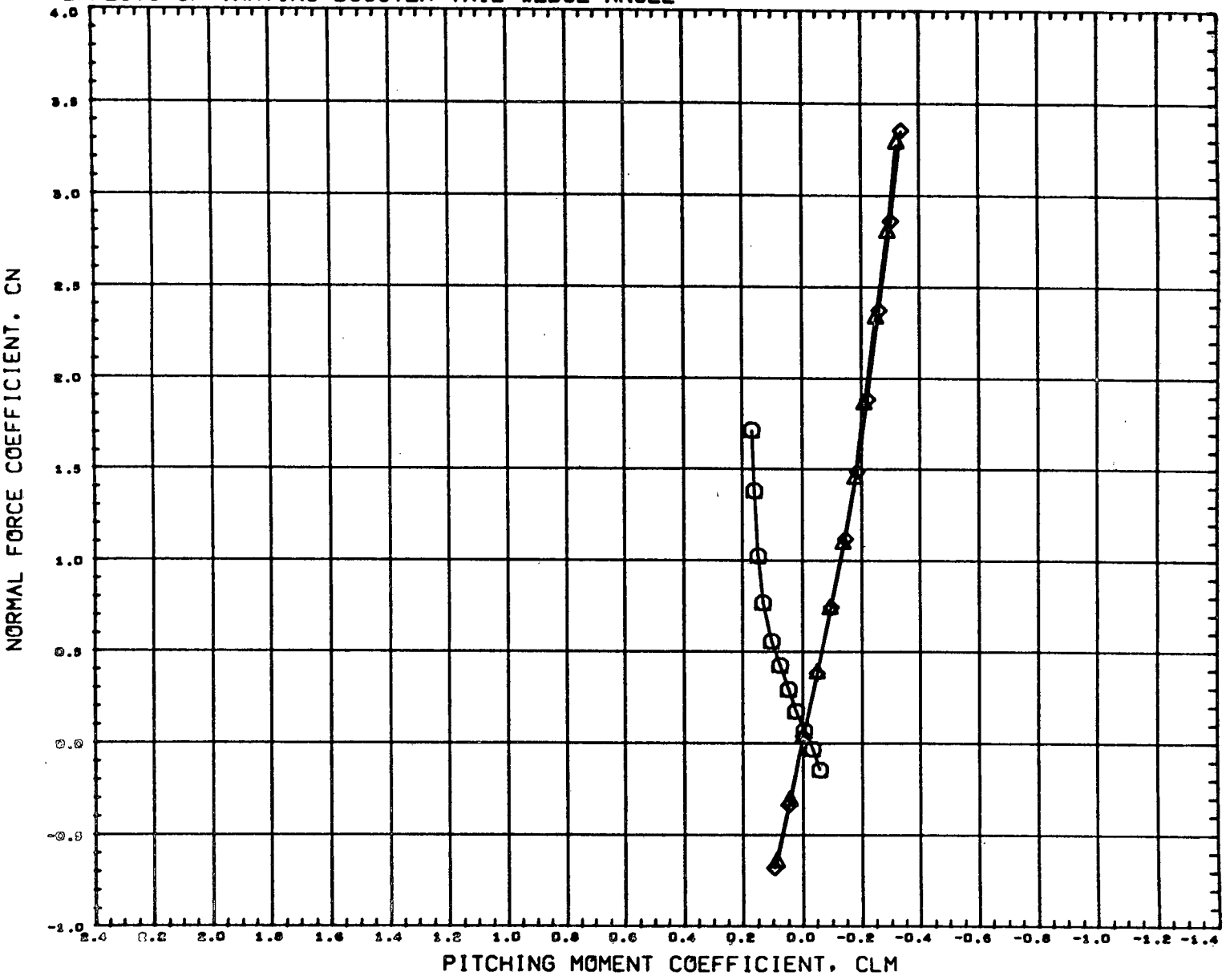


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.458

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

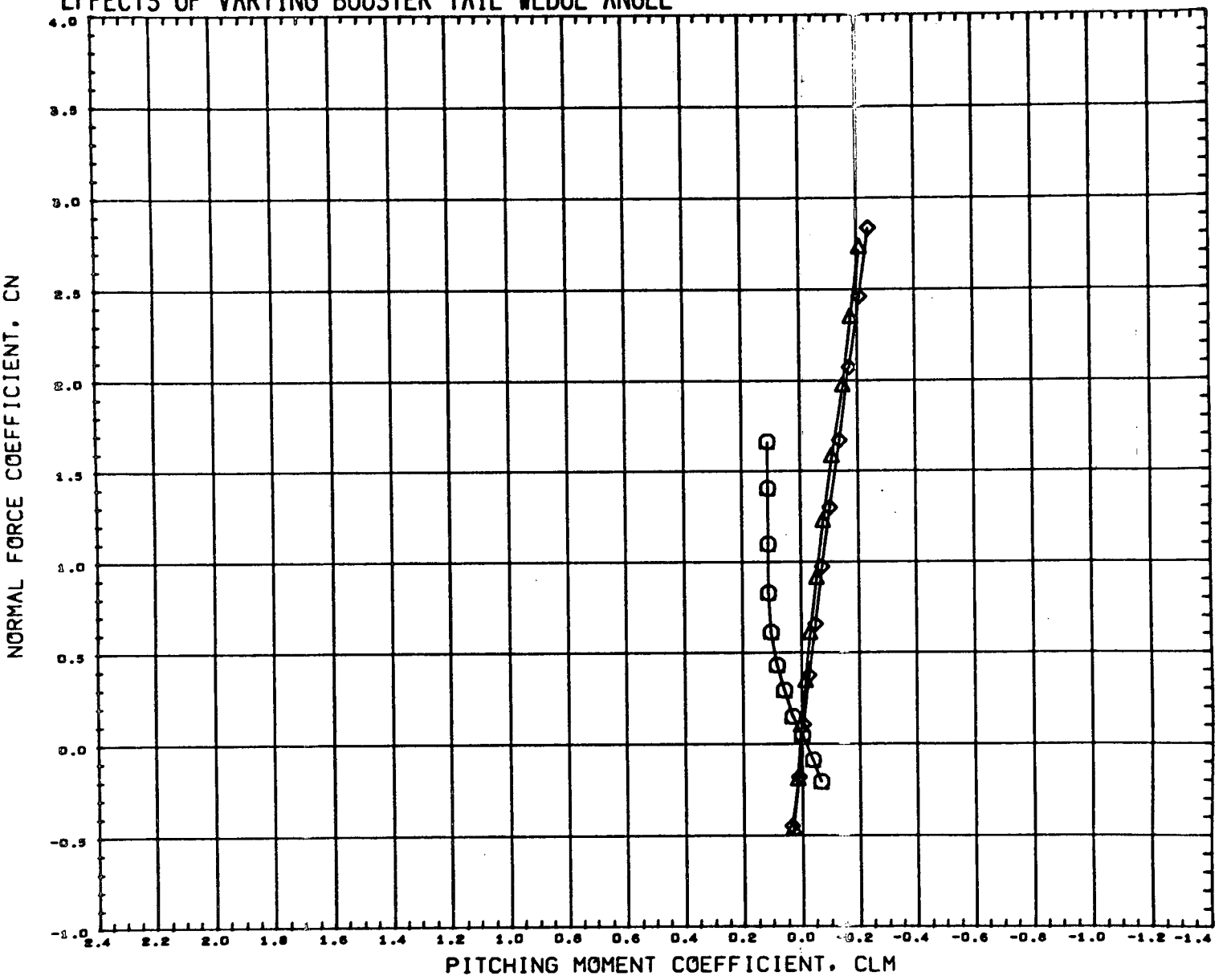


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.966

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

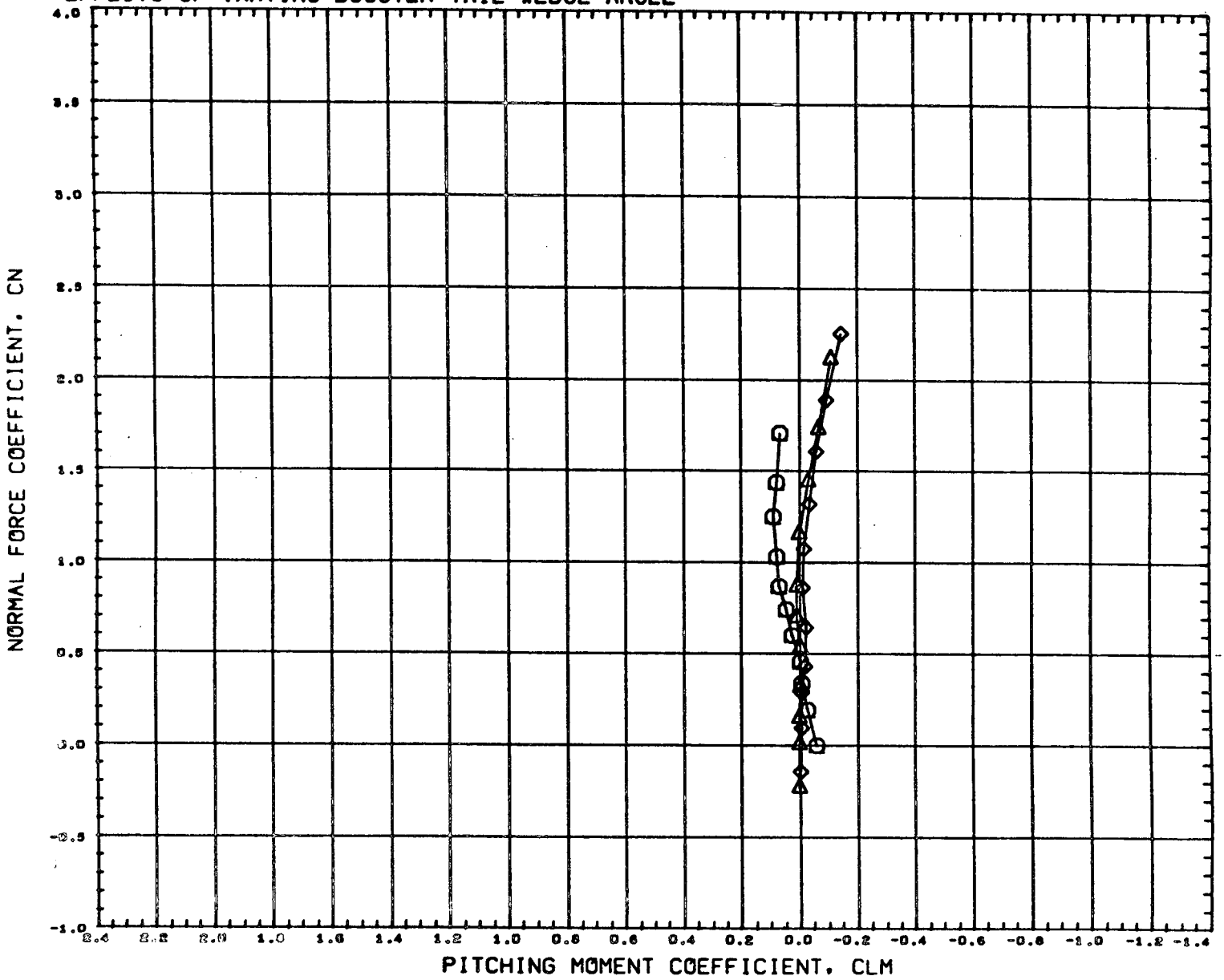


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF VARYING BOOSTER TAIL WEDGE ANGLE

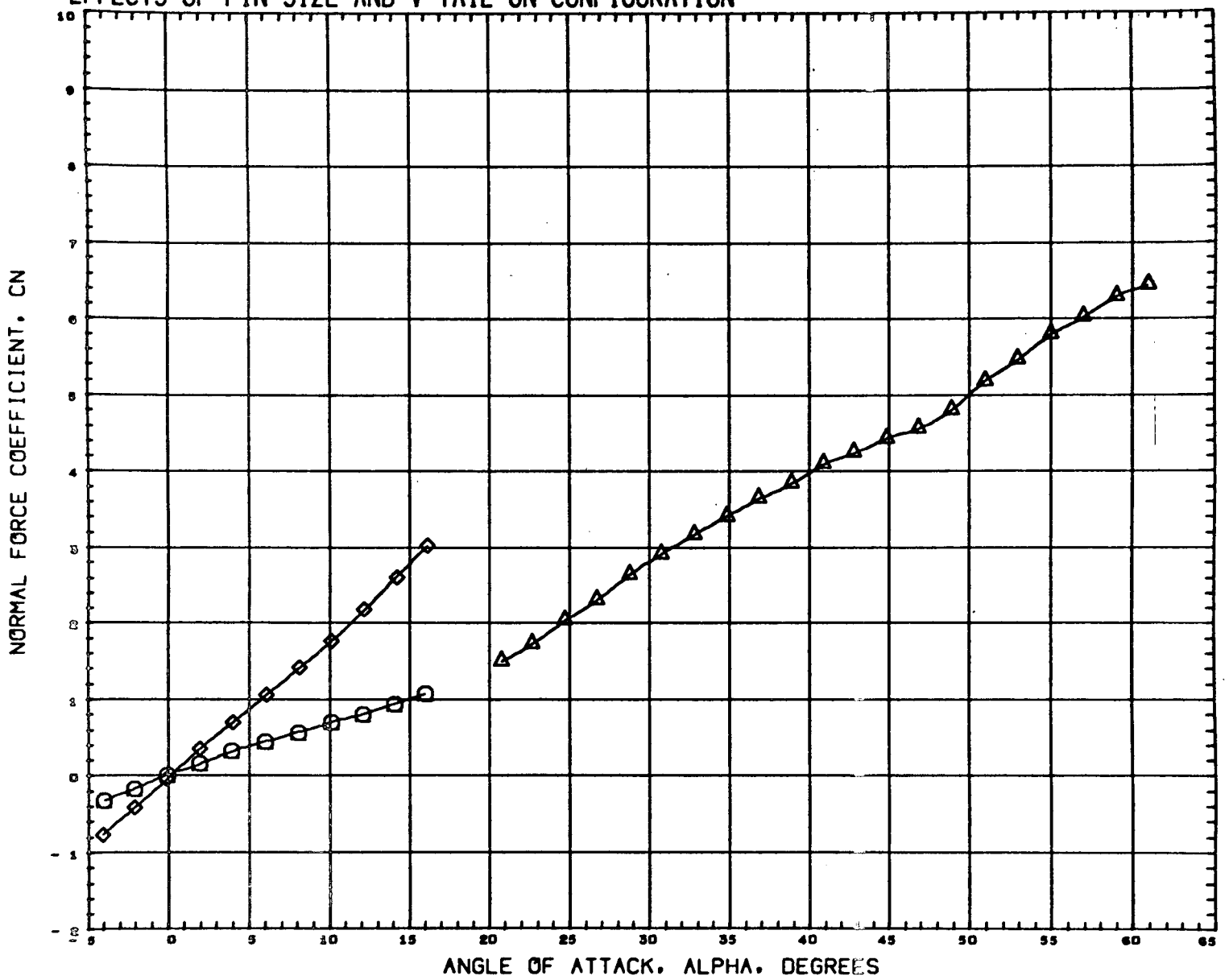


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50040)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T11	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

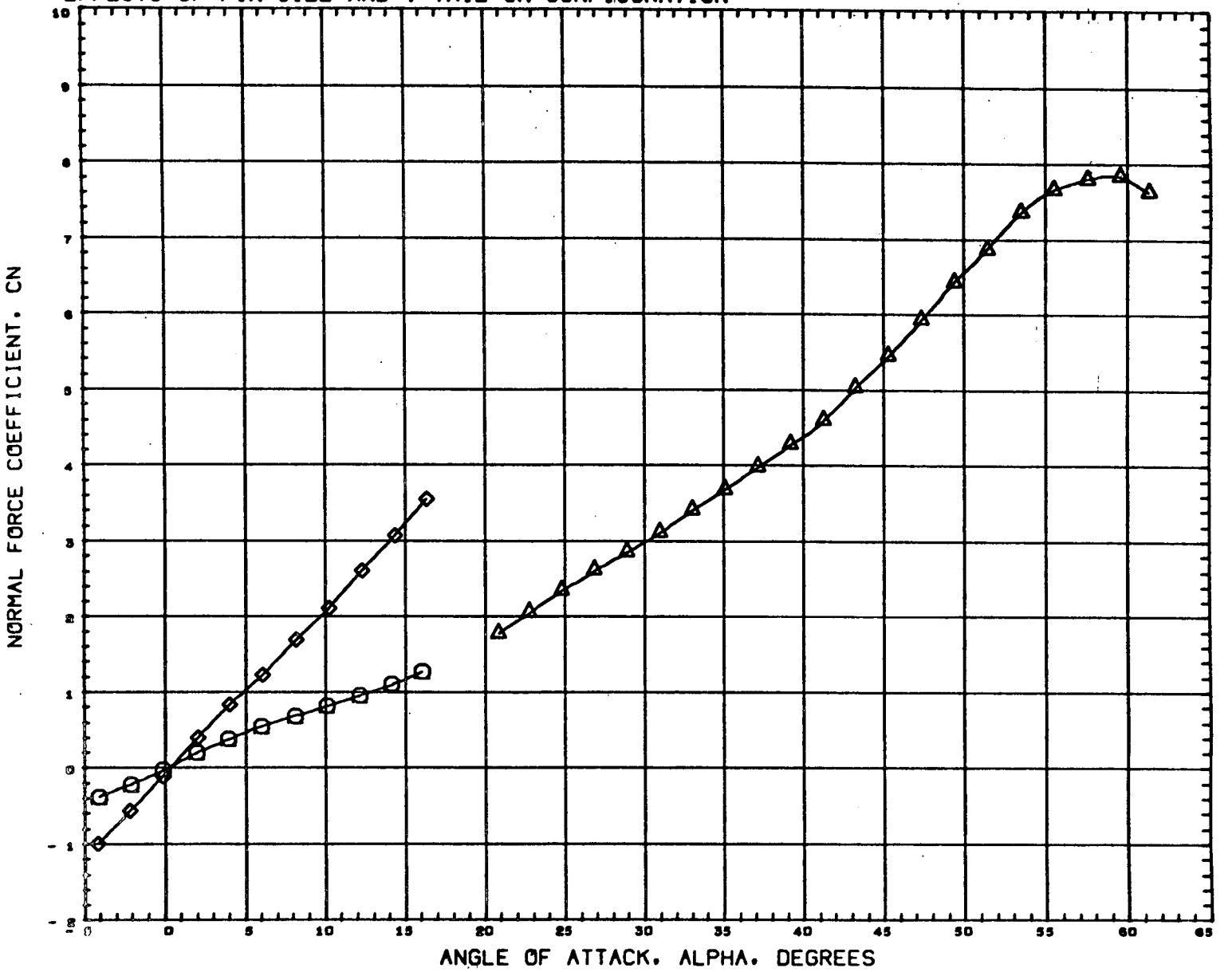


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)	△◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)	◺	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

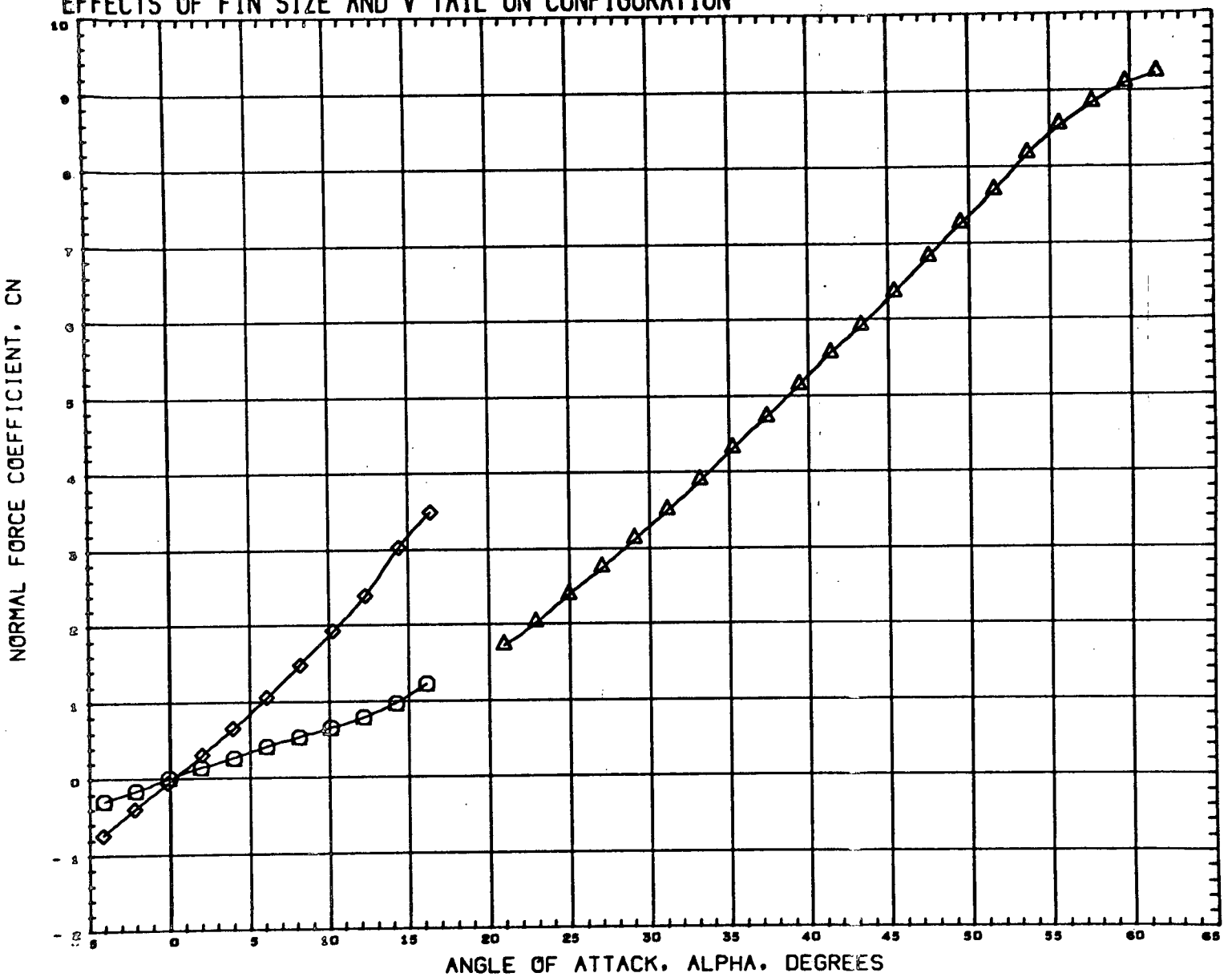


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

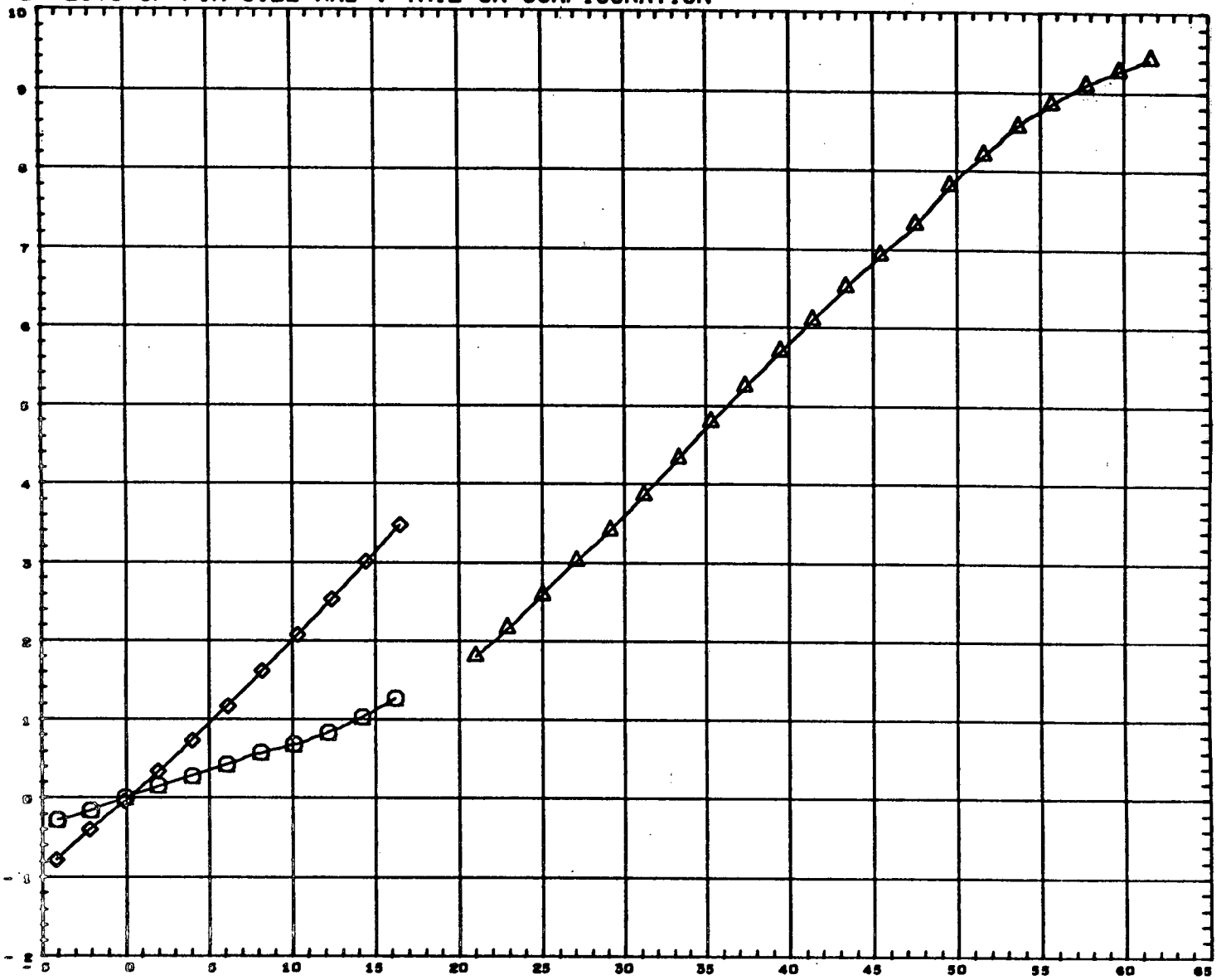


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.100

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

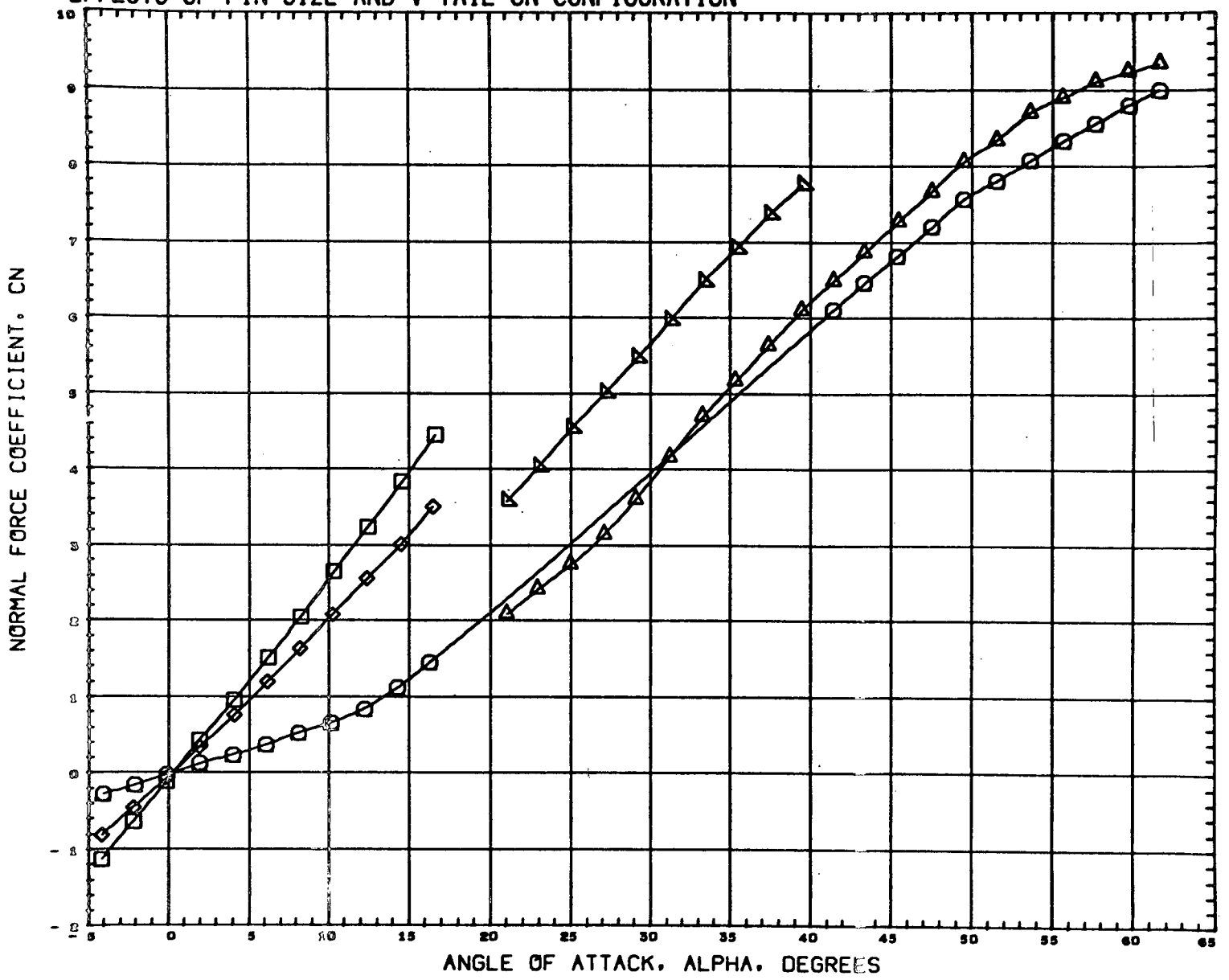


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50025)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

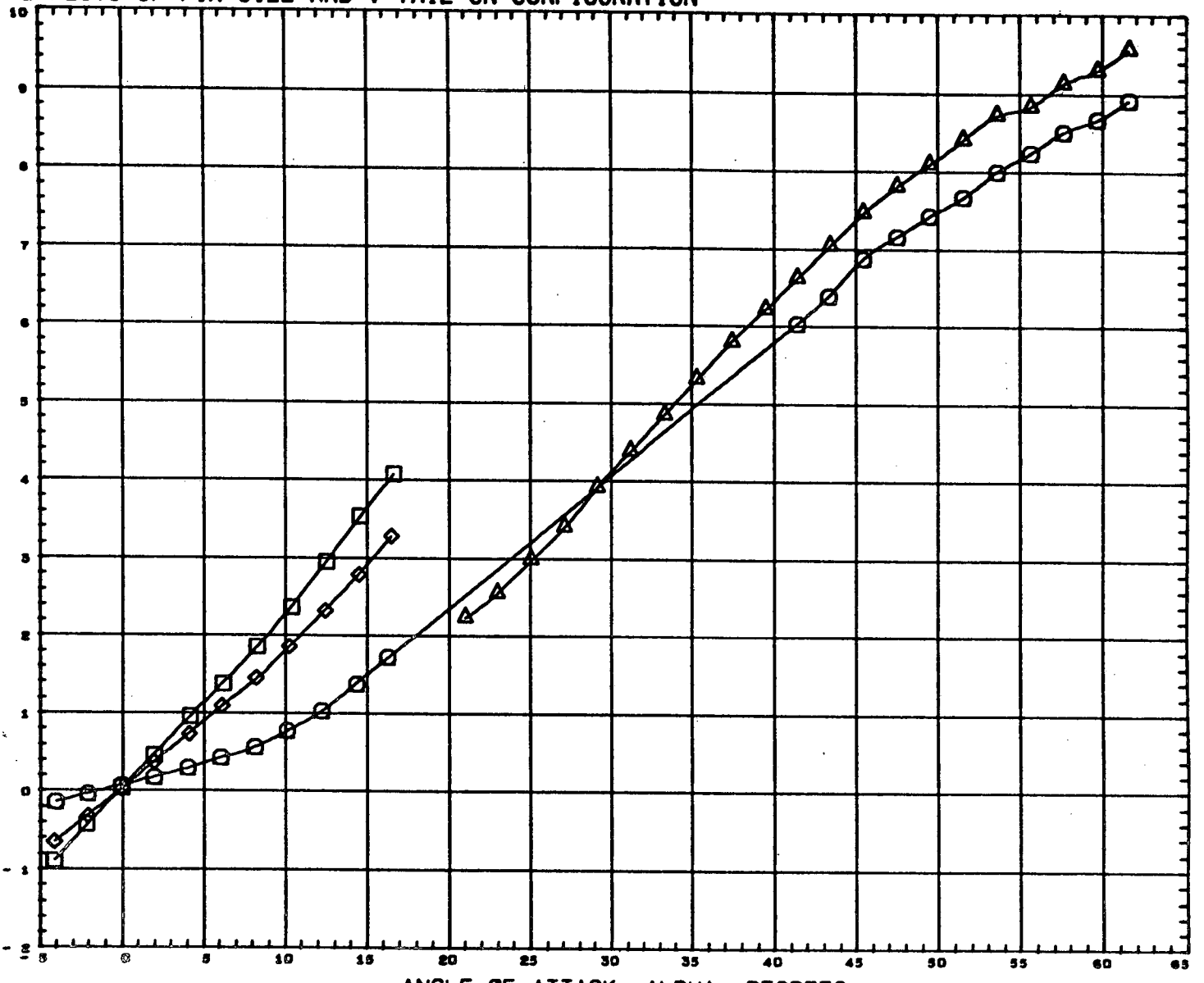


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

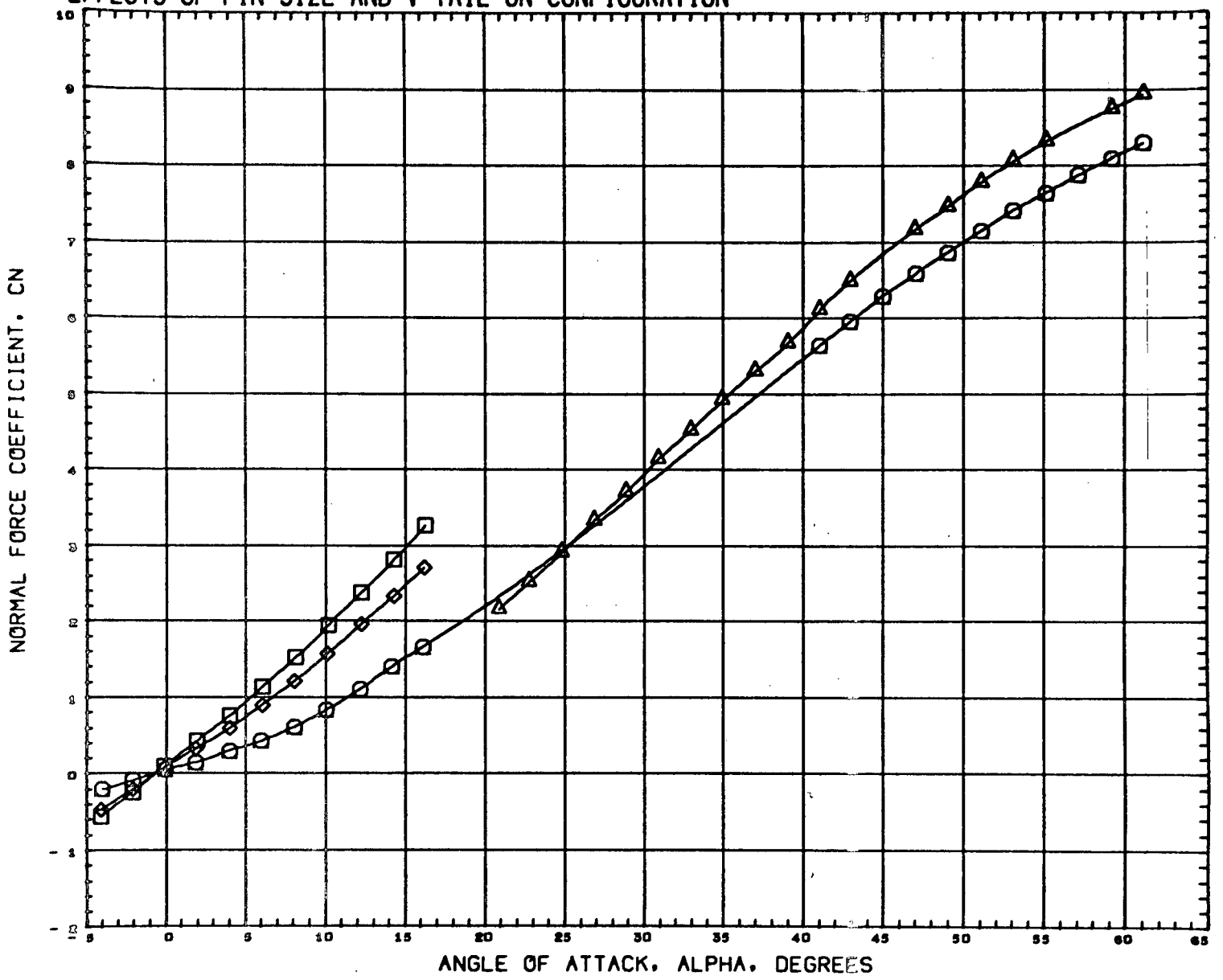


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

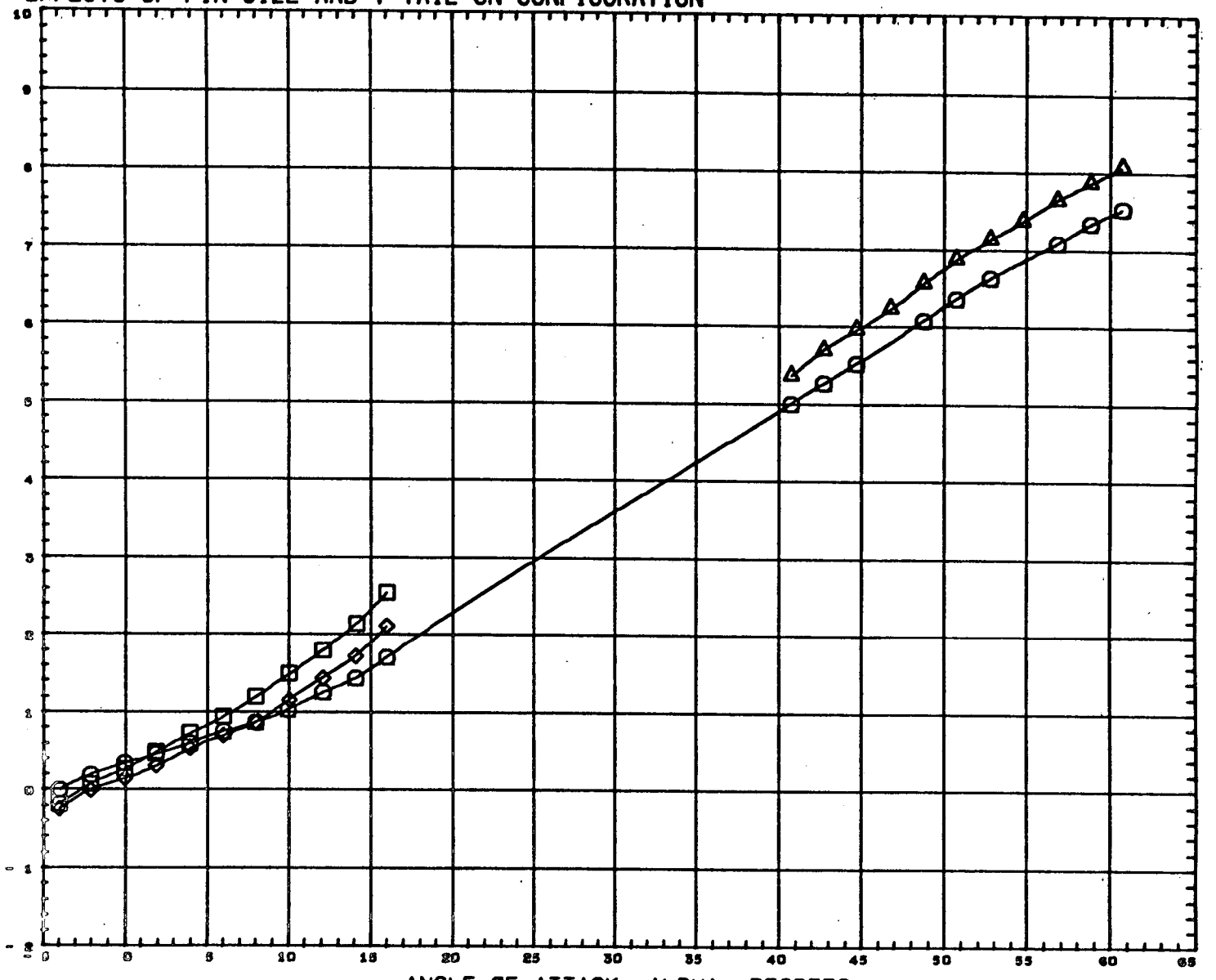


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D5011S)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D5002S)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D5001O)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5005O)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

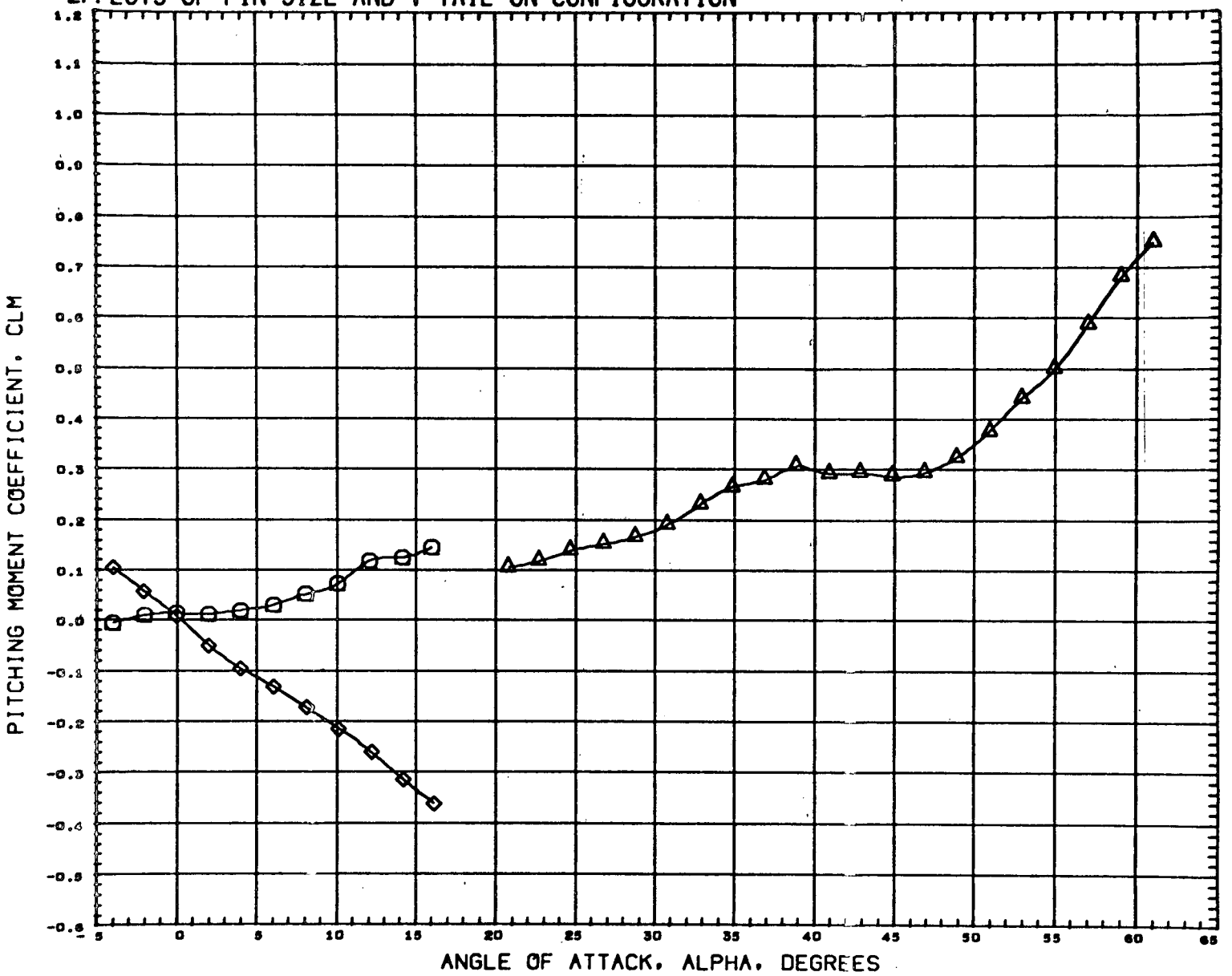


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D50162)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

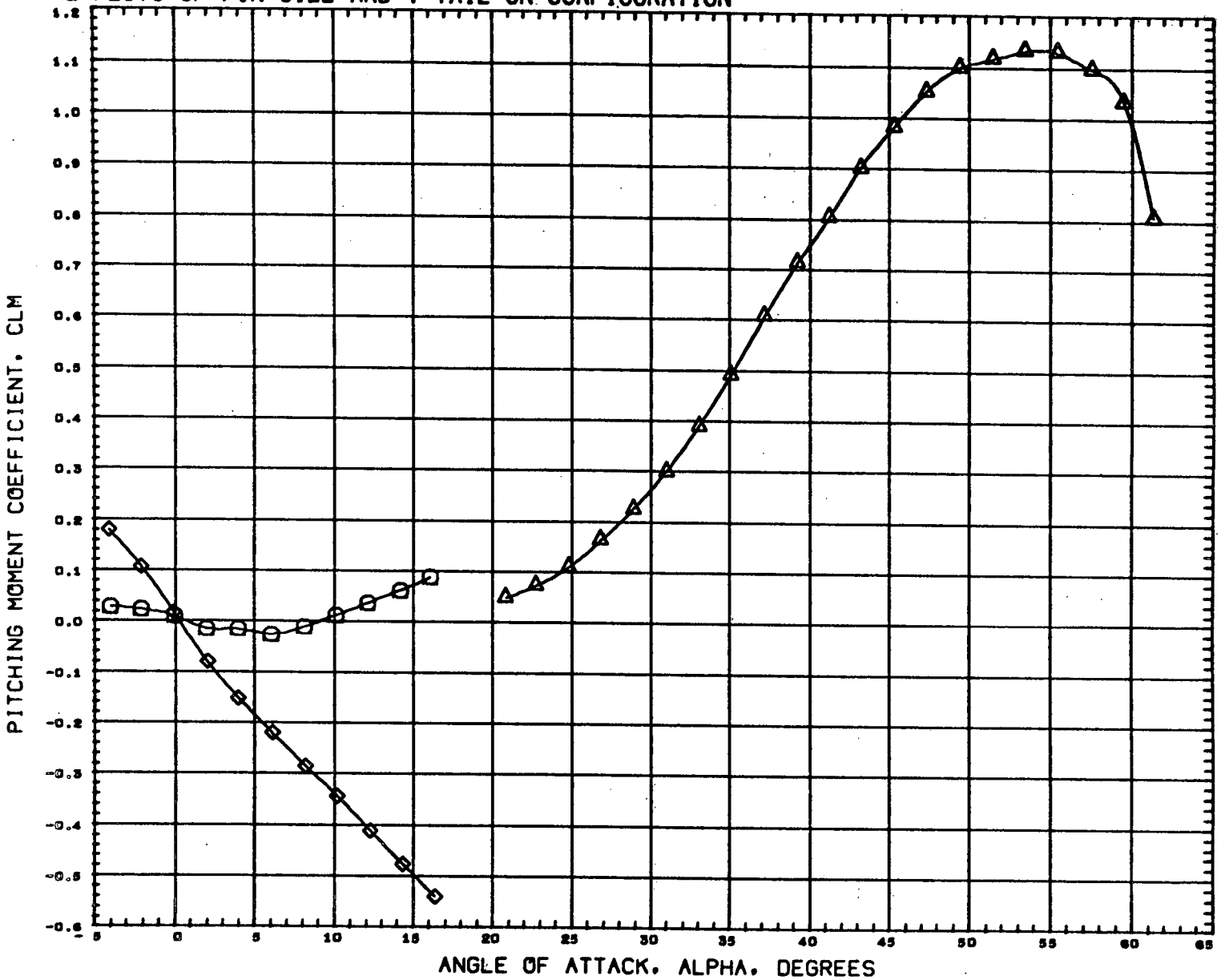


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION



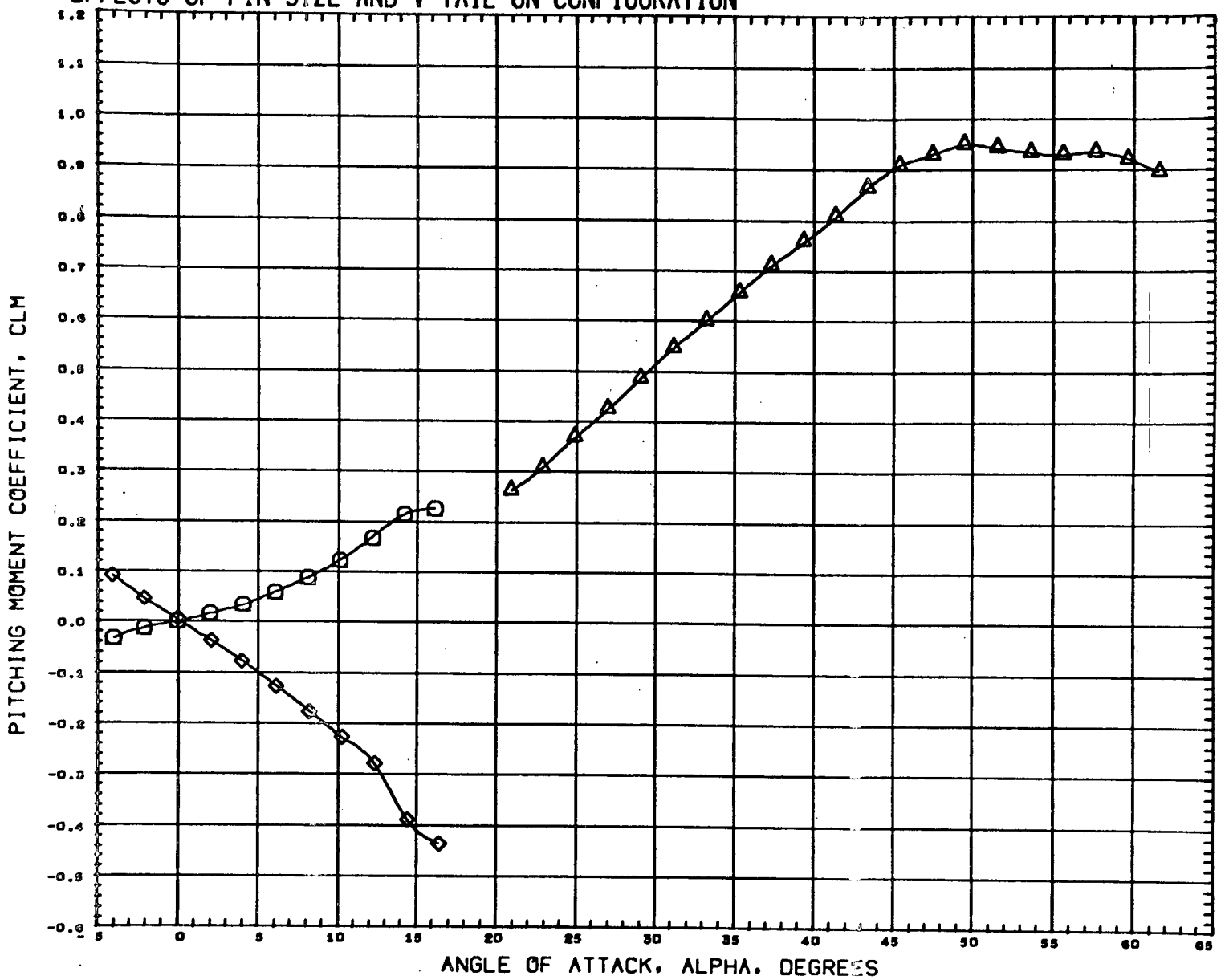
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(D50118)	○	M8FC 512 GD/C .003366 BOOSTER	B34R6
(D50028)	△	M8FC 512 GD/C .003366 BOOSTER	B34R6T12
(D50010)	◇	M8FC 512 GD/C .003366 BOOSTER	B34R6T10
(D50050)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	
(D5016Z)	⊿	DATA NOT AVAILABLE FOR ALL CONDITIONS	

MACH 0.900

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	45.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

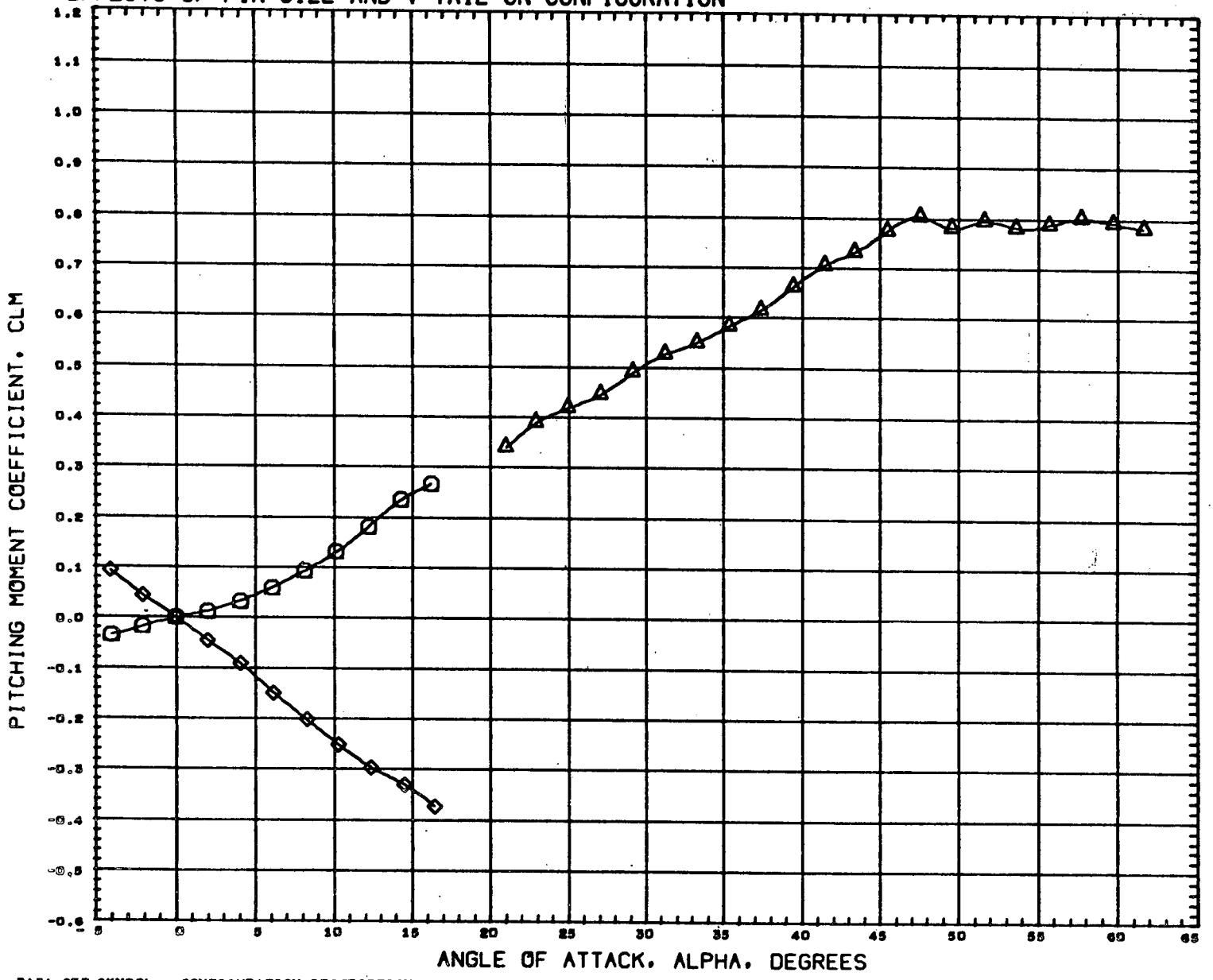


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

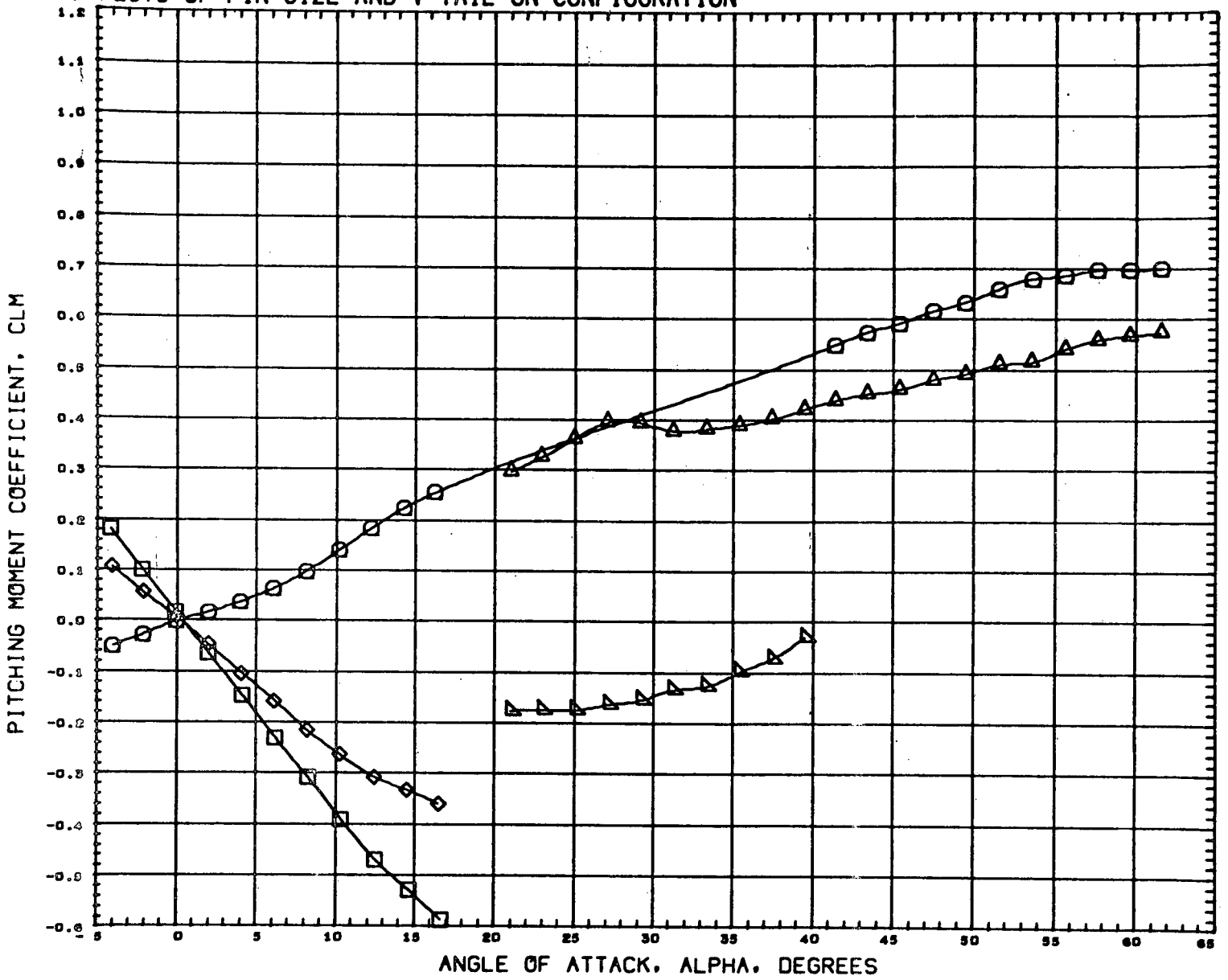


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.201

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

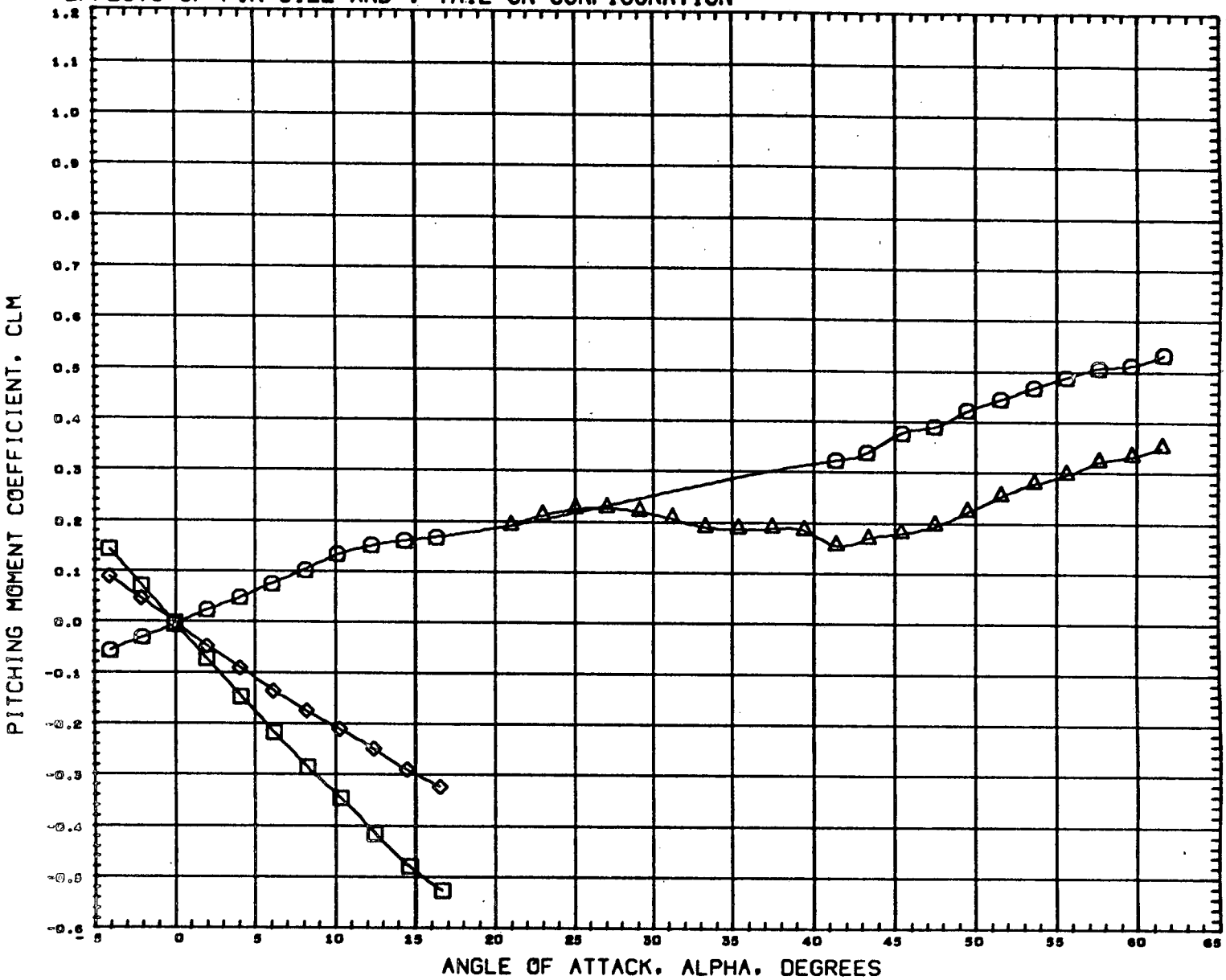


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

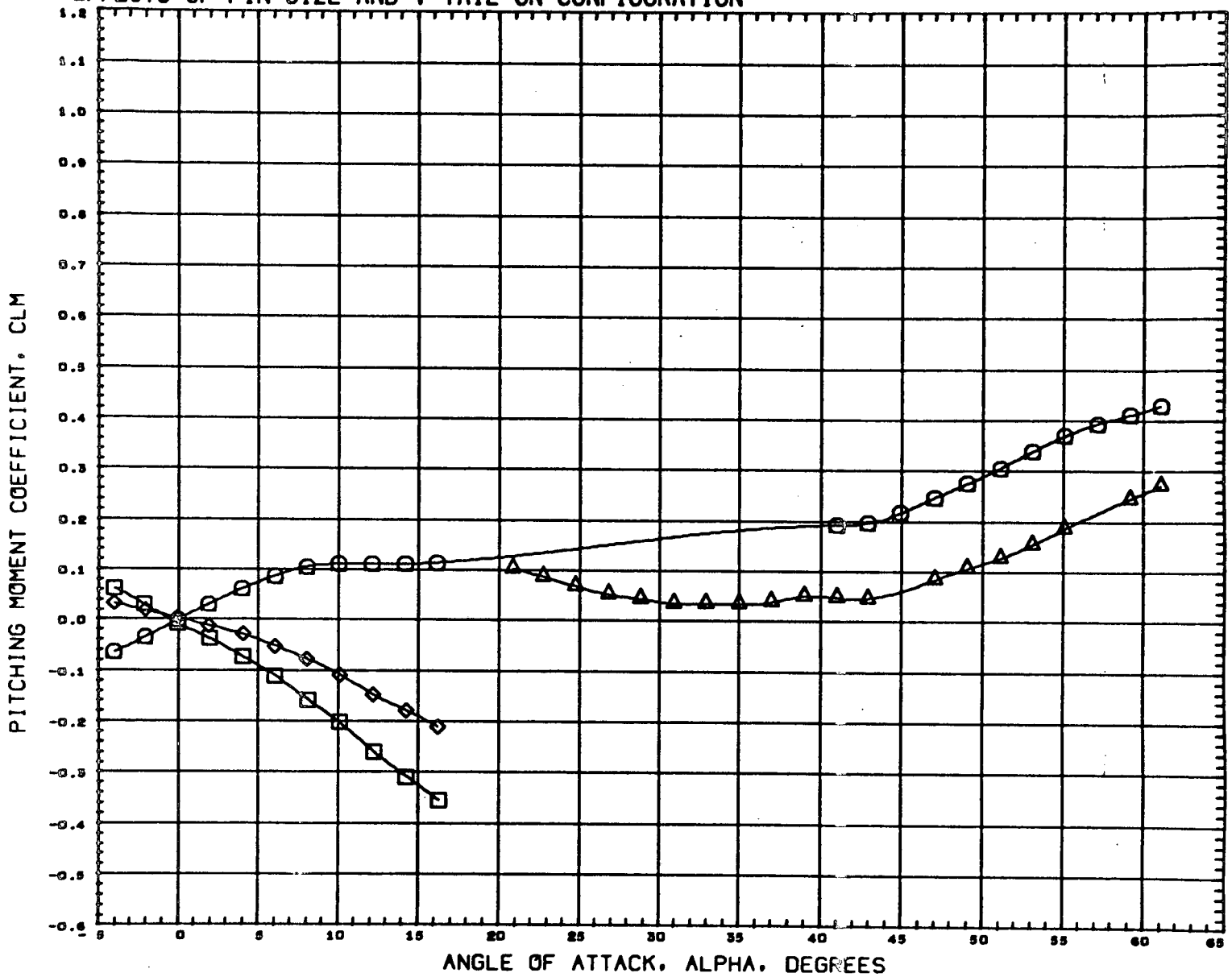


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

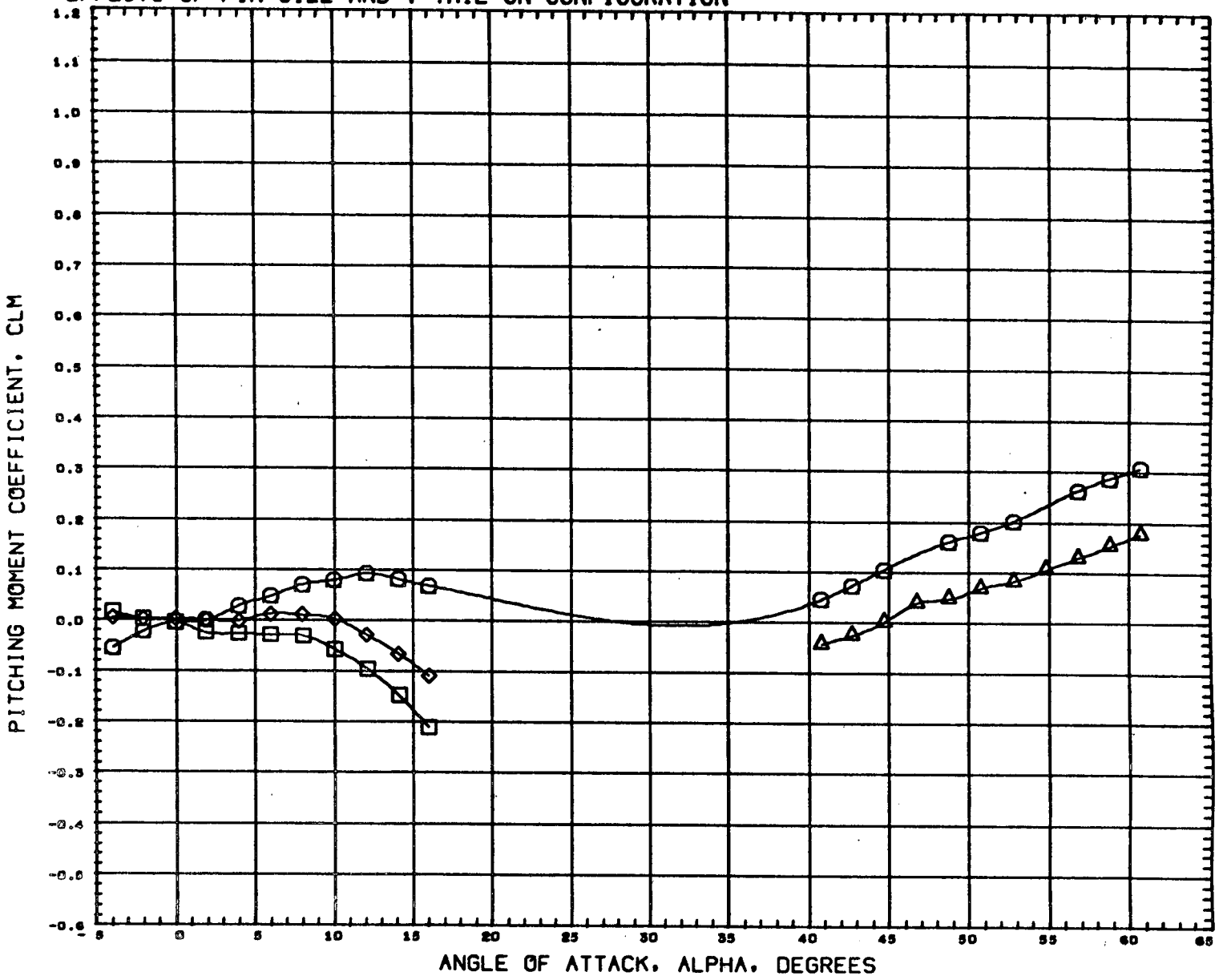


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

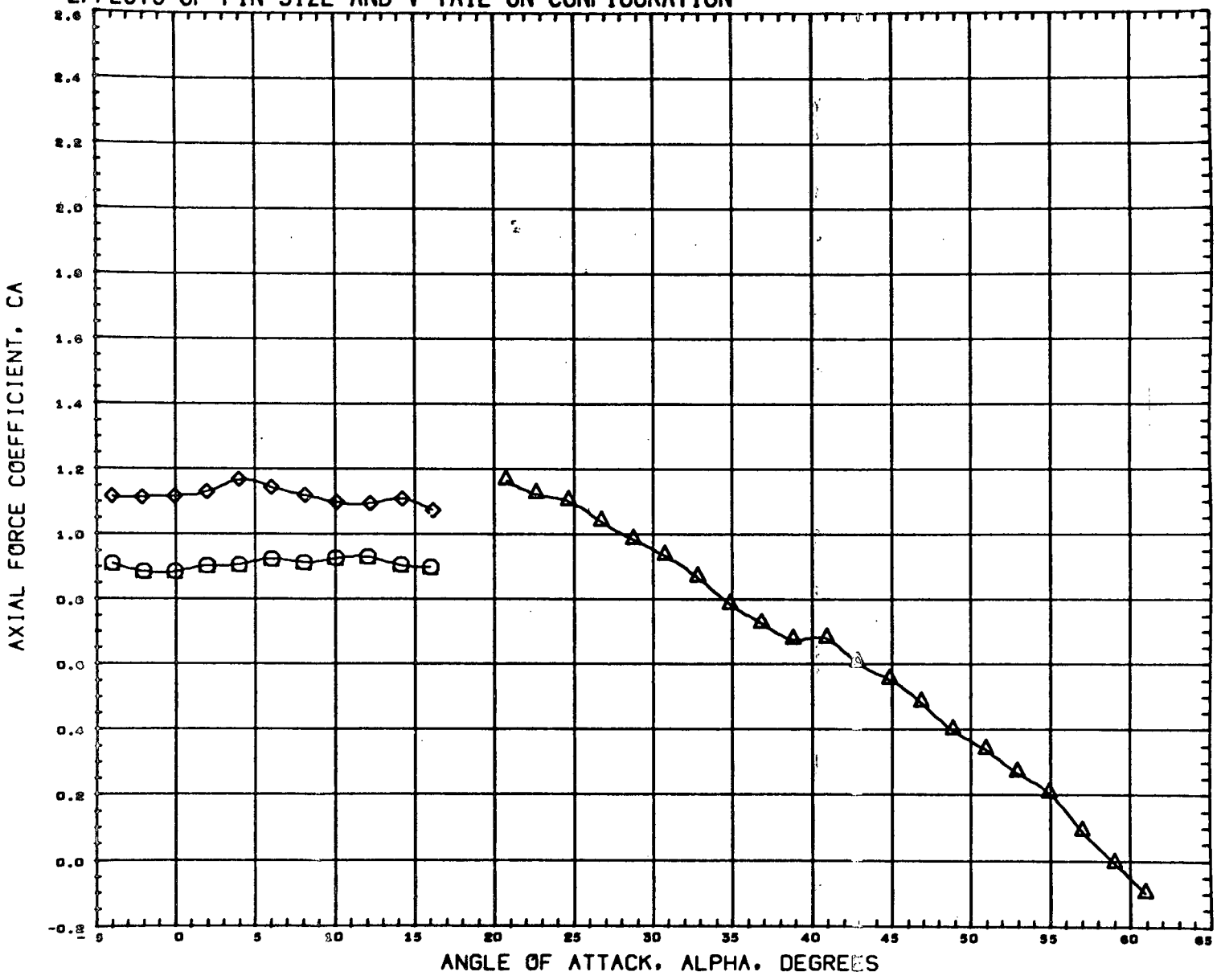


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

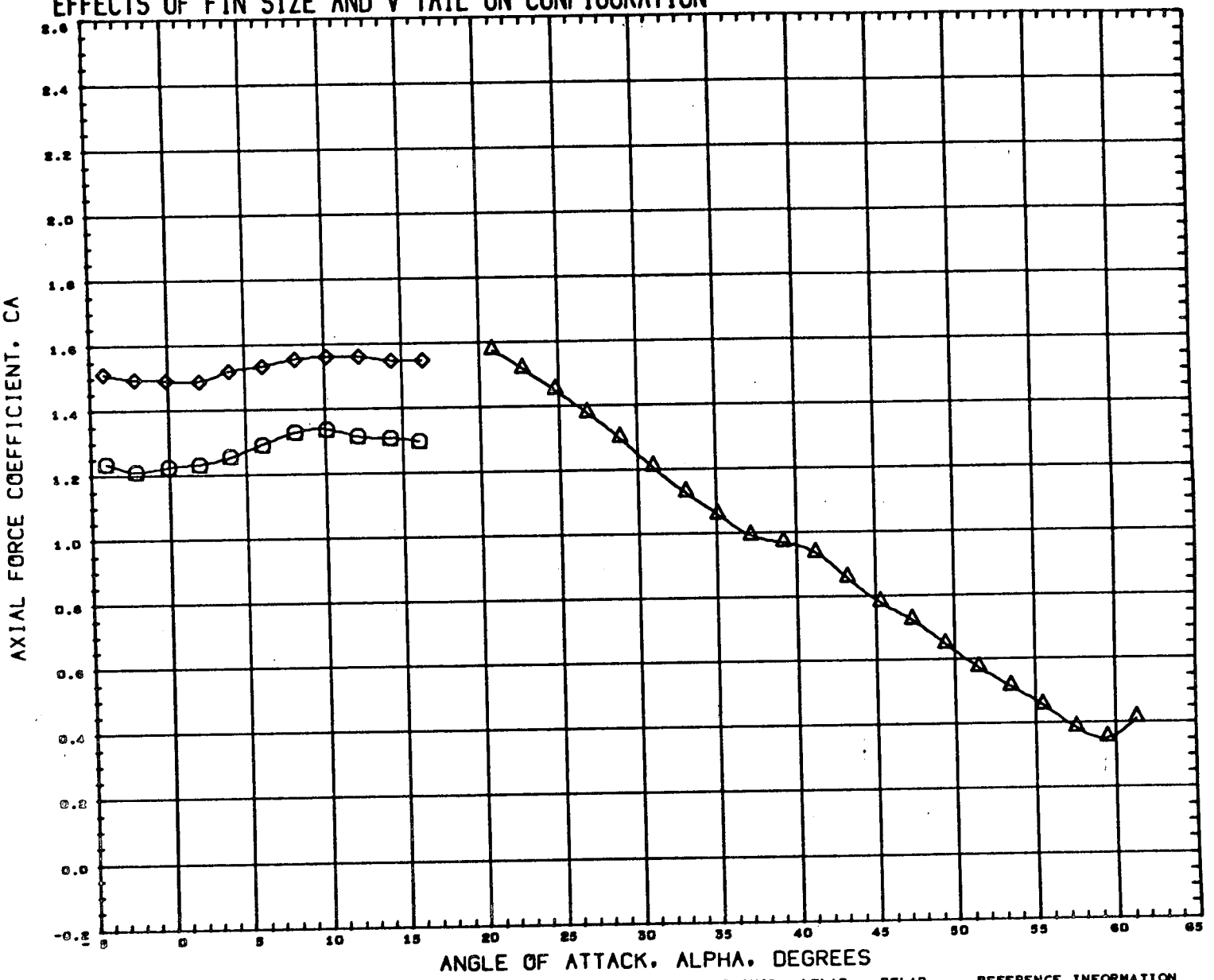


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50115)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50162)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

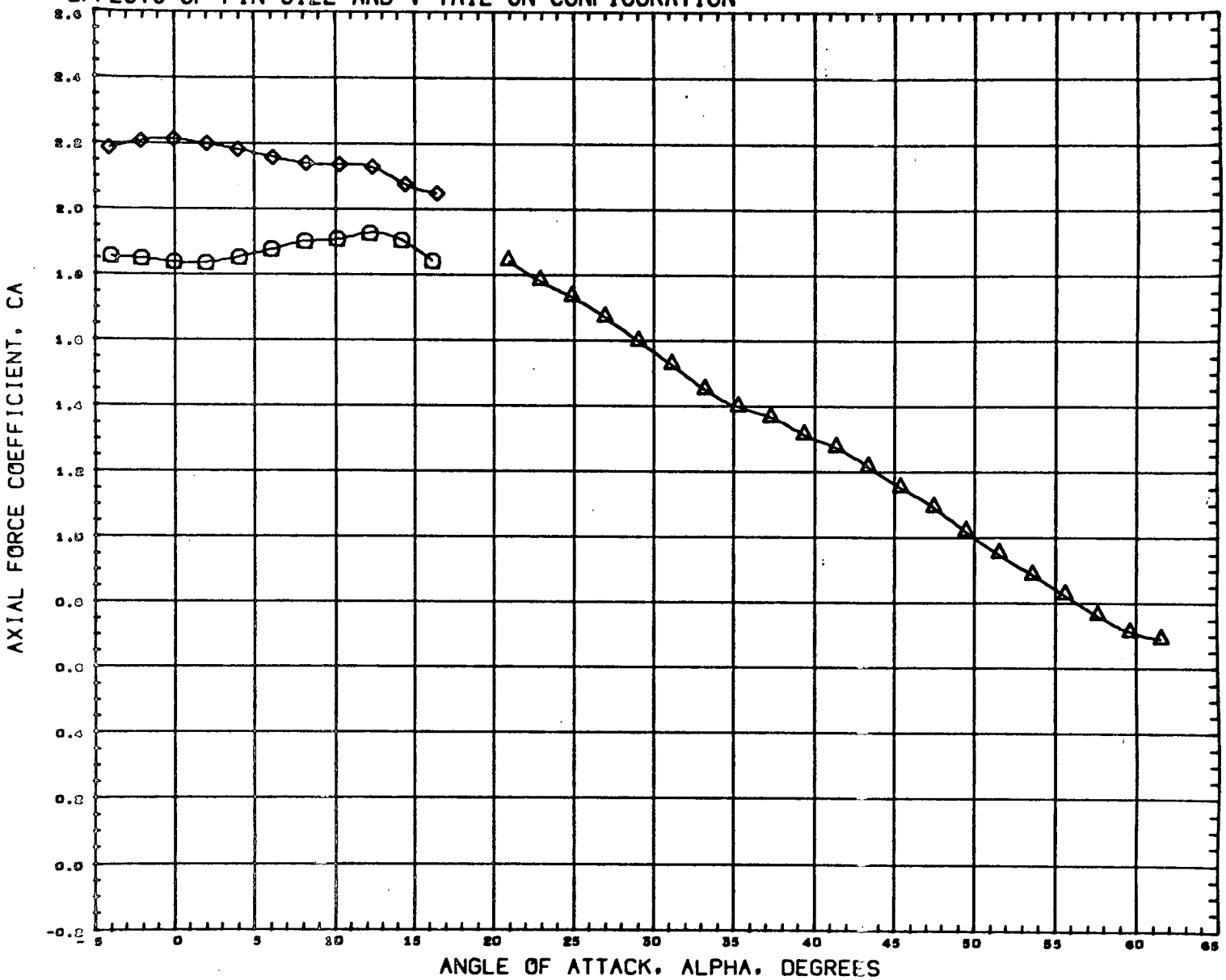


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50020)	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50162)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

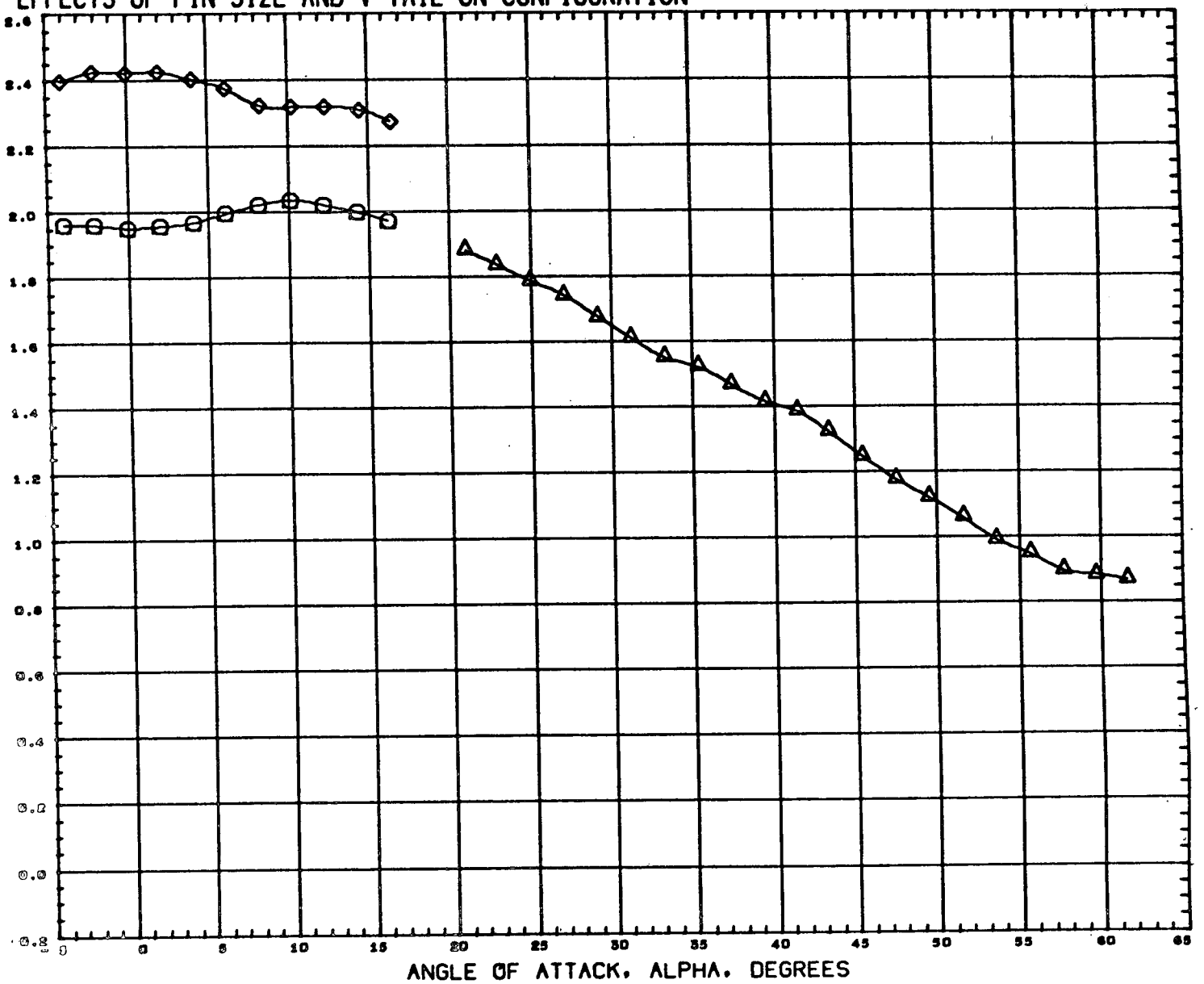


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)	▽	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

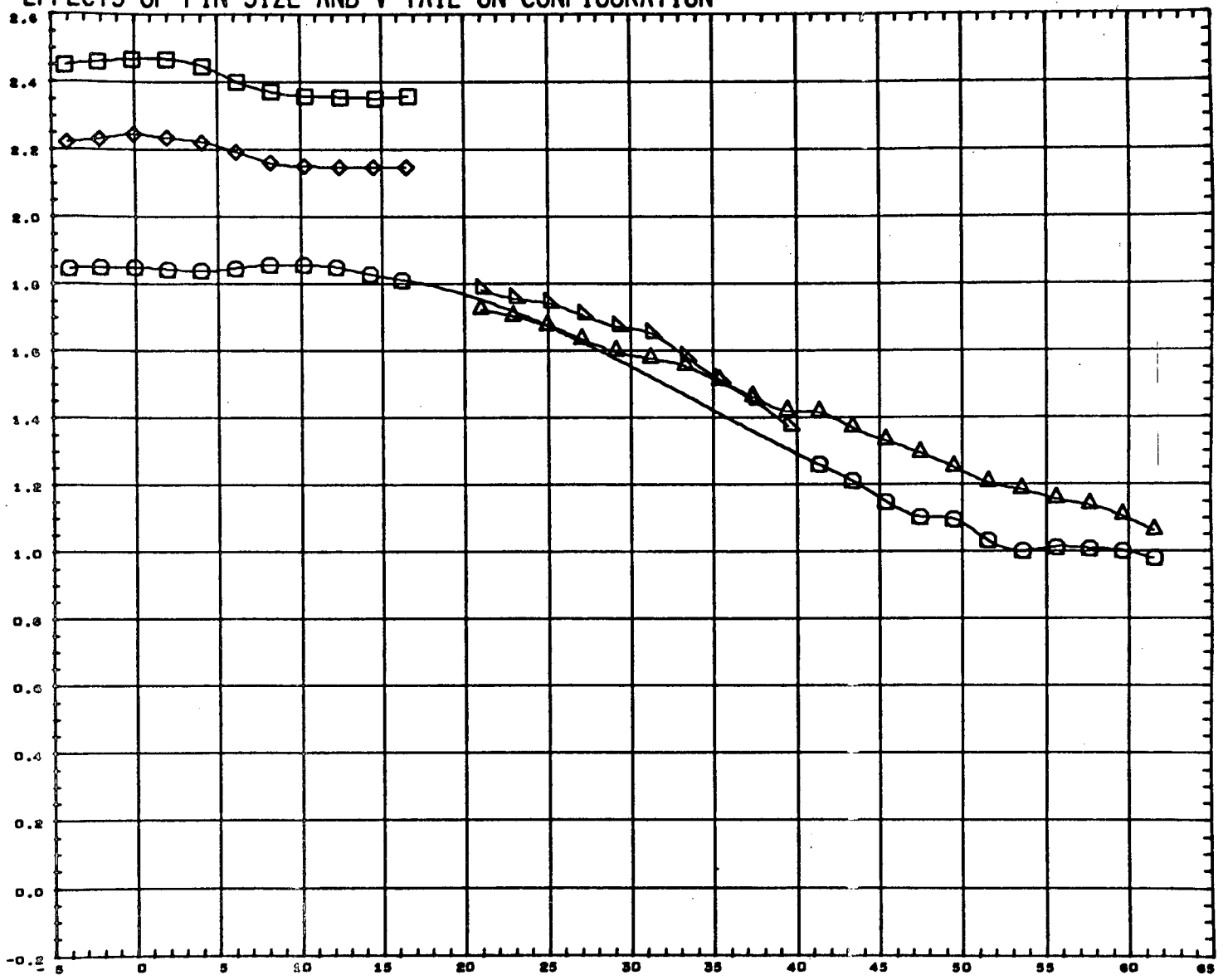


DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50116)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50025)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.201

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

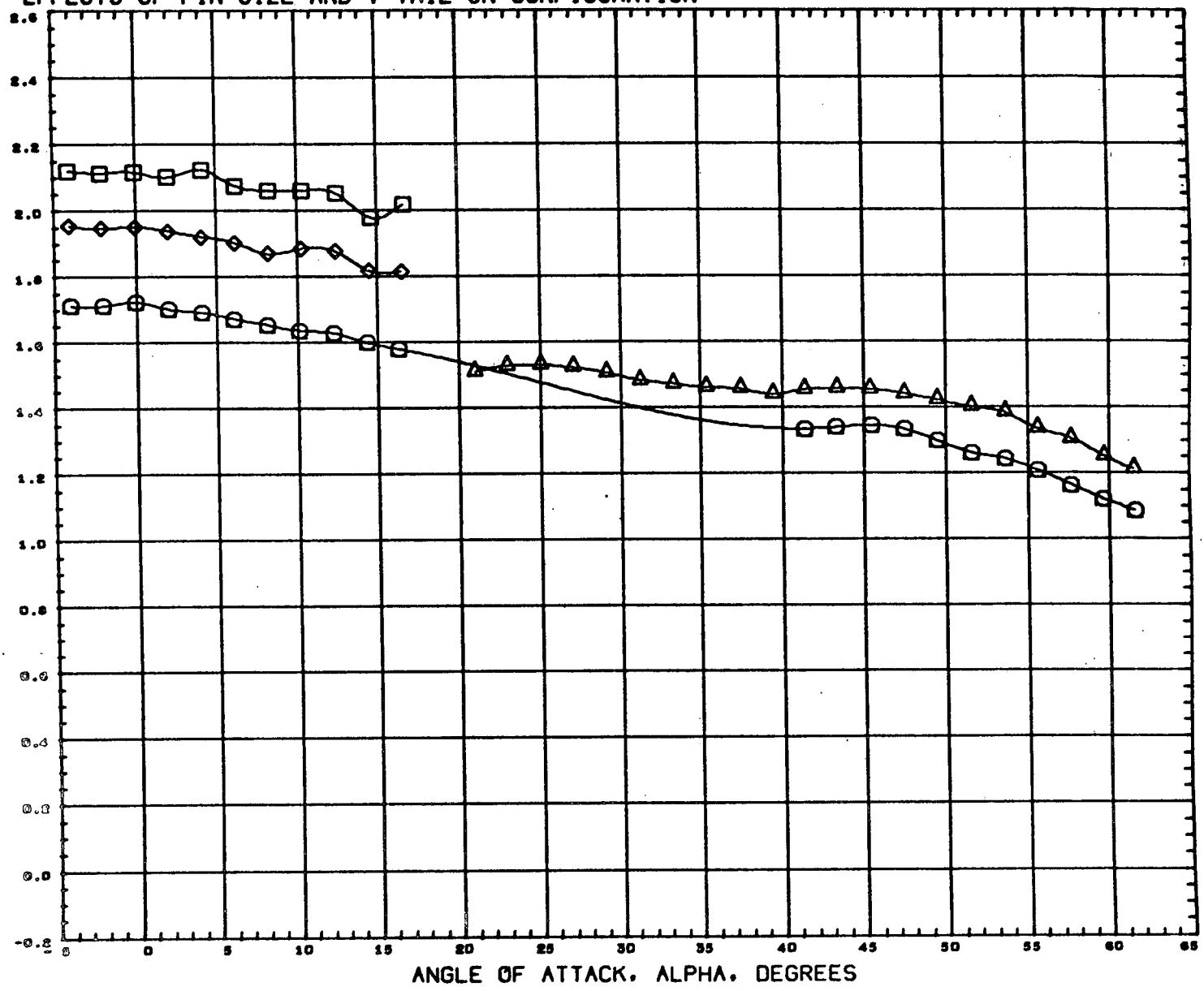


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50115)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

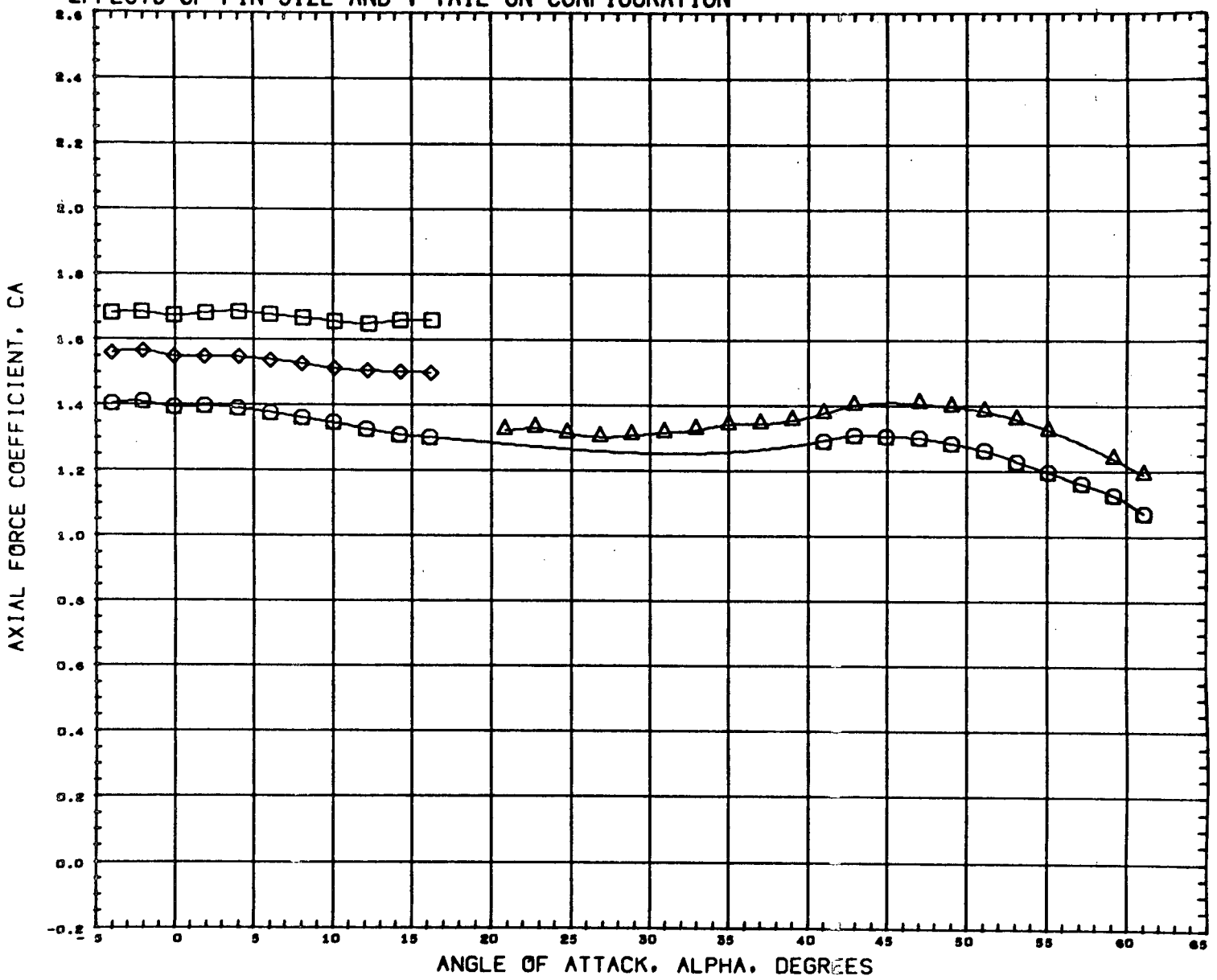


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)	MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.966

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

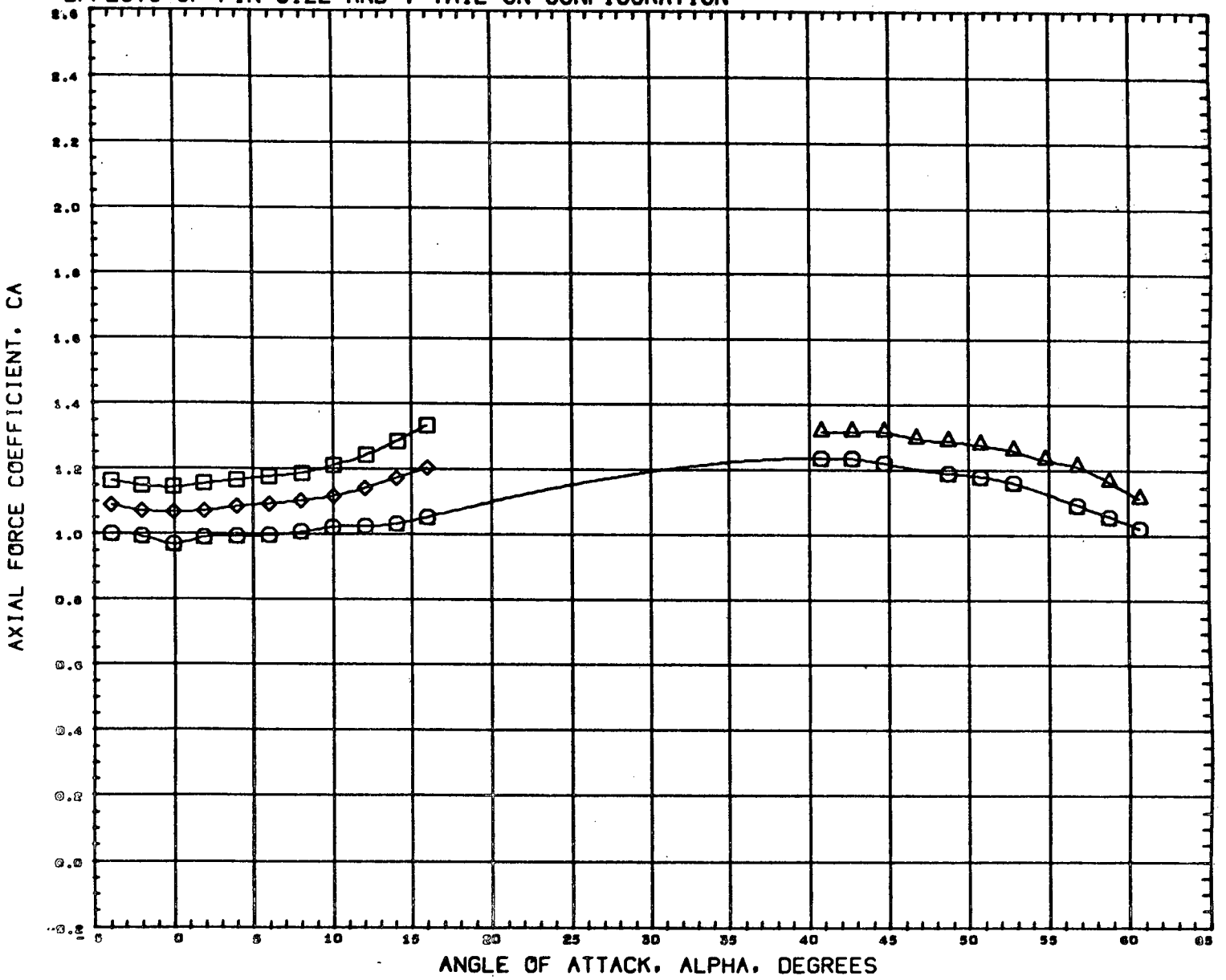


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHINOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50029)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

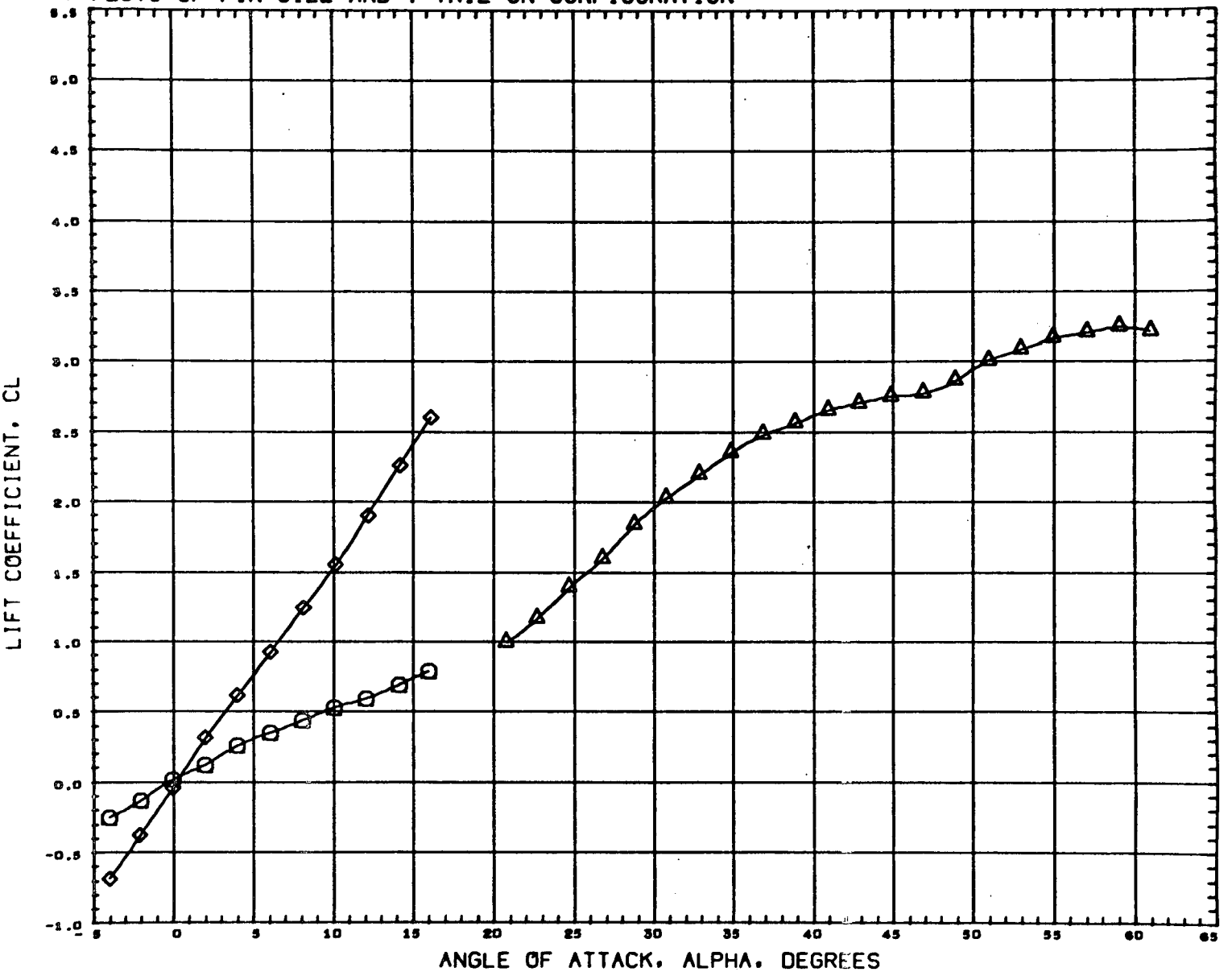


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

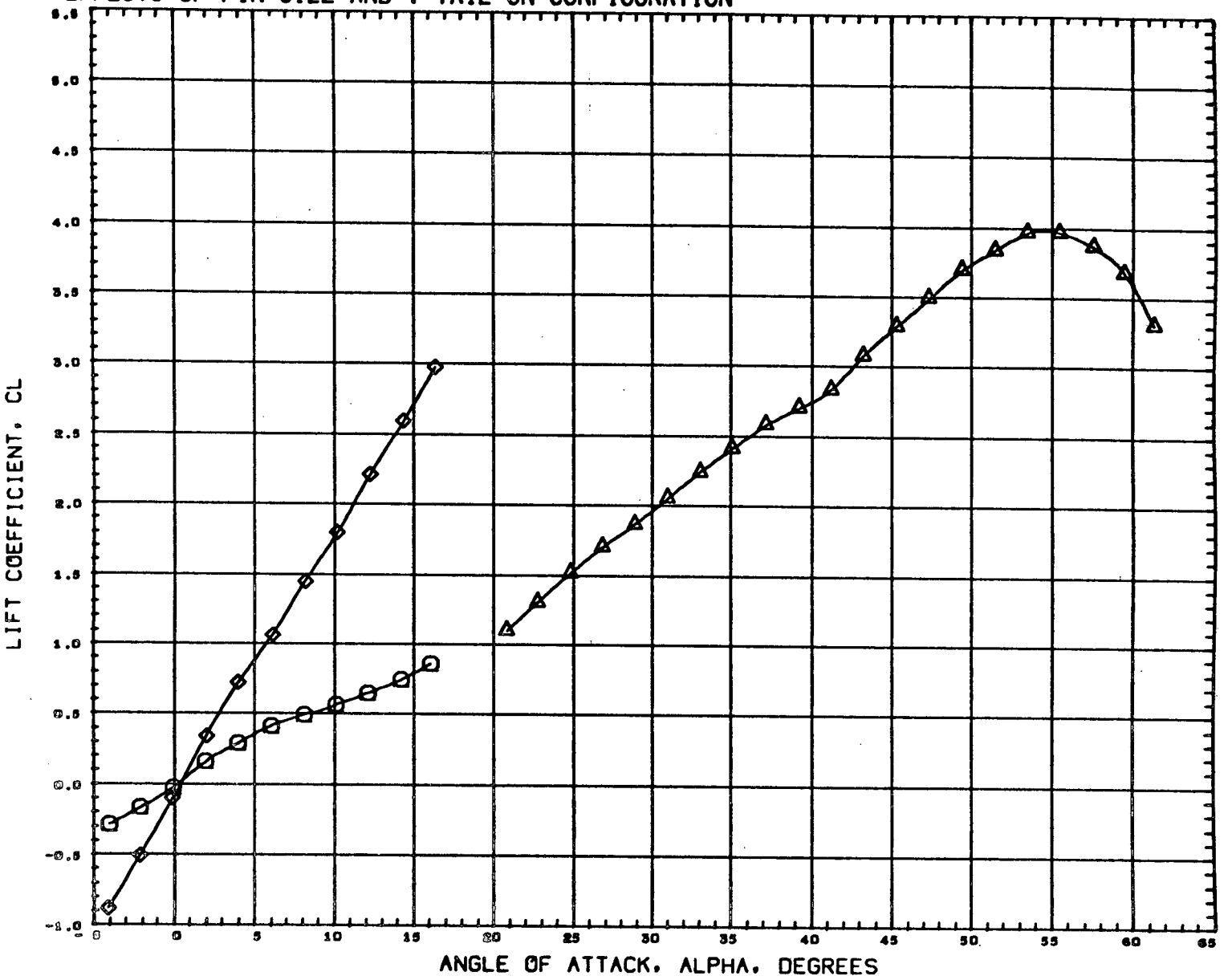


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R8	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

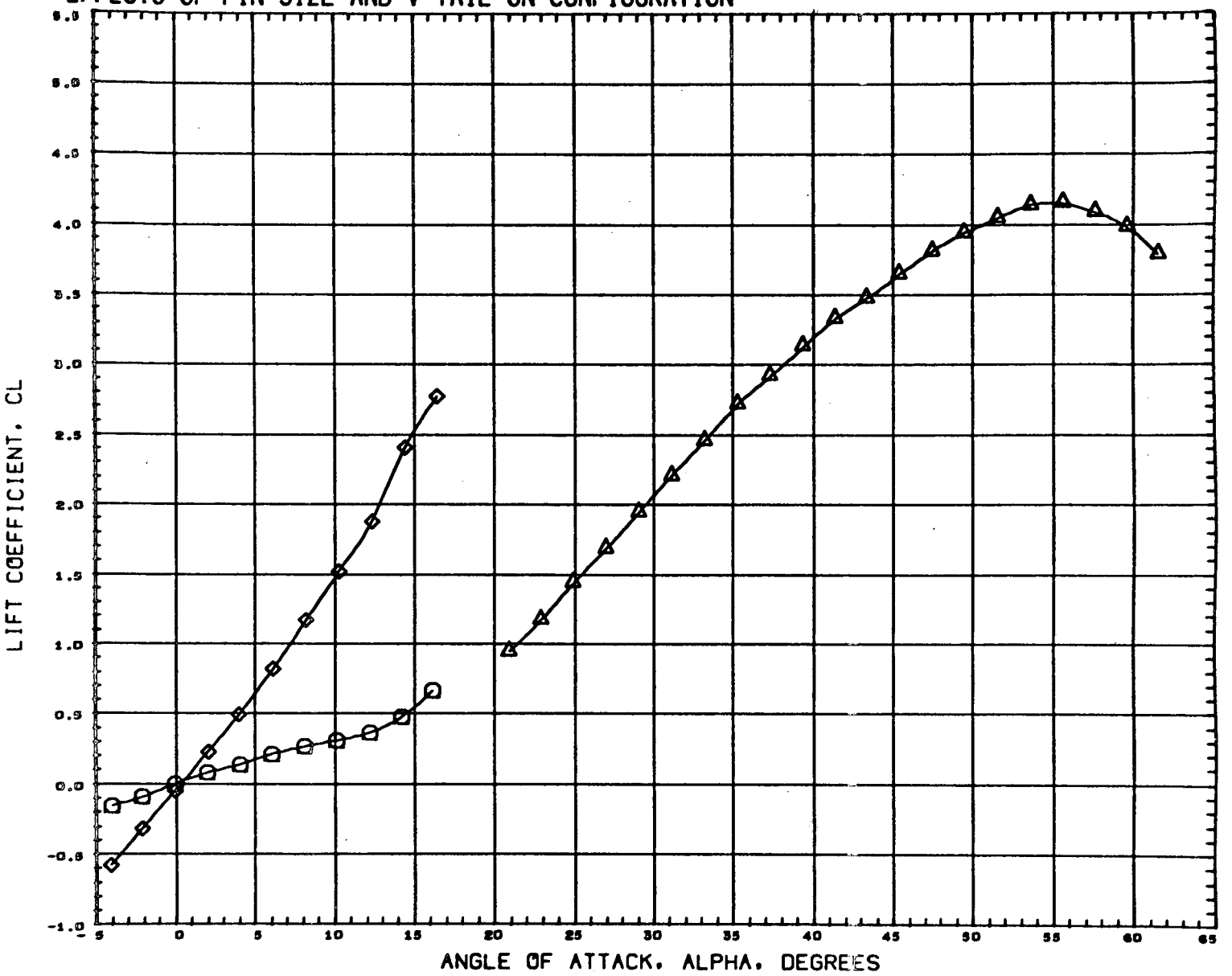


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(050110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(050020)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(050010)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(050050)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(05016Z)	▽	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

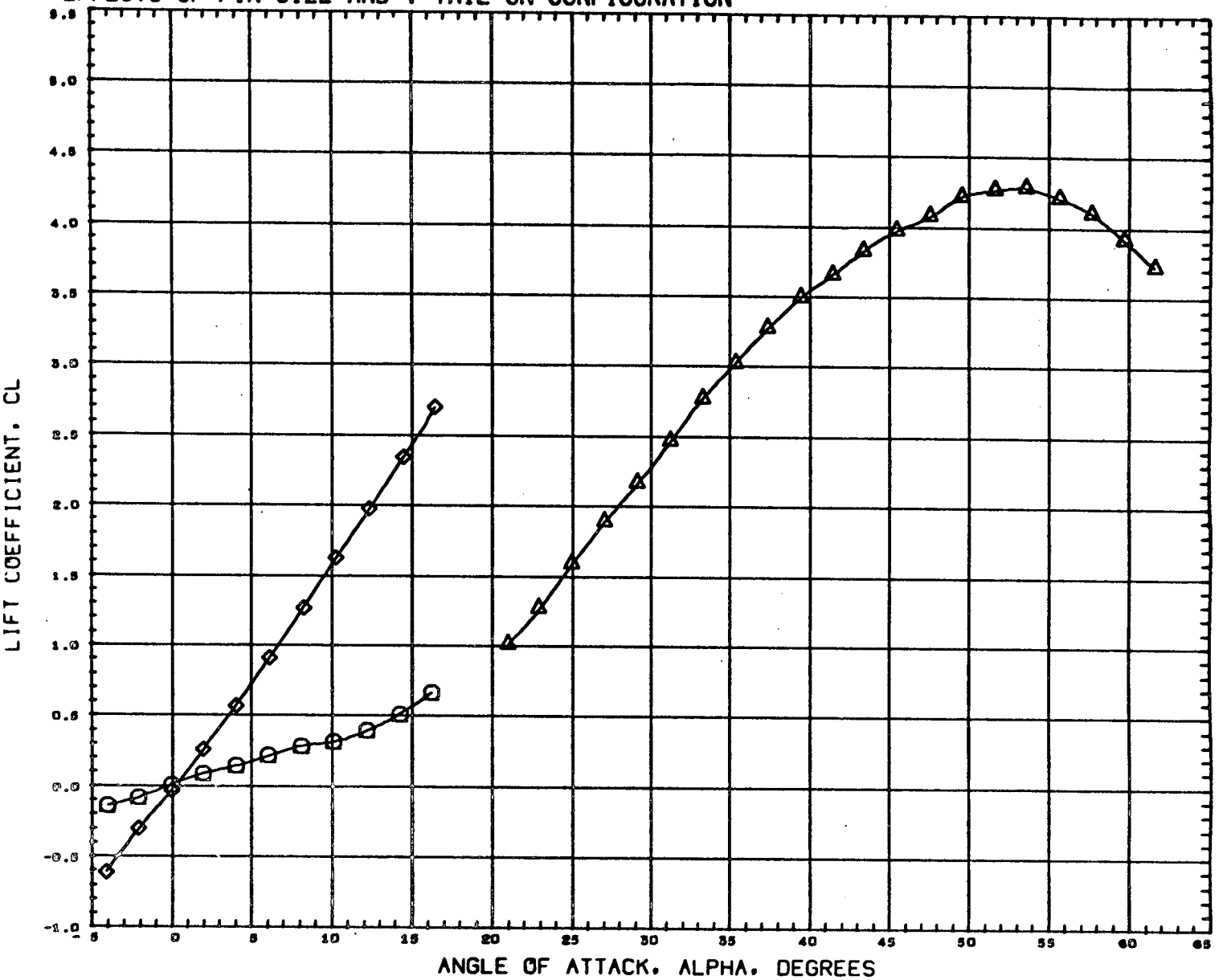


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50115)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

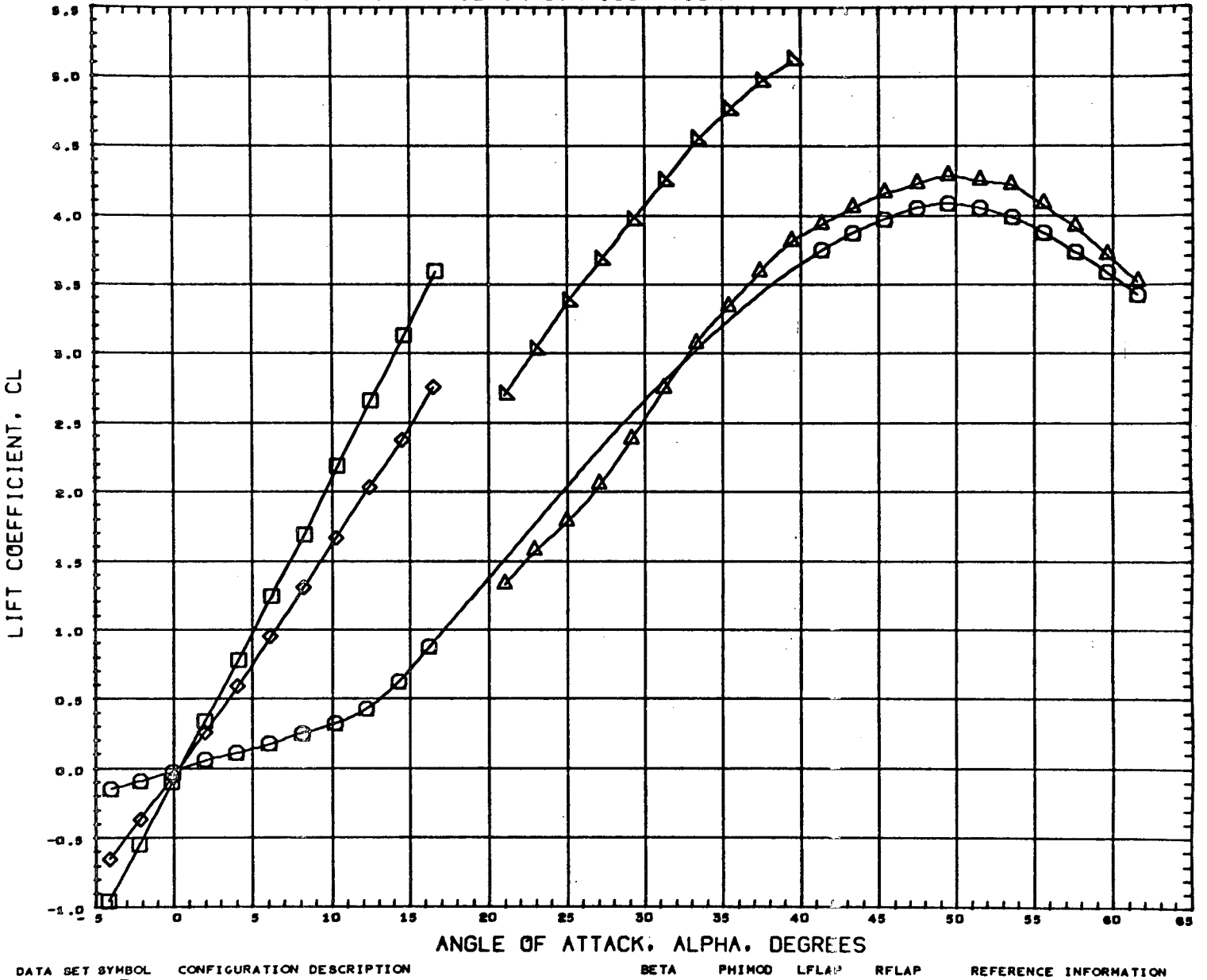


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50029)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50162)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

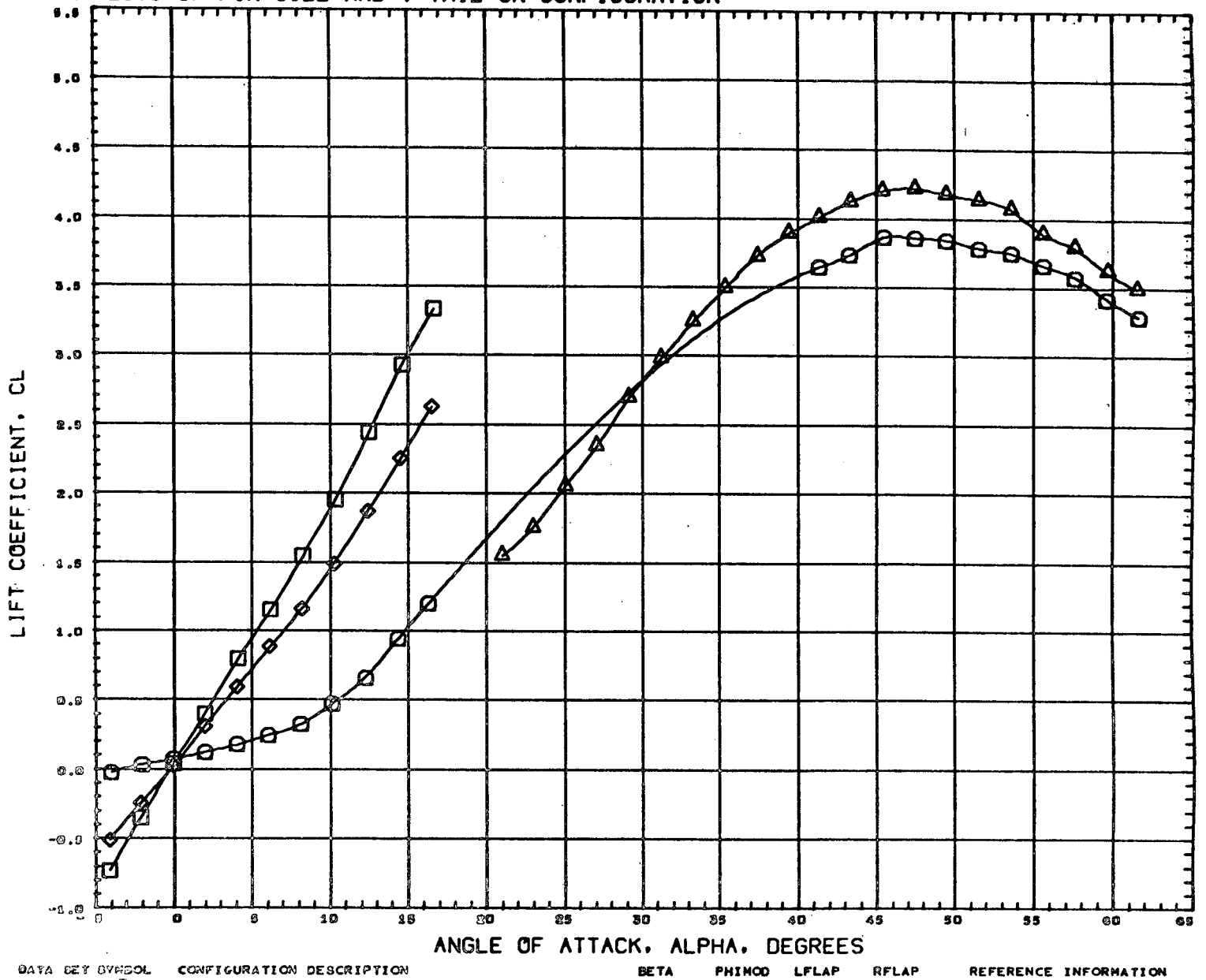


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

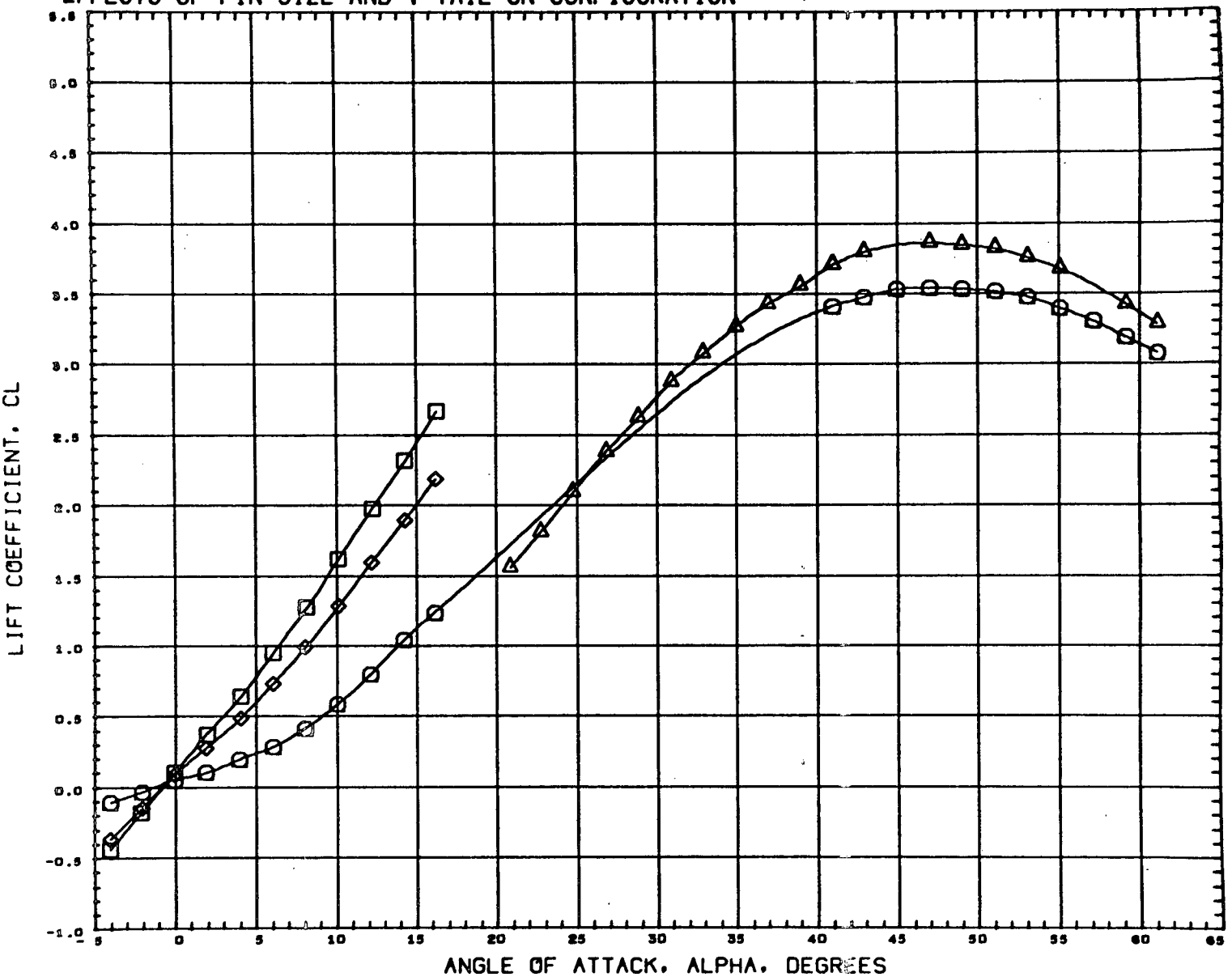


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50113)	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50029)	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)	MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

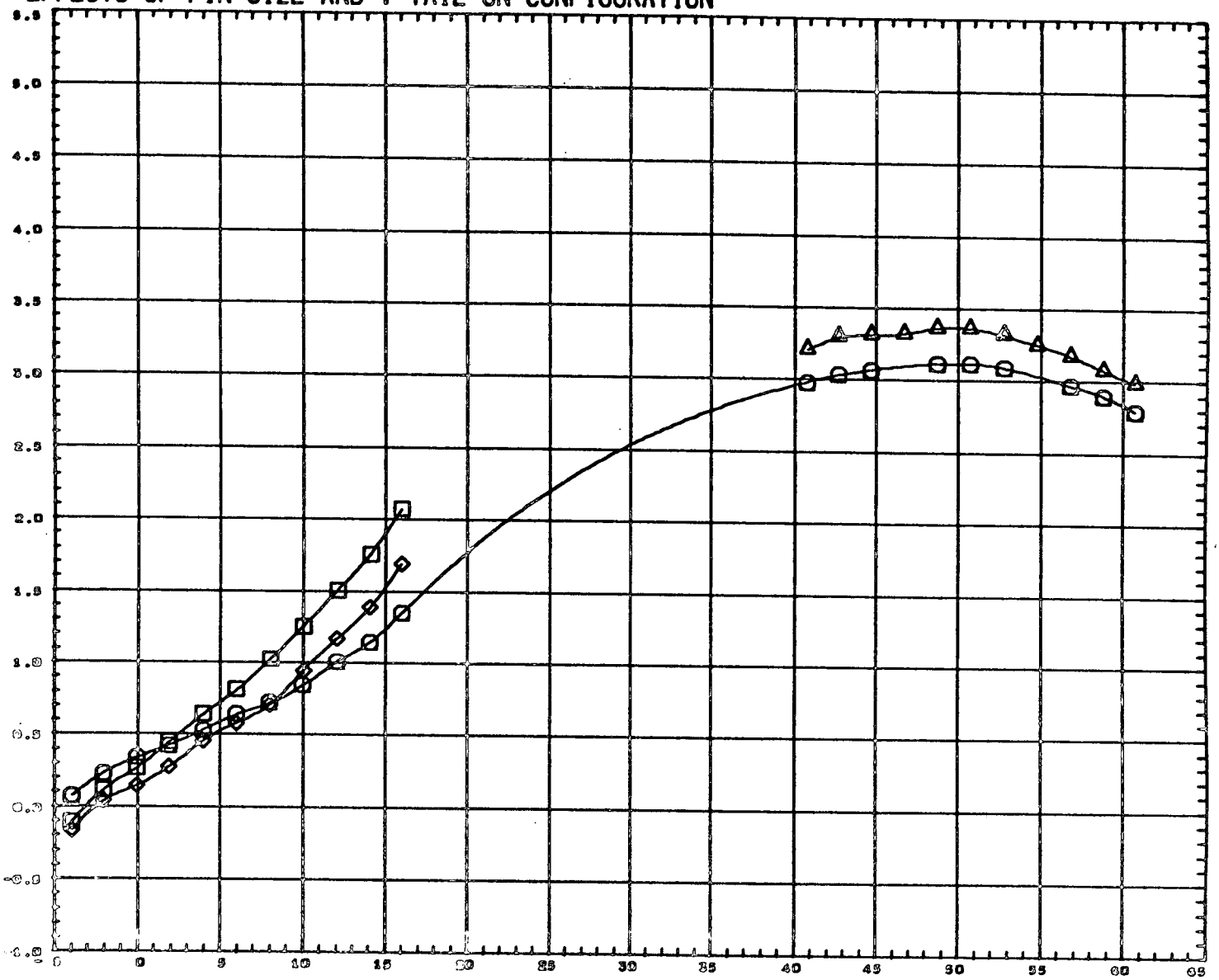


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D5011S)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D5002S)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D5001O)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5005O)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION



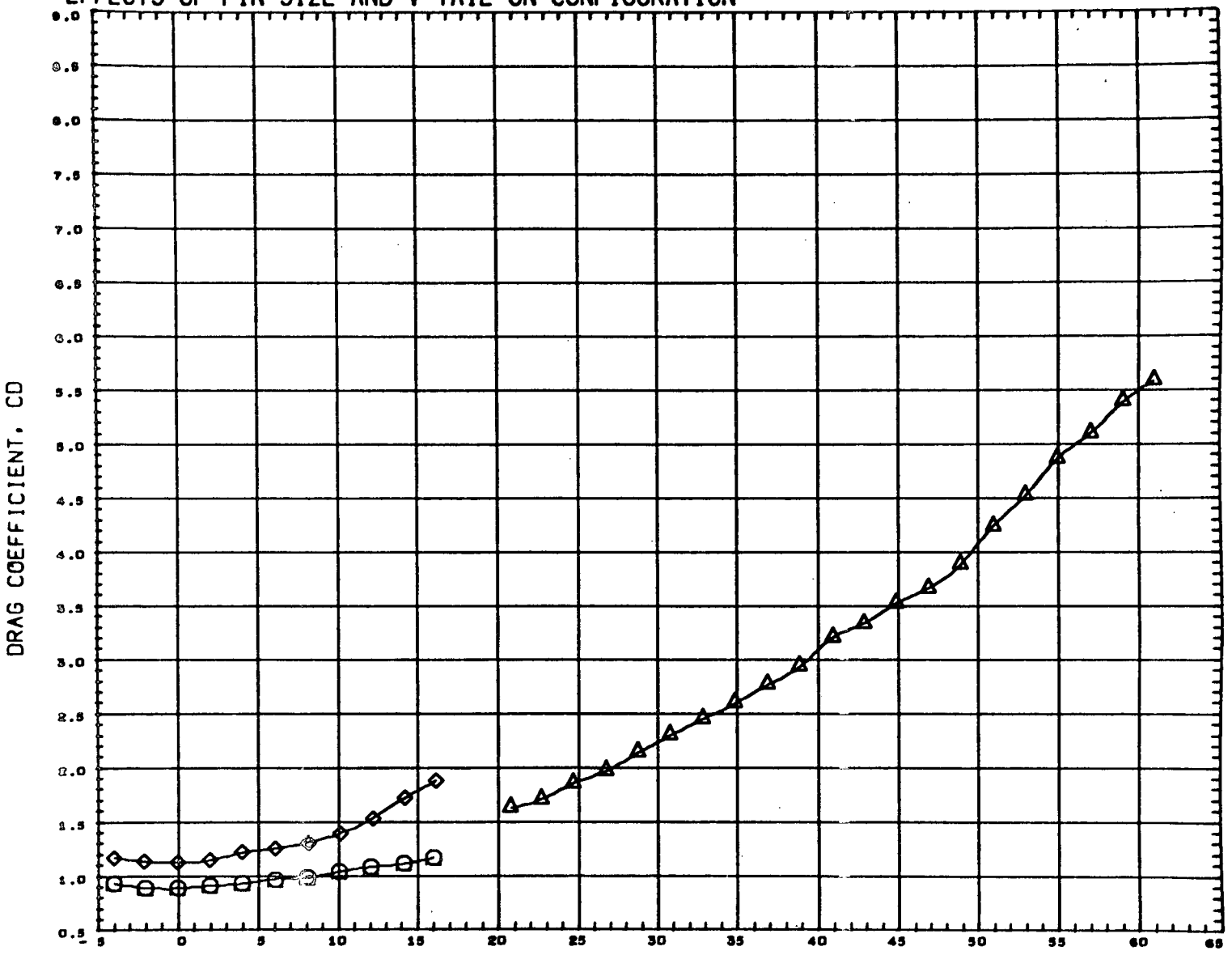
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(050010)		MSFC 512 GD/C .003366 BOOSTER	034R6
(050020)		MSFC 512 GD/C .003366 BOOSTER	034R6T12
(050010)		MSFC 512 GD/C .003366 BOOSTER	034R6T10
(050050)		MSFC 512 GD/C .003366 BOOSTER	034R6T13
(05016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS	

MACH 4.959

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	45.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.0350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

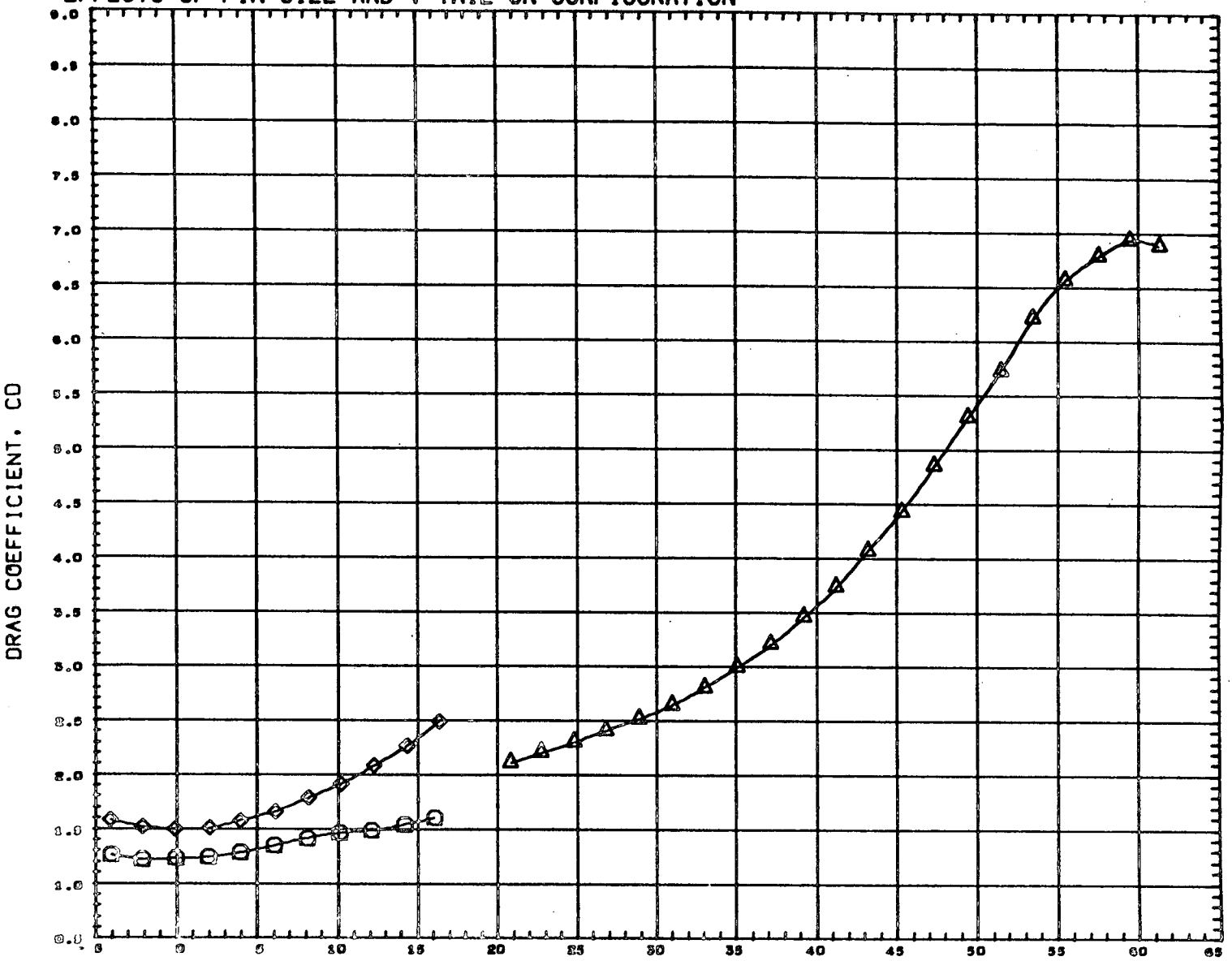


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50026)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

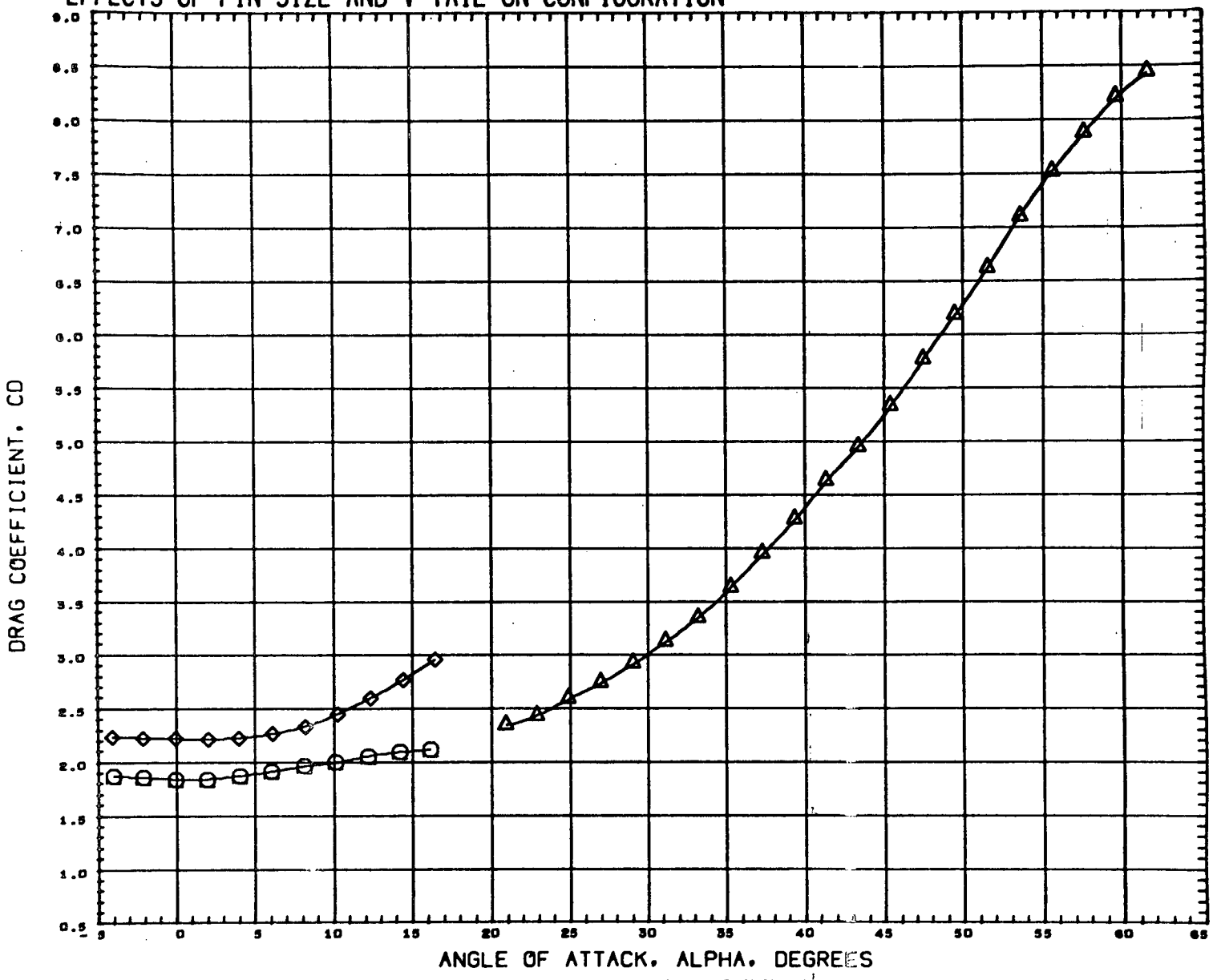


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50189)		M8FC 912 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50020)		M8FC 912 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		M8FC 912 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50090)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50162)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	3.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

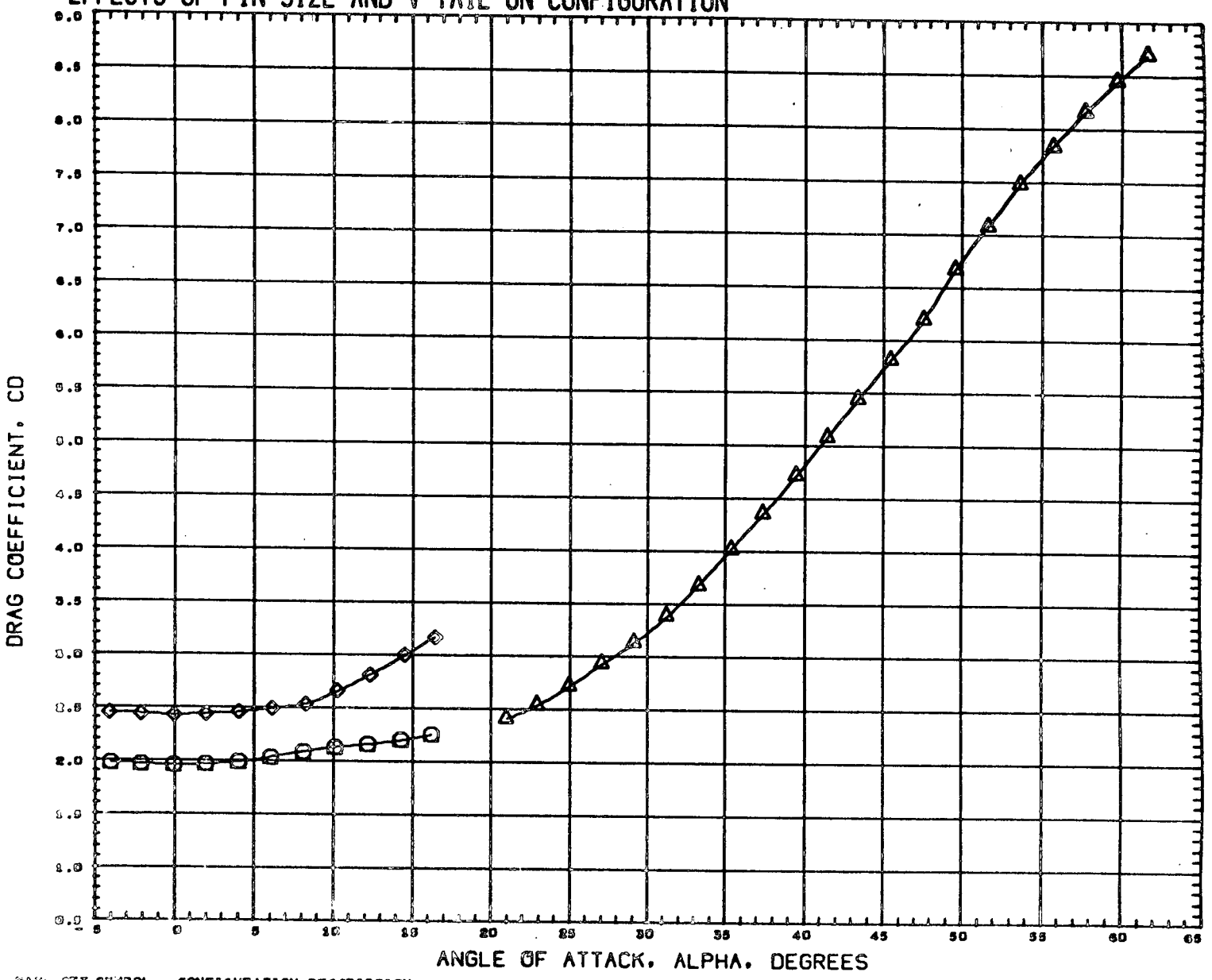


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)	▽	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

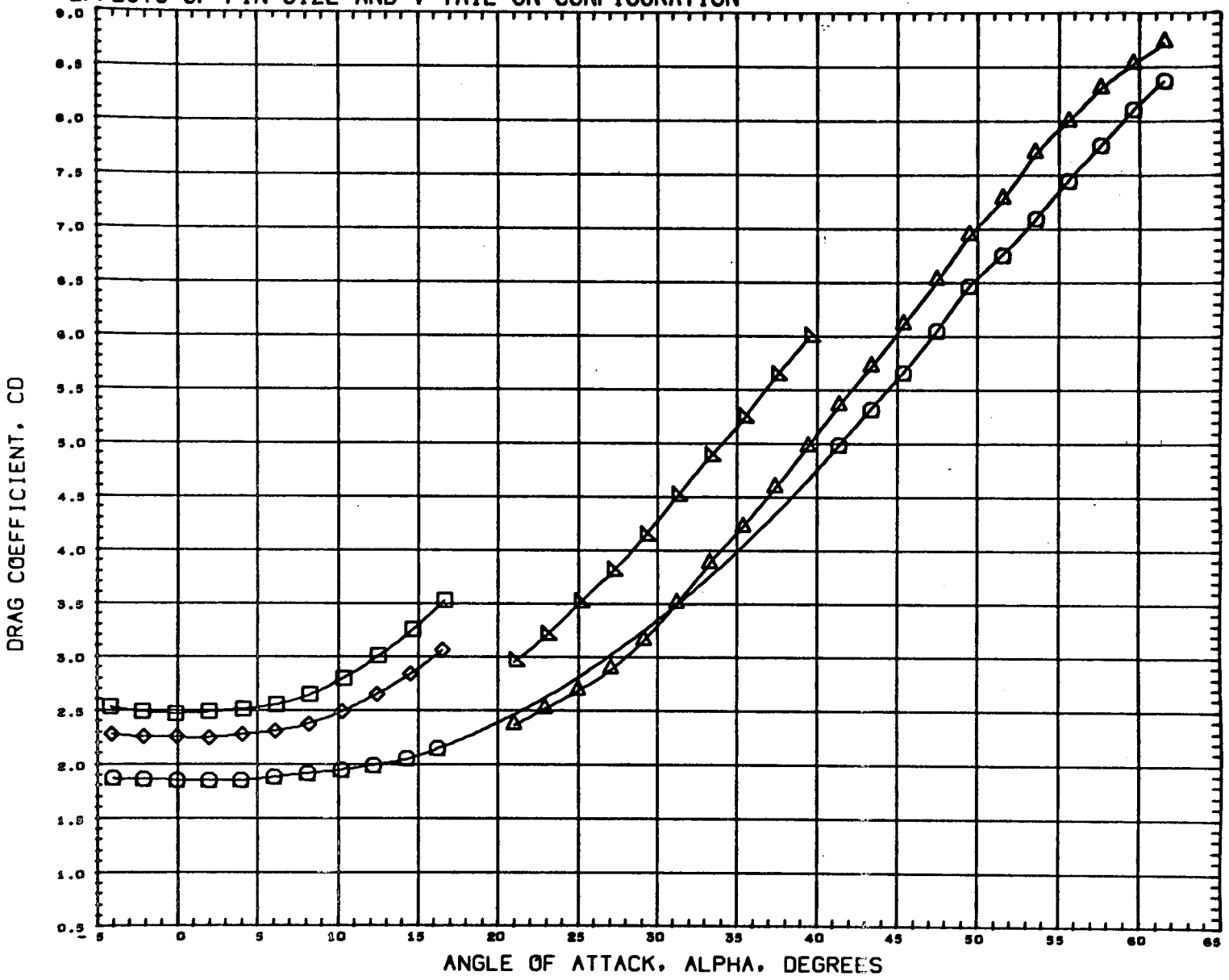


DATA CZY SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50120)	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50080)	MSFC 512 GD/C .003966 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50162)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.0350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

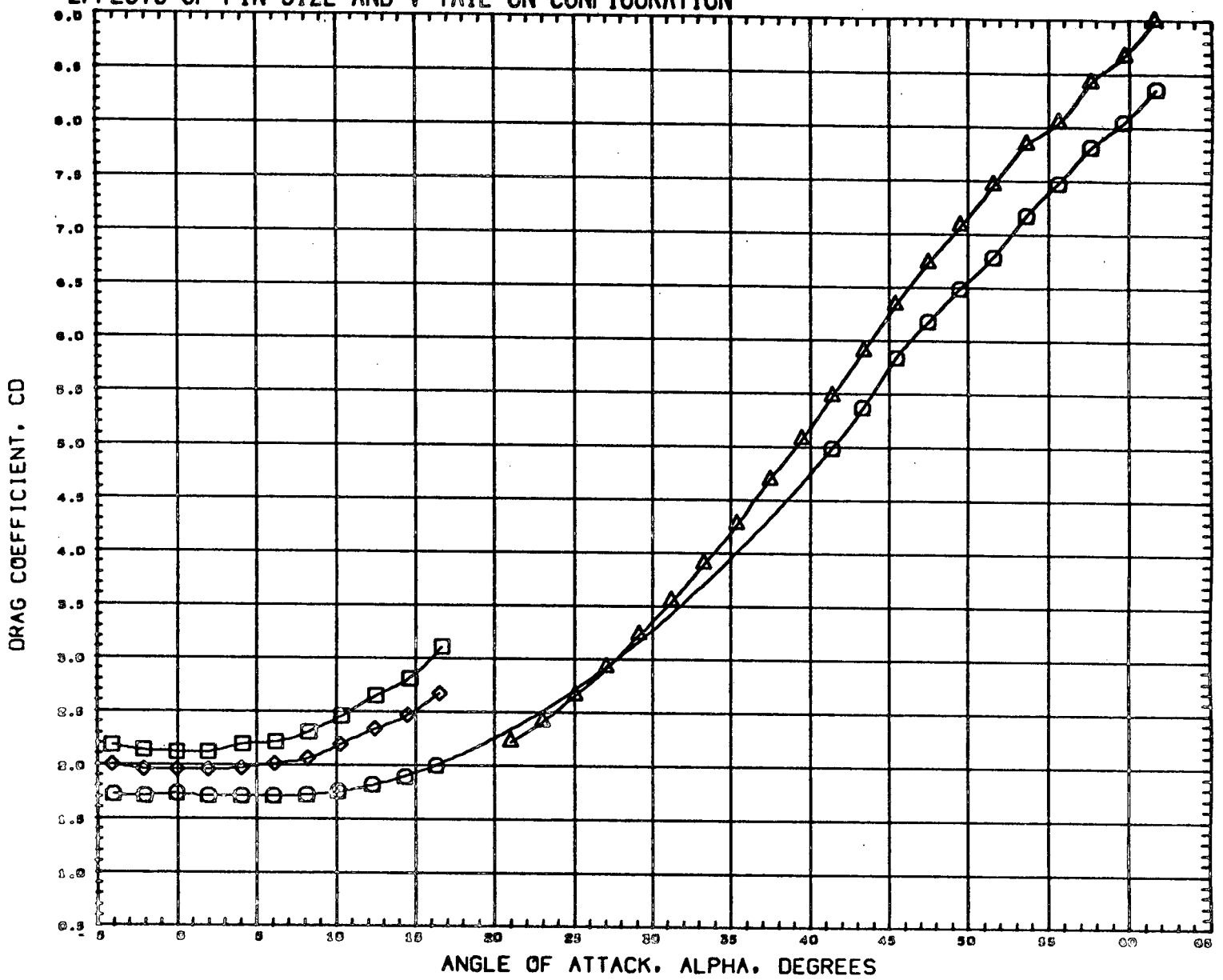


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

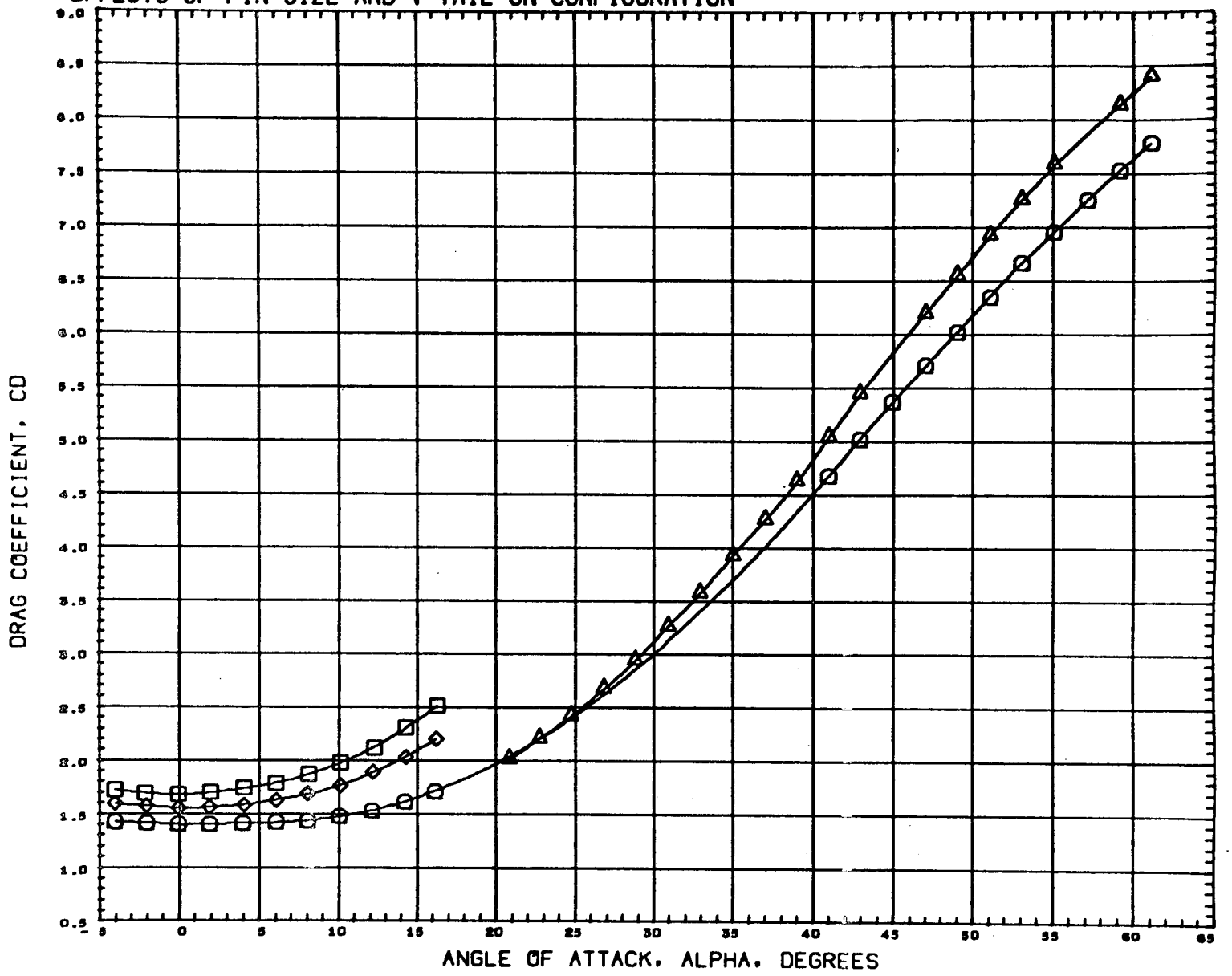


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)		M07C 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0020)		M07C 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(DS0010)		M07C 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0090)		M8FC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(DS016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

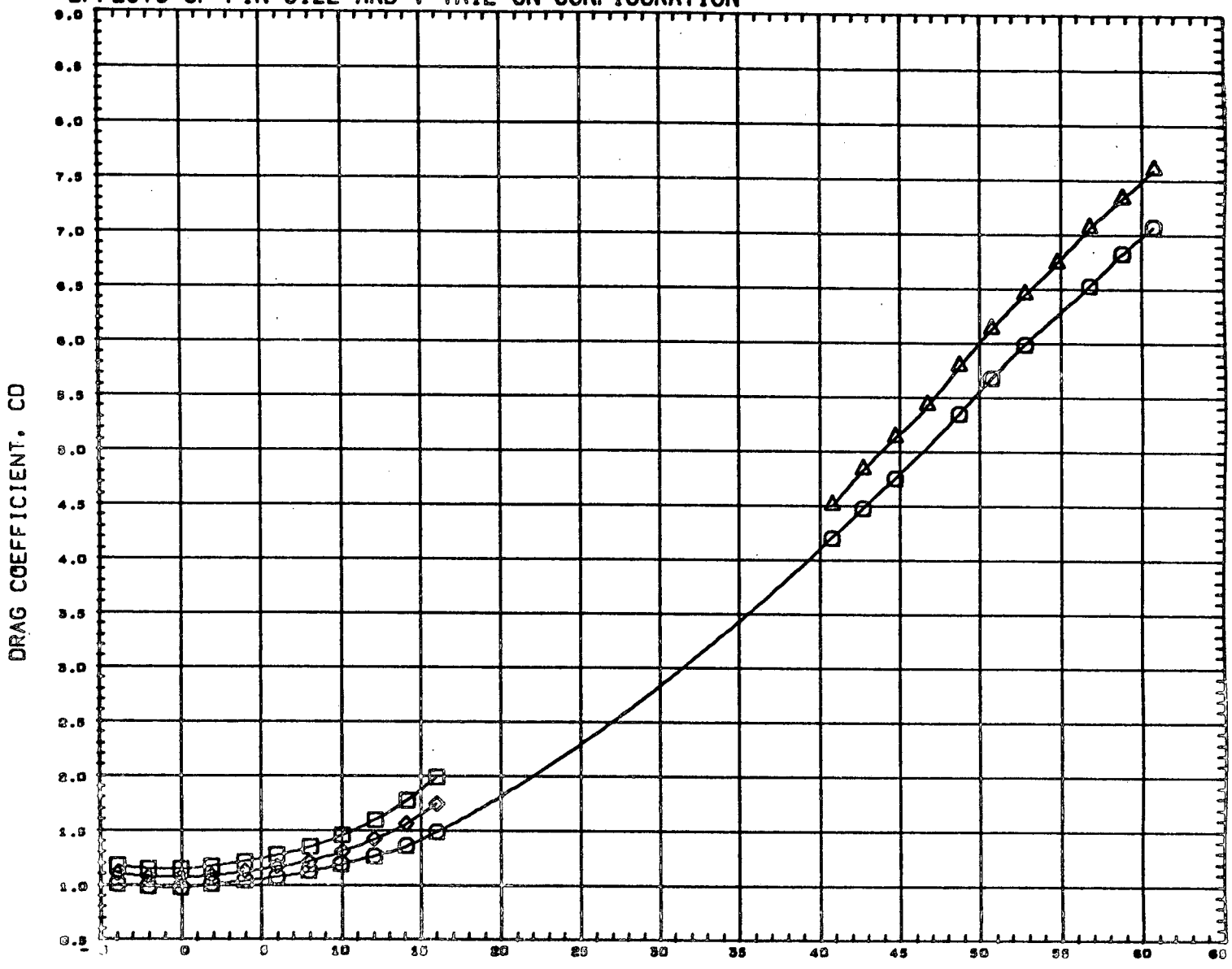


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50025)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

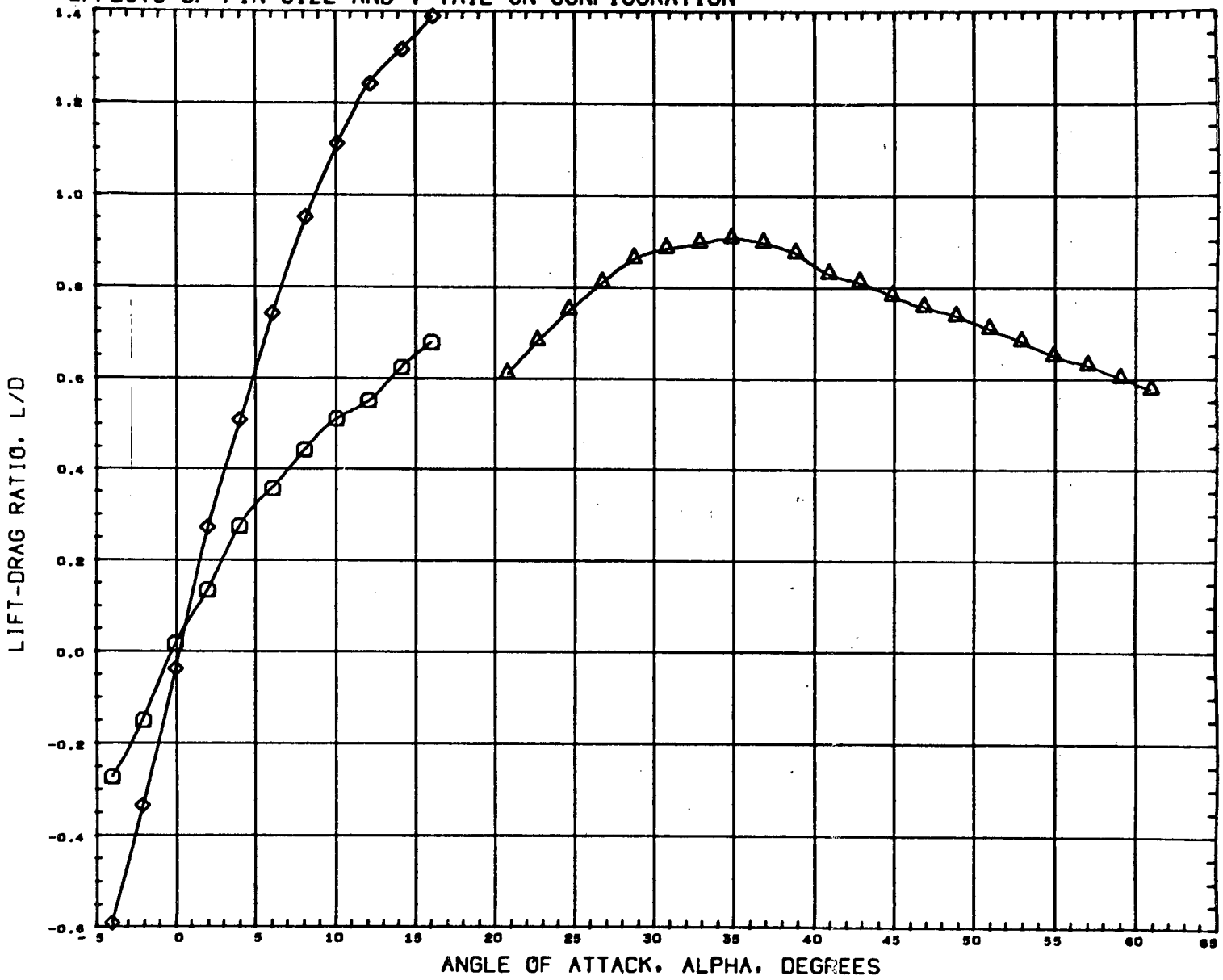


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50011)	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50013)	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50035)	MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D50162)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

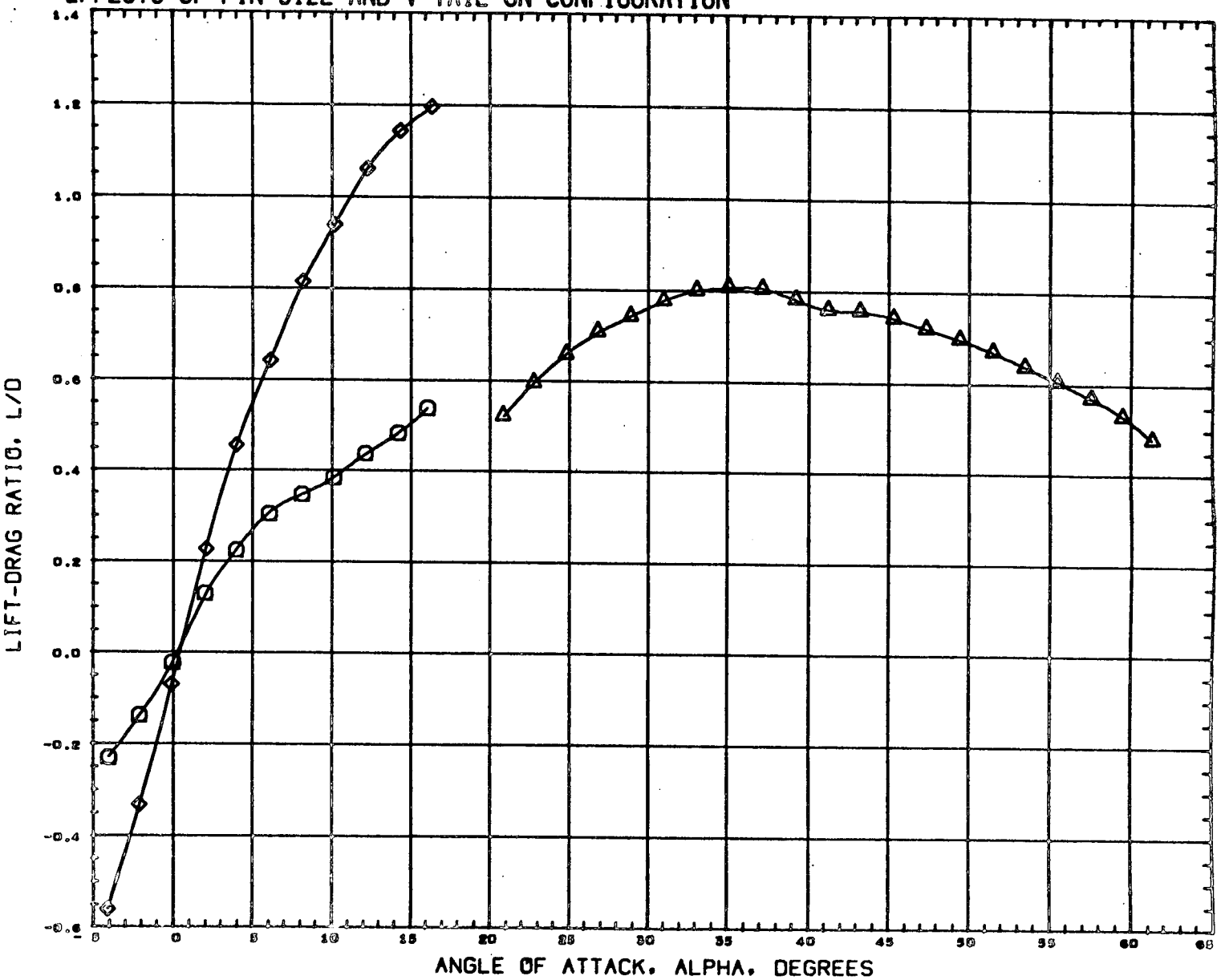


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

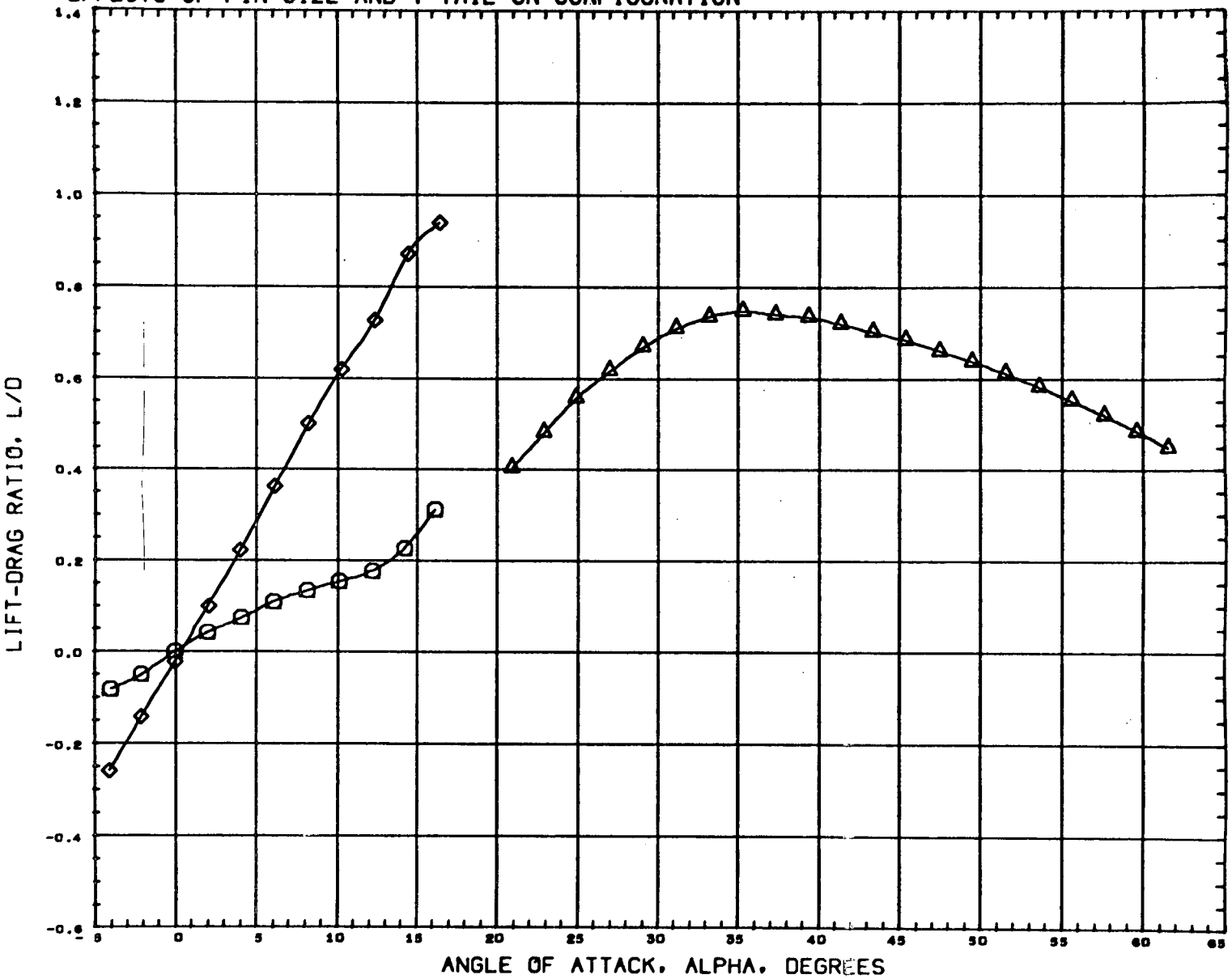


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50018)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50090)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50162)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9390	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

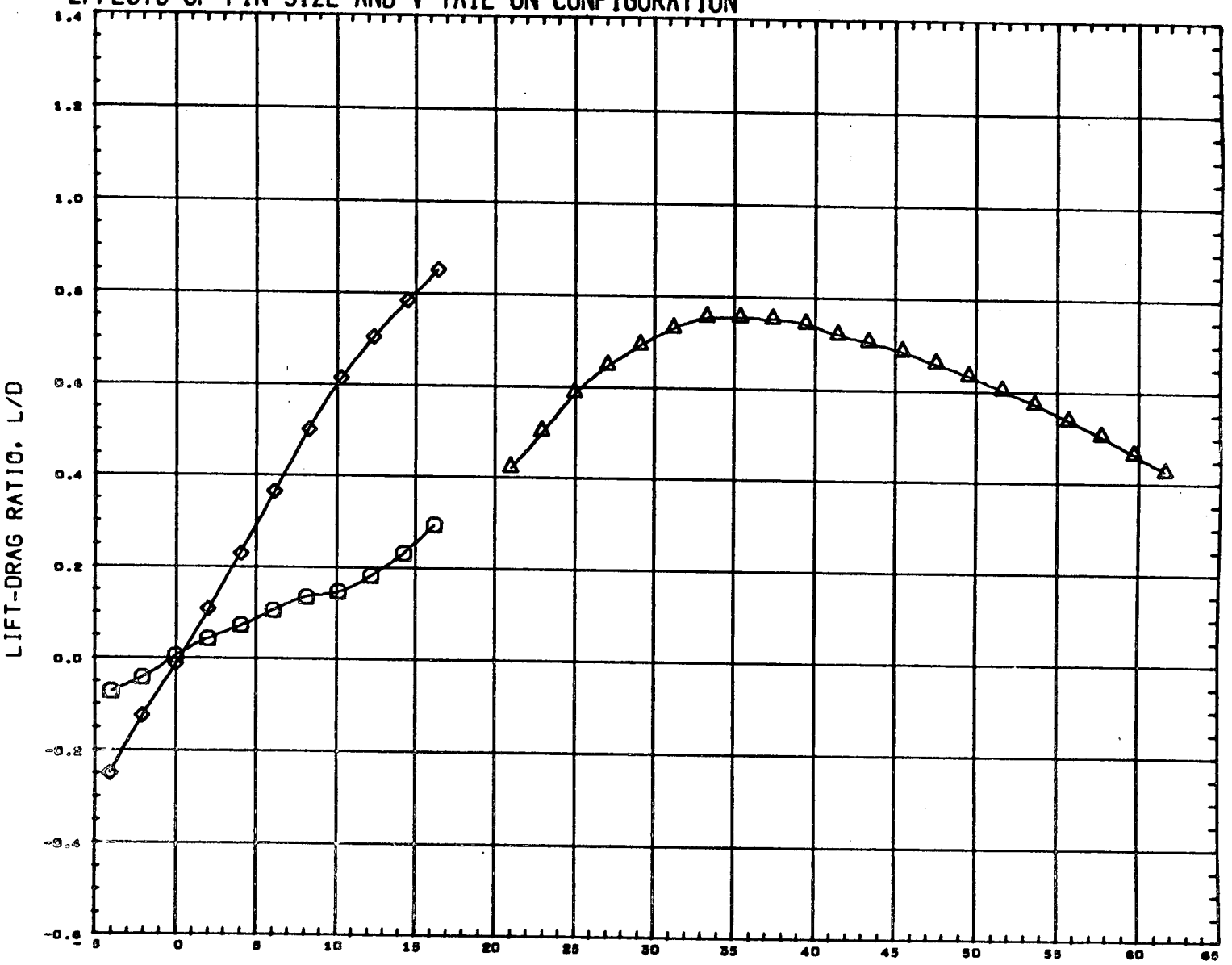


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION



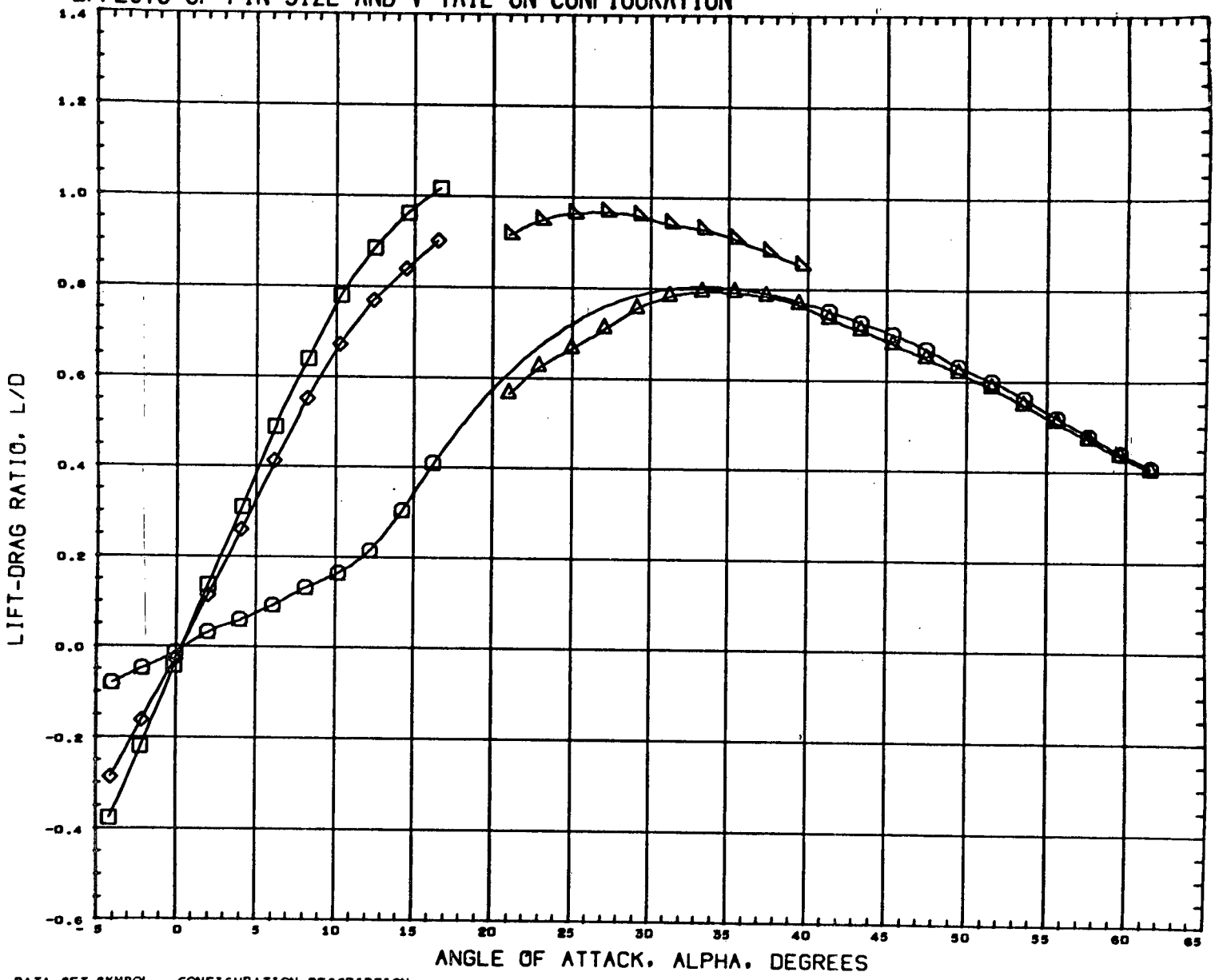
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6
(D50020)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T12
(D50010)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10
(D50050)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	
(D5016Z)	▽	DATA NOT AVAILABLE FOR ALL CONDITIONS	

MACH 1.201

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	45.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

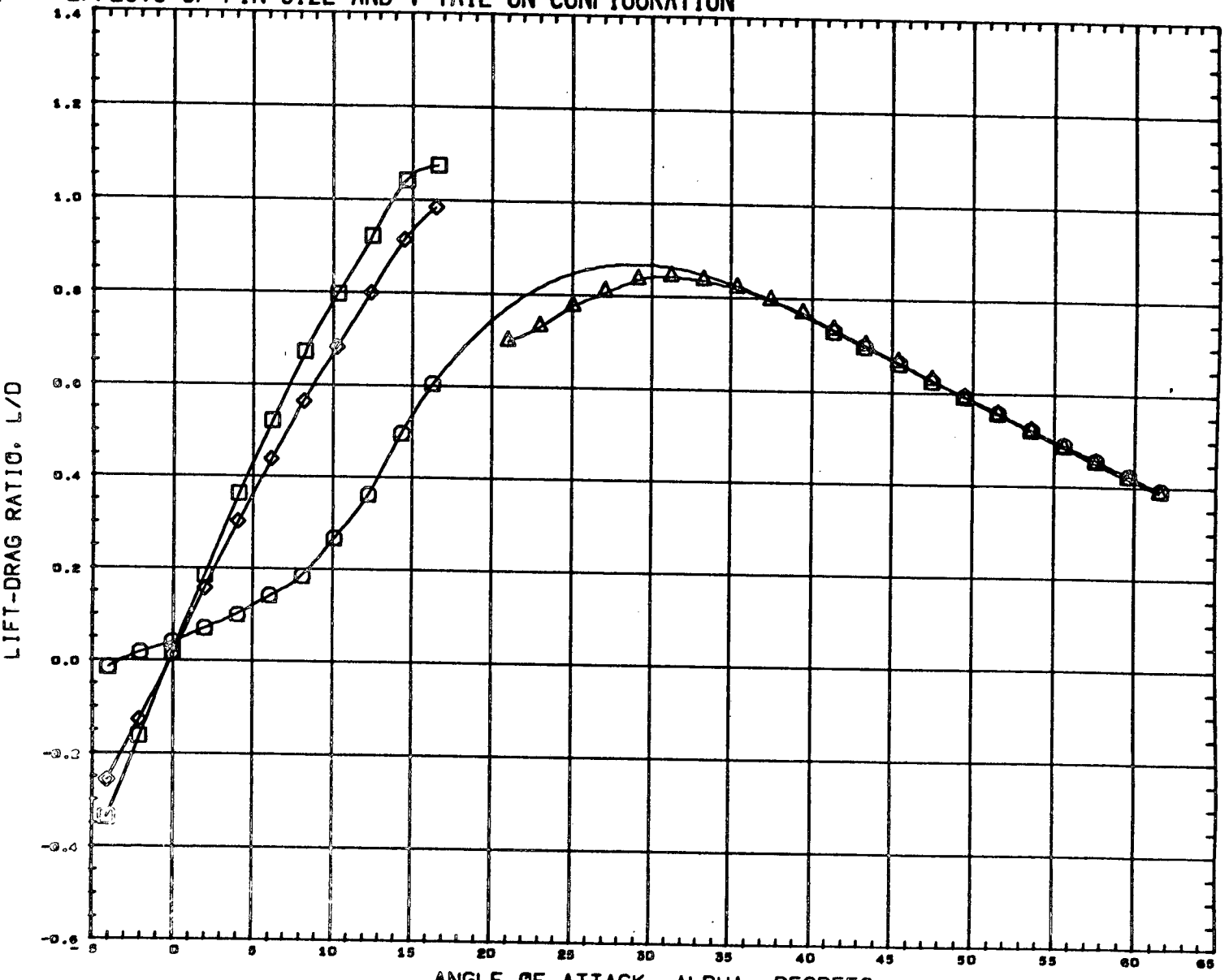


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION



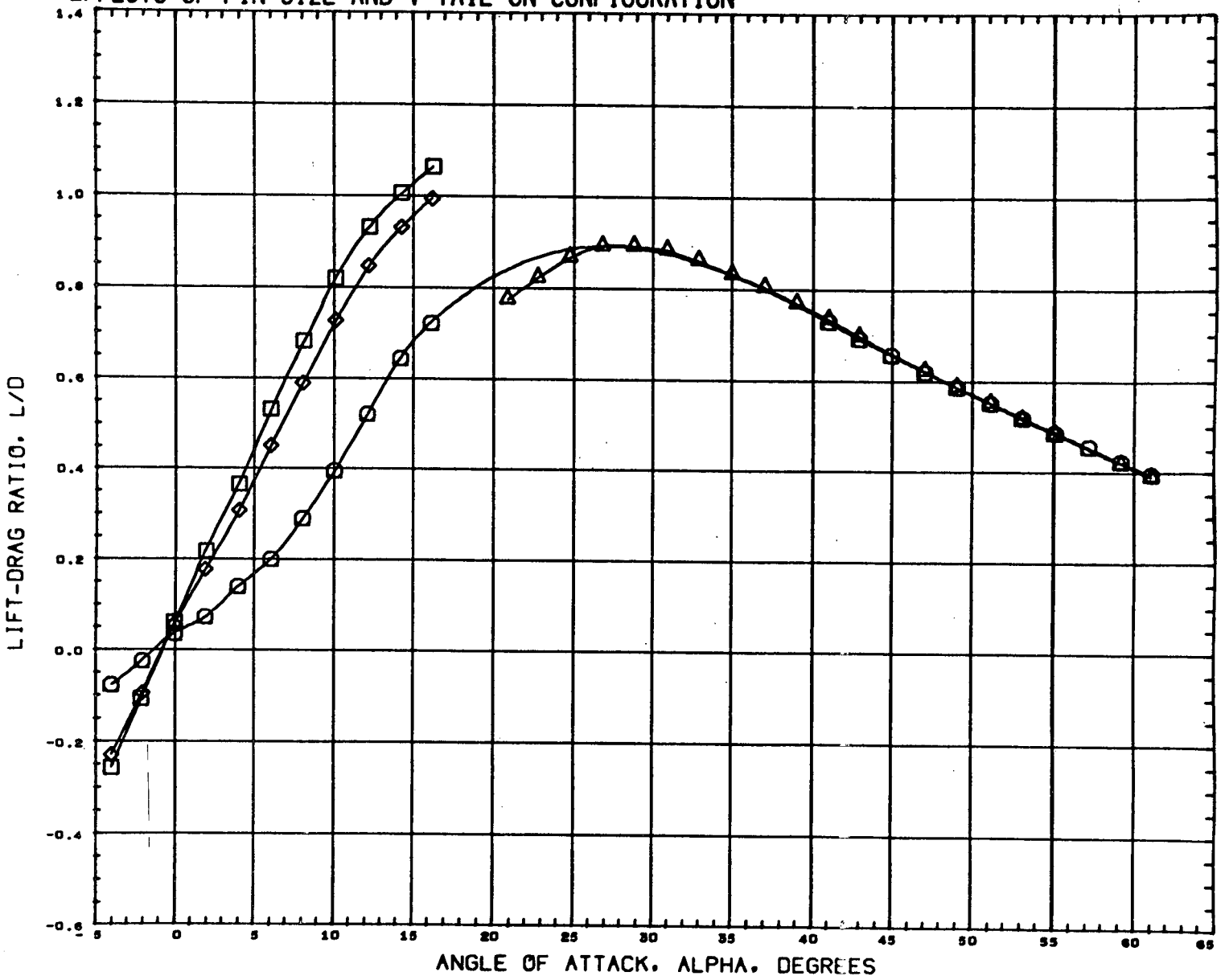
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(D50110)		M8FC 512 GD/C .003366 BOOSTER	B34R6
(D50020)		M8FC 512 GD/C .003366 BOOSTER	B34R6T12
(D50010)		M8FC 512 GD/C .003366 BOOSTER	B34R6T10
(D50050)		M8FC 512 GD/C .003366 BOOSTER	B34R6T13
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS	

MACH 1.966

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	45.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION



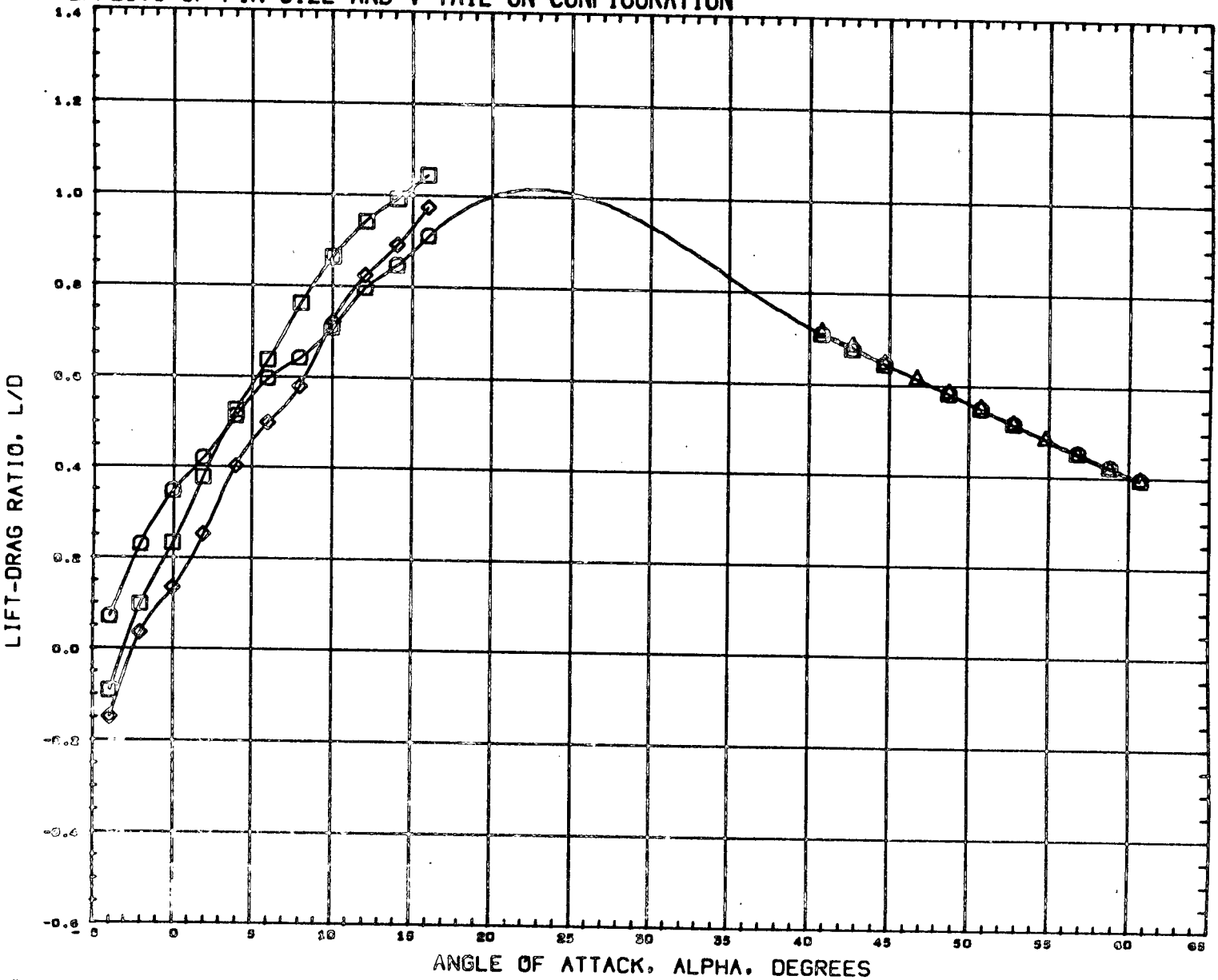
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(D5011S)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6
(D5002S)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T12
(D5001O)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10
(D5005O)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T13
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS	

MACH 2.740

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	45.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION



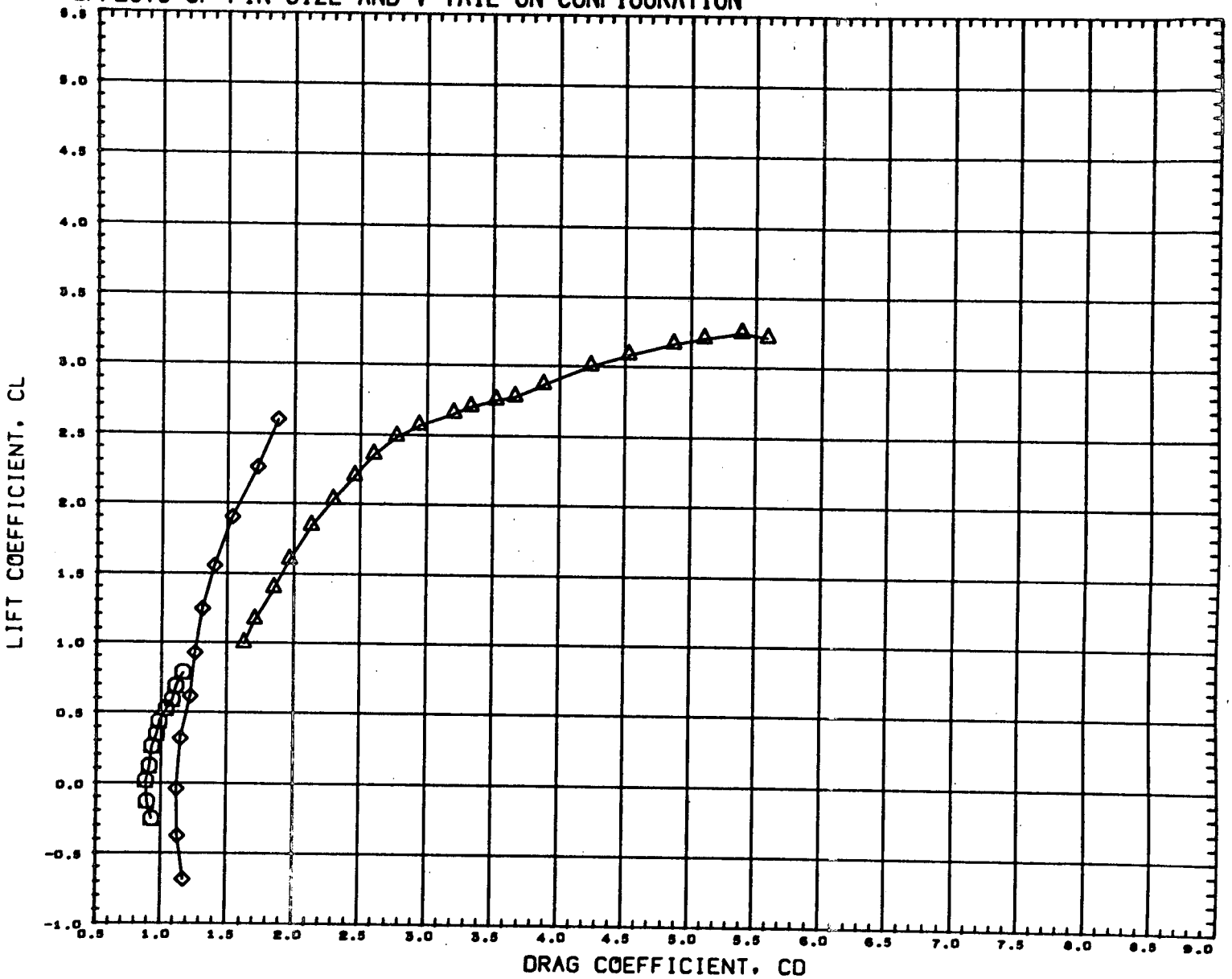
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(D5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6
(D5002C)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12
(D5001C)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10
(D5005C)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS	

MACH 4.959

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	45.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION



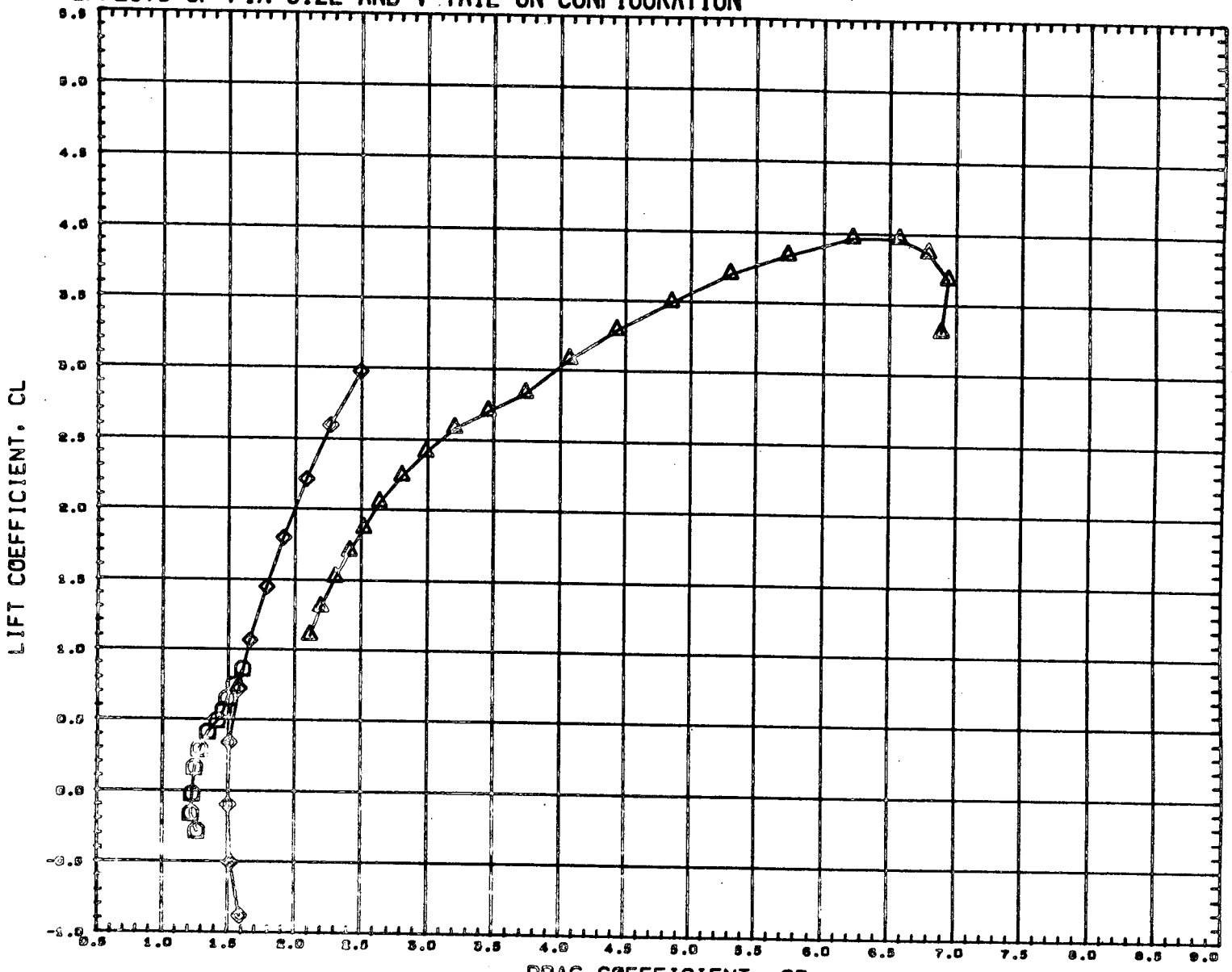
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(D50118)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6
(D50028)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T12
(D50010)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10
(D50050)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	
(D5016Z)	▽	DATA NOT AVAILABLE FOR ALL CONDITIONS	

MACH 0.603

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	45.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION



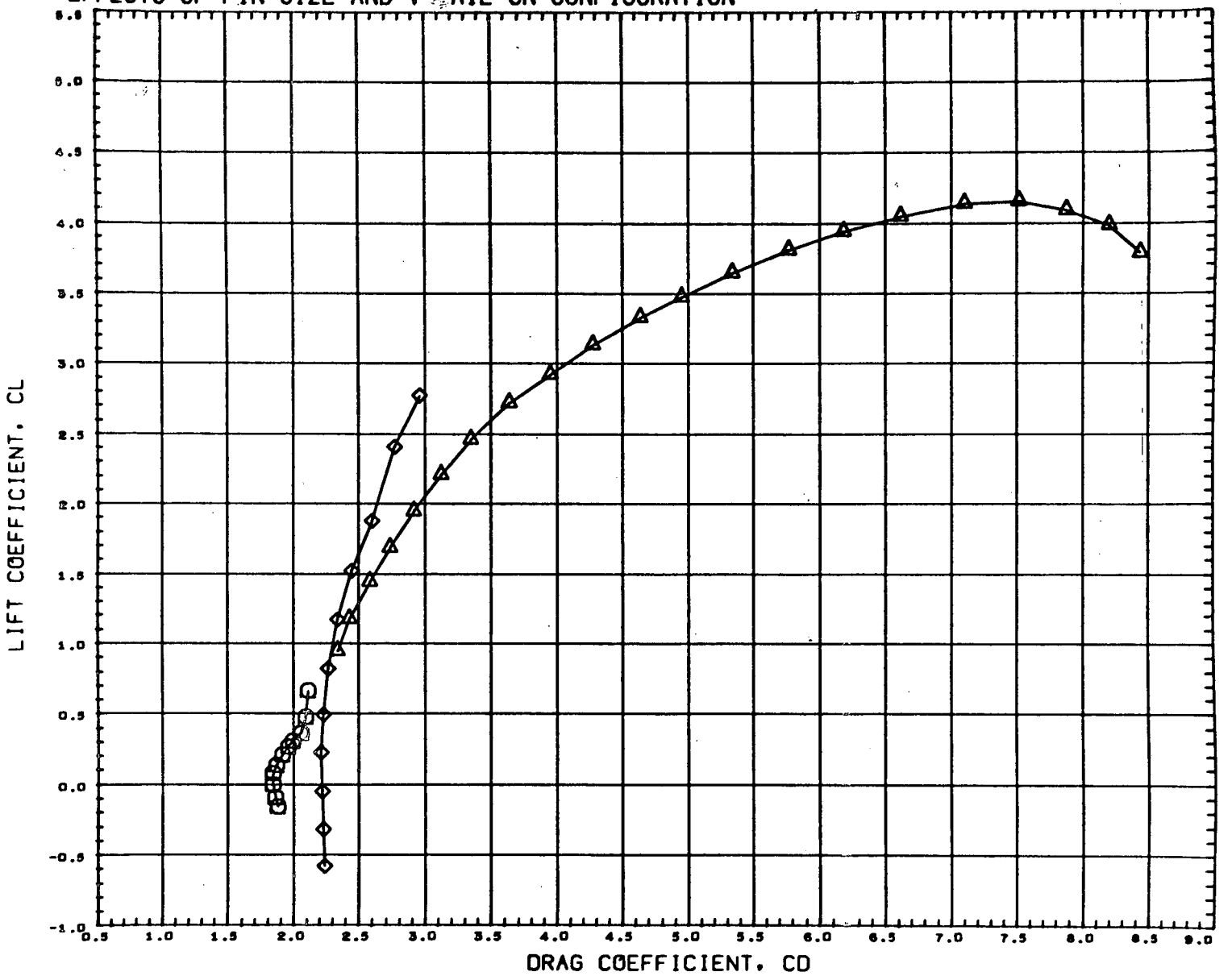
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(DS0110)		M8FC 512 GD/C .009366 BOOSTER	B34R6
(DS0080)		M8FC 512 GD/C .009366 BOOSTER	B34R6T12
(DS0010)		M8FC 512 GD/C .009366 BOOSTER	B34R6T10
(DS005D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	
(DS016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS	

MACH 0.900

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	45.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000
0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

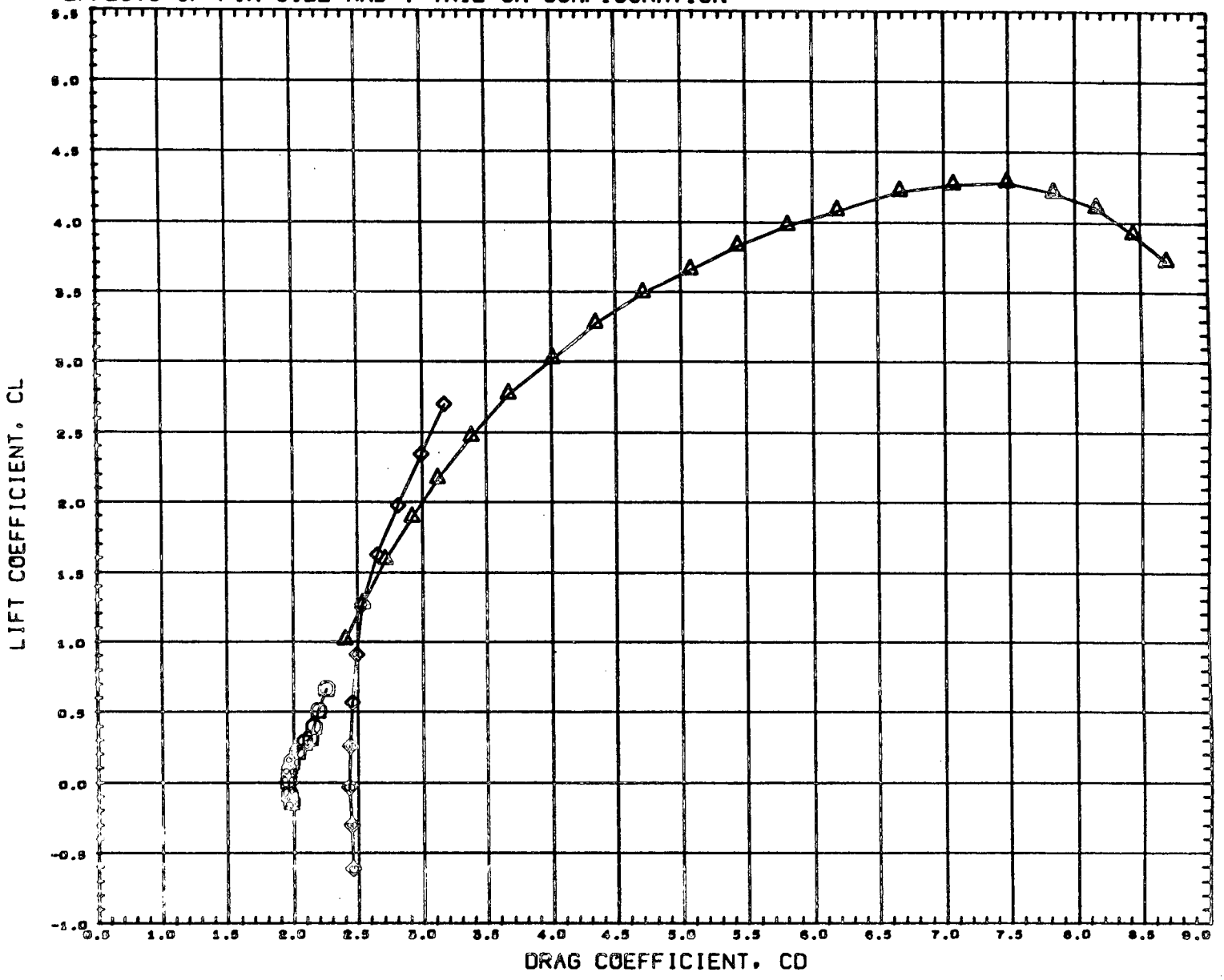


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D5011S)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D5002S)	⊠	MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D5001O)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5005O)	⊡	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)	⊿	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

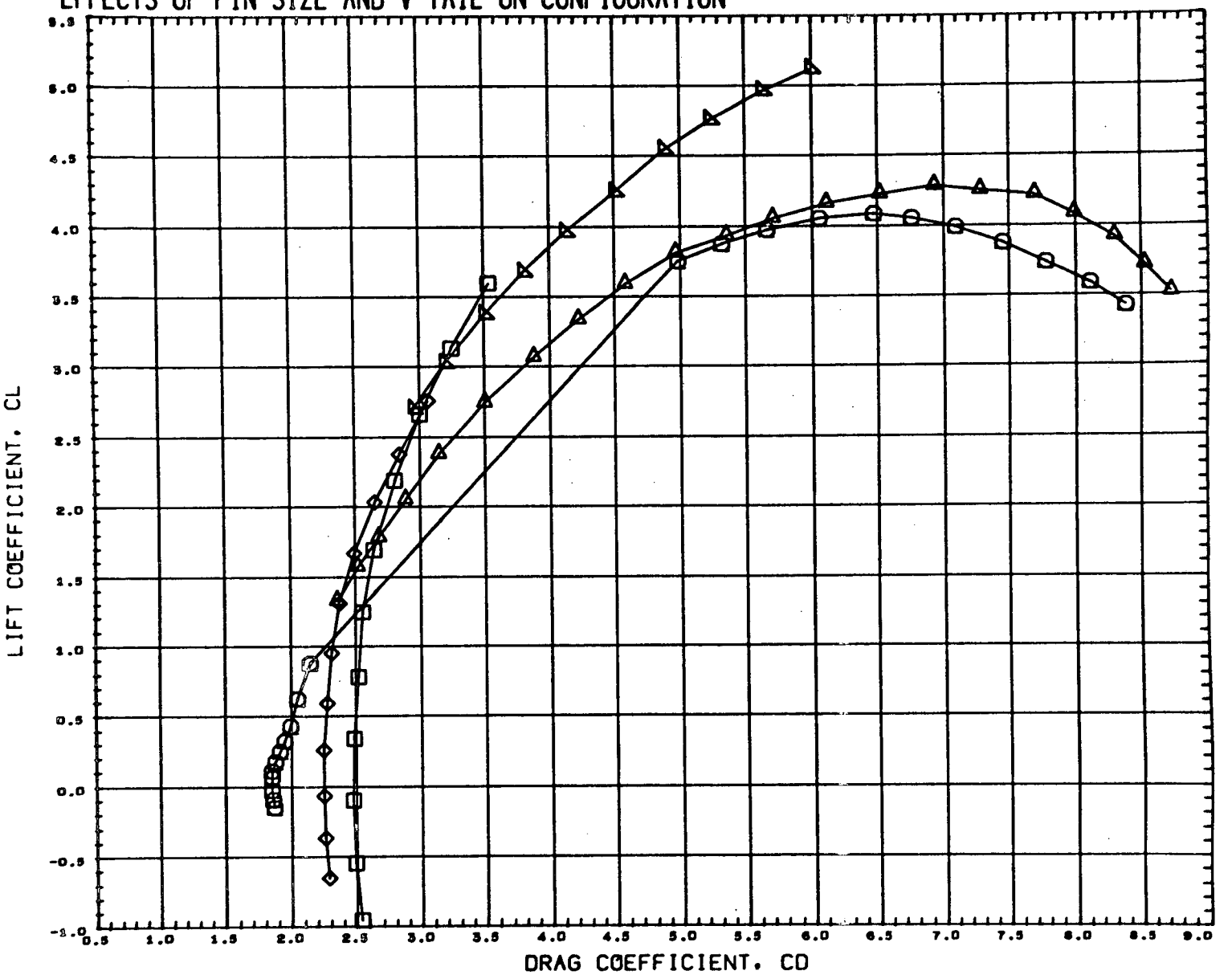


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50180)		MSFC 512 GD/C .003368 BOOSTER	B34R6	0.000	45.000		
(D50020)		MSFC 512 GD/C .003368 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003368 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50162)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0036	

MACH 1.201

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

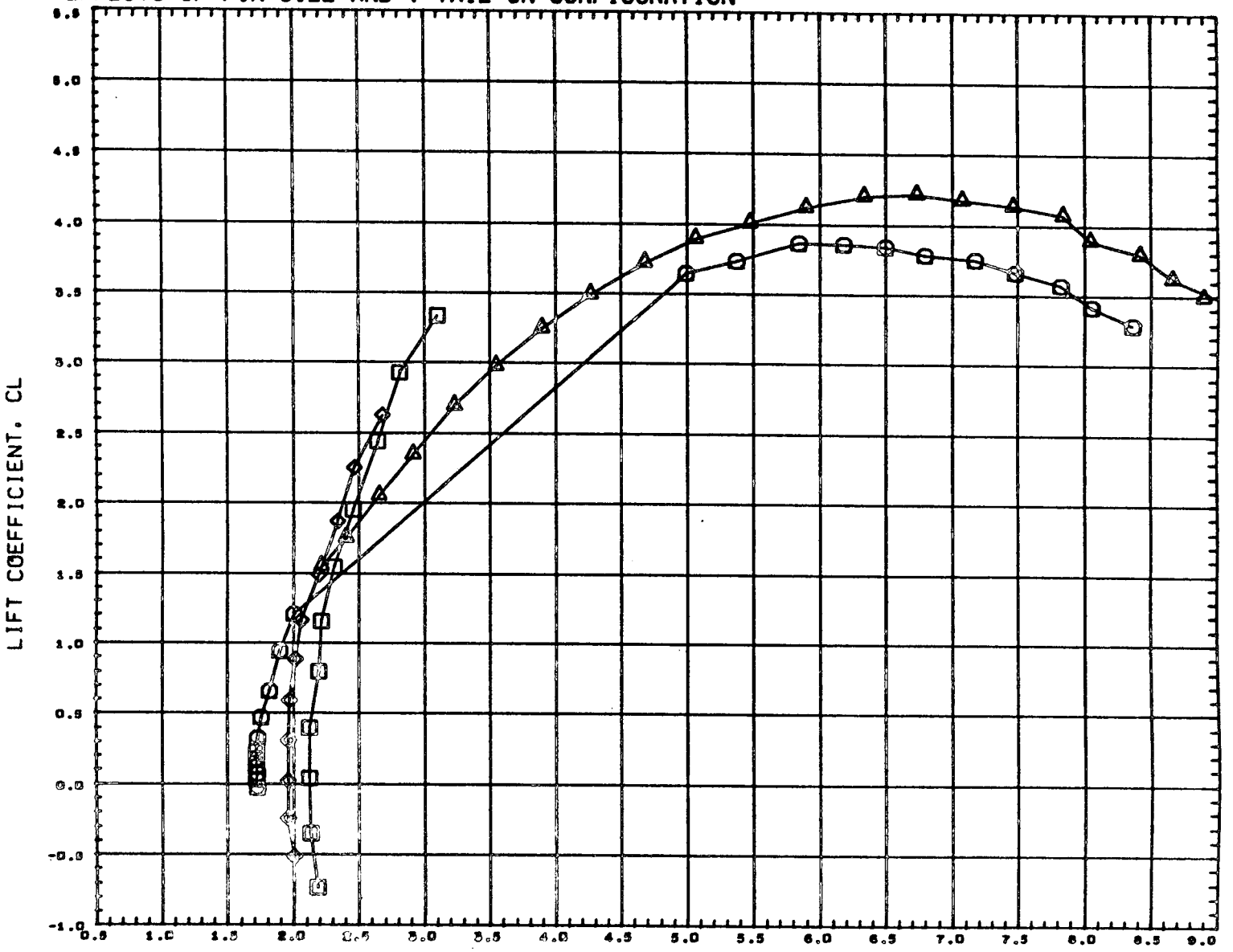


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50115)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50025)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

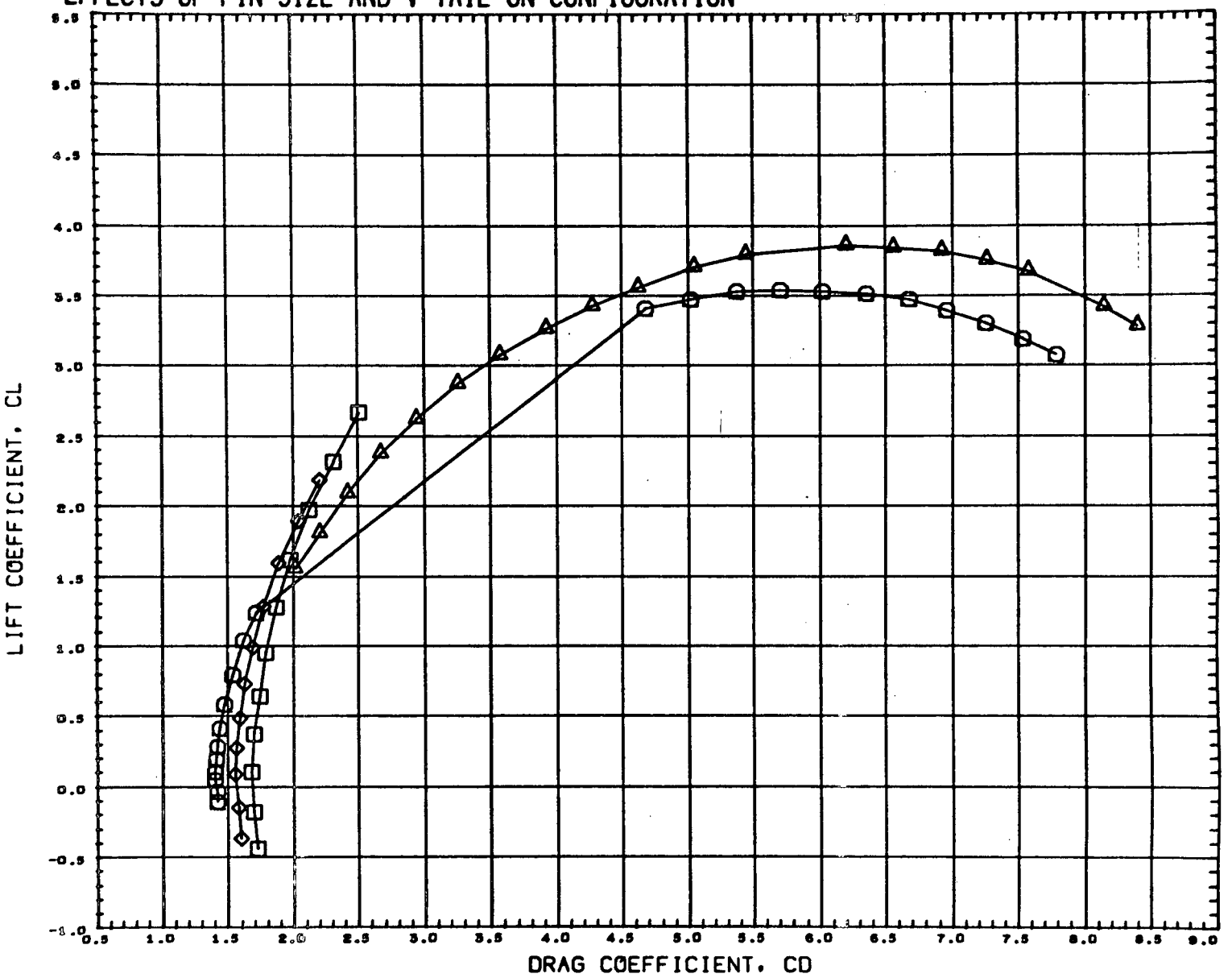


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

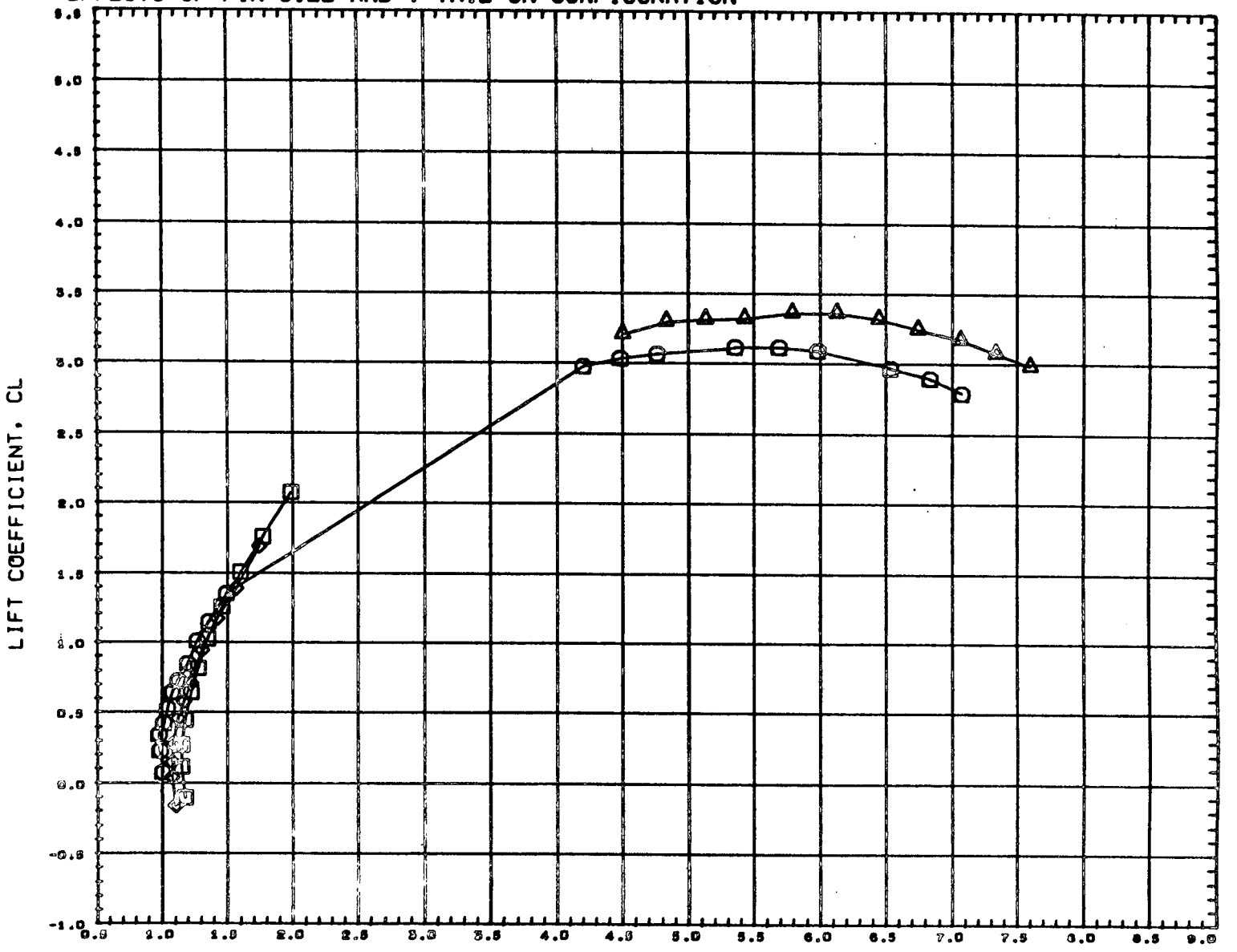


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

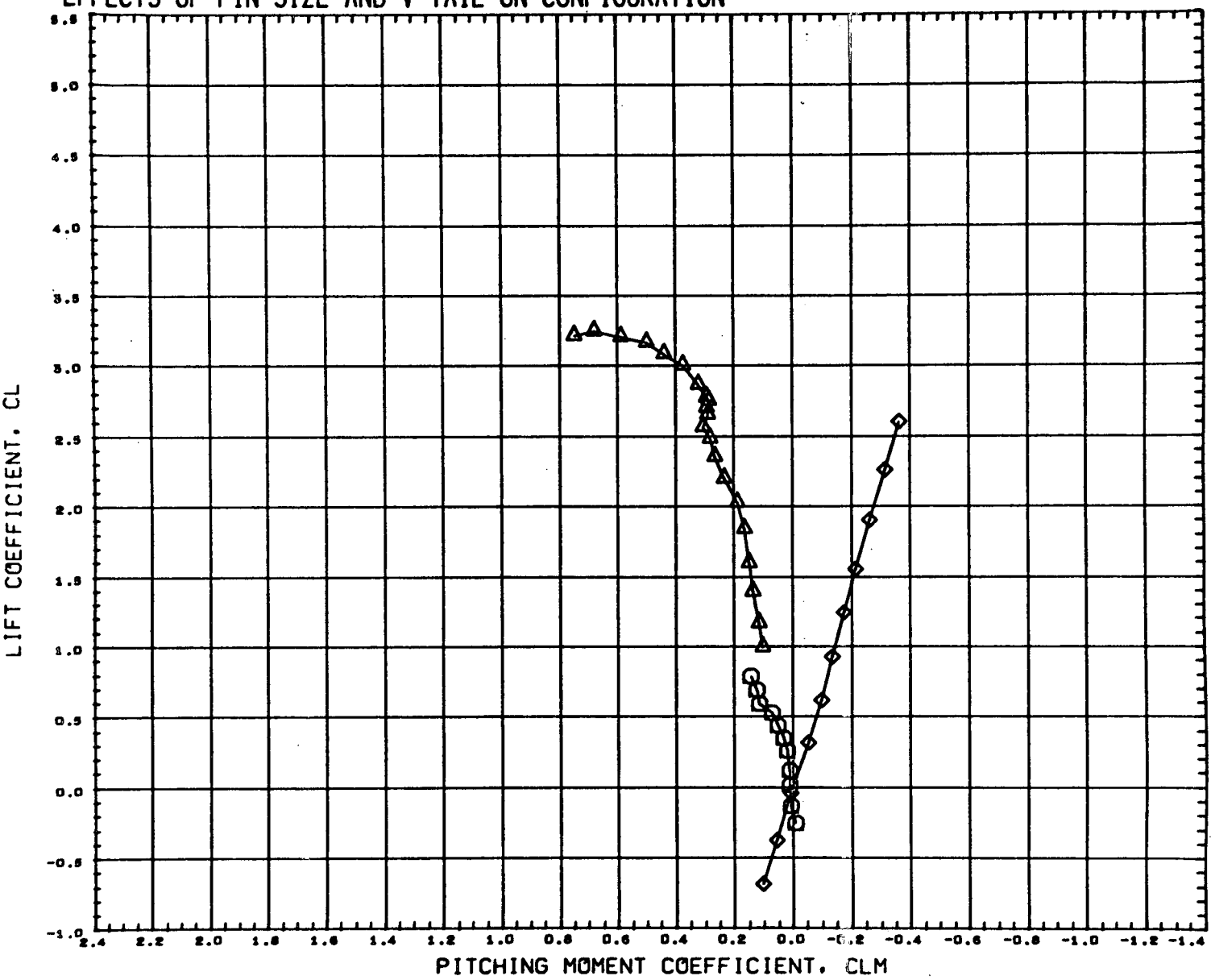


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(DS0010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0030)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(DS016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

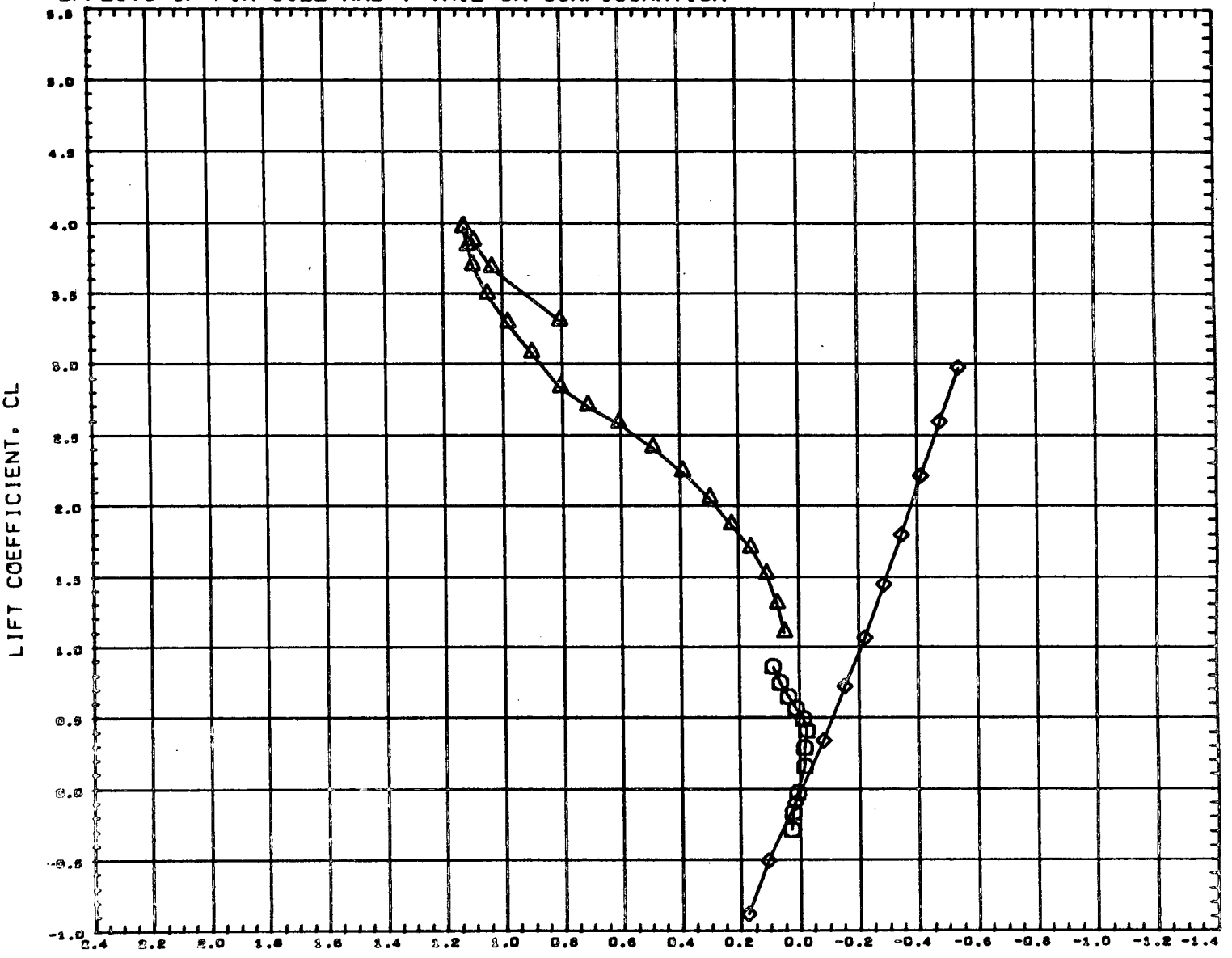


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.603

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

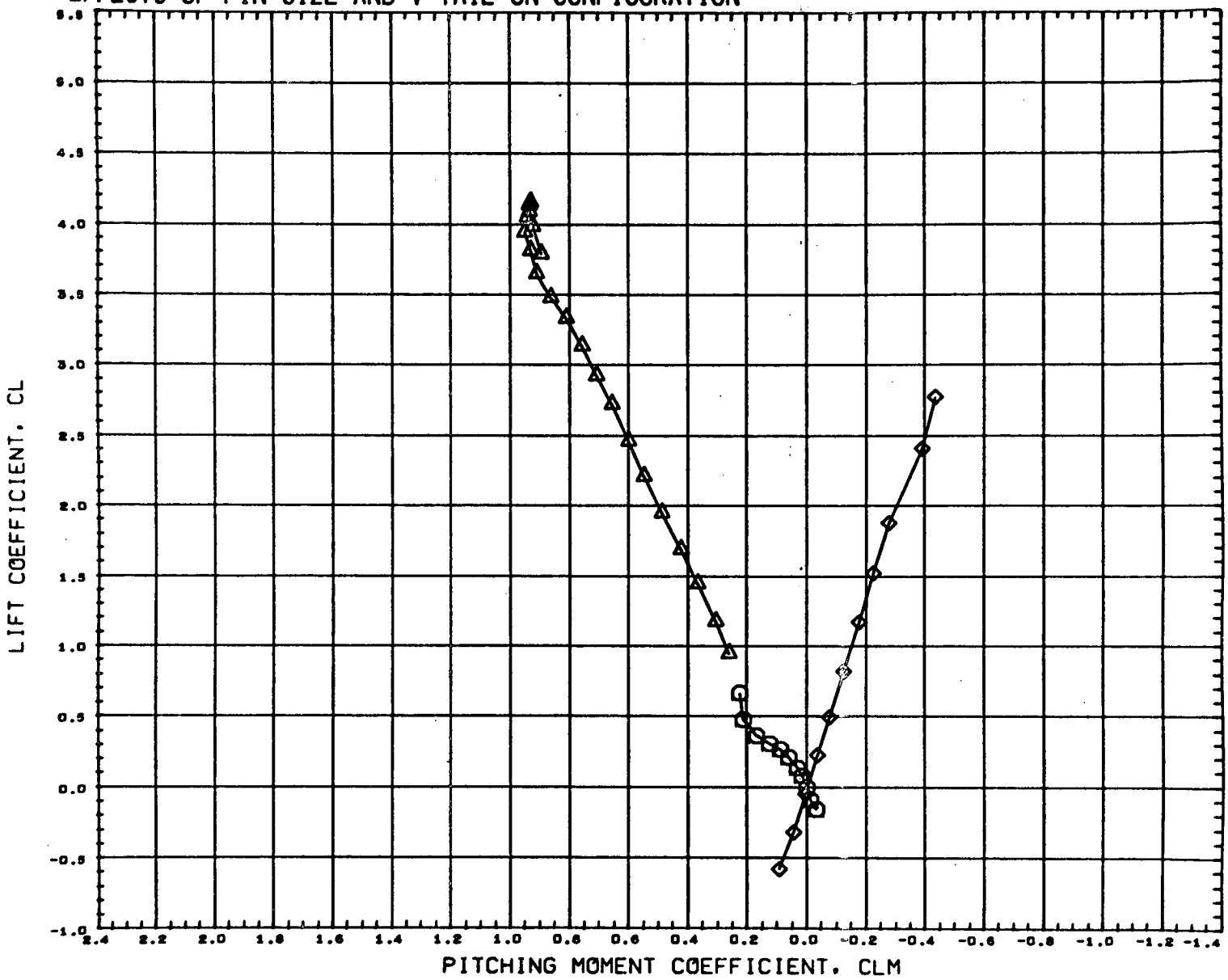


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D5002S)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D5001O)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5005O)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

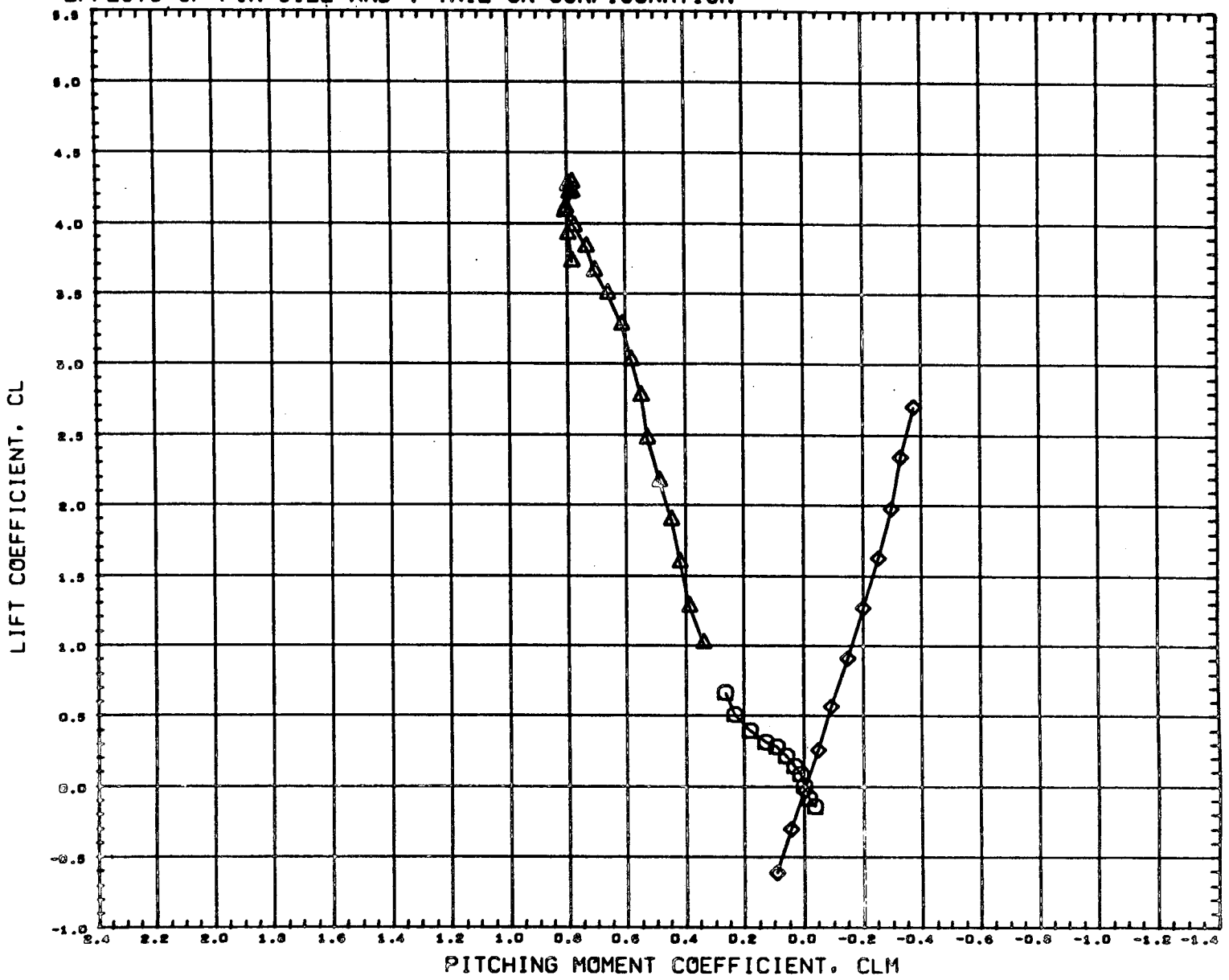


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

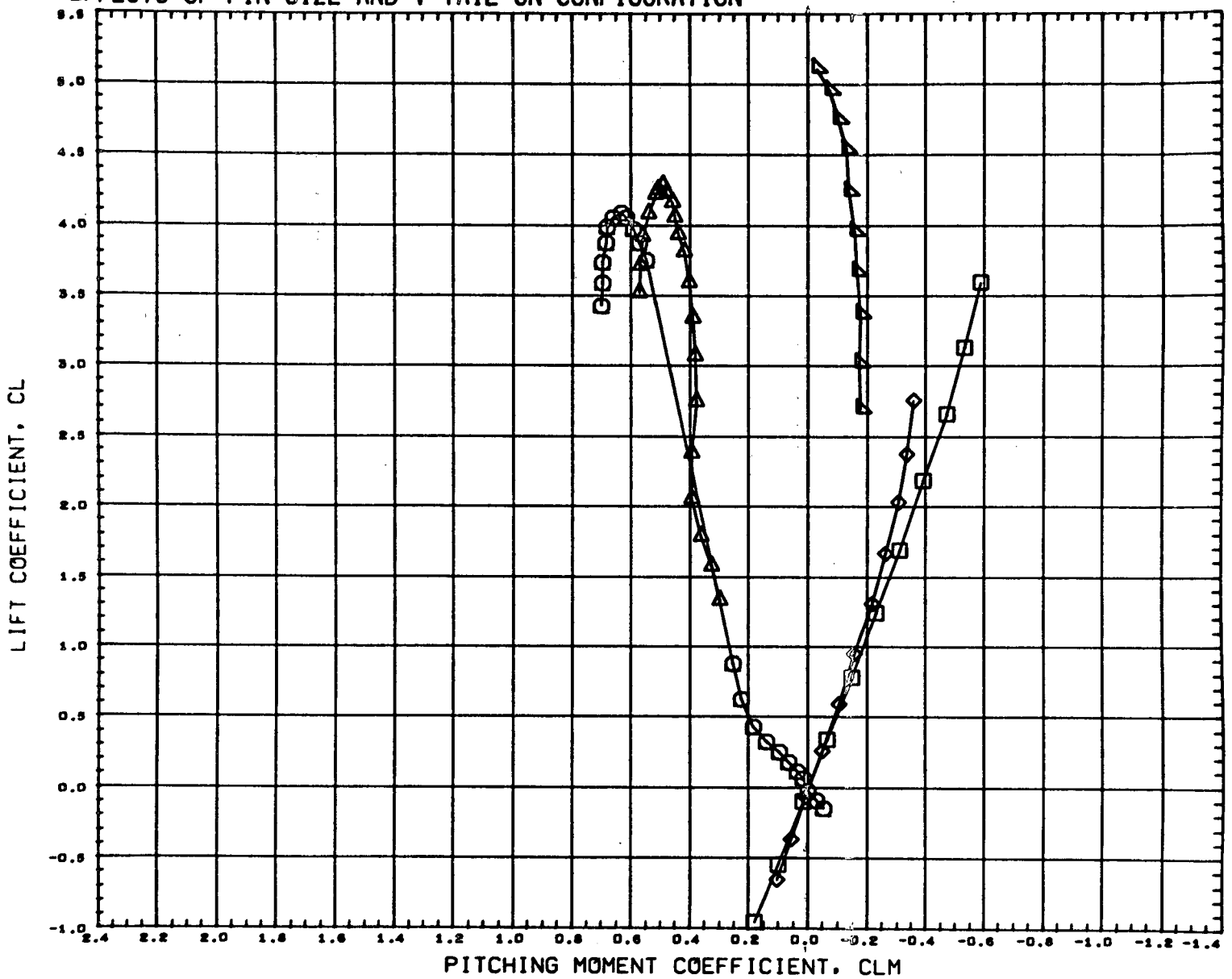


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50116)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

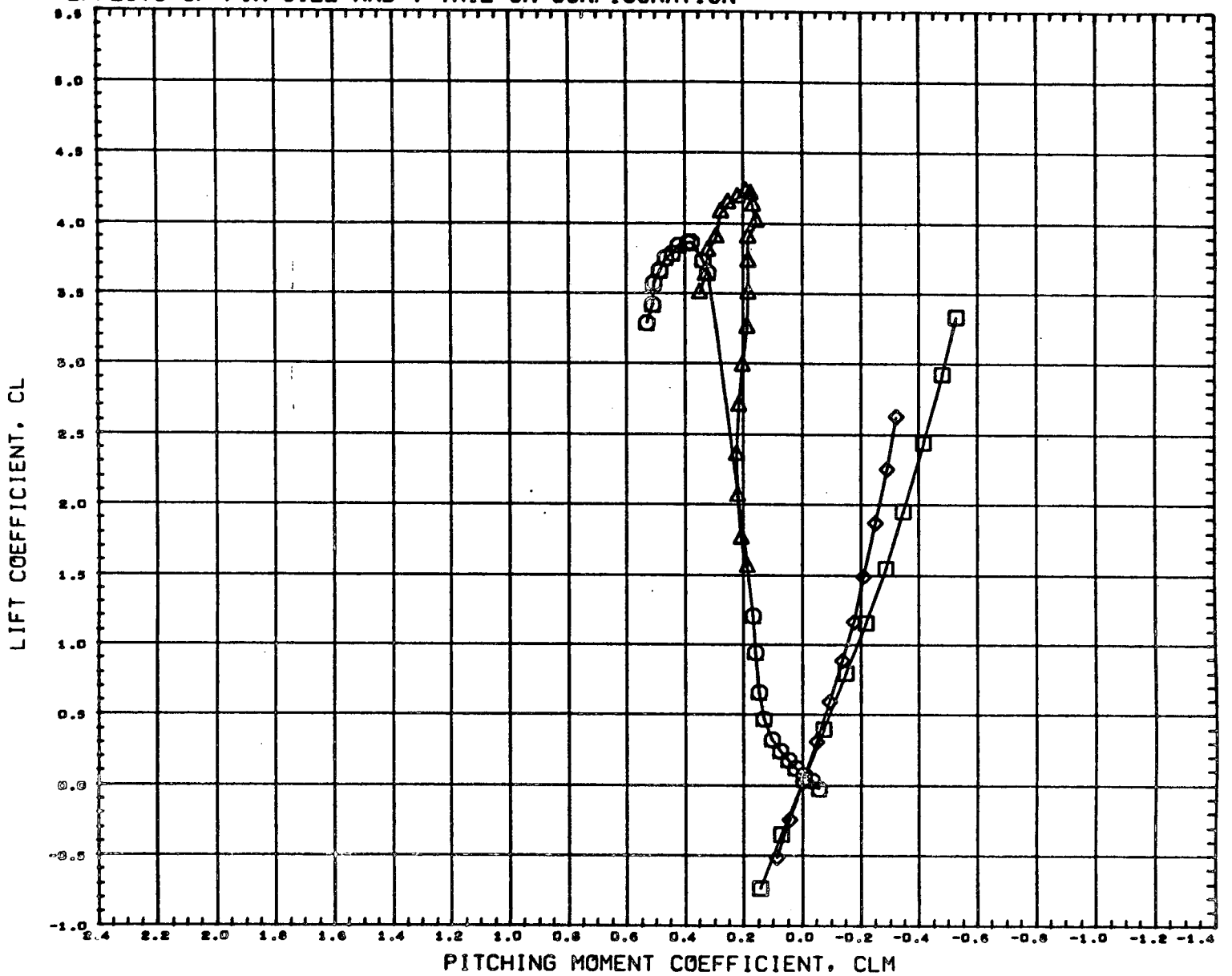


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

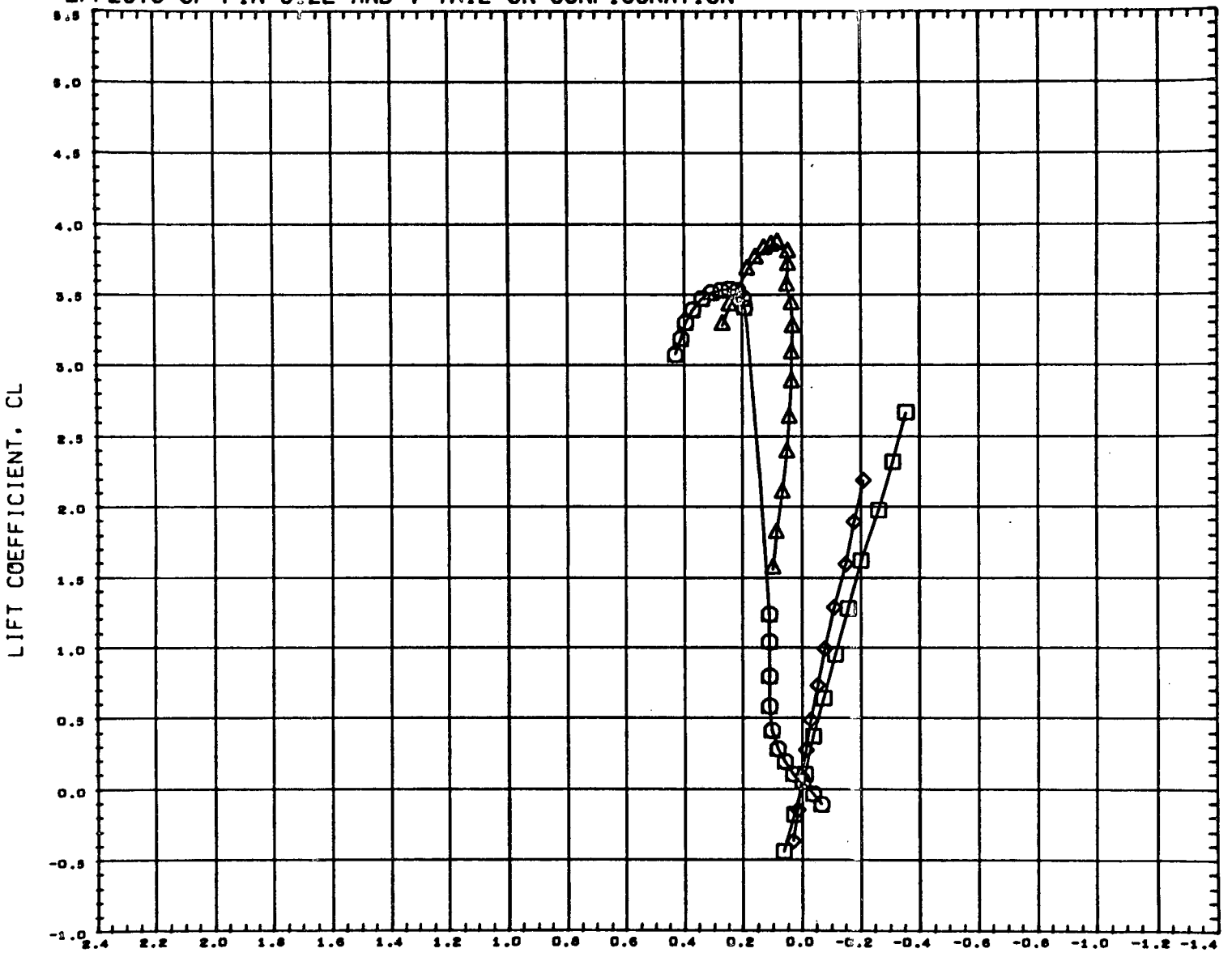


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

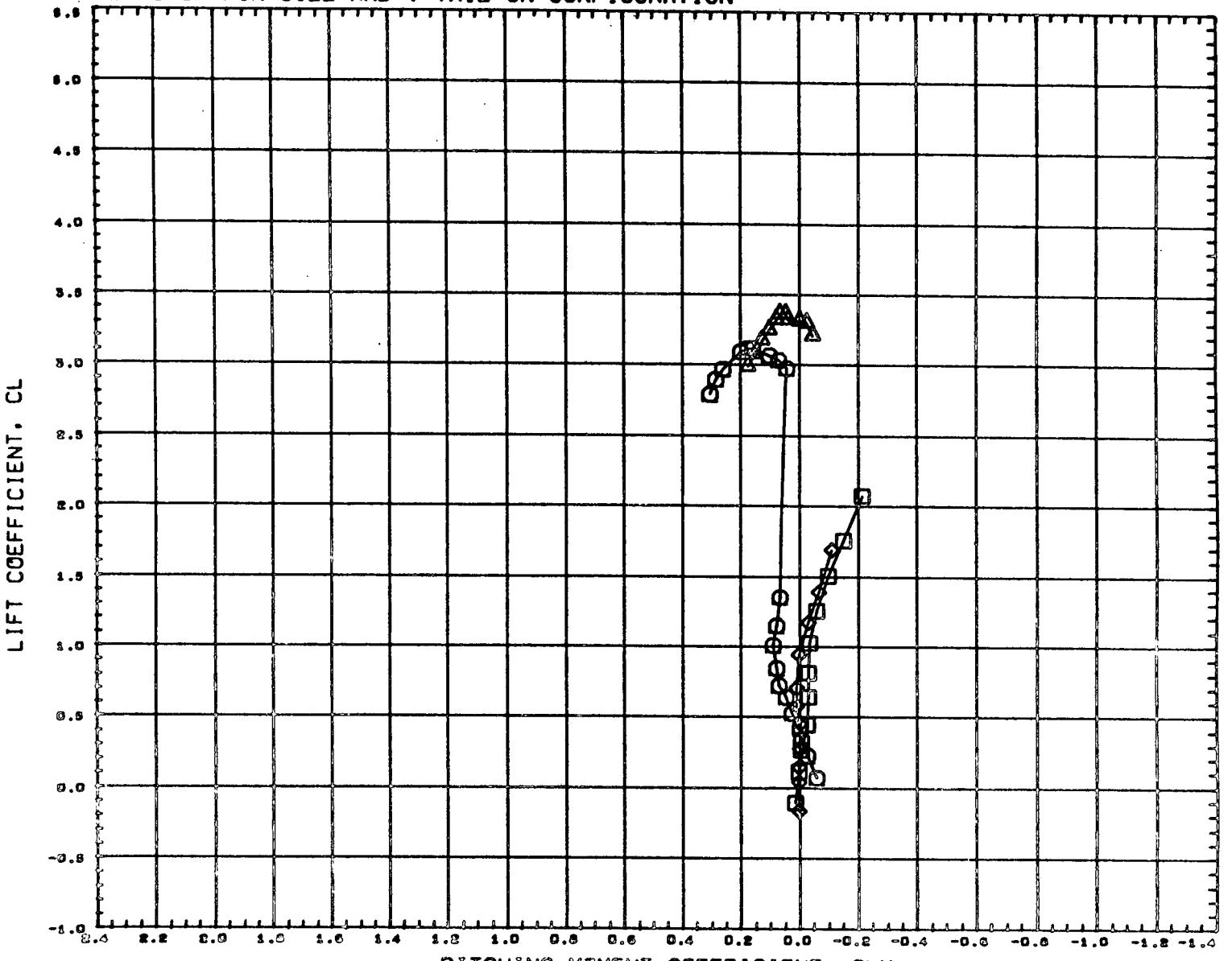


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

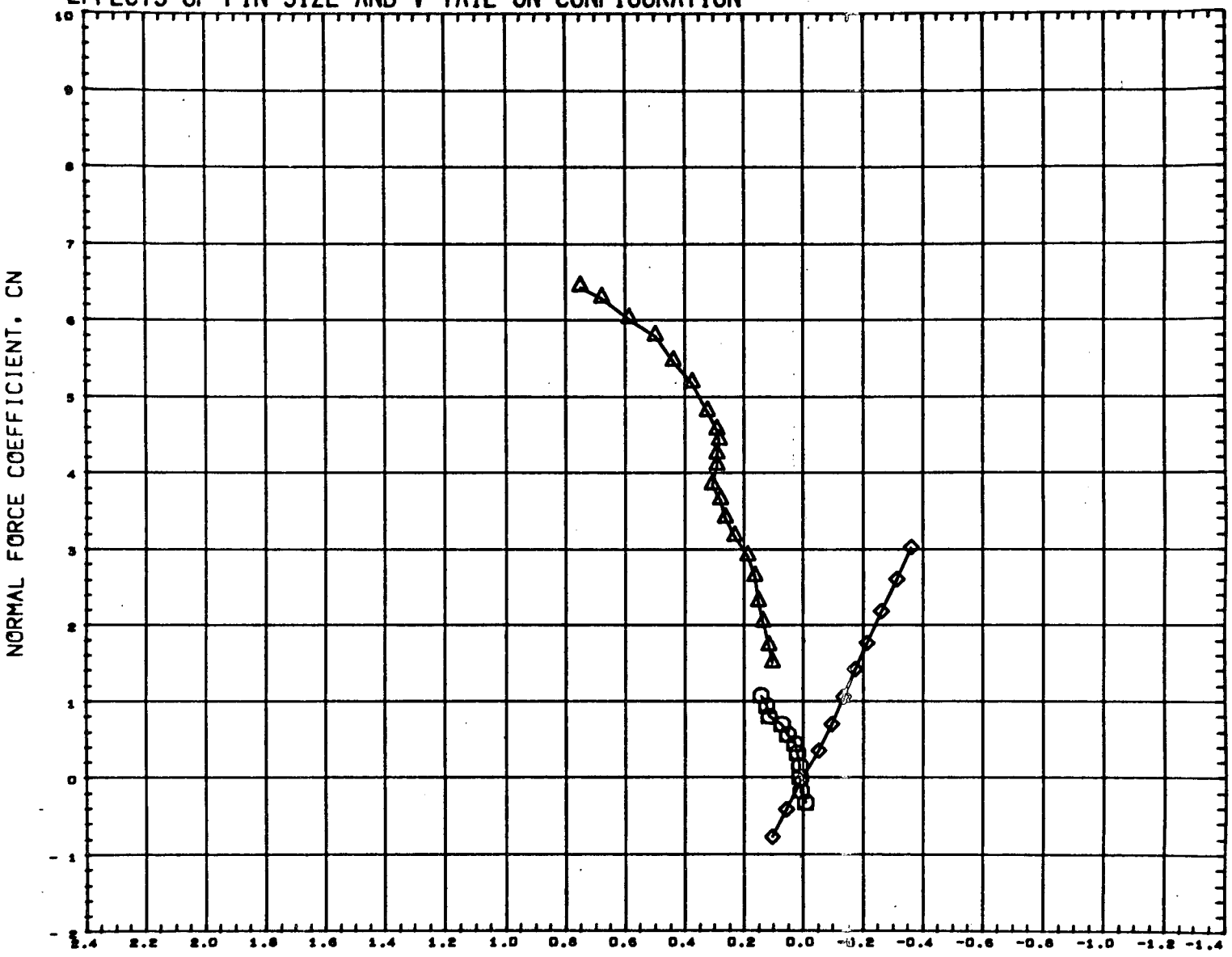


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003306 BOOSTER	B34R0	0.000	45.000		
(D50C20)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003368 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

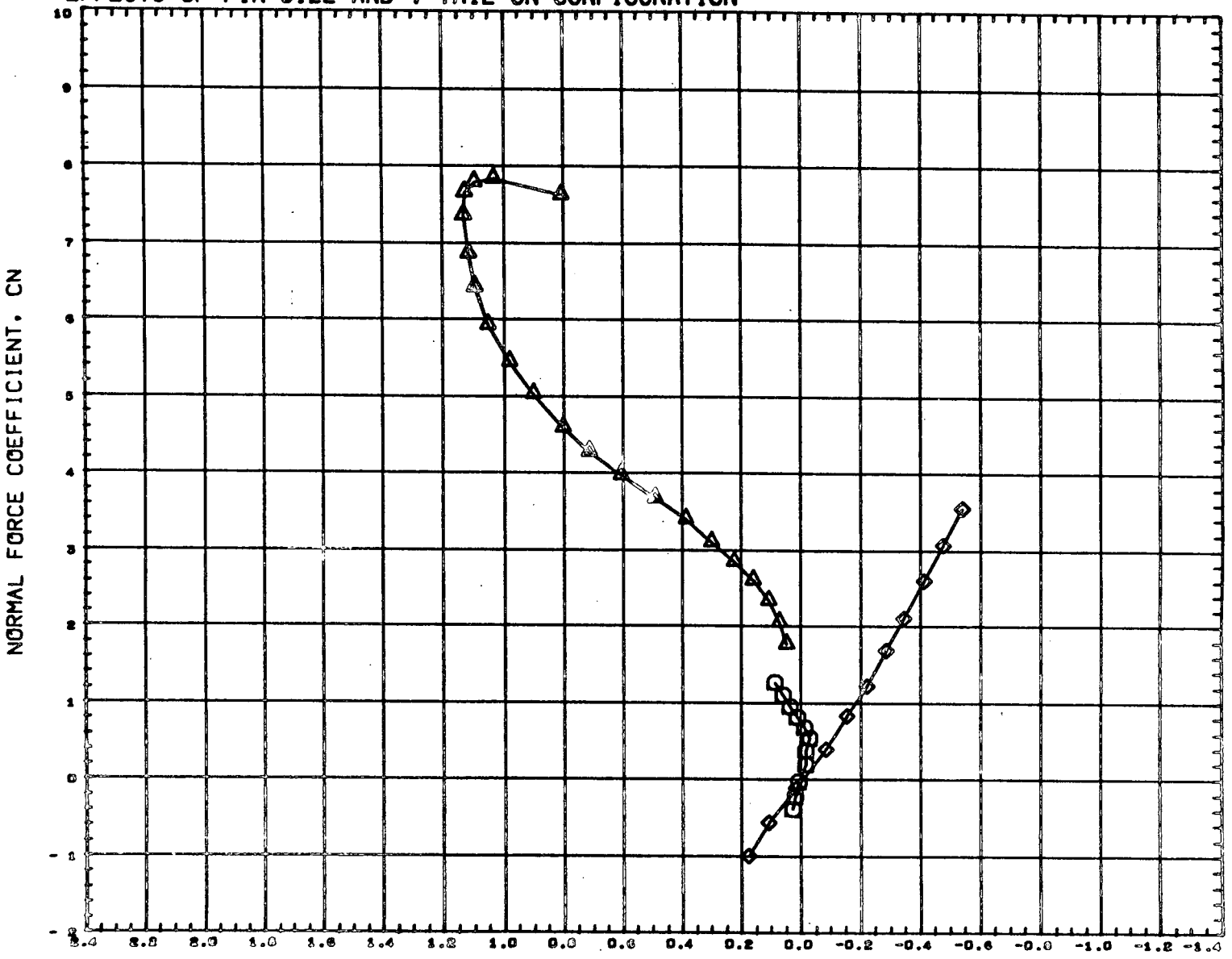


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D5011S)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D5002S)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D5001O)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5005O)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

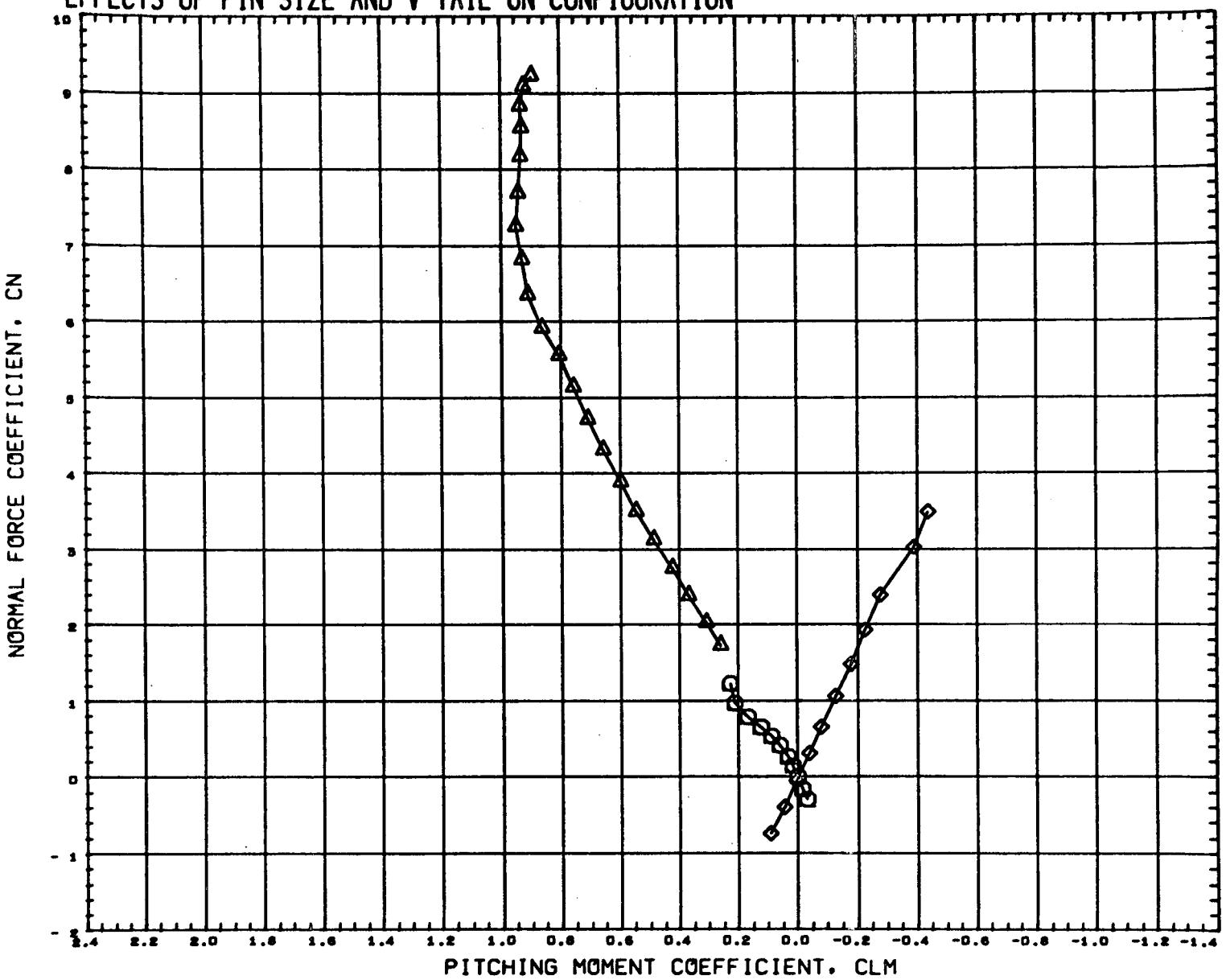


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50162)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

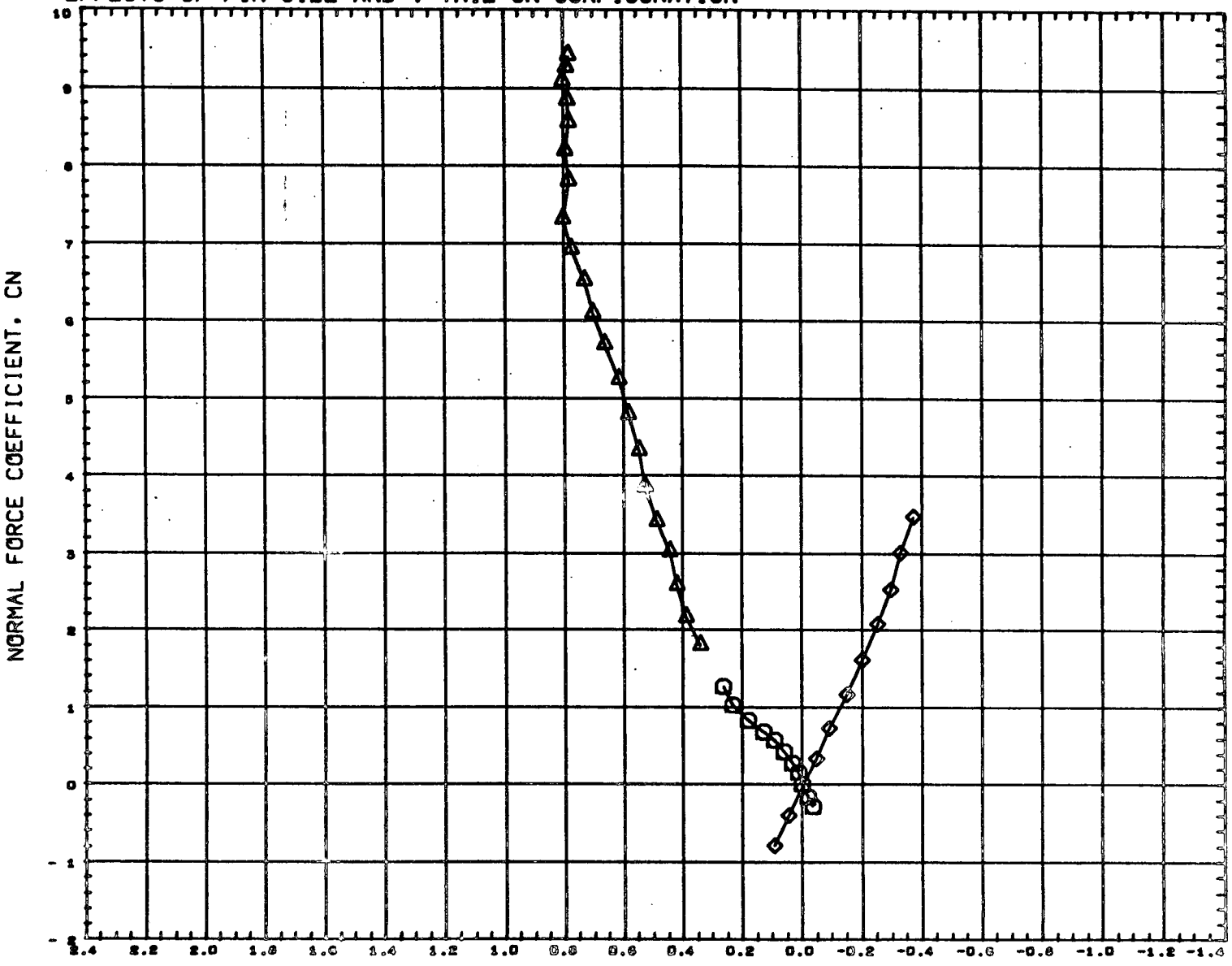


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(DS0010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(DS016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

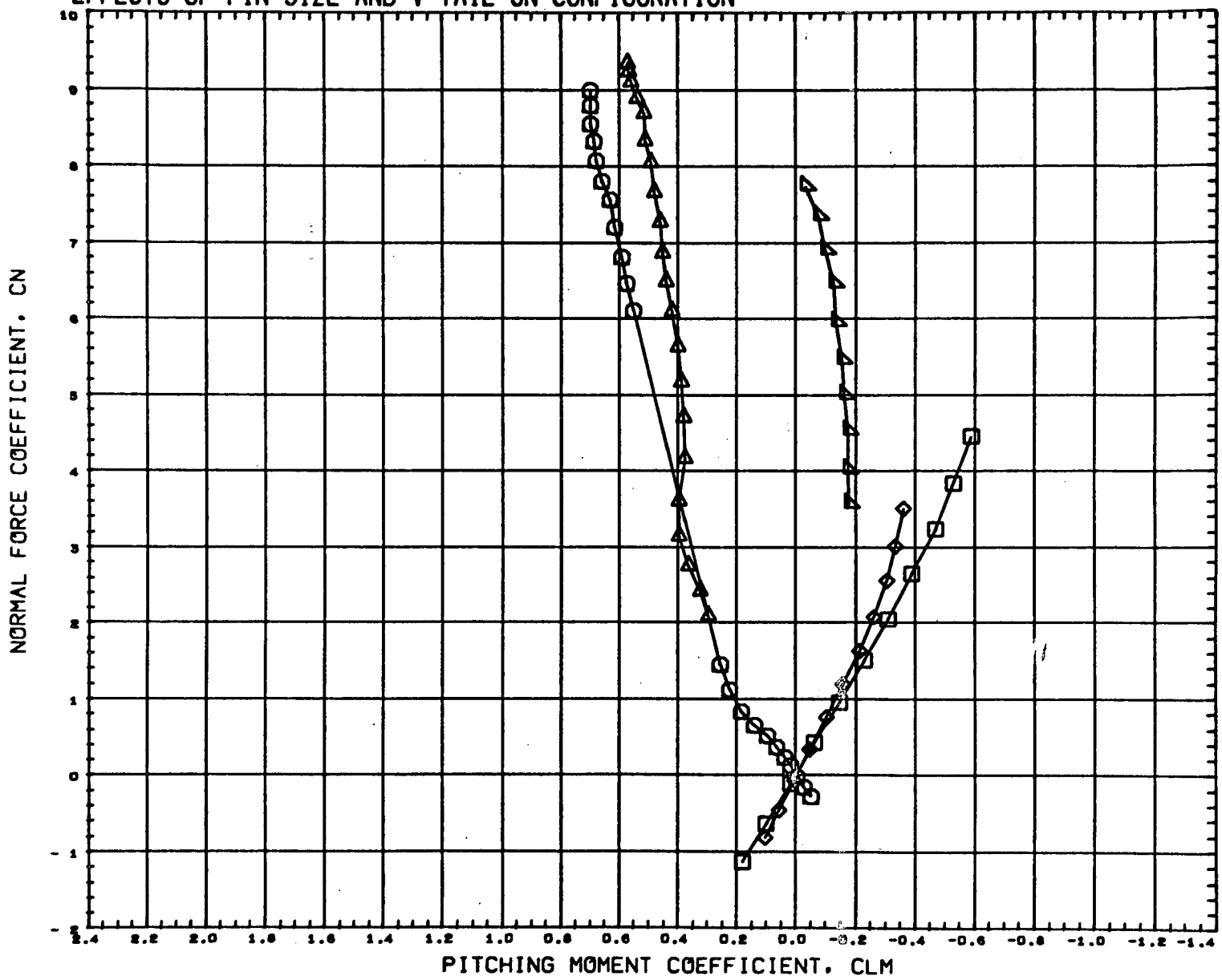


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50116)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D5016Z)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

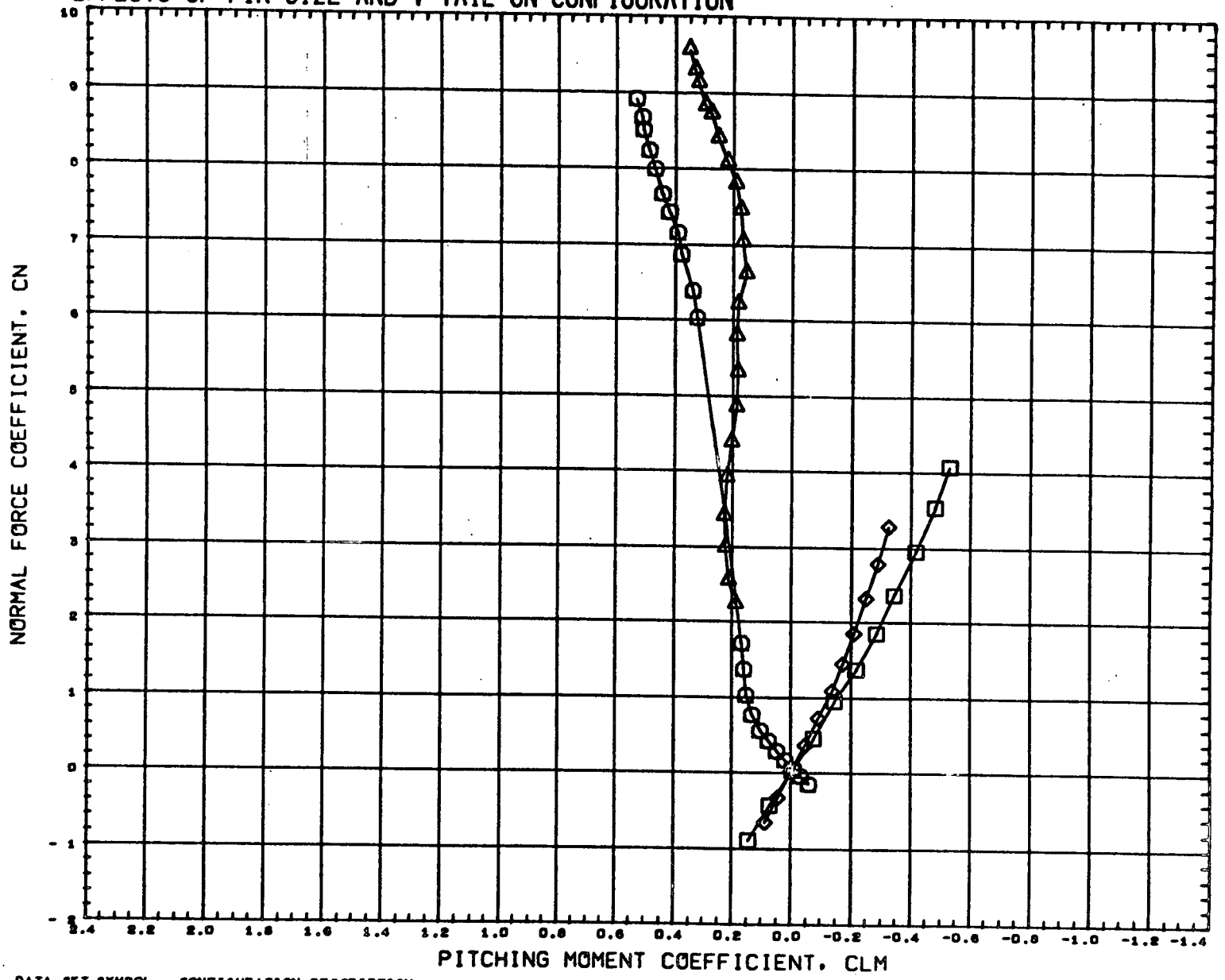


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		M8FC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		M8FC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		M8FC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		M8FC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D5016Z)		M8FC 512 GD/C .003366 BOOSTER	B34R6T12(INVERTED)	0.000	45.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

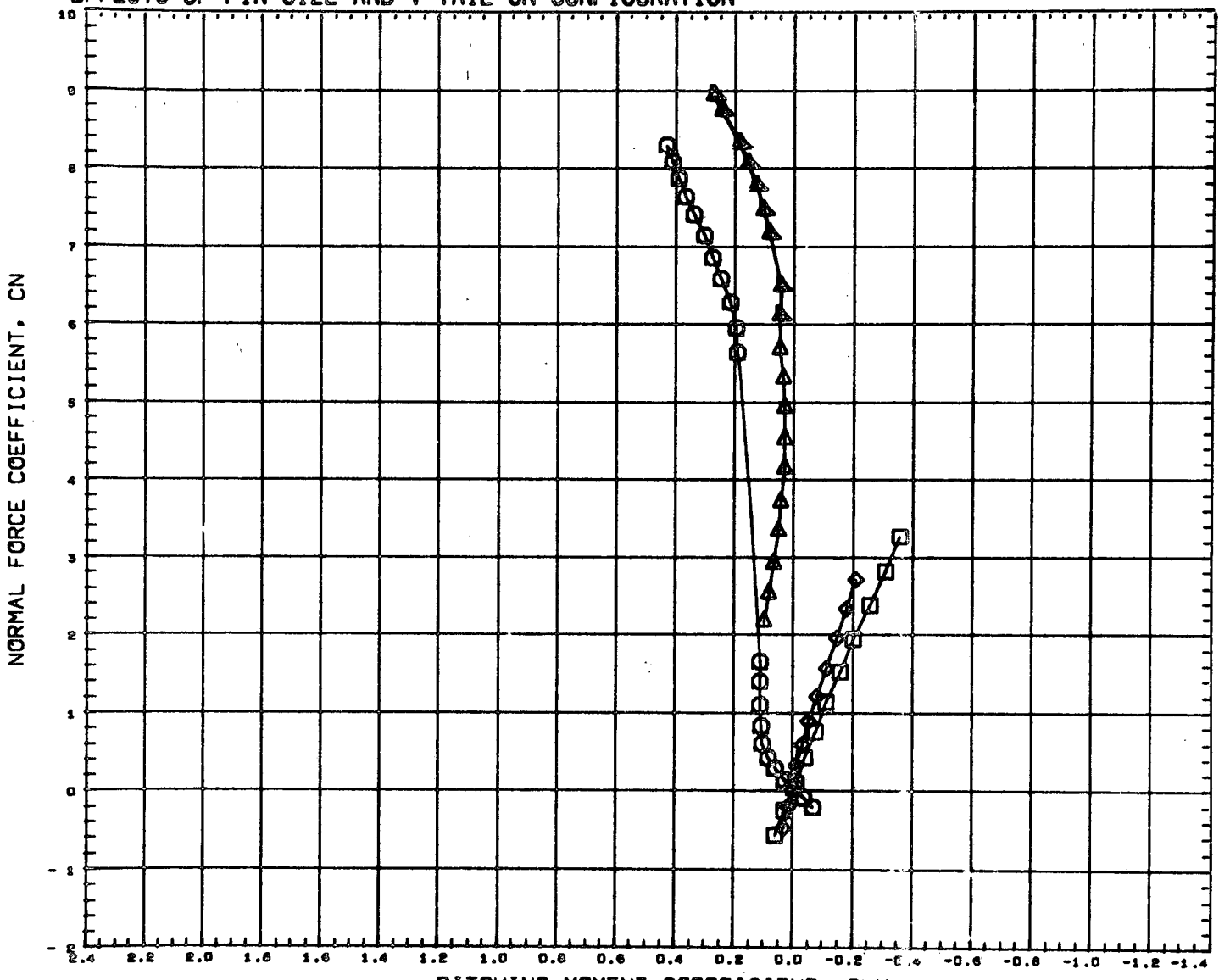


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003366 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D50162)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	45.000	0.000	0.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

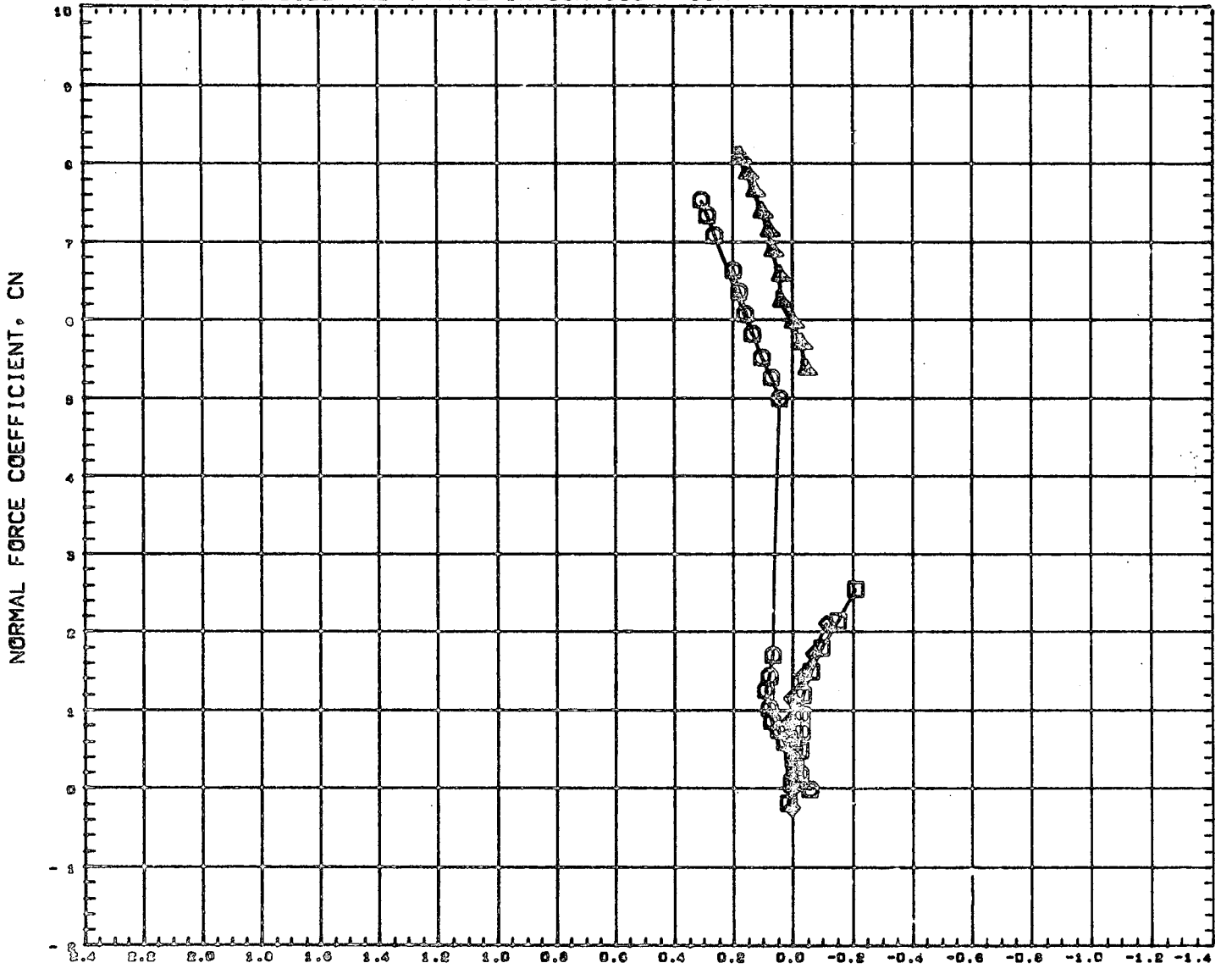


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50028)		MSFC 512 GD/C .003366 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50050)		MSFC 512 GD/C .003306 BOOSTER	B34R6T13	0.000	0.000	0.000	0.000
(D50418)		MSFC 512 GD/C .003306 BOOSTER	B34R6T12	0.000	45.000	0.000	0.000

MACH 2.760

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF FIN SIZE AND V TAIL ON CONFIGURATION

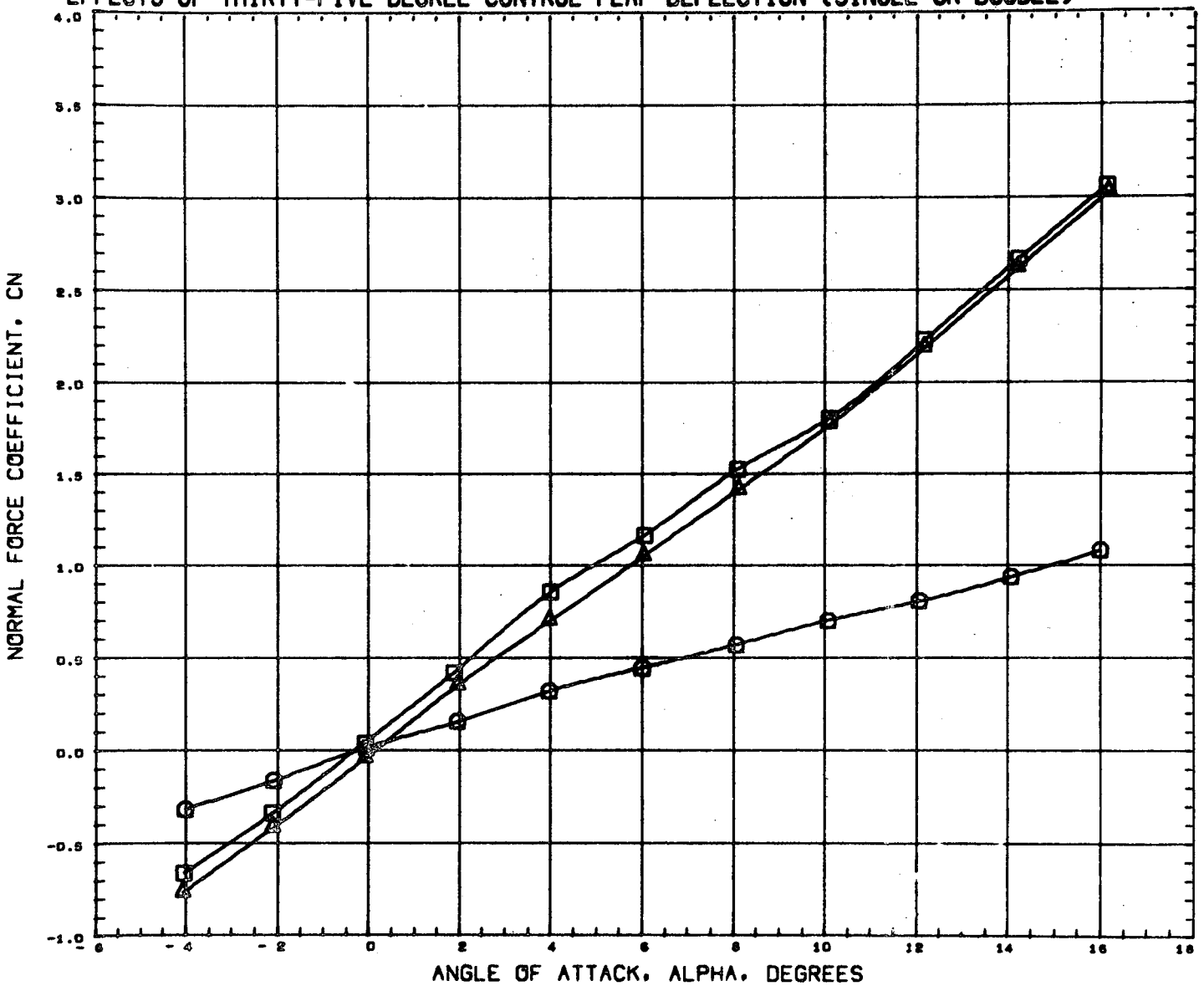


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50118)		HOPC 512 GD/C .003300 BOOSTER	B34R6	0.000	45.000		
(D50080)		HOPC 512 GD/C .003300 BOOSTER	B34RGT12	0.000	45.000	0.000	0.000
(D50010)		HOPC 512 GD/C .003300 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(D50050)		HOPC 512 GD/C .003300 BOOSTER	B34RGT15	0.000	0.000	0.000	0.000
(D50418)		HOPC 512 GD/C .003300 BOOSTER	B34RGT12	0.000	45.000	0.000	0.000

MACH 4.990

REFERENCE INFORMATION		
SREF	0.9390	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

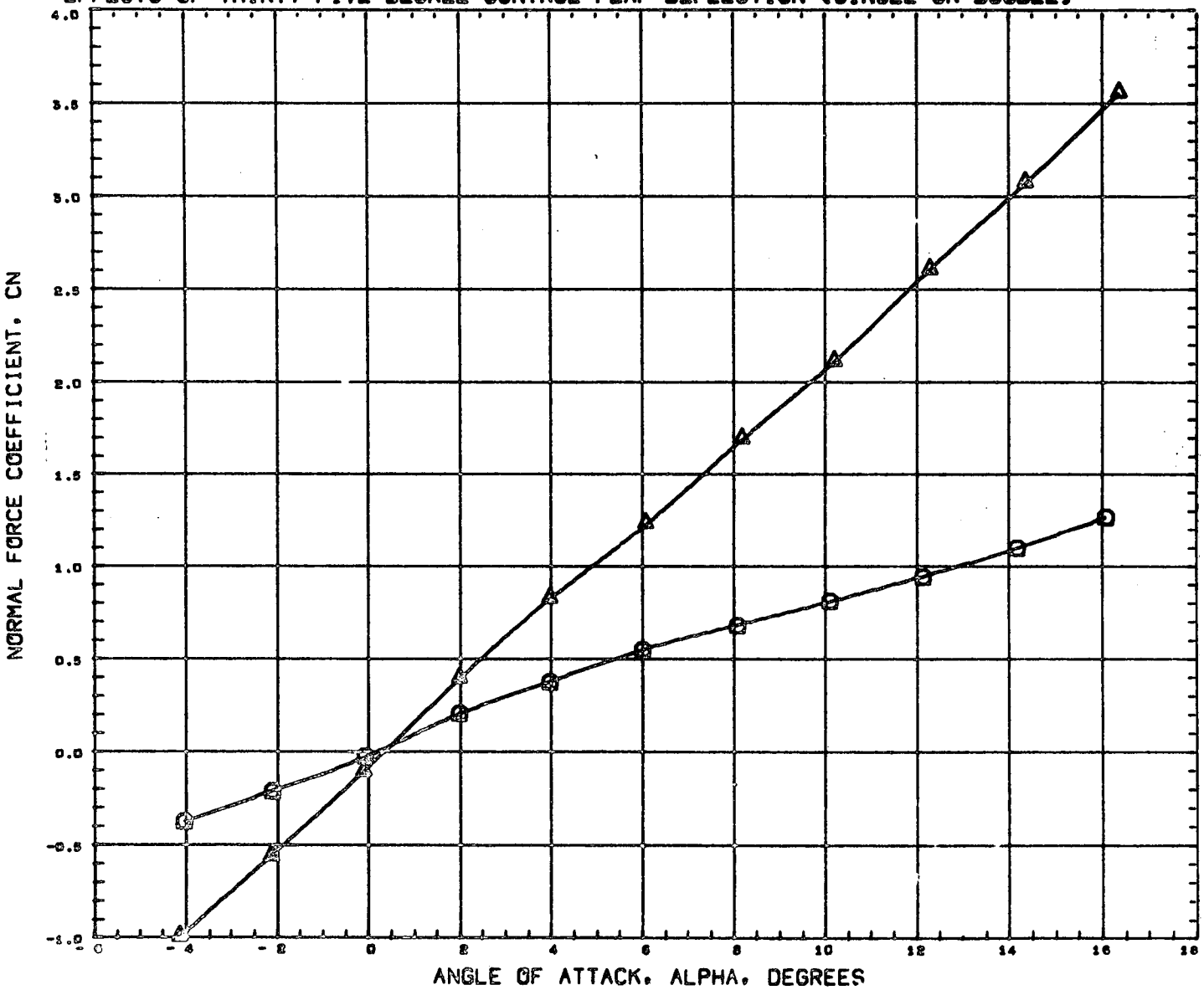


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		M8FC 512 GD/C .003566 BOOSTER	B34R6	0.000	45.000		
(D50010)		M8FC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)		M8FC 512 GD/C .003566 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

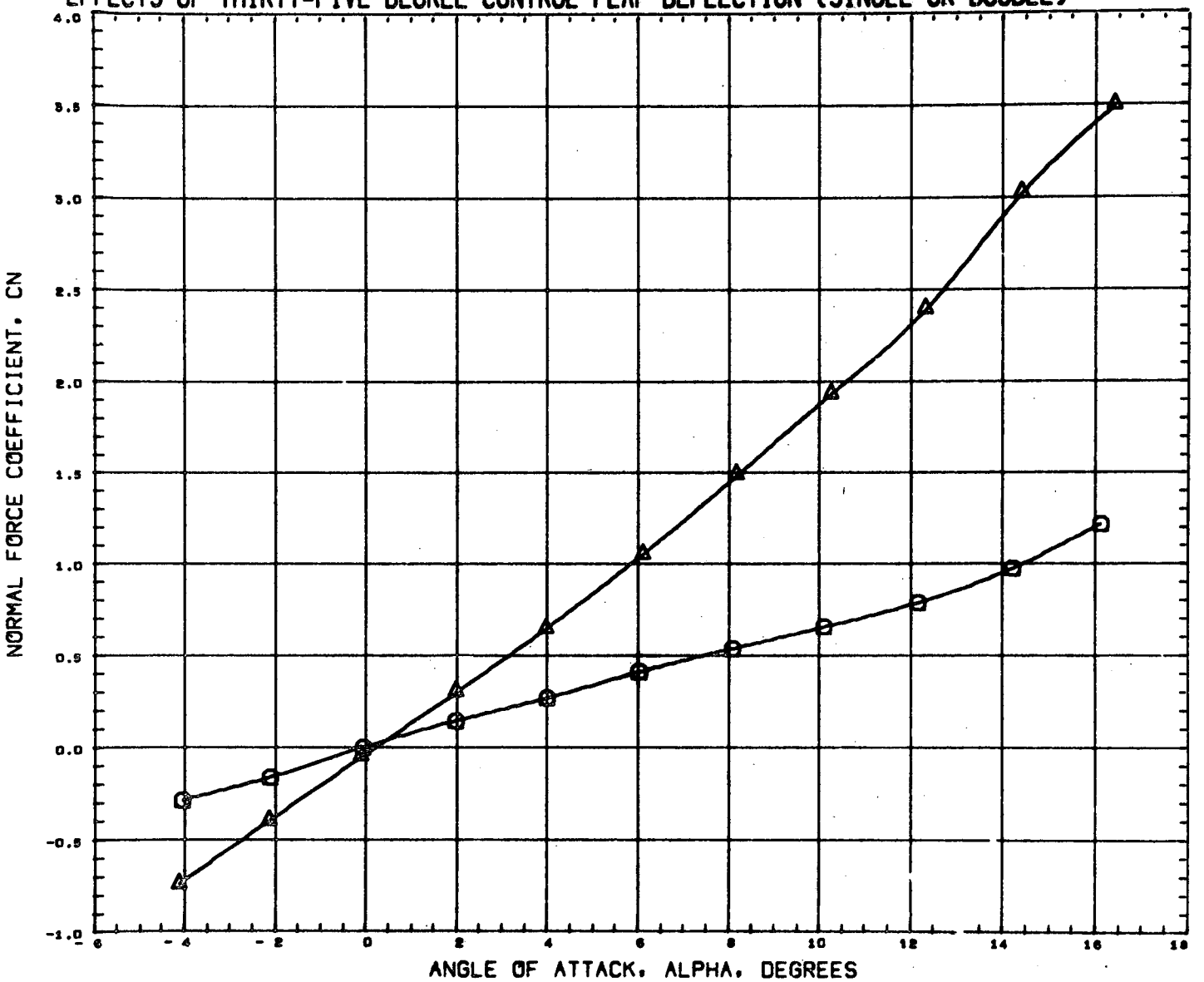


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .009300 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .009300 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50000)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 0.800

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

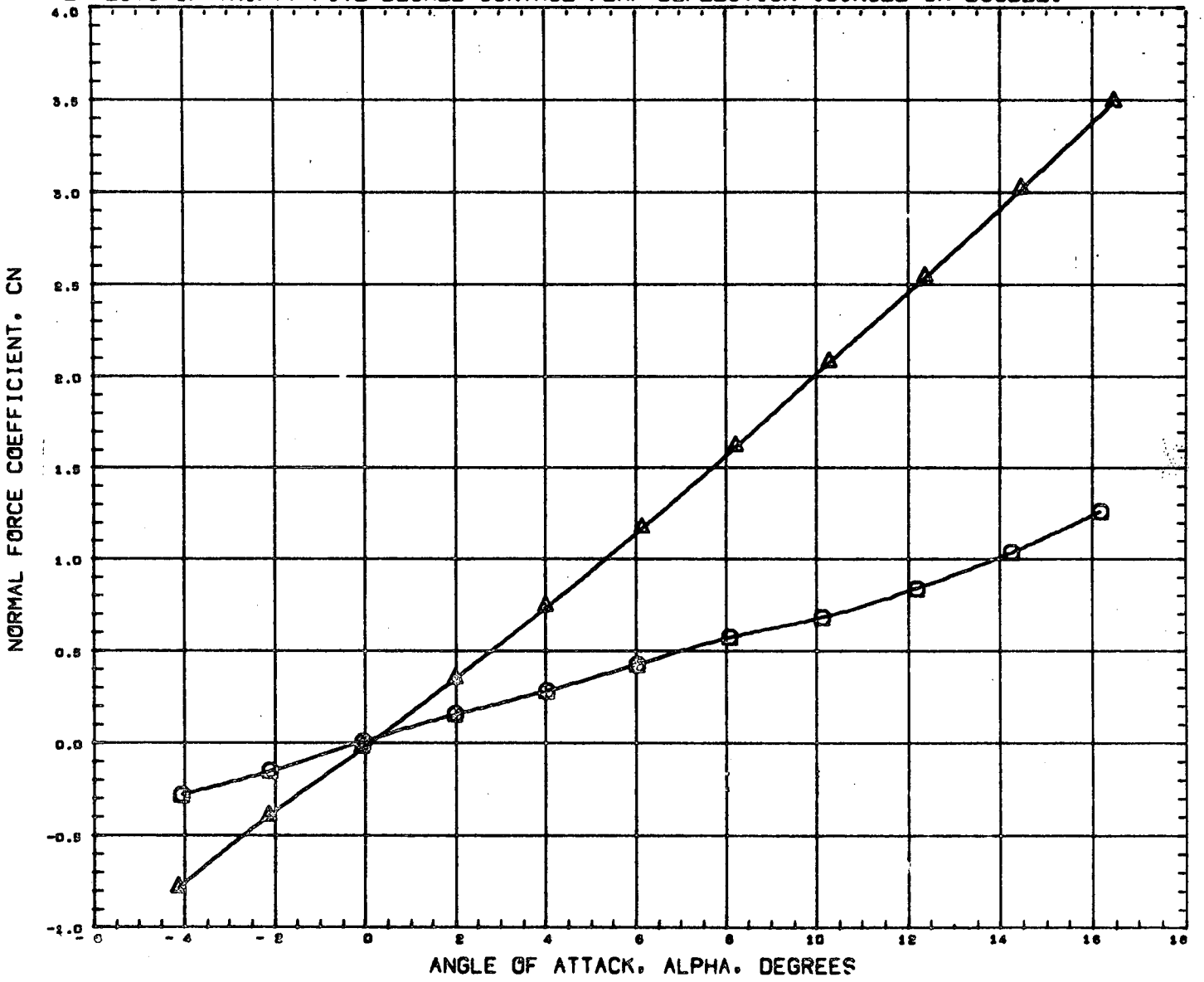


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS000D)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS000D)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

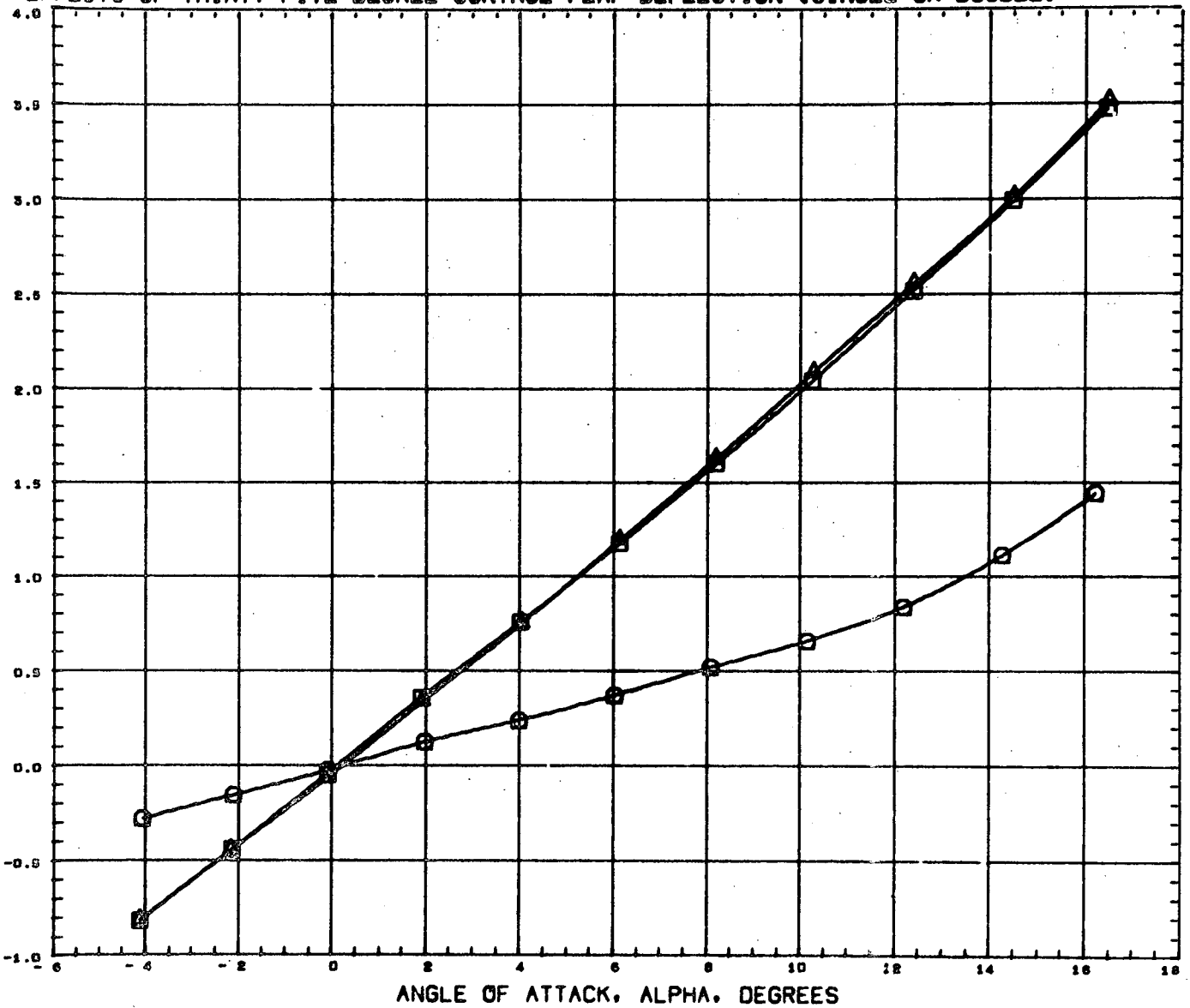


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .003506 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .003506 BOOSTER	B34R6T1D	0.000	0.000	0.000	0.000
(DS0060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

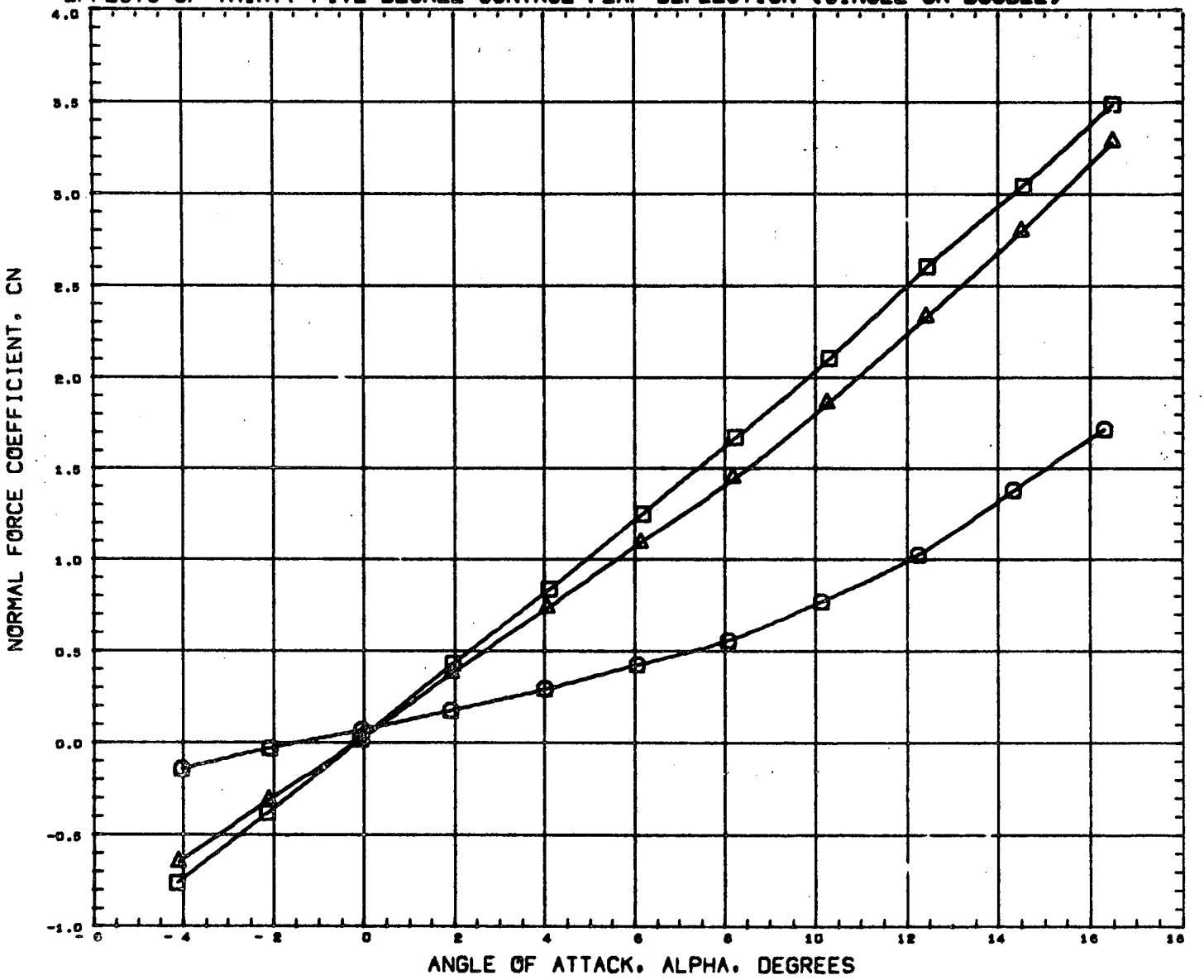


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50000)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

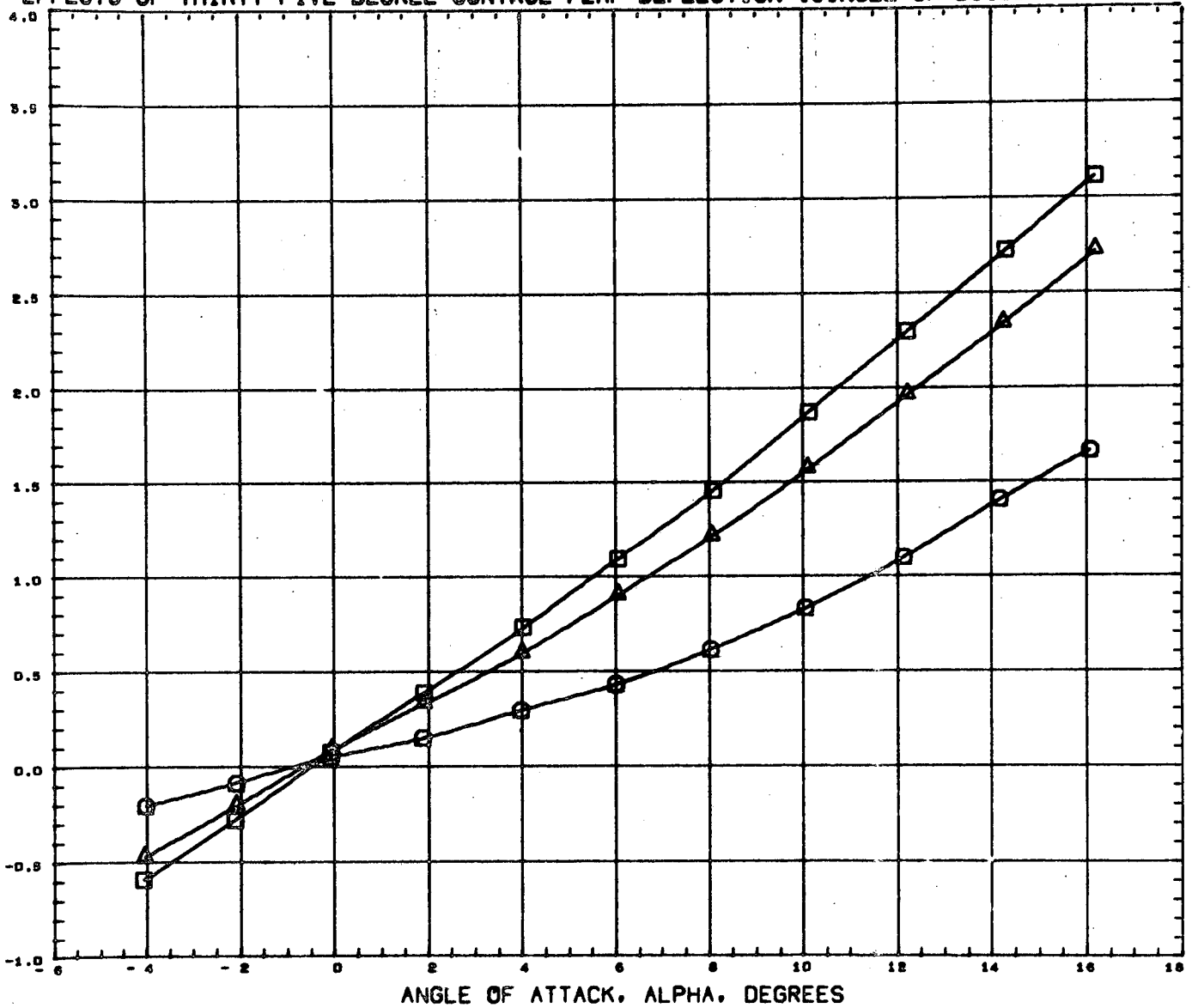


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0000)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

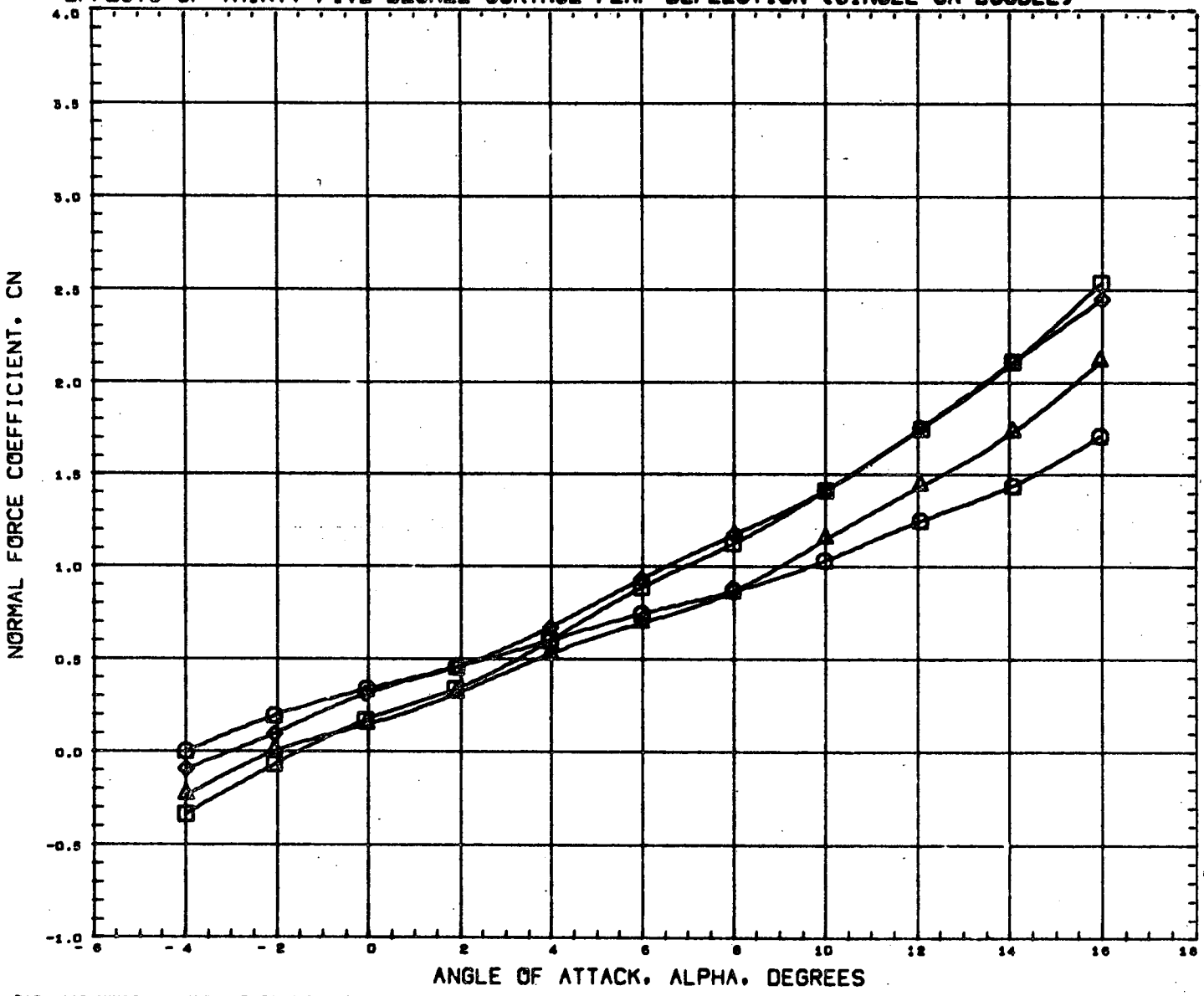


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .005366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .005366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50080)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .005366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

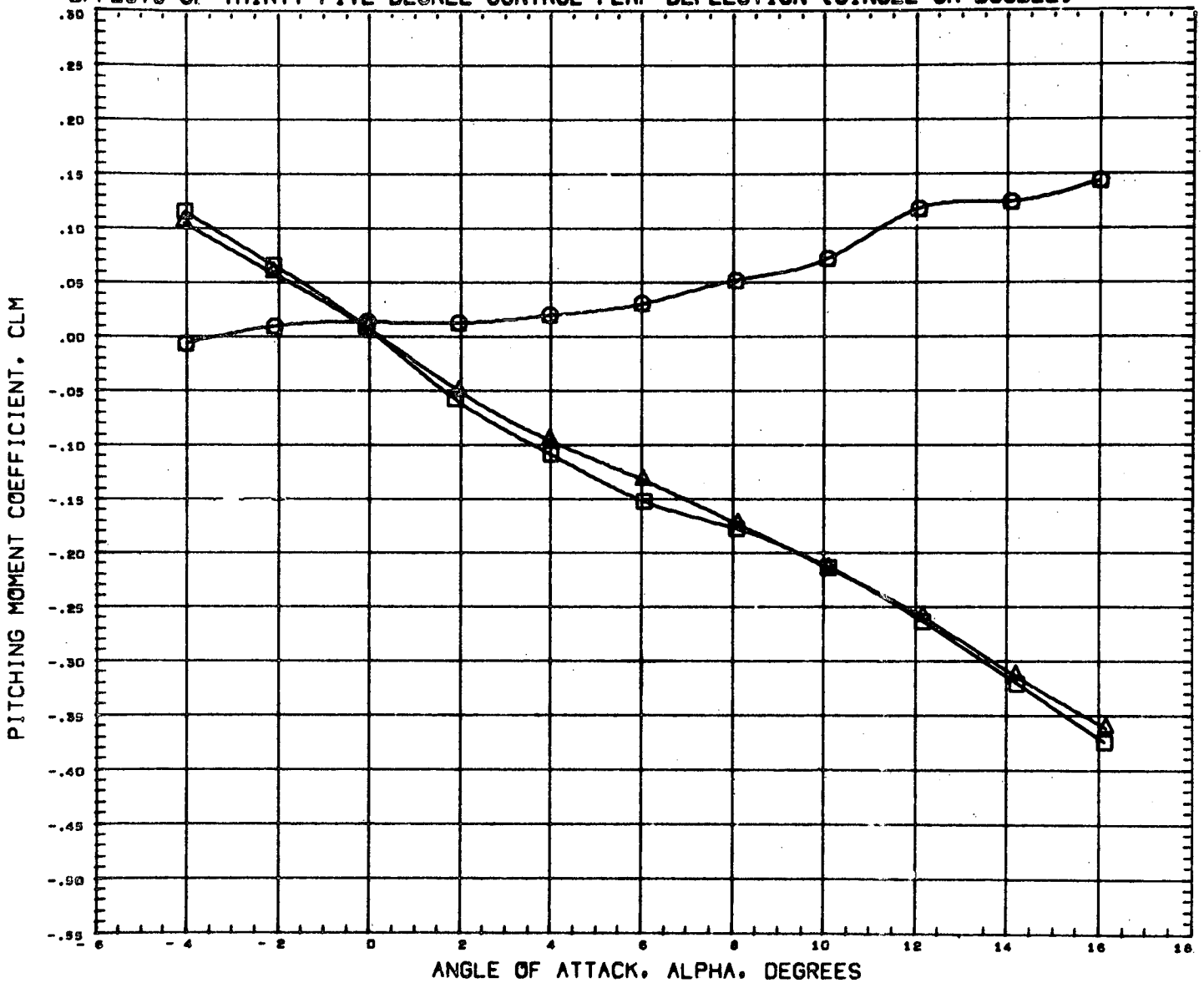


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0060)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T14	0.000	0.000	35.000	0.000
(DS0090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0810	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

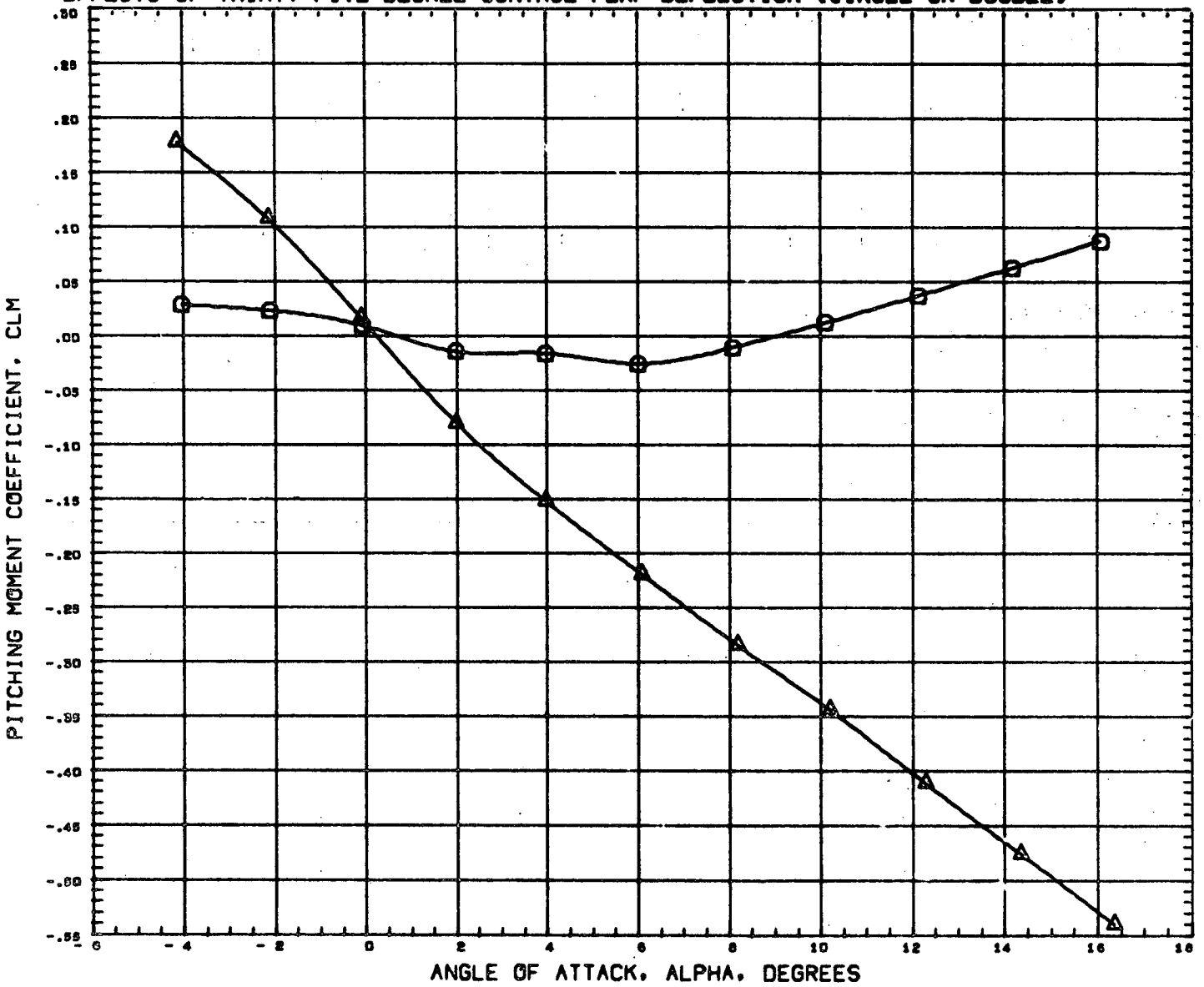


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

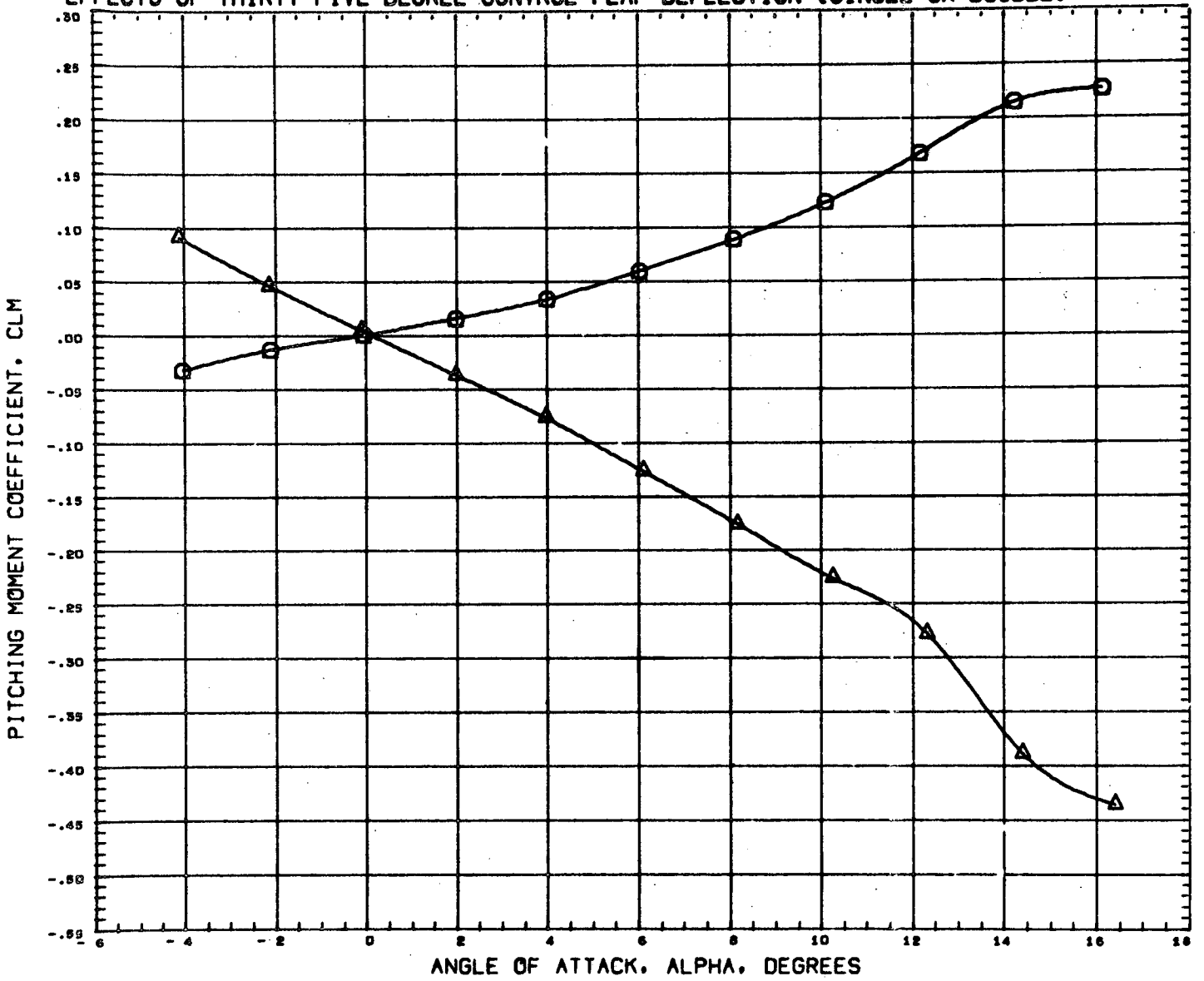


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50080)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 0.900

REFERENCE INFORMATION		
SRE	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

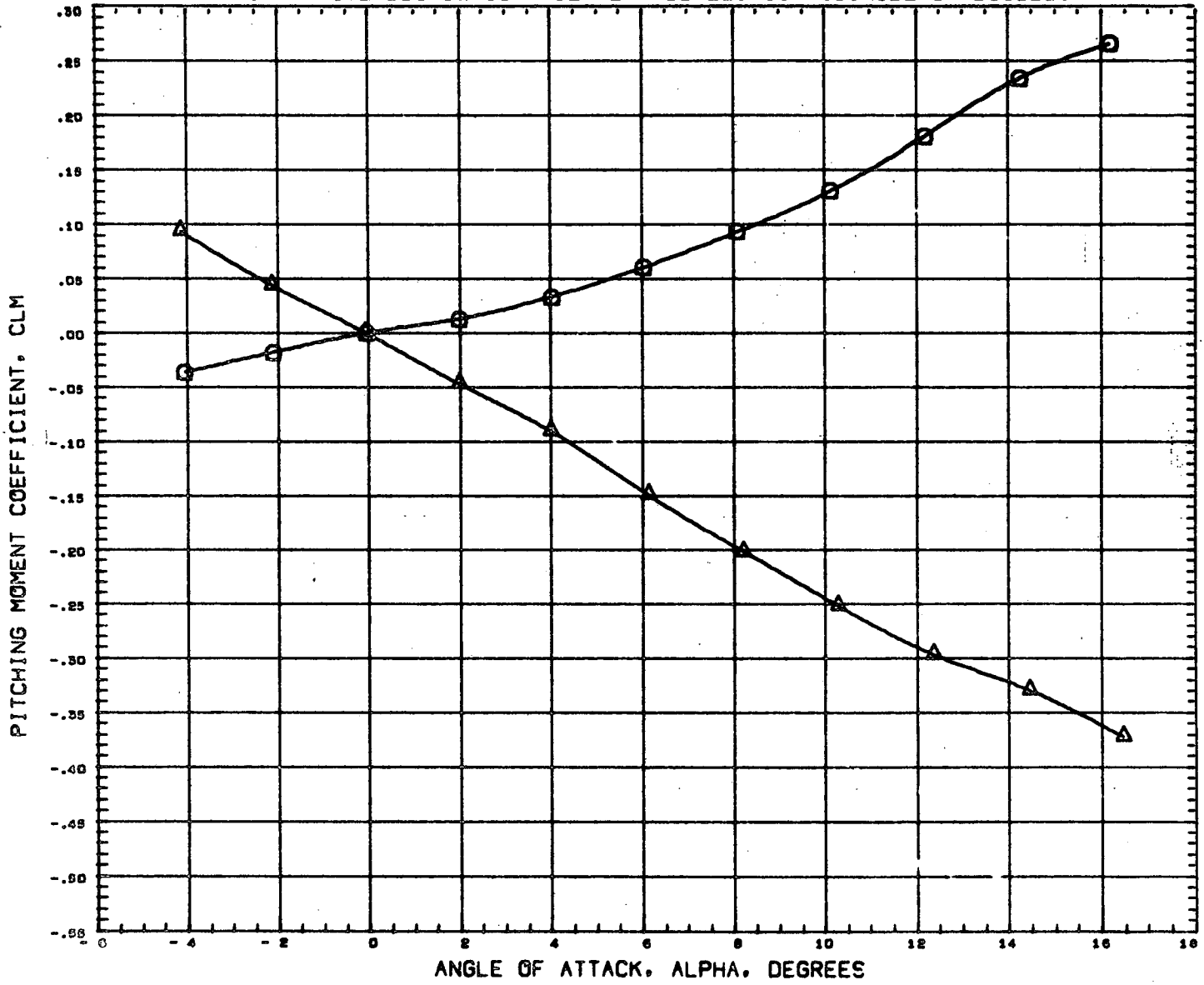


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.100

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

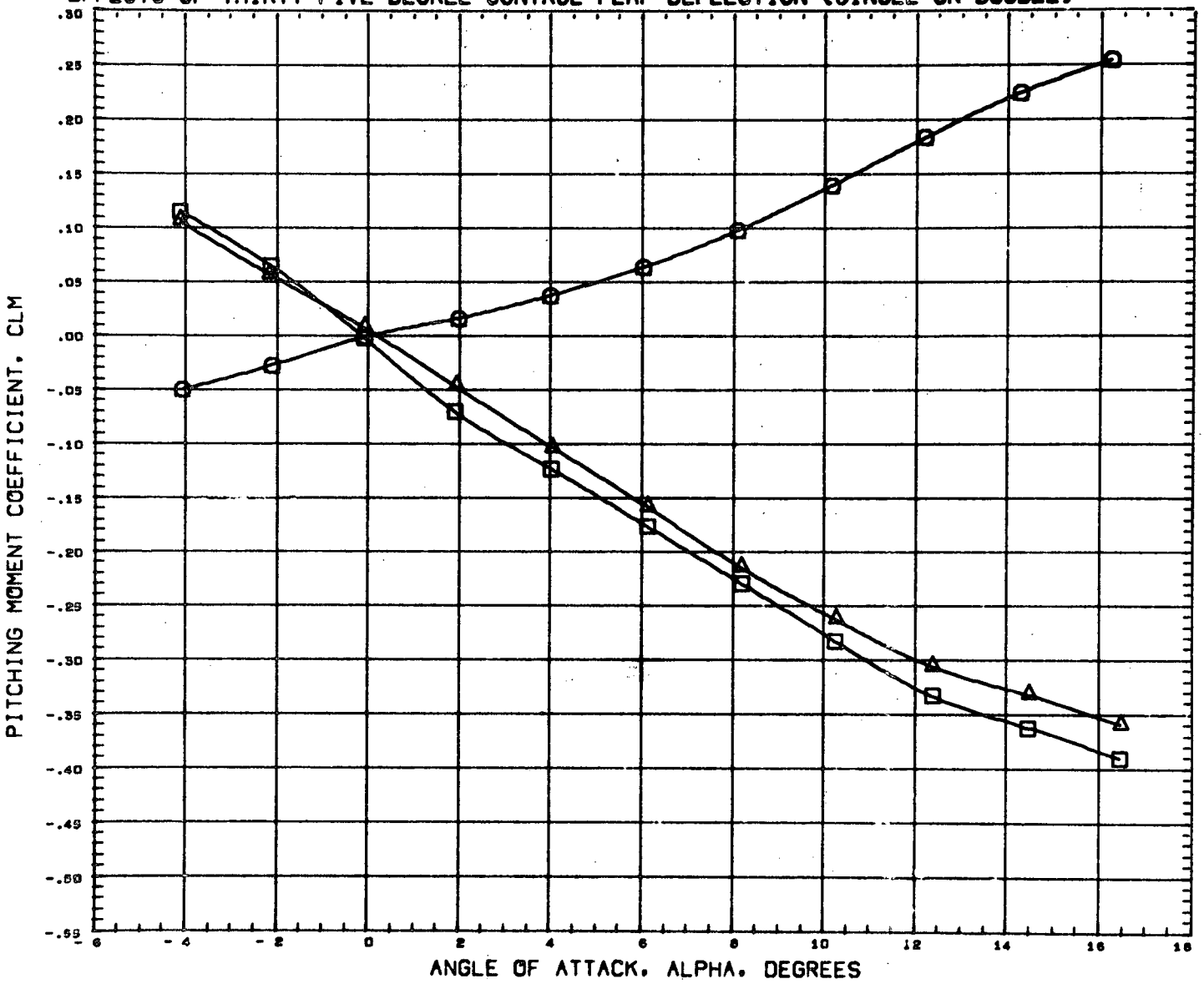


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHINOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .003306 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .003306 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.201

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

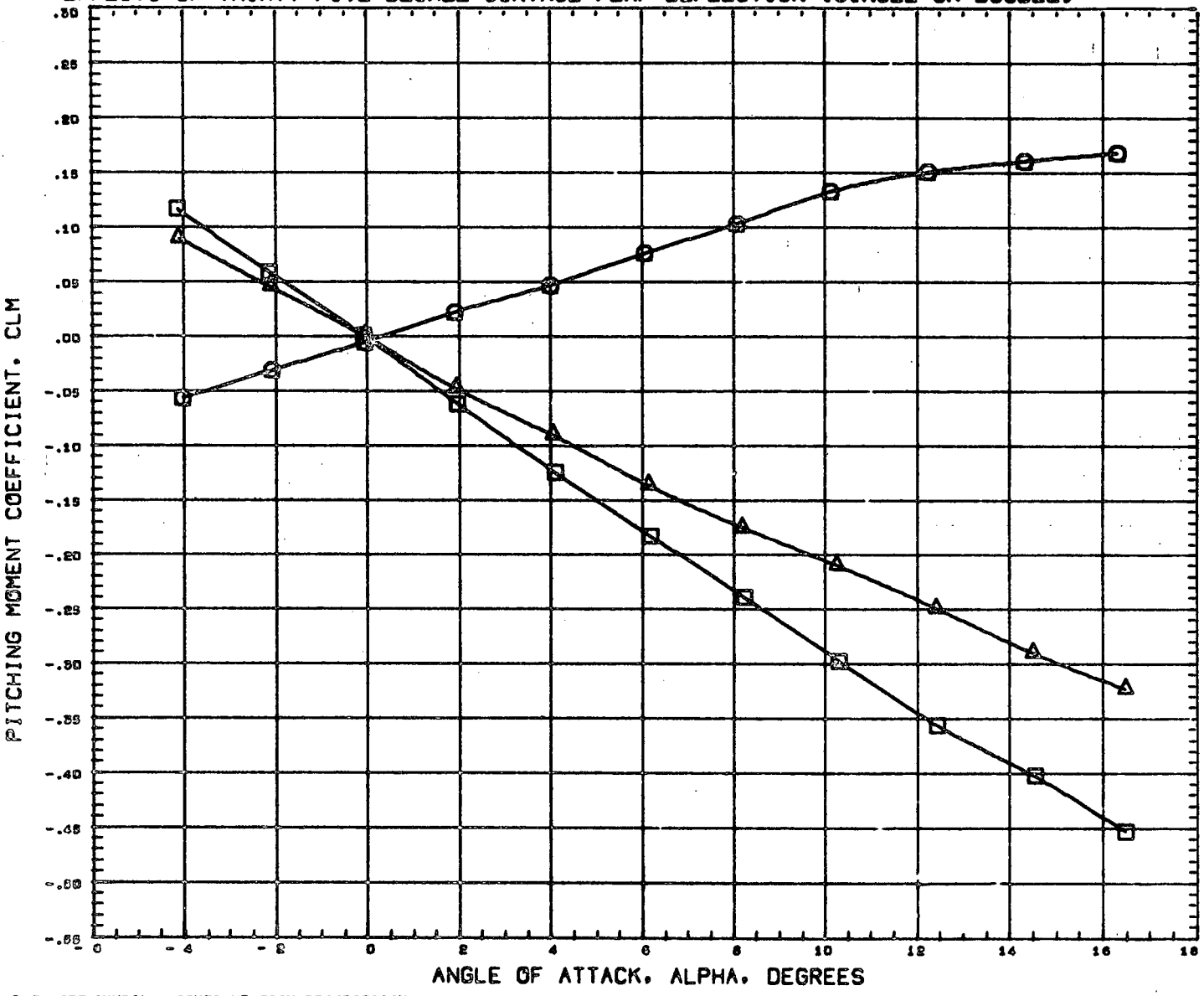


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

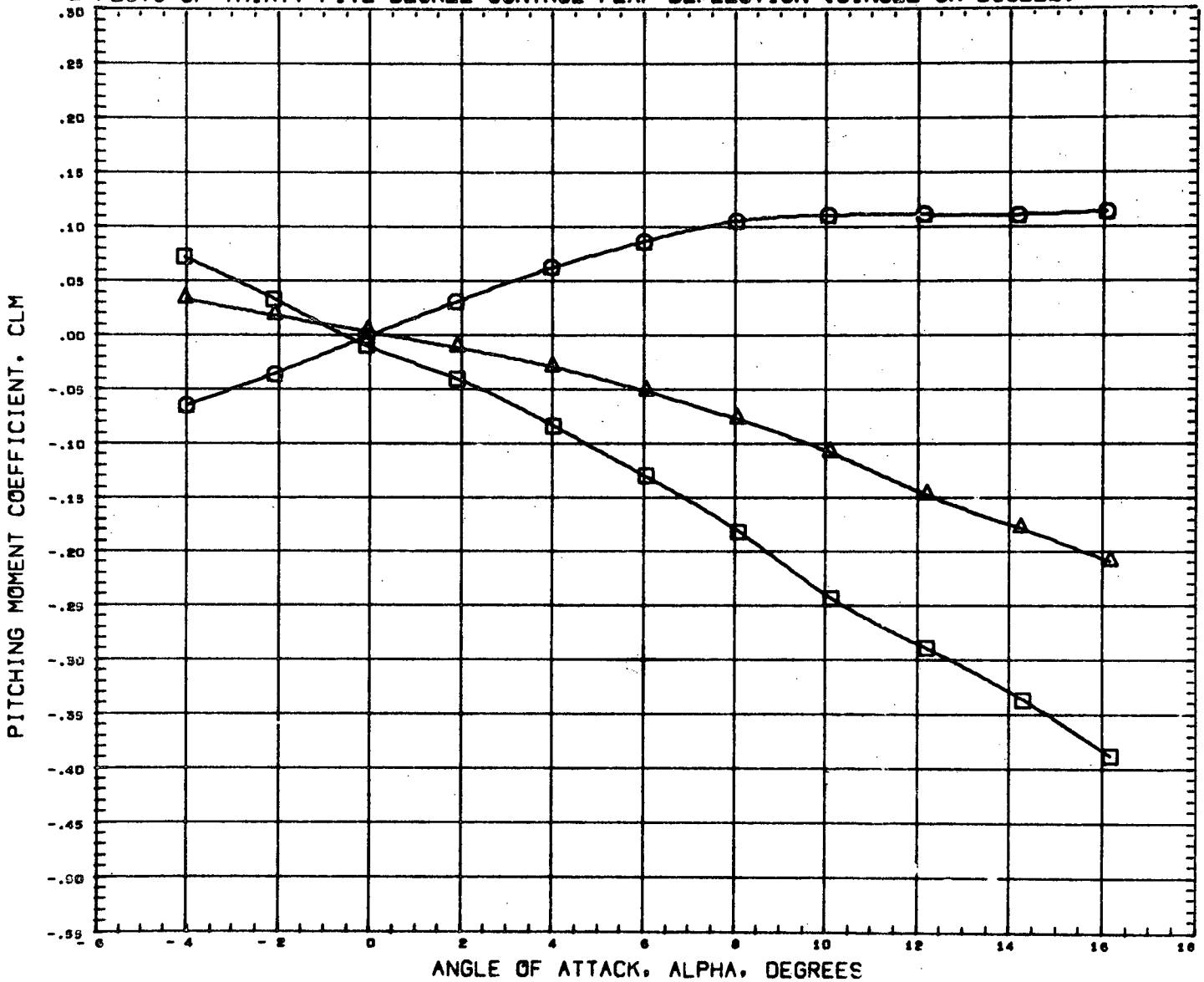


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .009366 BOOSTER	B34R6	0.000	45.000		
(D50010)		MSFC 512 GD/C .009366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)		MSFC 512 GD/C .009366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

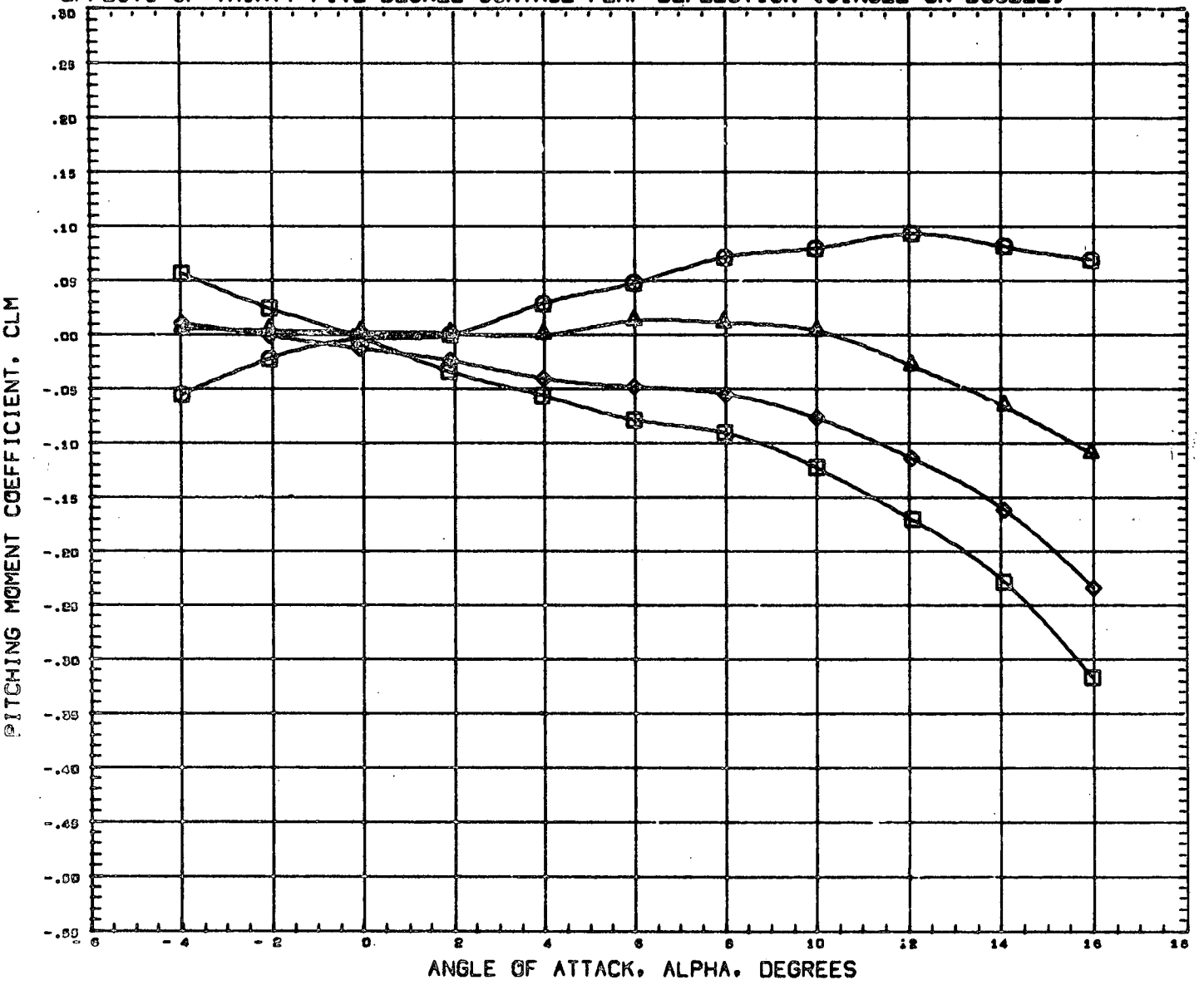


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.741

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

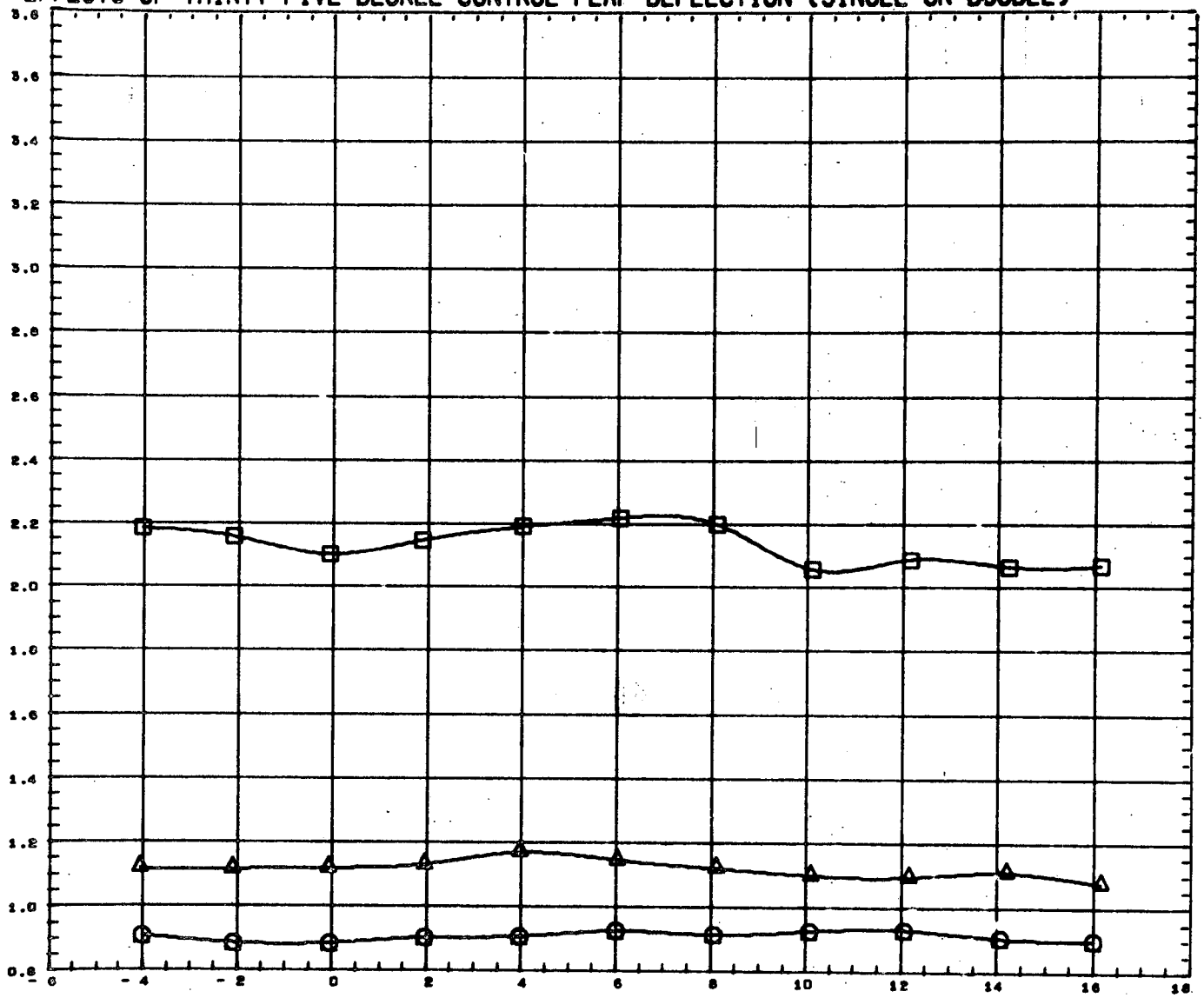


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D90110)		MSFC 512 GD/C .009366 BOOSTER	B34R6	0.000	45.000		
(D90010)		MSFC 512 GD/C .009366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D90060)		MSFC 512 GD/C .009366 BOOSTER	B34R6T14	0.000	0.000	35.000	0.000
(D90000)		MSFC 512 GD/C .009366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

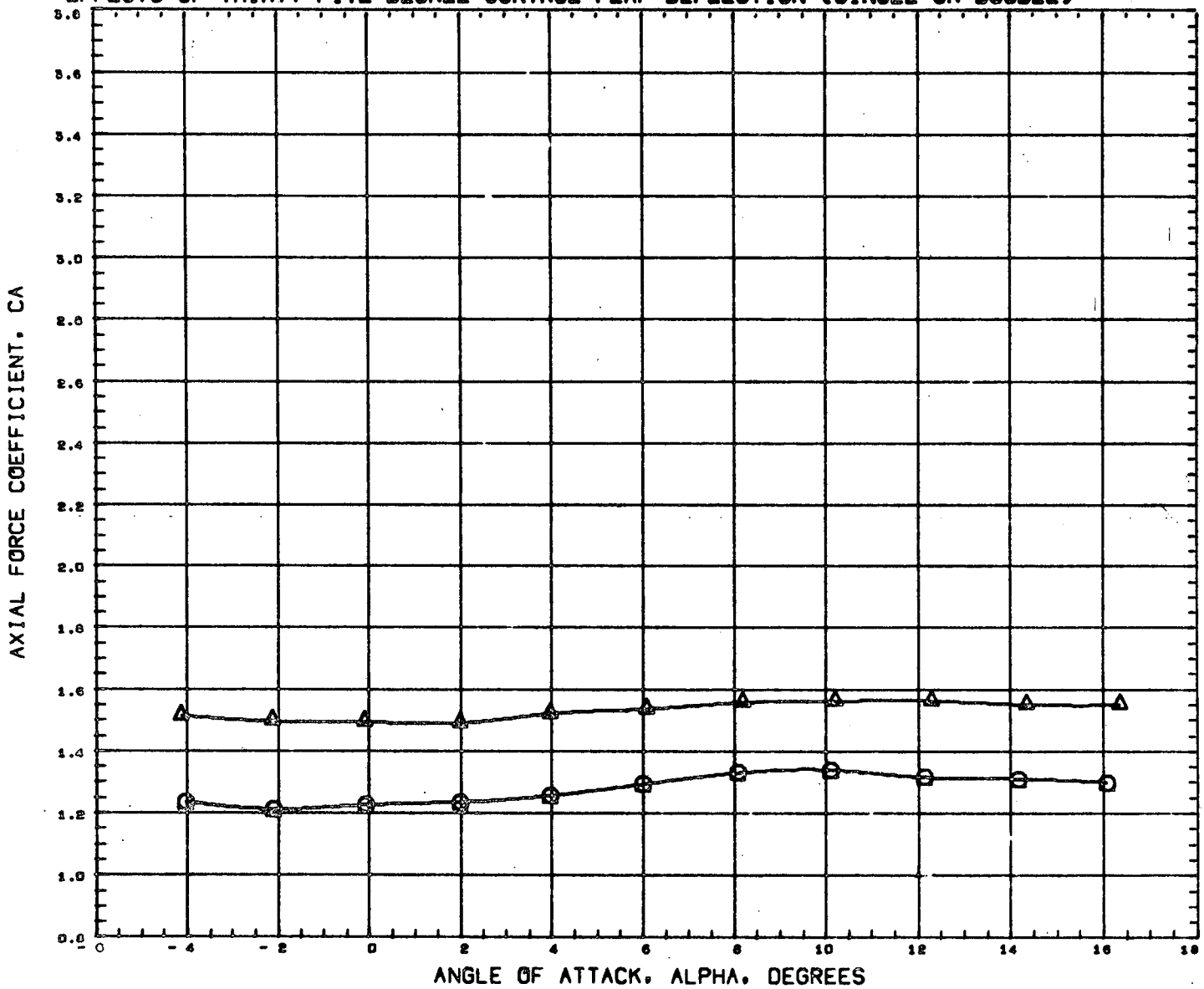


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	▢	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

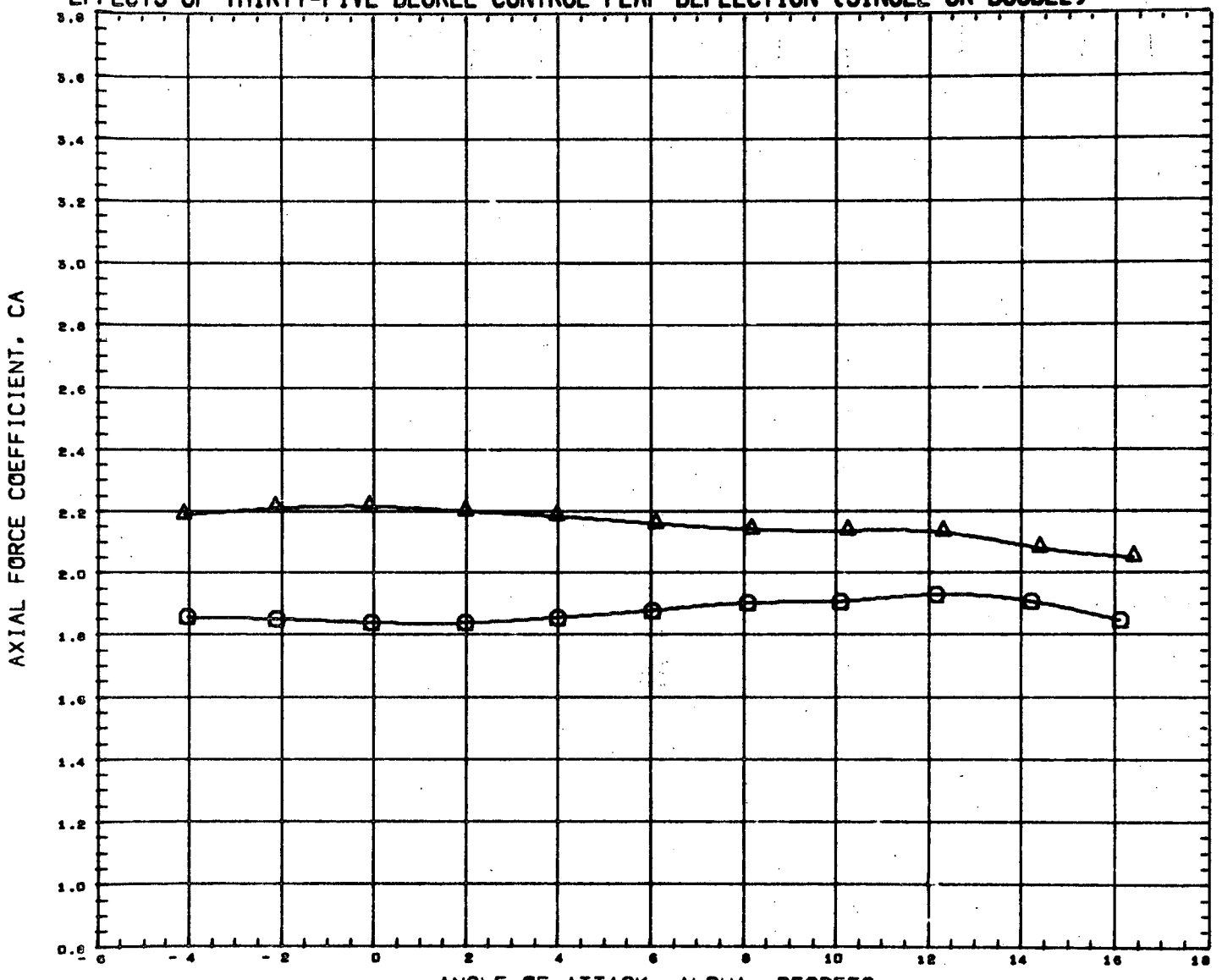


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

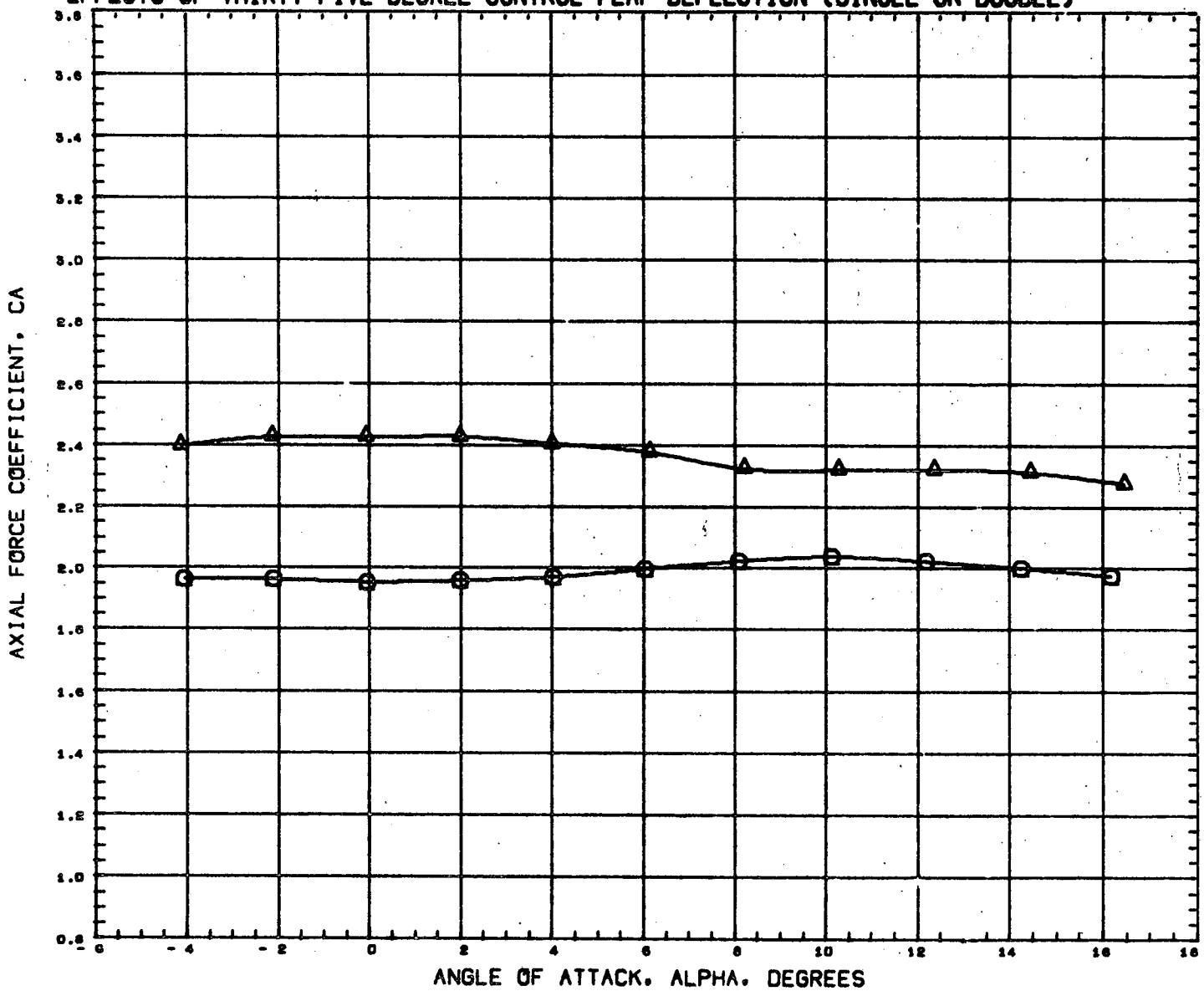


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHINOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	35.000	35.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

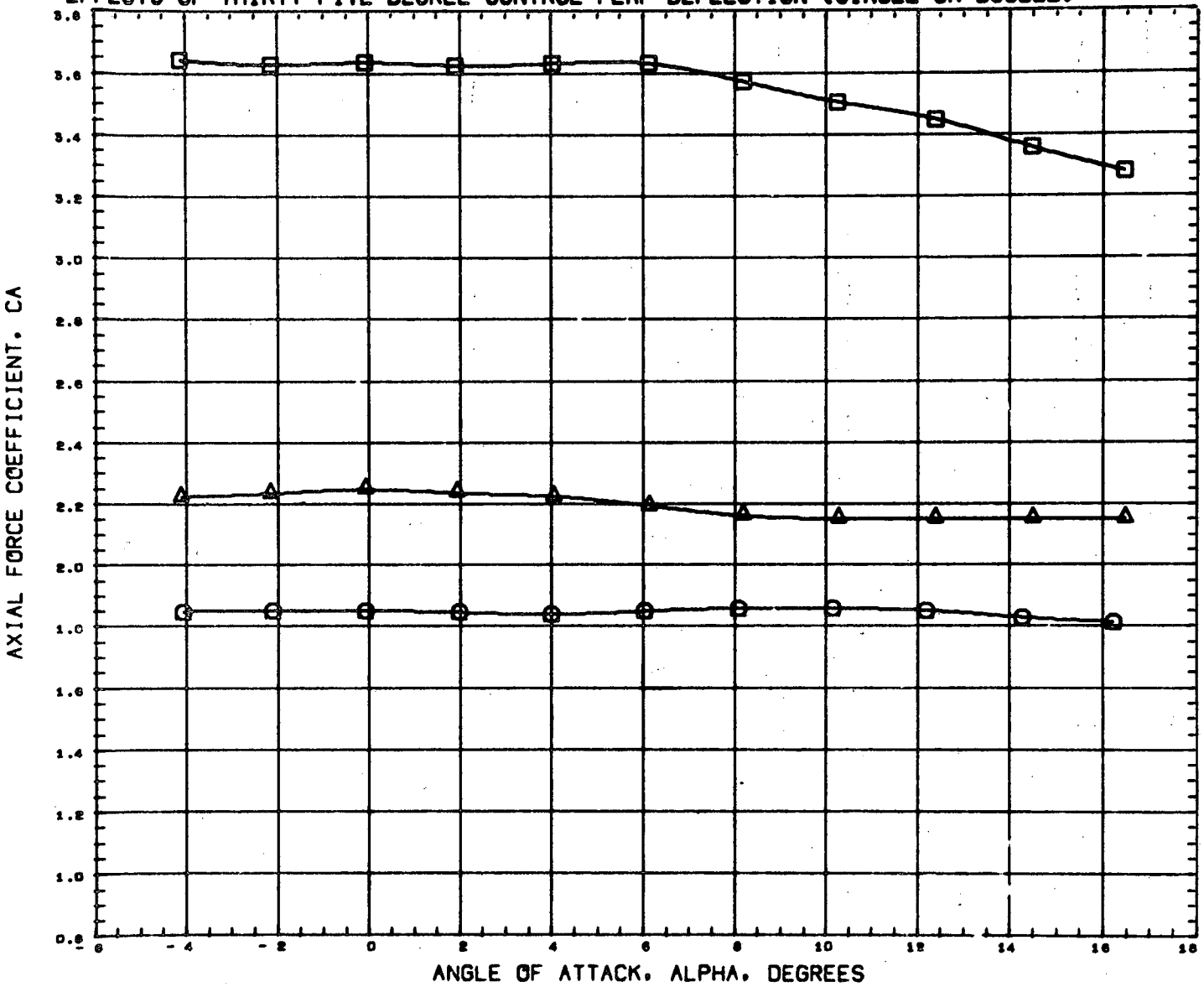


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		M&FC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(D50010)		M&FC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

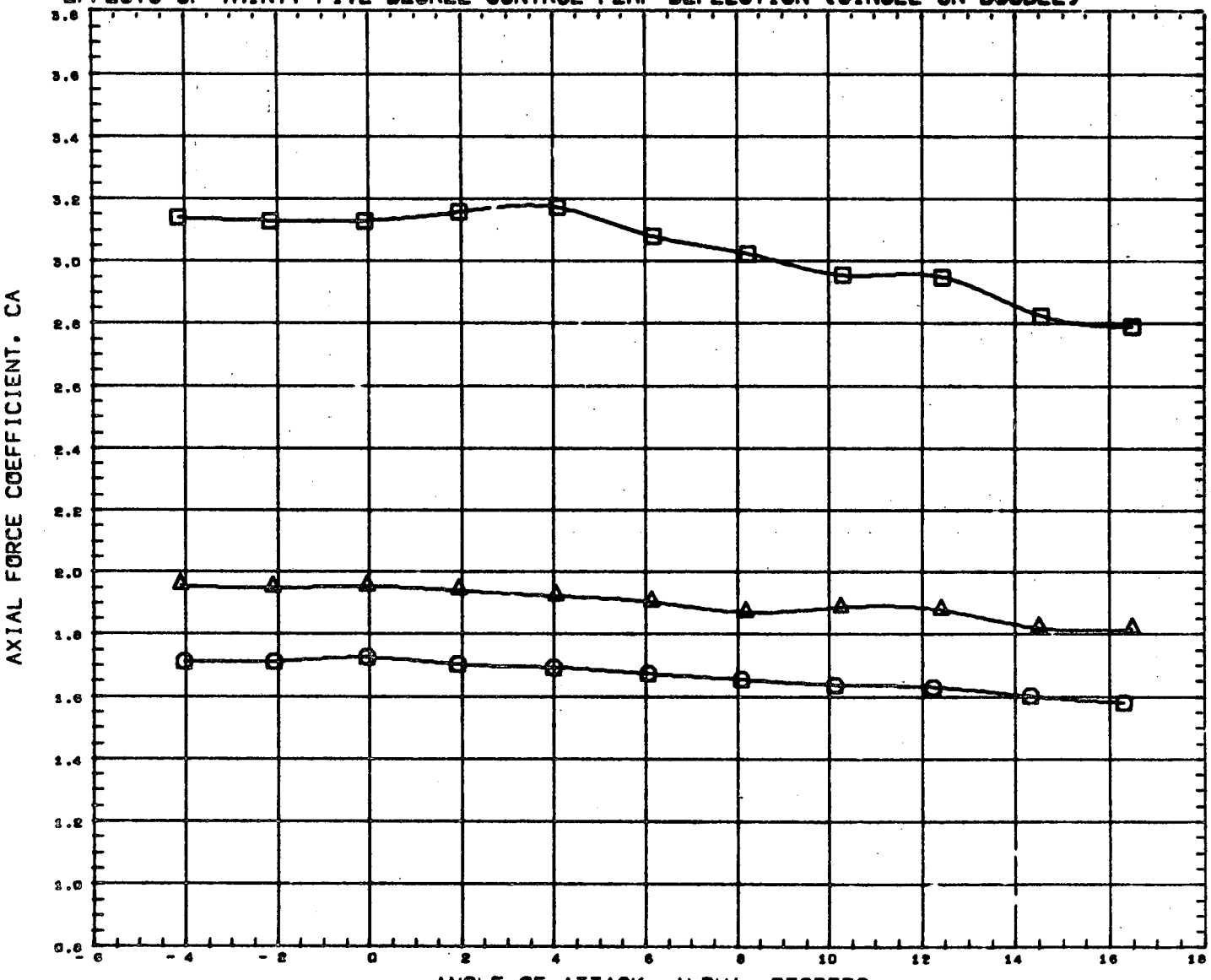


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

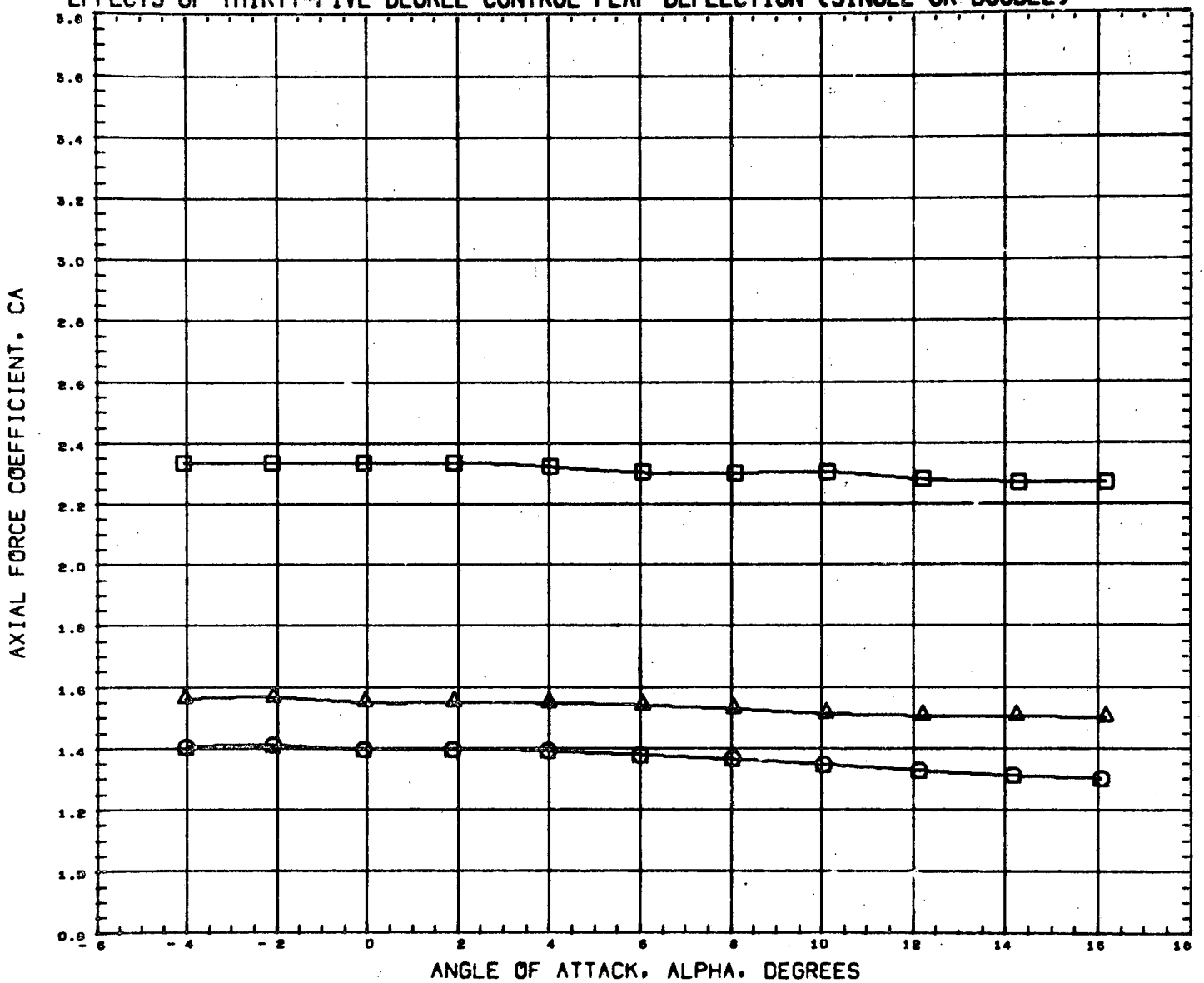


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

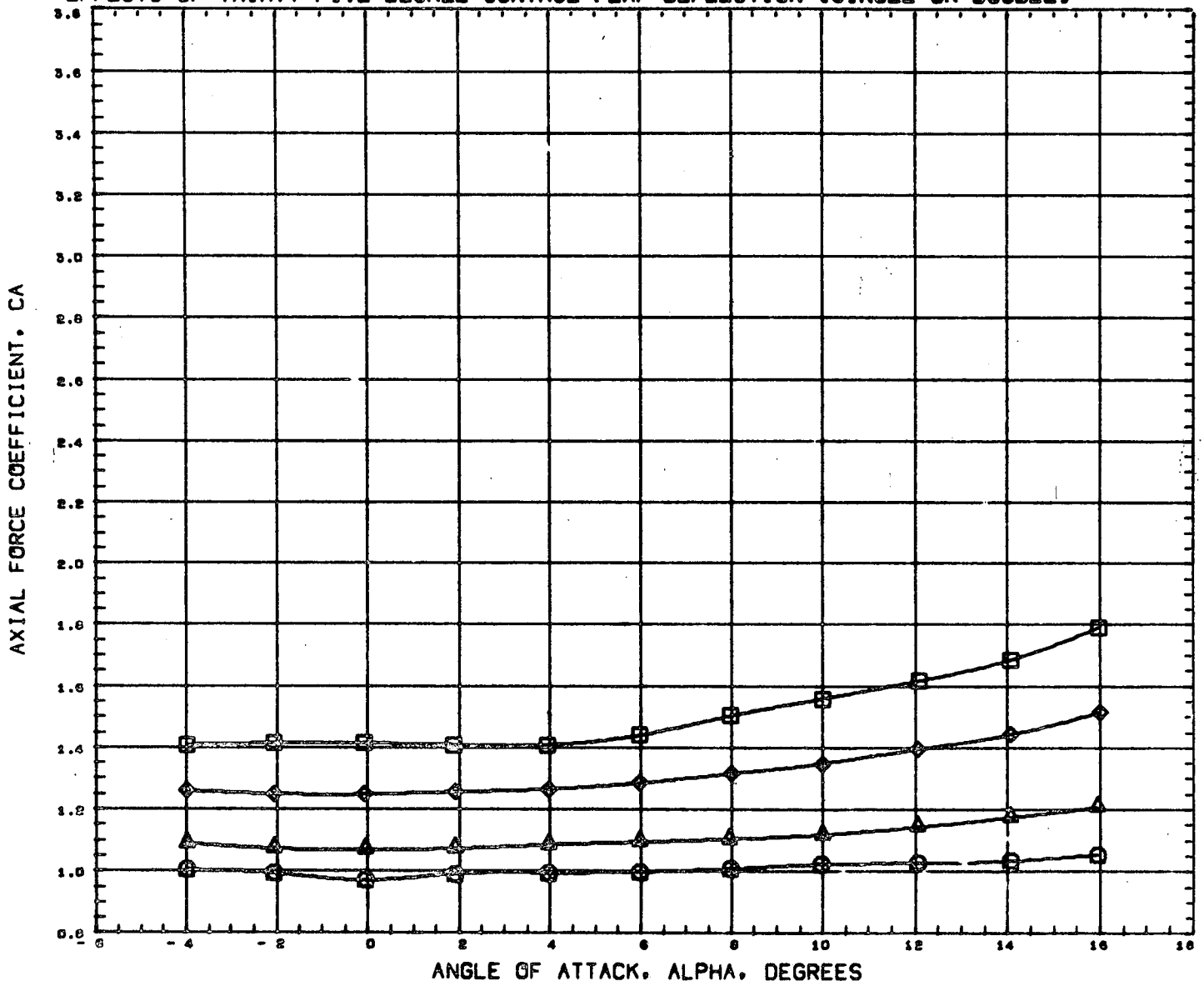


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

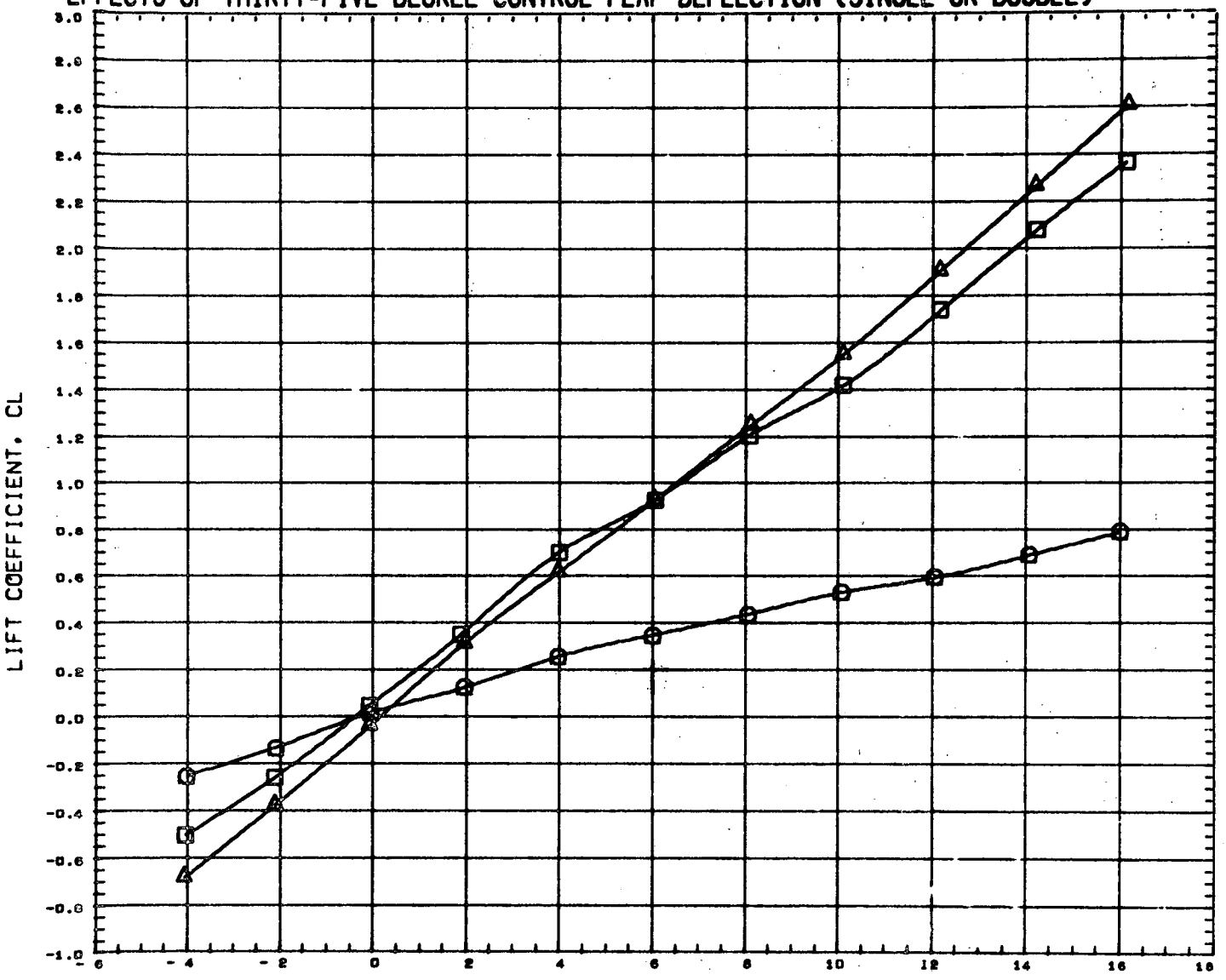


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		MSFC 512 GD/C .003366 BOOSTER	B34R6T14	0.000	0.000	35.000	0.000
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SRE	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

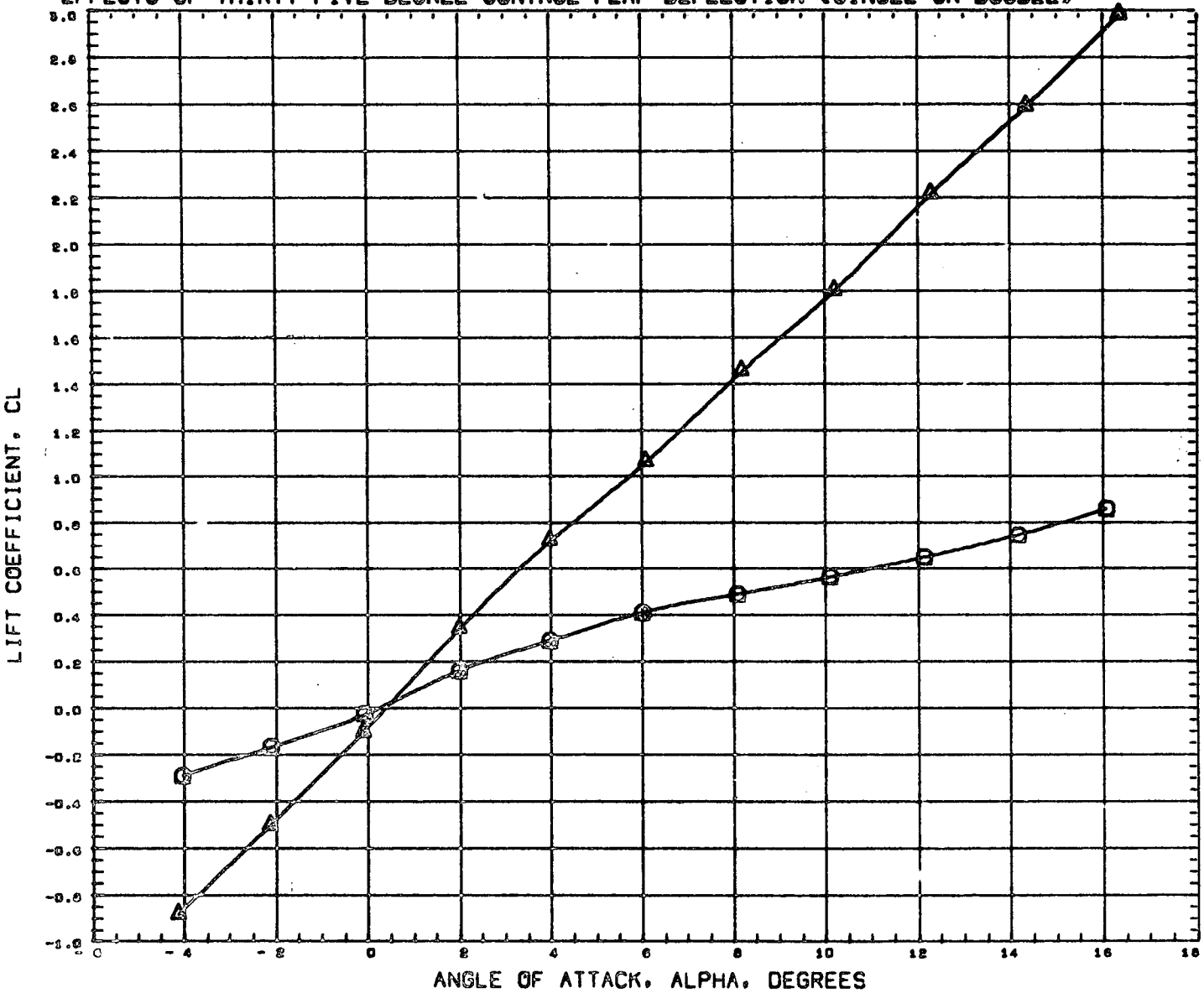


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

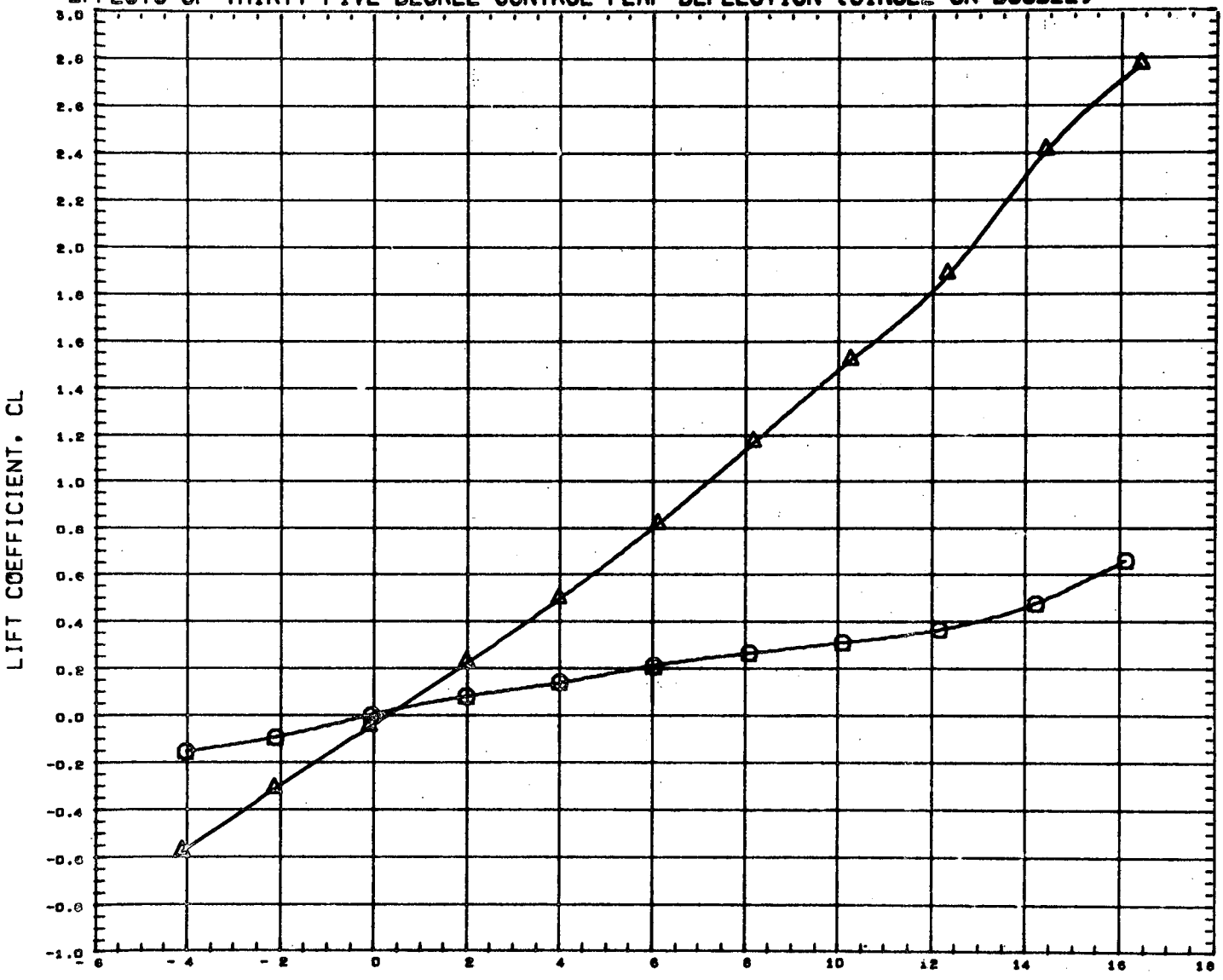


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	M8FC 912 GD/C .008960 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	M8FC 912 GD/C .008960 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50060)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	-35.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

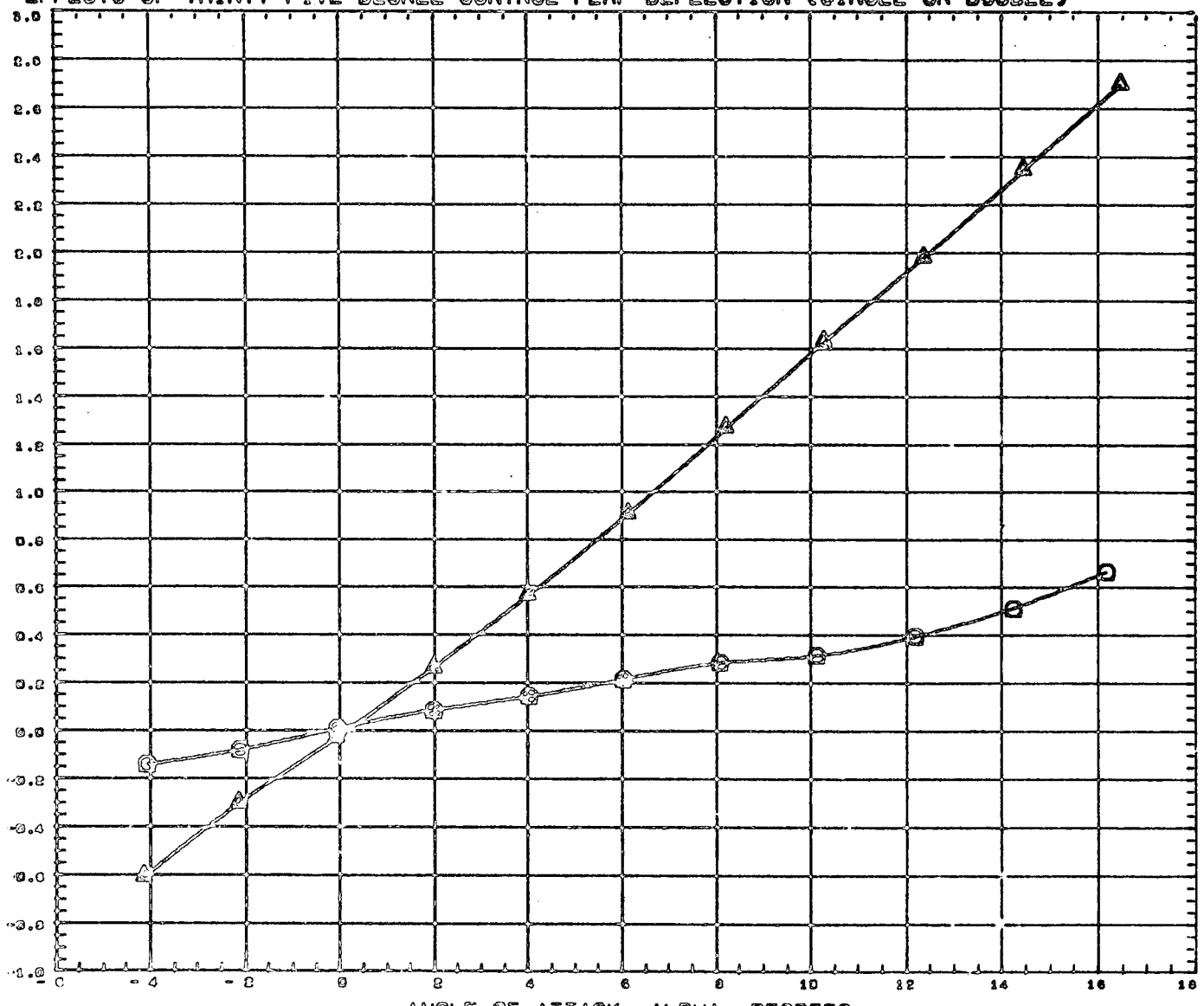


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

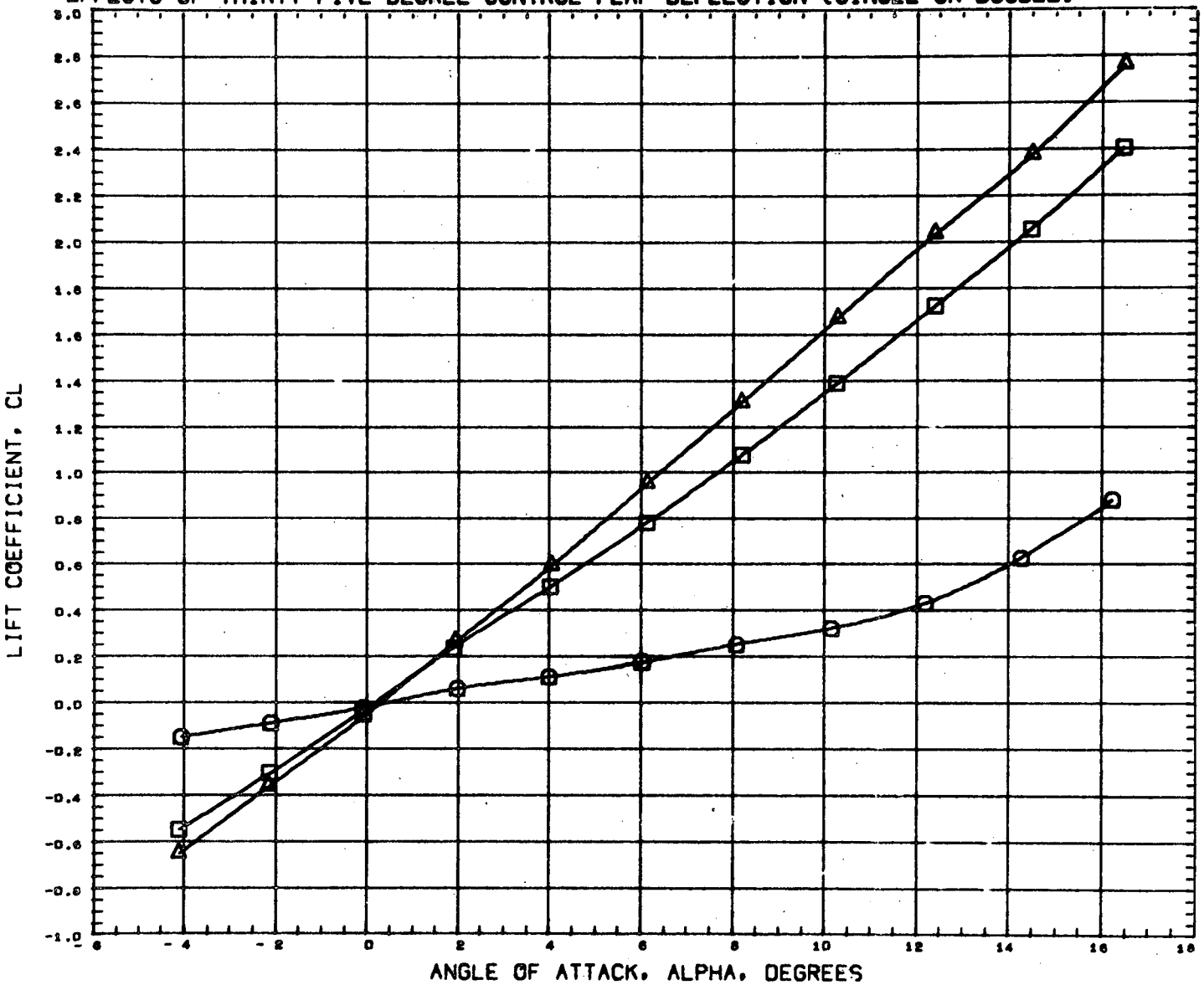


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	M3FC 912 60/C .030DC0 DOUBLER	D54R6	0.000	45.000		
(D50010)	M3FC 912 60/C .030DC0 DOUBLER	D54R6T10	0.000	0.000	0.000	0.000
(D50000)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50000)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 3.201

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

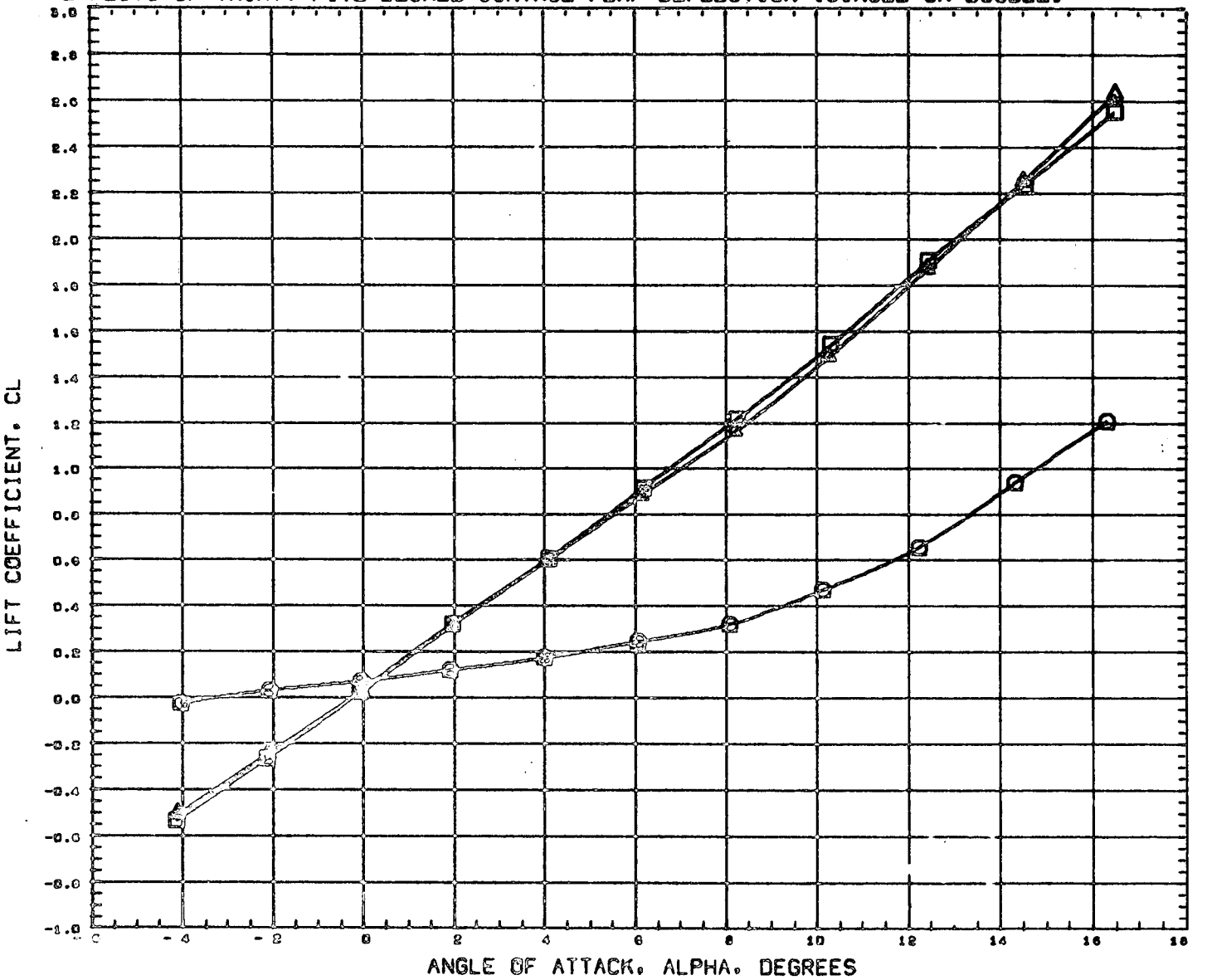


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50080)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
AMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

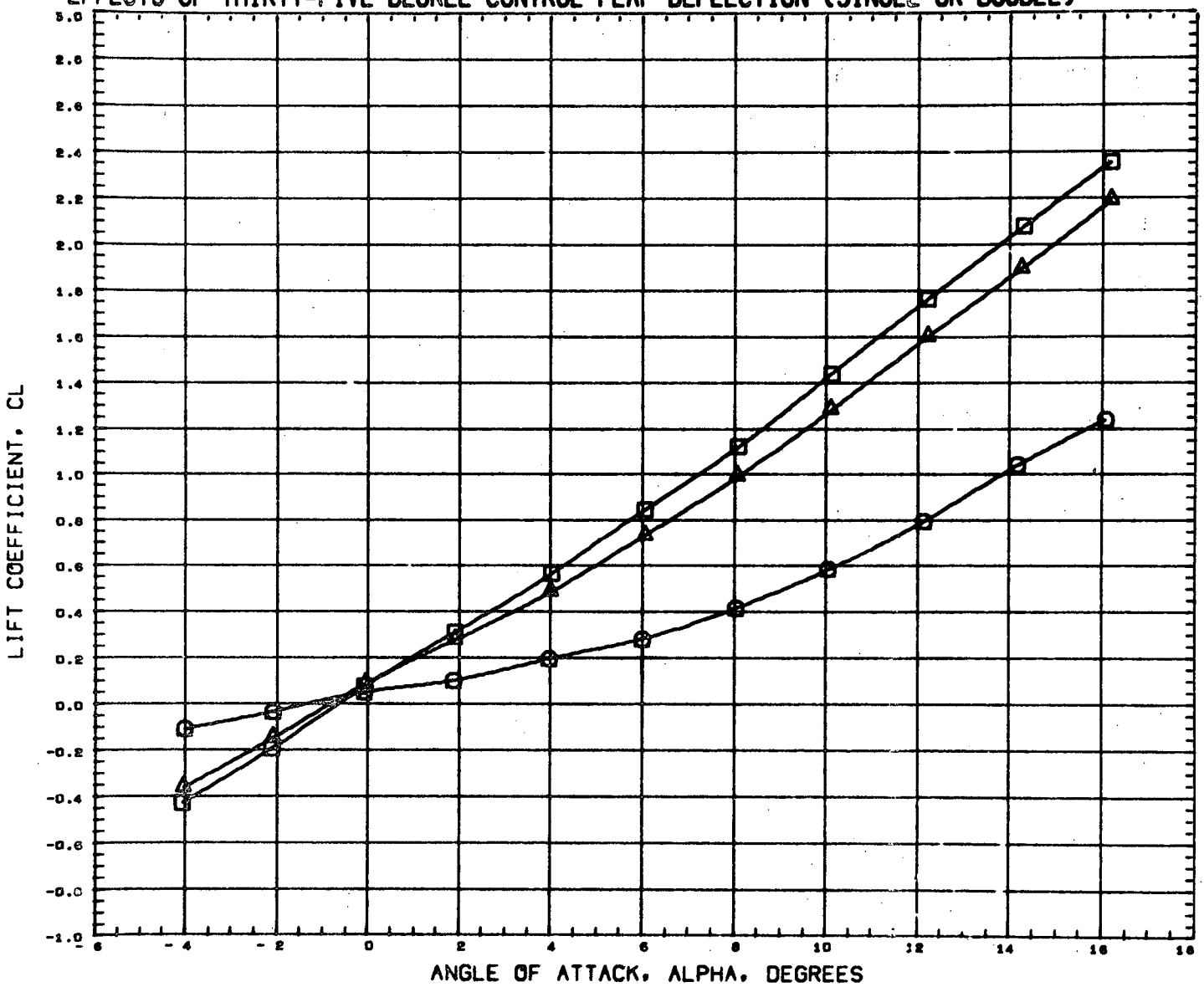


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS010)	○	M8FC 912 GD/C .005SCO BOOSTER	B36RG	0.000	45.000		
(DS0010)	△	M8FC 912 GD/C .005SCO BOOSTER	B36R6T1D	0.000	0.000	0.000	0.000
(DS0060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0000)	□	M8FC 912 GD/C .005SCO BOOSTER	B36ROT1Y	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.600

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

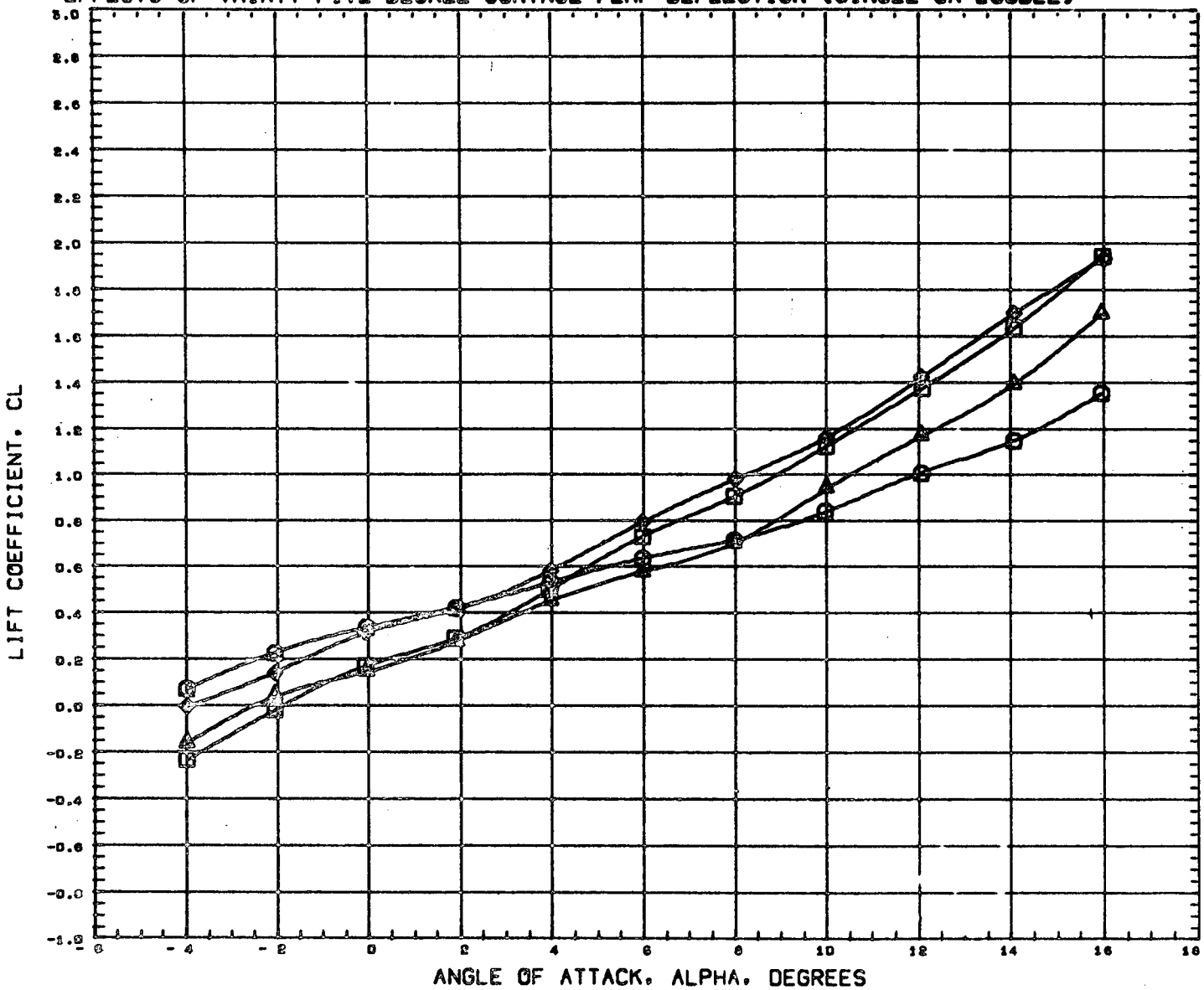


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

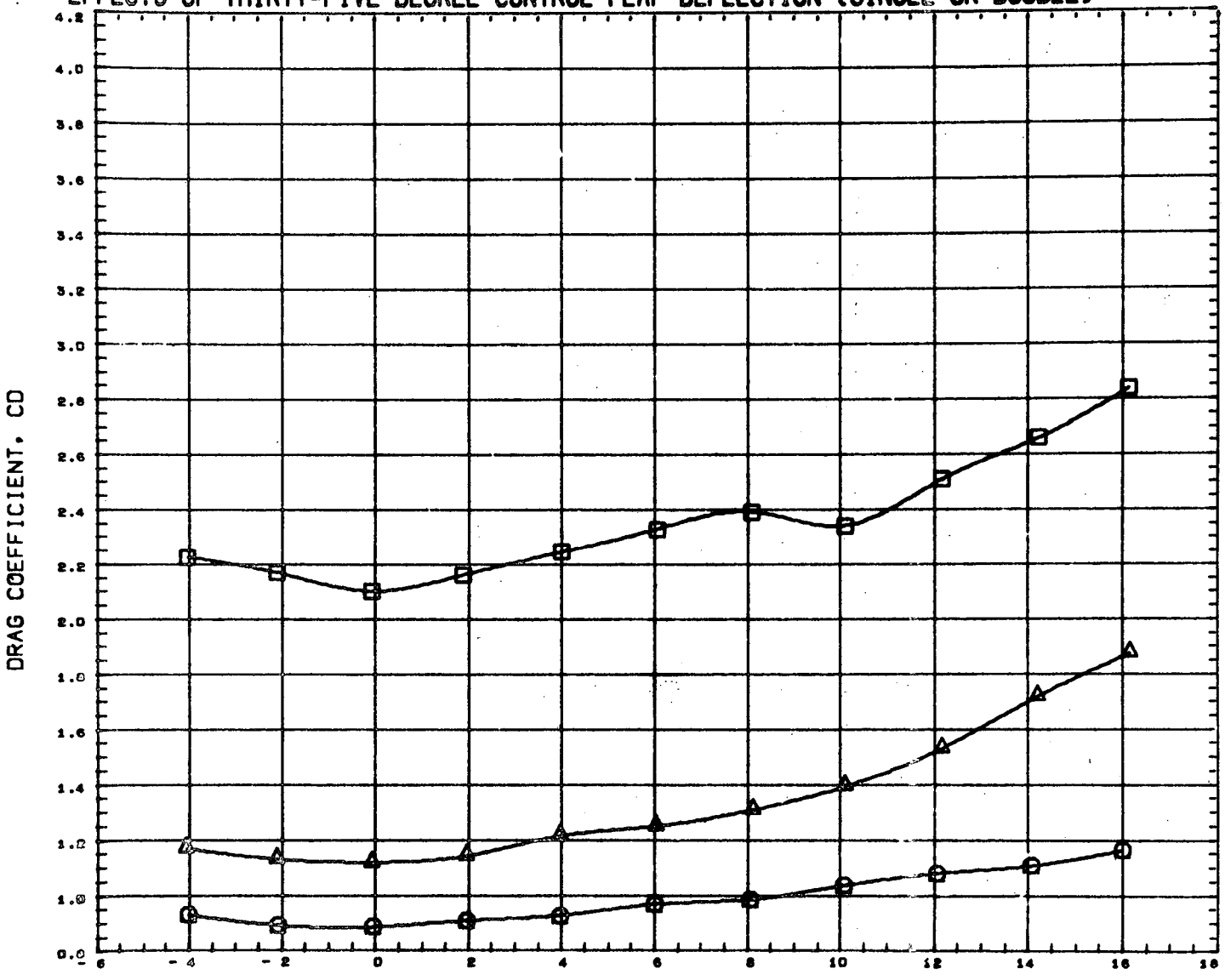


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		M8FC 512 6D/C .003936 DOUBYER	B34RG	0.000	45.000		
(D50010)		M8FC 512 6D/C .003936 DOUBYER	B34RGT10	0.000	0.000	0.000	0.000
(D50060)		M8FC 512 6D/C .003936 DOUBYER	B34RGT14	0.000	0.000	35.000	0.000
(D50090)		M8FC 512 6D/C .003936 DOUBYER	B34RGT17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

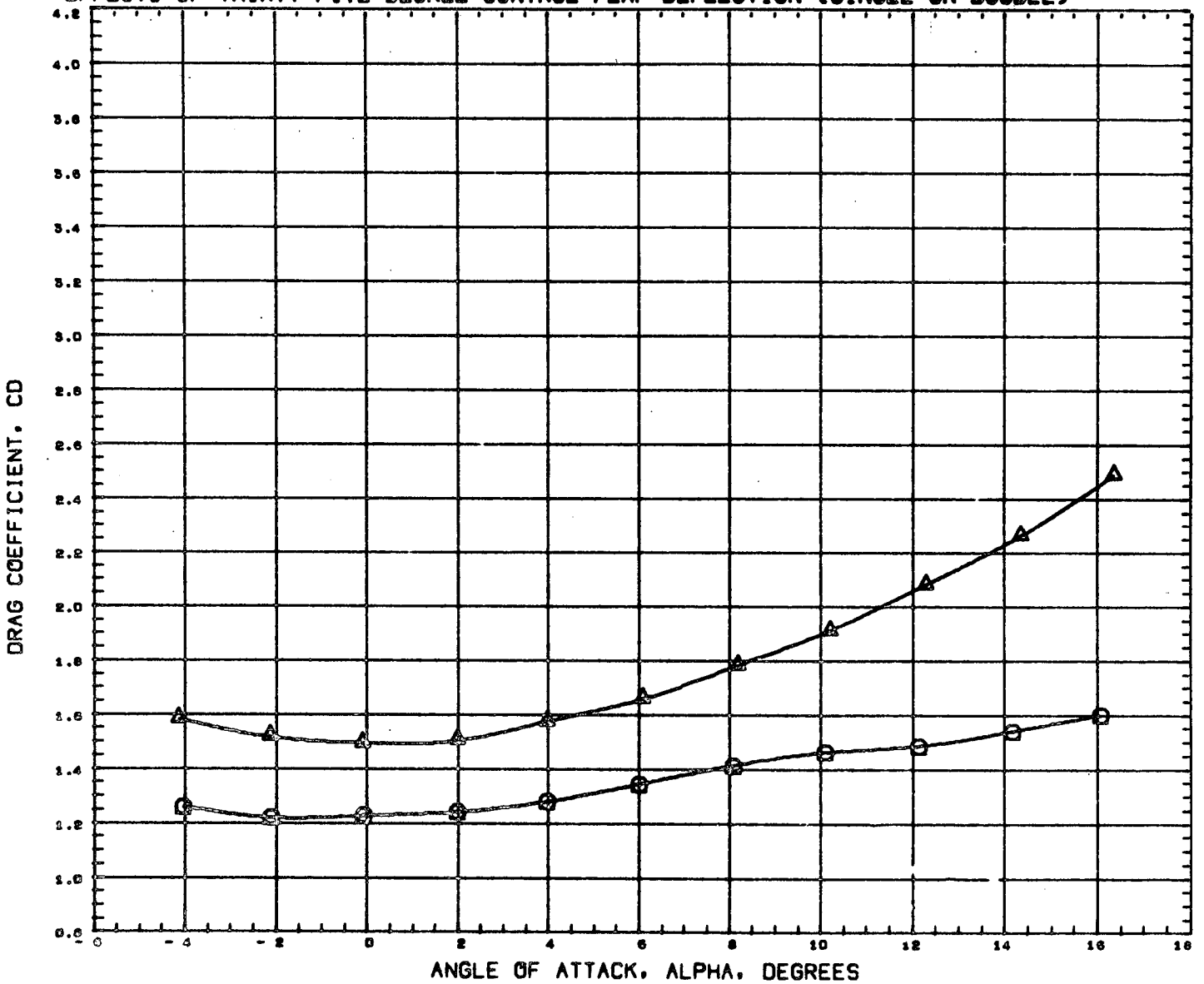


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

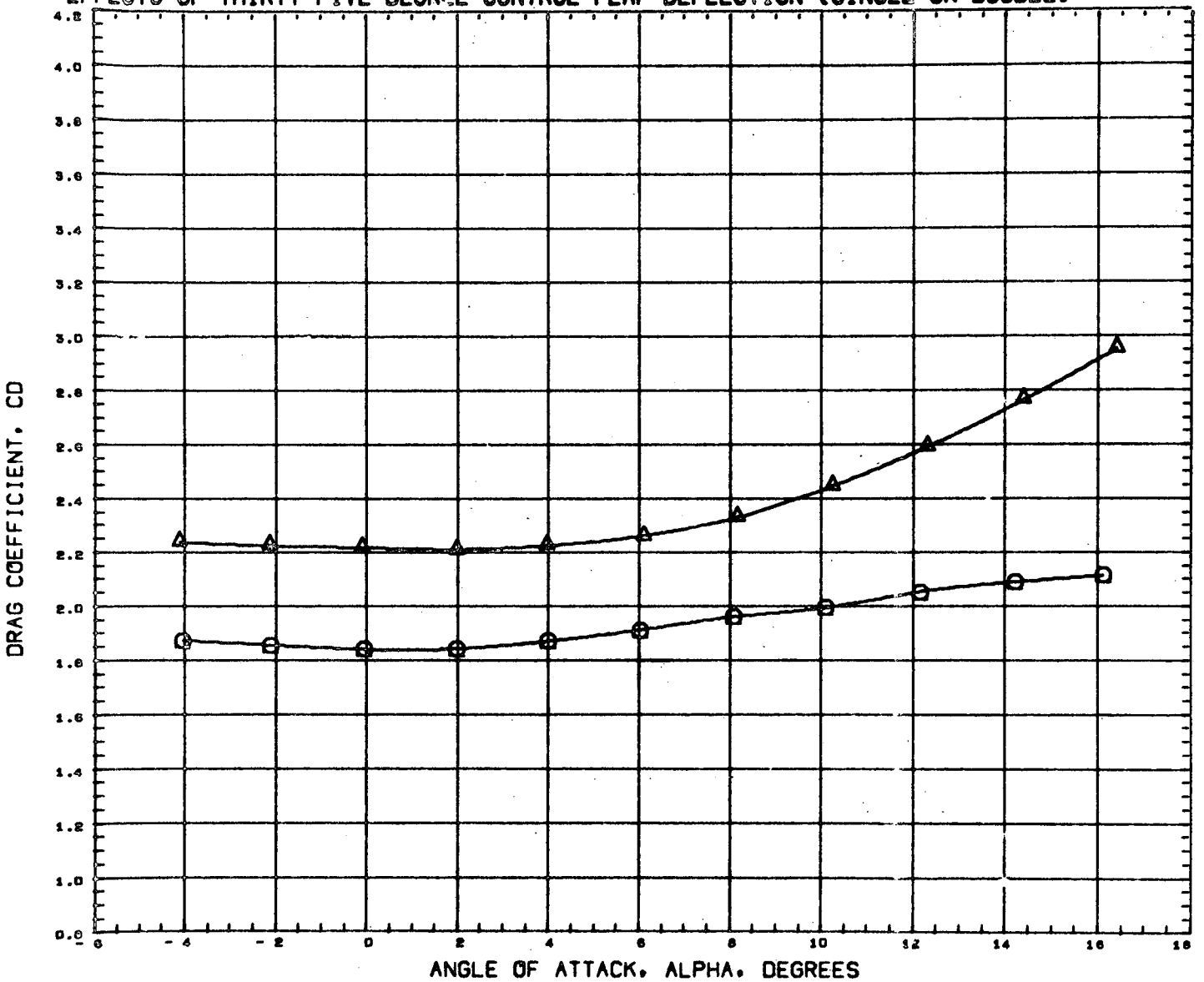


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .009866 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .009866 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

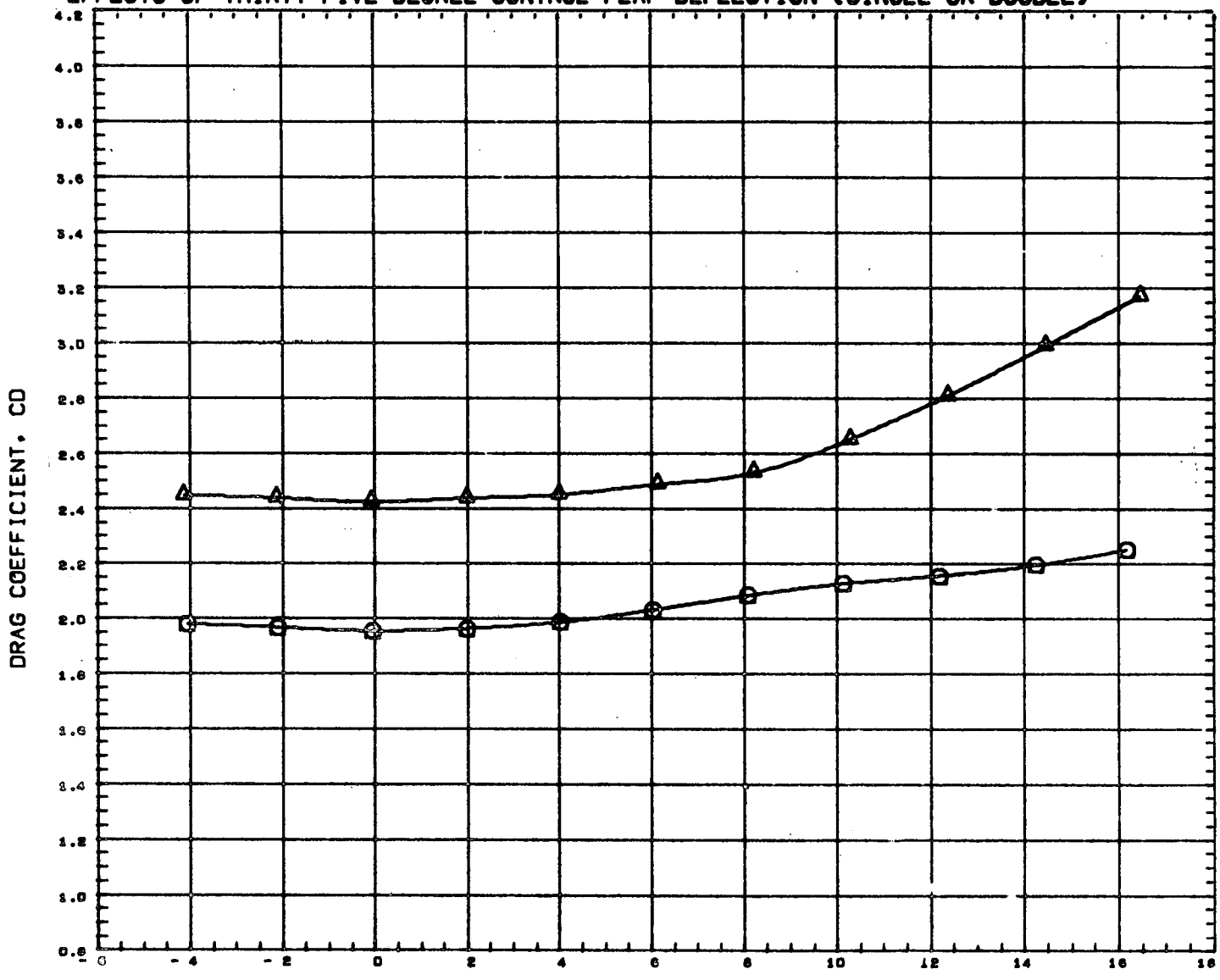


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003386 BOOSTER	B34R6	0.000	45.000		
(D50010)		MSFC 512 GD/C .003386 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

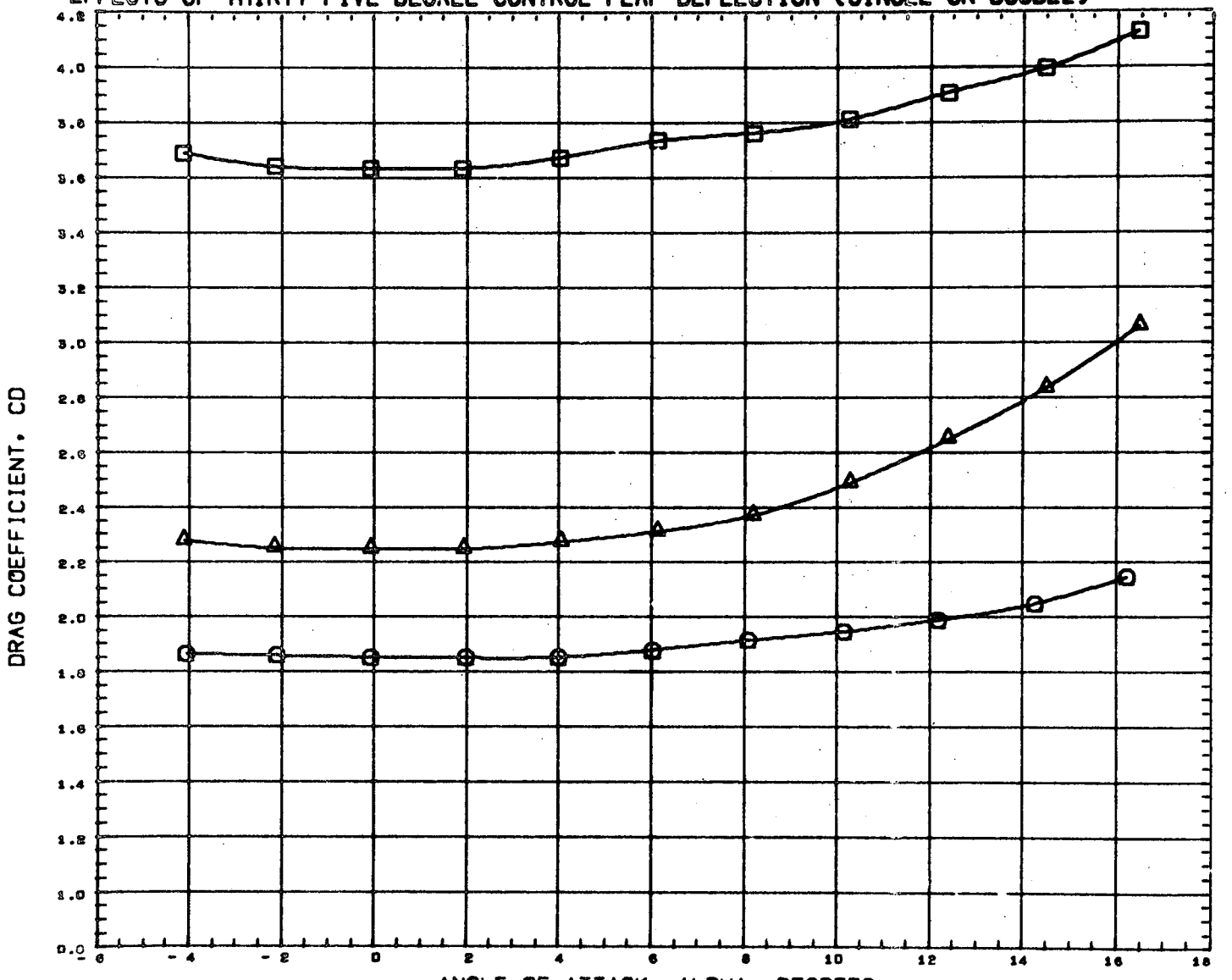


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	M8FC 512 GD/C .003906 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	M8FC 512 GD/C .003960 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

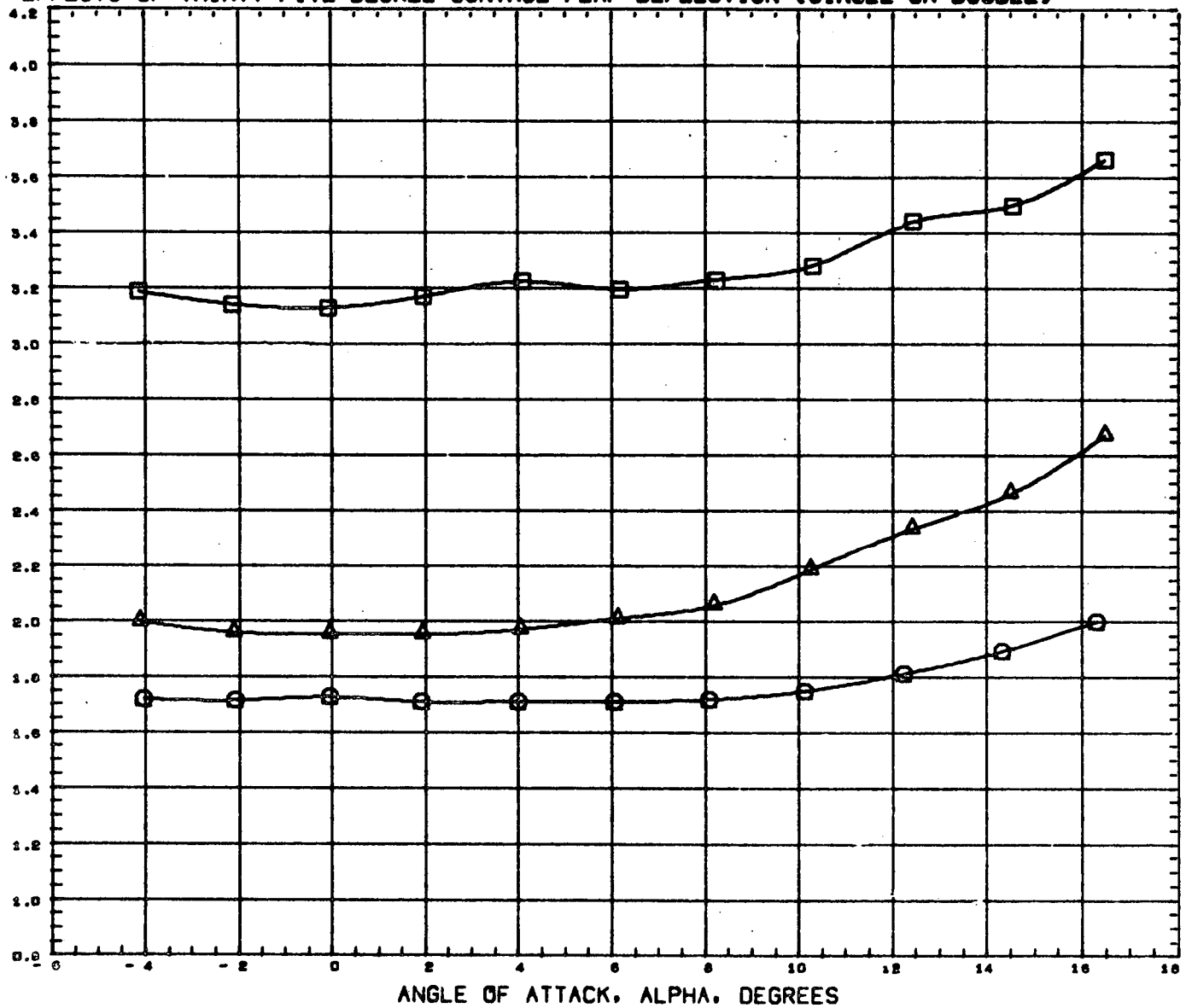


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003566 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003566 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.459

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

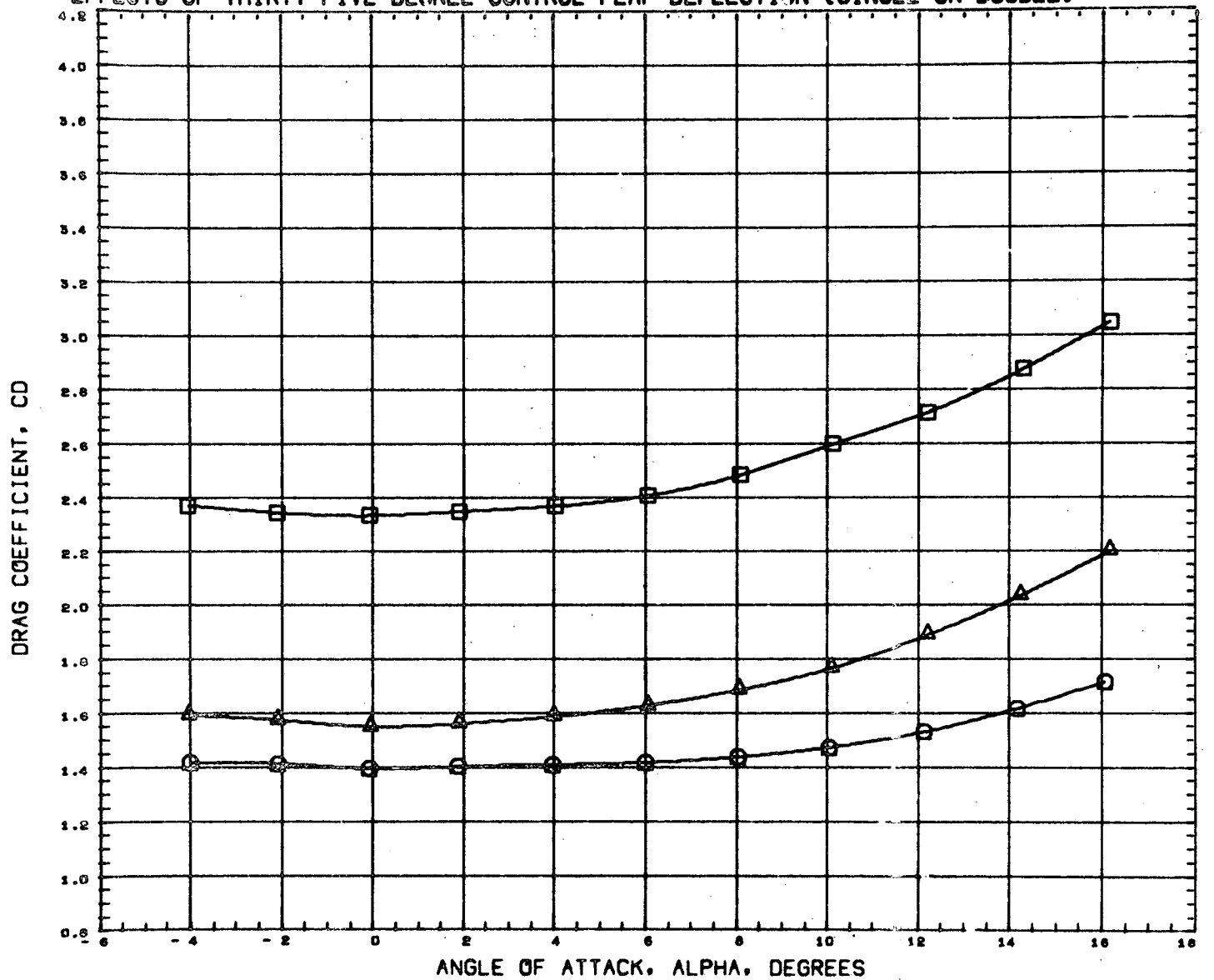


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

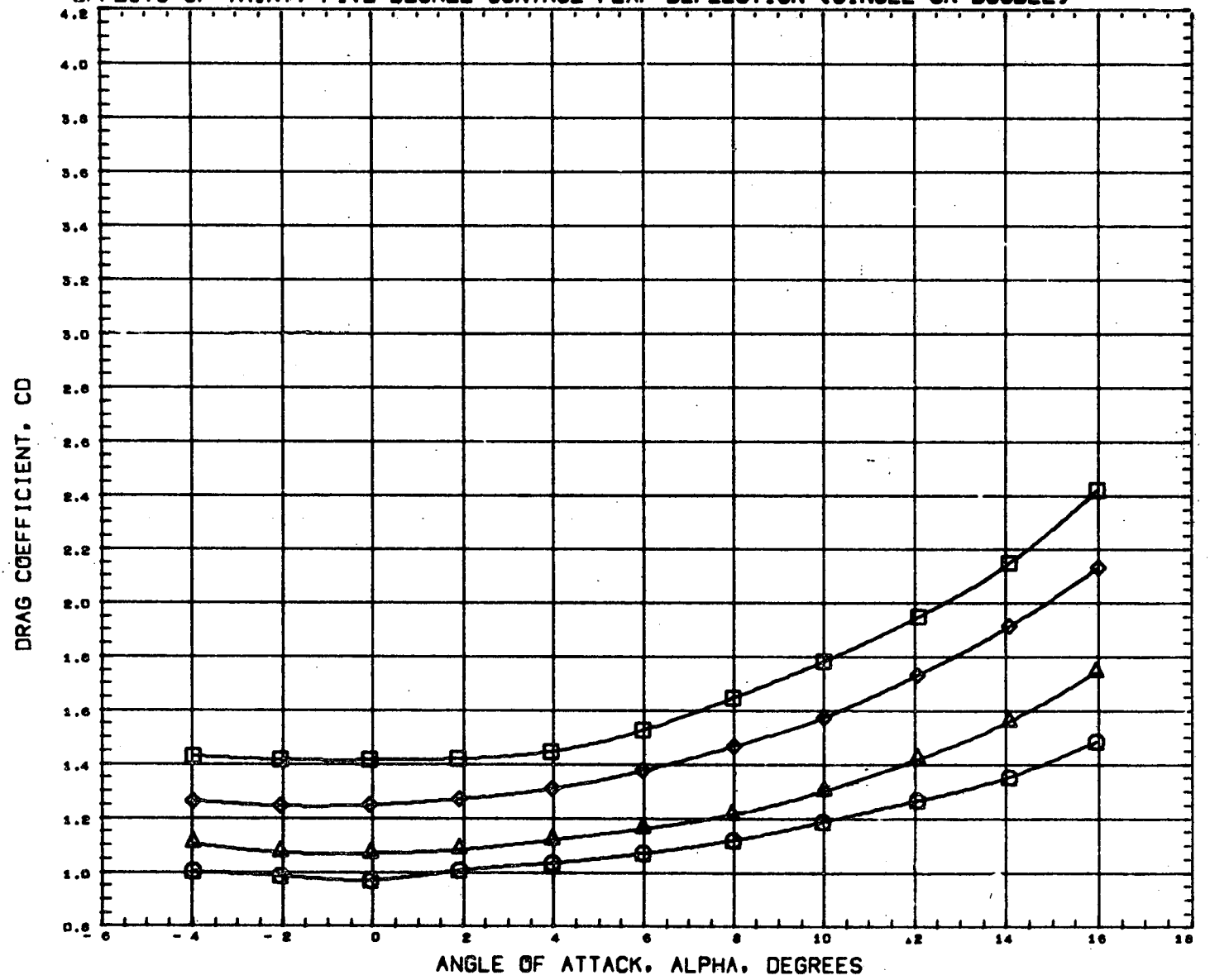


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

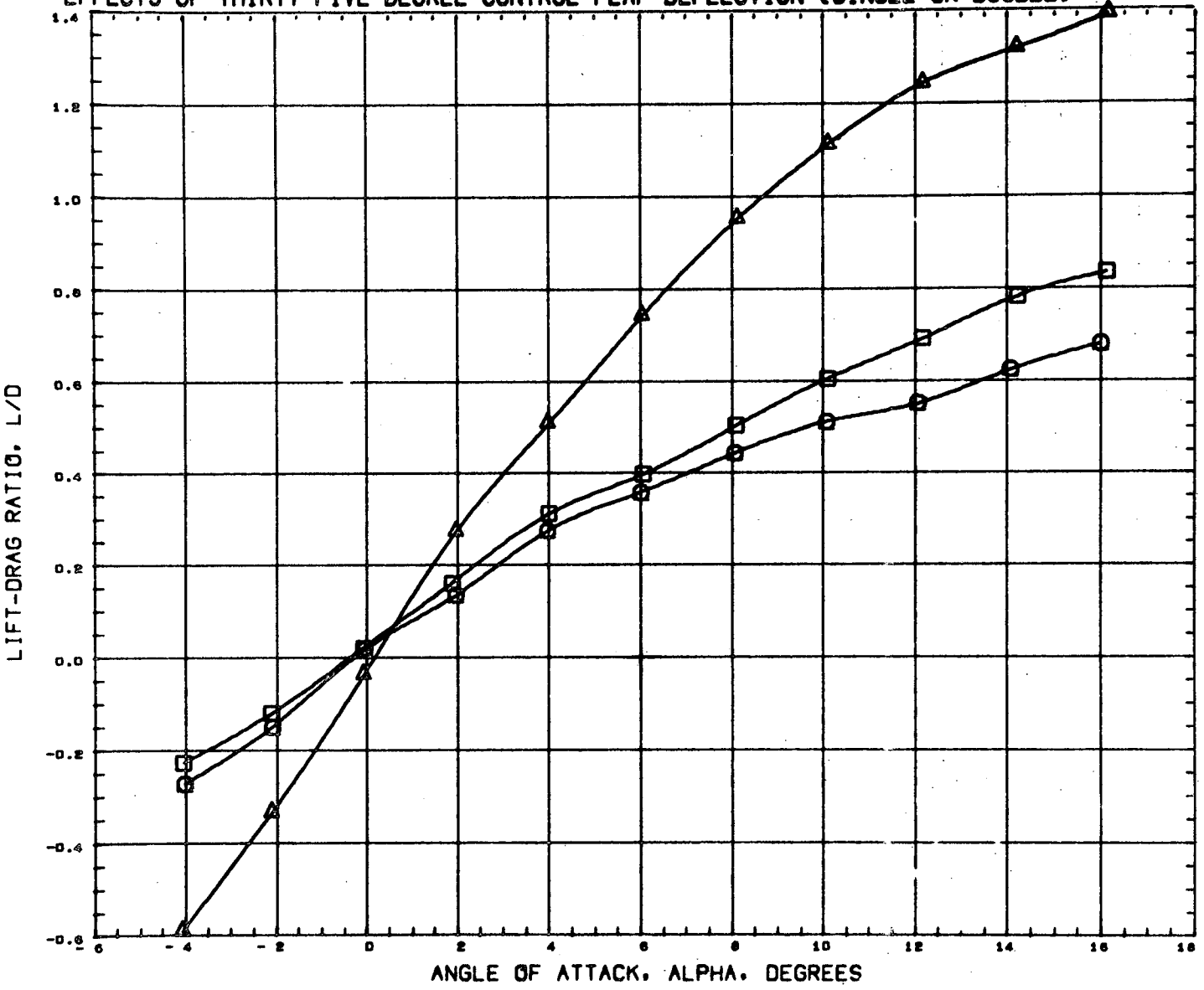


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T14	0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

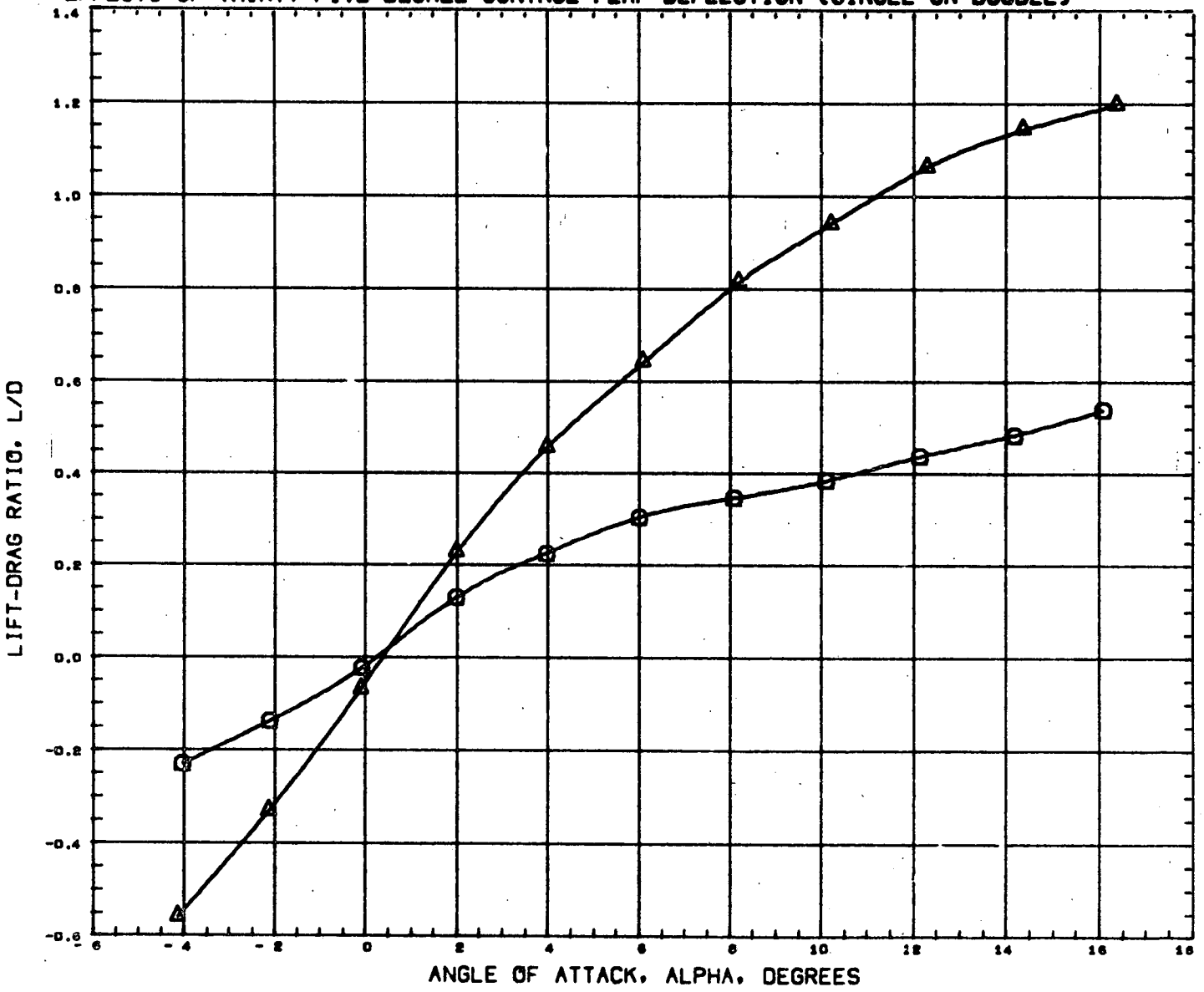


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.605

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

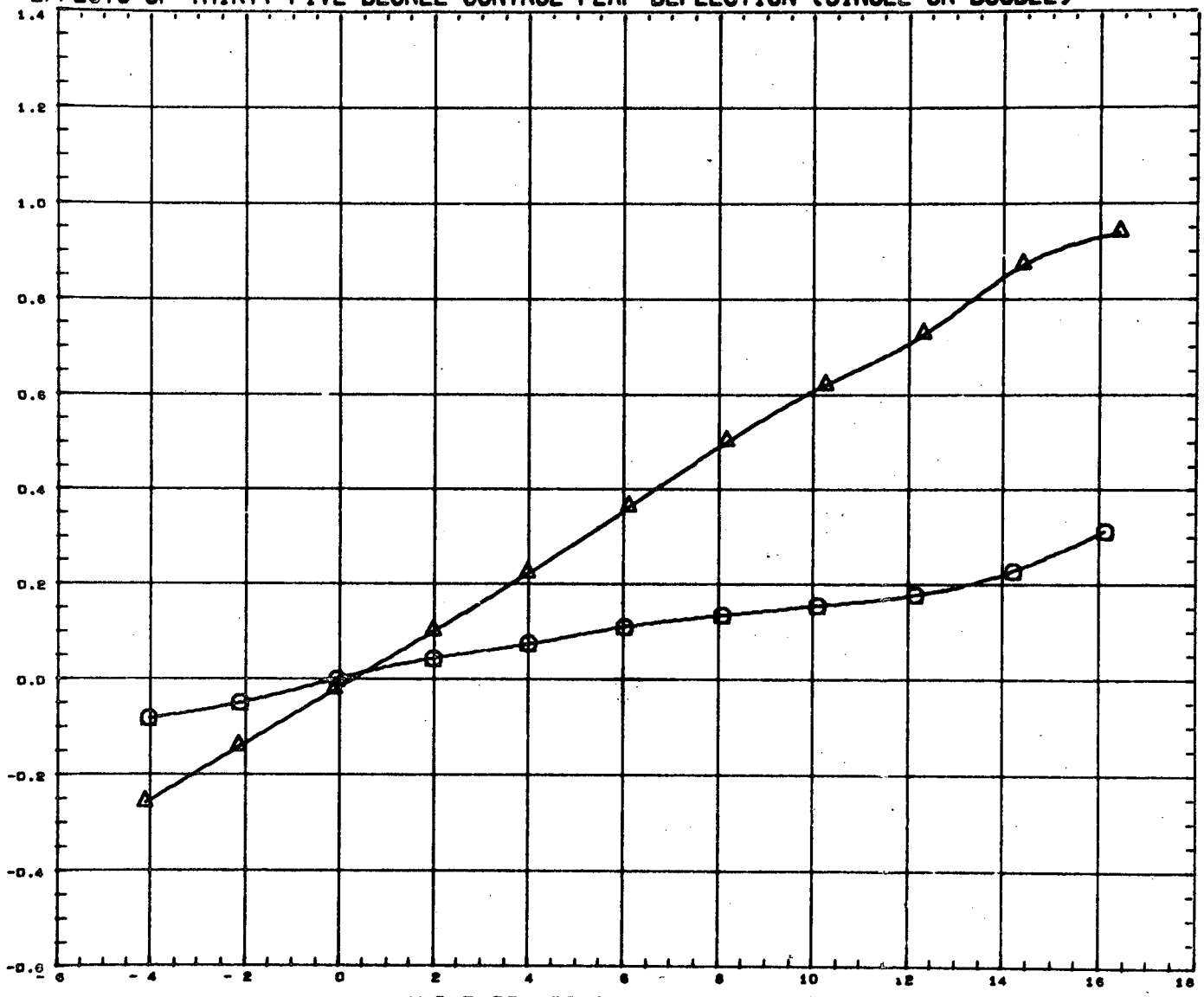


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	M8FC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	M8FC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.900

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

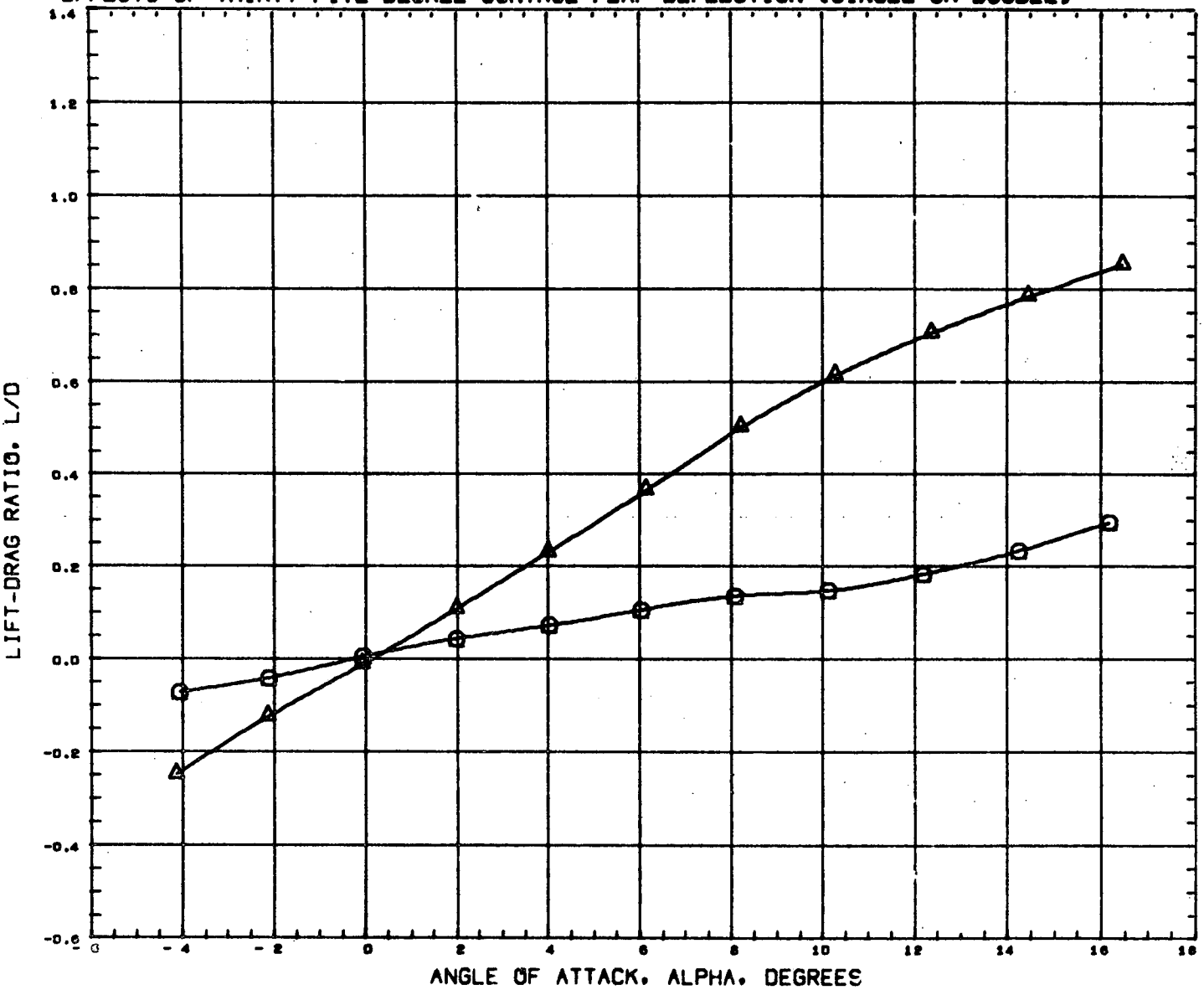


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

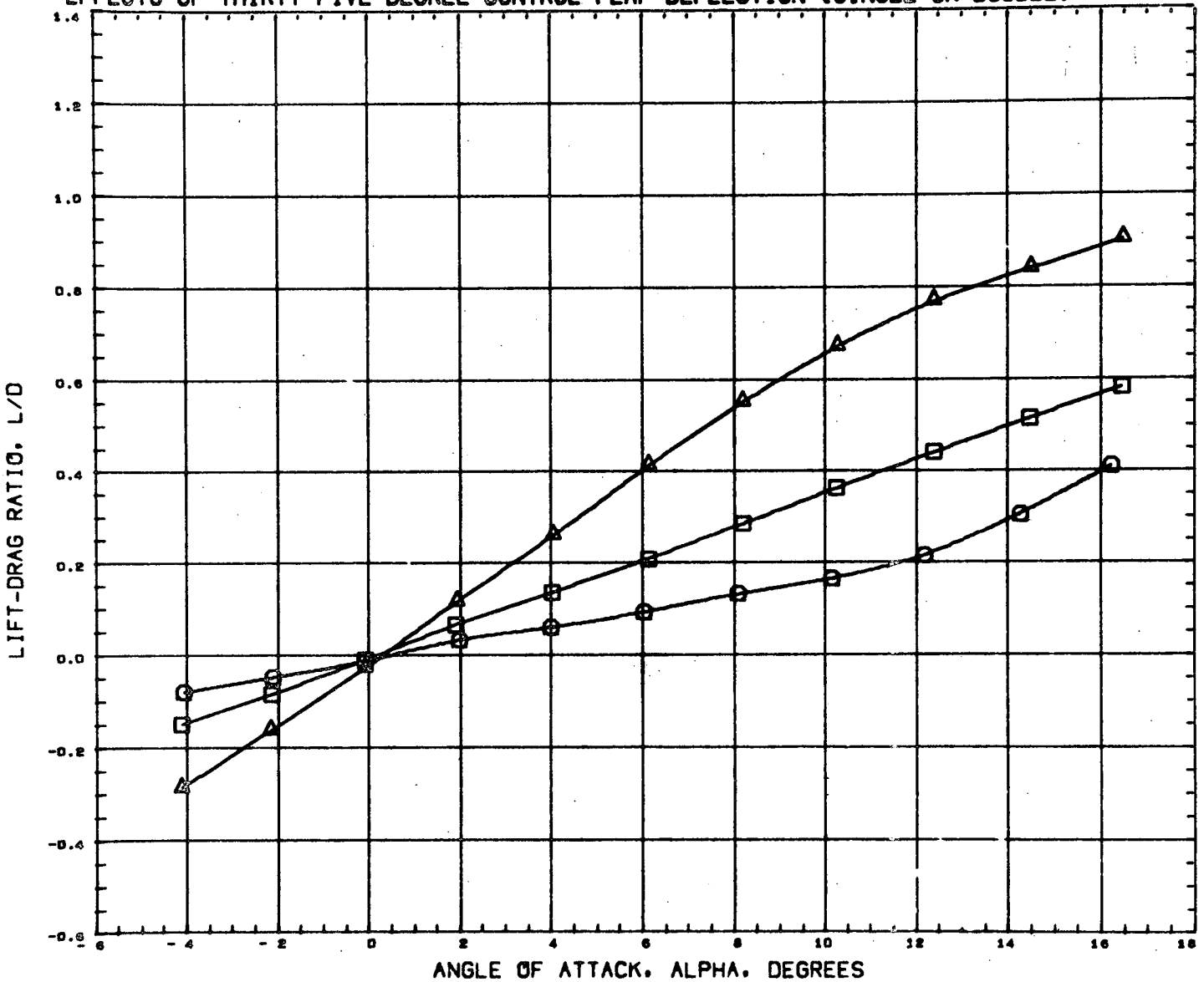


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003360 BOOSTER	B34R6	0.000	45.000		
(D50010)		MSFC 512 GD/C .003360 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.20

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

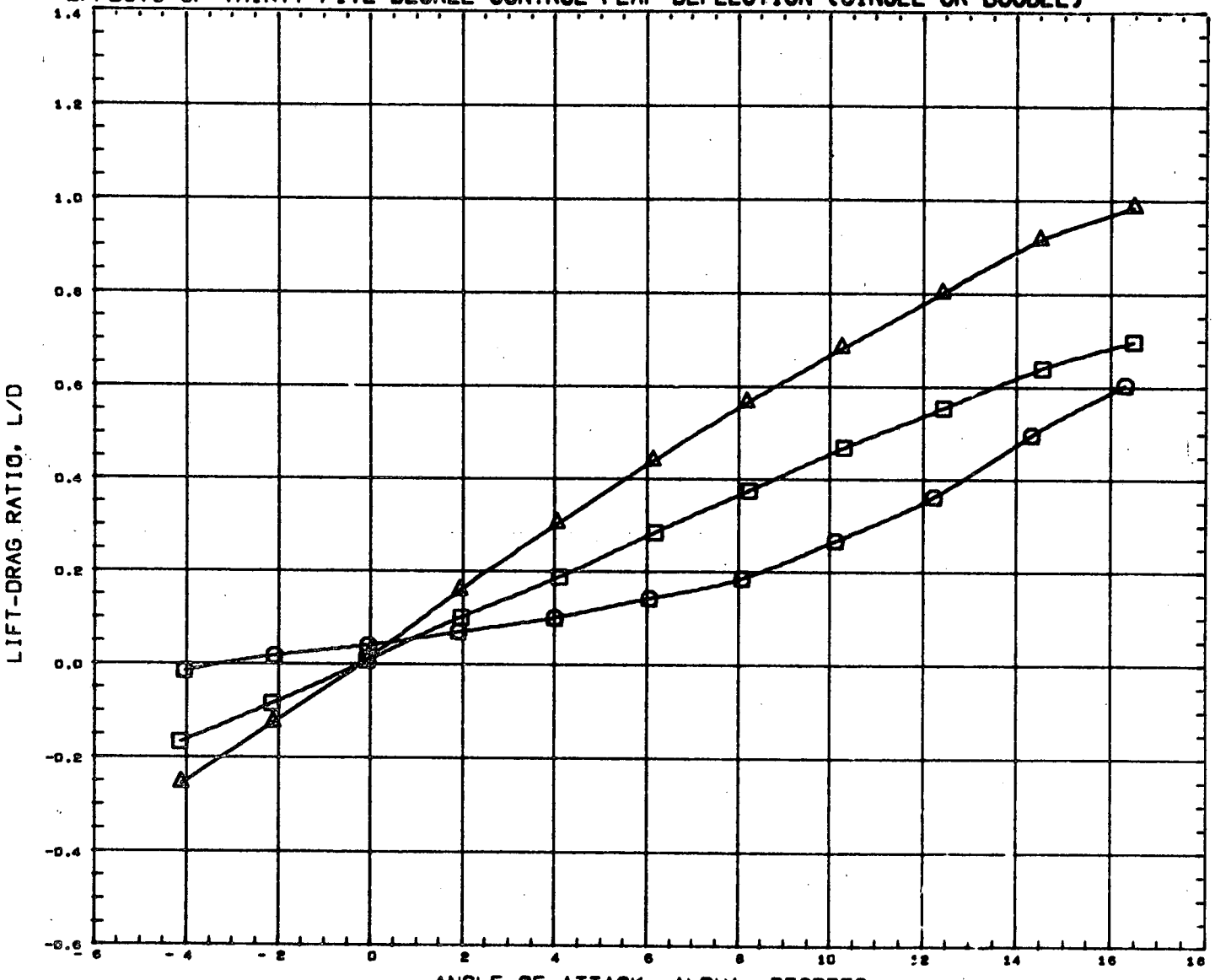


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

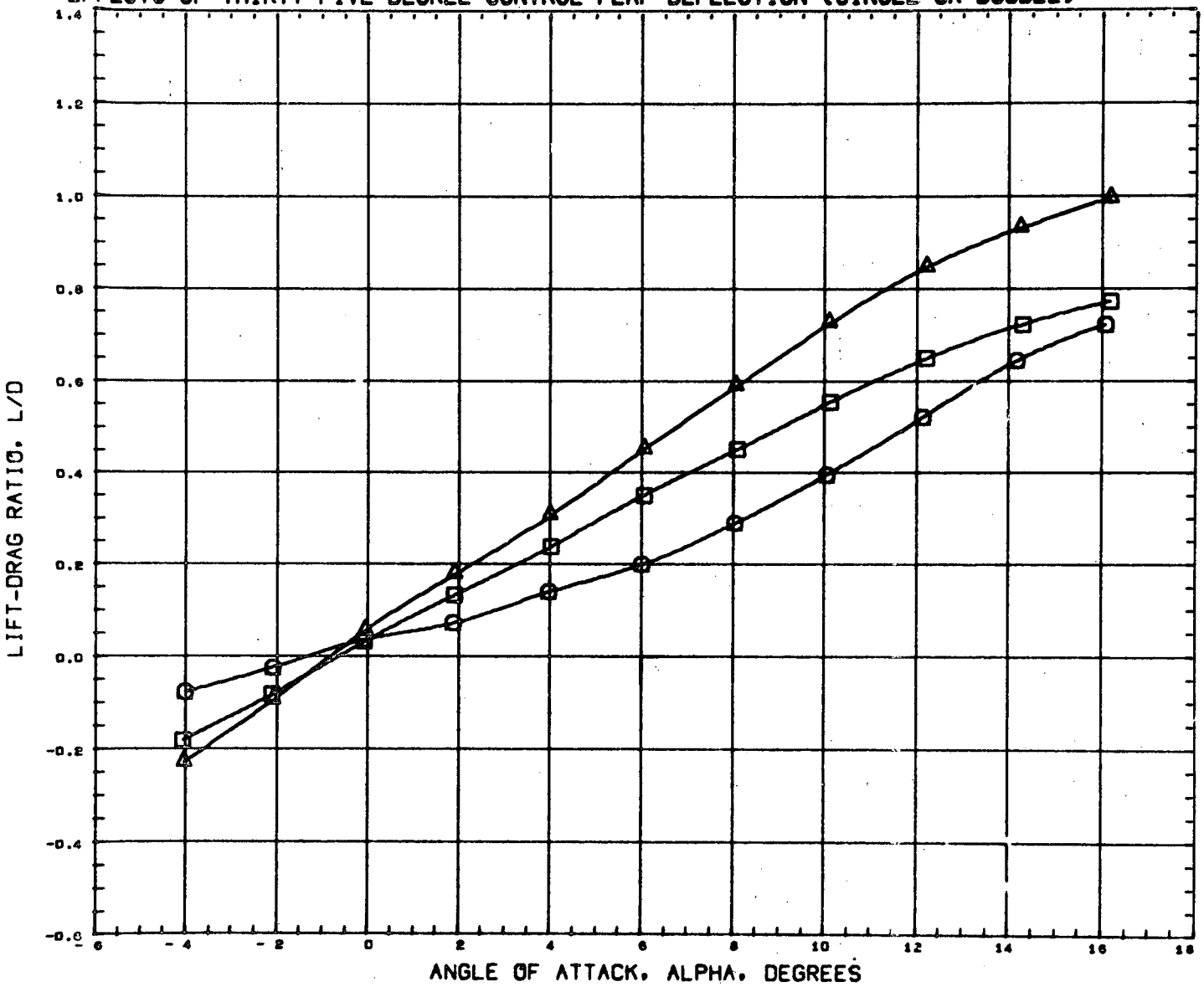


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D5011D)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D5001D)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5006D)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D5009D)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

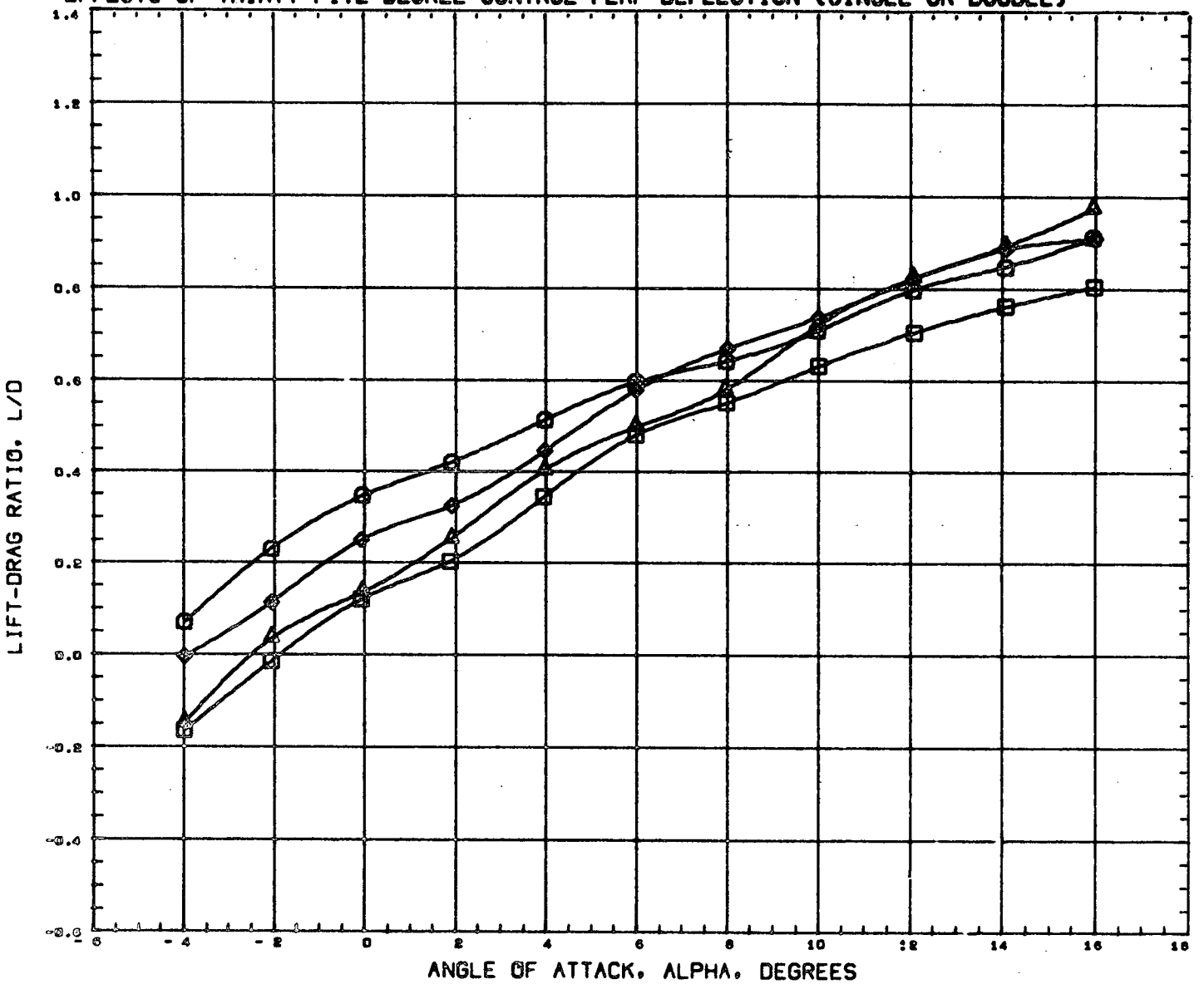


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50080)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

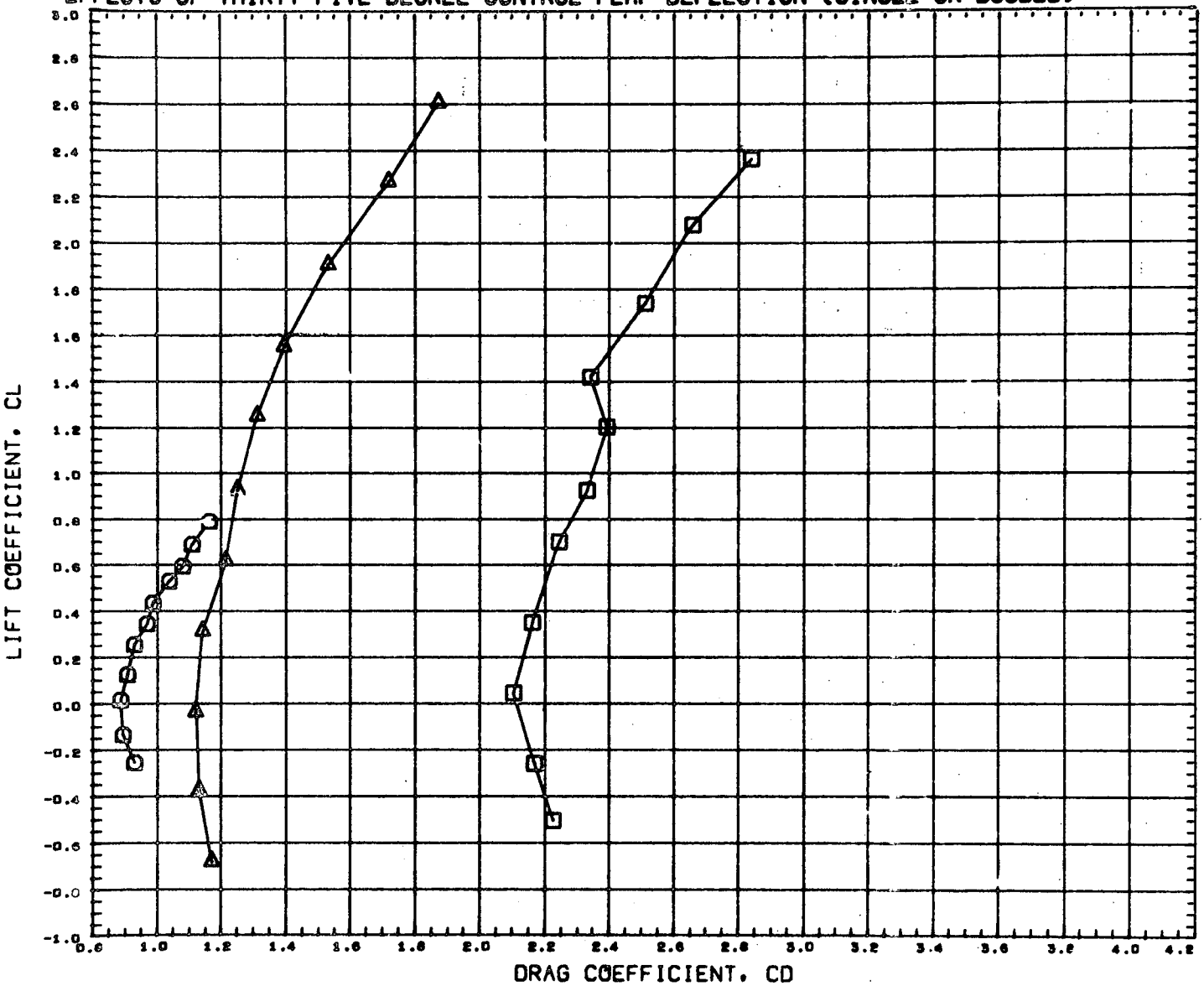


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(D50010)	MSFC 512 GD/C .003960 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	MSFC 512 GD/C .003966 BOOSTER	B34R6T14	0.000	0.000	35.000	0.000
(D50090)	MSFC 512 GD/C .003966 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.980

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

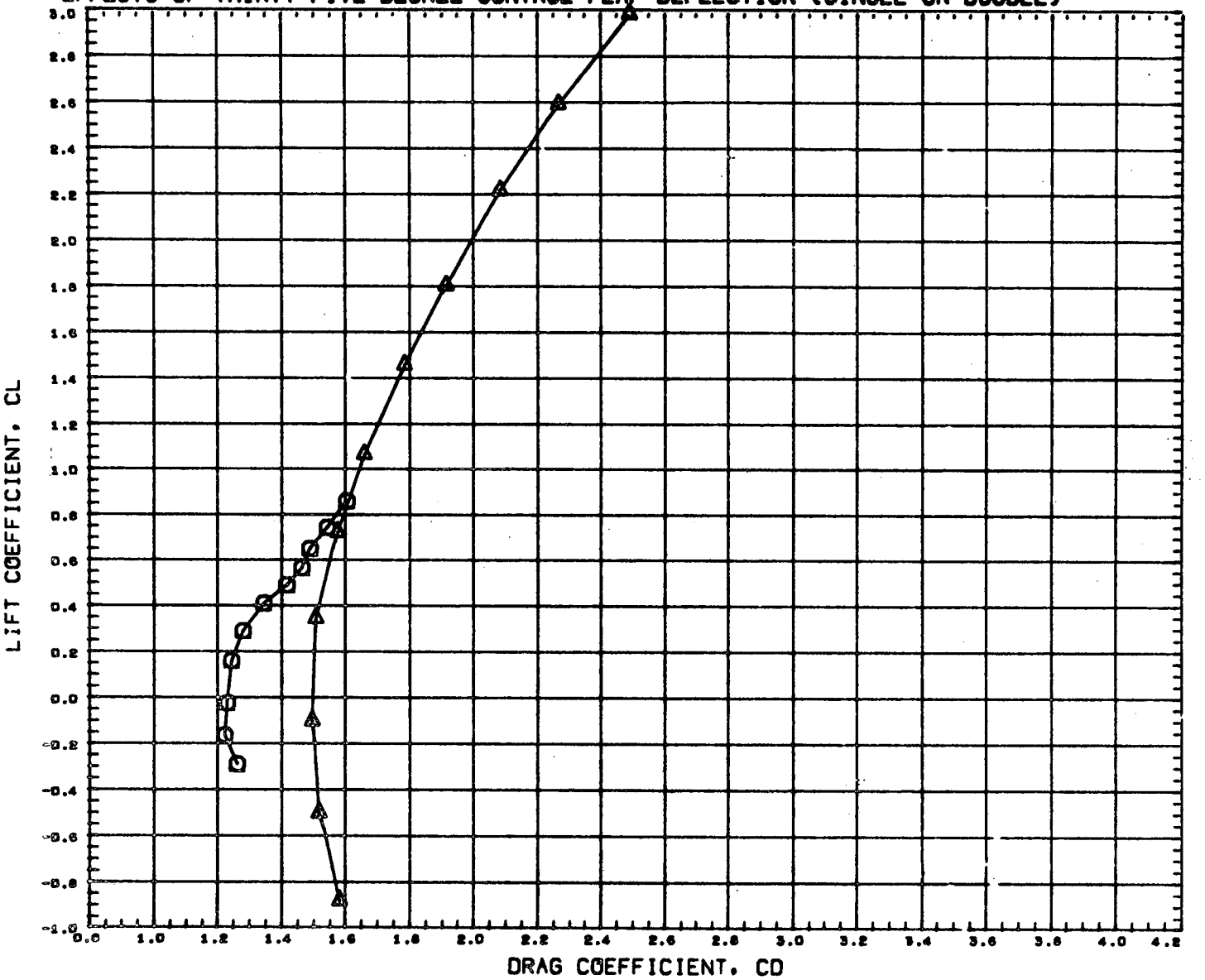


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.603

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

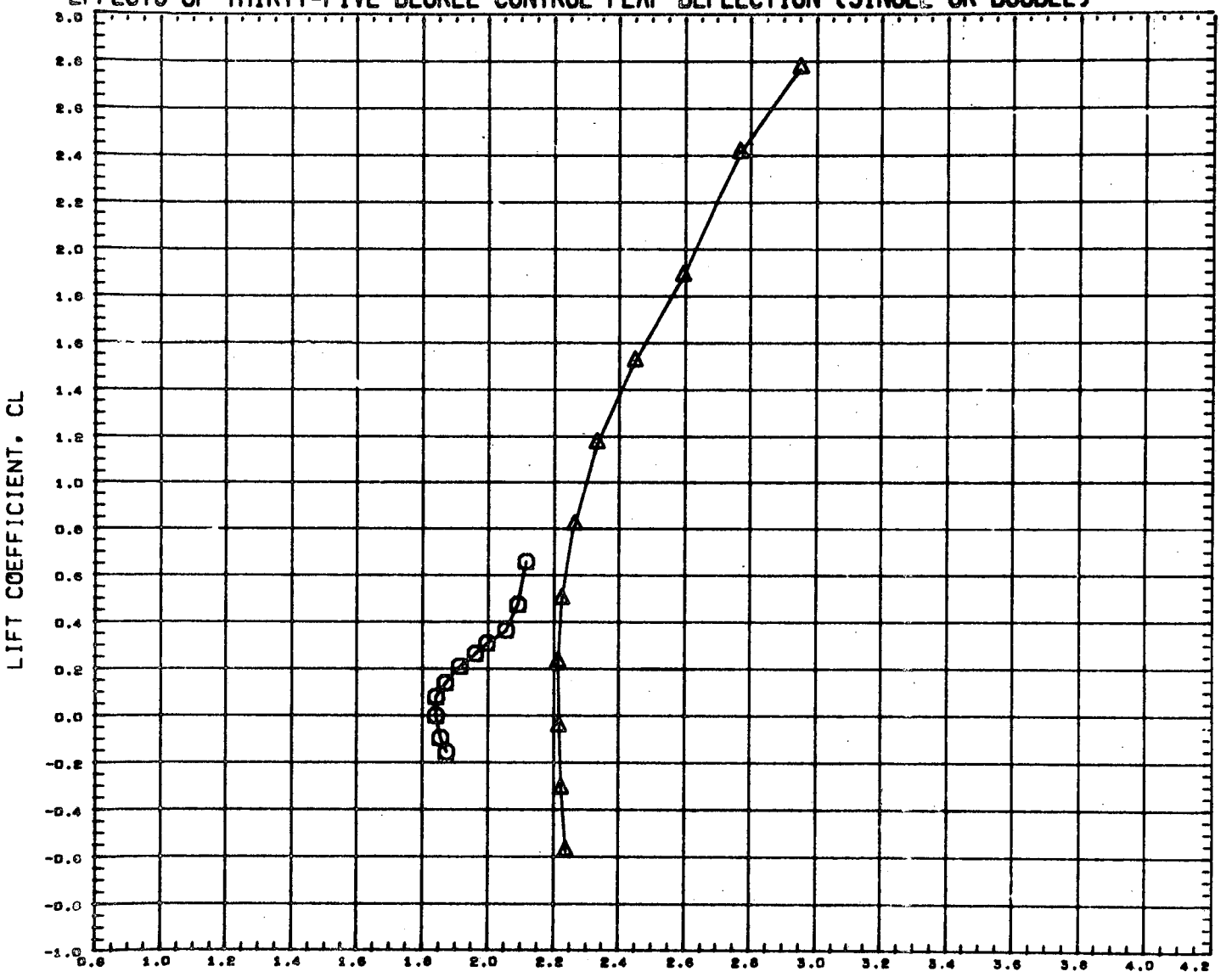


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34P6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

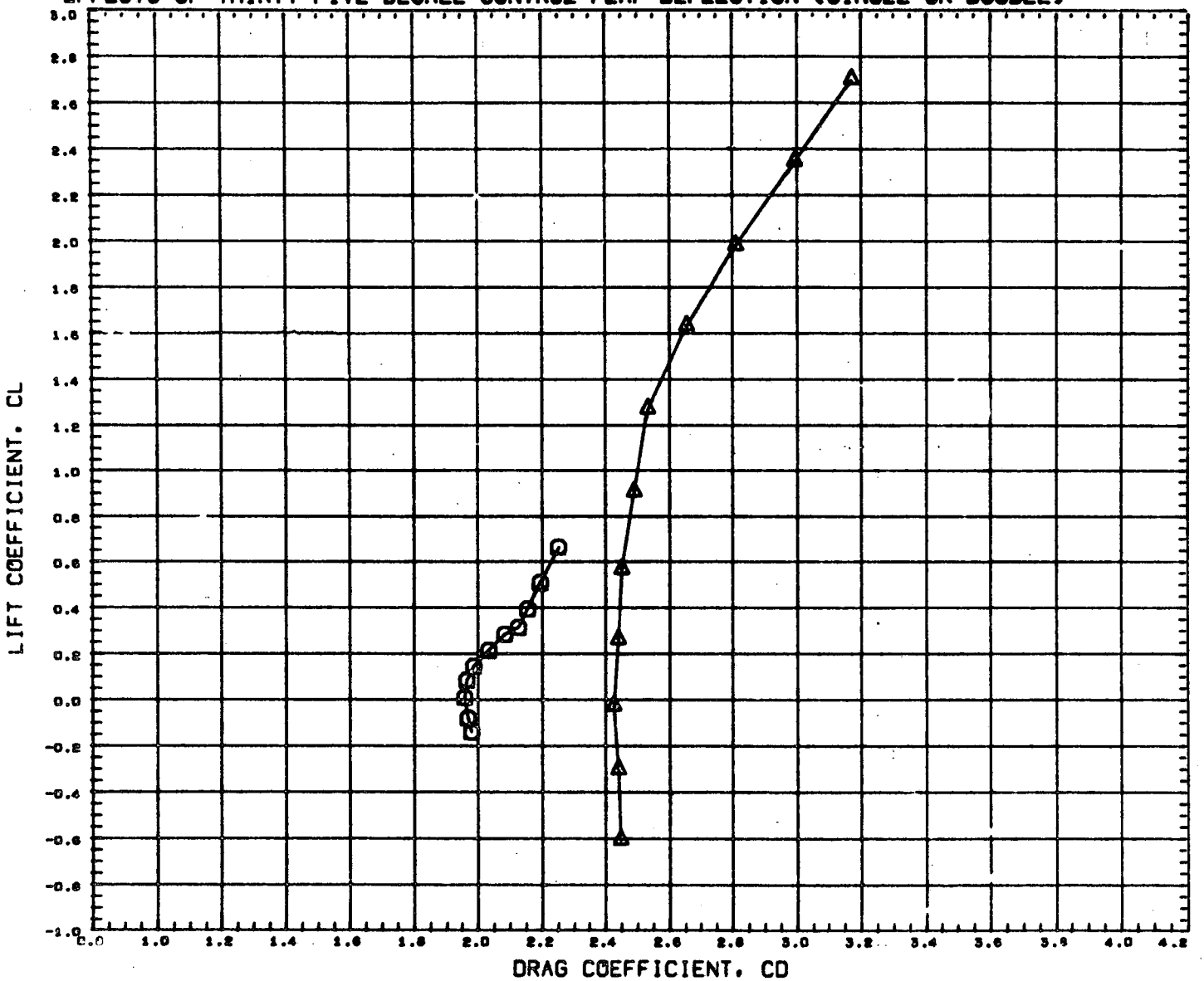


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D5011D)	○	M8FC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D5001D)	△	M8FC 512 GD/C .003366 BOOSTER	B34R6T1D	0.000	0.000	0.000	0.000
(D5006D)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D5009D)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

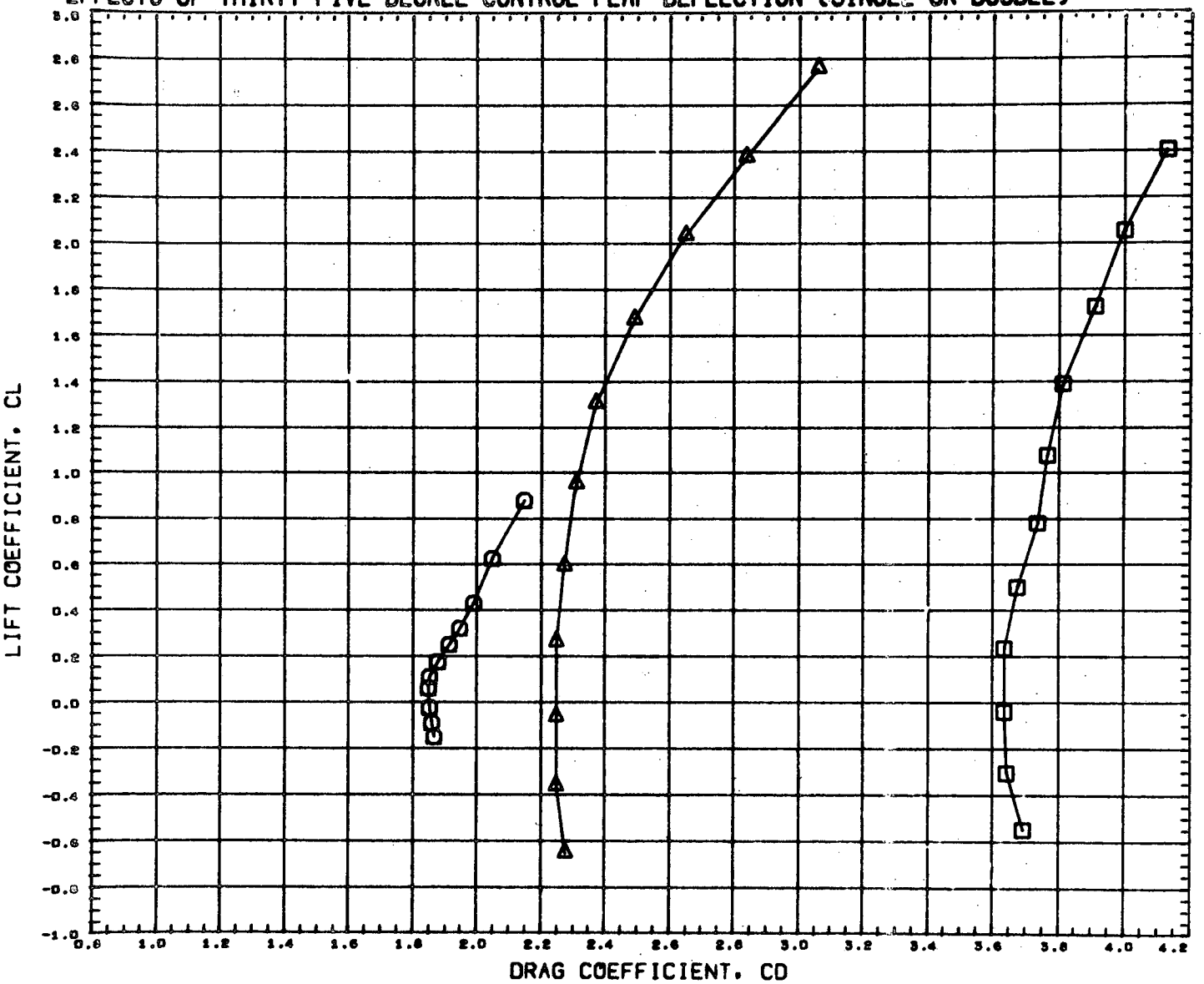


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .009306 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .009306 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	80.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

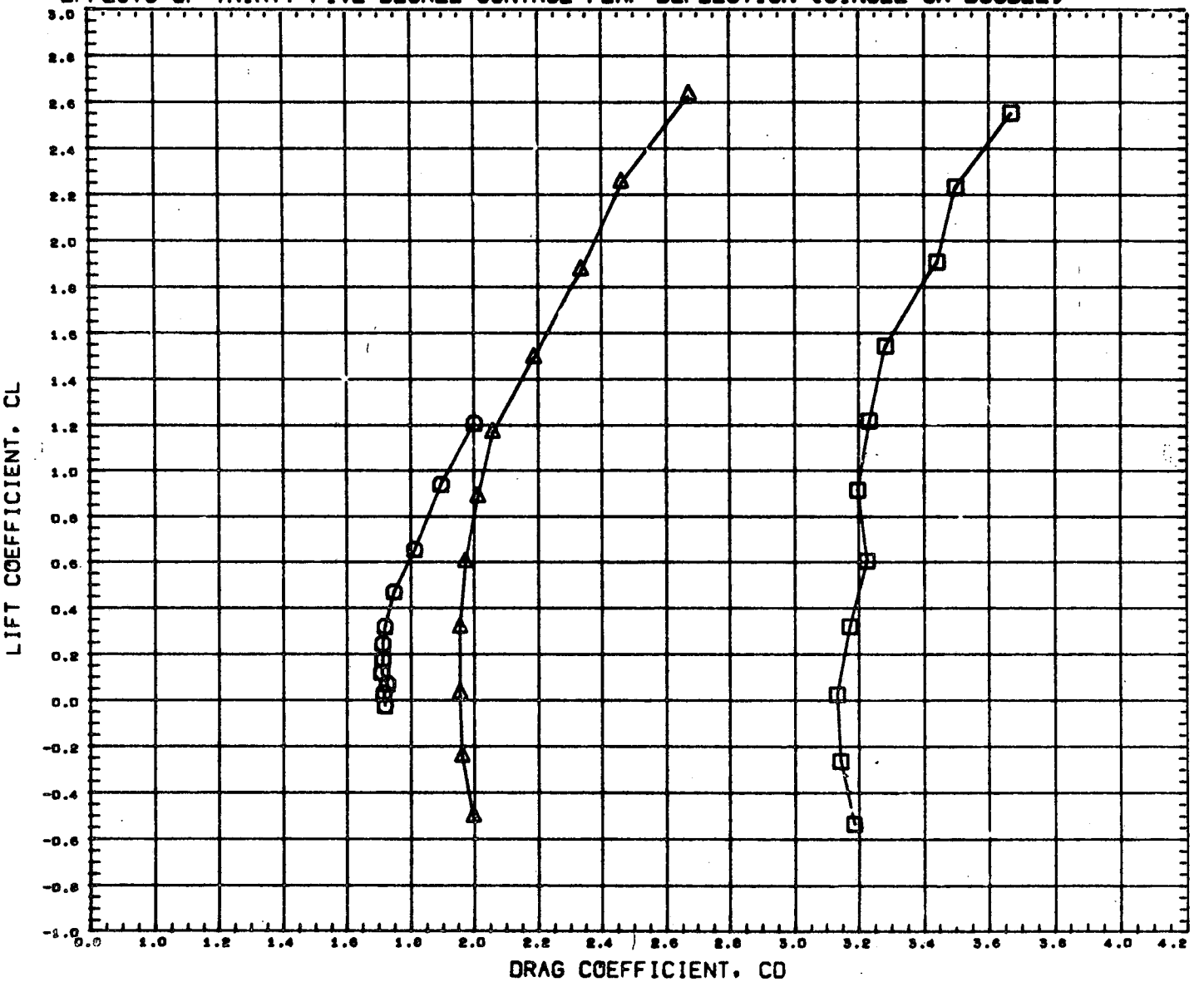


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

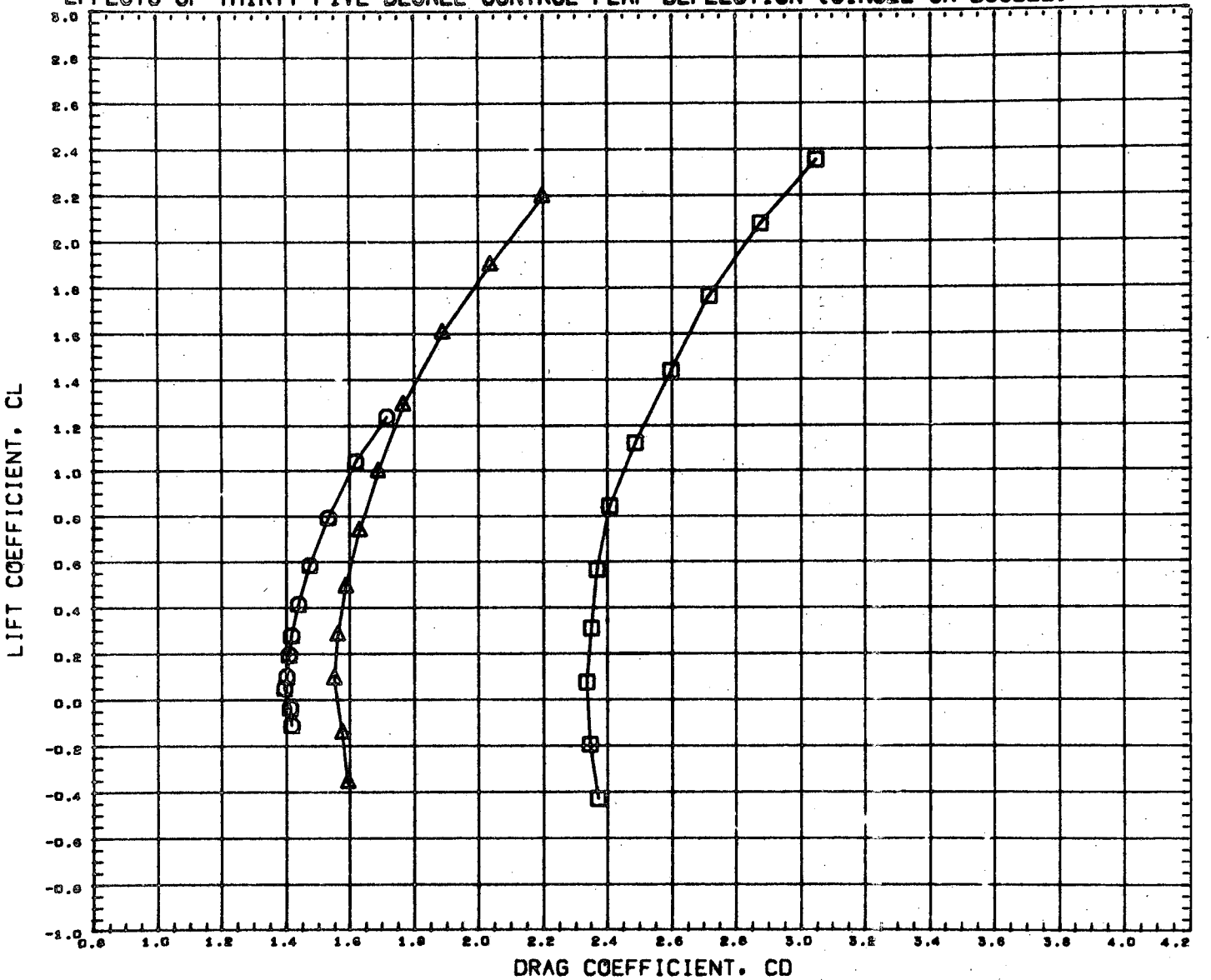


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003360 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

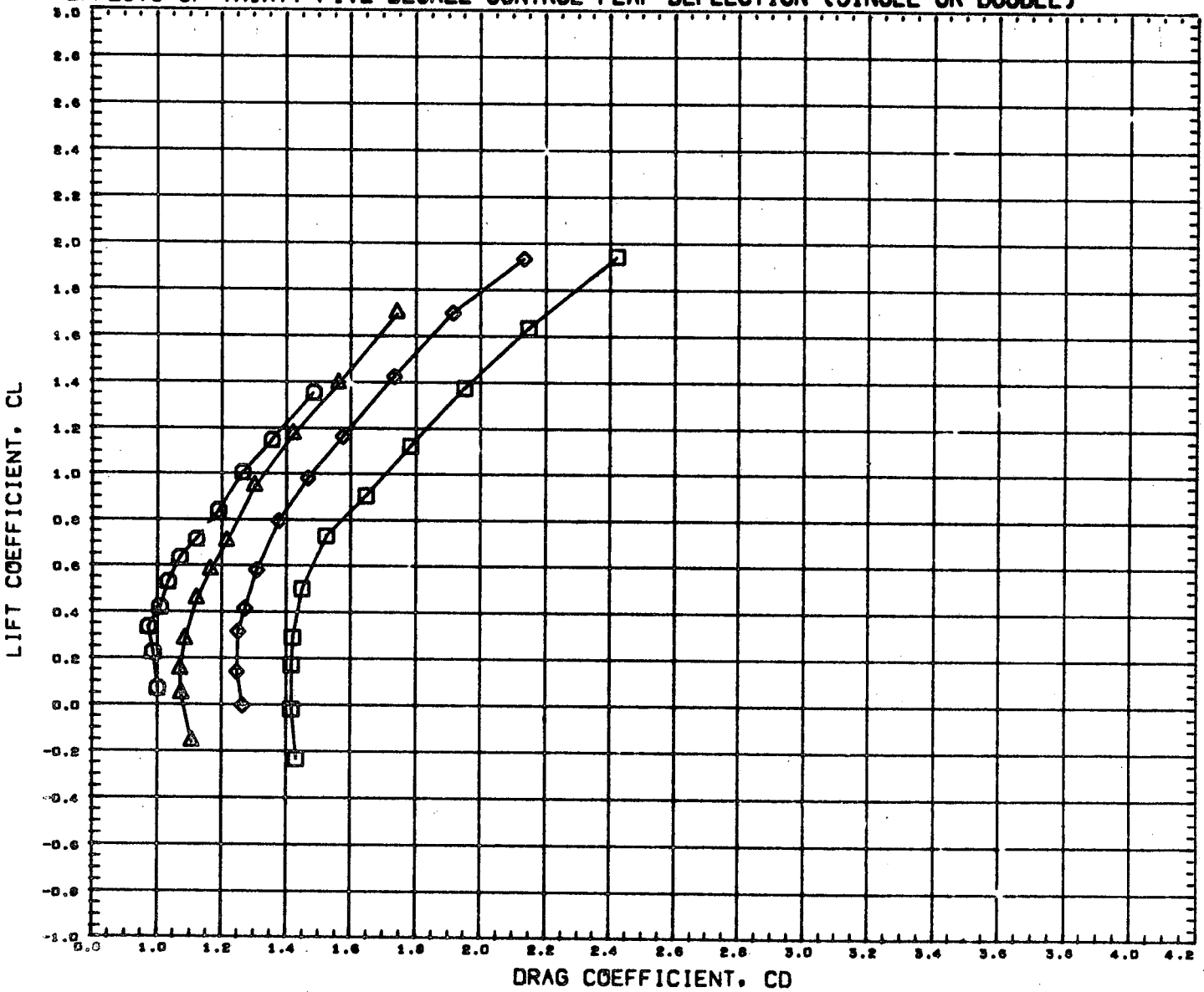


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .005366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .005366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .005366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)



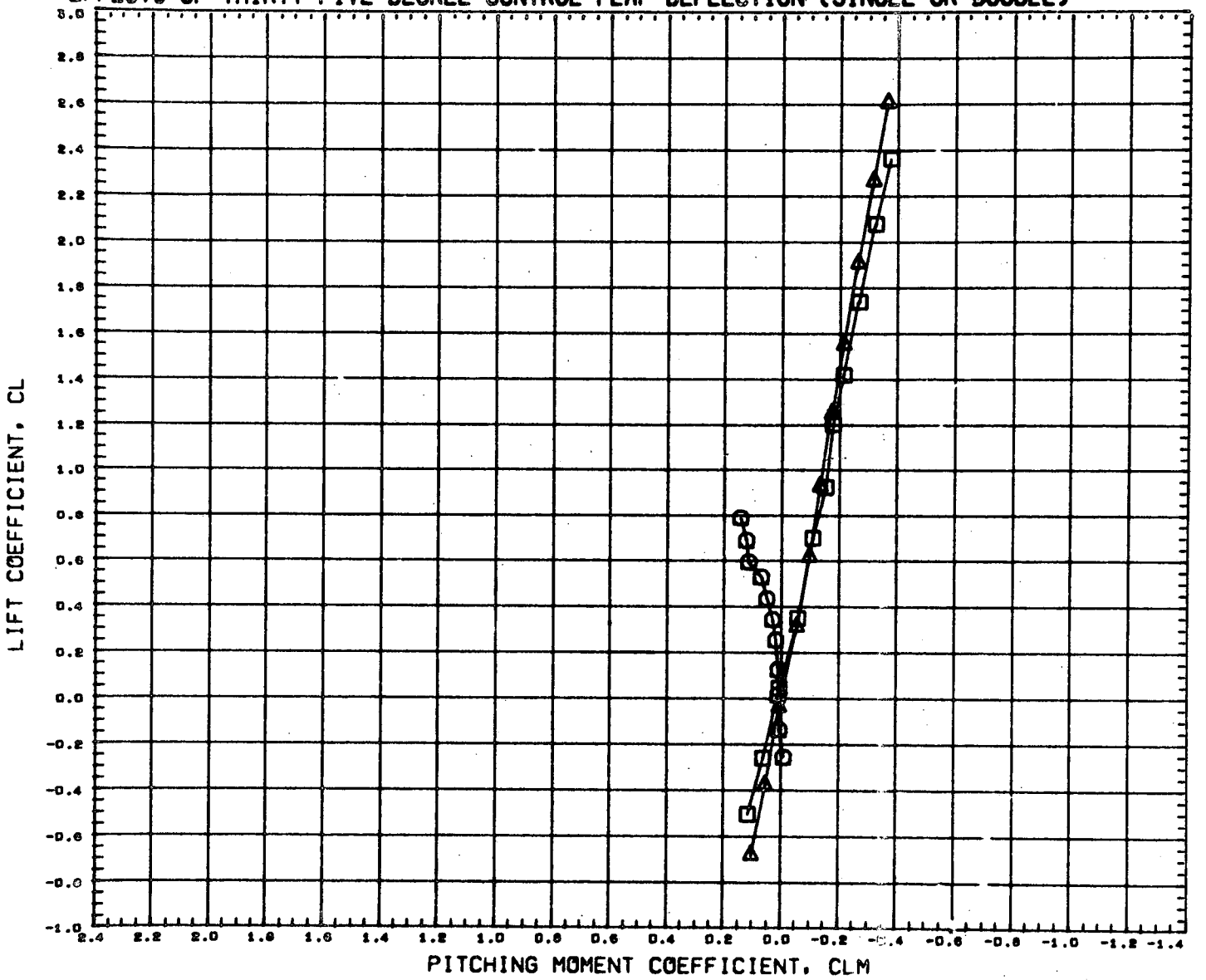
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(D50110)	○	MSFC 512 GD/C .003360 BOOSTER	B34R6
(D50010)	△	MSFC 512 GD/C .003360 BOOSTER	B34R6T10
(D50060)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T14
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17

	BETA	PHIMOD	LFLAP	RFLAP
B34R6	0.000	45.000		
B34R6T10	0.000	0.000	0.000	0.000
B34R6T14	0.000	0.000	35.000	0.000
B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

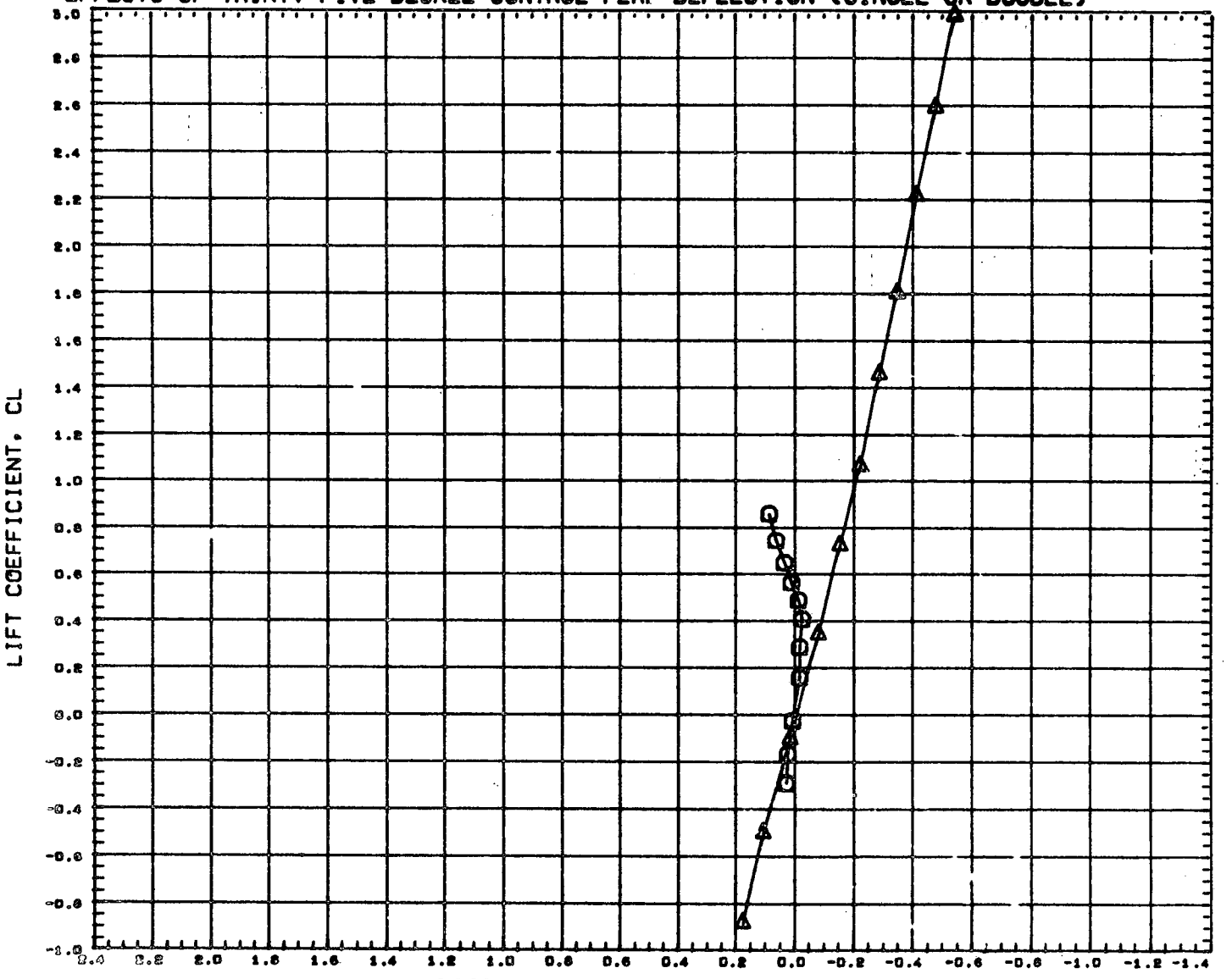


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000
(D50090)	□	MSFC 512 GD/C .003966 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

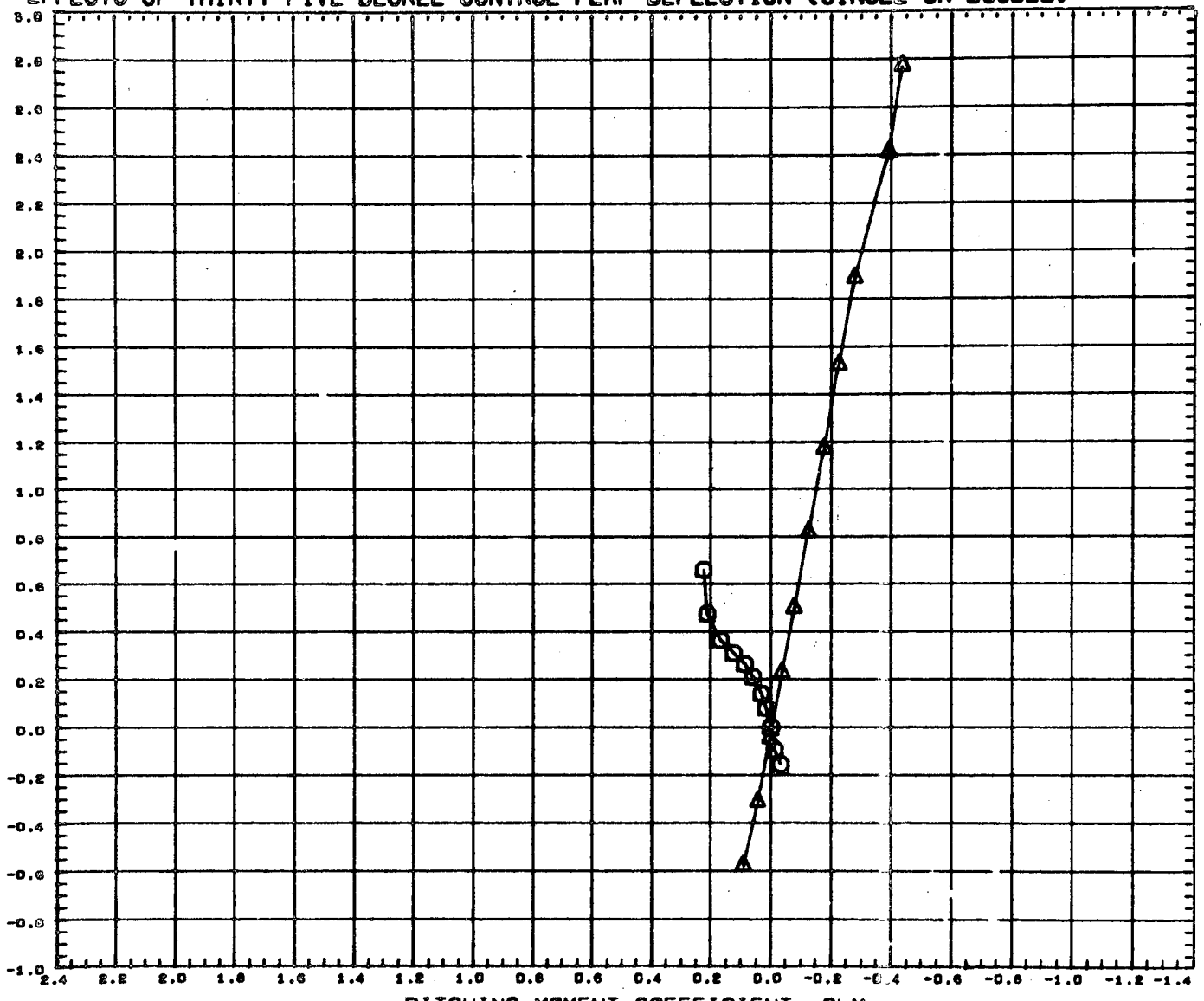


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(D50010)	□	MSFC 512 GD/C .003966 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

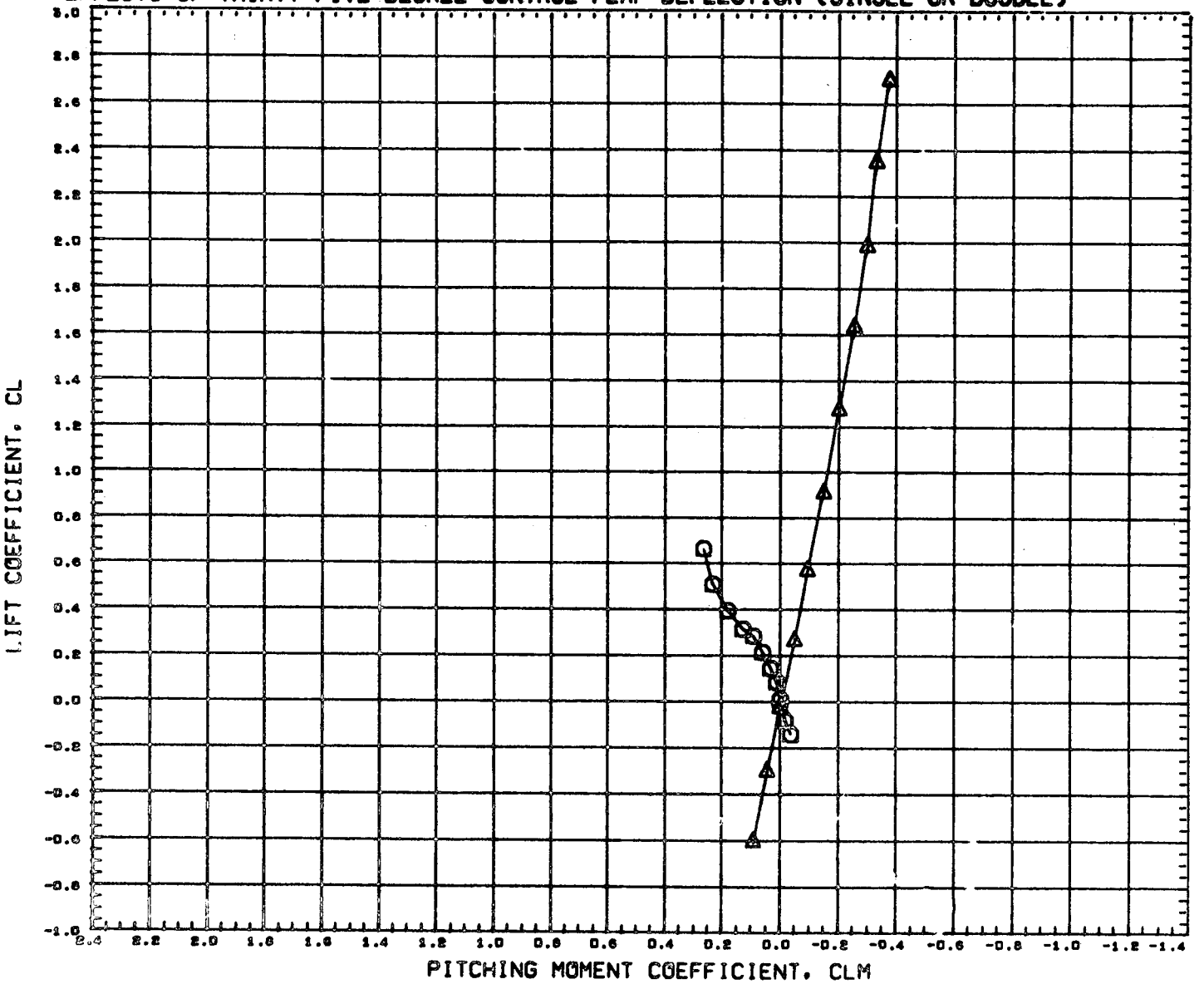


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .0033G6 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .0033G6 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

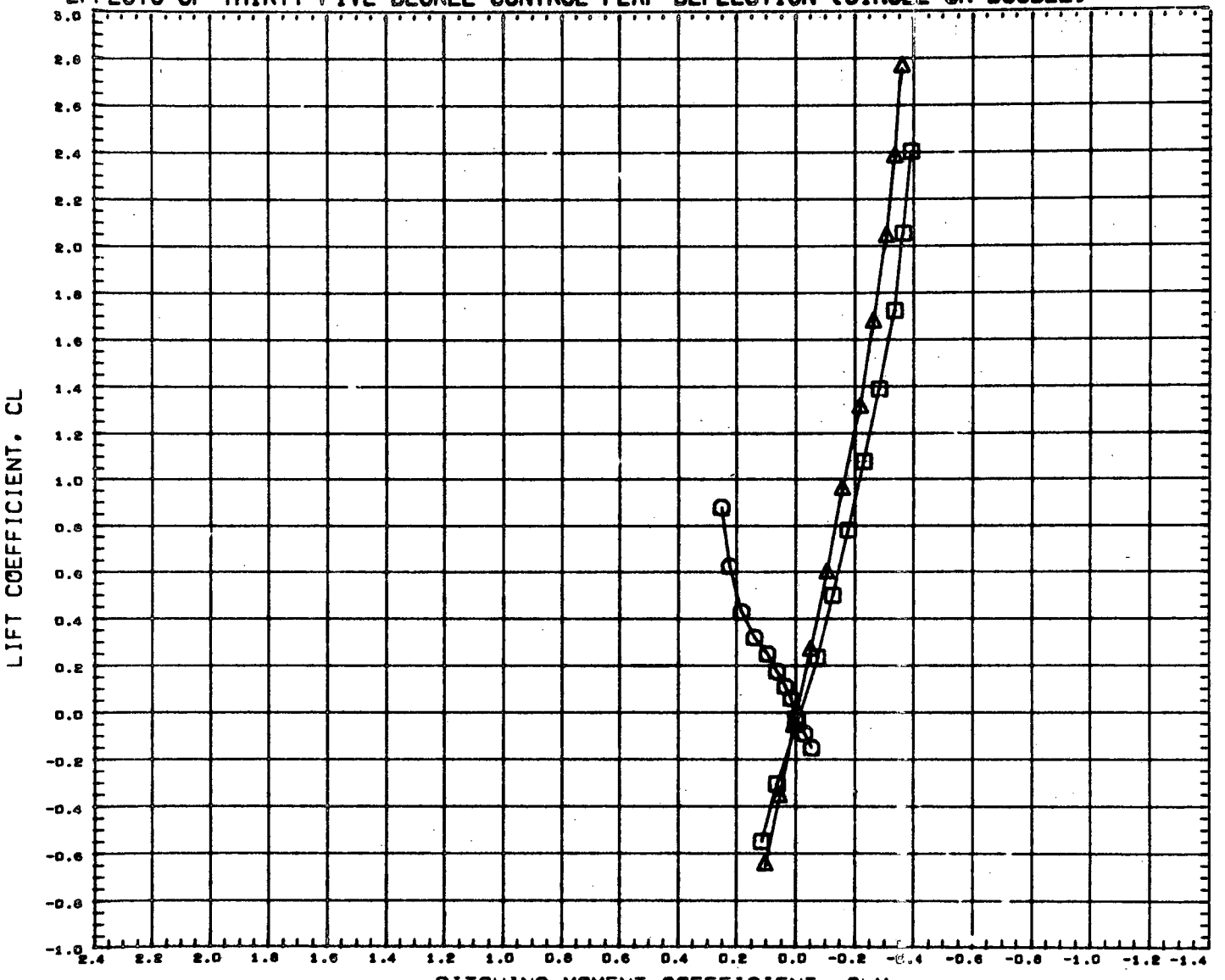


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 6D/C .003900 BOOSTER	B34R6	0.000	45.000		
(D50010)		MSFC 512 6D/C .003900 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

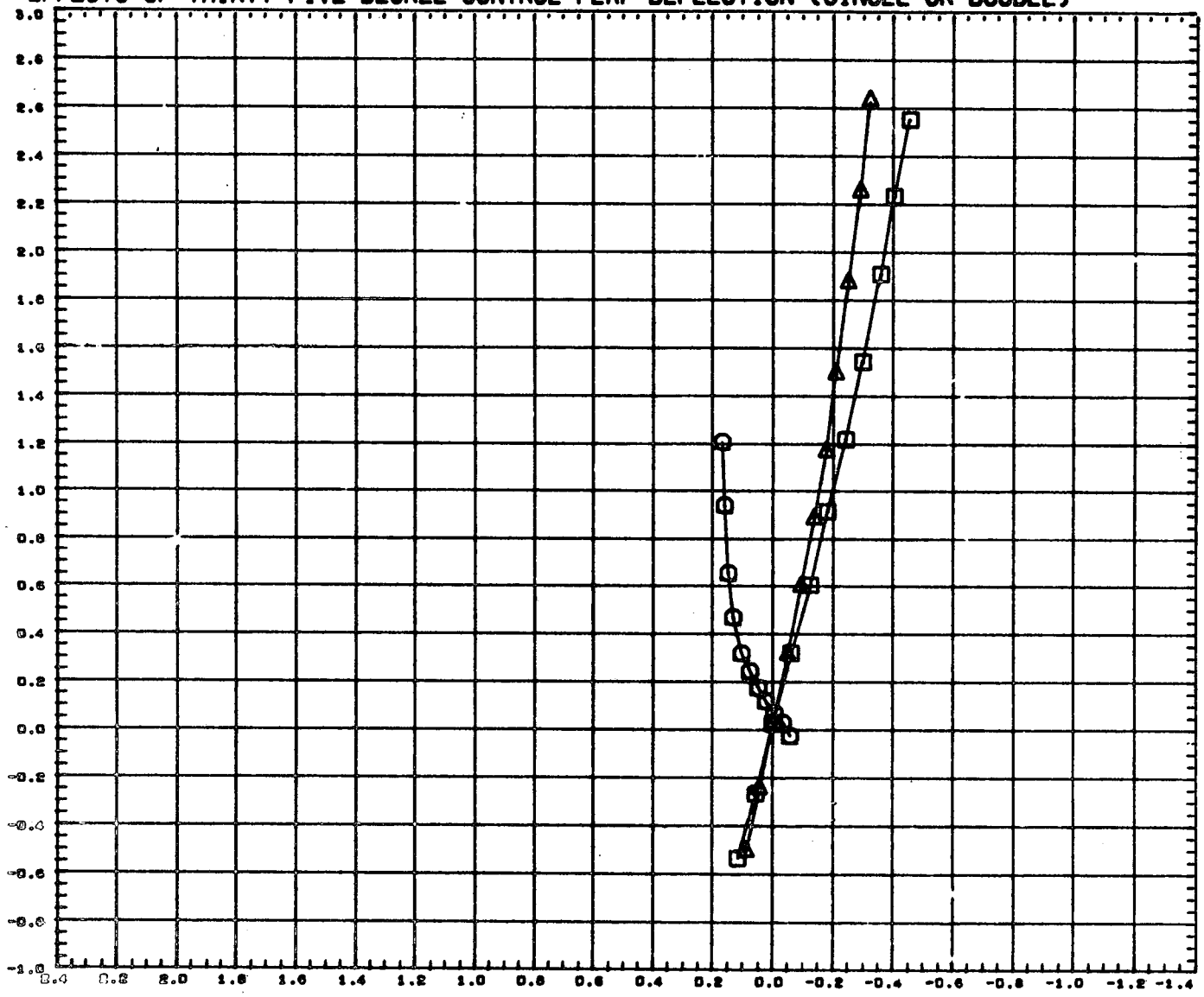


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.456

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

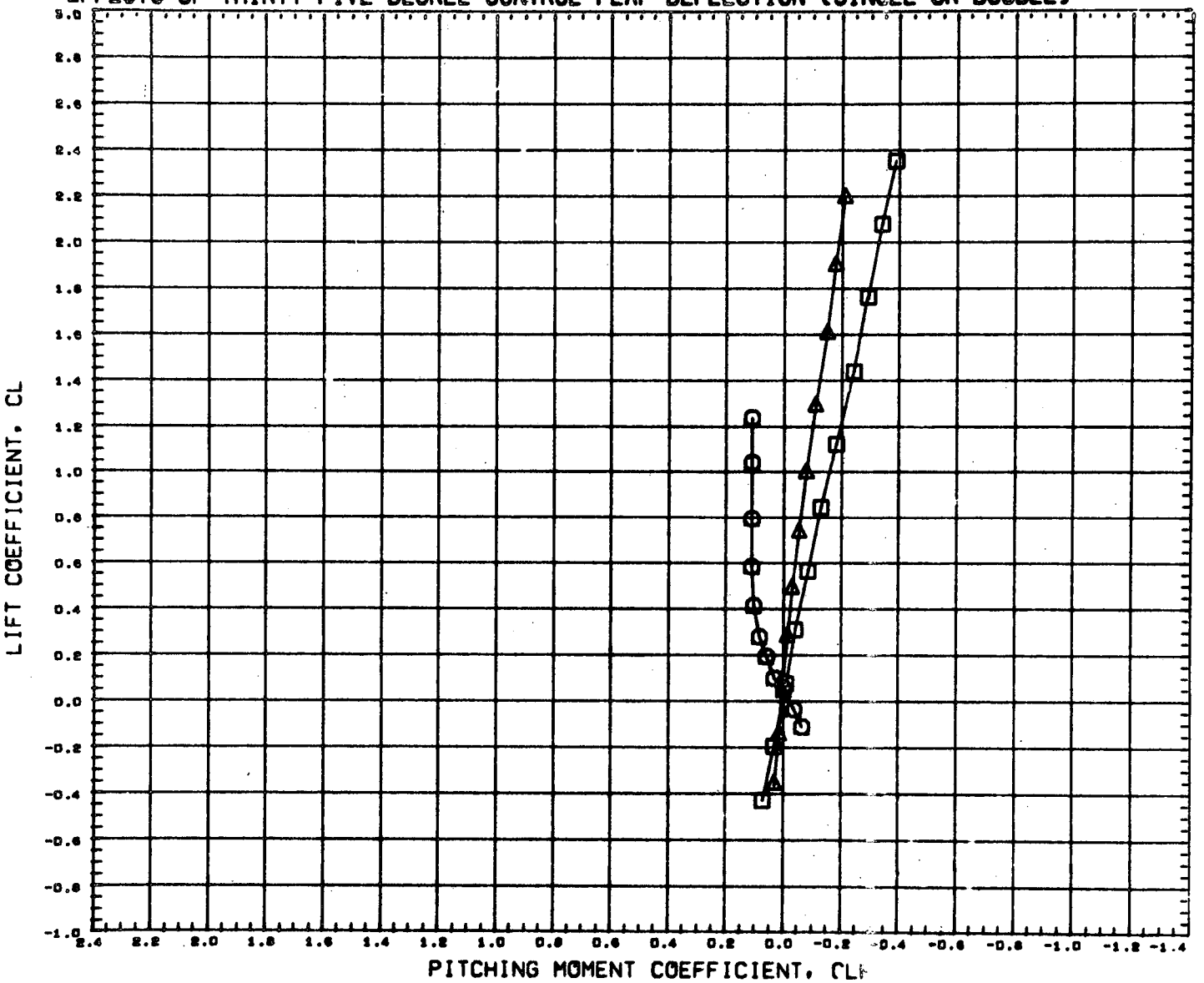


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B54R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B54R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B54R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

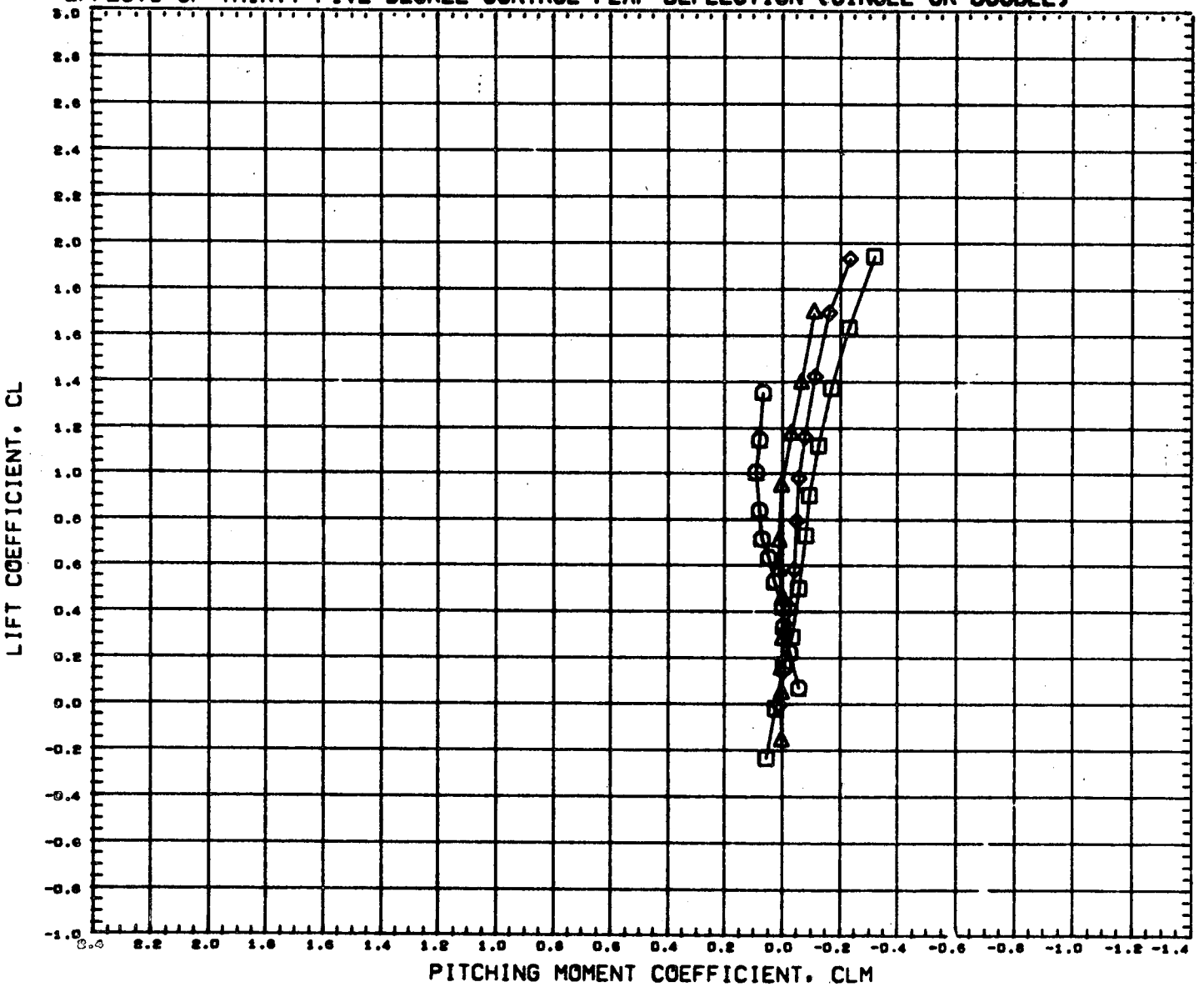


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

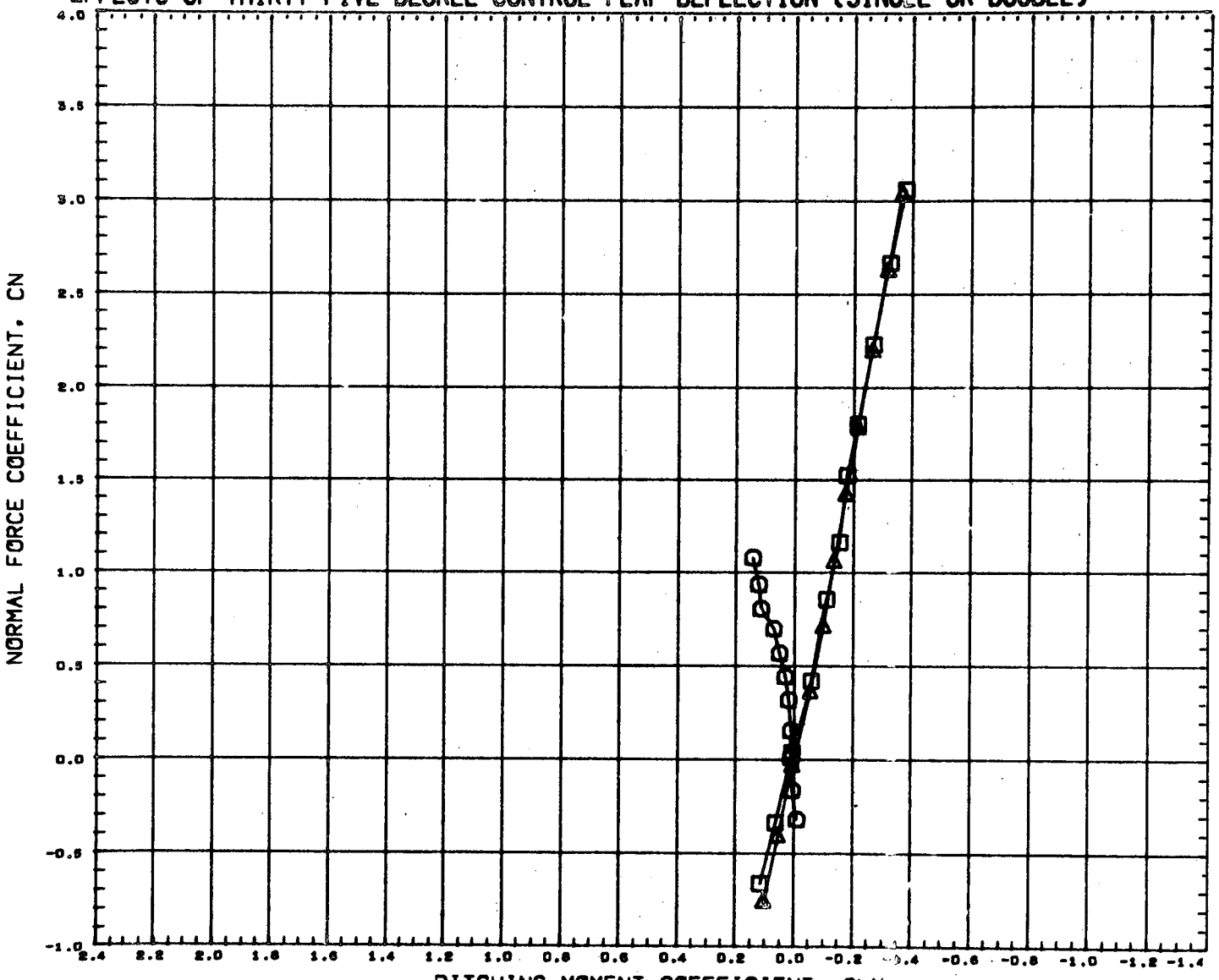


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)		M&FC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)		M&FC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)		M&FC 512 GD/C .003366 BOOSTER	B34R6T14	0.000	0.000	35.000	0.000
(D50090)		M&FC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

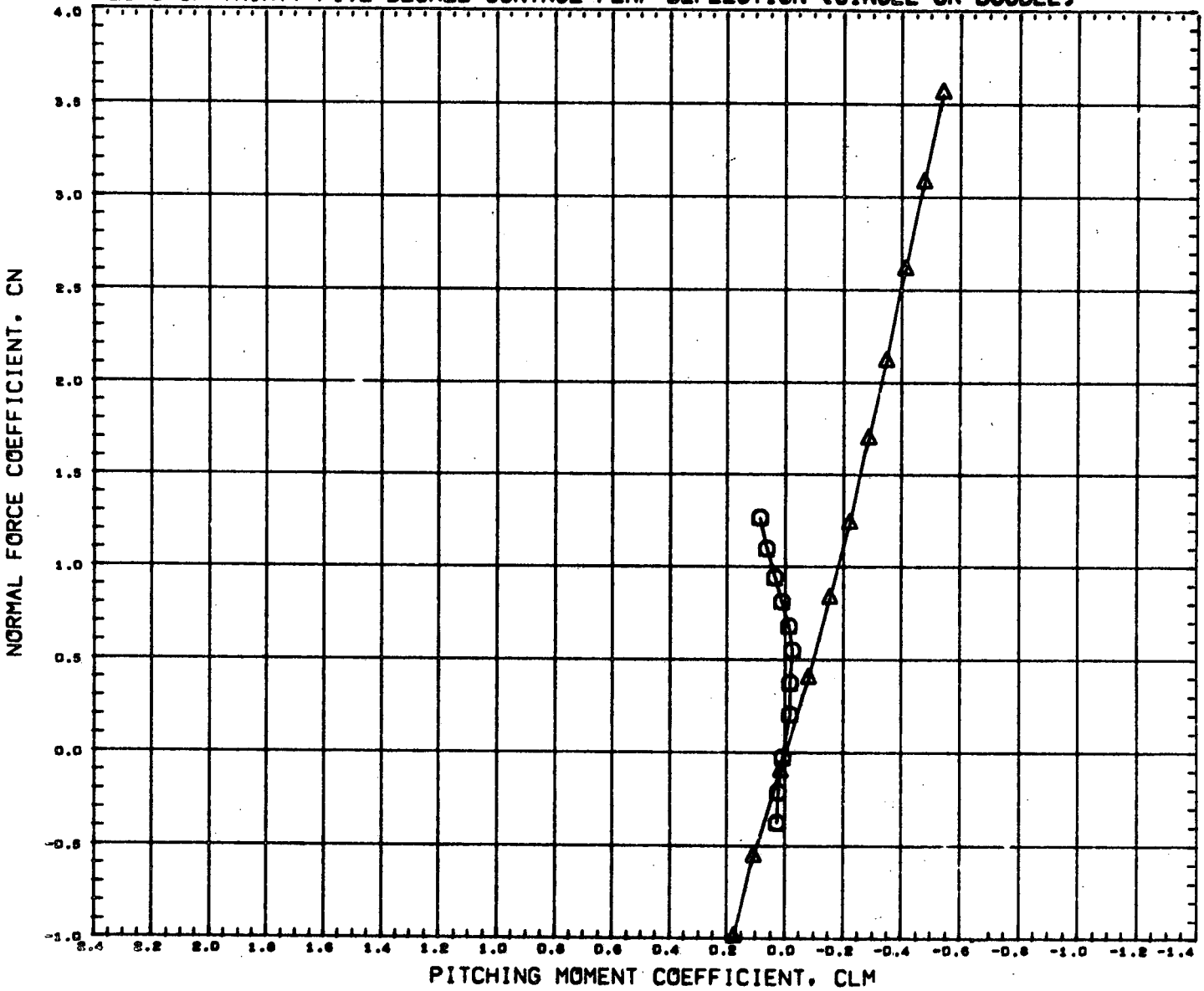


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

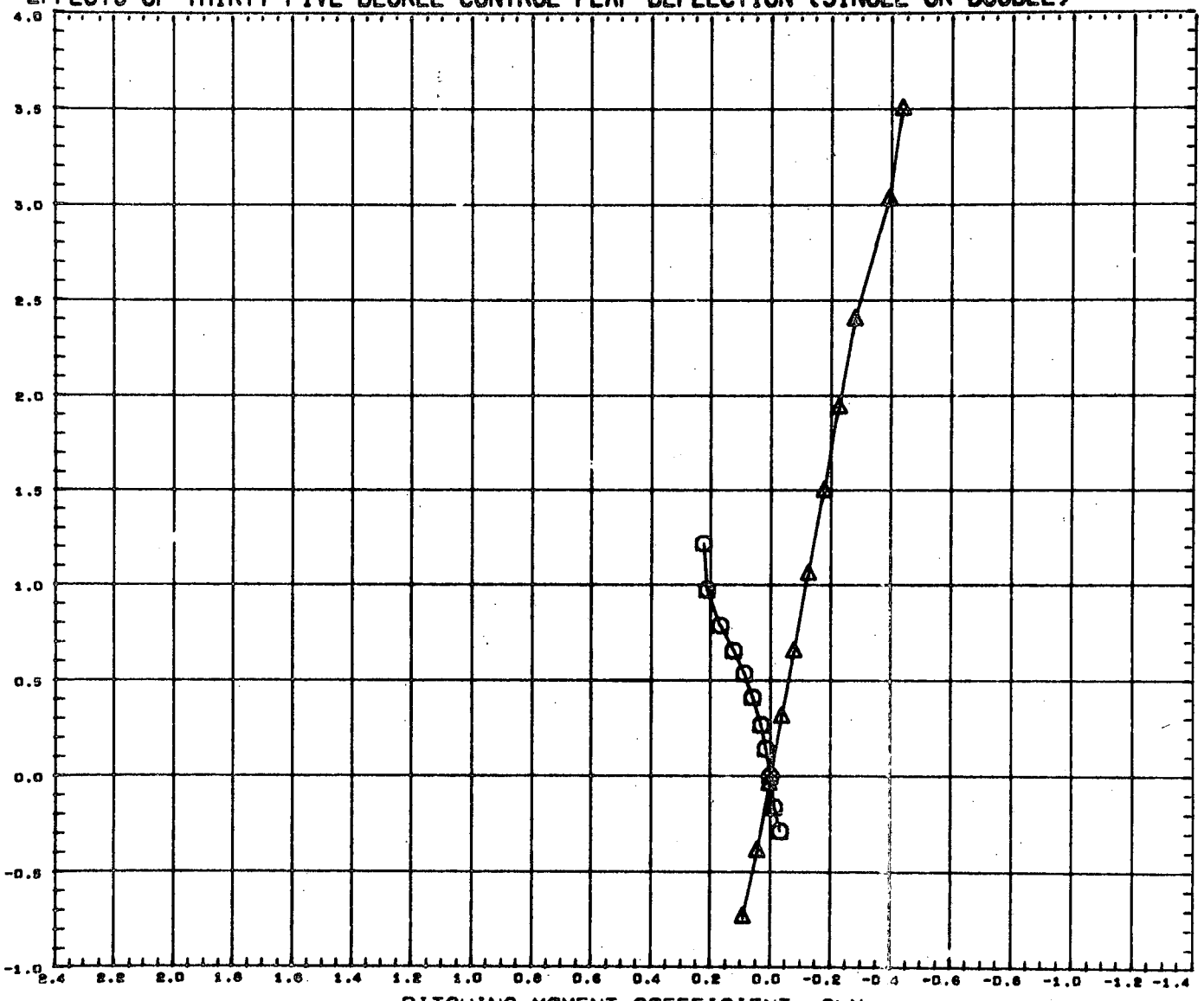


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0054	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

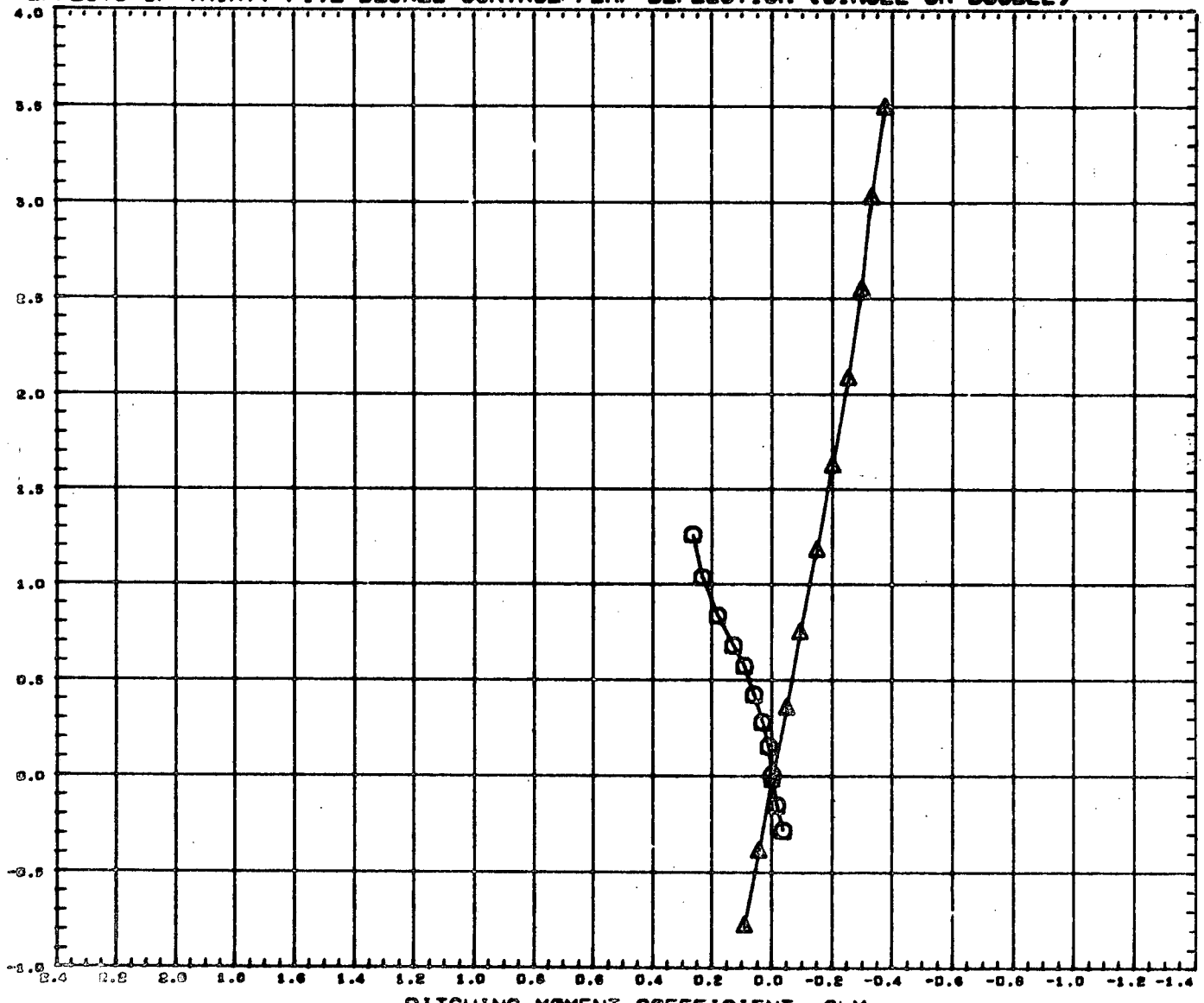


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

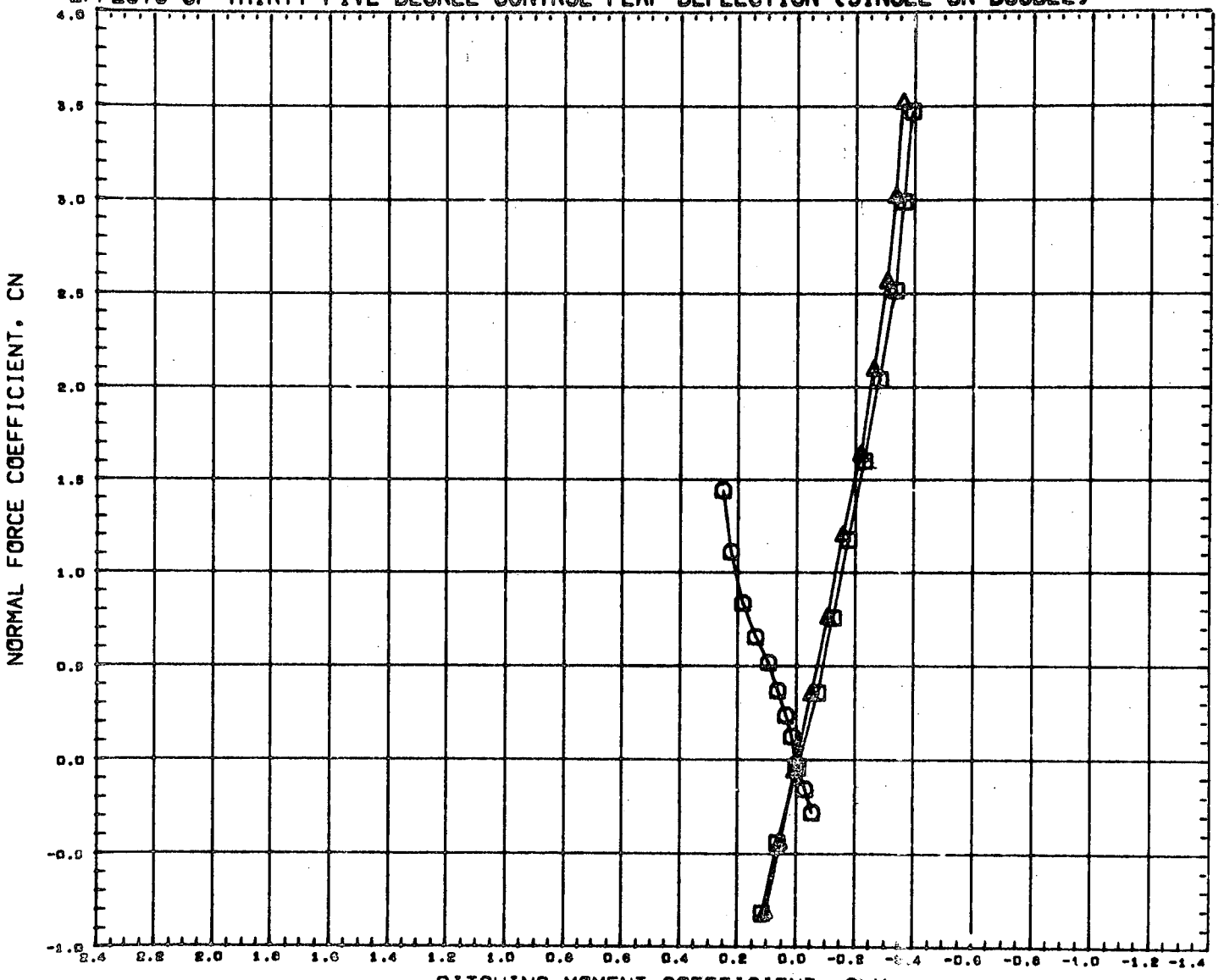


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)		M8FC 512 GD/C .003866 BOOSTER	B34R6	0.000	45.000		
(DS0010)		M8FC 512 GD/C .003366 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(DS0060)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0090)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	35.000

MACH 1.801

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

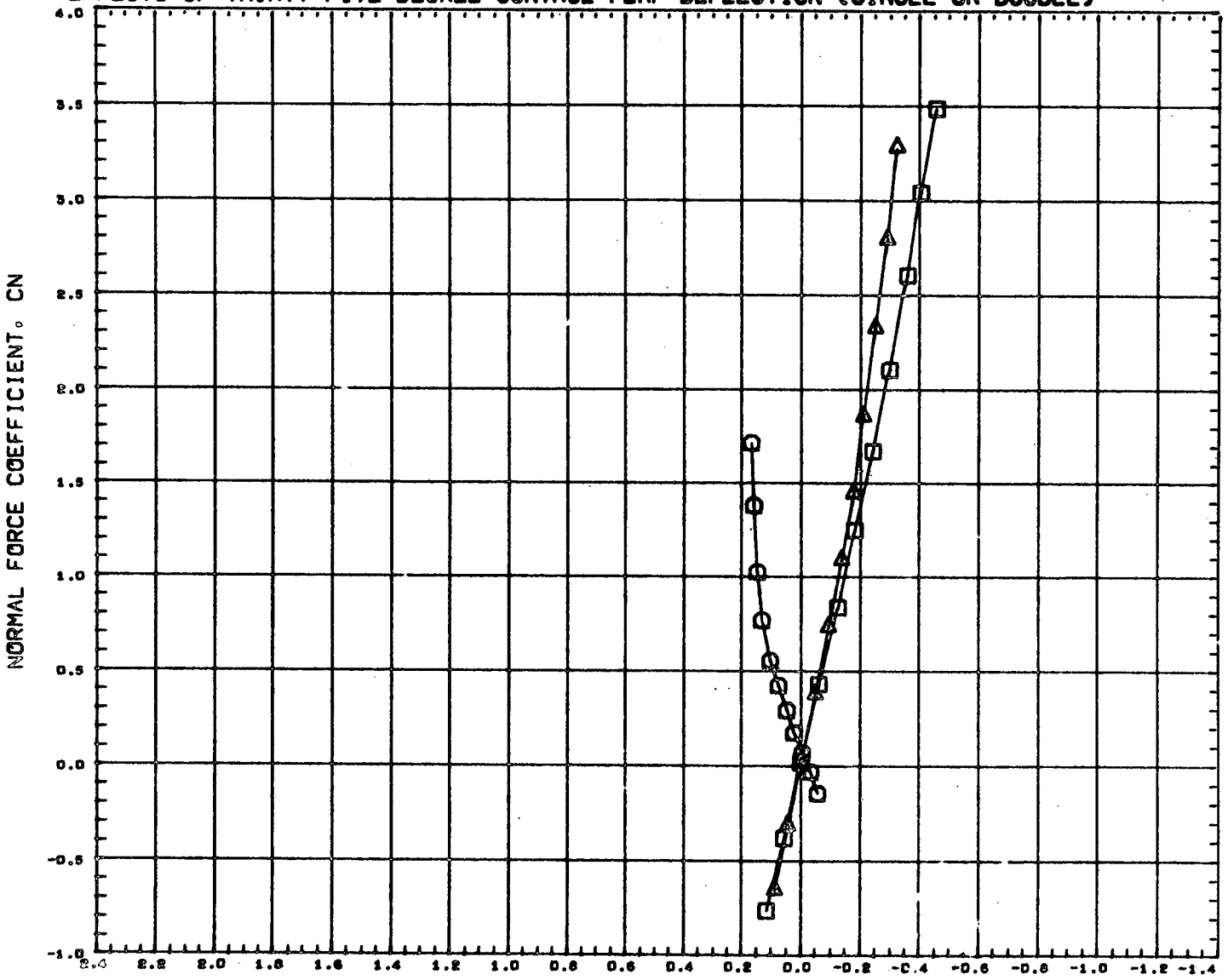


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .005366 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .005366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0090)	□	MSFC 512 GD/C .005366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

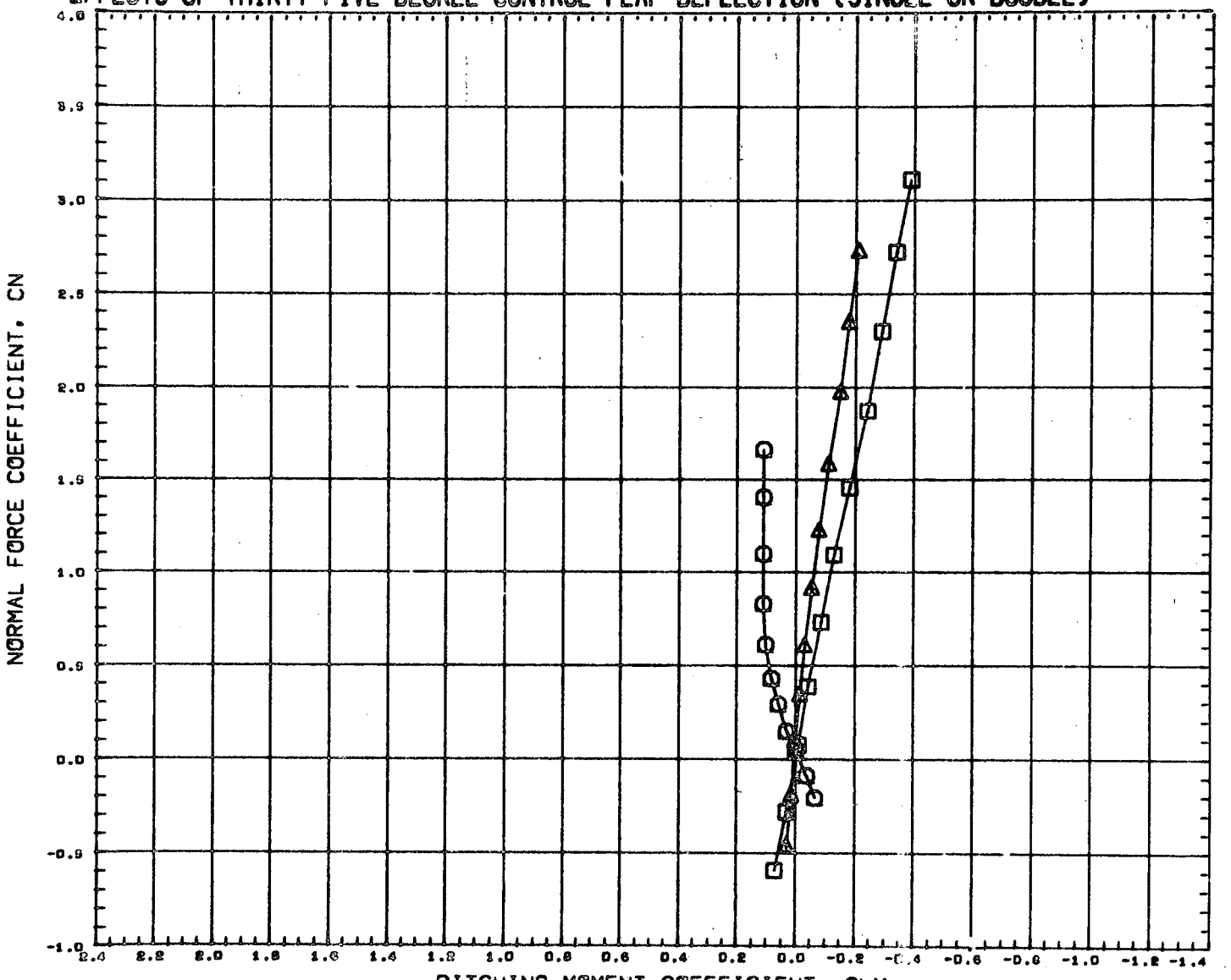


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .003866 BOOSTER	B34R6	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .003866 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34RGT17	0.000	0.000	35.000	35.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

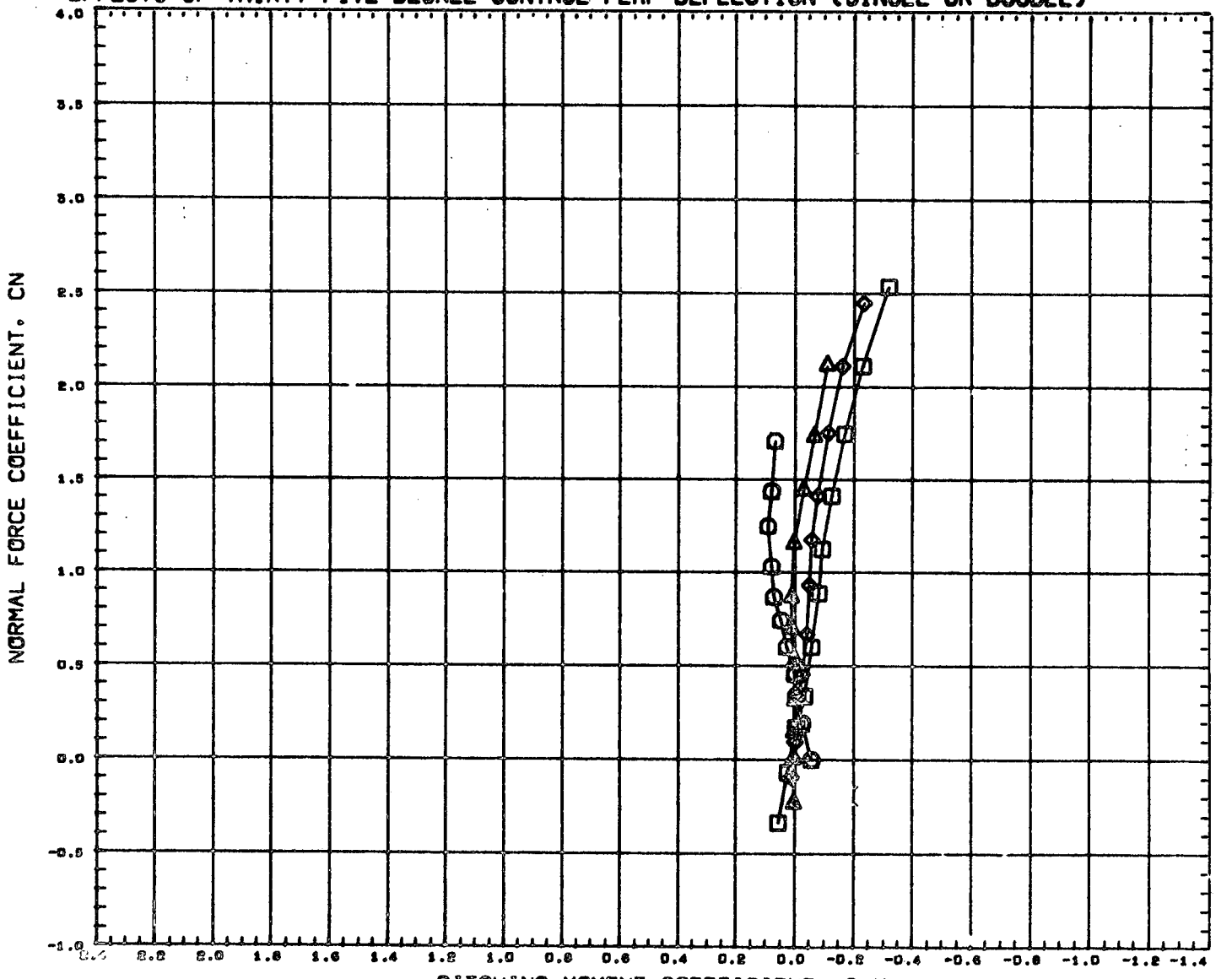


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(DS0110)	○	MSFC 512 GD/C .003536 BOOSTER	B34R6	0.000	45.000		
(DS0010)	△	MSFC 512 GD/C .003536 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0000)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	35.000	0.000
(DS0000)	□	MSFC 512 GD/C .003536 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF THIRTY-FIVE DEGREE CONTROL FLAP DEFLECTION (SINGLE OR DOUBLE)

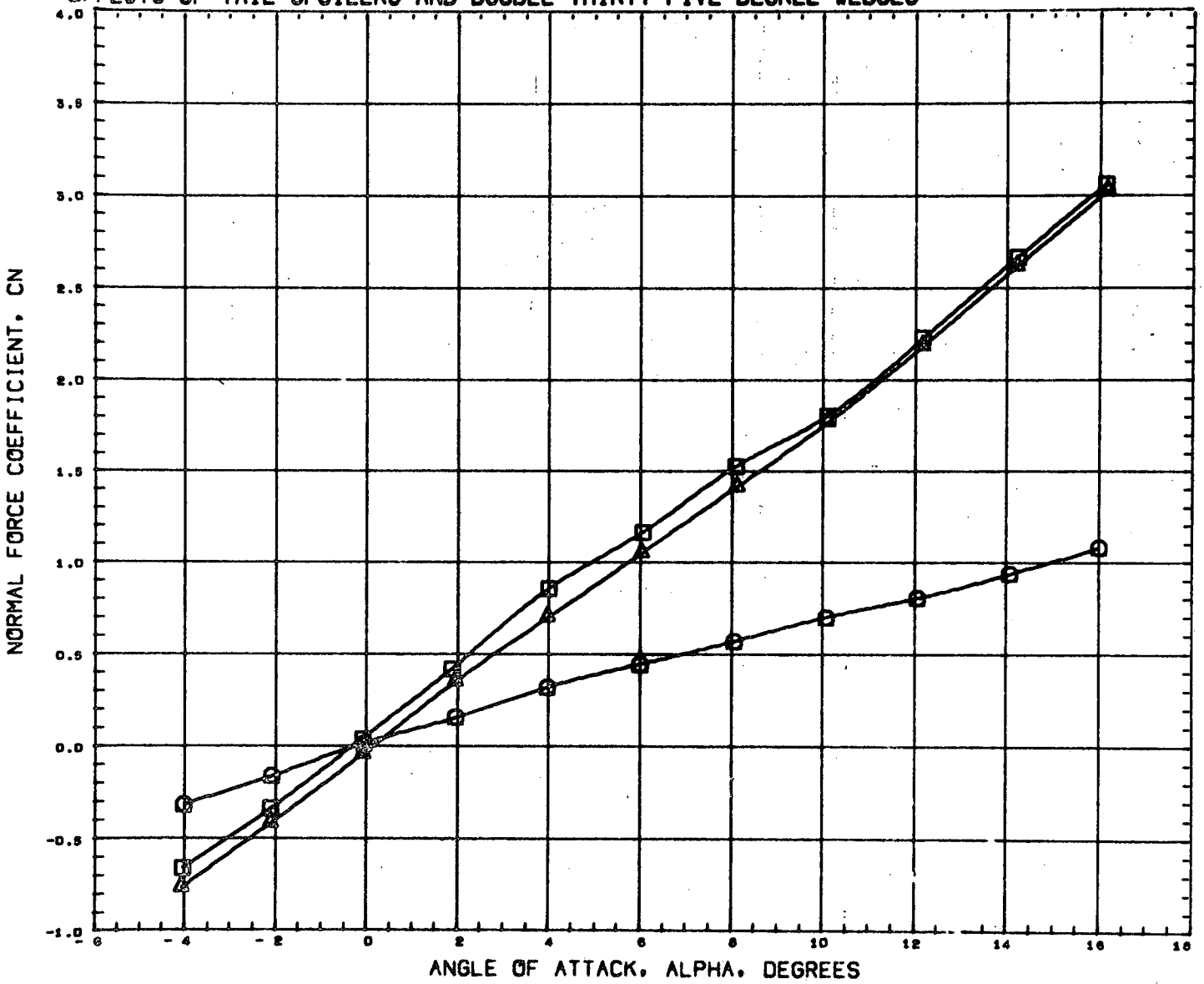


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(D50110)	○	MSFC 512 GD/C .009500 BOOSTER	B34R0	0.000	45.000		
(D50010)	△	MSFC 512 GD/C .009366 BOOSTER	B34R0T10	0.000	0.000	0.000	0.000
(D50060)	◇	MSFC 512 GD/C .009366 BOOSTER	B34R0T14	0.000	0.000	35.000	0.000
(D50000)	□	MSFC 512 GD/C .009366 BOOSTER	B34R0T17	0.000	0.000	35.000	35.000

MACH 4.950

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

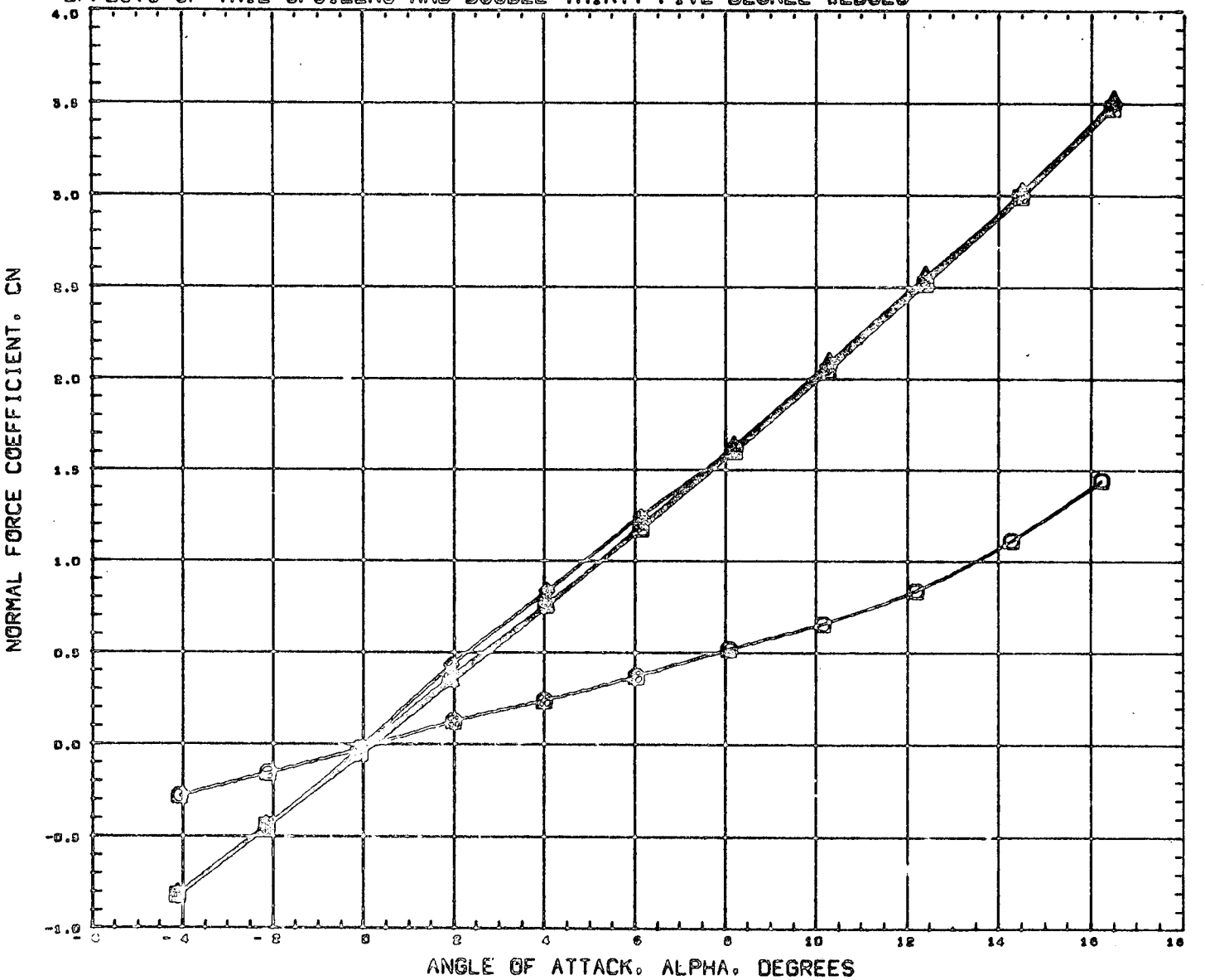


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

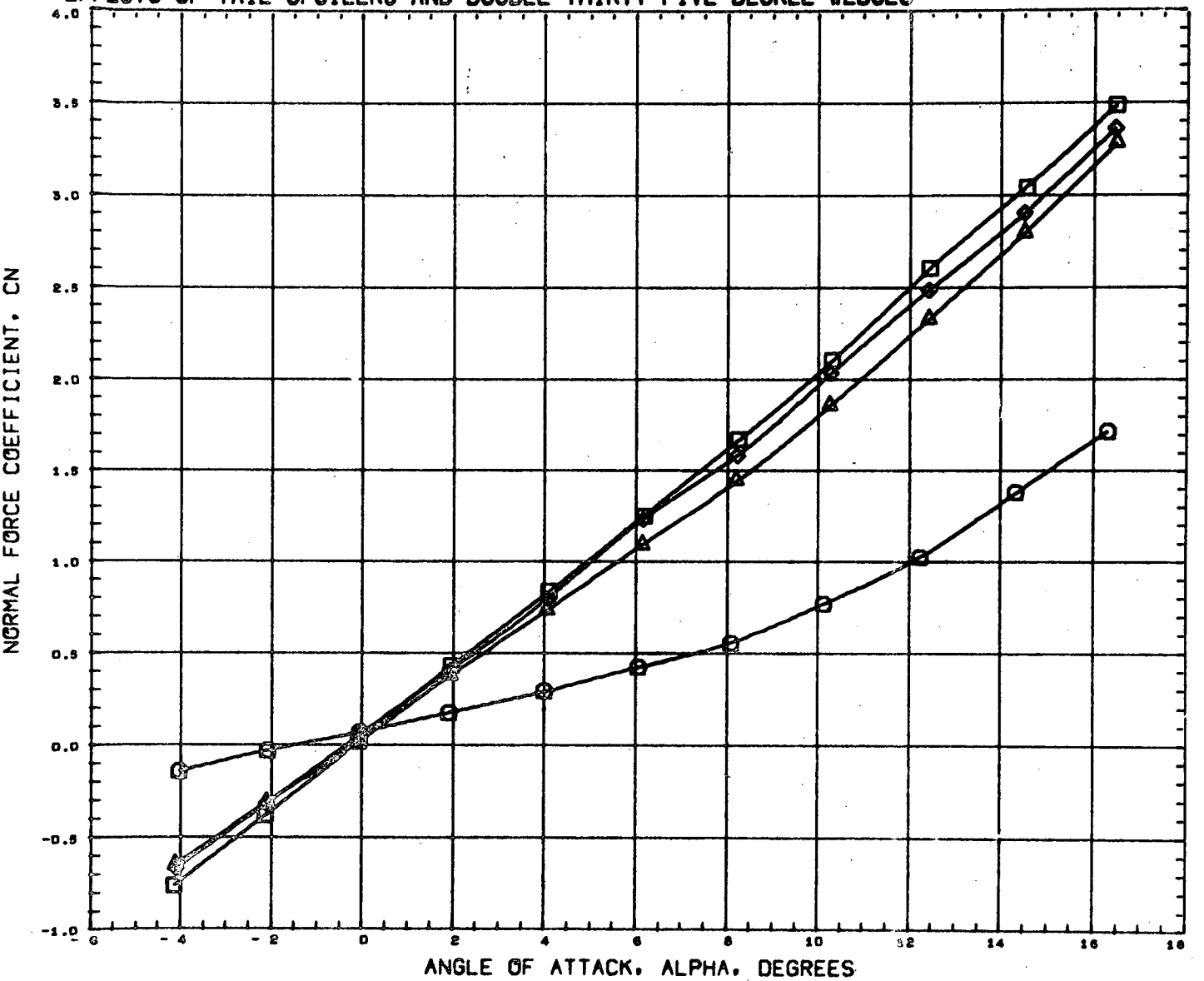


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	M8FC 512 GD/C .008960 DOUBTER	D84RG	0.000	45.000		
(E5011A)	△	M8FC 512 GD/C .008960 DOUBTER	D84RGY10	0.000	0.000	0.000	0.000
(D50070)	◇	M8FC 512 GD/C .008960 DOUBTER	D84RGY15	0.000	0.000		
(D50000)	□	M8FC 512 GD/C .008960 DOUBTER	D84RGY17	0.000	0.000	35.000	35.000

MACH 1.400

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

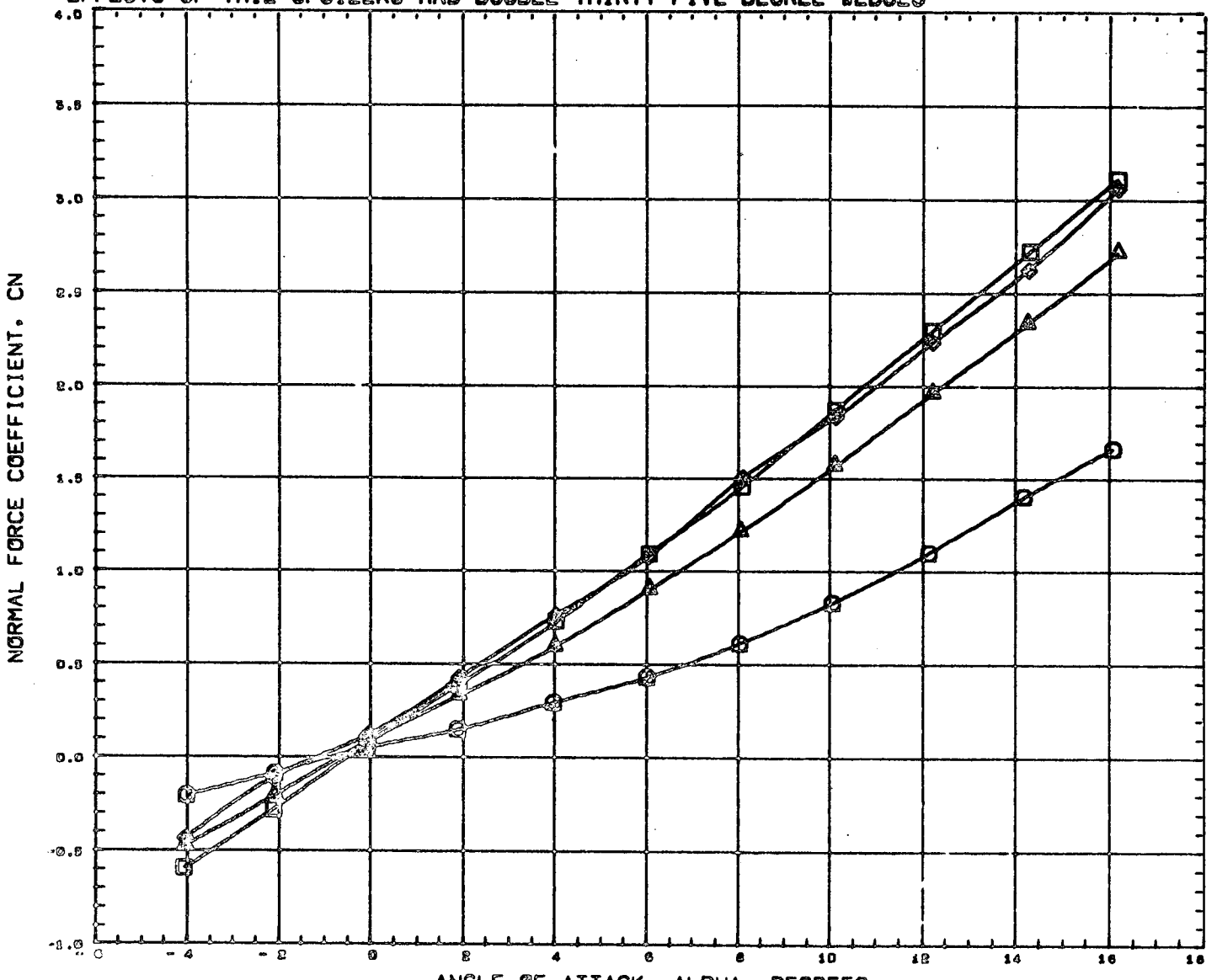


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)		MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

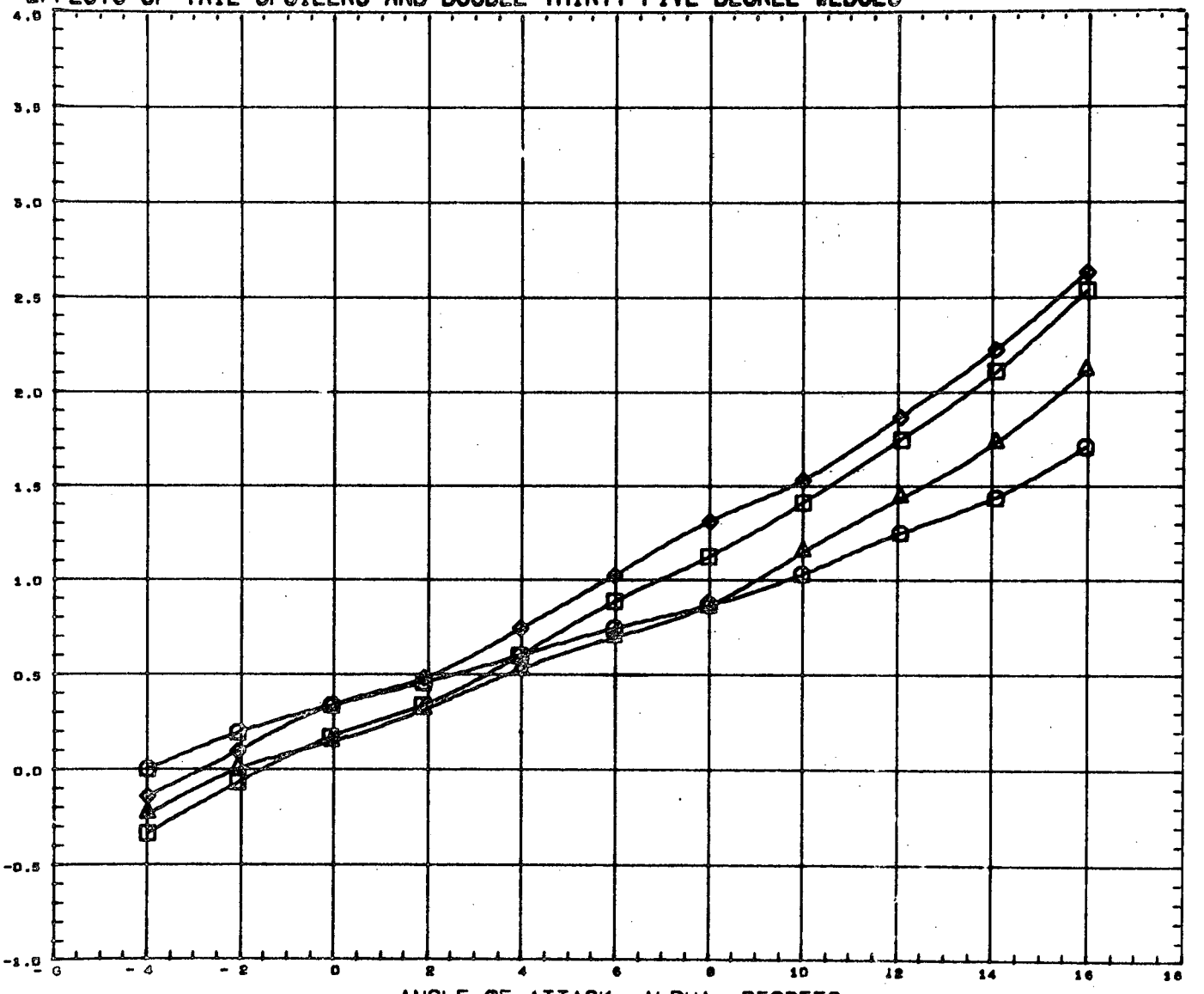


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		M8FC 512 GD/C .003966 BOOSTER	B34RG	0.000	45.000		
(E5001A)		M8FC 512 GD/C .003966 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(D50070)		M8FC 512 GD/C .003966 BOOSTER	B34RGT19	0.000	0.000		
(D50000)		M8FC 512 GD/C .003966 BOOSTER	B34RGT17	0.000	0.000	35.000	35.000

MACH 2.760

REFERENCE INFORMATION		
SREF	0.9550	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

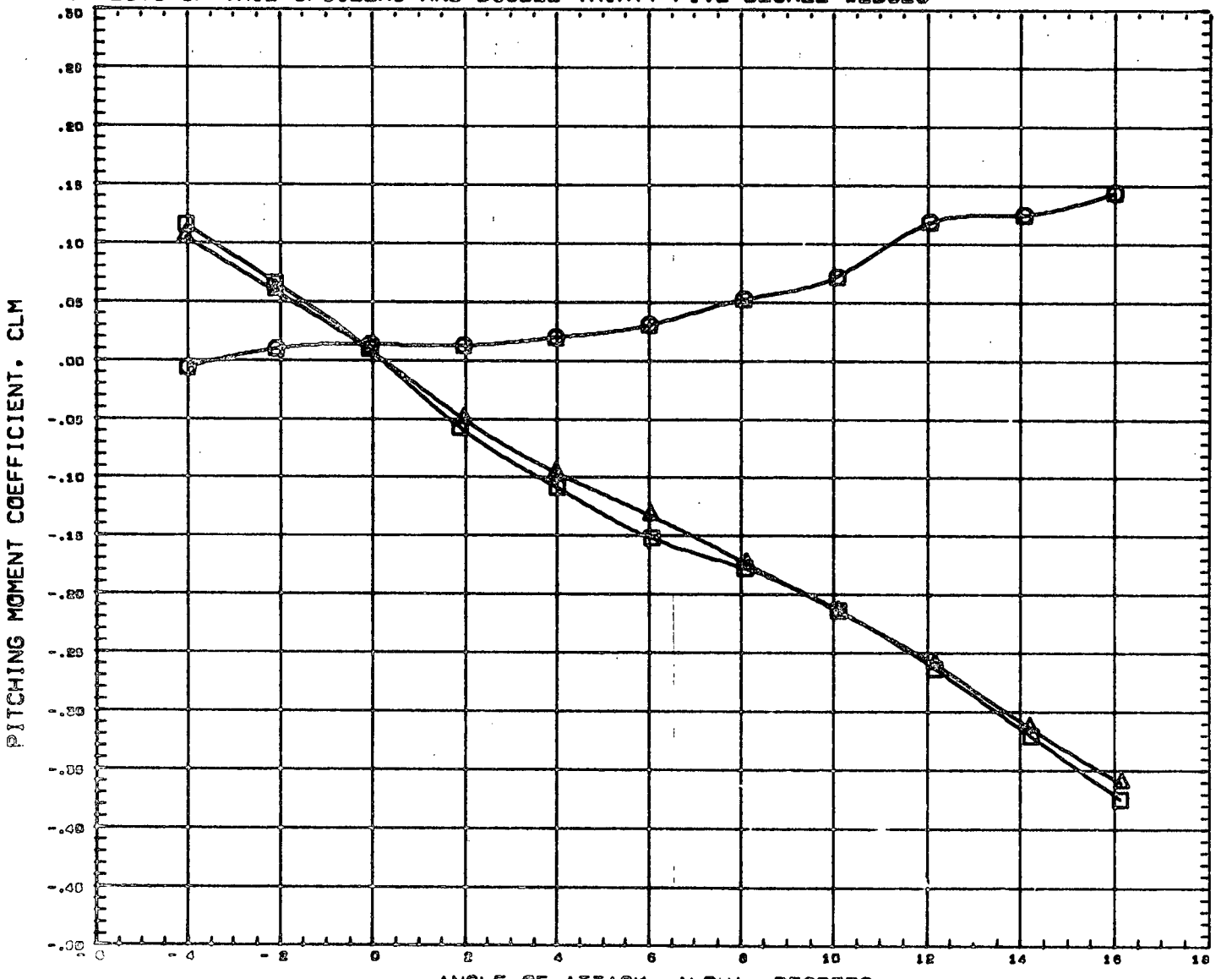


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34RG	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

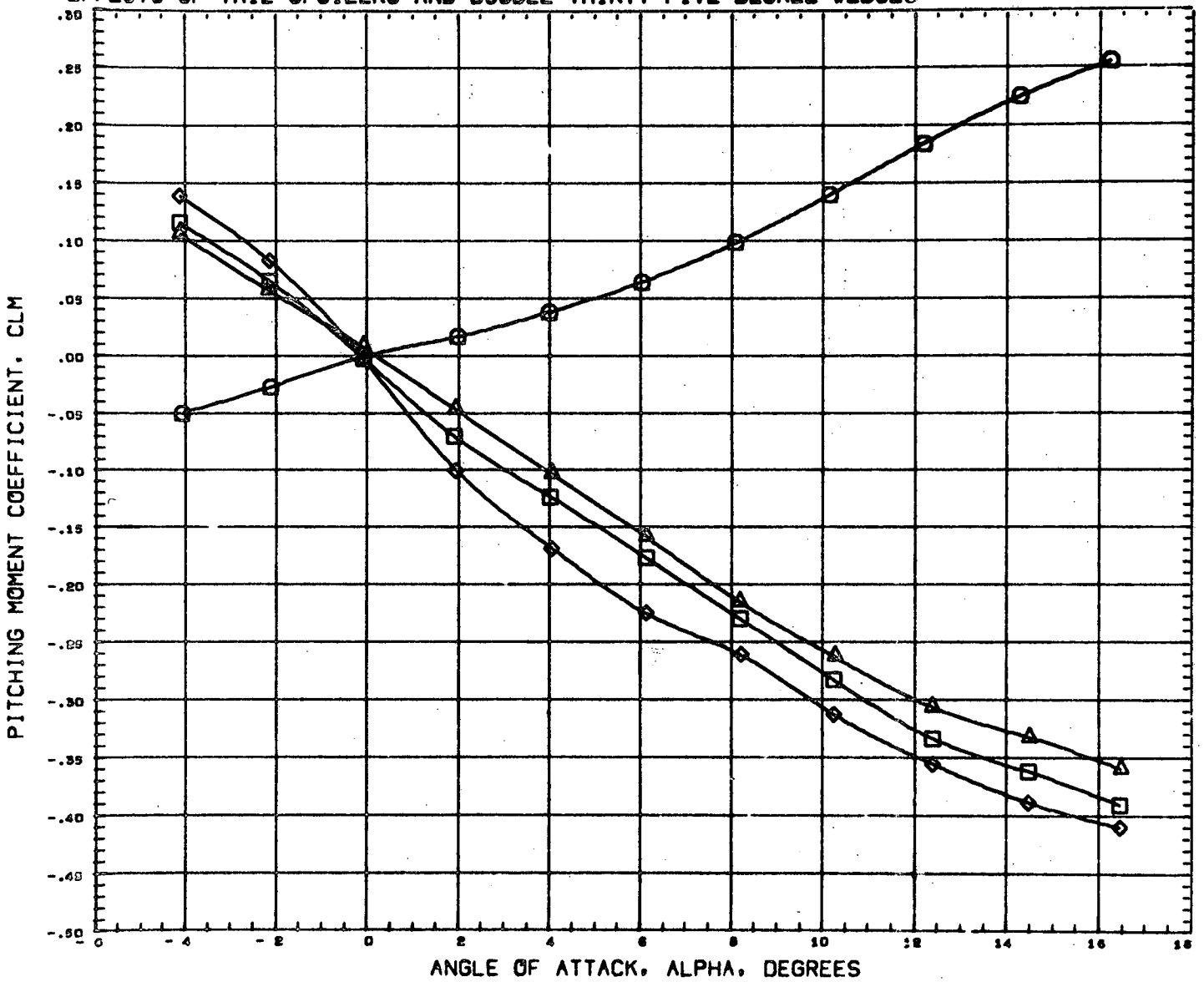


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		M8PC 512 GD/C .003966 BOOSTER	B34RG	0.000	45.000		
(E5001A)		M8PC 512 GD/C .003966 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(D50070)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50000)		M8PC 512 GD/C .003966 BOOSTER	B34RGT17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

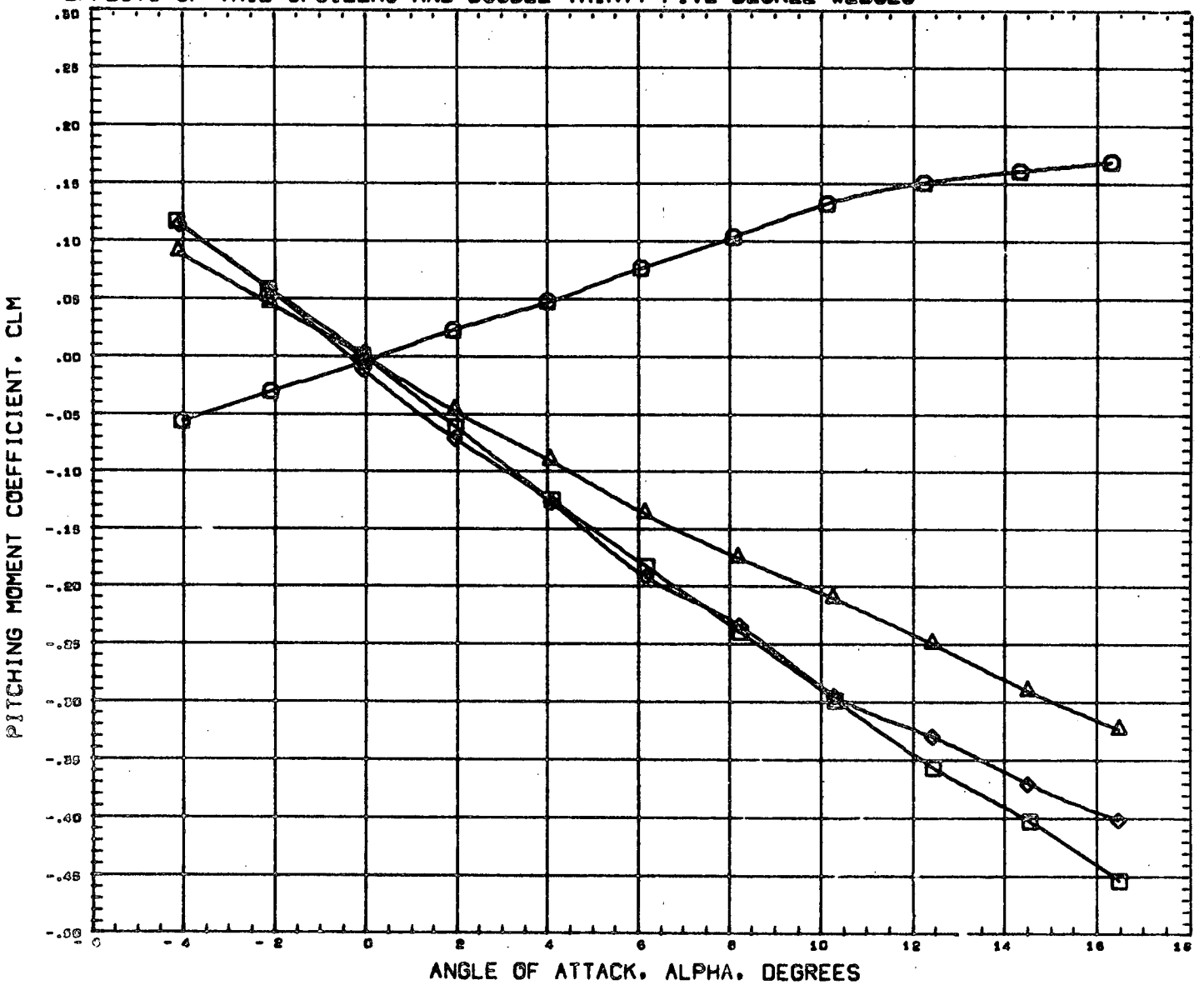


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

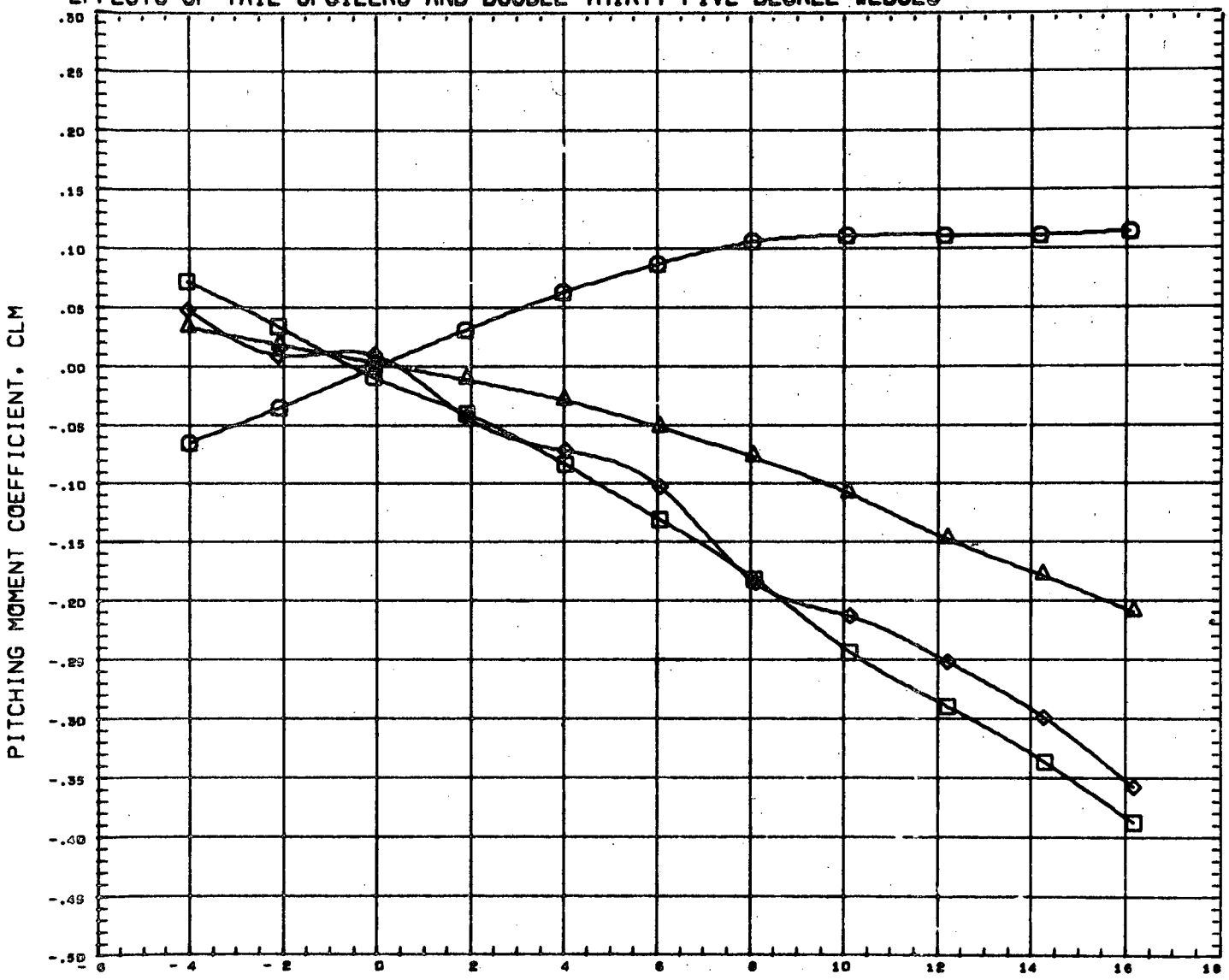


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	M8FC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	M8FC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	M8FC 512 GD/C .003966 BOOSTER	B34R6T15	0.000	0.000		
(D50060)	□	M8FC 512 GD/C .003966 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

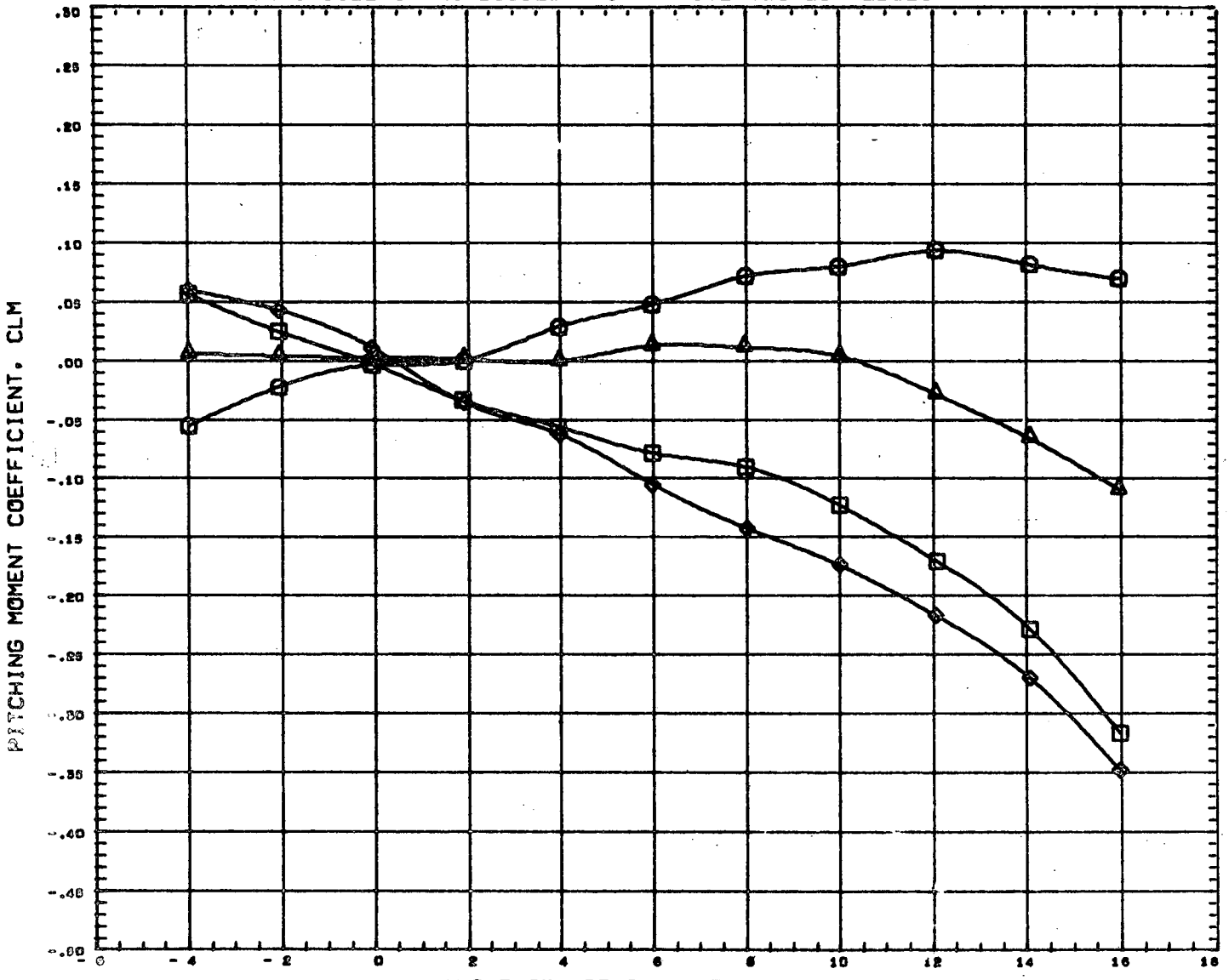


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)		MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

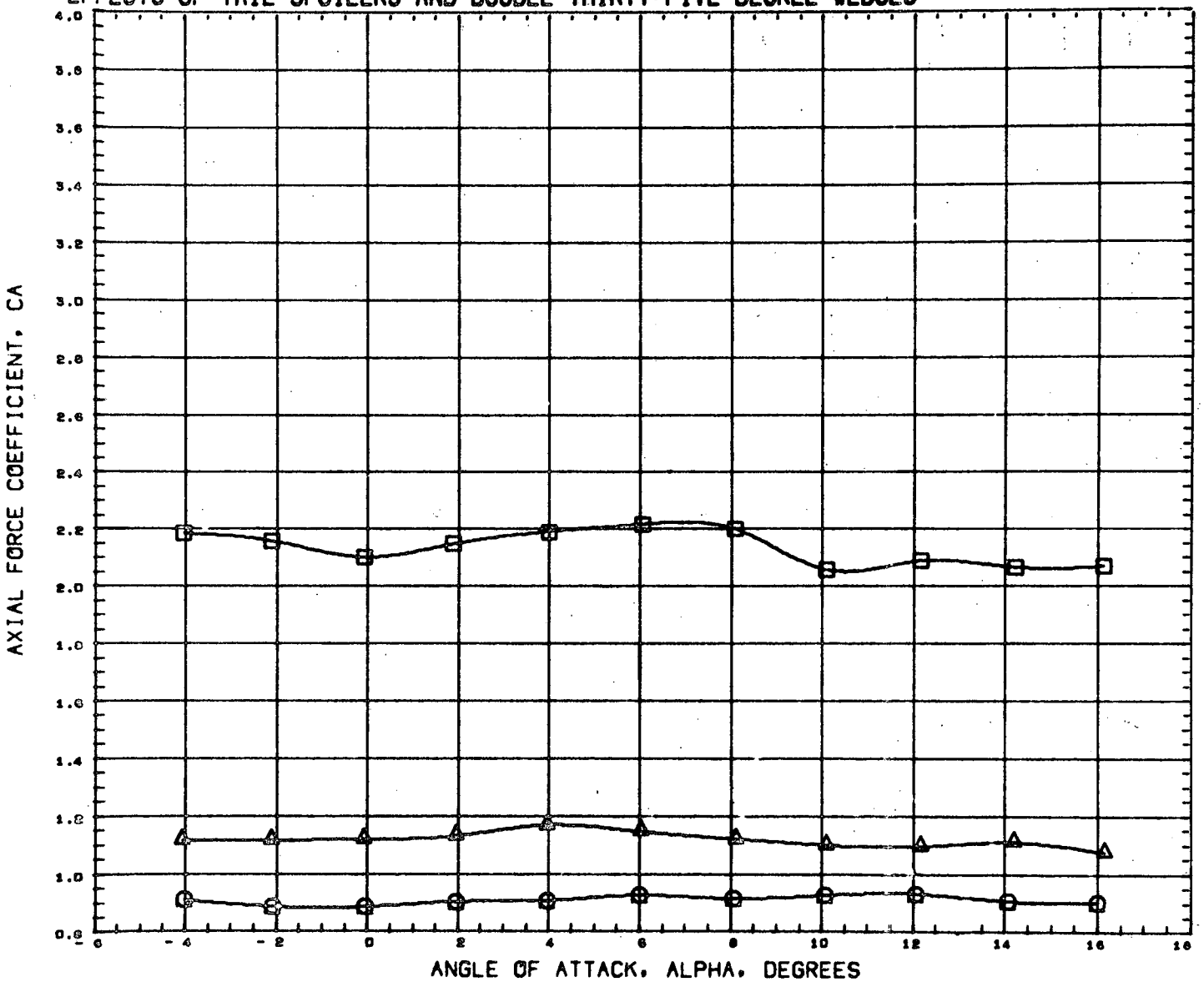


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R0T15	0.000	0.000		
(DS0090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R0T17	0.000	0.000	35.000	35.000

MACH 4.650

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

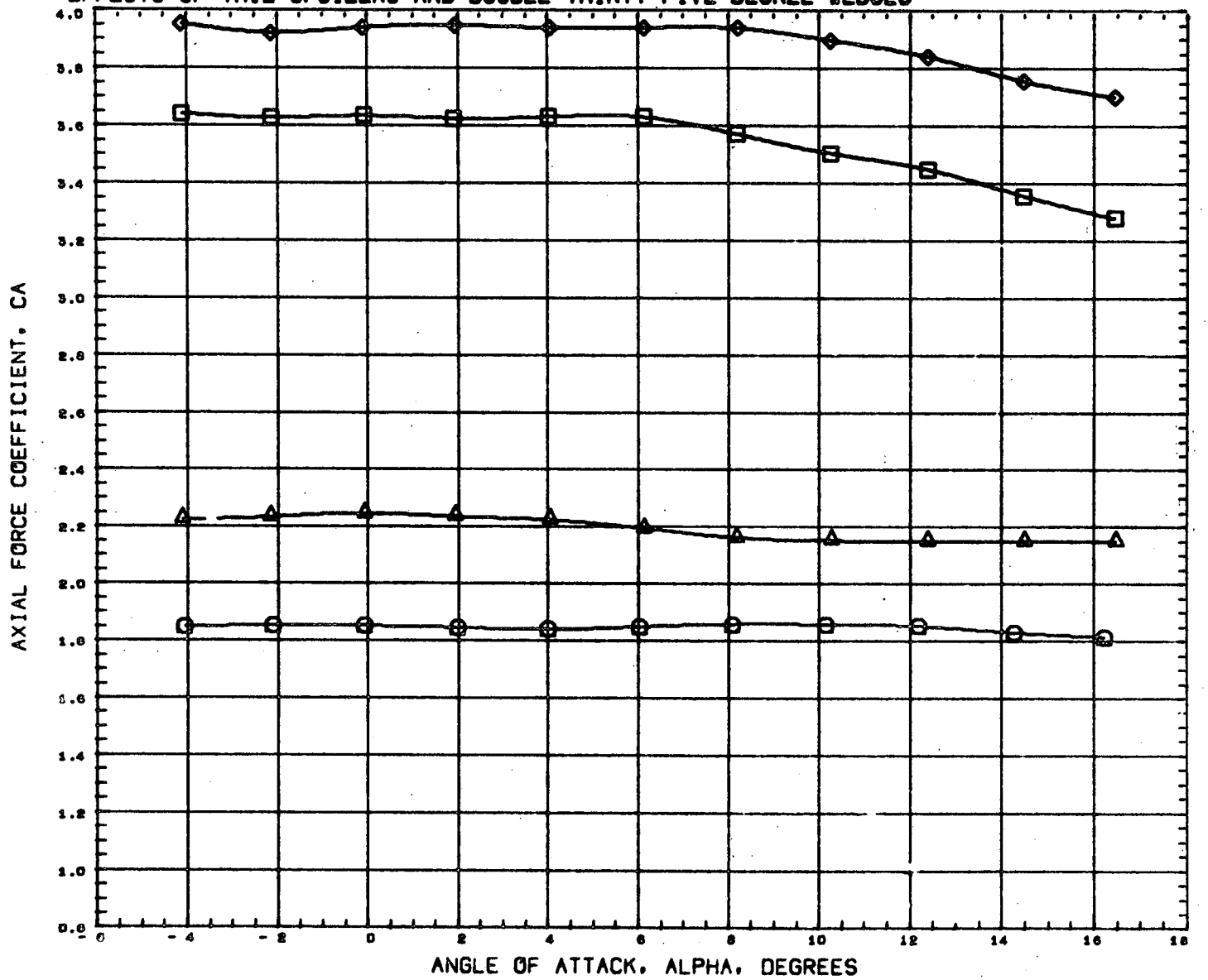


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003563 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003566 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.601

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

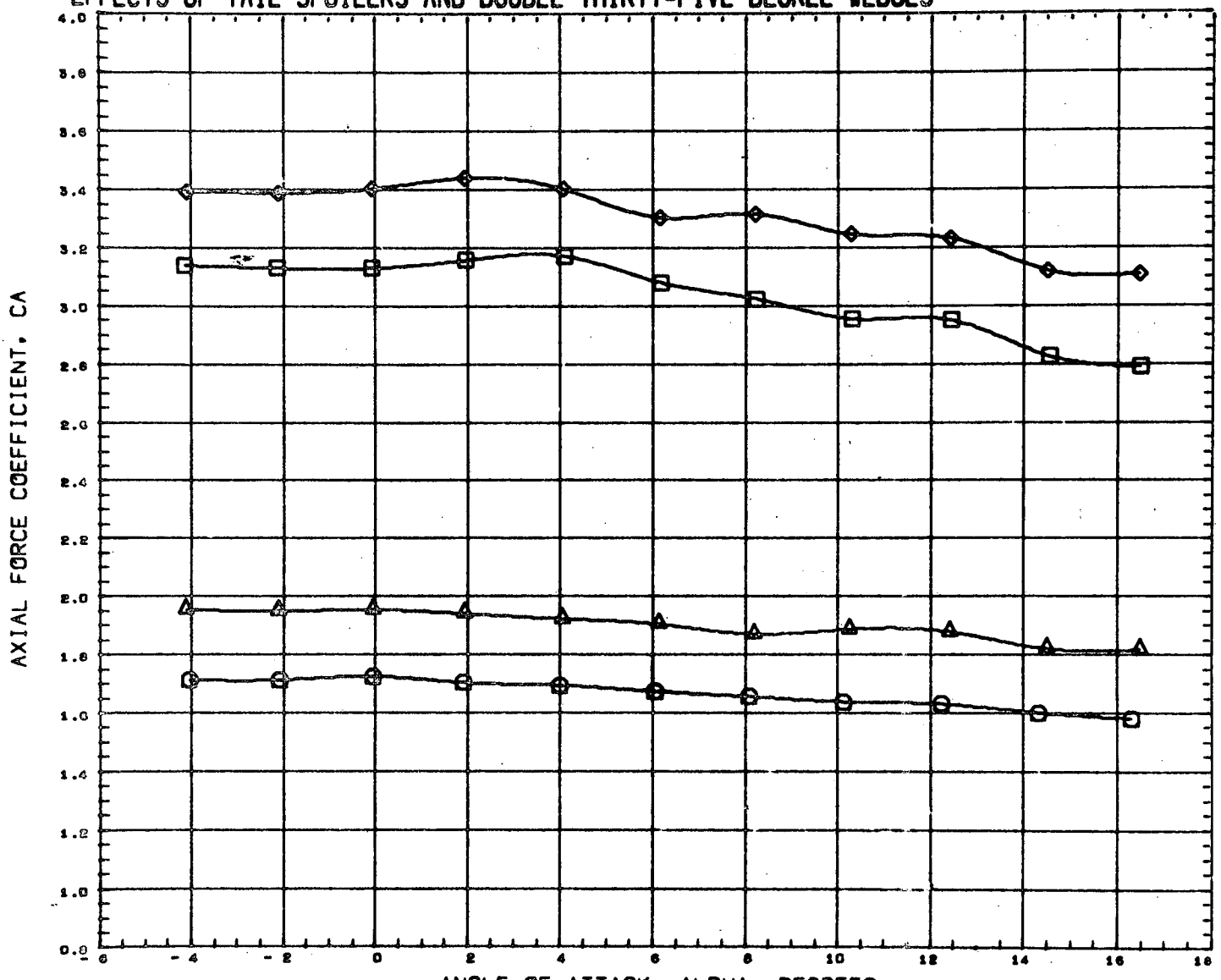


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

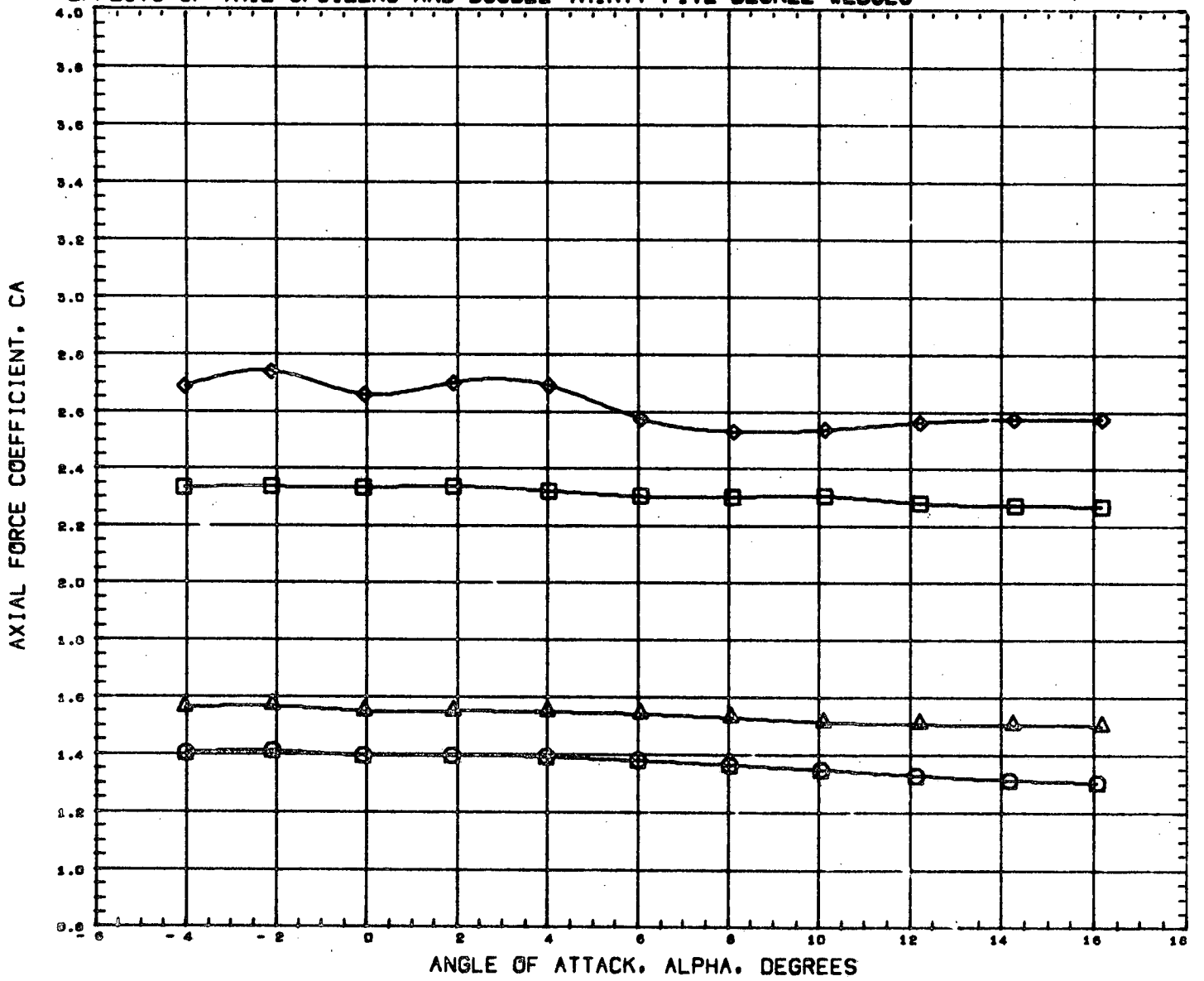


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003566 BOOSTER	B34R6T15	0.000	0.000		
(D50000)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

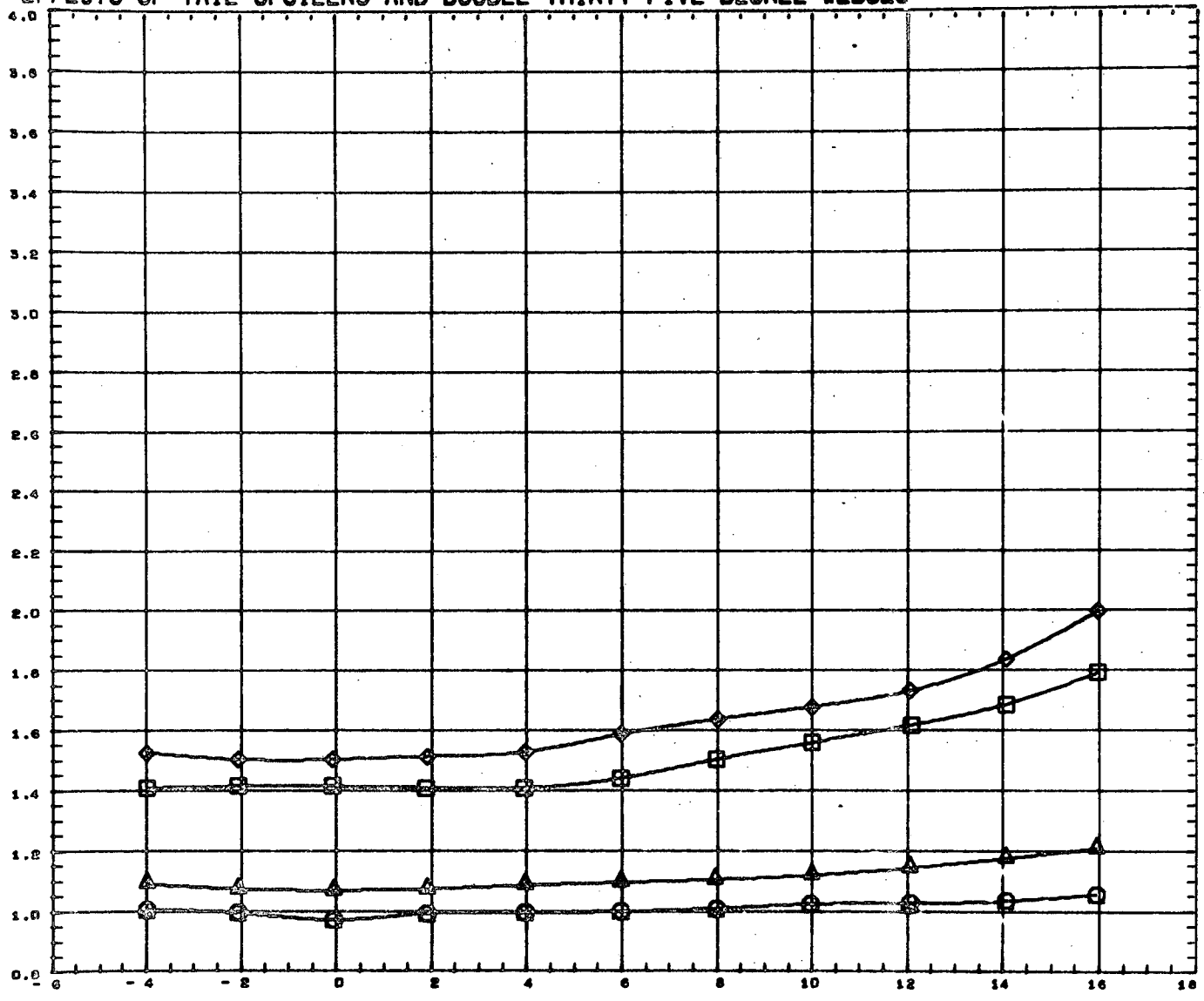


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

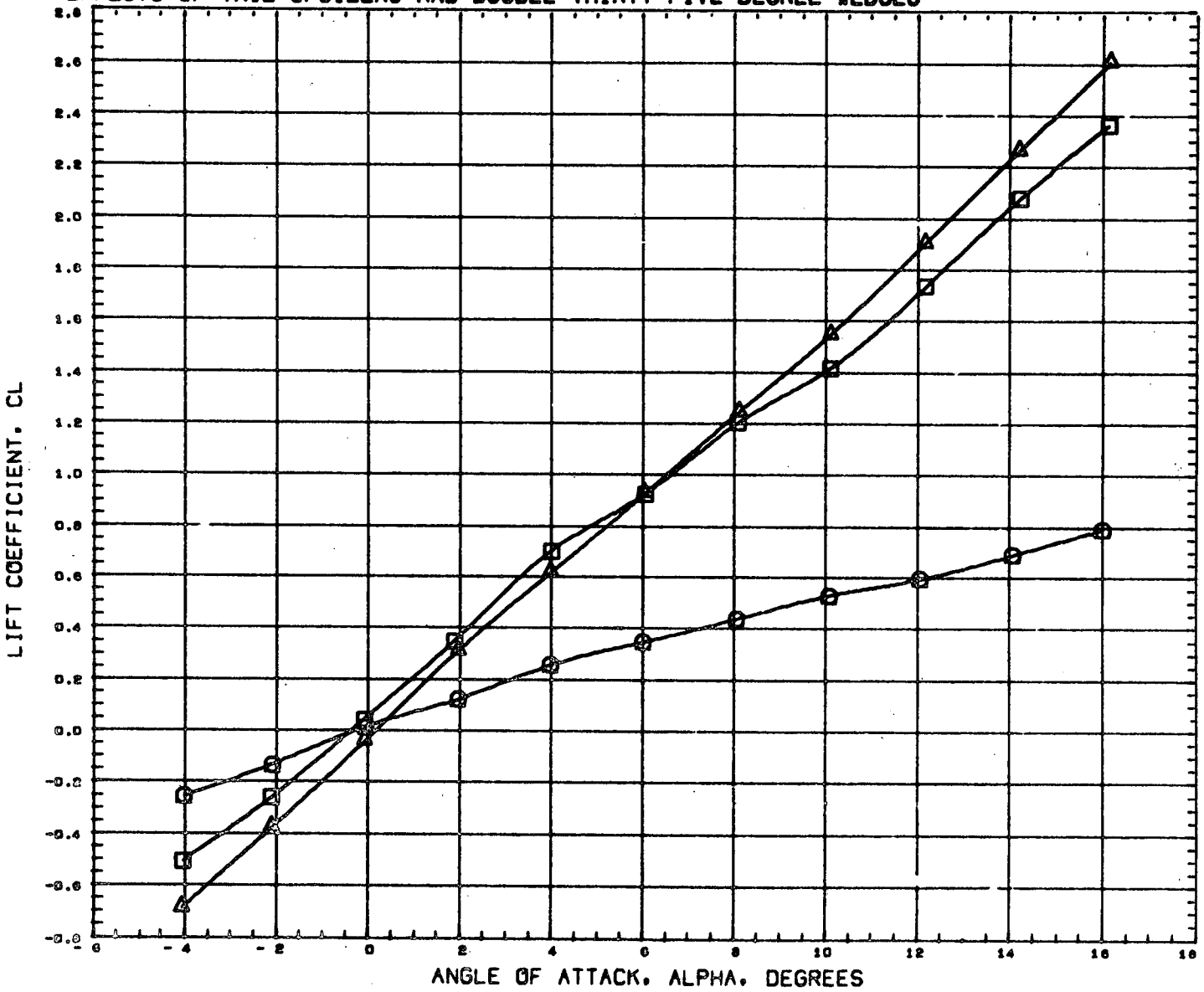


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

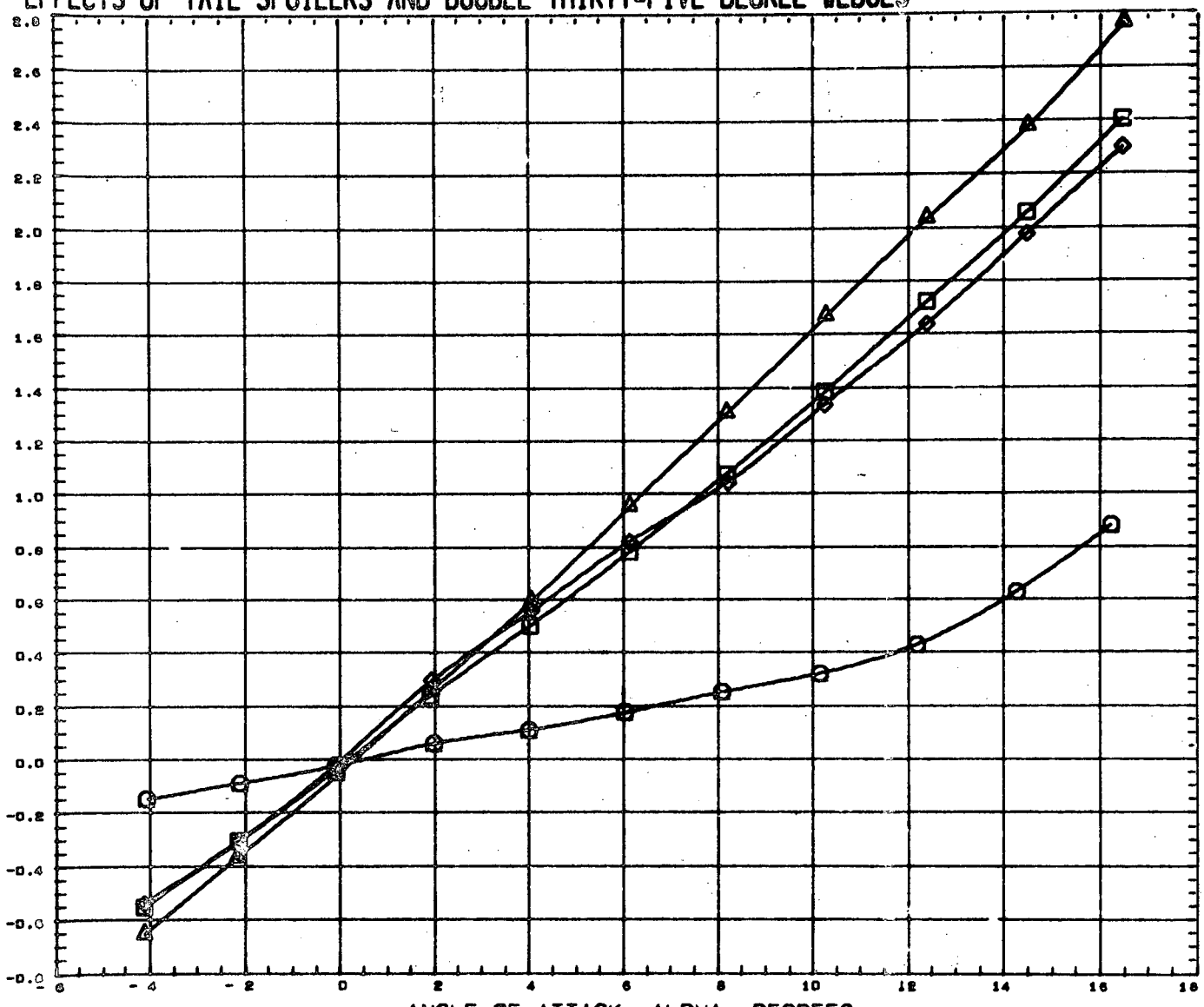


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.600

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

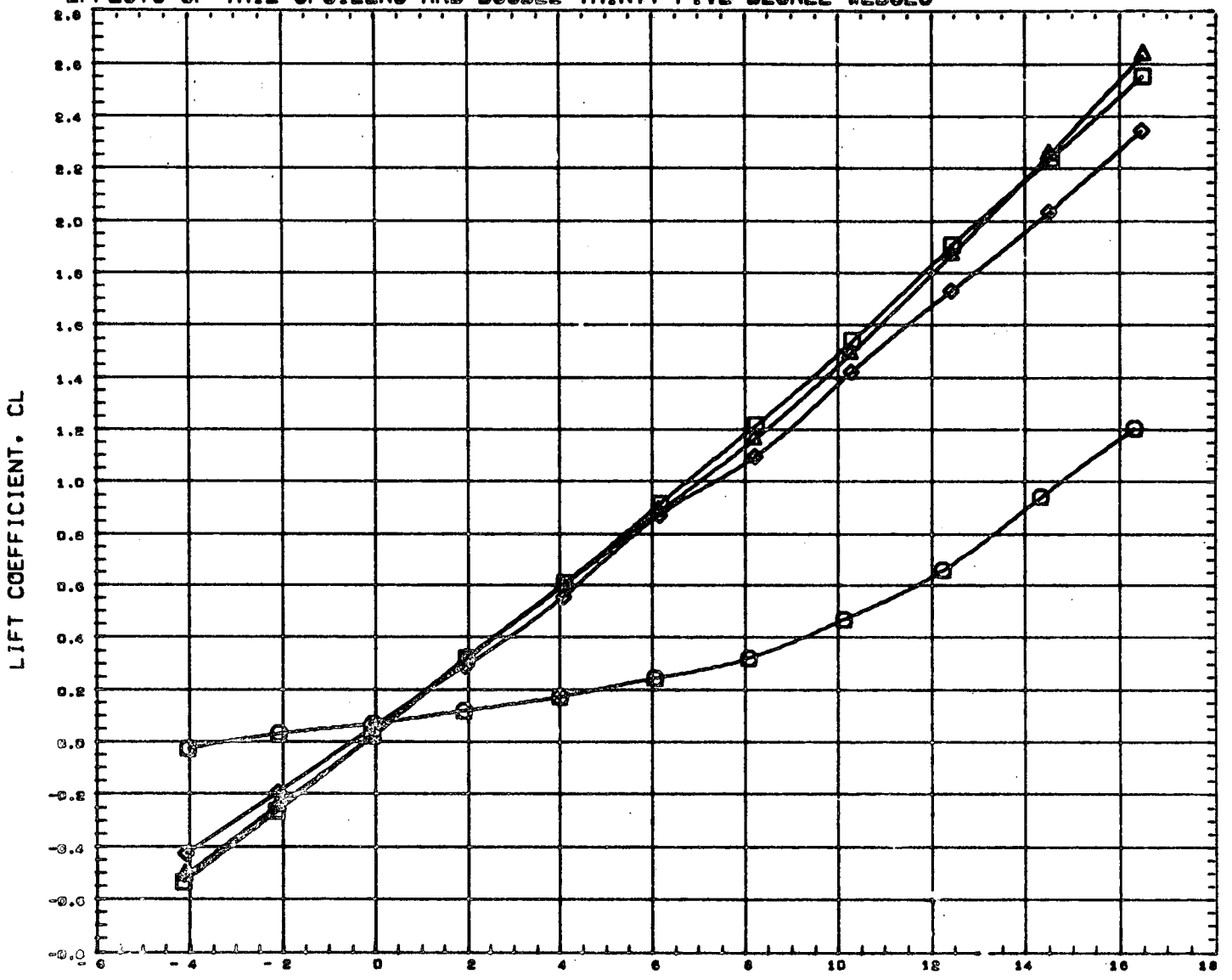


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.456

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

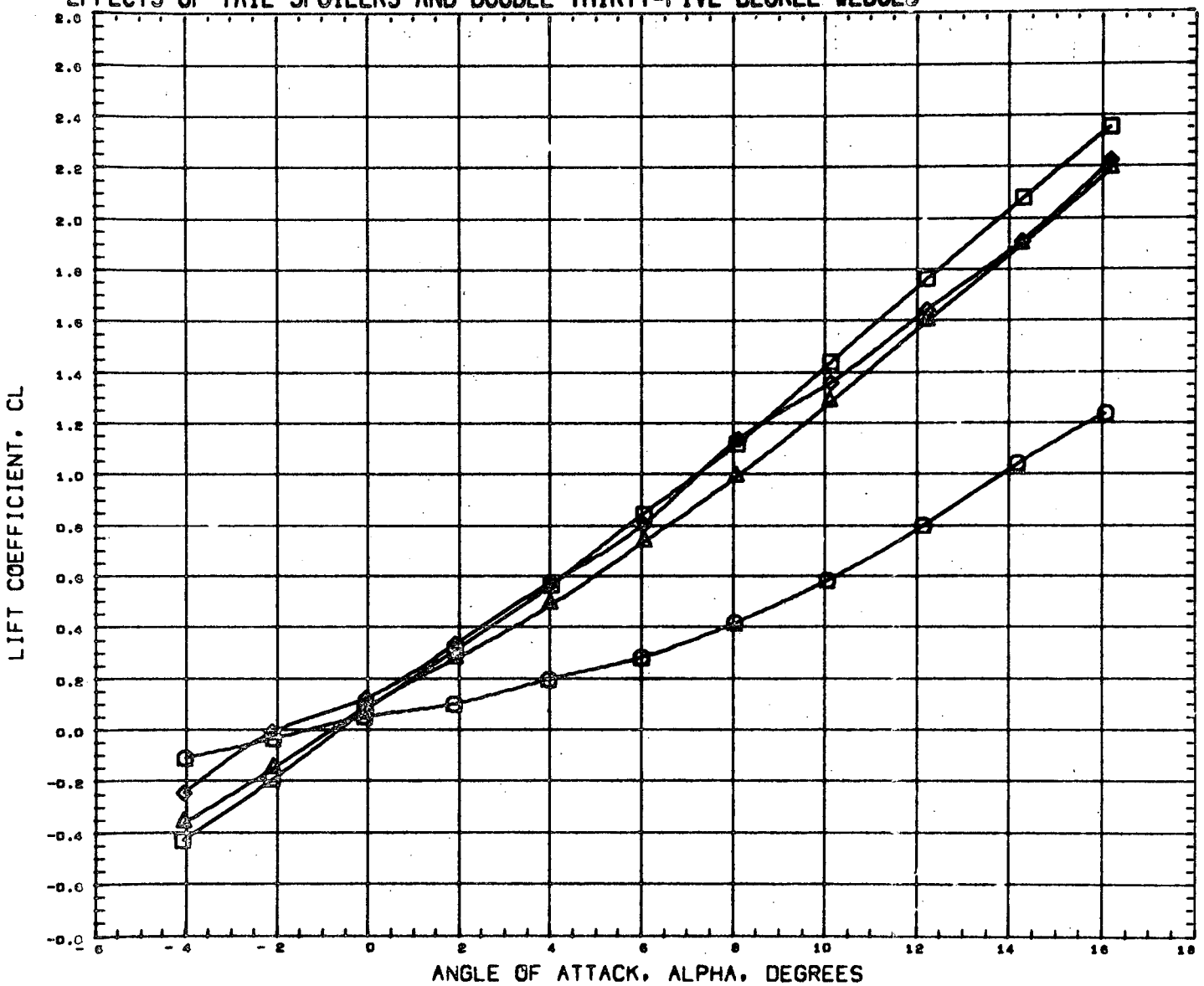


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	MSFC 512 GD/C .003966 BOOSTER	B34RG	0.000	45.000		
(ES001A)	MSFC 512 GD/C .003966 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(DS0070)	MSFC 512 GD/C .003966 BOOSTER	B34RGT19	0.000	0.000		
(DS0000)	MSFC 512 GD/C .003966 BOOSTER	B34RGT17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0010	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.980

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

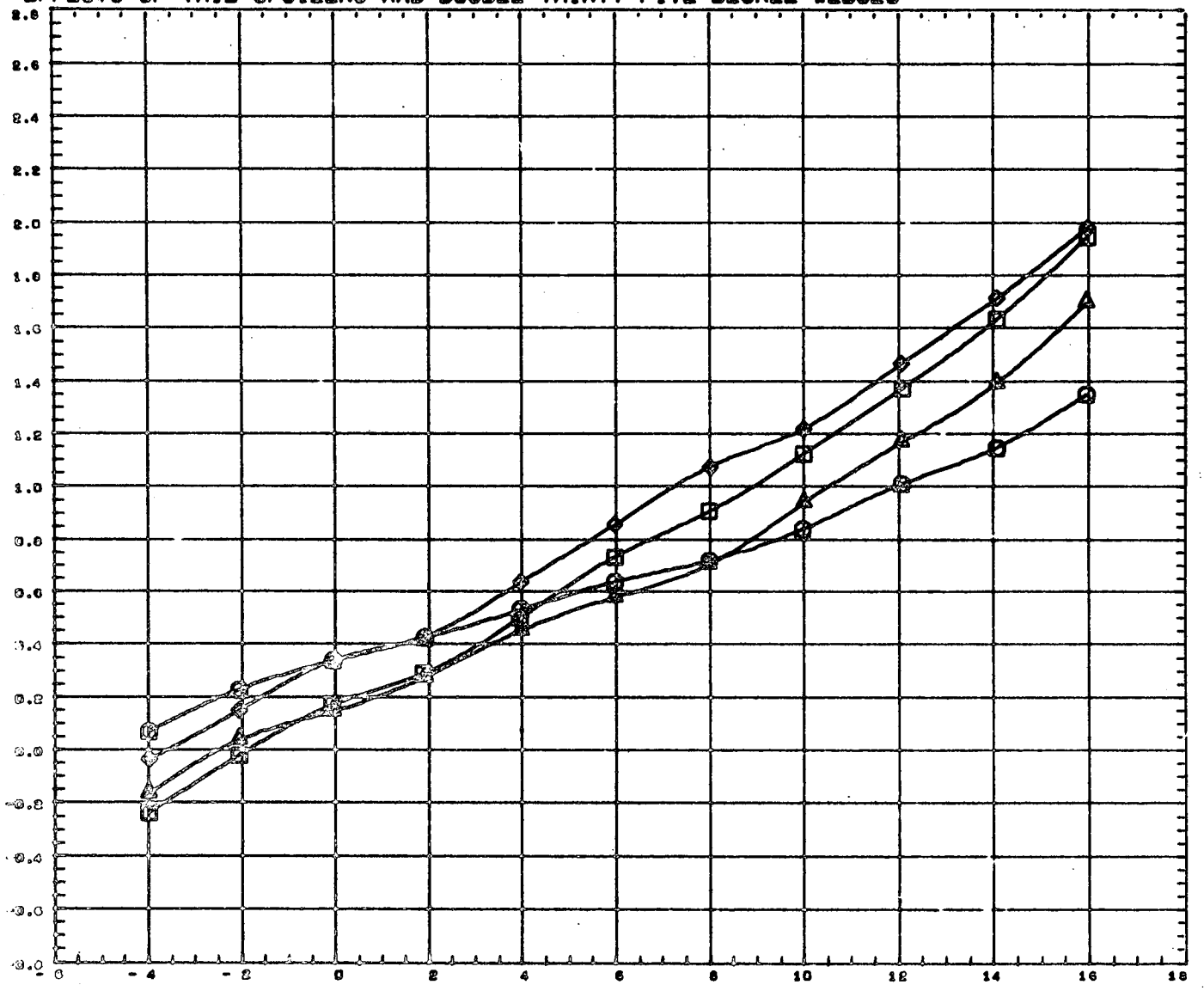


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D90090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

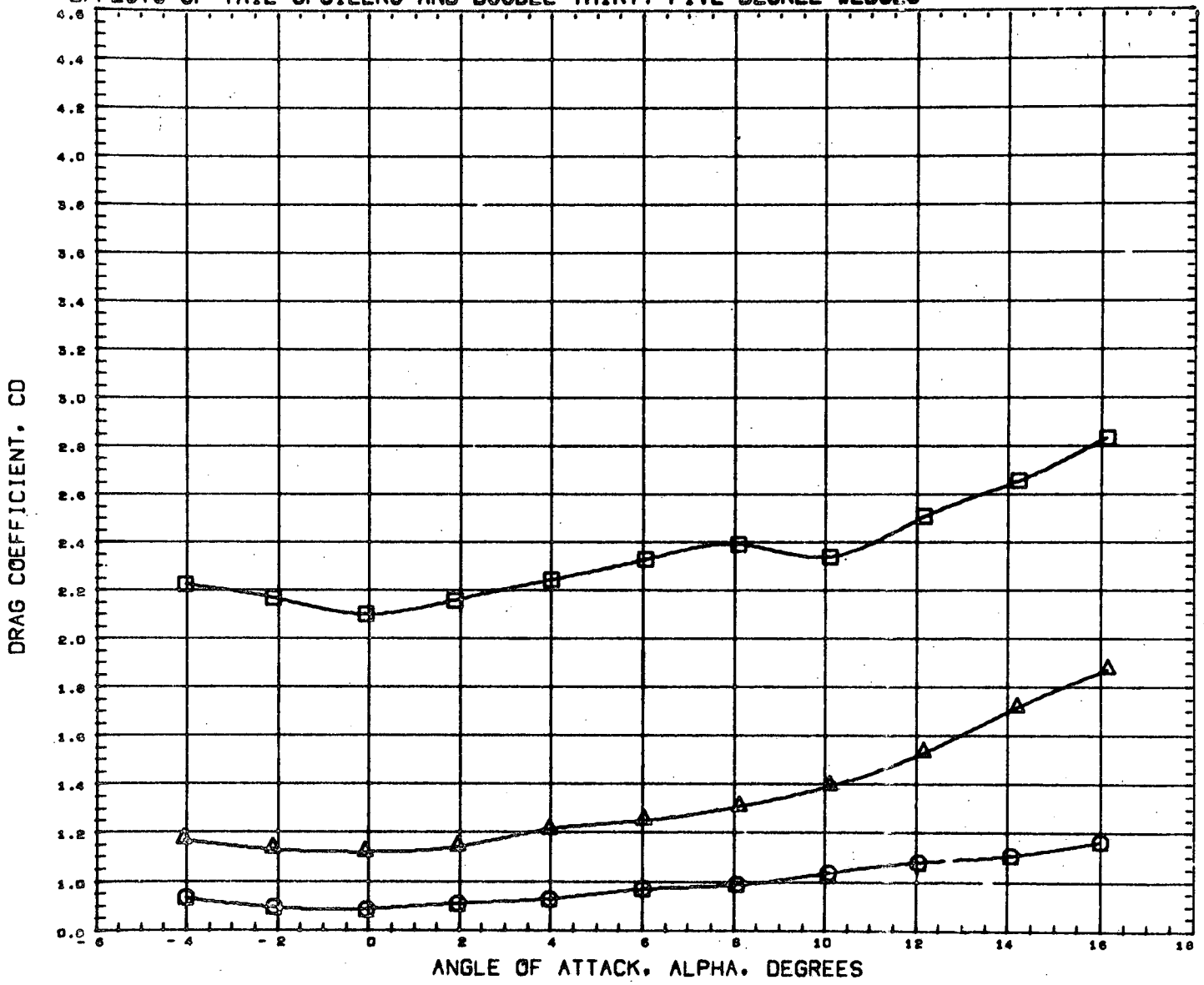


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E9011A)		M8FC 512 GD/C .003906 DOODYER	B34R6	0.000	45.000		
(E9001A)		M8FC 512 GD/C .003906 DOODYER	B34R6T10	0.000	0.000	0.000	0.000
(D90070)		M8FC 512 GD/C .003906 DOODYER	B34R6T15	0.000	0.000		
(D90080)		M8FC 512 GD/C .003906 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

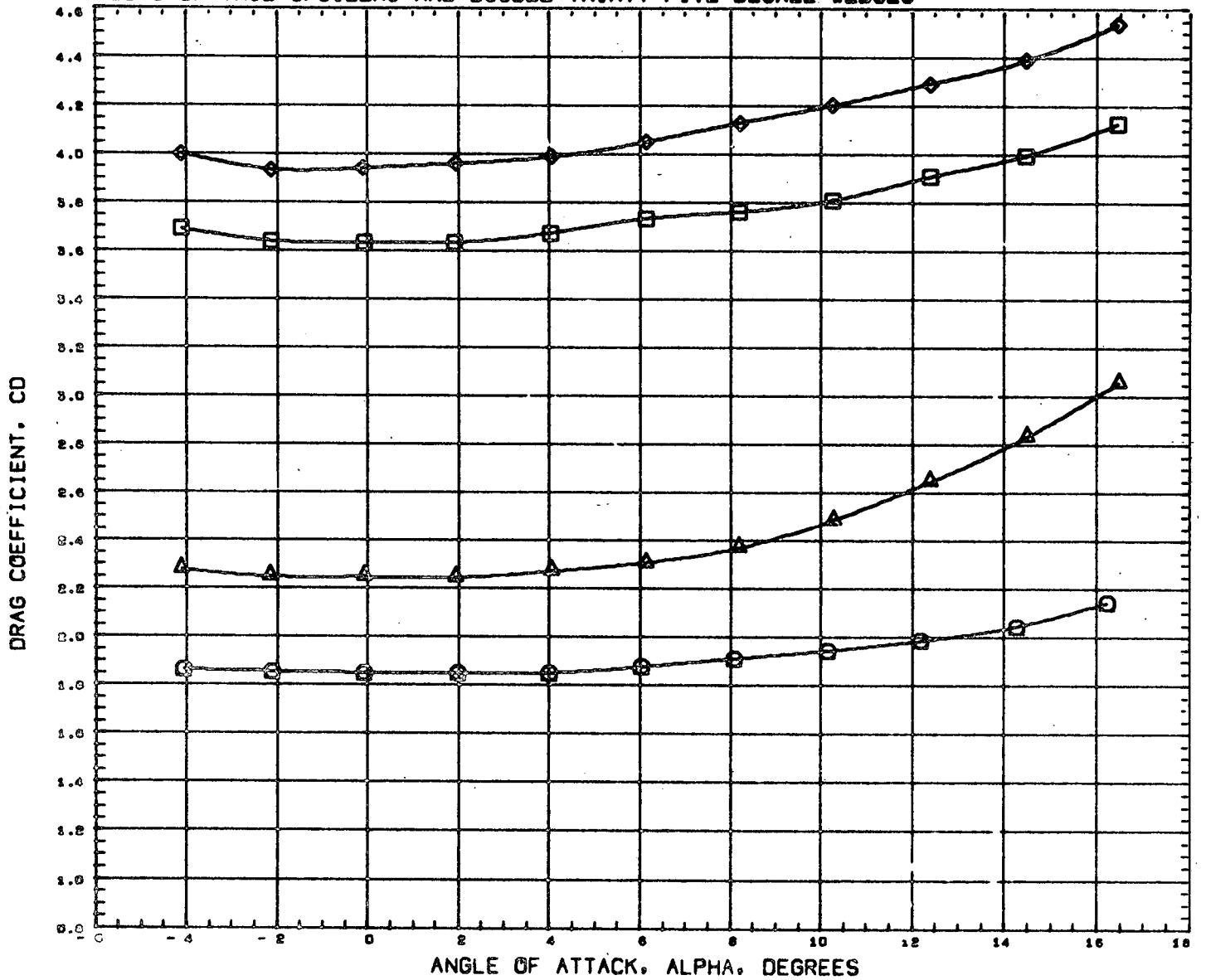


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MDFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D90070)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D90090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

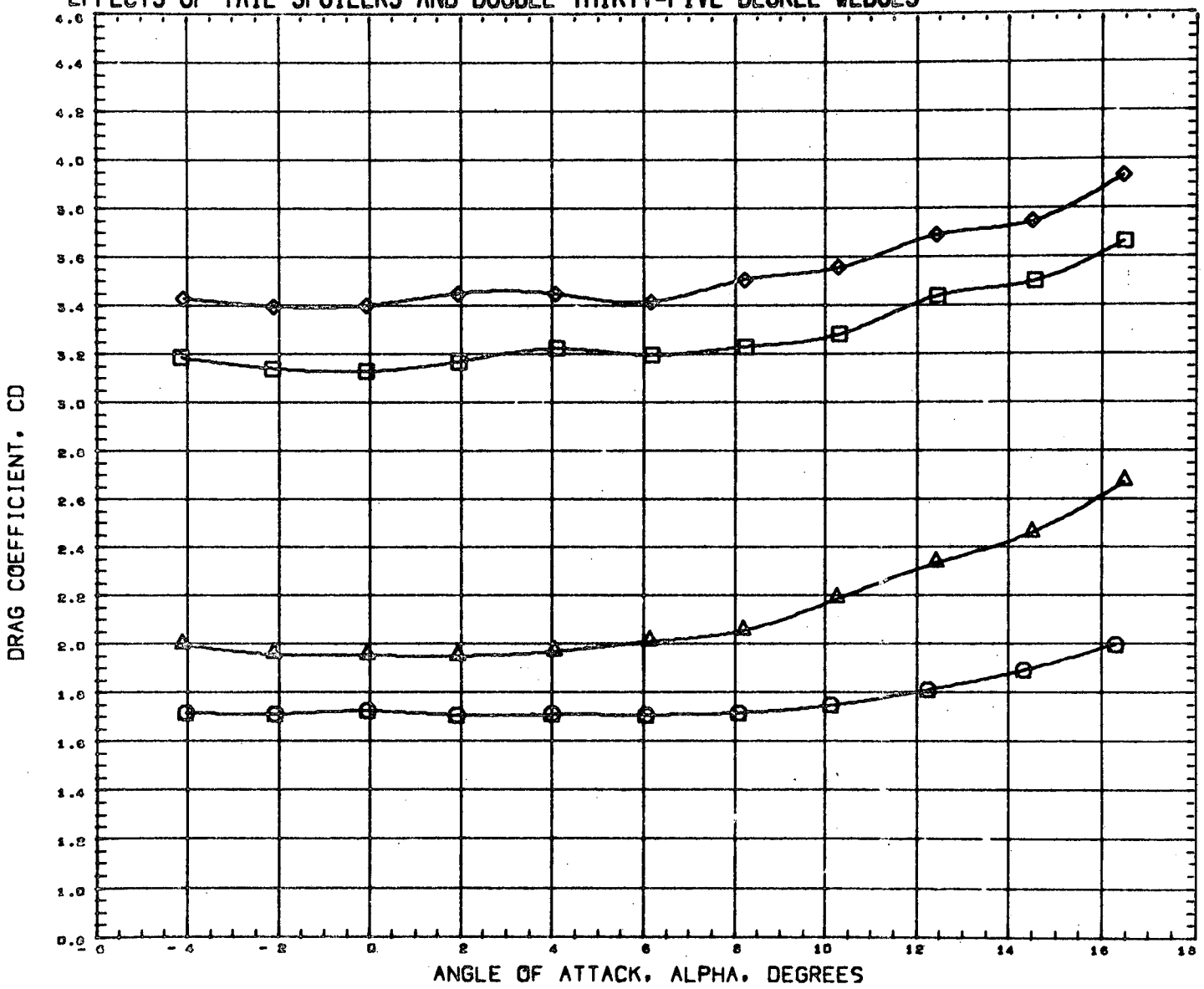


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		M8FC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		M8FC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)		M8FC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)		M8FC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0810	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

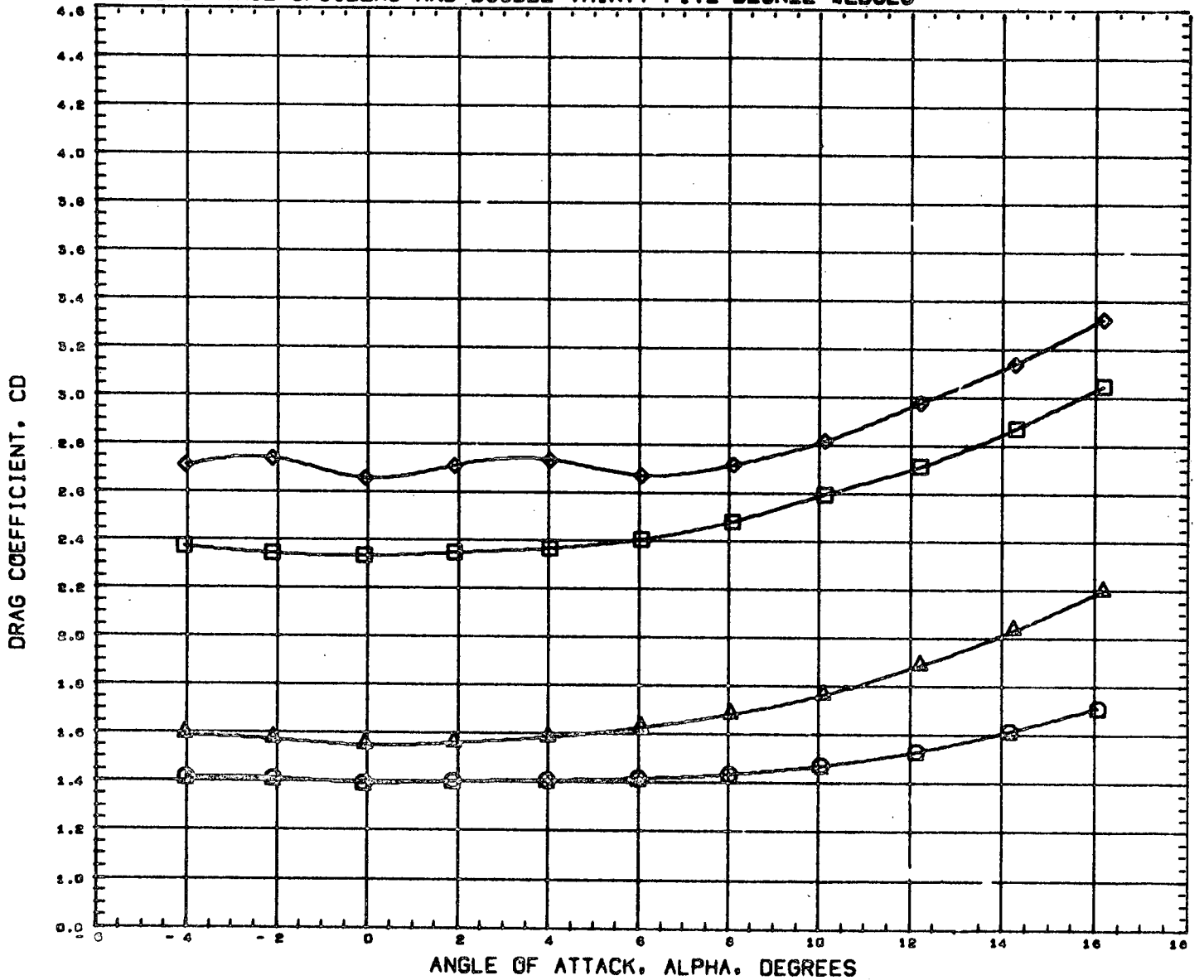


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003566 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003566 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003566 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.968

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

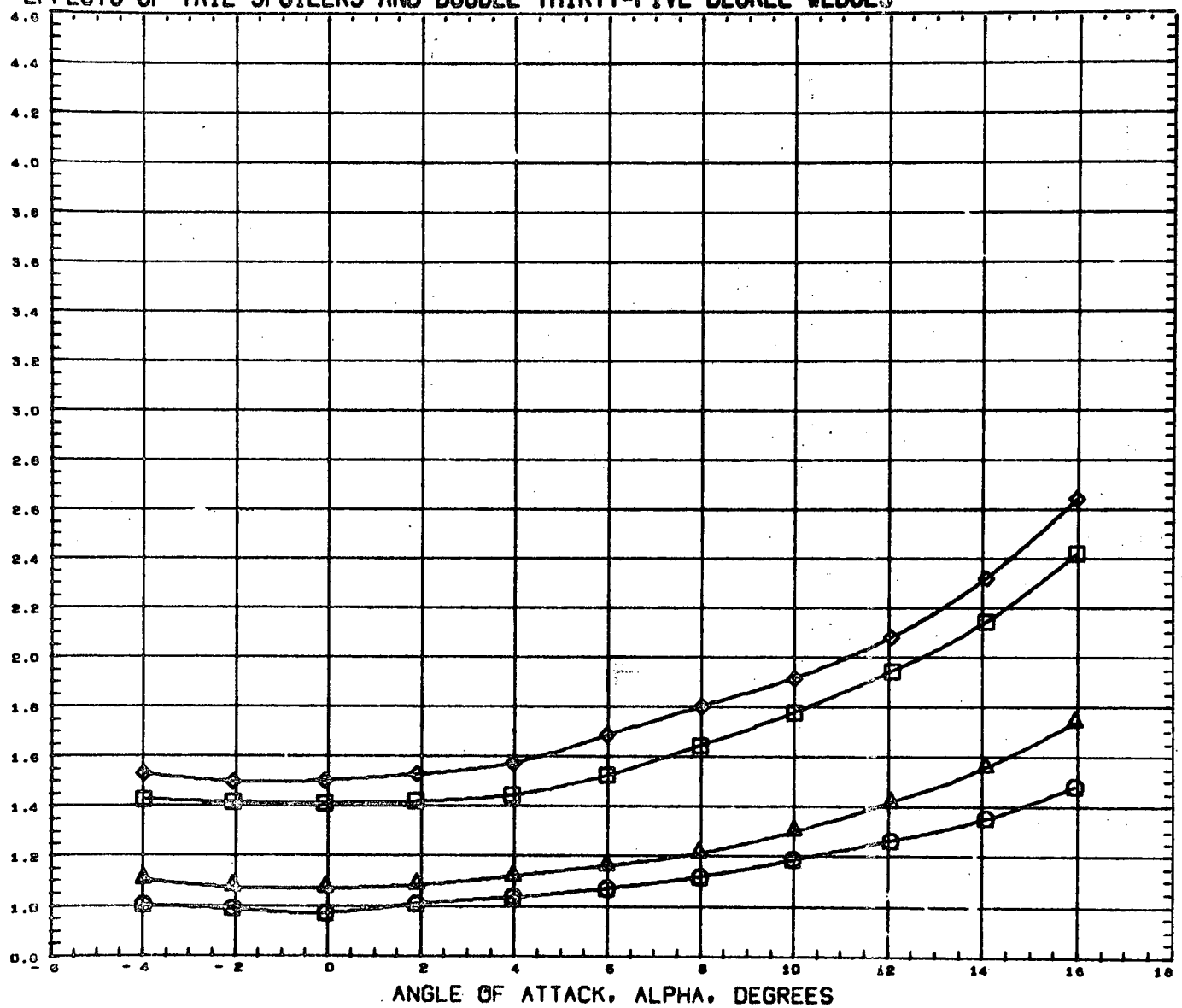


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	MSFC 512 GD/C .009900 BOOSTER	B34R6	0.000	45.000		
(E5001A)	MSFC 512 GD/C .009900 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	MSFC 512 GD/C .003966 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	MSFC 512 GD/C .008366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

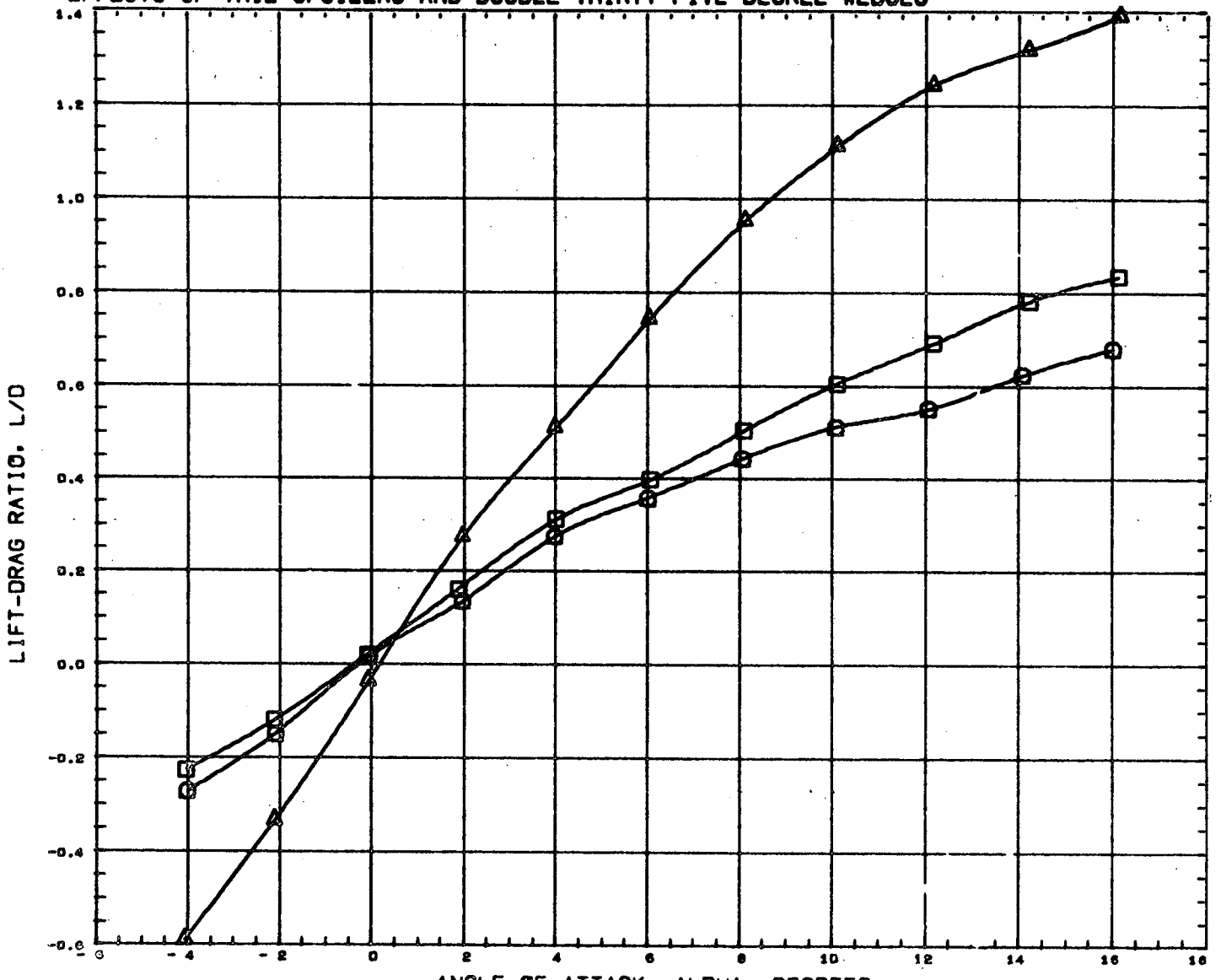


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.950

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

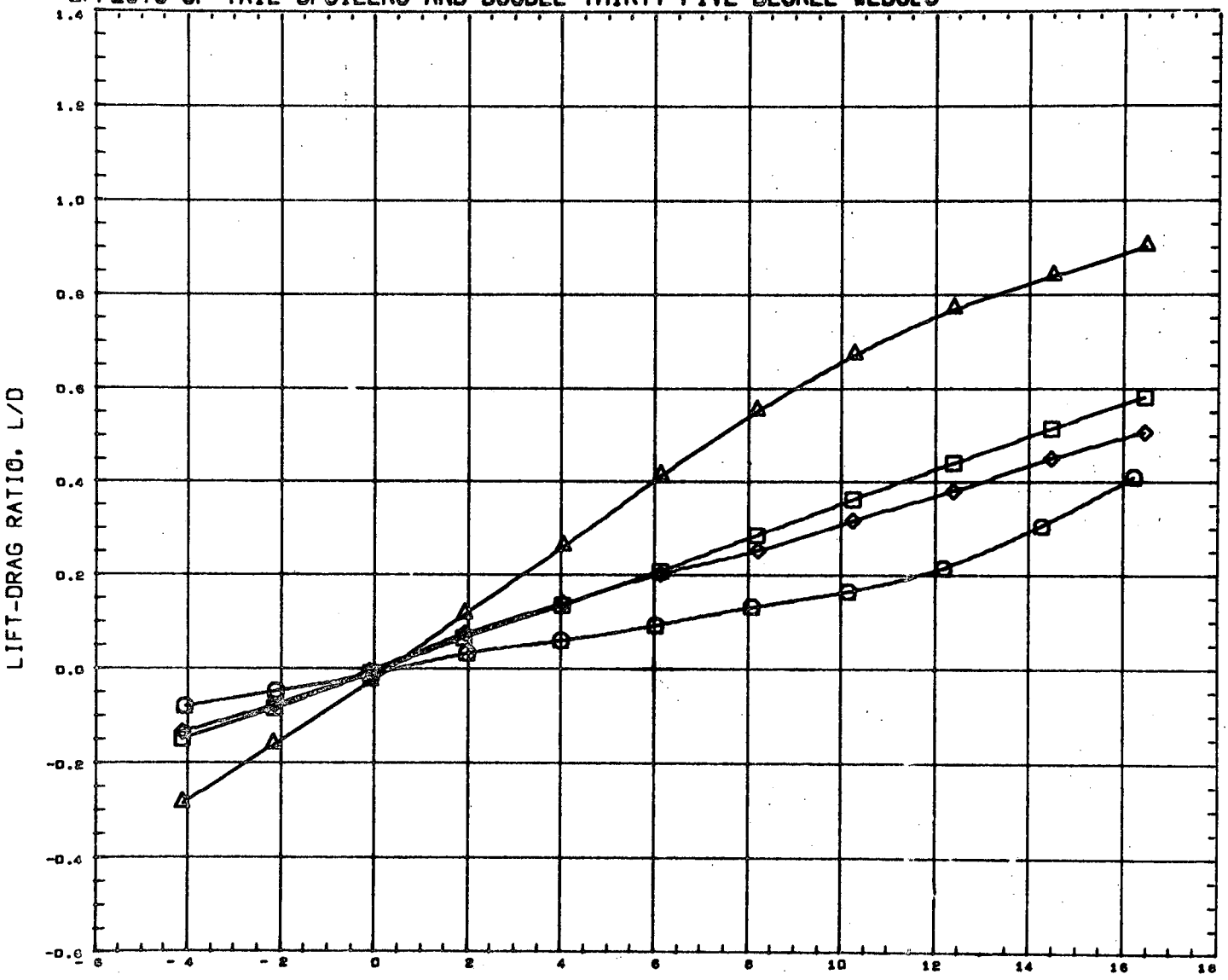


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

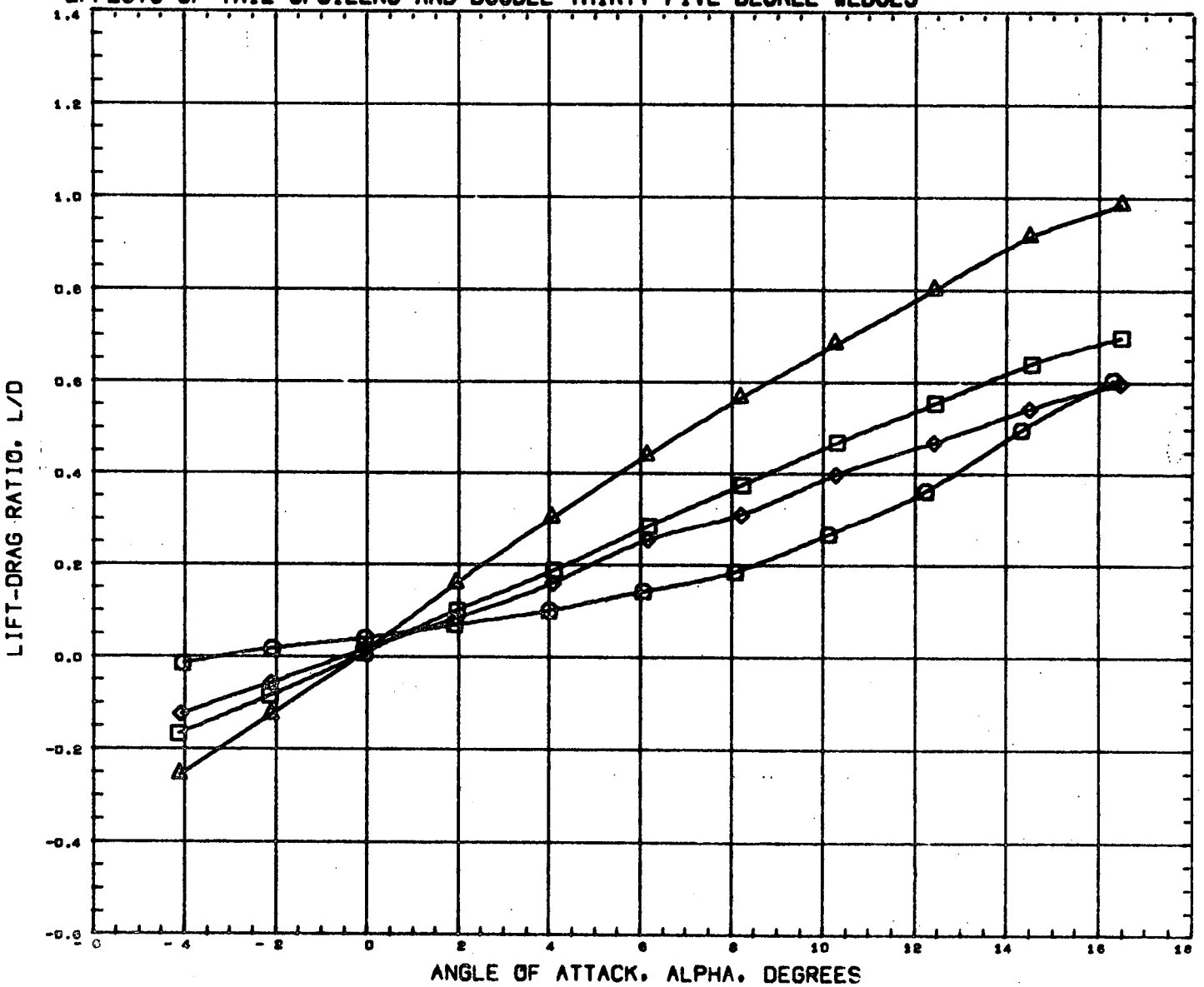


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(DS0090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

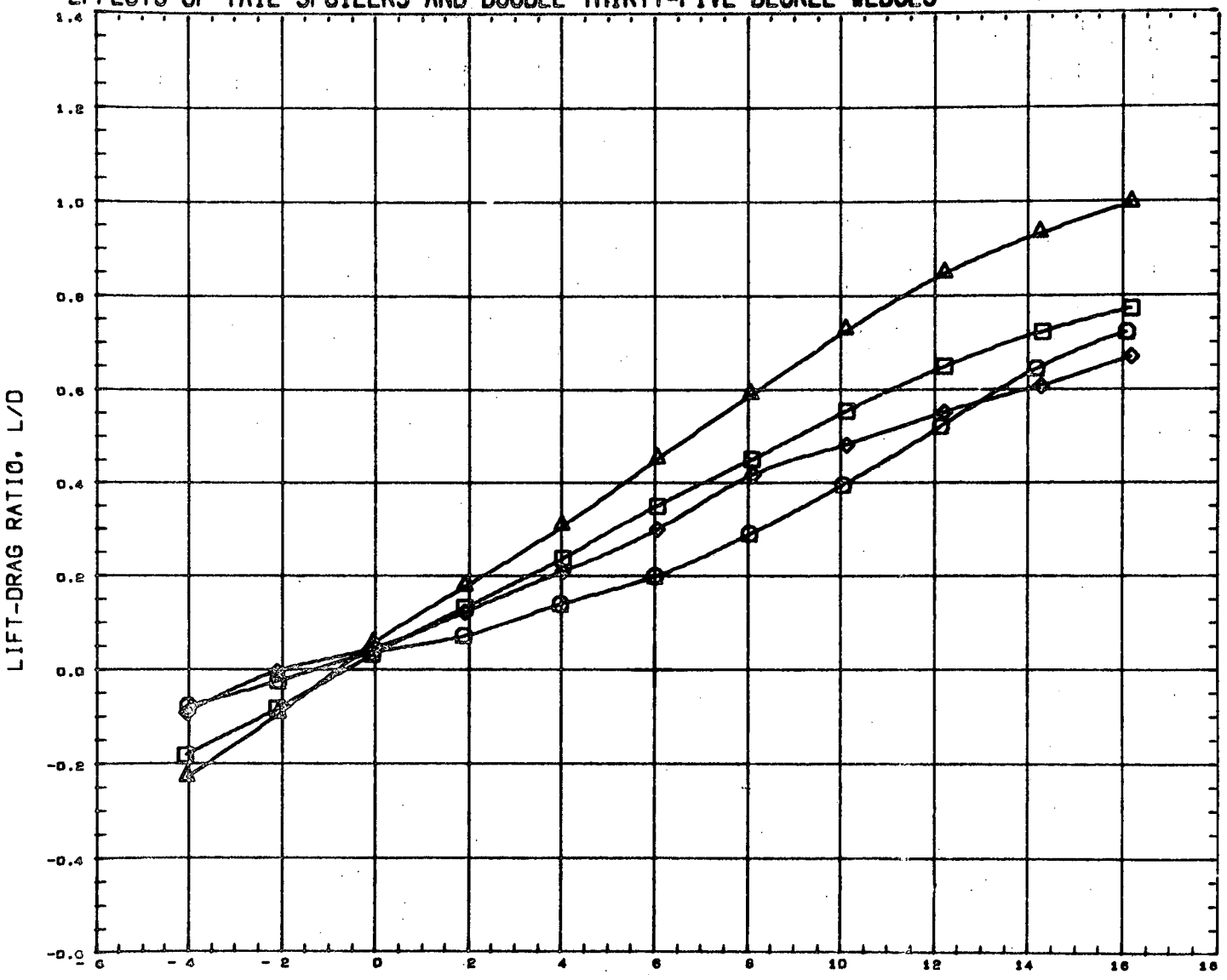


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T19	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

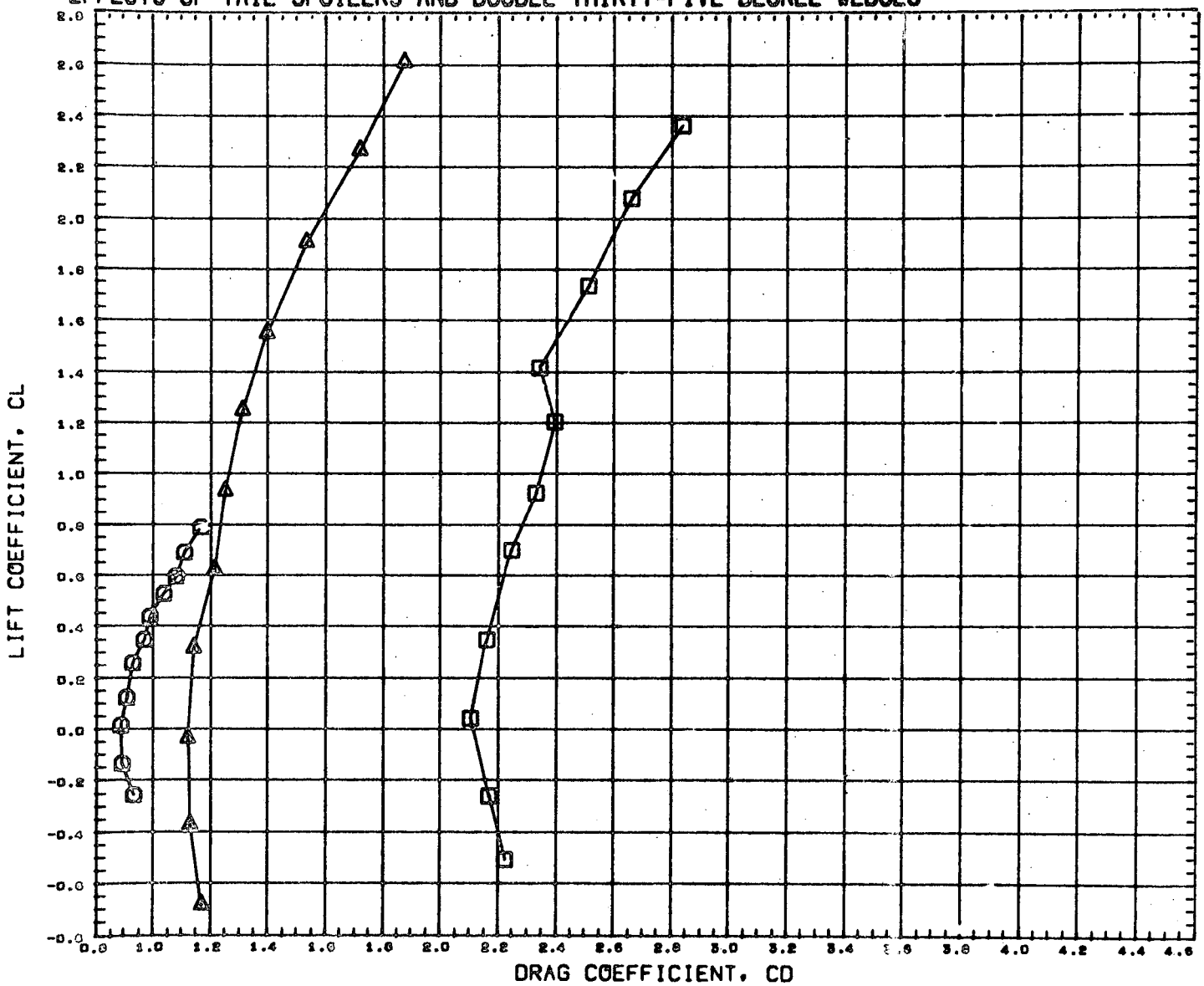
EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	○	MSFC 512 GD/C .003566 BOOSTER	B34R6	0.000	45.000		
(ES001A)	◇	MSFC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0070)	△	MSFC 512 GD/C .003566 BOOSTER	B34R6T19	0.000	0.000		
(DS0090)	□	MSFC 512 GD/C .003566 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.050

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

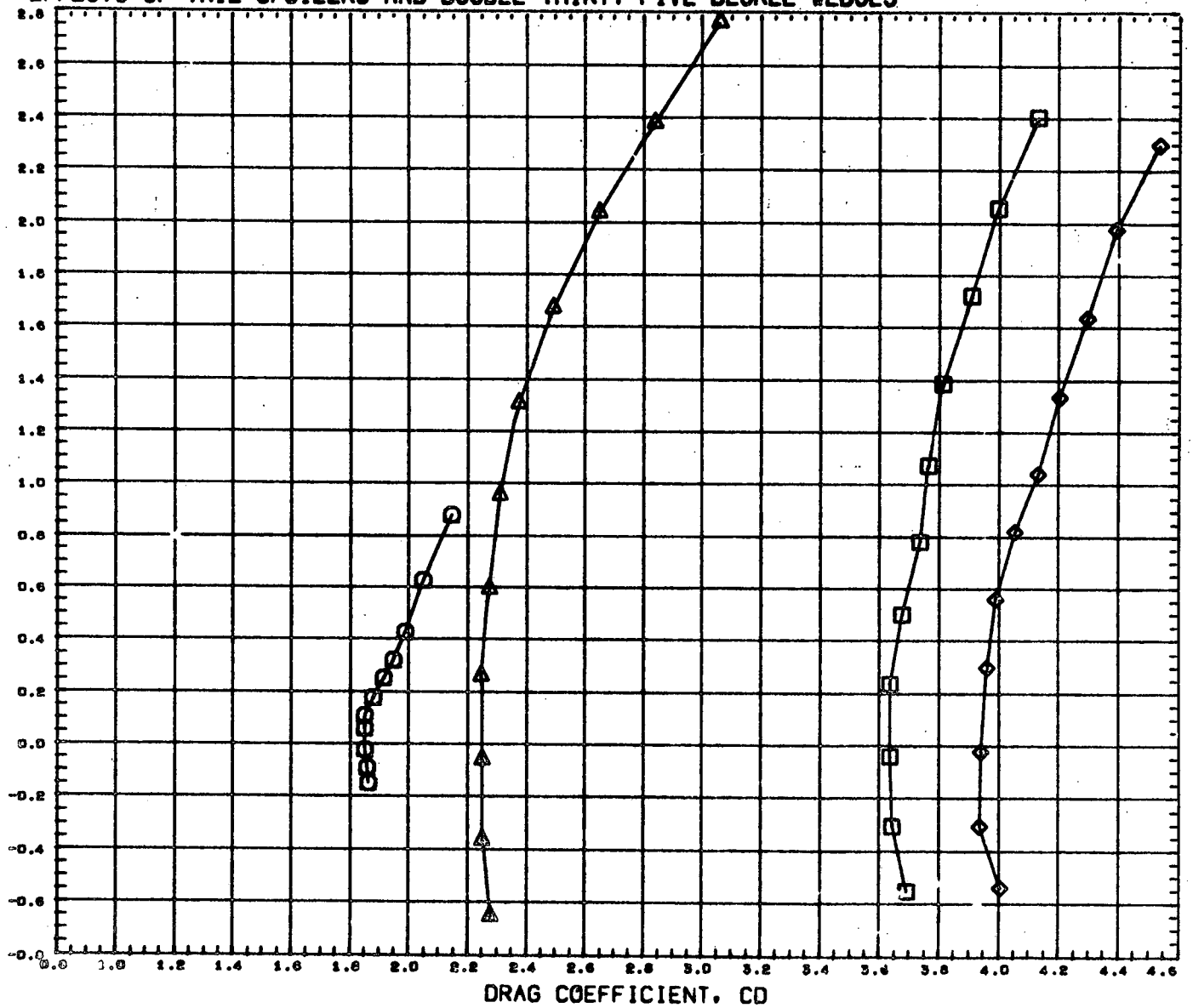


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .009366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .009366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .009366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

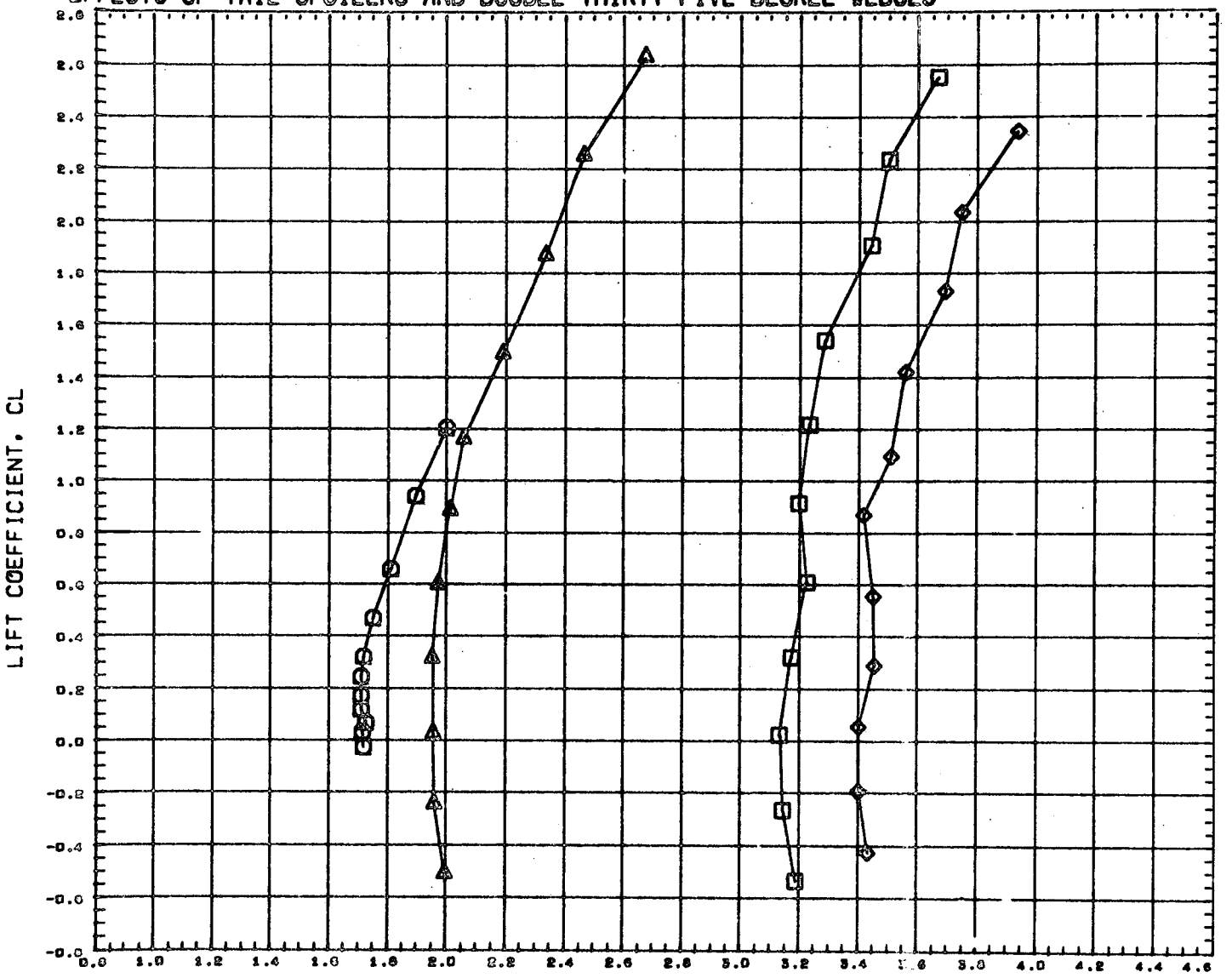


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

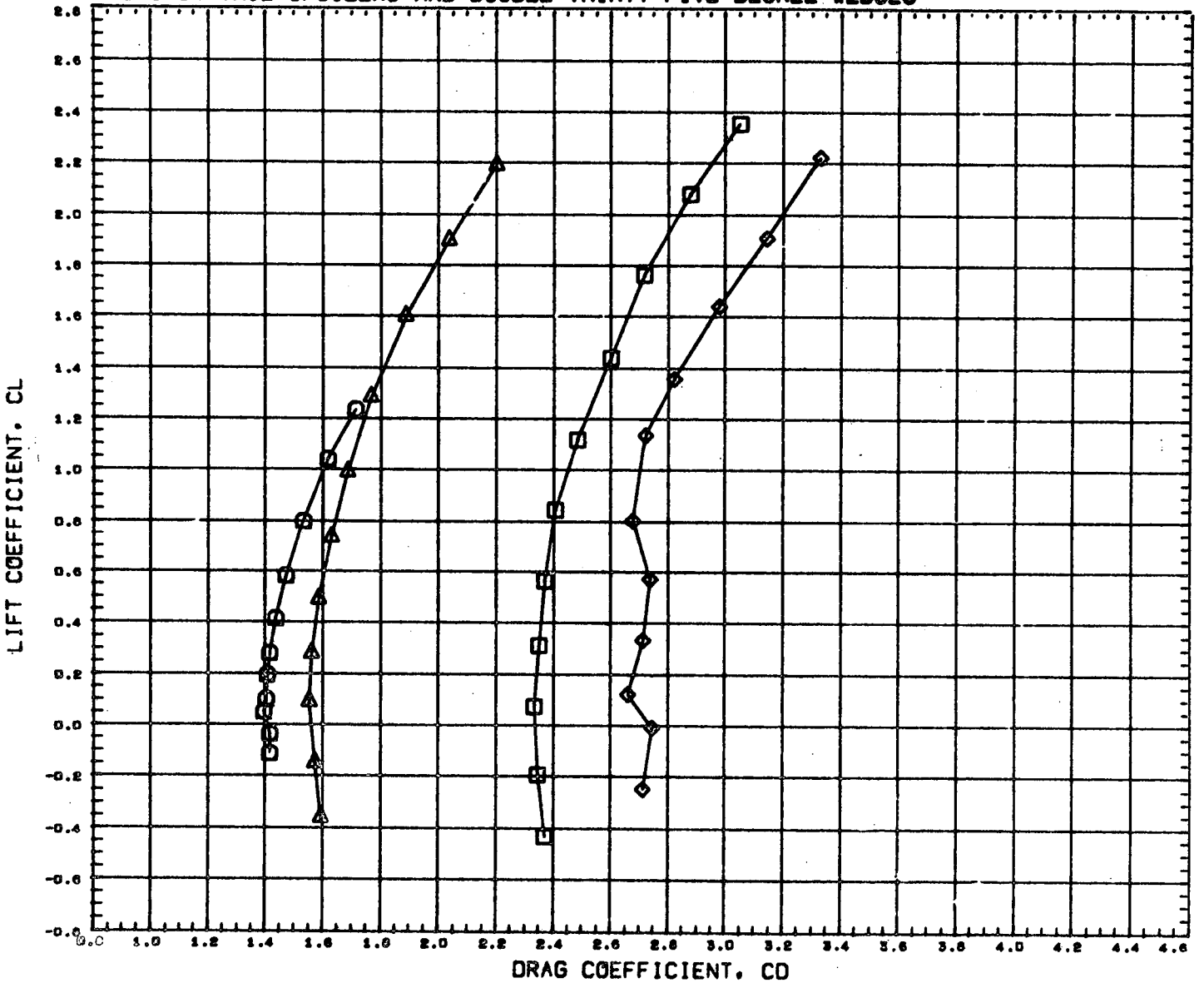


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

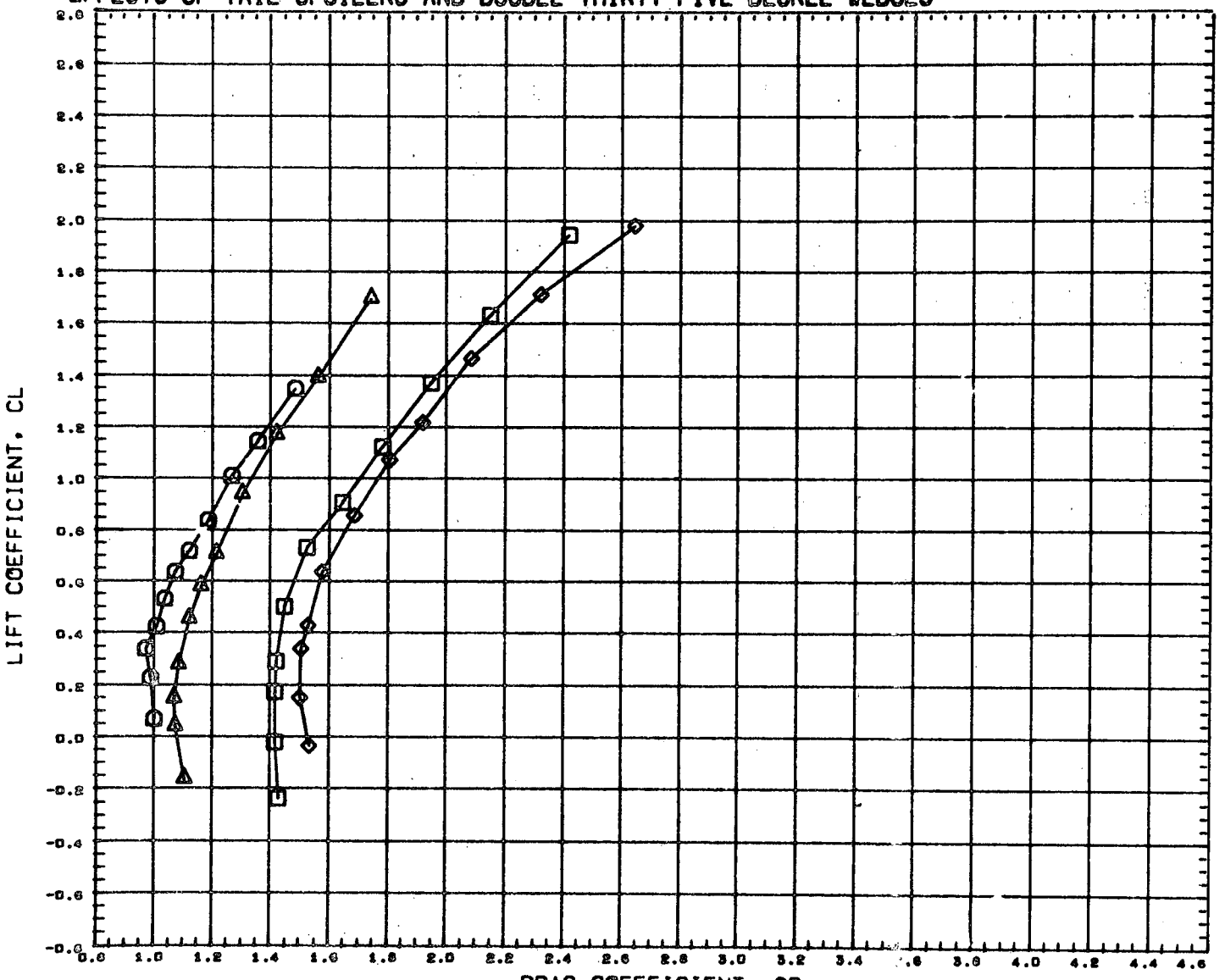


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)		MSFC 512 GD/C .003966 BOOSTER	B34R6T15	0.000	0.000		
(D50090)		MSFC 512 GD/C .003966 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

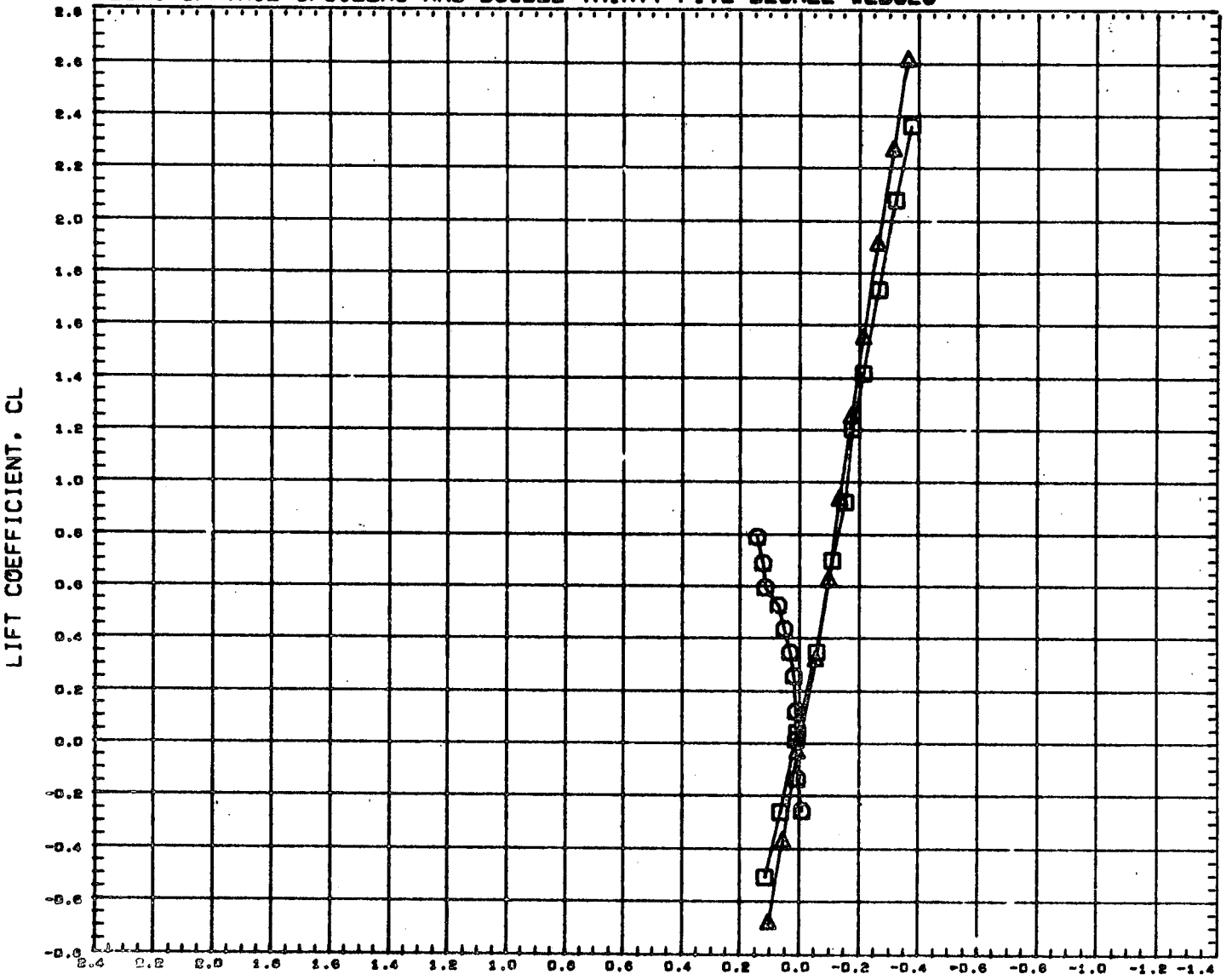


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003566 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003566 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003566 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

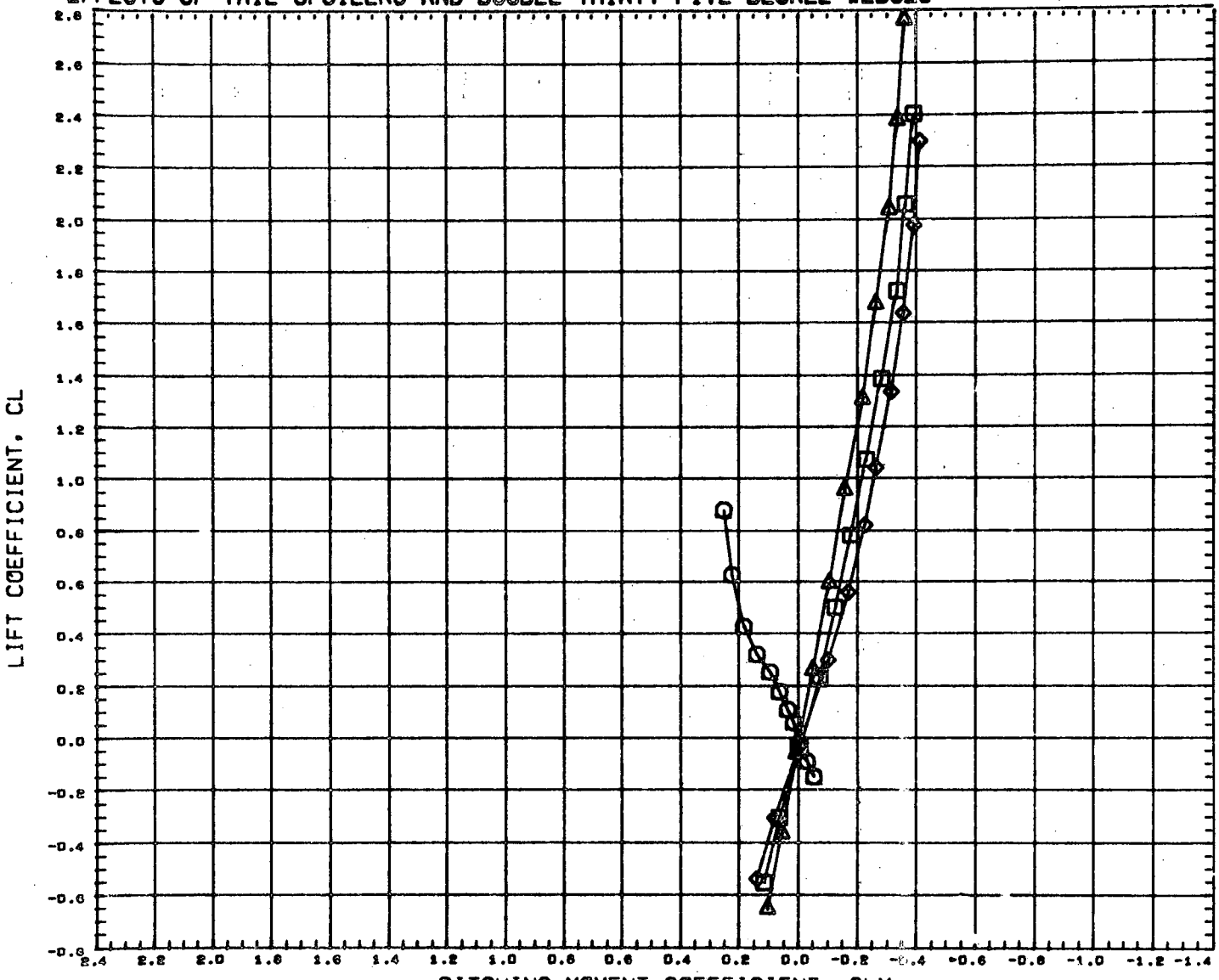


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

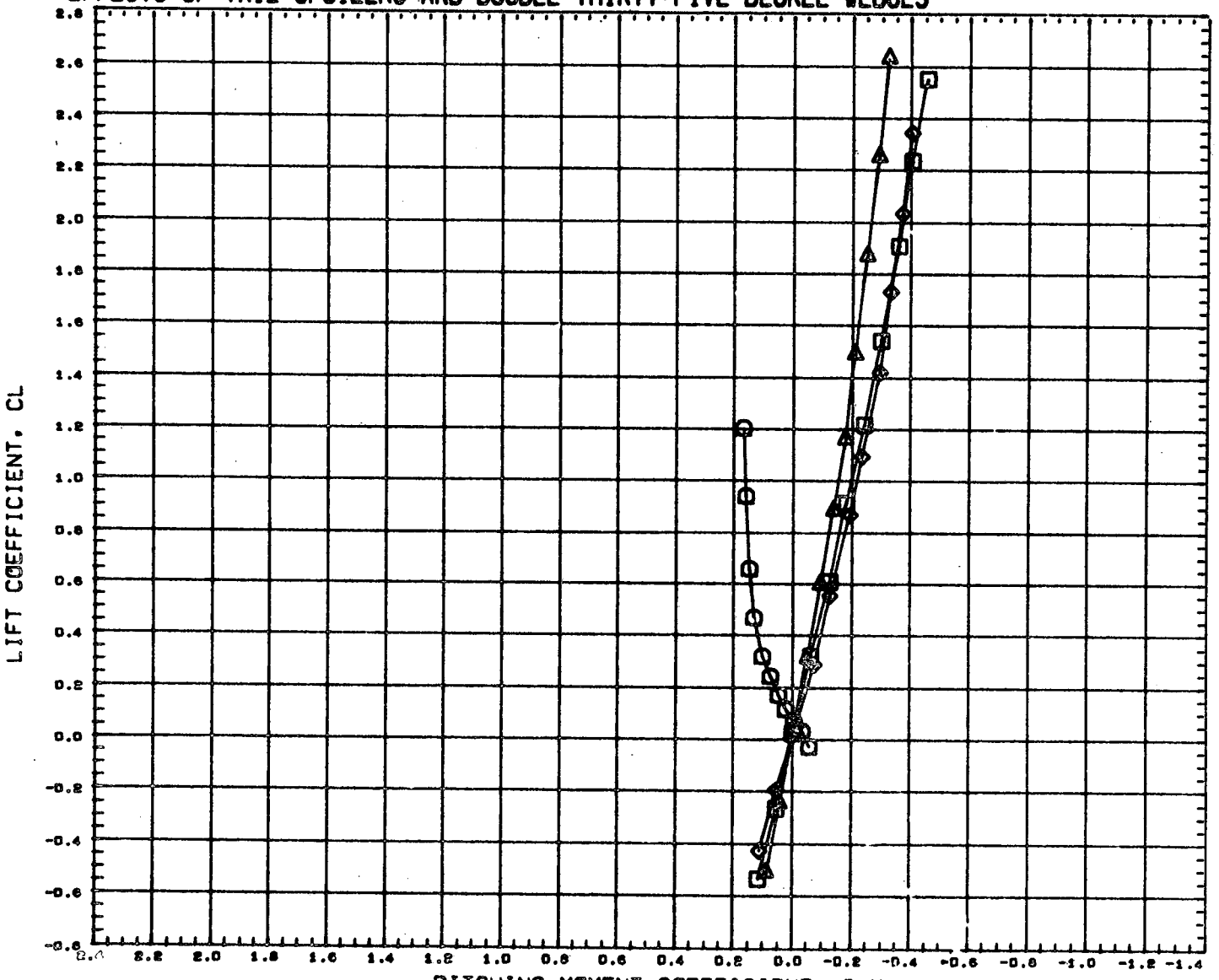


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.450

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

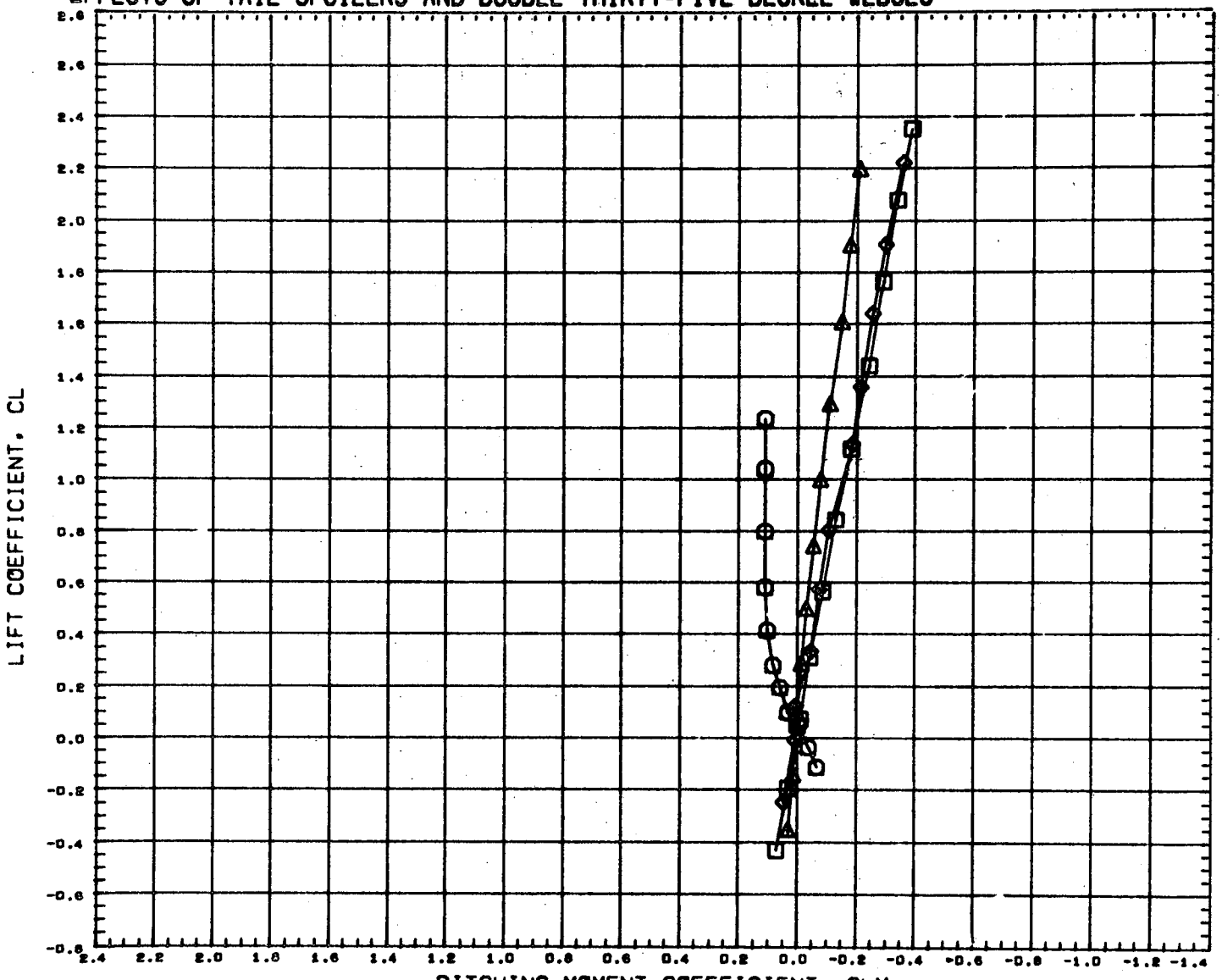


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
*REF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMR.	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

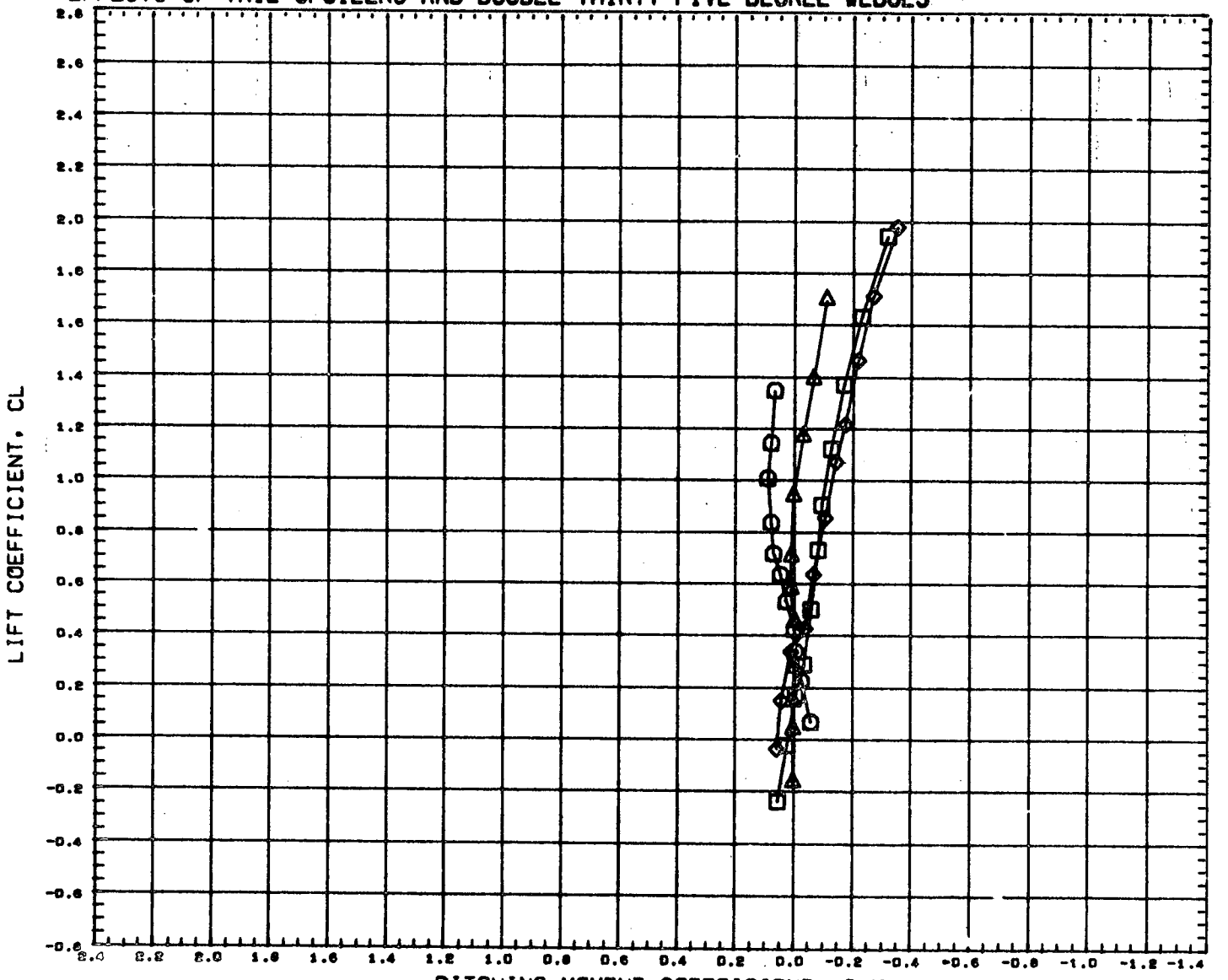


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5007D)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D5009D)	⊓	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

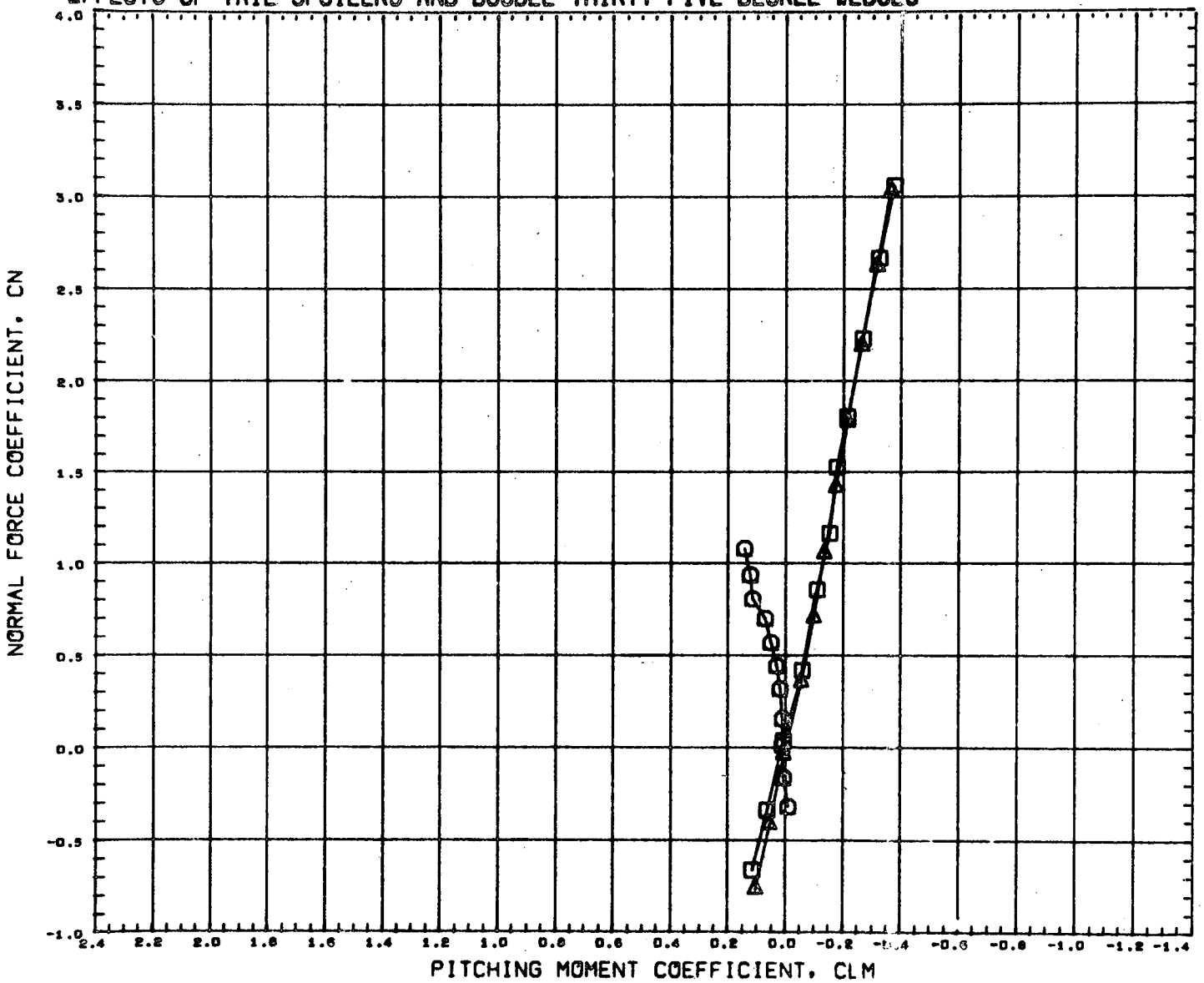


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.951

REFERENCE INFORMATION		
S&CF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

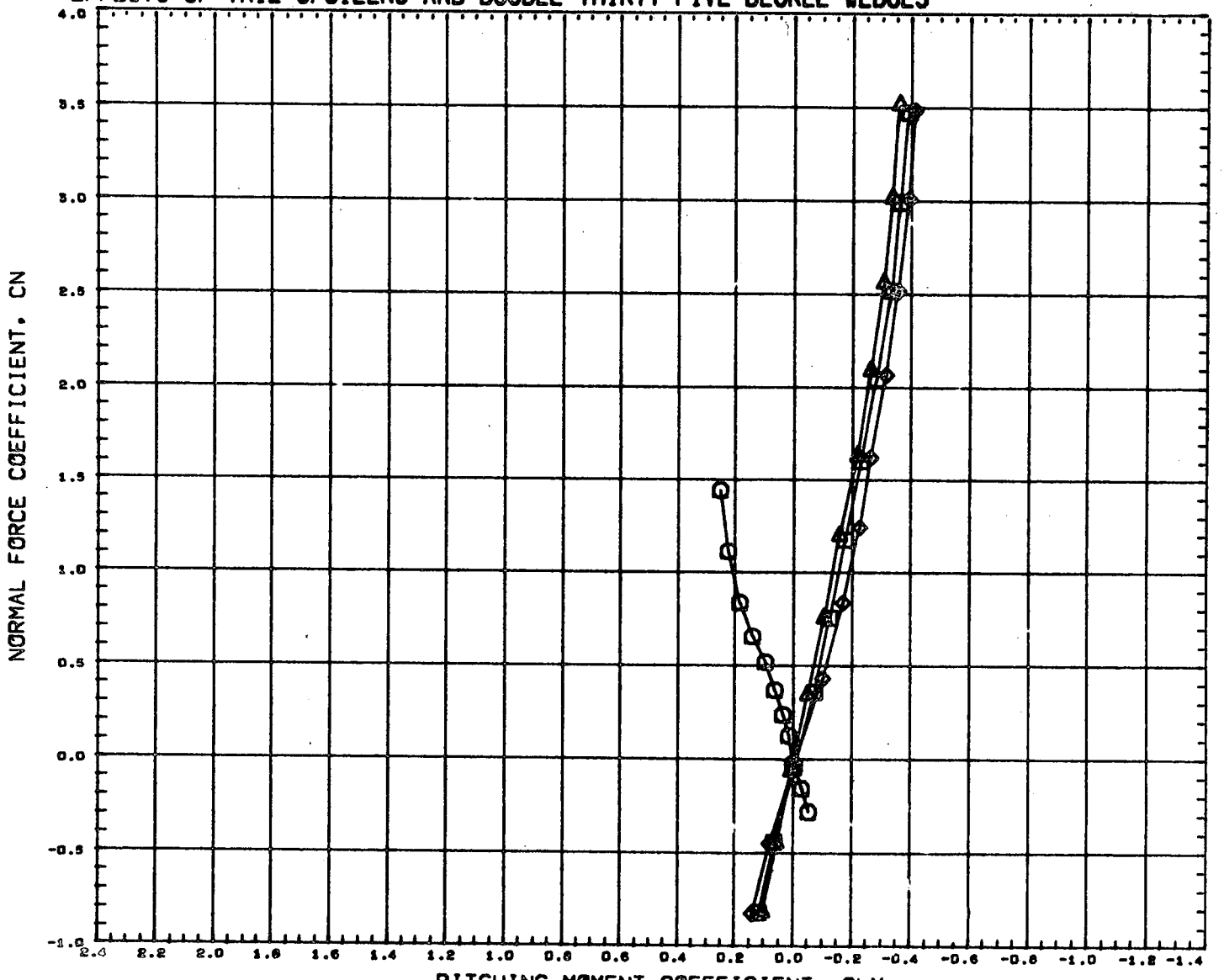


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003386 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.600

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

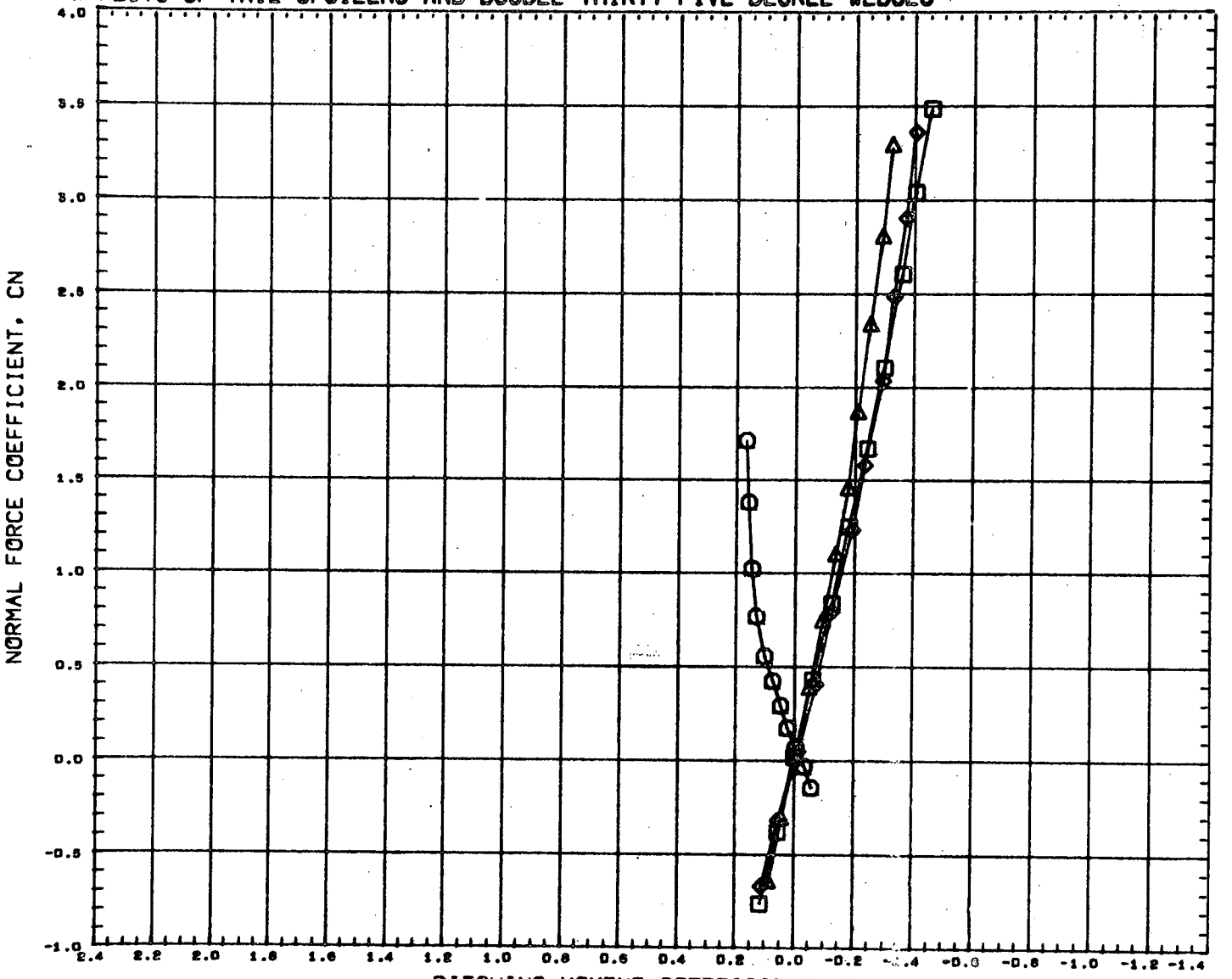


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0070)		MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(DS0090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.438

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMPP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

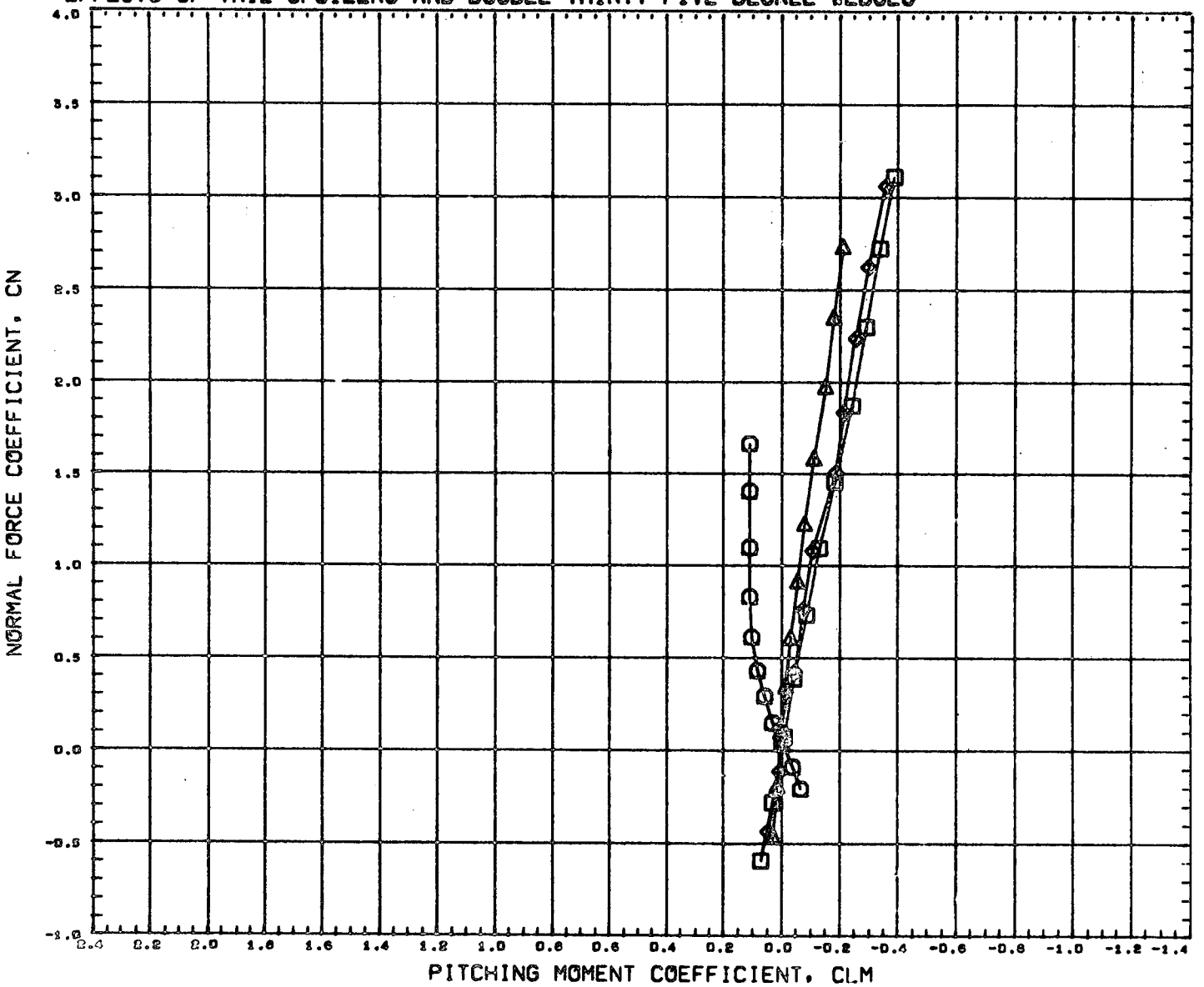


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

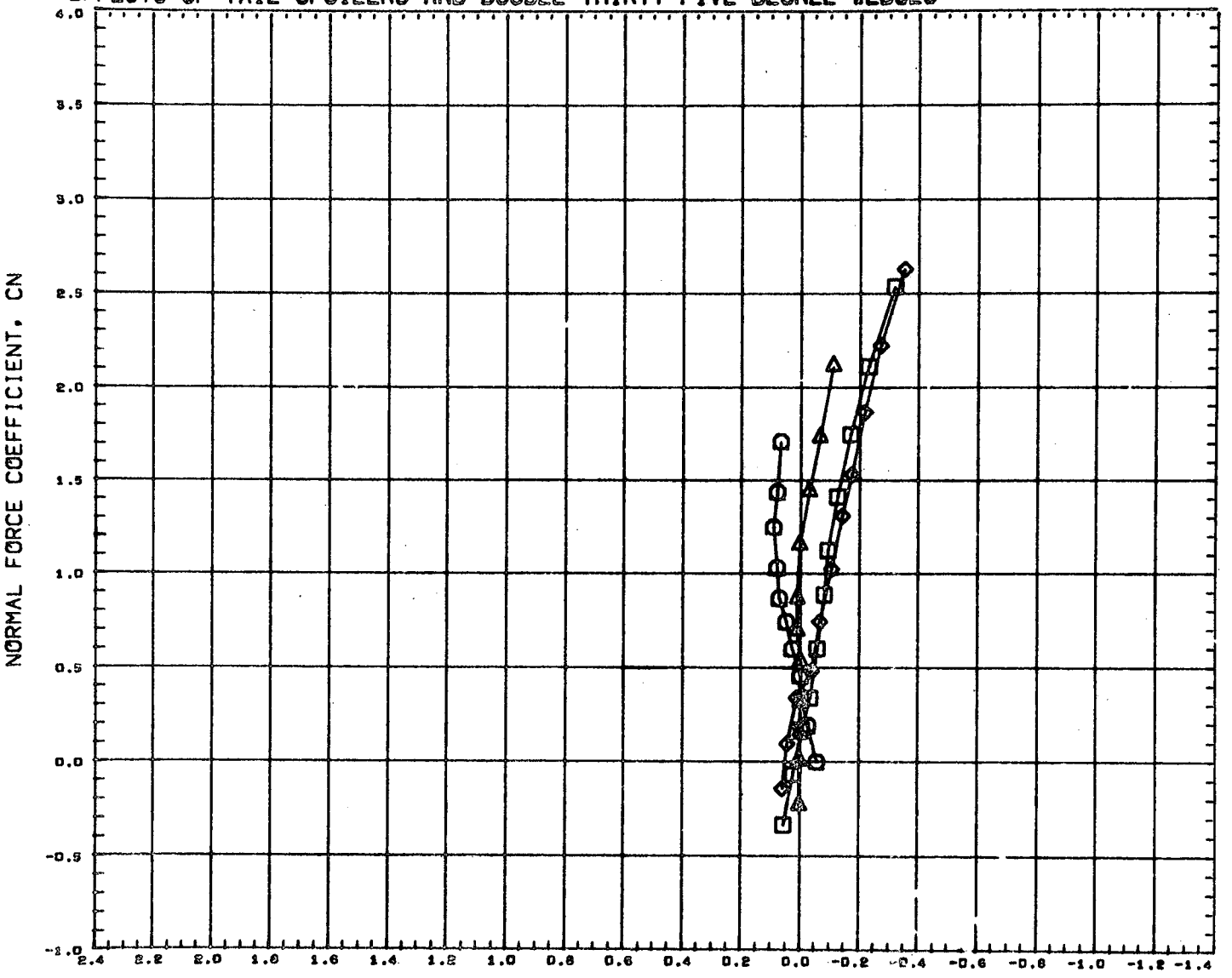


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	○	MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(ES001A)	△	MSFC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0070)	◇	MSFC 512 GD/C .003966 BOOSTER	B34R6T15	0.000	0.000		
(DS0090)	□	MSFC 512 GD/C .003966 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF TAIL SPOILERS AND DOUBLE THIRTY-FIVE DEGREE WEDGES

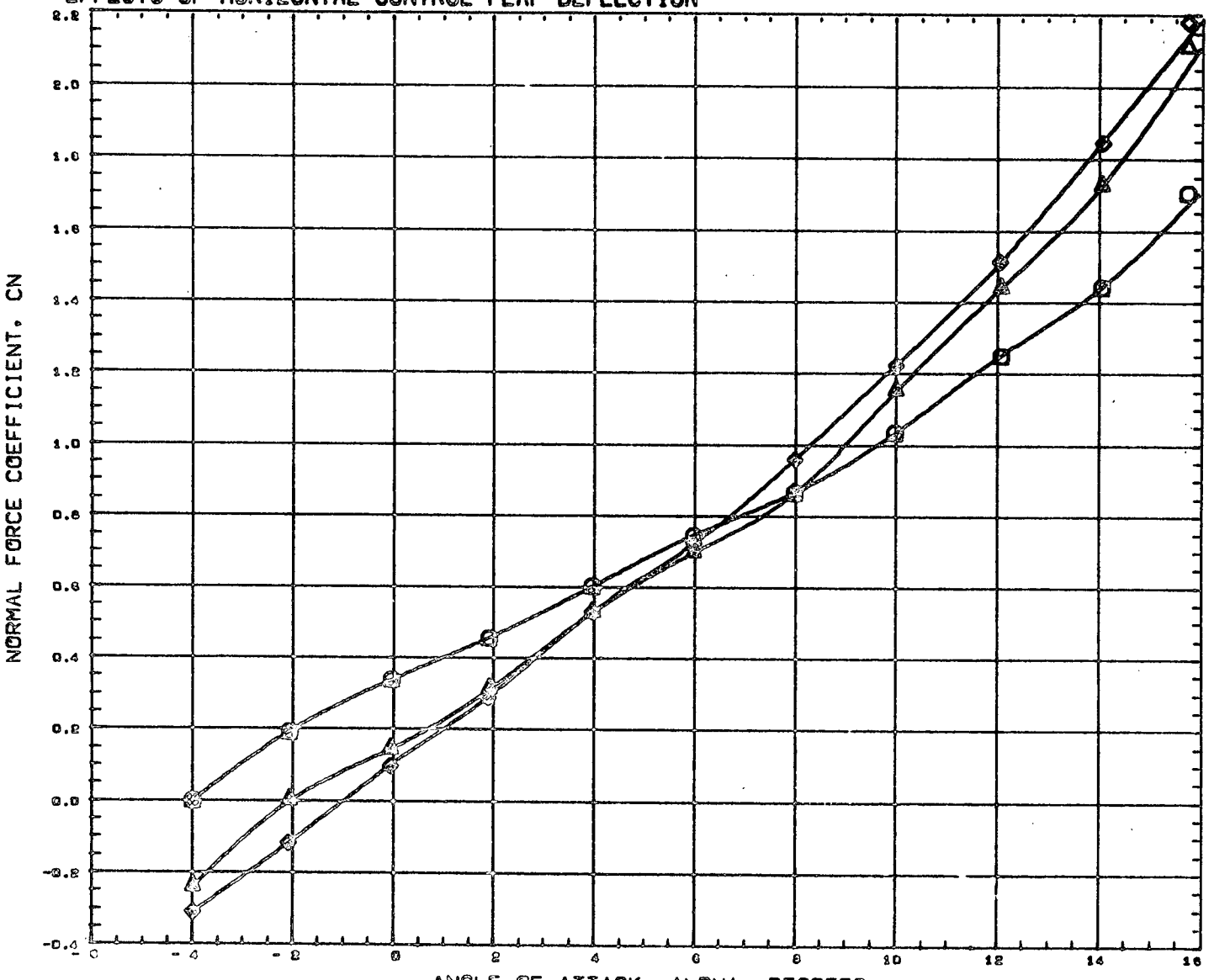


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50070)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T15	0.000	0.000		
(D50000)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

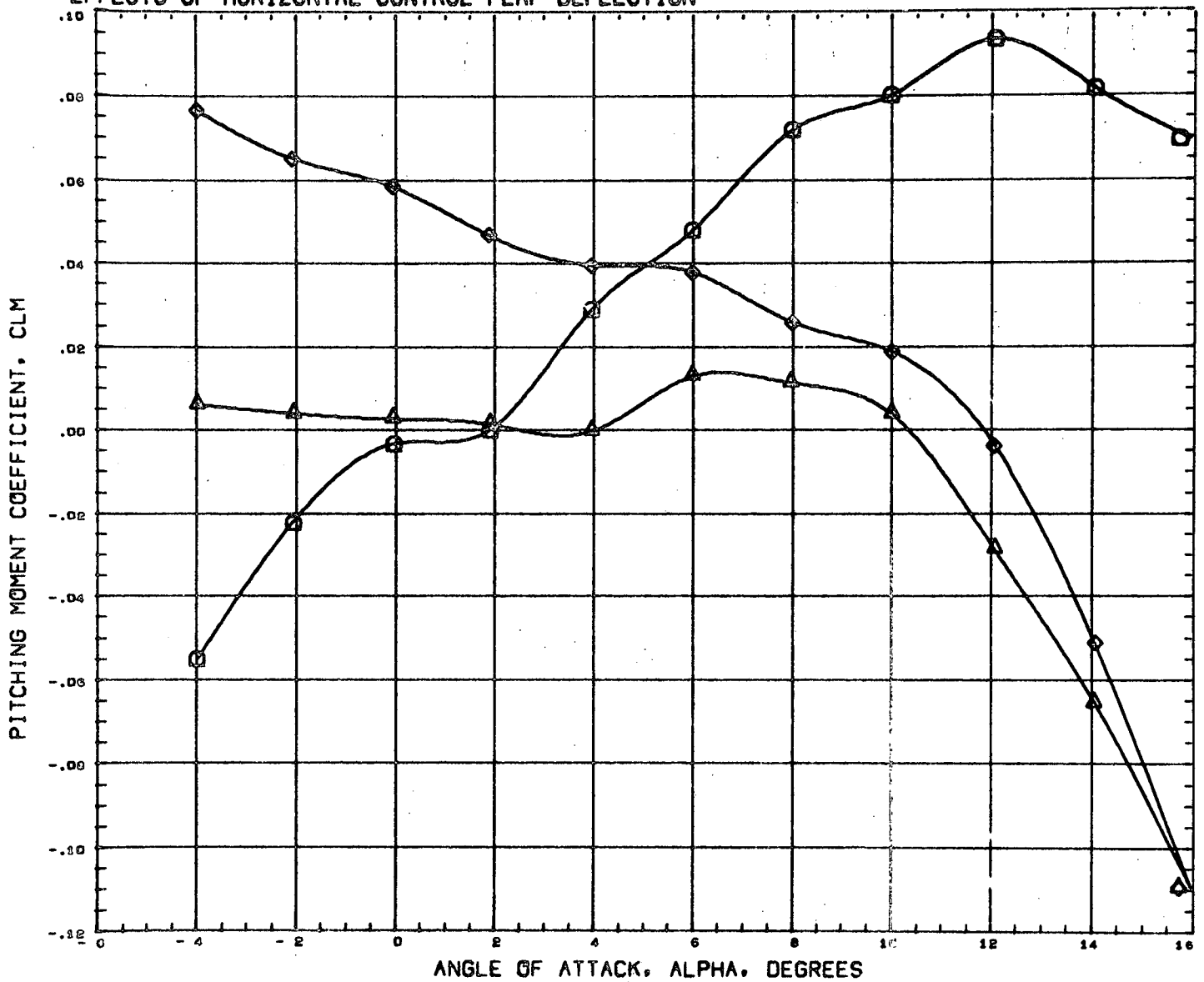


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES0110)	○	MBFC 512 6D/C .003960 BOOSTER	D34RG	0.000	45.000		
(ES0018)	△	MBFC 512 6D/C .003960 BOOSTER	D34RGT1D	0.000	0.000	0.000	0.000
(D50080)	◇	MBFC 512 6D/C .003960 BOOSTER	D34RGT1G	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.050

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

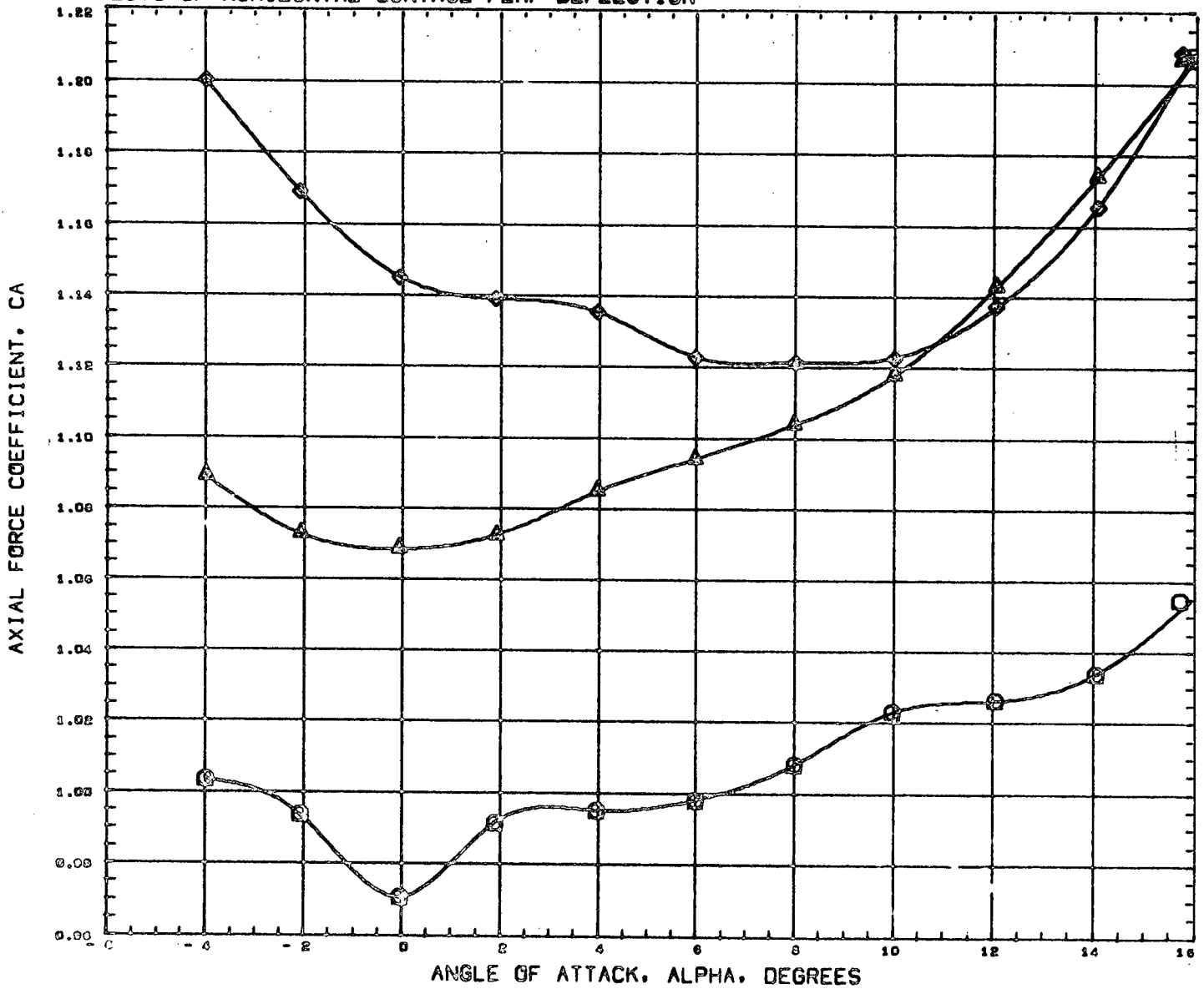


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011B)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001B)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50080)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T16	0.000	0.000		

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

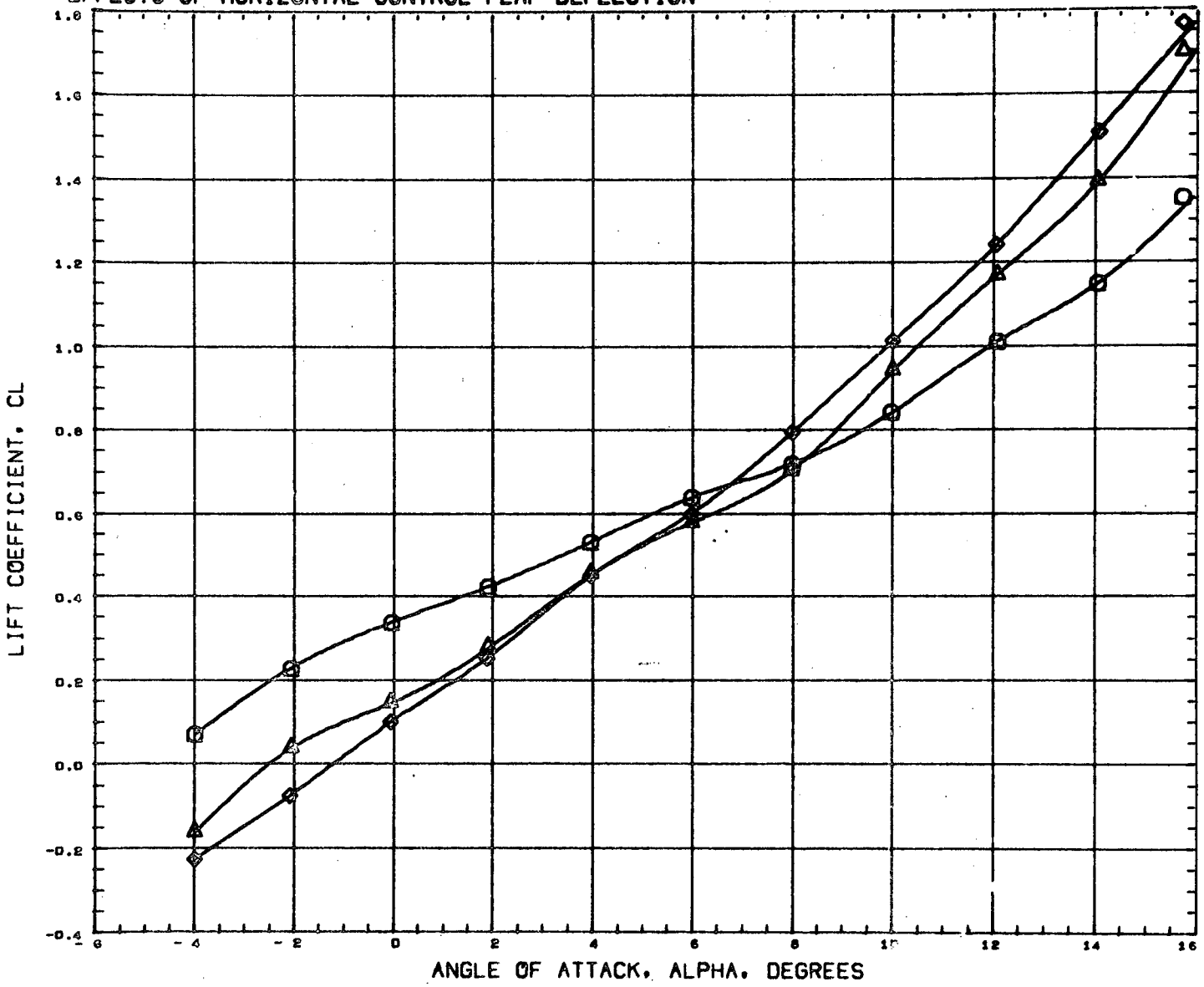


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)	○	MSFC 512 GD/C .009903 BOOSTER	D34RG	0.000	45.000		
(ES001D)	△	MSFC 512 GD/C .009906 BOOSTER	D34RGT1D	0.000	0.000	0.000	0.000
(DS008D)	◇	MSFC 512 GD/C .009966 BOOSTER	D34RGT1G	0.000	0.000		

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

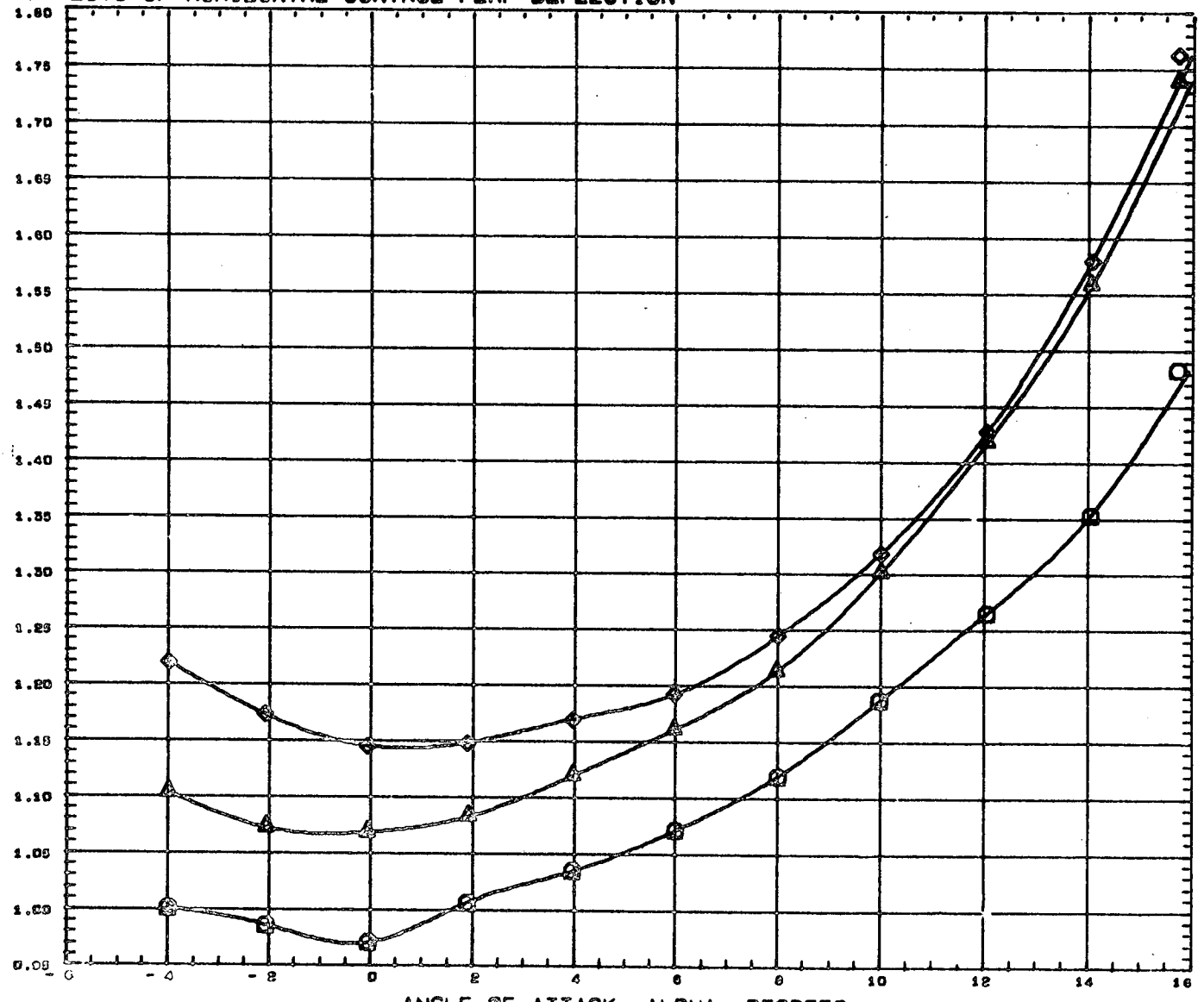


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011B)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001B)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50080)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T16	0.000	0.000		

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

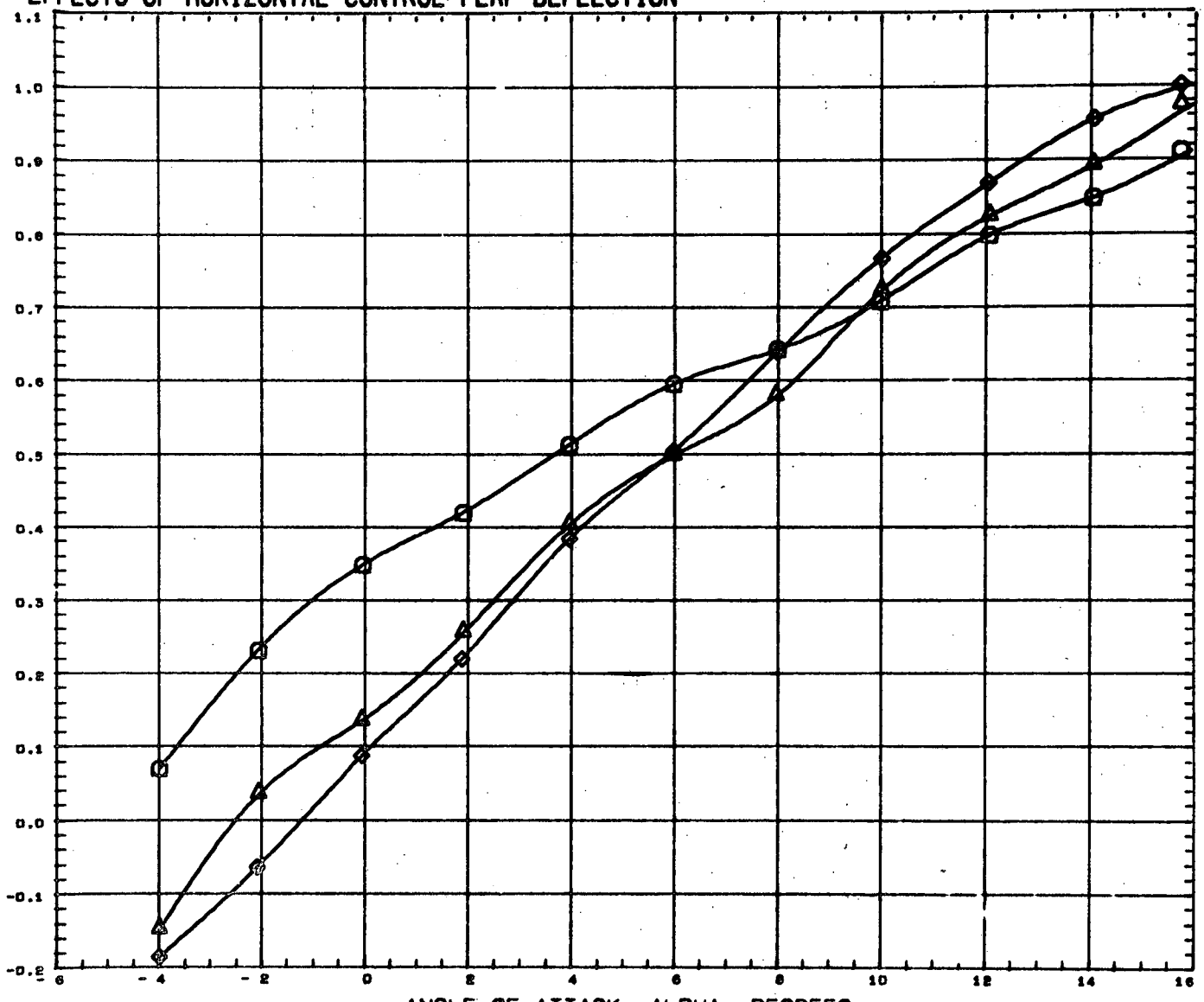


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011B)	○	MSFC 512 GD/C .005366 BOOSTER	B34R6	0.000	45.000		
(E5001B)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5006D)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T16	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0010	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.059

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

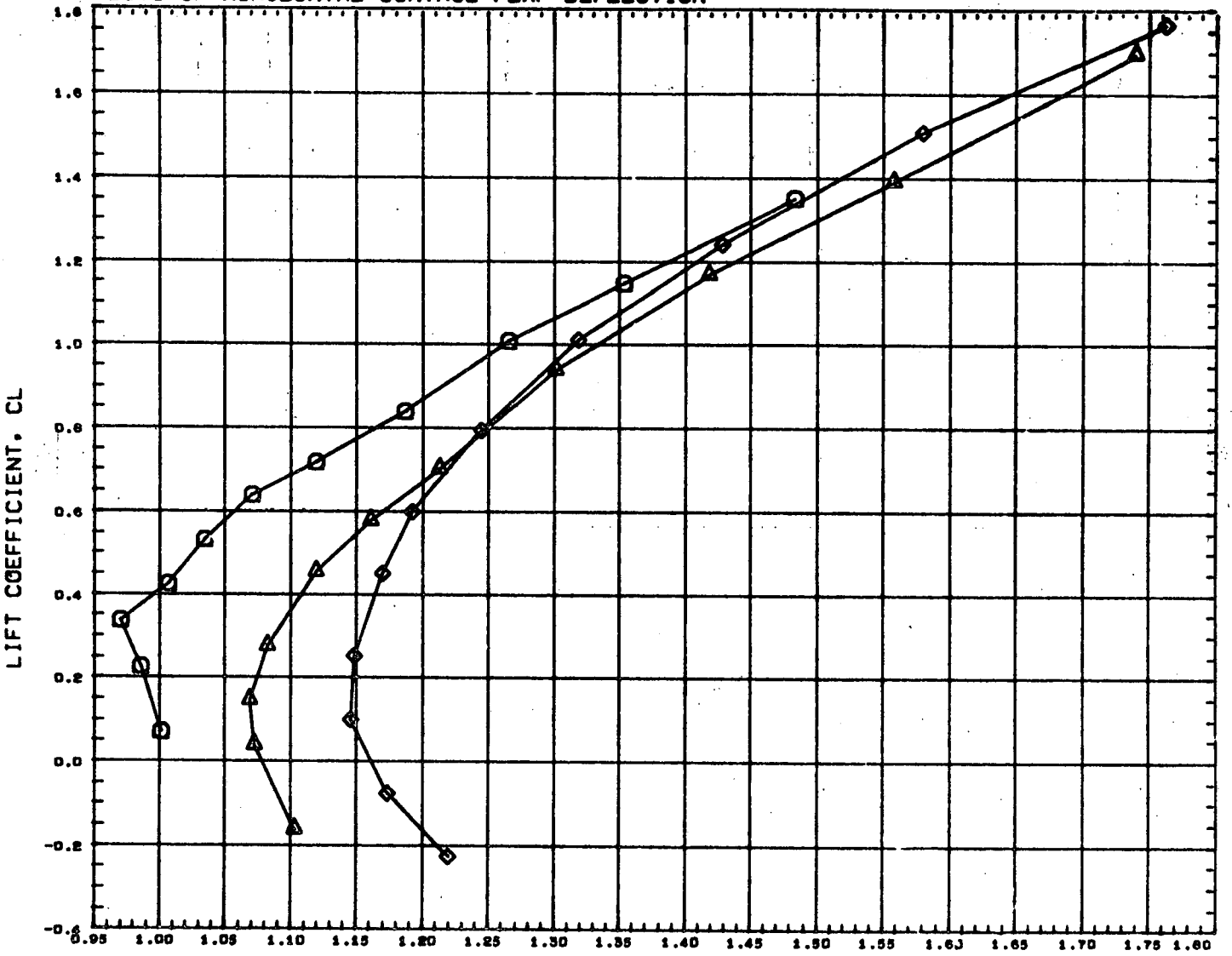


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011B)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001B)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5006D)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T16	0.000	0.000		

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

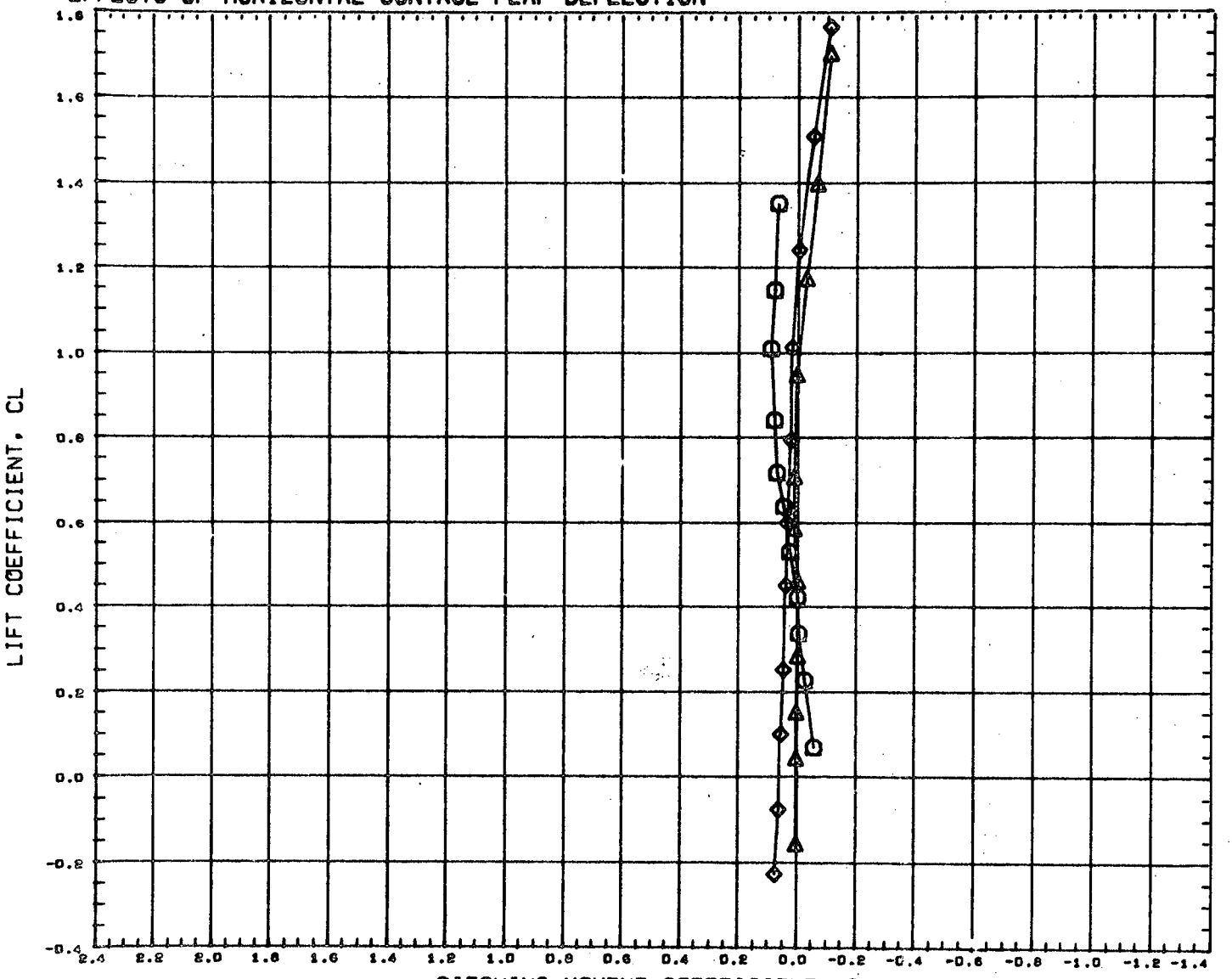


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50116)	○	MSFC 512 GD/C .000980 BOOSTER	B34R6	0.000	45.000		
(E50018)	△	MSFC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50060)	◇	MSFC 512 GD/C .003966 BOOSTER	B34R6T16	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

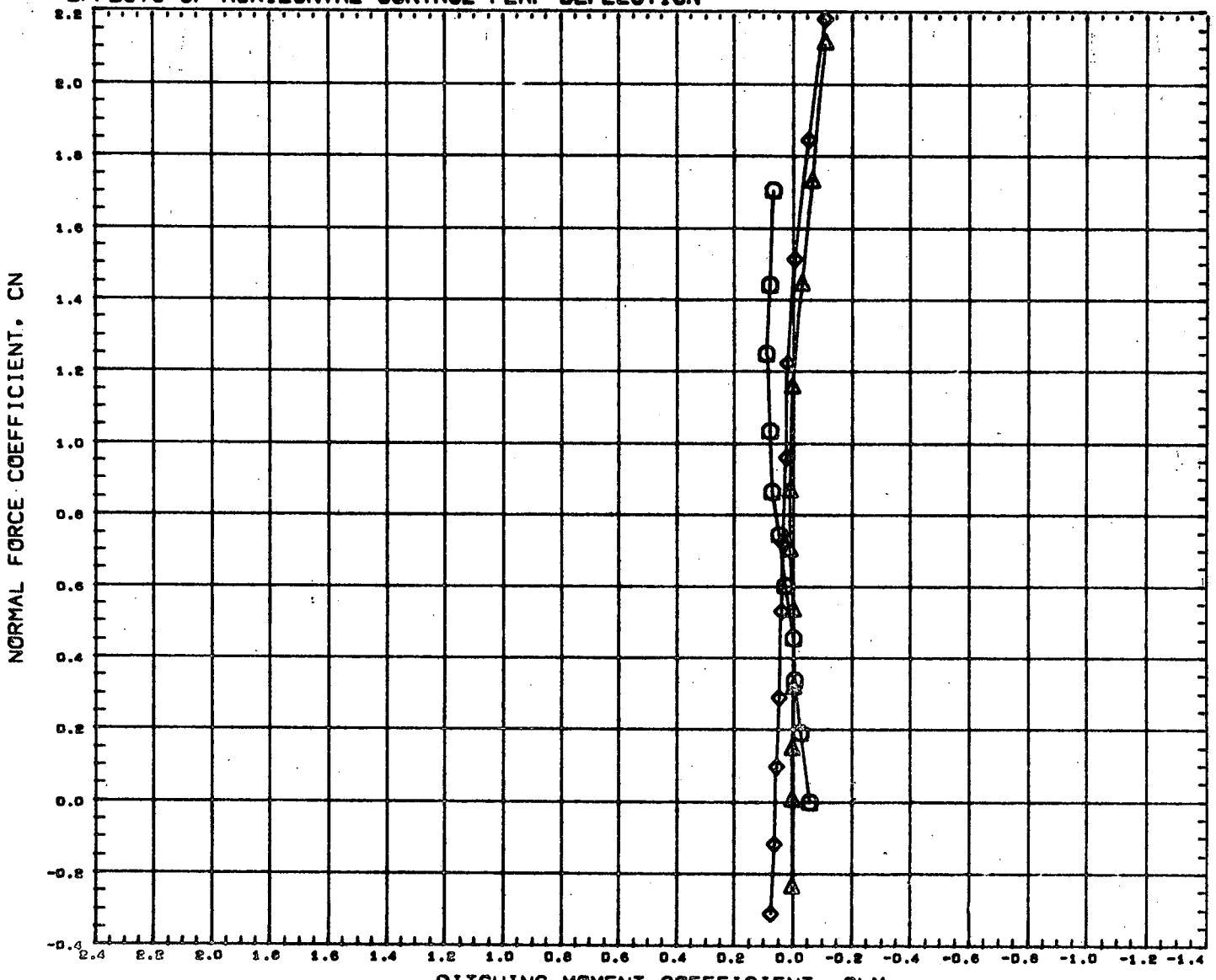


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011B)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001B)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50080)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T16	0.000	0.000		

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF HORIZONTAL CONTROL FLAP DEFLECTION

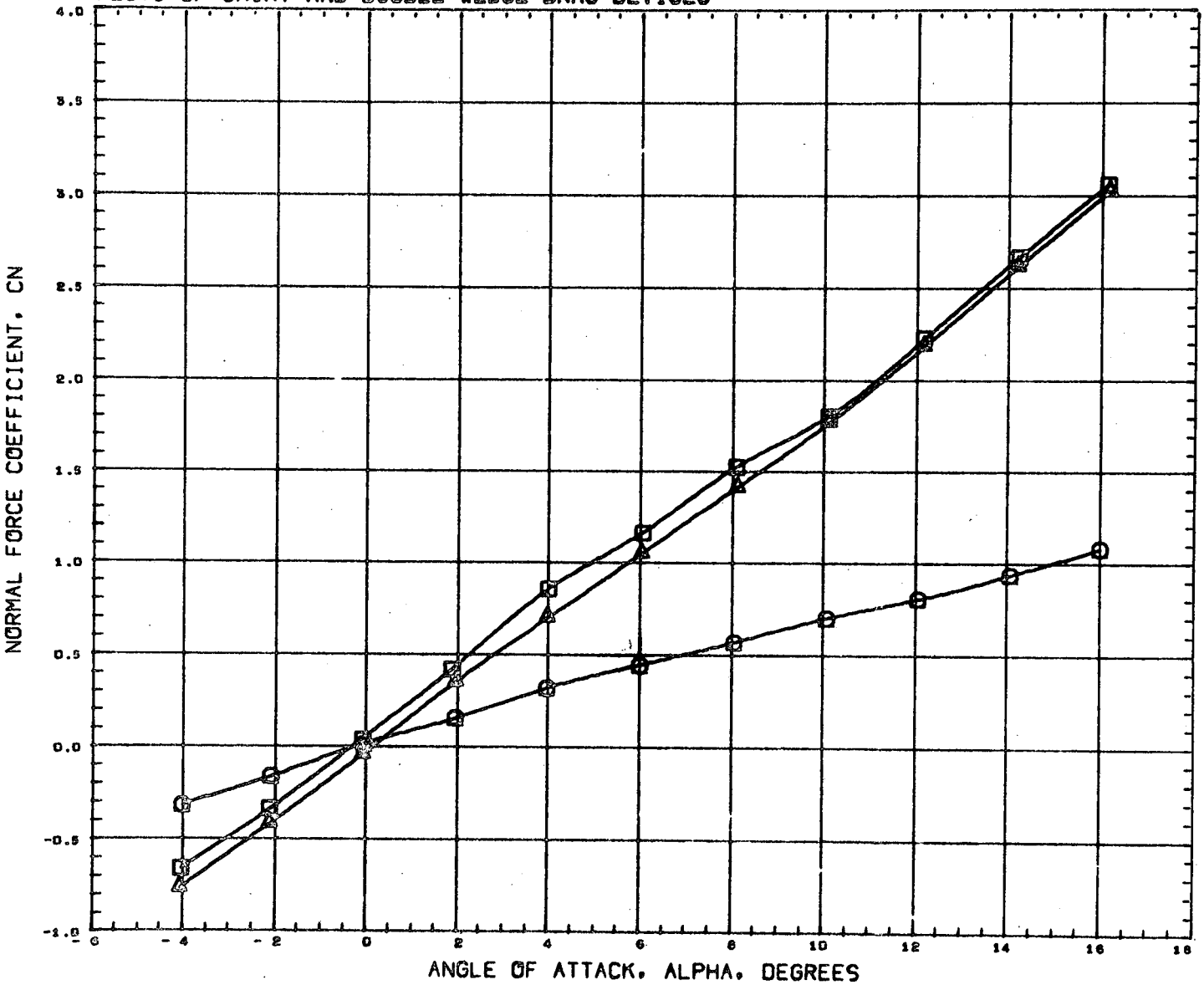


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIHOD	LFLAP	RFLAP
(ES011B)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001B)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0080)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T16	0.000	0.000		

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

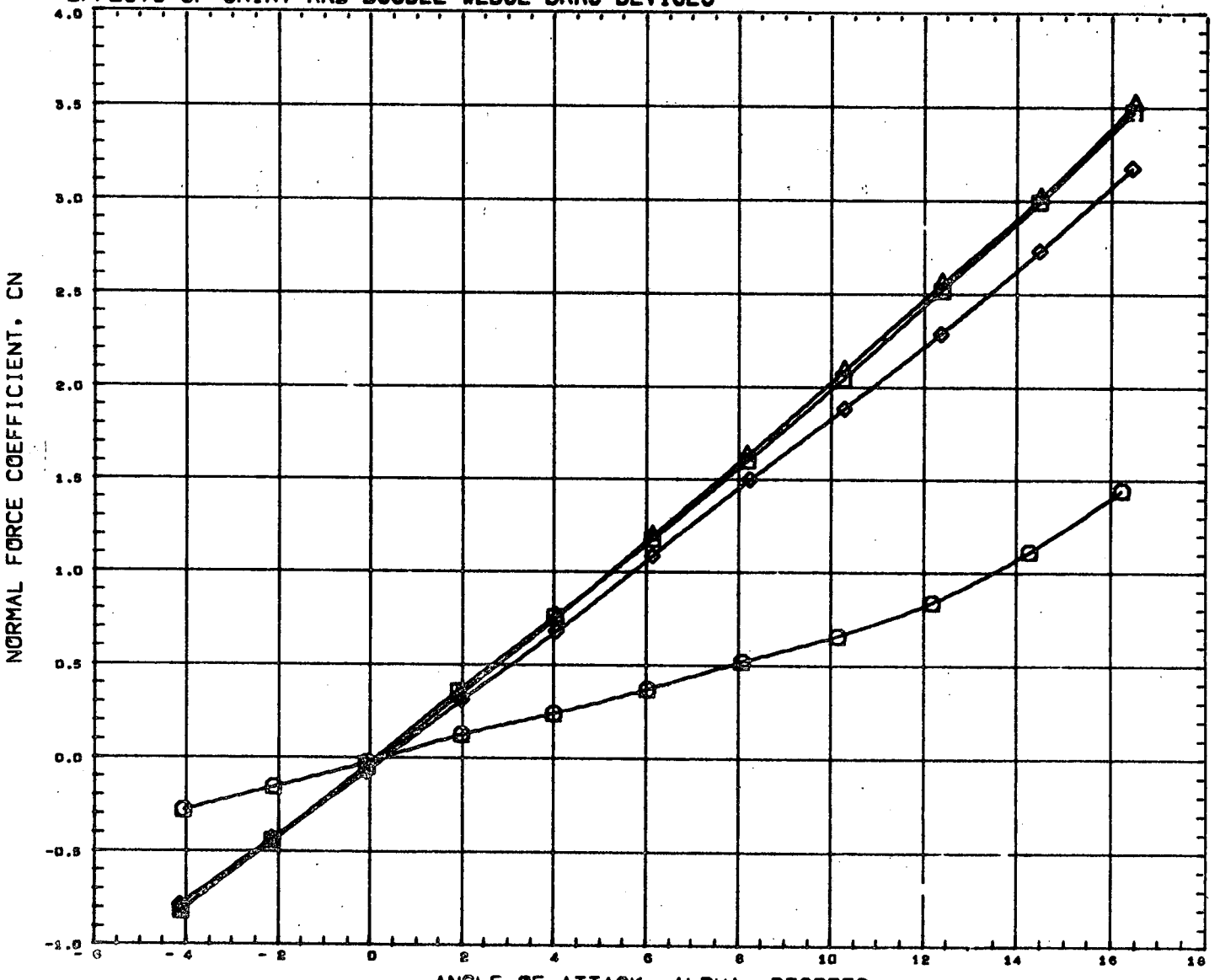


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E9011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.805

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

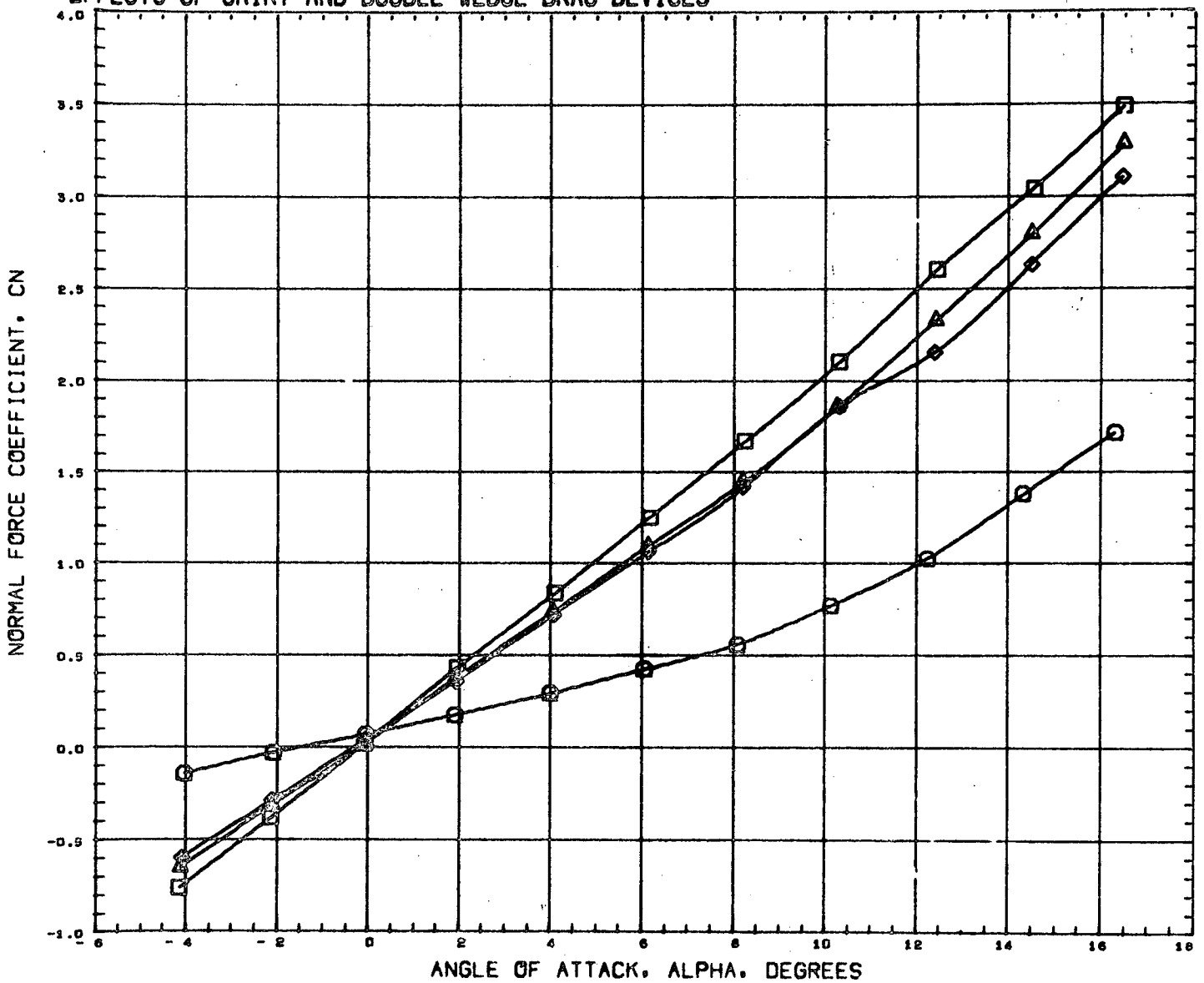


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003306 DOODTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003306 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

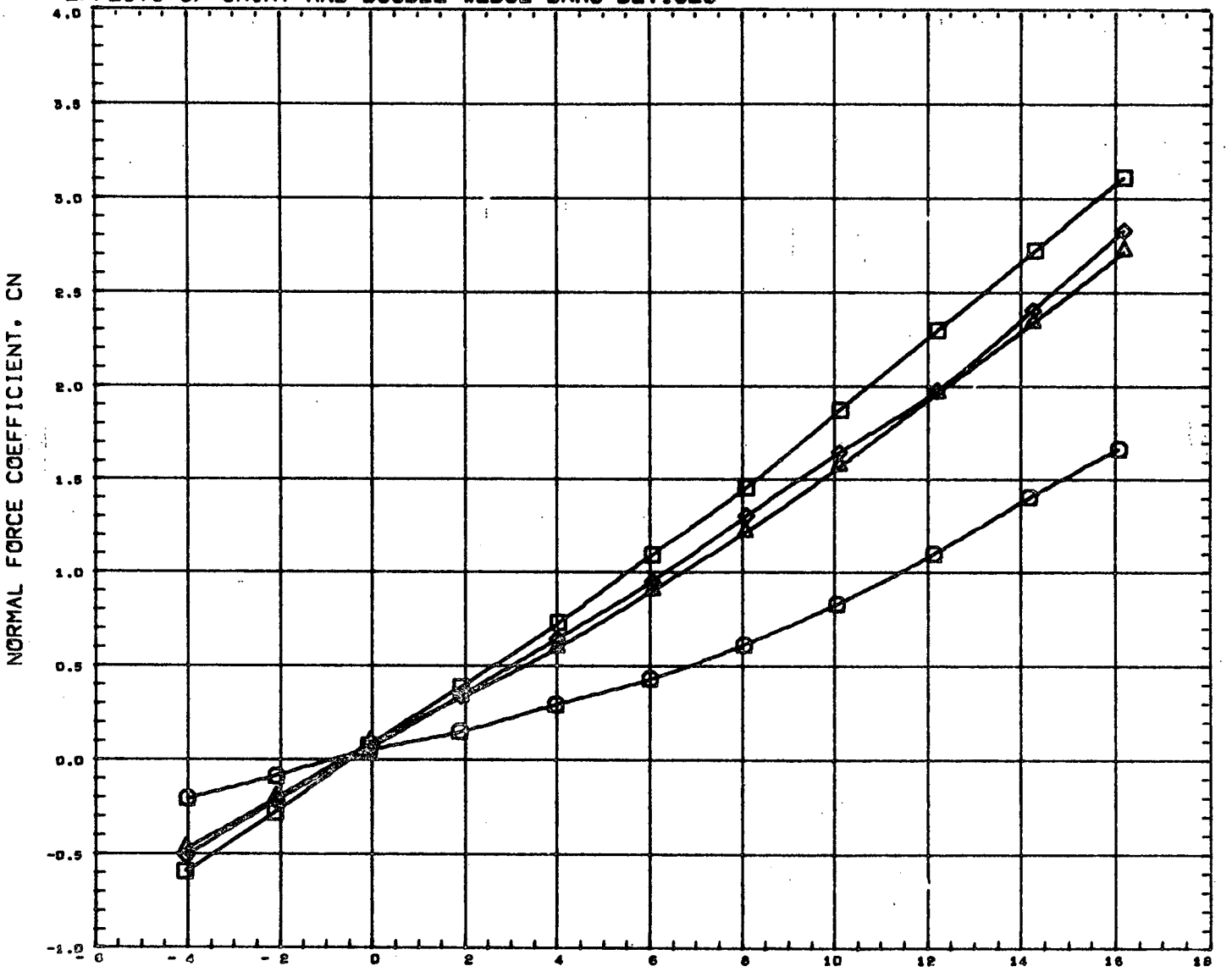


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R693T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

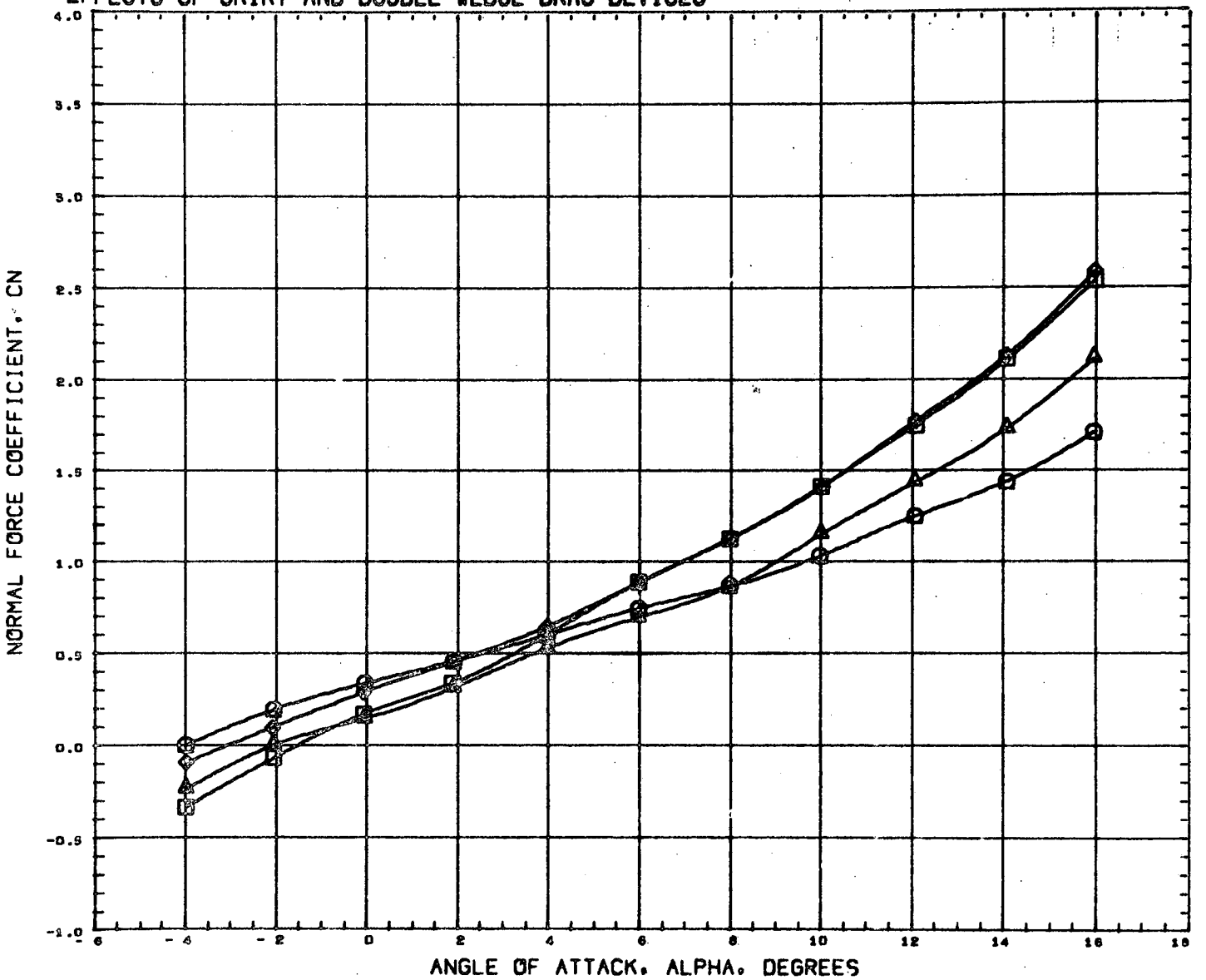


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)		MSFC 512 GD/C .003360 BOOSTER	B34R6	0.000	45.000		
(ES001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0100)		MSFC 512 GD/C .003366 BOOSTER	B34R6B3T10	0.000	0.000		
(DS0090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

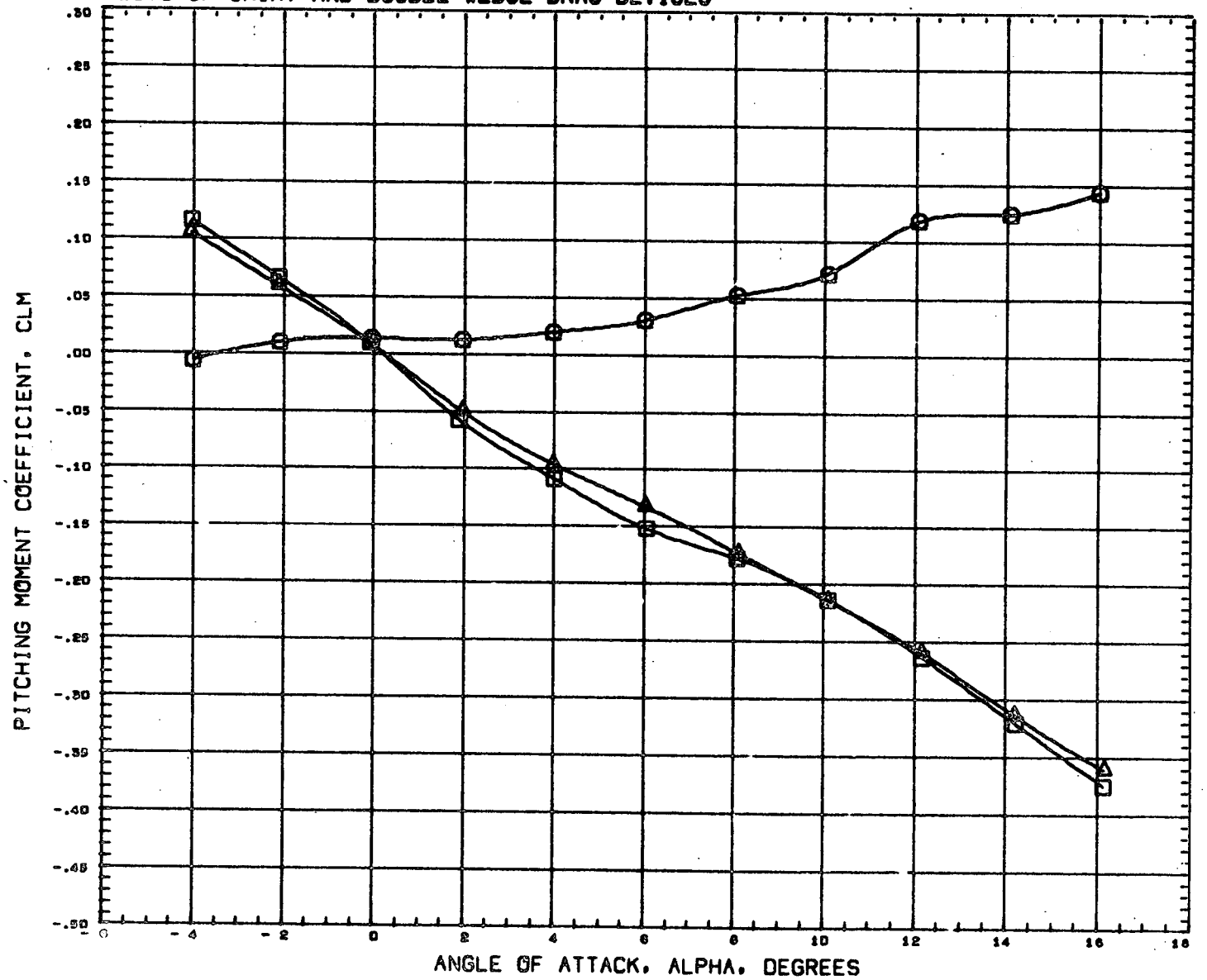


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

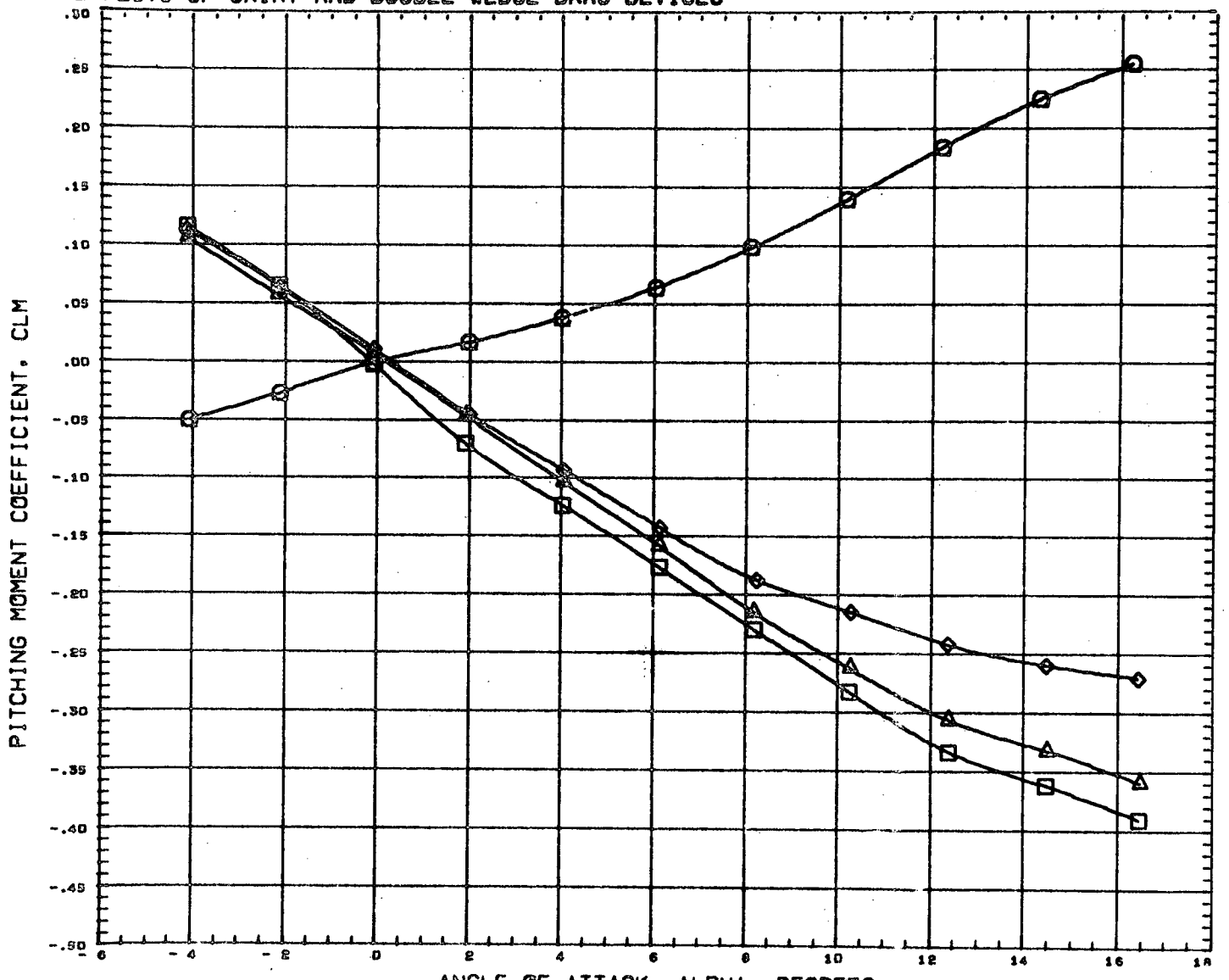


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	□	MSFC 512 GD/C .009300 BOOSTER	B34R6	0.000	45.000		
(ES001A)	△	MSFC 512 GD/C .009300 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0100)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(DS0090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.603

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

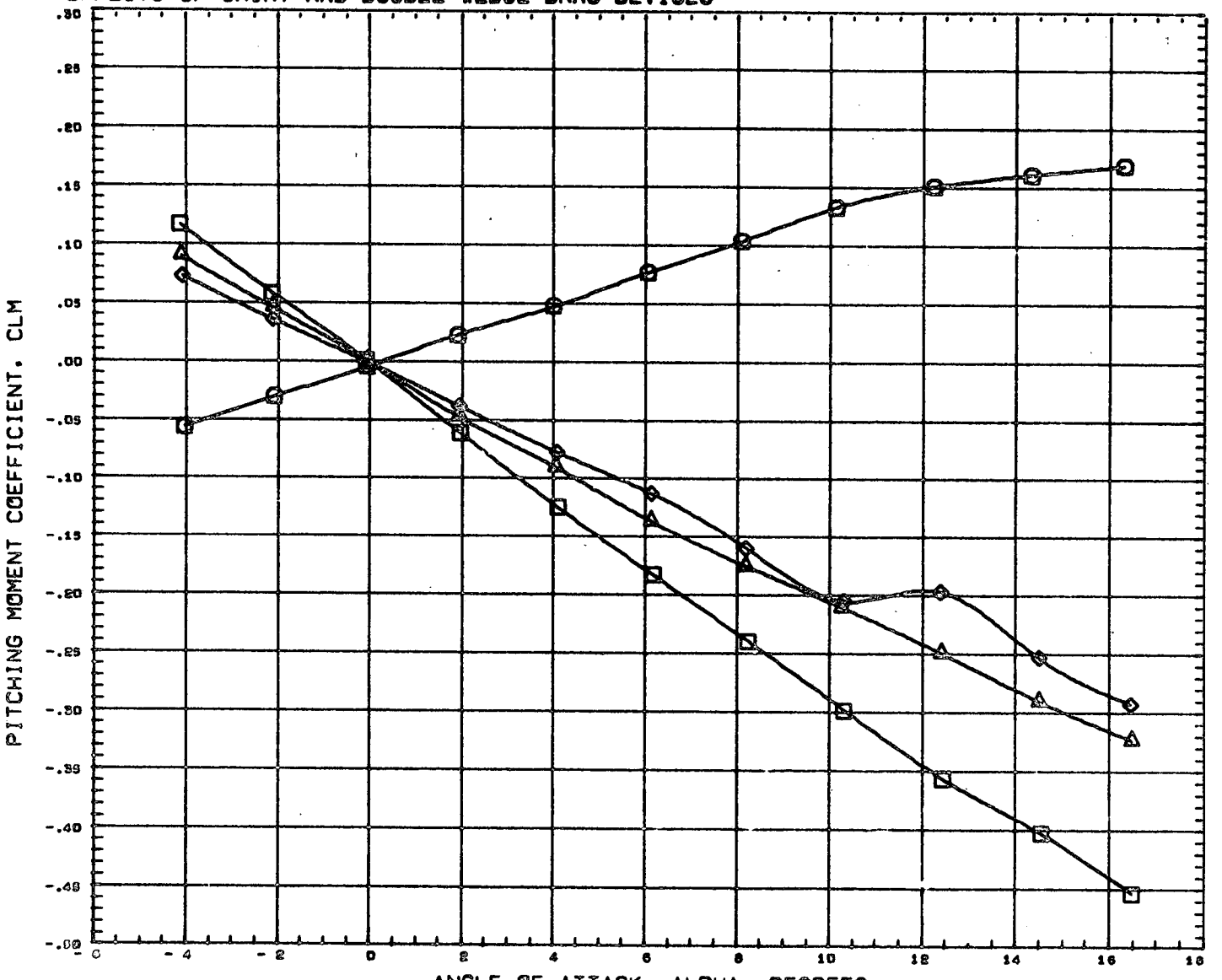


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

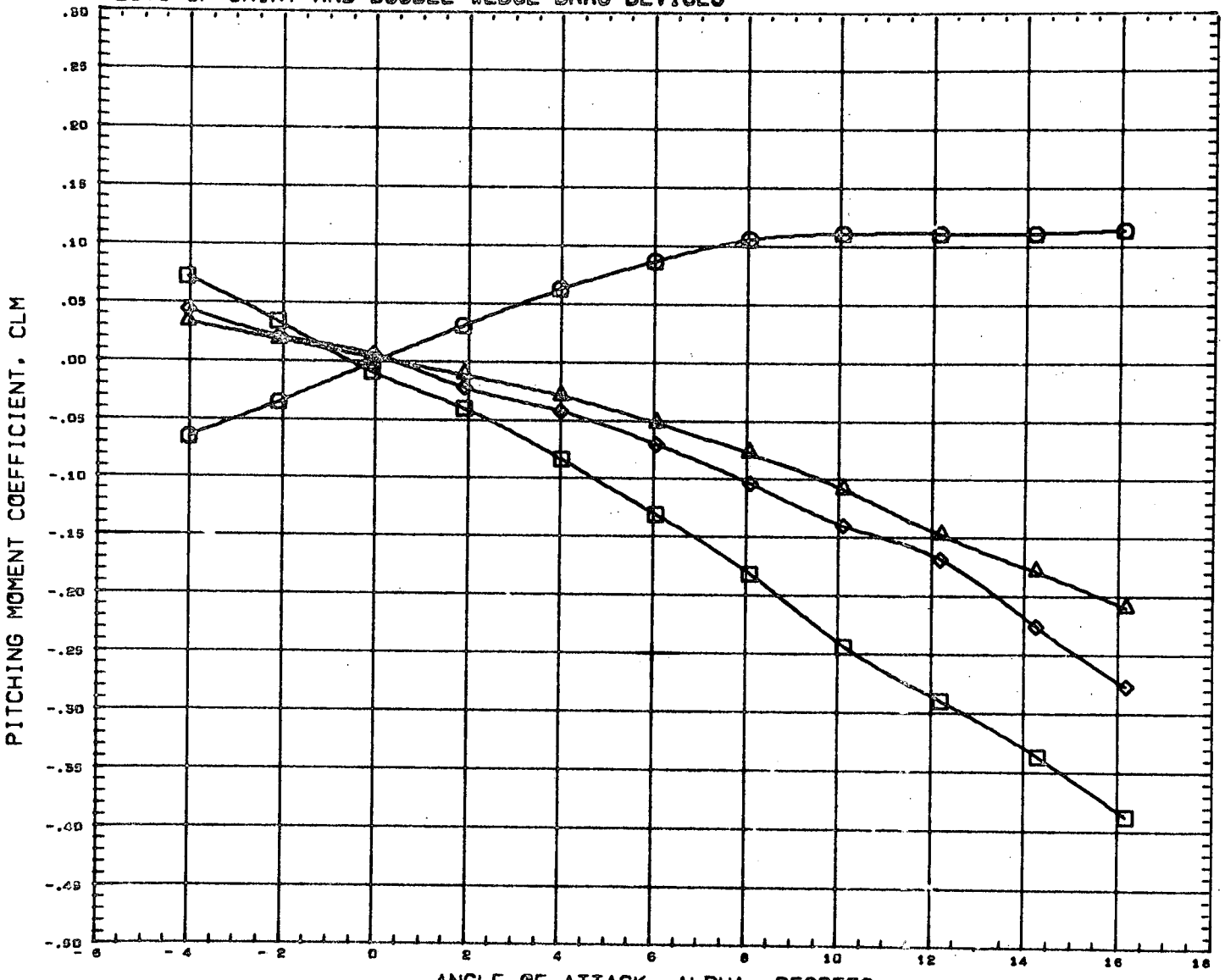


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E9011A)		MSFC 512 GD/C .003966 BOOSTER	B54R6	0.000	45.000		
(E9001A)		MSFC 512 GD/C .003966 BOOSTER	B54RGT10	0.000	0.000	0.000	0.000
(D90100)		MSFC 512 GD/C .003366 BOOSTER	B54R6GT10	0.000	0.000		
(D90000)		MSFC 512 GD/C .003366 BOOSTER	B54RGT17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

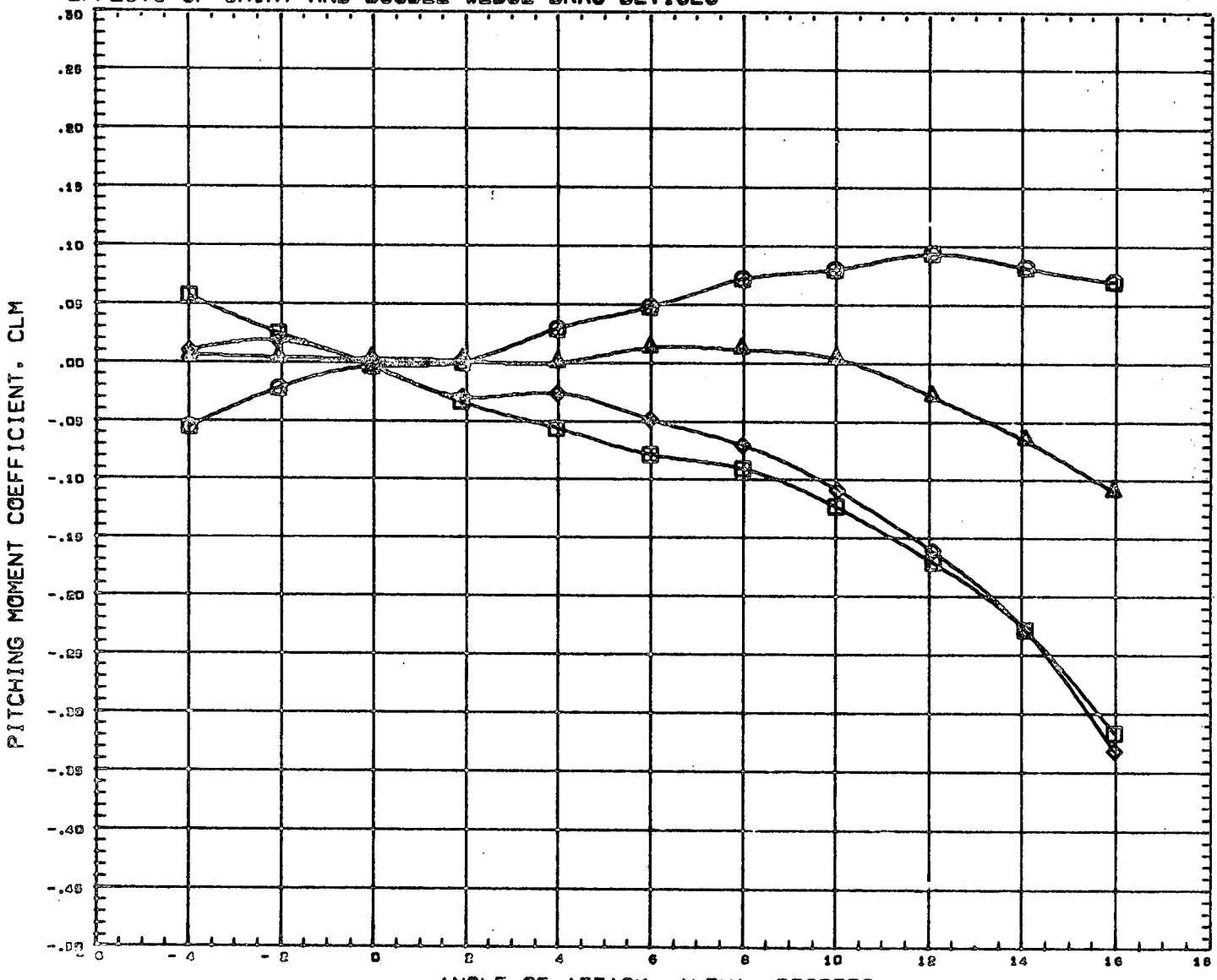


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(DS0090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

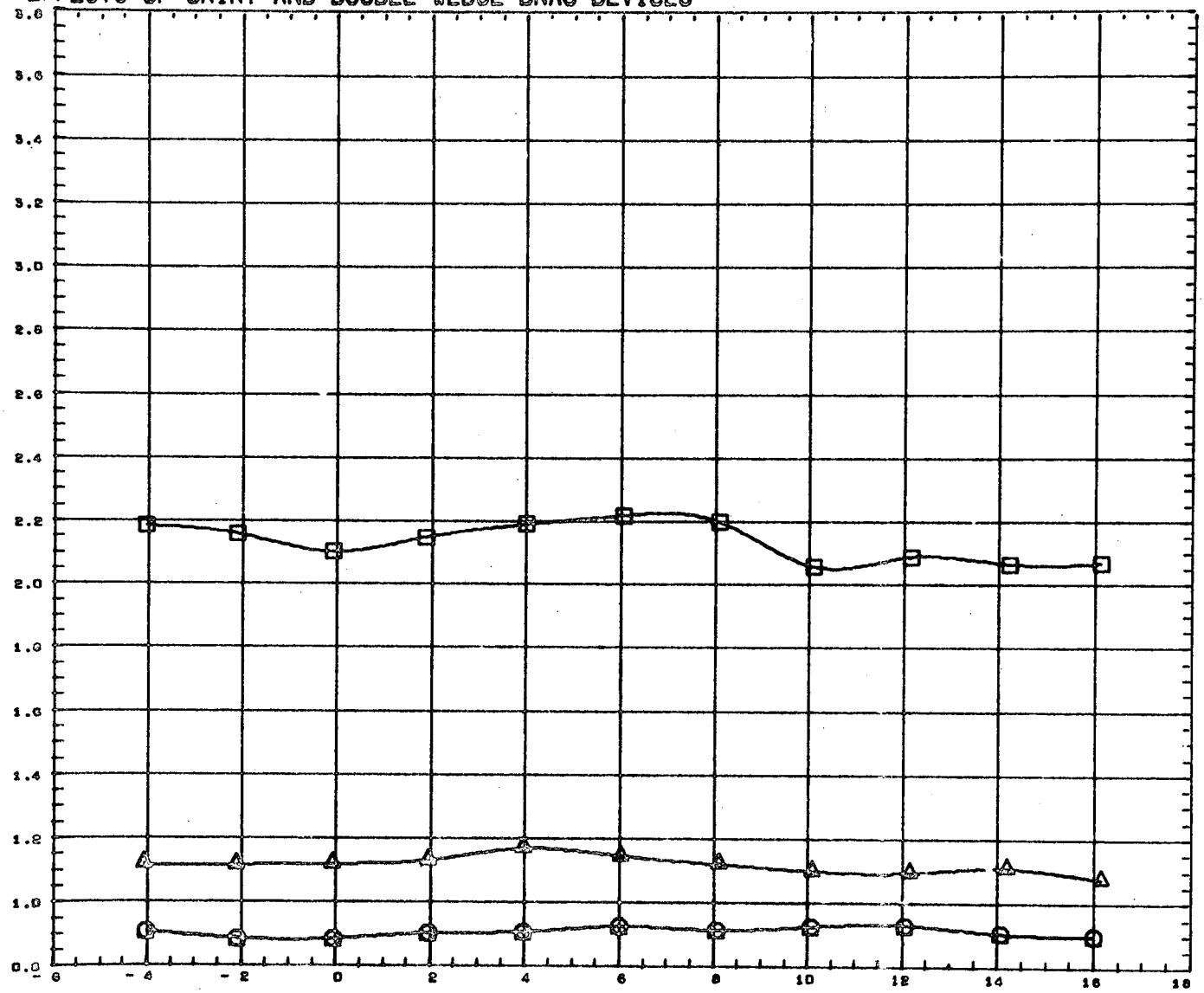


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34RG	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.958

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7020	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

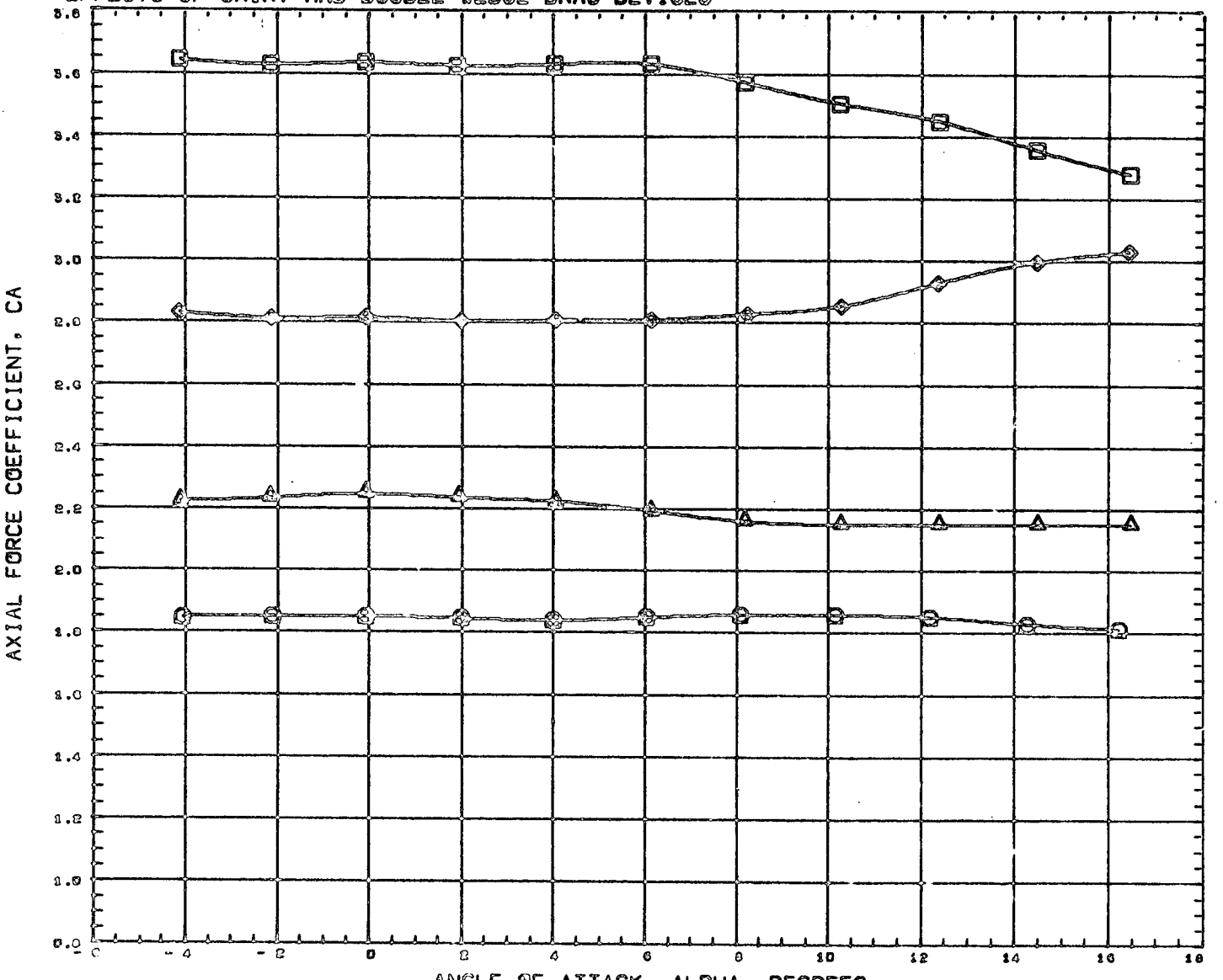


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.605

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES



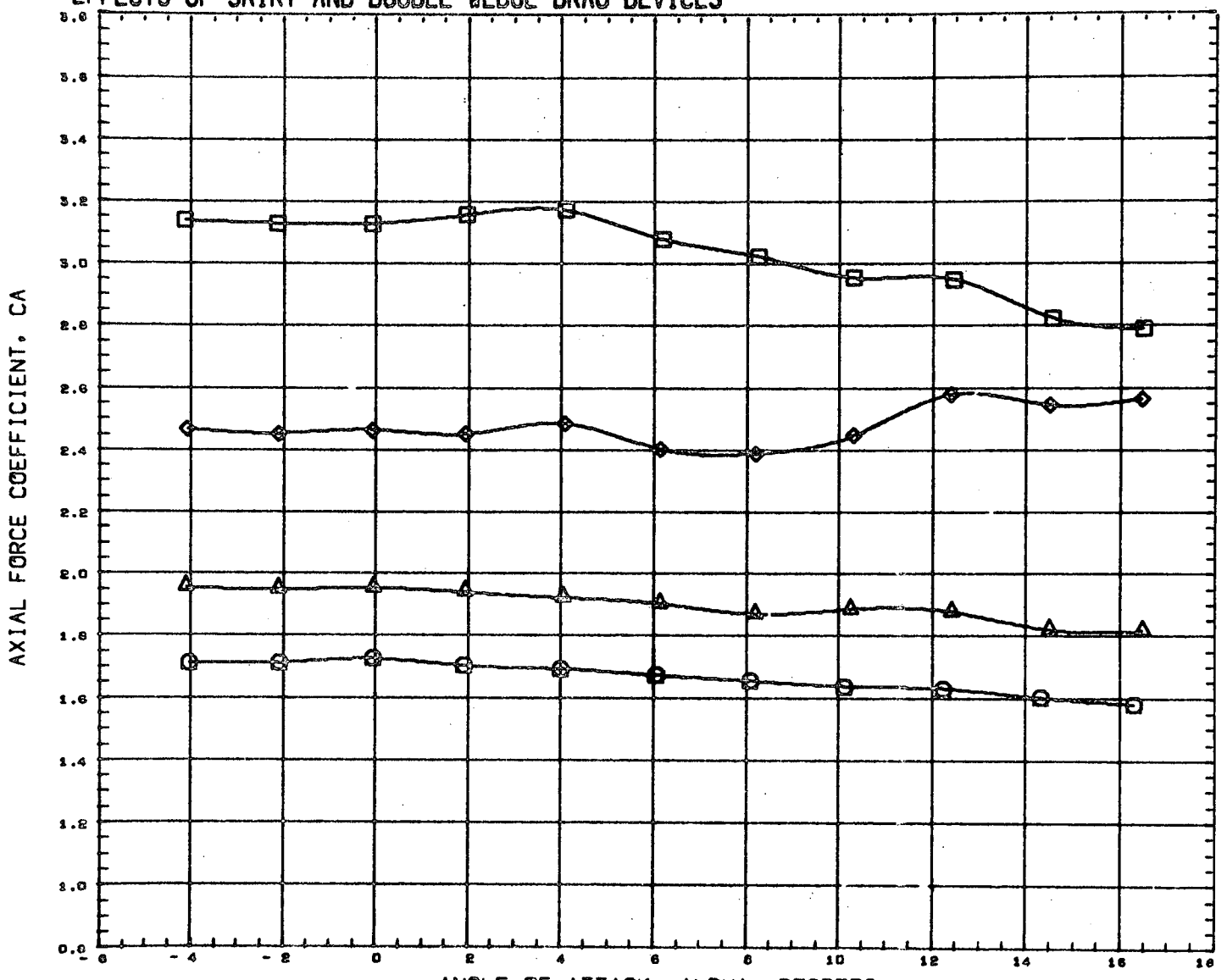
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E9011A)		M8FC 912 GD/C .005866 COOSTER	894R8	0.000	45.000		
(E9001A)		M8FC 912 GD/C .005866 COOSTER	894R8710	0.000	0.000	0.000	0.000
(D90100)		M8FC 912 GD/C .005866 BOOSTER	894R8997510	0.000	0.000		
(D00000)		M8FC 912 GD/C .005866 BOOSTER	894R8T17	0.000	0.000	55.000	55.000

MACH 1.600

REFERENCE INFORMATION

SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

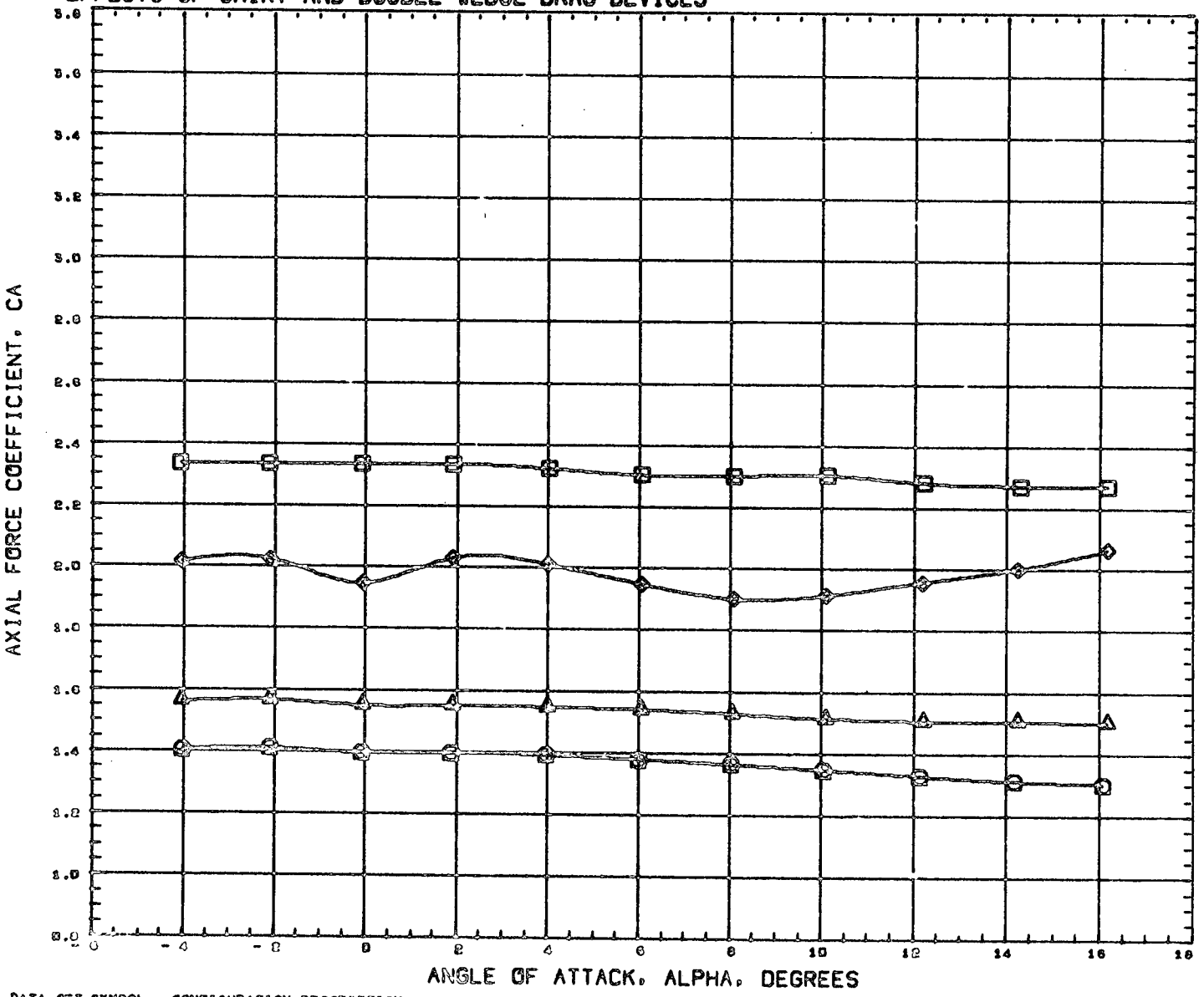


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.965

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

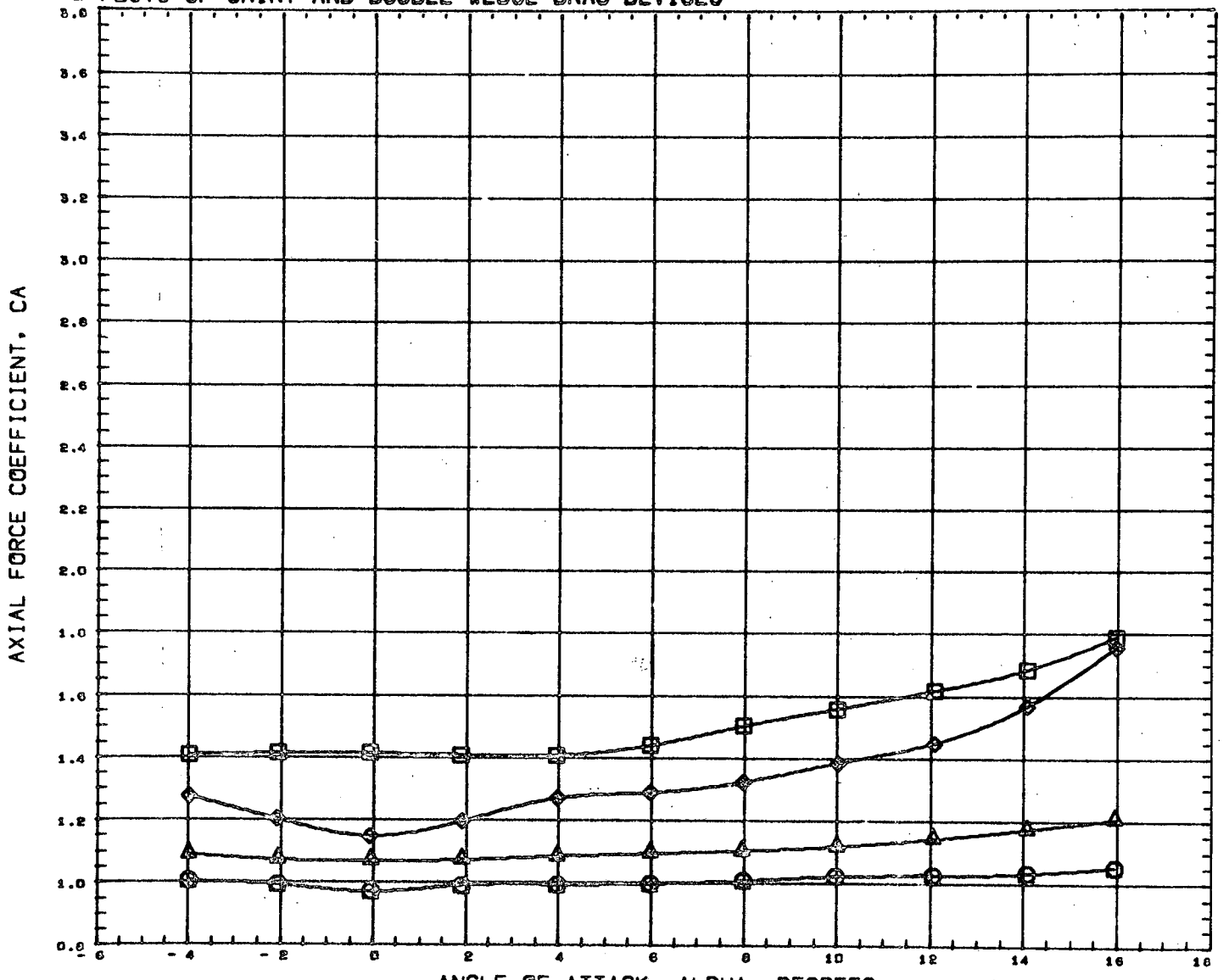


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .009866 BOOSTER	B34RG	0.000	45.000		
(E5001A)		MSFC 512 GD/C .009966 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .009966 BOOSTER	B34RG99T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .009966 BOOSTER	B34RGT17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

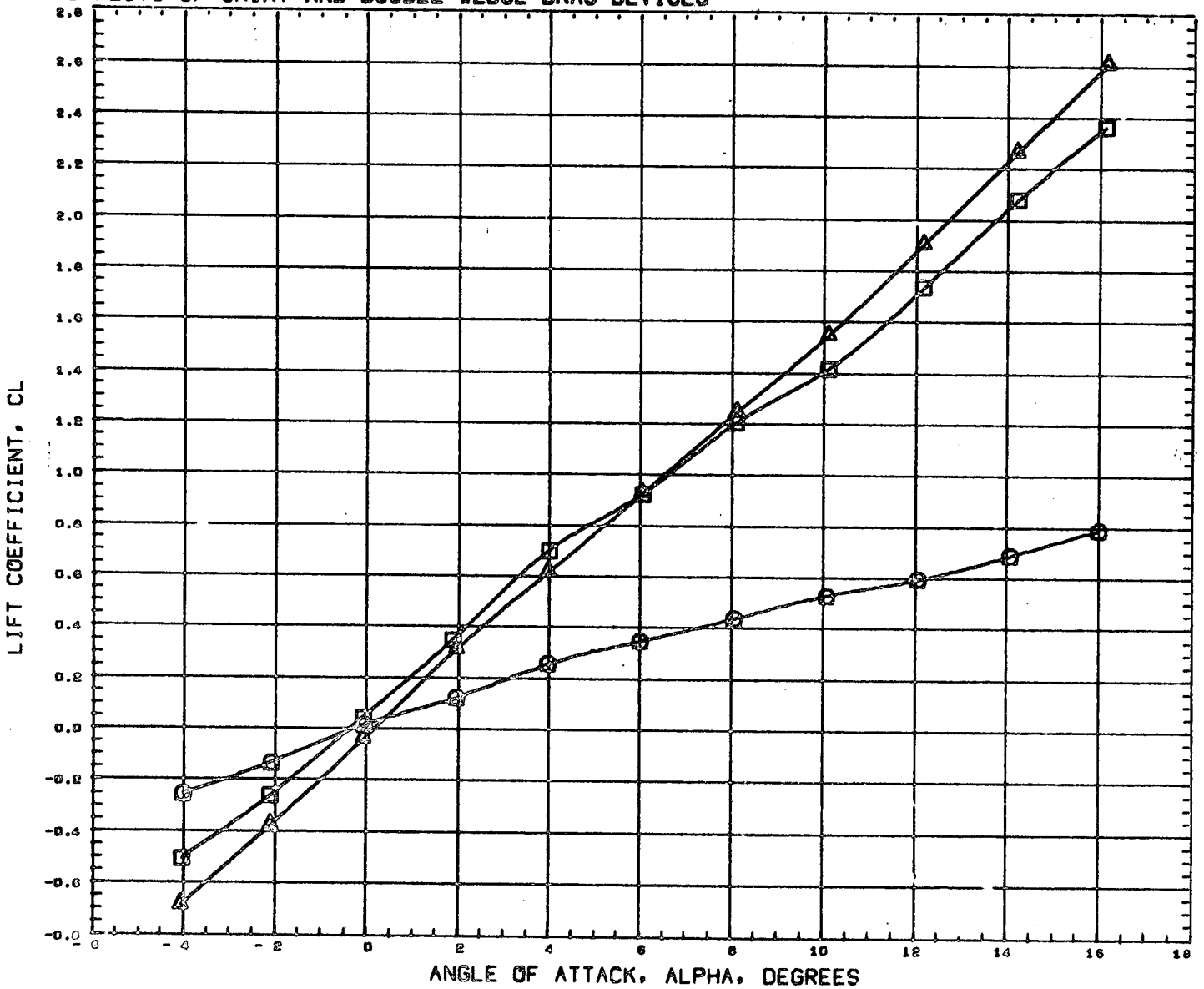


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5010D)		MSFC 512 GD/C .003366 BOOSTER	B34R6S5T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.989

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

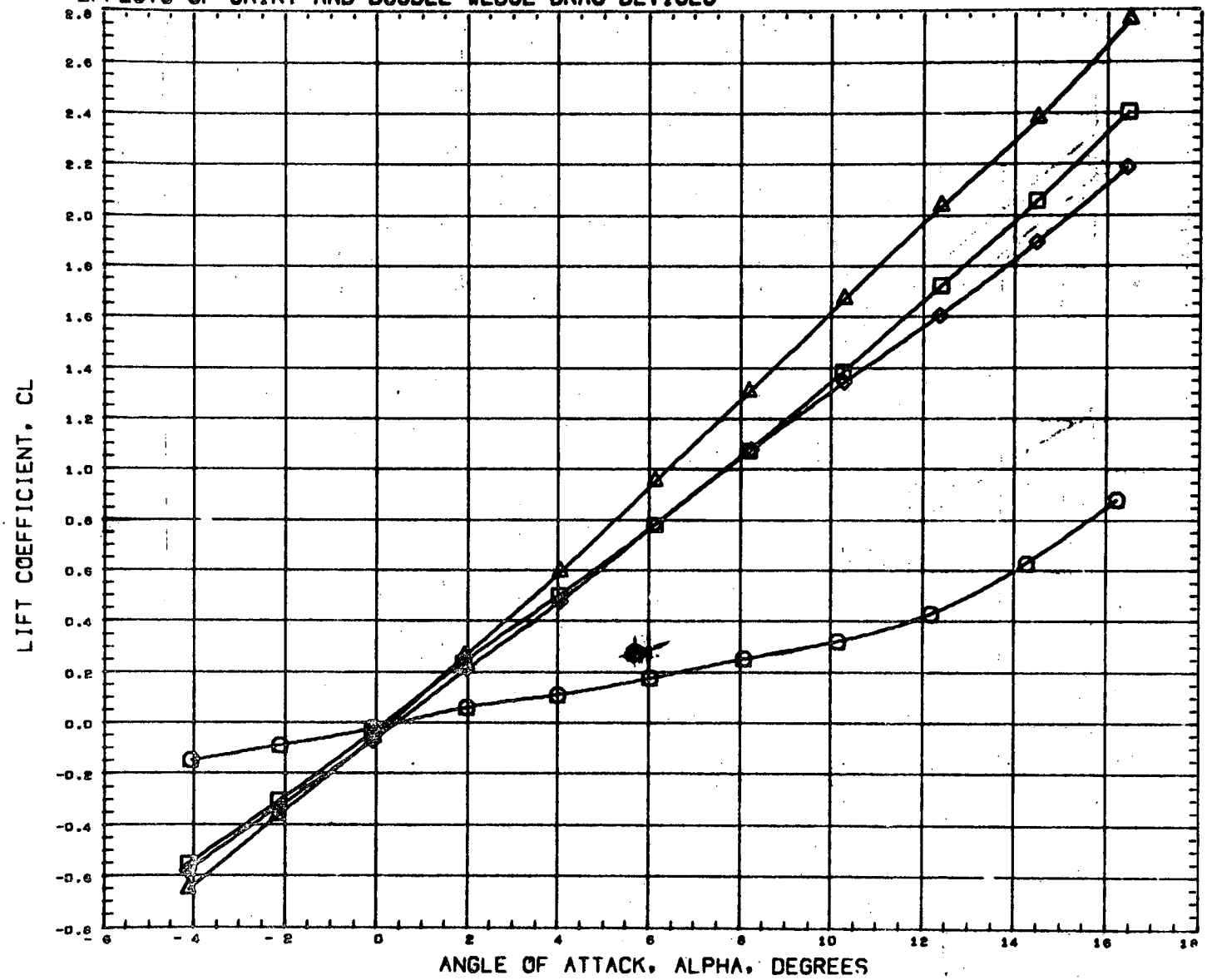


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)		MSFC 512 GD/C .003966 BOOSTER	D34R6	0.000	45.000		
(ES001A)		MSFC 512 GD/C .003966 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(DS0100)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(DS0090)		MSFC 512 GD/C .003966 BOOSTER	B34RGT17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

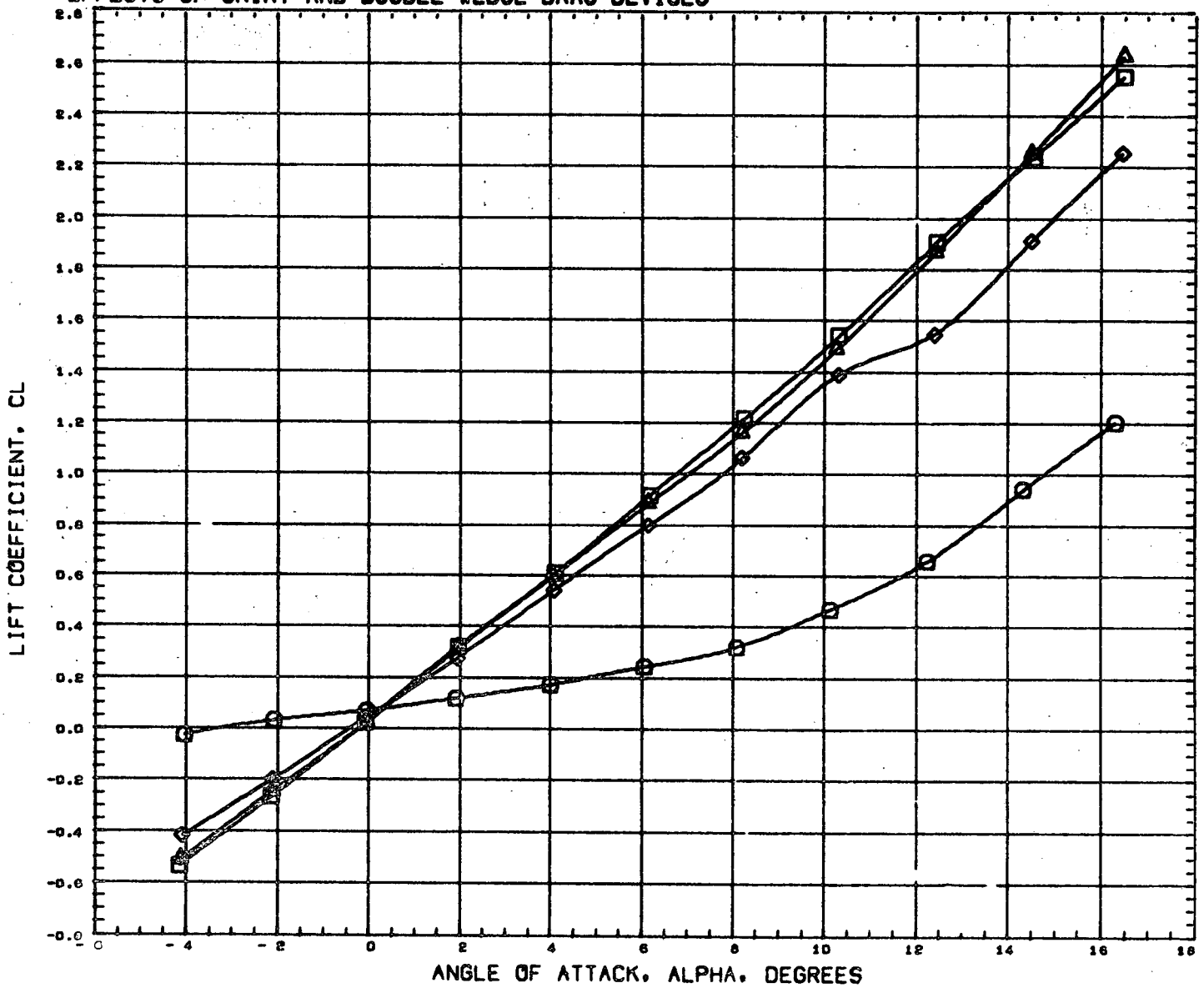


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1D	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T1D	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

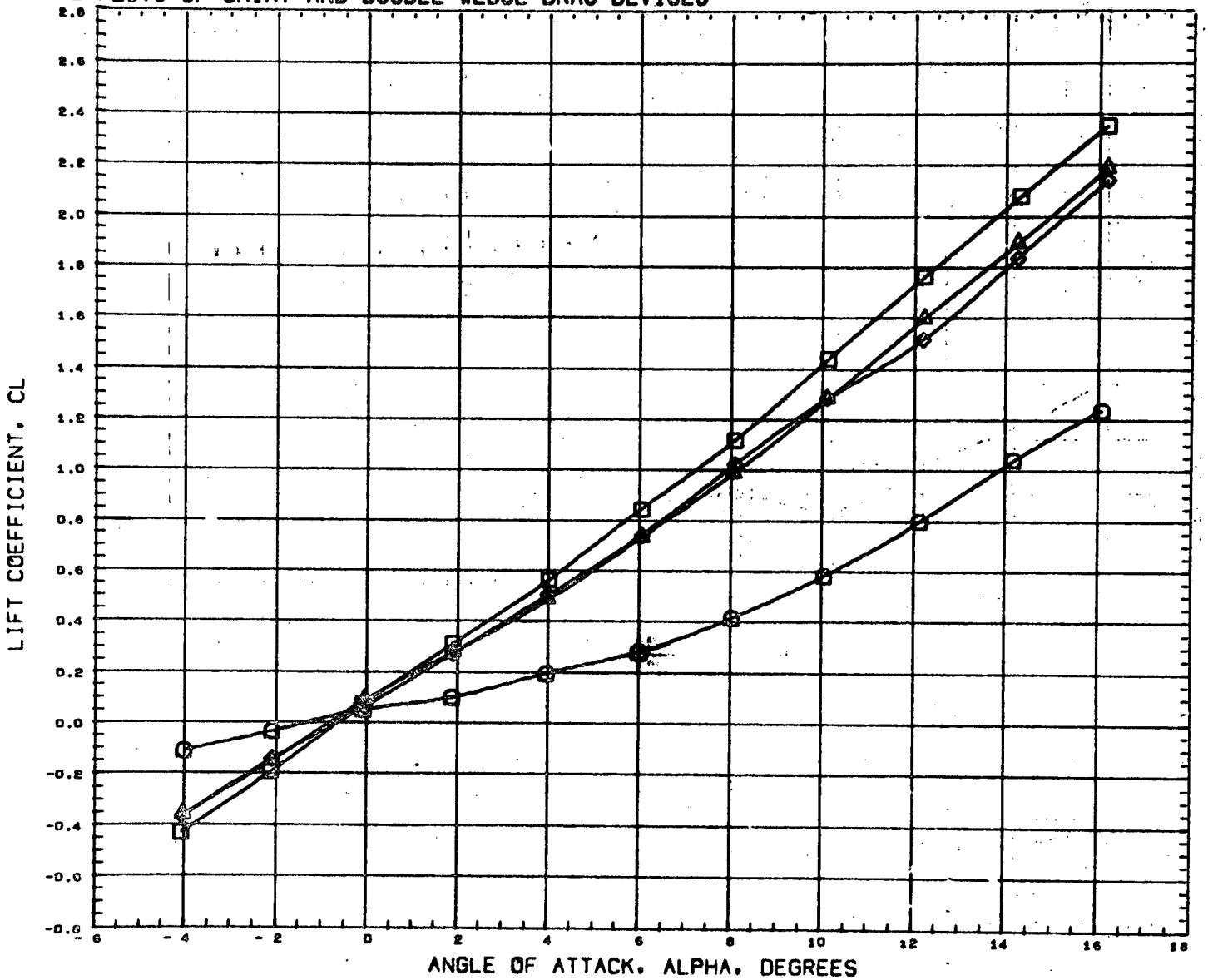


DATA SET SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	MSFC 512 GD/C .003960 BOOSTER	B34R6	0.000	45.000		
(E5001A)	MSFC 512 GD/C .003960 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	MSFC 512 GD/C .003966 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	MSFC 512 GD/C .003966 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.966

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

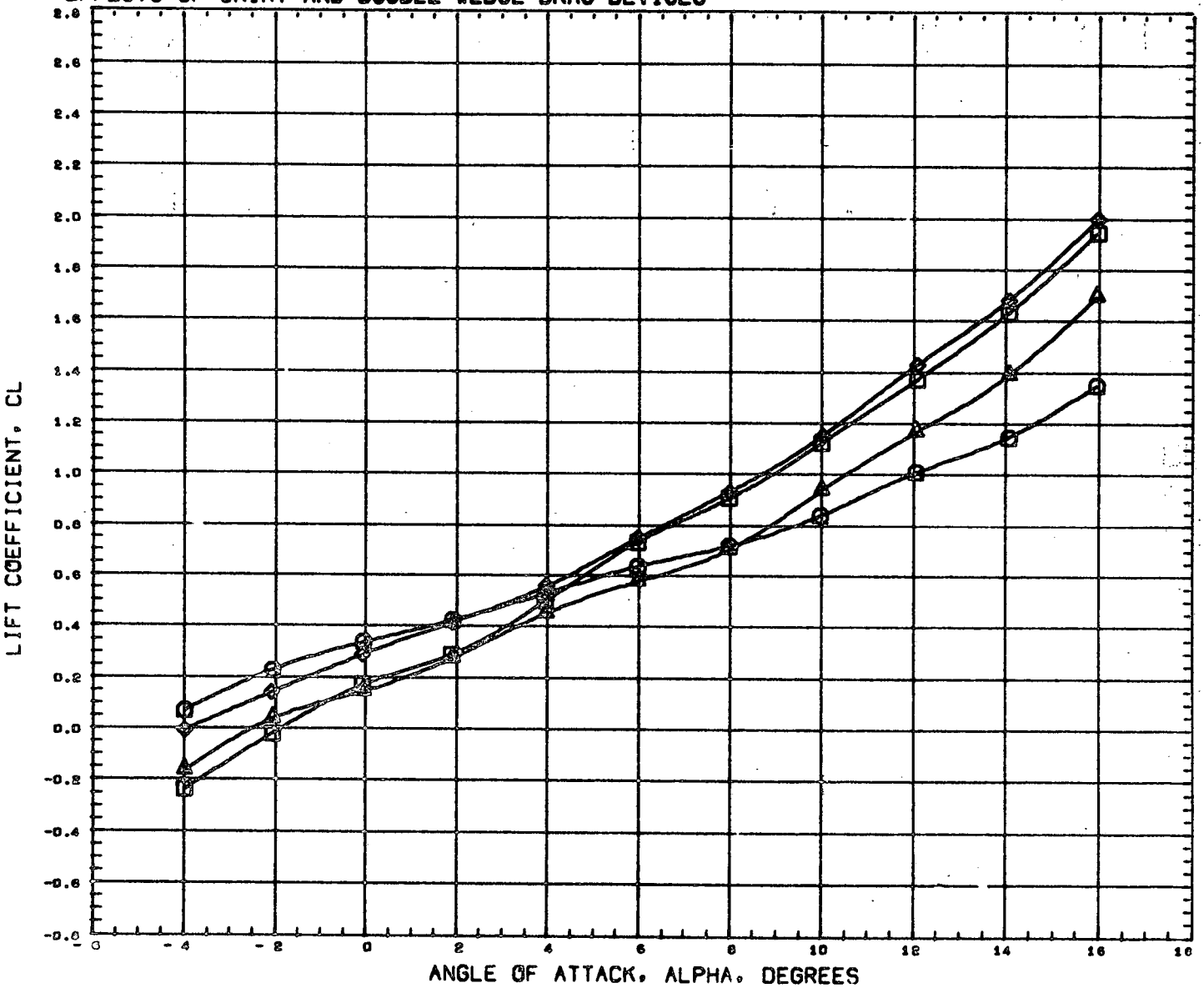


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0094	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

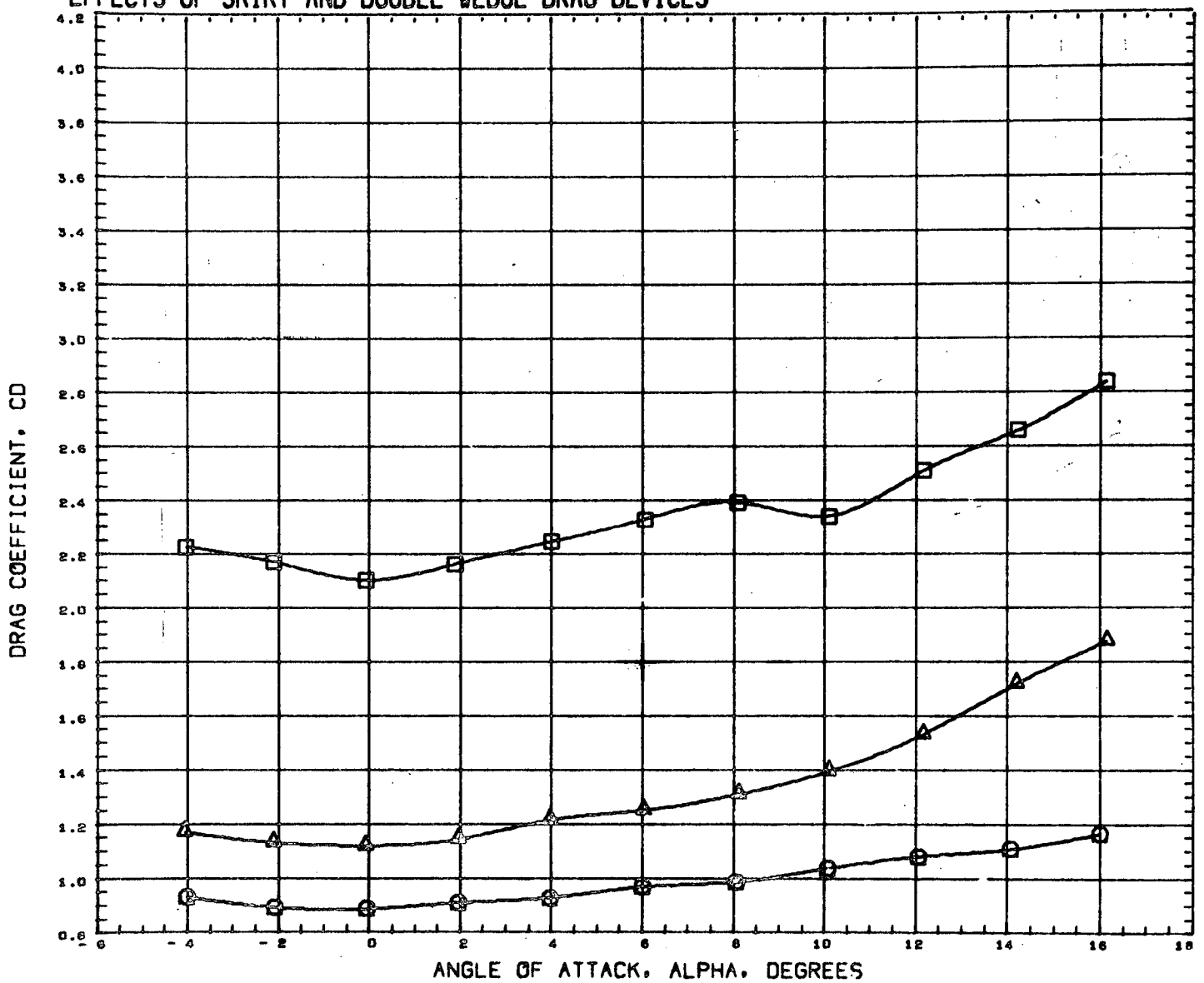


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 DOUBSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 DOUBSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R0T17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

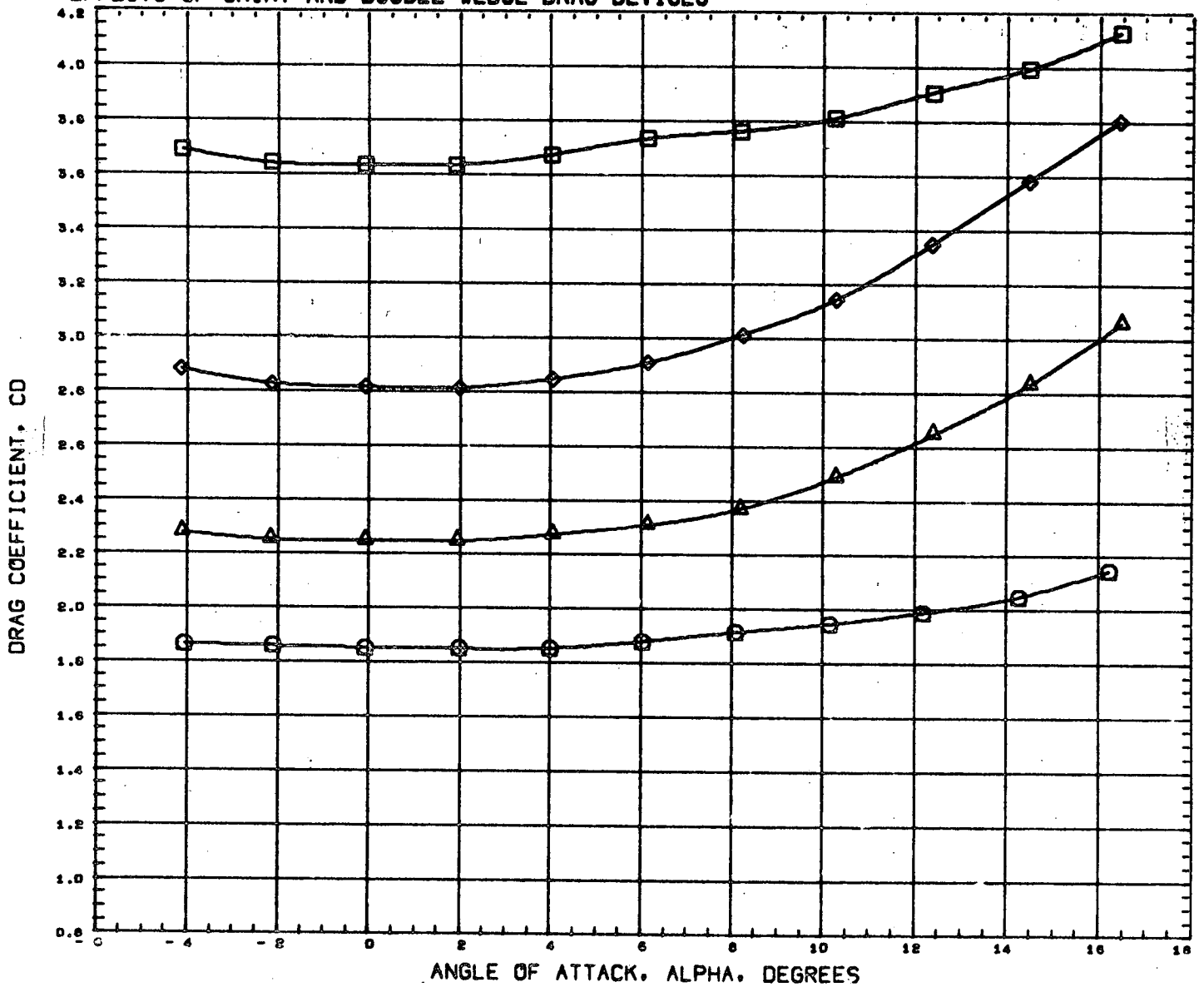


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.603

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

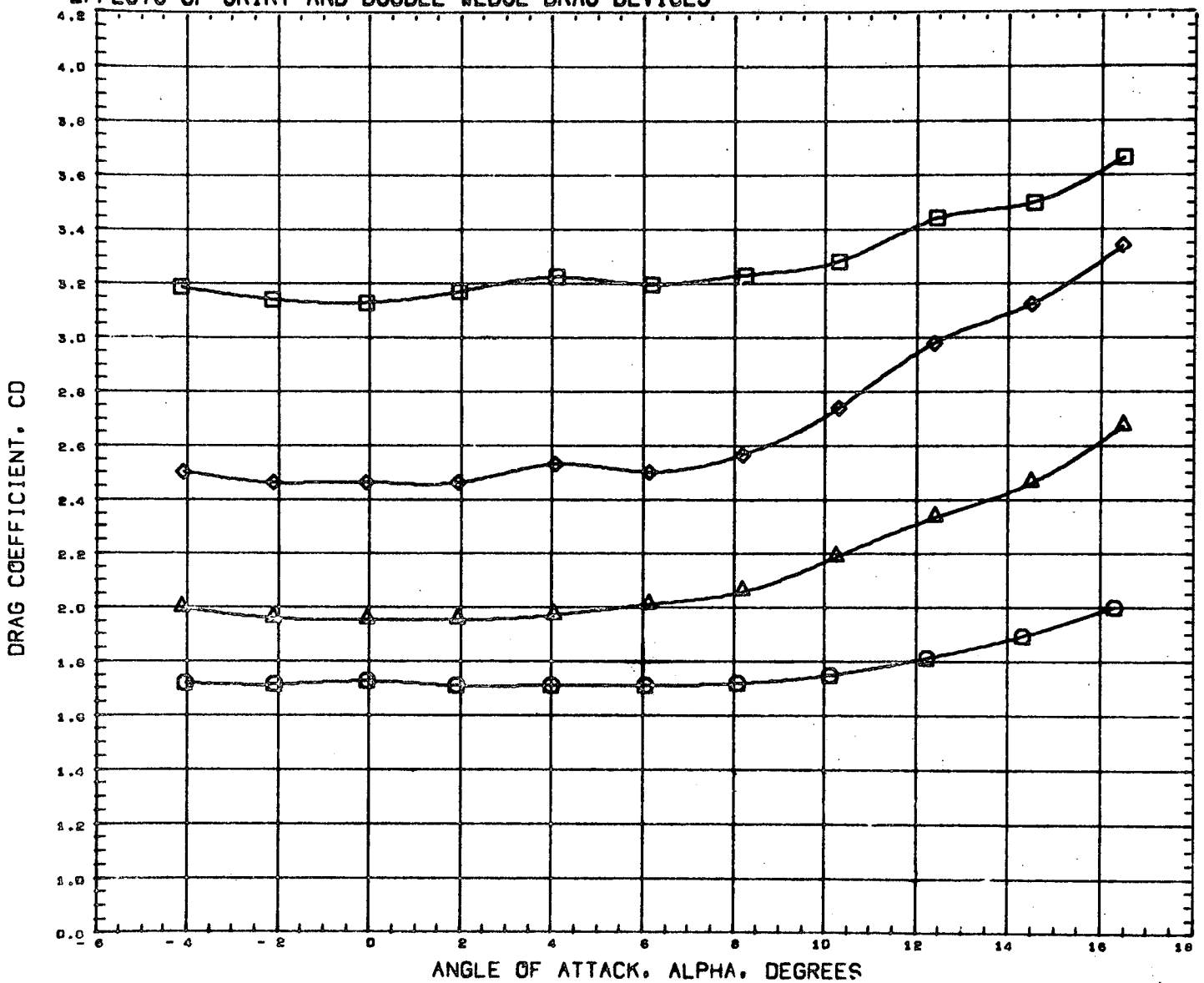


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003906 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

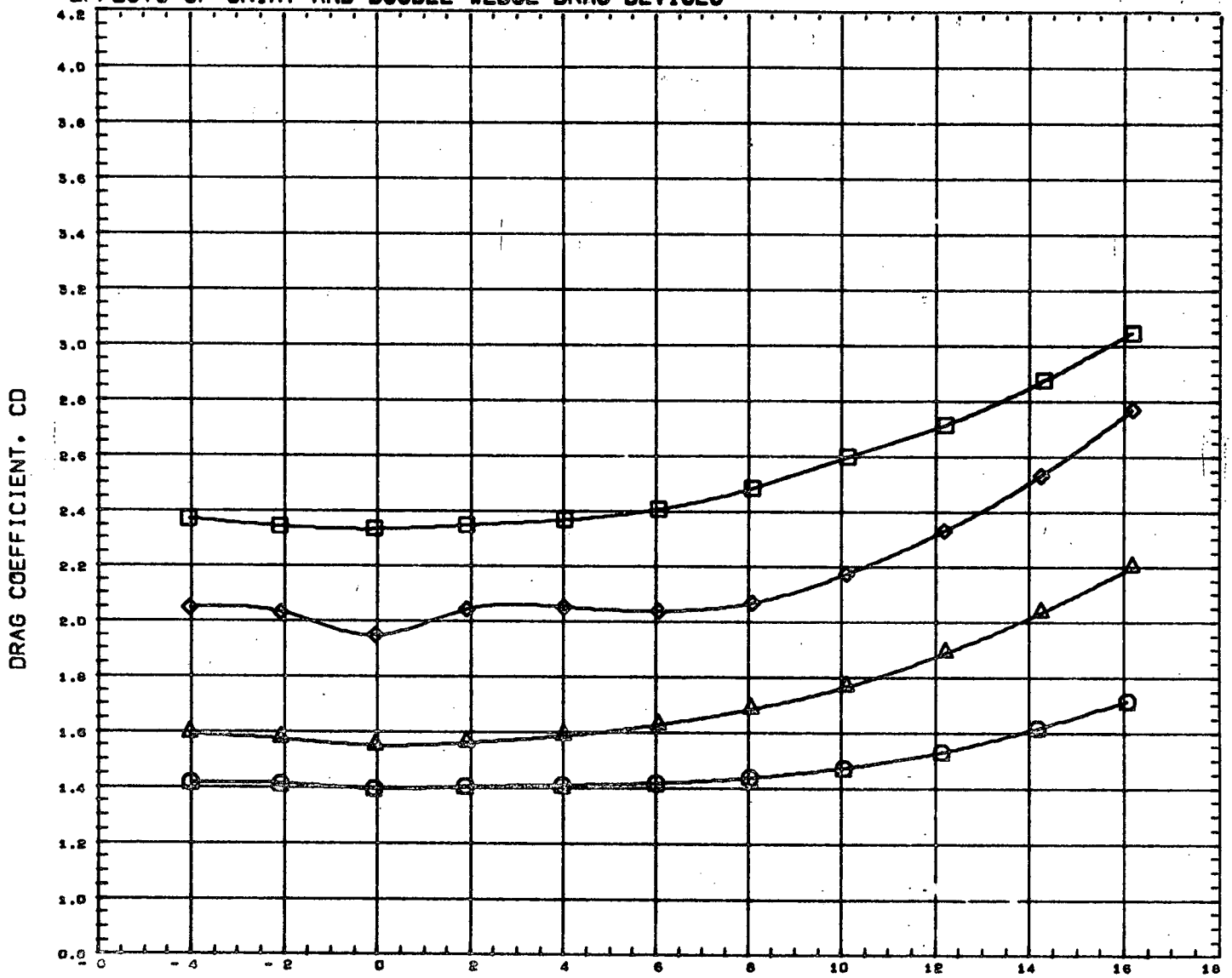


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

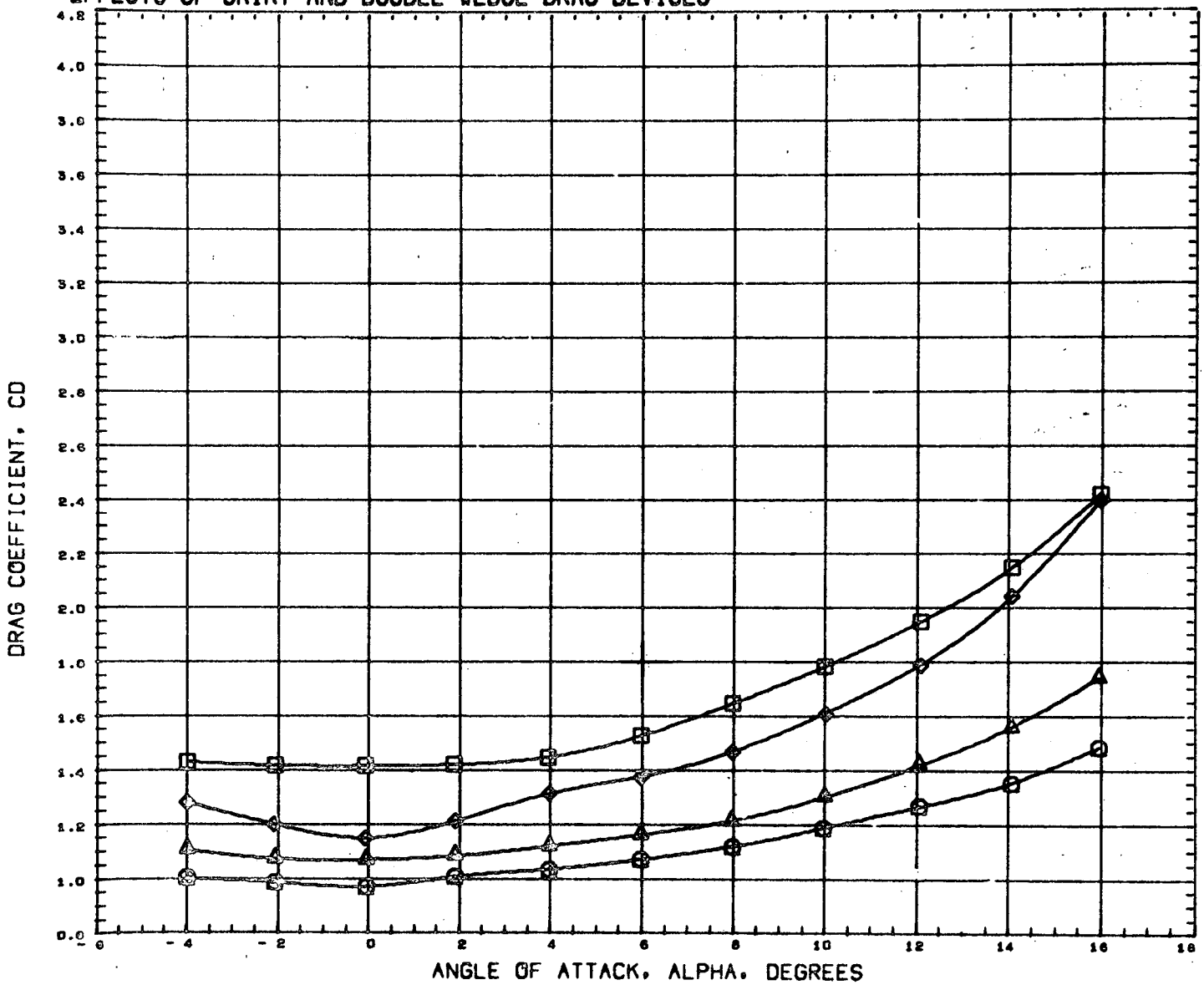


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	49.000		
(ES001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS010D)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(DS009D)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

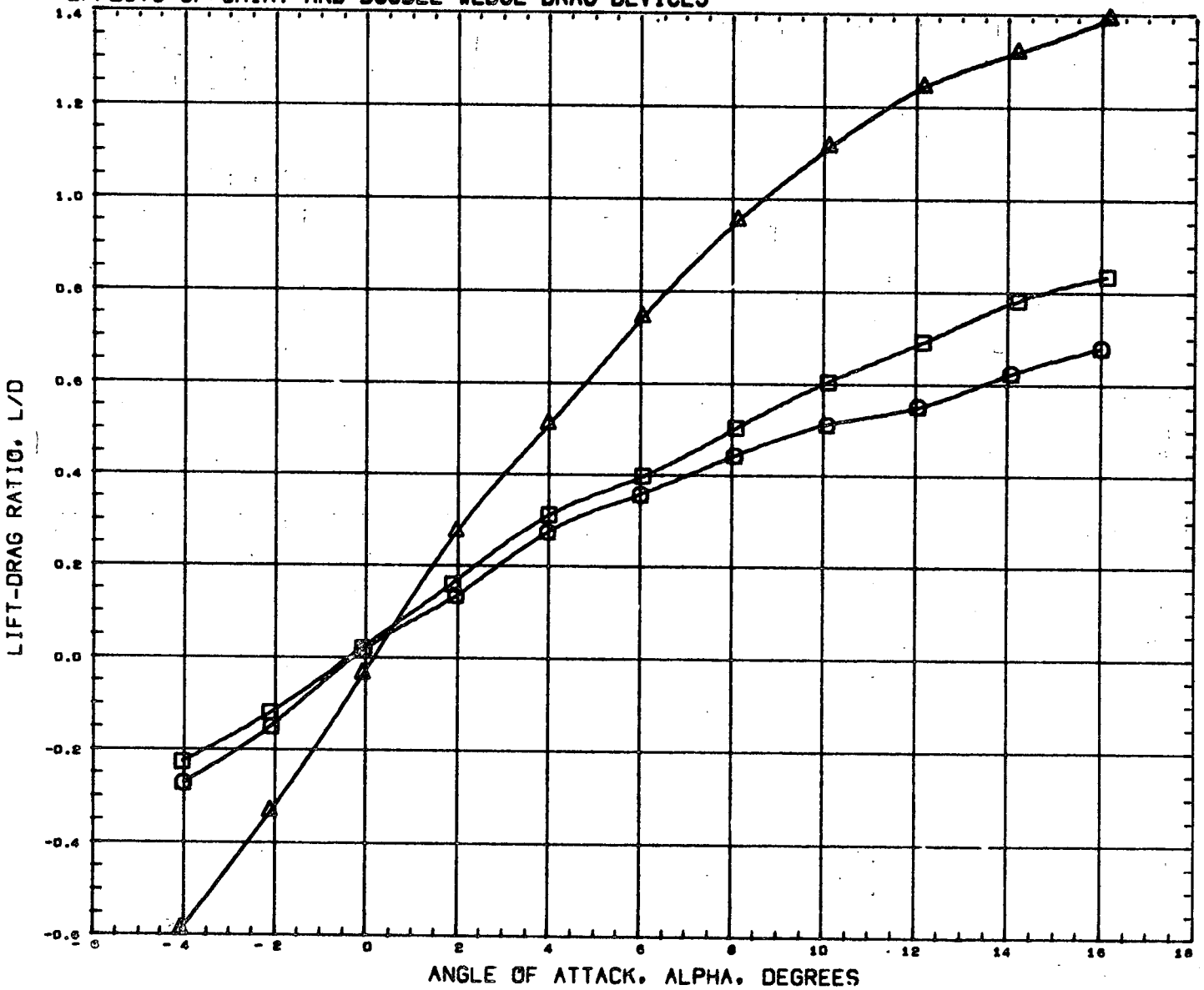


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(DS0090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.956

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES



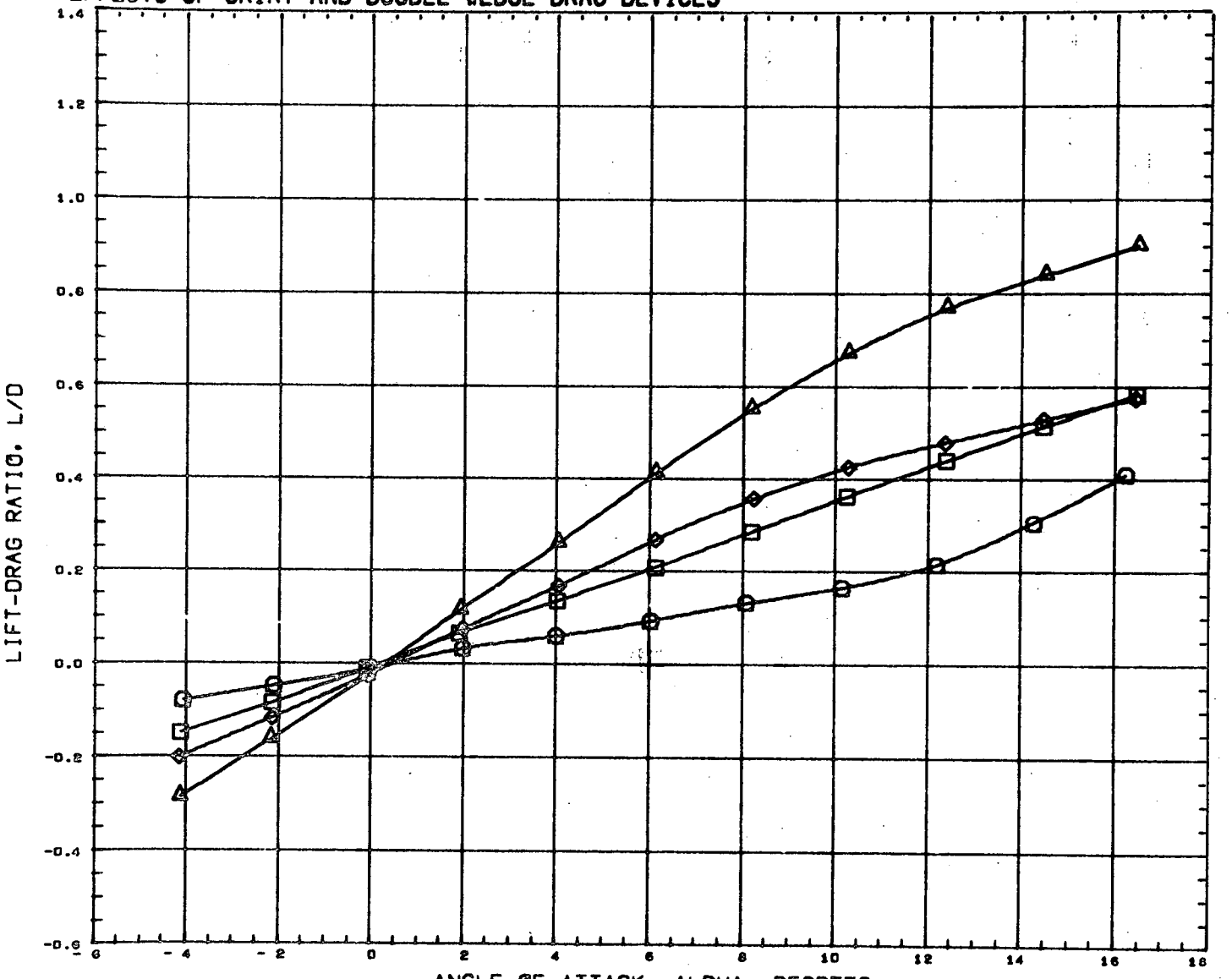
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	
(E5011A)	○	MSFC 512 GD/C .003906 BOOSTER	B34RG
(E5001A)	△	MSFC 512 GD/C .003906 BOOSTER	B34R6T10
(D50100)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17

BETA	PHIMOD	LFLAP	RFLAP
0.000	45.000		
0.000	0.000	0.000	0.000
0.000	0.000		
0.000	0.000	35.000	35.000

MACH 0.605

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

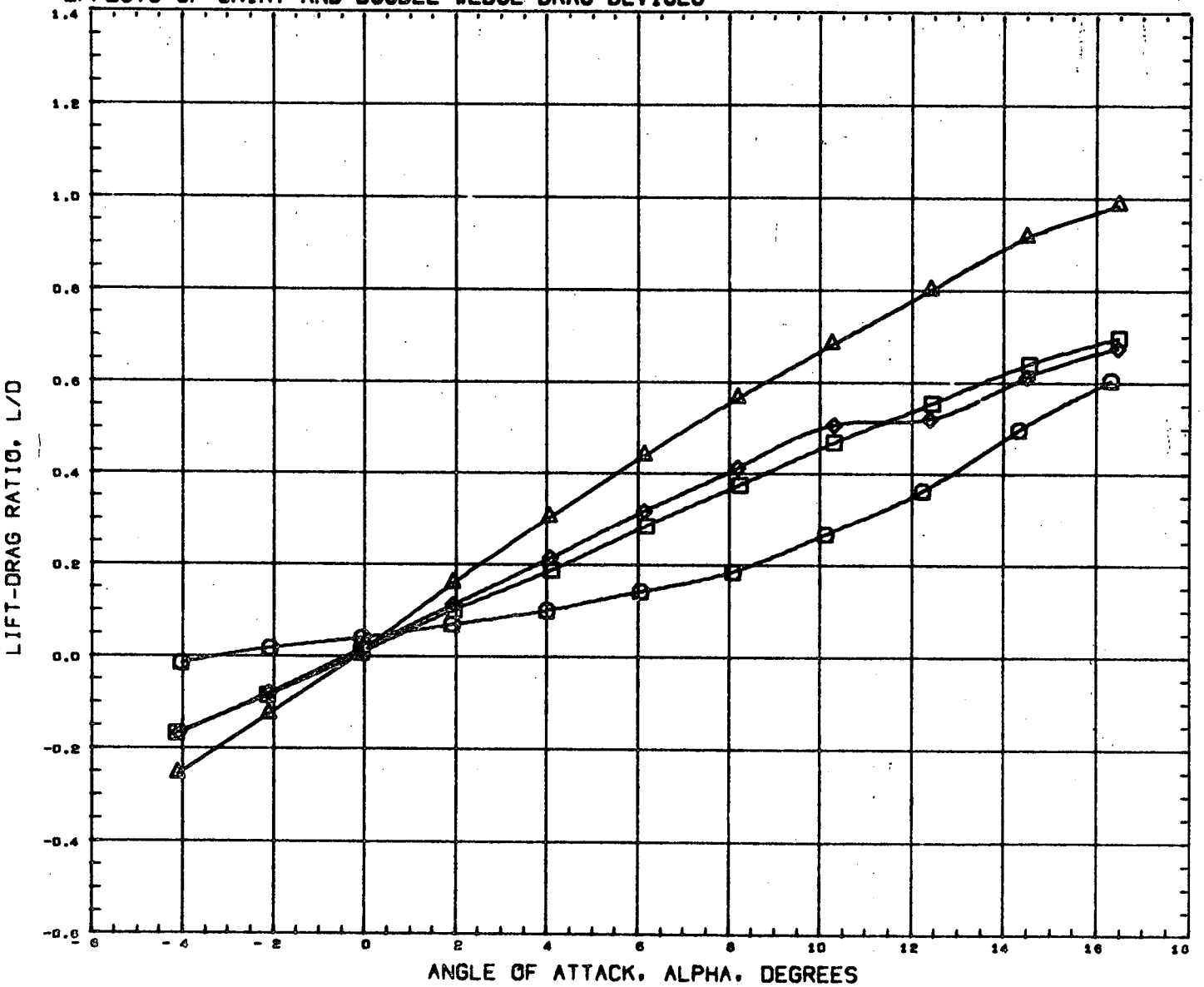


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

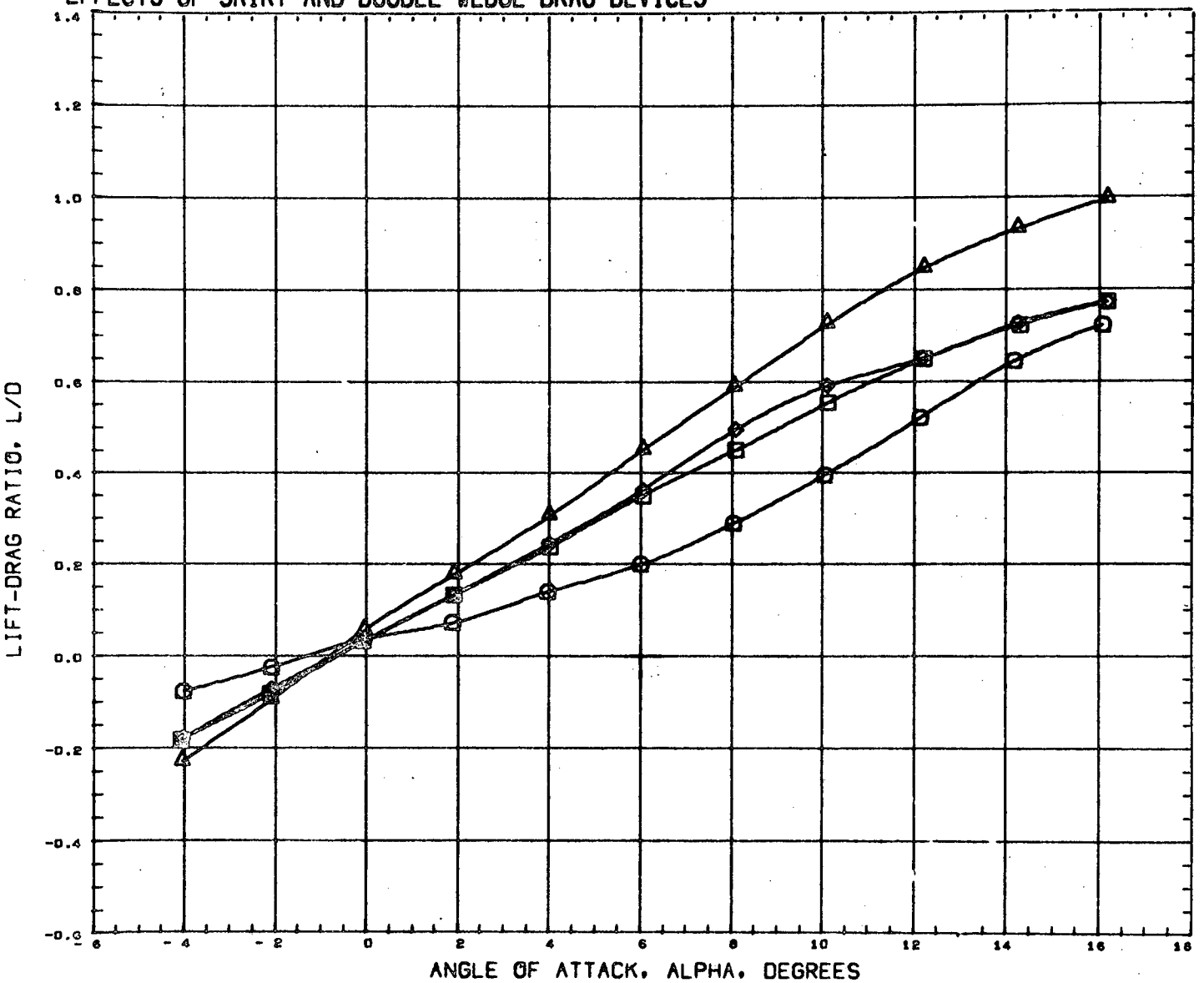


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003306 BOOSTER	B54R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B54RGT10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B54R6S3T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B54R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.966

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

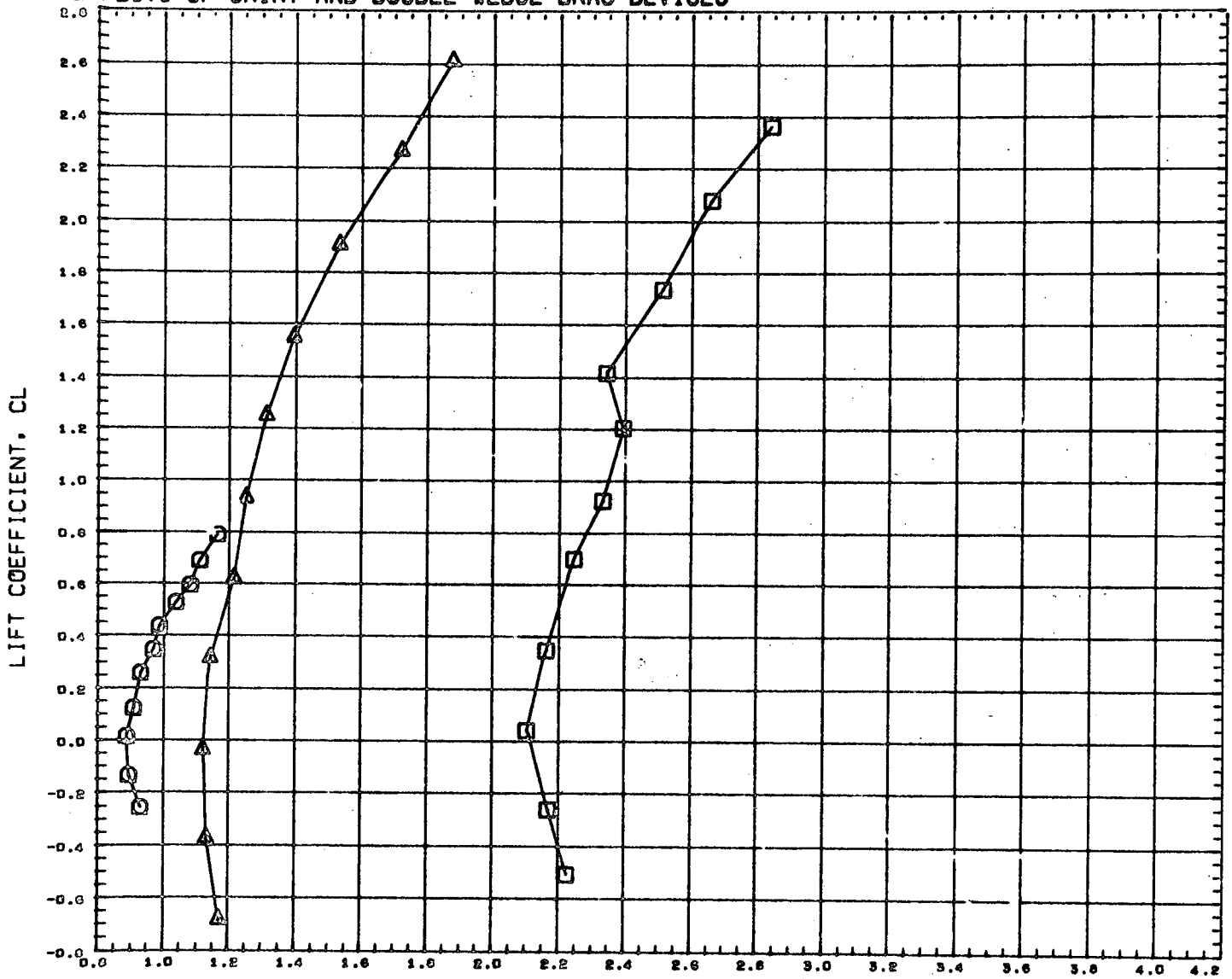
EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R683T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34RGT17	0.000	0.000	35.000	35.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES



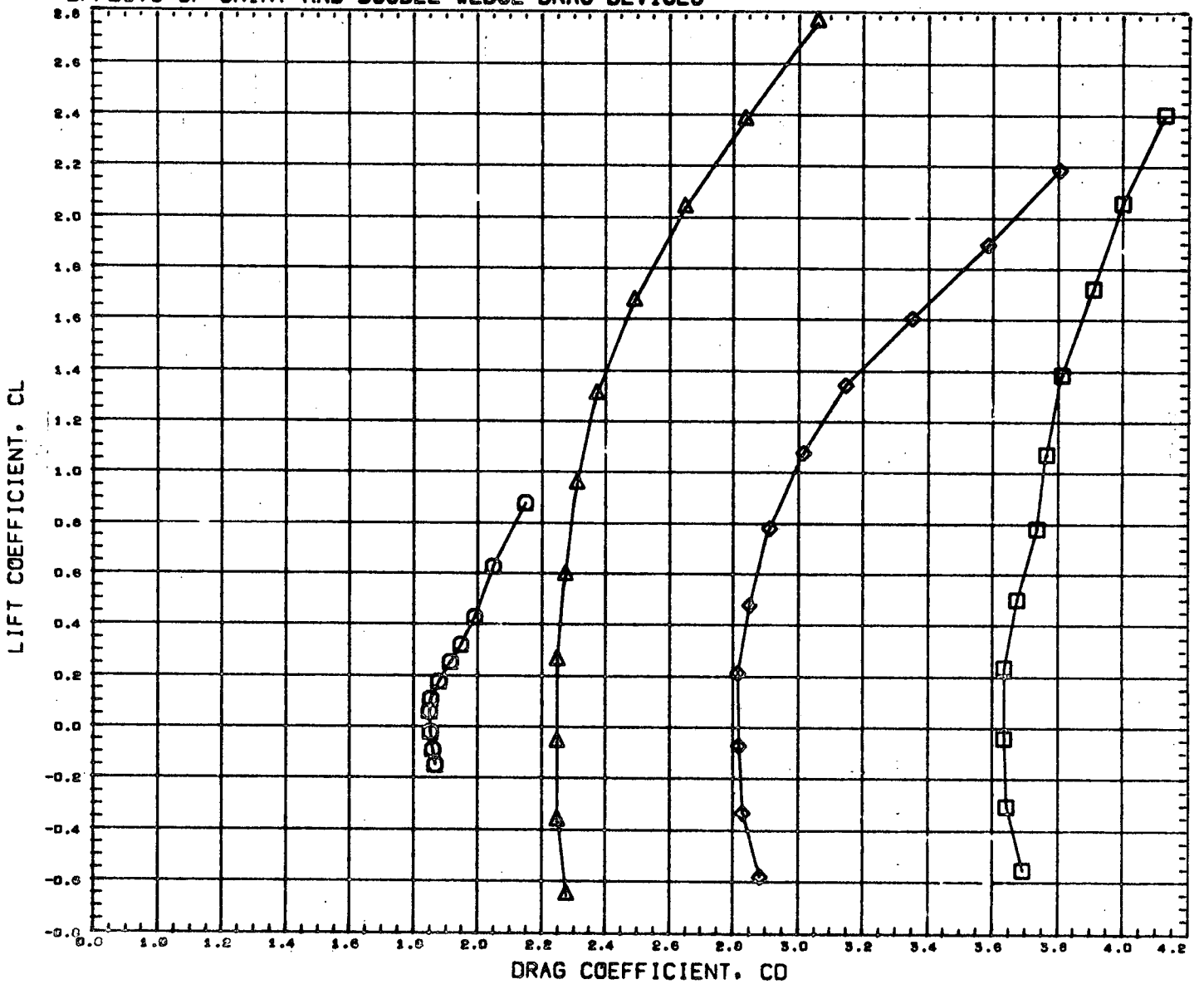
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .005366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .005366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .005366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.60

REFERENCE INFORMATION

SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

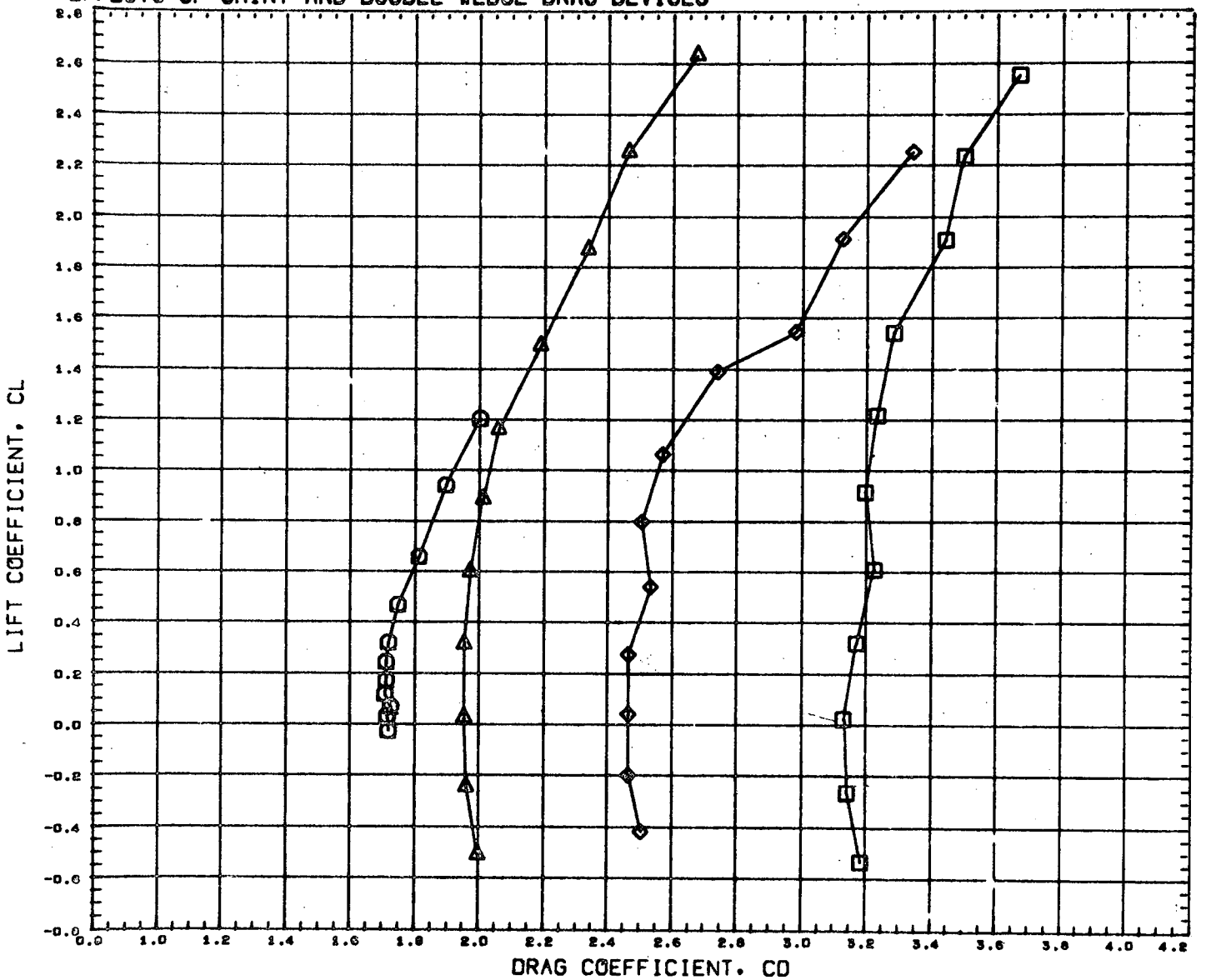


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .005300 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R633T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

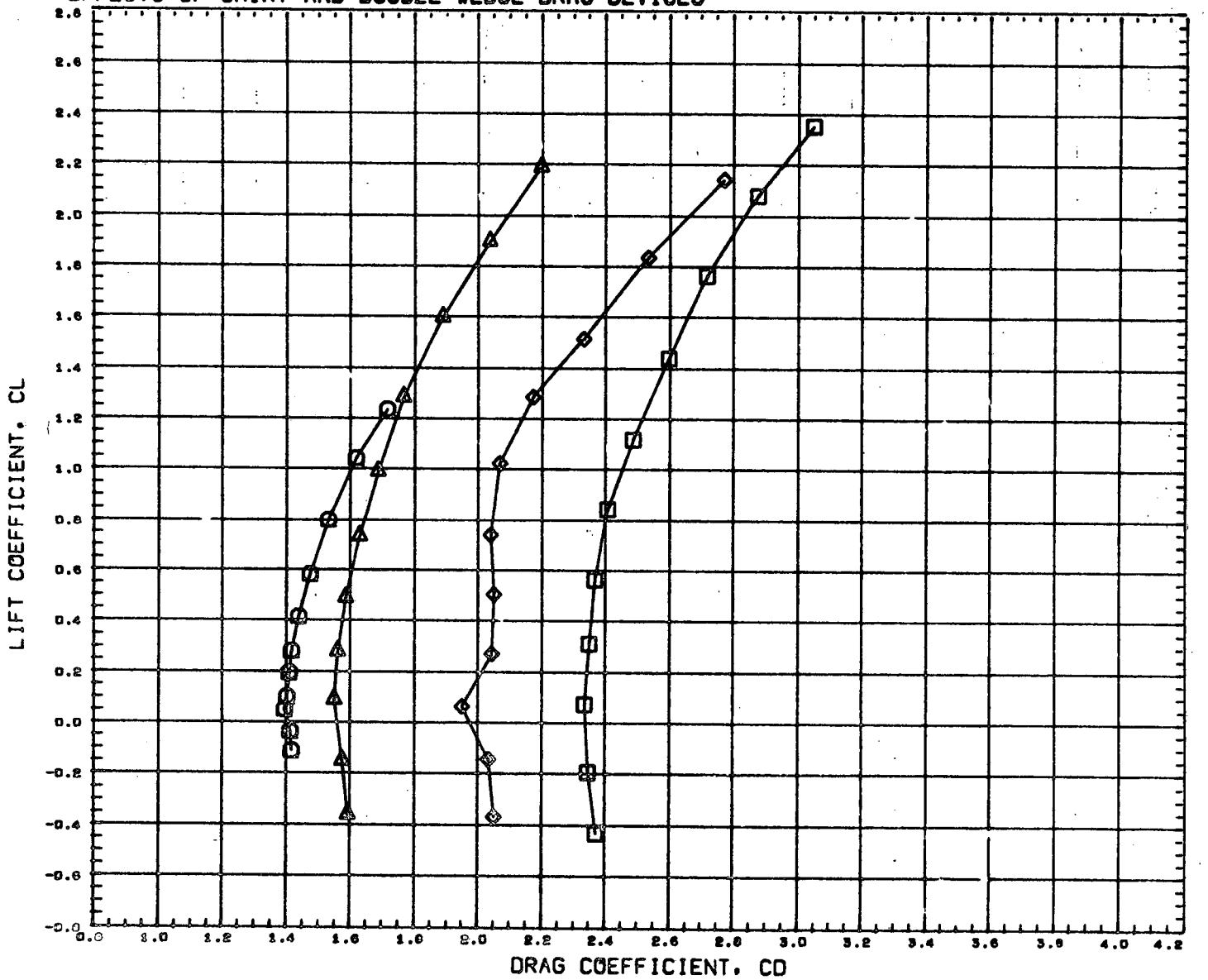


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E9011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.960

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

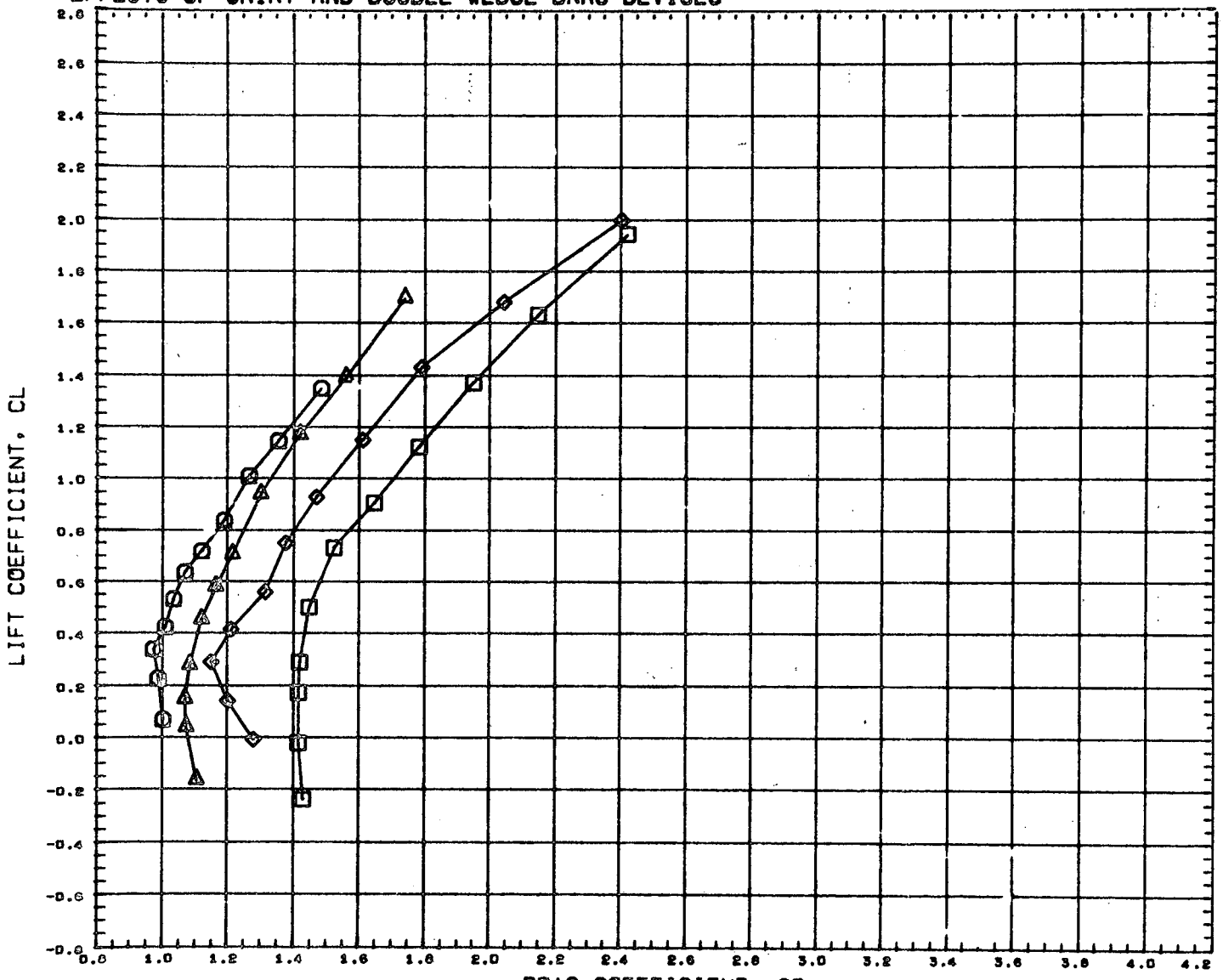


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011A)		MSFC 512 GD/C .009966 BOOSTER	B34R6	0.000	45.000		
(ES001A)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0100)		MSFC 512 GD/C .003366 BOOSTER	B34R633T10	0.000	0.000		
(DS0090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

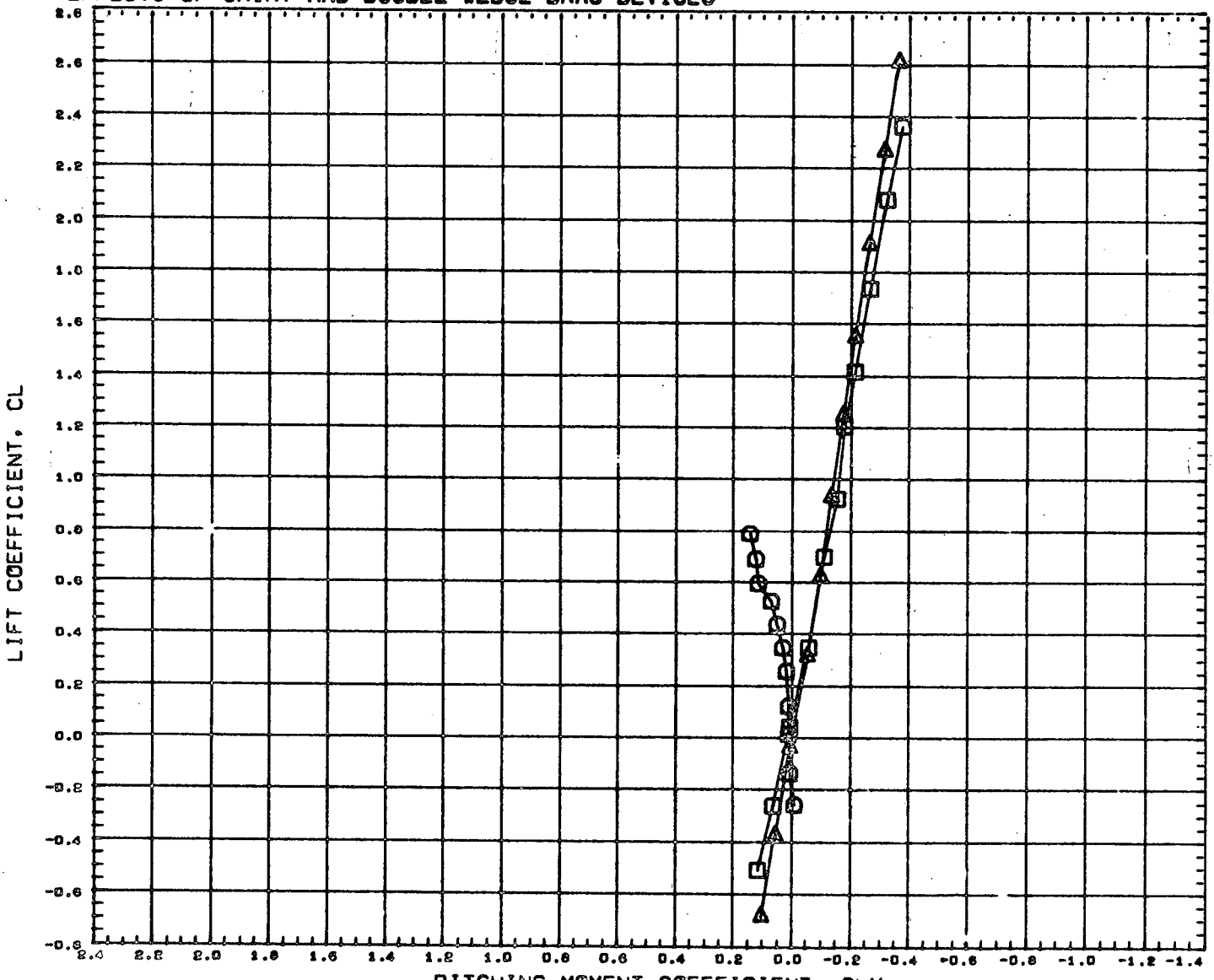


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5D10D)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D5009D)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 4.958

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

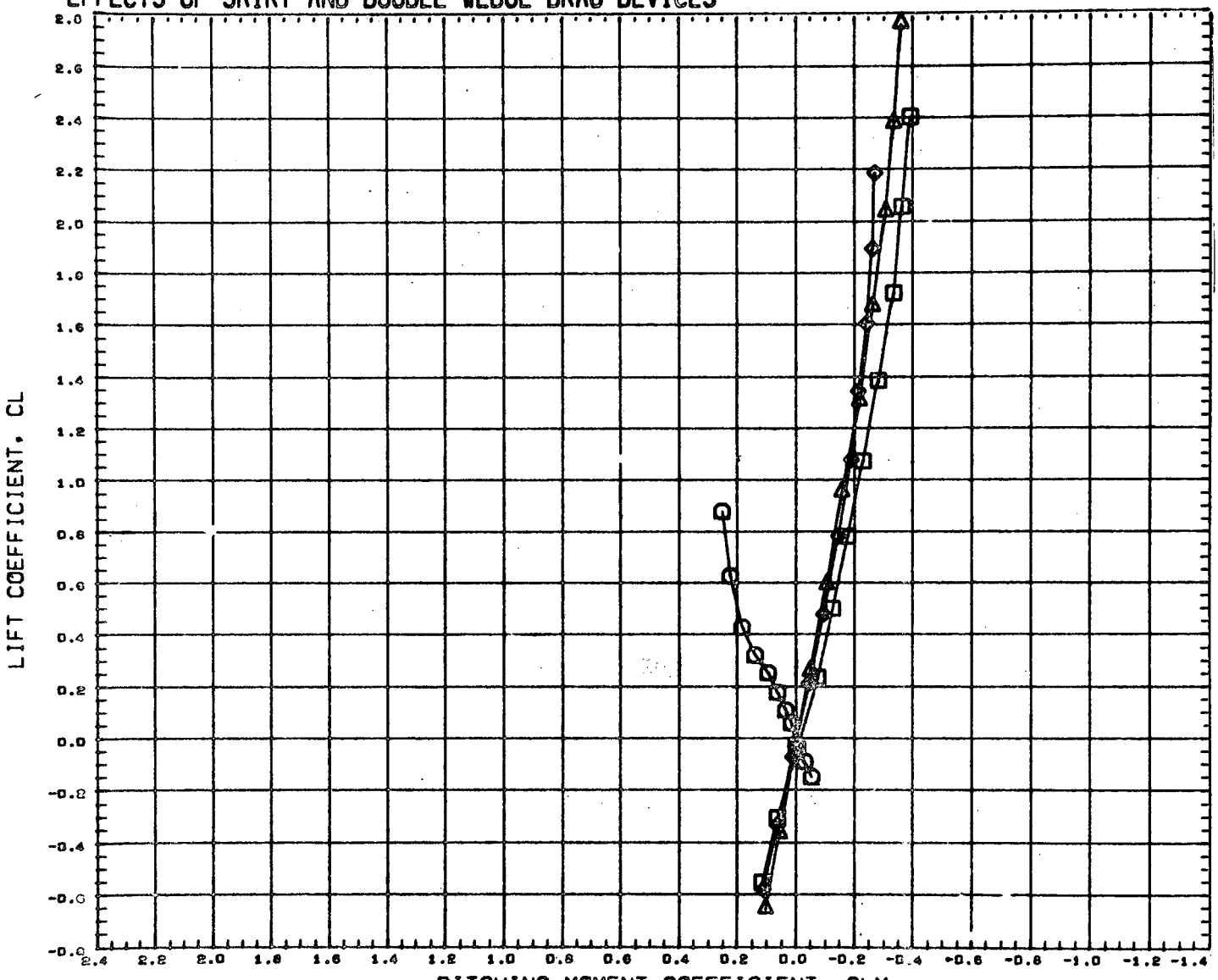


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	D34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

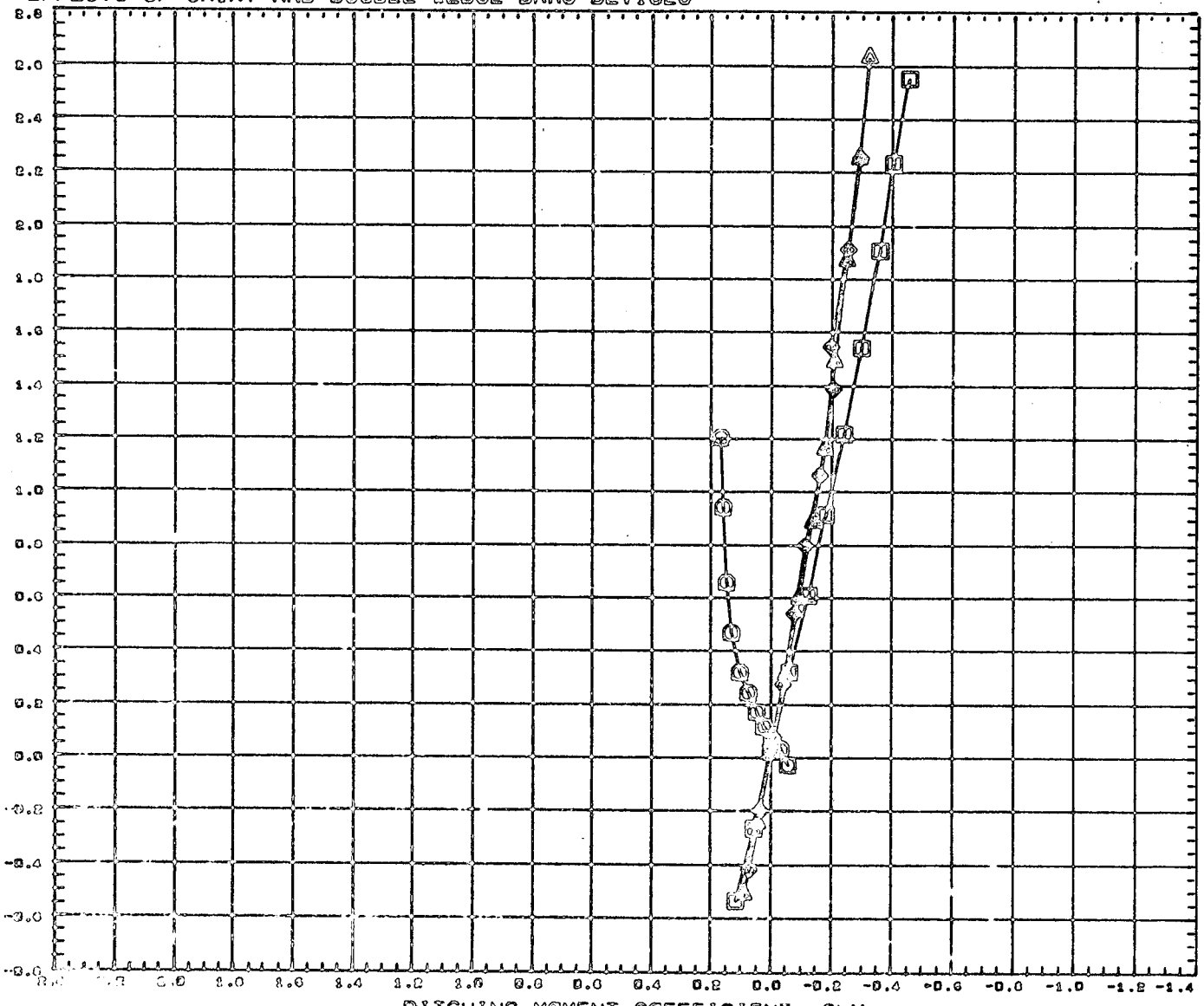


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

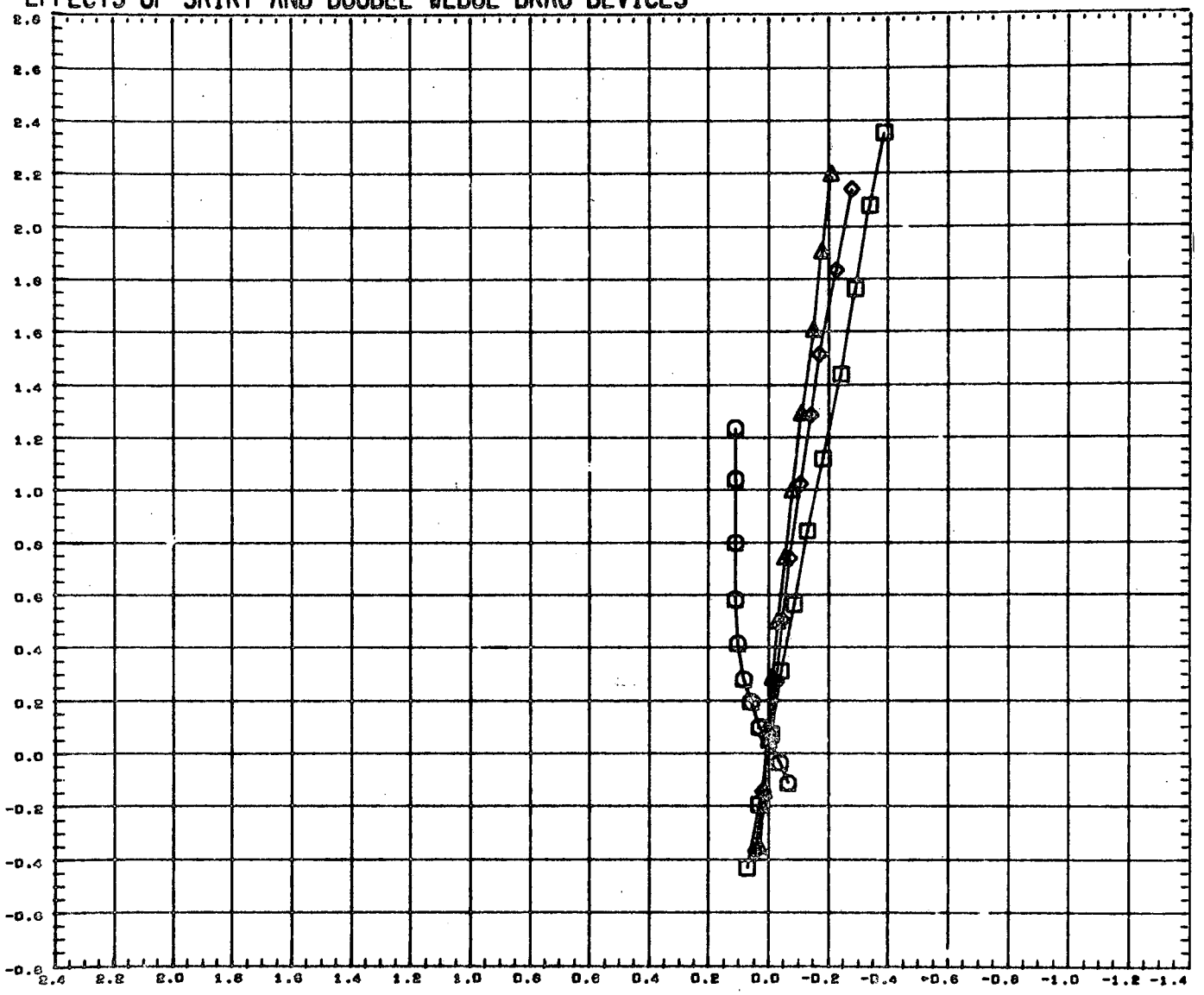


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		DITA	PHINOD	LFLAP	RFLAP
(E9011A)		MSFC 512 6D/C .009906 BOOSTER	D94RG	0.000	45.000		
(E9001A)		MSFC 512 6D/C .009906 BOOSTER	D94RG9T.0	0.000	0.000	0.000	0.000
(D90100)		MSFC 512 6D/C .009906 BOOSTER	D94RG09T.0	0.000	0.000		
(D90300)		MSFC 512 6D/C .009906 BOOSTER	D94RGY17	0.000	0.000	35.000	35.000

MACH 1.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

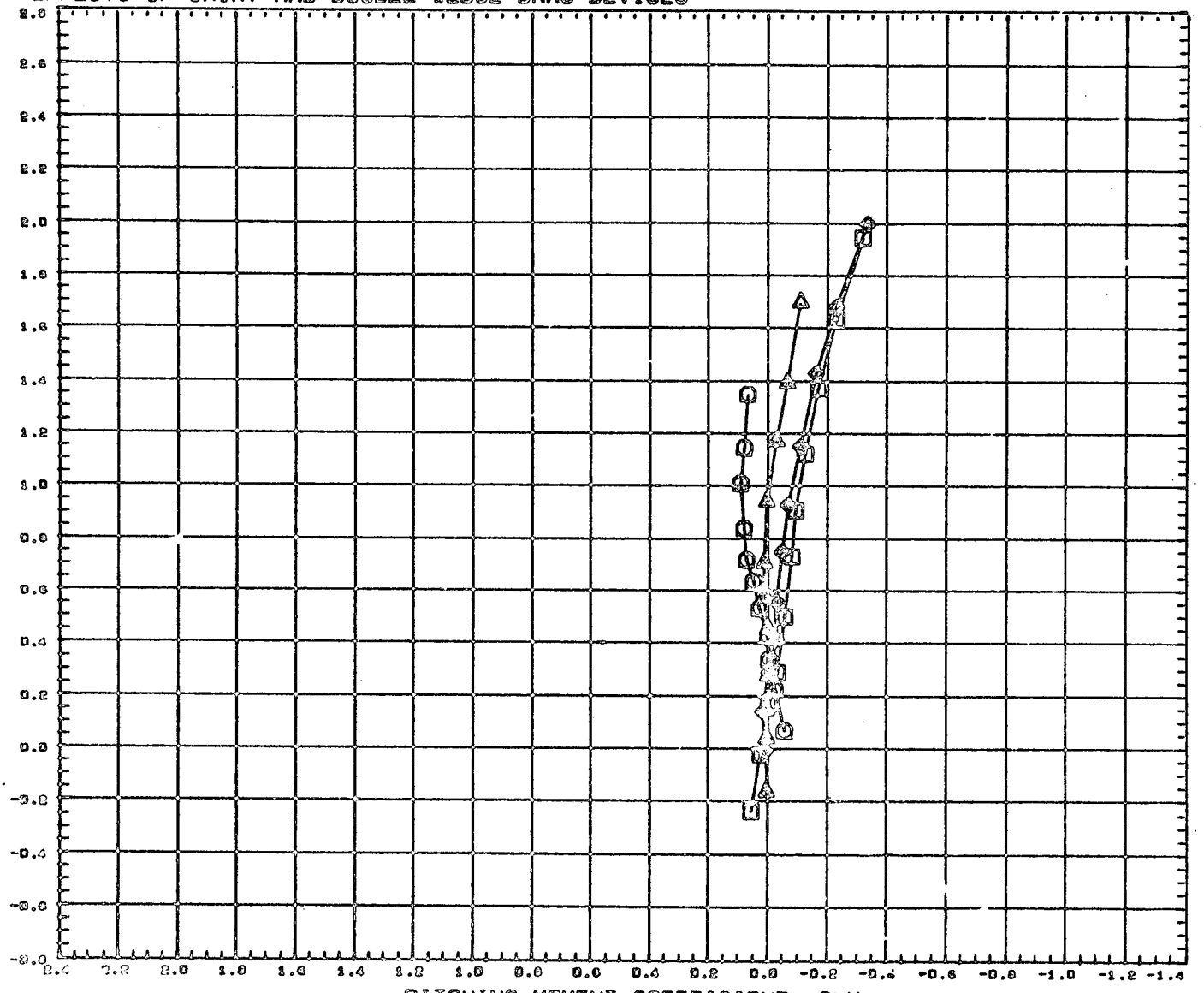


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5010D)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D5009D)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0054	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

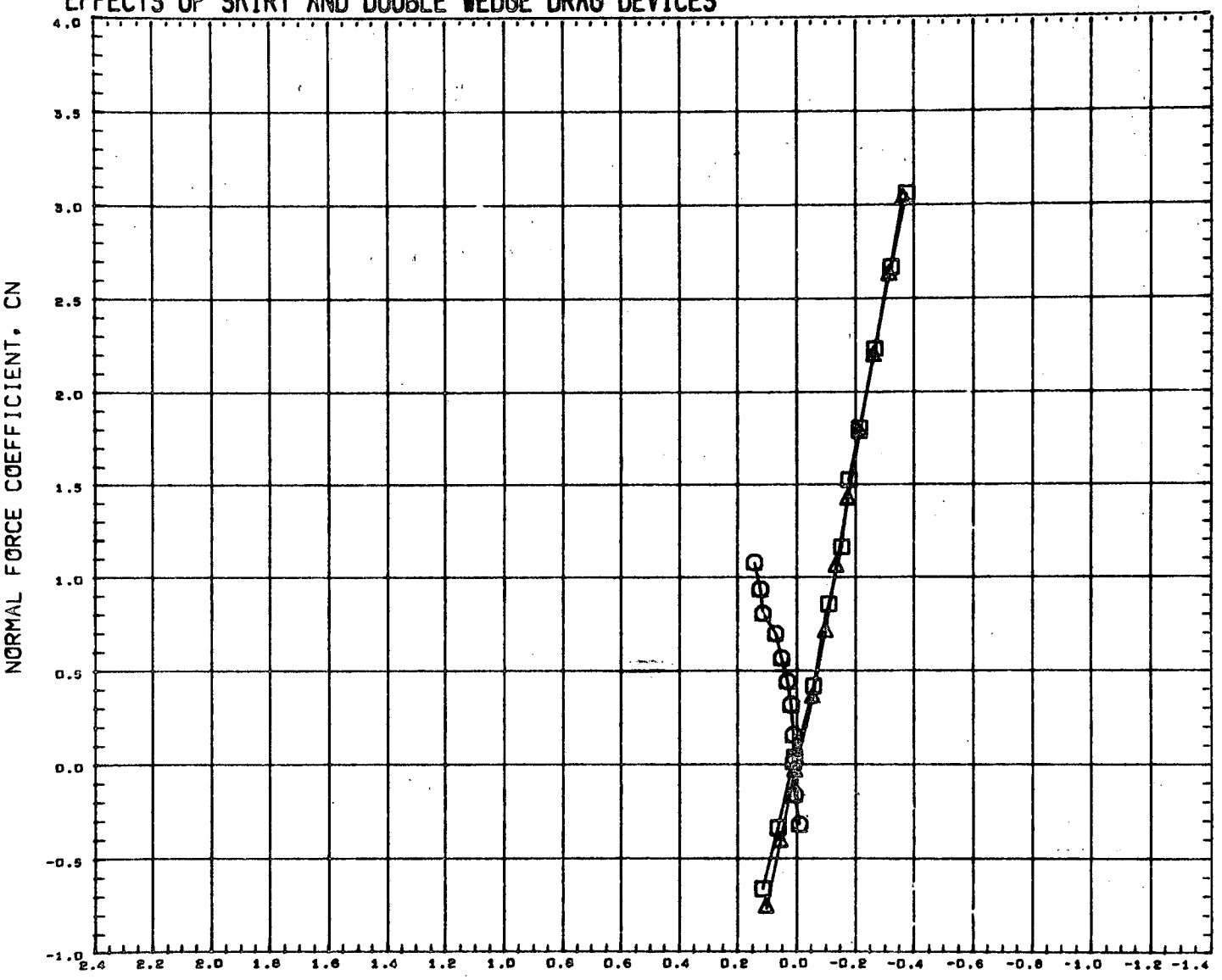


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 912 6D/C .003966 BOOSTER	B94R6	0.000	45.000		
(E5001A)		MSFC 912 6D/C .003966 BOOSTER	B94R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 912 6D/C .003966 BOOSTER	B94R6S5T10	0.000	0.000		
(D50000)		MSFC 912 6D/C .003966 BOOSTER	B94R6T17	0.000	0.000	35.000	35.000

MACH 4.950

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

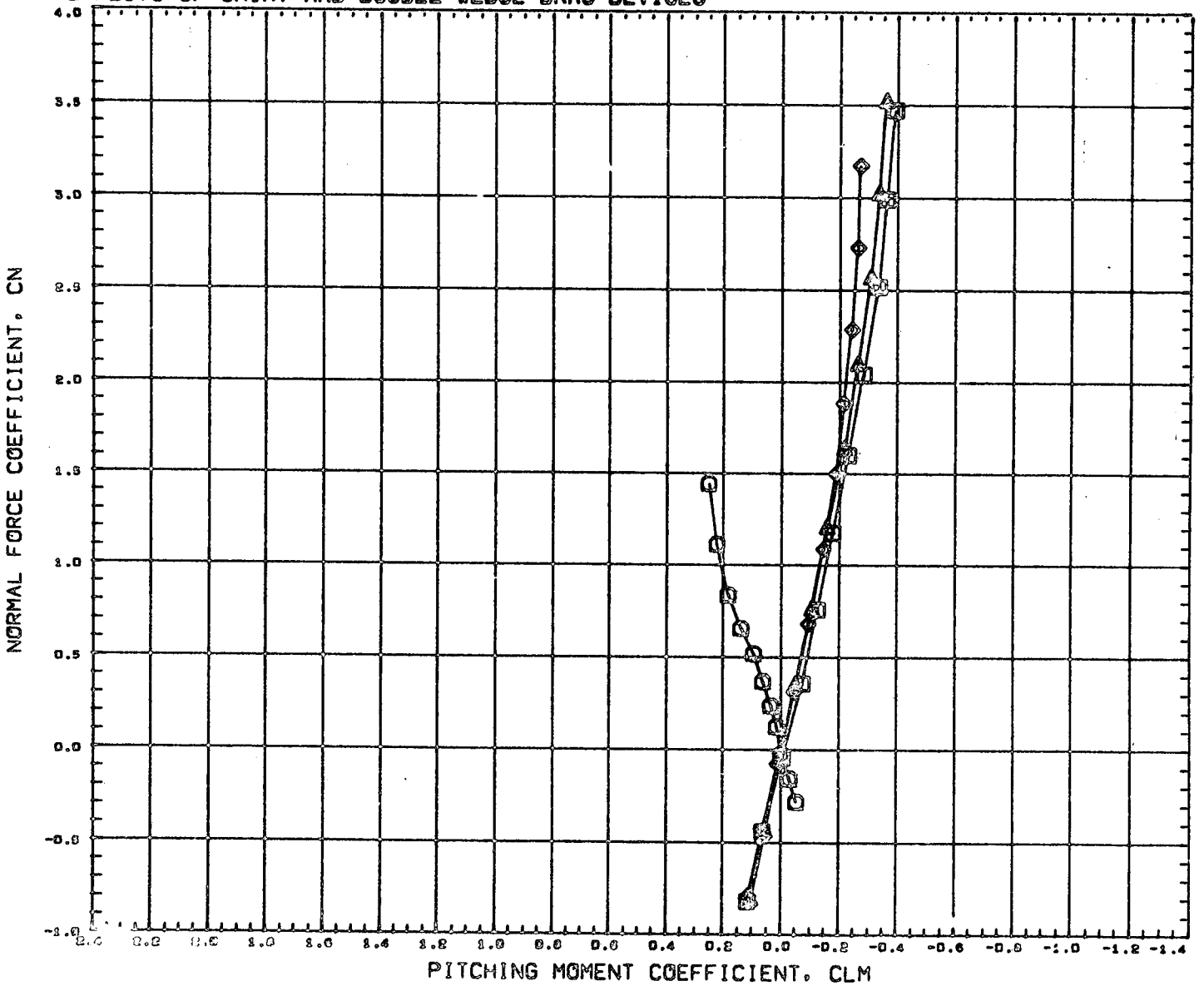


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

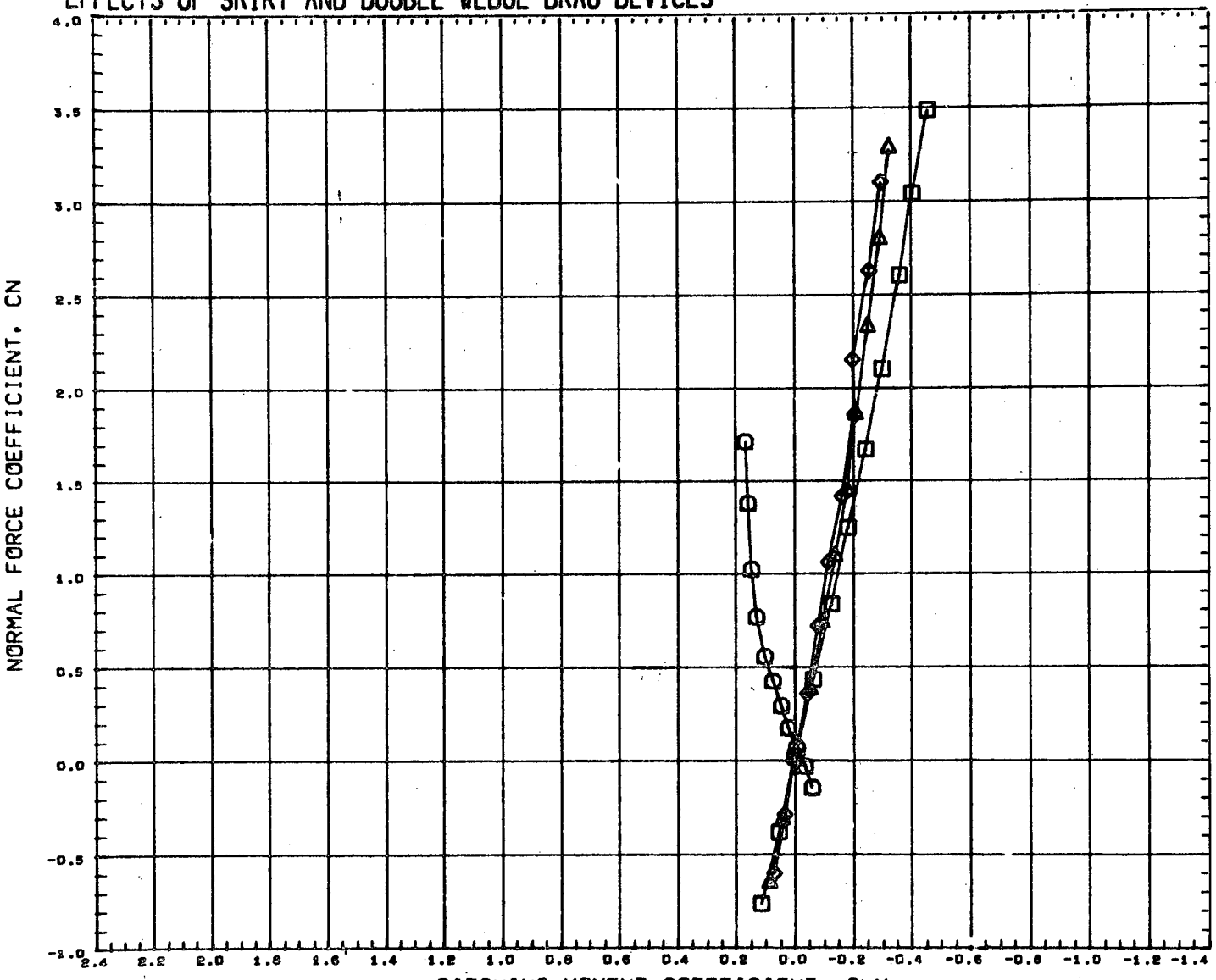


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .005500 BOOSTER	B34RG	0.000	49.000		
(E5001A)		MSFC 512 GD/C .003300 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003300 BOOSTER	B34RGSST10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003300 BOOSTER	B34RGT17	0.000	0.000	35.000	35.000

MACH 1.496

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

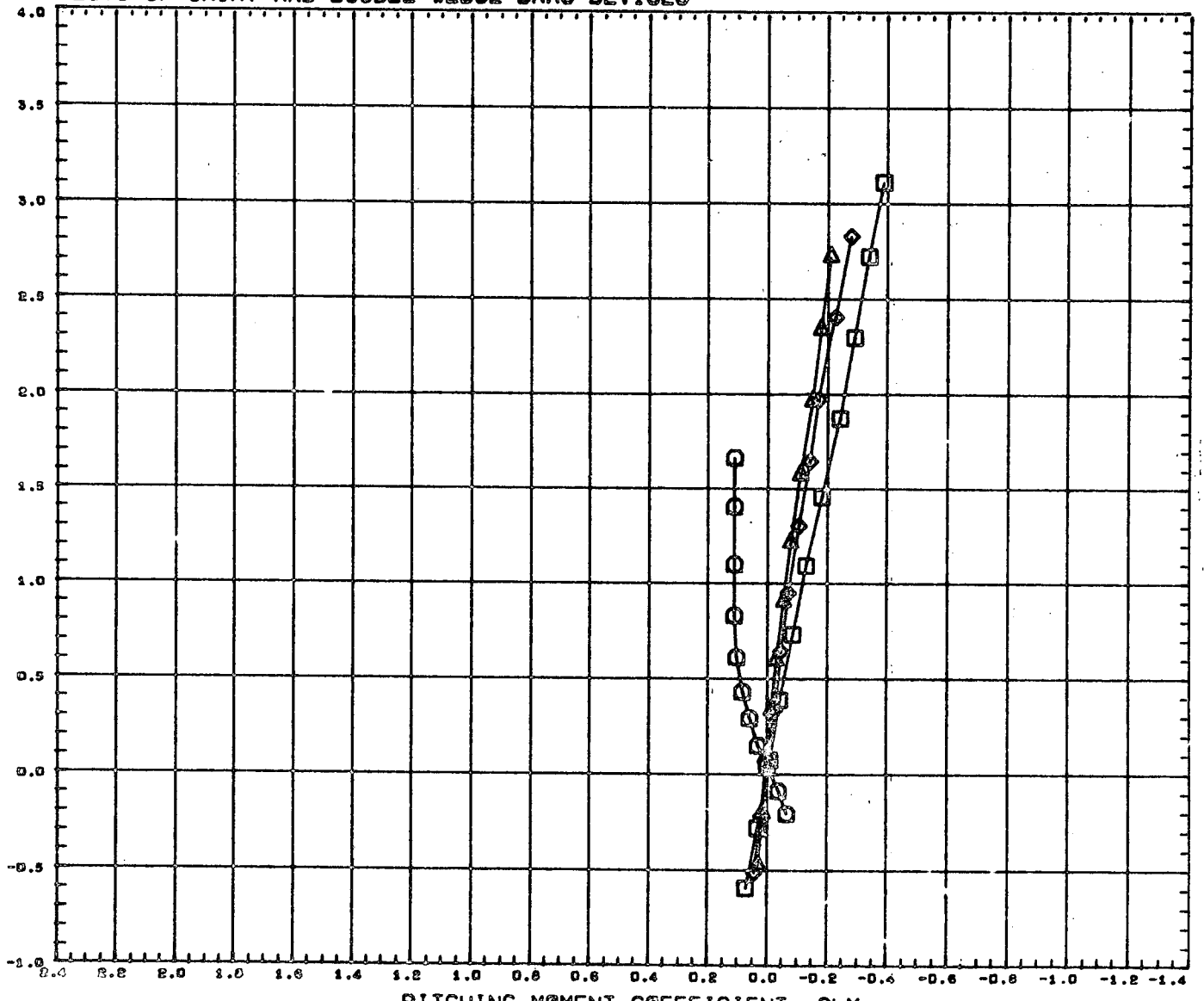


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.966

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

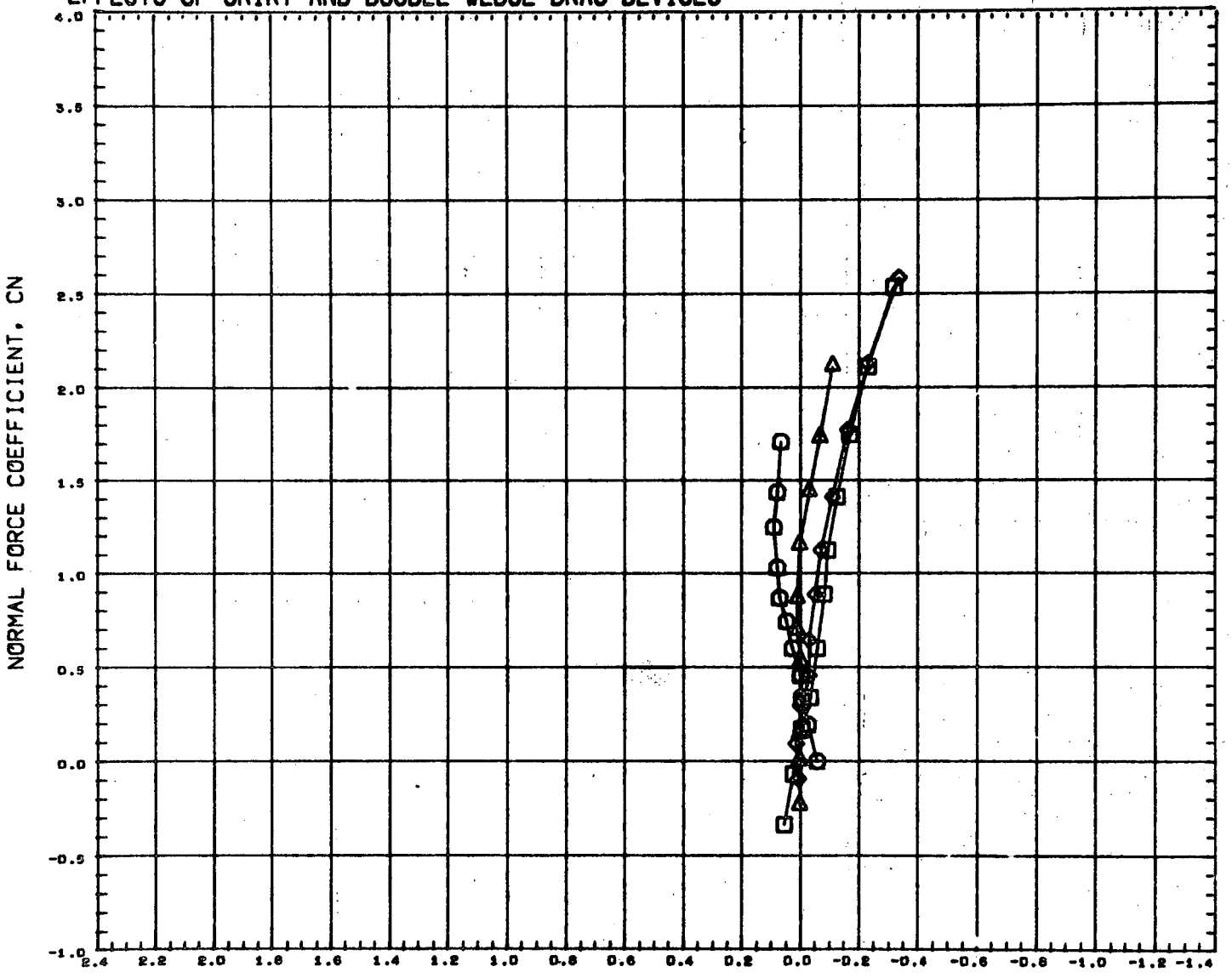


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)		MSFC 512 GD/C .003366 BOOSTER	D34R6T17	0.000	0.000	35.000	35.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF SKIRT AND DOUBLE WEDGE DRAG DEVICES

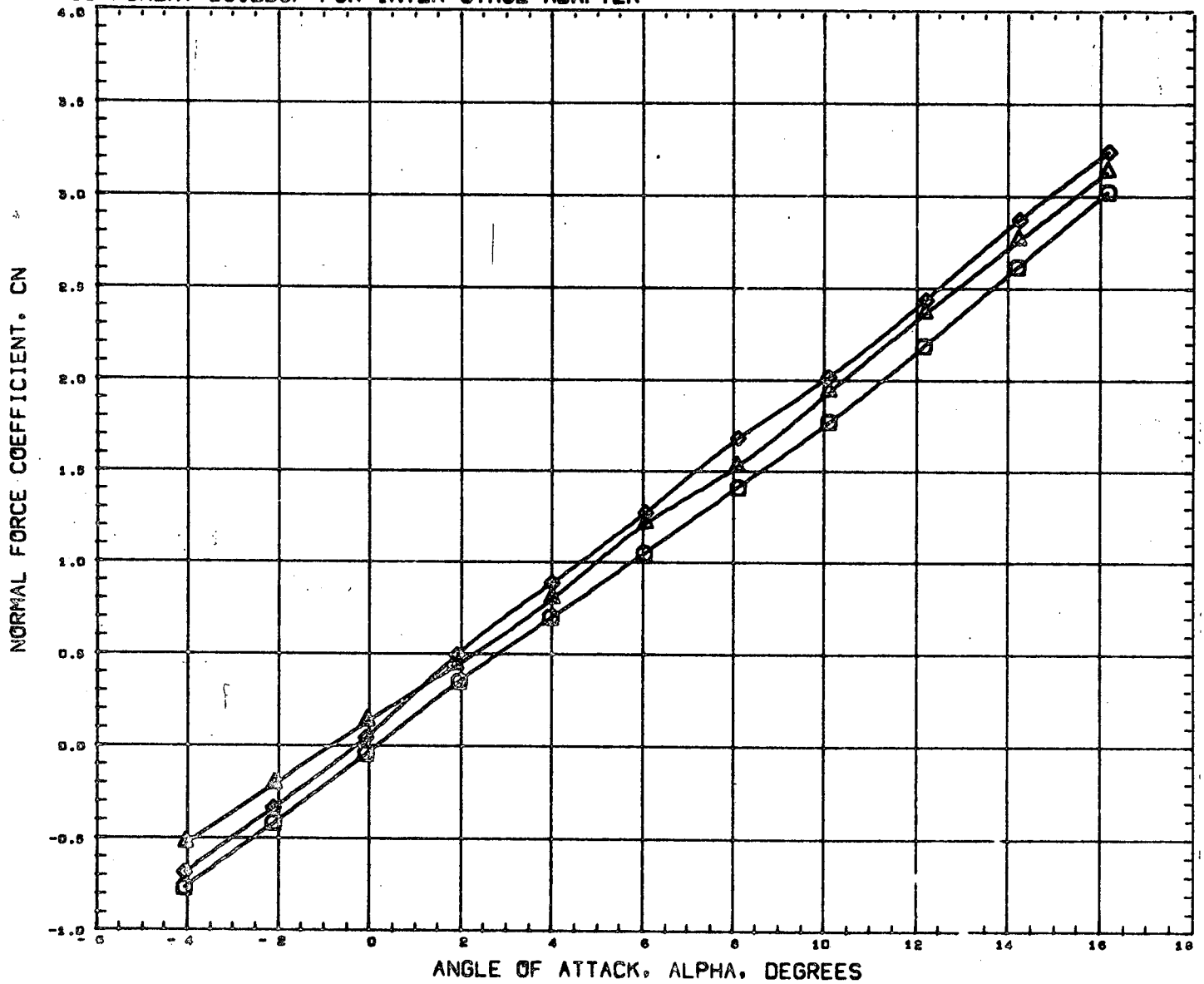


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011A)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001A)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50100)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6S3T10	0.000	0.000		
(D50090)	▯	MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	35.000	35.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.950

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

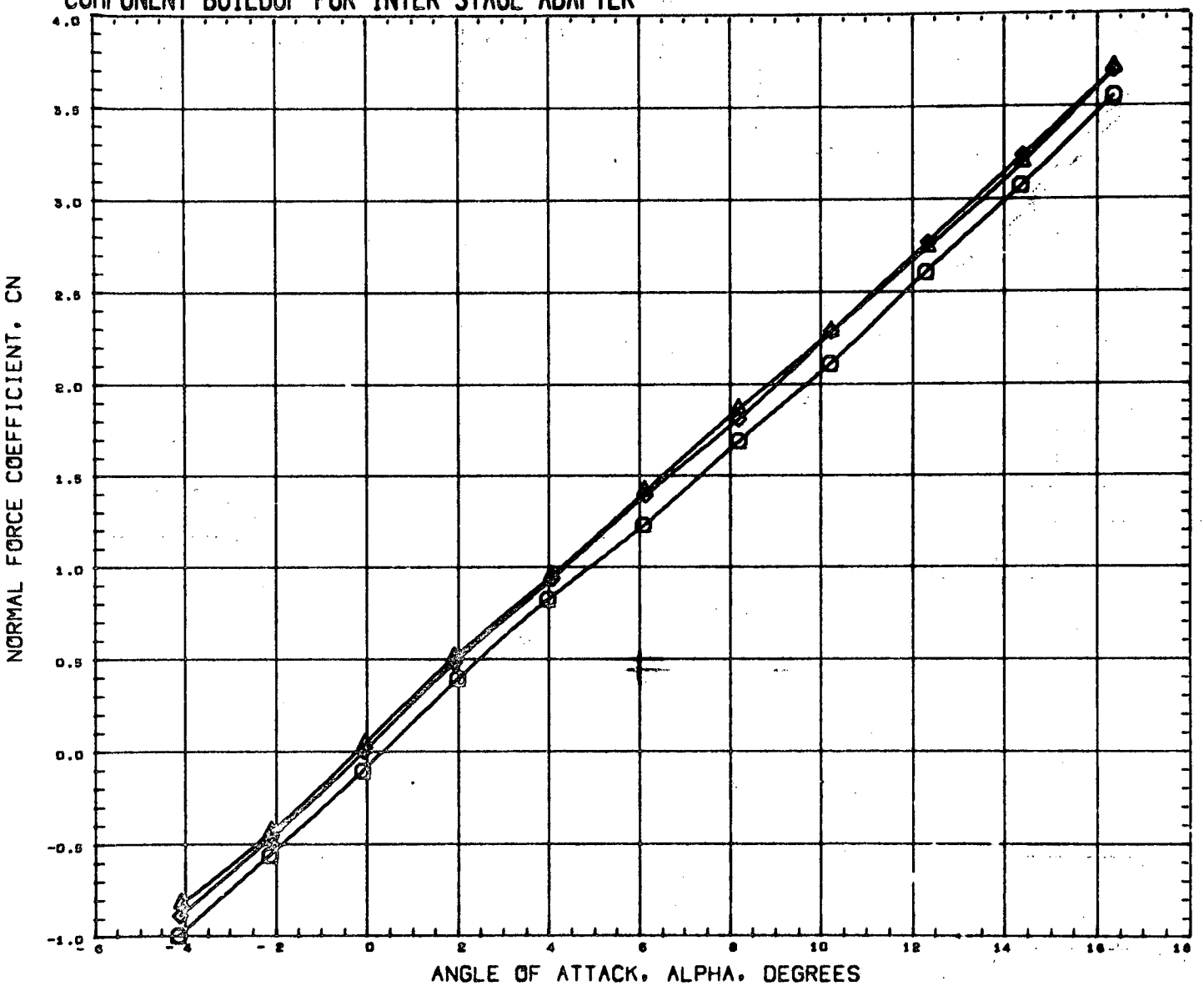


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	□	MSFC 512 GD/C .005903 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D90140)	△	MSFC 512 GD/C .005900 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D90190)	◇	MSFC 512 GD/C .005906 BOOSTER	B30R6T10	0.000	0.000	0.000	0.000

MACH 0.598

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

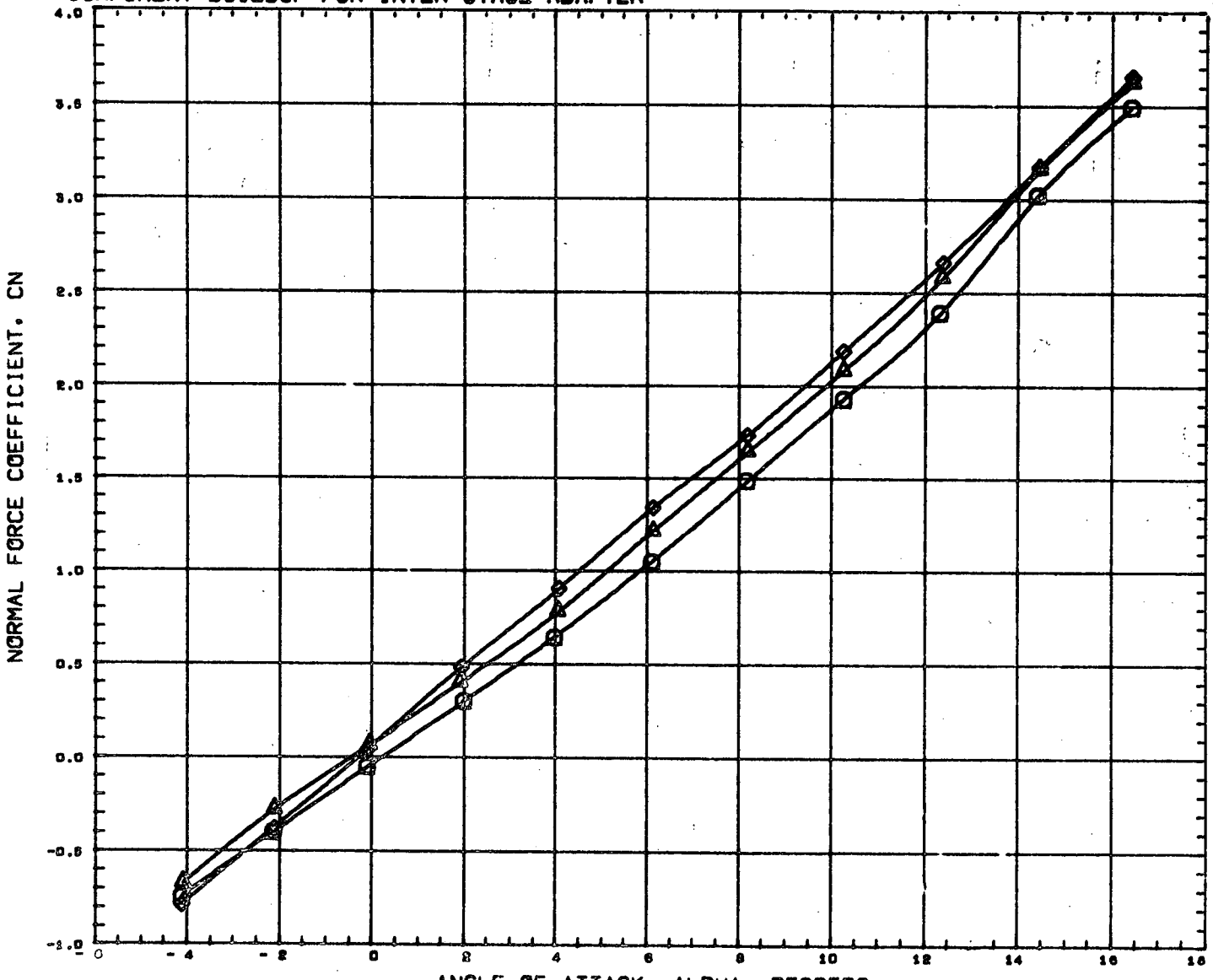


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9390	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

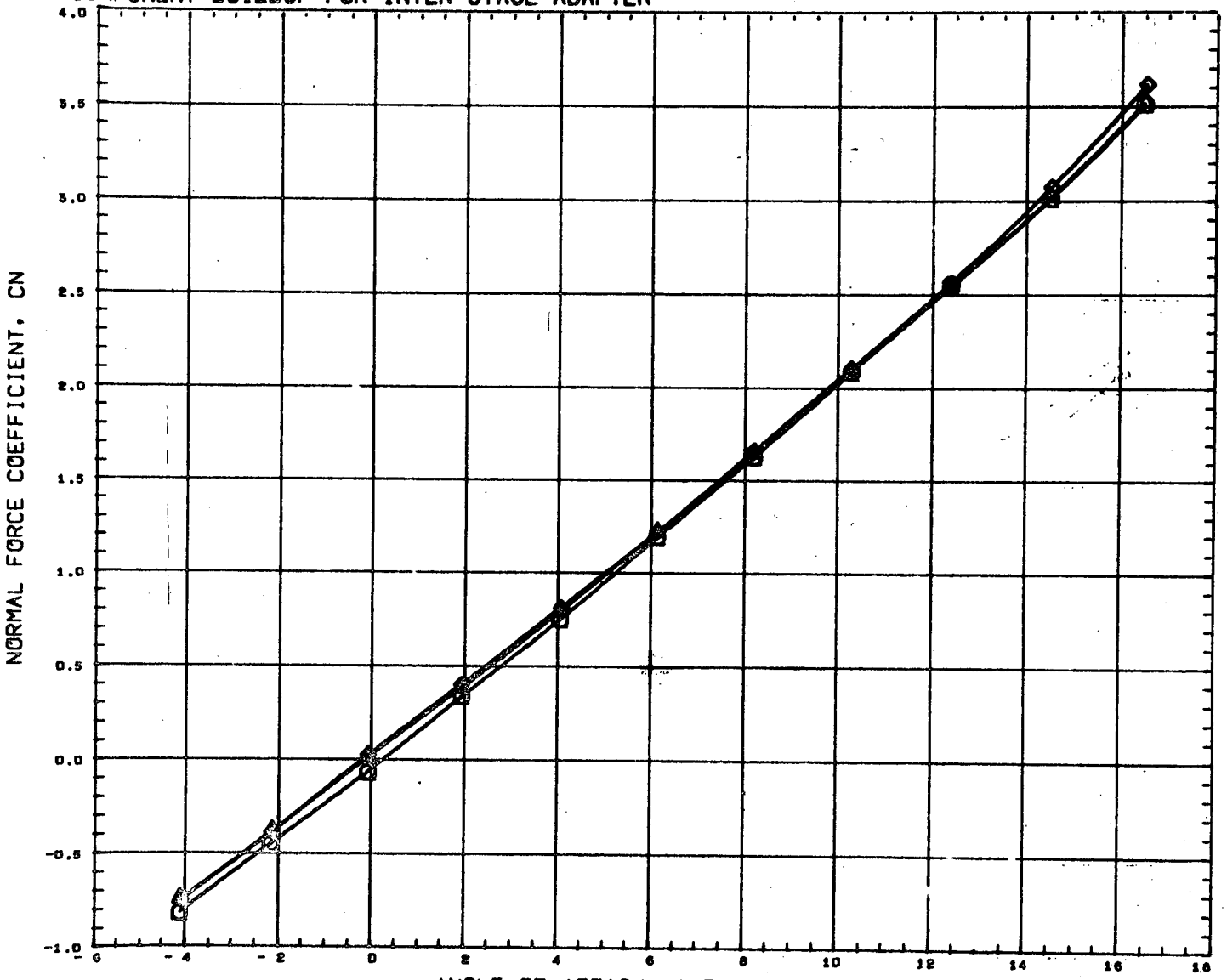


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	M8FC 512 GD/C .009366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0140)	△	M8FC 512 GD/C .009366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS015D)	◇	M8FC 512 GD/C .009366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.101

REFERENCE INFORMATION		
SREF	0.8350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

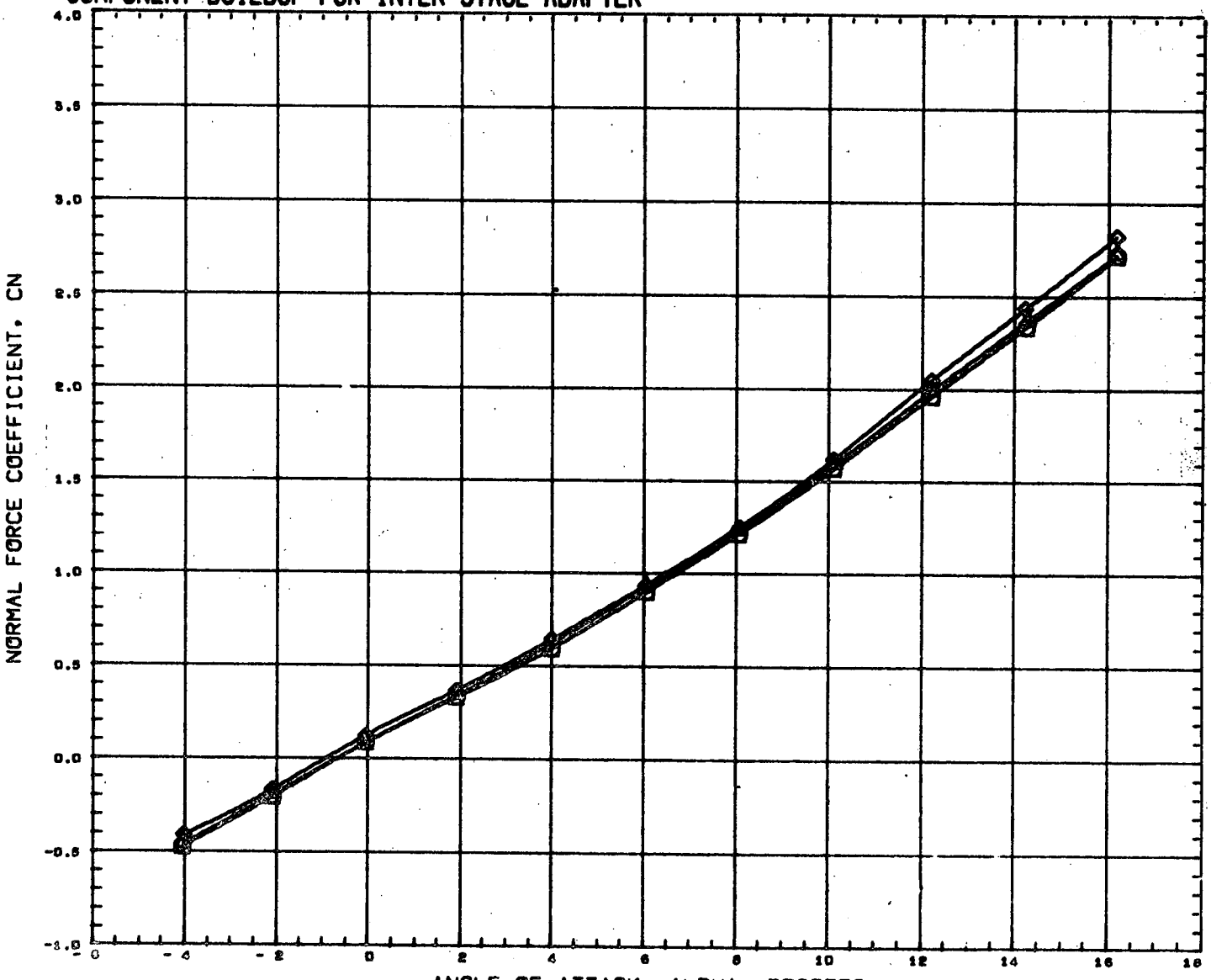


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0140)	⊠	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS0150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0810	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

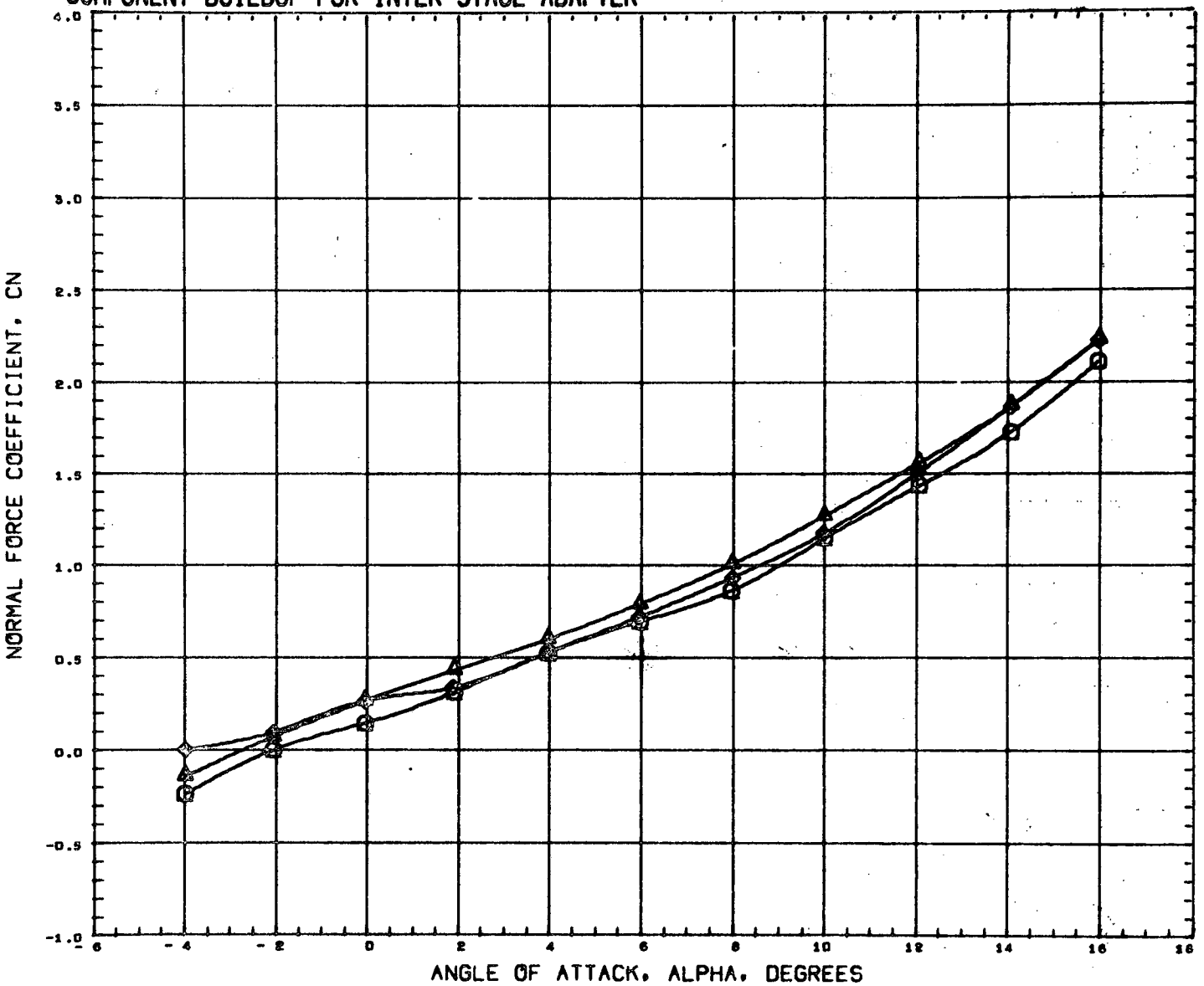


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	☒	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B3GR6T10	0.000	0.000	0.000	0.000

MACH 2.741

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER



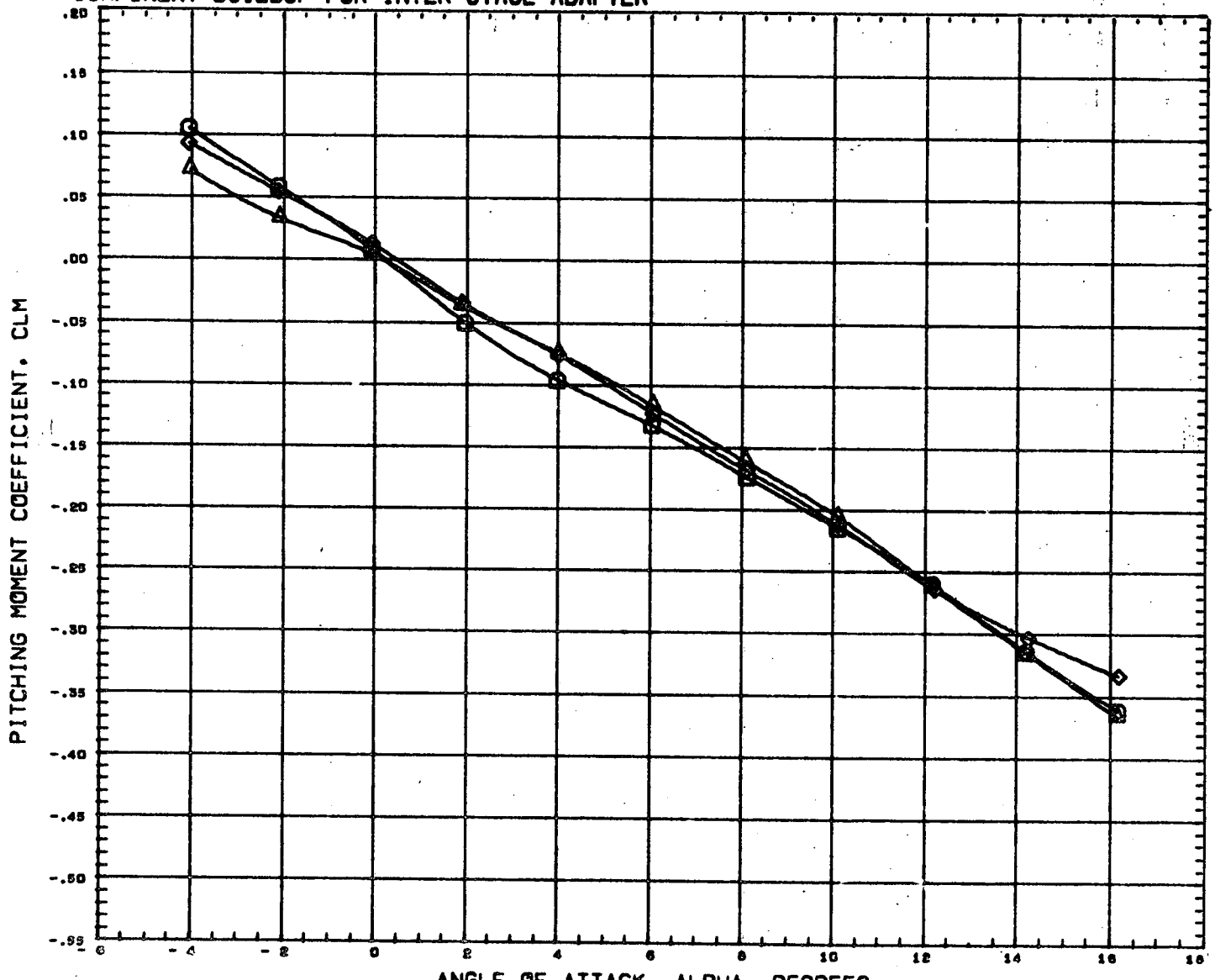
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS0150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION

SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

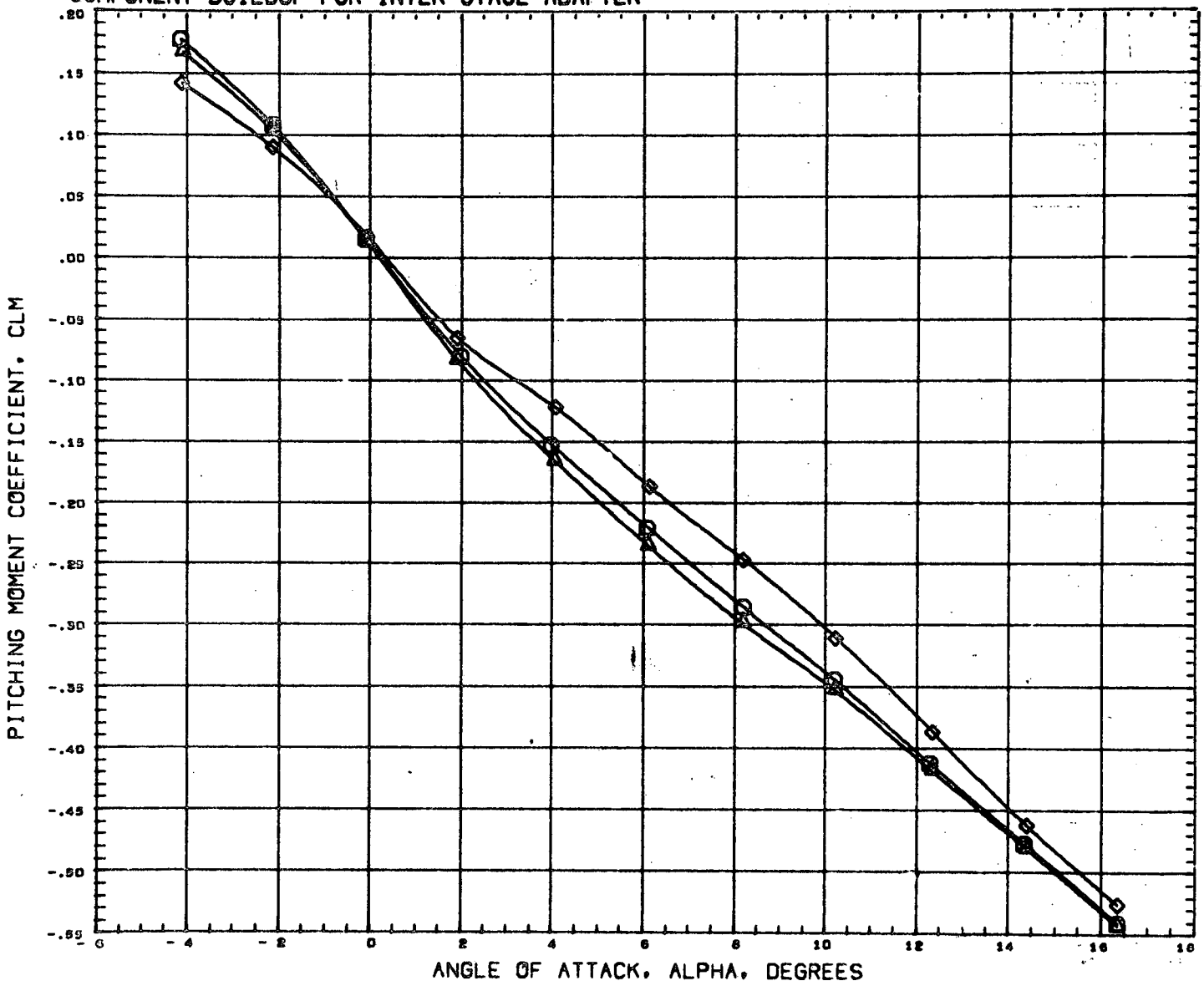


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	⊠	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.596

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

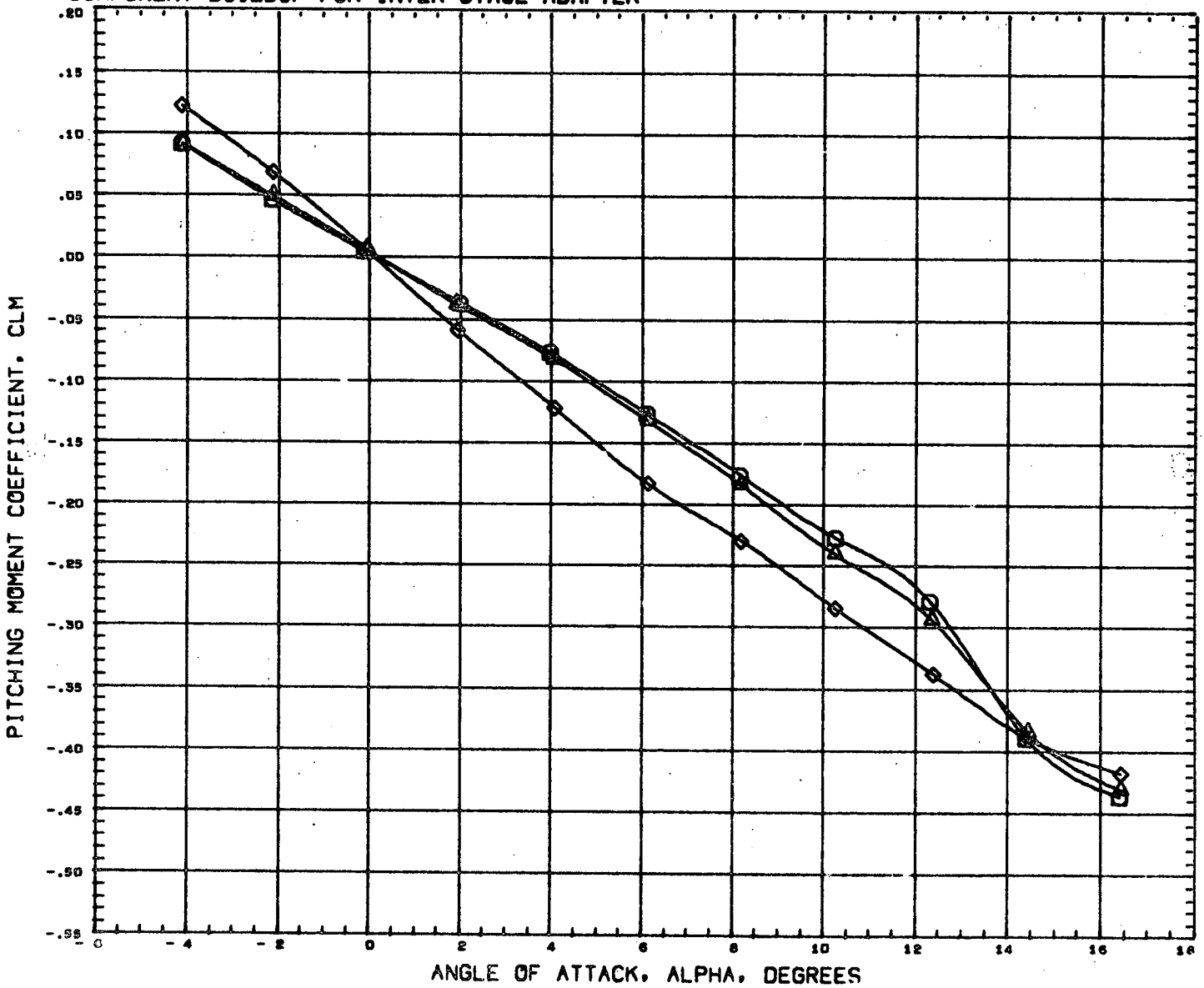


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

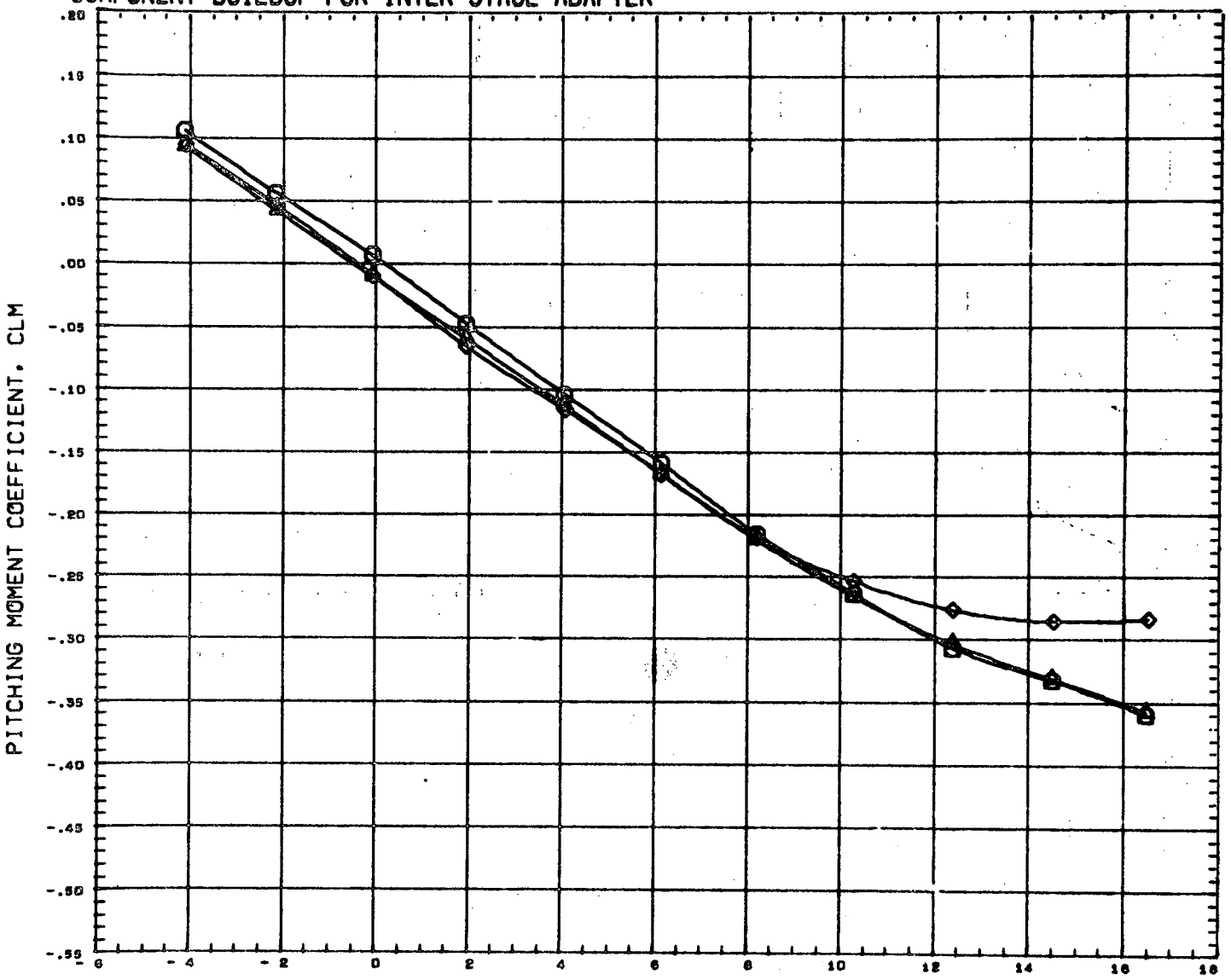


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
AMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

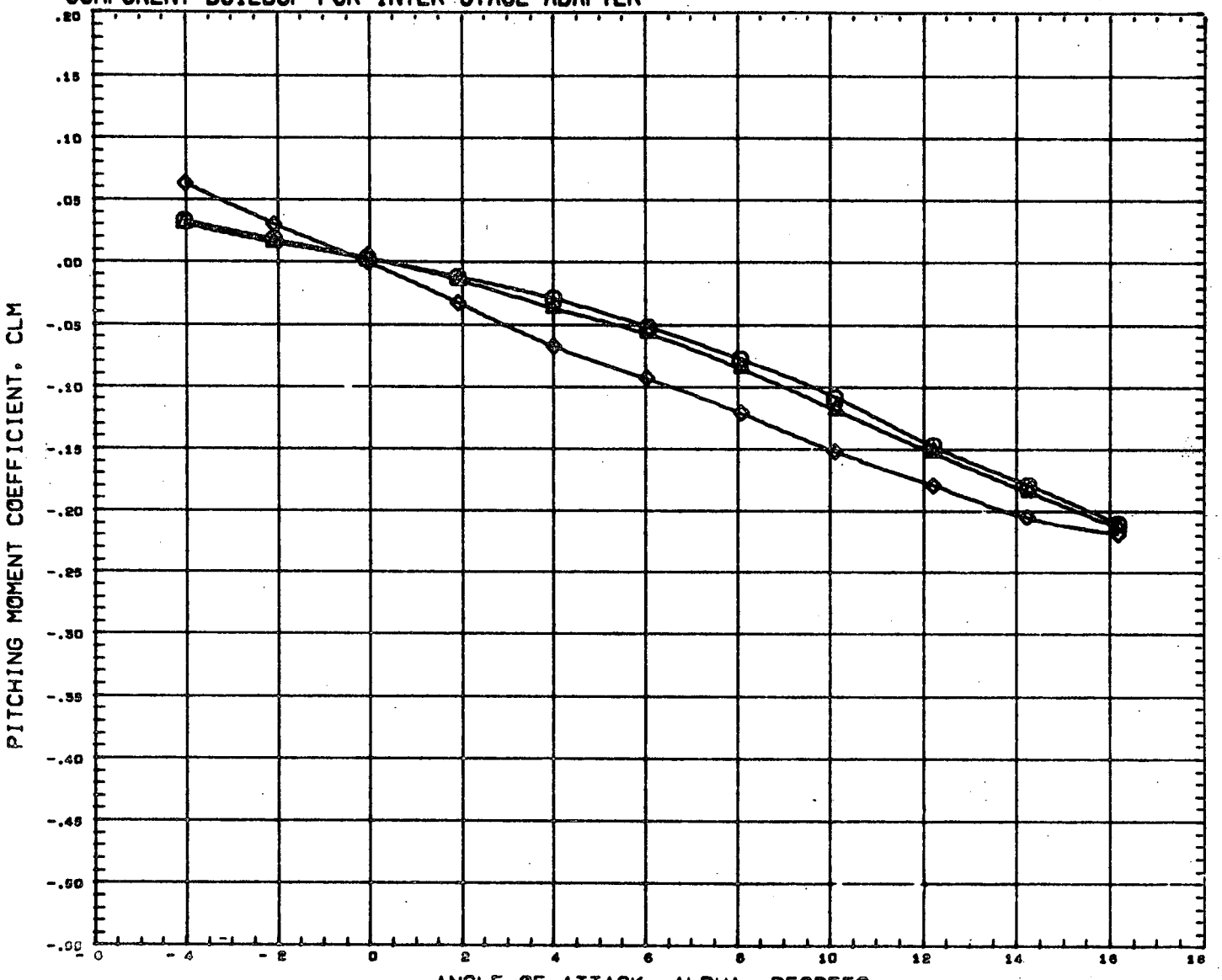


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

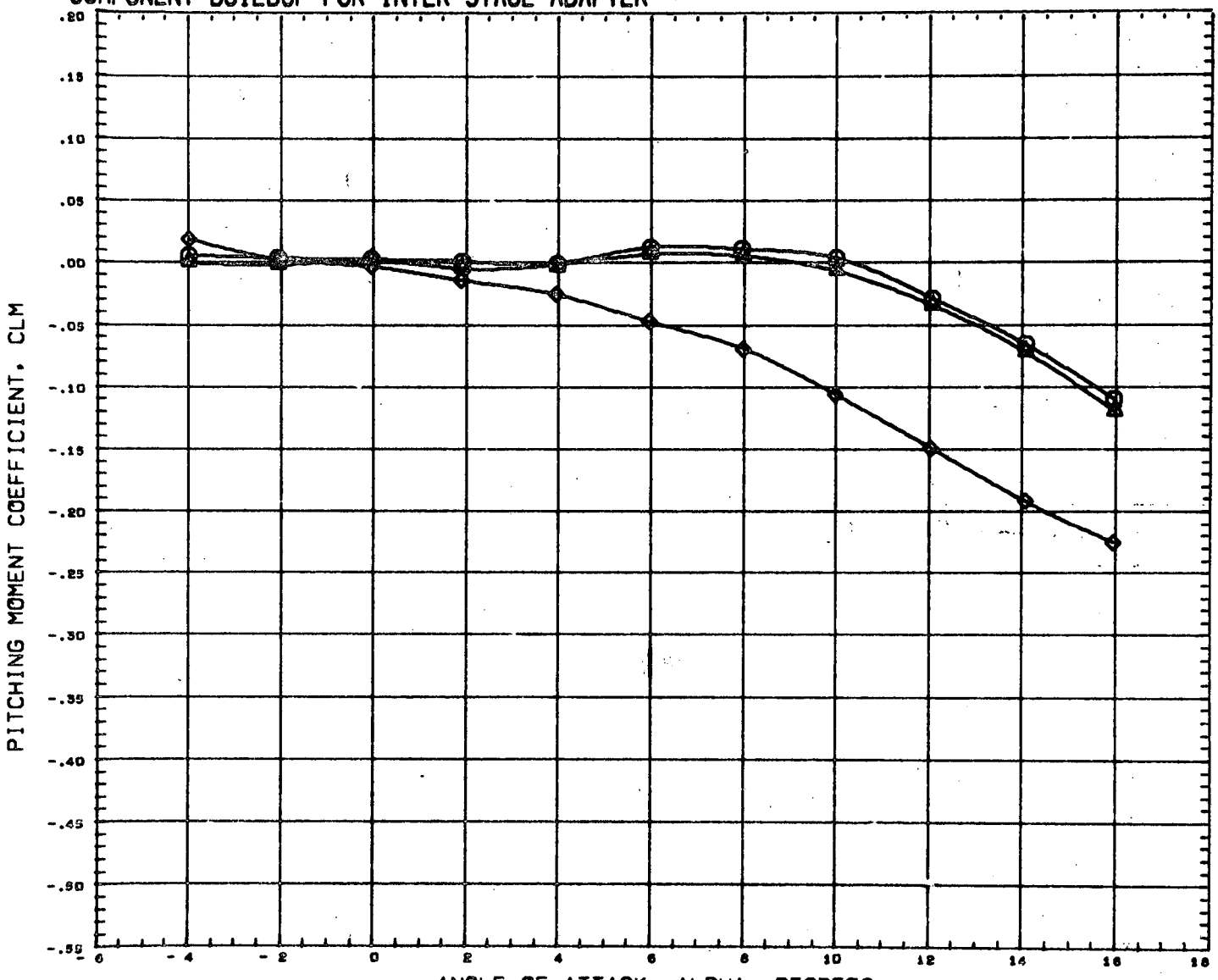


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .005366 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .005366 BOOSTER	B33RGT10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .005366 BOOSTER	B36RGT10	0.000	0.000	0.000	0.000

MACH 2.741

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

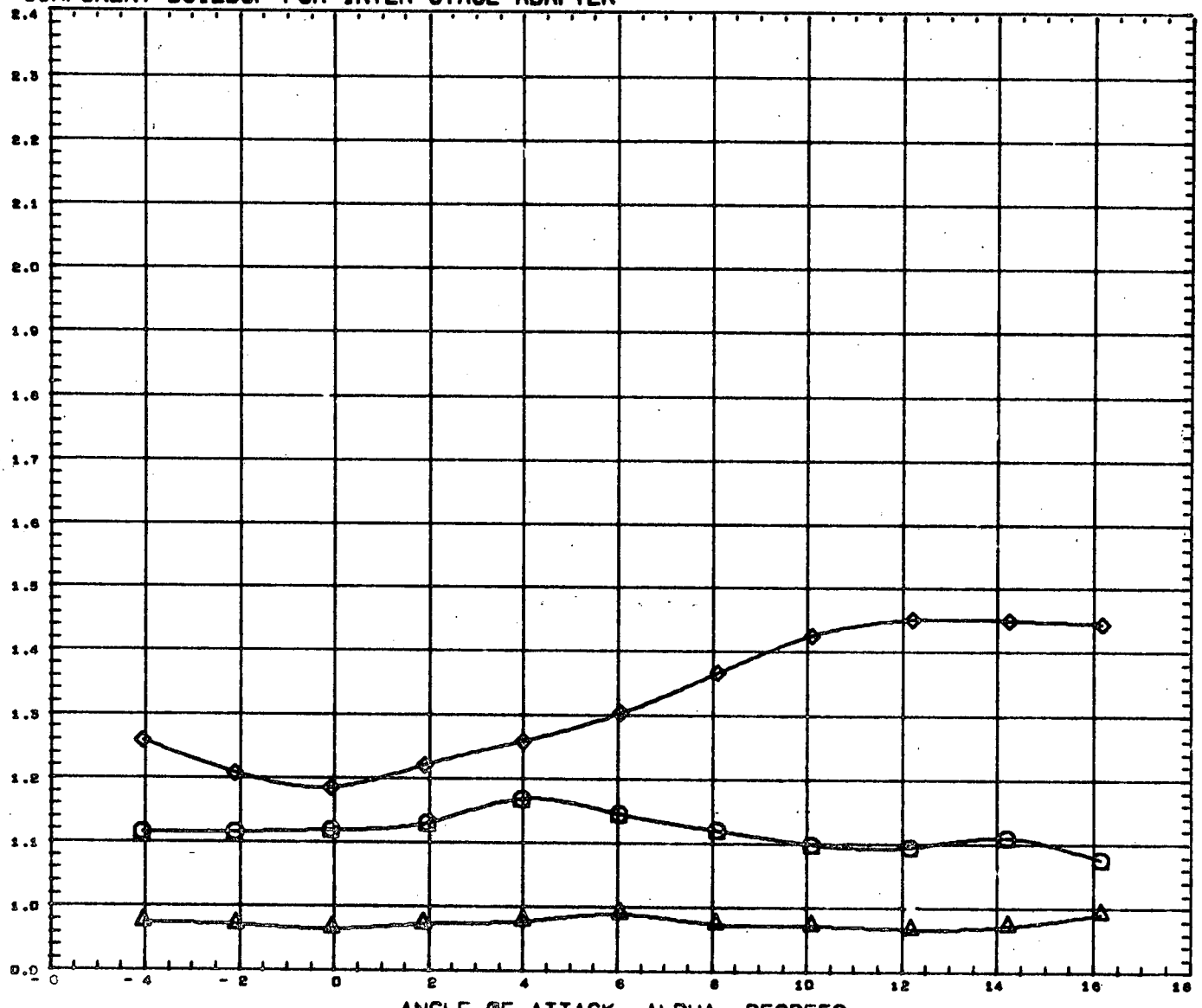


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

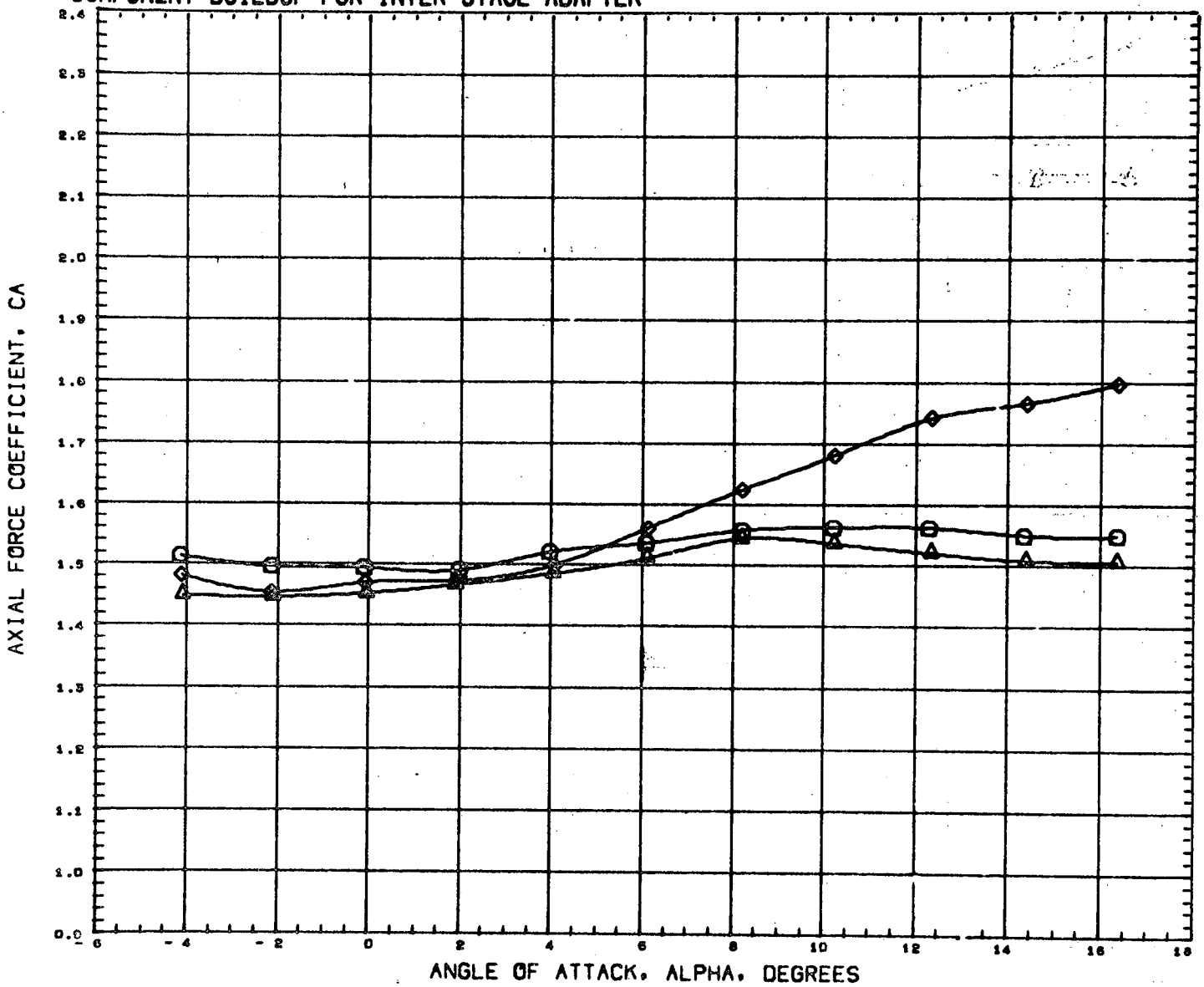


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003900 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003300 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.598

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

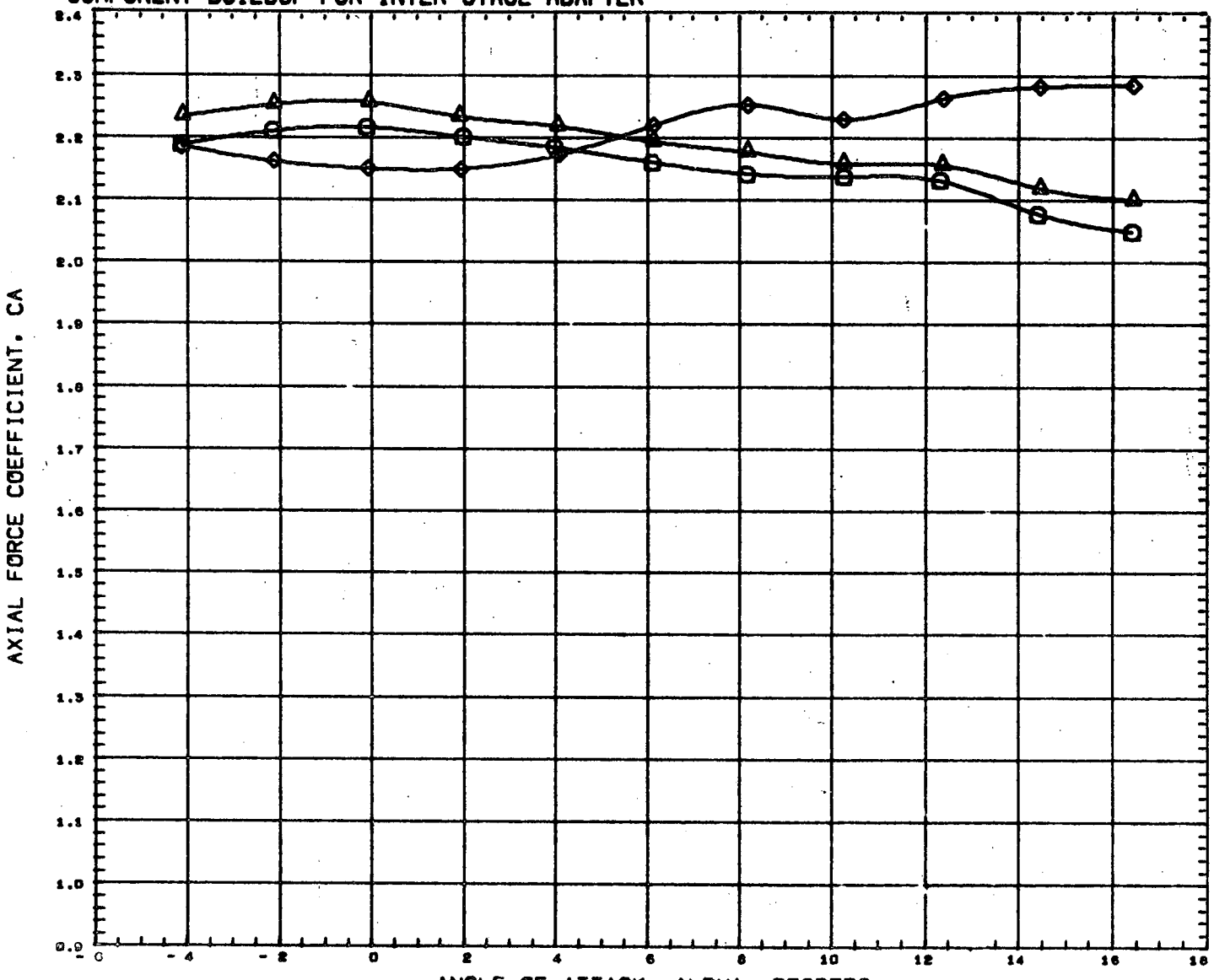


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

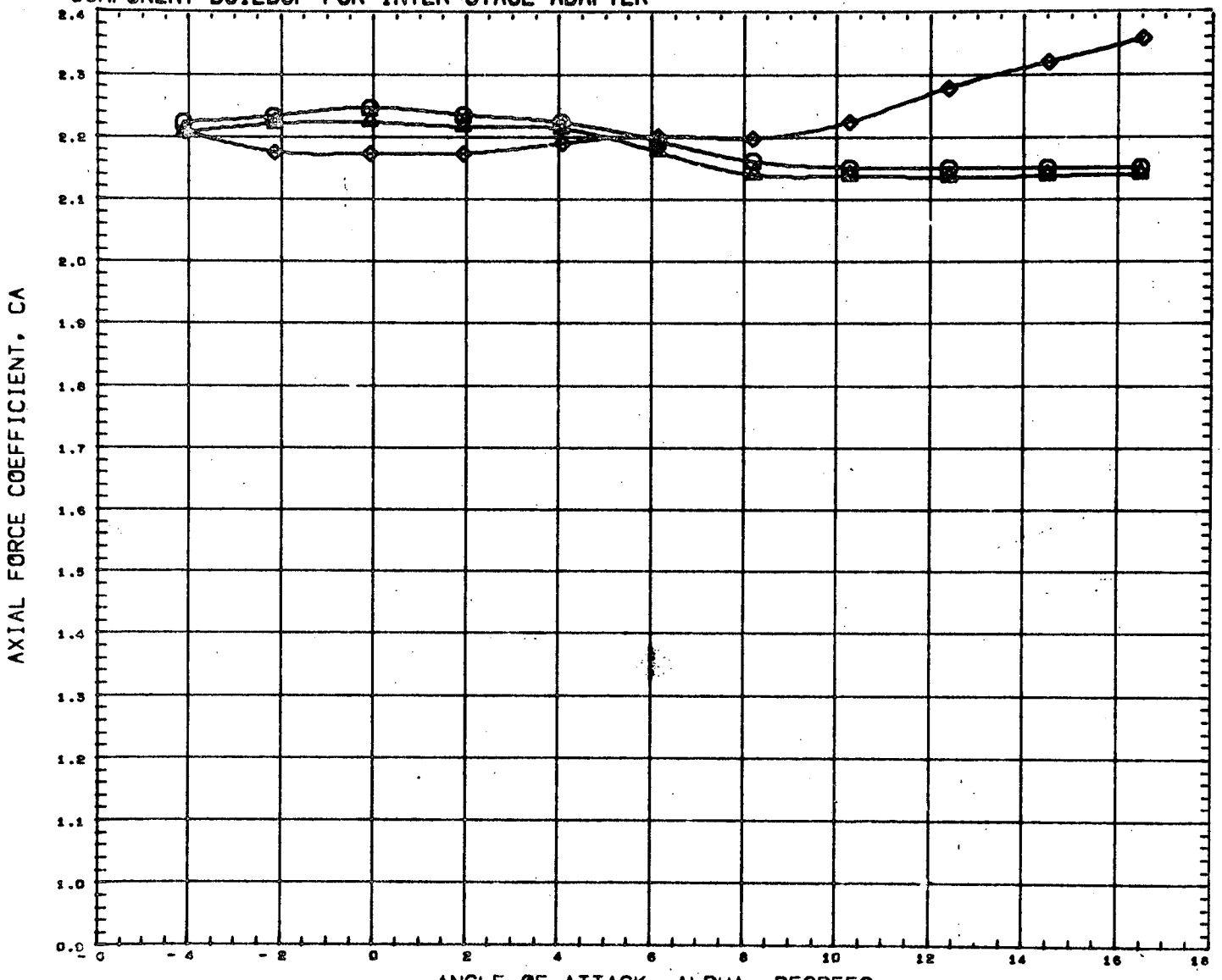


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0140)	□	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS0150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.101

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

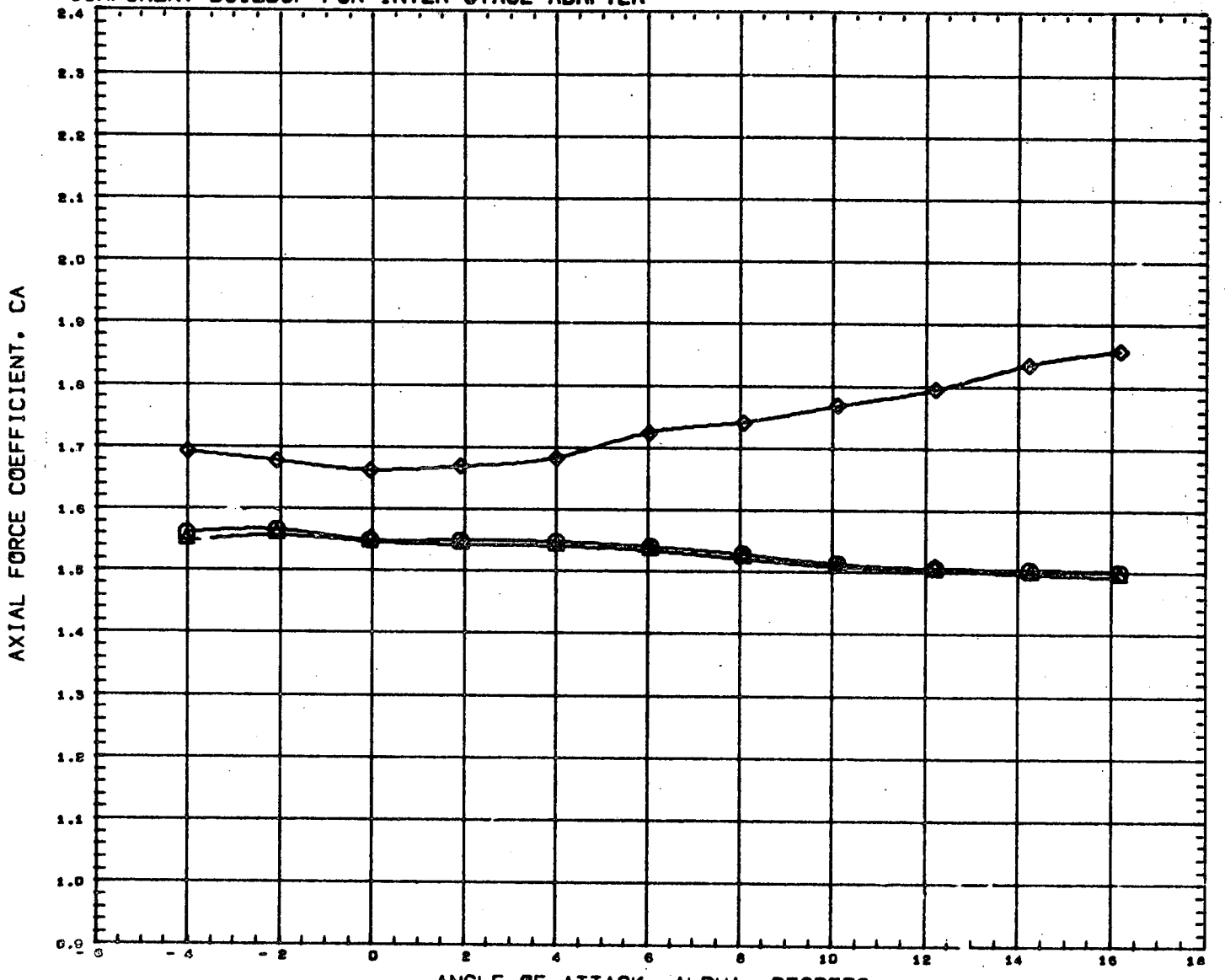


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.461

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

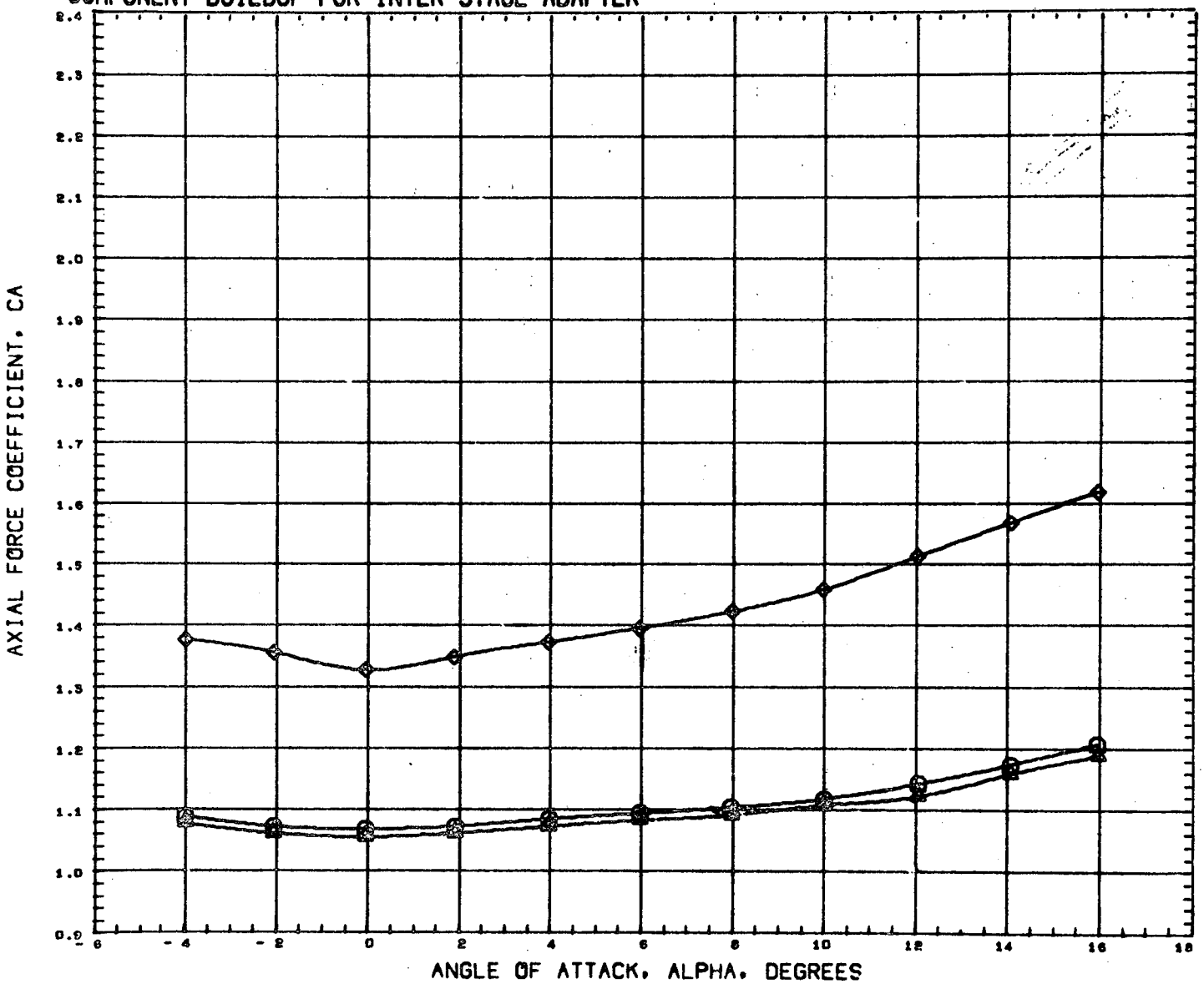


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003306 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003306 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D5015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 2.760

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

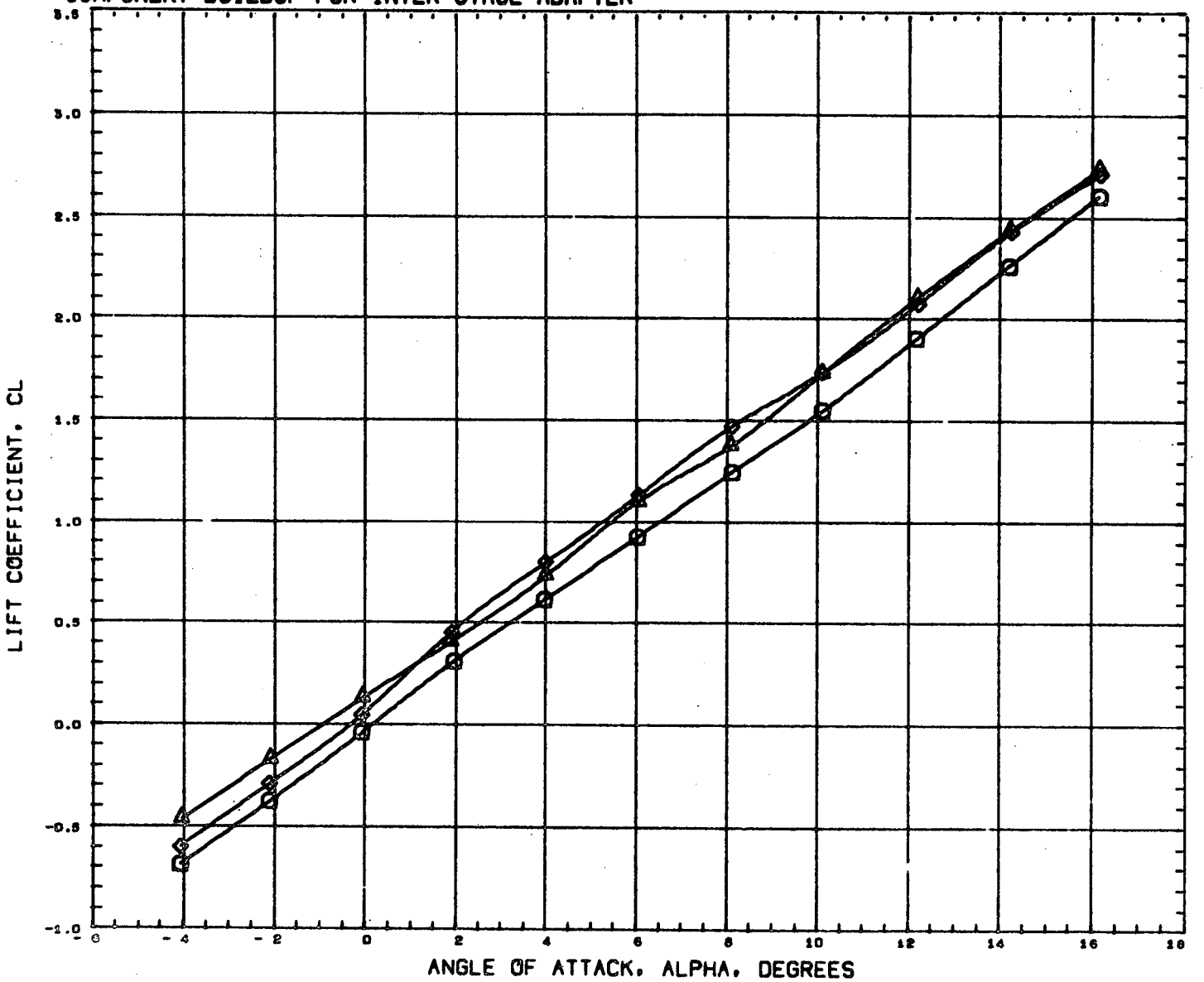


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5016D)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D5015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.955

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

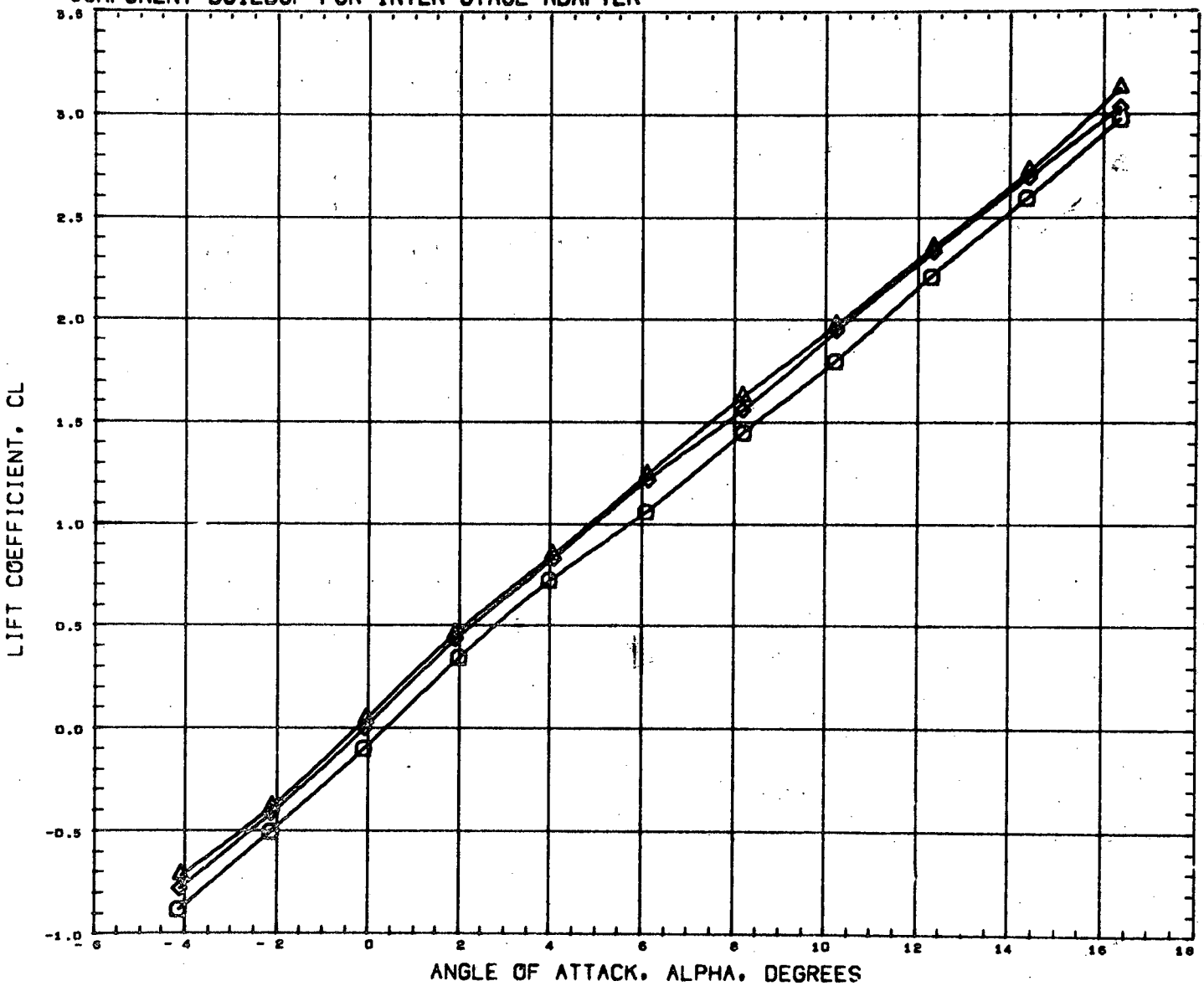


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.598

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

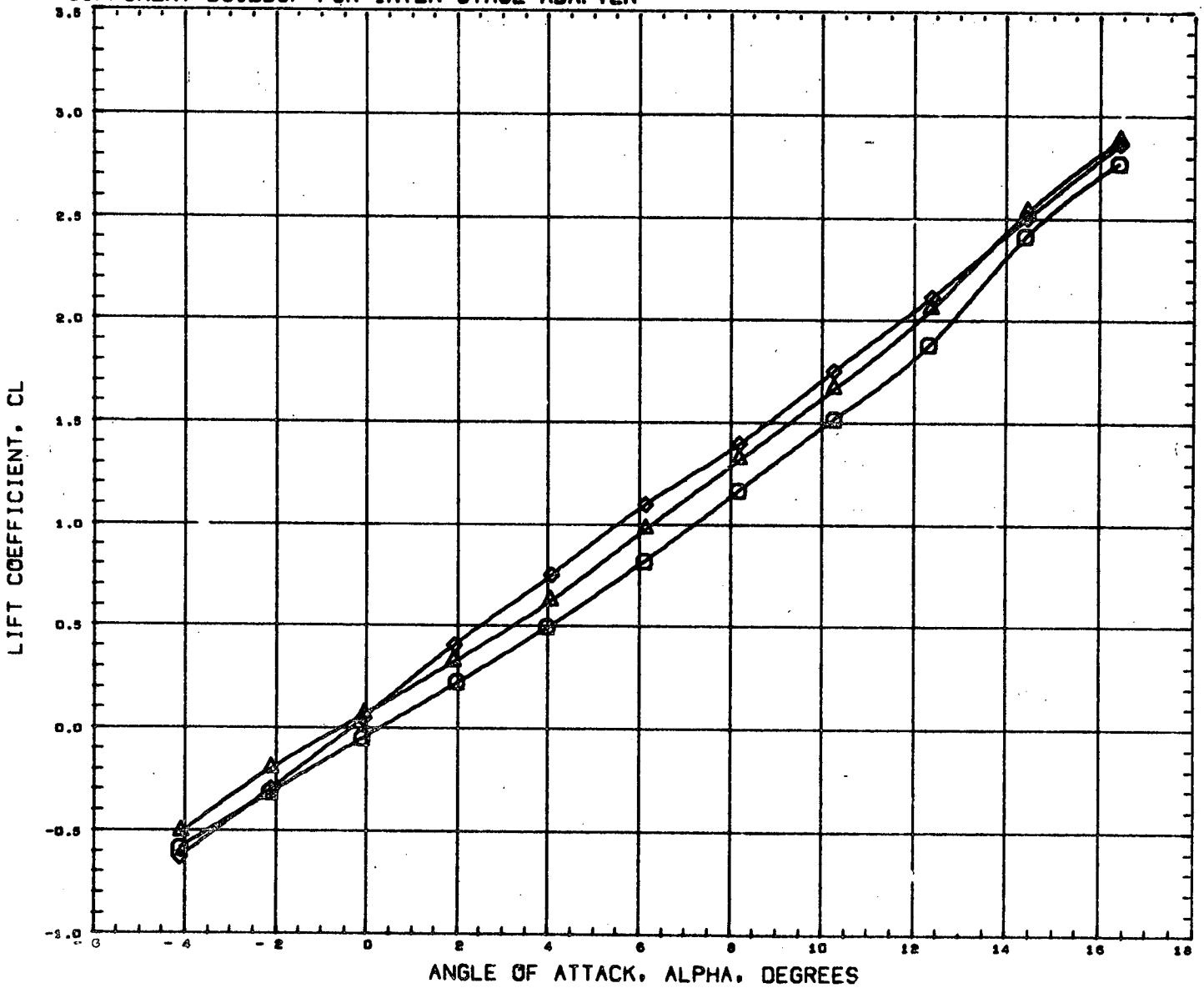


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B33R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

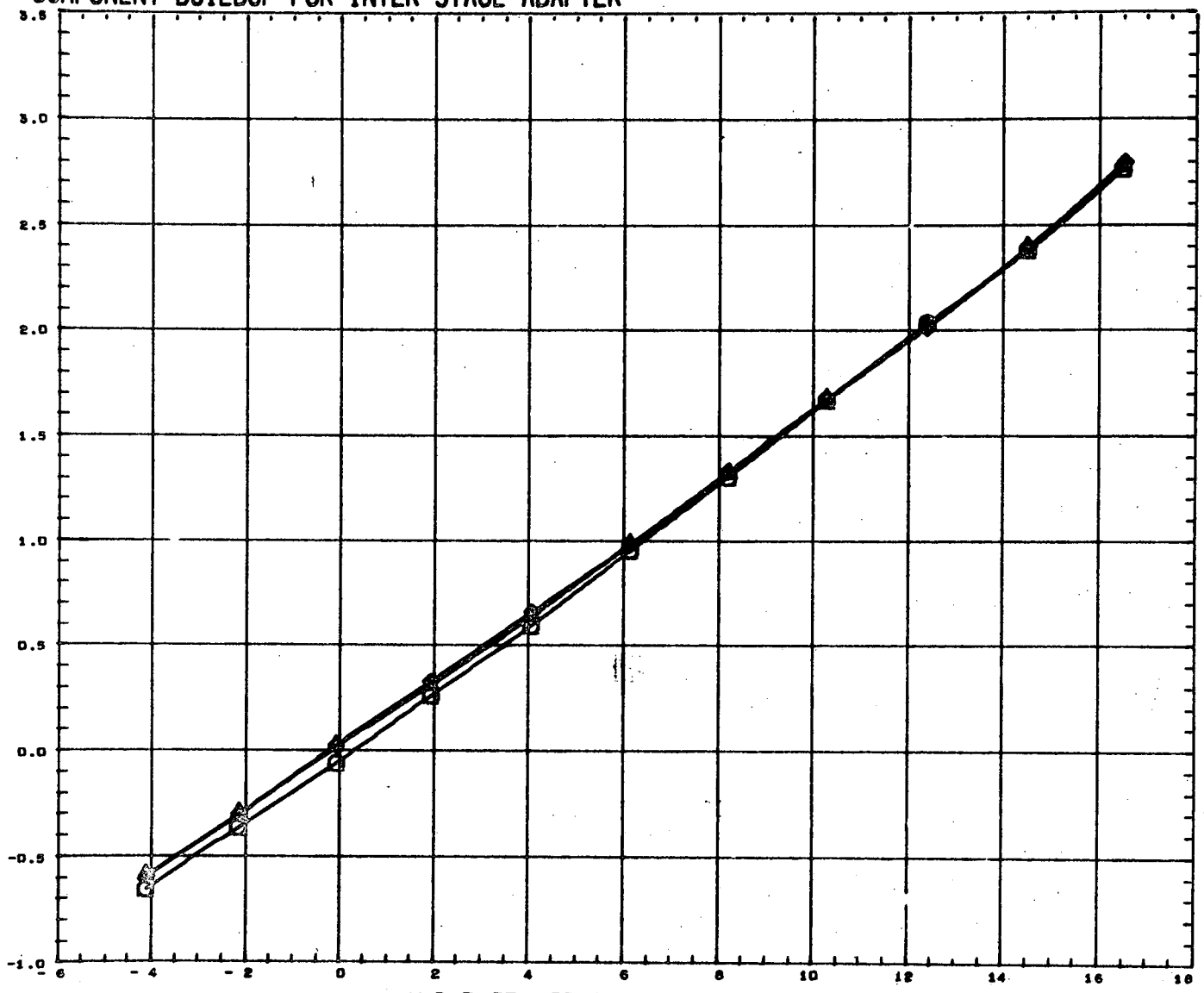


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .0033GG BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .0033GG BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .0033GG BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

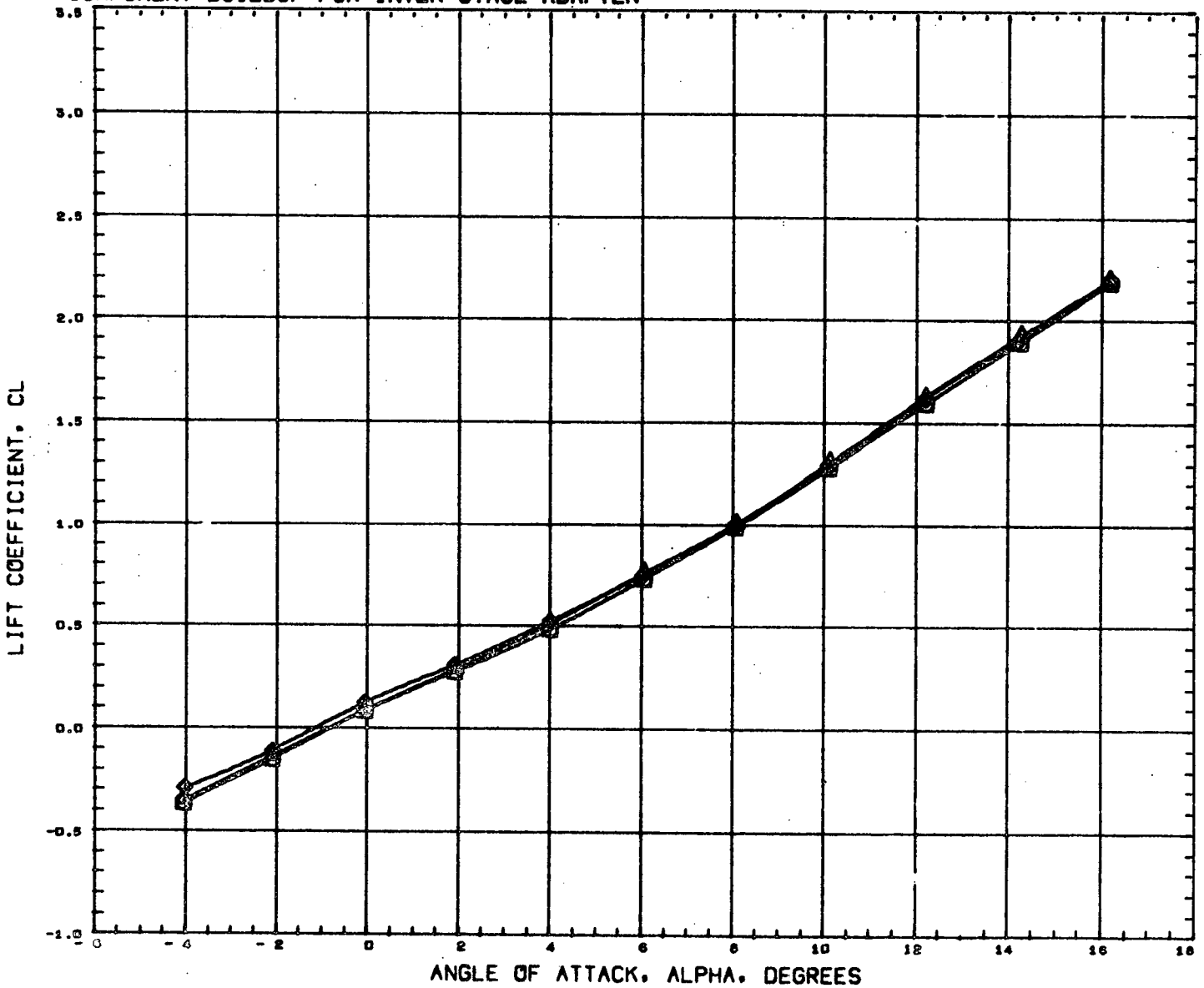


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

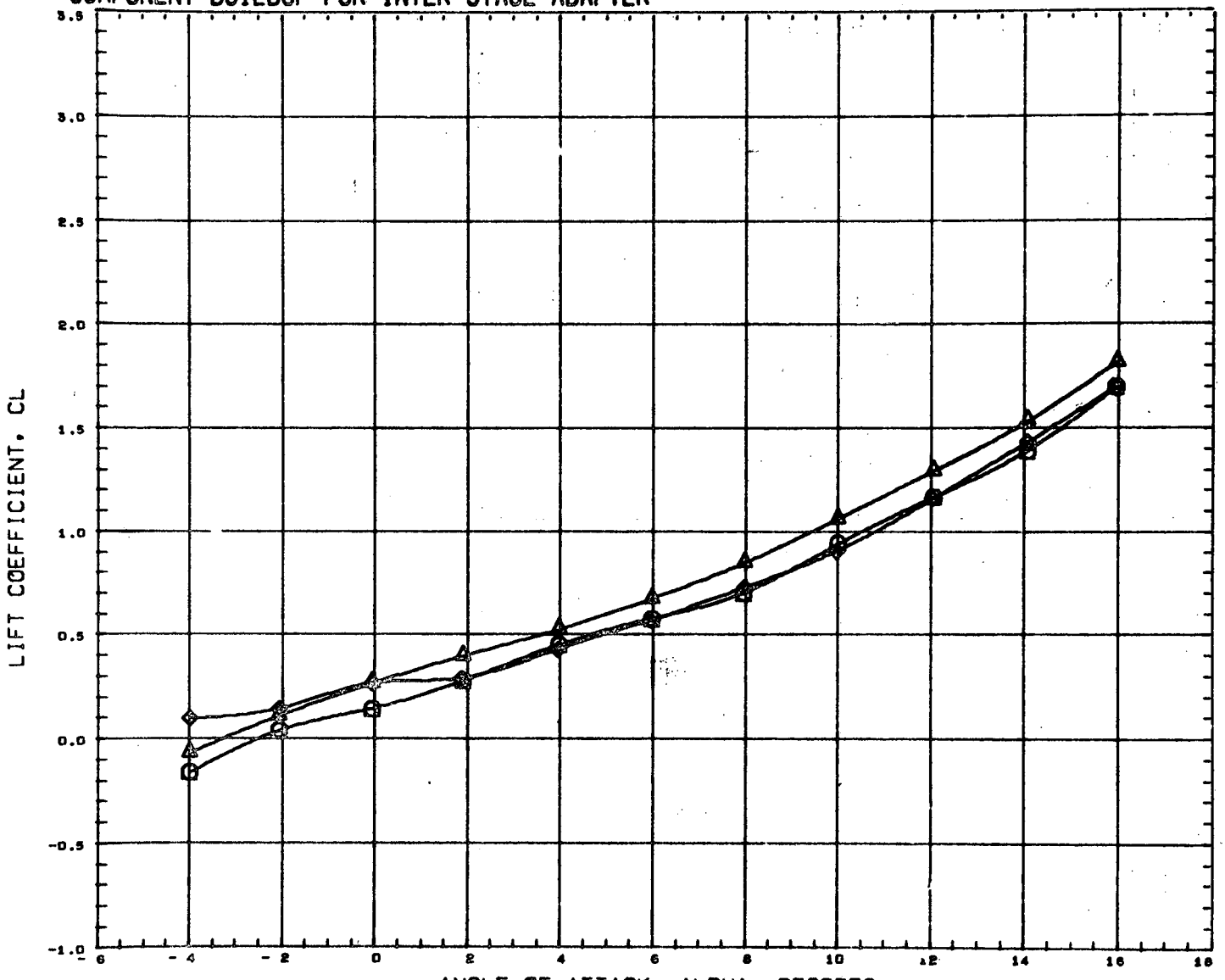


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0056	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

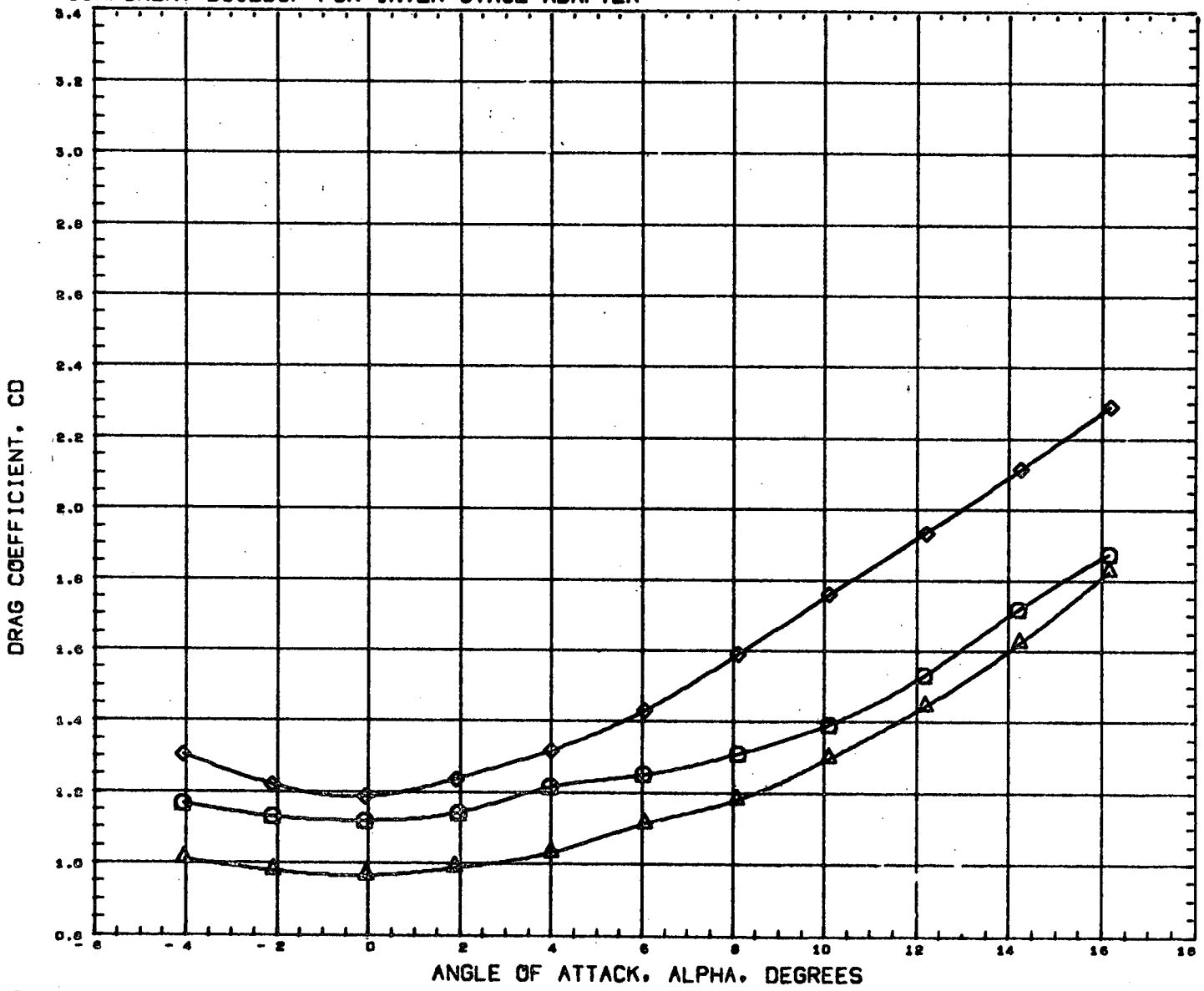


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

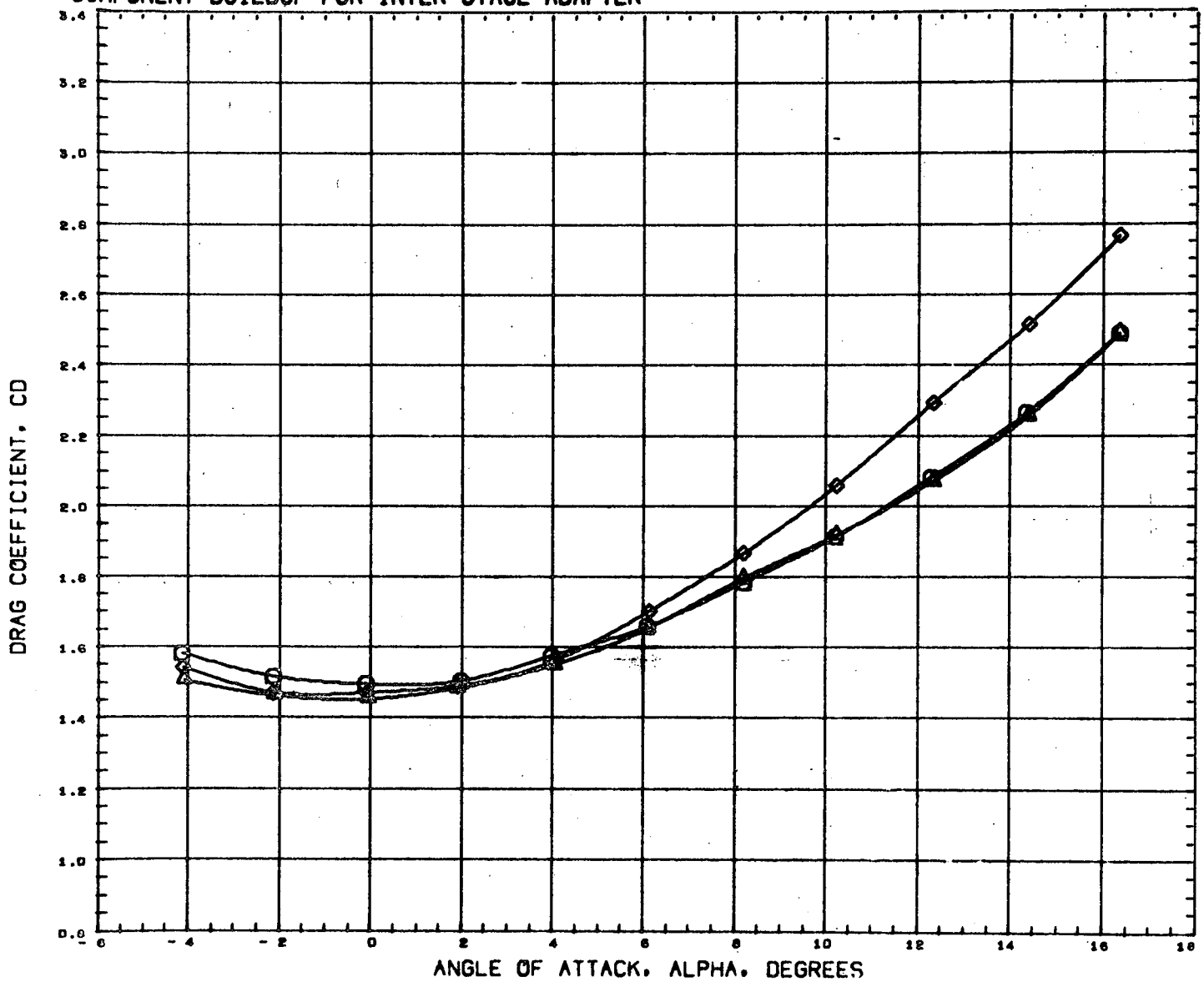


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.598

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

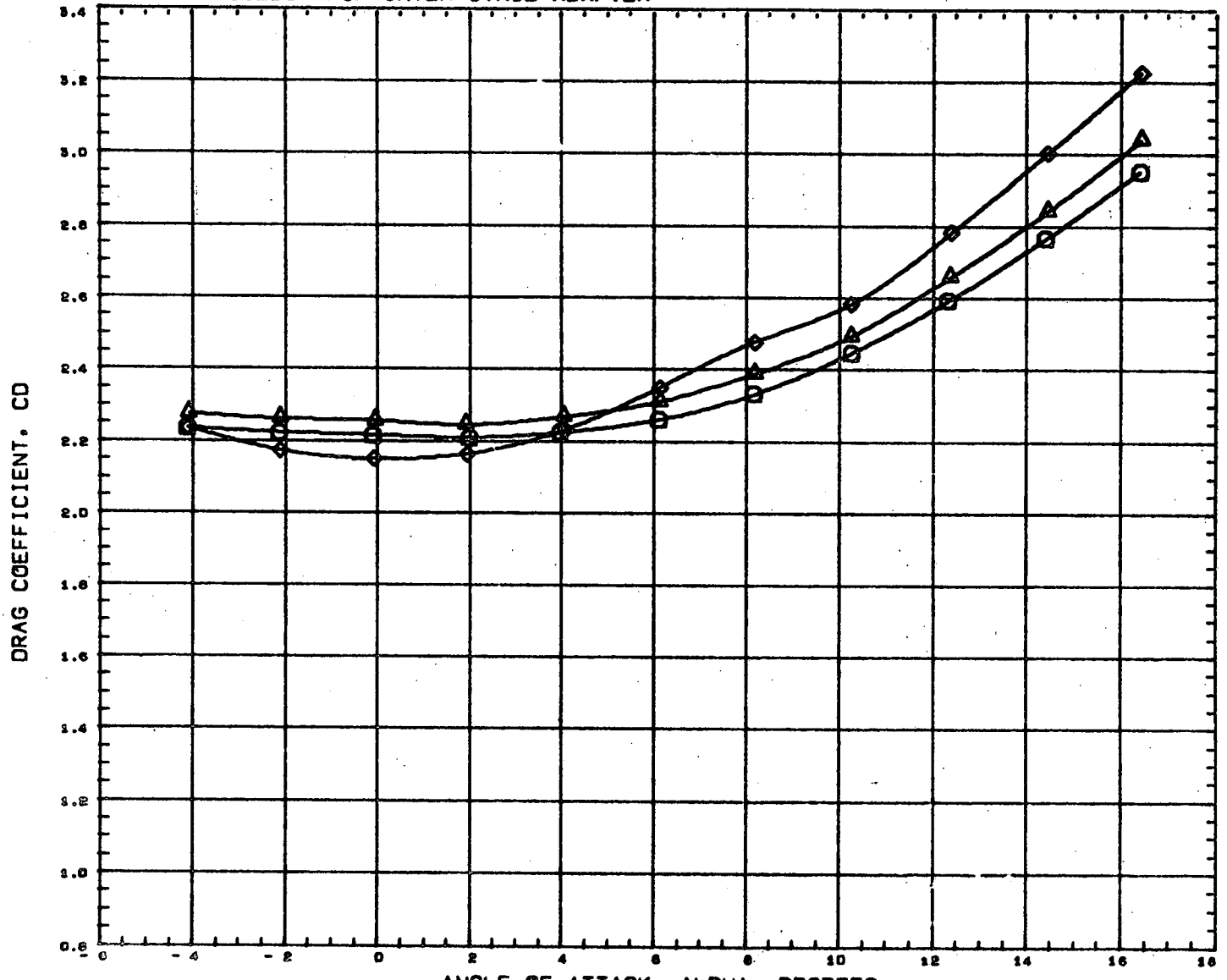


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003566 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003566 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

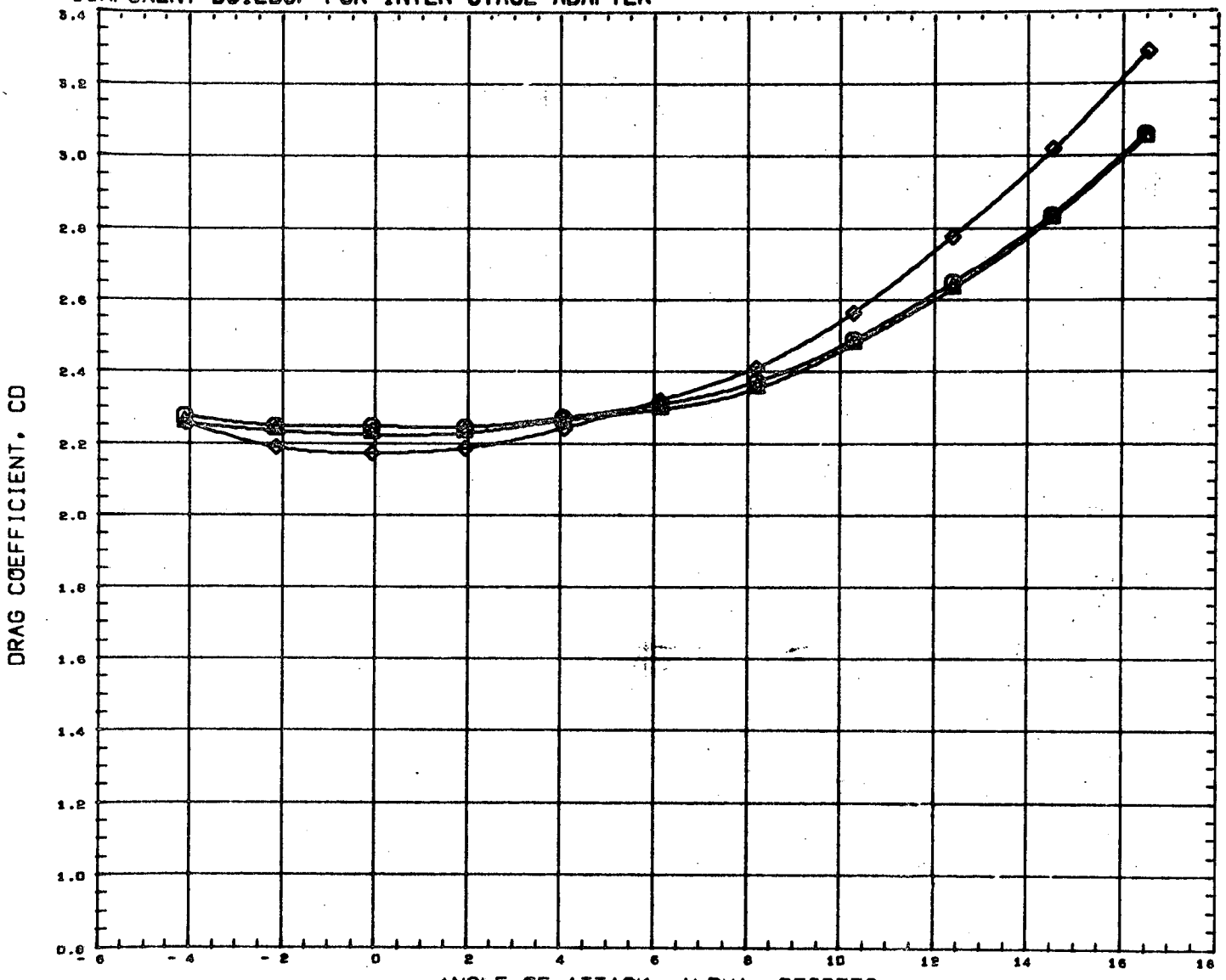


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

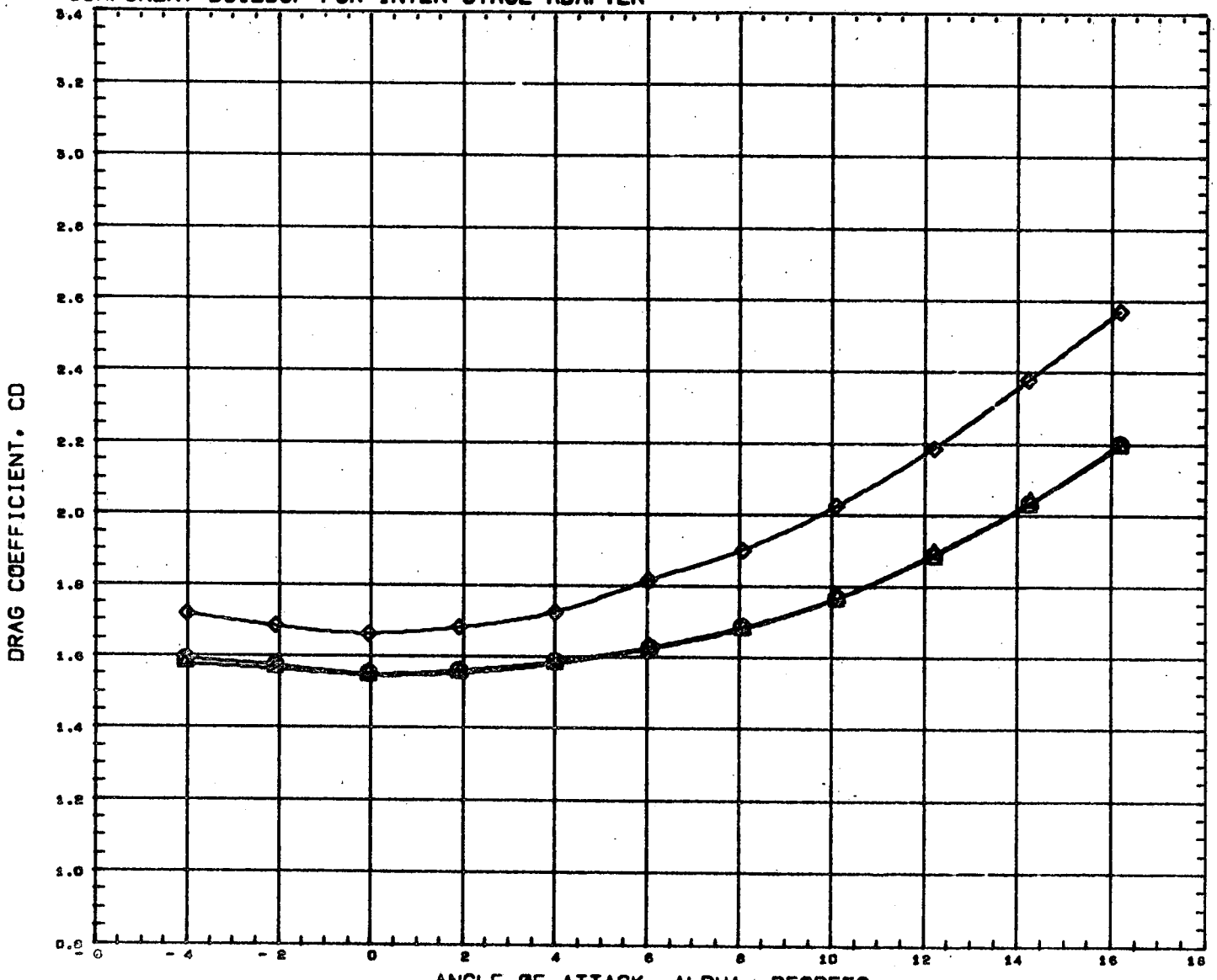


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.463

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

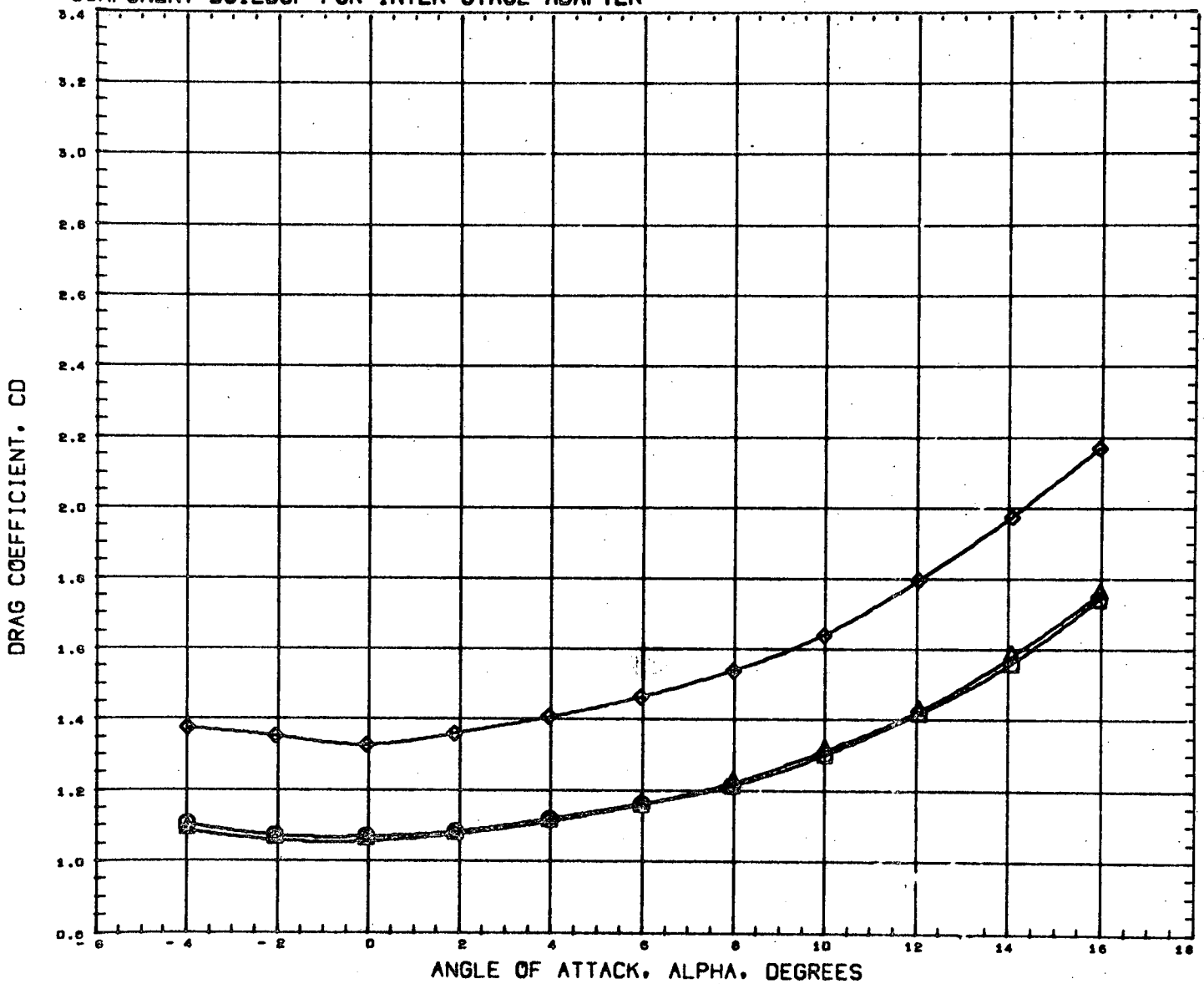


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS014D)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

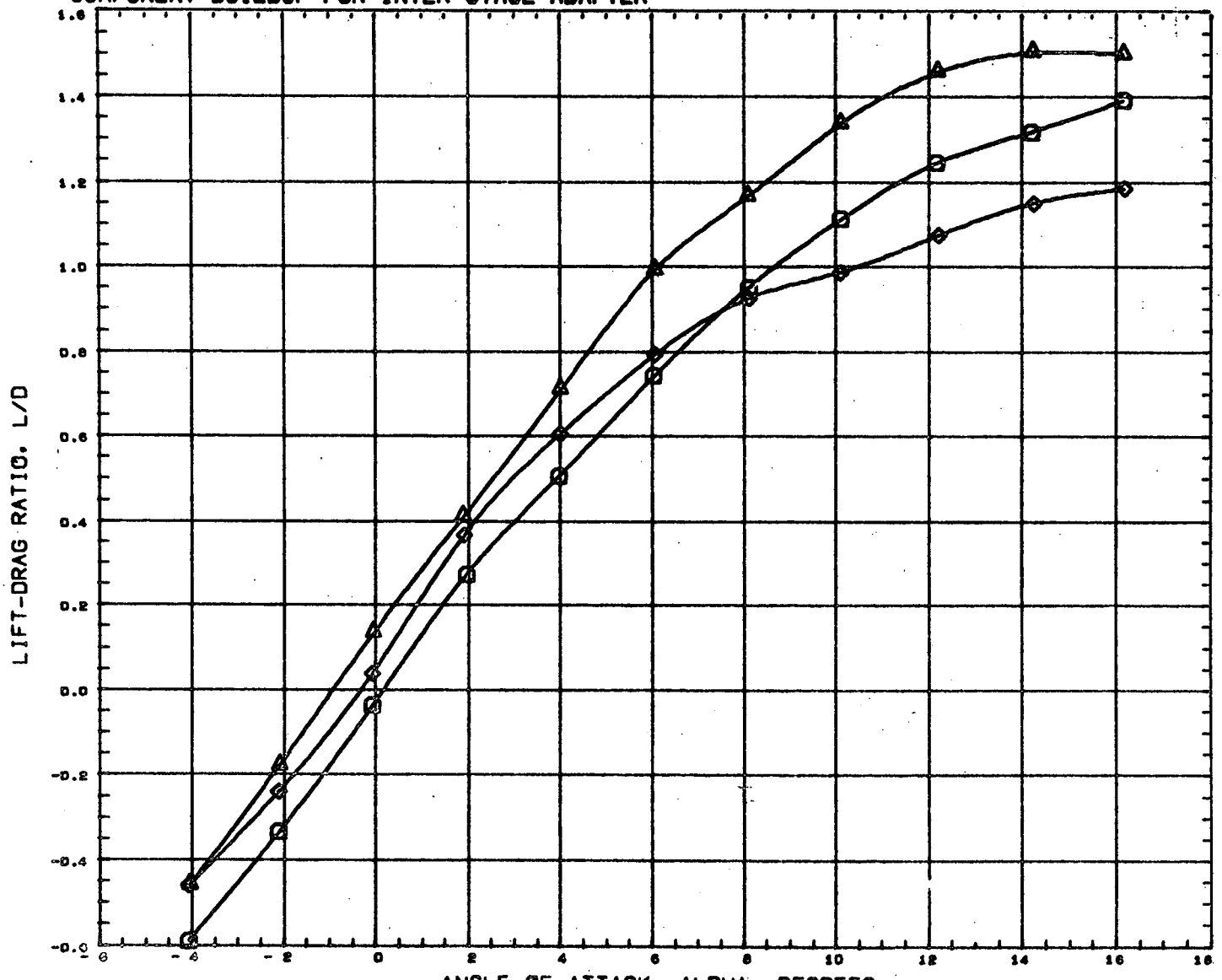


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5014D)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D5015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

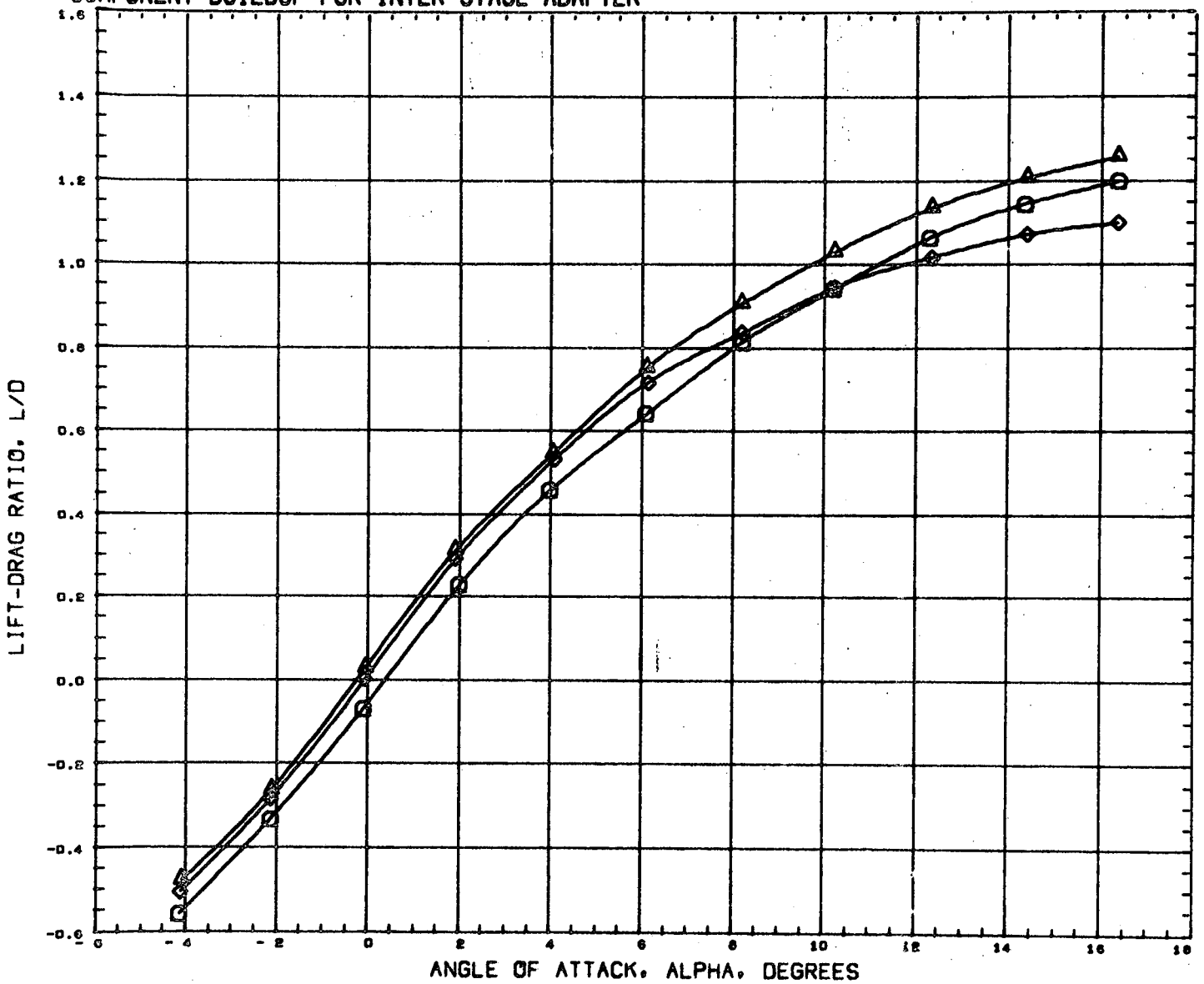


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50010)	○	MSFC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	□	MSFC 512 GD/C .003966 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003966 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.598

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

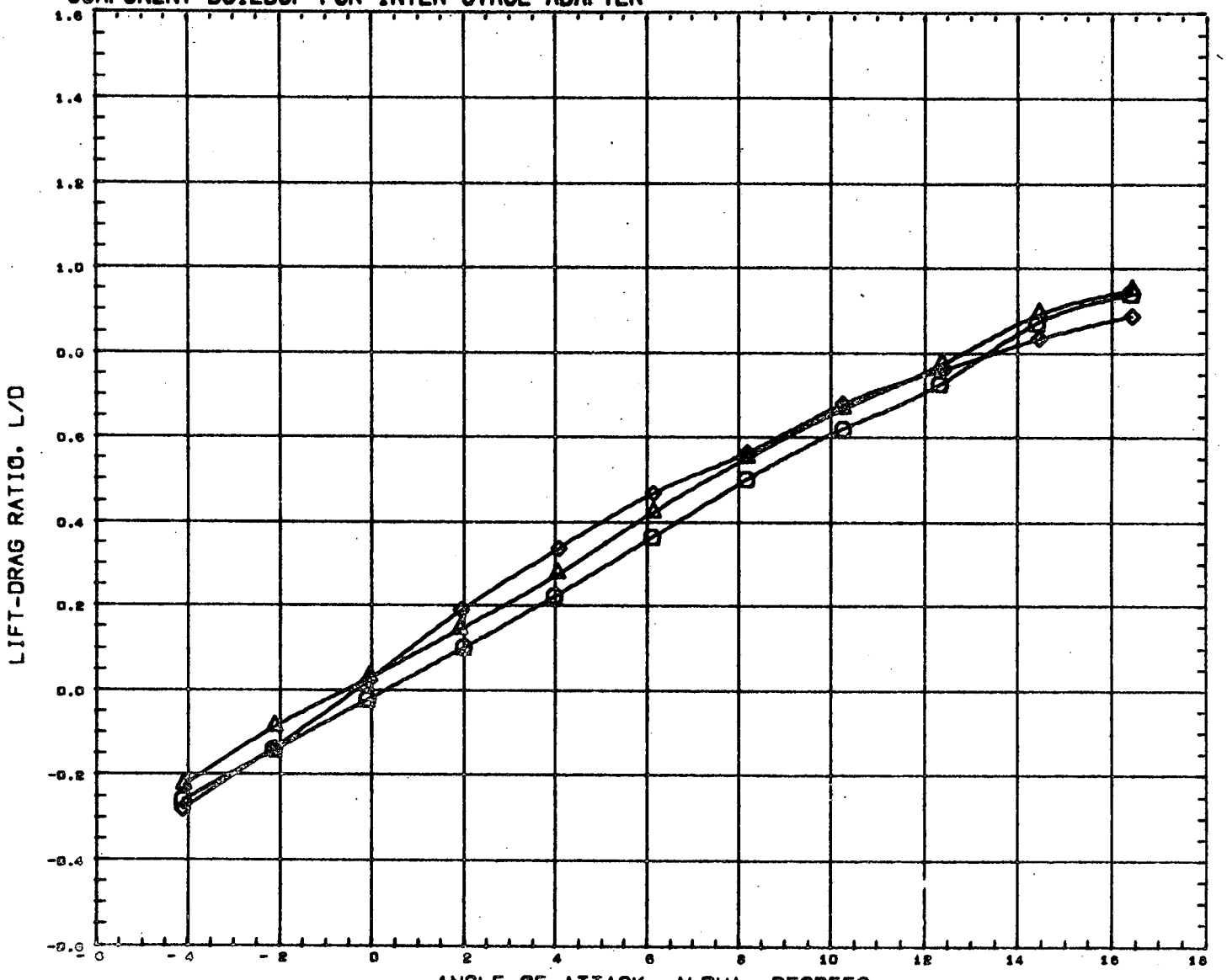


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.300
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.300
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.300

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

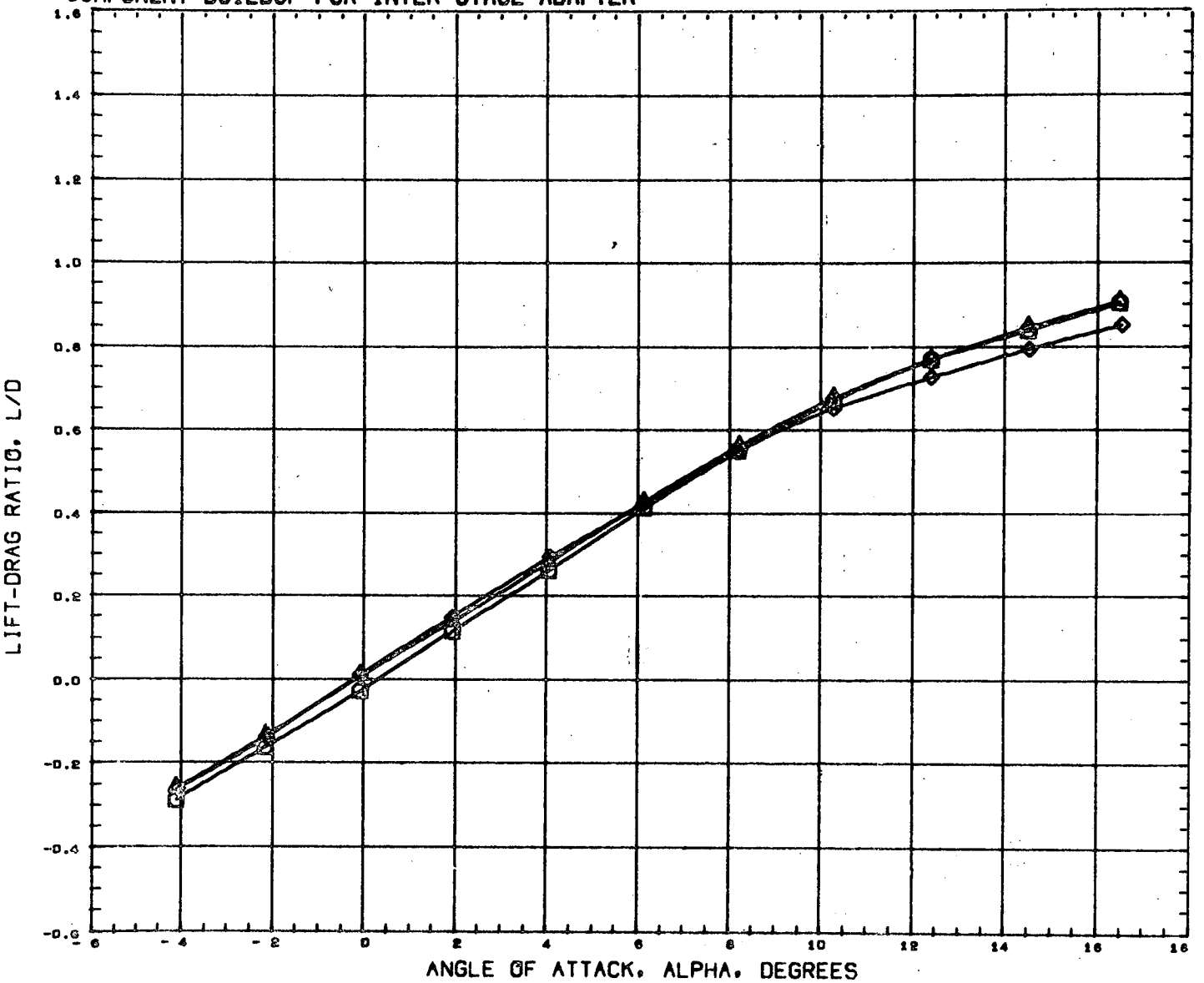


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS014D)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

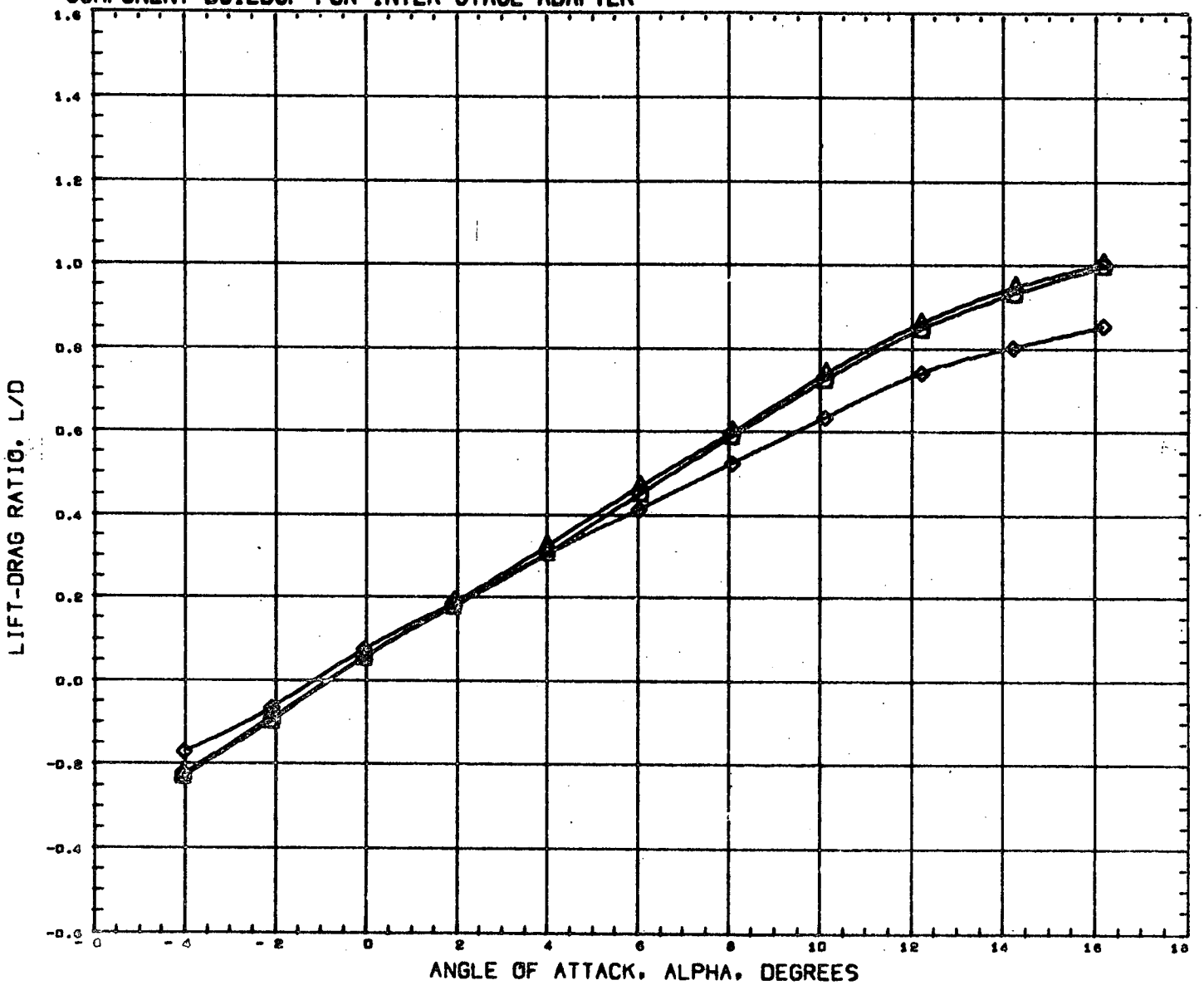


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003566 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003566 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003566 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

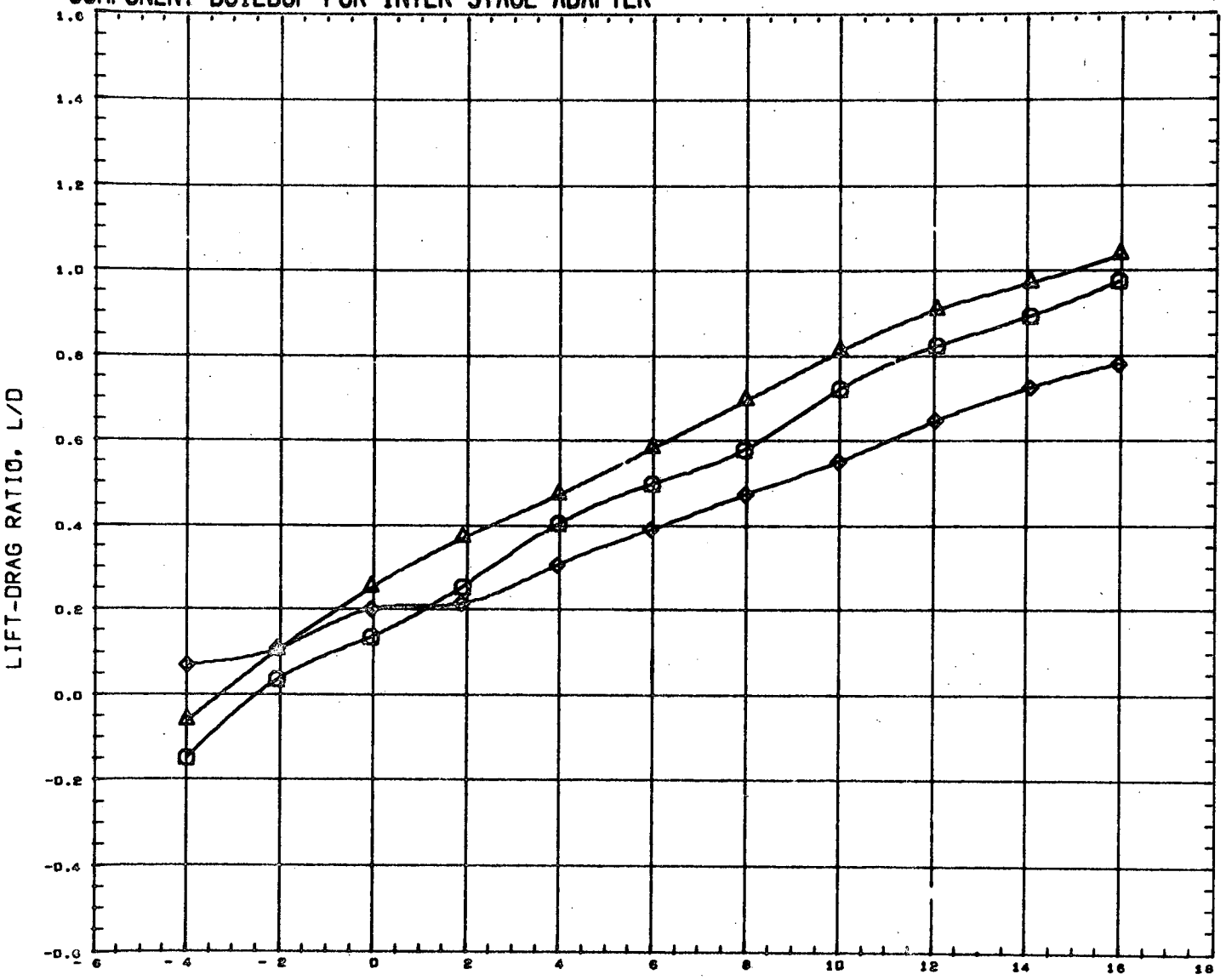


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 8.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER



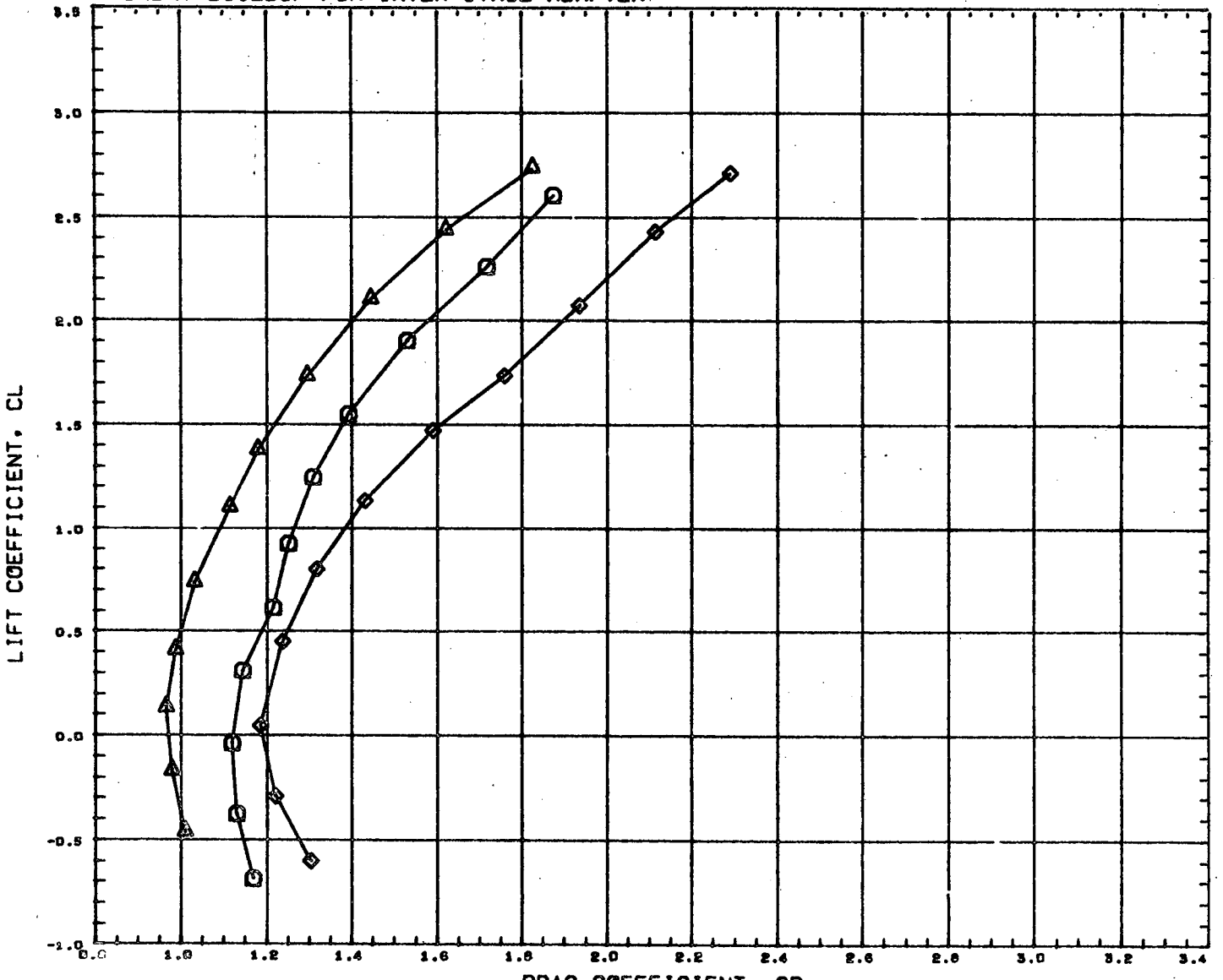
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.958

REFERENCE INFORMATION

SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

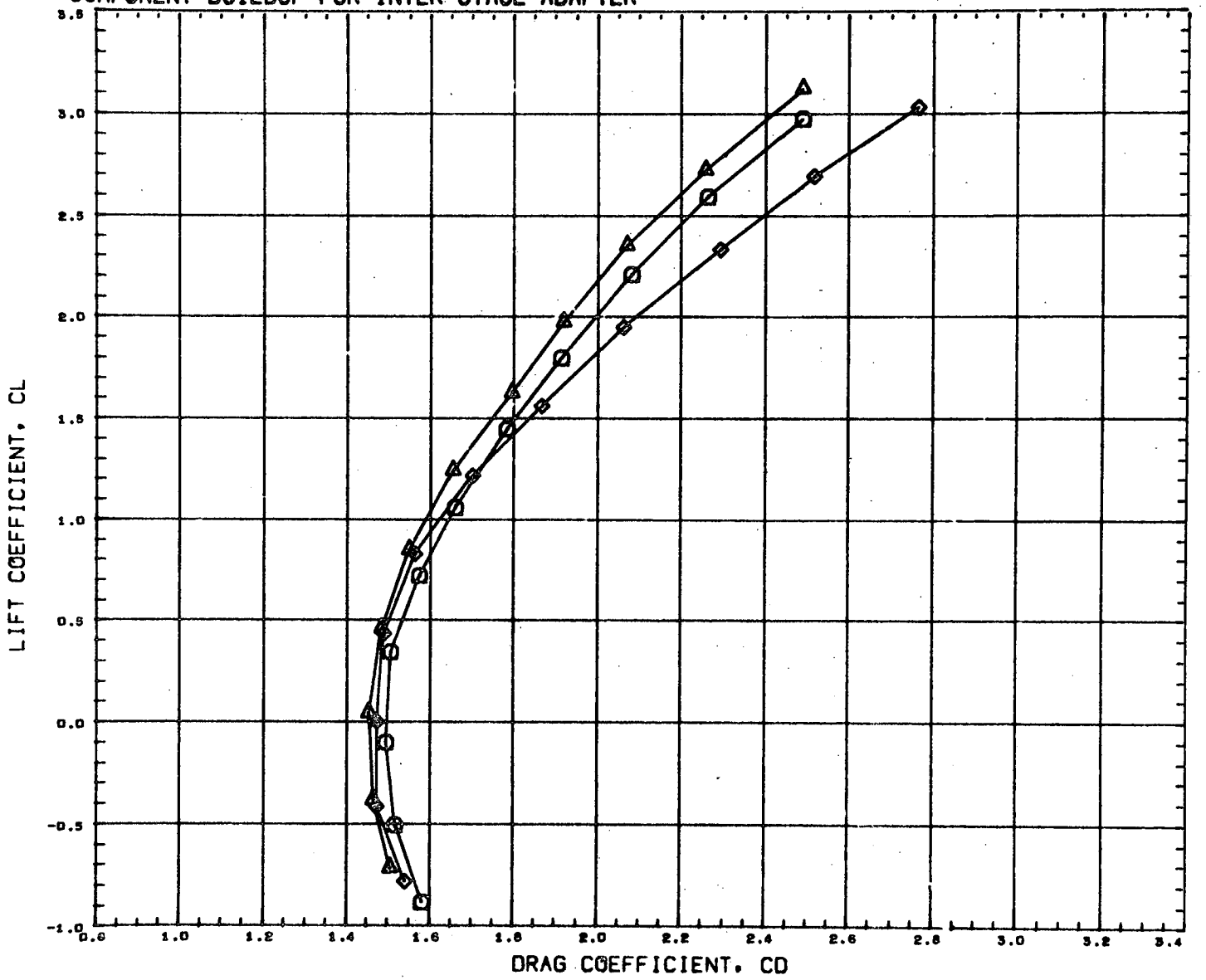


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.598

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

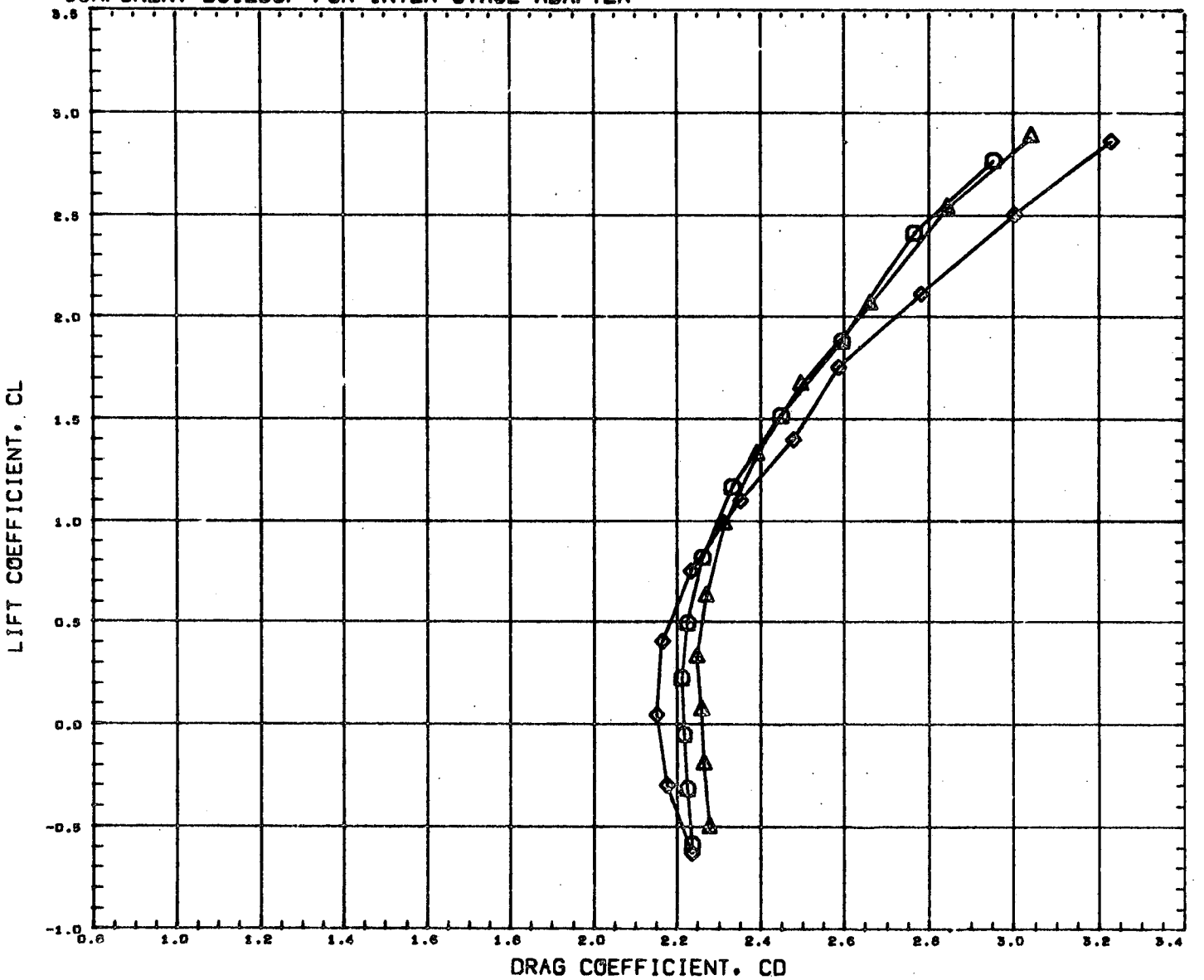


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

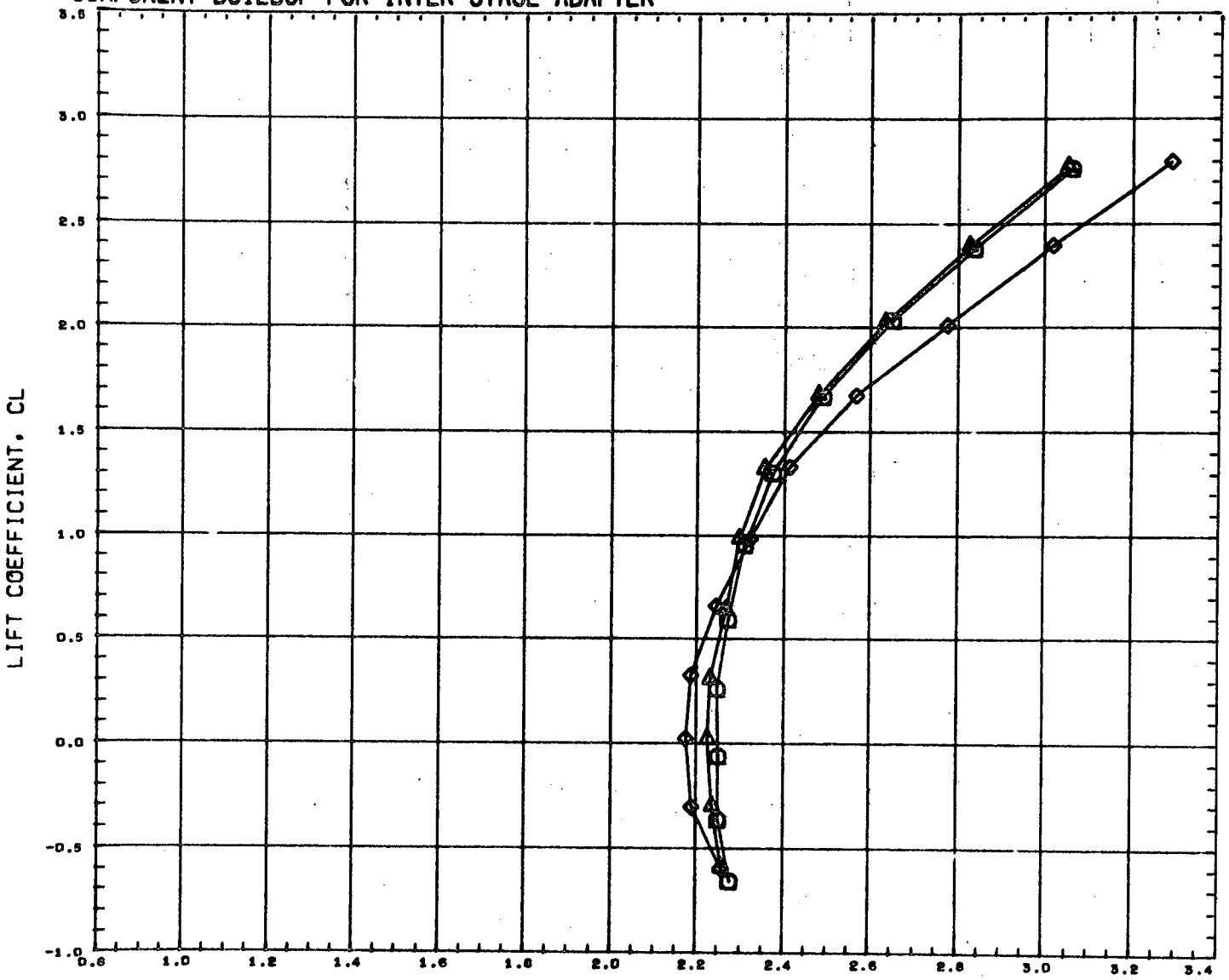


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

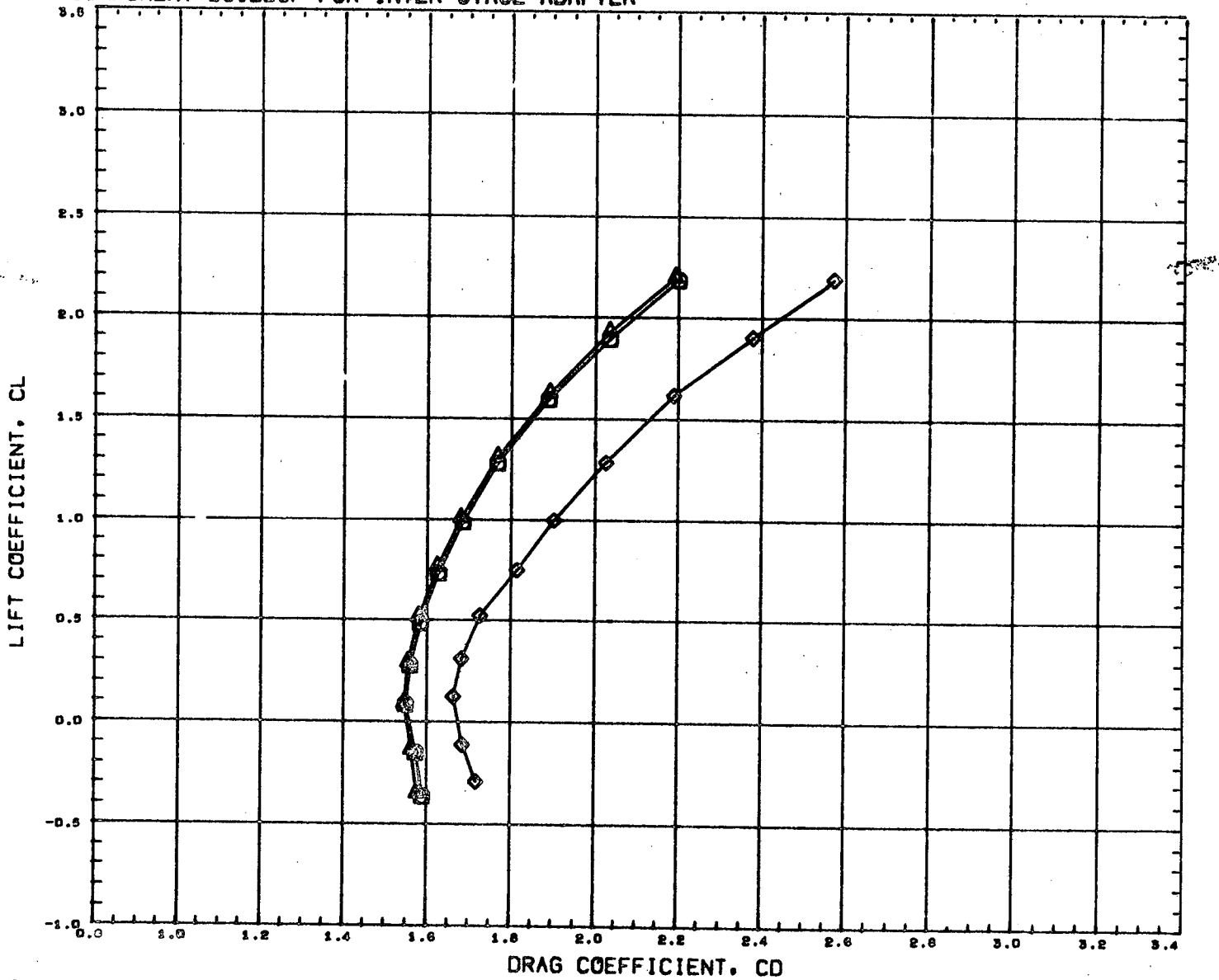


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5014D)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D5015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

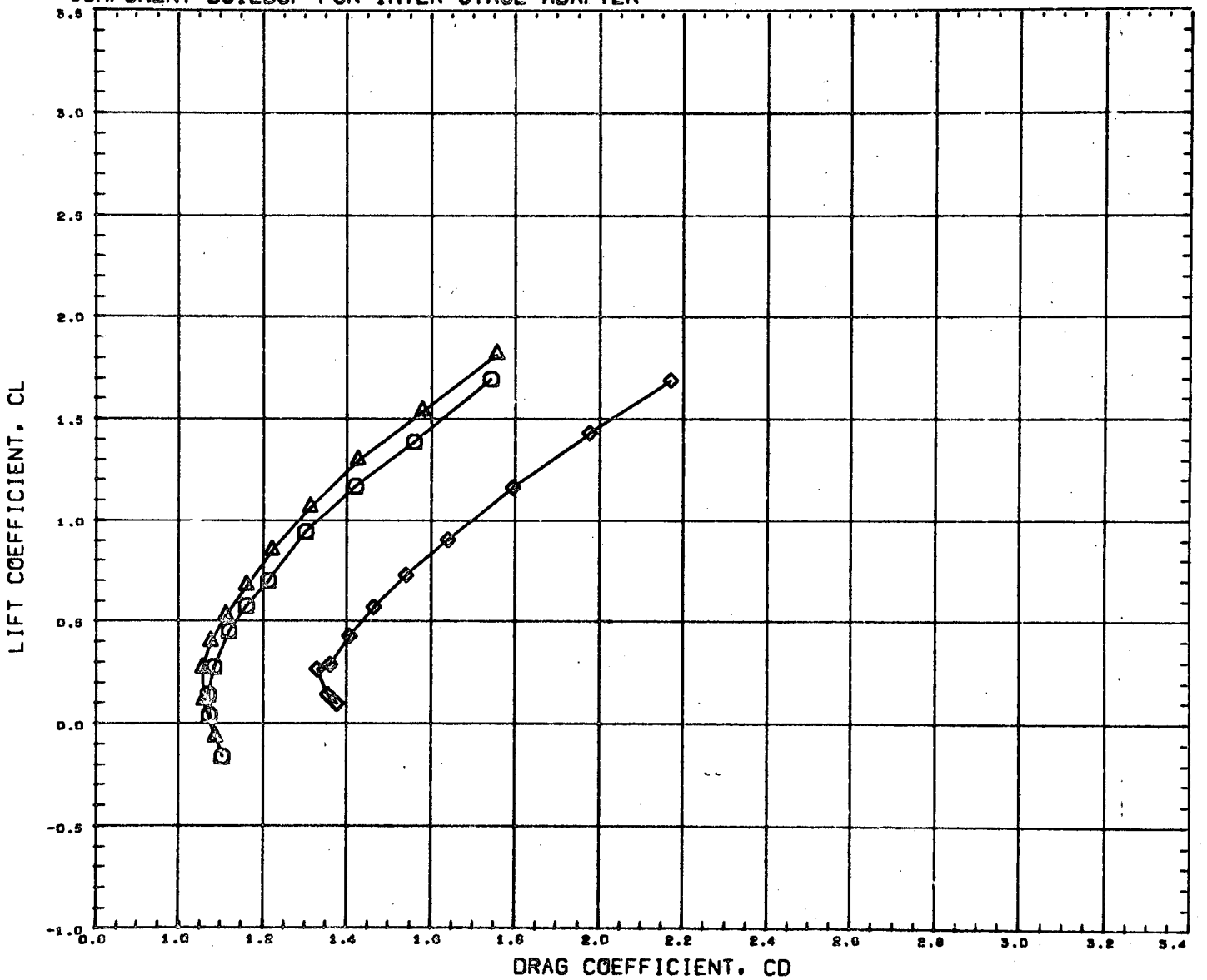


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	□	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

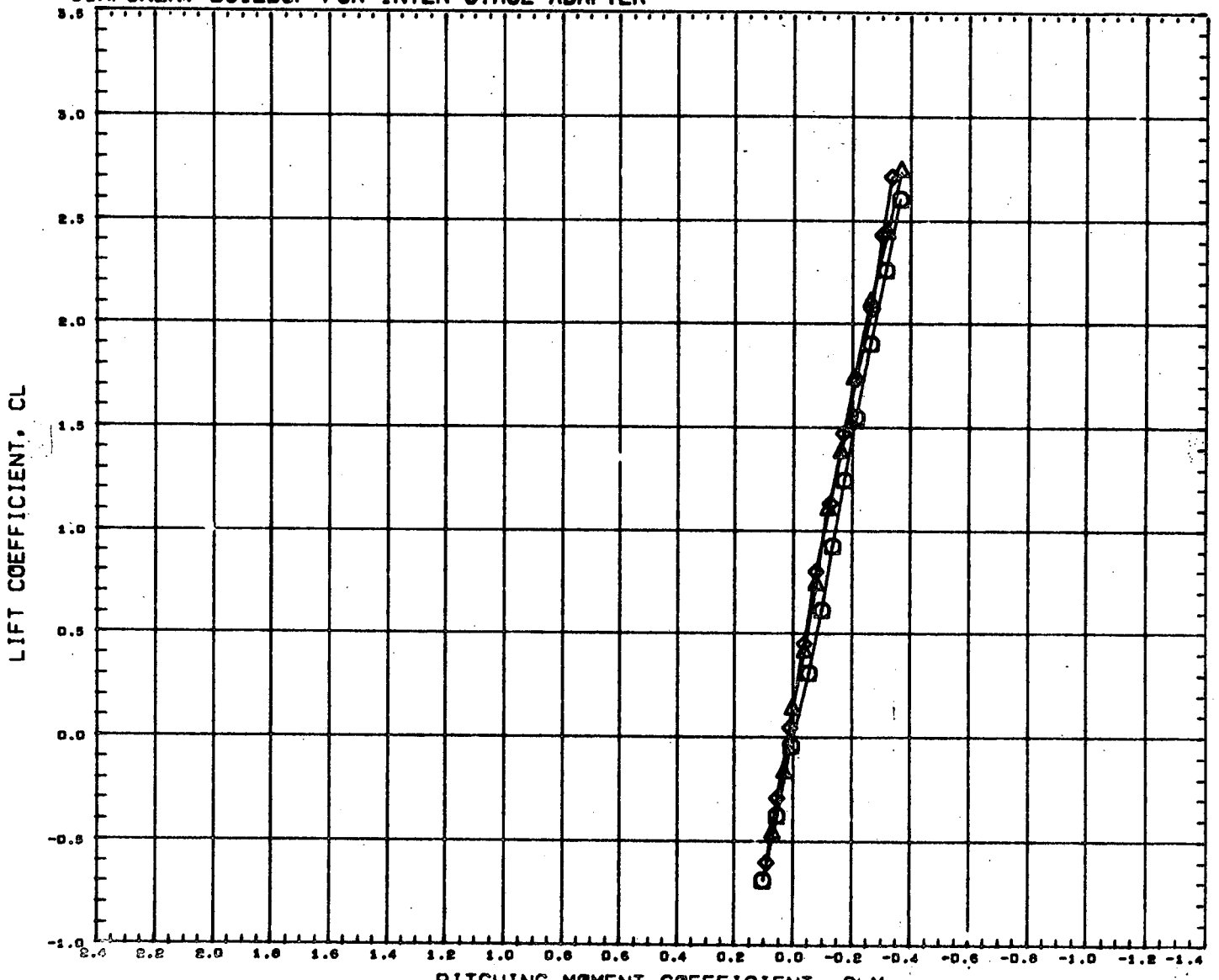


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)		M9FC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D90140)		M9FC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D90190)		M9FC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

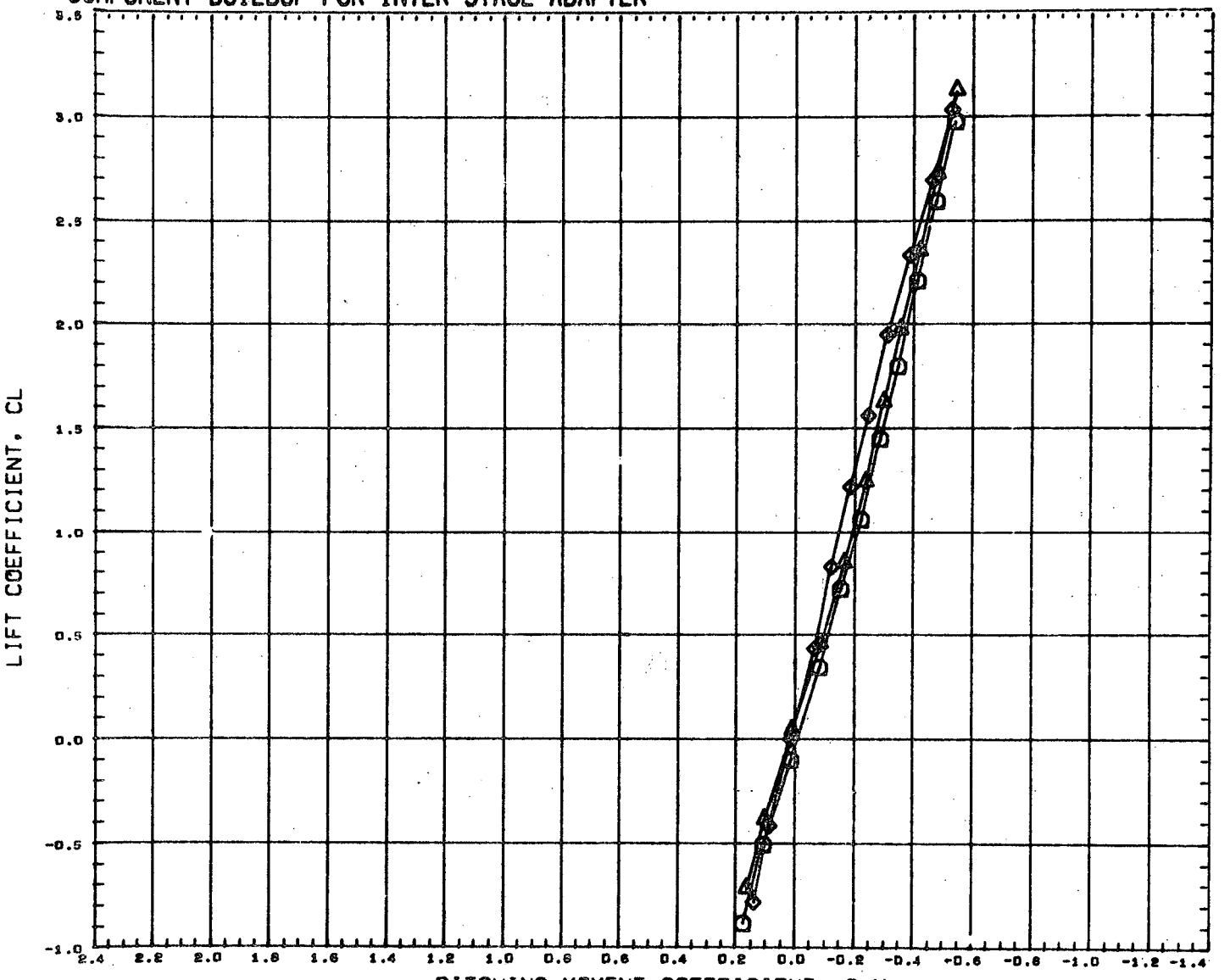


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5014D)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D5015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.598

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

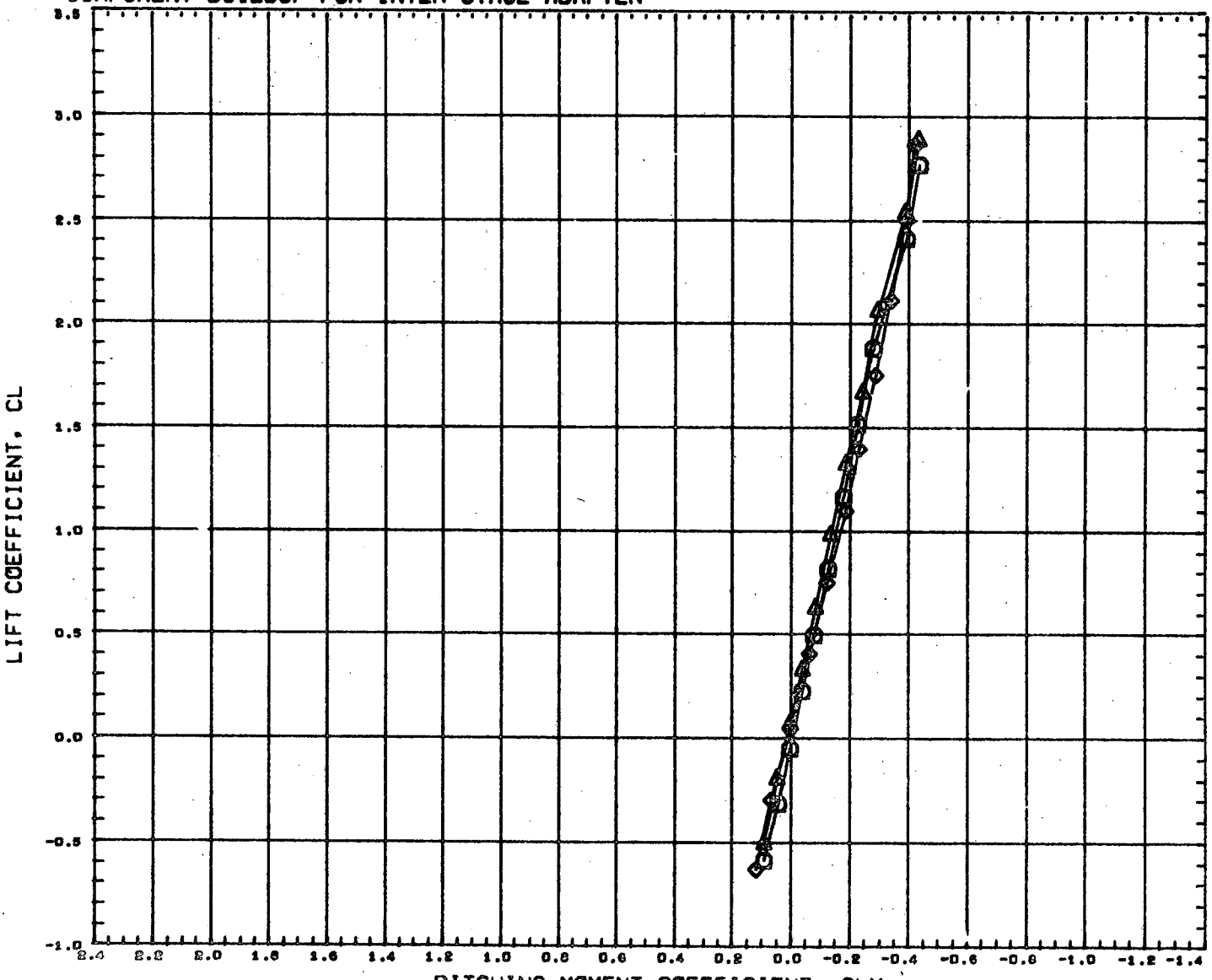


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50D1C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

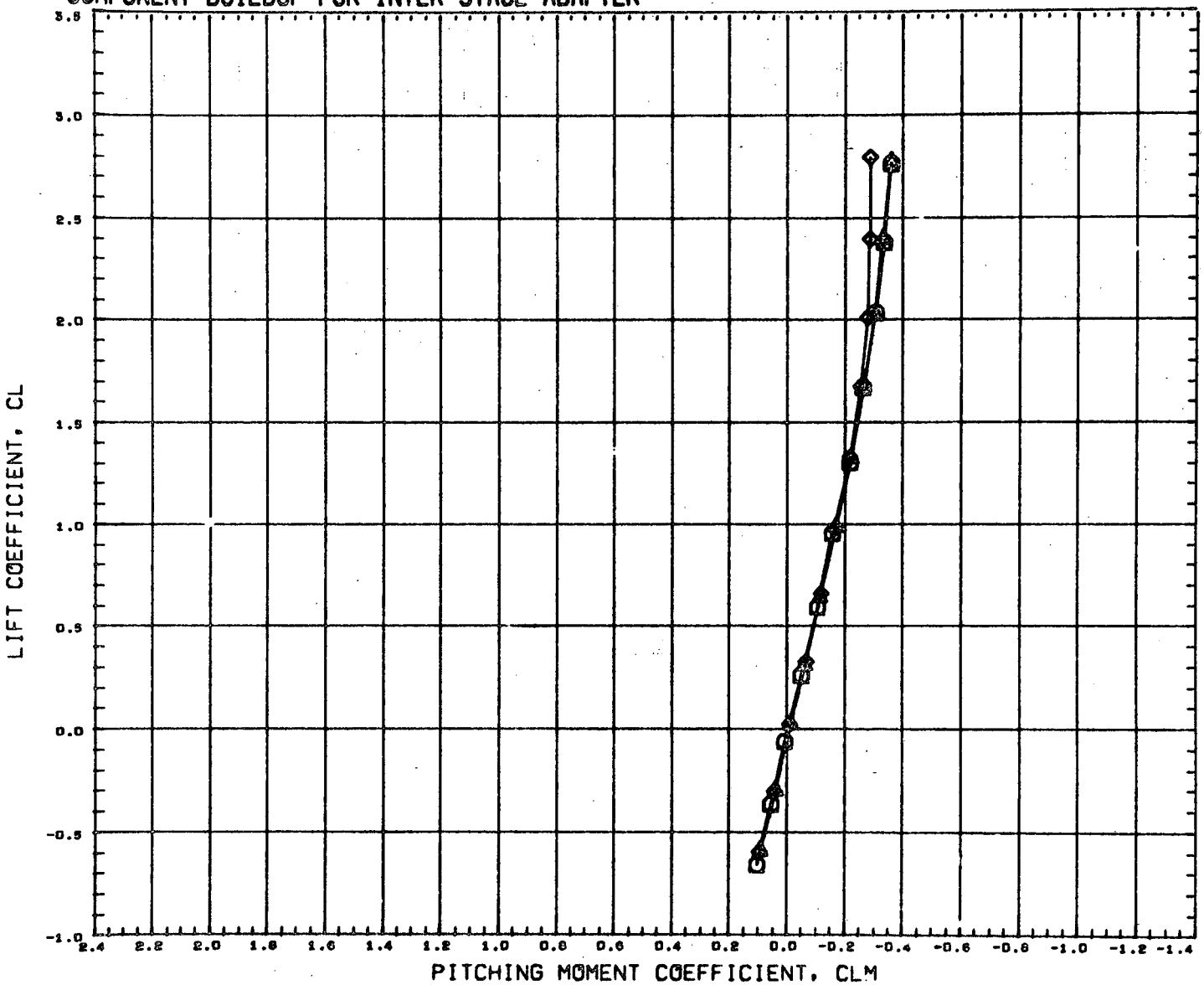


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50D1C)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.10

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

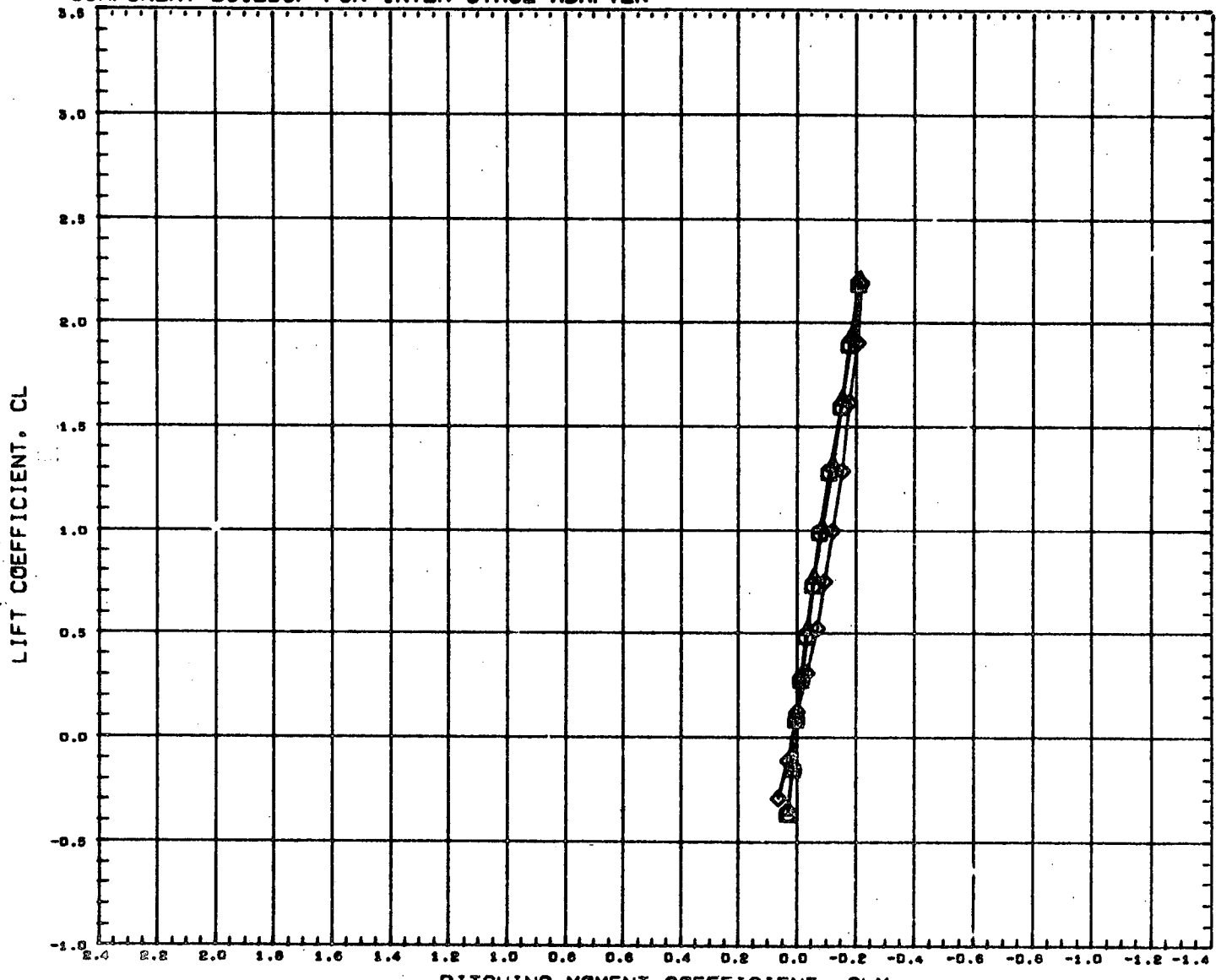


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5014D)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D5015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

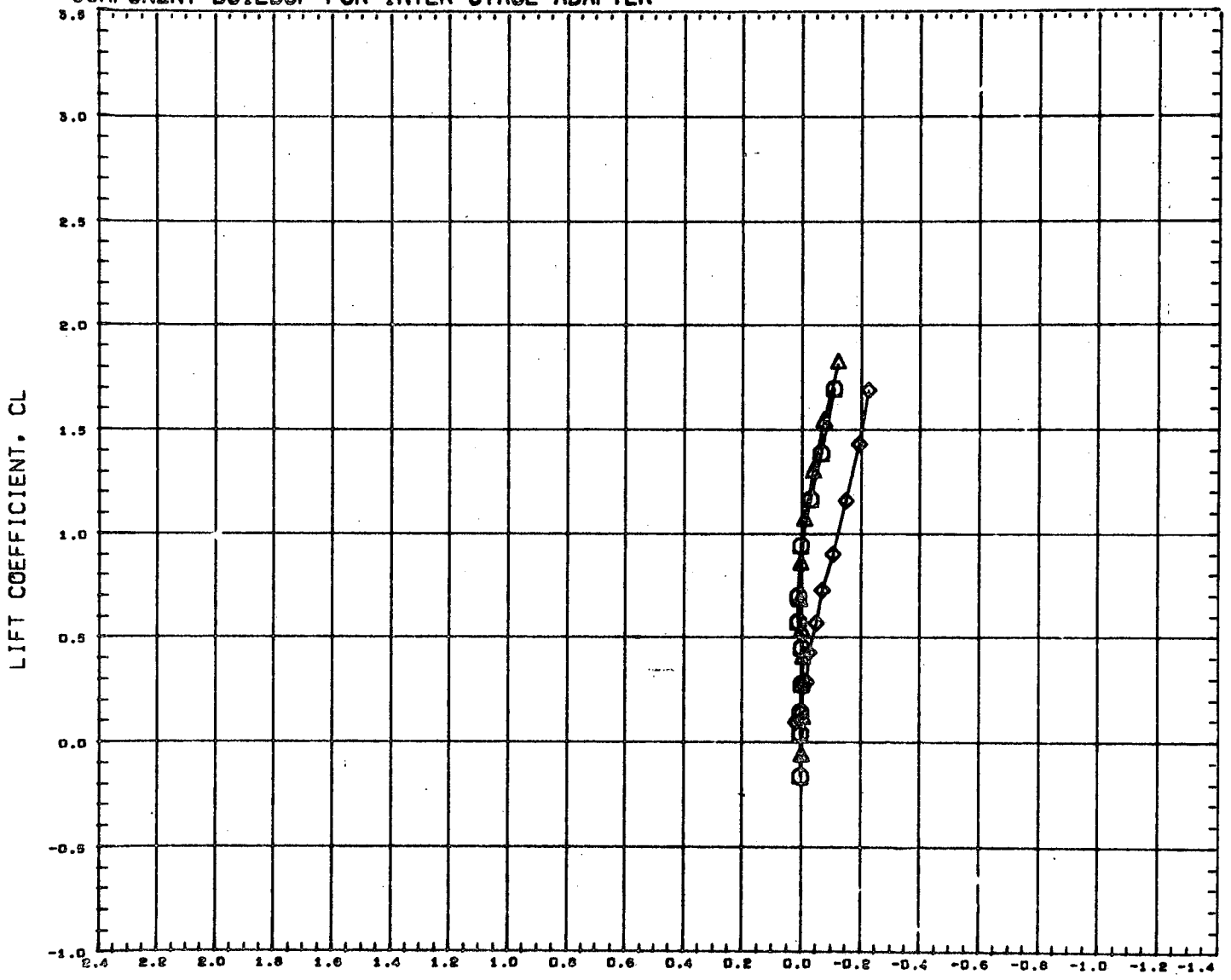


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS014D)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

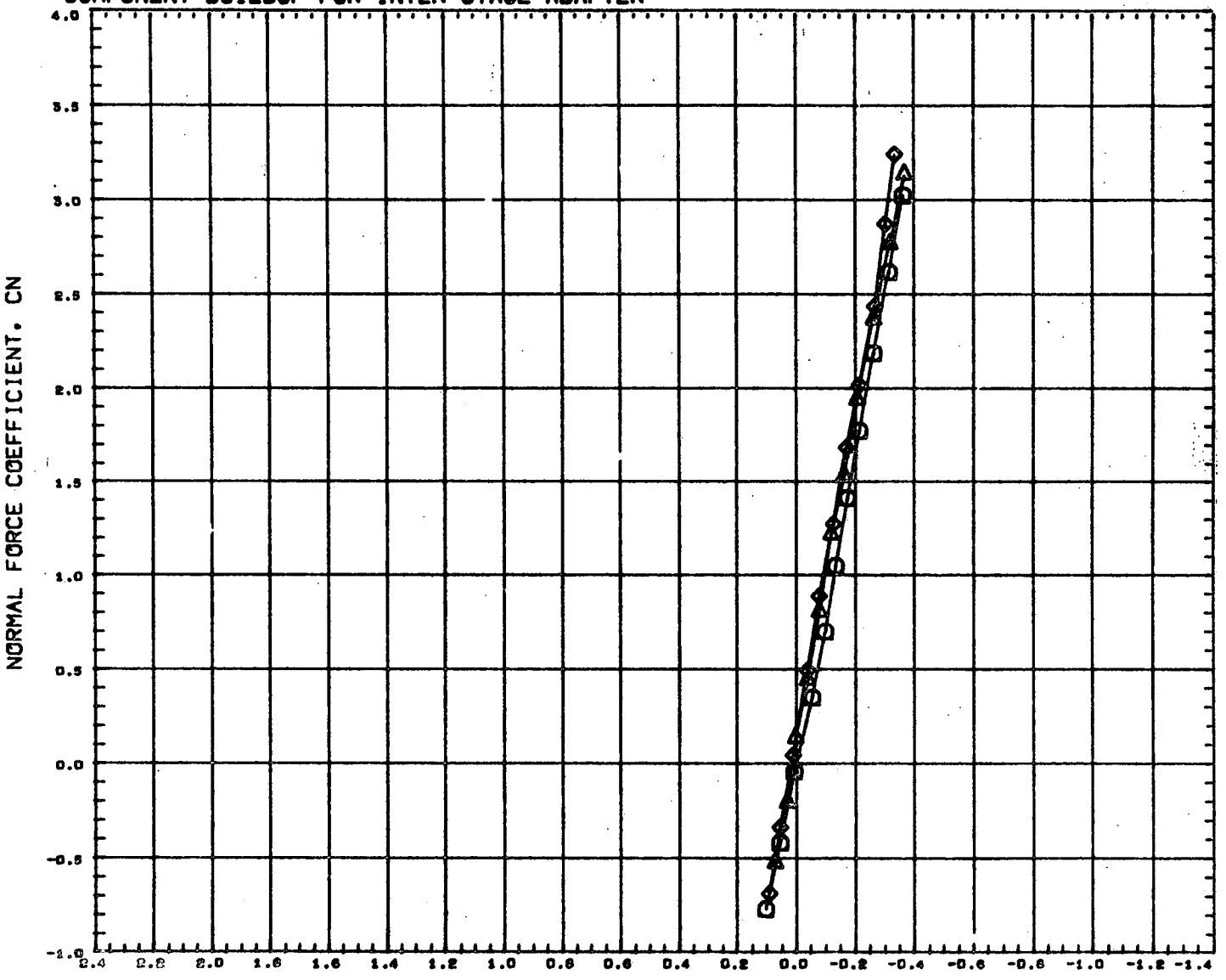


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS0150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.950

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

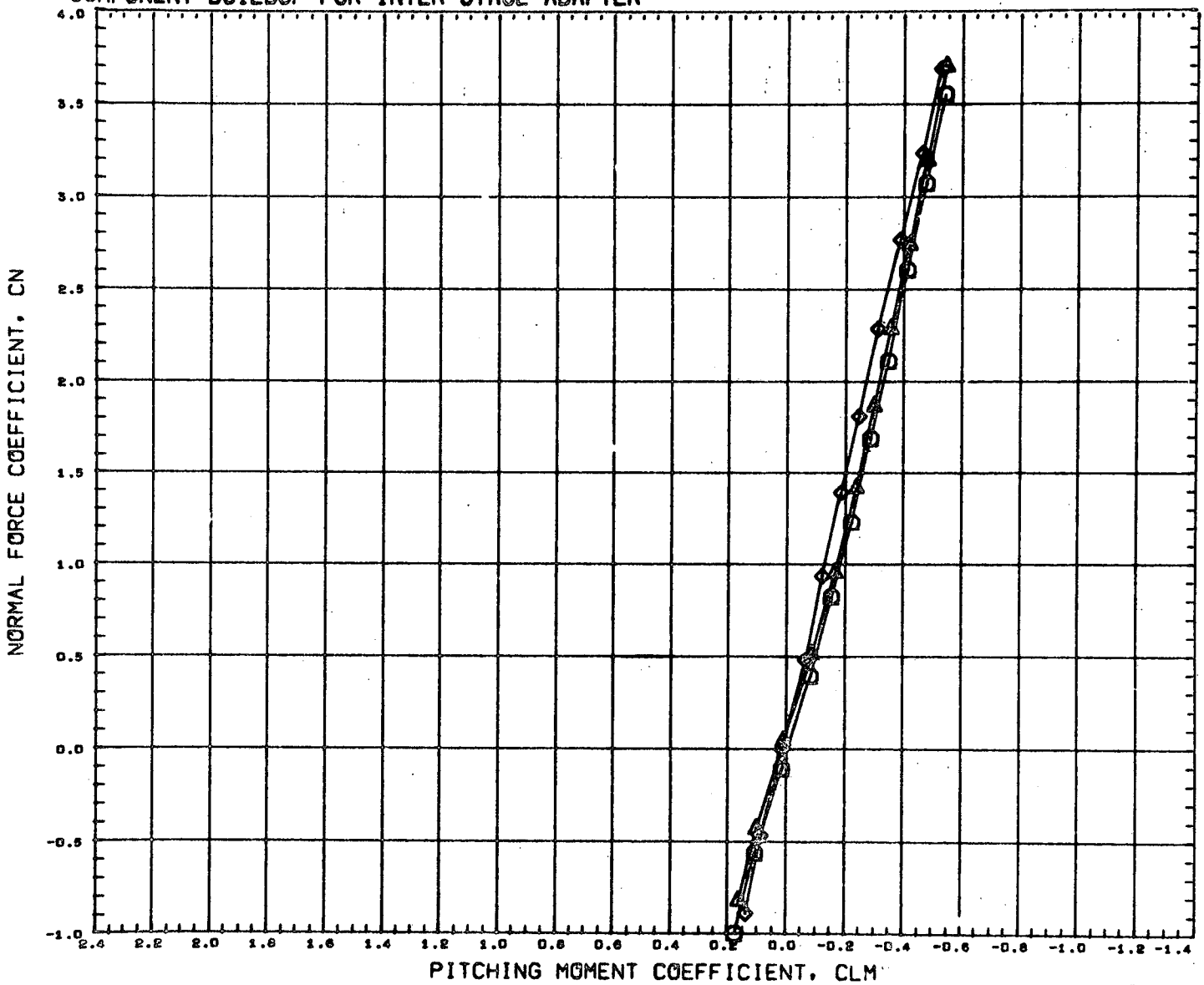


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS014D)	◁	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS015D)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.598

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

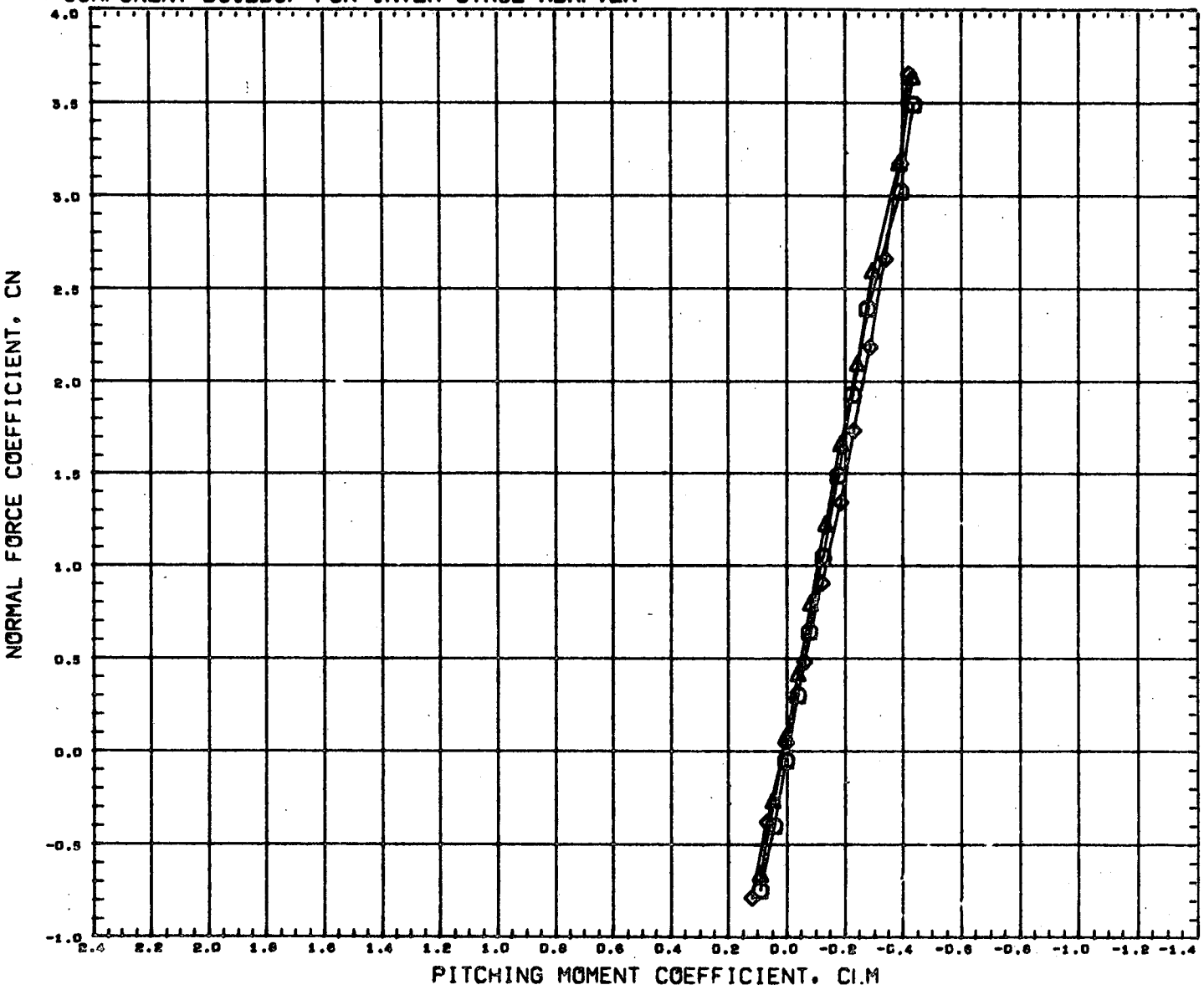


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS0190)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

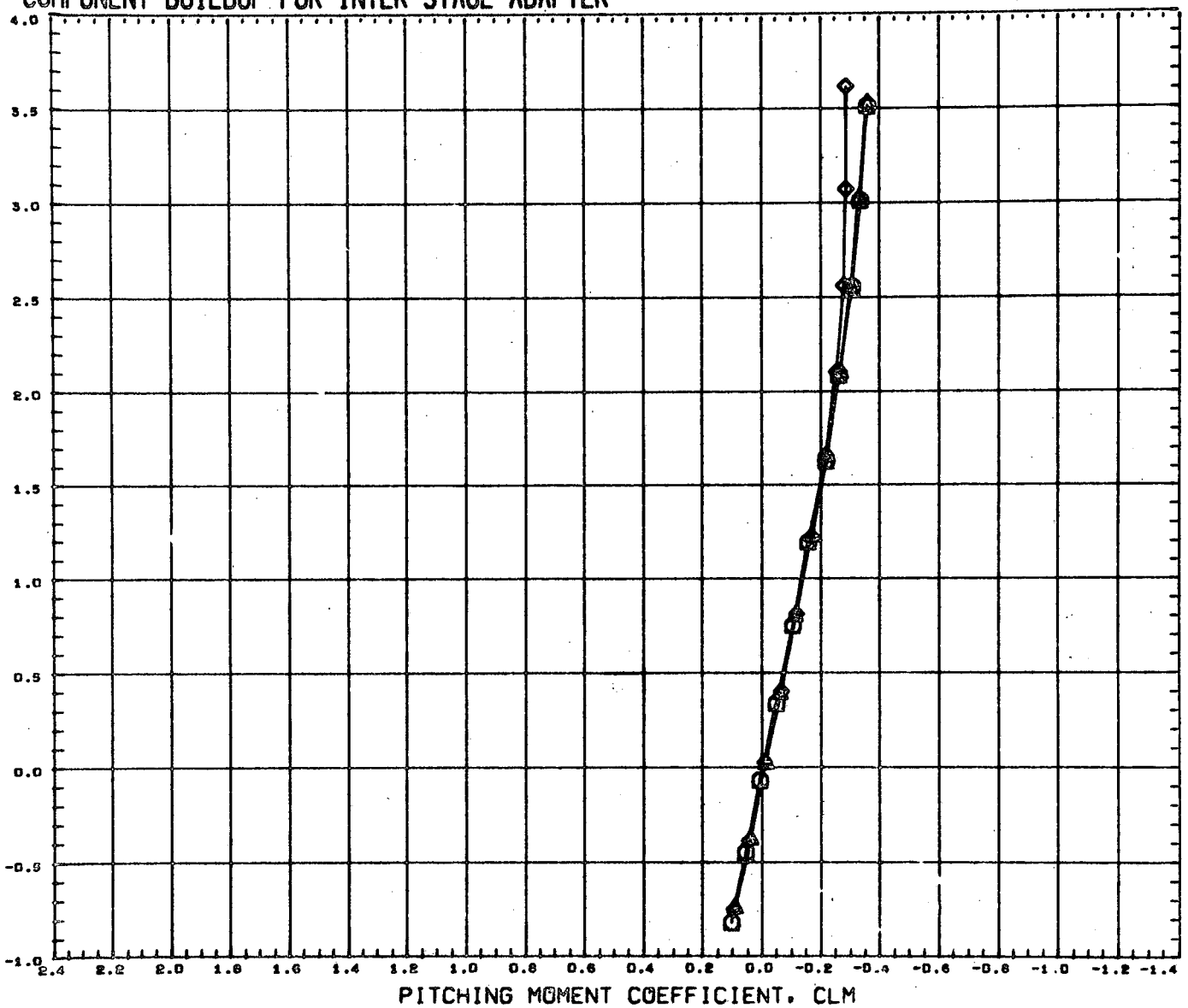


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)	○	MSFC 512 GD/C .003306 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0140)	⊠	MSFC 512 GD/C .003306 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS0150)	◇	MSFC 512 GD/C .003306 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

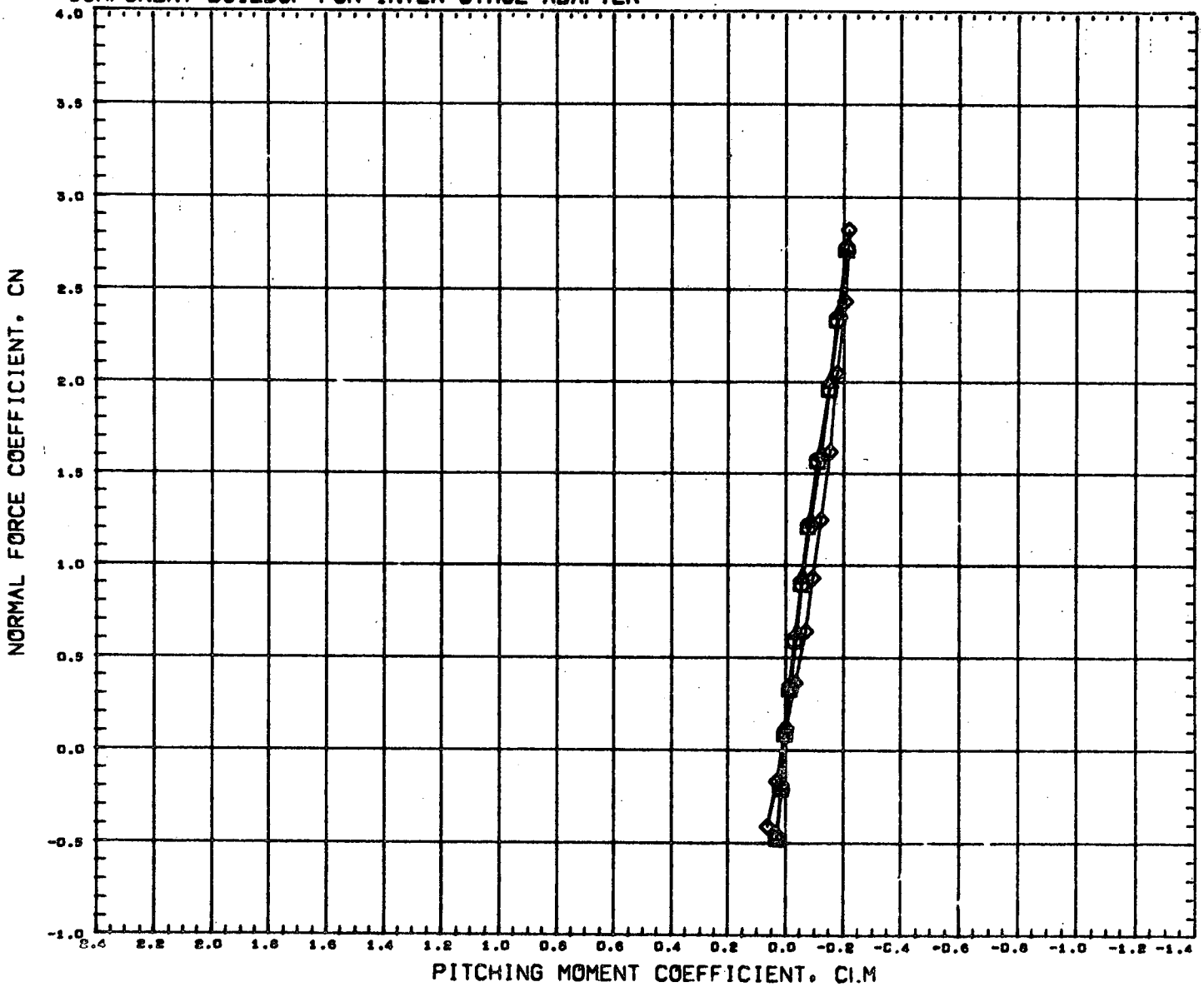


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	△	MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

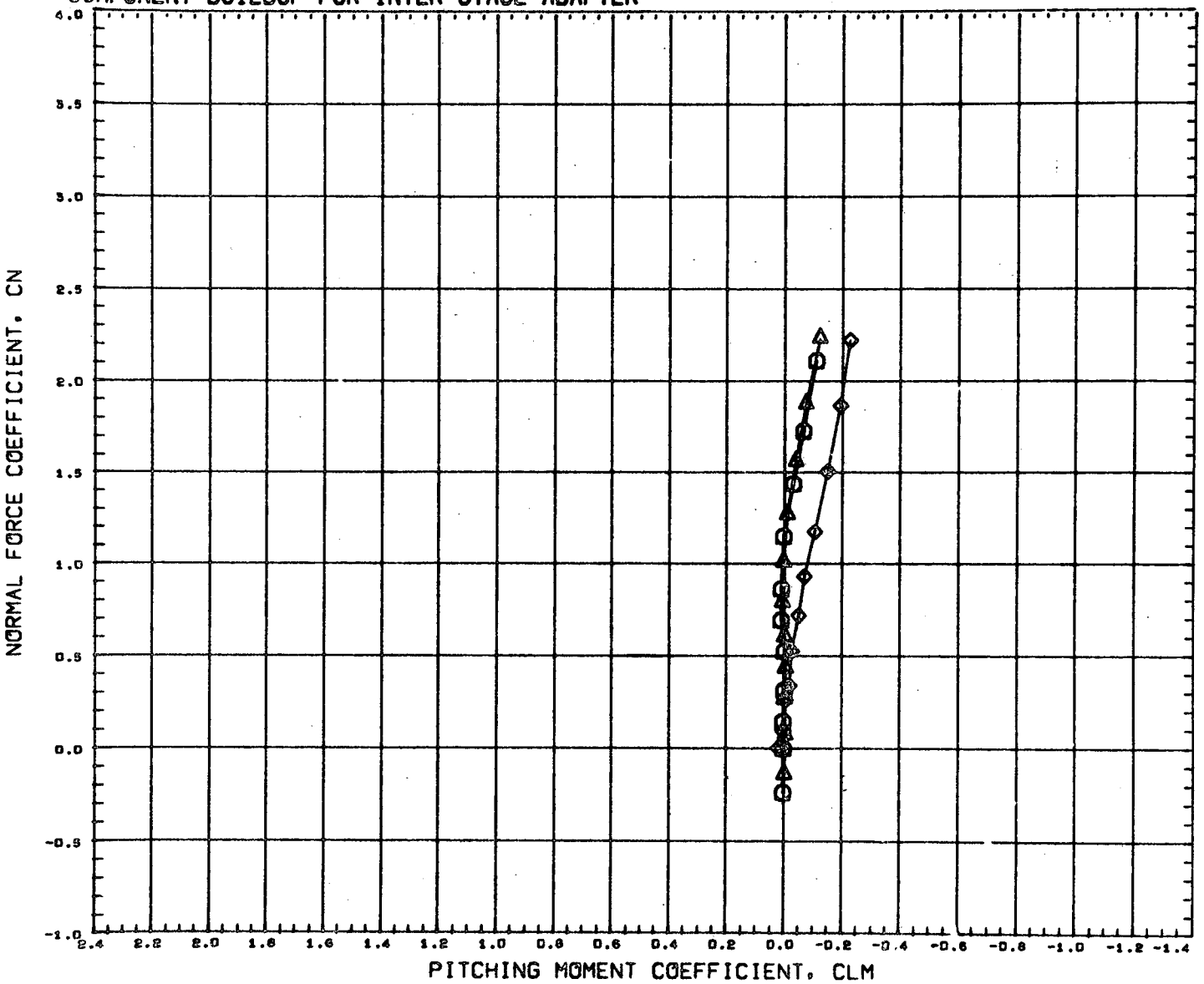


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5001C)	□	MSFC 512 GD/C .009300 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50140)	◇	MSFC 512 GD/C .009300 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(D50150)	◇	MSFC 512 GD/C .009366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR INTER STAGE ADAPTER

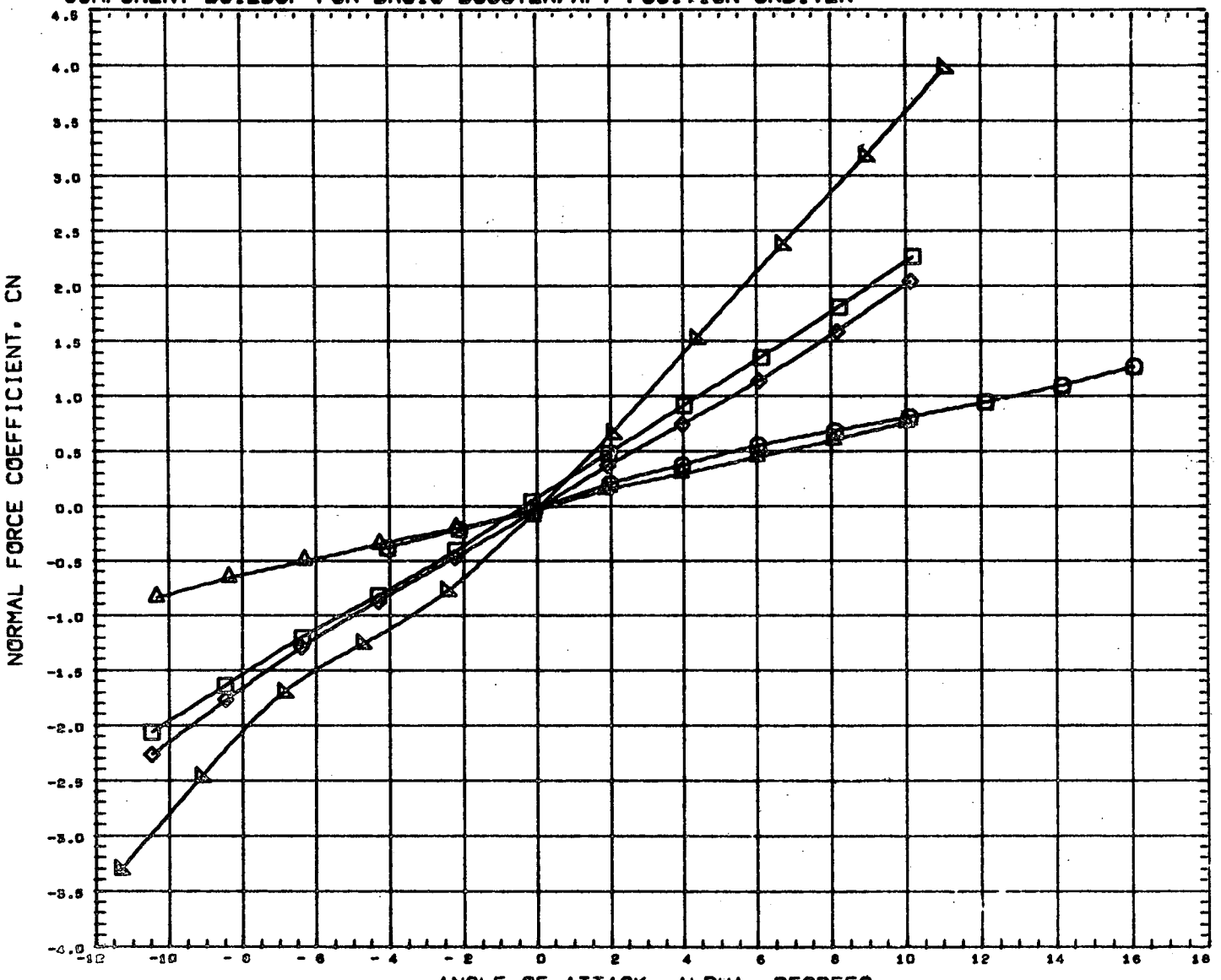


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES001C)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS014D)		MSFC 512 GD/C .003366 BOOSTER	B35R6T10	0.000	0.000	0.000	0.000
(DS019D)		MSFC 512 GD/C .003366 BOOSTER	B36R6T10	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

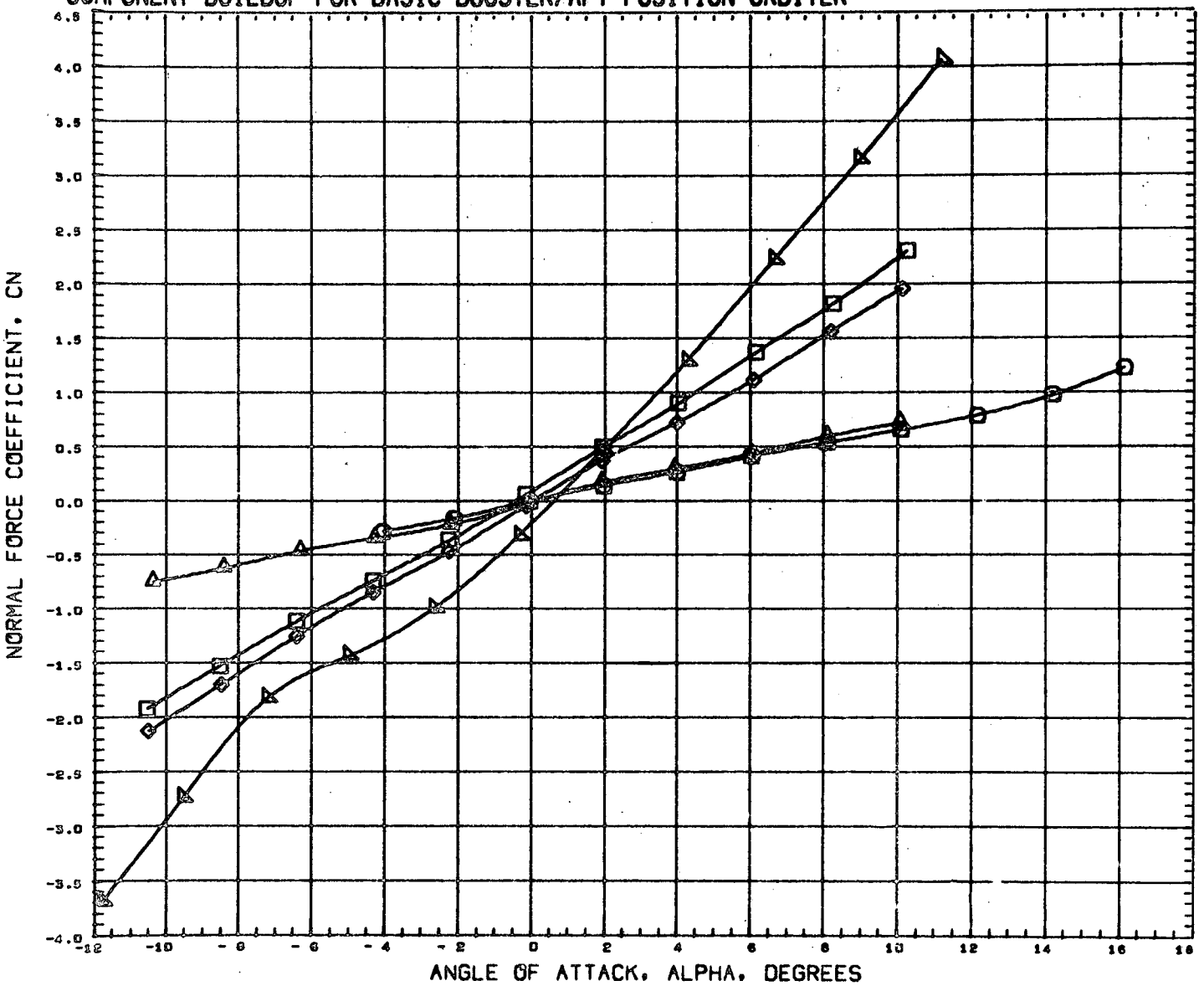


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1DT3	0.000	0.000	0.000	0.000
(D50280)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1D04T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

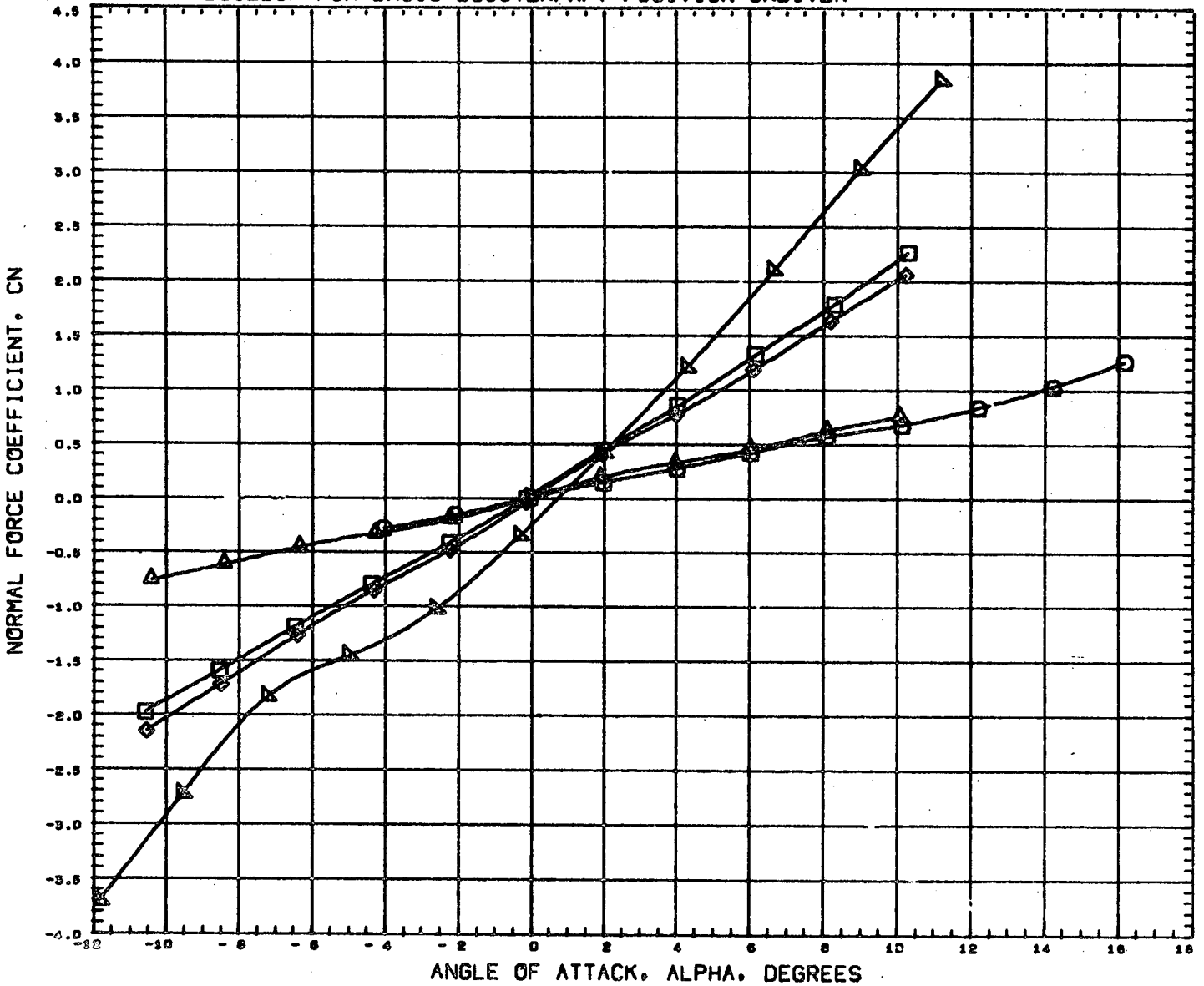


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

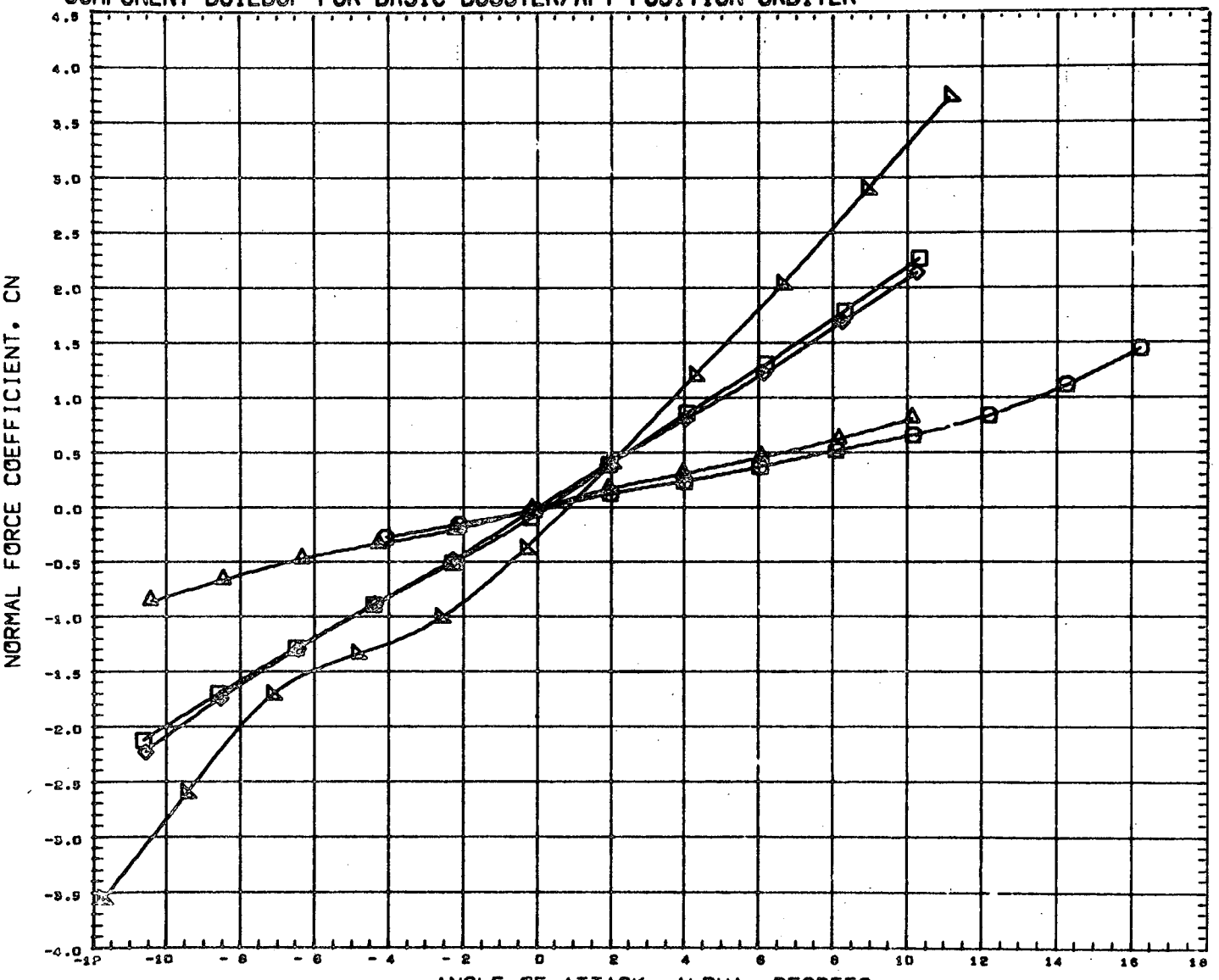


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O4T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

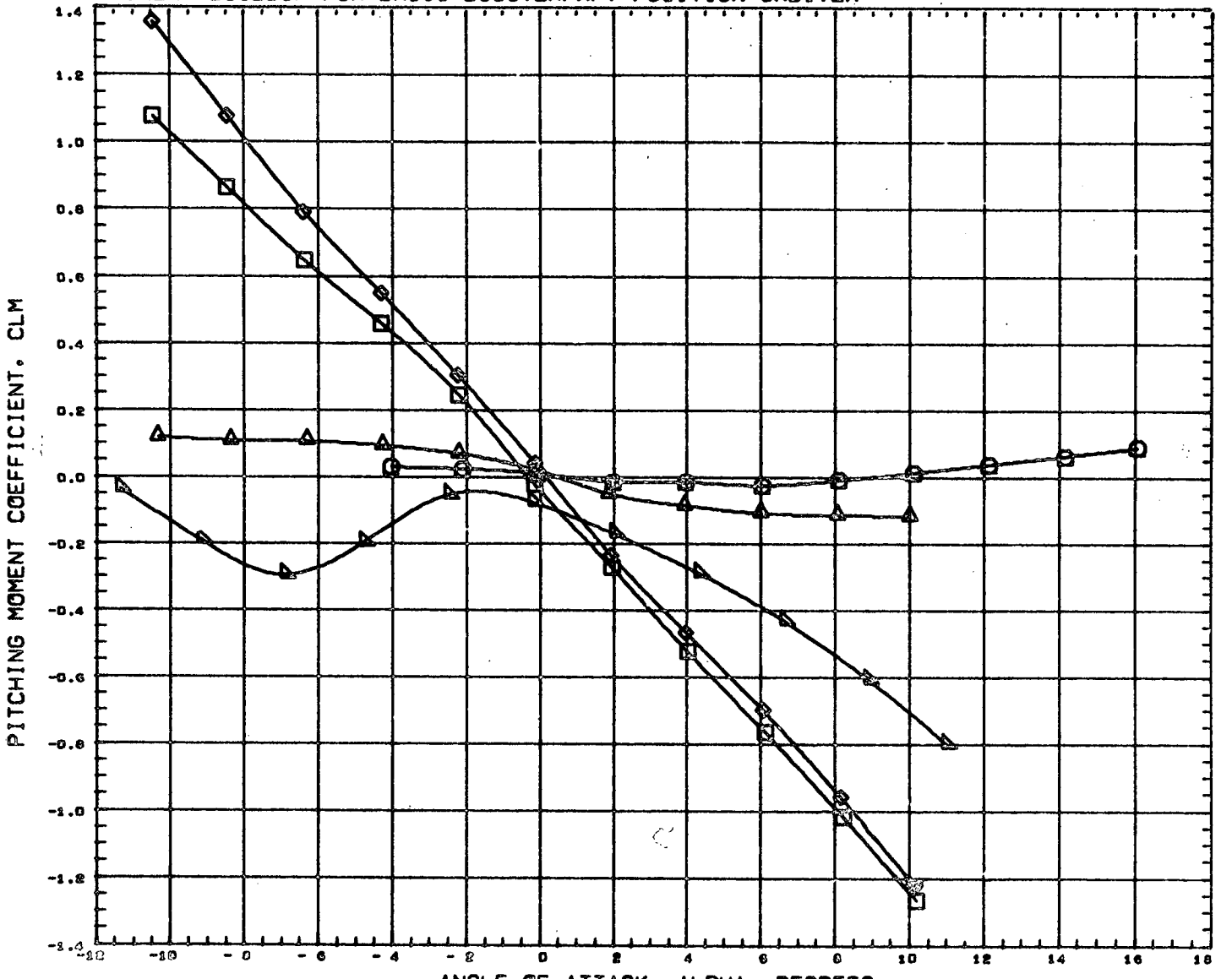


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50280)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

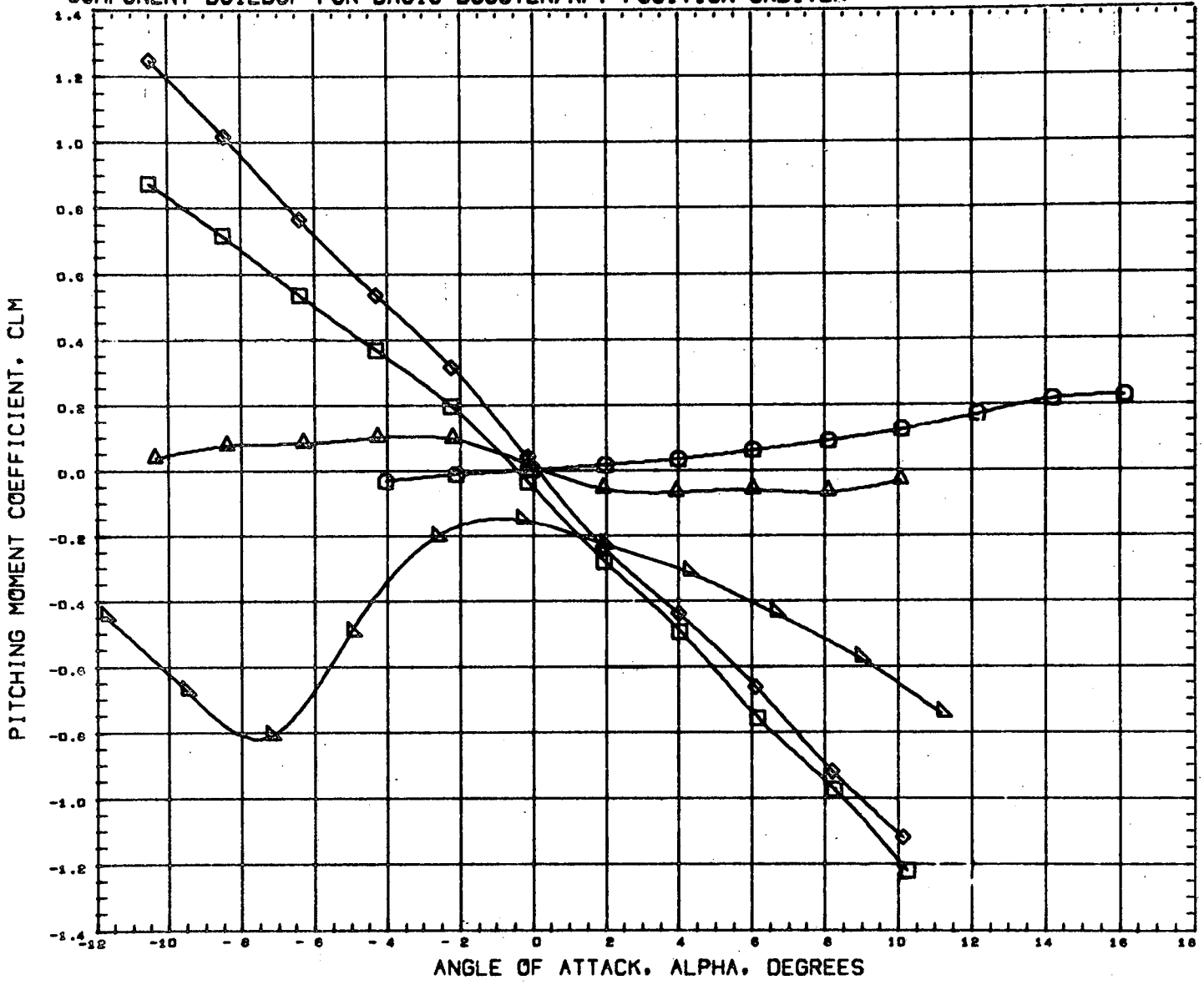


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B54R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B54R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50200)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

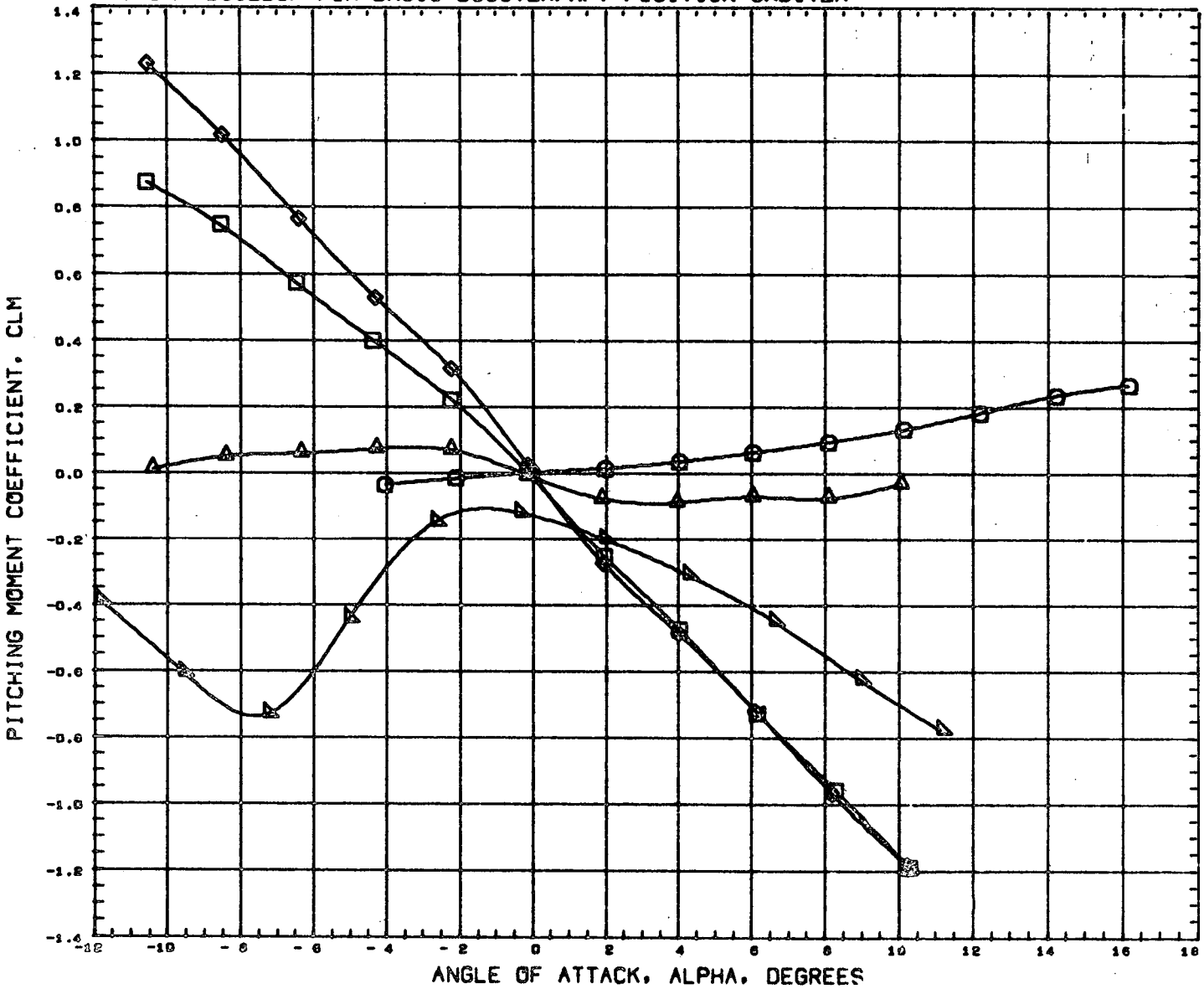


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1UT3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

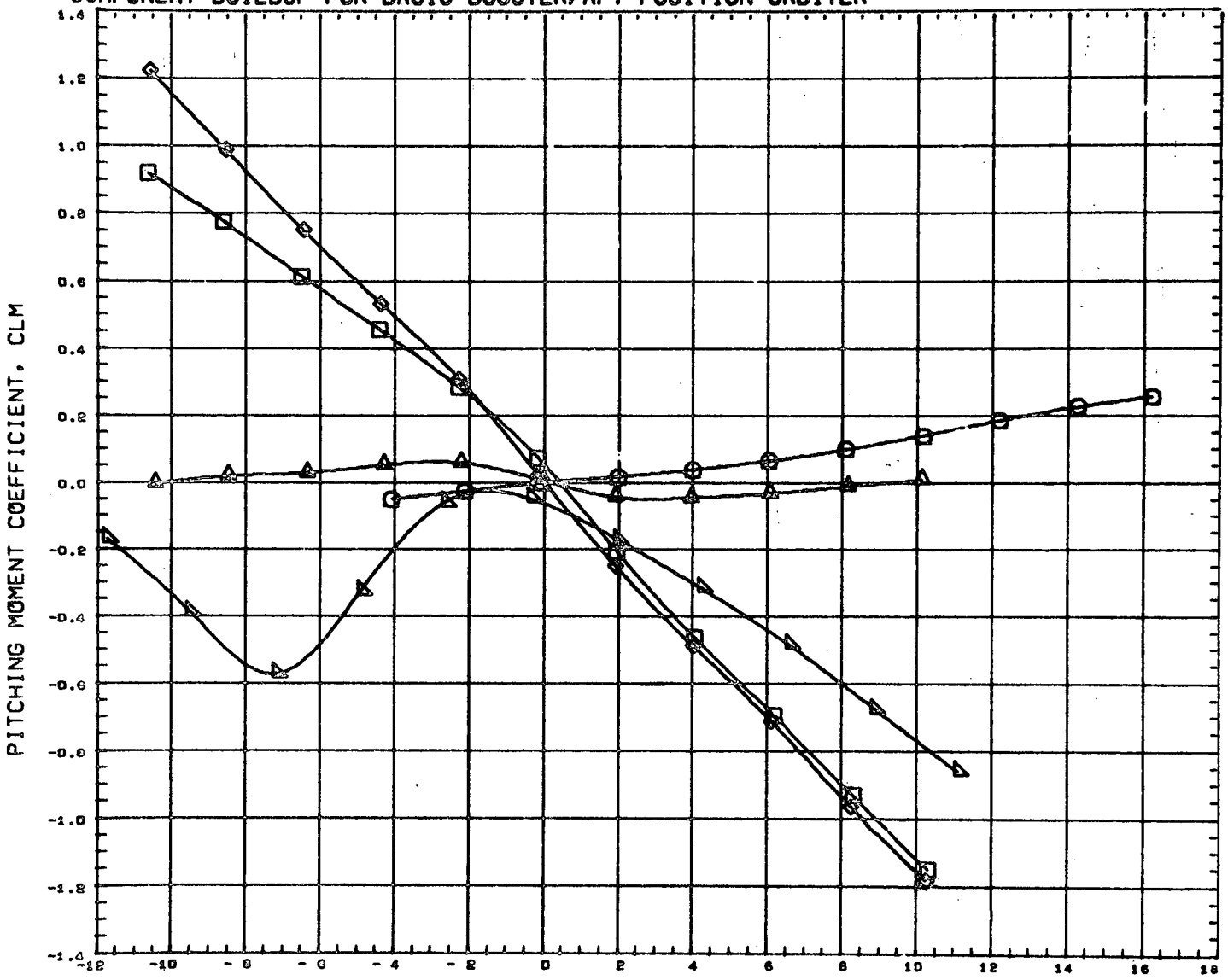


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34RG	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34RGT3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34RGT10T3	0.000	0.000	0.000	0.000
(D50200)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34RGT100T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34RGT100ZT3	0.000	0.000	0.000	0.000

MACH 1.20

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

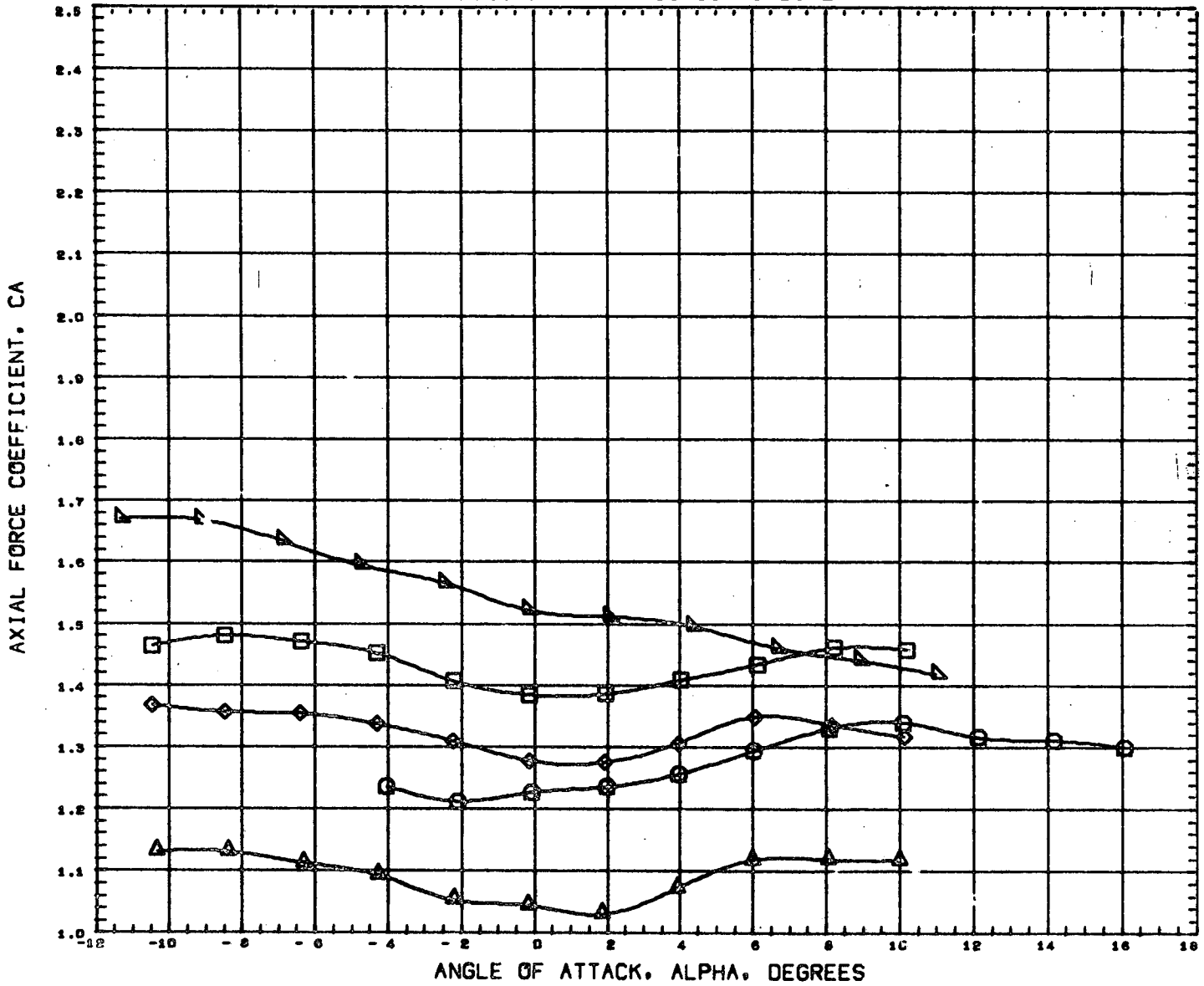


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS033D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(DS032D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS029D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

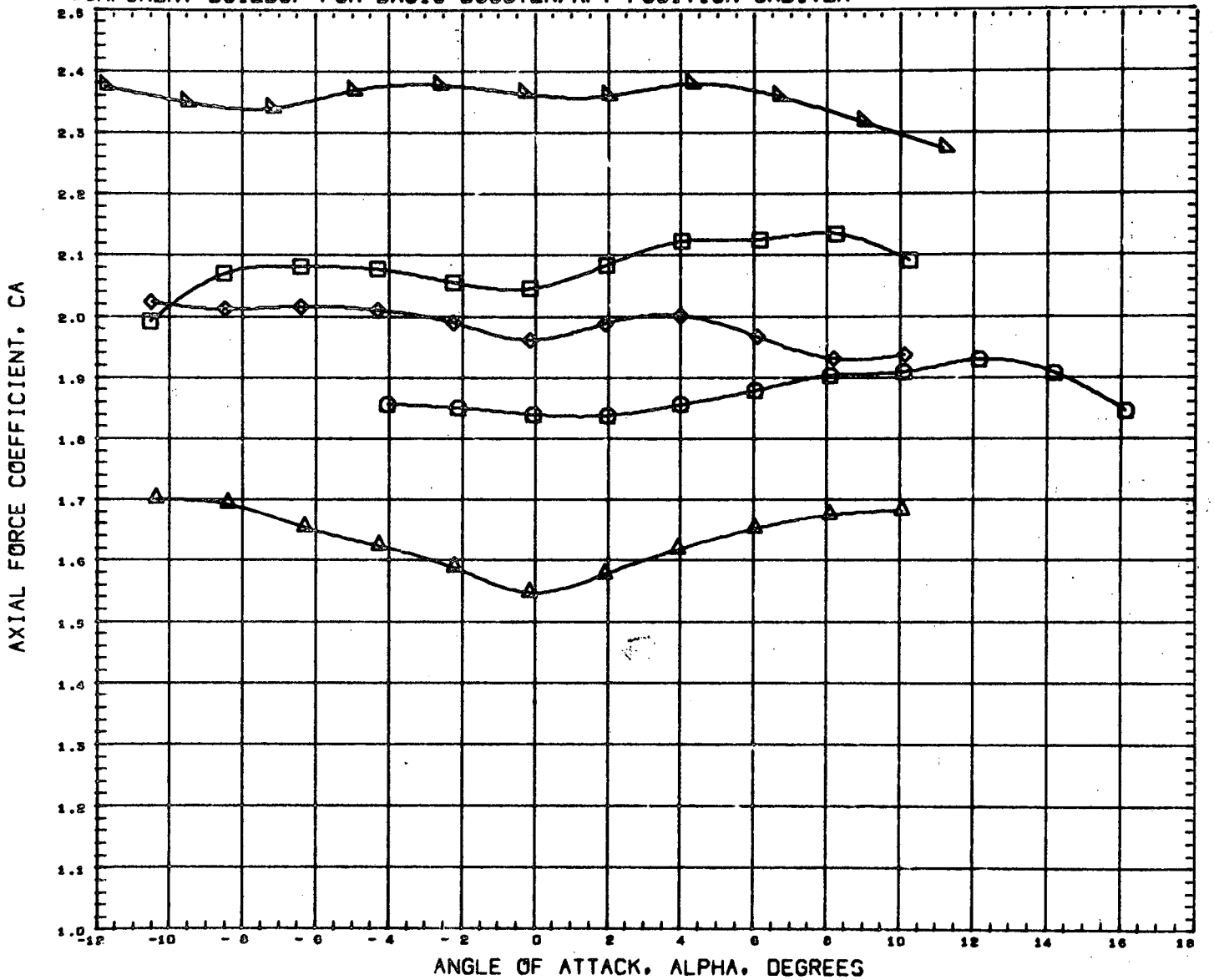


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003966 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34RGT10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34RGT10O4T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34RGT10O2T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

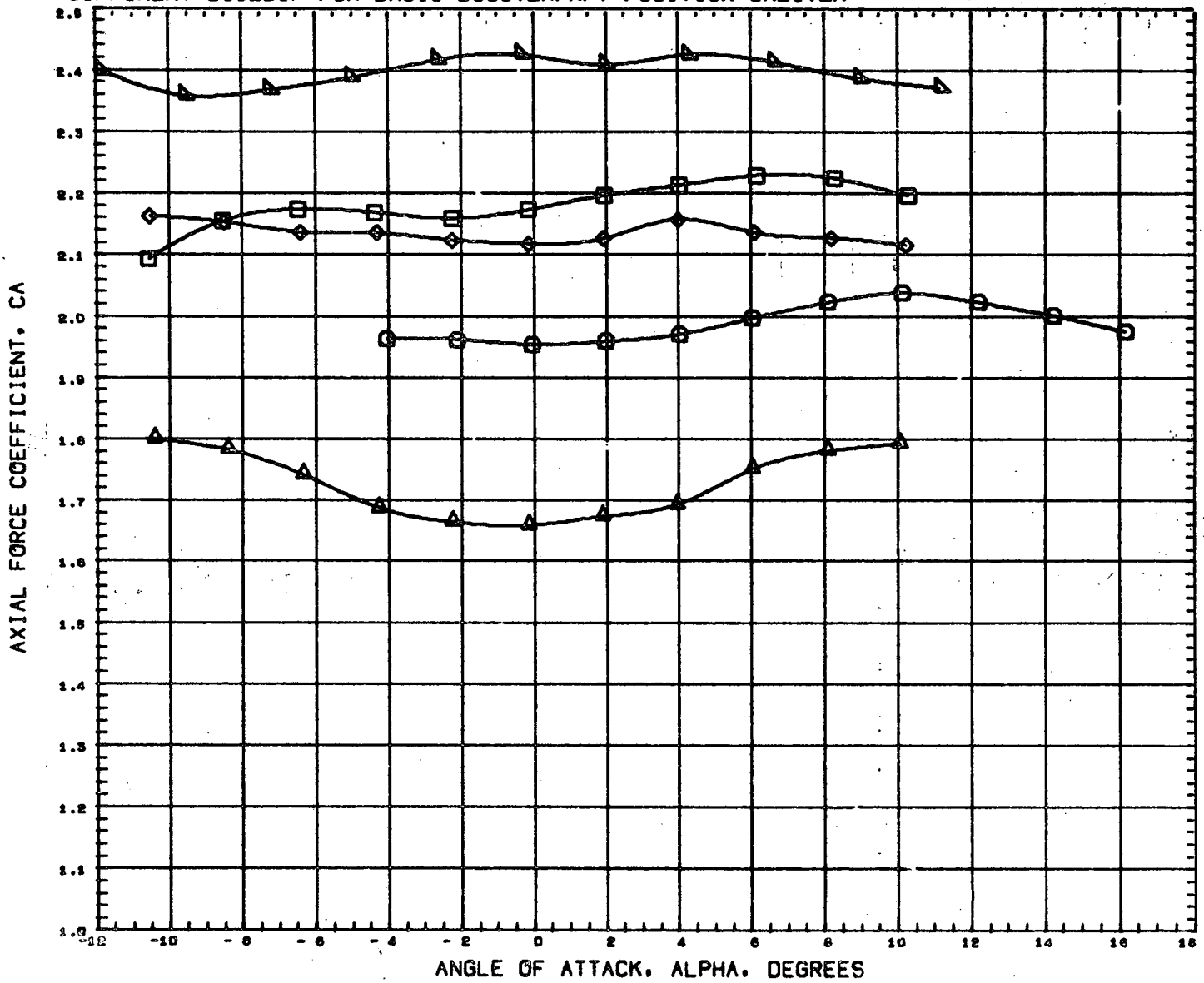


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0330)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(DS0320)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0200)	□	MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(ES017A)	▷	MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

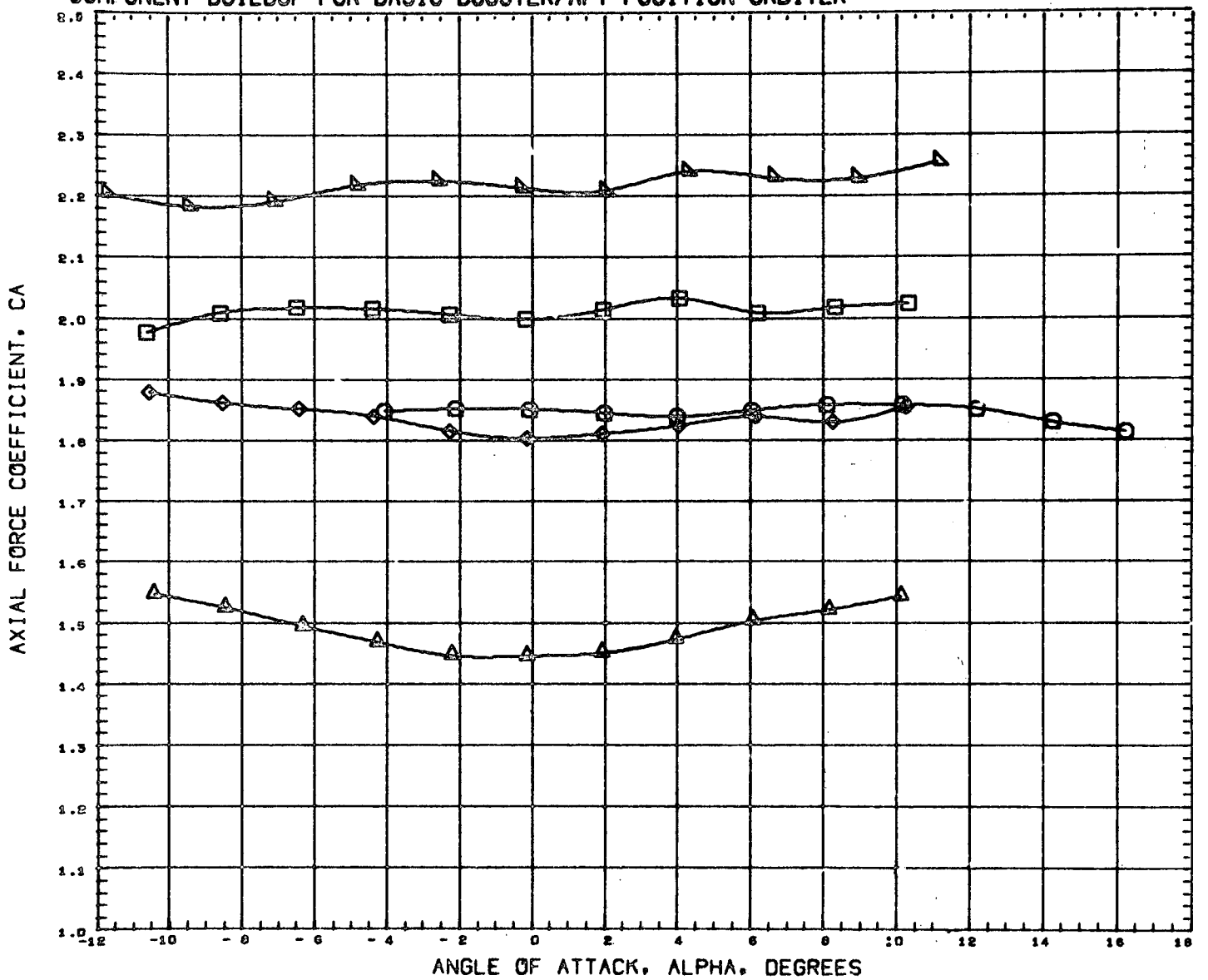


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003966 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

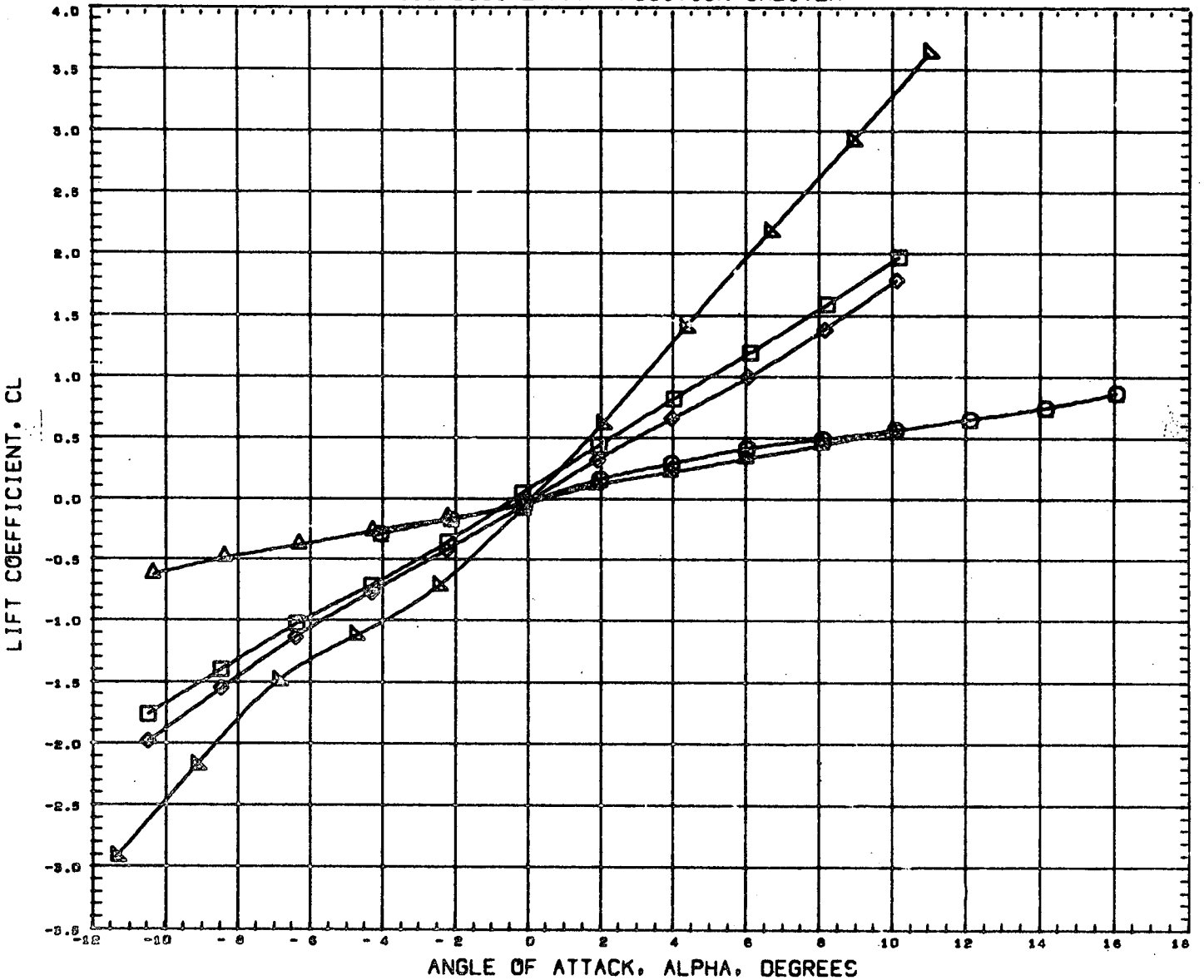


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E9D11C)		MSFC 512 GD/C .003366 BOOSTER	B34RG	0.000	45.000		
(D90330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D90320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D60200)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E9D17A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

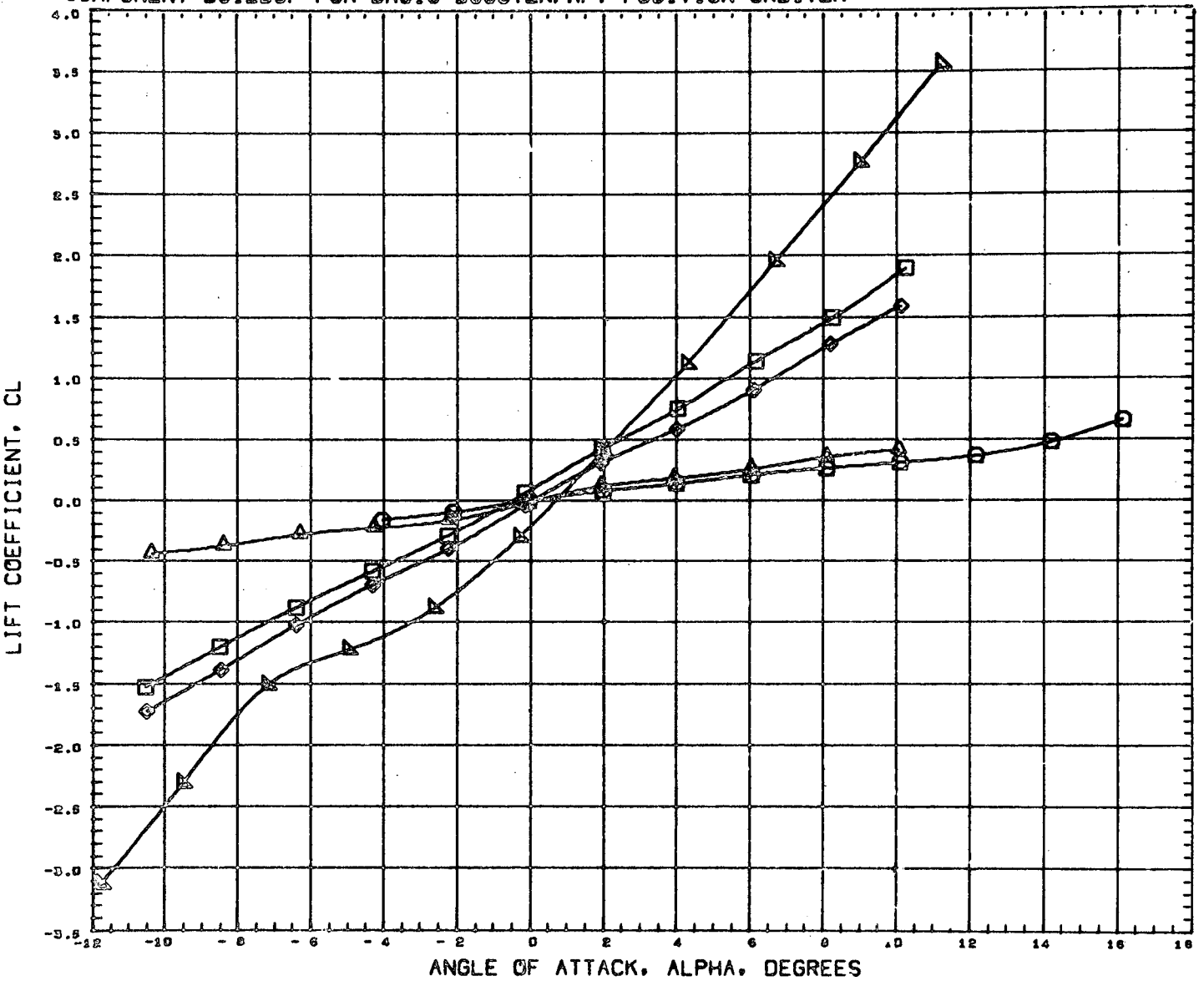


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(DS0320)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0280)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

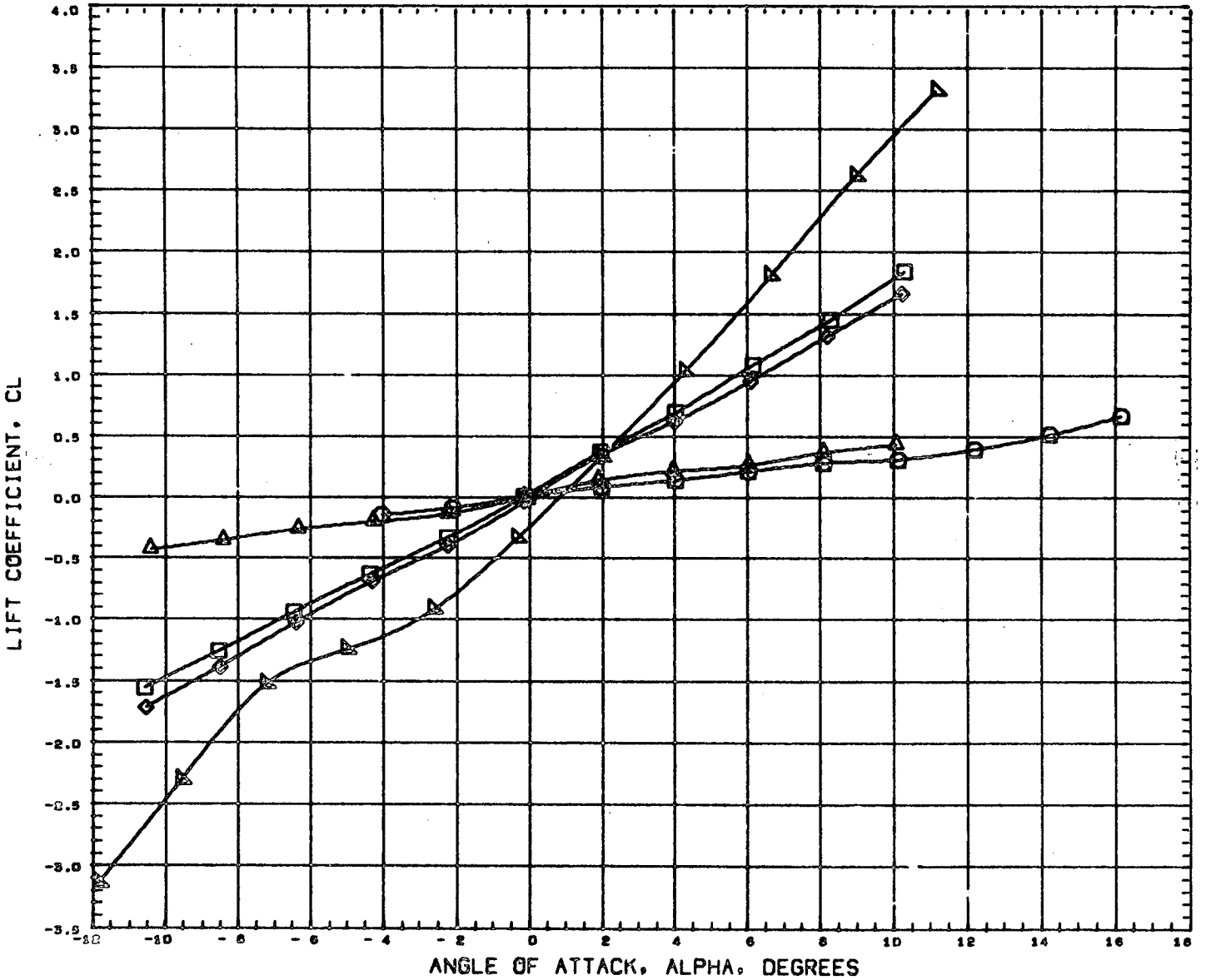


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(DS0320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0280)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

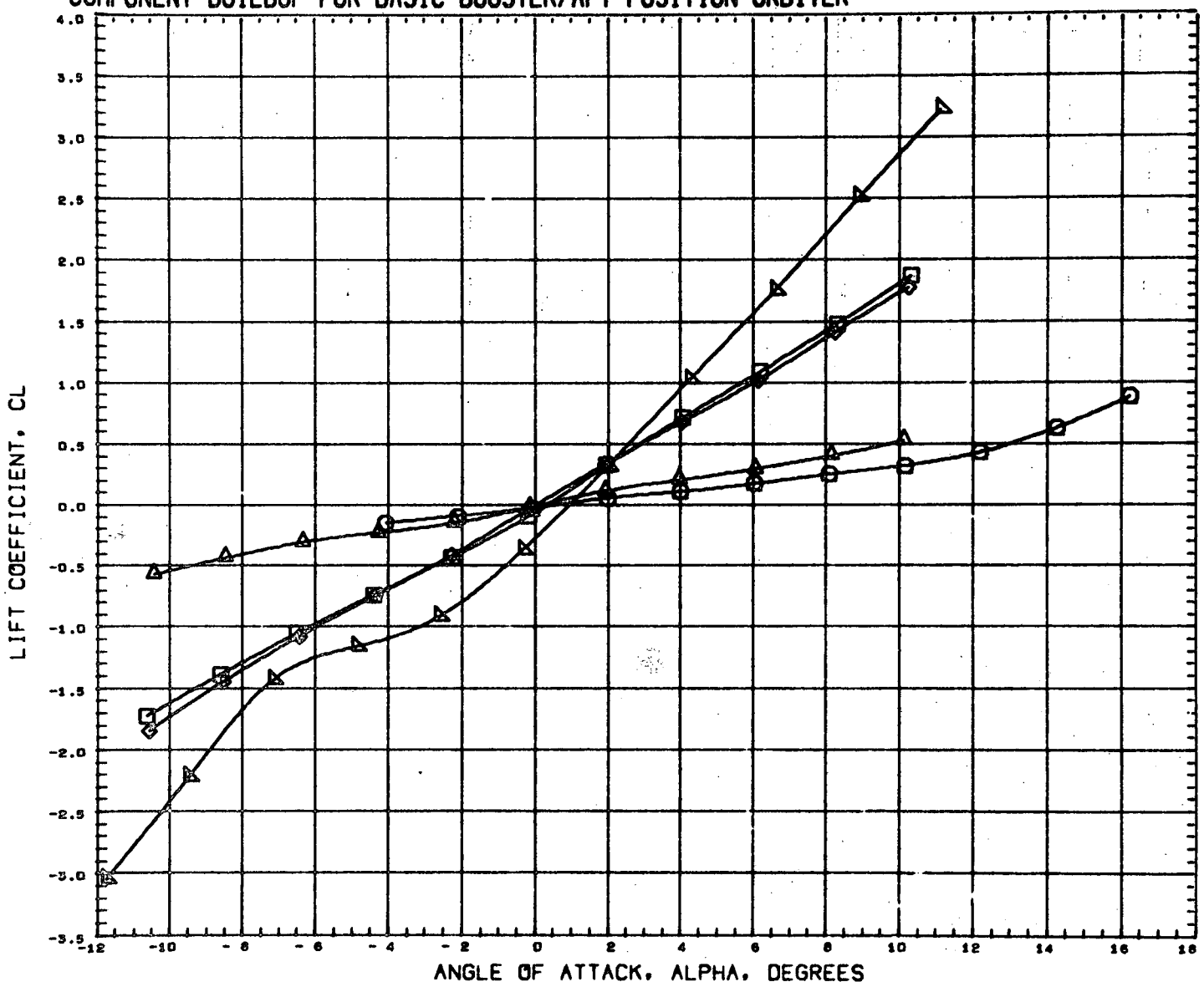


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .005366 BOOSTER	B54R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .005366 BOOSTER	B54R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .005366 BOOSTER	B54R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .005366 BOOSTER/ORB.	B54R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .005366 BOOSTER/ORB.	B54R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

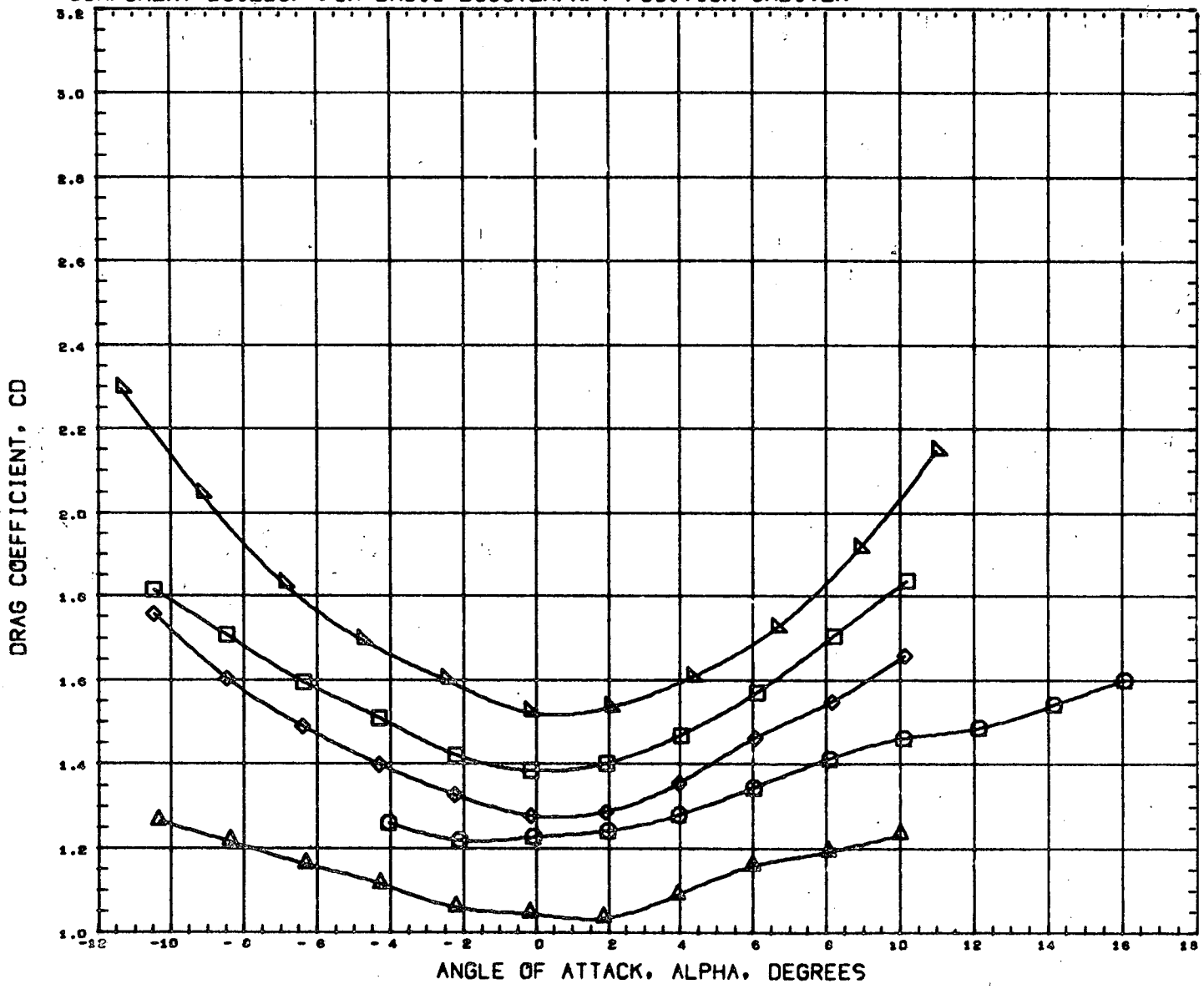


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

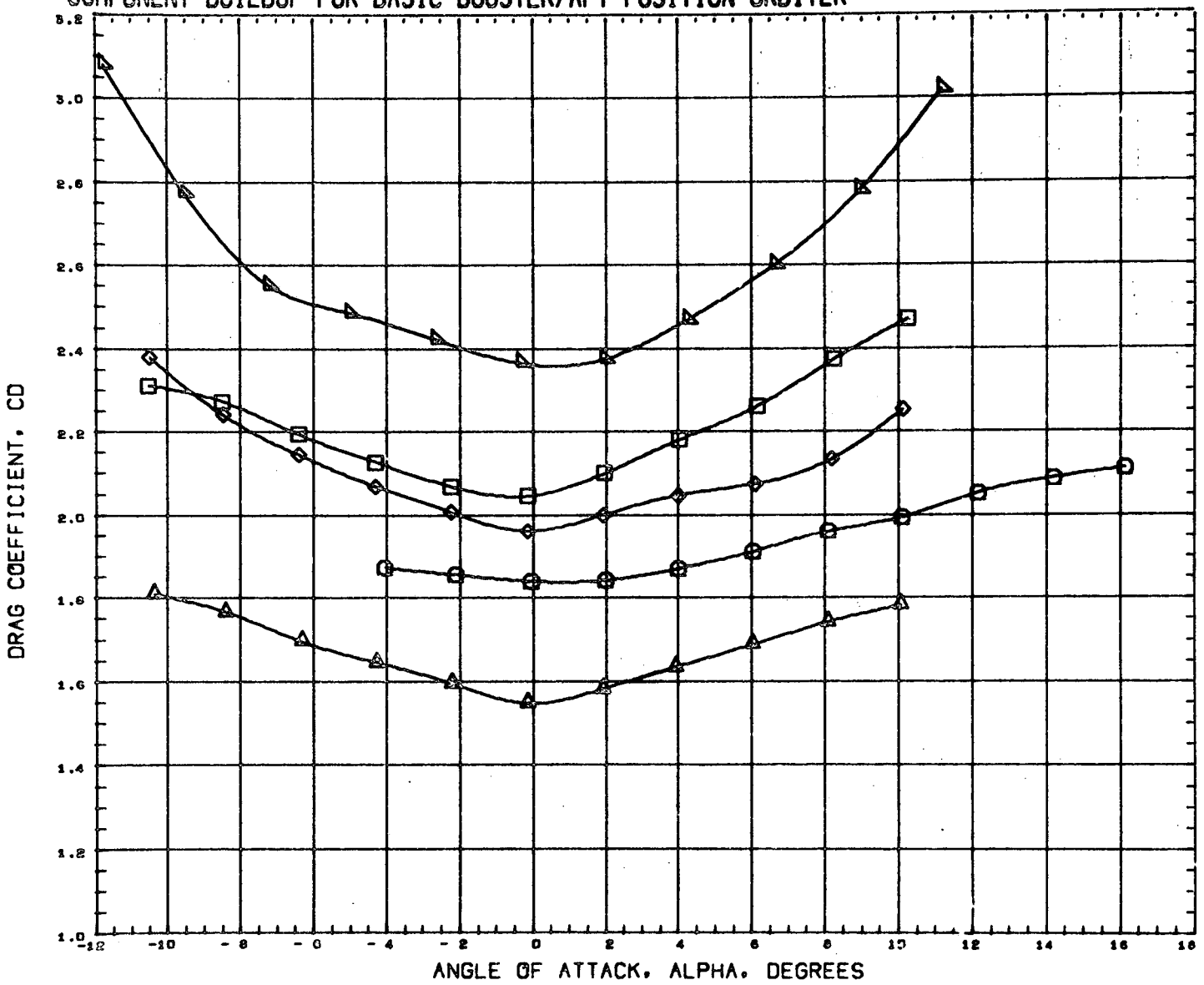


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003300 BOOSTER	B34R6	0.000	45.000		
(DS0330)		MSFC 512 GD/C .003306 BOOSTER	B34R6T3	0.000	0.000		
(DS0320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

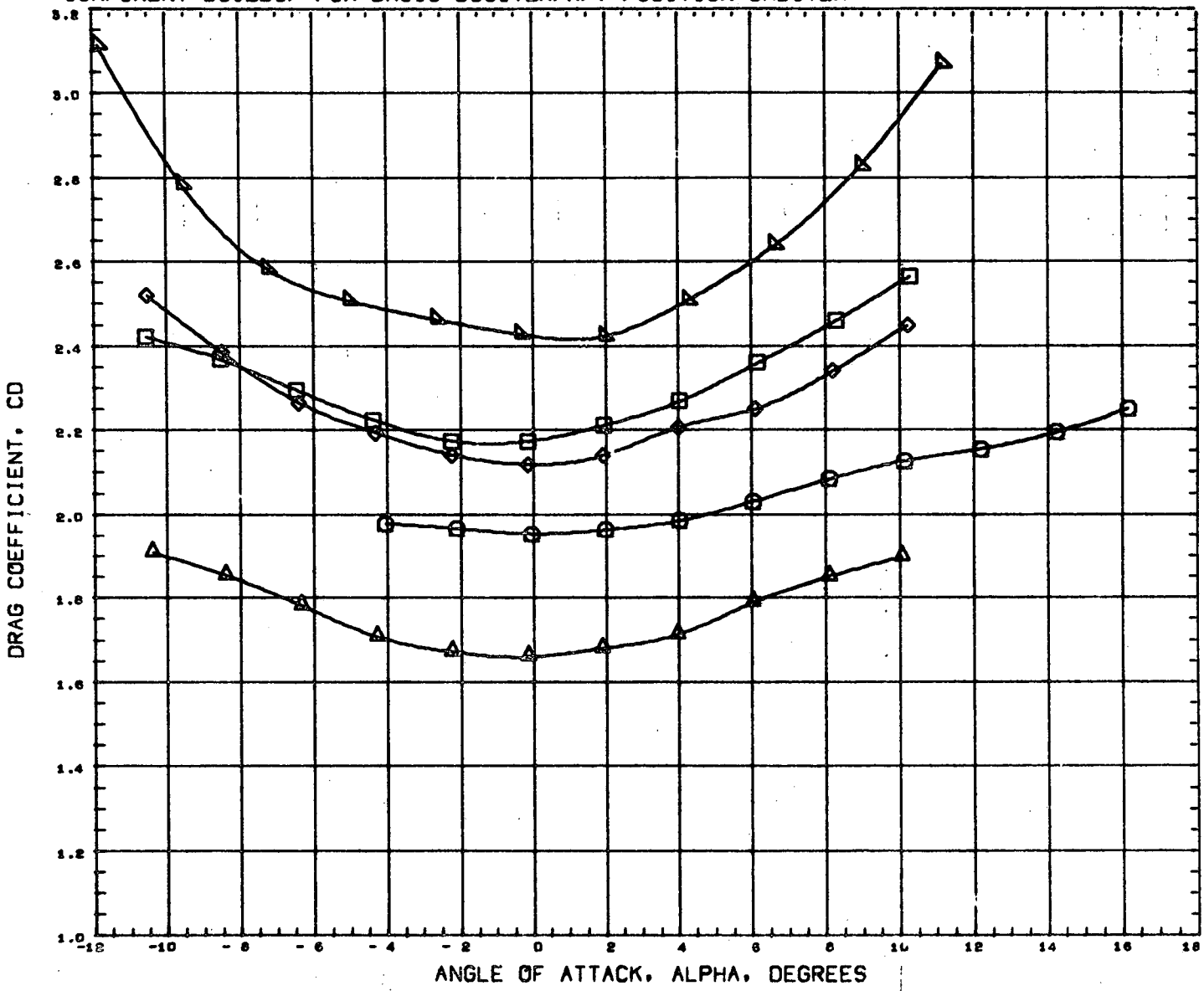


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOC	LFLAP	RFLAP
(E9011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D9033D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D9032D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D9029D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E9017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

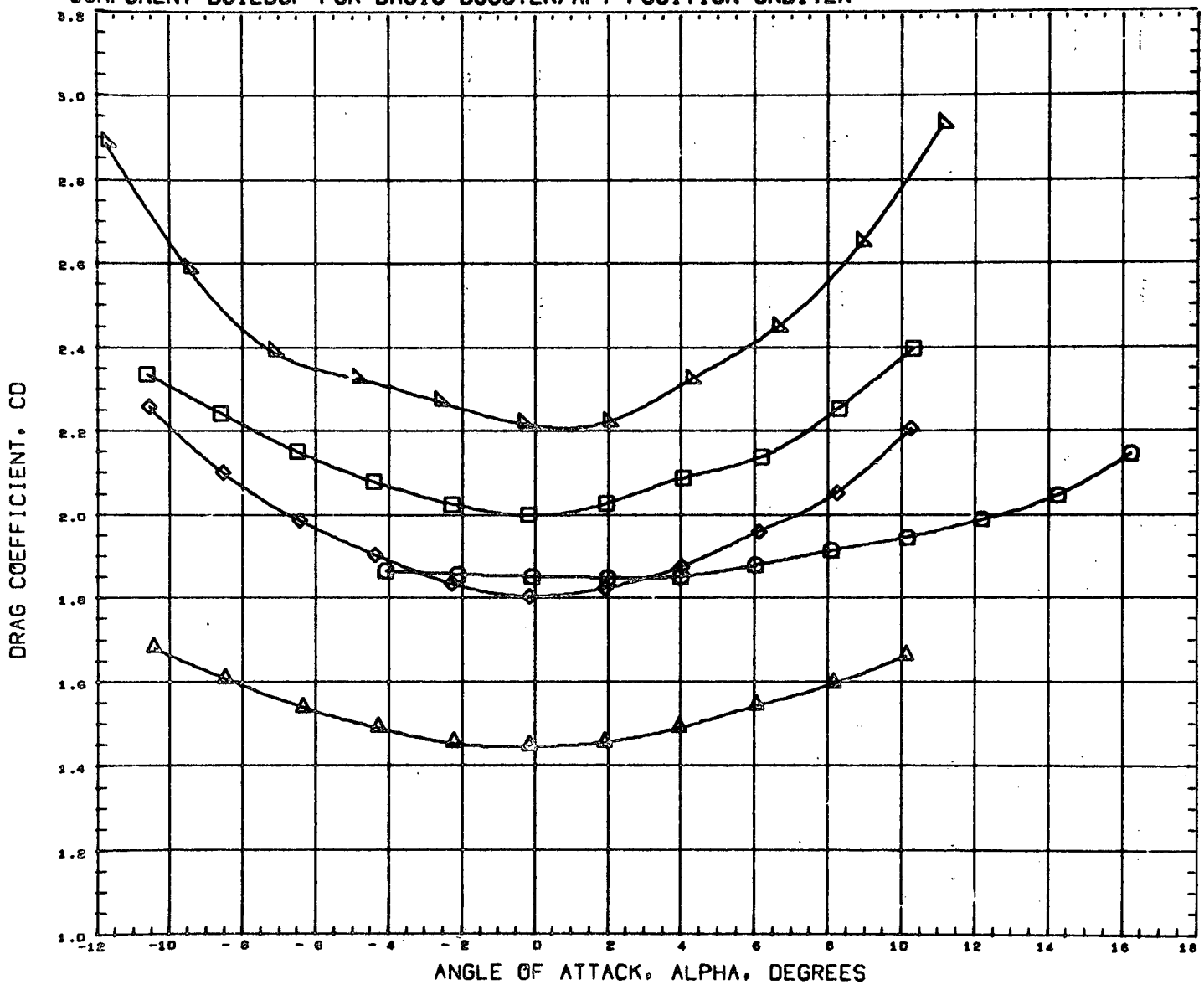


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003363 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O4T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

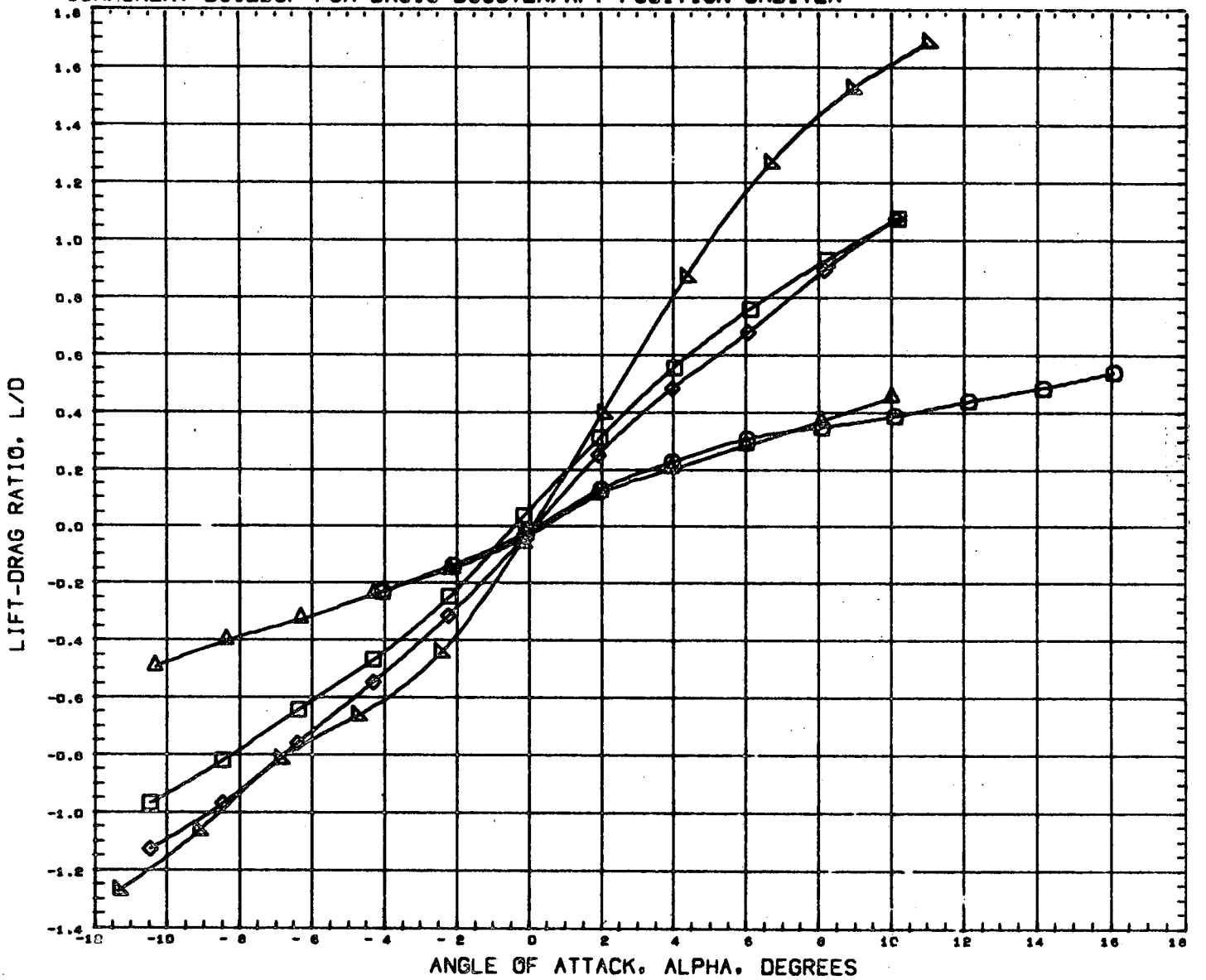


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.458

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

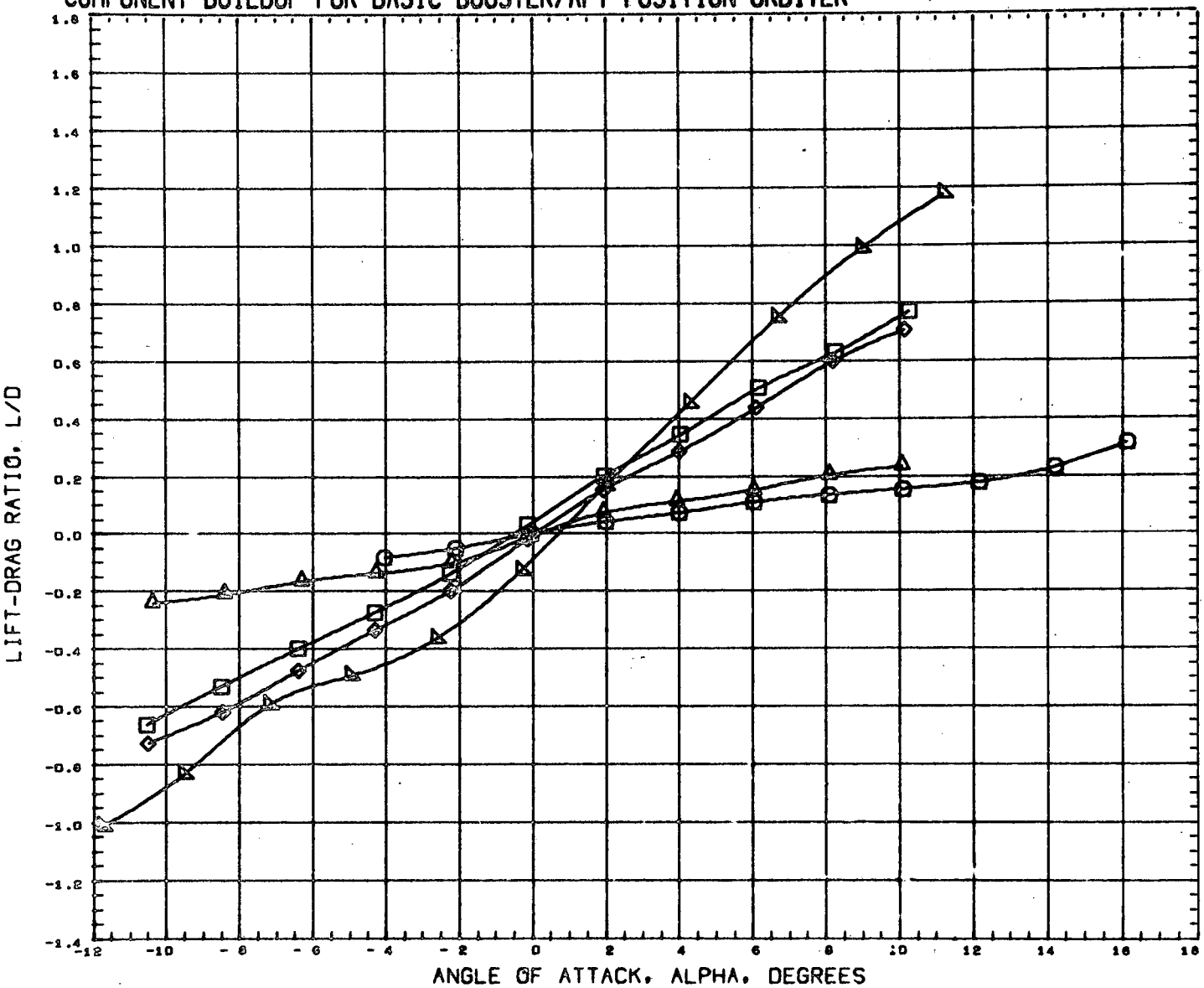


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003363 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003363 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

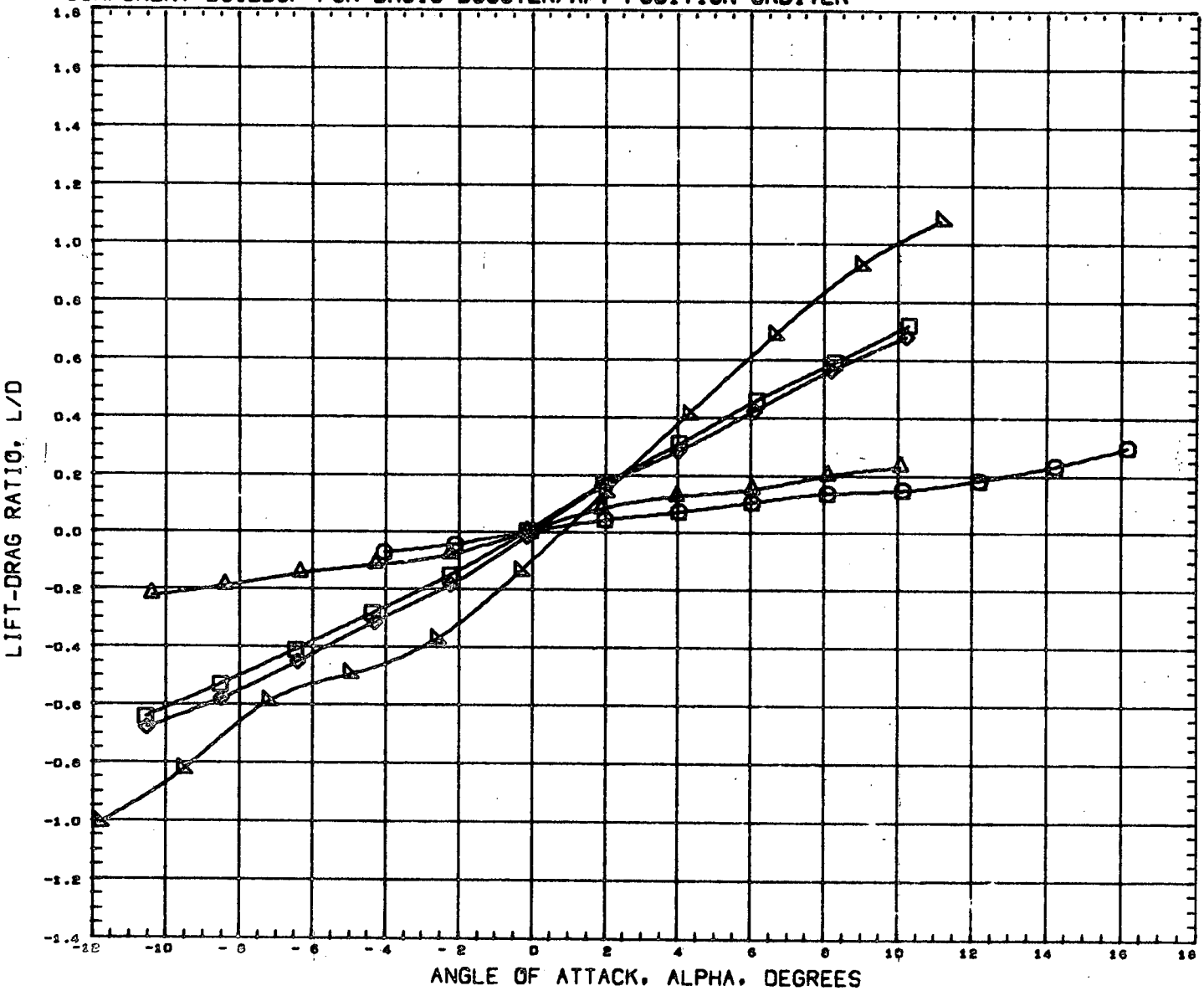


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

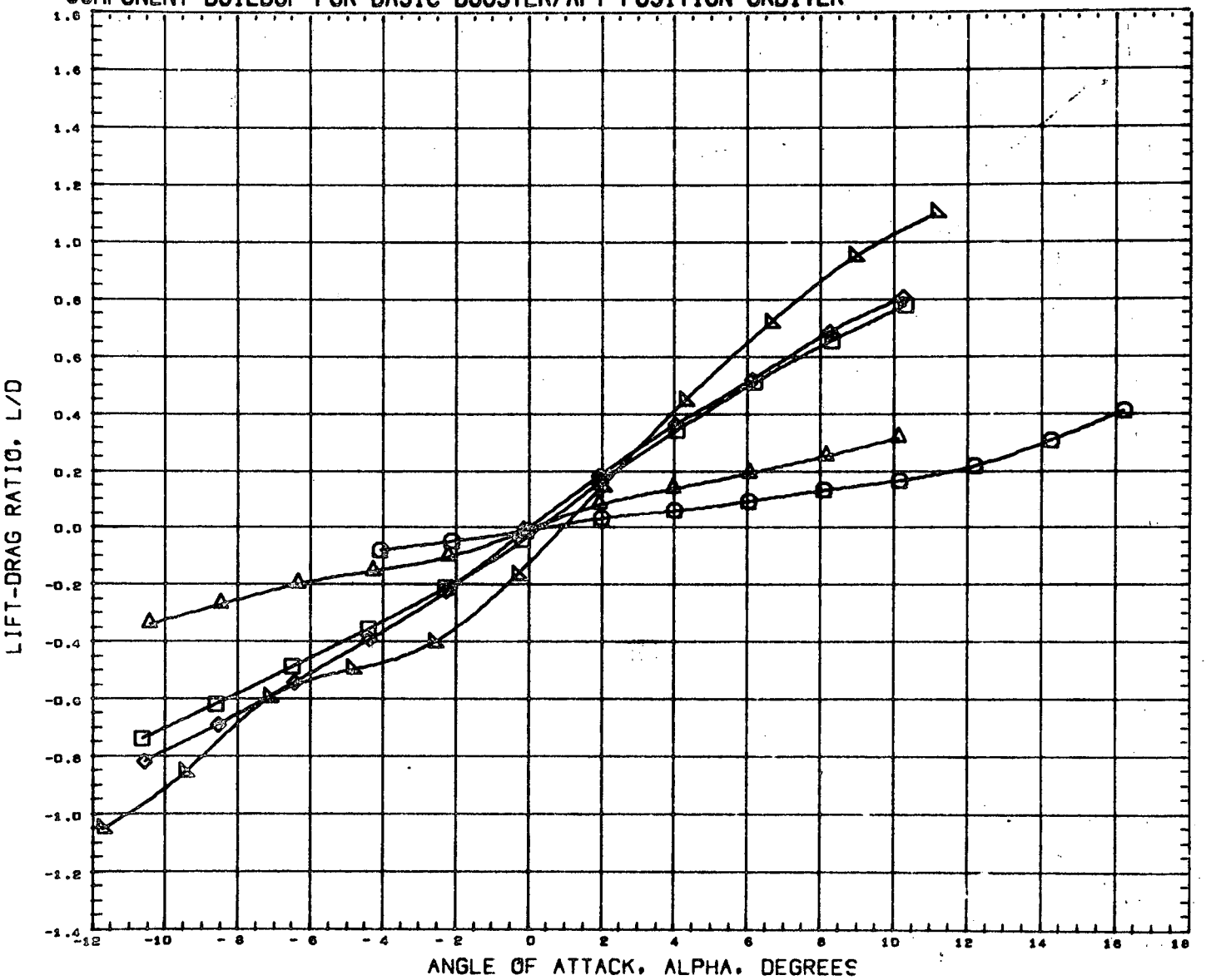


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003966 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O4T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

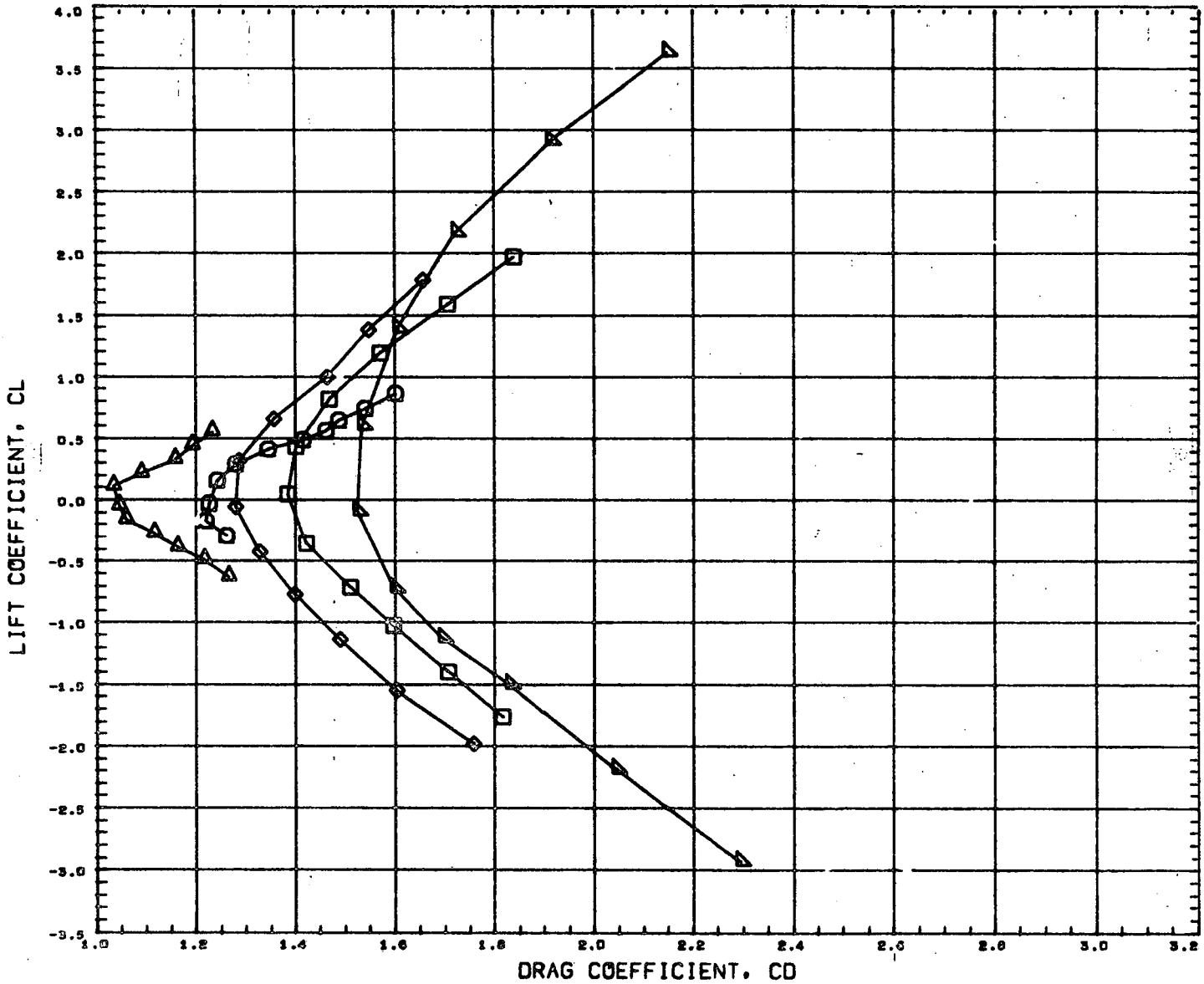


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(DS0320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

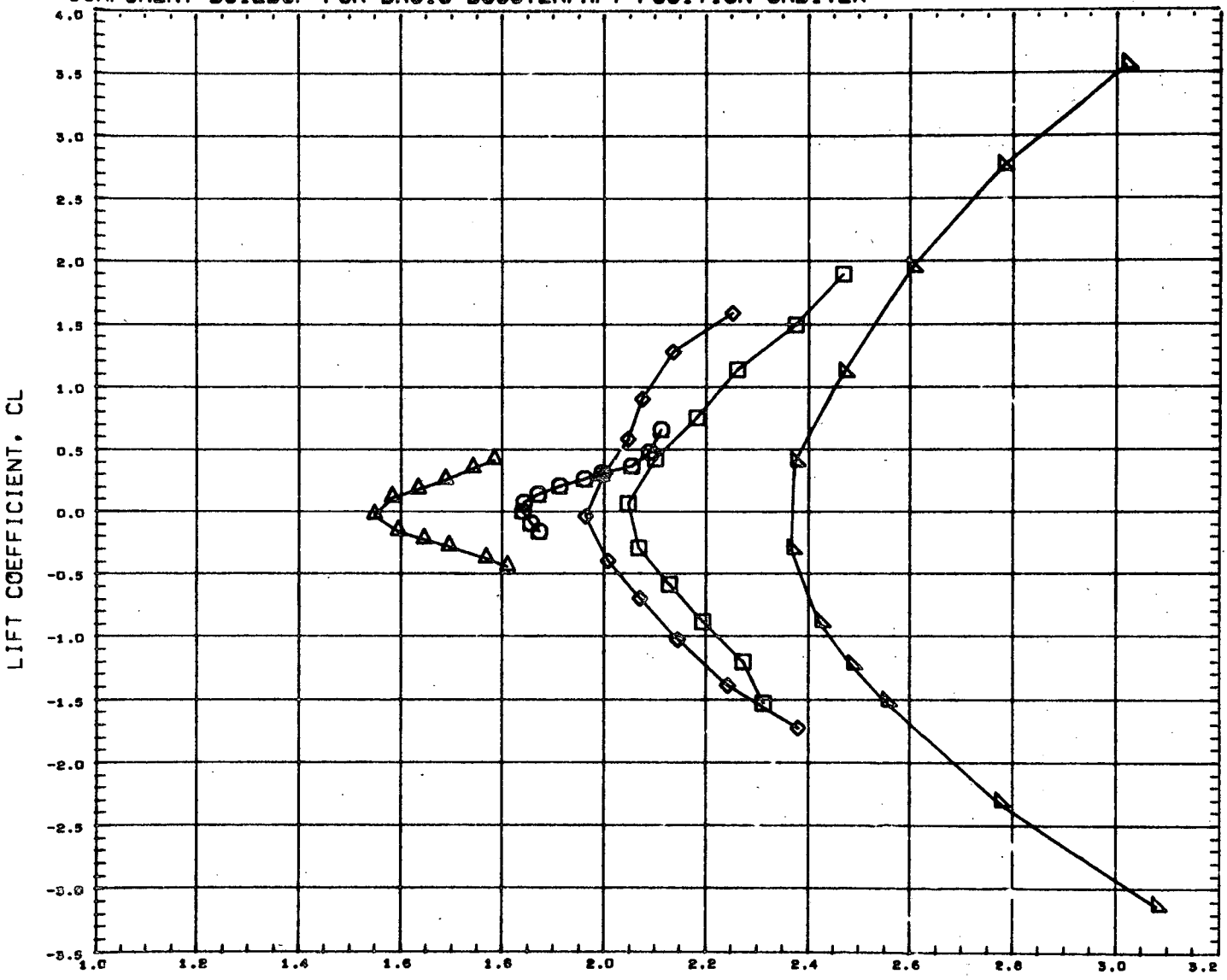


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T100T3	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T100ZT3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

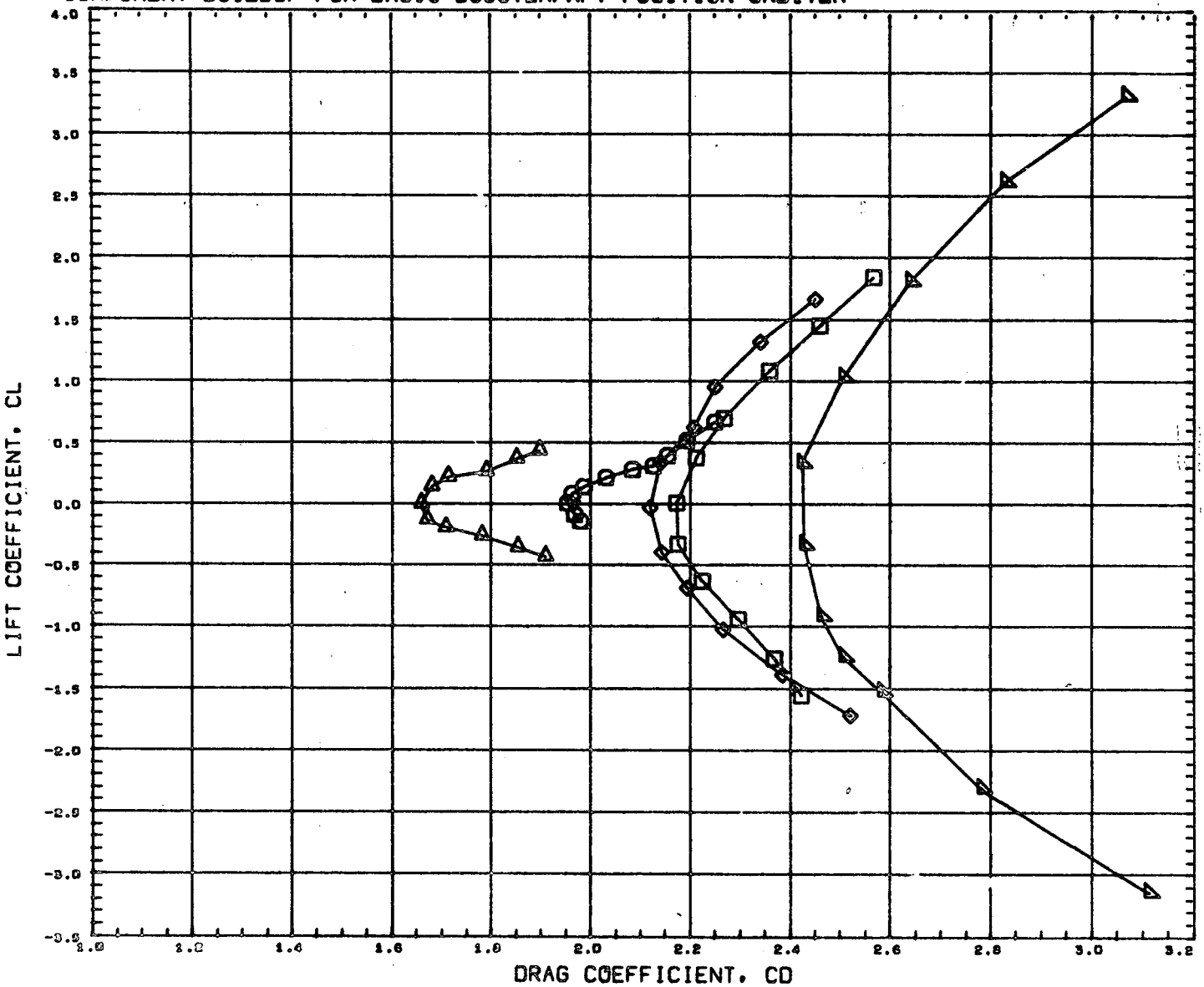


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

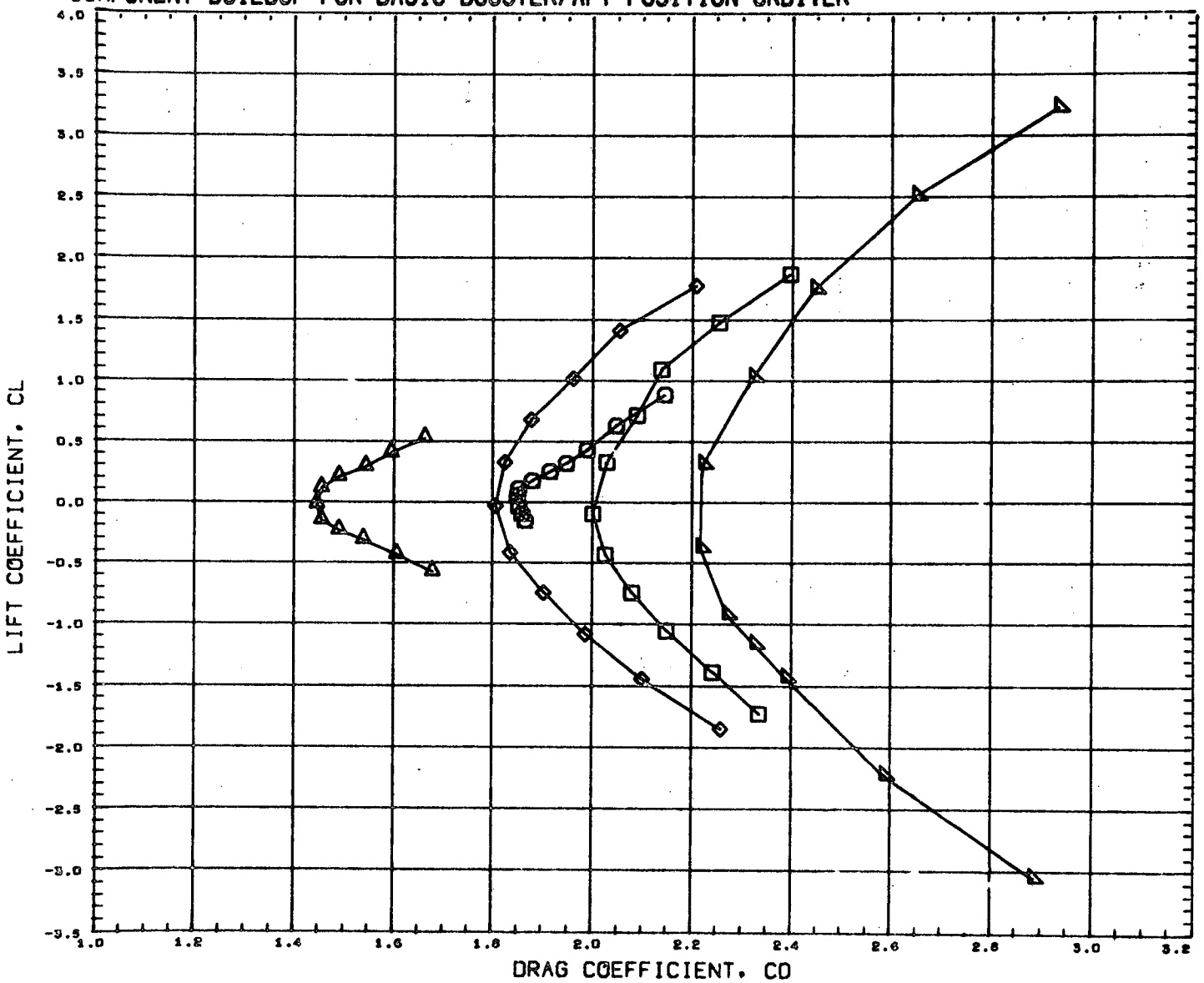


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

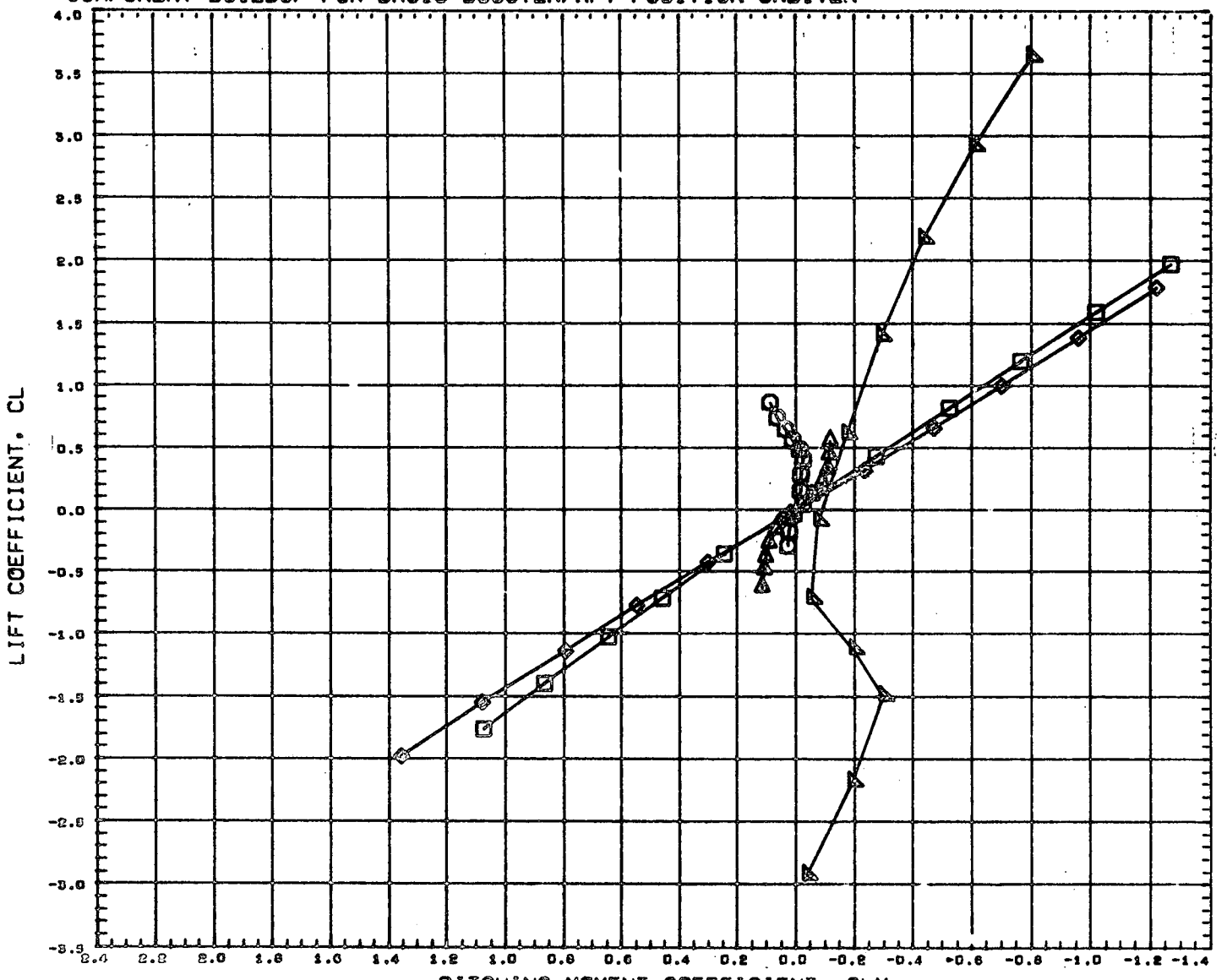


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50200)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.490

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

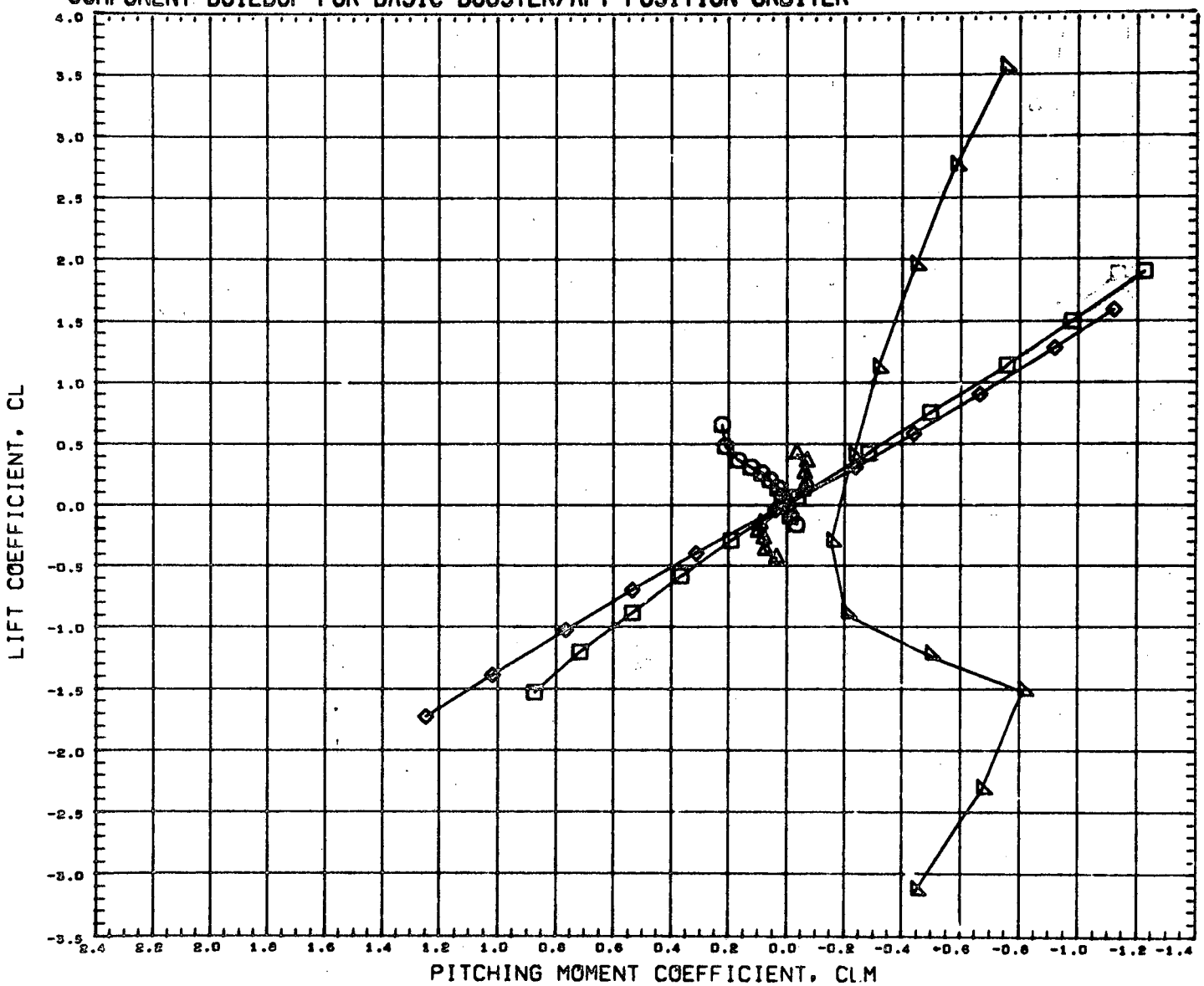


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)	Q	M8FC 912 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(DS0330)	△	M8FC 912 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(DS0320)	◇	M8FC 912 GD/C .003366 BOOSTER	B34R6T3OT3	0.000	0.000	0.000	0.000
(DS0200)	□	M8FC 912 GD/C .003366 BOOSTER/ORB.	B34R6T3OO4T3	0.000	0.000	0.000	0.000
(ES017A)	▽	M8FC 912 GD/C .003366 BOOSTER/ORB.	B34R6T3OO2T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

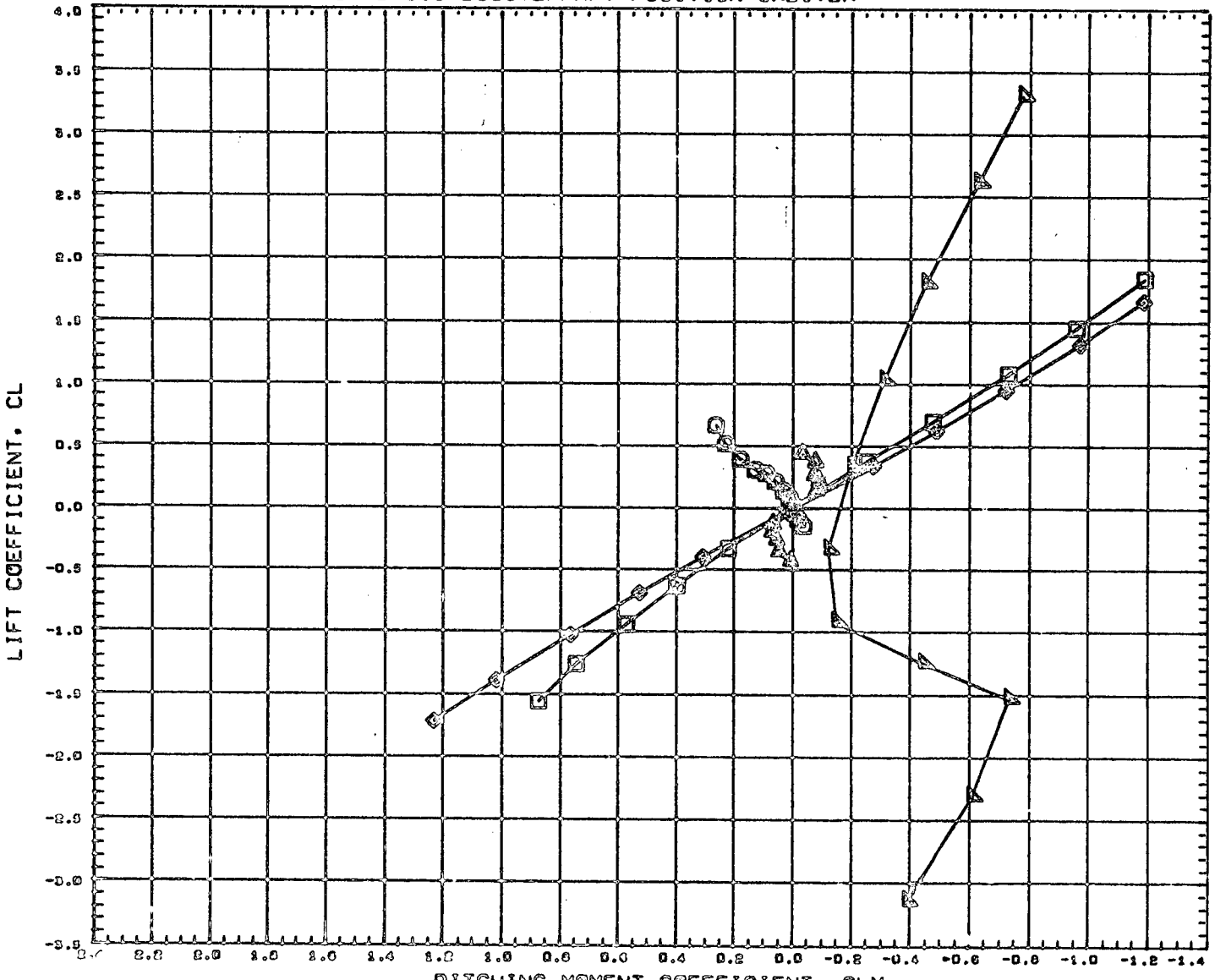


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50350)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

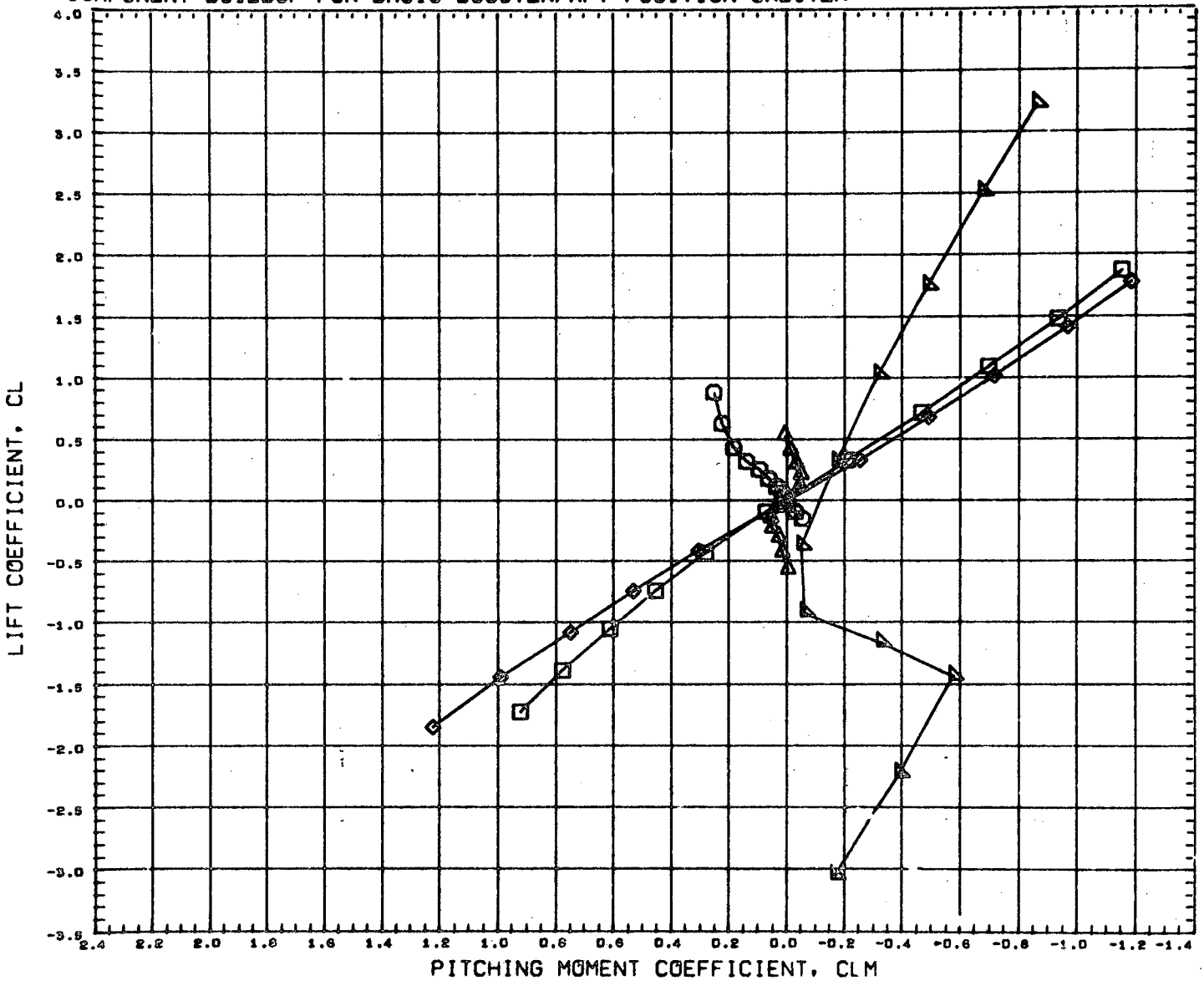


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E9011C)		MDFC 512 GD/C .DE9903 BOOSTER	B94RG	0.000	45.000		
(D90390)		MDFC 512 GD/C .DD9903 BOOSTER	B94RGTS	0.000	0.000		
(D90320)		MDFC 512 GD/C .DD9903 BOOSTER	B94RGTSGTS	0.000	0.000	0.000	0.000
(D90200)		MDFC 512 GD/C .DD9906 BOOSTER/ORB.	B94RGT1DG1TS	0.000	0.000	0.000	0.000
(E9017A)		MDFC 512 GD/C .DD9906 BOOSTER/ORB.	B94RGT1DG2TS	0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

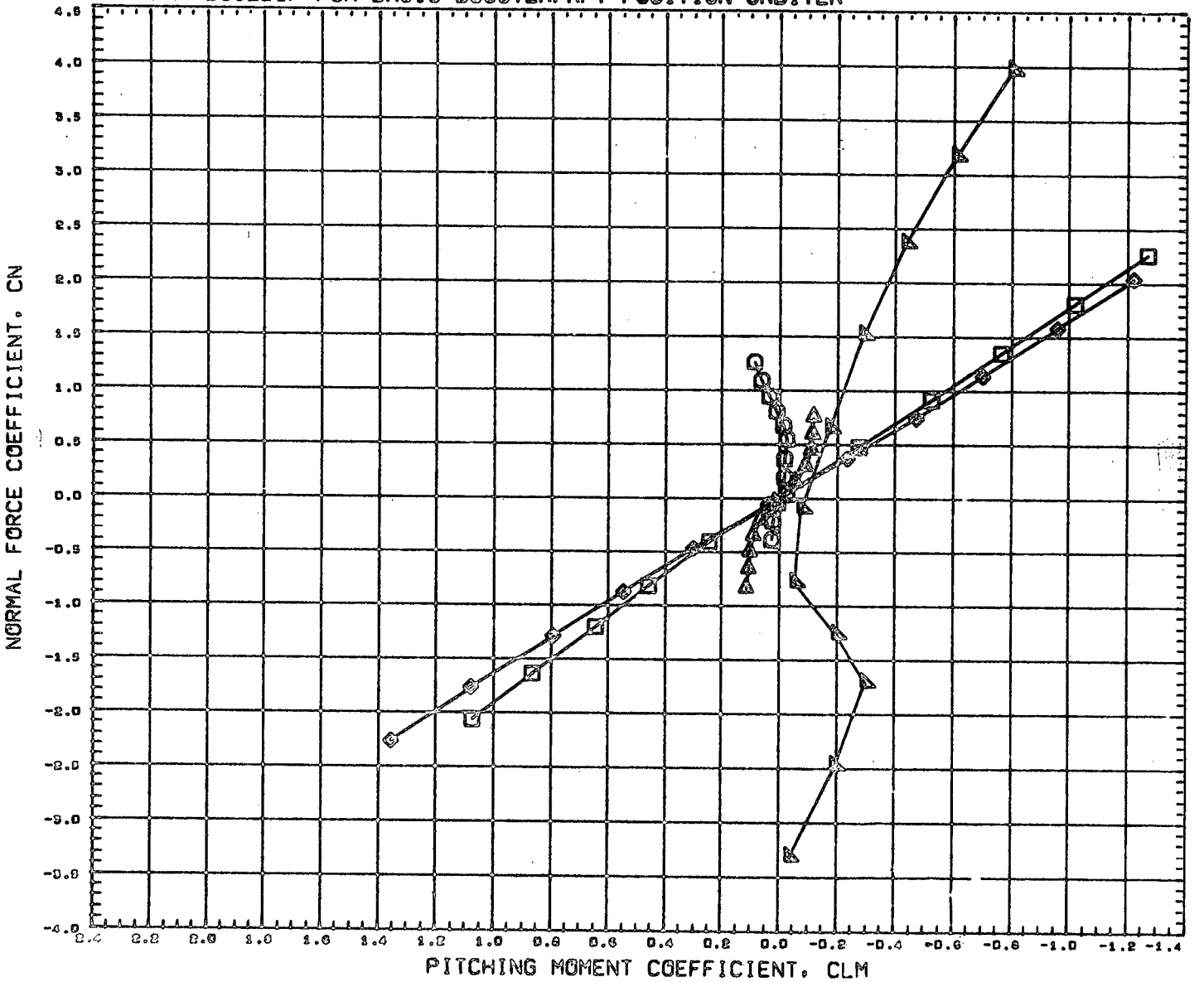


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)	□	MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)	▷	MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

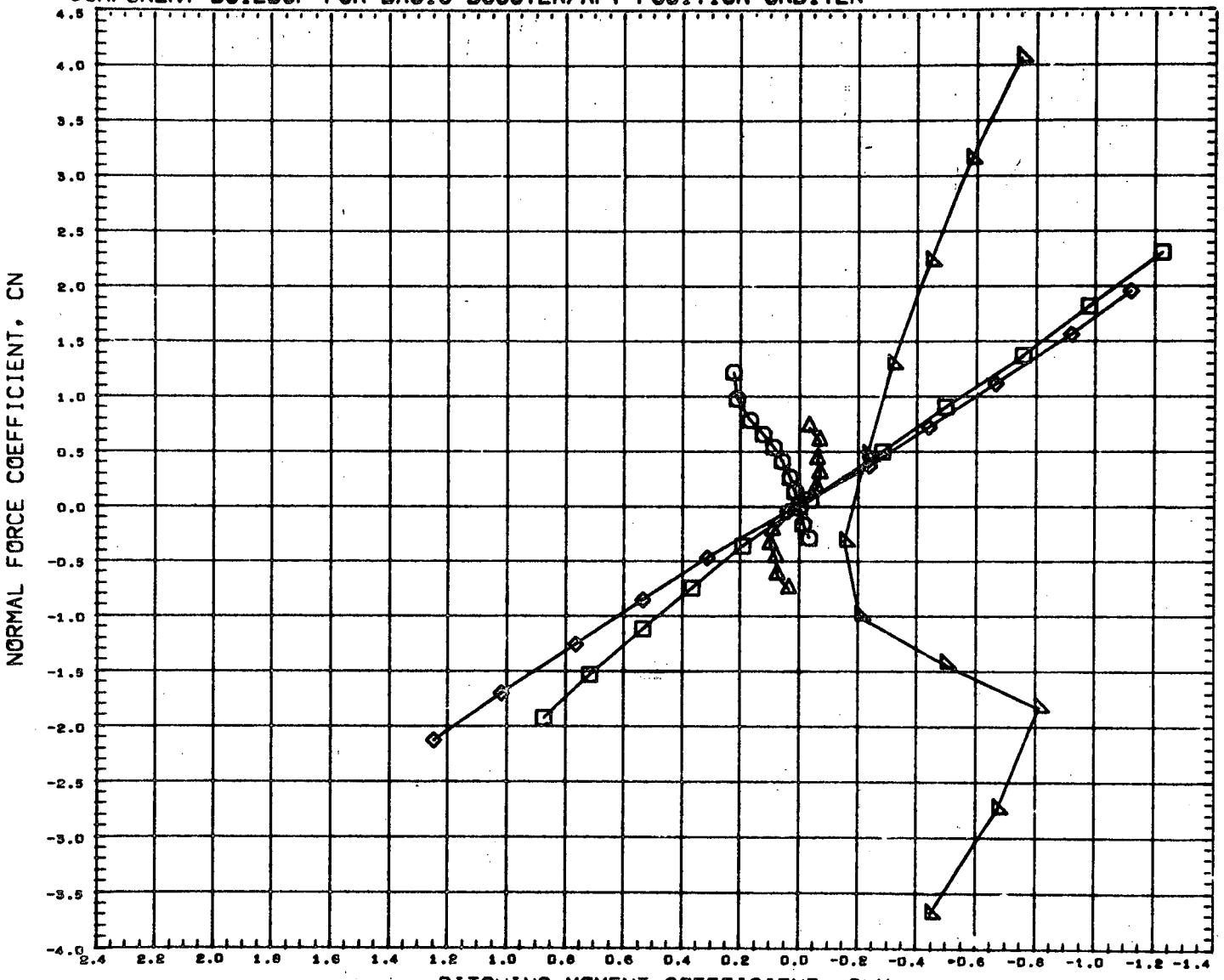


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003960 BOOSTER	B54RG	0.000	45.000		
(DS0330)		MSFC 512 GD/C .003960 BOOSTER	B54RGTS	0.000	0.000		
(DS0320)		MSFC 512 GD/C .003960 BOOSTER	B54RGT10TS	0.000	0.000	0.000	0.000
(DS0280)		MSFC 512 GD/C .003960 BOOSTER/ORB.	B54RGT100ITS	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003960 BOOSTER/ORB.	B54RGT100ZTS	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

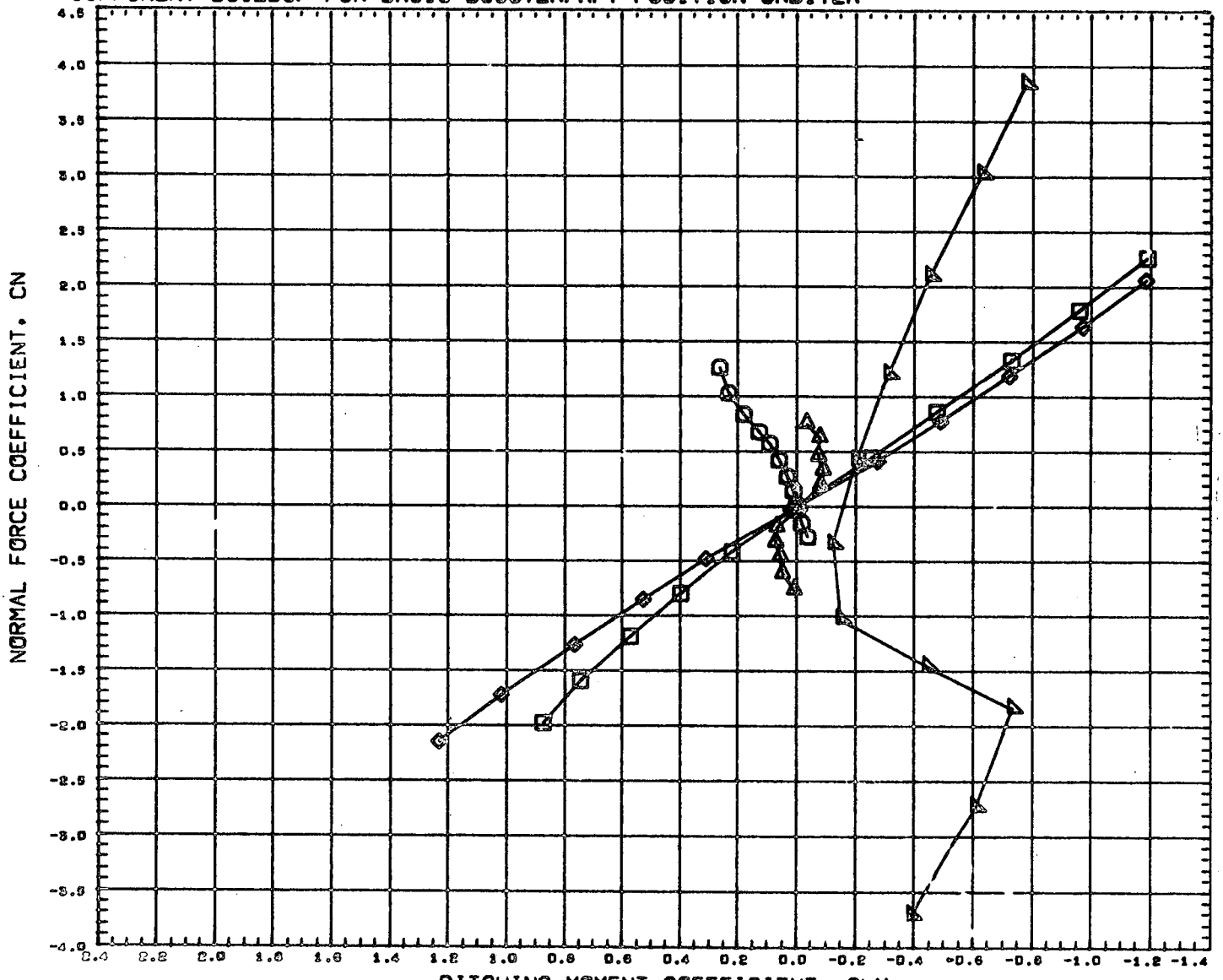


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O4T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

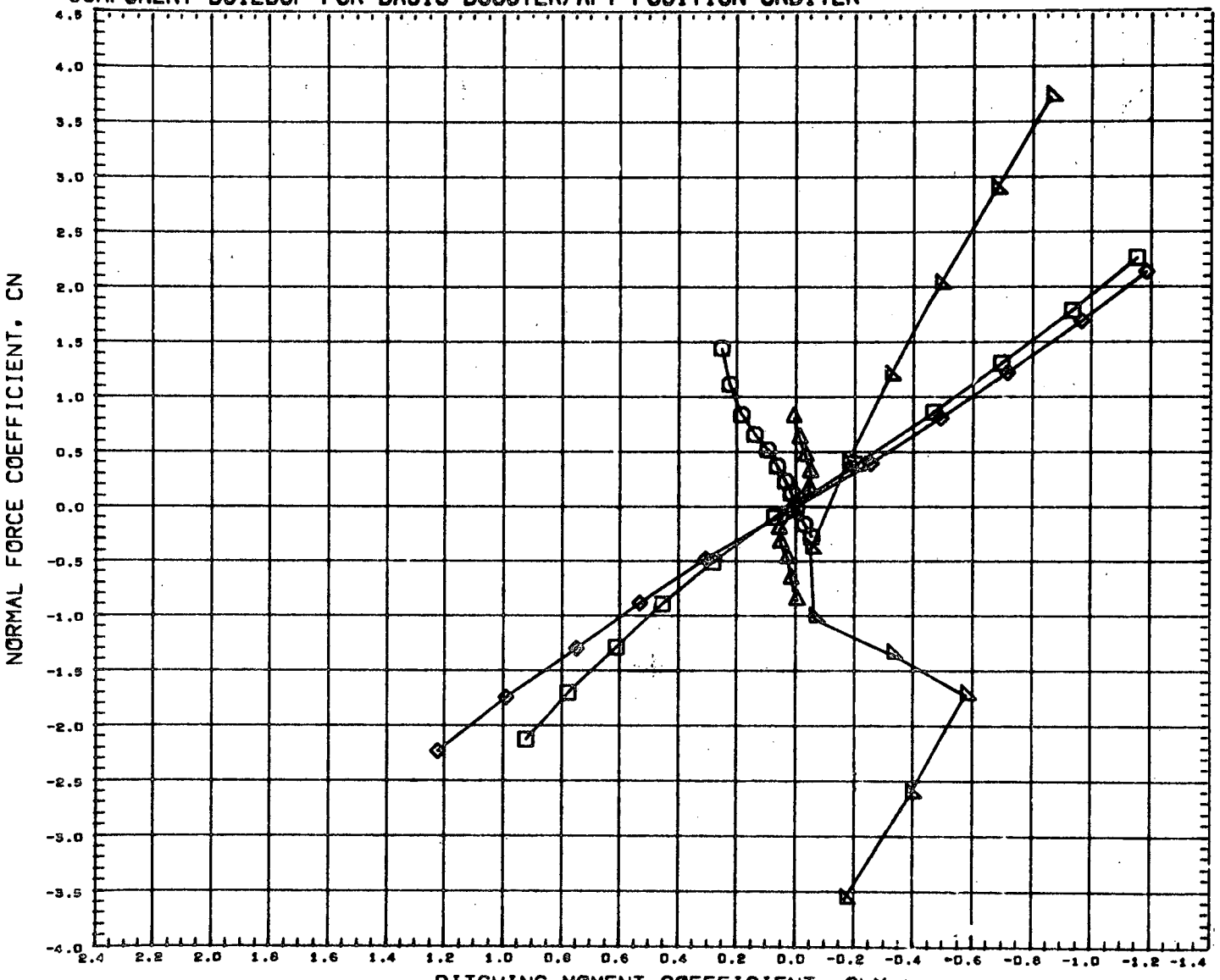


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011C)		MSFC 512 GD/C .003933 BOOSTER	B34R6	0.000	45.000		
(DS0330)		MSFC 512 GD/C .003966 BOOSTER	B34R6T3	0.000	0.000		
(DS0320)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS029D)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O4T3	0.000	0.000	0.000	0.000
(ES017A)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

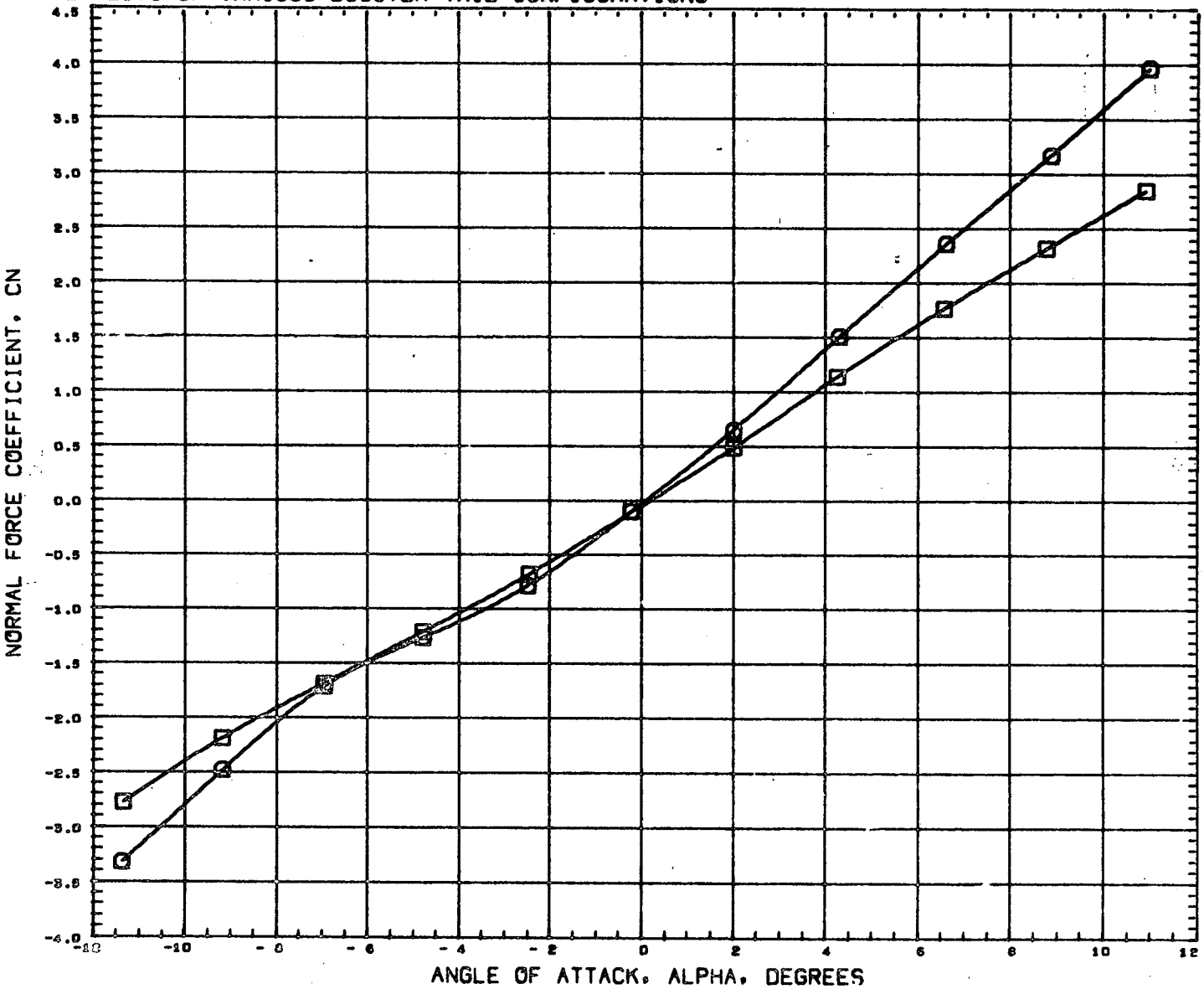


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011C)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(D50330)		MSFC 512 GD/C .003366 BOOSTER	B34R6T3	0.000	0.000		
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50290)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1004T3	0.000	0.000	0.000	0.000
(E5017A)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

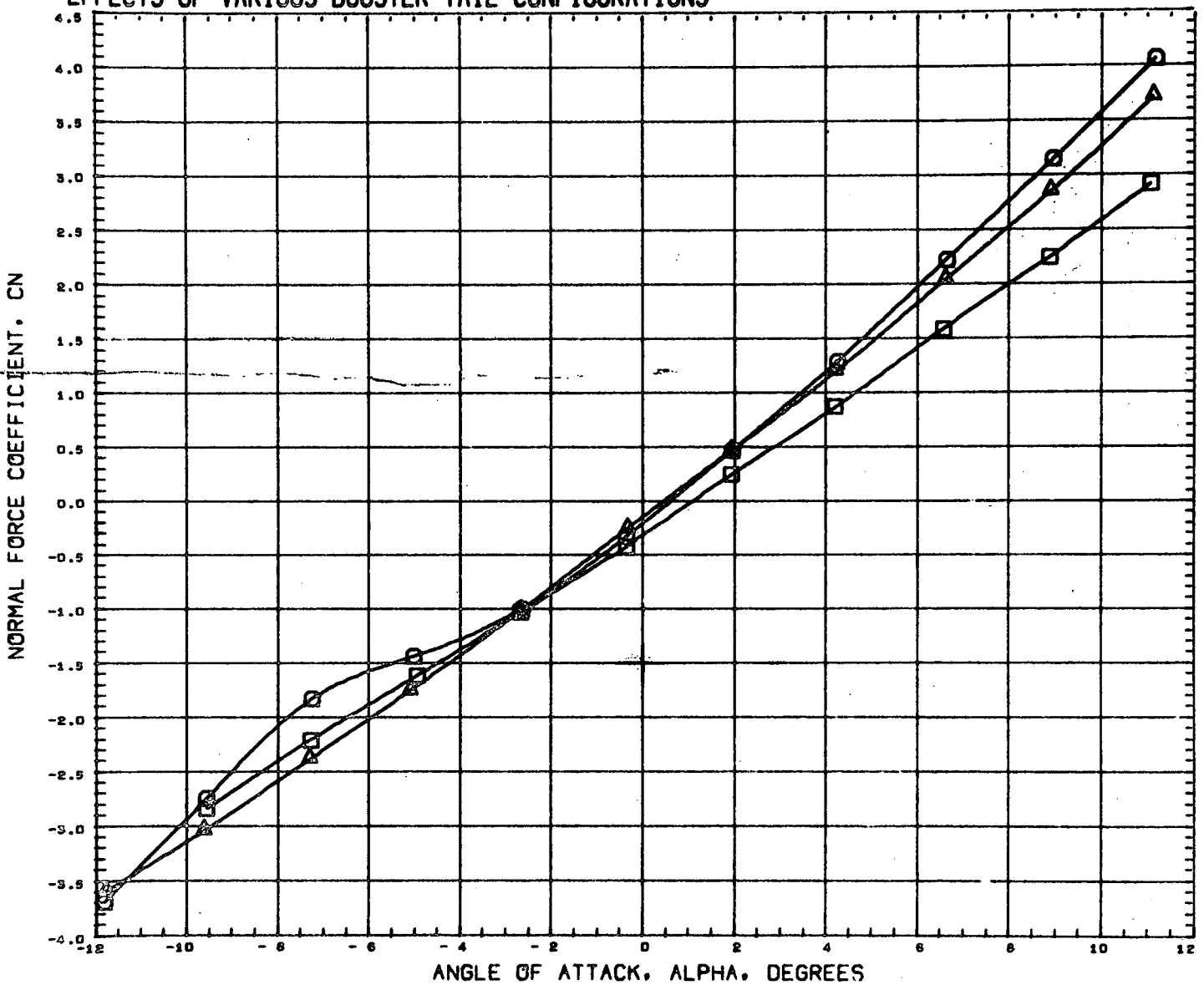


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES017B)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50160)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.899

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

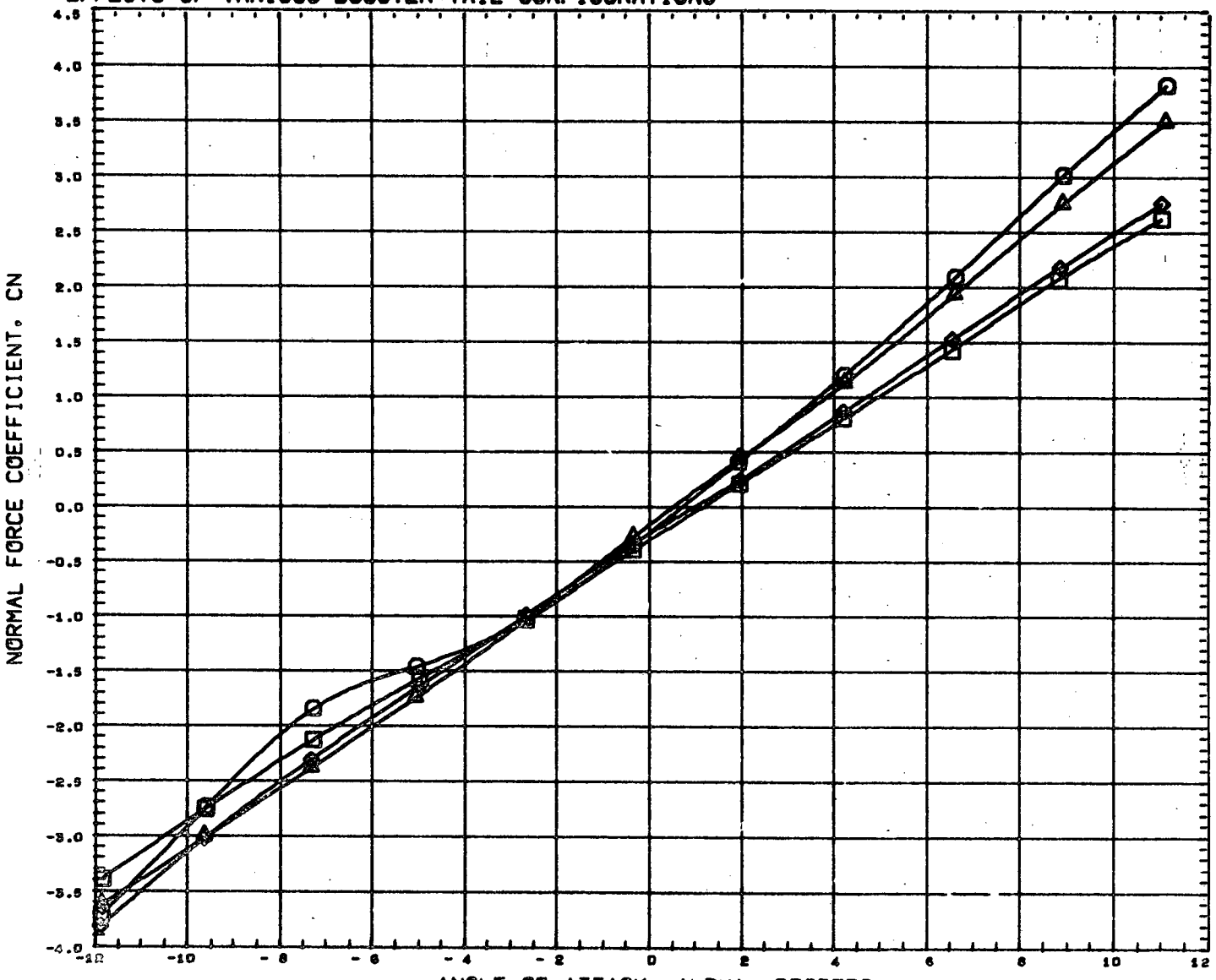


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5017B)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

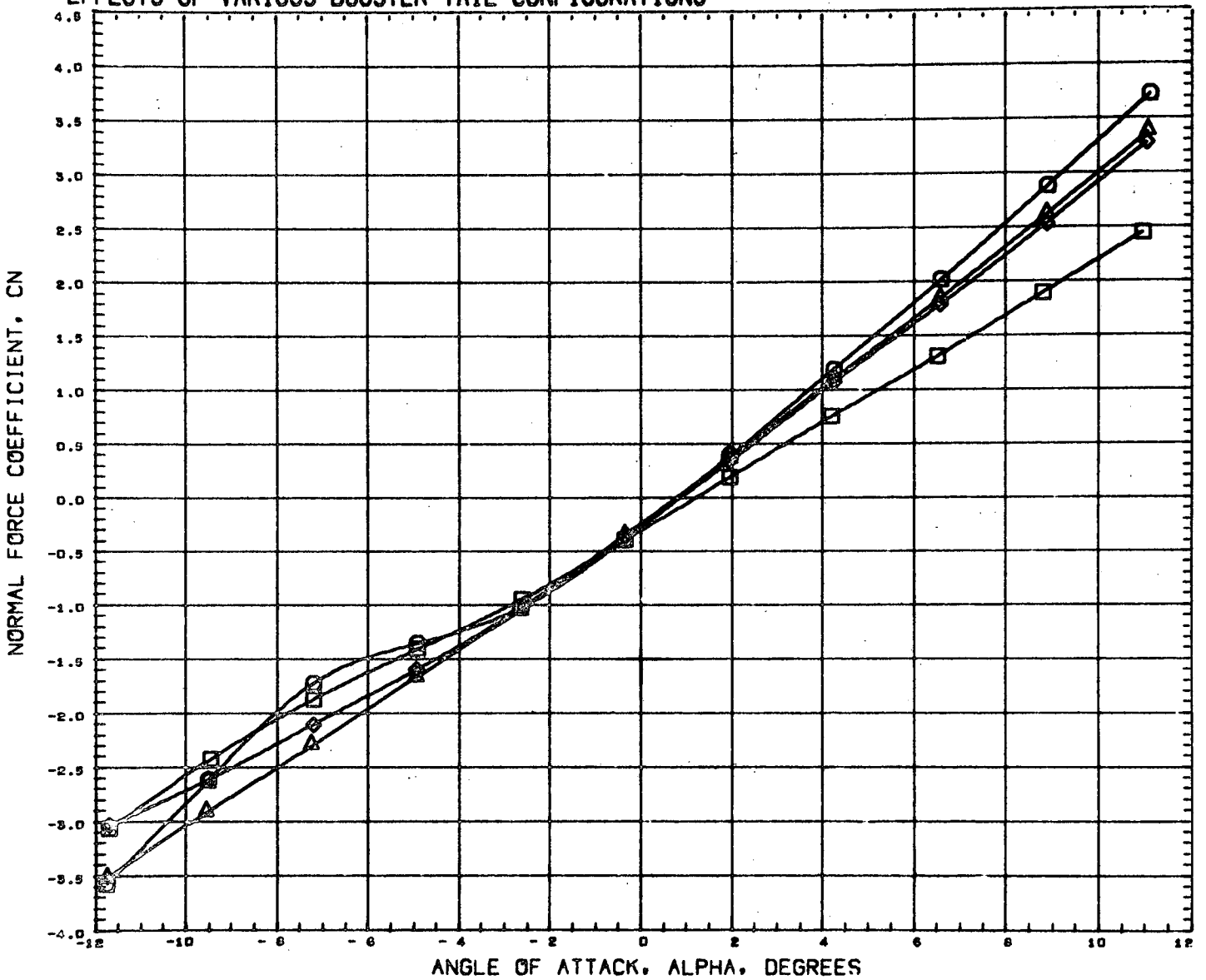


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES017B)		MSFC 512 GD/C .003930 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS018D)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(DS026D)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(DS024D)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.206

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

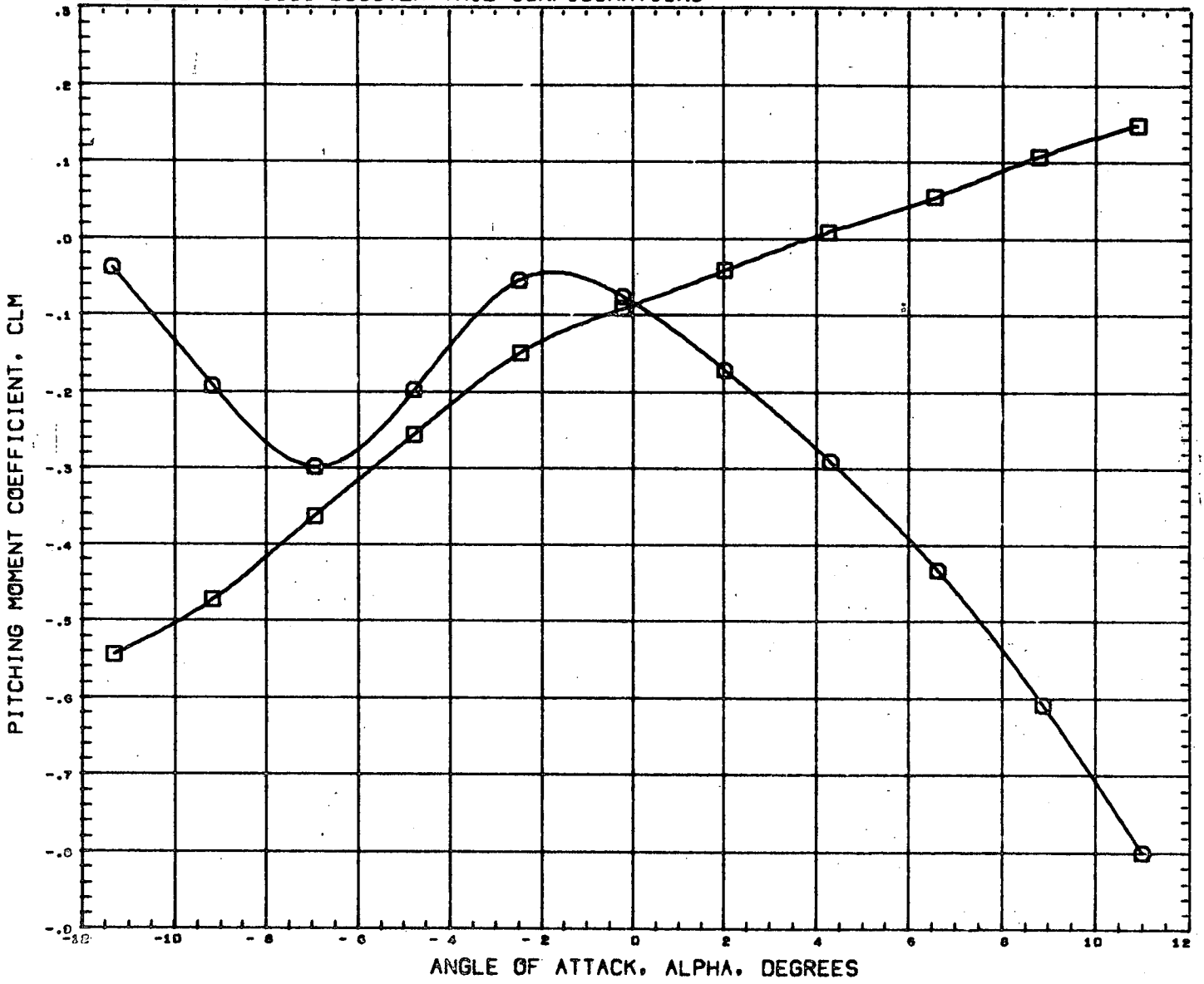


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T100ZT3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T100ZT3	0.000	45.000	0.000	0.000
(D50260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T120ZT3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.466

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

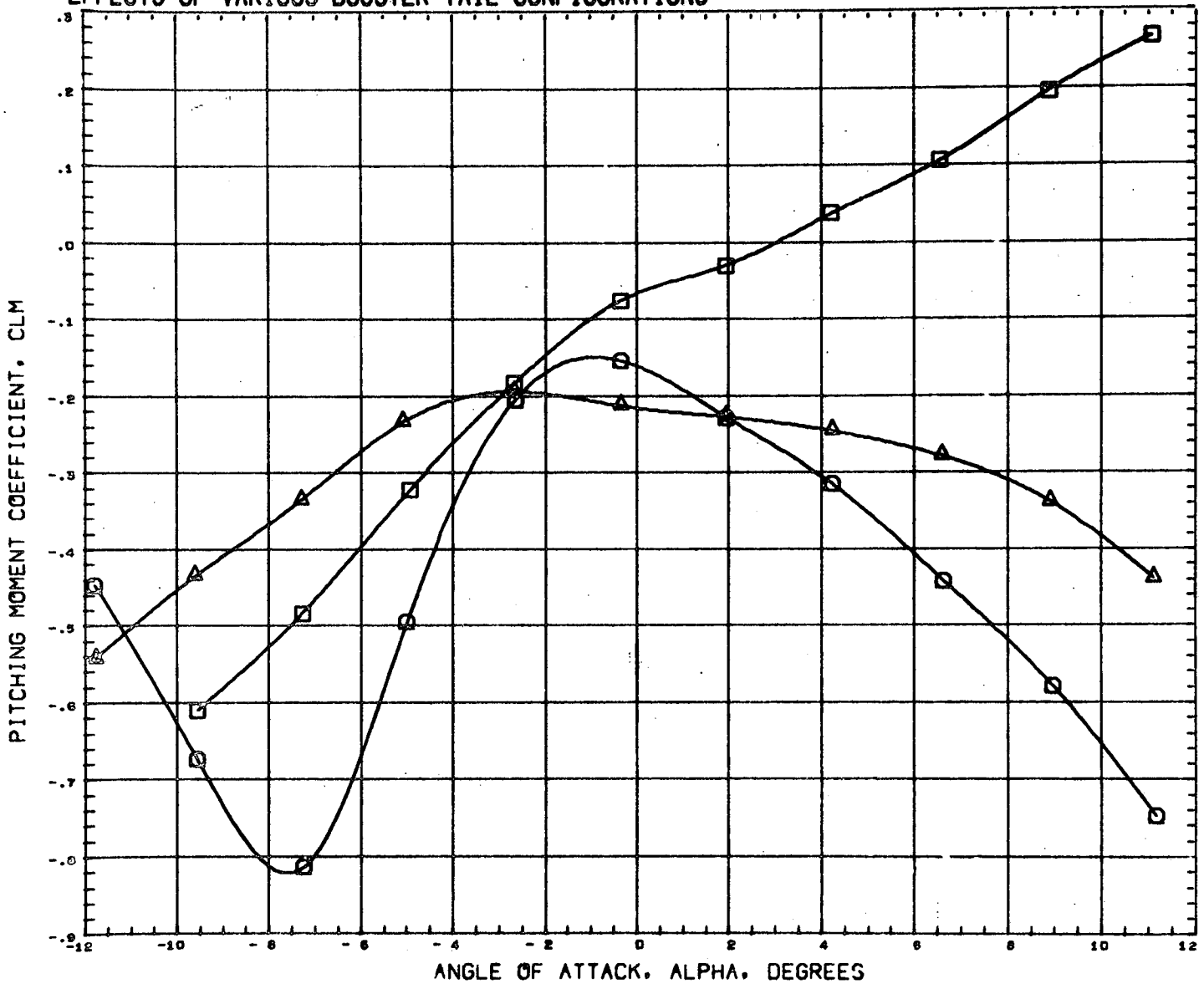


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES017B)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0180)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(DS0260)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS0240)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34RS02T3	0.000	0.000		

MACH 0.800

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

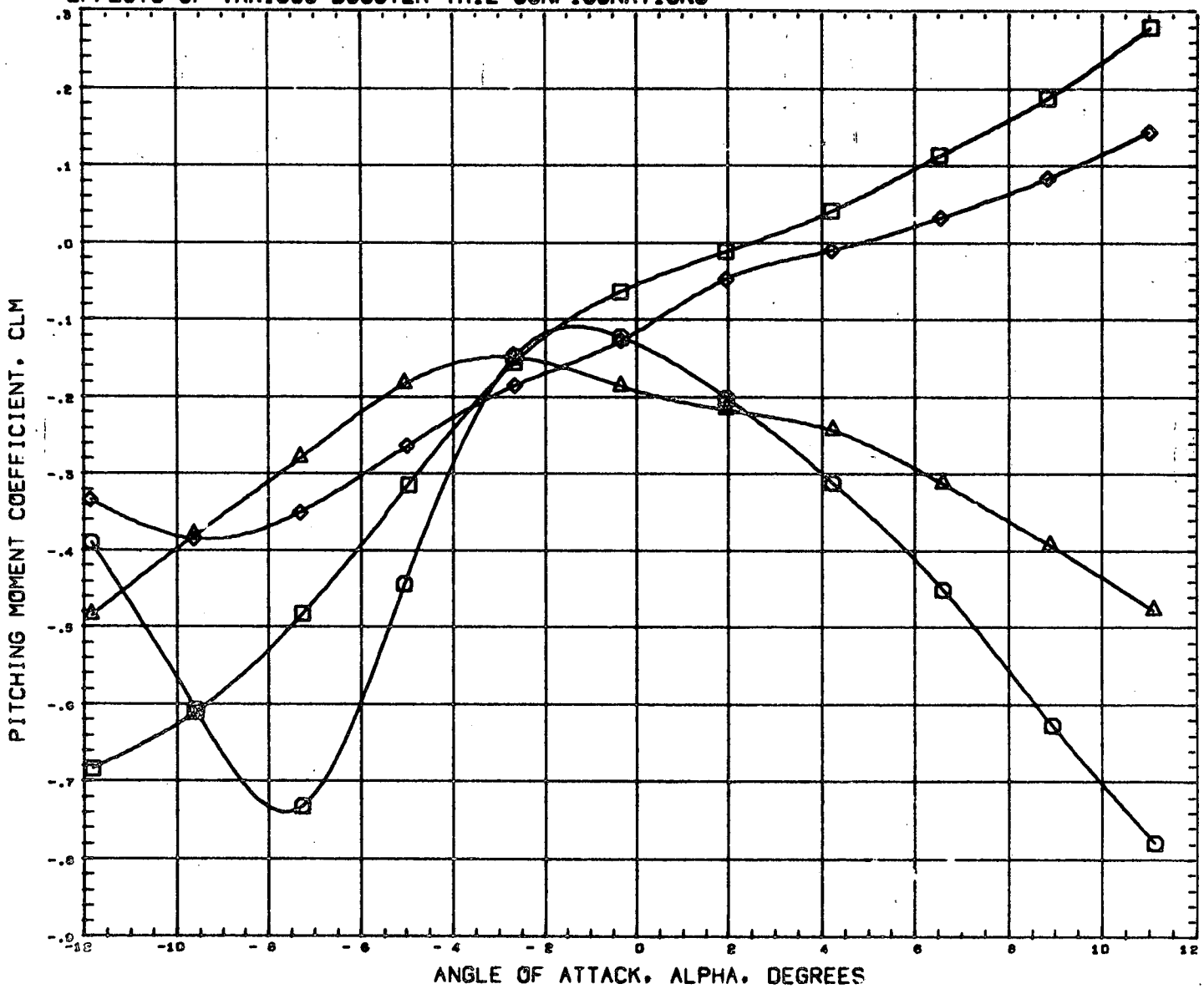


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

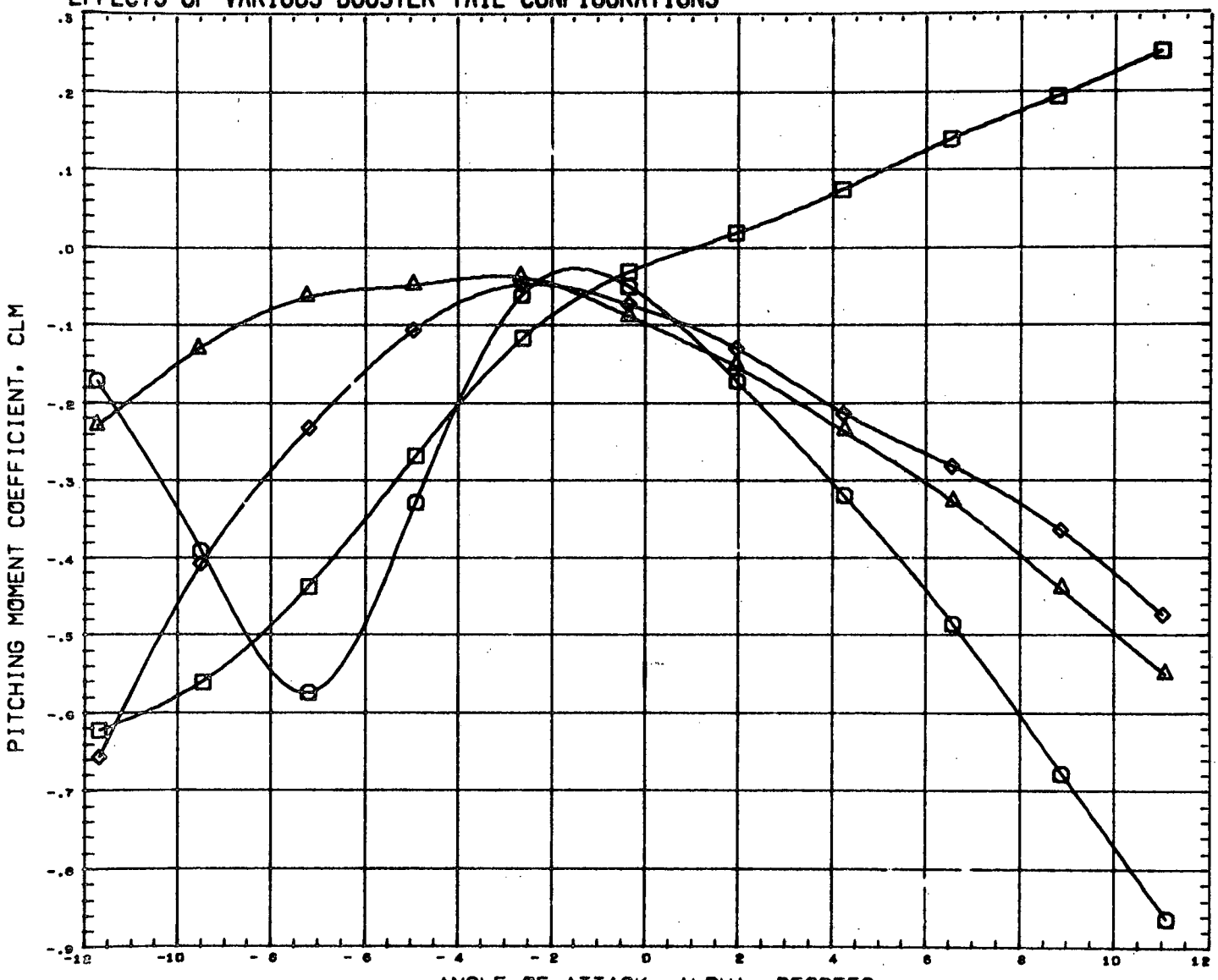


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0178)	◇	MSFC 512 GD/C .003906 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0160)	△	MSFC 512 GD/C .003906 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(DS0260)	◇	MSFC 512 GD/C .003906 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(DS0240)	□	MSFC 512 GD/C .003906 BOOSTER/ORB. B34R60273	0.000	0.000		

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

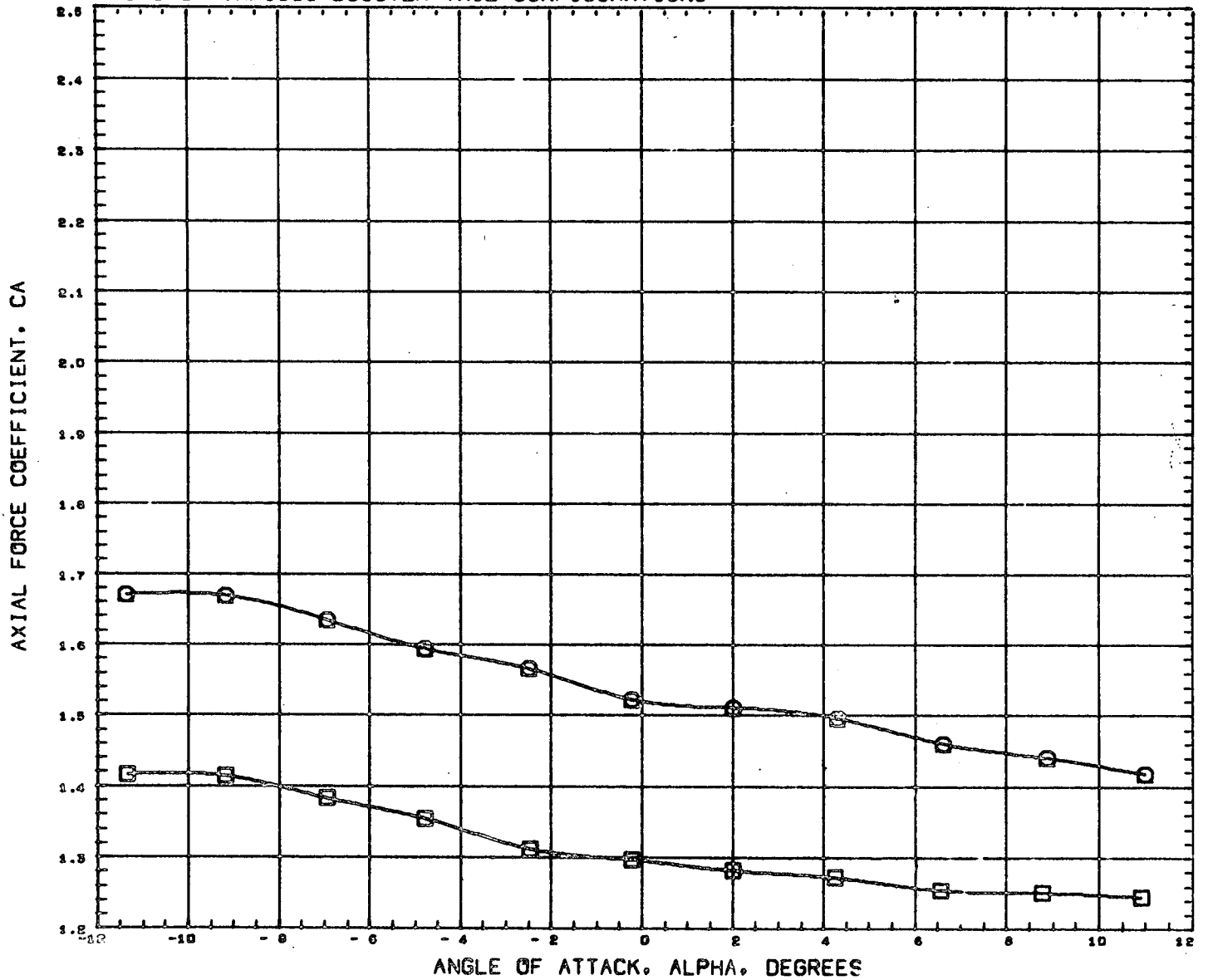


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5D178)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D5D180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D5D260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(D5D240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.464

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

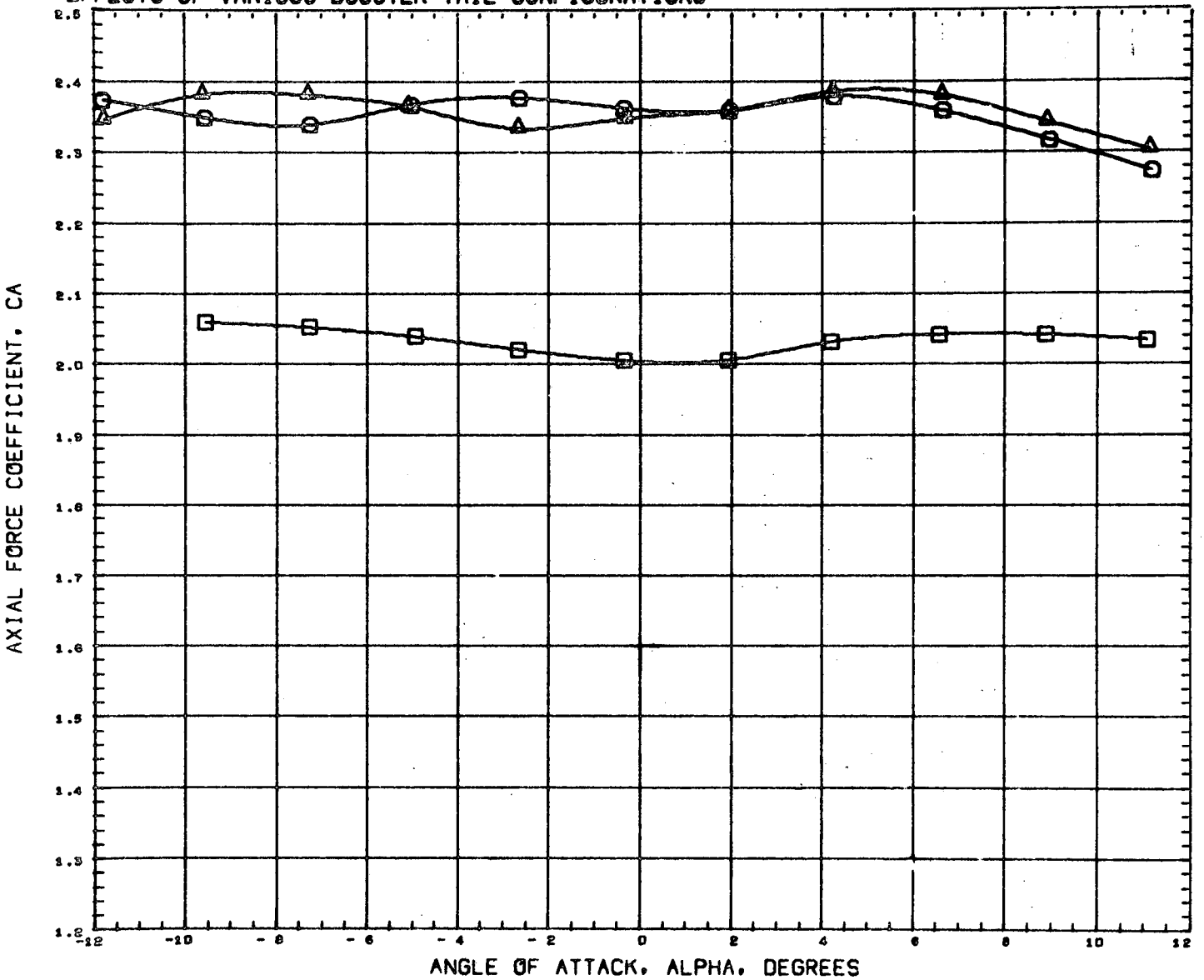


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)		MSFC 512 GD/C .003933 BOOSTER/ORB. B34RGT1002T9	0.000	0.000	0.000	0.000
(D50180)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(D50260)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34RGO2T9	0.000	0.000		

MACH 0.801

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

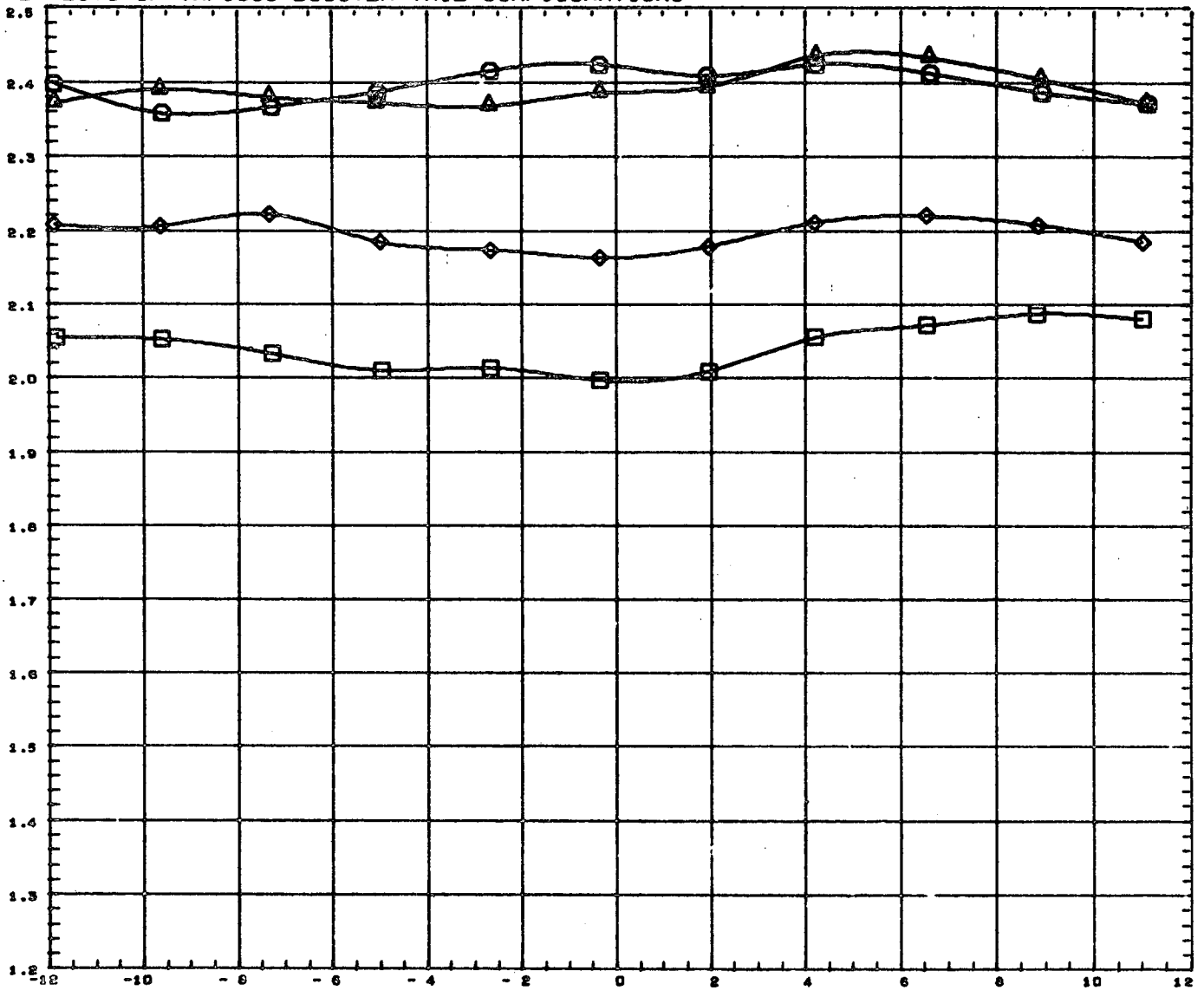


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50160)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

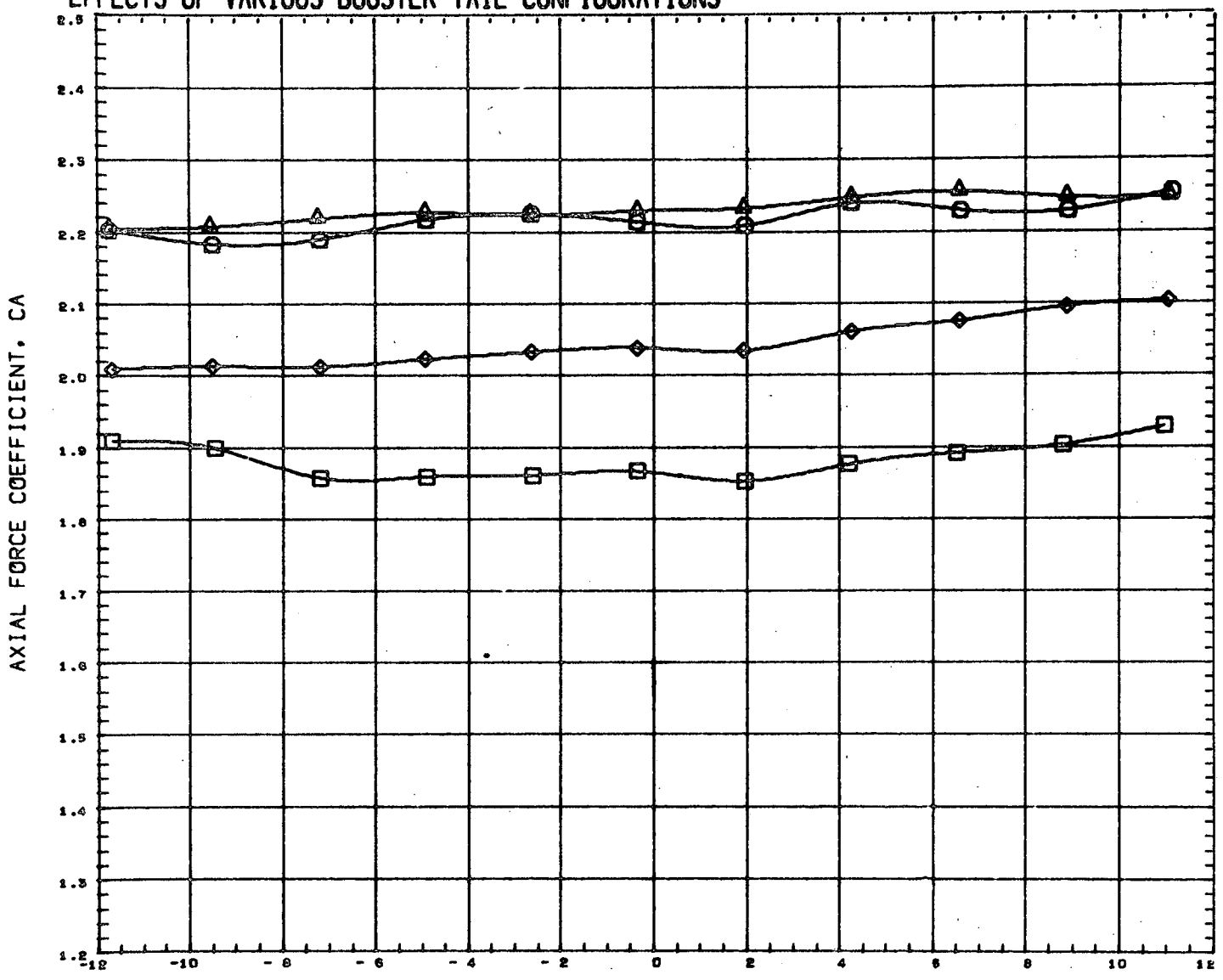


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5017B)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50180)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(D50240)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.206

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

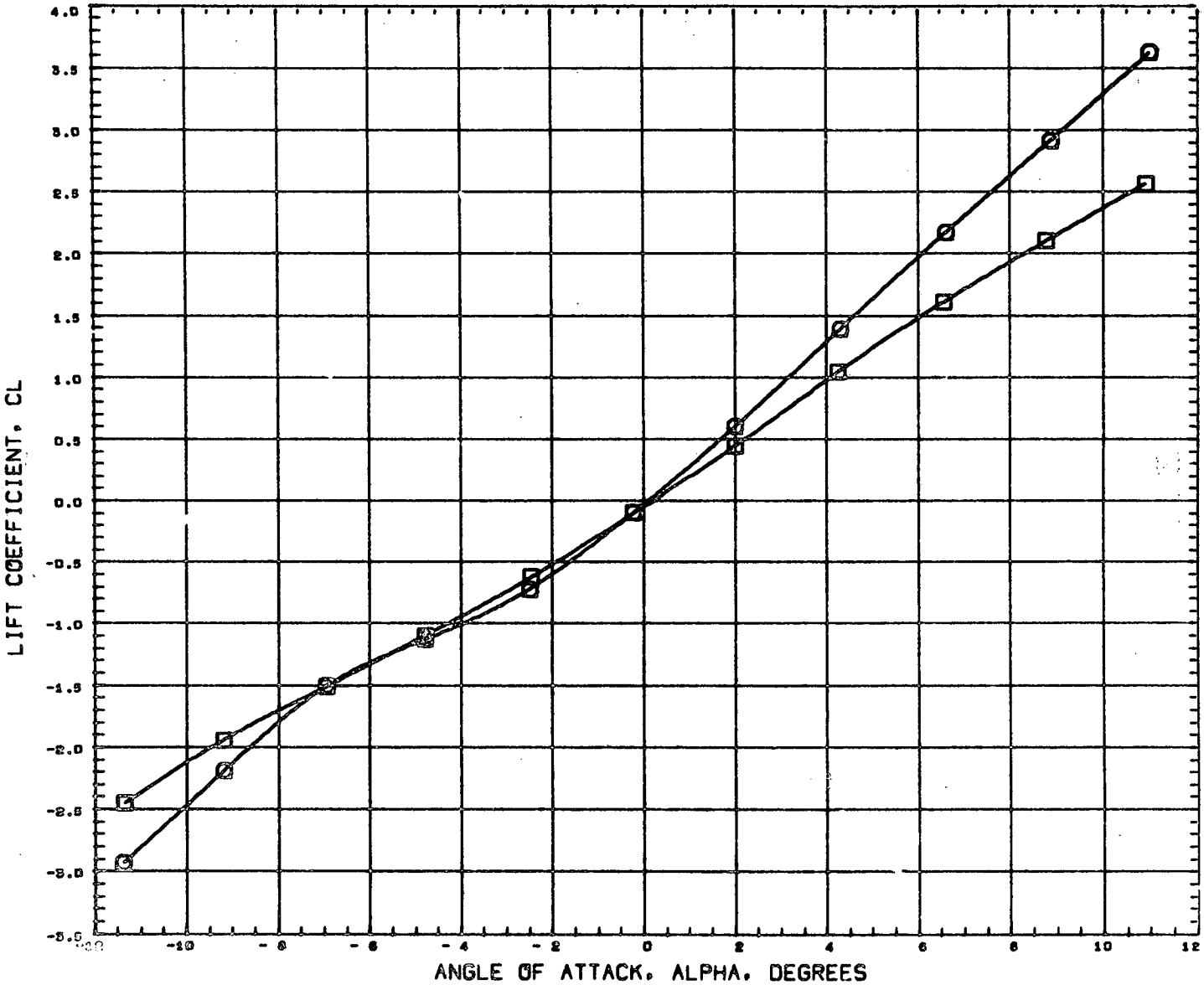


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50170)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50180)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10C2T3	0.000	45.000	0.000	0.000
(D50260)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T12O2T3	0.000	0.000	0.000	0.000
(D50240)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6O2T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.46.1

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

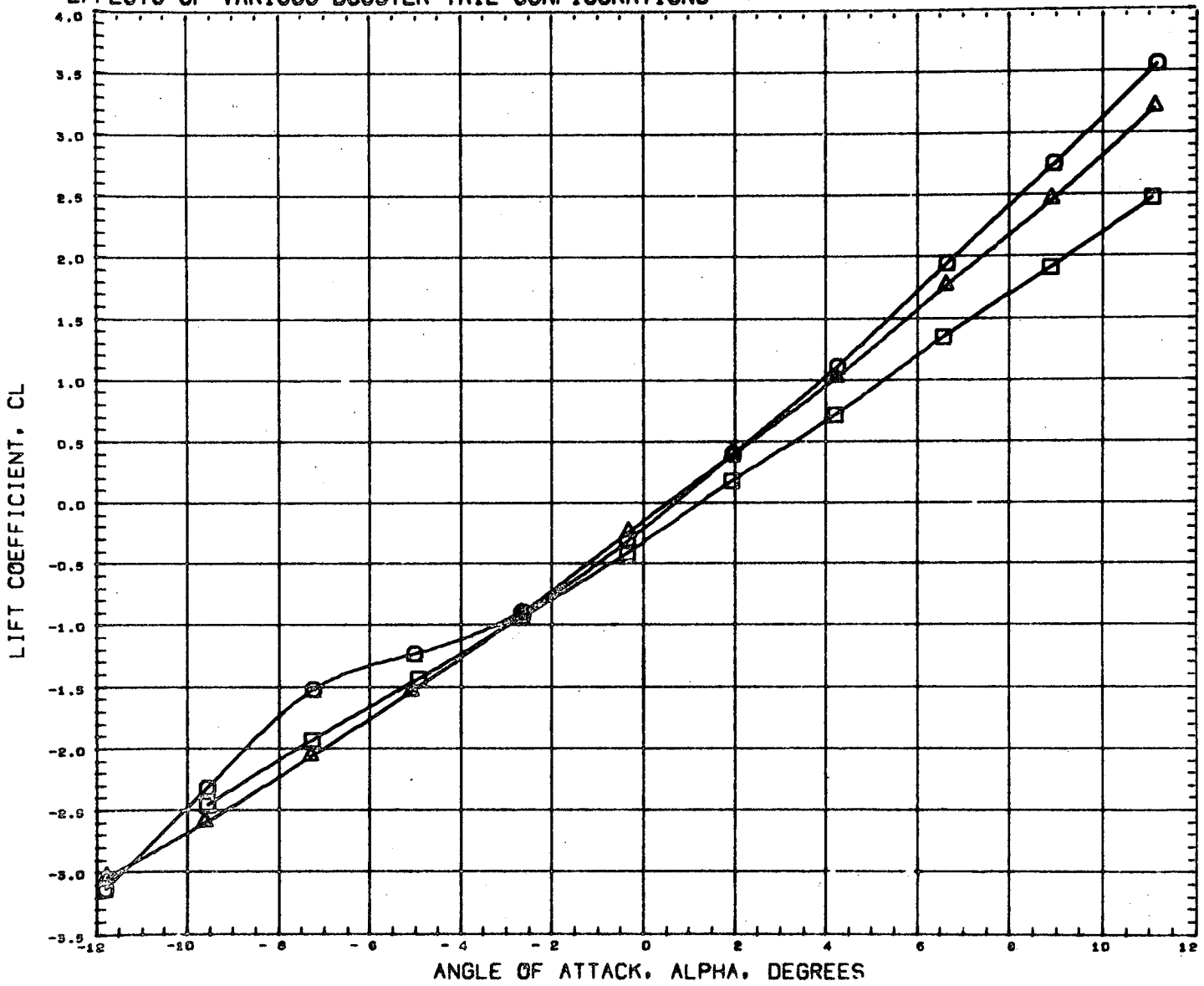


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003560 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000
(D50160)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003566 BOOSTER/ORB. B34R002T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.499

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

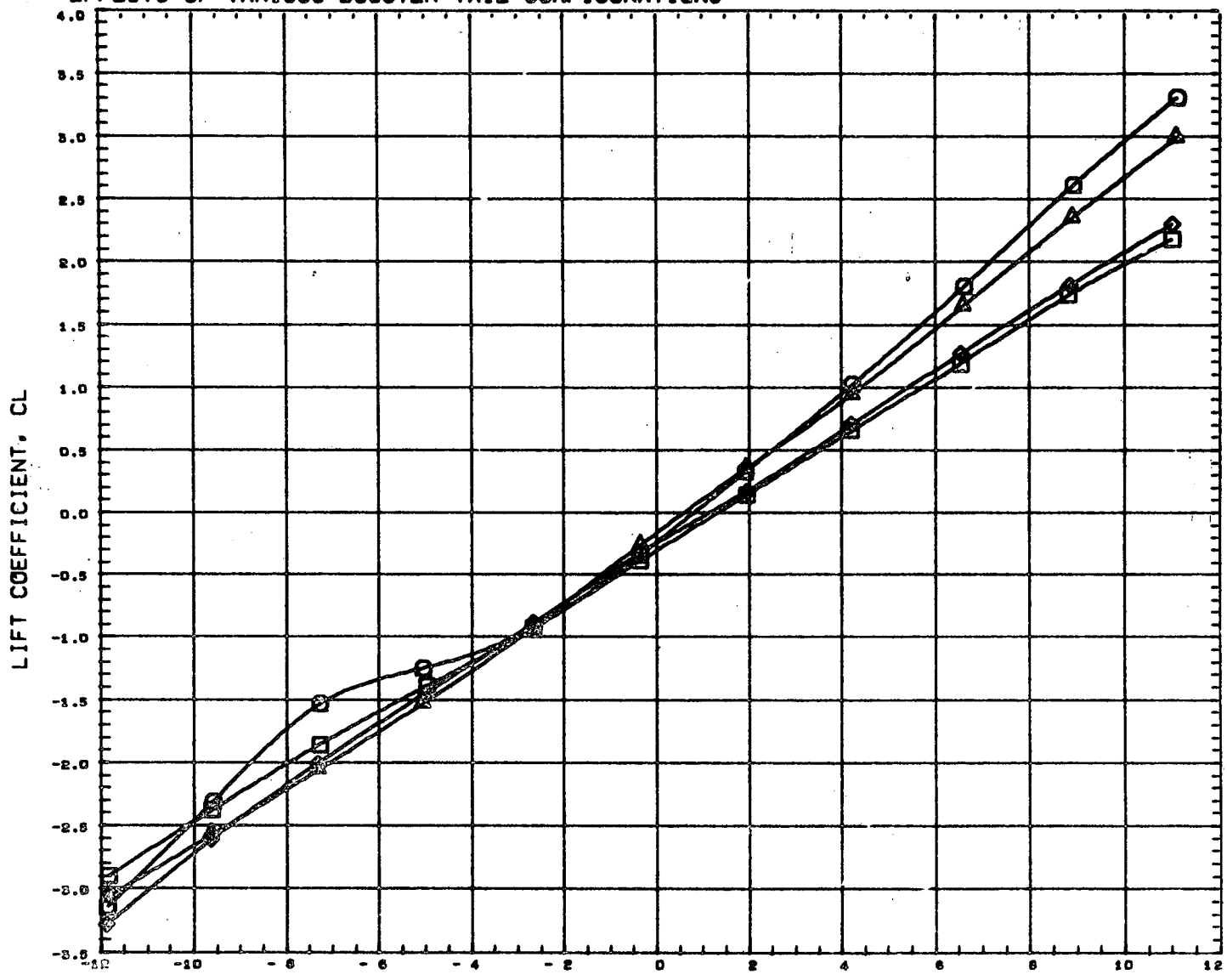


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50170)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.101

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

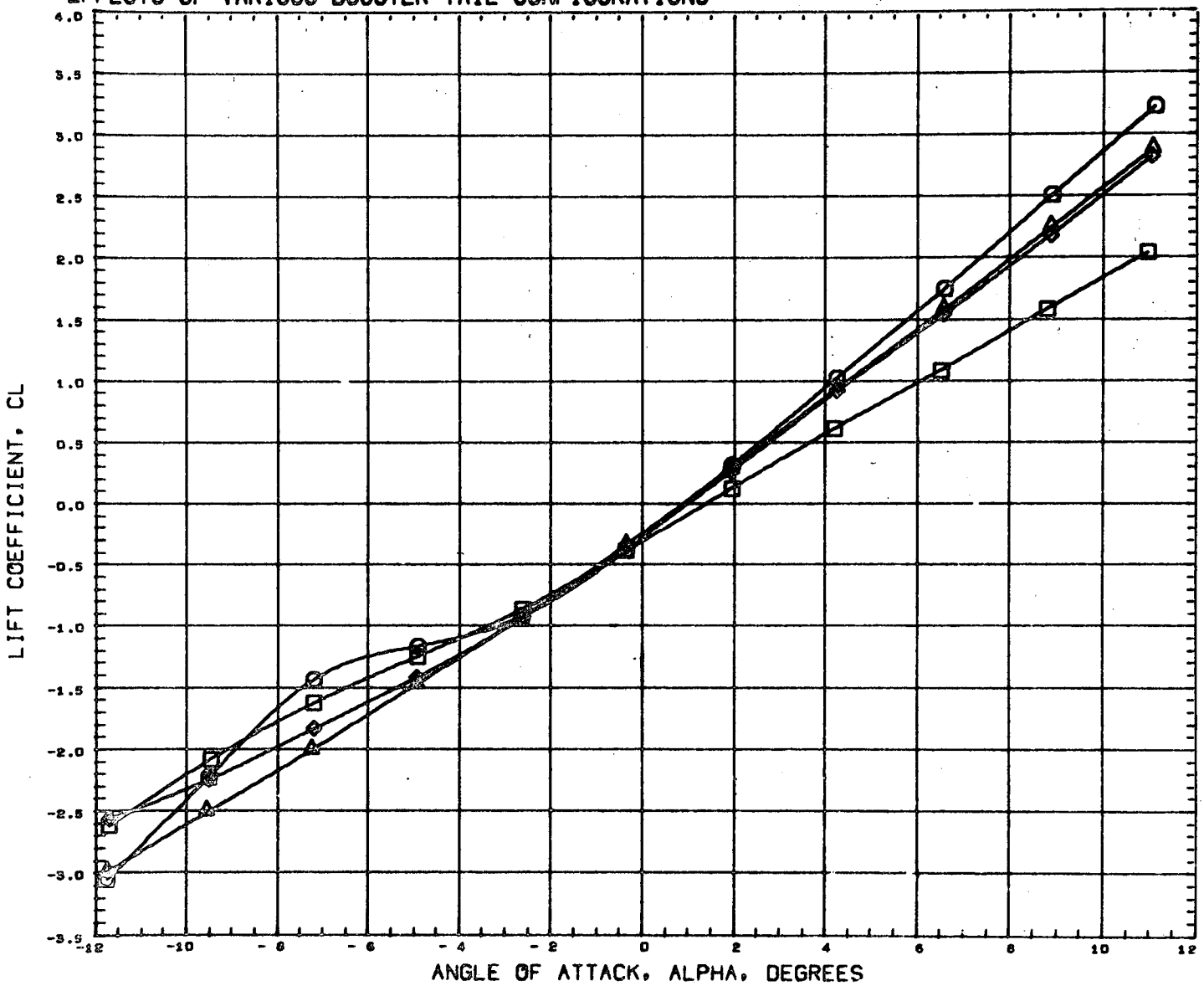


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003363 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6O2T3	0.000	0.000		

MACH 1.200

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

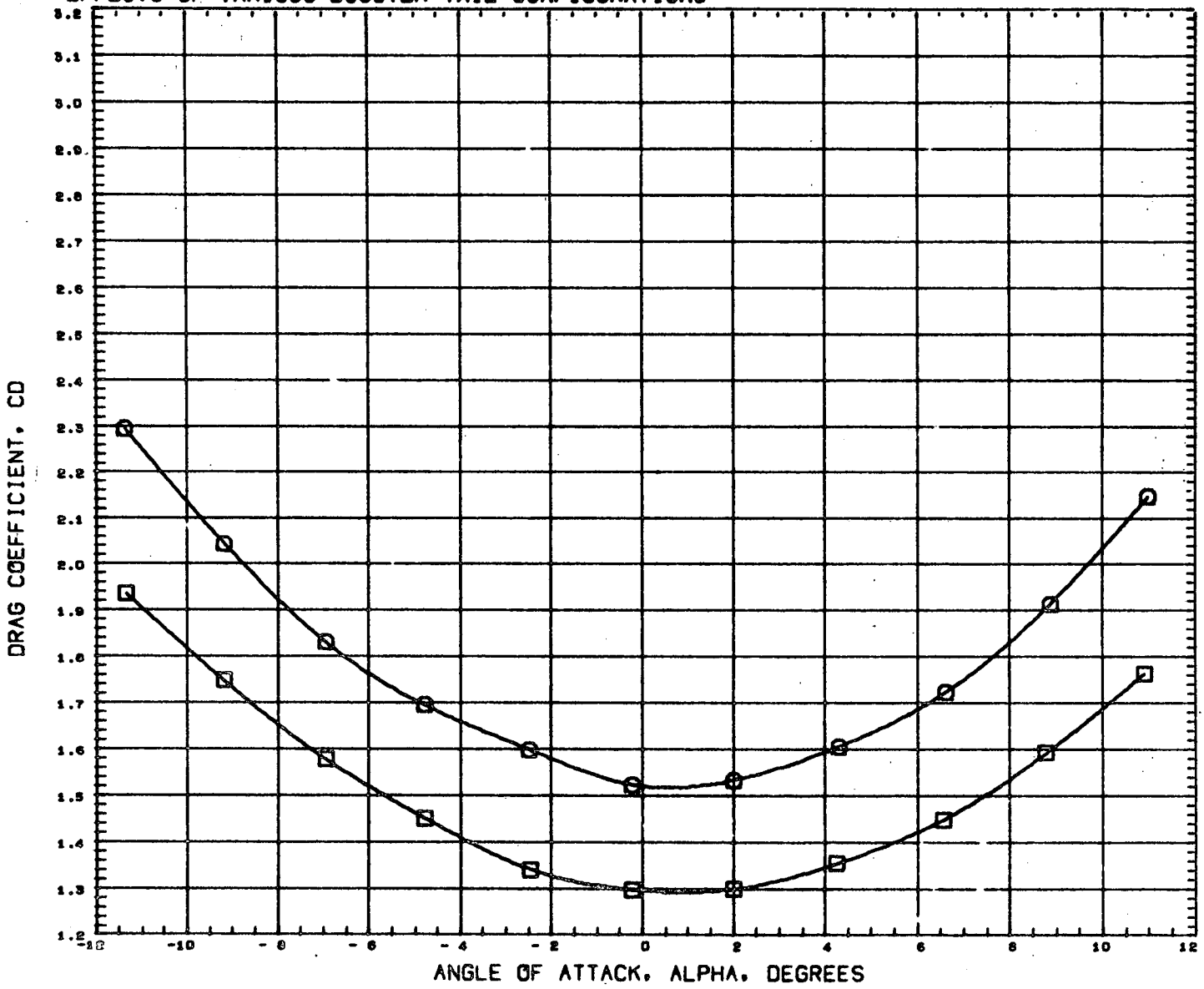


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES017D)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.461

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

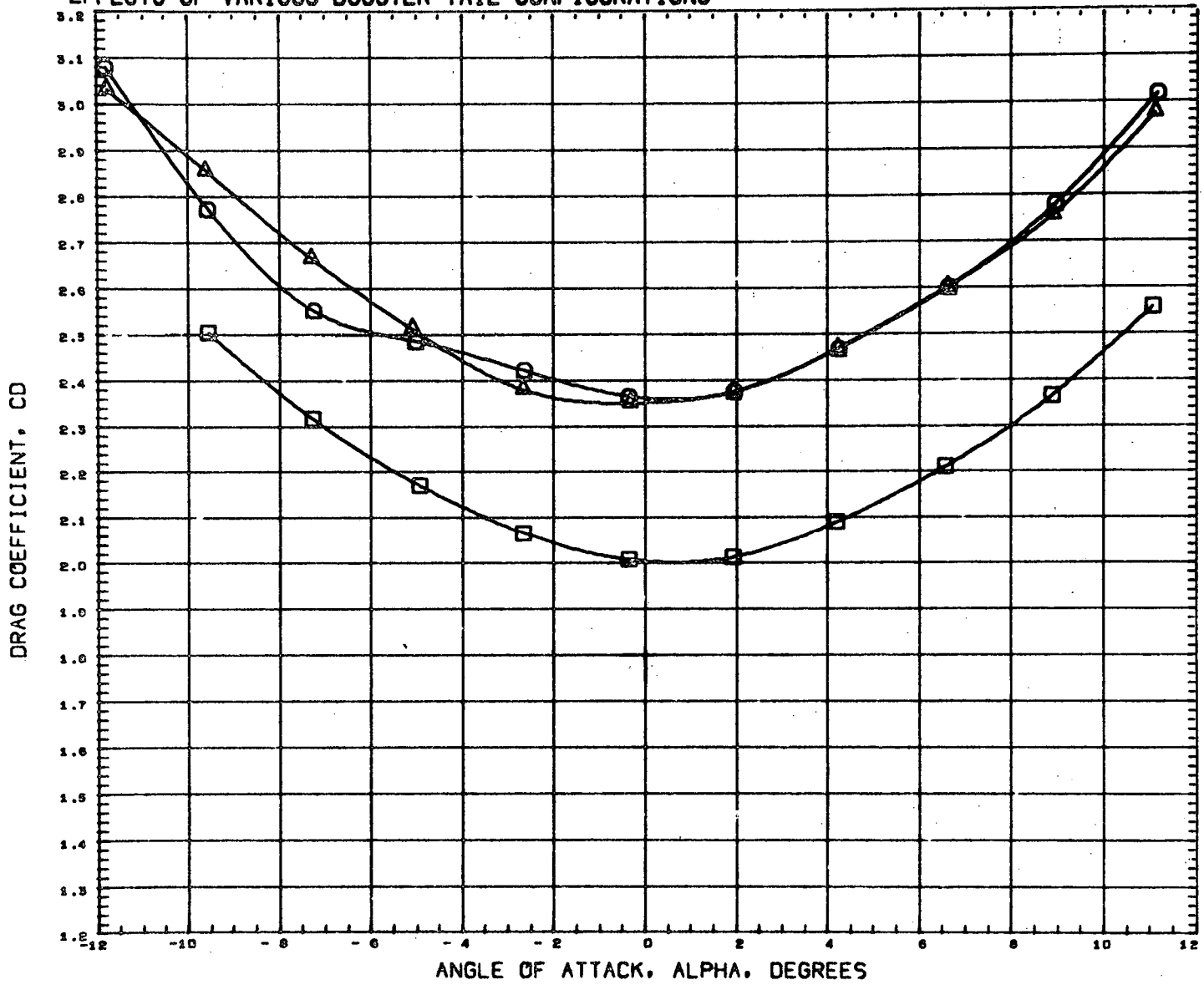


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5017D)	○	MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D5016D)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(D5026D)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D5024D)	□	MSFC 512 GD/C .005366 BOOSTER/ORB. B34R602T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.899

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

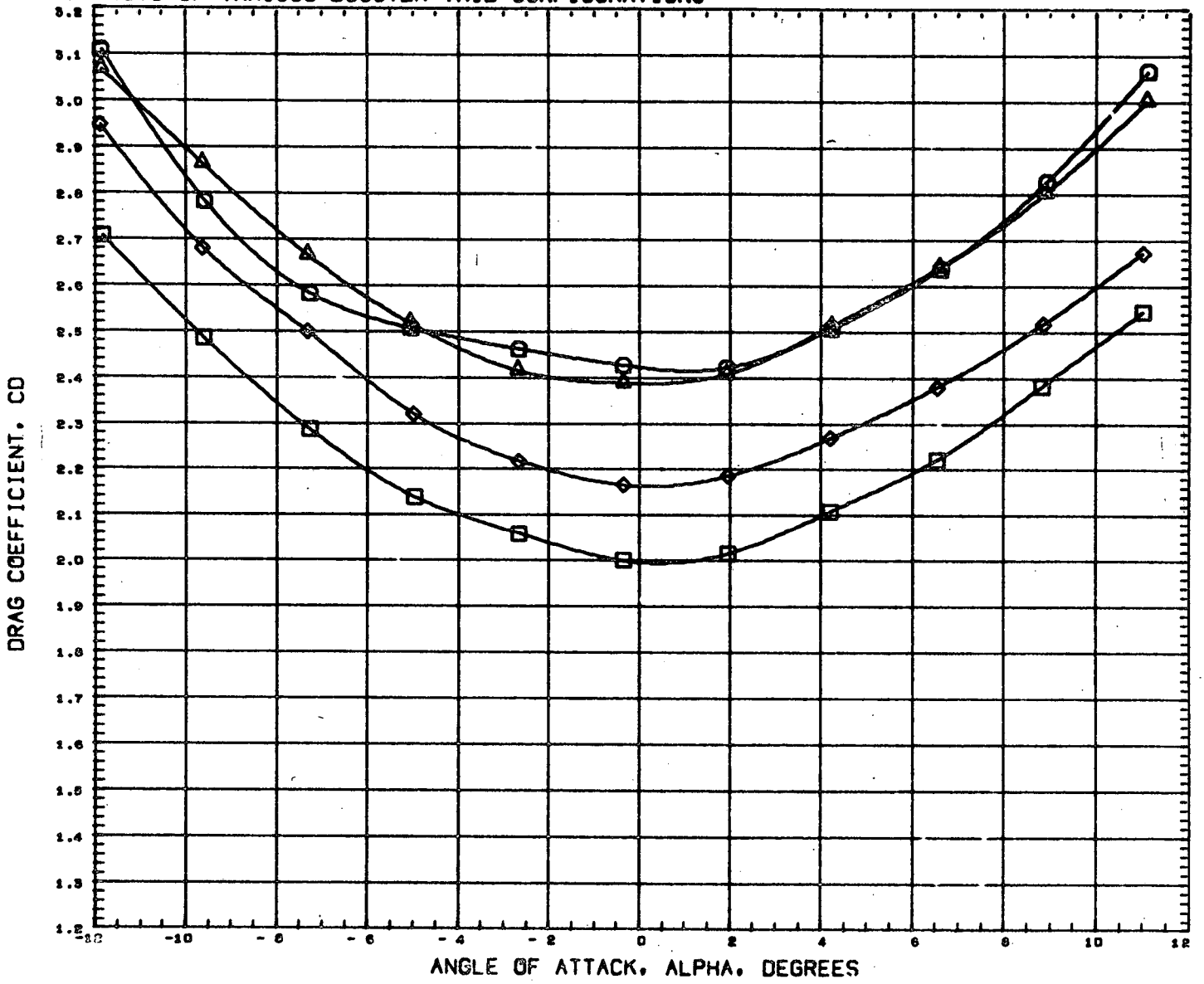


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES017B)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(DS0260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS0240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.101

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

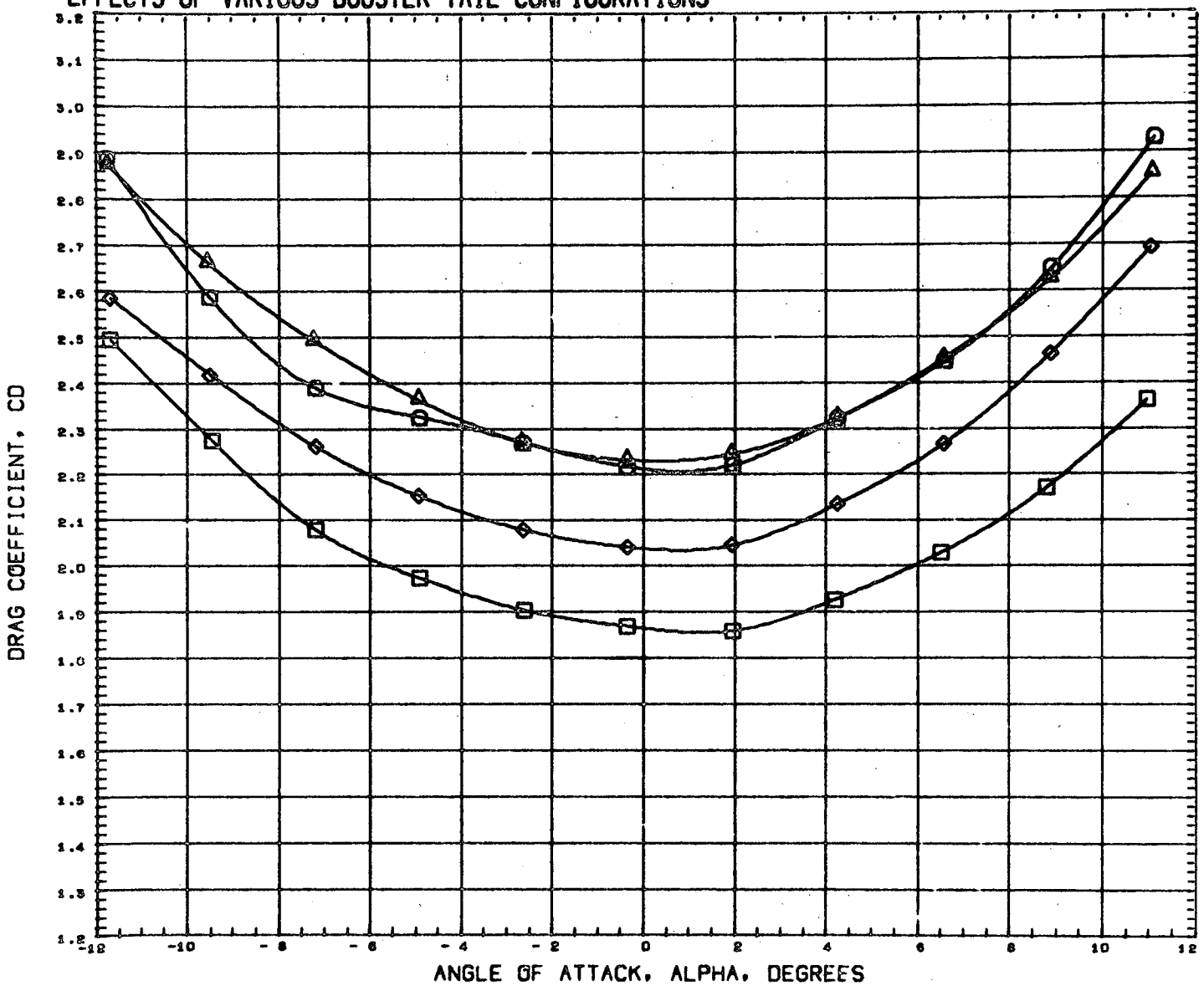


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0178)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(DS0260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(DS0240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.206

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

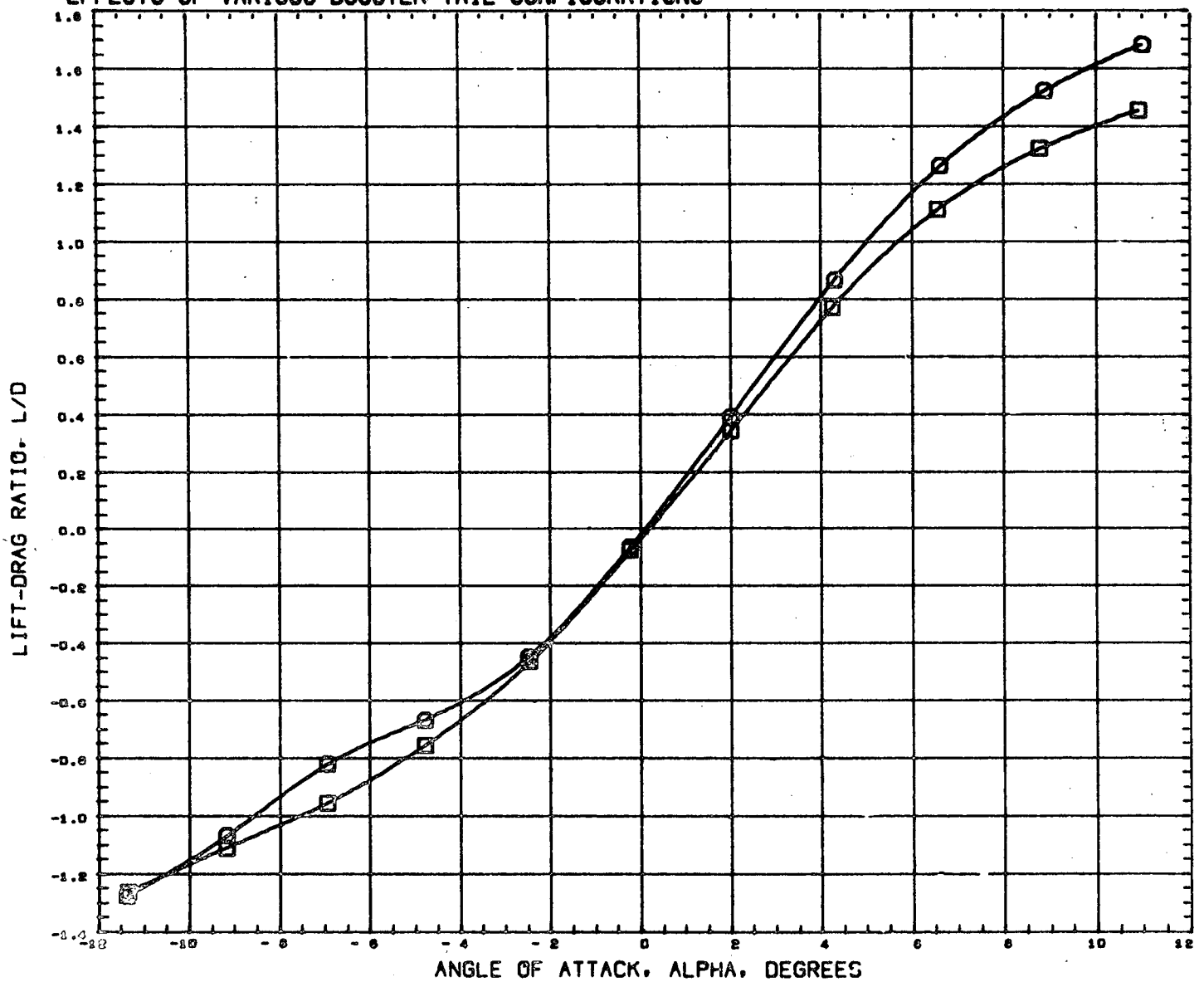


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T100ZT3	0.000	0.000	0.000	0.000
(D50100)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10C2T3	0.000	45.000	0.000	0.000
(D50230)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T120ZT3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R60ZT3	0.000	0.000		

MACH 1.464

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

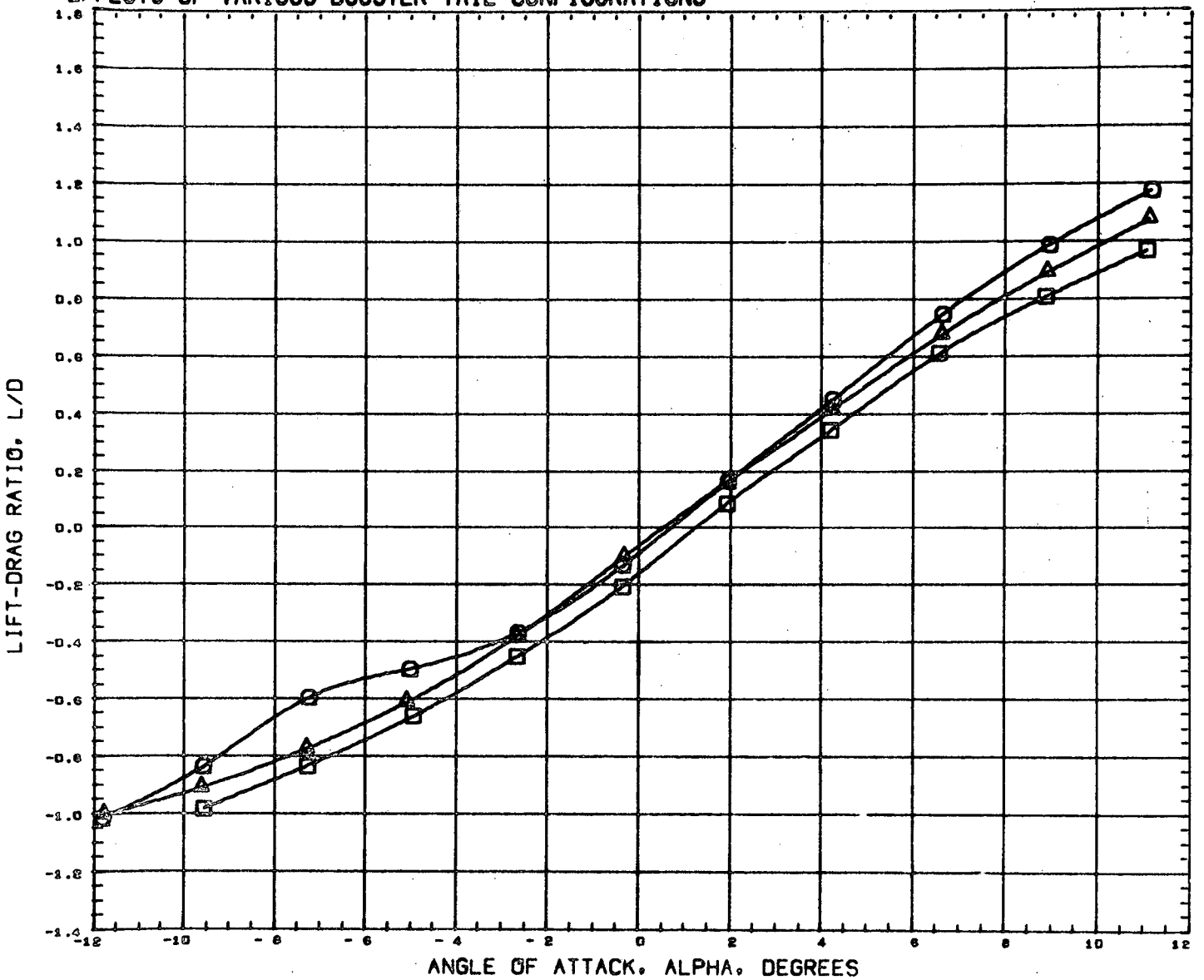


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)		MSFC 512 GD/C .003966 BOOSTER/ORD. BS4RGT1D02T3	0.000	0.000	0.000	0.000
(D50180)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(D50260)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)		MSFC 512 GD/C .003366 BOOSTER/ORD. BS4RG02T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BRFF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.893

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

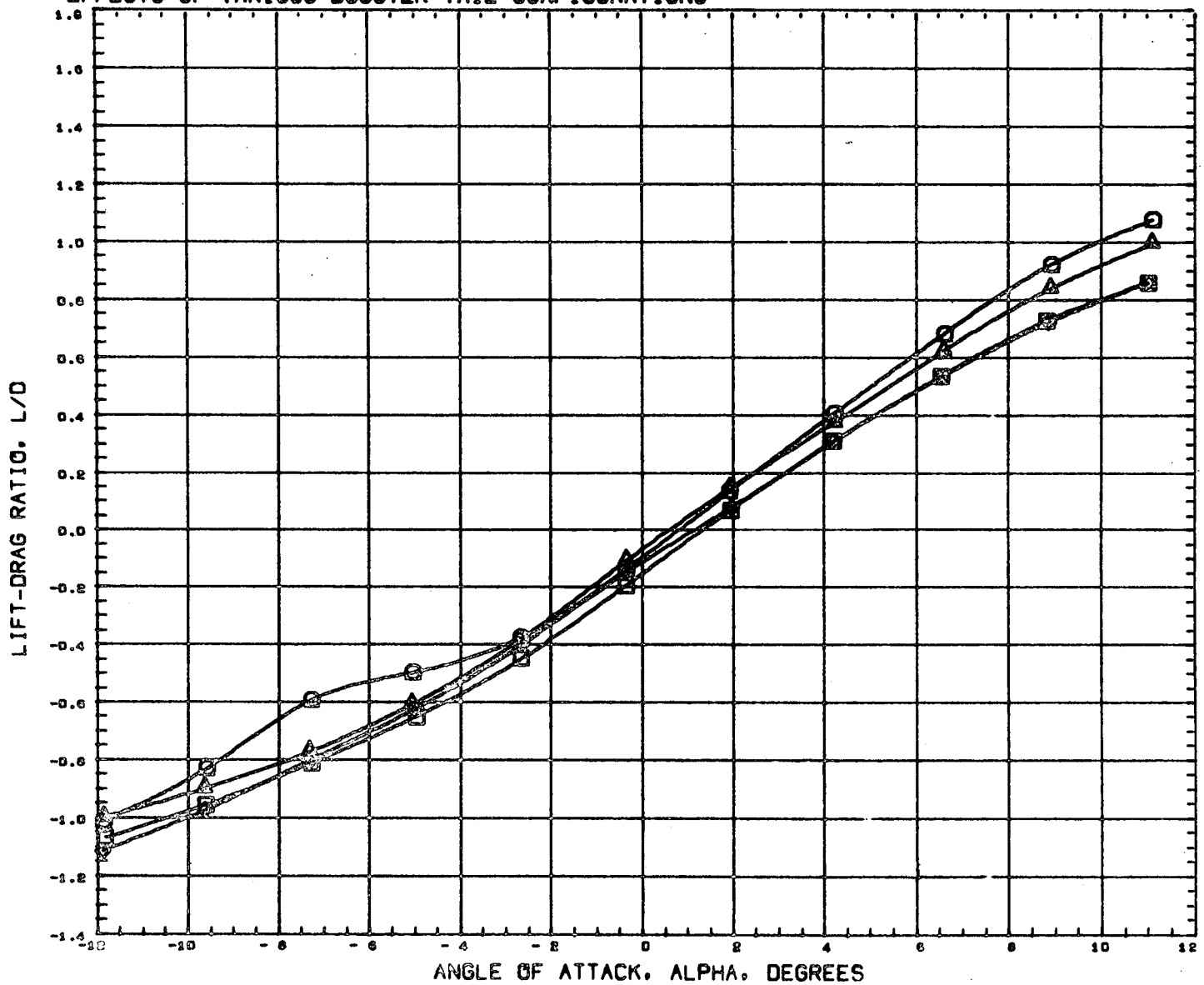


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(D5017B)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.101

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

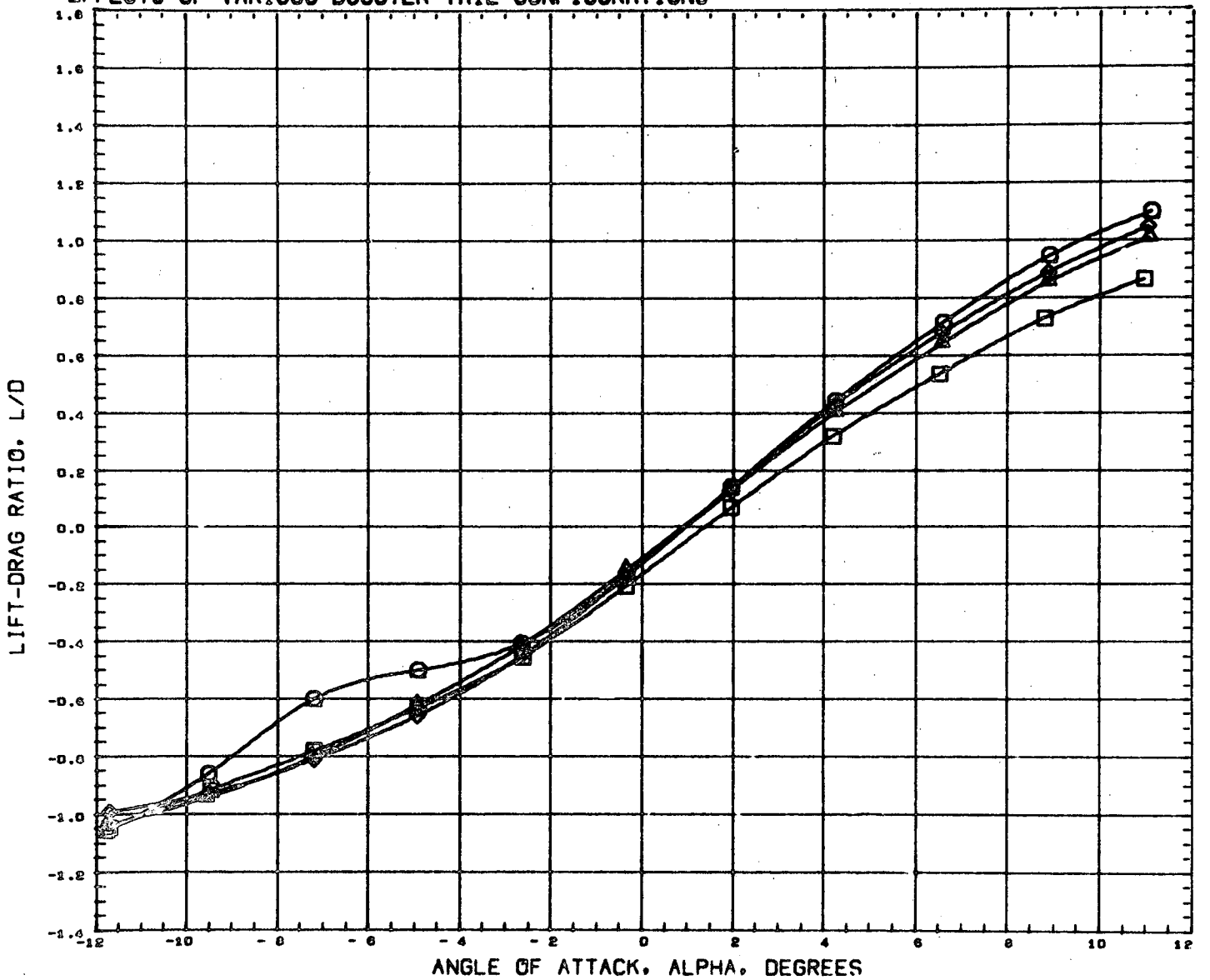


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003366 BOOSTER/ORD. B34RGT1002T3	0.000	0.000	0.000	0.000
(D50100)	△	MSFC 512 GD/C .003366 BOOSTER/ORD. B34RGT1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORD. B34RGT1S02T3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORD. B34RG02T3	0.000	0.000		

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

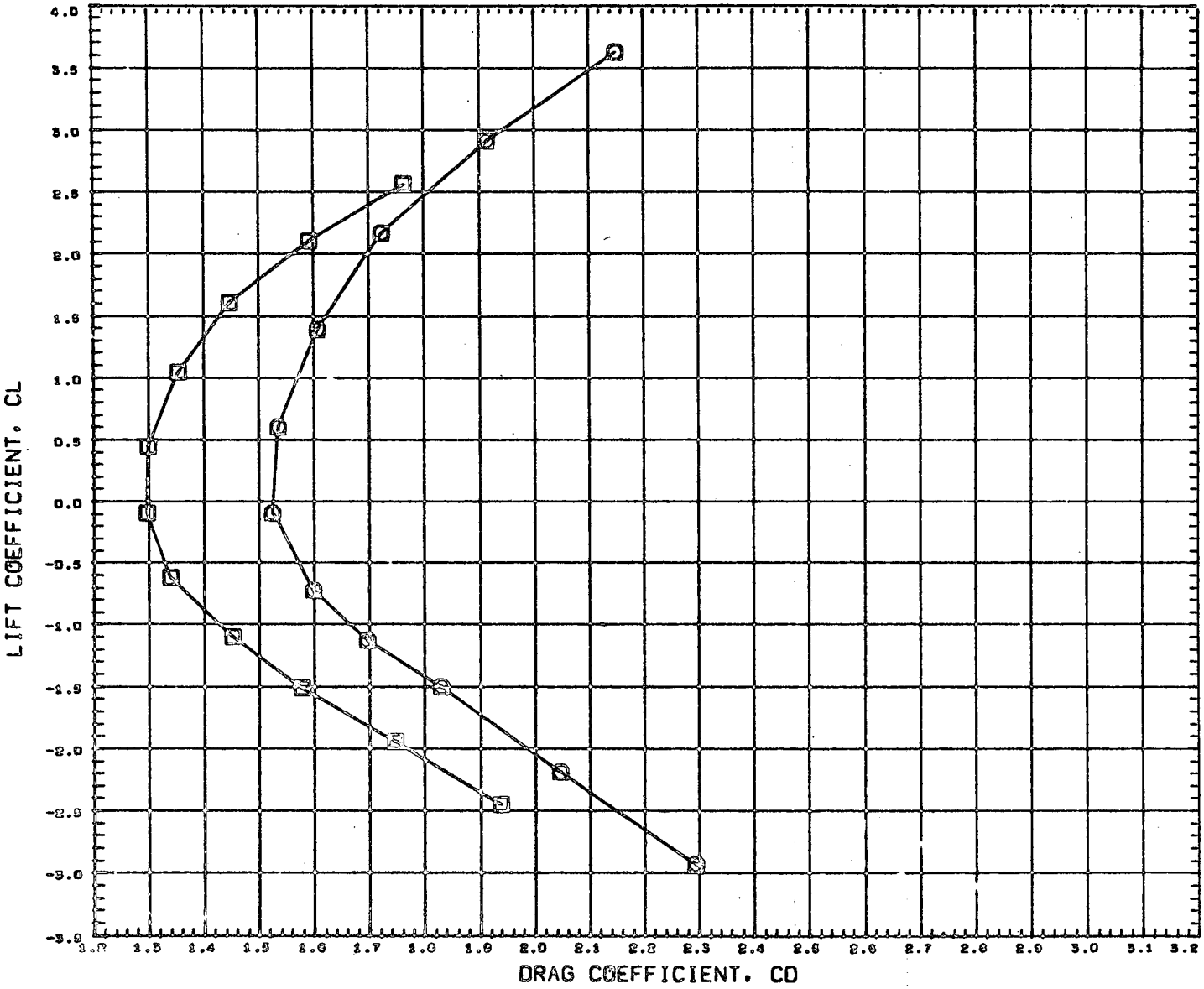


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5017G)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50100)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50200)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.464

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

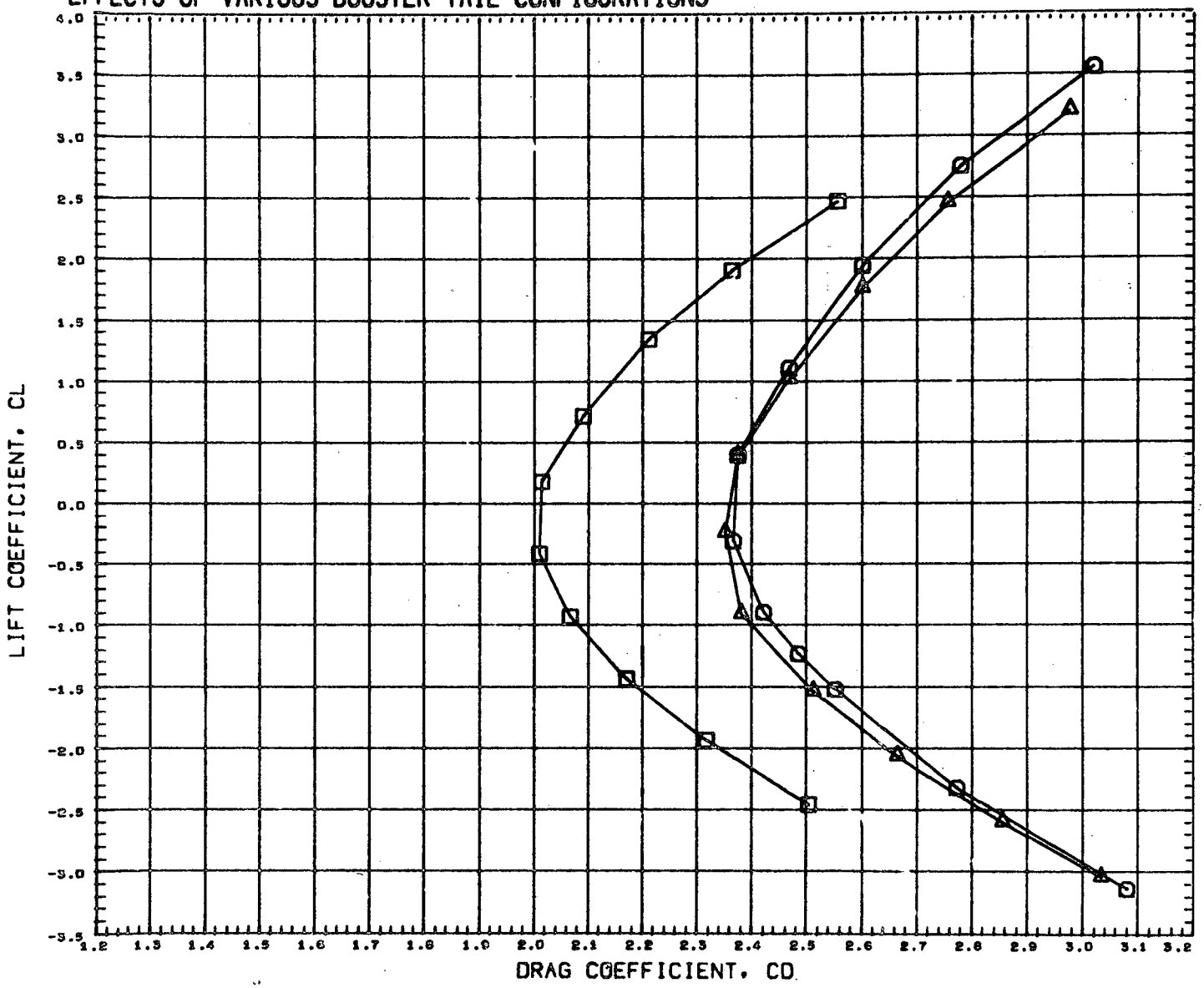


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ETA	PHIHOD	LFLAP	RFLAP
(E5017B)		MSFC 512 GD/C .005360 BOOSTER/ORB. B34RGT1D02T9	0.000	0.000	0.000	0.000
(D50160)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(D50260)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)		MSFC 512 GD/C .005360 BOOSTER/ORB. B34RG02T9	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.690

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

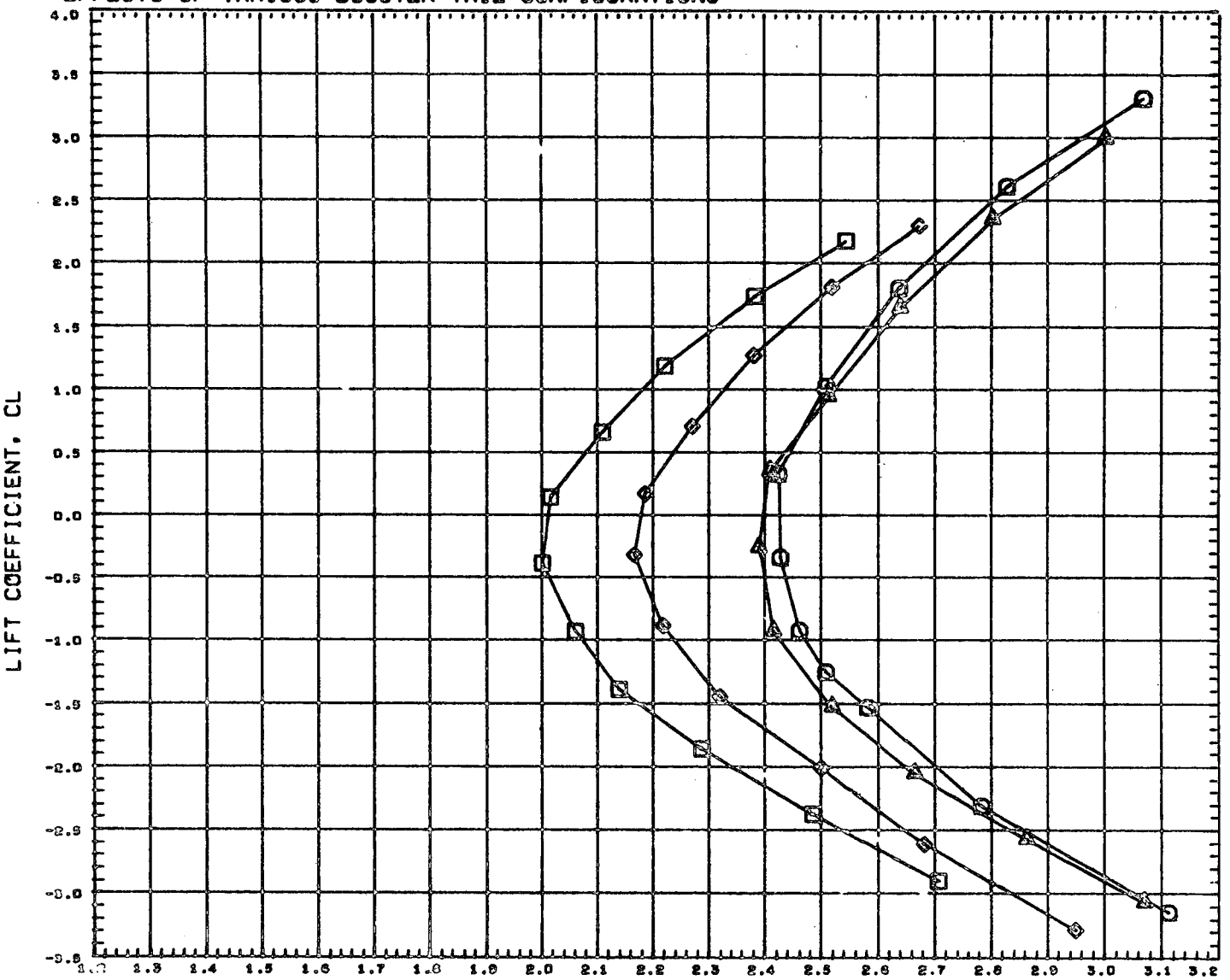


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5D17D)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1D02T3	0.000	0.000	0.000	0.000
(D5D18D)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1D02T3	0.000	45.000	0.000	0.000
(D5D26D)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D5D24D)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R60ZT3	0.000	0.000		

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

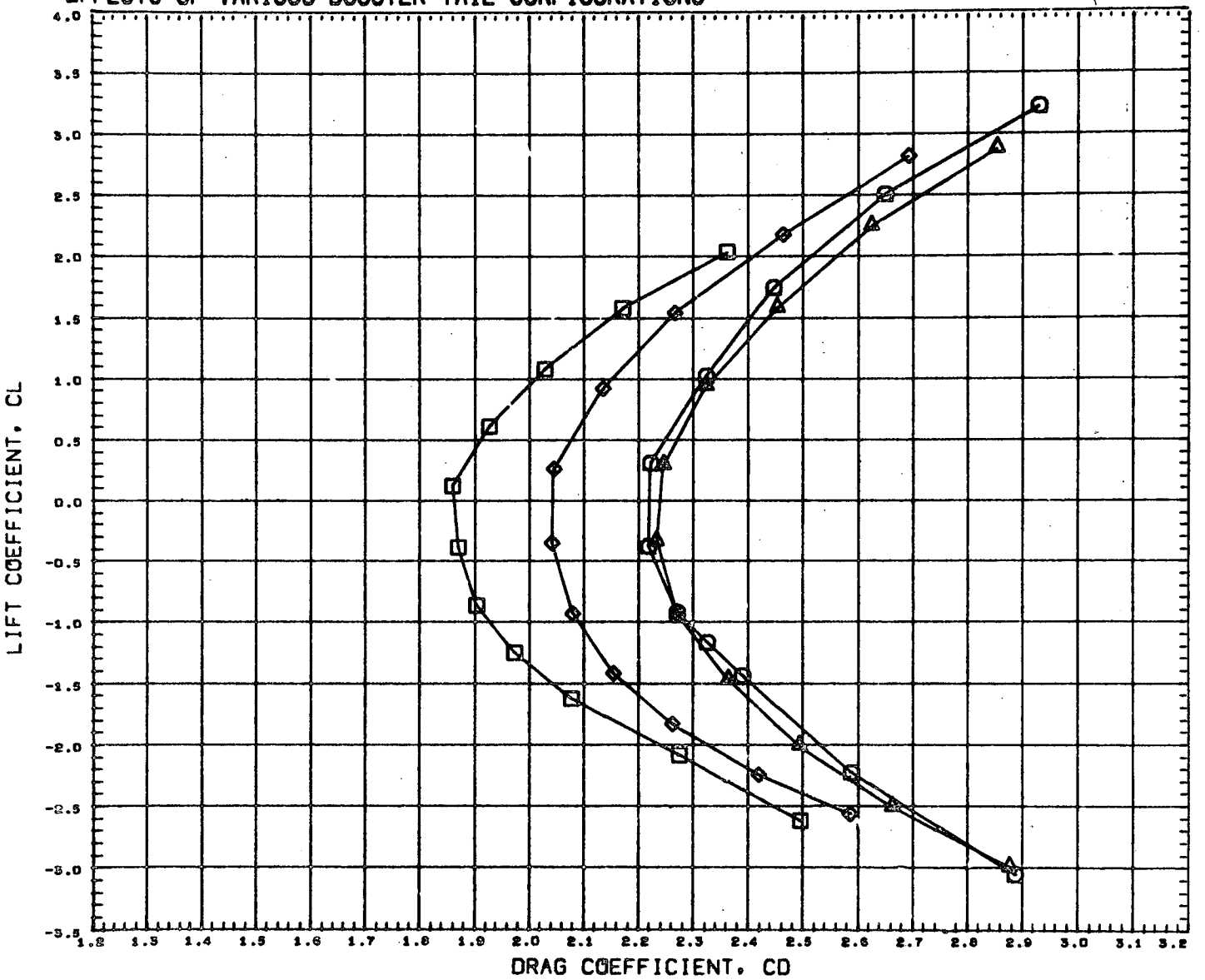


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000
(D50100)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34RGT1002T3	0.000	45.000	0.000	0.000
(D50260)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34RGT1202T3	0.000	0.000	0.000	0.000
(D50240)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34RGO2T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.200

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

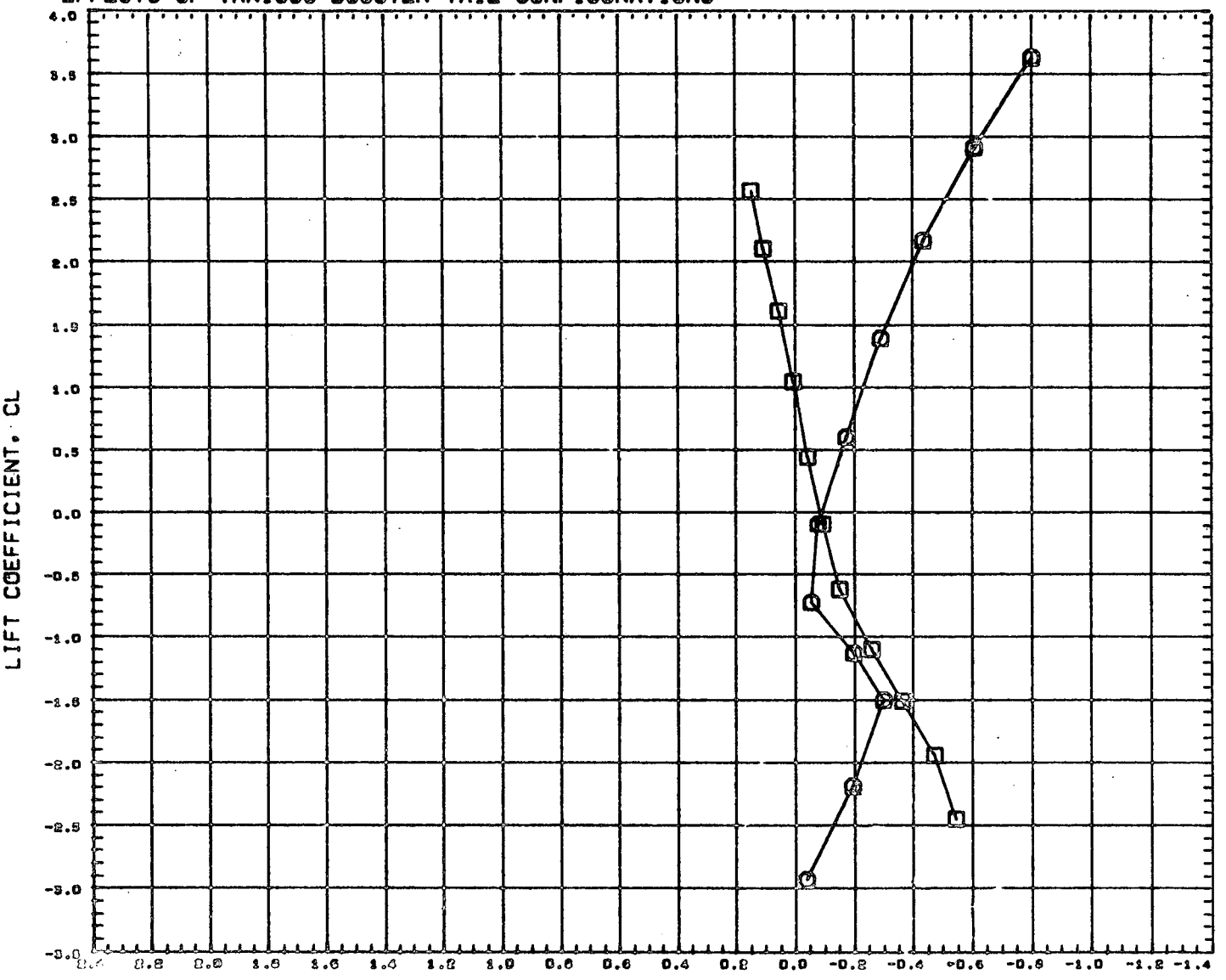


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES017D)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS018D)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(DS026D)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(DS024D)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.464

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

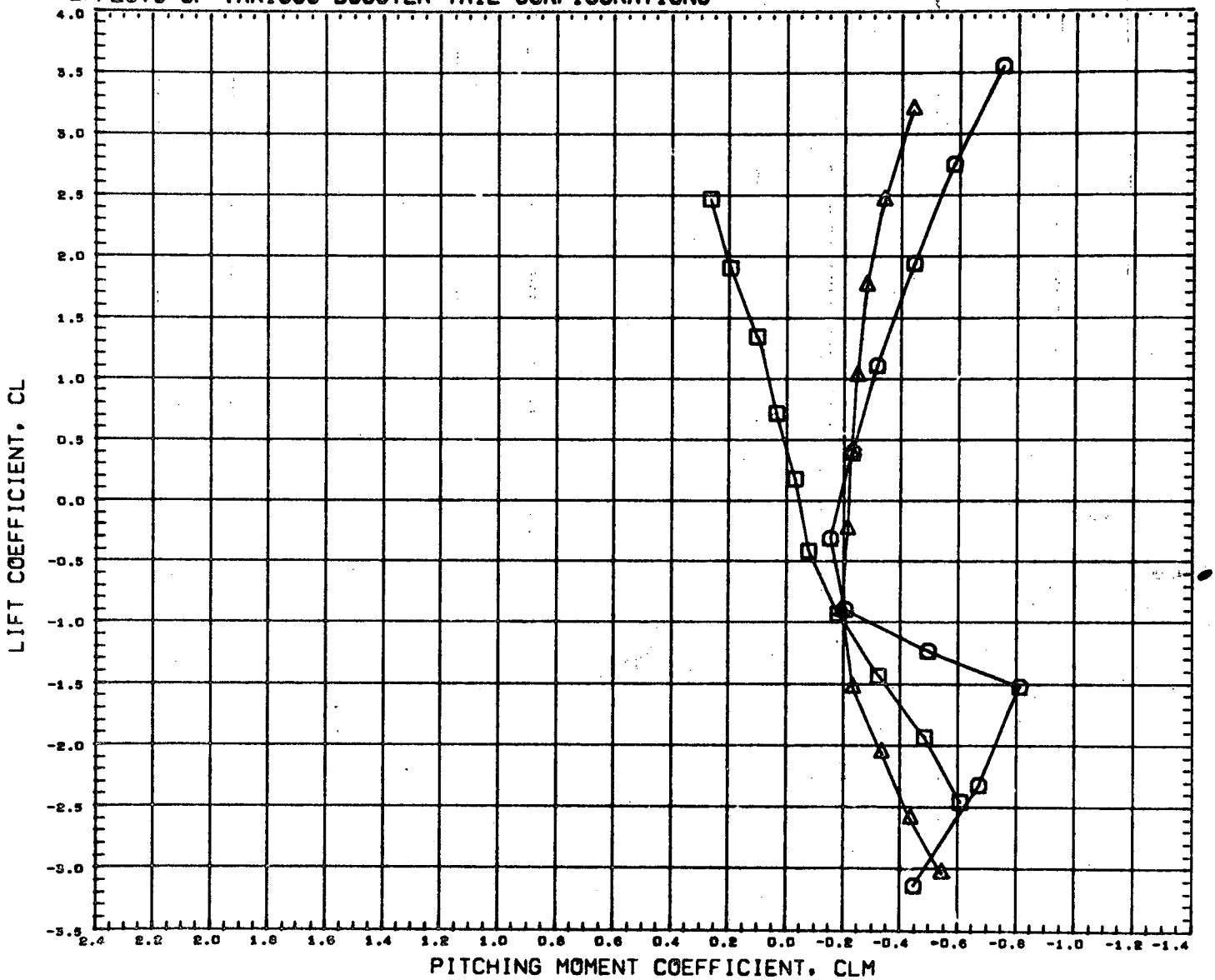


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E9017B)	○	MSFC 512 GD/C .003300 BOOSTER/ORB. B34R6T100ZT3	0.000	0.000	0.000	0.000
(D50180)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003306 BOOSTER/ORB. B34R60ZT3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.880

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

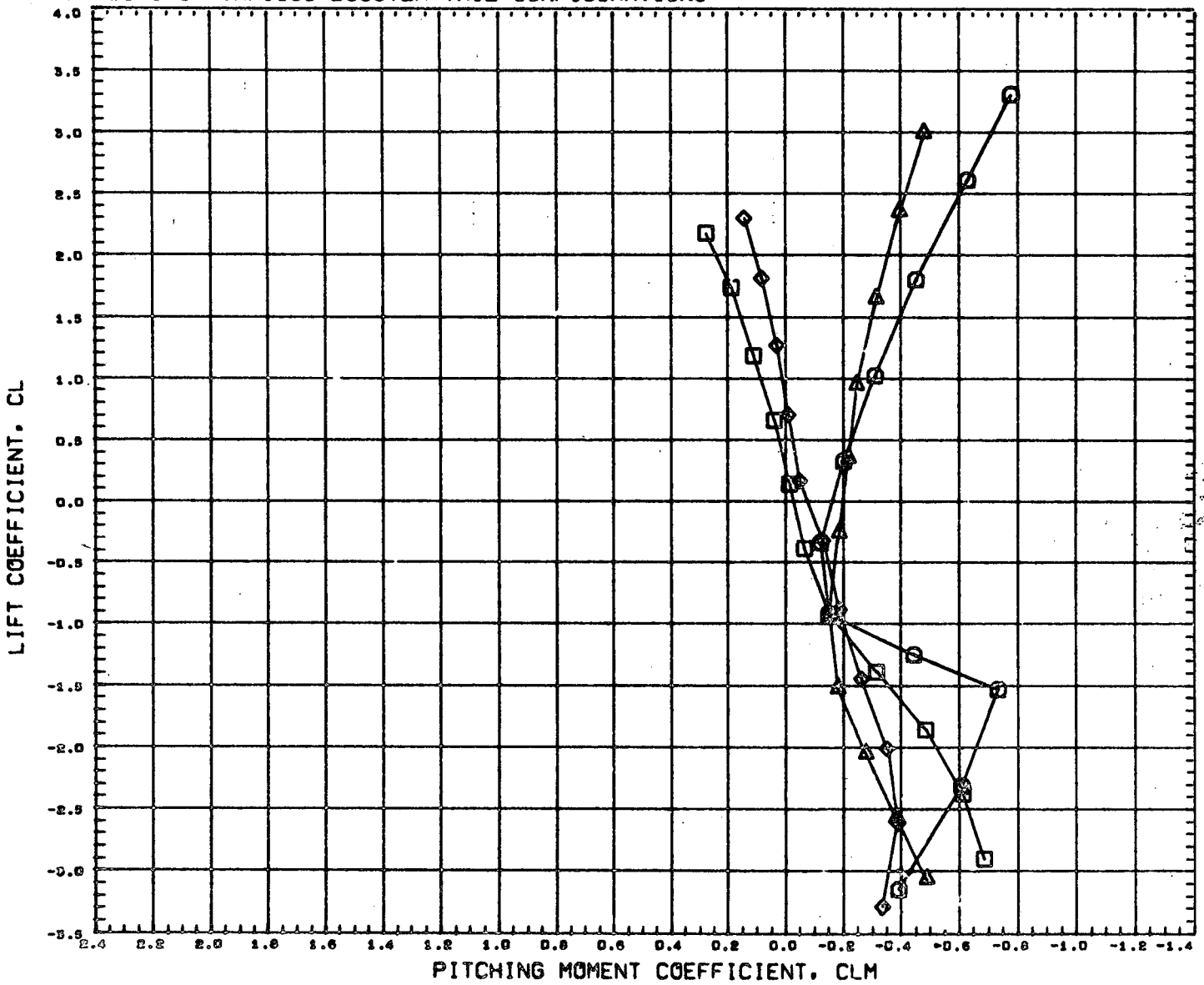


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50170)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R60ZT3	0.000	0.000		

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

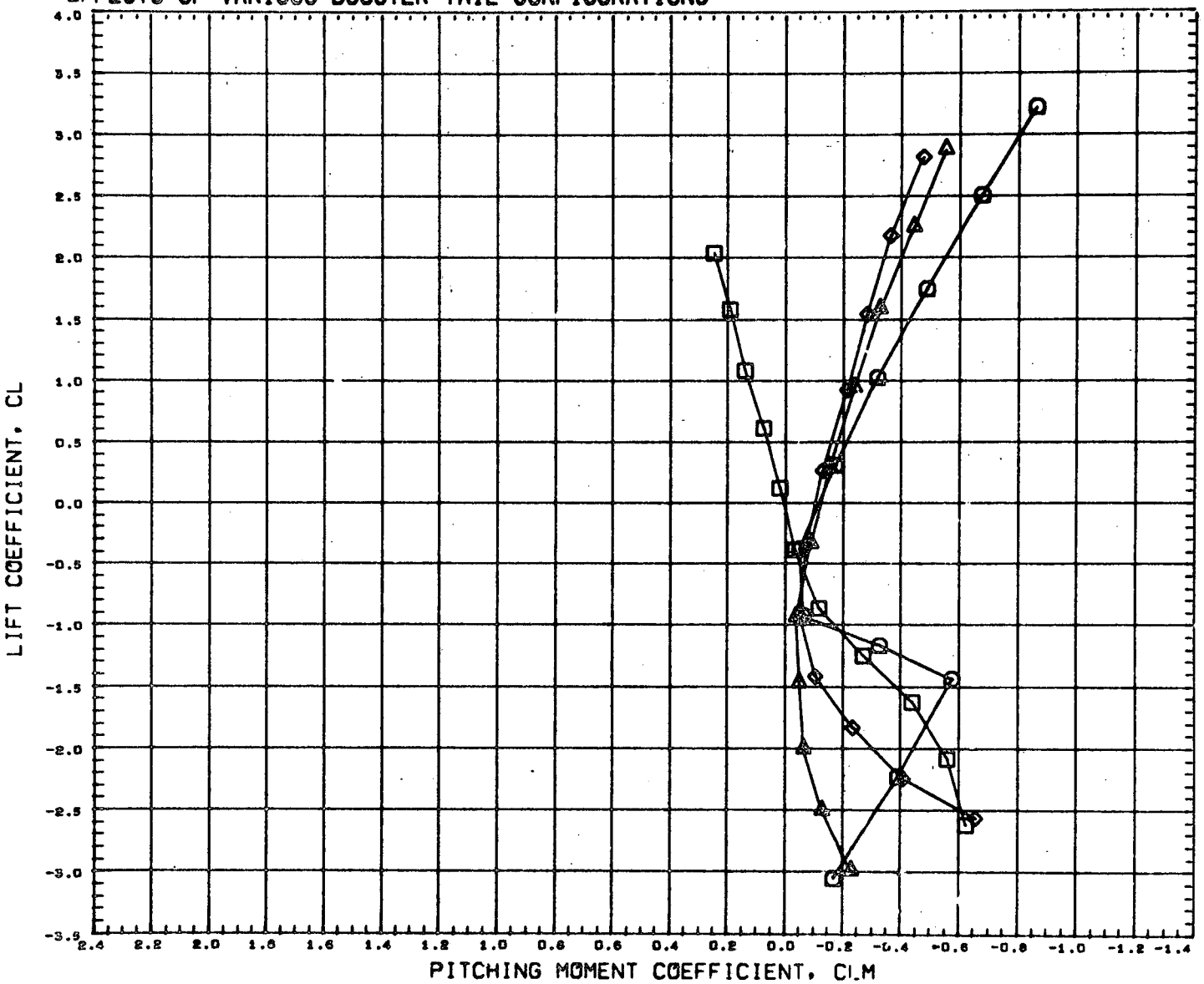


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(DS0170)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(DS0260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(DS0240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.206

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

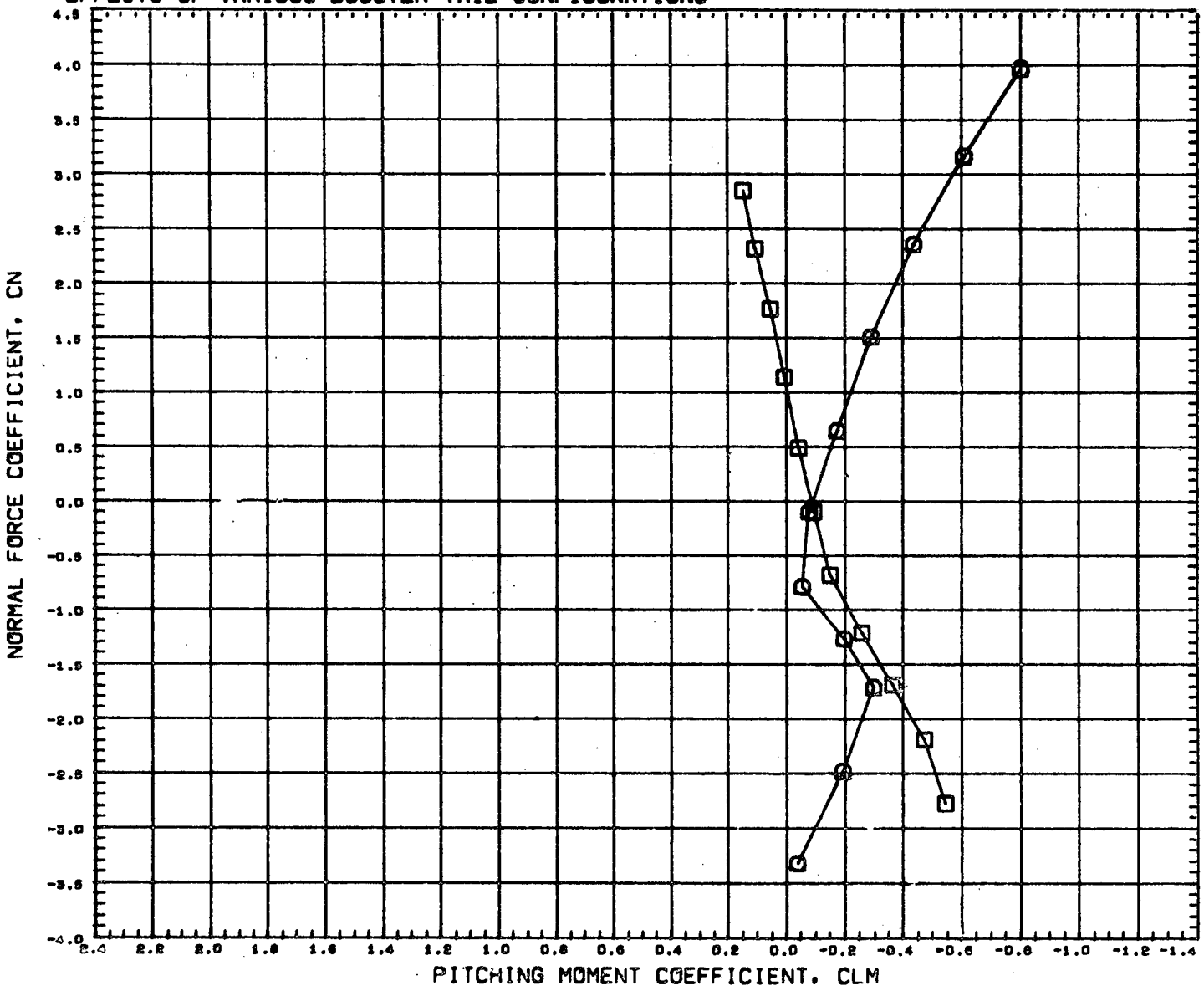


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5017B)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.464

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

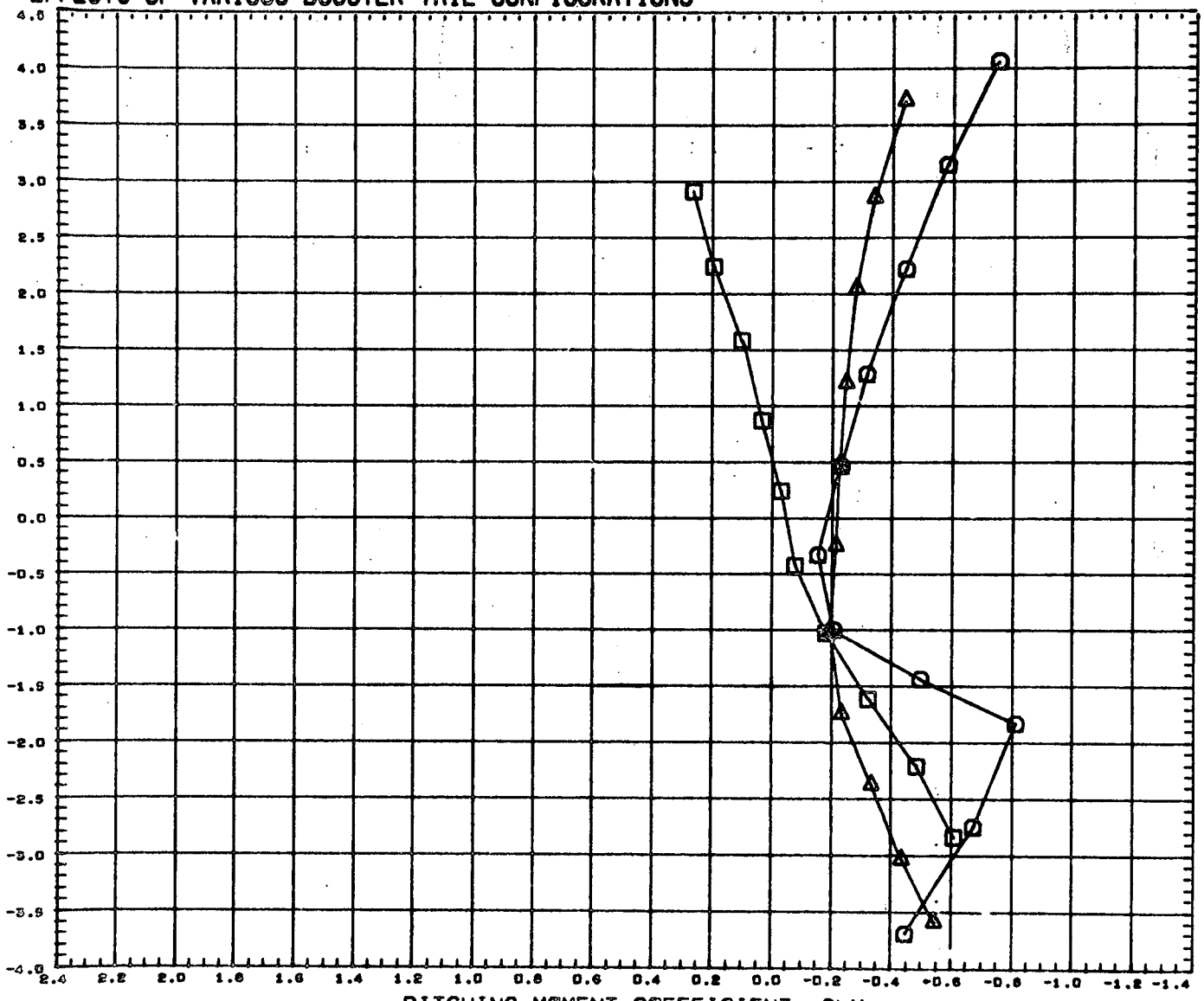


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES017S)	○	MSFC 512 GD/C .009366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0180)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	45.000	0.000	0.000
(DS0260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS0240)	□	MSFC 512 GD/C .009366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 0.899

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

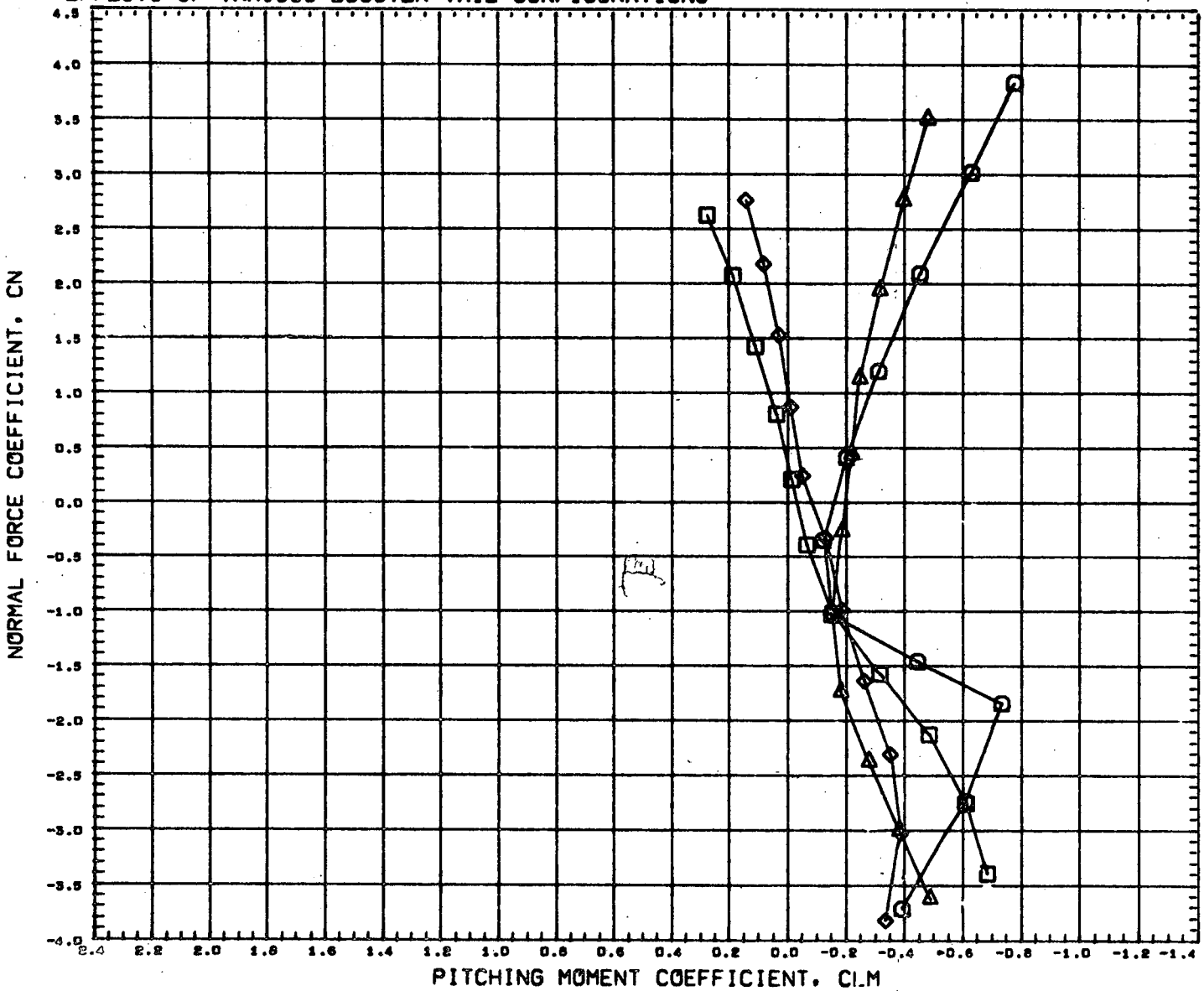


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(D50178)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50180)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	45.000	0.000	0.000
(D50260)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

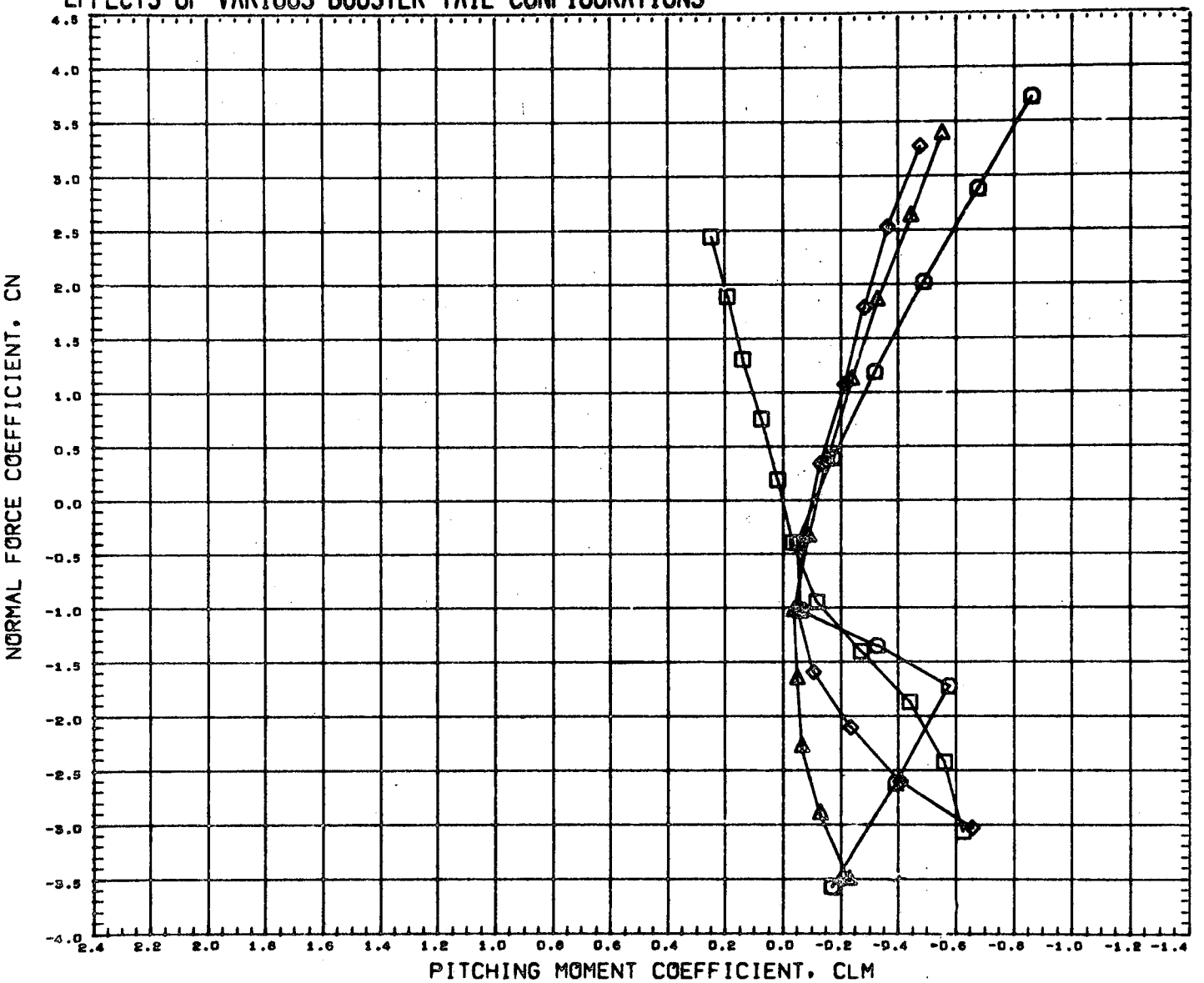


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50180)	▽	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		

MACH 1.206

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF VARIOUS BOOSTER TAIL CONFIGURATIONS

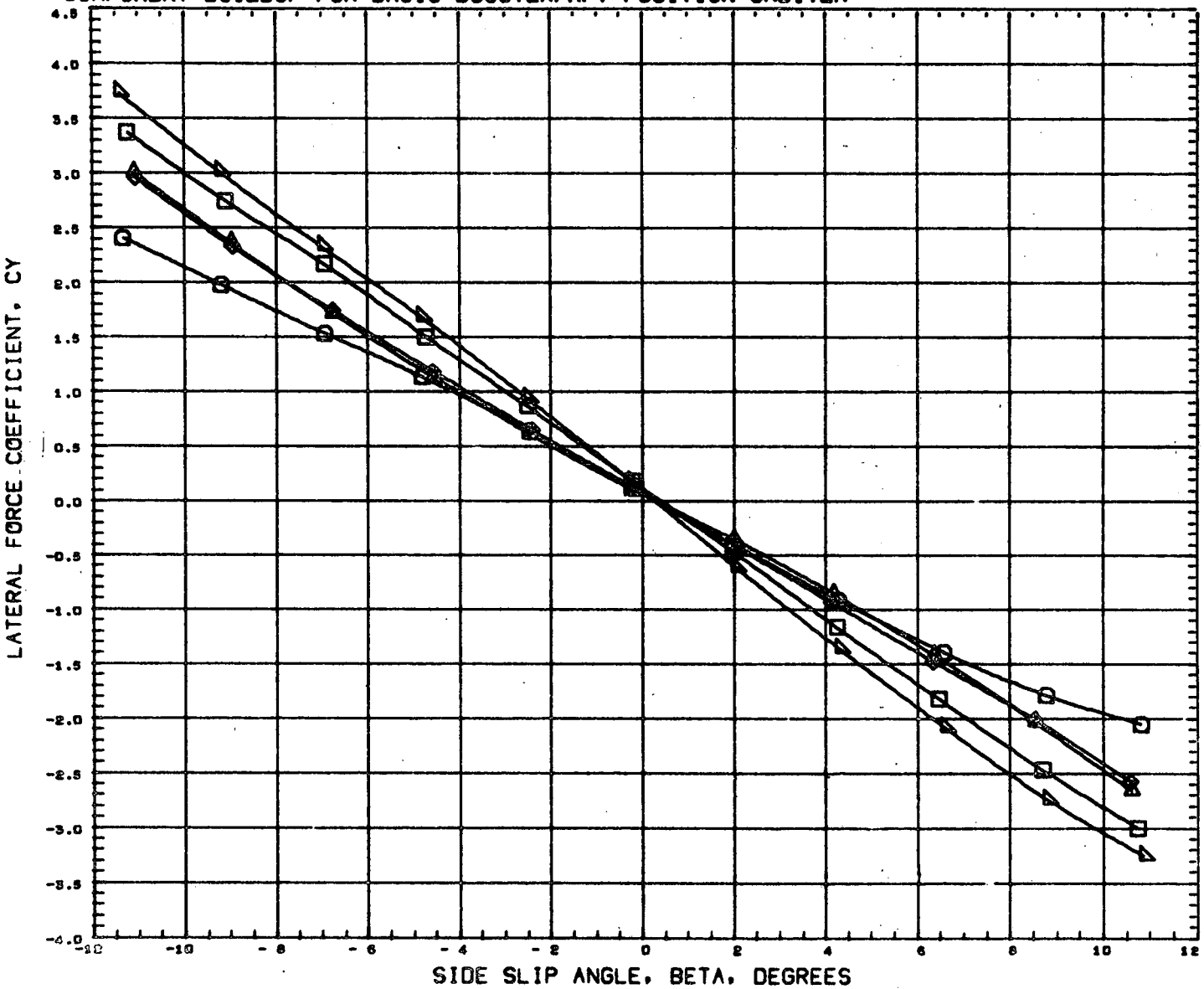


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50178)	○	MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50160)	◇	MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(D50260)	◇	MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(D50240)	□	MSFC 512 GD/C .003566 BOOSTER/ORB. B34R602T3	0.000	0.000		

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.464

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

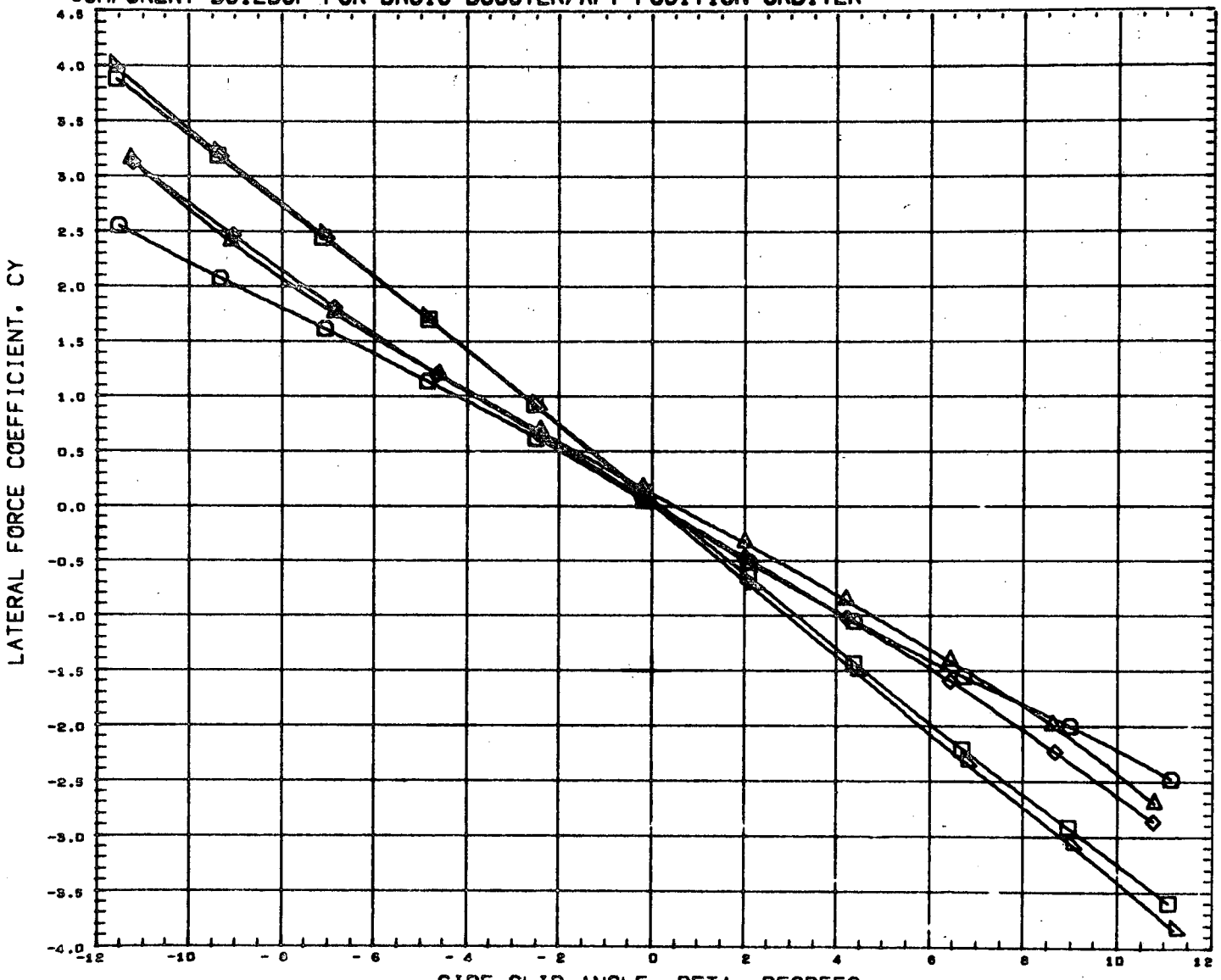


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(HS025D)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(HS0300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(HS0280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(HS0200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.90

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

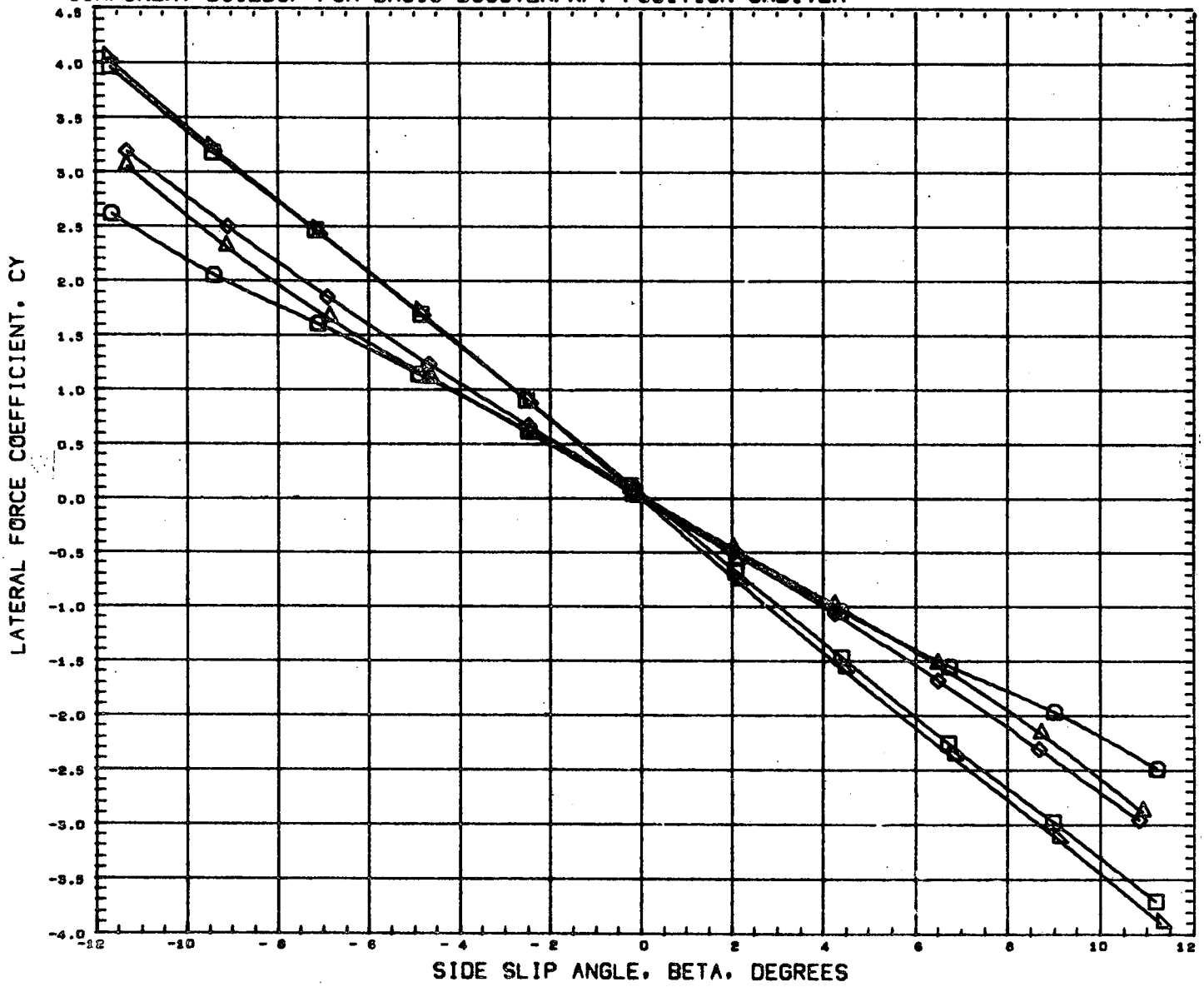


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50260)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.1112

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

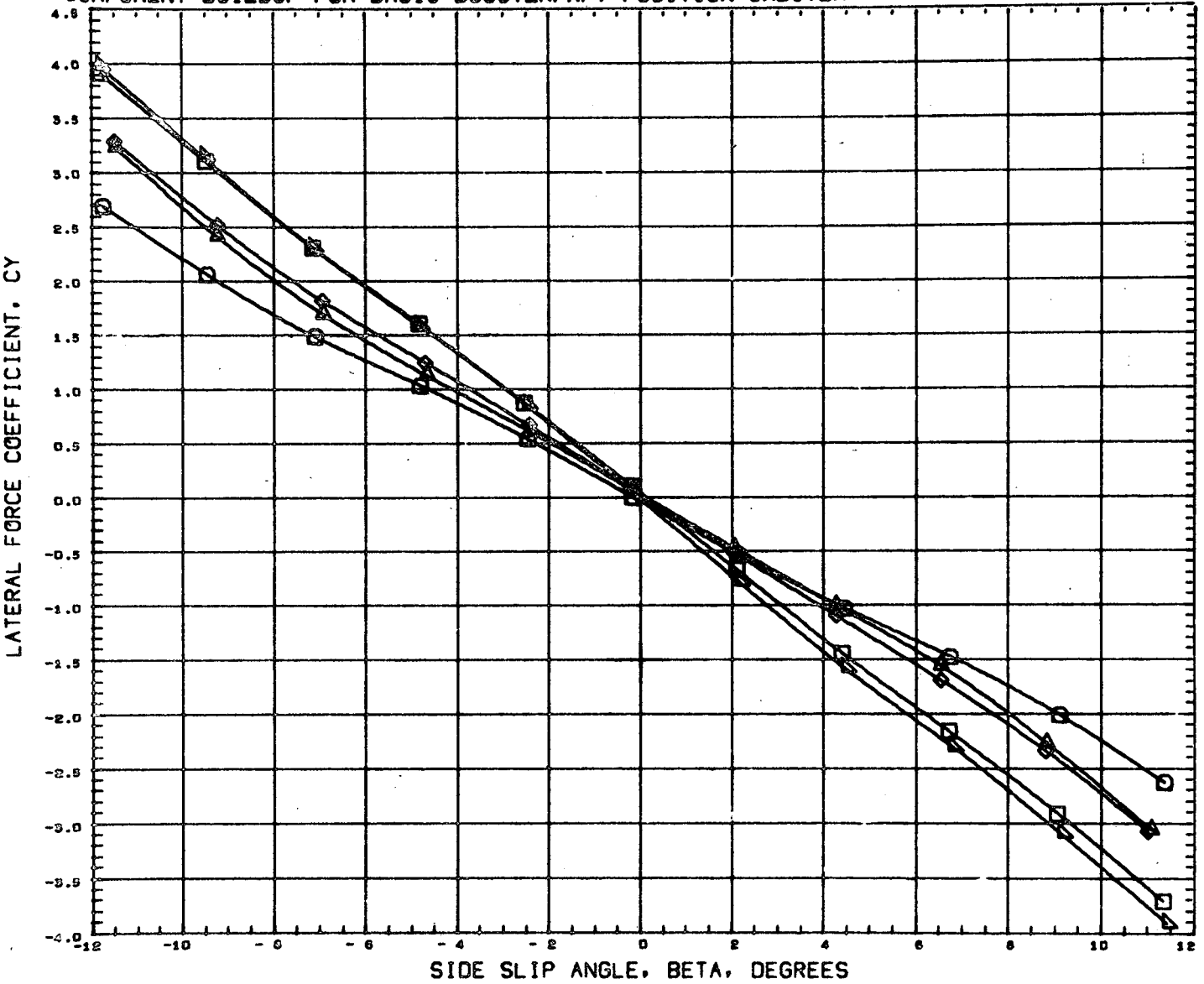


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003306 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003306 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.204

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

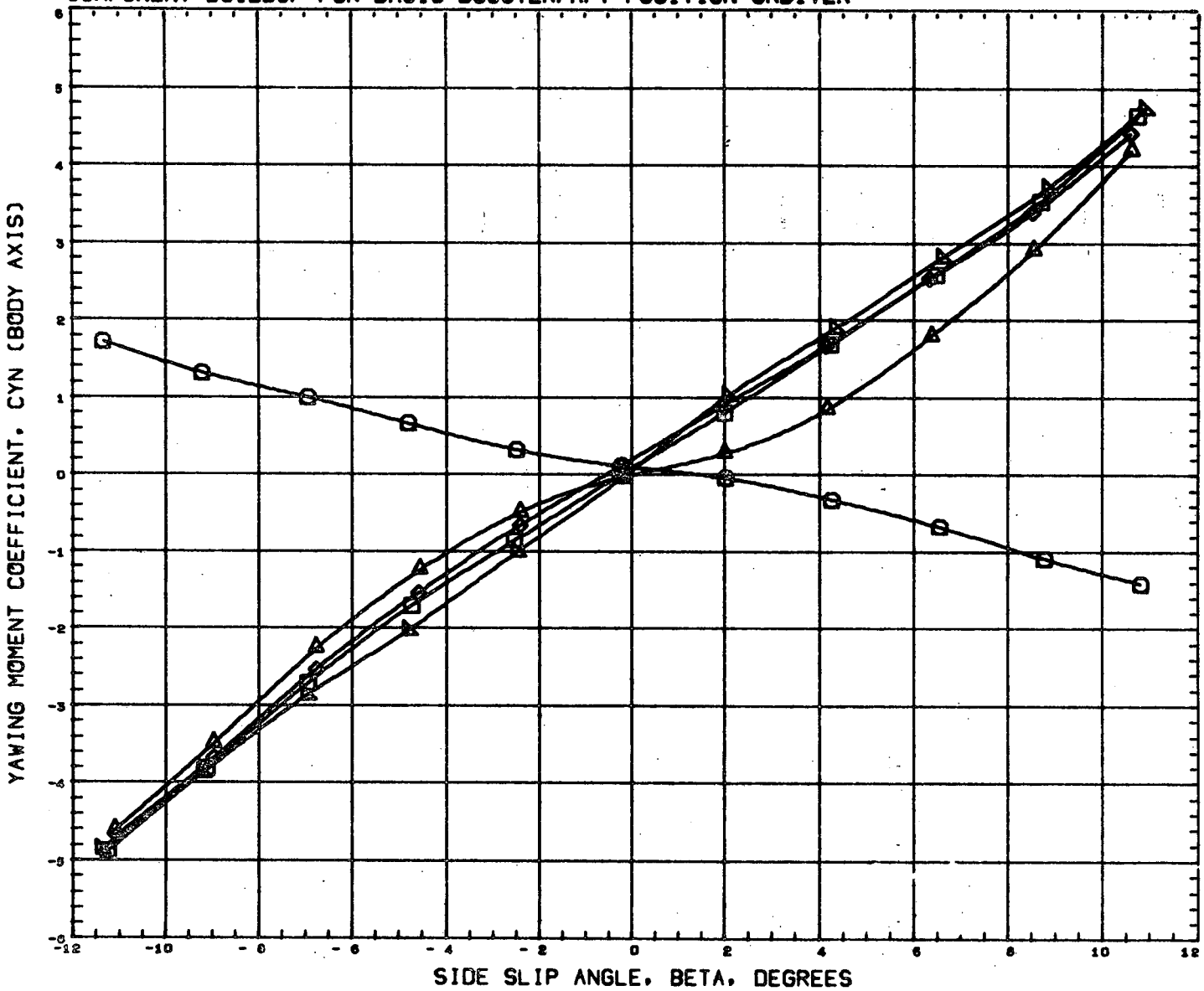


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50260)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

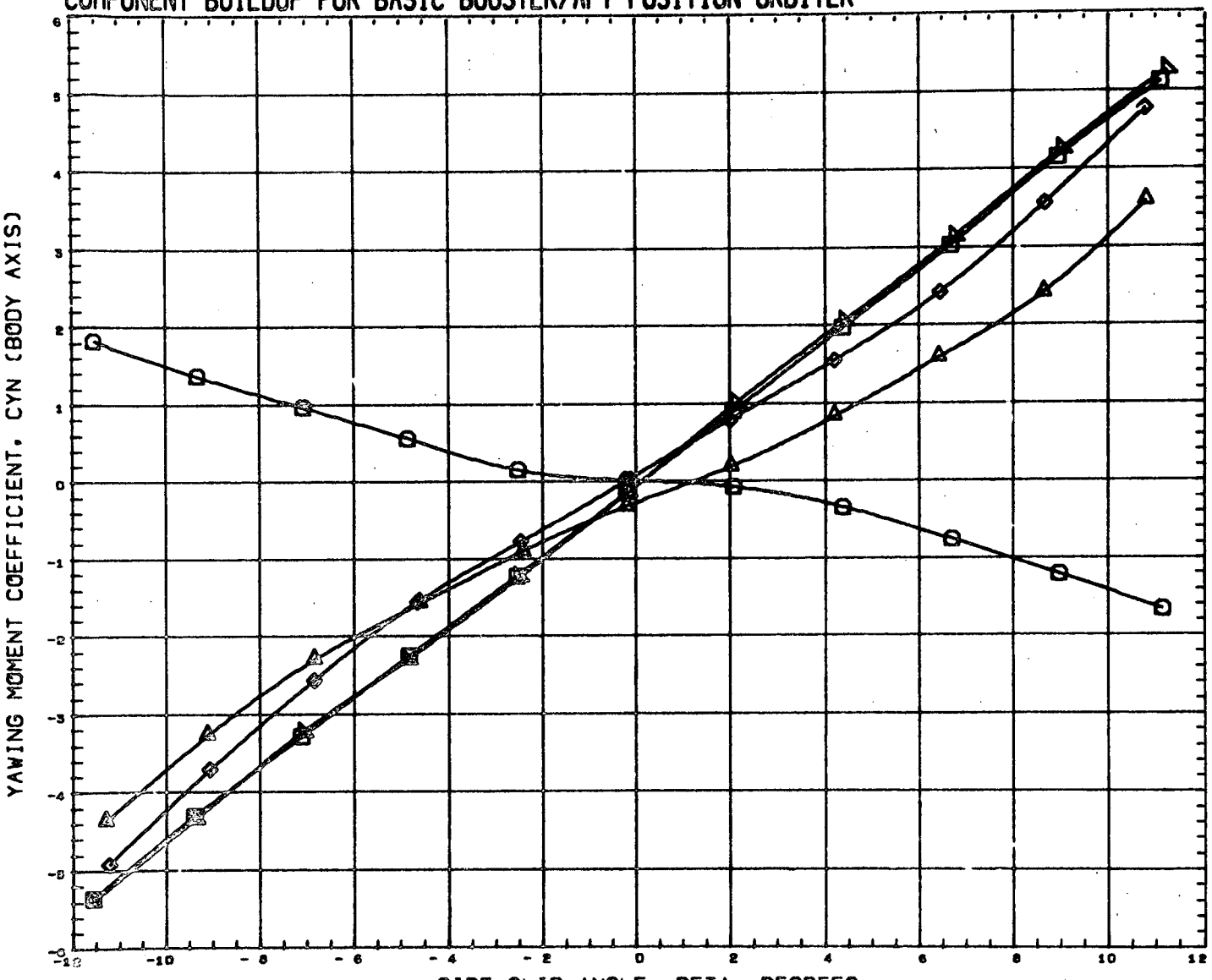


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

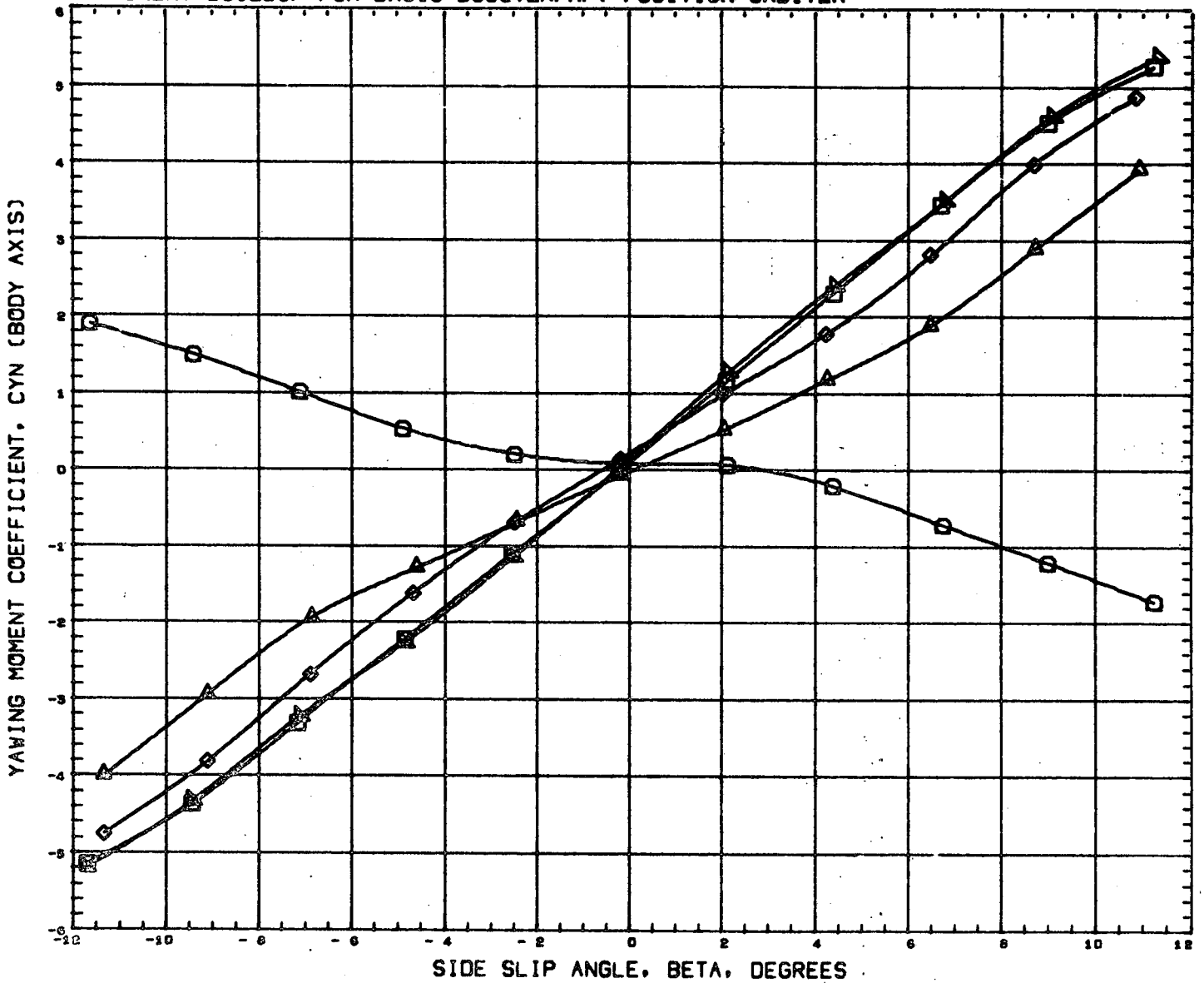


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.102

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

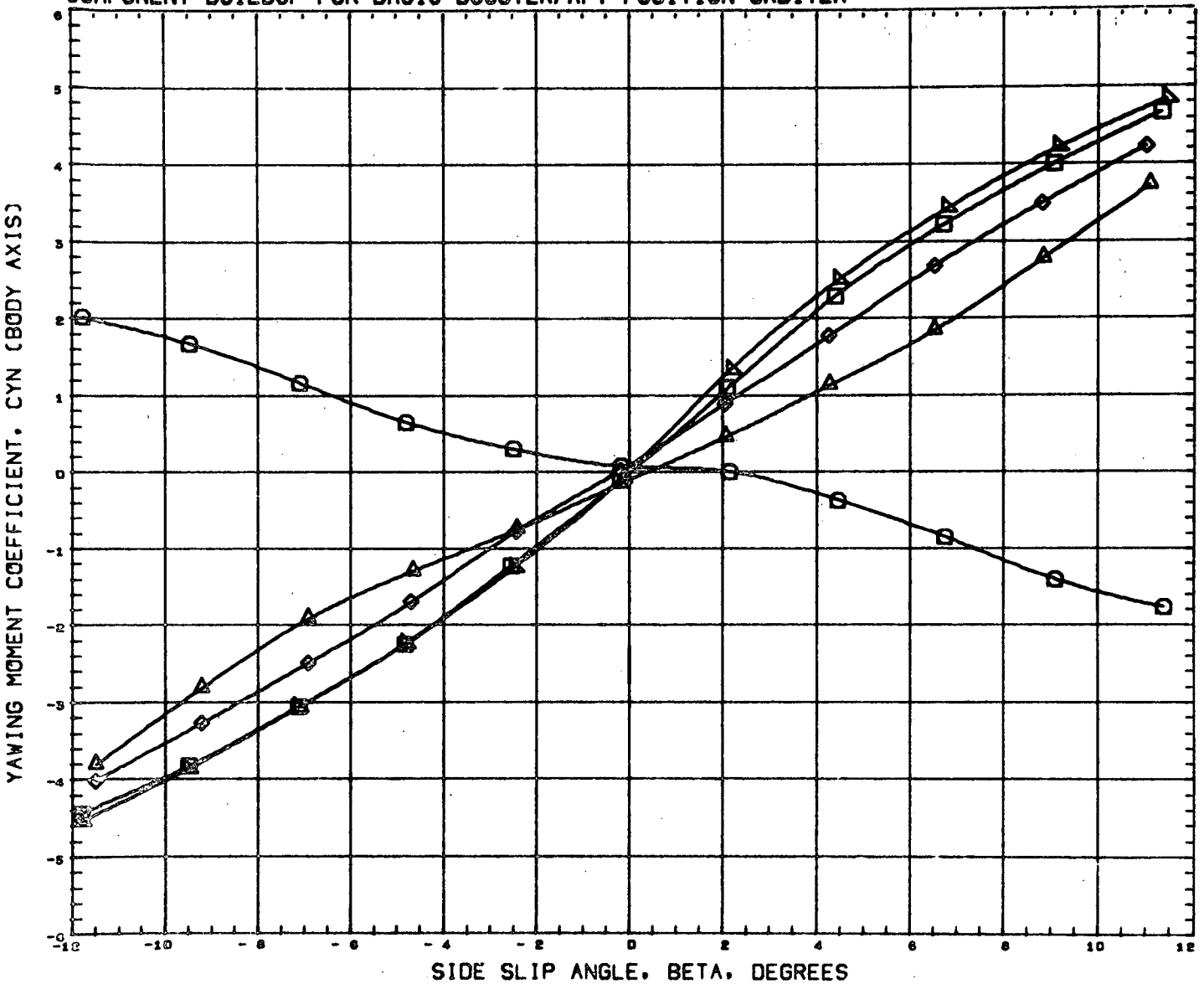


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(HS0250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(HS0300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(HS0260)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(HS0200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(AS019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.2104

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

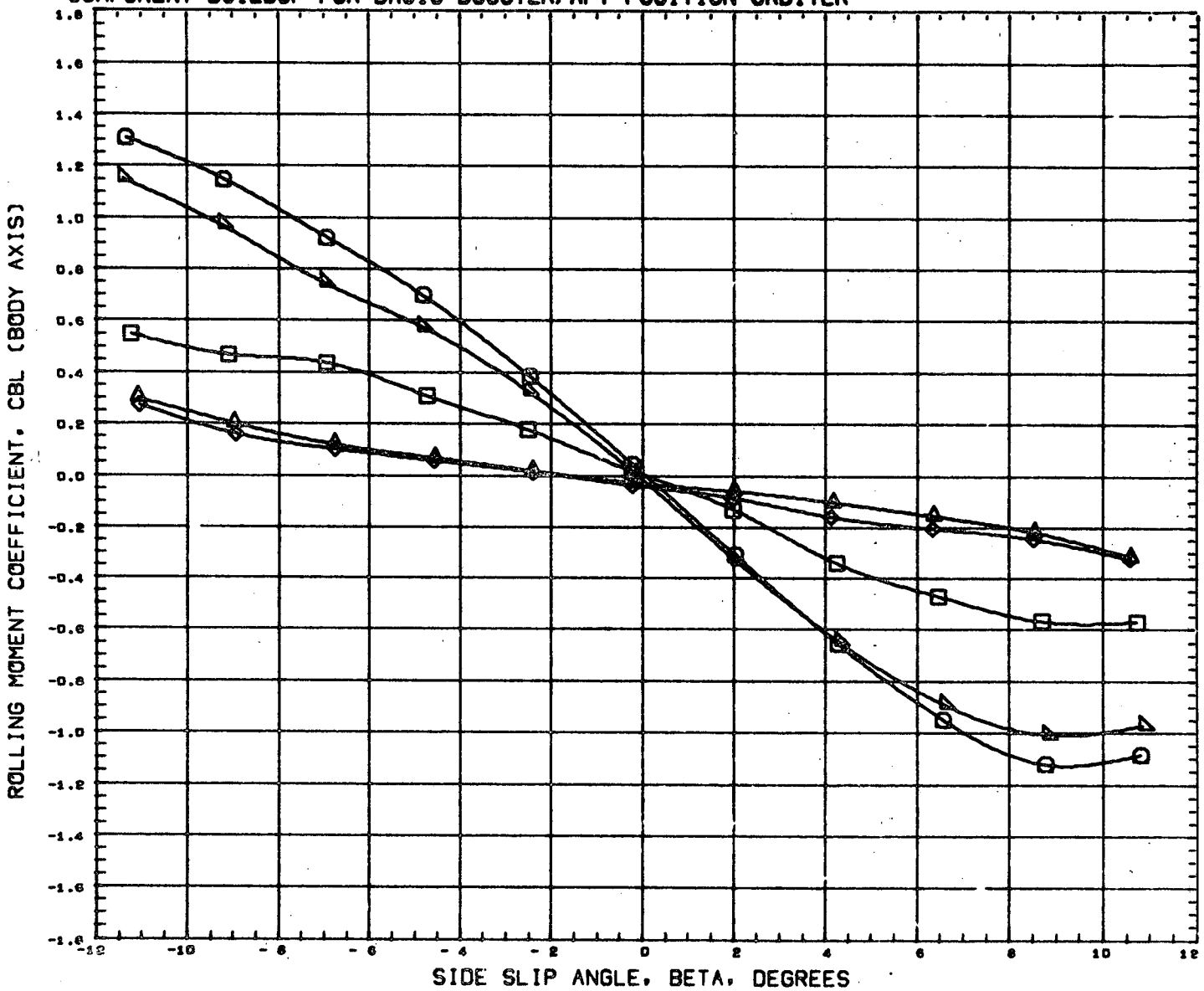


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(M50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(M50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(M50260)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(M90200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A9019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.452

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

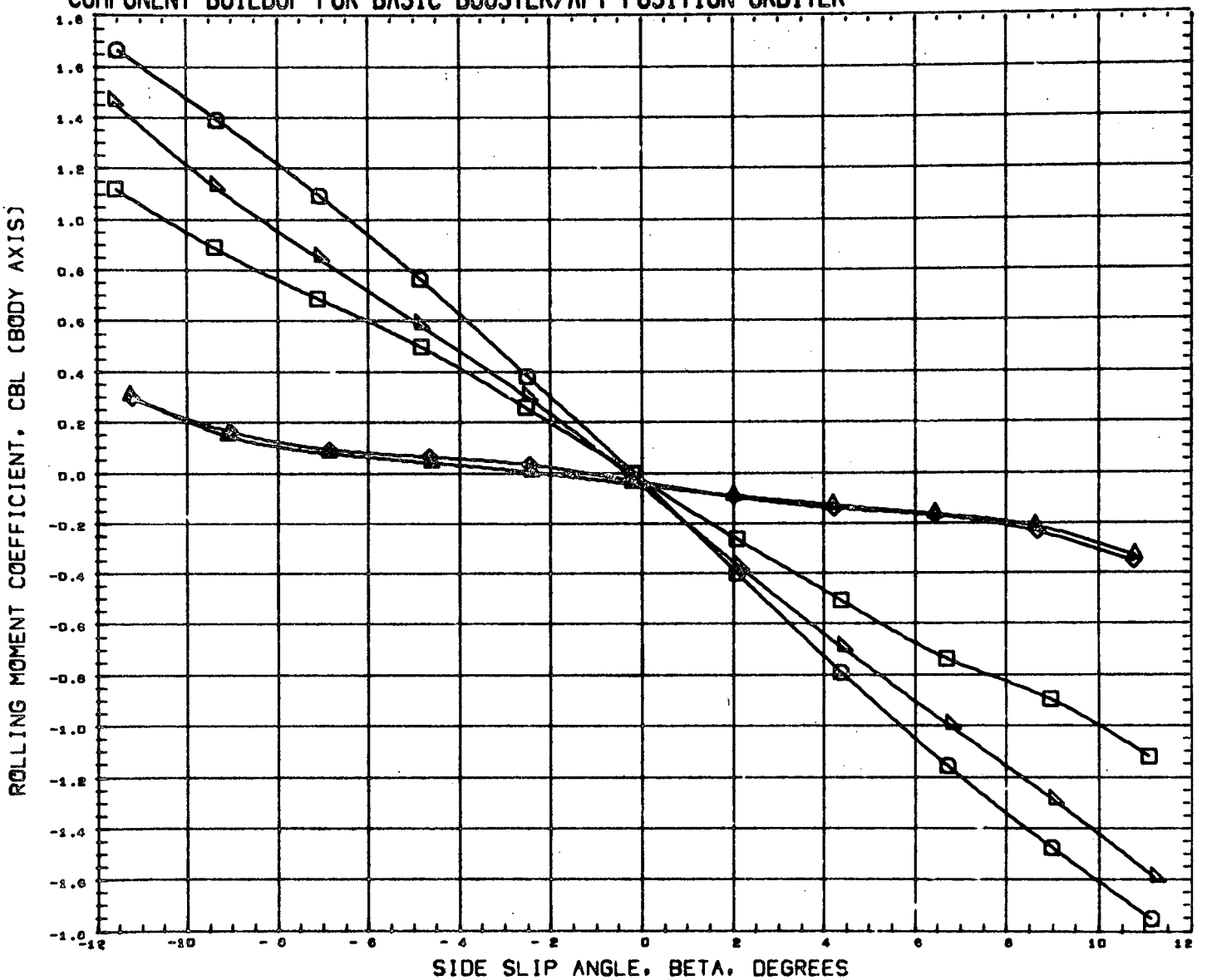


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34RG02T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.902

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

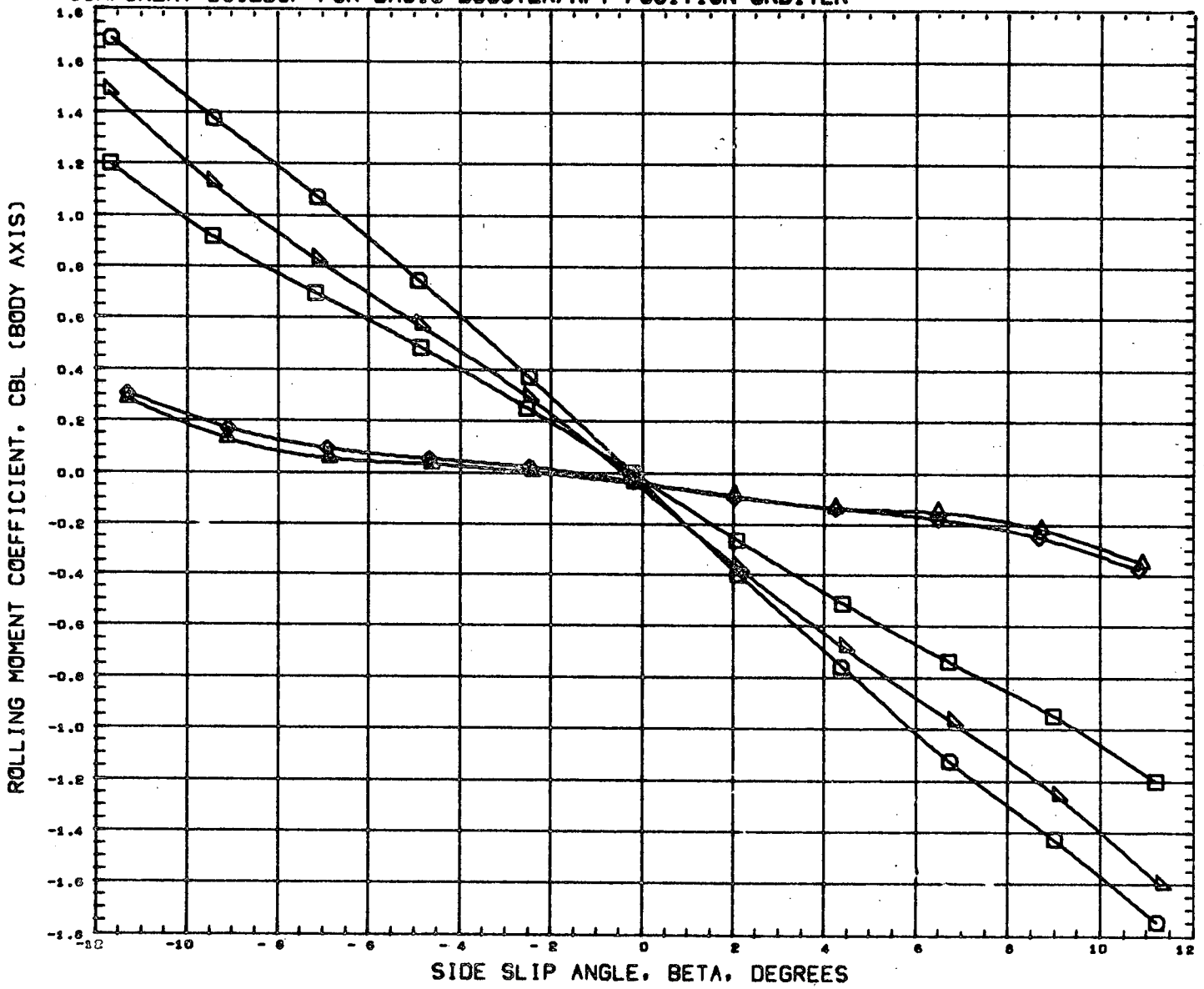


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.102

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

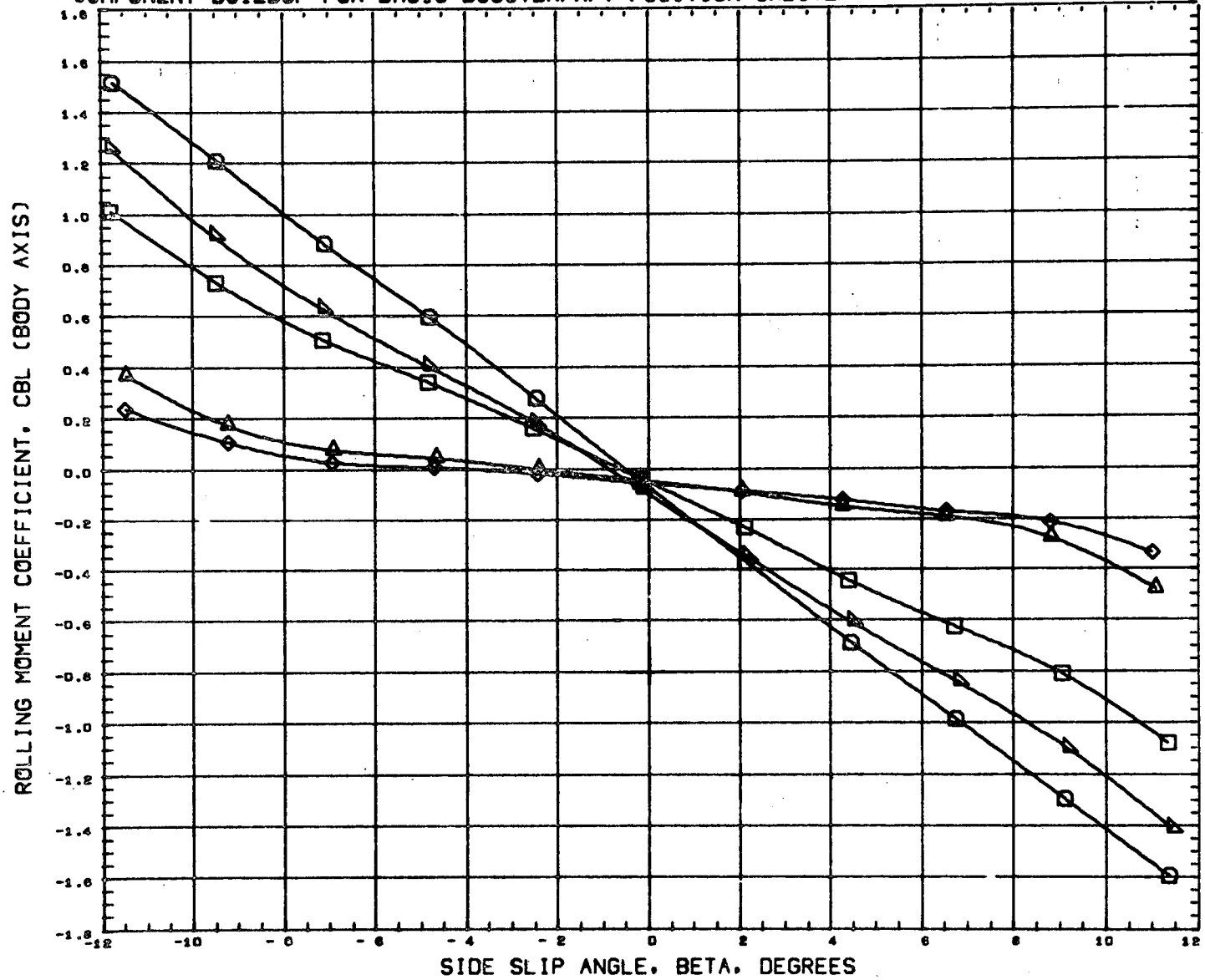


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50260)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003360 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.20

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

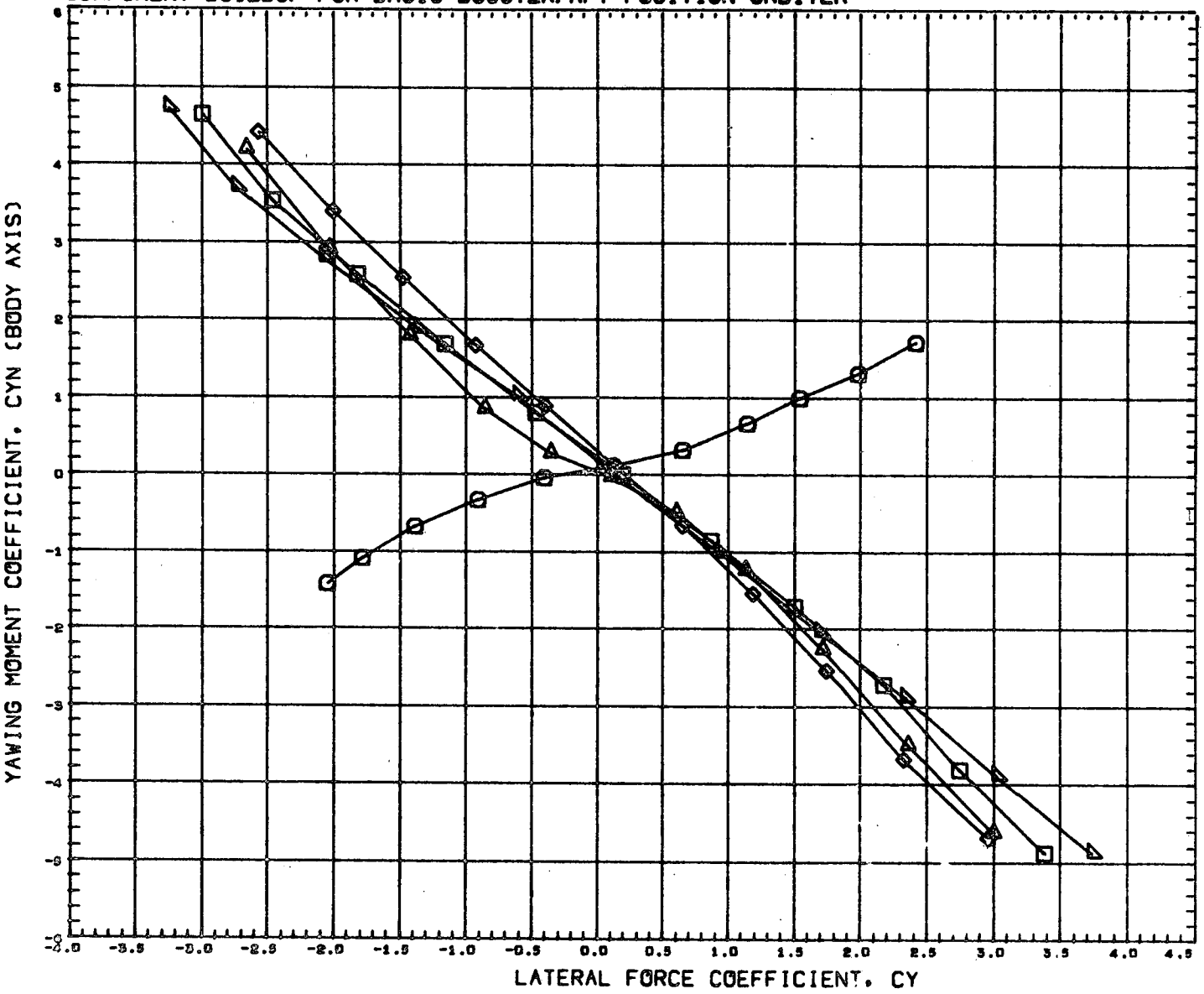


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50260)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)	▷	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.462

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

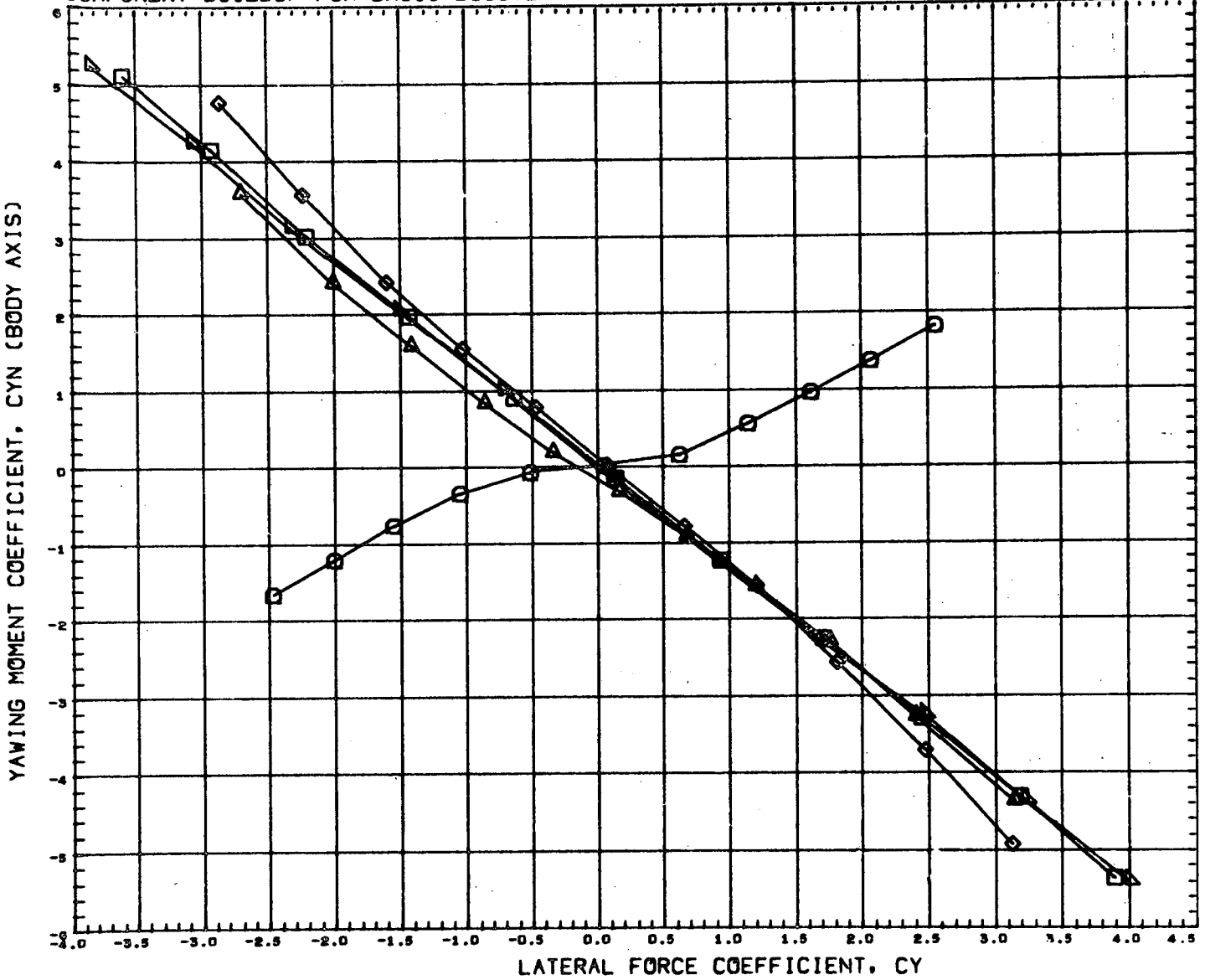


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003300 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003300 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000

MACH 0.902

REFERENCE INFORMATION		
S=EF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

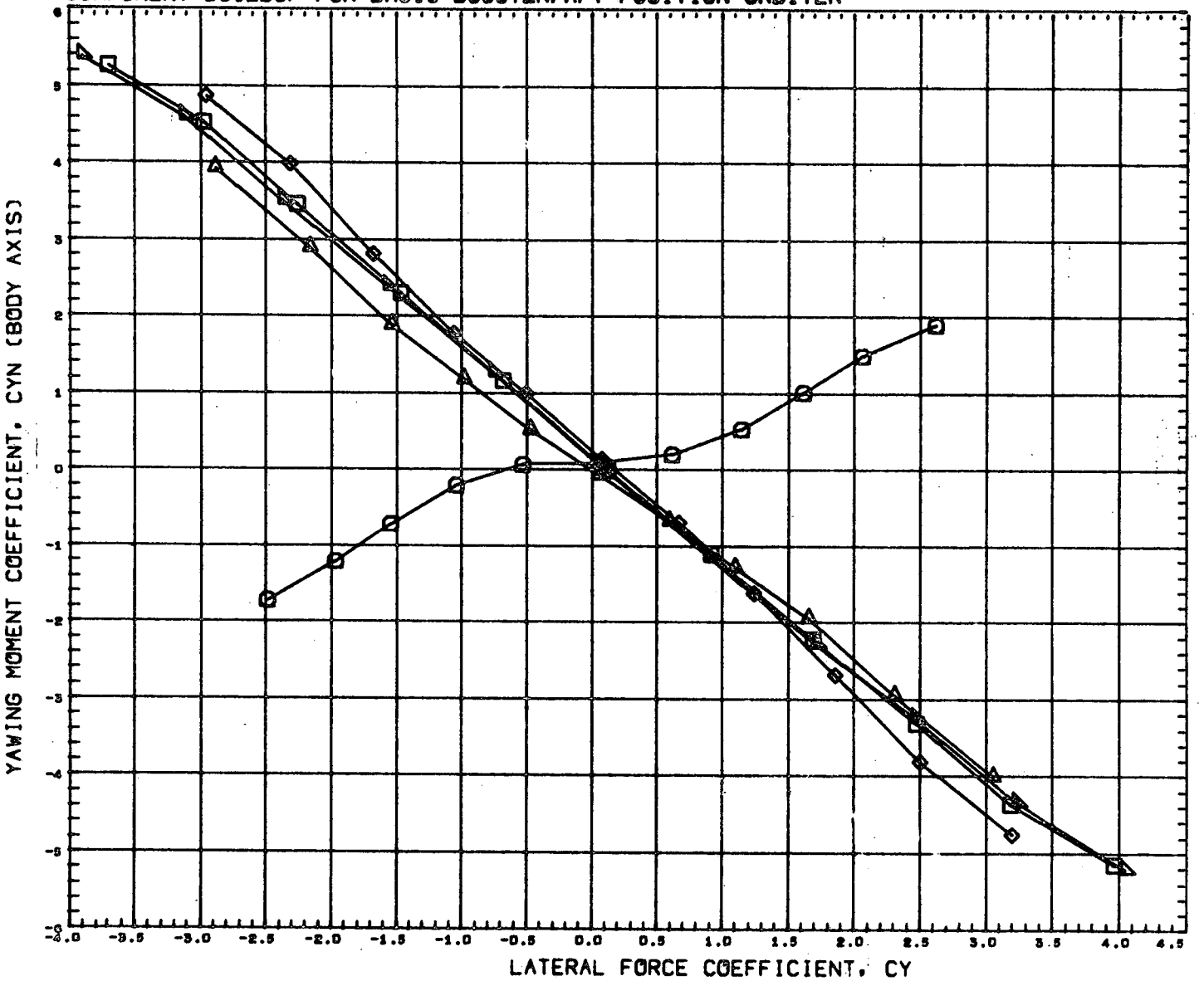


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50260)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.102

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

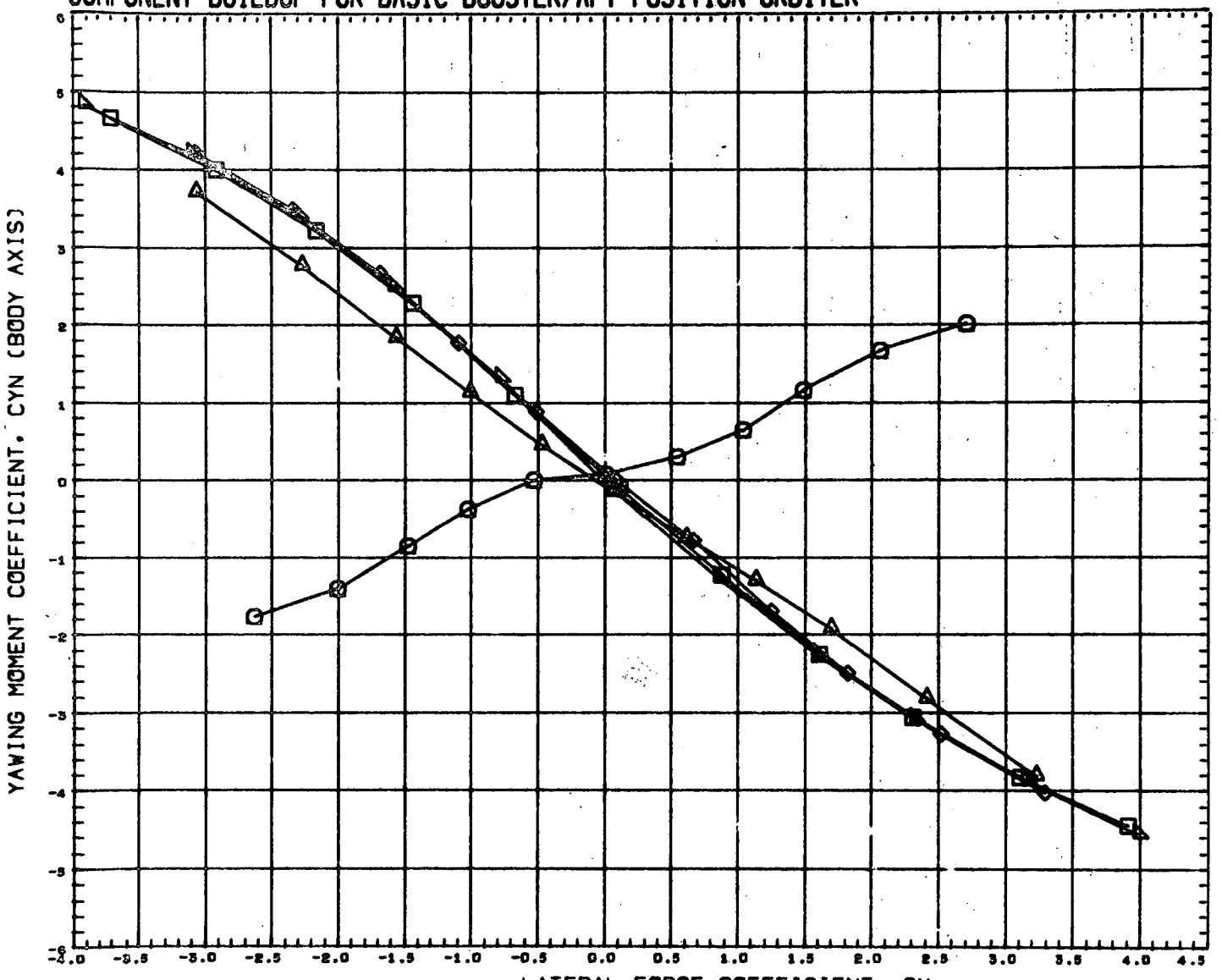


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.204

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/AFT POSITION ORBITER

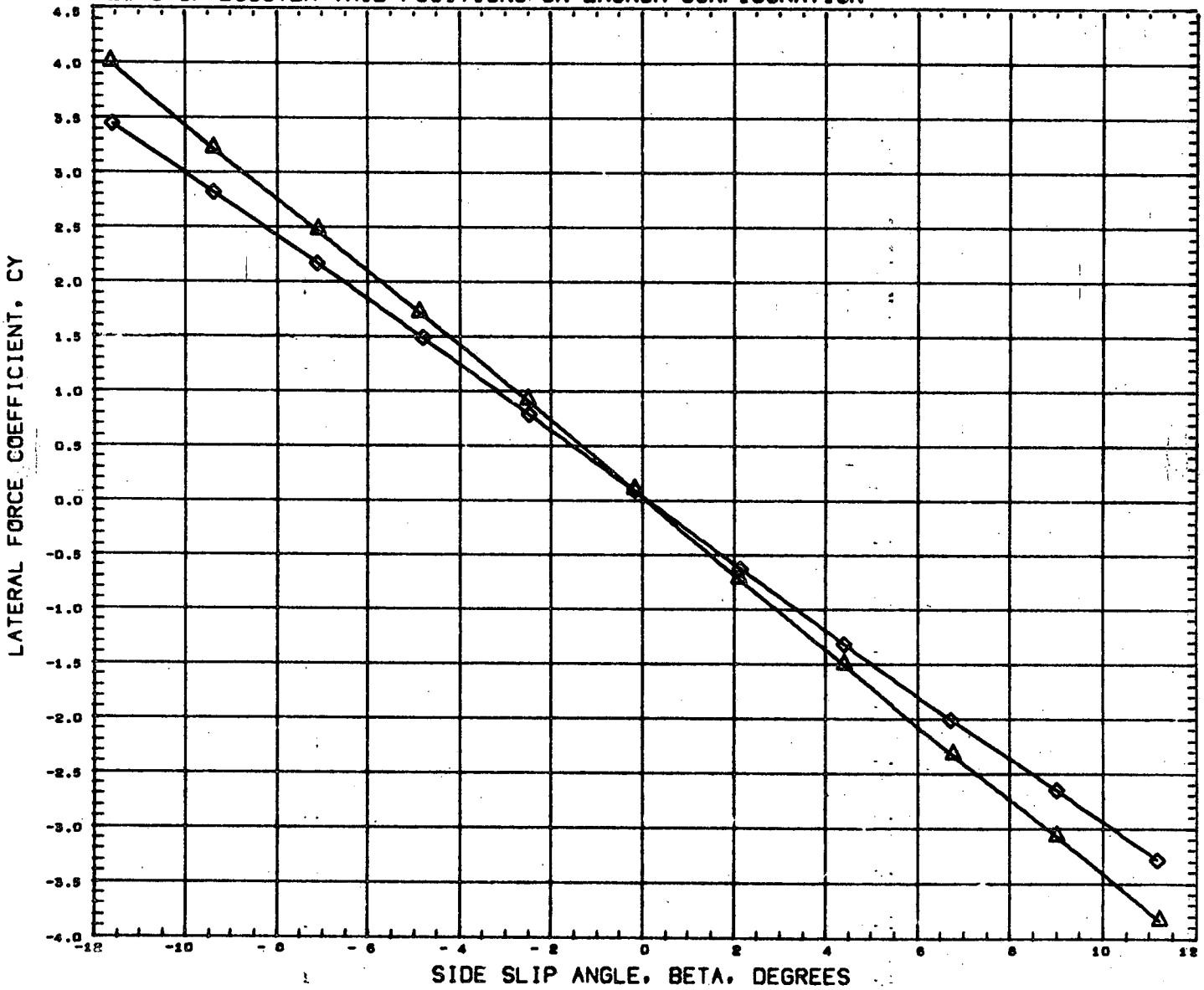


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50250)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R602T3	0.000	0.000		
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1004T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.412

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

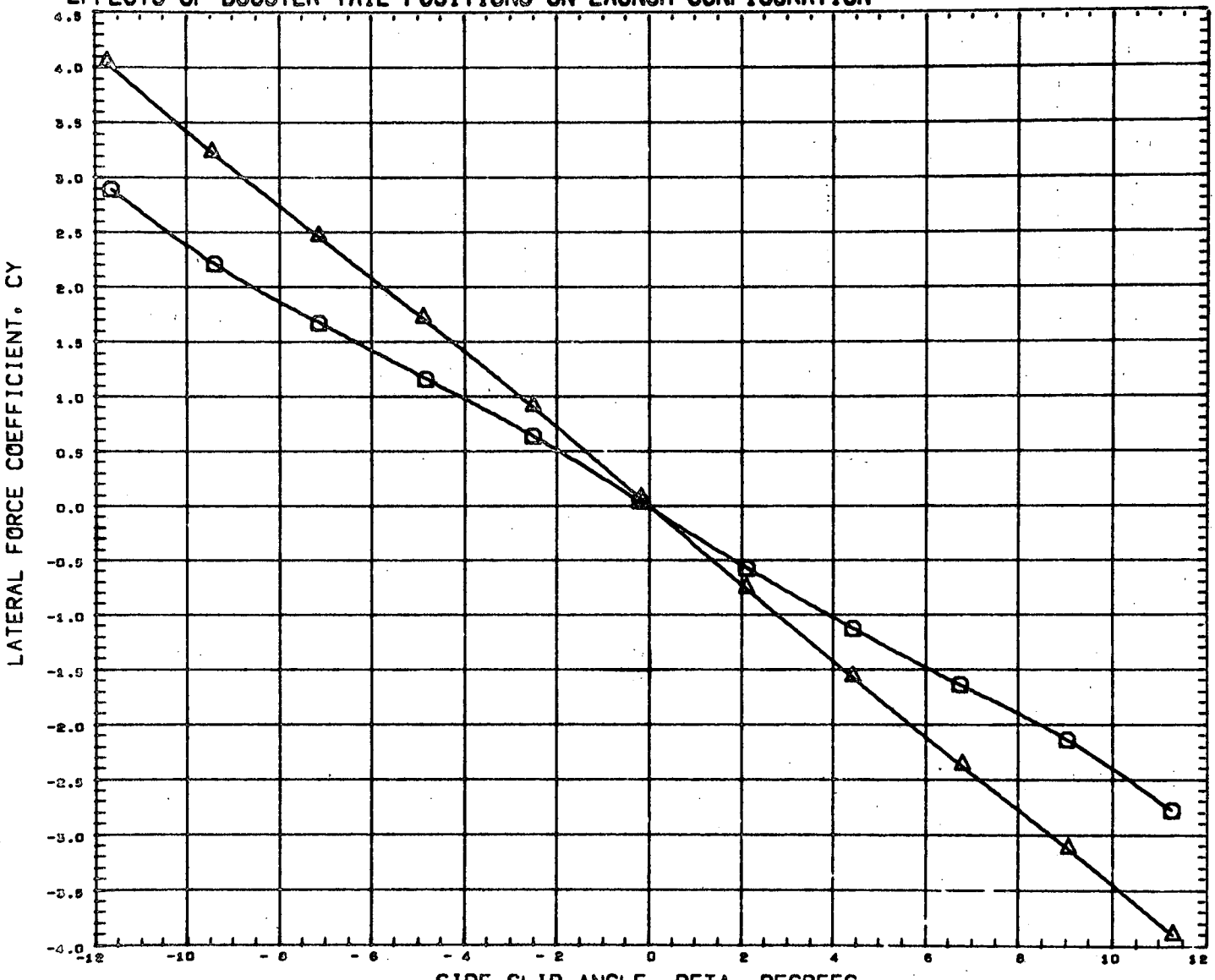


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(A5019B)	△	MSFC 512 GD/C .003DGG BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	-0.000
(H50310)	◇	MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1802T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.1114

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

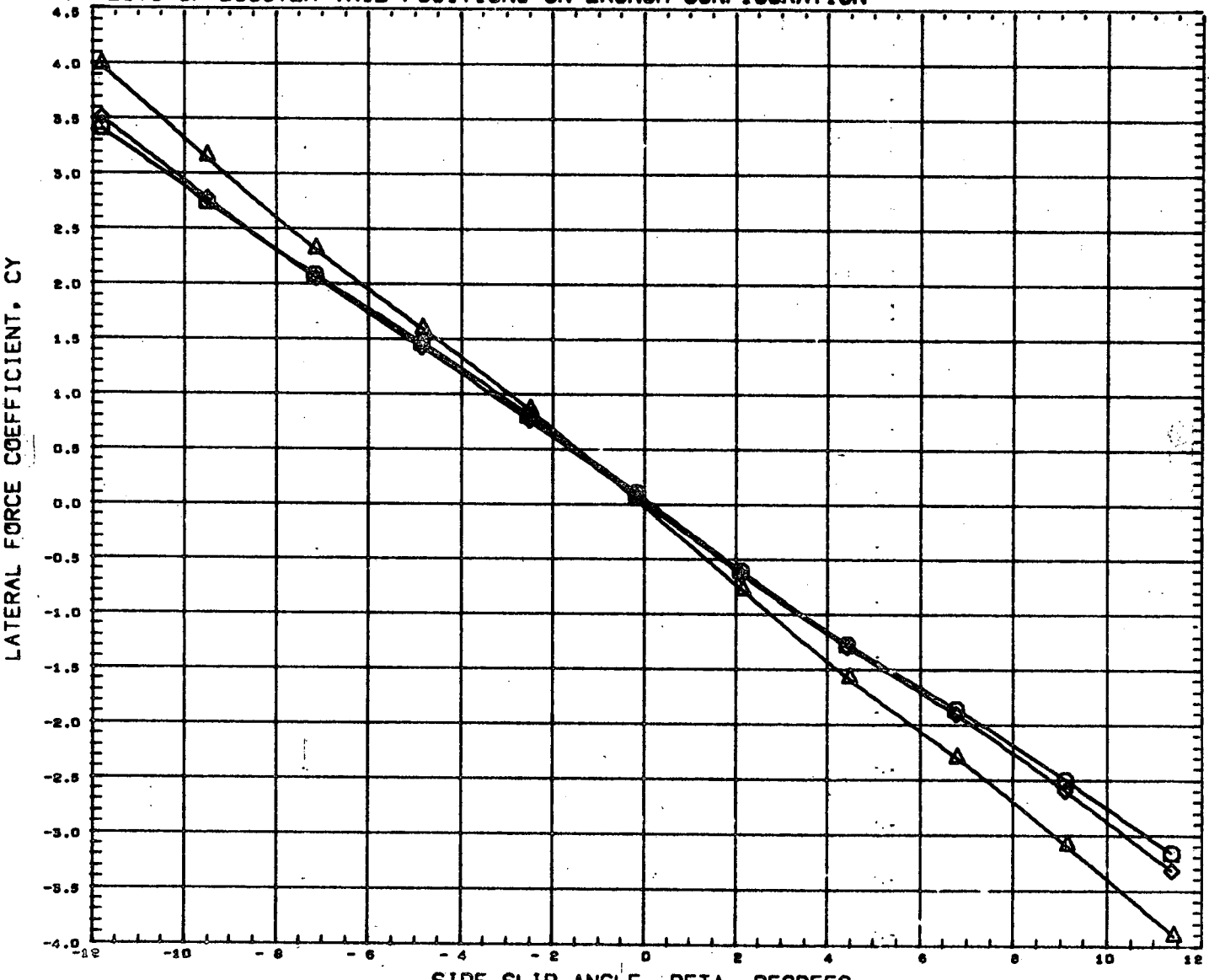


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(A50198)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50310)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.2117

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

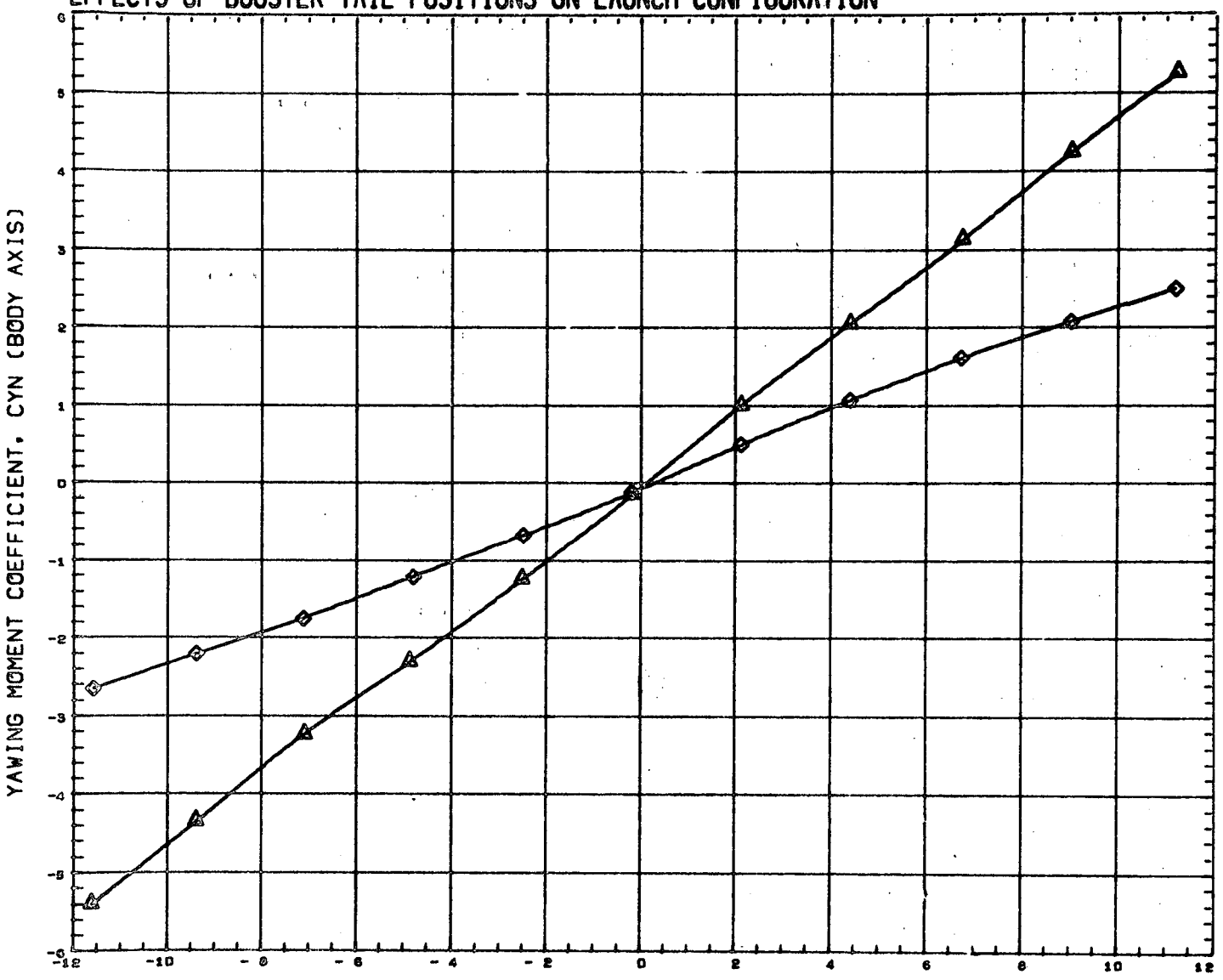


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	MSFC 512 GD/C .009366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(A50198)	△	MSFC 512 GD/C .009366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50310)	◇	MSFC 512 GD/C .009366 BOOSTER/ORB. B34R6T1802T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.404

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

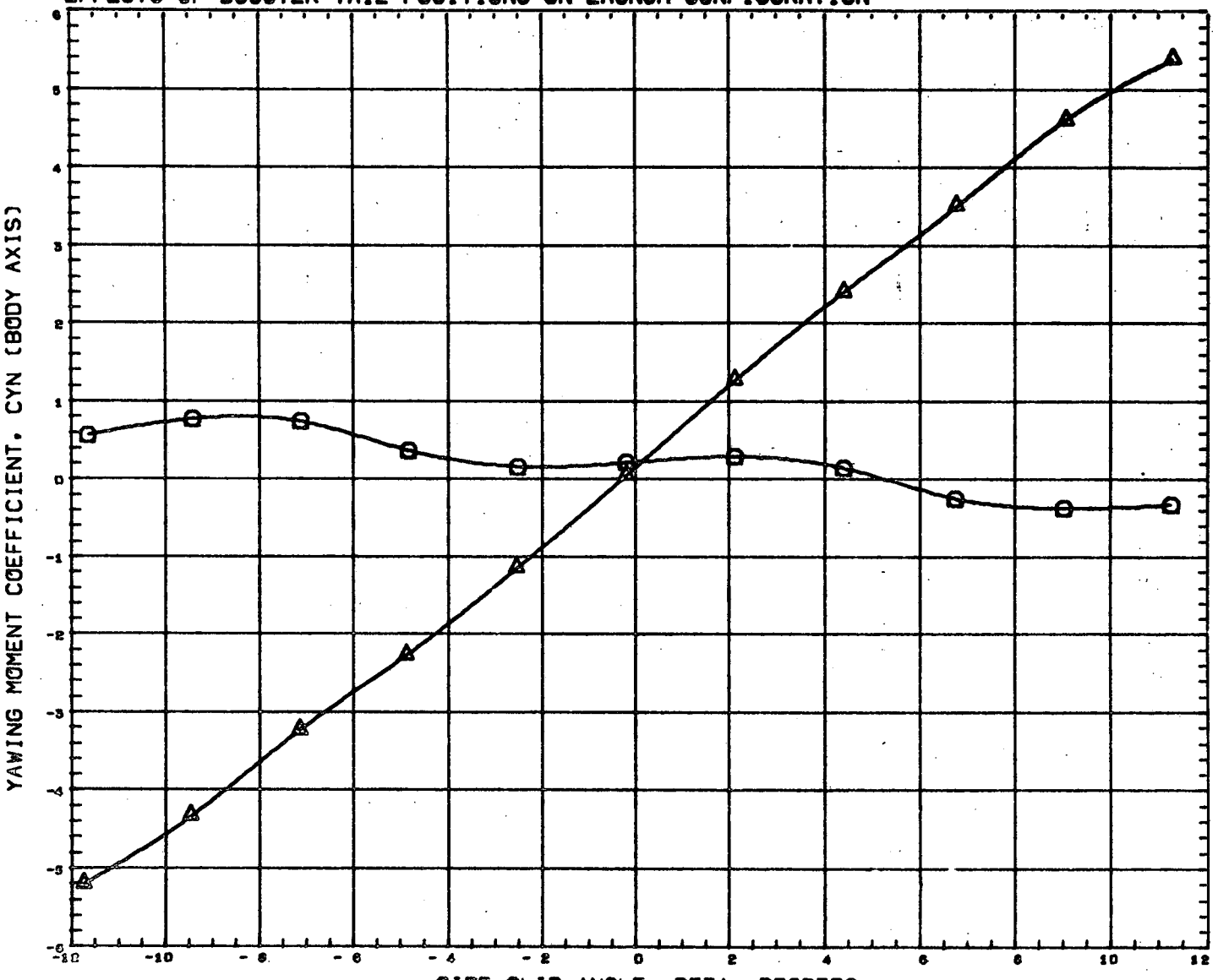


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H90270)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(A90198)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(H90310)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T18O2T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.104

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

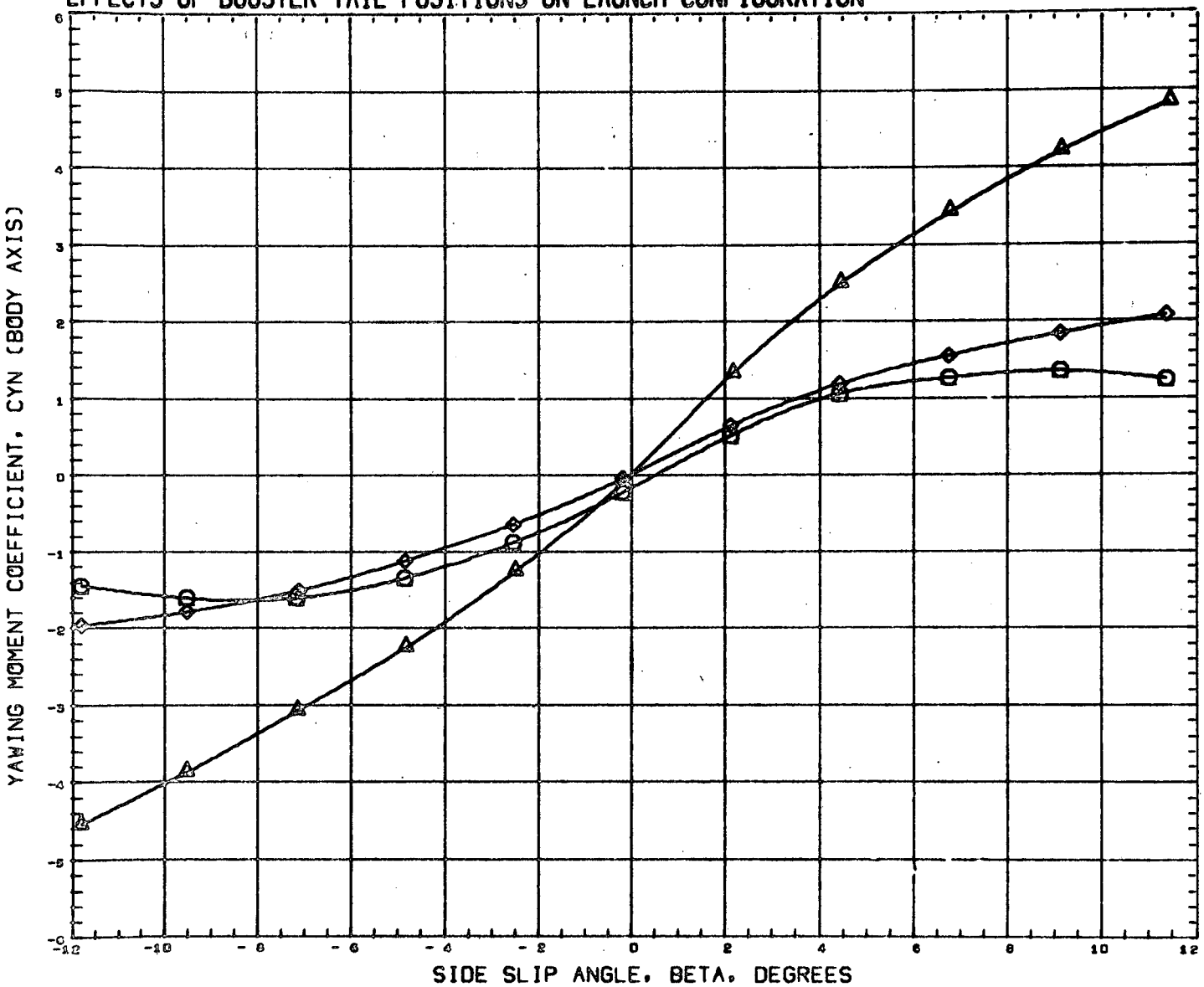


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	MSFC 512 GD/C .003306 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(A5019B)	△	MSFC 512 GD/C .003306 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50310)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000

MACH 1.207

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

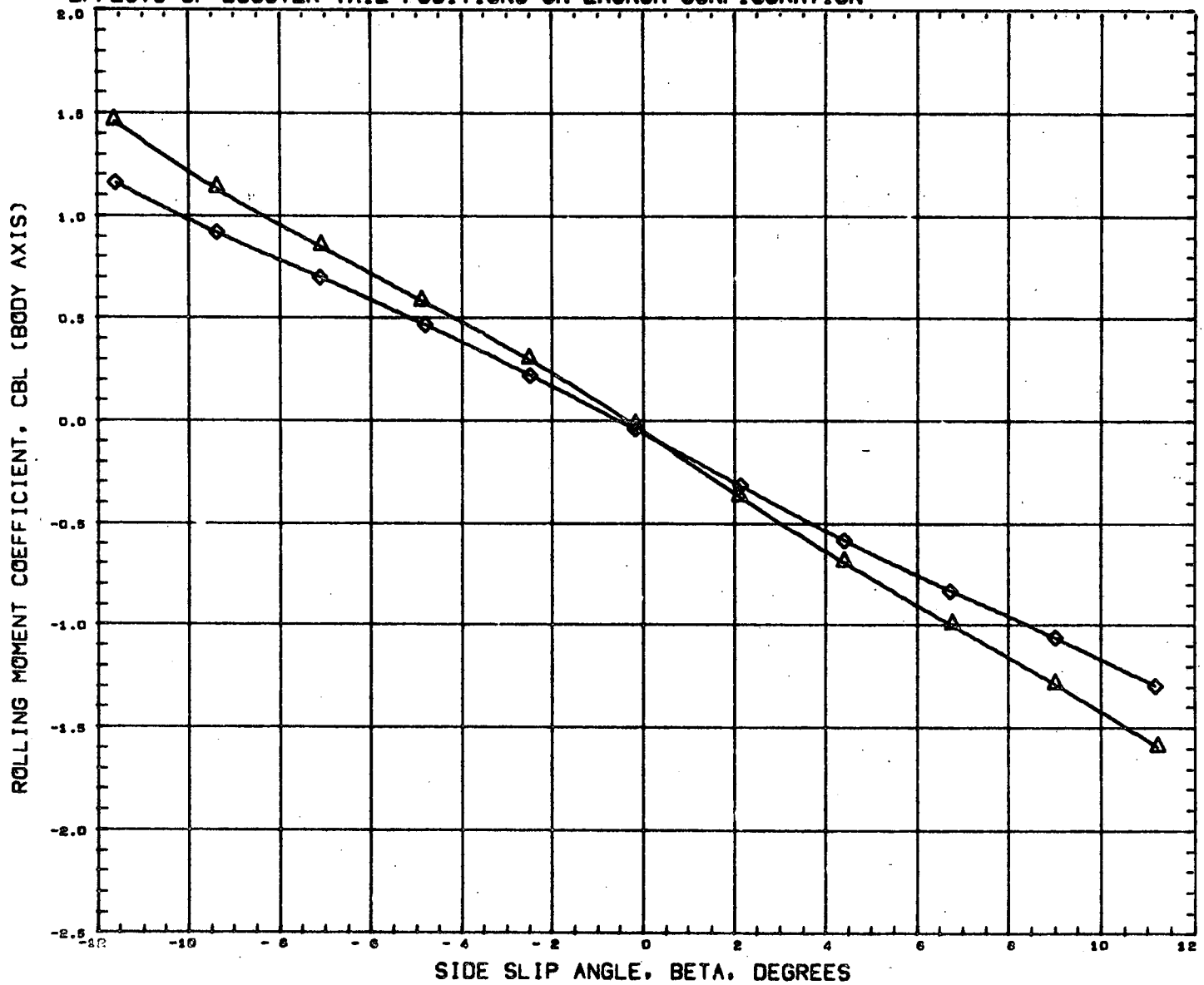


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(MS0270)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(AS0198)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(MS0310)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1802T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.464

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

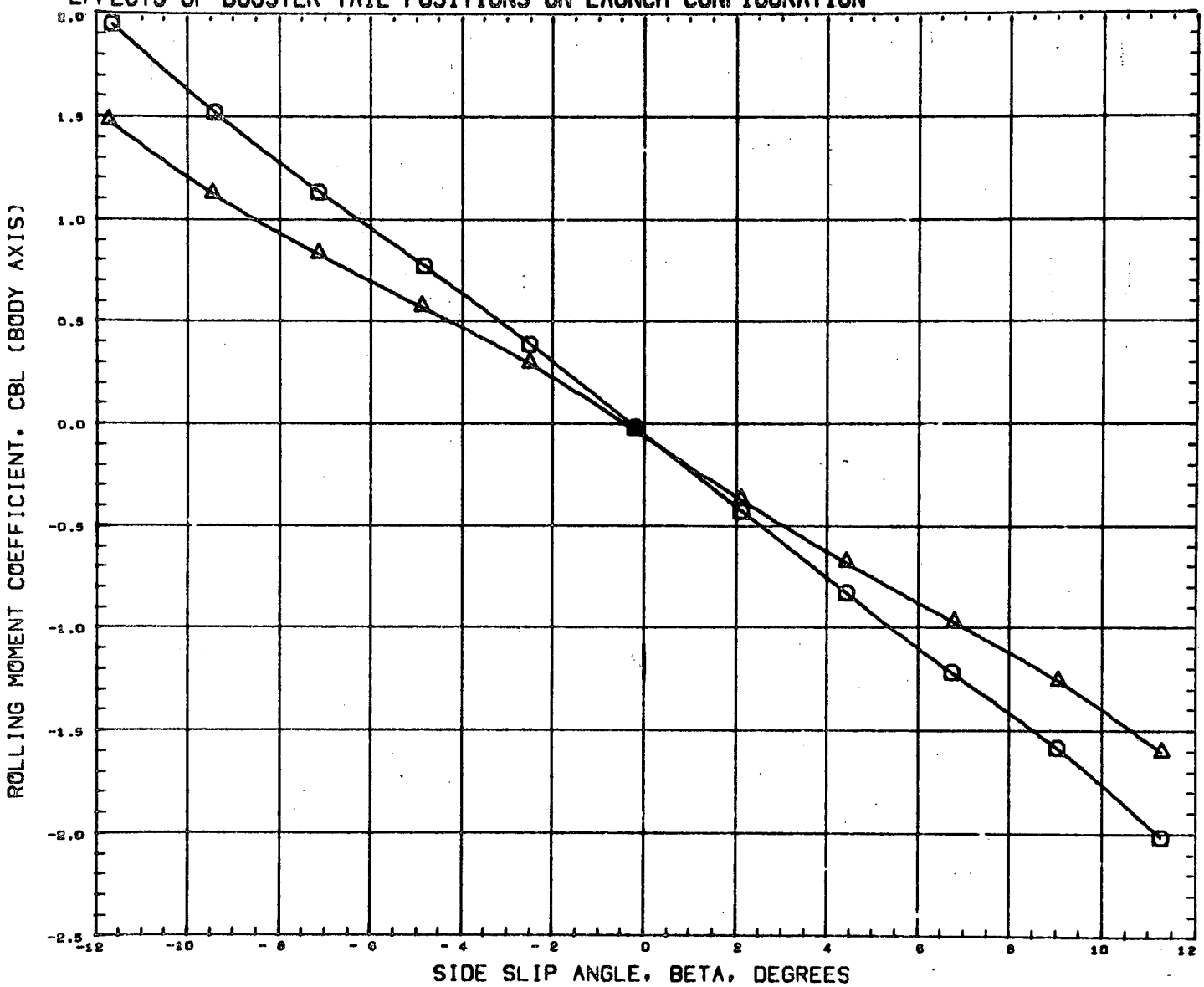


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(A5019B)	△	MSFC 512 GD/C .003360 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50310)	◇	MSFC 512 GD/C .003360 BOOSTER/ORD. B34R6T1802T3	0.000	0.000	0.000	0.000

MACH 1.104

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

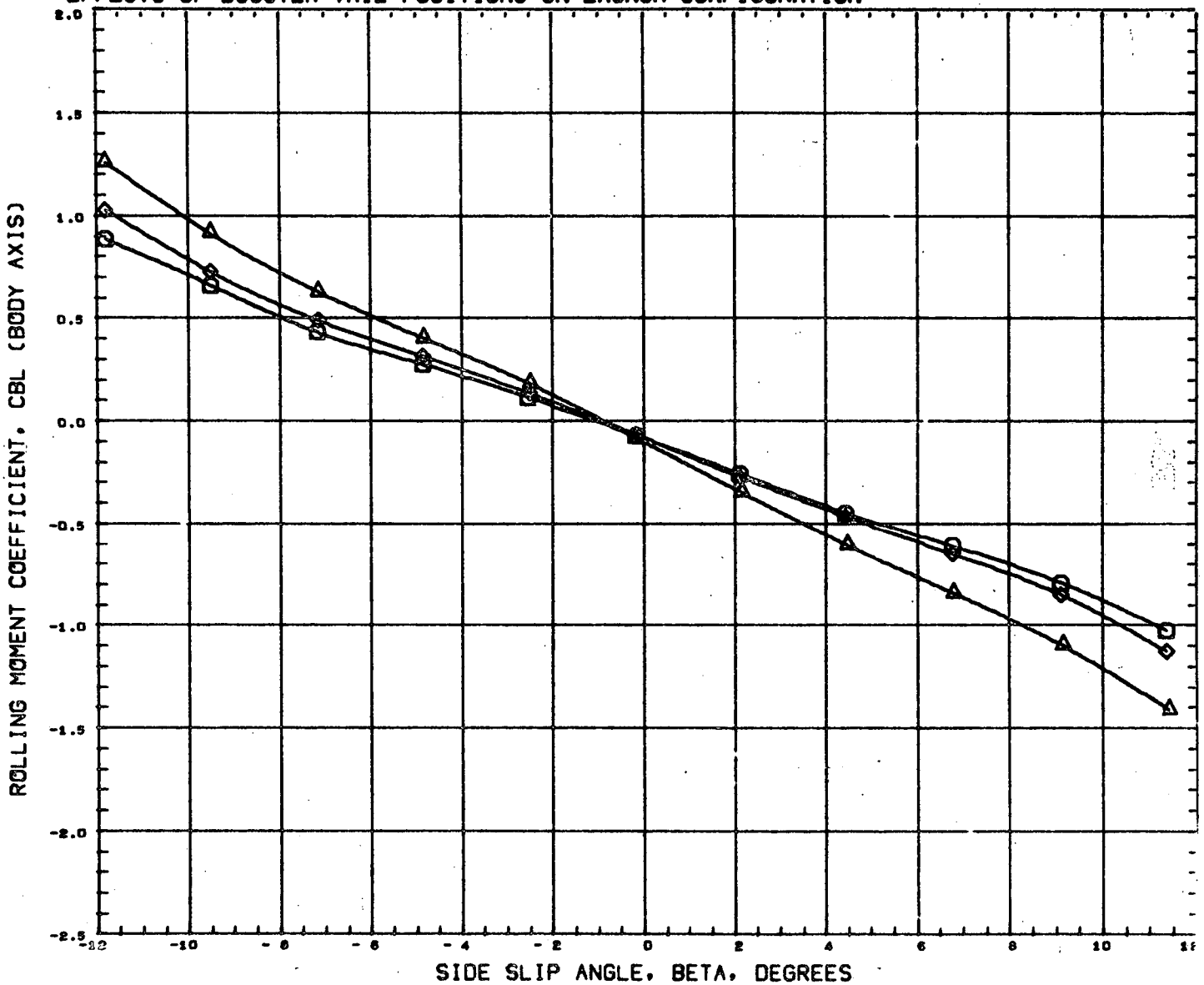


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T120ZT3	0.000	0.000	0.000	0.000
(A5019B)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T100ZT3	0.000	0.000	0.000	0.000
(H50310)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000

MACH 1.2117

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

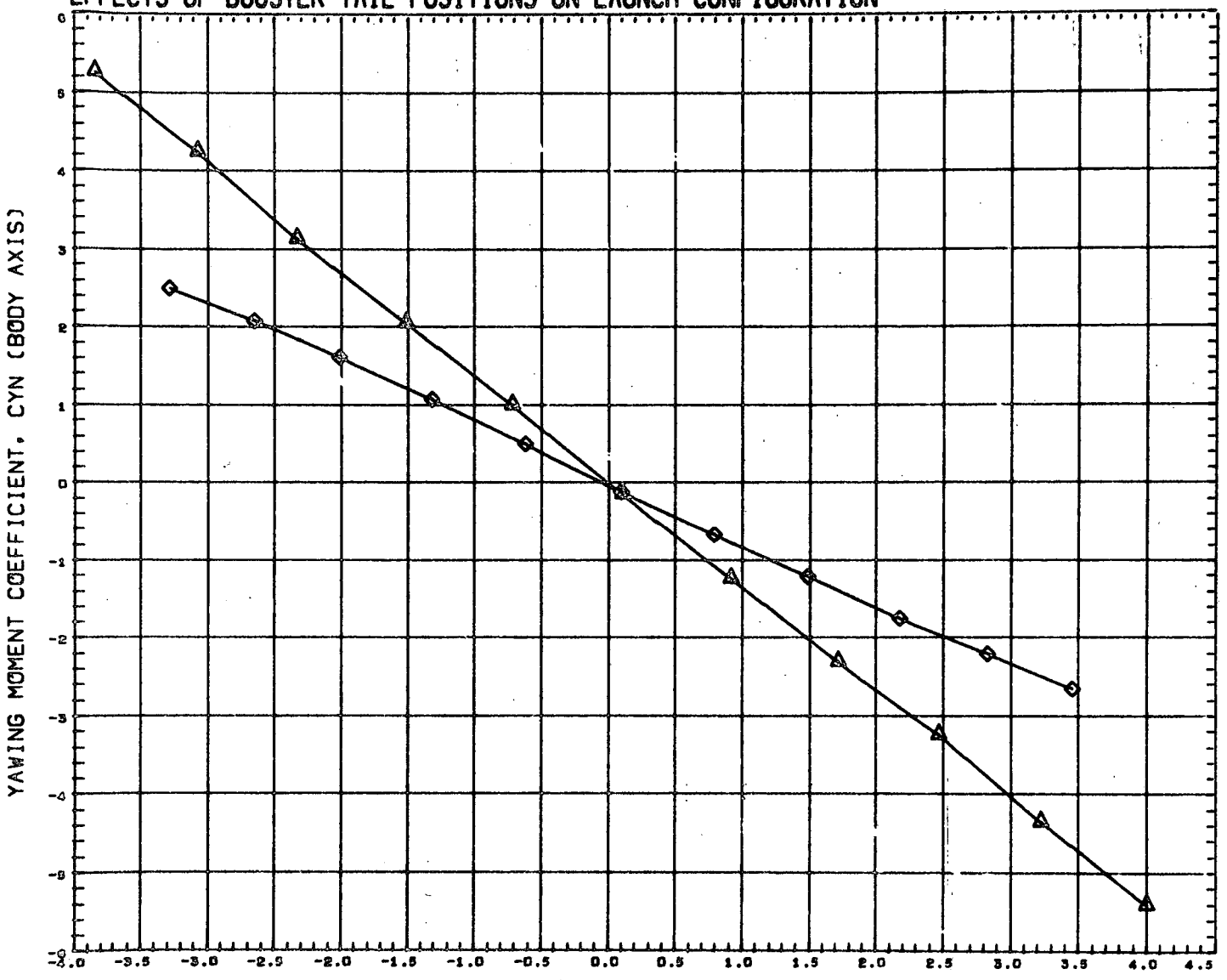


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(A50198)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1102T3	0.000	0.000	0.000	0.000
(H50310)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1802T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.464

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

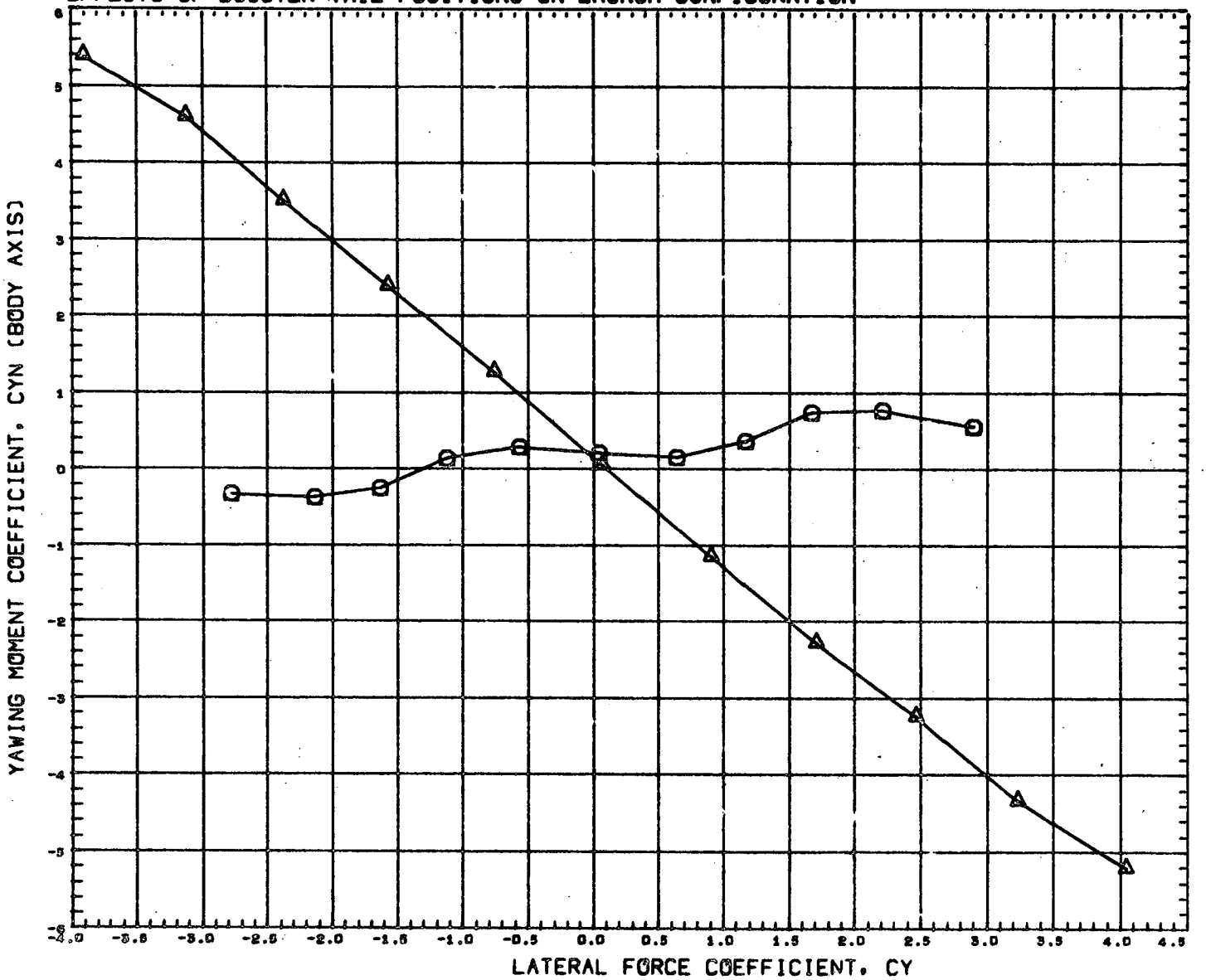


DATA SET SYMBOL		CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H90270)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(A50198)	△	MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1D02T3	0.000	0.000	0.000	0.000
(H90310)	◇	MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1802T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.104

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

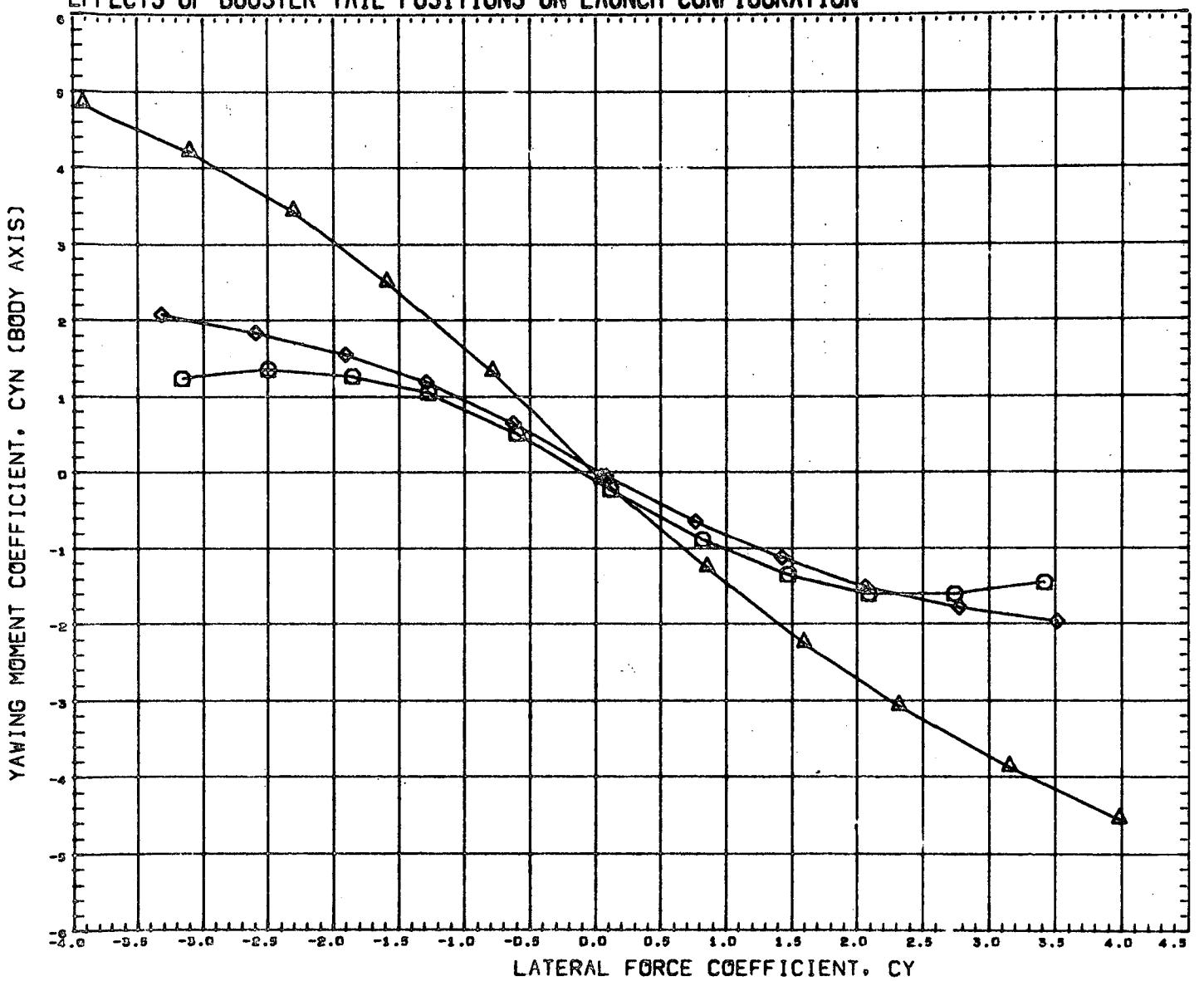


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	MSFC 512 GD/C .003SGG BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(A50198)	△	MSFC 512 GD/C .003SGG BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50310)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
AREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.207

EFFECTS OF BOOSTER TAIL POSITIONS ON LAUNCH CONFIGURATION

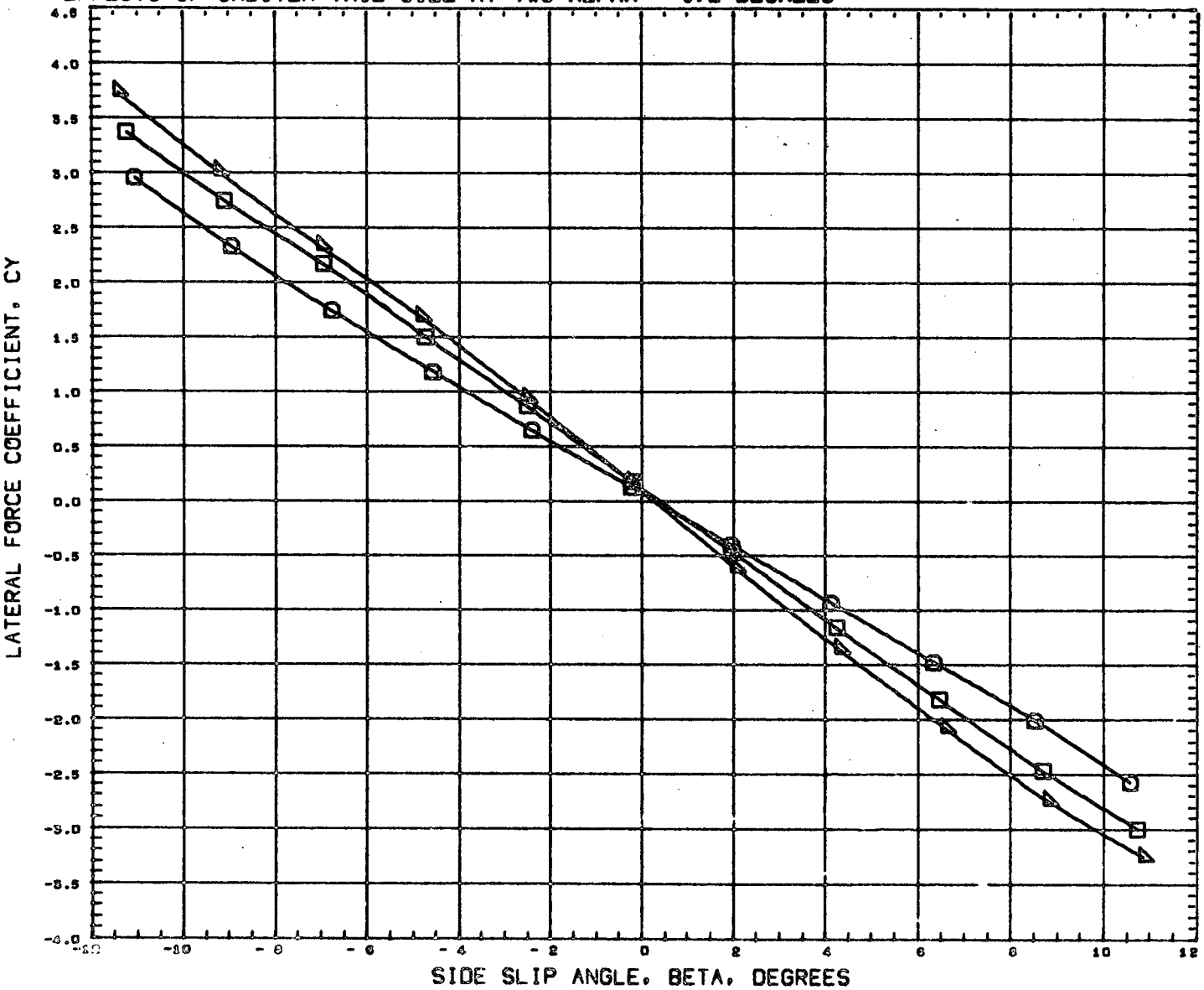


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50270)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1202T3	0.000	0.000	0.000	0.000
(A50198)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50310)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1802T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.464

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

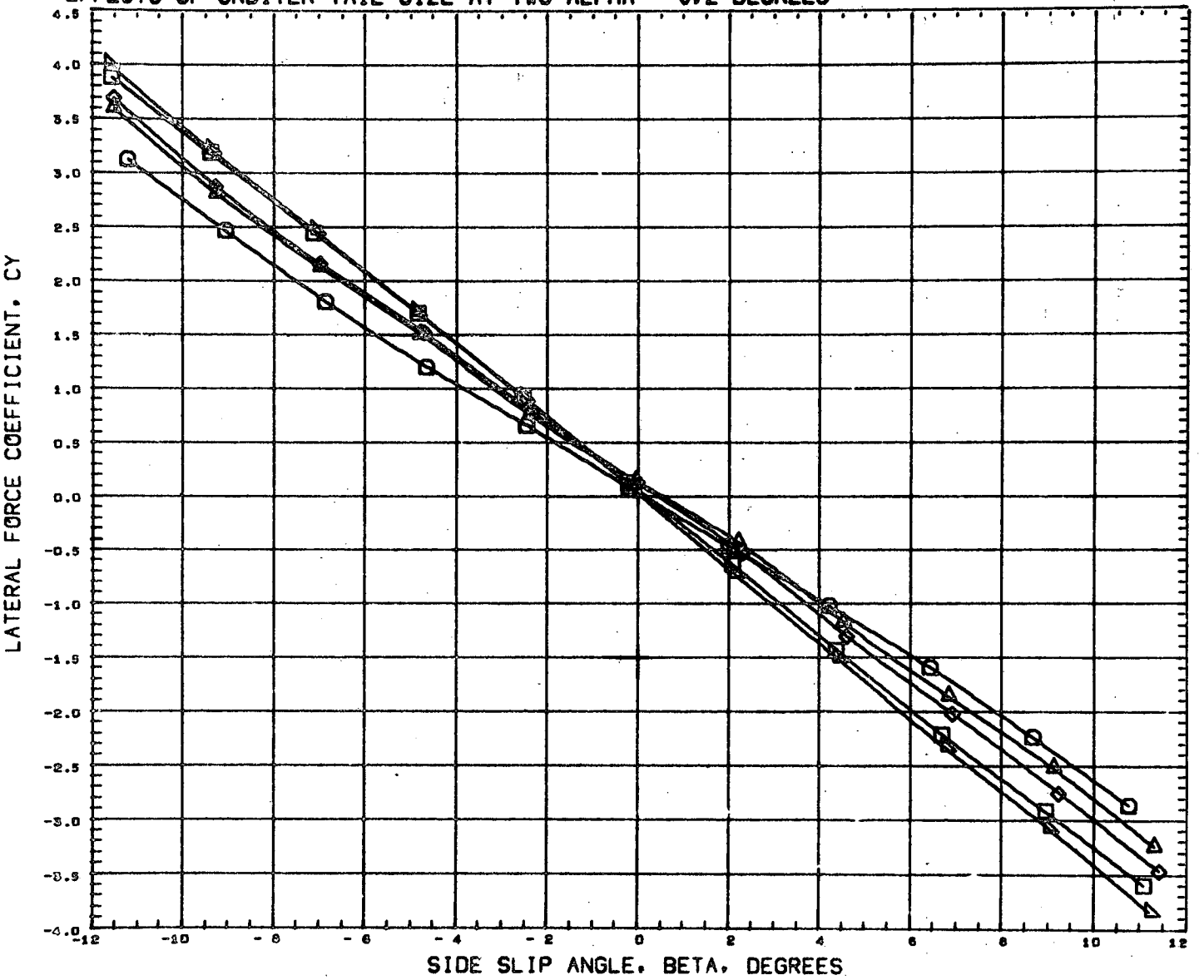


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H90280)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R67100STS	0.000	0.000	0.000	0.000
(H90210)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	0.000	0.000	0.000
(H90220)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H90200)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R67100ITS	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R67100ZTS	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

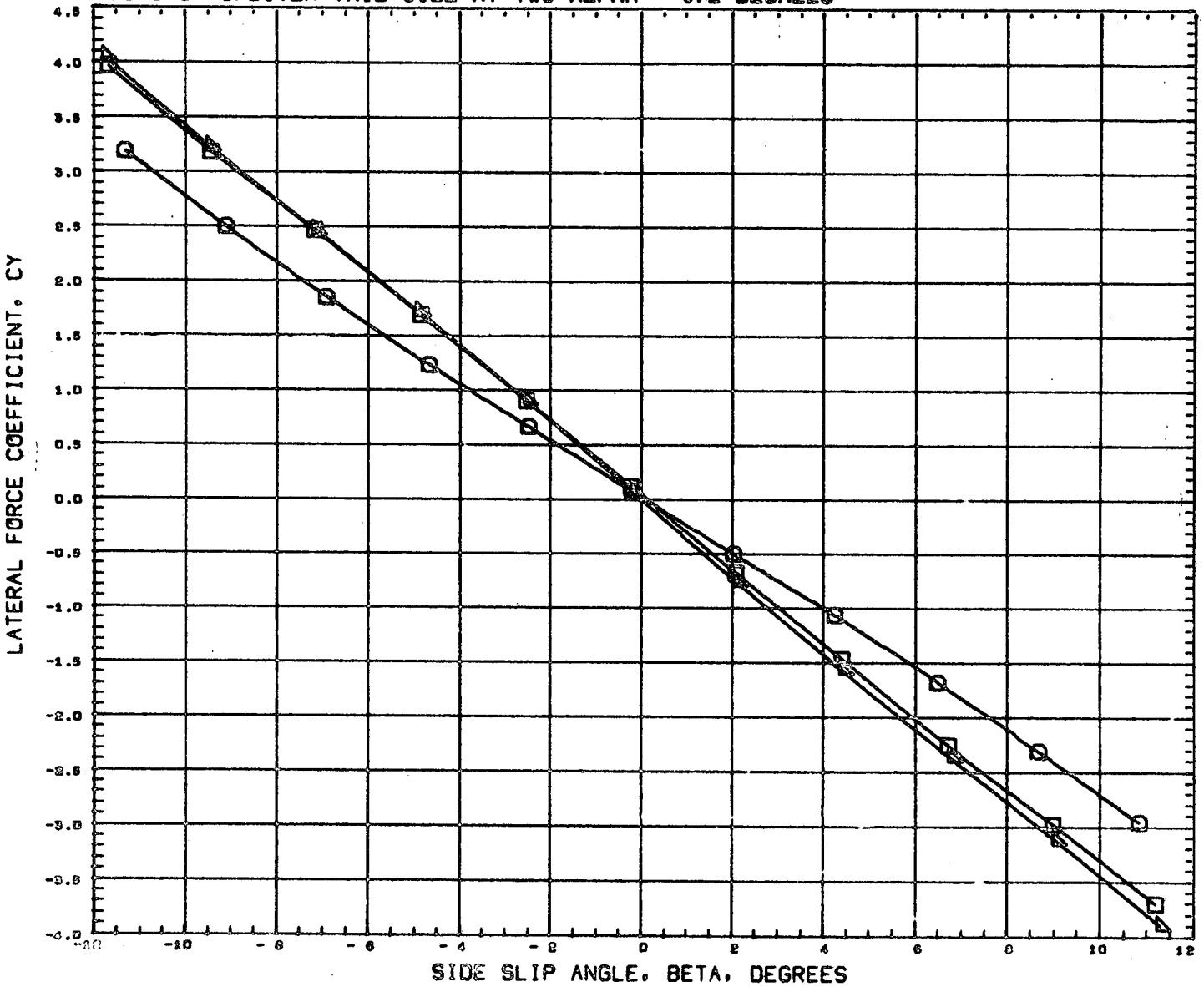


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50200)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1001T3	-6.000	0.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

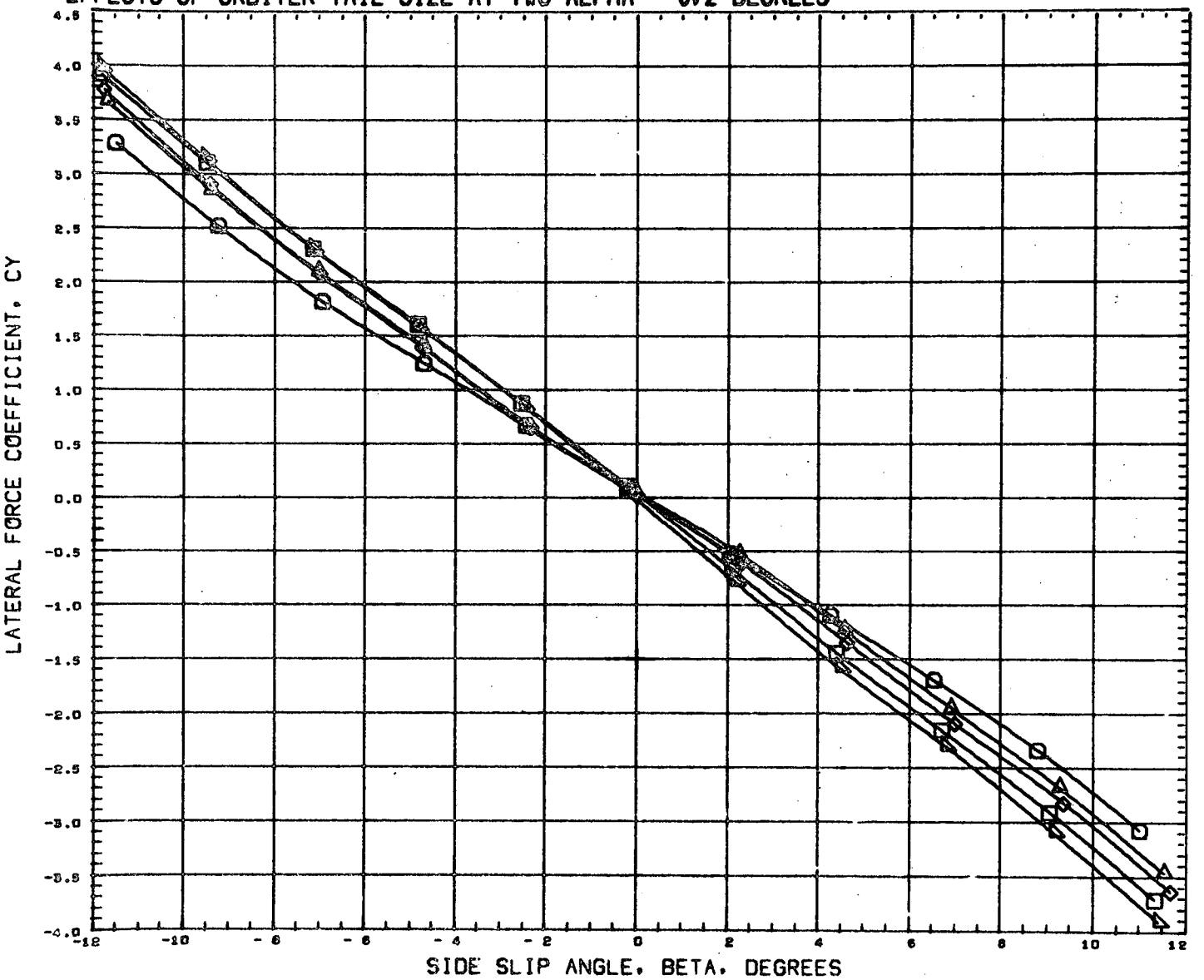


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B54RGT1003T3	0.000	0.000	0.000	0.000
(H50210)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	0.000	0.000	0.000
(H50220)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B54RGT1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B54RGT1002T3	0.000	0.000	0.000	0.000

MACH 1.202

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7020	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

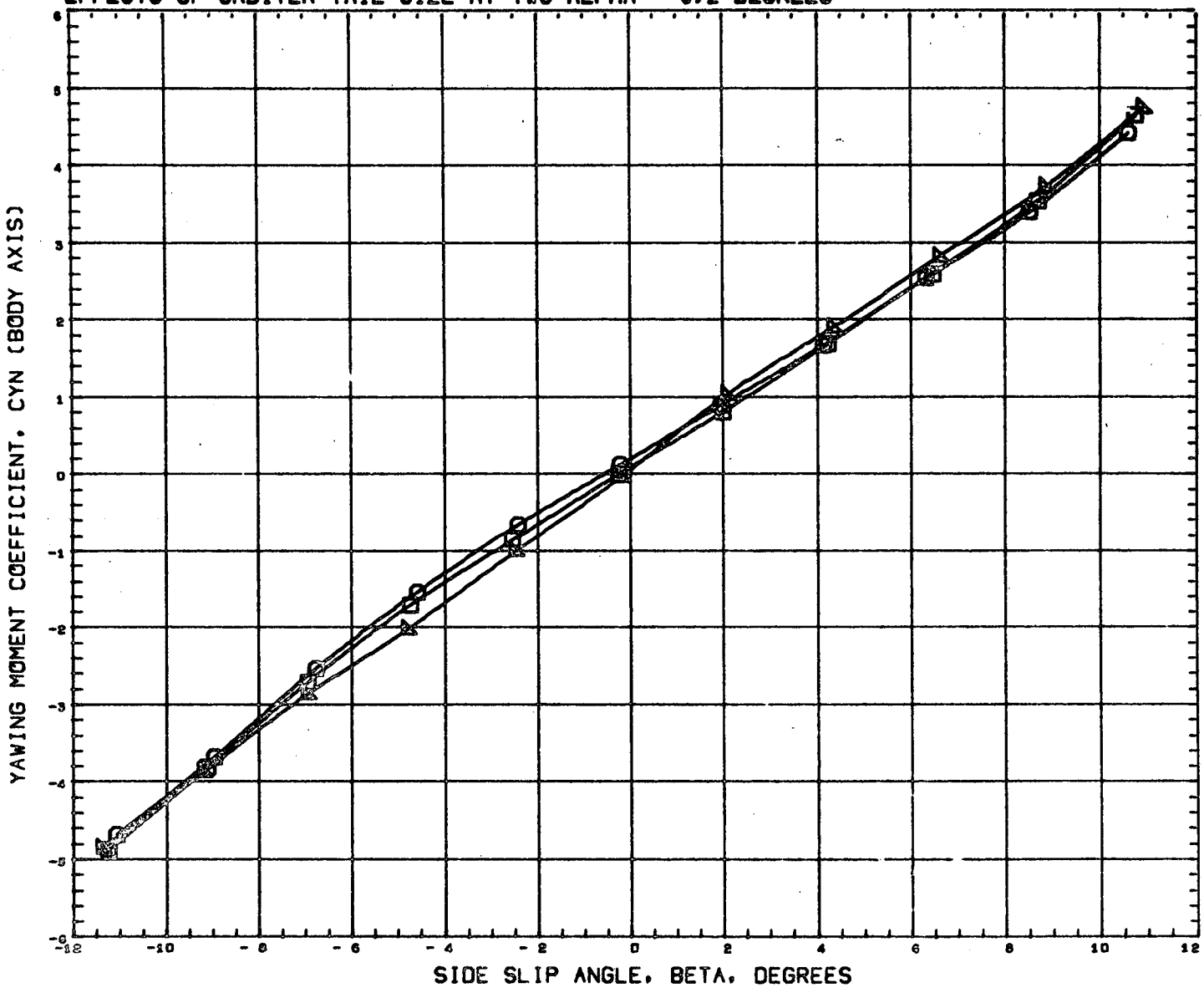


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H5D200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H5D210)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	-6.000	0.000	0.000	0.000
(H5D220)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H5D200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5D19A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.466

REFERENCE INFORMATION		
AREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

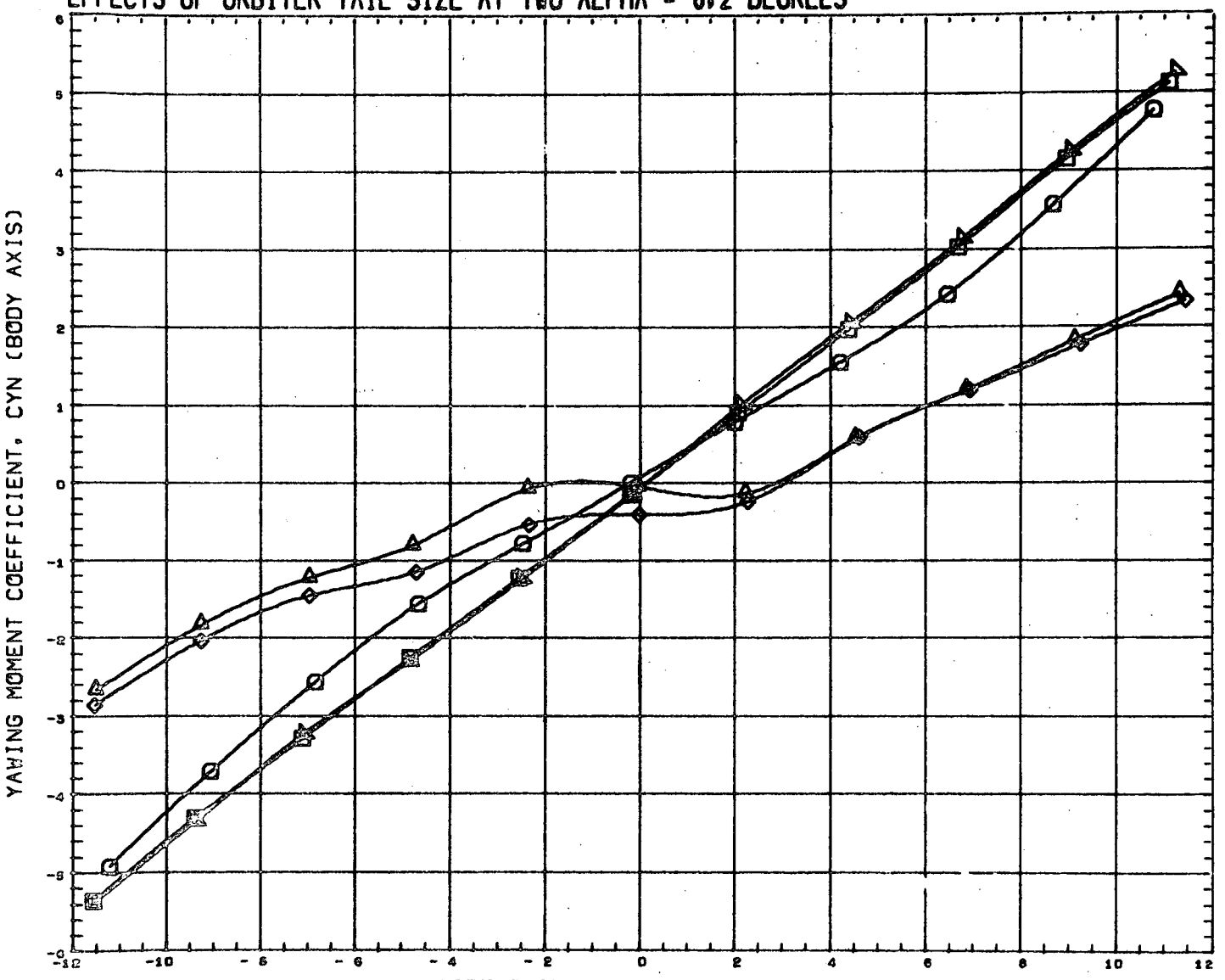


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H5028D)		MSFC 512 GD/C .0038GS BOOSTER/ORB. B34RGT1003T3	0.000	0.000	0.000	0.000
(H5021D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	0.000	0.000	0.000
(H5022D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H5020D)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34RGT1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

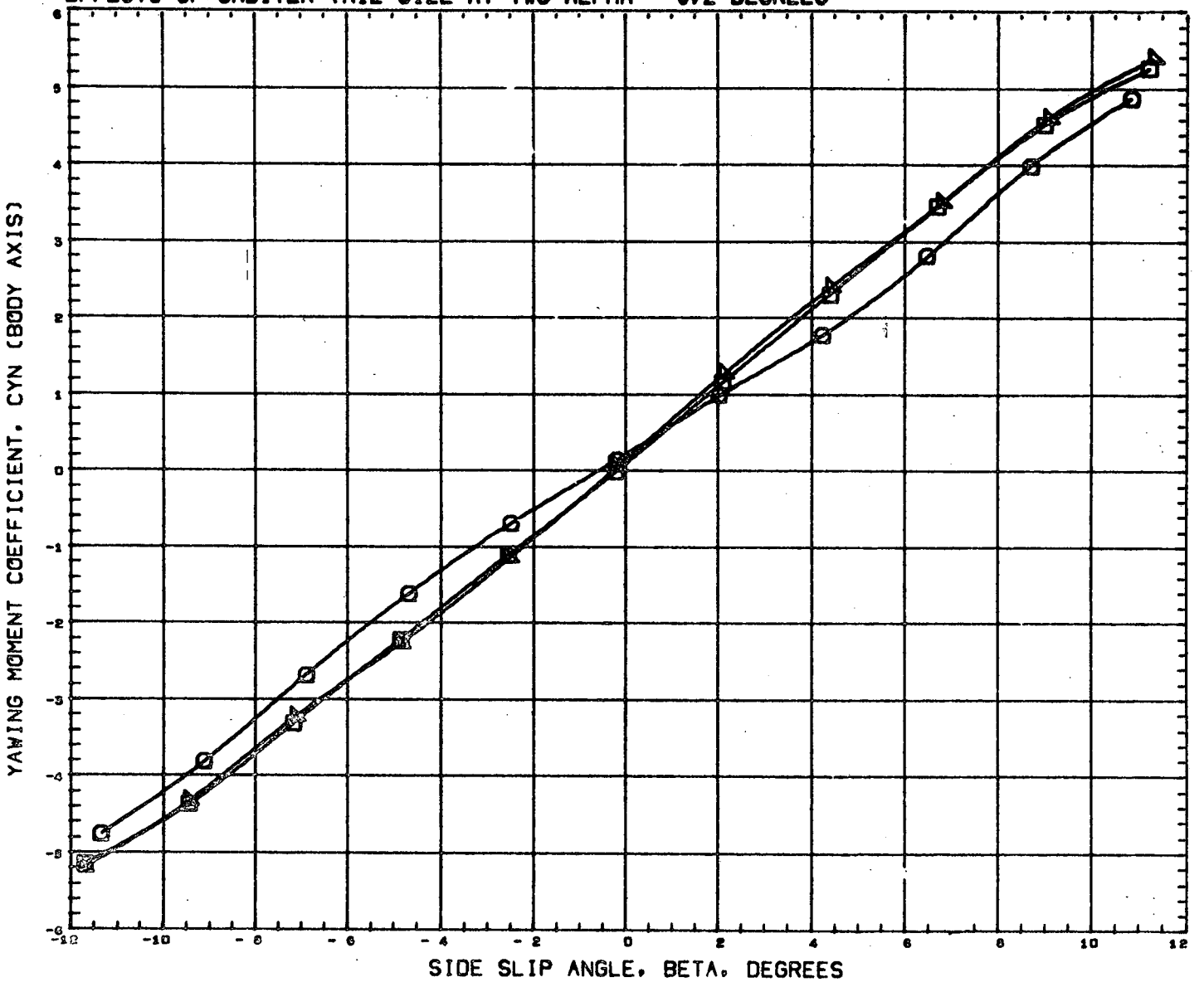


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10C1T3	-6.000	0.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

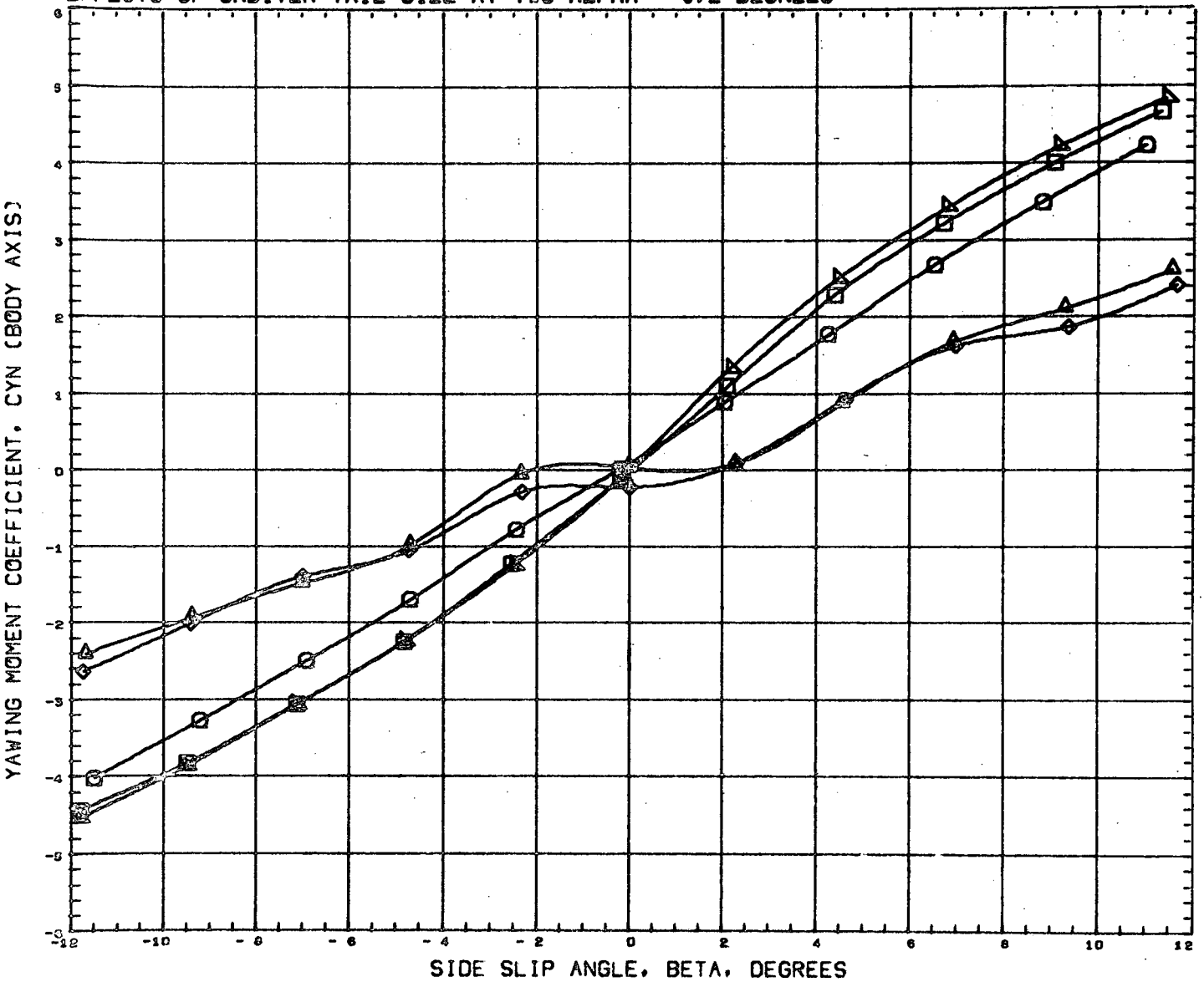


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOC	LFLAP	RFLAP
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	0.000	0.000	0.000
(H50220)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.202

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0054	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

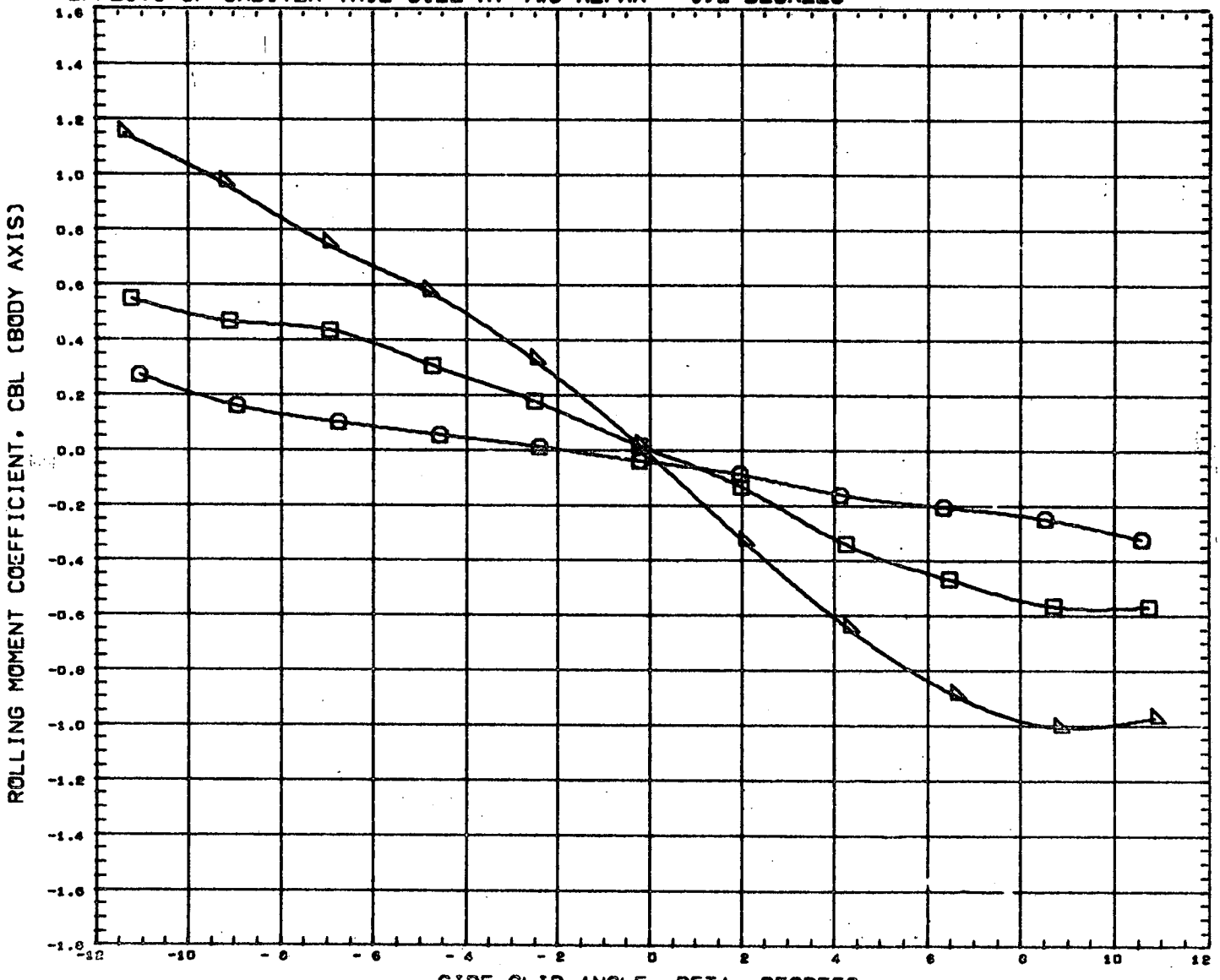


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	-6.000	0.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.400

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

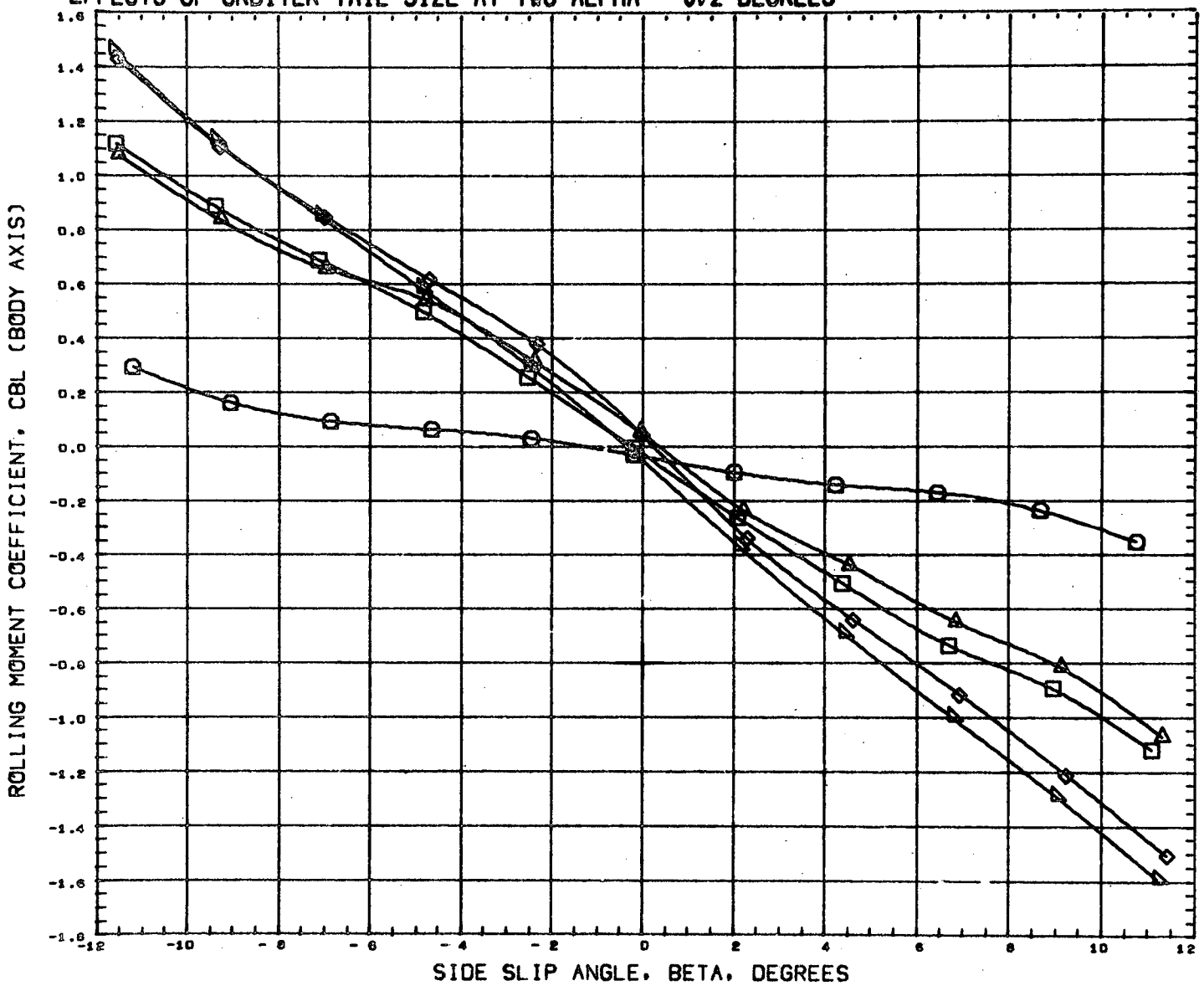


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	0.000	0.000	0.000
(H50220)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

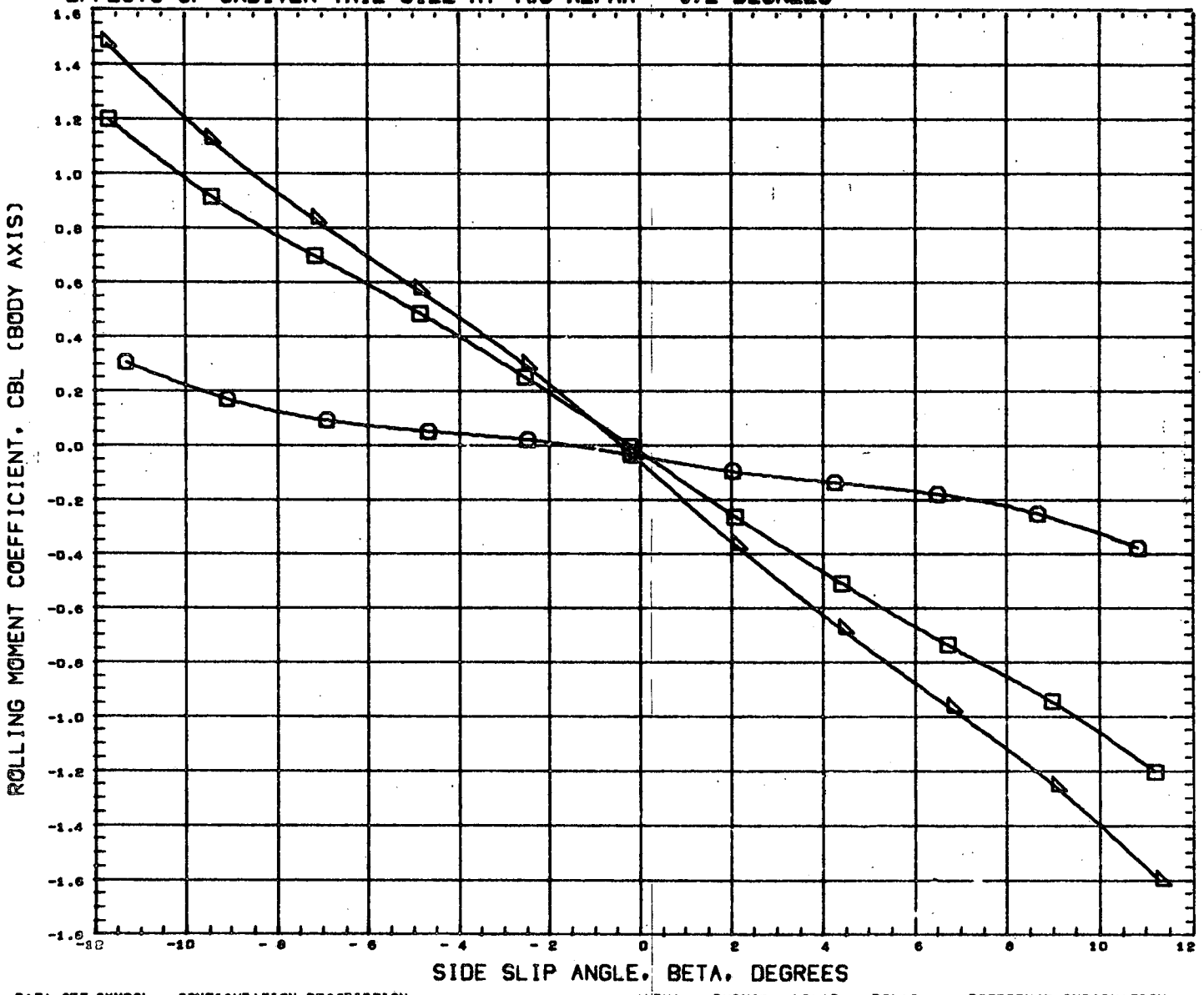


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(HS0230)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(HS0210)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	-6.000	0.000	0.000	0.000
(HS0220)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(HS0200)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)	▷	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

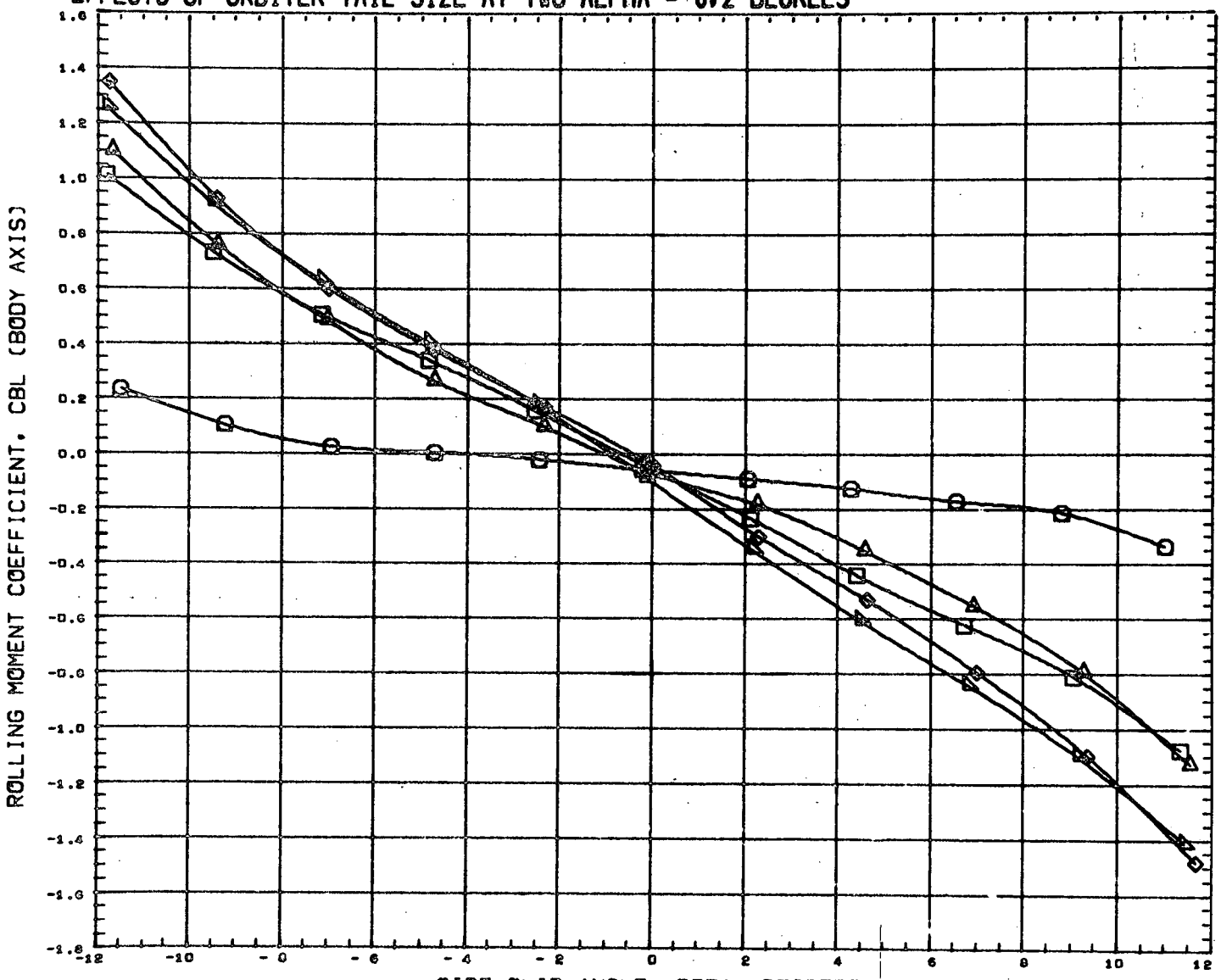


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	0.000	0.000	0.000
(H50220)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.212

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

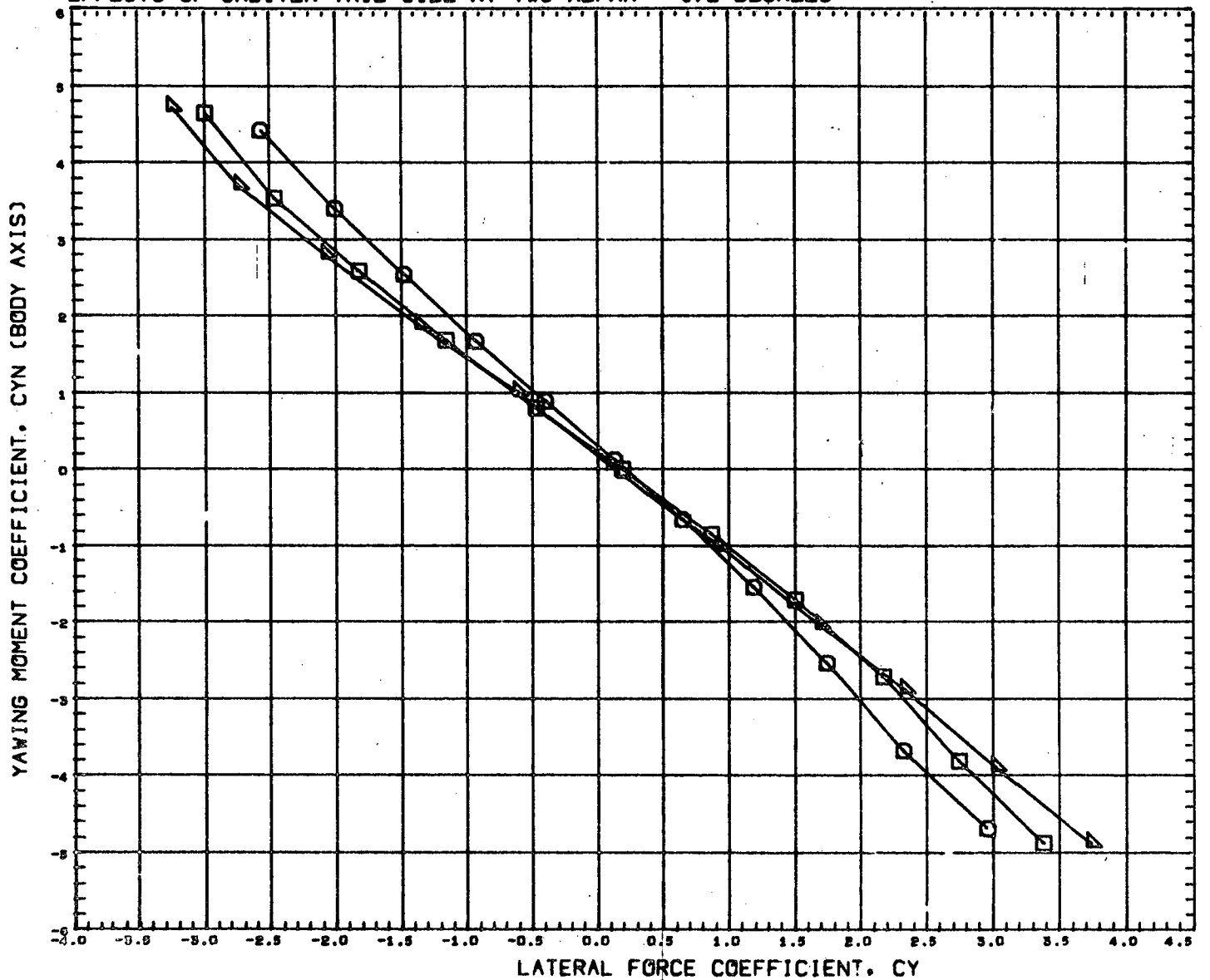


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	-6.000	0.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.496

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

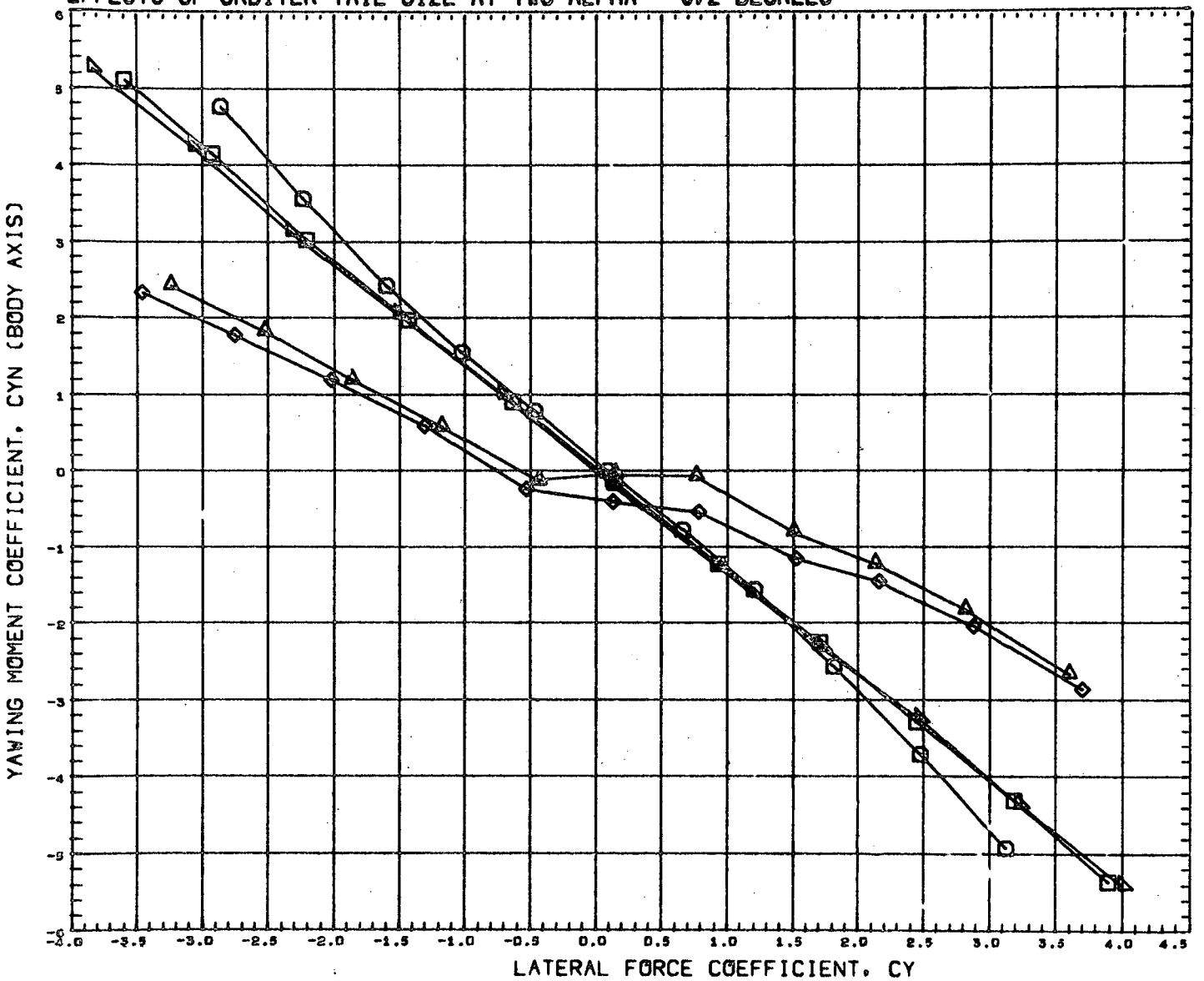


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H5028D)		MSFC 512 GD/C .003563 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H5021D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	0.000	0.000	0.000
(H5022D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H5020D)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.901

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

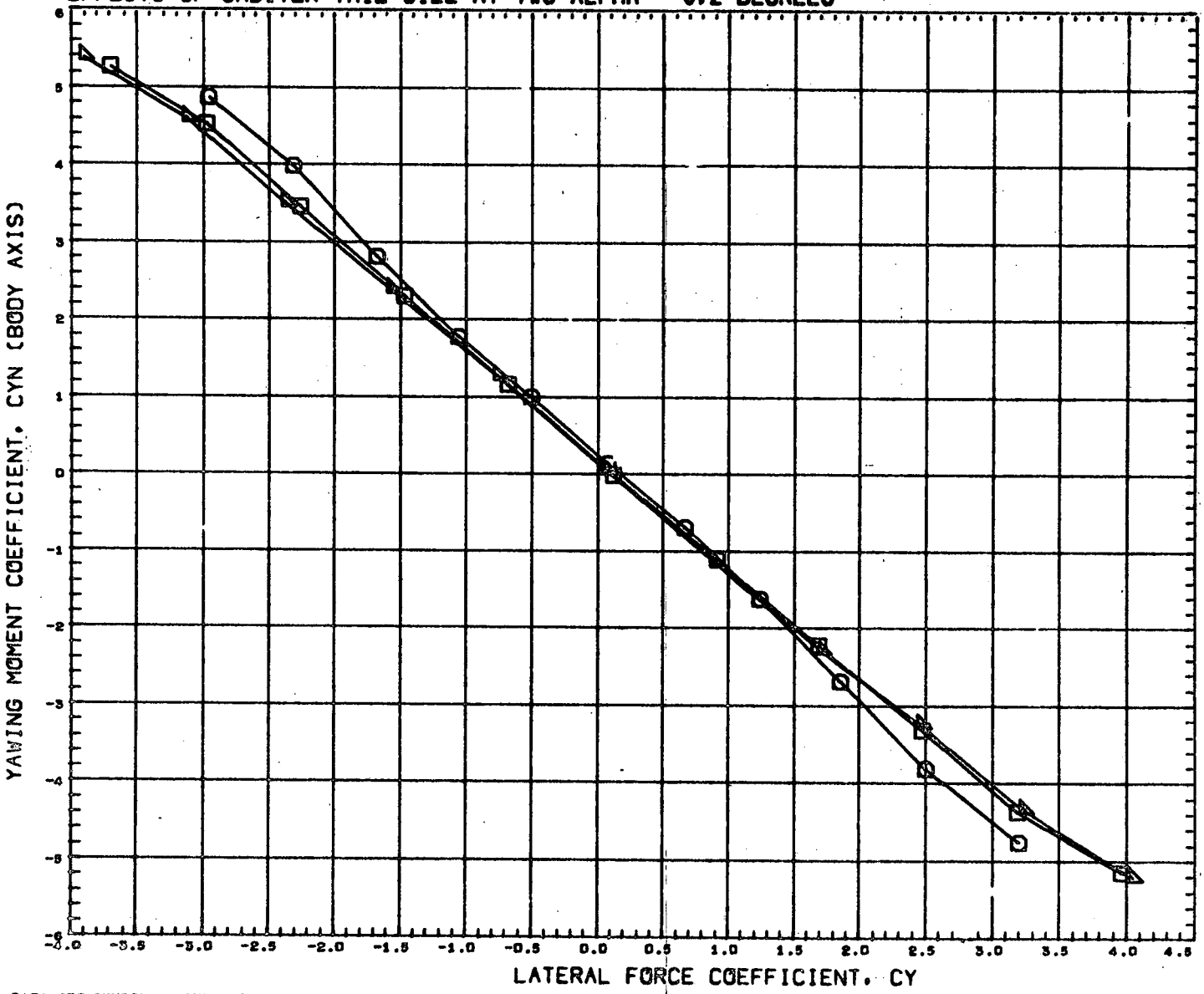


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50280)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	-6.000	0.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

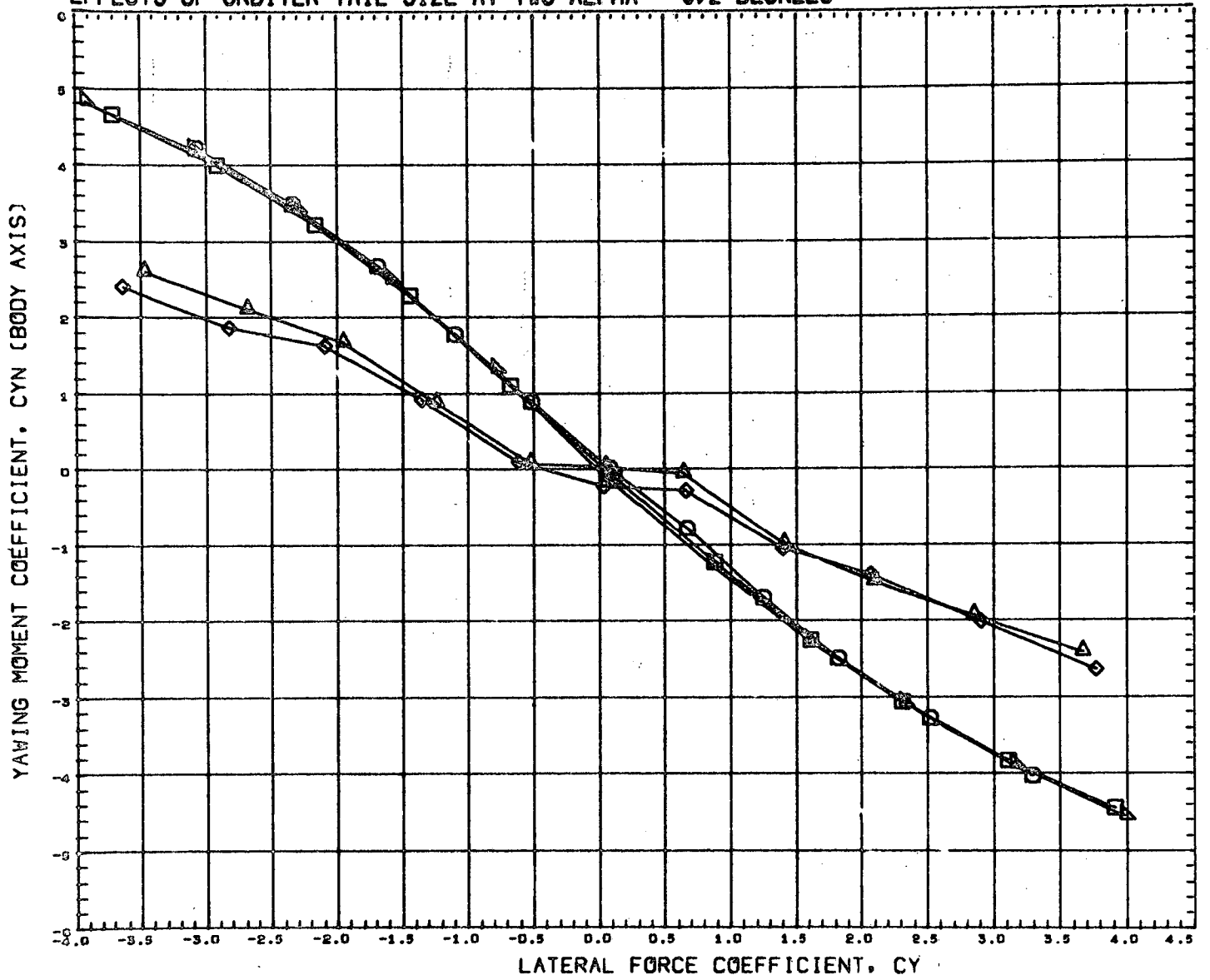


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(HS0260)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(HS0210)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	0.000	0.000	0.000
(HS0220)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(HS0200)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.202

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF ORBITER TAIL SIZE AT TWO ALPHA = 0.2 DEGREES

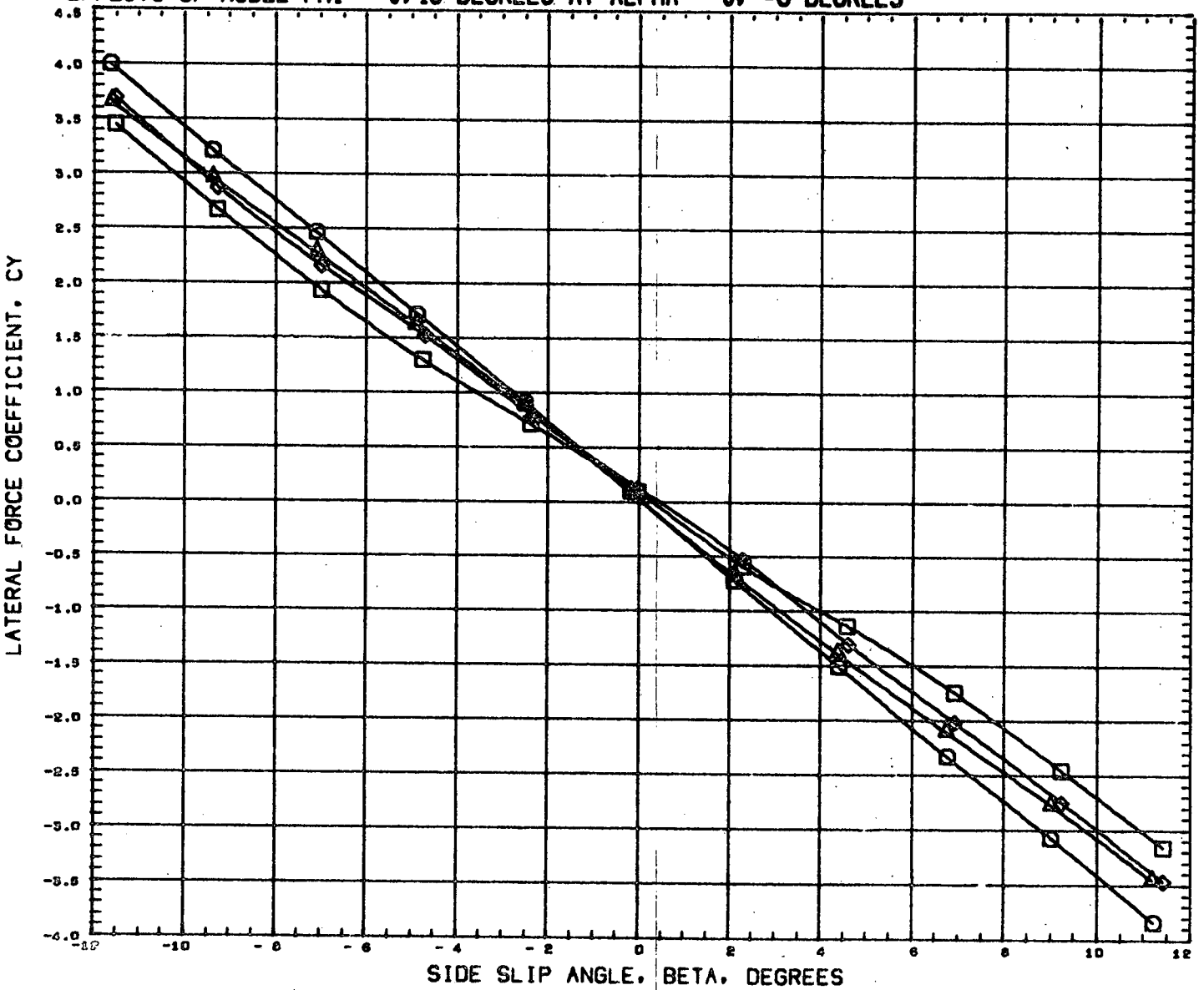


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1003T3	0.000	0.000	0.000	0.000
(H50210)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	-6.000	0.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50200)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1001T3	0.000	0.000	0.000	0.000
(A5019A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.466

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0,45 DEGREES AT ALPHA = 0, -6 DEGREES

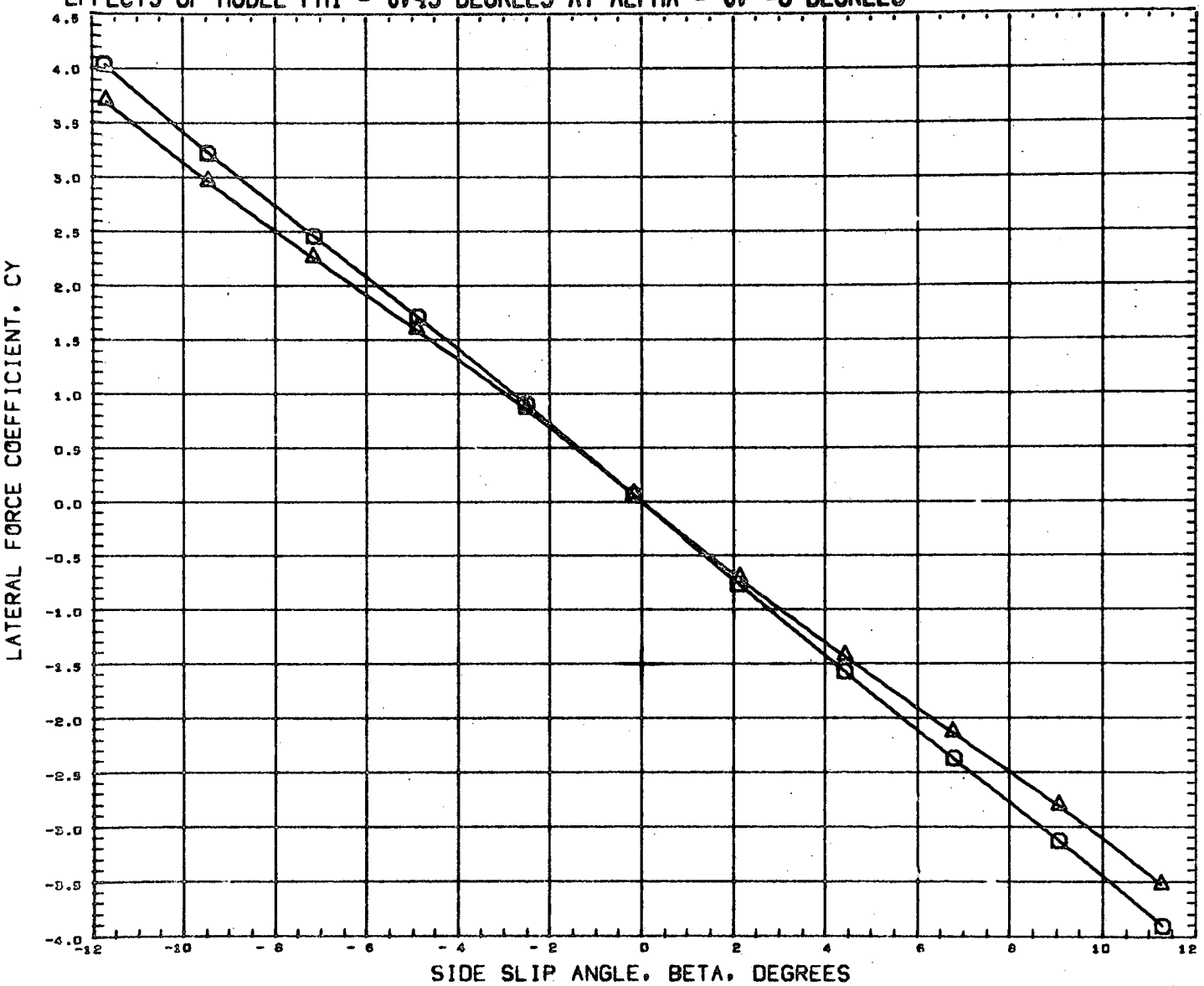


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5019B)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H5023D)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H5022D)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H5034D)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000

MACH 1.104

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0, 45 DEGREES AT ALPHA = 0, -6 DEGREES

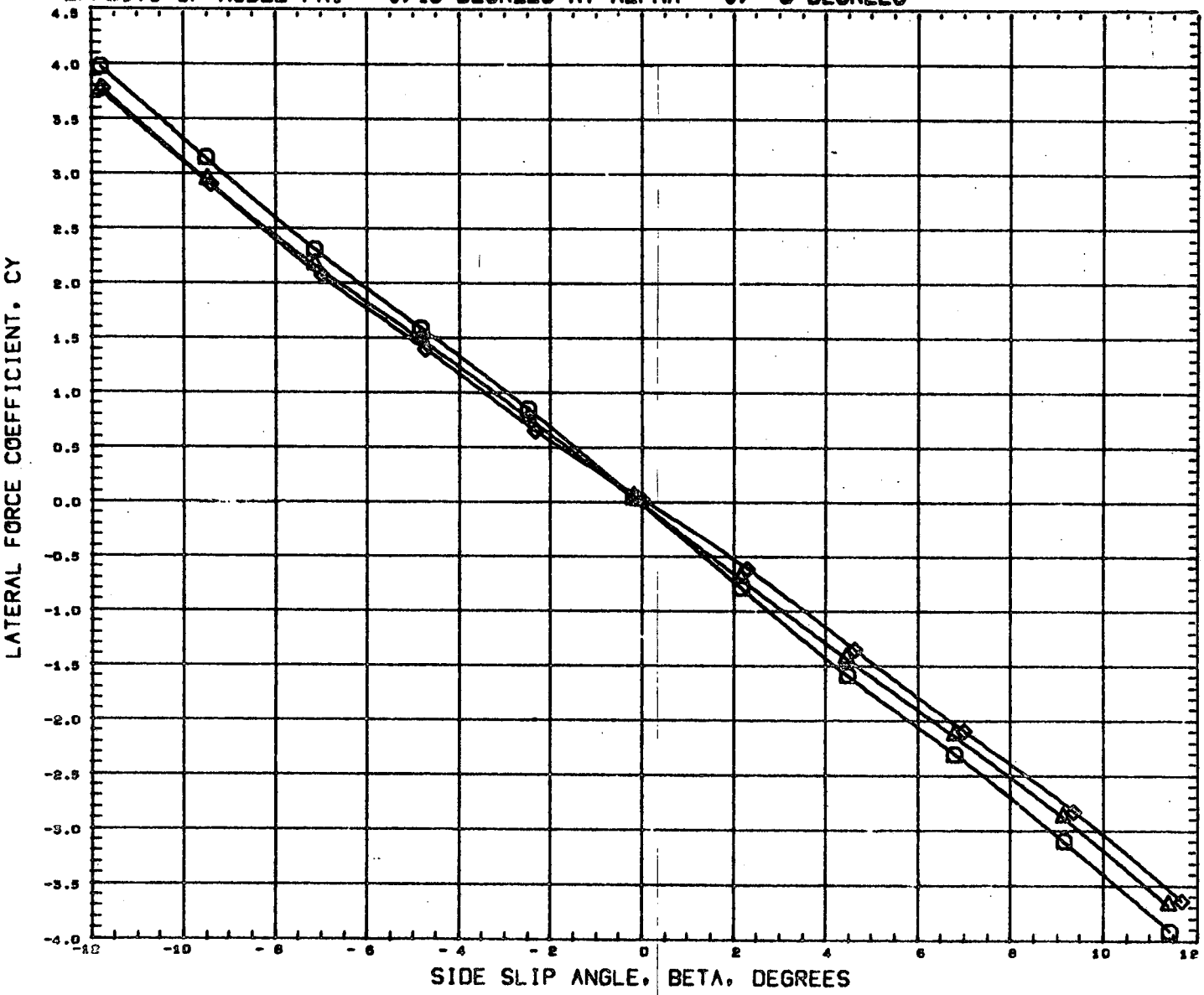


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A90190)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(H90230)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	45.000	0.000	0.000
(H90220)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H90340)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

MACH 1.200

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

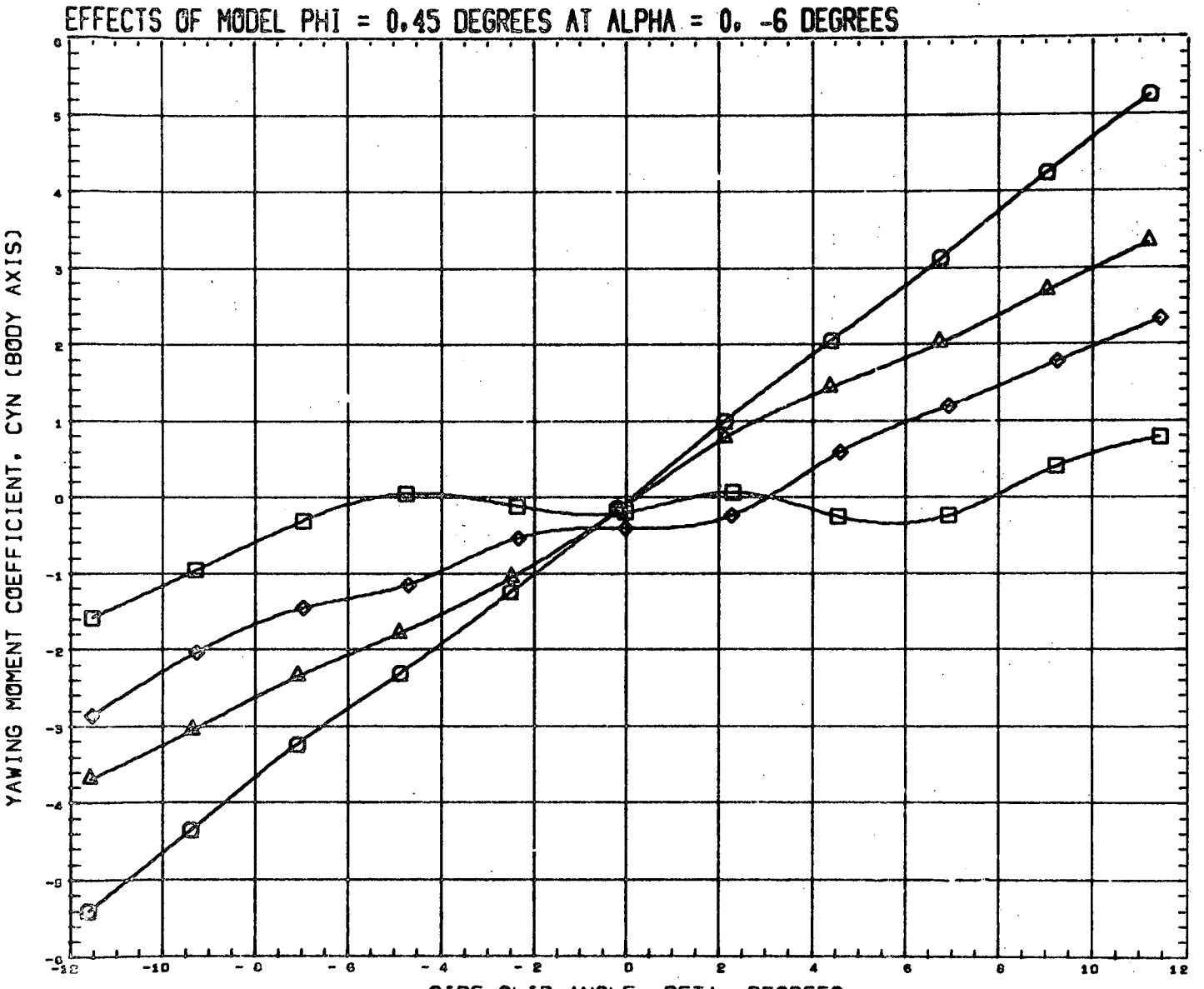
EFFECTS OF MODEL PHI = 0.45 DEGREES AT ALPHA = 0, -6 DEGREES



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5019D)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50230)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H50220)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50340)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

MACH 1.464

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

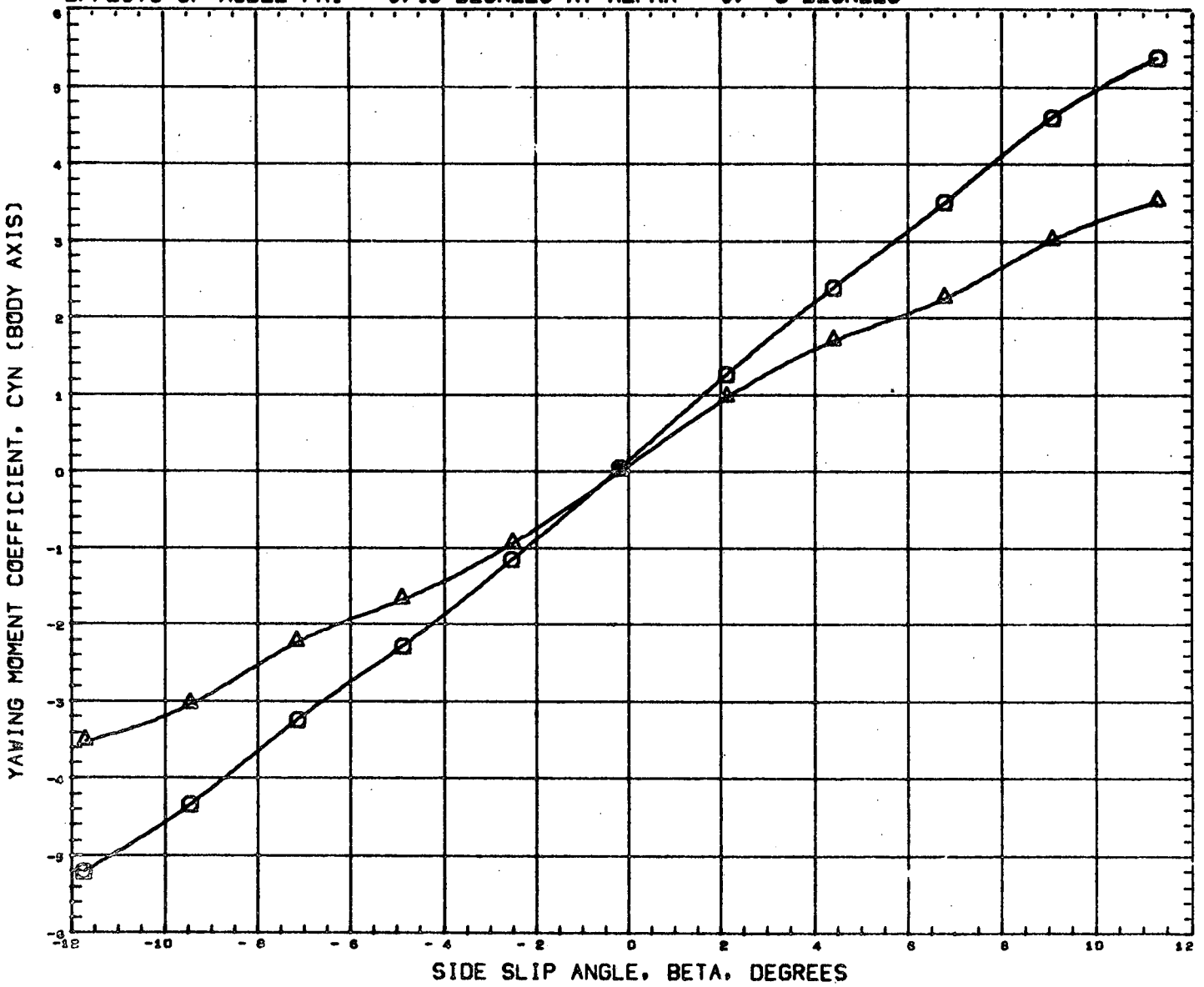


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5019B)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50230)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H50220)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50340)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000

MACH 1.104

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0.45 DEGREES AT ALPHA = 0, -6 DEGREES

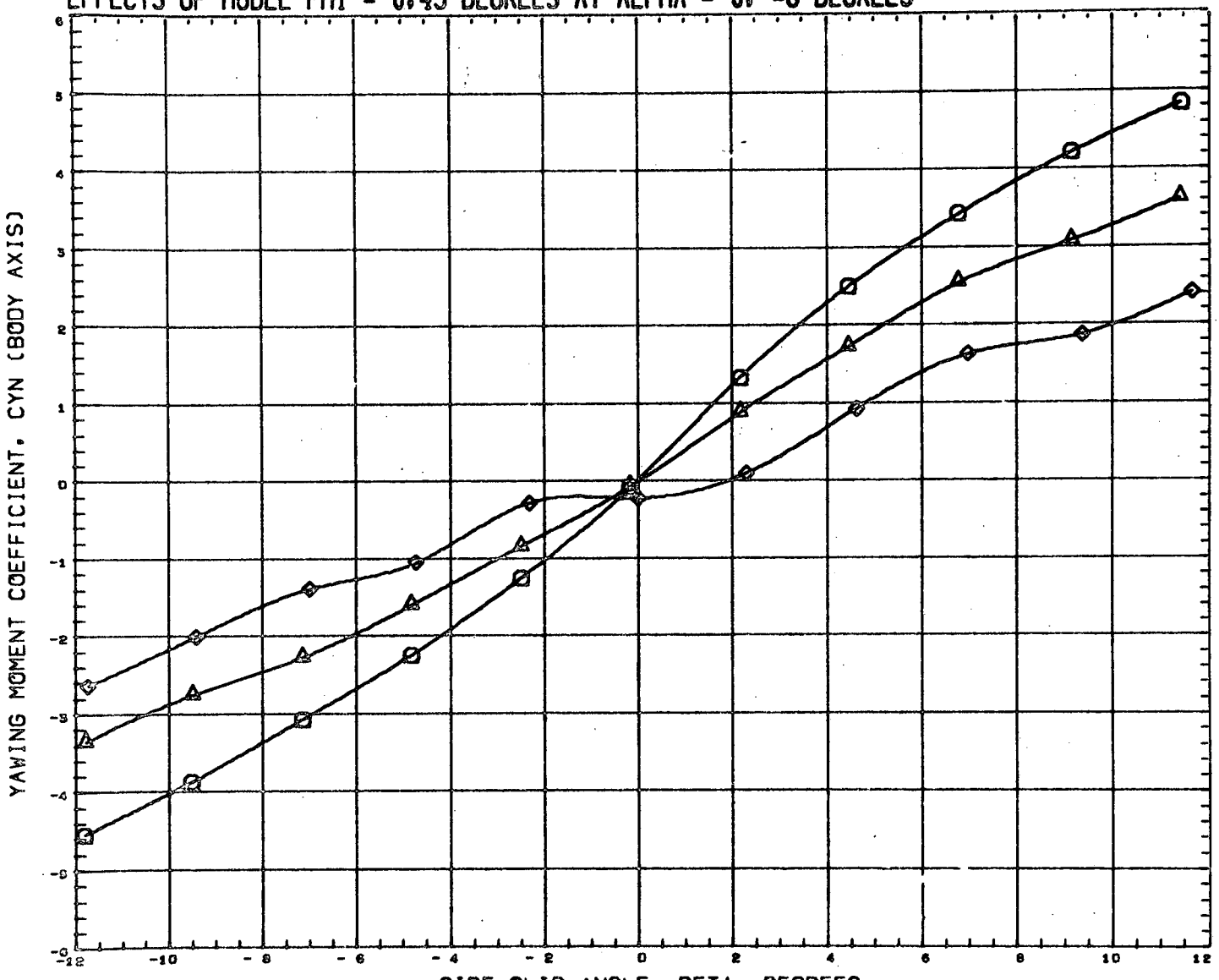


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5019B)	○	MSFC 512 GD/C .0055GG BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H5023D)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H5022D)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H5034D)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

MACH 1.200

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0.45 DEGREES AT ALPHA = 0. -6 DEGREES

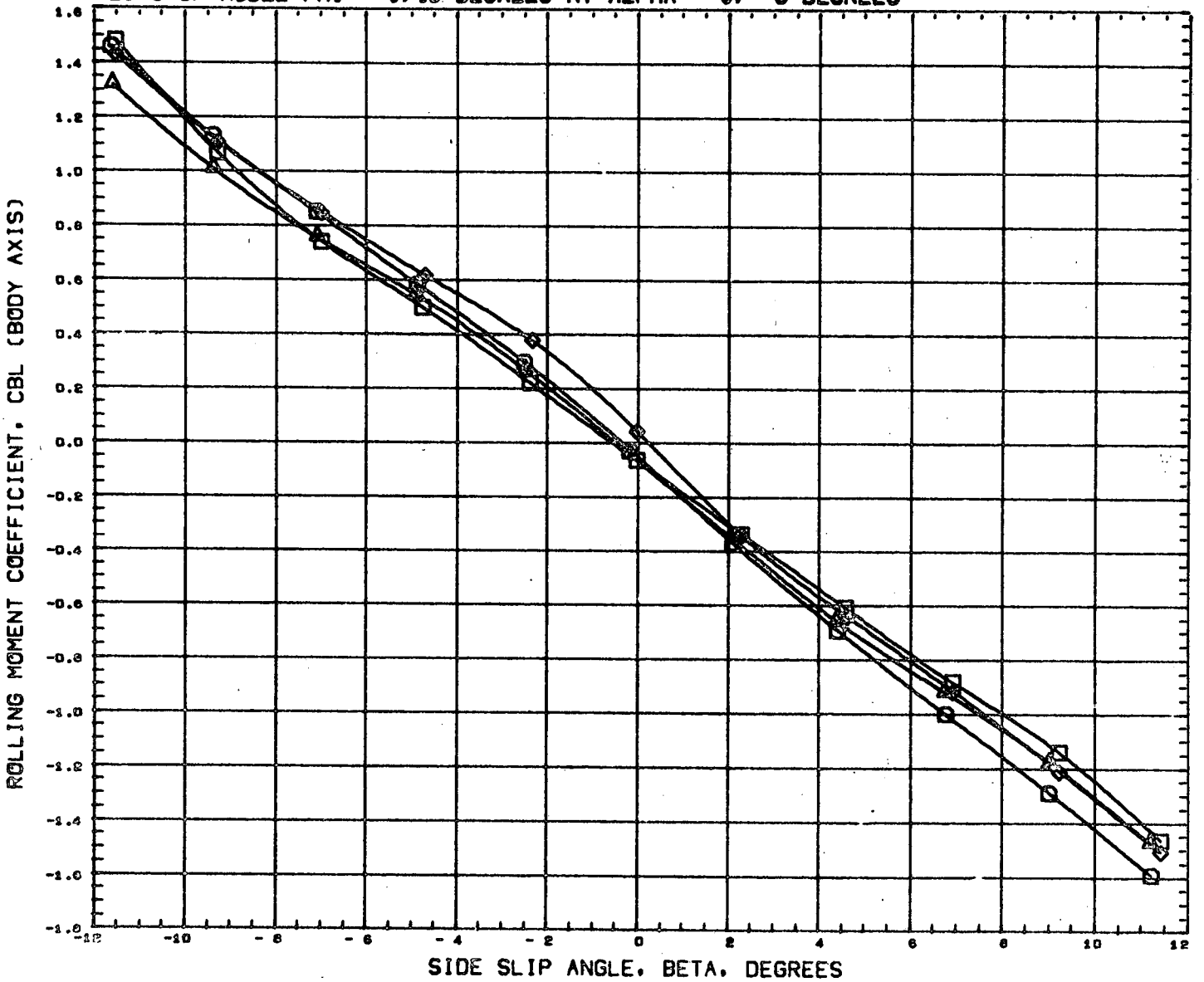


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A50190)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(H50230)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	45.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	-6.000	45.000	0.000	0.000
(H50340)		DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.464

EFFECTS OF MODEL PHI = 0,45 DEGREES AT ALPHA = 0, -6 DEGREES

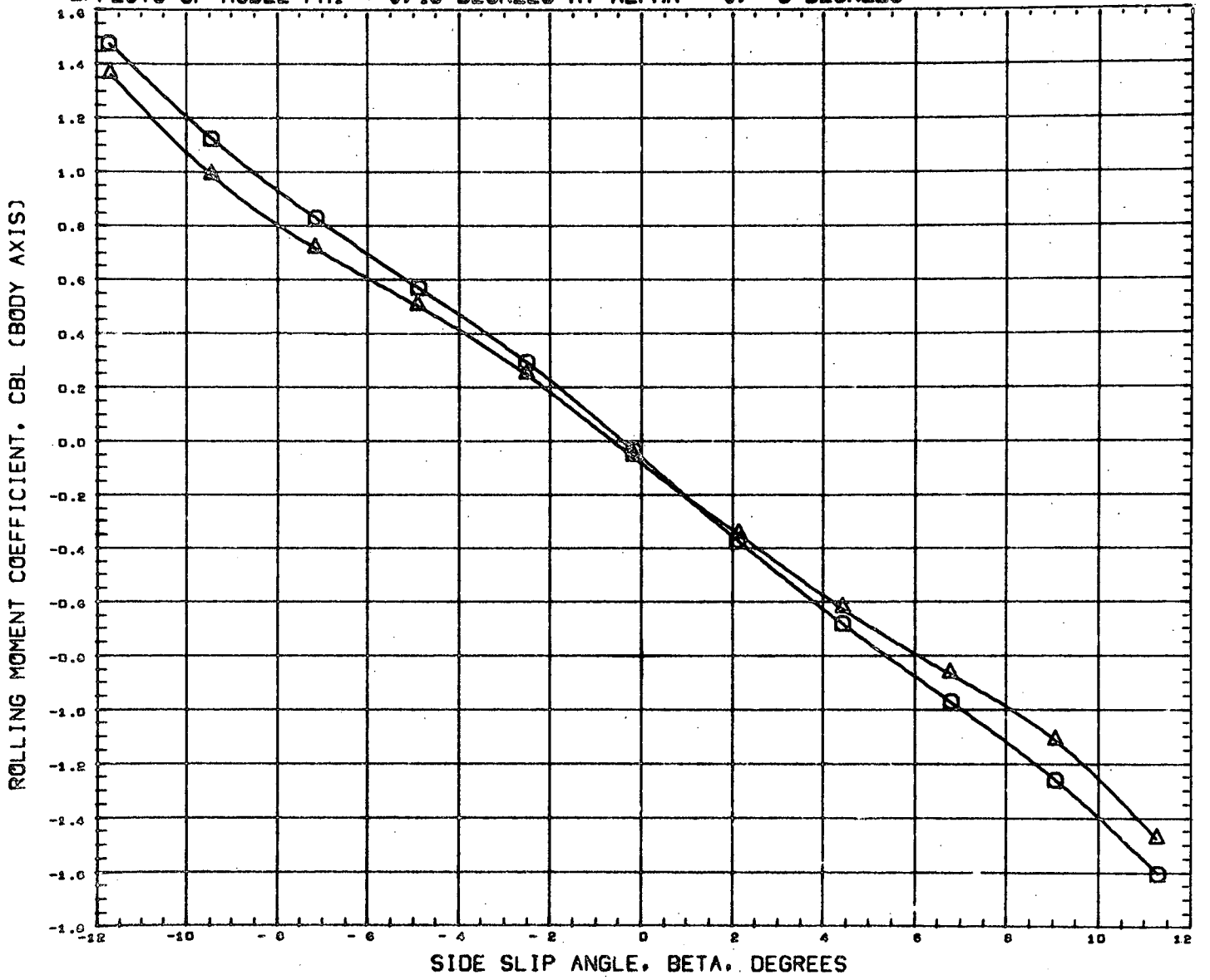


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5019B)		MSFC 512 GD/C .003936 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(H50250)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T10O2T3	0.000	45.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T10O2T3	-6.000	45.000	0.000	0.000
(H50340)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T10O2T3	-6.000	45.000	0.000	0.000

MACH 1.106

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0.45 DEGREES AT ALPHA = 0. -6 DEGREES

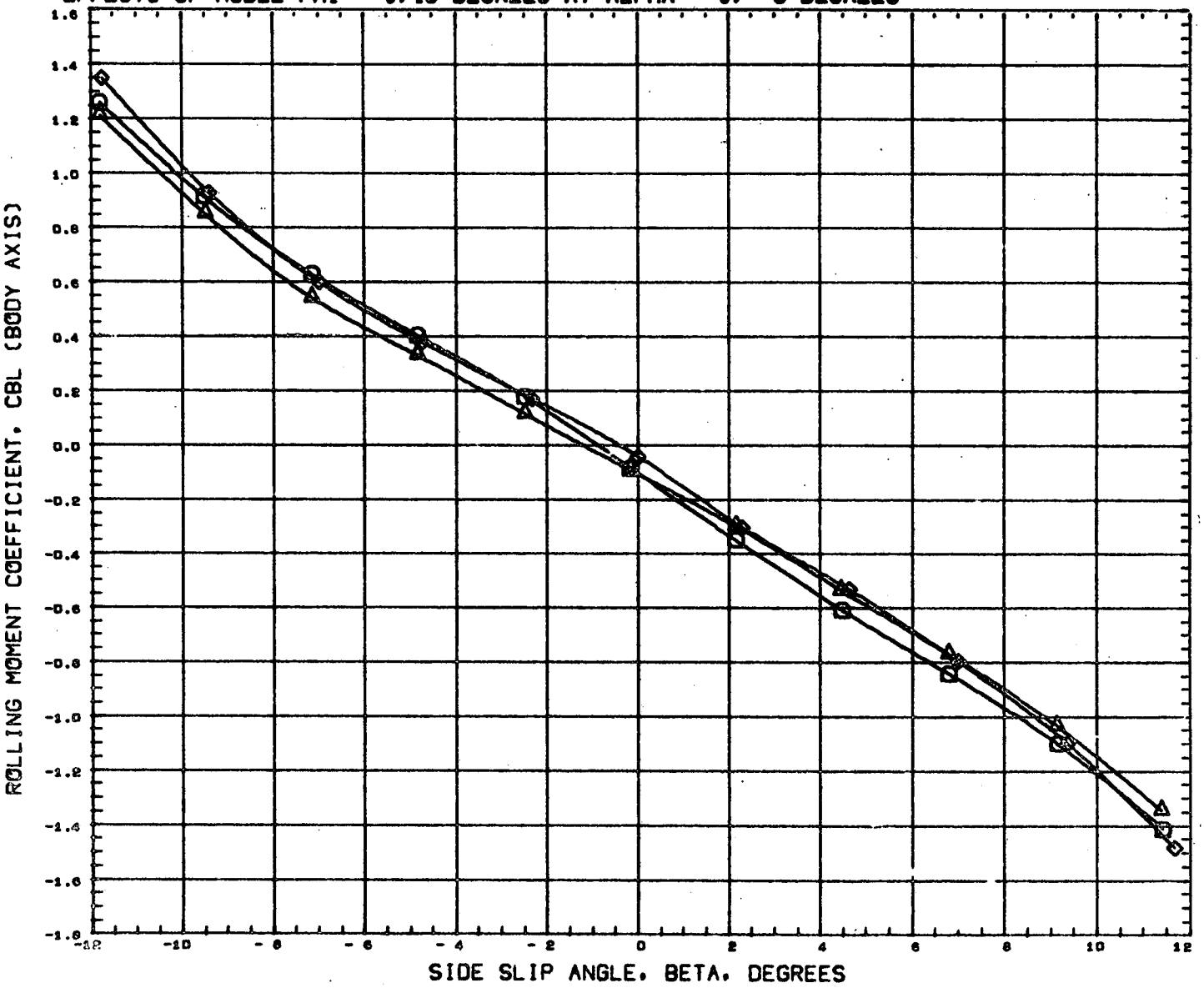


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A50190)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50230)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H50220)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H50340)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

MACH 1.200

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0.45 DEGREES AT ALPHA = 0. -6 DEGREES

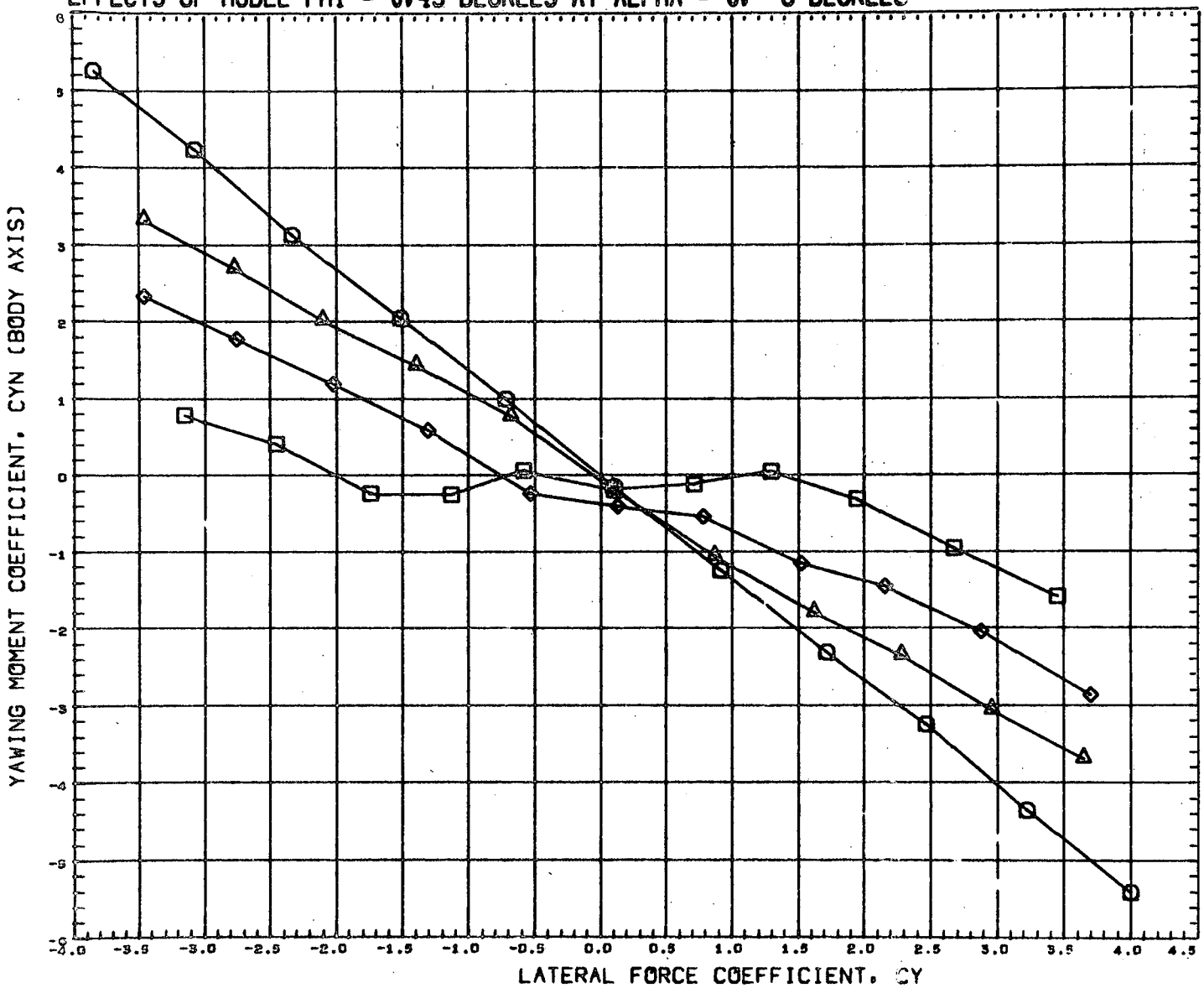


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5019B)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H5D23D)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H5D22D)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002TJ	-6.000	45.000	0.000	0.000
(H5D34D)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

MACH 1.464

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0,45 DEGREES AT ALPHA = 0, -6 DEGREES

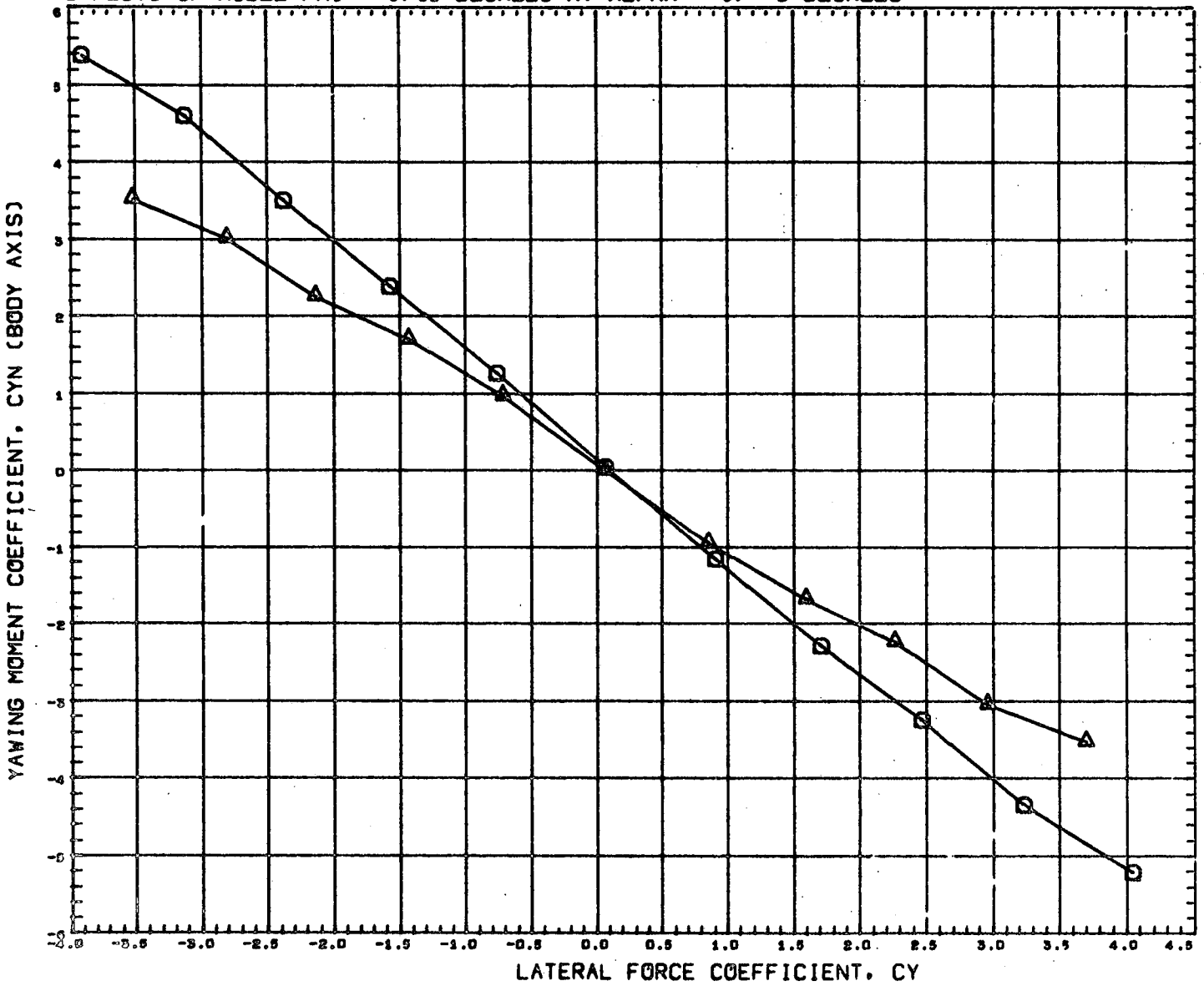


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A50198)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50230)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H50220)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50340)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000

MACH 1.104

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0.45 DEGREES AT ALPHA = 0, -6 DEGREES

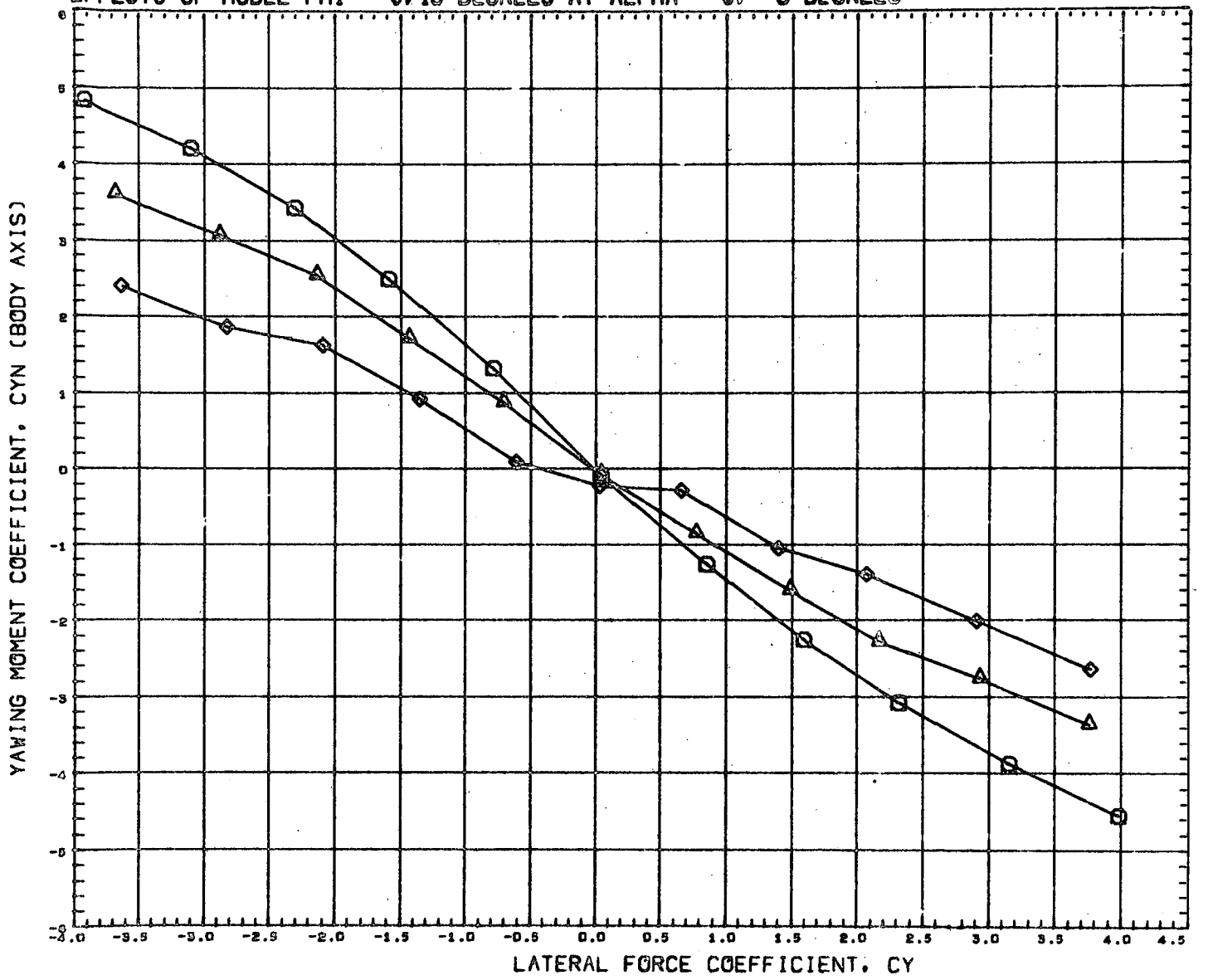


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A50198)	○	MSFC 512 GD/C .009306 BOOSTER/ORB. B34R6T1D02T3	0.000	0.000	0.000	0.000
(H50230)	△	MSFC 512 GD/C .009306 BOOSTER/ORB. B34R6T1DC2T3	0.000	45.000	0.000	0.000
(H50220)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(H50340)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF MODEL PHI = 0.45 DEGREES AT ALPHA = 0, -6 DEGREES

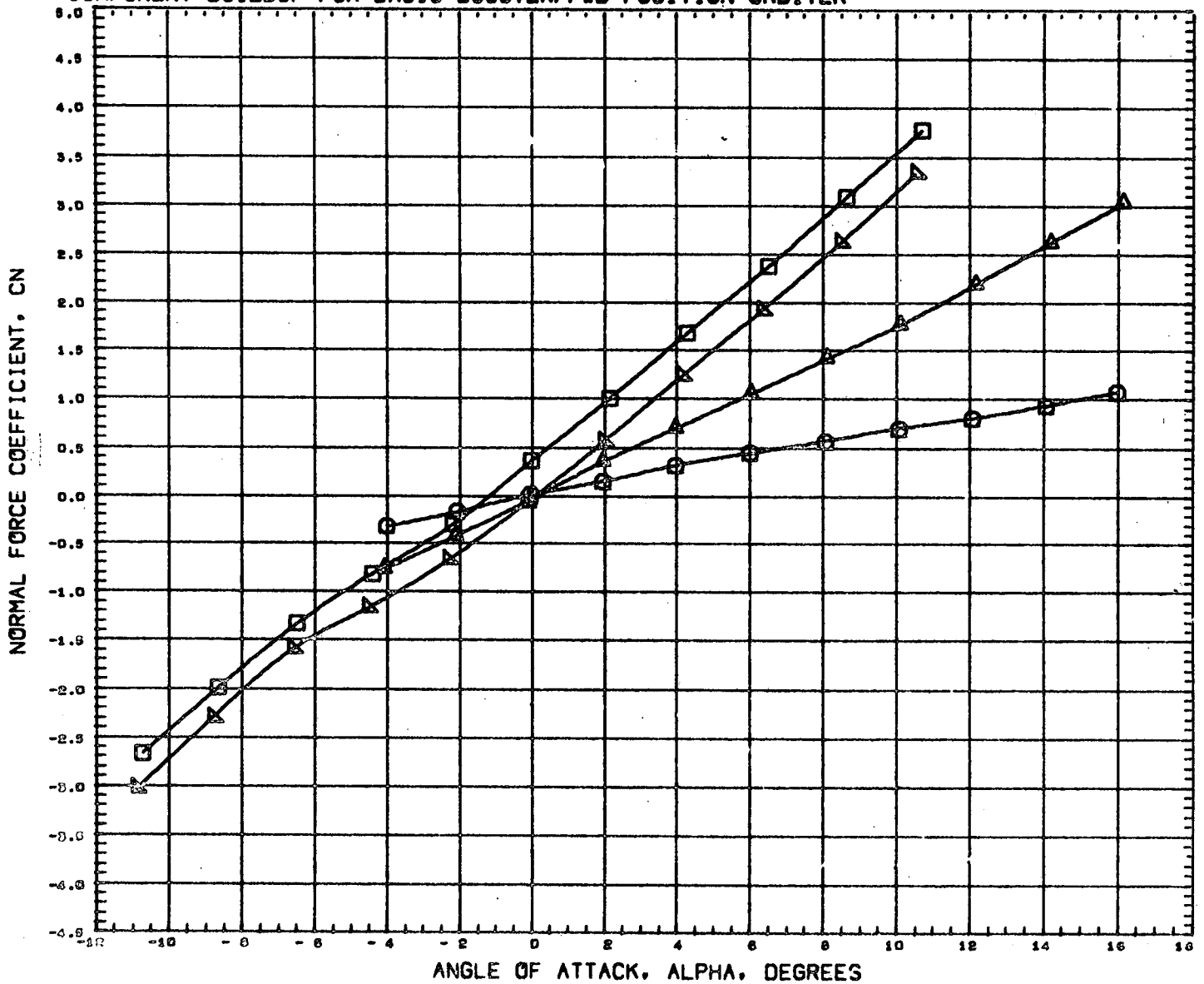


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A50190)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1D02T3	0.000	0.000	0.000	0.000
(H50230)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H50220)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H50340)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.464

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

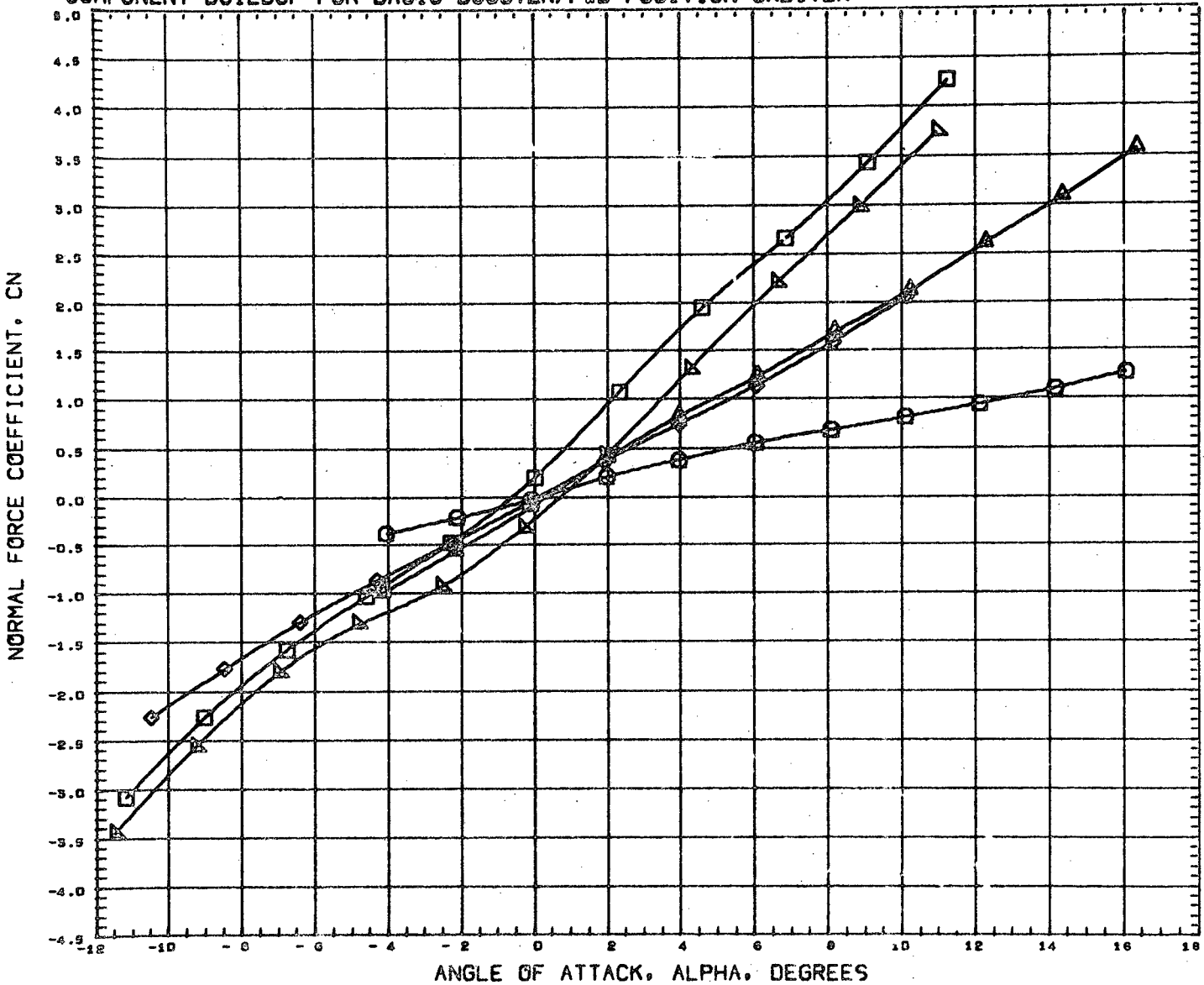


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000

MACH 0.6[illegible]

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

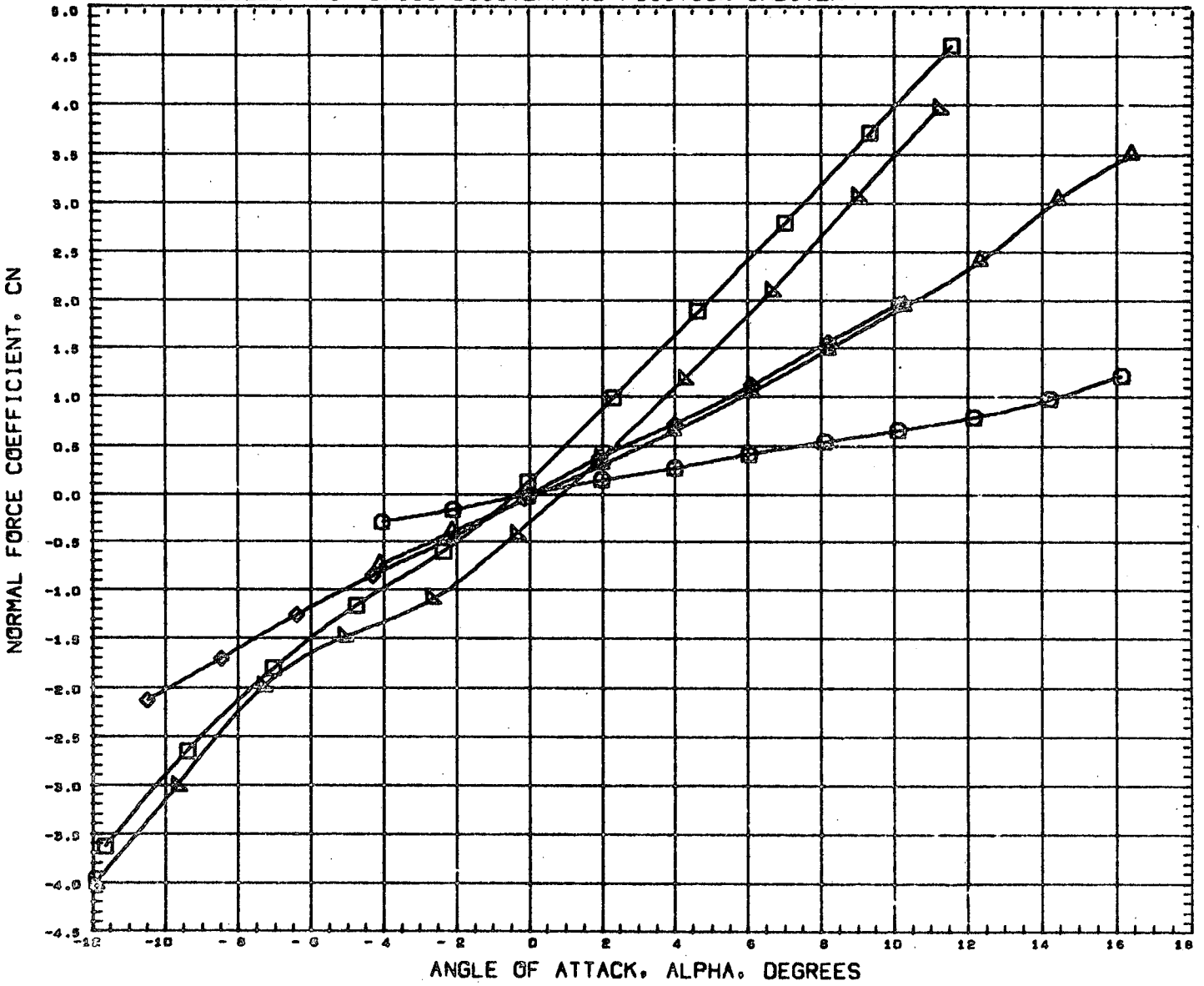


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003566 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003566 BOOSTER	B34R6T1D	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003566 BOOSTER	B34R6T1DT3	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003566 BOOSTER/ORB.	B34R6T1D02T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003566 BOOSTER/ORB.	B34R6T1D02T3	0.000	0.000	0.000	0.000

MACH 0.800

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

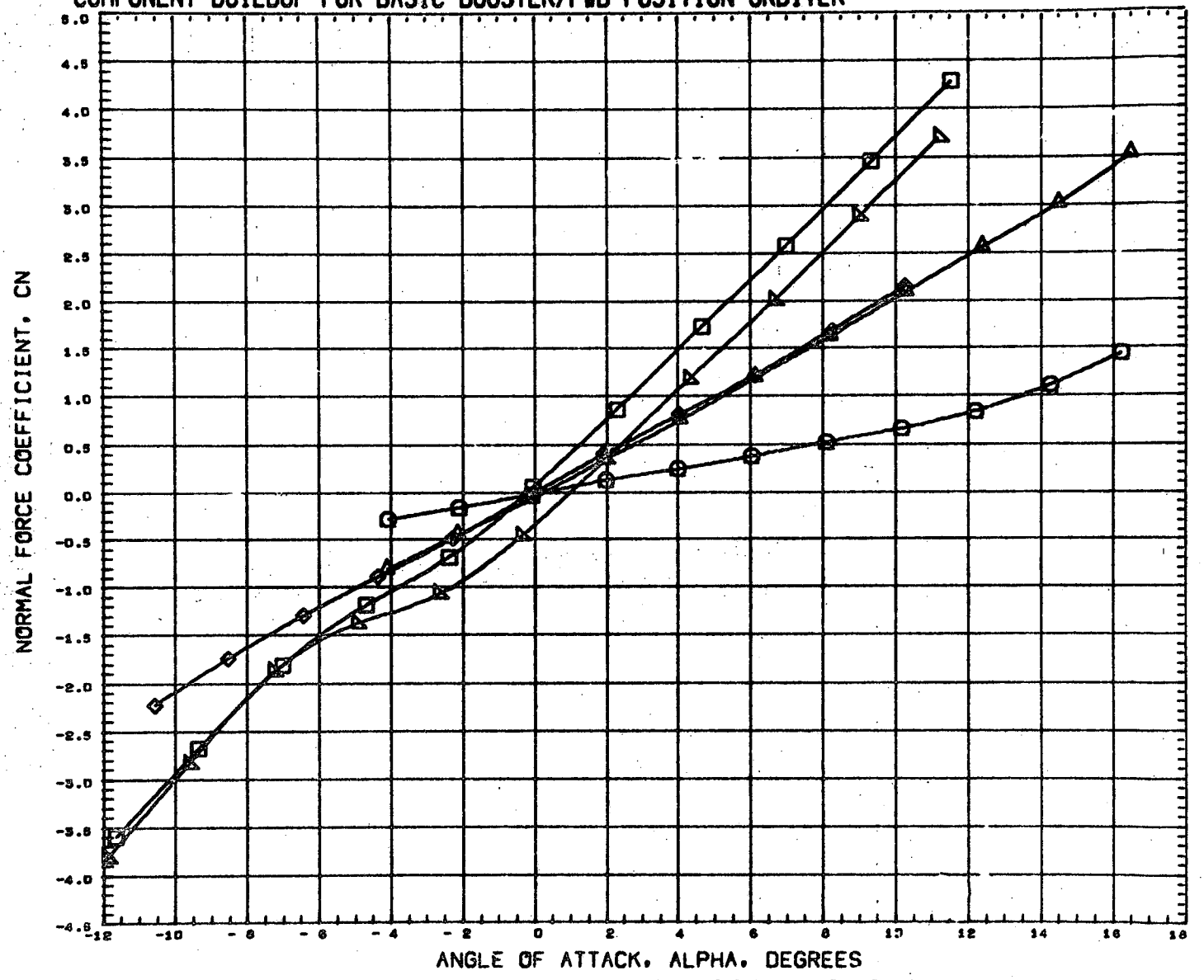


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		M8FC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(ES001D)		M8FC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS032D)		M8FC 512 GD/C .003966 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS035D)		M8FC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(DS037D)		M8FC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

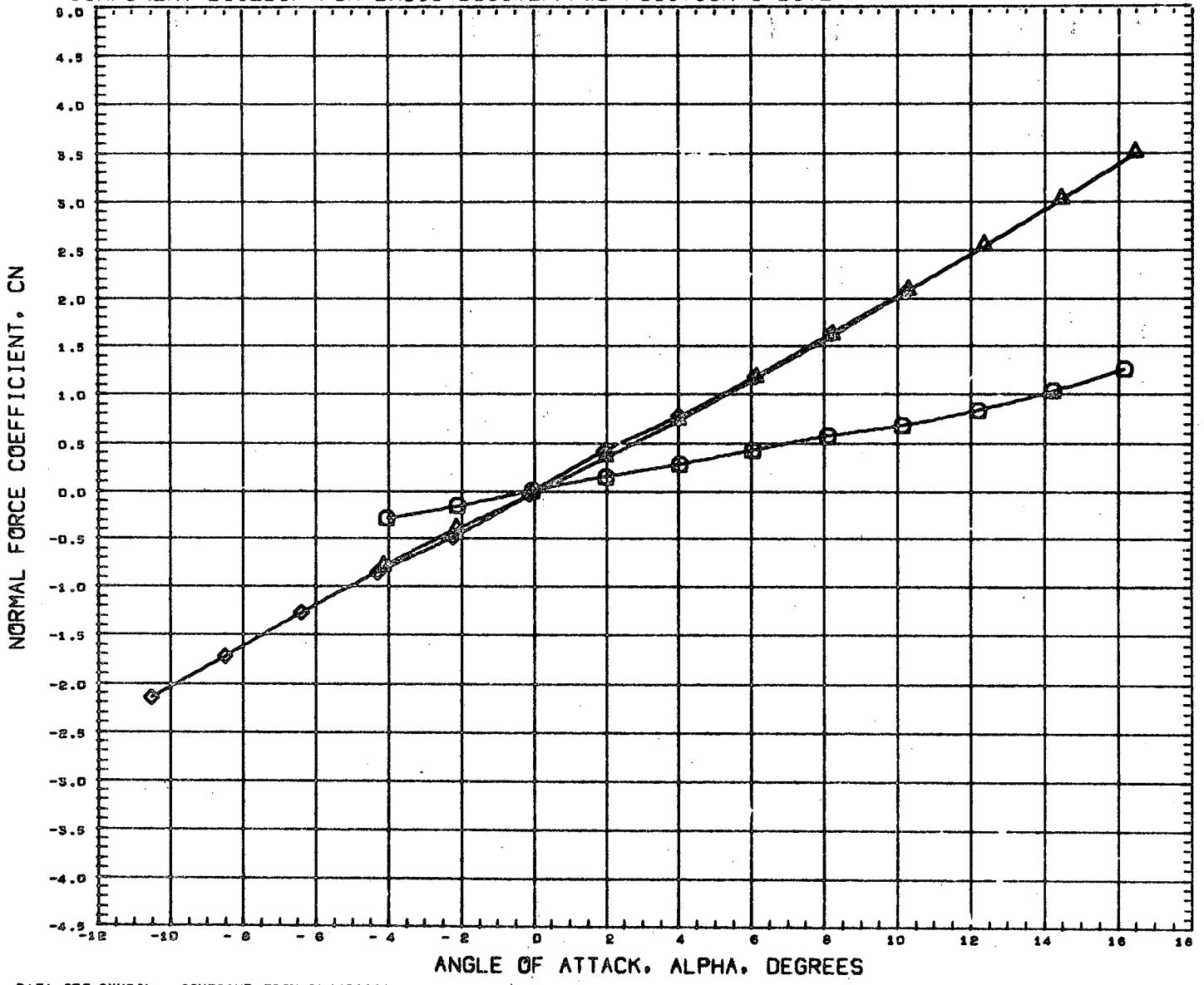


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.459

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

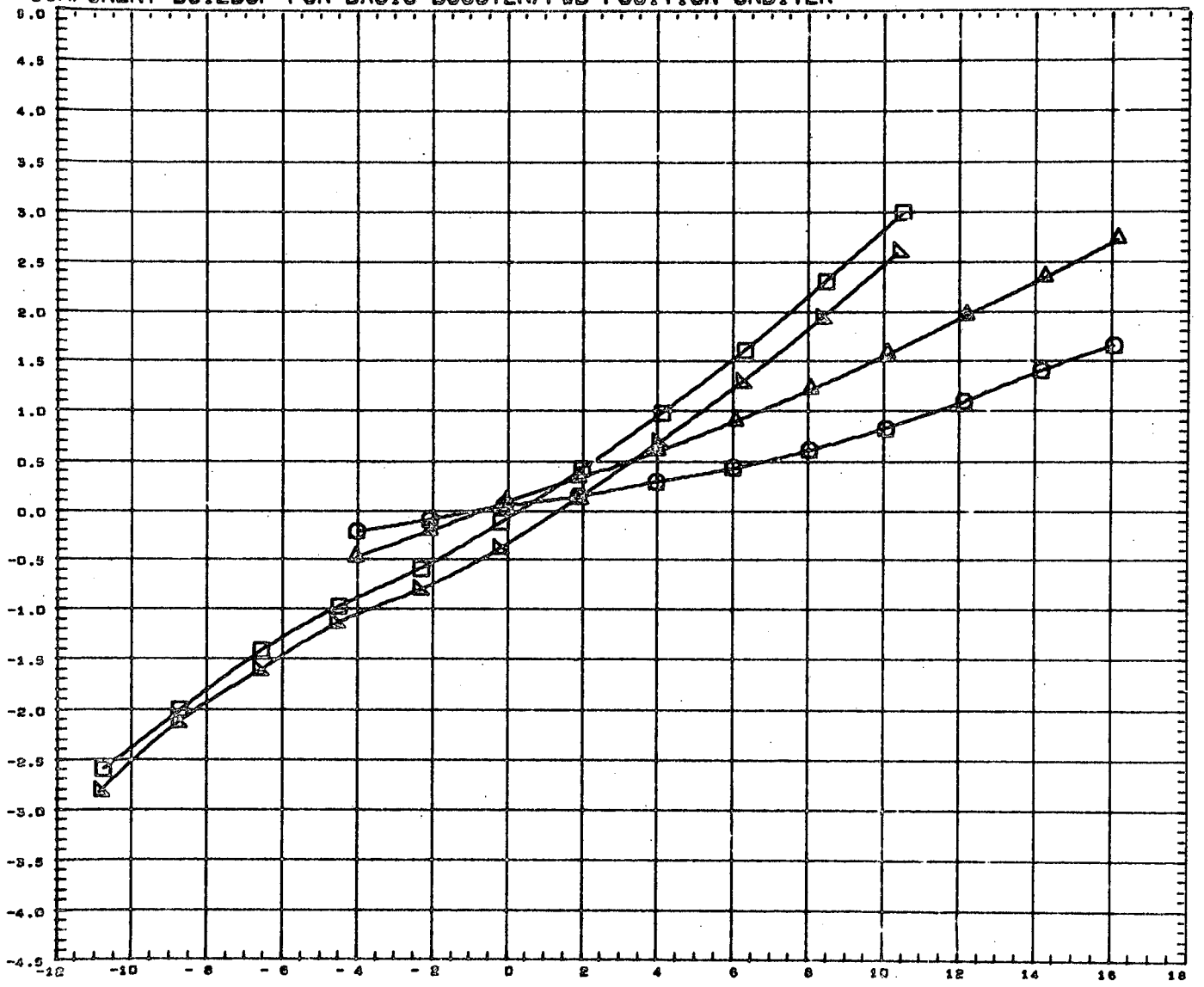


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1D	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1DT3	0.000	0.000	0.000	0.000
(D50350)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50370)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

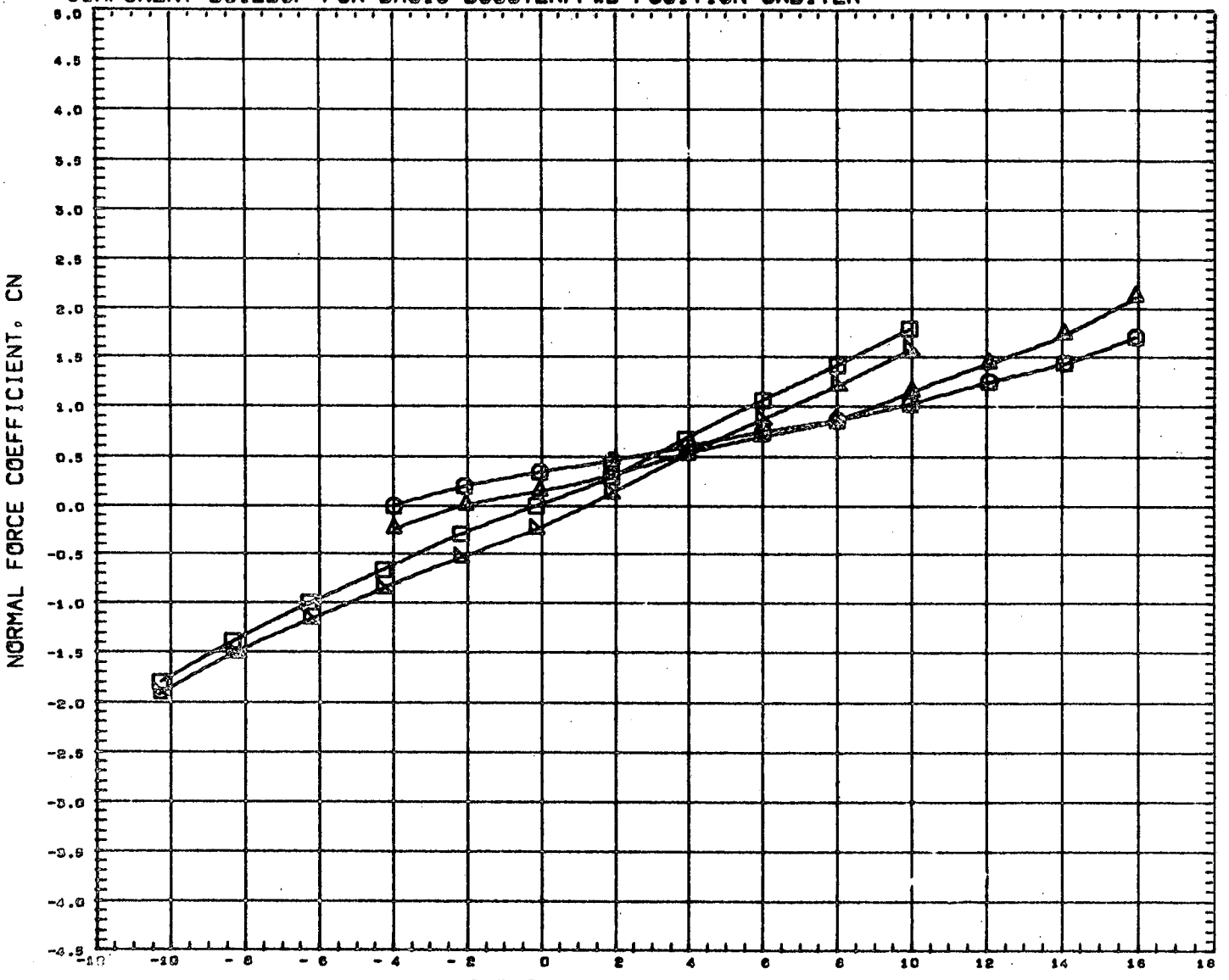


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(DS032D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

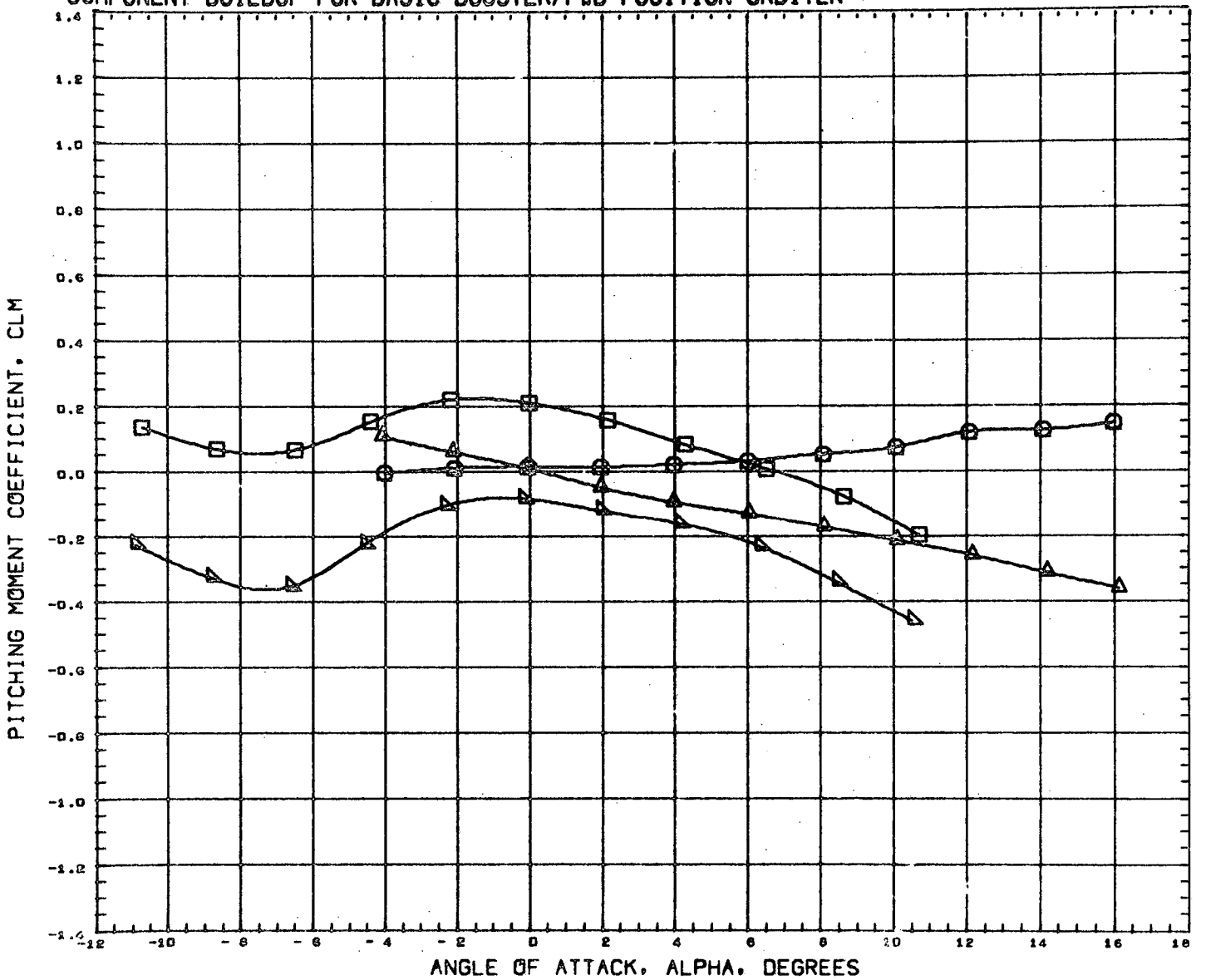


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		M8FC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		M8FC 512 GD/C .003366 BOOSTER	B34R6T1L	0.000	0.000	0.000	0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50350)		M8FC 512 GD/C .003366 BOOSTER/ORD.	B34R6T1D02T3	0.000	0.000	0.000	0.000
(D50370)		M8FC 512 GD/C .003366 BOOSTER/ORD.	B34R6T1D02T3	0.000	0.000	0.000	0.000

MACH 4.930

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

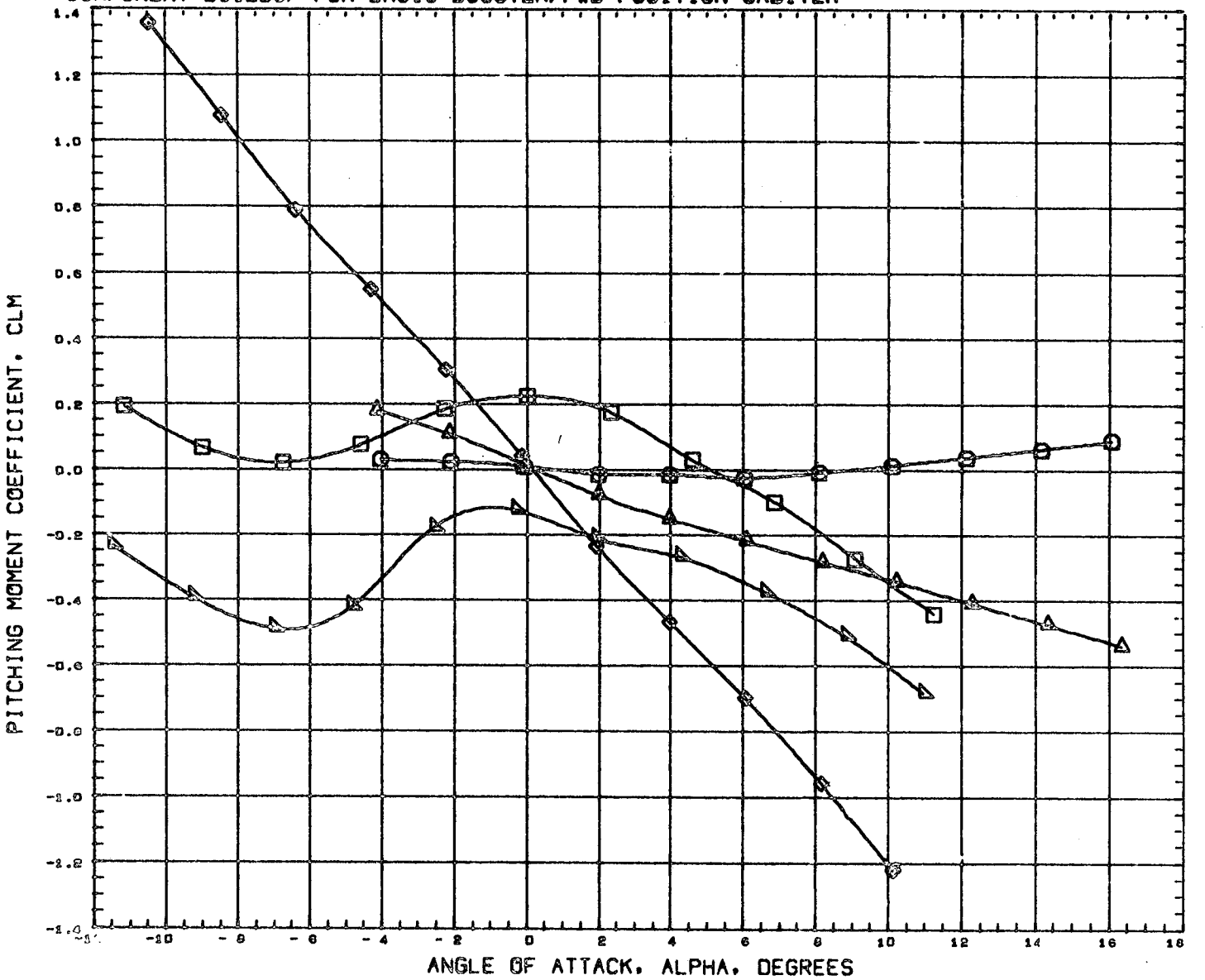


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(D5D320)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D5D350)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T5	0.000	0.000	0.000	0.000
(D5D370)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T5	0.000	0.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

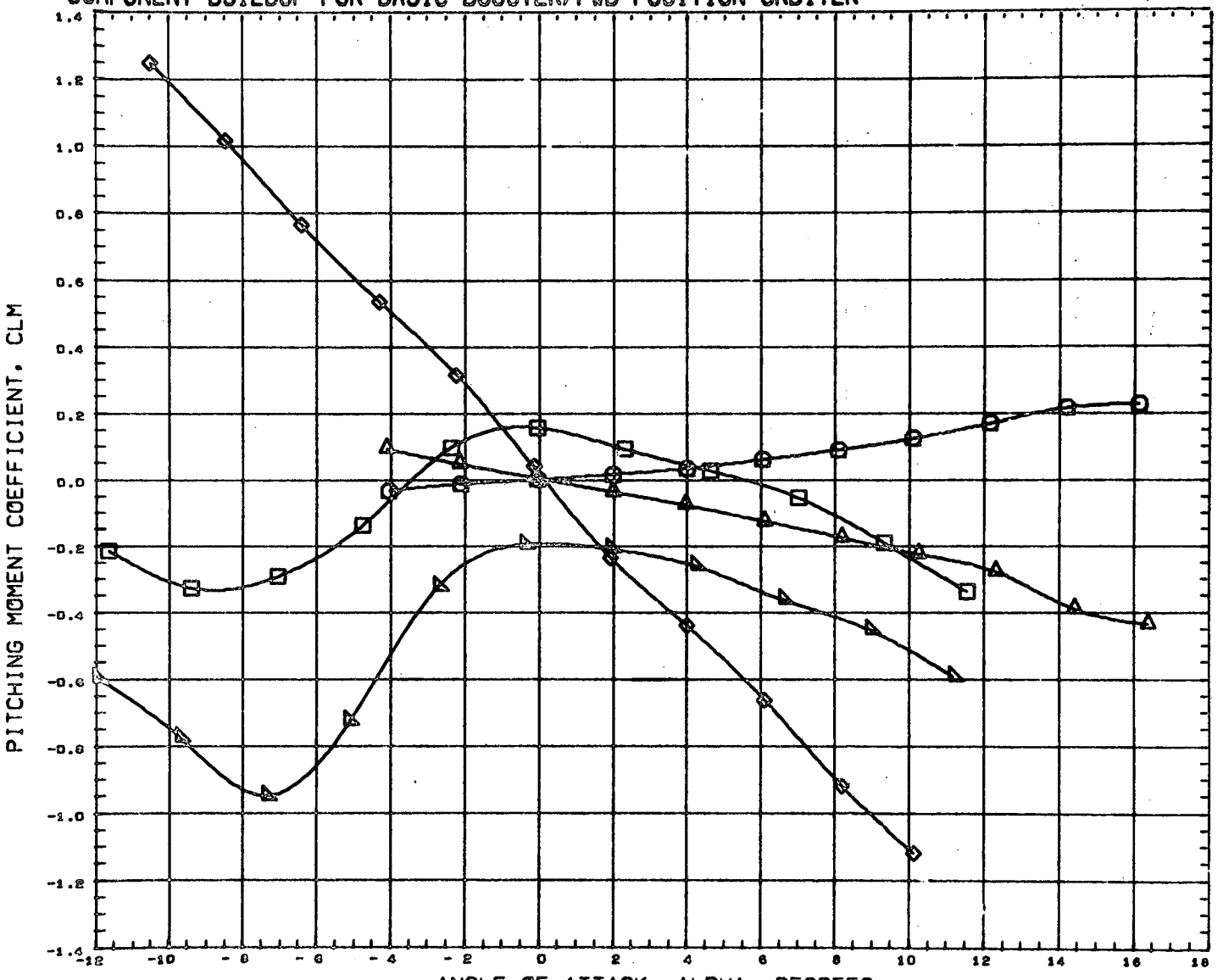


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003360 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003360 BOOSTER	B34R6T1L	0.000	0.000	0.000	0.000
(DS032D)		MSFC 512 GD/C .003360 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003360 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003360 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

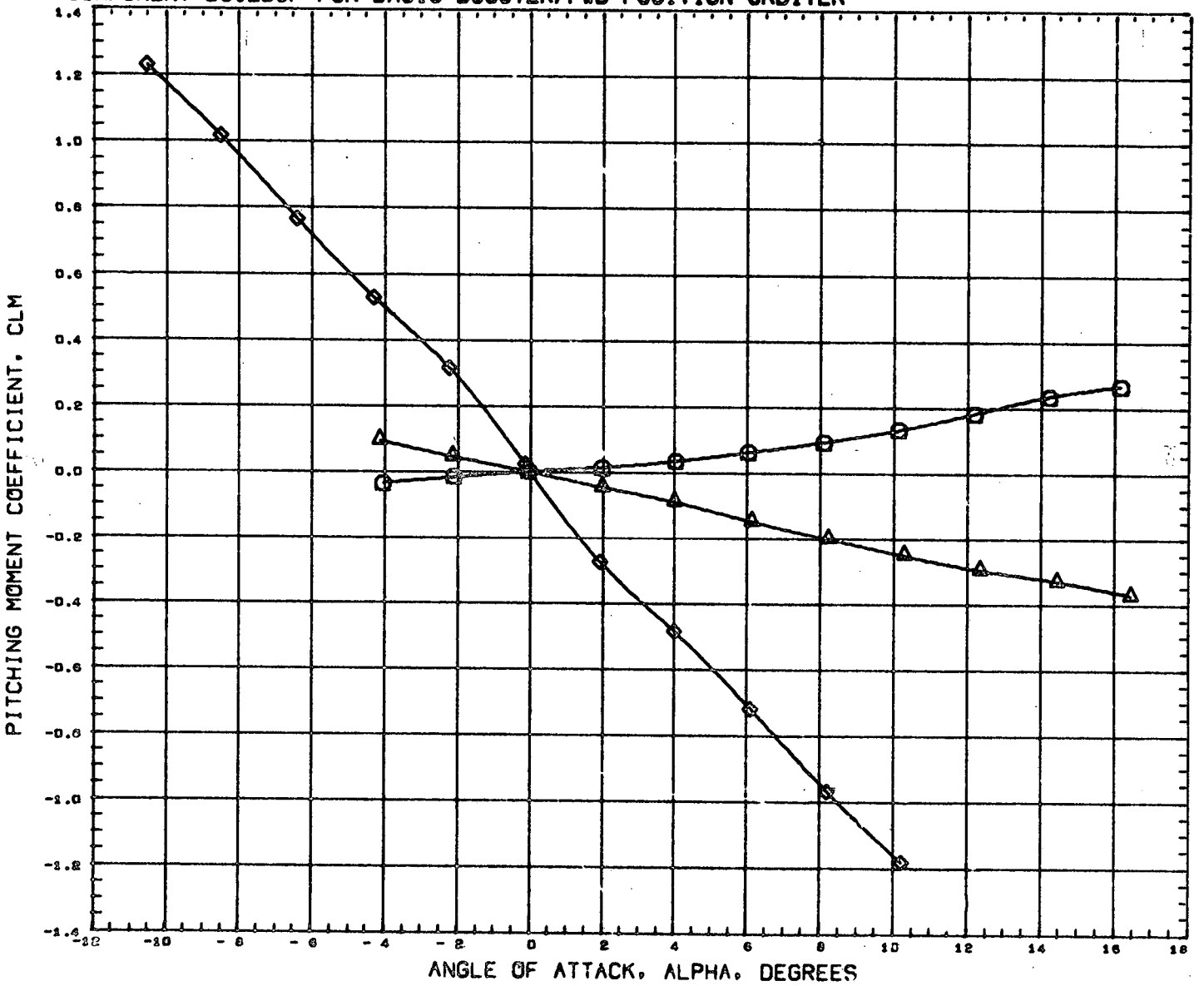


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003966 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50390)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRF	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

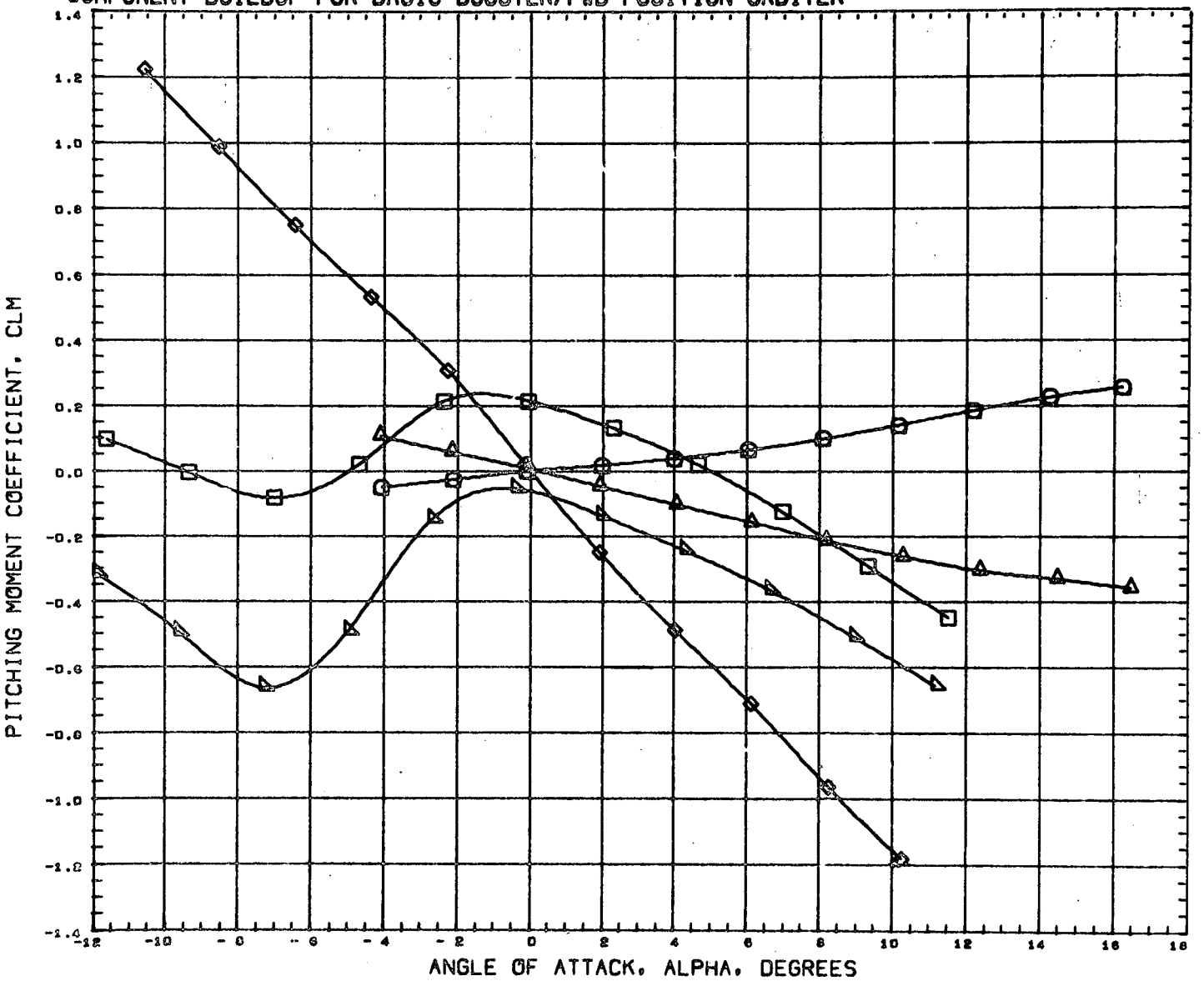


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50370)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

HACN 1.201

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

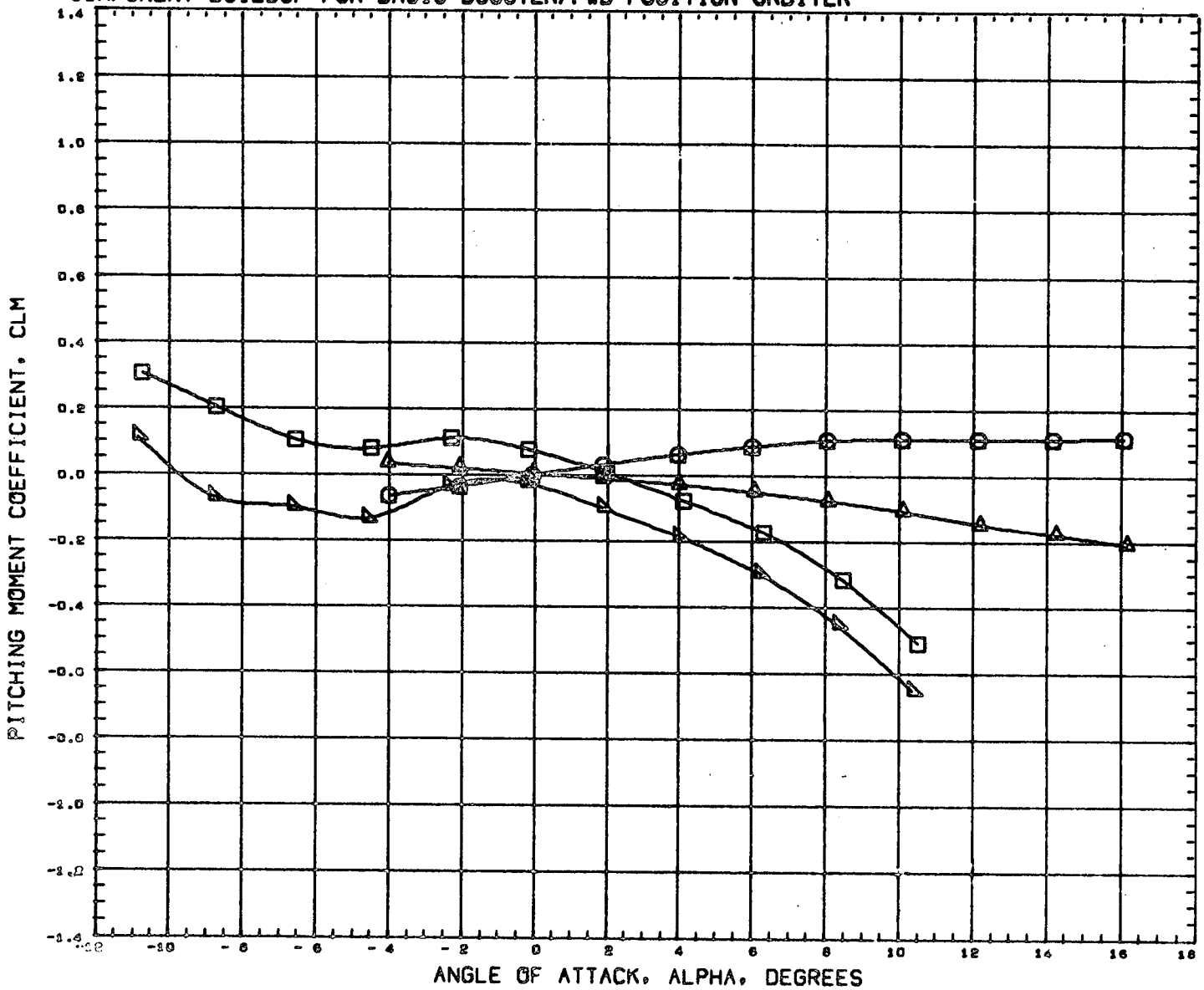


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.490

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

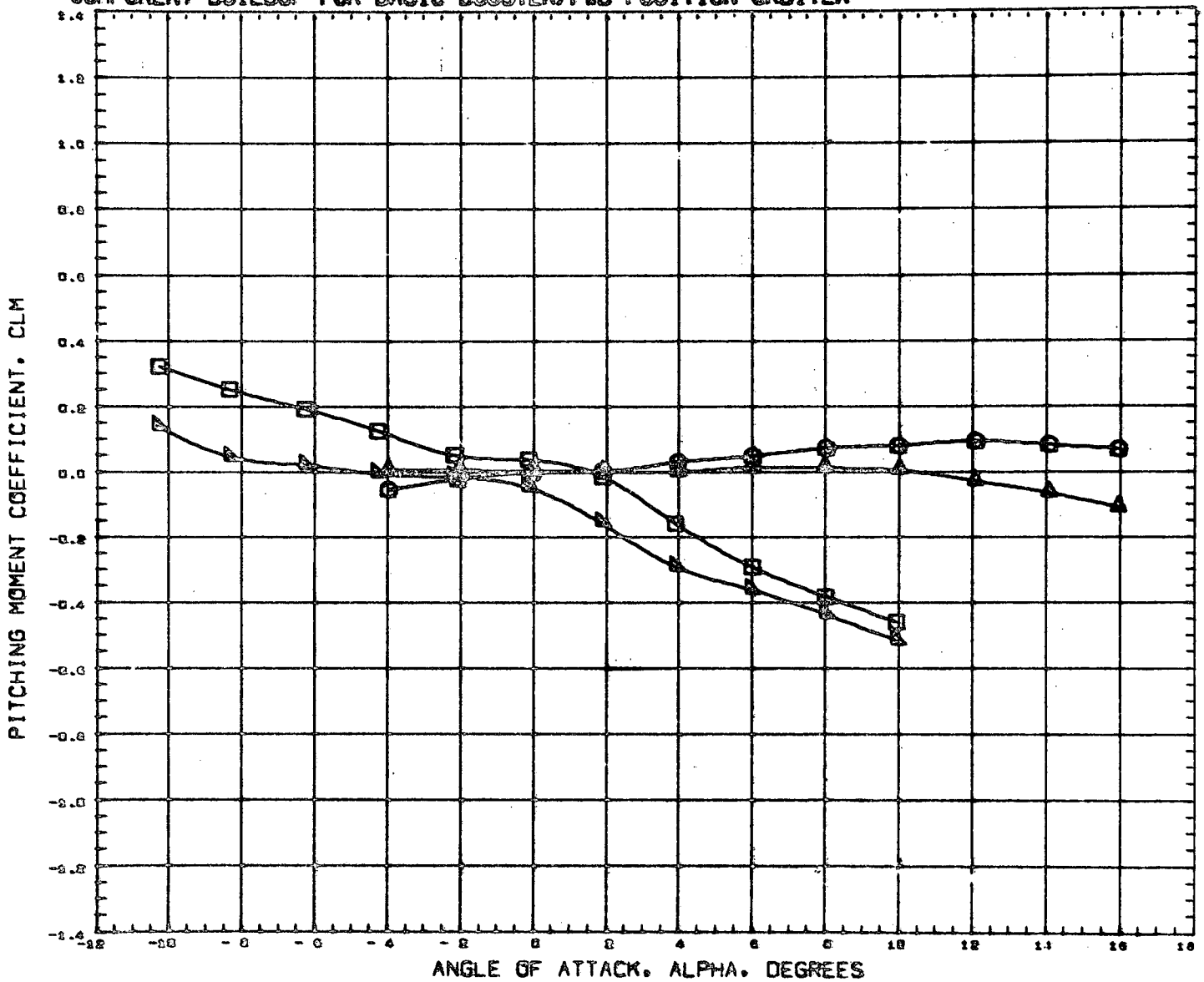


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER B34RG	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER B34RGT1L	0.000	0.000	0.000	0.000
(DS032D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003366 BOOSTER/ORD. B34RGT1002T3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003366 BOOSTER/ORD. B34RGT1002T3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

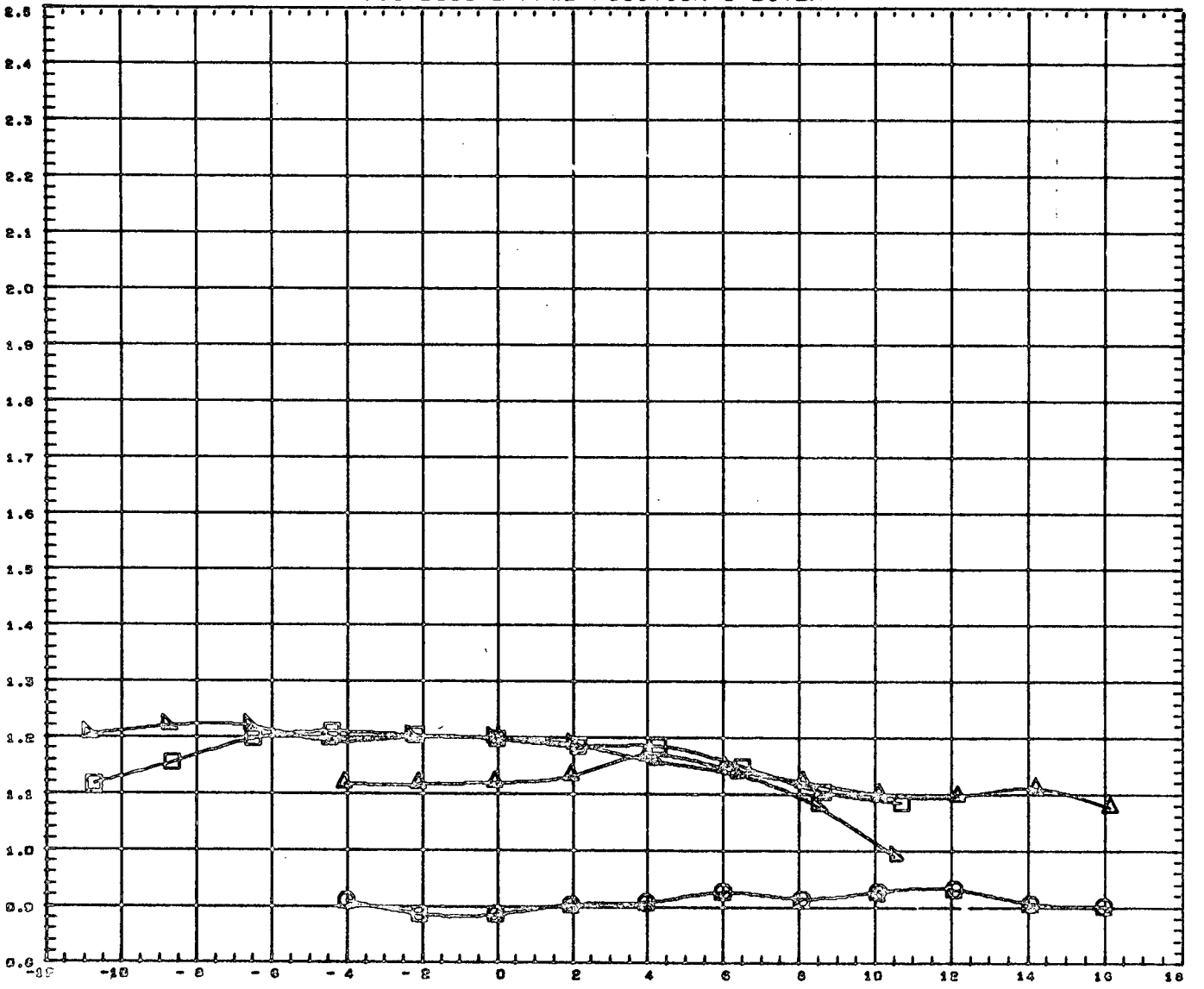


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0310)		MSFC 912 CD/C .009360 BOOSTER 034R6	0.000	45.000		
(ES0310)		MSFC 912 CD/C .009366 BOOSTER 034R6T1?	0.000	0.000	0.000	0.000
(ES0350)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(ES0350)		MSFC 912 CD/C .009366 BOOSTER/ORB. 034R6T1002T3	0.000	0.000	0.000	0.000
(ES0370)		MSFC 912 CD/C .009366 BOOSTER/ORB. 034R6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.600

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

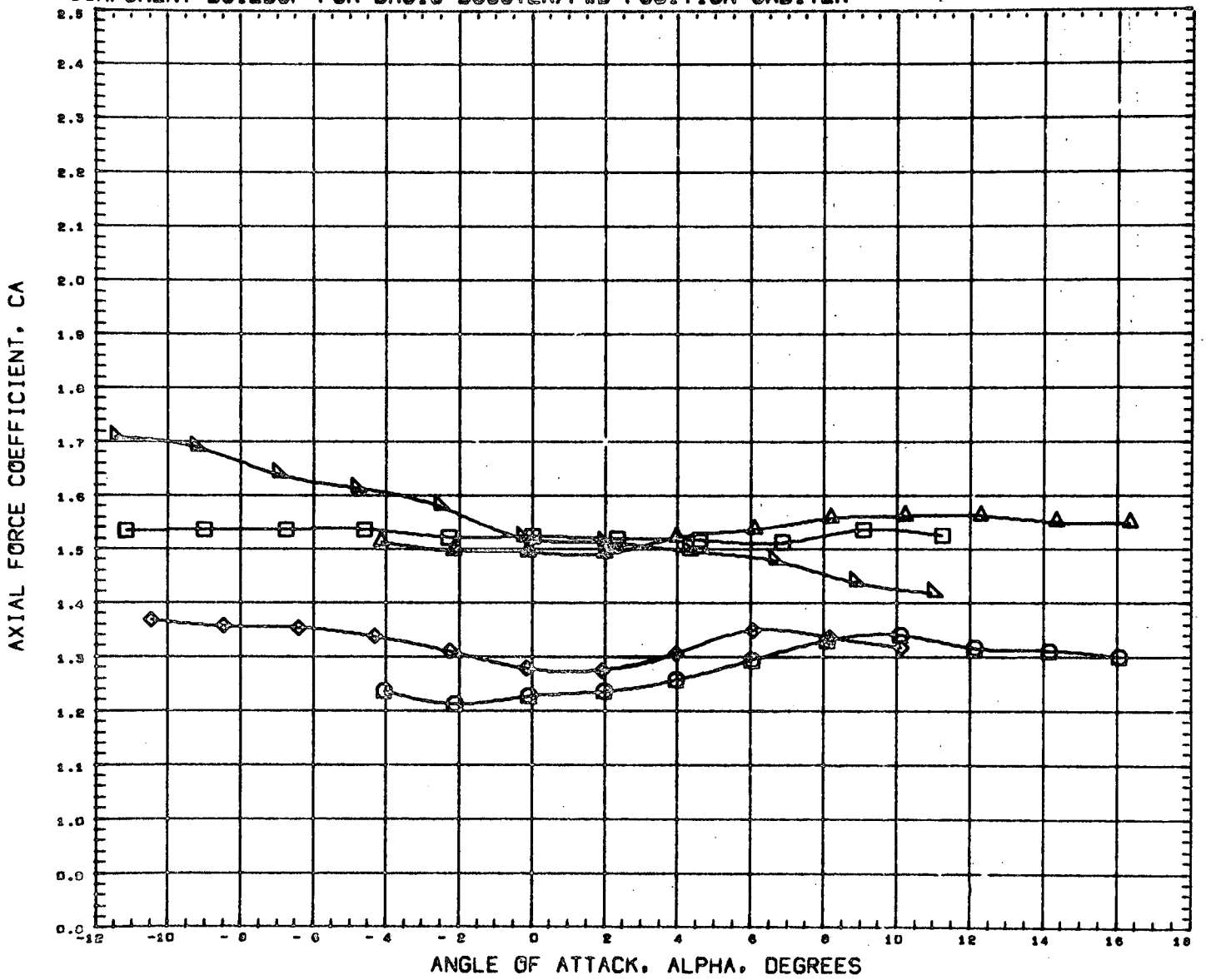


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003806 BOOSTER B34RG	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003936 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003586 BOOSTER/ORB. B34RGT10O2T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003586 BOOSTER/ORB. B34RGT10O2T3	0.000	0.000	0.000	0.000

MACH 0.605

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

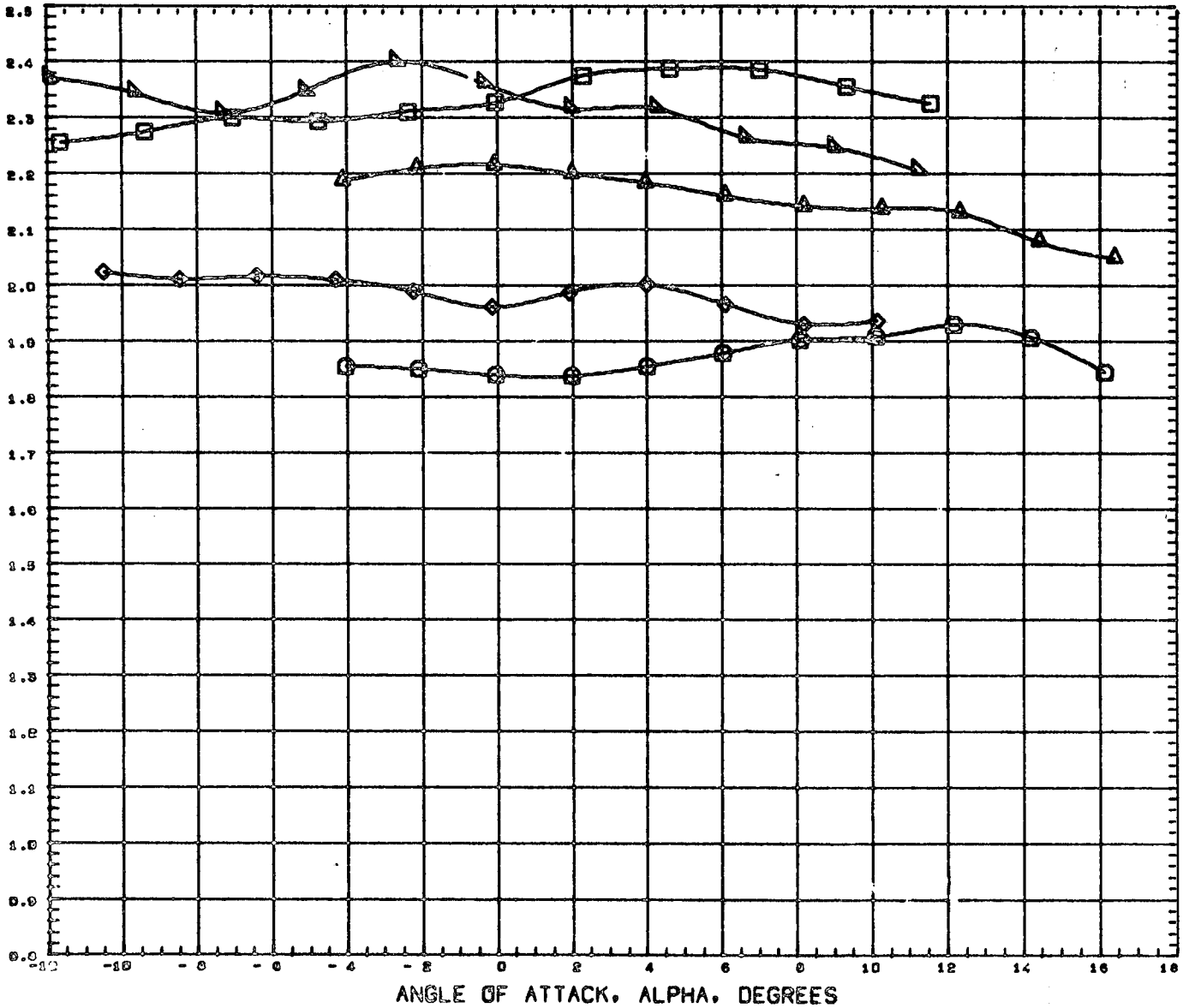


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1D	0.000	0.000	0.000	0.000
(DS032D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1DT3	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

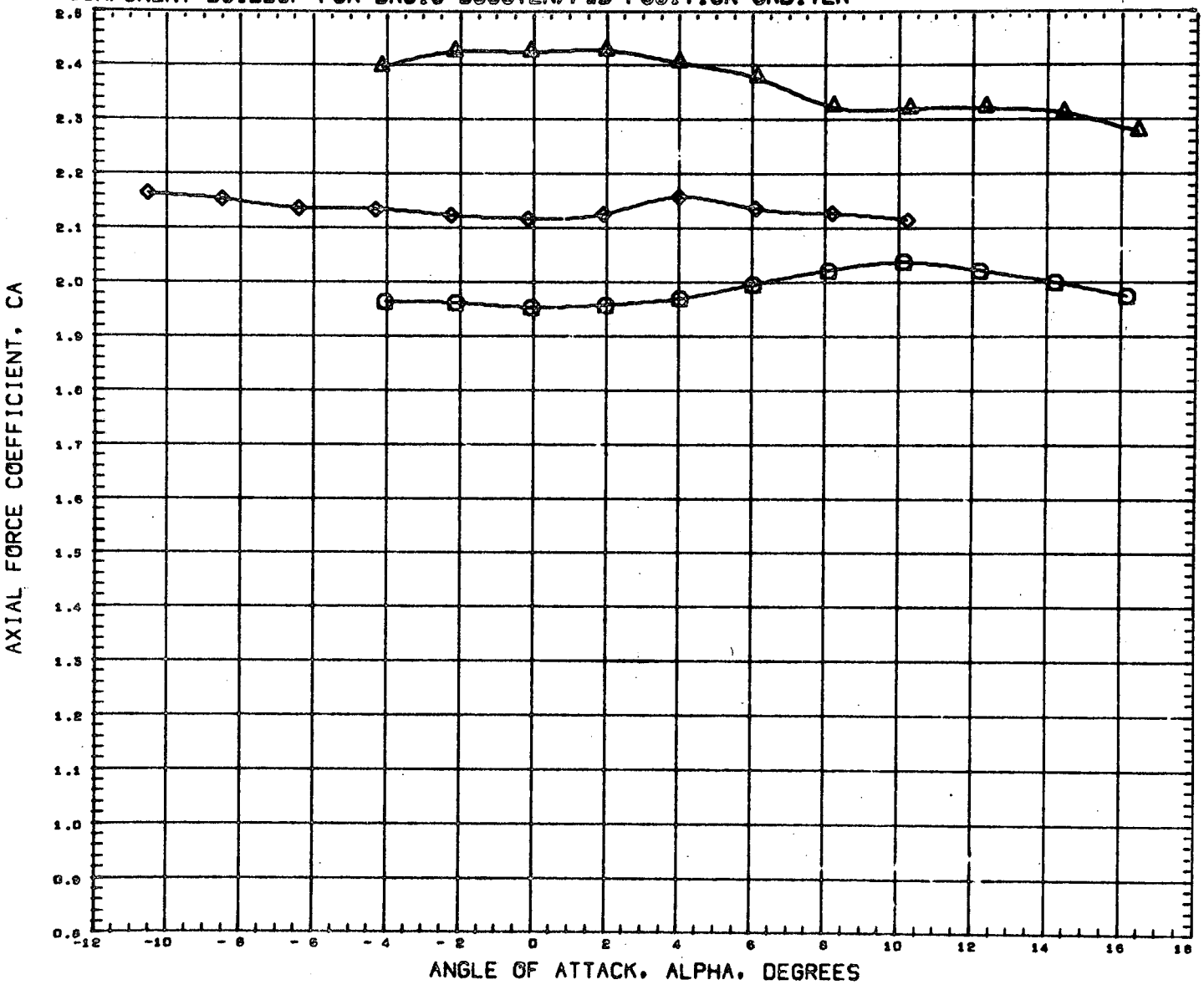


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		M8FC S12 GD/C .009800 BOOSTER	B94R0	0.000	45.000		
(ES001D)		M8FC S12 GD/C .009800 BOOSTER	B94R6T10	0.000	0.000	0.000	0.000
(DS0320)		M8FC S12 GD/C .009800 BOOSTER	B94R6T10T3	0.000	0.000	0.000	0.000
(DS0350)		M8FC S12 GD/C .009800 BOOSTER/ORB.	B94R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)		M8FC S12 GD/C .009800 BOOSTER/ORB.	B94R6T1002T3	0.000	0.000	0.000	0.000

MACH 8.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

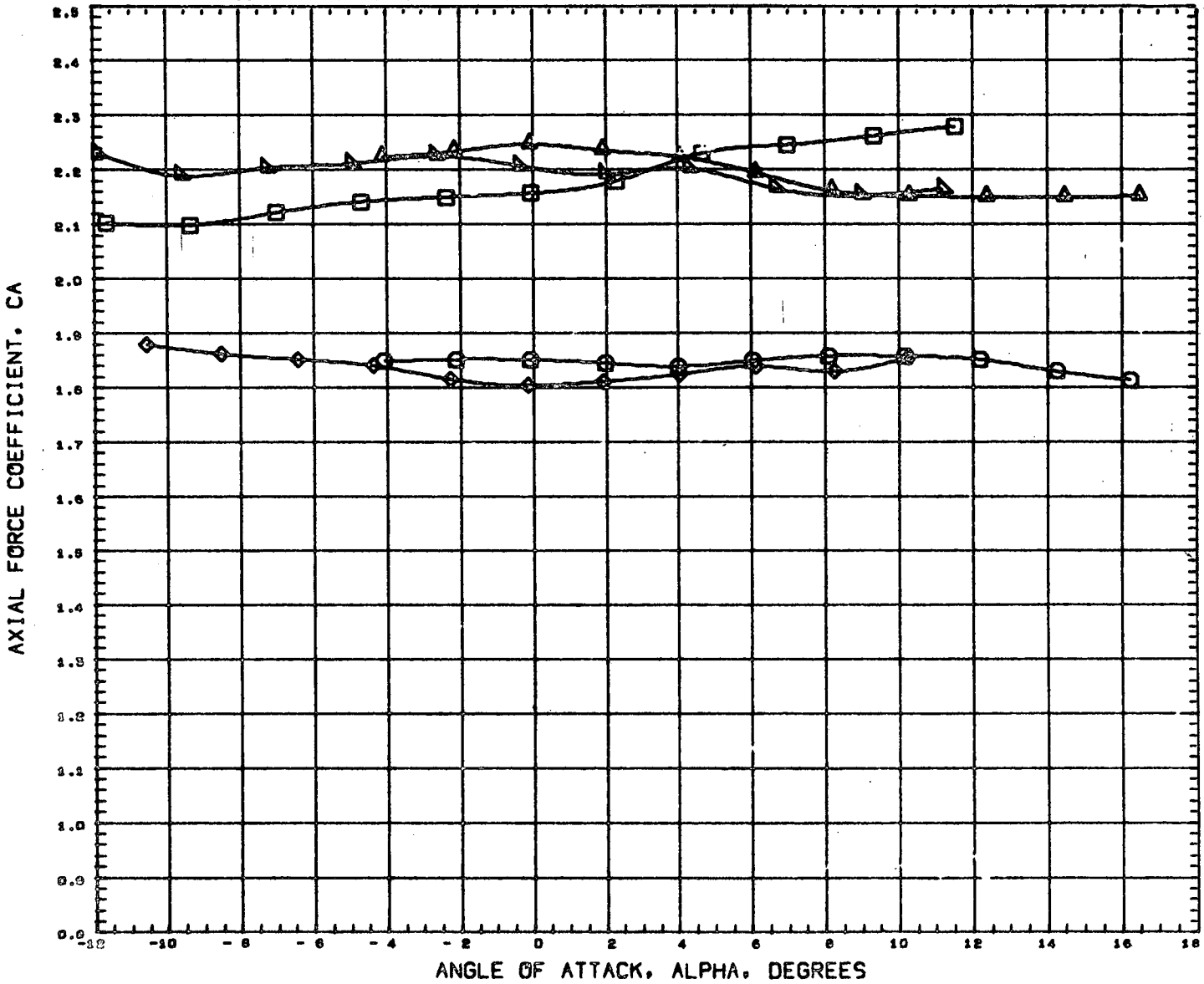


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .009566 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .009566 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .009566 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50370)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

MACH 1.2111

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

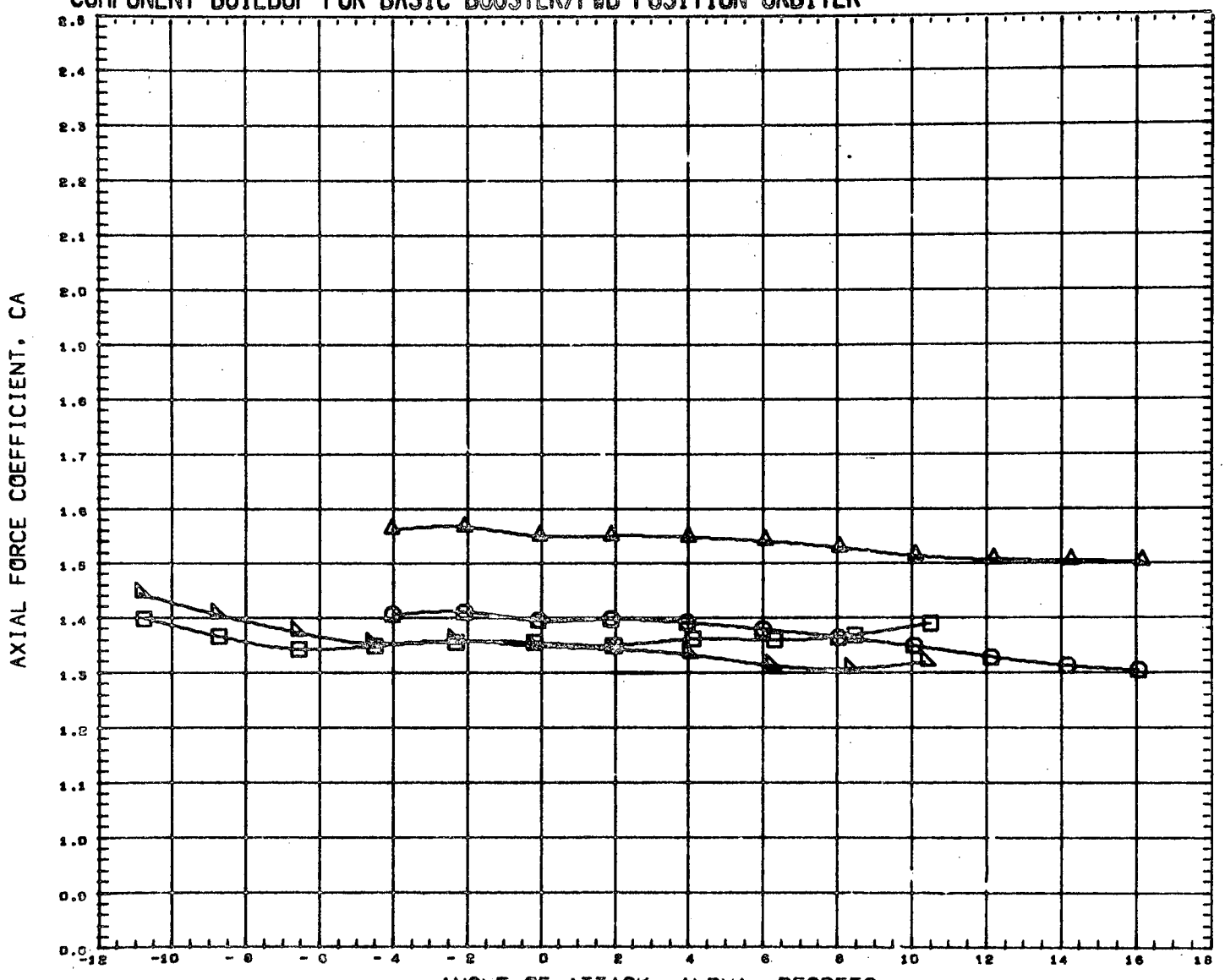


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC S12 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC S12 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0320)		MSFC S12 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0350)		MSFC S12 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC S12 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.456

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

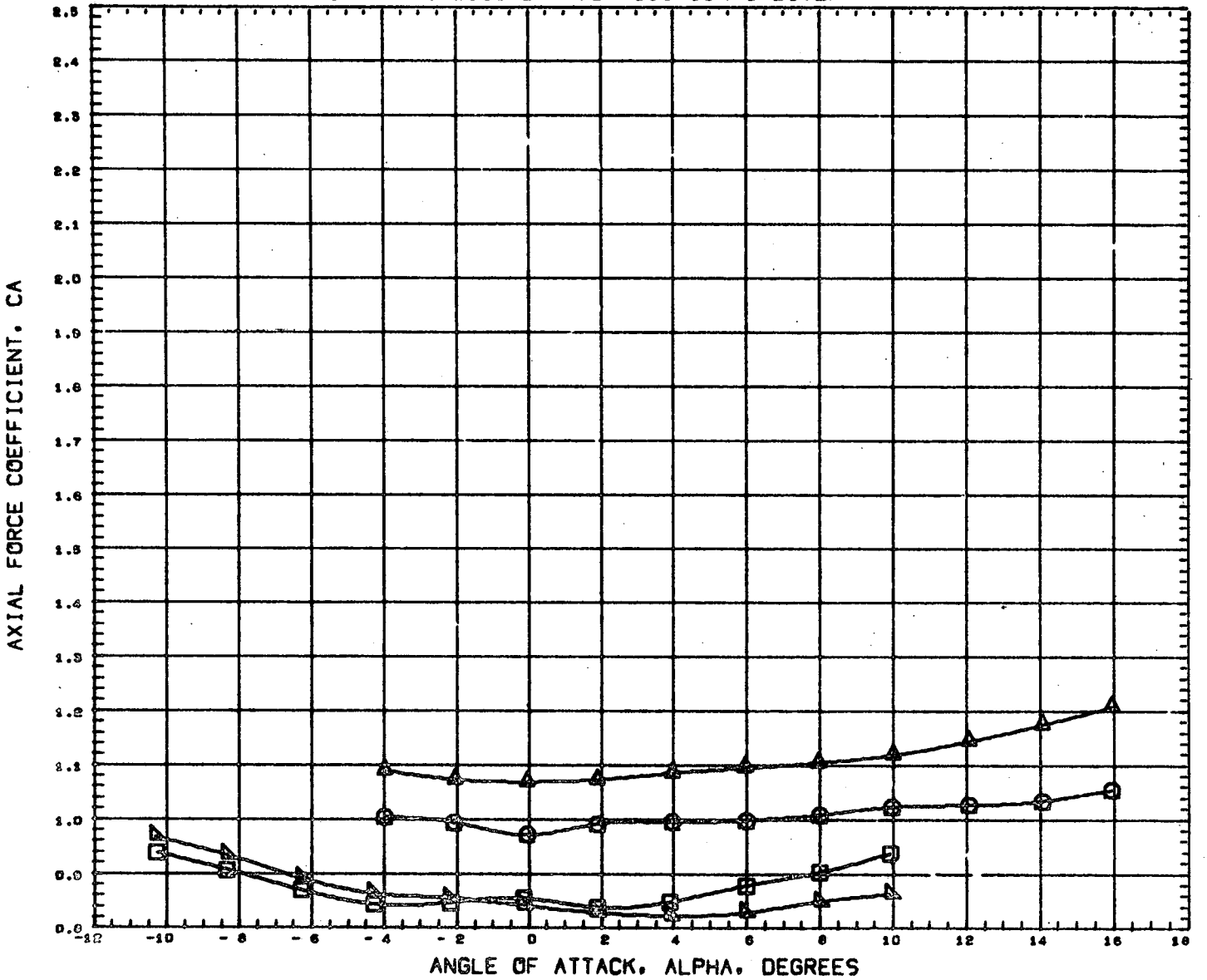


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5011D)	○	MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(E5001D)	△	MSFC 512 GD/C .003366 BOOSTER B34R6T1[illegible]	0.000	0.000	0.000	0.000
(D50320)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50350)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50370)	▽	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 2.760

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

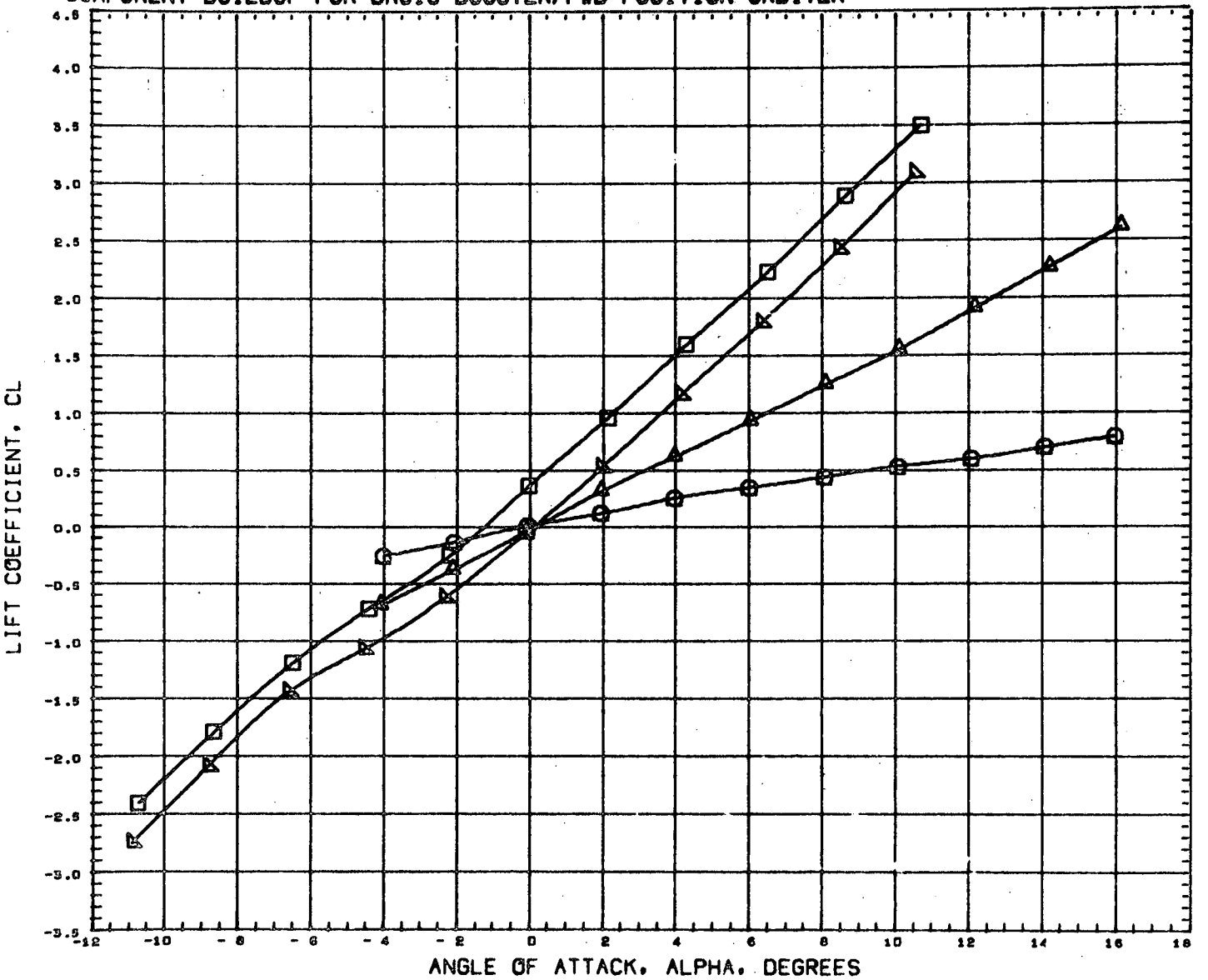


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003363 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003906 BOOSTER	B34R6T10	0.000	0.000	0.000	-0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

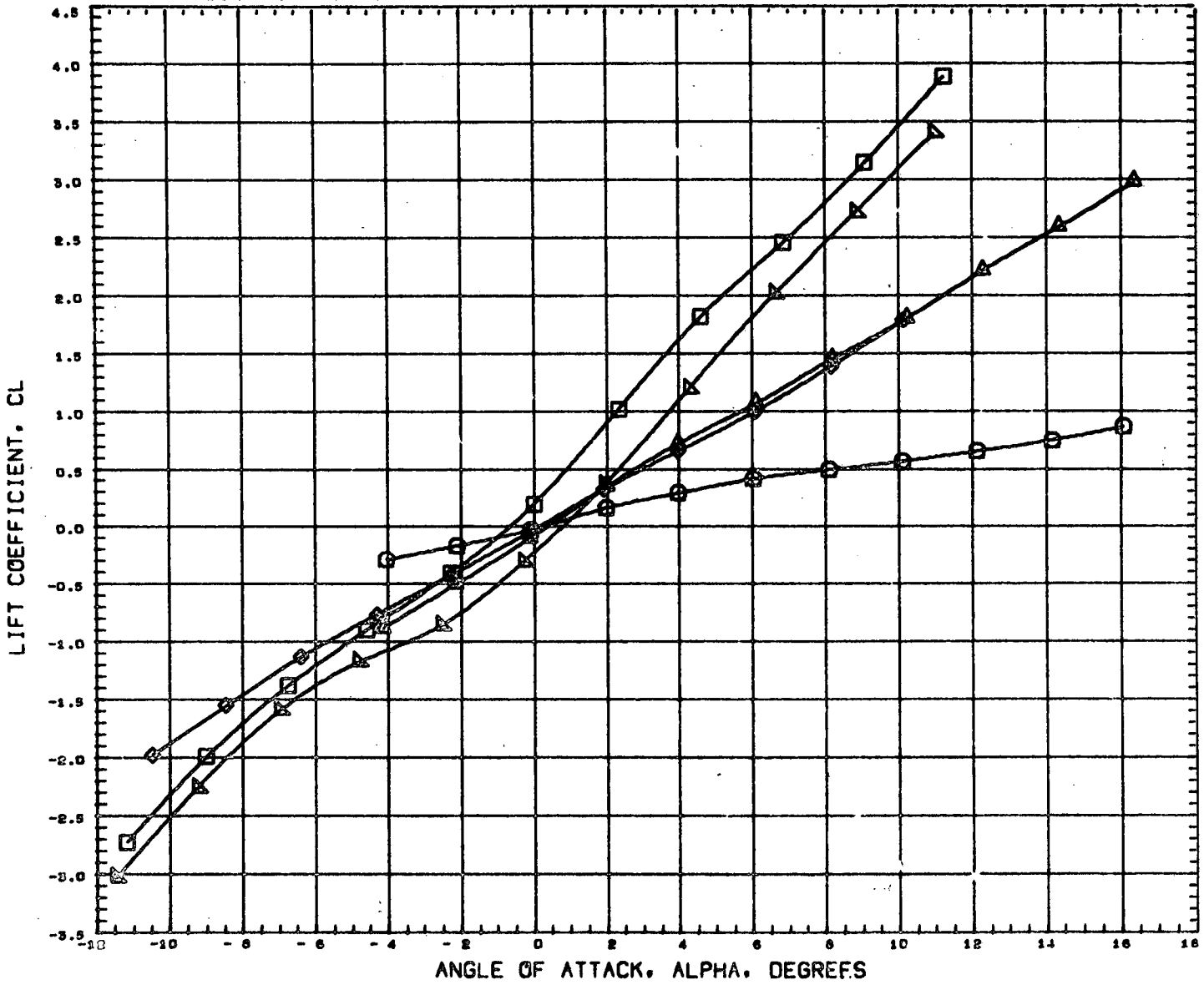


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES011D)	○	MSFC 512 GD/C .003566 BOOSTER B34R6	0.000	45.000		
(ES001D)	△	MSFC 512 GD/C .003566 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(DS032D)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS033D)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS037D)	▽	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.613

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

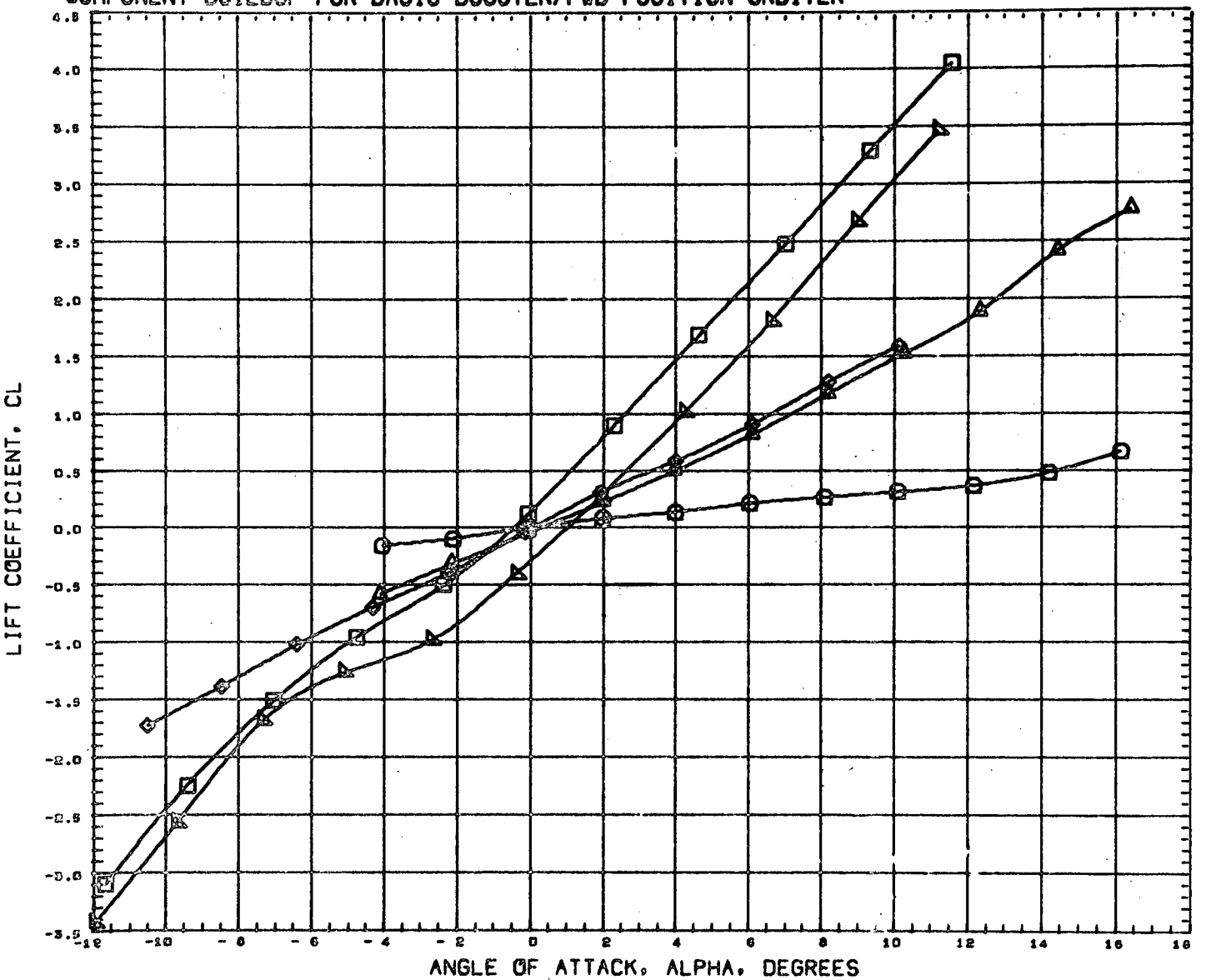


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMCO	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T17	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T100ZT3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T100ZT3	0.000	0.000	0.000	0.000

MACH 0.600

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

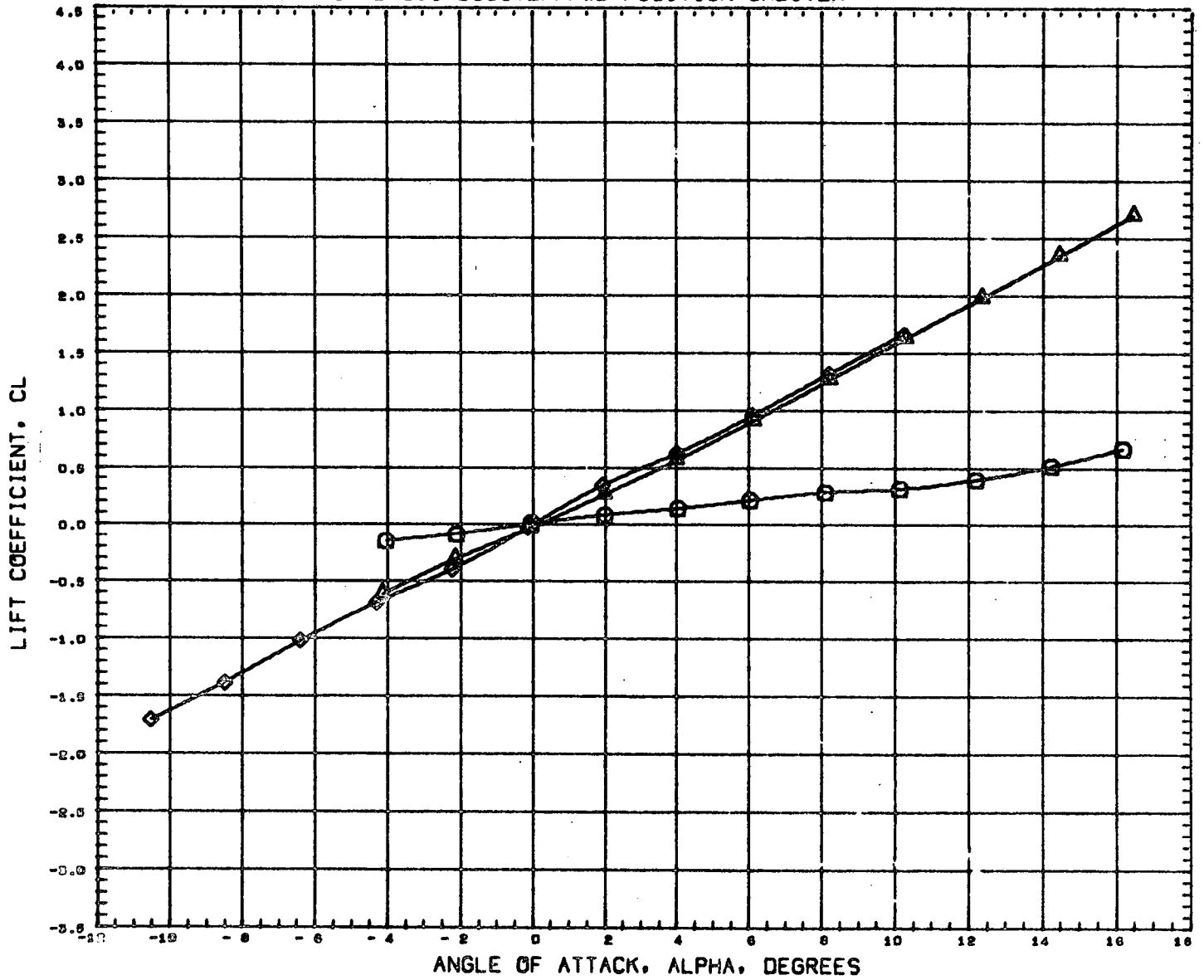


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E9011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E9001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1L	0.000	0.000	0.000	0.000
(D90320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D90350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(D90370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

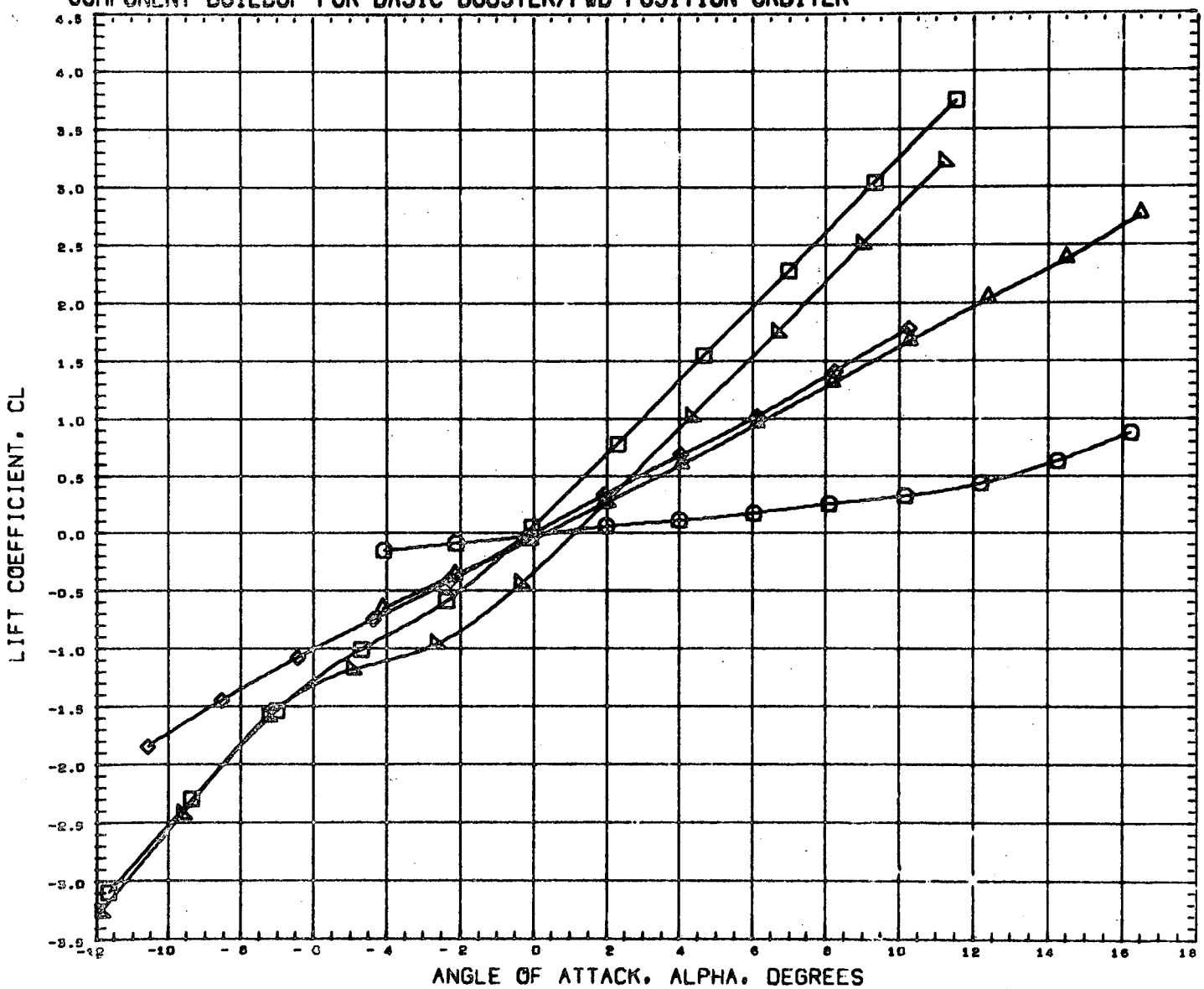


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003SGO BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003SGO BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(DS032D)		MSFC 512 GD/C .003SGO BOOSTER	B34R6T10TS	0.000	0.000	0.000	0.000
(DS035D)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(DS037D)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

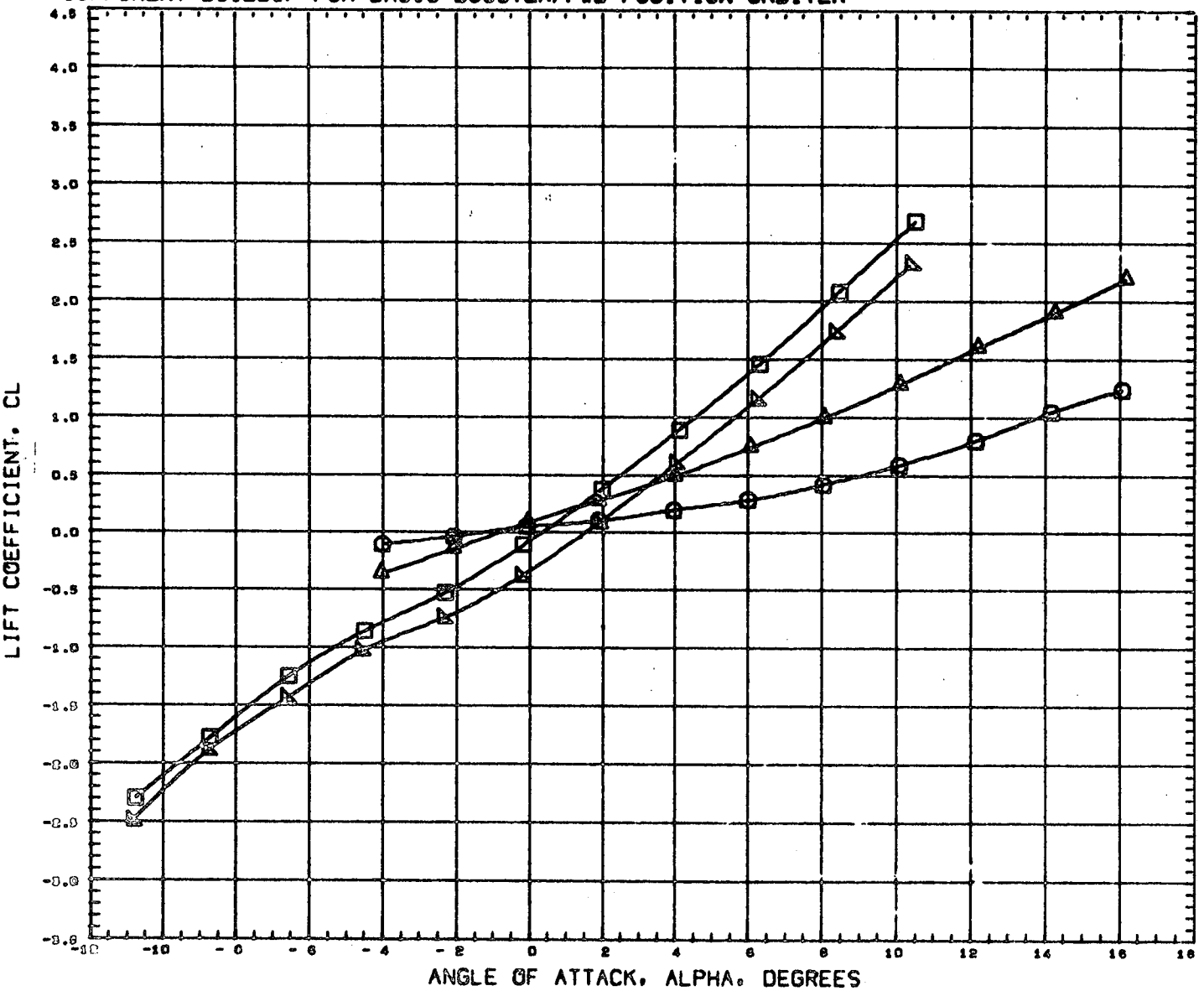


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)	□	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T1[illegible]	0.000	0.000	0.000	0.000
(D50320)	◇	MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)	⬠	MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(D50370)	⬡	MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

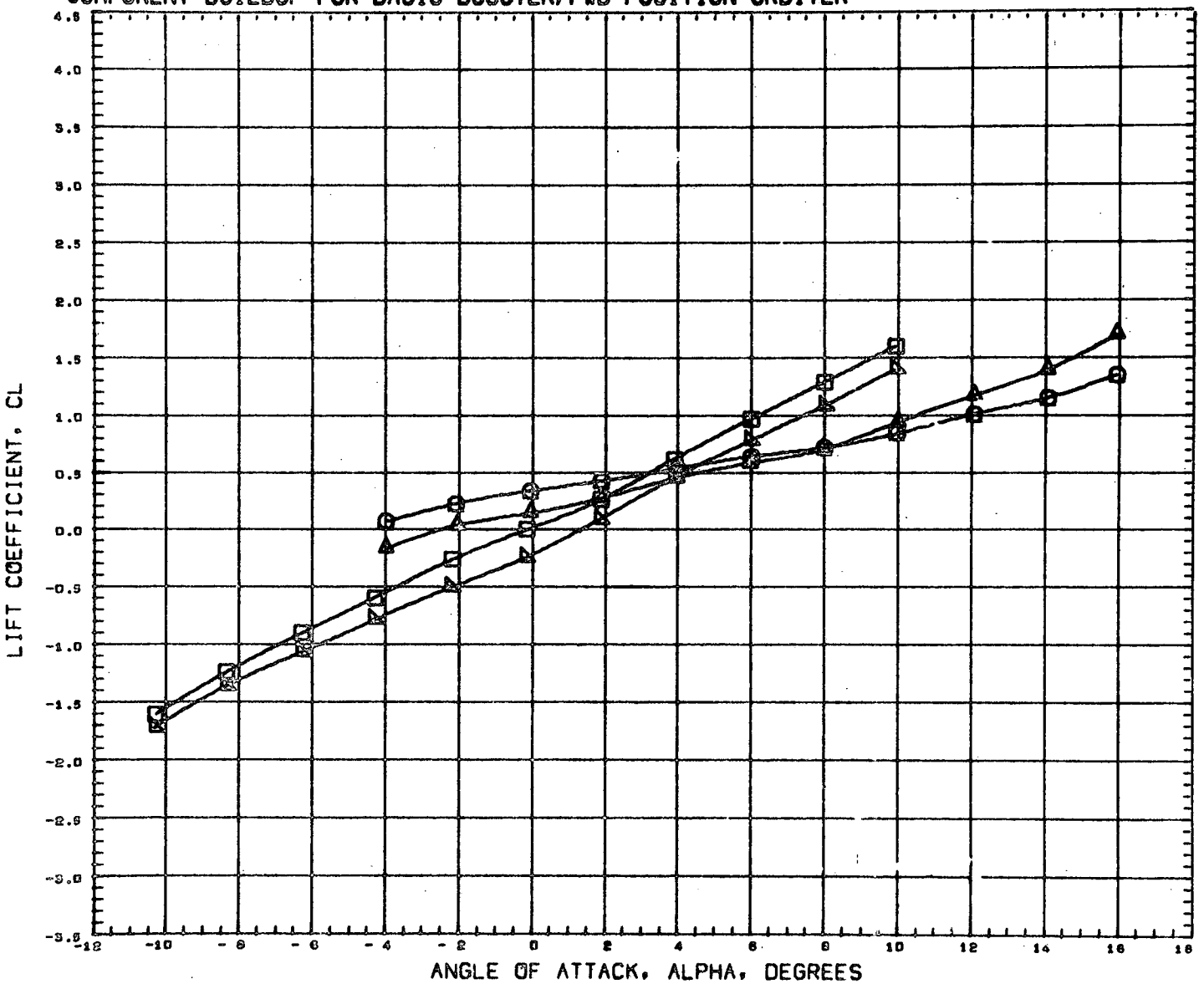


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 CD/C .003936 BOOSTER B34RG	0.000	45.000		
(E5001D)		MSFC 512 CD/C .003936 BOOSTER B34RGT1C	0.000	0.000	0.000	0.000
(D5032D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D5036D)		MSFC 512 CD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000
(D5037D)		MSFC 512 CD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000

MACH 8.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2910	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

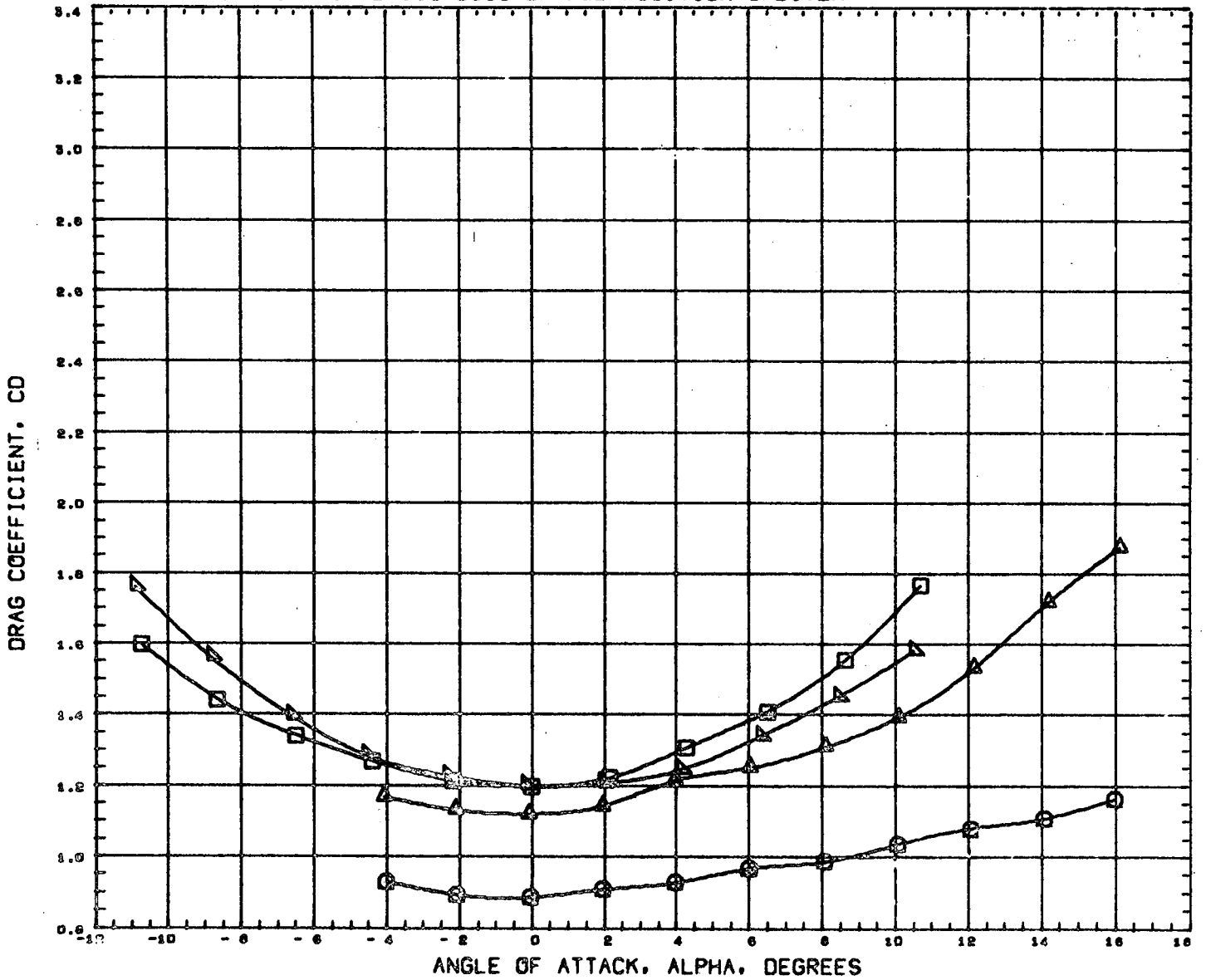


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(DS0320)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(DS0350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T5	0.000	0.000	0.000	0.000

MACH 4.910

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

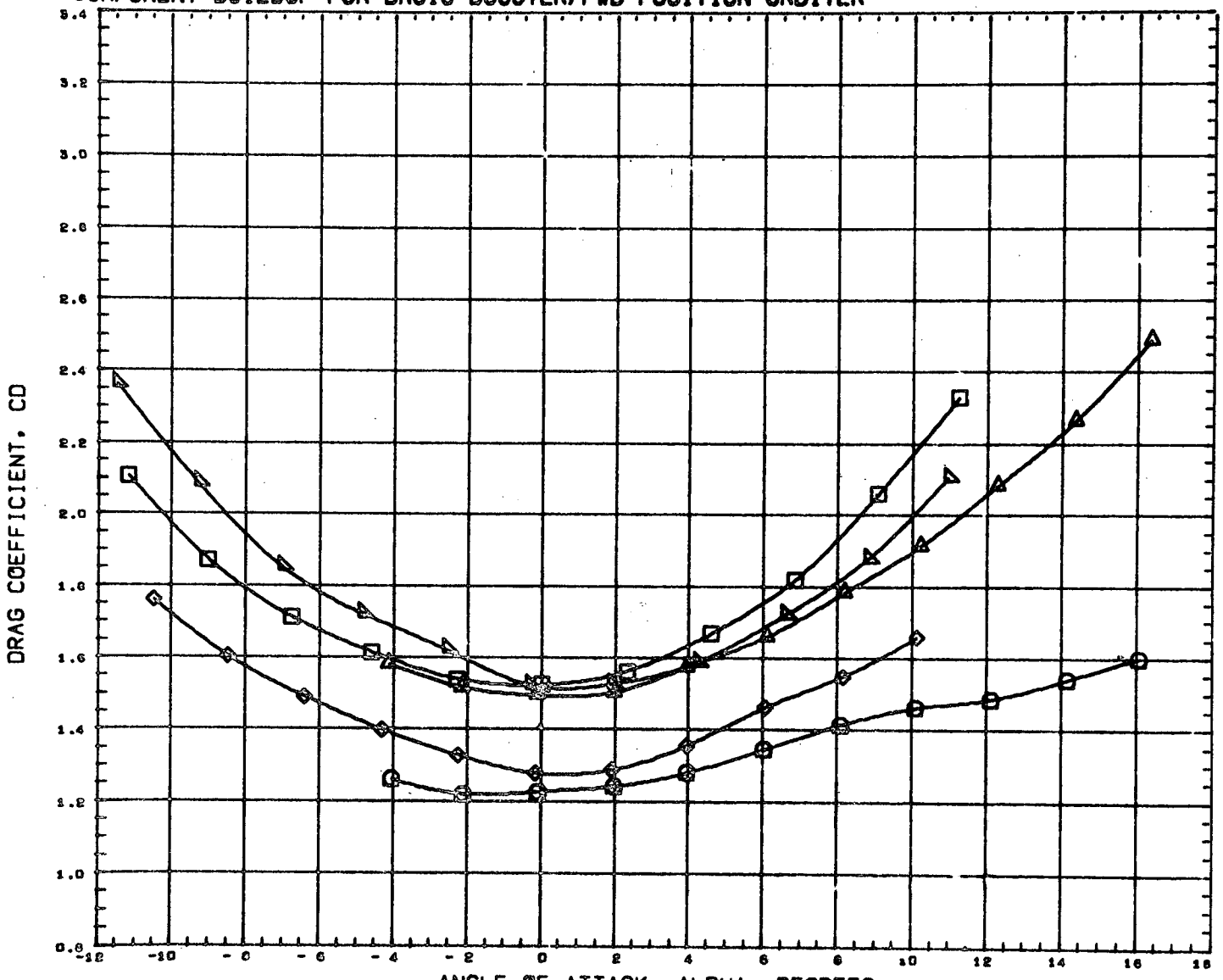


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 91S GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1D	0.000	0.000	0.000	0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.605

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

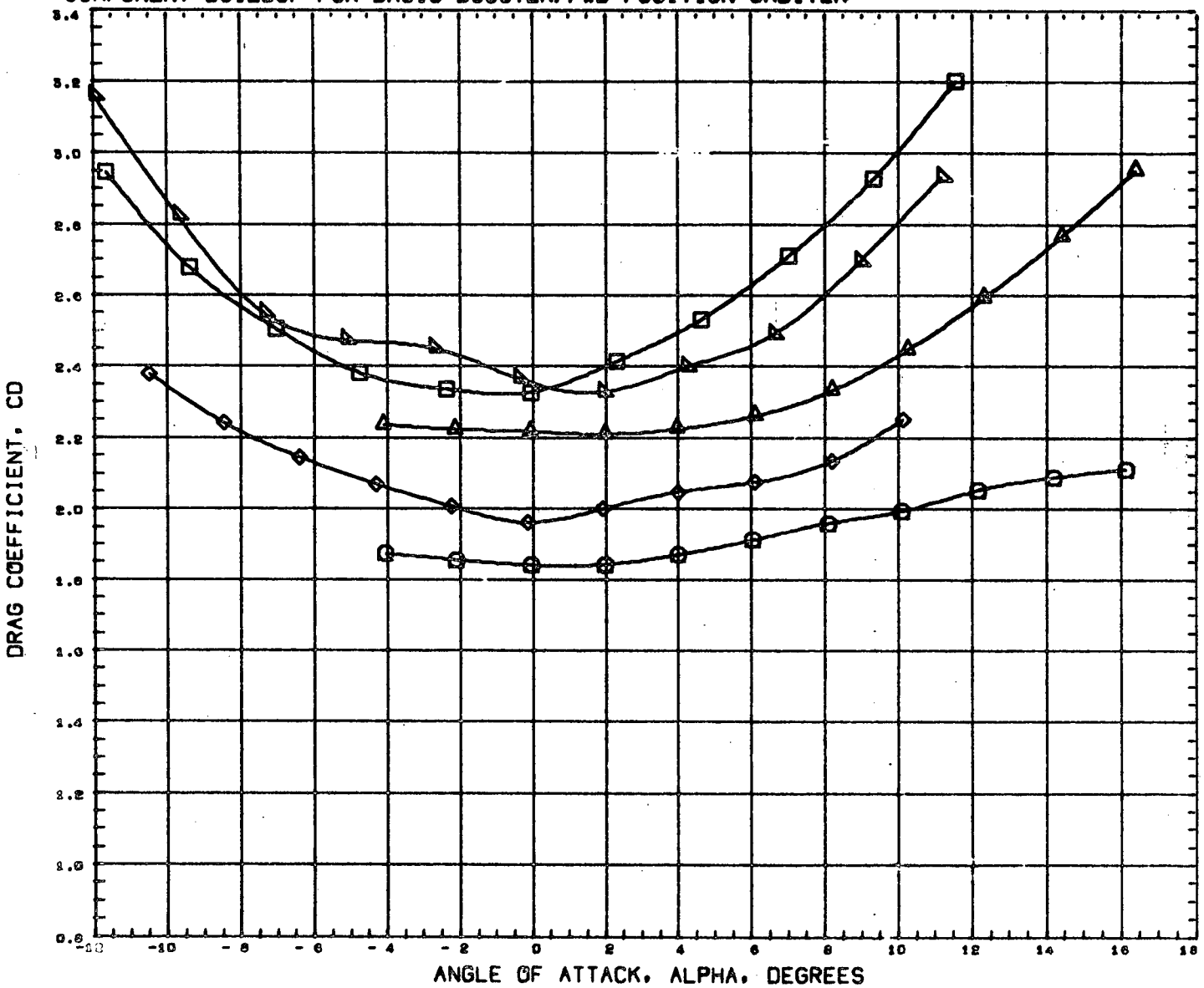


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		M8FC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		M8FC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS032D)		M8FC 512 GD/C .003366 BOOSTER	B34R6T10TS	0.000	0.000	0.000	0.000
(DS035D)		M8FC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(DS037D)		M8FC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

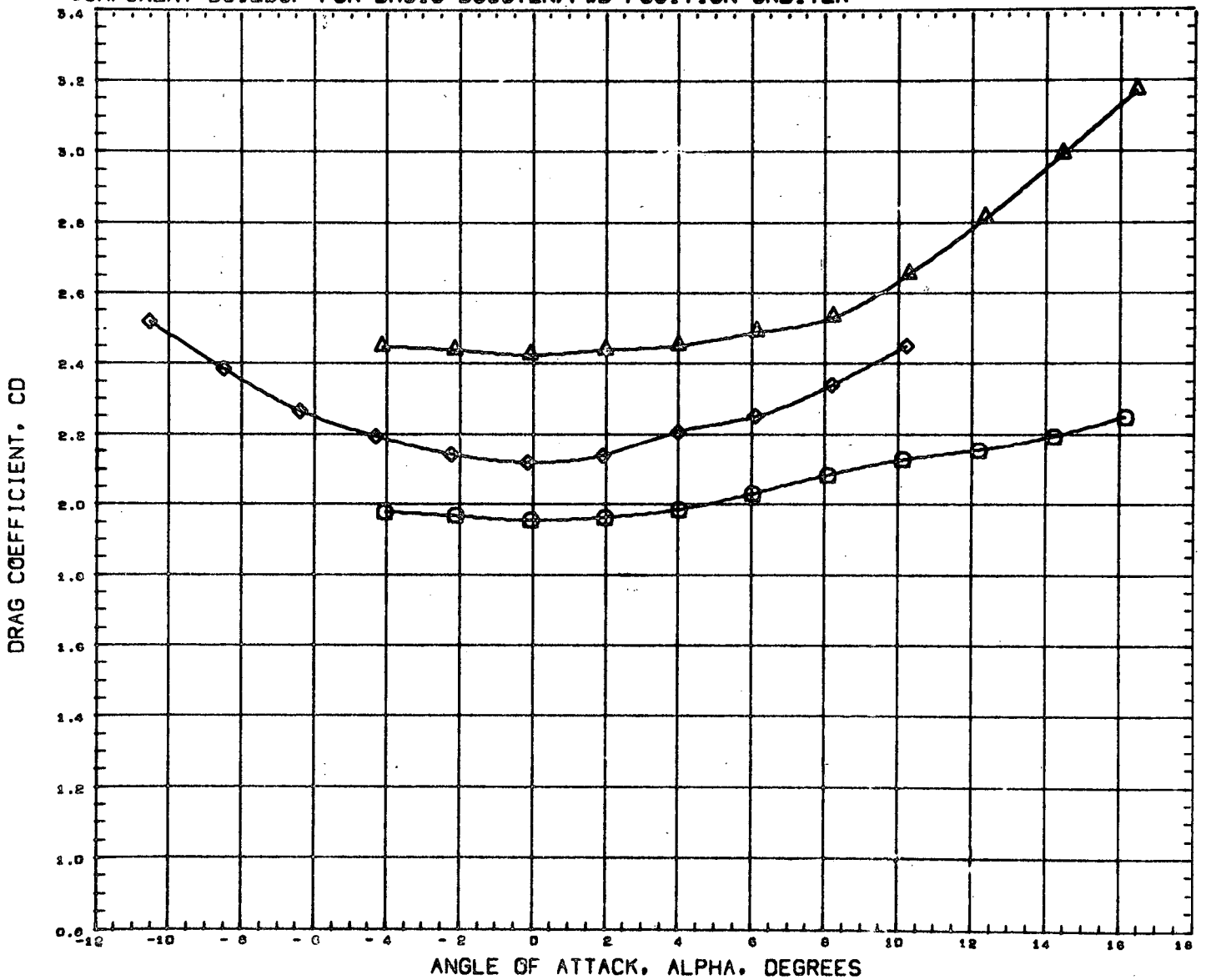


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34RGT1C	0.000	0.000	0.000	0.000
(DS032D)		MSFC 512 GD/C .003366 BOOSTER	B34RGT10T3	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34RGT10O2T3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.130

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

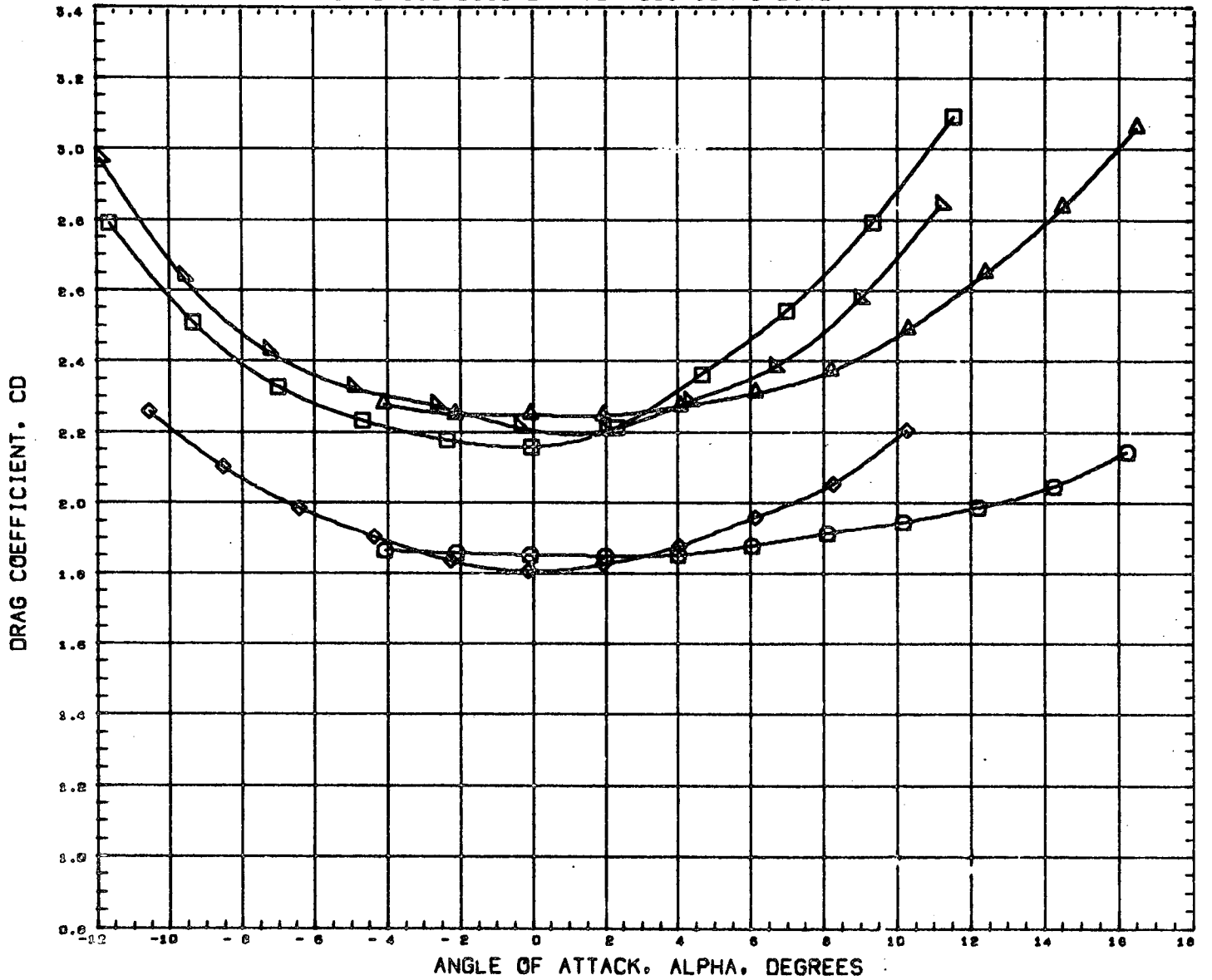


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E50010)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50370)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

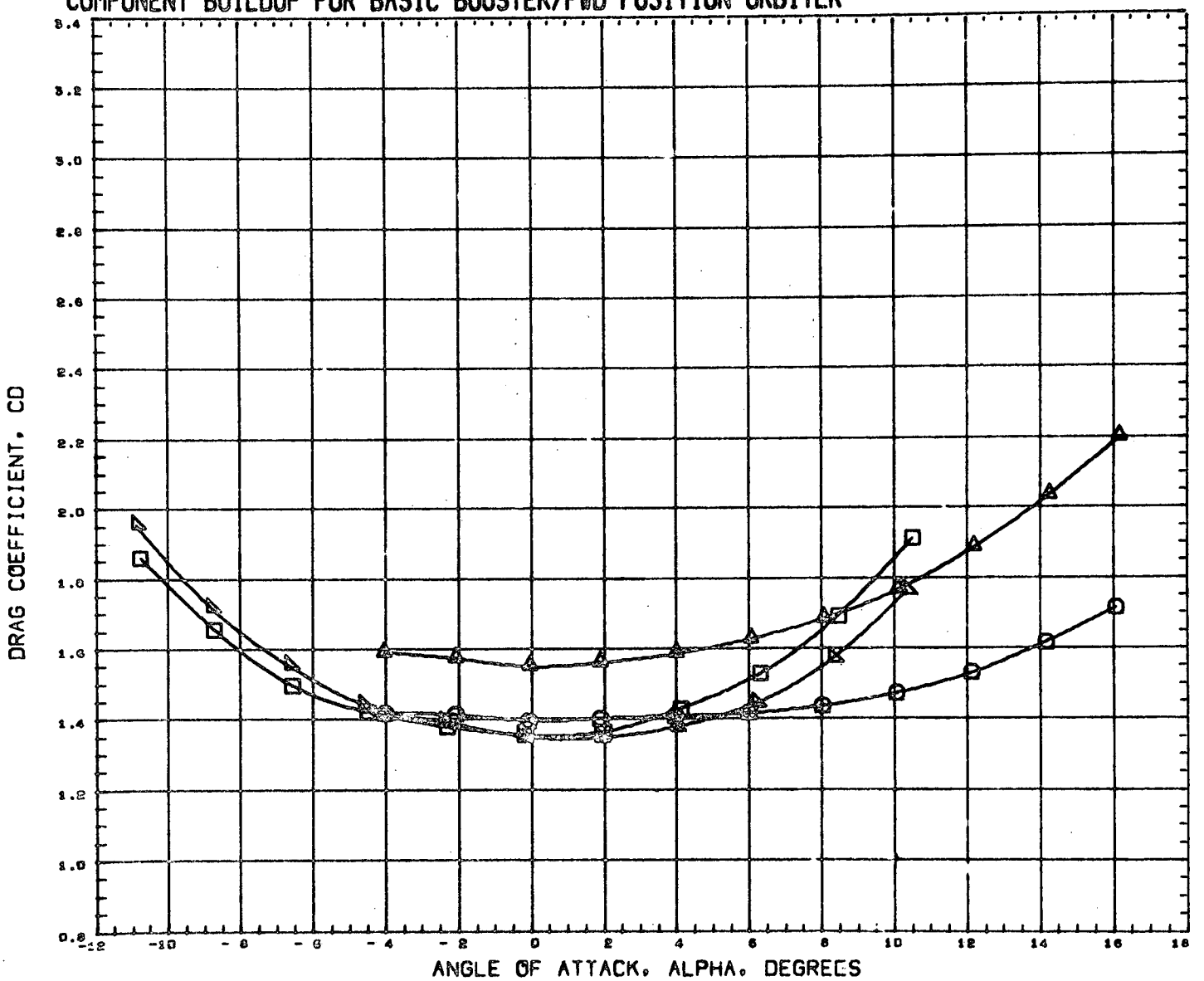


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003333 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1	0.000	0.000	0.000	0.000
(DS0320)		MSFC 512 GD/C .003306 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0350)		MSFC 512 GD/C .003306 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

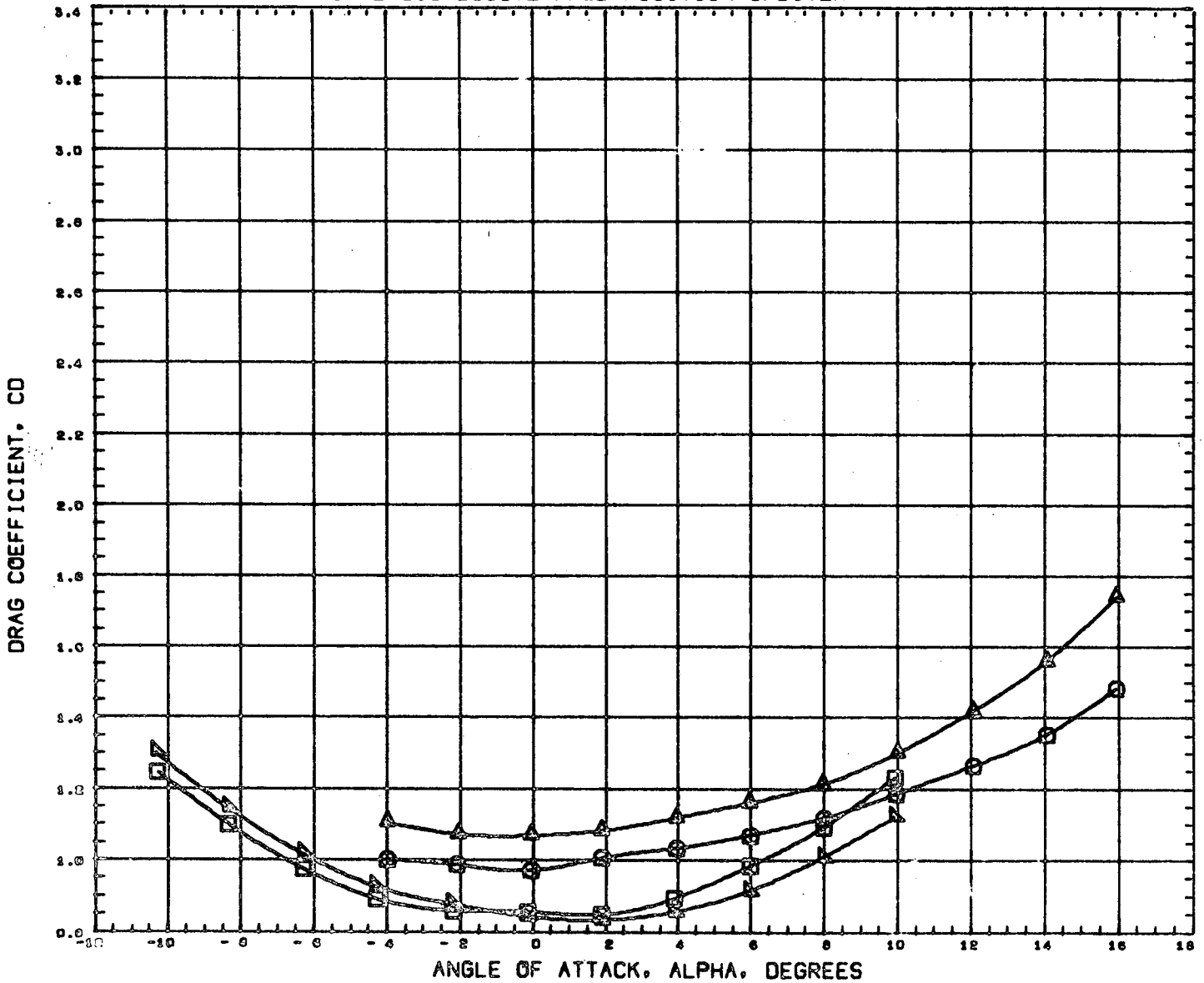


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5011D)	○	MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(E5001D)	△	MSFC 512 GD/C .003366 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(D50320)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50390)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50970)	◁	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 2.760

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

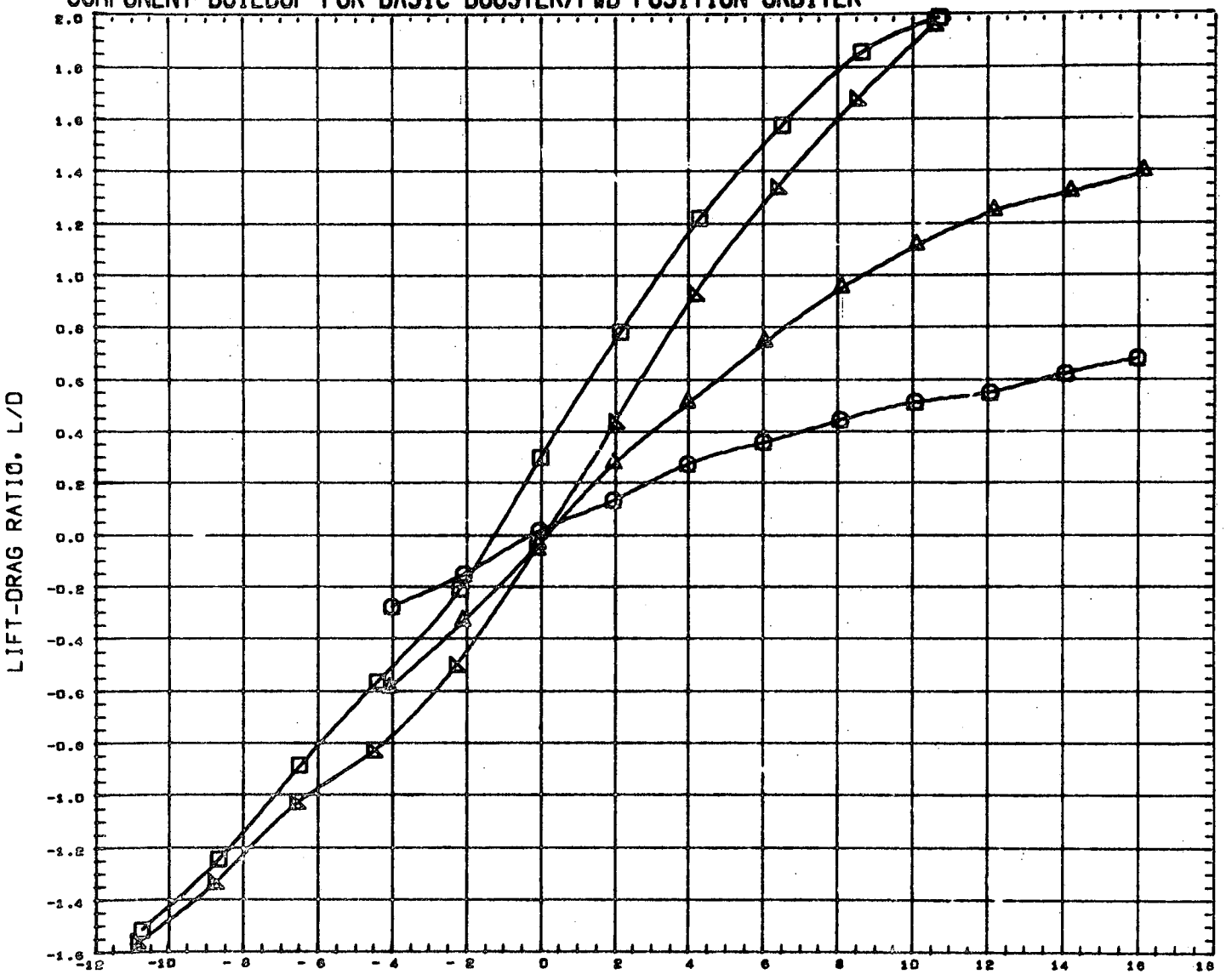


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003966 BOOSTER B54R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003966 BOOSTER B54R6T10	0.000	0.000	0.000	0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003966 BOOSTER/ORB. B54R6T10O2T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003966 BOOSTER/ORB. B54R6T10O2T3	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

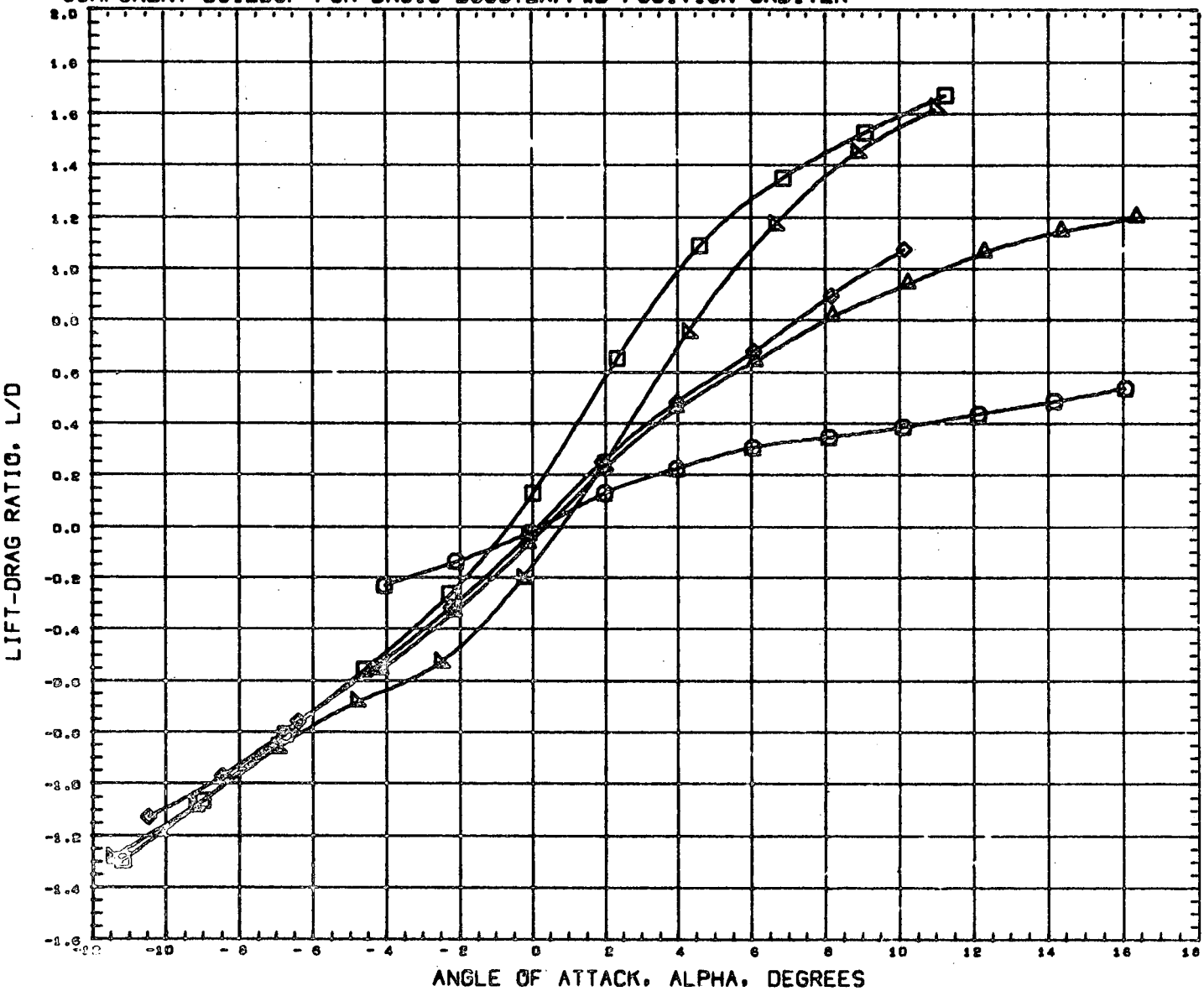


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)	○	MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)	△	MSFC 512 GD/C .003366 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(D50320)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50350)	□	MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1D02T3	0.000	0.000	0.000	0.000
(D50370)	▽	MSFC 512 GD/C .003366 BOOSTER/ORB.	B34RGT1D02T3	0.000	0.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

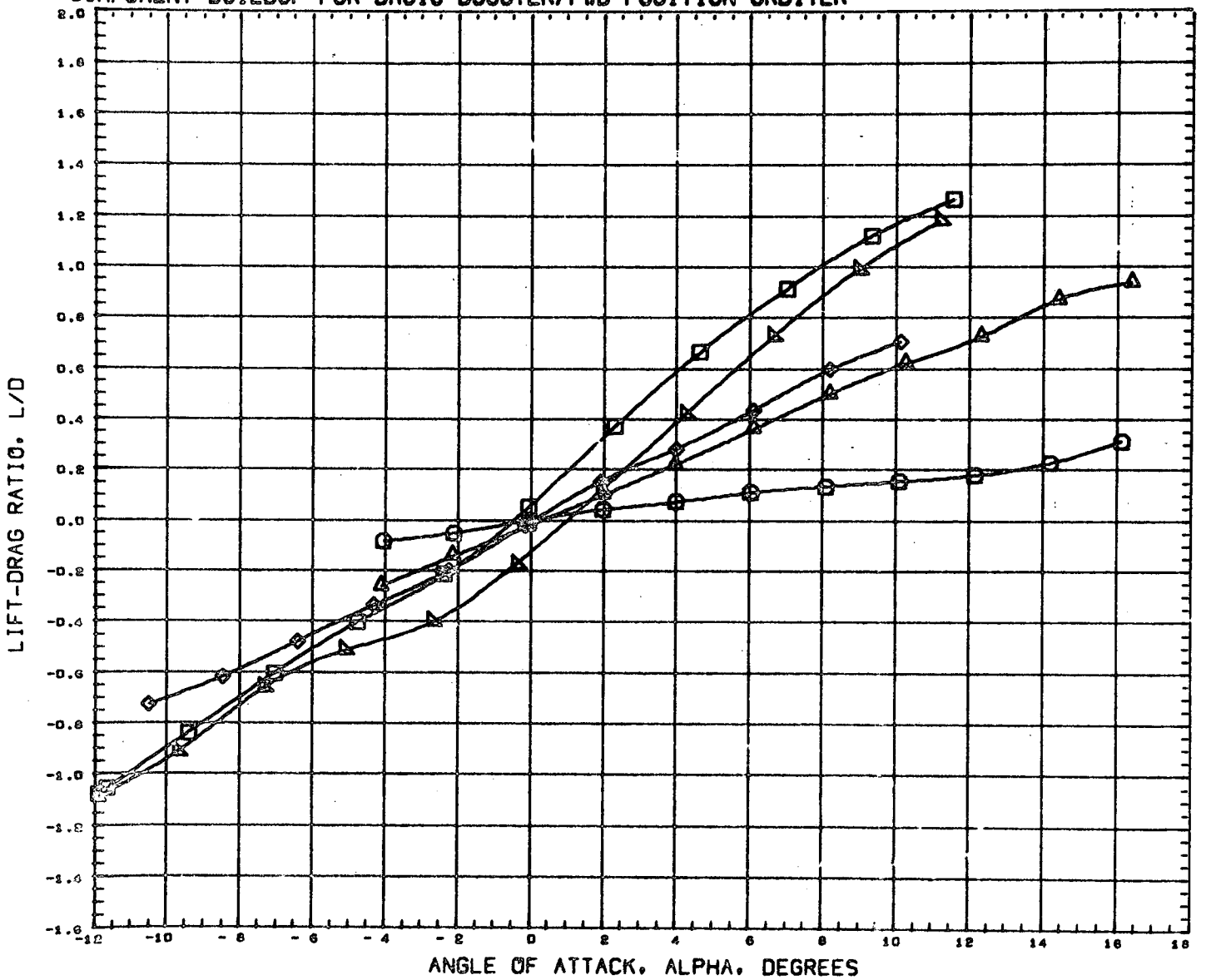


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		M8FC 512 GD/C .003866 BOOSTER	B34R6	0.000	45.000		
(ES001D)		M8FC 512 GD/C .003866 BOOSTER	B34RGT1C	0.000	0.000	0.000	0.000
(DS0320)		M8FC 512 GD/C .003866 BOOSTER	B34RGT10T3	0.000	0.000	0.000	0.000
(DS0350)		M8FC 512 GD/C .003866 BOOSTER/ORB.	B34RGT1002T3	0.000	0.000	0.000	0.000
(DS0370)		M8FC 512 GD/C .003866 BOOSTER/ORB.	B34RGT1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMR.	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

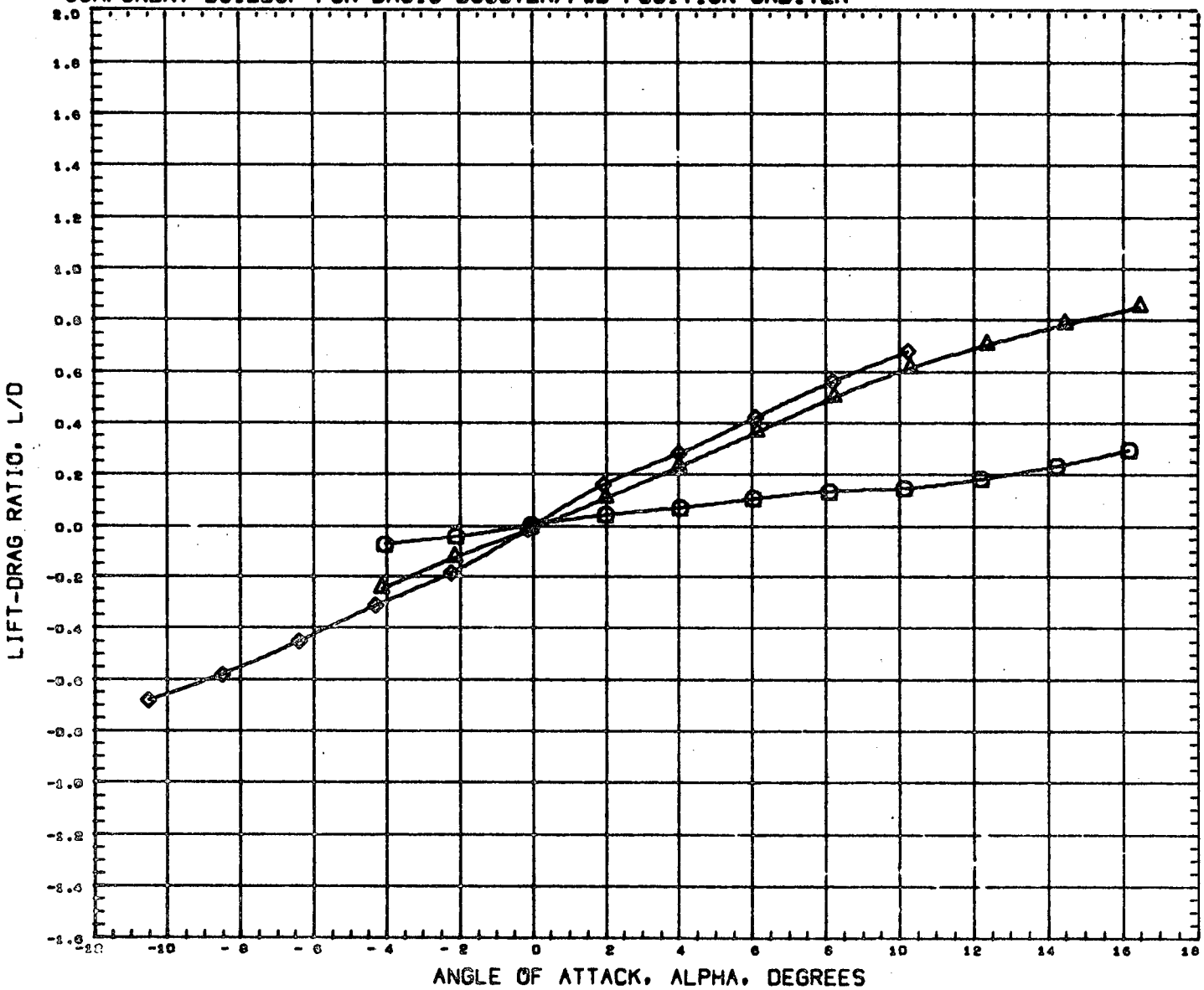


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(D90320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D90350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T100ZT3	0.000	0.000	0.000	0.000
(D90370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T100ZT3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

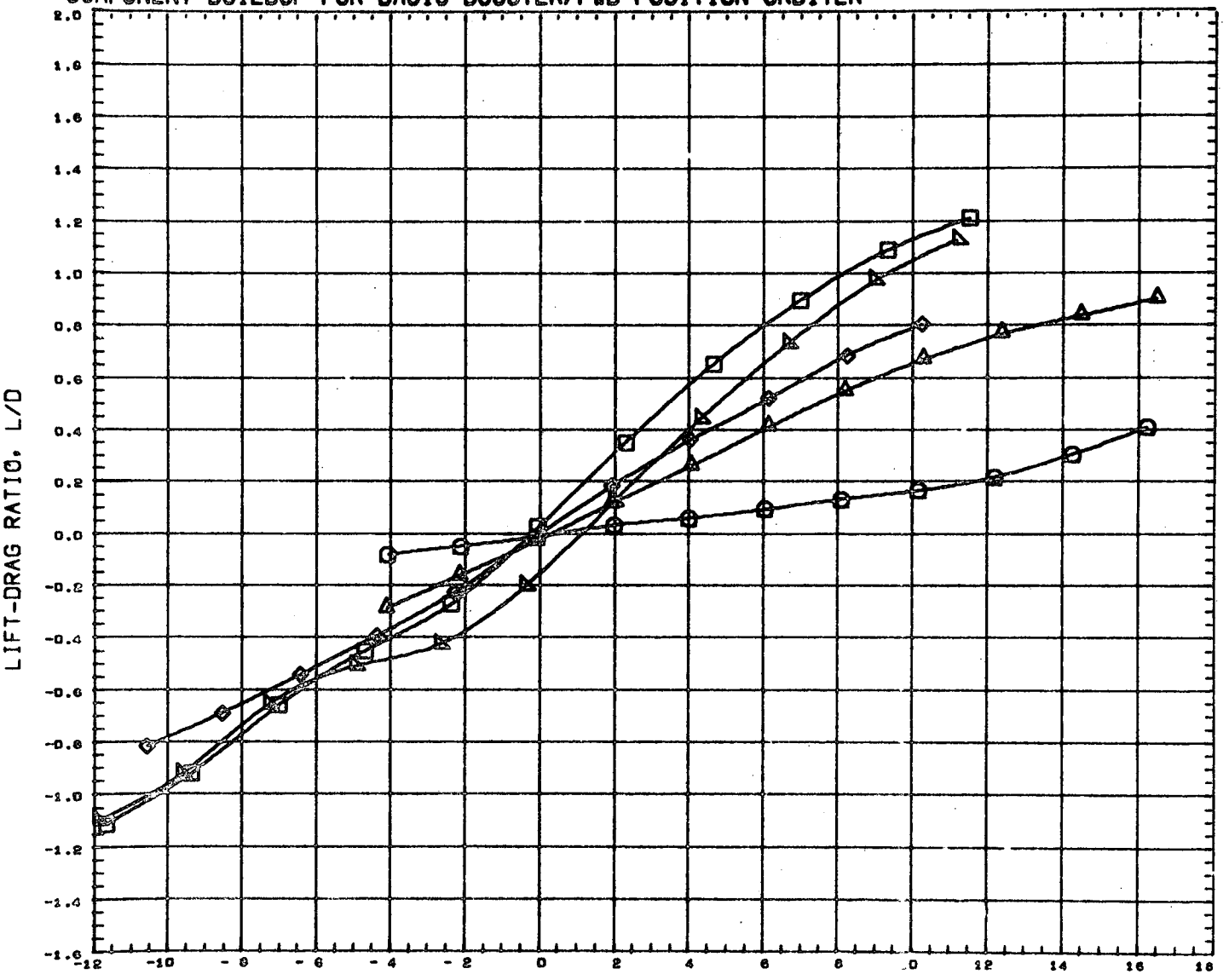


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003336 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003336 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003336 BOOSTER	B34R6T10T5	0.000	0.000	0.000	0.000
(D50350)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50370)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

MACH 1.2[illegible]1

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

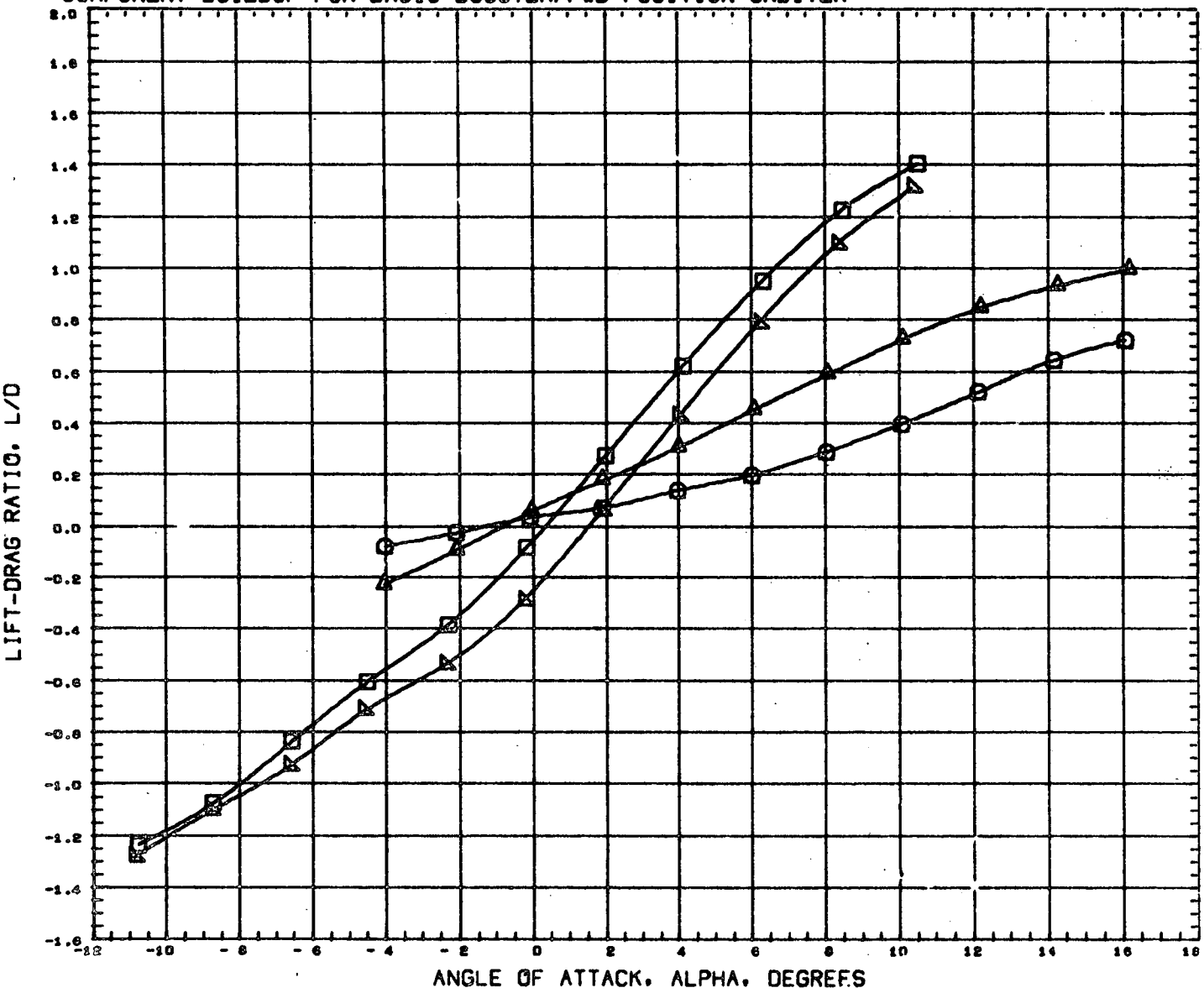


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003566 BOOSTER	B34RG	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003566 BOOSTER	B34RGT10	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003566 BOOSTER	B34RGT10T3	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003566 BOOSTER/ORB.	B34RGT1002T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003566 BOOSTER/ORB.	B34RGT1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

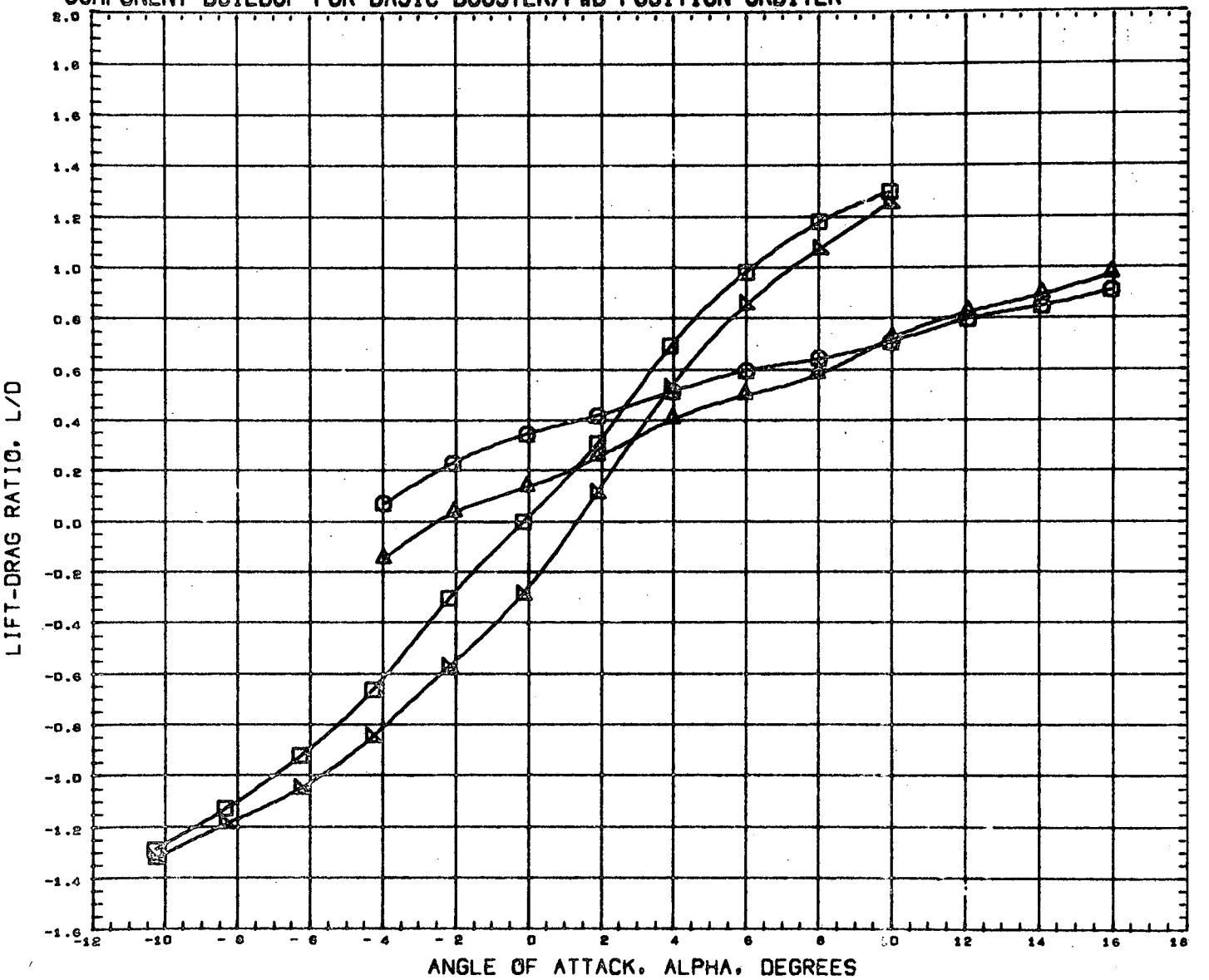


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003906 BOOSTER B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003906 BOOSTER B34R6T1?	0.000	0.000	0.000	0.000
(DS032D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003906 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003906 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 8.740

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

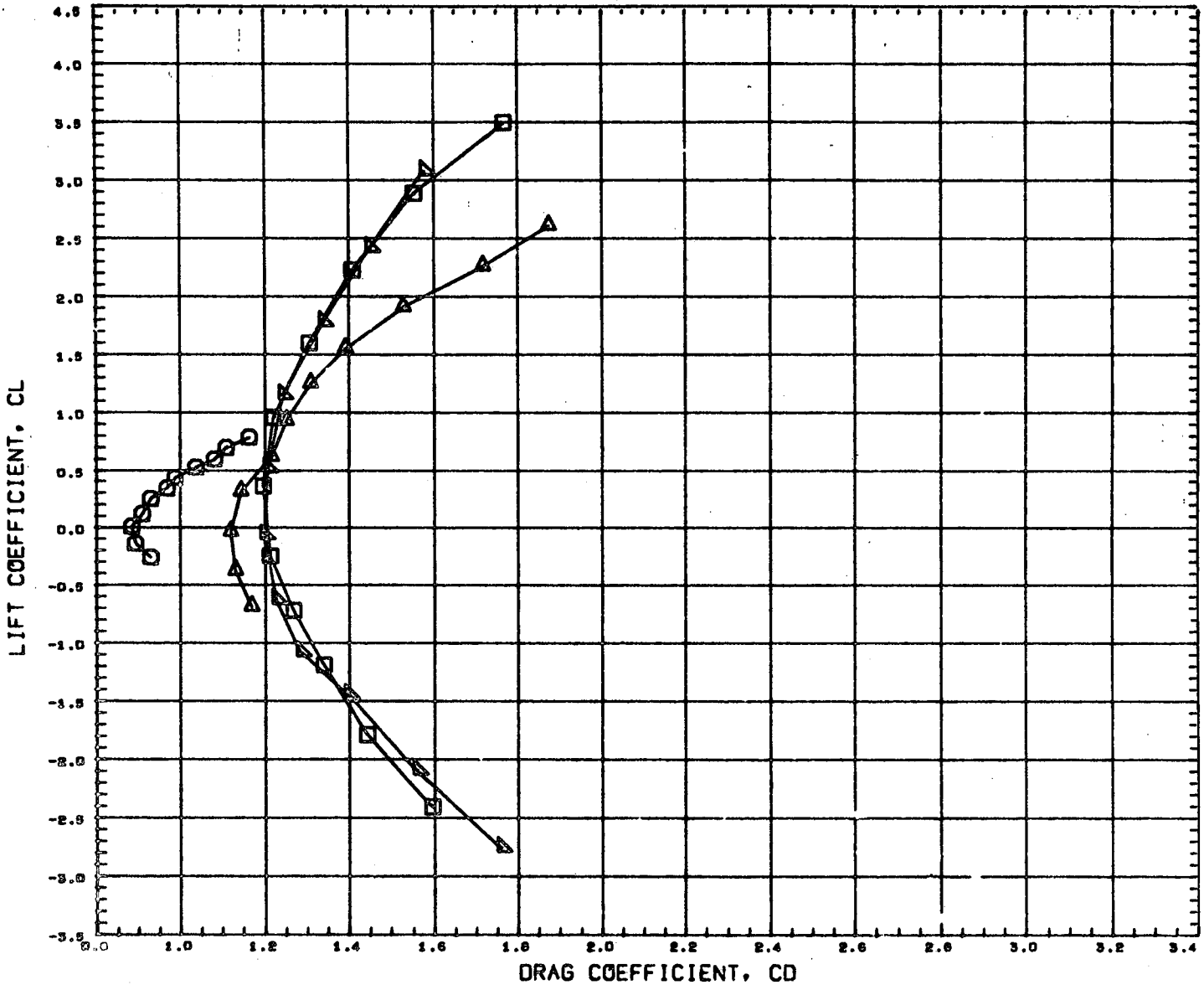


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

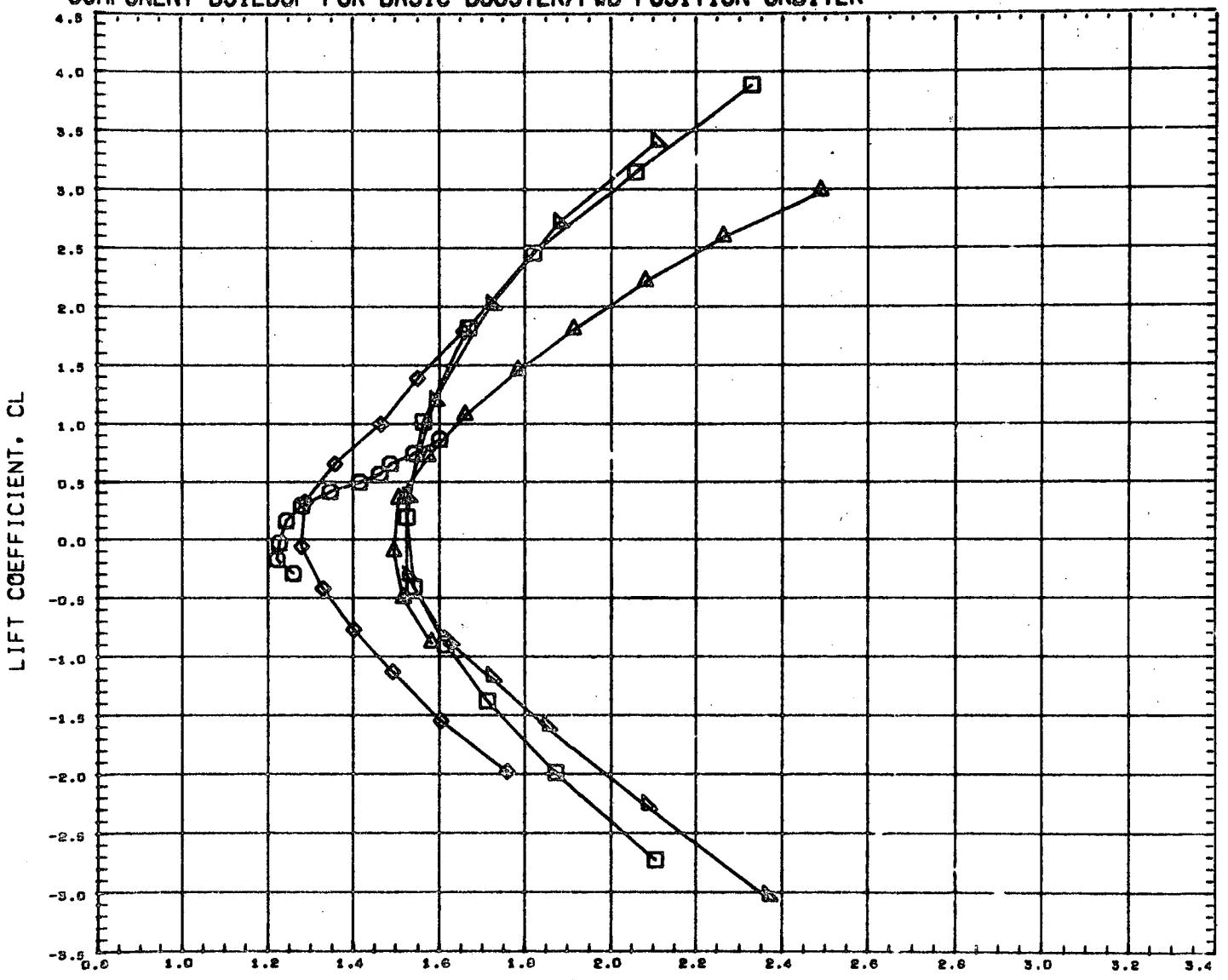


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1	0.000	0.000	0.000	0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

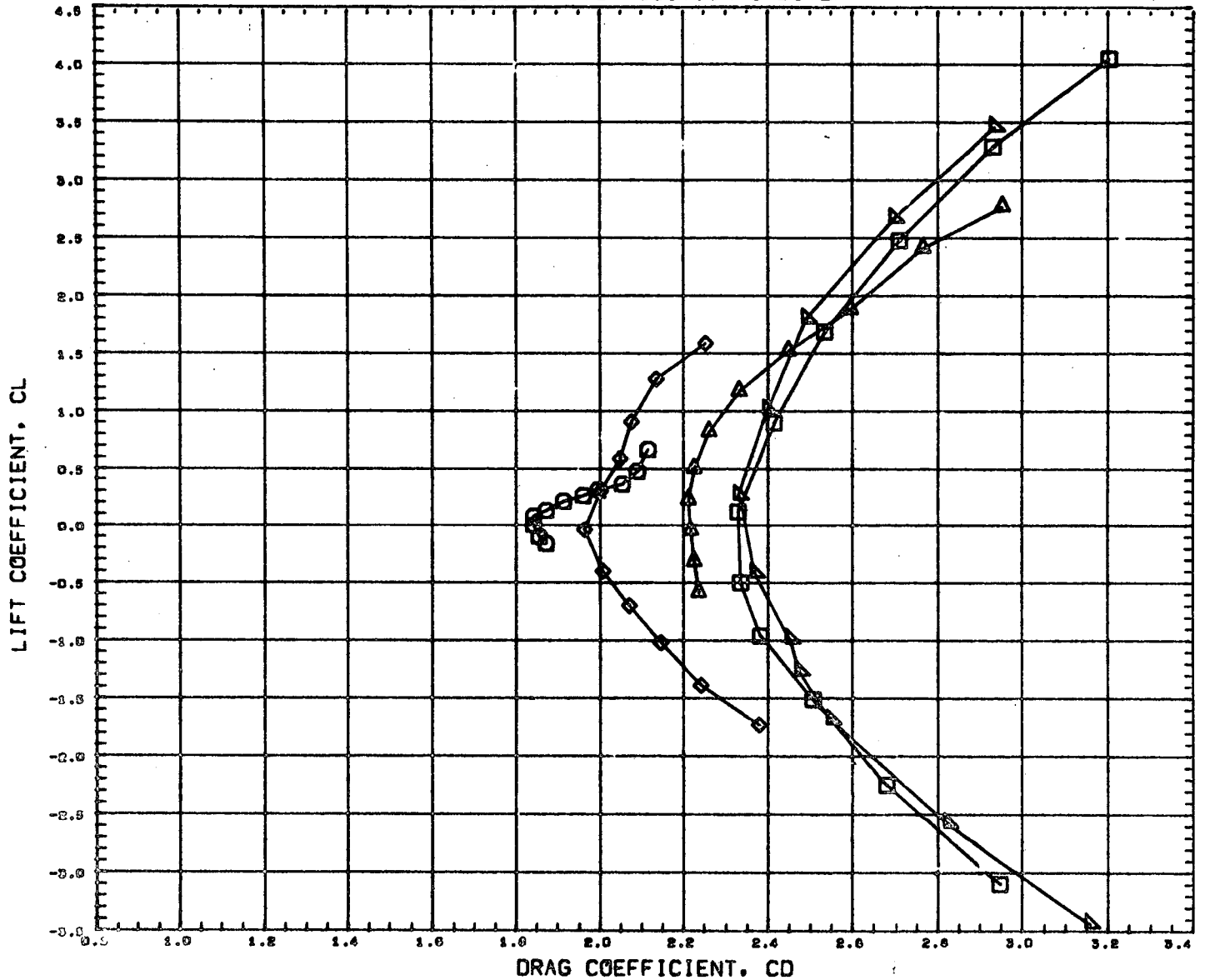


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)	□	MSFC 512 GD/C .005366 BOOSTER	B34R6	0.000	45.000		
(E5001D)	△	MSFC 512 GD/C .005366 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(D50320)	◇	MSFC 512 GD/C .005366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)	⬠	MSFC 512 GD/C .005366 BOOSTER/ORB.	B34R6T100ZT3	0.000	0.000	0.000	0.000
(D50370)	⬡	MSFC 512 GD/C .005366 BOOSTER/ORB.	B34R6T100ZT3	0.000	0.000	0.000	0.000

MACH 0.9110

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

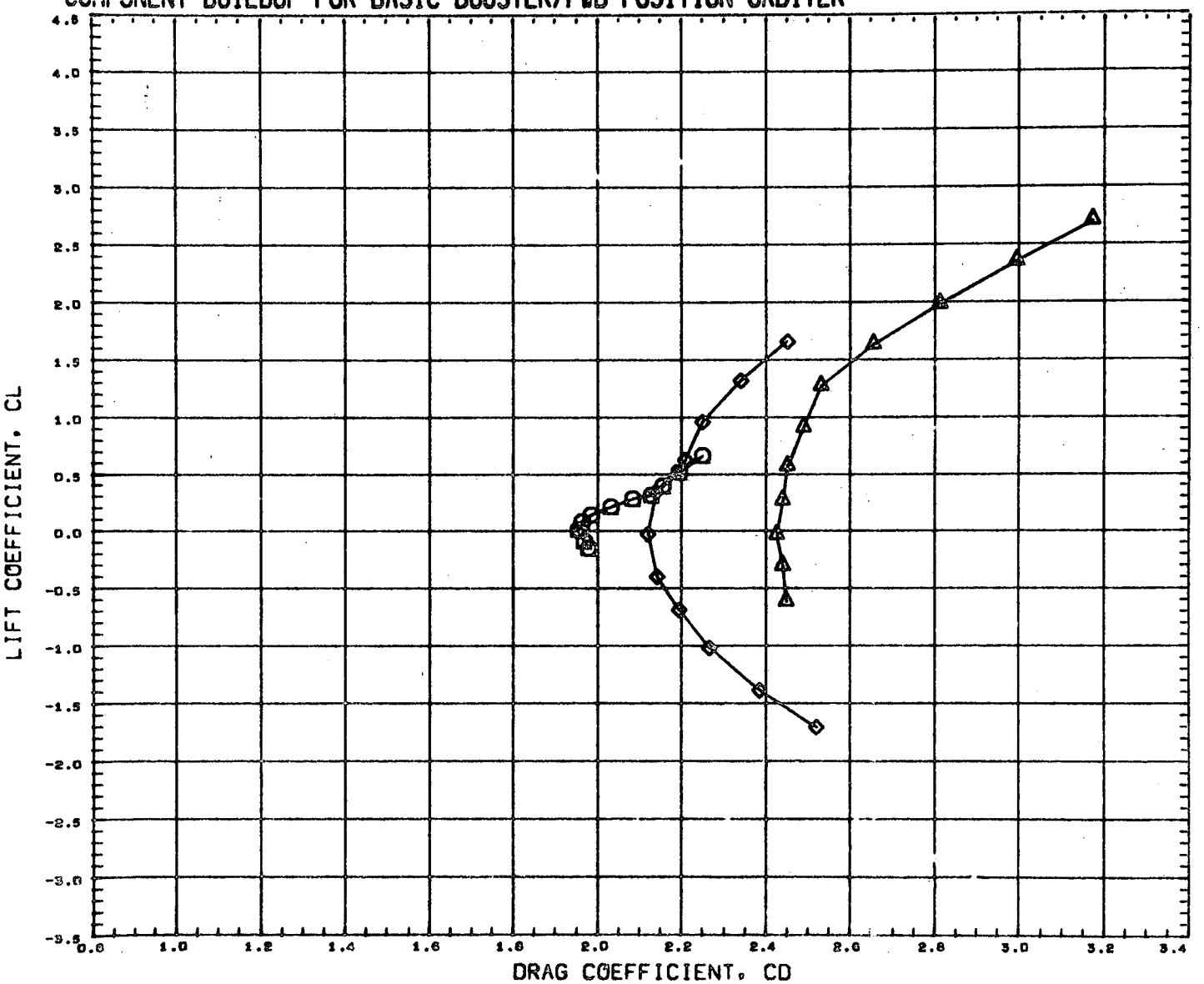


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003900 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003900 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

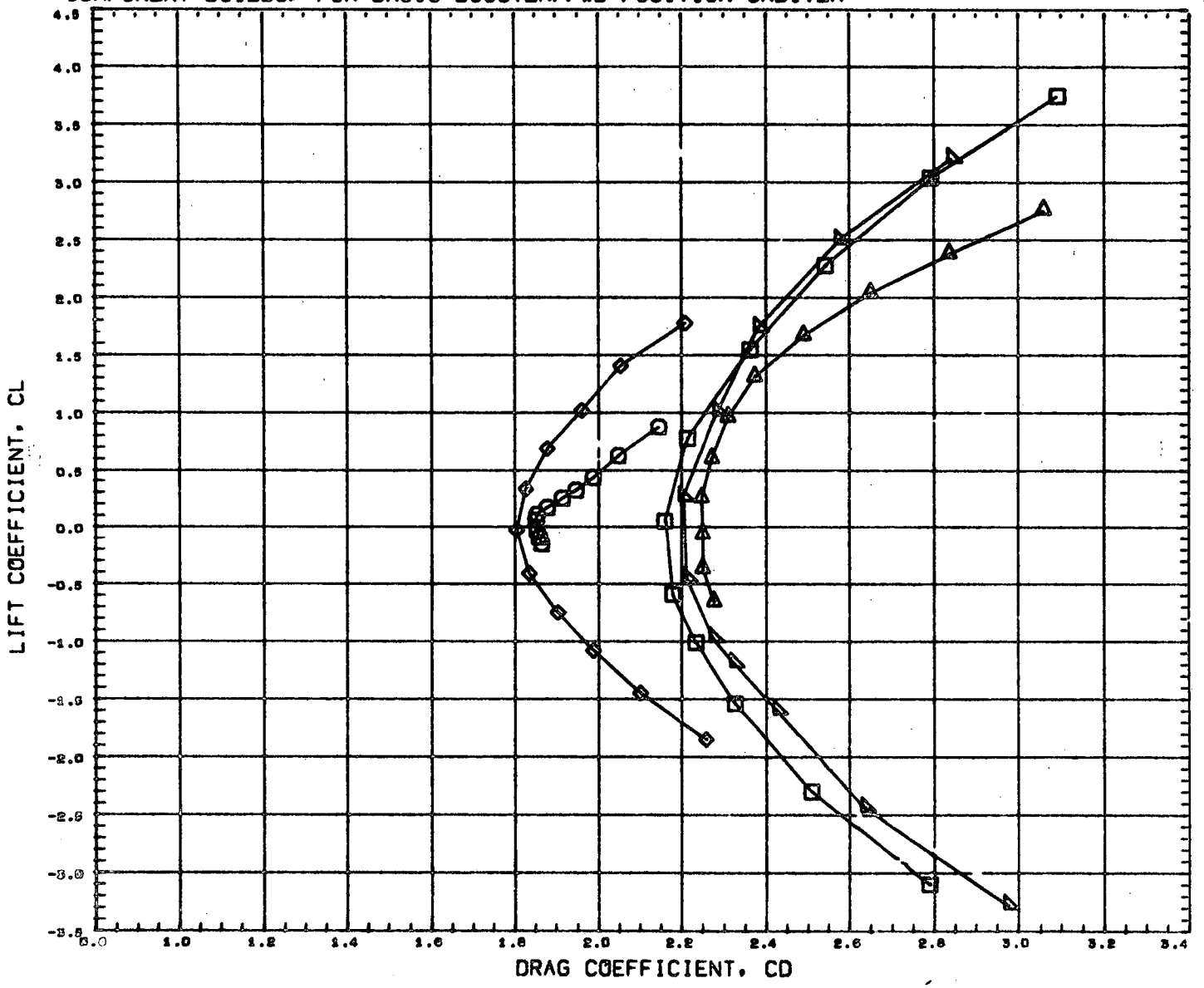


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	FLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER	B34RG	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(D50370)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

MACH 1.201

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

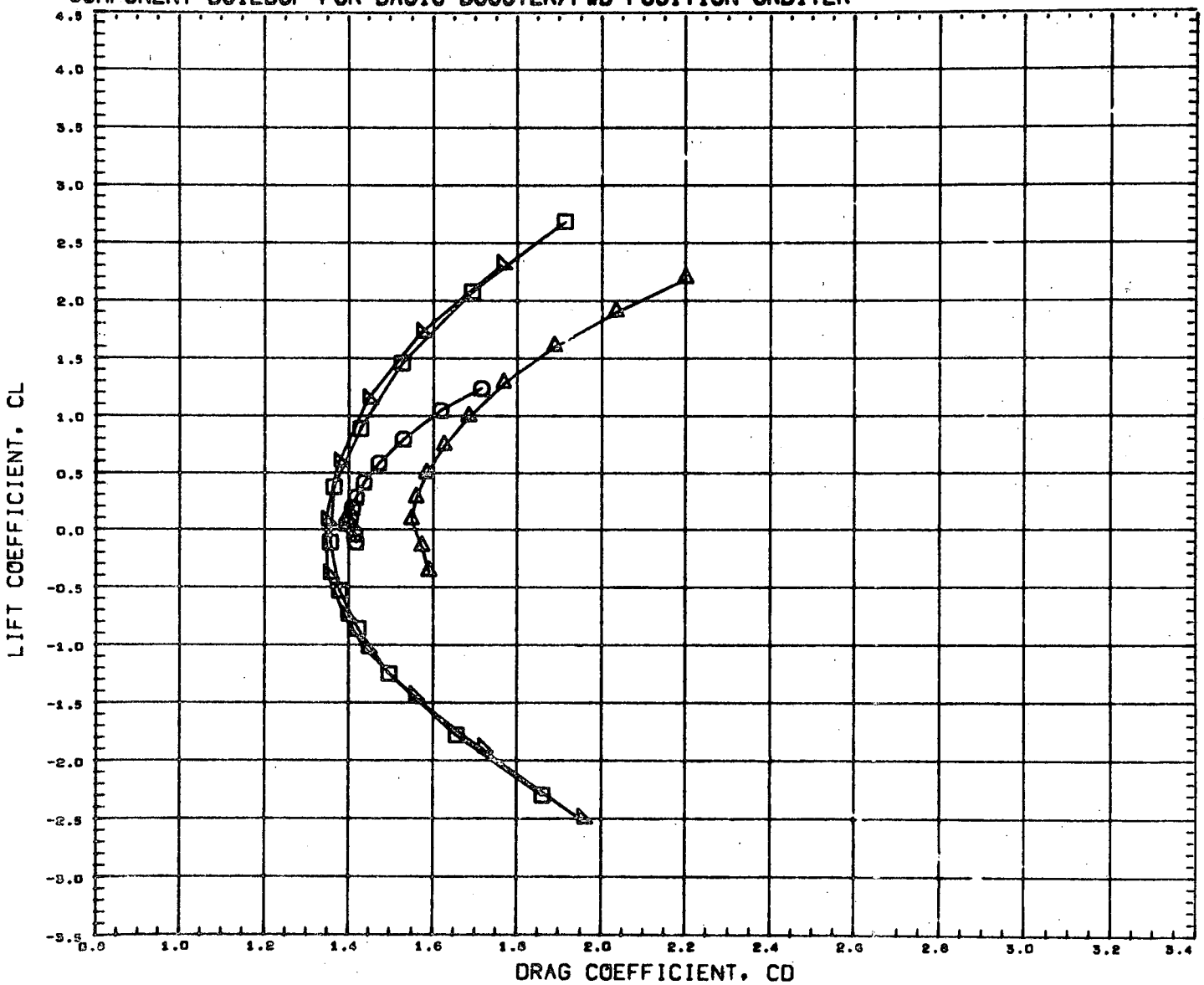


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)	◇	MSFC 512 GD/C .003566 BOOSTER	B34R6	0.000	45.000		
(ES001D)	△	MSFC 512 GD/C .003566 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(DS0320)	○	MSFC 512 GD/C .003566 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0350)	□	MSFC 512 GD/C .003566 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)	◁	MSFC 512 GD/C .003566 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.400

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

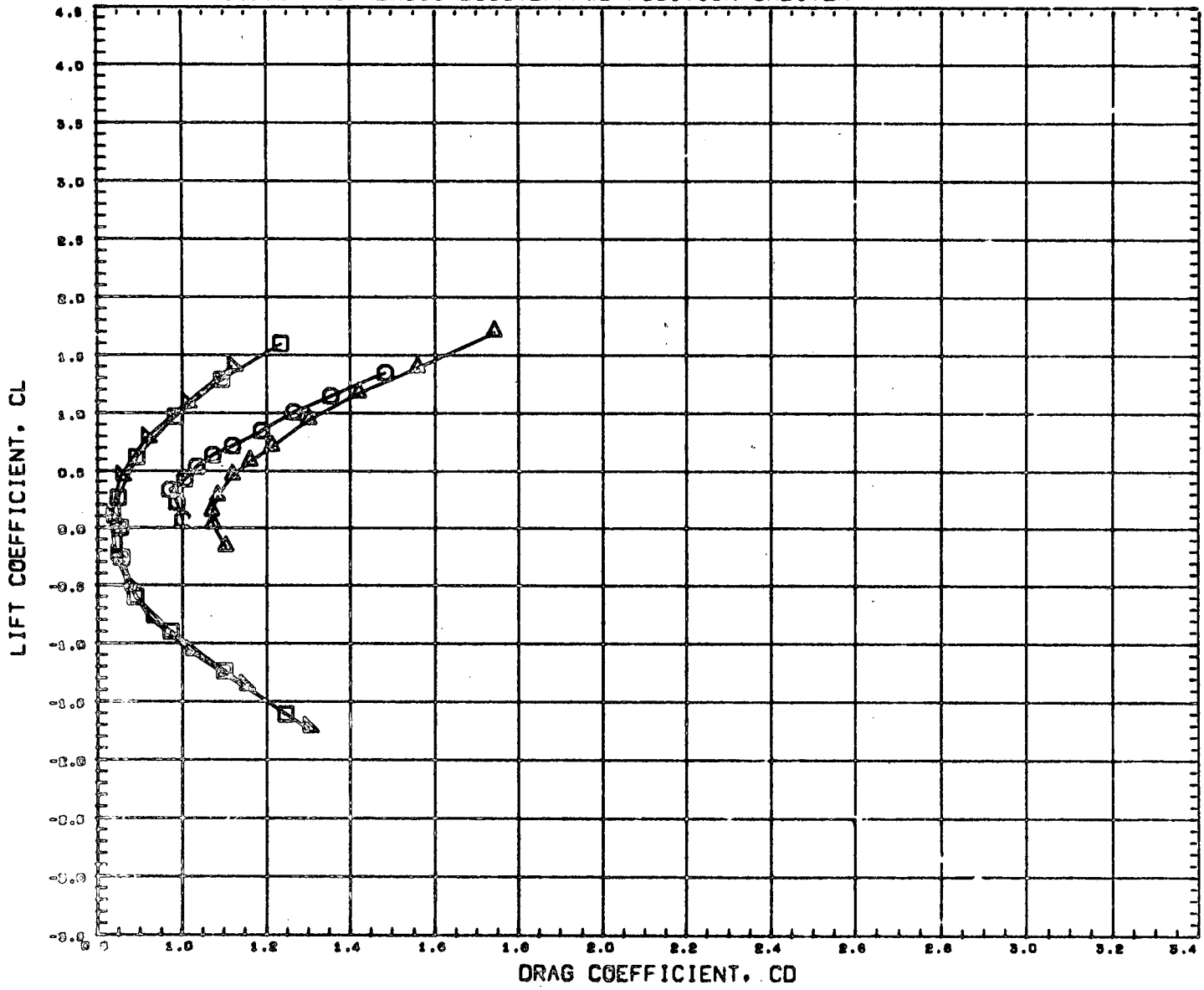


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50110)	□	MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(E50010)	△	MSFC 512 GD/C .003366 BOOSTER B34R6T1[illegible]	0.000	0.000	0.000	0.000
(D50320)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50350)	▽	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(D50370)	◁	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

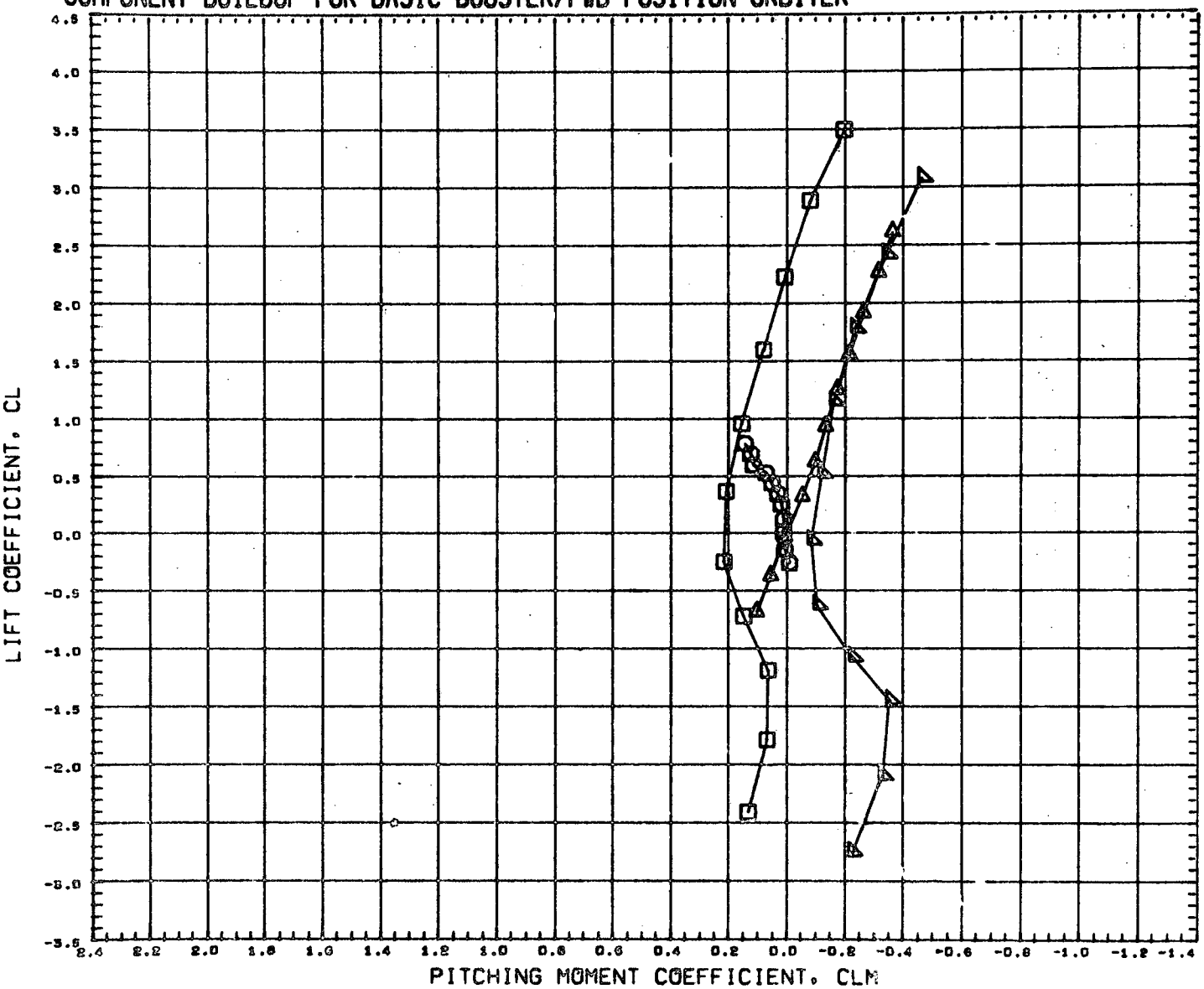


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0810)	MSFC 812 GD/C .003560 BOOSTER B34R6	0.000	45.000		
(ES0810)	MSFC 812 GD/C .003560 BOOSTER B34R6T1[illegible]	0.000	0.000	0.000	0.000
(DS0880)	DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS0880)	MSFC 812 GD/C .003560 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0876)	MSFC 812 GD/C .003560 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.080

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

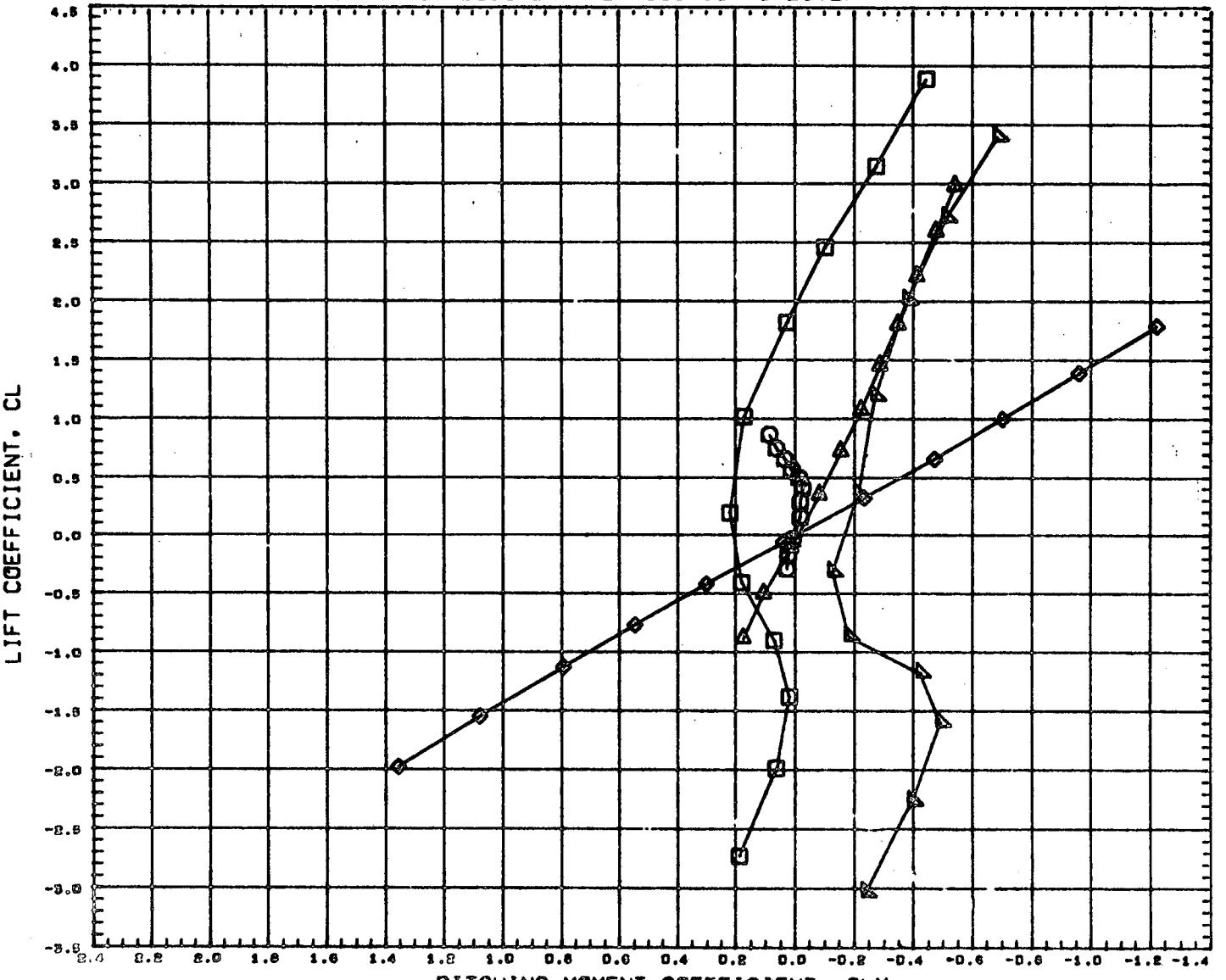


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER B34R6T1F	0.000	0.000	0.000	0.000
(DS0320)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS0350)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.603

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

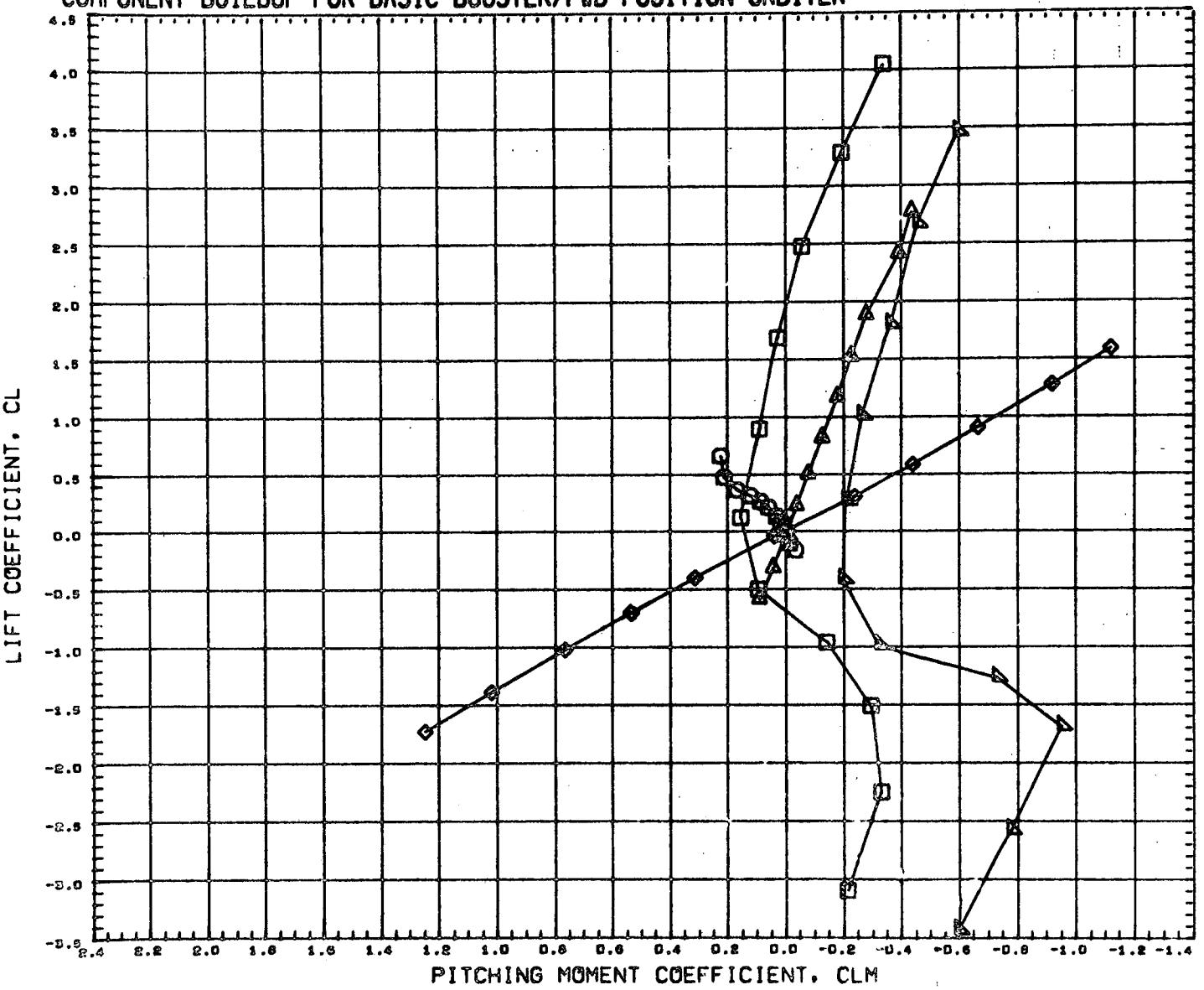


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES031D)		MSFC 512 GD/C .003366 BOOSTER	B34RG	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1L	0.000	0.000	0.000	0.000
(DS032D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003366 BOOSTER/ORD.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

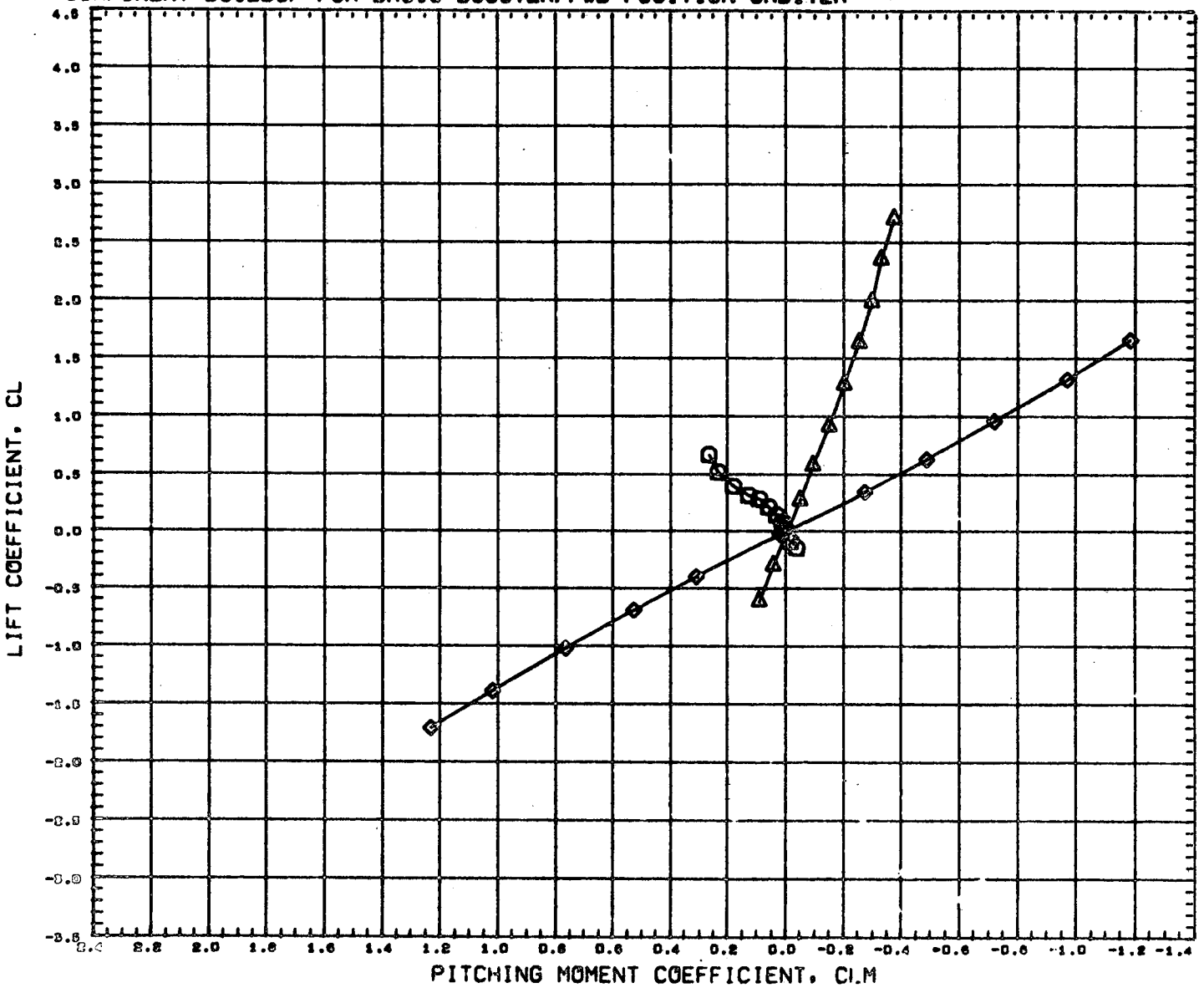


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E50110)		MSFC 512 GD/C .003950 BOOSTER	B54R6	0.000	45.000		
(E50010)		MSFC 512 GD/C .003966 BOOSTER	B34R6T1[illegible]	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003966 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50390)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003966 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.100

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

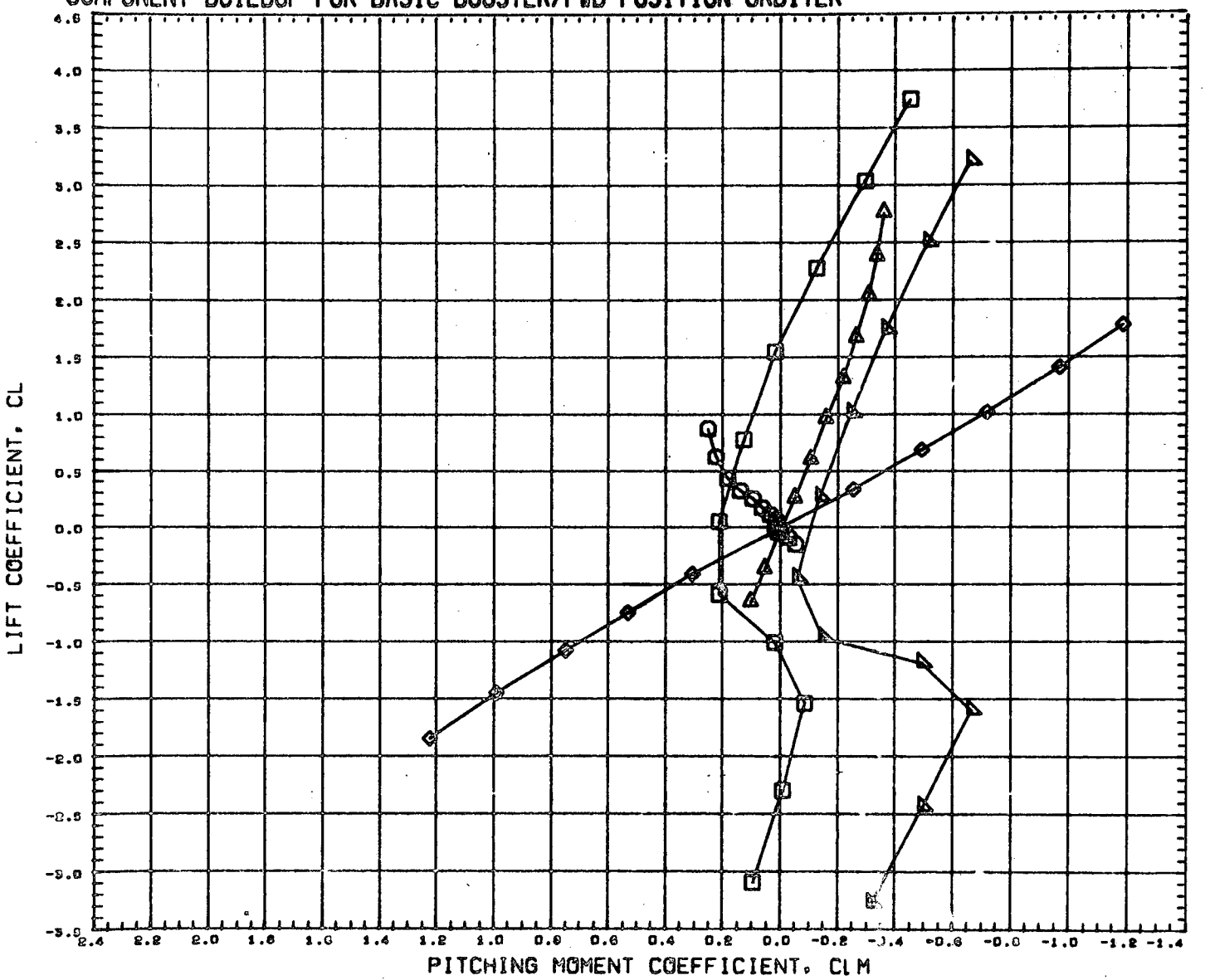


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003306 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003306 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(DS032D)		MSFC 512 GD/C .003306 BOOSTER	B34RGT1DT3	0.000	0.000	0.000	0.000
(DS035D)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(DS037D)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

MACH 1.801

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

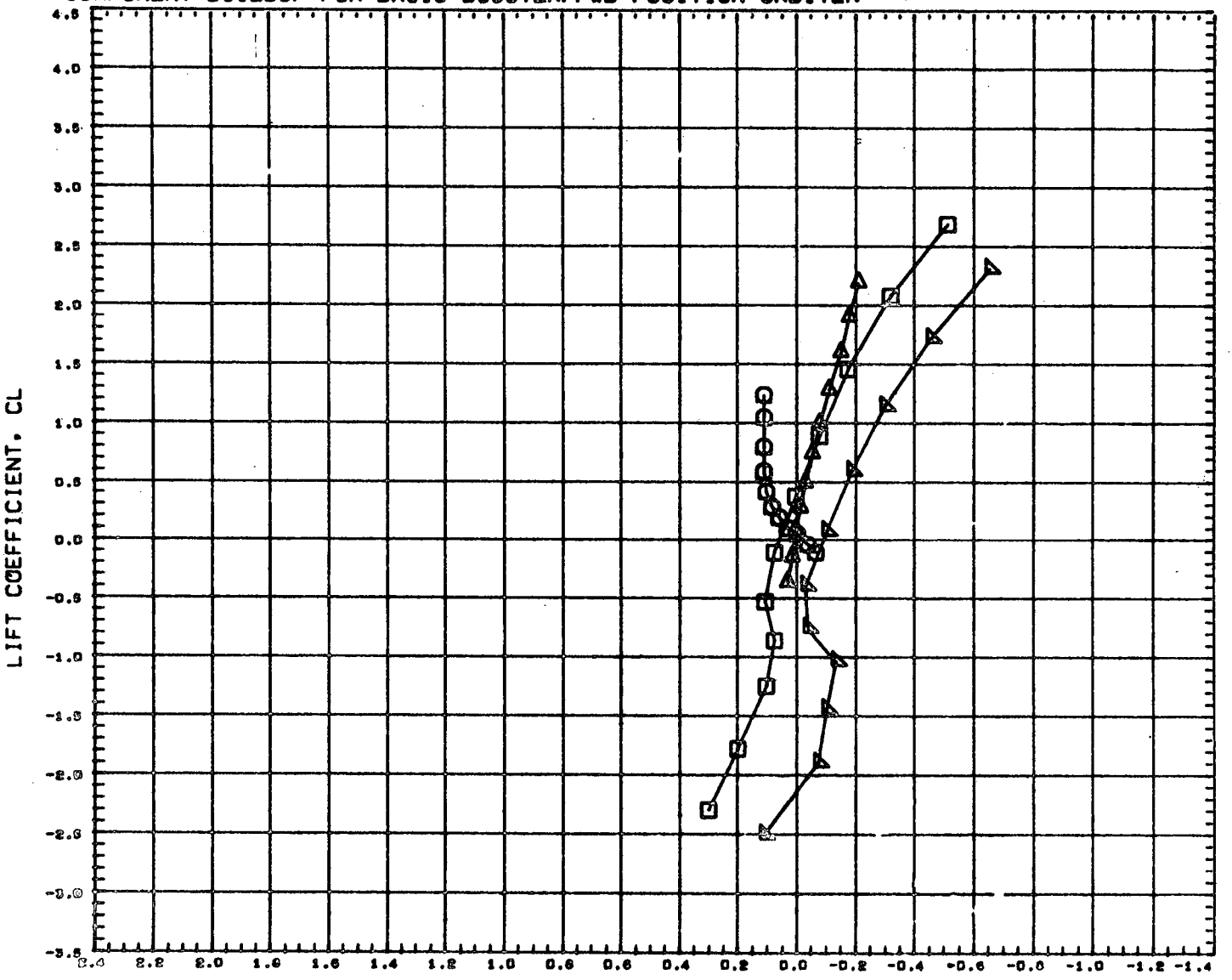


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1D	0.000	0.000	0.000	0.000
(DS0320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1DT3	0.000	0.000	0.000	0.000
(DS0350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1DO2T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1DO2T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

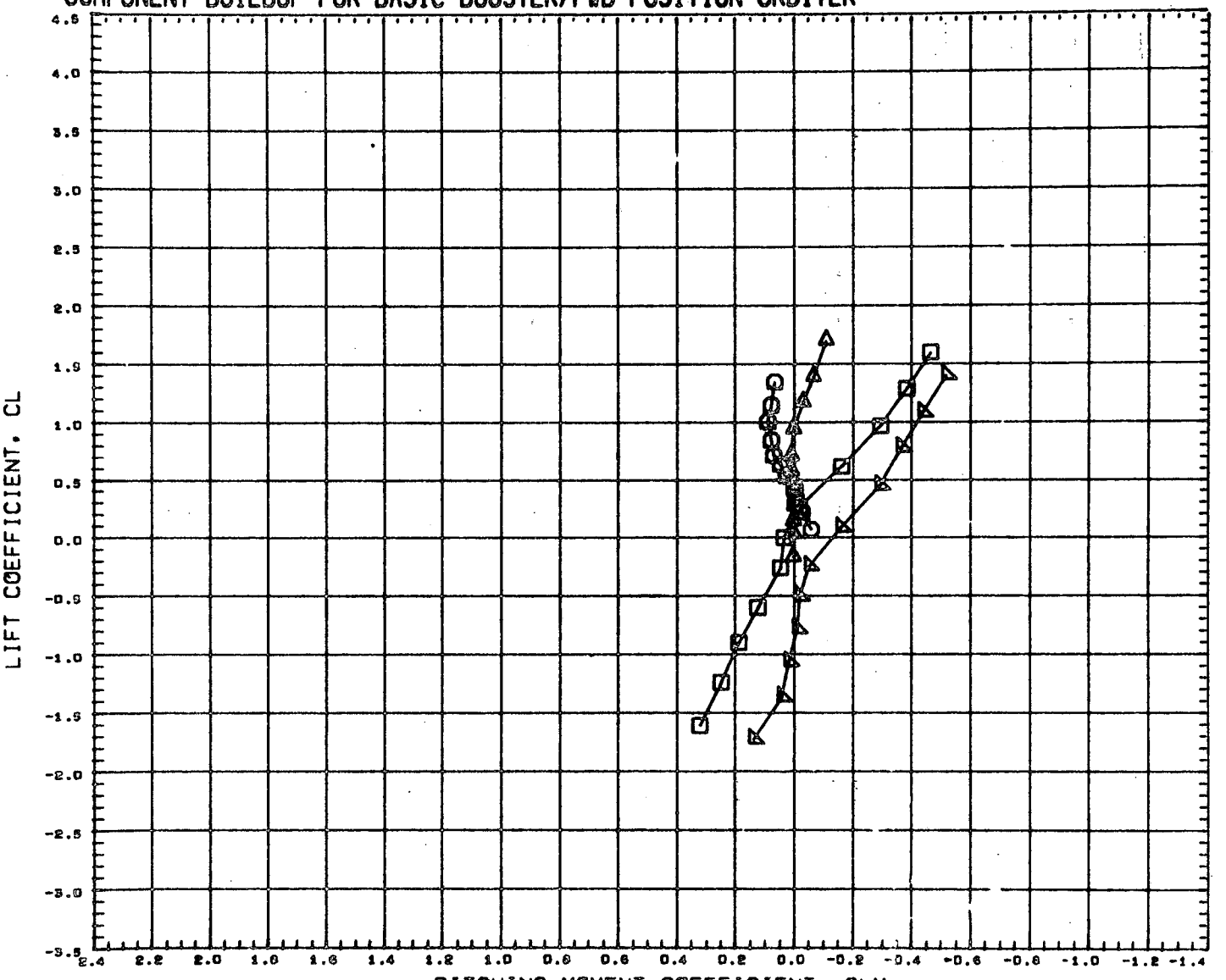


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003966 BOOSTER B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003900 BOOSTER B34R6T10	0.000	0.000	0.000	0.000
(D50320)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 8.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

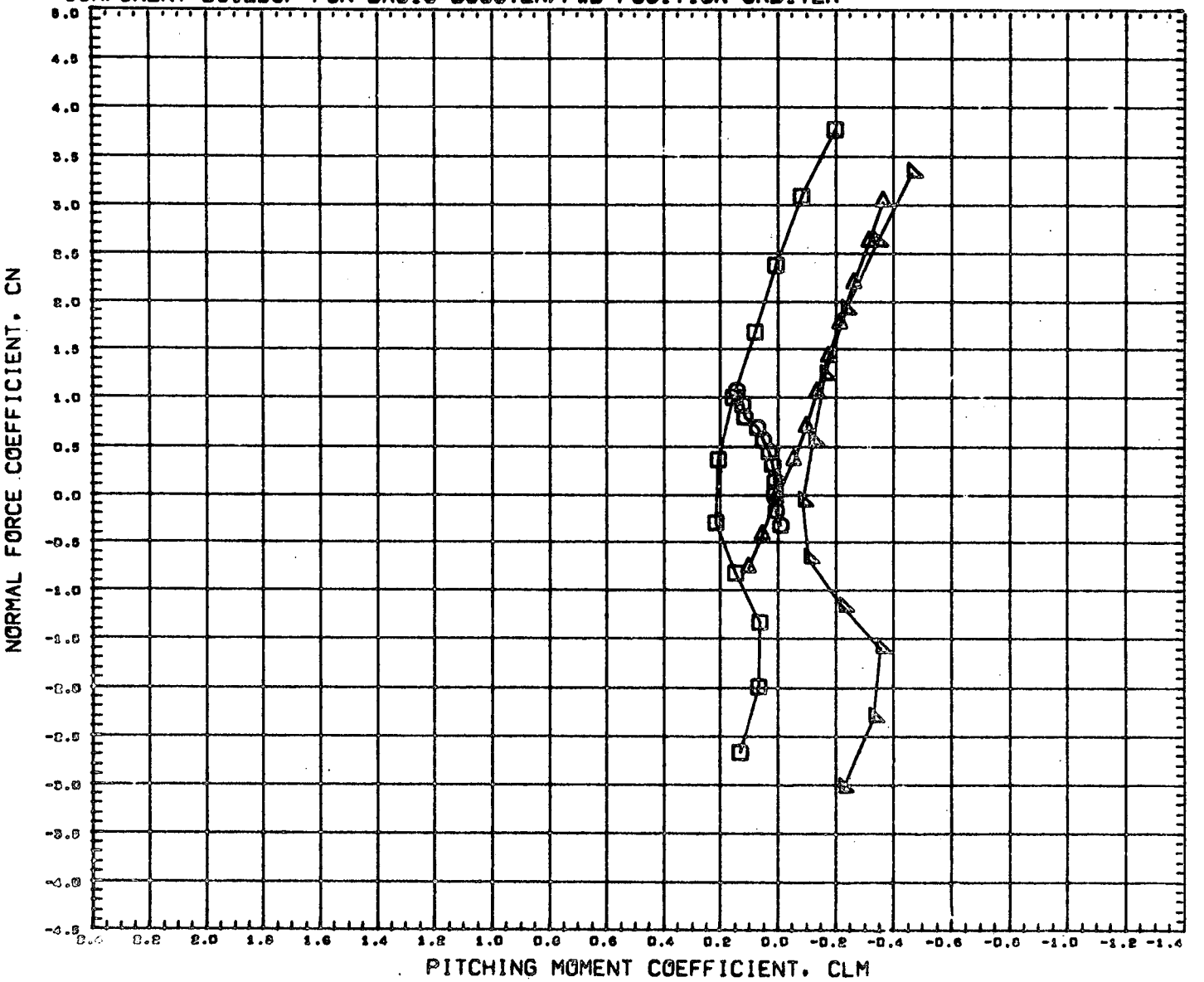


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0320)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(DS0350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

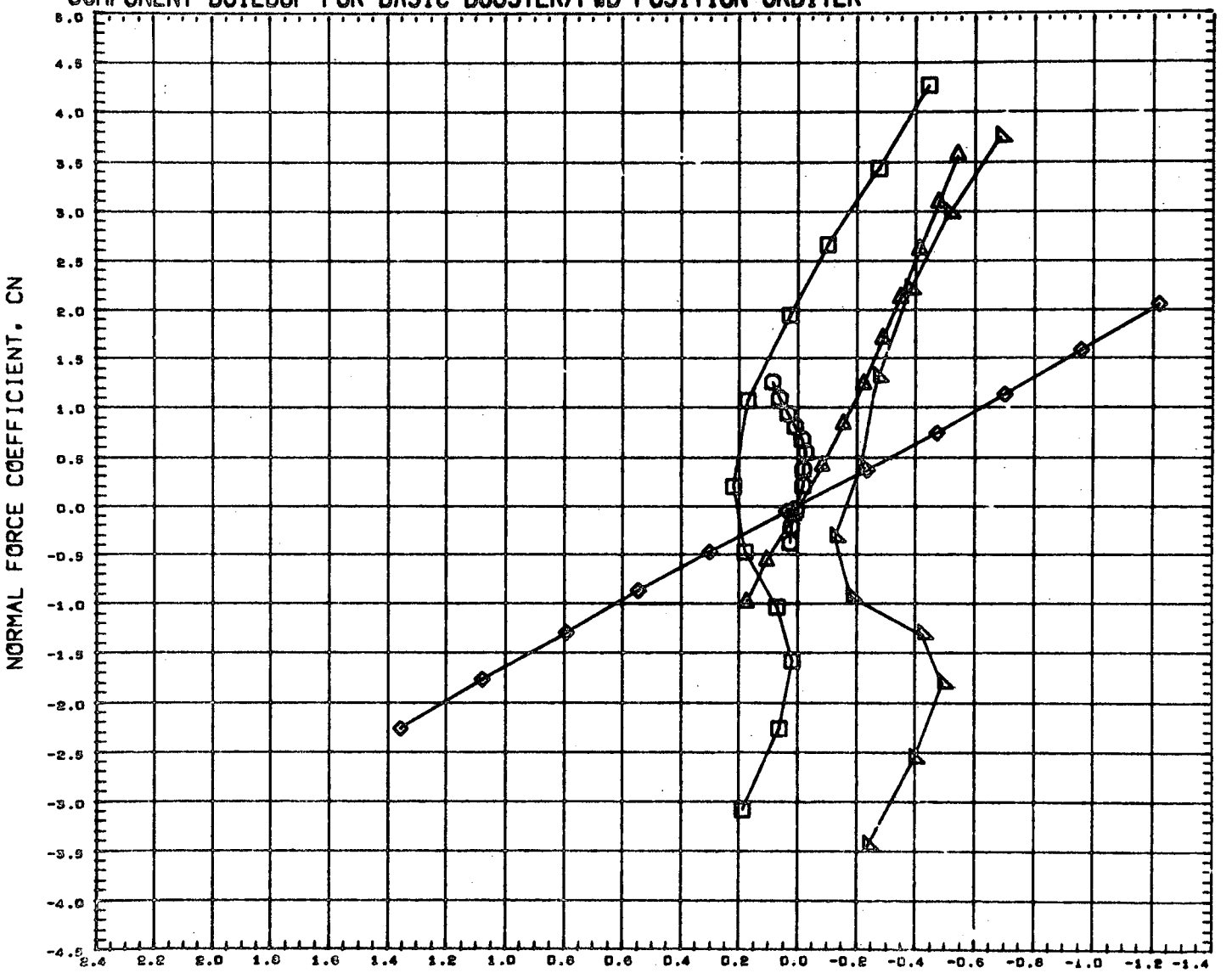


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003306 BOOSTER	B54R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003306 BOOSTER	B54R6T10	0.000	0.000	0.000	0.000
(DS0320)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(DS0350)		MSFC 512 GD/C .003306 BOOSTER/ORB.	B54R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003306 BOOSTER/ORB.	B54R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.600

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

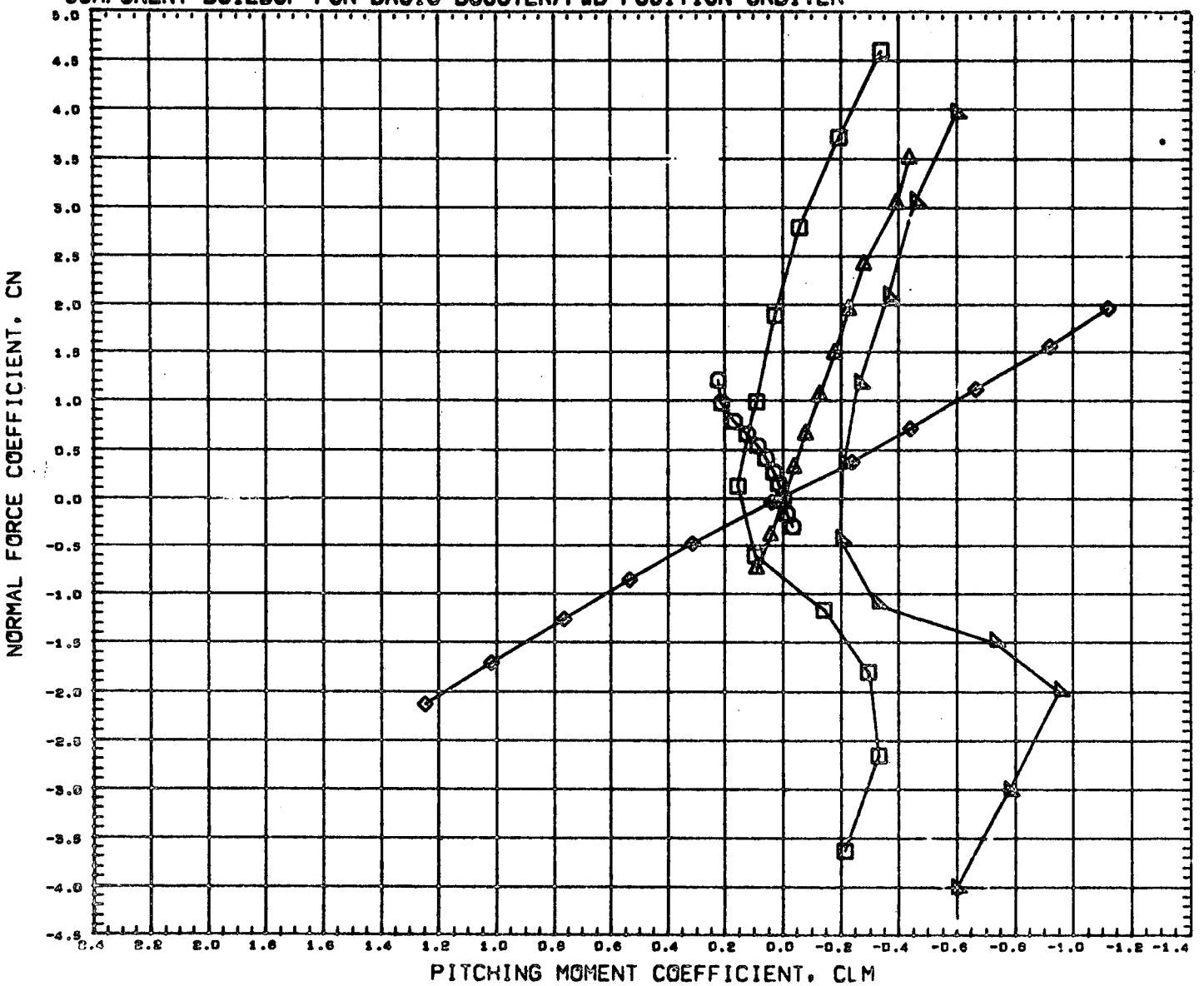


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D50320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D50350)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(D50370)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 0.800

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

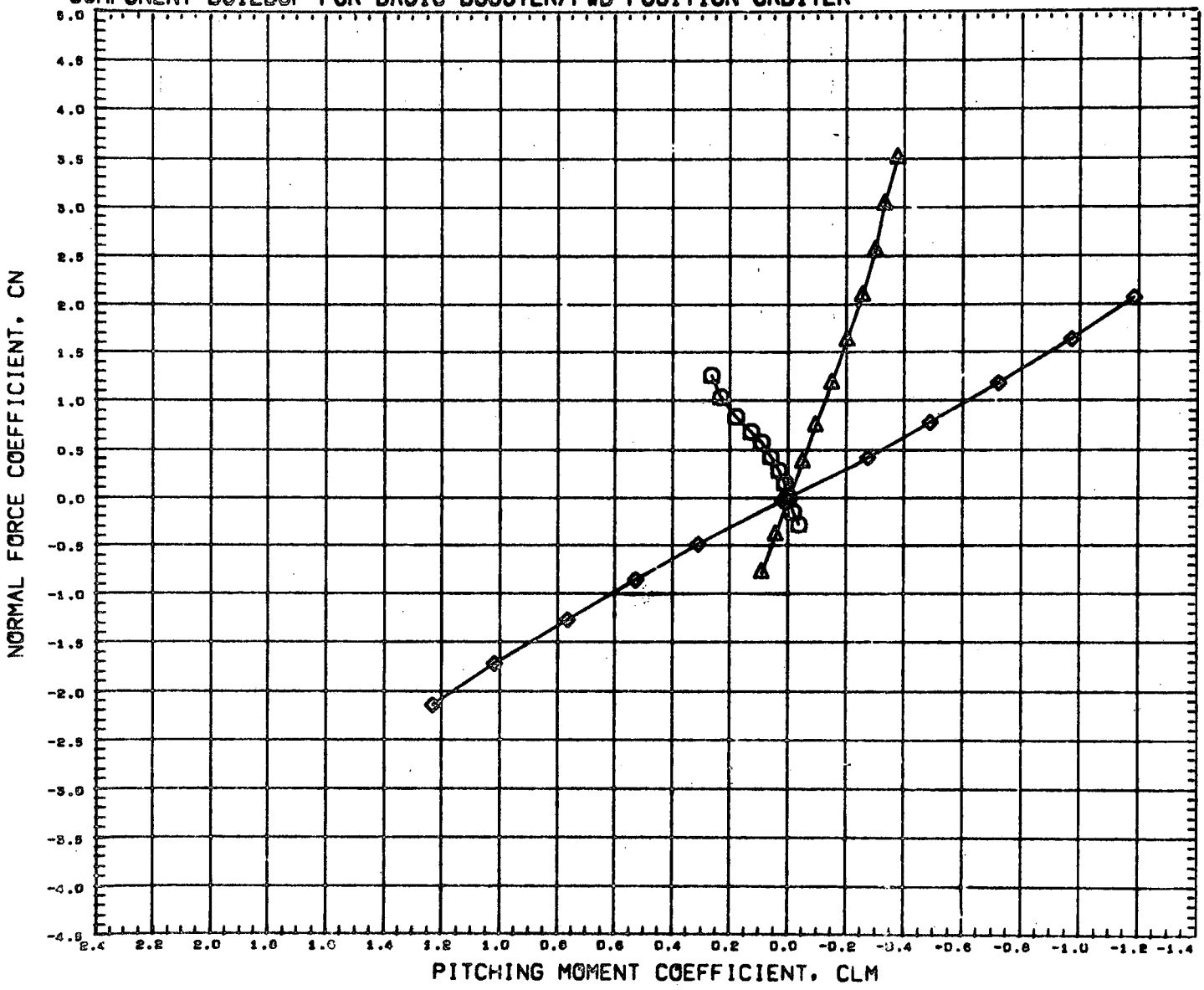


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(E5011D)		W8FC 912 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(E5001D)		W8FC 912 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(D5032D)		W8FC 912 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(D5035D)		W8FC 912 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000
(D5037D)		W8FC 912 GD/C .003366 BOOSTER/ORB.	B34R6T10O2T3	0.000	0.000	0.000	0.000

MACH 1.101

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

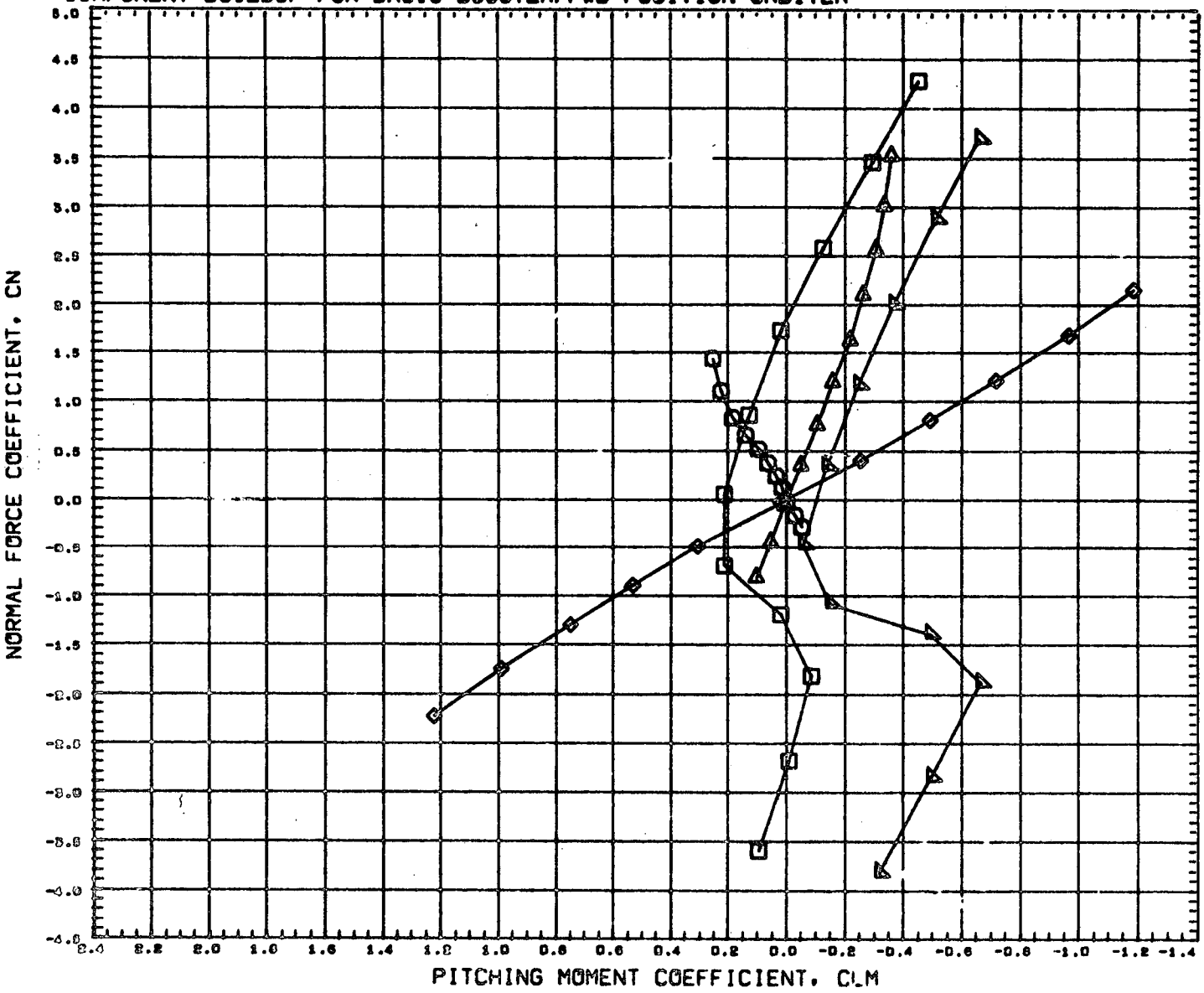


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10	0.000	0.000	0.000	0.000
(DS0320)		MSFC 512 GD/C .003366 BOOSTER	B34R6T10T3	0.000	0.000	0.000	0.000
(DS0350)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000
(DS0370)		DATA NOT AVAILABLE FOR ALL CONDITIONS		0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.0350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

HACM 1.201

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

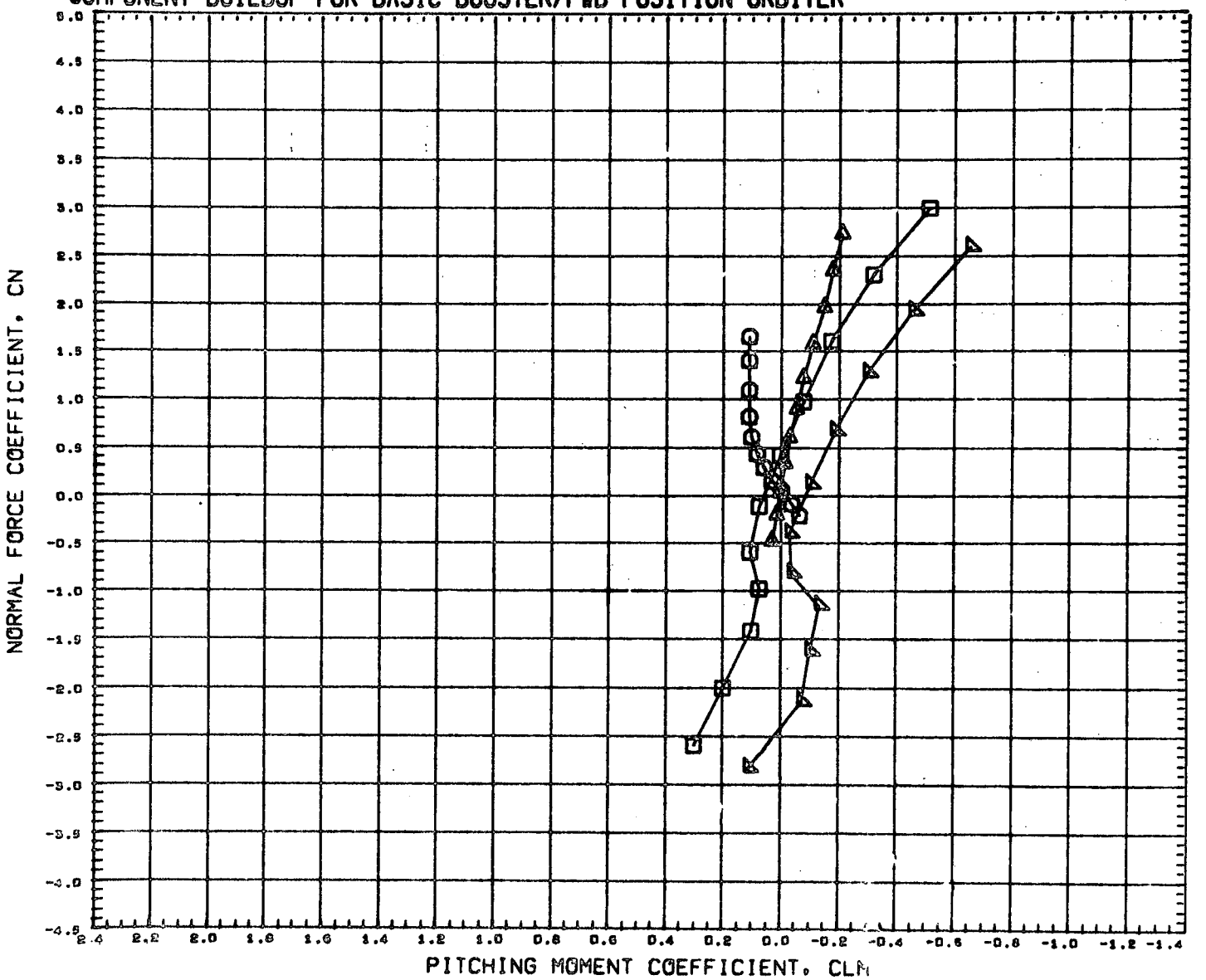


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION		BETA	PHIMCD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER	B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1C	0.000	0.000	0.000	0.000
(DS032D)		MSFC 512 GD/C .003366 BOOSTER	B34R6T1OT3	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003366 BOOSTER/ORB.	B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.450

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

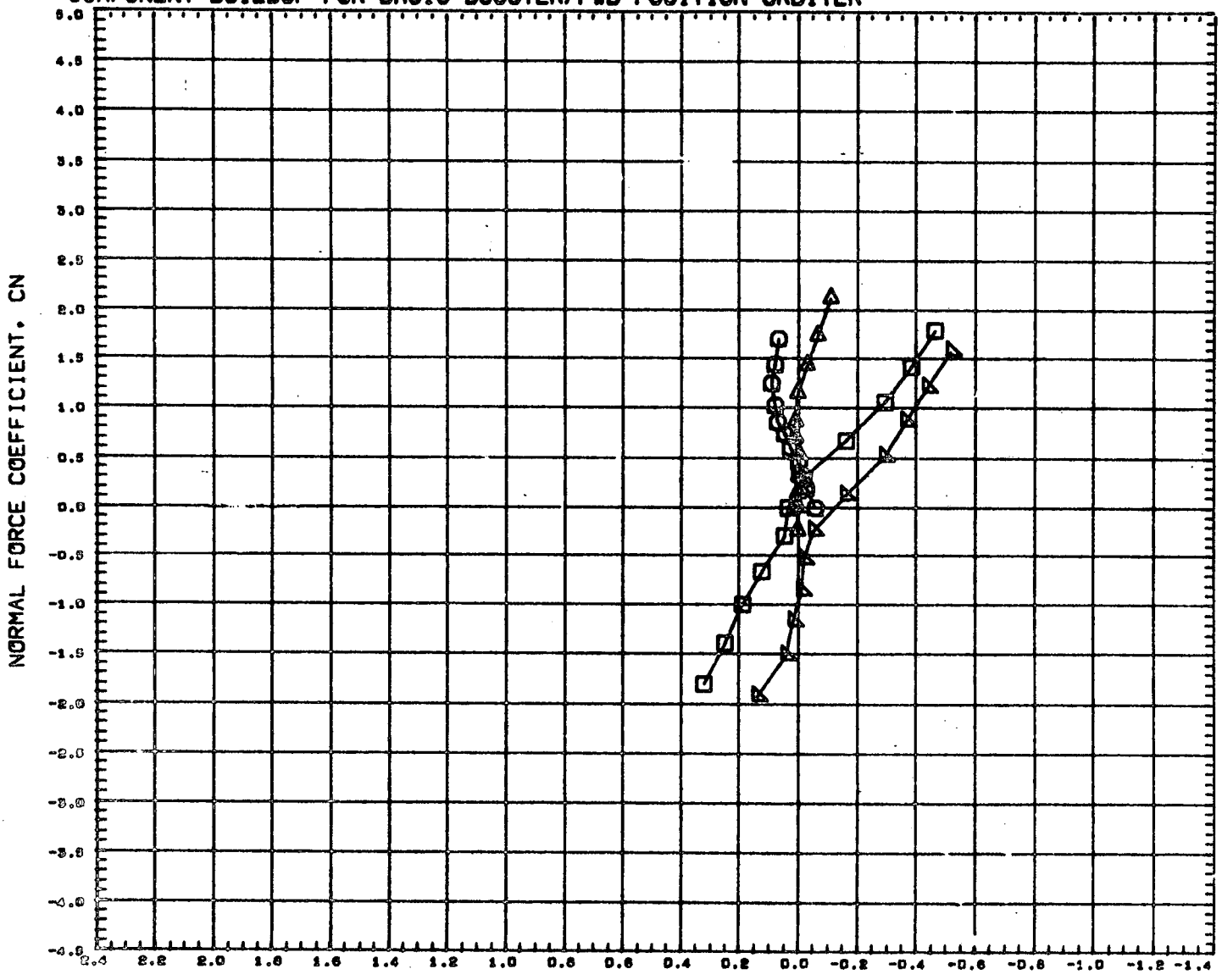


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003966 BOOSTER B54R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003966 BOOSTER B54R6T1U	0.000	0.000	0.000	0.000
(DS032D)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS035D)		MSFC 512 GD/C .003966 BOOSTER/ORB. B54R6T100ZT3	0.000	0.000	0.000	0.000
(DS037D)		MSFC 512 GD/C .003966 BOOSTER/ORB. B54R6T100ZT3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

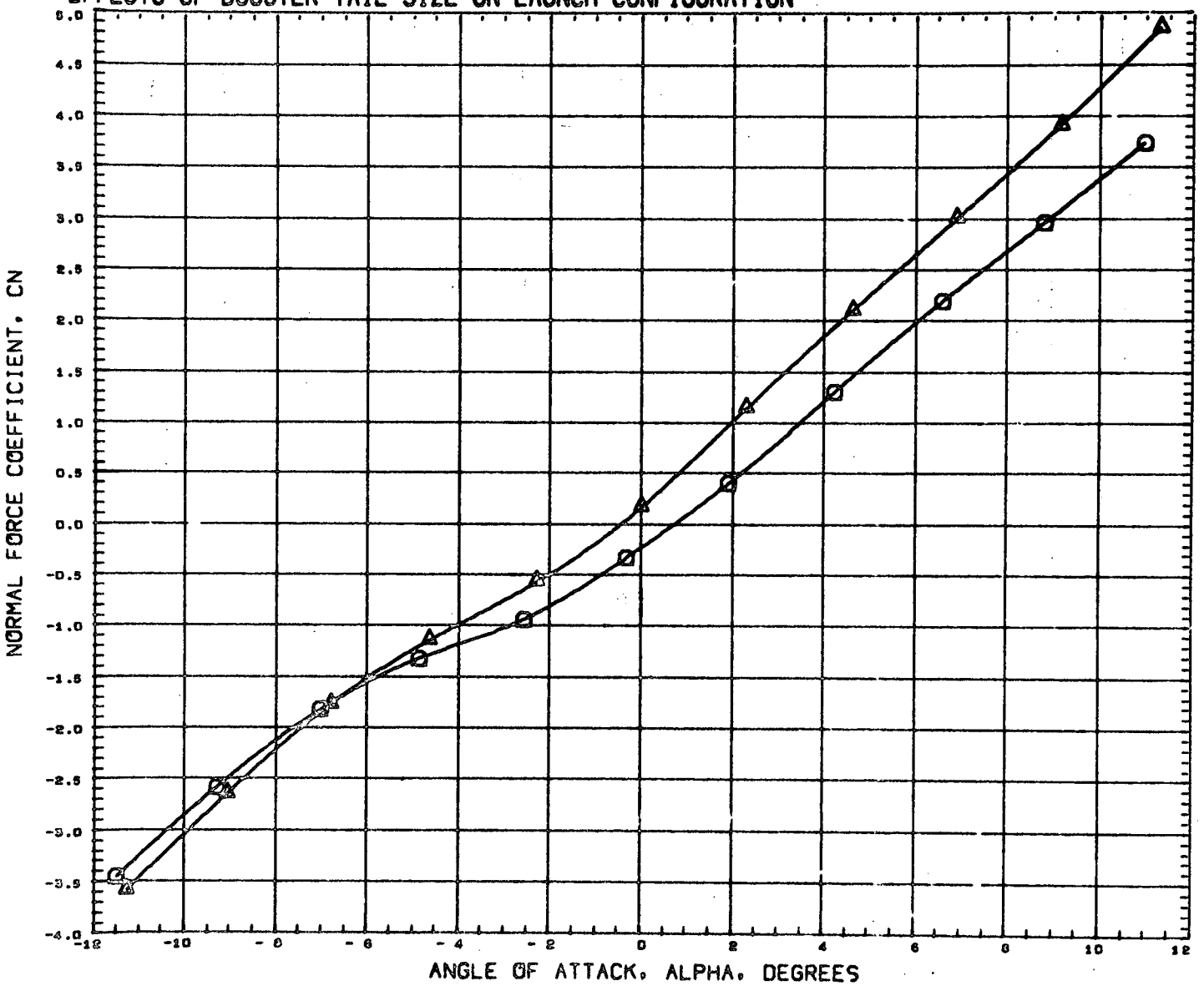


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES011D)		MSFC 512 GD/C .003366 BOOSTER B34R6	0.000	45.000		
(ES001D)		MSFC 512 GD/C .003360 BOOSTER B34R6T1D	0.000	0.000	0.000	0.000
(DS0380)		DATA NOT AVAILABLE FOR ALL CONDITIONS	0.000	0.000	0.000	0.000
(DS0390)		MSFC 512 GD/C .003369 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(DS0370)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 4.950

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

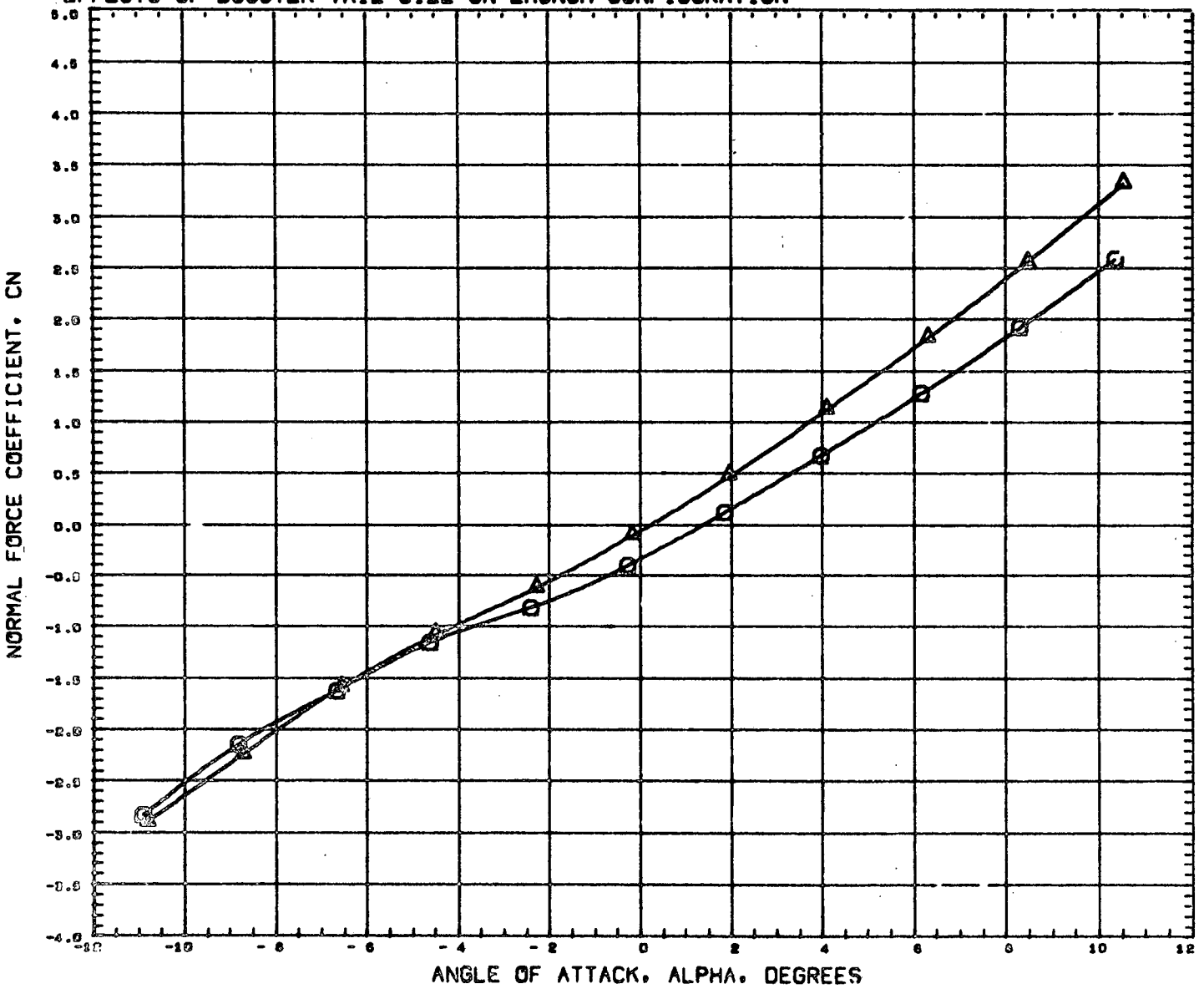


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0370)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(ES0400)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

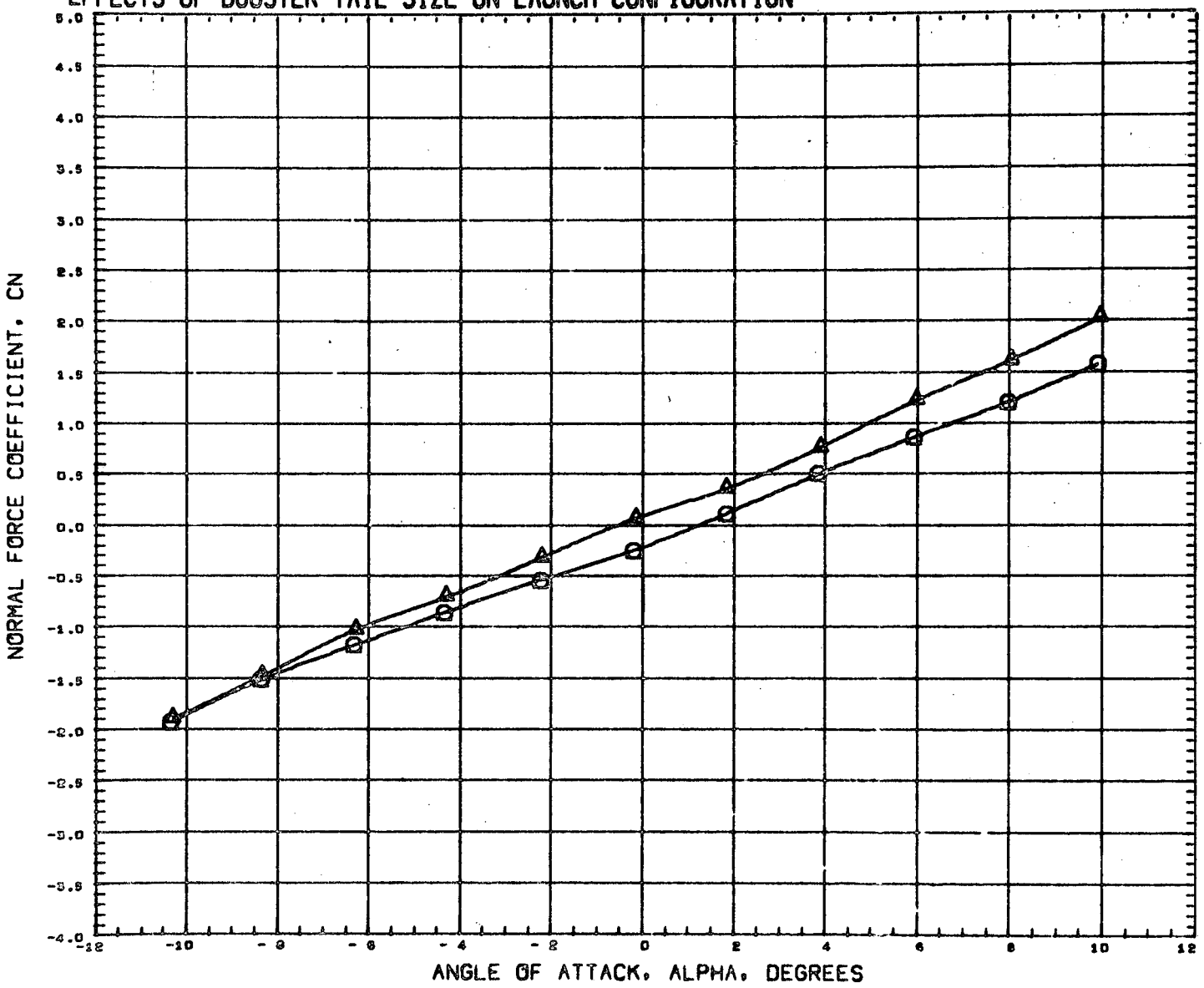


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .005300 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .005300 BOOSTER/ORB. B34R6T130°T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

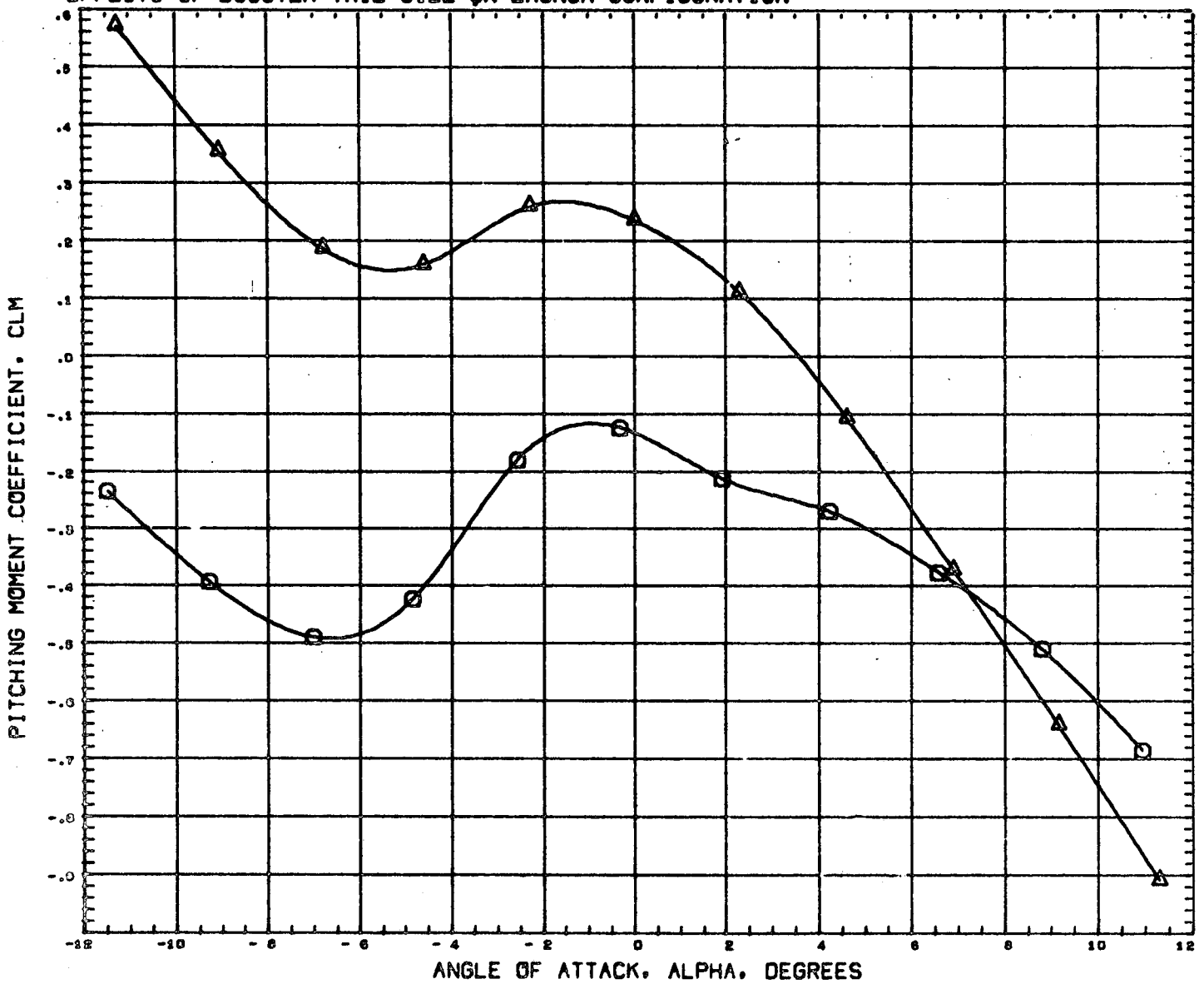


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T13[illegible]2T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.010

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

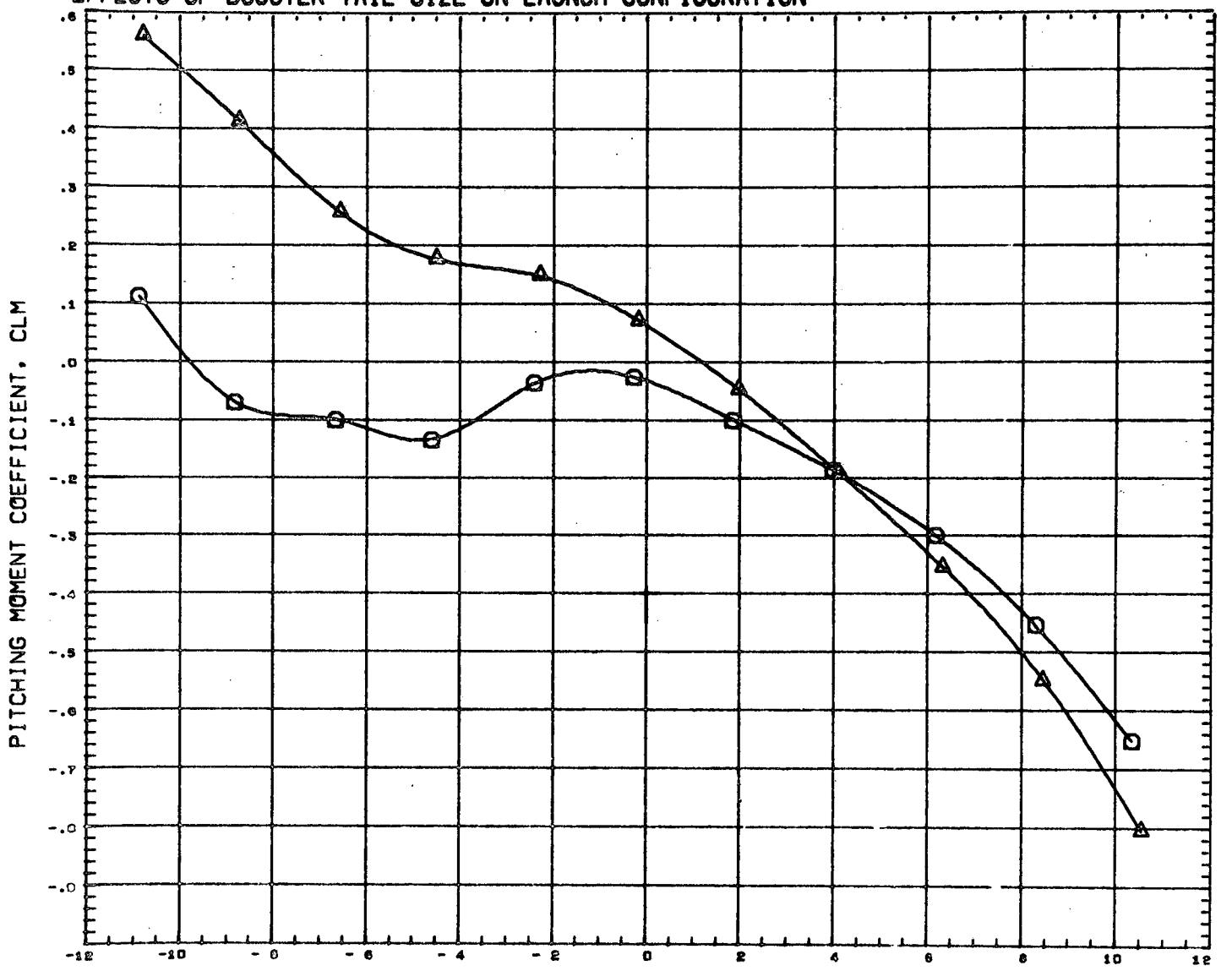


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)	○	MSFC 512 6D/C .003306 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)	△	MSFC 512 6D/C .003306 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.900

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

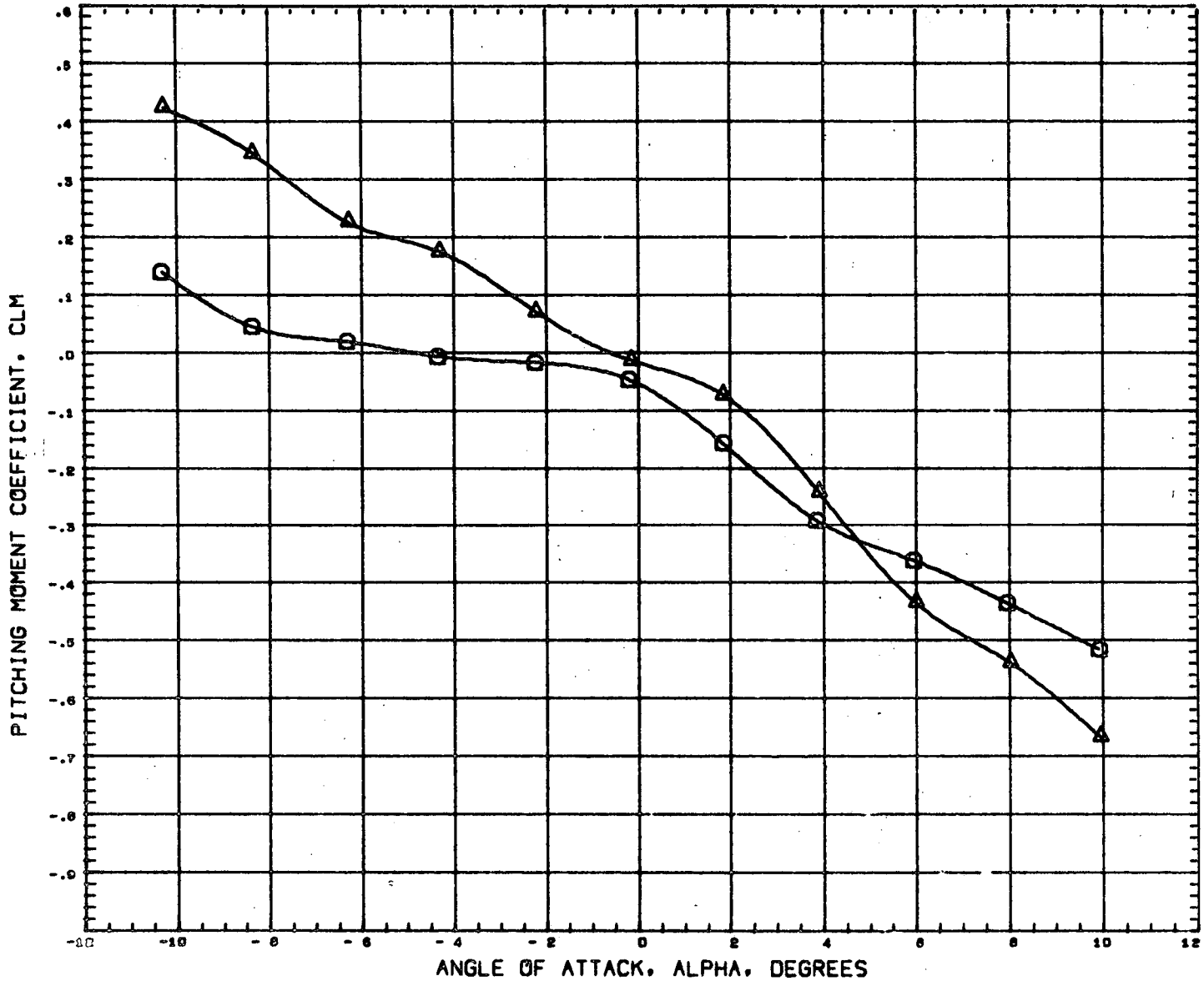


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .003306 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T13[illegible]2T3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

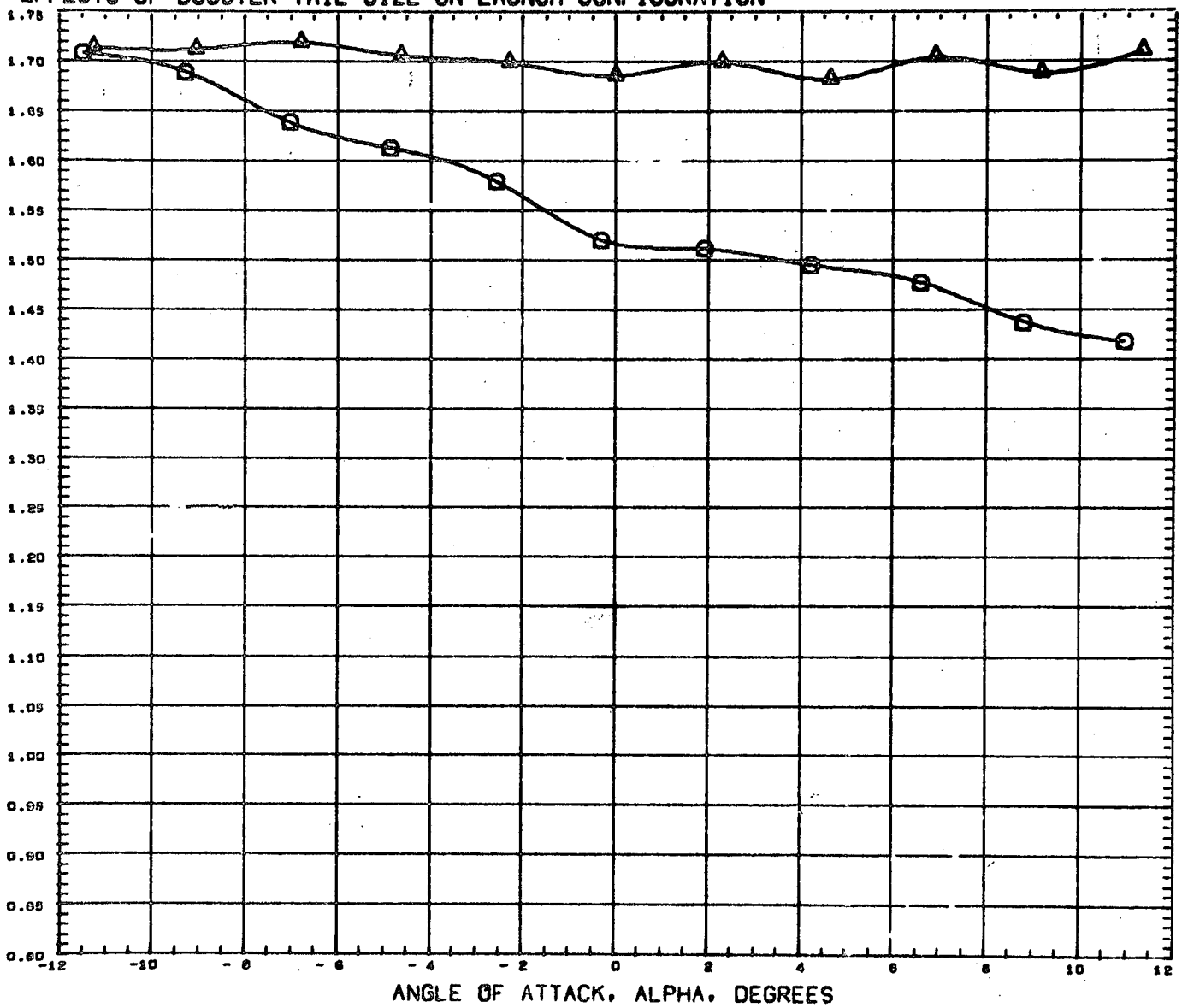


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)	○	MSFC 512 GD/C .003360 BOOSTER/ORB. B34RGT1D02T3	0.000	0.000	0.000	0.000
(E50400)	△	MSFC 512 GD/C .003360 BOOSTER/ORB. B34R6T13.2T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMR.	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

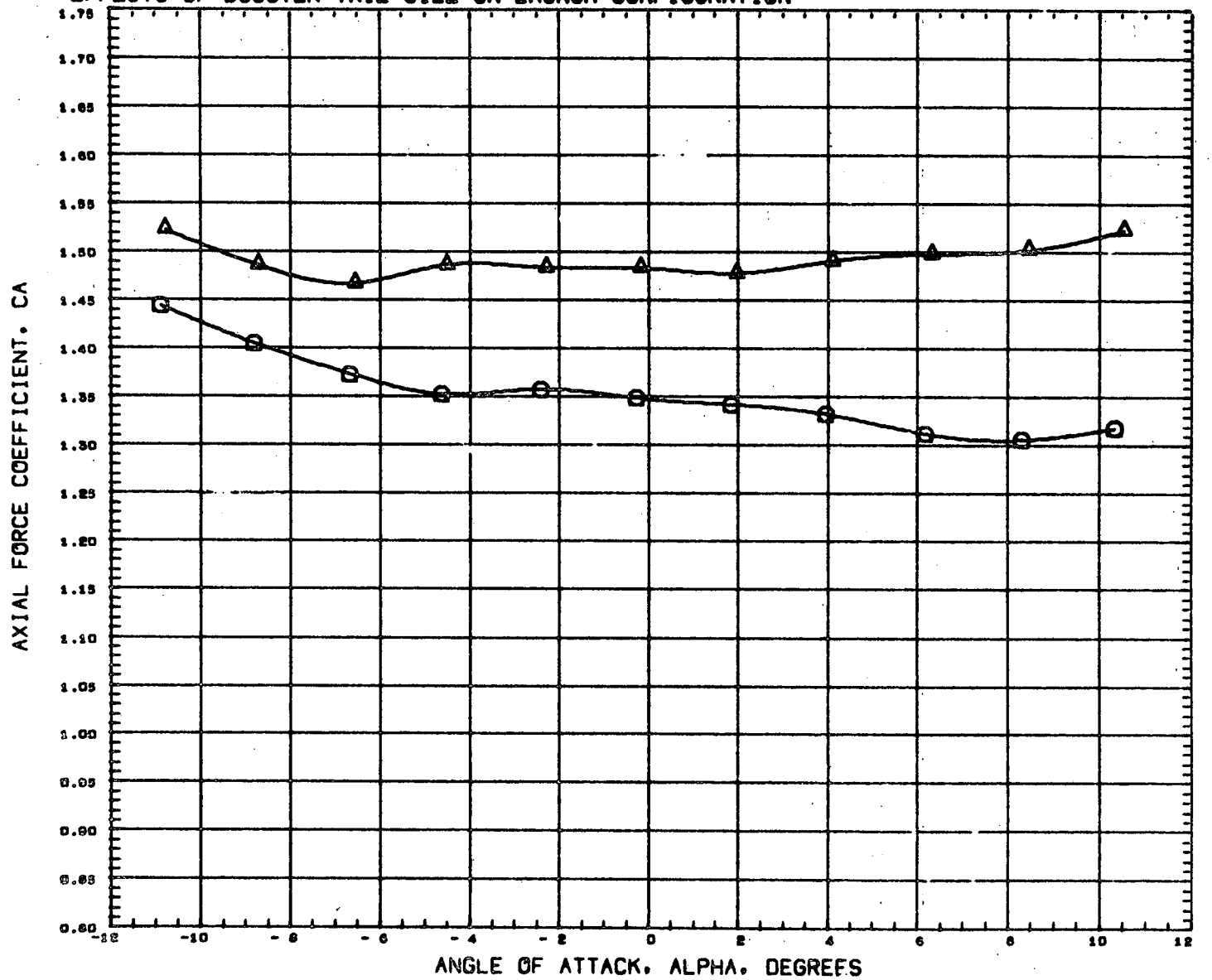


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0370)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(ES0400)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T13^2T3	0.000	0.000	0.000	0.000

MACH 0.800

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

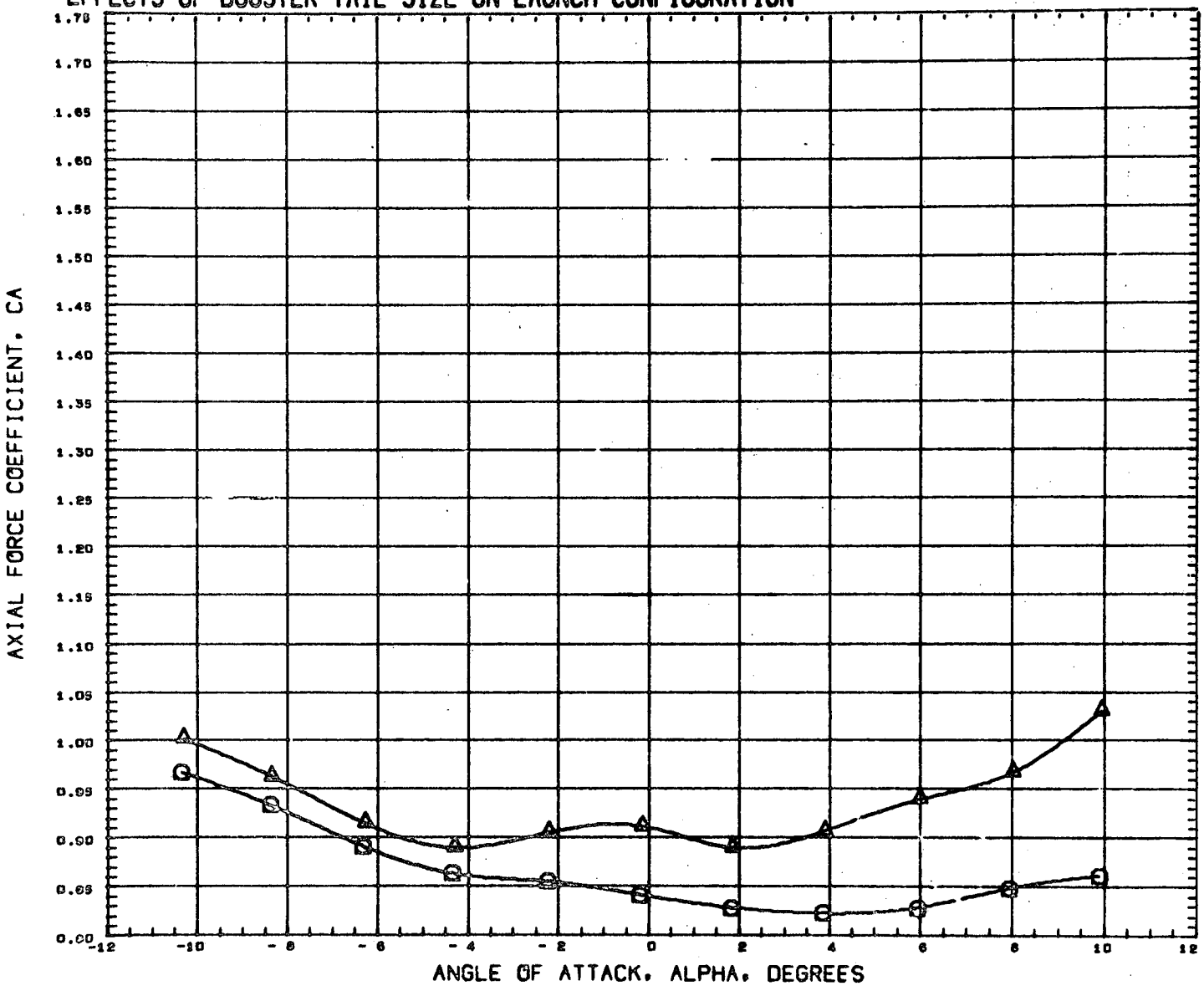


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1?02T3	0.000	0.000	0.000	0.000

MACH 8.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

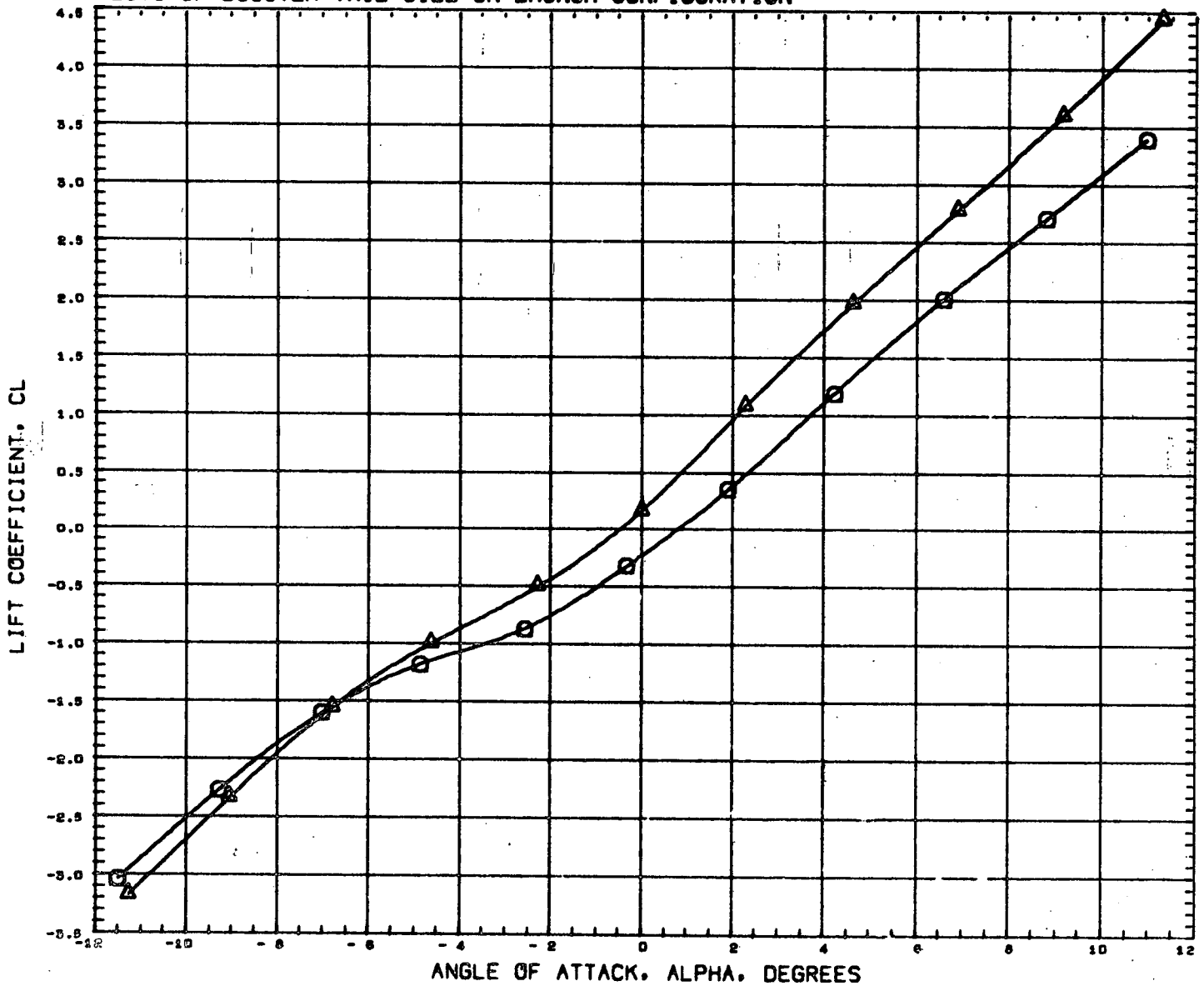


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .003566 BOOSTER/ORB. B34R6T1**2T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

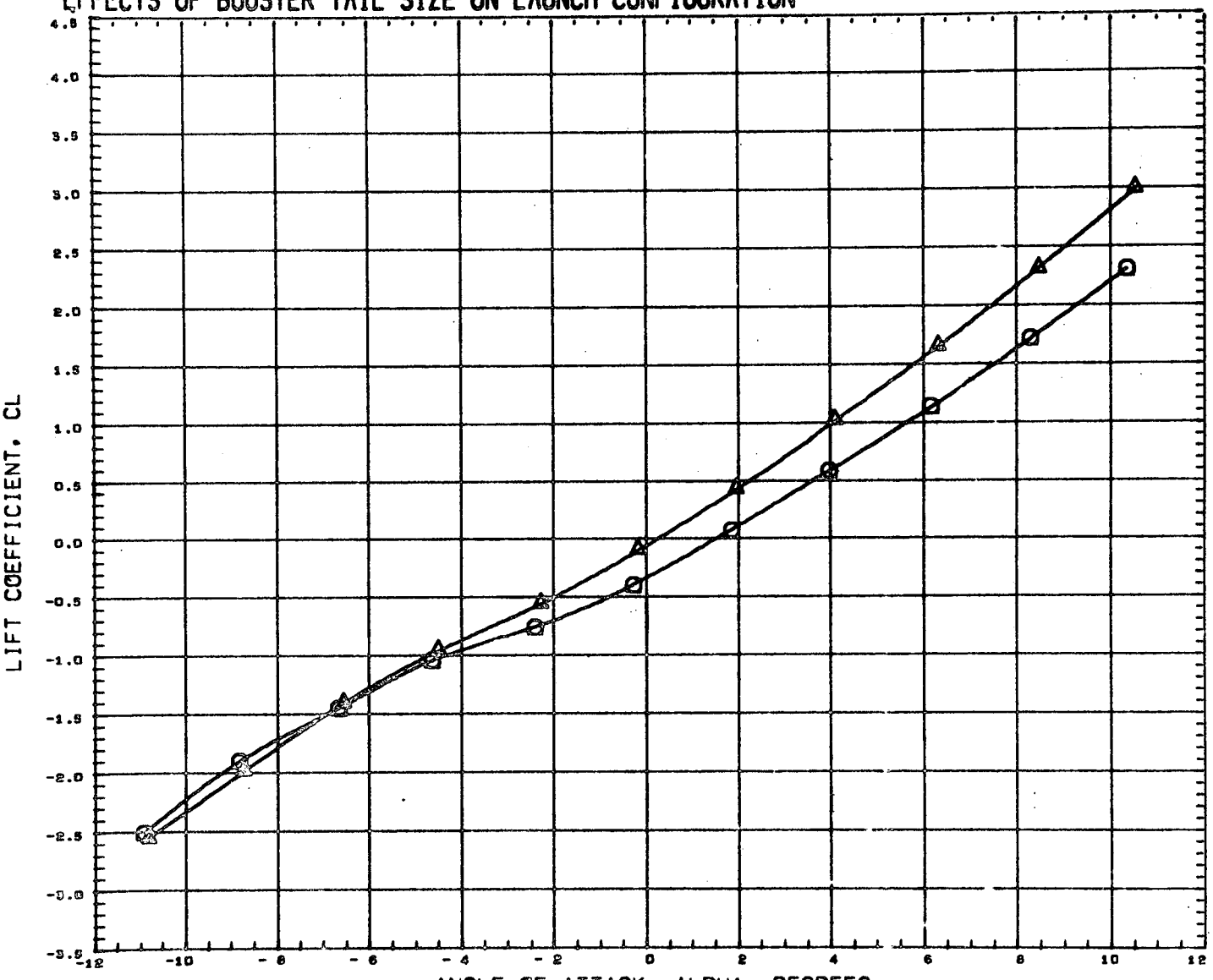


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .009366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .009366 BOOSTER/ORB. B34R6T15_<T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

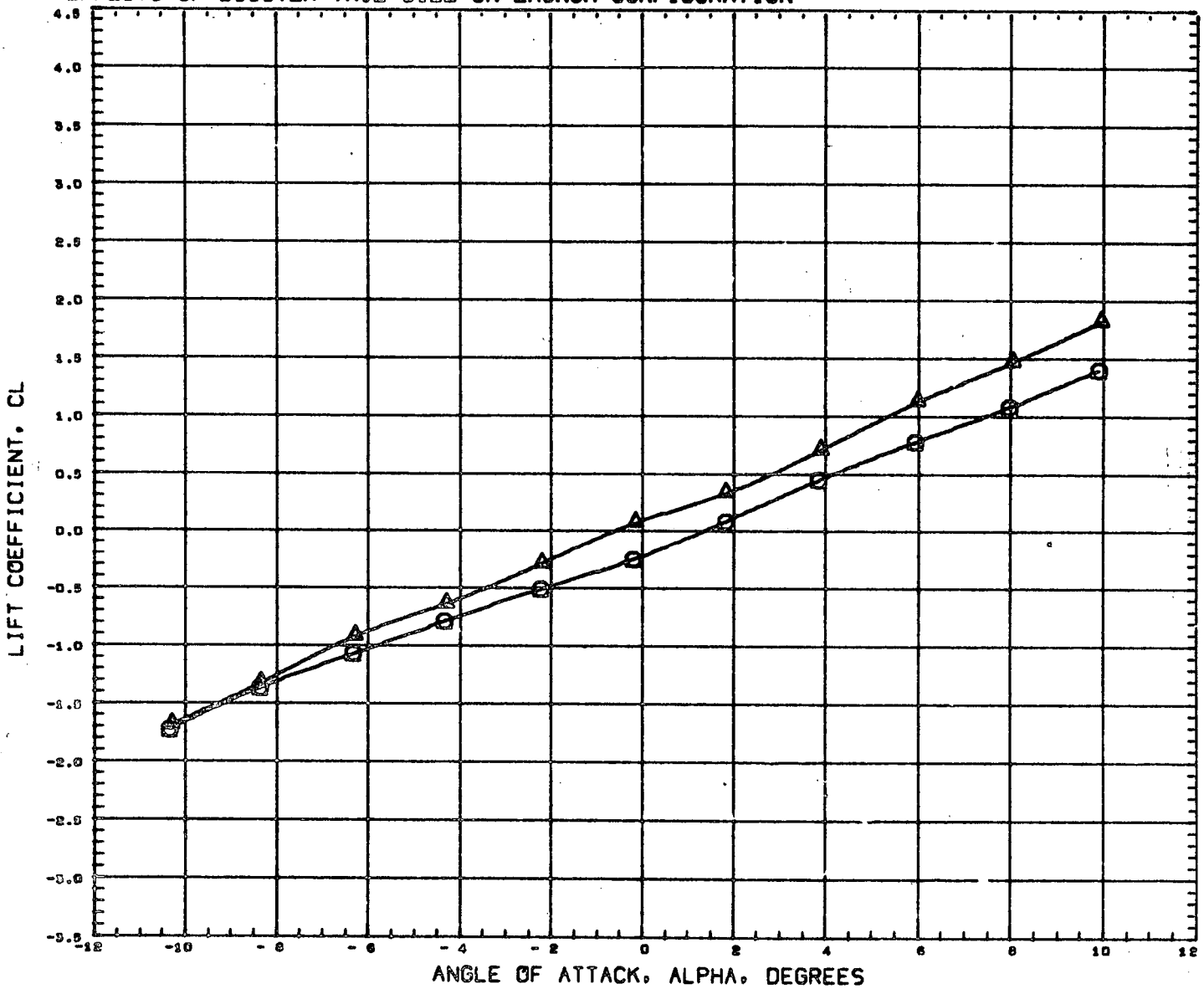


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0370)		MSFC 512 GD/C .005966 BOOSTER/ORB. B54R6T1002T3	0.000	0.000	0.000	0.000
(ES0400)		MSFC 512 GD/C .005966 BOOSTER/ORB. B54R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 8.740

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

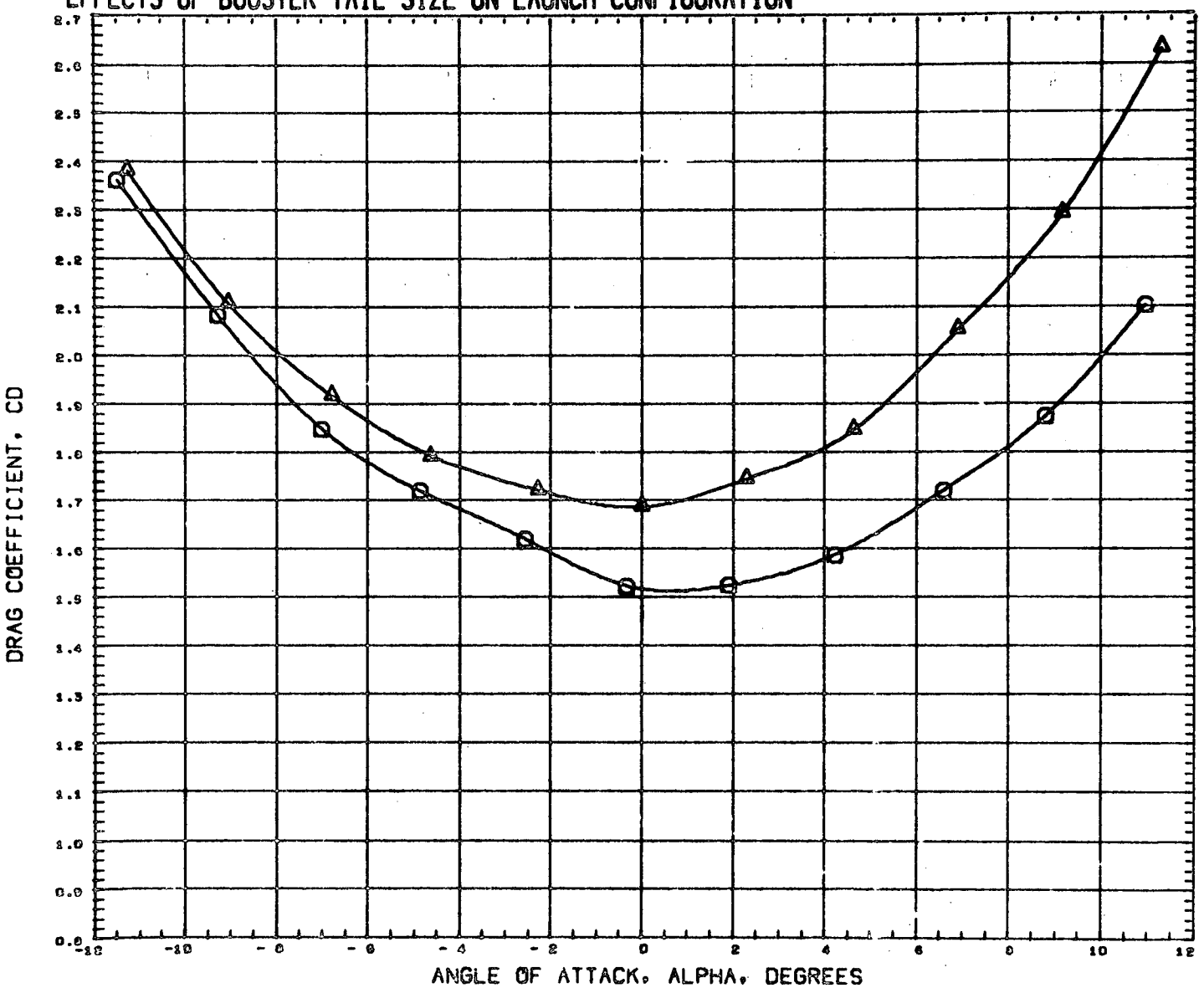


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .009300 BOOSTER/ORB. B34RGY10O2T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .009300 BOOSTER/ORB. B34R6T13[illegible]2T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.919

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

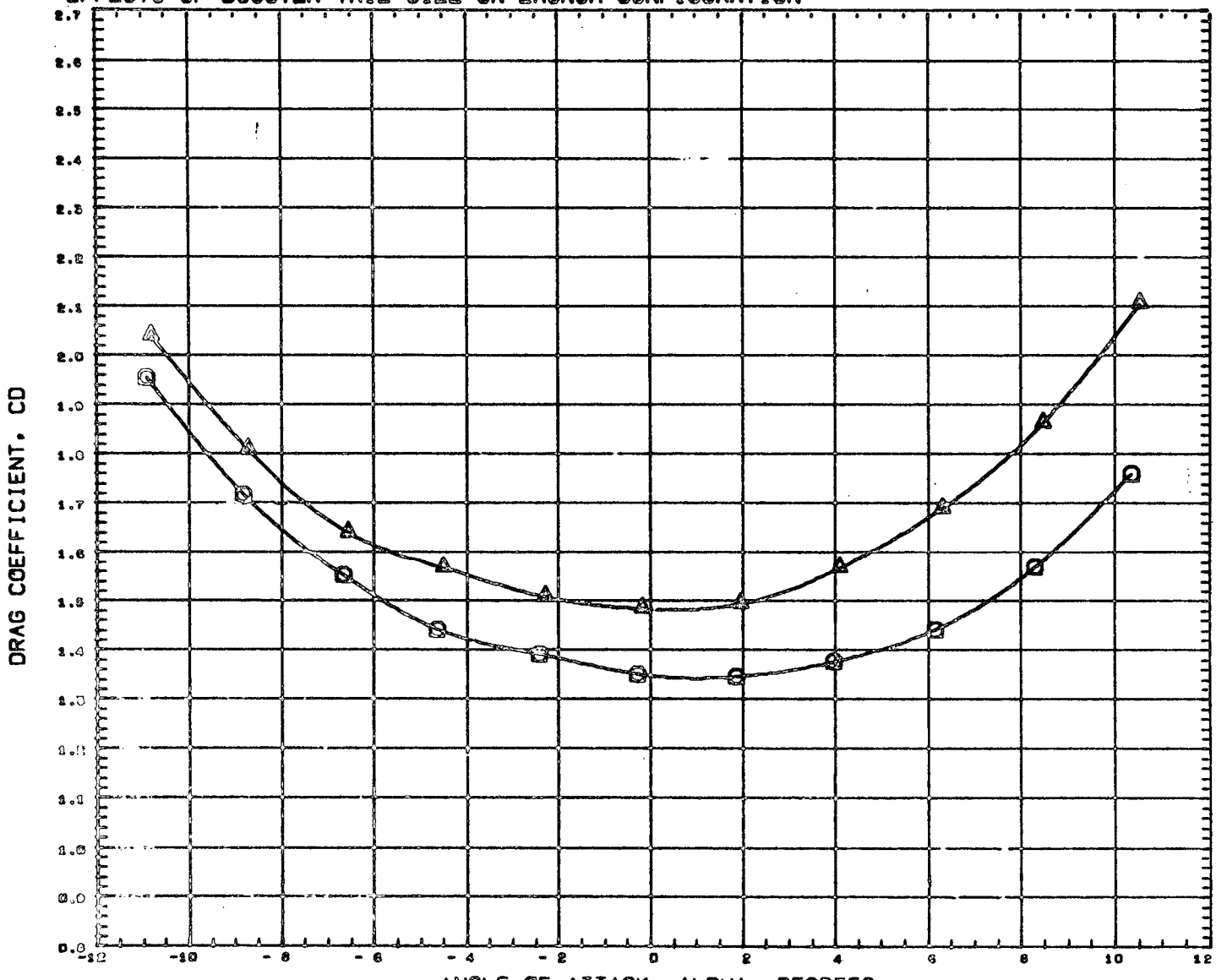


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T100ZT3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T1[illegible]2T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.810

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

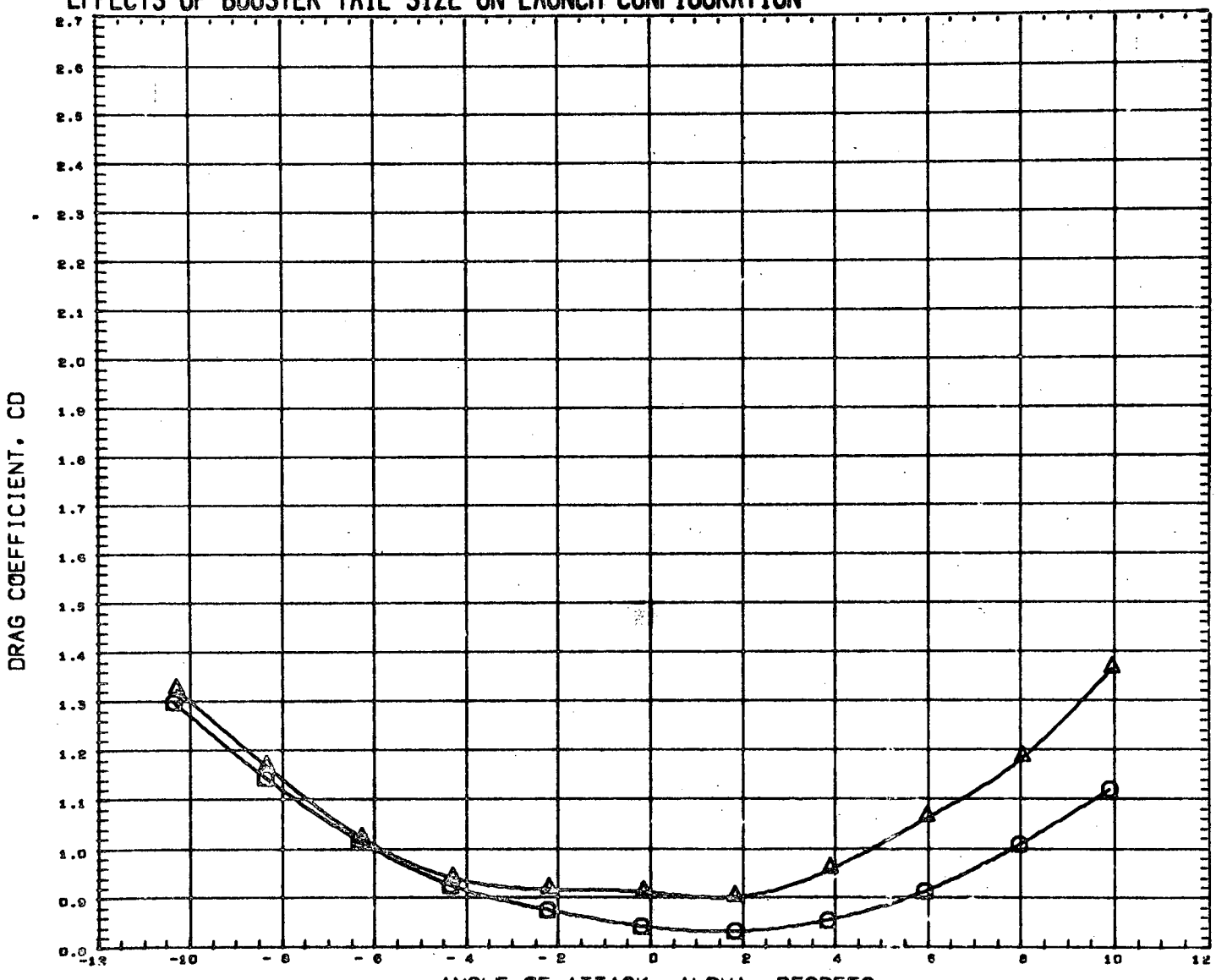


DATA SET (MACH)		CONFIGURATION DESCRIPTION	DETA	PHIMOD	LFLAP	RFLAP
(E50370)	○	MSFC 912 CD/C .003900 BOOSTER/CRD. 894R67100273	0.000	0.000	0.000	0.000
(E50400)	△	MSFC 912 CD/C .003900 BOOSTER/CRD. 894R67100273	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.740

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

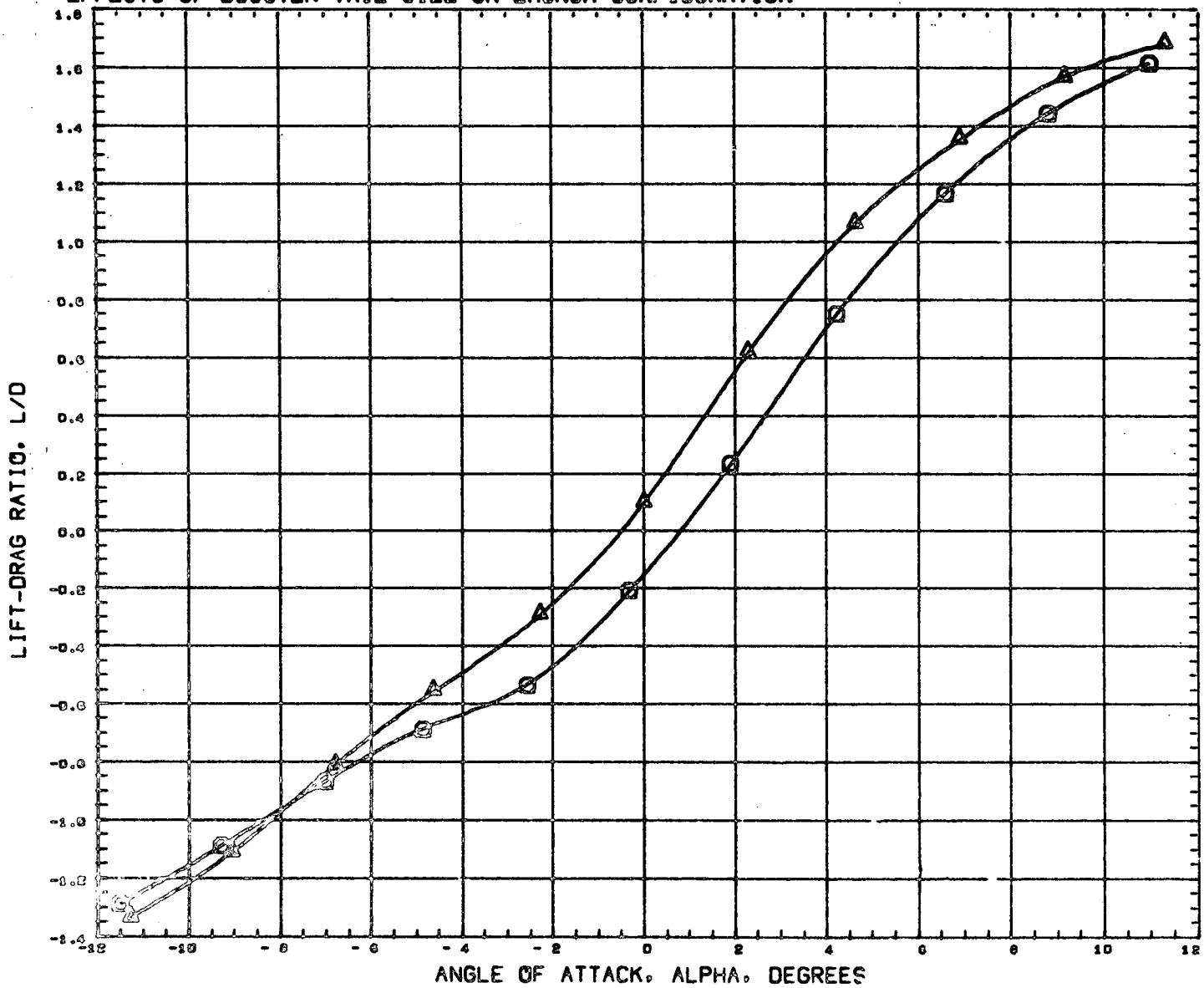


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

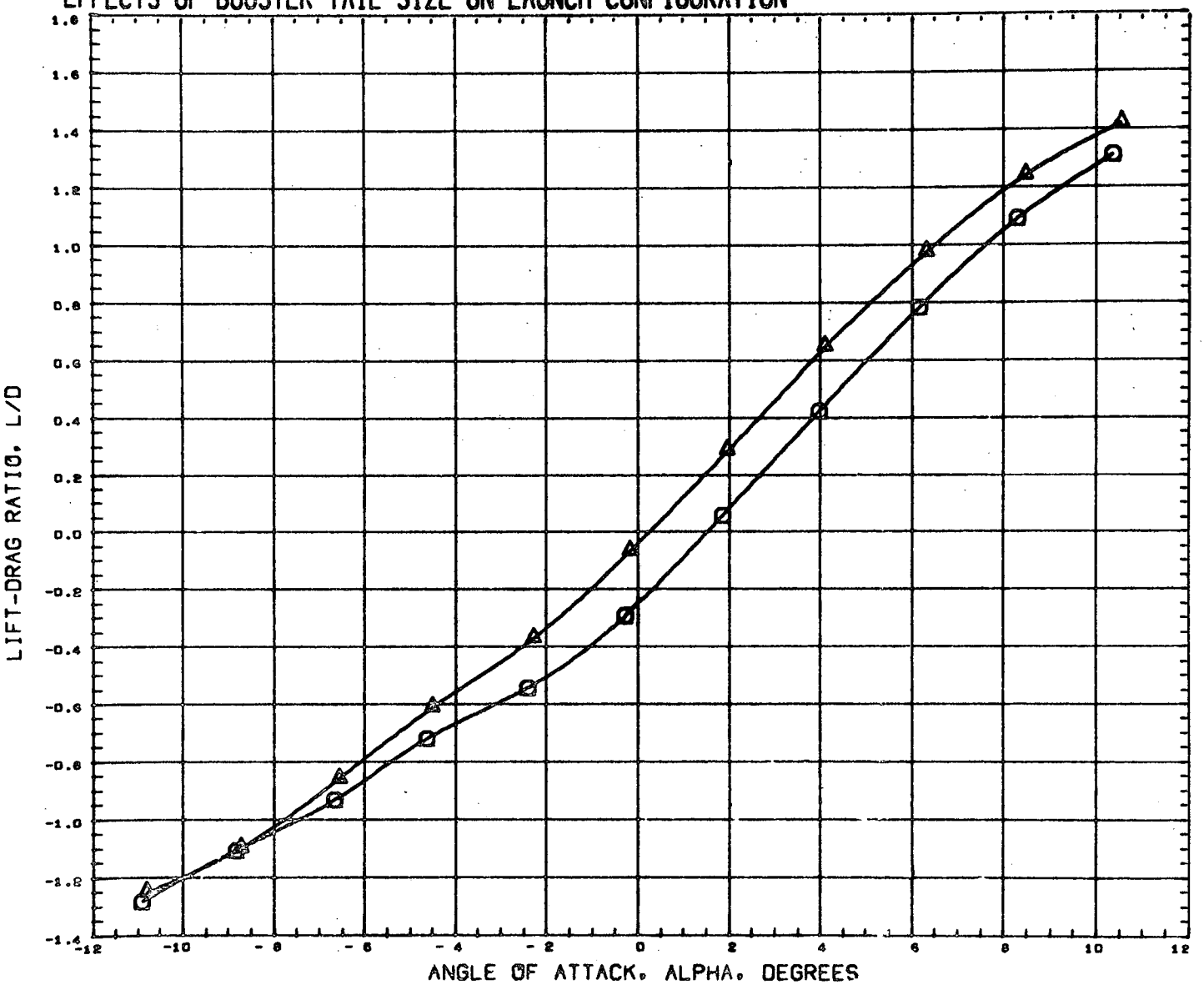


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0370)	MSFC 512 GD/C .005900 BOOSTER/ORB. B54RGT1002T3	0.000	0.000	0.000	0.000
(ES0400)	MSFC 512 GD/C .005900 BOOSTER/ORB. B54RGT13CCT3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

CASE: 0.001

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

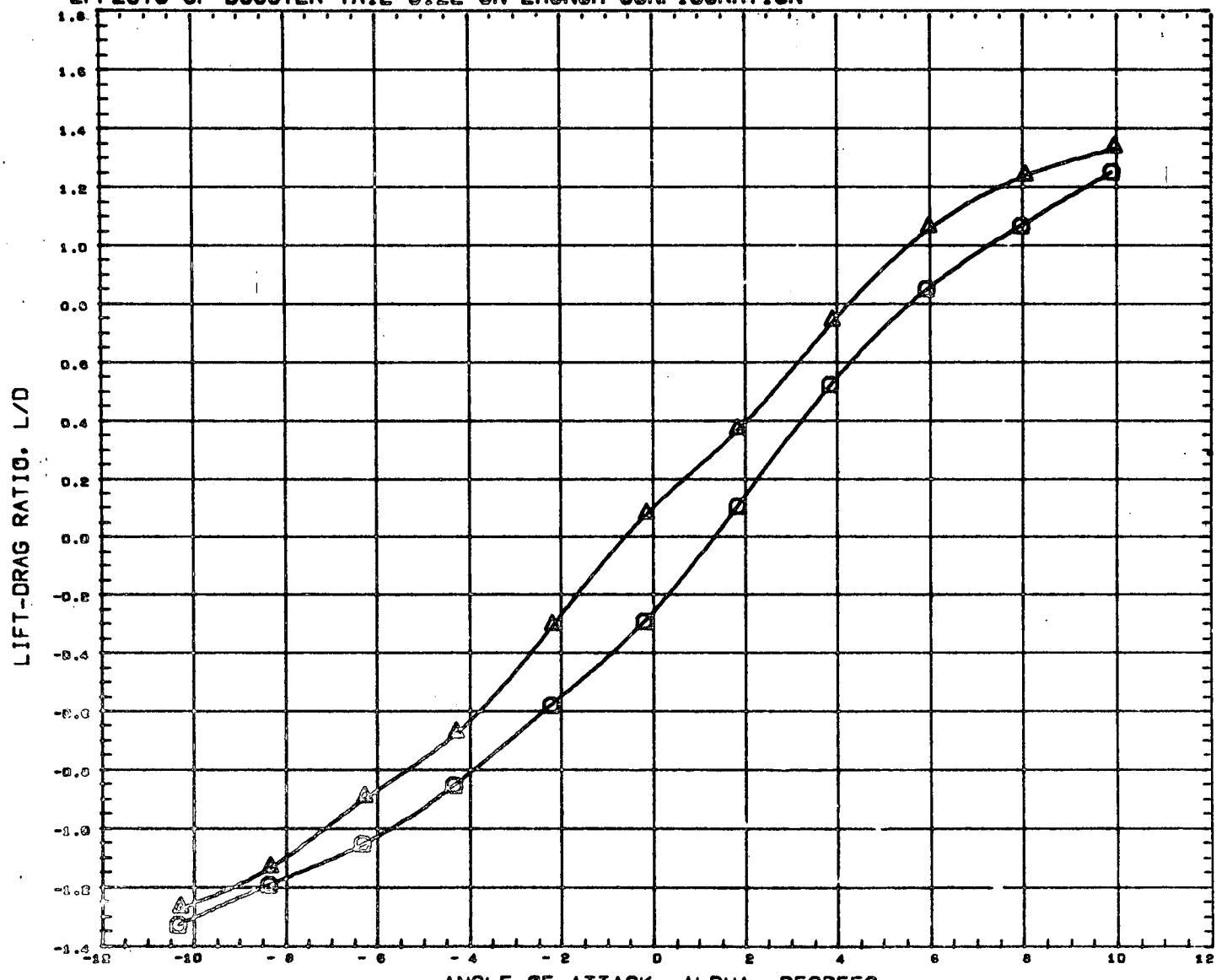


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0370)	○	MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T100ZTS	0.000	0.000	0.000	0.000
(ES0400)	△	MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T130PTS	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

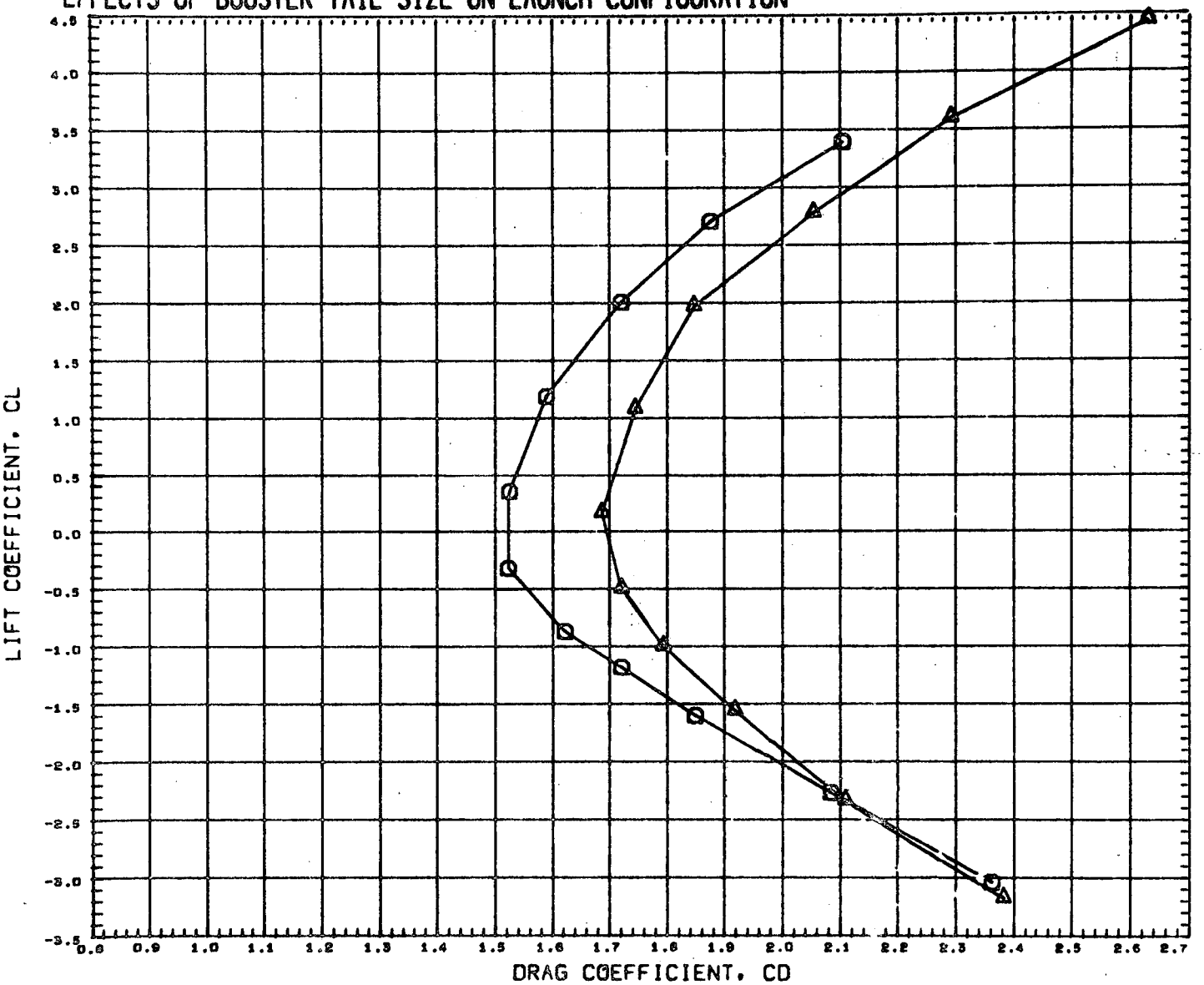


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0373)	MSFC S12 GD/C .003306 BOOSTER/ORB. B34RGT1002TS	0.000	0.000	0.000	0.000
(ES0400)	MSFC S12 GD/C .003306 BOOSTER/ORB. B34RGT13[illegible]2TS	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.950

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

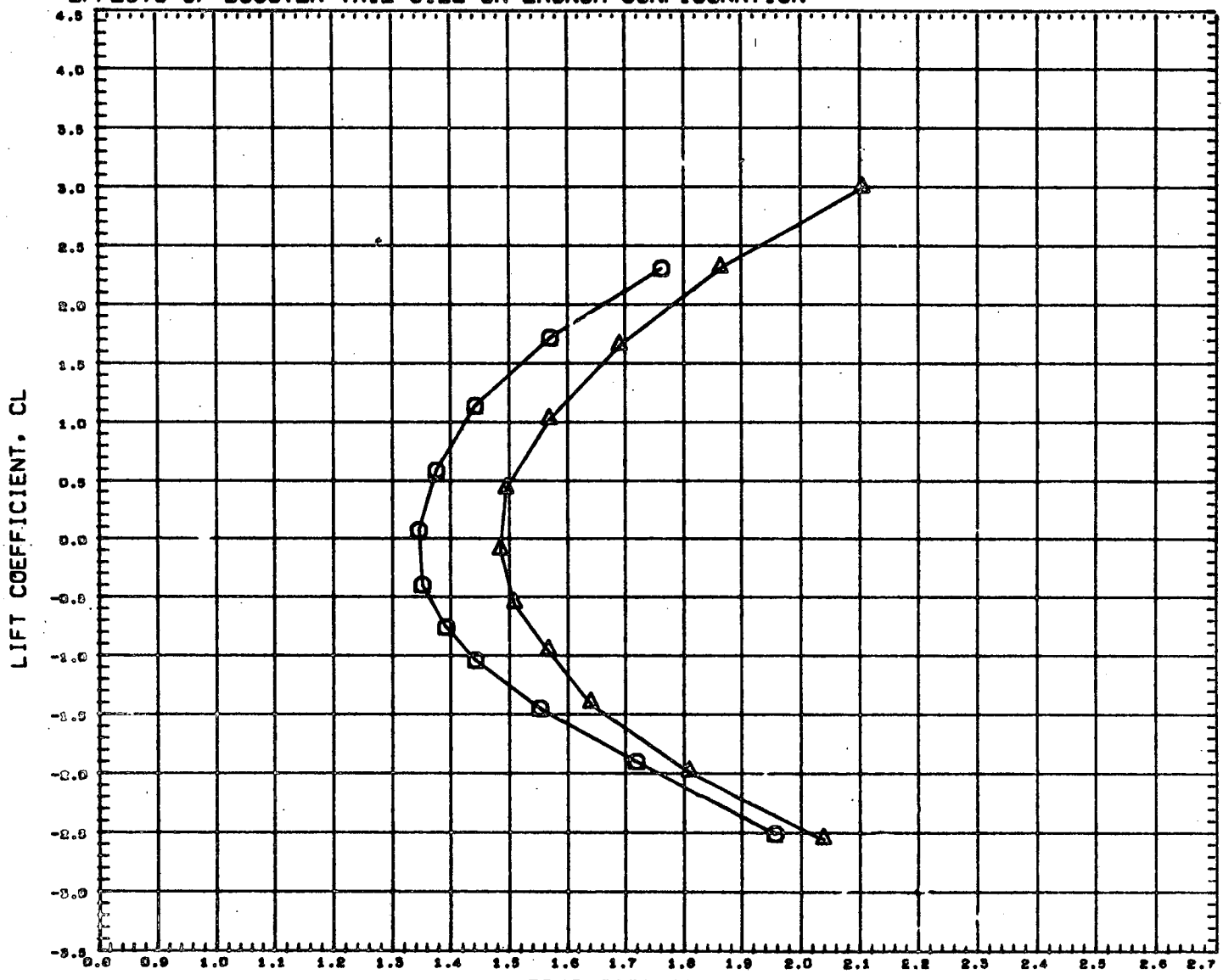


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(ES0370)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(ES0400)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T13[illegible]T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.900

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

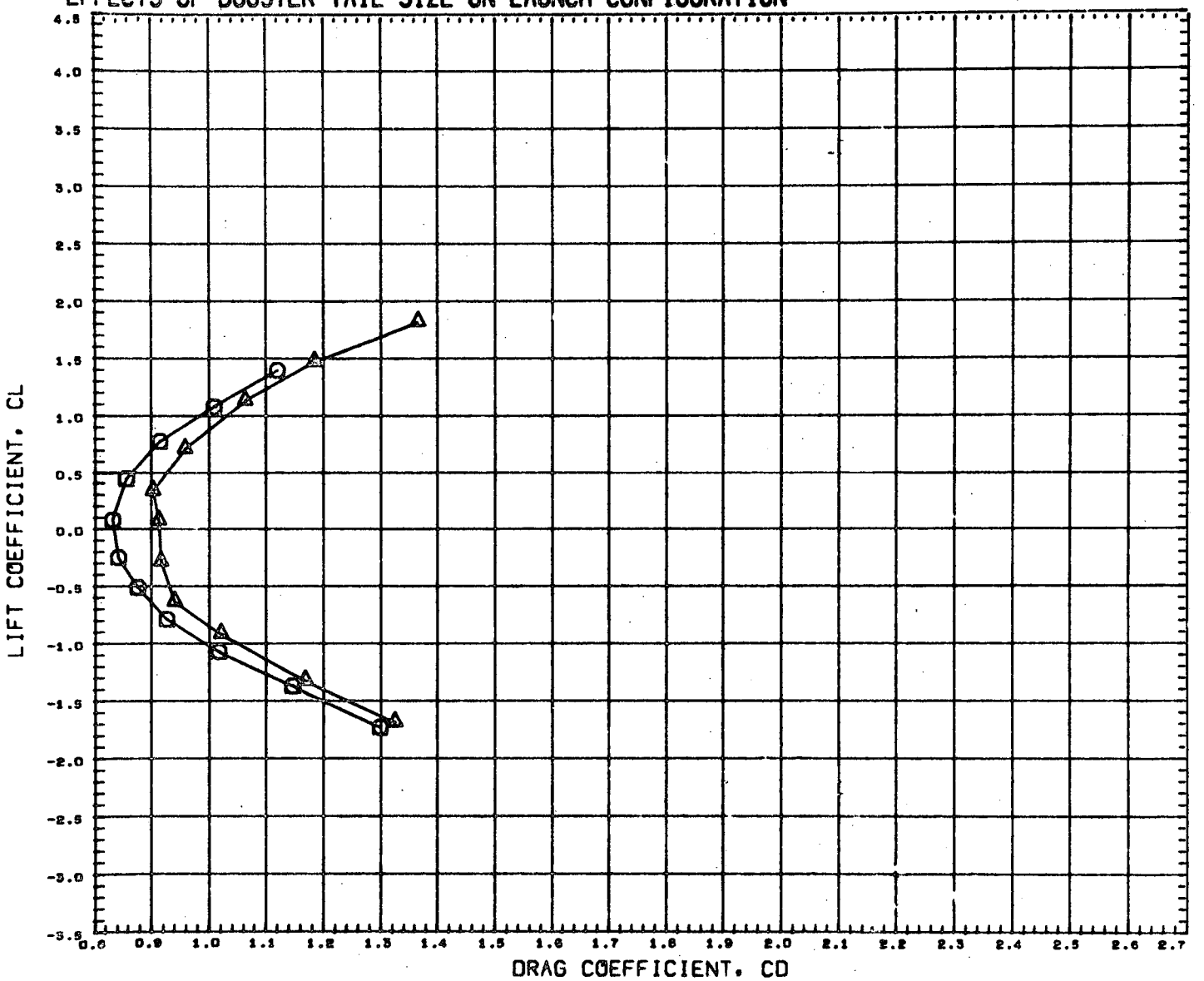


DATA KEY	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .009366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .009366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

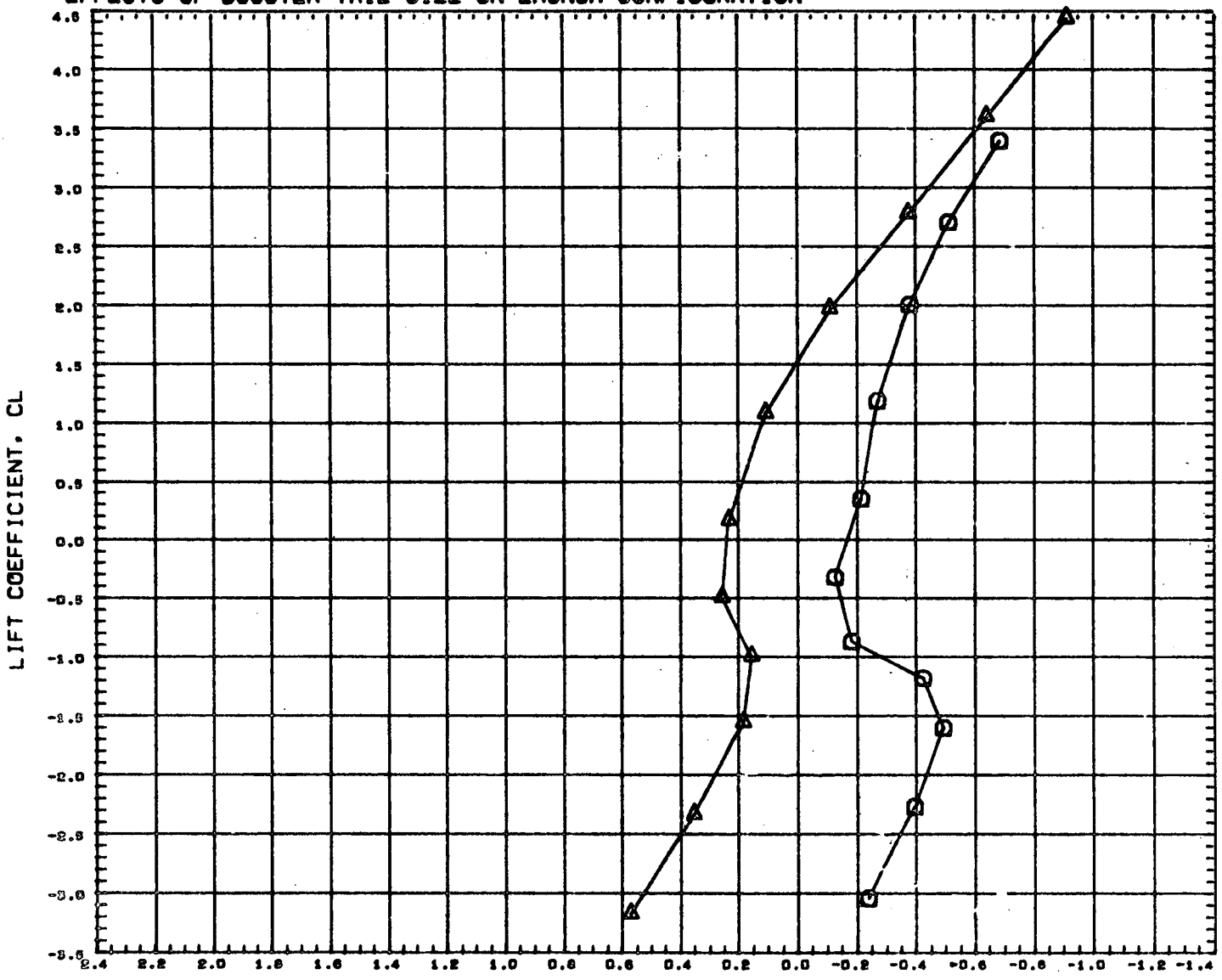


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

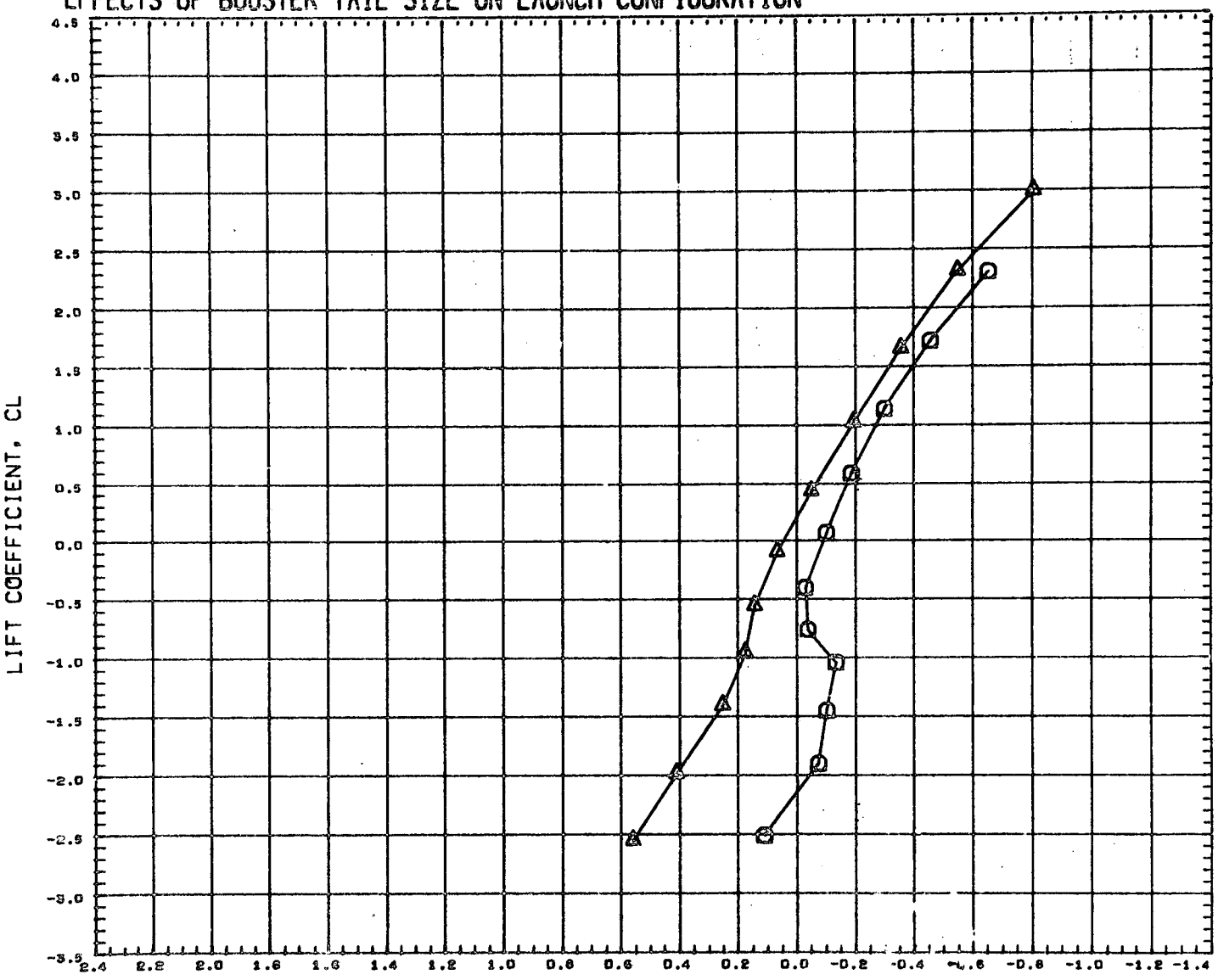


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .003966 BOOSTER/ORB. B34R6T13~~2~~T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.900

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

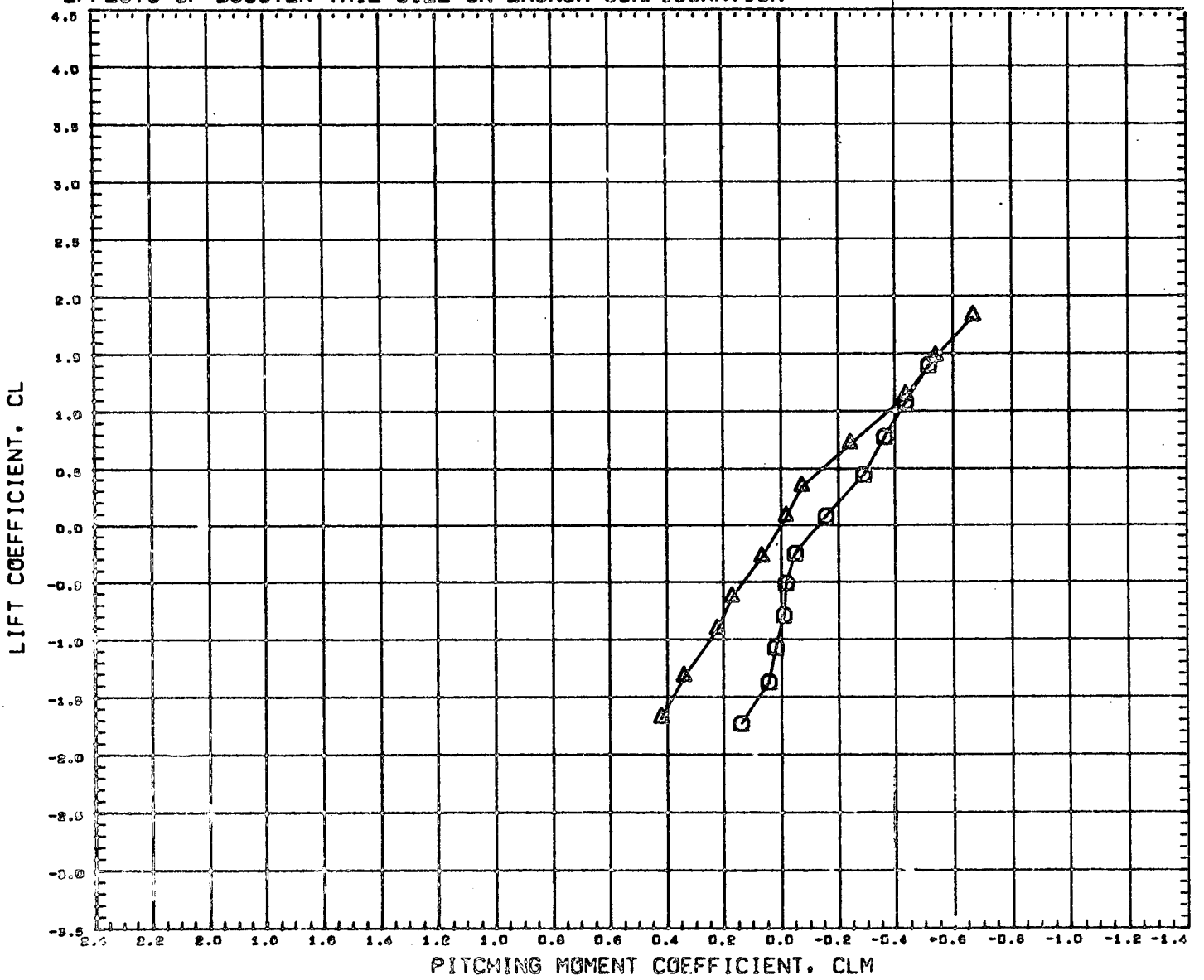


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	AFLAP
(E50370)		MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

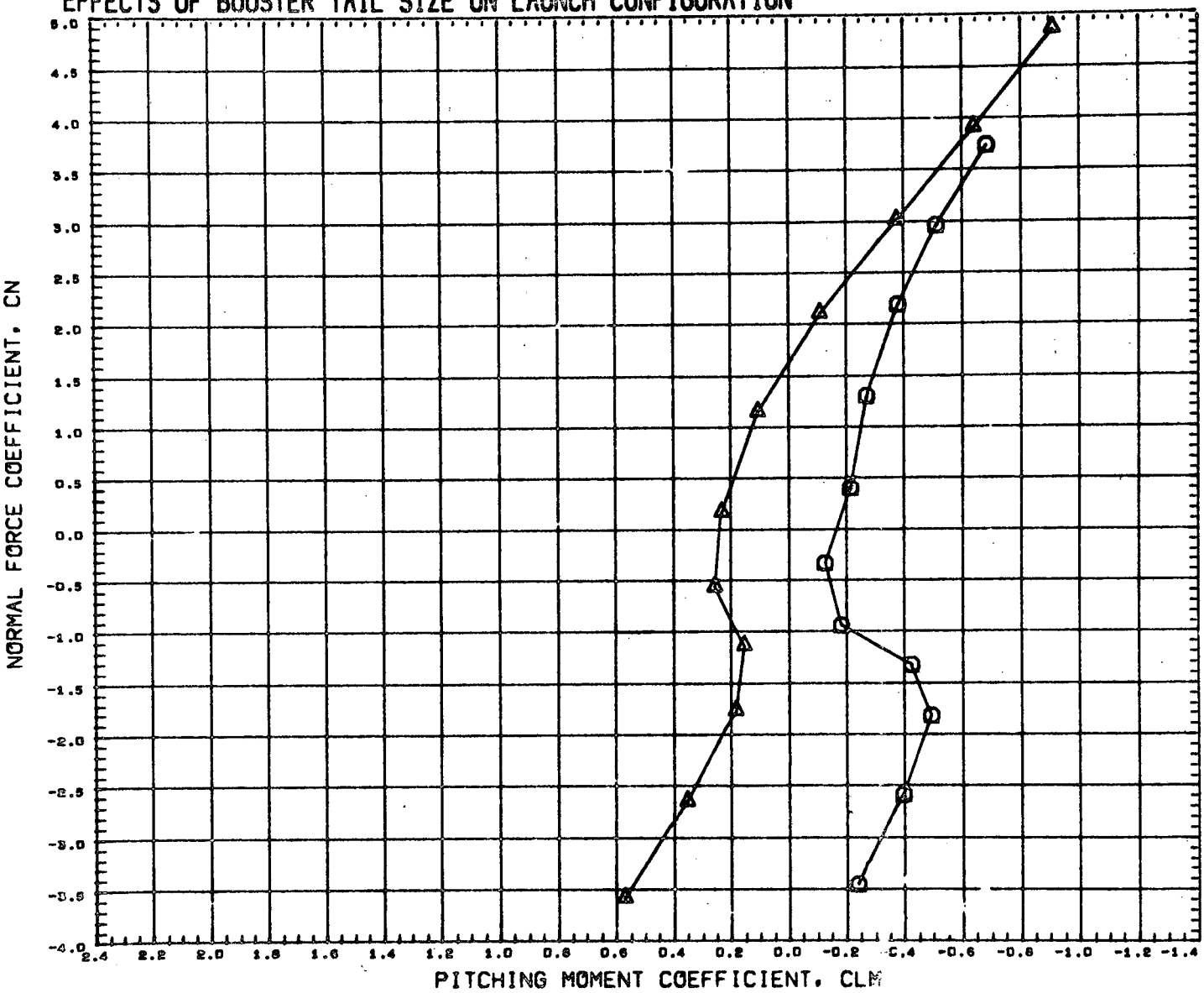


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		MSFC 312 GD/C .005366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		MSFC 312 GD/C .005366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.099

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

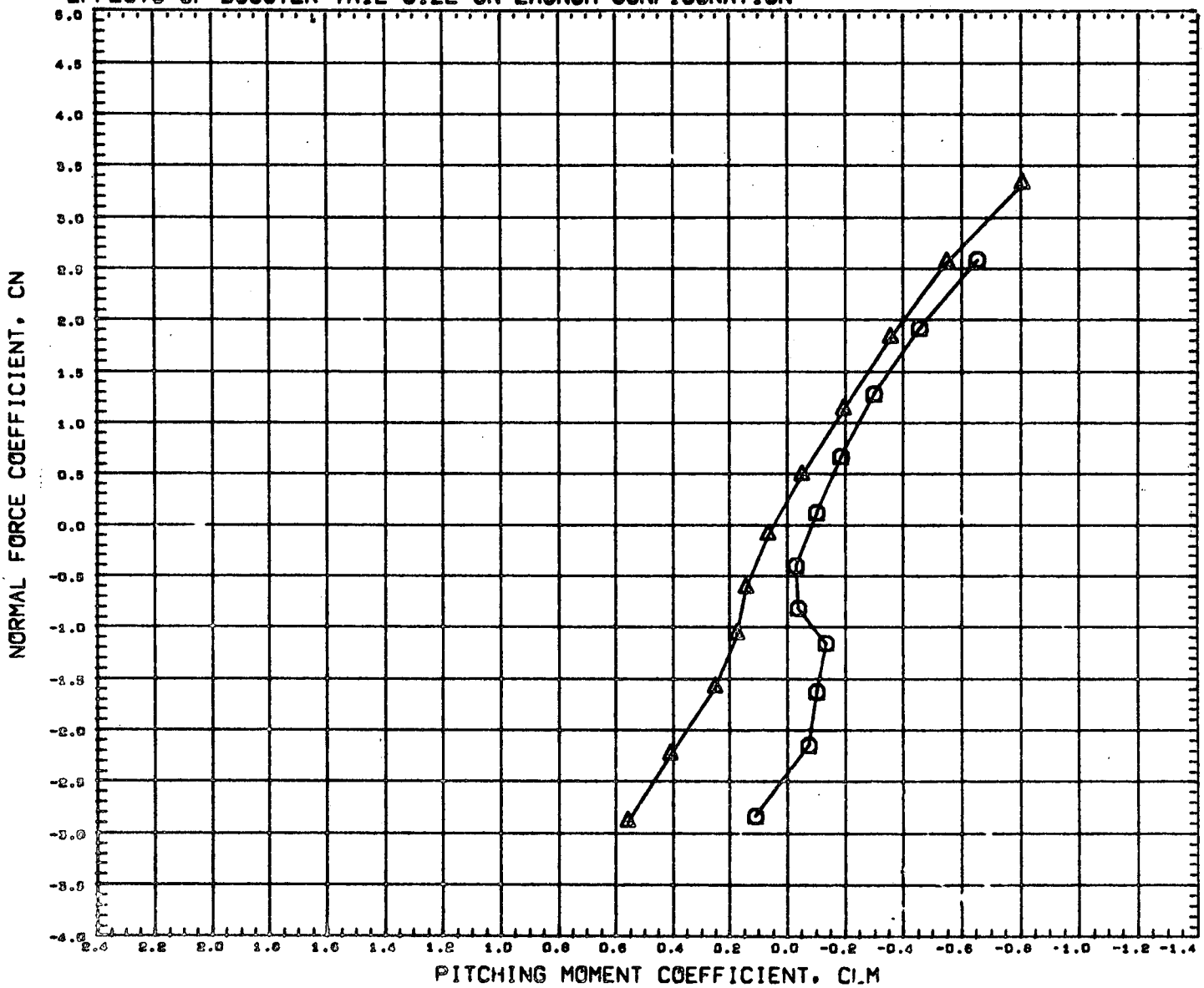


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.900

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

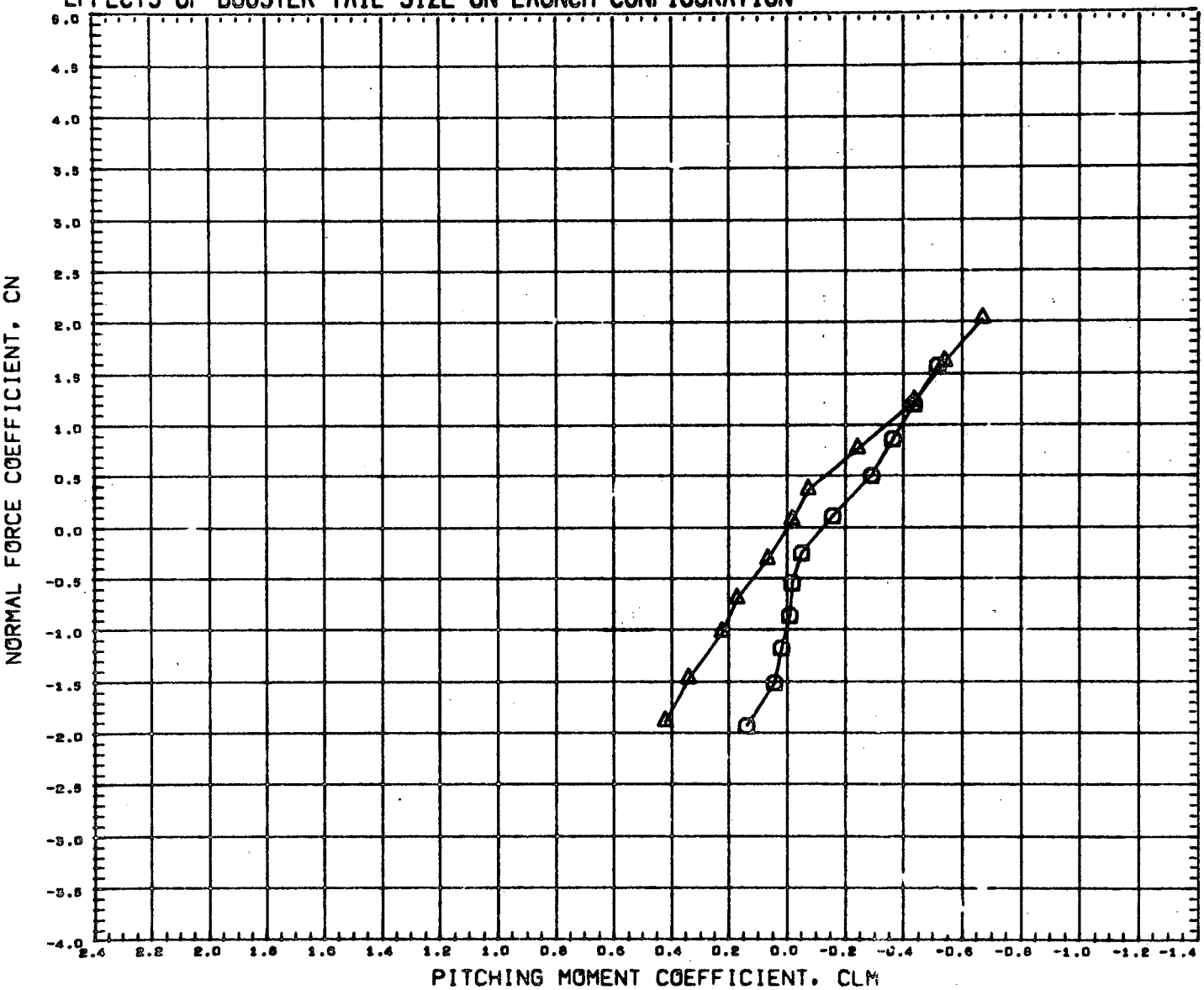


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)		M8FC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)		M8FC 512 GD/C .003960 BOOSTER/ORB. B34R6T13^2T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 2.740

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

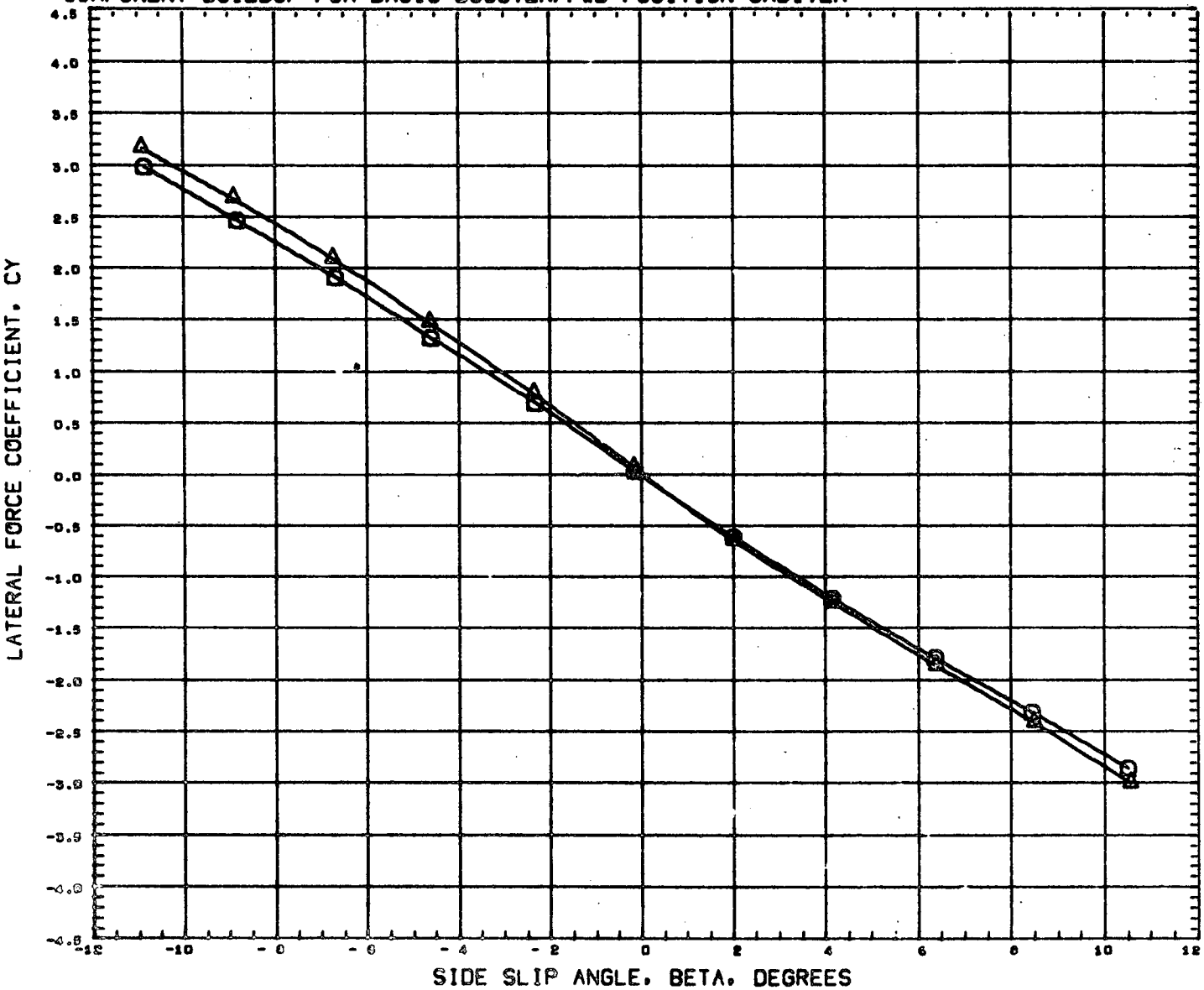


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	PHIMOD	LFLAP	RFLAP
(E50370)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(E50400)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

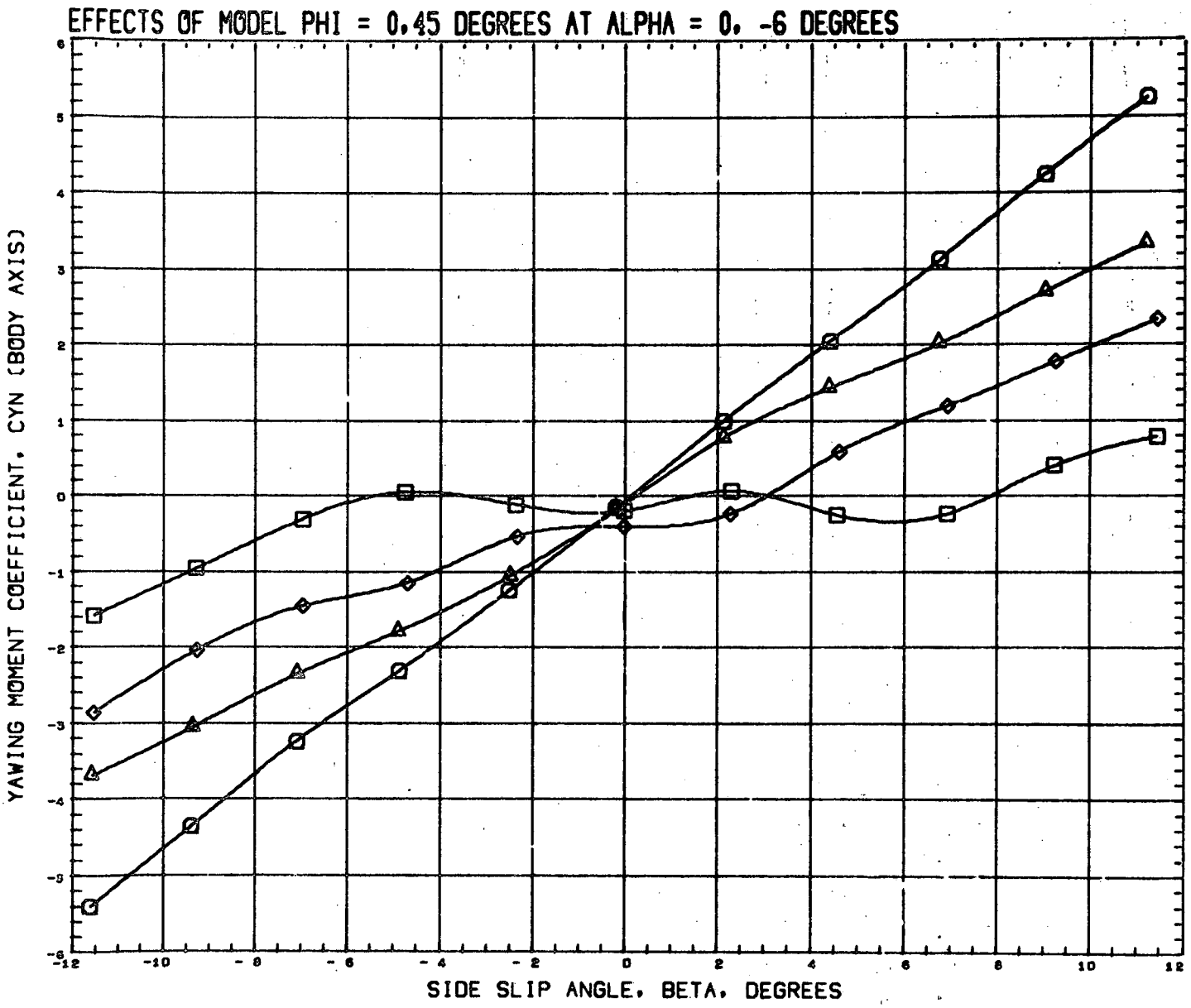
COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(HS0300)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(HS0300)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.601

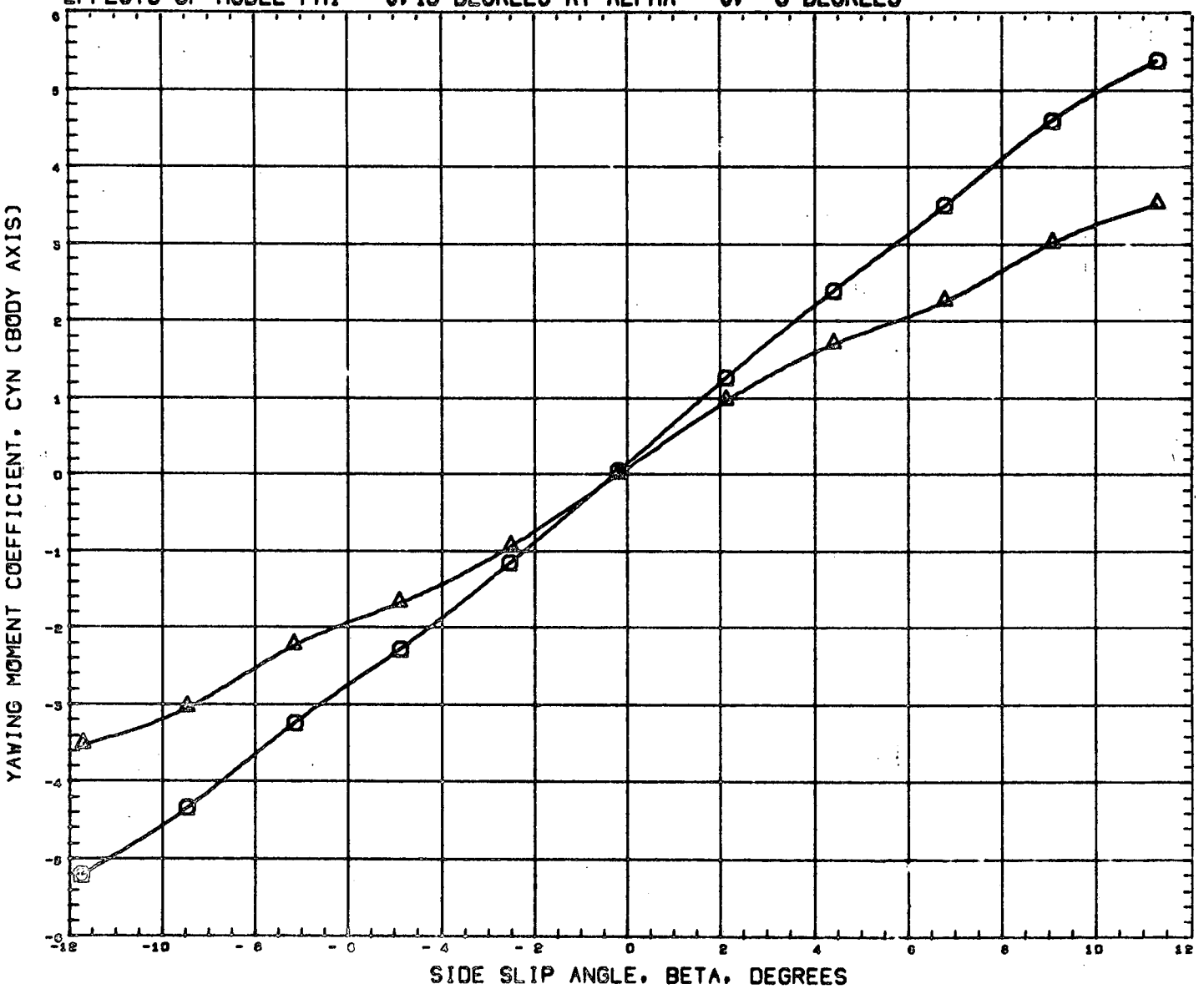


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5D198)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H5D230)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	45.000	0.000	0.000
(H5D220)	◇	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000
(H5D340)	□	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	-6.000	45.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.104

EFFECTS OF MODEL PHI = 0.45 DEGREES AT ALPHA = 0, -6 DEGREES

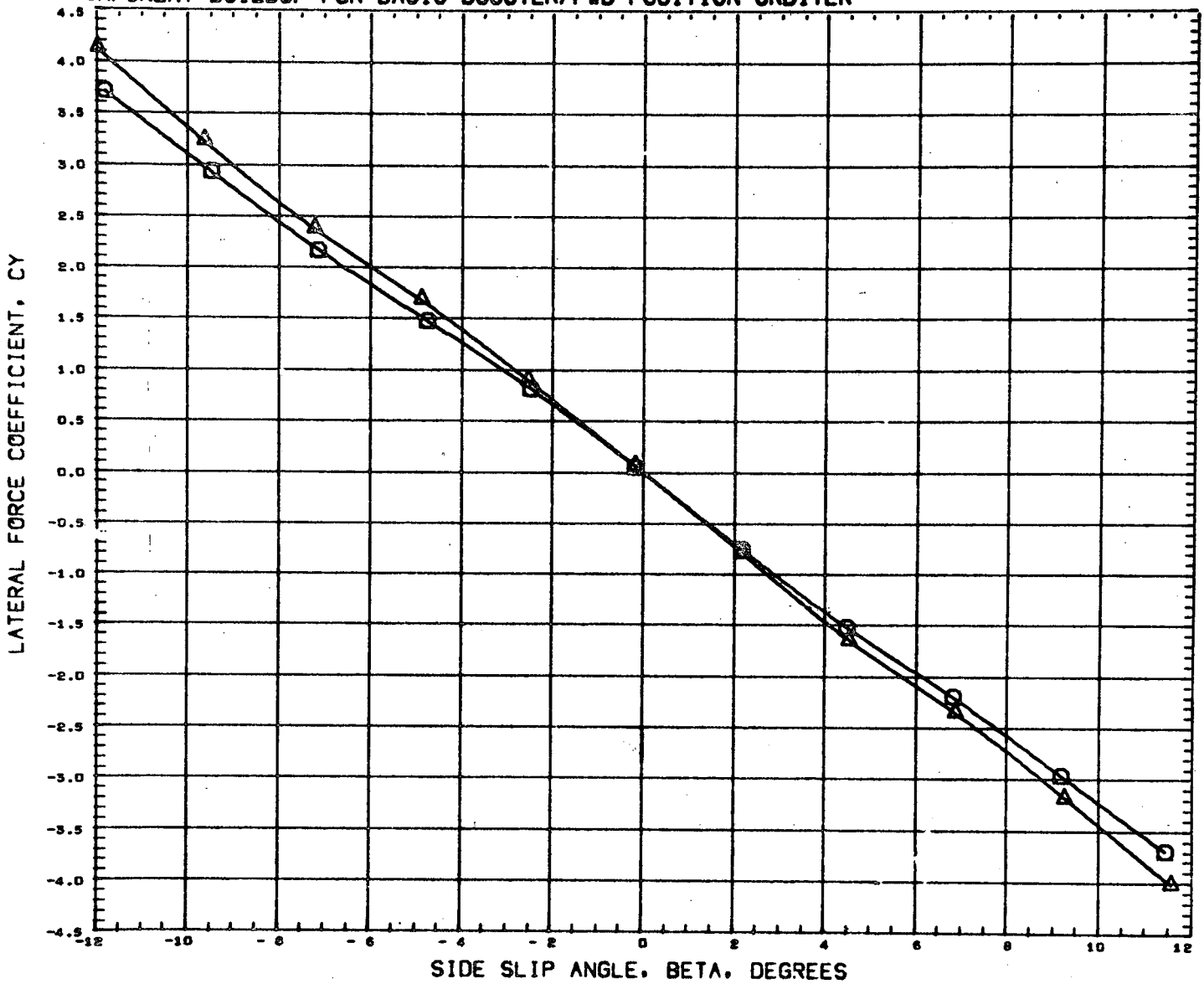


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A90108)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T100ZT3	0.000	0.000	0.000	0.000
(M90290)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T100ZT3	0.000	45.000	0.000	0.000
(M90220)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000
(M90340)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS	-6.000	45.000	0.000	0.000

MACH 1.200

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	5.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

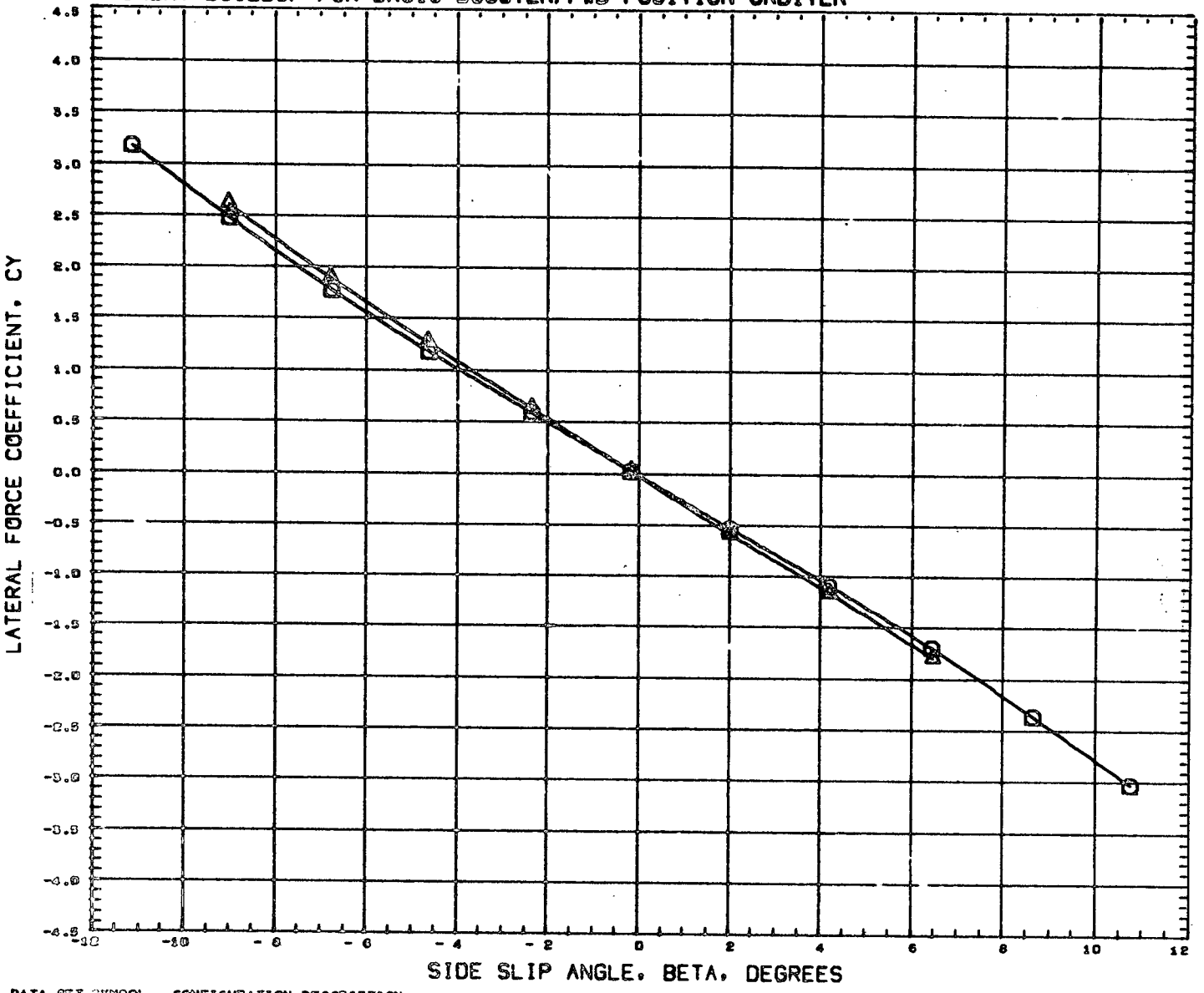


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOC	LFLAP	RFLAP
(H5036D)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H5030D)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B3-R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.400

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

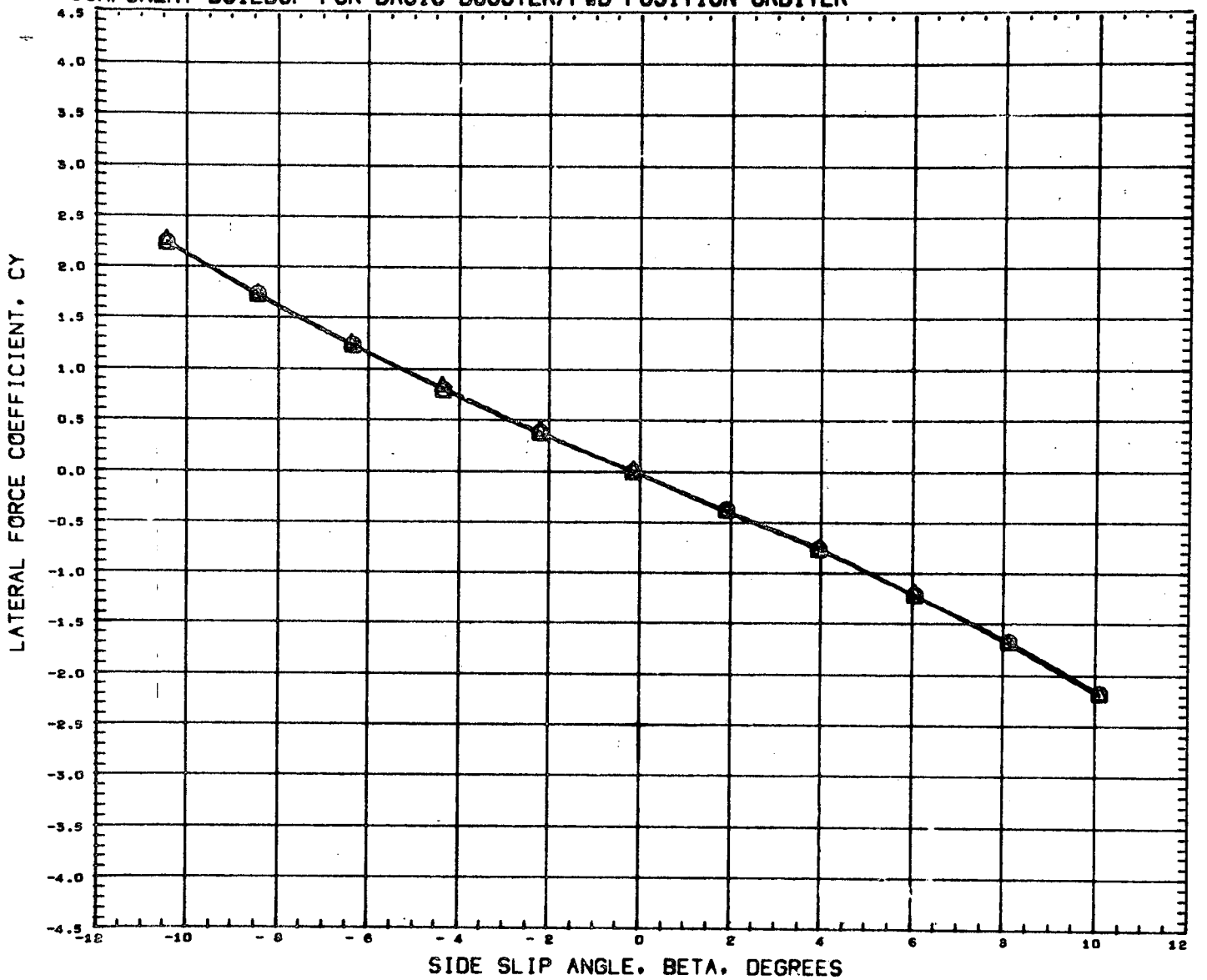


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(MS0360)		MSFC 512 GD/C .003366 BOOSTER/ORD. B34R6T1002T3	0.000	0.000	0.000	0.000
(MS0500)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 8.740

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

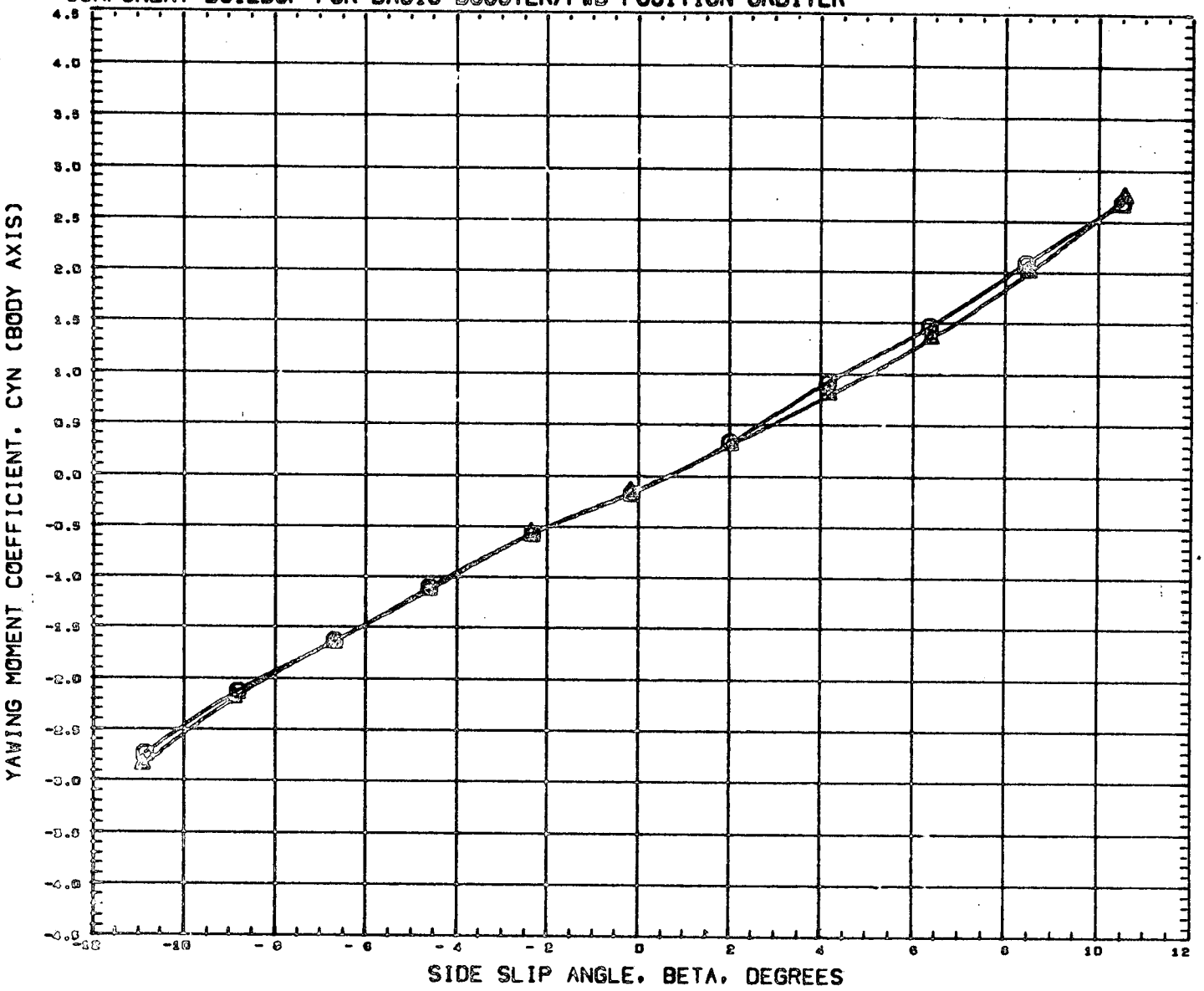


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50360)		MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50380)		MSFC 512 GD/C .005366 BOOSTER/ORB. B34[illegible]T1002T3	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

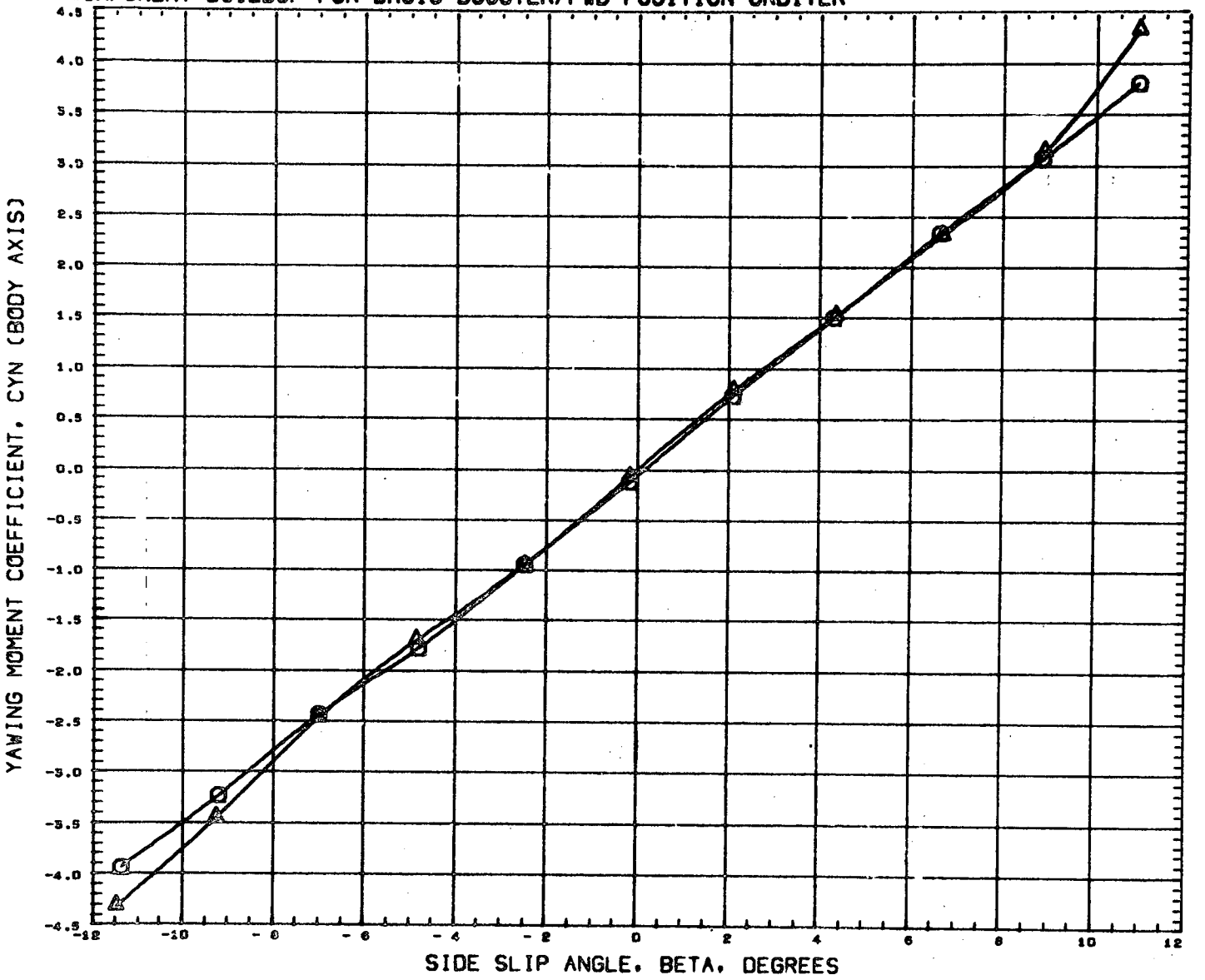


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOC	LFLAP	RFLAP
(N90360)		MSFC 512 6D/C .003366 BOOSTER/ORB. 834RGT1002T3	0.000	0.000	0.000	0.000
(N90300)		MSFC 512 6D/C .003366 BOOSTER/ORB. 85.XGT1002T3	0.000	0.000	0.000	0.000

MACH 0.601

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

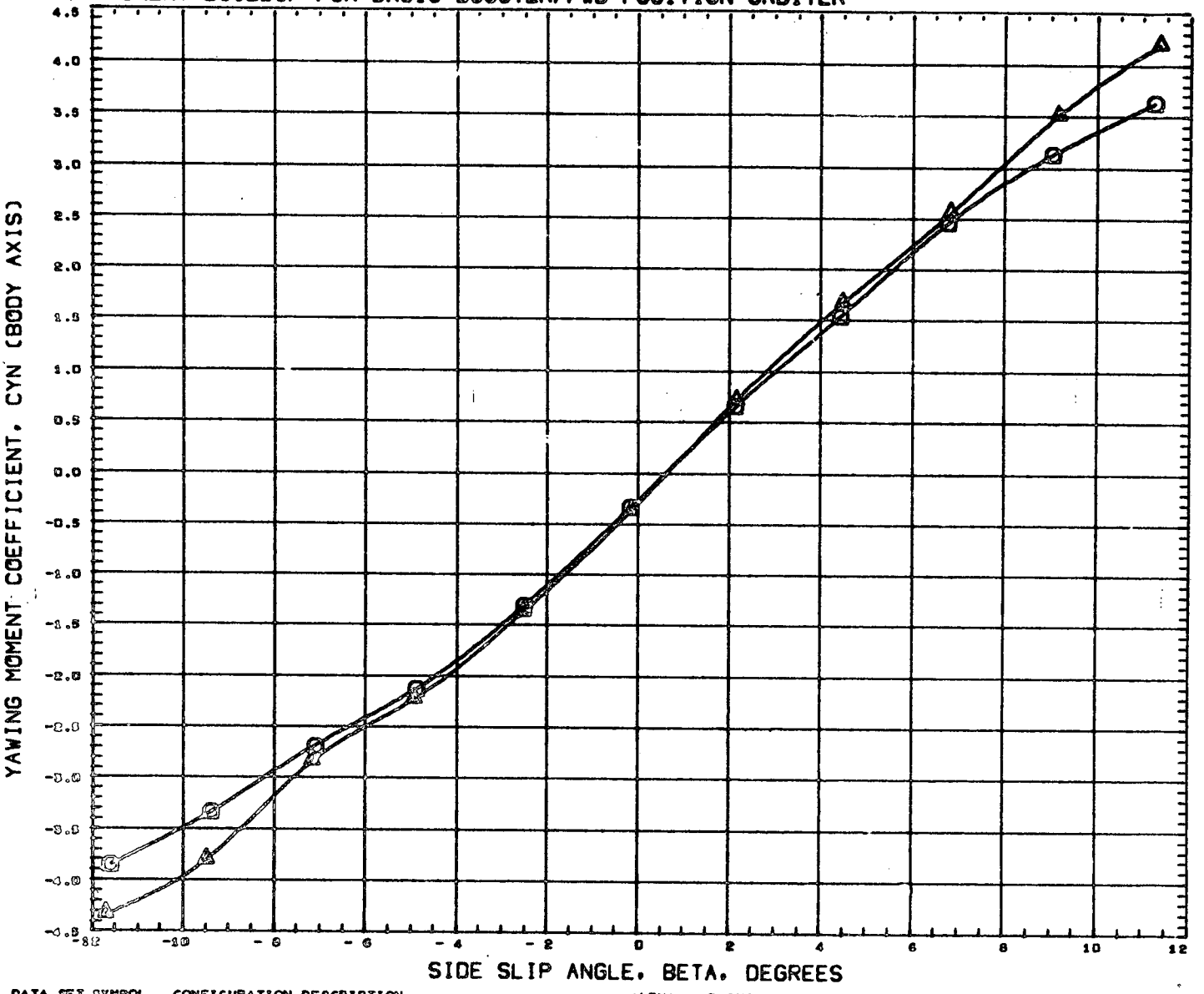


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H503G0)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002TS	0.000	0.000	0.000	0.000
(H503B0)		MSFC 512 GD/C .003366 BOOSTER/ORB. B3[illegible]6T1002TS	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

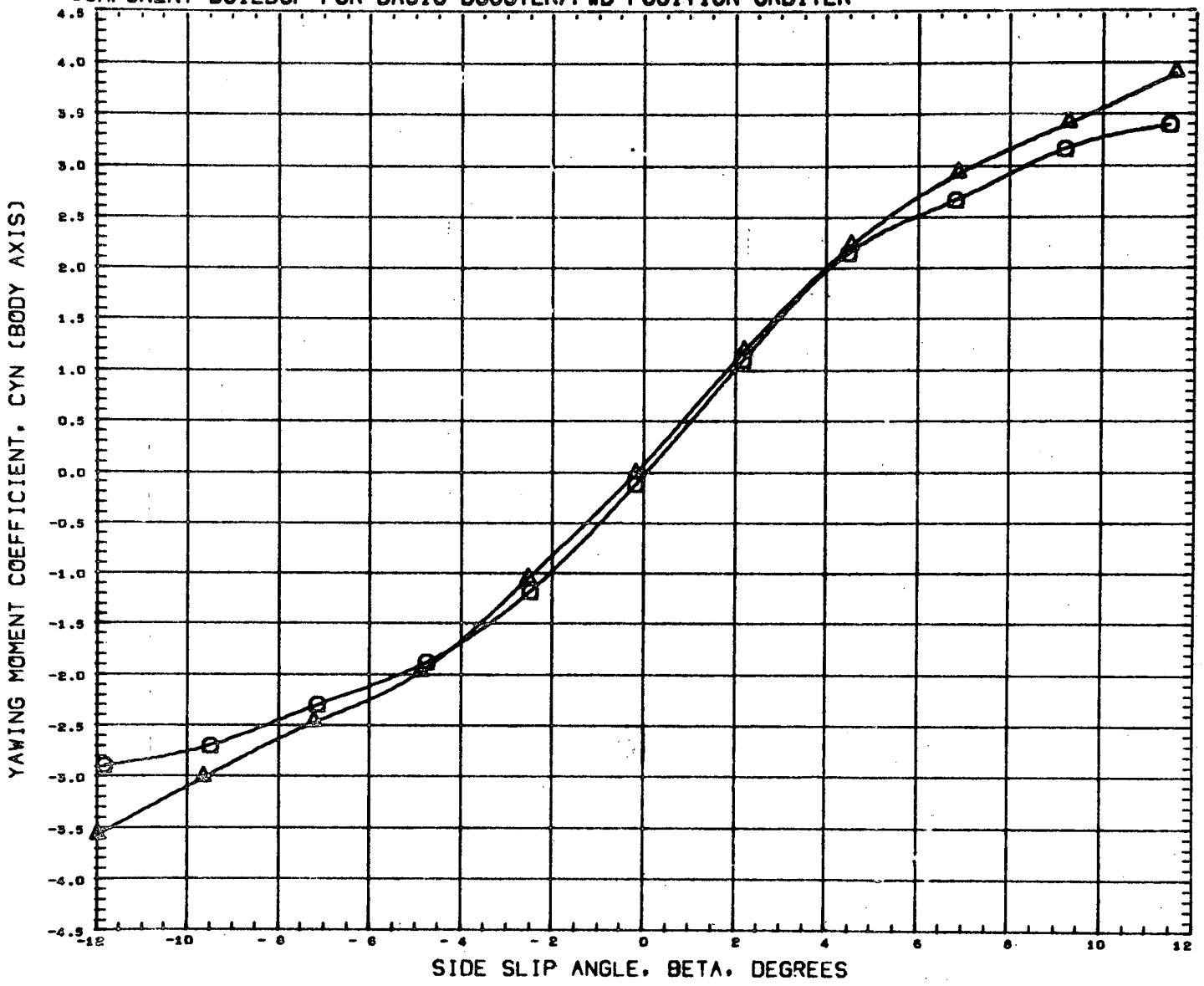


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(M50360)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000
(M50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000

MACH 1.102

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

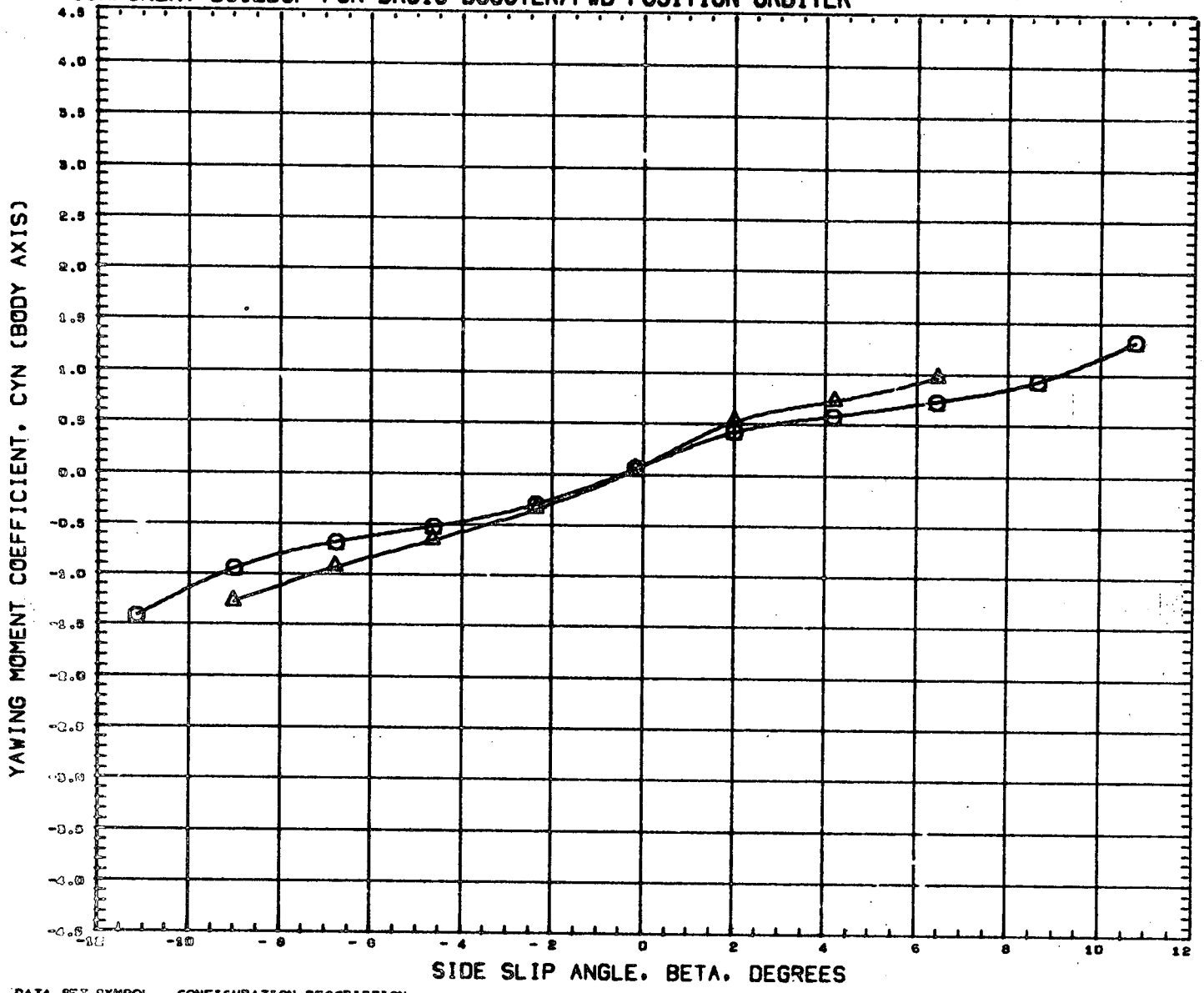


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOC	LFLAP	RFLAP
(H5D3GD)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T10O2T3	0.000	0.000	0.000	0.000
(H5D3OD)		MSFC 512 GD/C .003366 BOOSTER/ORB. B3.R6T10O2T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.460

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

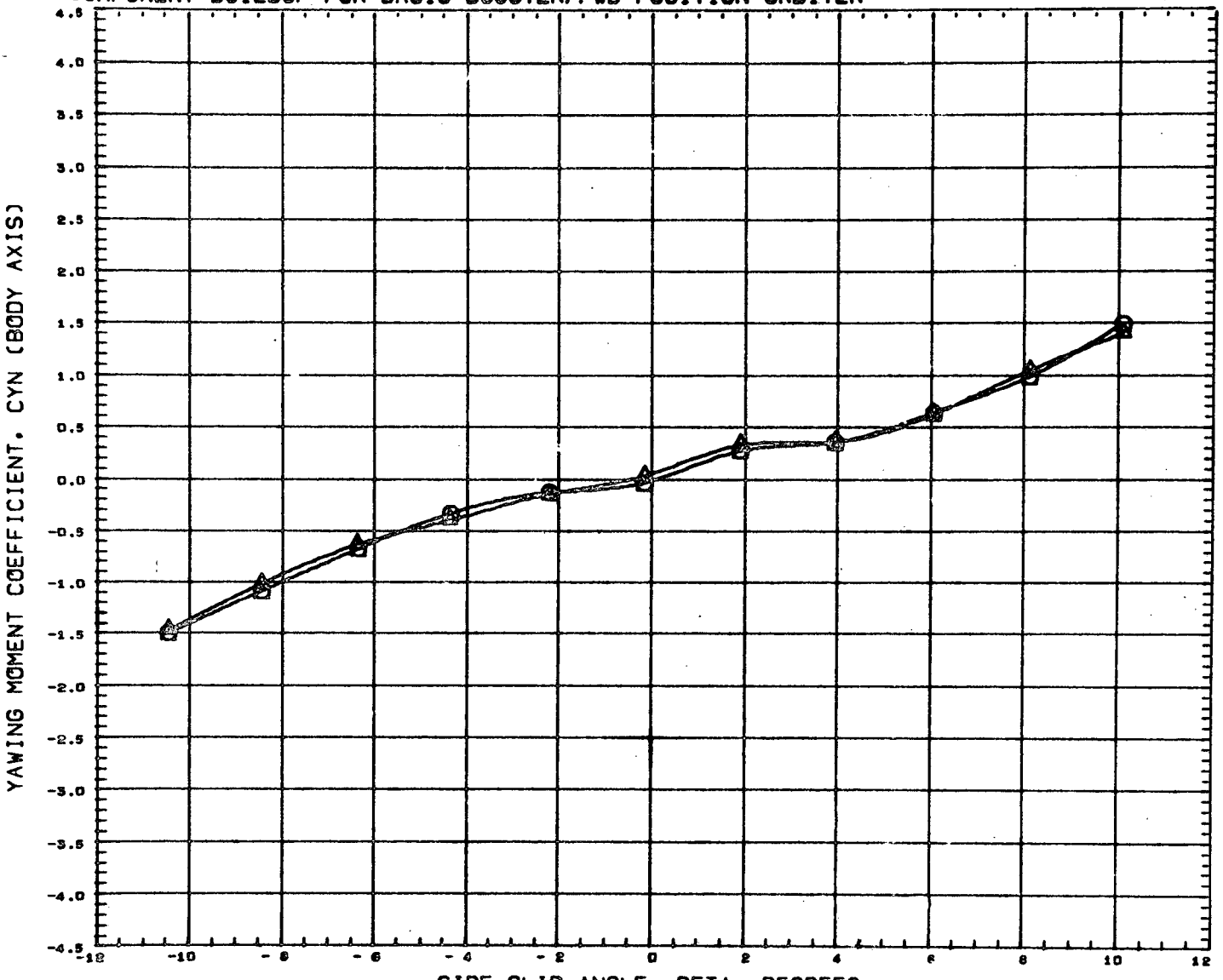


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50360)		NSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50300)		NSFC 512 GD/C .003366 BOOSTER/ORB. B3[illegible]R6T1002T3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER



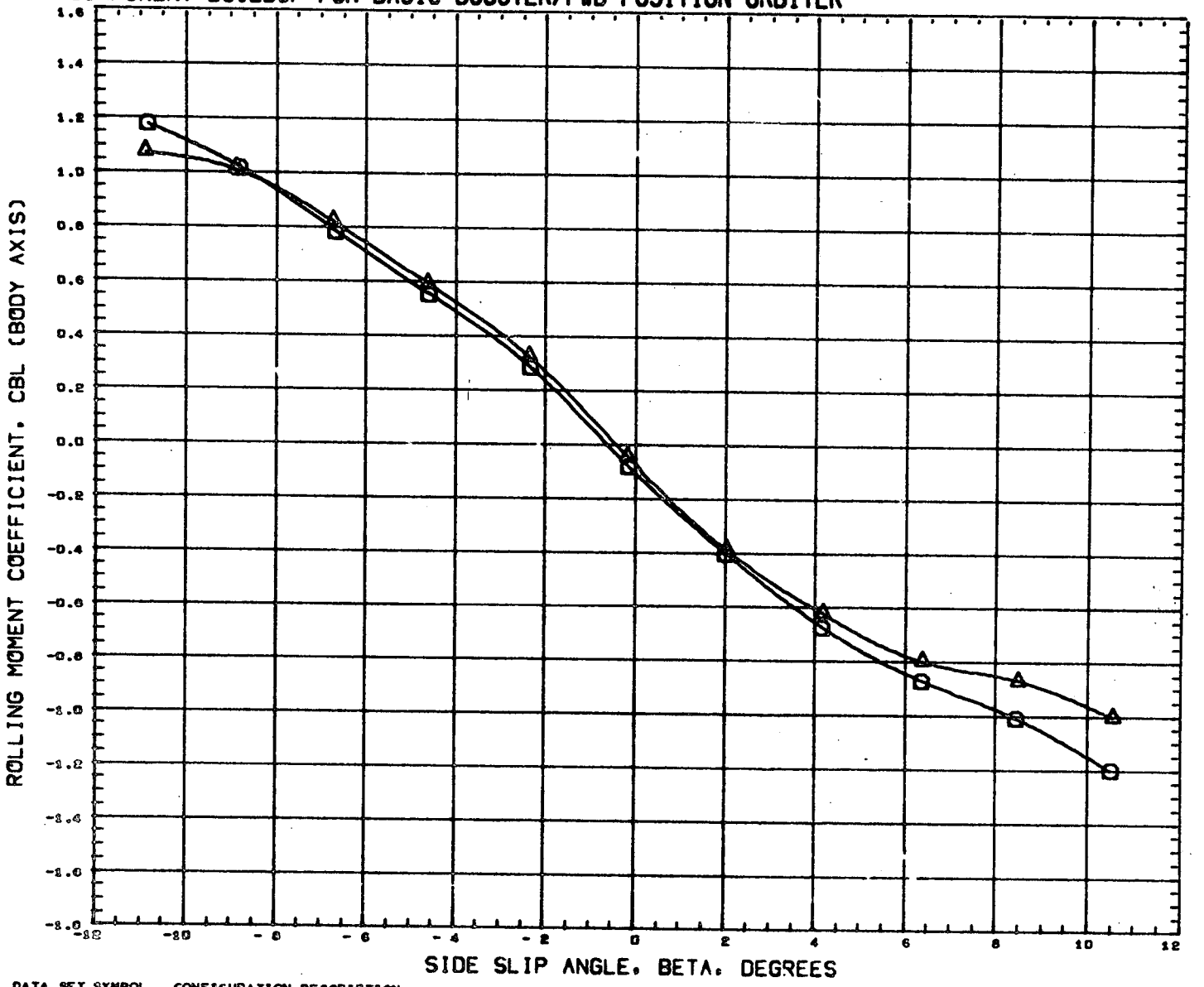
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(HS05GD)	○	HSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(HS03BD)	△	HSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 4.950

REFERENCE INFORMATION

SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

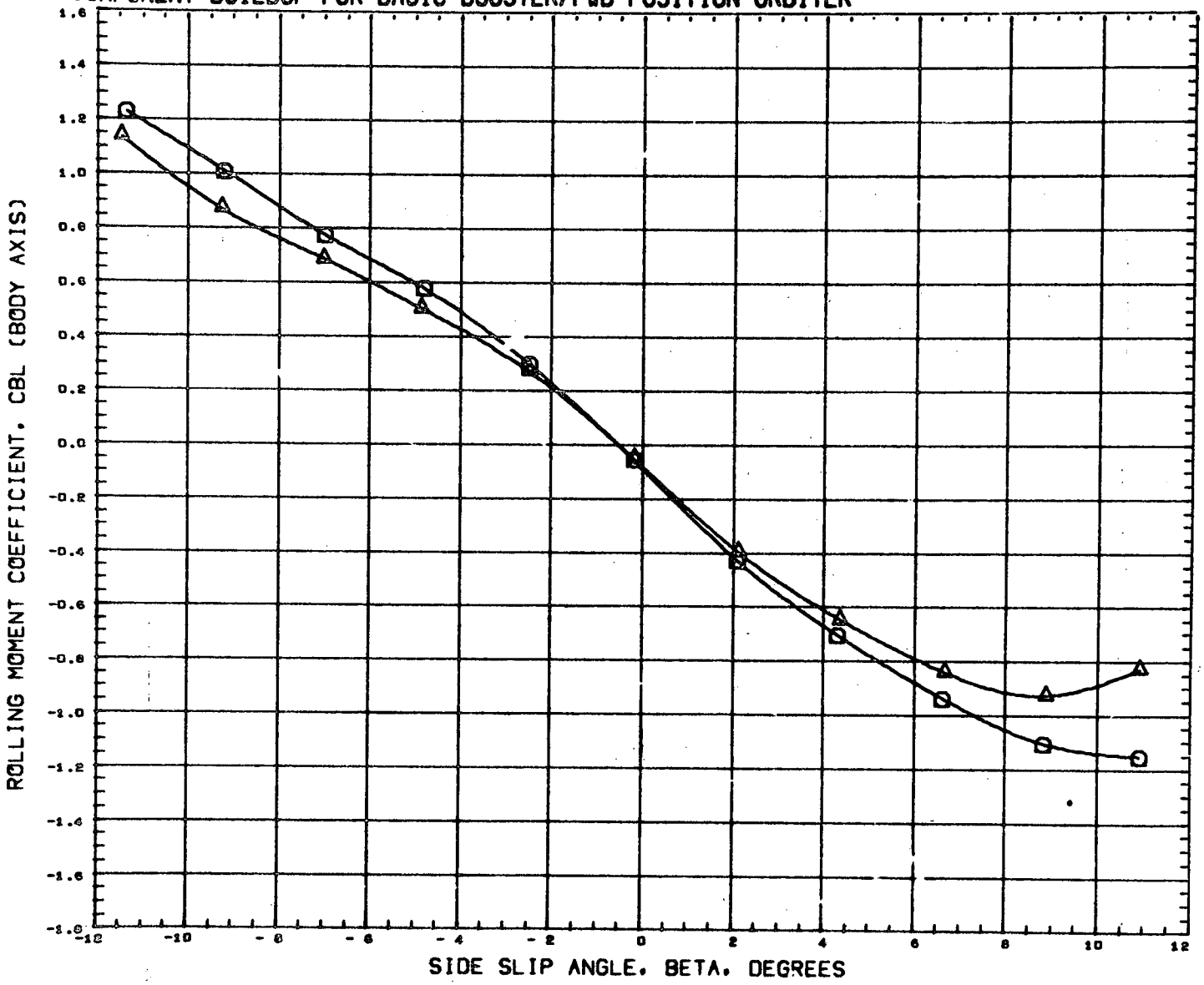


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOC	LFLAP	RFLAP
(H50360)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50900)		MSFC 512 GD/C .003366 BOOSTER/ORB. B3 R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.601

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

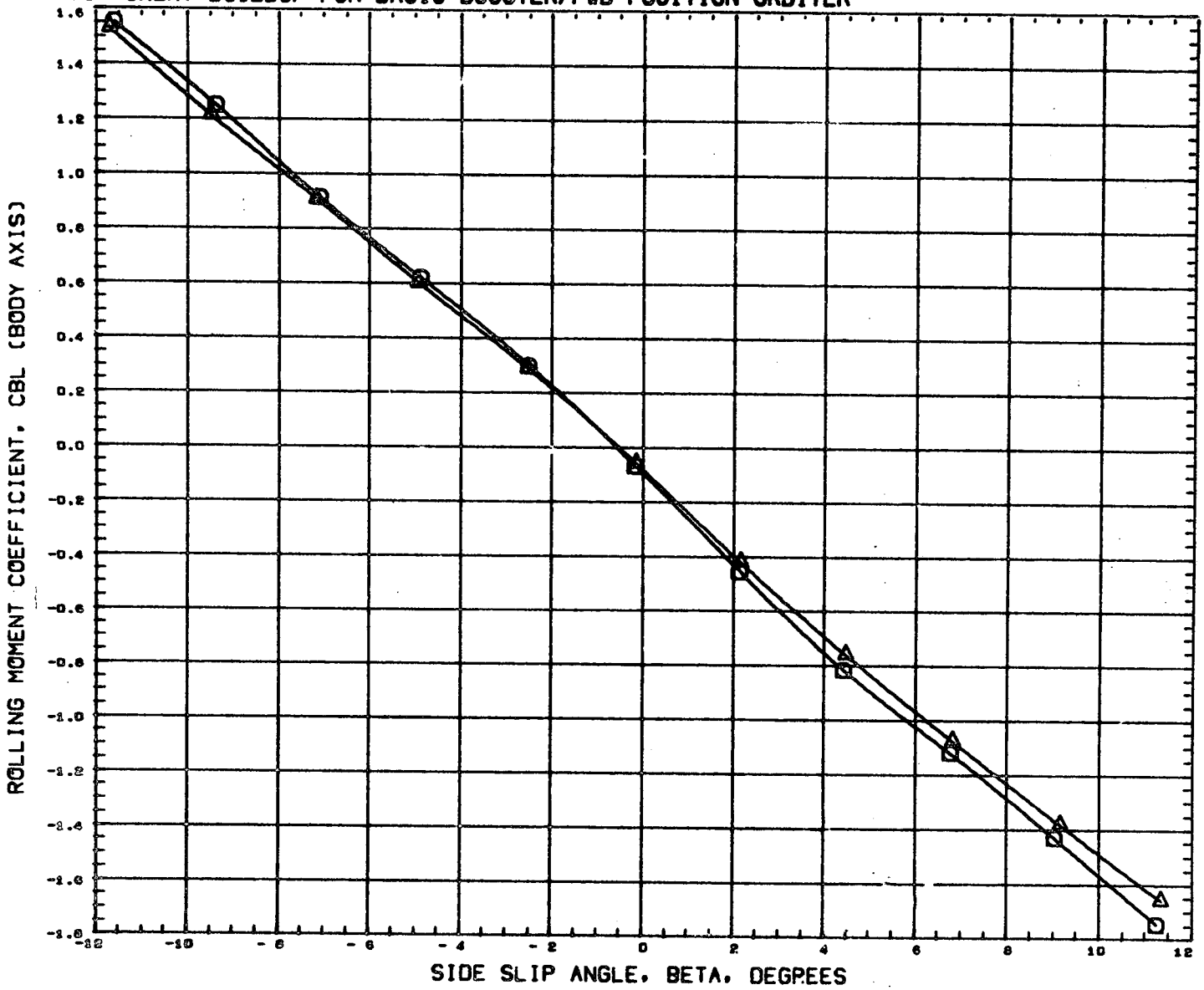


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMCG	LFLAP	RFLAP
(H50360)	Ω	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50300)	Δ	MSFC 512 GD/C .003366 BOOSTER/ORB. B3 :R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

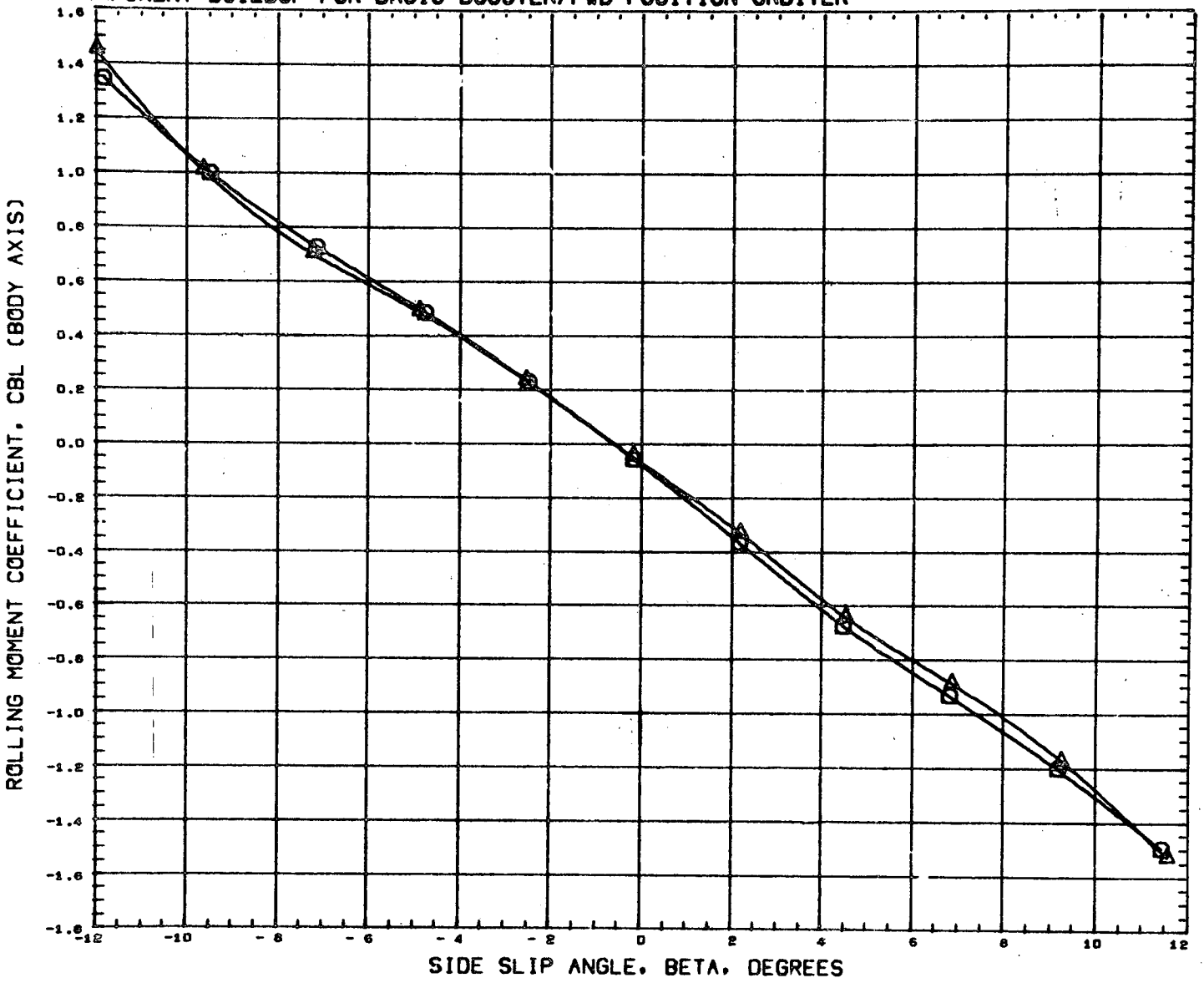


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(N50360)		NSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(N50390)		NSFC 512 GD/C .003366 BOOSTER/ORB. B3[illegible]6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.102

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

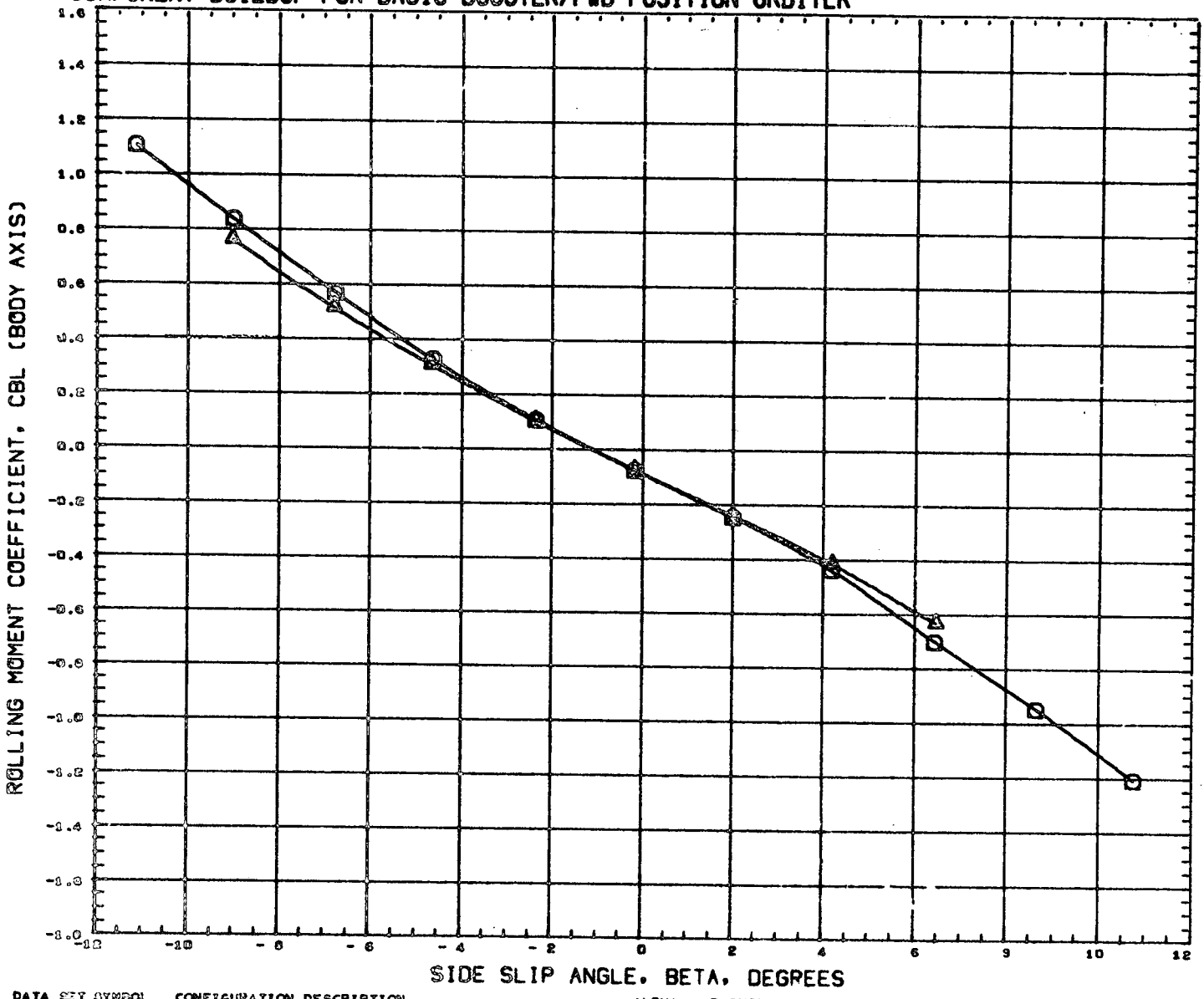


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H3036D)	Ω	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H5036D)	Δ	MSFC 512 GD/C .003366 BOOSTER/ORB. B3[illegible]R6T1002T3	0.000	0.000	0.000	0.000

MACH 1.460

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

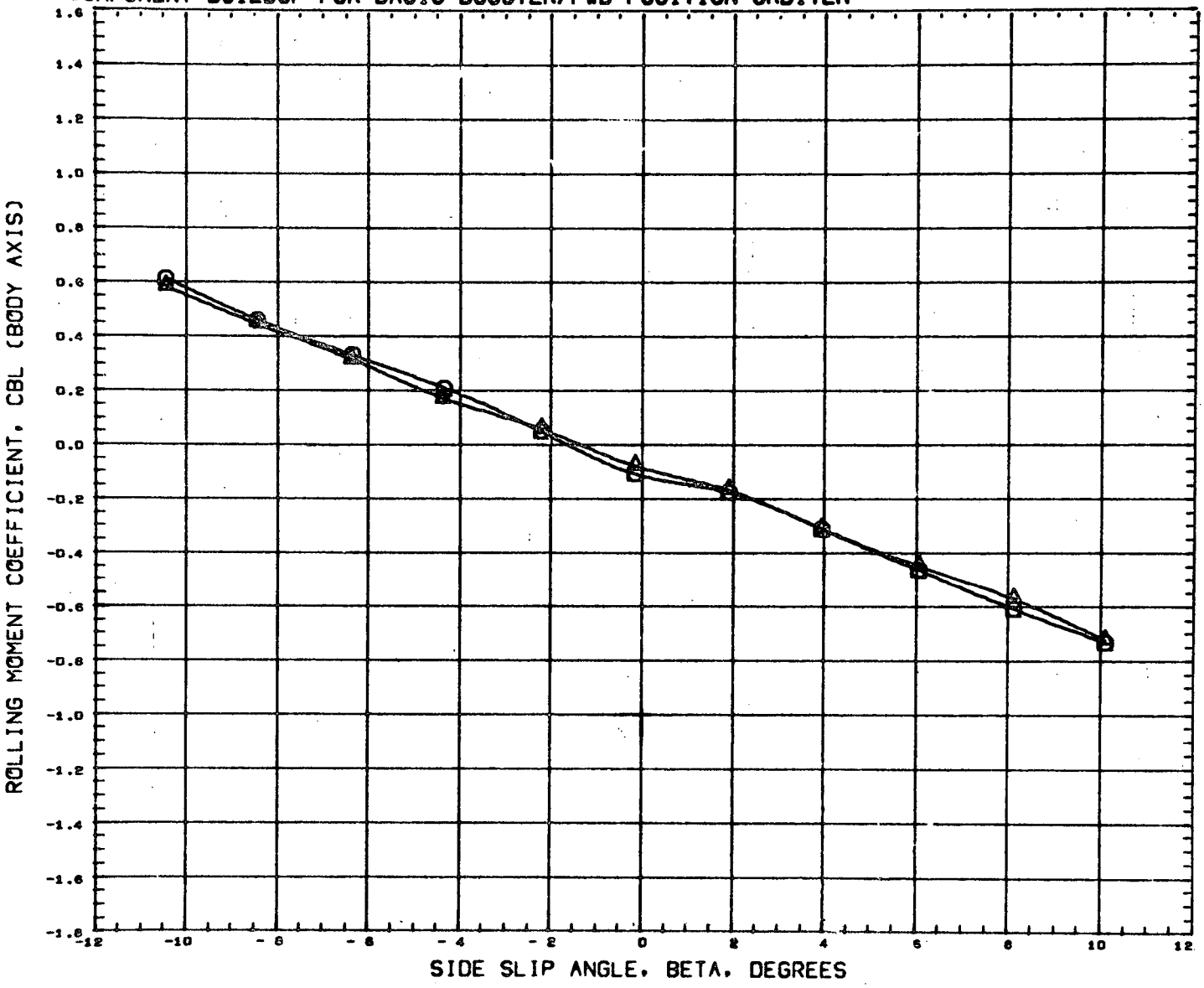


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(MS03G0)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T100ZT3	0.000	0.000	0.000	0.000
(MS03D0)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34T6T100ZT3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9380	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

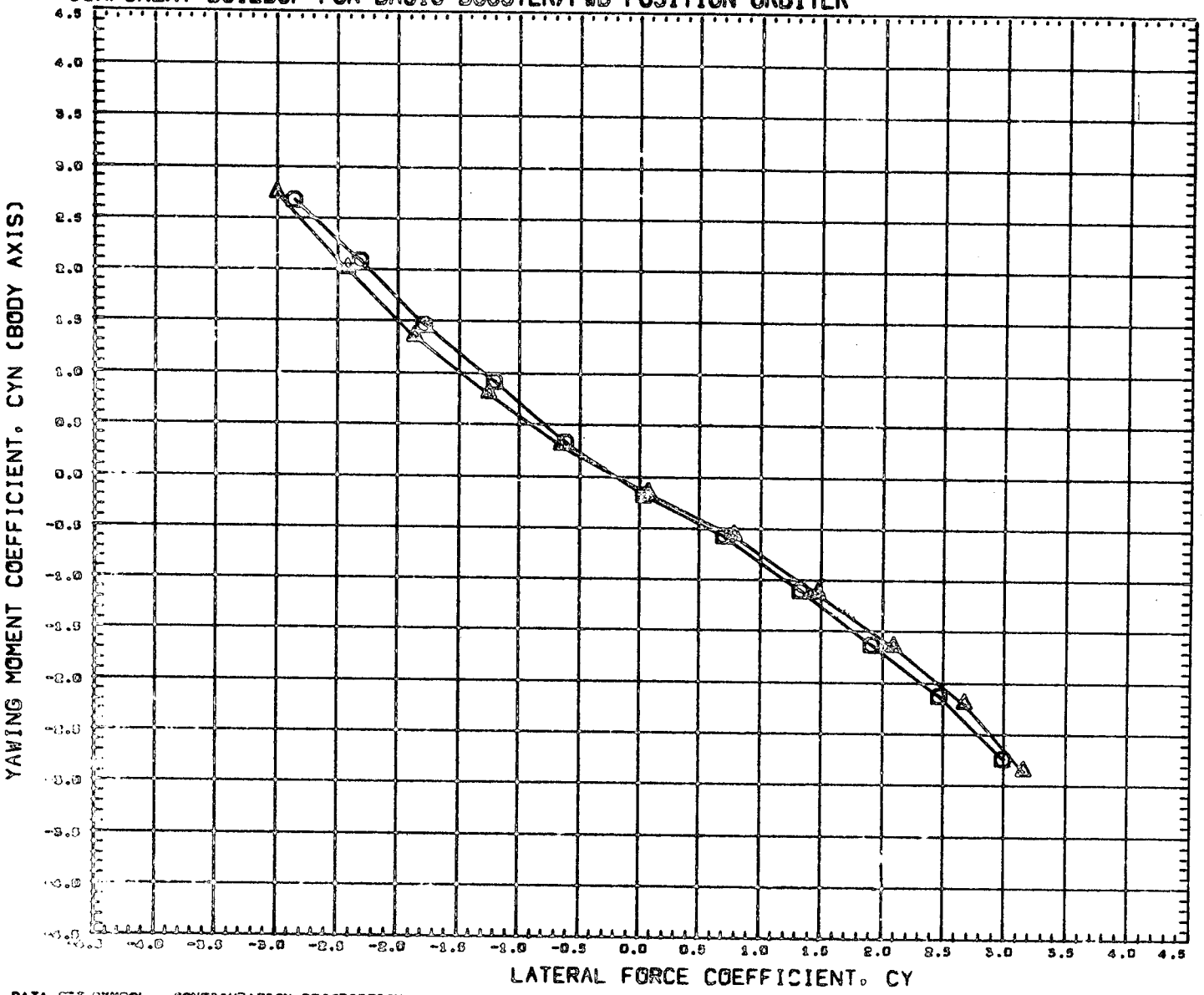


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50360)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1U02T3	0.000	0.000	0.000	0.000
(H50300)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 4.959

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

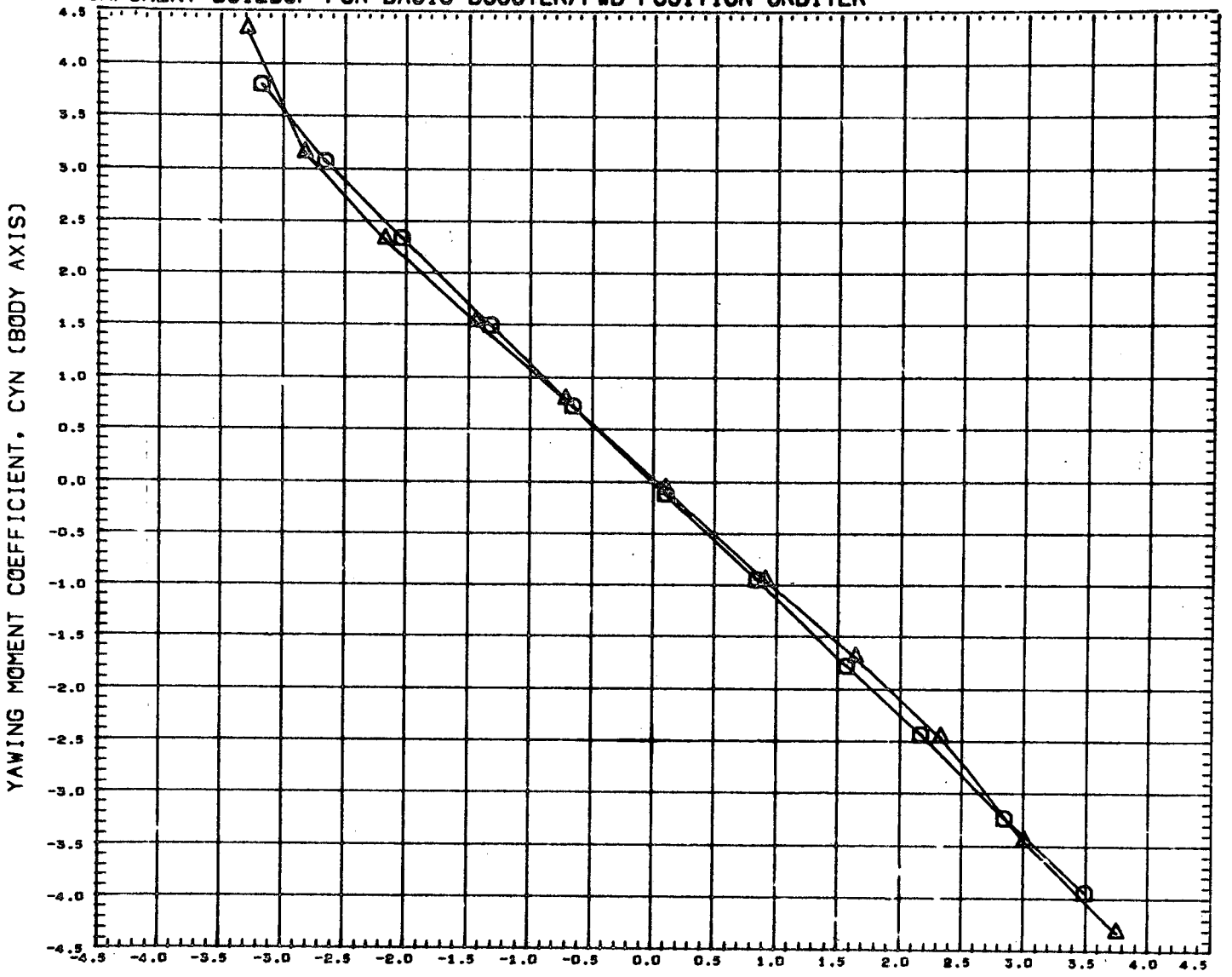


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(MS036D)	MSFC 512 6D/C .003366 BOOSTER/ORB. DS4R6T1002T3	0.000	0.000	0.000	0.000
(MS05CF)	MSFC 512 6D/C .003366 BOOSTER/ORB. DS-RGT1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 0.001

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

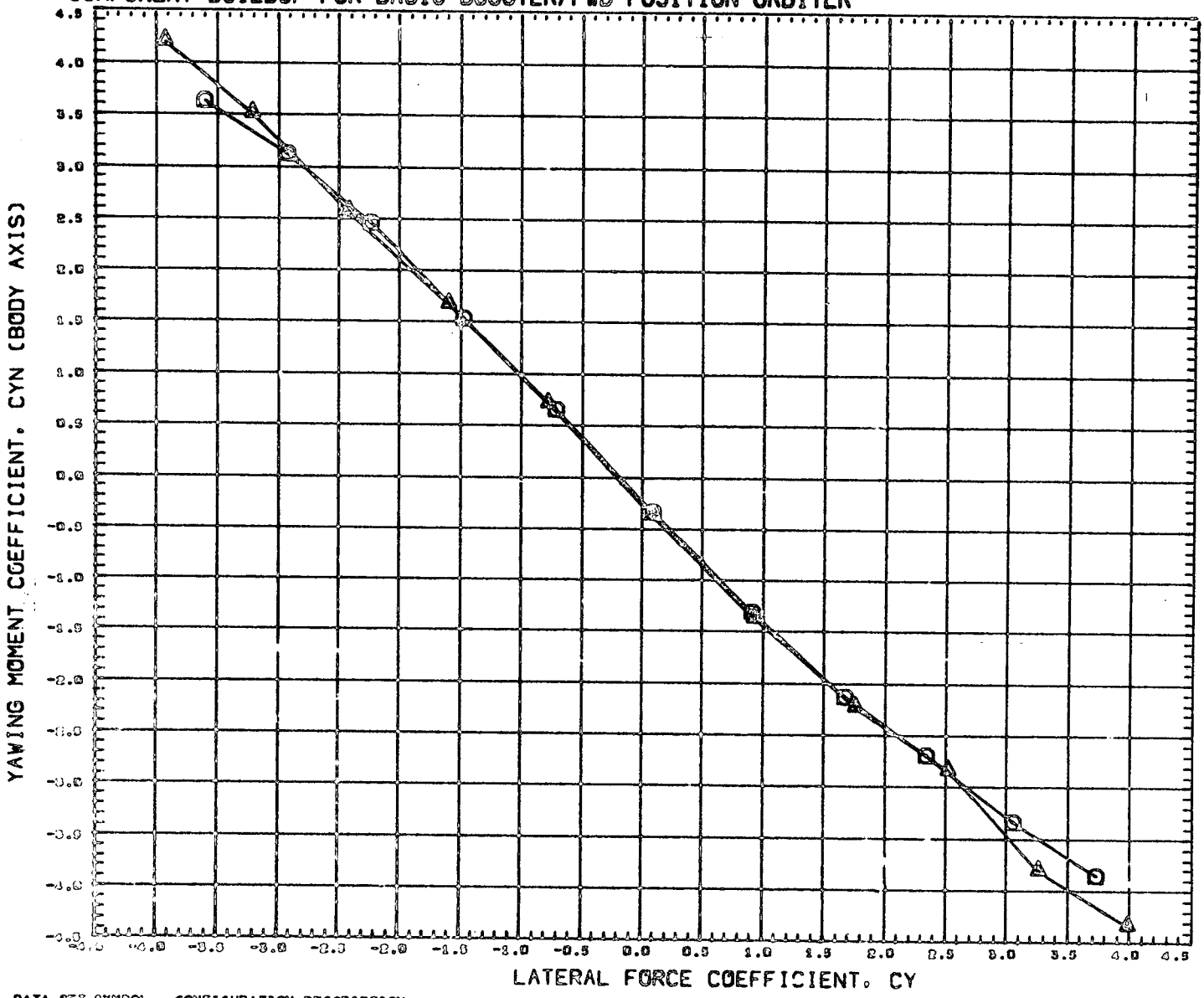


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H503G0)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50380)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

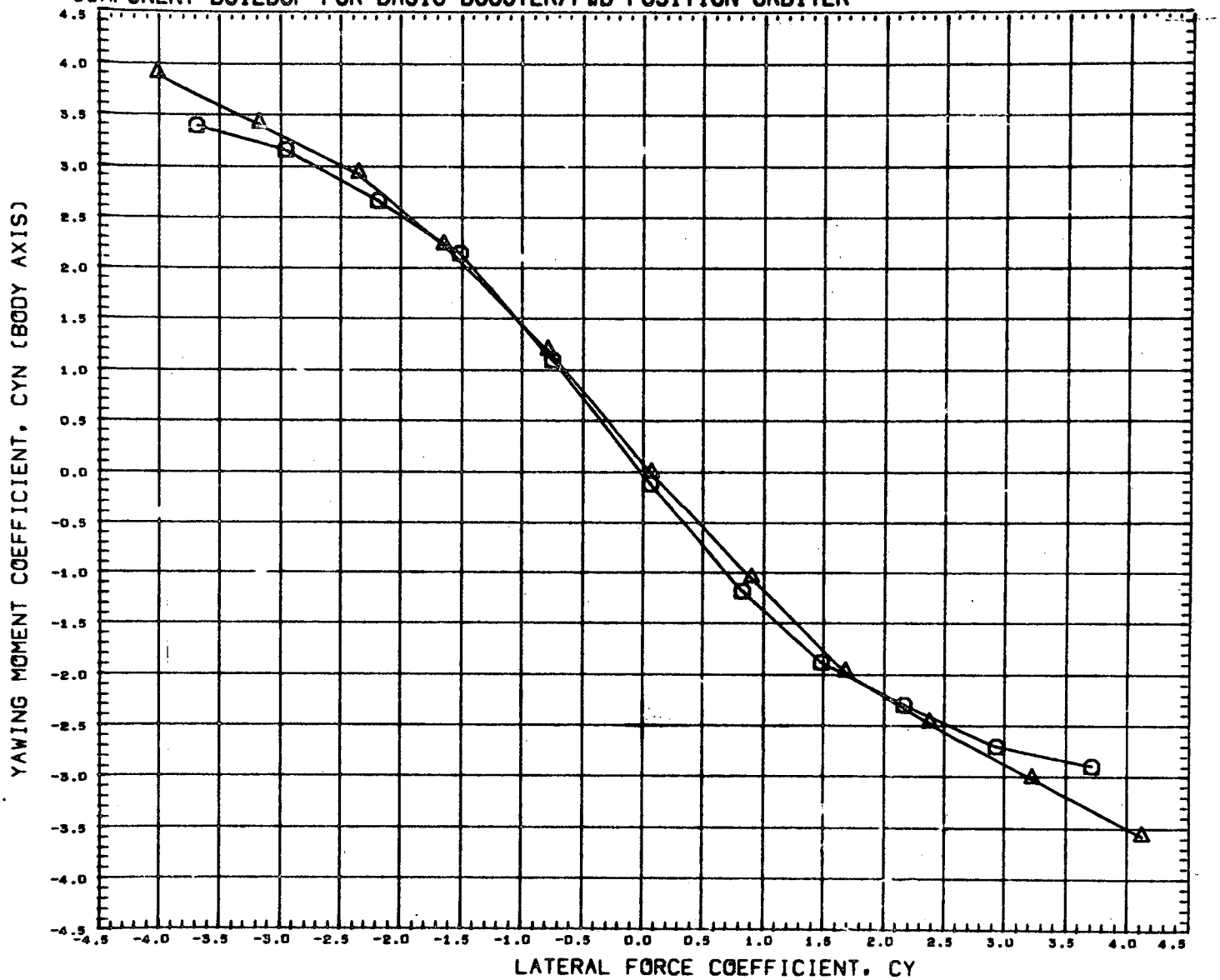


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(MS03600)		MSFC 512 6D/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(MS03000)		MSFC 512 6D/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.102

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER



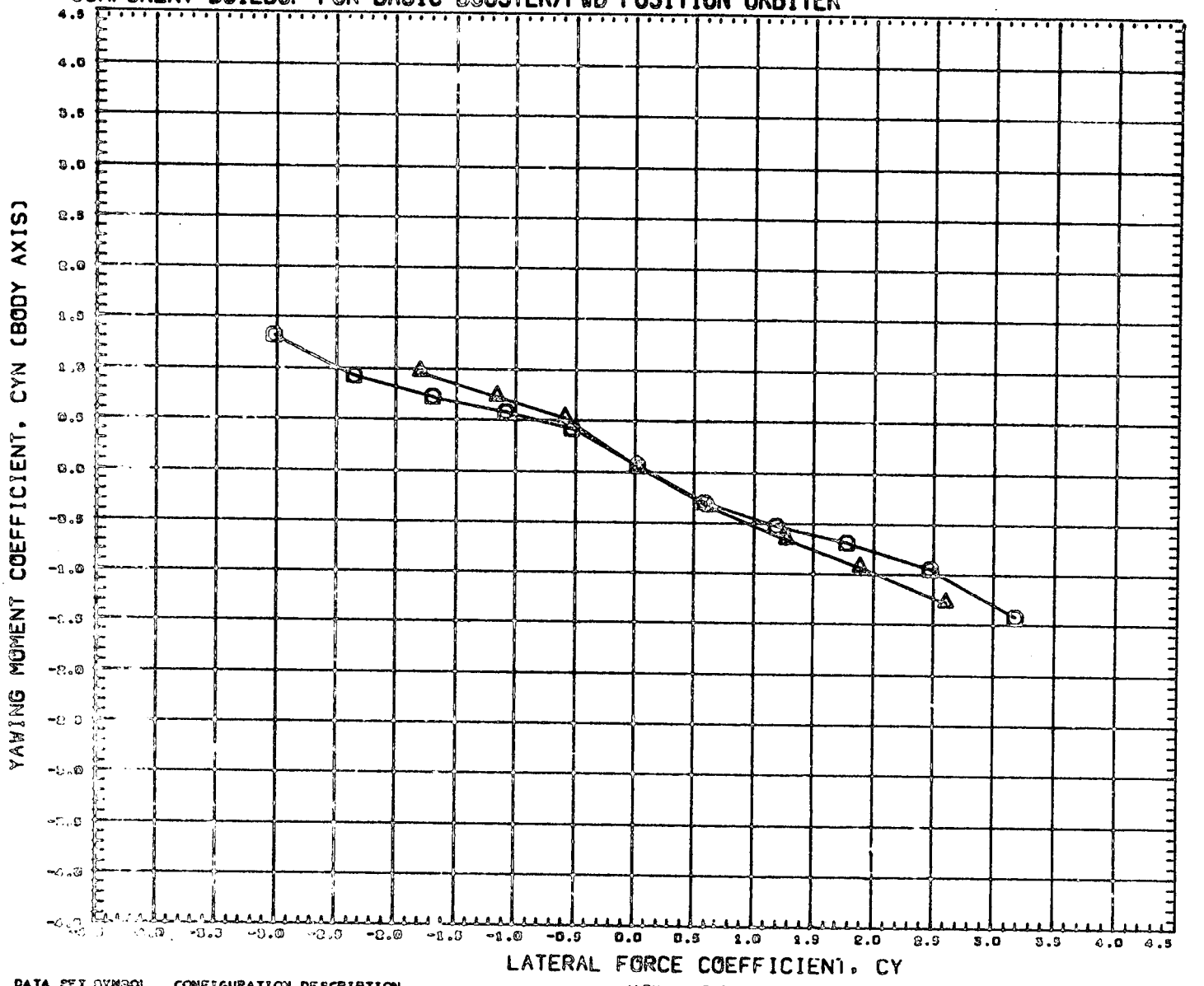
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50360)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(H50380)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34k6T1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION

SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 1.460

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

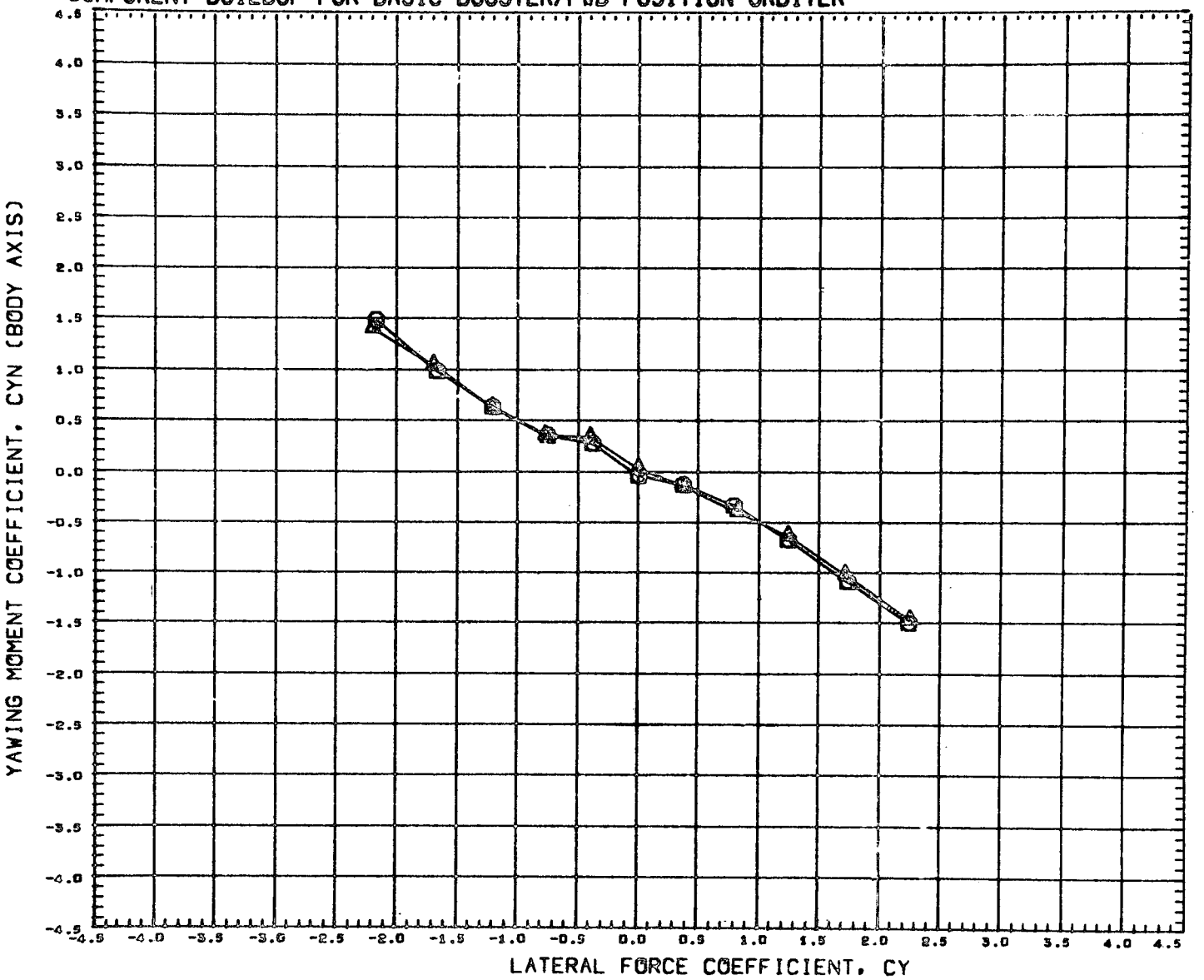


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(HS0300)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000
(HS0303)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34RGT1002T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0010	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 8.700

COMPONENT BUILDUP FOR BASIC BOOSTER/FWD POSITION ORBITER

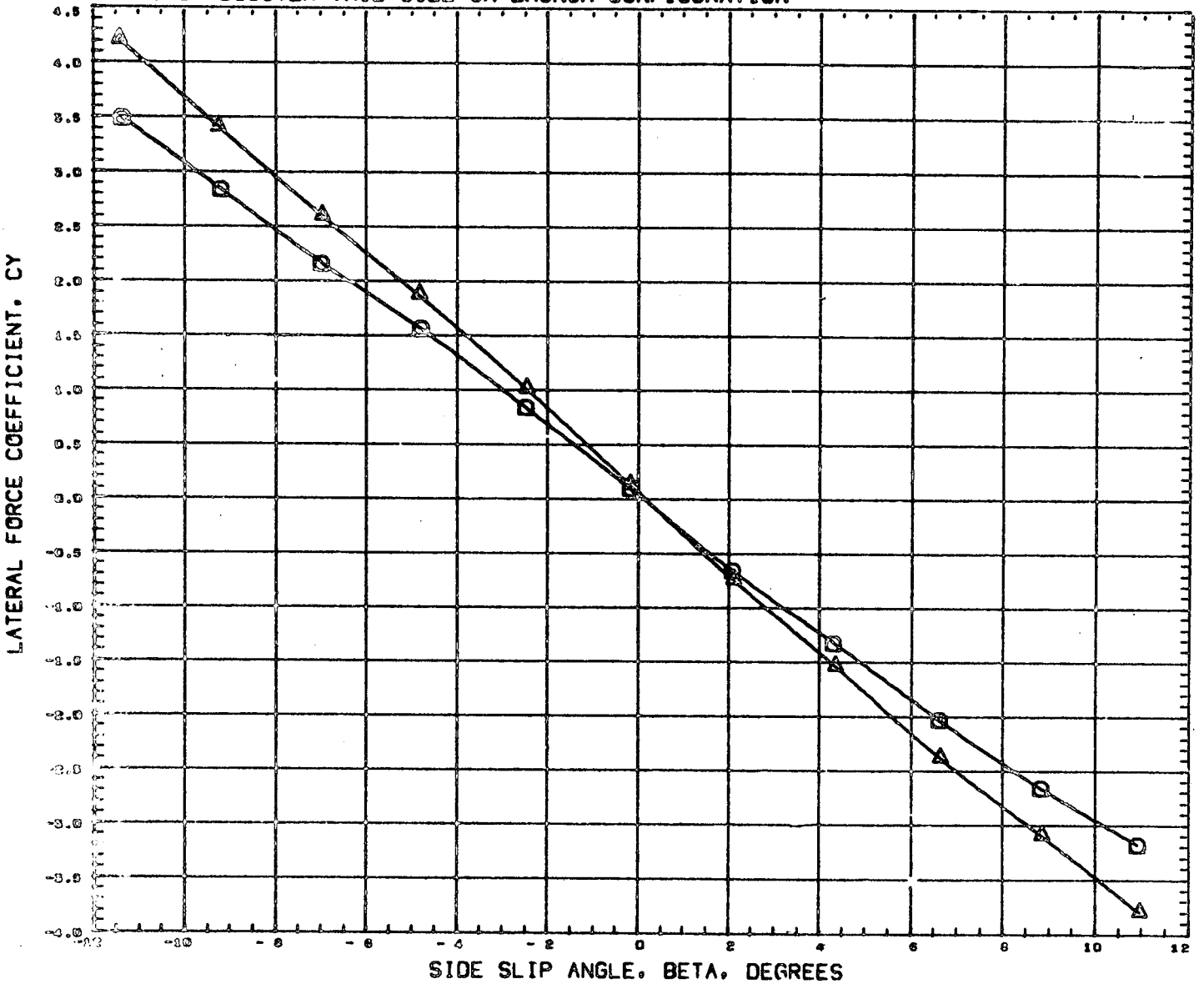


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(H50360)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	1.000
(H50300)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	1.000

MACH 4.990

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

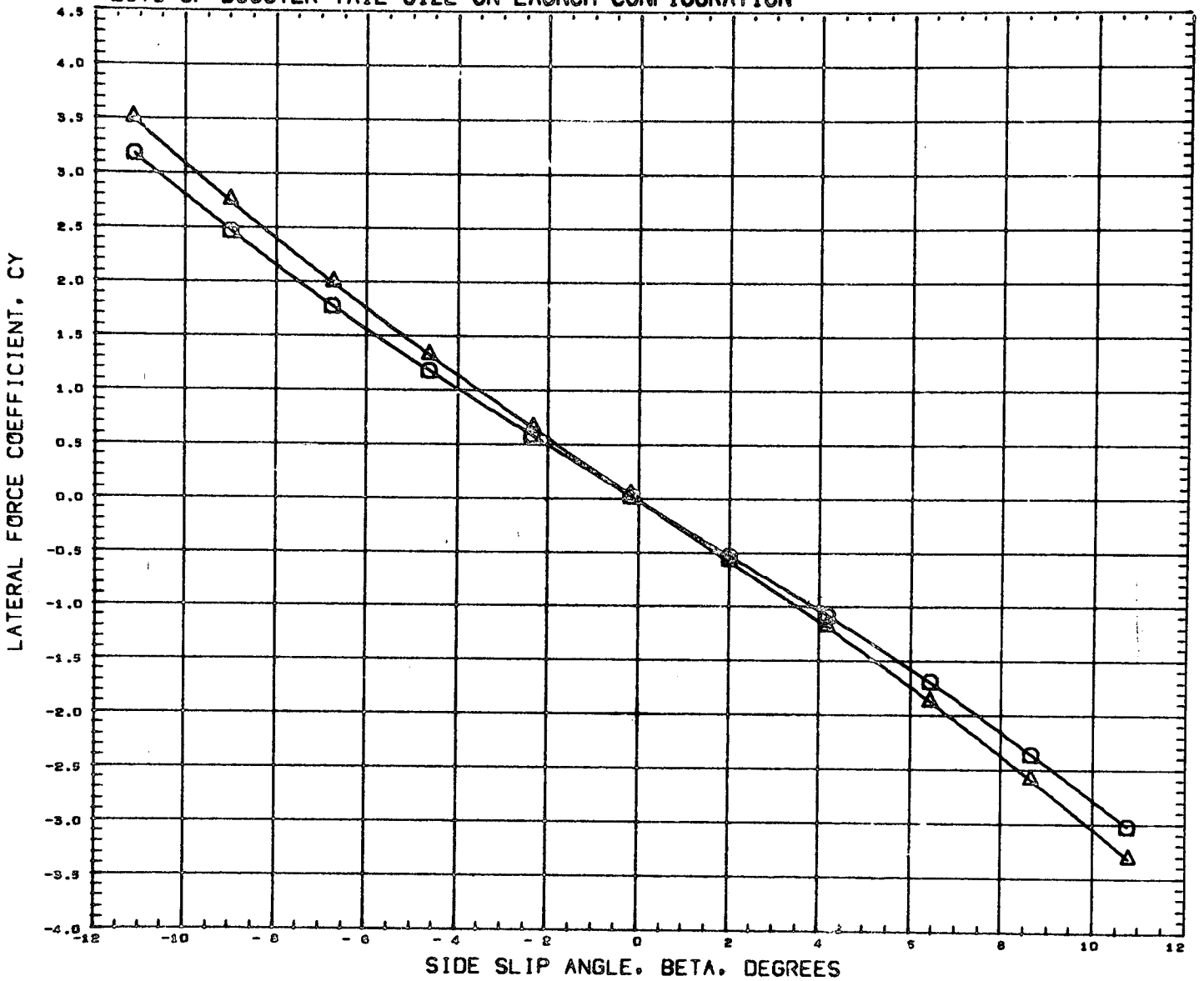


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A9039A)	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A9030A)	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

MACH 0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

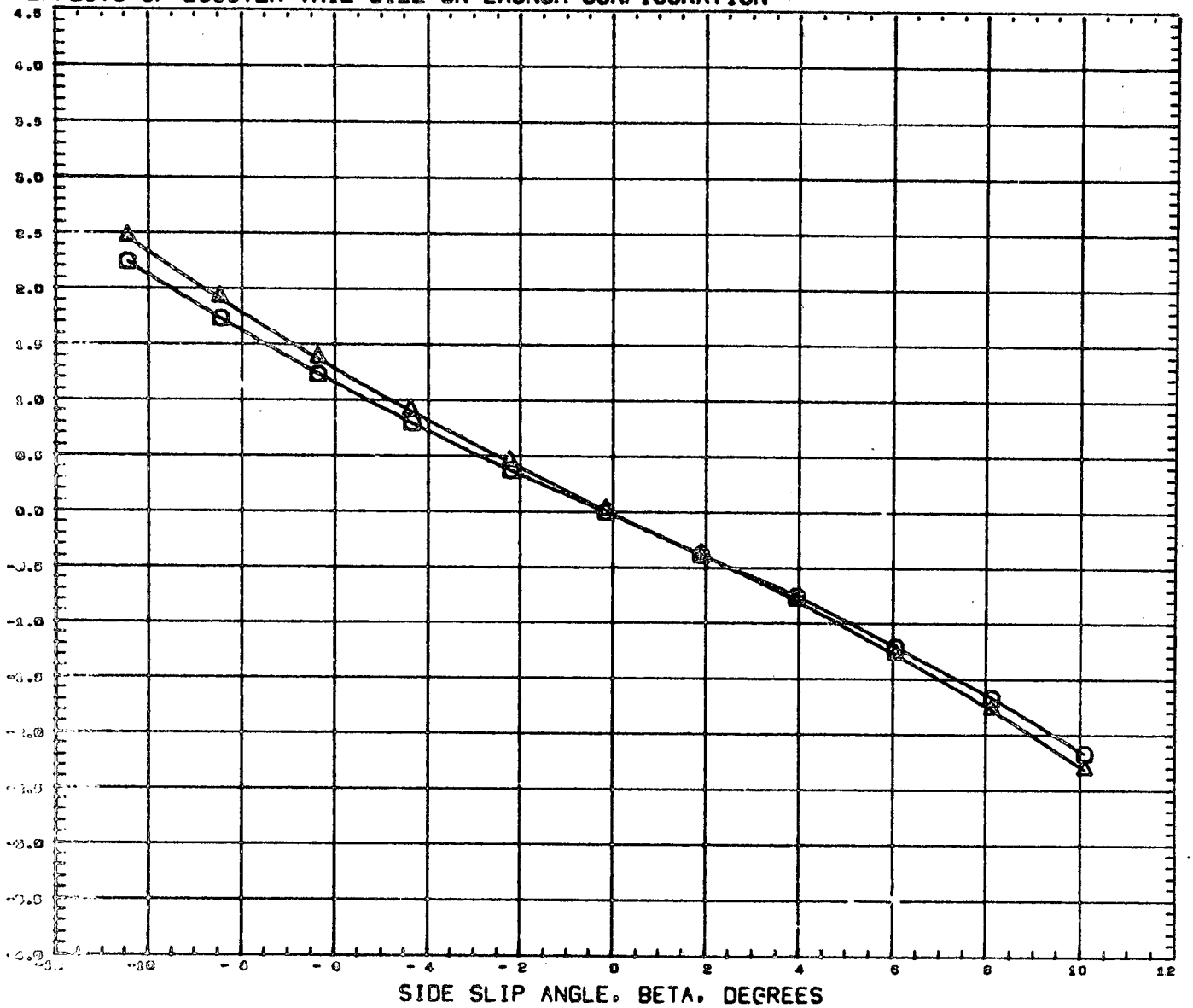


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5036A)		MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	1.000
(A5039A)		MSFC 512 GD/C .005366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	1.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

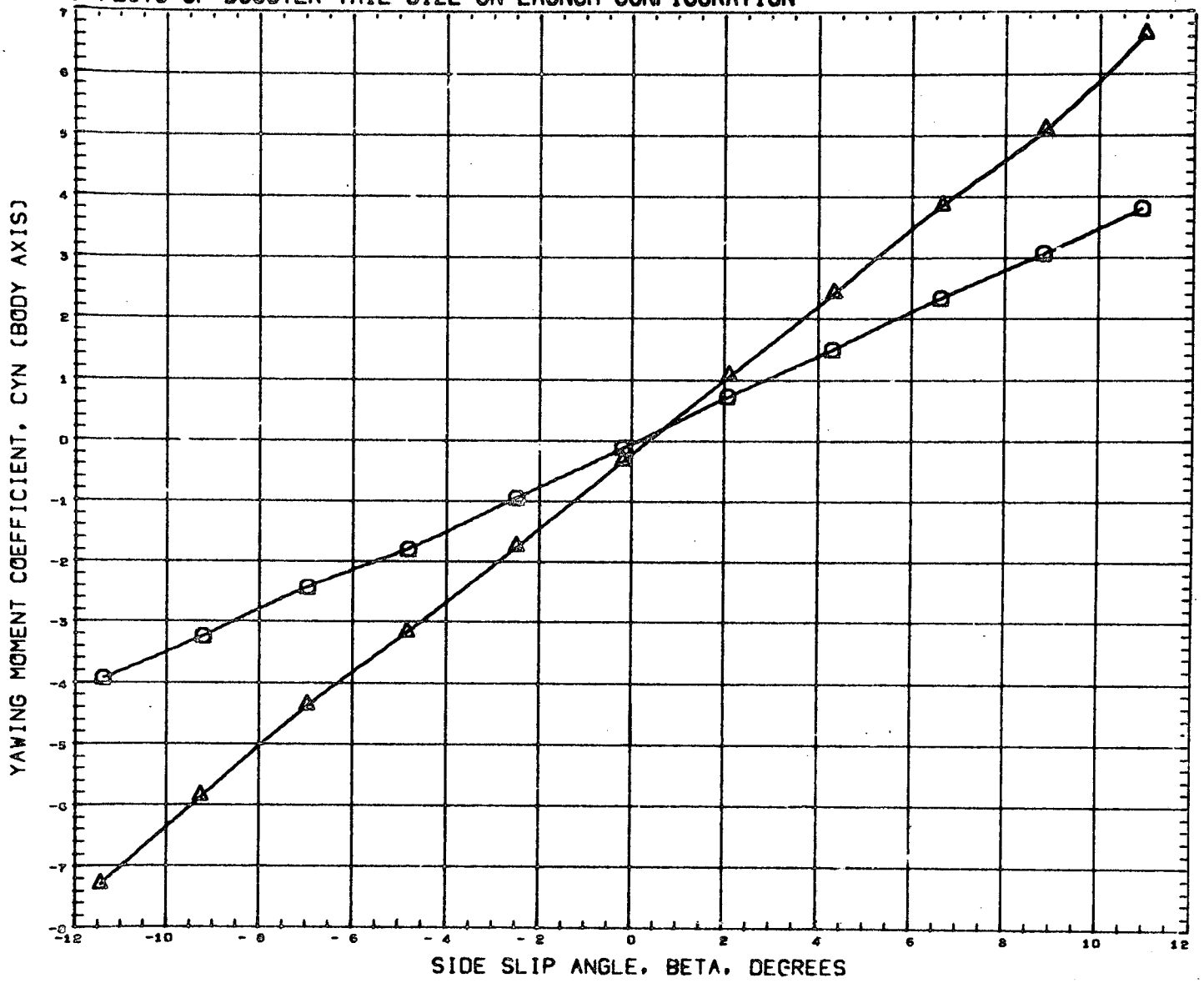


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5036A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A5039A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

MACH 4.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0810	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

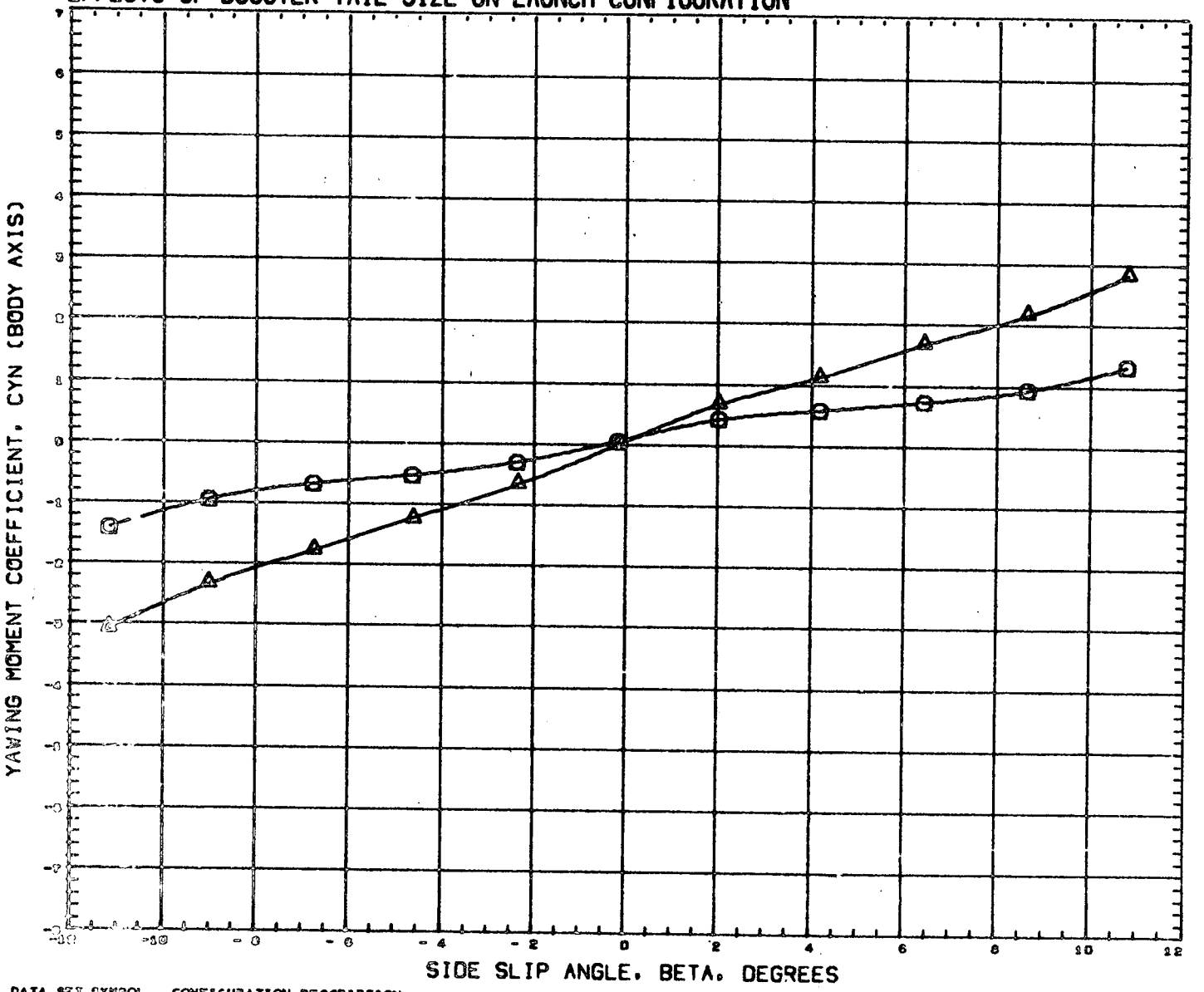


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5036A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A5039A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

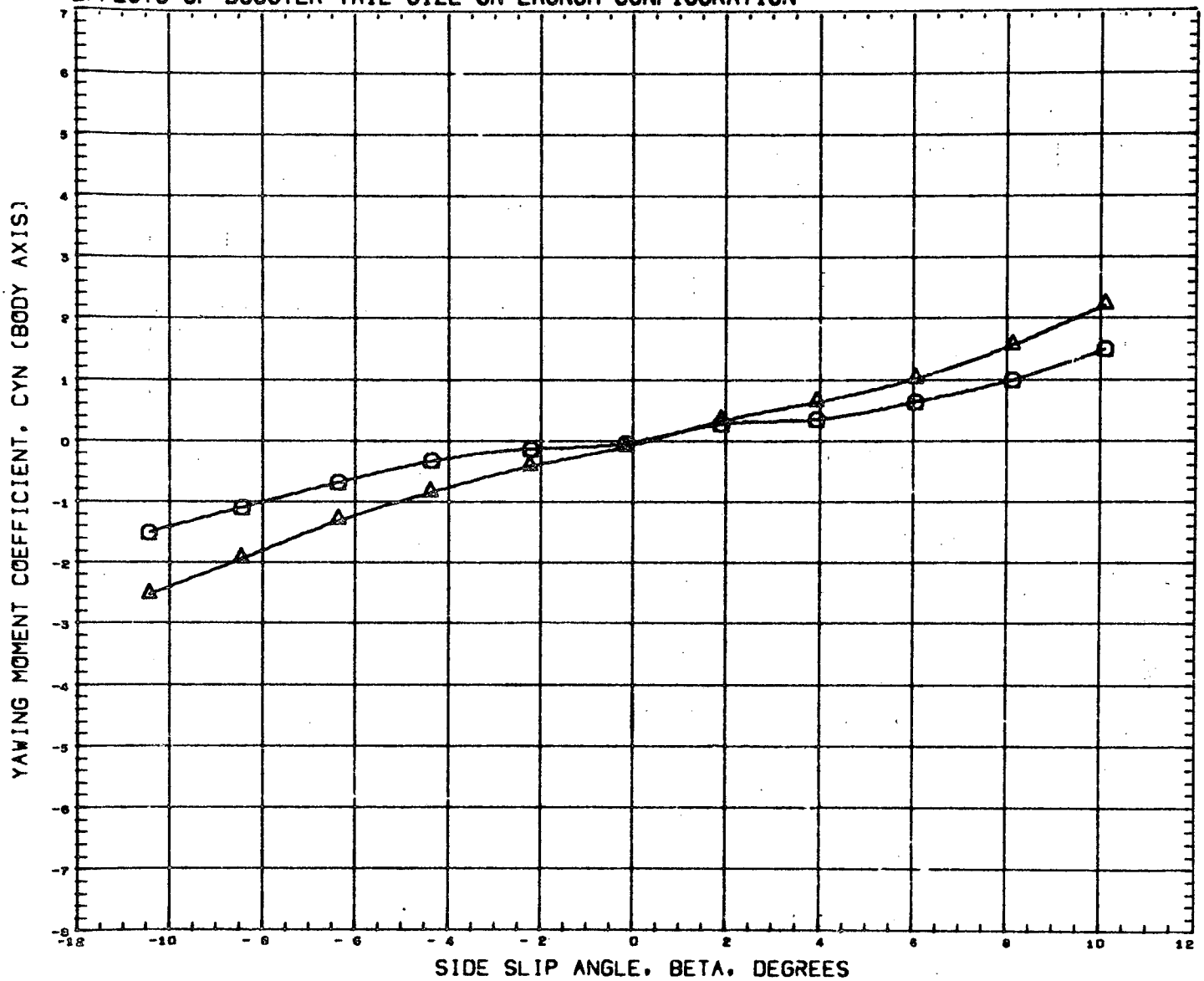


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5036A)	MSFC 512 6D/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A5036A)	MSFC 512 6D/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0094	

MACH 2.760

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

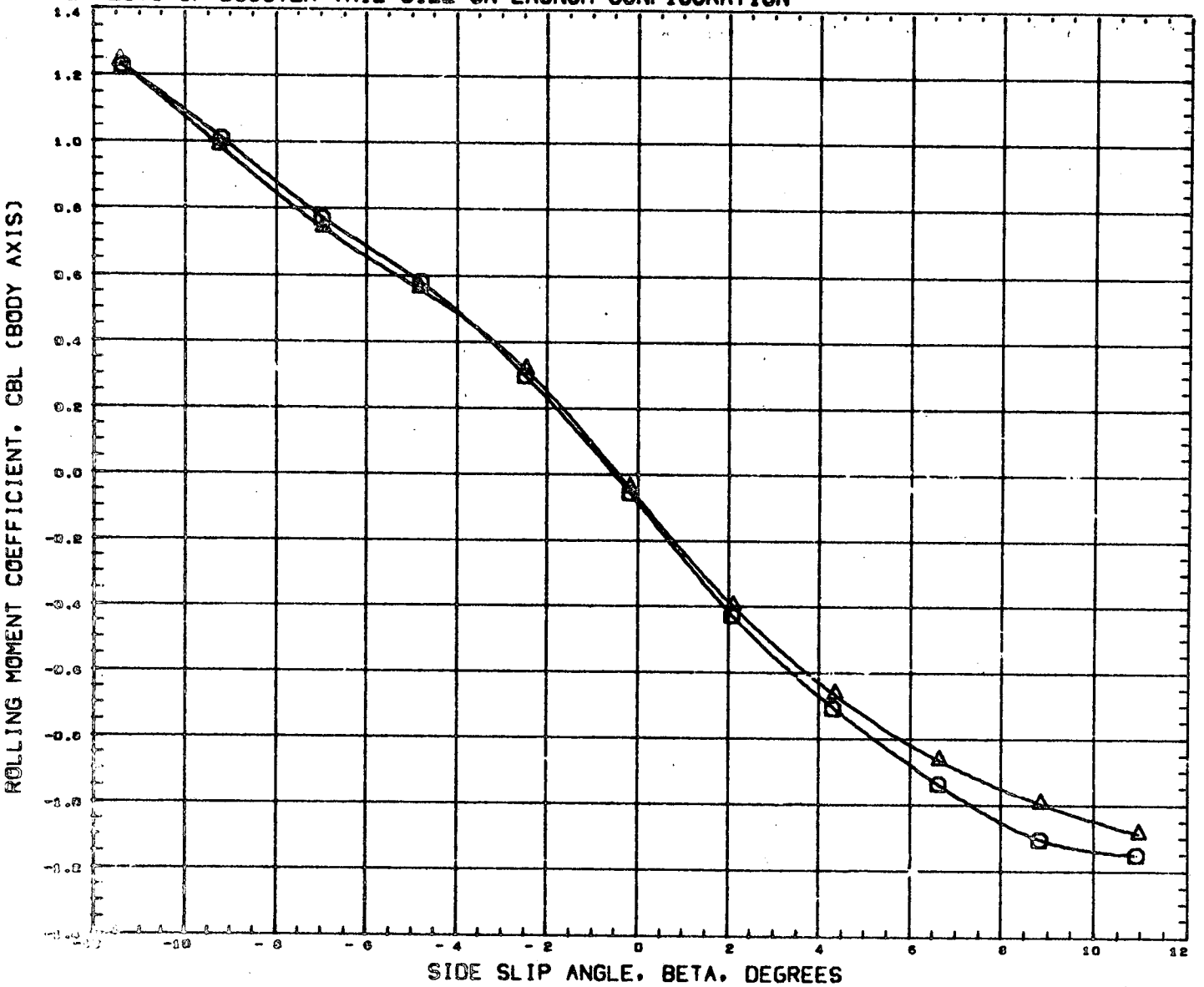


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5036A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A5039A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

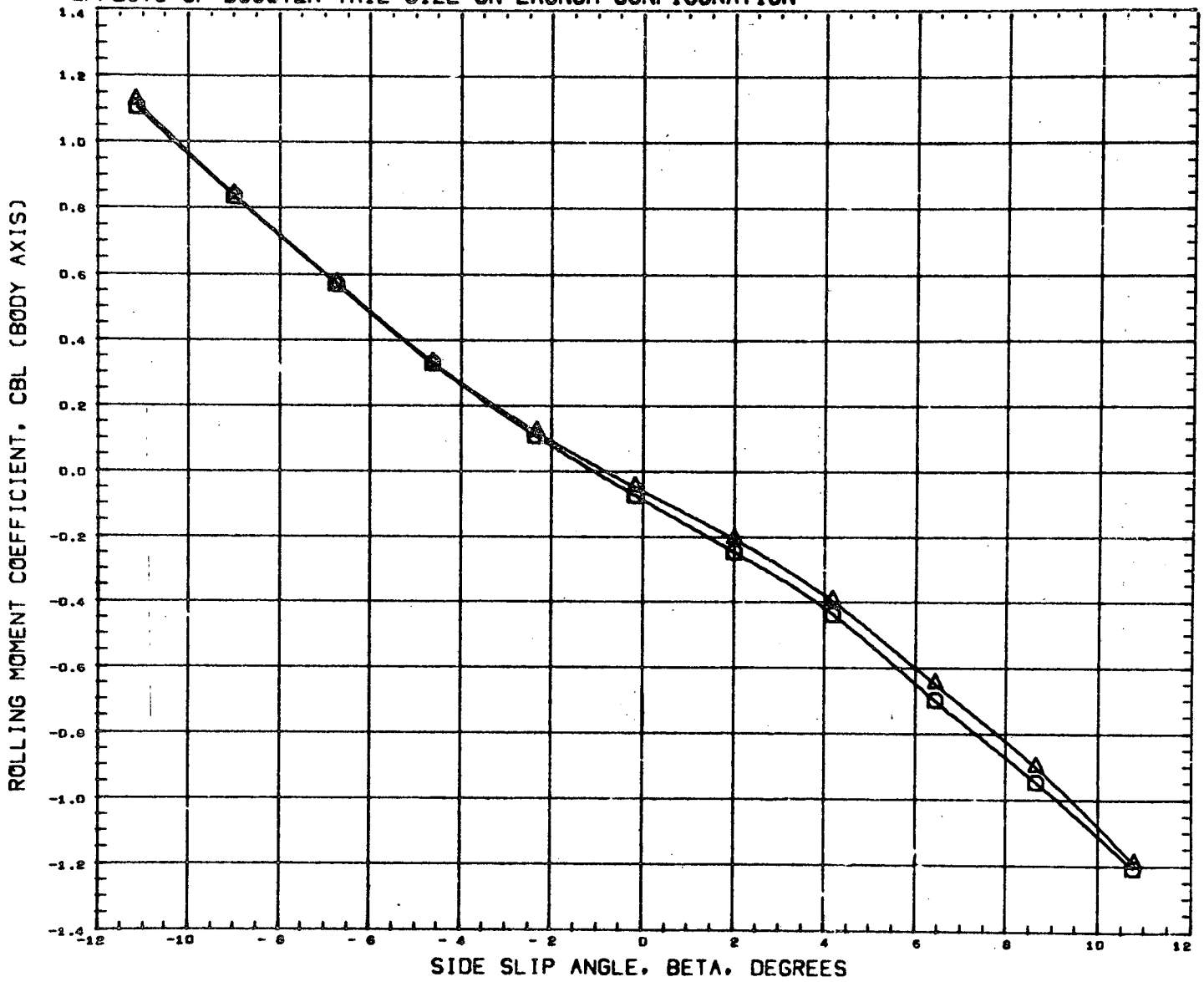


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A503GA)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1D02T3	0.000	0.000	0.000	0.000
(A503OA)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

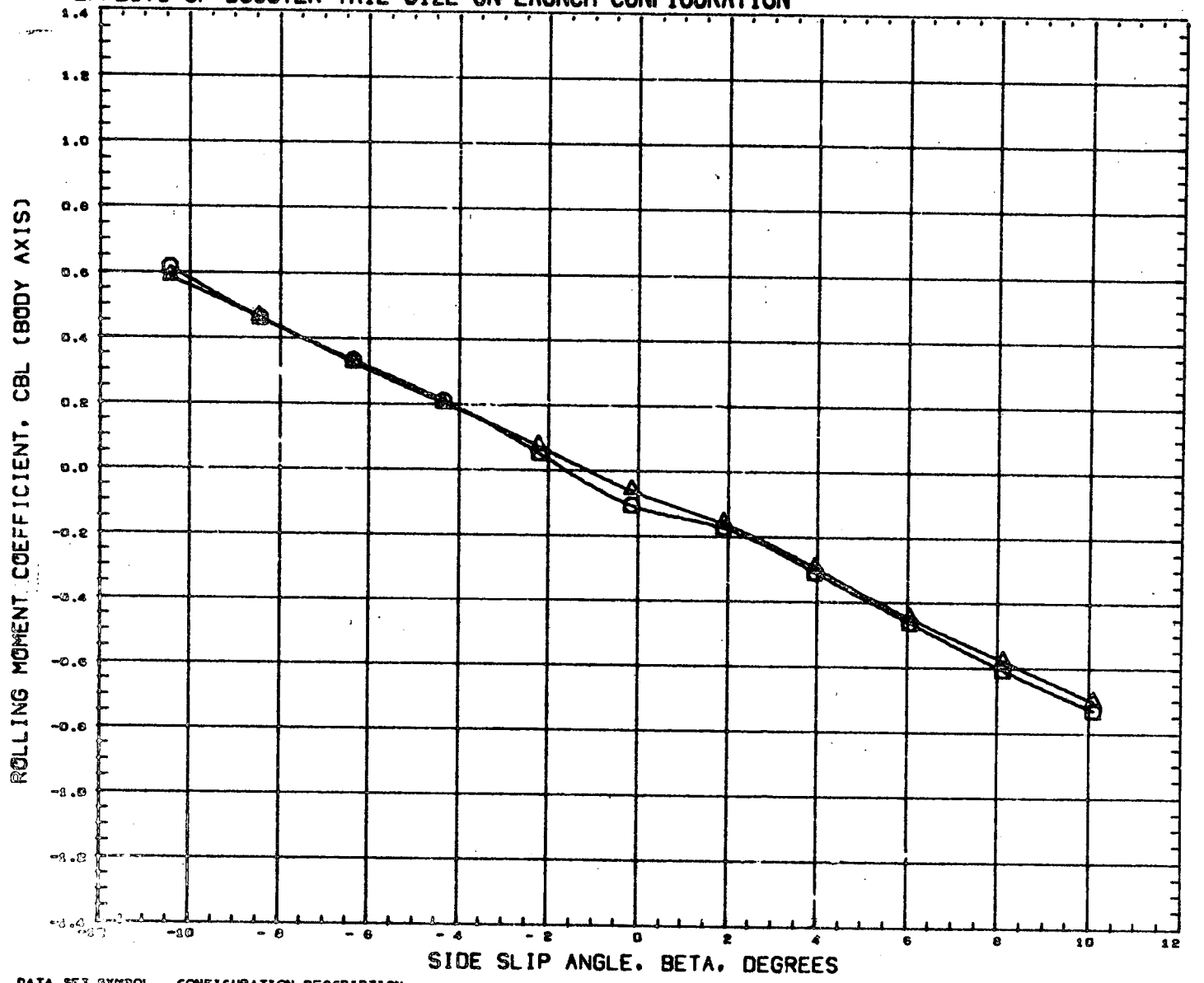


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5036A)		MSFC 512 6D/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A5039A)		MSFC 512 6D/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

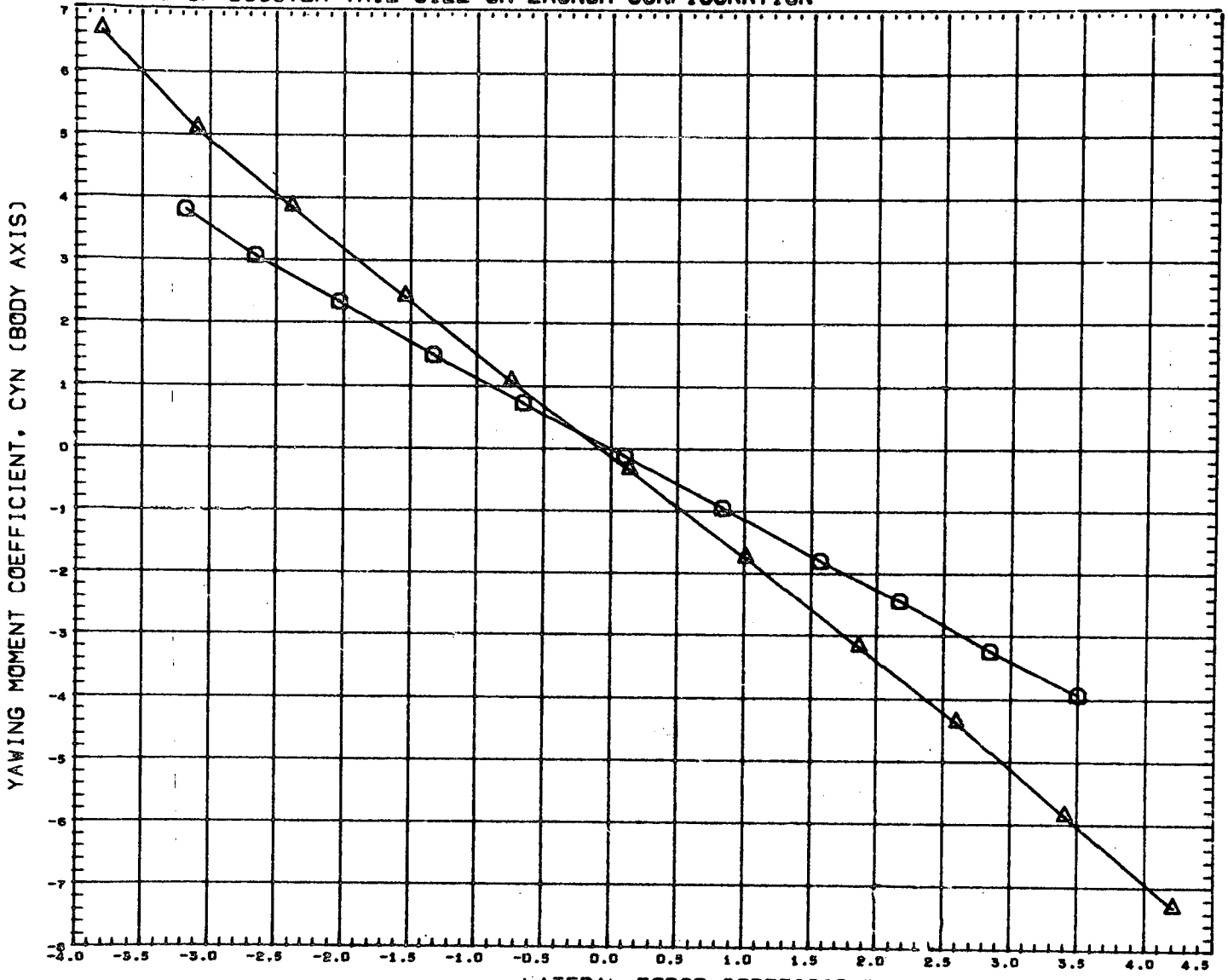


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5036A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A5036A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

CMCN 4.950

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

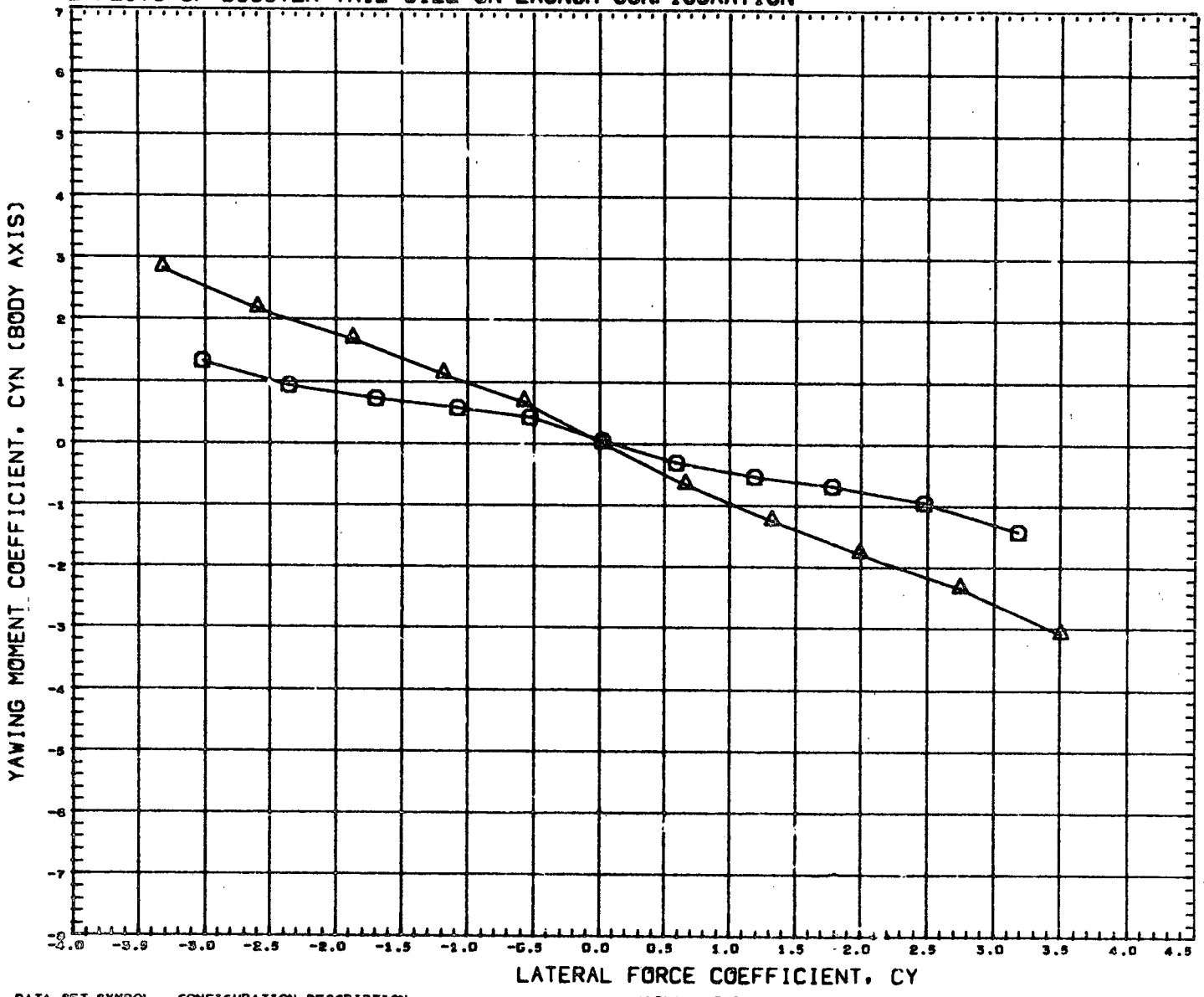


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5036A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A5039A)		MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

MACH 0.900

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2510	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION

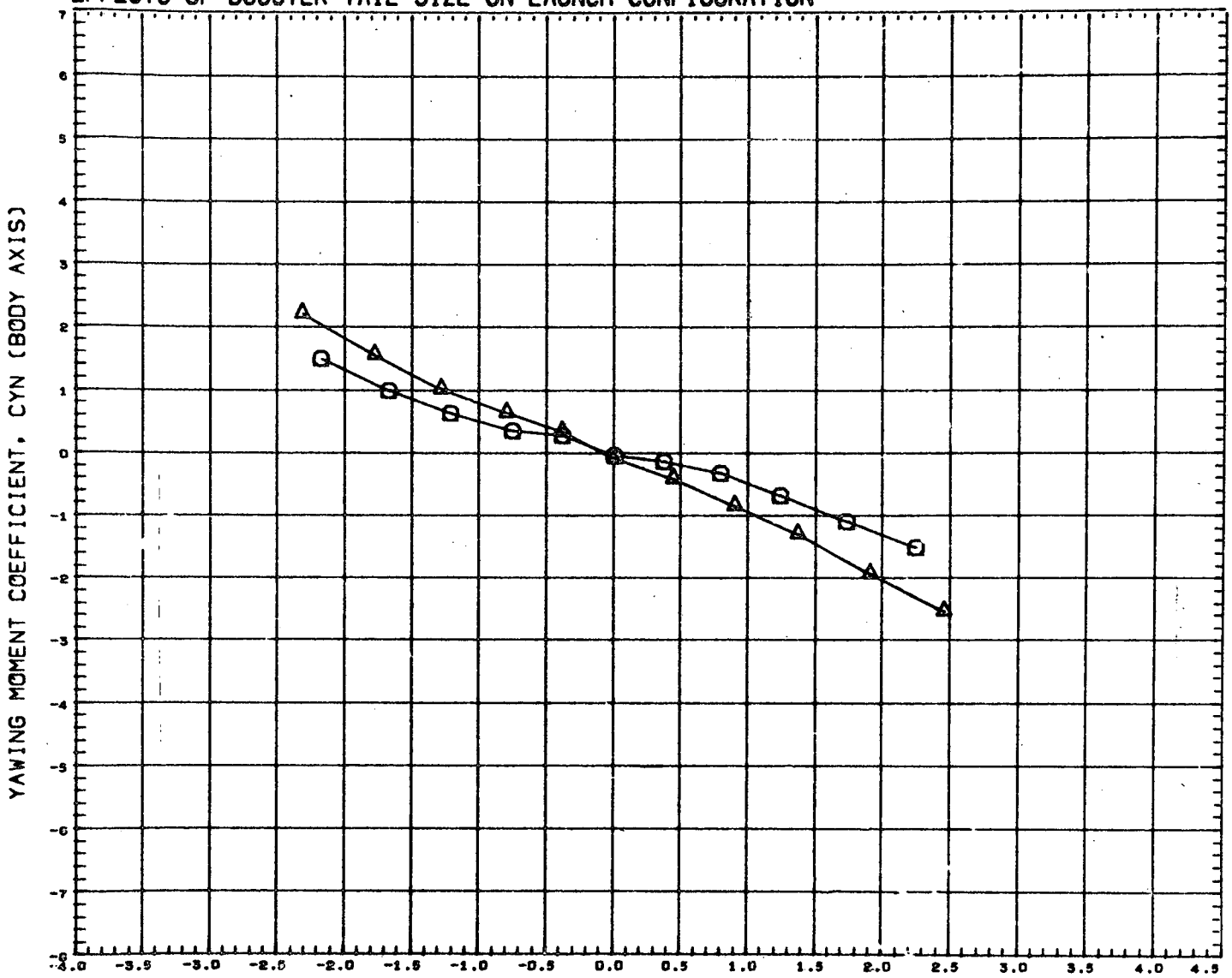


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A9036A)		MSFC 512 GD/C .003366 BOOSTER/ORB. 834R6T1002T3	0.000	0.000	0.000	0.000
(A9039A)		MSFC 512 GD/C .003366 BOOSTER/ORB. 834R6T1302T3	0.000	0.000	0.000	0.000

MACH 2.740

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

EFFECTS OF BOOSTER TAIL SIZE ON LAUNCH CONFIGURATION



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	PHIMOD	LFLAP	RFLAP
(A5038A)	○	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1002T3	0.000	0.000	0.000	0.000
(A5039A)	△	MSFC 512 GD/C .003366 BOOSTER/ORB. B34R6T1302T3	0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	0.9350	SQ.IN.
LREF	6.2310	INCHES
BREF	1.0910	INCHES
XMRP	3.7920	INCHES
YMRP	0.0000	INCHES
ZMRP	0.0000	INCHES
SCALE	0.0034	

MACH 4.959