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MEMORANDUM**

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INVESTIGATION OF AN OBLIQUE-WING AND BODY
COMBINATION AT MACH NUMBERS BETWEEN 0.60
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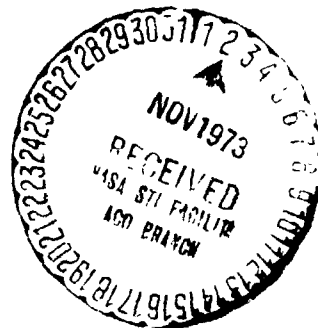
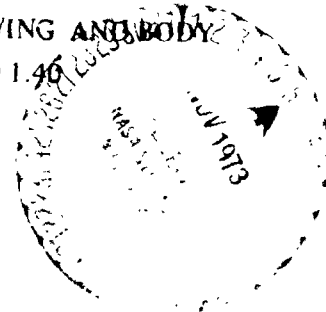
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AN EXPERIMENTAL INVESTIGATION OF AN OBLIQUE-WING AND BODY
COMBINATION AT MACH NUMBERS BETWEEN 0.60 AND 1.40

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SUMMARY

An experimental investigation was conducted in the Ames 11-by 11-Foot Wind Tunnel to determine the aerodynamic characteristics of an oblique high aspect ratio wing in combination with a high fineness-ratio Sears-Haack body. Longitudinal and lateral-directional stability data were obtained at wing yaw angles from 0 to 60° over a test Mach number range from 0.6 to 1.4 for angles of attack between -6° and 9°. The effects of changes in Reynolds number, dihedral, and trailing-edge angle were studied along with the effects of a roughness strip on the upper and lower surfaces of the wing. Flow-visualization studies were made to determine the nature of the flow on the wing surfaces.

With fixed or natural boundary-layer transition on the wing-body combination exceptionally high values of maximum lift-drag ratio were obtained at all Mach numbers tested by employing the proper amount of wing yaw. At a Mach number of 0.98 with the wing at 45° the maximum lift-drag ratio was 20 to 1; at a Mach number of 1.4 with the wing at 60° the maximum lift-drag ratio was approximately 11 to 1. These values are significantly higher than those previously obtained with bilaterally symmetric swept or delta wings.

INTRODUCTION

As is well known, the most efficient form for low speed flight is a straight unswept wing of high aspect ratio. According to theory the same wing when set at varying oblique angles to the flight direction should also provide maximum aerodynamic efficiency at transonic and low supersonic speeds. This prediction has recently been tested in the NASA-Ames Research Center 11-by 11-Foot Transonic Wind Tunnel and preliminary results are presented in the following report without analysis.

Theory indicates that in order to achieve maximum efficiency the oblique angle of the wing must be varied with the Mach number in such a way that the component of velocity normal to the long axis of the wing remains subsonic and below the critical Mach number of the sections. The

sections taken in planes perpendicular to the long axis of the wing thus have a "subsonic" shape with a rounded leading edge and camber to produce a high lift coefficient at a high critical Mach number. The wings of the models tested had a leading edge radius of 2%, maximum camber of 3% and the thickness-chord ratio of 10%. The planform was quasi-elliptical (see figure 2) with an axis ratio of 10 to 1, corresponding to an unswept aspect ratio of 12.7.

Calculations also indicate that the loading tends to shift toward the downstream tip as the wing is pivoted relative to the body longitudinal axis. To compensate for this effect the model wings were constructed with a certain amount of upward curvature in the unyawed position. Such a "curvilinear dihedral" has an aerodynamic effect similar to that of twist when the wing is yawed. The effect is to increase the angle of attack of the forward tip and reduce the angle of the rearward tip.

NOMENCLATURE

The axis system and sign convention are shown in figure 1. Lift and drag are presented in the stability-axis coordinate system and all other forces and moments are presented in the body-axis coordinate system. Because the data were computer plotted the corresponding plot symbol, where used, is given together with the conventional symbol

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
b		wing span
c		wing chord
c _{root}		wing root-chord
C _D	CD	drag coefficient, drag/qS
C _l	CBL	rolling-moment coefficient, rolling moment/qSb
C _L	CL	lift coefficient, lift/qS
C _m	CLM	pitching-moment coefficient, pitching moment/qSc _{root}
C _n	CYN	yawing-moment coefficient, yawing moment/qSb
C _Y	CY	side-force coefficient, side force/qS

H		maximum vertical distance from wing reference plane to wing base line at 0.4c for W_1
H'		maximum vertical distance from wing reference plane to wing base line at 0.4c for W_3
L		longitudinal distance along the body from body maximum diameter
(L/D)	L/D	lift-drag ratio
M	MACH	free-stream Mach number
q		free-stream dynamic pressure
Re	RN/L	unit Reynolds number, millicn per foot
S		wing area
t		wing thickness
W		body width
x		longitudinal distance
Y-Up		maximum distance from wing base line to wing upper surface measured perpendicular to the wing base line
Y-Lo		maximum distance from wing base line to wing lower surface measured perpendicular to the wing base line
Z-Up		vertical distance from wing chord to wing upper surface
Z-Lo		vertical distance from wing chord to wing lower surface
z		Cartesian coordinate
α	ALPHA	angle of attack
β	BETA	angle of sideslip
δ_{TE}		trailing edge segment deflection

Λ	LAMBDA	angle between a perpendicular to the body longitudinal axis and the 0.25 chord line of the wing measured in a horizontal plane
Φ		angle between vertical plane and the intersection of the circular portion of the body with the rectangular portion of the body

Subscripts

max		maximum value
1		denotes original wing dihedral
3		denotes reshaped wing dihedral
0		zero trailing edge deflection
5		5 degree downward trailing edge deflection measured relative to zero trailing edge deflection
10		10 degree downward trailing edge deflection

Configuration Code

W	W	wing
F	F	trailing edge segment
B	B	body

TEST FACILITY

The tests were conducted in the Ames 11-by 11-Foot Transonic Wind Tunnel which is a variable density, closed return, continuous flow type. This tunnel has an adjustable nozzle (two flexible walls) and a slotted test section to permit transonic testing over a Mach number range continuously variable from 0.4 to 1.4.

MODEL DESCRIPTION

The models consisted of an elliptical planform wing mounted on top of a Sears-Haack body as shown in figure 2. Pertinent dimensions of the wings investigated and of the Sears-Haack body, which was common to all configurations, are given in tables 2 and 3 and figure 2(a) through (d). Photographs of the model are shown in figure 2(e). The wing was pivoted in the horizontal plane about the 0.4 root-chord point to obtain oblique angles of 0°, 45°, 50°, 55° and 60° relative to the body longitudinal axis as shown in figure 2(a).

All wings had elliptical planforms with a straight 25-percent chord line (figure 2(a)). The basic wing section was a NACA 3610-02,40 (figure 2(f)) perpendicular to the upswept chord line.

Modifications to the basic wing for these tests (herein referred to as wing number 1, W_1) included removing the anhedral; the resulting dihedral for the wing which will herein be referred to as wing number 3, W_3 , is shown in figure 2(c). The basic wing, W_1 , was also modified for these tests by adjusting the trailing edge segments 5 and 10 degrees downward as shown in figure 2(g).

TESTING AND PROCEDURE

The models were sting mounted through the base of the model body shown in figures 2(a) and 2(d), and force and moment data were obtained from an internally mounted six-component strain-gage balance. The moment center was on the body center line and longitudinally at the wing pivot point ($0.4c_{root}$). Tests were conducted principally at a Reynolds number of 6 million per foot. Limited data were obtained for the basic wing at Reynolds numbers of 4 and 8 million per foot. Angle-of-attack range, selected for each configuration to always define maximum lift-to-drag ratio, was nominally ± 8 degrees.

Data were obtained for oblique angles of 0°, 45°, 50°, 55°, and 60° for the basic wing (figure 2(a)). For the other configurations (the wing with the trailing edge deflected 5 or 10 degrees downward; the wing without anhedral, W_3 , and the wing with roughness strips) data were obtained for oblique angles of 0°, 45°, and 60°. Roughness strips 1/8-inch wide were placed on the upper and lower surfaces of the wing without anhedral and around the body nose. The strips were made of 0.0045-inch diameter spheres placed approximately $\frac{1}{2}$ -inch downstream of the wing leading edge and approximately $2\frac{1}{2}$ -inches downstream from the body nose.

The density of the spheres within the roughness strips was determined

using state-of-the-art techniques (reference 1). Individual 0.0045-inch diameter spheres were placed in a row, staggered spanwise and chordwise, on the wing surfaces and flow visualization techniques (fluorescent oil and sublimation) were used to determine the natural boundary-layer transition point on the wing. The measured balance data were adjusted to a condition corresponding to freestream static pressure on the base.

Mach number range for each oblique angle tested is shown in table 4.

RESULTS AND DISCUSSION

A complete index to the data figures is given in table 5. The experiments have shown that an oblique wing of high aspect ratio can give exceptionally high values of lift/drag-ratio at all Mach numbers from 0.60 to 1.40. At $M = 0.98$ and the wing at 45° $(L/D)_{\max}$ was 20 to 1. At 60° yaw and $M = 1.4$ $(L/D)_{\max}$ was approximately 11. These values are significantly higher than those previously obtained with bilaterally symmetric swept or delta wings.

Upward curvature of the wing is effective in reducing the trim changes of trim with yaw angle to very low values within the cruising range. At higher angles of attack significant trim changes occur, apparently because of stalling of the downstream tip.

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REFERENCES

1. Braslow, Albert L.; Hicks, Raymond M.; Harris, Roy V.: Use of Grit-Type Boundary-Layer-Transition Trips on Wind-Tunnel Models. NASA TN D-3579, Sept. 1966.

TABLE 1. - MODEL GEOMETRY

Body (Sears-Haack)

Length	
Closed	45.25 in
Cut-off	36.00 in
Maximum diameter	3.37 in

Wing

Planform 10:1 ellipse about c/4	
Span (reference)	60.00 in
Area (reference)	278.00 in ²
Root chord	6.00 in
Aspect ratio	12.7
Maximum t/c	0.10
Incidence	0°
0.25c sweep	0°
Section	NACA 3610-02,40
Maximum thickness, percent chord	0.40
Leading-edge nose radius, percent chord	0.02

TABLE 2. - WING DIMENSIONAL DATA*

Semi-span	Chord	Y-Up	Y-Lo	H	H'
.000	6.000	.465	.179	.000	.000
1.000	5.997	.465	.179	-.001	.000
2.000	5.987	.464	.178	-.005	.000
3.000	5.970	.463	.178	-.010	.000
4.000	5.946	.461	.177	-.017	.000
5.000	5.915	.458	.176	-.025	.000
6.000	5.879	.456	.175	-.033	.000
7.000	5.834	.452	.174	-.042	.000
8.000	5.783	.448	.172	-.052	.000
9.000	5.724	.444	.171	-.061	.000
10.000	5.657	.438	.169	-.070	.010
10.986	5.583	.433	.166	-.078	.018
11.850	5.512	.427	.164	-.085	.025
12.635	5.442	.422	.162	-.090	.030
13.356	5.373	.416	.160	-.094	.034
14.024	5.304	.411	.158	-.098	.038
14.645	5.237	.406	.156	-.101	.041
15.226	5.170	.401	.154	-.103	.043
15.772	5.104	.396	.152	-.105	.045
16.286	5.039	.390	.150	-.106	.046
16.772	4.975	.385	.148	-.106	.046
17.233	4.911	.381	.146	-.107	.047
17.671	4.849	.376	.145	-.107	.047
18.087	4.787	.371	.143	-.106	.048
18.483	4.726	.366	.141	-.105	.049
18.862	4.666	.362	.139	-.105	.049
19.224	4.606	.357	.137	-.103	.051
19.570	4.548	.352	.136	-.102	.052
19.902	4.490	.348	.134	-.101	.053
20.220	4.432	.343	.132	-.099	.055
20.977	4.289	.332	.128	-.094	.060
21.533	4.178	.324	.125	-.090	.066
22.046	4.069	.315	.121	-.085	.071
22.523	3.963	.307	.118	-.080	.076
22.956	3.860	.299	.115	-.075	.081
23.379	3.760	.291	.112	-.070	.086
23.763	3.662	.284	.109	-.065	.091
24.123	3.567	.276	.106	-.060	.096
24.459	3.474	.269	.104	-.055	.101

* All dimensions are inches

TABLE 2. - WING DIMENSIONAL DATA - Concluded.

Semi-span	Chord	Y-UP	Y-LO	H	H'
24.773	3.384	.262	.101	-.050	.106
25.068	3.296	.255	.098	-.045	.111
25.344	3.210	.249	.096	-.040	.116
25.604	3.127	.242	.093	-.035	.121
25.848	3.046	.236	.091	-.030	.126
26.077	2.966	.230	.088	-.026	.131
26.293	2.889	.224	.086	-.022	.137
26.495	2.814	.218	.084	-.017	.142
26.686	2.741	.212	.082	-.013	.146
26.866	2.670	.207	.080	-.009	.150
27.036	2.600	.197	.076	-.006	.156
27.196	2.533	.187	.072	-.002	.160
27.347	2.467	.178	.068	.002	.164
27.489	2.403	.169	.065	.005	.167
27.624	2.340	.161	.062	.008	.170
27.751	2.279	.153	.059	.011	.173
27.870	2.220	.145	.056	.014	.176
27.984	2.163	.139	.053	.017	.177
28.091	2.106	.129	.050	.020	.180
28.345	1.965	.116	.045	.027	.189
28.524	1.859	.105	.041	.031	.193
28.684	1.758	.096	.037	.036	.198
28.825	1.662	.088	.034	.040	.202
28.952	1.572	.081	.031	.043	.205
29.064	1.487	.075	.029	.046	.208
29.164	1.406	.069	.026	.049	.211
29.254	1.330	.064	.024	.051	.213
29.333	1.258	.059	.023	.054	.216
29.405	1.190	.055	.021	.056	.218
29.468	1.125	.051	.020	.058	.220
29.529	1.064	.047	.018	.059	.221
29.600	.977	.043	.017	.061	.223
29.700	.846	.038	.014	.064	.226
29.800	.692	.031	.012	.067	.229
29.900	.489	.022	.008	.070	.232
30.000	.000	.000	.000	.073	.235

* All dimensions are inches

TABLE 3. - MODEL BODY DATA *

L	x	Dia	Area	W	z	Φ
.00	22.62	3.036	8.909	3.036	.000	90.0
.10	22.52	3.036	8.909	3.036	.000	90.0
.20	22.42	3.035	8.908	3.035	.000	90.0
.30	22.32	3.035	8.907	3.035	.000	90.0
.40	22.22	3.035	8.905	3.035	.000	90.0
.50	22.12	3.034	8.903	3.034	.000	90.0
.60	22.02	3.033	8.900	3.033	.000	90.0
.70	21.92	3.032	8.896	3.032	.000	90.0
.80	21.82	3.032	8.892	3.032	.000	90.0
.90	21.72	3.030	8.888	3.030	.000	90.0
1.00	21.62	3.029	8.883	3.029	.000	90.0
1.10	21.52	3.028	8.878	3.028	.000	90.0
1.20	21.42	3.026	8.872	3.026	.000	90.0
1.30	21.32	3.025	8.865	3.025	.000	90.0
1.40	21.22	3.023	8.858	3.023	.000	90.0
1.50	21.12	3.021	8.850	3.021	.000	90.0
1.60	21.02	3.019	8.842	3.019	.000	90.0
1.70	20.92	3.017	8.834	3.017	.000	90.0
1.80	20.82	3.015	8.825	3.015	.000	90.0
1.90	20.72	3.013	8.815	3.013	.000	90.0
2.00	20.62	3.010	8.805	3.010	.000	90.0
2.10	20.52	3.008	8.794	3.008	.000	90.0
2.20	20.42	3.005	8.783	3.005	.000	90.0
2.30	20.32	3.002	8.771	3.002	.000	90.0
2.40	20.22	2.999	8.759	2.999	.000	90.0
2.50	20.12	2.996	8.746	2.996	.000	90.0
2.60	20.02	2.993	8.733	2.993	.000	90.0
2.70	19.92	2.989	8.719	2.989	.000	90.0
2.80	19.82	2.986	8.705	2.986	.000	90.0
2.90	19.72	2.982	8.690	2.982	.000	90.0
3.00	19.62	2.979	8.675	2.979	.000	90.0
3.10	19.52	2.975	8.659	2.925	.000	90.0
3.20	19.42	2.971	8.643	2.971	.000	90.0
3.30	19.32	2.967	8.626	2.967	.000	90.0
3.40	19.22	2.962	8.609	2.962	.000	90.0
3.50	19.12	2.958	8.591	2.958	.000	90.0
3.60	19.02	2.953	8.573	2.953	.000	90.0
3.70	18.92	2.949	8.554	2.949	.000	90.0

* All dimensions are inches except Area, in², and Φ, degrees

TABLE 3. - MODEL BODY DATA - Continued.

L	x	Dia	Area	W	z	Φ
3.80	18.82	2.944	8.535	2.944	.000	90.0
3.90	18.72	2.039	8.515	2.939	.000	90.0
4.00	18.62	2.934	8.495	2.934	.000	90.0
4.10	18.52	2.929	8.474	2.929	.000	90.0
4.20	18.42	2.924	8.452	2.924	.000	90.0
4.30	18.32	2.918	8.431	2.918	.000	90.0
4.40	18.22	2.913	8.400	2.913	.000	90.0
4.50	18.12	2.907	8.386	2.907	.000	90.0
4.60	18.02	2.902	8.362	2.900	.059	87.7
4.70	17.92	2.899	8.338	2.889	.119	85.3
4.80	17.82	2.896	8.314	2.878	.160	83.7
4.90	17.72	2.894	8.289	2.867	.199	82.1
5.00	17.62	2.891	8.264	2.854	.230	80.0
5.10	17.52	2.889	8.239	2.841	.262	79.6
5.20	17.42	2.886	8.212	2.828	.287	78.4
5.30	17.32	2.884	8.186	2.813	.318	77.3
5.40	17.22	2.882	8.158	2.798	.346	76.1
5.50	17.12	2.880	8.131	2.782	.372	75.0
5.60	17.02	2.877	8.103	2.766	.397	74.0
5.70	16.92	2.875	8.074	2.748	.423	72.9
5.80	16.82	2.873	8.045	2.730	.448	71.8
5.90	16.72	2.872	8.016	2.711	.474	70.7
6.00	16.62	2.870	7.986	2.691	.499	69.7
6.10	16.52	2.868	7.955	2.671	.523	68.6
6.20	16.42	2.866	7.924	2.649	.547	67.6
6.30	16.32	2.864	7.893	2.627	.571	66.5
6.40	16.22	2.863	7.861	2.604	.596	65.4
6.50	16.12	2.861	7.829	2.580	.619	64.4
6.60	16.02	2.859	7.796	2.554	.642	63.3
6.70	15.92	2.857	7.763	2.528	.665	62.2
6.80	15.82	2.856	7.729	2.501	.689	61.1
6.90	15.72	2.854	7.695	2.473	.712	60.1
7.00	15.62	2.853	7.660	2.444	.736	59.0
7.10	15.52	2.851	7.625	2.414	.758	57.9
7.20	15.42	2.849	7.590	2.383	.781	56.8
7.30	15.32	2.848	7.554	2.350	.804	55.6
7.40	15.22	2.846	7.518	2.317	.827	54.5
7.50	15.12	2.854	7.481	2.282	.857	53.1

* All dimensions are inches except Area, in², and Φ, degrees

TABLE 3. - MODEL BODY DATA - Continued.

L	x	Dia	Area	W	z	φ
7.60	15.02	2.861	7.444	2.245	.887	51.7
7.70	14.92	2.867	7.406	2.207	.915	50.3
7.80	14.82	2.873	7.368	2.168	.943	49.0
7.90	14.72	2.878	7.330	2.127	.969	47.7
8.00	14.62	2.883	7.291	2.085	.996	46.3
8.10	14.52	2.888	7.252	2.040	1.022	44.9
8.20	14.42	2.891	7.212	1.994	1.047	43.6
8.30	14.32	2.895	7.172	1.946	1.072	42.2
8.40	14.22	2.898	7.131	1.895	1.096	40.8
8.50	14.12	2.900	7.090	1.843	1.120	39.4
8.60	14.02	2.902	7.049	1.787	1.143	38.0
8.70	13.92	2.903	7.007	1.729	1.166	36.6
8.80	13.82	2.904	6.965	1.668	1.189	35.0
8.90	13.72	2.905	6.923	1.603	1.211	33.5
9.00	13.62	2.903	6.880	1.534	1.232	31.9
9.10	13.52	2.902	6.836	1.461	1.254	30.2
9.20	13.42	2.901	6.793	1.383	1.275	28.5
9.30	13.32	2.899	6.749	1.298	1.296	26.6
9.40	13.22	2.996	6.704	1.207	1.316	24.6
9.50	13.12	2.892	6.659	1.106	1.336	22.5
9.60	13.02	2.888	6.614	.992	1.356	20.1
9.70	12.92	2.883	6.568	.863	1.376	17.4
9.80	12.82	2.877	6.522	.707	1.394	14.2
9.90	12.72	2.870	6.476	.502	1.413	10.1
10.00	12.62	2.861	6.429	.000	1.431	.0
10.10	12.52	2.851	6.382			
10.20	12.42	2.840	6.335			
10.30	12.32	2.829	6.287			
10.40	12.22	2.819	6.239			
10.50	12.12	2.808	6.191			
10.60	12.02	2.796	6.142			
10.70	11.92	2.785	6.093			
10.80	11.82	2.774	6.044			
10.90	11.72	2.763	5.994			
11.00	11.62	2.751	5.944			
11.10	11.52	2.739	5.893			
11.20	11.42	2.727	5.843			
11.30	11.32	2.716	5.792			

* All dimensions are inches except Area, in², and φ, degrees

TABLE 3. - MODEL BODY DATA - Continued.

L	x	Dia	Area
11.40	11.22	2.704	5.740
11.50	11.12	2.691	5.689
11.60	11.02	2.679	5.637
11.70	10.92	2.667	5.585
11.80	10.82	2.654	5.532
11.90	10.72	2.641	5.480
12.00	10.62	2.629	5.427
12.10	10.52	2.616	5.373
12.20	10.42	2.603	5.320
12.30	10.32	2.589	5.266
12.40	10.22	2.576	5.212
12.50	10.12	2.563	5.158
12.60	10.02	2.549	5.103
12.70	9.92	2.535	5.048
12.80	9.82	2.521	4.993
12.90	9.72	2.507	4.938
13.00	9.62	2.493	4.883
13.10	9.52	2.479	4.827
13.20	9.42	2.465	4.771
13.30	9.32	2.450	4.715
13.40	9.22	2.436	4.659
13.50	9.12	2.421	4.602
13.60	9.02	2.406	4.546
13.70	8.92	2.391	4.489
13.80	8.82	2.375	4.432
13.90	8.72	2.360	4.374
14.00	8.62	2.345	4.317
14.10	8.52	2.329	4.260
14.20	8.42	2.313	4.202
14.30	8.32	2.297	4.144
14.40	8.22	2.281	4.086
14.50	8.12	2.265	4.028
14.60	8.02	2.248	3.970
14.70	7.92	2.232	3.912
14.80	7.82	2.215	3.853
14.90	7.72	2.198	3.795
15.00	7.62	2.181	3.736
15.10	7.52	2.164	3.677

* All dimensions are inches except Area, in²

TABLE 3. - MODEL BODY DATA - Continued.

L	x	Dia	Area
15.20	7.42	2.146	3.619
15.30	7.32	2.129	3.560
15.40	7.22	2.111	3.501
15.50	7.12	2.093	3.442
15.60	7.02	2.075	3.383
15.70	6.92	2.057	3.324
15.80	6.82	2.039	3.265
15.90	6.72	2.020	3.206
16.00	6.62	2.002	3.147
16.10	6.52	1.983	3.088
16.20	6.42	1.964	3.029
16.30	6.32	1.944	2.970
16.40	6.22	1.925	2.911
16.50	6.12	1.905	2.852
16.60	6.02	1.886	2.793
16.70	5.92	1.866	2.734
16.80	5.82	1.845	2.675
16.90	5.72	1.825	2.616
17.00	5.62	1.805	2.558
17.10	5.52	1.784	2.499
17.20	5.42	1.763	2.441
17.30	5.32	1.742	2.382
17.40	5.22	1.720	2.324
17.50	5.12	1.699	2.266
17.60	5.02	1.677	2.208
17.70	4.92	1.655	2.151
17.80	4.82	1.633	2.093
17.90	4.72	1.610	2.036
18.00	4.62	1.587	1.979
18.10	4.52	1.564	1.922
18.20	4.42	1.541	1.866
18.30	4.32	1.518	1.809
18.40	4.22	1.494	1.753
18.50	4.12	1.470	1.697
18.60	4.02	1.446	1.642
18.70	3.92	1.421	1.587
18.80	3.82	1.397	1.532
18.90	3.72	1.372	1.478

* All dimensions are inches except Area, in²

TABLE 3. - MODEL BODY DATA - Concluded.

L	x	Dia	Area
19.00	3.62	1.346	1.424
19.10	3.52	1.321	1.370
19.20	3.42	1.295	1.317
19.30	3.32	1.269	1.264
19.40	3.22	1.242	1.212
19.50	3.12	1.215	1.160
19.60	3.02	1.188	1.108
19.70	2.92	1.160	1.057
19.80	2.82	1.132	1.007
19.90	2.72	1.104	.957
20.00	2.62	1.075	.908
20.10	2.52	1.046	.860
20.20	2.42	1.017	.812
20.30	2.32	.987	.765
20.40	2.22	.956	.718
20.50	2.12	.926	.673
20.60	2.02	.894	.628
20.70	1.92	.862	.584
20.80	1.82	.830	.541
20.90	1.72	.797	.499
21.00	1.62	.763	.457
21.10	1.52	.729	.417
21.20	1.42	.694	.378
21.30	1.32	.658	.340
21.40	1.22	.621	.303
21.50	1.12	.583	.267
21.60	1.02	.545	.233
21.70	.92	.505	.200
21.80	.82	.464	.169
21.90	.72	.422	.140
22.00	.62	.378	.112
22.10	.52	.332	.086
22.20	.42	.283	.063
22.30	.32	.231	.042
22.40	.22	.175	.024
22.50	.12	.111	.010
22.60	.02	.029	.001
22.62	.00	.000	.000

* All dimensions are inches except Area, in²

TABLE 4. - TEST CONDITIONS

CONFIGURATION	Λ , Deg.	Re/ 10^6 , Per Ft.	MACH NUMBERS															
			0.60	0.70	0.80	0.95	0.98	1.05	1.10	1.15	1.20	1.30	1.40					
W ₁ F ₀ B	0	4	x	x														
	0	5		x														
	0	6	x	x	x													
	45	4			x													
	45	6		x	x	x			x									
	45	8			x													
	50	6			x	x			x			x						
	55	4													x			
	55	6			x	x						x			x	x		
	55	8													x			
	60	4			x										x			
	60	6			x										x			
W ₁ F ₀ B	60	8			x	x						x		x	x			x

TABLE 4. - TEST CONDITIONS - Concluded.

CONFIGURATION	Λ , Deg.	Re/ 10^6 , Per Ft.	MACH NUMBERS														
			0.60	0.70	0.80	0.95	0.98	1.05	1.10	1.15	1.20	1.30	1.40				
W ₁ F ₅ B	0	6	x	x													
↕	45	6		x	x	x											
W ₁ F ₅ B	60	6			x	x								x	x		x
W ₁ F ₁₀ B	0	6	x	x													
↕	45	6		x	x	x											
W ₁ F ₁₀ B	60	6			x	x								x	x		x
W ₃ F ₀ B	0	6	x	x	x												
↕	45	6		x	x	x											
↕	50	6			x	x								x			
↕	55	6			x	x								x			x
W ₃ F ₀ B	60	6			x	x								x	x		x

TABLE 5. - INDEX OF DATA FIGURES

Figure	Title	Page
3	Effect of Reynolds number.	1
4	Effect of trailing edge angle.	36
5	Effect of dihedral.	127
6	Effect of surface roughness strips.	302

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

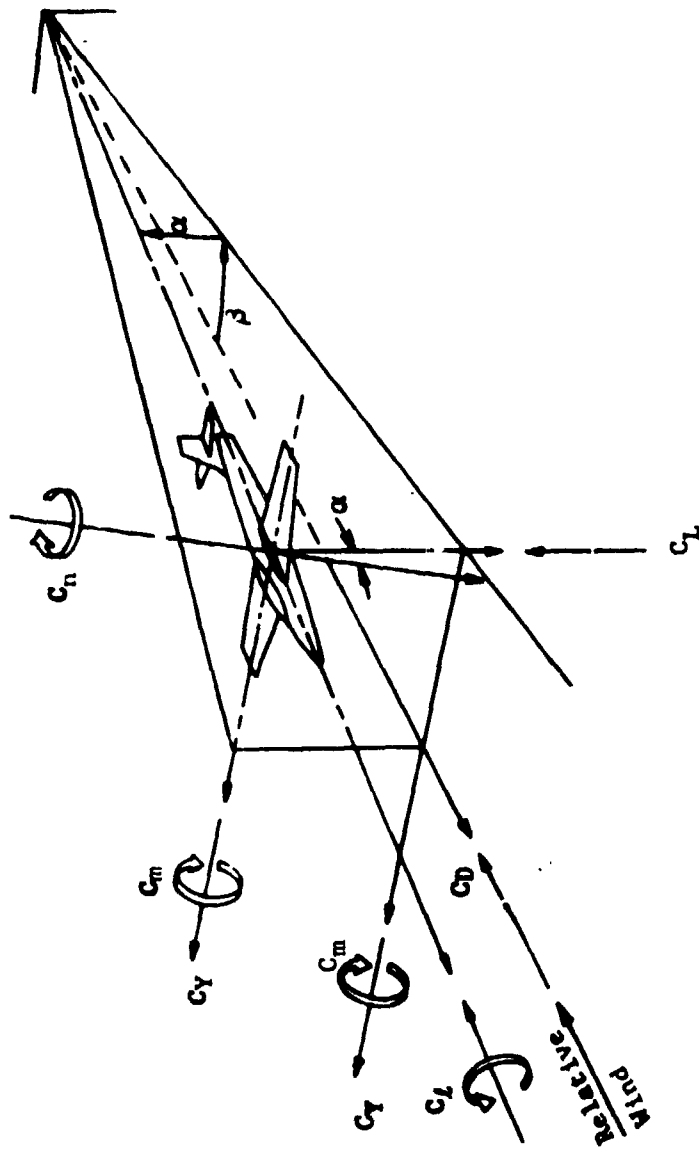
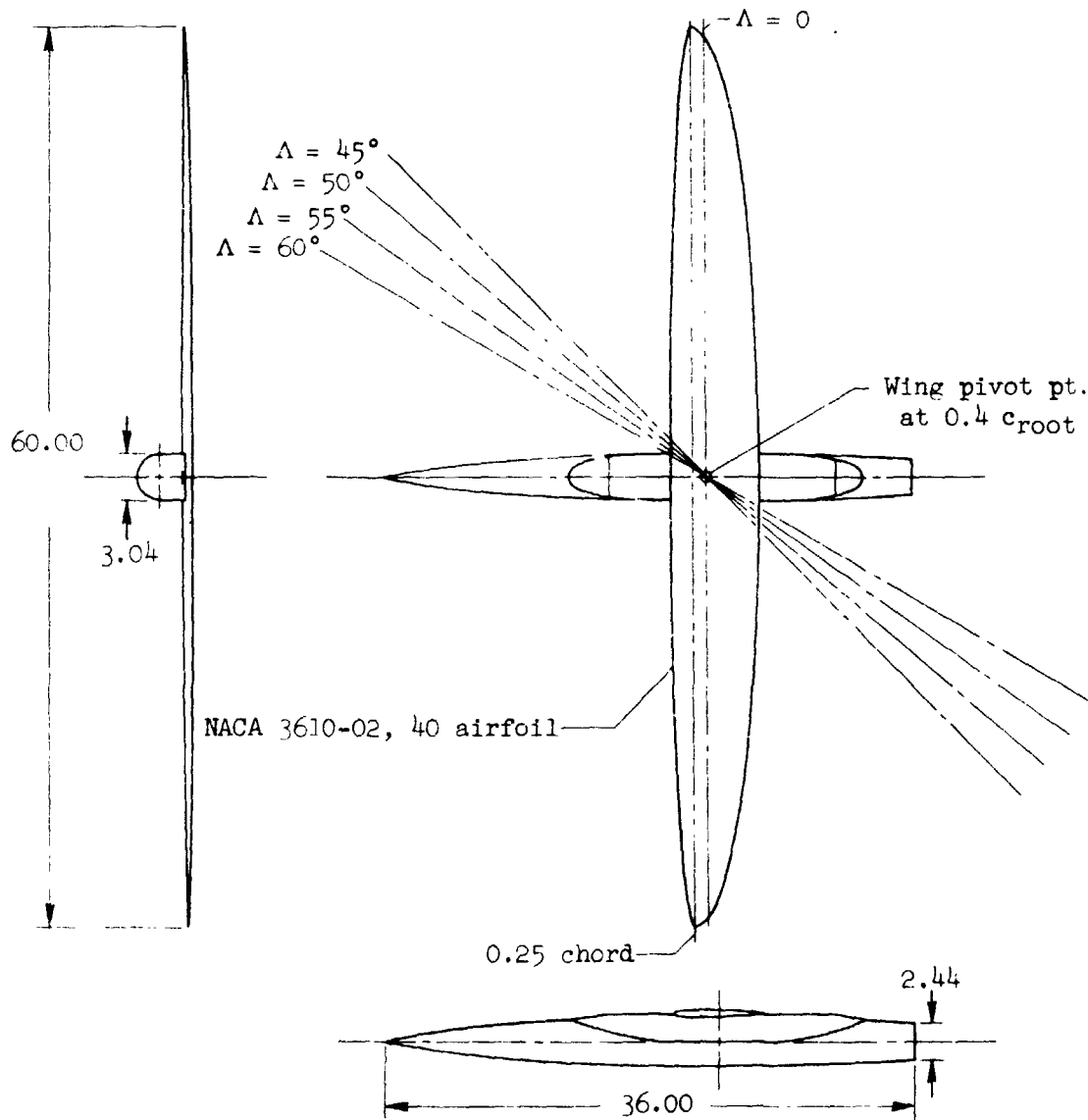
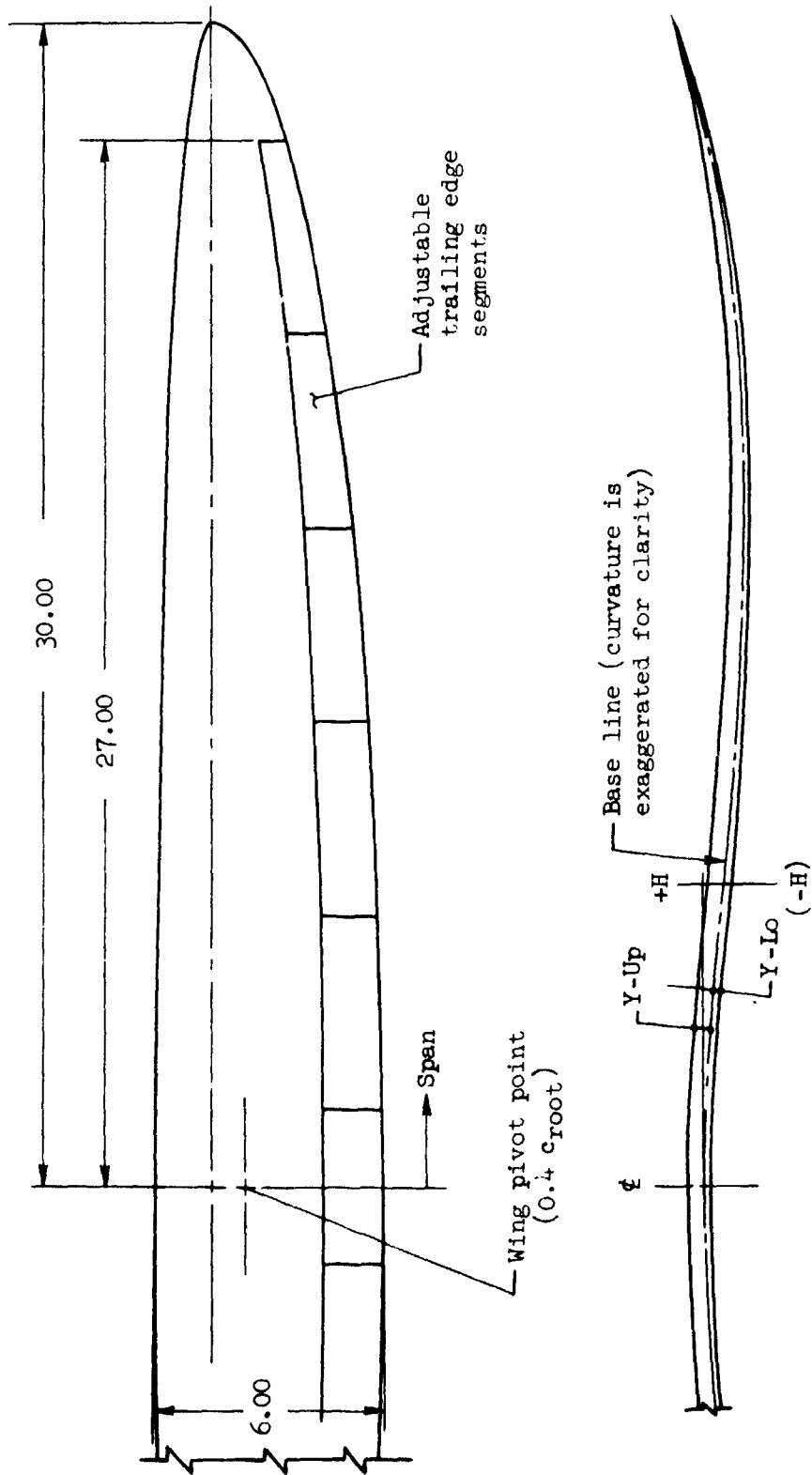


Figure 1. - Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle



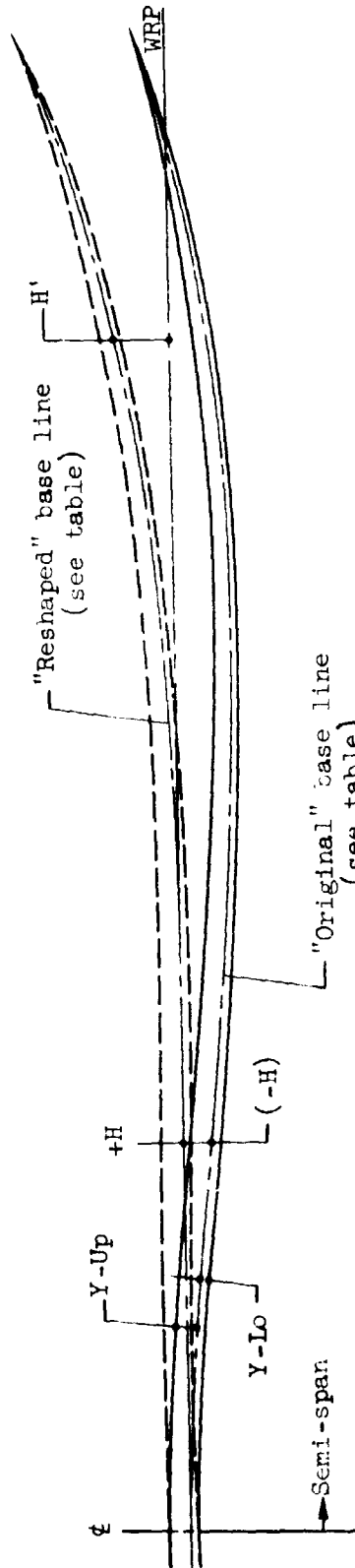
(a) Model drawing

Figure 2.- Oblique-wing/body model details and photograph



(b) Wing planform and base line curvature, wing number 1, W_1

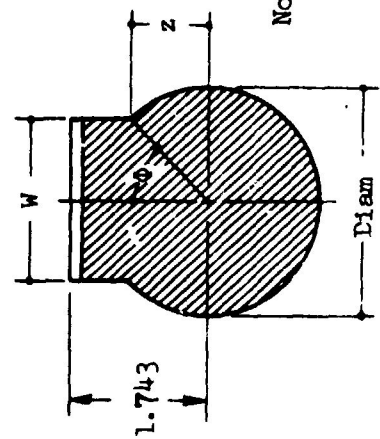
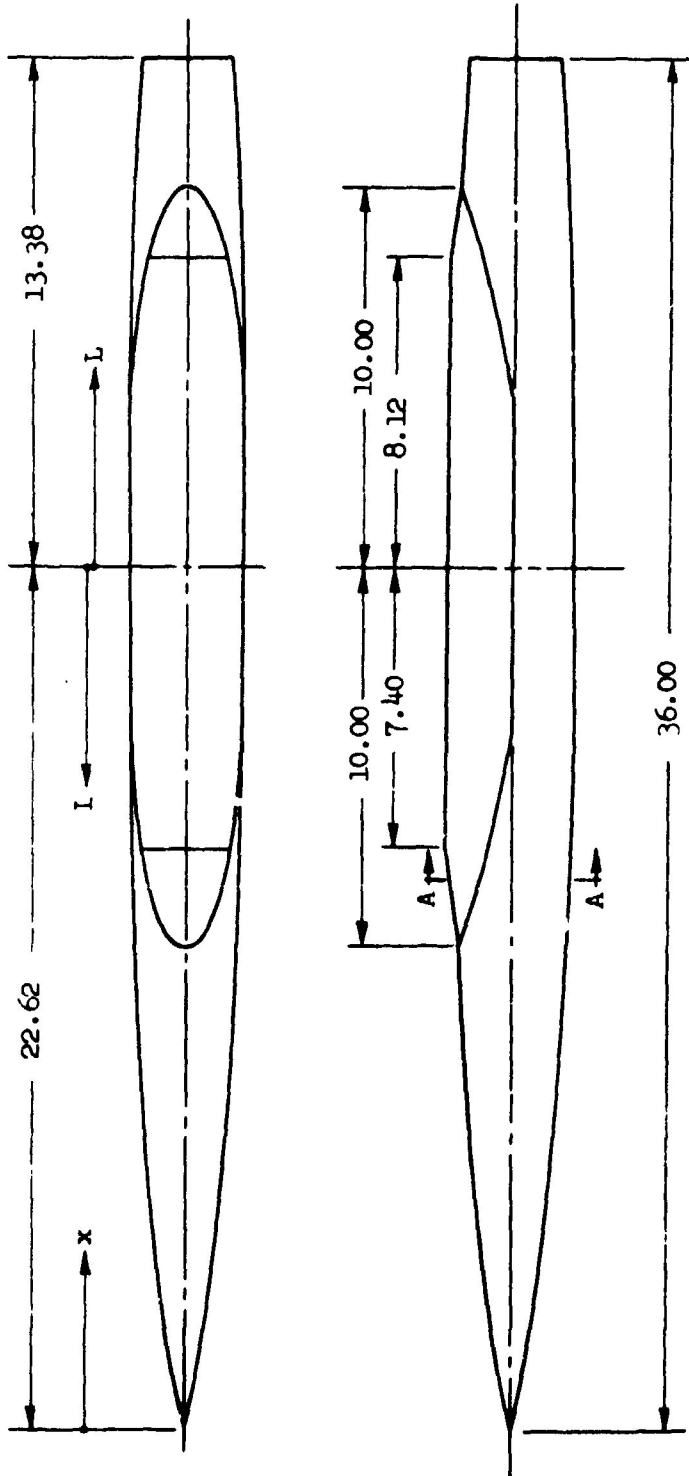
Figure 2.- Continued.



Note: Curvature exaggerated for clarity

(c) Wing curvature drawing and tabulated wing dimensional data, wing numbers 1 and 3

Figure 2.- Continued.

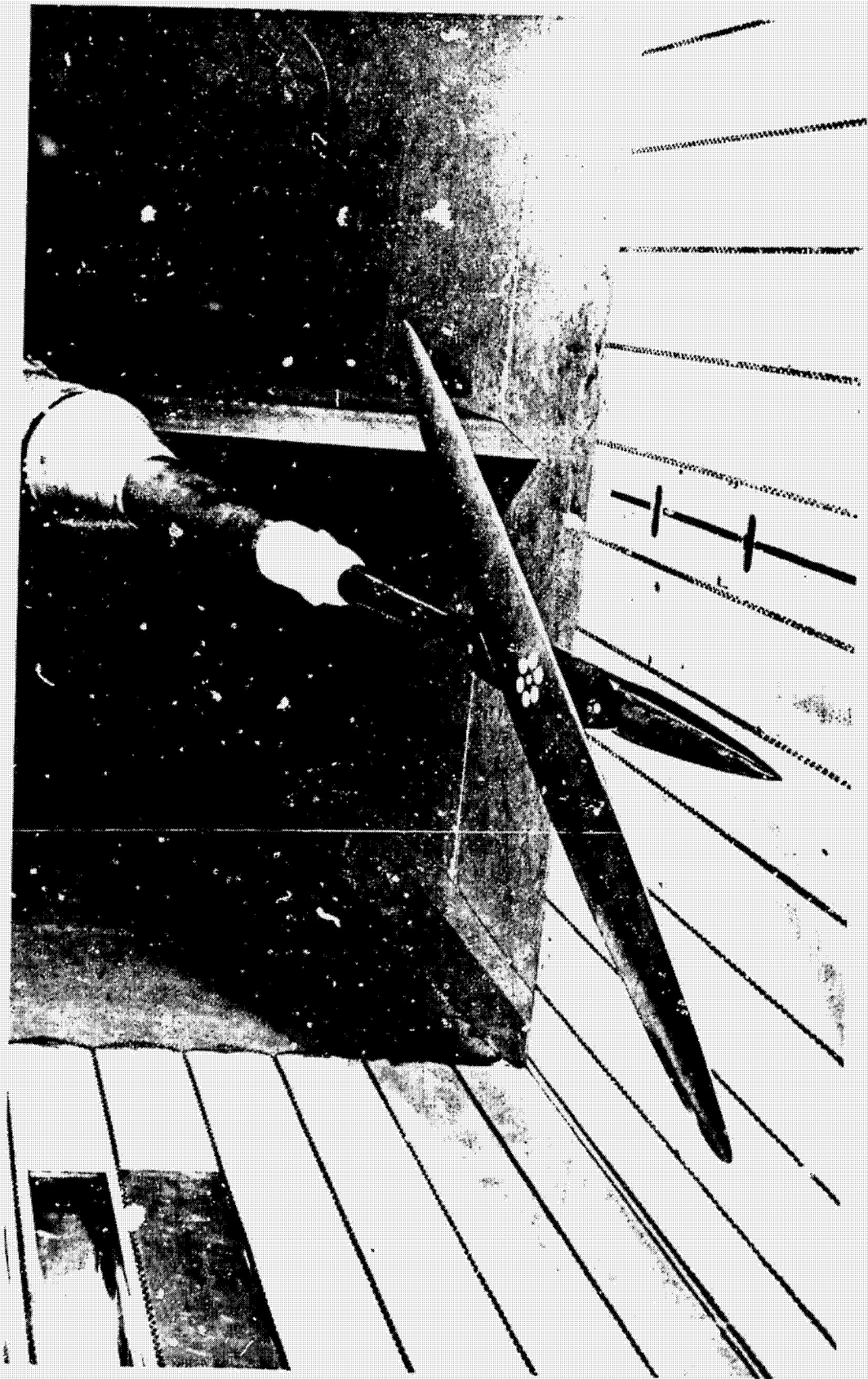


Note: See table 2 for body-section
 dimensional details. Section
 taken at $L = 8.10$.

Section A-A

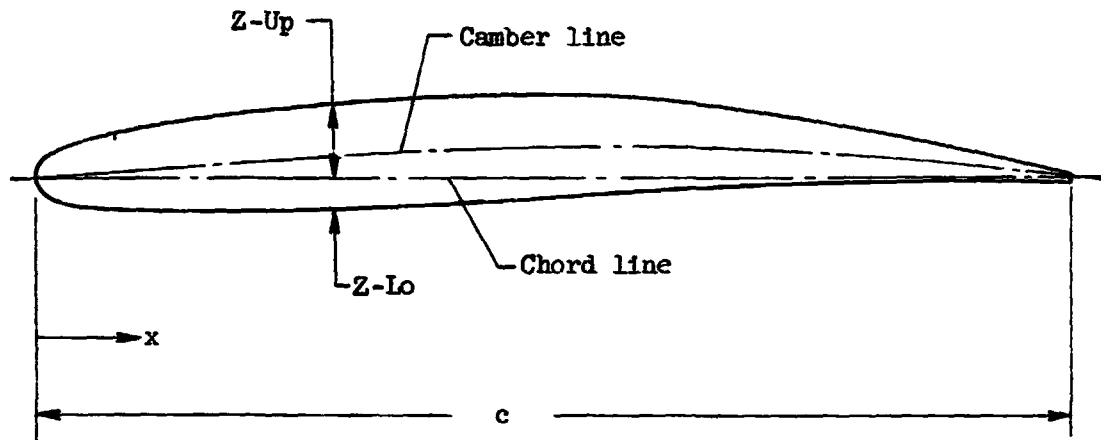
(d) Body dimensional data

Figure 2.- Continued.



(e) Photograph of the model in the Ames 11-by 11-Foot Wind Tunnel, $\Lambda = 60^\circ$

Figure 2. - Continued.

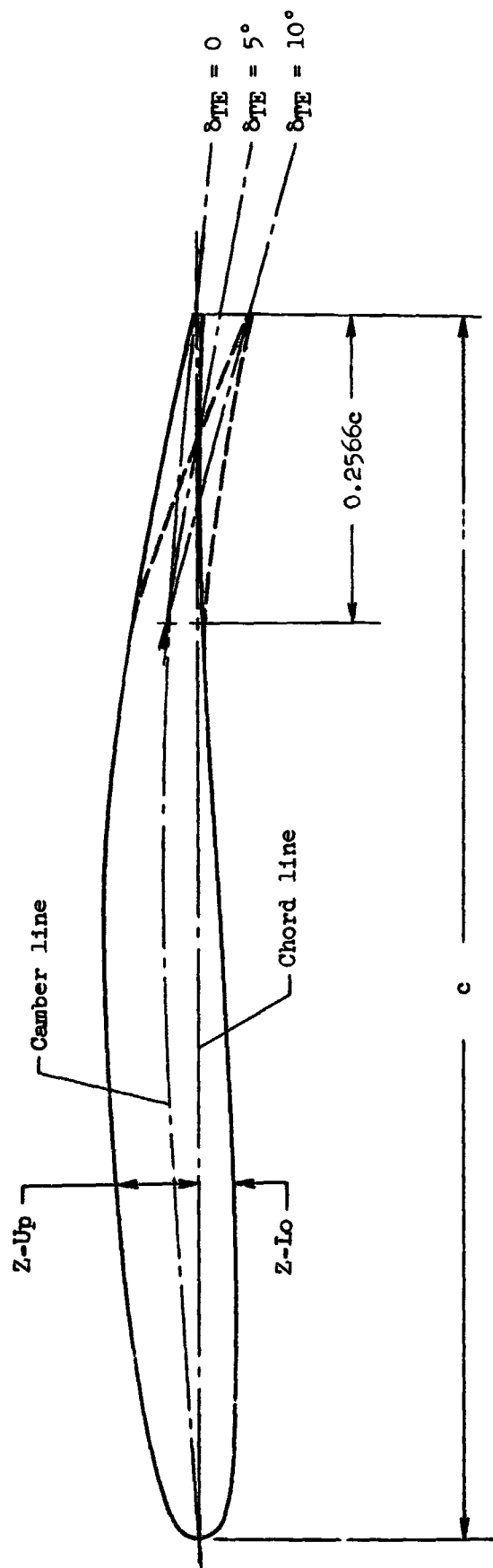


TABULATED WING-SECTION DATA

$\frac{x}{c}$	$\frac{t}{c}$	$\frac{\text{Camber}}{c}$	$\frac{Z\text{-Up}}{c}$	$\frac{Z\text{-Lo}}{c}$
.001	.01203	.00008	.00609	-.00594
.010	.03394	.00078	.01775	-.01619
.025	.04849	.00195	.02619	-.02230
.050	.06119	.00389	.03449	-.02671
.075	.06891	.00582	.04027	-.02864
.100	.07446	.00772	.04495	-.02951
.150	.08250	.01144	.05269	-.02981
.200	.08852	.01498	.05924	-.02923
.300	.09689	.02129	.06974	-.02715
.400	.10000	.02621	.07621	-.02379
.500	.09647	.02925	.07749	-.01899
.600	.08560	.02995	.07275	-.01285
.700	.06796	.02785	.06182	-.00613
.800	.04568	.02246	.04531	-.00038
.900	.02255	.01334	.02461	.00207
1.000	.00400	.00000	.00200	-.00200

(f) Wing section drawing and tabulated airfoil section data

Figure 2.- Continued.



(g) Wing section drawing with trailing edge modifications

Figure 2.- Concluded.

DATA

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PA001) W1 FO B
 (PA002) W1 FO B
 (BA003) W1 FO B

SWEEP ANGLE BETA
 0.000 4.000
 0.000 6.000
 0.000 8.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

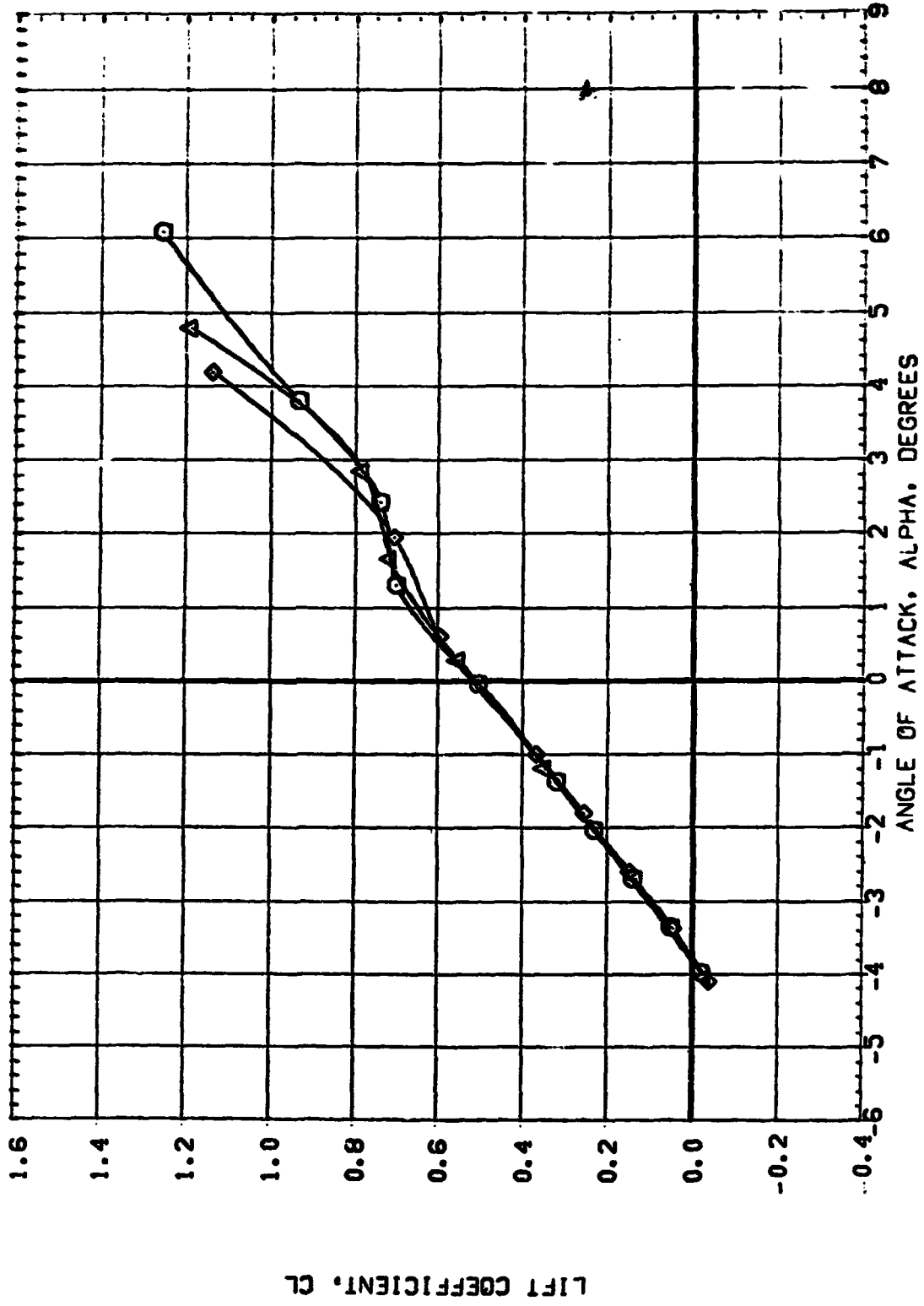


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A) MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAB001) W1 P0 B
 (PAB002) W1 P0 B
 (BZ003) W1 P0 B

SWEEP RM/L DATA
 0.000 4.000
 0.000 5.000
 0.000 6.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

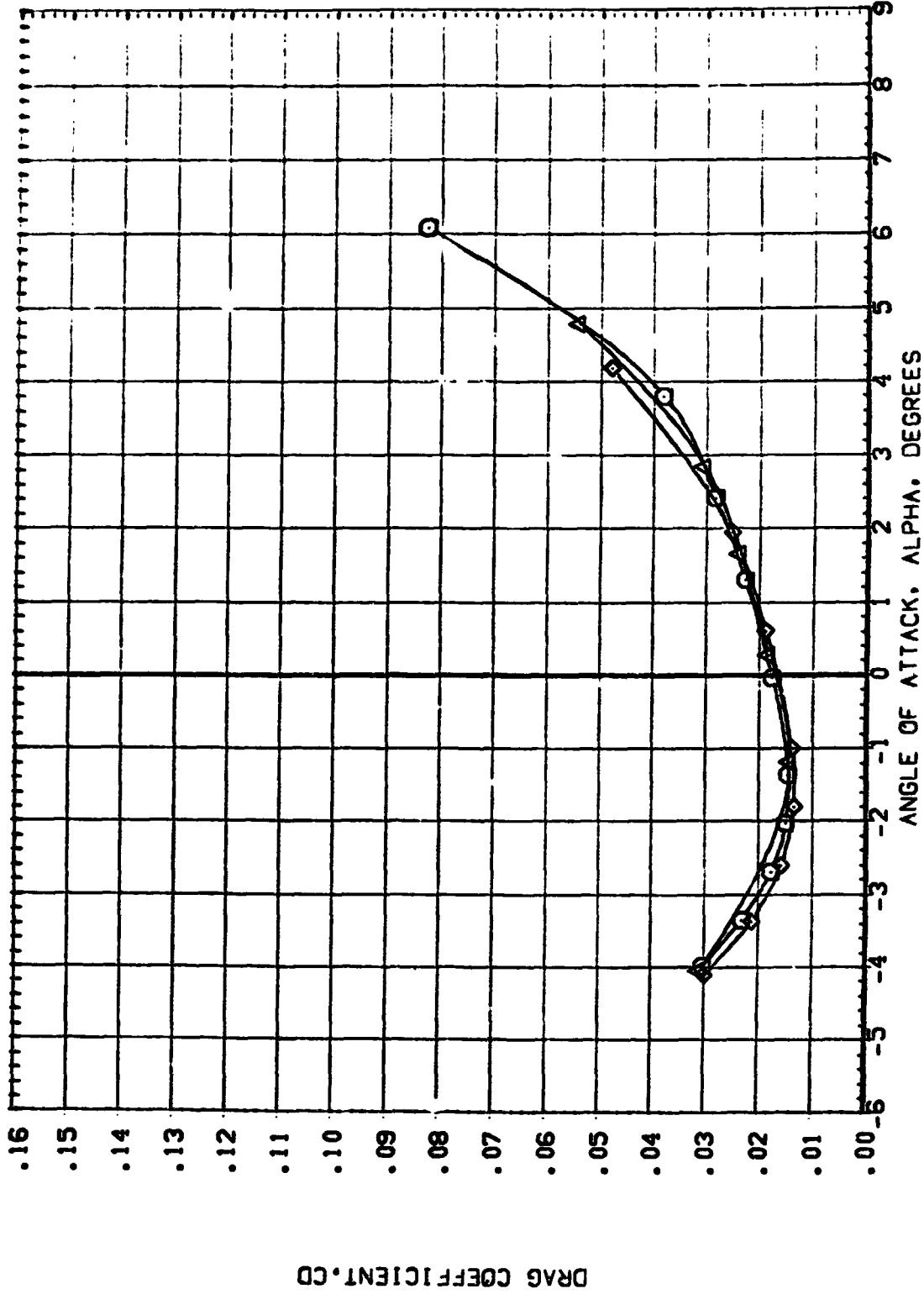


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE001) M1 P0 B
 (PAE002) M1 P0 B
 (PAE003) M1 P0 B

SWEEP RN/L BETS
 0.000 4.000 0.000
 0.000 5.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

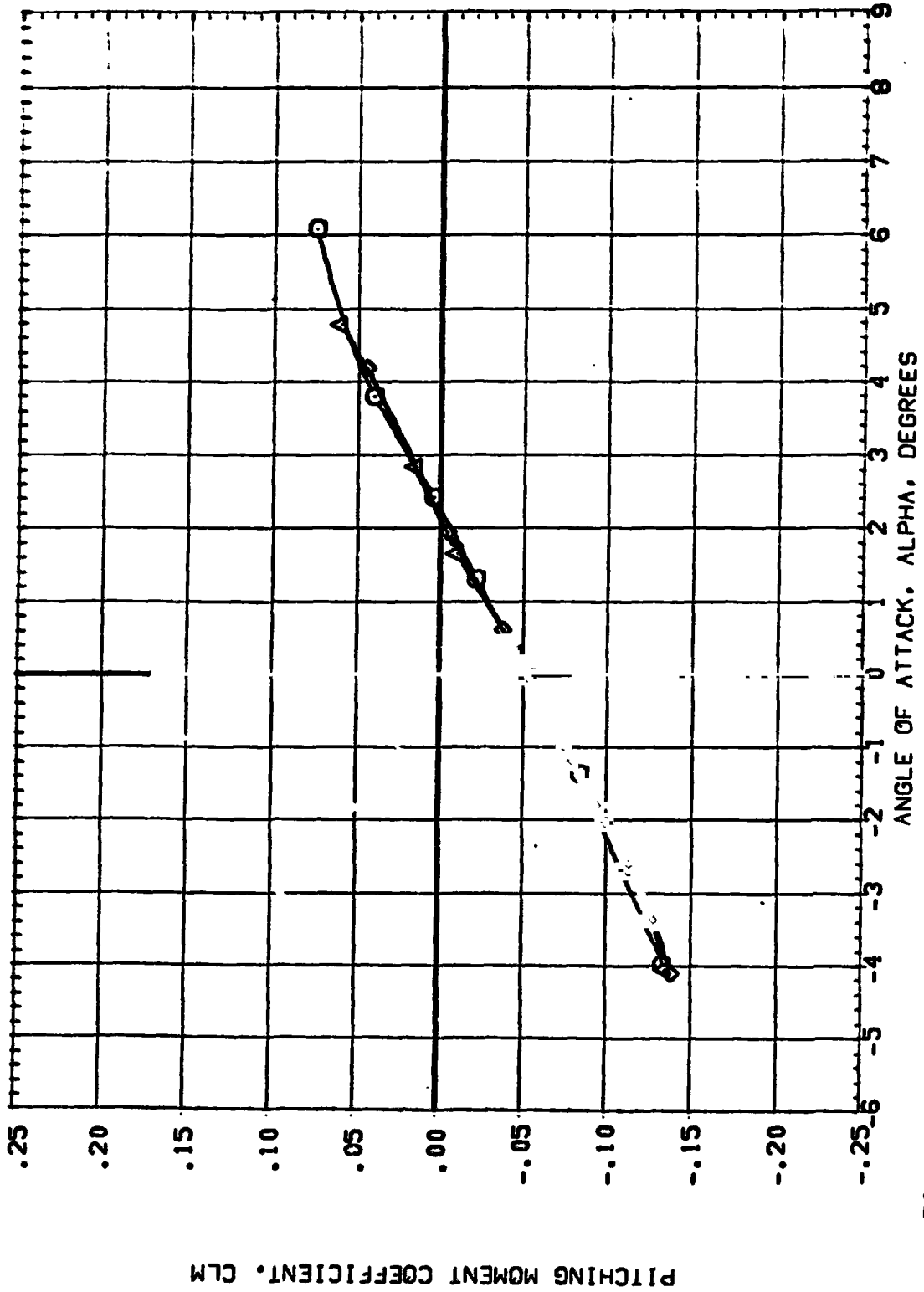


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.70, LAMBDA = 0 DEGREES

CA/MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE001) W1 P0 B
 (PAE002) W1 P0 B
 (BEA003) W1 P0 B

SWEPT RM/L BETA
 0.000 4.000 0.000
 0.000 5.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

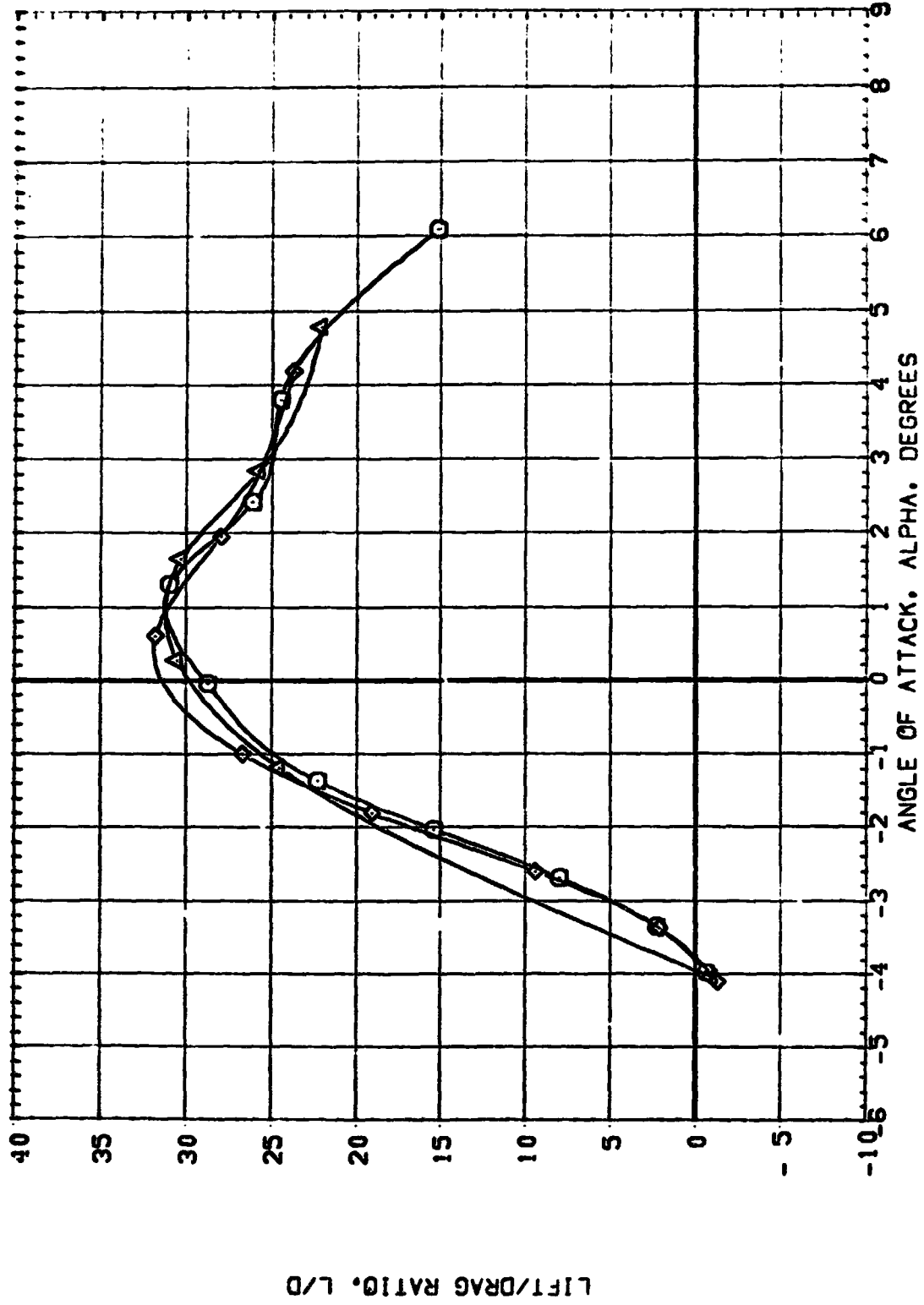


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A) MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE001) W1 P0 B
 (PAE002) W1 P0 B
 (BEA003) W1 P0 B

SWEEP RN/L BETA
 0.000 4.000 0.000
 0.000 5.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

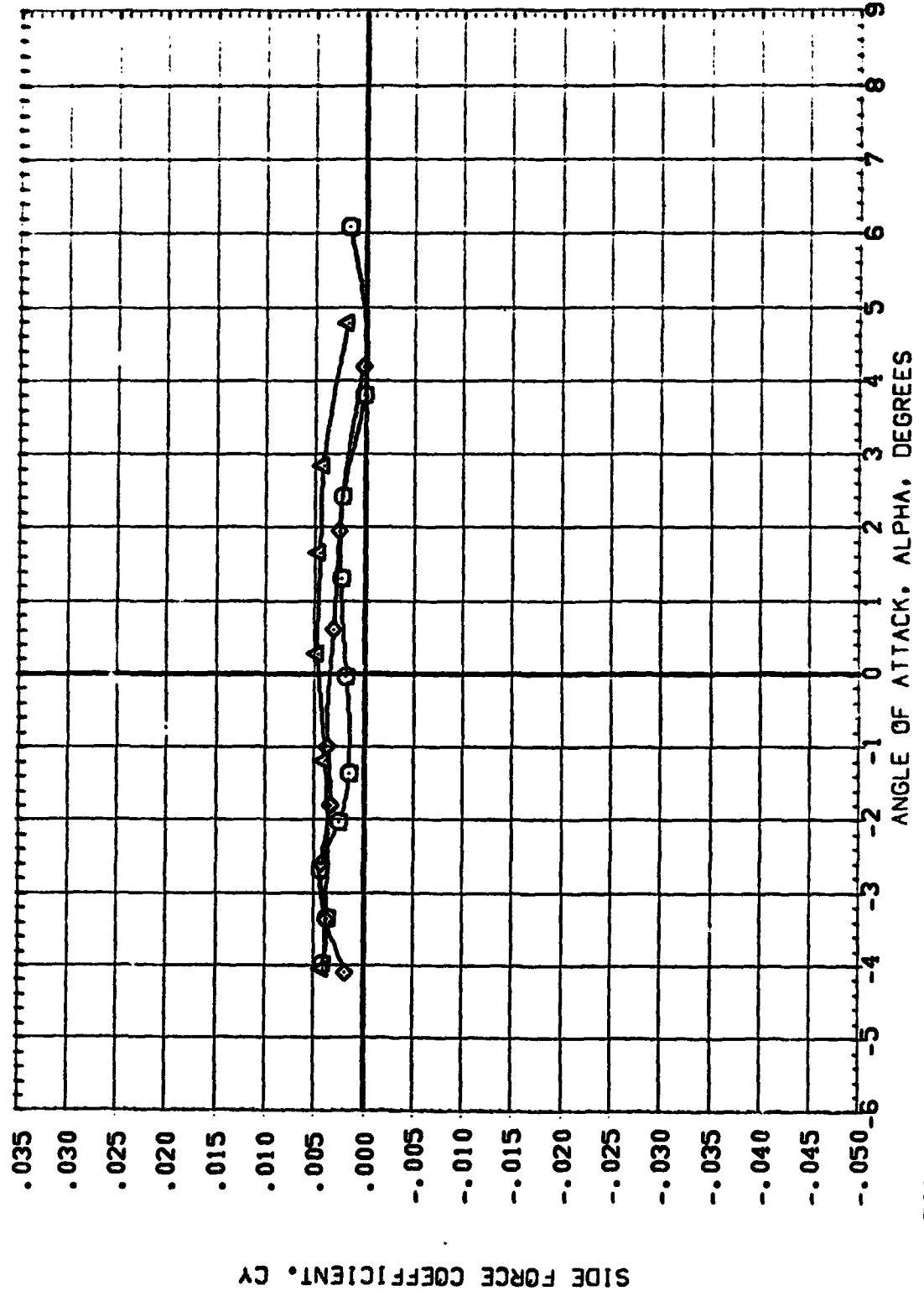


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.70, LAMBDA = 0 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(PAB01) \square W1 P0 B
 (PAR02) \diamond W1 P0 B
 (BGA03) \triangle W1 P0 B

SWEEP RN/L BETA
 0.000 4.000 0.000
 0.000 5.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

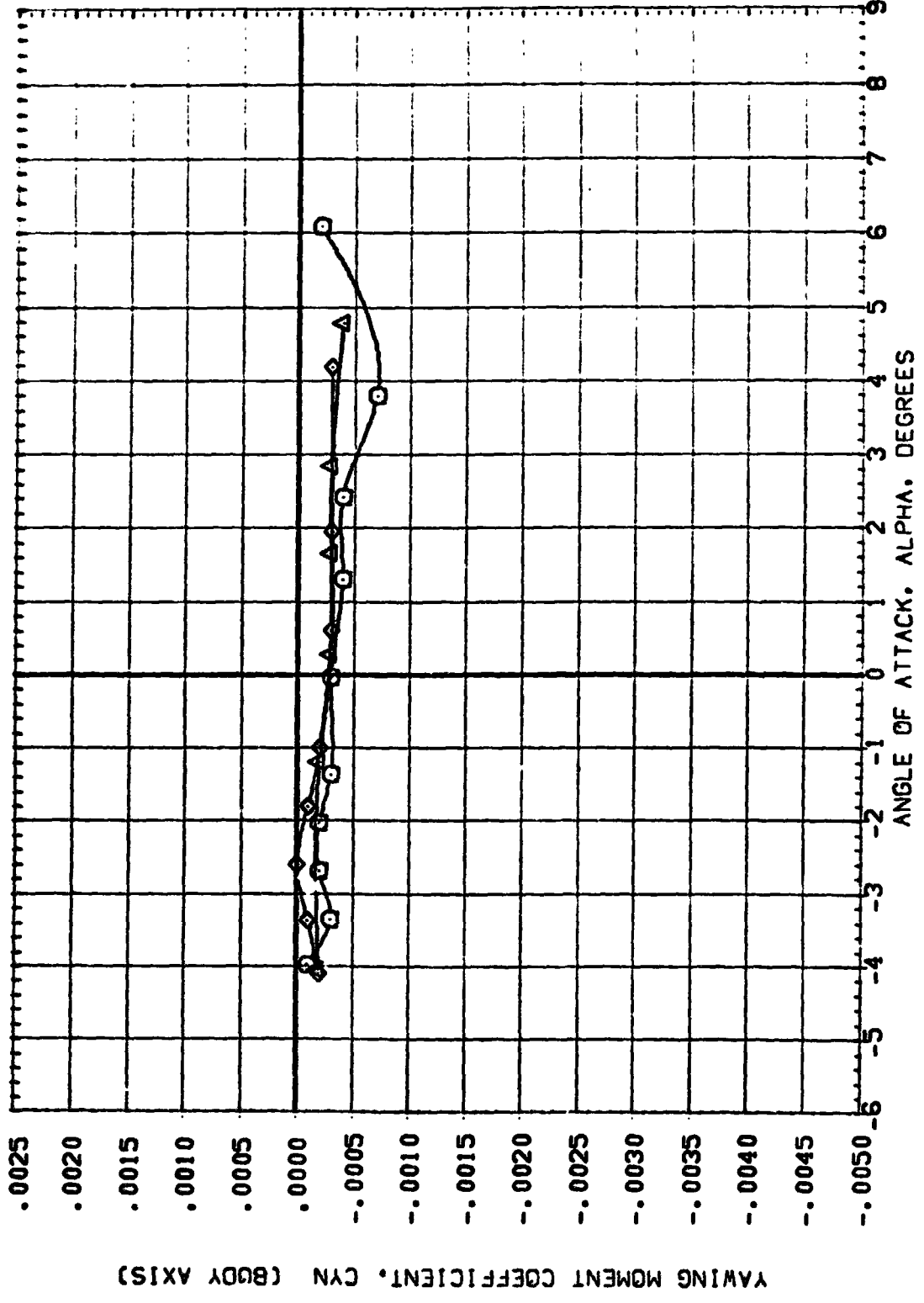


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE001) W1 F0 B
 (PAE002) W1 F0 B
 (BE4003) W1 F0 B

SWEEP RM/L BETA
 0.000 4.000 0.000
 0.000 5.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

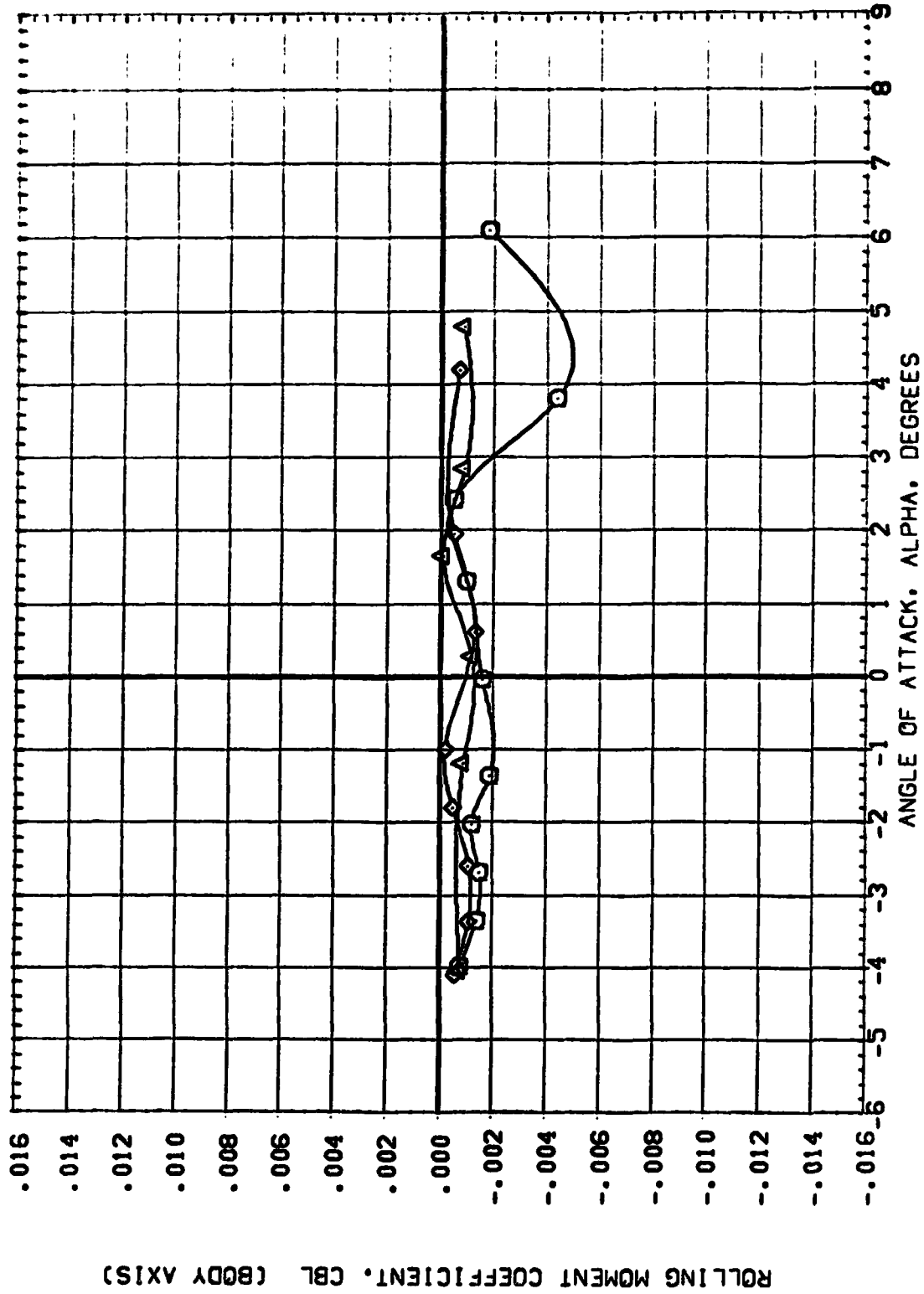


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.70, LAMBDA = 0 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE004) W1 F0 B
 (BAE005) W1 F0 B
 (PAE006) W1 F0 B

SHEEP RN/L BETA
 45.000 4.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

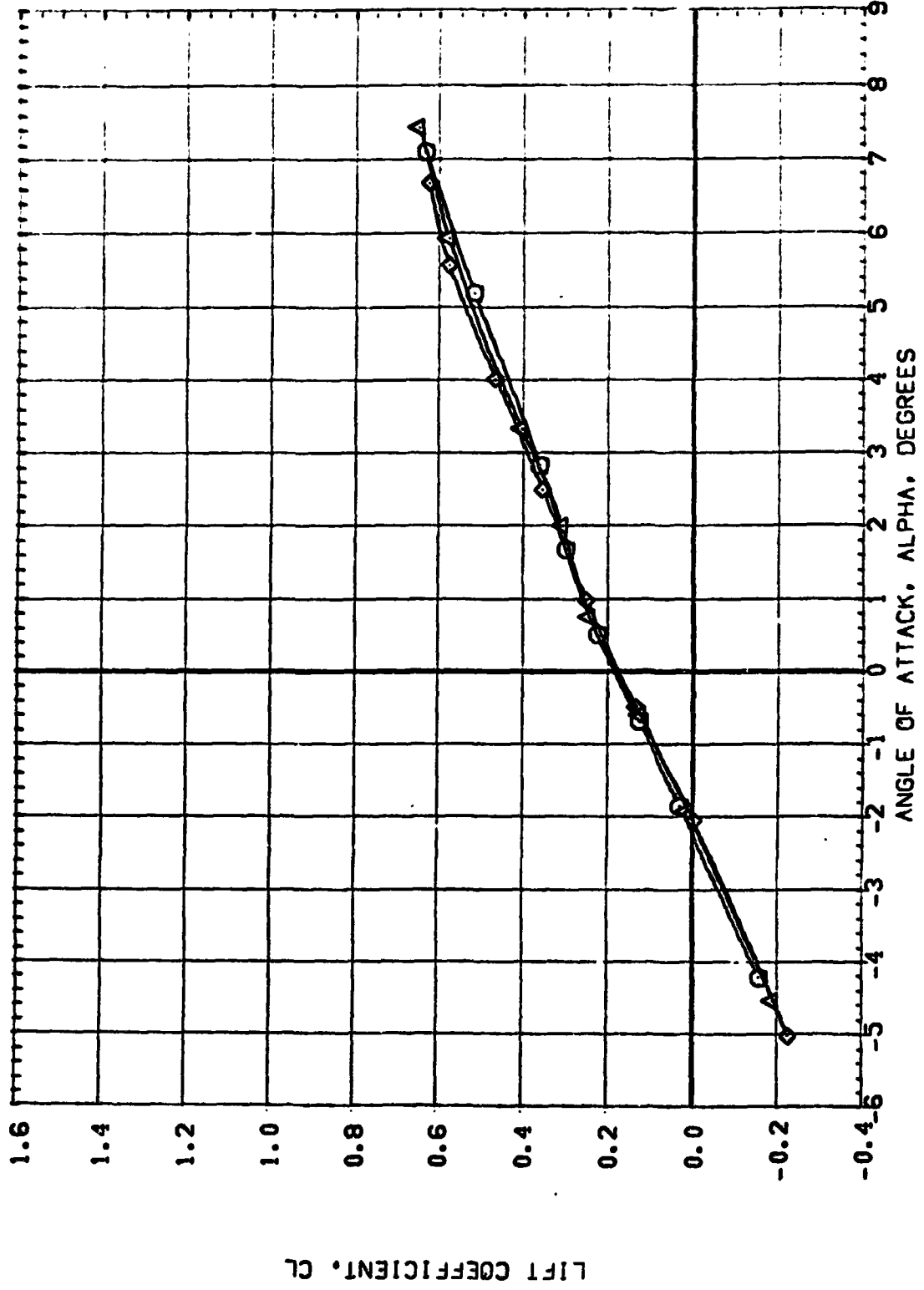


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE004) M1 FO B
 (BAE005) M1 FO B
 (PAE006) M1 FO B

SWEEP RM/L BETA
 45.000 4.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

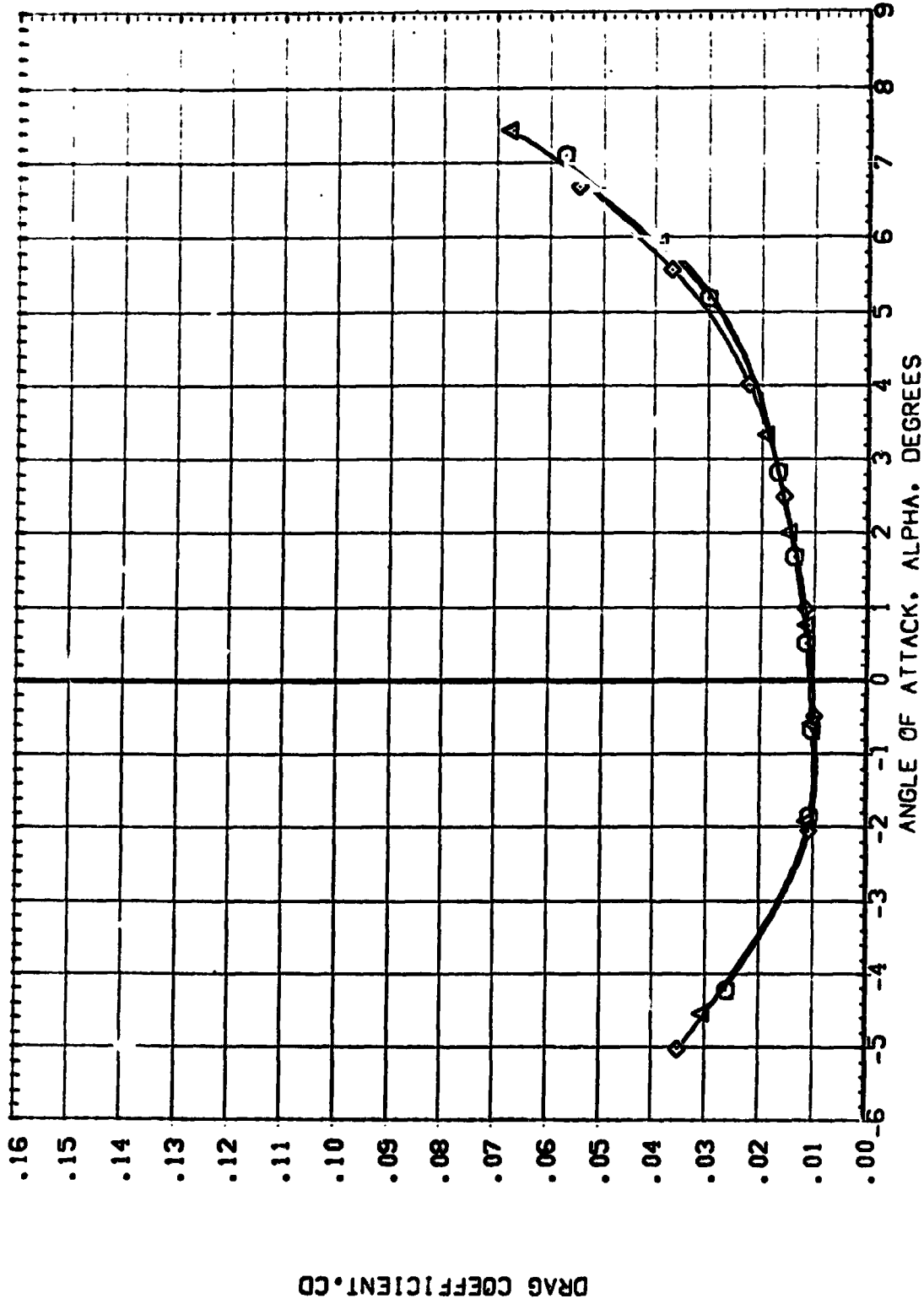


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL - CONFIGURATION DESCRIPTION

(PAE084) W1 F0 B
 (PAE085) W1 F0 B
 (PAE086) W1 F0 B

SMAXP 45.000
 45.000
 45.000

RM/L 4.000
 6.000
 8.000

BETA 0.000
 0.000
 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

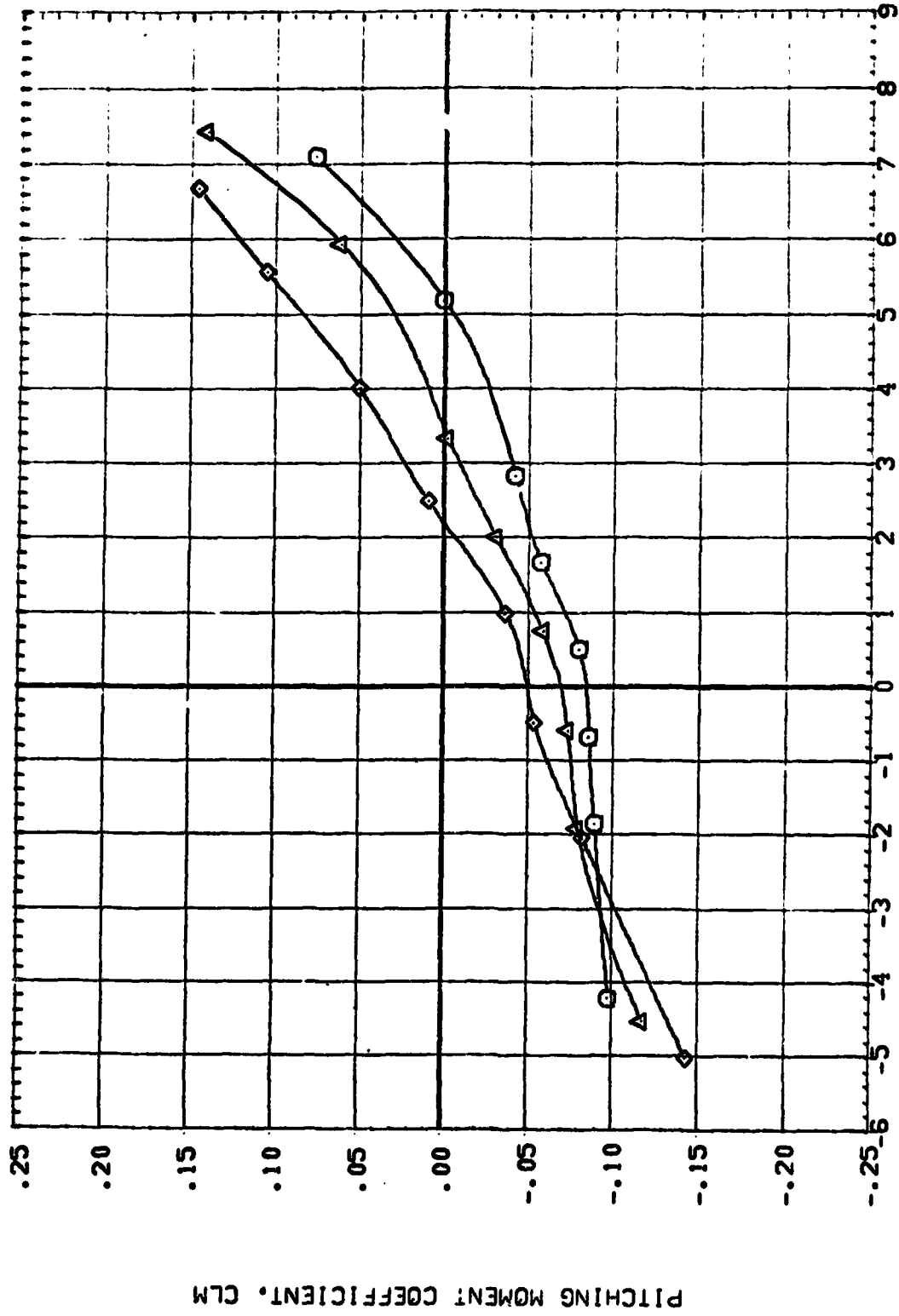


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE004) \square W1 P0 B
 (PAE005) \circ W1 P0 B
 (PAE006) \diamond W1 P0 B

SWEEP RN/L B1/A
 45.000 4.000 0.600
 45.000 6.000 0.600
 45.000 8.000 0.600

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

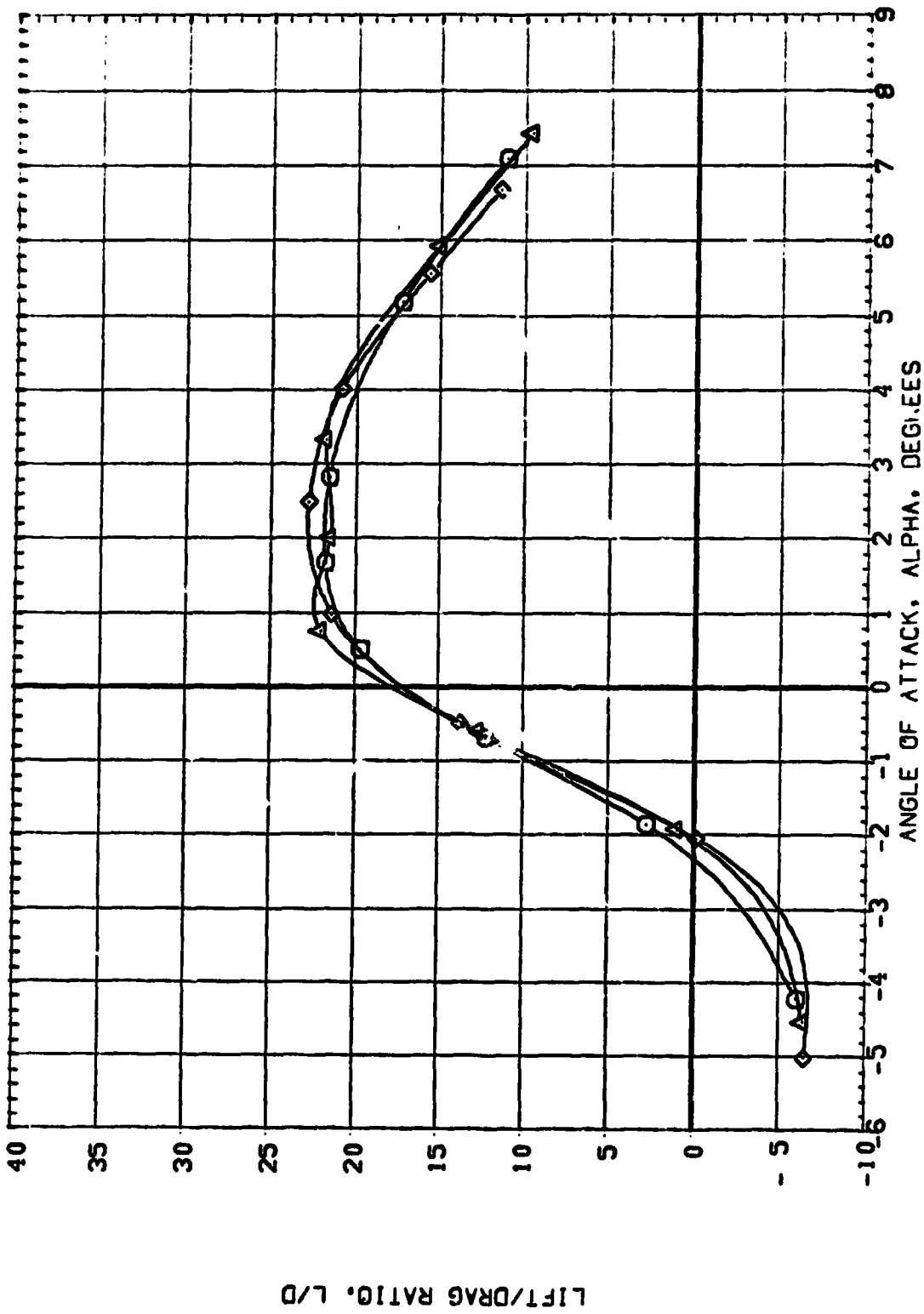


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE000) M1 P0 8
 (BAE000) M1 P0 8
 (PAE000) M1 P0 8

SWEEP RM/L BETA
 45.000 4.000 0.000
 48.000 6.000 0.000
 48.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

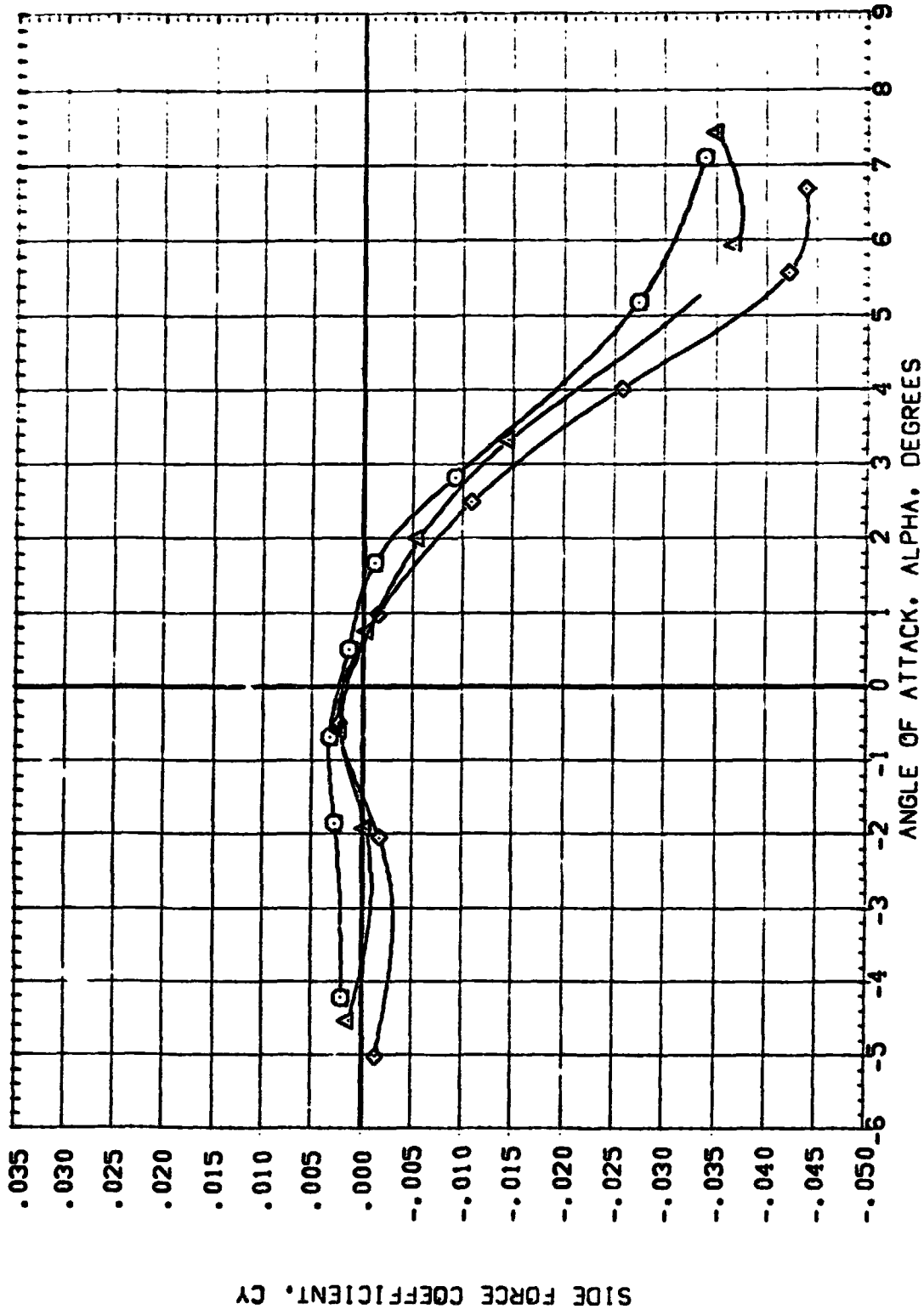


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA = 45 DEGREES

(A) MACH = .80

DATA-SET SYMB/ CONFIGURATION DESCRIPTION
 (PAE004) W1 PD B
 (BAE005) W1 PD B
 (PAE006) W1 PD B

SWEEP RN/L BETA
 45.000 4.000 0.000
 45.000 6.000 0.000
 45.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

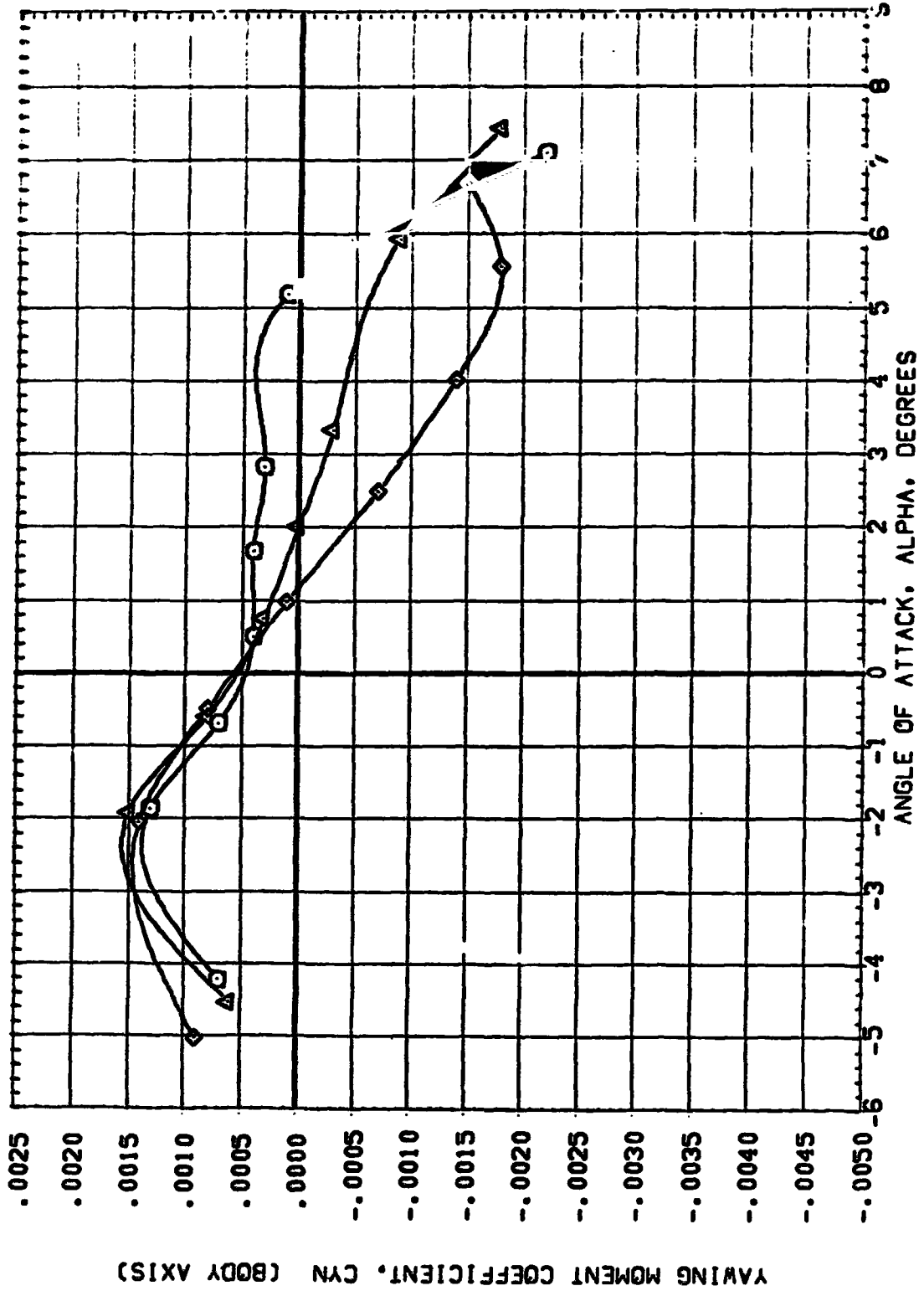


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P45004) W1 P0 B
 (P45005) W1 P0 B
 (P45006) W1 P0 B

SWEEP RM/L BETA
 45.000 4.000 0.000
 45.000 6.000 0.000
 45.000 8.000 0.000

SEE THE ASSOCIATED P-12
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

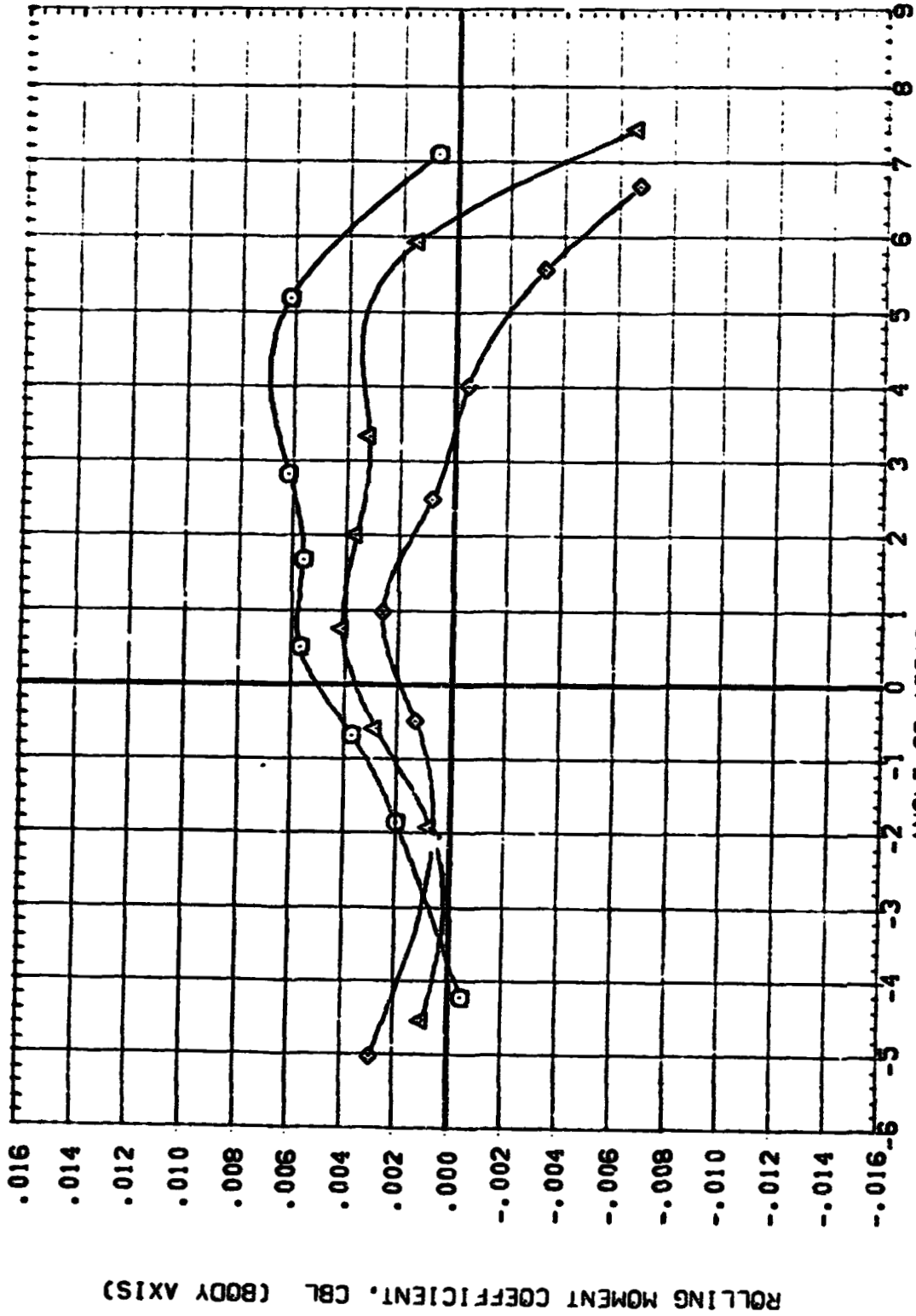


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO.= 0.80, LAMBDA=45 DEGREES
 (A)MACH = .80

DATA SET NUMBER CONFIGURATION DESCRIPTION
 (PAE000) W1 P0 B
 (PAE000) W1 P0 B
 (PAE010) W1 P0 B

SWEEP RN/L BETA
 55.000 4.000 0.000
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

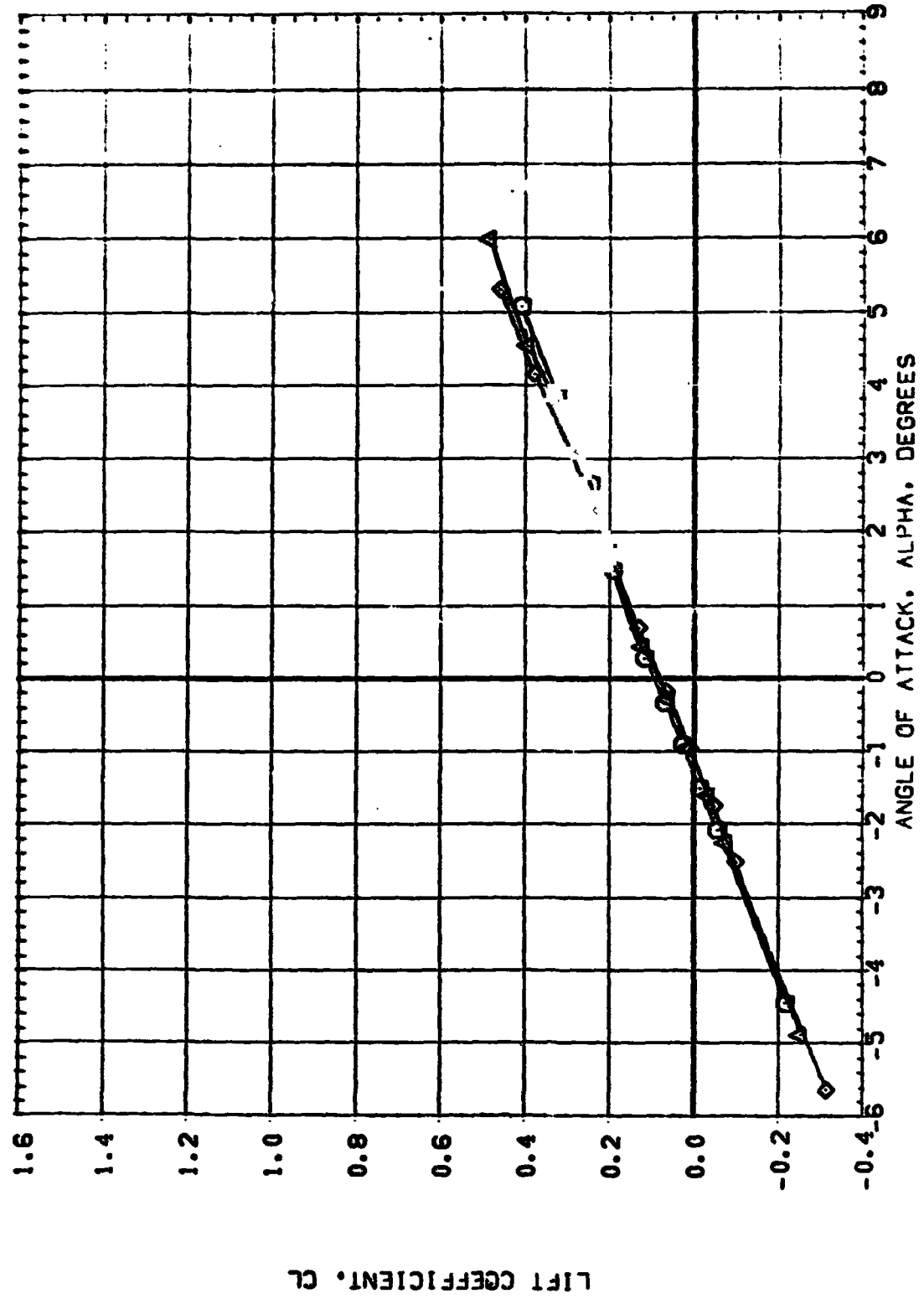


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO.= 1.20, LAMBDA=55 DEGREES

(A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(PAC006) M1 P0 B
 (PAC009) M1 P0 B
 (PAC010) M1 P0 B

SWEEP R/V/L BETA

55,000 4,000 0,000
 55,000 6,000 0,000
 55,000 6,000 0,000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

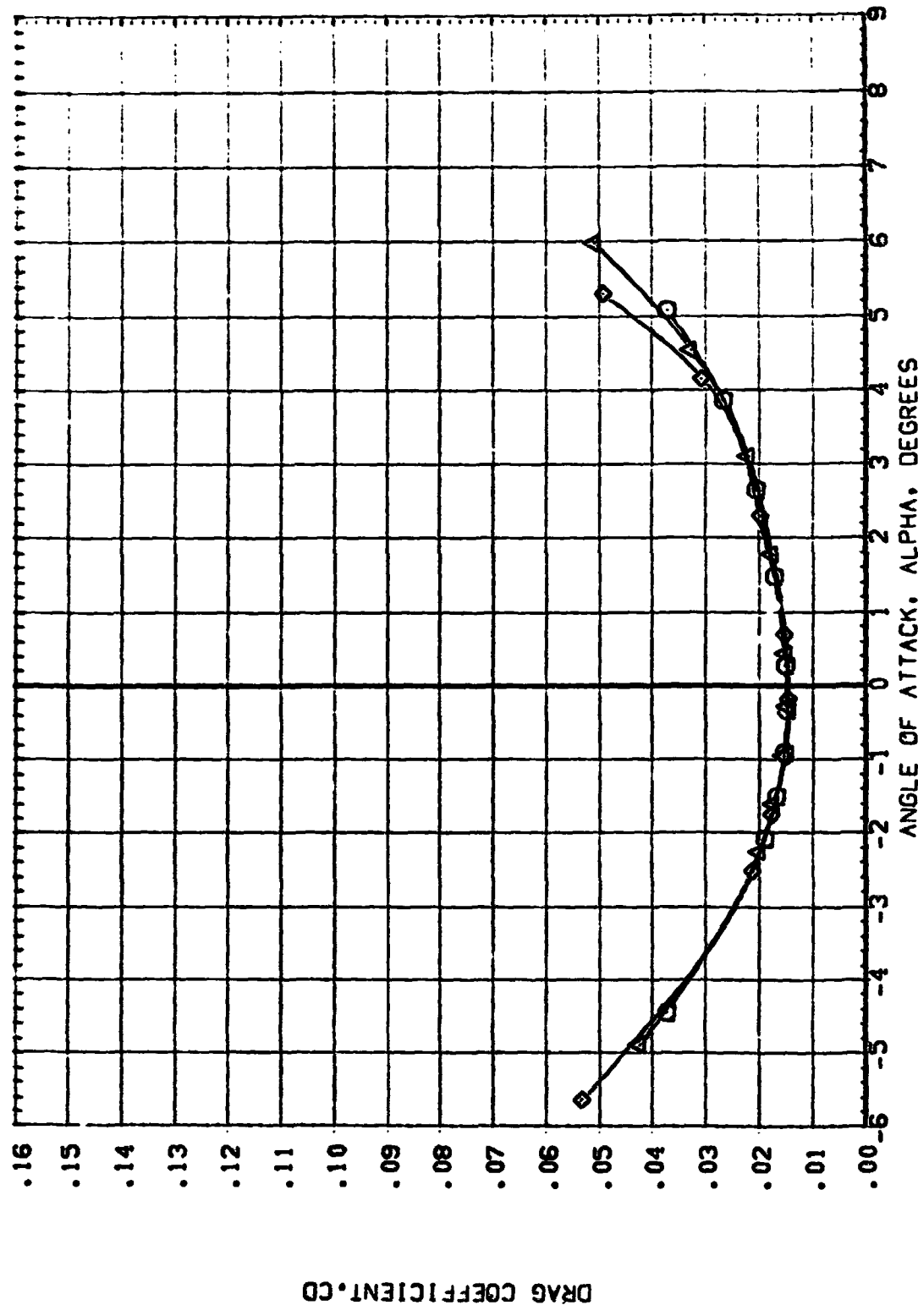


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 55 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P4E000) W1 P0 B
 (P4E005) W1 P0 B
 (P4E010) W1 P0 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RM/L BETA
 55.000 4.000 0.000
 55.000 6.000 0.000
 55.000 6.000 0.000

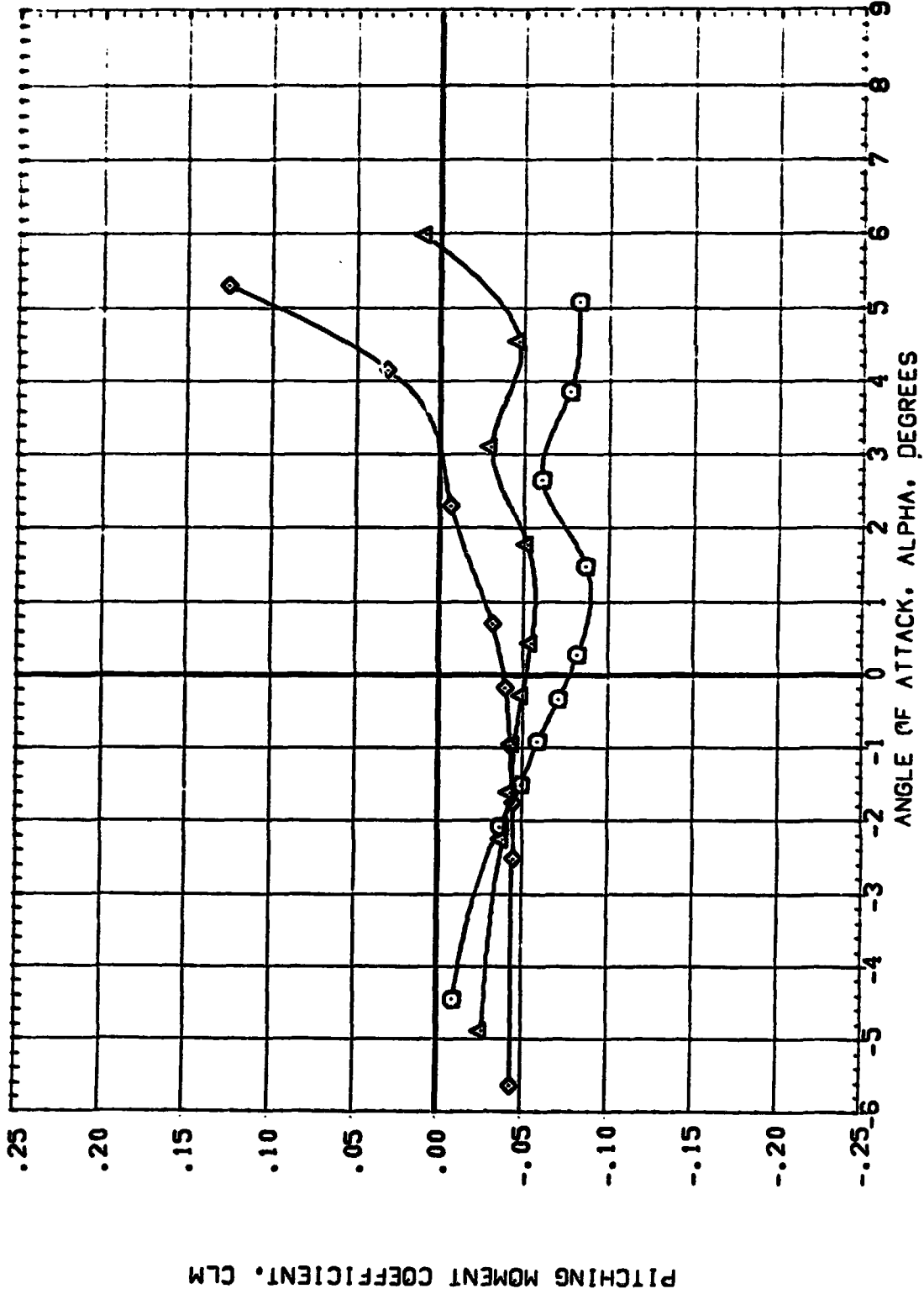


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 55 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE008) M1 P0 8
 (PAE009) M1 P0 8
 (PAE010) M1 P0 8

SURF RM/L BETA
 55.000 4.000 0.000
 55.000 6.000 0.000
 55.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

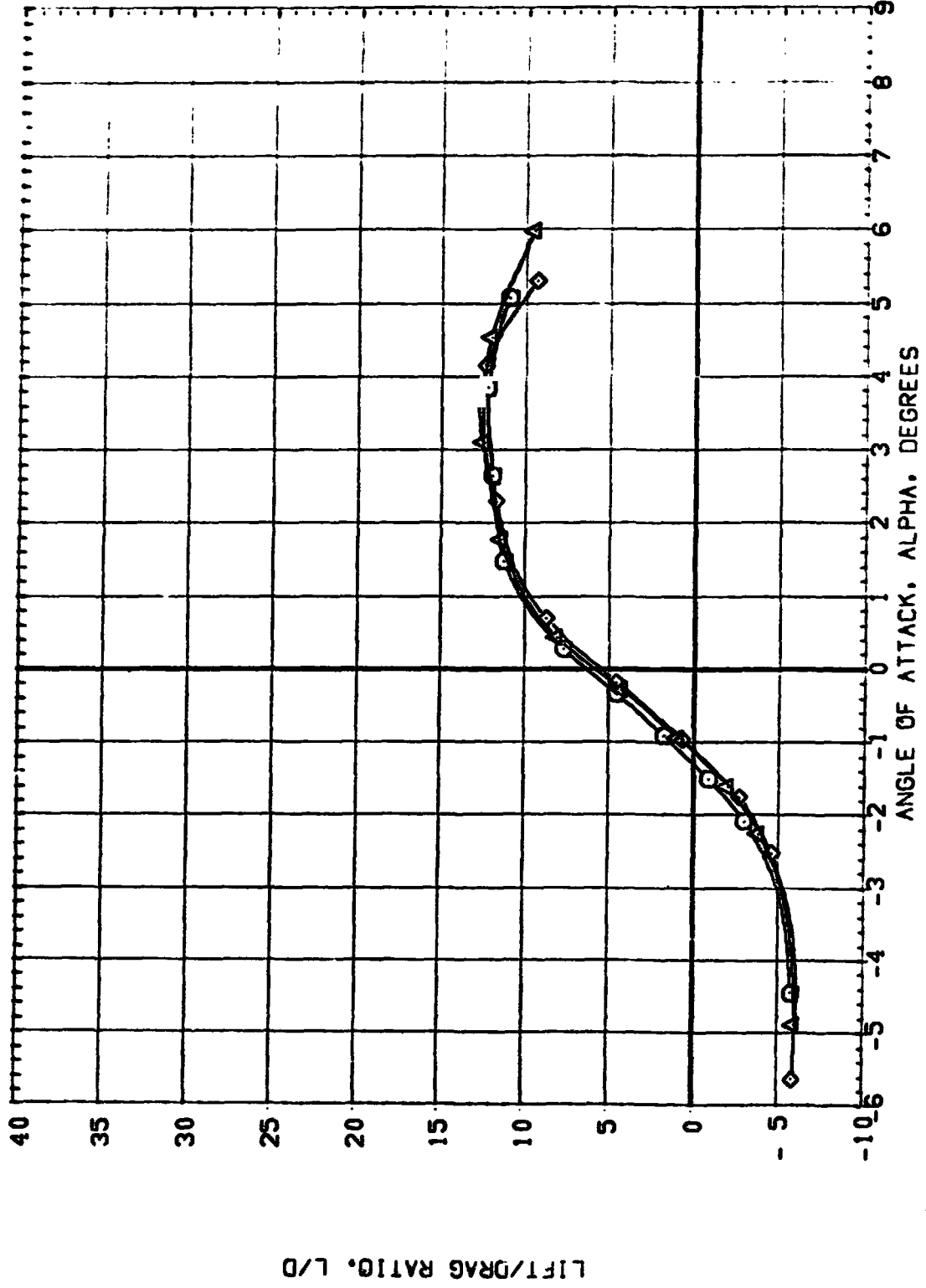


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 55 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (P) M1 PD B
 (B) M1 PD B
 (A) M1 PD B

SWEEP RM/L BETA
 55.000 4.000 0.000
 55.000 6.000 0.000
 55.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

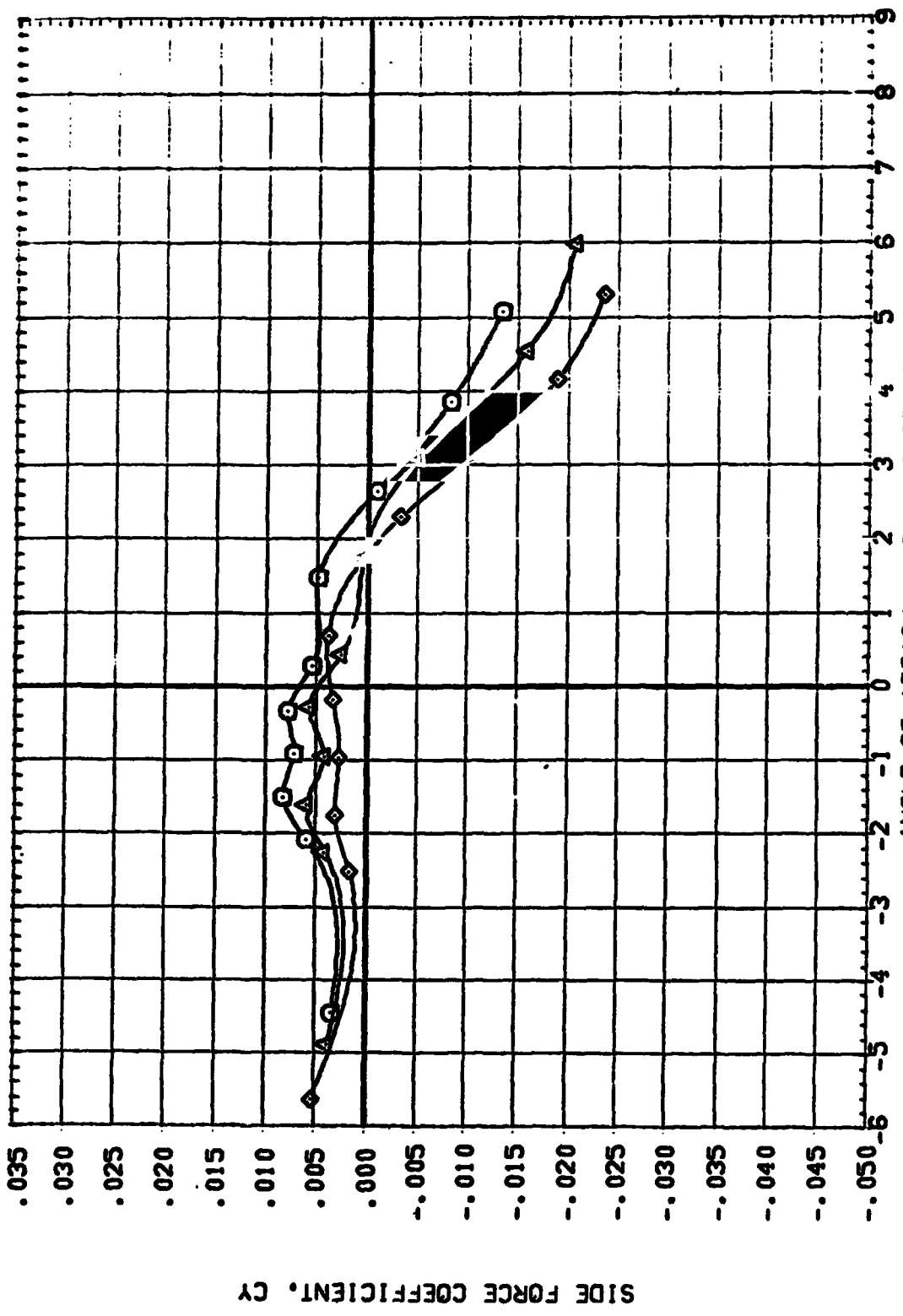


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO.= 1.20, LAMBDA=55 DEGREES

(A) MACH = 1.20

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP R/N/L BETA
 55.000 4.000 0.000
 55.000 6.000 0.000
 55.000 8.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 M1 P0 B
 M1 P0 B
 M1 P0 B

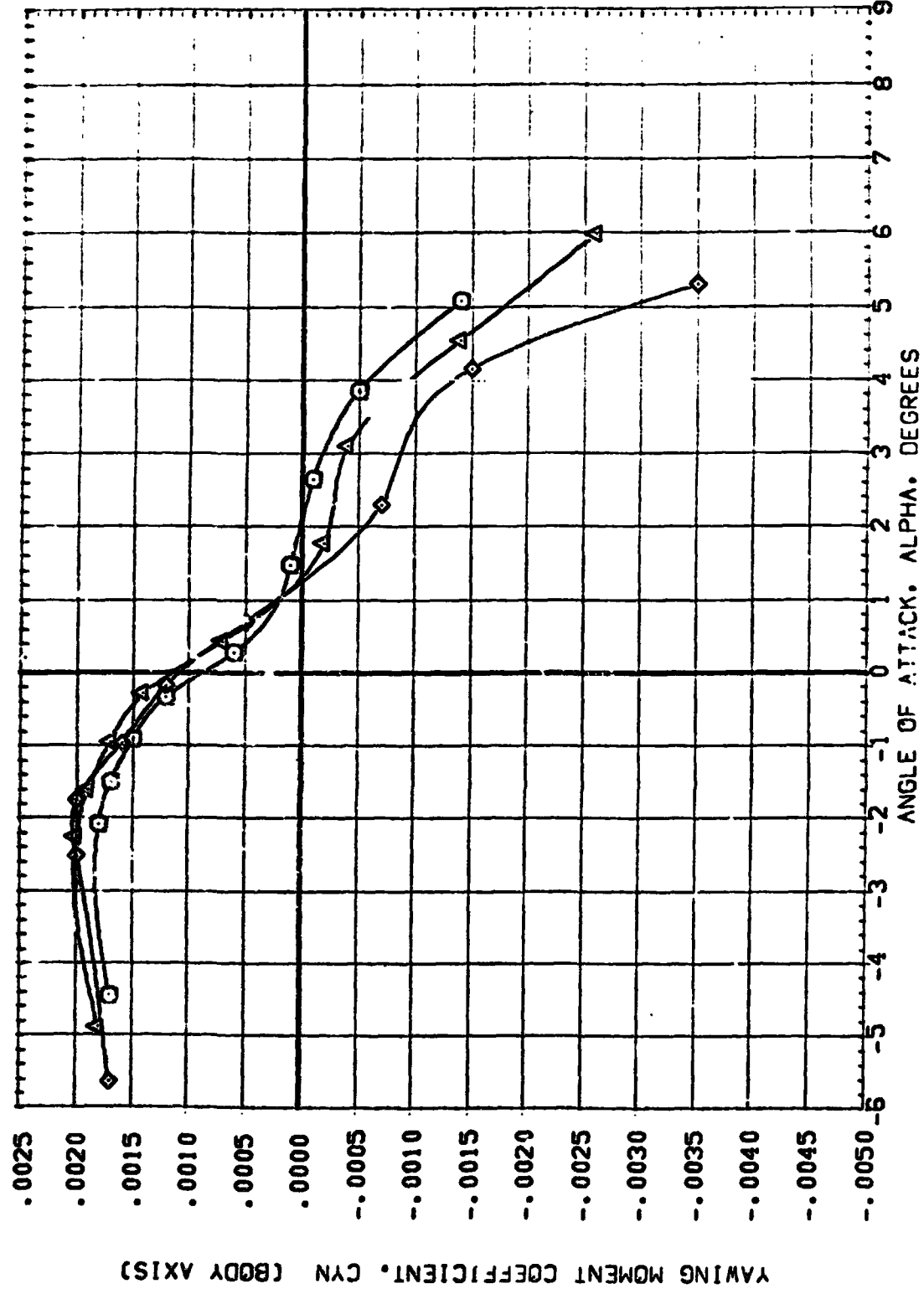


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 55 DEGREES

(A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE008) M1 P0 B
 (BAE008) M1 P0 B
 (PAE010) M1 P0 B

SWEEP RN/L BETA
 55.000 4.000 0.000
 55.000 6.000 0.000
 55.000 8.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

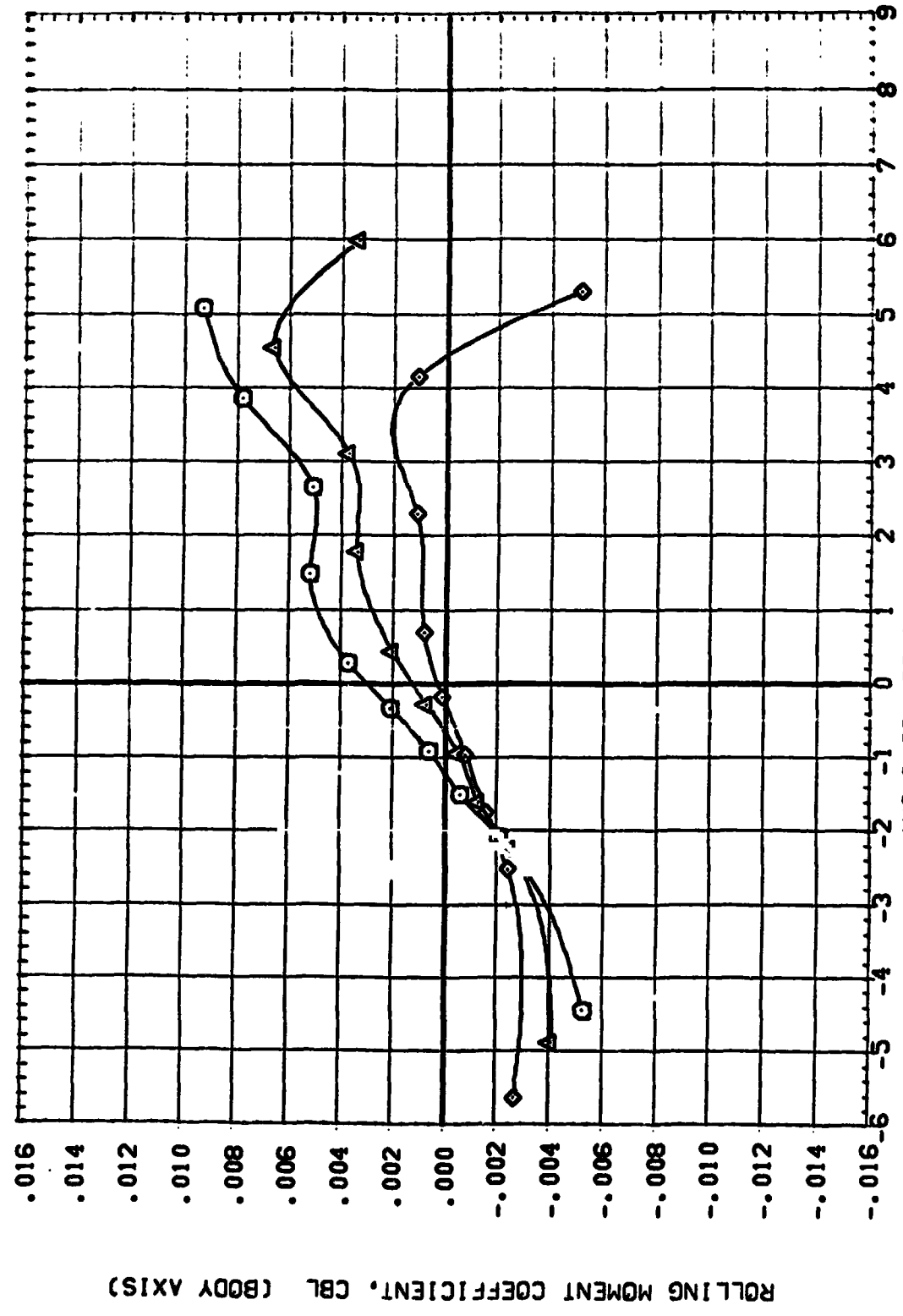


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO.= 1.20, LAMBDA=55 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE011) W1 P0 B
 (BAE012) W1 P0 B
 (BAE013) W1 P0 B

CREEP M/N/C BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

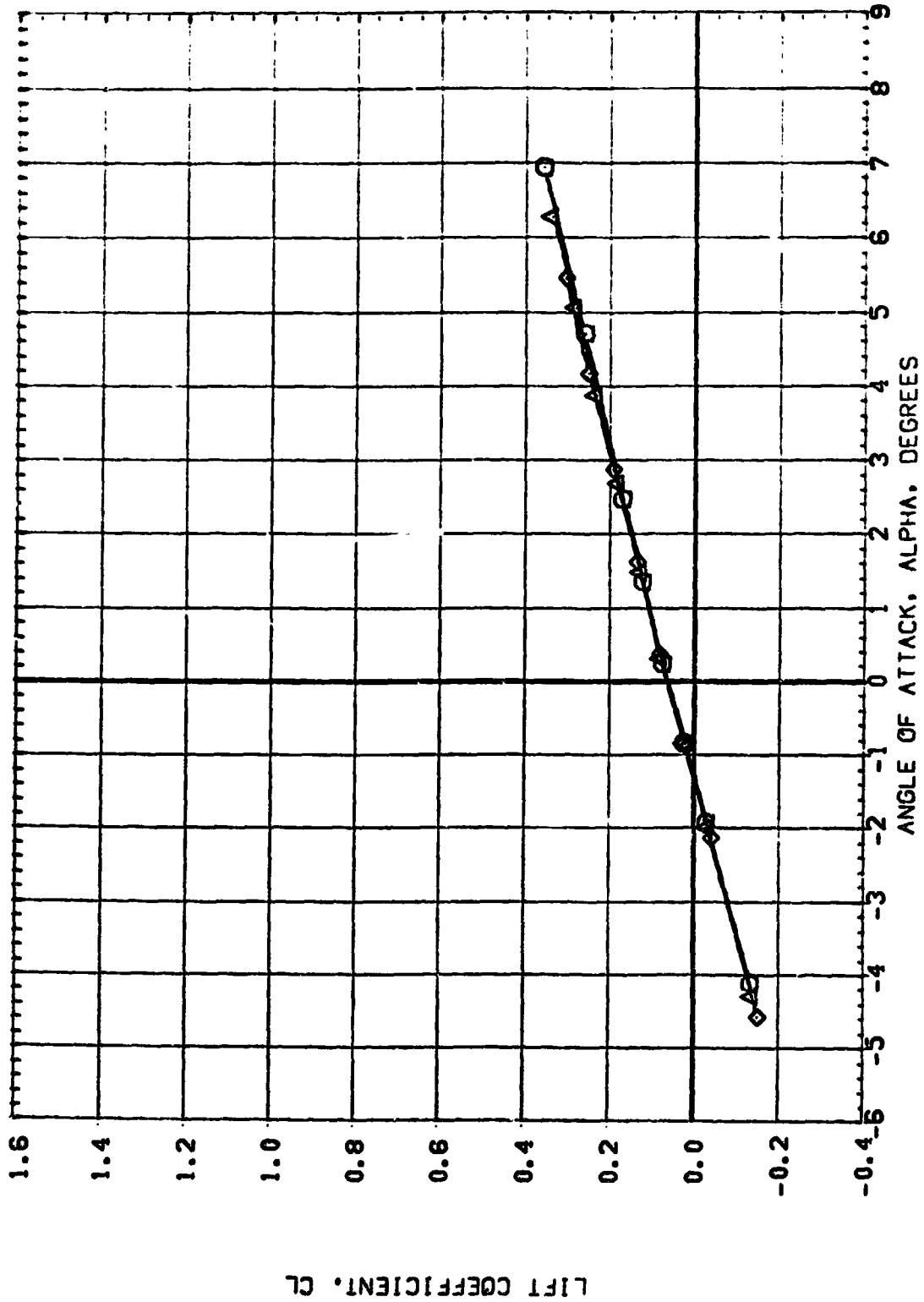


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE011) M1 FO B
 (BAE012) M1 FO B
 (BAE013) M1 FO B

SNEEP RM/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

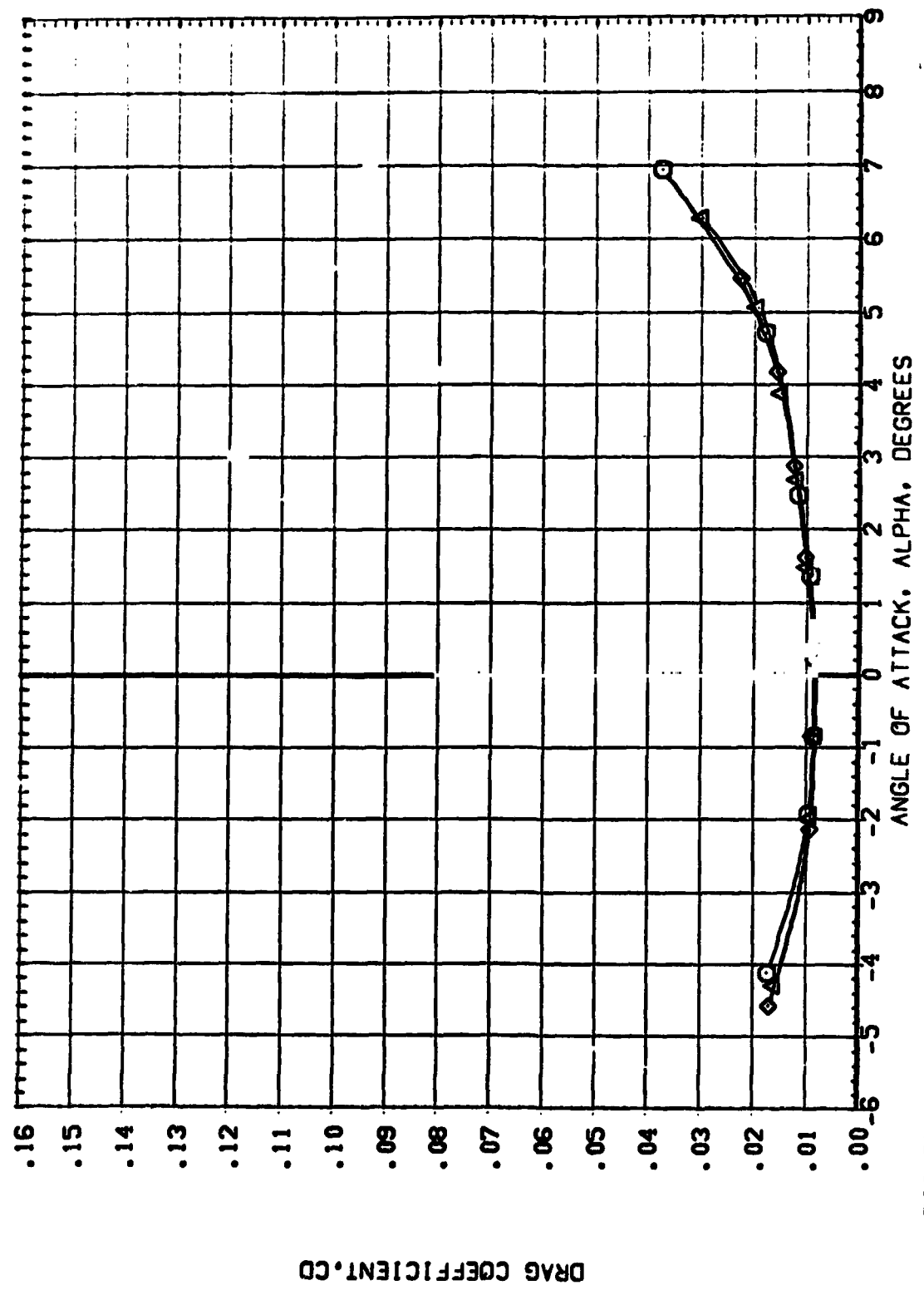


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA = 60 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION-DESCRIPTION
 (BAE011) W1 F0 B
 (BAE012) W1 F0 B
 (BAE013) W1 F0 B

SWEEP RN/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

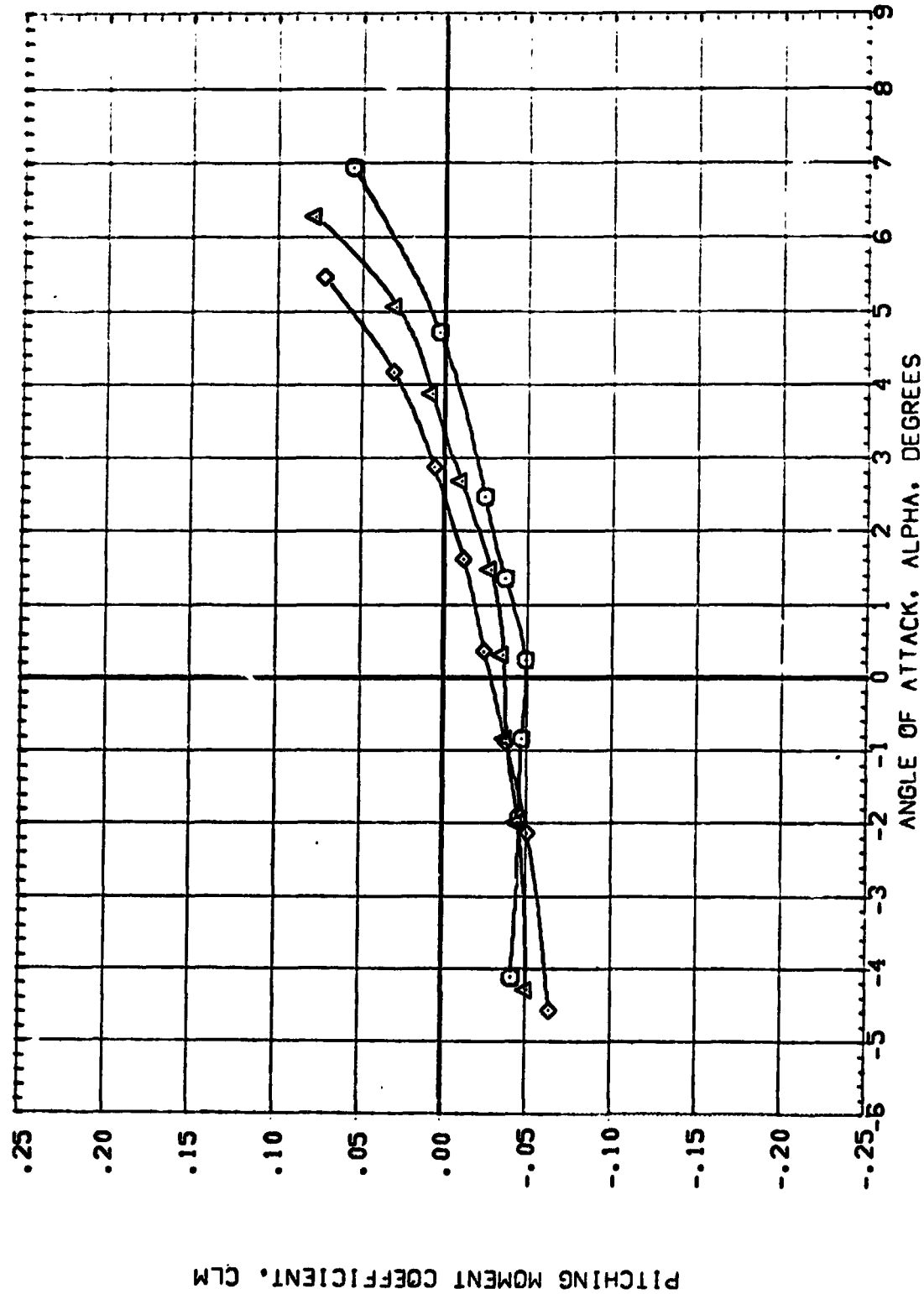


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)M' = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(BAE011) \square W1 F0 B
 (BAE012) \triangle W1 F0 B
 (BAE013) \diamond W1 F0 B

SWEEP RN/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

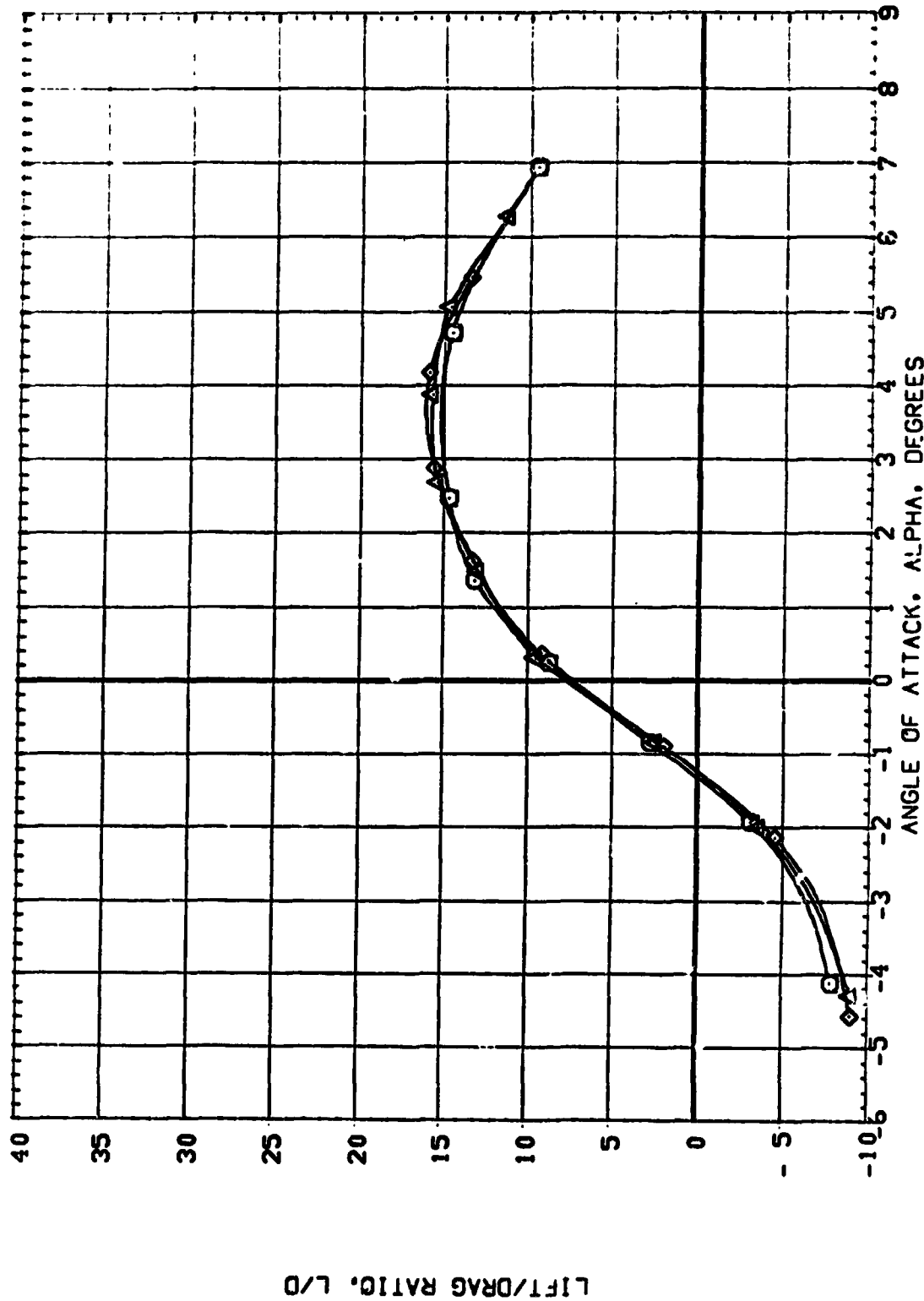


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH N₀ = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP 60.000 60.000 60.000
 RM/L 4.000 6.000 8.000
 BETA 0.000 0.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE011) M1 P0 B
 (BAE012) M1 P0 B
 (BAF013) M1 P0 B

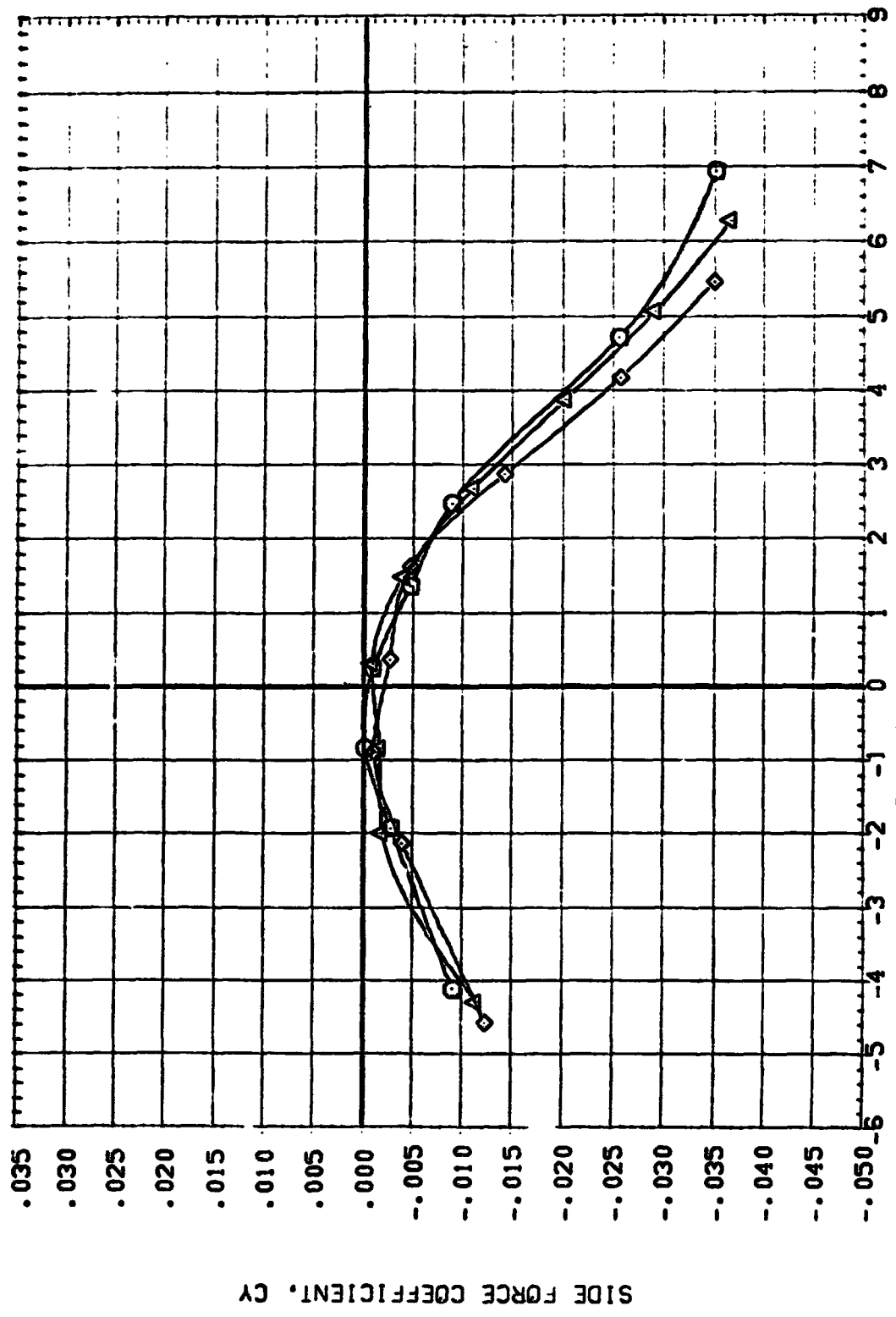


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE011) W1 FO B
 (BAE012) W1 FO B
 (BAE013) W1 FO B

SWEEP RN/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

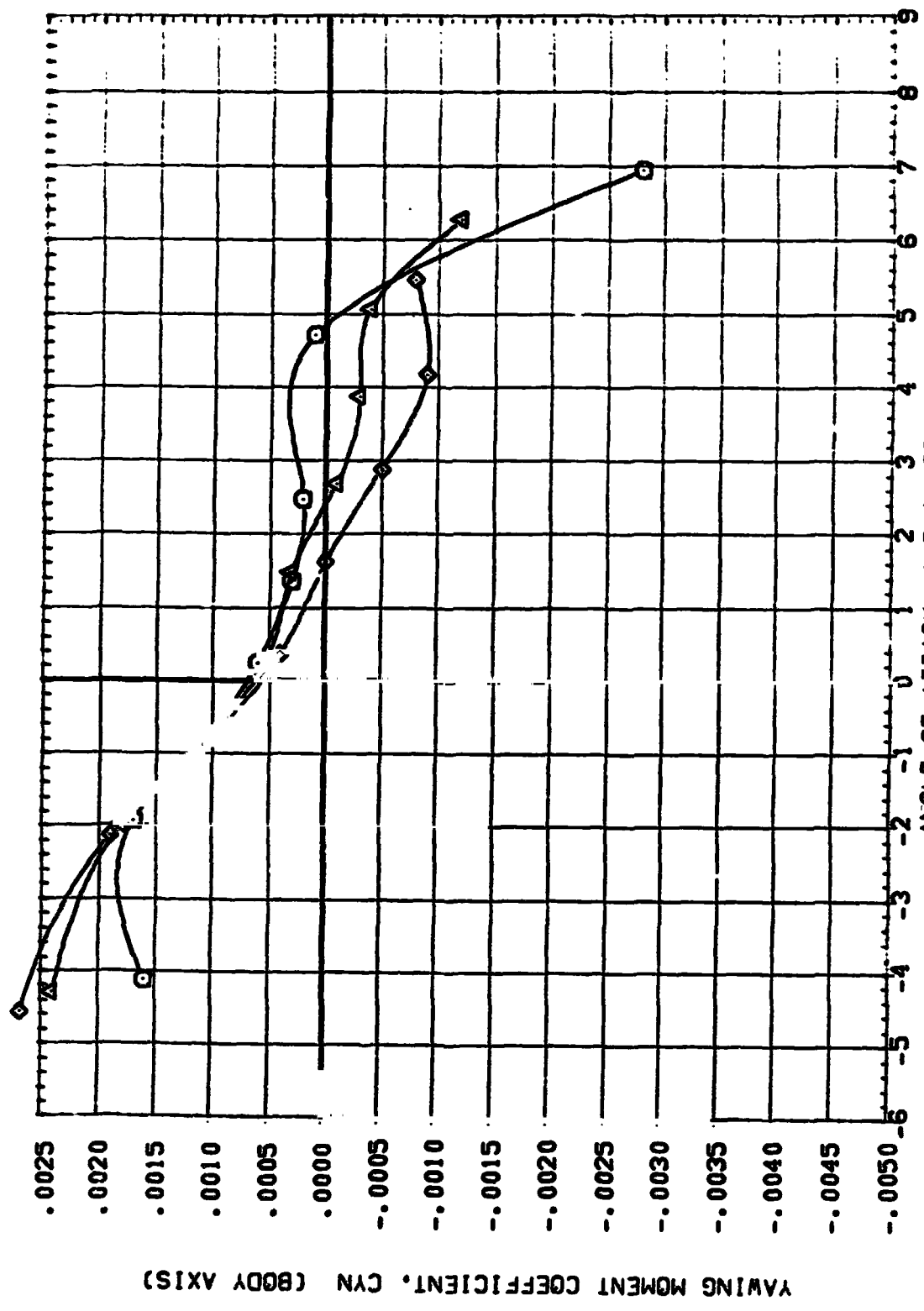


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (04E011) \square W1 P0 0
 (04E012) \diamond W1 P0 0
 (04E013) \triangle W1 P0 0

SWEEP AN/L BETA
 60.000 4.000 0.000
 60.000 4.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

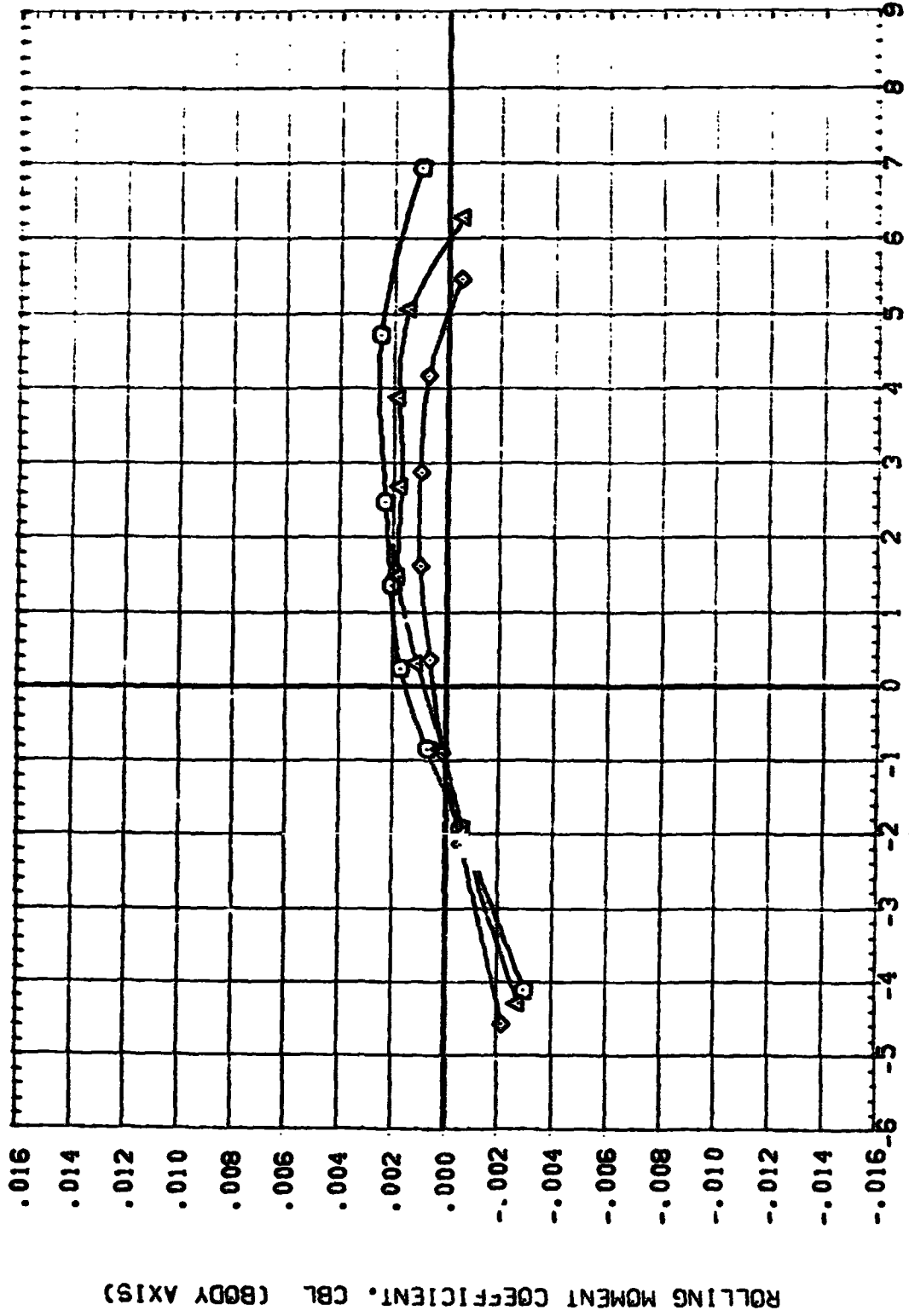


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 0.80, LAMBDA = 60 DEGREES

DATA SET-SYMBOL CONFIGURATION DESCRIPTION
 (CAE011) M1 P0 B
 (CAE012) M1 P0 B
 (CAE013) M1 P0 B

SWEEP RM/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

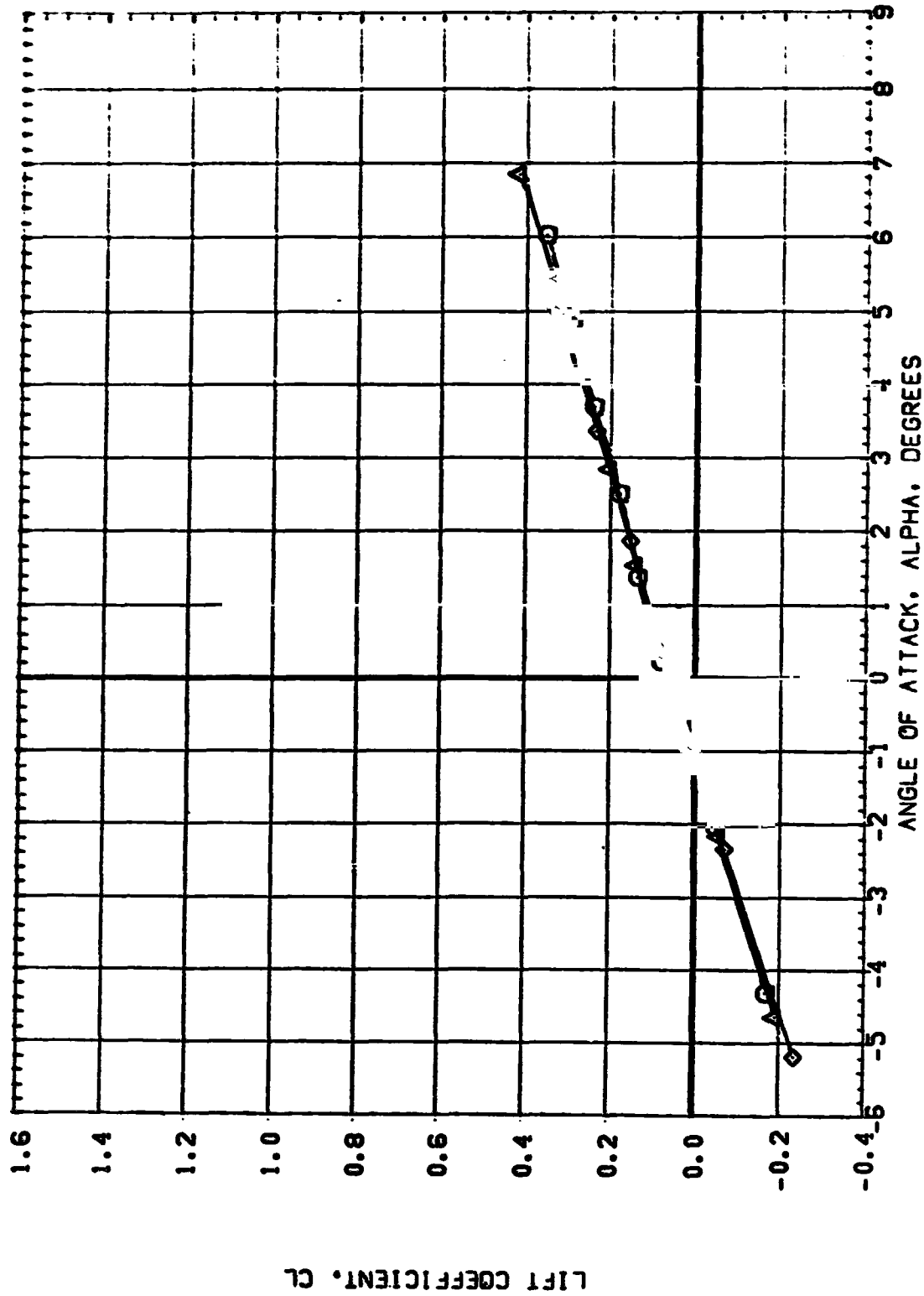


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE011) W1 P0 B
 (CAE012) W1 P0 B
 (CAE013) W1 P0 B

SURF RN/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

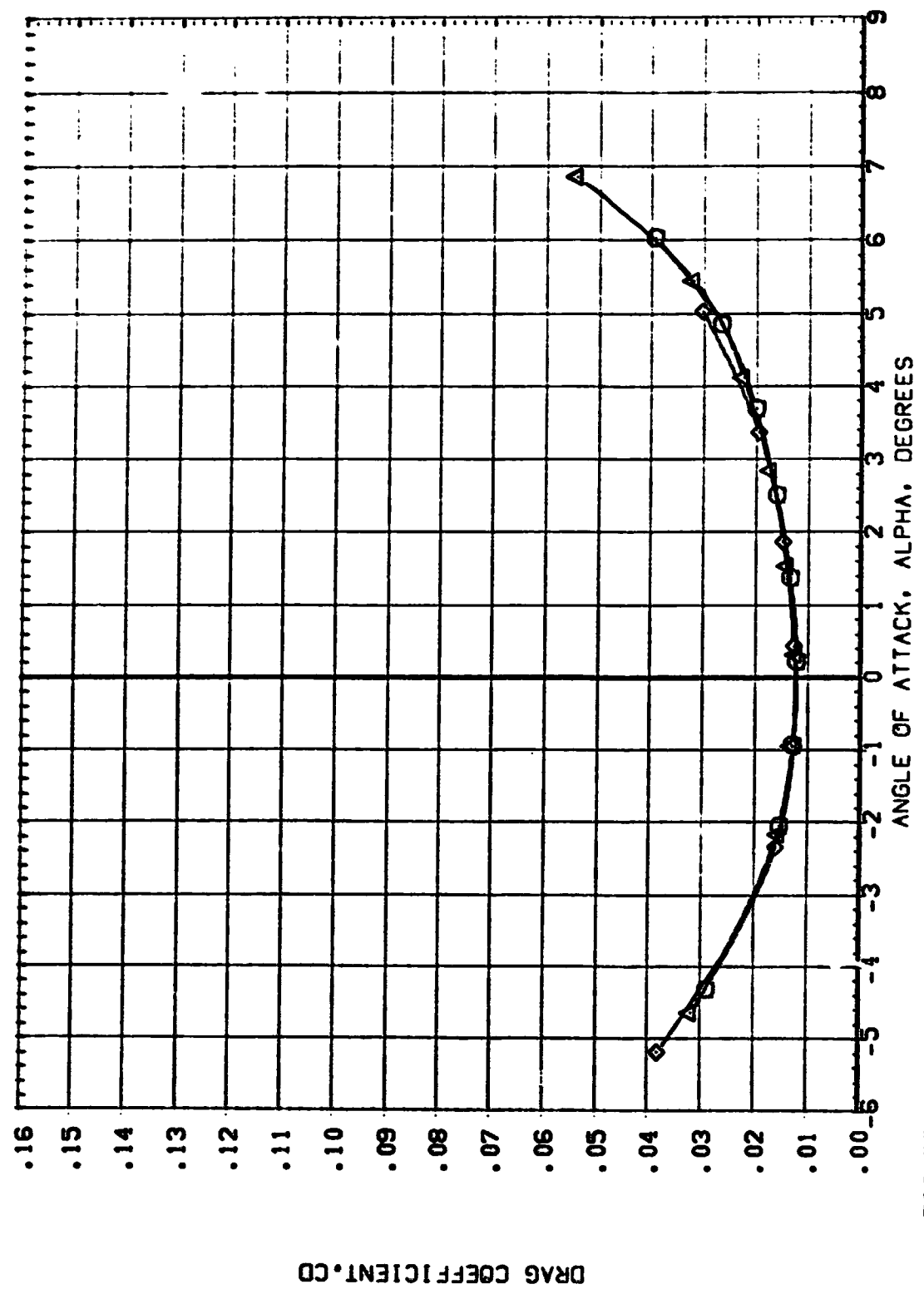


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION SWEEP RH/L BETA SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

(CAE011) W1 P0 B 60.000 4.000 0.000
 (CAE012) W1 P0 B 60.000 6.000 0.000
 (CAE013) W1 P0 B 60.000 8.000 0.000

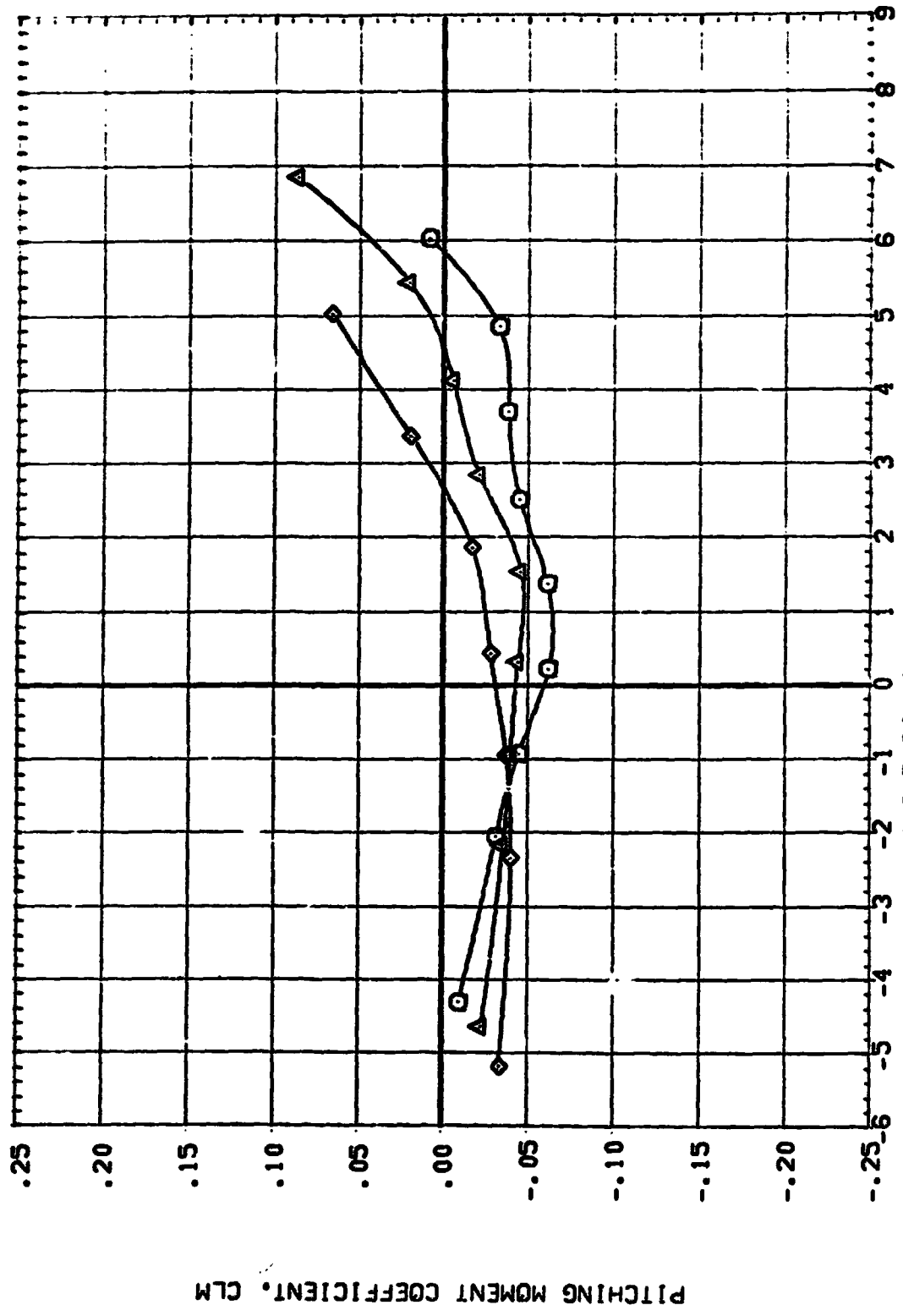


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CAE011) W1 P0 S
 (CAE012) W1 P0 S
 (CAE013) W1 P0 S

SWEEP RN/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

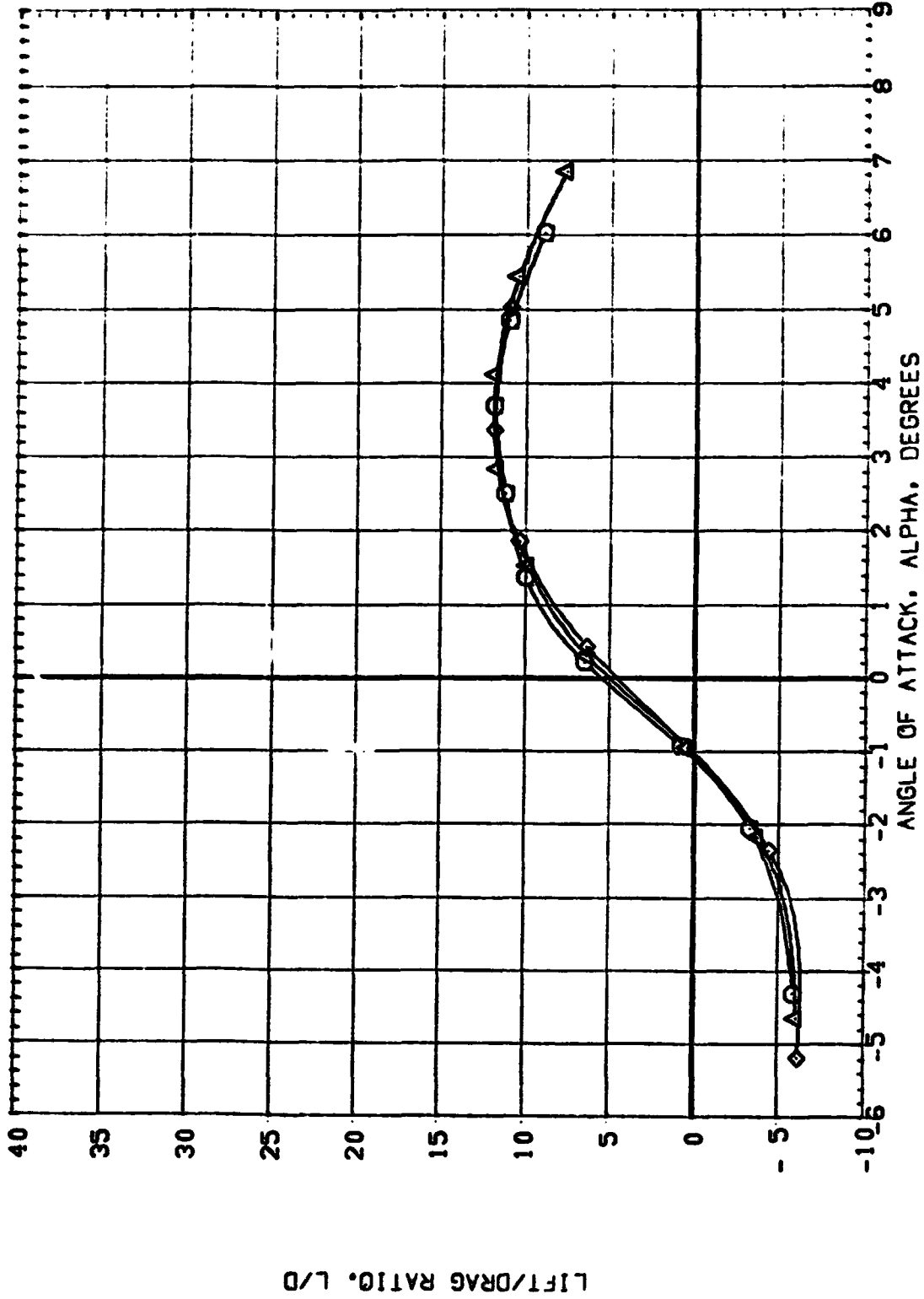


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE011) ○ W1 FO B
 (CAE012) △ W1 FO B
 (CAE013) ◇ W1 FO B

SWEEP RW/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

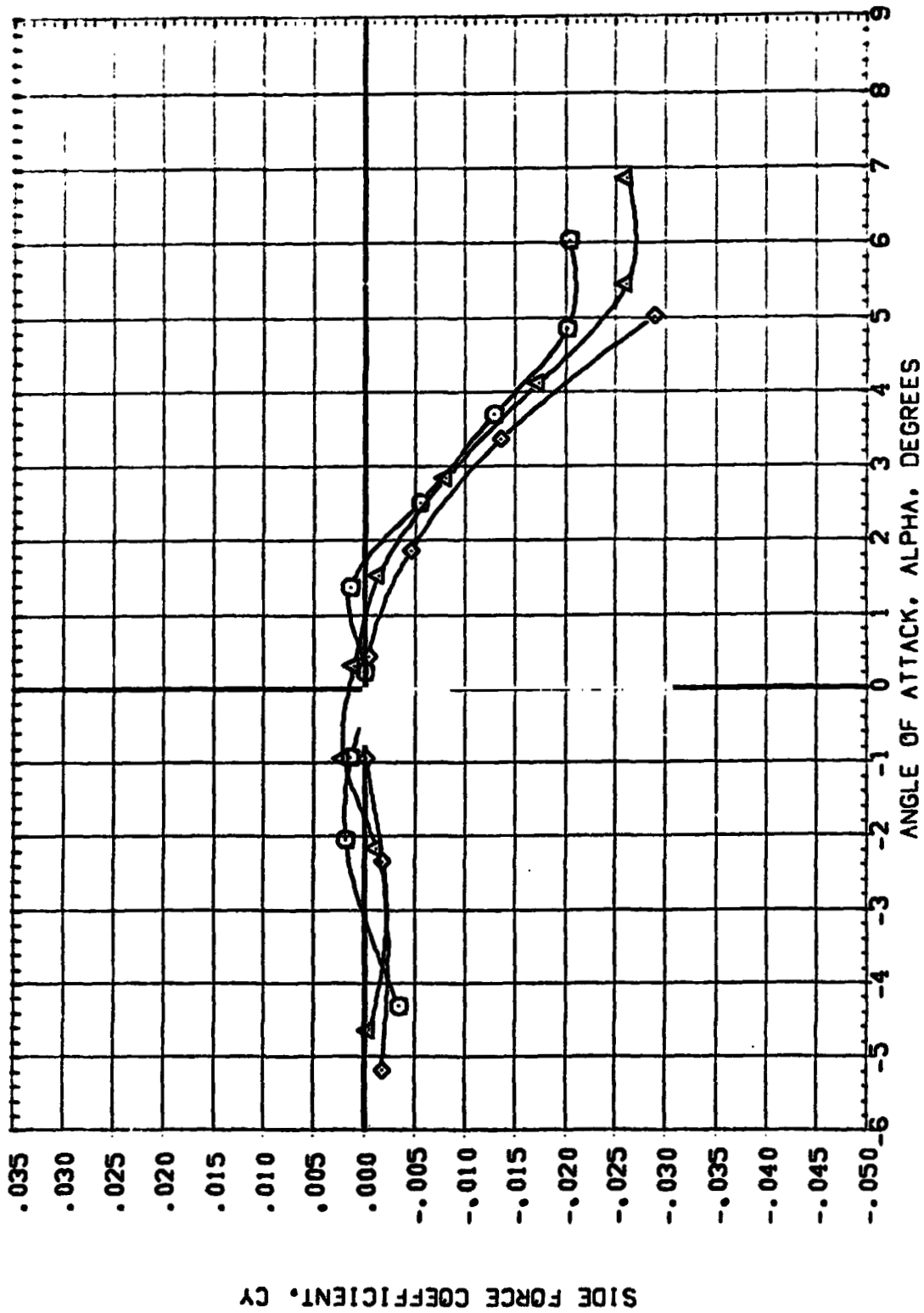


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO.= 1.20, LAMBDA=60 DEGREES

DATA SET SYMBOL - CONFIGURATION DESCRIPTION:
 (CAE011) M1 PD 6
 (CAE012) M1 PG 6
 (CAE013) M1 PO 8

SWEEP RN/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

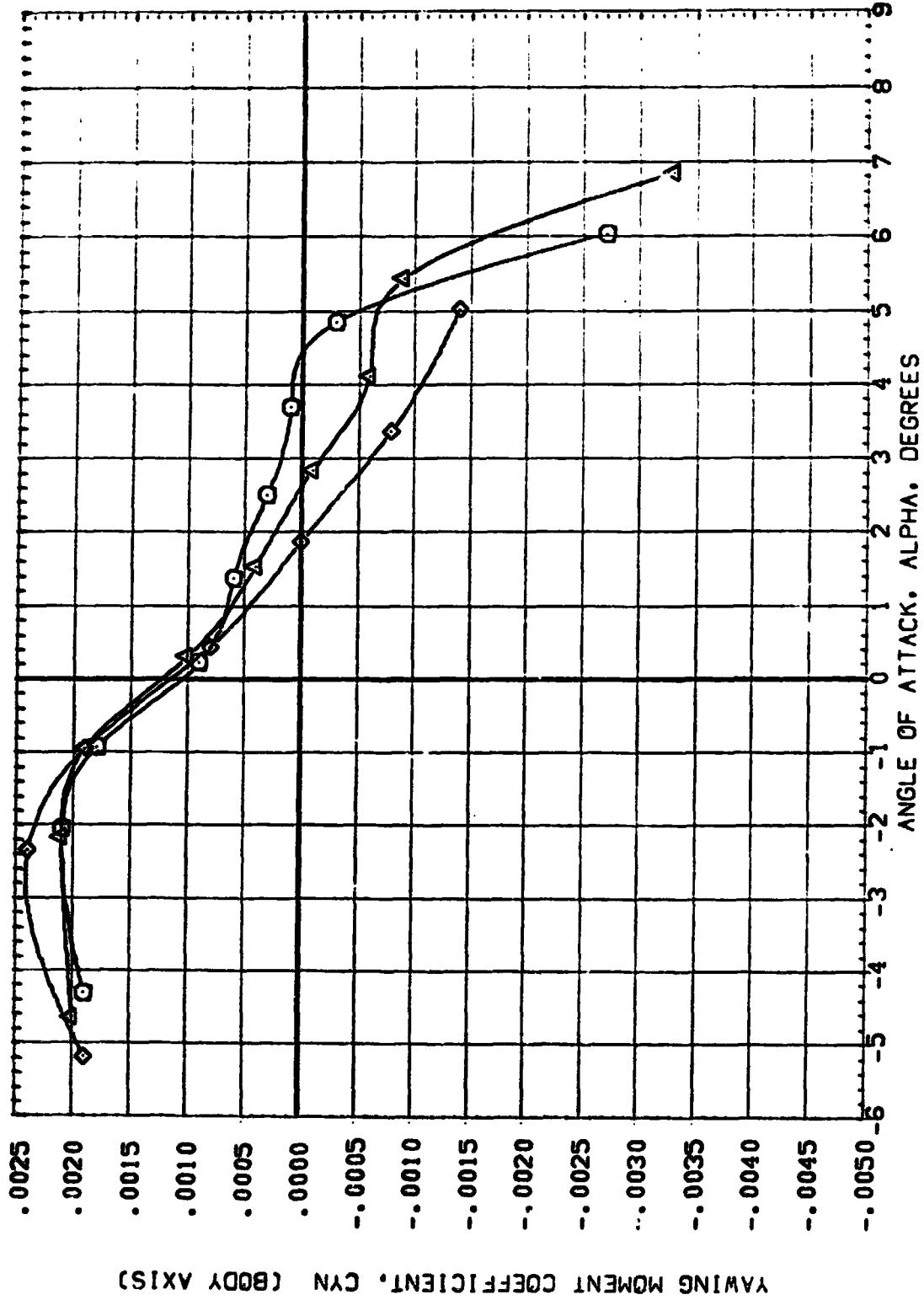


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO.= 1.20, LAMBDA=60 DEGREES

(AJMACH = 1.20

DATA SET SYMBOL - CONFIGURATION DESCRIPTION
 (CAE011) W1 P0 B
 (CAE012) W1 P0 B
 (CAE013) W1 P0 B

SHEEP RN/L BETA
 60.000 4.000 0.000
 60.000 6.000 0.000
 60.000 8.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

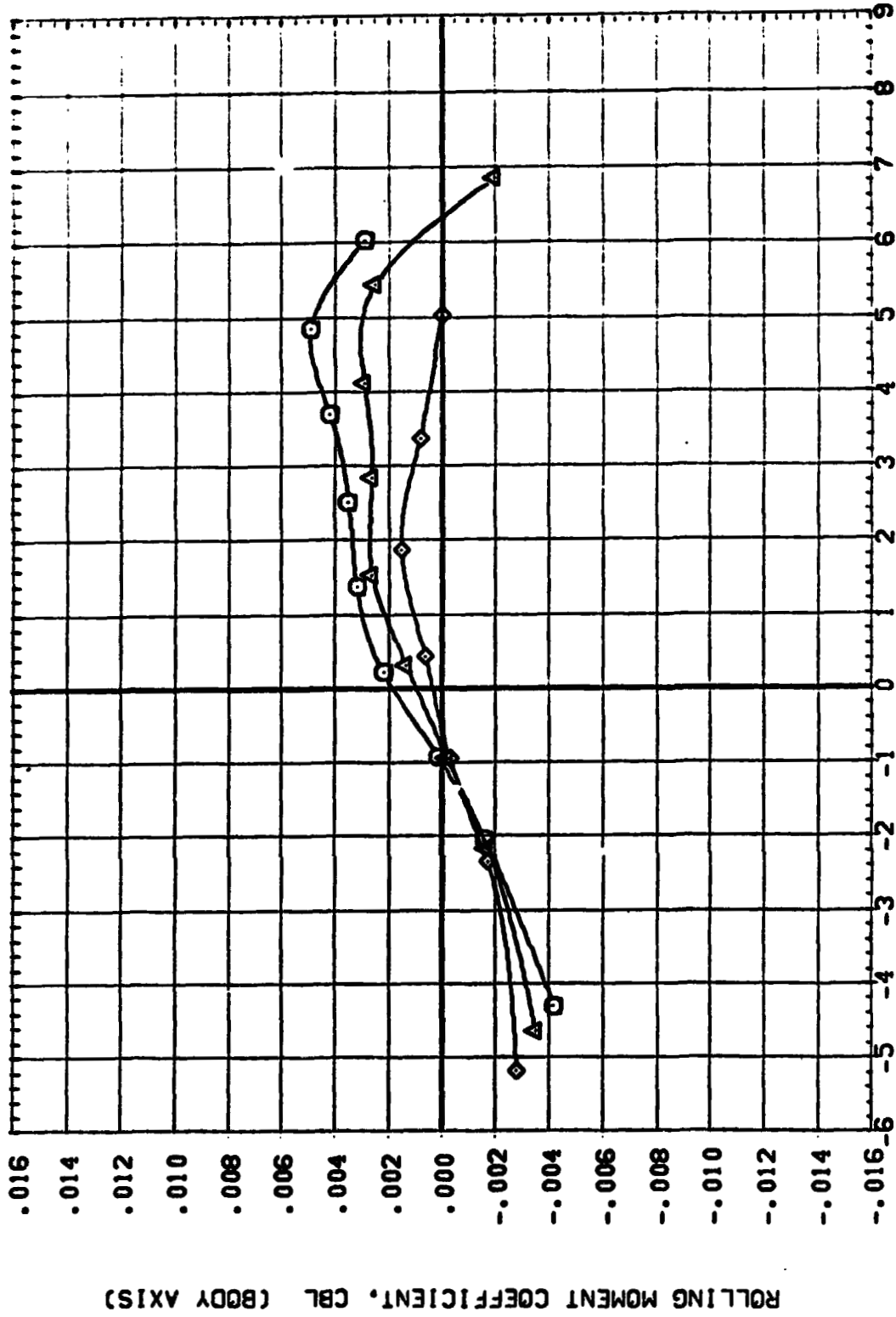


FIGURE 3 EFFECT OF REYNOLDS NUMBER, MACH NO. = 1.20, LAMBDA = 60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE003) W1 F0 B
 (BAE004) W1 F5 B
 (BAE005) W1 F10 B

SWEEP RW/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

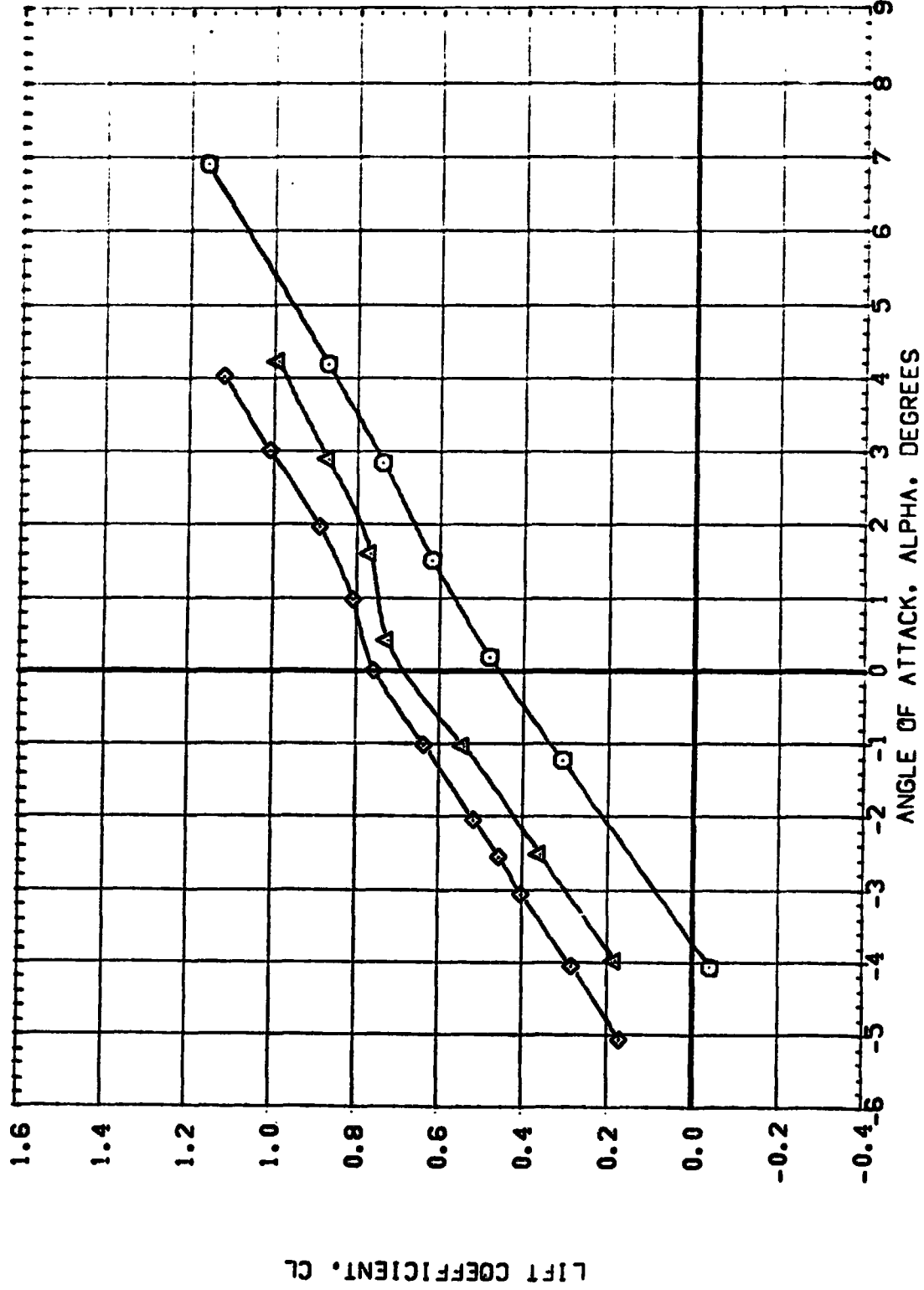


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.60, LAMBDA = 0 DEGREES
 (A)MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE003) M1 F0 B
 (BAE004) M1 F5 B
 (BAE000) M1 F10 B

SWEEP RW/L BL/A
 0.000 0.000 0.00
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

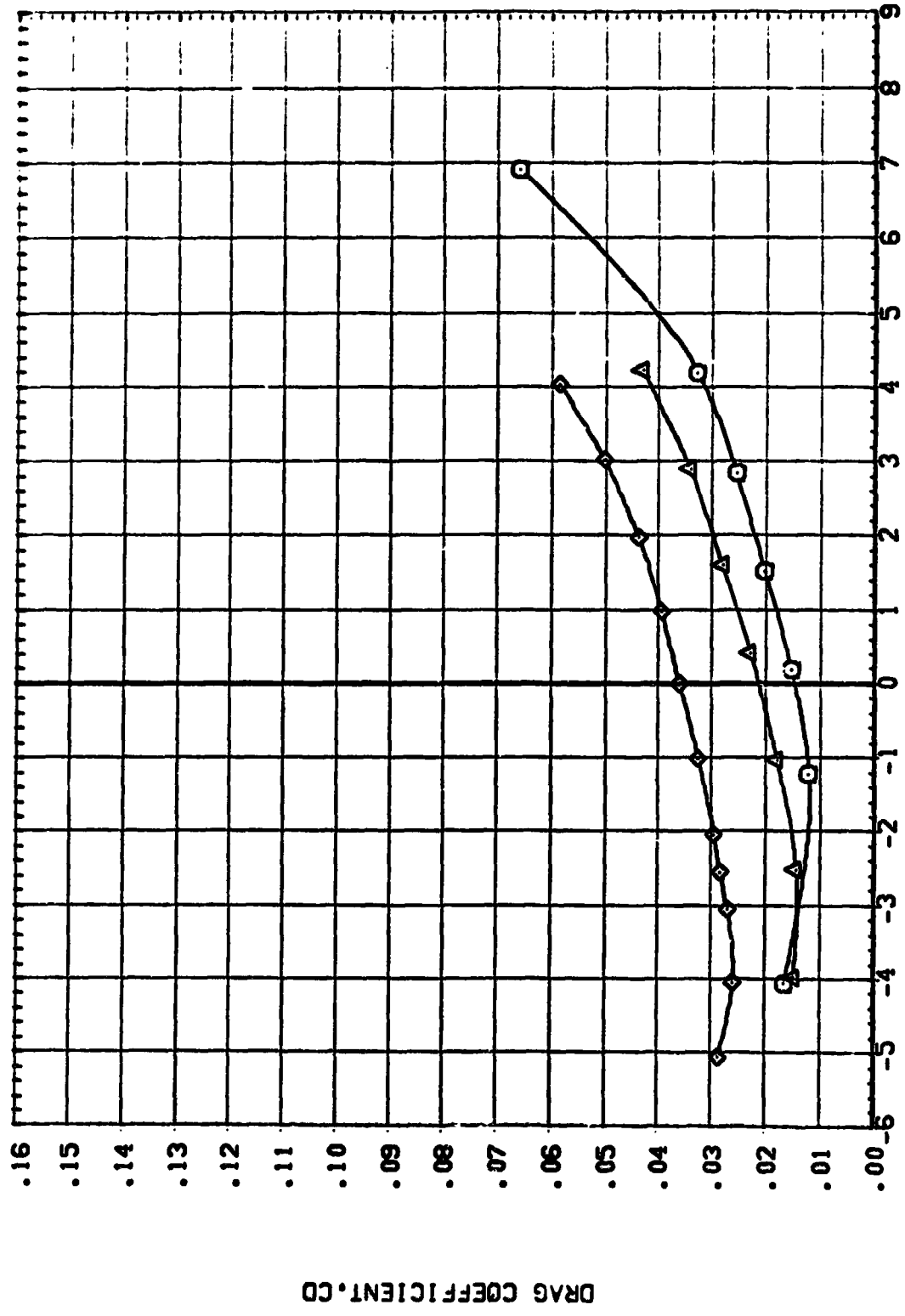


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.60, LAMBDA = 0 DEGREES
 (A) MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE003) Q W1 F0 B
 (BAE054) A W1 F5 B
 (BAE090) D W1 F10 B

SWEEP RN/L BETS
 0.000 6.000 0.000
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

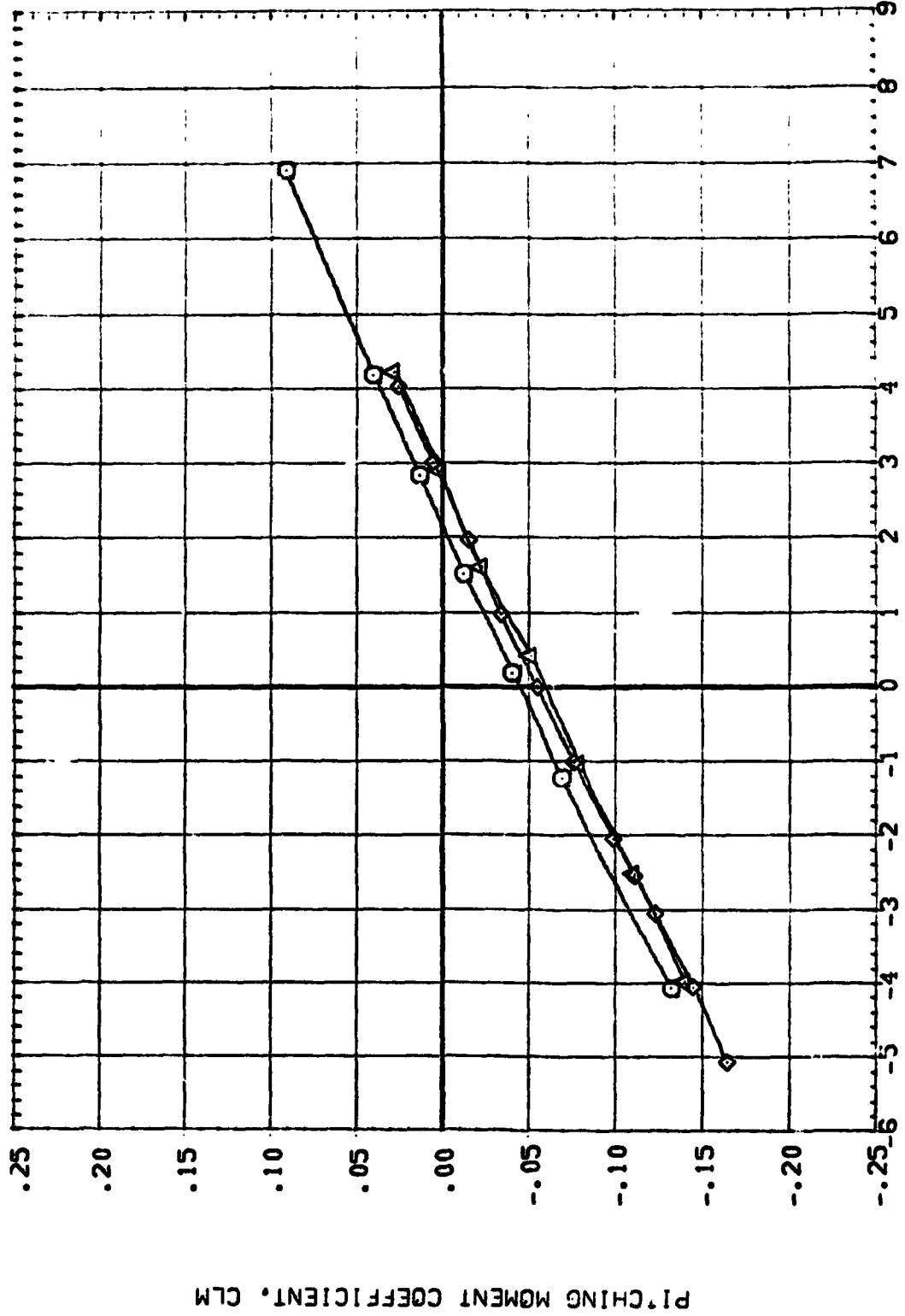


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.60; LAMBDA = 0 DEGREES

(A) MACH = .60

DAT: PET SYMBOL CONFIGURATION DESCRIPTION
 (CAE003) W1 P0 B
 (BAE034) W1 P5 B
 (BAE050) W1 P10 B

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

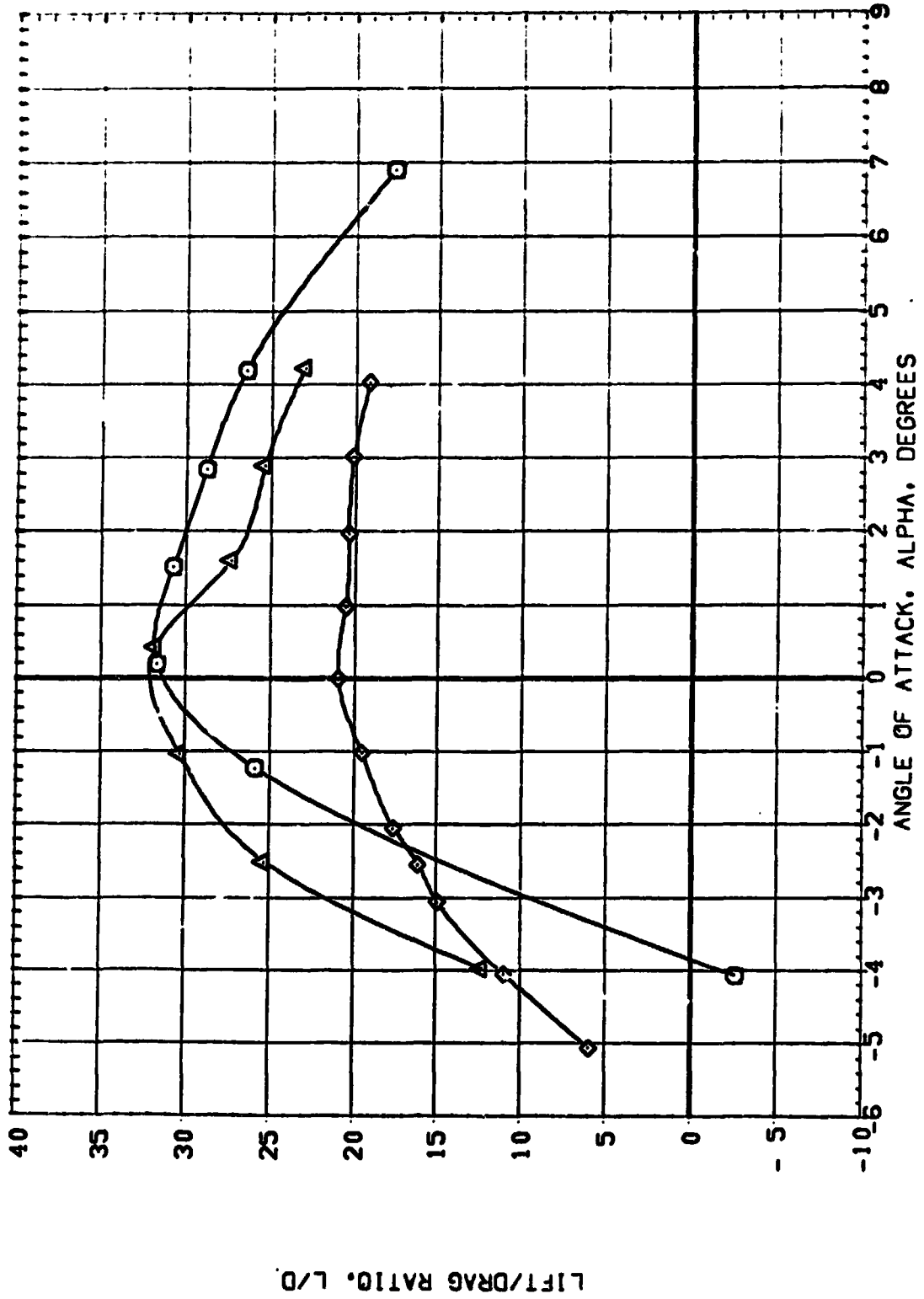


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 0.60, LAMBDA= 0 DEGREES

(A)MACH = .60

DATA SET SYMBOL - CONFIGURAT. IN DESCRIPTION

(CAE003) \square W1 P0 B
 (BAE004) \triangle W1 P5 B
 (BAE005) \diamond W1 P10 B

SWEPT RAYL BETA
 0.000 0.000
 0.000 0.000
 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

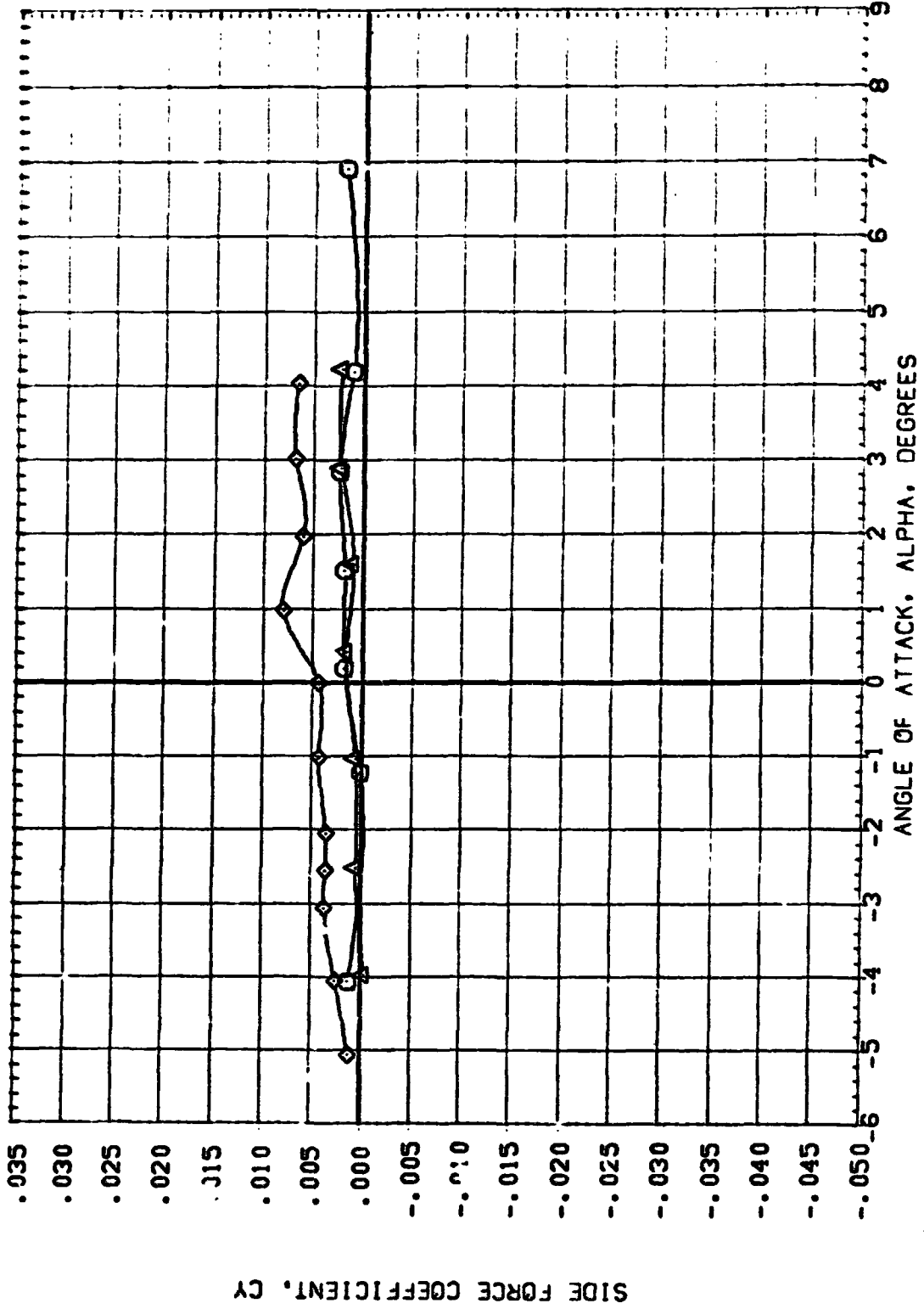


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.60, LAMBDA = 0 DEGREES

(A) MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE003) W1 P10 B
 (BAE004) W1 P5 B
 (BAE 0) W1 P10 B

-- SWEEP RAYL BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

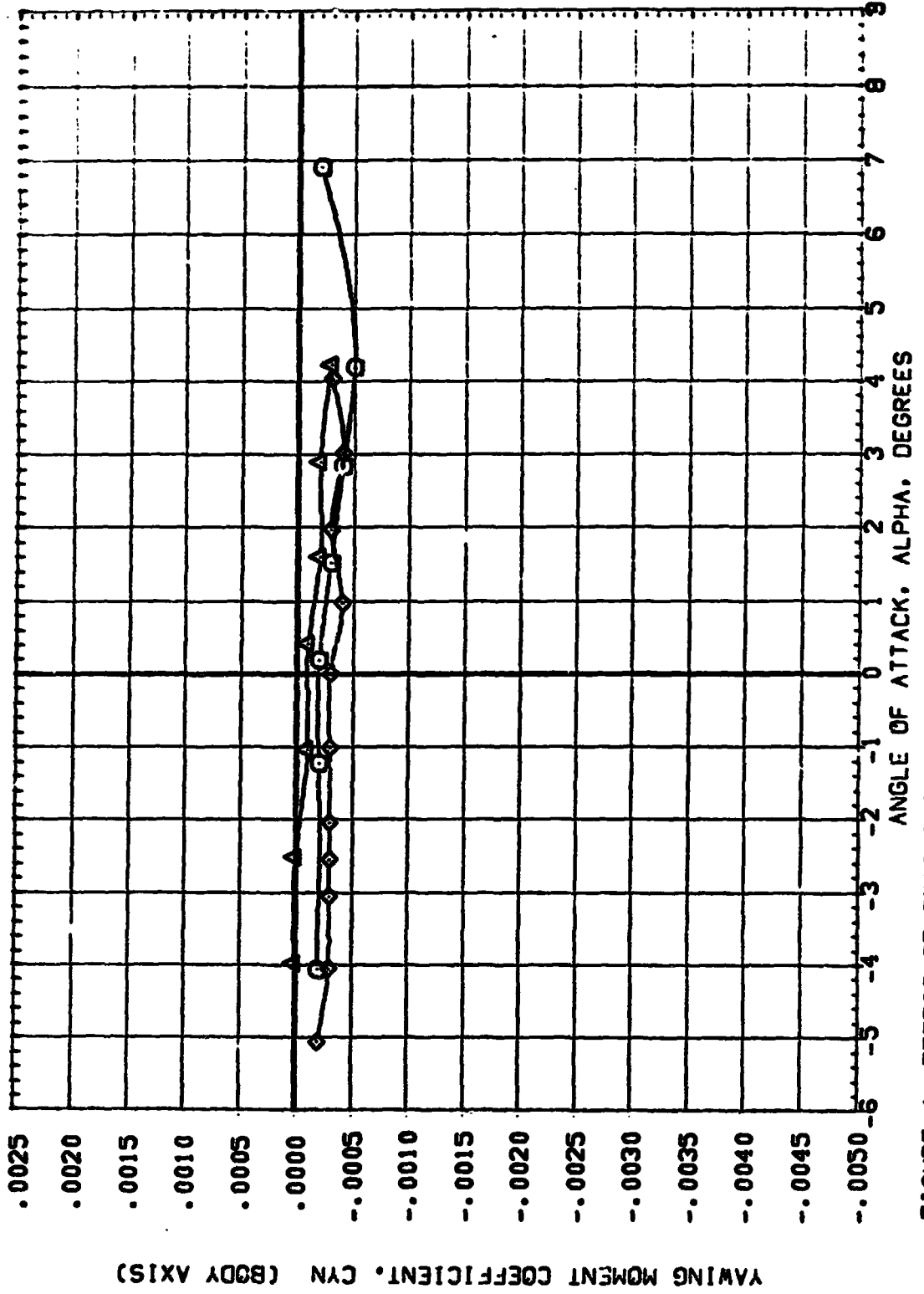


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.60, LAMBDA = 0 DEGREES

(A) MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE003) W1 P0 B
 (BAE004) W1 P0 R
 (BAE001) W1 P10 E

SWEEP RM/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

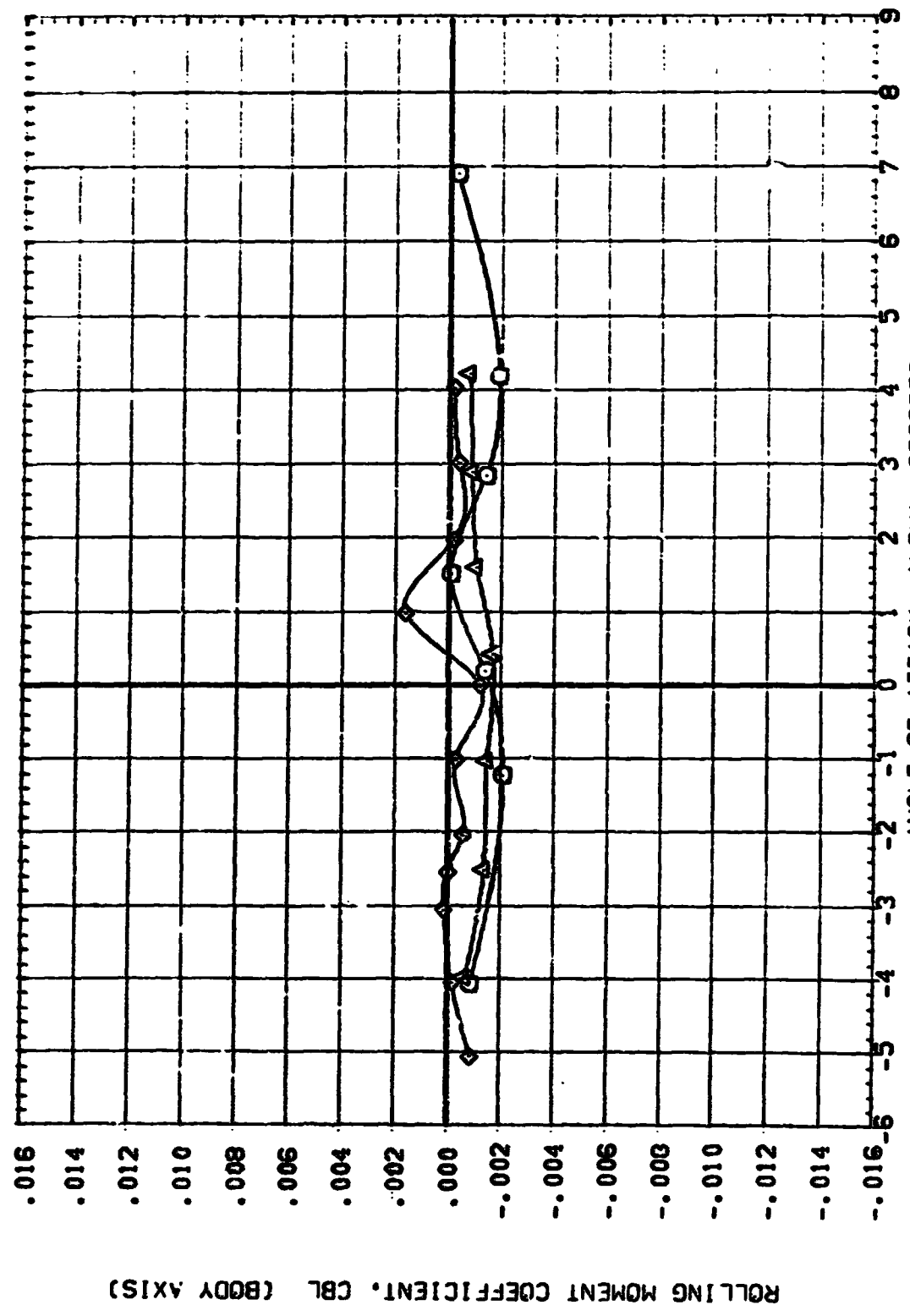


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 0.60, LAMBDA= 0 DEGREES

(A)MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BC4003) W1 P10 B
 (CAE054) W1 P10 B
 (CAE-90) W1 P10 B

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

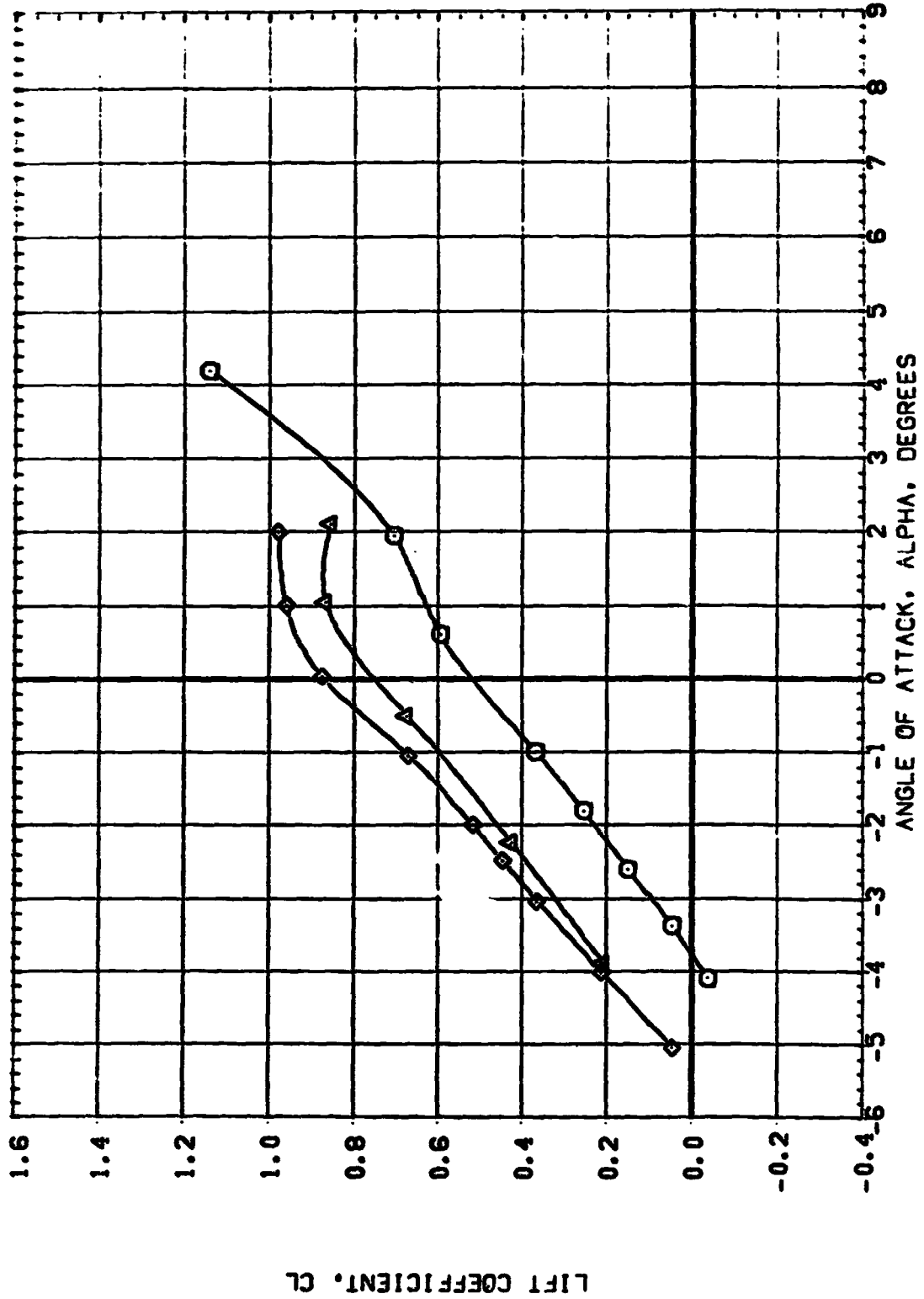


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A)MACH = .70

DATA SET SYMBOL... CONFIGURATION DESCRIPTION

(BEA003) W1 P0 B
 (CAE004) W1 P0 B
 (CAE005) W1 P10 B

SWEEP
 0.000
 0.000
 0.000

HW/L
 6.000
 6.000
 6.000

BETA
 0.000
 0.000
 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

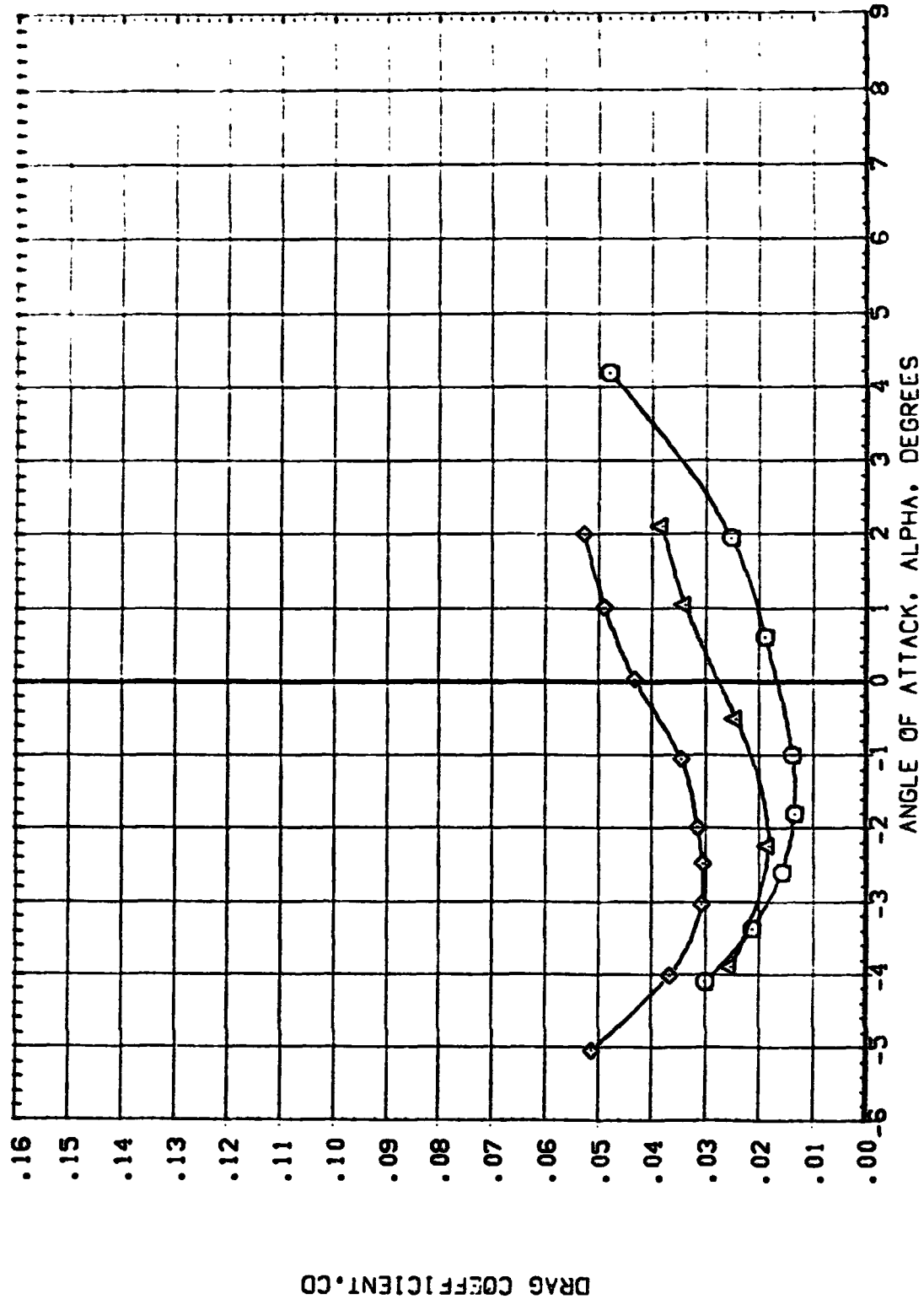


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA = 0 DEGREES
 (A) MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BEA003) W1 P0 B
 (CAE004) W1 P8 B
 (CAE005) W1 P10 B

SWEPT AN/L BETA
 0.000 6.000
 0.000 6.000
 0.000 6.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

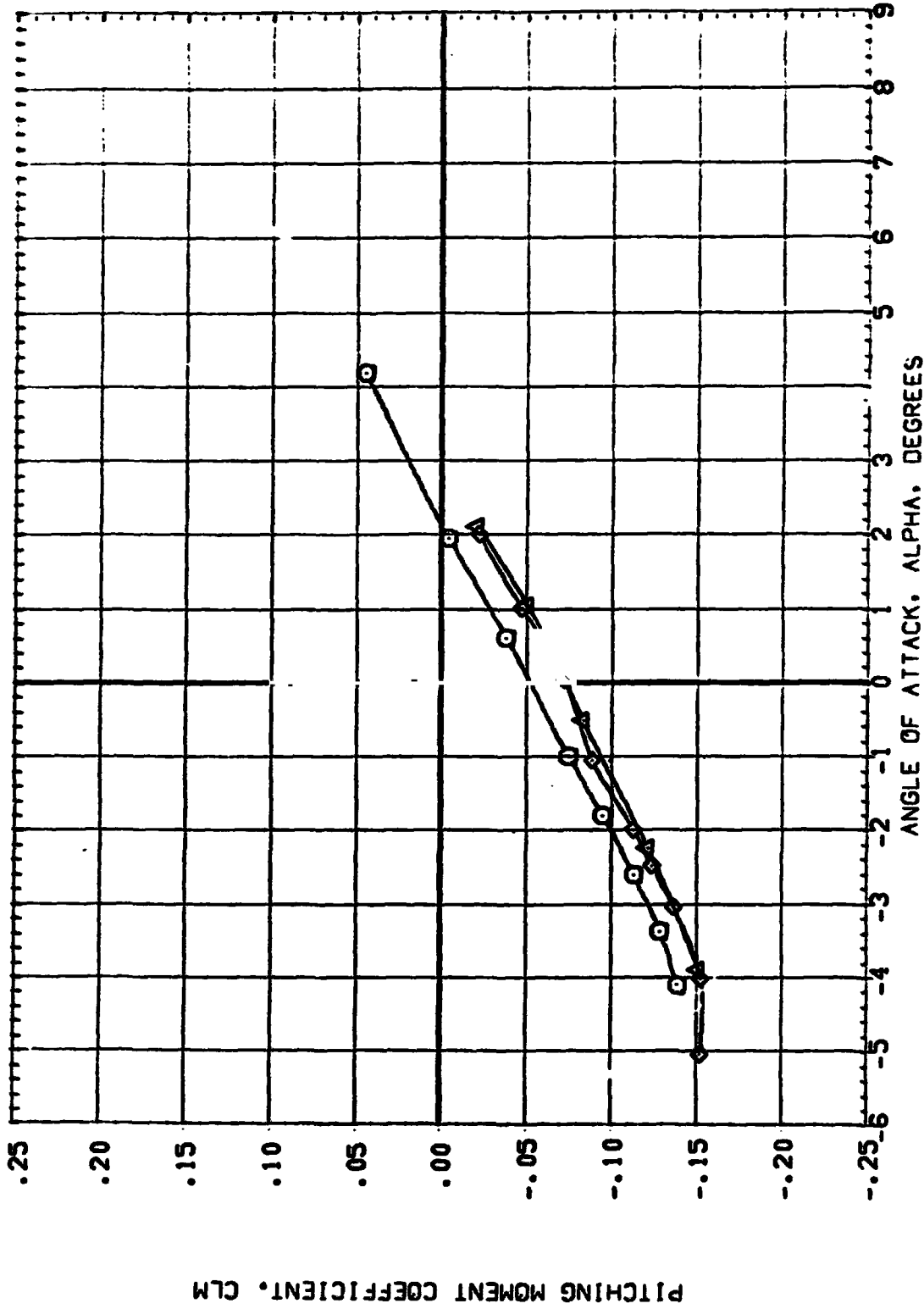


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A)MACH = .70

DATA SET SYMBOL: CONFIGURATION DESCRIPTION
 (BEA003) M1 P0 B
 (CAE004) M1 P5 B
 (CAE050) M1 F10 B

SWEEP RM/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

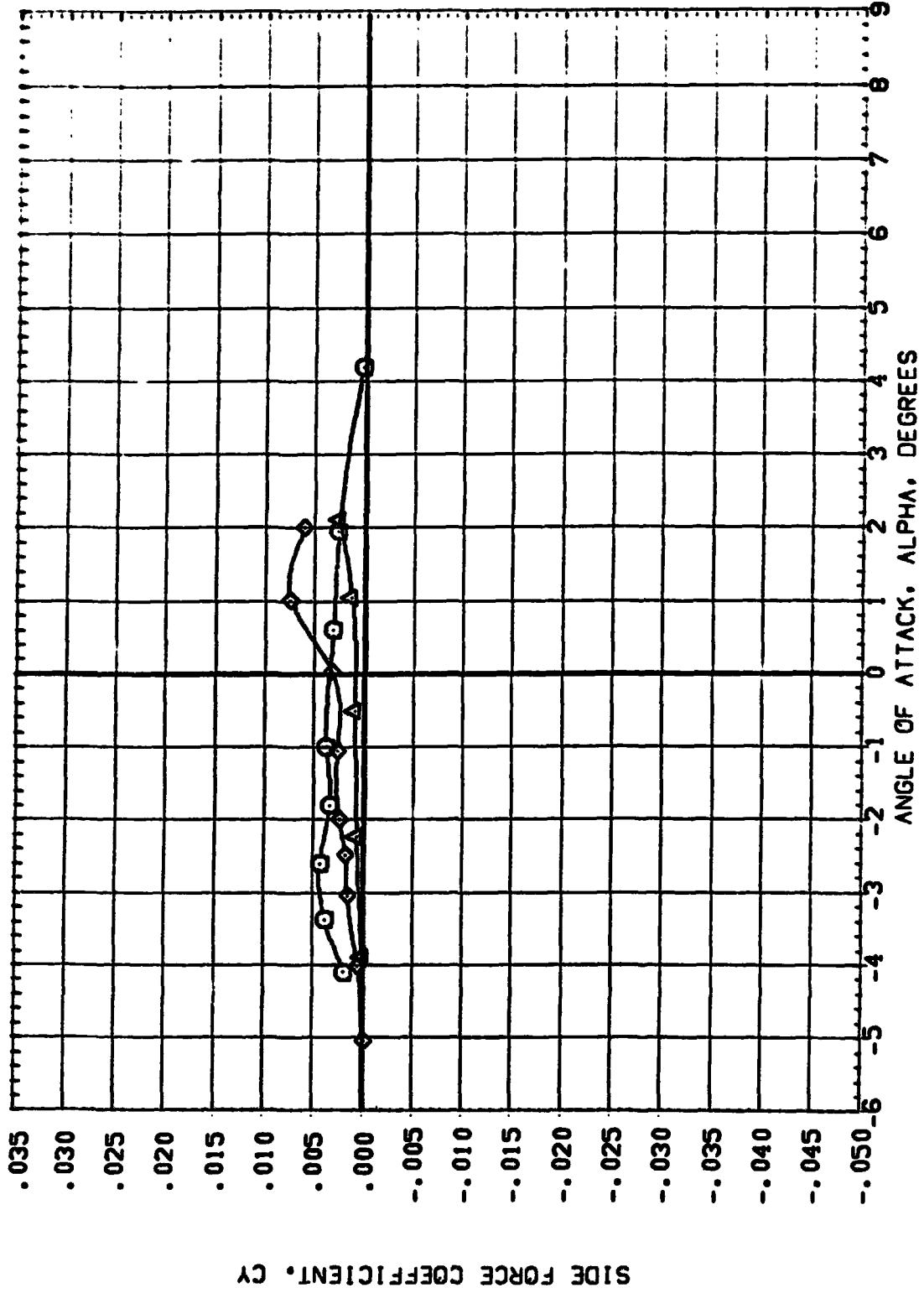


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A) MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (8E4003) M1 P0 B
 (CAE004) M1 P5 B
 (CAE005) M1 P1 B

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000
 0.000 6.000 0.000

SET THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

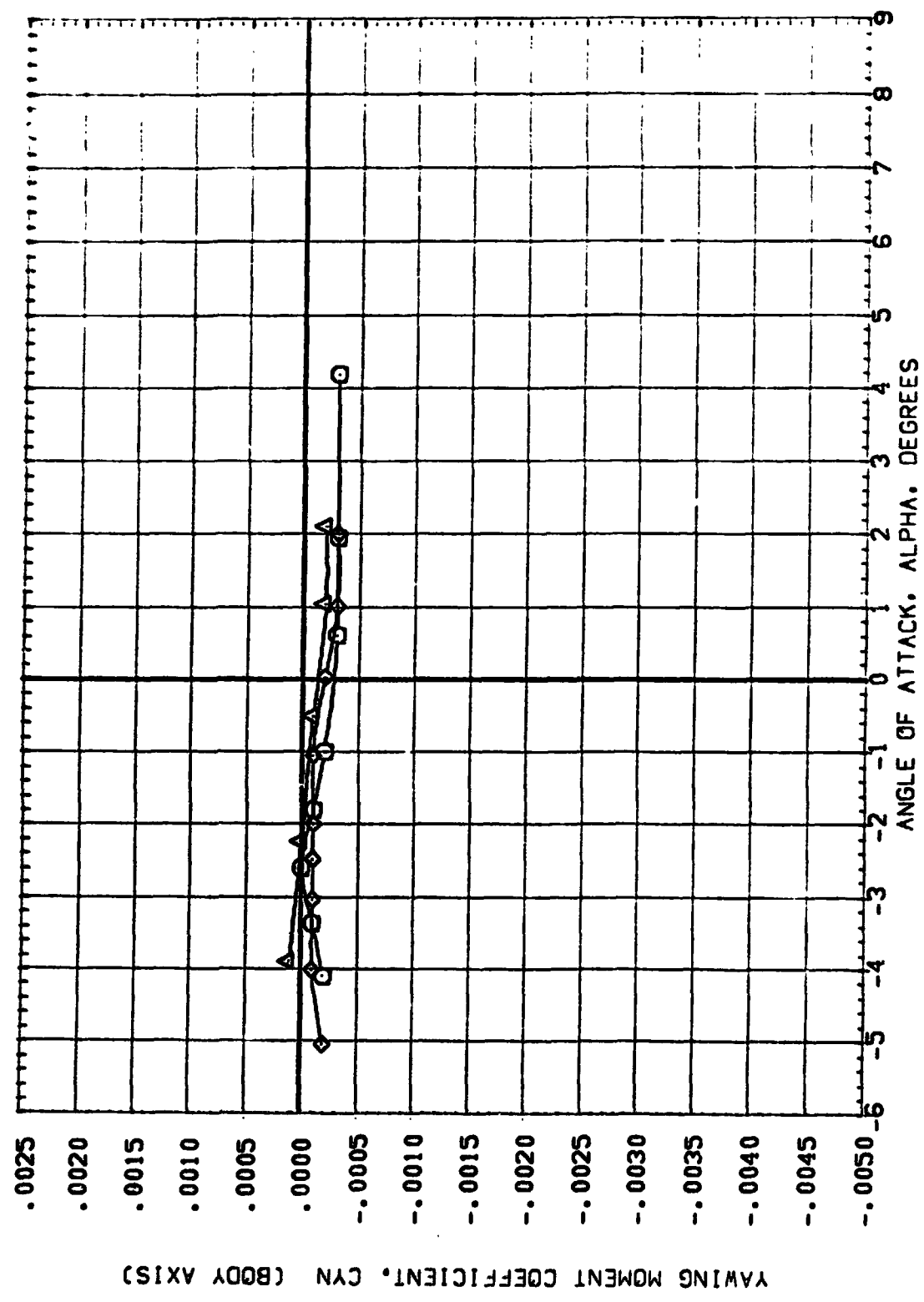


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA = 0 DEGREES
 (A)MACH = .70

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RM/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000
 0.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BEA003) W1 P0 B
 (CAE004) W1 F5 B
 (CAE008) W1 P10 B

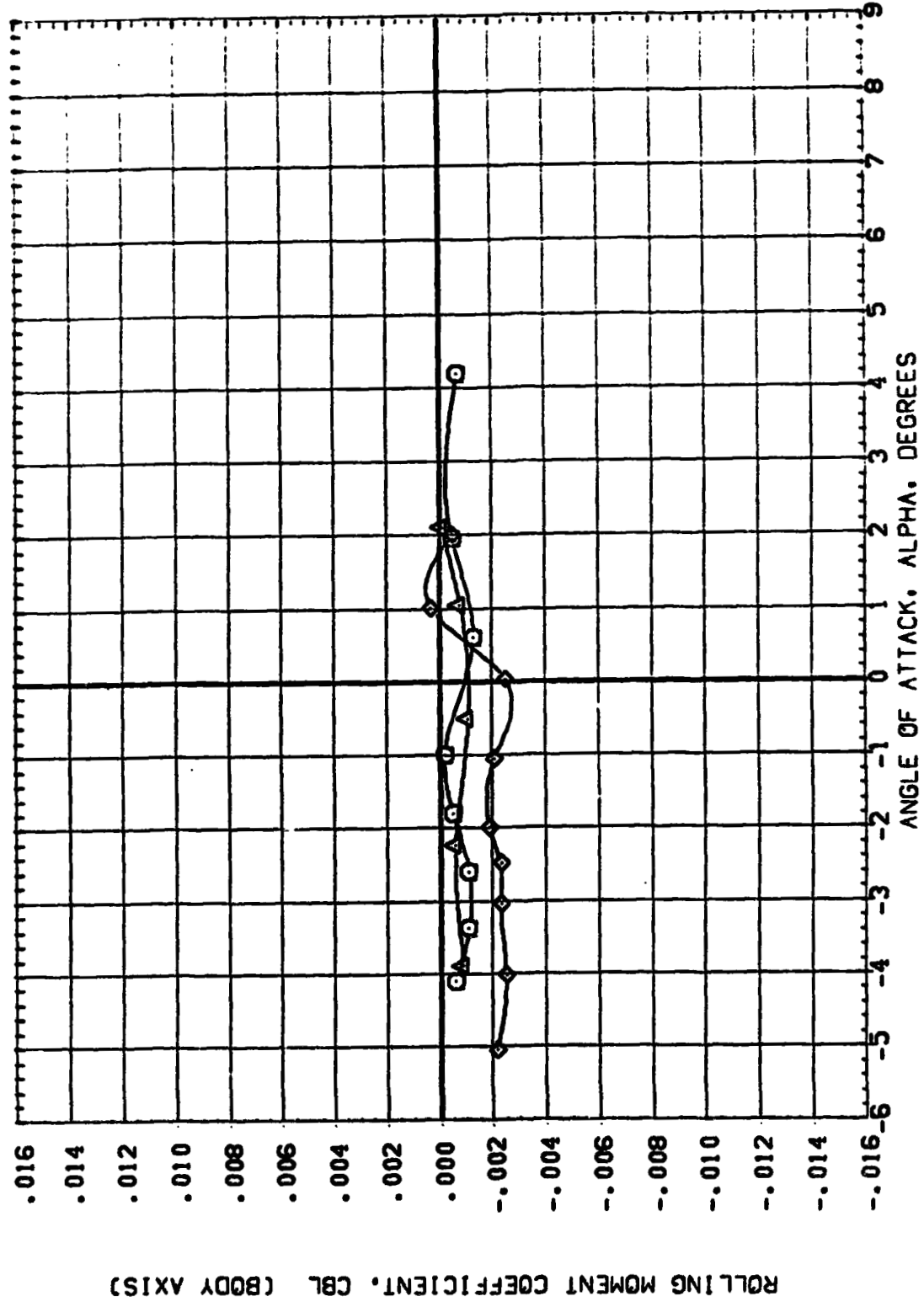


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA = 0 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE005) W1 P0 J
 (CAE007) W1 P5 B
 (CAE001) W1 P10 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

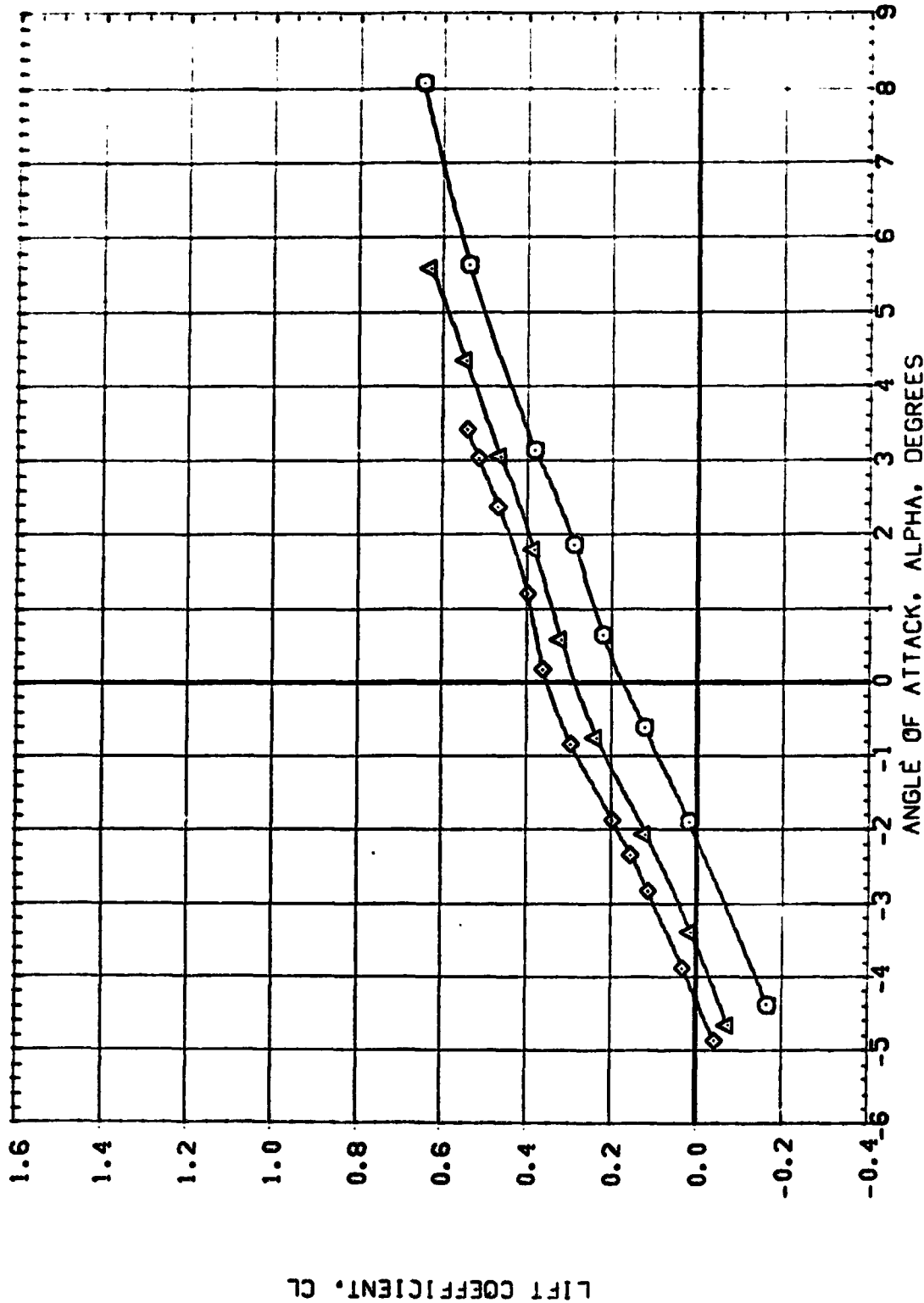


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA=45 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE005) W1 F0 B
 (BAE097) W1 F5 B
 (BAE051) W1 F10 B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

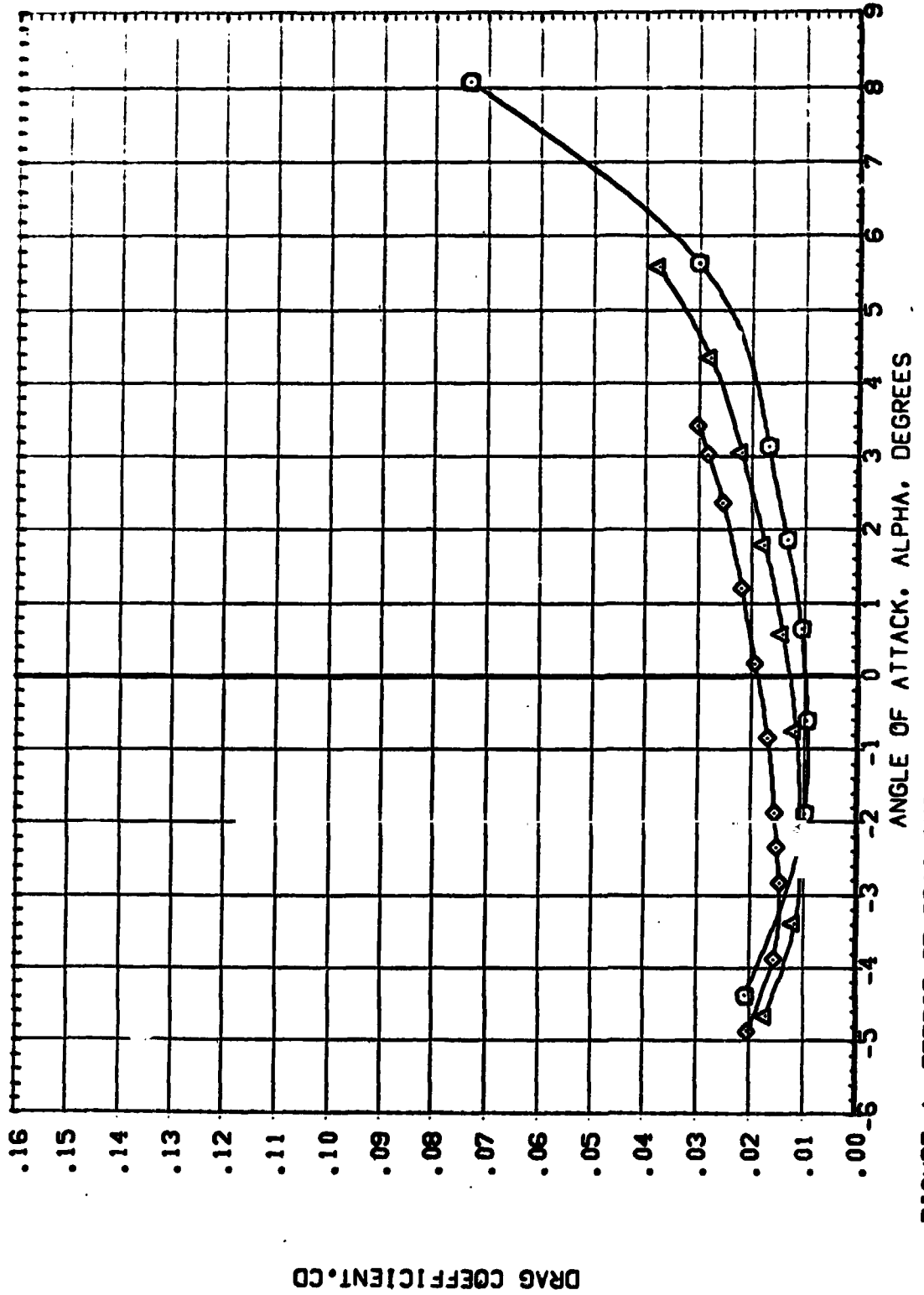


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA=45 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE000) W1 F0 B
 (BAE007) W1 F5 B
 (BAE051) W1 F10 B

SWEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

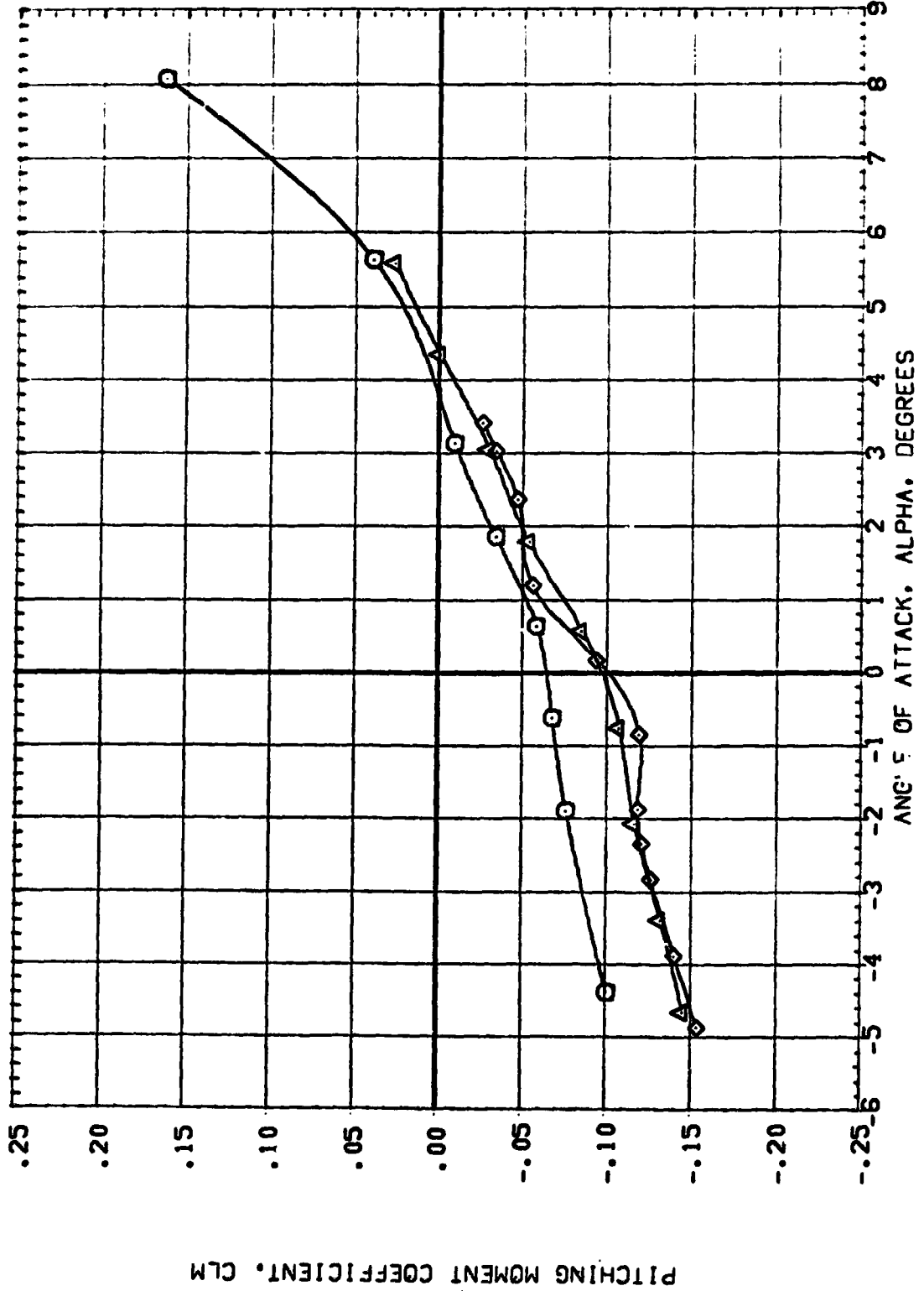


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA = 45 DEGREES

(A) MACH = 0.70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE005) W1 F0 B
 (BAE057) W1 F5 B
 (BAE051) W1 F10 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

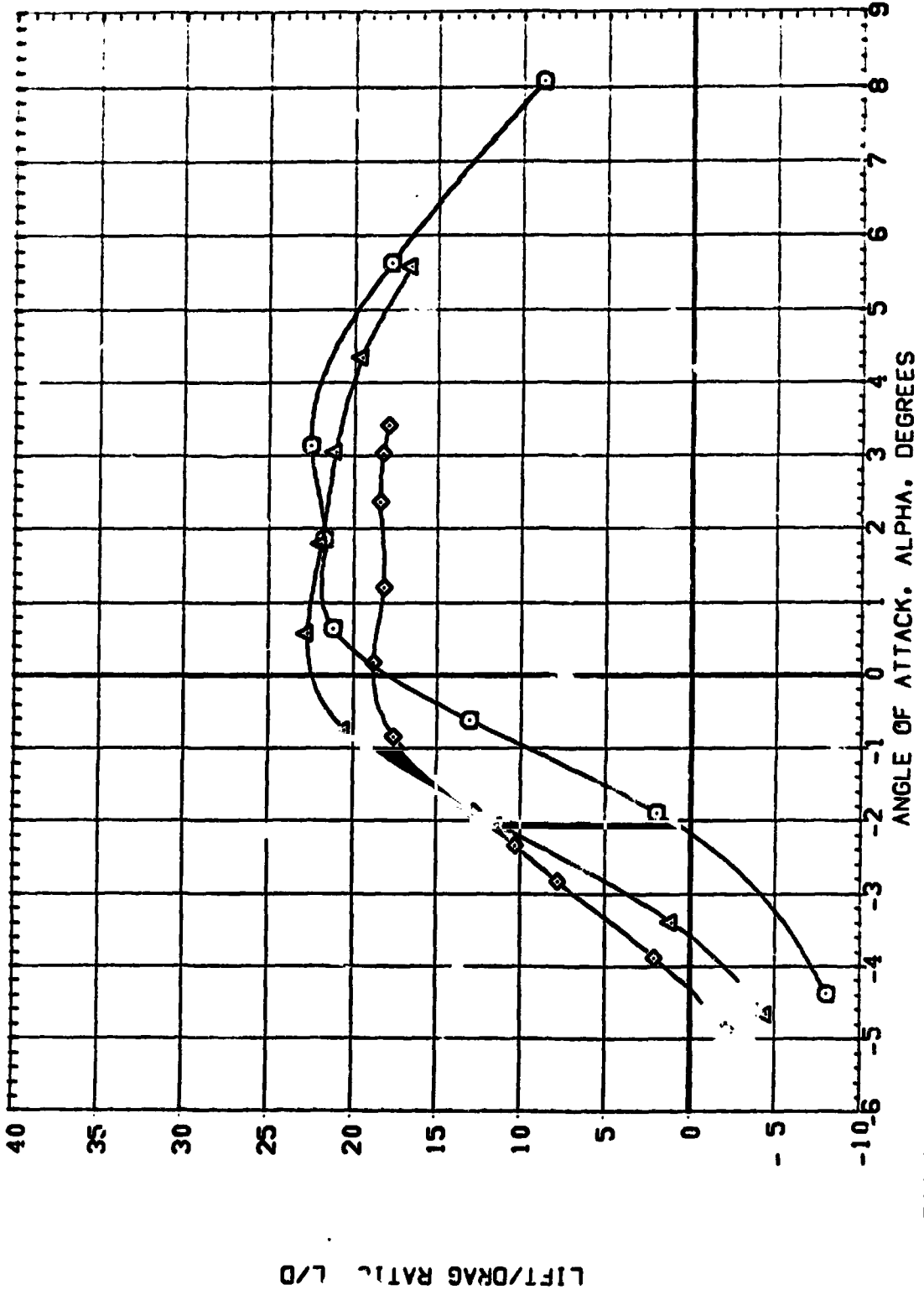


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70. LAMDDA=45 DEGREES

(A)MACH = .70

DATA SET SYMBOL COMBINATION DESCRIPTION
 (CASE06) W1 P0 B
 (CASE07) W1 P0 B
 (CASE08) W1 P10 B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

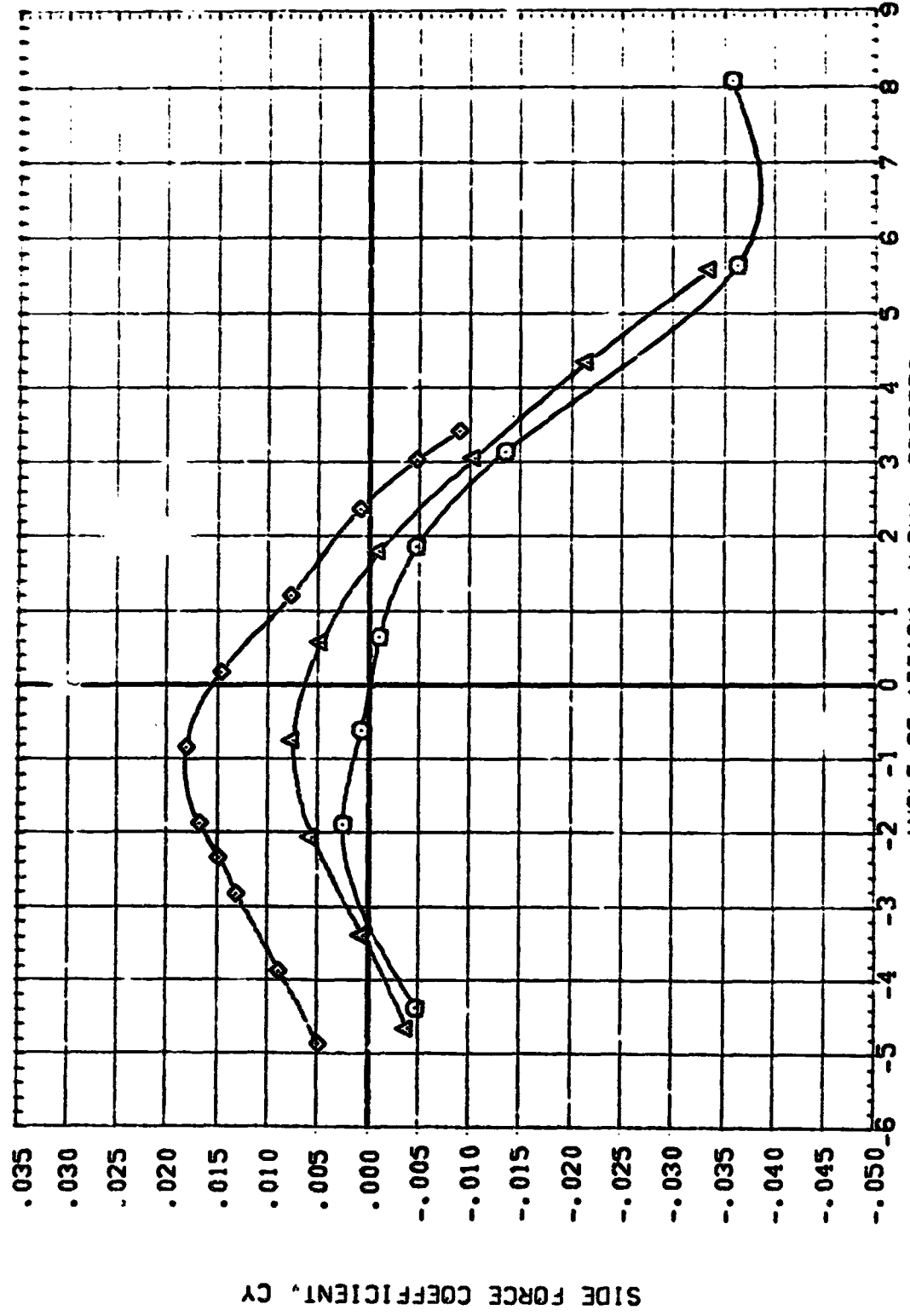


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA=45 DEGREES

DAT: SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE005) W1 P10 B
 (BAE057) W1 P6 B
 (BAE001) W1 P10 B

SWEEP AN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

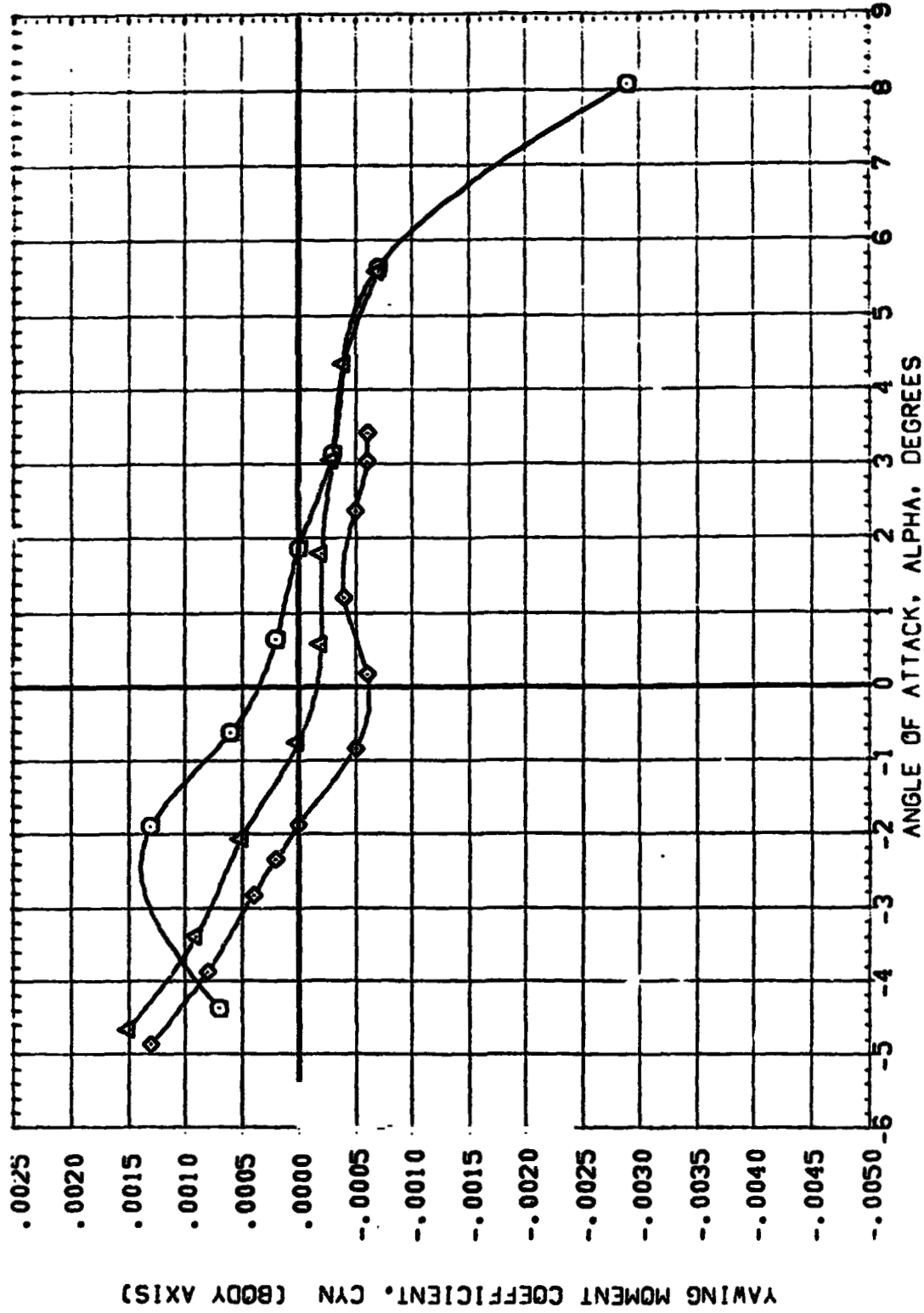


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.70, LAMBDA=45 DEGREES
 (A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE005) W1 P0 B
 (BAE007) W1 P5 B
 (BAE005) W1 P10 B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

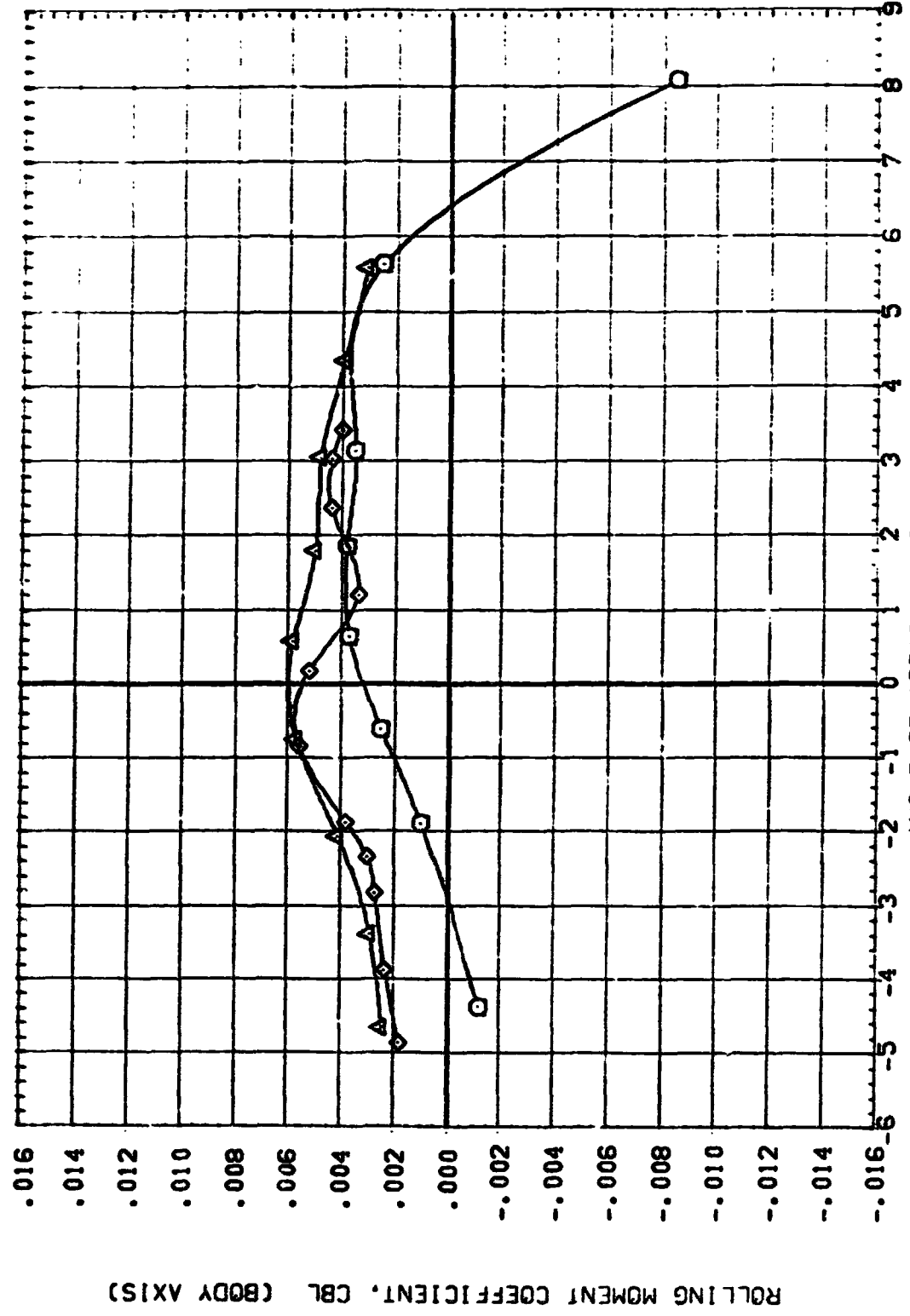


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 0.70, LAMBDA=45 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (1A000) (1) W1 P0 B
 (1A001) (2) W1 P0 B
 (1A002) (3) W1 P10 B

SWEEP RH/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

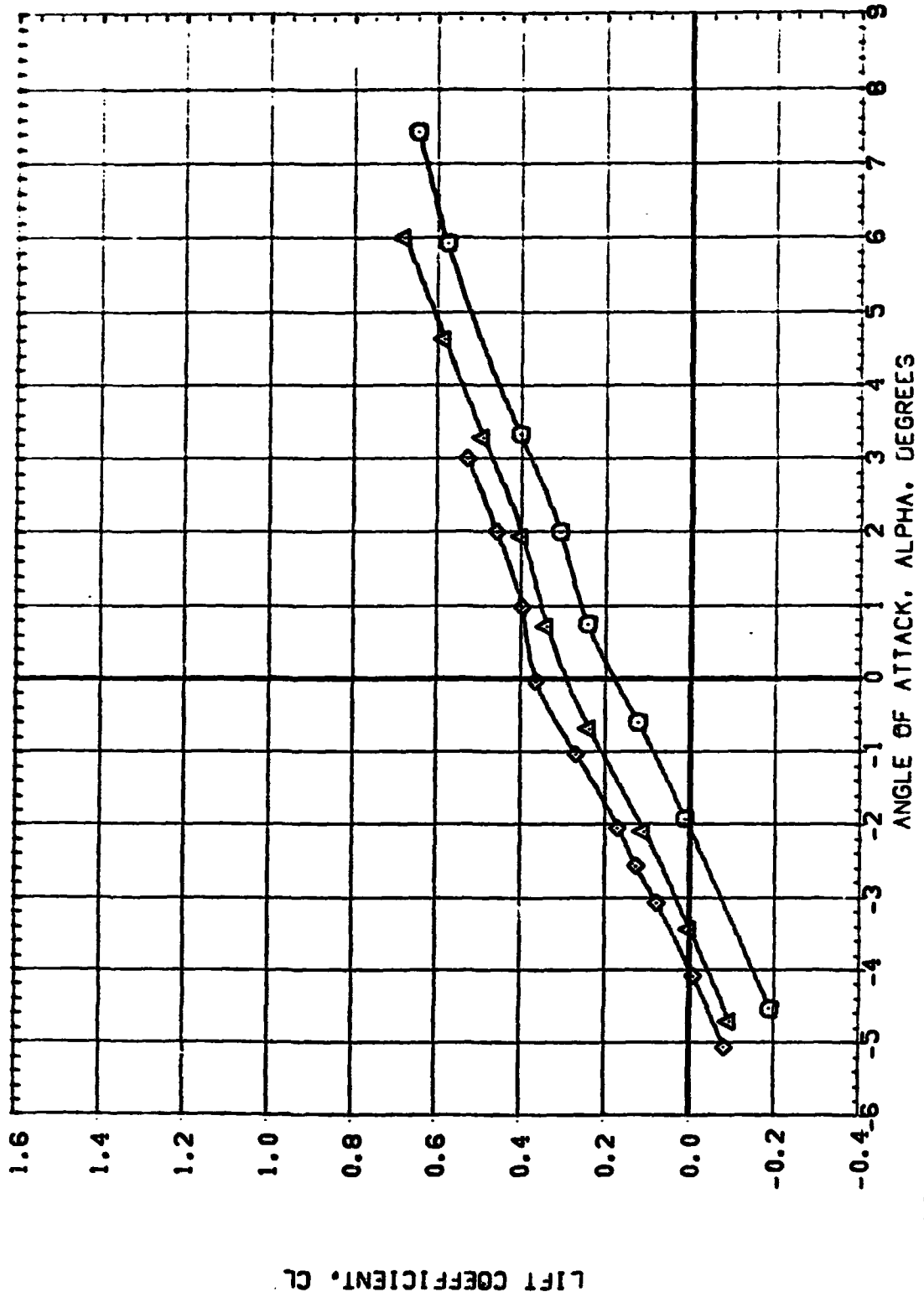


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE. MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 W1 P8 B
 W1 P8 B
 W1 P10 B

SMEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

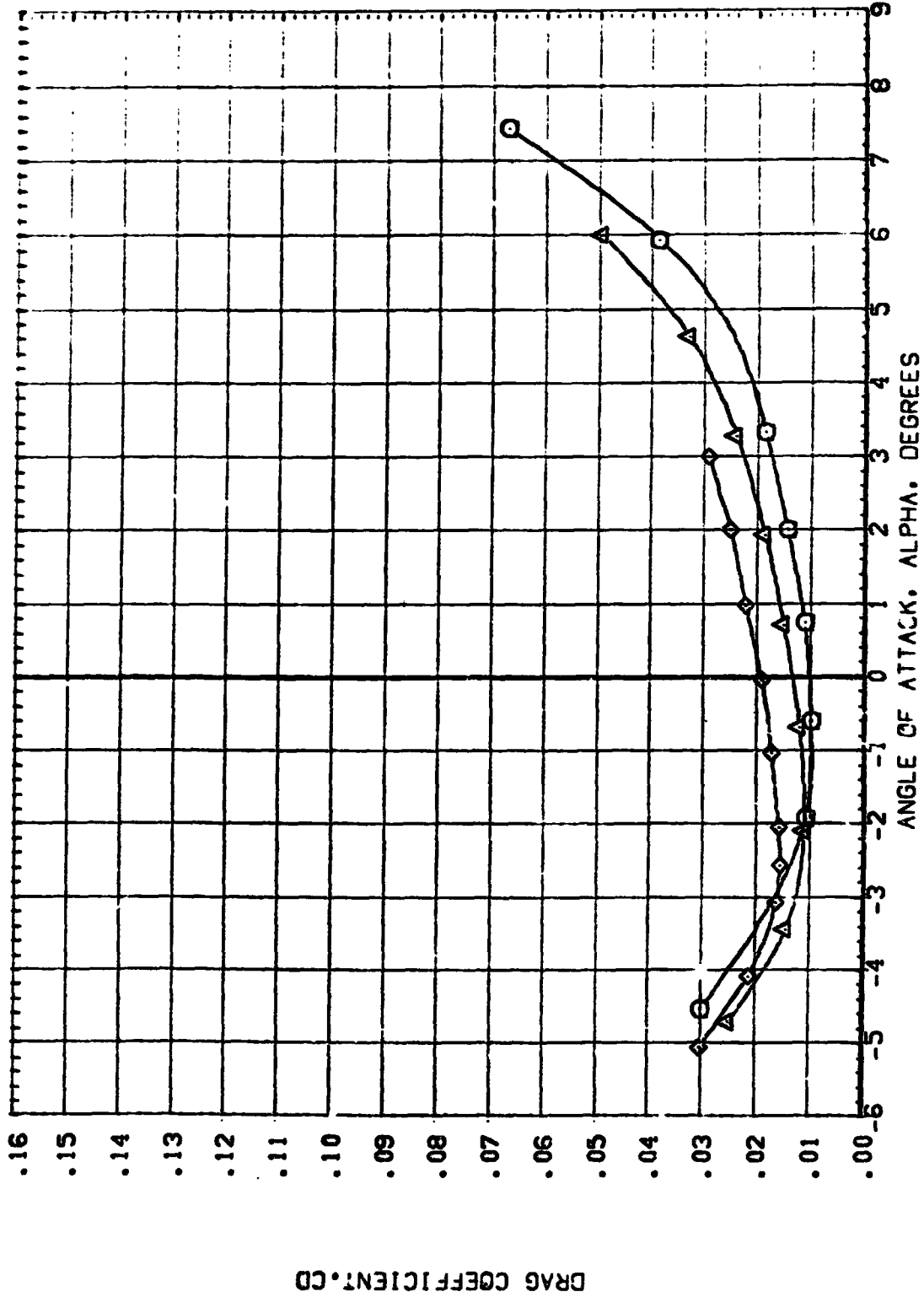


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 0.80, LAMBDA=45 DEGREES
 (A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE008) MI P0 B
 (CAE007) MI P5 B
 (CAE001) MI P10 B

SWEET RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

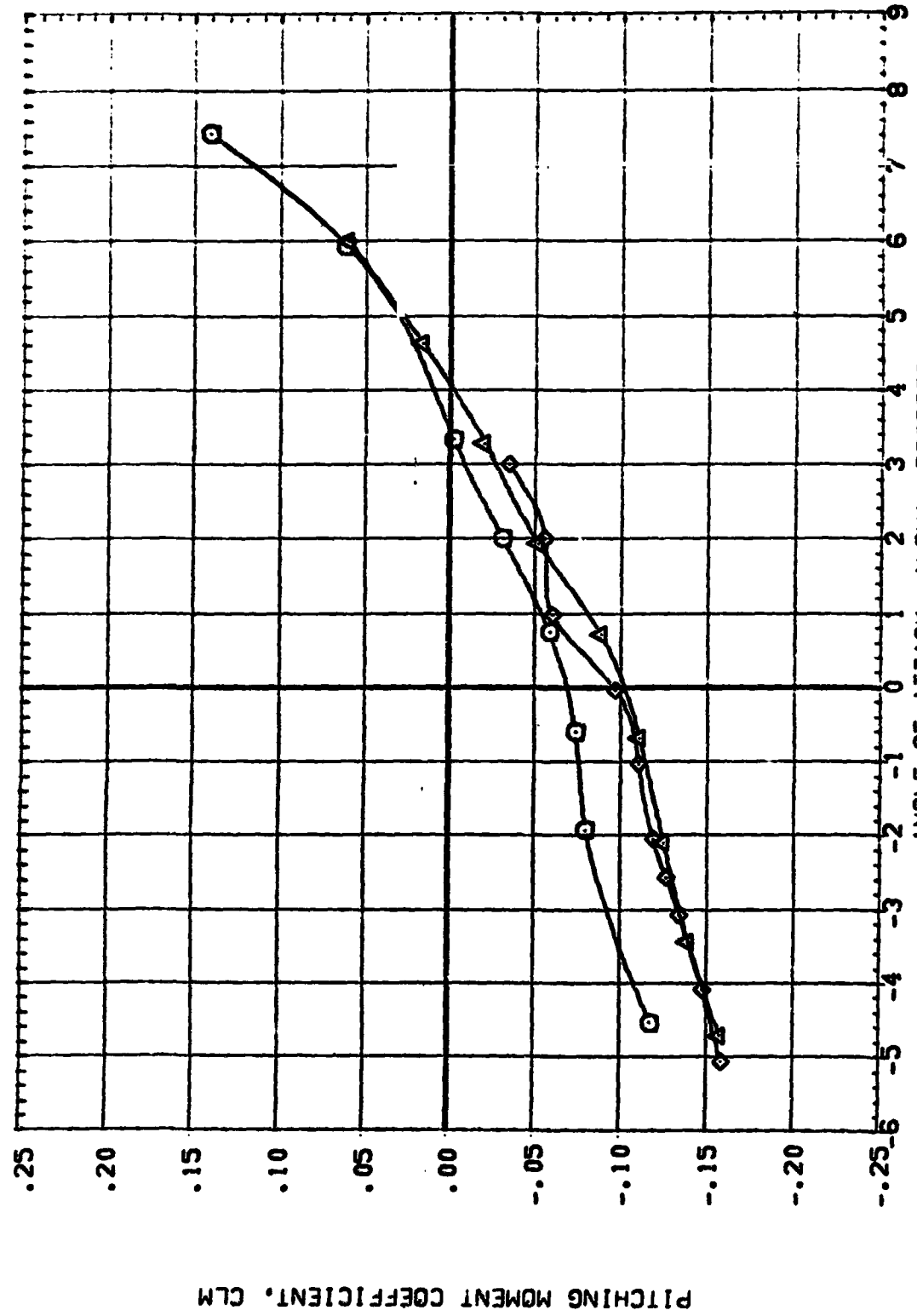


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (A) W1 P0 B
 (B) W1 P8 B
 (C) W1 P10 B

SEE THE ASSOCIATED DATA
 COLUMN FOR REFERENCE
 CHARACTERISTICS AND
 INDIVIDUAL DATA SETS

SWEEP RATIO BETA
 45.000 9.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

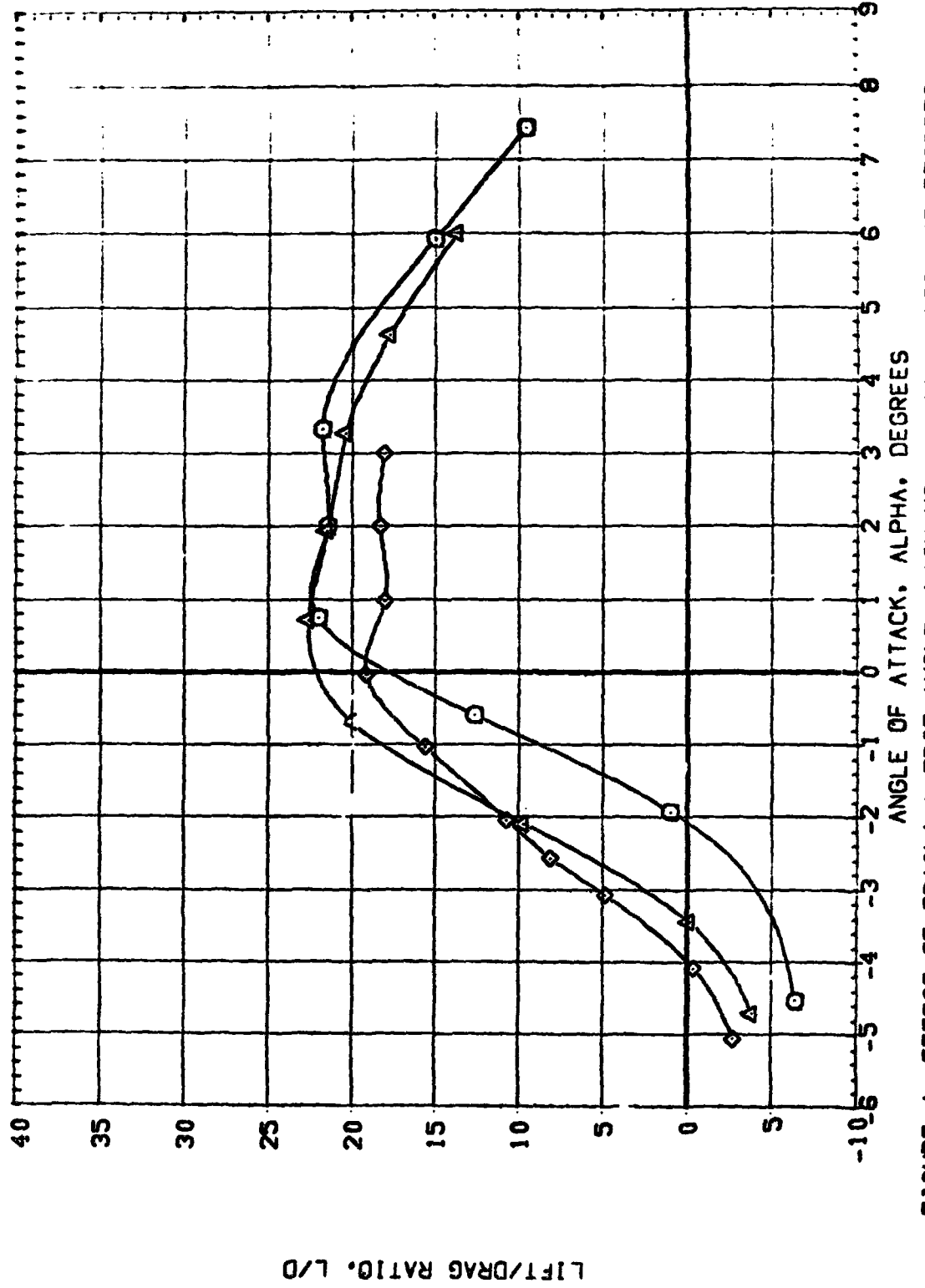


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA=45 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAF005) M1 P0 B
 (CAE057) M1 FS B
 (CAE061) M1 P10 B

SWEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

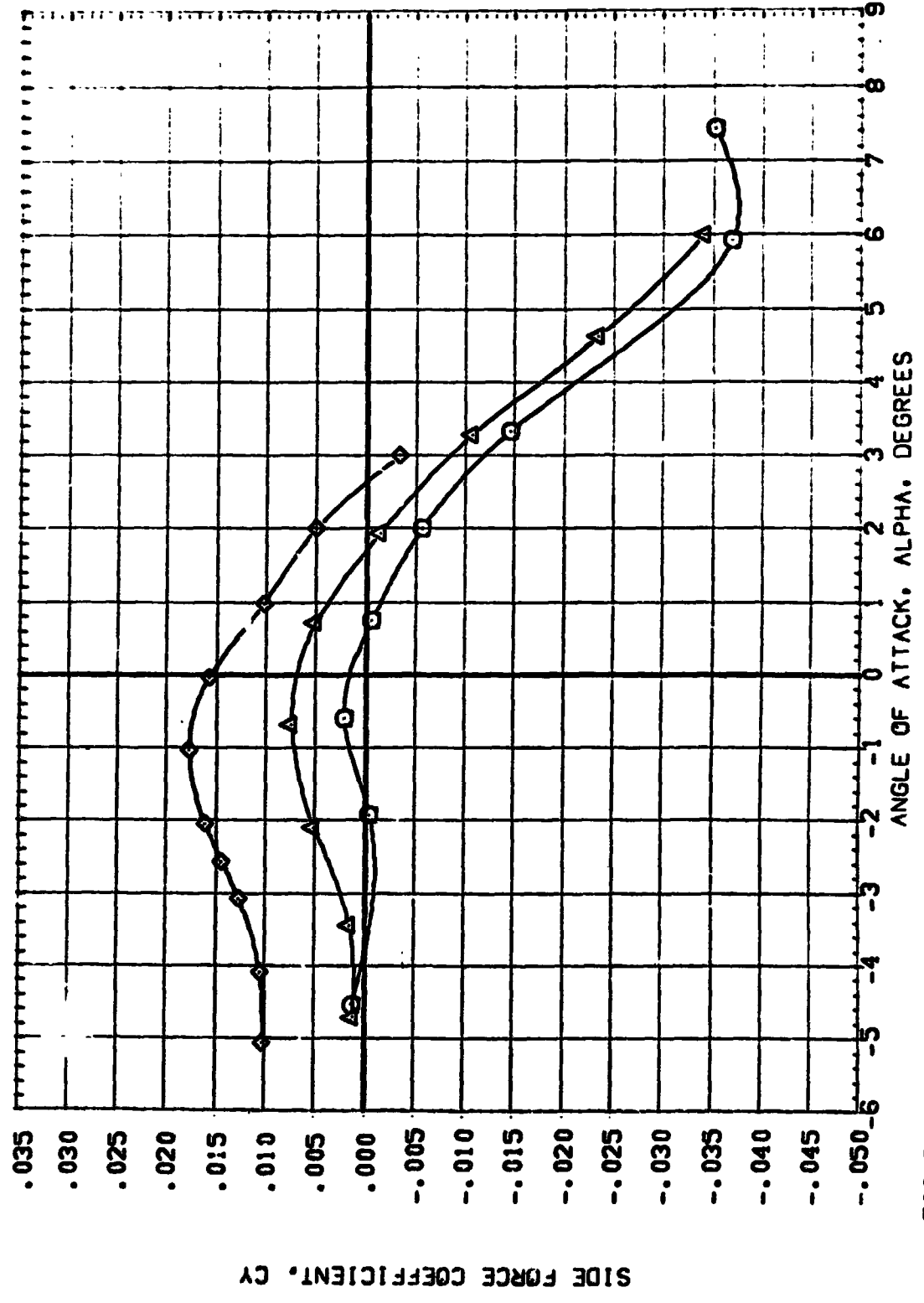


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA = 45 DEGREES
 (A) MACH = .80

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

BETA
0.000
0.000
0.000

RN/L
6.000
6.000
6.000

SWEEP
45.000
45.000
45.000

CONFIGURATION DESCRIPTION

W1 P10 B
W1 P8 B
W1 P6 B

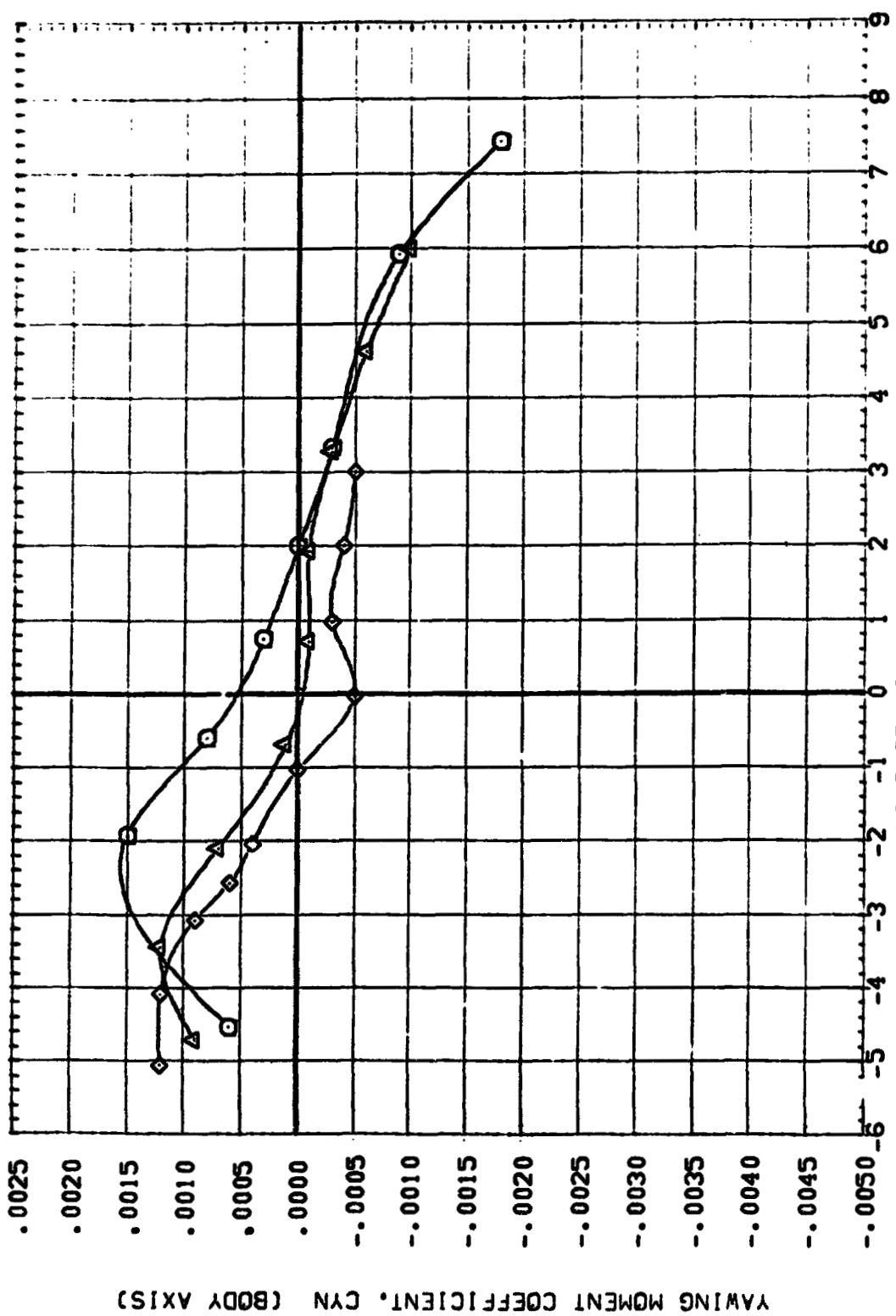


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA=45 DEGREES
(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION SWEEP RN/L BETA SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS
 (BAE005) W1 P8-B 45.000 6.000 0.000
 (CAE007) W1 P9-B 45.000 6.000 2.000
 (CAE001) W1 P10-B 45.000 6.000 0.000

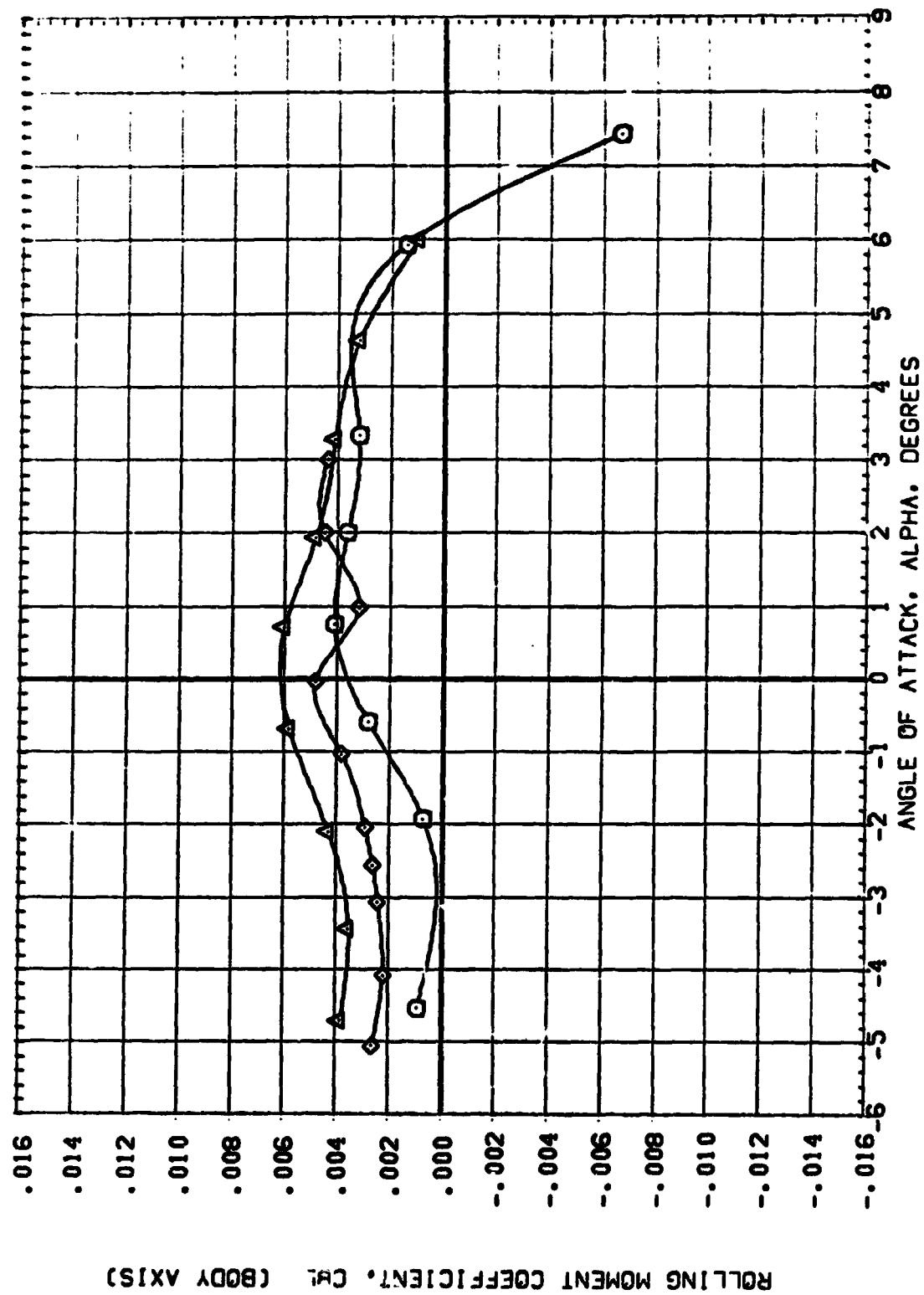


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE088) M1 P0 B
 (DAE089) M1 P5 B
 (DAE091) M1 P10 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

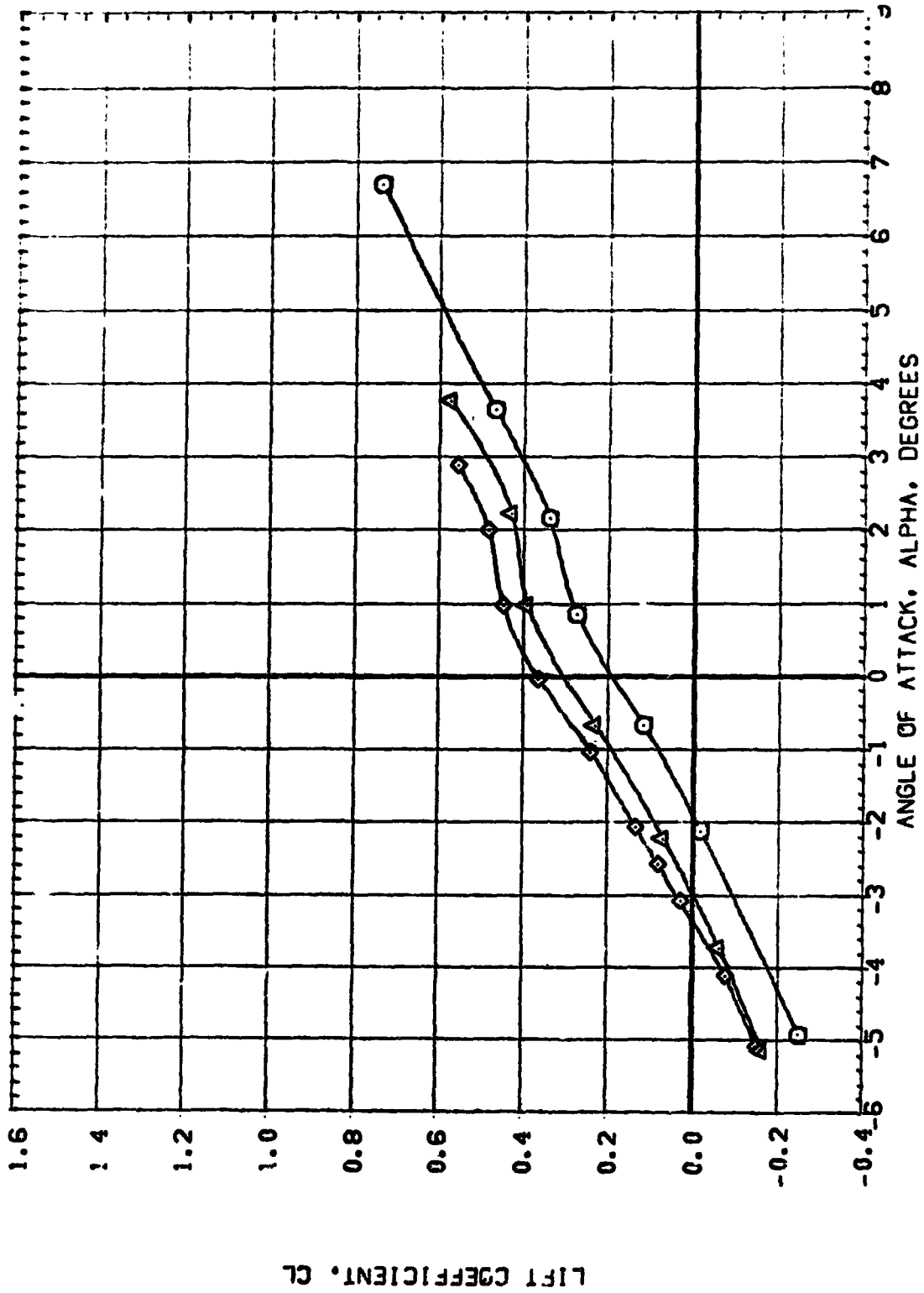


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA = 45 DEGREES
 (A) MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (045085) \square W1 P0 B
 (045087) \triangle W1 P5 B
 (045051) \diamond W1 P10 B

SWEEP RN/L BETA
 45.000 5.500 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

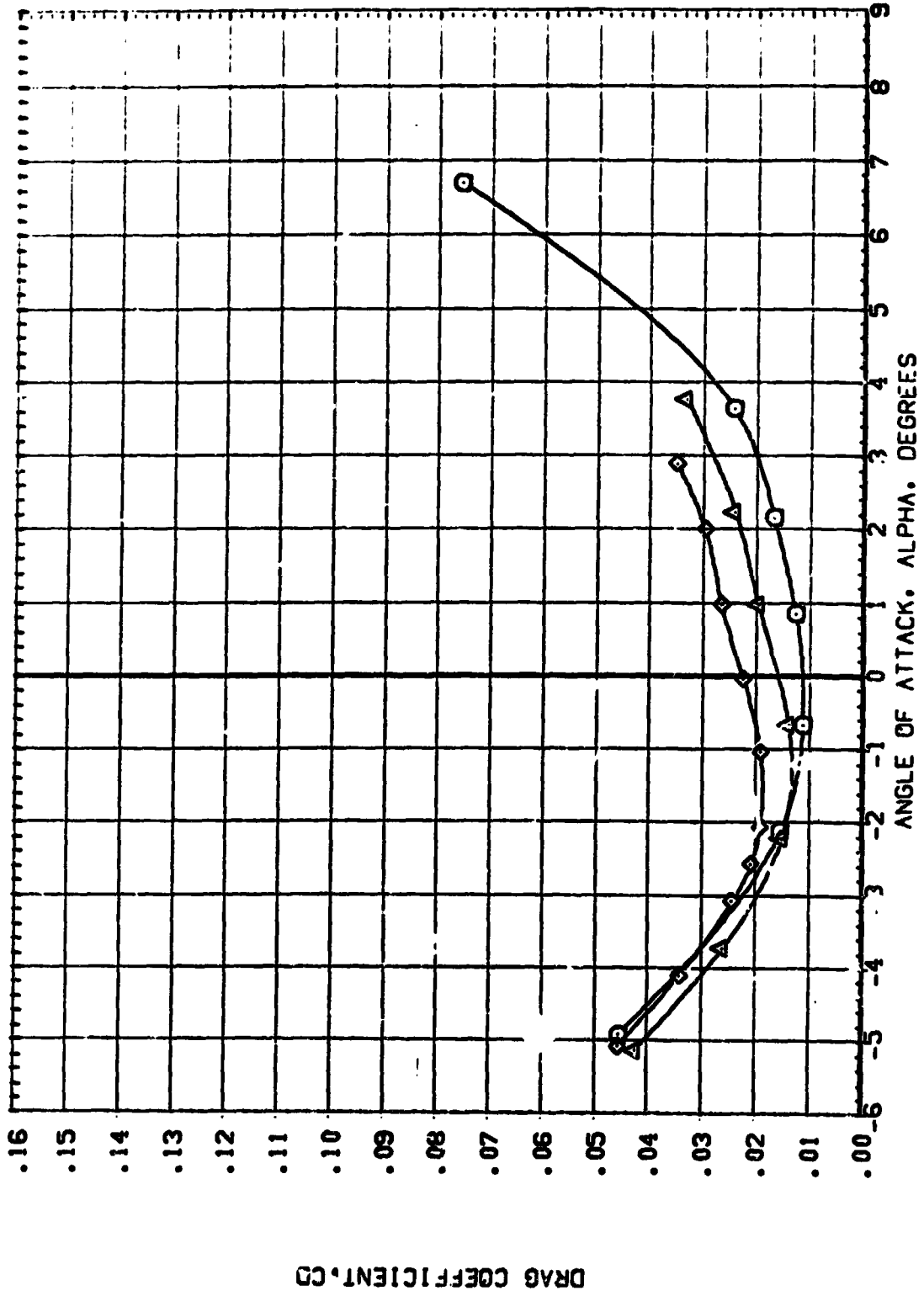


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA = 45 DEGREES

(A) MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (OAE002) M1 F10 B
 (OAE003) M1 F5 B
 (OAE004) M1 F10 B

SWEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.500 0.000
 45.000 6.000 0.100

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

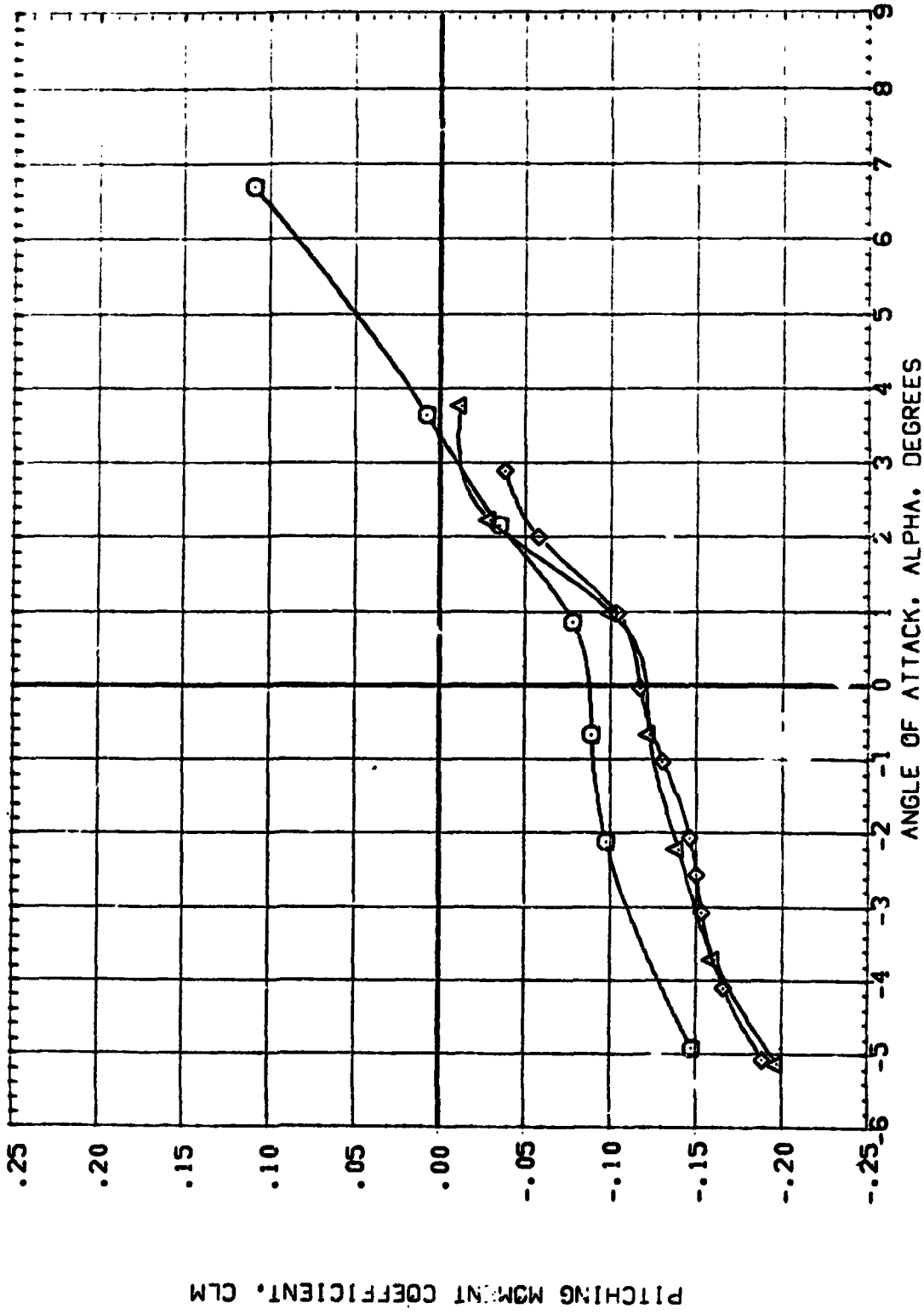


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE. MACH NO. = 0.95, LAMBDA=45 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE005) ○ W1 F0 A
 (DAE007) ◇ W1 F8 B
 (DAE011) △ W1 F10 B

SWEEP RM' BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REPEATABLE CHARACTERISTICS FOR INDIVIDUAL DATASETS

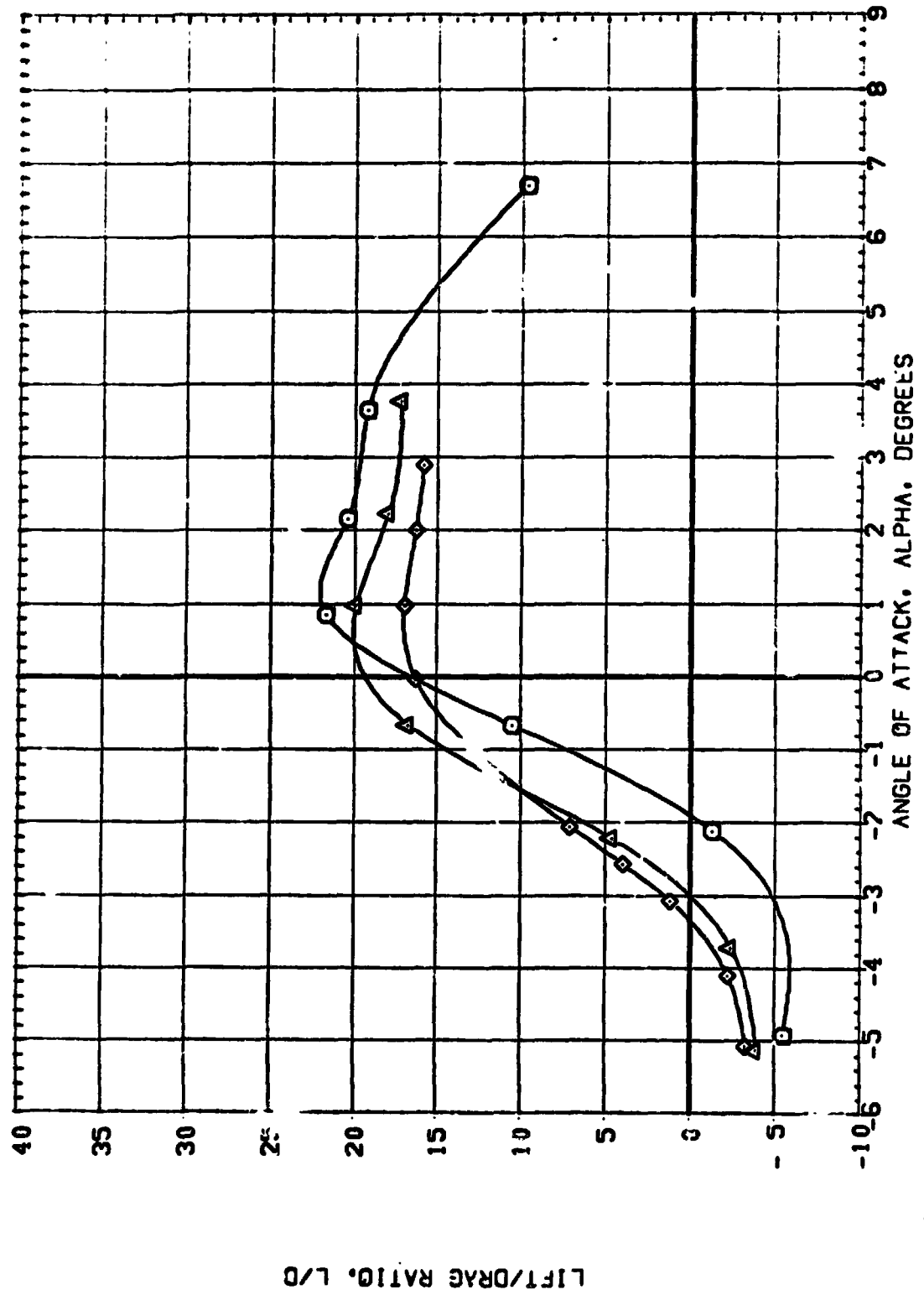


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA=45 DEGREES

(A)MACH = .95

DATA SET SYMBOL: Ω Δ \square
 (DAE001) W1 P0 B
 (DAE002) W1 P8 B
 (DAE003) W1 P10 B

CONFIGURATION DESCRIPTION
 SWEEP: 45.000, 45.000, 45.000
 RM/L: 6.000, 6.000, 6.000
 BETA: 0.000, 0.000, 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS AND INDIVIDUAL DATAPLOTS

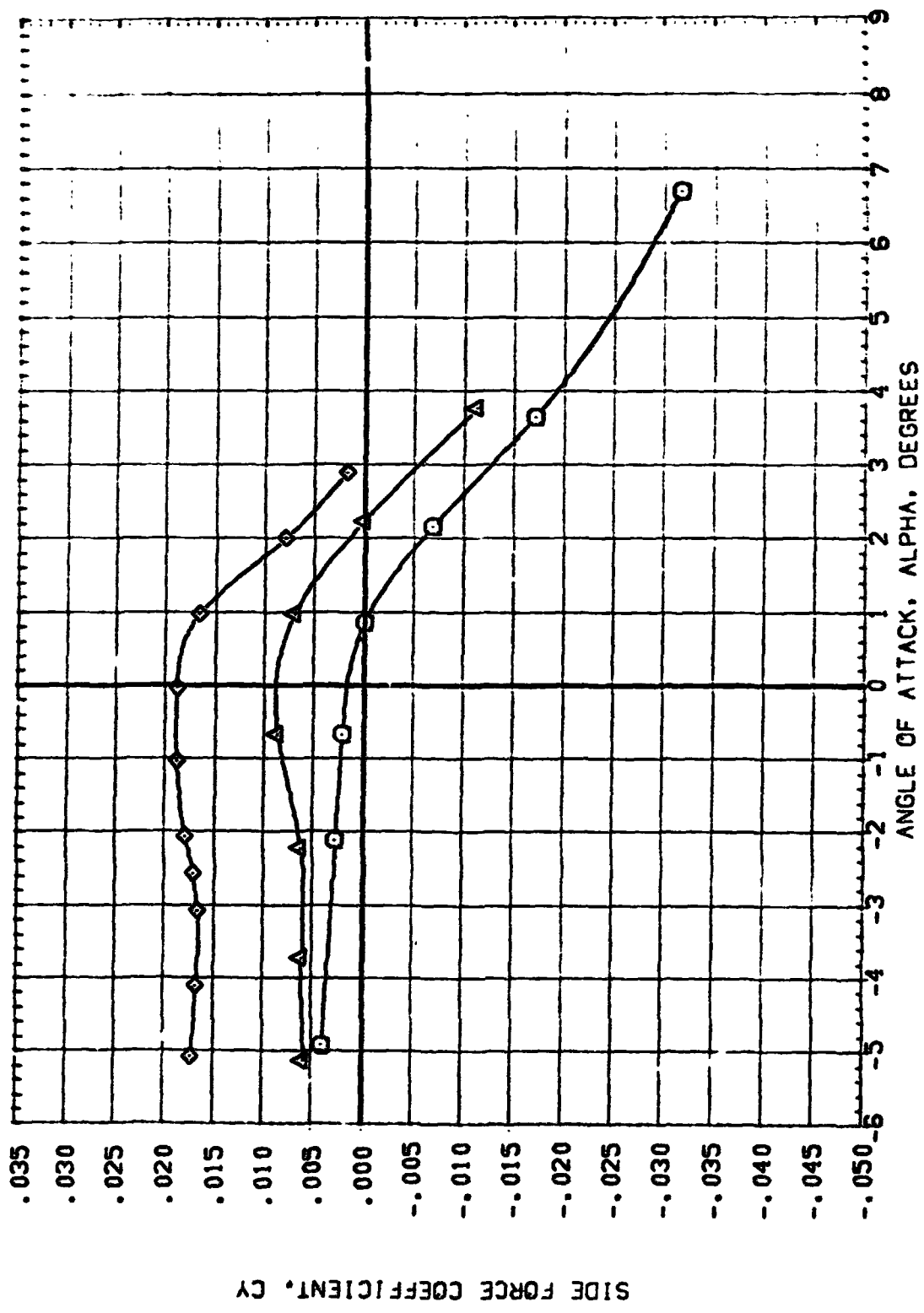


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA = 45 DEGREES
 (A) MACH = .95

C2

C2

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE000) W1 P0 B
 (DAE001) W1 P0 B
 (DAE002) W1 P0 B
 (DAE003) W1 P0 B

SWEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

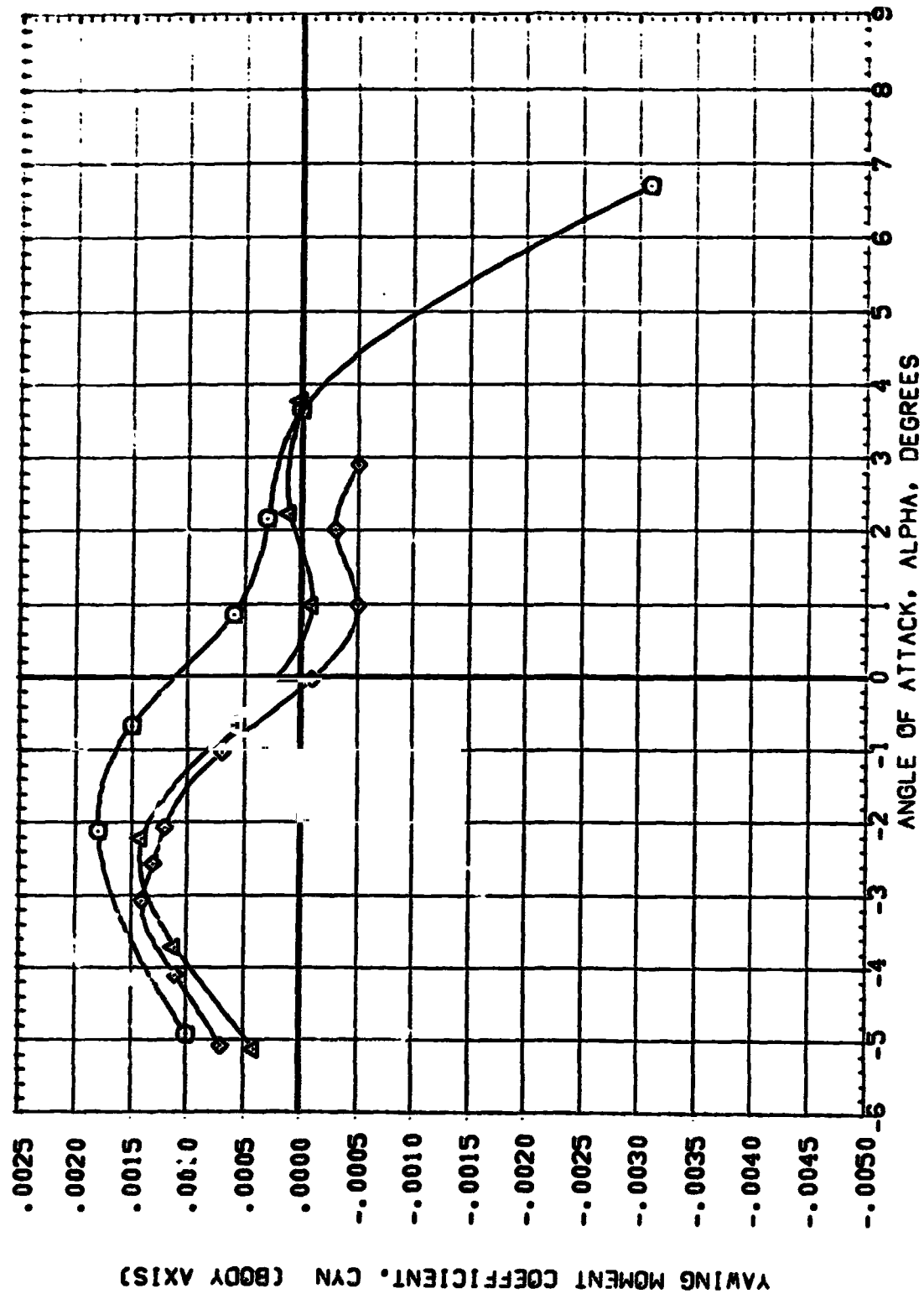


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA=45 DEGREES

(A) MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION

W1 P10 B
W1 P5 B
W1 P10 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP R/W/ BETA
45.000 6.000 0.000
45.000 6.000 0.000
45.000 6.000 0.000

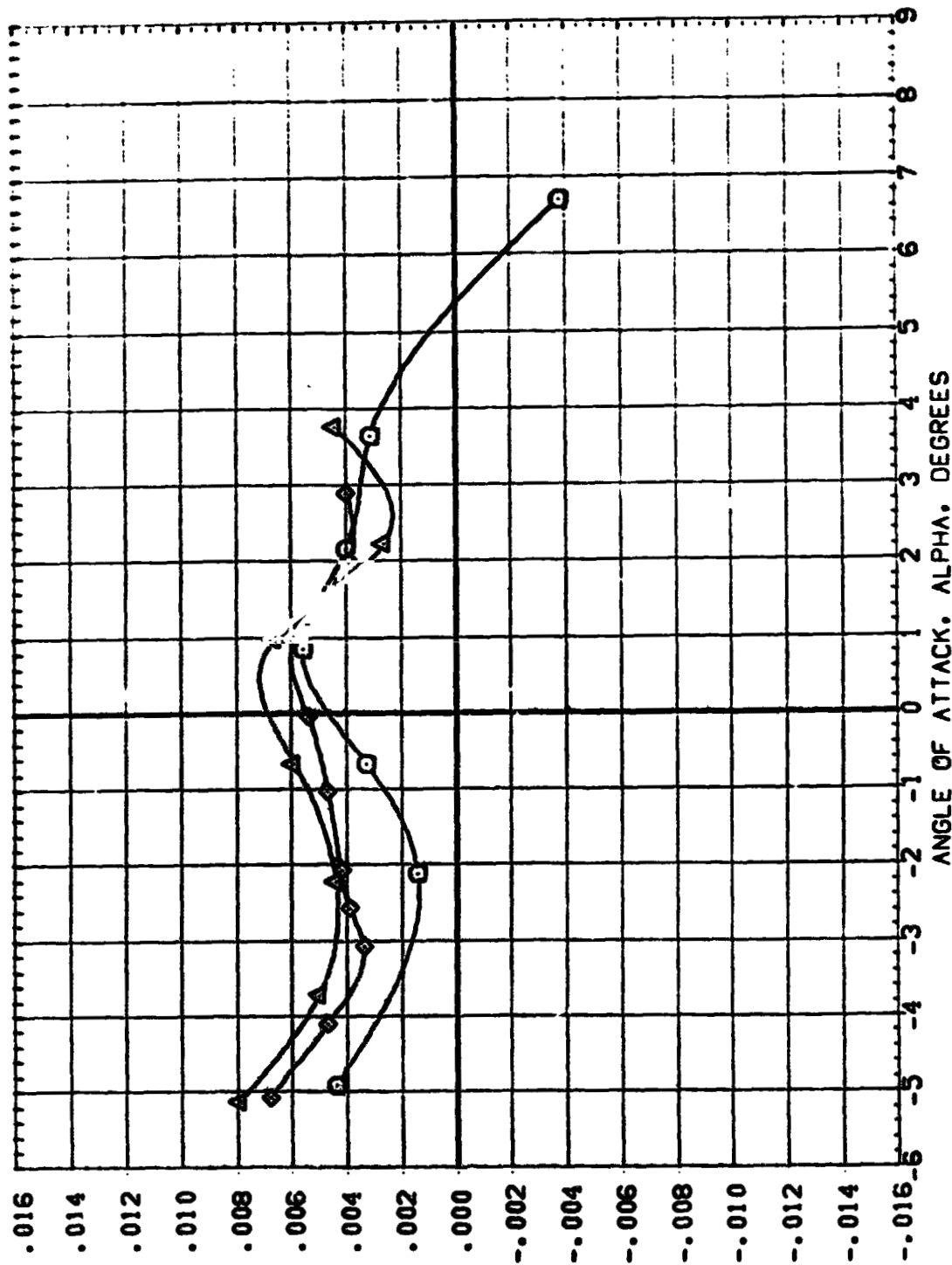


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA=45 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E48003) W1 P0 B
 (E48007) W1 P5 B
 (E48011) W1 P10 B

SWEET RNL BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

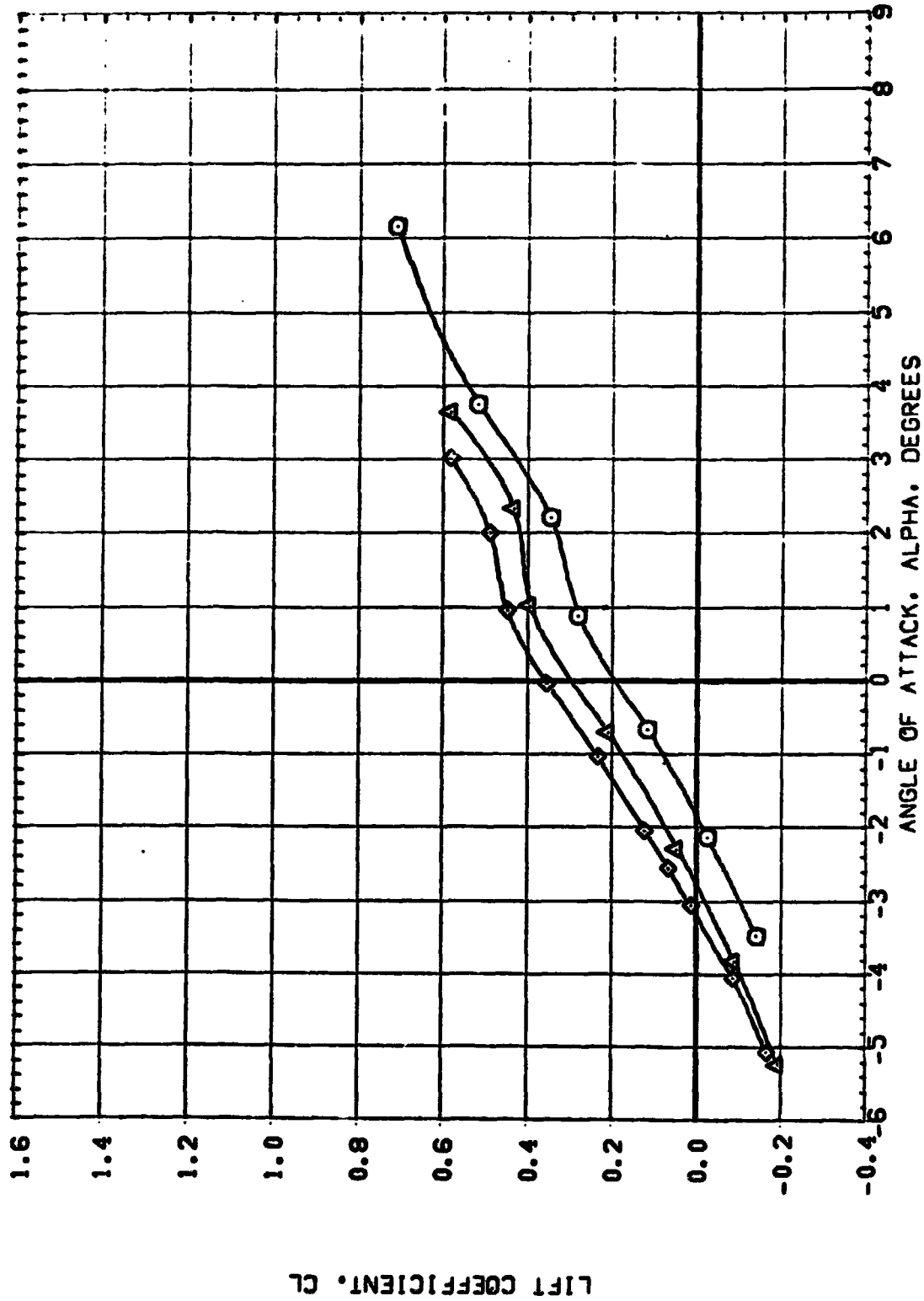


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.98, LAMBDA=45 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAC009) \square W1 F0 B
 (EAC097) \diamond W1 F5 B
 (EAC081) \triangle W1 F10 B

SWEEP R./L. BLIA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

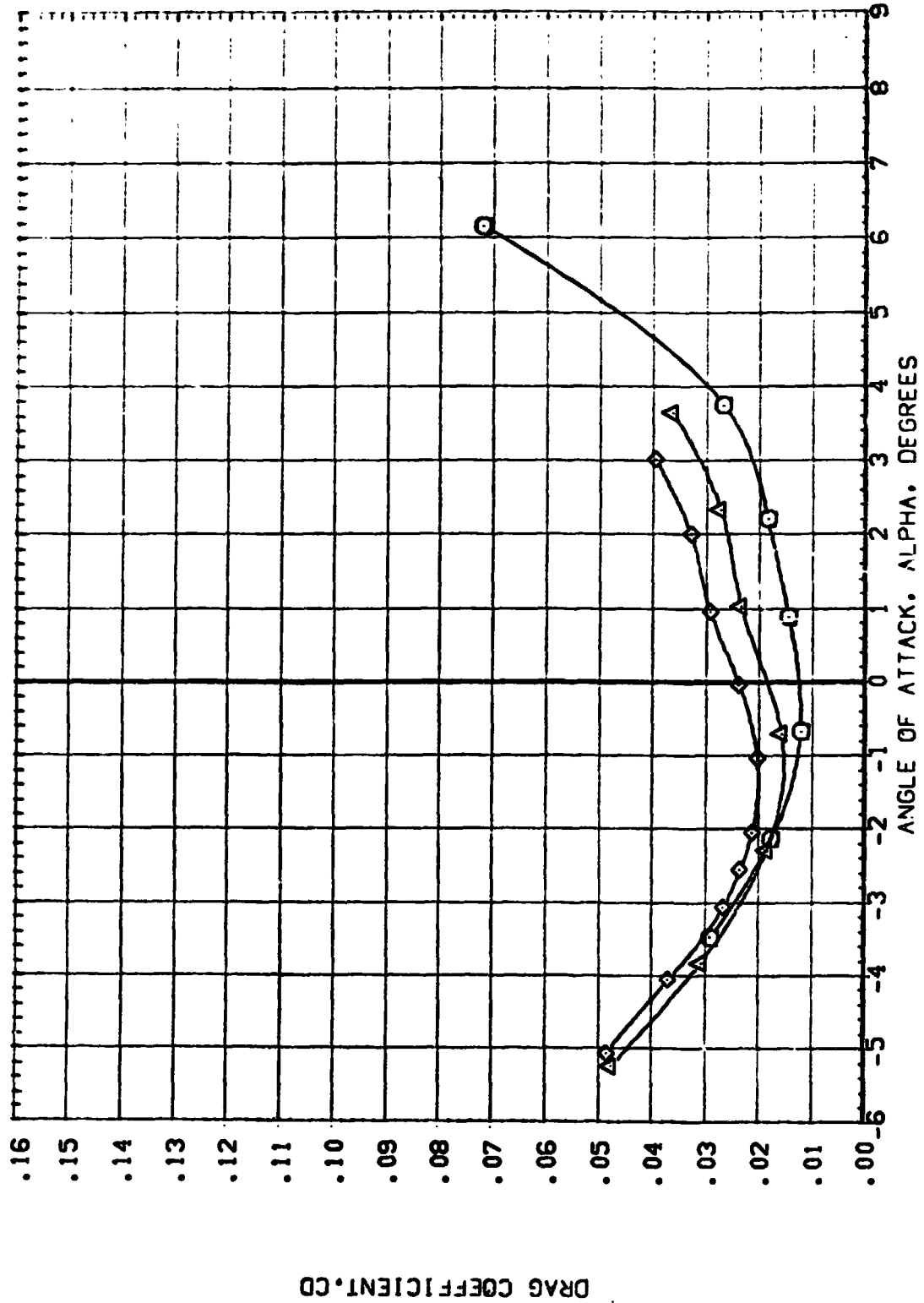


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE005) W1 F0 B
 (EAE007) W1 P5 B
 (EAE011) W1 P10 B

SWEEP RM/L BETA
 45.000 6.000 0.600
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

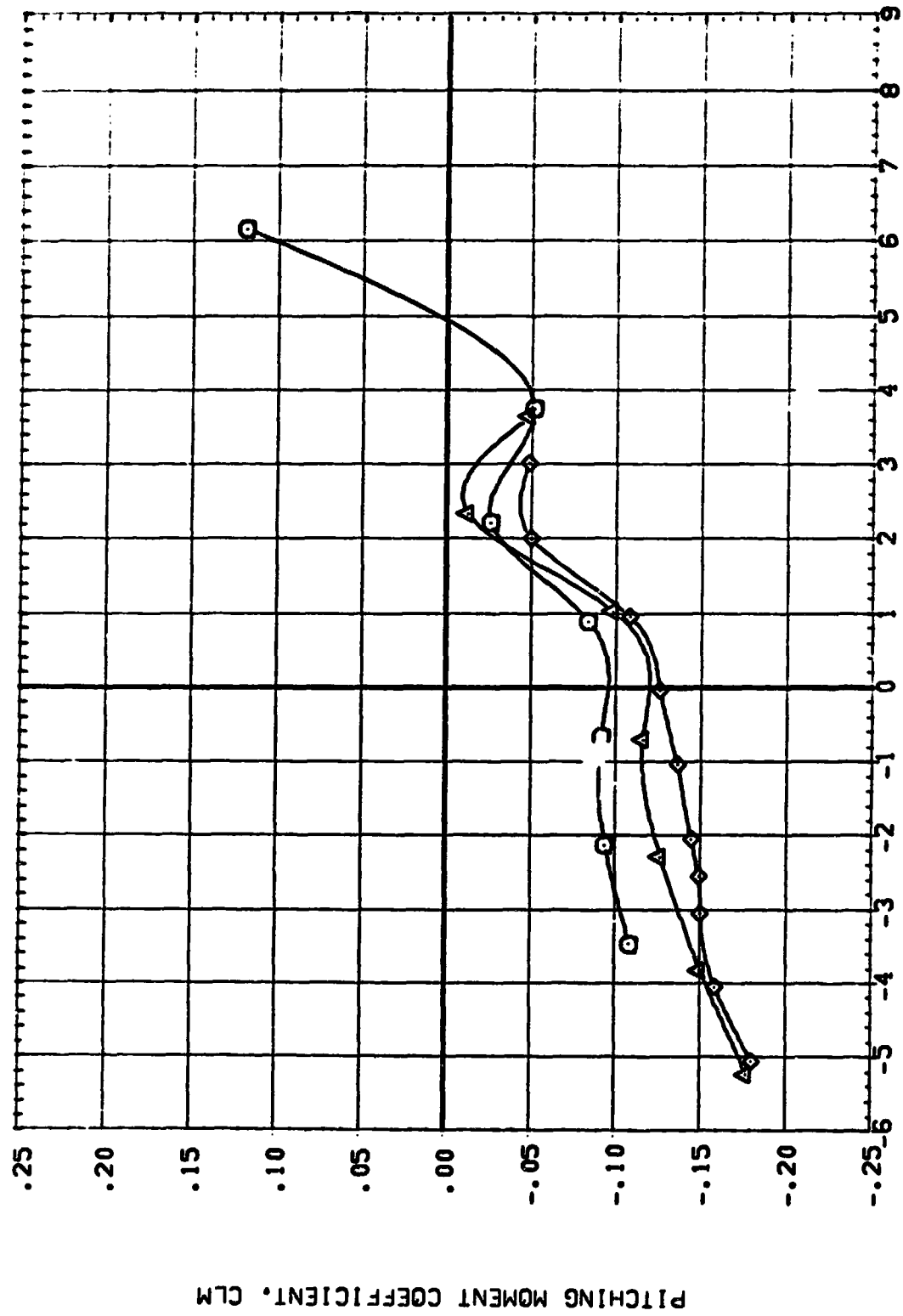


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA000) W1 P0 B
 (EA007) W1 P5 B
 (EA031) W1 P10 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 4.000
 45.000 6.000 8.000

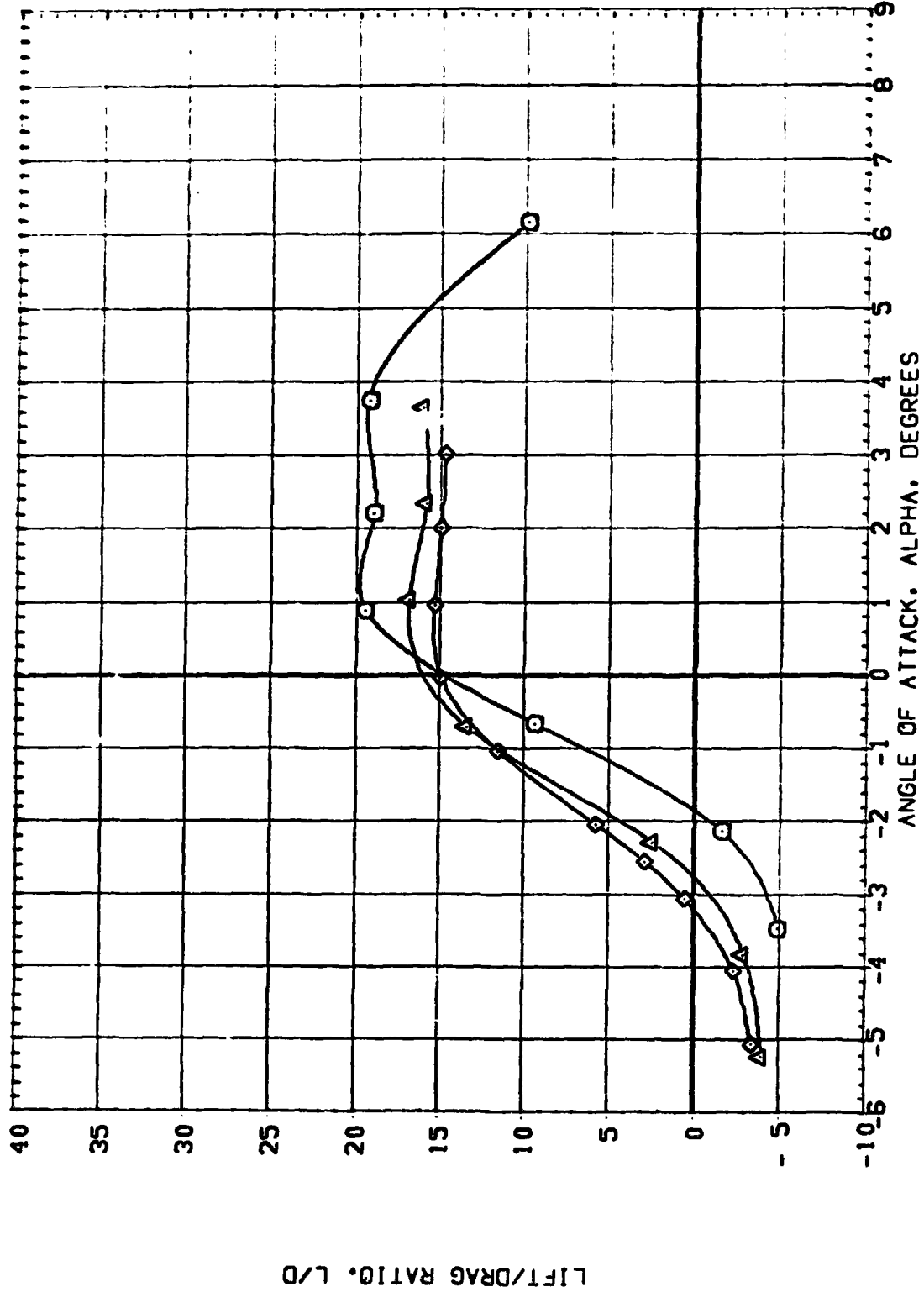


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A) MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE005) \square W1 F0 B
 (EAE007) \triangle W1 F5 B
 (EAE051) \diamond W1 F10 B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

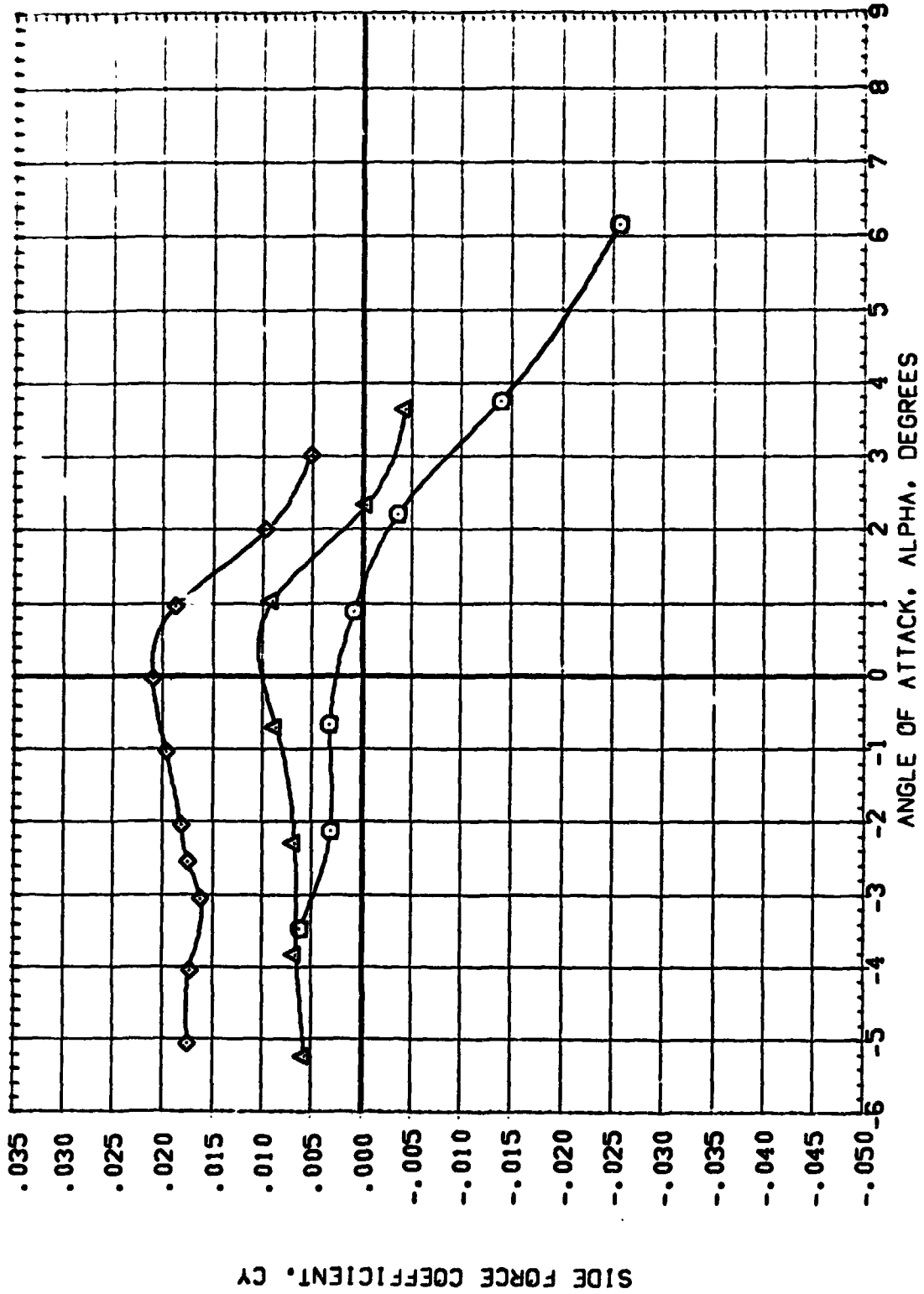


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.98, LAMBDA = 45 DEGREES

(A) MACH = .98

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SHEEP	RN/L	BETA
45.000	6.000	0.000
45.000	6.000	0.000
45.000	6.000	0.000

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(EA0001)	○	M1 P0 B
(EA0007)	△	M1 P5 B
(EA0011)	◇	M1 P10 B

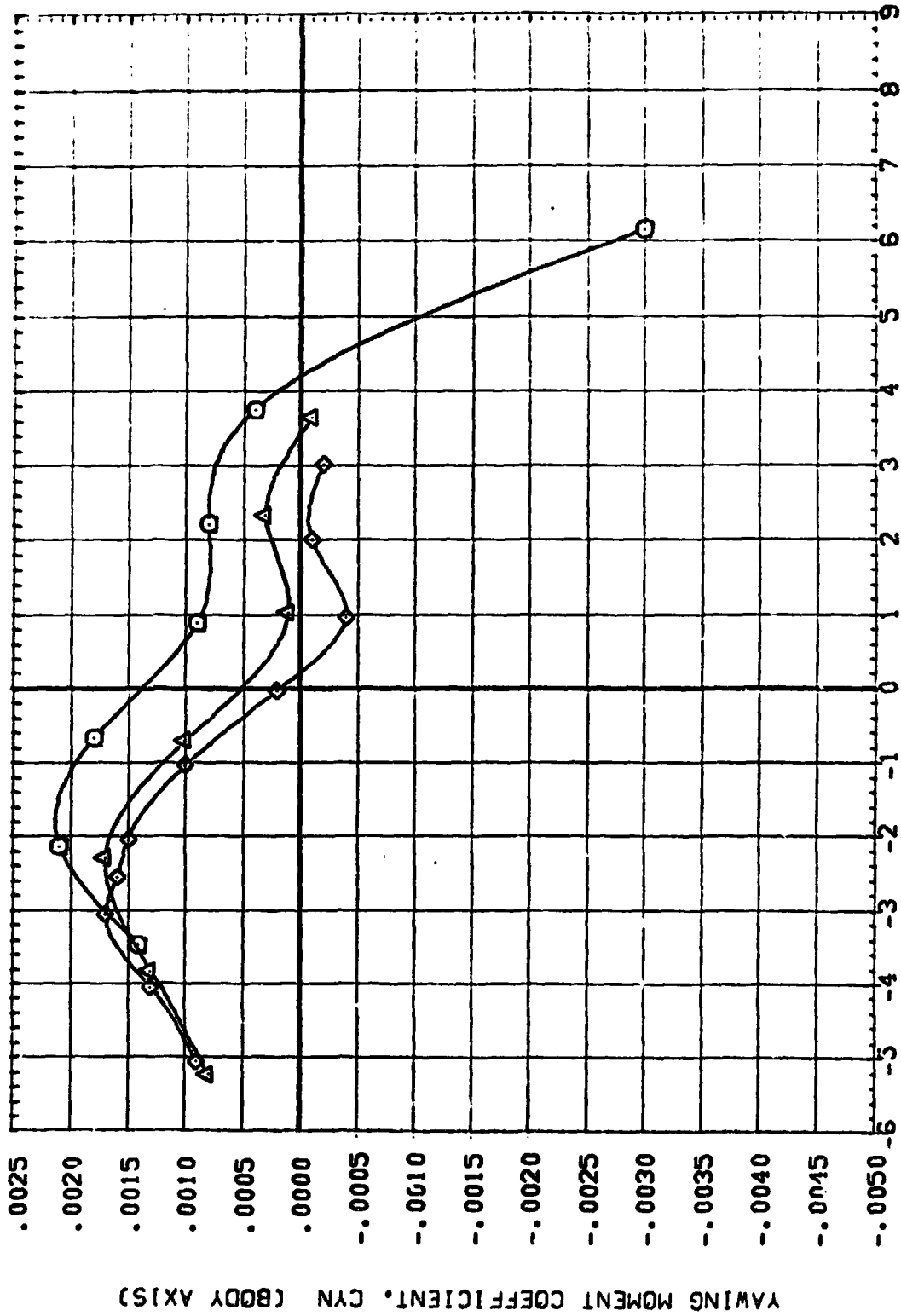


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SMEEP	RM/L	BETA
45.000	6.000	0.000
45.000	6.000	0.000
45.000	6.000	0.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(EAE085)	W1 F0 B
(EAE097)	W1 F8 B
(EAE051)	W1 F10 B

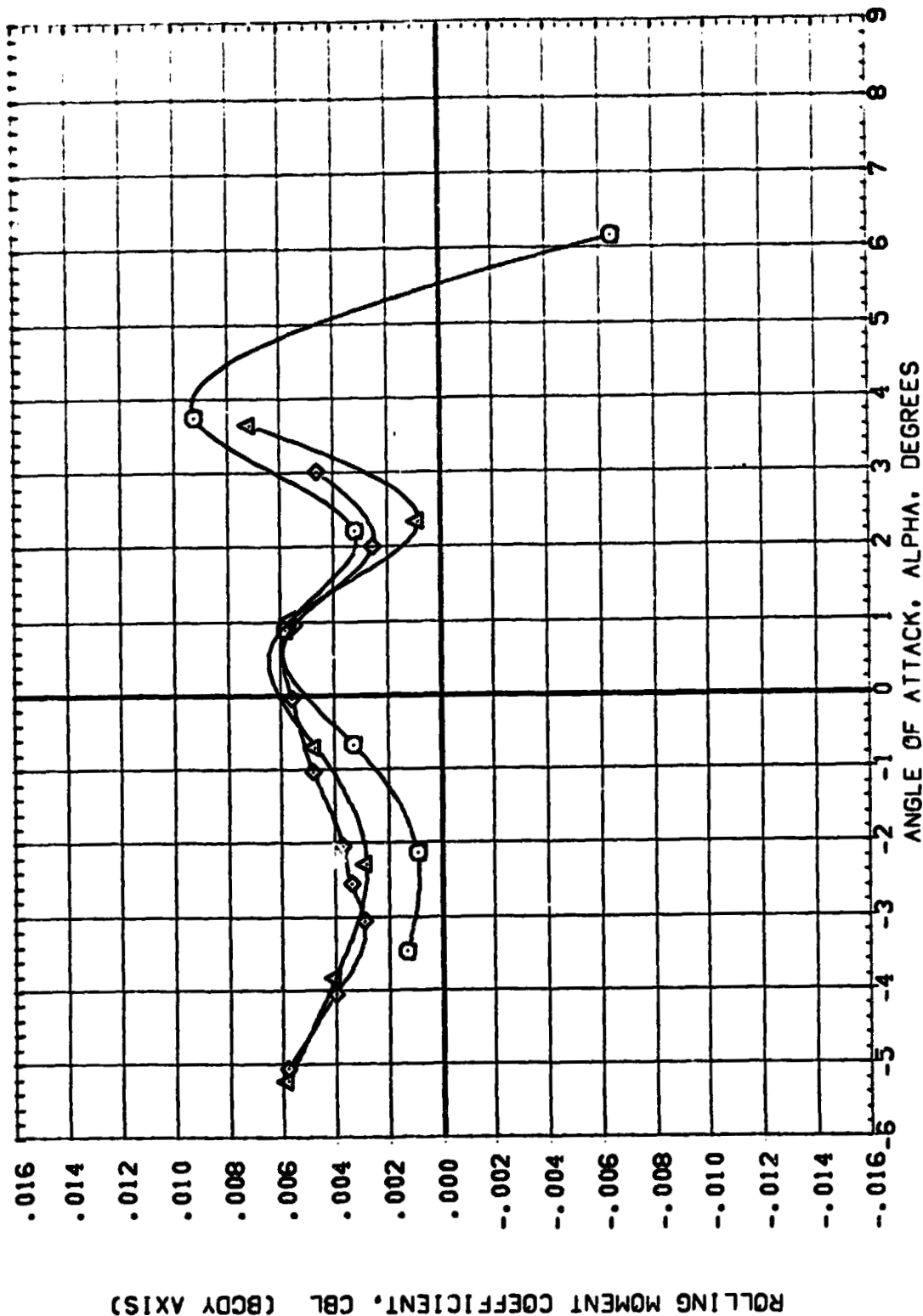


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE000) W1 F0 B
 (FAEL?) W1 F1 B
 (FAED..) W1 F10 B

SWEEP RAYL BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

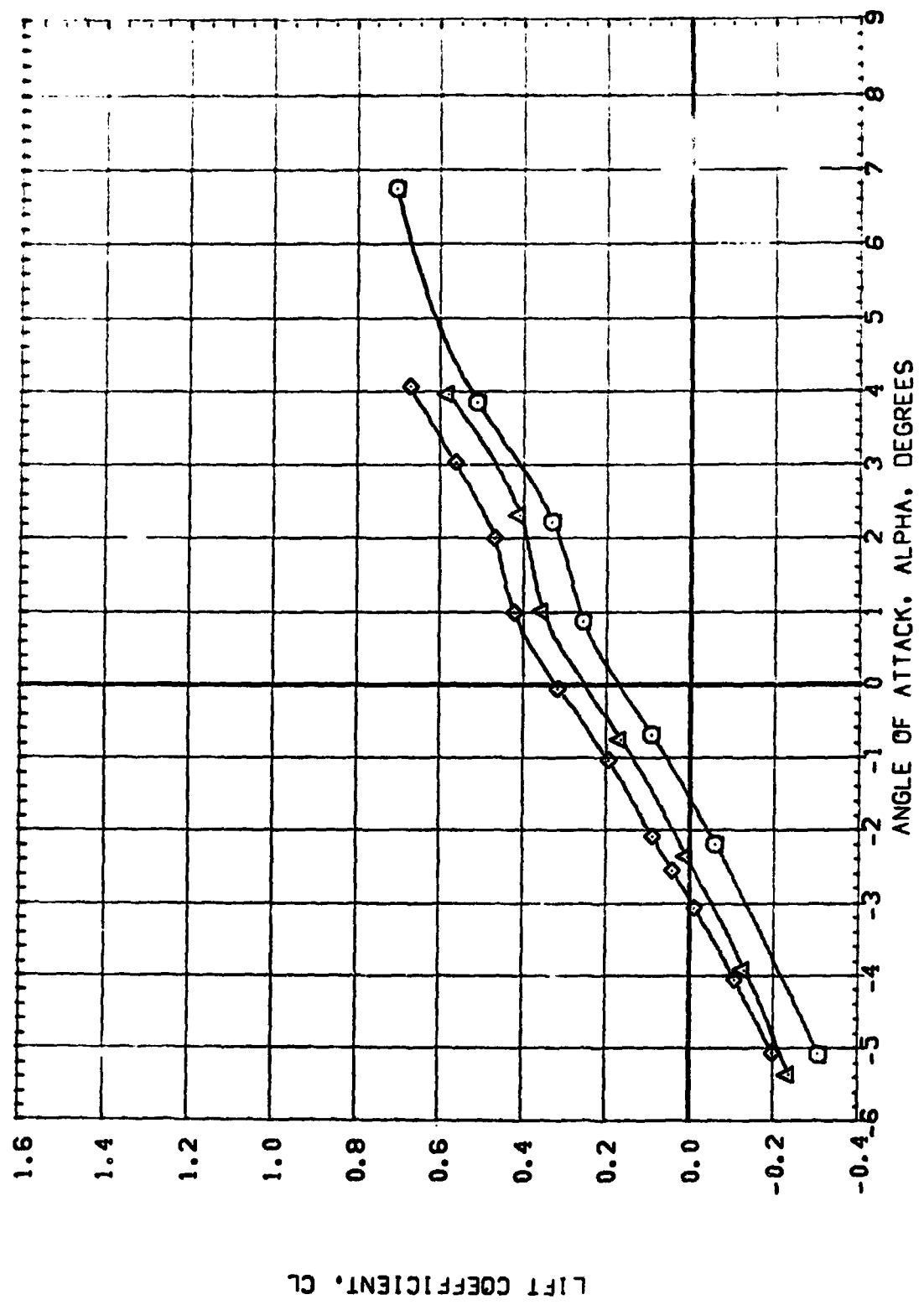


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.05, LAMBDA=45 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE005) W1 F0 B
 (FAE037) W1 F1 B
 (FAE051) W1 F10 B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

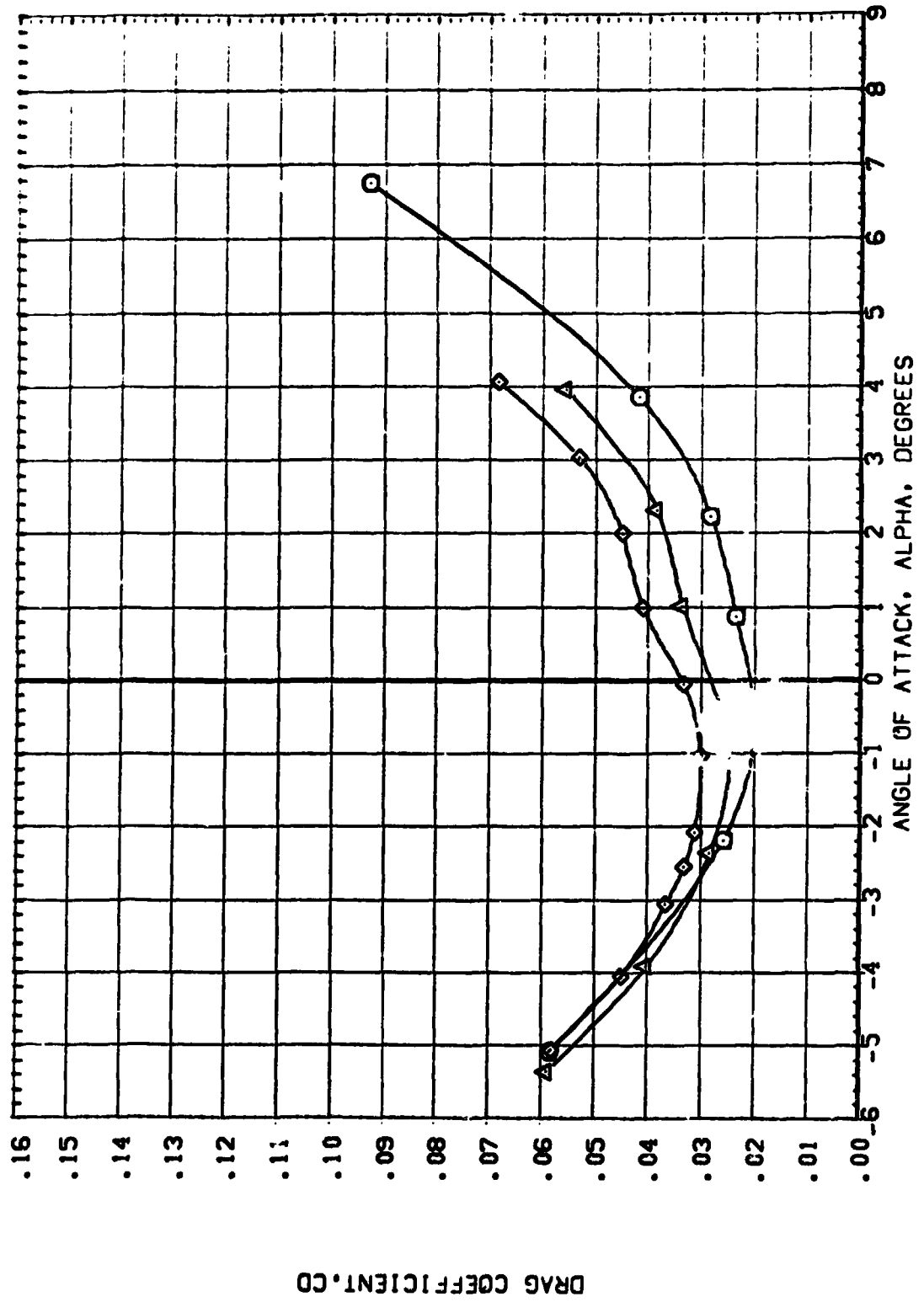


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.05, LAMBDA = 45 DEGREES

(A) MACH = 1.05

DATA S.I. SYMBOL CONFIGURATION DESCRIPTION
 (PAE005) \square W1 F0 B
 (PAE057) \triangle W1 F3 B
 (PAE051) \diamond W1 F10 B

SWEET R/V/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.500
 45.000 6.000 0.000

SEE THE CALCULATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

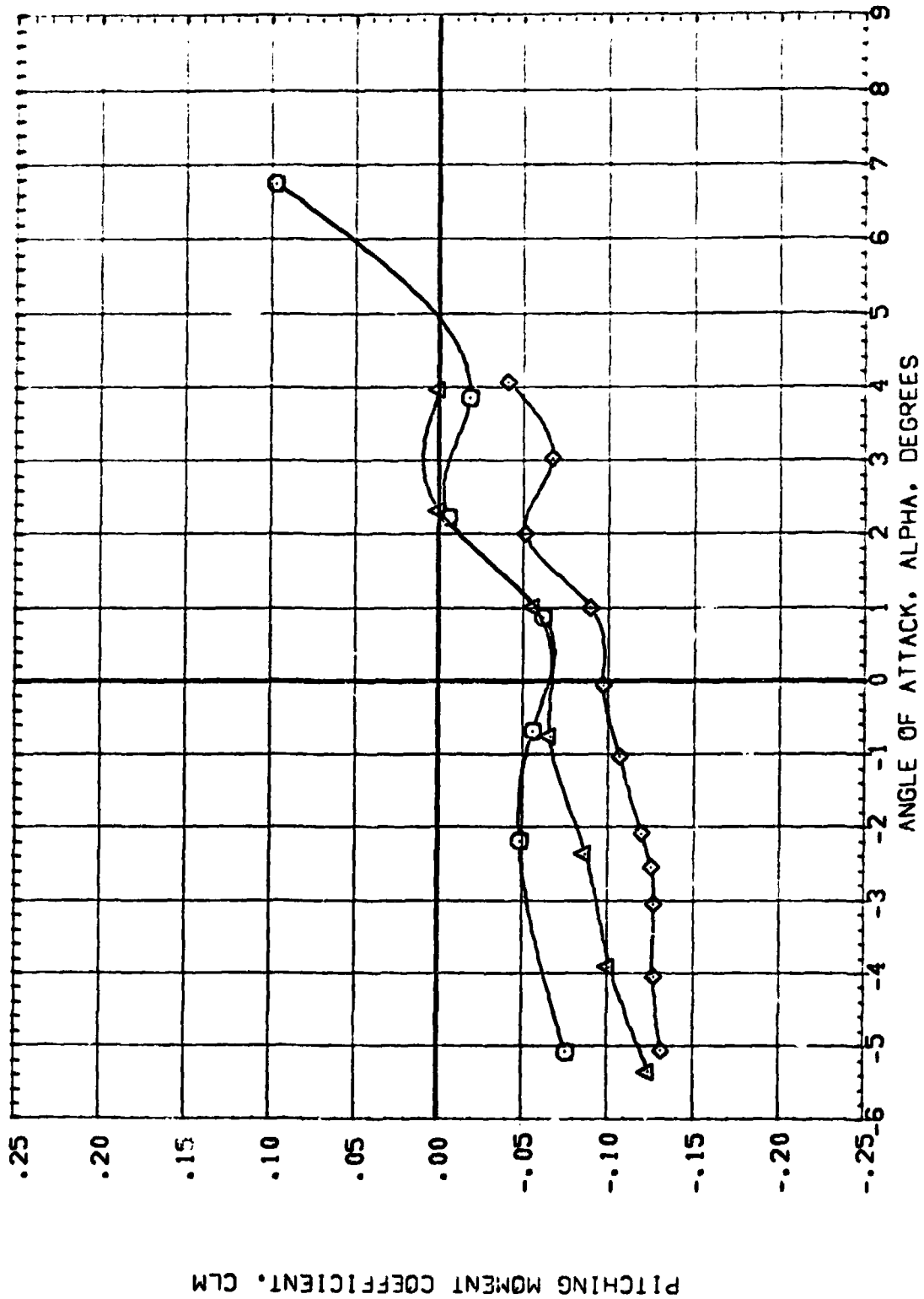


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.05, LAMBDA=45 DEGREES
 (MACH = 1.05) PAGE 80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 T-4E005 W1 F0 B
 (FAE057) W1 F5 B
 (FAE051) W1 F10 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RN/L BETA
 45.000 0.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

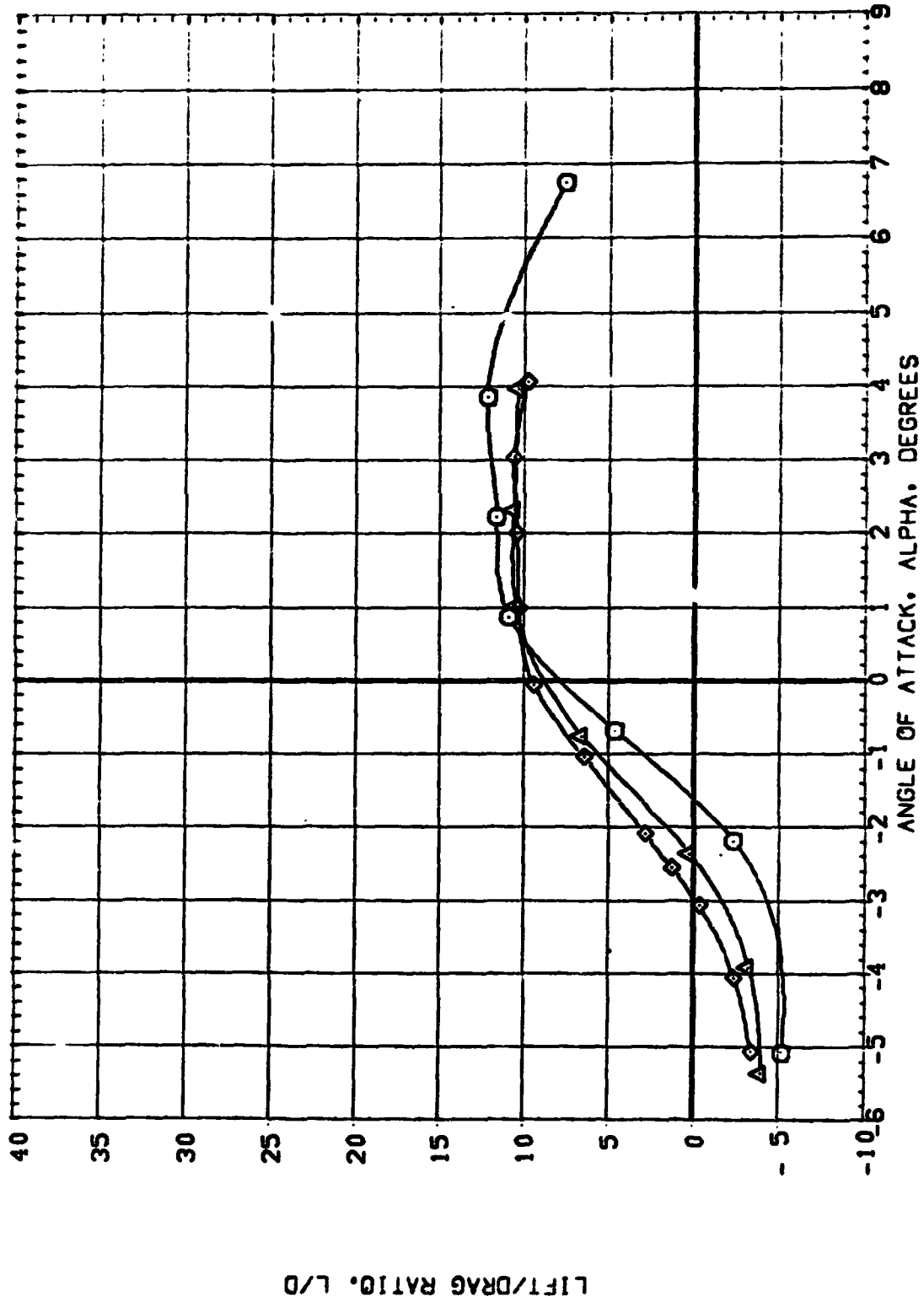


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.05, LAMBDA=45 DEGREES
 (A)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 W1 P0 8
 W1 P8 8
 W1 P10 8

SWEET RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

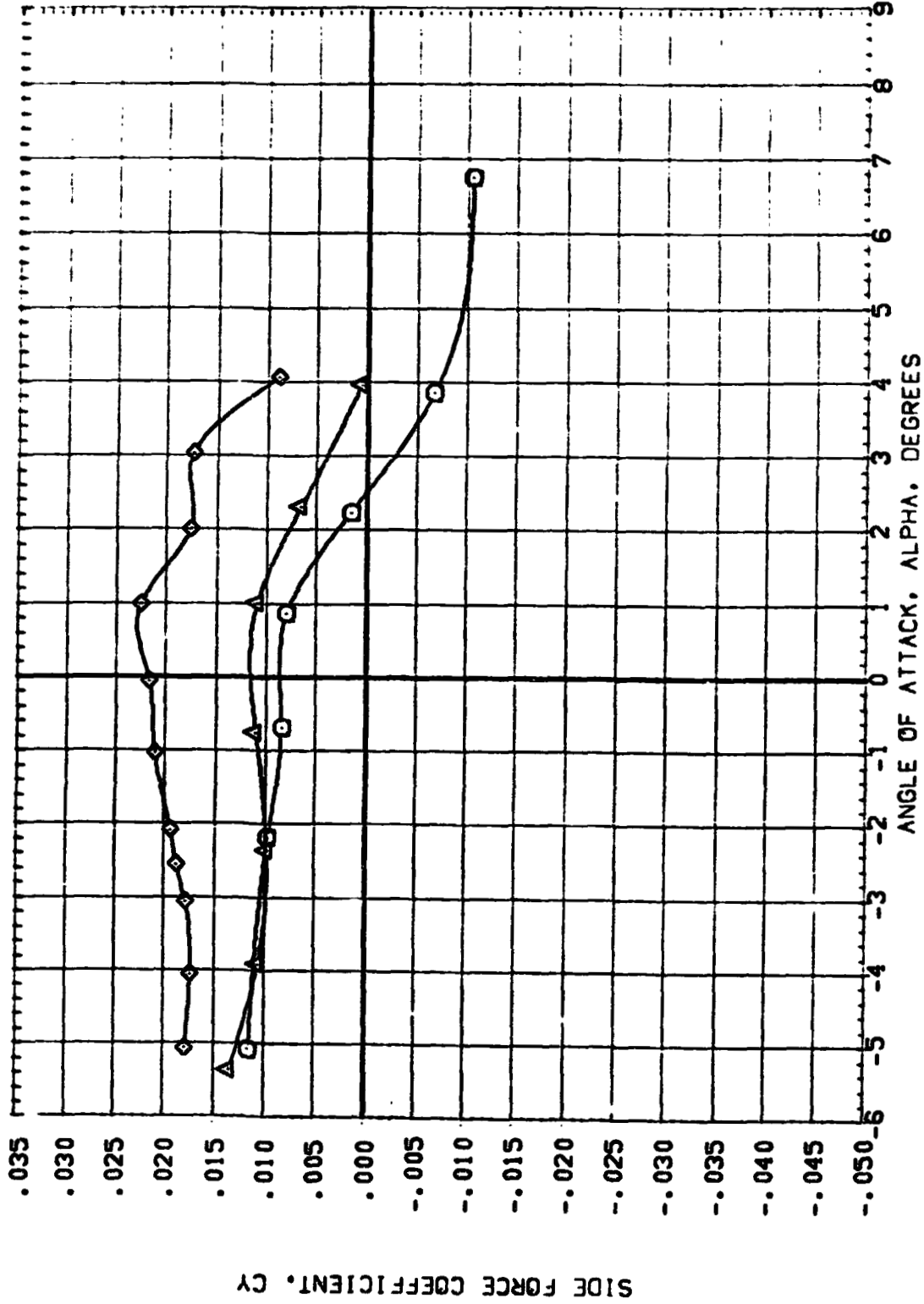


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.05, LAMBDA=45 DEGREES

(A) MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE008) W1 P0 B
 (PAE007) W1 P5 B
 (PAE055) W1 P10 B

SWEEP RM/L BETA.
 48.000 6.000 0.000
 48.000 6.000 0.000
 48.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

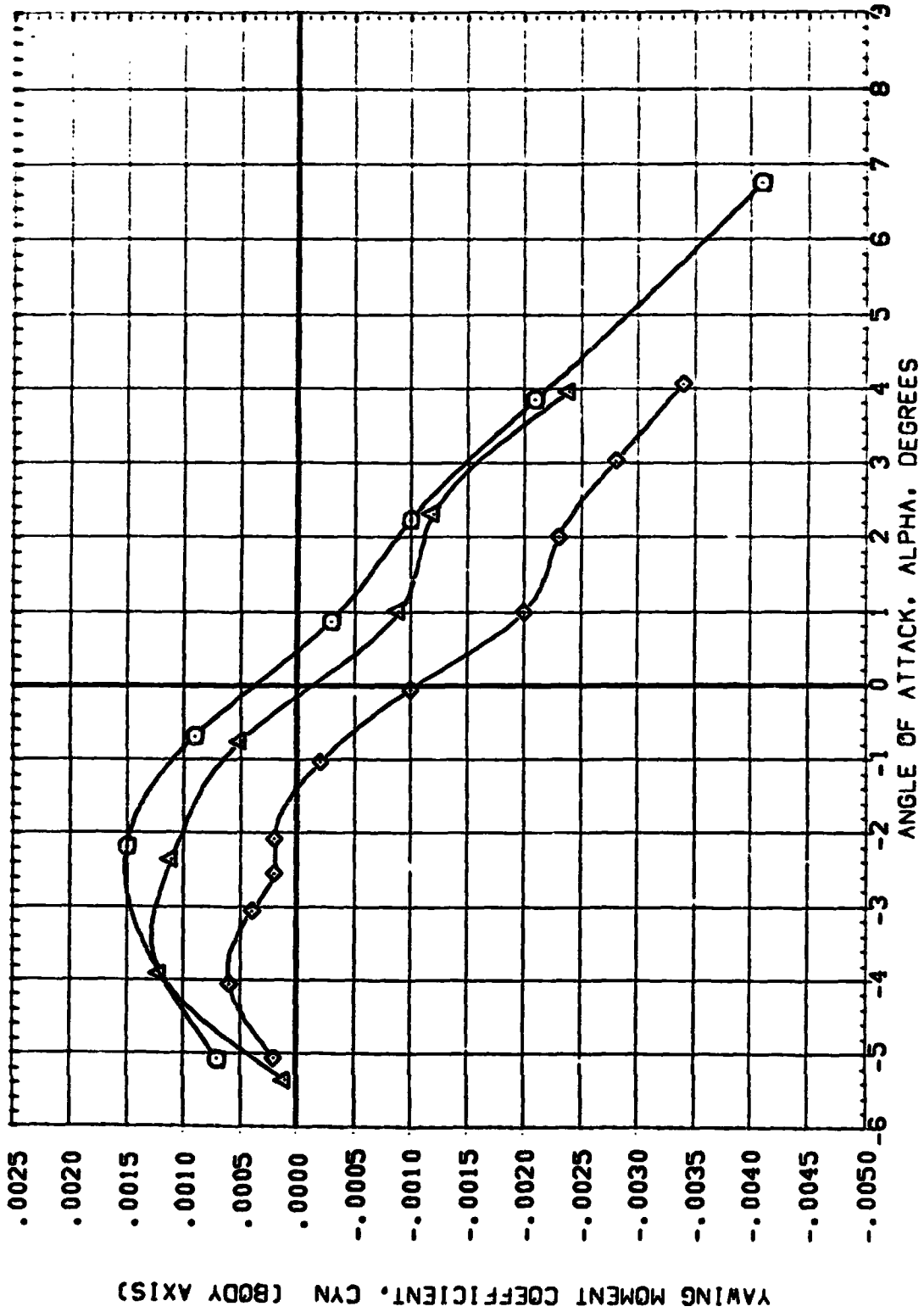


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.05, LAMBDA = 45 DEGREES

(A) MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE001) W1 P0 B
 (PAE007) W1 P1 B
 (PAE011) W1 P10 B

SWEEP RVAL BETA
 45.000 6.000 0.000
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

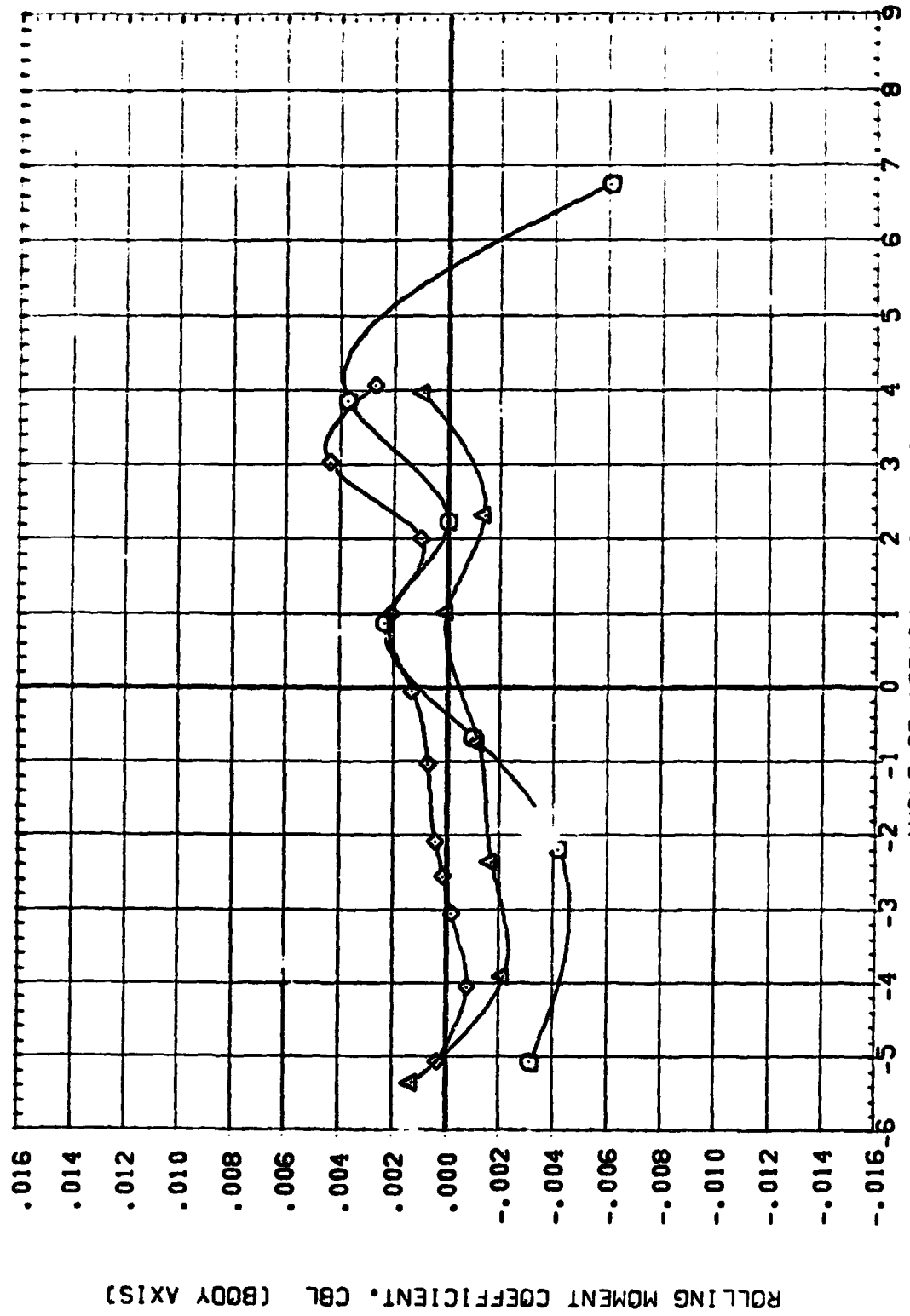


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.05, LAMBDA=45 DEGREES

(A)MACH = 1.05

DATA SET SYMBOL COMBINATION DESCRIPTION
 (1A012) Ω W1 P0 B
 (B.EDD9) W1 P5 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

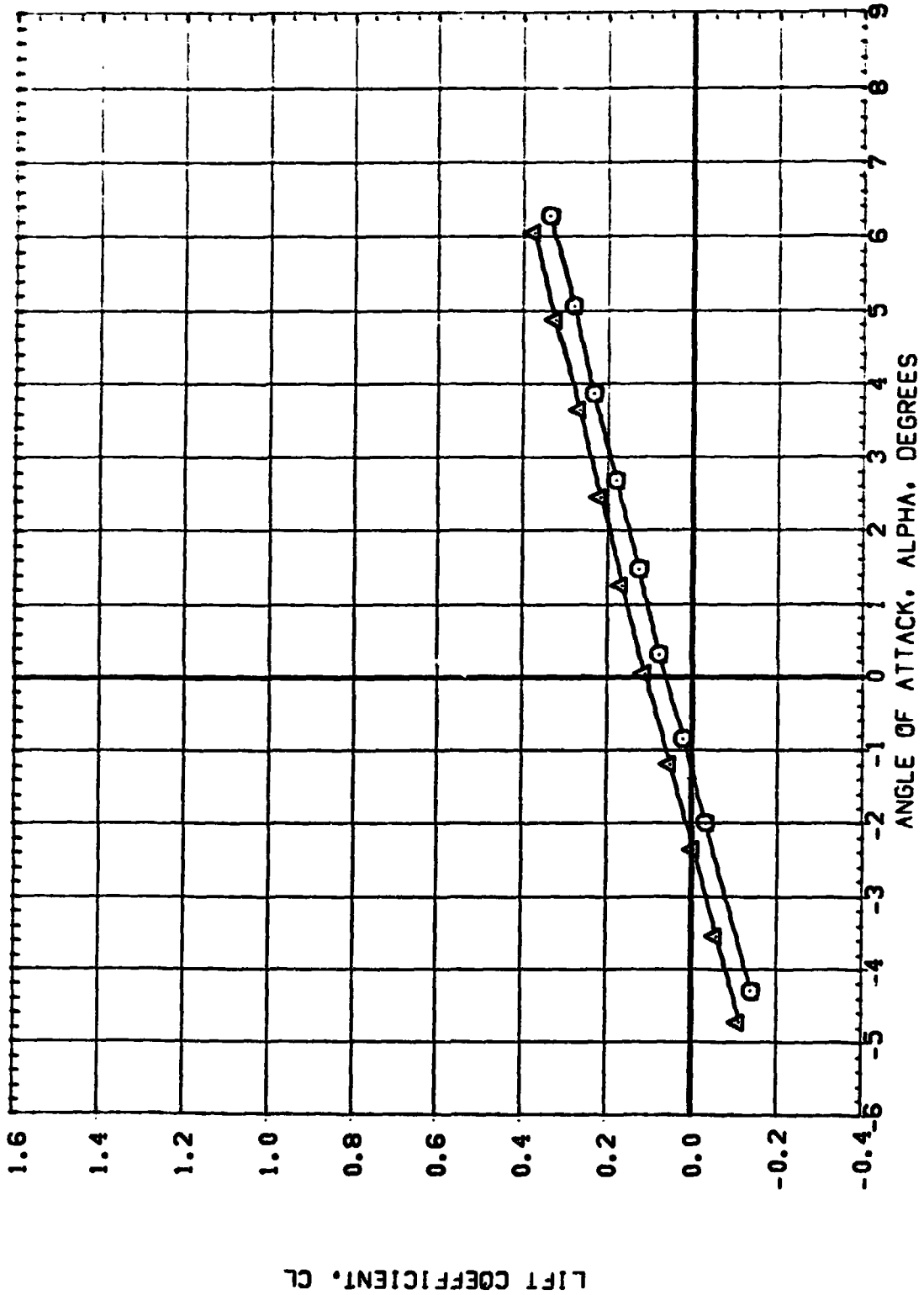


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA = 60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE012) Ω W1 F0 B
 (BAE059) W1 F5 B

SWEEP RM/L BETA
 60.000 6.000 0.400
 80.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

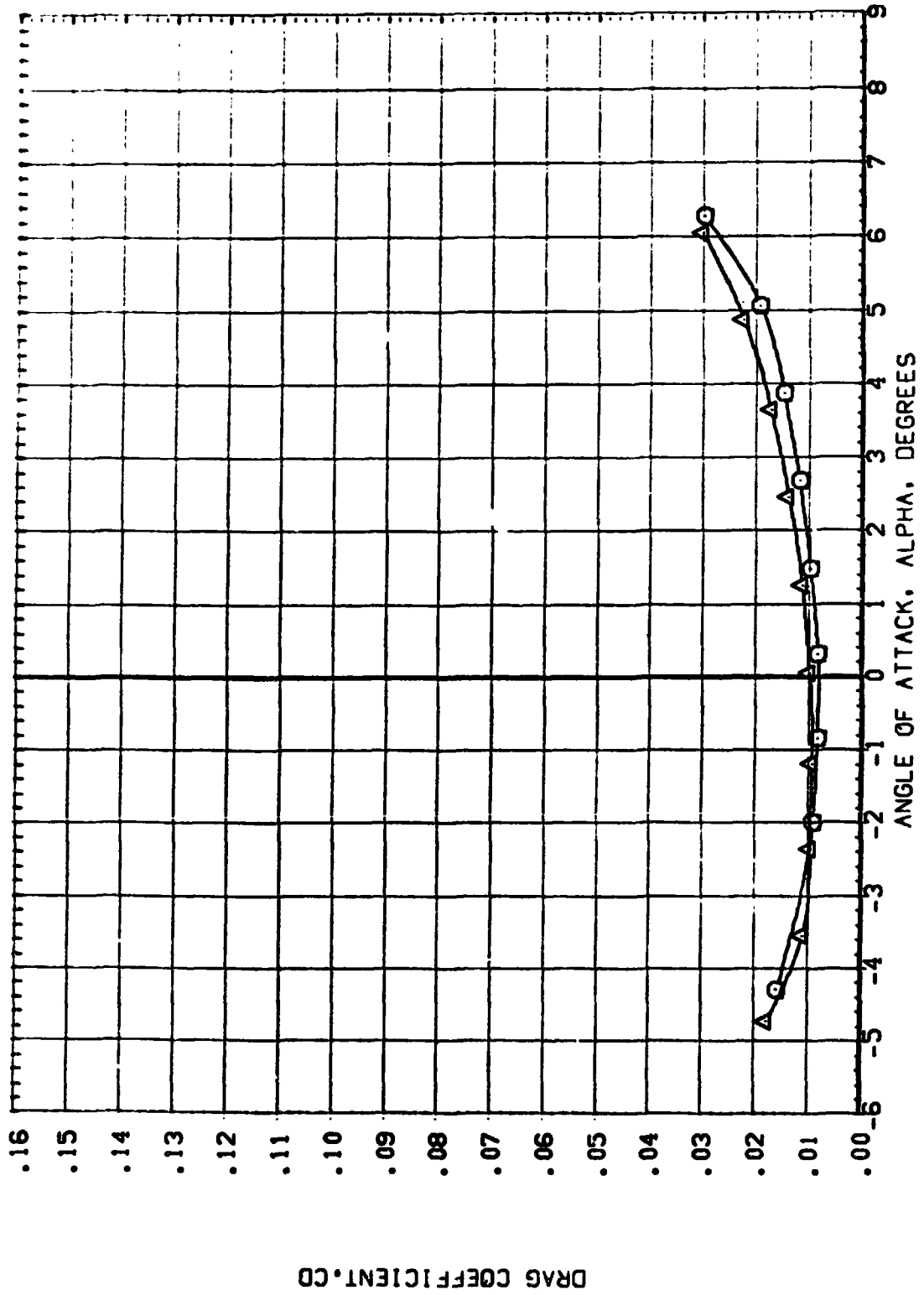


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION-DESCRIPTION
 (BAE012) M1 P0 B
 (BAE059) M1 P5 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

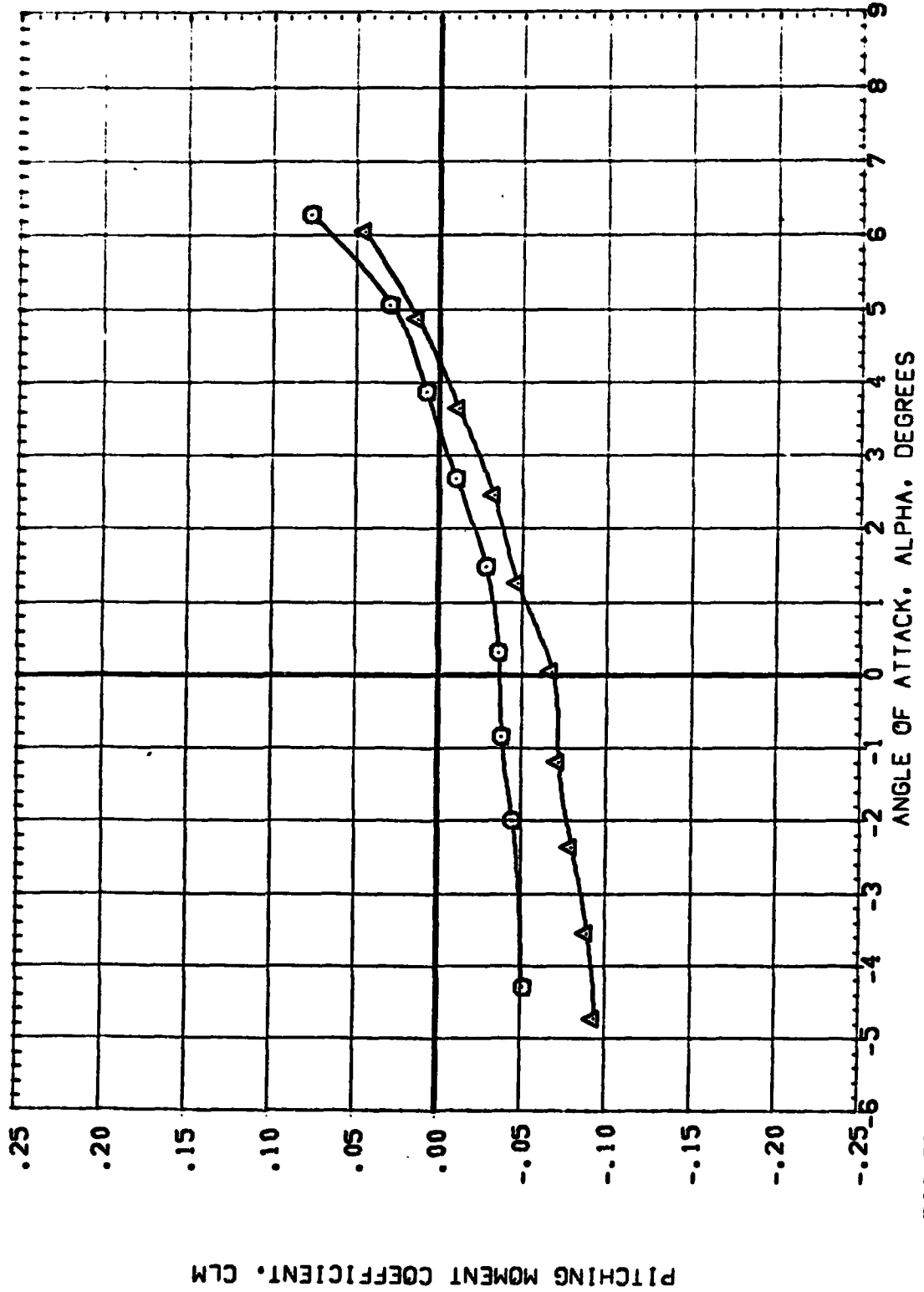


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A) MACH = .80

DATA SET 6. MBOL CONFIGURATION DESCRIPTION
 (BAE012) WI P0 B
 (BAE033) WI P5 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RVAL BCTB
 60.000 6.000 0.000
 60.000 6.000 0.000

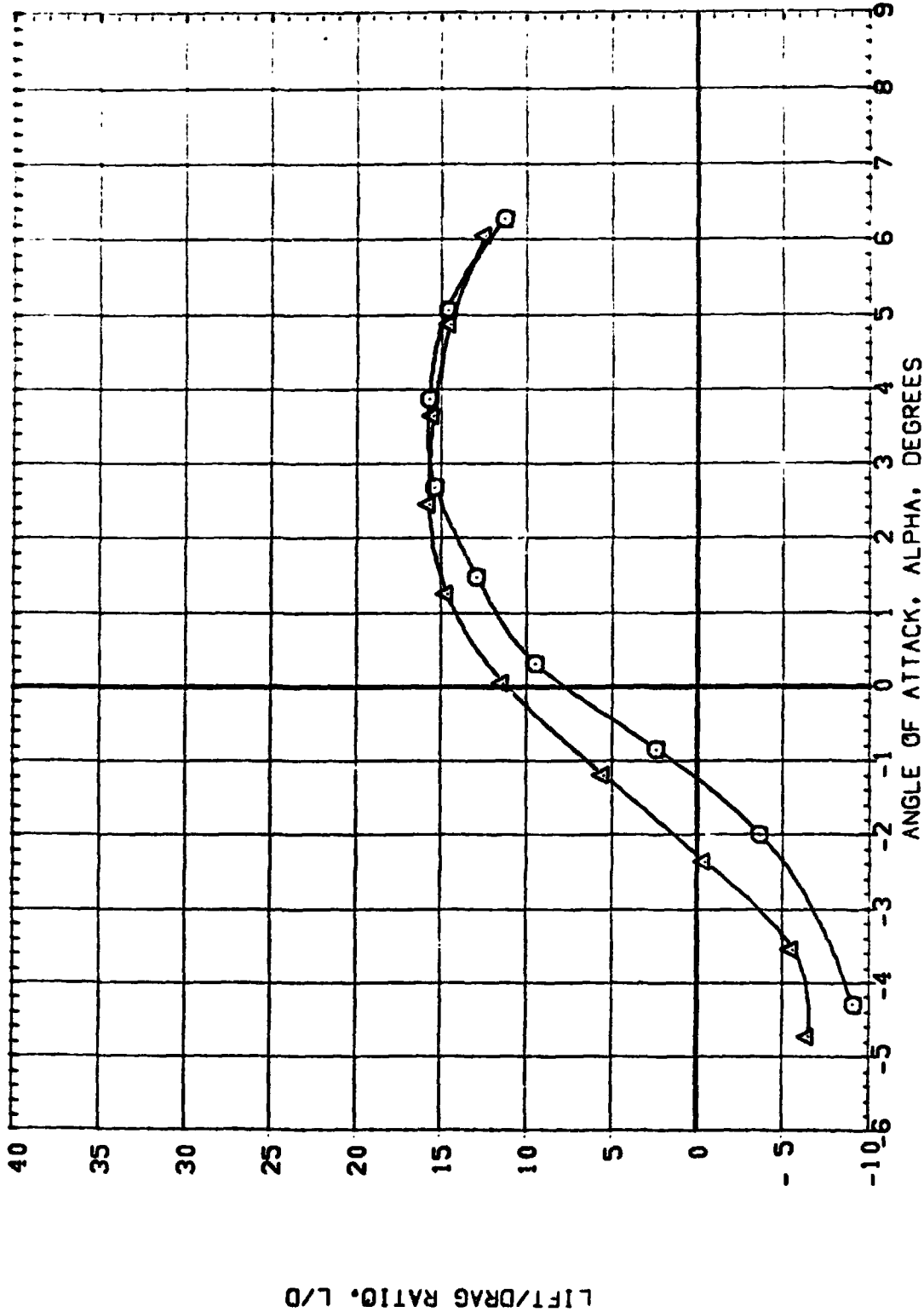


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE012) \square W1 F0 B
 (BAE059) \triangle W1 F5 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

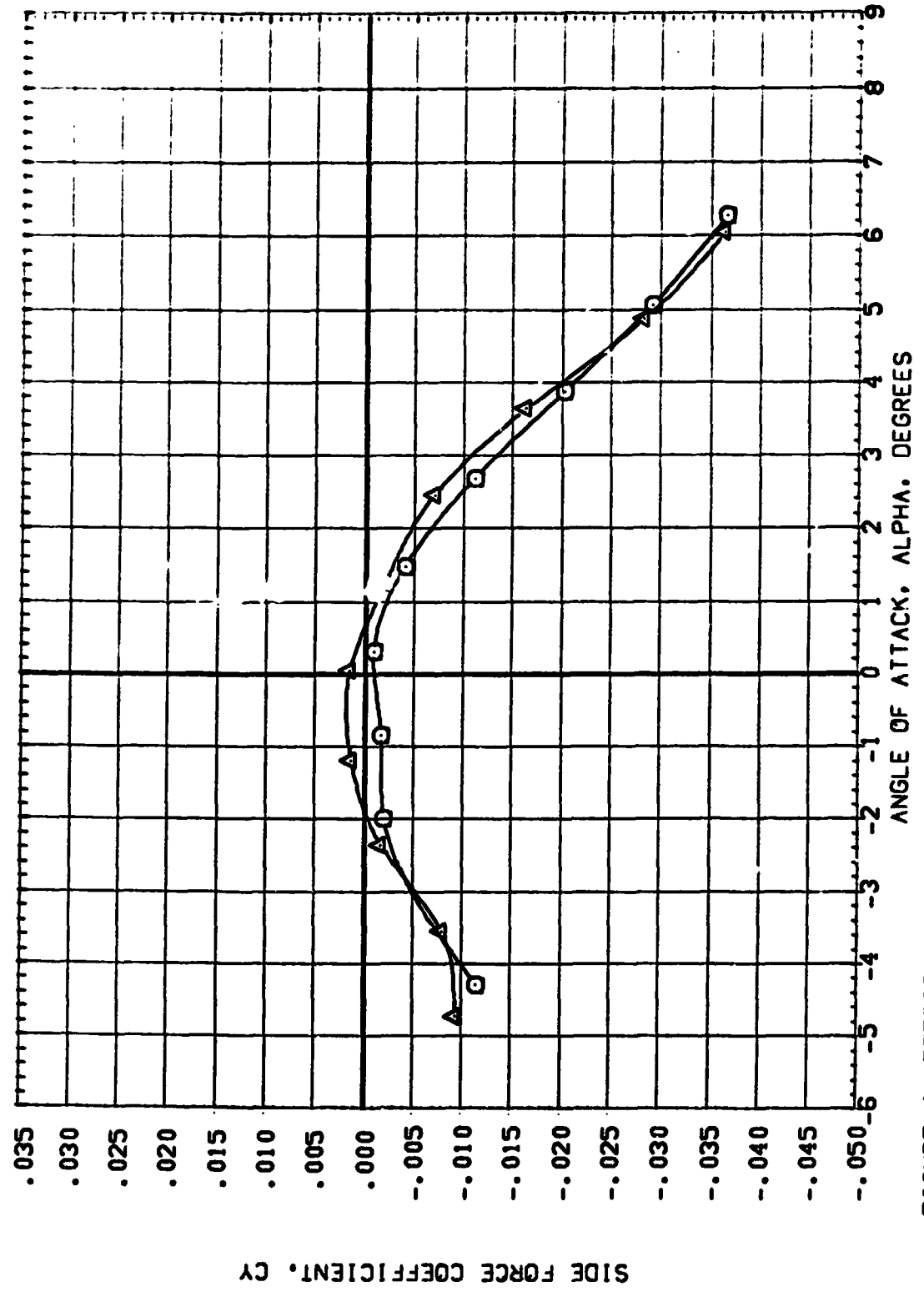


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.80, LAMBDA=60 DEGREES

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP 60.000 60.000
 RM/L BETA 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (A) W1 F0 B
 (B) W1 F5 B

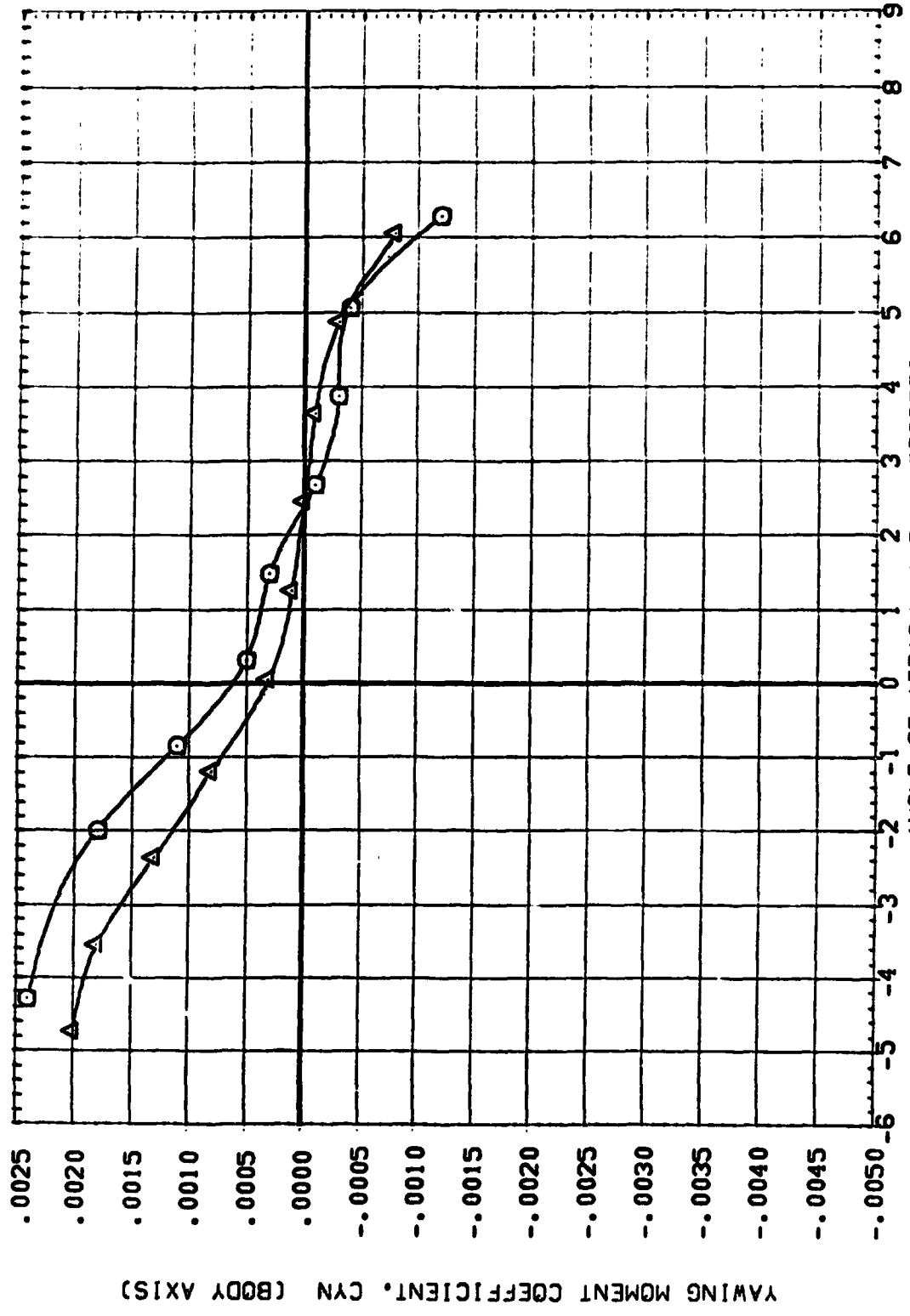


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 0.80, LAMBDA=60 DEGREES
 (A)MACH = .80 PAGE 90

DATA SET SYMBOL - CONFIGURATION DESCRIPTION
 (DAEQ18) W1 F0 B
 (DAEQ59) W1 F1 B
 (DAEQ52) W1 F10 B

SWEEP AN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

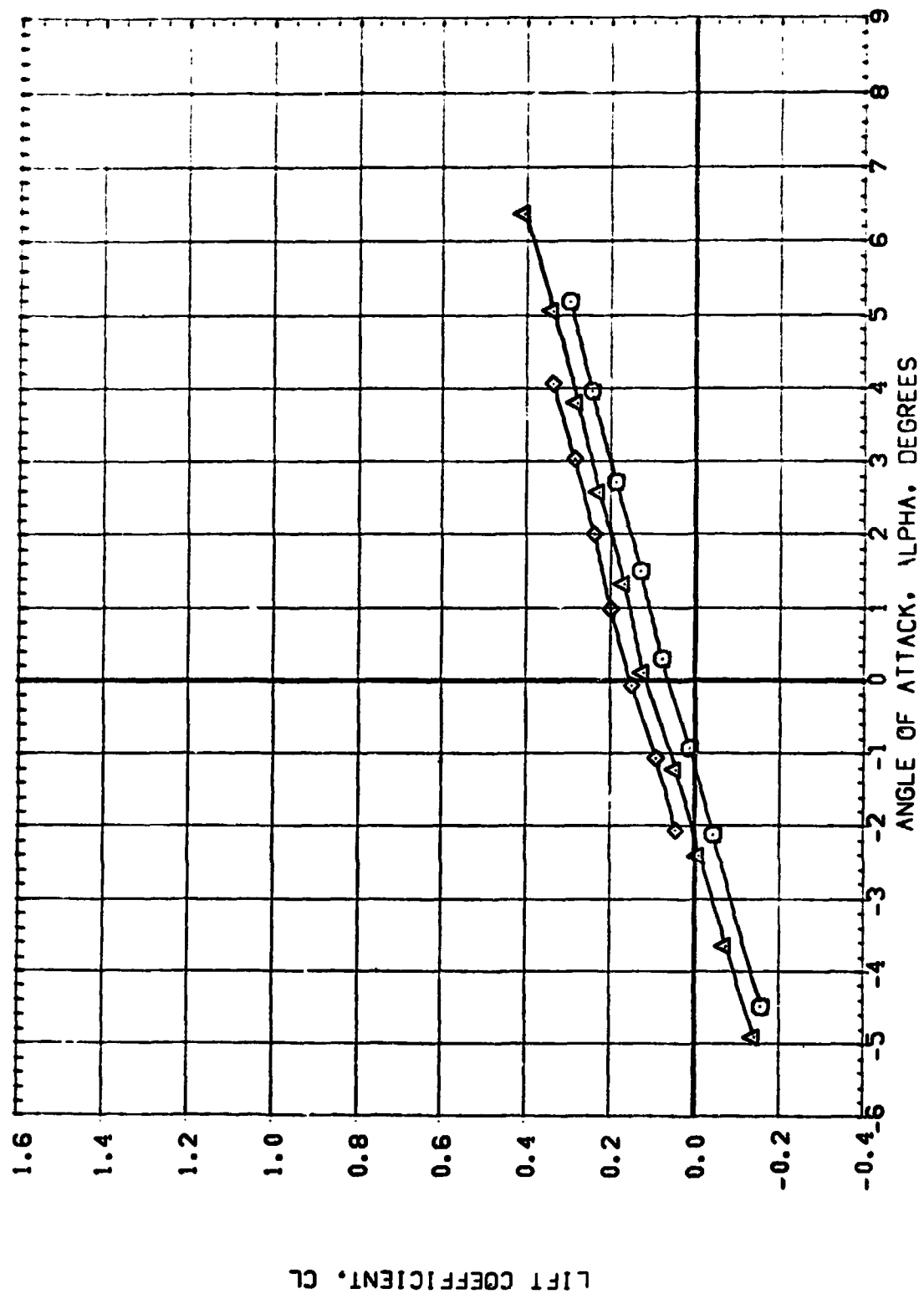


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA=60 DEGREES
 (A) MACH = .95 PAGE 92

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAED12) W1 F0 B
 (DAE088) W1 F5 B
 (DAE082) W1 F10 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

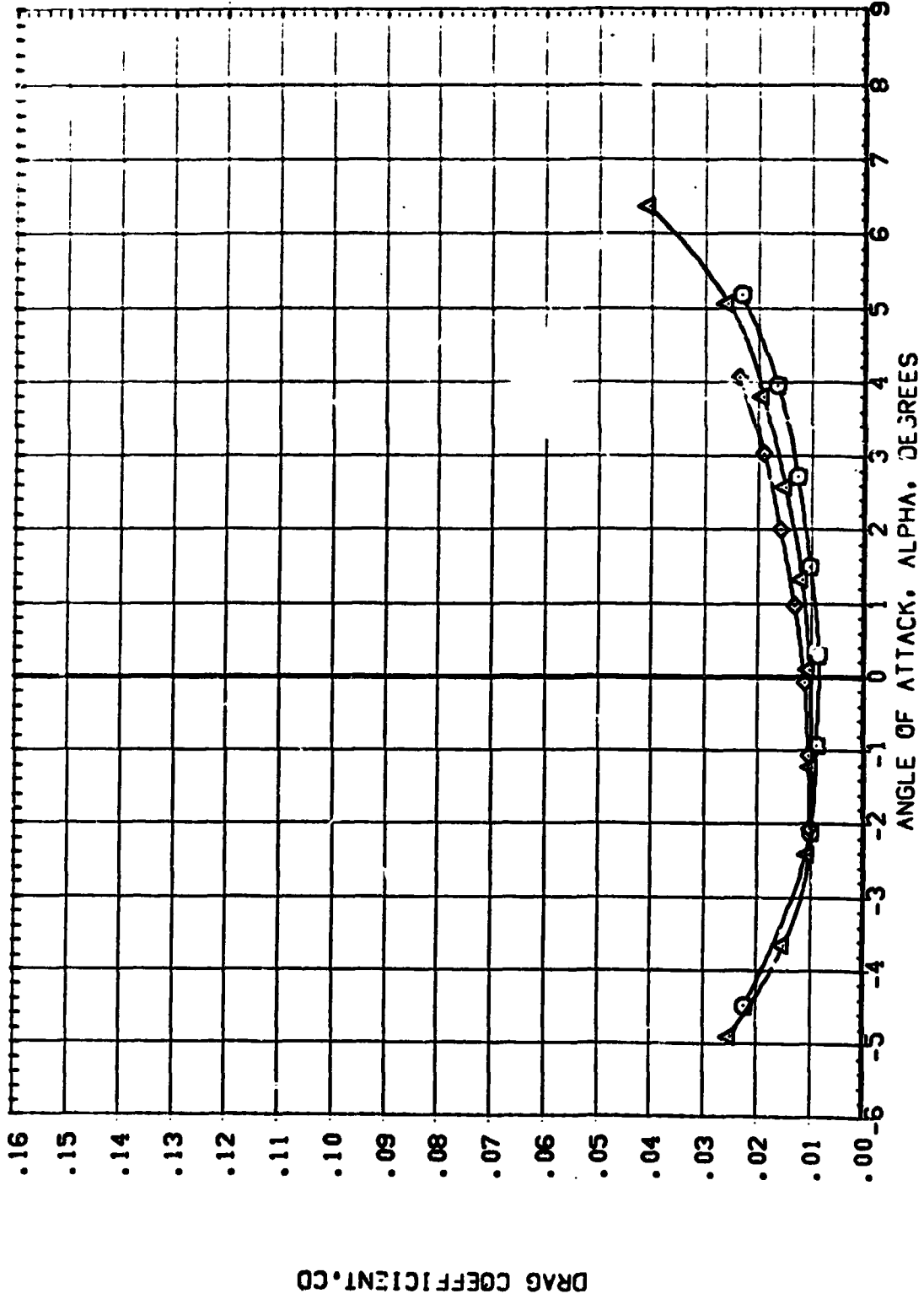


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE012) W1 F0 B
 (DAE059) W1 F5 D
 (DAE332) W1 F0 B

SWEEP RM/L BLIA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

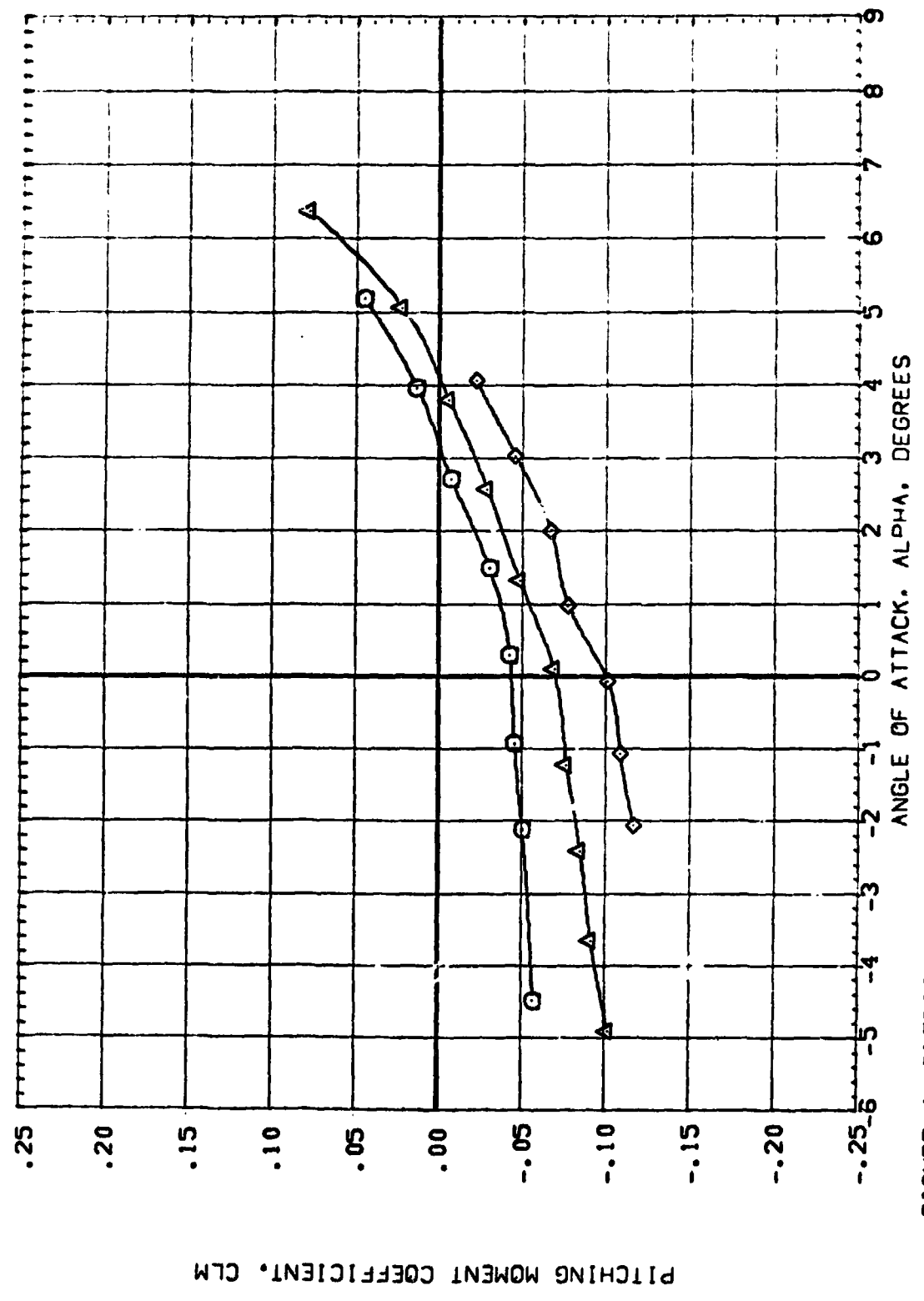


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

0.74 SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE012) W1 F0 B
 (DAE055) W1 F5 B
 (DAE052) W1 F10 B

SWEEP RM/L BETA
 50.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

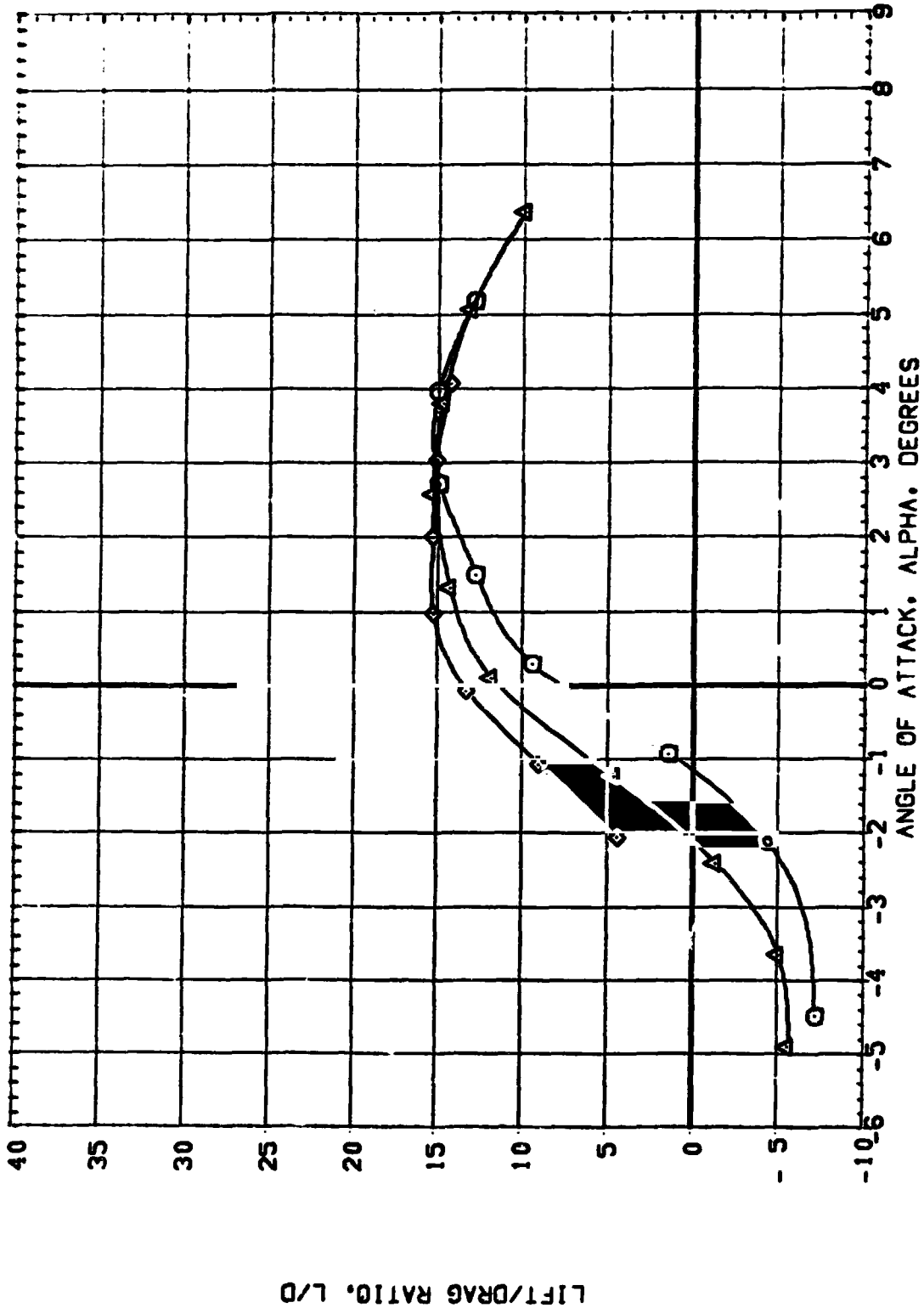


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE012) M1 P0 B
 (DAE009) M1 P5 B
 (DAE008) M1 P10 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

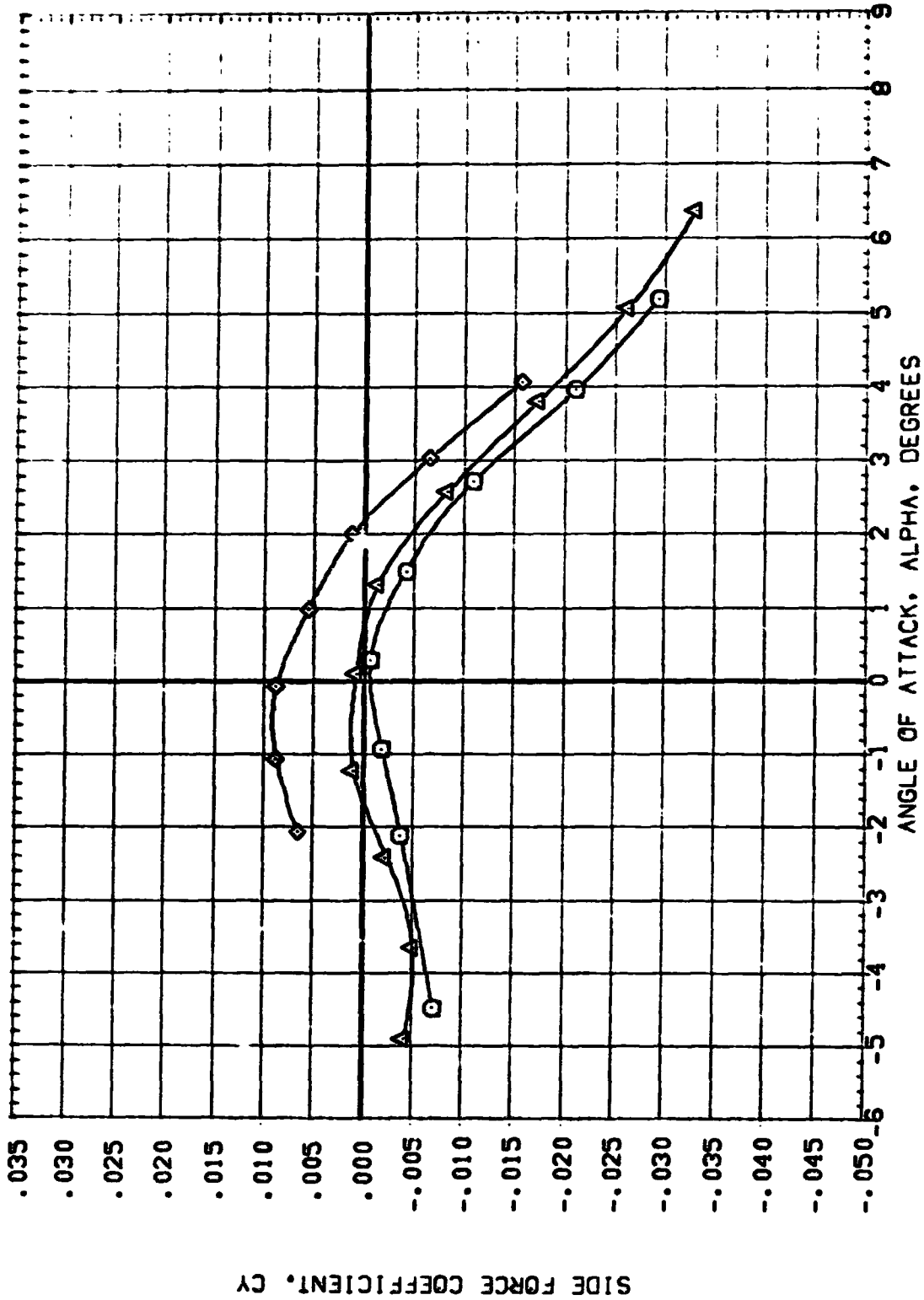


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE012) W1 P0 B
 (DAE059) W1 P5 B
 (DAE088) W1 P10 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RNL BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

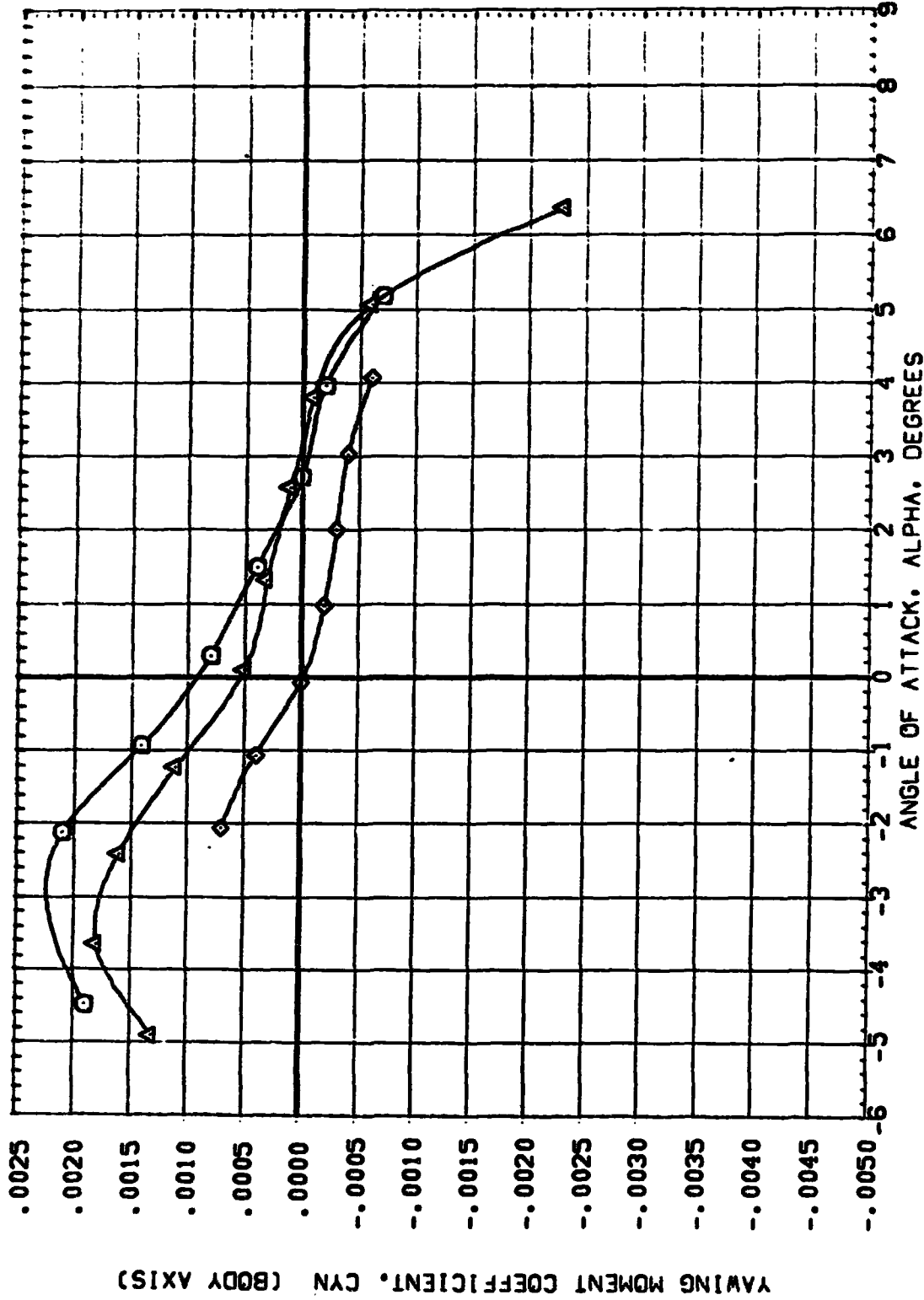


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE012) W1 P0 B
 (DAE039) W1 P5 B
 (DAE052) W1 P10 B

SWEEP RM/L
 60.000 6.000
 60.000 6.000
 60.000 6.000

BETA
 0.000
 0.000
 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

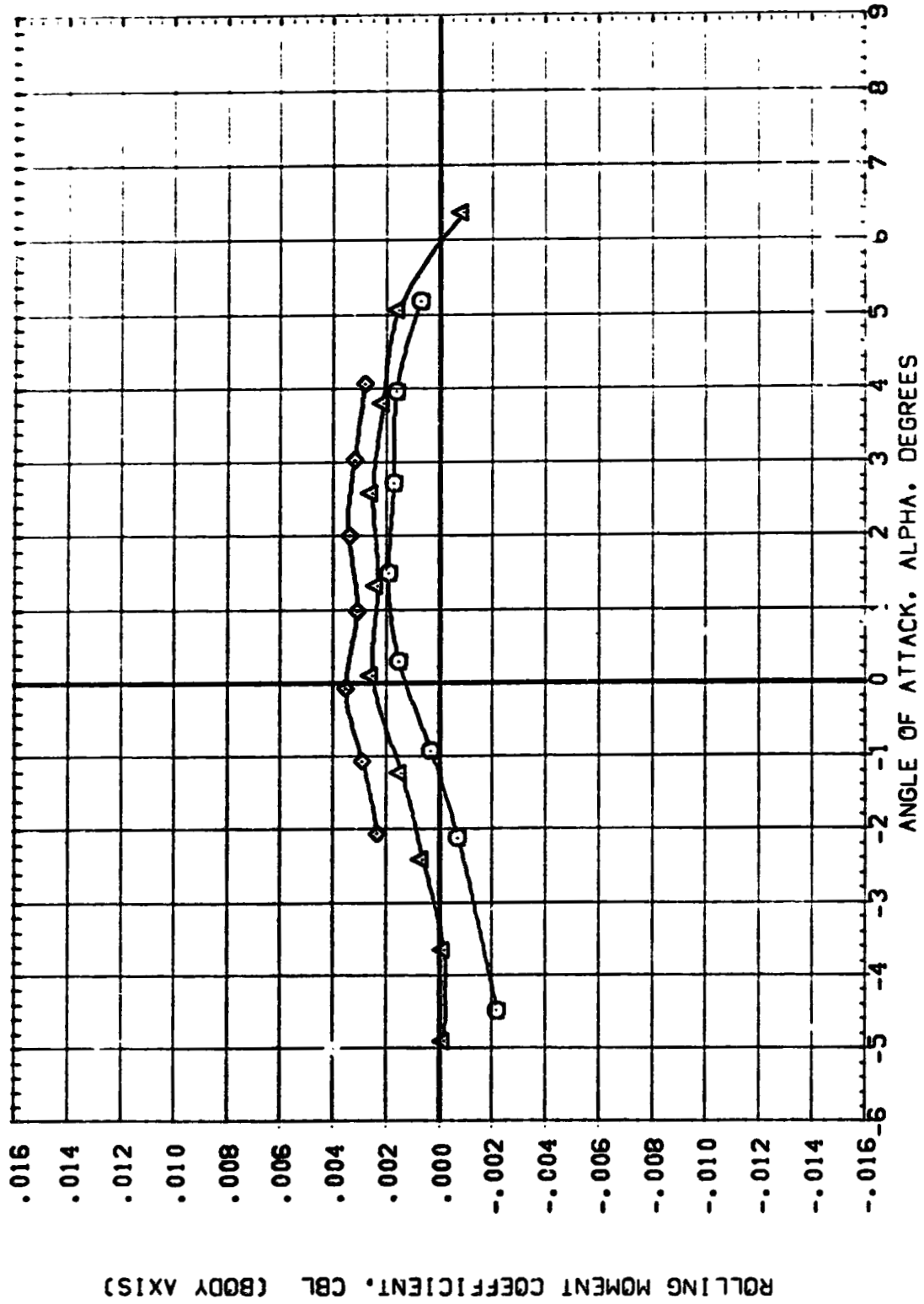


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, KACH NO. = 0.95, LAMBDA=60 DEGREES

MAJ MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAC012) W1 P0 B
 (EAC099) W1 P5 B
 (EAC012) W1 P10 B

SHEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

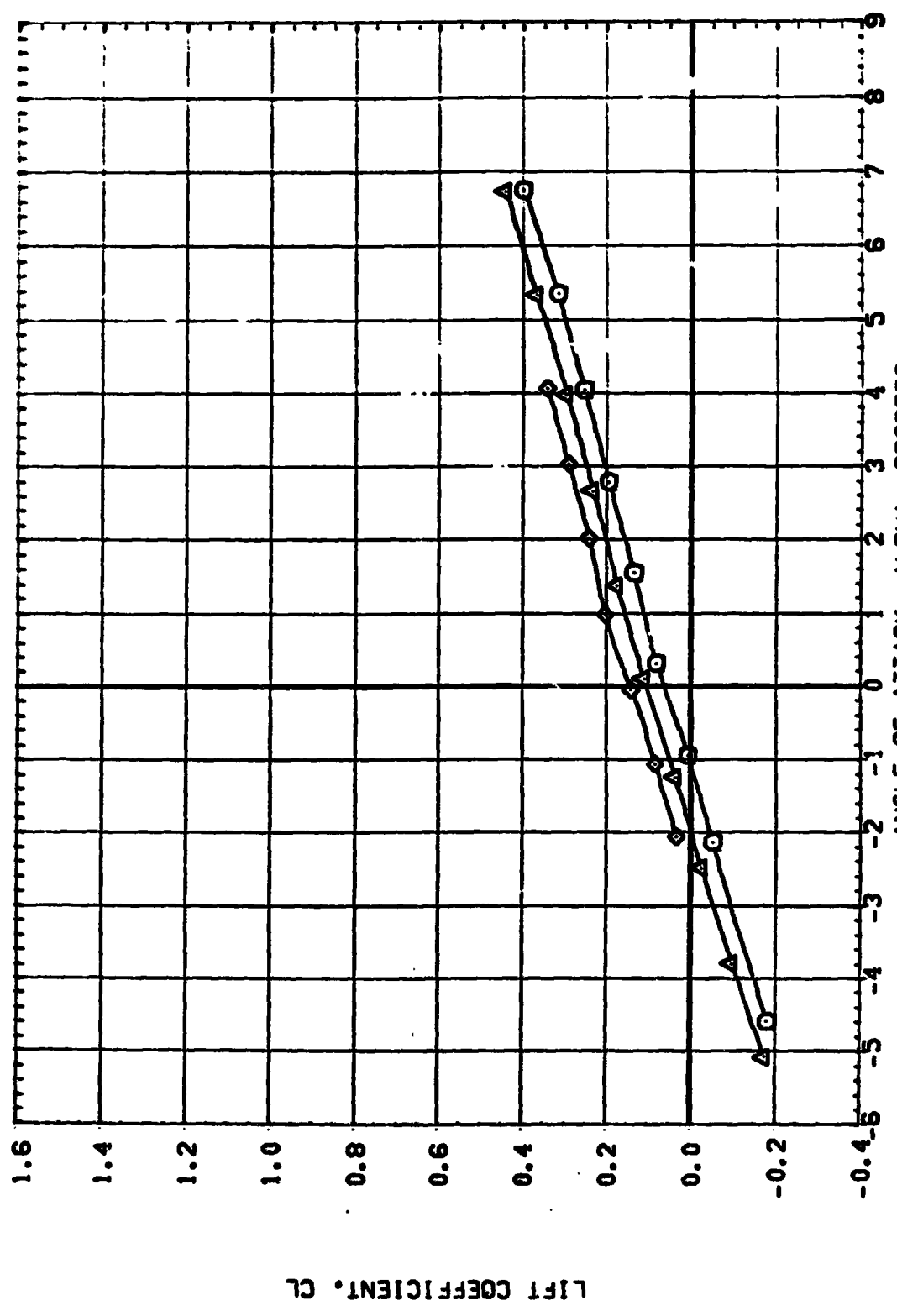


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.10, LAMBDA=60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA0012) W1 F0 B
 (EA0055) W1 F5 B
 (EA0058) W1 F10 B

SET THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

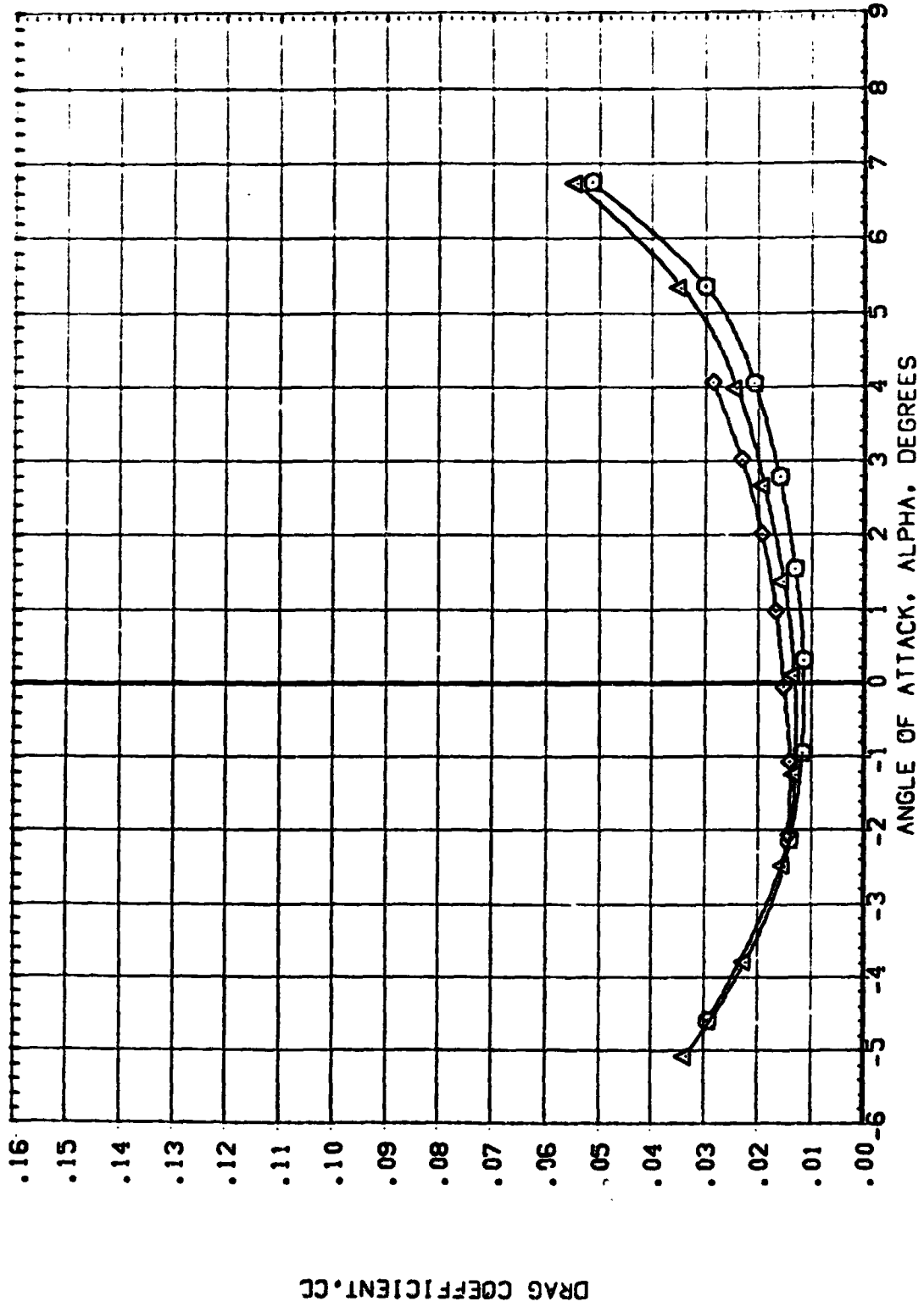


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.10, LAMBDA=60 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (E4E012) W1 P0 B
 (E4E013) W1 P5 B
 (E4E014) W1 P10 B

SWEEP RM/L REYA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

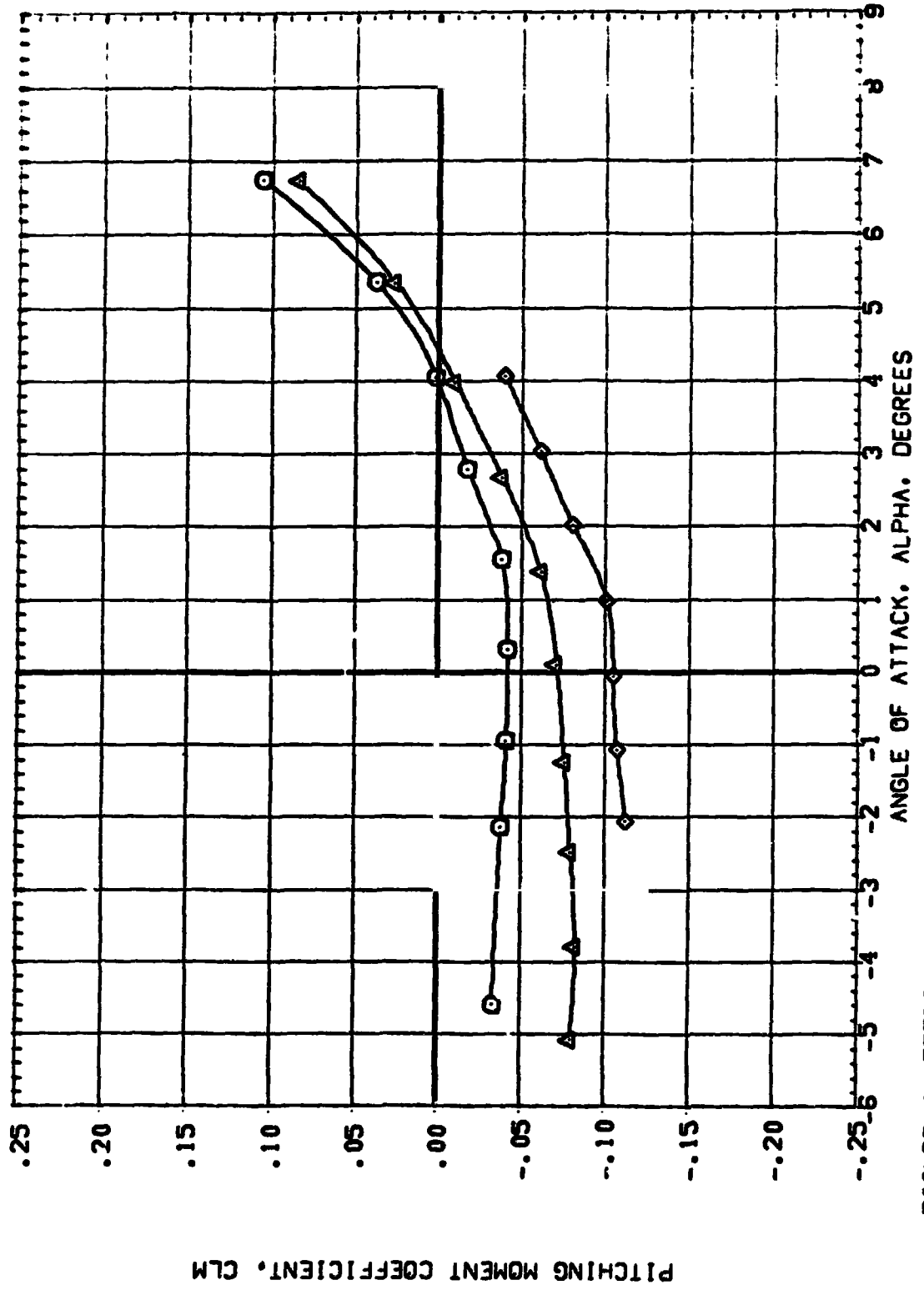


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.10, LAMBDA=60 DEGREES

() MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE012) W1 F0 B
 (EAE059) W1 F5 B
 (EAE052) W1 F10 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

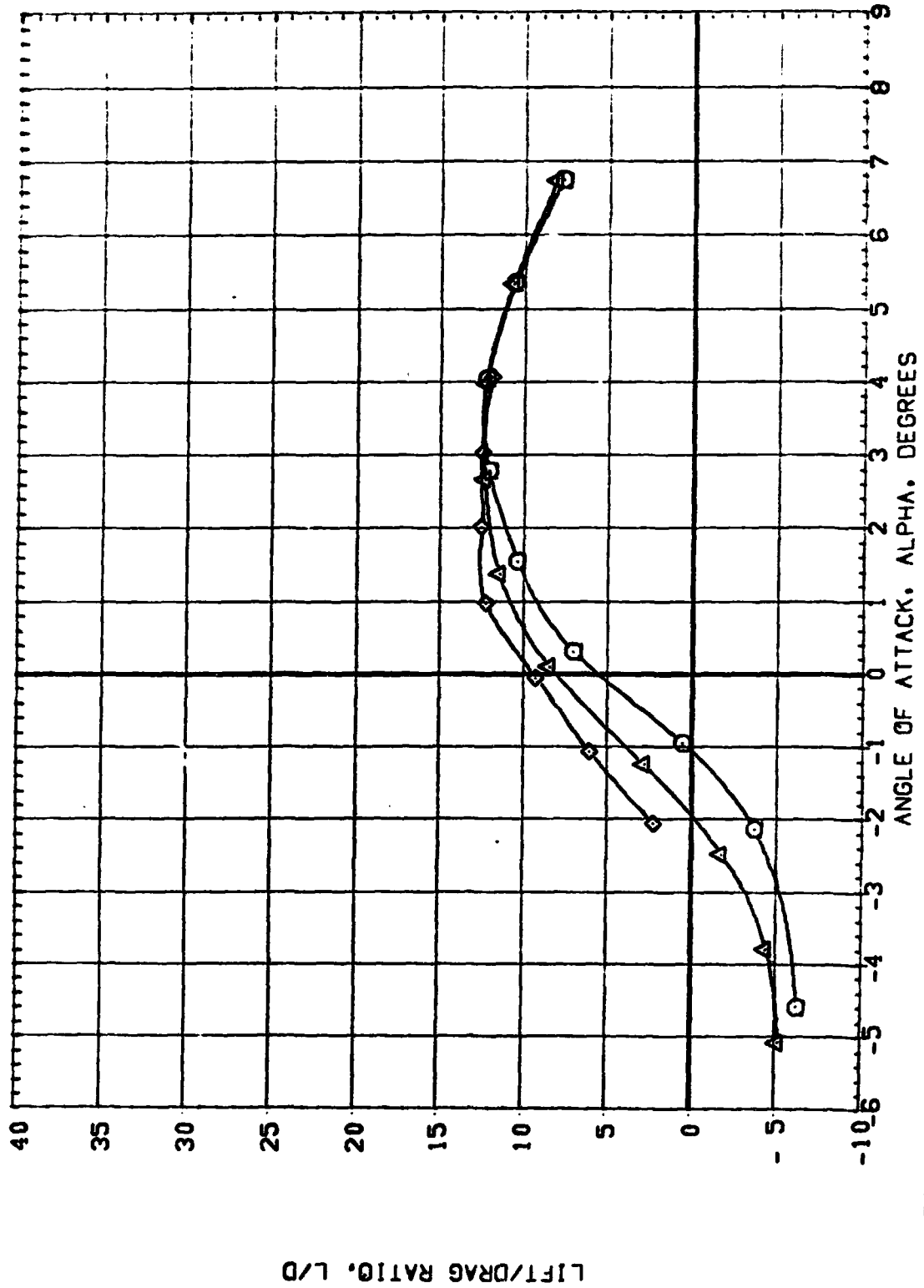


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.10, LAMBDA=60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAC012) W1 F0 B
 (EAC059) W1 F5 B
 (EAC052) W1 F10 B

SWEEP RNYL BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

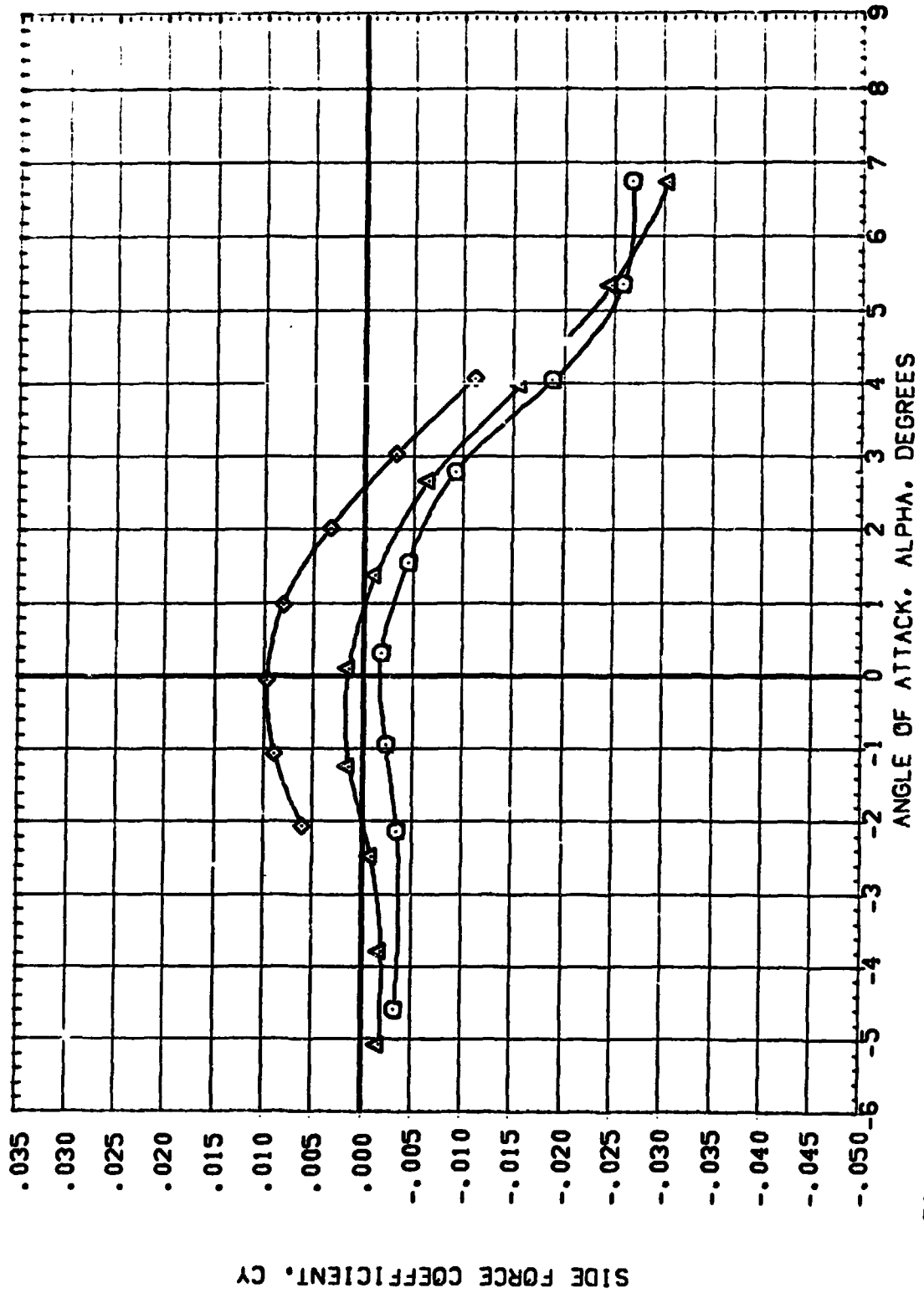


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.10, LAMBDA = 60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION SWEEP RN/L BETA SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS
 (EA001) (EA002) W1 F0 B 60.000 6.000 0.000
 (EA003) (EA004) W1 F5 B 60.000 6.000 0.000
 (EA005) (EA006) W1 F10 B 60.000 6.000 0.000

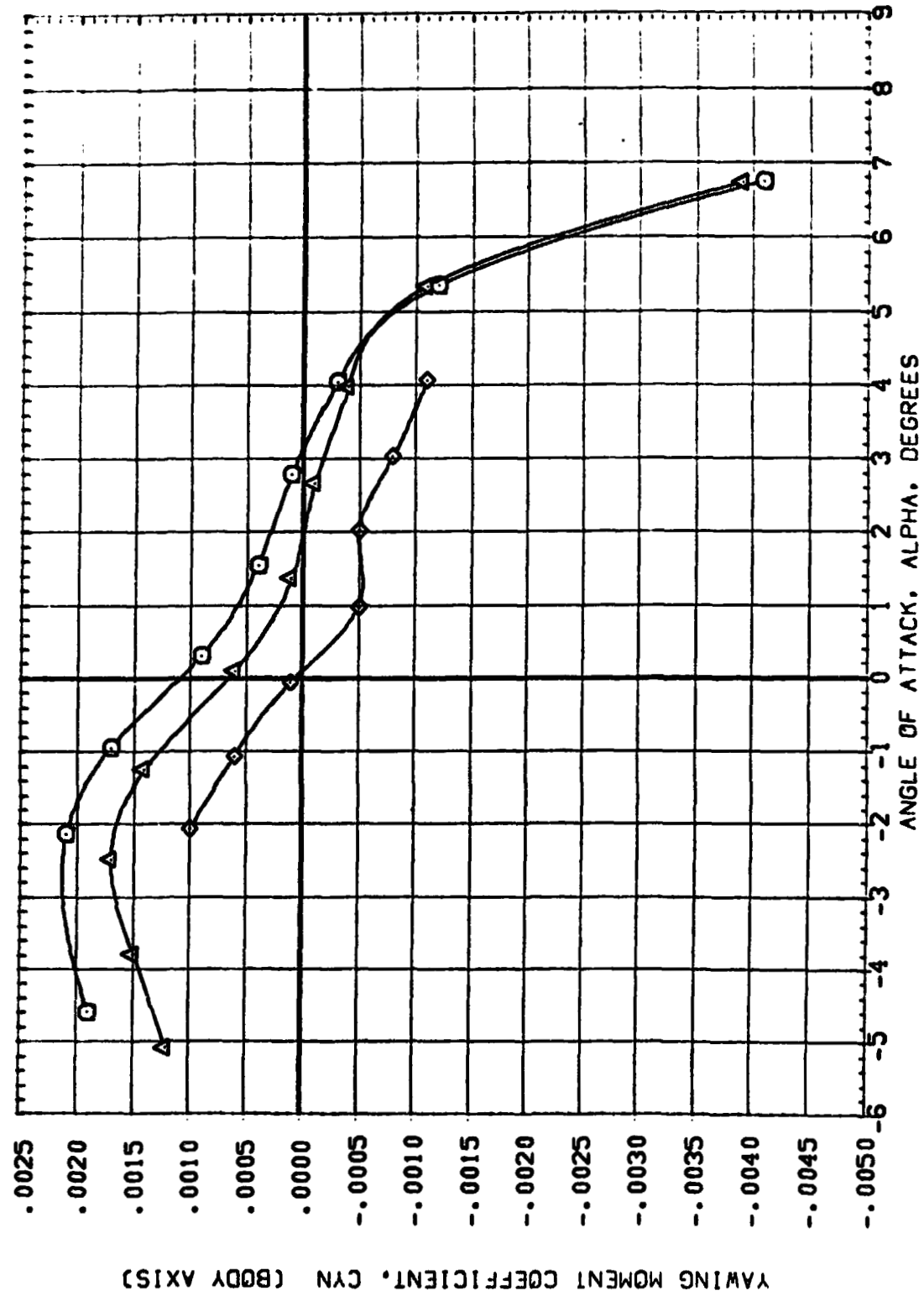


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.10, LAMBDA=60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE012) W1 F0 B
 (EAE059) W1 F5 B
 (EAE052) W1 F10 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

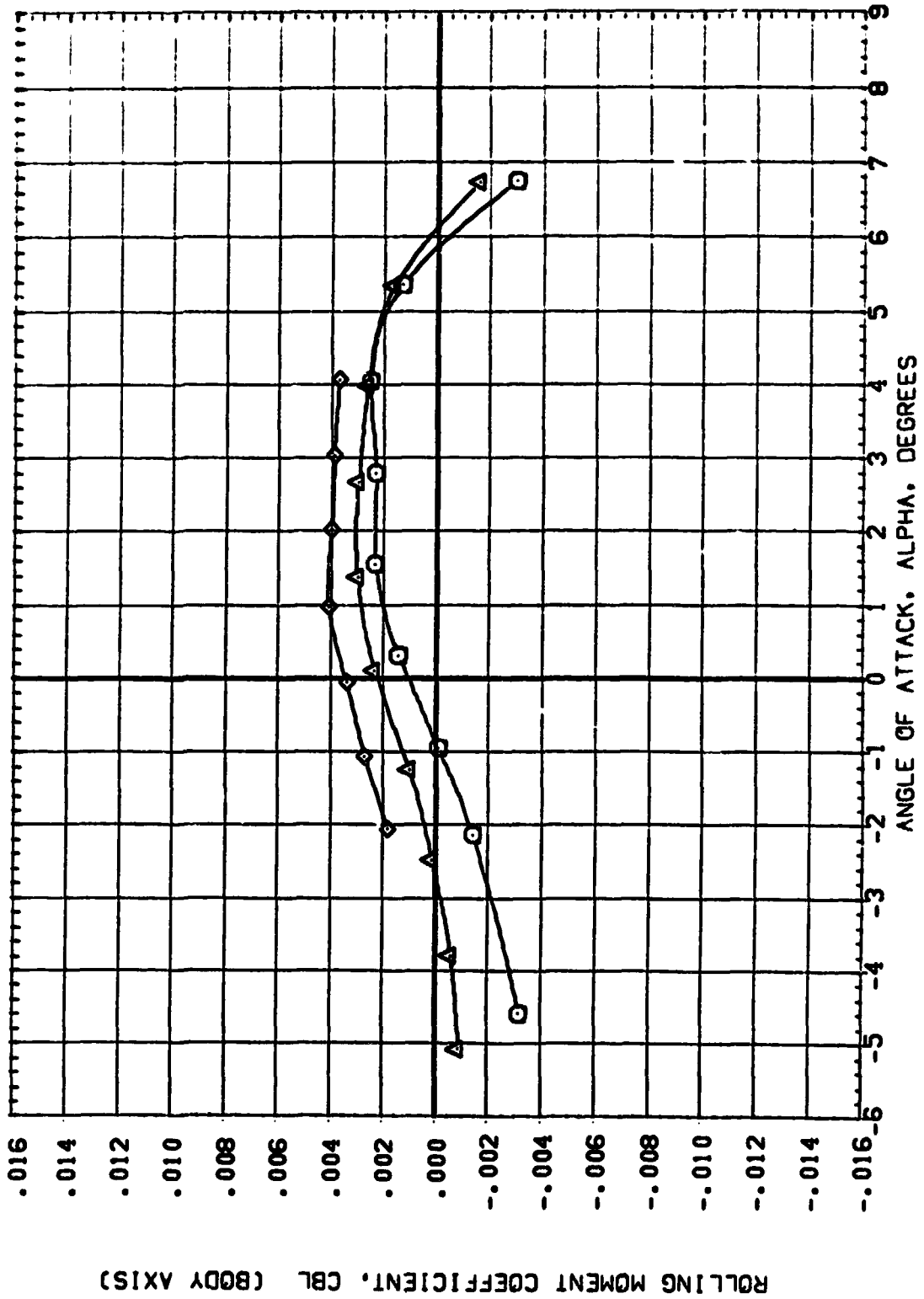


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.10, LAMBDA=60 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CAE012) \square W1 F0 B
 (CAE059) \circ W1 F5 B
 (CAE052) \triangle W1 F10 B

SWEEP
 60.000
 60.000
 60.000

RM/L
 6.000
 6.000
 6.000

BETA
 0.000
 0.000
 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

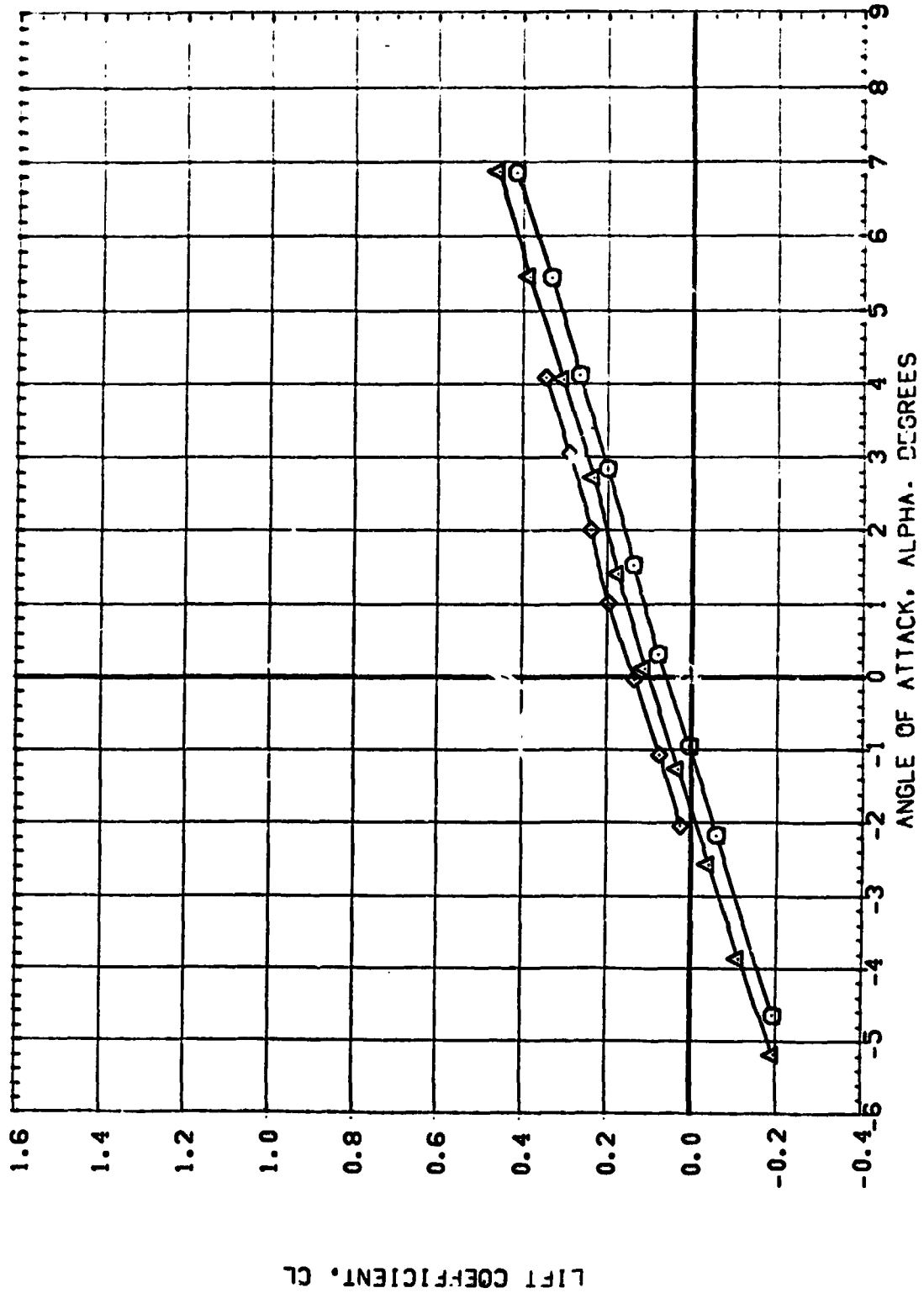


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.20, LAMBDA = 60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE012) W1 F0 B
 (CAE019) W1 F5 B
 (CAE021) W1 F10 B

SWEEP RAYL BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

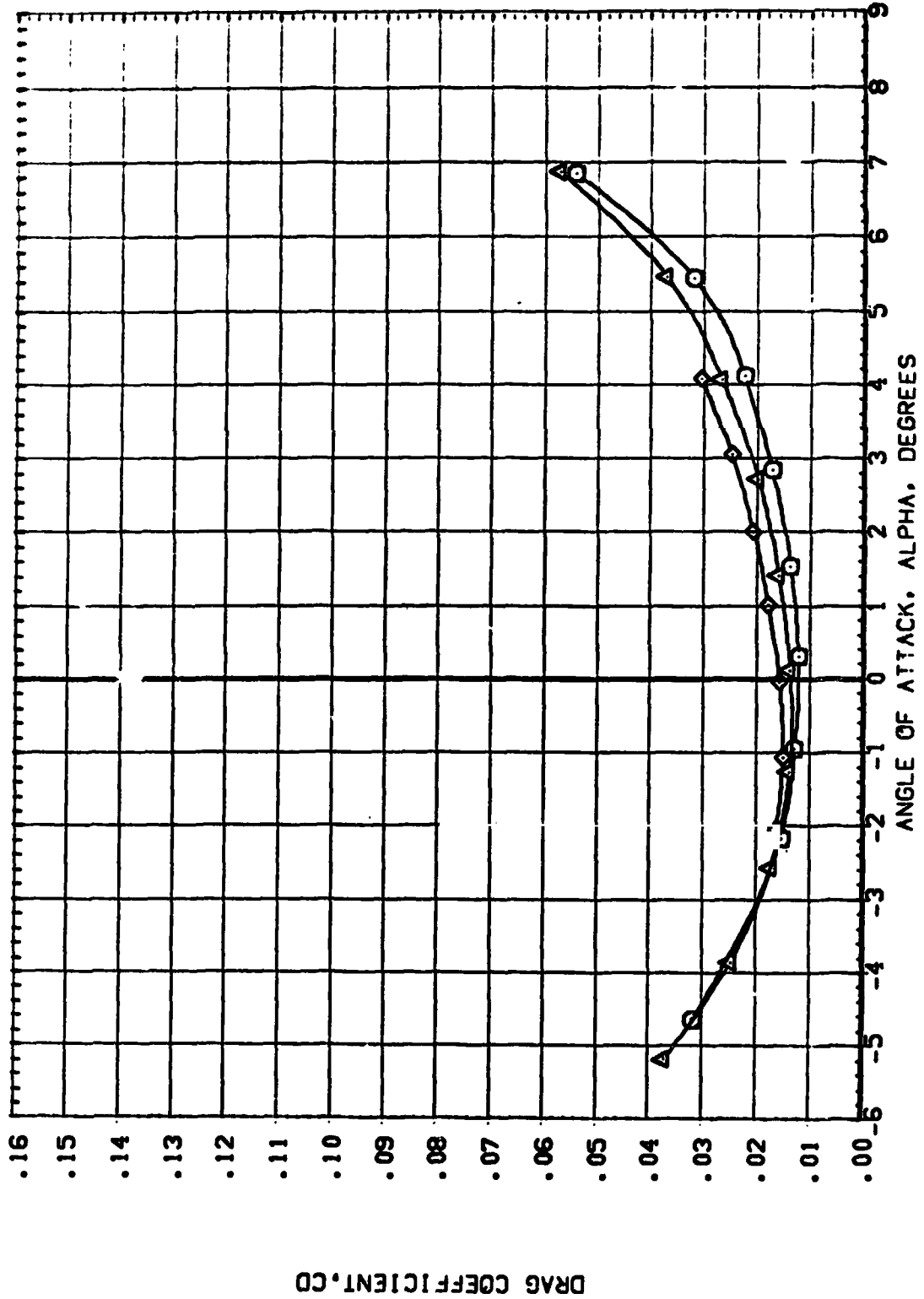


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.20, LAMBDA = 60 DEGREES

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEET RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE012) W1 F0 B
 (CAE009) W1 F5 B
 (CAE002) W1 F10 B

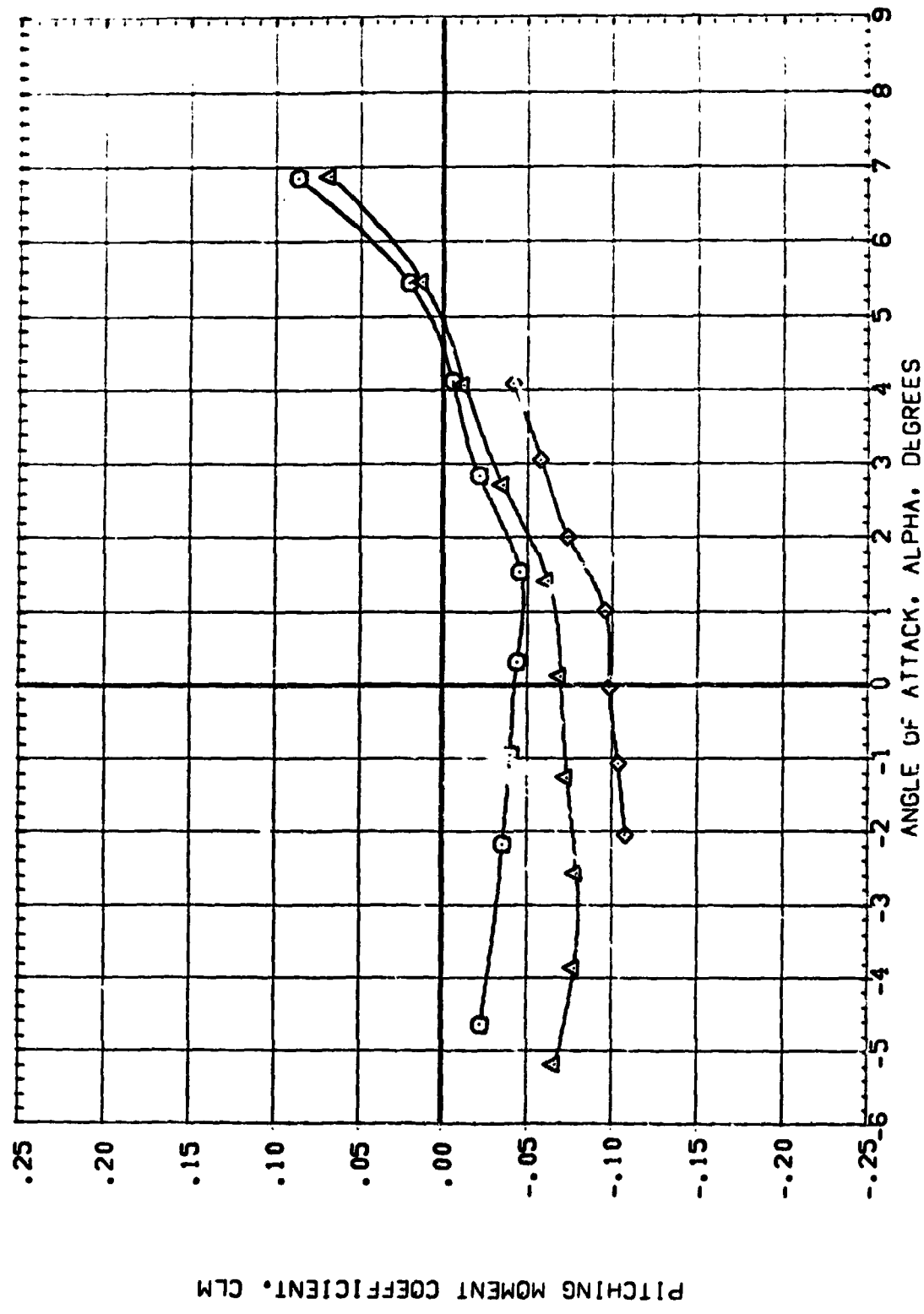


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.20, LAMBDA=60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE012) M1 P0 B
 (CAE059) M1 F5 B
 (CAE092) M1 P10 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

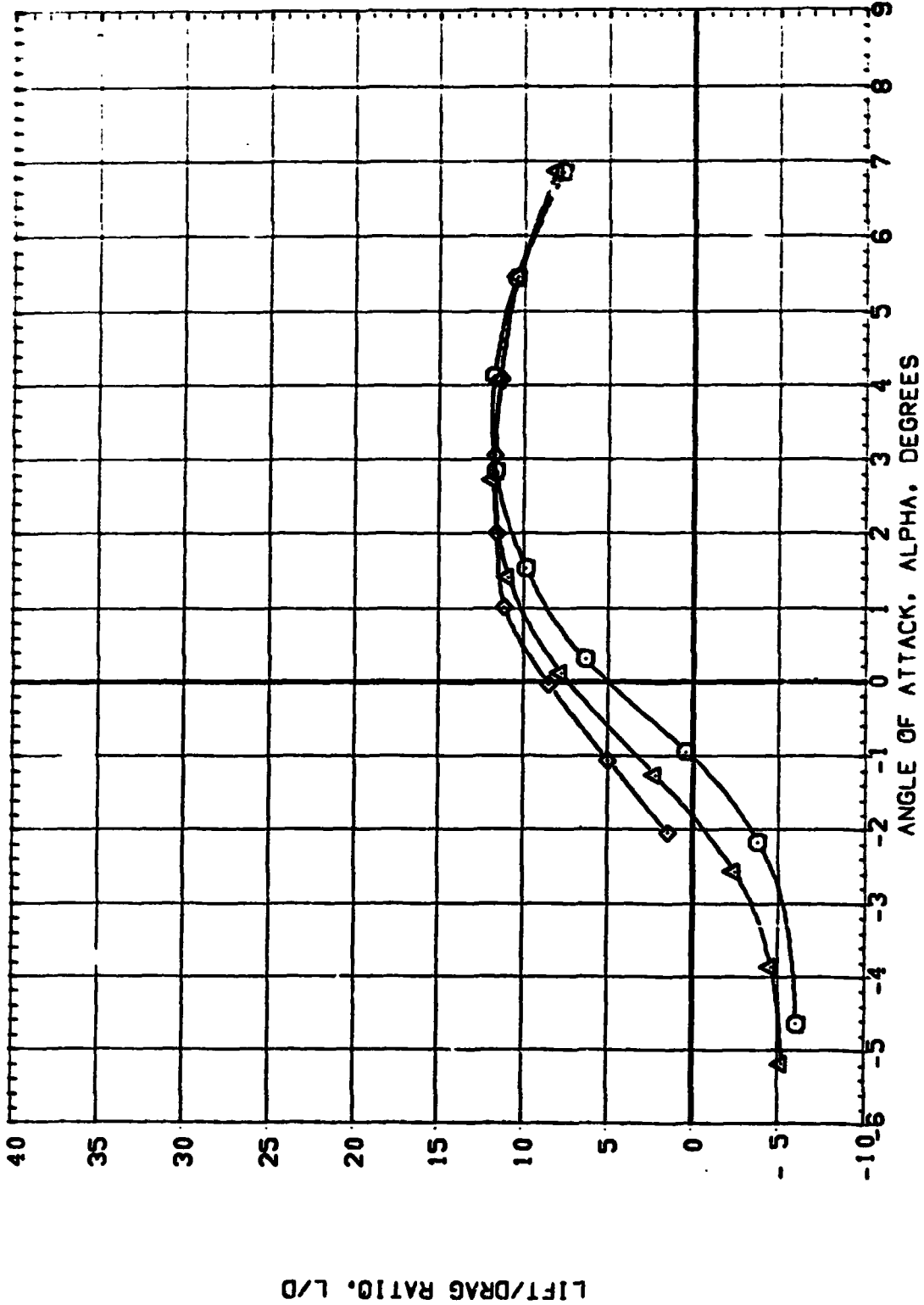


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.20, LAMBDA = 60 DEGREES

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

BEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 M1 P0 A
 M1 P5 a
 M1 P10 B

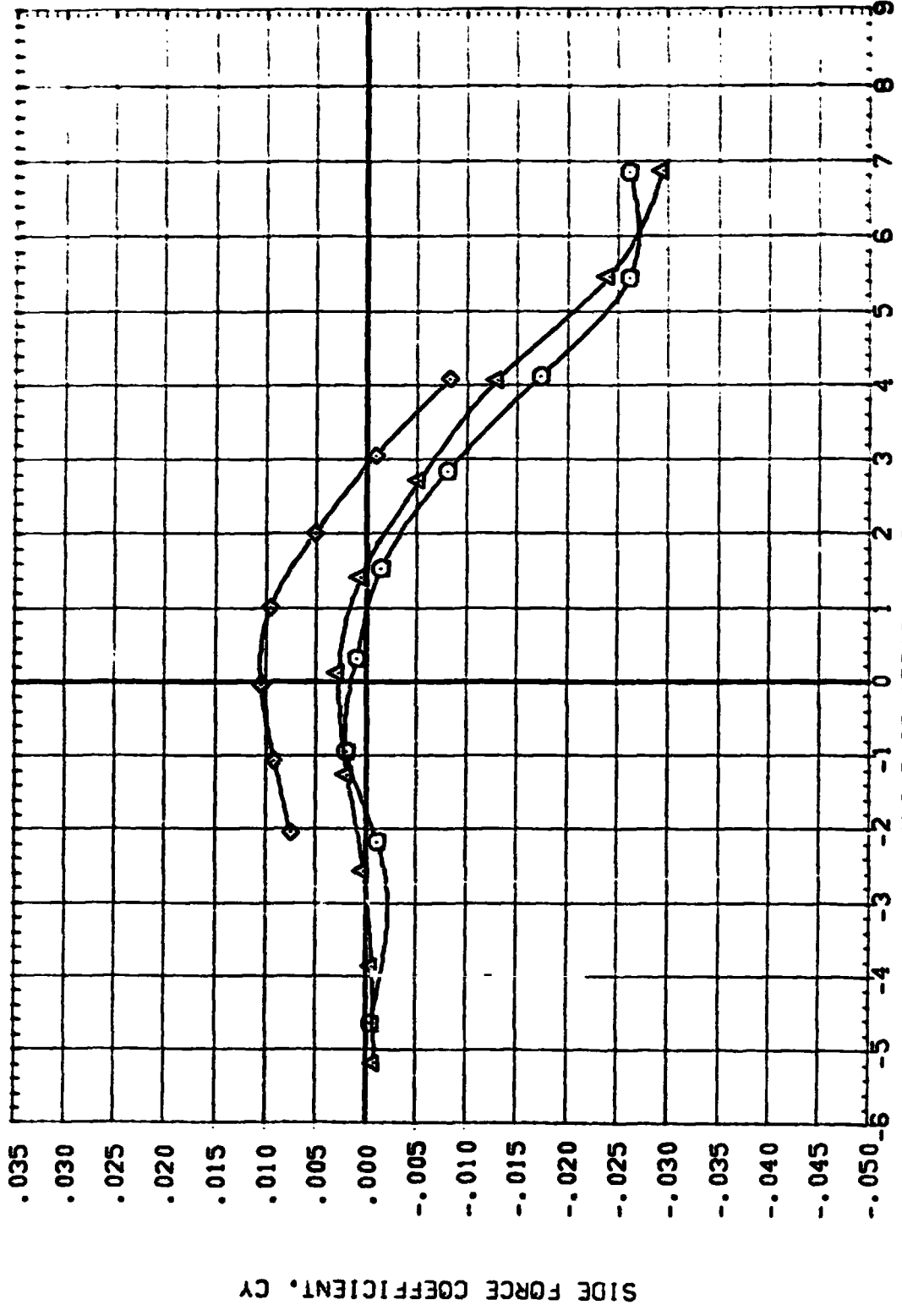


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.20, LAMBDA=60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE018) MI F0 B
 (CAE059) MI F5 B
 (CAE088) MI F10 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

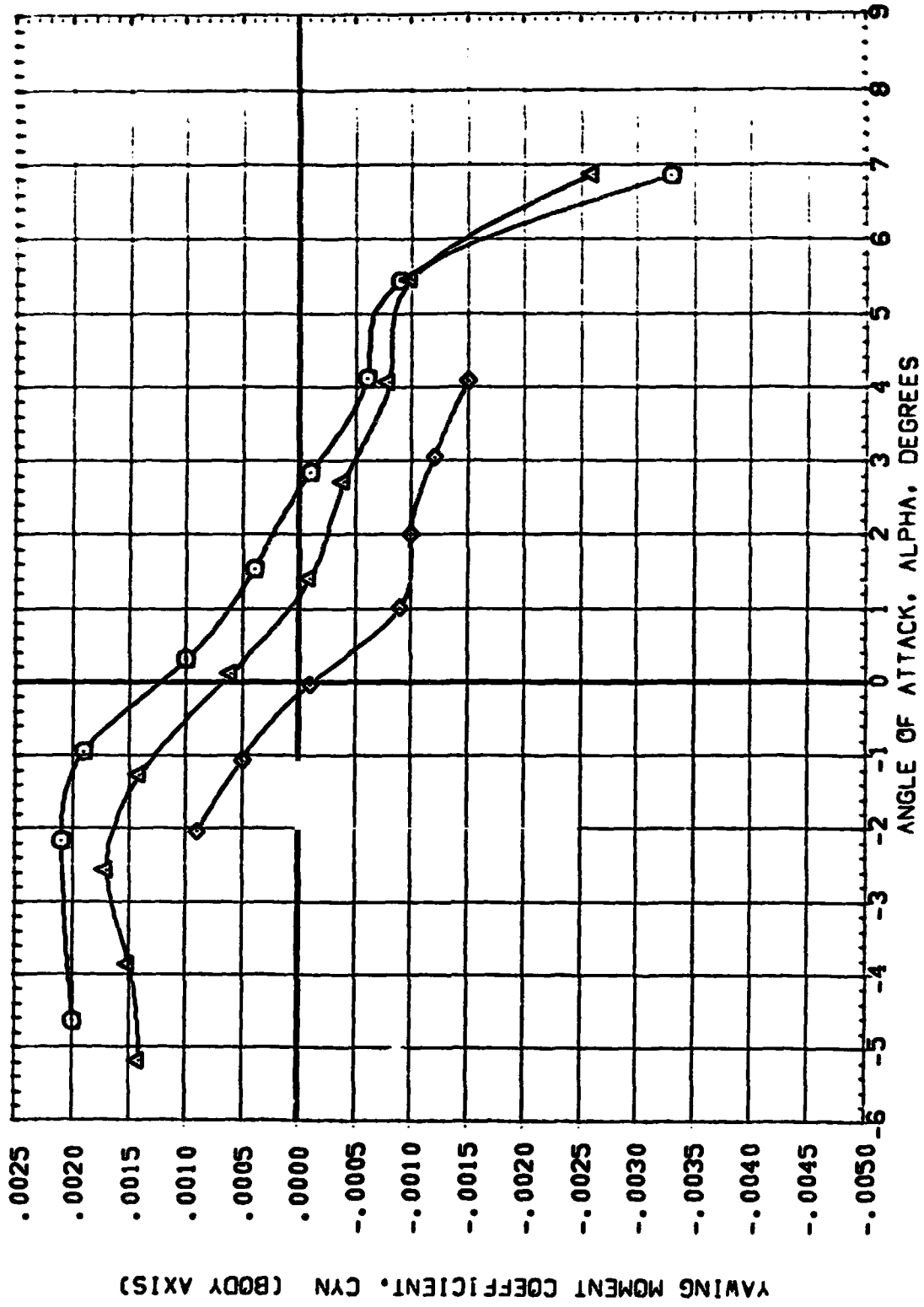


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.20, LAMBDA=60 DEGREES

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEET RNYL BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CASE12) \square W1 P0 B
 (CASE09) \diamond W1 P0 B
 (CASE52) \triangle W1 P10 B

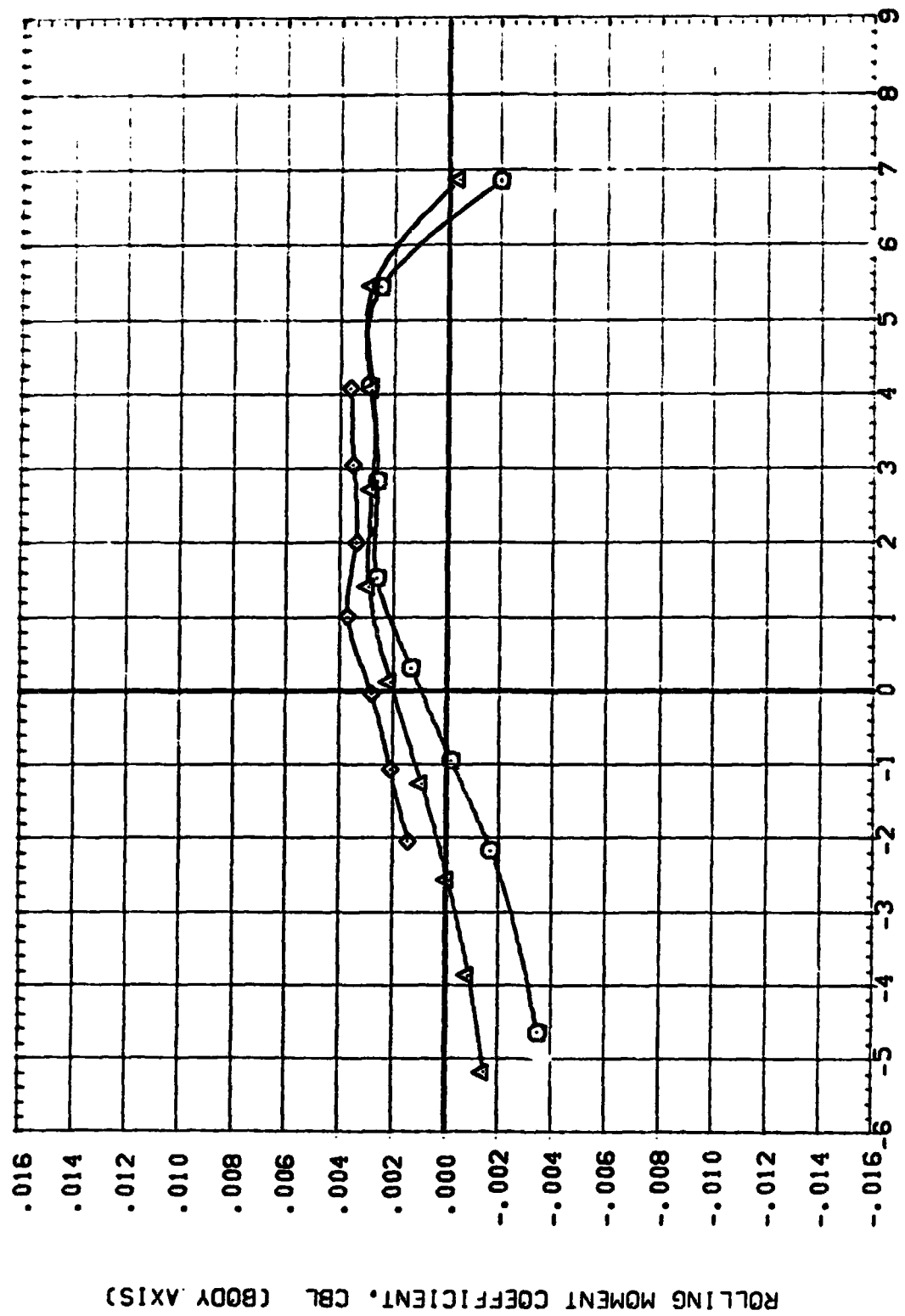


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.20, LAMBDA=60 DEGREES

DATA BY SYMBOL CONFIGURATION DESCRIPTION
 (FA0012) W1 P0 B
 (FA0009) W1 P8 B
 (FA0002) W1 P10 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

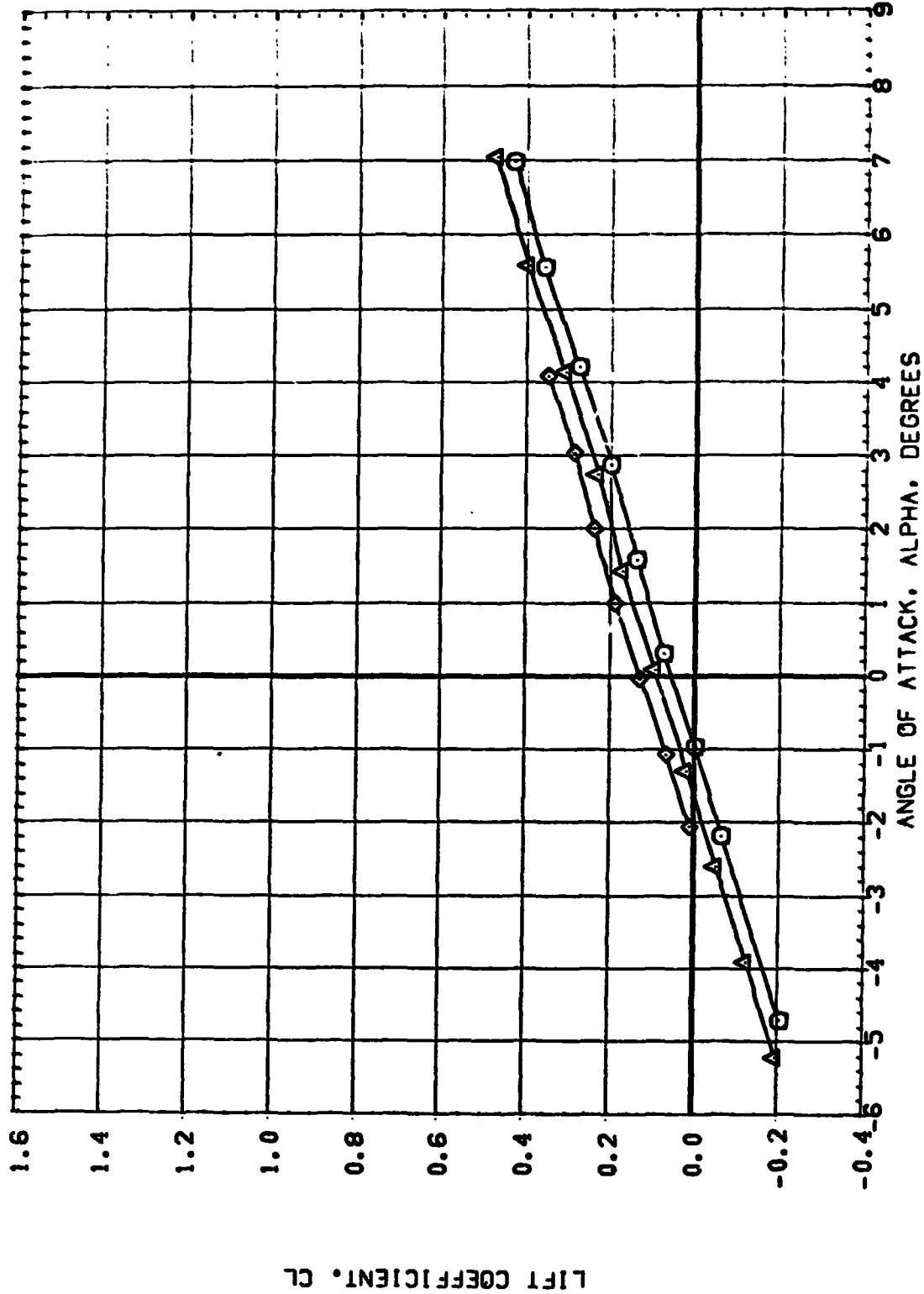


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.30, LAMBDA=60 DEGREES
 (A)MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE012) W1 P0 B
 (PAE000) W1 P8 B
 (PAE032) W1 P10 B

SHEEP RM/L BET/B
 60.000 5.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

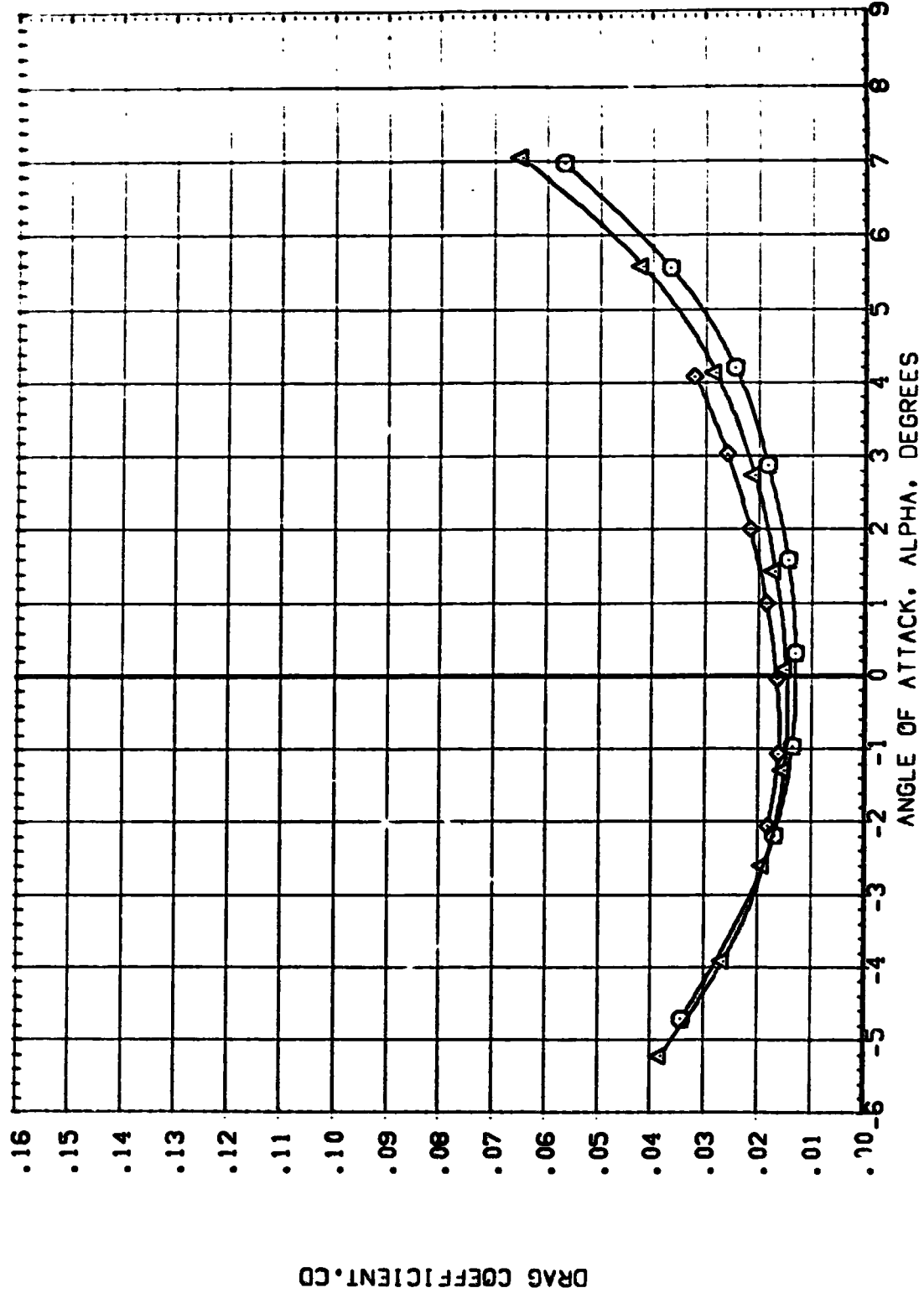


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO.= 1.30, LAMBDA=60 DEGREES

(A)MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION

W1 F0 B
 W1 F5 B
 W1 F10 B

(FAE012)
 (FAE019)
 (FAE022)

SWEEP RN/L - BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

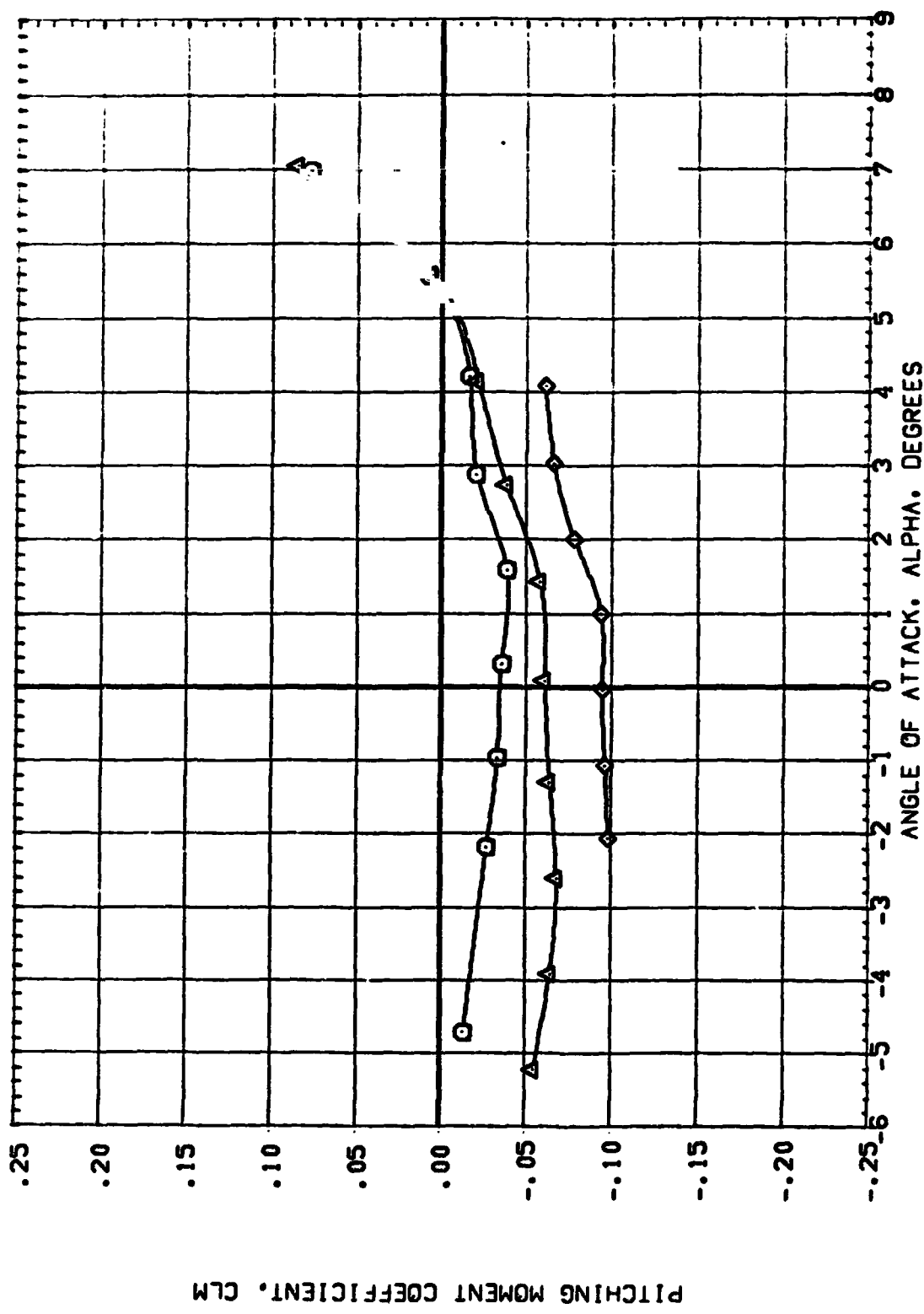


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.30, LAMBDA = 60 DEGREES

(A) MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE012) W1 P0 B
 (FAE009) W1 P5 B
 (FAE058) W1 P10 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

BETA
 0.000
 0.000
 0.000

RN/L
 6.000
 6.000
 6.000

SWEEP
 60.000
 60.000
 60.000

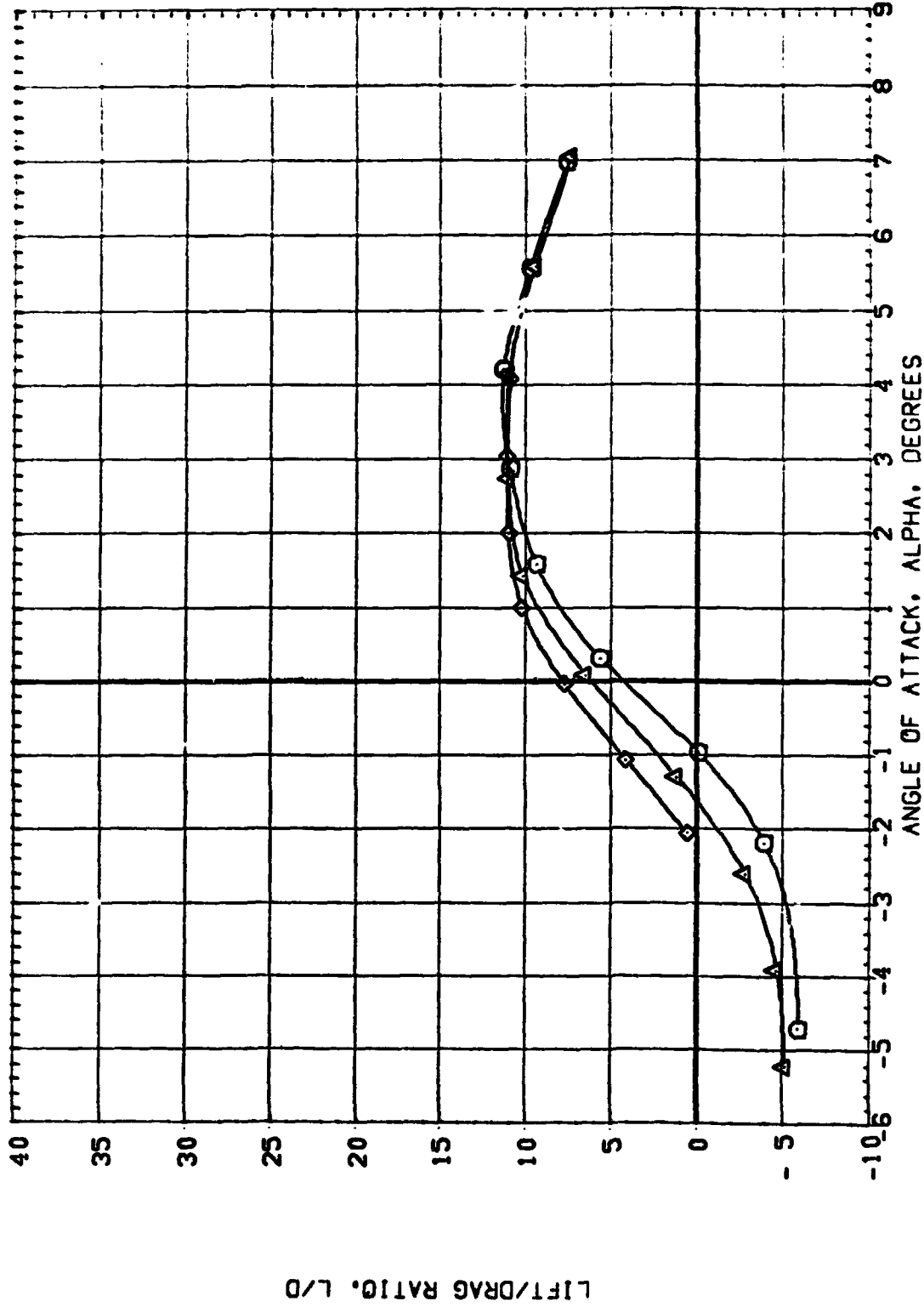


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.30, LAMBDA = 60 DEGREES

(A) MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE012) \square W1 F0 B
 (FAE055) \triangle W1 F5 B
 (FAE052) \diamond W1 F10 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

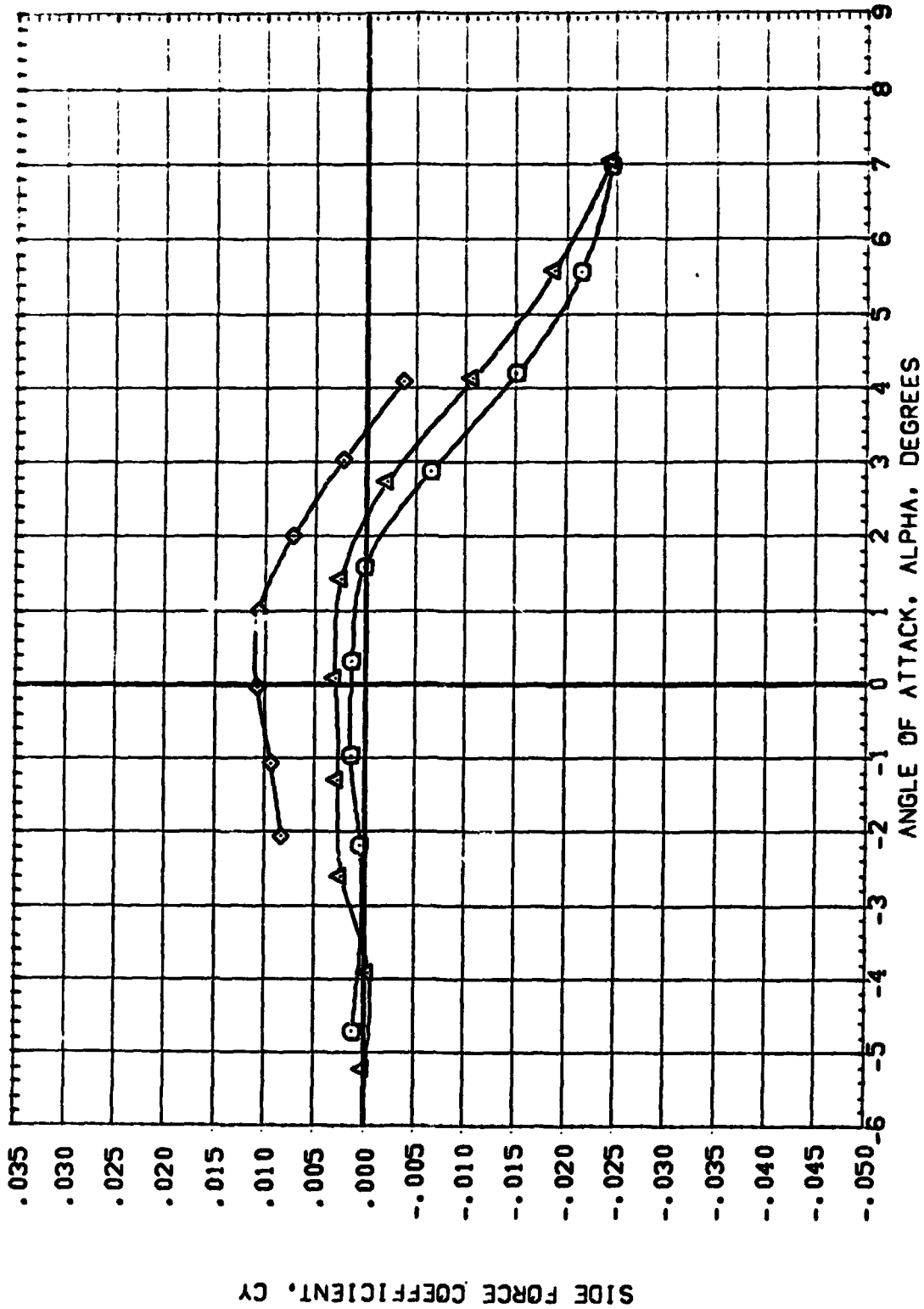


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.30, LAMBDA=60 DEGREES

(A)MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAG012) W1 F0 B
 (PAG039) W1 F5 B
 (PAG052) W1 F10 B

SWEEP
 60.000
 60.000
 60.000

RN/L
 6.000
 6.000
 6.000

BETA
 0.500
 0.500
 0.500

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

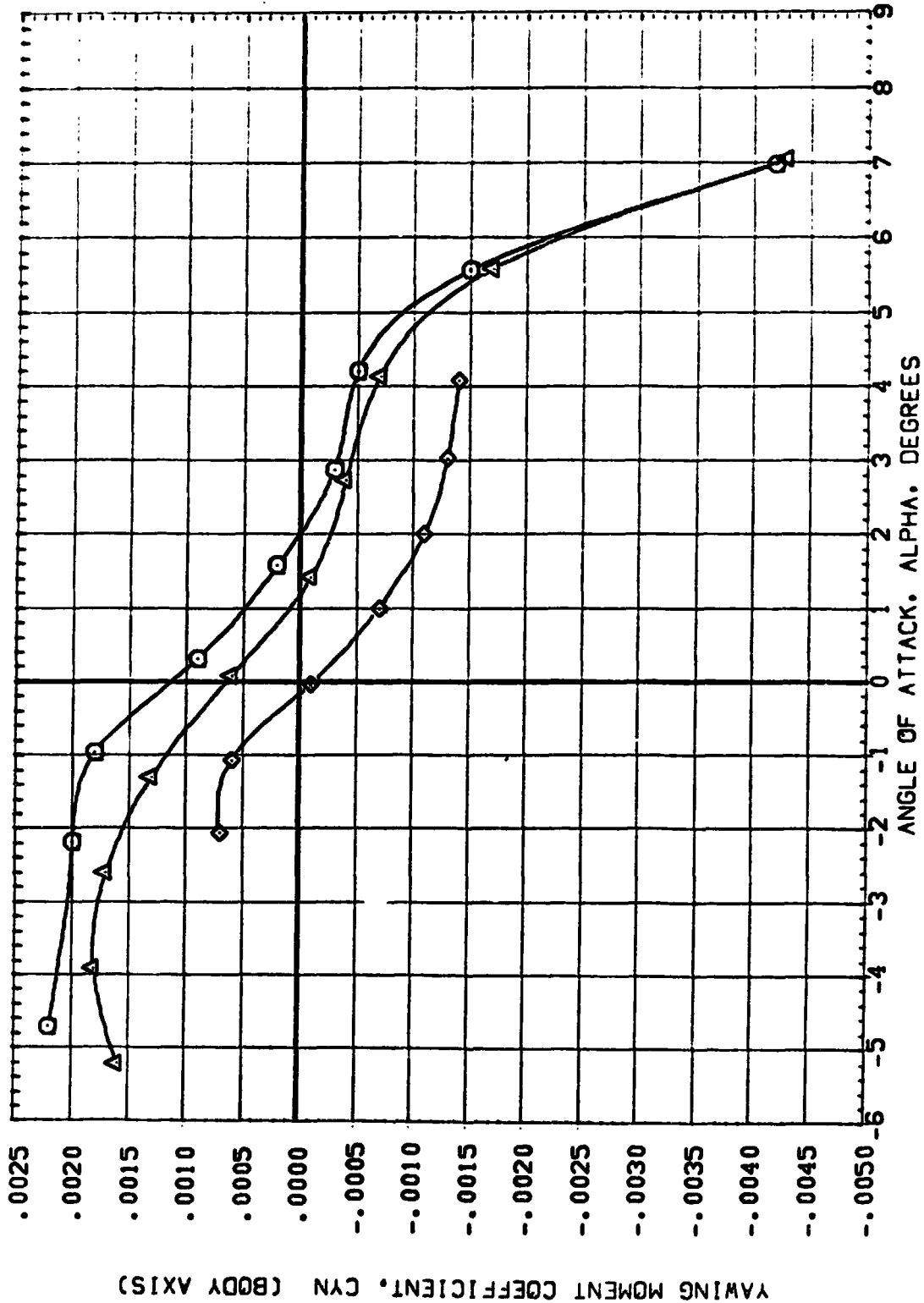


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.30, LAMBDA=60 DEGREES

(A)MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE012) W1 F0 B
 (FAE050) W1 F5 B
 (FAE052) W1 F10 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

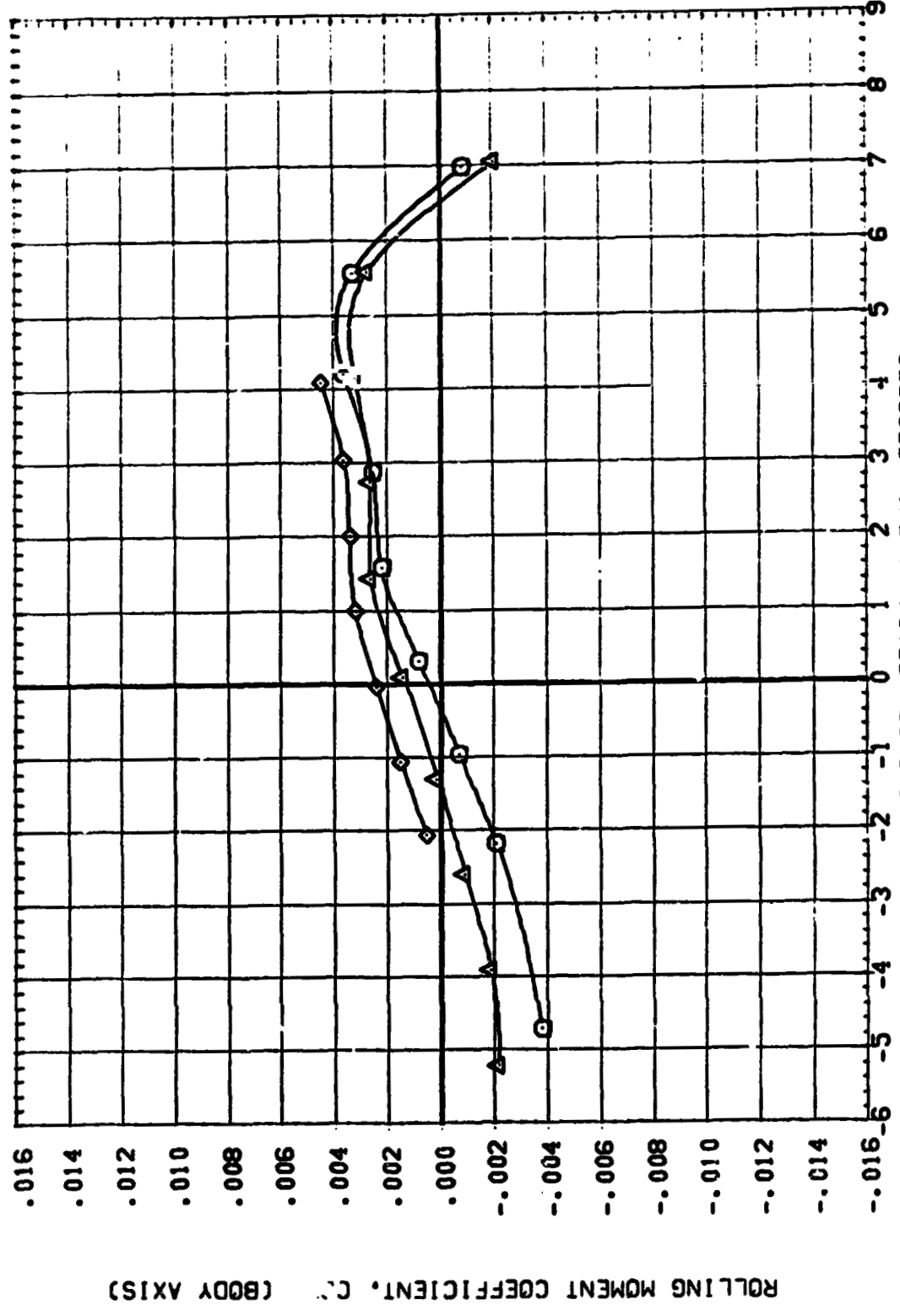


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.30, LAMBDA = 60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (JATO12) Ω V1 F0 B
 (CAE089) Ω W1 F5 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 3.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

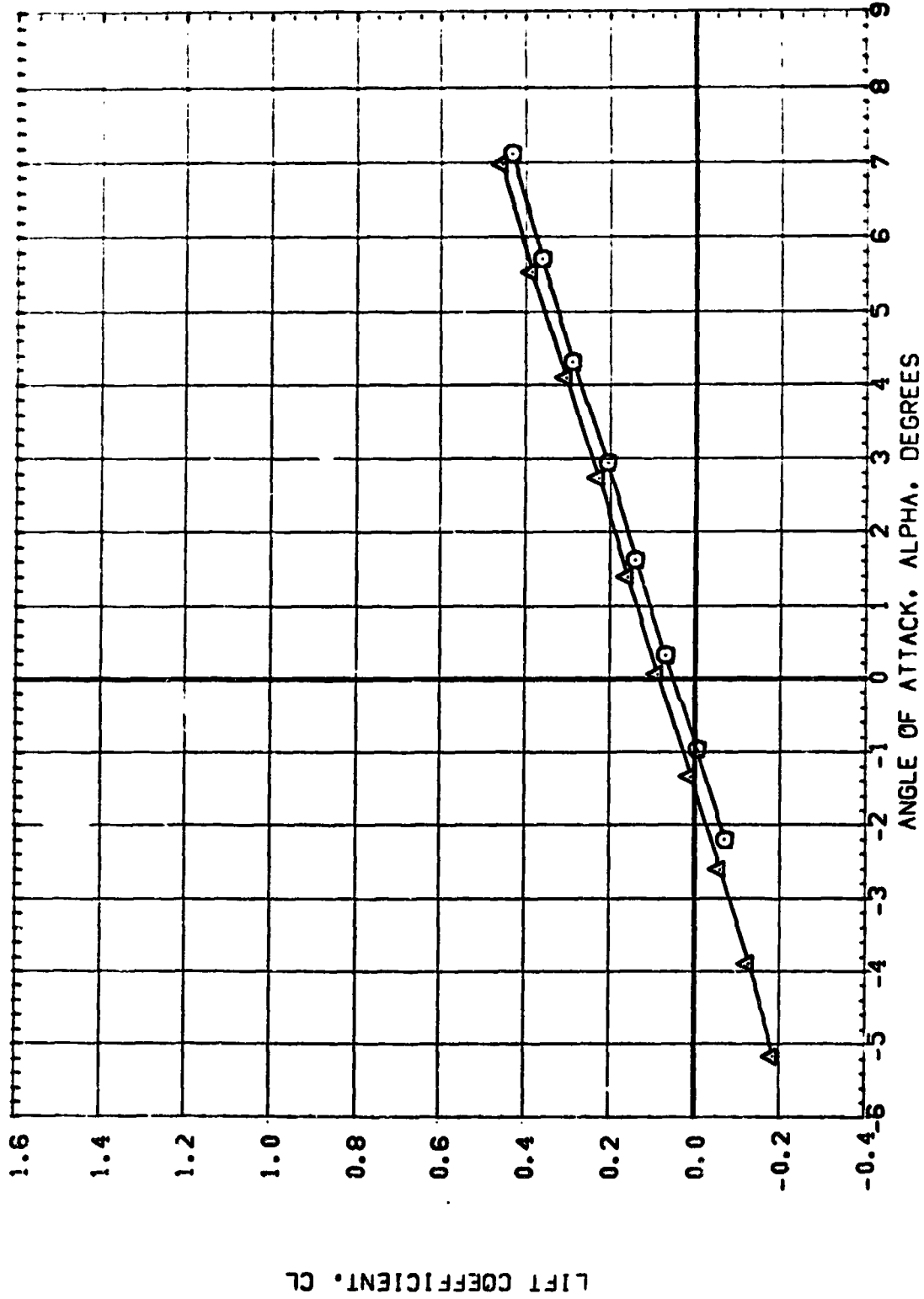


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.40, LAMBDA = 60 DEGREES

(A)MACH = 1.40

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (JA6012) M1 F0 B
 (CA6055) M1 F5 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

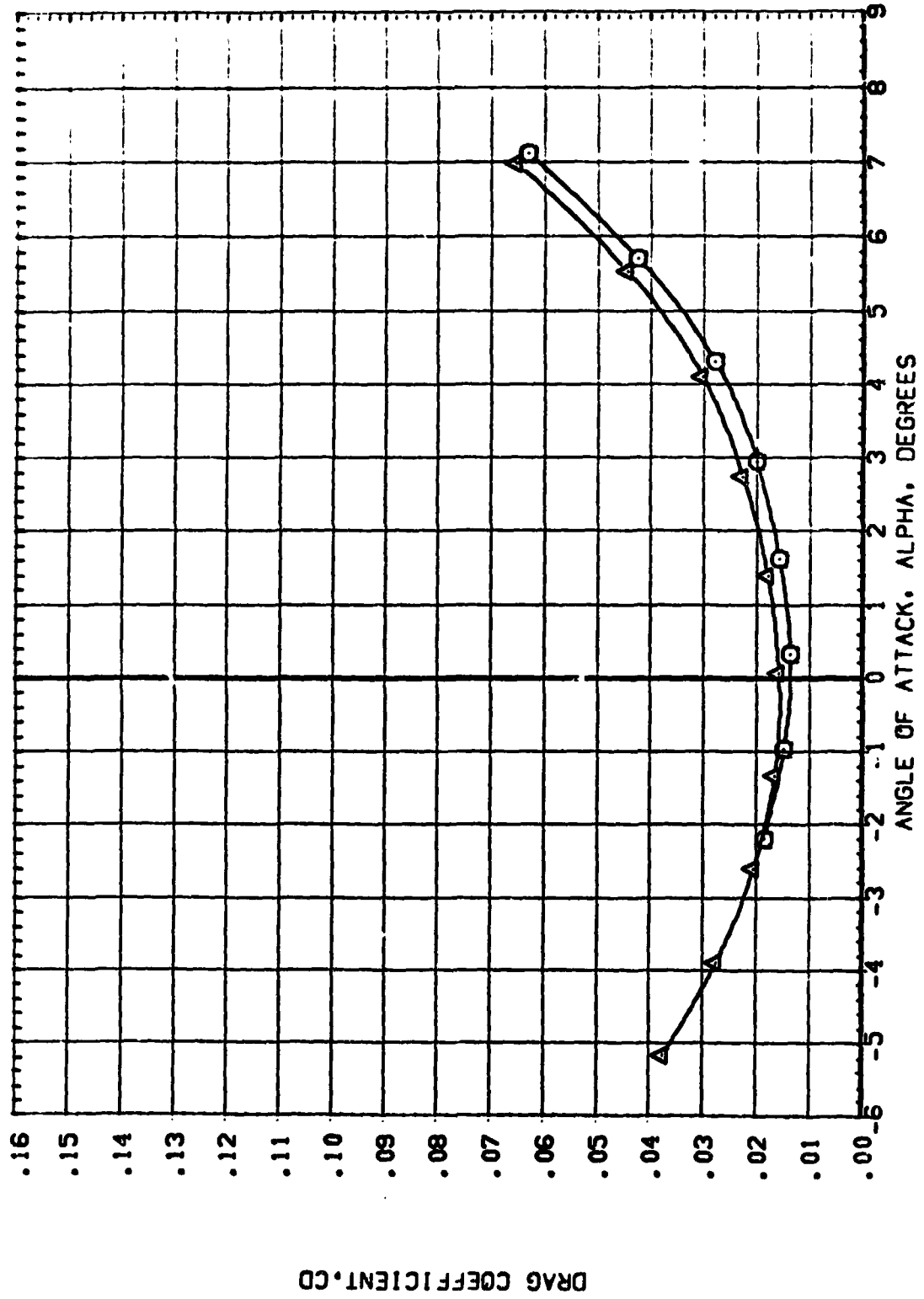


FIGURE 1. EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.40, LAMBDA = 60 DEGREES

(A) MACH = 1.40

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (JAED12) W1 P0 B
 (6AE059) W1 P5 B

SWEEP RN/L CS10
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

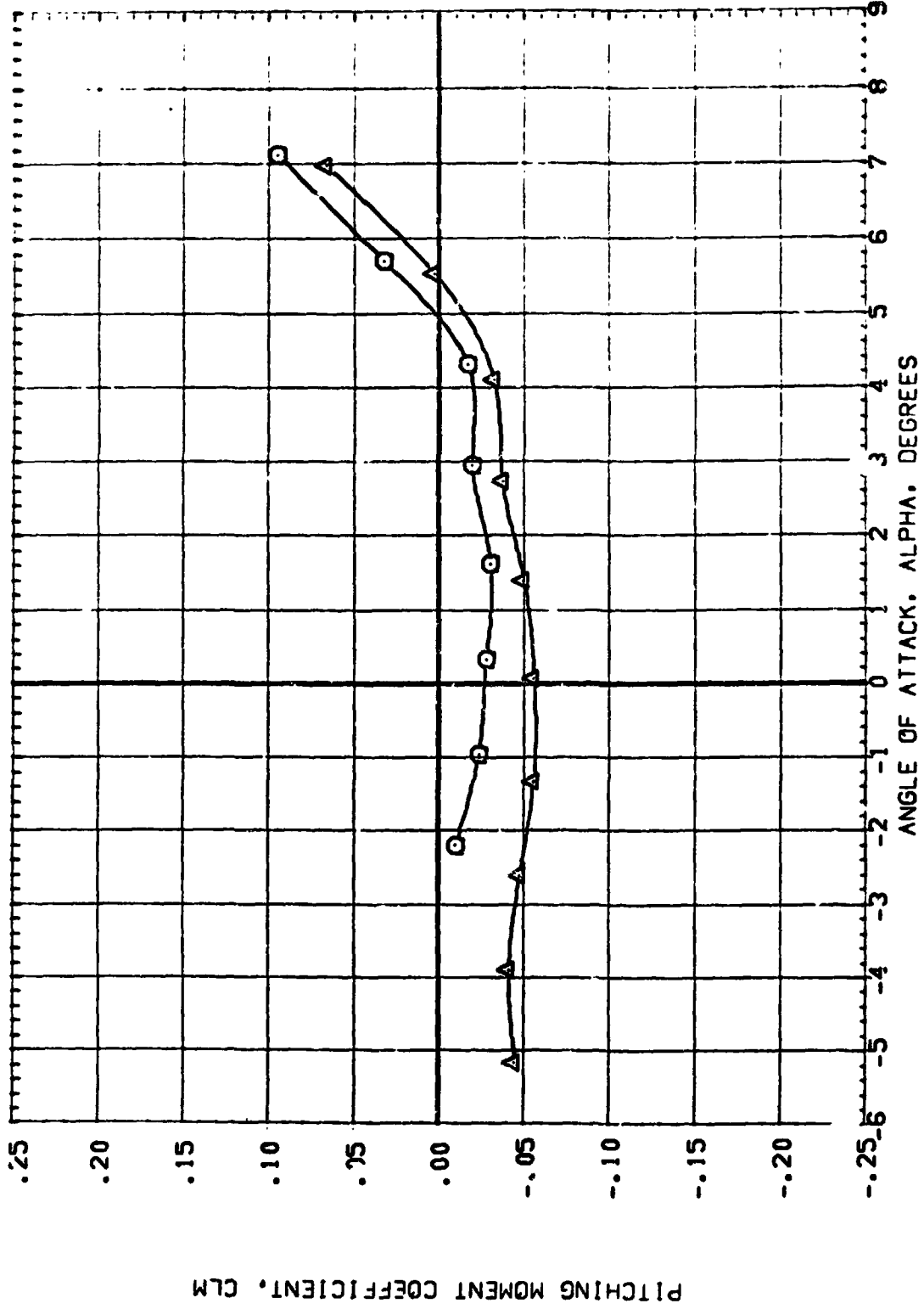


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.40, LAMBDA=60 DEGREES

(*) MACH = 1.40

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (JAED12) WS F0 B
 (GAED10) WS F5 B

SWEEP RM/L
 60.000 6.000
 60.000 6.000

BETA
 0.000
 0.000

THE ASSOCIATED DATA
 CURRENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

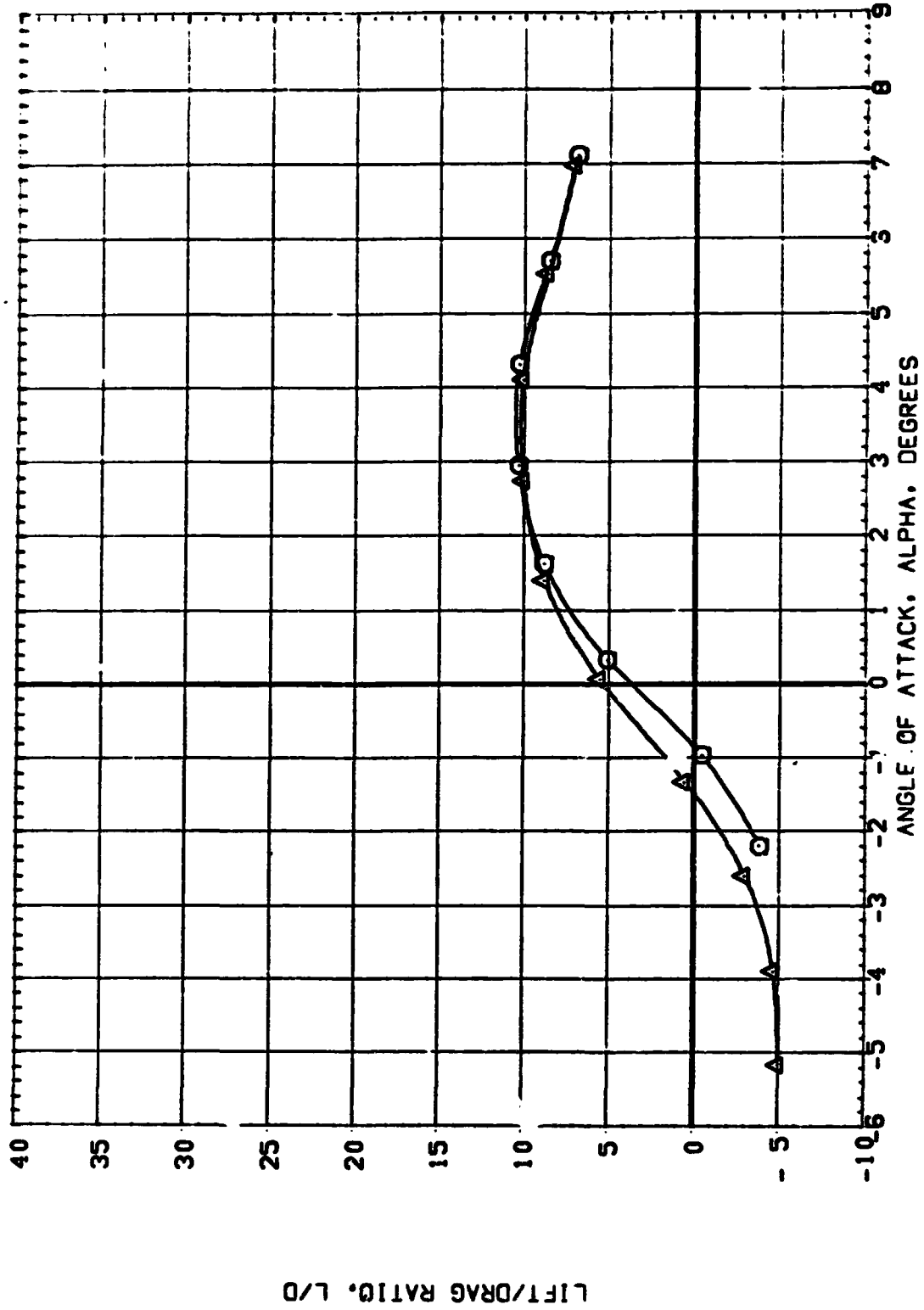


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.40, LAMBDA = 60 DEGREES

(A) MACH = 1.40

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (JAE018) W1 P0 B
 (CAE059) W1 P5 B

SURF RN/L BETA
 60,000 6,000 0.000
 60,000 6,000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

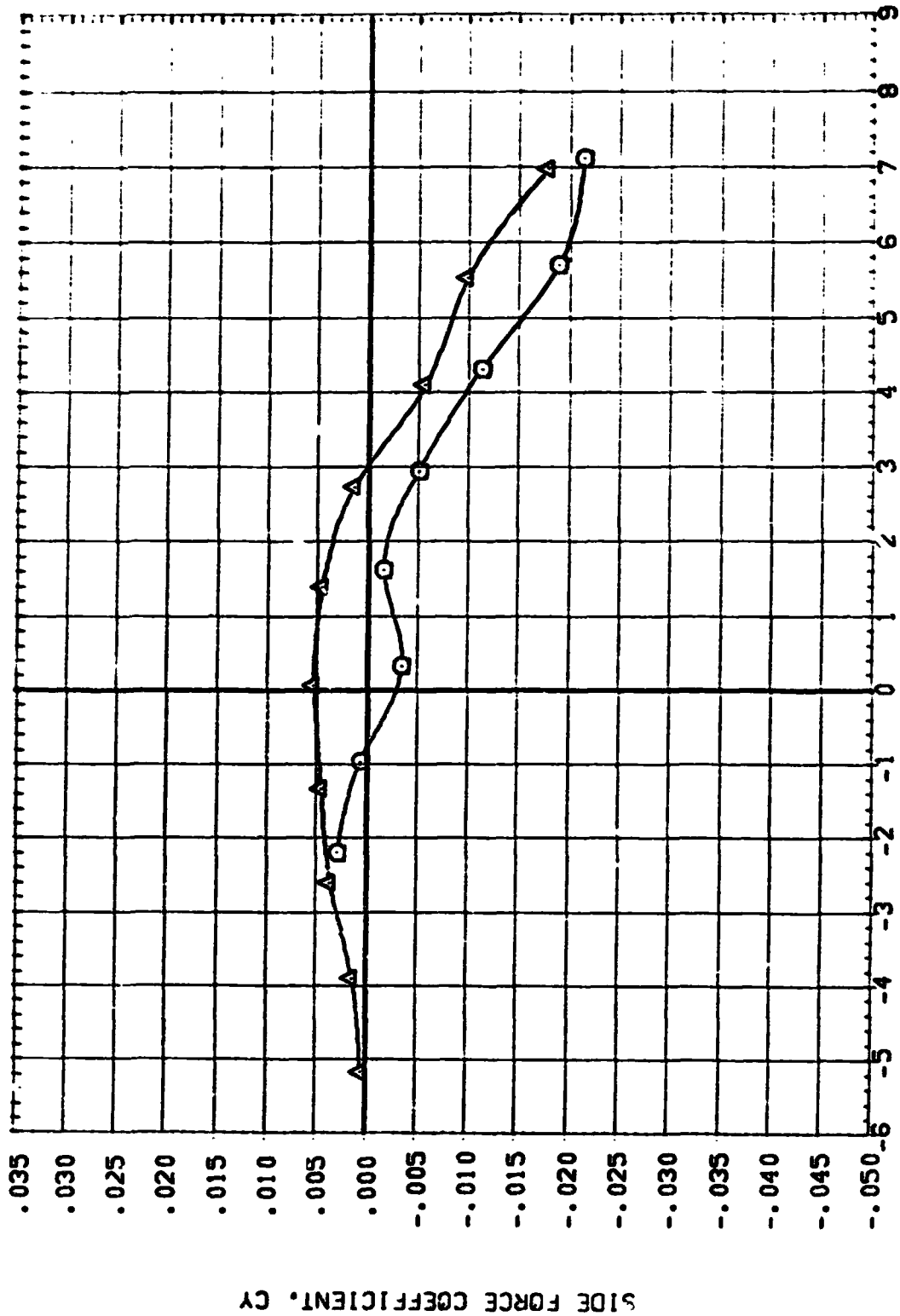


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.40, LAMBDA = 60 DEGREES

(A) MACH = 1.40

DATA SET SYMBOL (JA012) (GA006)
 CONFIGURATION DESCRIPTION W1 P0 B W1 P5 B

SWEEP 60.000 60.000
 RM/L 6.000 6.000
 BETA 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

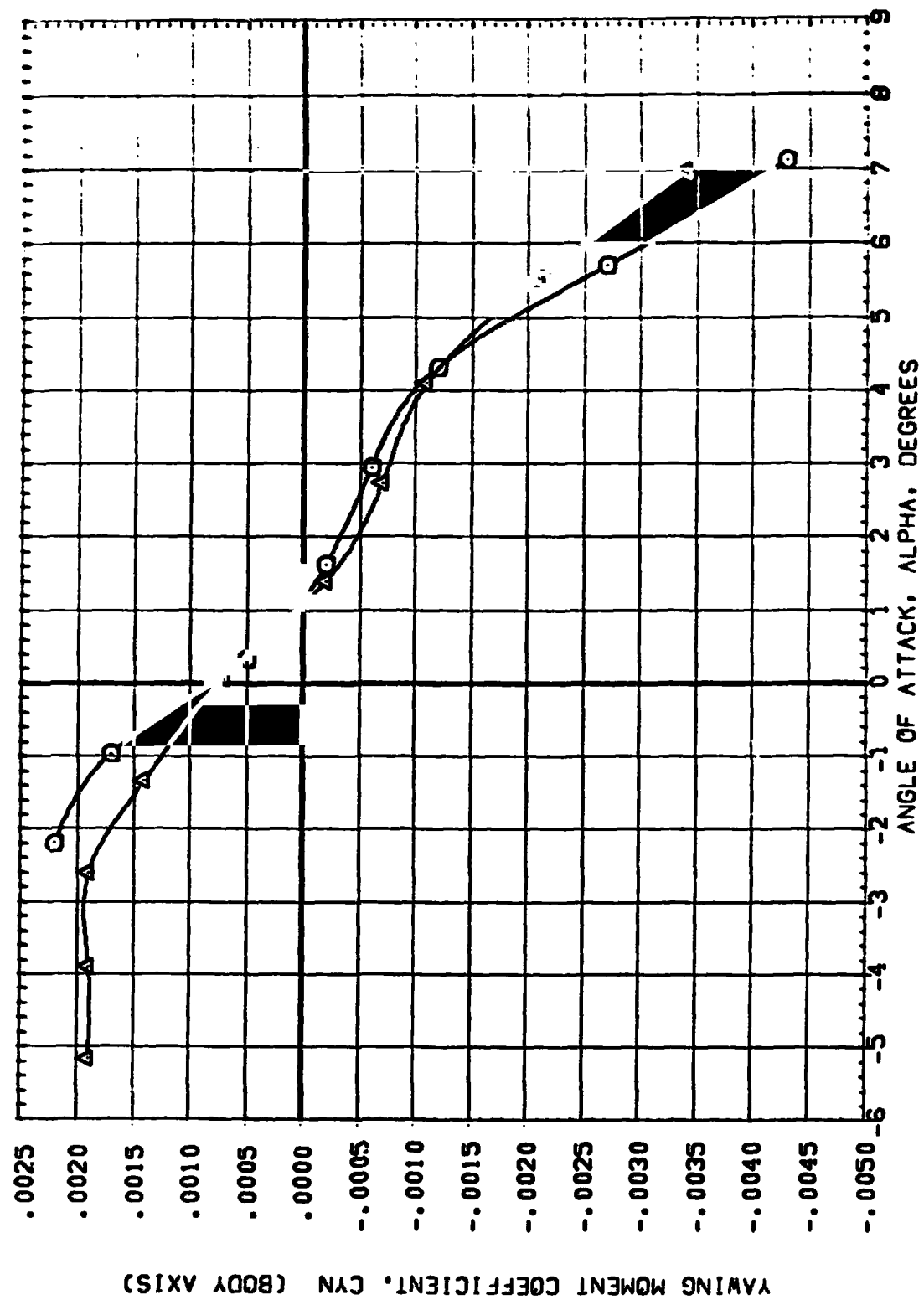


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.40, LAMBDA=60 DEGREES
 (A)MACH = 1.40 PAGE 125

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (JAE018) W1 P0 8
 (EAC055) W1 P8 8

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

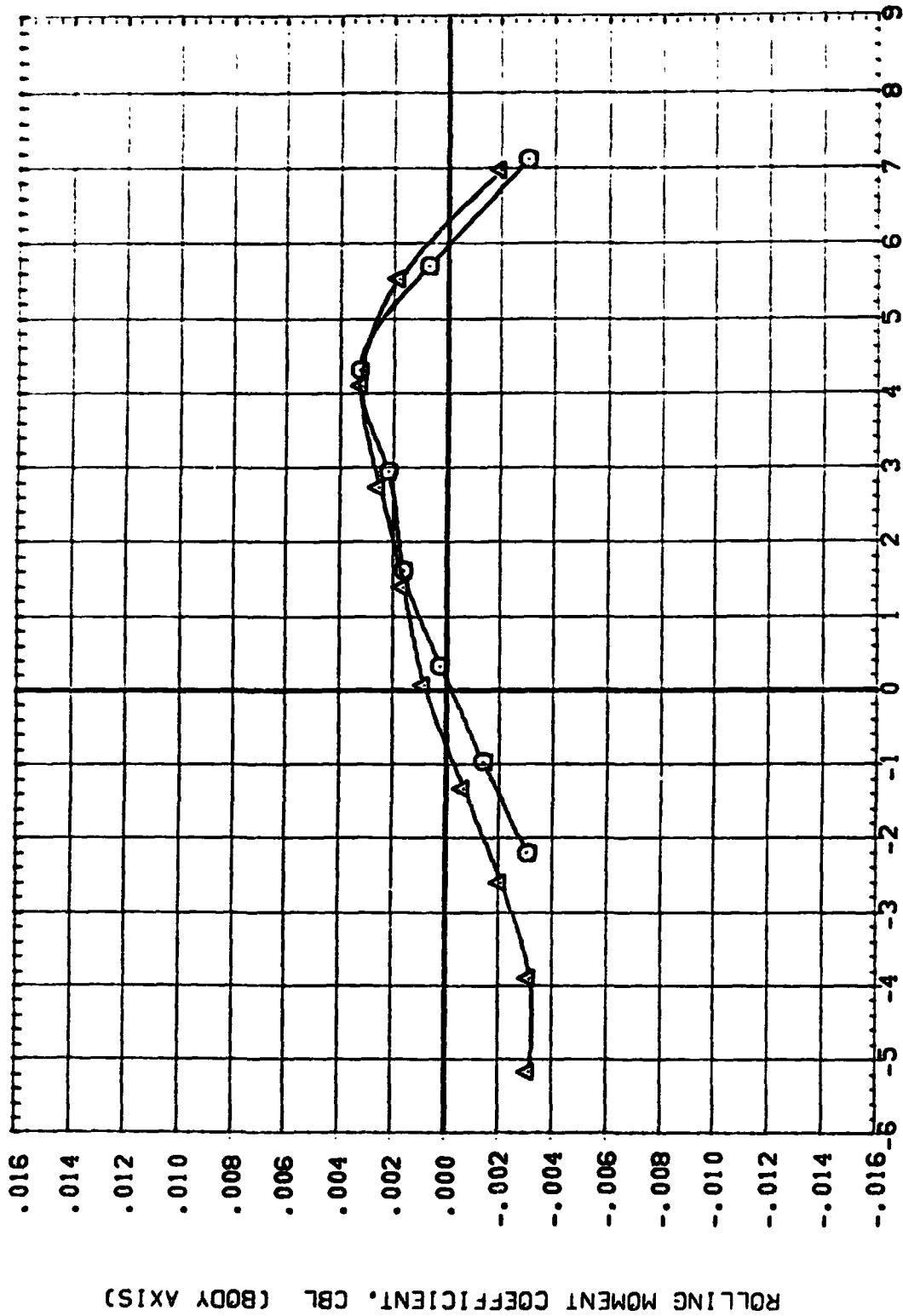


FIGURE 4 EFFECT OF TRAILING EDGE ANGLE, MACH NO. = 1.40, LAMBDA = 60 DEGREES

(A) MACH = 1.40

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (VAE003) \odot W1 P0 B
 (VAE001) \triangle W3 P0 B

SWEEP RN/L δ :TA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

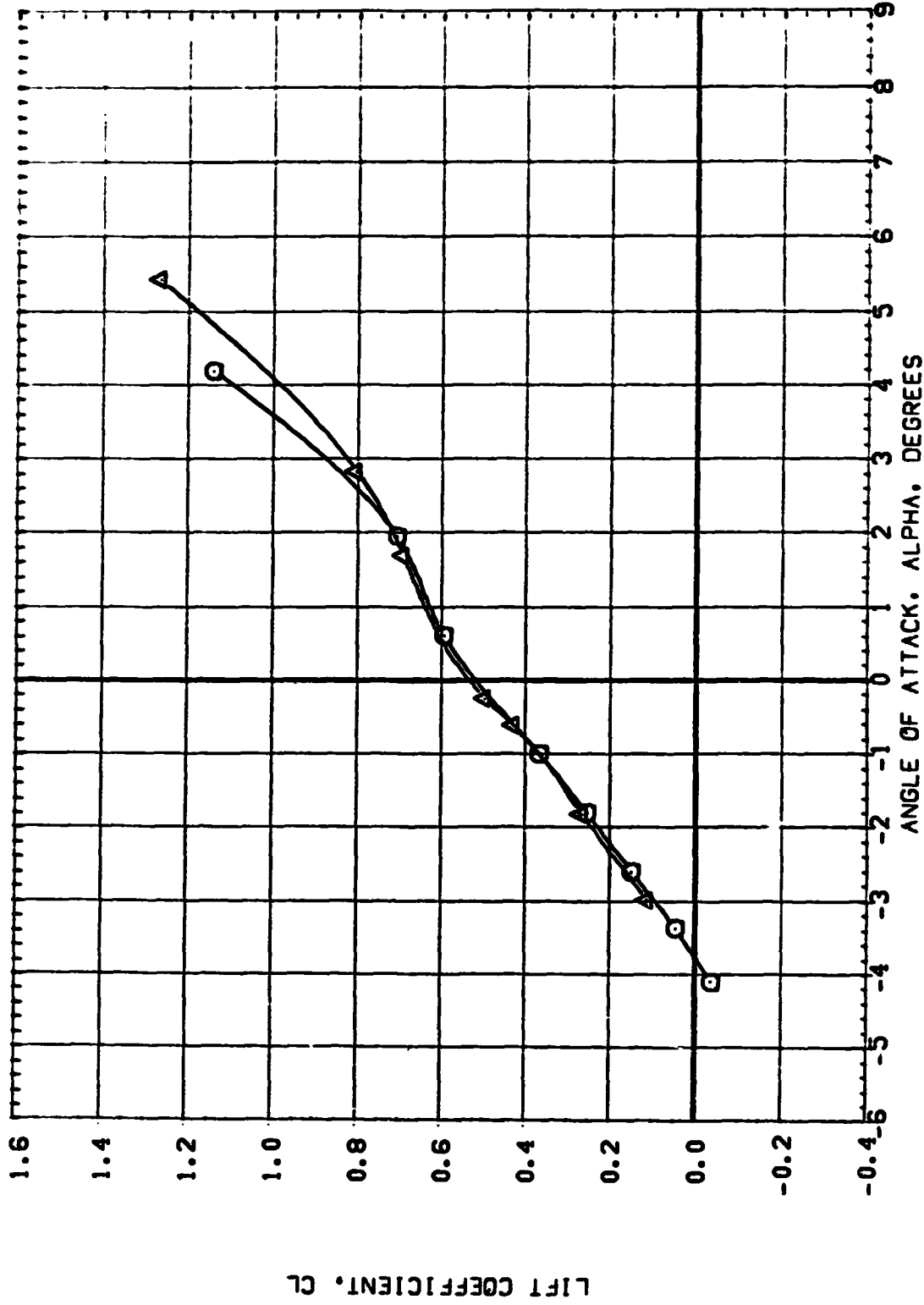


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (VAE003) W1 P0 B
 (VAE001) W3 P0 B

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

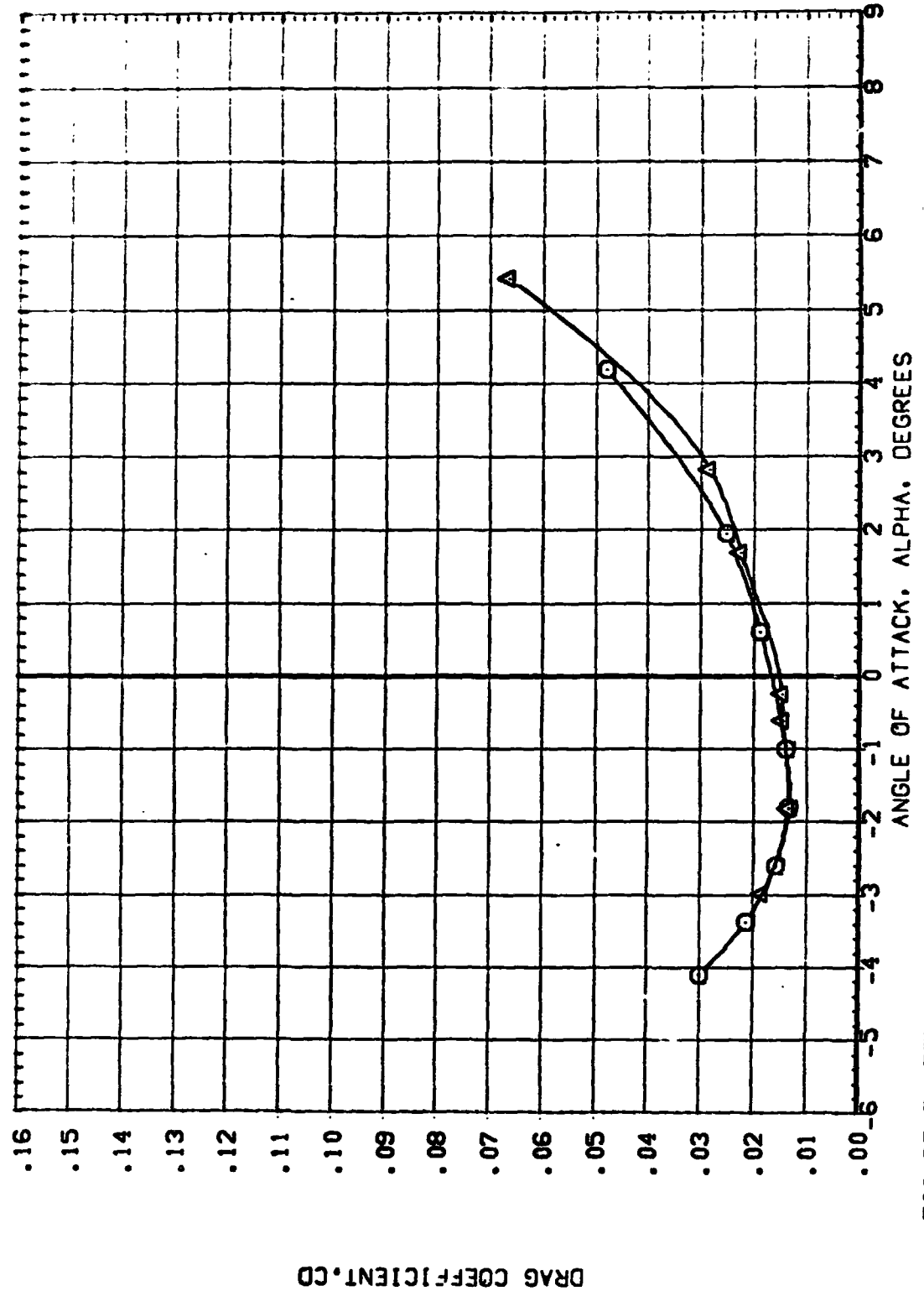


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA = 0 DEGREES
 (A) MACH = .70

DATA SET: YMBOL CONFIGURATION DESCRIPTION
 (YAE003) W1 P0 B
 (YAE001) W3 P0 B

SWEEP RM/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

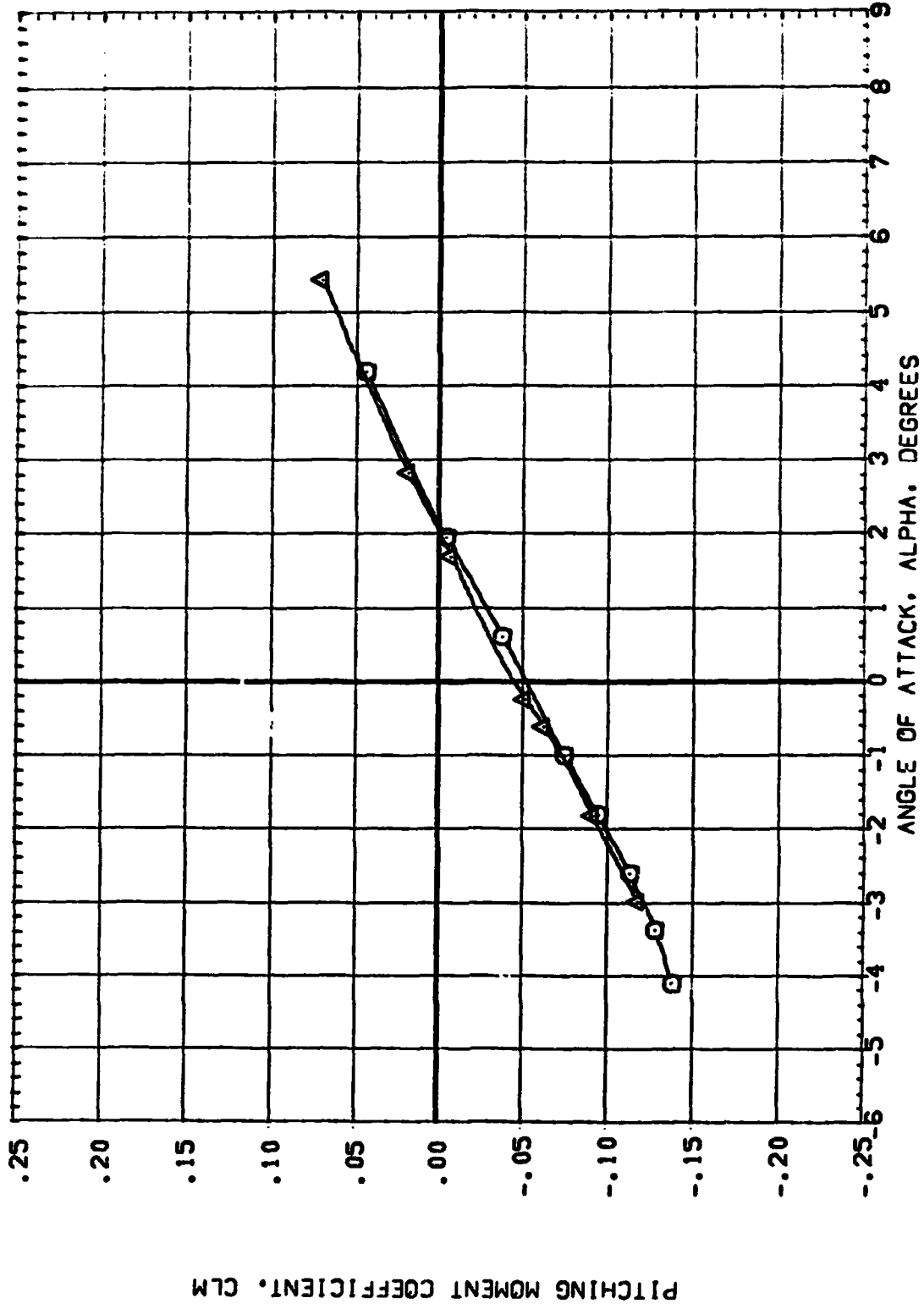


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.70, LAMBDA= 0 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (YAC003) W1 F0 B
 (YAC001) W3 F0 B

SWEEP RV/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

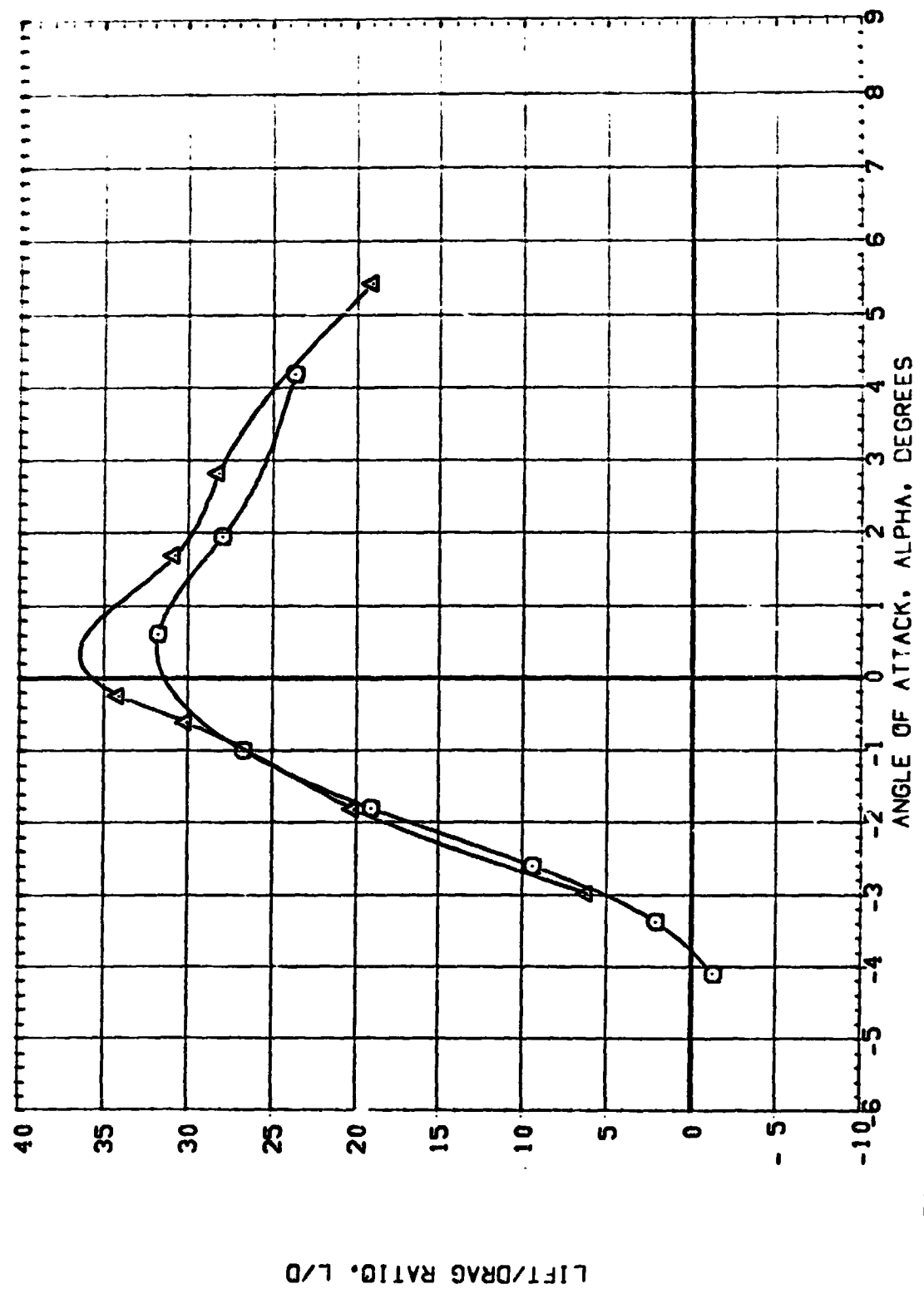


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA = 0 DEGREES
 (A) MACH = .70

DATA SET SYMBOL: Ω CONFIGURATION: DESCRIPTION: W1 P0 B W3 P0 B

SWEEP: 0.000 6.000 0.000
 RM/L: 6.000 6.000
 BETA: 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

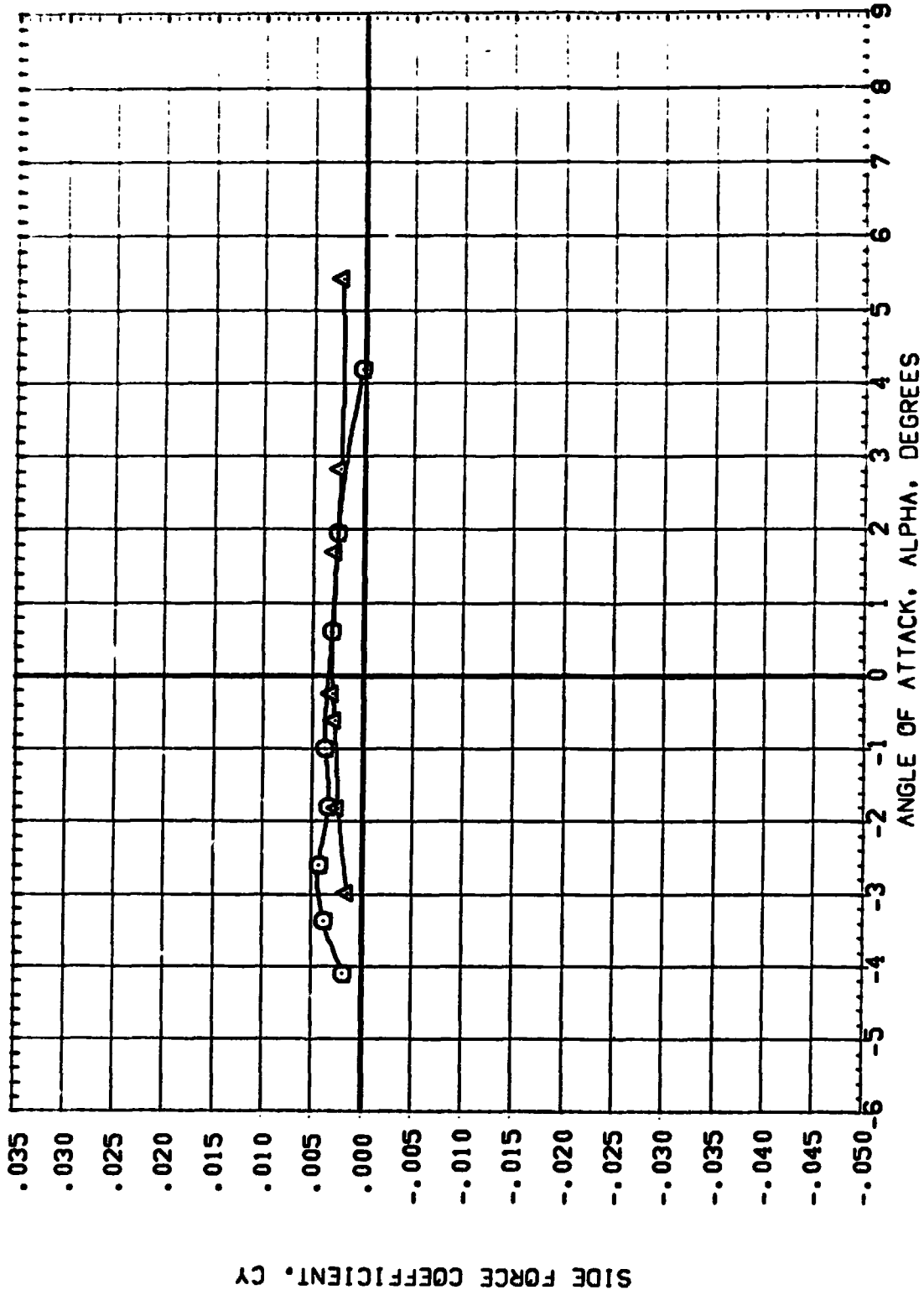


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A) MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (YAE003) (YAE001) W1 P0 B
 (YAE002) (YAE002) W8 P0 B

BWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

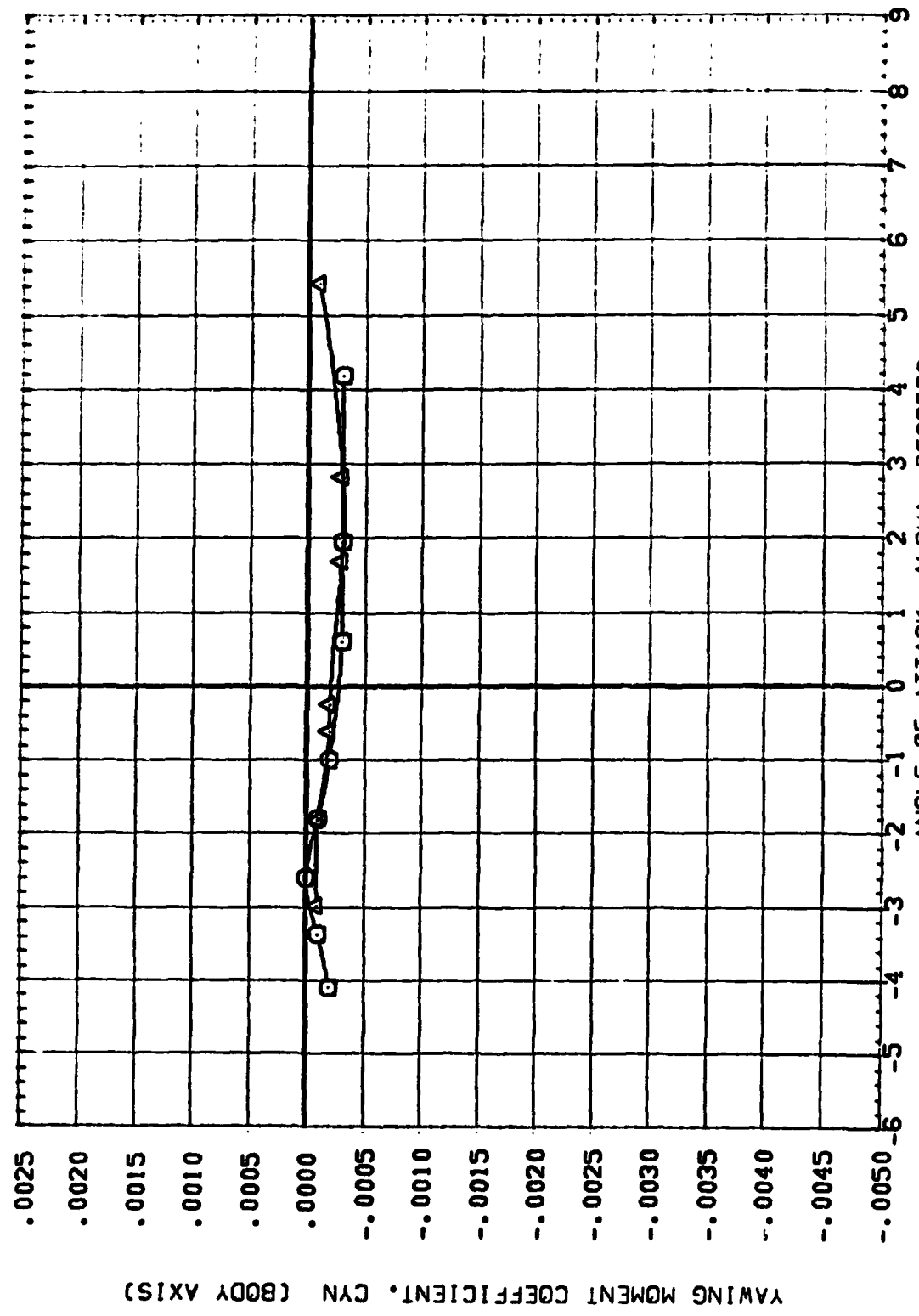


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (VAE003) W1 FO B
 (VAE001) W3 FO B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RMYL BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

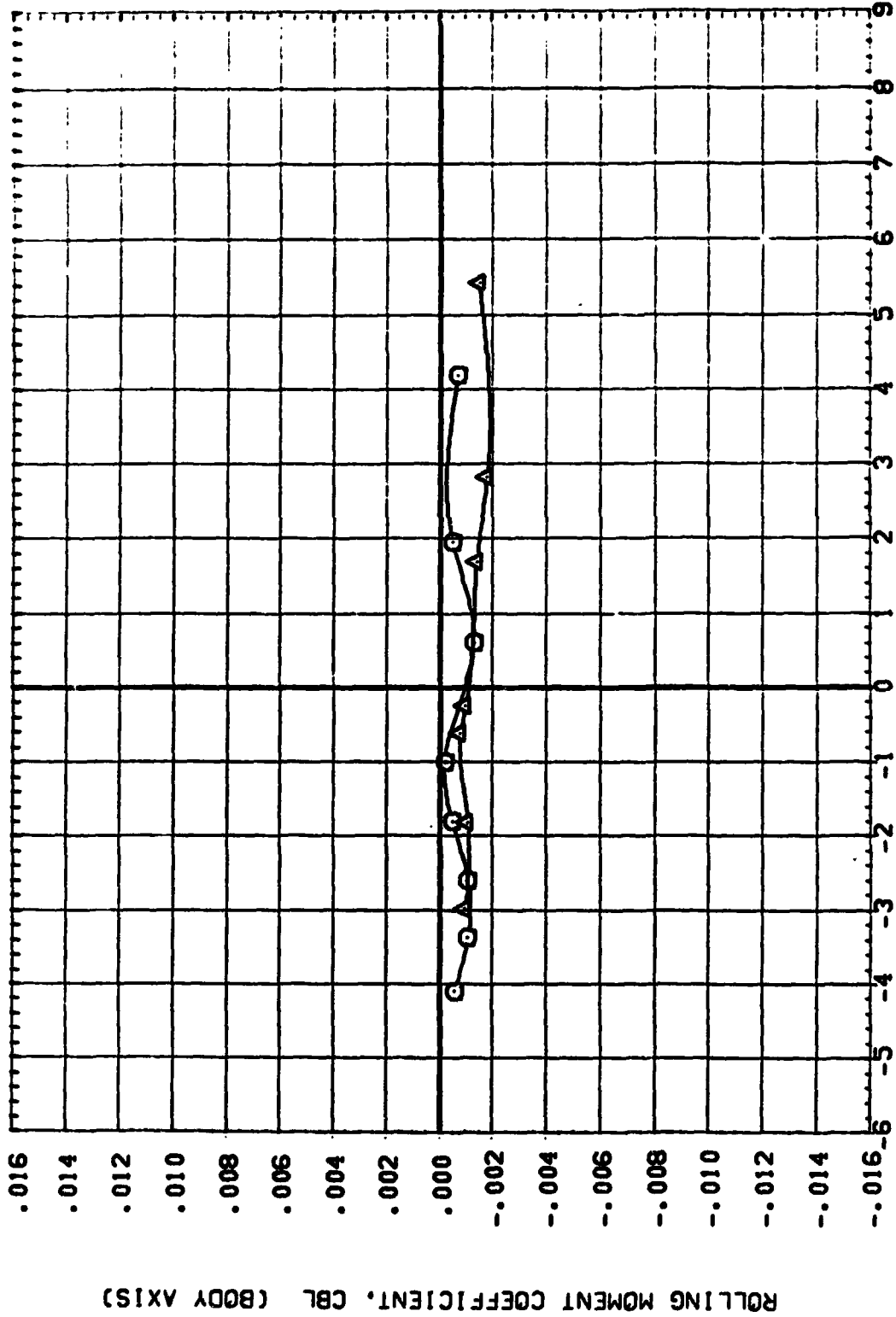


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A) MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE003) W1 FO B
 (DAE021) W3 FO B

SWEEP RH/L BETA
 0.000 6.000 0.500
 0.000 6.000 0.500

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

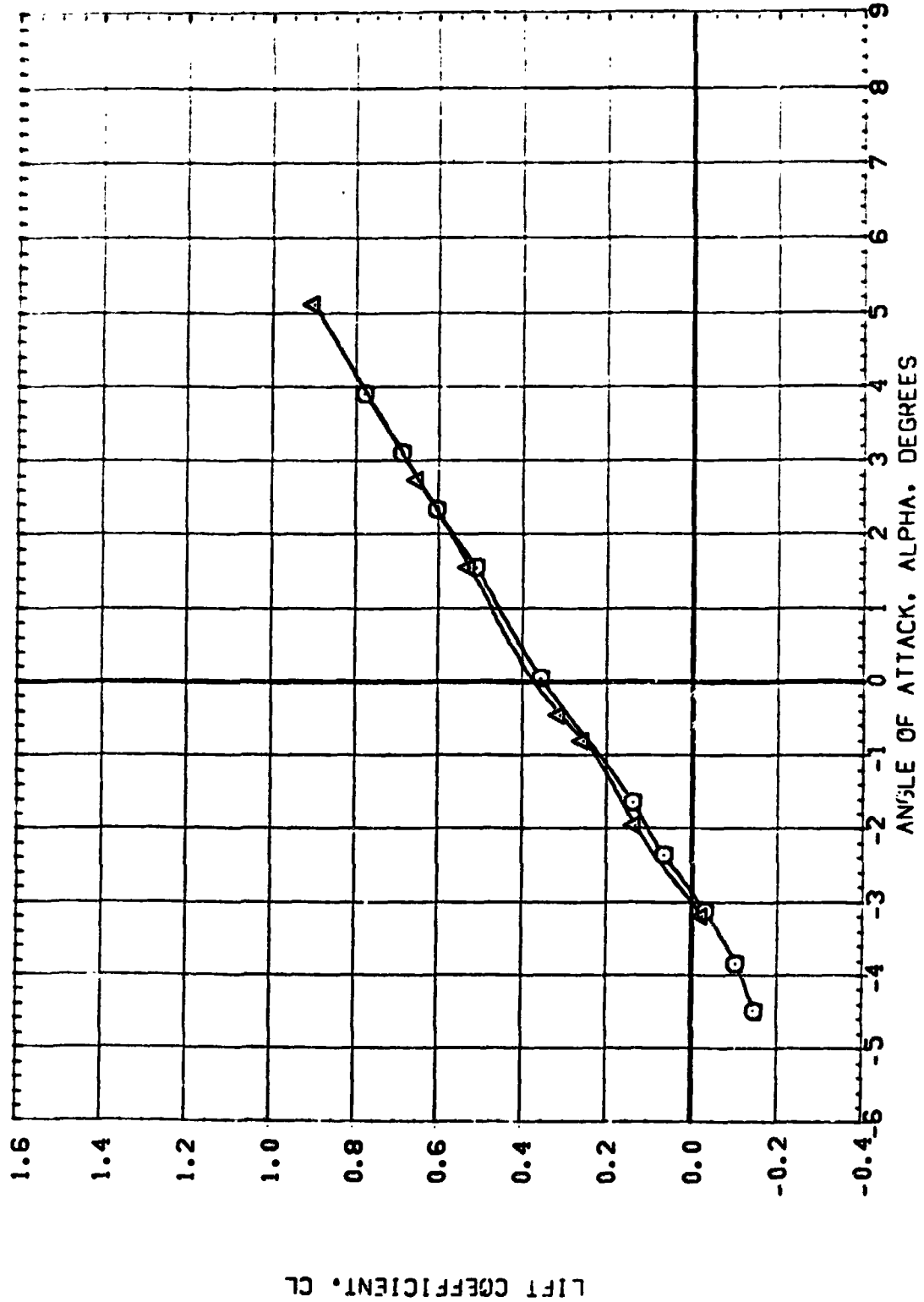


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 0 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (04E003) (A) W1 FO B
 (04E001) (B) W3 FO B

SWEEP RW/L DELTA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

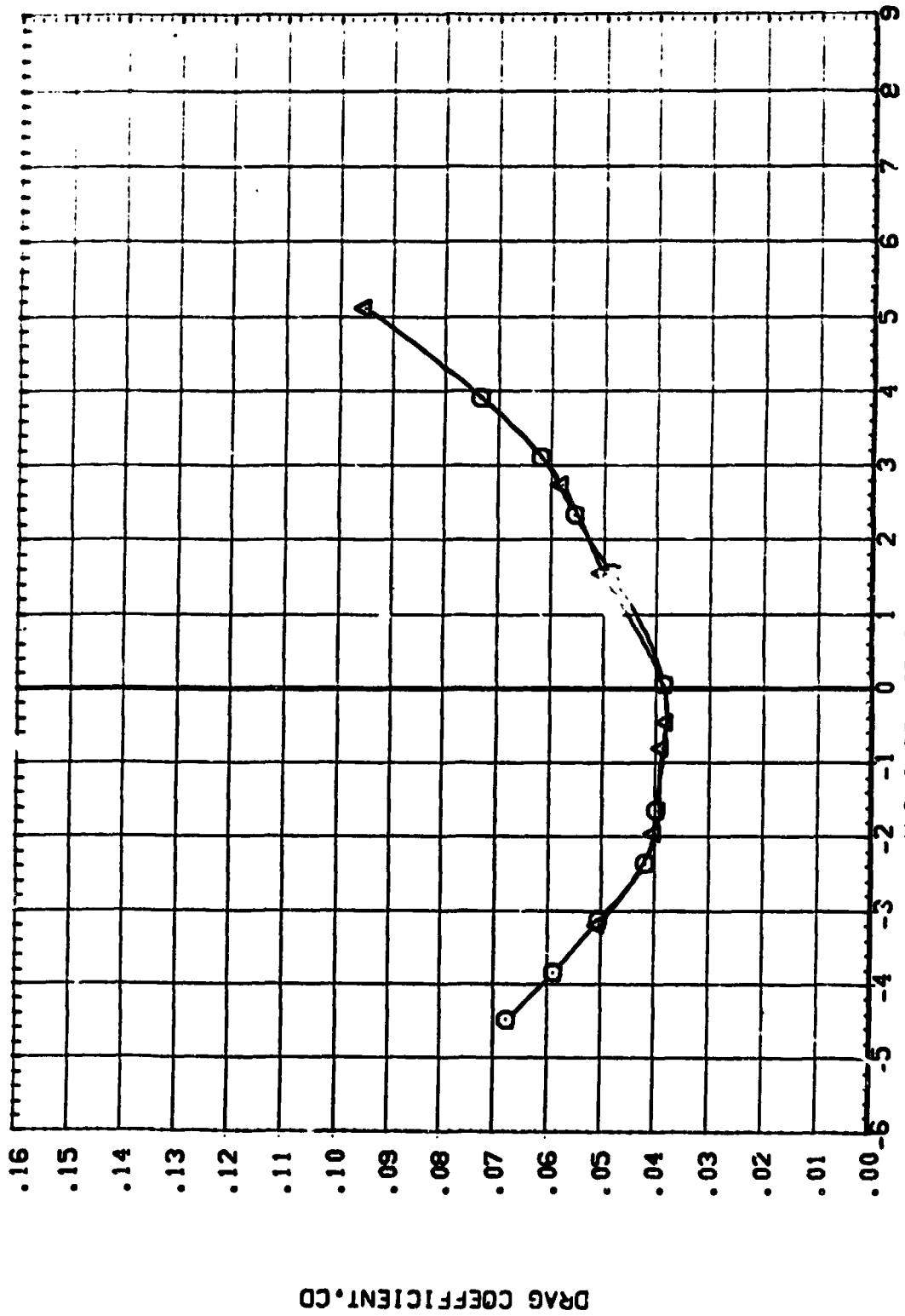


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 0 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE003) \square W1 FO B
 (DAE021) \triangle W3 FO B

SWEEP - RN/L BLTA
 0.000 6.000 0.000
 0.000 6.000 0.500

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

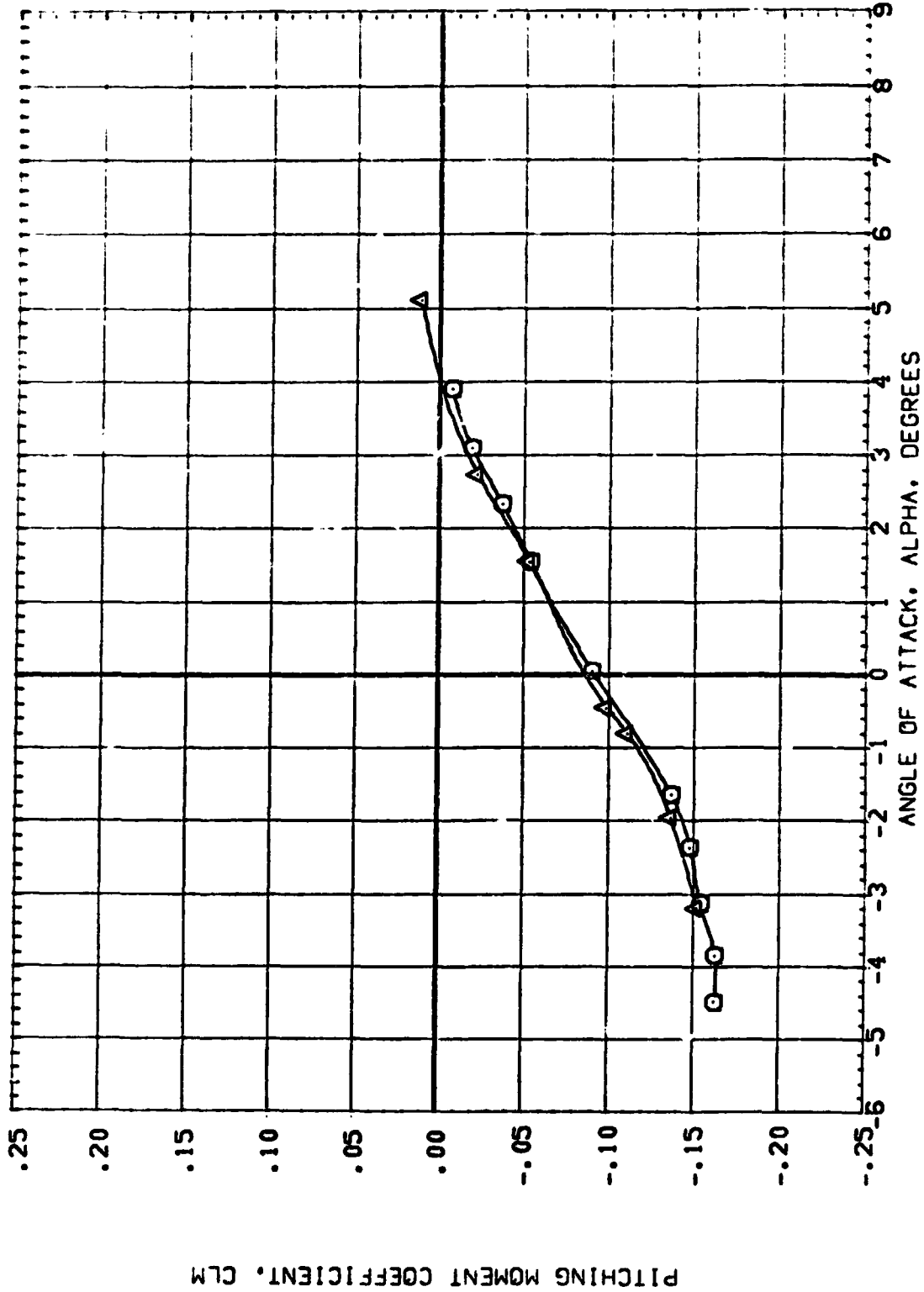


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 0 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION:
 (DAE003) W1 P0 B
 (DAE001) W3 P0 B

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

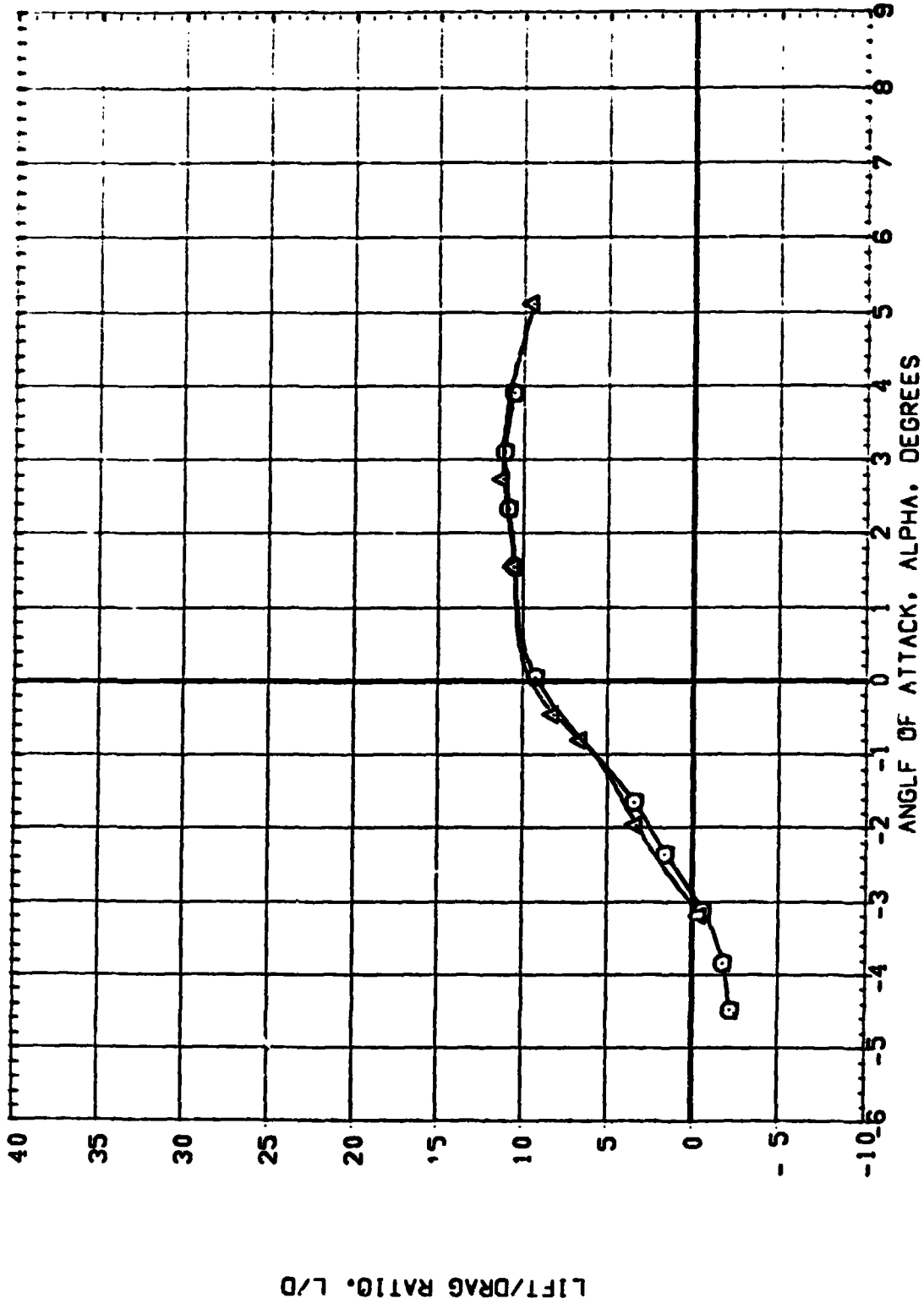


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 0 DEGREES

(A) MACH = .80

DA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAEGRS) Ω W3 FO B
 (DAEGRS) Δ W3 FO B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP AN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

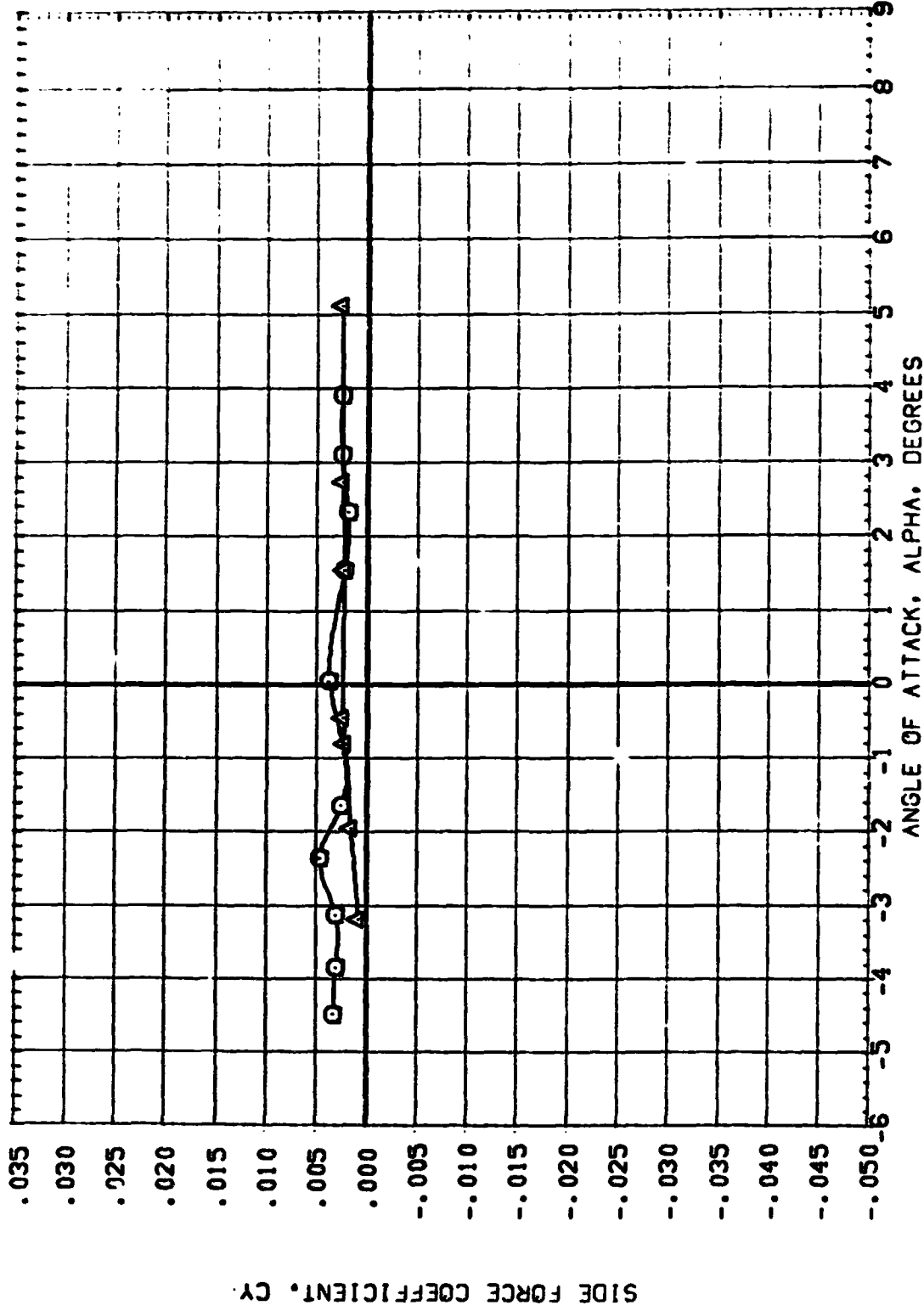


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 0 DEGREES

(A) MACH .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE003) Q W1 P0 B
 (DAE321) Q W3 P0 B

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

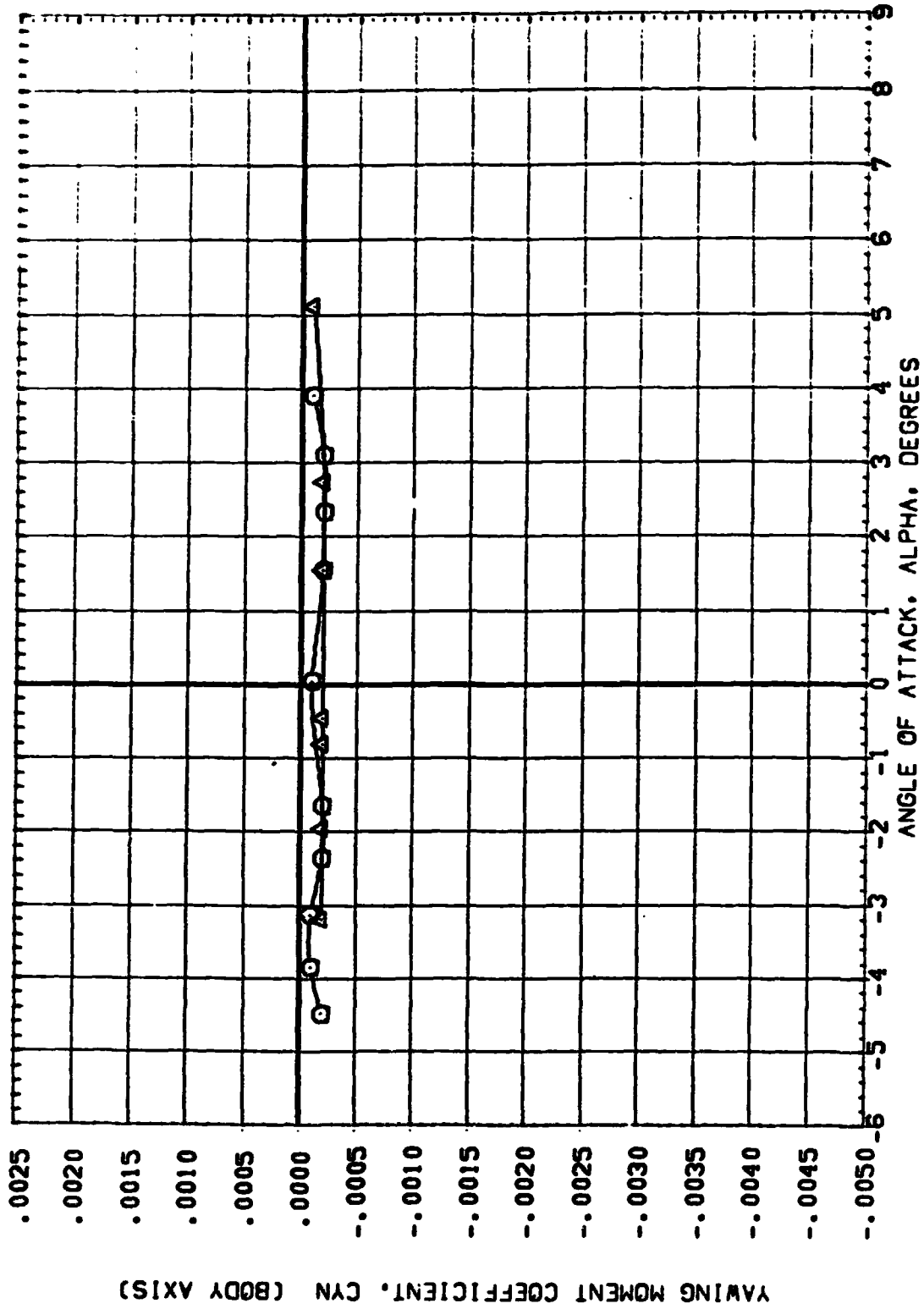


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.80, LAMBDA= 0 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE003) Ω W1 P0 B
 (DAE001) W3 P0 B

SWEPT ϕ /L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

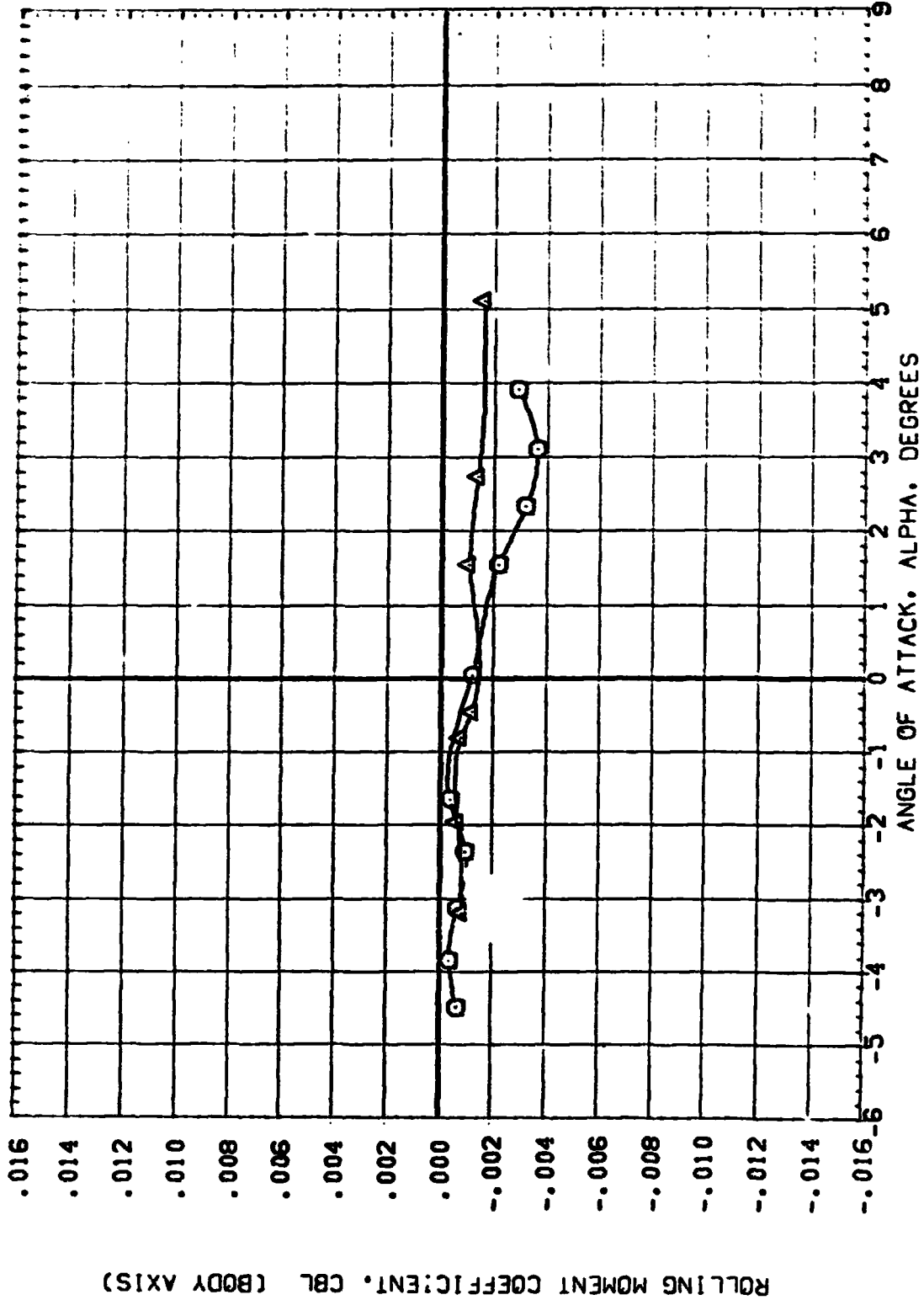


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 0 DEGREES

(A)MACH = .80

DATA SET SYMBOL - CONFIGURATION DESCRIPTION
 (CA005) W1 F0 8
 (CA005) W3 F0 8

SWEEP 45.000 45.000
 RW/L 6.000 6.000
 BETA 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

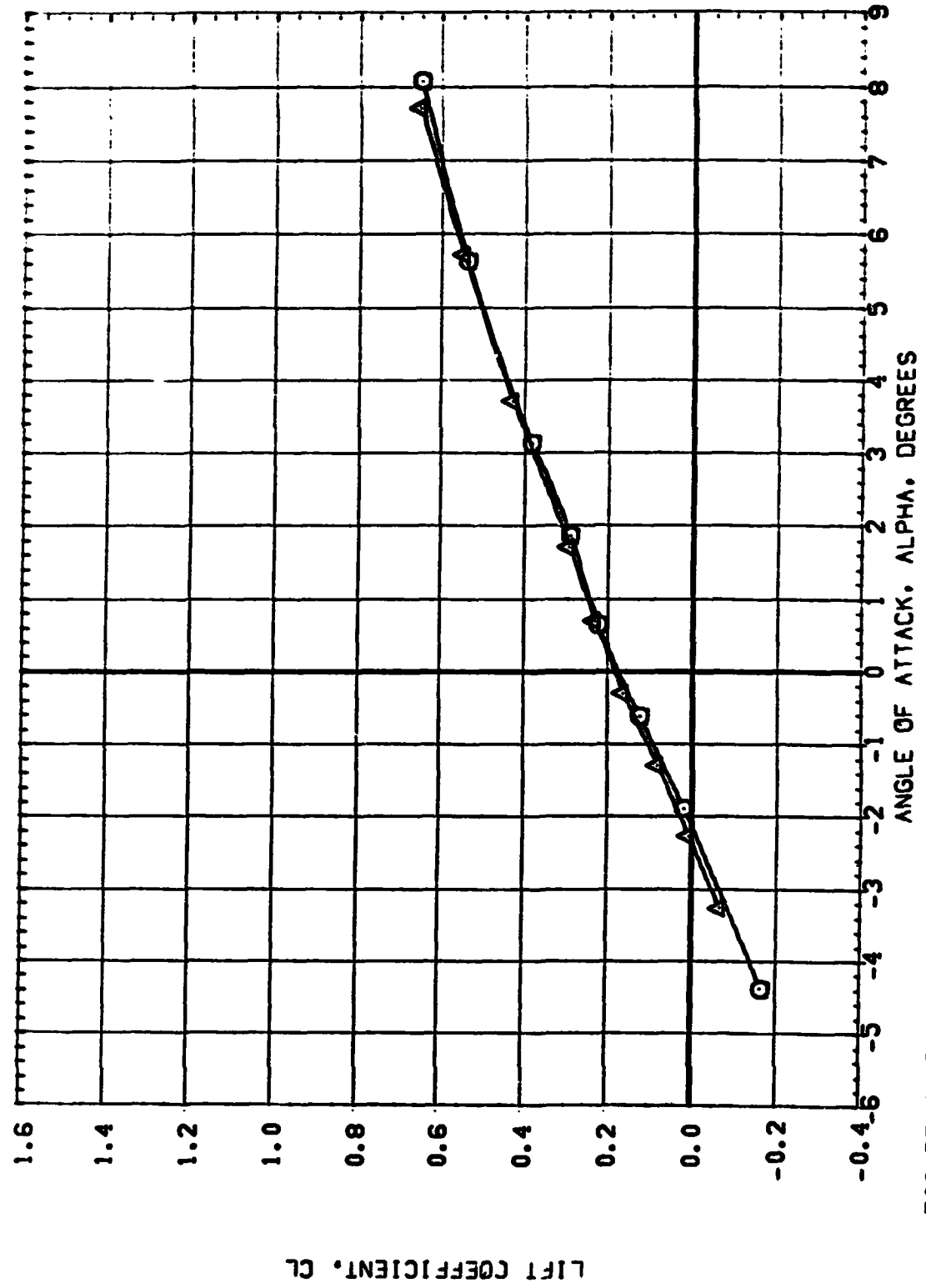


FIGURE 5 EFFECT OF DIHERAL, MACH NO. = 0.70, LAMBDA=45 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE008) M1 P0 8
 (CAE009) M3 P0 8

SWEEP RH/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS - JA
 INDIVIDUAL DATA 3

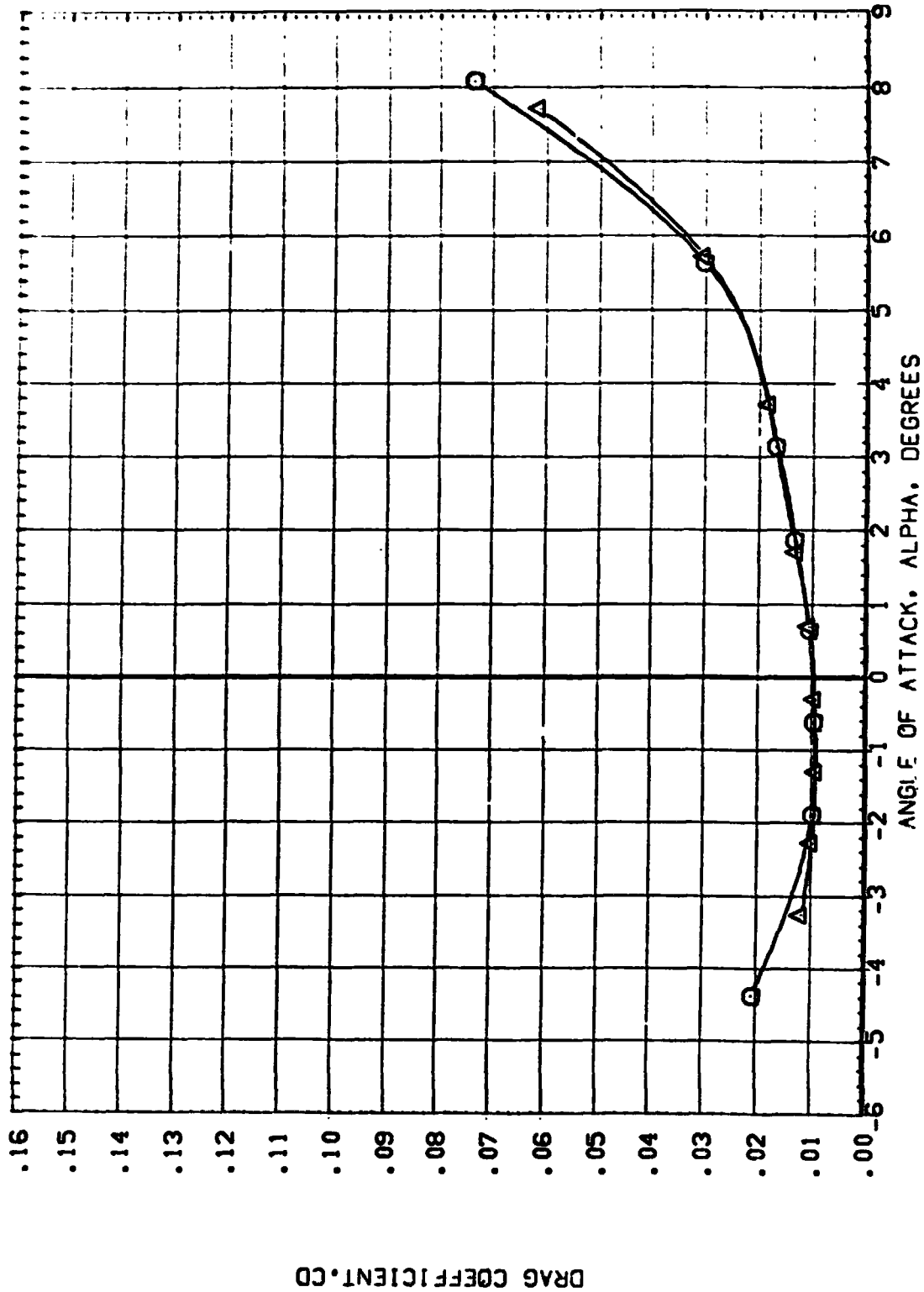


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA=45 DEGREES
 (A) MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE005) Q W1 FO B
 (CAE023) Q W3 FO B

SWEEP RW/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

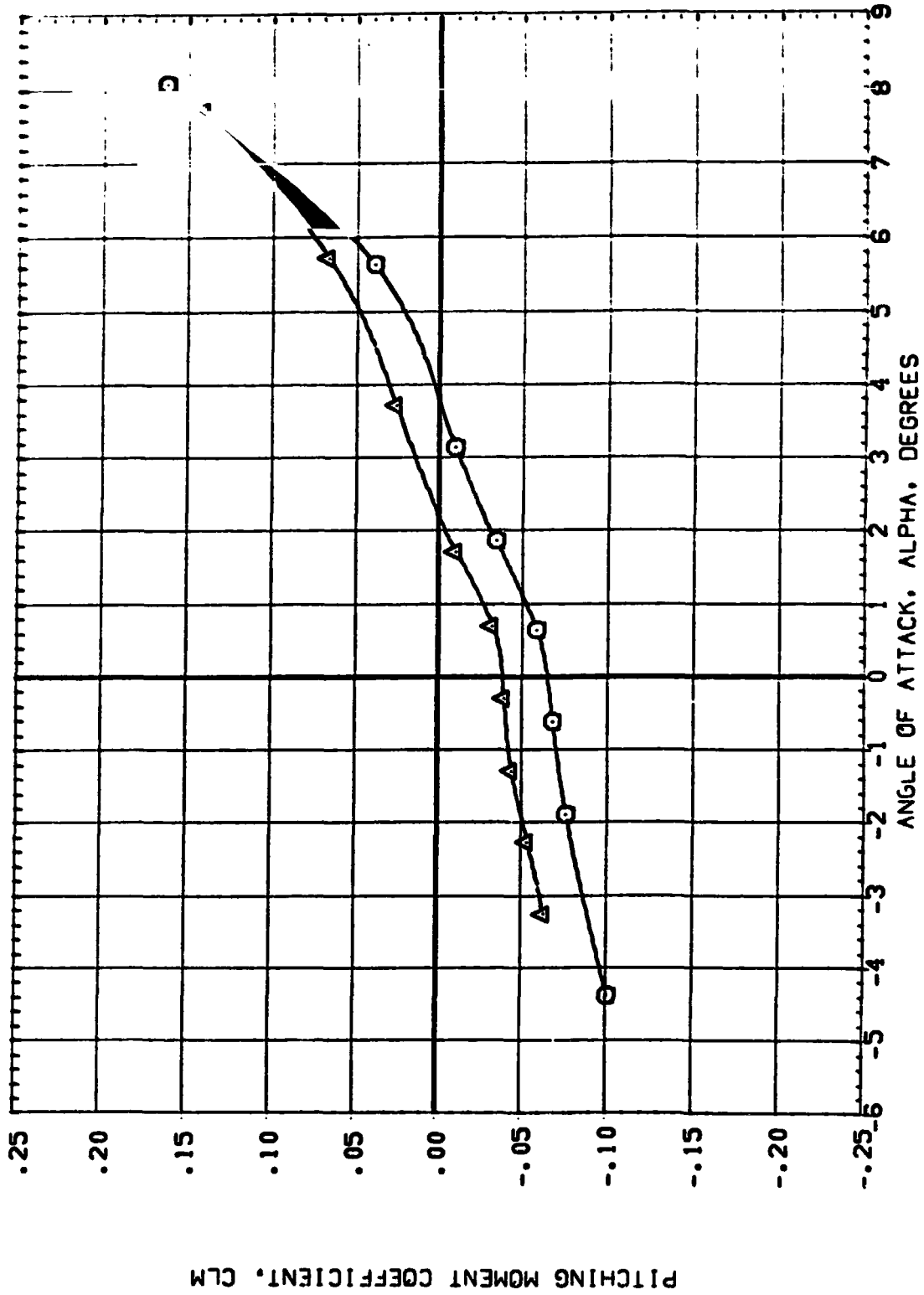


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA=45 DEGREES

(A)MACH = .70

DATA SET SYMBOL - CONFIGURATION DESCRIPTION
 (CA000) WS FO B
 (CA002) WS FO B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE IML ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

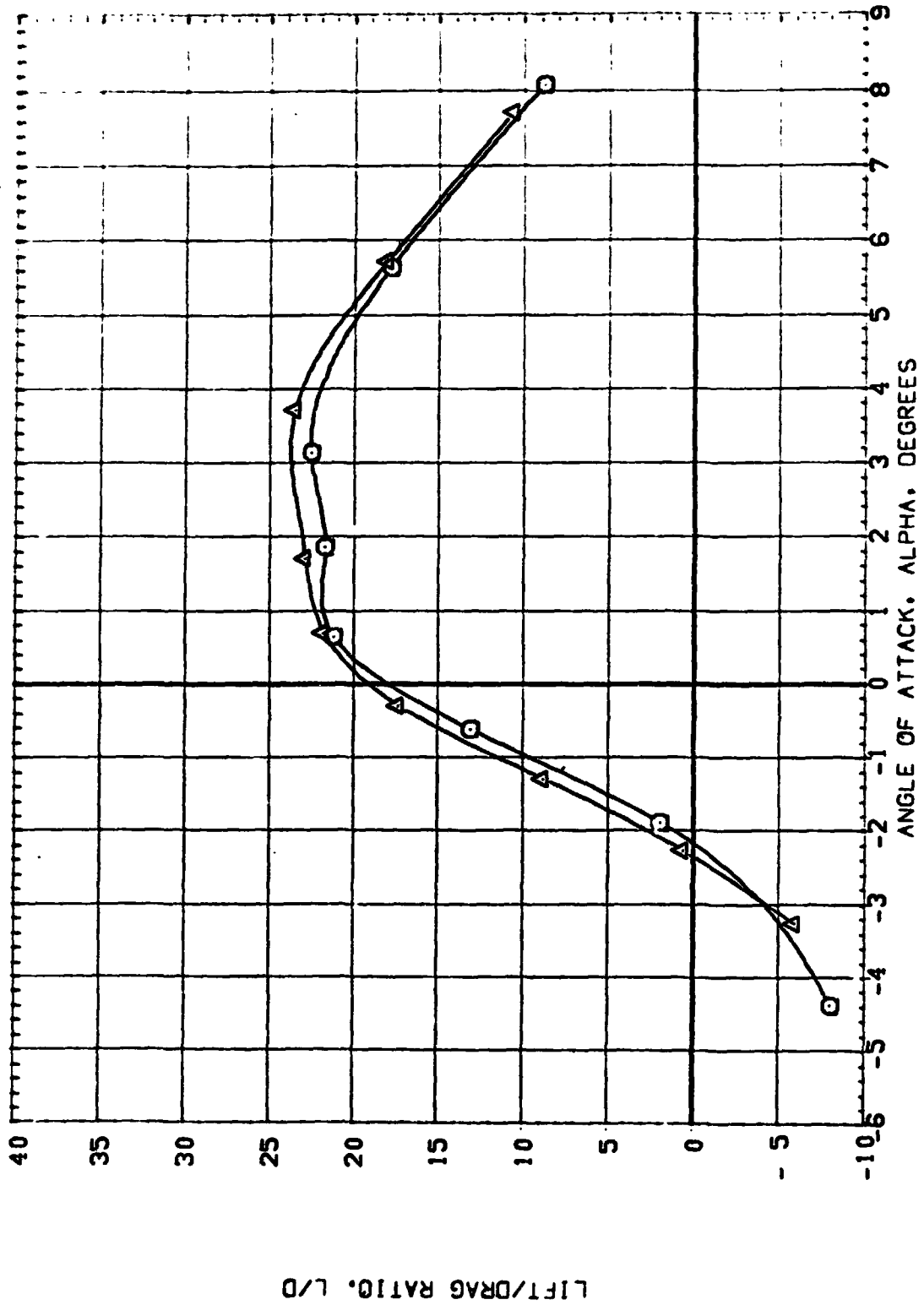


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA=45 DEGREES

(▲)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (LA009) W1 FO 8
 (CA023) W3 FO 8

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

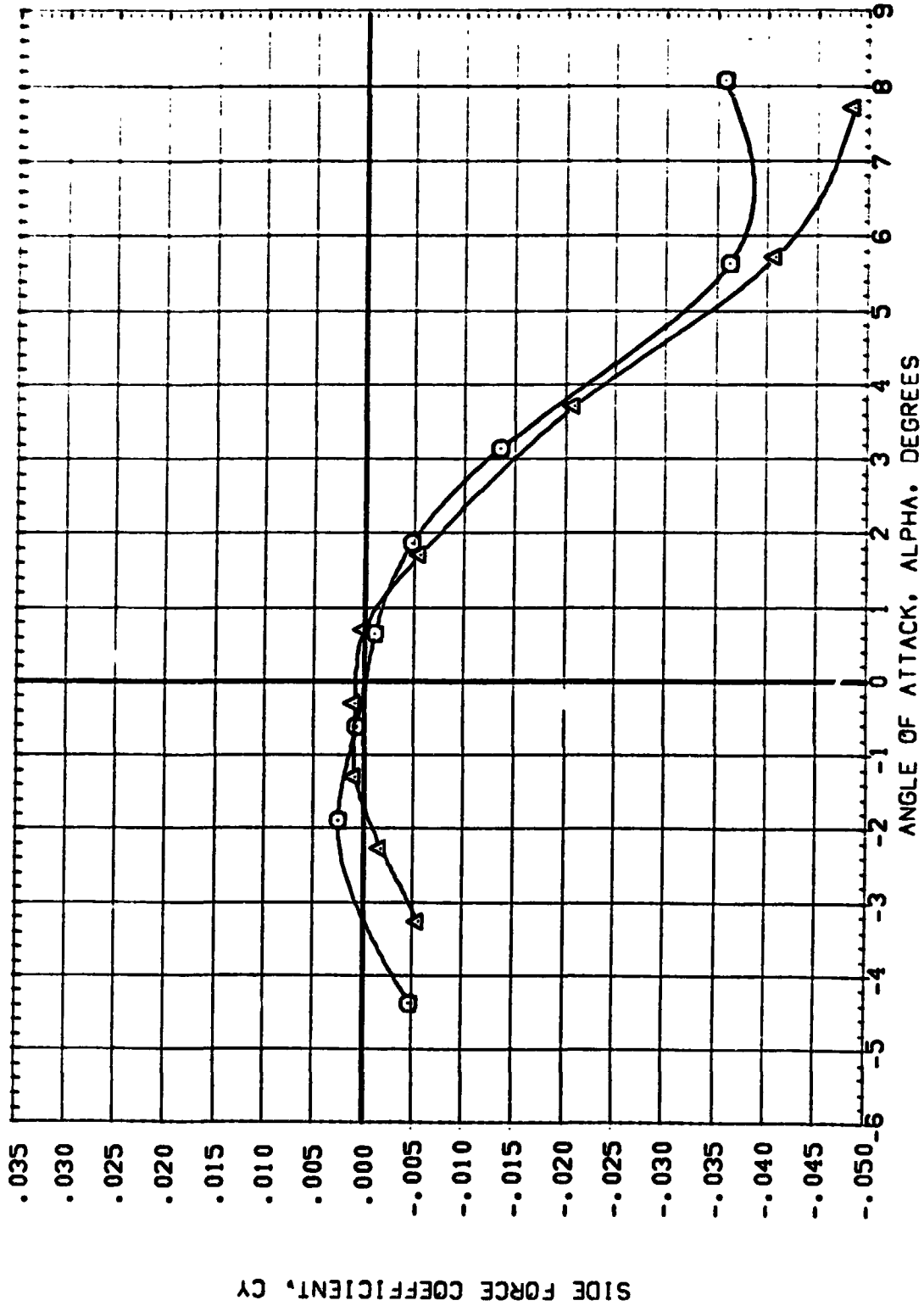


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA=45 DEGREES

(A) MACH = .70

DATA SET SYMBOL (CAE008) (CAE028) Δ \circ CONFIGURATION DESCRIPTION W1 FO B W5 FO B SWEEP 45.000 45.000 RM/L 6.000 6.000 BETA 0.000 0.000 SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

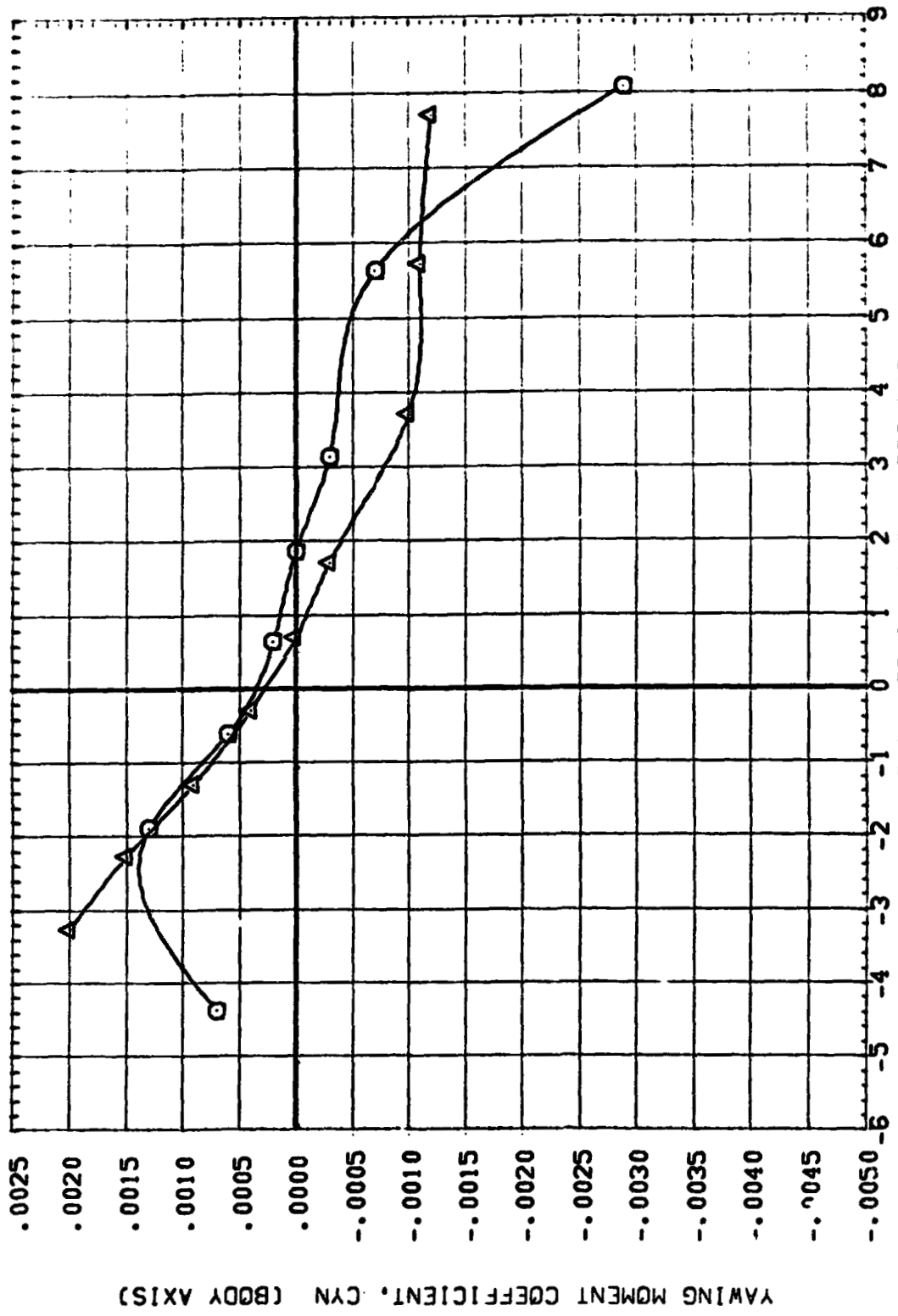


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA=45 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAC005) Ω WS FO 3
 (CAE023) Δ WS FO 8

SWEEP RN/1 BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

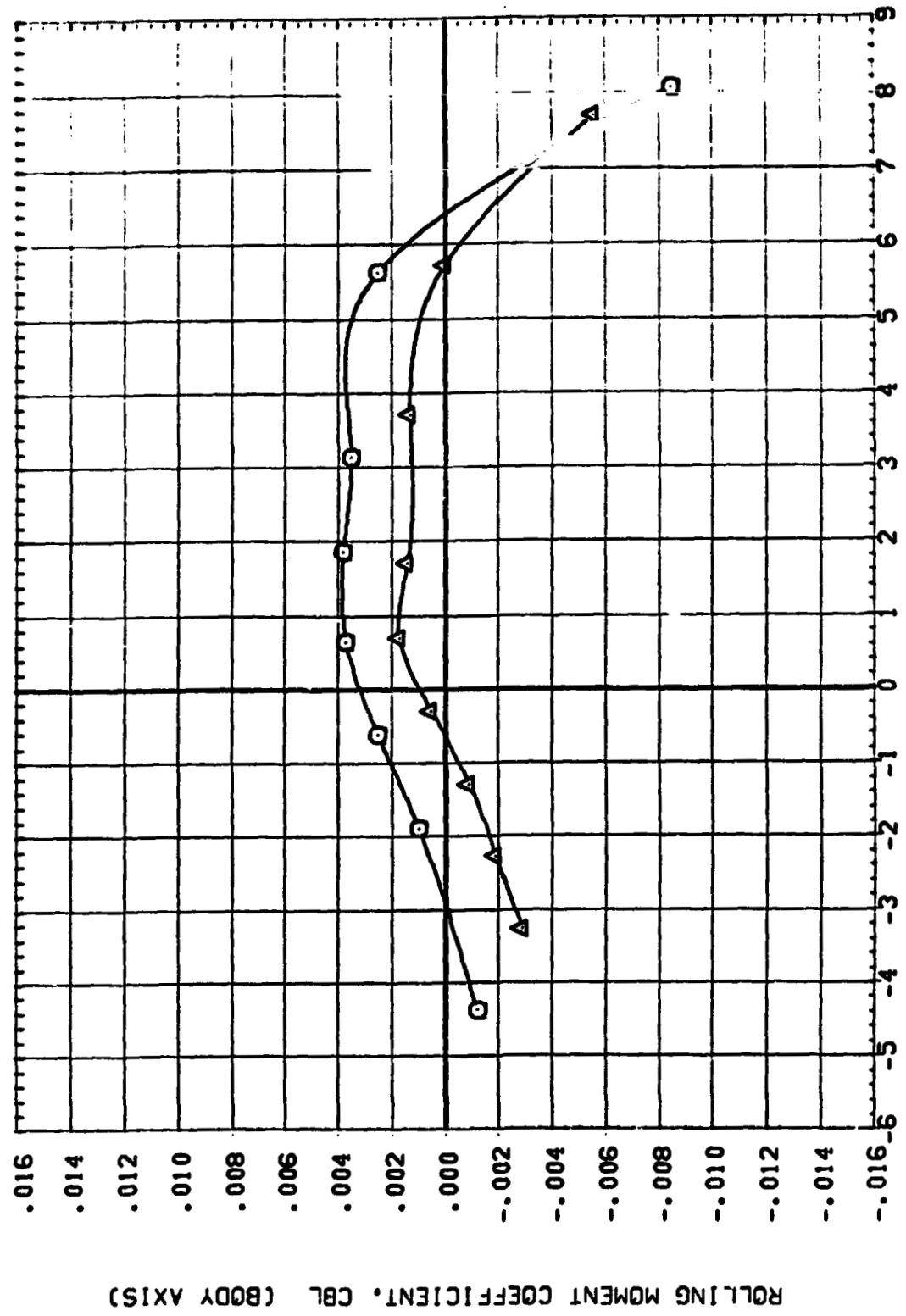


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.70, LAMBDA=45 DEGREES

(A)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BASE06) Ω W1 FO B
 (BASE23) W3 FO B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

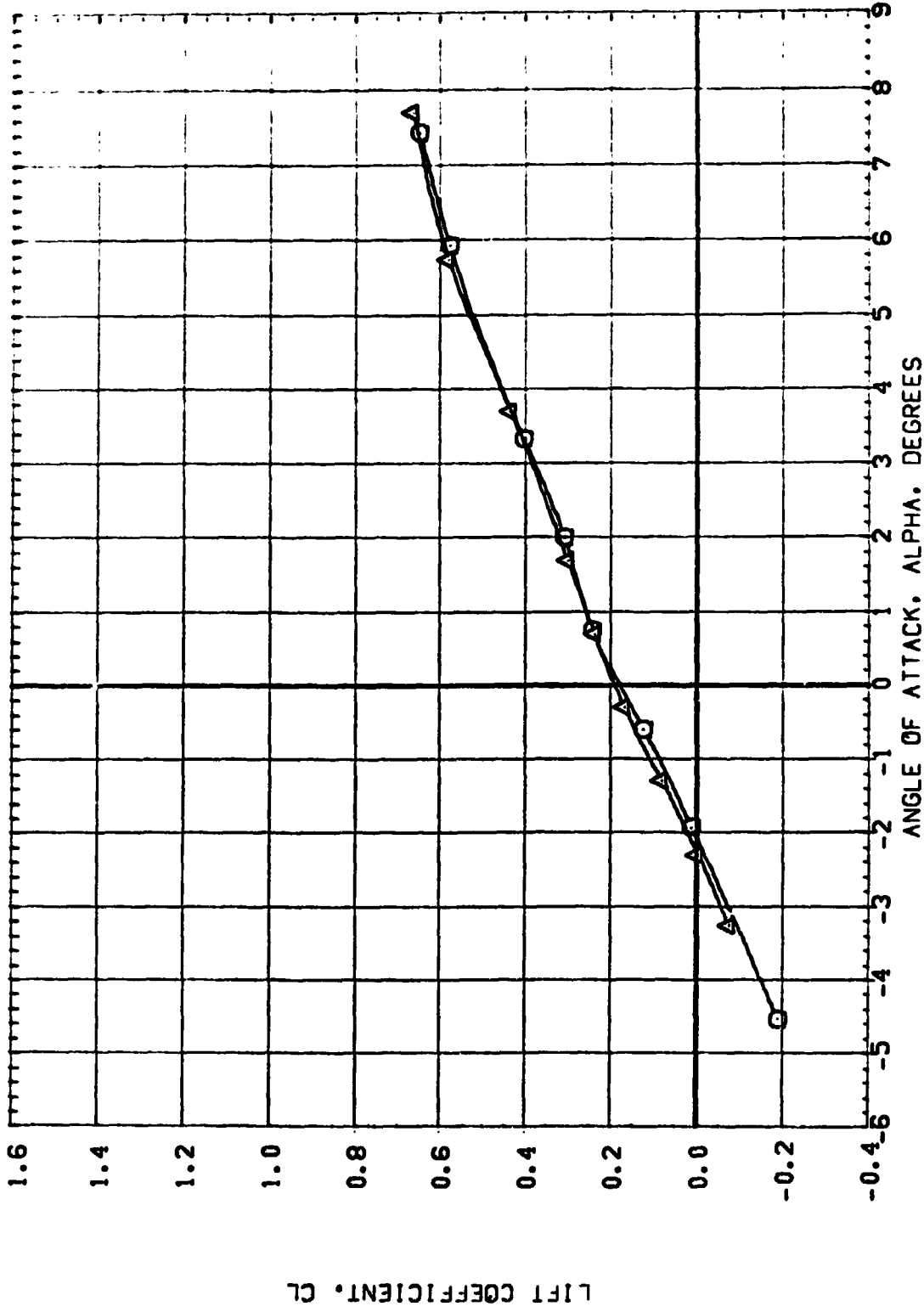


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE005) Q W1 F0 B
 (BAE023) Q W3 F0 B

SMEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

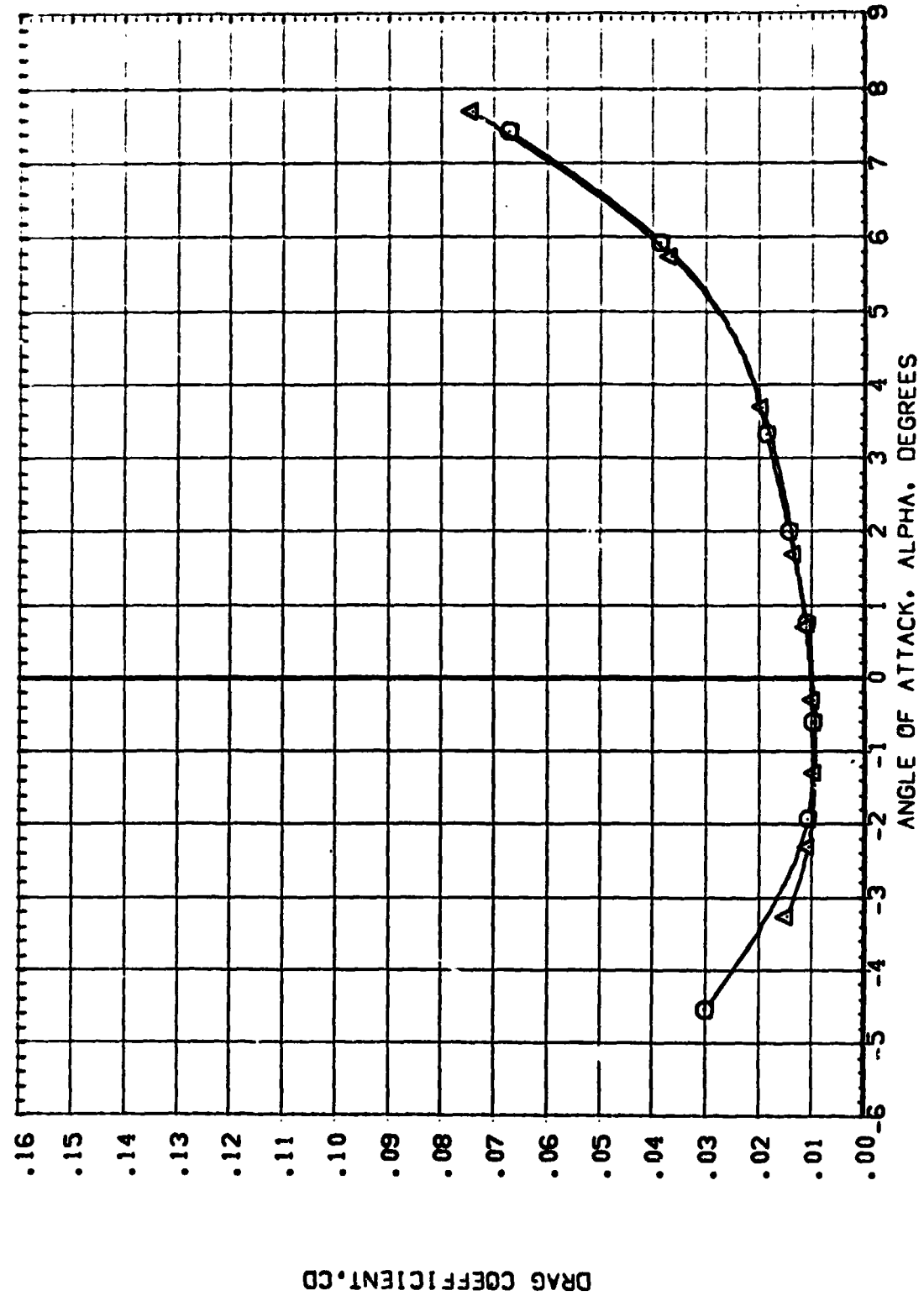


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE088) Ω W1 PD B
 (BAE089) W3 PD B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

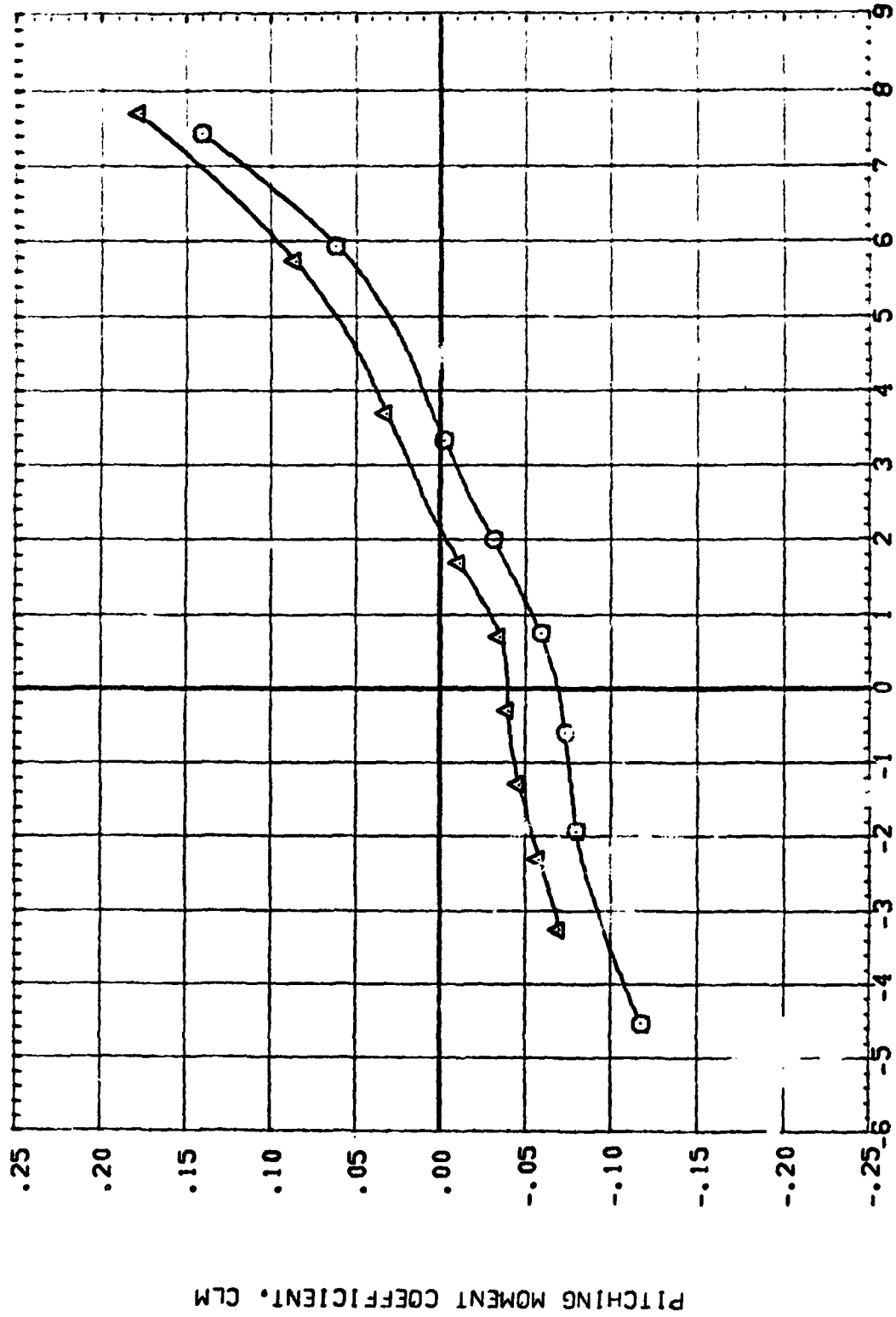


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=45 DEGREES

CLM MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE005) Q W1 FO B
 (BAE023) W3 FO C

SWEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

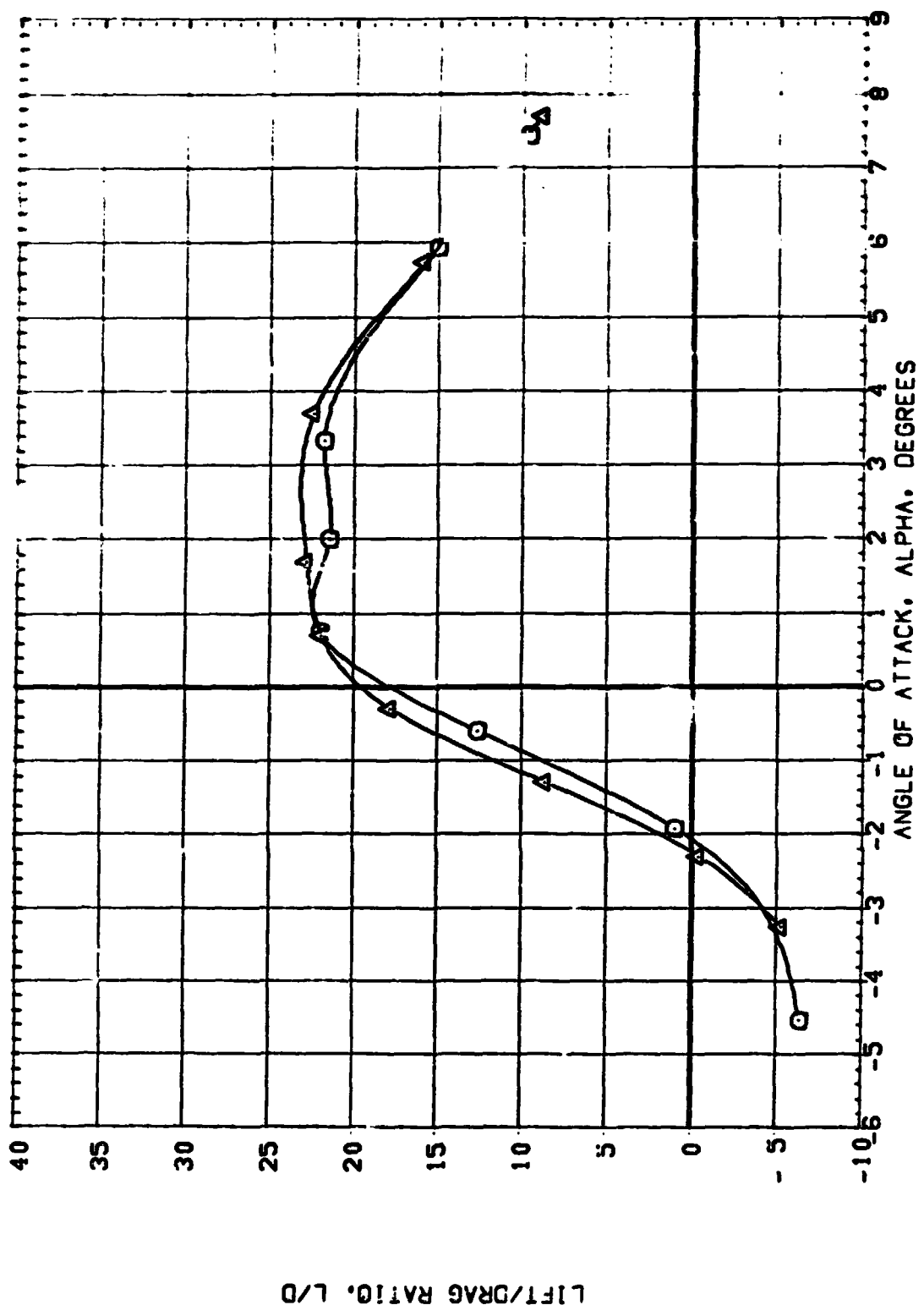


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE008) M1 PD 8
 (BAE028) M3 PD 8

SWEEP RM/L SET:
 48.000 6.000 0.000
 49.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

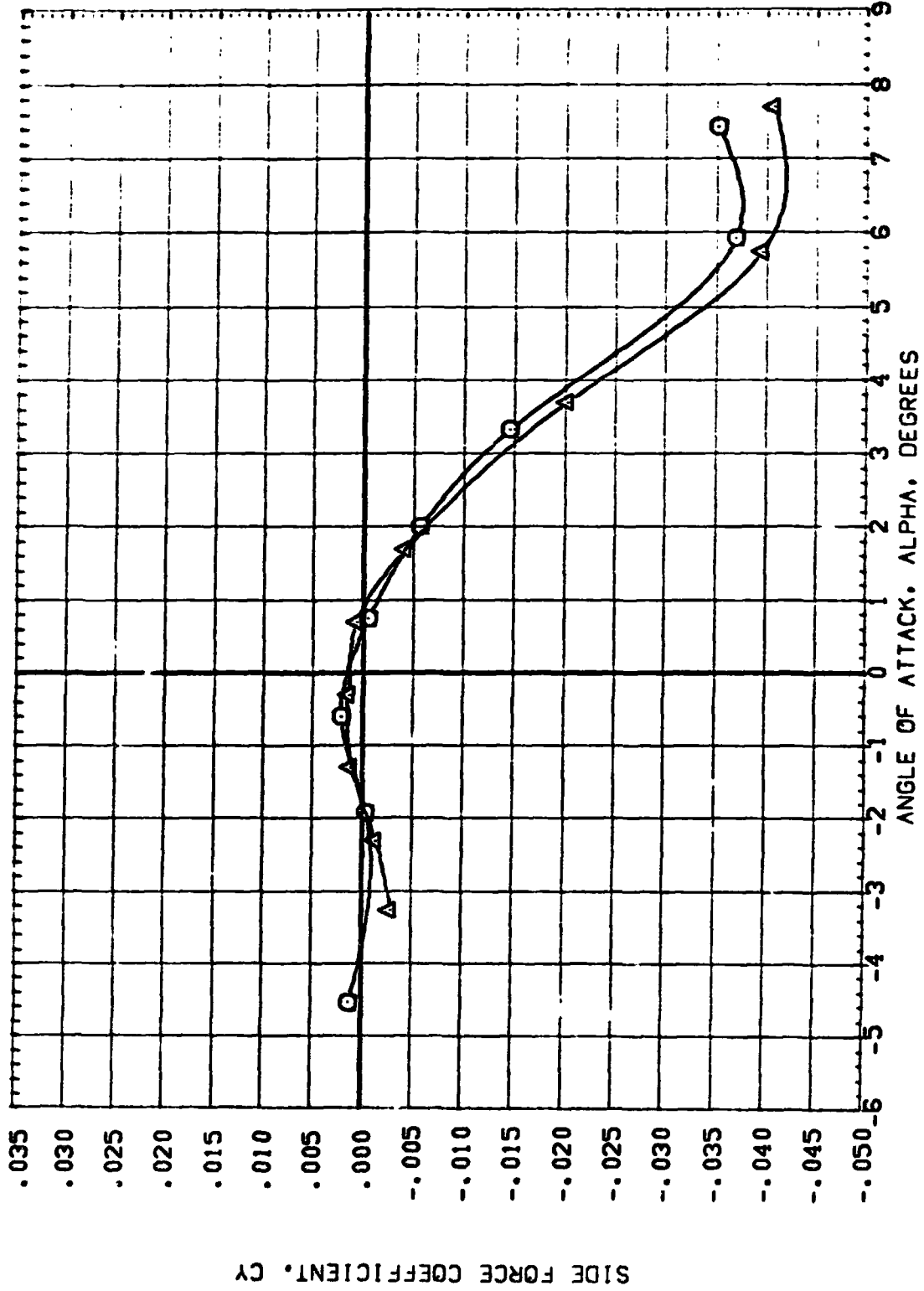


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAZ005) Ω W1 PD 8
 (BAZ023) Δ W3 PD 8

SWEET RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

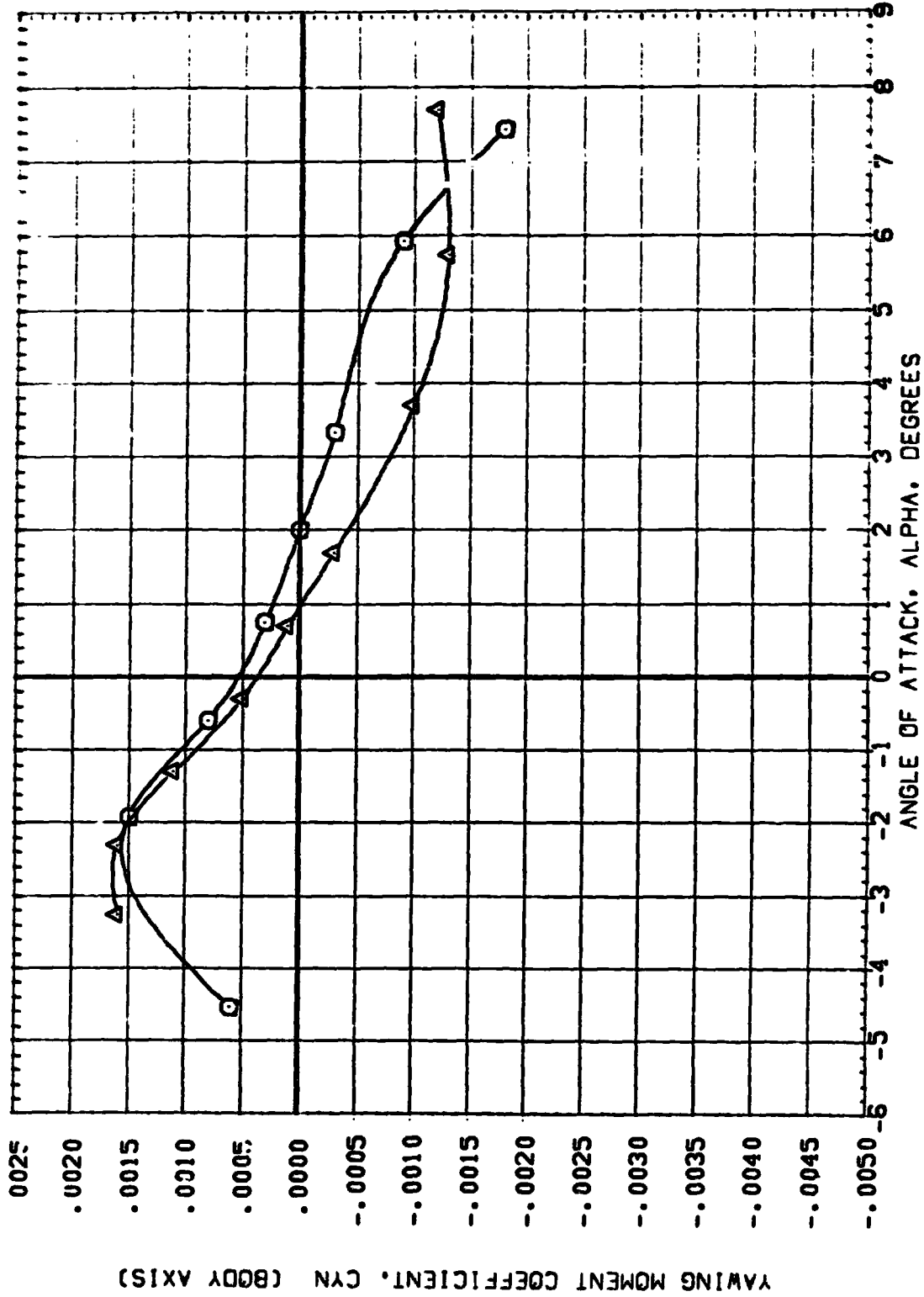


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.80, LAMBDA=45 DEGREES

(Δ)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAZ005) W1 P0 B
 (BAZ025) W3 P0 B

SWEEP RN/L BETS
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

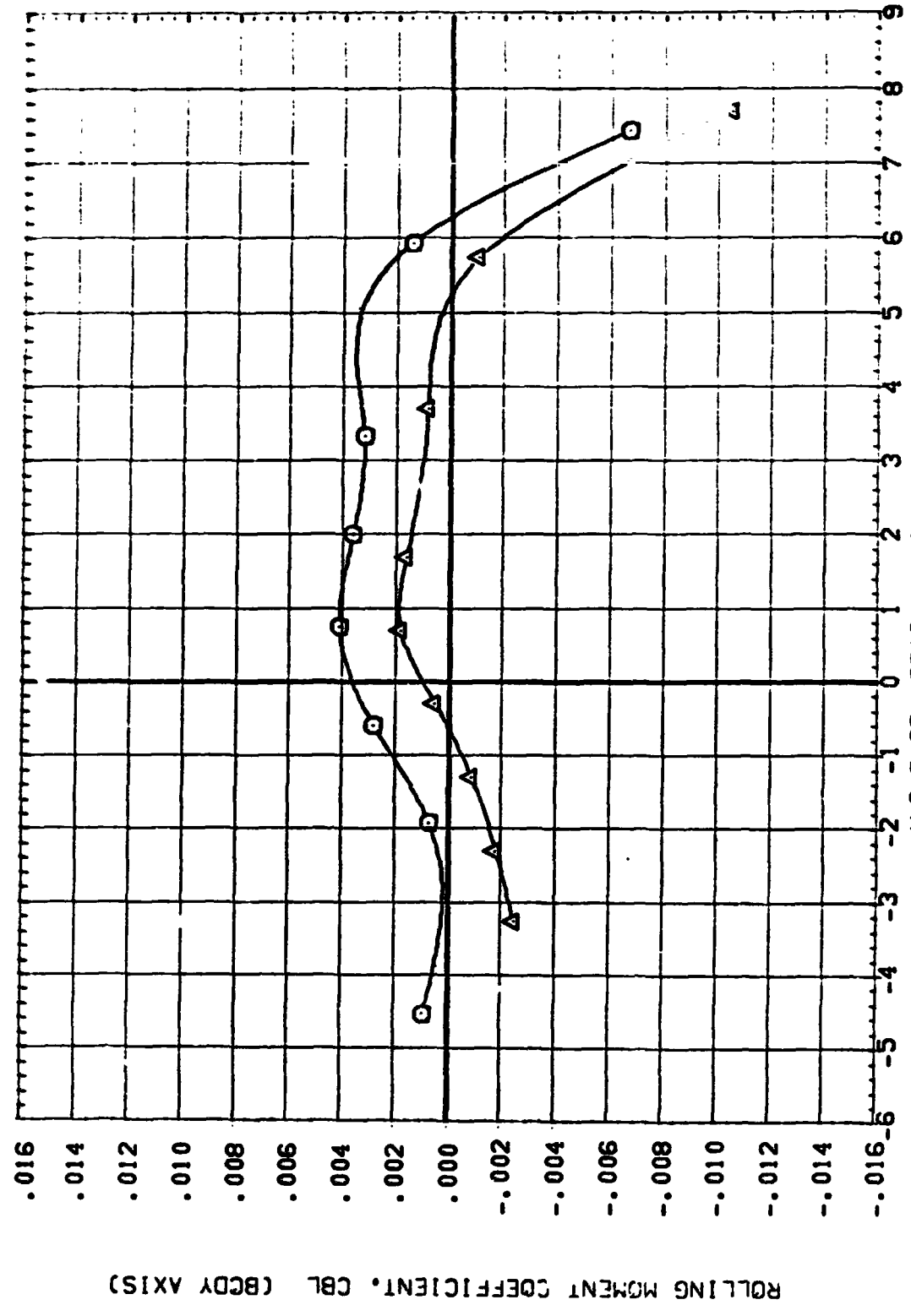


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 45 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE005) W1 P0 B
 (DAE125) W5 P0 B

SWEEP DM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

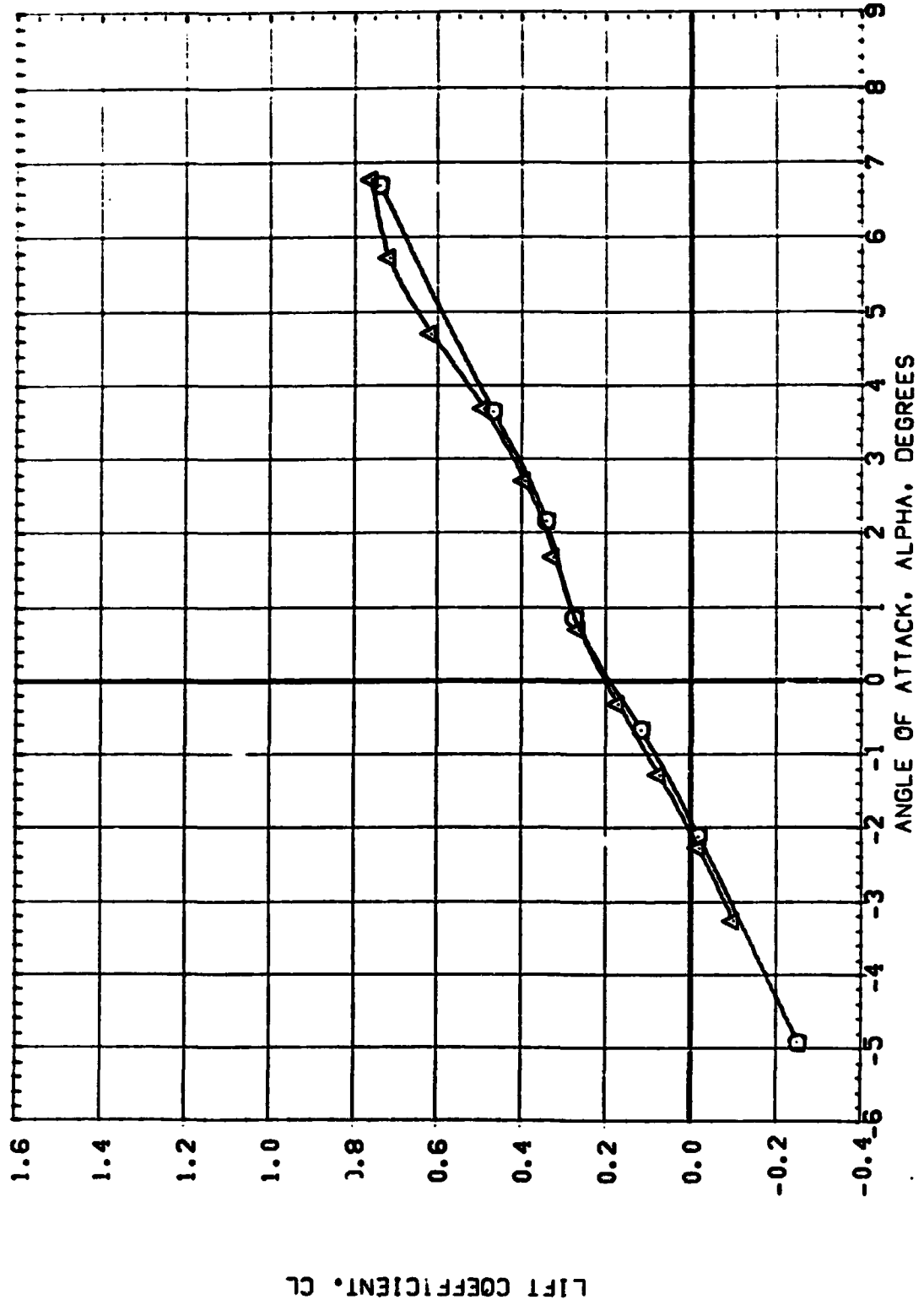


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.95, LAMBDA=45 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE008) M1 PD 8
 (DAE009) W3 PD 8

SWEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

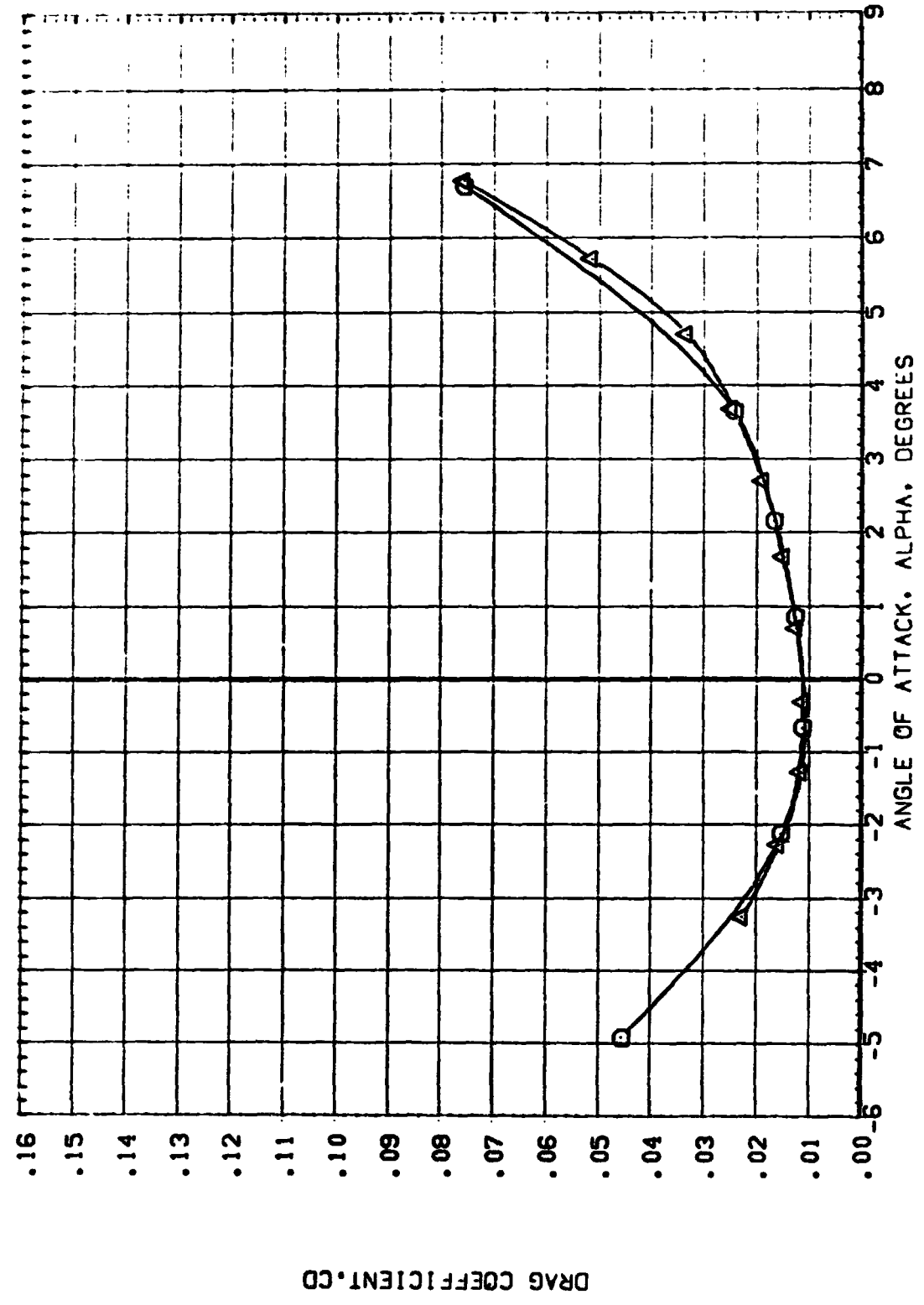


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=45 DEGREES
 (A)MACH = .95

DATA SET SYMBOL (OALURS) Δ (OAEORS) \circ CONFIGURATION DESCRIPTION W1 FO B W3 FO B SWEEP RN/L BETA SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

45.000 6.000 0.000
45.000 6.000 0.000

W1 FO B W3 FO B

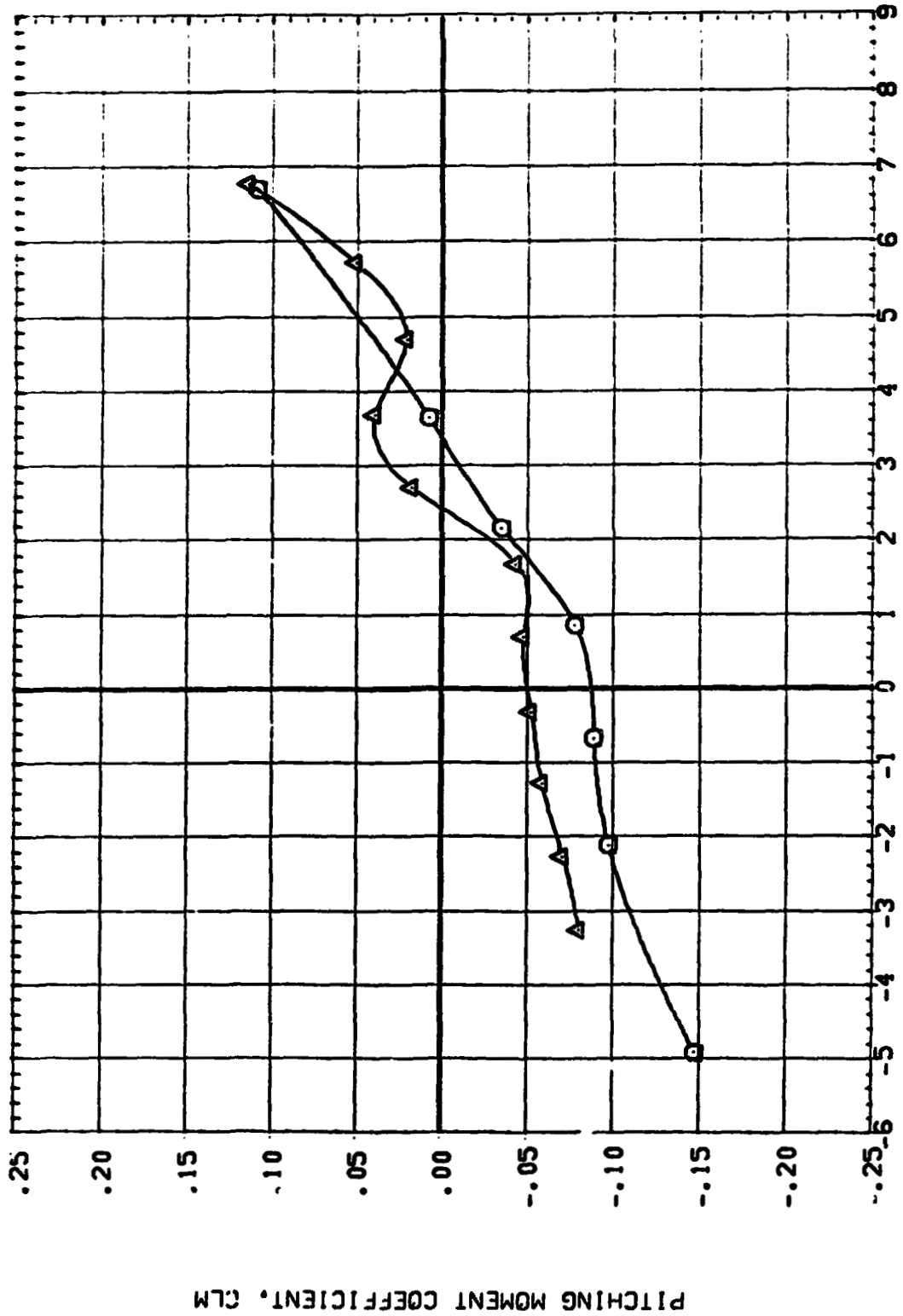


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.95, LAMBDA=45 DEGREES

(A)MACH = .95

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP 45.000 6.000 0.000
 45.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE003) M1 PG B
 (DAE023) M5 PG B

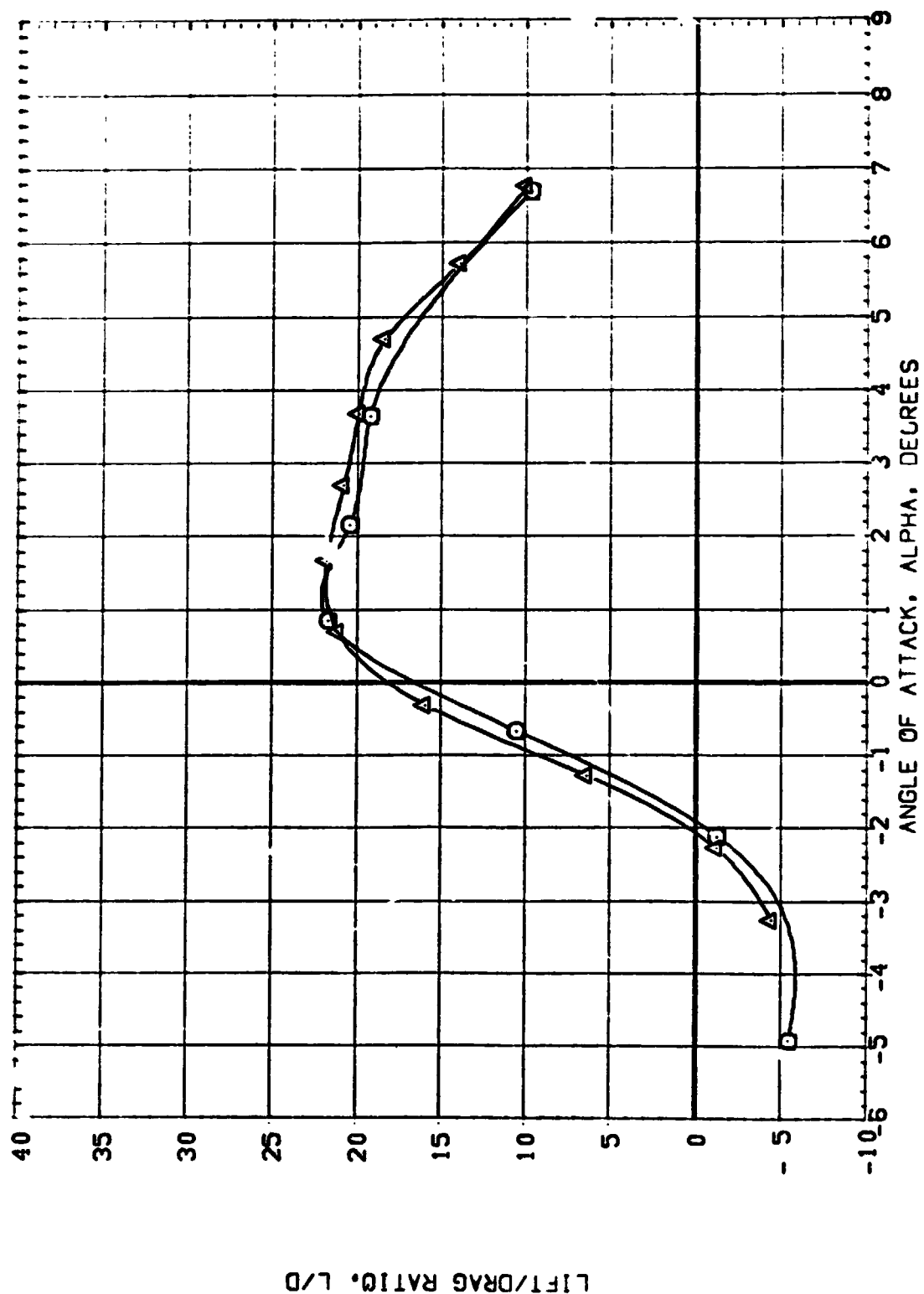


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=45 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE005) W1 FO B
 (DAE023) W3 FO B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

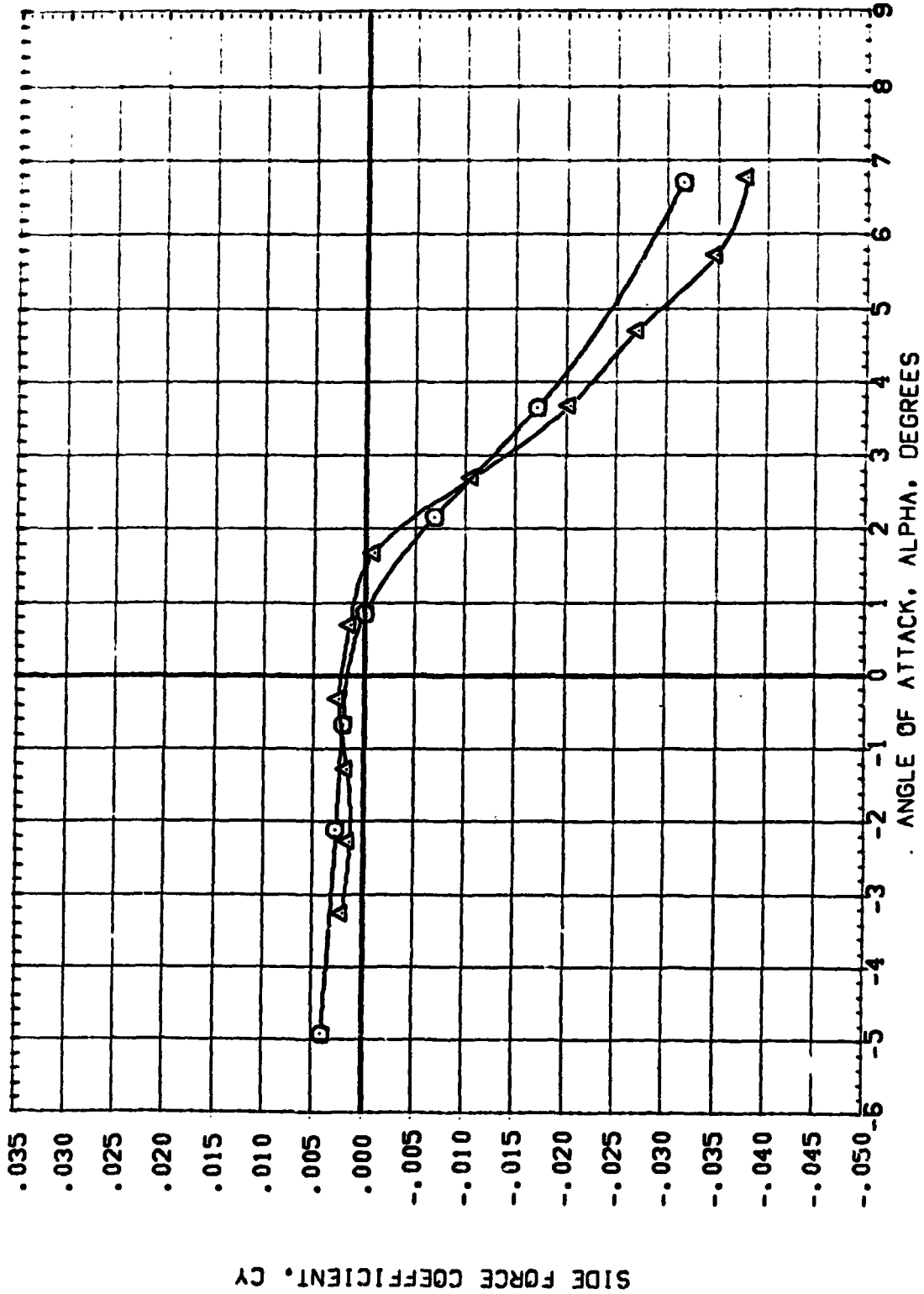


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, $\Lambda = 45$ DEGREES

(Δ) MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE005) Ω W1 FO B
 (DAE023) W2 FO B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

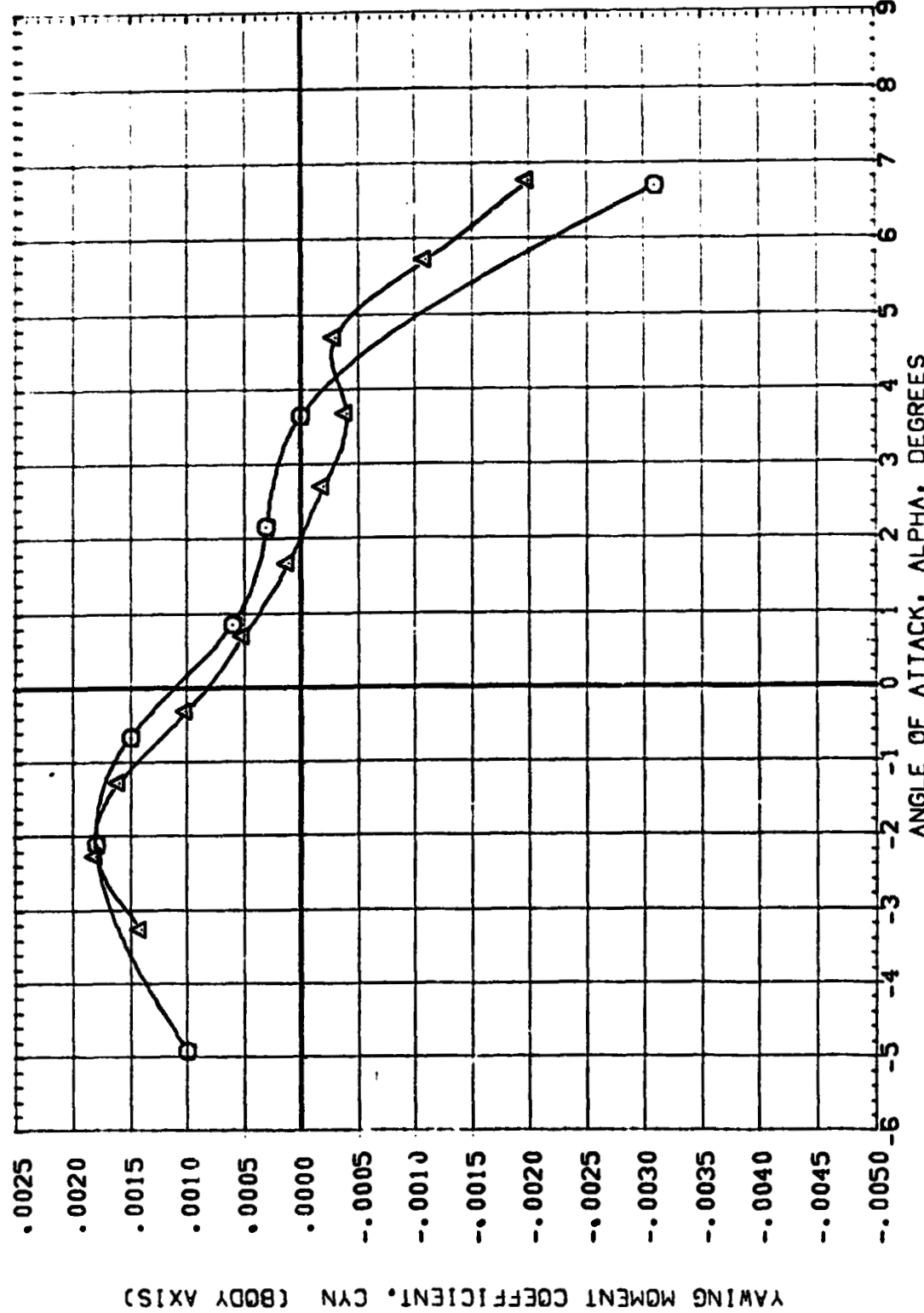


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.95, LAMBDA=45 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE005) W1 P0 B
 (DAE023) W3 P0 B

SWEEP R/N/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

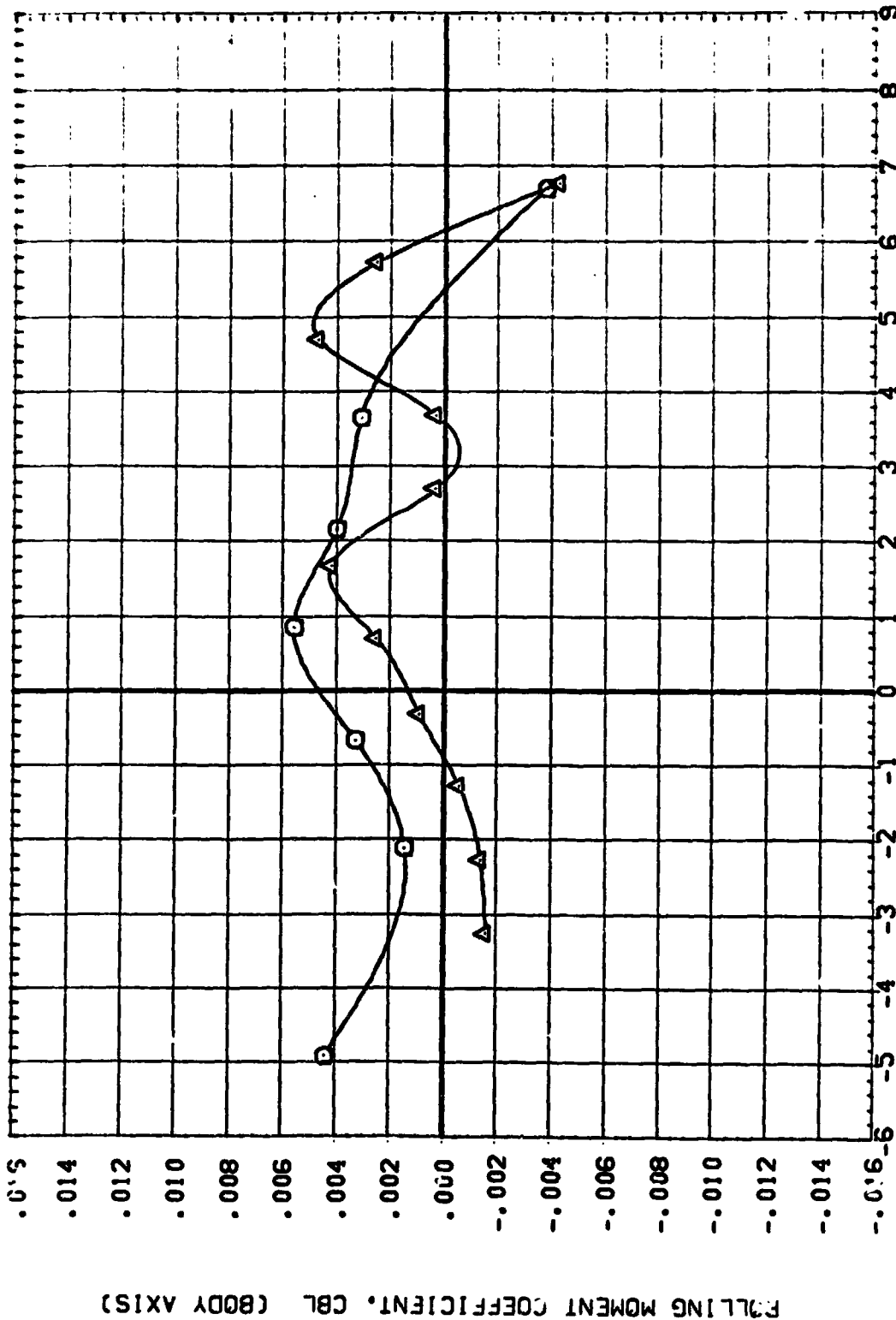


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA = 45 DEGREES

(A) MACH = .95

DATA: 071 SYMBOL: CONFIGURATION DESCRIPTION
 (RECORDS) M1 P0 8
 (RECORDS) M3 P0 9

SWEEP 9N/L BETS
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

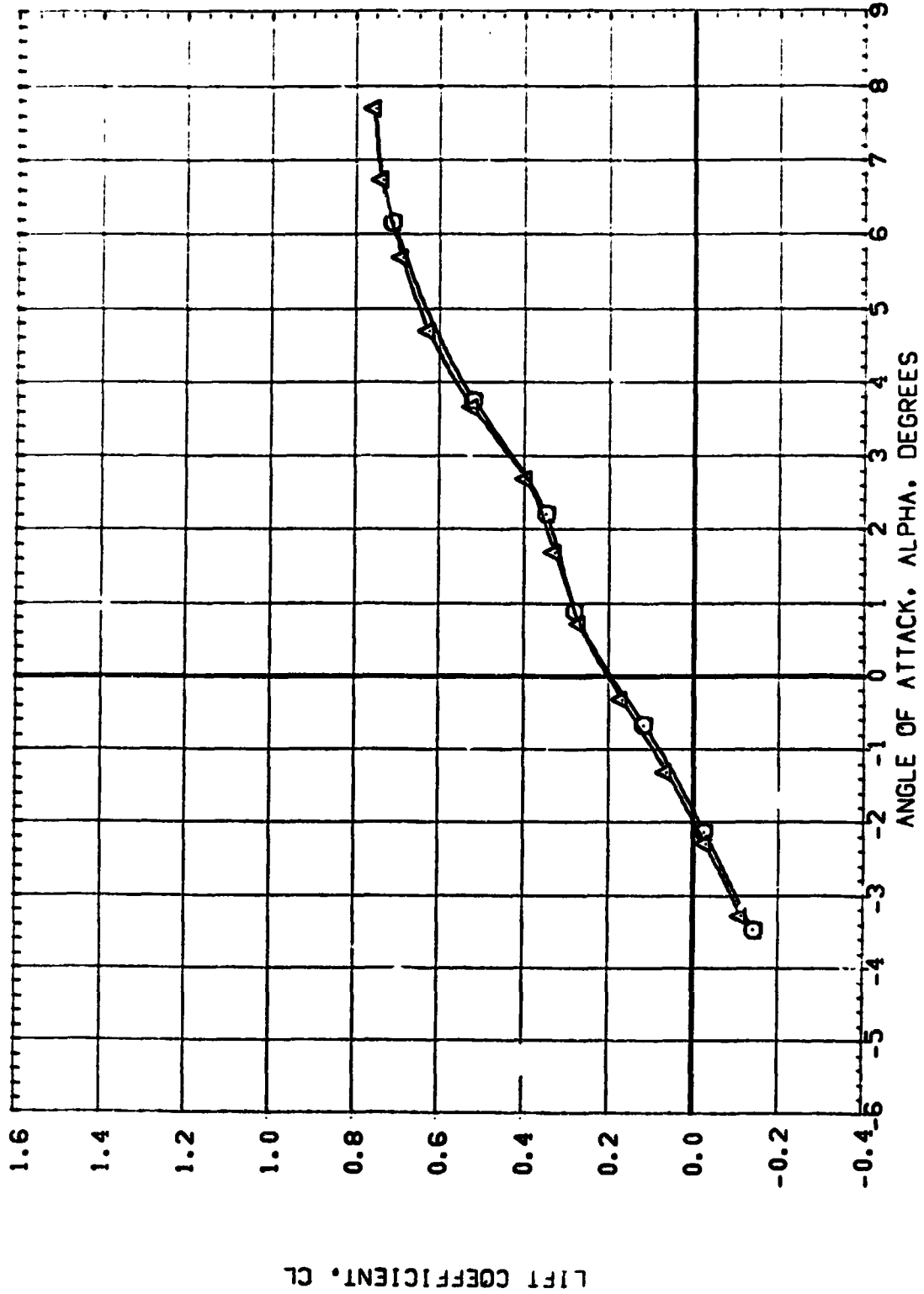


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

DAT: SET SYMBOL CONFIGURATION DESCRIPTION
 (E4E083) W1 P0 B
 (E4E083) W3 P0 B

SWEEP FIN/L BETS
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

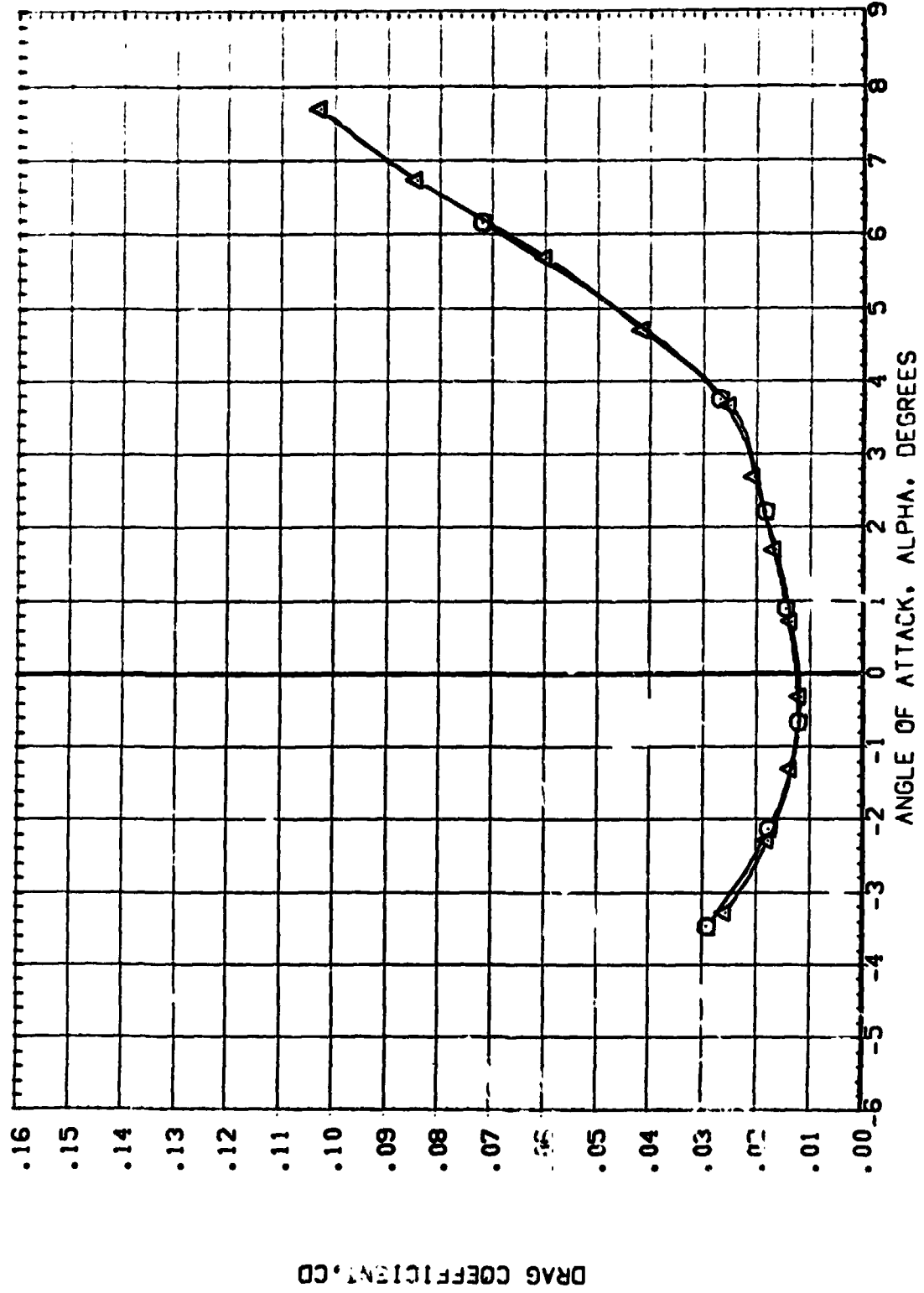


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION:
 (EALR05) Ω W1 F0 B
 (EALR23) W3 F- B

SWEEP KN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

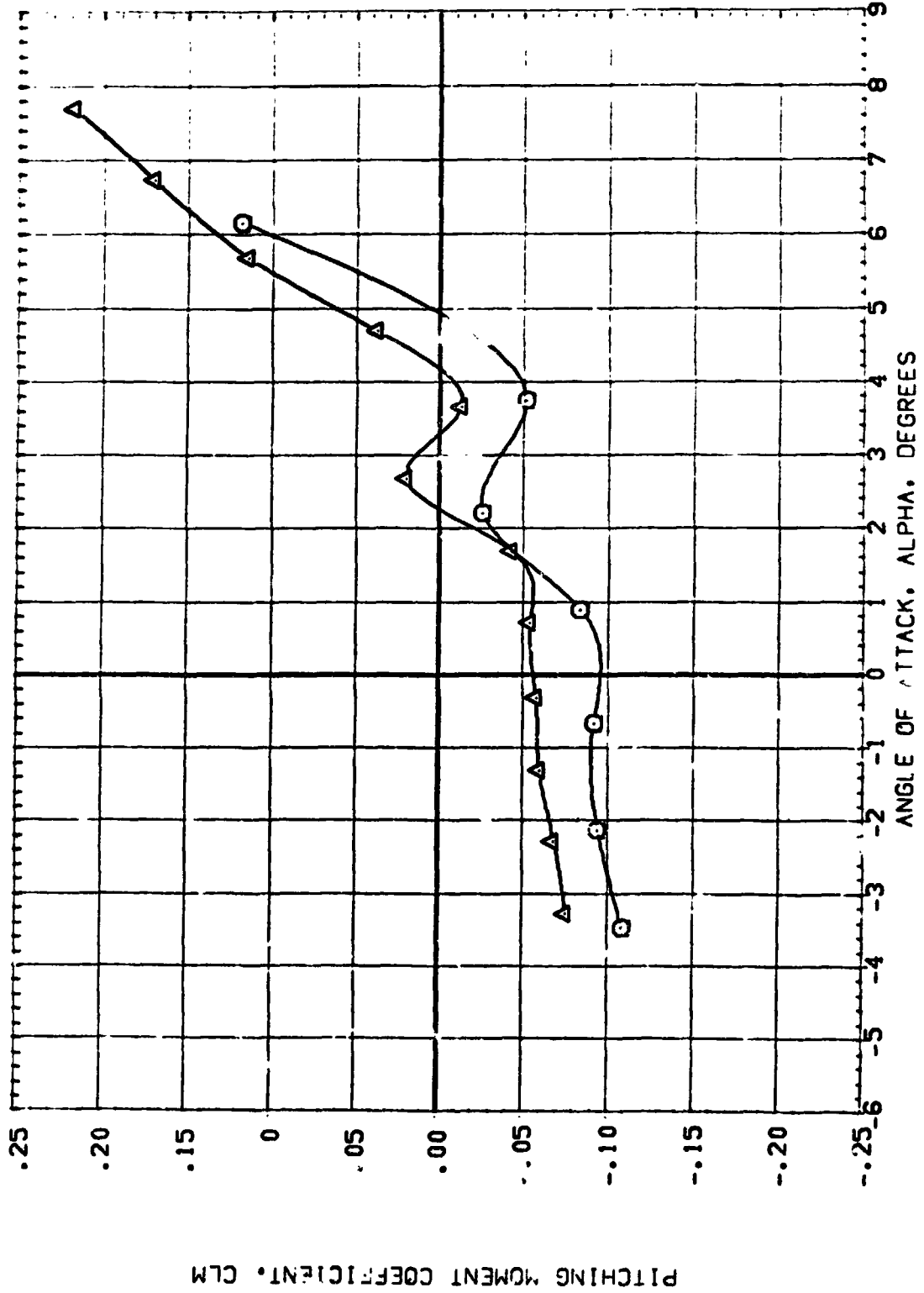


FIGURE 5 EFFECT OF DIHEDRAL. MACH NO. = 0.98. LAMBDA=45 DEGREES

(AJMACH = .98

C3

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(E4E005) W1 P0 B
(E4E023) W5 P0 B

SWEEP ON: L BETA
45.000 6.000 0.000
45.000 6.000 0.000

SEE THE ASSOCIATED DATA
DOCUMENT FOR REFERENCE
CHARACTERISTICS FOR
INDIVIDUAL DATASETS

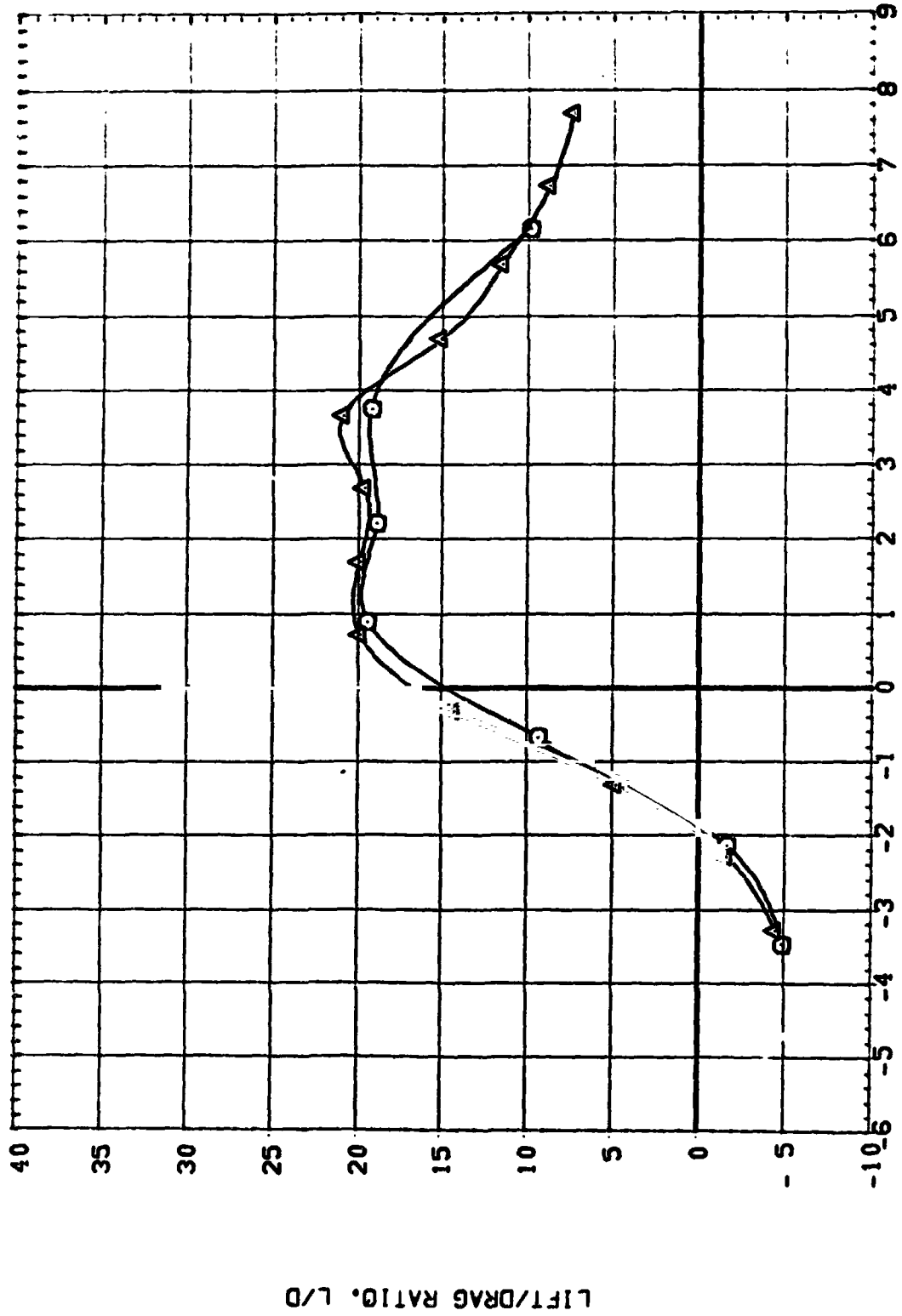


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

C3

DATE SET SYMBOL CONFIGURATION DESCRIPTION
 (EAL005) Q W1 P0 B
 (EAL002) Z W3 P0 B

SWEEP RN/1 BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

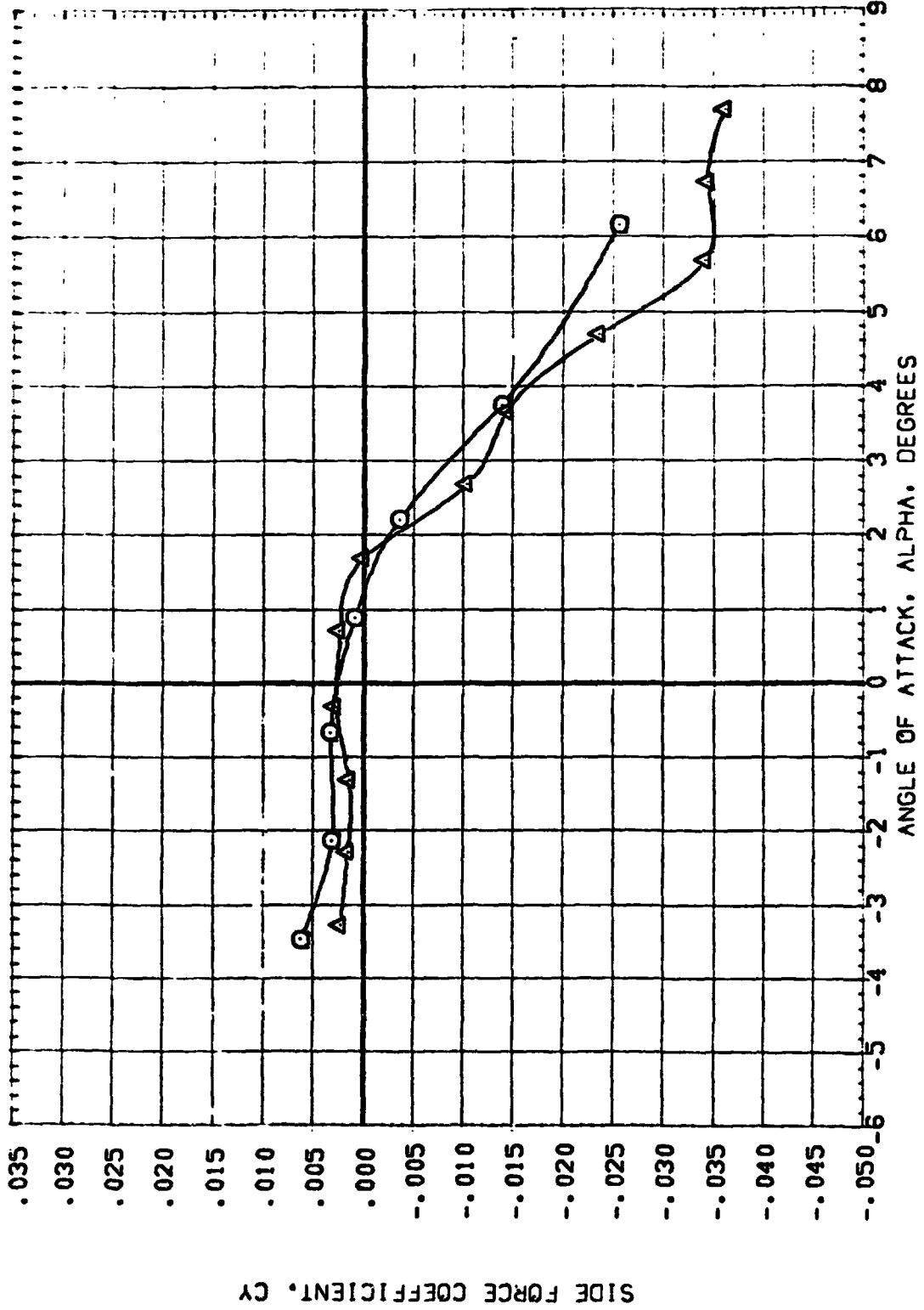


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A) MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE005) Ω M1 FO B
 (EAE023) M3 FO B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

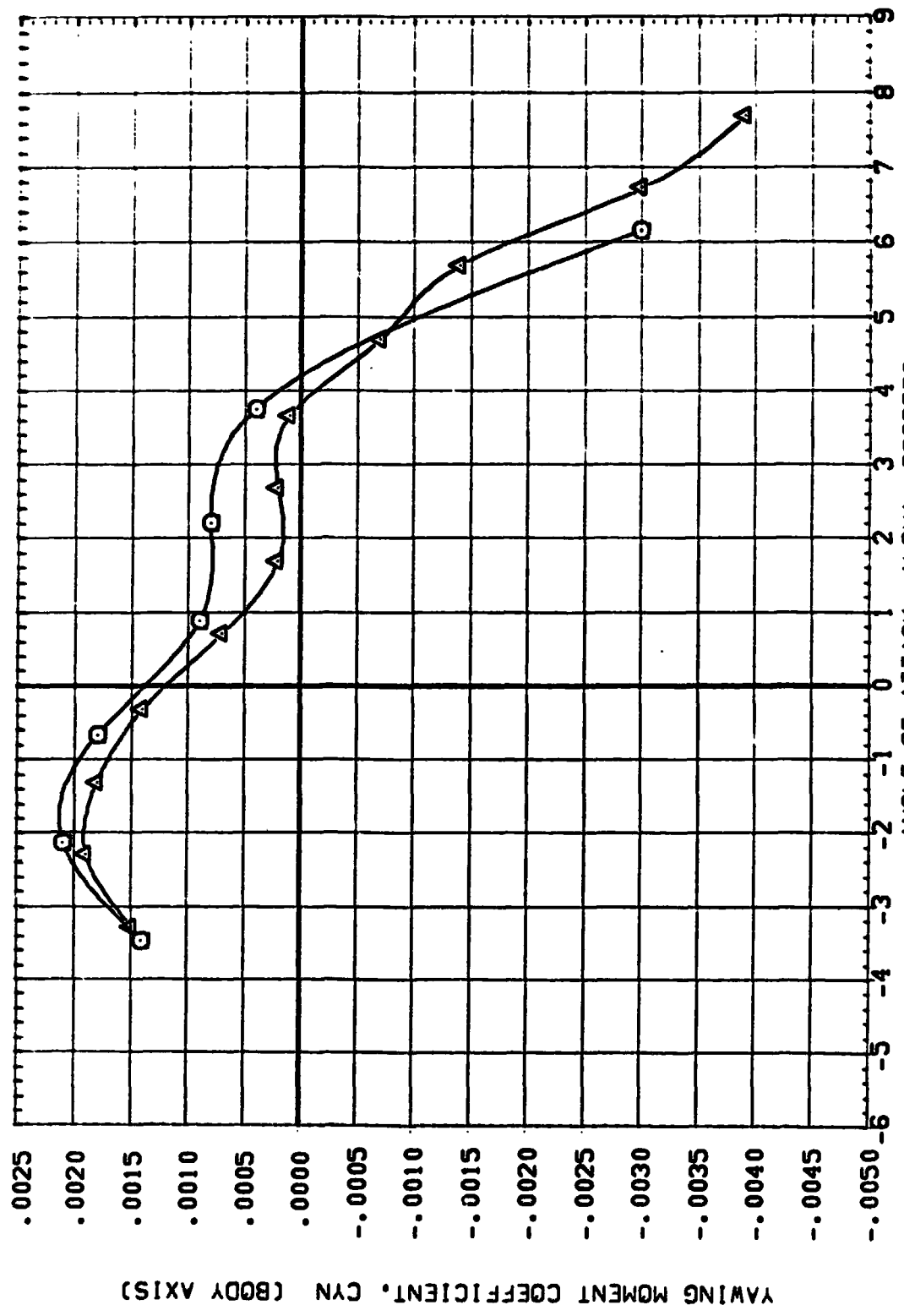


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.98, LAMBDA=45 DEGREES

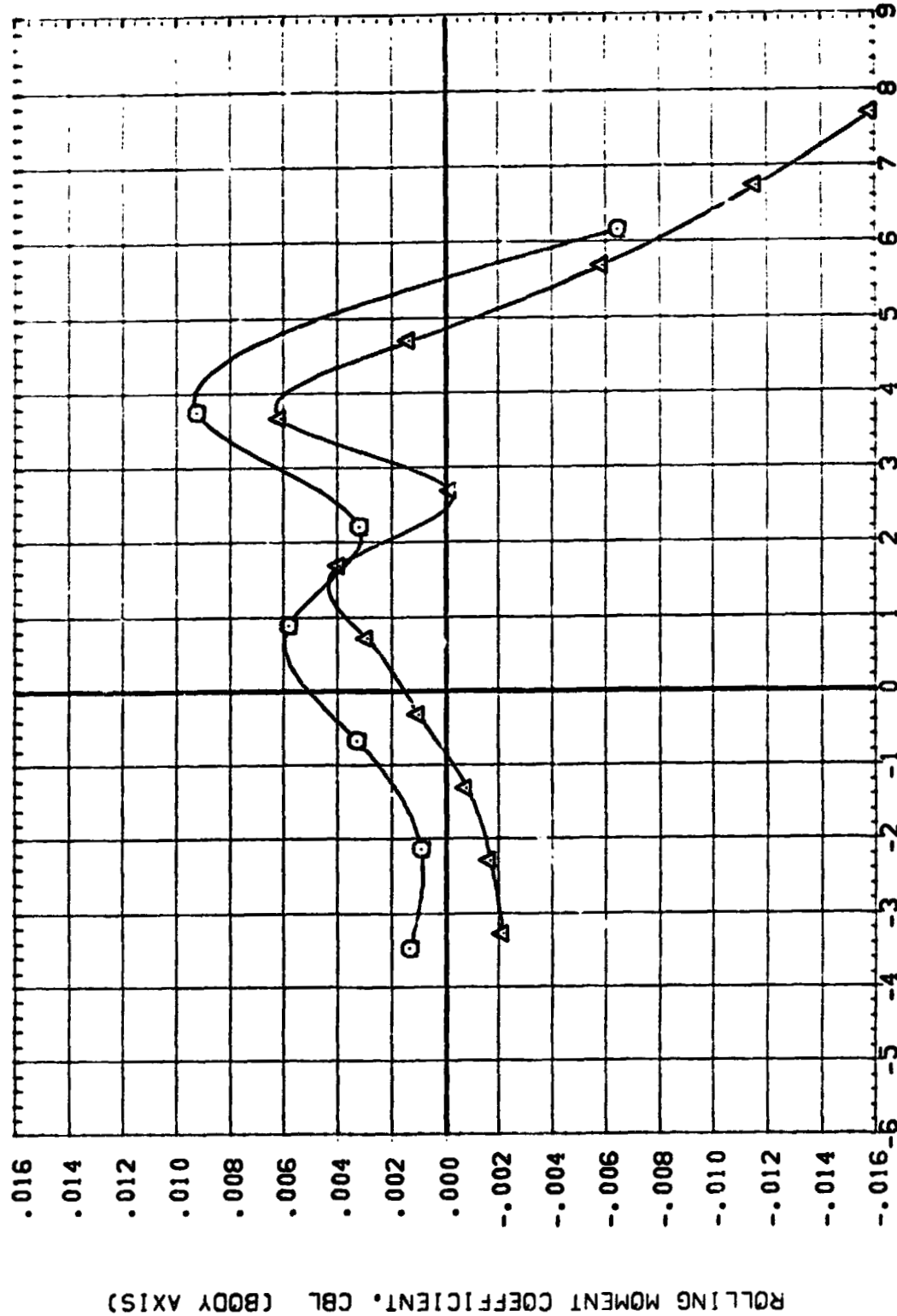
(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(EAE005) Ω M3 PD B
 (EAE003) Δ M3 PD B

SMFPR RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS



ANGLE OF ATTACK, ALPHA, DEGREES

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE003) (M1 PD B)
 (PAE003) (M3 PD B)

SMEEP RM/L BETA
 45.000 6.000 1.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

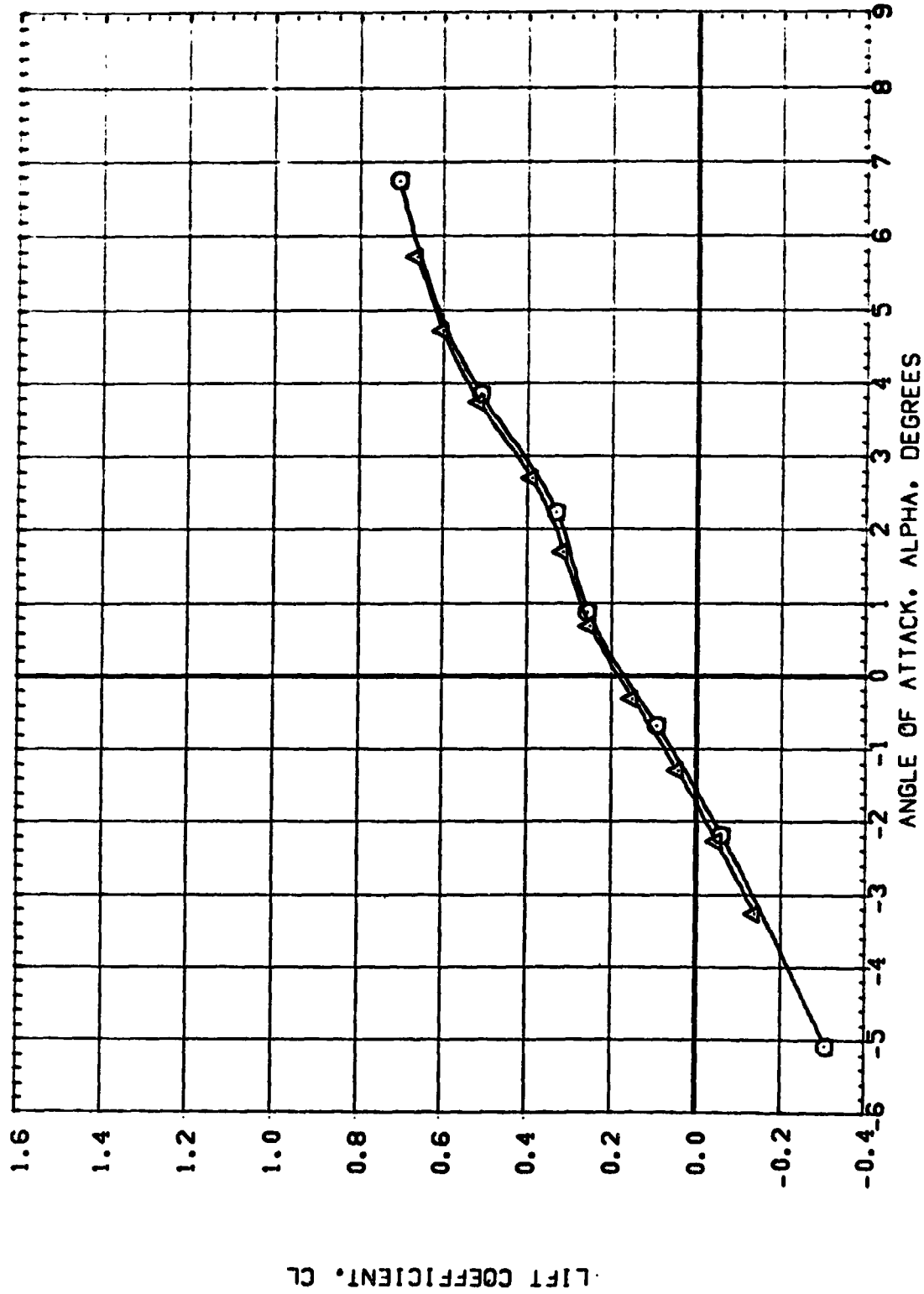


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.05, LAMBDA = 45 DEGREES

(A) MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FA008) Δ W1 FO B
 (FA021) \circ W3 FO B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

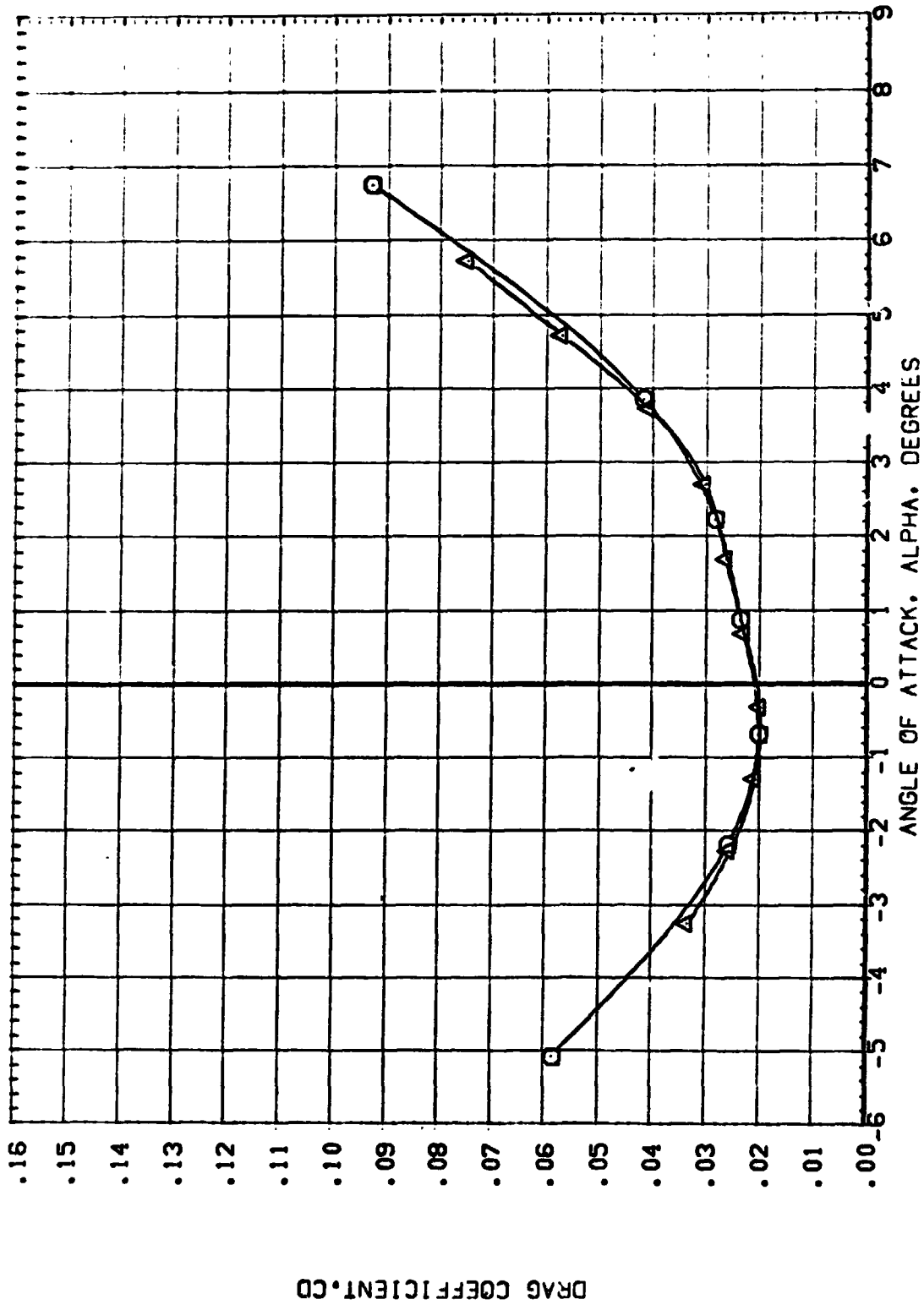


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.05, LAMBDA=45 DEGREES

(A)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE005) M1 FO B
 (FAE023) M3 FO B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

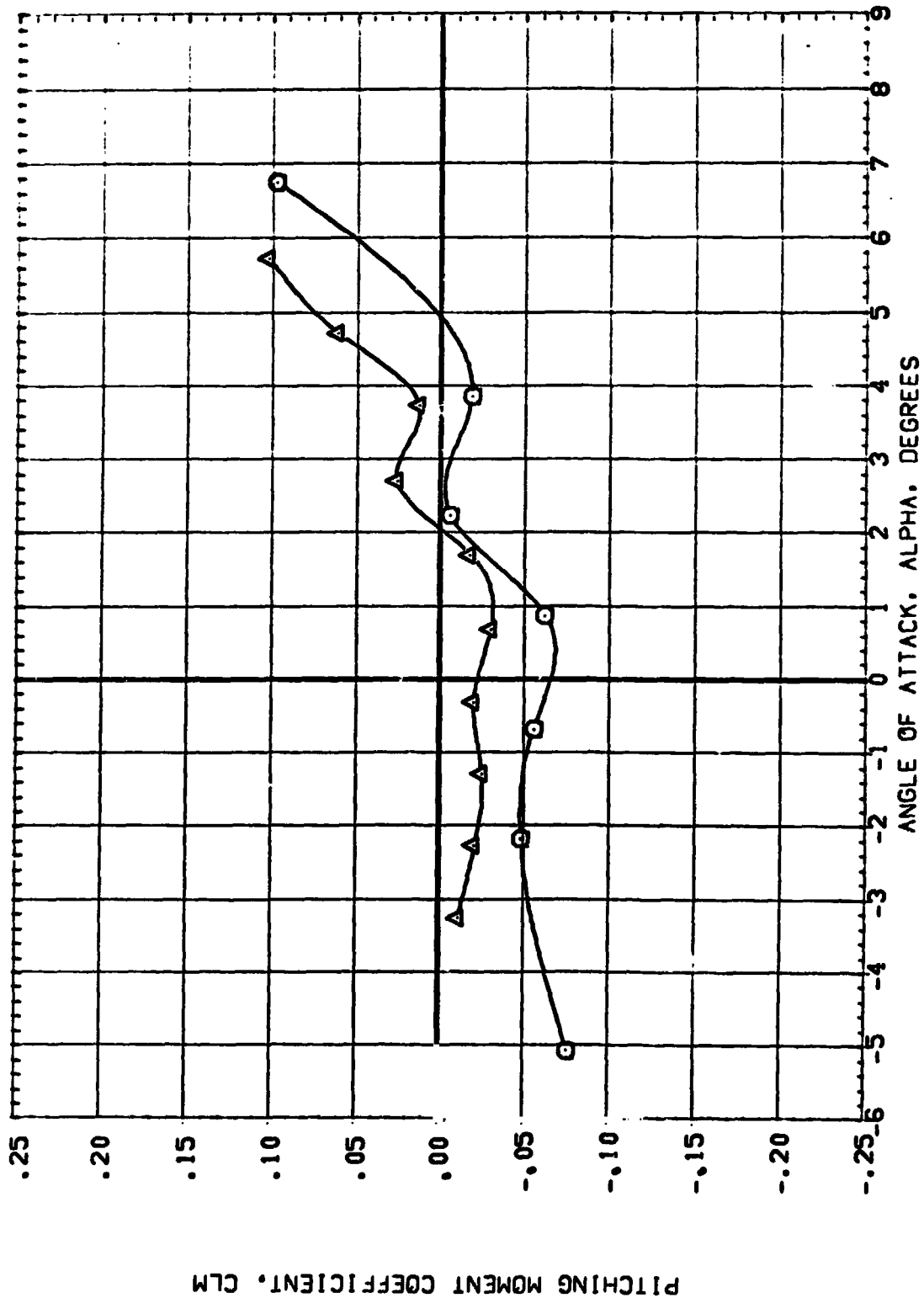


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.05, LAMBDA=45 DEGREES

(A)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE005) M1 FO B
 (FAE023) M3 FO B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SMSCP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

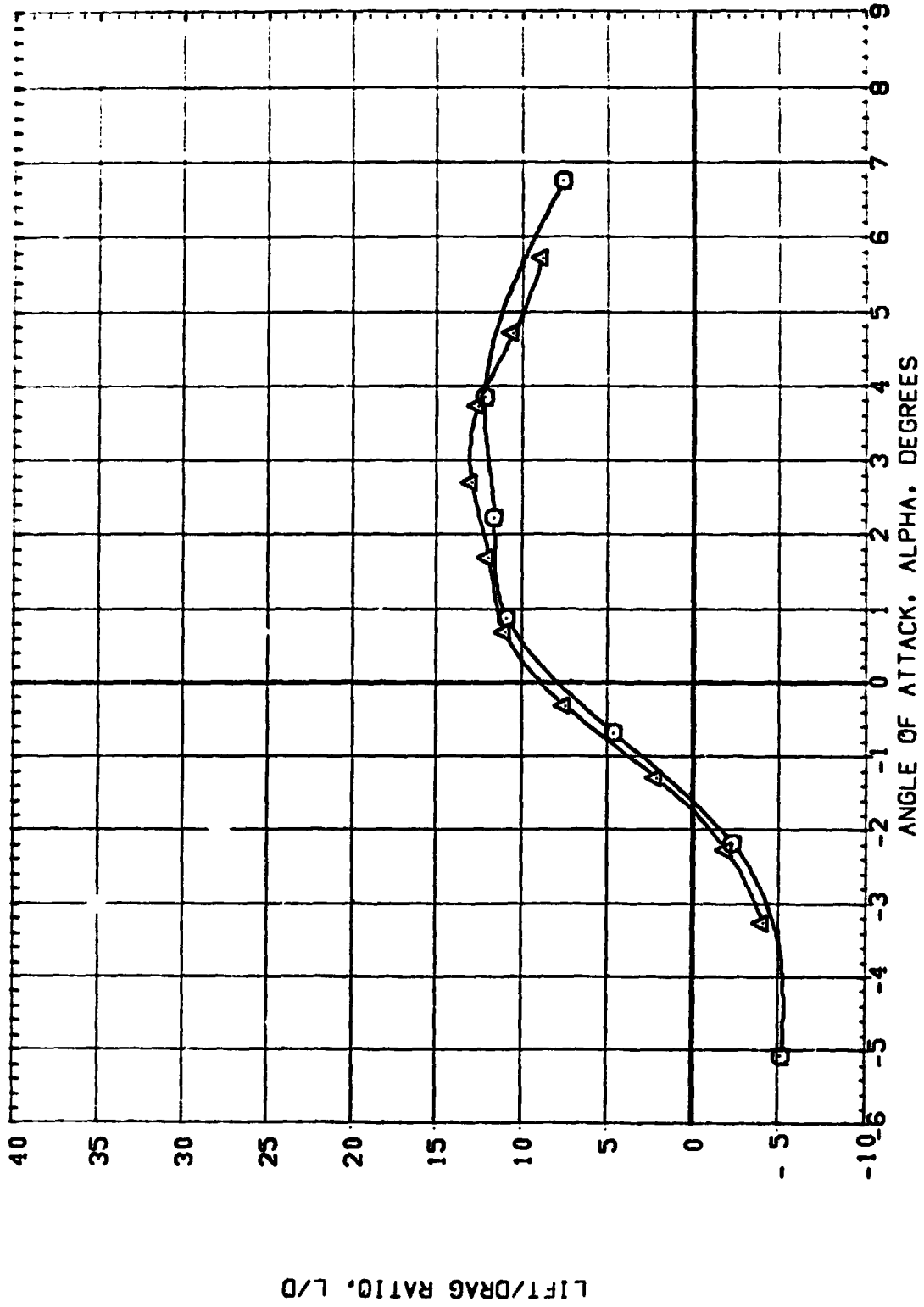


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.05, LAMBDA=45 DEGREES

(A)MACH = 1.05

DATA SET SYMBOL (FAE003) Ω (FAE023) Δ
 CONFIGURATION DESCRIPTION W1 FO B W3 FO B

SWEEP 45.000 45.000
 RN/L 6.000 6.000

BETA 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

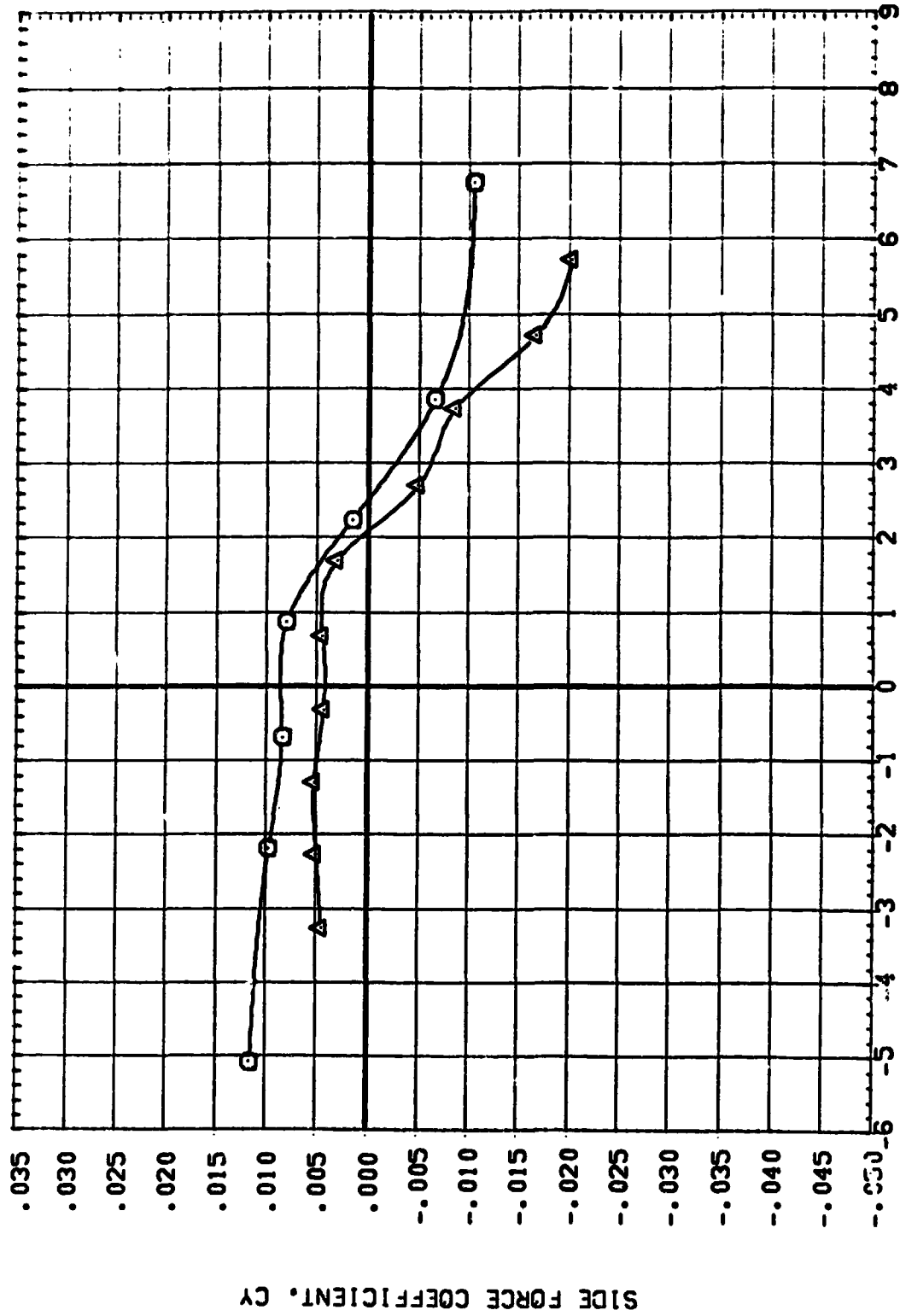


FIGURE 5 EFFECT OF DIHEDRAL. MACH NO. = 1.05, LAMBDA = 45 DEGREES

(A) MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE005) \odot W1 F0 B
 (FAE025) \triangle W3 F0 B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

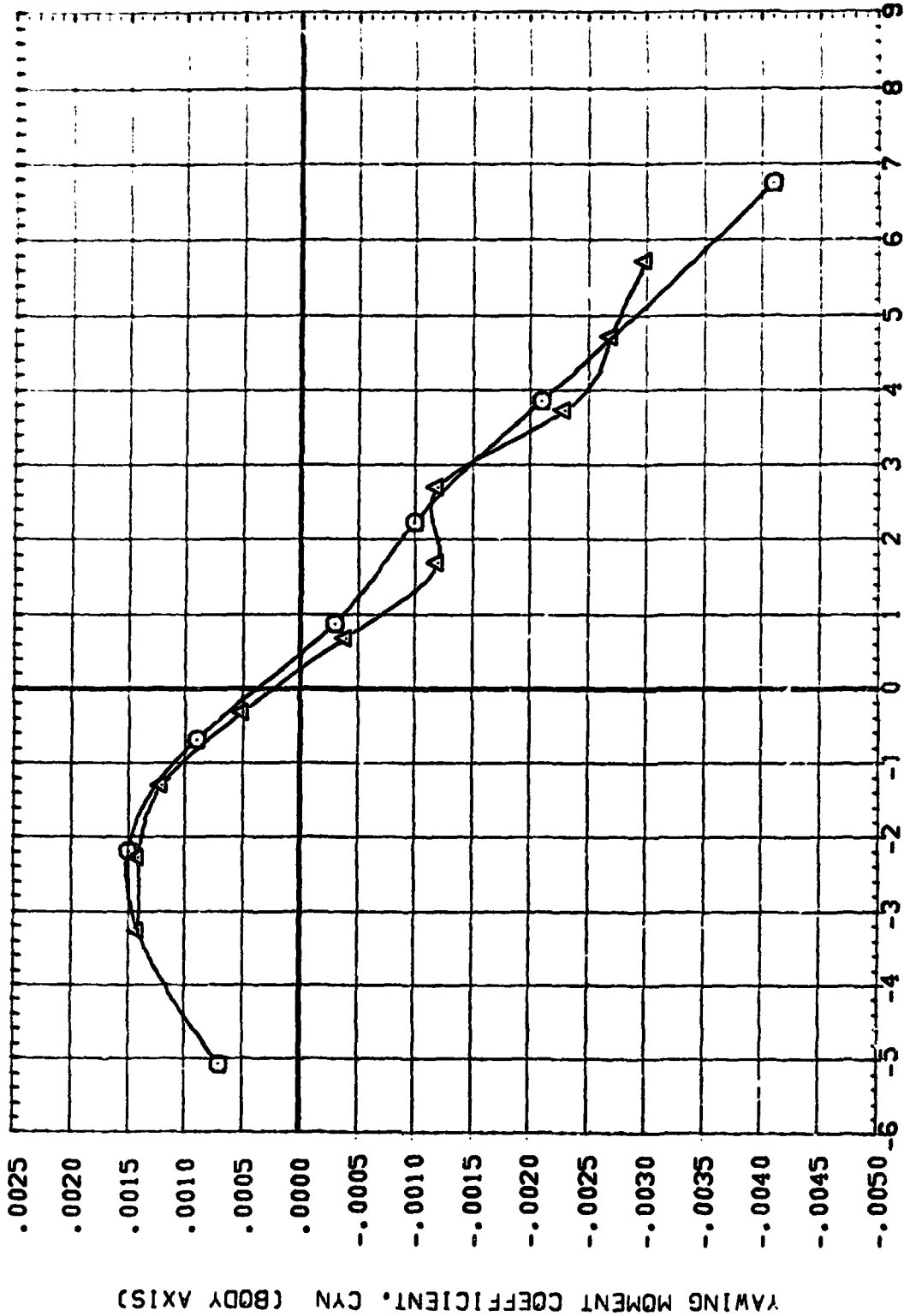


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.05, LAMBDA=45 DEGREES

(A)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE005) Ω W1 F0 B
 (FAE025) W3 F0 B

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

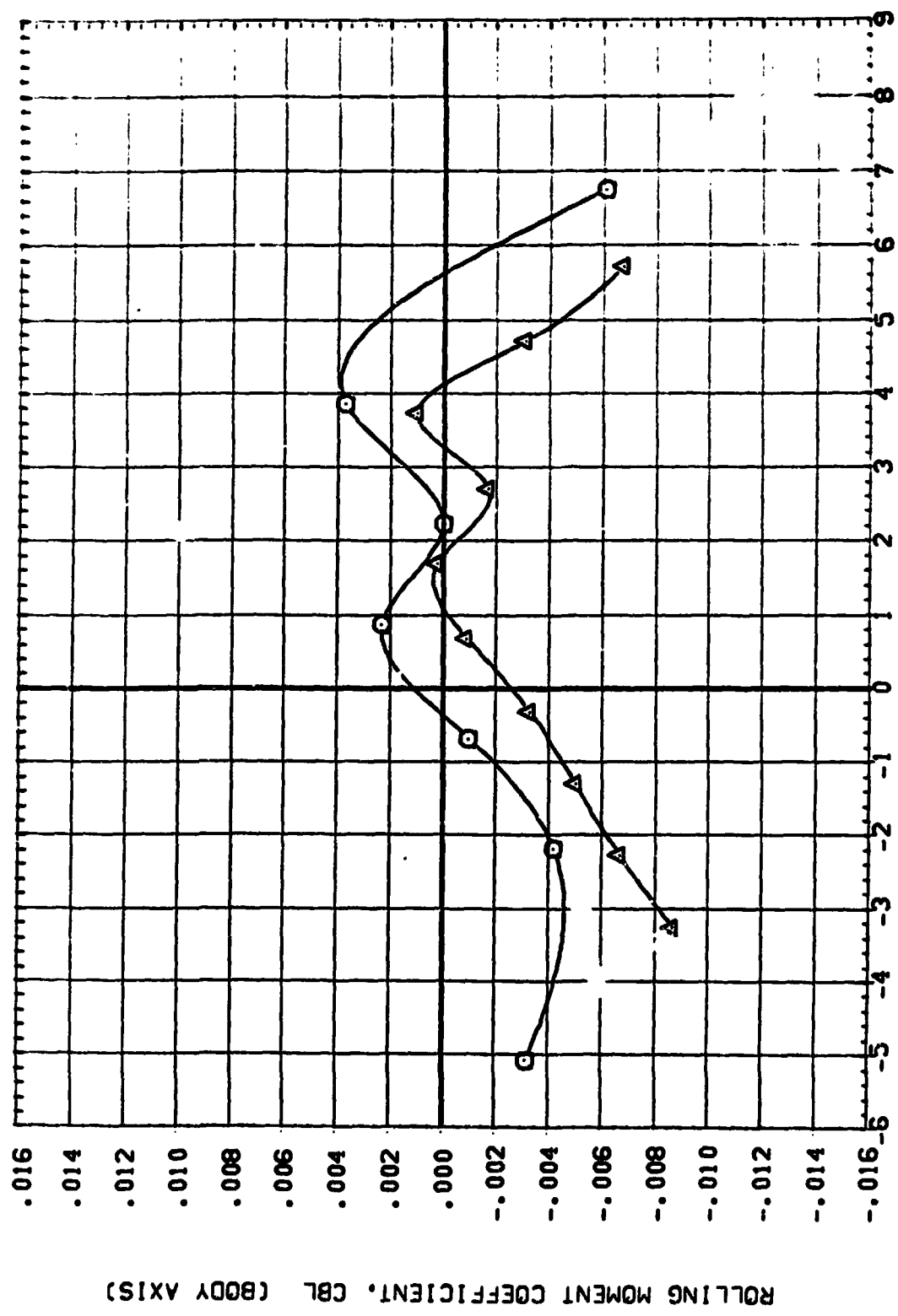


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.05, LAMBDA=45 DEGREES

(A)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAC007) \square W1 FO B
 (BAC025) \triangle W3 FO B

SWEEP RN/L BFZA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

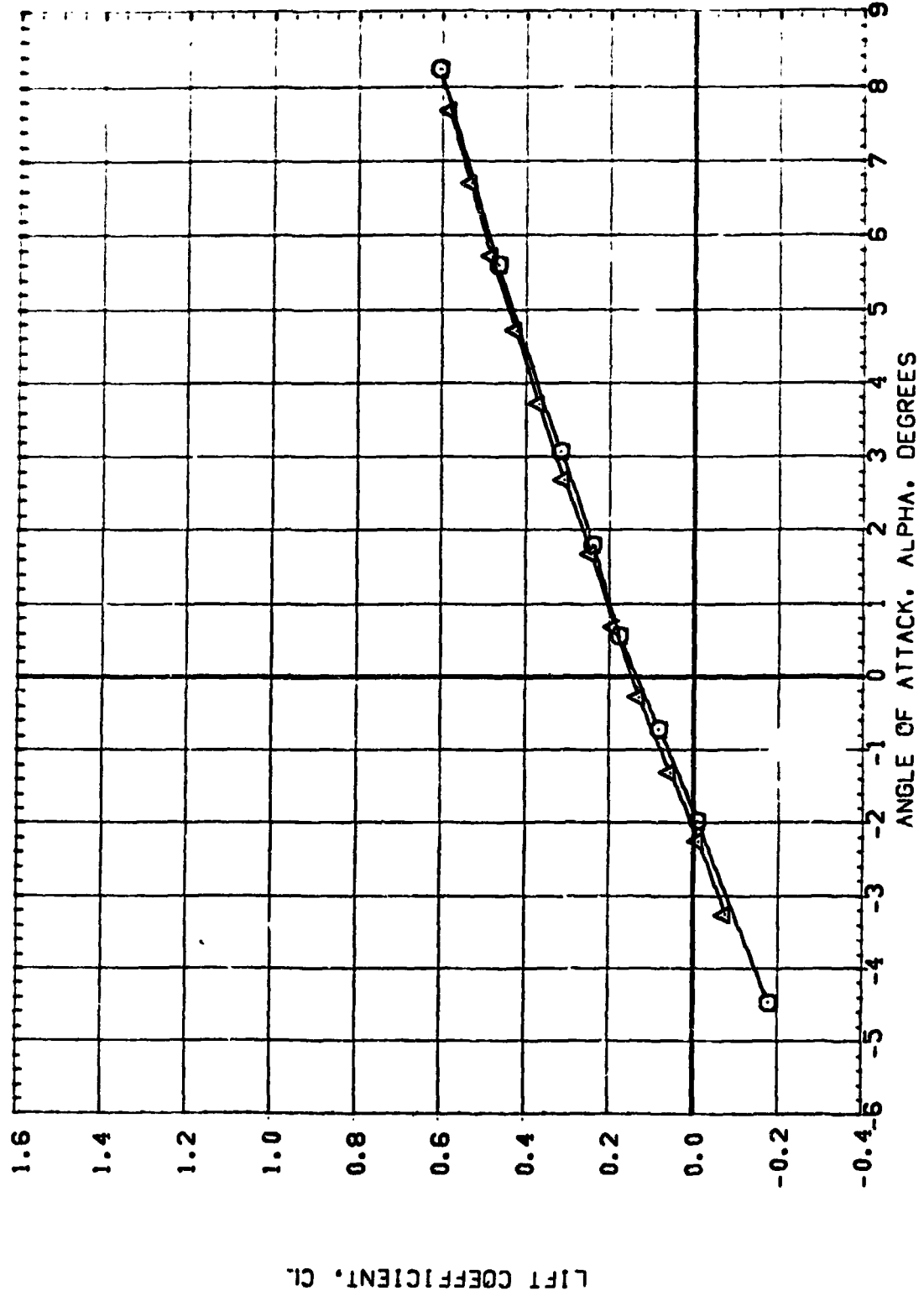


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=50 DEGREES
 (A)MACH = .80

DATA SET SYMBOL (BA007) (BA025) CONFIGURATION DESIGNATION M1 FD B M3 FD B

SWEEP 50.000 50.000 RN/L 6.000 6.000 BETA 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

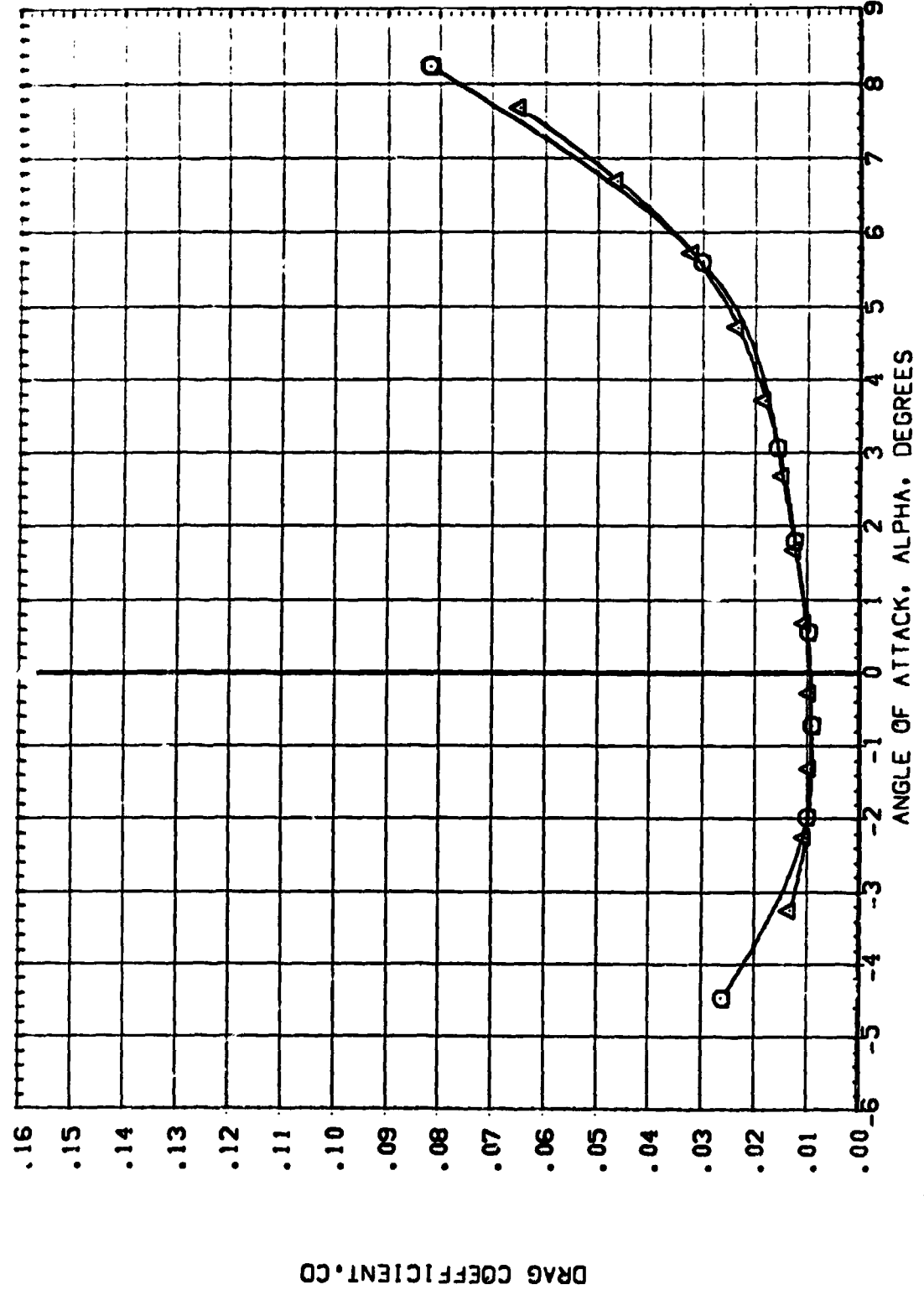


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=50 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE007) M1 FO B
 (BAE008) M3 FO B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

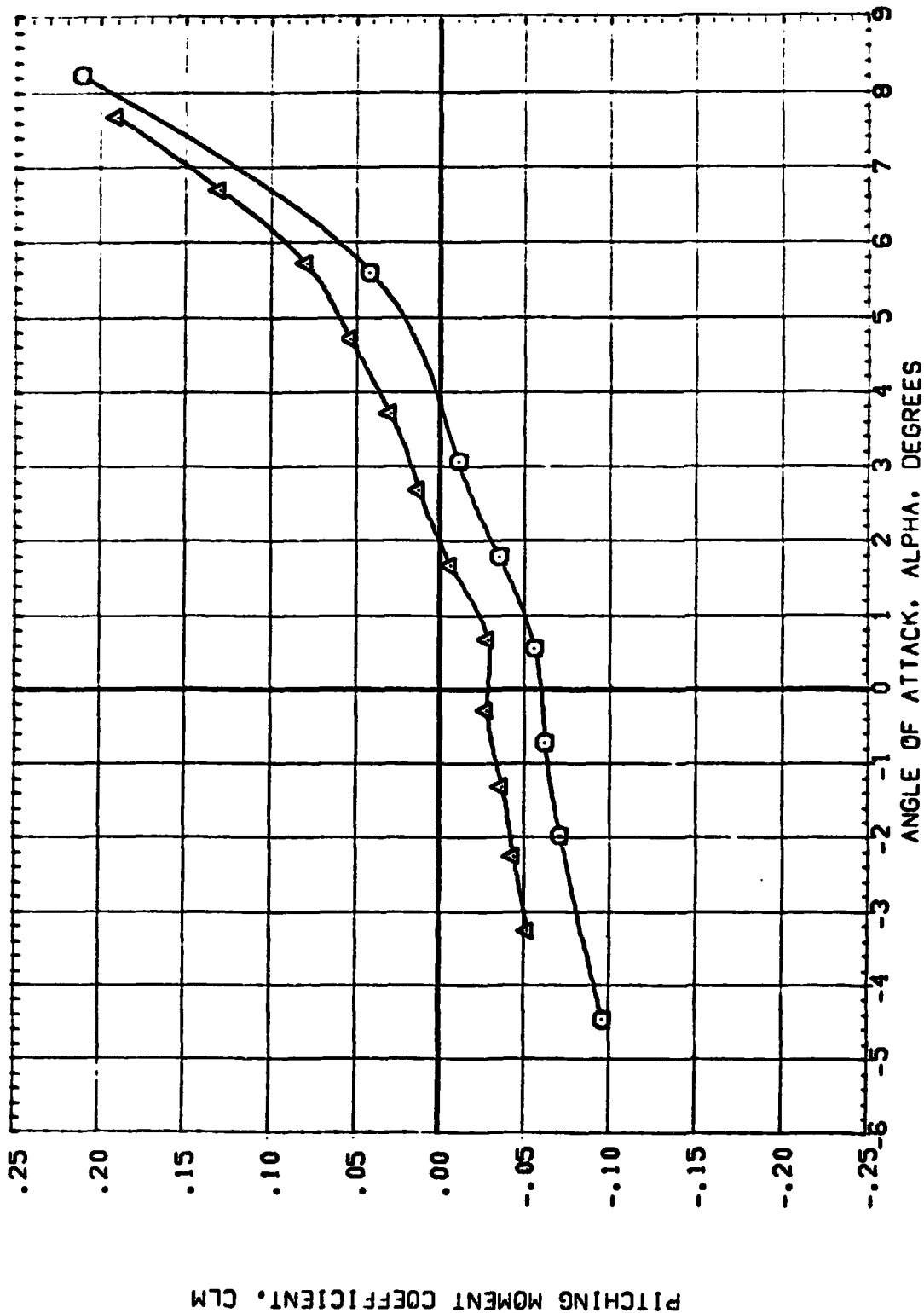


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=50 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE007) W1 P0 B
 (BAE025) W3 P0 B

SWEEP RW/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

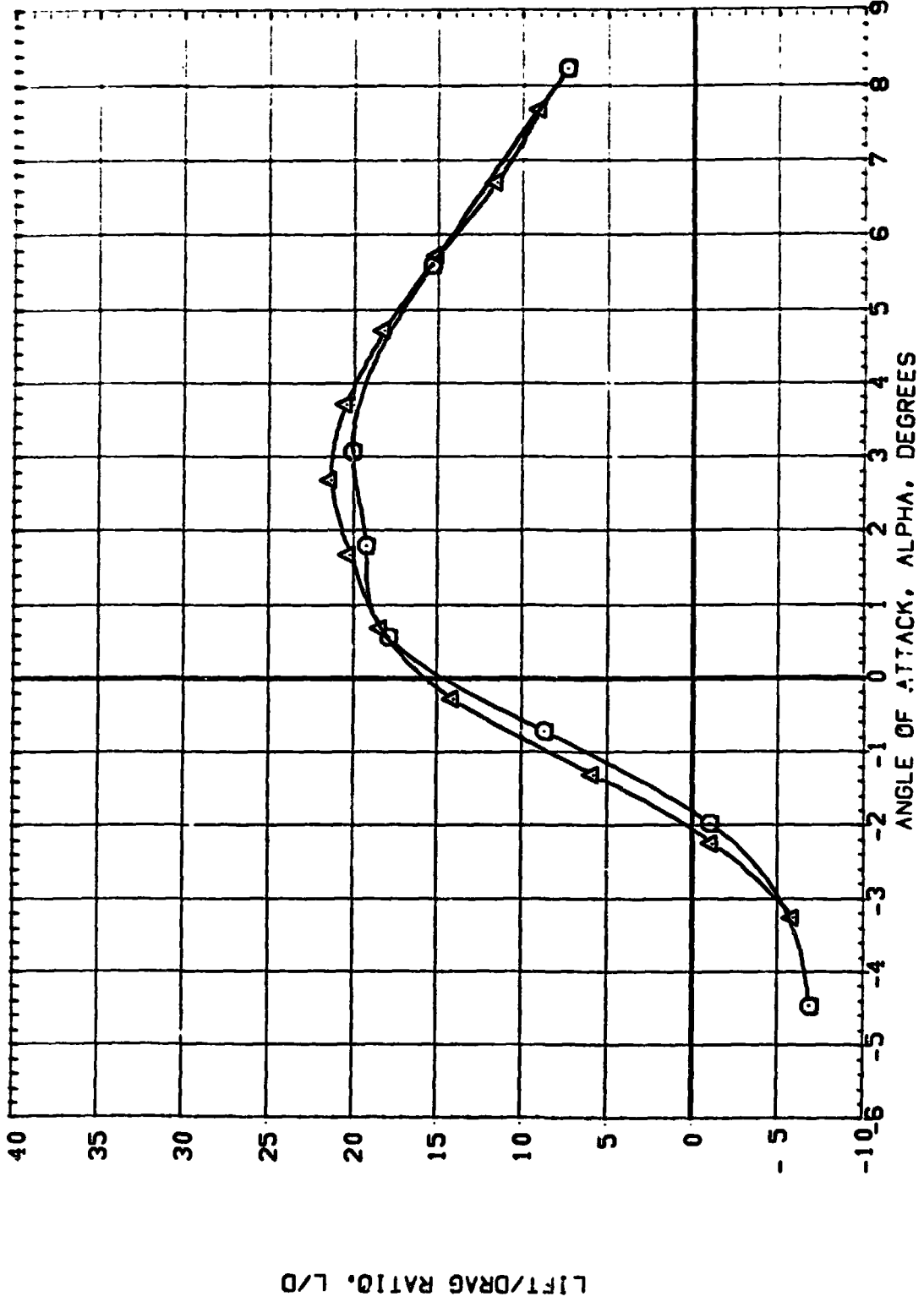


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=50 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BASE07) W1 P0 8
 (BASE08) W3 P0 8

SWEEP RM/L BETA
 50,000 6,000 0,000
 80,000 6,000 0,000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

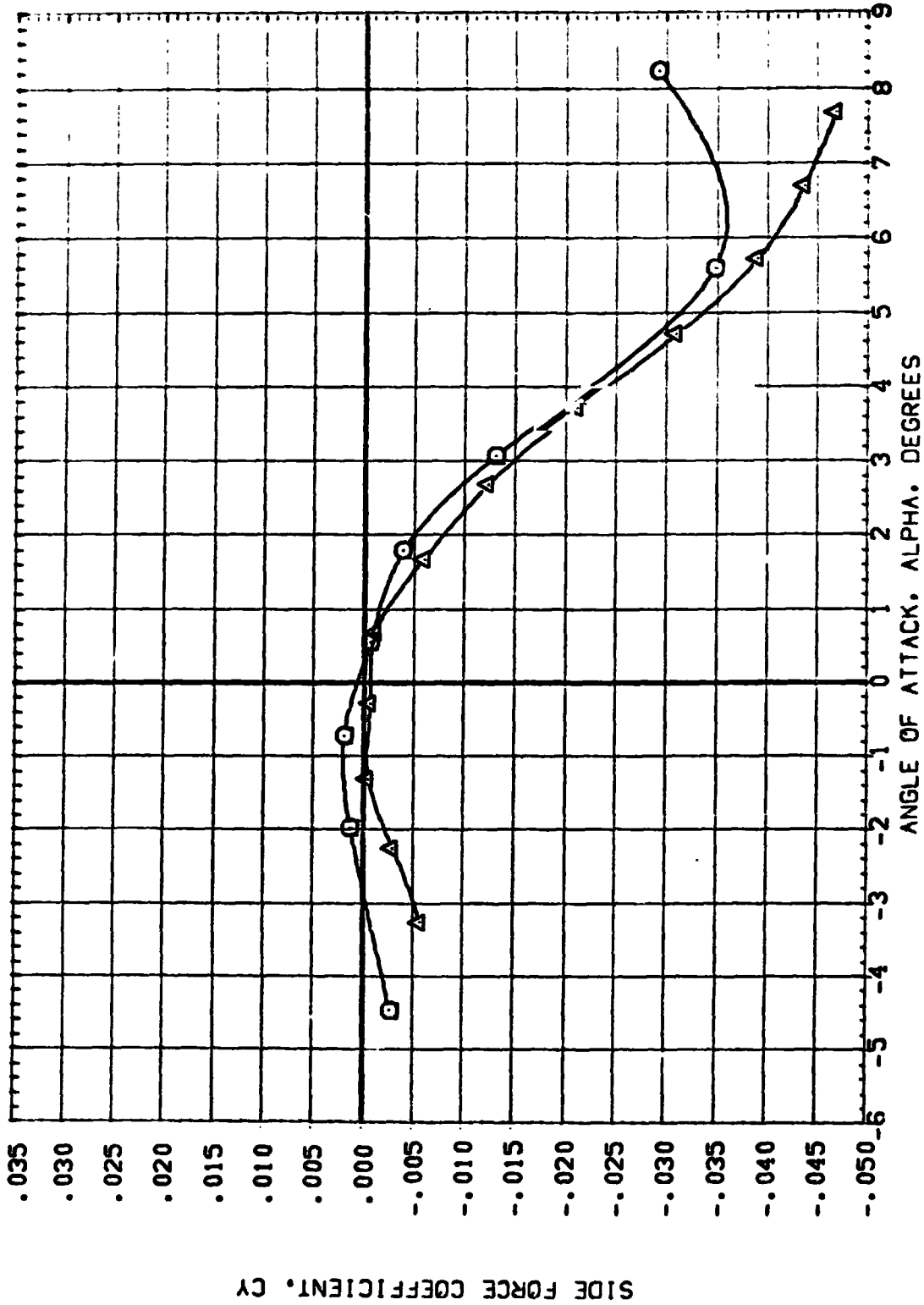


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=50 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE02) W1 P0 8
 (BAE02) W5 P0 8

SWEET RMPL. BETA
 50,000 6,000 0.000
 50,000 6,000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

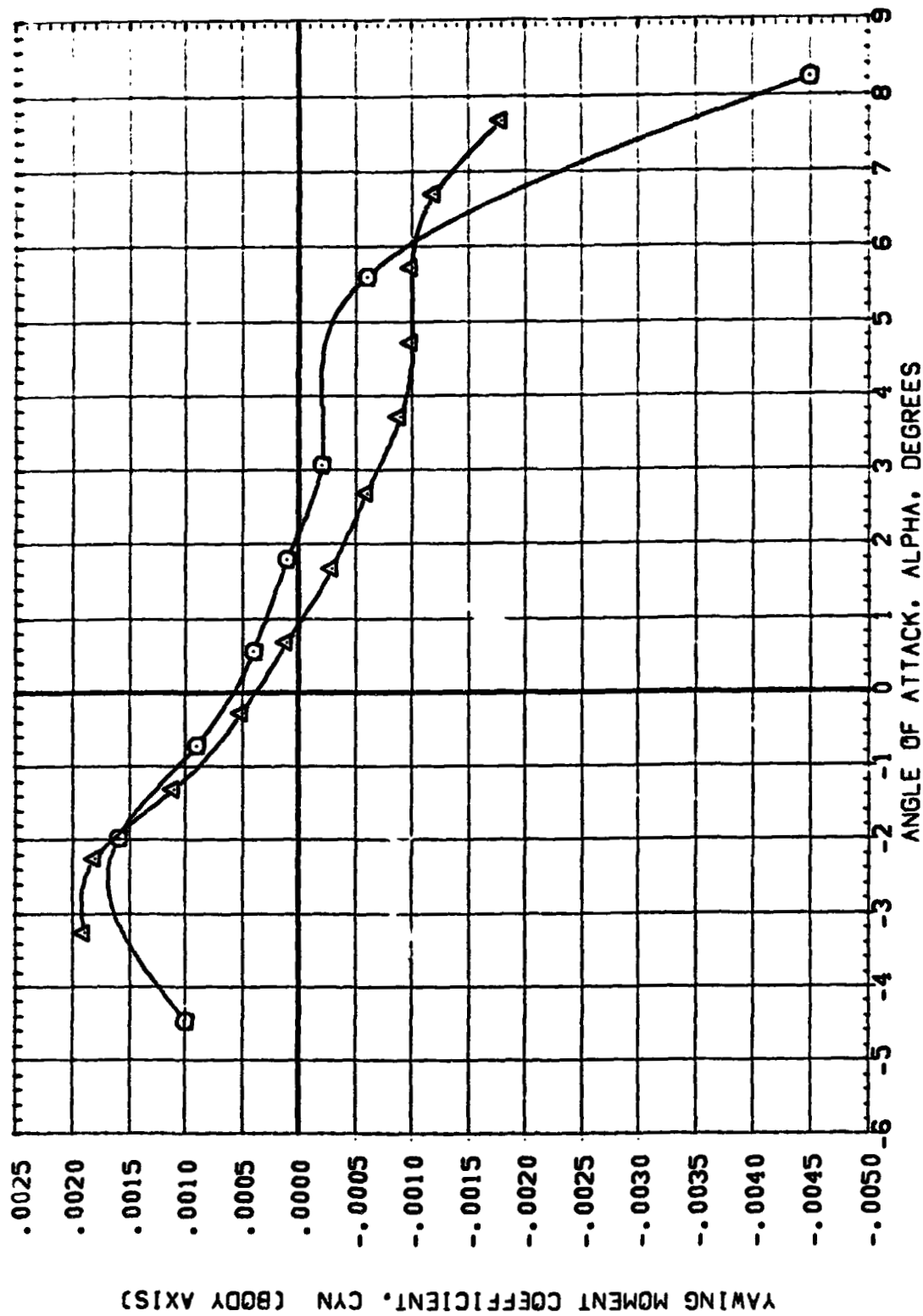


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=50 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE00 M1 P1 B
 SAC00L M2 P1 B

SWEEP RV/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

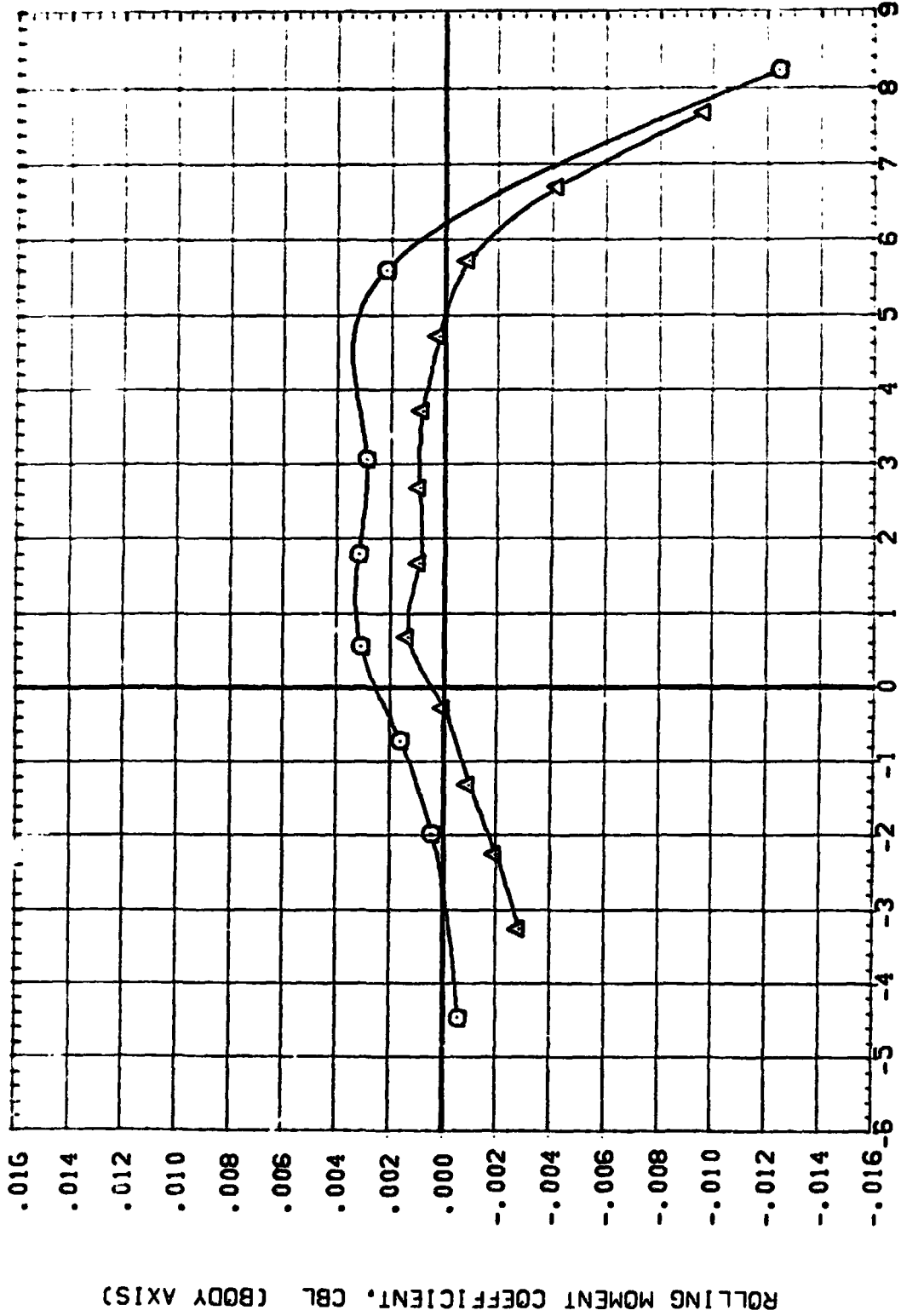


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 50 DEGREES

(A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE007) M3 PD B
 (CAE026) M3 PD B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

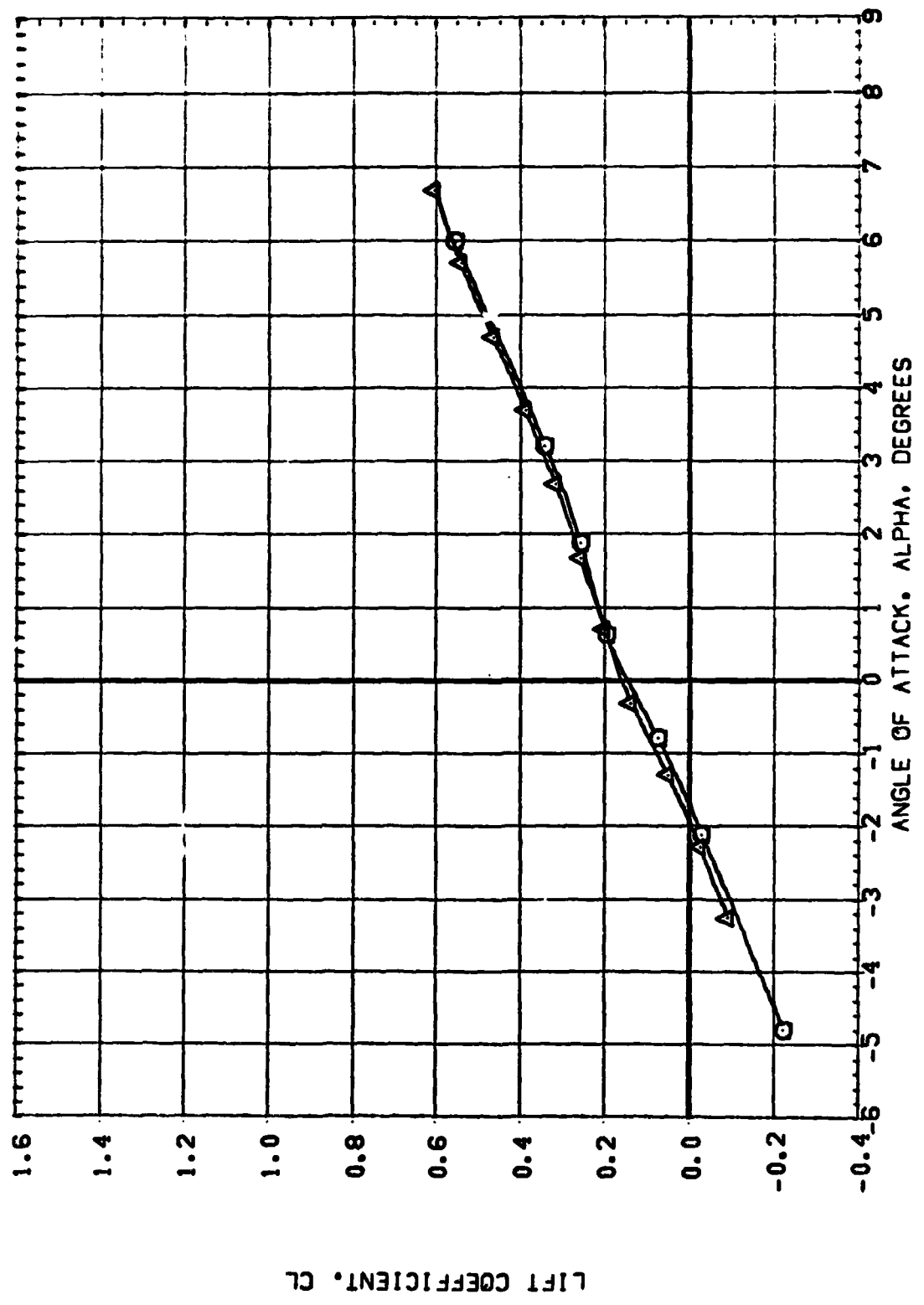


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=50 DEGREES

(A) MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE007) Q W1 FO 8
 (CAE025) Q W3 FO 8

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR AIRFRAME
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

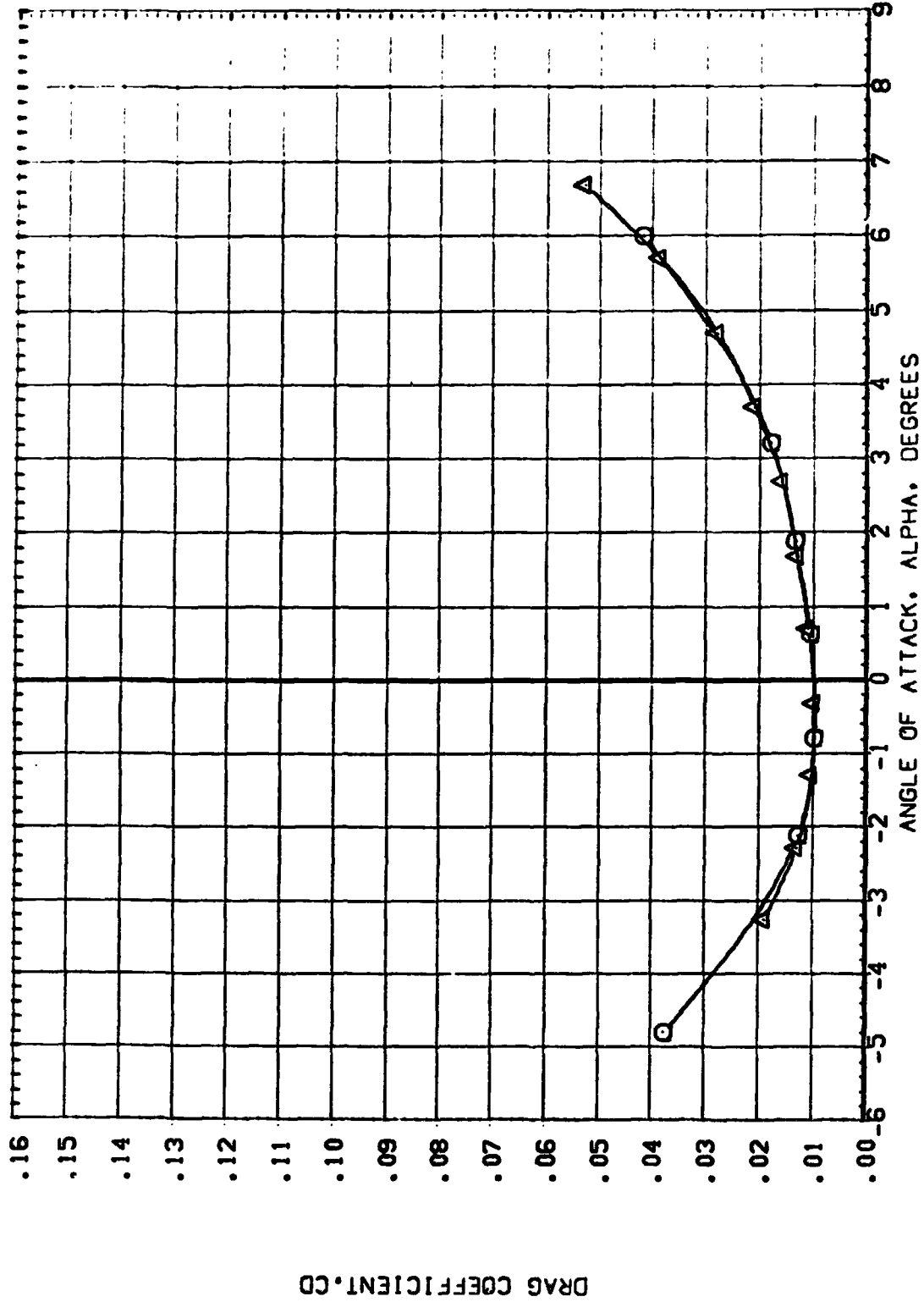


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=50 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE187) Q W1 FO B
 (CAE187) Q W3 FO B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

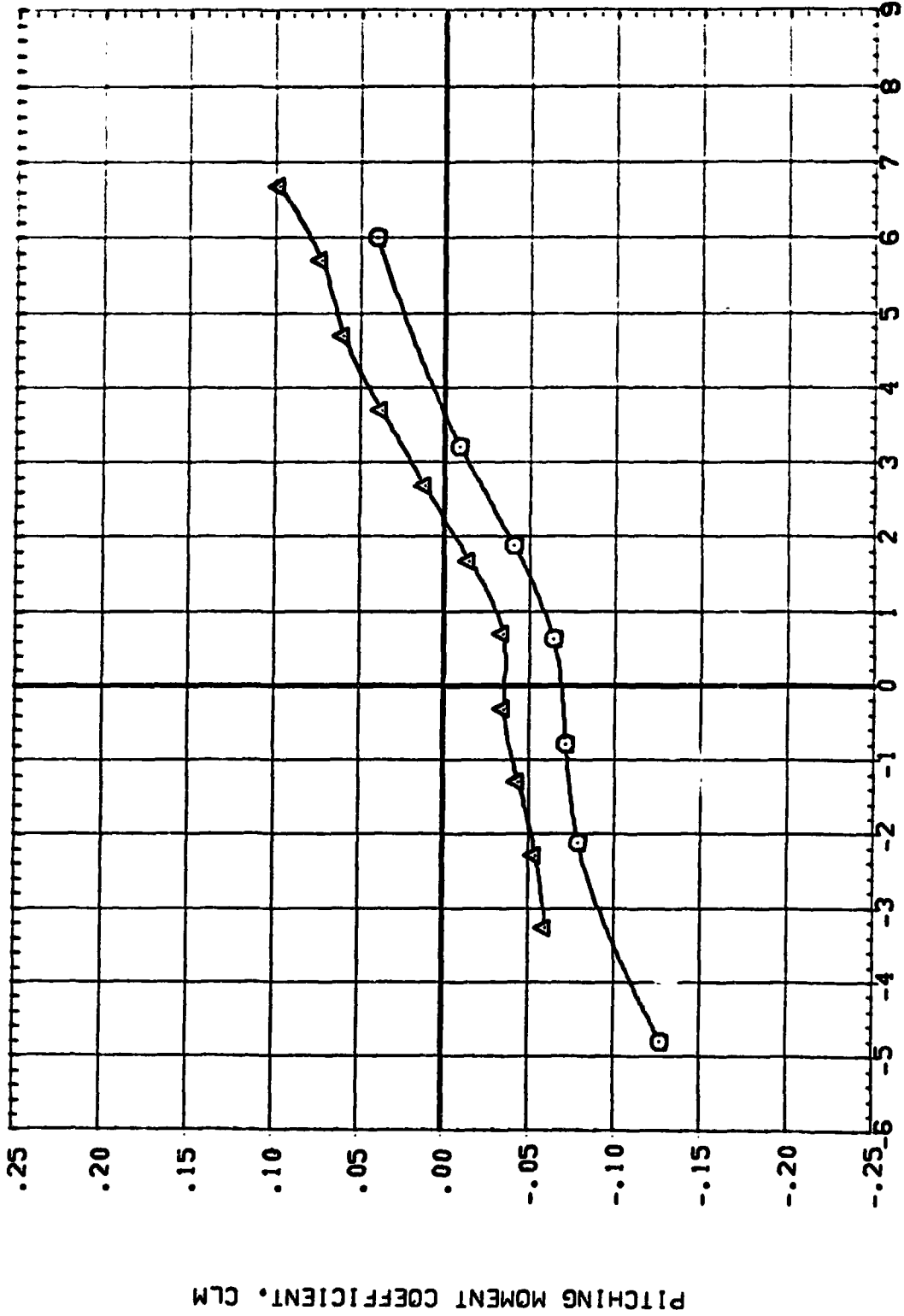


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.95, LAMBDA=50 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE007) Ω W3 F0 B
 (CAE025) W3 F0 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

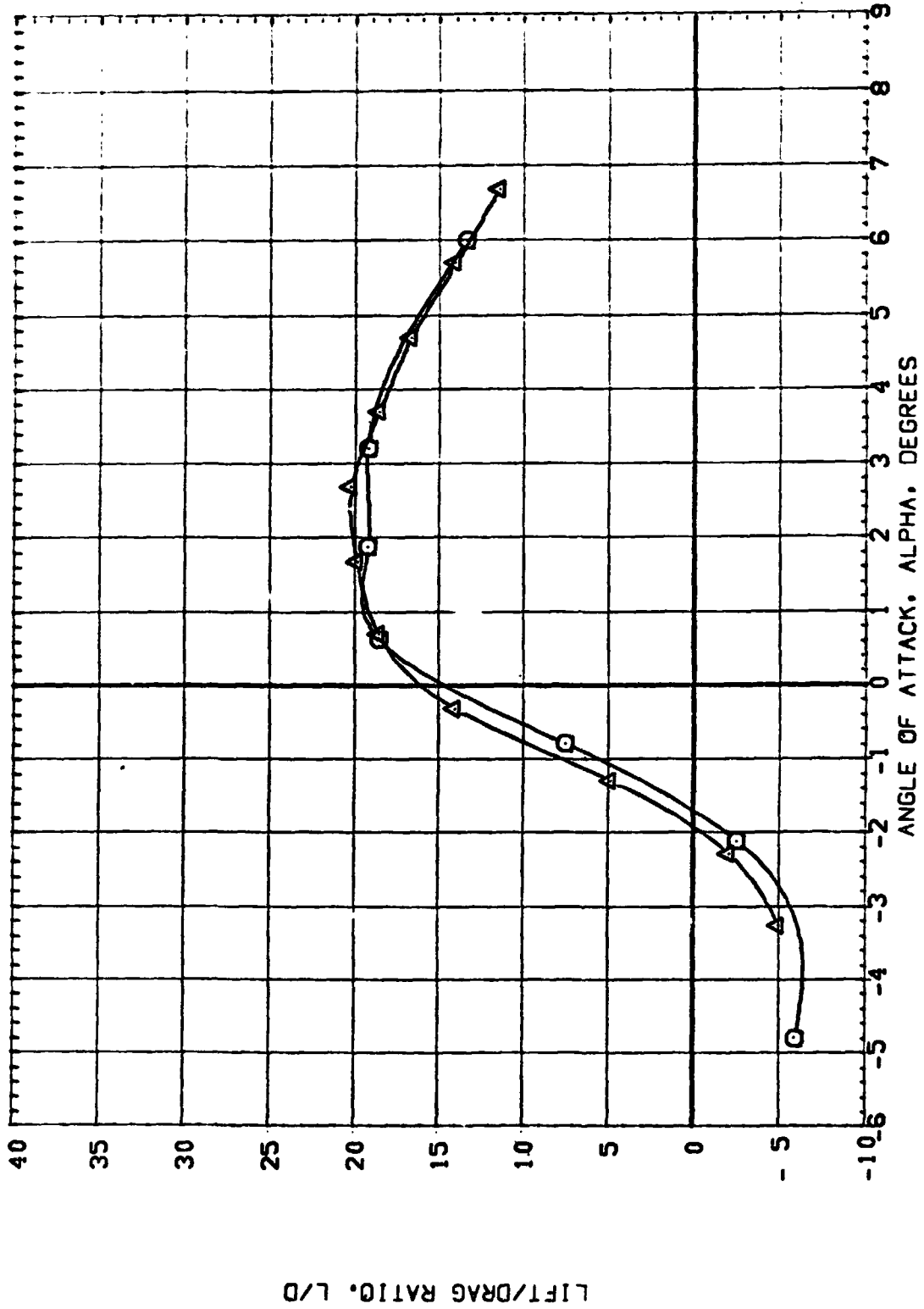


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=50 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE007) W1 P0 B
 (CAE085) W3 P0 B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATE DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

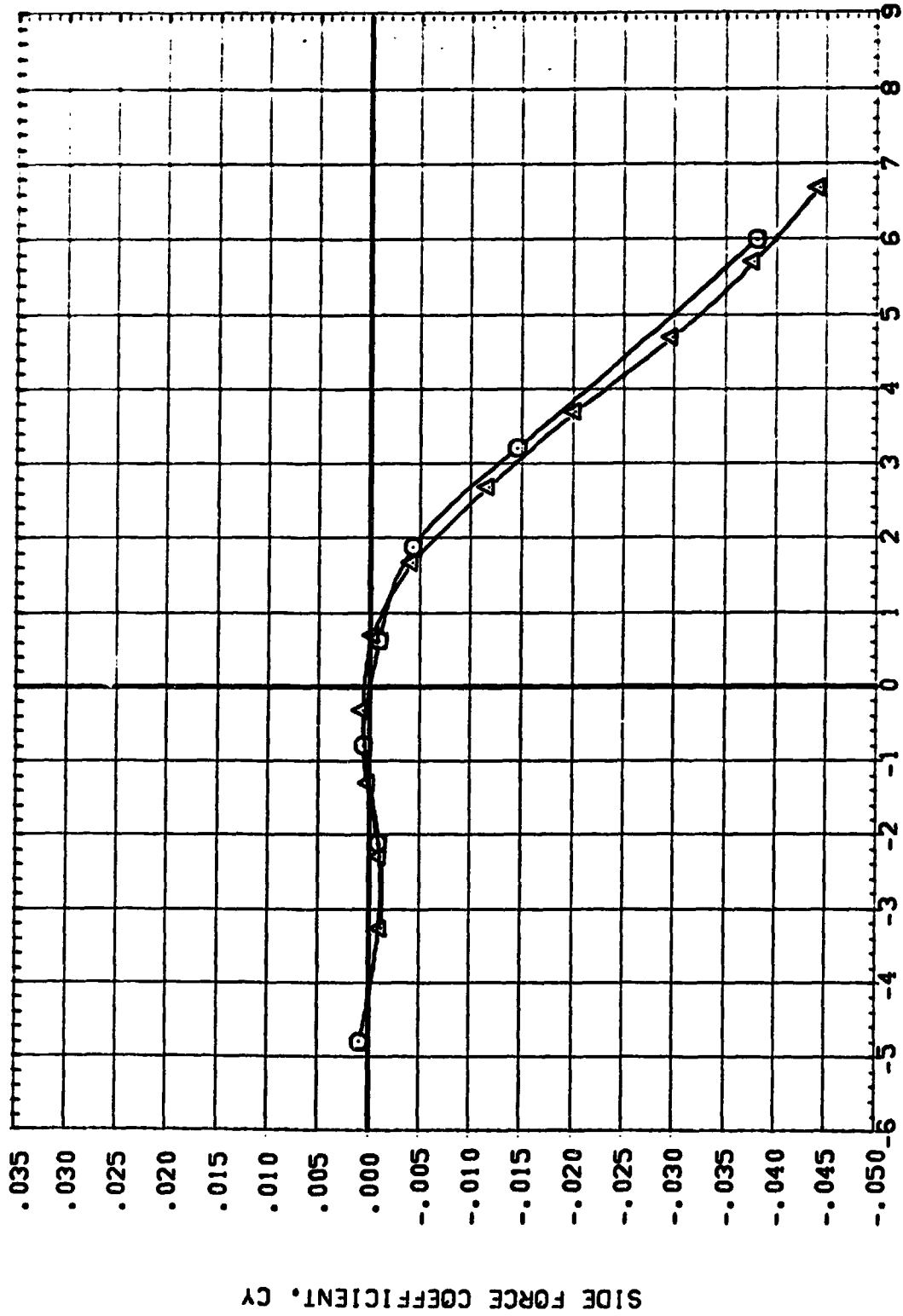


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=50 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CASE07) M1 FO B
 (CASE05) M3 FO B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

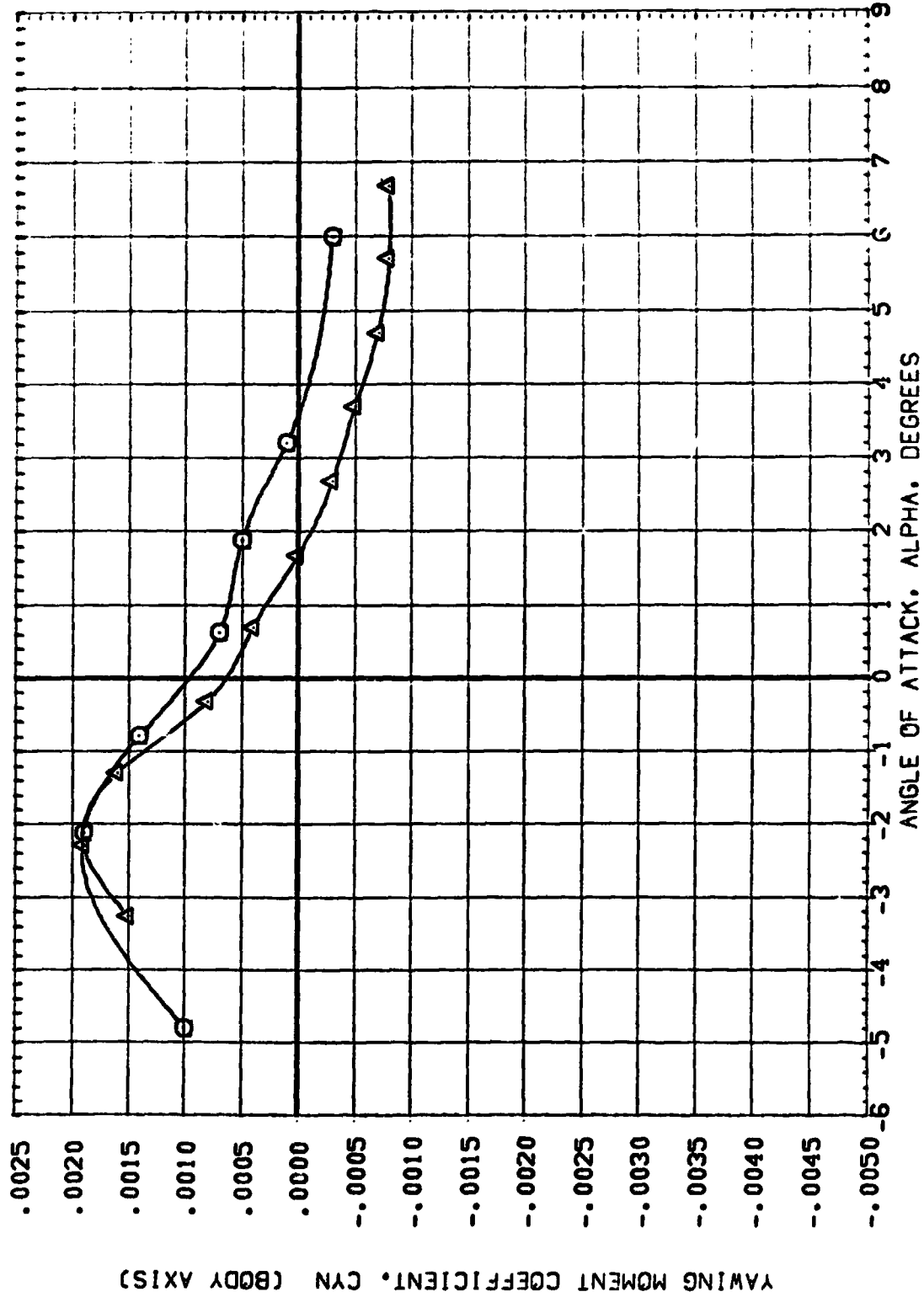


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA = 50 DEGREES

(A) MACH = .95

DATA SET SYMB-- CONFIGURATION DESCRIPTION
 (CAE007) W3 FO B
 (CAE025) W3 FO B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

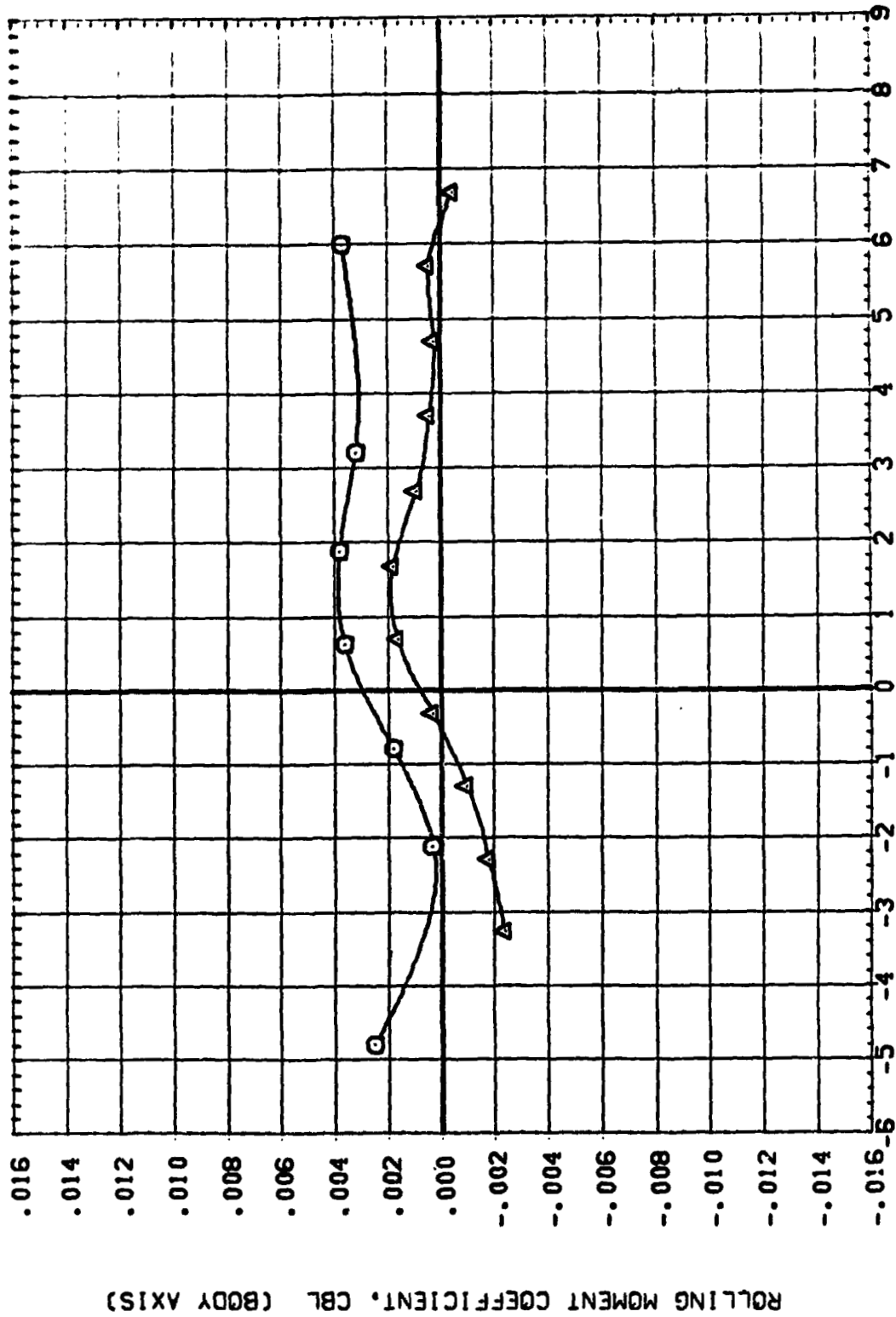


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.95, LAMBDA=50 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE007) \odot M1 FO B
 (DAE008) \triangle M3 FO B

SWEEP RM/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

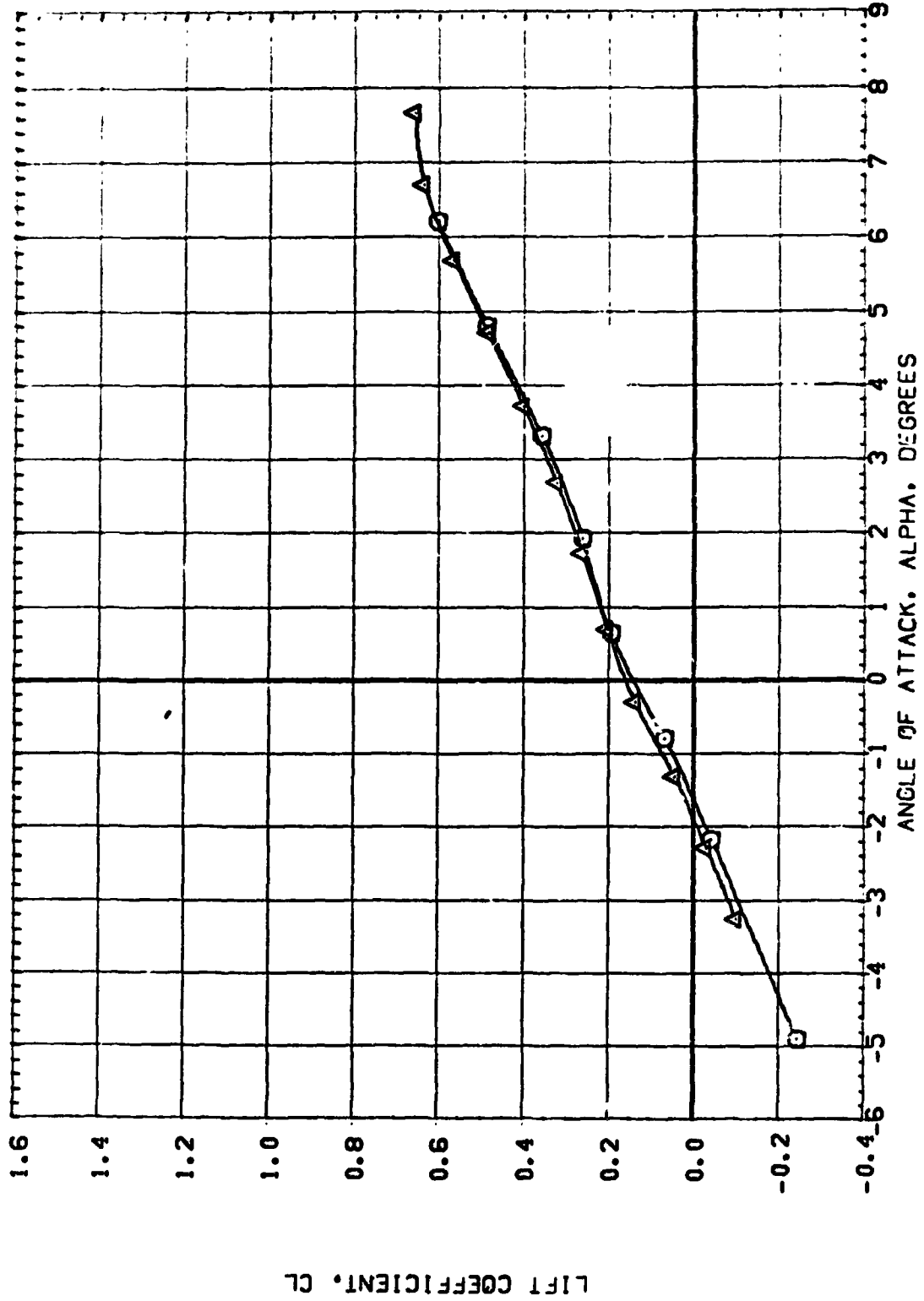


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA = 50 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE007) Ω W1 F0 B
 (DAE025) Ω W3 F0 B

SWEEP R1/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

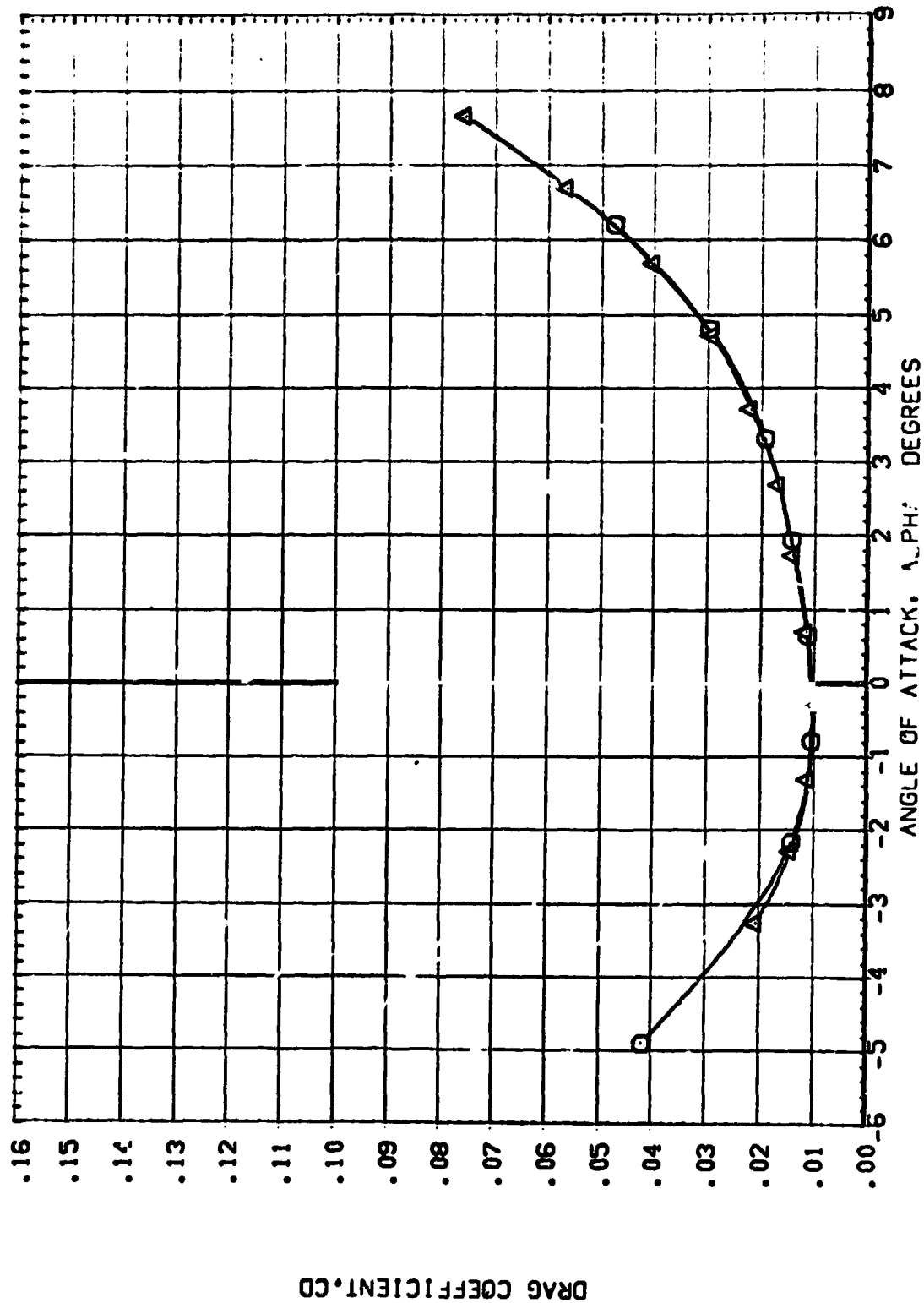


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=50 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE007) W1 F0 B
 (DAE023) W3 F0 B

SWEEP RN/L BETA
 50.000 6.000 0.100
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

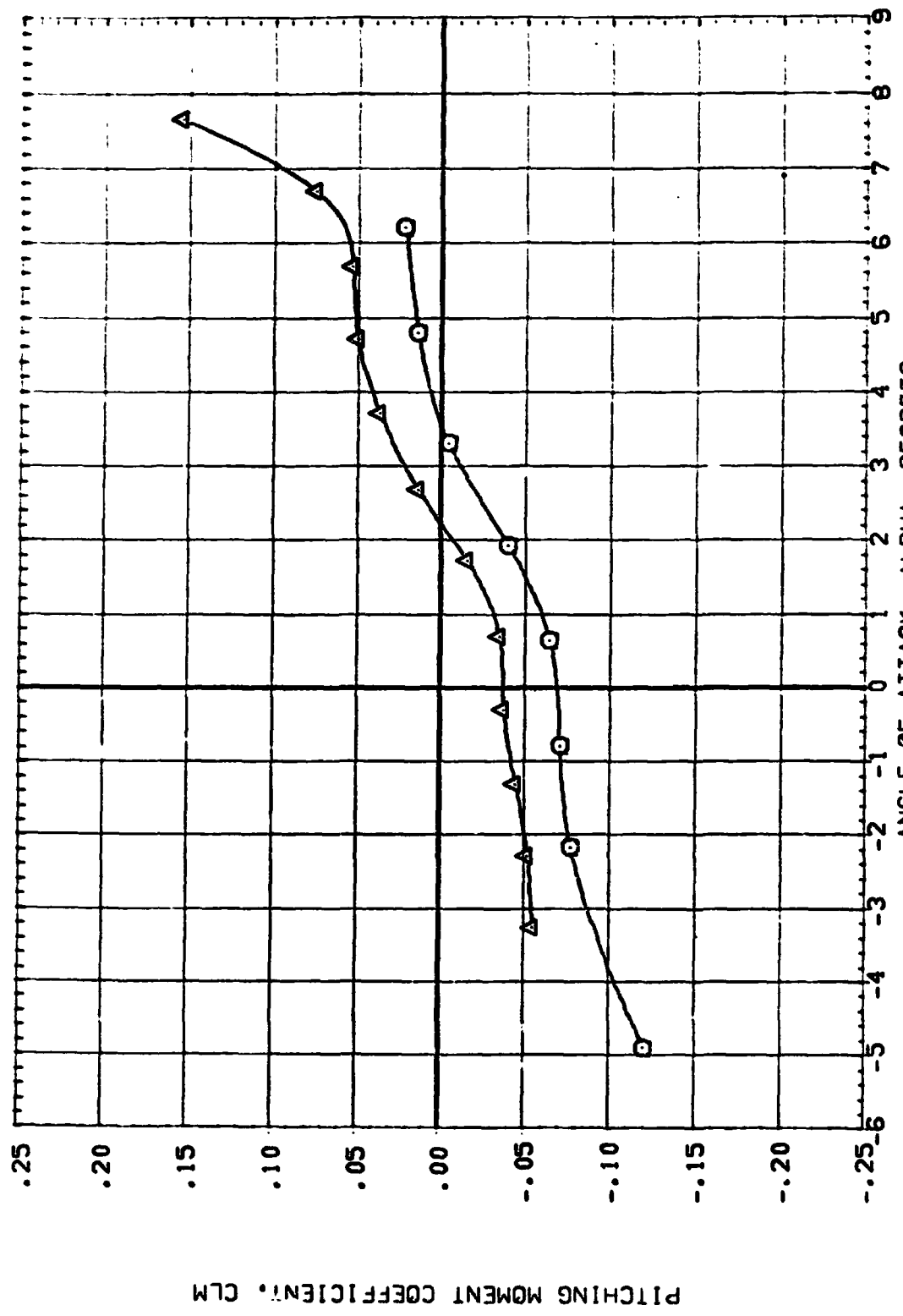


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=50 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE007) W1 P0 B
 (DAE008) W3 P0 B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

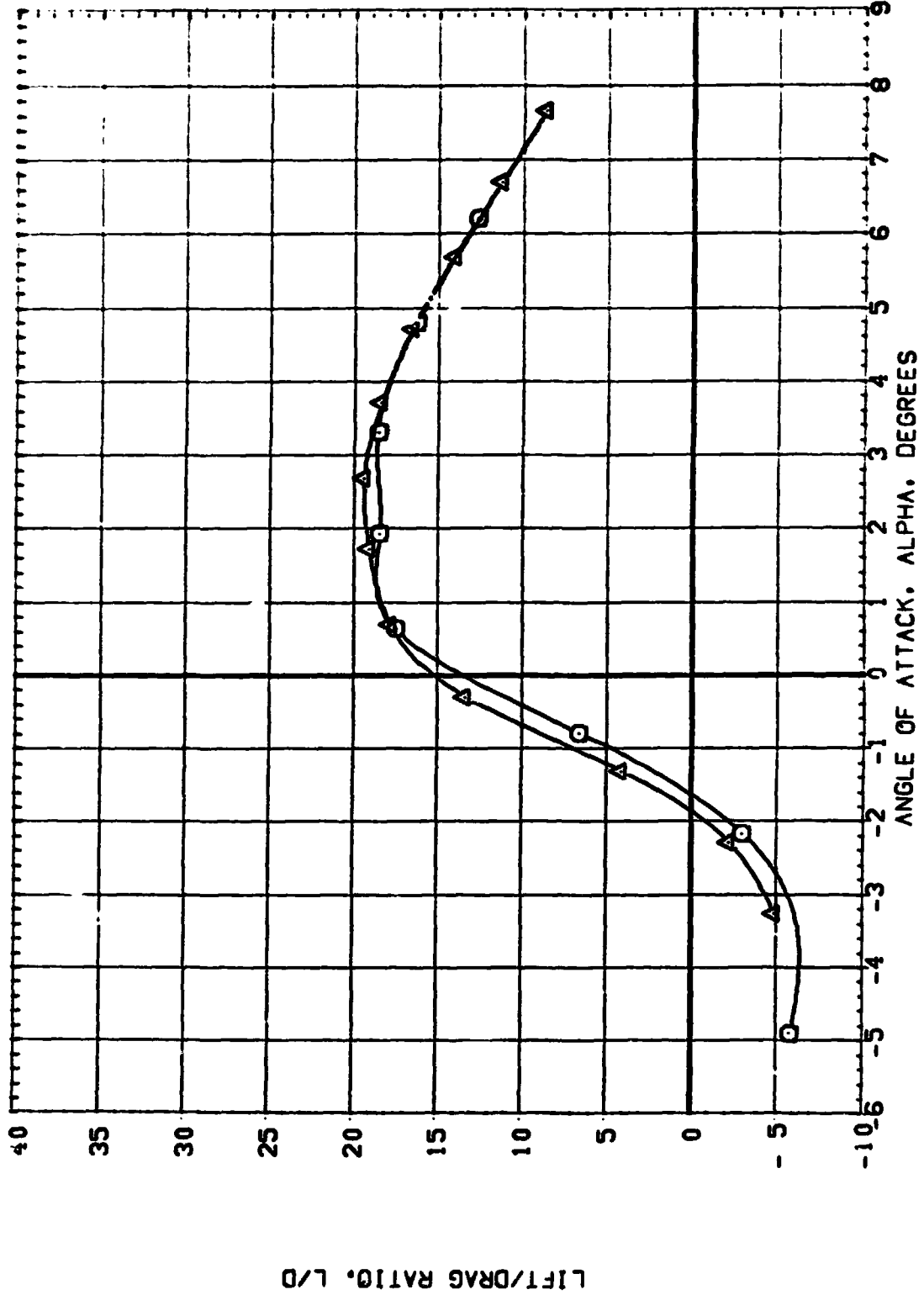


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.98, LAMBDA=50 DEGREES

(A)MACH = .98

DATA-SET SYMBOL COMPUTATION DESCRIPTION
 (DAEGS1) Ω W1 P0 8
 (DAEGS2) Δ W3 P0 8

SWEEP R/R/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

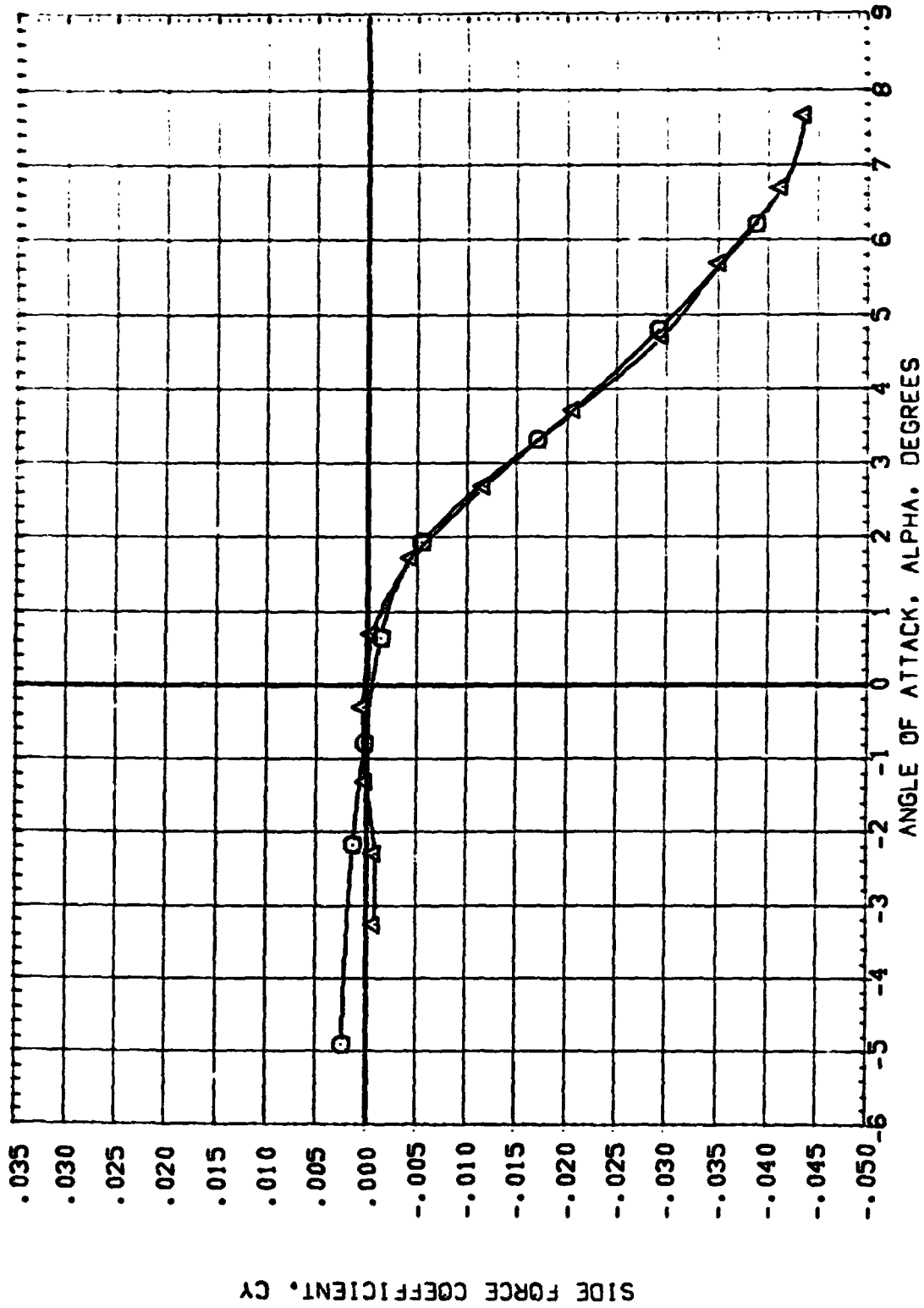


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=50 DEGREES

(A) MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE007) Ω W3 F0 B
 (DAE008) Δ W3 F0 B

SWEEP RM/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

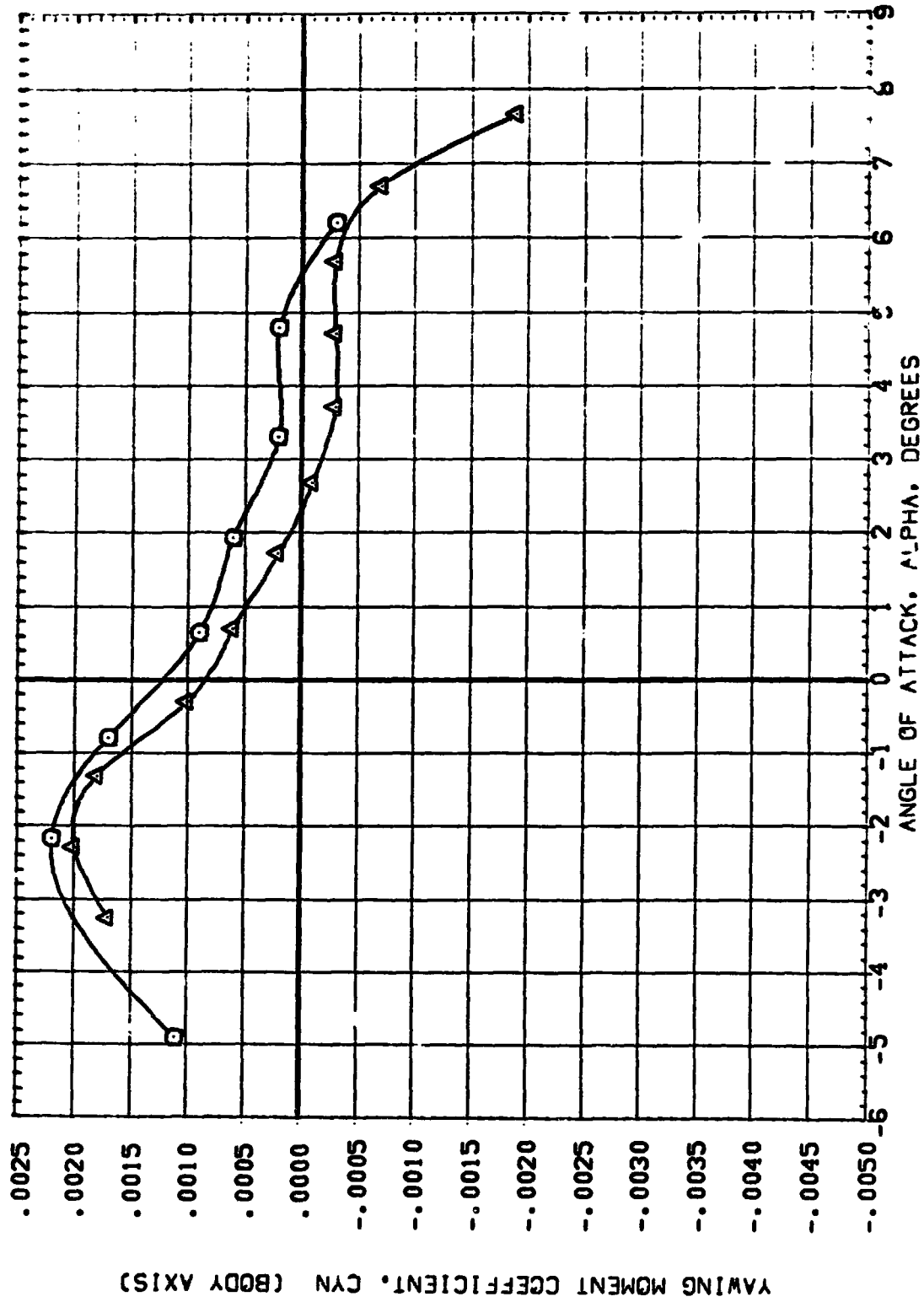


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=50 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE007) (A) W3 P0 B
 (DAE025) (B) W3 P0 B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

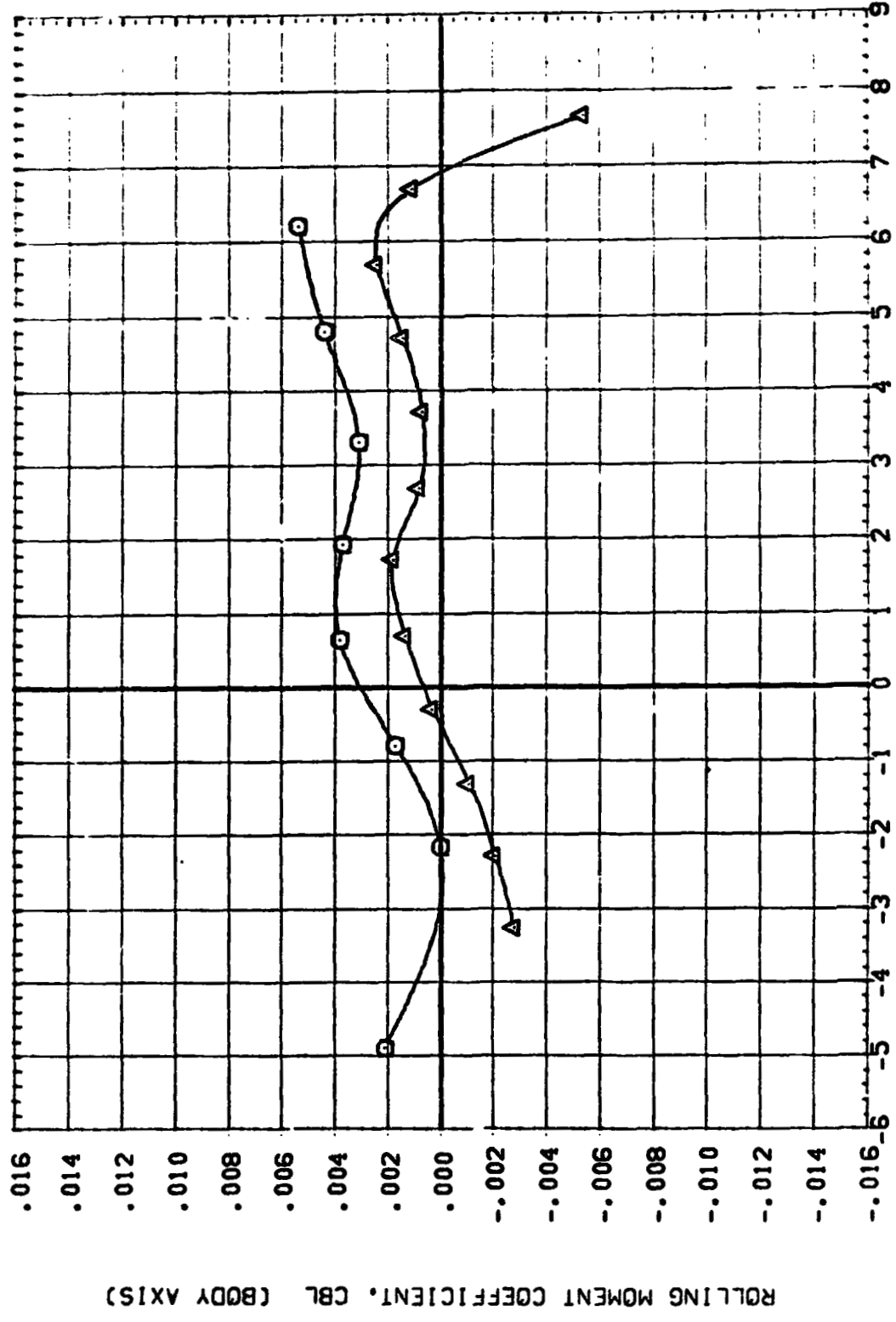


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.98, LAMBDA=50 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA007) M3 FO B
 (EA025) M3 FO B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

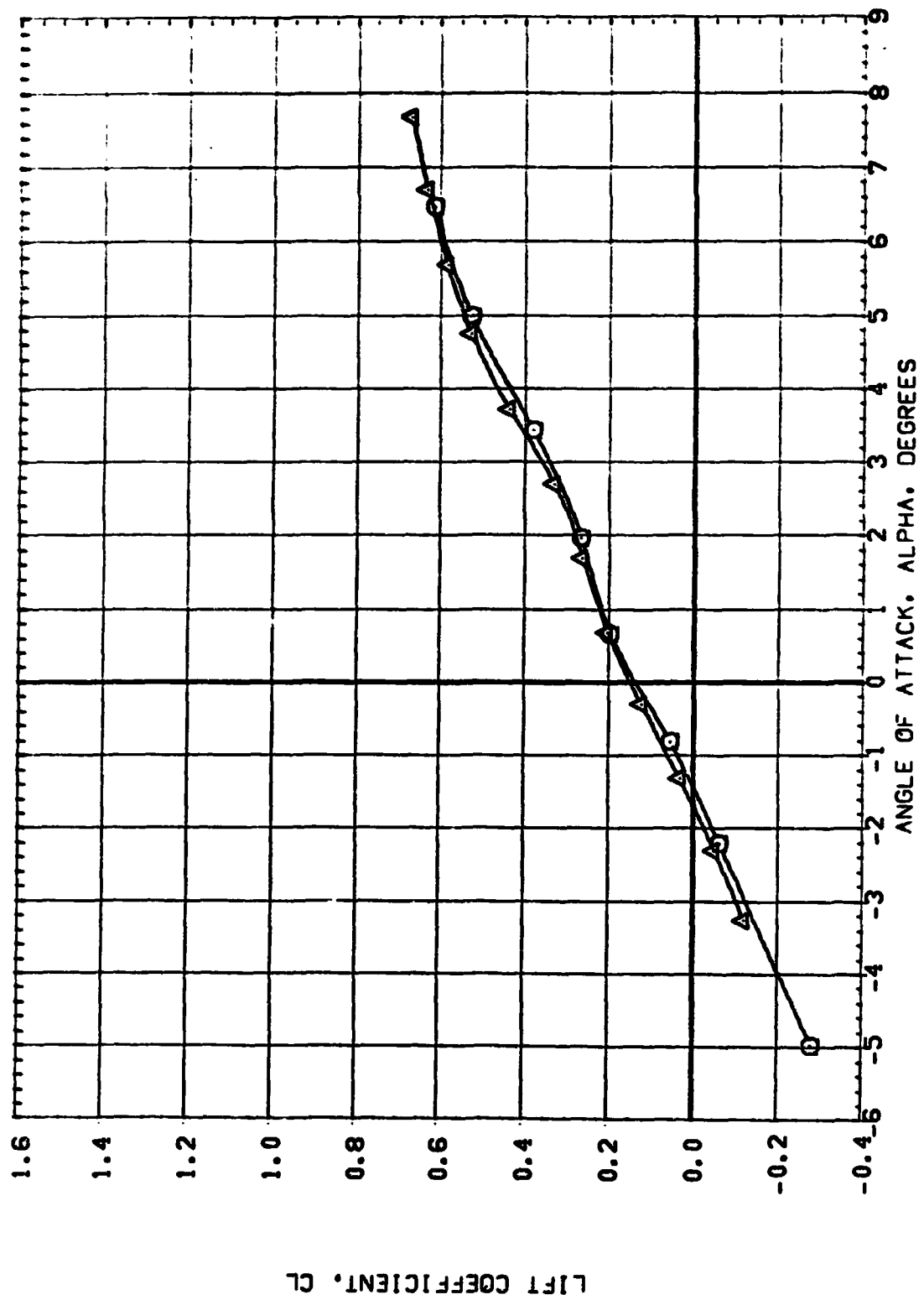


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=50 DEGREES
 (A)MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (LEAD07) Δ W1 FO B
 (LEAD08) \circ W2 FO B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

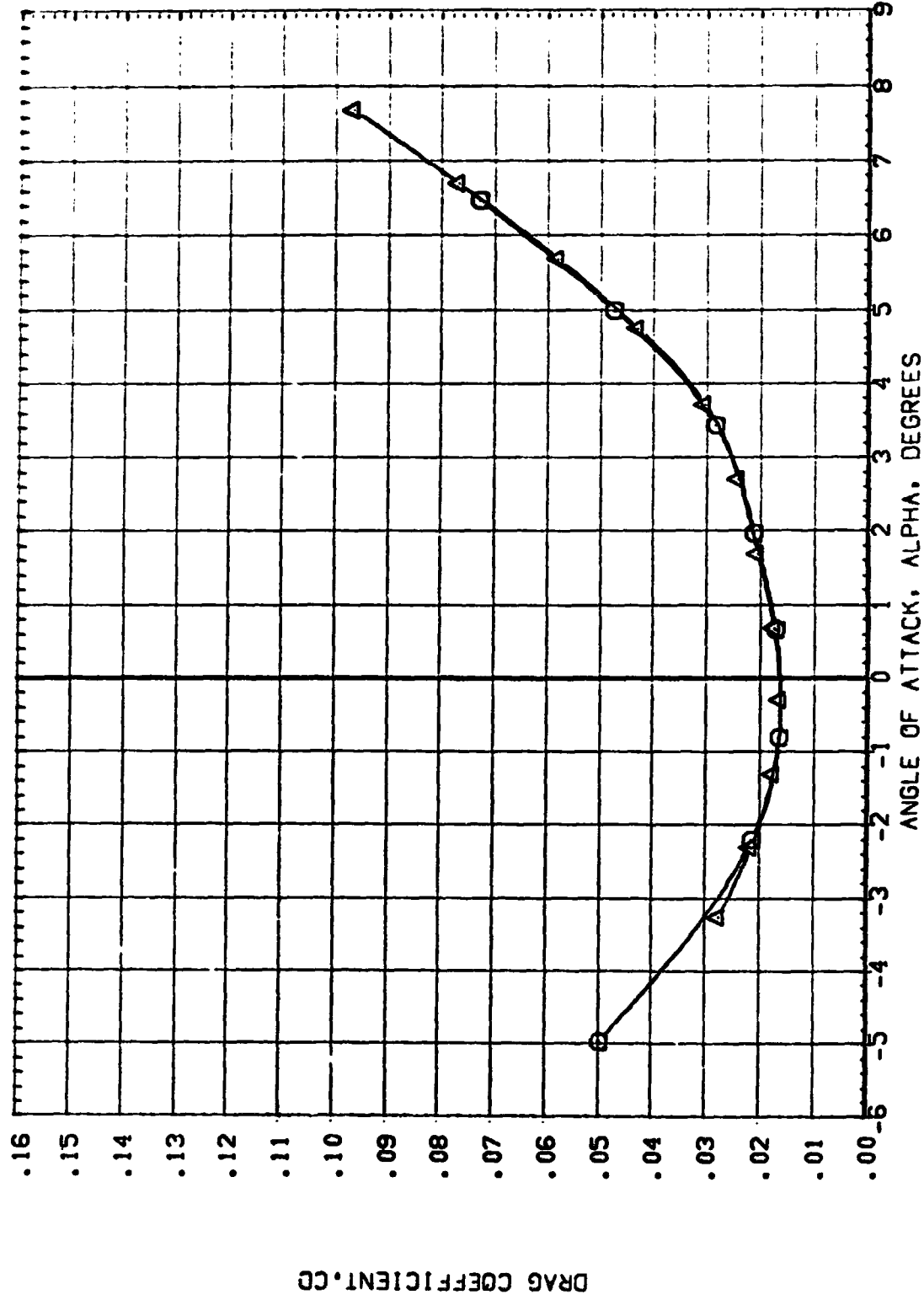


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA = 50 DEGREES

(A) MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE007) M1 FO B
 (EAE008) M2 FO B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

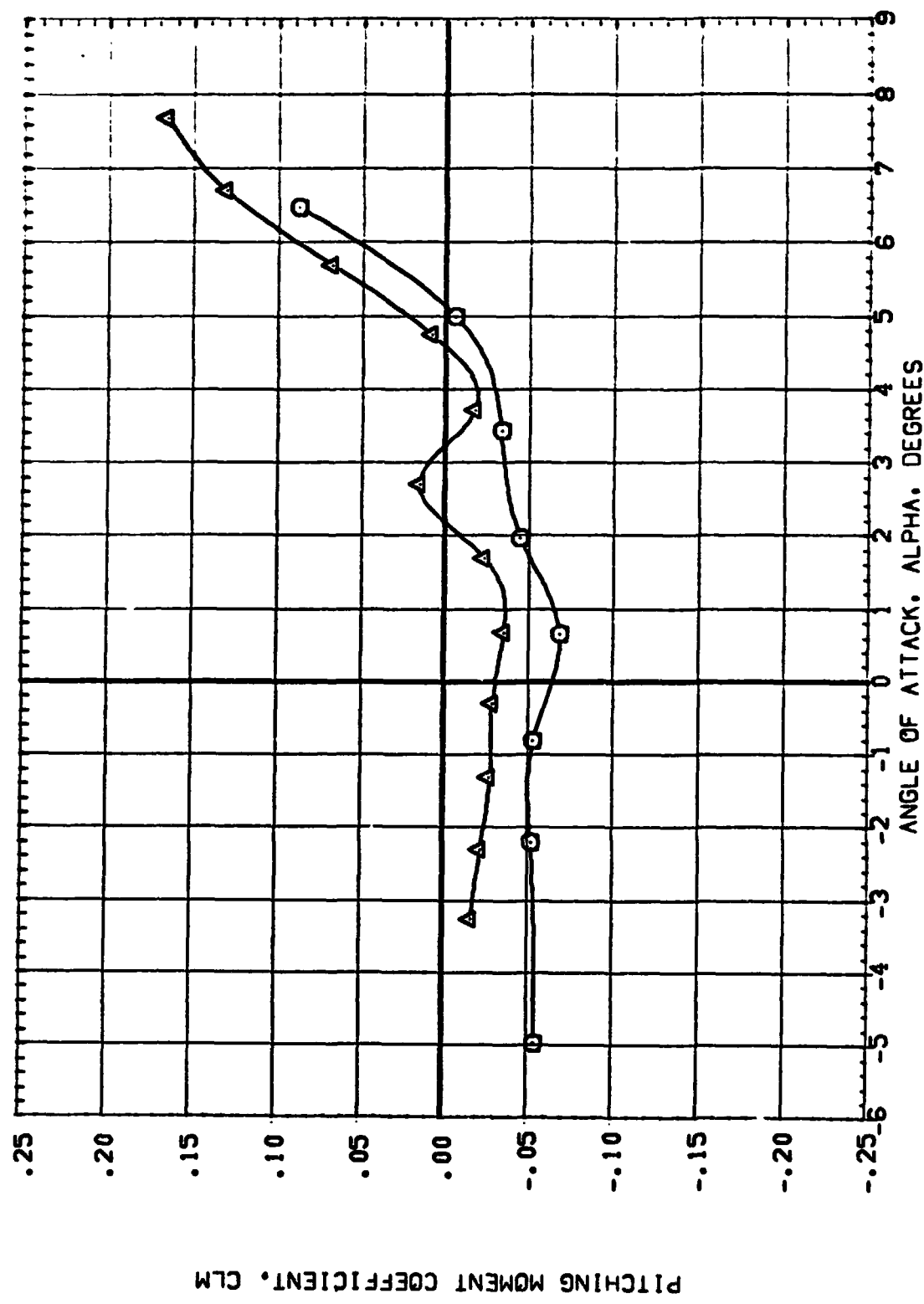


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=50 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA007) W1 P0 B
 (EA008) W3 P0 B

SMEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

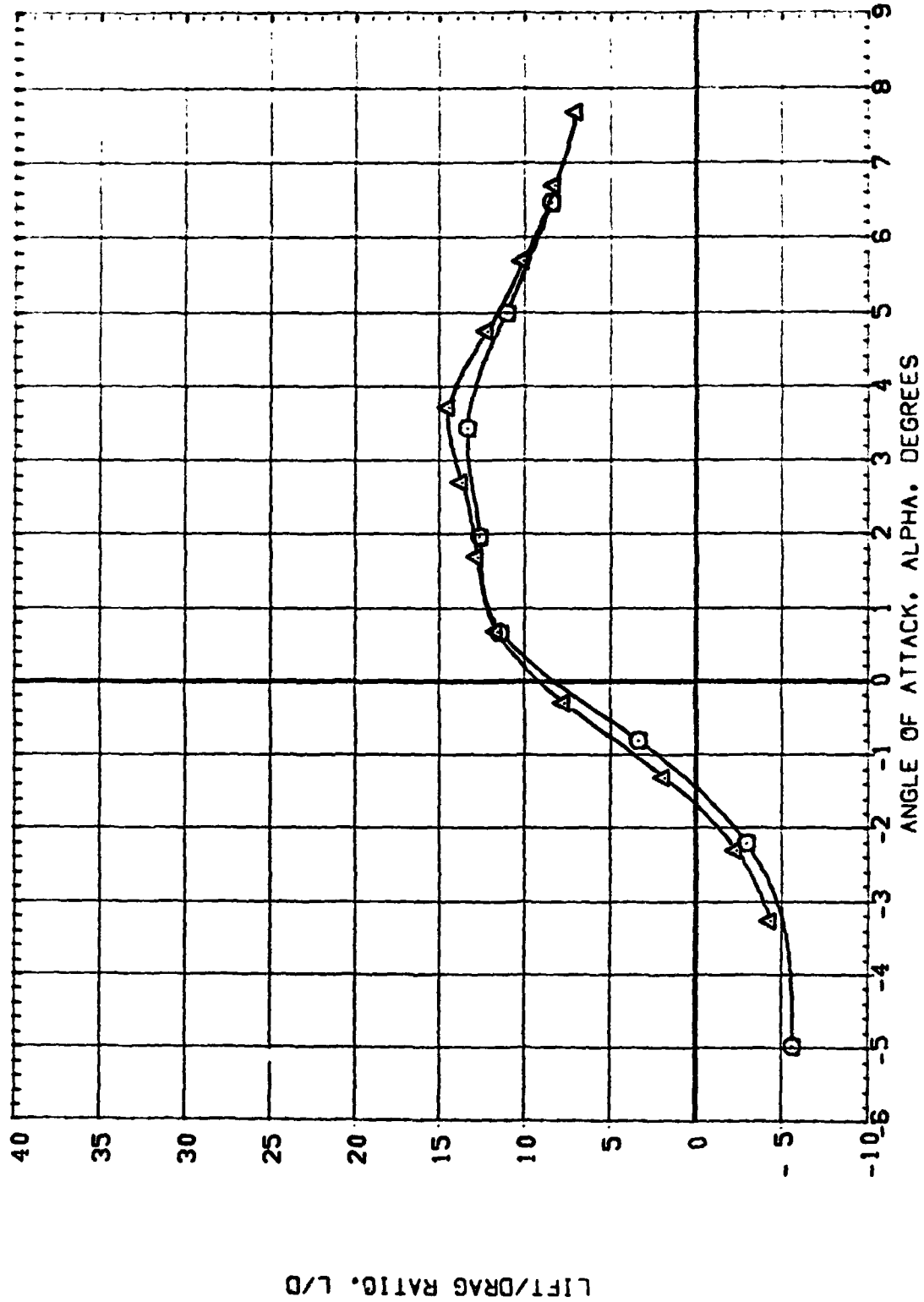


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA=50 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA007) W1 F0 B
 (EA025) W3 F0 B

SWEEP RM/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

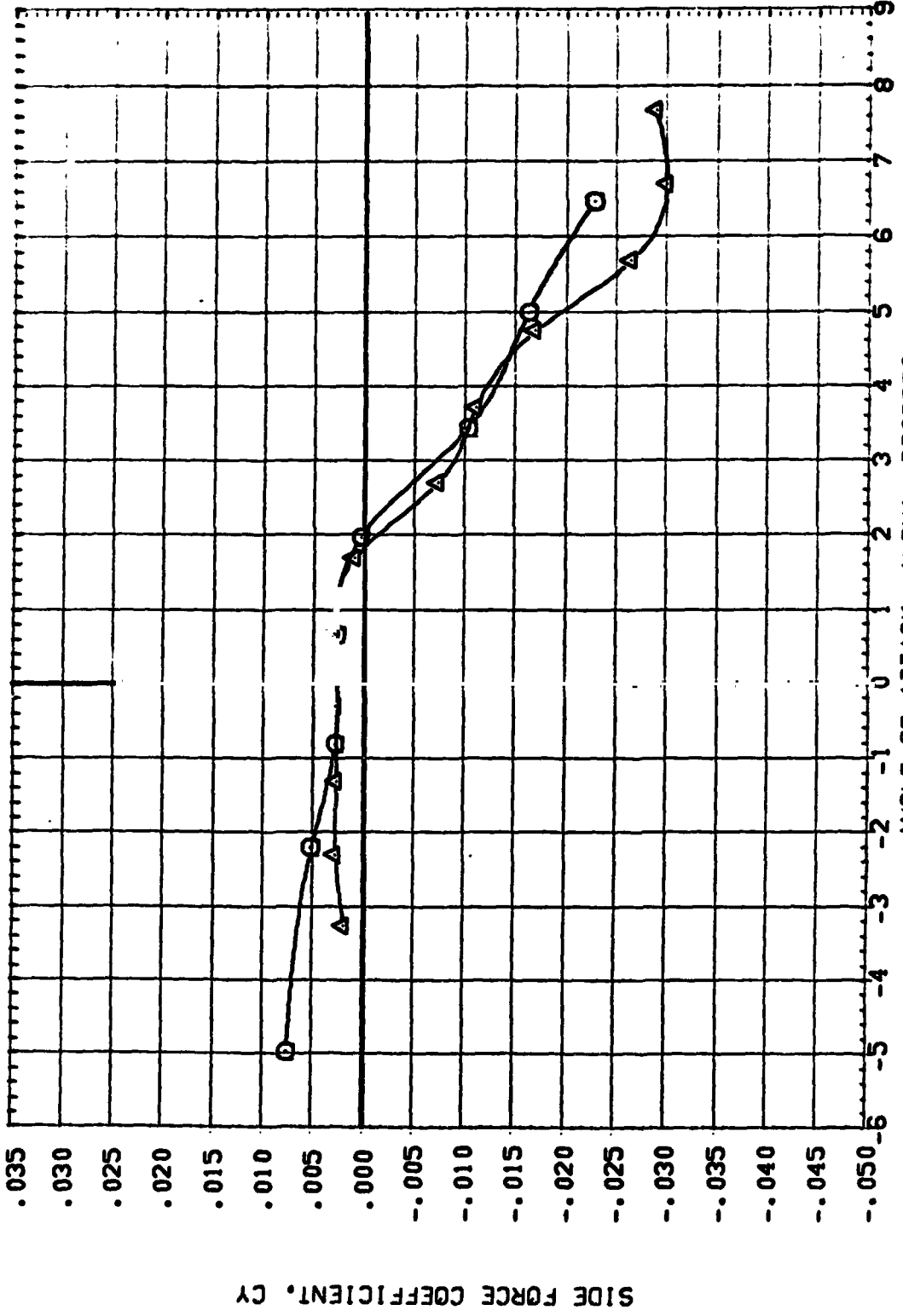


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA=50 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL: W8 P0 B
 CONFIGURATION DESCRIPTION: W8 P0 B
 SWEEP: 50.000
 RW/L: 6.000
 BETA: 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

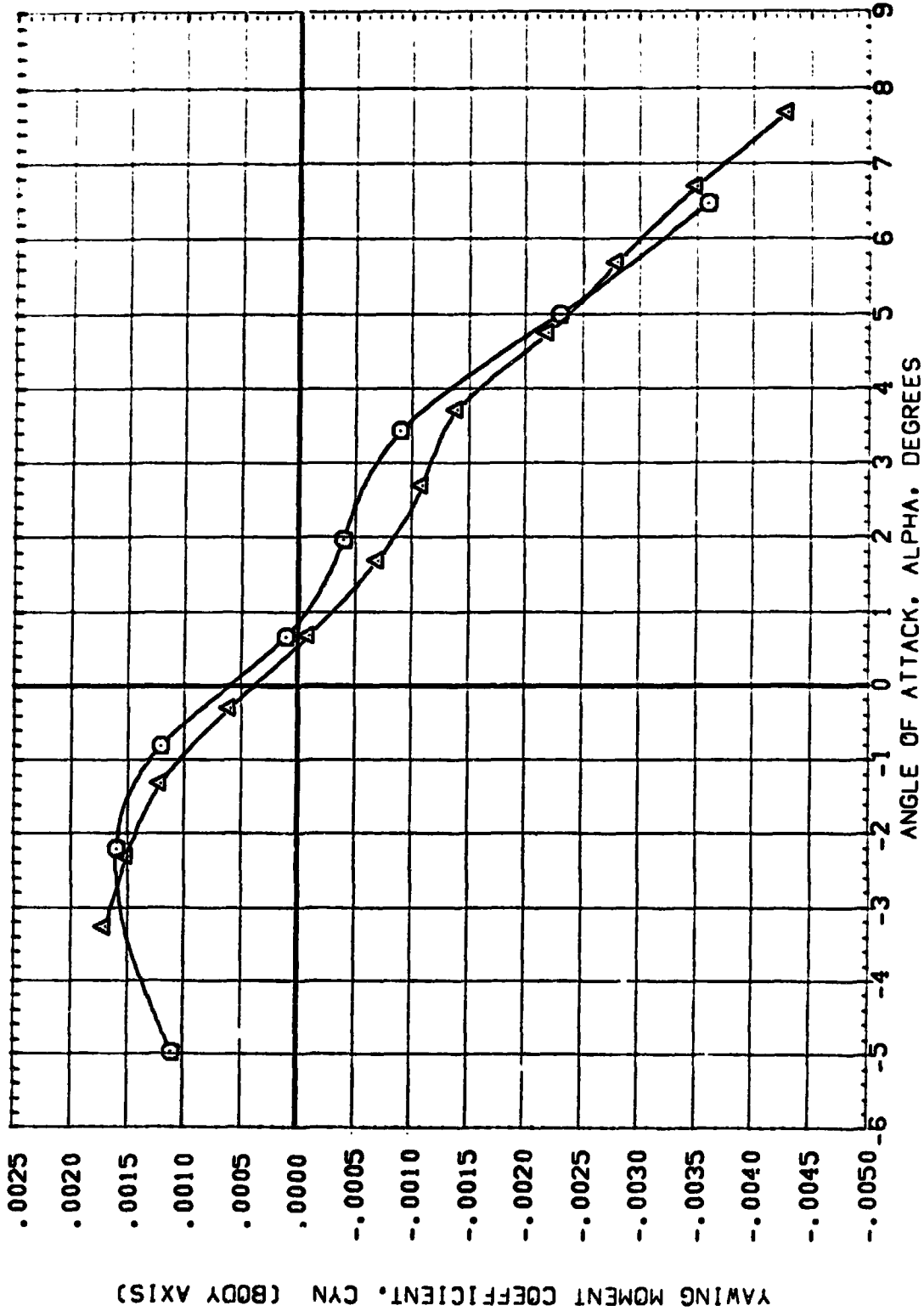


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=50 DEGREES

(A) MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA007) W1 PD 8
 (EA008) W3 PD 8

SWEEP RM/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

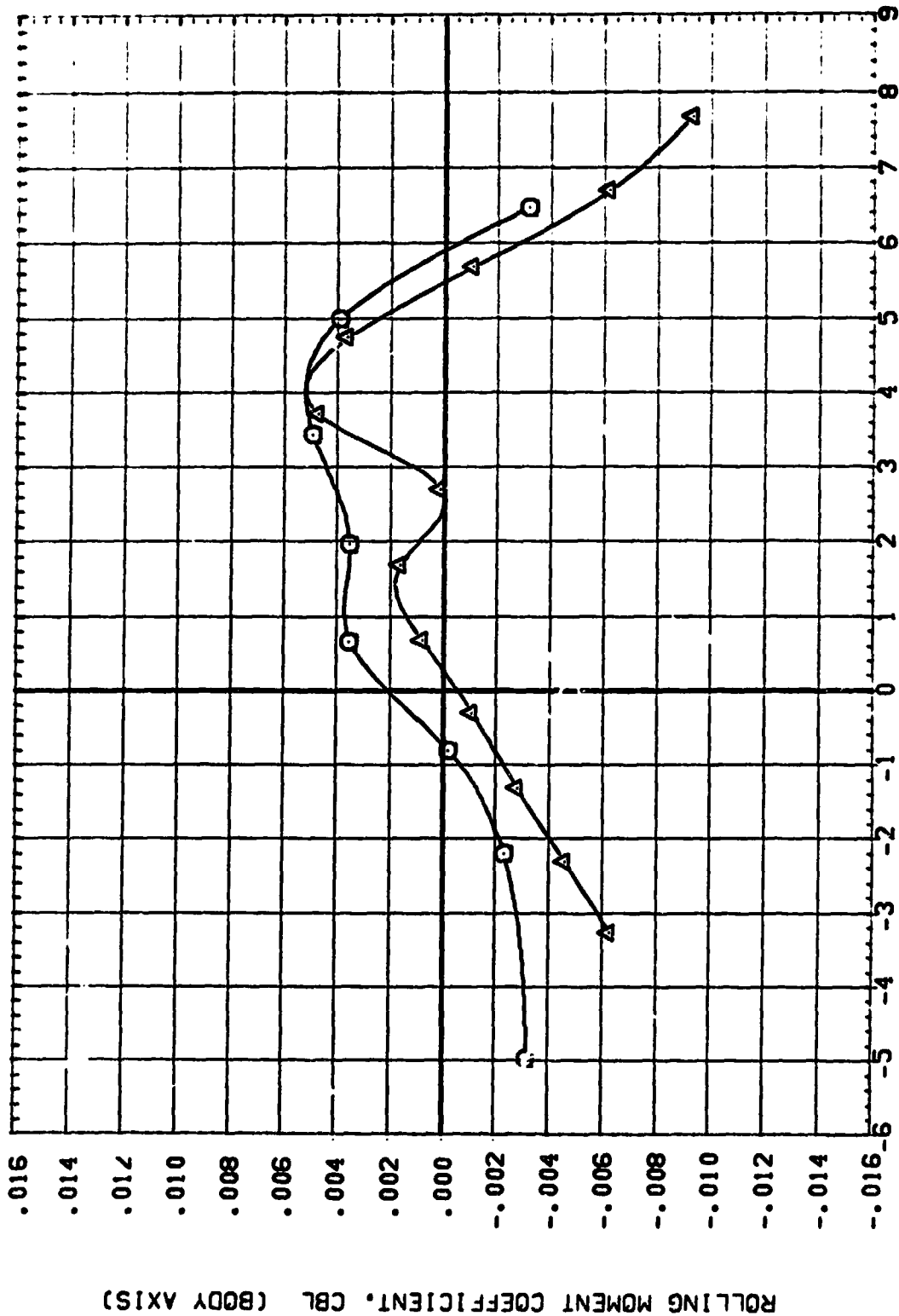


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=50 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL: Ω
 (PAE007)
 (PAE008)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP: 0.000
 0.000
 0.000

CONFIGURATION DESCRIPTION:
 W1 FO B
 W3 FO B

BETA: 0.000
 0.000
 0.000

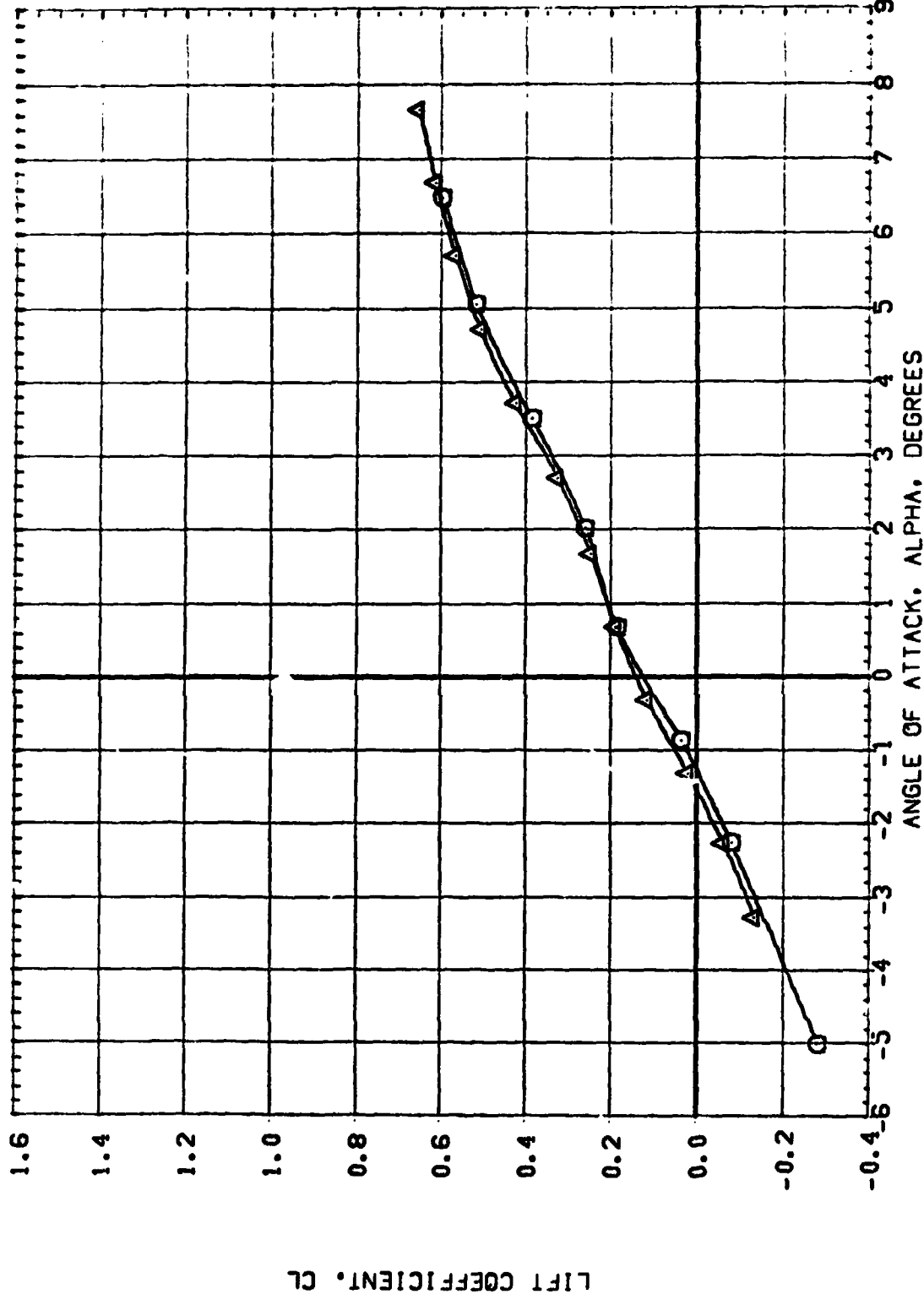


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.15, LAMBDA=50 DEGREES

(A)MACH = 1.15

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 W1 FO B
 W3 FO B

RM/LP
 50.000
 50.000

BETA
 0.000
 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

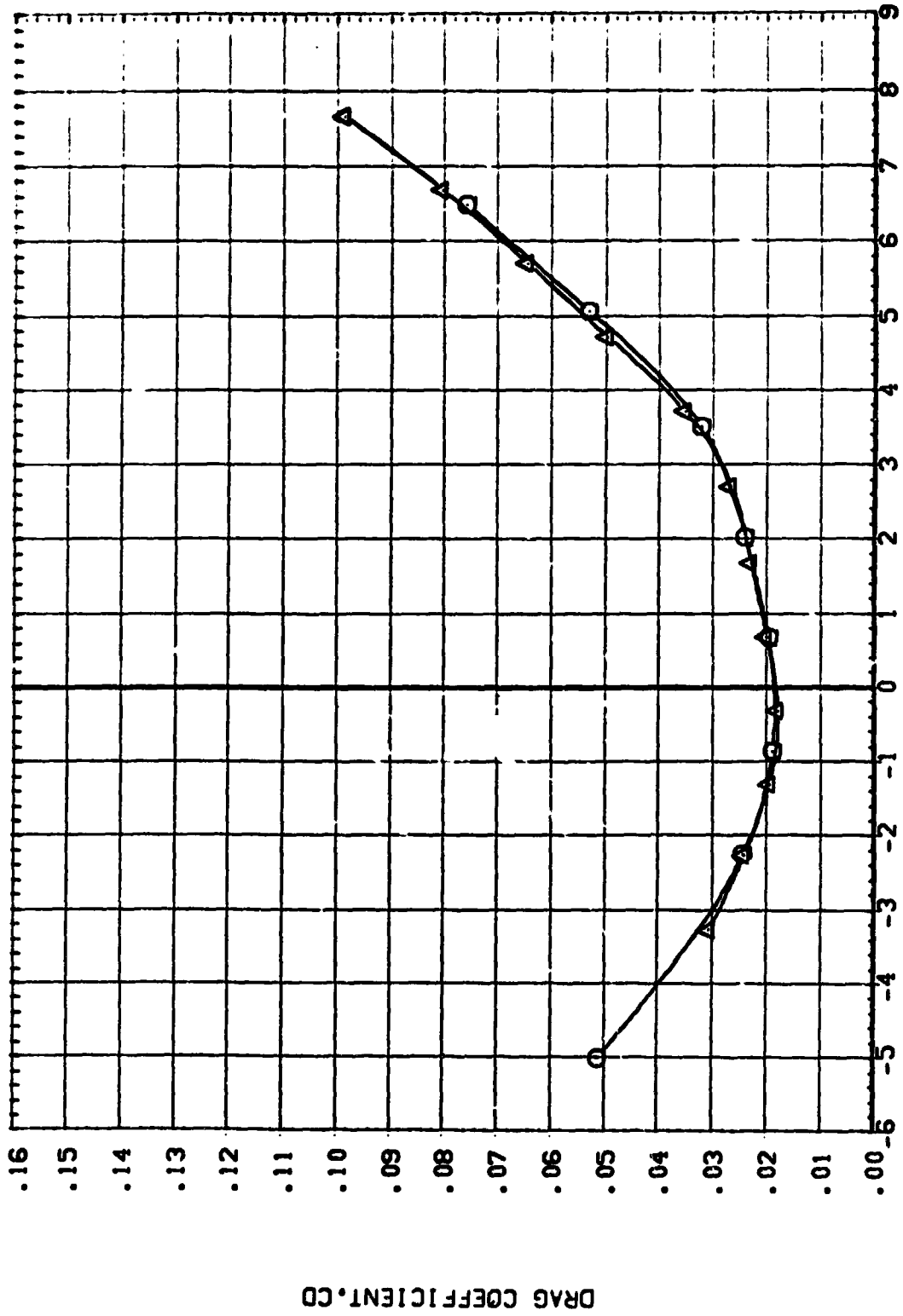


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.15, LAMBDA=50 DEGREES

(A) MACH = 1.15

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE007) M1 P0 B
 (FAE008) M3 P0 B

SWEEP RHYL BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

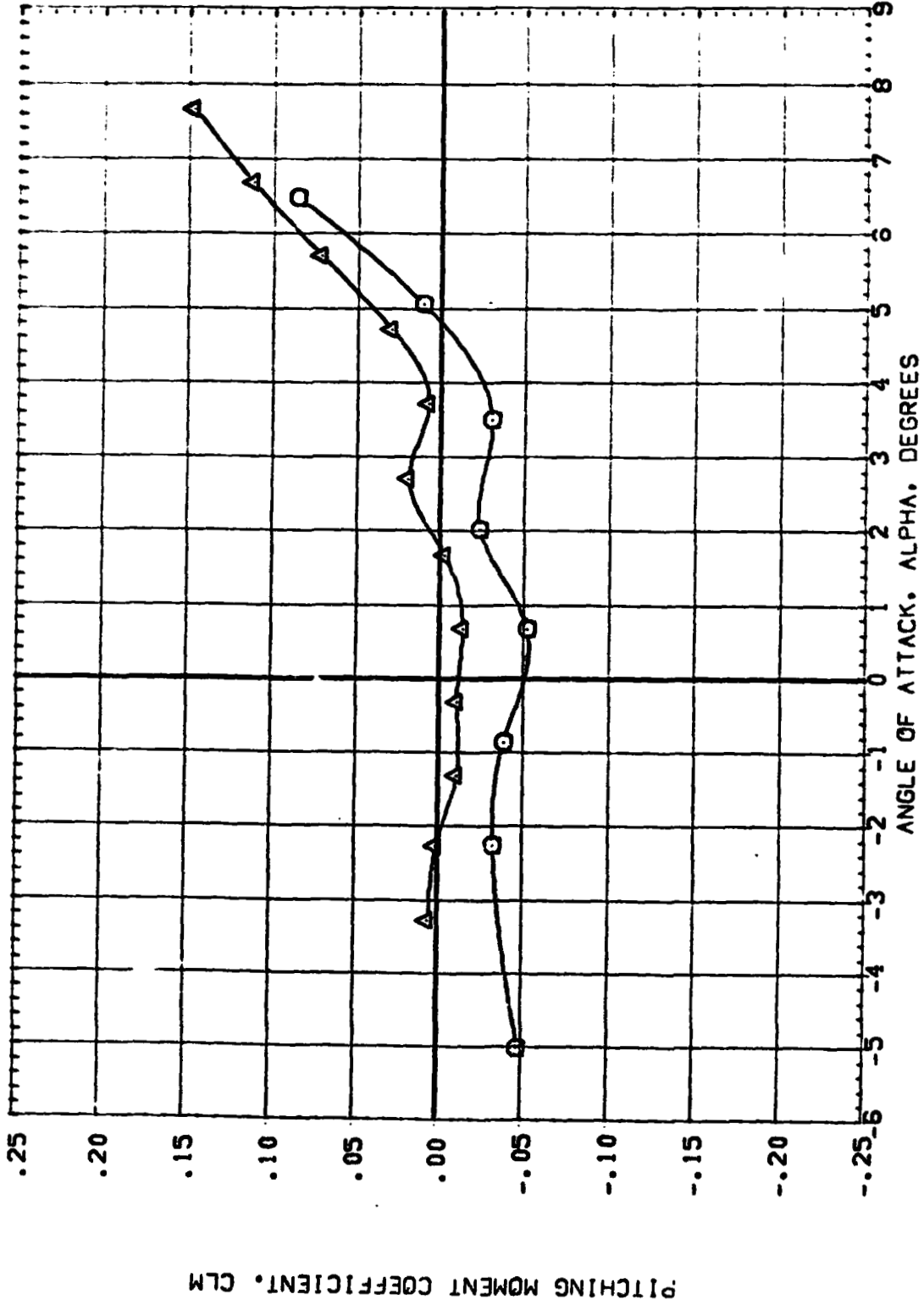


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.15, LAMBDA=50 DEGREES

(A)Mach = 1.15

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE007) M1 PD 8
 (FAE008) M3 PD 8

SWEEP RN/L BETA
 -50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

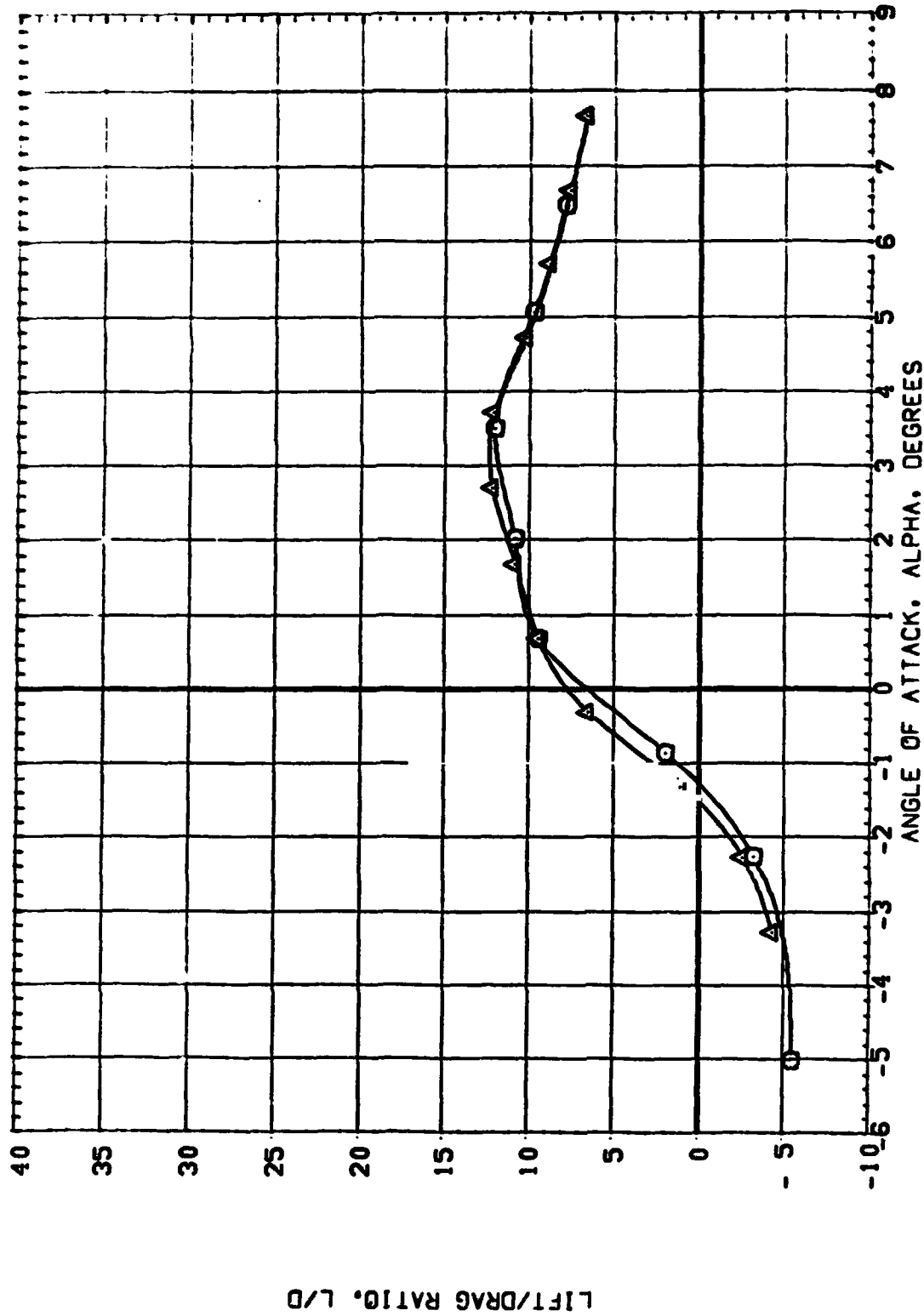


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.15, LAMBDA=50 DEGREES

(A)MACH = 1.15

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FA007) Ω W1 P0 B
 (FA008) Ω W3 P0 B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.500

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

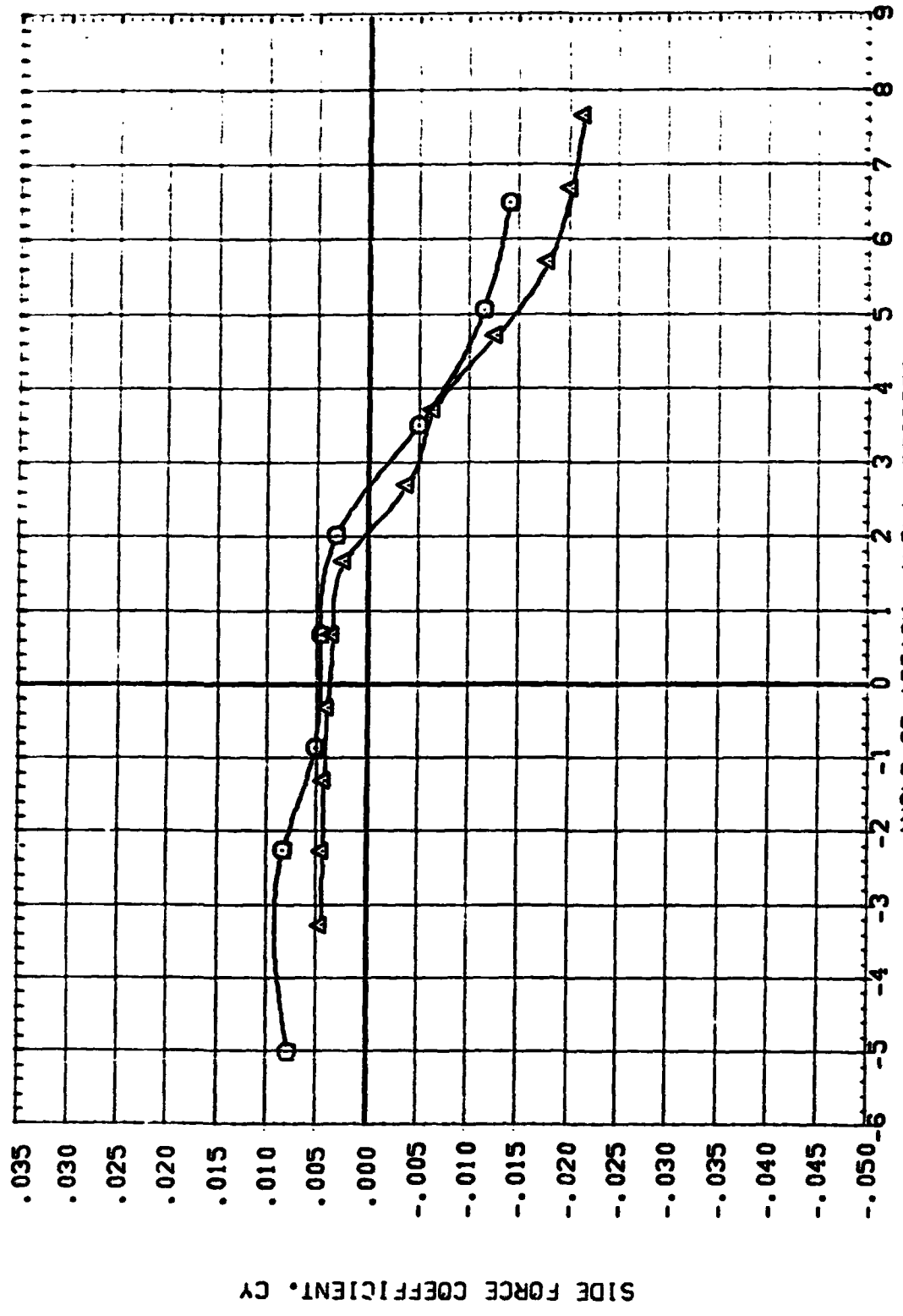


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.15, LAMBDA=50 DEGREES
 (A) MACH = 1.15

DATA SET SYMBOL (PAE007) \odot MI FO B
 (PAE008) \triangle WS FO B

CONFIGURATION DESCRIPTION

SWEEP 50.000 50.000
 RN/L 6.000 6.000
 DELTA 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

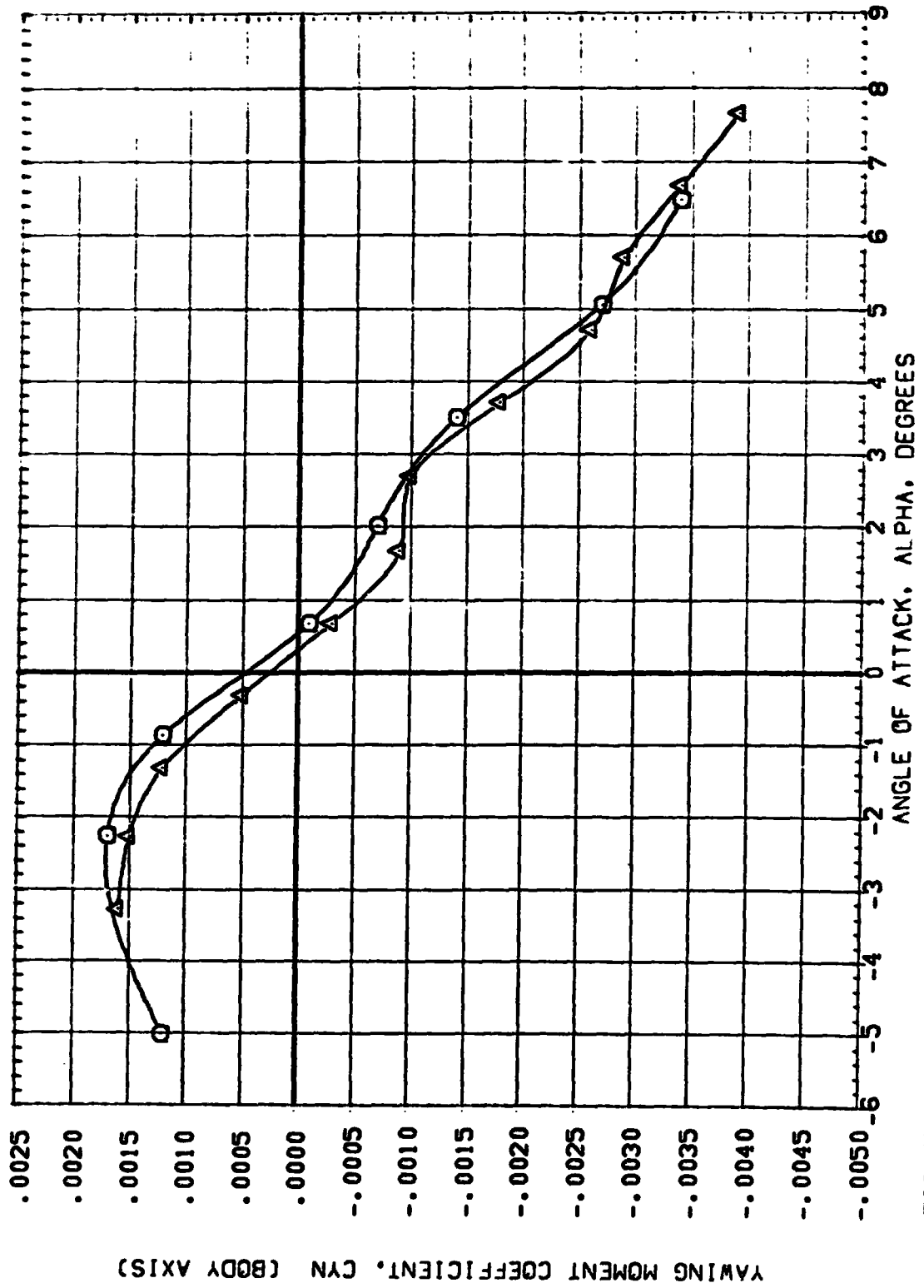


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.15, LAMBOA=50 DEGREES

(A) MACH = 1.15

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE007) M1 F0 B
 (FAE023) M3 F0 B

SNEEP RNL BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

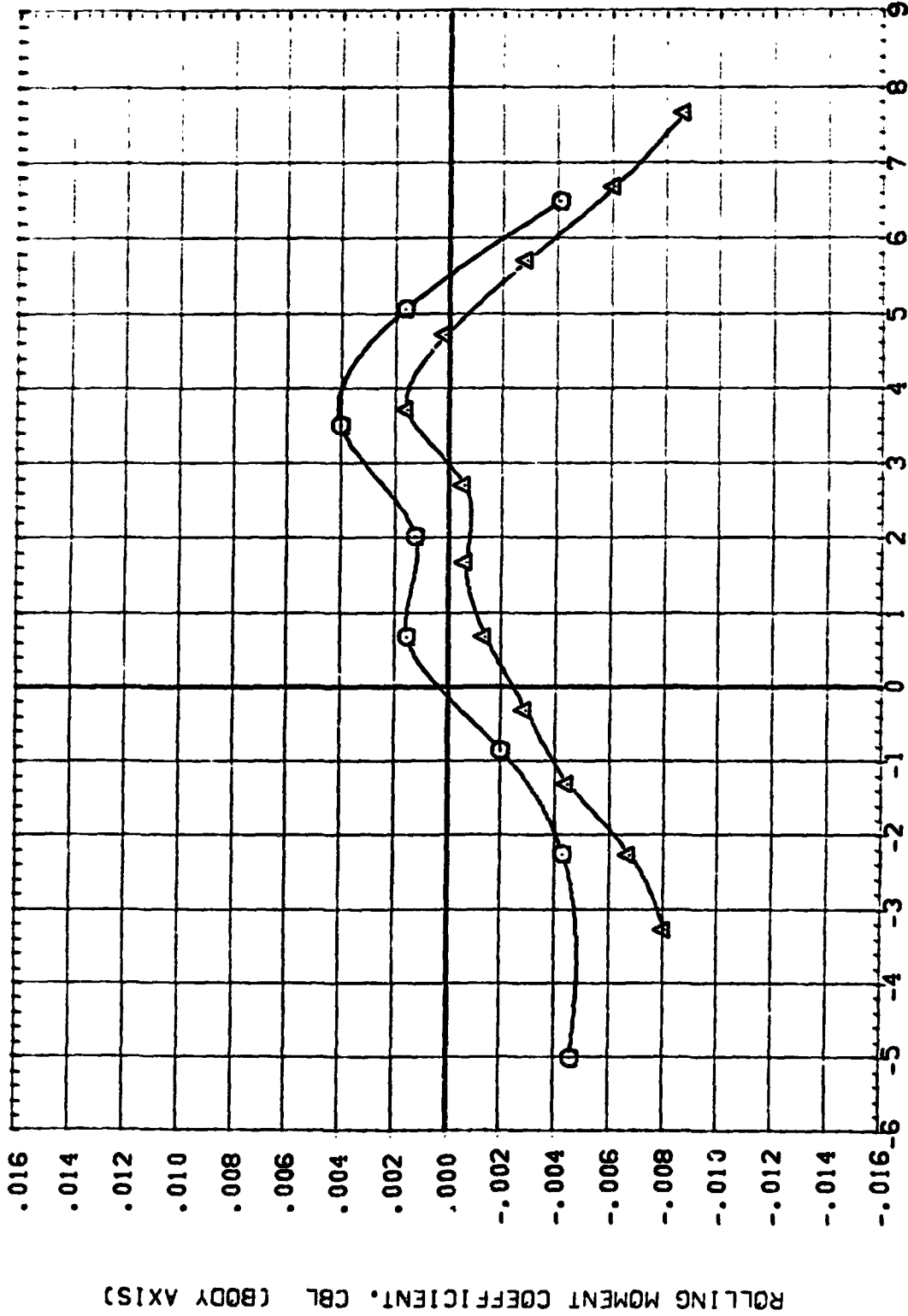


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.15, LAMBDA=50 DEGREES

(A)MACH = 1.15

DATA SET SYMBOL: W1 PD B
 (GAE007) W3 PD B
 (GAE028)

CONFIGURATION DESCRIPTION

SWEEP 50.000 50.000
 BN/L 6.000 6.000
 BETA 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

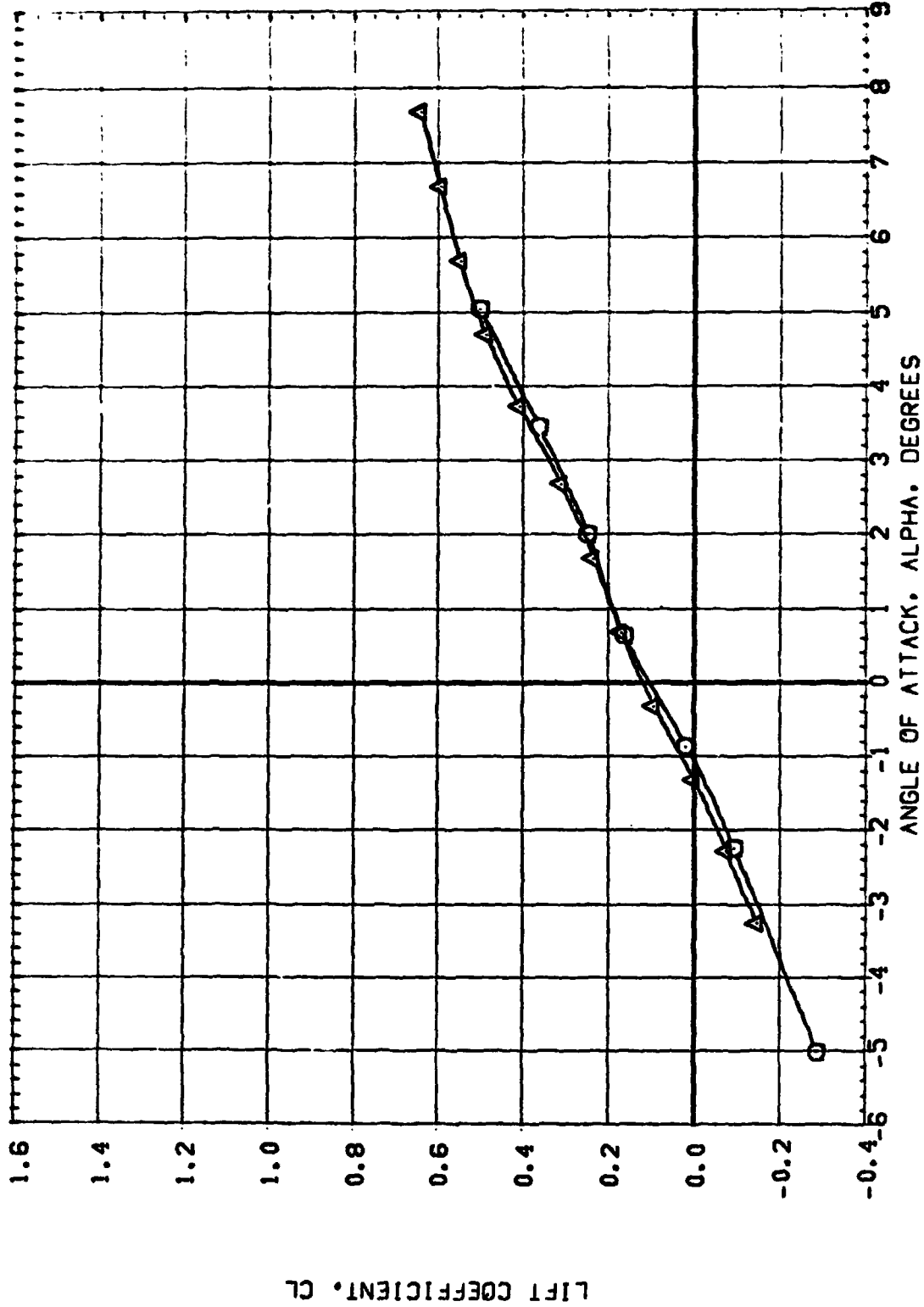


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=50 DEGREES

(A)MACH) 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 W1 F0 B
 W3 F0 B

SWEEP R/H/L BETA
 50.000 0.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

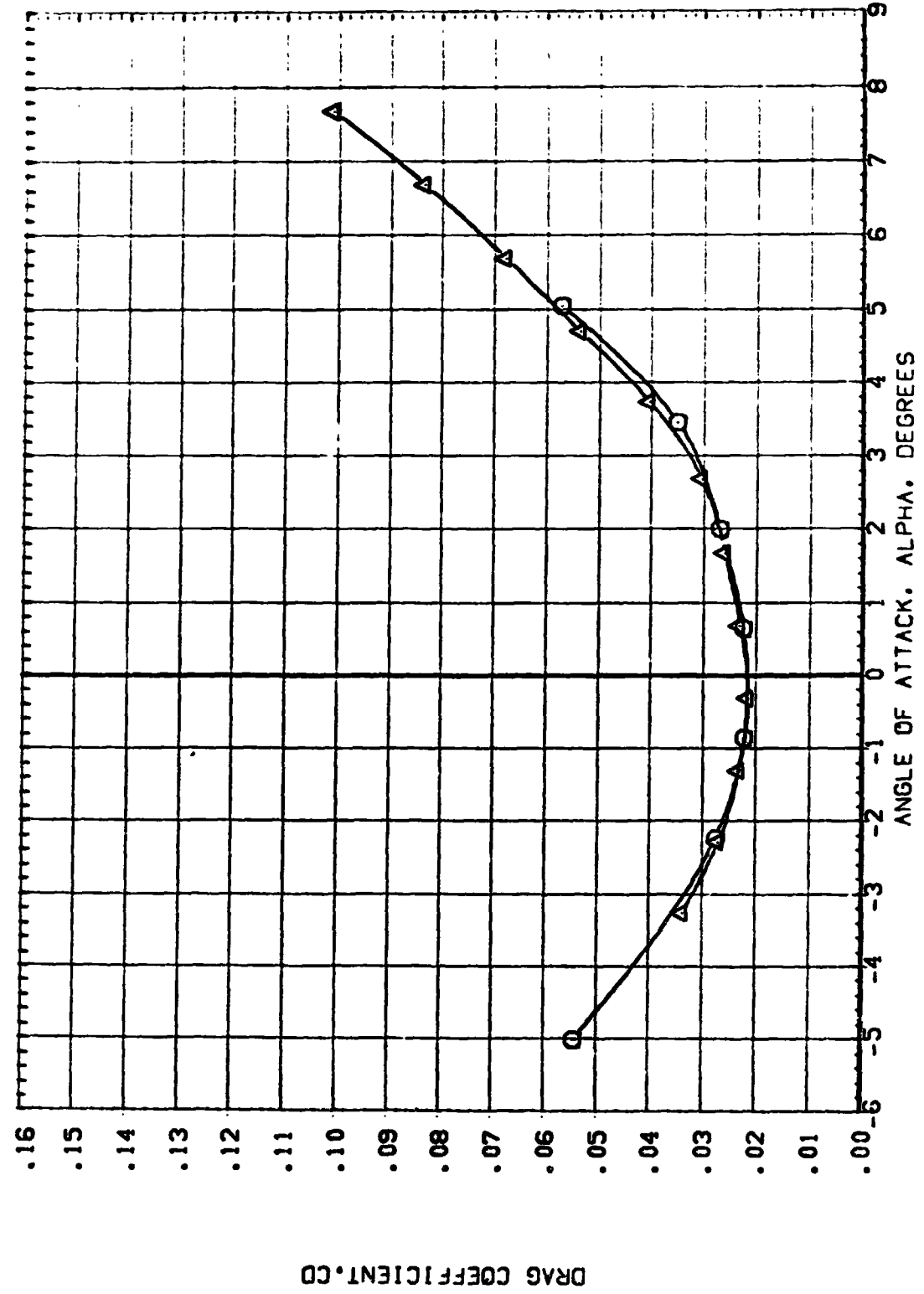


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA=50 DEGREES
 (A)MACH 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE007) W1 P0 B
 (CAE008) W3 P0 B

SWEEP
 50.000
 50.000

RM/L
 6.000
 6.000

BETA
 0.000
 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

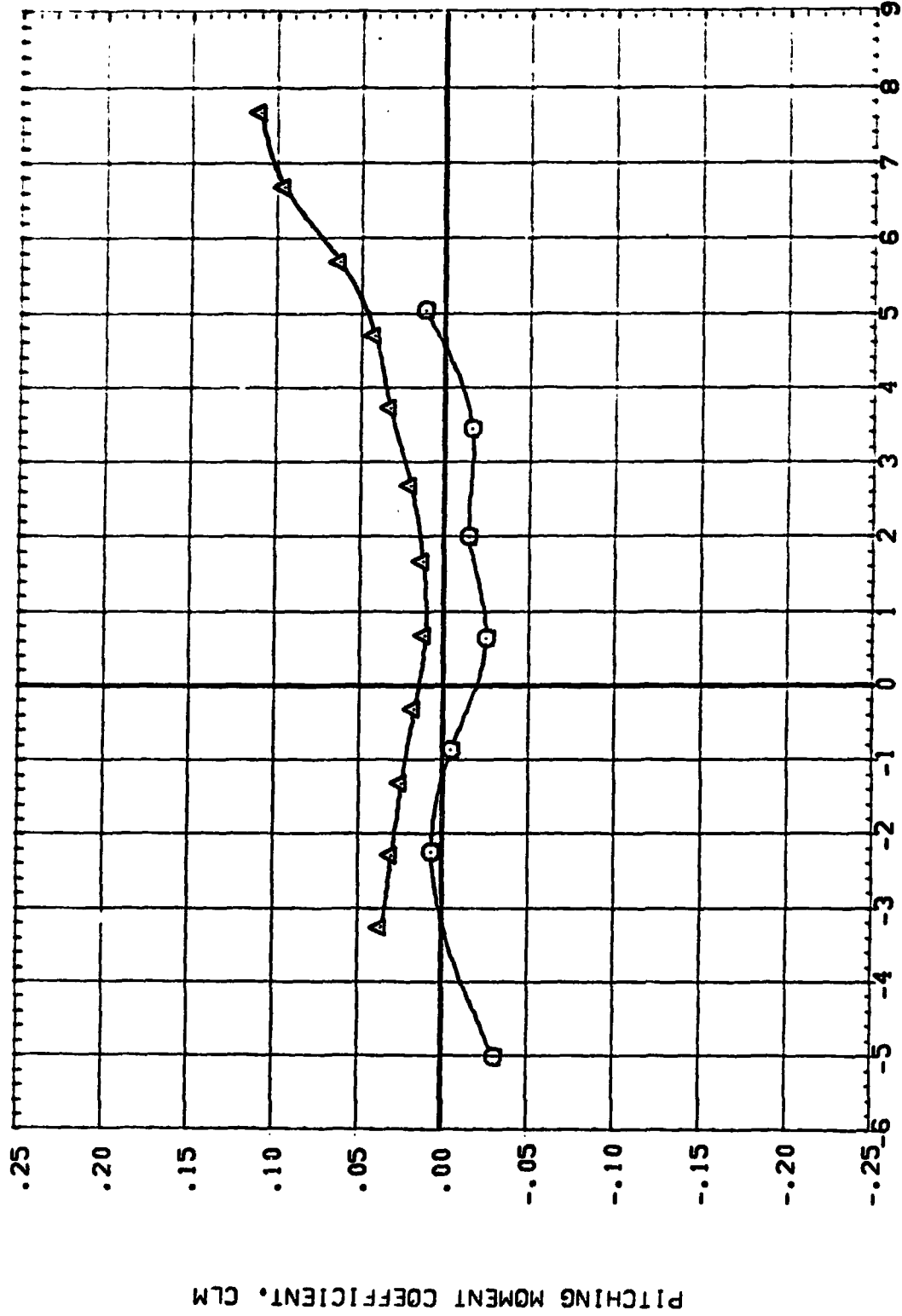


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=50 DEGREES

(A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE007) \square W3 FO B
 (CAE025) \triangle W3 FO B

SWEEP 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

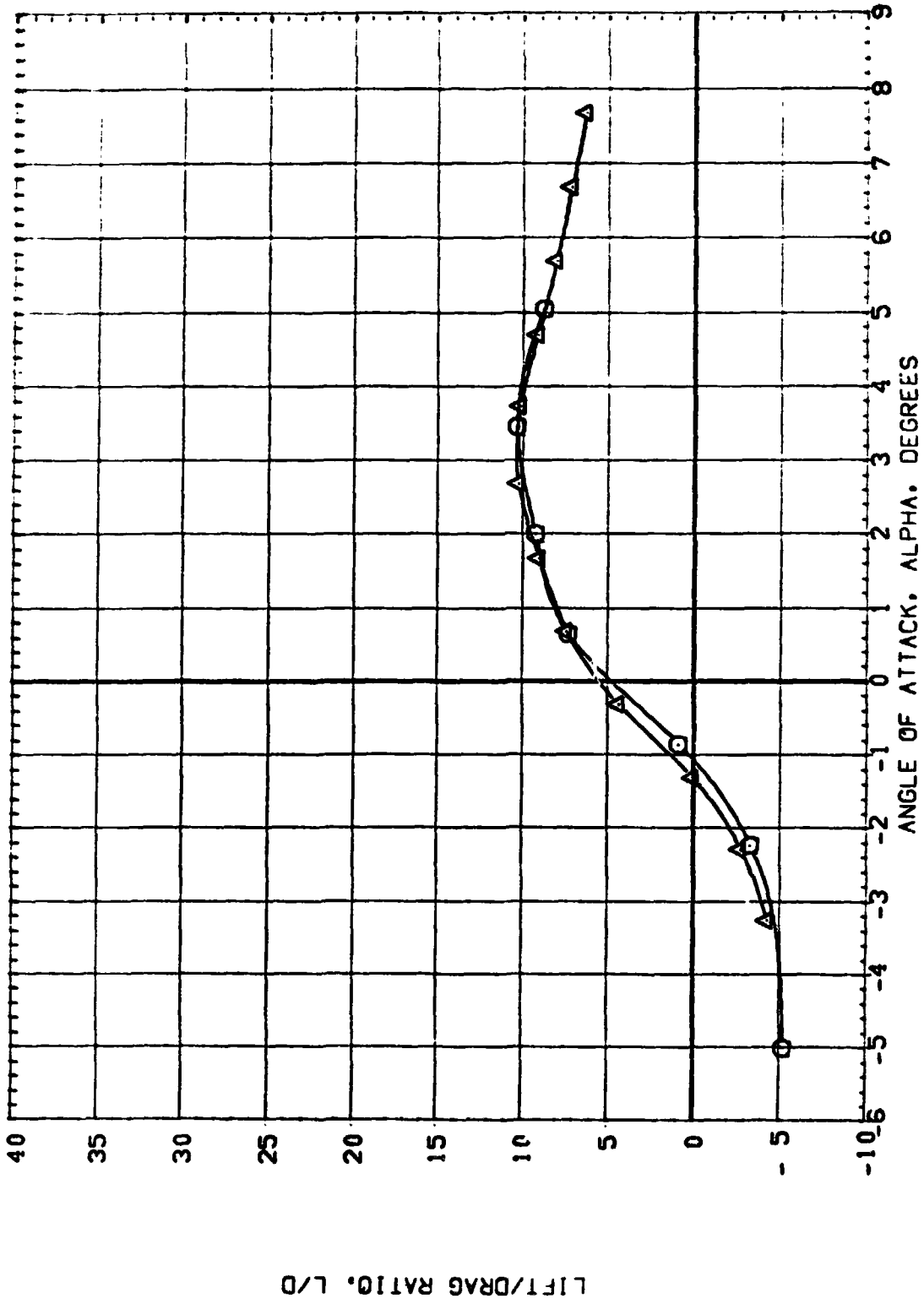


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA=50 DEGREES
 (A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE007) Ω W1 FO B
 (CAE025) W3 FO B

SWEEP RM/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

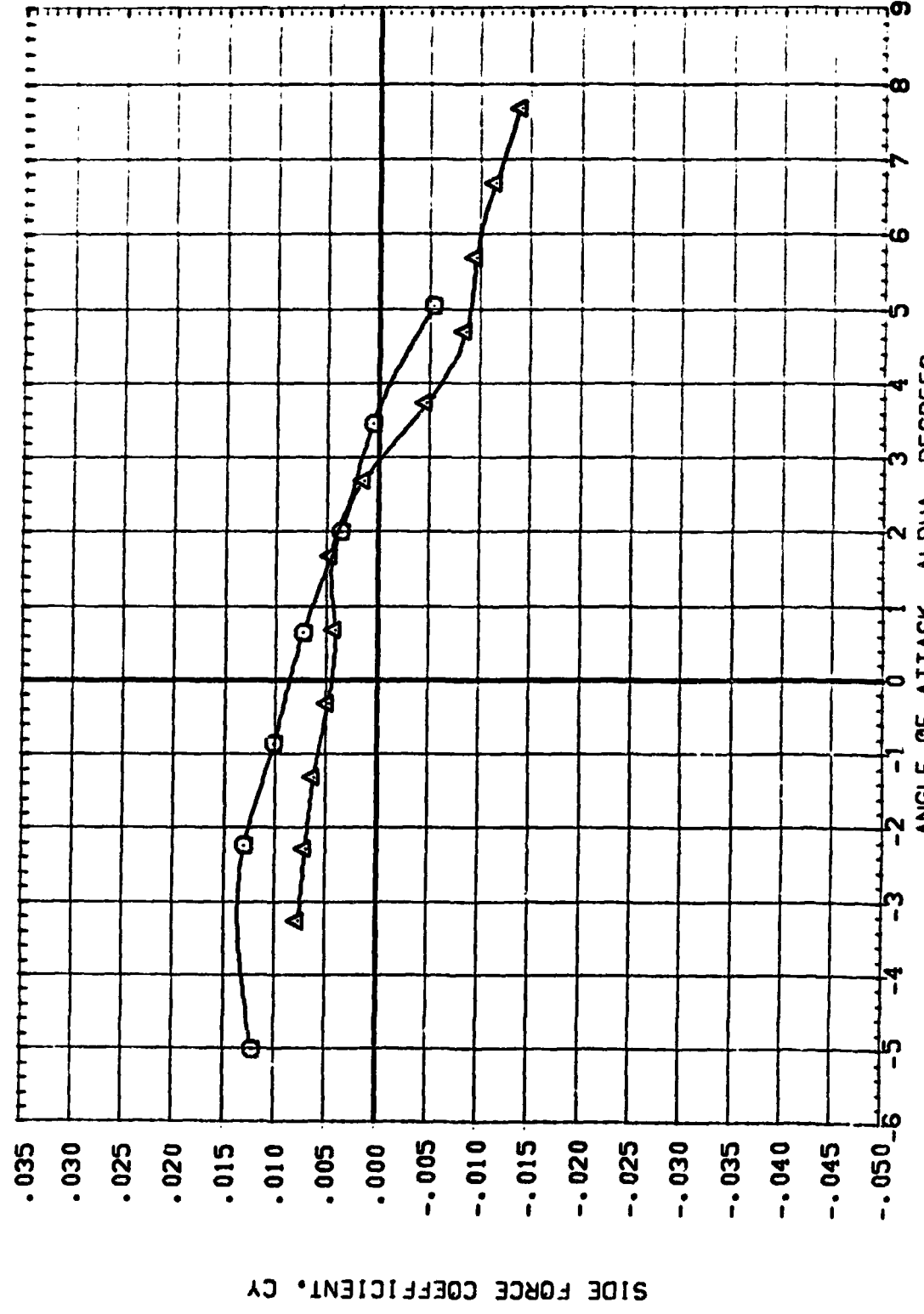


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA=50 DEGREES

(A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (GAE007) \odot W1 FO B
 (GAE025) \triangle W3 FO B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

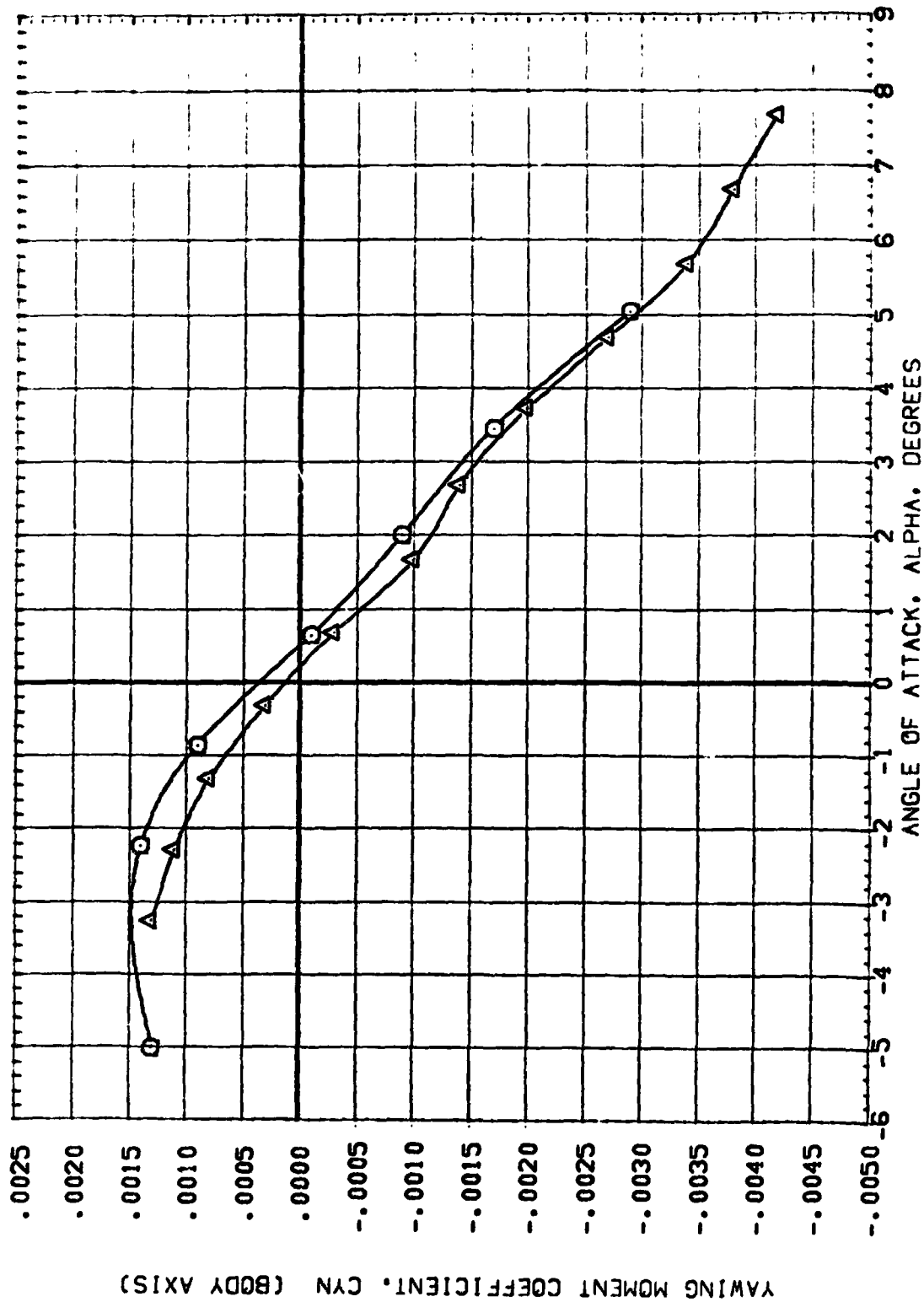


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=50 DEGREES

(A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (6AE007) W1 P0 B
 (6AE025) W3 P0 B

SWEEP RN/L BETA
 50.000 6.000 0.000
 50.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

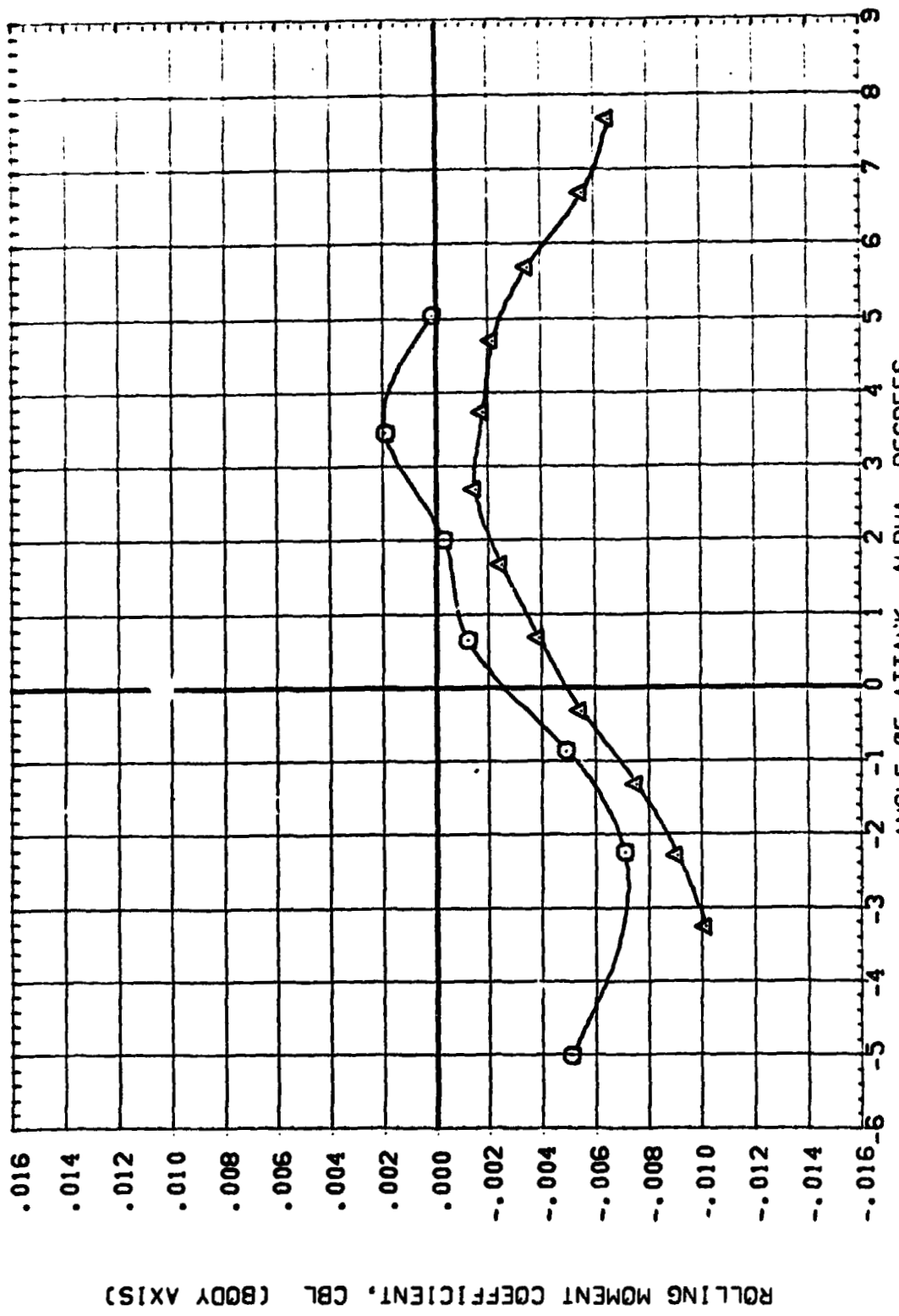


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA=50 DEGREES

MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESIGNATION
 (CALC09) Ω W1 F0 B
 (CALC02) Δ W3 F0 B

SWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

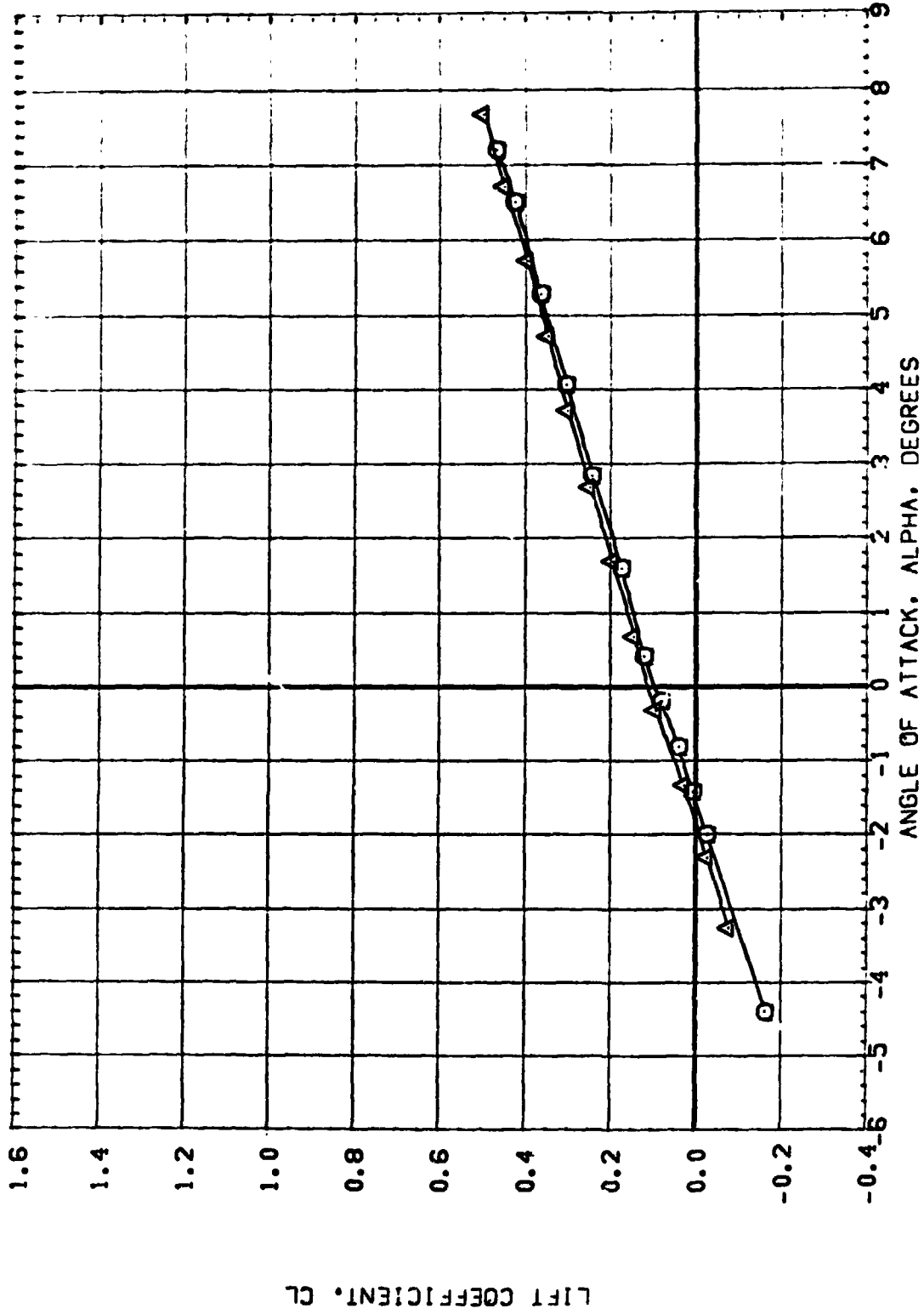


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.80, LAMBDA=55 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE009) W1 FO B
 (CAE027) W3 FO B

SWEEP MACH DATA
 55.000 6.500 0.000
 55.000 6.500 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

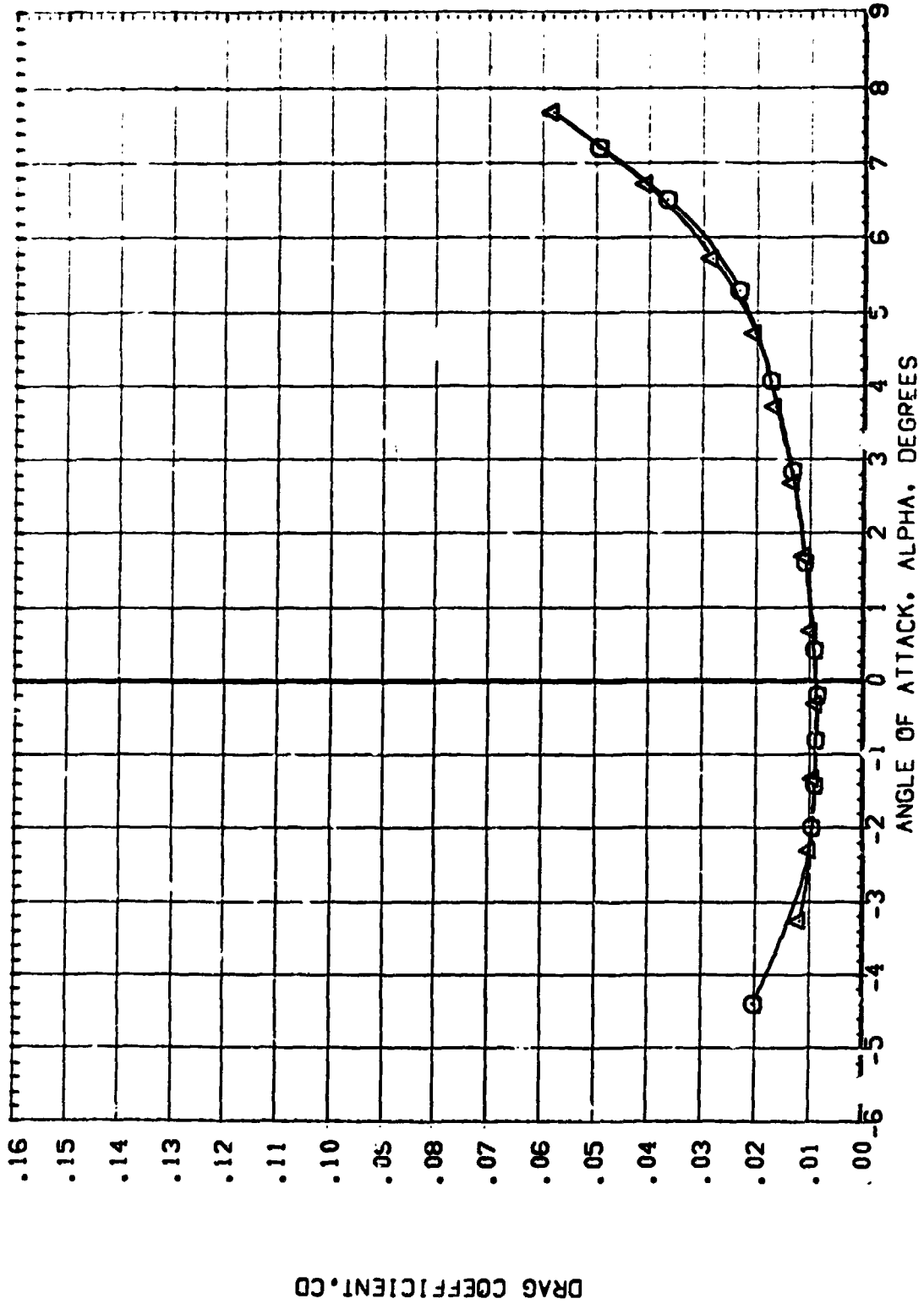


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 55 DEGREES

(A) MACH .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE009) Ω W1 P0 B
 (CAE027) W3 P0 B

AMREP AM/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.500

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

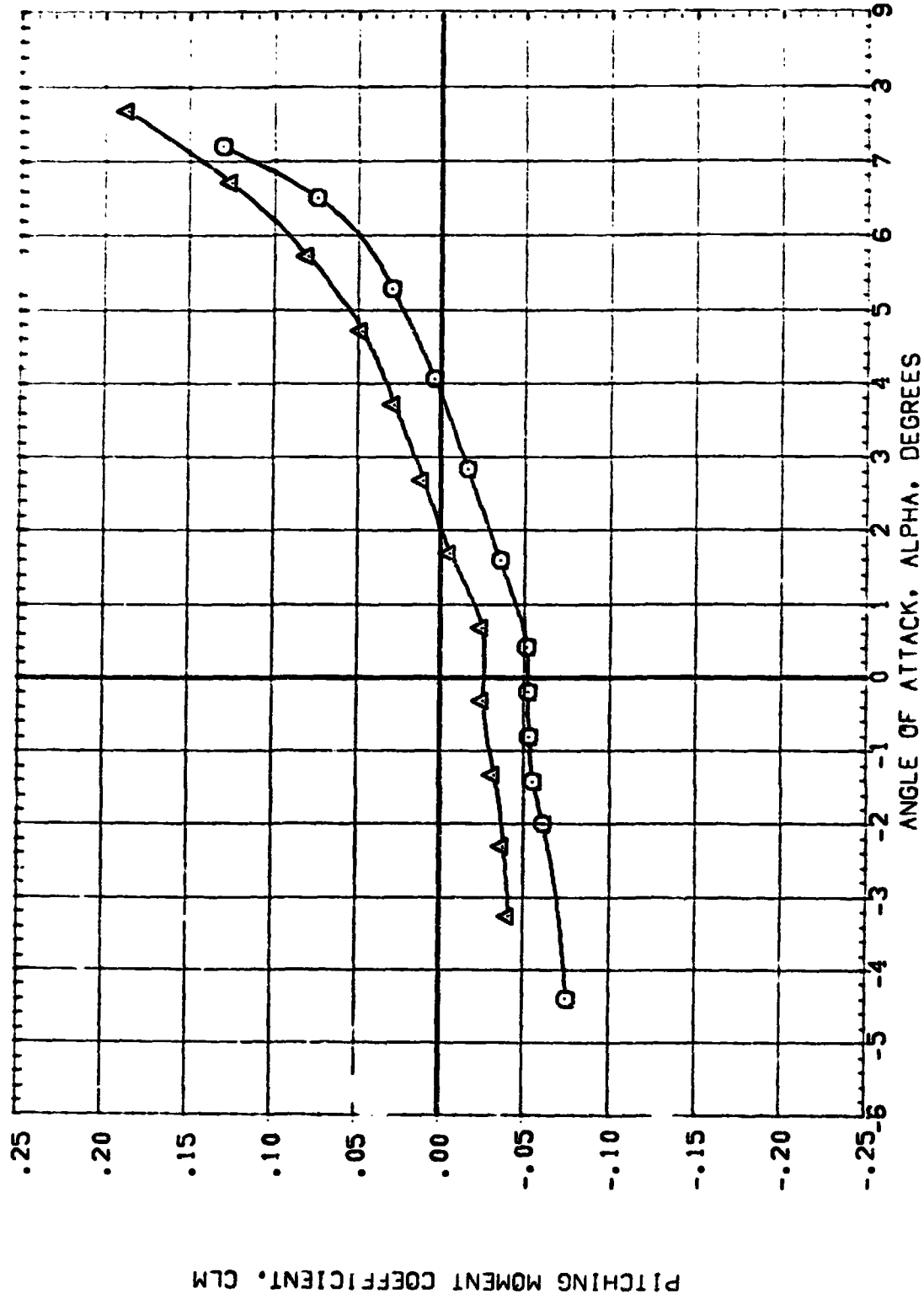


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=55 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE009) \square W1 FO B
 (CAE027) \triangle W3 FO B

SWEEP RN/L BETA
 99.000 6.000 0.000
 99.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

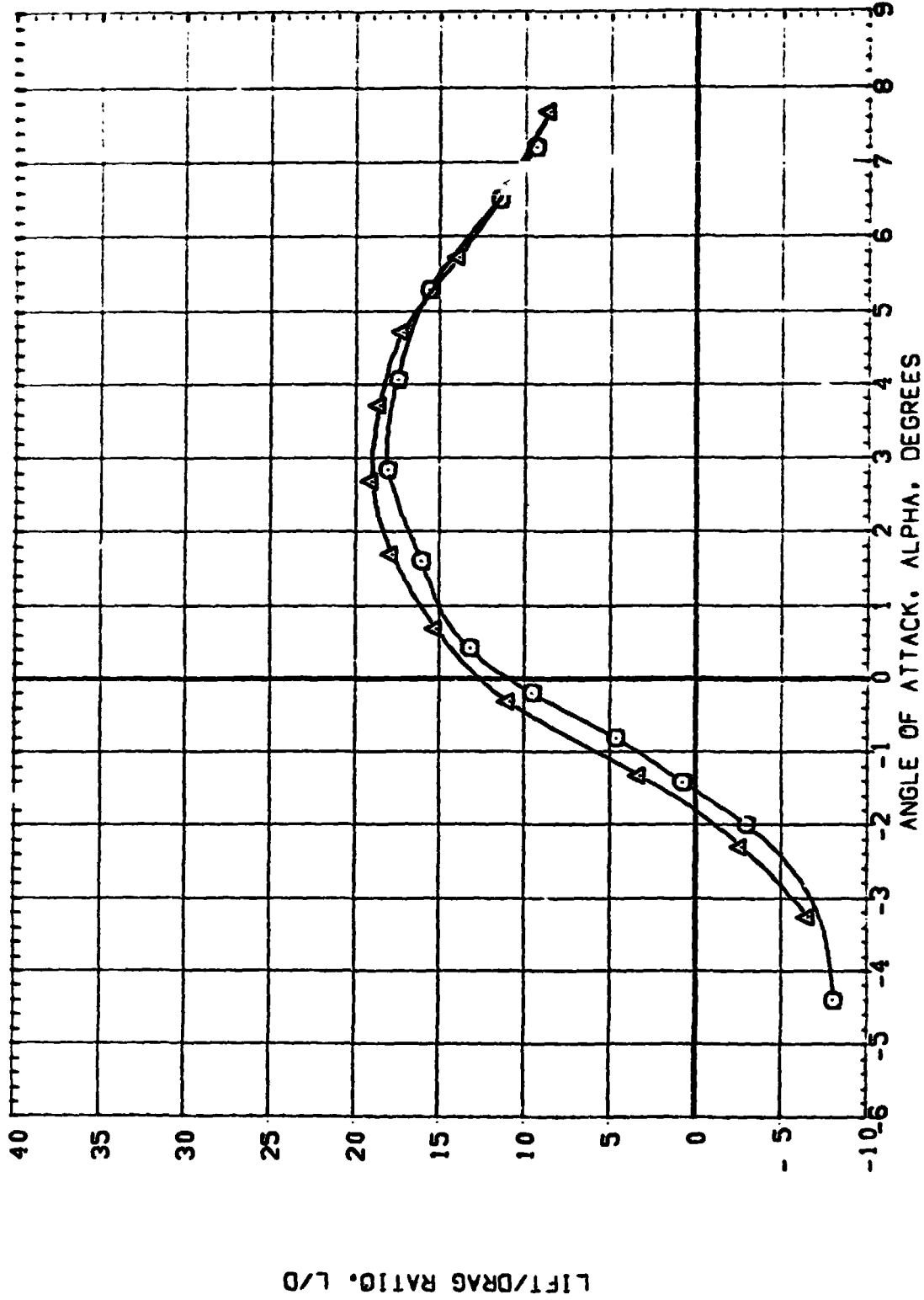


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=55 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE009) Ω W1 PD 8
 (CAE007) Ω W3 PD 8

SWEEP RM/L BETA
 99.000 6.000 0.000
 99.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATA SETS

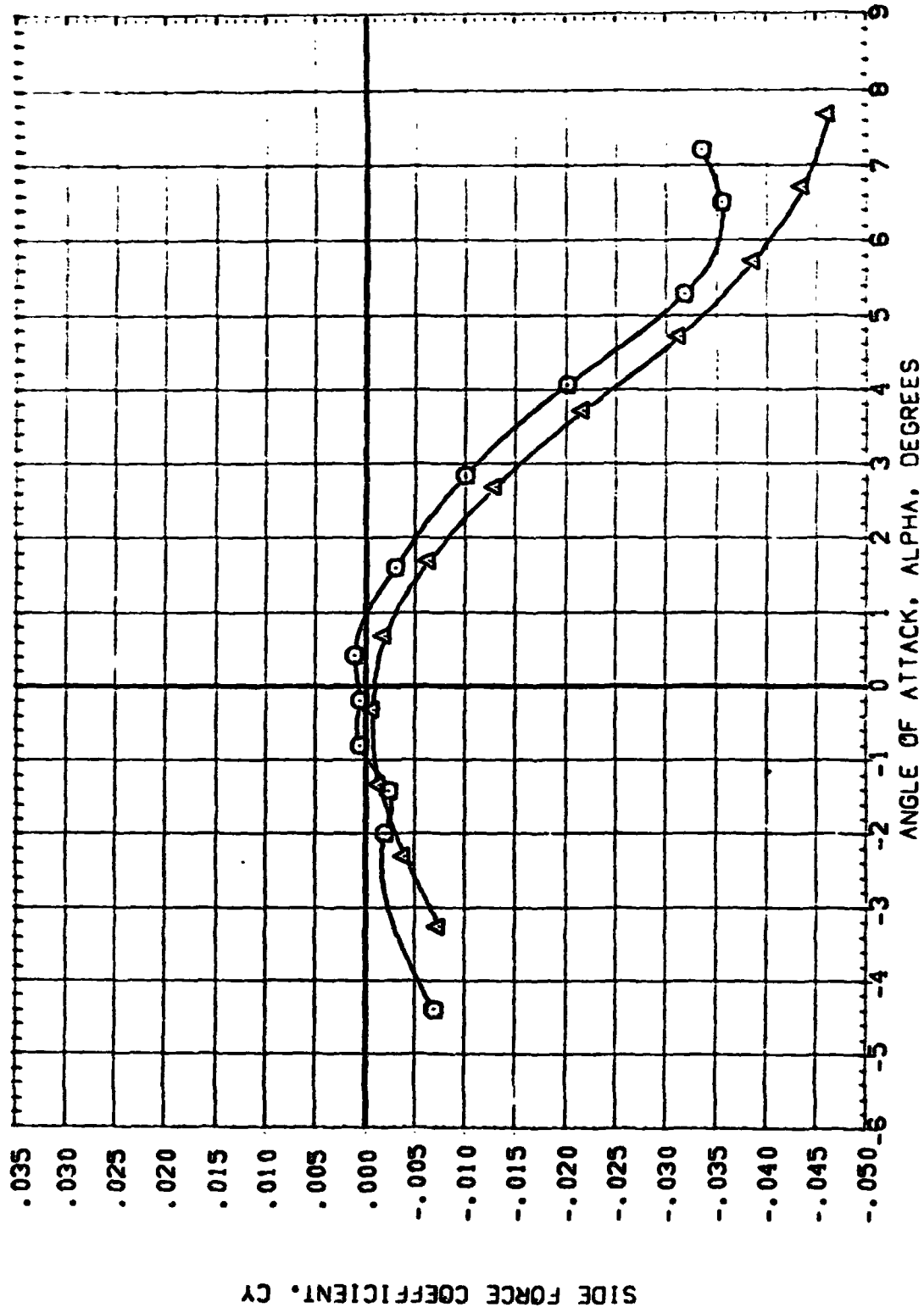


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA = 55 DEGREES

(CA) MACH = .80

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

BWEEP RM/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE009) \square W1 P0 B
 (CAE087) \triangle W3 P0 B

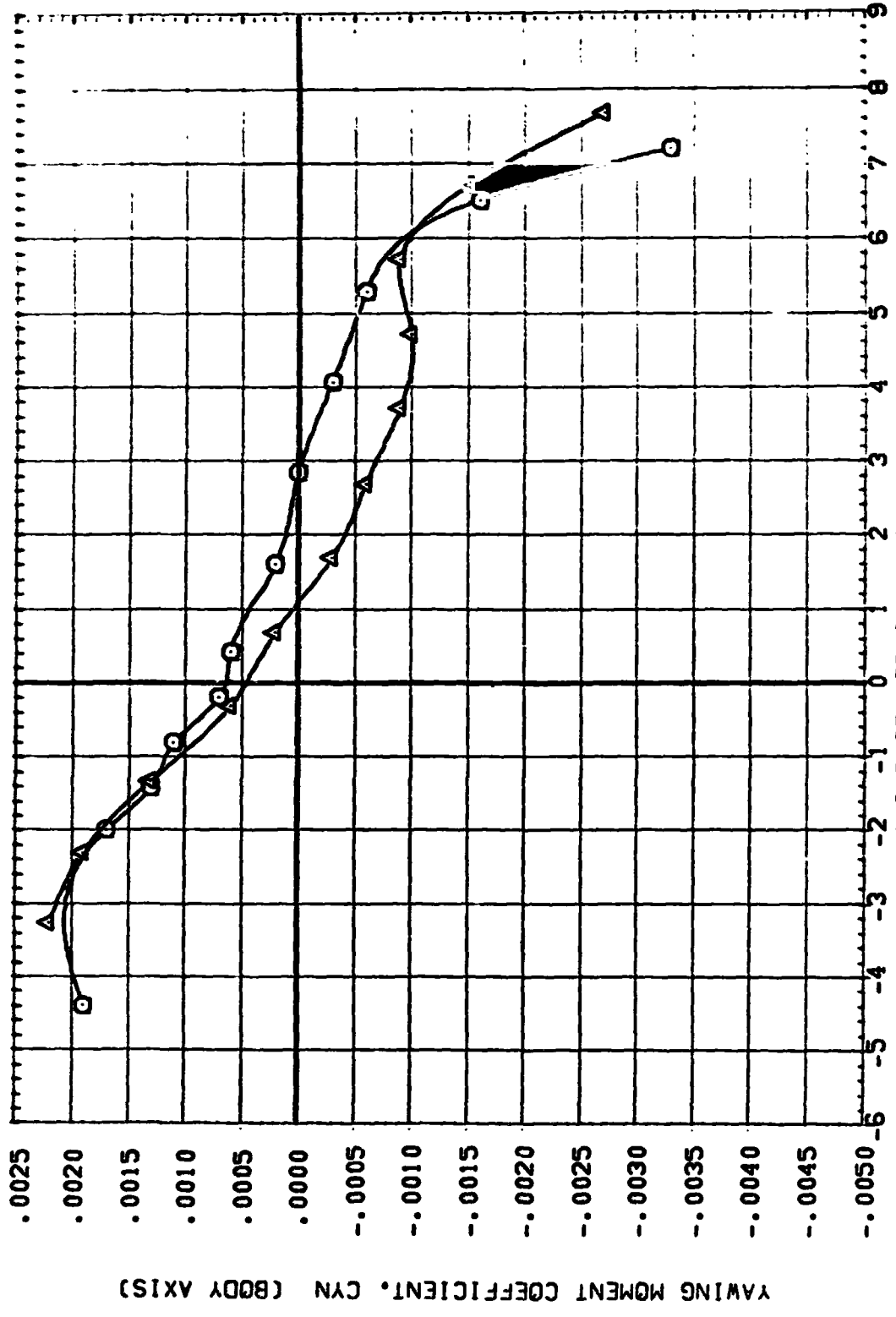


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. 0.80, LAMBDA=55 DEGREES

(AJMA) H = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE009) Q W1 P0 B
 (CAE027) W3 P0 B

SWEEP RN/L BLTA
 55.000 6.500 0.000
 55.000 6.500 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

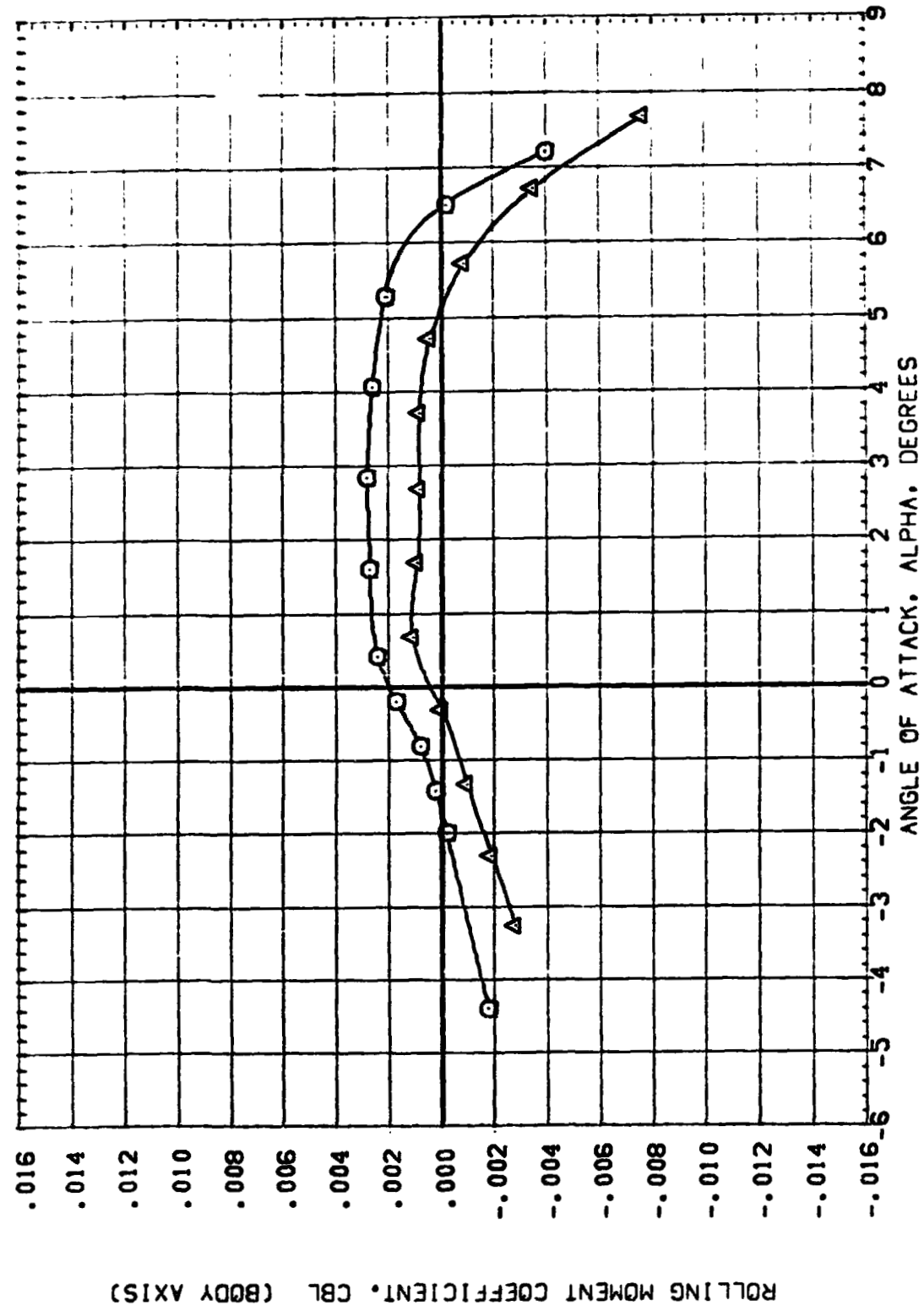


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=55 DEGREES
 (A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE000) W3 P0 B
 (DAE001) W3 P0 B

SWEEP RN/L SETS
 55.000 6.000 0.000
 55.000 2.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

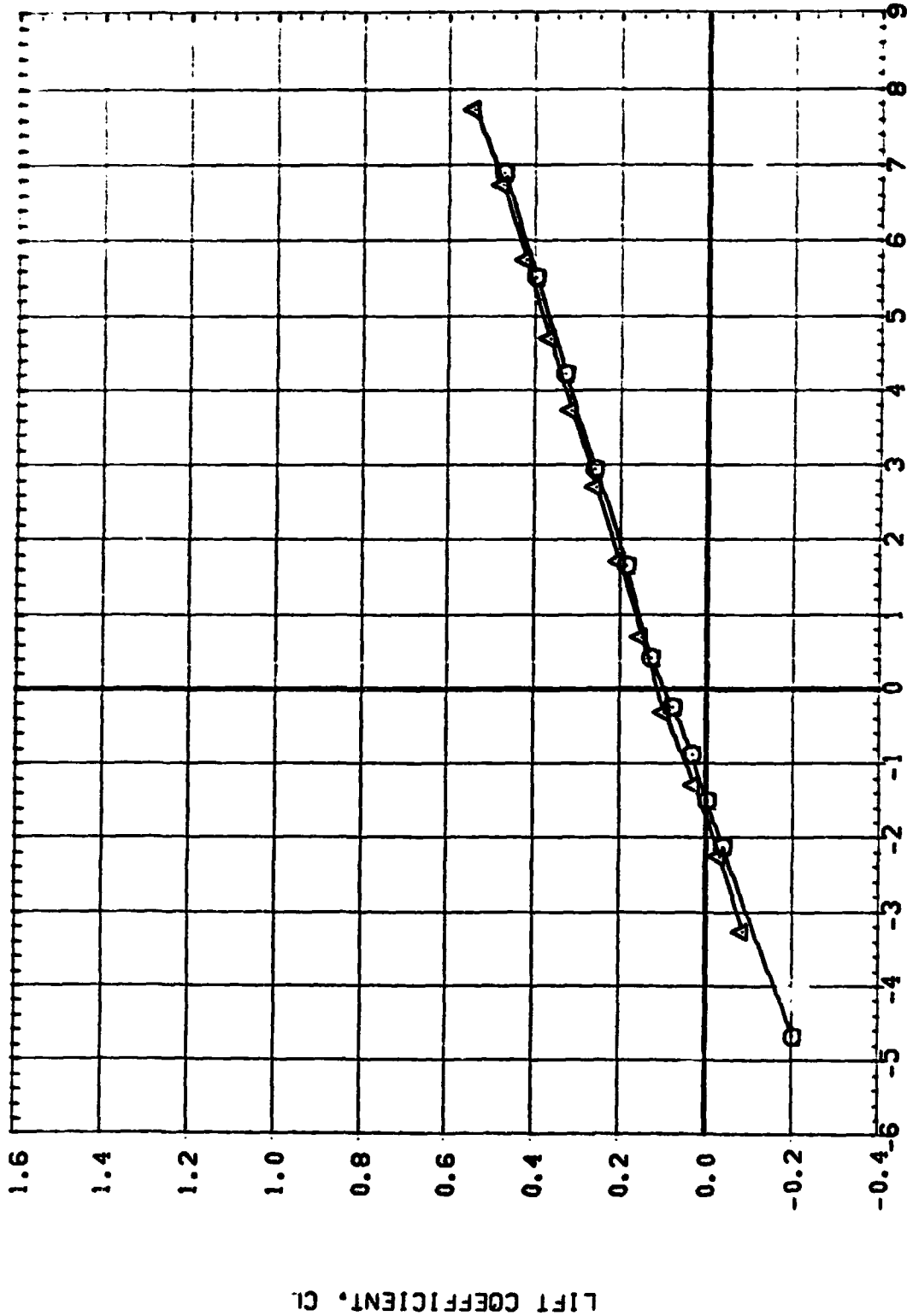


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=55 DEGREES

(A) MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE009) Ω W1 PD 8
 (DAE027) W3 PD 8

SWEEP RN/L BETS
 55.000 5.000 0.000
 55.000 5.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

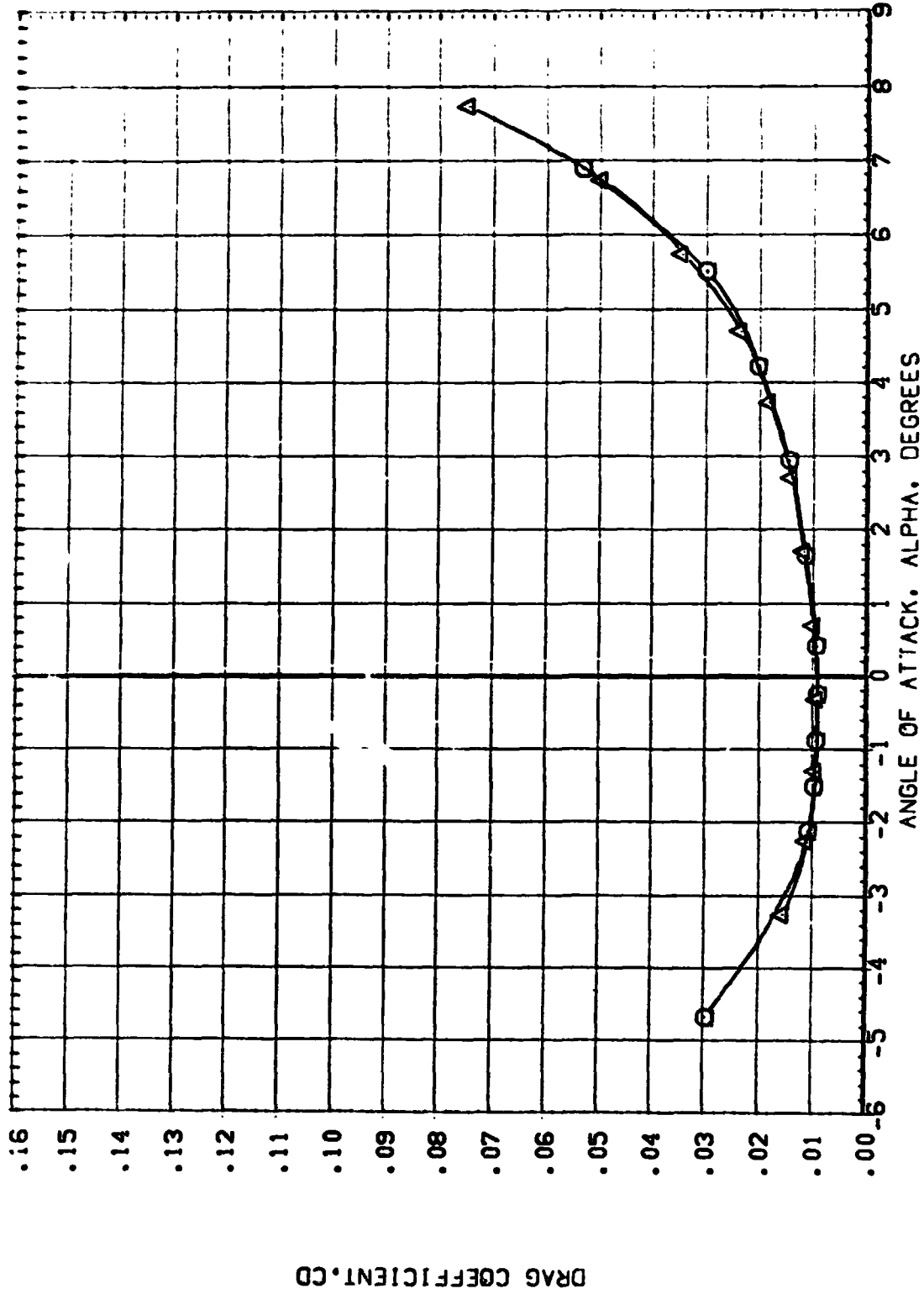


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=55 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE009) Ω W3 FU B
 (DAE027) W3 FO B

SMCCP RM/L ζ ETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

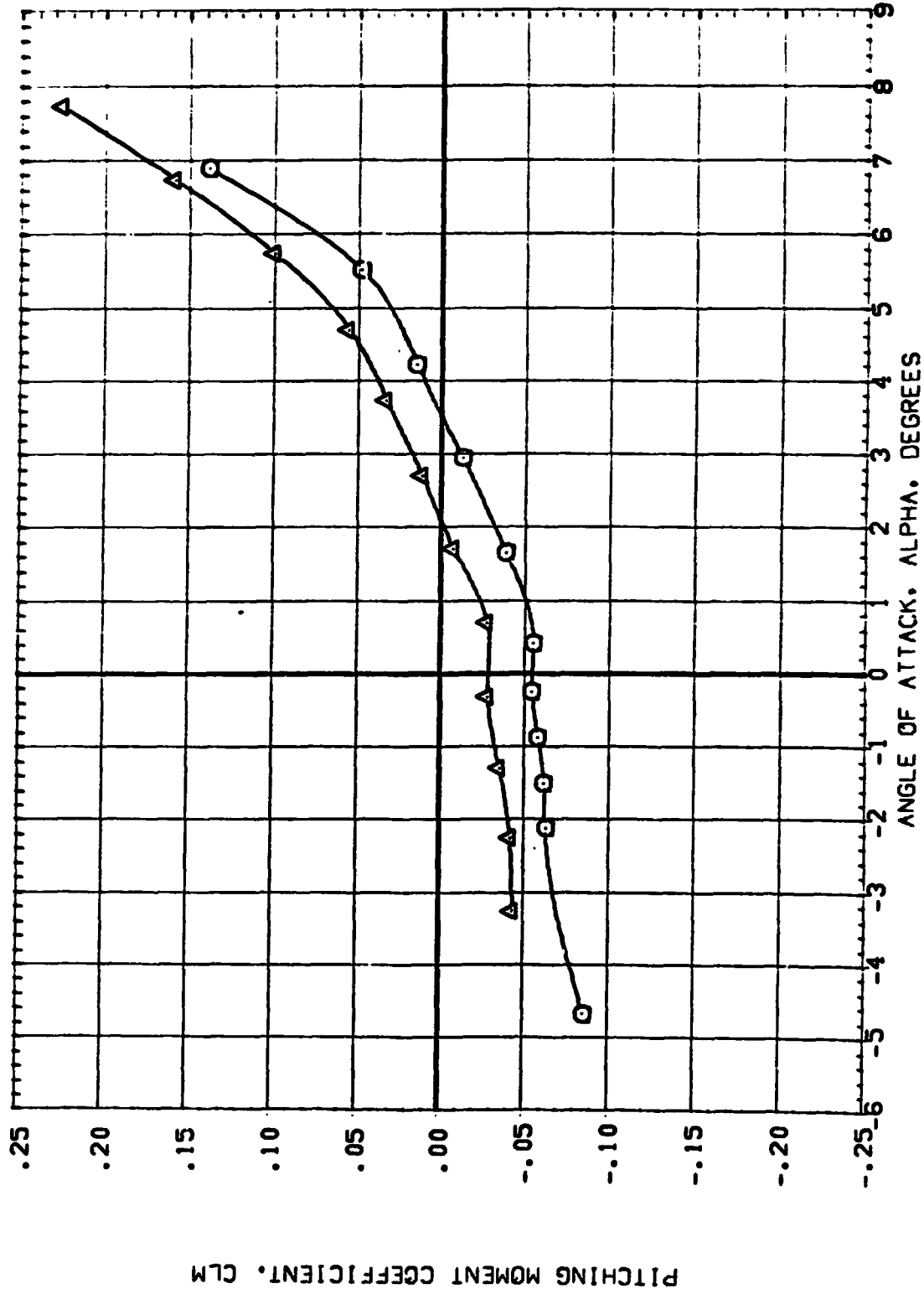


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=55 DEGREES

(A)MACH .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE000) Ω W1 PD B
 (DAE007) W3 PD B

SWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

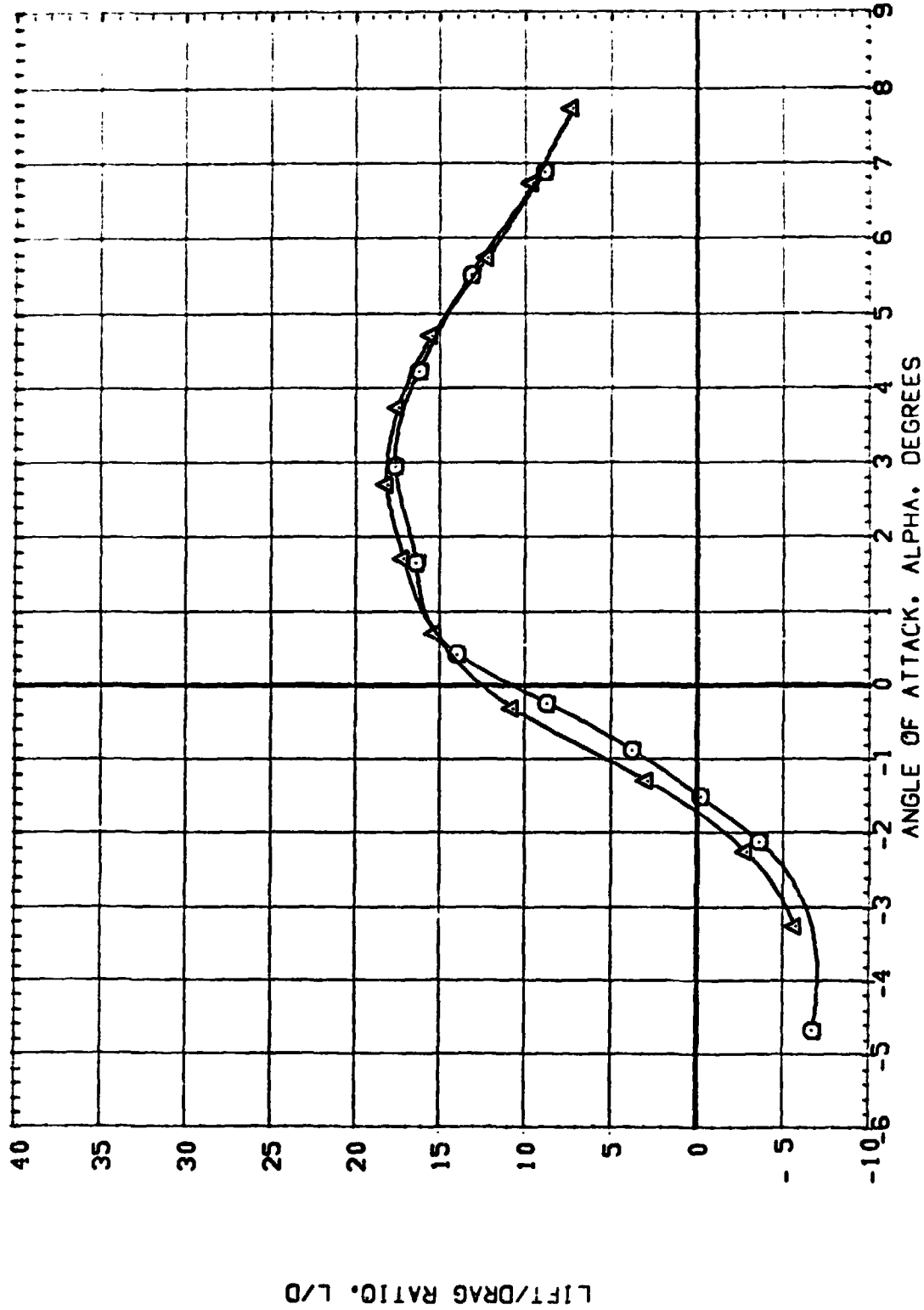


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=55 DEGREES

(A)MACH = .95

DATA SET SYMBOL Ω CONFIGURATION DESCRIPTION
 W1 FO B
 W3 FO B

SWEEP 55.000 6.000
 55.000 6.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

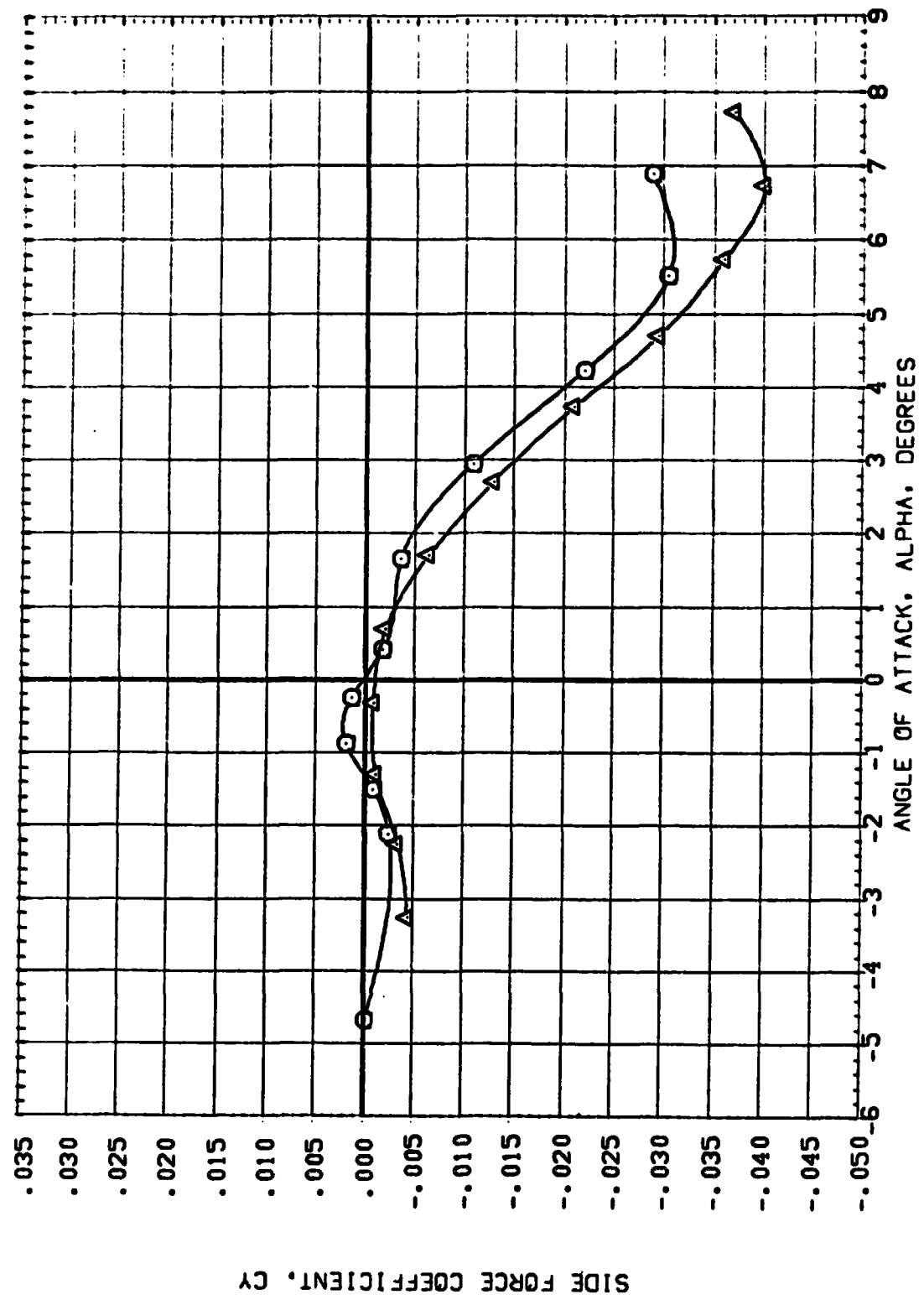


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=55 DEGREES

(A) MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE001) W1 FD B
 (DAE021) W3 FD B

SWEEP R/H/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

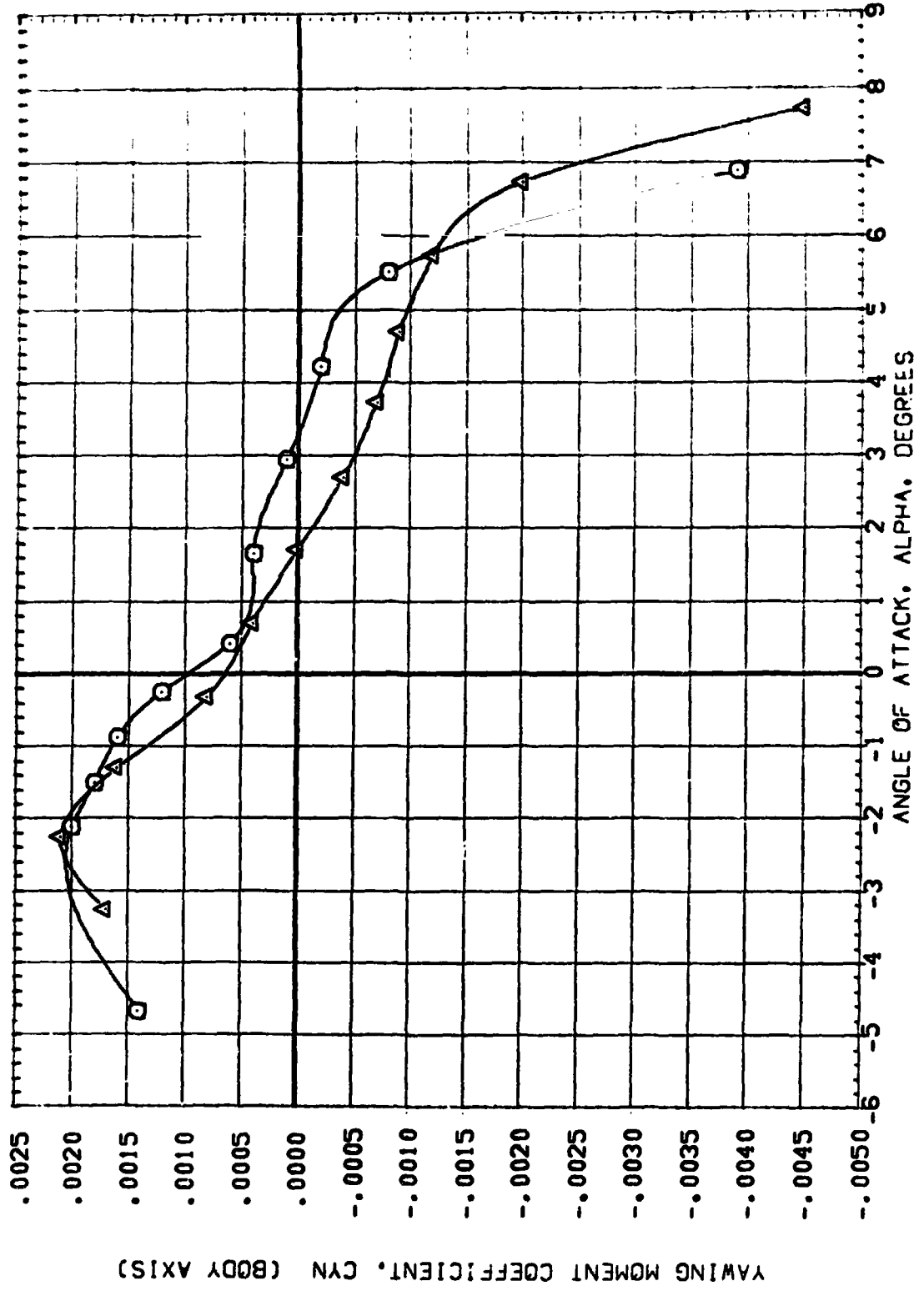


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=55 DEGREES

(A)MA

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE009) (A) W1 F0 B
 (DAE027) (B) W3 F0 B

SWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

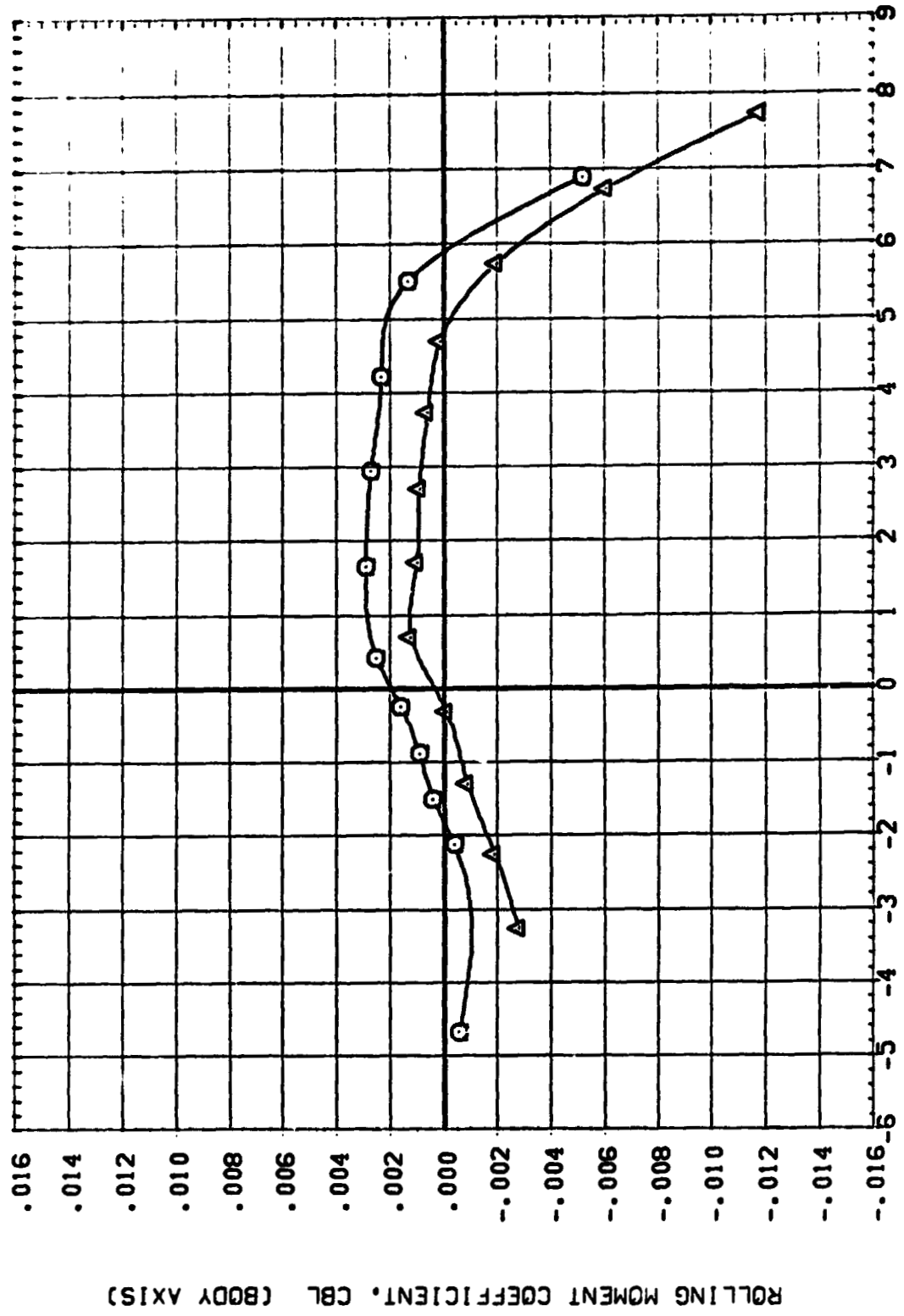


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=55 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (MARE09) M1 F0 B
 (EAE087) M3 F0 B

SWEEP RM/L BETA
 55.000 6.000 9.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

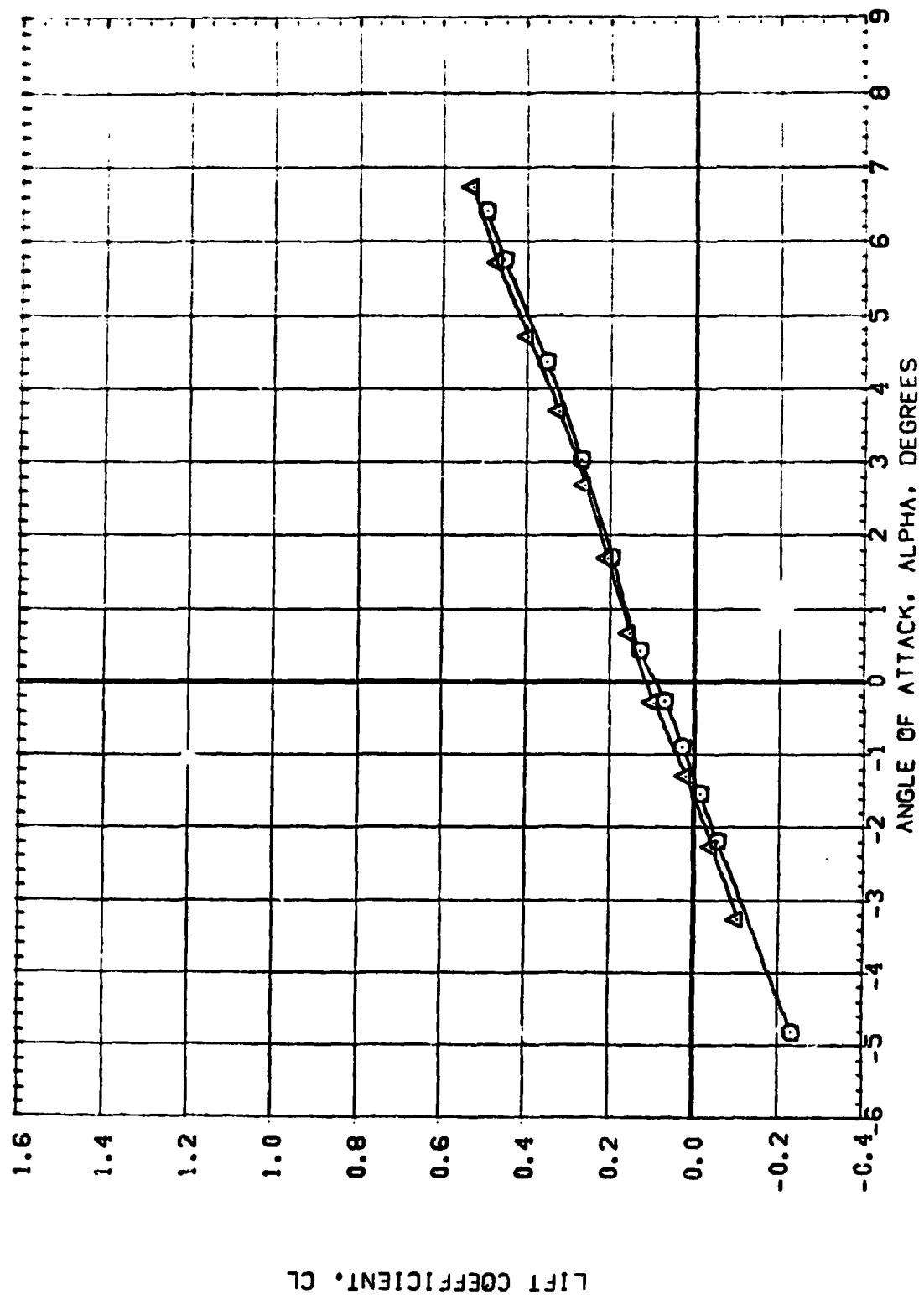


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA = 55 DEGREES

(A) MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (MAG009) W1 F0 C
 (EAE027) W3 F0 B

SWEEP RM/L BETA
 55,000 6,000 0.000
 55,000 6,000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

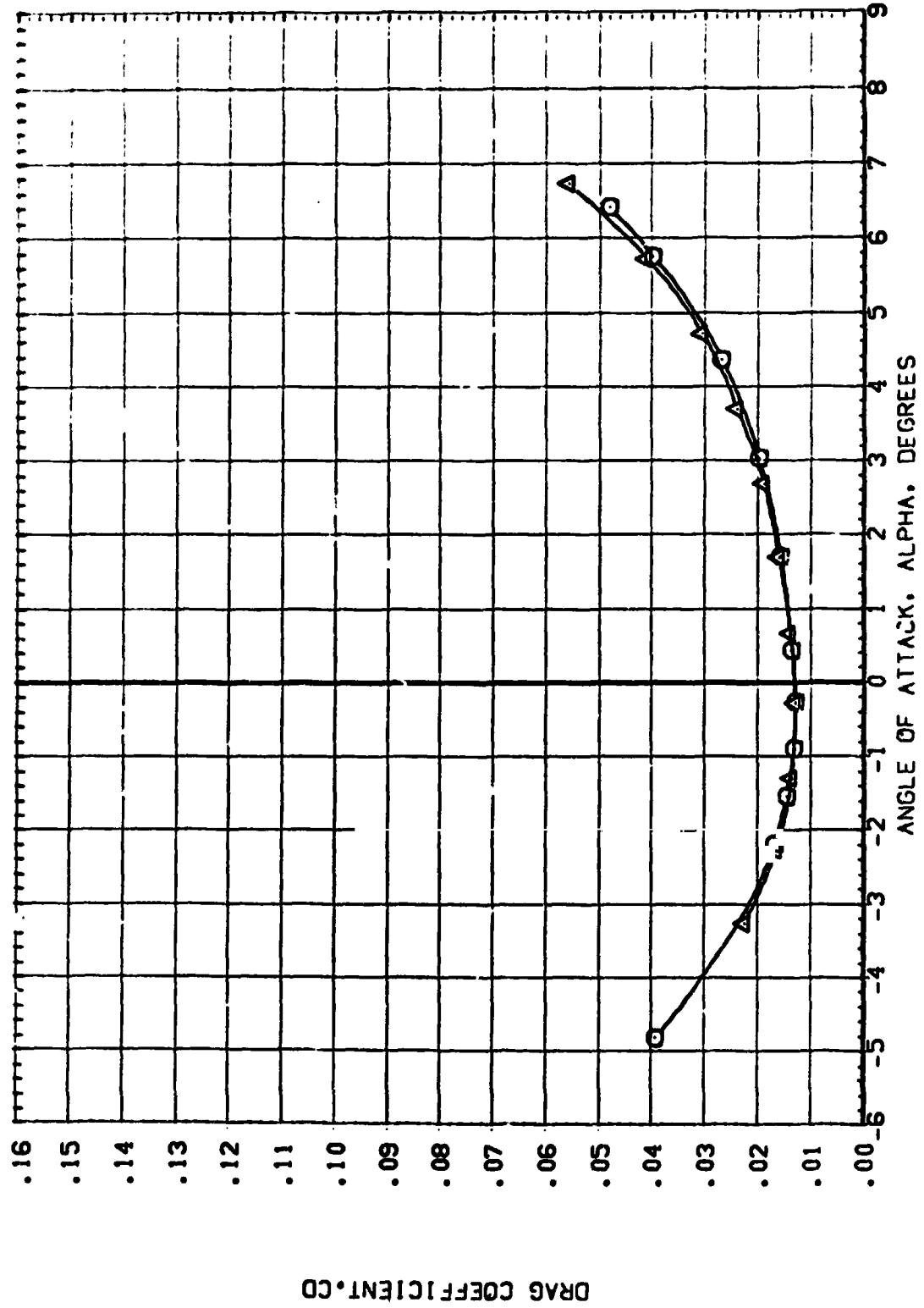


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA=55 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL (M4E000) (E4E007) Δ W1 PD B W3 PD B

CONFIGURATION DESCRIPTION
 SWEEP R/H/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATABASES

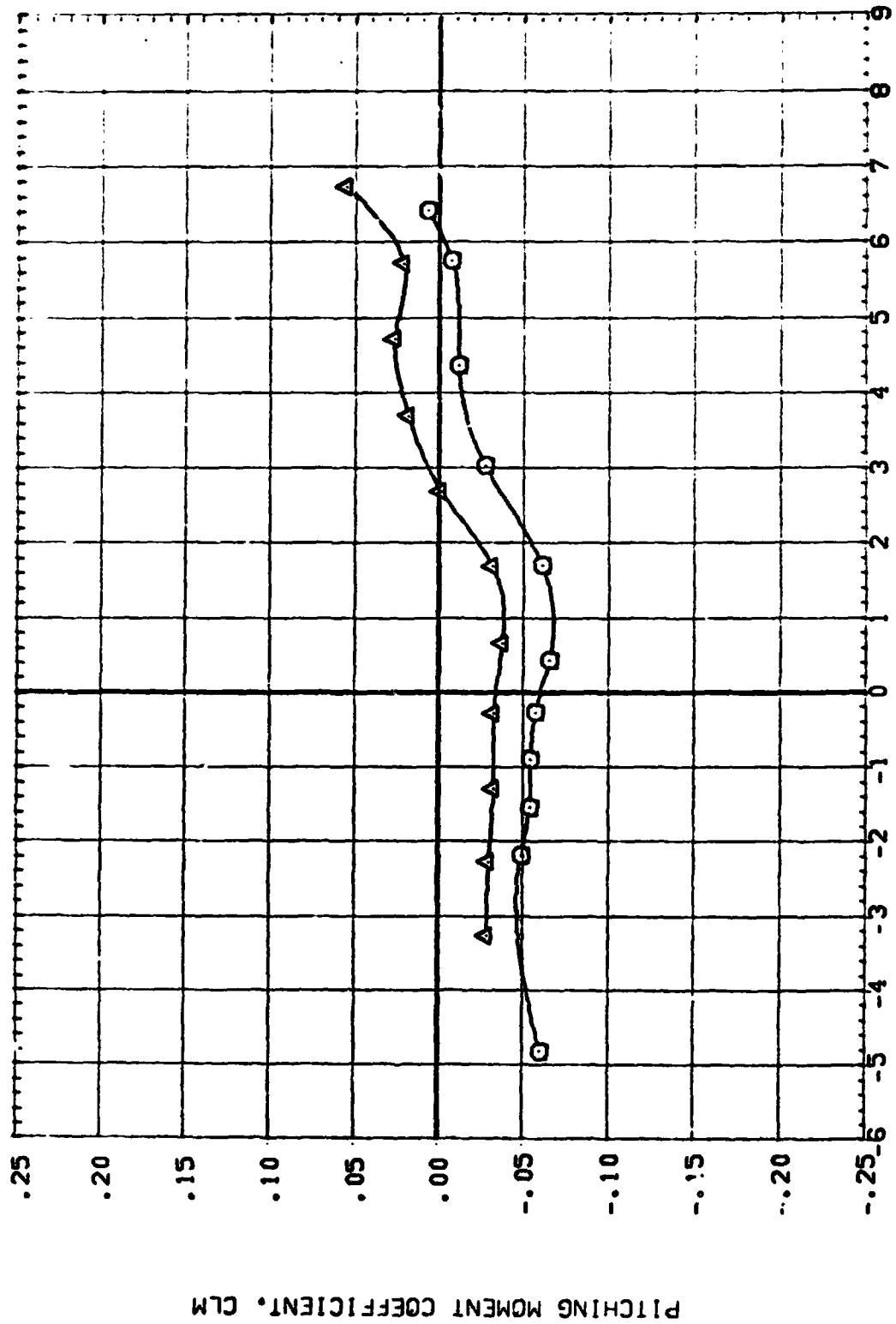


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=55 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (MAG009) Ω W1 FO B
 (EAC027) W3 FO B

SWEPT RM/L BETA
 55,000 6,000 0,000
 55,000 6,000 0,000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

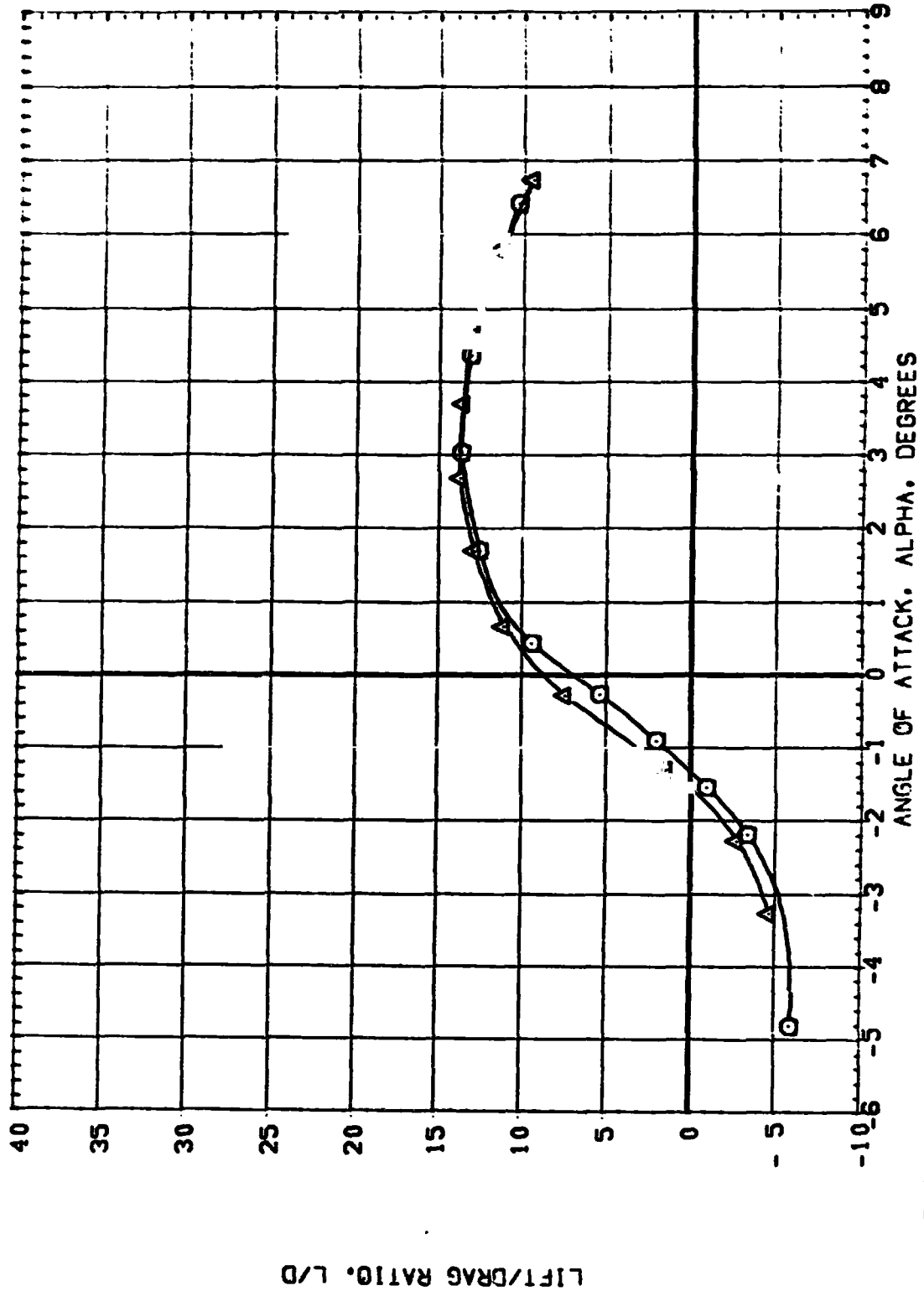


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=55 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL Δ CONFIGURATION DESCRIPTION
 M1 PD B
 M3 PD B

SWEEP RN/L BETA
 59,000 6,000 0,000
 59,000 6,000 0,000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

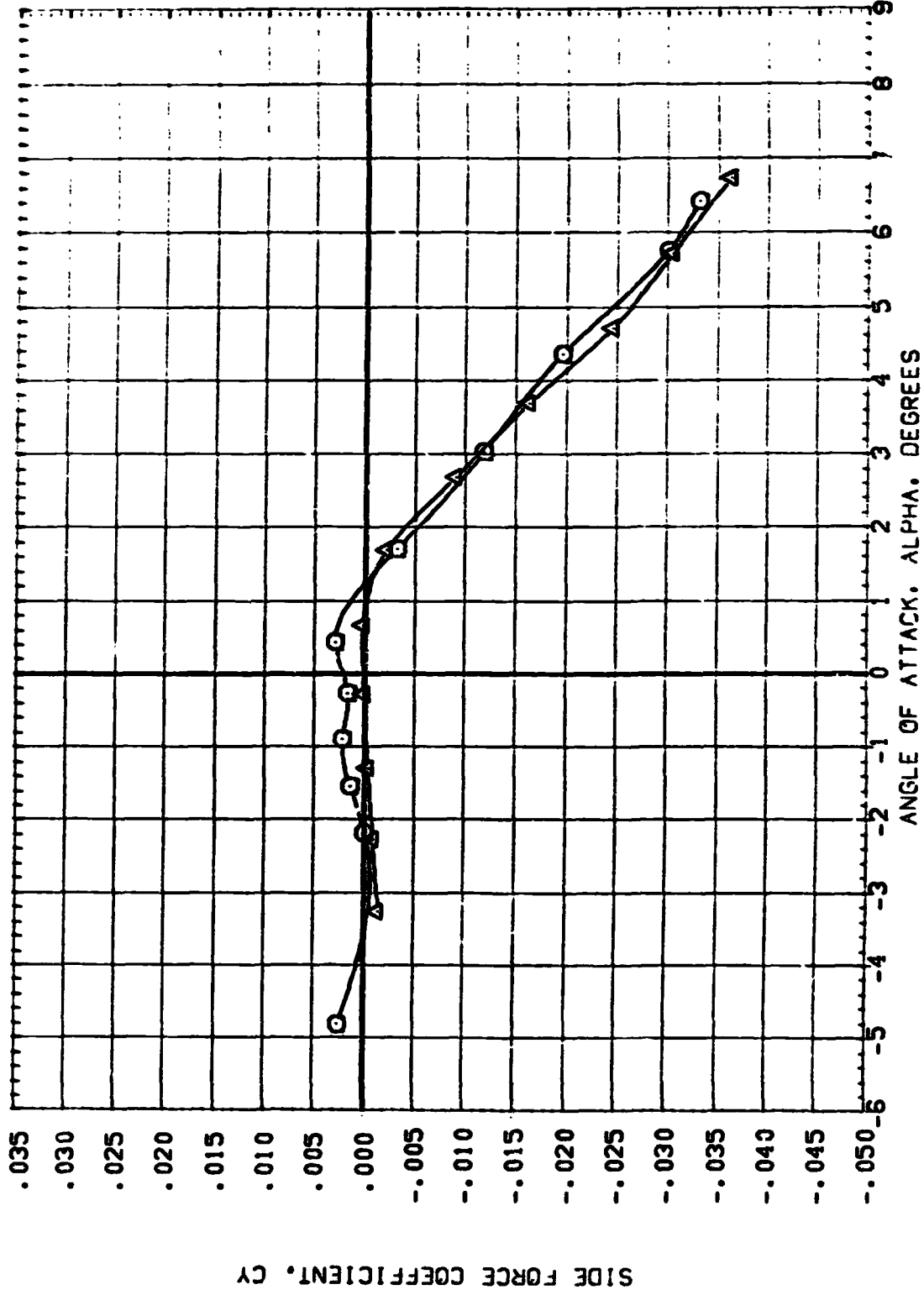


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA=55 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (MAG09) W1 P0 B
 (E0007) W3 P0 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATA SETS

SWEEP RM/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

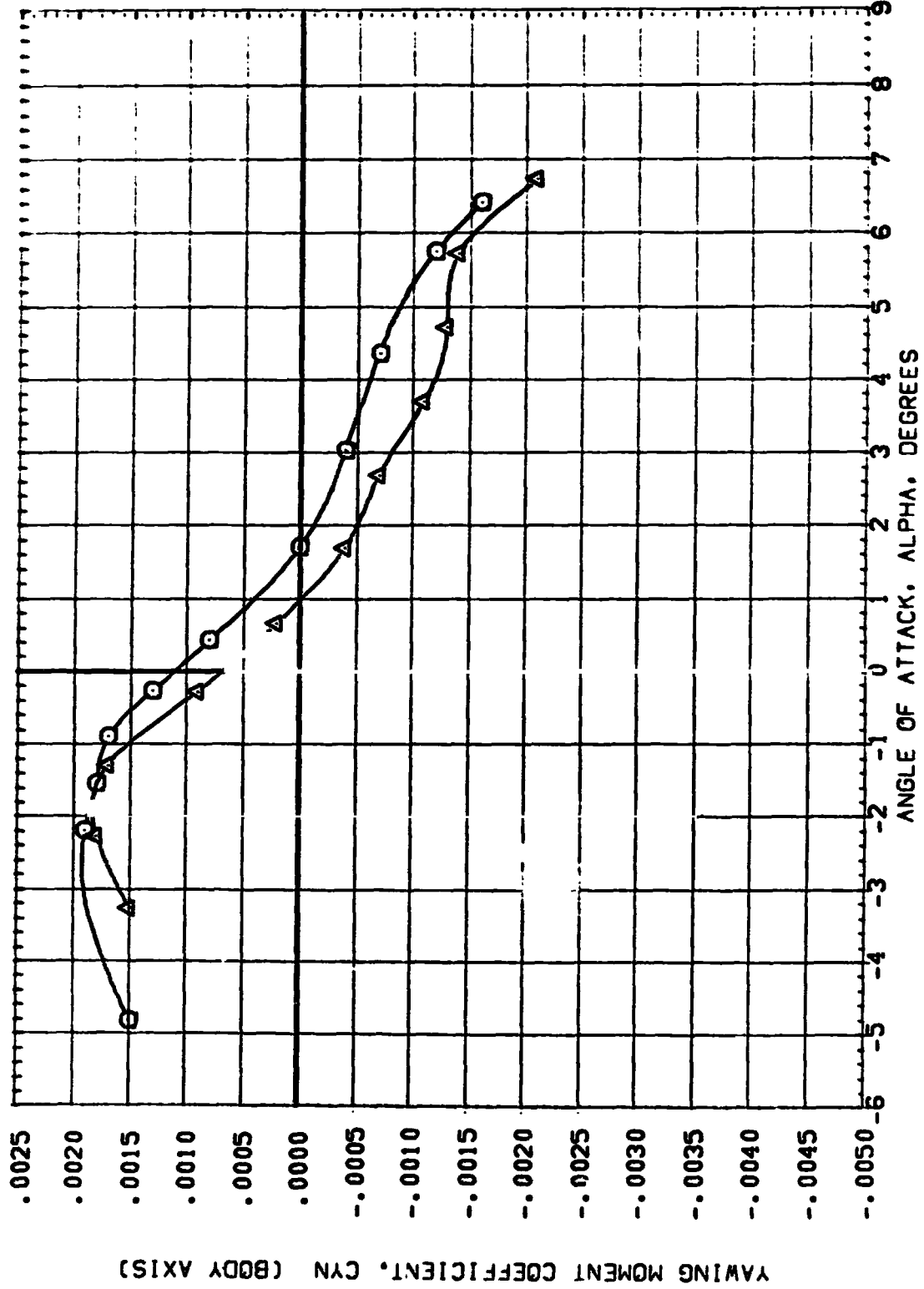


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA = 55 DEGREES

(A) MACH = 1.10

DATA SET SYMBOL Ω CONFIGURATION DESCRIPTION
 (WAE000) W1 P0 B
 (EAE007) W3 P0 B

SWEEP 85,000
 85,000

AN/L 6,000
 6,000

BETA 0,000
 0,000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

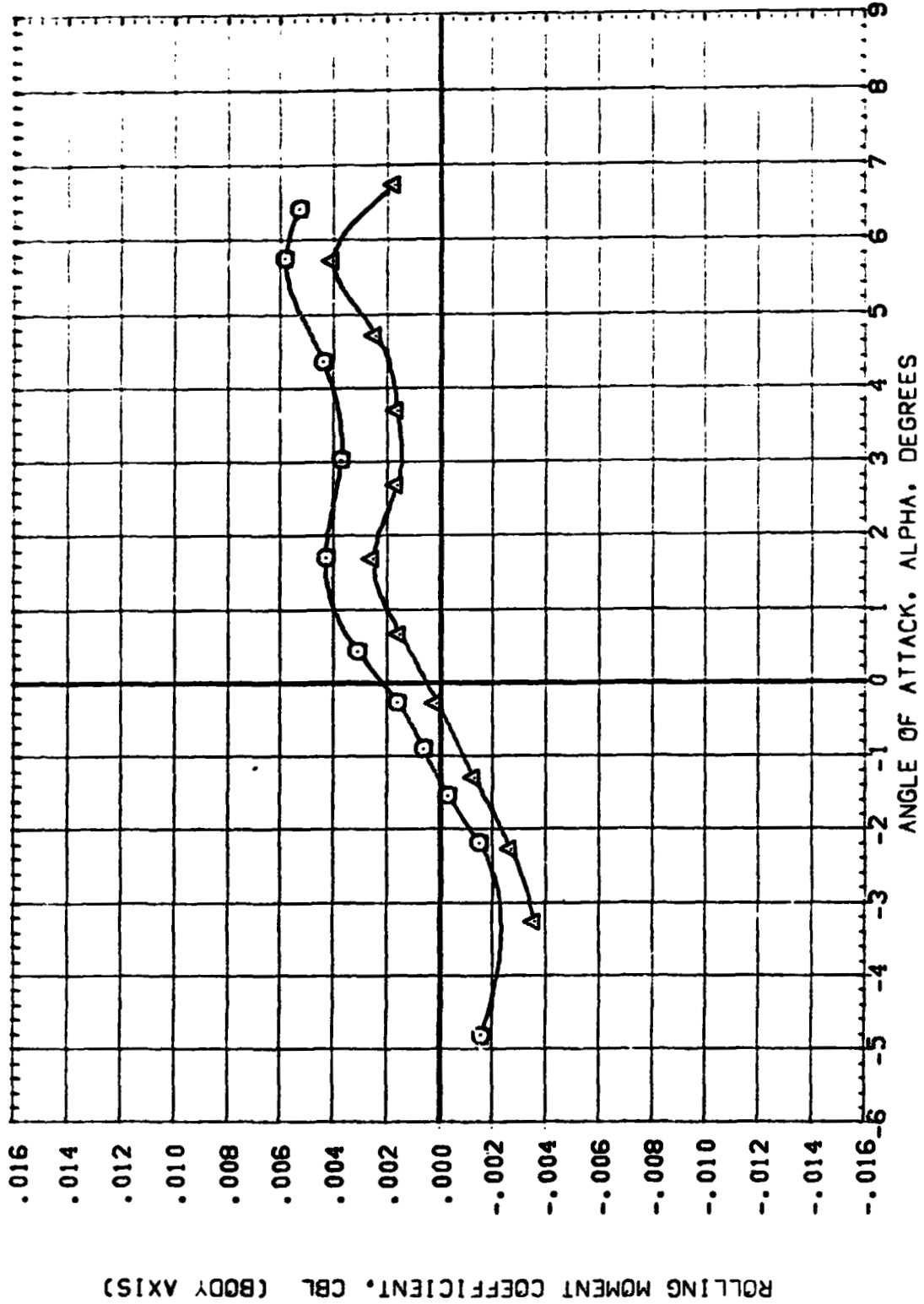


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=55 DEGREES

MAJ MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE008) W1 FD B
 (BAE027) W3 FD B

SWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

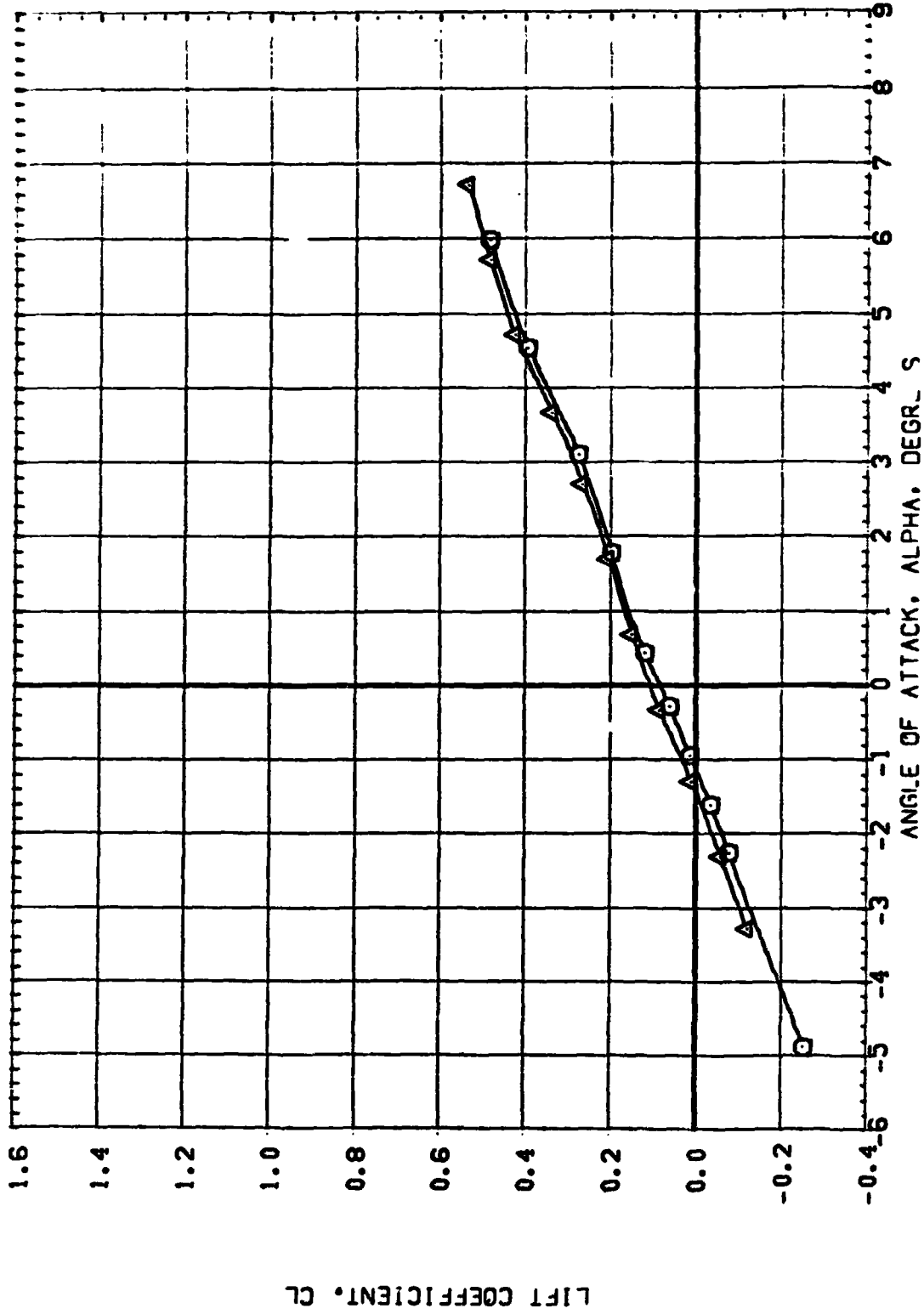


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=55 DEGREES

(A)MACH = 1.20

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP R_{M/L} BETA
 55.000 6.000 0.500
 55.000 6.500 0.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE009) W1 P0 B
 (BAE027) W3 P0 B

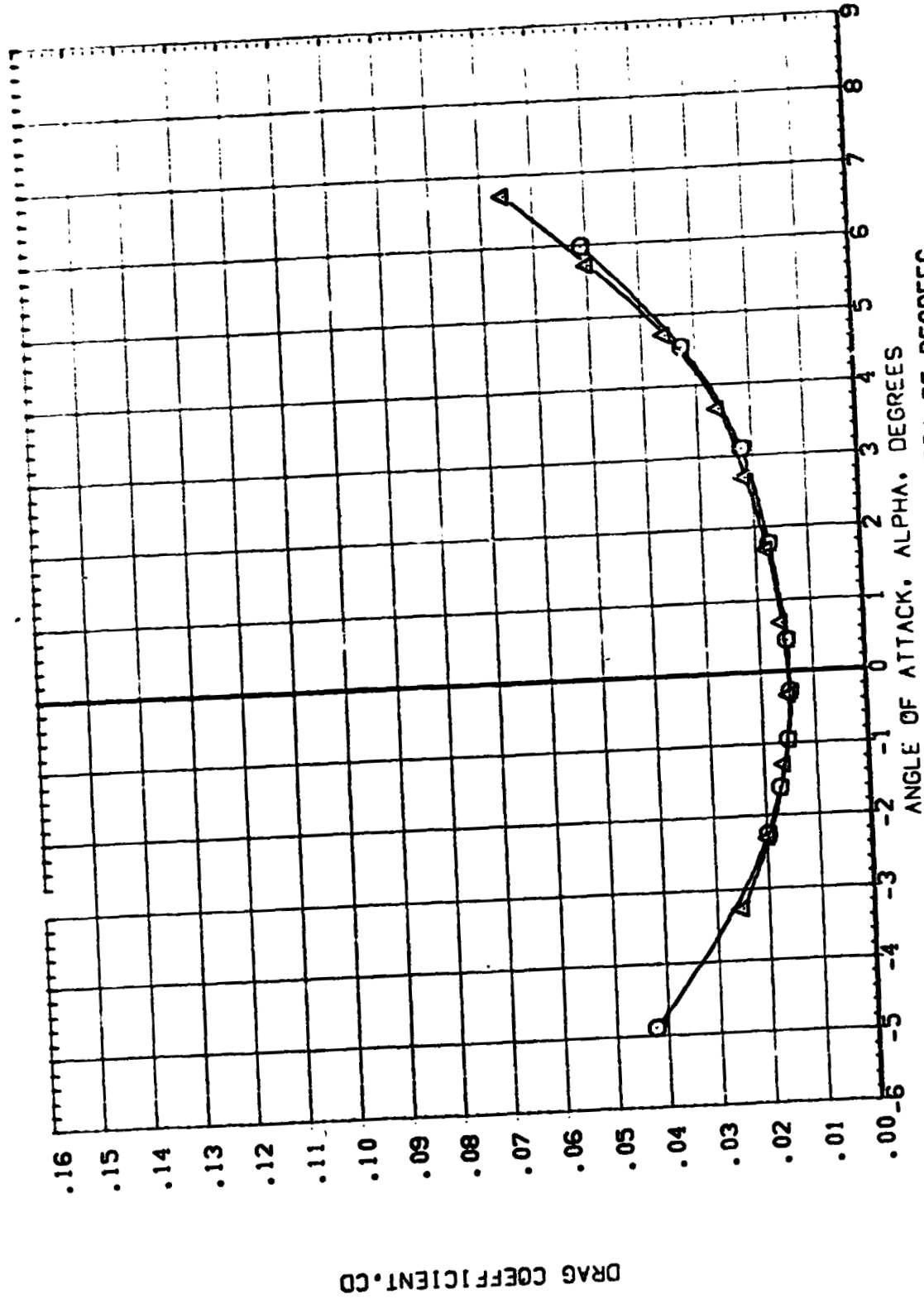


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=55 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE009) Ω W1 PD B
 (BAE027) W3 PD B

SWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

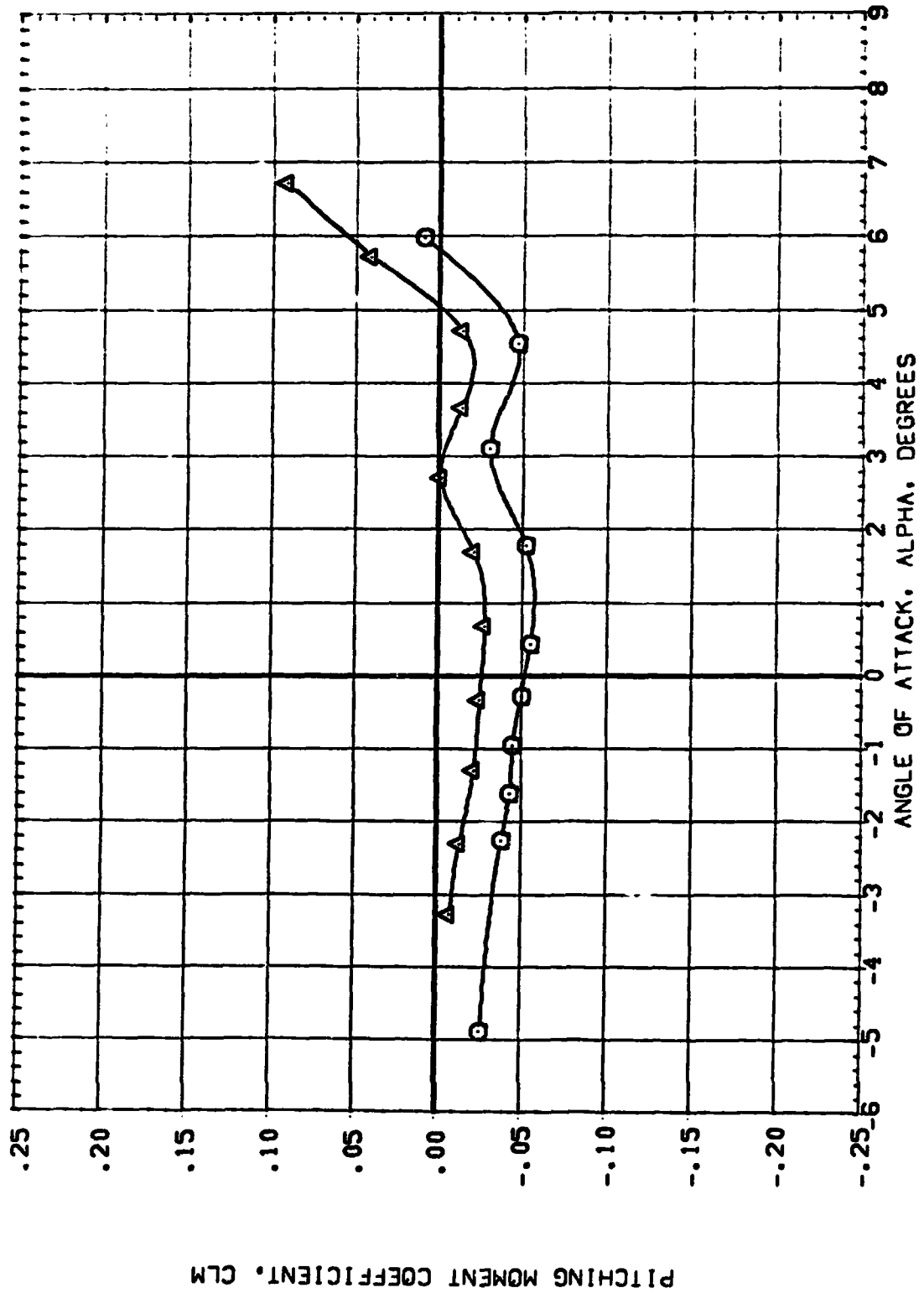


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA=55 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAC000) M1 FD 8
 (BAC027) M3 FD 8

SWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

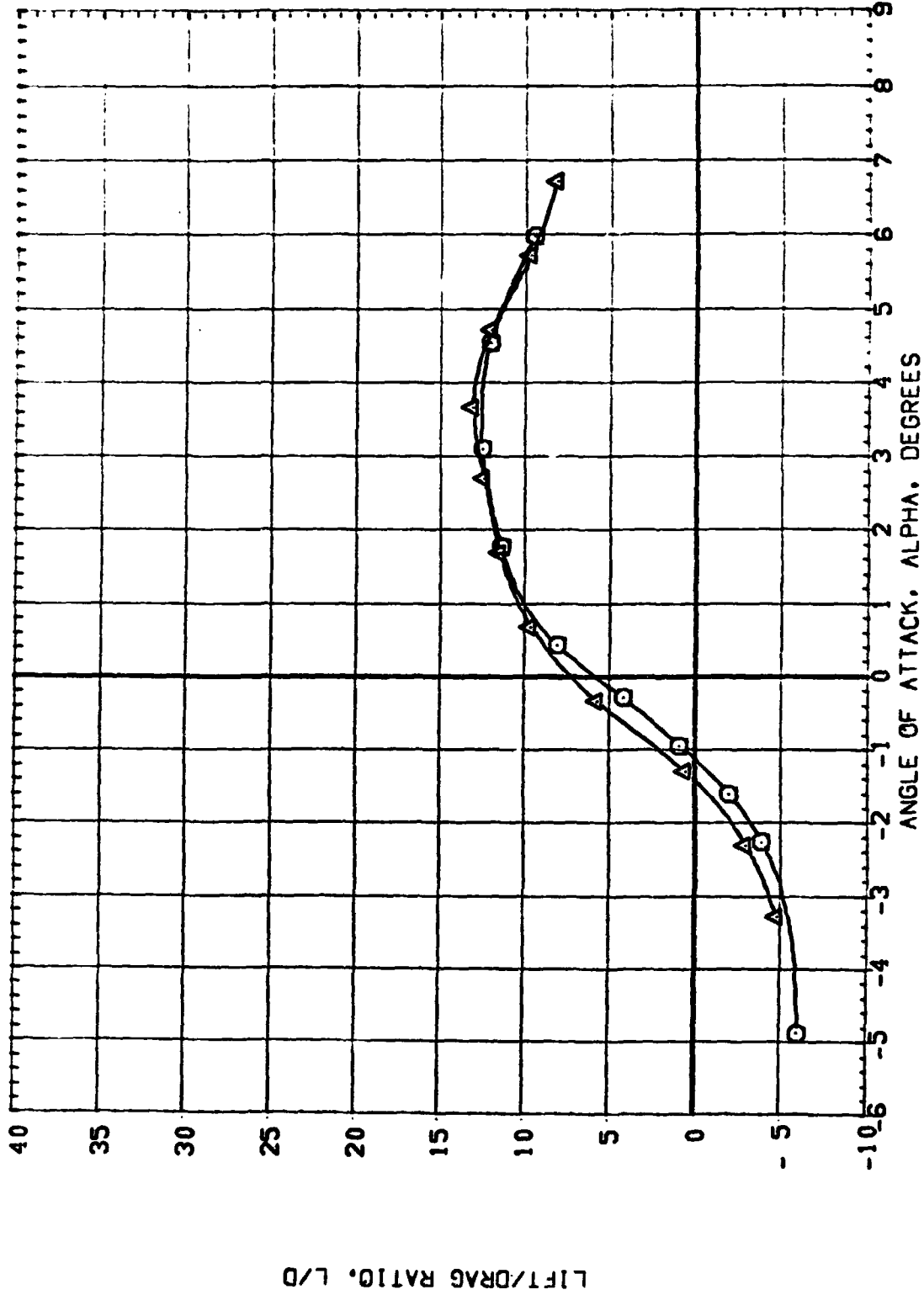


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=55 DEGREES

(A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE009) M1 F0 B
 (BAE027) M5 F0 B

SWEEP RAYL BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

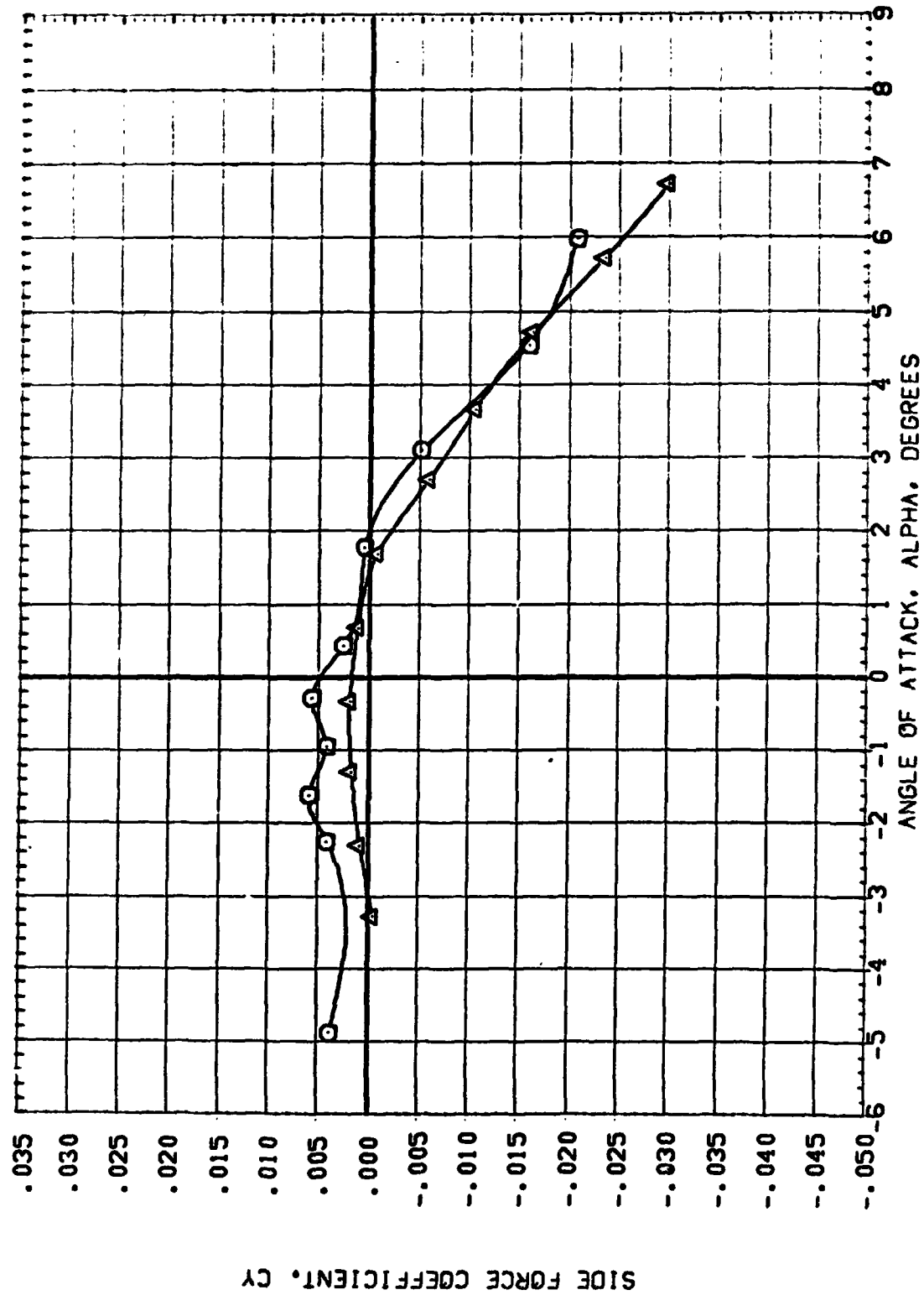


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA = 55 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE009) W1 FO 8
 (BAE027) W3 FO 8

SWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

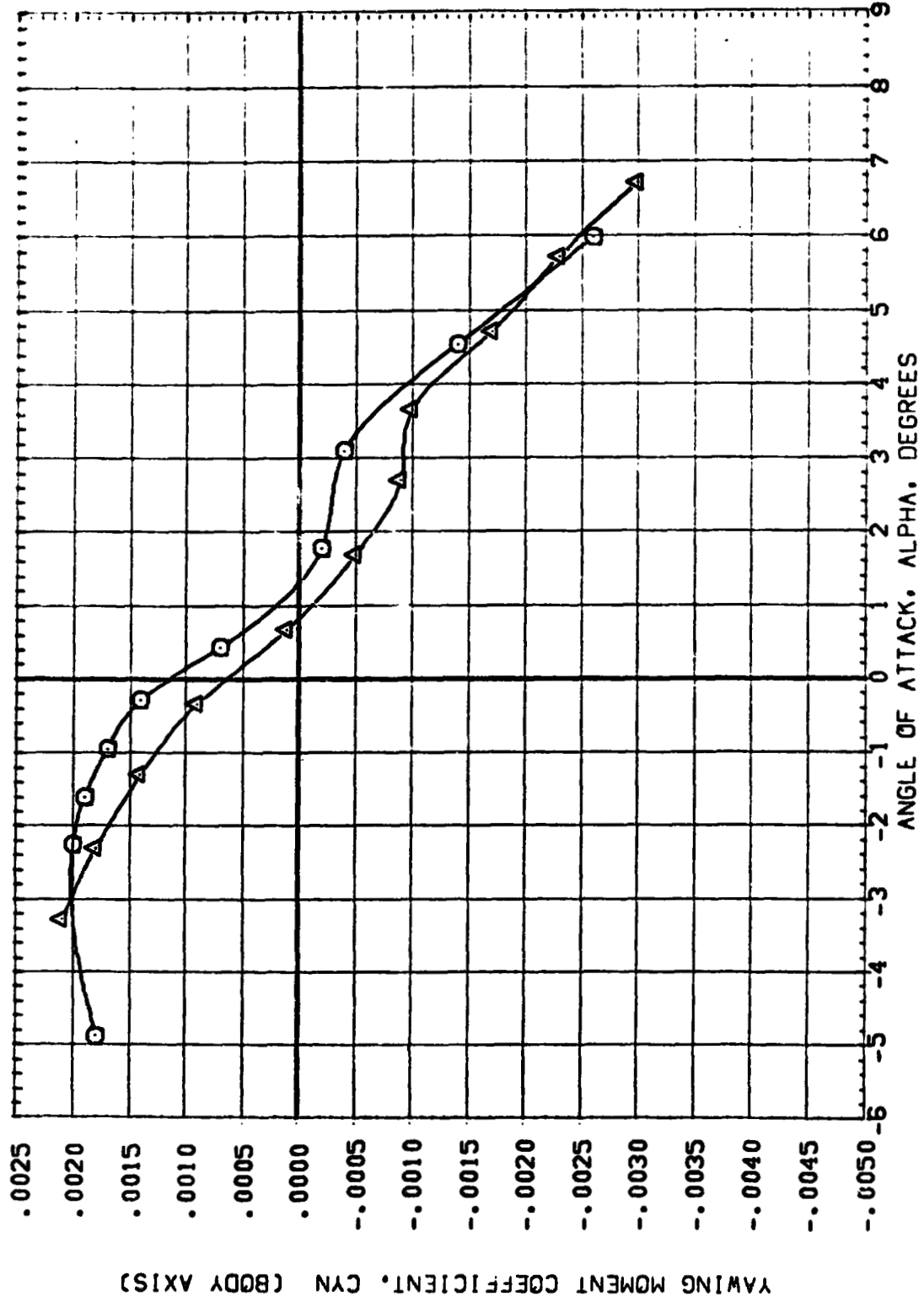


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=55 DEGREES

(A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE000) Ω W1 FO B
 (BAE007) Ω W3 FO B

SWEEP RN/L BETA
 55.000 5.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

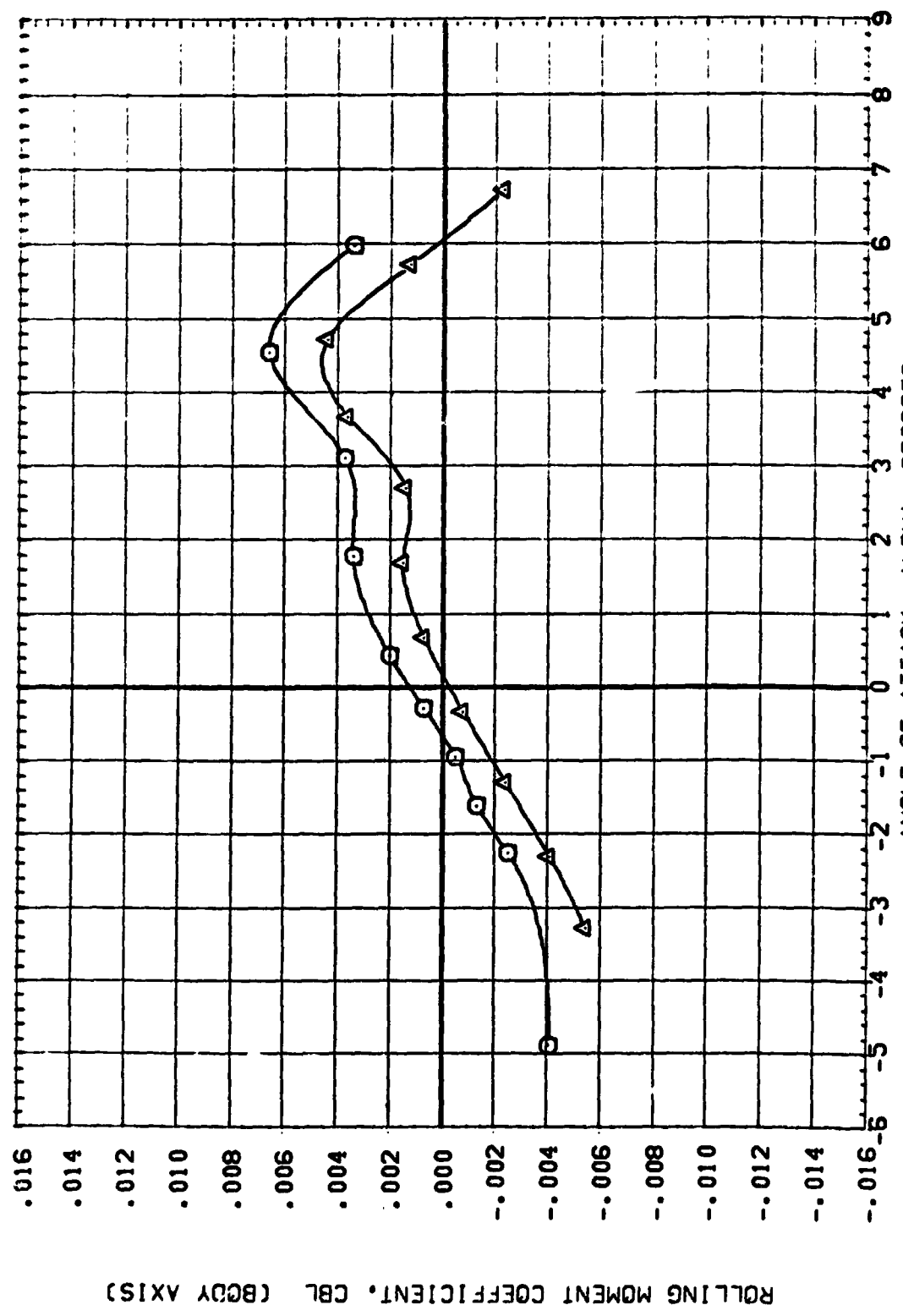


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA=55 DEGREES

(A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE008) Ω W1 FO B
 (FAE027) Δ W3 FO B

BWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

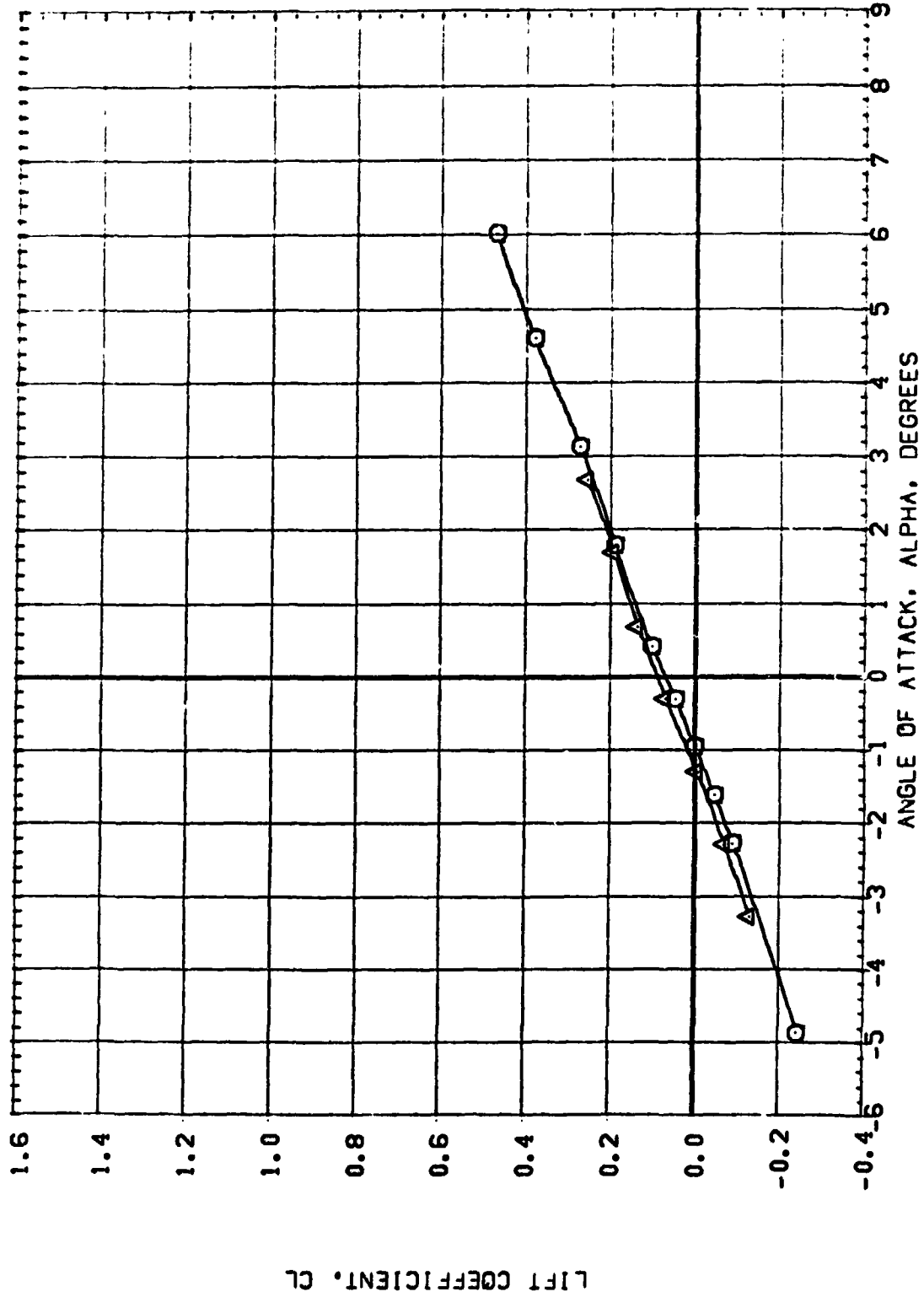


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.30, LAMBDA=55 DEGREES

(A)MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 W1 F0 B W1 F0 B
 W3 F0 B W3 F0 B

SWEEP RN/L DELTA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

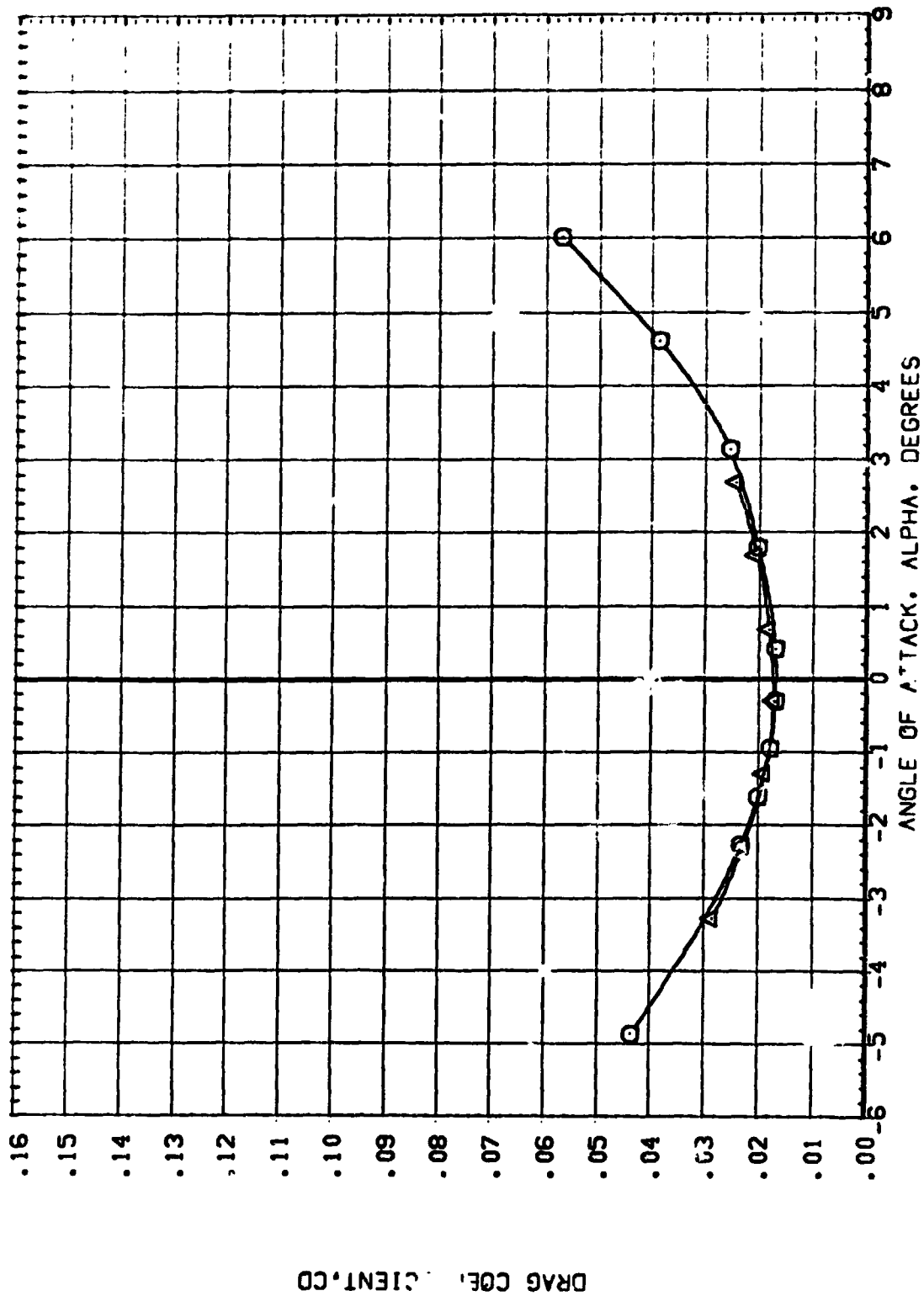


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.30. LAMBDA = 55 DEGREES
 (A) MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (PAEQ38) Ω W1 FC B W1 FC B
 (PAEQ37) Ω W3 PD B W3 PD B

SWEEP R/Y/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

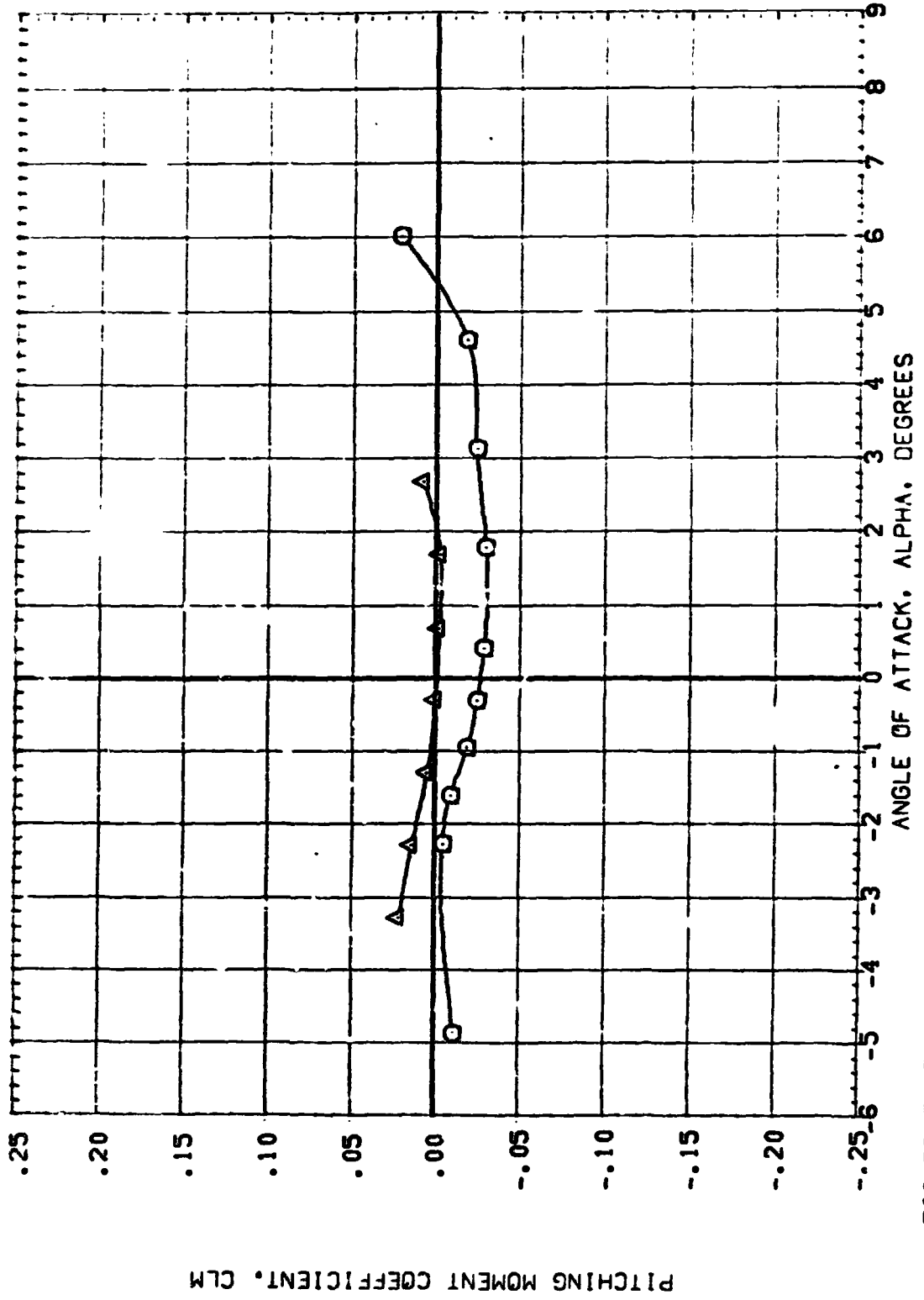




FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.30, LAMBDA = 55 DEGREES
 (A) MACH = 1.30

--FL SET SYMBOL CONFIGURATION DESCRIPTION
 (PAE009)  W1 P0 B
 (PAE027)  W3 P0 B

SWEEP RN/L BETA
 55.000 6.000 0.000
 58.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 THE VISUAL DATABASES

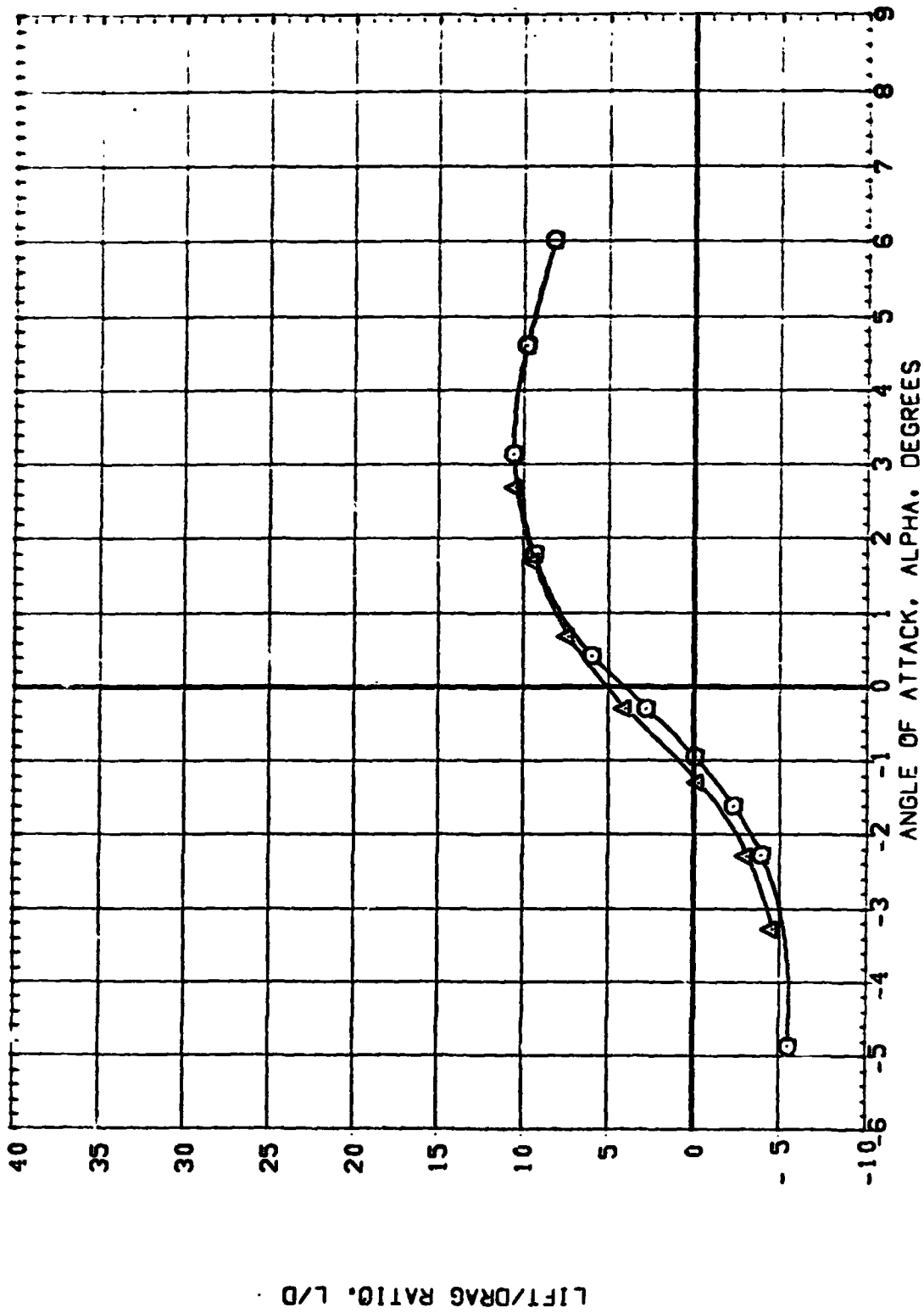


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.30, LAMBDA = 55 DEGREES

(A)MACH = 1.30

DATA SET SYMBOL \otimes CONFIGURATION DESCRIPTION
 W1 PD 8
 W3 PD 8

SWEET AN/L DLTA
 99.000 6.000 0.000
 99.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

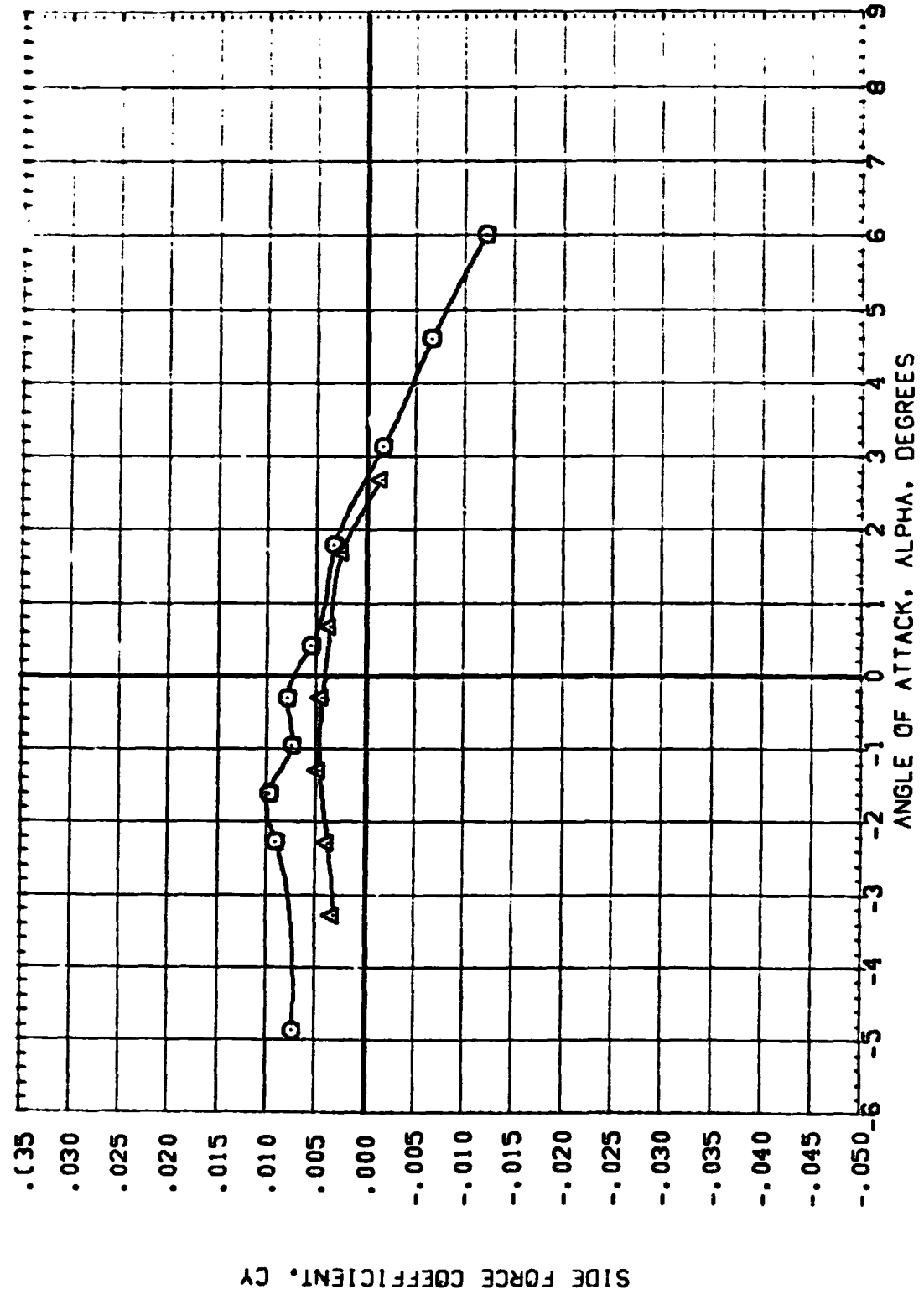


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.30, LAMBDA = 55 DEGREES
 (A) MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (FAE000) M1 P0 B
 (FAE007) M3 P0 B

SWEEP RWAL BETA
 58.000 6.000 0.000
 59.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

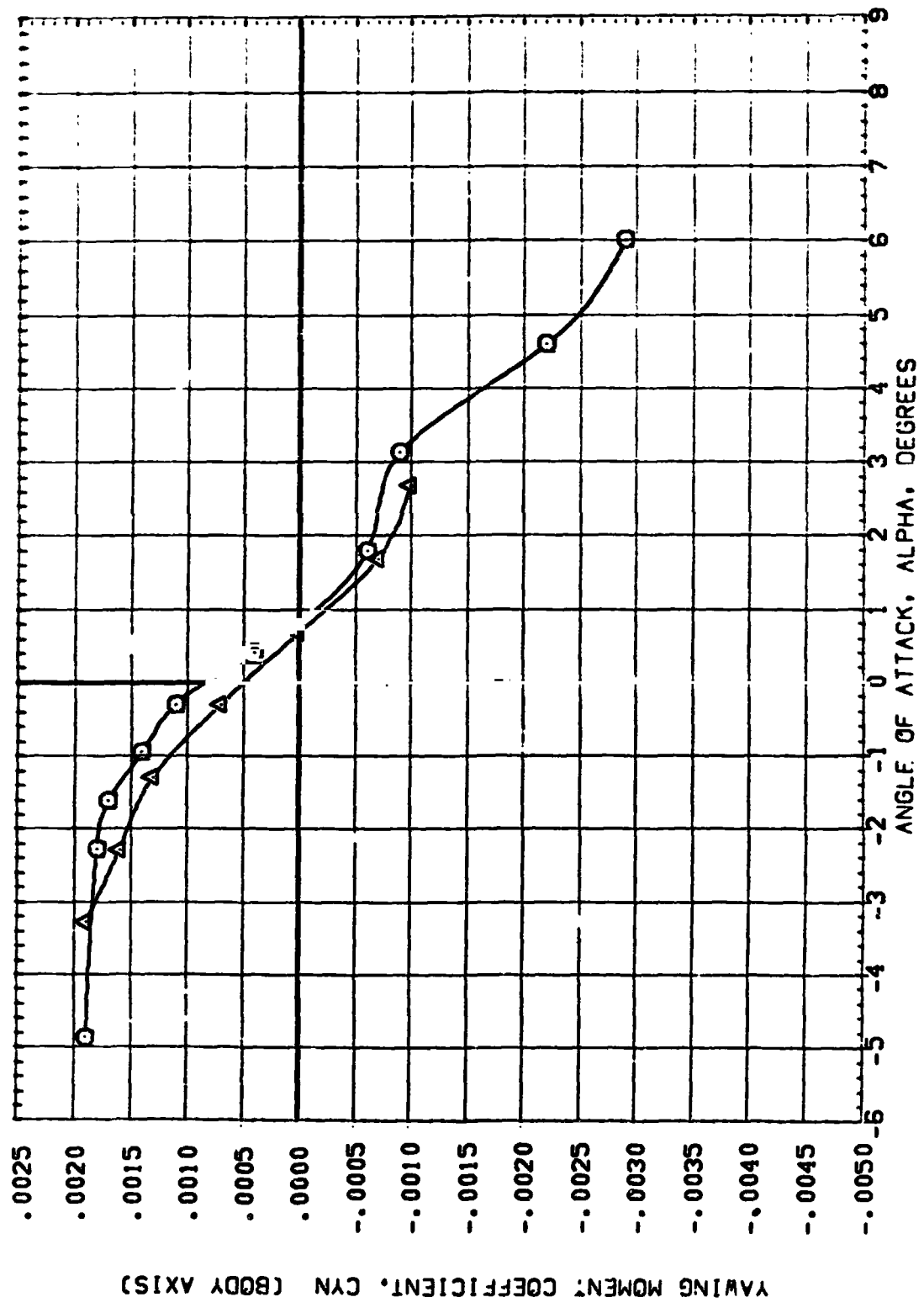


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.30, LAMBDA = 55 DEGREES

(A) MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 W3 P0 B W3 P0 B

SWEEP RN/L BETA
 55.000 6.000 0.000
 55.000 6.000 0.000

SEE IMF ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

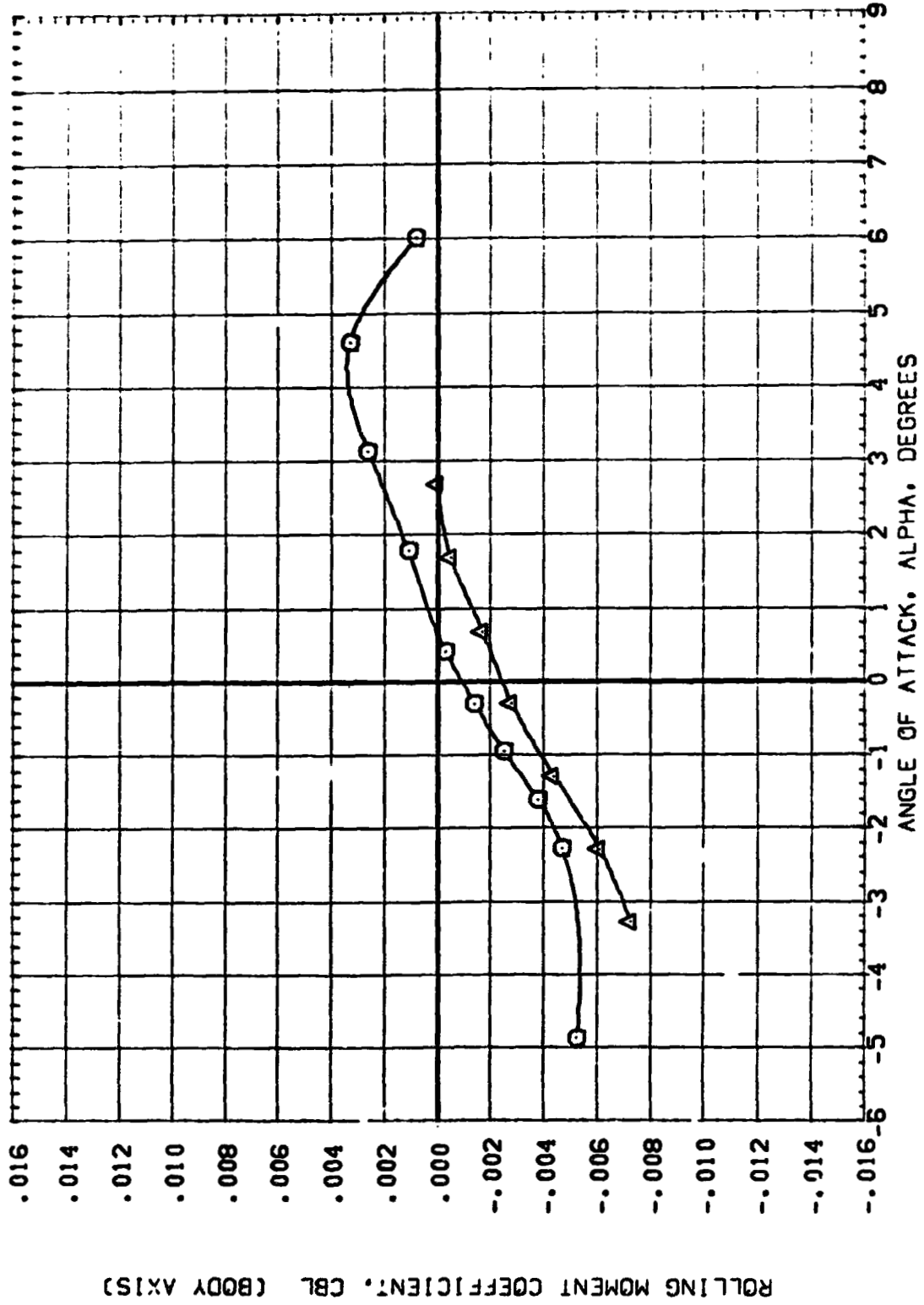


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.30, LAMBDA=55 DEGREES

(A)MACH = 1.30

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (0A2012) Ω W3 F0 B
 (0A2022) W3 F0 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

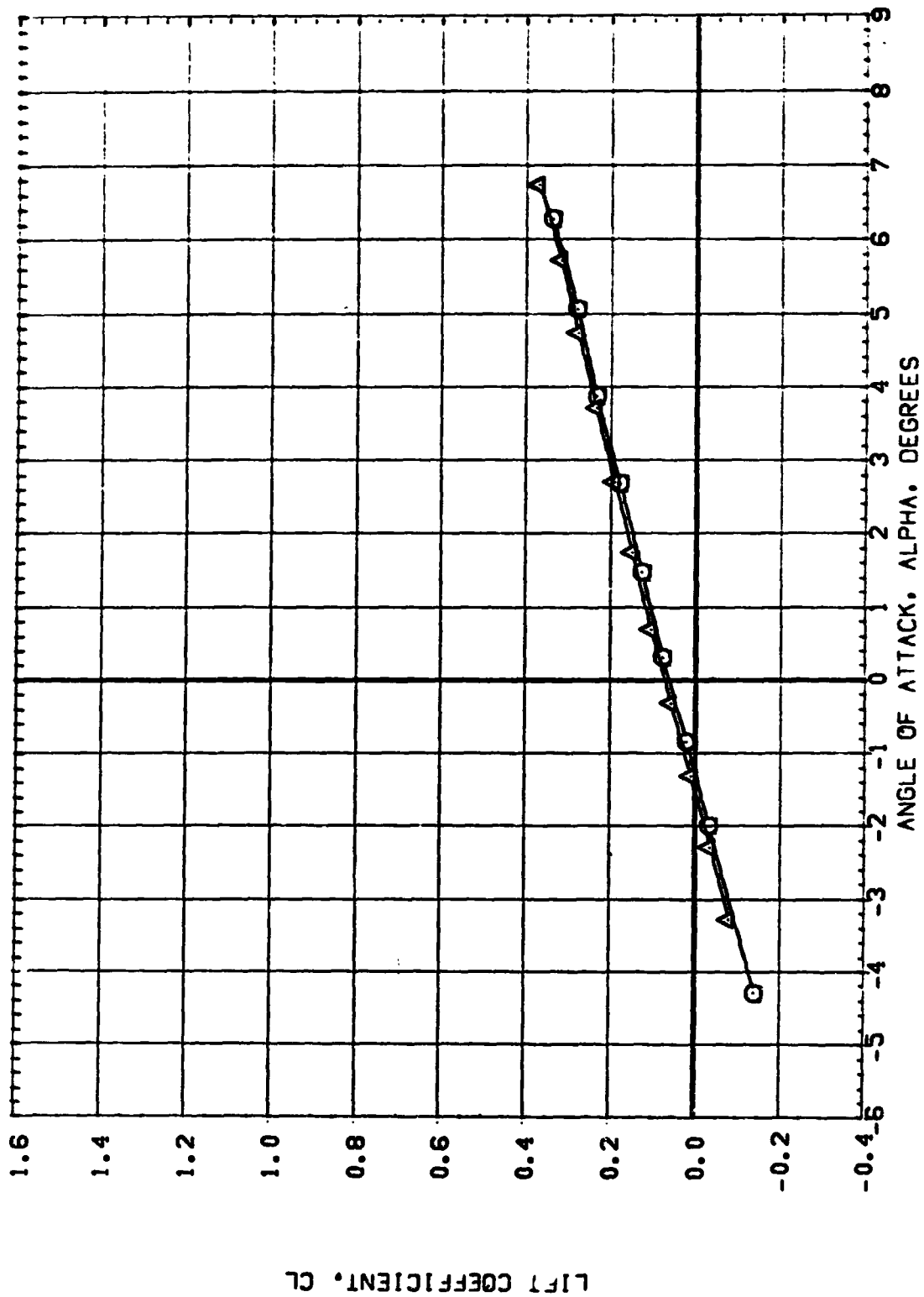


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE018) W1 P0 B
 (BAE029) W3 P0 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

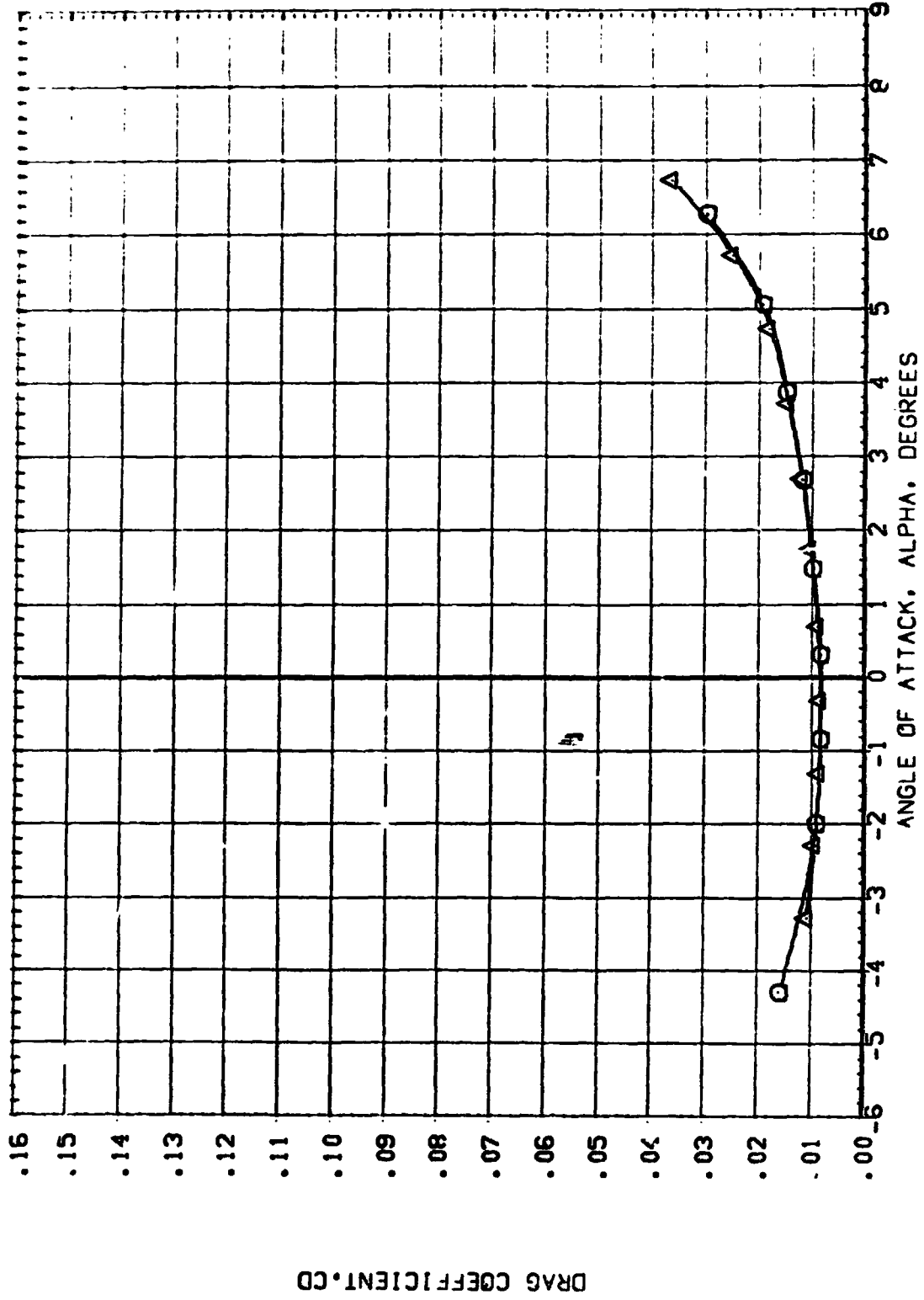


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE012) W1 FO B
 (BAE029) W3 FO B

SWEEP RN/L DELTA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

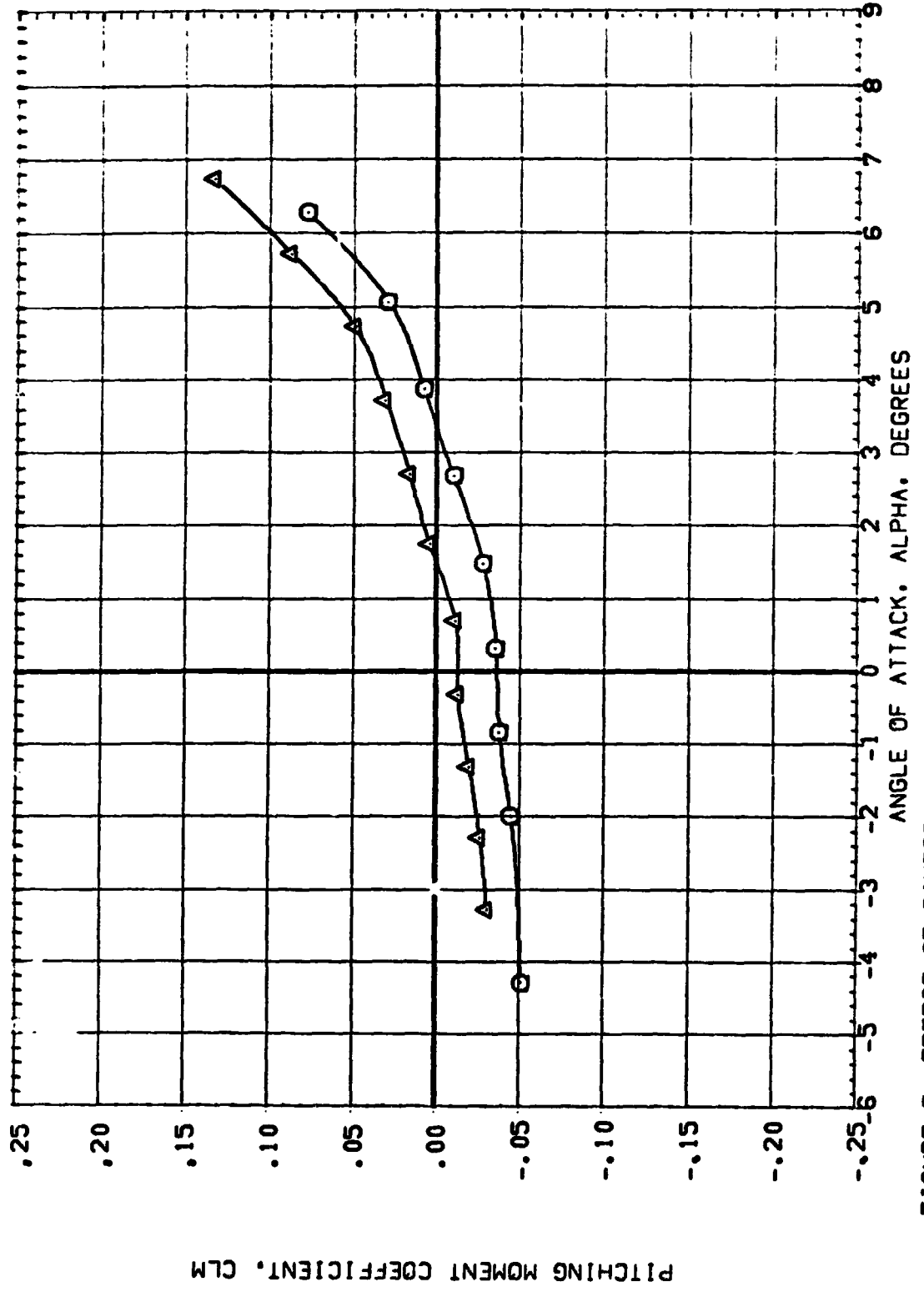


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE012) W1 FO B
 (BAE029) W3 FO B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 5.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

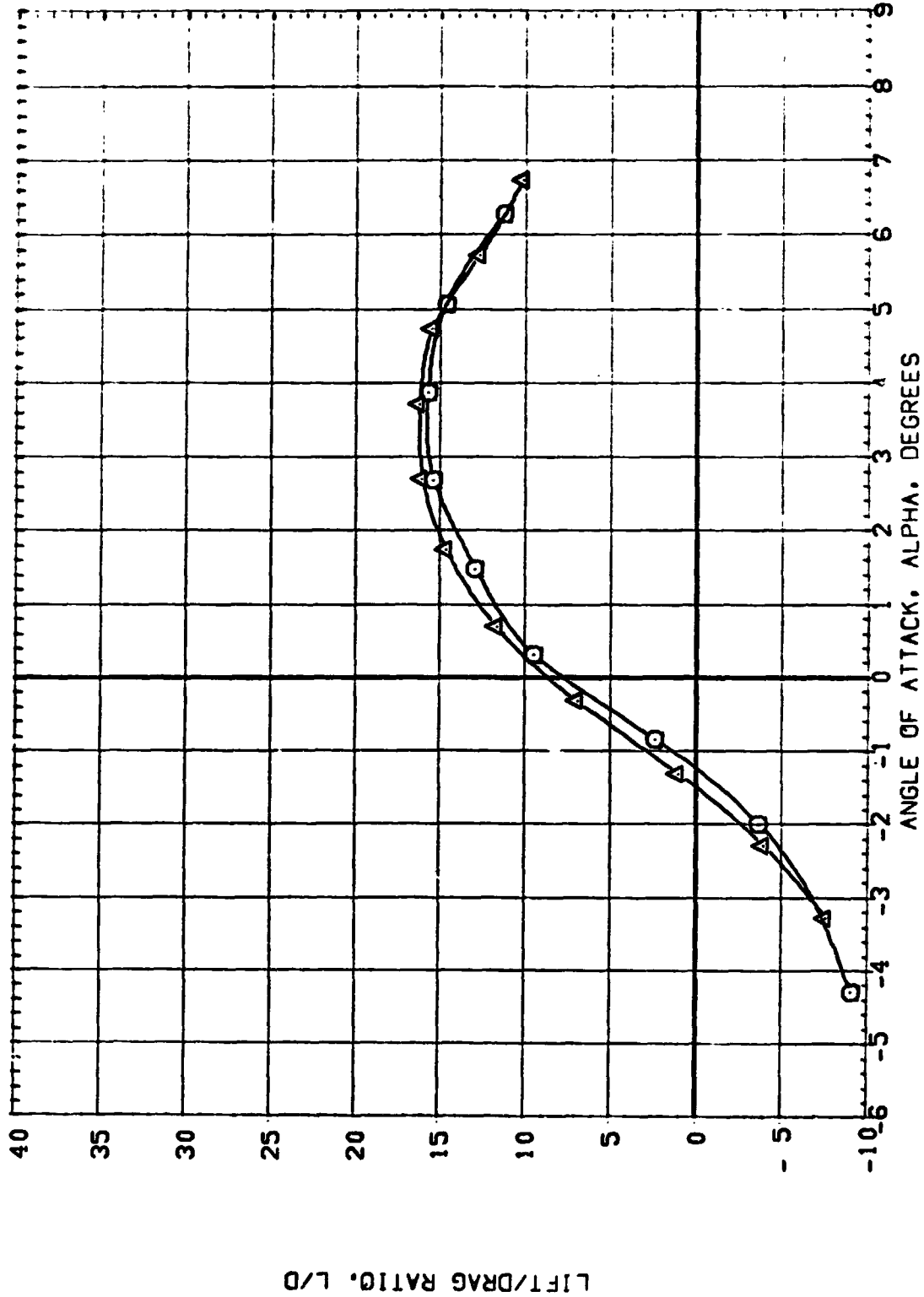


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE012) W1 FO B
 (BAE029) W3 FO B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

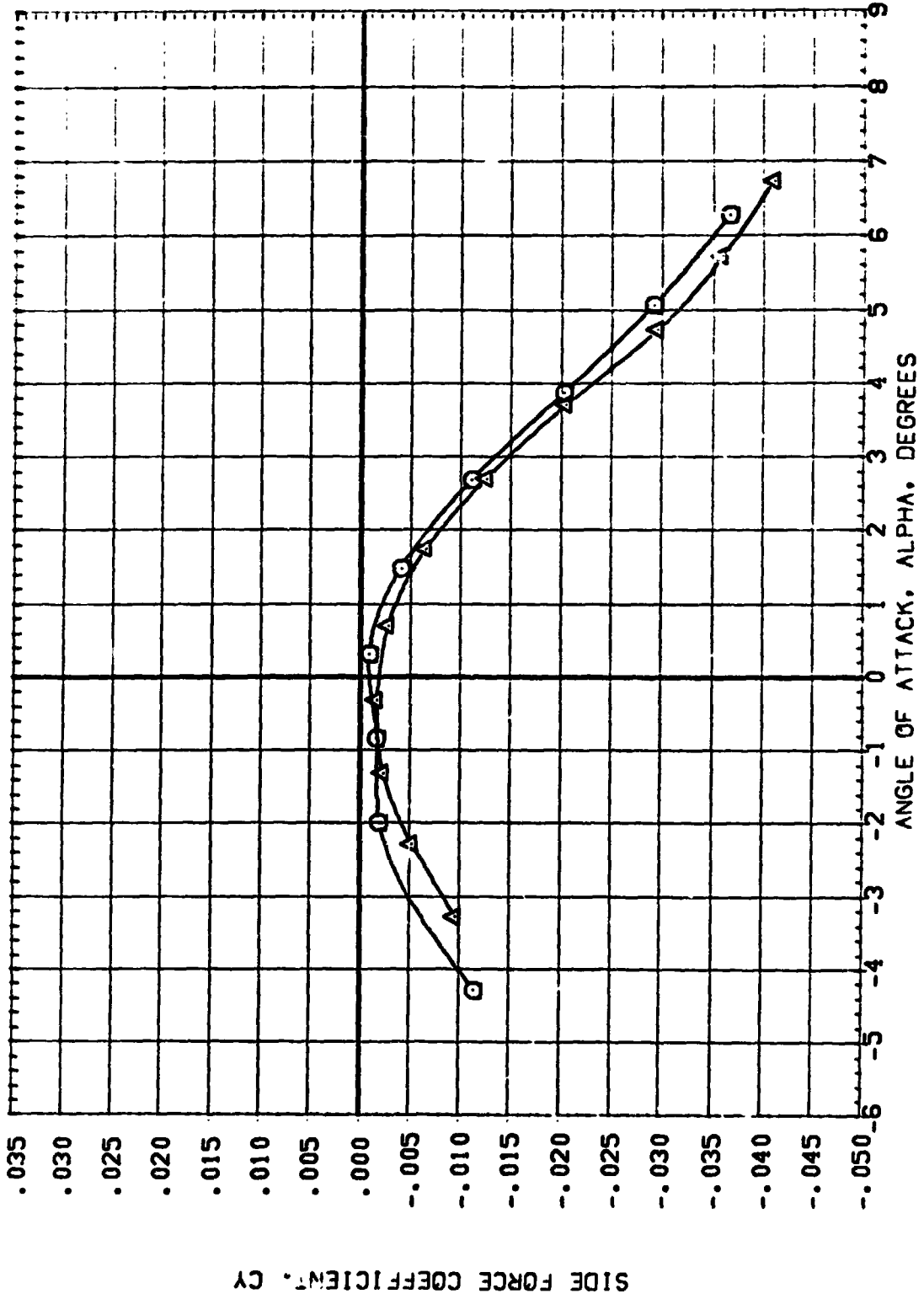


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL (BAC012) (BAC029) Δ M1 FO B M3 FO B

CONFIGURATION DESCRIPTION

SWEET 60.000 60.000

RN/L 6.000 6.000

BETA 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

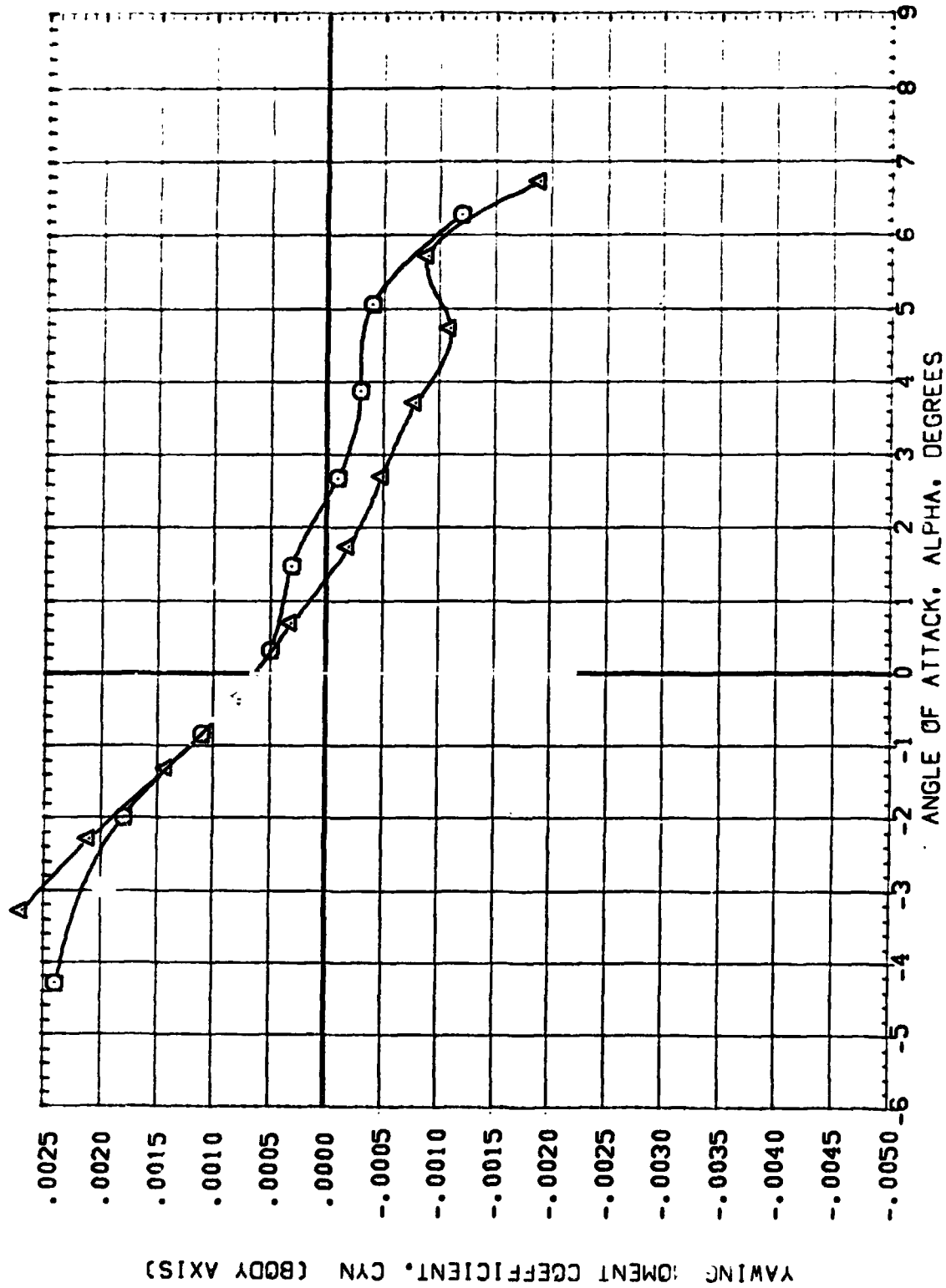


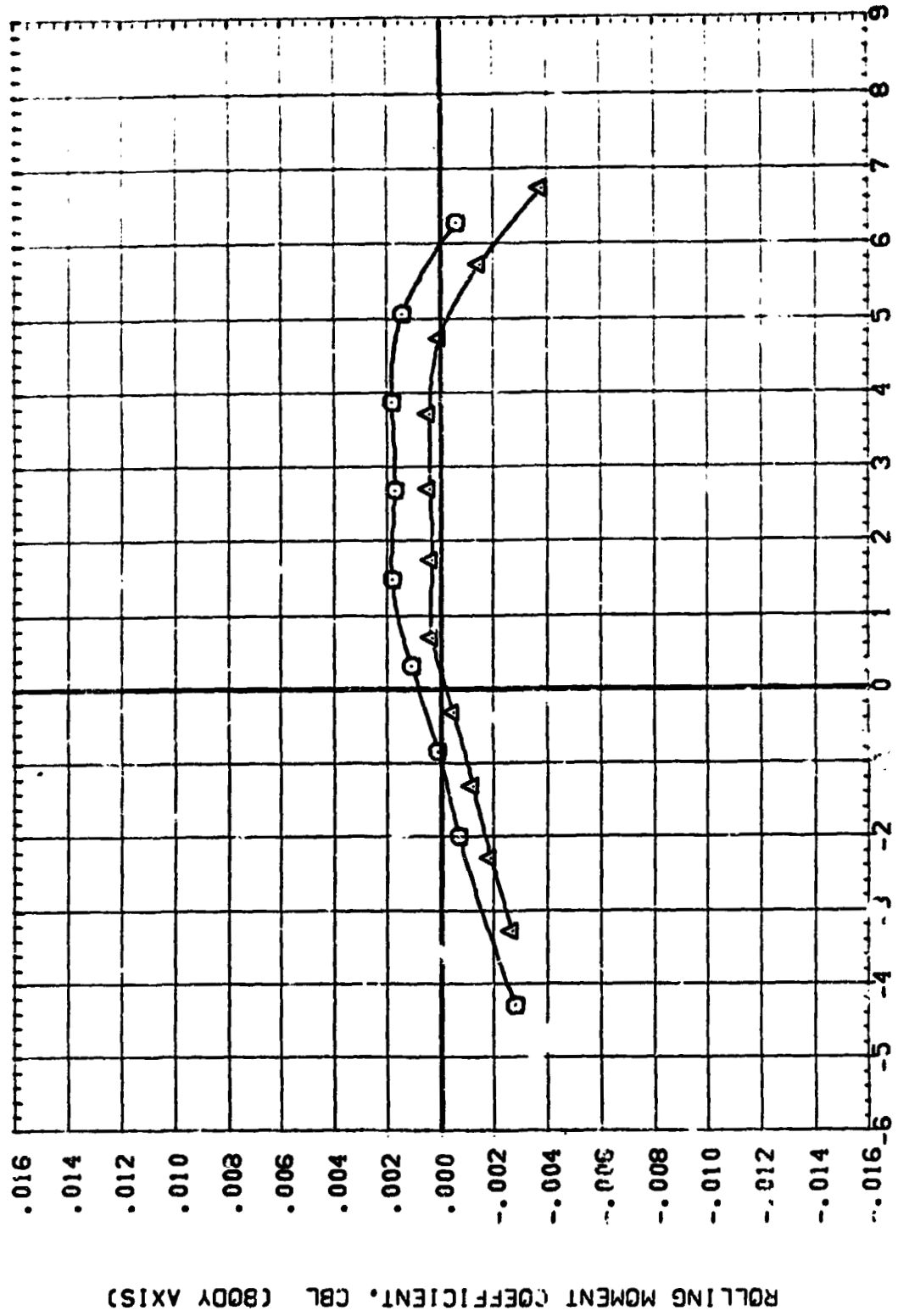
FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE012) W1 F0 B
 (BAE013) W3 F2 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.80, LAMBDA=60 DEGREES

(A)MACH = .80

DATA SET SYMBOL: W1 FO B
 (DAE012) W3 FO B
 (DAE029)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEET: 60.000
 60.000
 60.000

RN/L: 6.000
 6.000
 6.000

BETA: 0.000
 0.000
 0.000

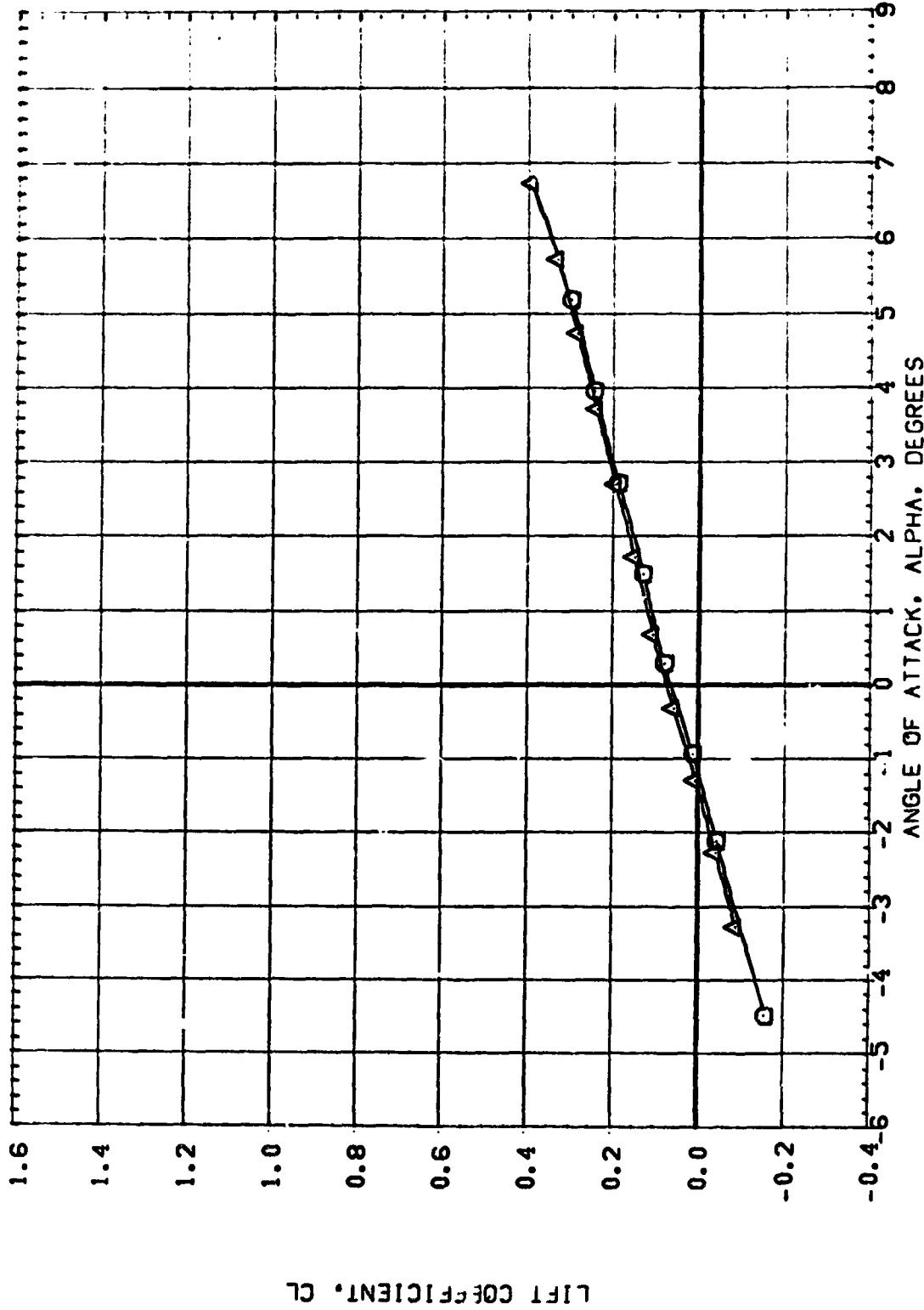


FIGURE 5 EFFECT OF D'HEDRAL, MACH NO. = 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

DATA SET SYMBOL: Δ CONFIGURATION DESCRIPTION:
 W3 FO 8
 W3 FO 8

SWEEP: 60.000
 60.000

RN: 6.000
 6.000

BETA: 0.000
 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

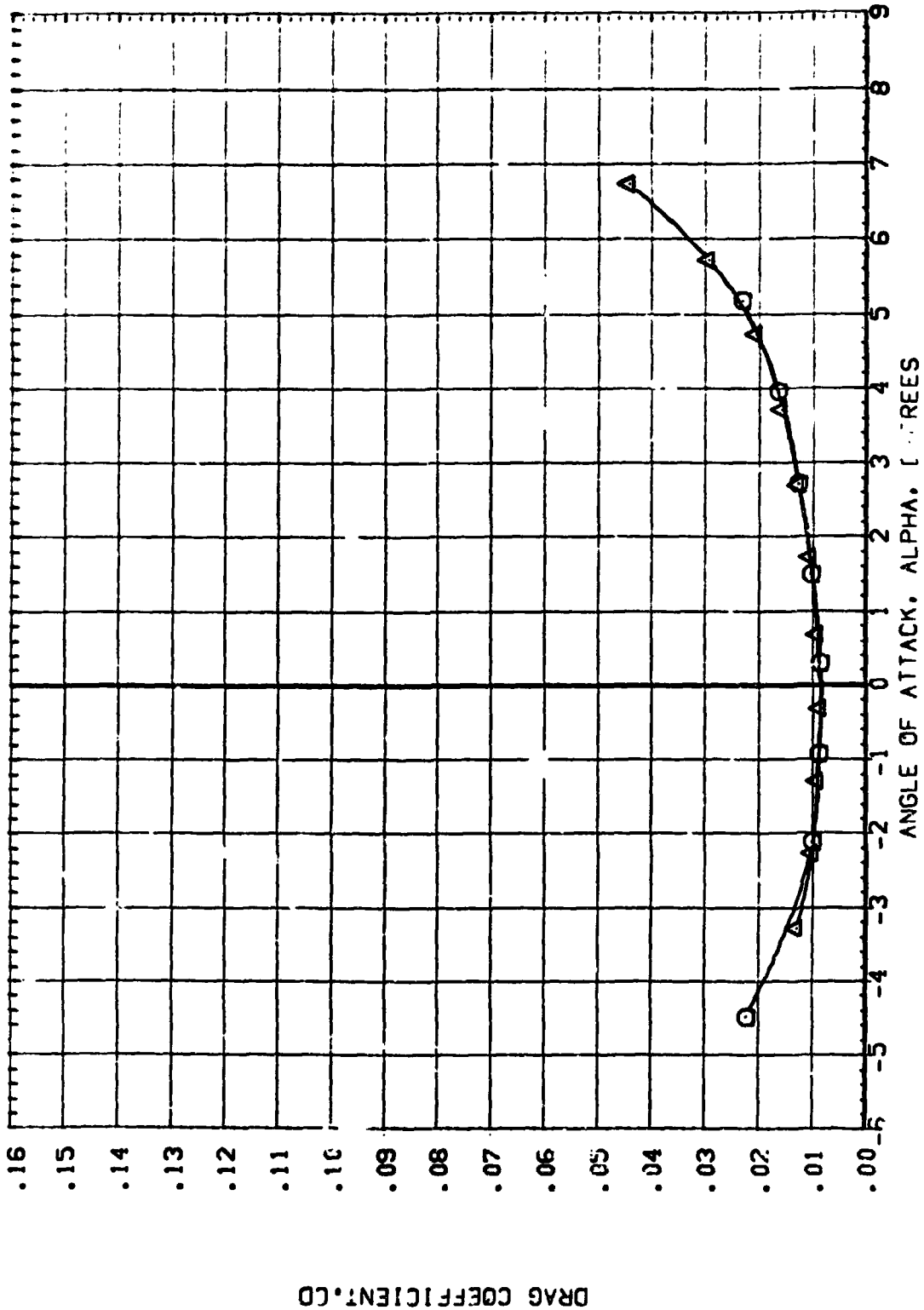


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE012) Δ W1 PD 8
 (DAE029) \circ W3 PD 8

SWEEP RN/L BETA
 60.000 6.000 0.0
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

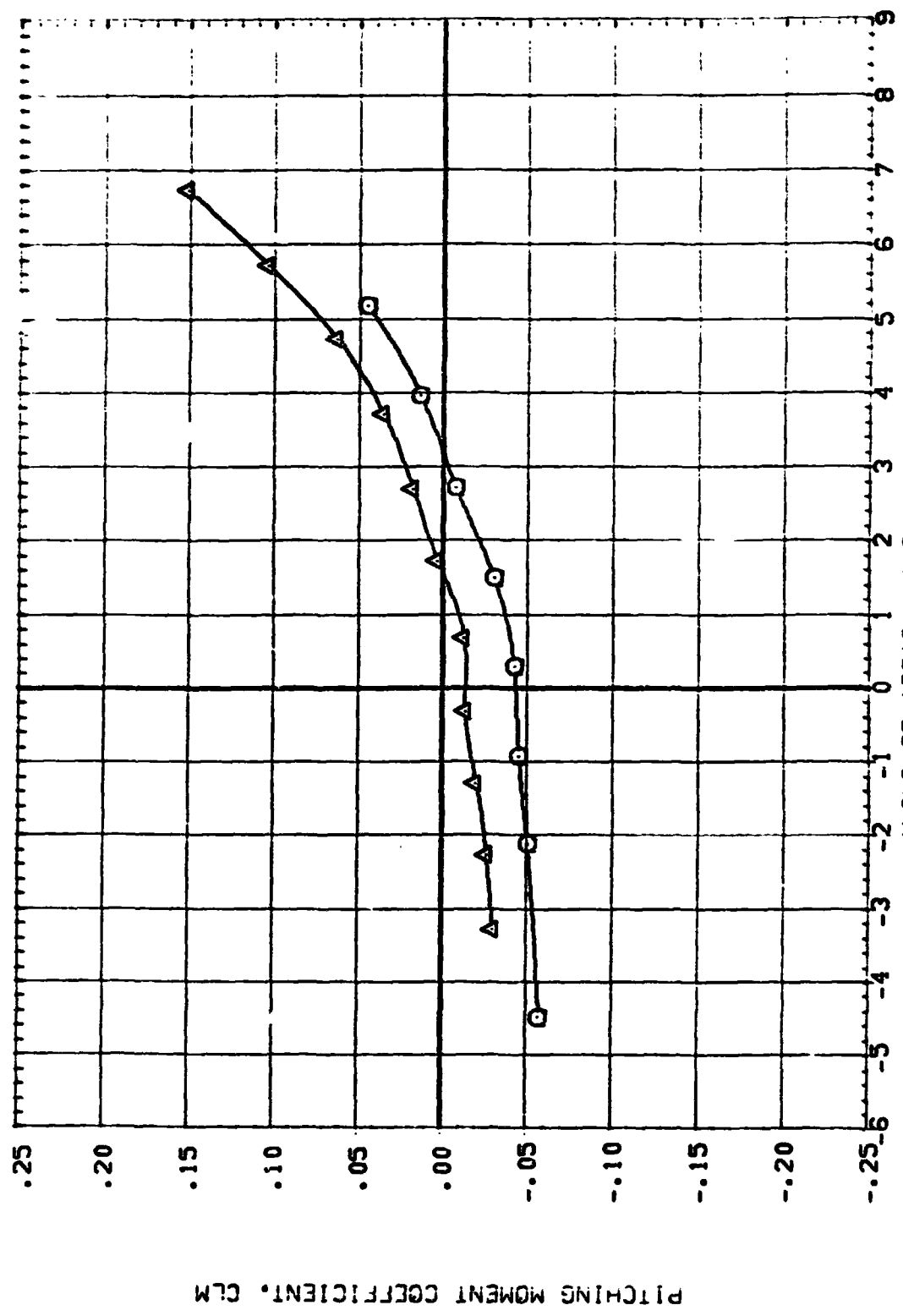


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=60 DEGREES
 (A) MACH = .95

CF

CF

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAGE012) M1 P0 B
 (CAGE023) W3 P0 B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RAYL BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

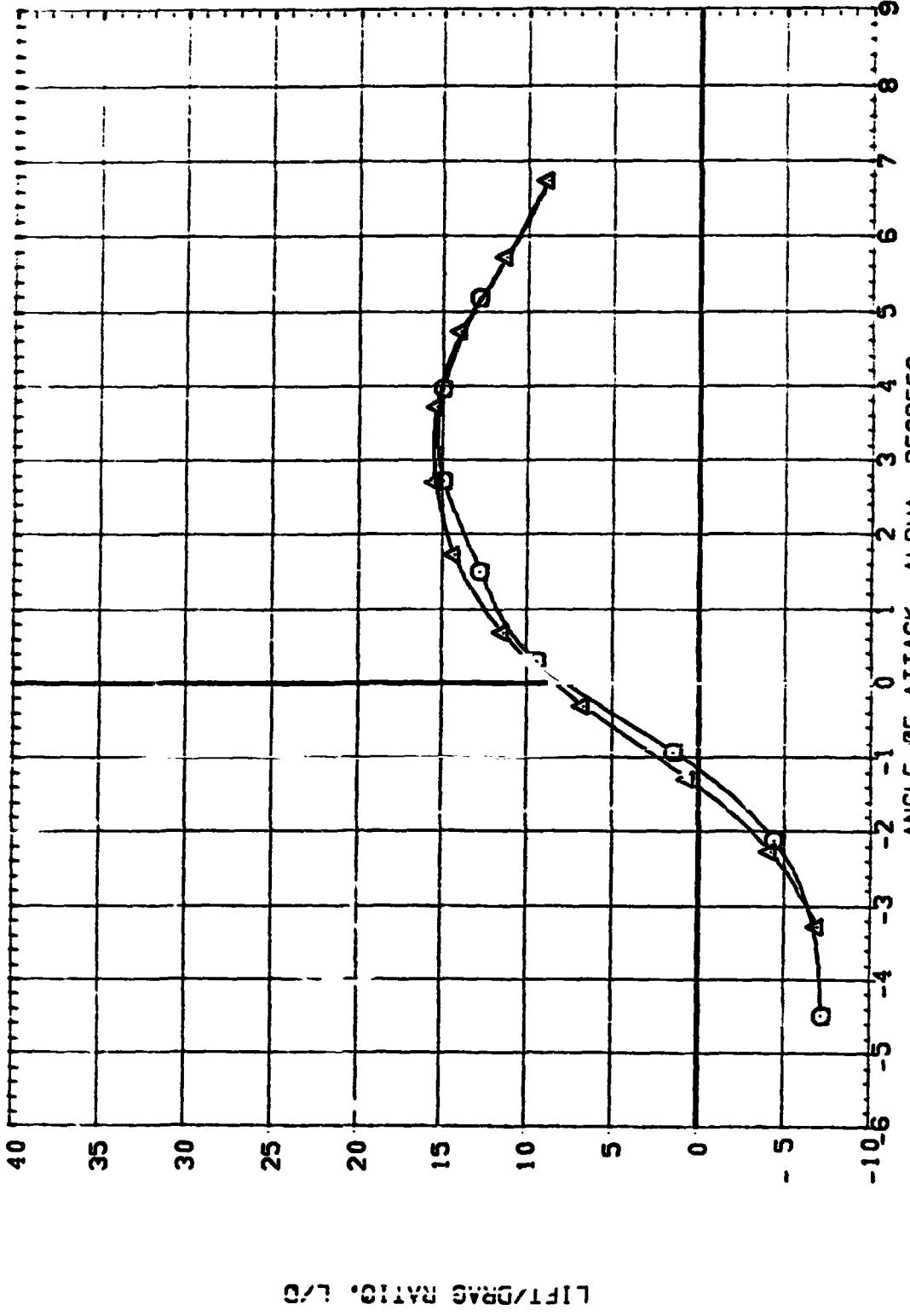


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=60 DEGREES
 (A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE012) Δ W1 FO B
 (DAE028) \circ W3 FO B

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RAYL BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

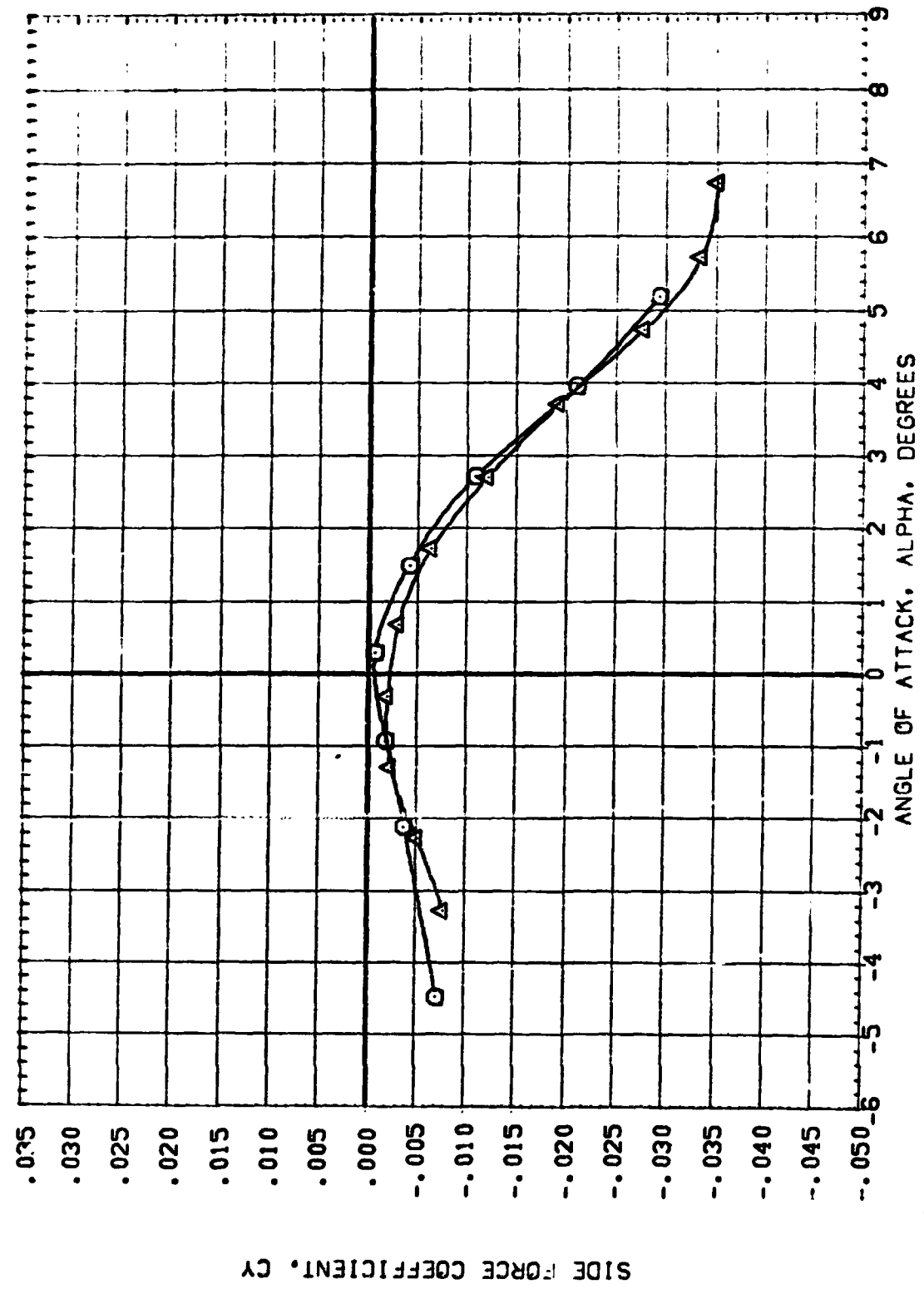


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DAE012) \odot M1 F0 B
 (DAE023) \triangle M3 F0 B

SWEEP β /L β /L
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED N-P4
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

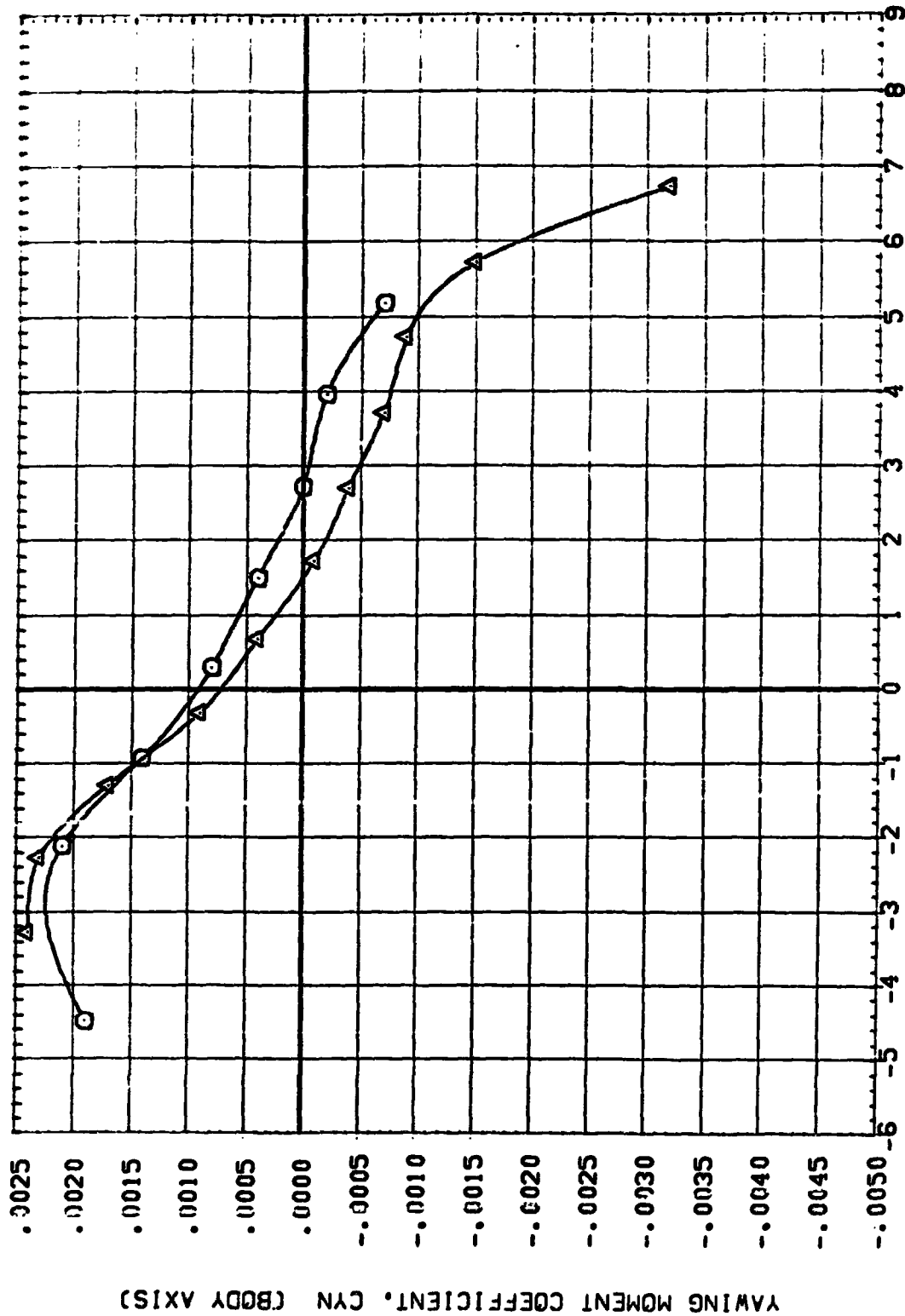


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, λ = 60 DEGREES

(A) MACH = .95

DATA SET SYMBOL \otimes CONFIGURATION DESCRIPTION
 W1 FO B
 W3 FO B

SHEEP 60.000
 60.000

RM/L 6.000
 6.000

BETA 0.000
 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

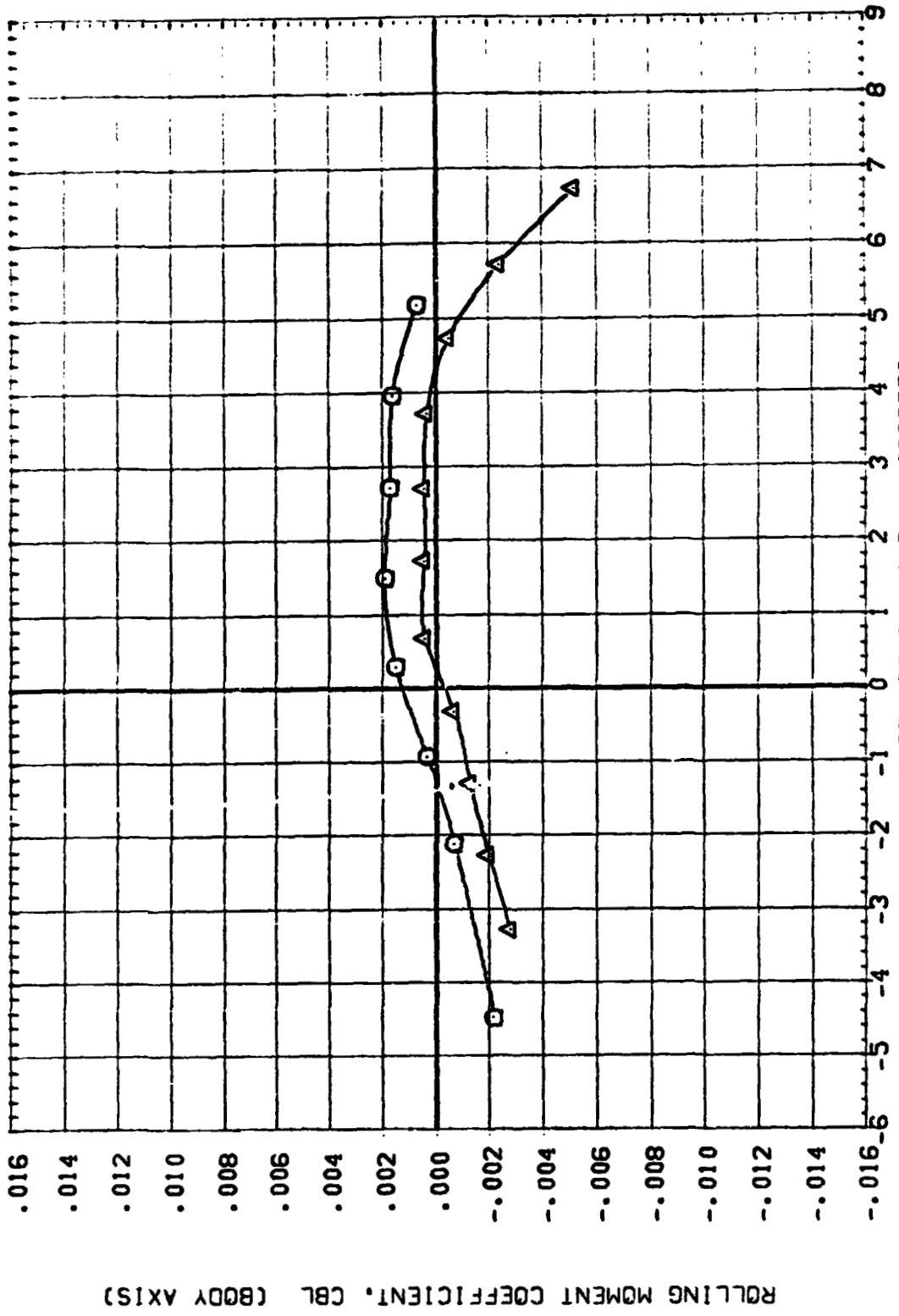


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 0.95, LAMBDA=60 DEGREES

(A)MACH = .95

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE012) Ω W1 FO B
 (EAE029) Ω W3 FO B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

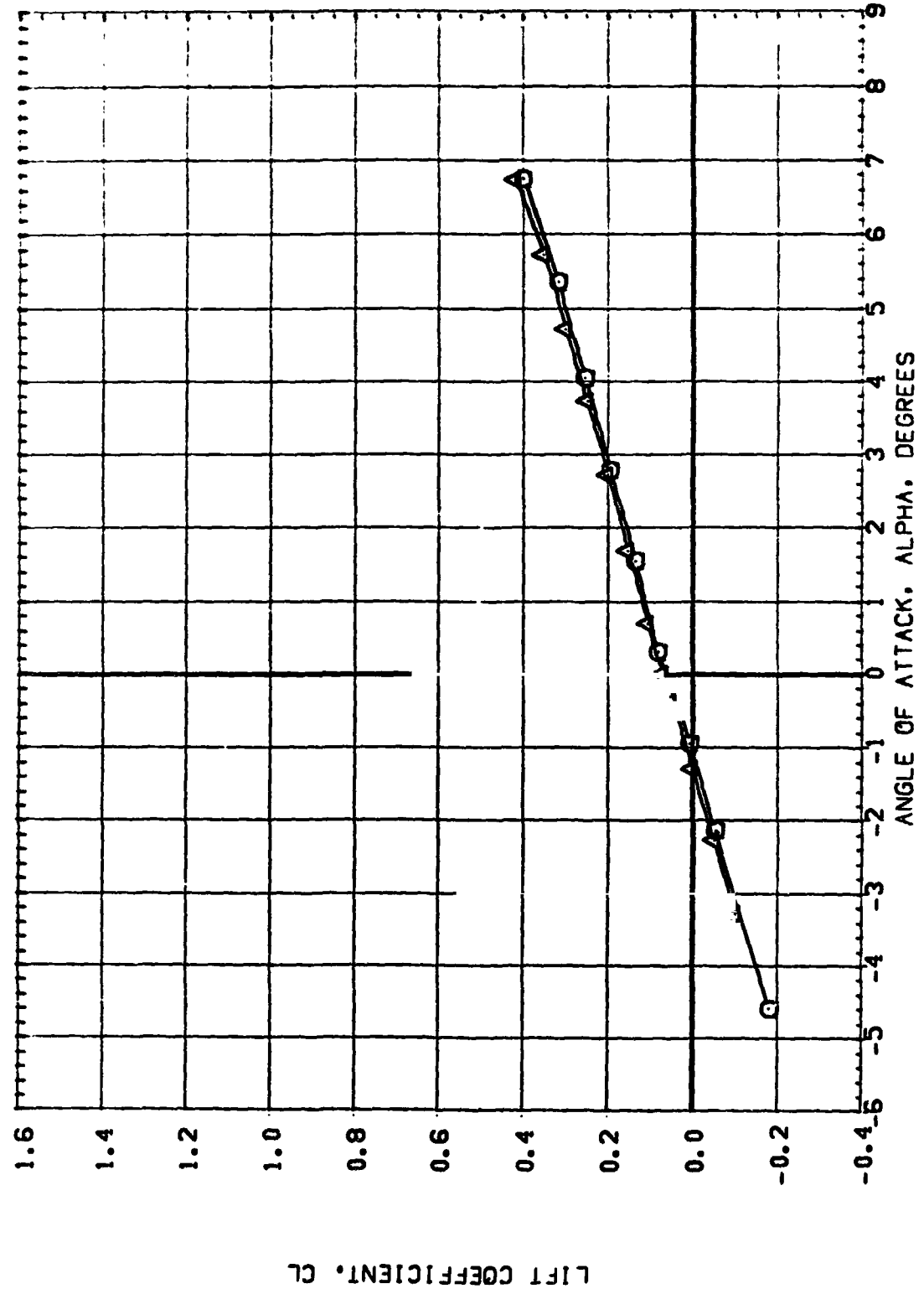


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=60 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA0012) Ω W1 P0 B
 (EA0029) W3 P0 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

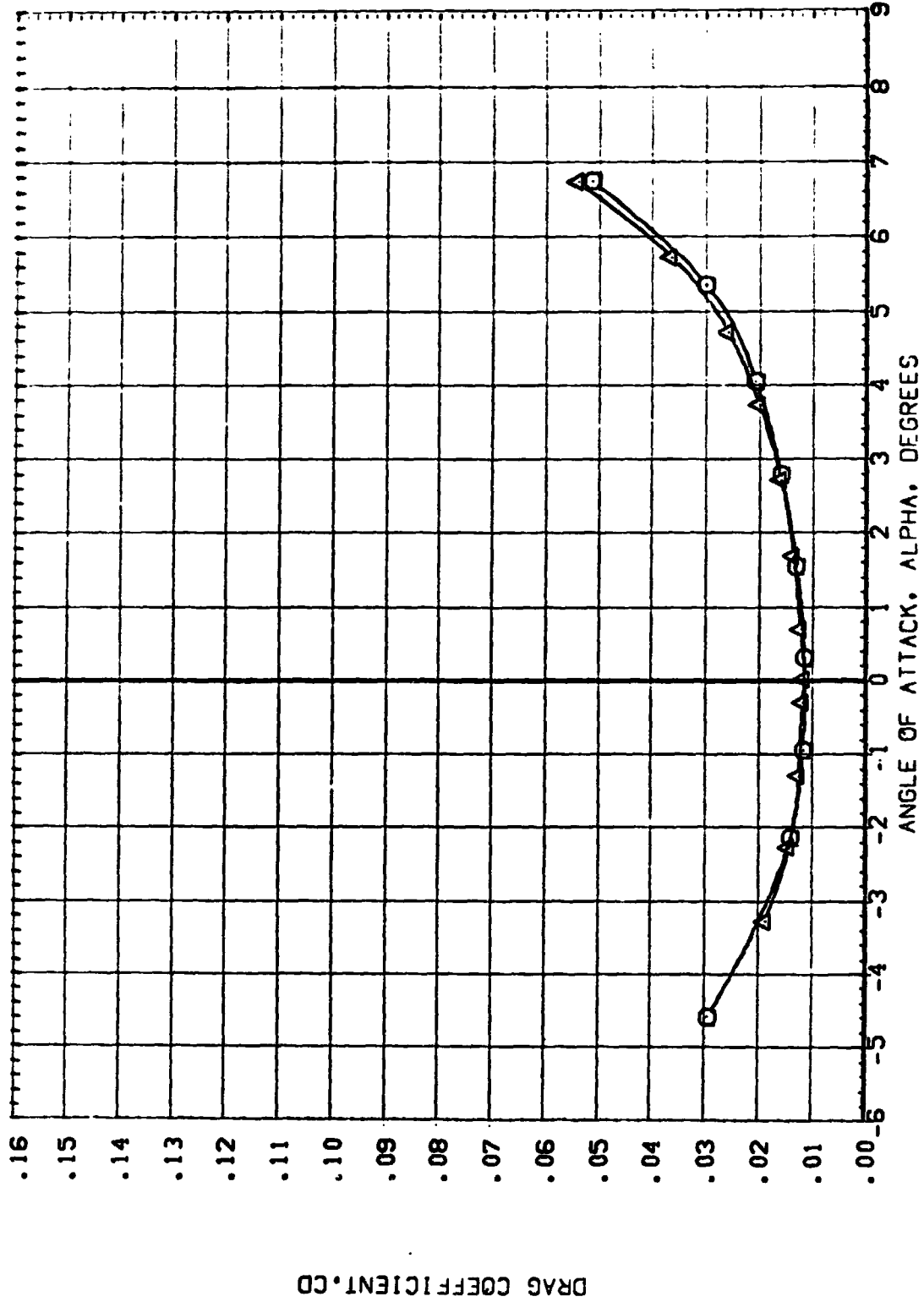


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA=60 DEGREES

(A) MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA0012) W1 FO 8
 (EA0013) W3 FO 8

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

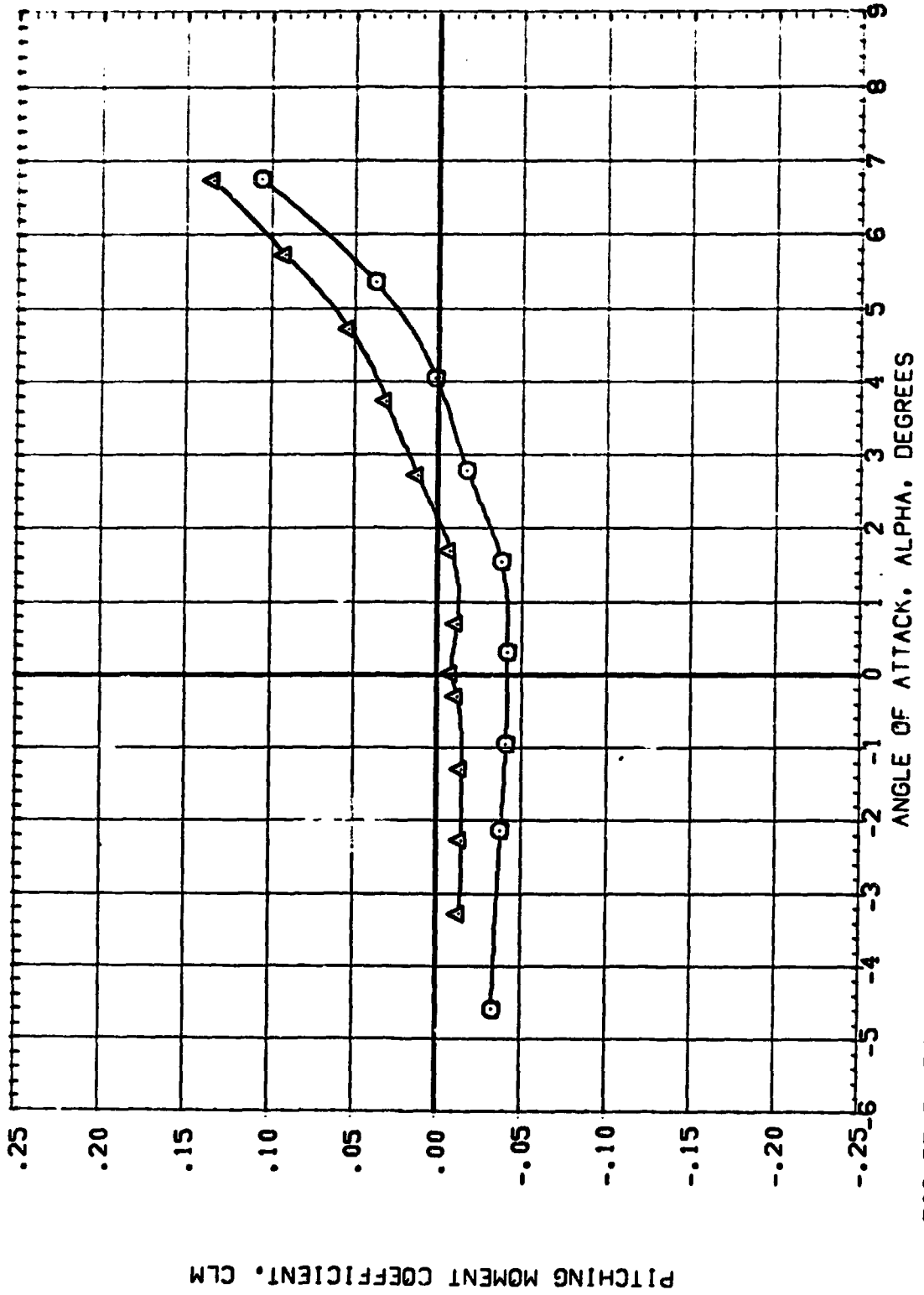


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA=60 DEGREES

(A)MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA0012) W1 F0 B
 (EA0029) W3 F0 B

SURF RM/L BETA
 60.000 6.000 0.000
 60.000 6.500 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

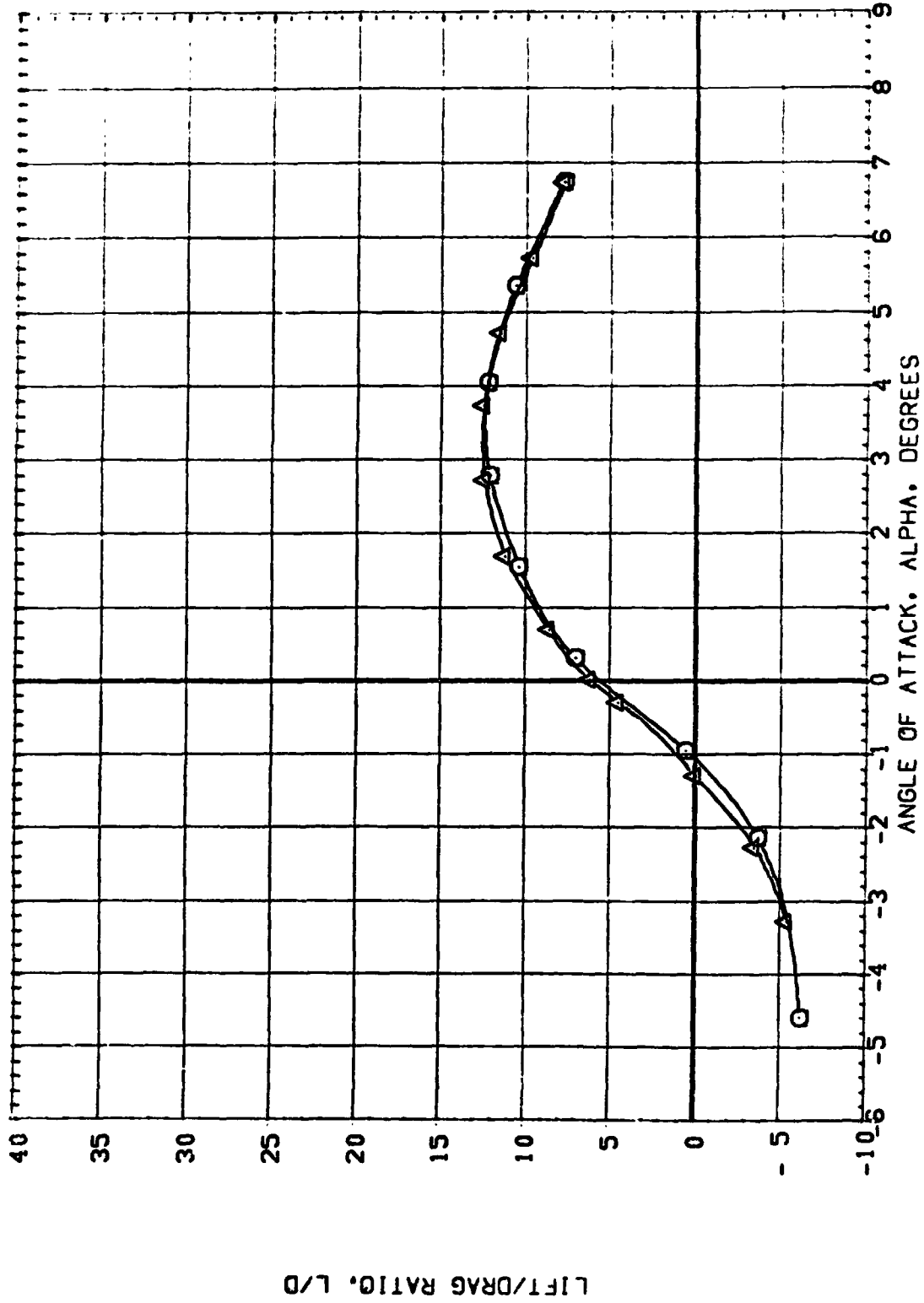


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA = 60 DEGREES

CAJ MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA012) Ω W1 F0 B
 (EA025) Δ W3 F0 B

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

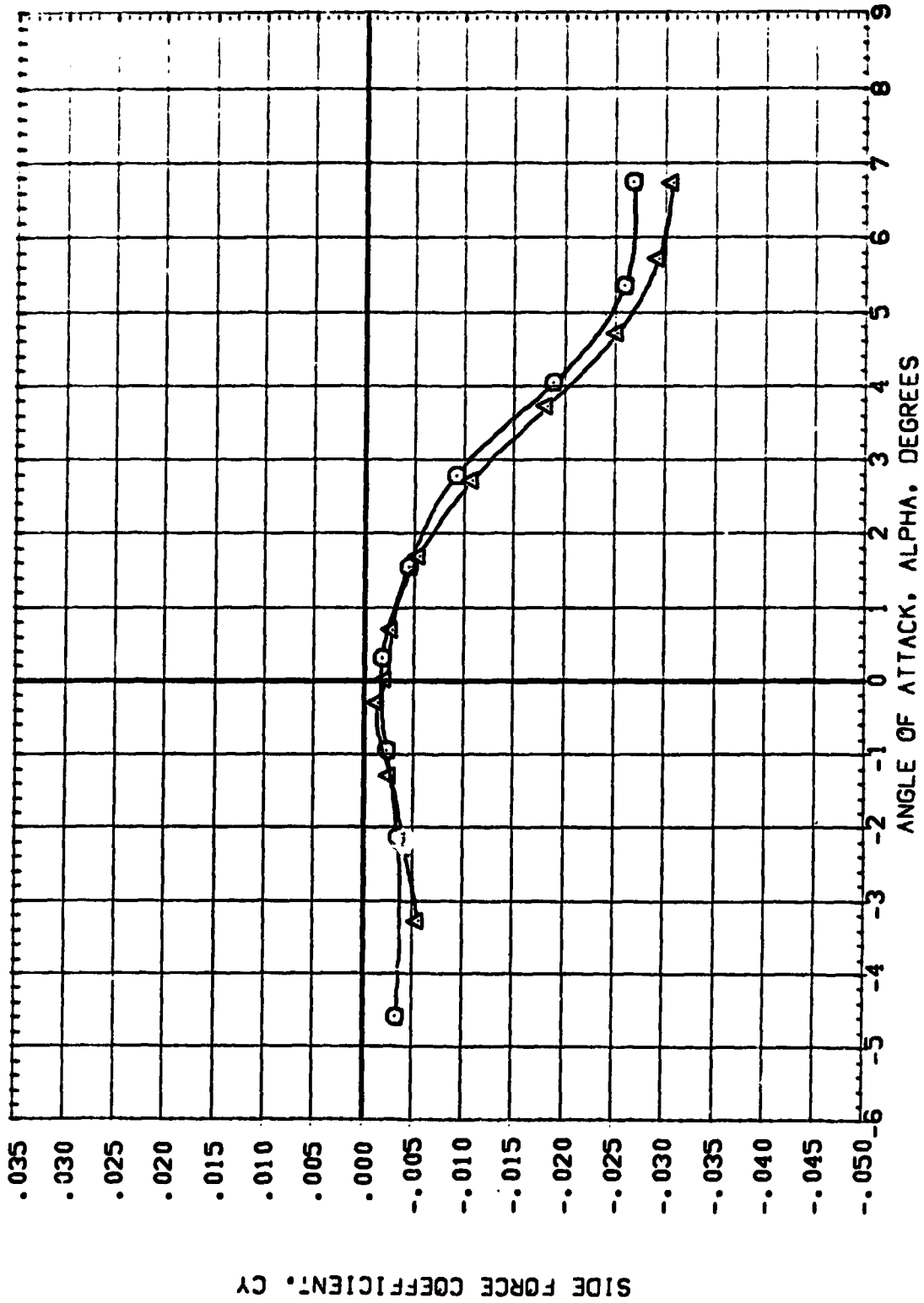


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.10, LAMBDA=60 DEGREES

(A) MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(EAE012) Ω W3 F0 B
(EAE029) Δ W3 F0 B

SWEEP RN/L BETA
60.000 6.000 0.000
60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FROM INDIVIDUAL DATASETS

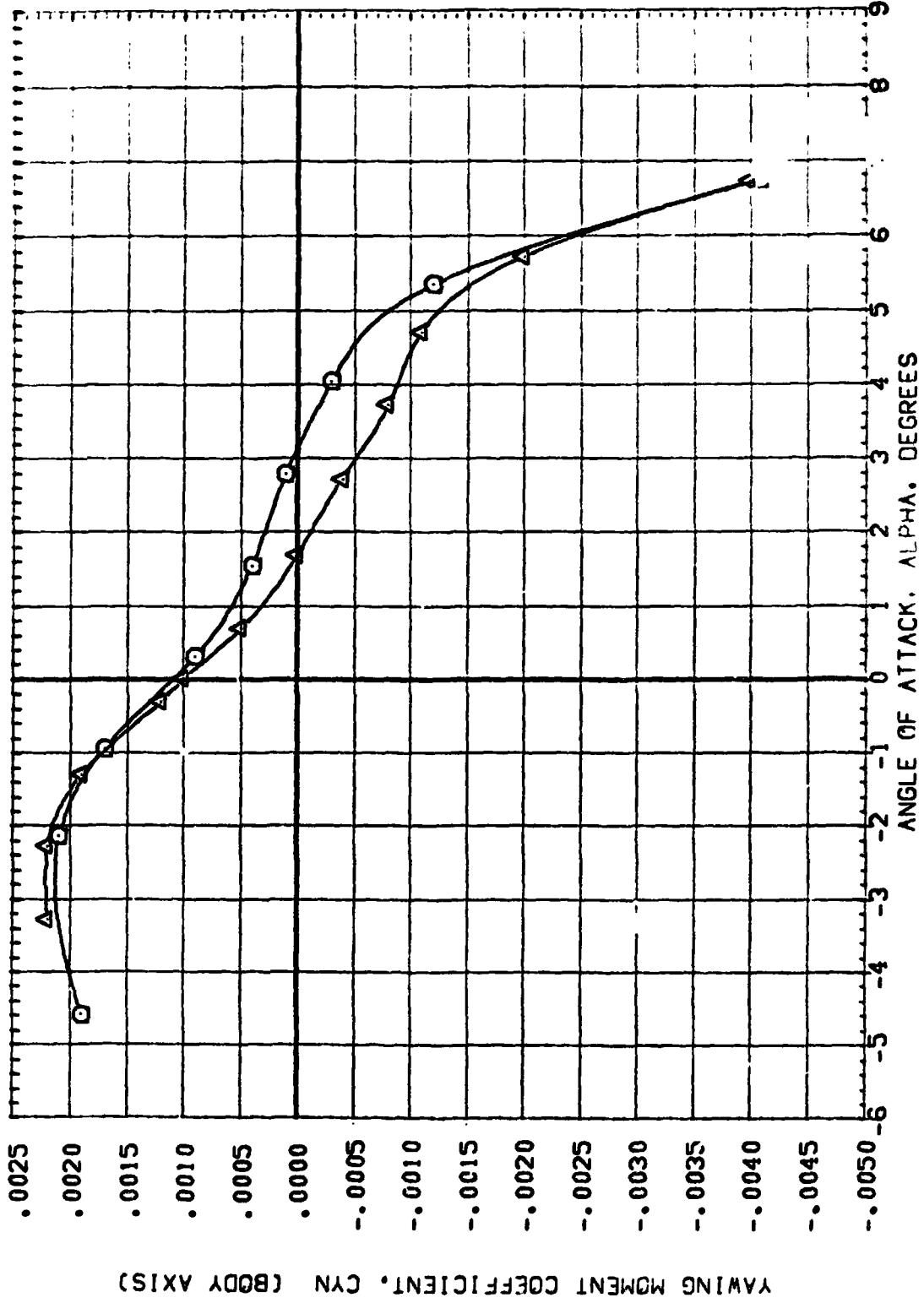


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA = 60 DEGREES

(A) MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA0012) Ω W1 FO B
 (EA0028) WS FO B

SWEEP RH/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

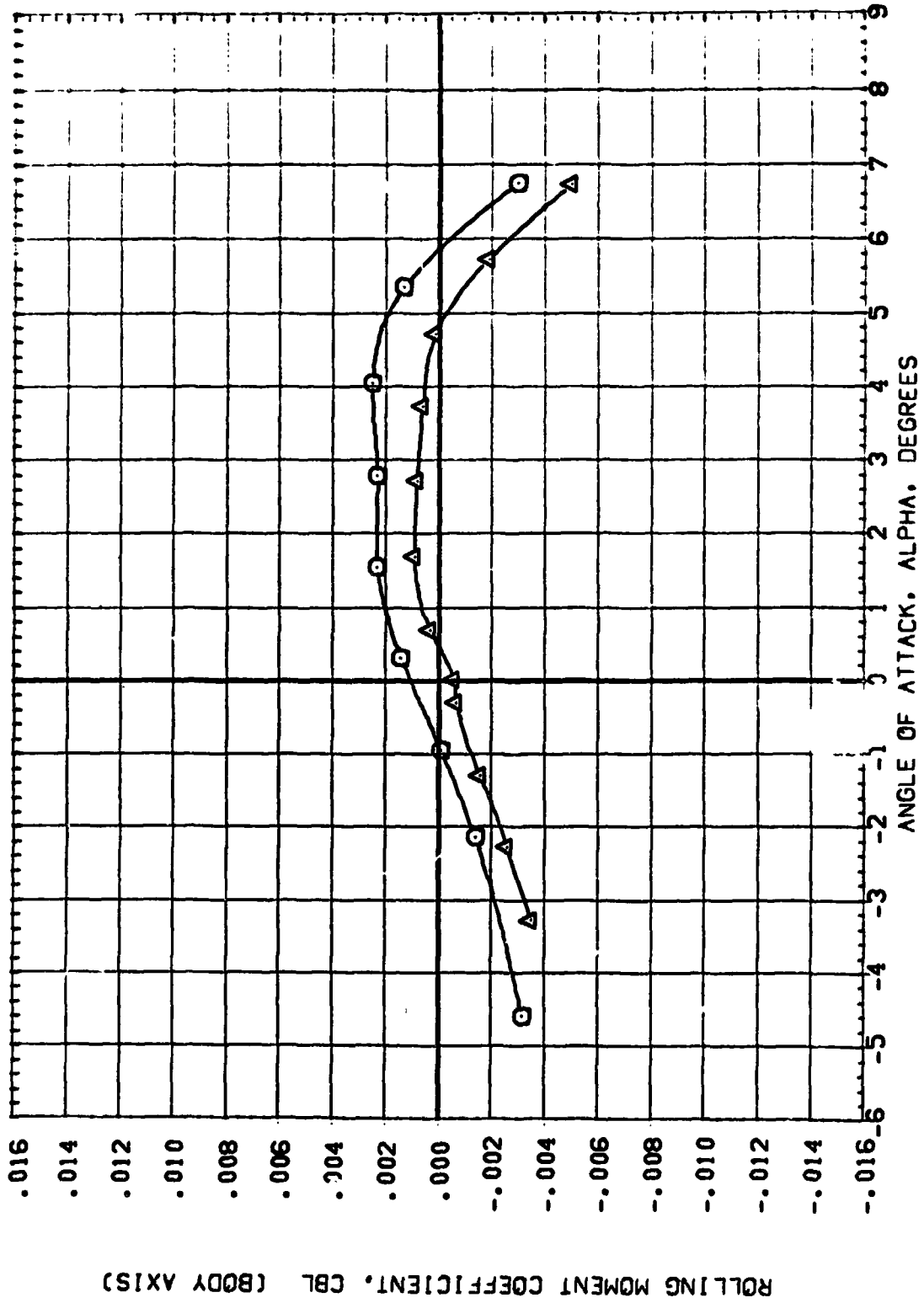


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.10, LAMBDA = 60 DEGREES

(A) MACH = 1.10

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE012) W1 F0 B
 (CAE029) W3 F0 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 80.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

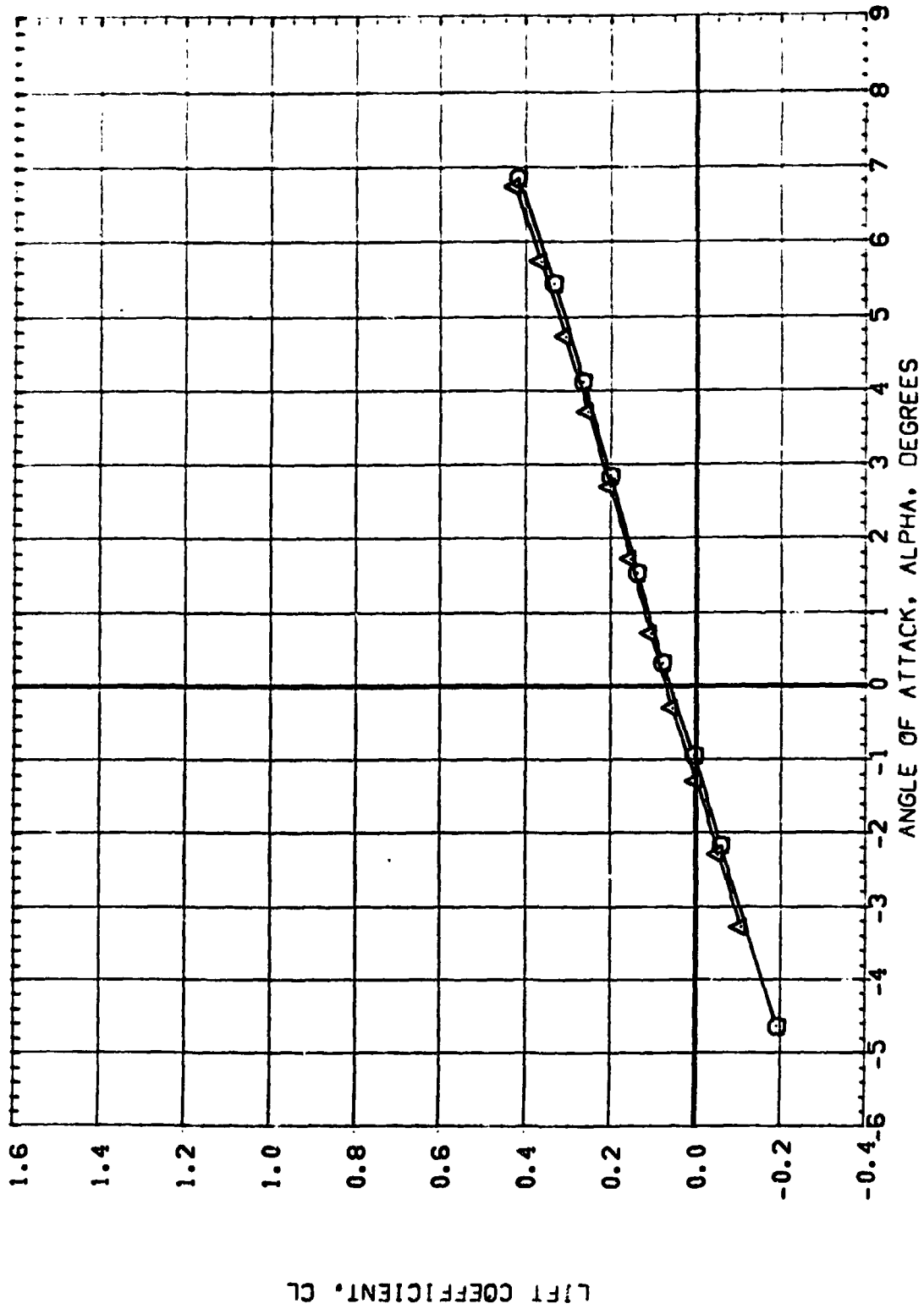


FIGURE 5 EFFECT OF DIHERAL, MACH NO. = 1.20, LAMBDA = 60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE012) Ω W1 F J B
 (CAF029) Ω W3 F D B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

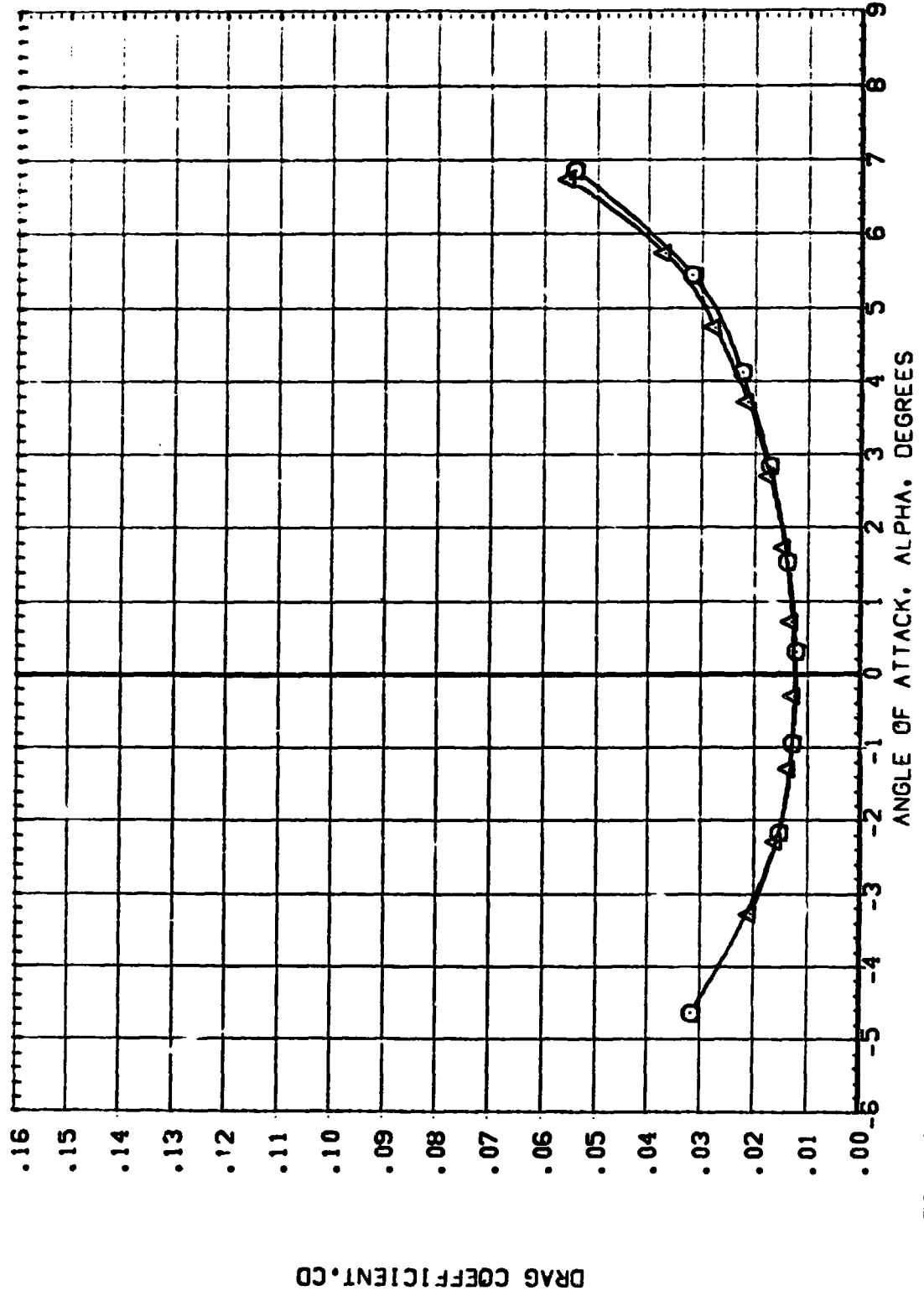


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA=60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE012) M1 PD B
 (CAE020) M3 PD B

SWEET KR/L BETA
 80,000 6,000 0,000
 80,000 6,000 0,000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

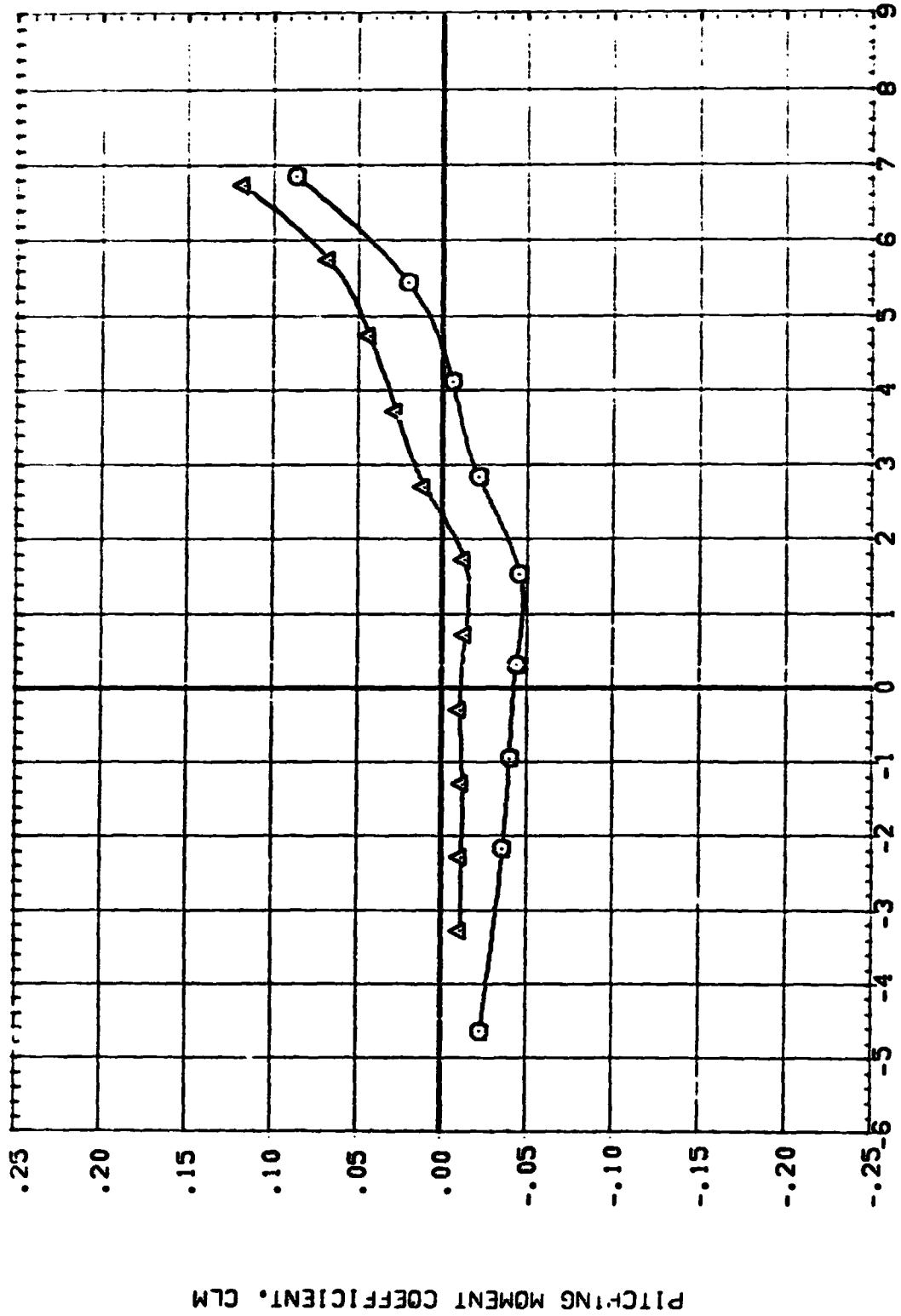


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=60 DEGREES

(.JMACH) = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE018) Ω W1 FO 8
 (CAE028) W3 FO 8

SWEEP AN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

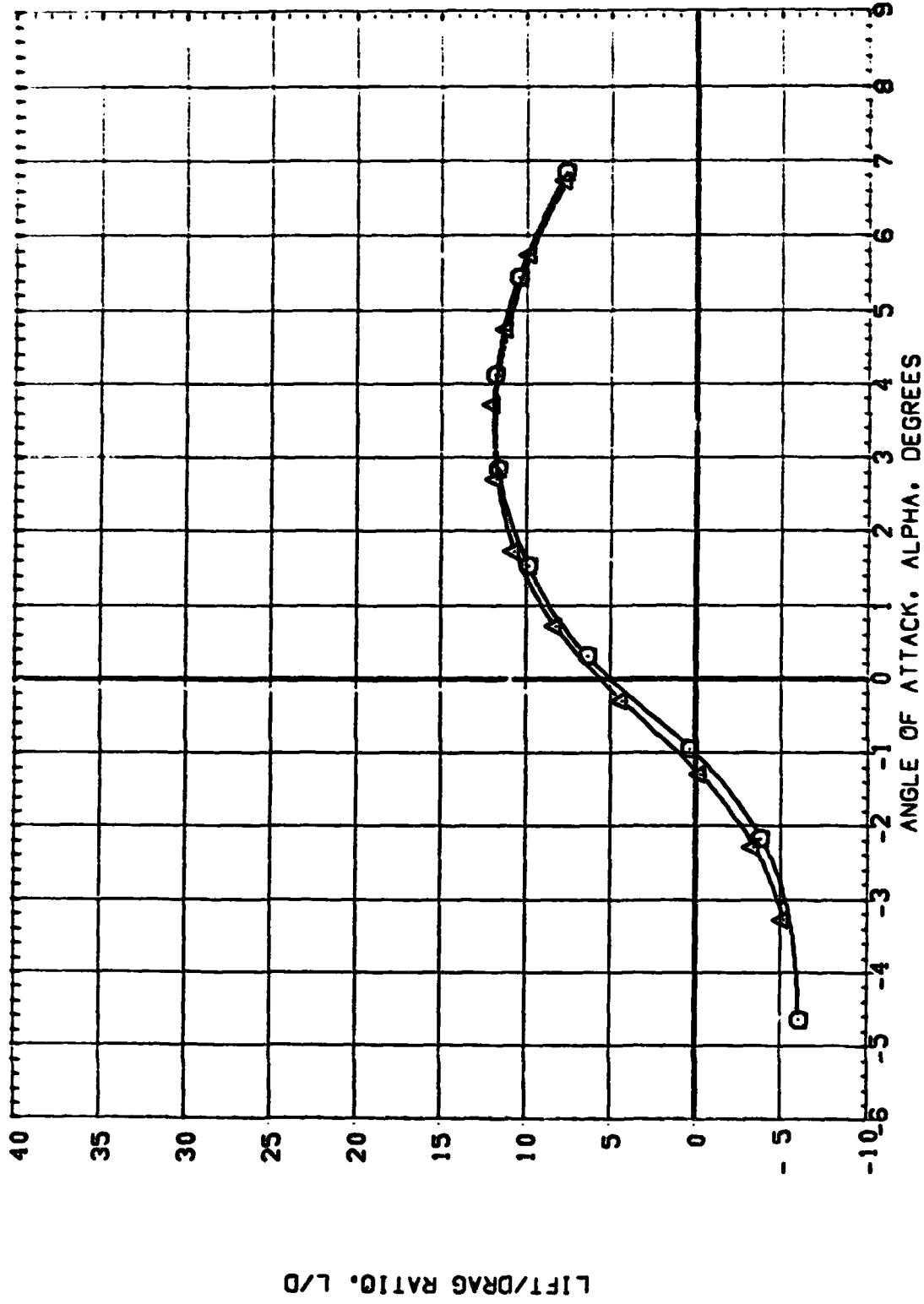


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=60 DEGREES

MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE012) Ω W1 F0 B
 (CAE028) W3 F0 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.500 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

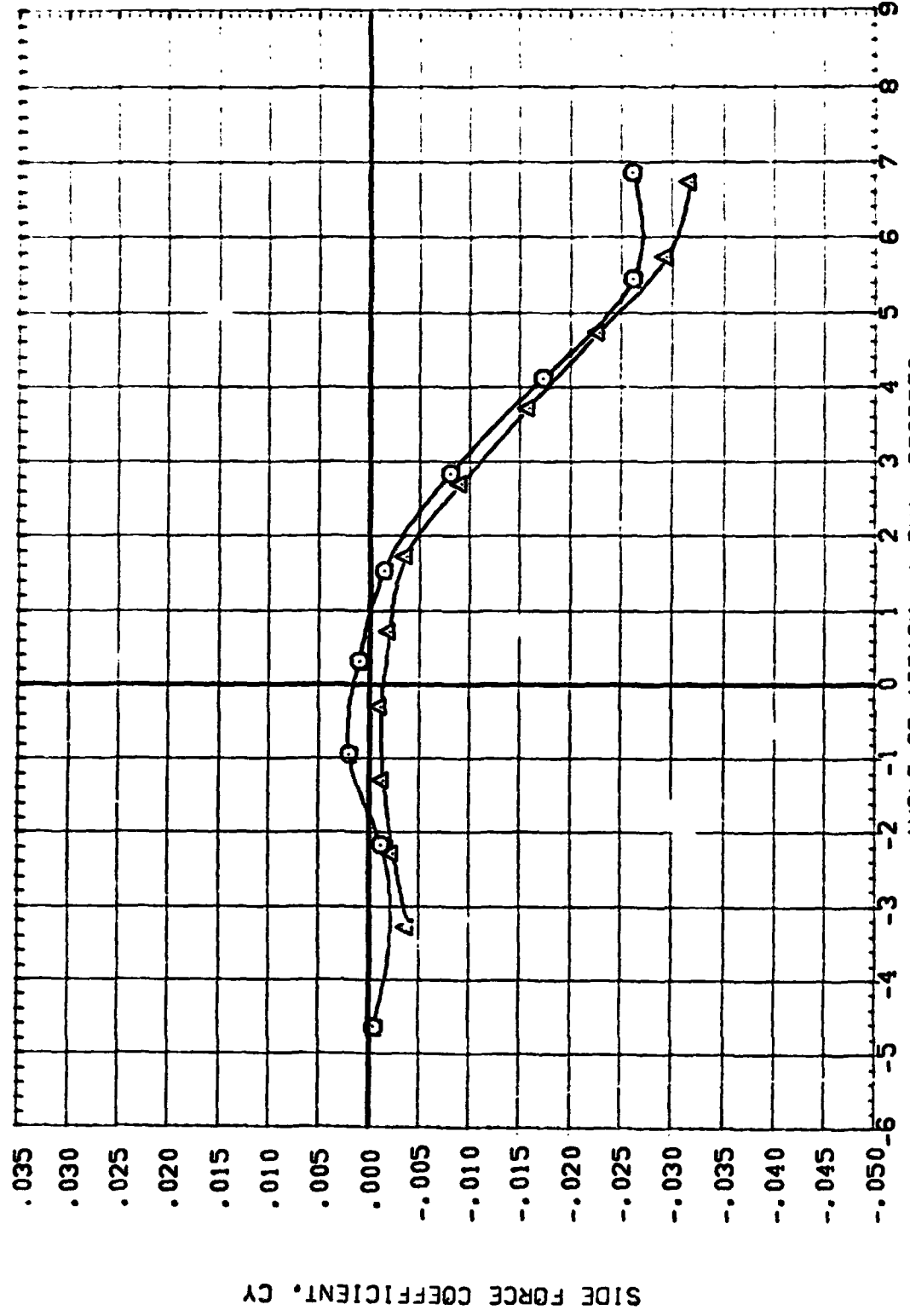


FIGURE 5 EFFECT OF DIEDRAL, MACH NO.= 1.20, LAMBDA=60 DEGREES

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 M1 FO B
 M2 FO B

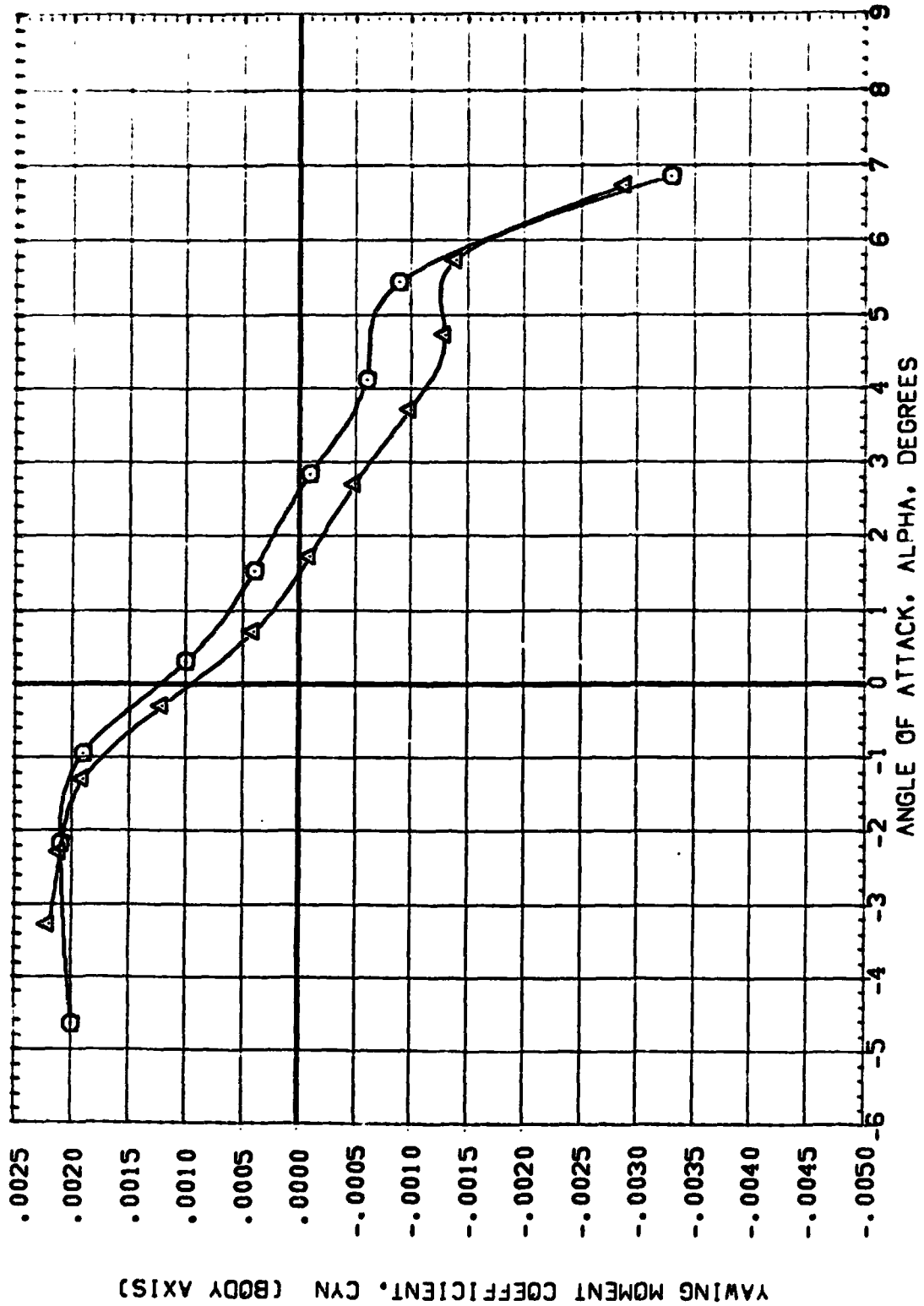


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.20, LAMBDA=60 DEGREES

(A) MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE012) Ω W3 P0 B
 (CAE028) W3 P0 B

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

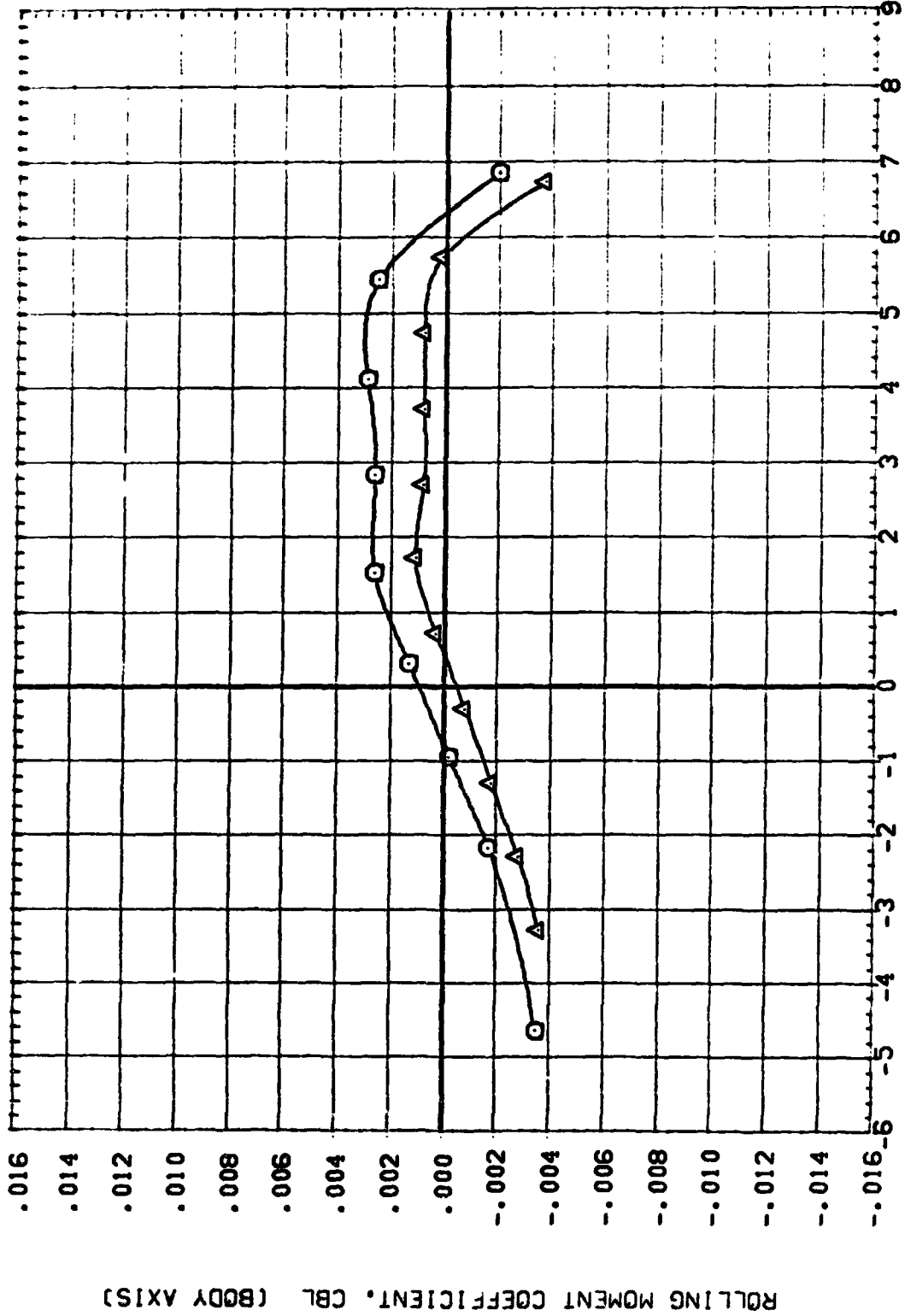


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.20, LAMBDA = 60 DEGREES

(A) MACH = 1.20

(IAE009)

W I F O B
SYMBOL MACH SWEEP PARAMETRIC VALUES DATA HIST. CODE
O 1.400 BETA 55.000 RN/L 6.000 MM#M

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

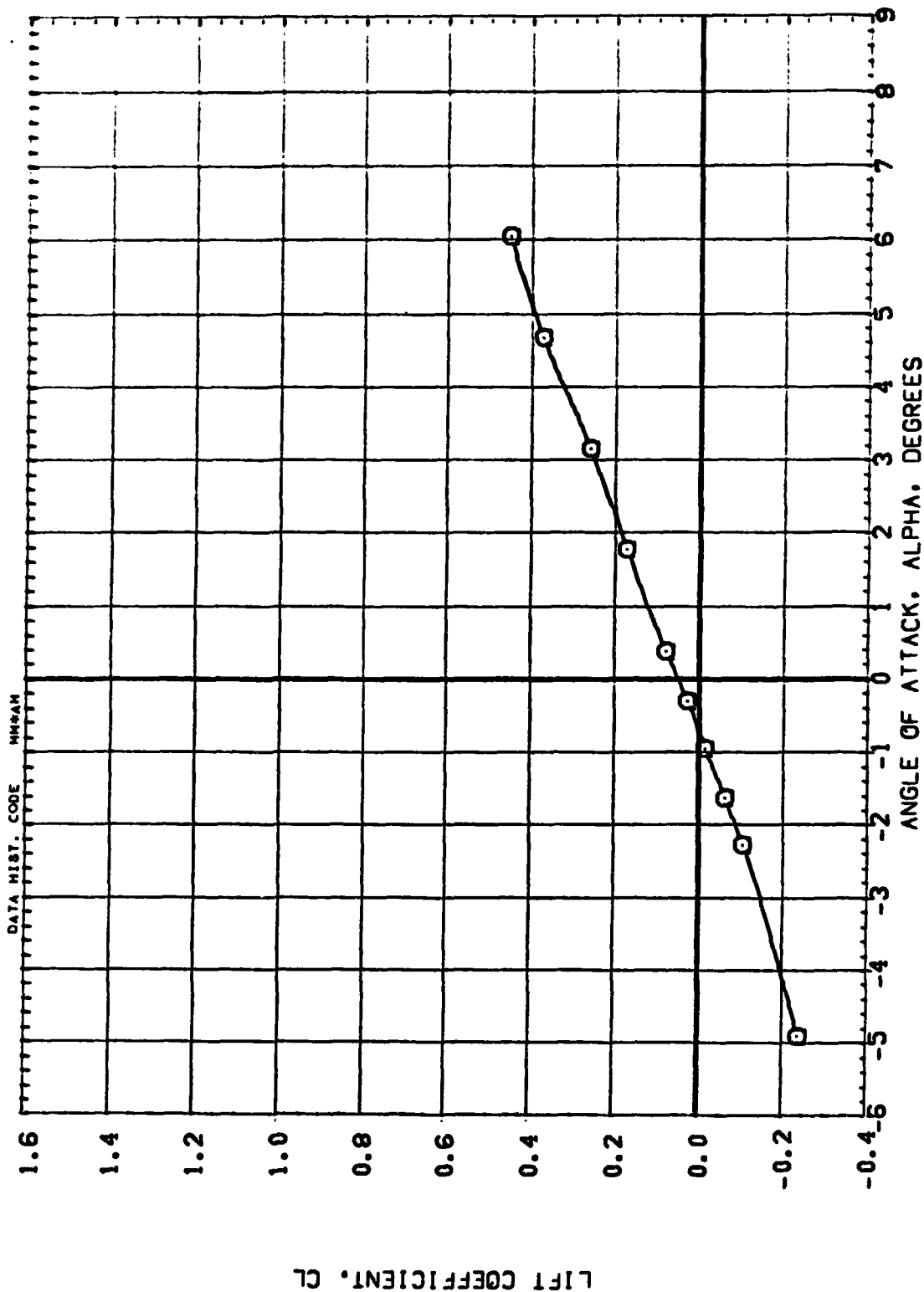


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.40, LAMBDA=55 DEGREES

W1 F0 B

(1AE009)

SYMBOL
O

MACH 1.400
SWEEP 55.000
BETA 0.000

PARAMETRIC VALUES
RW/L 6.000

SEE THE ASSOCIATED DATA
DOCUMENT FOR REFERENCE
CHARACTERISTICS FOR
INDIVIDUAL DATASETS

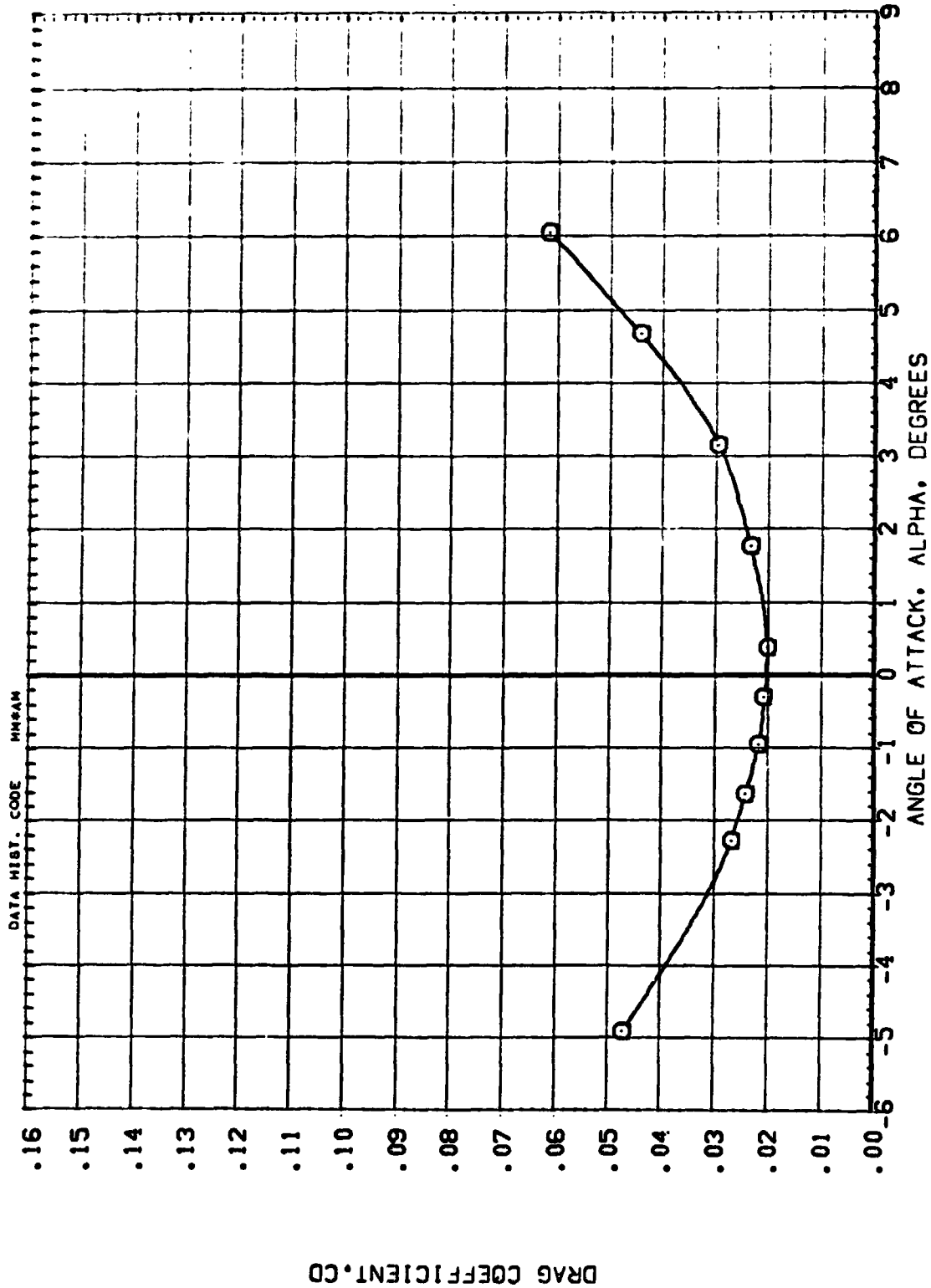


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=55 DEGREES

(IAE009)

W1 F0 B

SYMBOL
O

MACH 1.400
SWEEP BETA

PARAMETRIC VALUES
55.000 RN/L 6.000
0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

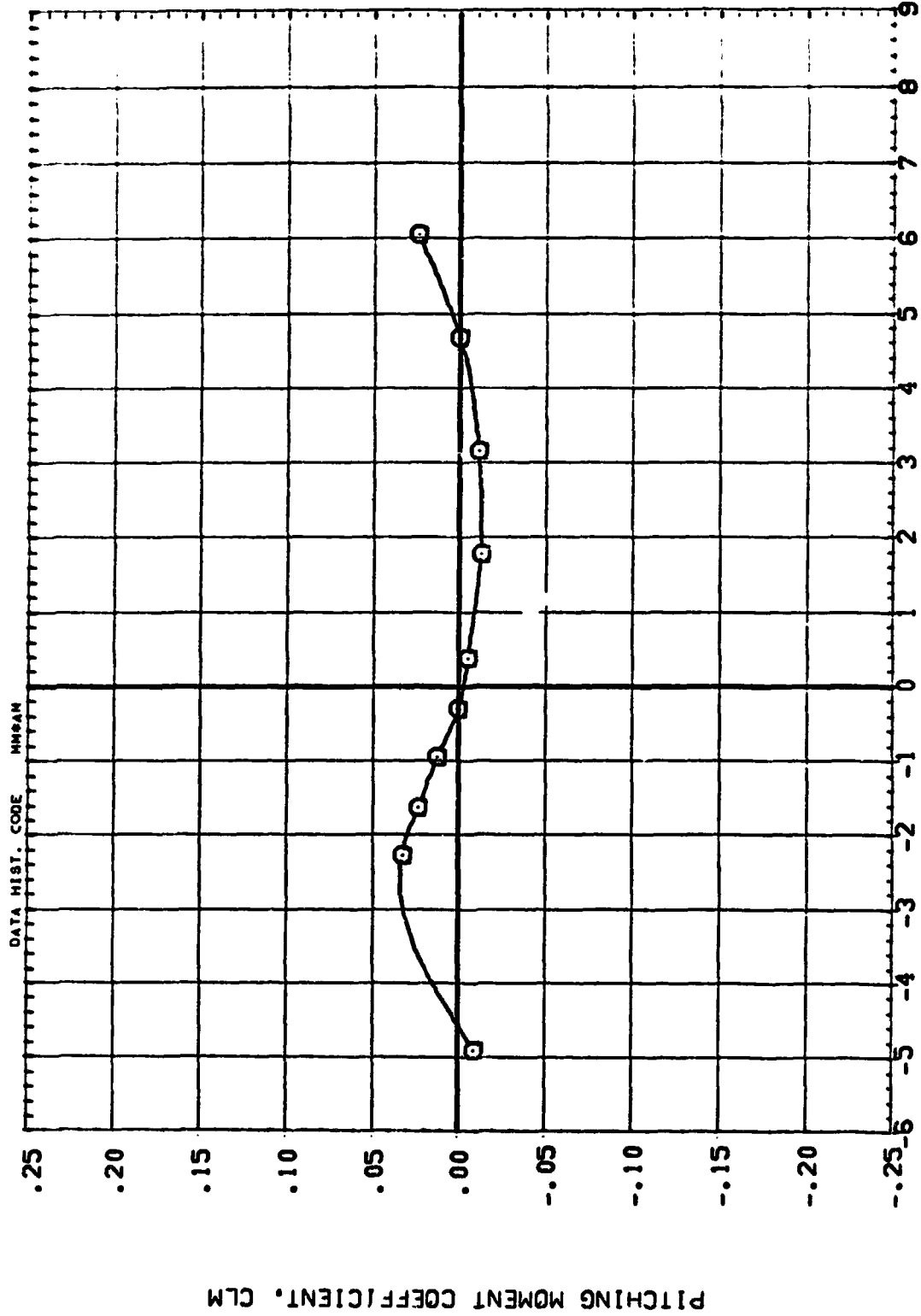


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=55 DEGREES

(IAE009)

W1 F0 B

SYMBOL
O

MACH
1.400

SWEEP
BETA

PARAMETRIC VALUES
55.000 RN/L
0.000

6.000

SEE THE ASSOCIATED DATA
DOCUMENT FOR REFERENCE
CHARACTERISTICS OR
INDIVIDUAL DATA .18

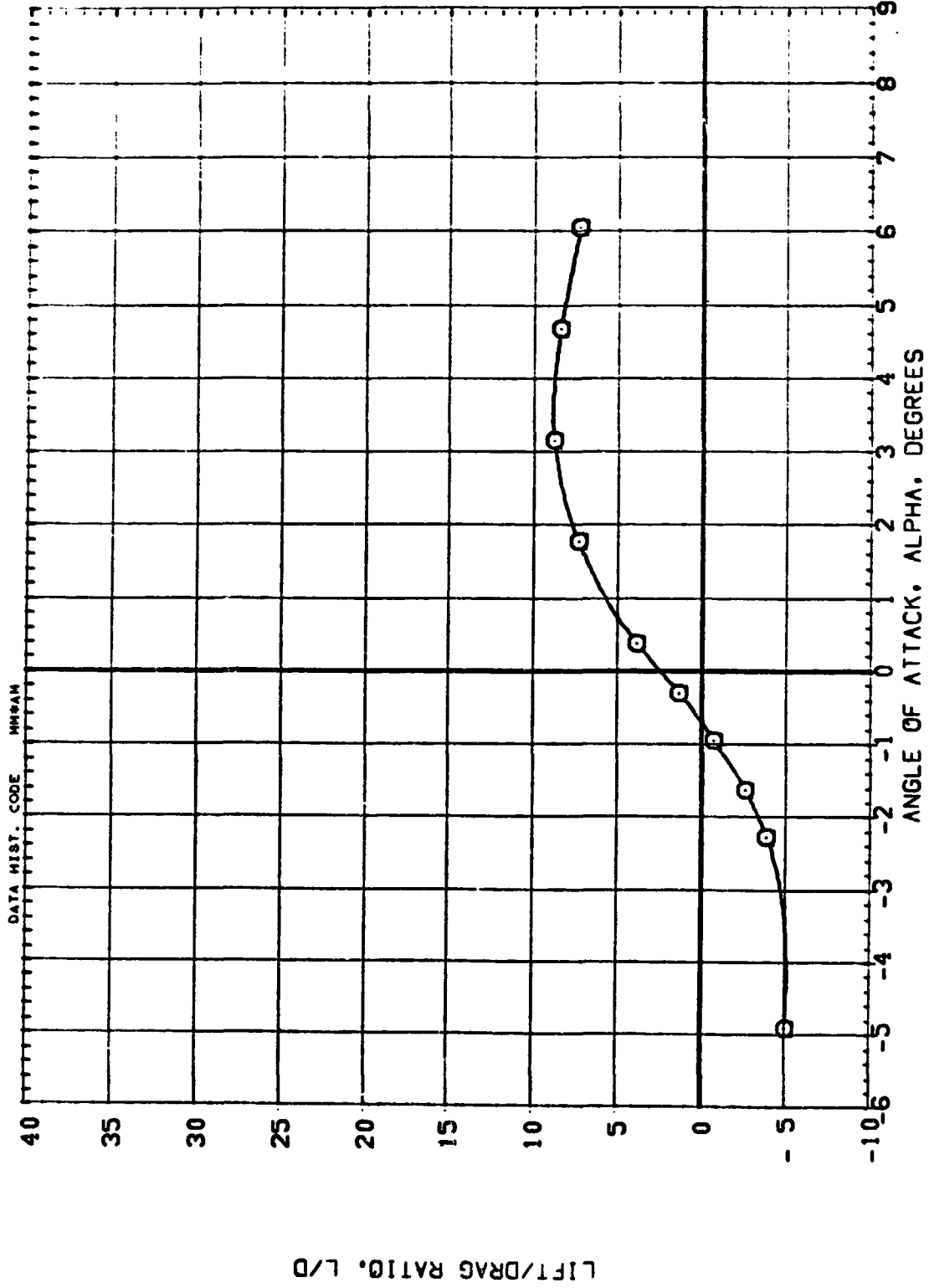


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=55 DEGREES

(1AE009)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

W1 F0 B

PARAMETRIC VALUES
MACH 1.400
SWEEP BETA 0.000
RN/L 6.000

SYMBOL
○

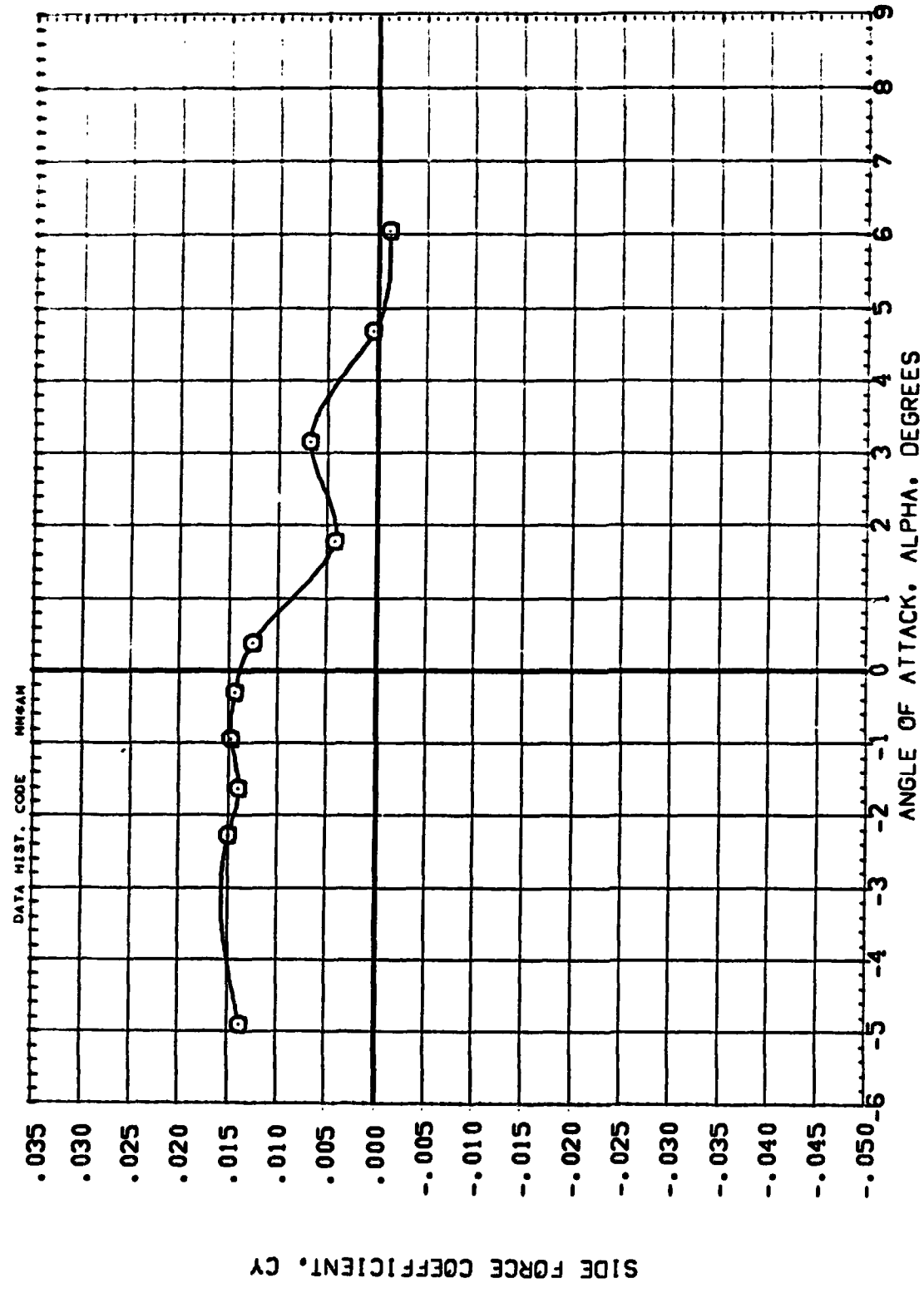


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=55 DEGREES

(IAE009)

W1 F0 B

SYMBOL
O

MACH
1.40
SWEEP
BETA

PARAMETRIC VALUES
55.000 RN/L
6.000

SEE THE ASSOCIATED DATA
DOCUMENT FOR REFERENCE
CHARACTERISTICS FOR
INDIVIDUAL DATASETS

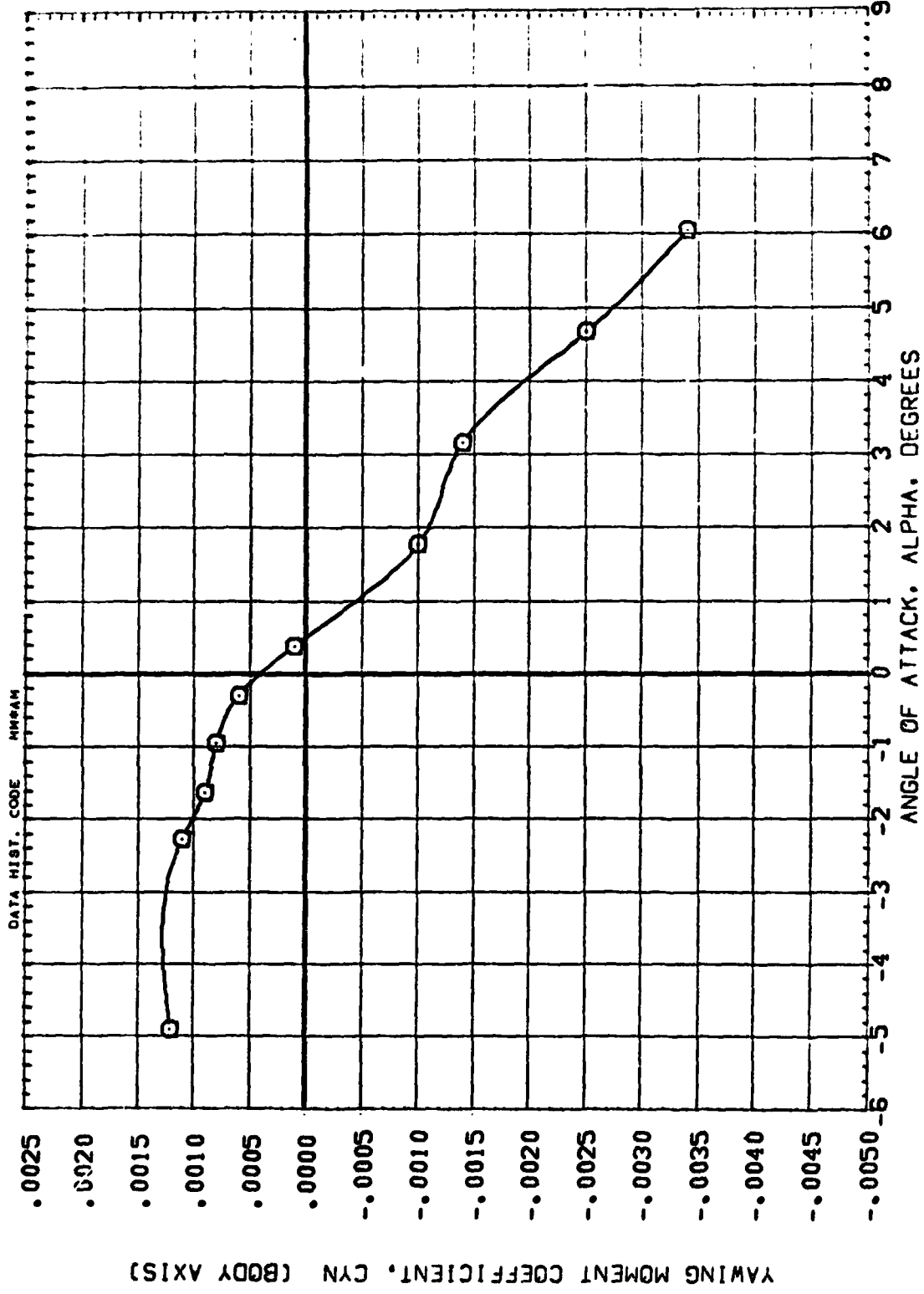


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.40, LAMBDA = 55 DEGREES

(IAE009)

W1 F0 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

PARAMETRIC VALUES
55.000 RM/L 6.000
0.000 BETA

SYMBOL MACH SWEEP
O 1.400 BETA

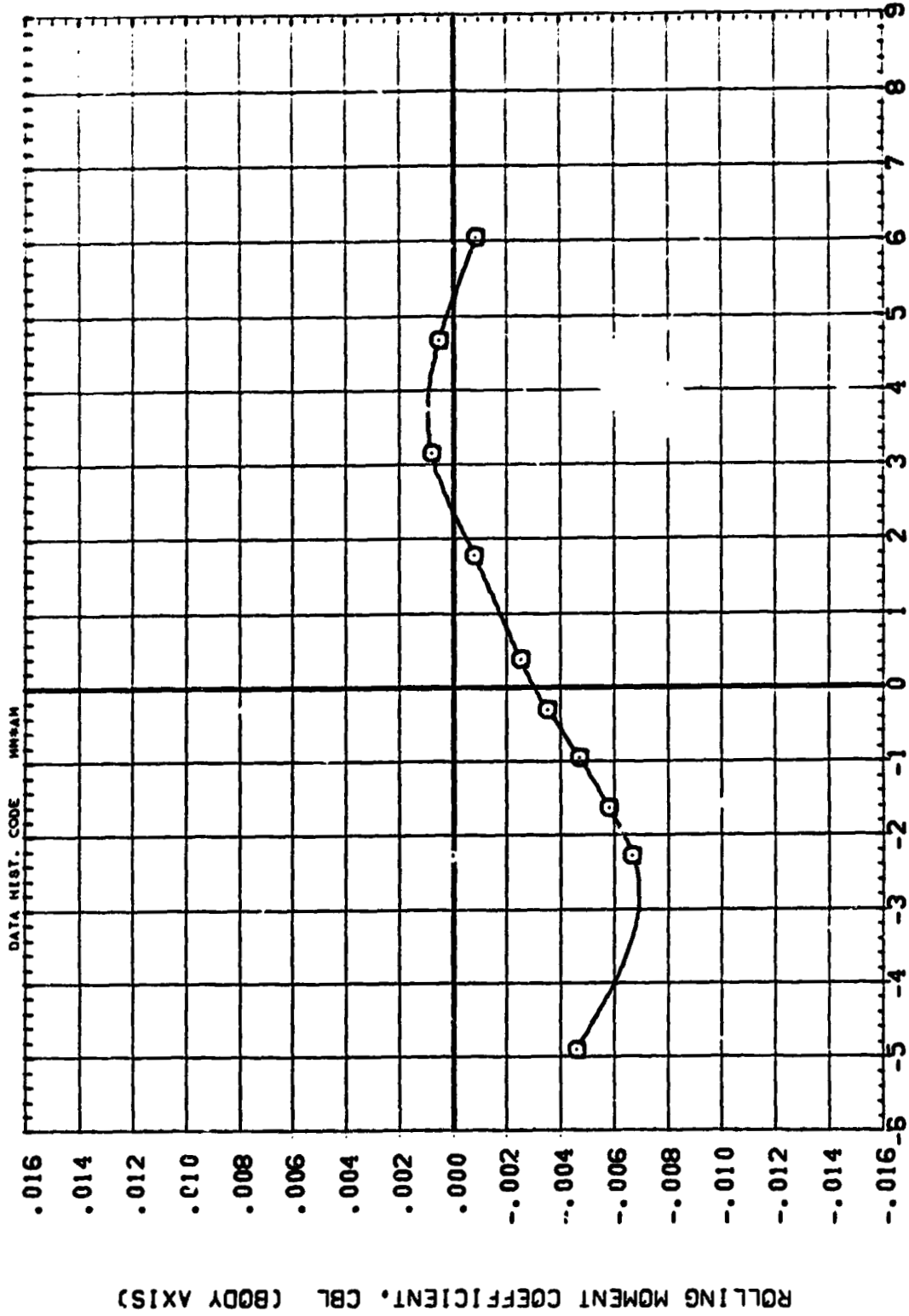


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.40, LAMBDA = 55 DEGREES

W1 F0 B

(IAE012)

SYMBOL
○

MACH
1.300

SWEEP
BETA

PARAMETRIC VALUES
60.000 RM/L
0.000

6.000

SEE THE ASSOCIATED DATA
DOCUMENT FOR REFERENCE
CHARACTERISTICS FOR
INDIVIDUAL DATASETS

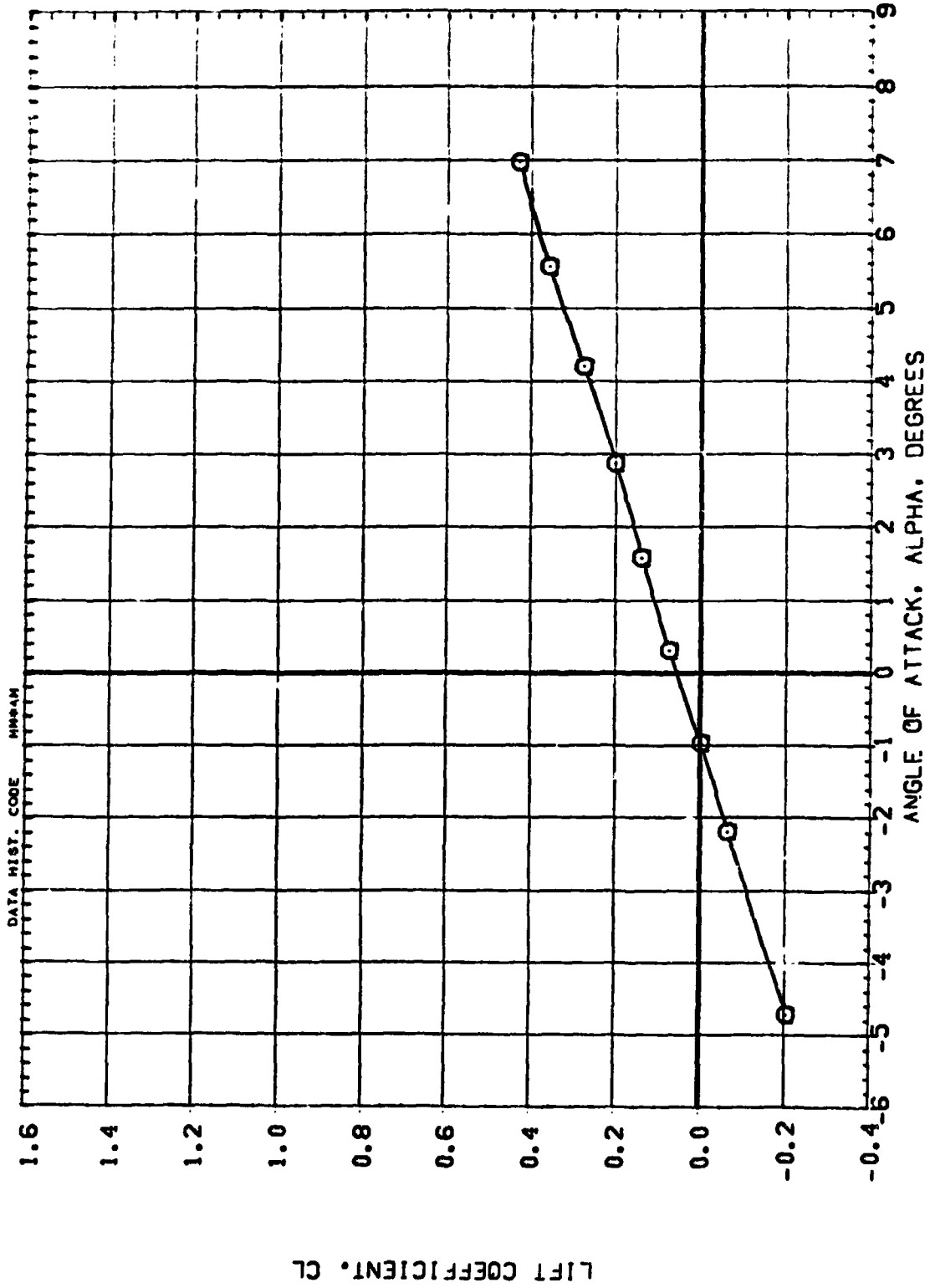


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.30, LAMBDA=60 DEGREES

W1 F0 B

(1AE012)

SYMBOL
○

MACH
1.300

SWEPT
BETA

PARAMETRIC VALUES

60.000 RN/L

6.000

SEE THE ASSOCIATED DATA
DOCUMENT FOR REFERENCE
CHARACTERISTICS FOR
INDIVIDUAL DATASETS

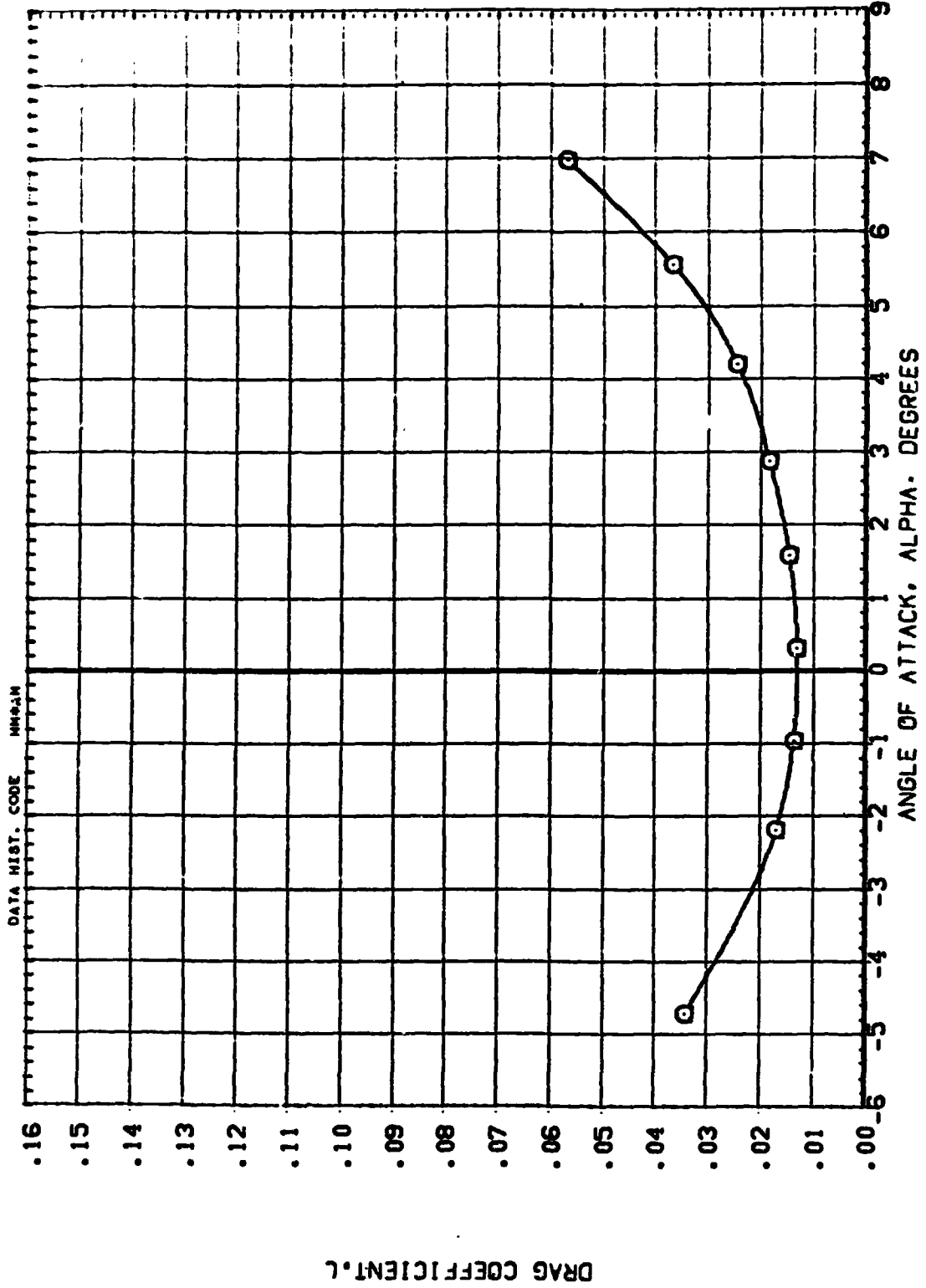


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.30, LAMBDA=60 DEGREES

(IAE012)

W1 F0 B

SYMBOL MACH SWEEP PARAMETRIC VALUES
O 1.300 BETA 60.000 RM/L 6.000
0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

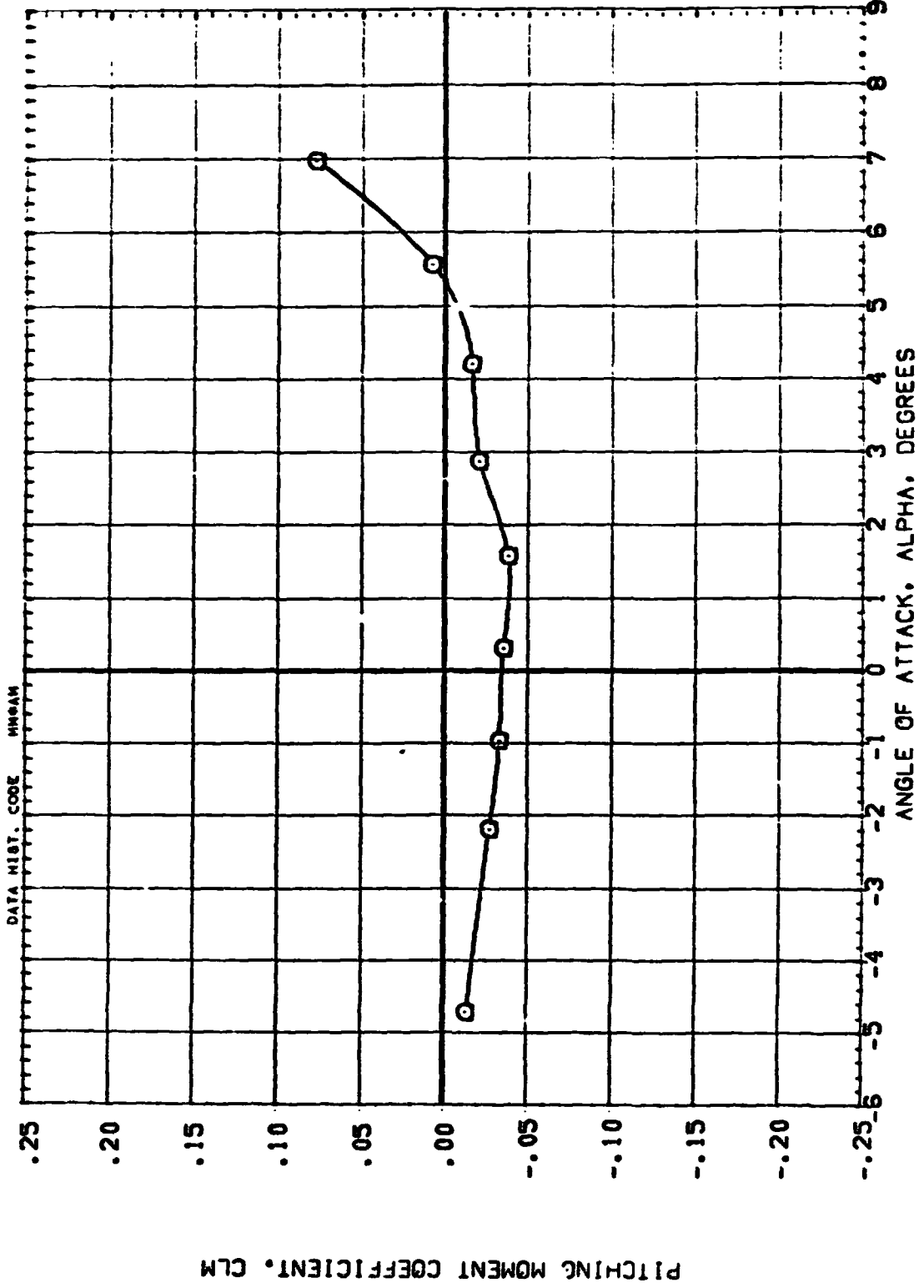


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.30, LAMBDA=60 DEGREES

(IAE012)

W1 F0 B

SYMBOL

○

MACH

1.300

SWEEP

BETA

PARAMETRIC VALUES

60.000

RM/L

0.000

6.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

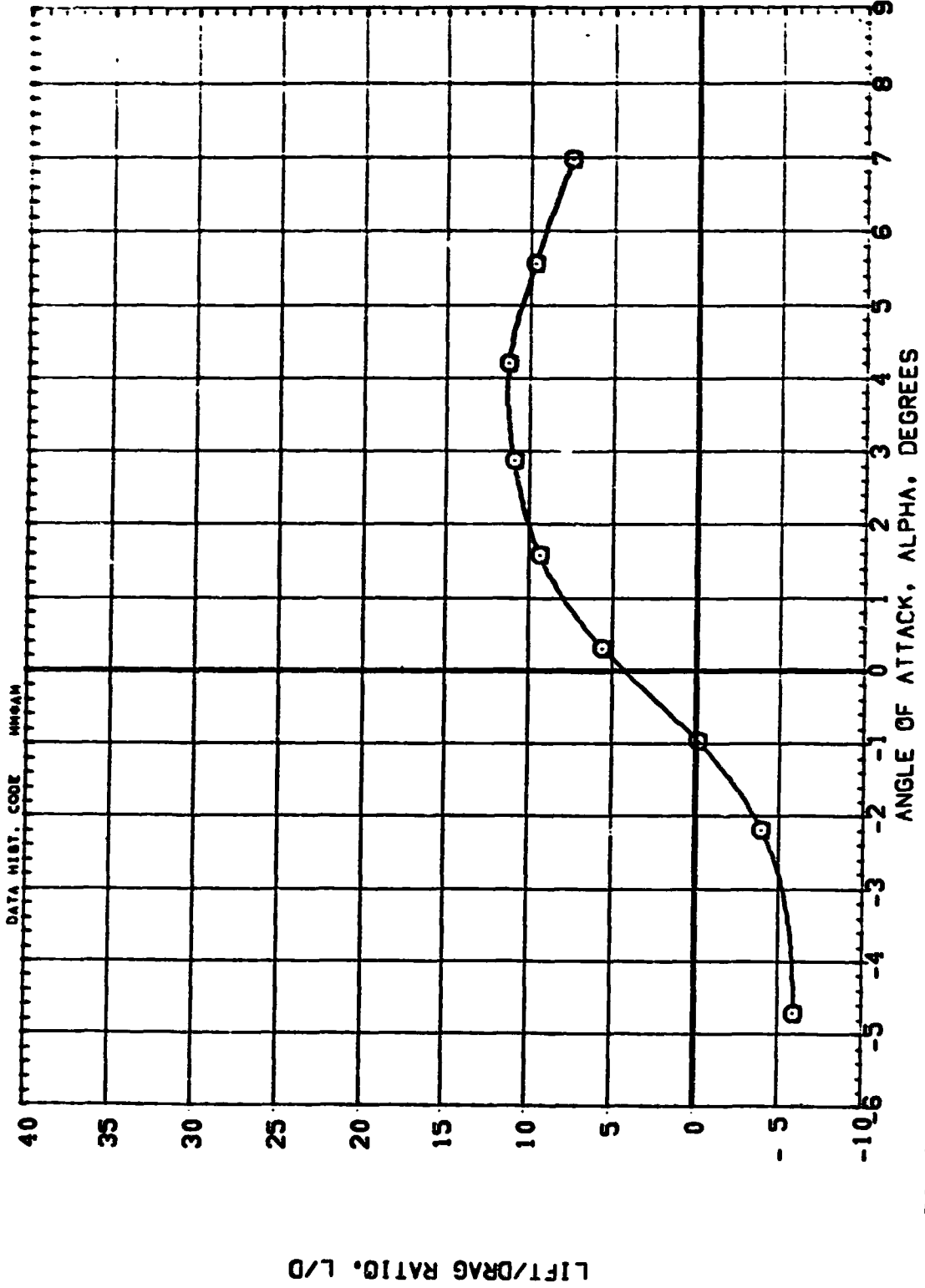


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.30, LAMBDA=60 DEGREES

(1AE012)

W1 F0 B

SYMBOL MACH SWEEP PARAMETRIC VALUES DATA HIST. CODE
O 1.300 BETA 60.000 RN/L 6.000 MMSAM

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

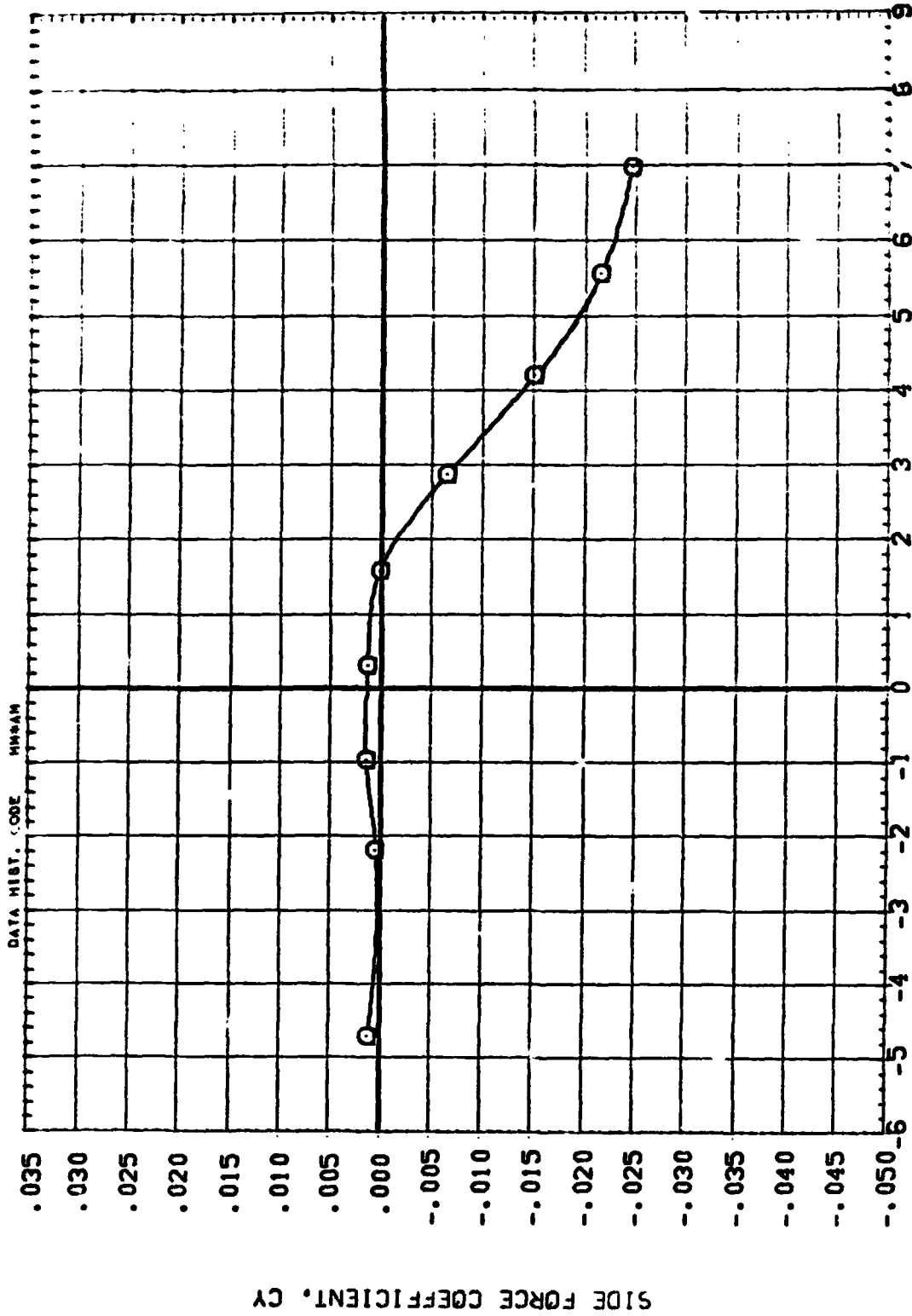


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.30, LAMBDA = 60 DEGREES

W1 F0 B

(AE012)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

PARAMETRIC VALUES
MACH 1.300
SWEEP BETA 60.000
AN/L 0.000

SYMBOL MACH 1.300
SWEEP BETA 60.000
AN/L 0.000

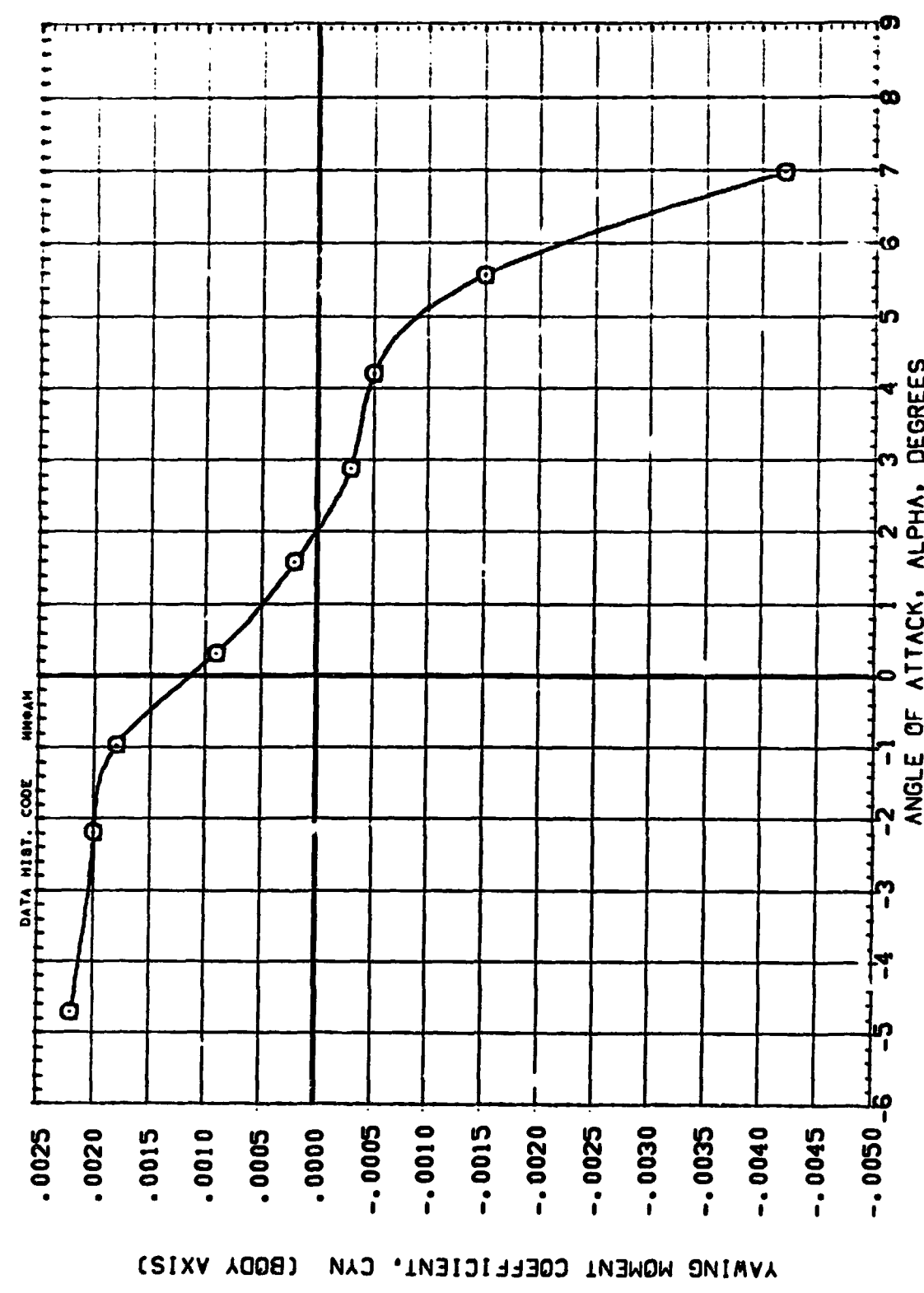


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.30, LAMBDA=60 DEGREES

(IAE012)

W1 F0 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

PARAMETRIC VALUES
MACH 1.300 SWEEP 6.000
BETA 0.000 RN/L 0.000

SYMBOL
O

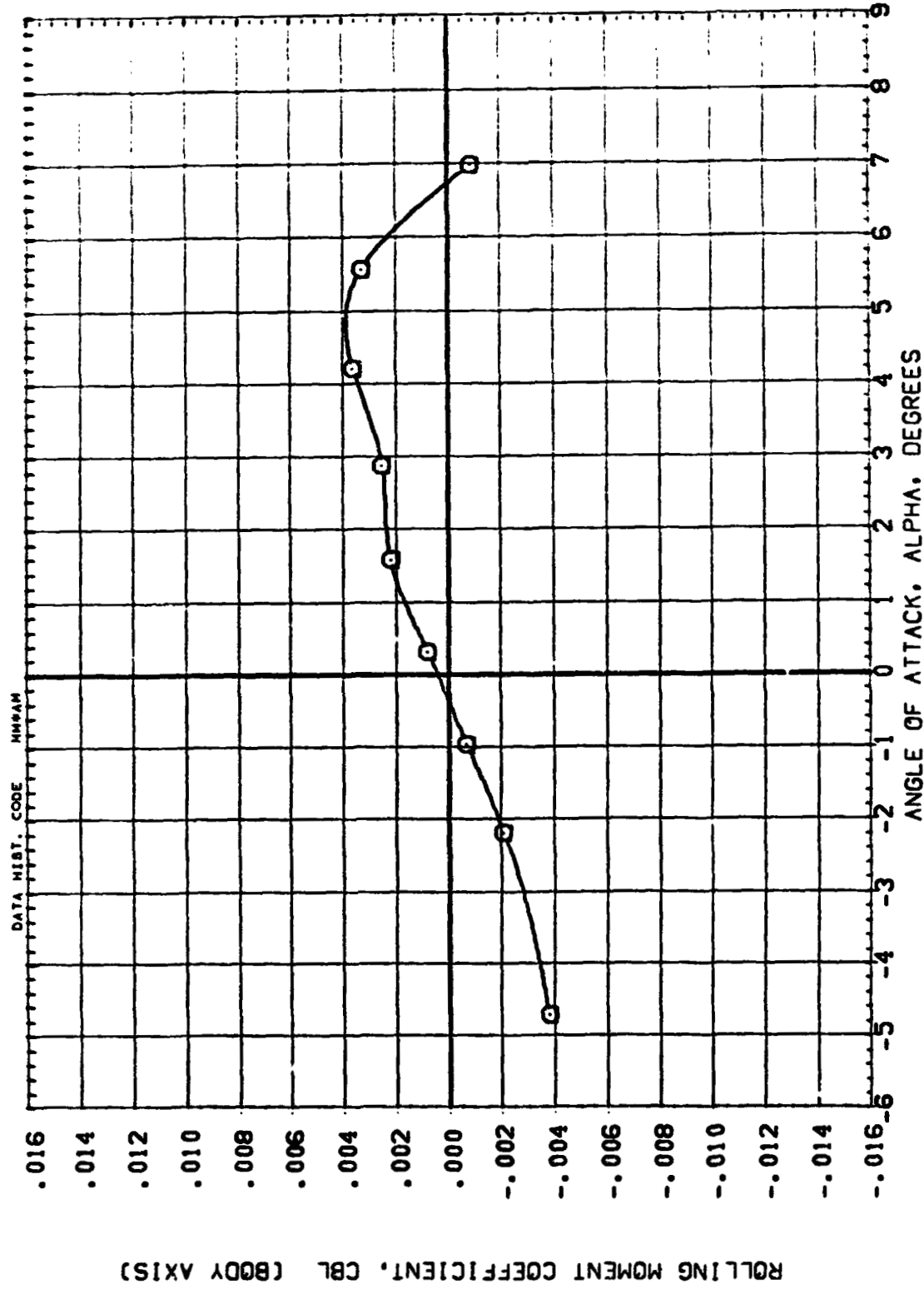


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.30, LAMBDA=60 DEGREES

(JAE012)

W1 F0 B

SEE THE ASSOCIATED DATA
DOCUMENT FOR REFERENCE
CHARACTERISTICS FOR
INDIVIDUAL DATASETS

PARAMETRIC VALUES
60.000 RN/L 6.000
0.000 BETA

SYMBOL
O MACH 1.400
SMEEP BETA

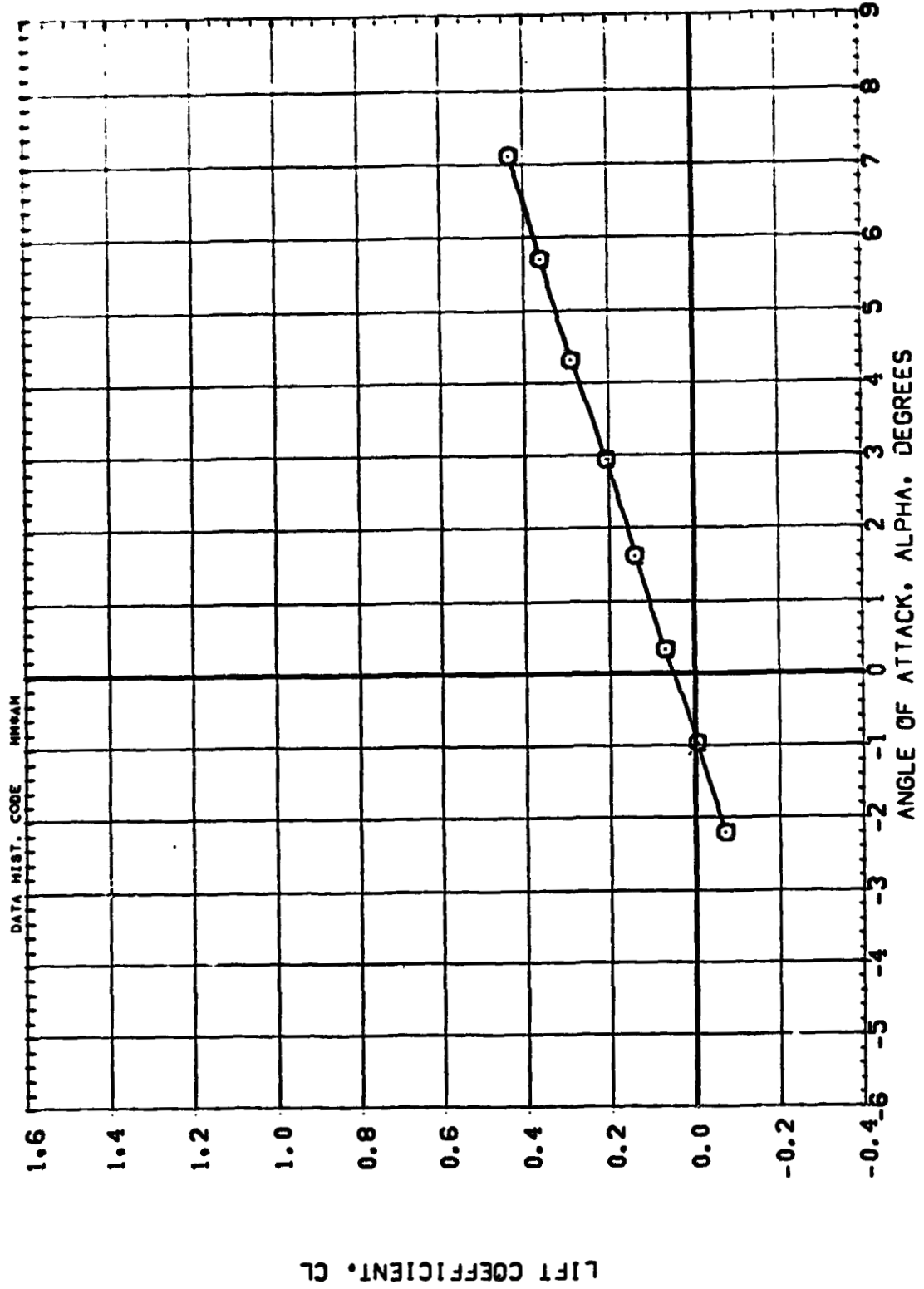


FIGURE 5 EFFECT OF DIHEDRAL. MACH NO.= 1.40. LAMBDA=60 DEGREES

(JAE012)

W1 F0 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

PARAMETRIC VALUES
60.000 RN/L 6.000
0.000

SWEEP BETA

MACH 1.400

SYMBOL ○

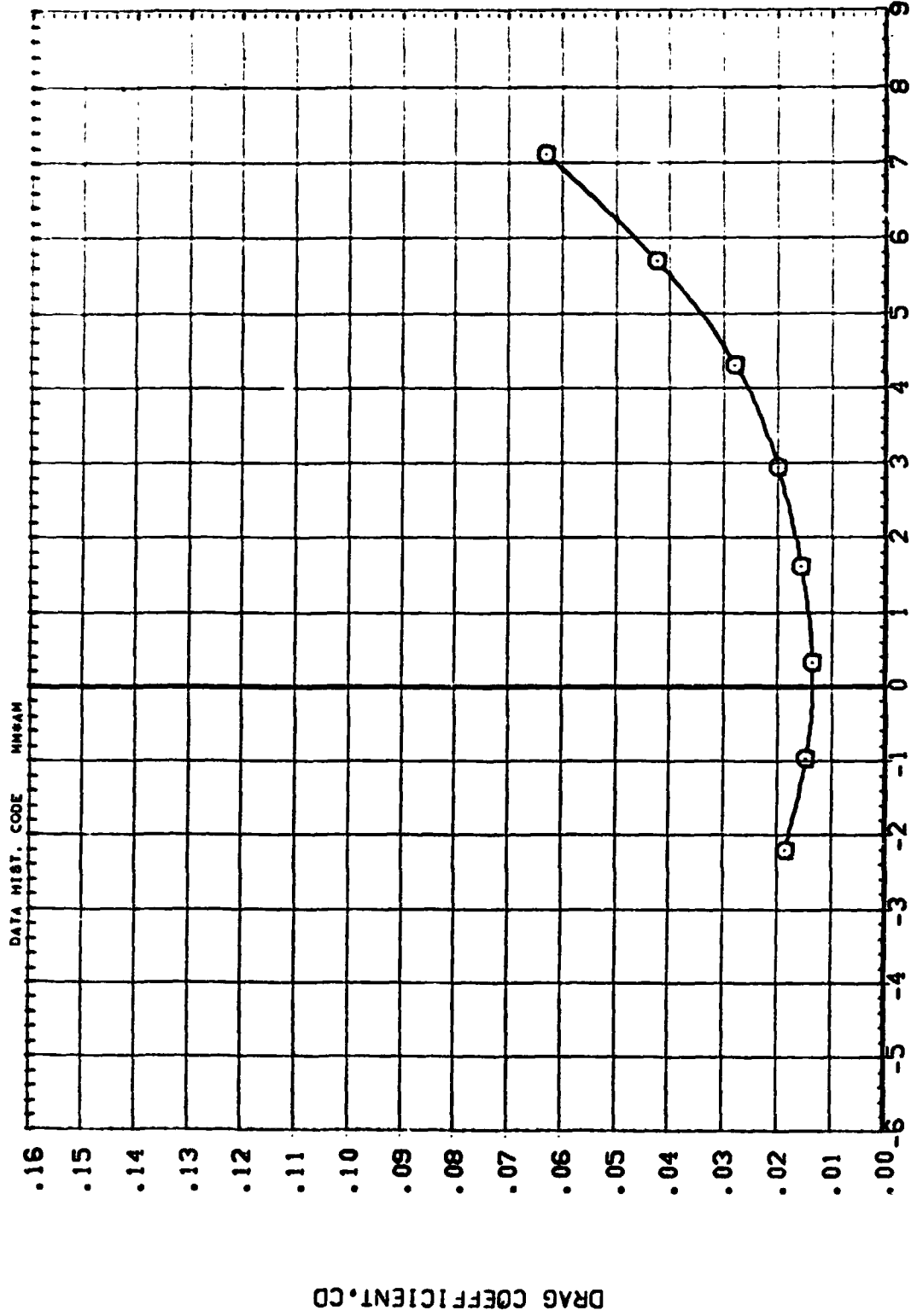


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=60 DEGREES

(JAE012)

W1 F0 B

SYMBOL O MACH 1.400 SWEEP BETA 60.000 RN/L 0.000
PARAMETRIC VALUES 6.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

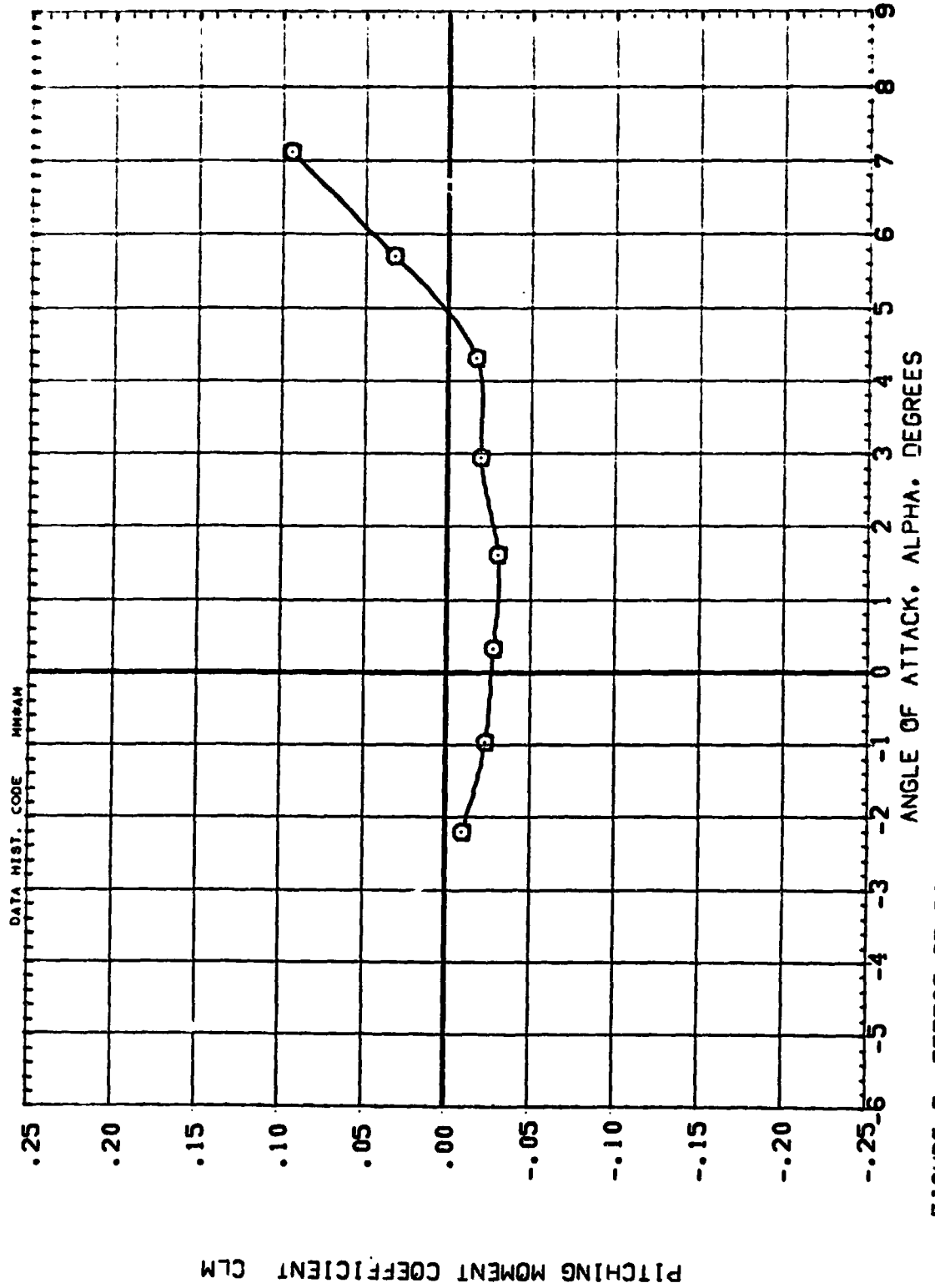


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=60 DEGREES

(JAE012)

W1 F0 B

SYMBOL
O

MACH
1.400

SWEEP
BETA

PARAMETRIC VALUES
60.000 RN/L
0.000

6.000

SEE THE ASSOCIATED DATA
DOCUMENT FOR REFERENCE
CHARACTERISTICS FOR
INDIVIDUAL DATASETS

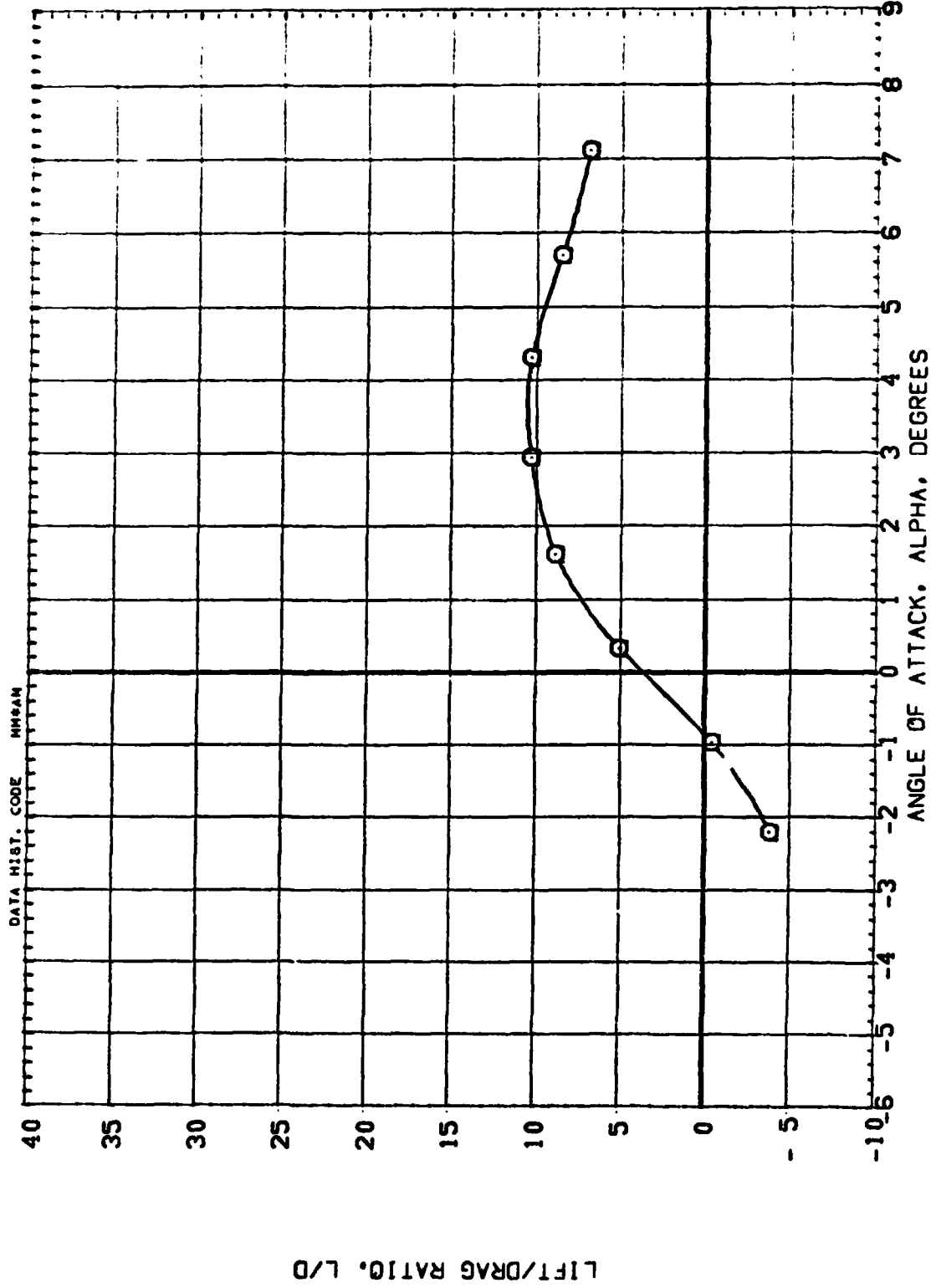


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=60 DEGREES

(JAE012)

W1 F0 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

PARAMETRIC VALUES
60.000 RNL 6.000
0.000 BETA

SYMBOL MACH SWEEP
O 1.400 BETA

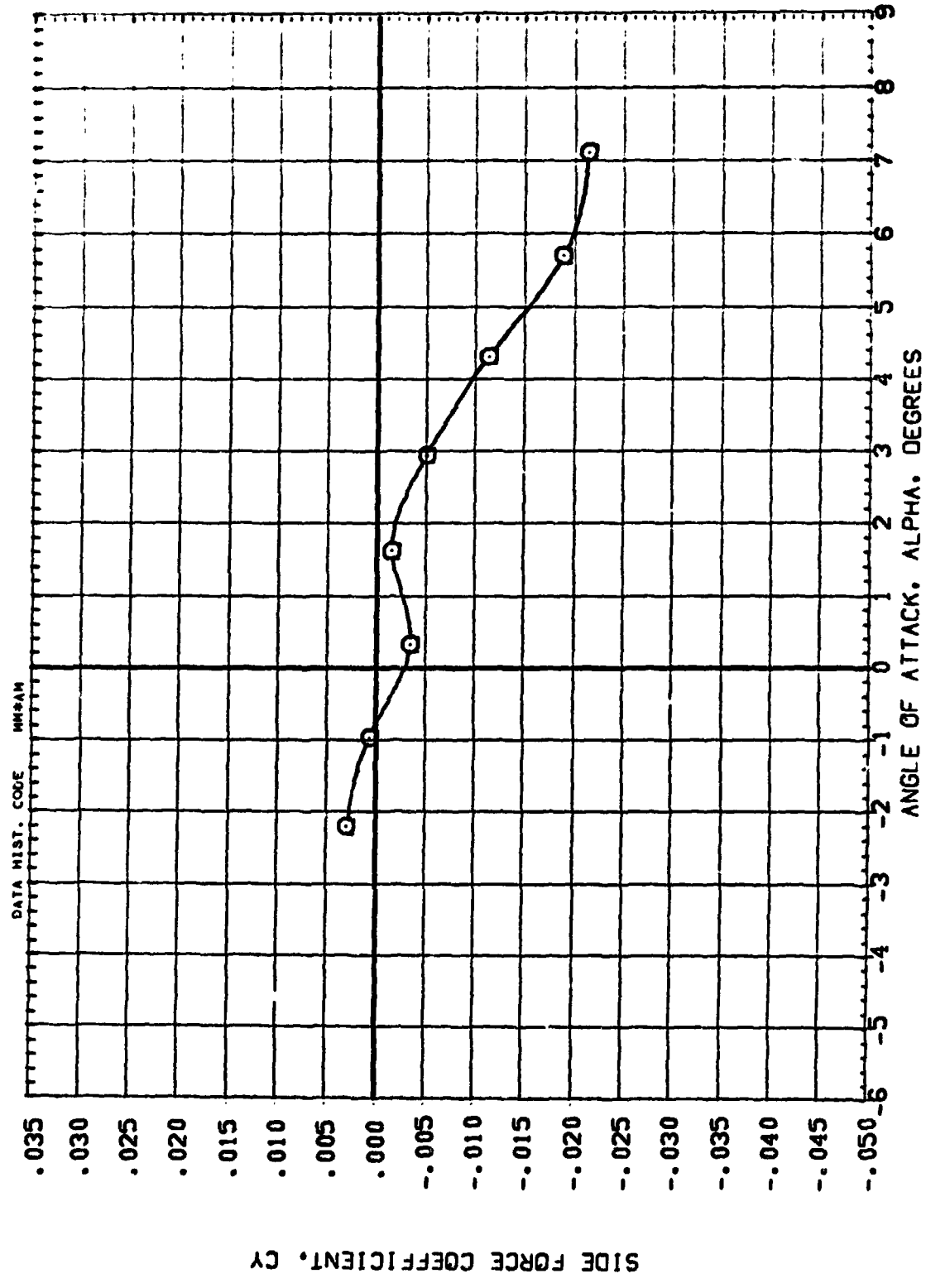


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO. = 1.40, LAMBDA = 60 DEGREES

(JAE012)

W1 F0 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

PARAMETRIC VALUES
60.000 RN/L 6.000
0.000 BETA

SYMBOL MACH
O 1.400
SWEEP BETA

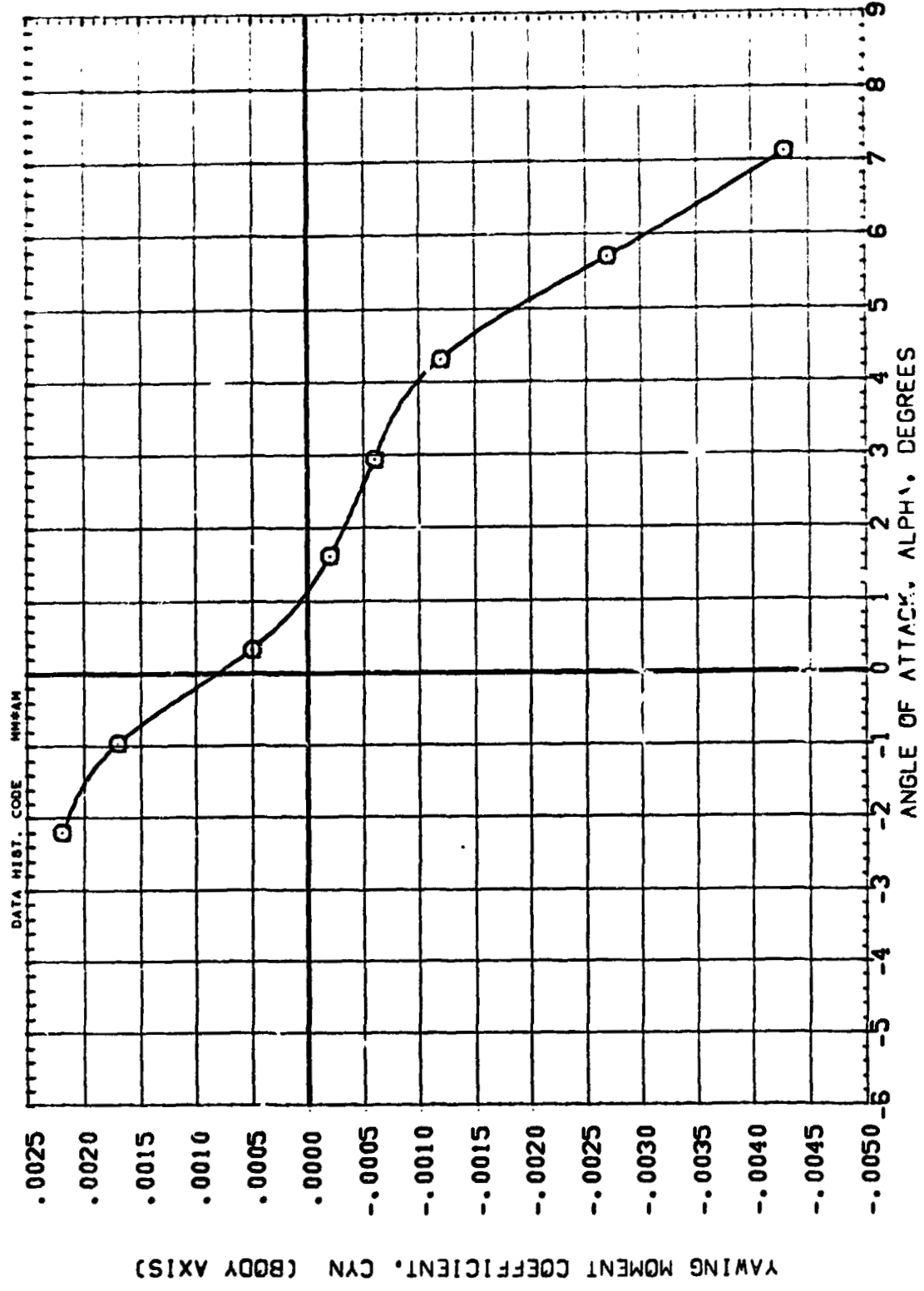


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=60 DEGREES

(JAE012)

W1 F0 B

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

PARAMETRIC VALUES
MACH 1.400
SKEW 60.000
RN/L 0.000
BETA 6.000

SYMBOL
O

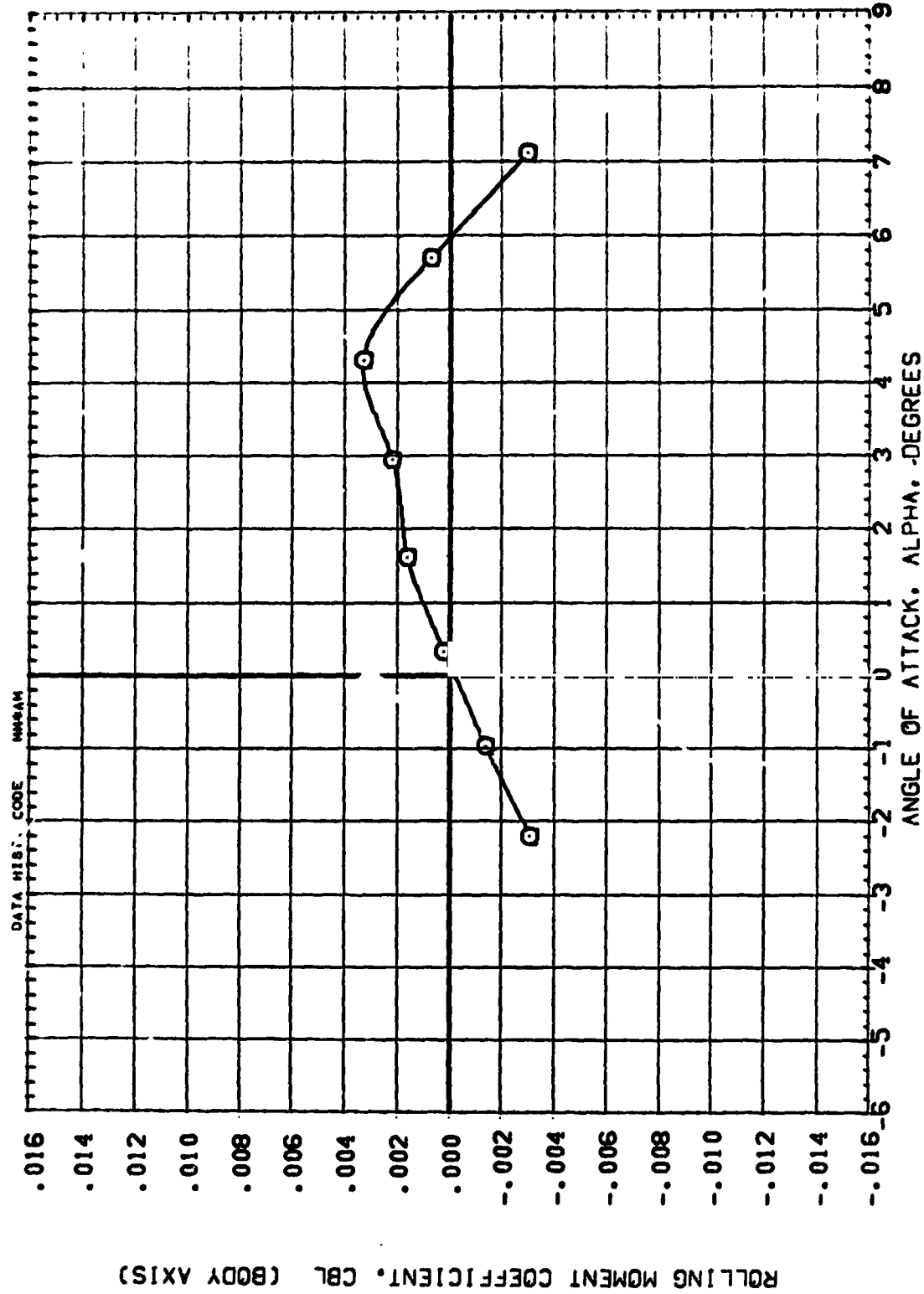


FIGURE 5 EFFECT OF DIHEDRAL, MACH NO.= 1.40, LAMBDA=60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (TAERDS) Ω WS FO B
 (CAER31) Ω WS FO B (FIXED TRANSITION)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RM/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

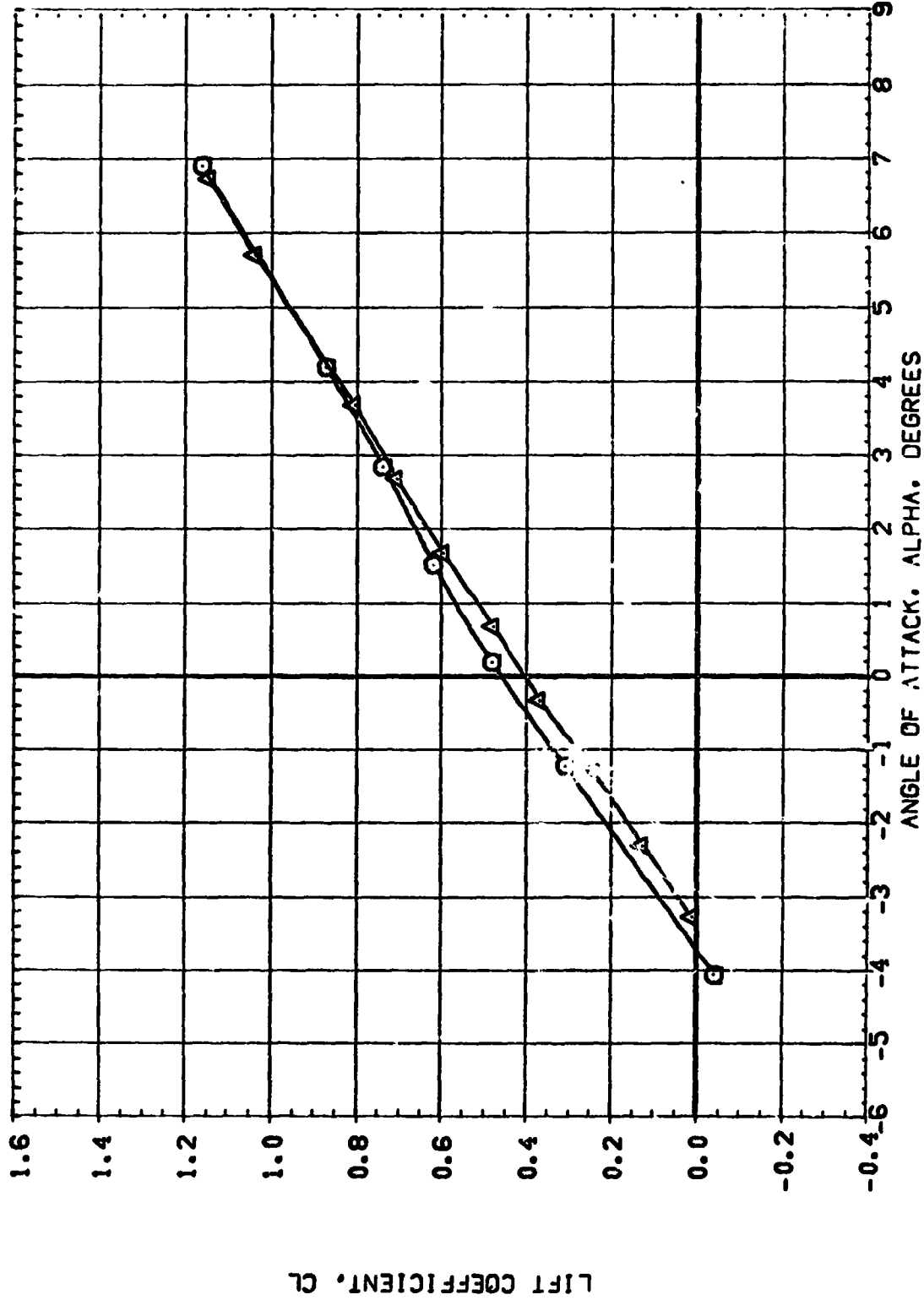


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.60; LAMBDA = 0 DEGREES
 (A) MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (TAEN3) Ω WB FO B
 (CAEN31) Ω WB FN B (FIXED TRANSITION)

SWEET RN/L BETA
 7.000 6.000 9.000
 7.000 6.000 9.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

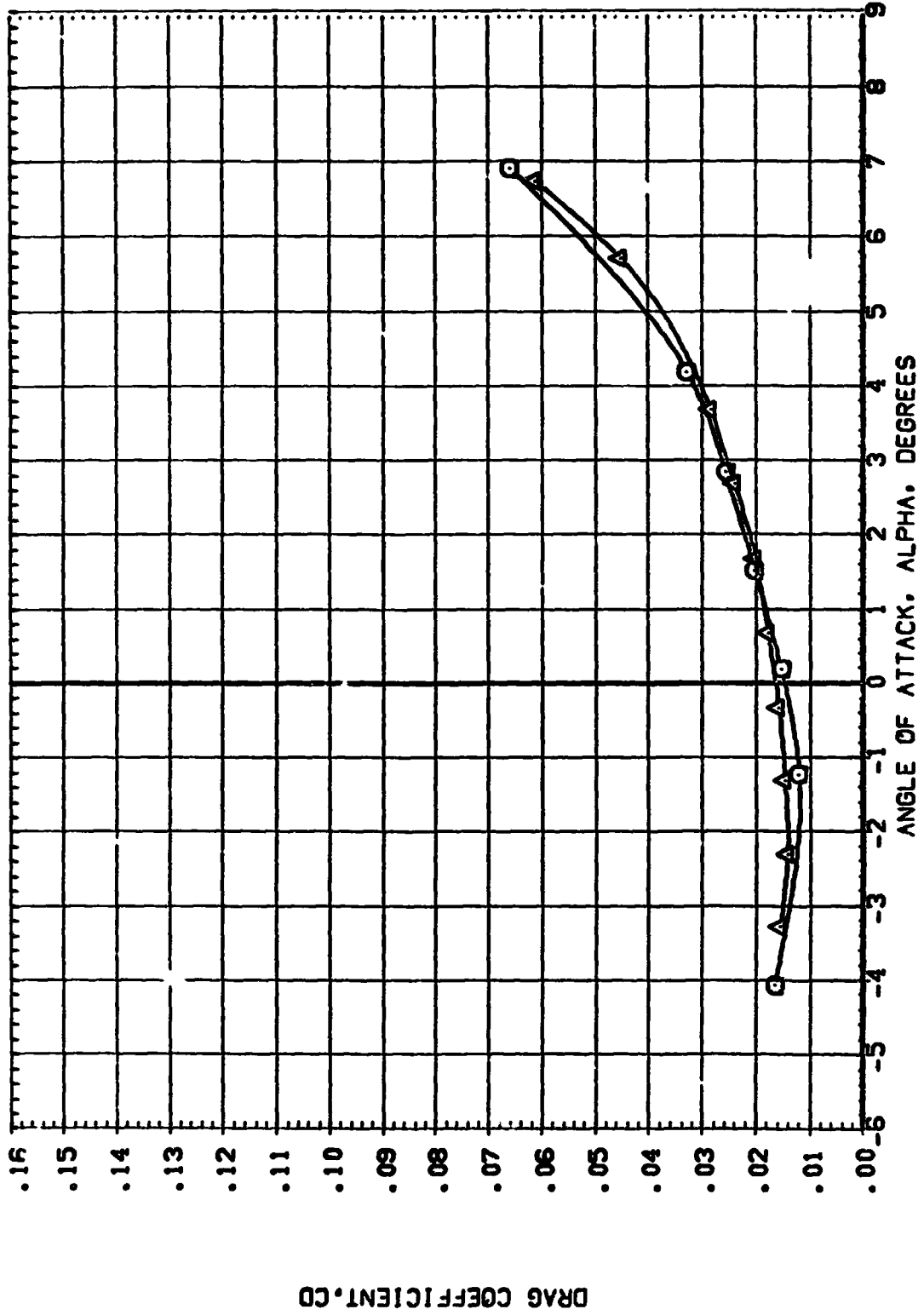


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.60, LAMBDA = 0 DEGREES --
 (A)MACH = .60 PAGE 303

DATA SET SYMBOL (TAENB) (CAENB)

CONFIGURATION DESCRIPTION W3 P3 B (FIXED TRANSITION)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

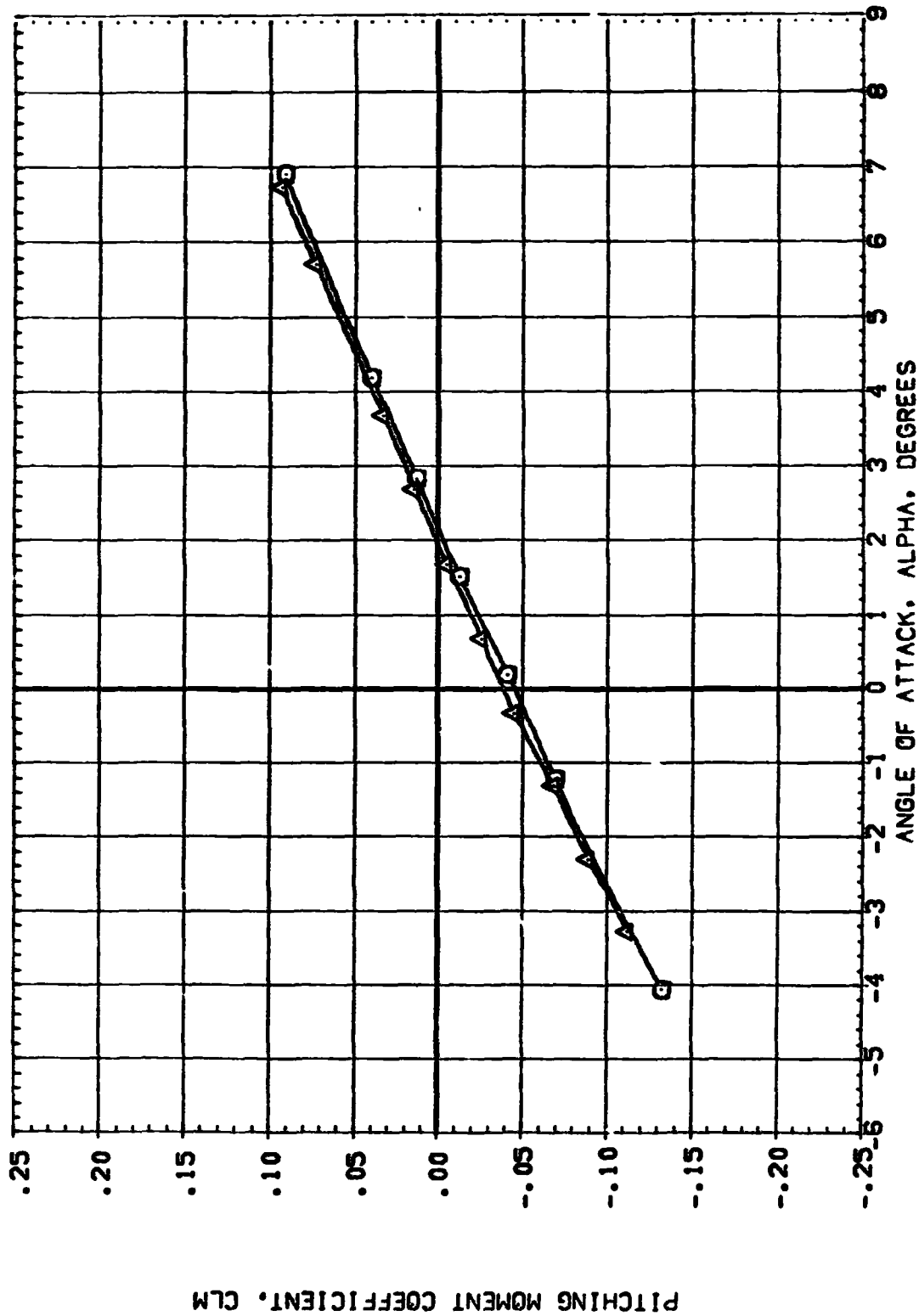


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.60, LAMBDA = 0 DEGREES
 (A) MACH = .60 PAGE 304

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (TALPNS) M8 P0 B
 (CAE'NS1) M8 P0 B (FIXED TRANSITION)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RM/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

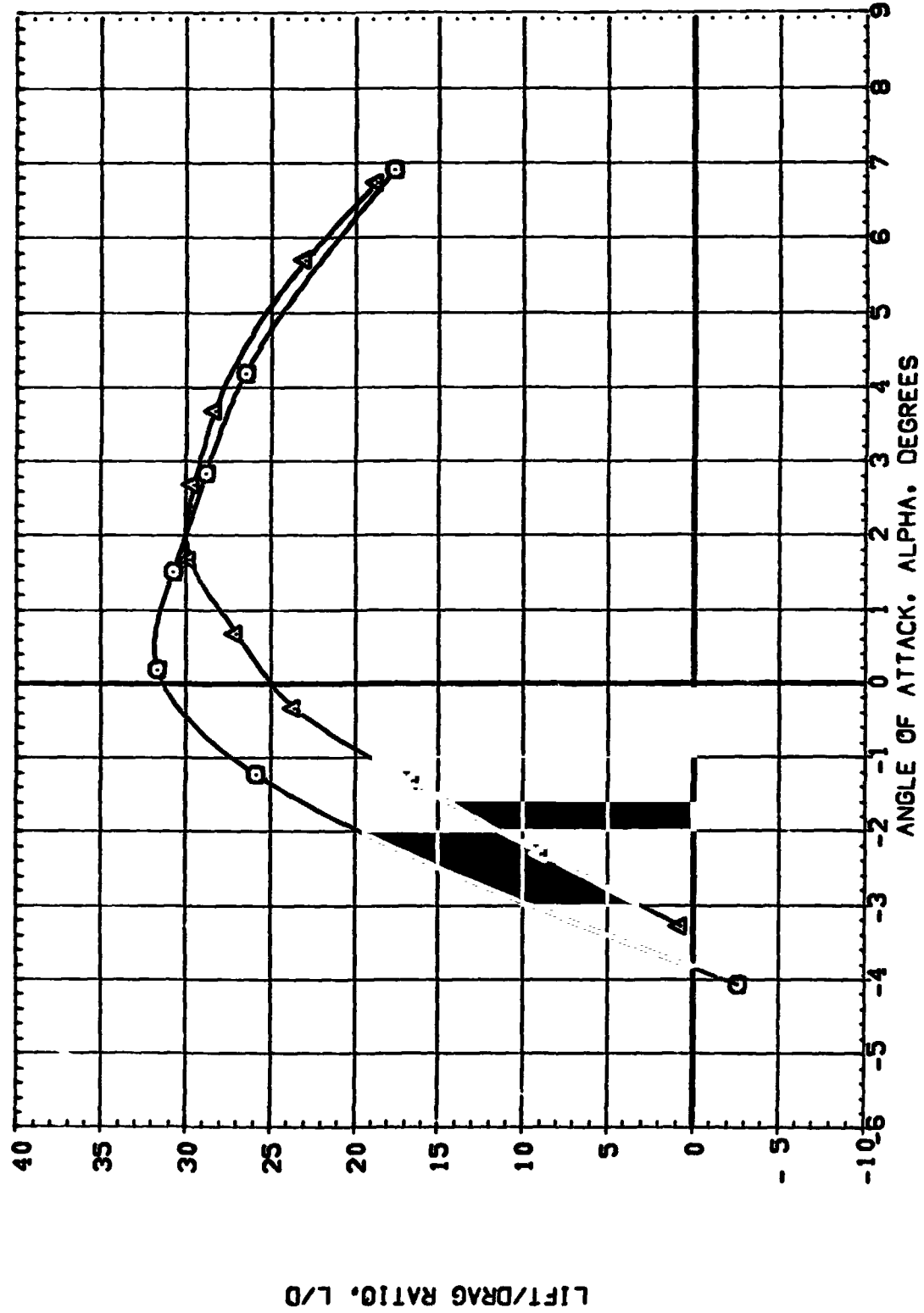


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.60, LAMBDA = 0 DEGREES
 (A)MACH = .60 PAGE 305

DATA SET SYMBOL Ω MB PO 8
 (TAGNO) MB PN 8 (FIXED TRANSITION)

SWEEP 0.000 6.000
 0.000 6.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

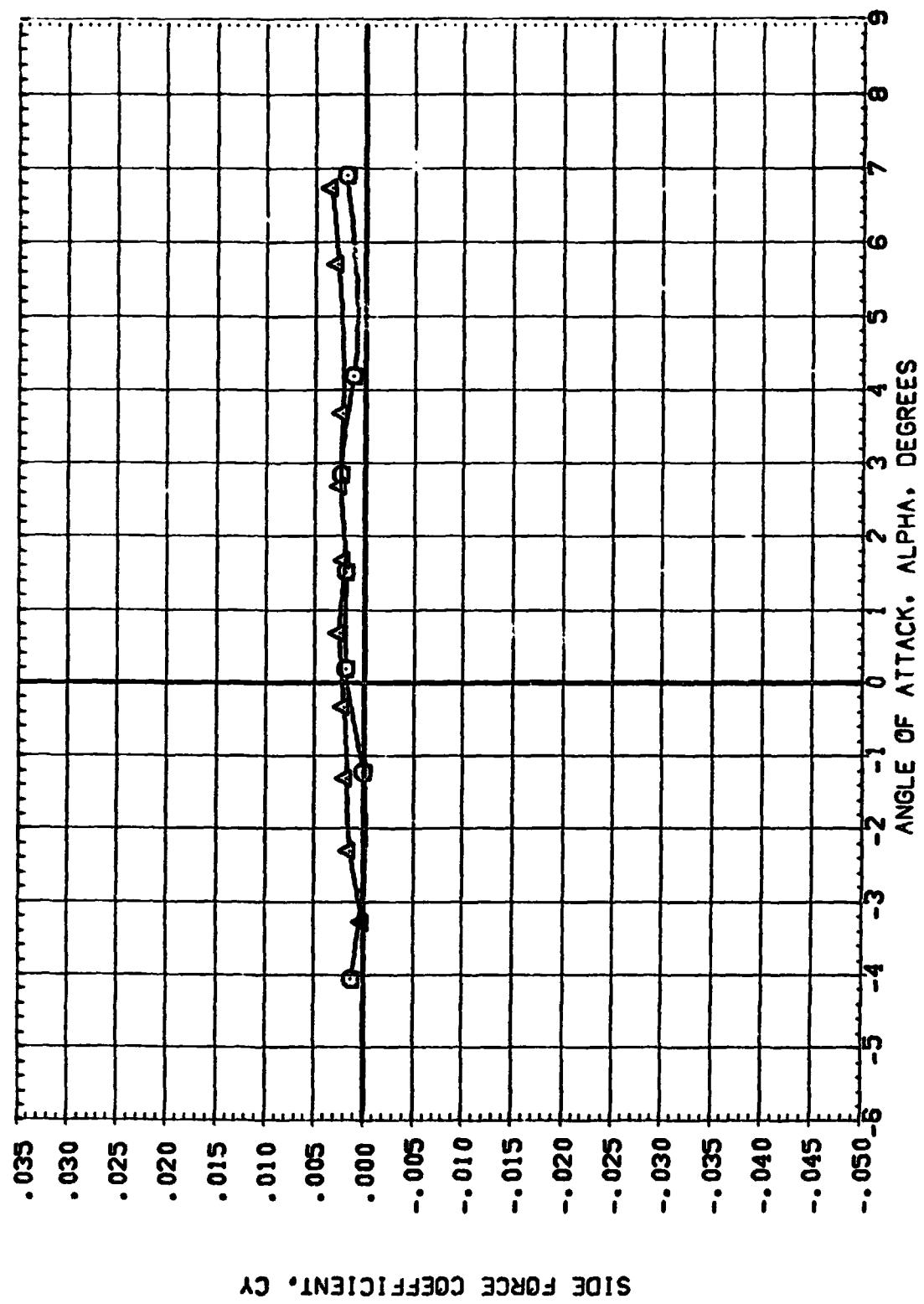


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.60, LAMBDA = 0 DEGREES
 (A)MACH = .60 PAGE 306

DATA SET SYMBOL (TAEN3) (CAEN31) Ω WS P0 B WS P0 B (FIXED TRANSITION)

CONFIGURATION DESCRIPTION

SWEEP RN/L 0.000 6.000 0.000 6.000

BETA 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

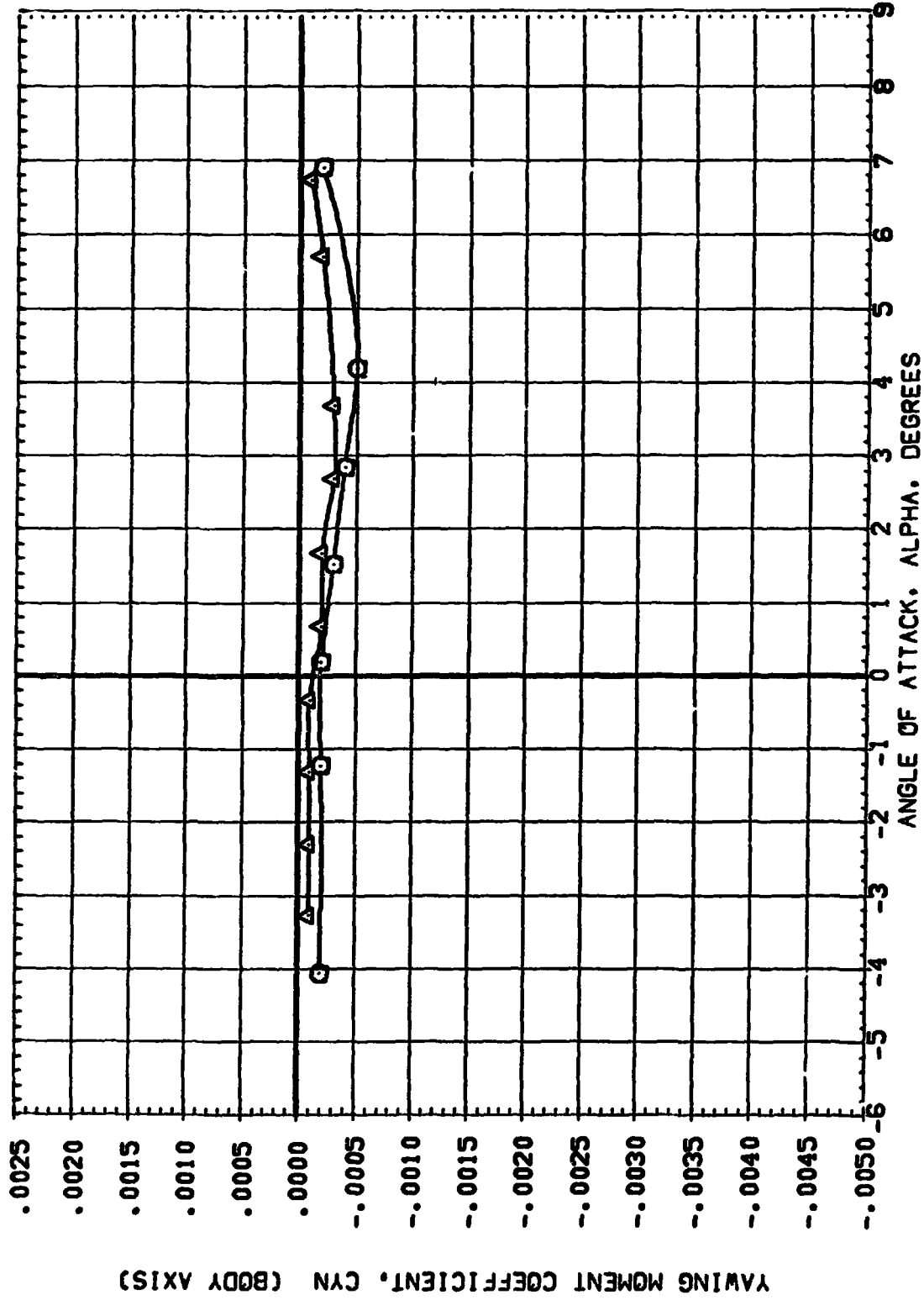


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.60, LAMBDA = 0 DEGREES
 (A) MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (TA002) WS FO 8
 (CA001) WS FO 8 (FIXED TRANSITION)

SWEEP RN/L BETA
 0.000 5.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

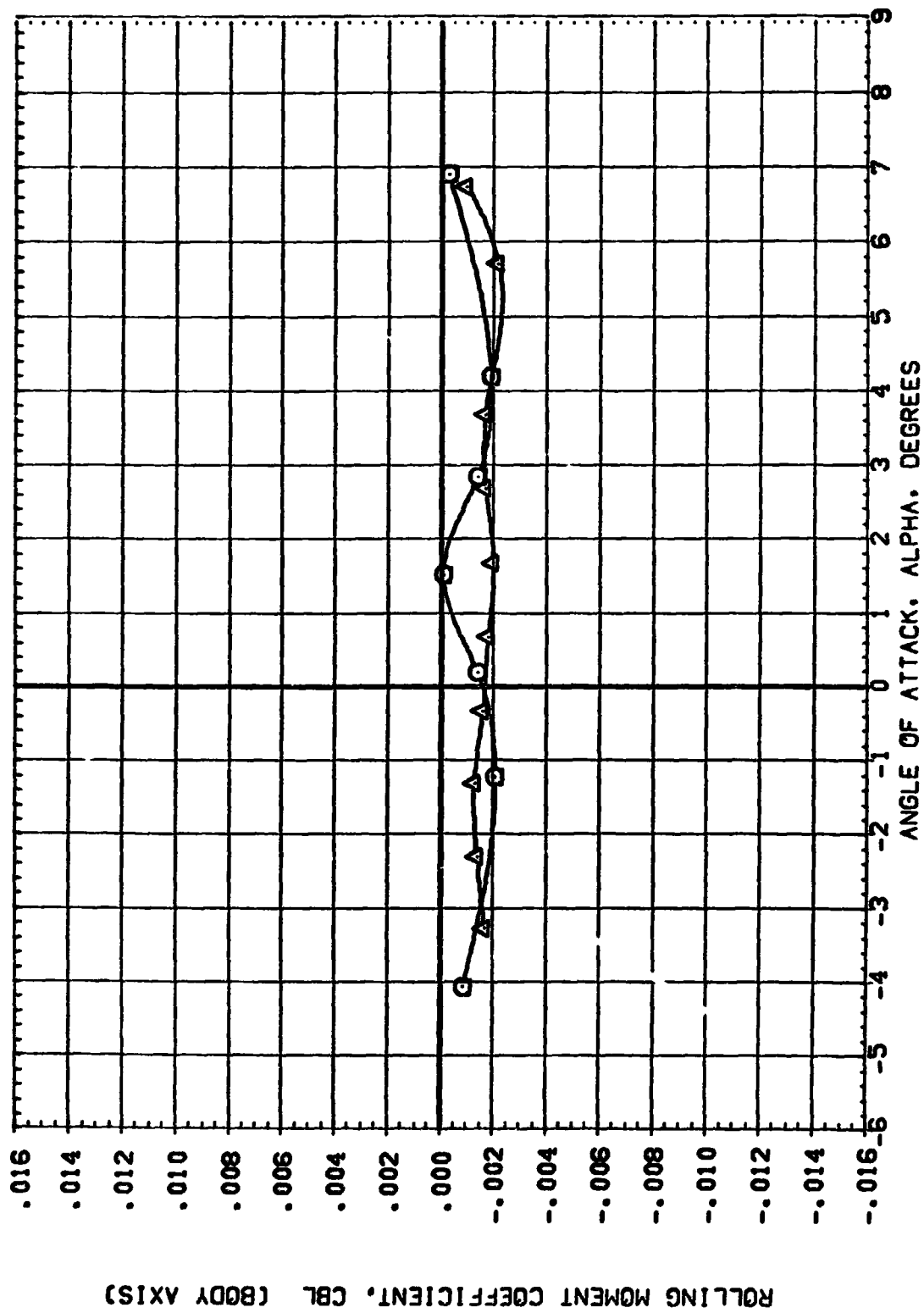


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.60, LAMBDA = 0 DEGREES
 (A) MACH = .60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE781) W3 P1 B
 (BAE781) W3 P1 B (FIXED TRANSITION)

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

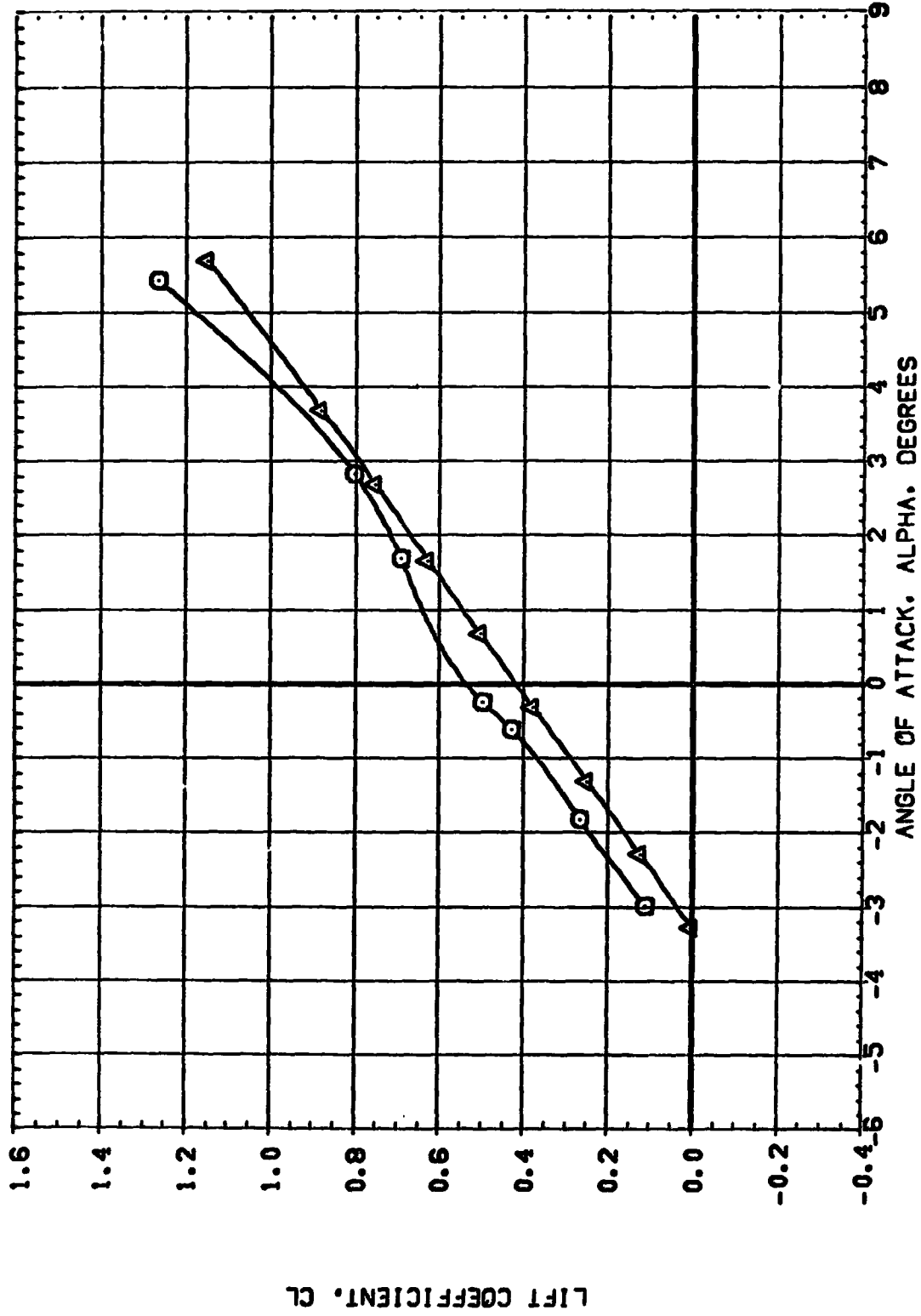


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.70, LAMBDA = 0 DEGREES
 (A) MACH = .70 PAGE 309

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RN/L BETA
0.000 6.000 0.000
0.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(BAER31) \odot V0 P0 B
(BAER31) \triangle V0 P0 B (PLACED TRANSITION)

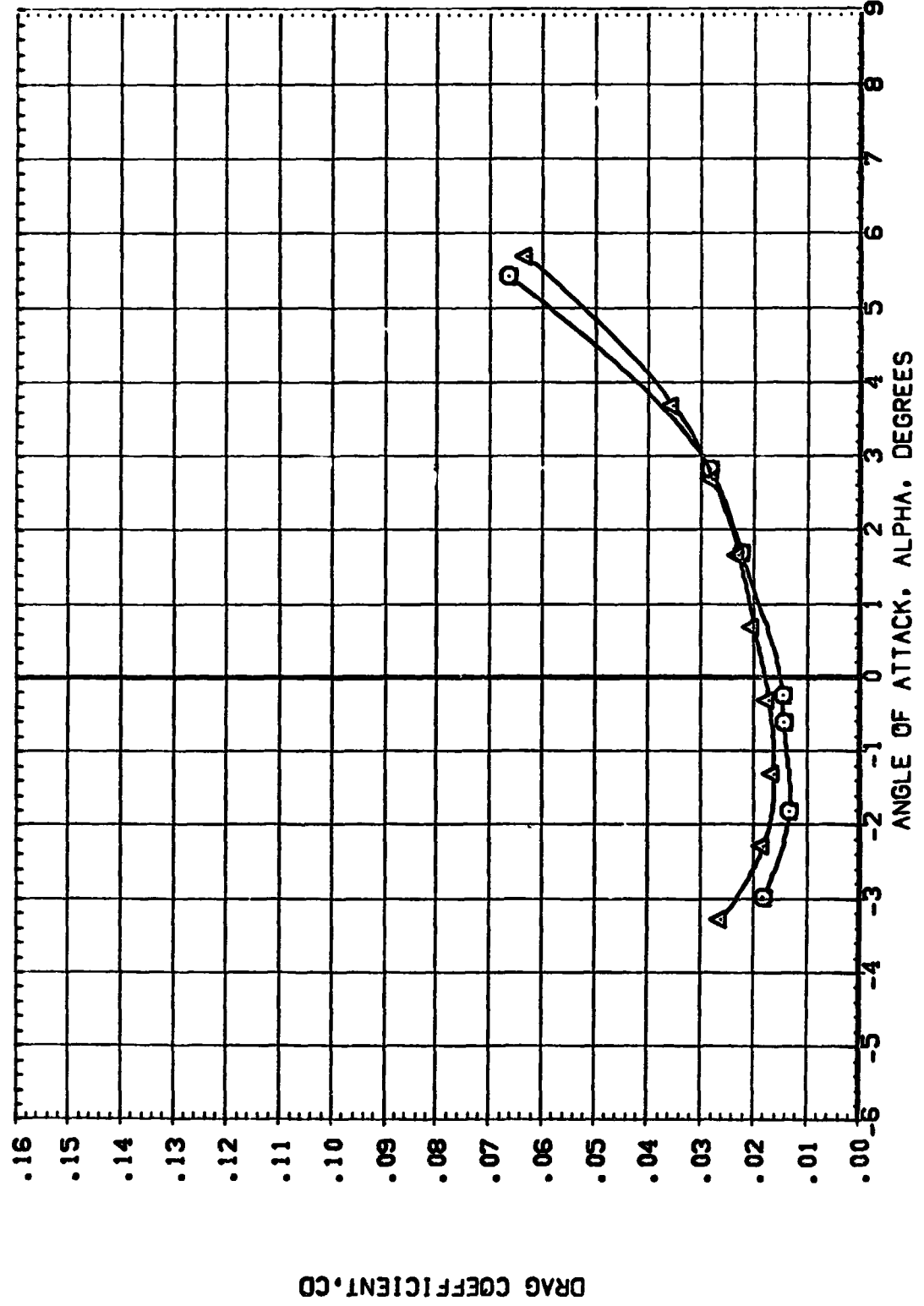


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.70, LAMBDA = 0 DEGREES
(\triangle)MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE'81) Q MS FN B -
 (BAE'81) Q MS FN B (FIXED TRANSITION)

SWEEP RN/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

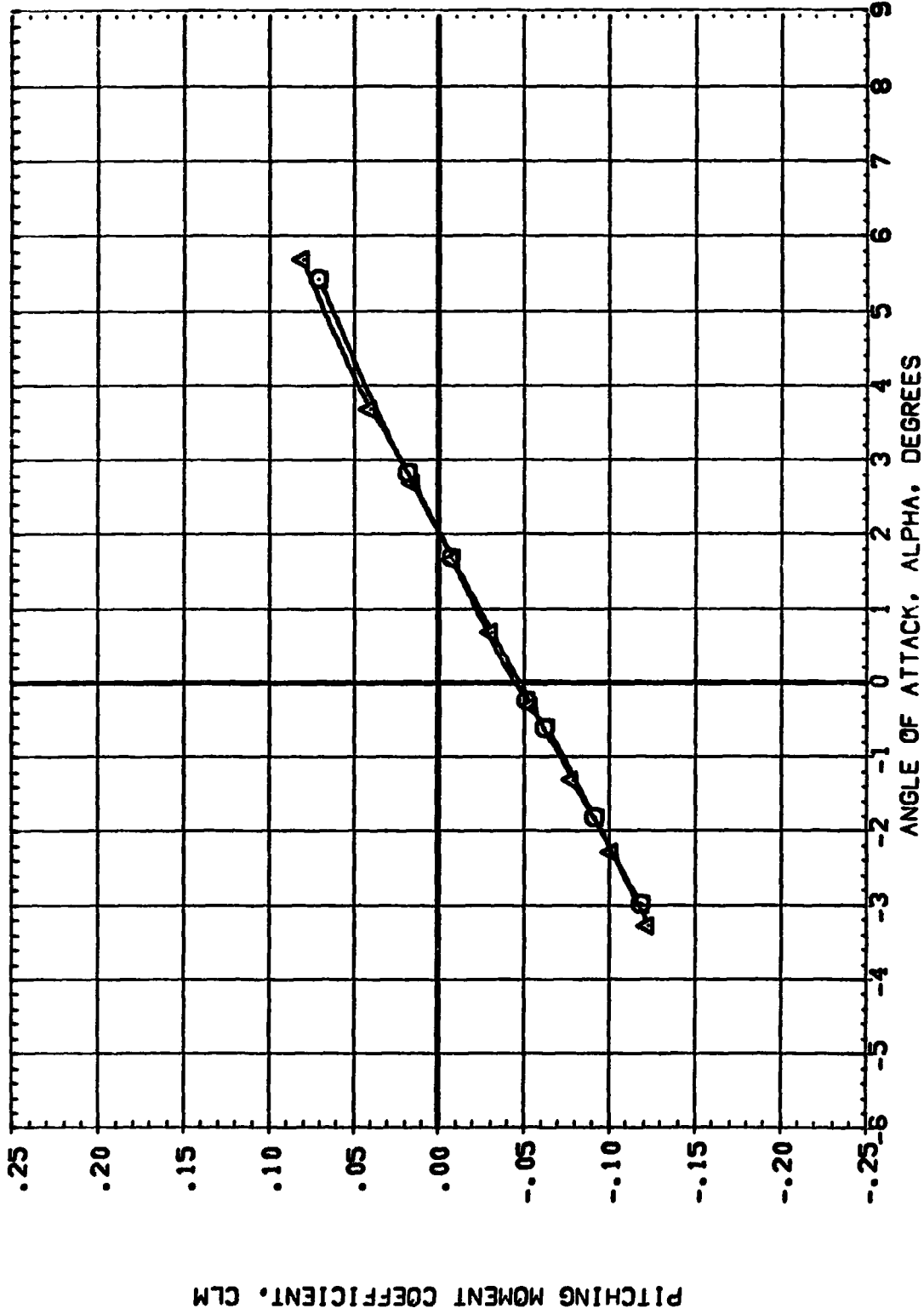


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.70, LAMBDA = 0 DEGREES

(A)MACH = .70

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEET RN/L BETA
 7.000 6.000 9.000
 9.000 5.000 9.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE021) \square WS P7 B
 (BAE031) \triangle WS P7 B (FIXED TRANSITION)

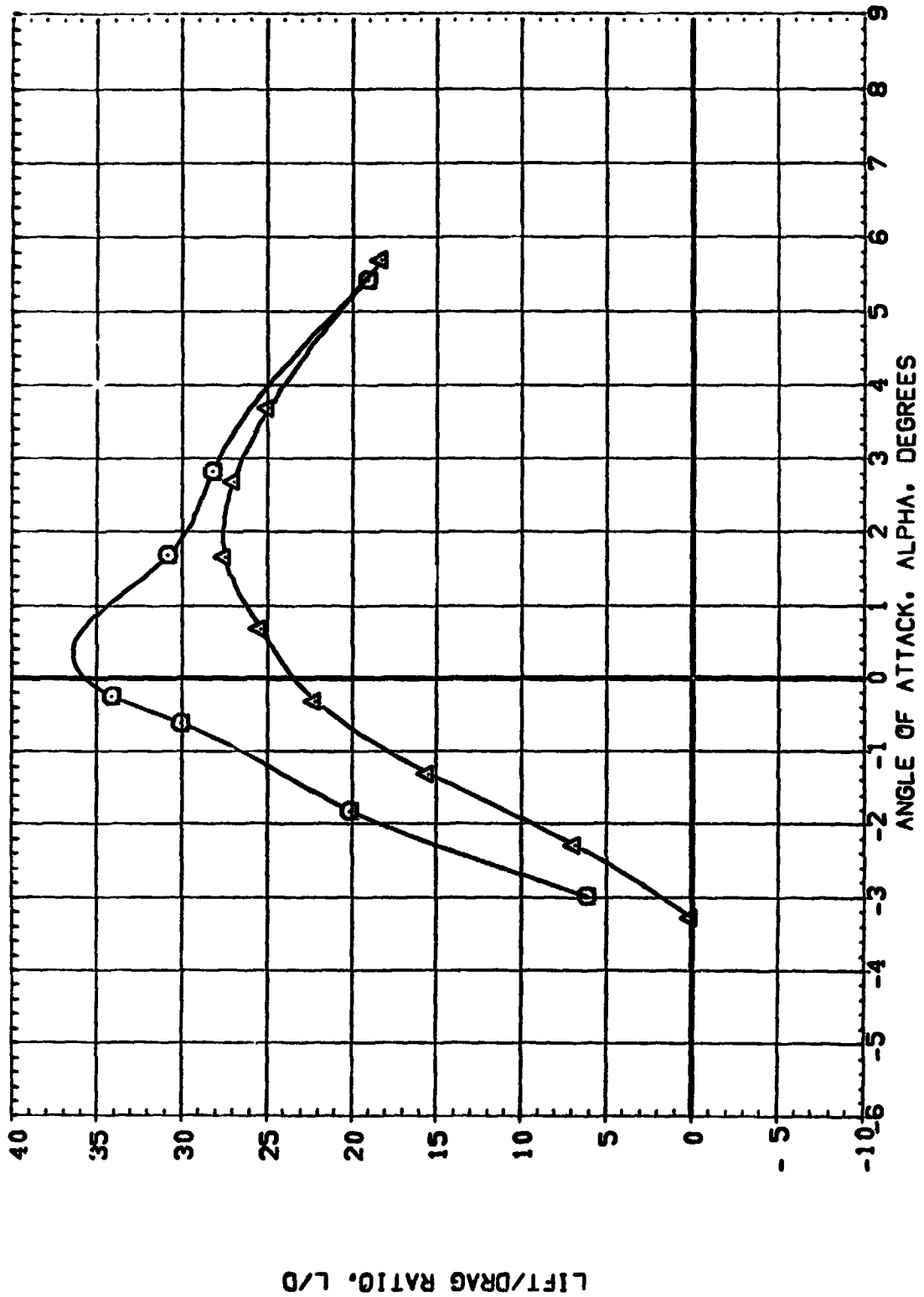


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.70, LAMBDA = 0 DEGREES
 (A)MACH = .70 PAGE 312

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RM/L BETA
 0.000 6.000 0.000
 0.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAENR1) \odot WS P⁰ B
 (BAENR1) \triangle WS P⁰ B (FIXED TRANSITION)

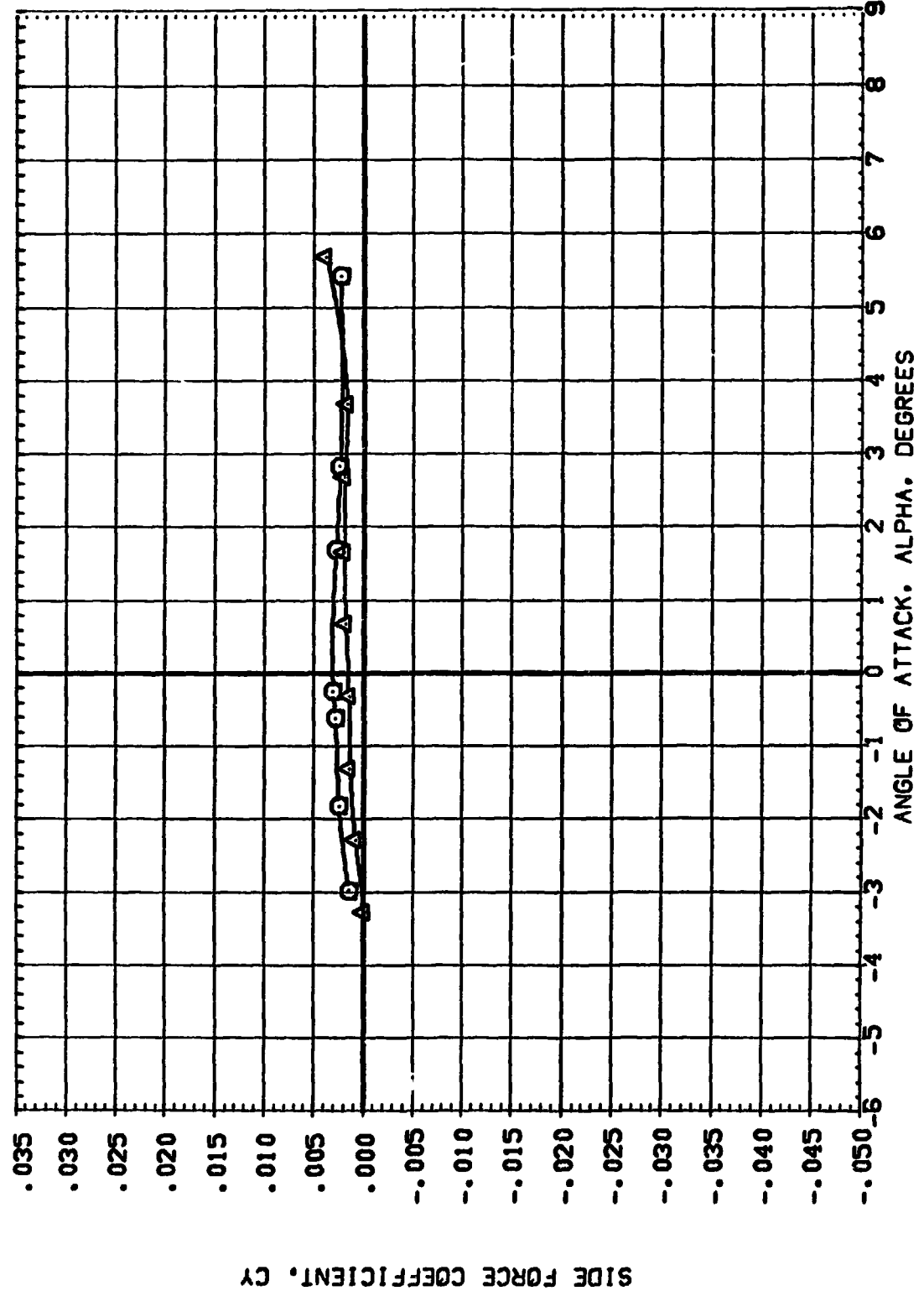
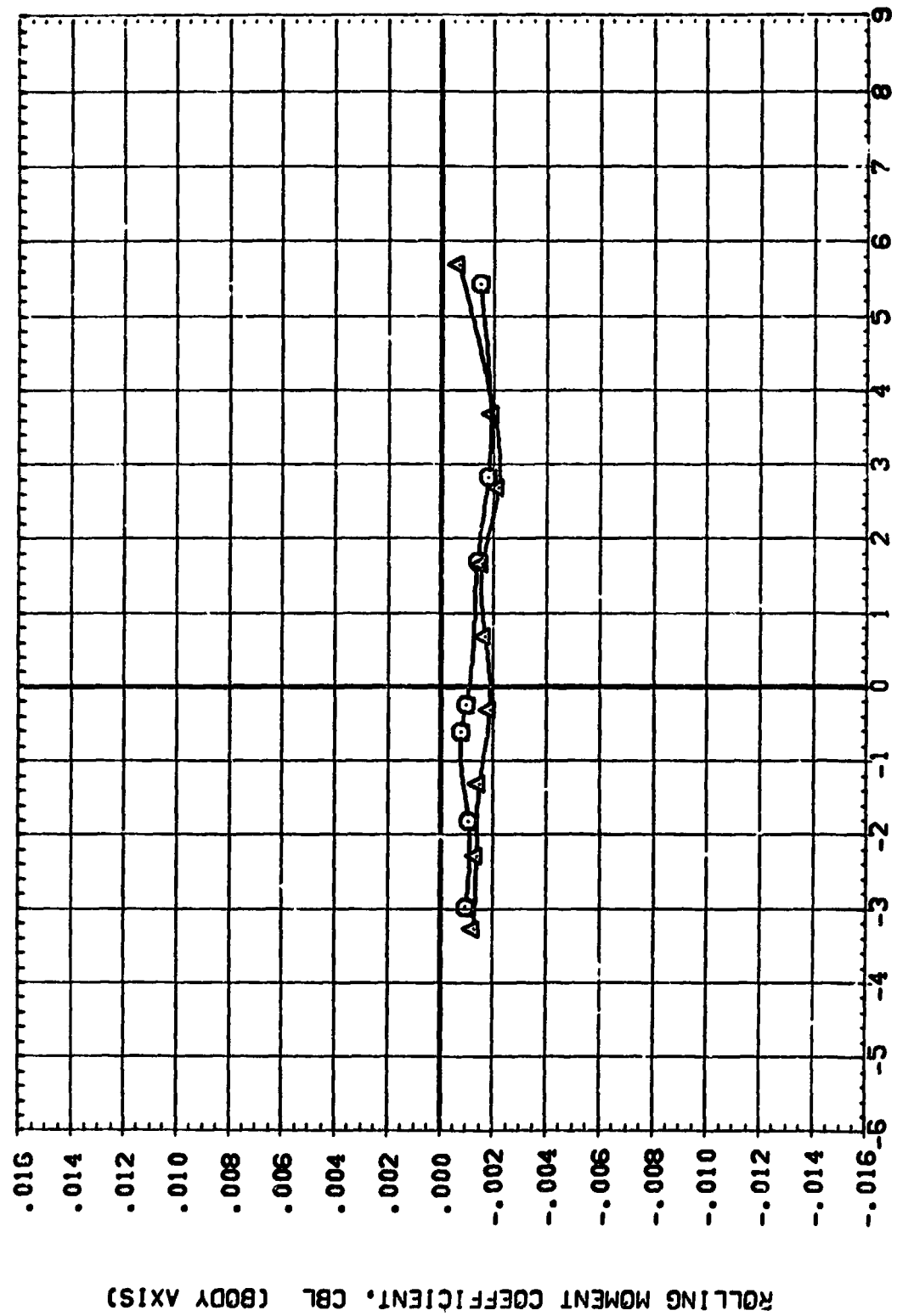


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.70, LAMBDA = 0 DEGREES
 (A) MACH = .70 PAGE 313

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP 0.000 9.000
 RM/L 6.000 6.000
 BETA 9.000 9.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (JA021) Ω WS FN B
 (BAL-31) Ω WS FN B (FIXED TRANS .ION)



ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.70, LAMBDA = 0 DEGREES
 (A) MACH = .70

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(BAE'88) WS P7 B
(BAE'88) WS P7 B (FIXED TRANSITION)

SHEEP RN/L BET,
45.000 6.000 0.000
45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

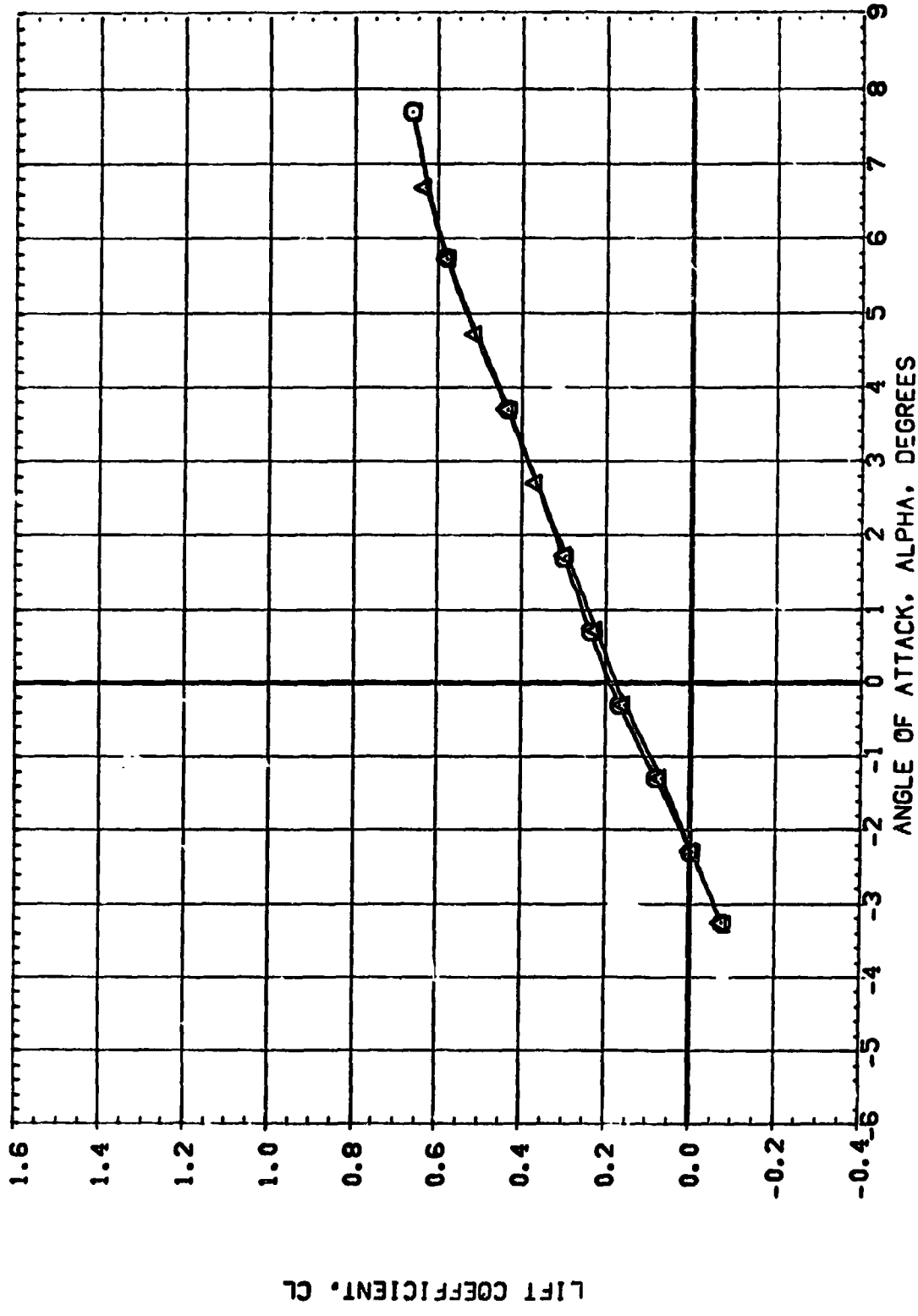


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.80, LAMBDA=45 DEGREES
(AJMAL. = .80) PAGE 316

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE'88) W3 P3 B
 (BAE'88) W3 P3 B (FIXED TRANSITION)

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

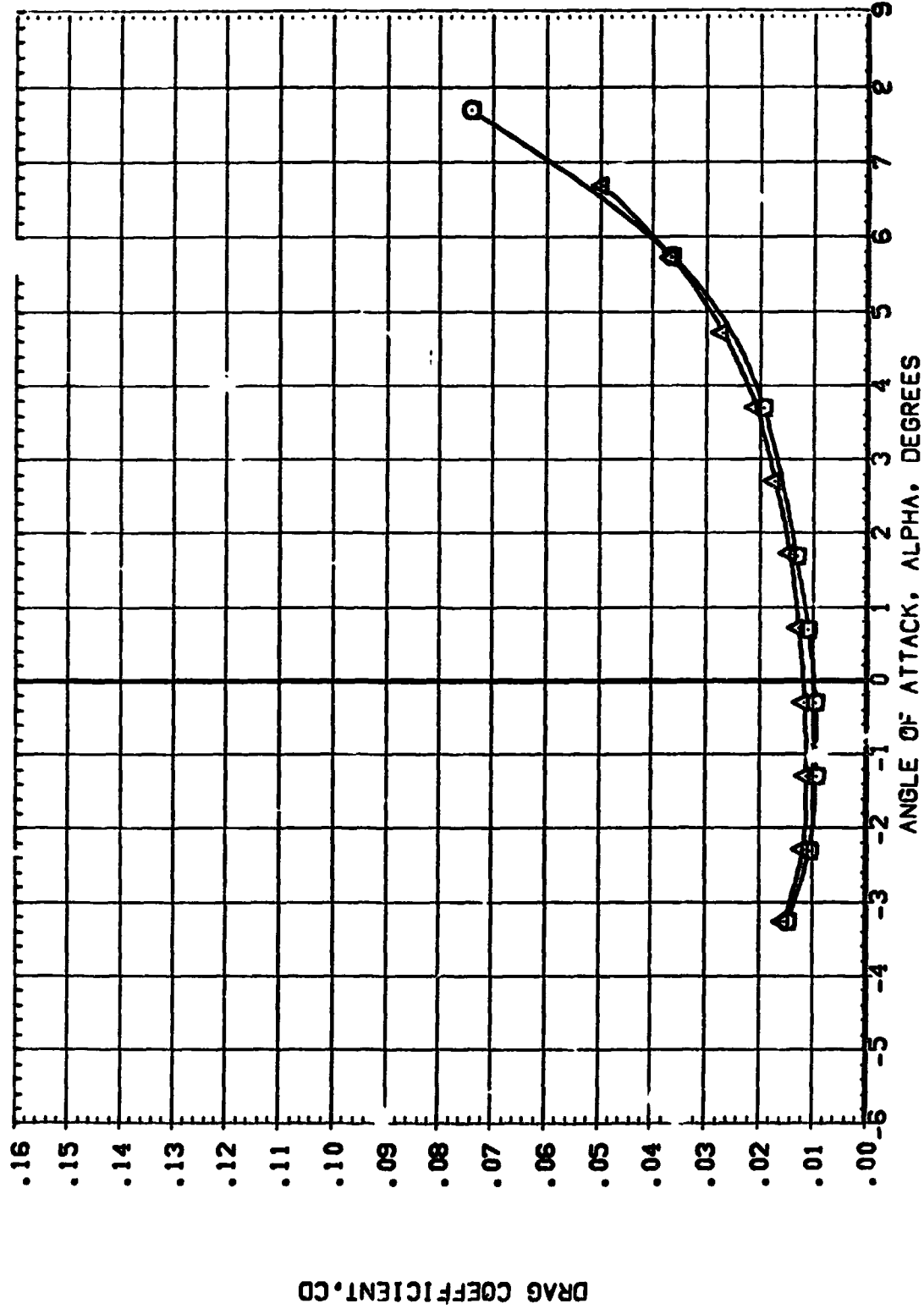


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.80, LAMBDA=45 DEGREES
 (A)MACH = .80 PAGE 317

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP 45.000
 45.000
 45.000

RN/L 6.000
 6.000
 6.000

BETA 0.000
 0.000
 0.000

DATA SET SYMBOL (BAE188) (BAE188)
 (BAE188) (BAE188)

CONFIGURATION DESCRIPTION VS P/N B (FIXED TRANSITION)
 VS P/N B (FIXED TRANSITION)

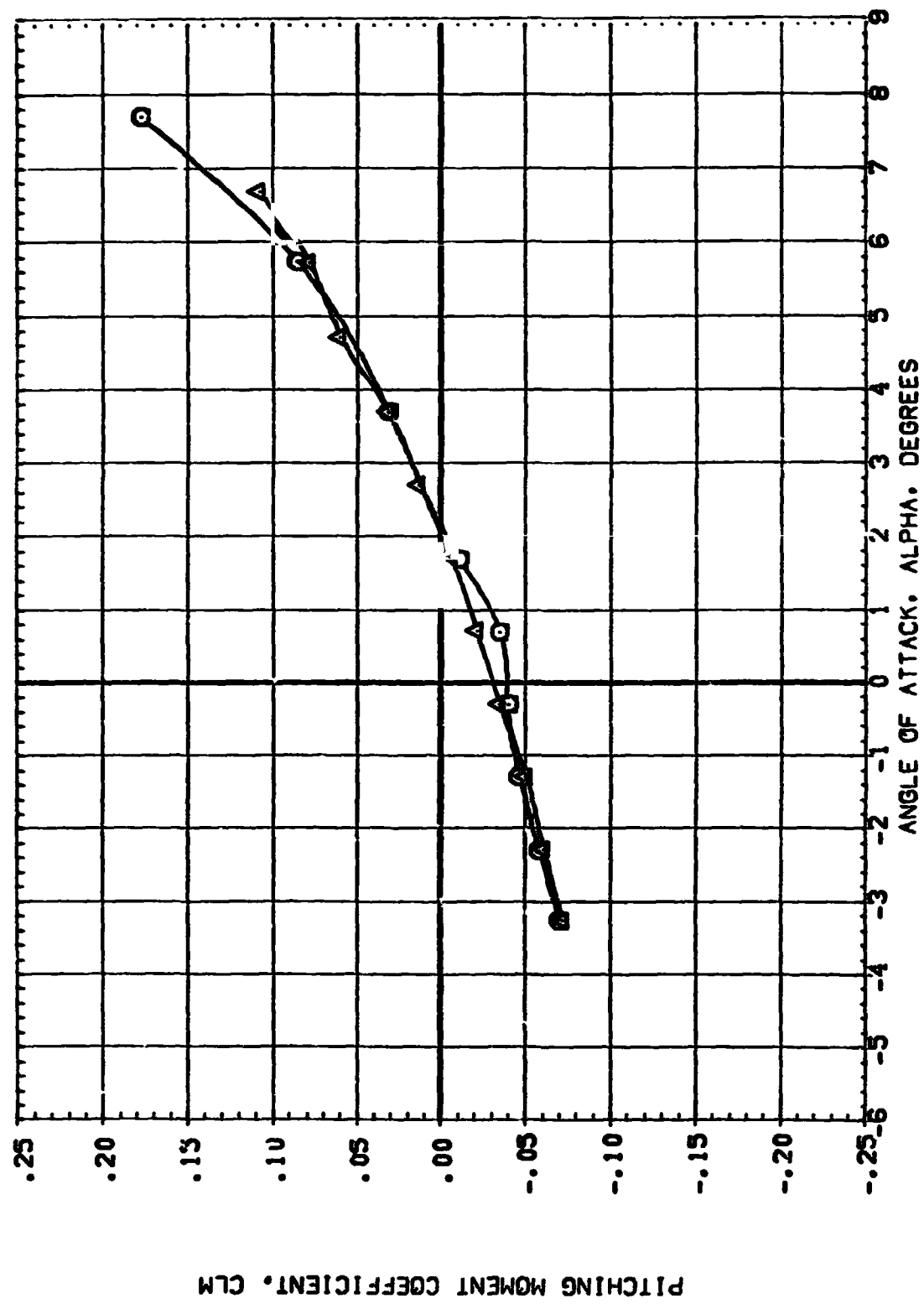


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS. MACH NO. = 0.80, LAMBDA=45 DEGREES
 (A)MACH = .80 PAGE 318

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE083) Ω W3 P1 B
 (BAE082) Δ W3 P1 B (FIXED TRANSITION)

SHEEP RN/L BETA
 45.000 6.700 0.000
 48.000 6.700 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

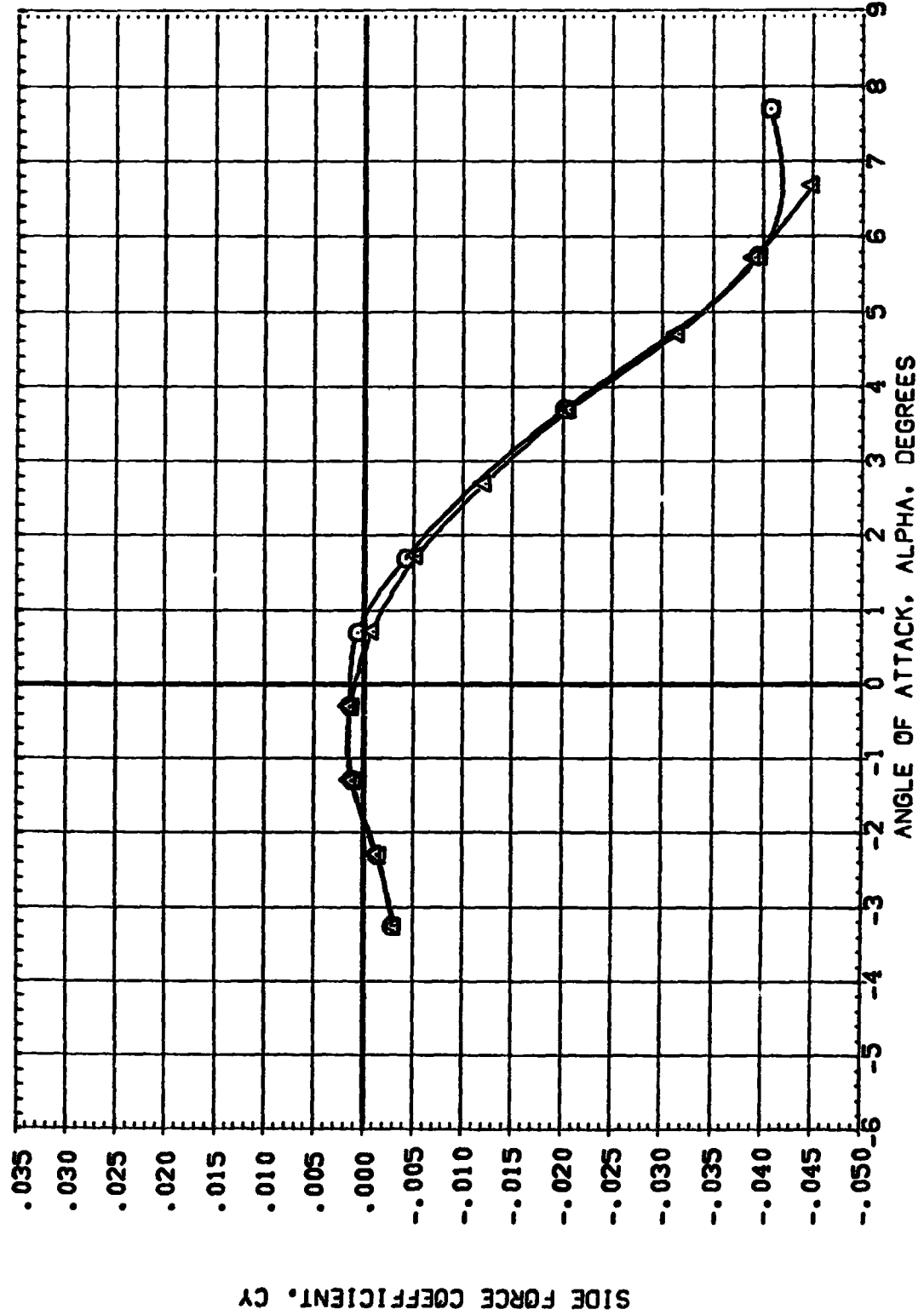


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.80, LAMBDA=45 DEGREES
 (A) MACH = .80

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (0A0723) Ω W3 P3 B
 (0A0732) Ω W3 P3 B (FIXED TRANSITION)

SWEEP RH/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

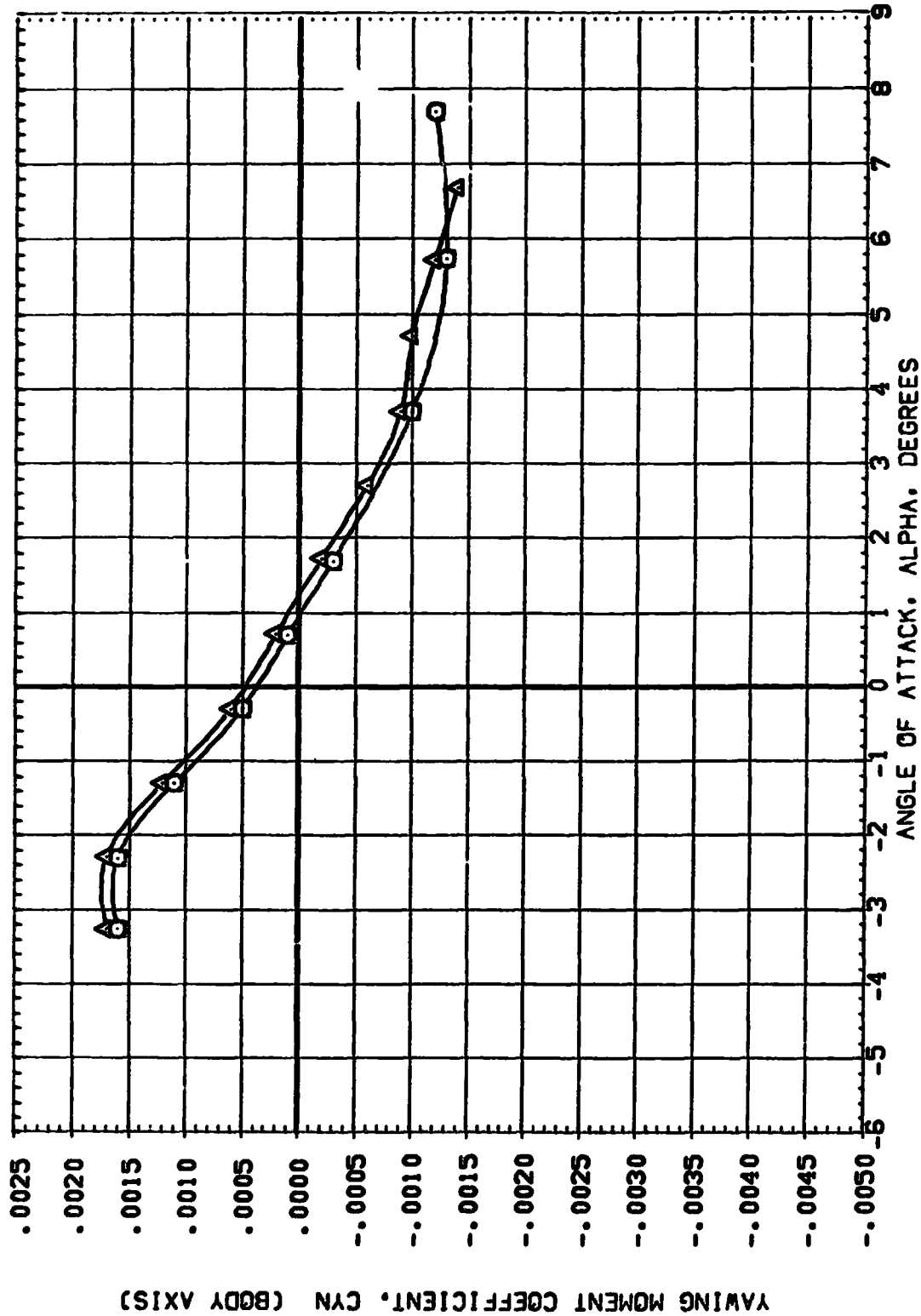


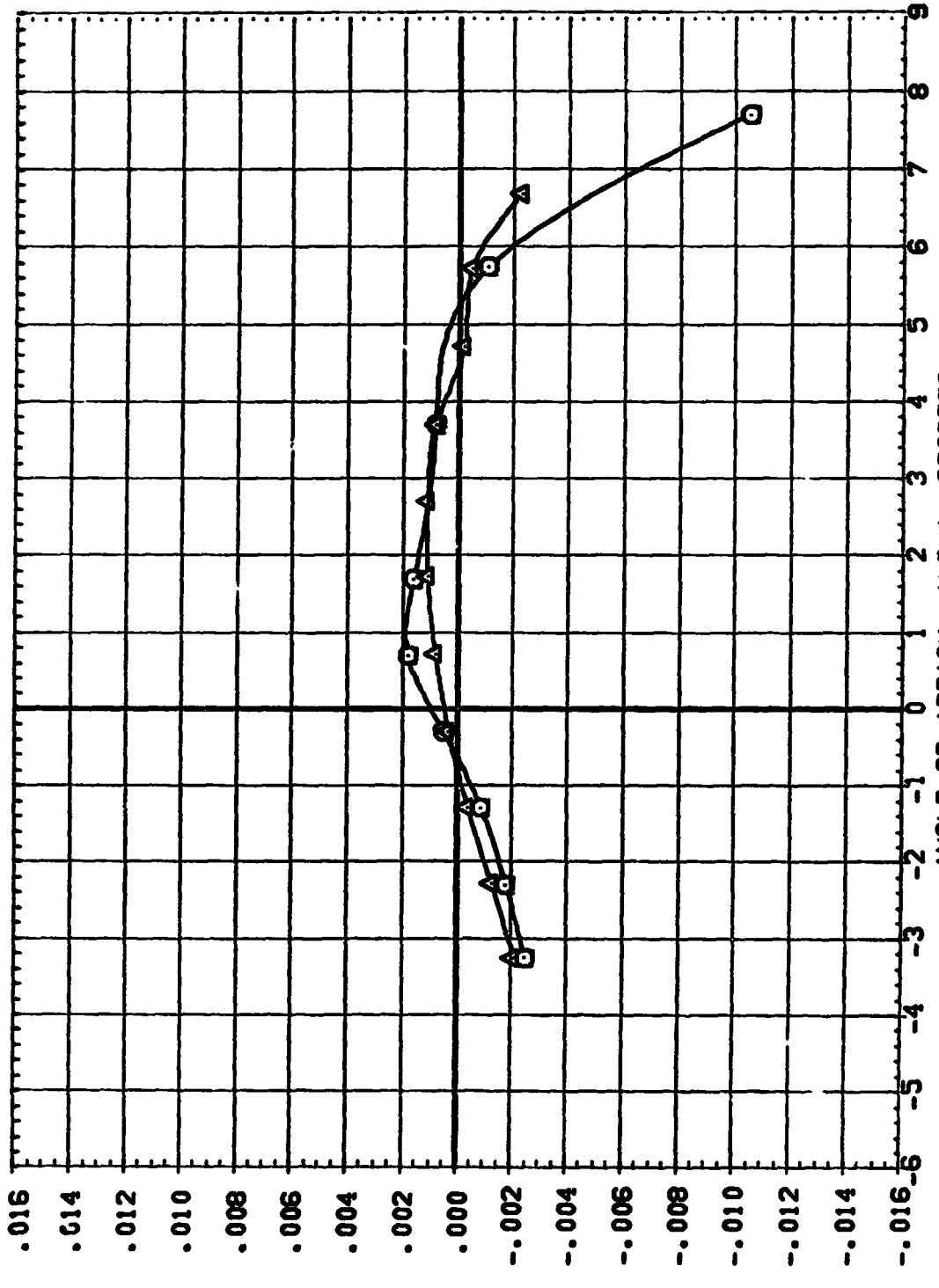
FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.80, LAMBDA=45 DEGREES

(A)MACH = .80

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RN/L BETA
 48.000 6.000 0.000
 45.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (BAE033) \square W3 P3 B
 (BAE032) \triangle W3 P3 B (FIXED TRANSITION)



ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.80, LAMBDA=45 DEGREES
 (A) MACH = .80 PAGE 322

DATA SET SYMBOL: \otimes CONFIGURATION DESCRIPTION: WS F0 B (FIXED TRANSITION)

SWEEP: 45.000 45.000
 RN/L: 6.000 6.000
 BETA: 0.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

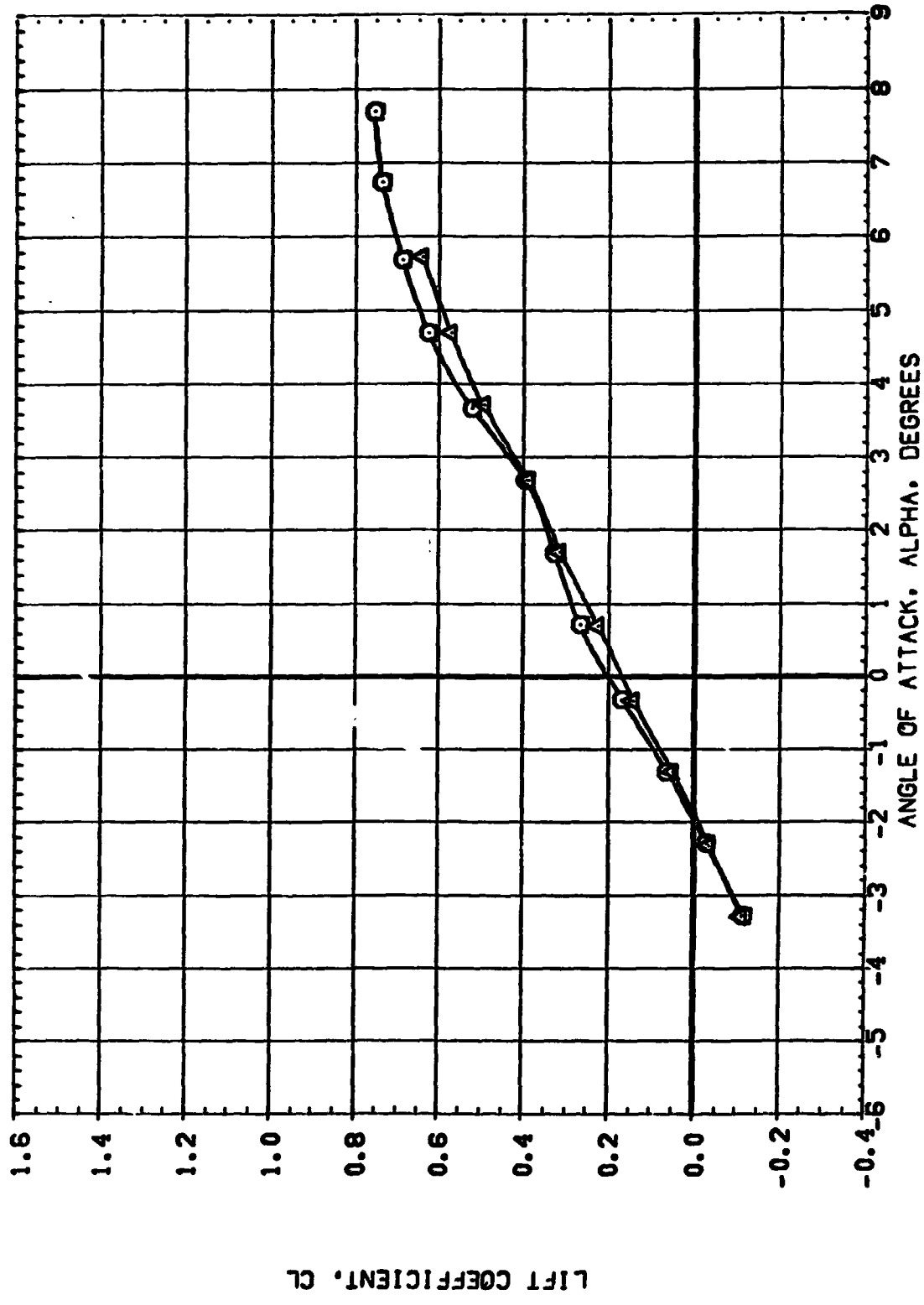


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.98, LAMBDA=45 DEGREES
 (A) MACH = .98 PAGE 323

DATA SET SYMBOL: Ω CONFIGURATION DESCRIPTION: W8 P7 B (FIXED TRANSITION)

SWEEP: 45.000 R/N/L: 6.000 BETA: 9.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

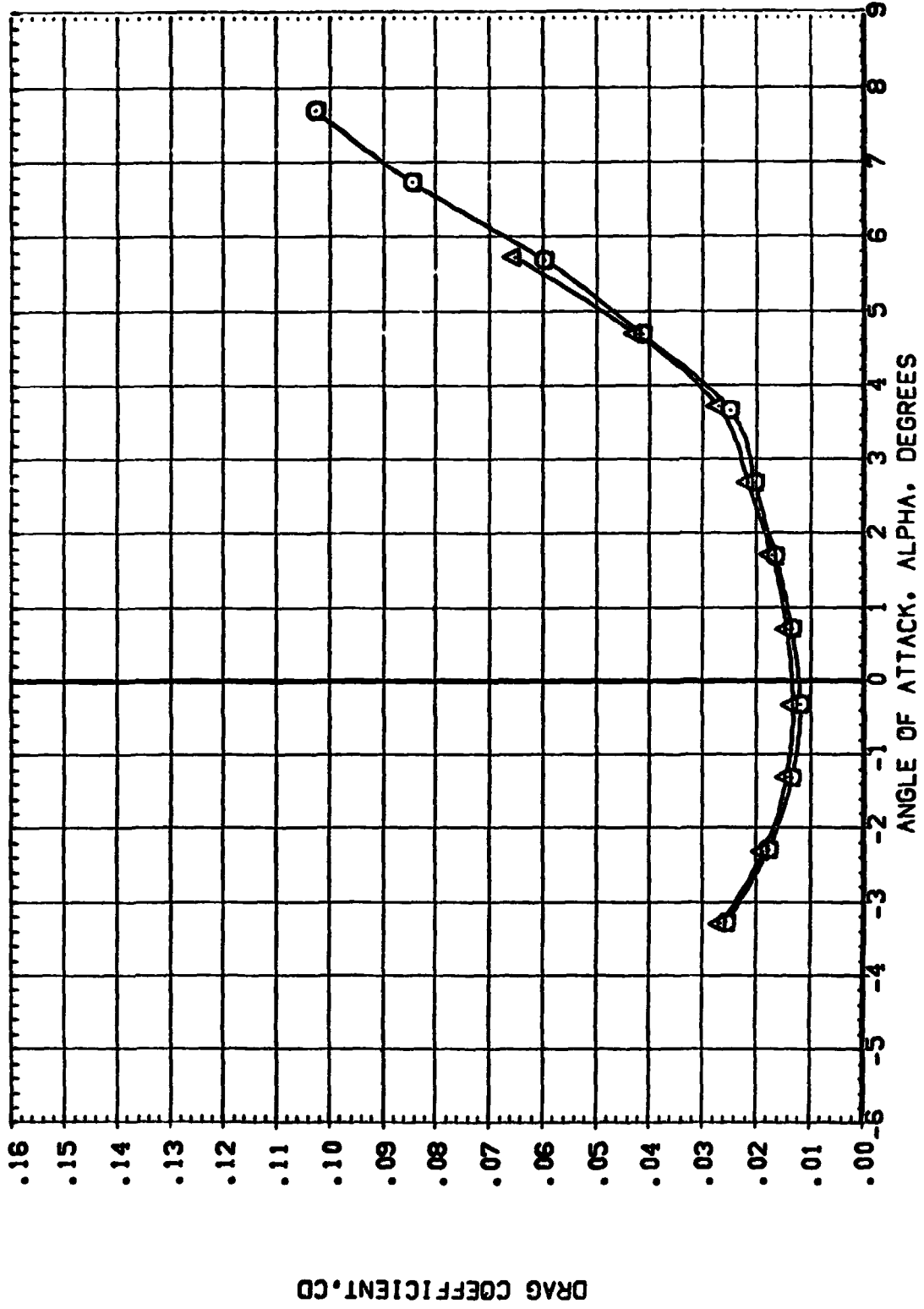


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.98, LAMBDA=45 DEGREES
 (A)MACH = .98 PAGE 324

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

BMEEP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

DATA SET SYMBOL COMMENTS IN DESCRIPTION
 (EACH) 8 MS P 8 (EACH) 8 MS P 8 (EACH) 8 MS P 8
 (EACH) 8 MS P 8 (EACH) 8 MS P 8 (EACH) 8 MS P 8

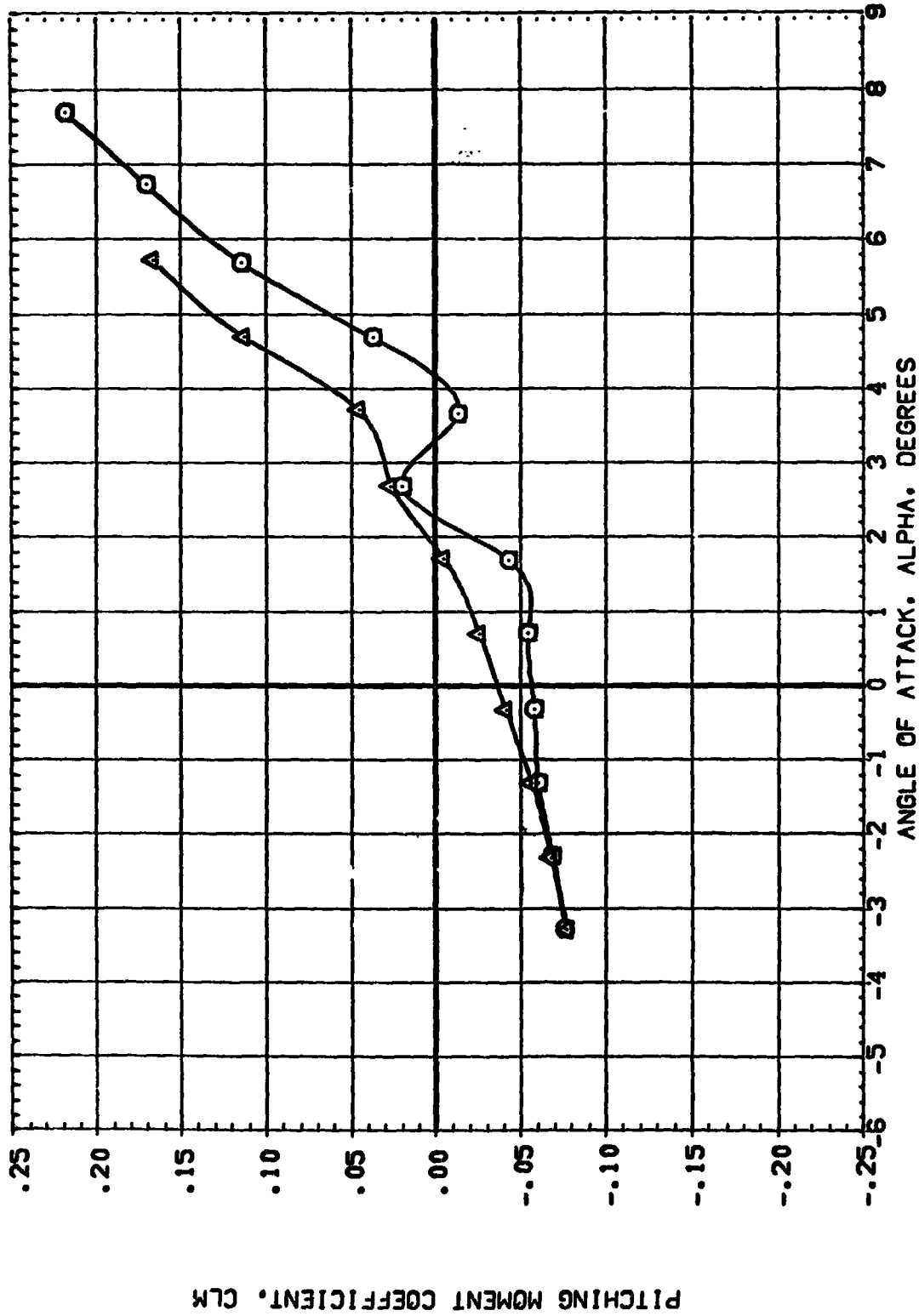


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.98, LAMBDA=45 DEGREES
 (A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (LEAKS) Ω WB PG-B
 (LEAKS) Δ WB PG-B (FIXED TRANSIT, ON)

SWEEP RN/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

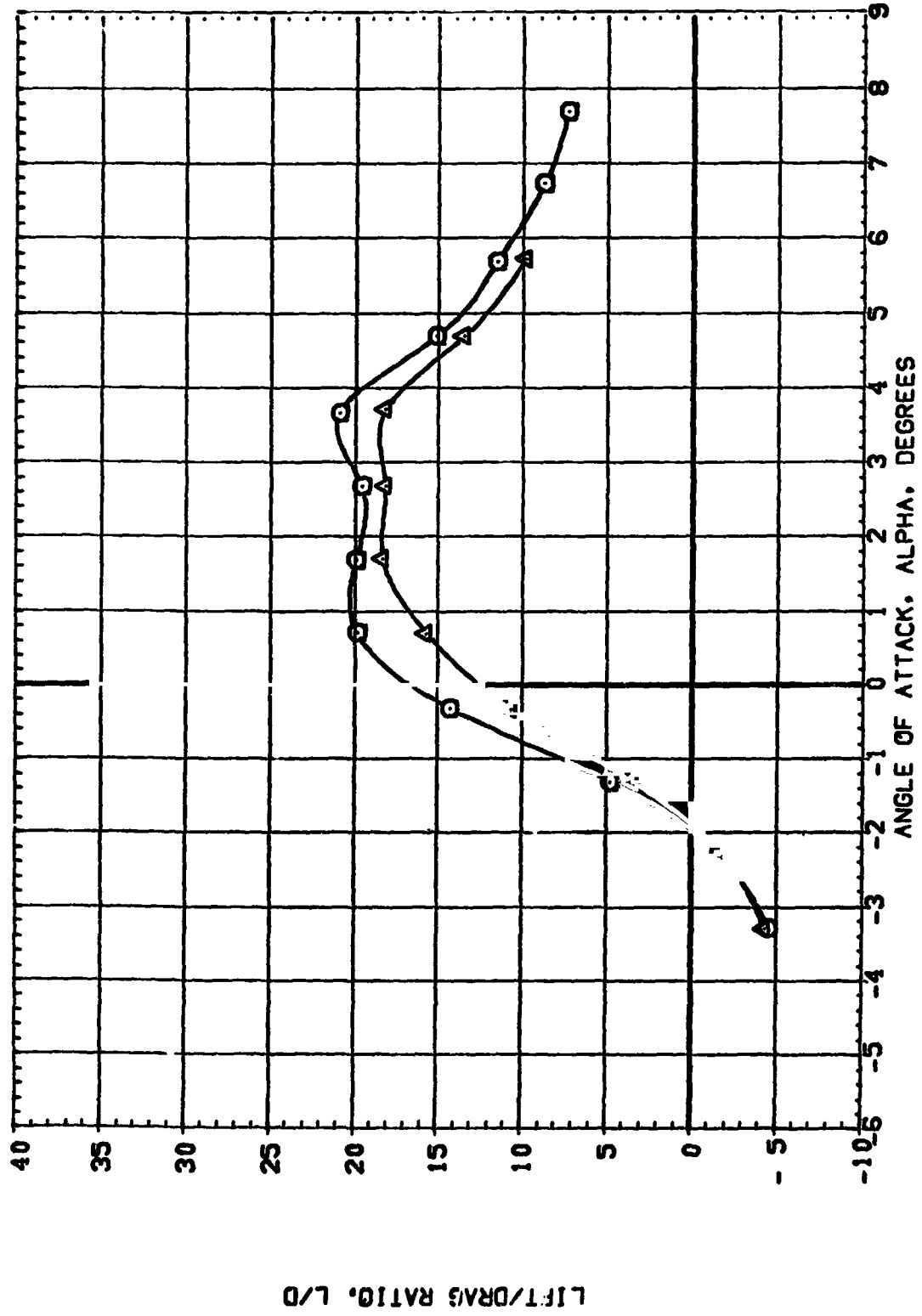


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.98, LAMBDA=45 DEGREES
 CAJMACH = .98 PAGE 326

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE032) Q W8 P0 B W8 P0 B (FIXED TRANSITION)

SWEEP RN/L BETA
 45.000 8.000 7.000
 45.000 8.000 7.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

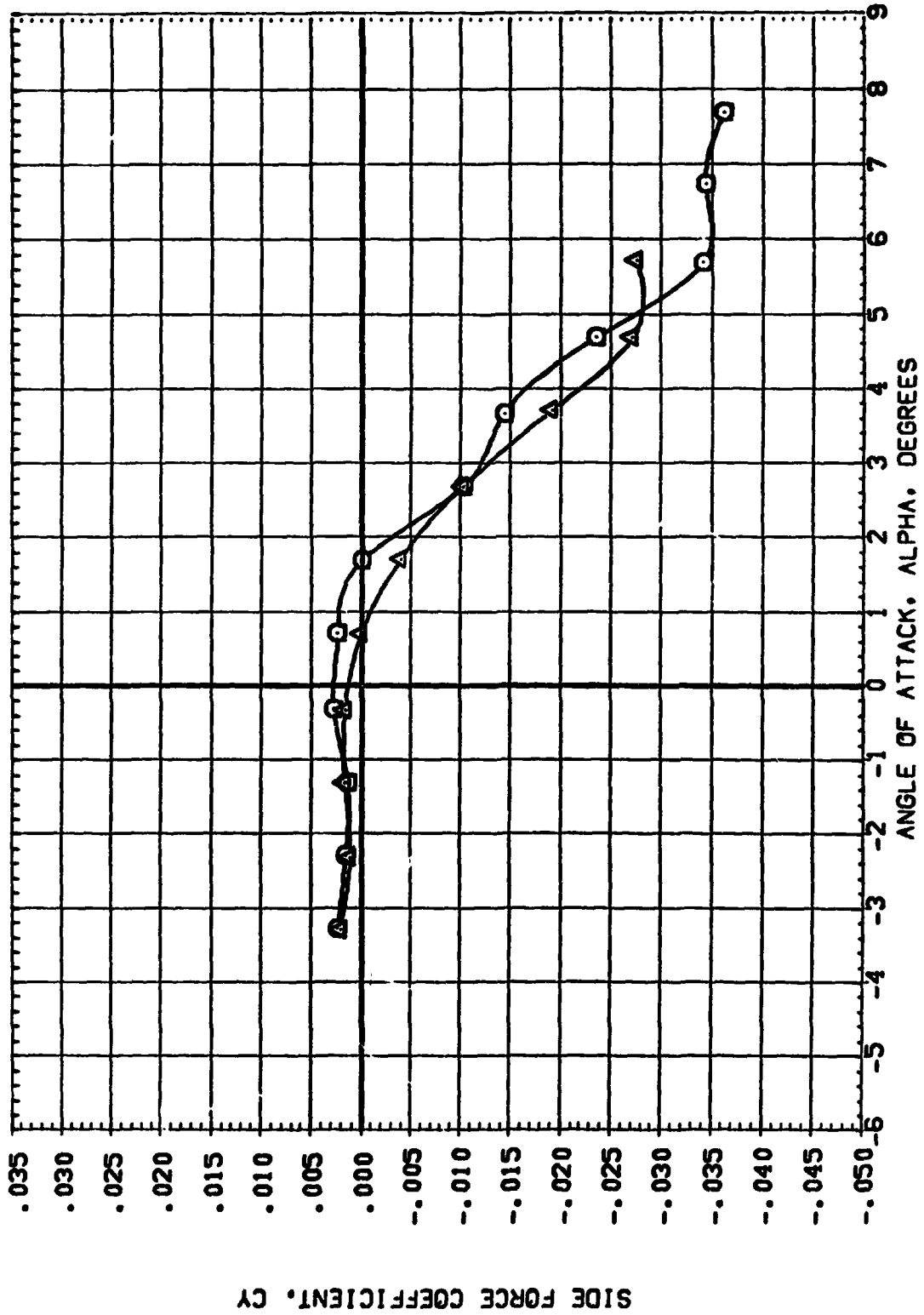


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.98, LAMBDA=45 DEGREES
 (AJMACH = .98) PAGE 327

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAENR) \square W3 P1 B
 (EAENR) \triangle W3 P1 B (FIXED TRANSITION)

SWEEP 45.000
 45.000
 RN/L 6.000
 6.000
 BETA 0.000
 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

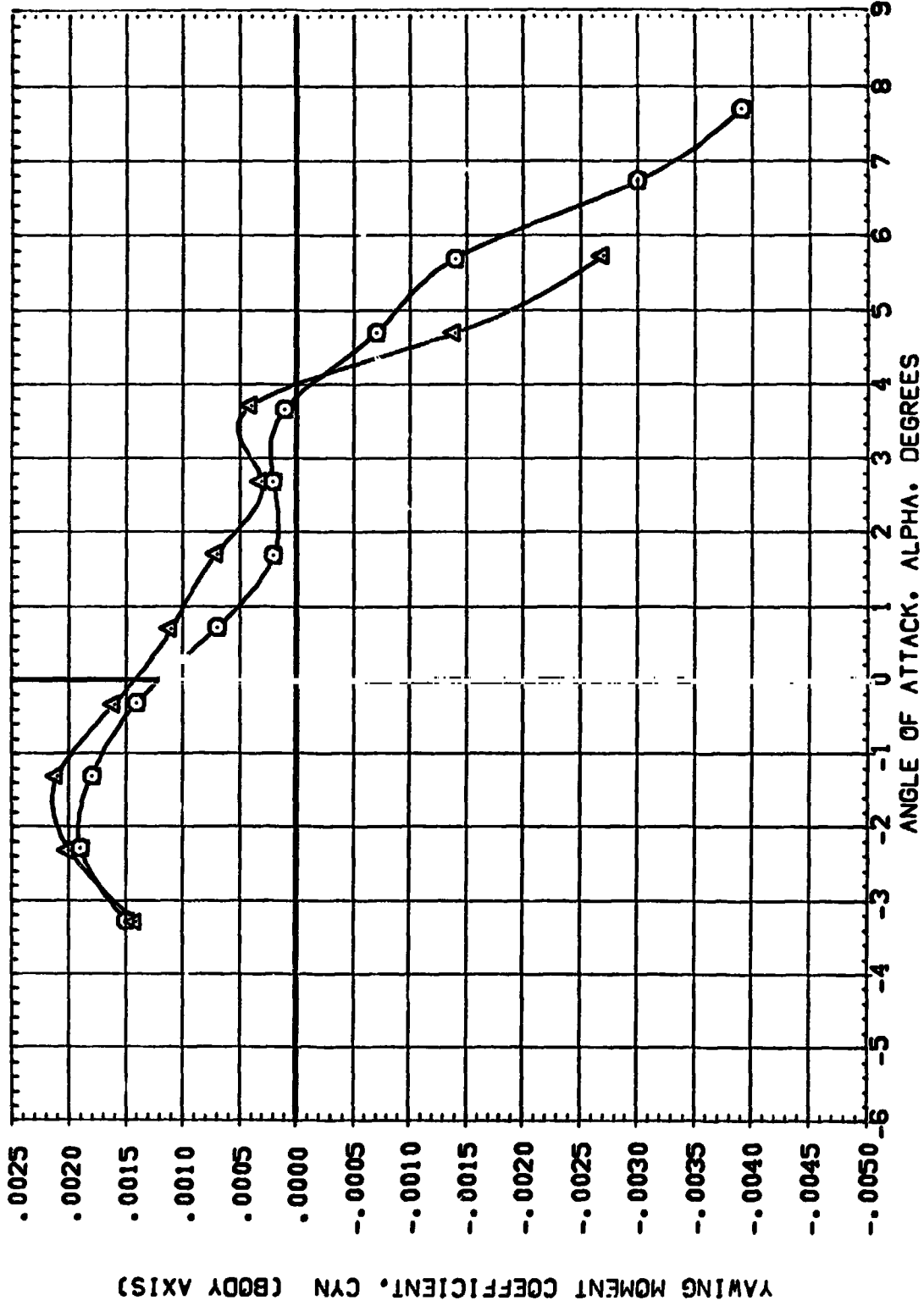


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.98, LAMBDA=45 DEGREES
 (A)MACH = .98 PAGE 328

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE123) Q WS P3 B WS P3 B (FIXED TRANSLATION)

SMELP RM/L BETA
 45.000 6.000 0.000
 45.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

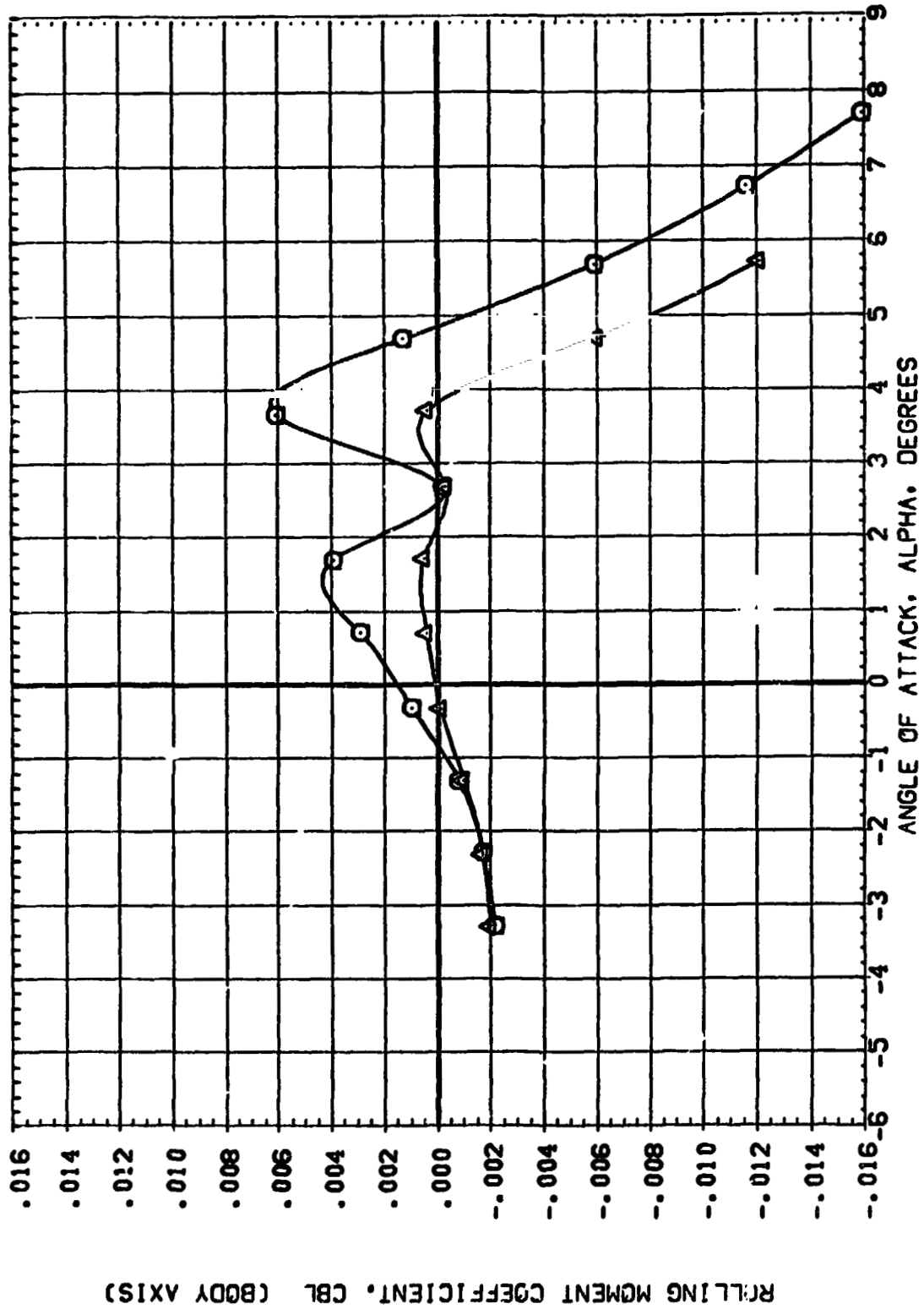


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 0.98, LAMBDA=45 DEGREES

(A)MACH = .98

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE789) Ω WS P1 B
 (EAE734) WS P1 B (FIXED TRANSITION)

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 2.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

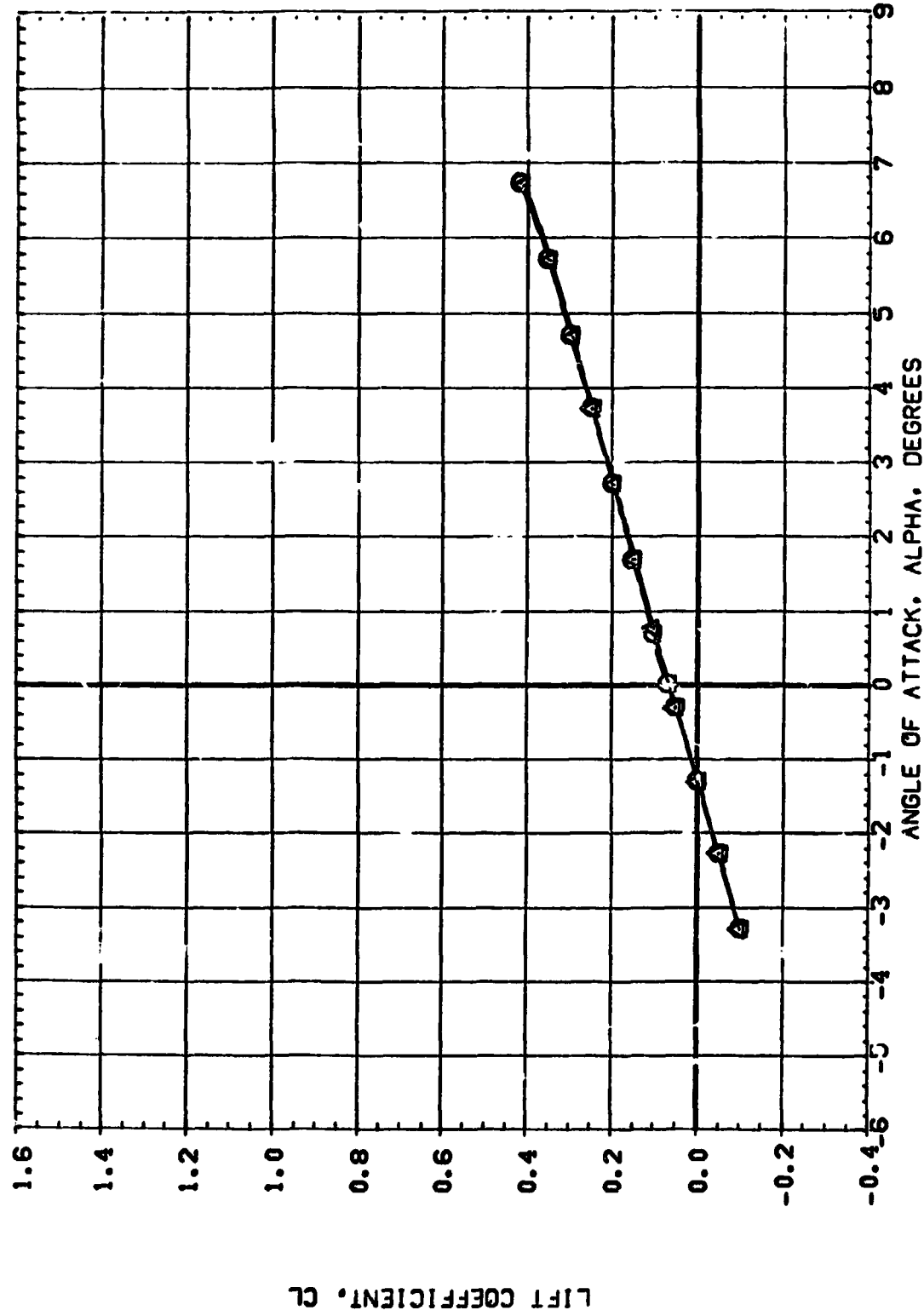


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.10, LAMBDA = 60 DEGREES
 (A) MACH = 1.10 PAGE 330

DATA SET SYMBOL VS P/B (FIXED TRANSITION)
 (EAGERS) VS P/B (FIXED TRANSITION)
 (EAL.34)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SHEEP 60.000 60.000
 RM/L 6.000 6.000
 BETA 0.000 0.000

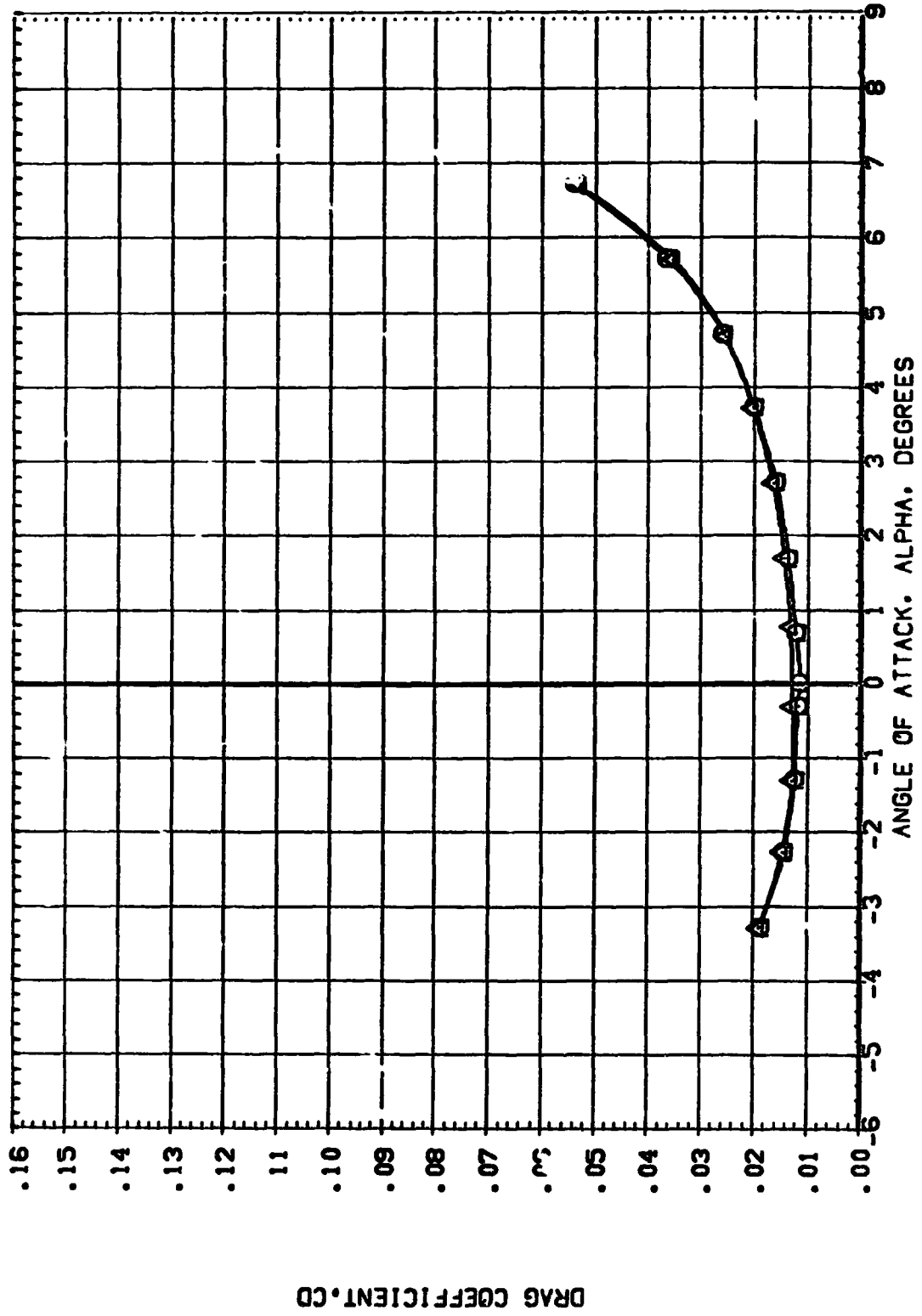


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO.= 1.10, LAMBDA=60 DEGREES
 (A)MACH = 1.10 PAGE 331

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EAE789) Q MC P3 B
 (EAE734) Q WS P3 B (FIXED TRANSITION)

SWEEP RH/L BETA
 60.000 5.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

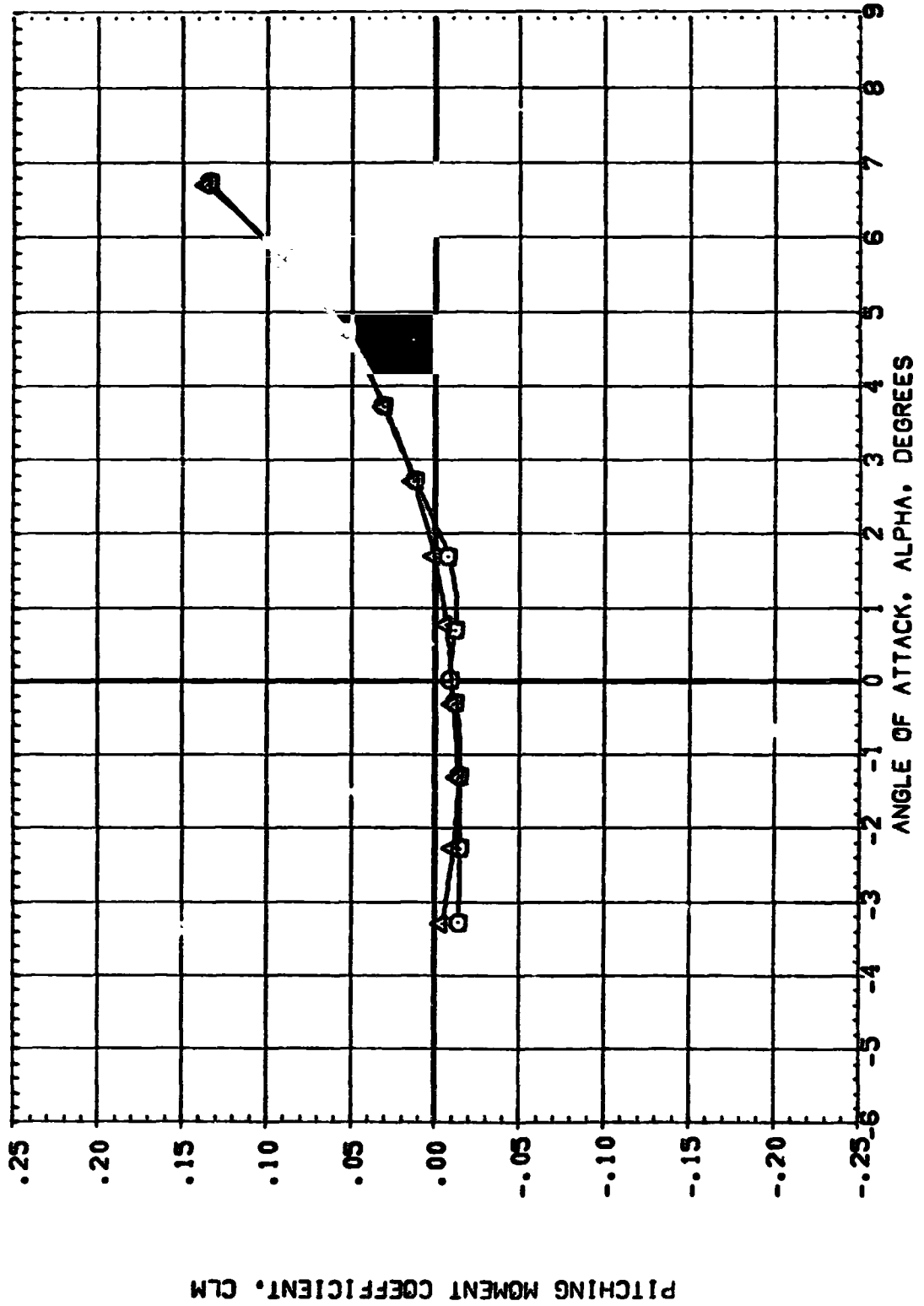


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.10, LAMBDA=60 DEGREES
 (A)MACH = 1.10 PAGE 332

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EACH) WS P0 B WS P0 B (FIXED TRANSITION)
 (EACH) WS P0 B

SWEEP RN/L BETA
 60,000 6,000 0,000
 60,000 6,000 0,000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

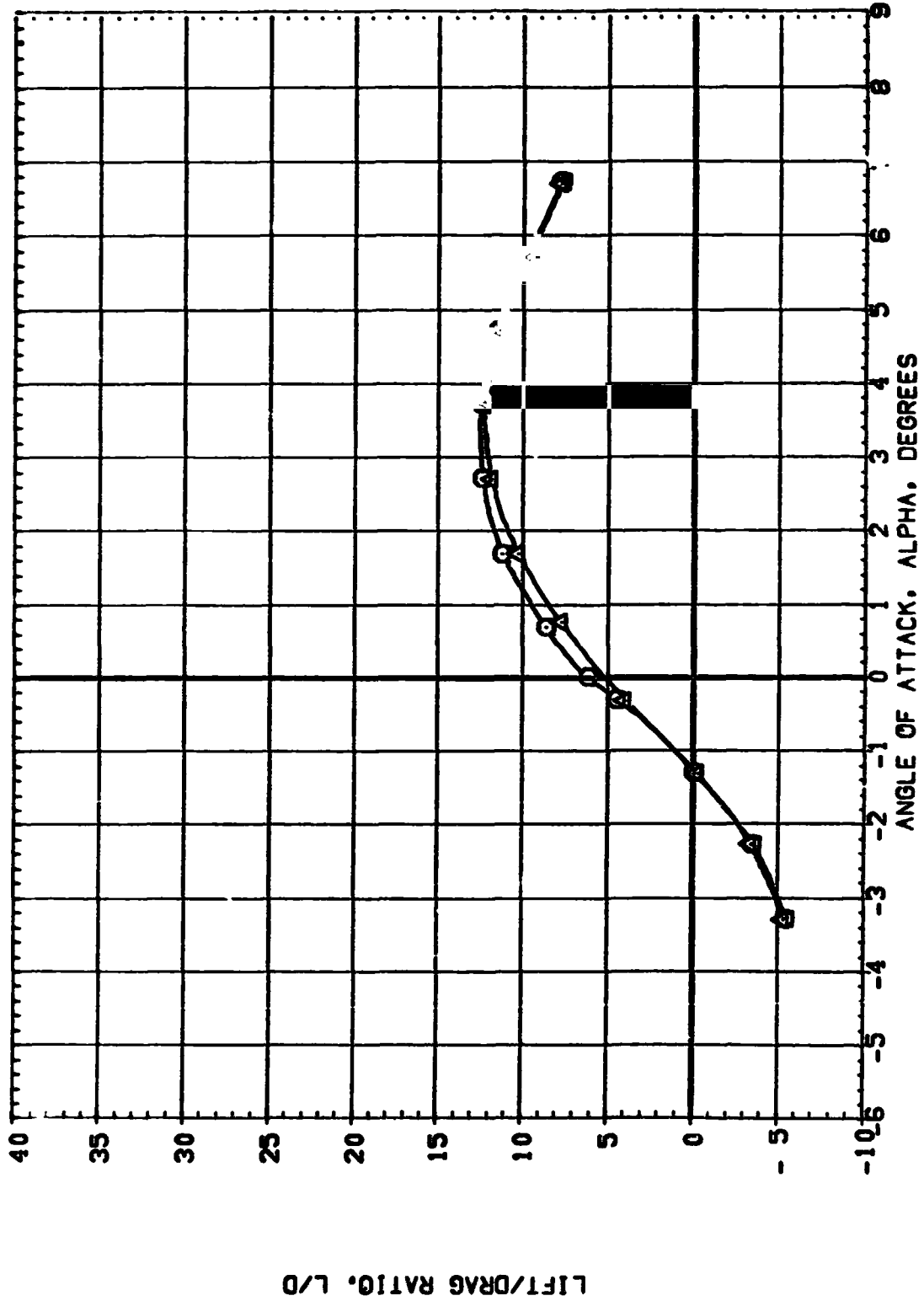


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.10, LAMBDA=60 DEGREES
 (A)MACH = 1.10 PAGE 333

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (EA2789) Ω WS P3 B (PIPED TRANSITION)
 (EA2734) Δ WS P3 B

SWEEP RN/L BETA
 60,000 6,000 0,000
 60,000 6,000 0,000

SEE THE ASSOCIATED DATA
 DOCUMENT FOR REFERENCE
 CHARACTERISTICS FOR
 INDIVIDUAL DATASETS

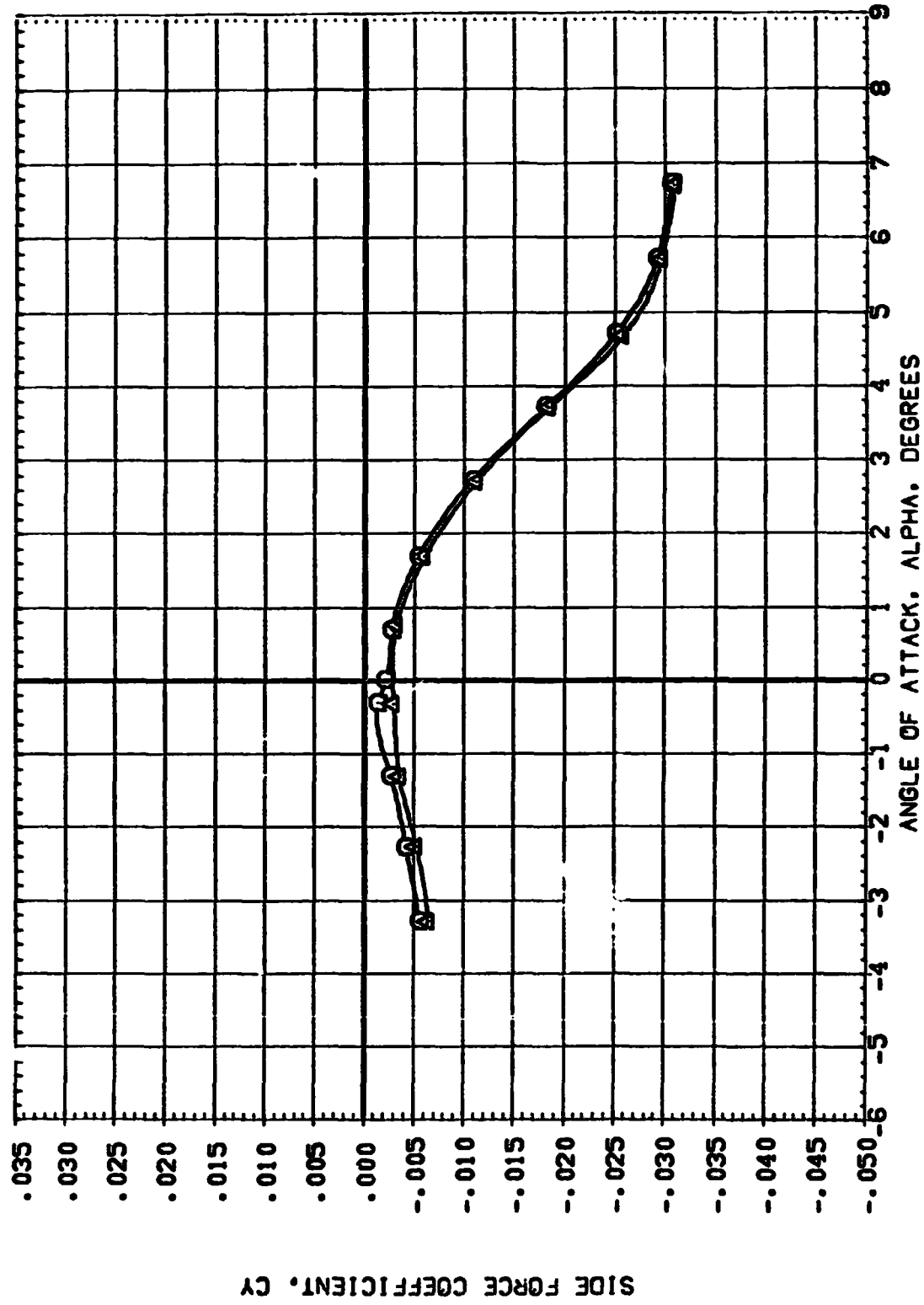


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.10, LAMBDA=60 DEGREES
 (O)MACH = 1.10 PAGE 334

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 -AC78a) Ω WS P3 B
 (EAE034) Ω WS P3 B (FIXED TRANSITION)

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

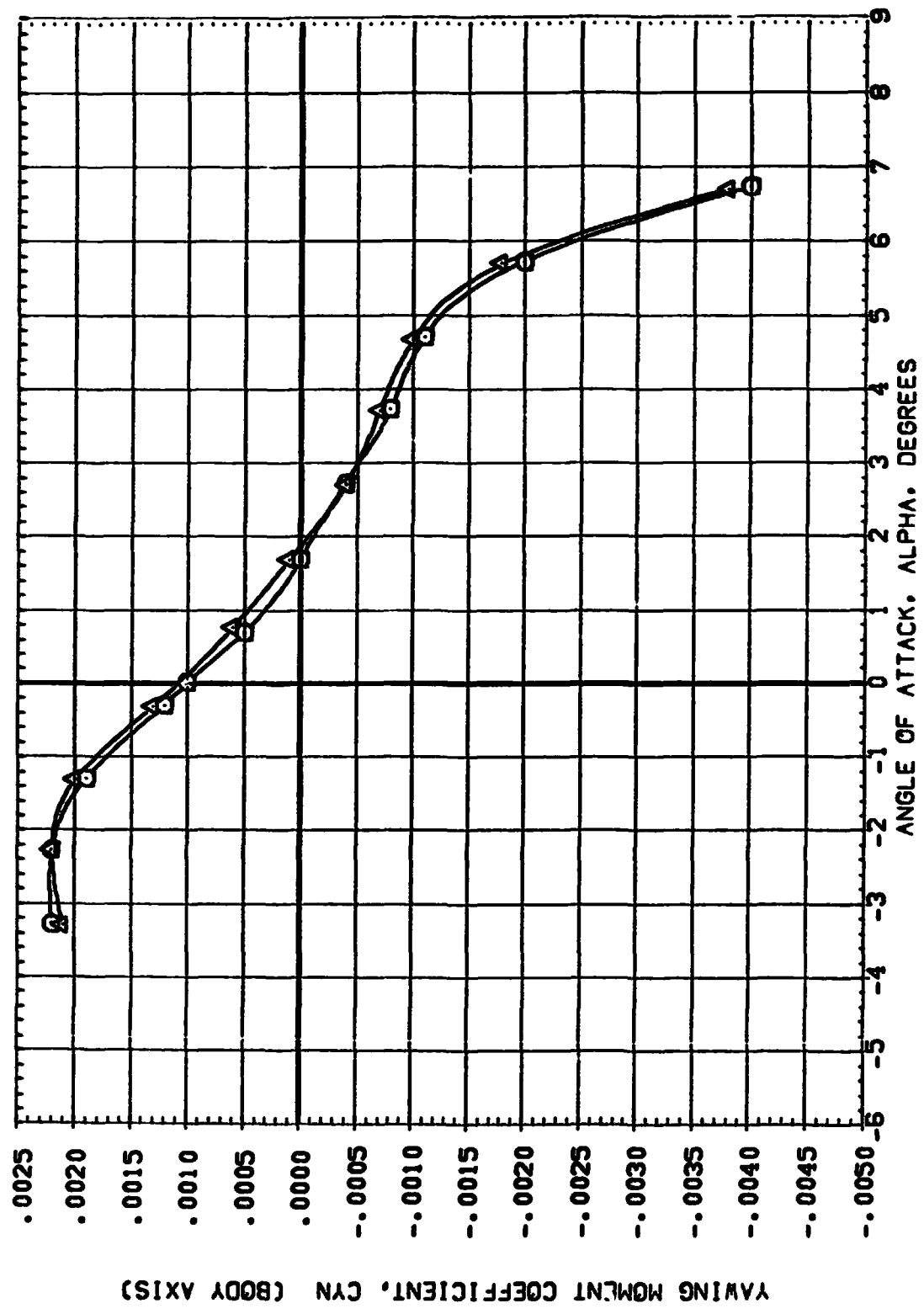
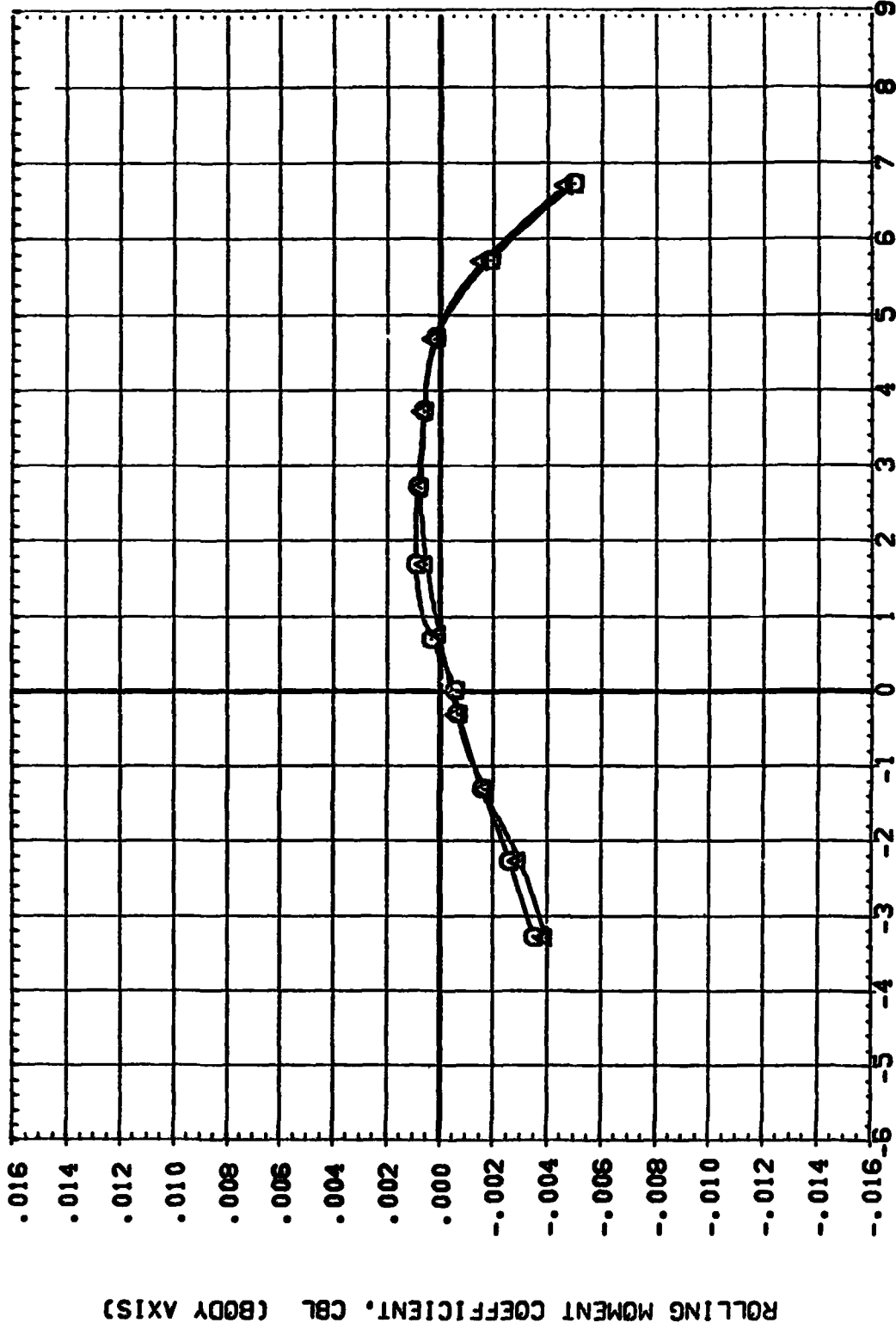


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.10, LAMBDA=60 DEGREES
 (A)MACH = 1.10 PAGE 335

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 W3 P1 B W3 P1 B (FIXED TRANSITION)



ANGLE OF ATTACK, ALPHA, DEGREES

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.10, LAMBDA=60 DEGREES
 (A)MACH = 1.10 PAGE 336

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAENB) Ω WS FN B
 (CAENB4) WS FN B (FIXED TRANSITION)

SWEEP RN/L BETA
 67.000 6.000 7.000
 67.000 6.000 7.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

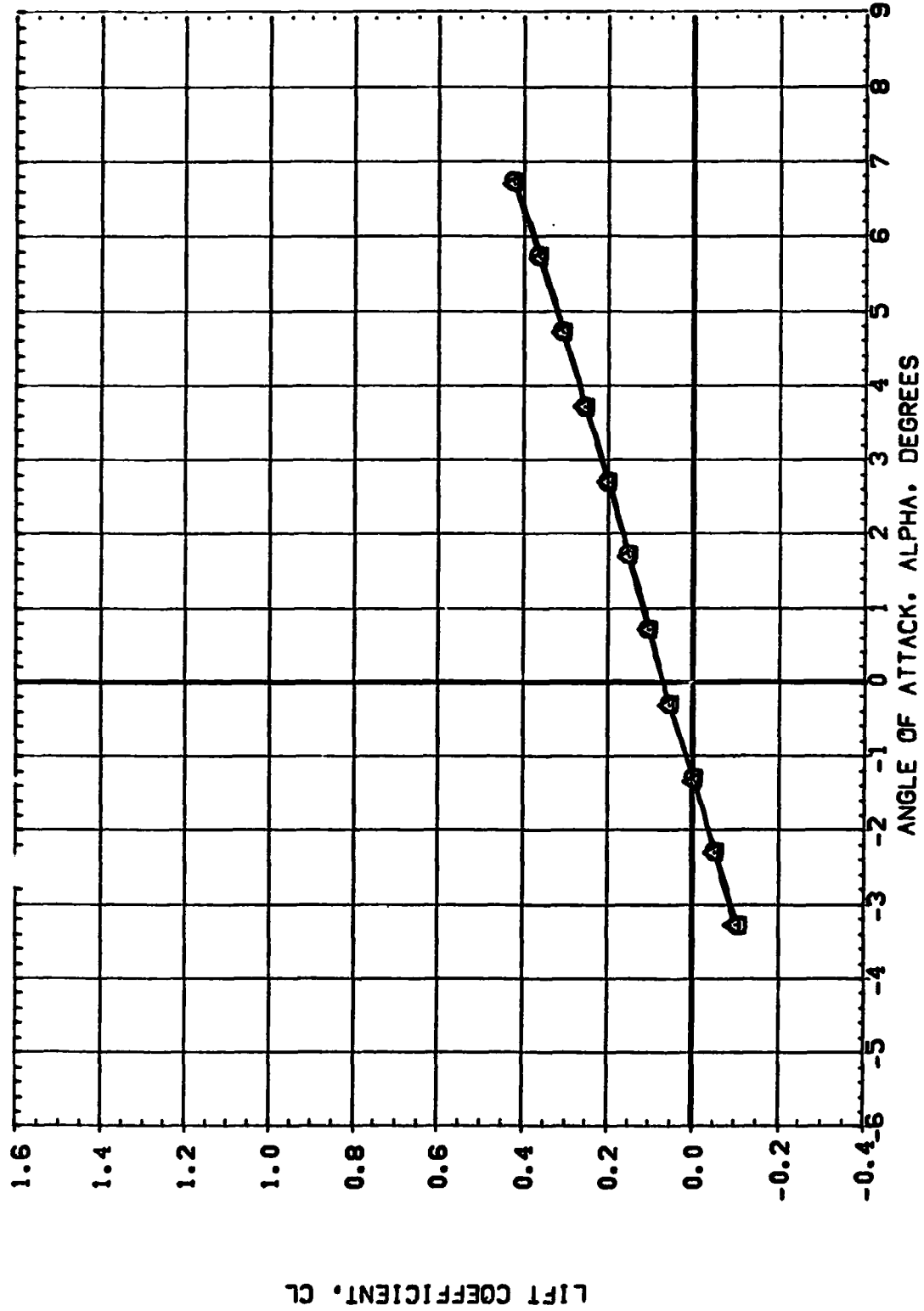


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.20, LAMBDA=60 DEGREES
 (A)MACH = 1.20 PAGE 337

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE089) W3 P1 B
 (CAE084) W3 P1 B (FIXED TRANSITION)

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

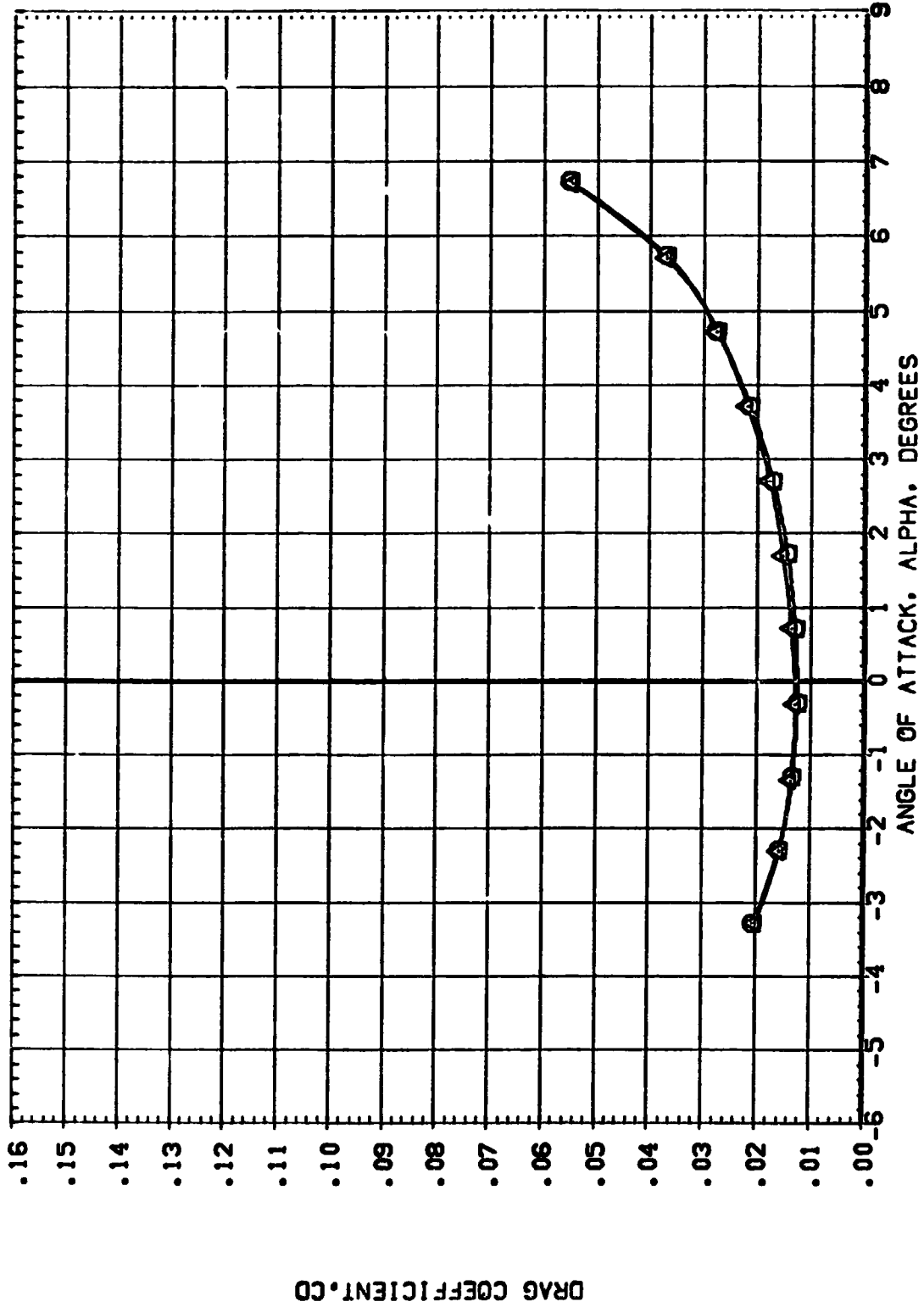


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.20, LAMBDA=60 DEGREES
 (A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE089) WS FN B
 (CAE034) WS FN B (FLAC TRANSITION)

SWEEP RN/L BETA
 80.000 6.000 0.000
 80.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

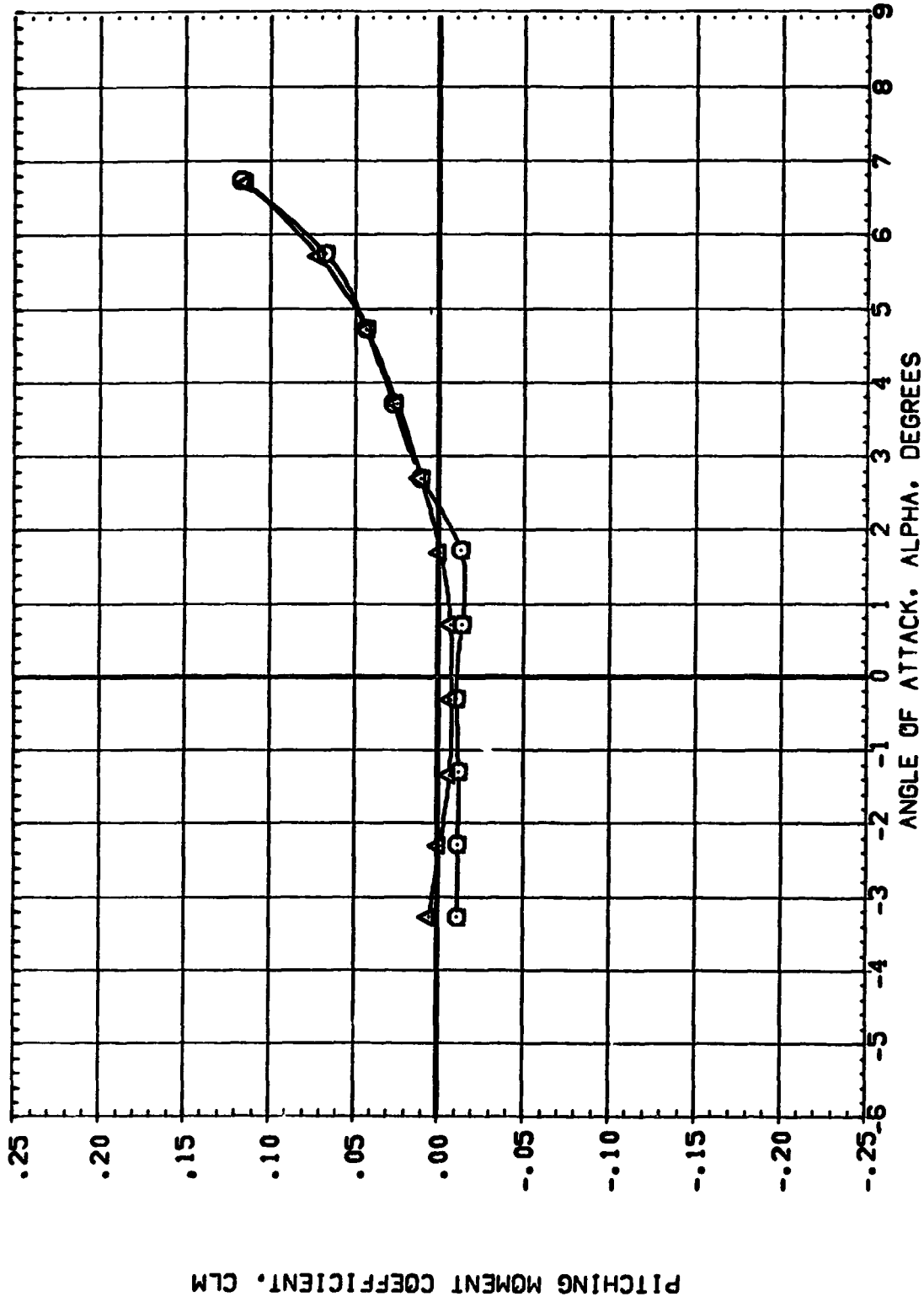


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.20, LAMBDA=60 DEGREES
 (A)MACH = 1.20

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 MS FN B
 MS FN B (FIXED TRANSITION)

SWEEP RN/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

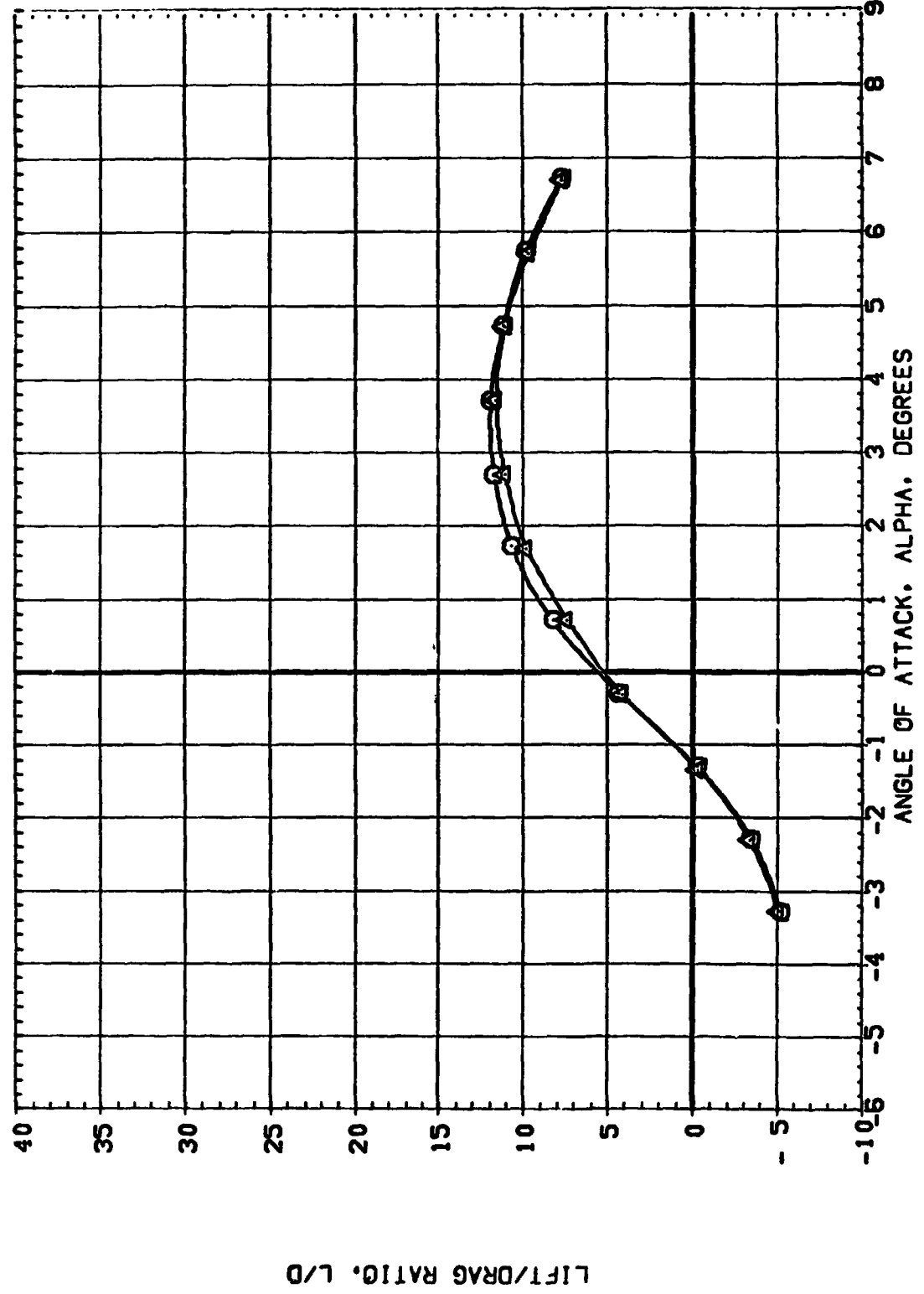


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.20, LAMBDA=60 DEGREES
 (M)MACH = 1.20 PAGE 340

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE003) WS P1 B
 (CAE004) WS P1 B (FIXED TRANSITION)

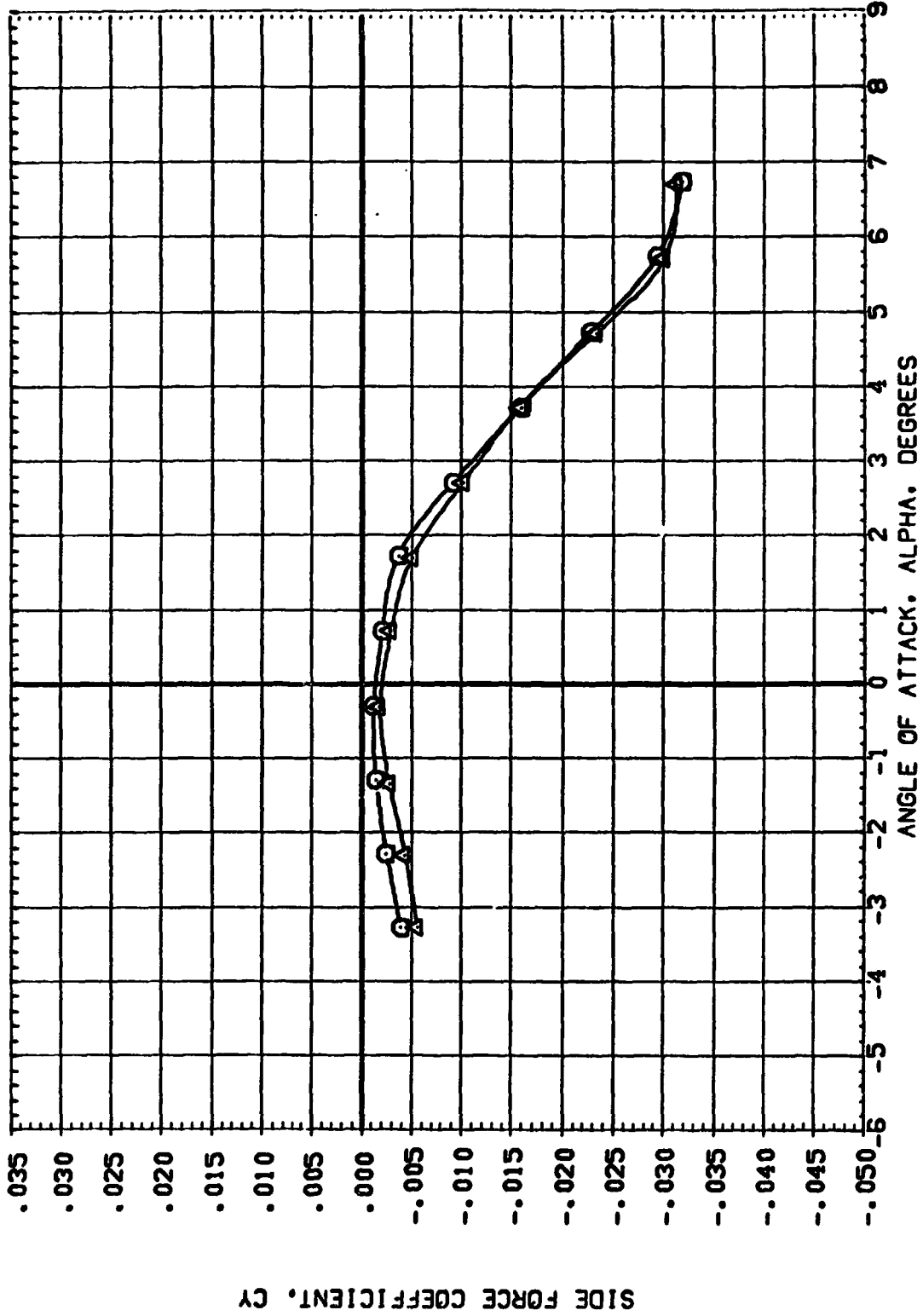
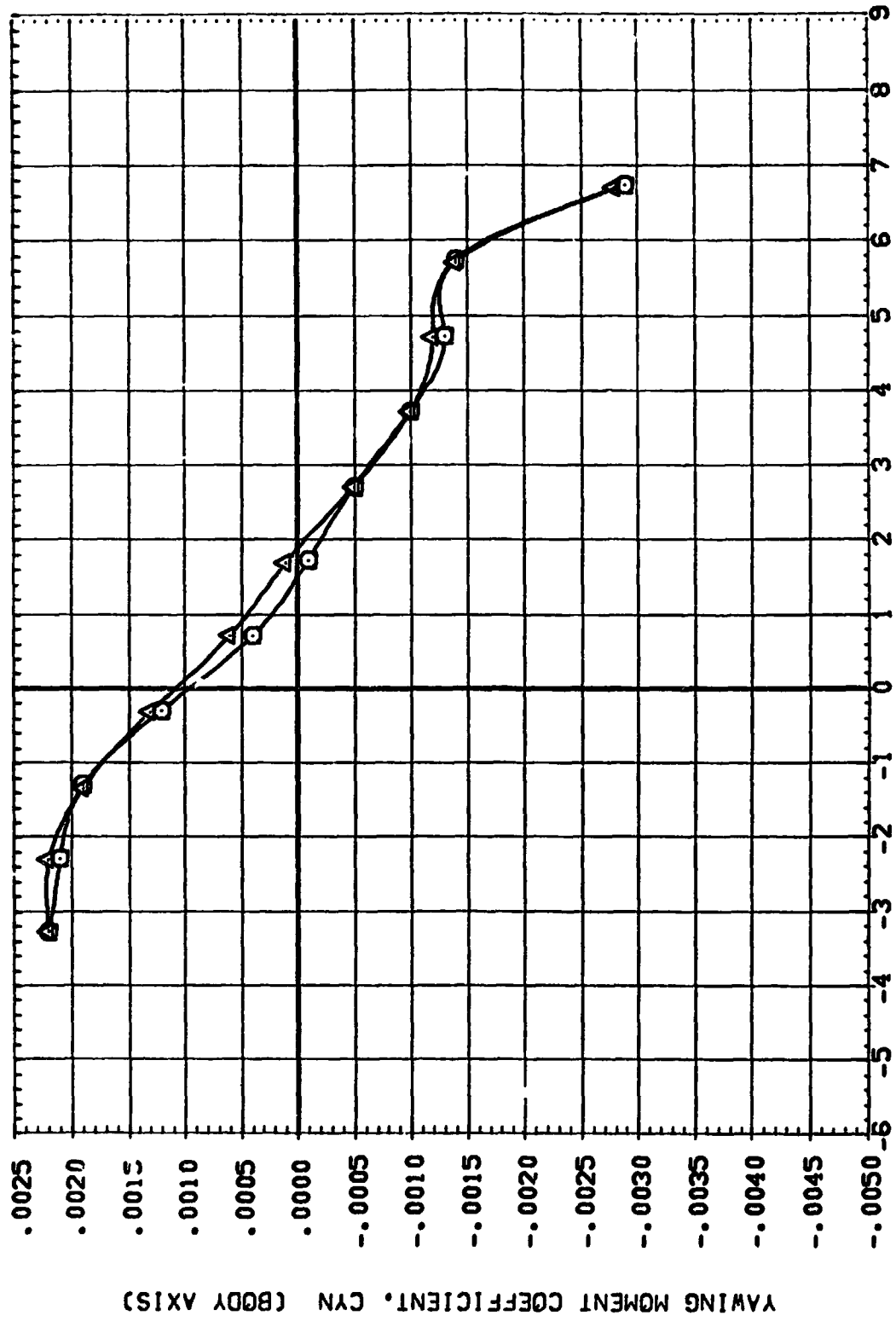


FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.20, LAMBDA=60 DEGREES

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CA289) Δ WS FN B
 (CA284) \circ WS FN B (FIXED TRANSITION)



ANGLE OF ATTACK, ALPHA, DEGREES

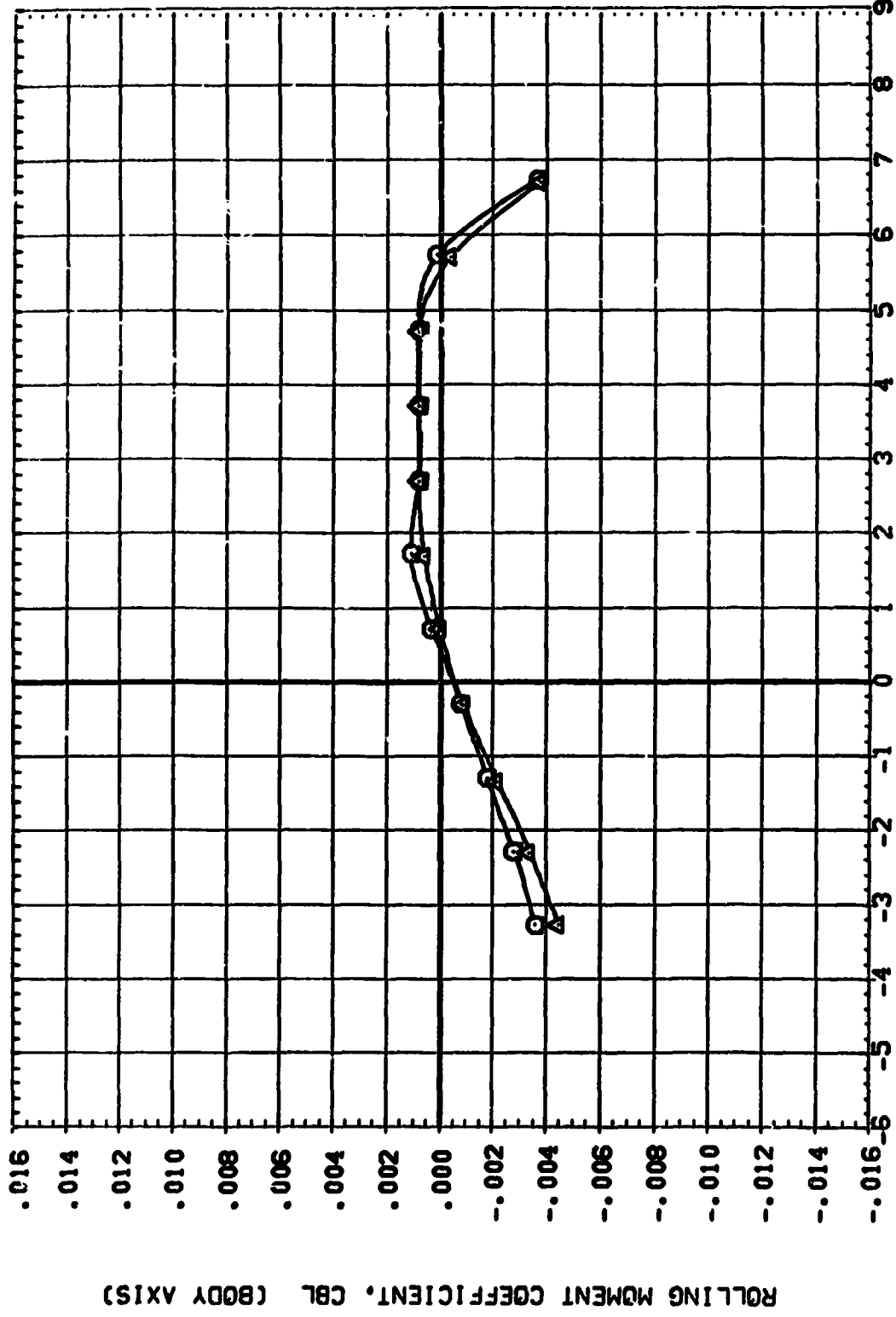
YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.20, LAMBDA=60 DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CAE001) Ω VS F1 B
 (CAE002) Ω VS F1 B (FIXED TRANSITION)

SWEEP RM/L BETA
 60.000 6.000 0.000
 60.000 6.000 0.000

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS FOR INDIVIDUAL DATASETS



ANGLE OF ATTACK, ALPHA, DEGREES

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

FIGURE 6 EFFECT OF SURFACE ROUGHNESS STRIPS, MACH NO. = 1.20, LAMBDA=60 DEGREES
 (A) MACH = 1.20 PAGE 343