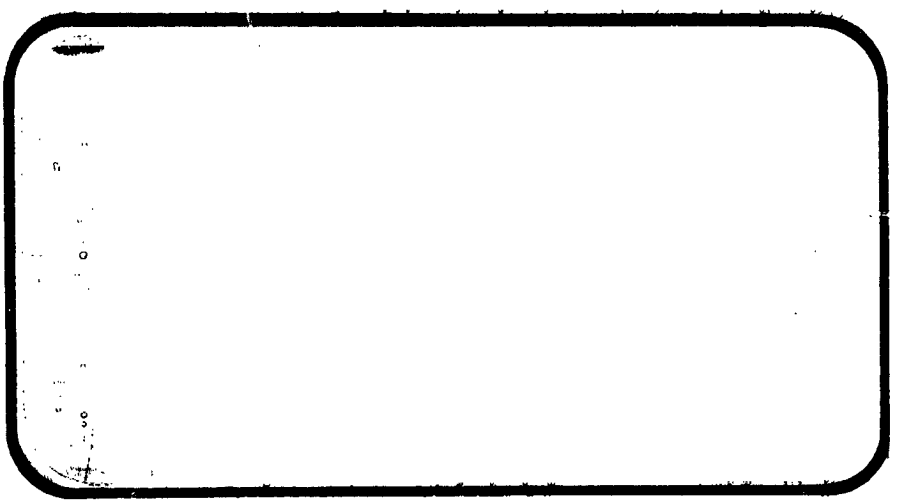
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

C.K. 134071



SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION CHRYSLER CORPORATION

February, 1974

DMS-DR-2039
NASA CR-134,071

RESULTS OF WIND TUNNEL TESTS AT MACH 5 ON THE .004 SCALE MODEL 2A CONFIGURATION SPACE SHUTTLE TO DETERMINE PROXIMITY EFFECTS AND ORBITER CONTROL EFFECTIVENESS DURING ORBITER/EXTERNAL TANK ABORT SEPARATION (IA6)

By

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Prepared under NASA Contract Number NAS9-13247

by

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for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: MSFC 571

NASA Series No.: IA6

Date: April 30 - May 2, 1973

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ABSTRACT

This report presents results from tests in the NASA/MSFC Trisonic Wind Tunnel on 0.004-Scale Orbiter and External Tank Force Models in Close Proximity (RTLS Abort Separation Conditions).

The primary test objectives were to obtain data concerning proximity effects on the aerodynamic forces and moments experienced by Vehicle 2A Configuration Shuttle Orbiter and External Tank during an abort separation (Return to Launch Site) at a Mach number of 5. Additionally, data on orbiter control effectiveness during such an abort was obtained. Proximity effects were investigated for relative angles of incidence from minus 5 deg to plus 10 degrees of the orbiter FRL with respect to the external tank centerline over a range of vertical ($\bar{z}$ - axis) and longitudinal (X - axis) displacements from the mated position to 2.5 tank diameters below and 3 tank diameters aft of the mated position.

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D) CY, CYN, CBL vs. ALPHA

E) CN, CLM, CAF, CY, CYN, CBL vs. BETA

NOMENCLATURE
General

SYMBOL	GADSAC SYMBOL	DEFINITION
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_l - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m^2, psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m^2, psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m^3, $slugs/ft^3$

Reference & C.G. Definitions

A_b		base area; m^2, ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
ℓ_{REF} or $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

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

NOMENCLATURE (Continued)

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

NOMENCLATURE (Concluded)

ADDITIONAL NOMENCLATURE

SYMBOL	SADSAC SYMBOL	DEFINITION
$C_{A_{BO}}$	CABO	orbiter base axial force coefficient.
$C_{A_{BT}}$	CABT	external tank base axial force coefficient.
$C_{A_{BS}}$	CABS	SRM base axial force coefficient.
$\Delta\alpha$	DELTAA	incremental change in angle of attack, alpha, degrees.
$\Delta\beta$	DELTAB	incremental change in sideslip angle, beta, degrees.
ΔX	DELTAX	axial separation distance from mated position.
ΔY	DELTAY	horizontal separation distance from mated position.
ΔZ	DELTAZ	vertical separation distance from mated position.
ΔC_{A_f}	DLTCAF	incremental forebody axial force coefficient.
ΔC_m	DLTCLM	incremental pitching moment coefficient.
ΔC_N	DLTCN	incremental normal force coefficient.
δ_a	AILRON	aileron, total aileron deflection angle, degrees, (left aileron-right aileron)/2.
δ_e	ELEVON	elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_r	RUDDER	rudder, surface deflection angle, positive deflection, trailing edge to the left; degrees.
δ_{RF}	RUDFLR	rudder flare, split rudder deflection angle, left split rudder trailing edge left and right split rudder trailing edge right, $\delta_{R_F} = (\delta_{R_L} + \delta_{R_R})/2$

CONFIGURATIONS INVESTIGATED

The Orbiter and External Tank model geometry (0.004 scale) is shown in figures 2 and 3. The Orbiter model was constructed using aluminum for the wing and stainless steel for the body, elevons, fins and rudder flares. Control surface deflections are obtained by means of detachable surfaces set to the desired angles. The model has provisions for elevons and rudder/rudder flare deflections of the following combinations:

δ_e = 0°, ± 10°, -20°, -30°, -40° (elevon)

δ_r = 0°, -10°, -20° (rudder)

δ_{RF} = 0°, 10°, 40° (rudder flare)

The External Tank model is constructed of stainless steel in accordance with NASA MSFC drawings 80M42609 and 80M32592. When the models were independently sting-mounted on the IWT Dual Sting hardware, MSFC balance number 231 was mounted internally in the Orbiter with MSFC balance number 232 mounted internally in the External Tank.

Standoffs were provided for attachment of the Orbiter to the External Tank in the mated position such that data could be taken, utilizing balance number 232, with a single sting through the External Tank supporting the combination.

While the orbiter model configuration is designated 0-13, the various components have their own series identifications as follows:

Component	Number
Body	B10
Canopy	C5
Manipulator Housing	D7
Elevon	E18
Body Flap	F4
OMS Pod	M3
Rudder	R5
Vertical	V5
Wing	W87

The external tank, Tg, is not broken into subassemblies. The dimensional data and descriptions of these components, as well as of the external tank, Tg, appear in Table II.

TEST CONDITIONS

The test utilized the TWT Parallel Staging System (dual sting) model support hardware. Details of the construction and use of this test hardware are given in reference 2. Figure 4 indicates the manner in which the models were mounted on the dual stings for investigating the effects of vertical and longitudinal separation. Mounting the orbiter model inverted on the lower sting permits the investigation of those combinations of relative incidence and orbiter angle of attack of greatest interest. Tank only or mated configuration data were obtained using the MSFC Double Knuckle Sting #3 and Balance Adapter #3.

Relative pitch attitudes of the models in the tunnel were checked by inclinometer, using the dorsal surface of the orbiter, which is parallel to the fuselage reference line (FRL), and the constant-diameter section of the external tank. The roll attitude of the orbiter was verified to be zero following each change in lower sting length.

The pattern of relative separations (vertical and longitudinal) and relative incidence angles investigated is shown in figure 5.

The maximum tunnel blockage for this test occurred at 30 degrees angle of attack with the models in the mated configuration. The model cross-sectional area was approximately 6 square inches, such that the tunnel blockage, at M = 4.96, was some 4 percent.

No grit was applied to either model.

Base pressure measurements were recorded for both models. A measurement of cavity pressure was also made for the orbiter model. The two base pressure tubes on each of the models were "teed" together to provide an average base pressure reading. The orbiter and external tank base and cavity areas, together with the desired pressure tube locations, are shown in figures 6 and 7.

The nominal tunnel conditions prevailing during the test are given in Table III.

TEST FACILITY DESCRIPTION

The Marshall Space Flight Center 14" x 14" Trisonic Wind Tunnel is an intermittent blowdown tunnel which operates by high pressure air flowing from storage to either vacuum or atmospheric conditions. A Mach number range from .2 to 5.85 is covered by utilizing two interchangeable test sections. The transonic section permits testing at Mach 0.20 through 2.50, and the supersonic section permits testing at Mach 2.74 through 5.85. Mach numbers between .2 and .9 are obtained by using a controllable diffuser. The range from .95 to 1.3 is achieved through the use of plenum suction and perforated walls. Mach numbers of 1.44, 1.93 and 2.50 are produced by interchangeable sets of fixed contour nozzle blocks. Above Mach 2.50 a set of fixed contour nozzle blocks are tilted and translated automatically to produce any desired Mach number in .05 increments.

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

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

Downstream of the test section is a hydraulically controlled pitch sector that provides a total angle of attack range of 0° (±10°). Sting offsets are available for obtaining various maximum angles of attack up to 90°.

DATA REDUCTION

Model reference dimensions used in data reduction are given in table I. It will be noted that three moment reference points (MRP) are specified: One each for the orbiter and external tank when supported separately, and the nominal mated vehicle MRP (orbiter nose projection on external tank centerline) when the combination is supported on a single sting.

All forces and moments were resolved in the body axis system and were resolved in the body axis system and were corrected for weight tares and sting deflections.

The raw data obtained during runs with the Staging Assembly (dual sting) hardware were corrected for changes in model relative positions induced by the aerodynamic loads. These corrections were accomplished through use of the double interpolation program described in reference 3.

During staging testing the individual model base axial force coefficients were determined in the following manner:

$$CAB_O = \left(\frac{P_{bo} + P_{co}}{2} - P_\infty\right)\left(\frac{A_{bo}}{qS_{ref}}\right),$$ Orbiter base axial force coefficient

$$CAB_T = \frac{(P_{bE} - P_\infty)\ A_{bE}}{qS_{ref}},$$ external tank base axial force coefficient

For mated testing the following equations were utilized:

$CN_U = \frac{F_N}{qS_{ref}}$, normal force coefficient uncorrected for orbiter base drag

$CN = CN_U - CNB_O$, normal force coefficient corrected for orbiter base drag

$CAF = CAT - CAB_O - CAB_E$, forebody axial force coefficient

$CY = \frac{F_Y}{qS_{ref}}$, side force coefficient

$CLM_U = \frac{M_Y}{qS_{ref}l_{ref}}$, pitching moment coefficient uncorrected for orbiter base drag

$CLM = CLM_U + CNB_O \frac{X_2}{l_{ref}} - CAB \frac{Z_1}{l_{ref}}$, pitching moment coefficient corrected for orbiter base drag

DATA REDUCTION (Concluded)

$CYN = \dfrac{M_Z}{qS_{ref}b_{ref}}$, yawing moment coefficient

$CBL = \dfrac{M_X}{qS_{ref}b_{ref}}$, rolling moment coefficient

$CNB_o = -CPB_o \dfrac{A_{bo}}{S_{ref}} \sin i_b$, normal force component of orbiter base drag

$CAB_o = -CPB_o \dfrac{A_{bo}}{S_{ref}} \cos i_b$, axial force component of orbiter base drag

$CAB_E = -CPB_E \dfrac{A_{bE}}{S_{ref}}$, tank base axial force coefficient

where:

$CPB_o = \dfrac{Pb_o - P_\infty}{q}$, orbiter base pressure coefficient

$CPB_E = \dfrac{Pb_E - P_\infty}{q}$, tank base pressure coefficient

$i_b = 12°$, orbiter base slant angle (average)

$X_2 = 5.231$ inches, axial moment arm for orbiter base drag

$Z_1 = 1.383$ inches, vertical moment arm for orbiter base drag

REFERENCES

1. NASA TM X-53185, "The George C. Marshall Space Flight Center's 14 x 14 inch Trisonic Wind Tunnel Technical Handbook" by Erwin Simon, December 22, 1964. NASA, George C. Marshall Space Flight Center.

2. Northrop Services, Inc. M-9241-72-69, "MSFC 14" TWT Dual Sting Support Mechanism Users Information," by Paul Cole, dated 10 May 1972.

3. Northrop Services, Inc. M-9241-72-67, "Double Interpolation Program for Use with MSFC Staging Mechanism," by Paul Cole, dated 1 May 1972.

TABLE I. ORBITER/EXTERNAL TANK REFERENCE DIMENSIONS

PARAMETER	ORBITER		EXTERNAL TANK	
	Full Scale	Model Scale	Full Scale	Model Scale
Reference Area (S_{ref})	2690 ft^2	6.198 in^2	2690 ft^2	6.198 in^2
Reference Length (l_{ref})	1328.3 in	5.313 in	1328.3 in	5.313 in
Reference Span (b_{ref})	1328.3 in	5.313 in	1328.3 in	5.313 in
Moment Reference Center (MRP), from nose:				
Orbiter Alone	867.7 in (66% l_{ref} on FRL)	3.507 in		
External Tank Alone			929.0 in (50% tank length, on ℄)	3.716 in
Mated Vehicle			635 in (orbiter nose projection on tank ℄)	2.540 in
Base Area (A_b)	427.8 ft^2	0.9857 in^2	572.55 ft^2	1.319 in^2
Cavity Area (A_c)	137.5 ft^2	0.3167 in^2		

ORBITER BALANCE DATA

TABLE II.

TEST: MSFC 571 (IA6A)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: MAY 2, 1973

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	M	δe	δa	δr	δRF	Δα	Δβ	ΔY	ΔZ	NO. OF RUNS	ΔX 0	ΔX 1.296	ΔX 2.592	ΔX 3.888
R85001	Φ13/T9	A	0	4.9%	0	0	0	40	-5	0	0	0		19	20	21	22
02									0			0		35	40	41	46
03									-5			.648		26	25	24	23
04									0					36	39	42	45
05									5					65	68	69	72
06									-5			1.944		27	28	29	30
07									0					37	38	43	44
08									5					66	67	70	71
09									10					85	88	89	92
10									0			3.240		31	32	33	34
11									5					15	16	17	18
12									10					86	87	90	91
13					10	0	0		0			0		52			47
14									0			.648		51			48
15									5			.648		76			73
16									0			1.944		50			49
17									5			1.944		75			74

TEST RUN NUMBERS

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

CN CLM CY CYN CBL CAF CAB DELTAXALPHA

COEFFICENTS

α OR β SCHEDULES A) -5°, -2°, 0°, 2°, 5°

TABLE II. (Continued)

TEST: MSFC TWT 571 (1A6A) — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: MAY 2, 1973

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES M	δe	δa	δr	δTF	Δα	ΔB	ΔY	ΔZ	NO. OF RUNS	ΔX 0	1.296	2.592	3.888
R85018	Φ13 / T9	A	0	4.96	-20	0	0	40	0	0	0	0		53			58
19									0			.648		54			57
20									5			.648		80			77
21									0			1.944		55			56
22									5			1.944		79			78
23					-40				0			0		64			59
24									0			.648		63			60
25									5			.648		81			84
26									0			1.944		62			61
27									5			1.944		82			83

TEST RUN NUMBER

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

COEFFICENTS

α OR β SCHEDULES

TABLE II. (Continued)

TEST: MSFC TWT 571 (IA6A) — DATA SET RUN NUMBER COLLATION SUMMARY — DATE: MAY 2, 1973

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES M	δe	δa	δr	δRF	Δα	Δβ	ΔY	ΔZ	NO. OF RUNS	Δ X 0	1.296	2.597	.388
R85I01	Φ13 T9	C	O	4.96	0	0	0	40	0	0	0	0		1			
02					10									4			
03					-20									5			
04					-40	↓								8			
05		↓	↓		0	10								9			
06		O	B		0	0								12			
07		O	B		0	10								11			
08		D	O		0									2			
09					10									3			
10					-20									6			
11					-40	↓								7			
↓ 12	↓	↓	↓	↓	0	10	↓	↓	↓	↓	↓	↓		10			

TEST RUN NUMBER

7 13 19 25 31 37 43 49 55 75 76

α OR β SCHEDULES

B) $-10° \rightarrow 10°$, $\Delta\alpha = 2°$

C) $-10° \rightarrow 10°$, $\Delta\beta = 2°$ OR $\Delta\alpha$

D) $10° \rightarrow 30°$, $\Delta\alpha = 2°$

TANK BALANCE DATA

TABLE II. (Continued)

TEST: MSFC TWT 571 (IA6A)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: [illegible]

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	M	δe	δa	δr	δδf	Δα	Δβ	ΔY	ΔZ	NO. OF RUNS	Δ X 0	1.296	2.592	3.888
R85T01	T9/Ø13	A	0	4.9%	0	0	0	40	-5	0	0	0		19	20	21	22
02									0			0		35	40	41	46
03									-5			.648		26	25	24	23
04									0					36	39	42	45
05									5					65	68	69	72
06									-5			1.944		27	28	29	30
07									0					37	38	43	44
08									5					66	67	70	71
09									10					85	88	89	92
10									0			3.240		31	32	33	34
11									5					15	16	7	3
12									10					86	87	90	91
13					10	0	0		0			0		52			47
14									0			.648		51			49
15									5			.648		76			73
16									0			1.944		50			49
17									5			1.944		75			74

α OR β SCHEDULES: A) -5°, -2°, 0°, 2°, 5°

TABLE II. (Concluded)

TEST : MSFC TWT 57 (IA6A) — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE : MAY 2, 1973

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES M	δe	δa	δr	δRF	Δx	Δβ	ΔY	ΔZ	NO. OF RUNS	ΔX 0	1.296	2.592	3.888
RB5T18	Tg / Ø.3	A	O	4.96	-20	0	0	40	0	0	0	0		53			58
19									0			.648		54			57
20									5			.648		80			77
21									0			1.944		55			56
22					↓				5			1.944		79			78
23					-40				0			0		64			59
24									0			.648		63			60
25									5			.648		81			84
26									0			1.944		62			61
27	↓	↓	↓	↓	↓	↓	↓	↓	5	↓	↓	1.944		82			83
28	Tg	C	O	—	—	—	—	—	—	—	—	—		95			
↓ 29	Tg	O	C	—	—	—	—	—	—	—	—	—		96			

α OR β SCHEDULES

TABLE III

TEST: MSFC TWT 571 | DATE: 5/3/73

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq.inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)	STAGNATION PRESSURE (pounds/sq inch)
4.96	4.8×10^6/FT.	3.07	140	90

BALANCE UTILIZED: MSFC231

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	122 lbs.	+0.61 lbs.	+0.032
SF	52 lbs.	+0.26 lbs.	+0.014
AF	22 lbs.	±0.10 lbs.	±0.005
PM	122 in.-lbs.	+0.61 in.-lbs.	+0.006
RM	30 in.-lbs.	±0.15 in.-lbs.	±0.001
YM	53 in.-lbs.	±0.27 in.-lbs.	±0.003

COMMENTS: Accuracy based on ±0.5% of balance capacity.

MSFC - Form 263-1 (Rev. April 1973)

TABLE III (Concluded)

TEST: MSFC TWT 571 DATE: 5/3/73

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq.inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)	STAGNATION PRESSURE (pounds/sq inch)
4.96	4.8×10^6/FT.	3.07	140	90

BALANCE UTILIZED: MSFC 232

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	300 lbs.	+1.50 lbs.	+0.079
SF	143 lbs.	±0.72 lbs.	±0.038
AF	50 lbs.	±0.25 lbs.	±0.013
PM	400 in.-lbs.	±2.00 in.-lbs.	±0.020
RM	100 in.-lbs.	+0.50 in.-lbs.	+0.005
YM	192 in.-lbs.	+0.96 in.-lbs.	+0.009

COMMENTS: Accuracy based on ± 0.5% of balance capacity.

MSFC - Form 268-1 (Rev. April 1973)

TABLE IV. MODEL COMPONENT DIMENSIONS

MODEL COMPONENT: 310 Body

GENERAL DESCRIPTION: Fuselage, 2A Configuration, [illegible] Orbiter,
Per Rockwell Lines VL70-000[illegible] "B".

Scale Model = 0.0[illegible]

DRAWING NUMBER: VL70-000089 "B"
VL70-0[illegible], [illegible], [illegible] "A"

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
Length ~ in.	1328.3	5.313
Max. Width ~ in. (@ X_o = 1528.3)	265.0	1.060
Max. Depth ~ in (@ X_o = 1480.52)	248.0	0.992
Fineness Ratio	5.012	5.012
Area Ft^2		
Max. Cross-Sectional	456.4	1.826
Planform		
Wetted		
Base		

TABLE IV.
(Continued)

MODEL COMPONENT: Canopy - C5

GENERAL DESCRIPTION: 2A Configuration Per Lines

VL70-000092.

Scale Model = 0.004

DRAWING NUMBER: VL70-000092

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length (STA Fwd Bulkhead)	391.0	1.564
Max. Width (T.E. Bulkhead)	560.0	2.240
Max. Depth (WP Z = 421.922 to Z = 500)		
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

MODEL COMPONENT: Manipulator Housing D-7

GENERAL DESCRIPTION: 2A Configuration Per NR Lines VL70.000092

Scale Model = 0.004

DRAWING NUMBER: VL70.000093

DIMENSIONS:	**FULL-SCALE**	MODEL SCALE
Length ~ in.	881.00	3.524
Max. Width ~ in.	51.00	0.204
Max. Depth ~ in.	23.00	0.092
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

℄ Fuselage BP = 0.00
WP = 500.0 INFS
X.426.0 to 1307.0 INFS

MODEL COMPONENT: Elevon E-18

GENERAL DESCRIPTION: 2A Configuration Per W-87

Rockwell Lines VL70-000093

Data for (1) of (2) Sides

Scale Model = 0.004

DRAWING NUMBER: VL70-000093

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area ~ FT^2	205.52	0.003
Span (equivalent) ~ in.	353.34	1.413
Inb'd equivalent chord	114.78	0.459
Outb'd equivalent chord	55.00	0.220
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	.208	.208
At Outb'd equiv. chord	.400	.400
Sweep Back Angles, degrees		
Leading Edge	0.00	0.00
Tailing Edge	-10.24	-10.24
Hingeline	0.00	0.00
Area Moment (Normal to hinge line) ~ FT^3	1548.07	0.0001
Product of Area Moment		

MODEL COMPONENT: F4 Body Plan

GENERAL DESCRIPTION: 2A Configuration Per MR Lines

VL70.00009L.A

Scale Model = 0.004

DRAWING NUMBER: VL70-00009LA

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	84.70	0.339
Max. Width	265.00	1.060
Max. Depth		
Fineness Ratio		
Area ~ Ft^2		
Max. Cross-Sectional		
Planform	142.64	0.571
Wetted		
Base ~ Ft^2	38.65	0.0006

TABLE IV (Continued)

MODEL COMPONENT: OMS POD - M3

GENERAL DESCRIPTION: 2A Light Weight Configuration Per NR Lines VL70-000094A

Scale Model = 0.004

DRAWING NUMBER: VL70-000094A

DIMENSIONS:	**FULL-SCALE**	MODEL SCALE
Length	346.0	1.384
Max. Width X_o = 1450.0	108.0	0.432
Max. Depth X_o = 1500.0	113.0	0.452
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

℄ OF OMS POD

WP = 463.9 INFS : WP 400 + 63.9 = 463.9

BP = 80.0 INFS

Length 1214.0 to 1560.0 = 346.0 INFS

MODEL COMPONENT: R5-Rudder

GENERAL DESCRIPTION: 2A Configuration Per Rockwell Lines VL70-000095

Scale Model = 0.004

DRAWING NUMBER: VL70-000095

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area ~ FT^2	106.38	0.0017
Span (equivalent) ~ in.	201.0	0.804
Inb'd equivalent chord	91.585	0.366
Outb'd equivalent chord	50.833	0.203
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	34.83	34.83
Tailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line) ~ FT^3 Product of area and mean chord	526.13	0.00003

TABLE IV (Continued)

MODEL COMPONENT: VERTICAL - V[illegible] (Lift Wt. Orbiter Configuration

GENERAL DESCRIPTION: Centerline Vertical Tail, Double Wedge

Airfoil with Rounded Leading Edge

Scale Model = 0.00[illegible]

DRAWING NUMBER: VL70-003004

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo) Ft^2	413.25	0.007
Planform		
Span (Theo) In	315.72	1.[illegible]
Aspect Ratio	1.67[illegible]	1.[illegible]
Rate of Taper	0.557	0.[illegible]
Taper Ratio	.40[illegible]	.40[illegible]
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	26.249	26.[illegible]
0.25 Element Line	41.130	41.130
Chords:		
Root (Theo) WP	268.50	1.07[illegible]
Tip (Theo) WP	108.[illegible]	0.4[illegible]
MAC	199.81	0.7[illegible]
Fus. Sta. of .25 MAC	1463.50	5.8[illegible]
W. P. of .25 MAC	635.522	2.5[illegible]
B. L. of .25 MAC	0.00	0.00
Airfoil Section		
Leading Wedge Angle Deg	10.000	10.000
Trailing Wedge Angle Deg	14.920	14.920
Leading Edge Radius ~in.	2.00	0.0[illegible]
Void Area ~Ft^2	13.17	0.000[illegible]
Blanketed Area ~Ft^2	12.67	0.000[illegible]

TABLE IV (Continued)

MODEL COMPONENT: WING-W-27 New Light Weight Orbiter

GENERAL DESCRIPTION: Orbiter Configuration Per Lines
Note: (Dihedral angle is defined at the lower surface of the wing at the 75.3% chord line projected into a plane perpendicular to the roll.)

V170-000003

Scale Model = 0.004

TEST NO.

DWG. NO. V170-000003

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) Ft^2	2690.00	0.043
Planform	936.68	15.00
Span (Theo In.	2.965	47.45
Aspect Ratio	1.177	1.177
Rate of Taper	0.200	0.200
Taper Ratio	3.500	3.500
Dihedral Angle, degrees	3.000	3.000
Incidence Angle, degrees	+3.000	+3.000
Aerodynamic Twist, degrees		
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	-10.24	-10.24
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.0.0.	689.24	2.752
Tip, (Theo) B.P.	137.85	0.551
MAC	474.31	1.900
Fus. Sta. of .25 MAC	1135.89	4.538
W.P. of .25 MAC	299.20	1.197
B.L. of .25 MAC	182.13	0.729
EXPOSED DATA		
Area (Theo) Ft^2	1752.29	0.028
Span, (Theo) In. BP108	720.63	11.533
Aspect Ratio	2.058	2.058
Taper Ratio	.2451	.2451
Chords		
Root BP108	562.40	2.250
Tip 1.00 $\frac{b}{2}$	137.85	0.551
MAC	393.03	1.572
Fus. Sta. of .25 MAC	1185.31	4.741
W.P. of .25 MAC	300.201	1.201
B.L. of .25 MAC	143.76	0.575
Airfoil Section (Rockwell Mod NASA) XXXX-64		
Root $\frac{b}{2}$ = 0.425	.10	.10
Tip $\frac{b}{2}$ = 1.00	.12	.12
Data for (1) of (2) Sides		
Leading Edge Cuff Planform Area Ft^2	120.33	.0010
Leading Edge Intersects Fus M. L. @ Sta	560.0	2.240
Leading Edge Intersects Wing @ Sta 30	1035.0	4.14

TABLE IV (Concluded)

MODEL COMPONENT: T9 - External Tank

GENERAL DESCRIPTION: 2Λ Configuration per Rockwell lines

Body of Revolution

Scale Model = .004

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length, in.	1826.0	7.304
Max. Width (Dia.), in.	324.0	1.296
Max. Depth		
Fineness Ratio, L/D	5.73457	5.73457
Area, Ft^2		
Max. Cross-Sectional	572.56	0.00916
Planform		
Wetted		
Base	572.56	0.00916

Ref:

FS (Orbiter) = 0.00 = Tank Station 635.0 Infs

WP (ET) = WP400 (Orbiter) -344.4 Infs = 55.6 Infs

BP (Orbiter) = 0.00 = 0.00 ET

NOTE: T9 Similar to T8 except retro pkg. removed
Nose of T9 has 30" radius FS

Notes:

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

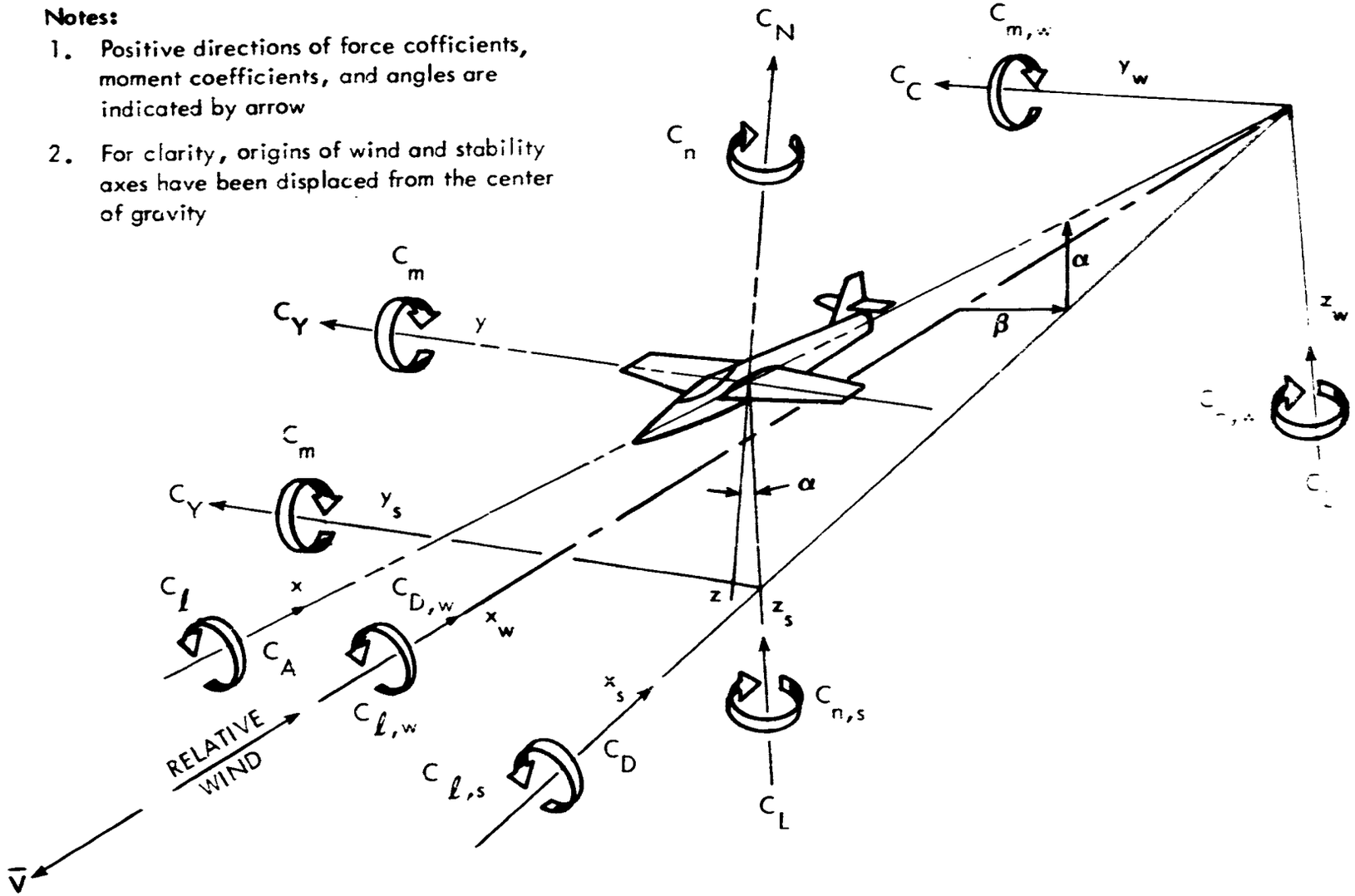


Figure 1. - Axis Systems.

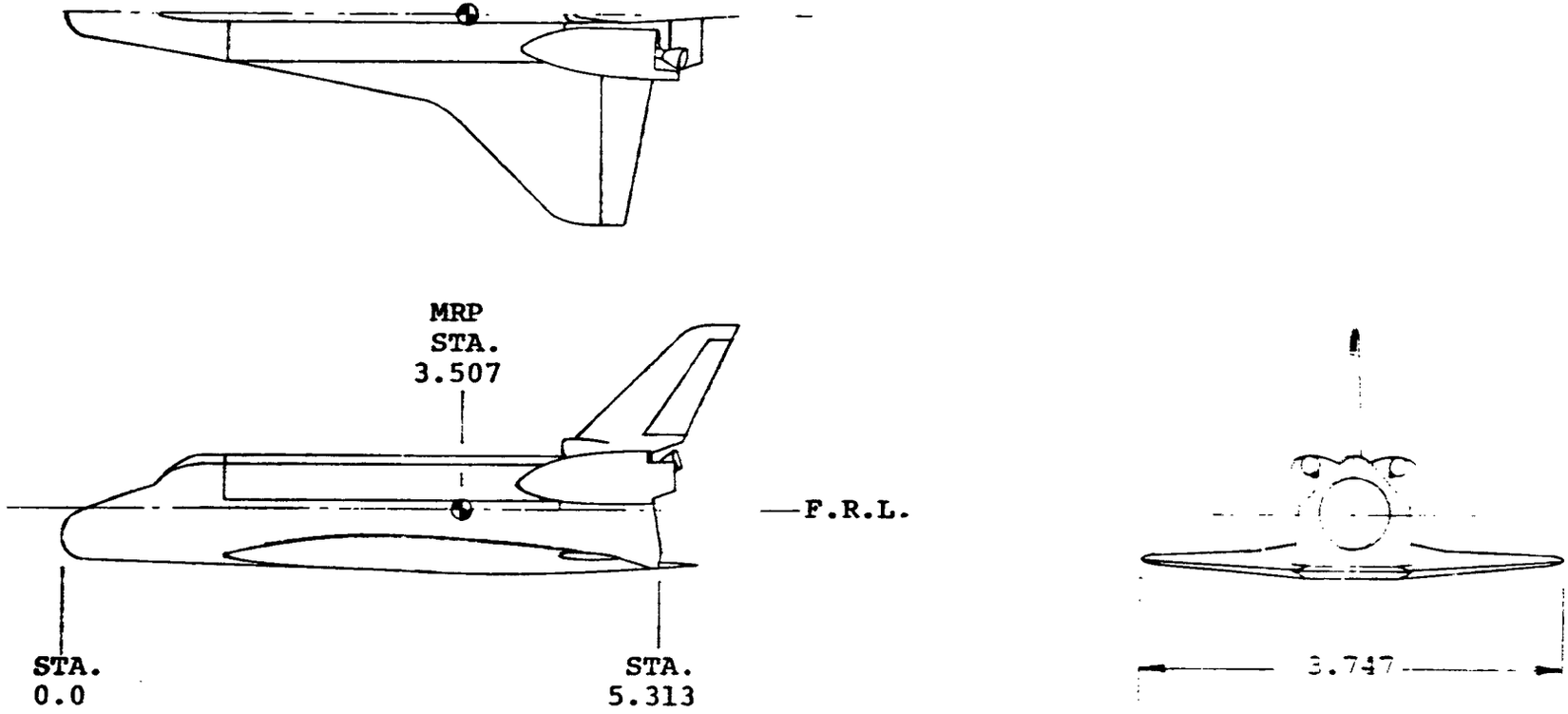


Figure 2. - General Arrangement of Orbiter Model.

DIMENSIONS ARE INCHES MODEL SCALE

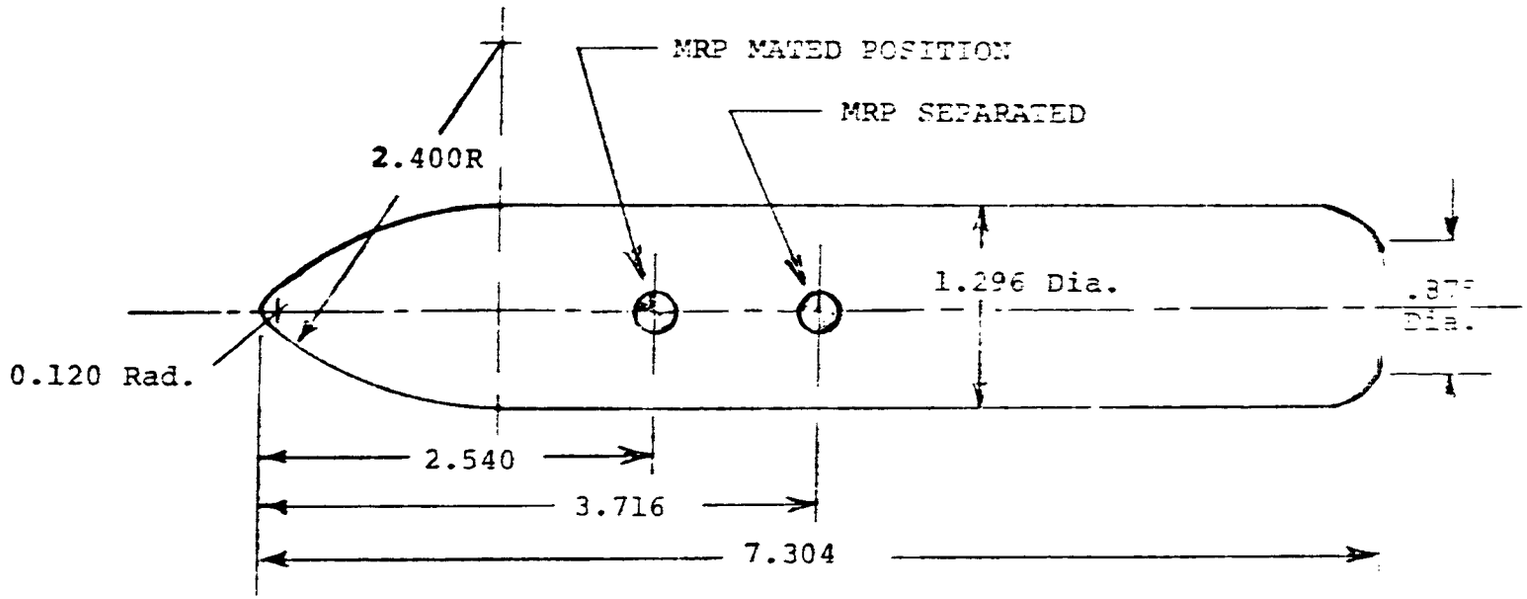


Figure 3. - General Arrangement, External Tank T_g.

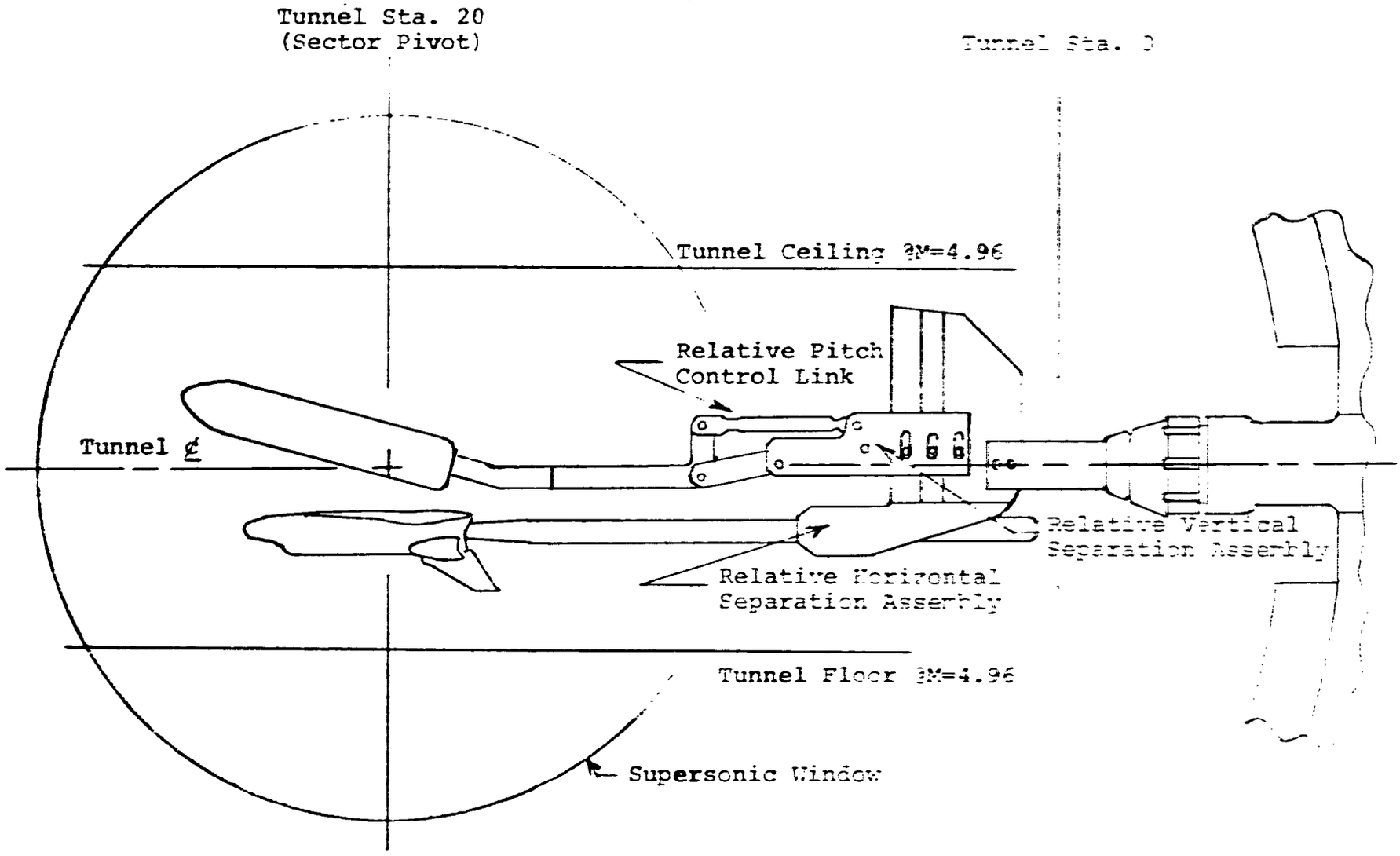


Figure 4. - Orbiter and External Tank Mounted on 14x14-In. TWT Dual Sting Staging Mechanism.

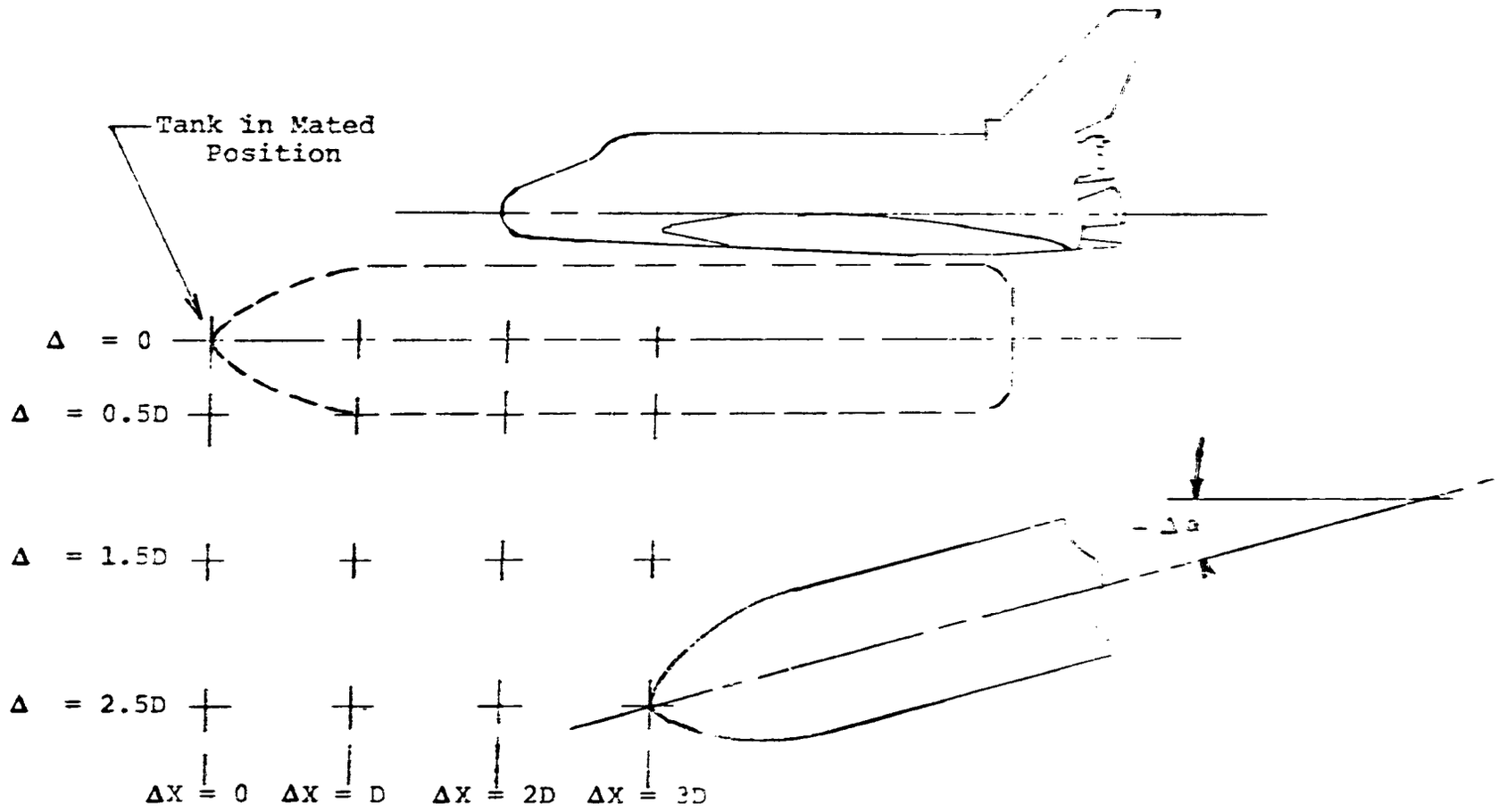


Figure 5. - Matrix of Pitch-Plane Displacements for 0.004-Scale Model Orbiter/External Tank Separation Test.

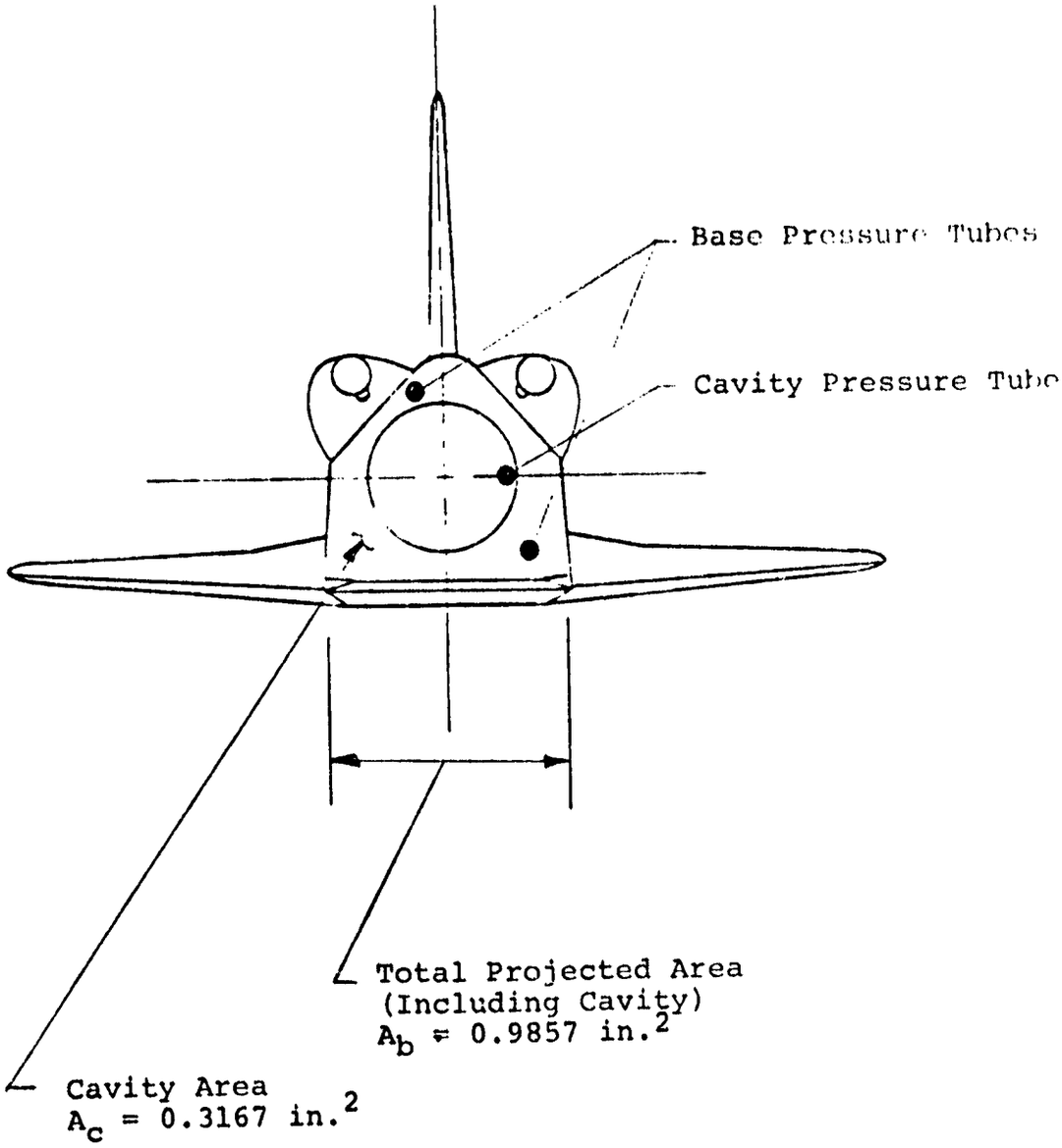


Figure 6. - Definition of Base and Cavity Areas and Pressure Tube Locations.

Figure 7. - Base Area and Pressure Tube Locations, External Tank Tg.

DATA FIGURES

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85001)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

ALPHA	-5.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	-5.000	
DELTAB	.000	DELTAY	.000	

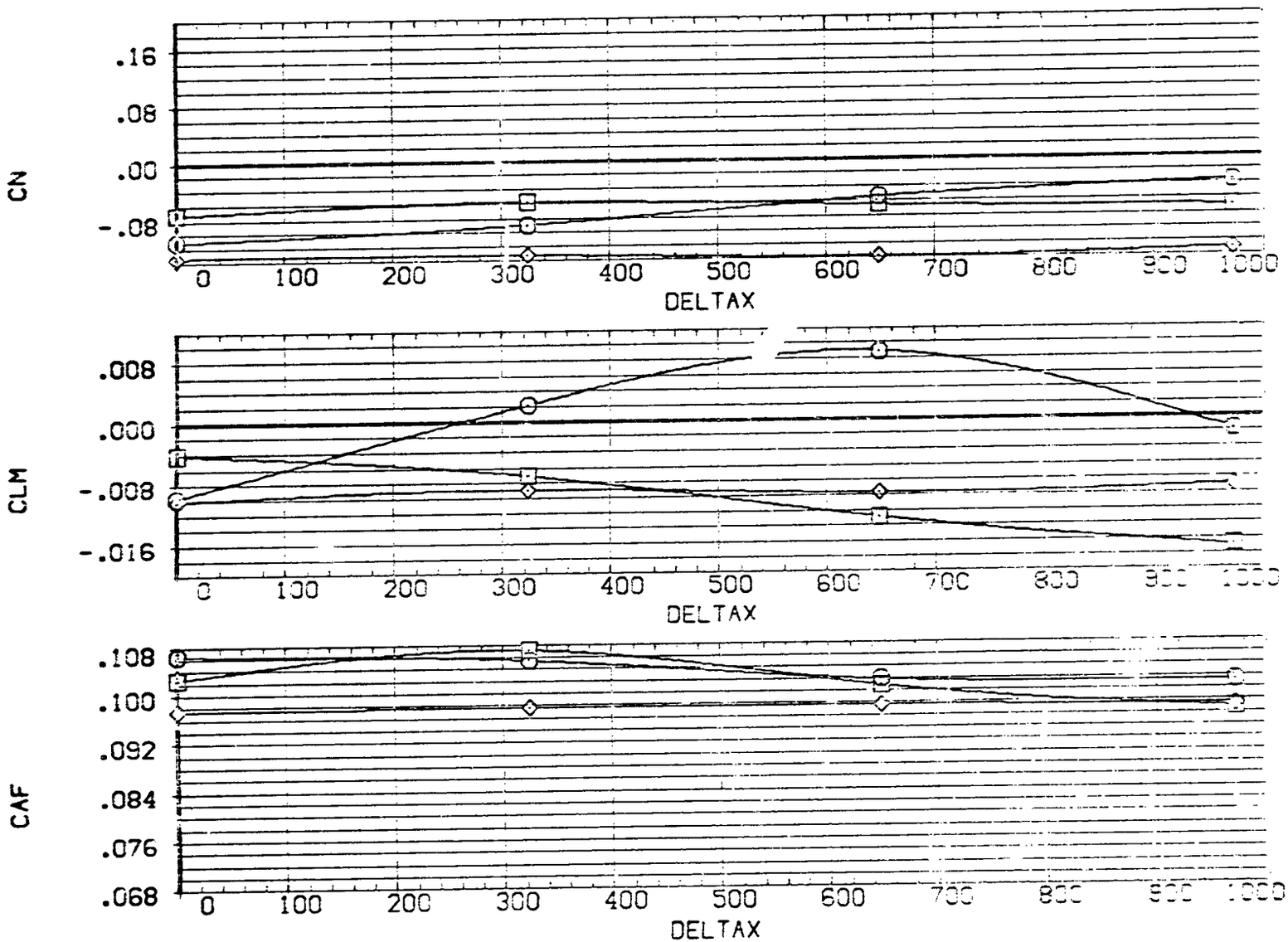
DATA SOURCE

DATASET	DELTAZ
N85001	.000
N85006	486.000

DATASET	DELTAZ
N85003	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.1800	
BREF	1328.1800	
XMRP	857.7000	
YMRP	.0000	
ZMRP	.0000	
SCALE	.0040	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M57:(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85001)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

ALPHA	-2.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	-5.000	
DELTAB	.000	DELTAY	.000	

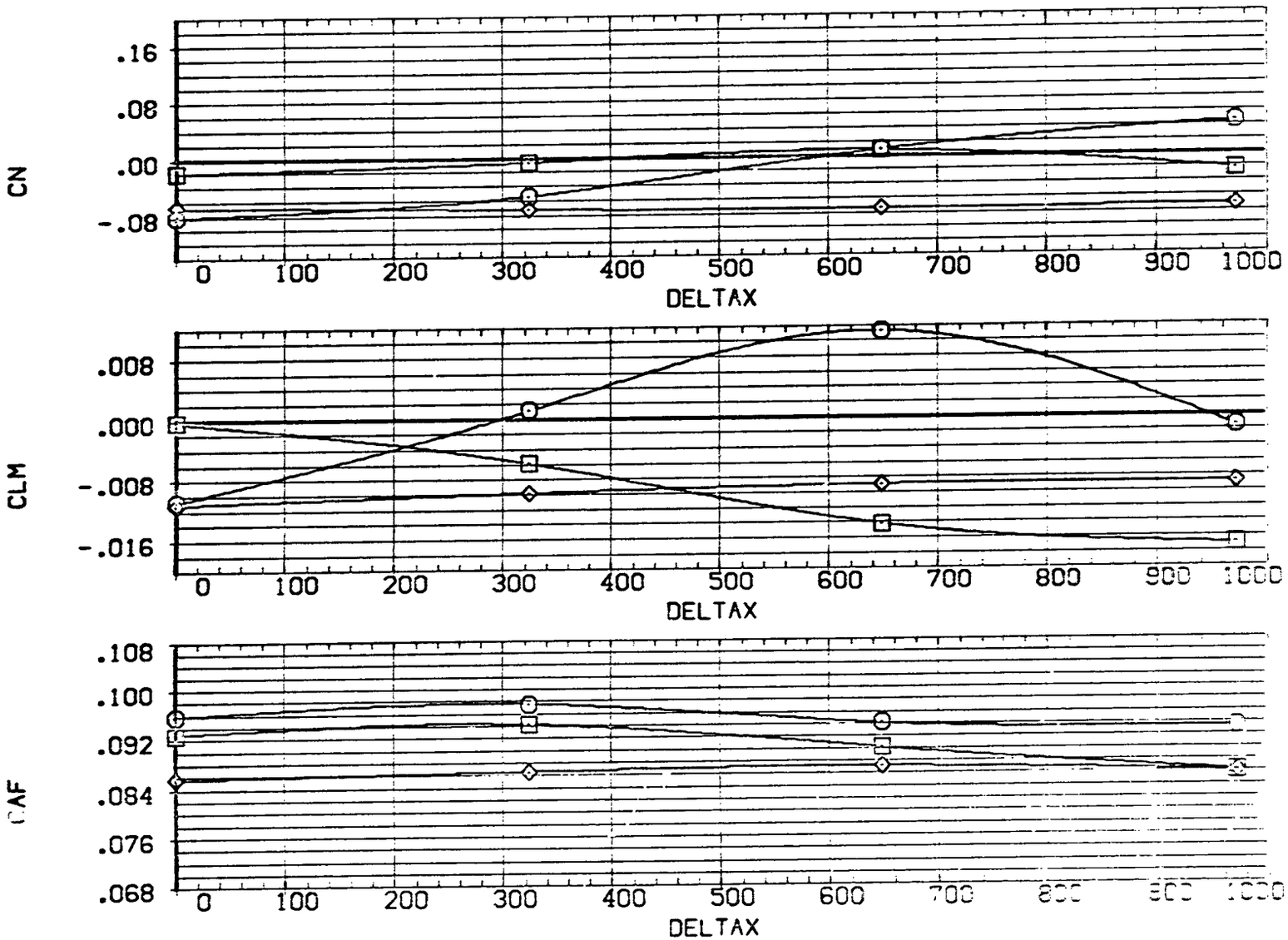
DATA SOURCE

DATASET	DELTAZ
N85001	.000
N85006	486.000

DATASET	DELTAZ
N85003	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	997.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85001)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

ALPHA	.000	BETA	.000	
MACH	4.950	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	-5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
N85001	.000
N85006	486.000

DATASET	DELTAZ
N85003	162.000

REFERENCE INFORMATION

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YMRP	.00000	IN.
ZMRP	.00000	IN.
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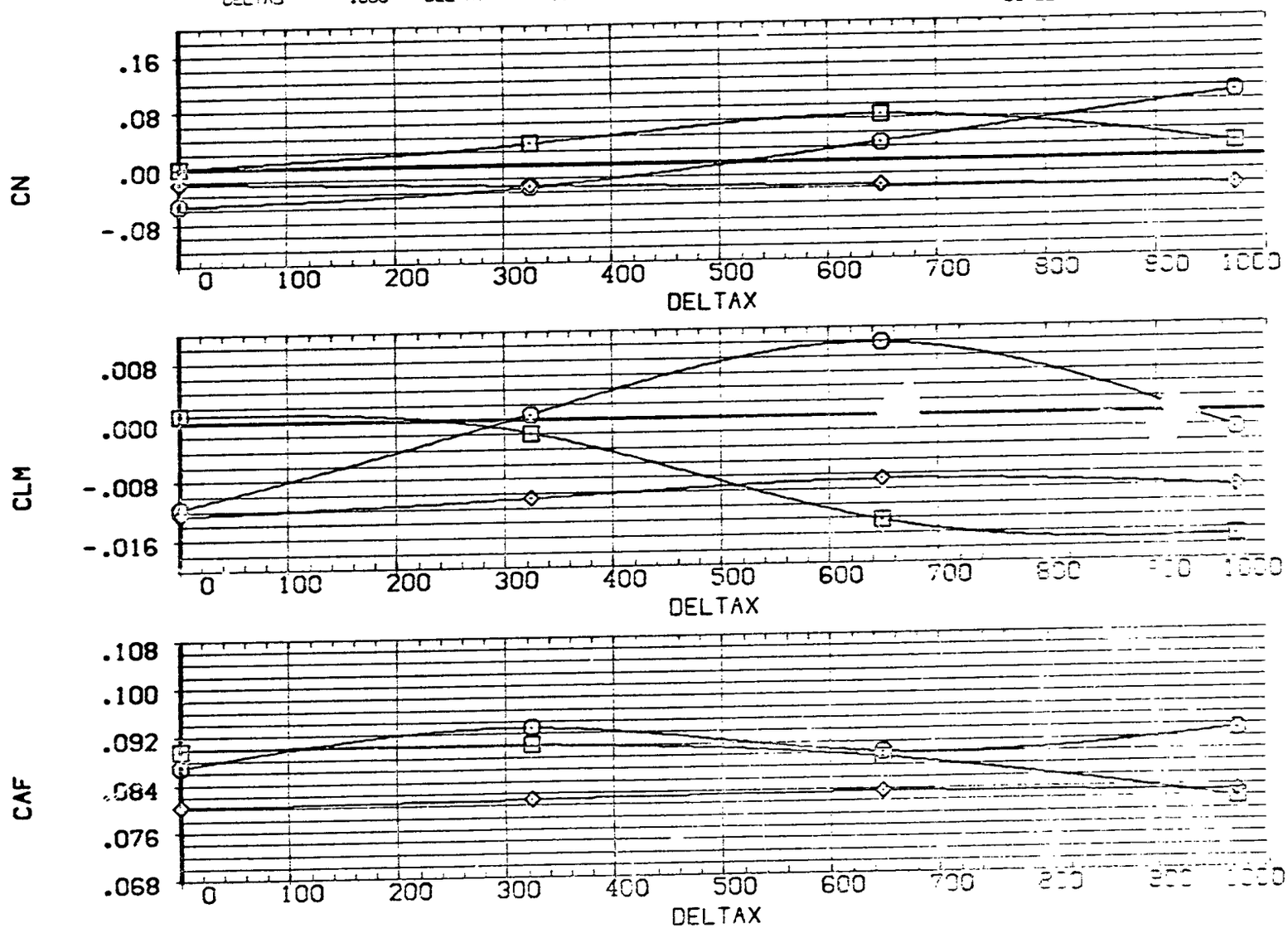
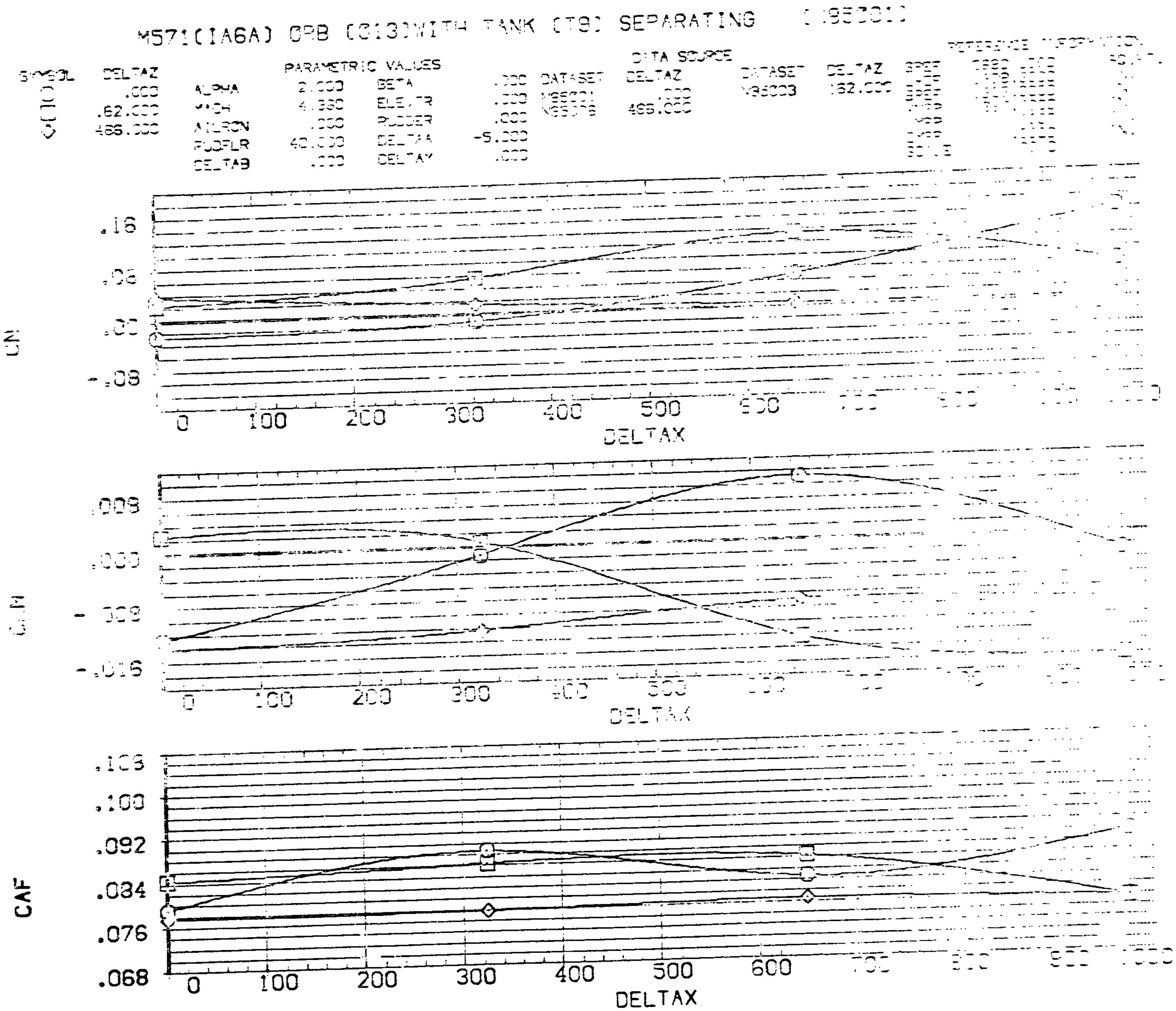


BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85001)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

ALPHA	5.000	BETA	.000	DATASET	N85001
MACH	4.960	ELEVTR	.000		N85006
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	-5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	N85003	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
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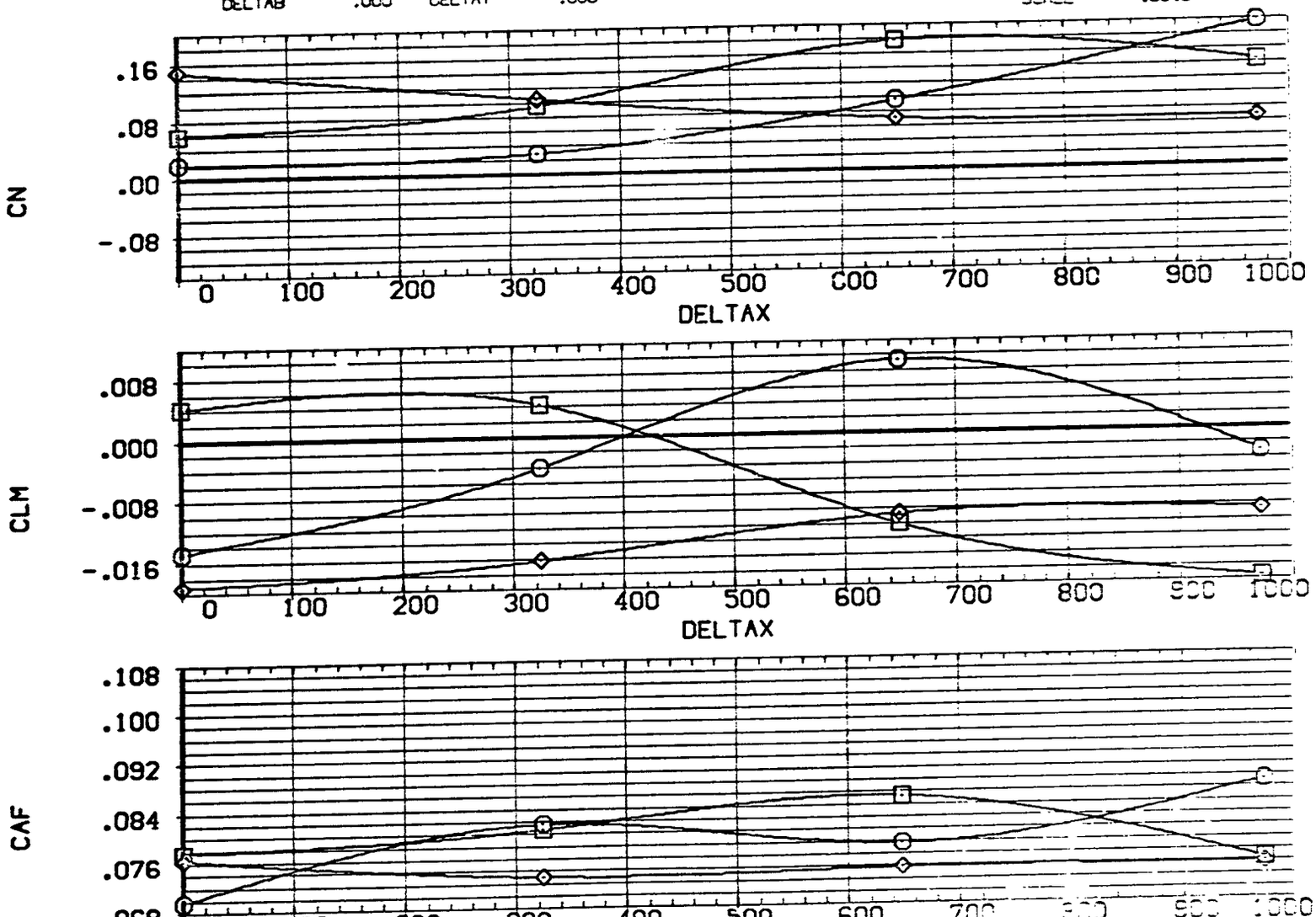
XMRP	857.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	IN./IN.



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85002)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

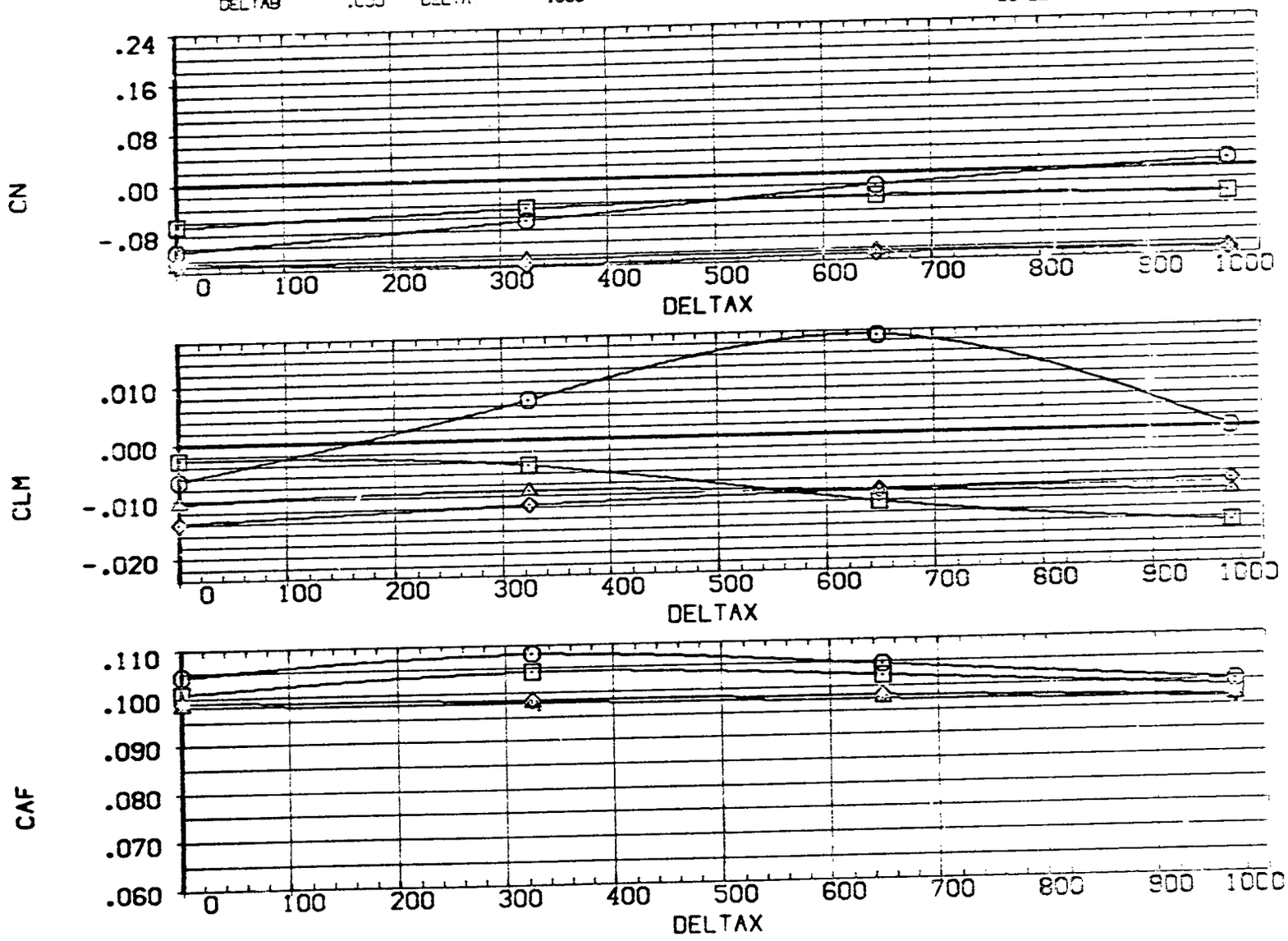
ALPHA	-5.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
N85002	.000	N85004	162.000
N85007	486.000	N85010	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	857.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85002)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

ALPHA	-2.000	BETA	.000	DATASET N85002
MACH	4.960	ELEVTR	.000	N85007
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	N95004	162.000
486.000	N95010	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
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BREF	1328.0000	
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YMRP	.0000	
ZMRP	.0000	
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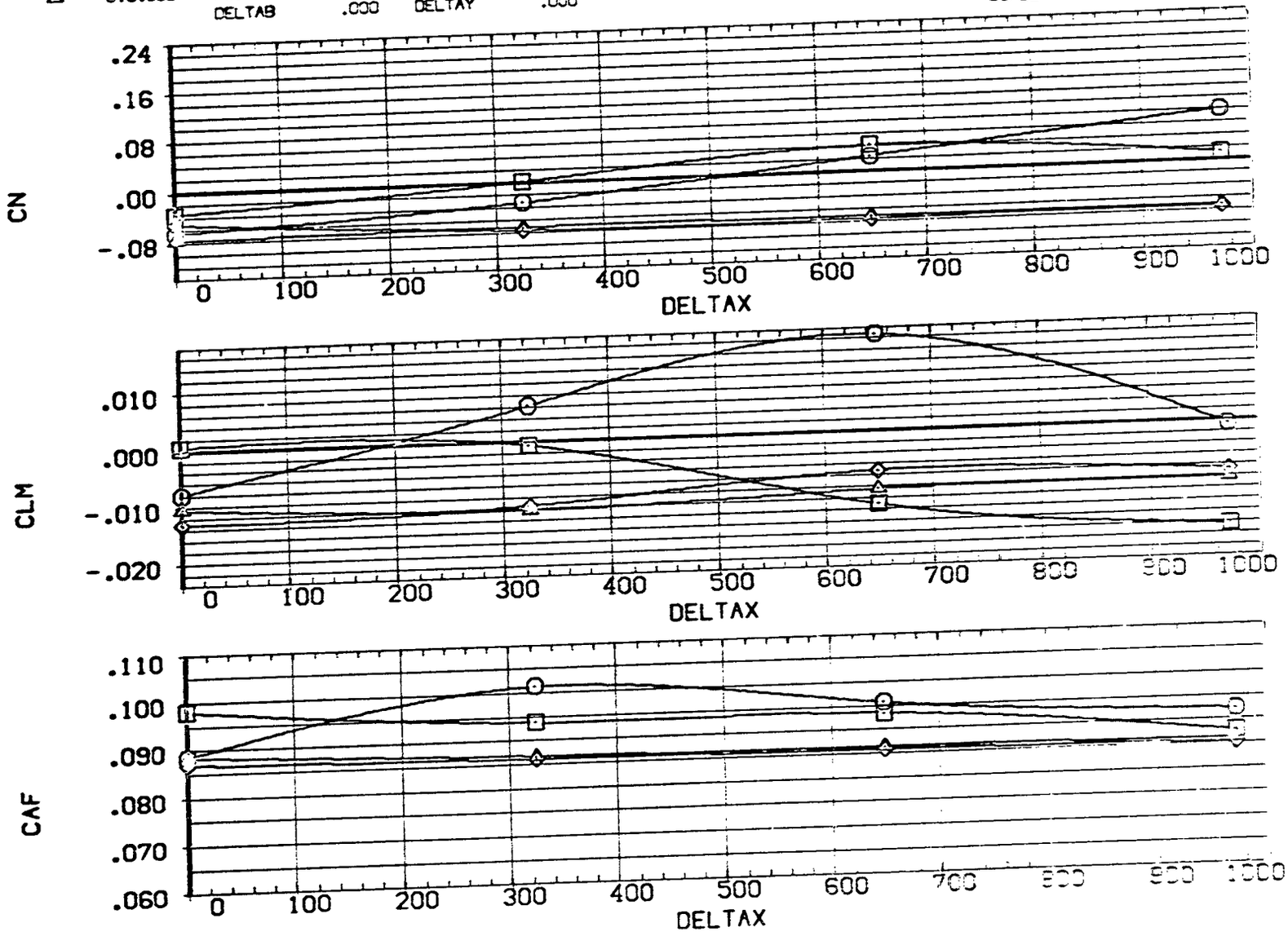


BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85002)

SYMBOL	DELTAZ
○	.000
◇□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

ALPHA	.000	BETA	.000	
MACH	4.950	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

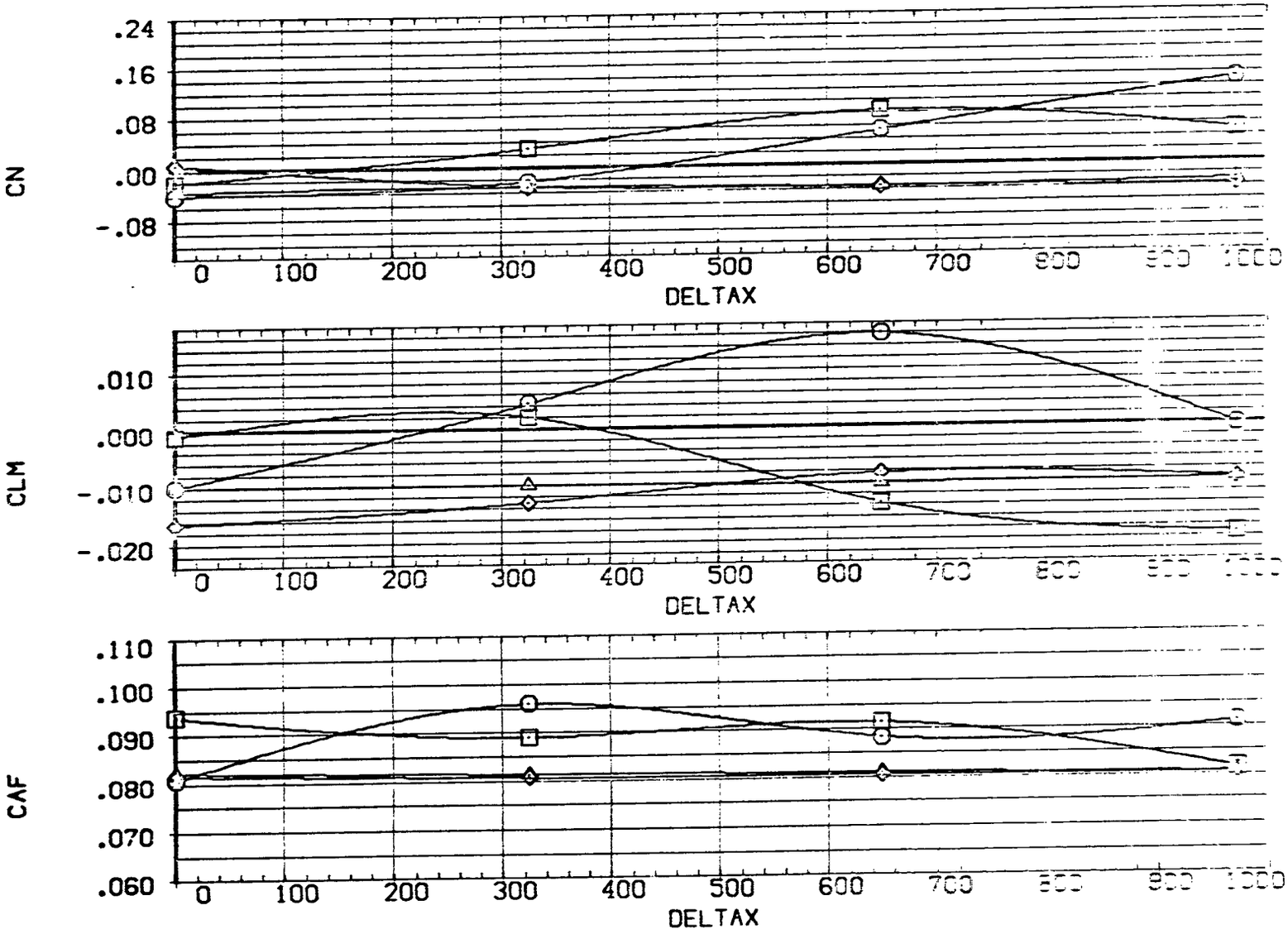
DATA SOURCE

DATASET	DELTAZ
N85002	.000
N85007	486.000

DATASET	DELTAZ
N85004	162.000
N85010	810.000

REFERENCE INFORMATION

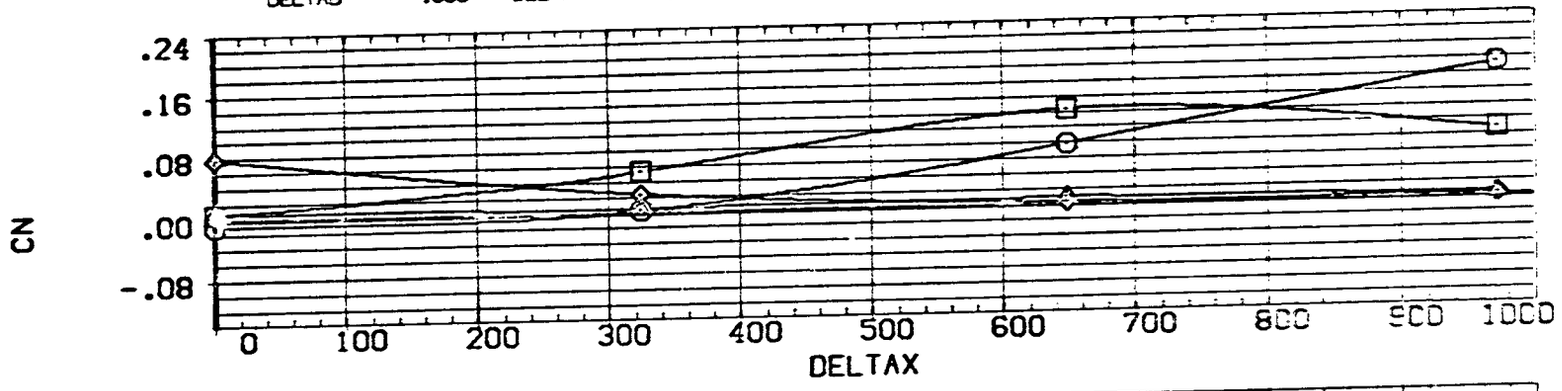
SREF	2690.0000	SQ.FT.
LREF	1300.0000	IN.
BREF	1720.0000	IN.
XMRP	857.2000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	

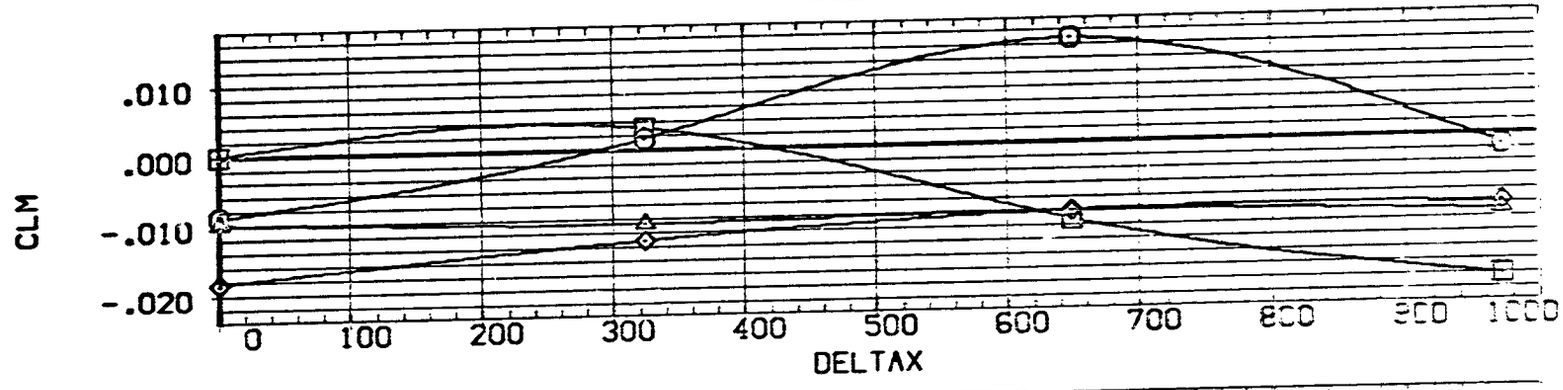


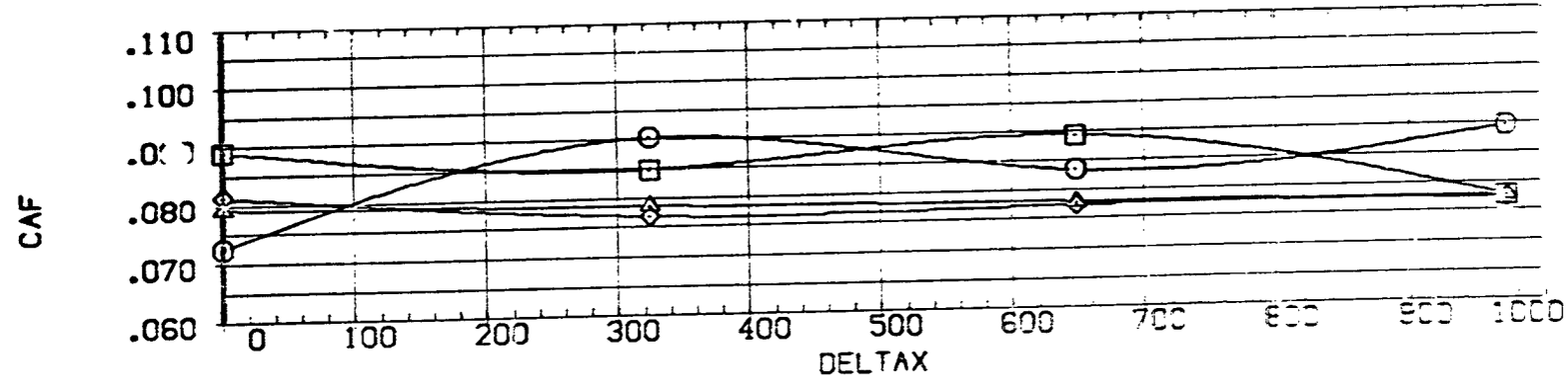
BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85002)

SYMBOL	DELTAZ		PARAMETRIC VALUES			DATA SOURCE				REFERENCE MOMENT STATION
○	.000	ALPHA	2.000	BETA	.000	DATASET	DELTAZ	DATASET	DELTAZ	SREF 2690.0000 55.FT.
□	162.000	MACH	4.960	ELEVTR	.000	N85002	.000	N85004	162.000	LREF 1326.0000
◇	486.000	AILRON	.000	RUDDER	.000	N85007	486.000	N85010	810.000	BREF 1319.0000
△	810.000	RUDFLR	40.000	DELTAA	.000					XCG .0000
		DELTAB	.000	DELTAY	.000					YCG .0000
										ZCG .0000
										SCALE .0040







BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85302)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

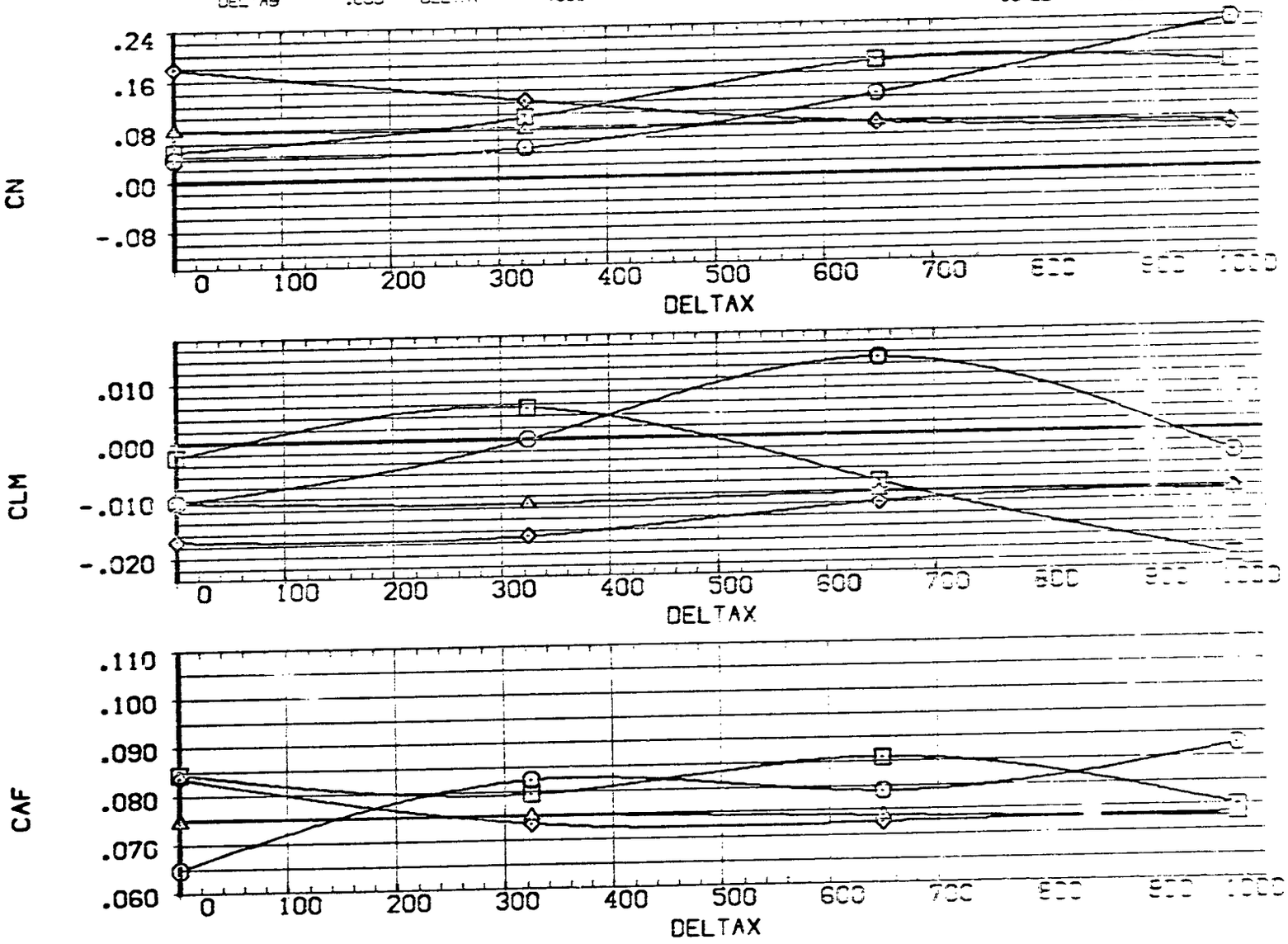
ALPHA	5.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
N85302	.000
N85307	486.000
N85304	162.000
N85310	810.000

REFERENCE INFORMATION

SREF	2690.10000	SQ.FT.
CBAR	1065.10000	IN.
BREF	1065.10000	IN.
XMRP	997.10000	IN.
YMRP	.10000	IN.
ZMRP	.10000	IN.
SCALE	.10000	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (N85005)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

ALPHA	-5.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

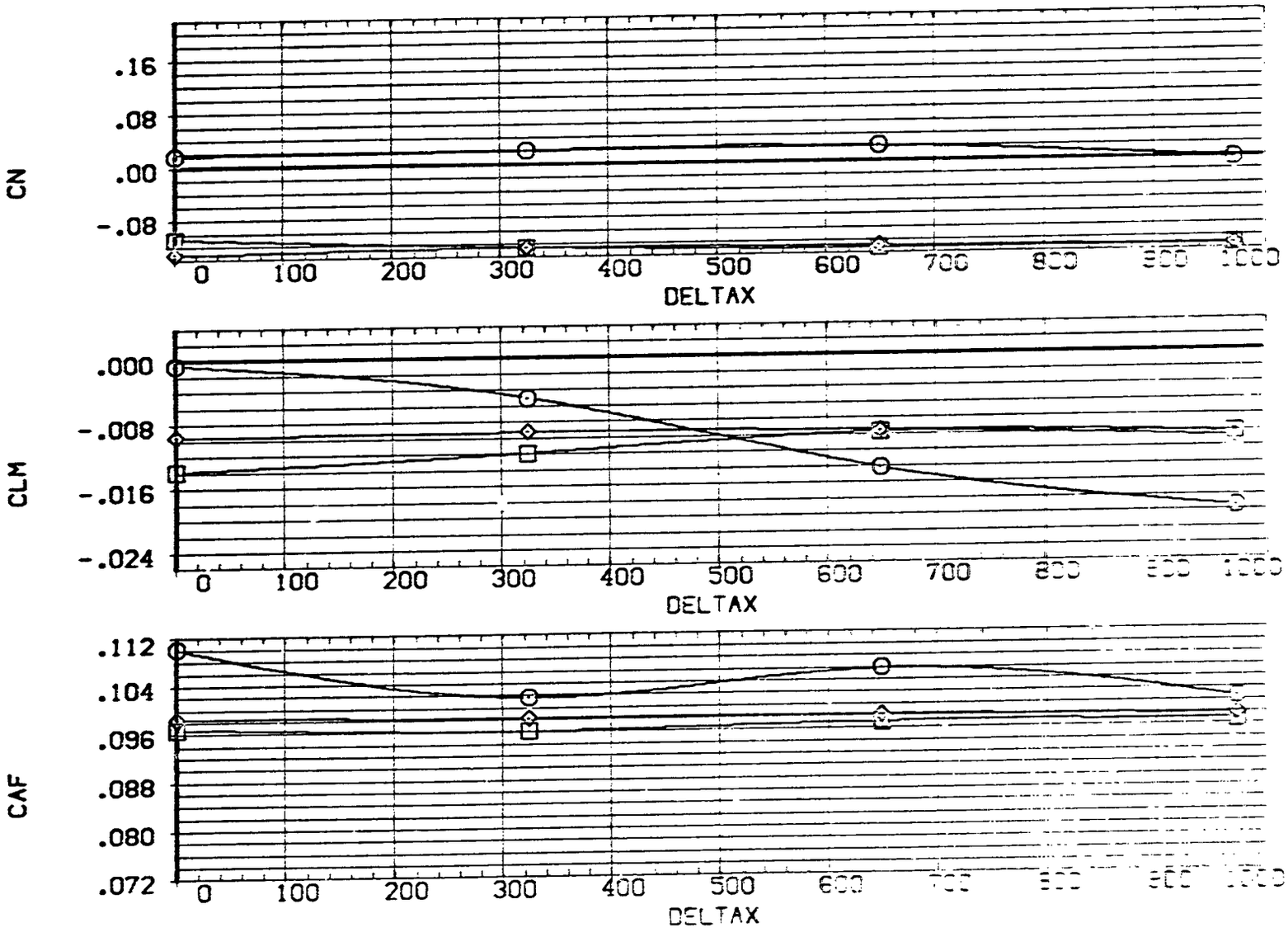
DATA SOURCE

DATASET	DELTAZ
N85005	162.000
N85011	810.000

DATASET	DELTAZ
N85008	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1000.0000	IN.
BREF	1000.0000	IN.
XMRP	887.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	1.0000	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85005)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

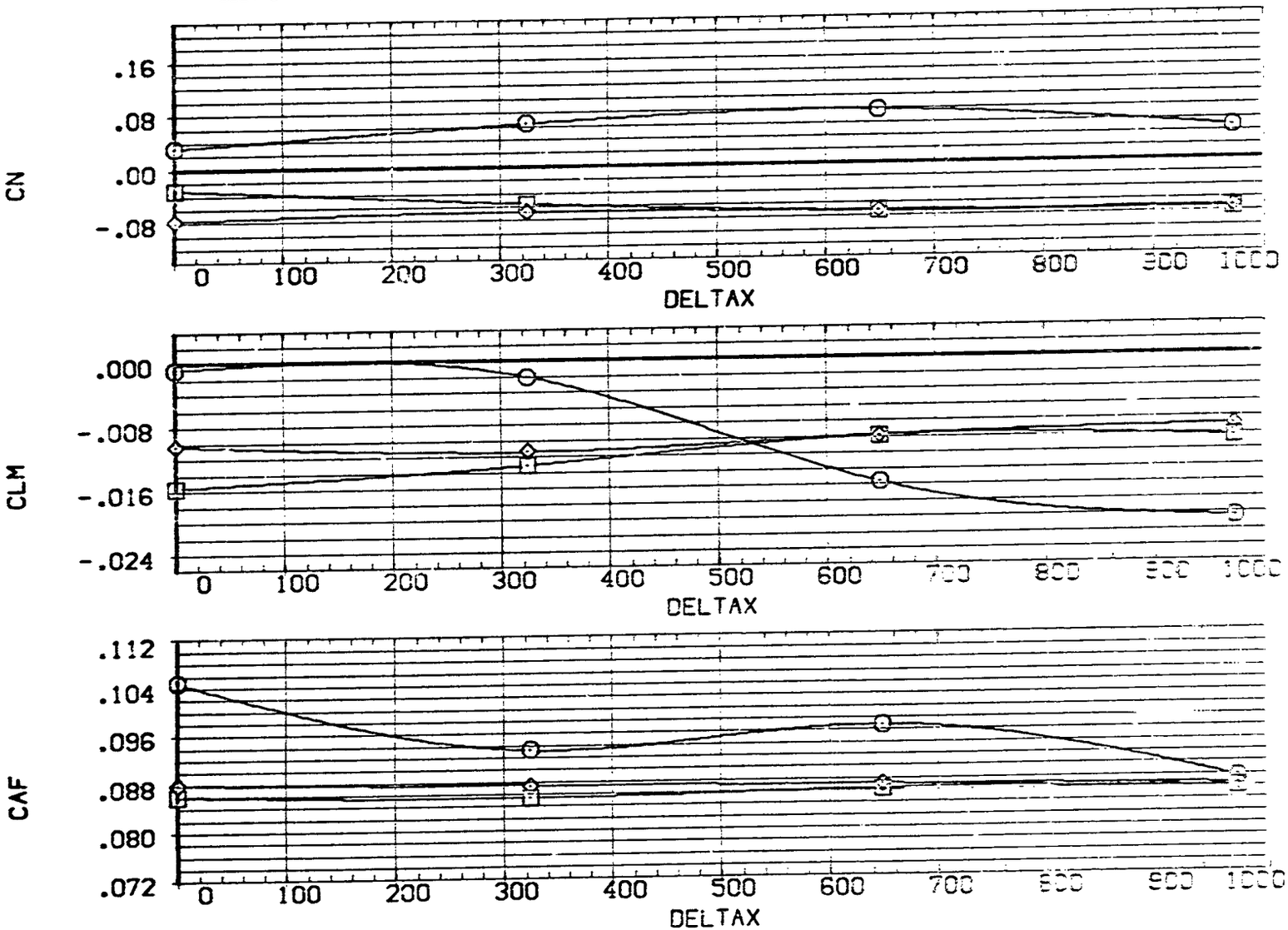
ALPHA	-2.000	BETA	.000	
MACH	4.950	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
N85005	162.000
N85011	810.000
N85008	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.8000	IN.
XMRP	857.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85305)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

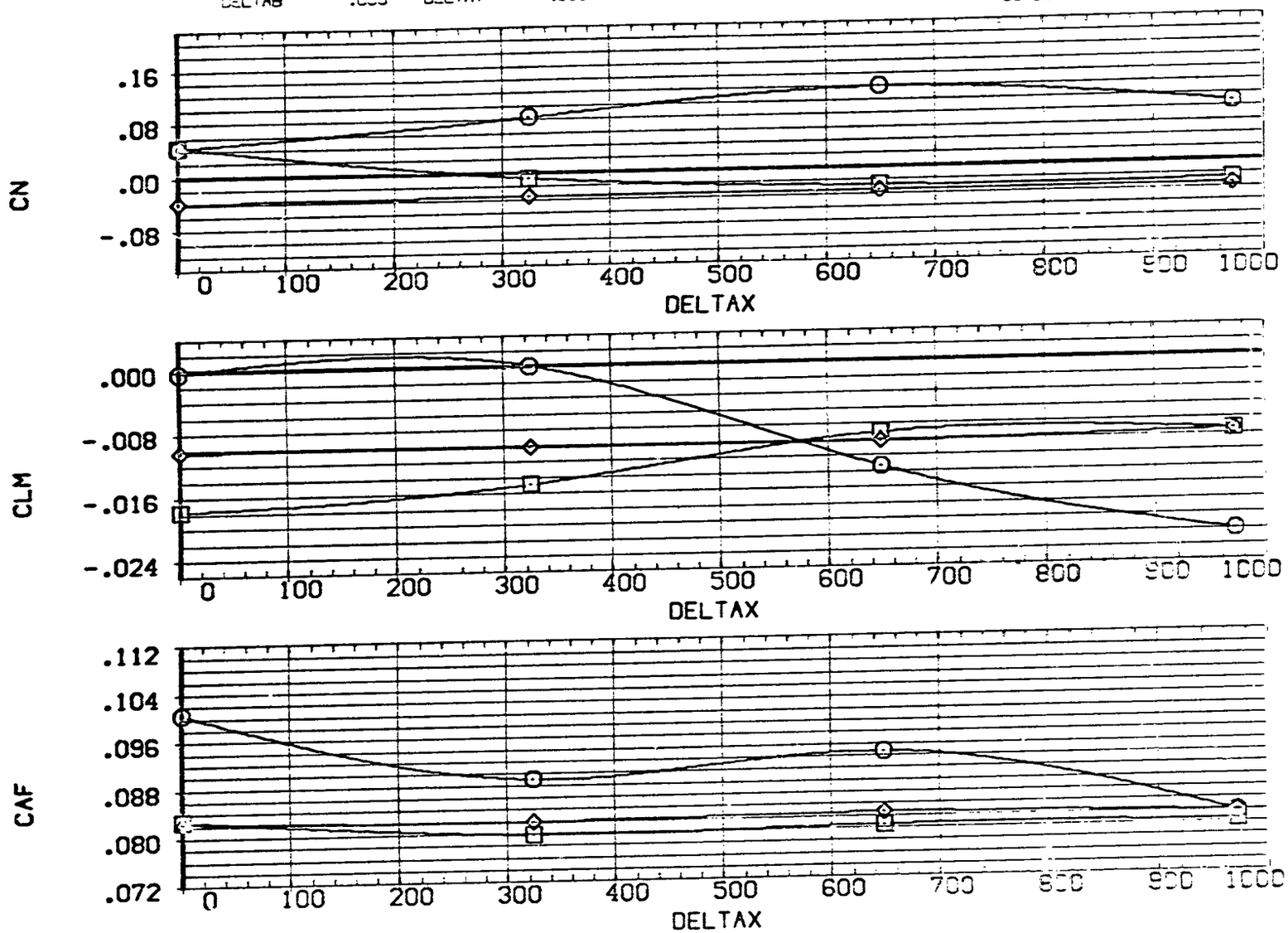
ALPHA	.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	5.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
N85305	162.000	N85308	486.000
N85311	810.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1068.3000	IN.
BREF	1029.4000	IN.
XMRP	857.1000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85005)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

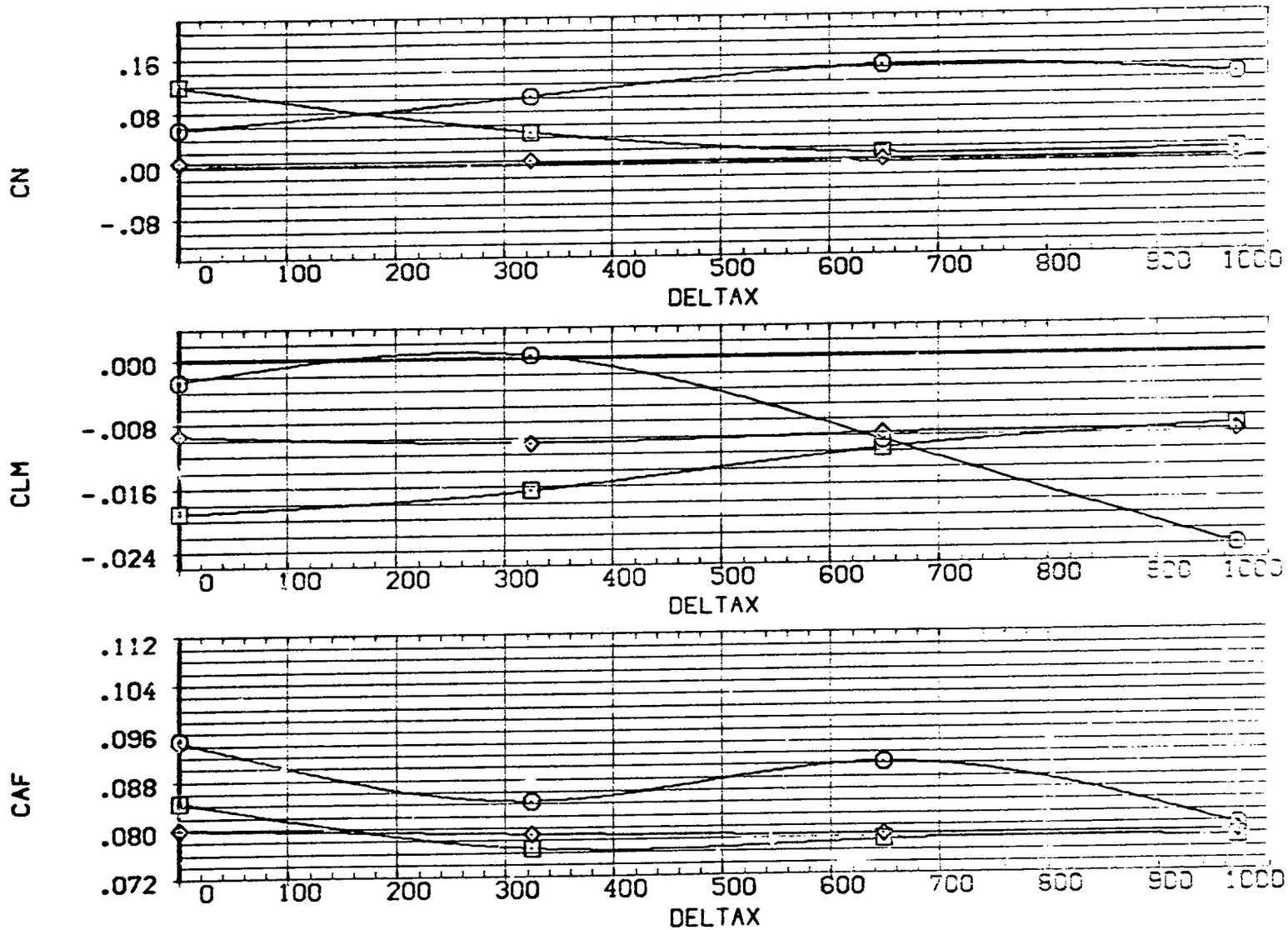
ALPHA	2.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
N85005	162.000
N85011	810.000
N85008	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1maa.0000	FT.
BREF	1328.0000	FT.
XMRP	987.0000	FT.
YMRP	.0000	FT.
ZMRP	.0000	FT.
SCALE	.0040	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85005)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

ALPHA	5.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

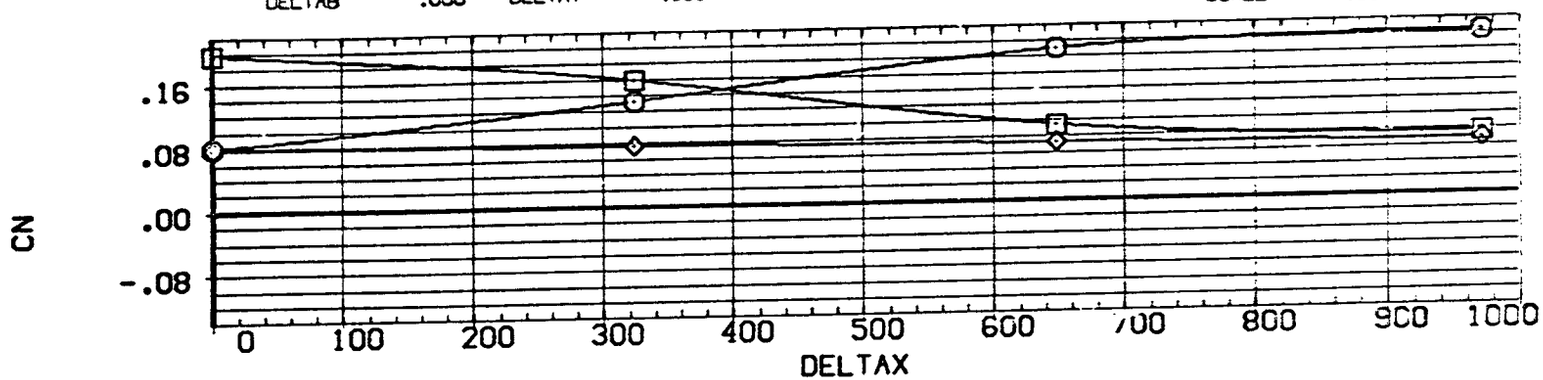
DATA SOURCE

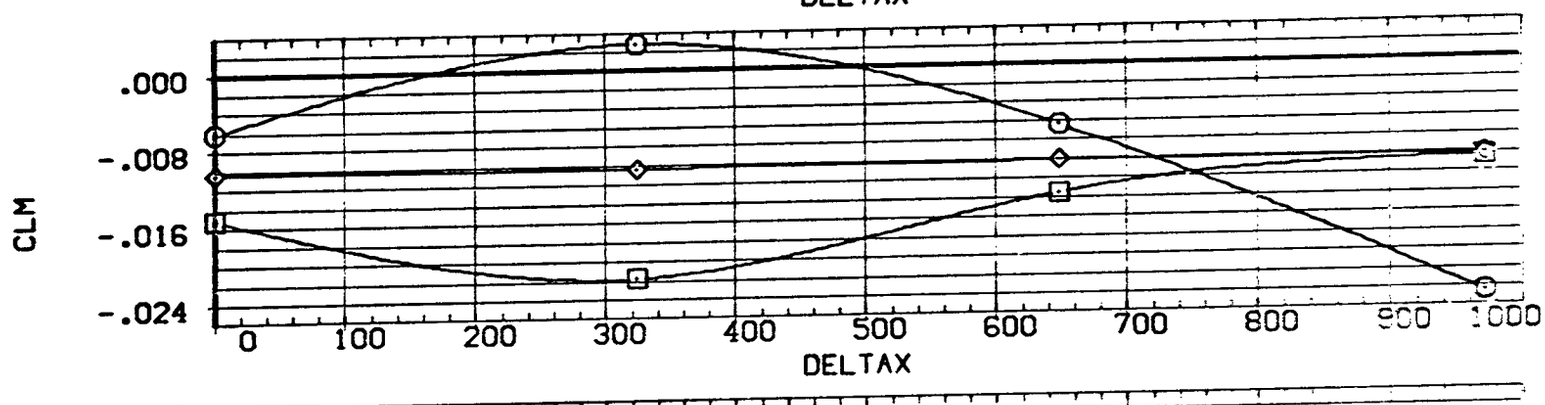
DATASET	DELTAZ
N85005	162.000
N85011	810.000

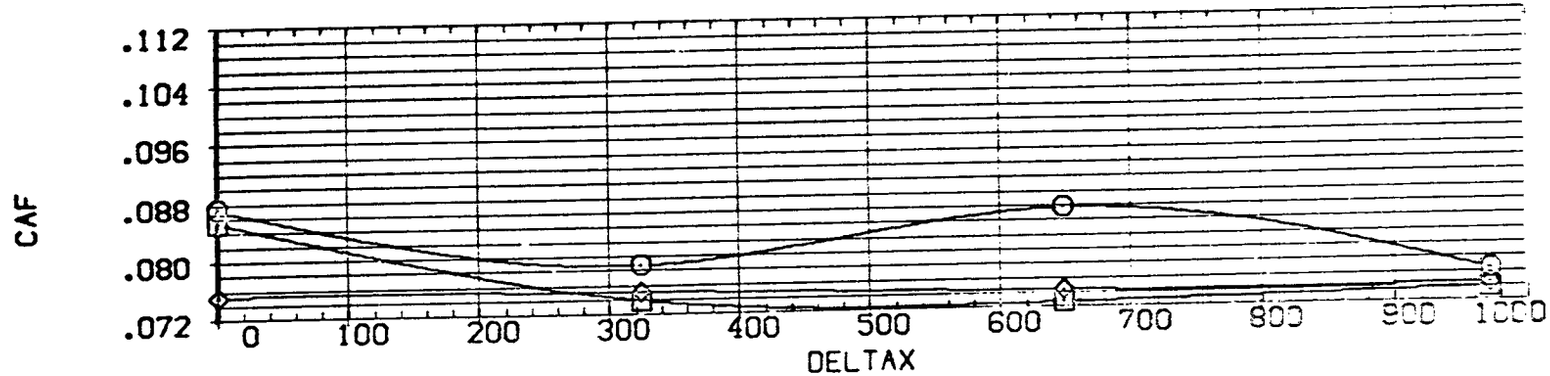
DATASET	DELTAZ
N85008	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	857.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85009)

SYMBOL	DELTAZ
○	486.000
□	810.000

PARAMETRIC VALUES

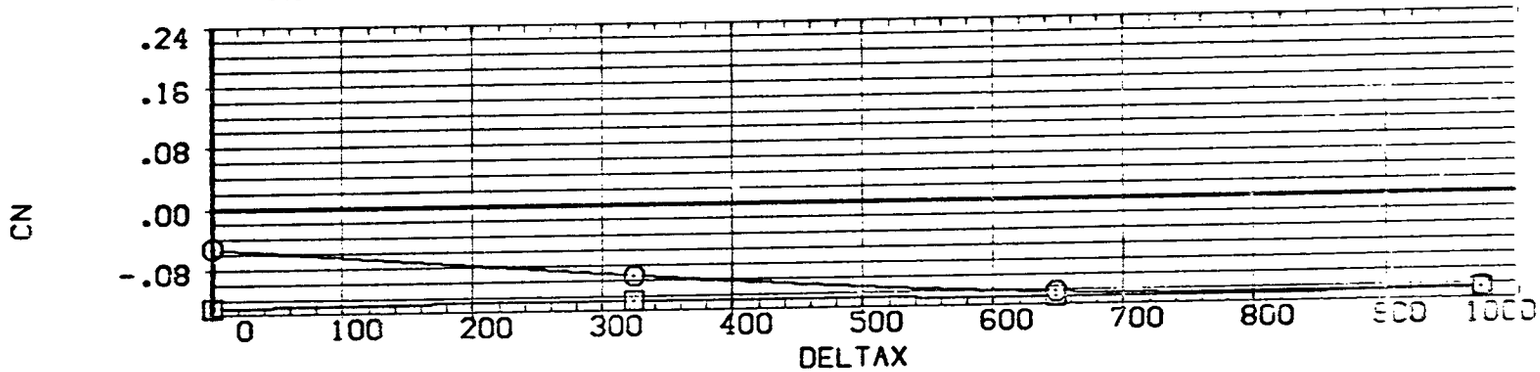
ALPHA	-5.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	10.000
DELTAB	.000	DELTAY	.000

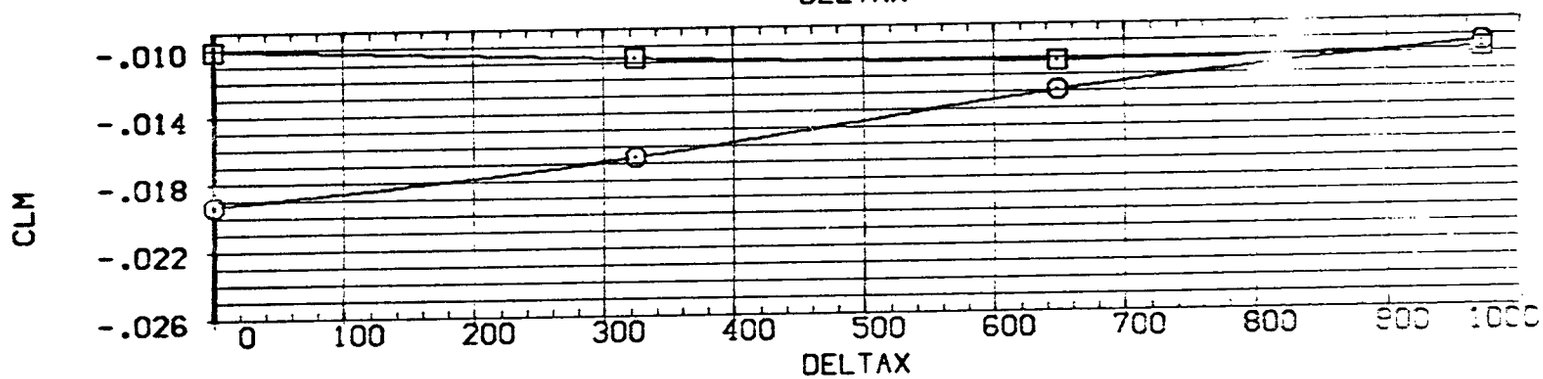
DATA SOURCE

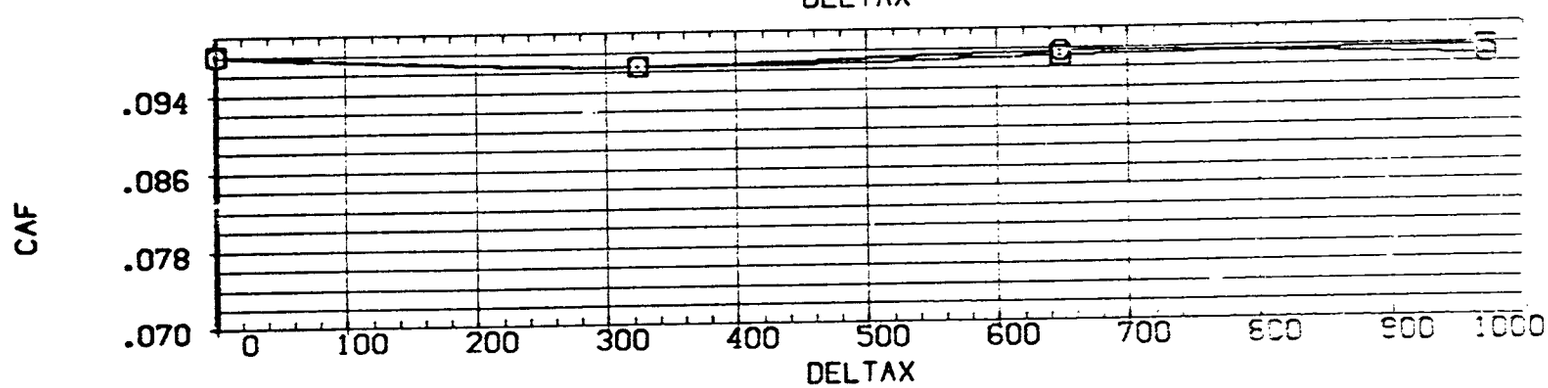
DATASET	DELTAZ	DATASET	DELTAZ
N85009	486.000	N85012	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1174.8000	IN.
BREF	1038.0000	IN.
XMRP	65.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85009)

SYMBOL	DELTAZ
○	485.000
□	810.000

PARAMETRIC VALUES

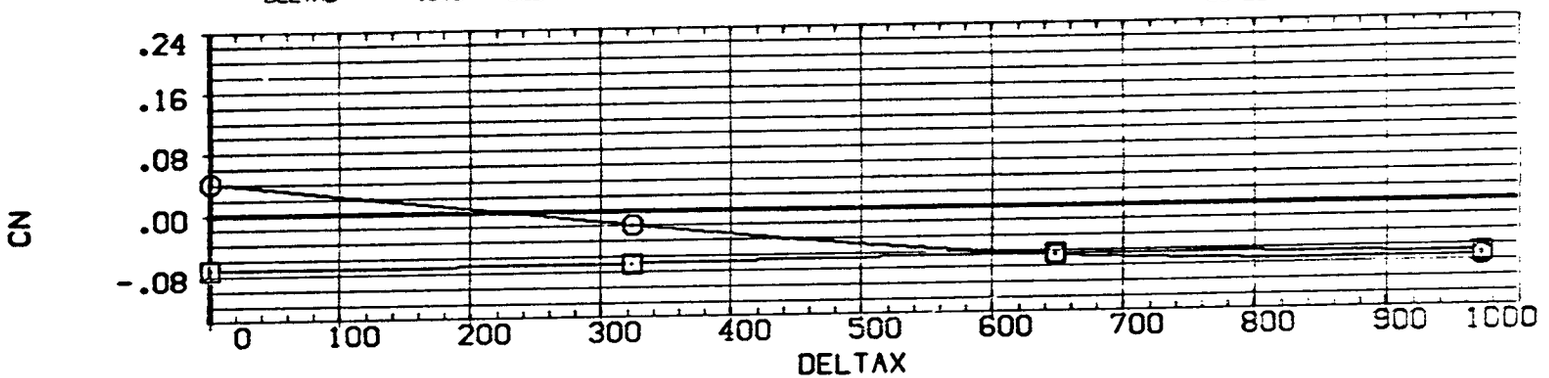
ALPHA	-2.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	10.000
DELTAB	.000	DELTAY	.000

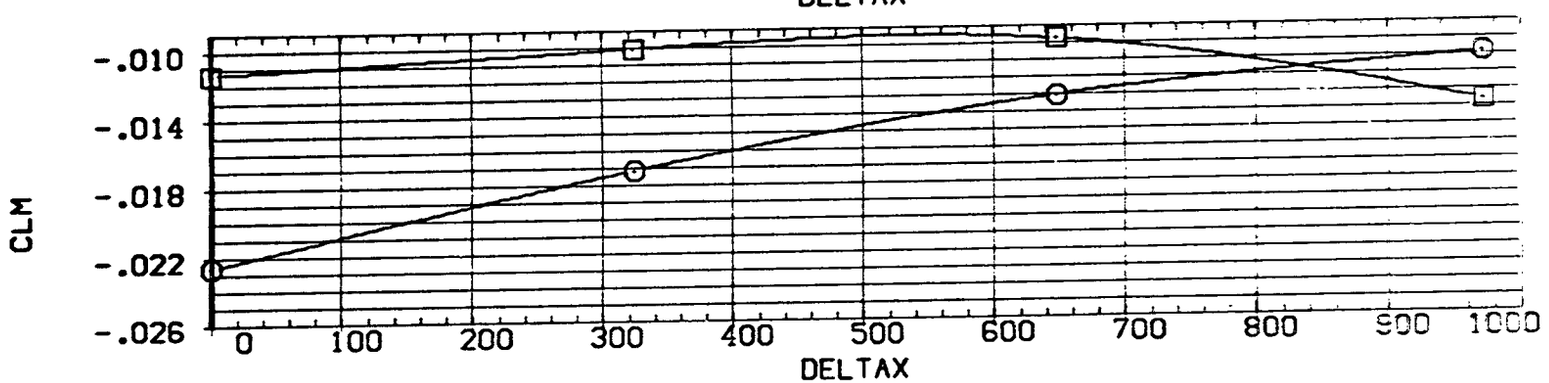
DATA SOURCE

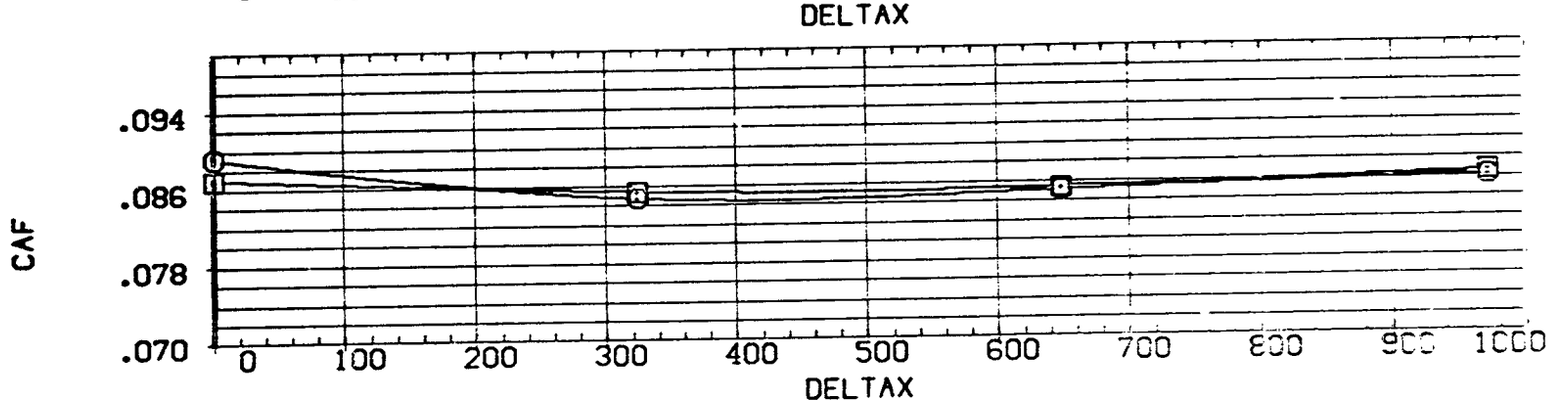
DATASET	DELTAZ	DATASET	DELTAZ
N85009	485.000	N85012	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	697.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85009)

SYMBOL	DELTAZ
○	486.000
□	810.000

PARAMETRIC VALUES

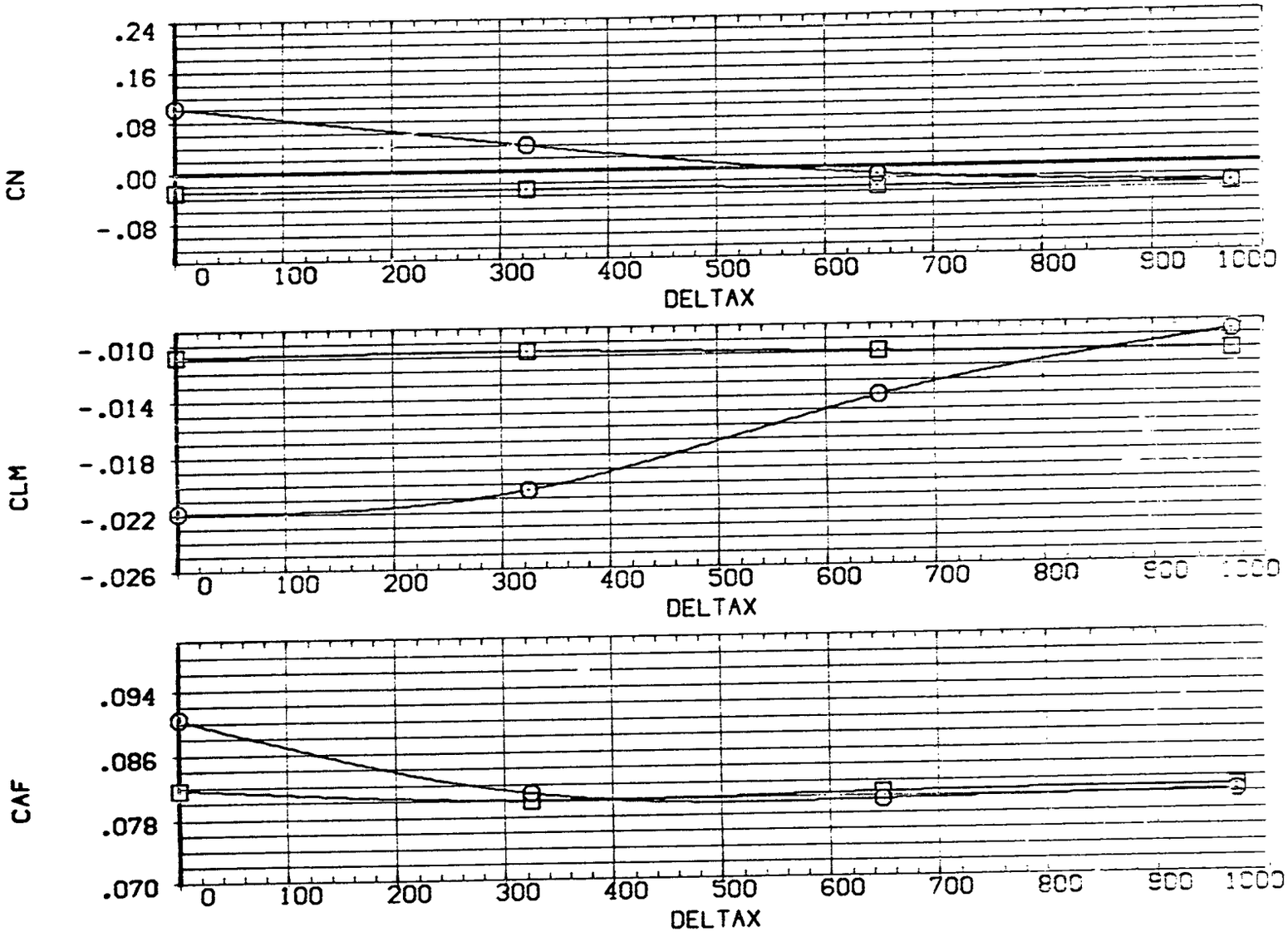
ALPHA	.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	10.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
N85009	486.000	N85012	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	857.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (N85009)

SYMBOL	DELTAZ
○	486.000
□	810.000

PARAMETRIC VALUES

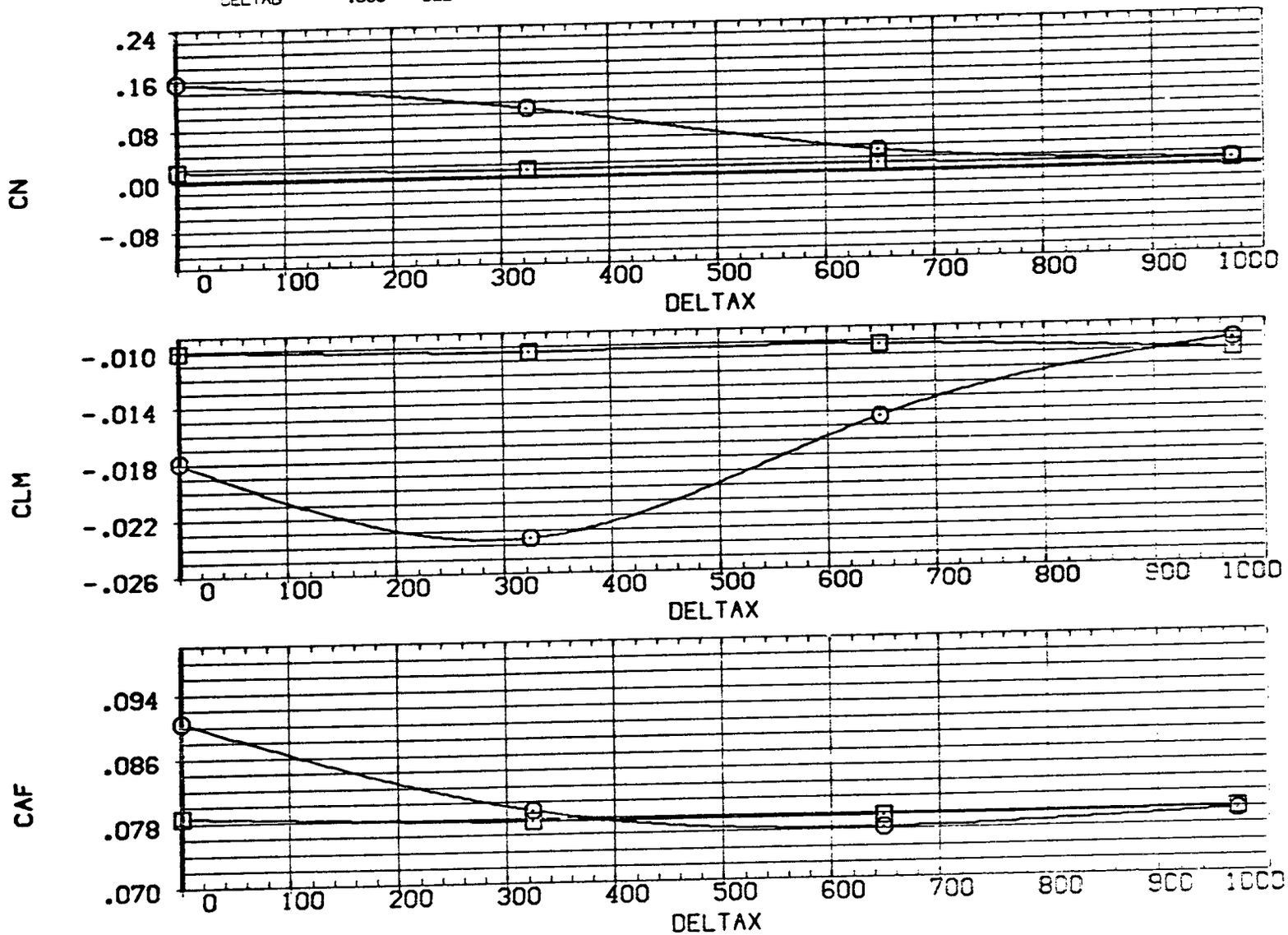
ALPHA	2.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	10.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
N85009	486.000	N85012	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	667.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(1A6A) ORB (013)WITH TANK (T9) SEPARATING (N85009)

SYMBOL	DELTAZ
○	486.000
□	810.000

PARAMETRIC VALUES

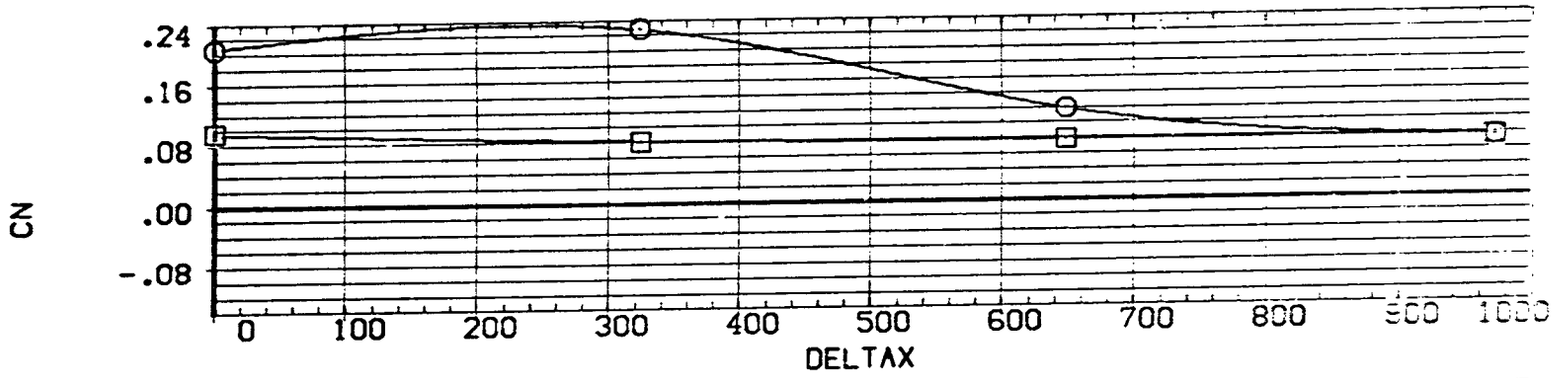
ALPHA	5.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	ELEVTR	.000	N85009	486.000
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	10.000		
DELTAS	.000	DELTAY	.000		

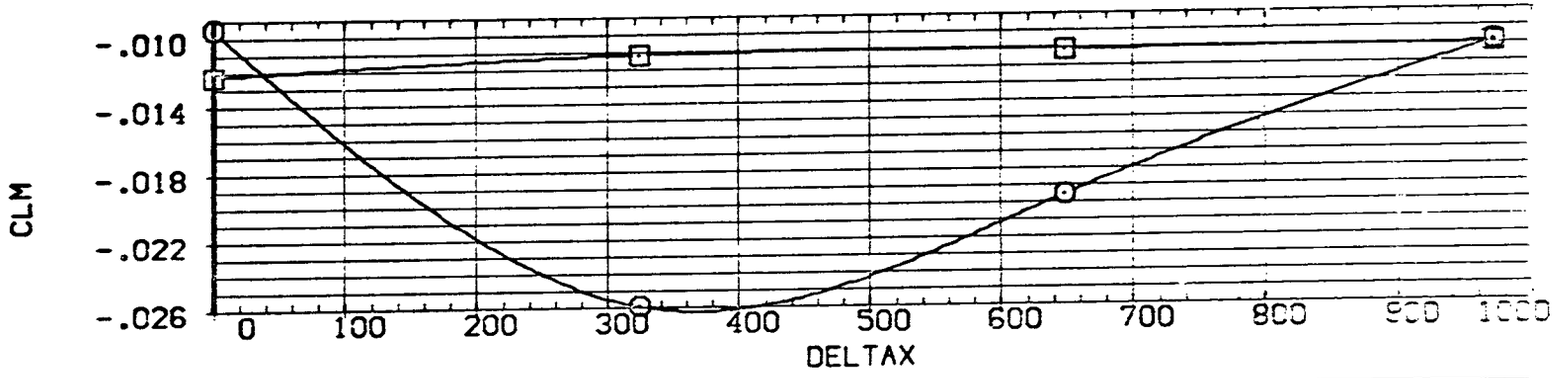
DATA SOURCE

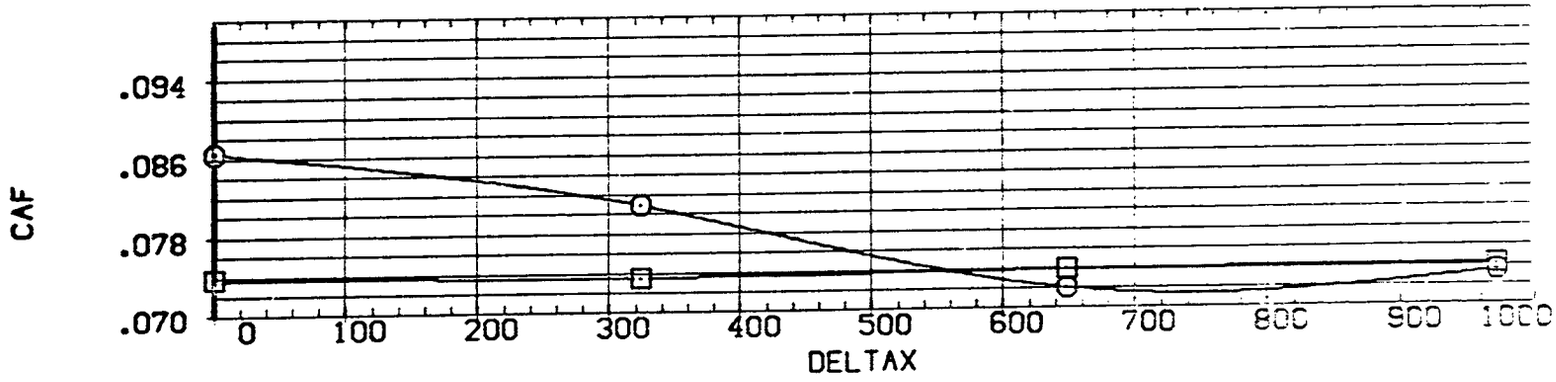
DATASET	DELTAZ
N85012	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	867.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0010	







BASIC SEPARATION DATA- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T01)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

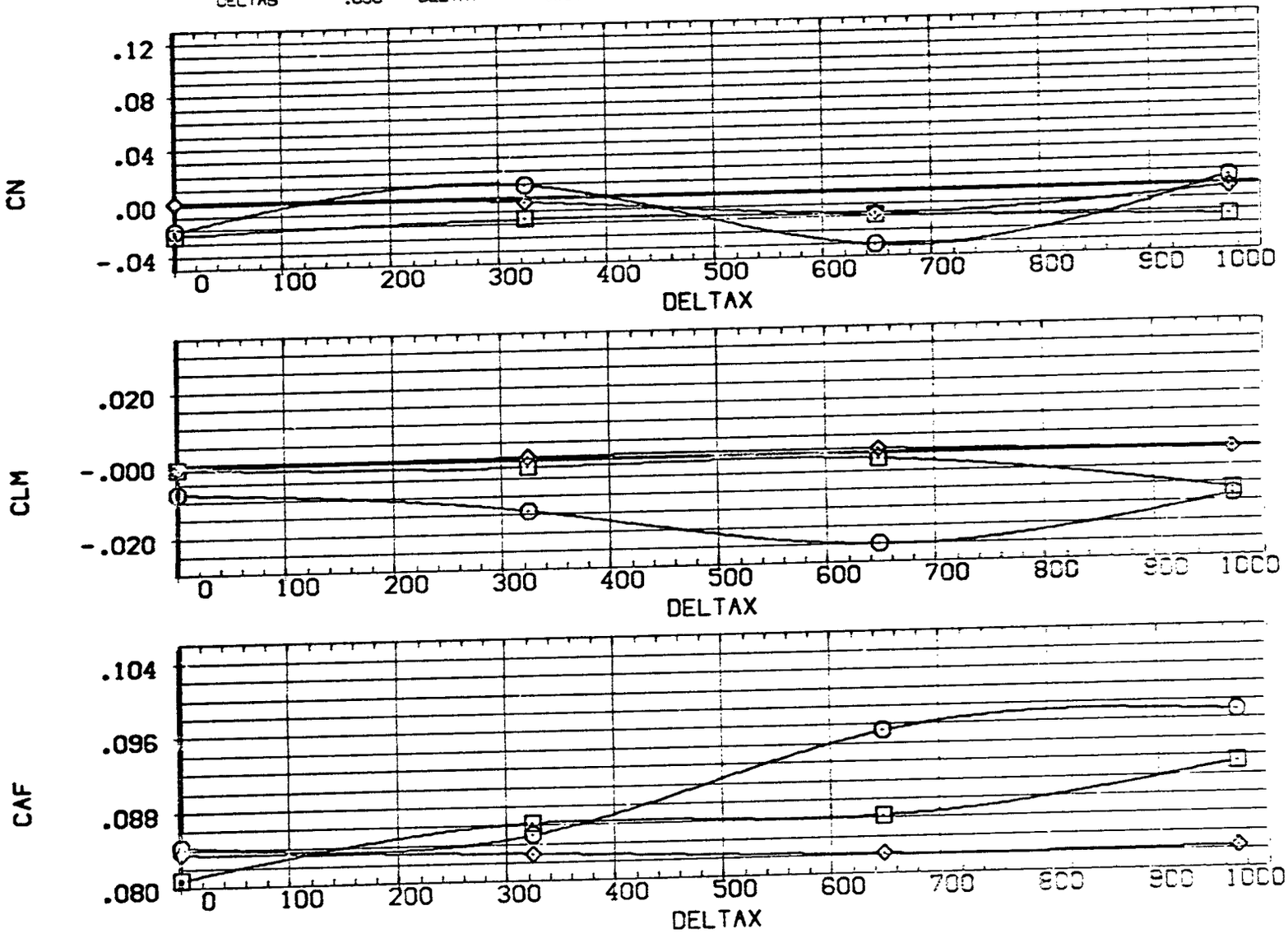
ALPHA	-5.000	BETA	.000	DATASET	N85T01
MACH	4.960	ELEVTR	.000		N85T06
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	-5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	N85T03	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1329.0000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T01)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

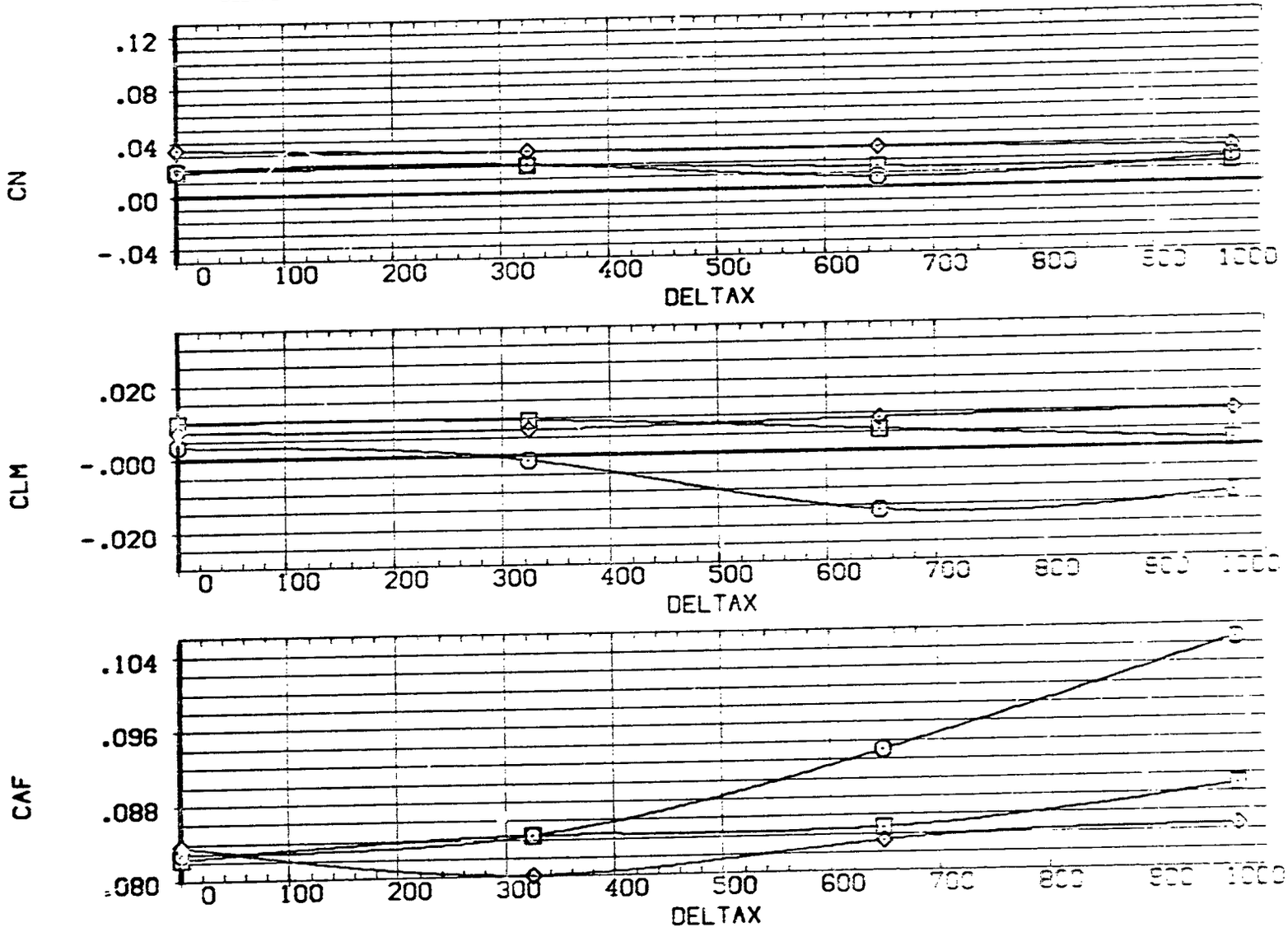
ALPHA	-2.000	BETA	.000	DATASET	N85T01
MACH	4.960	ELEVTR	.000	DELTAZ	.000
AILRON	.000	RUDDER	.000		486.000
RUDFLR	40.000	DELTAA	-5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
N85T03	162.000

REFERENCE INFORMATION

SREF	4980.0000	SQ.FT.
LREF	1049.0000	IN.
BREF	1049.0000	IN.
XMRP	909.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T01)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

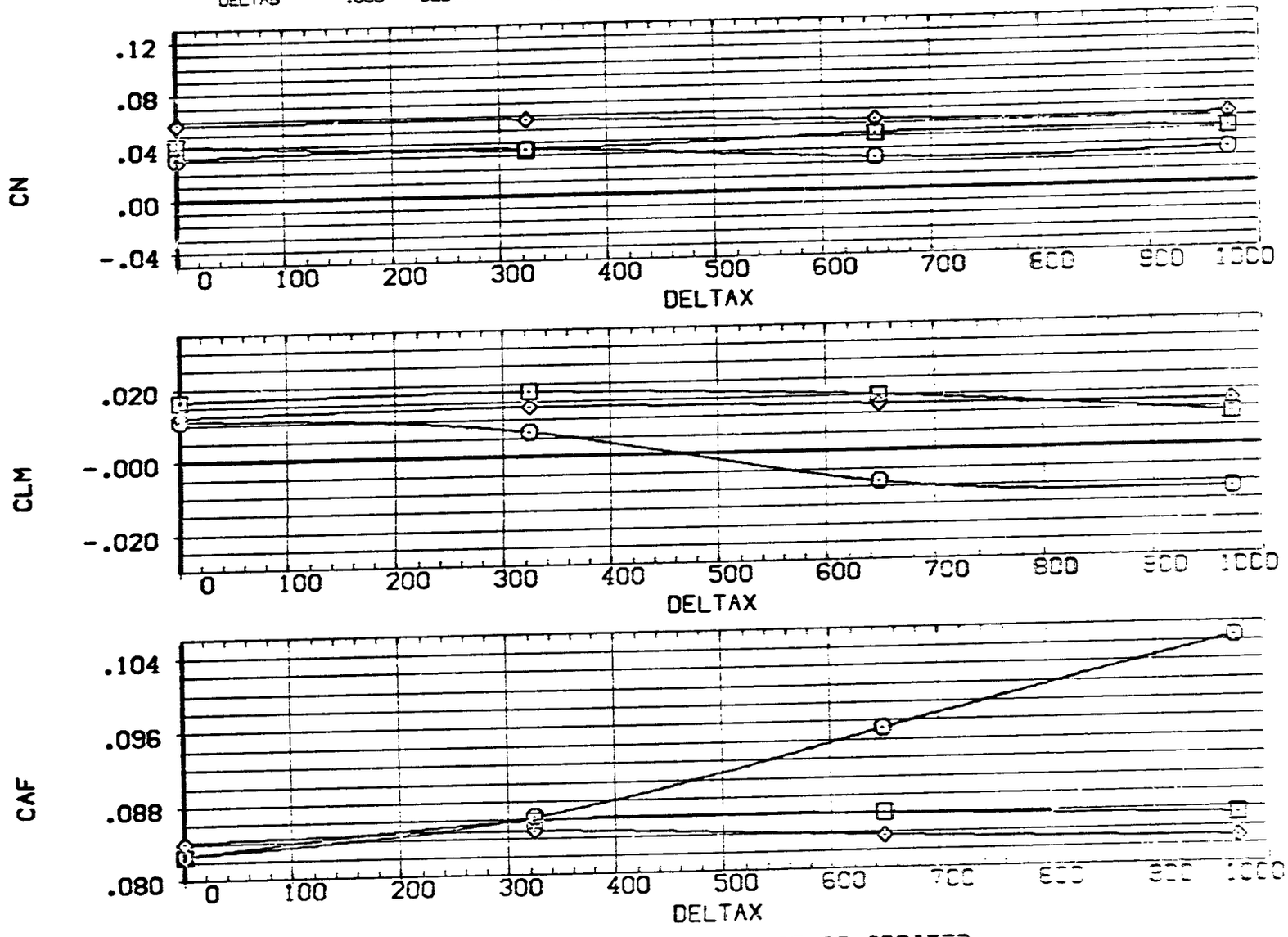
ALPHA	.000	BETA	.000	DATASET	N85T01
MACH	4.960	ELEVTR	.000		N85T06
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	-5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

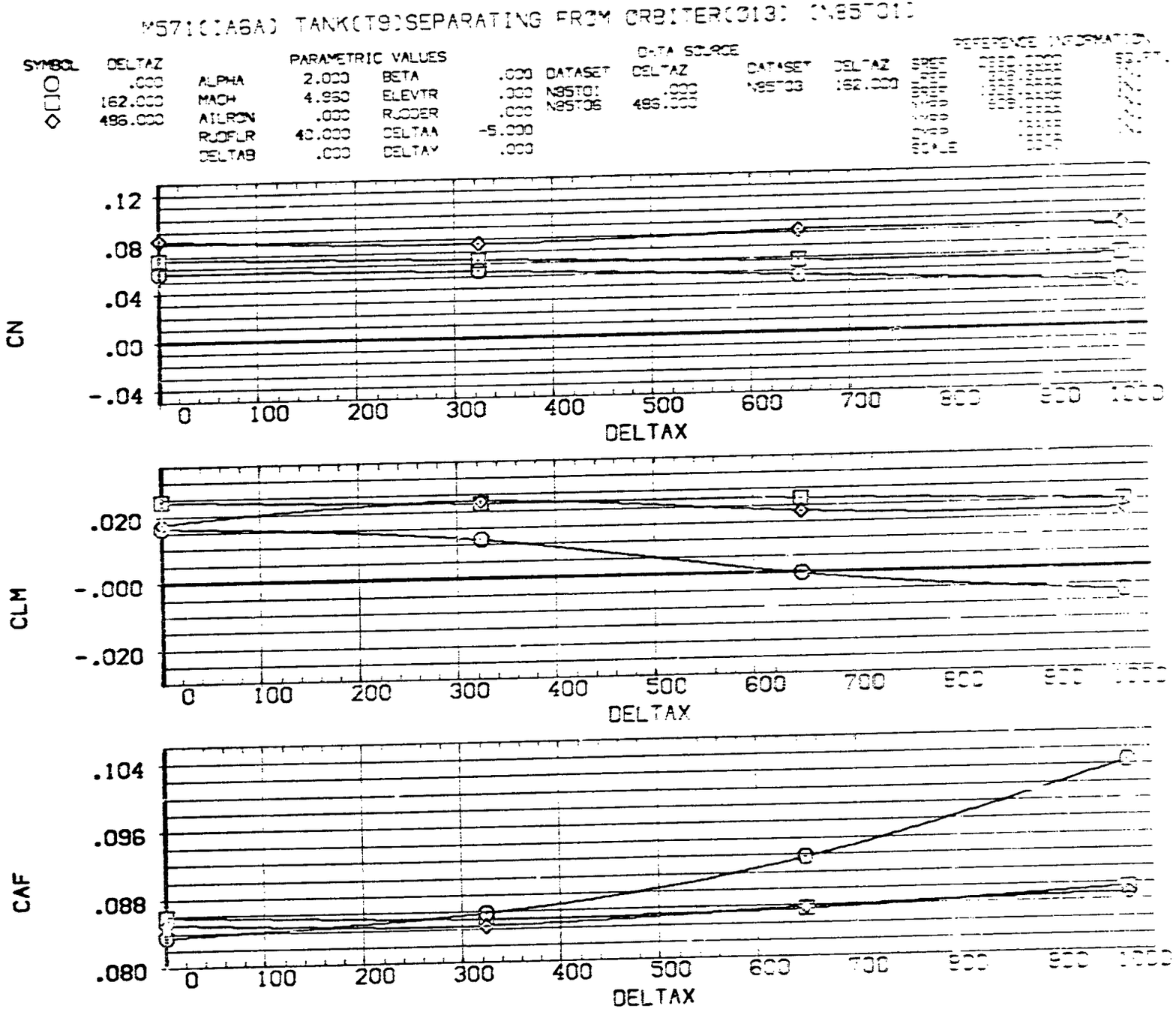
DELTAZ	DATASET	DELTAZ
.000	N85T03	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	939.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(0:3) (NSSTO1)

SYMBOL	DELTAZ
◇	.000
□	162.000
○	496.000

PARAMETRIC VALUES

ALPHA	5.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	-5.000	
DELTAB	.000	DELTAY	.000	

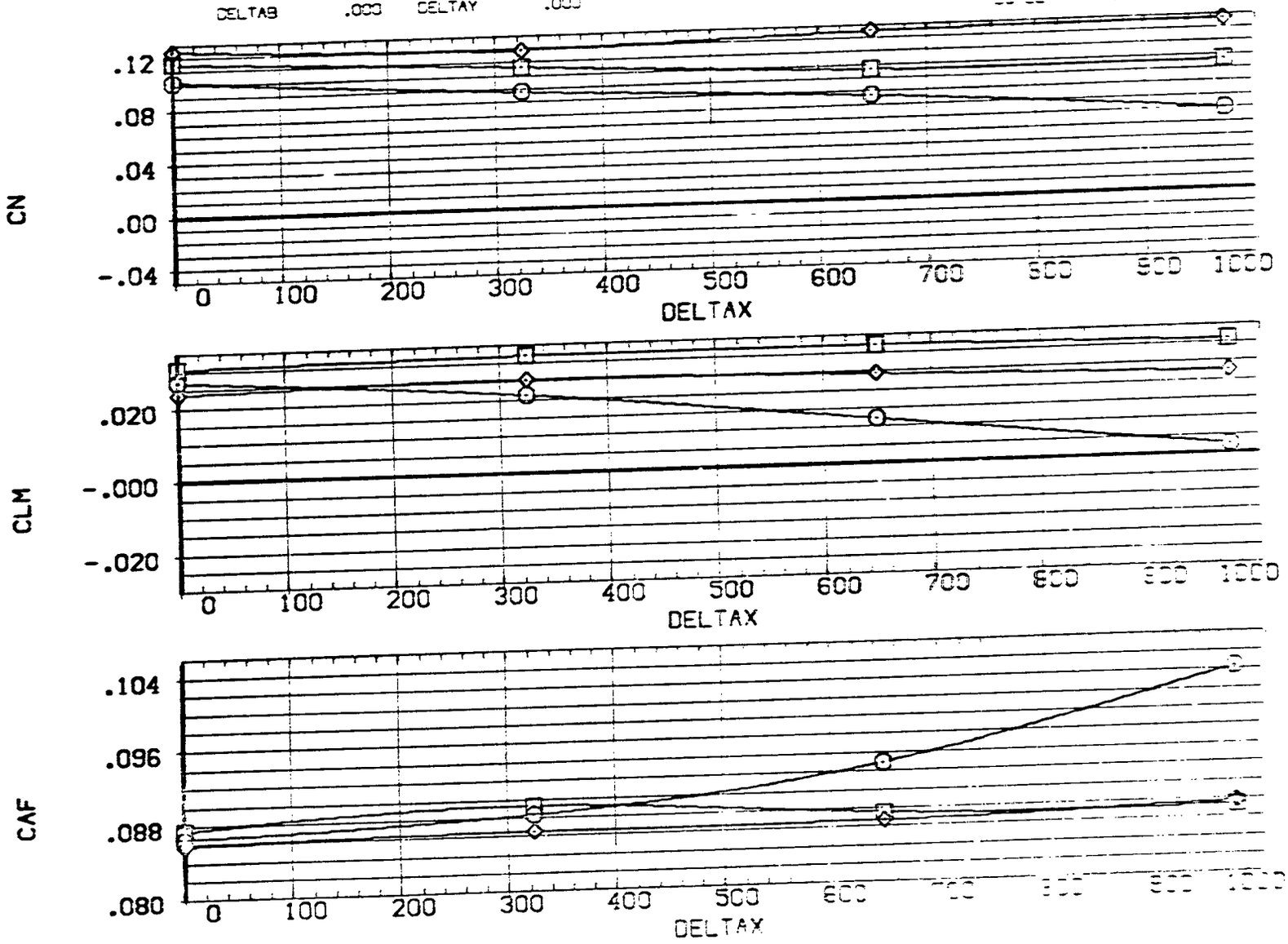
DATA SOURCE

DATASET	DELTAZ
NSSTO1	.000
NSSTO6	486.000

DATASET	DELTAZ
NSSTO3	162.000

REFERENCE INFORMATION

		SD.FT.
SREF	2690.0000	SQ.FT.
CBAR	1049.1000	IN.
BREF	1049.1000	IN.
XMRP	878.1000	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	1.0000	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T02)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

ALPHA	-5.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	.000
DELTAB	.000	DELTAY	.000

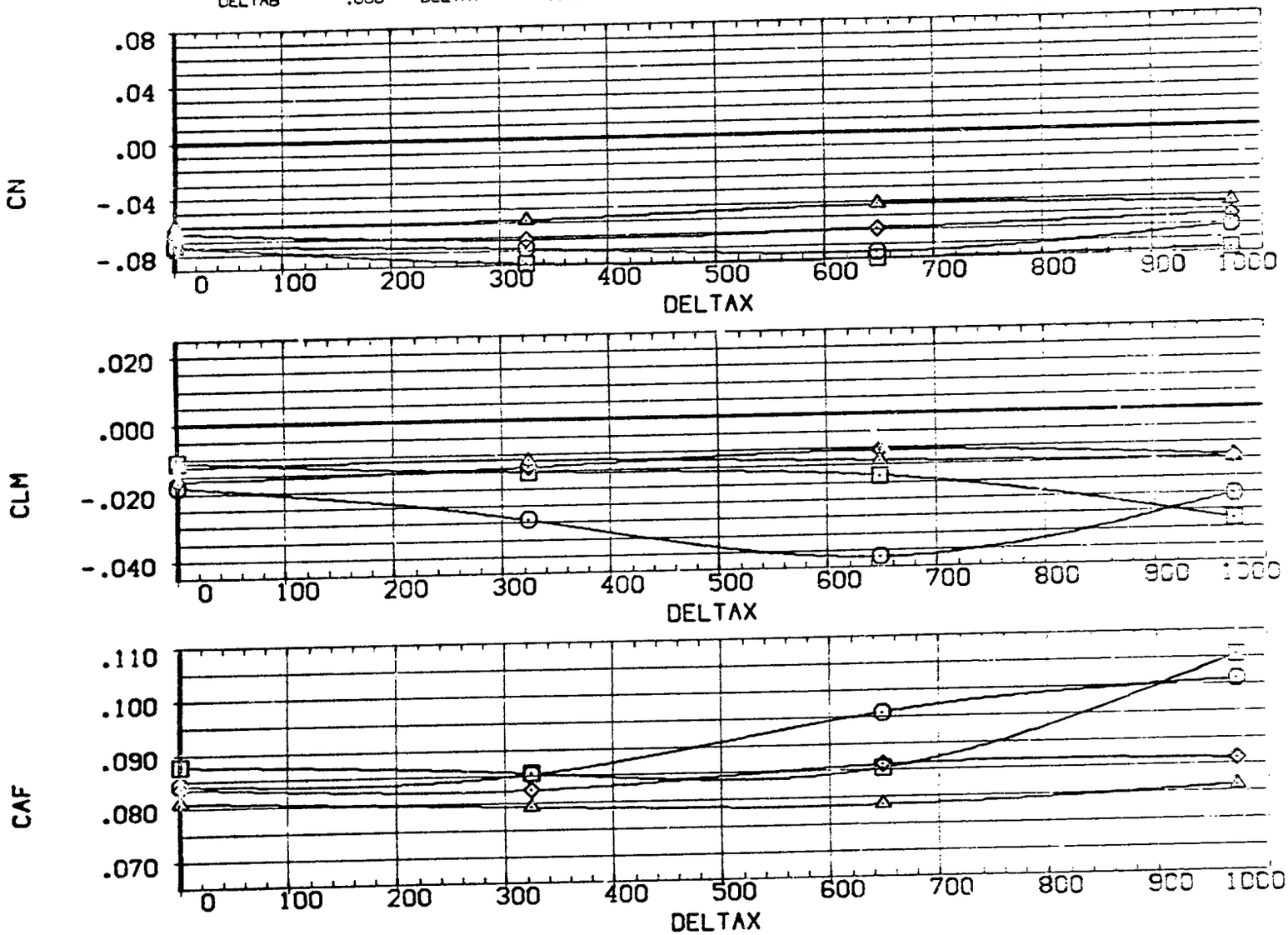
DATA SOURCE

DATASET	DELTAZ
N85T02	.000
N85T07	486.000

DATASET	DELTAZ
N85T04	162.000
N85T10	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T02)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

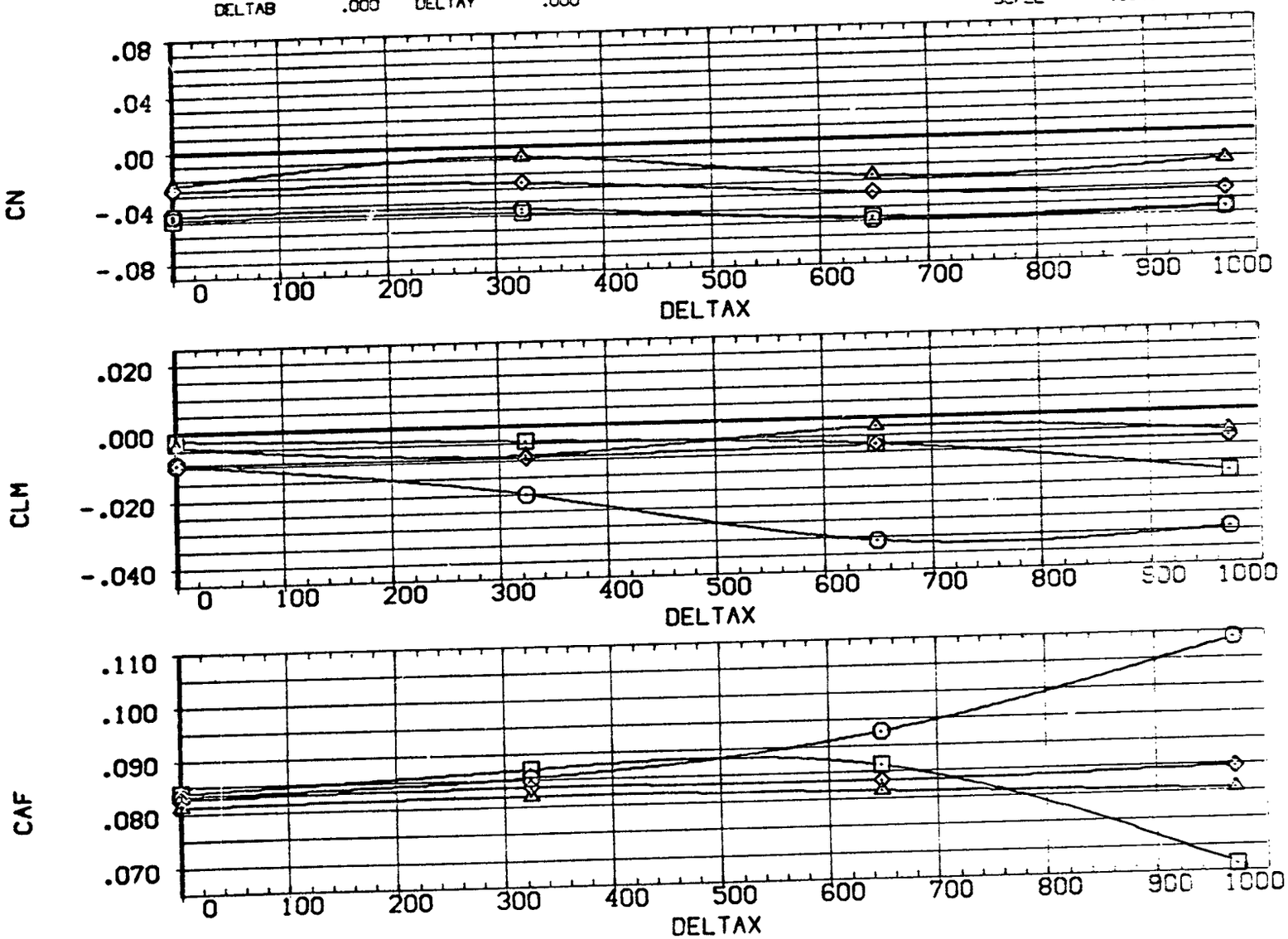
ALPHA	-2.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
N85T02	.000
N85T07	486.000
N85T04	162.000
N85T10	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T02)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

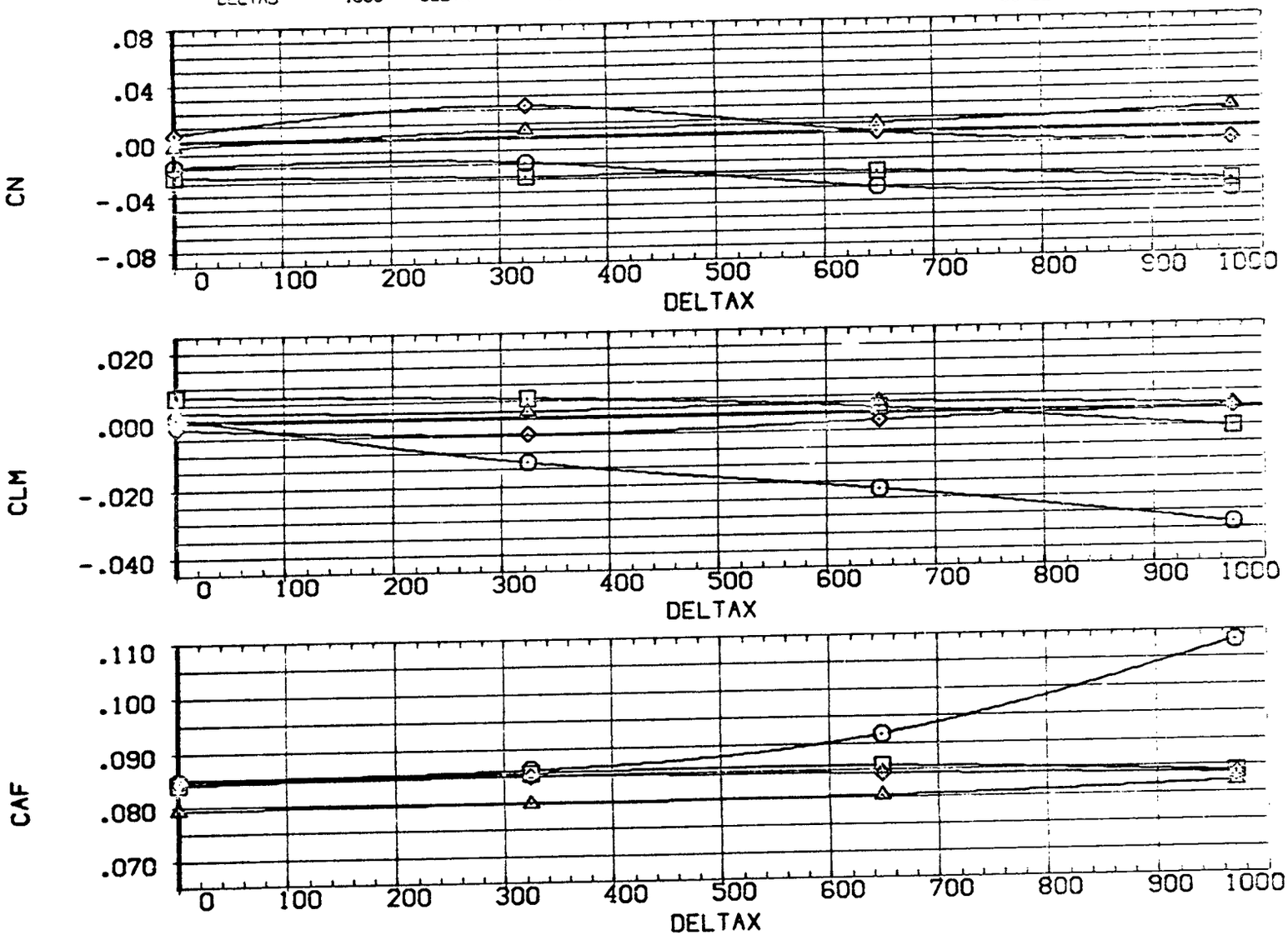
ALPHA	.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
N85T02	.000	N85T04	162.000
N85T07	486.000	N85T10	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T02)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

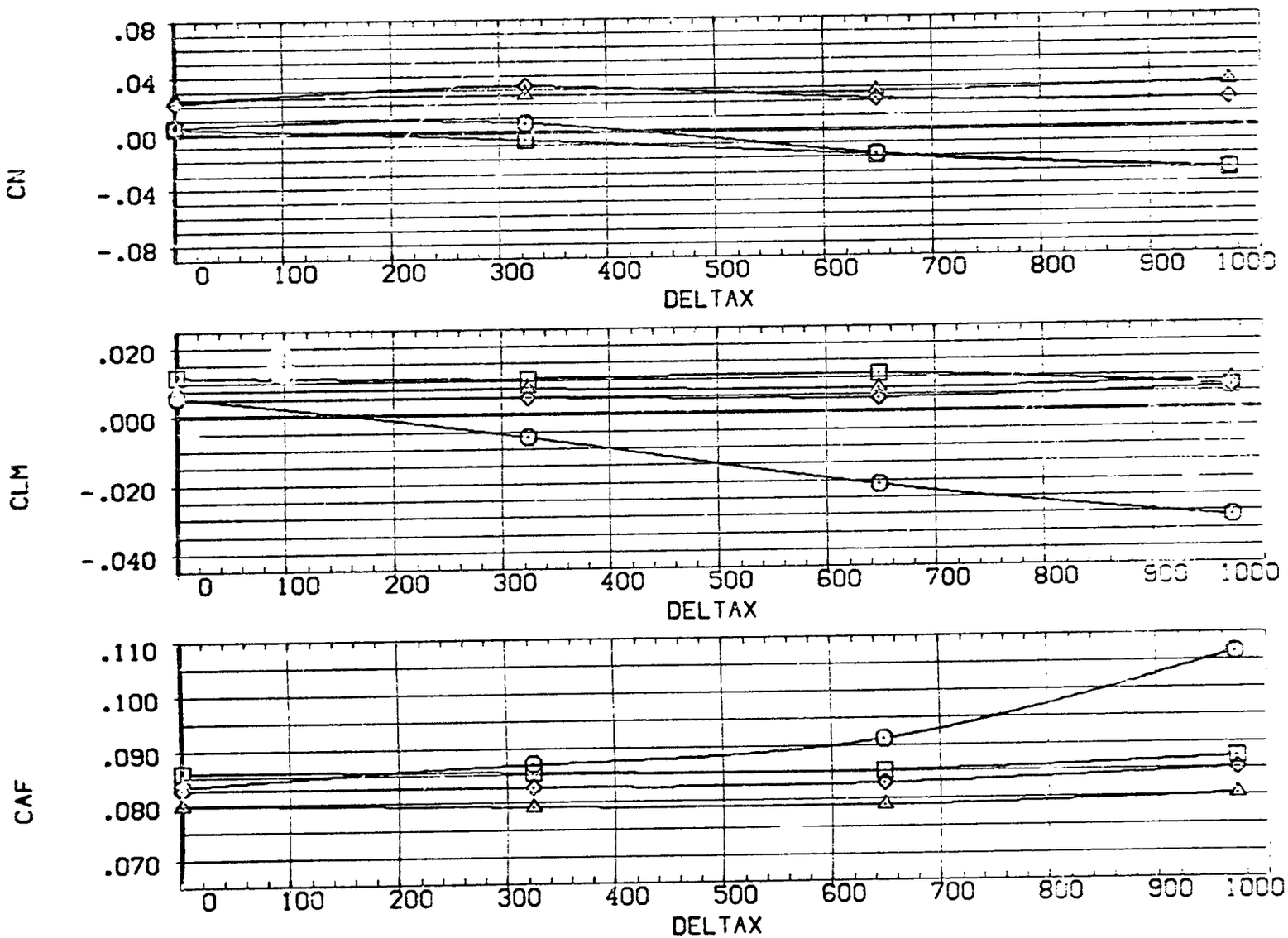
ALPHA	2.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
N85T02	.000
N85T07	486.000
N85T04	162.000
N85T10	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T02)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000
△	810.000

PARAMETRIC VALUES

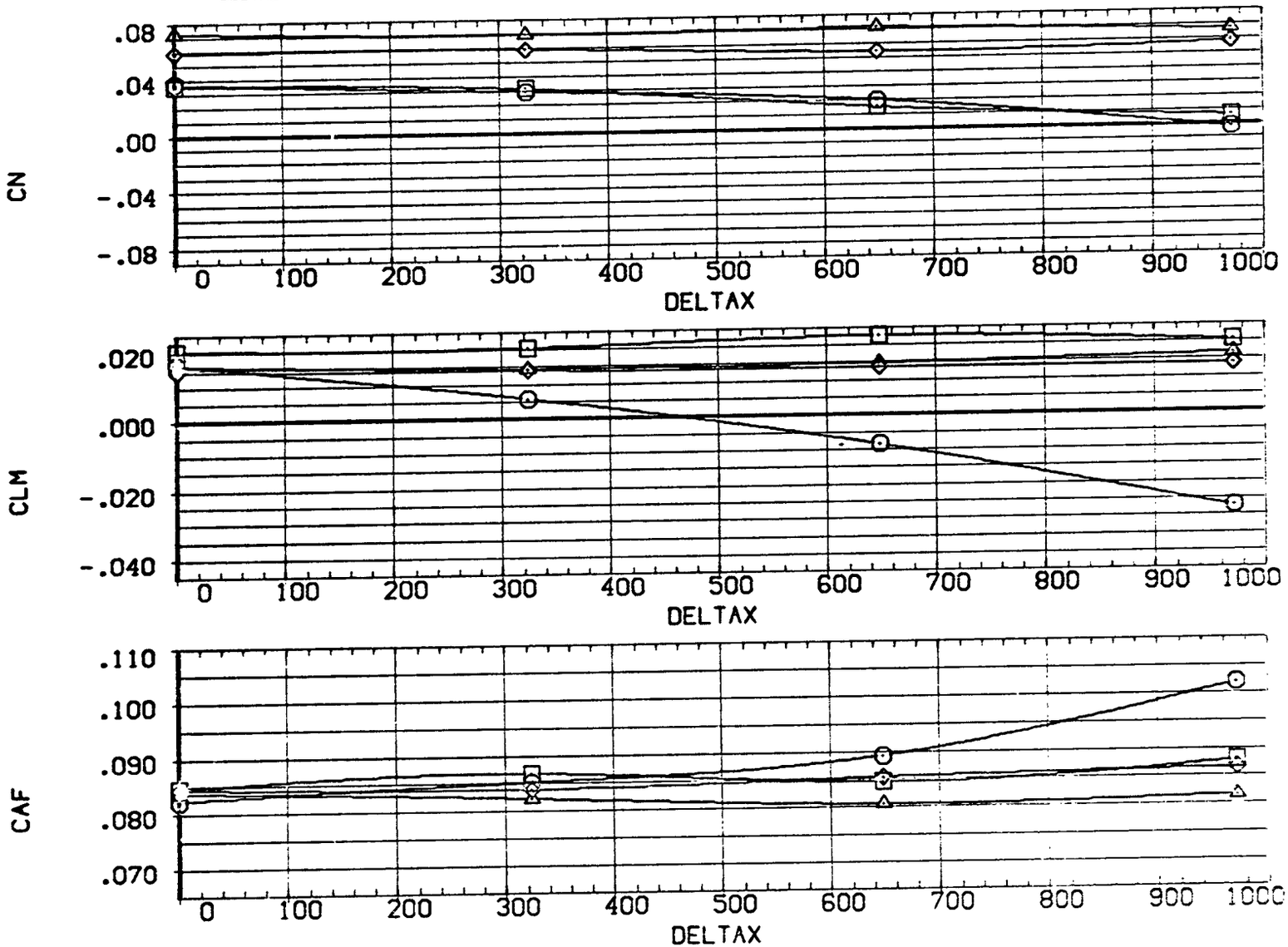
ALPHA	5.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ
N85T02	.000
N85T07	486.000
N85T04	162.000
N85T10	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(:A6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T05)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

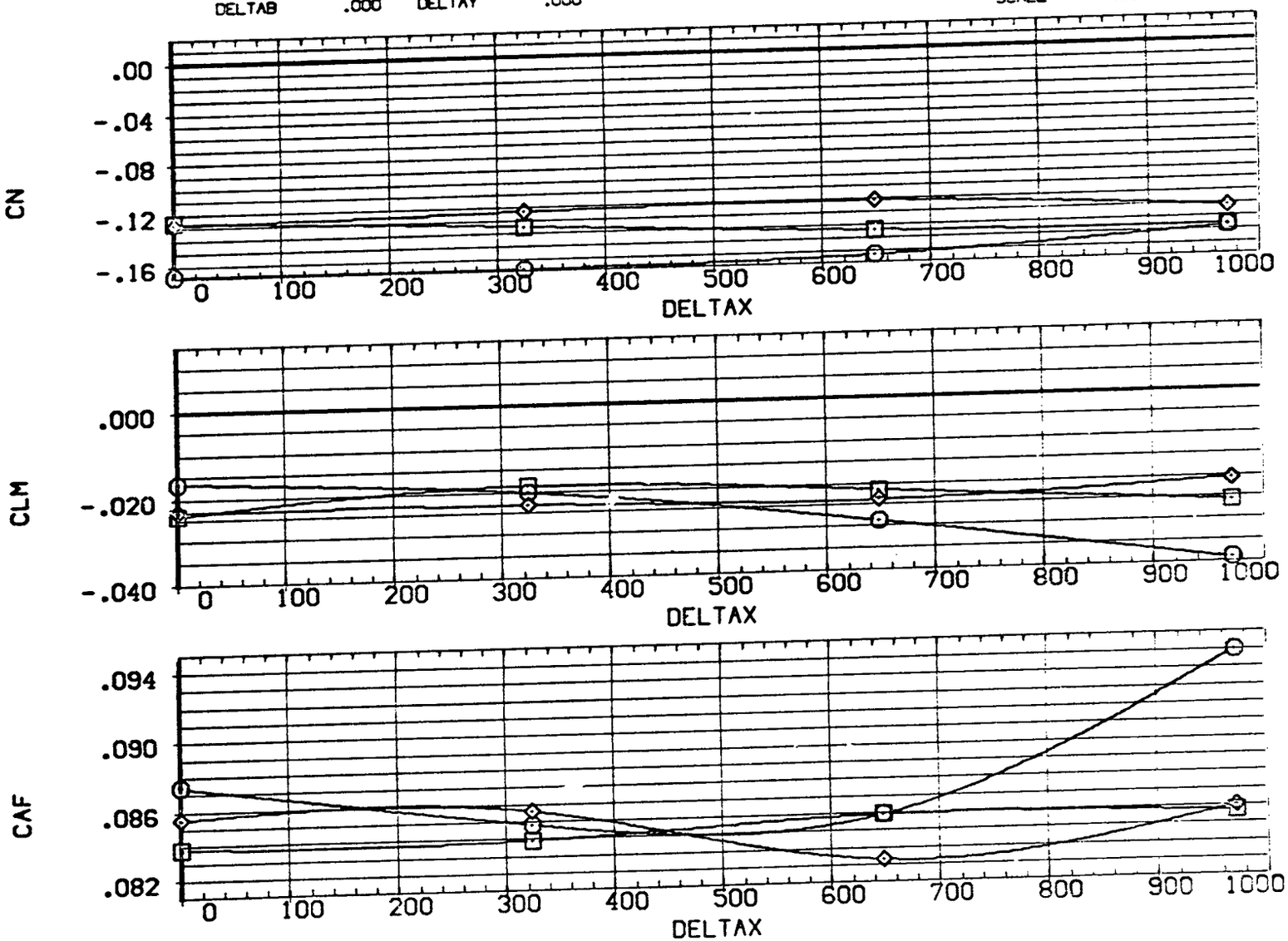
ALPHA	-5.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
N85T05	162.000	N85T08	485.000
N85T11	810.000		

REFERENCE INFORMATION

		SQ.FT.
SREF	2690.0000	
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T05)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

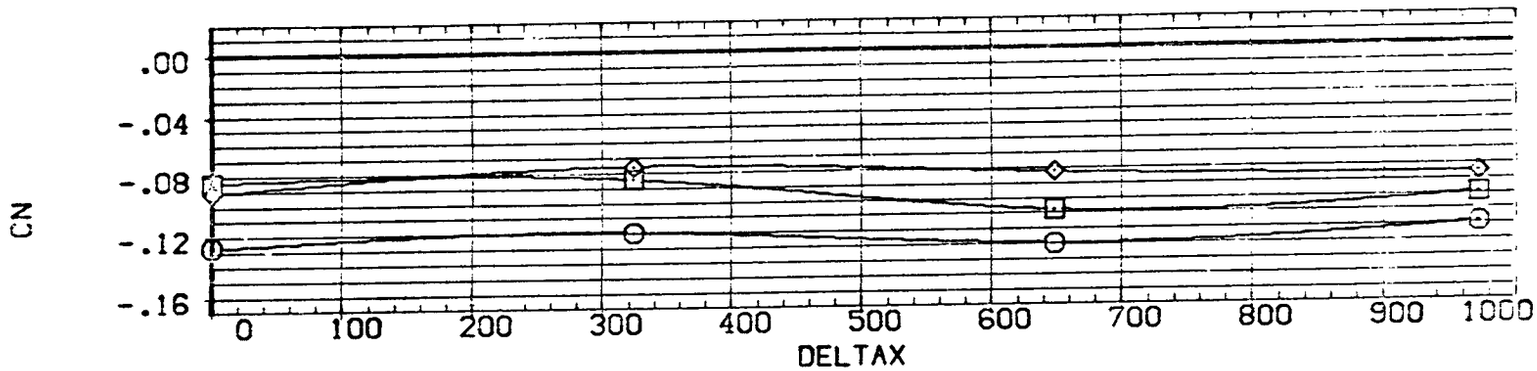
ALPHA	-2.000	BETA	.000	
MACH	4.950	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

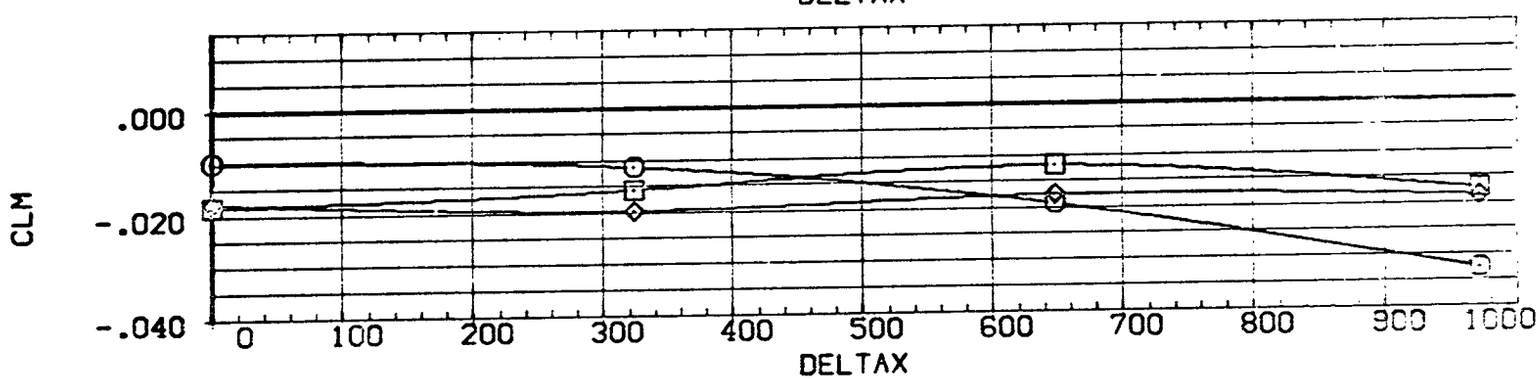
DATA SOURCE

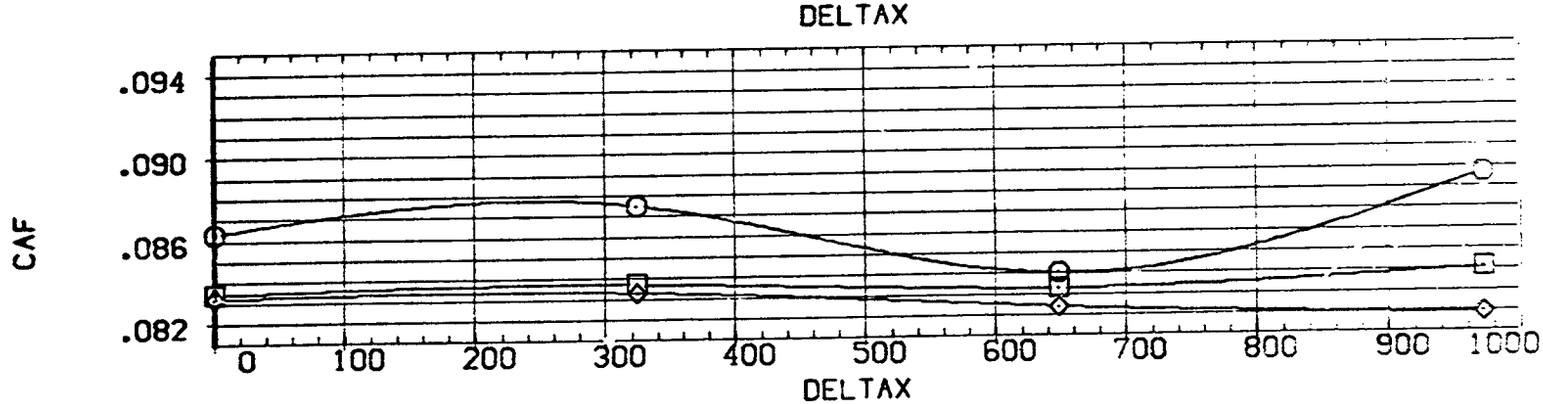
DATASET	DELTAZ
N85T05	162.000
N85T11	810.000
N85T08	486.000

REFERENCE INFORMATION

SREF	2890.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.0000	IN.
XMRP	928.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T05)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

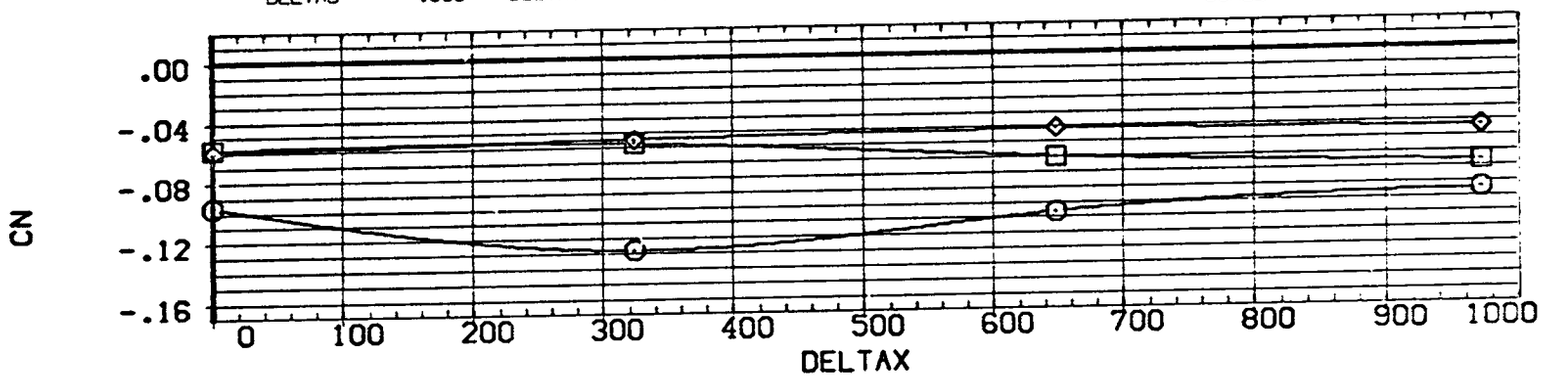
ALPHA	.000	BETA	.000	DATASET	N85T05
MACH	4.960	ELEVTR	.000		N85T11
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

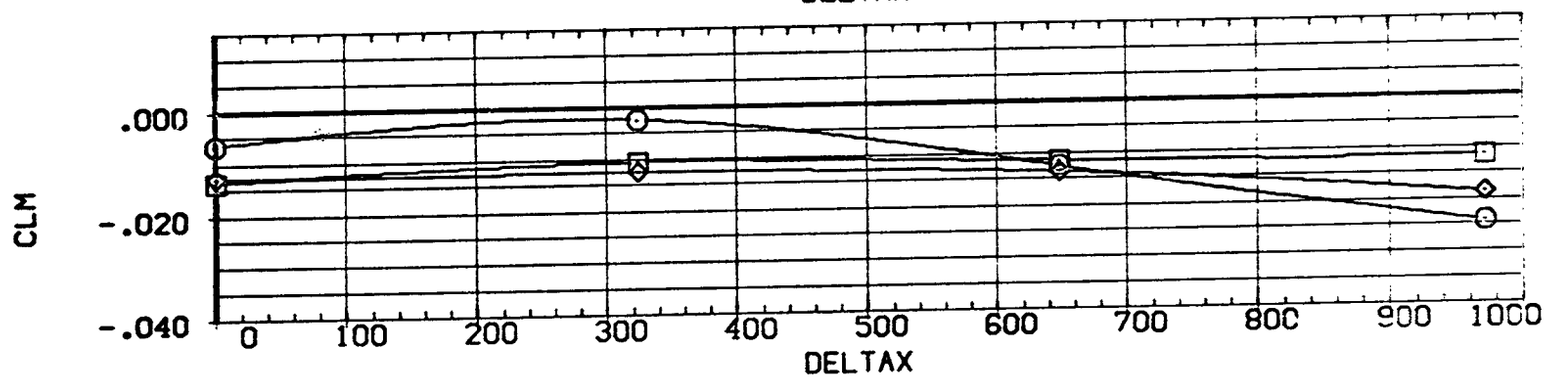
DATA SOURCE

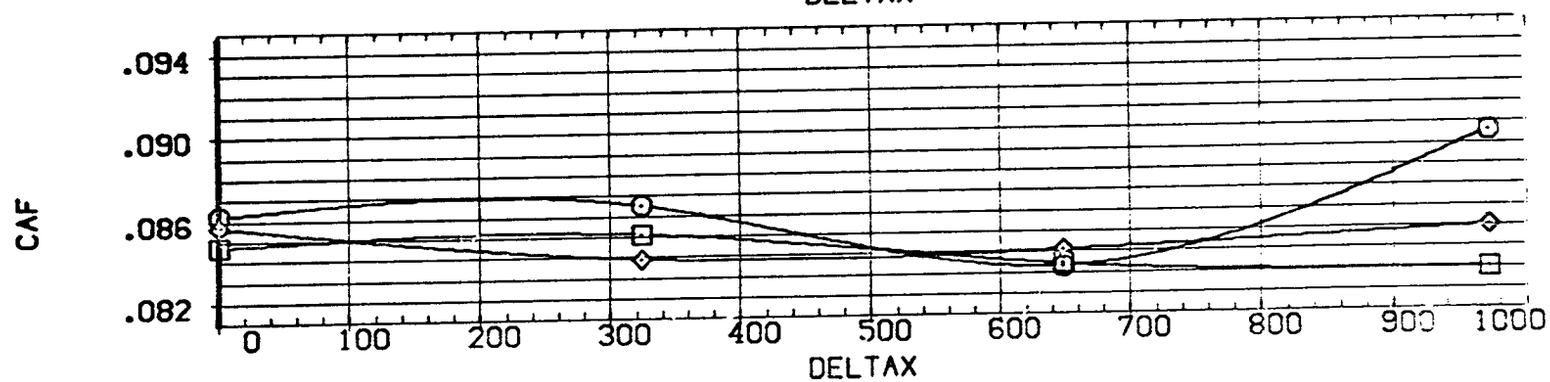
DELTAZ	DATASET	DELTAZ
162.000	N85T08	486.000
810.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(C13) (N85TC5)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

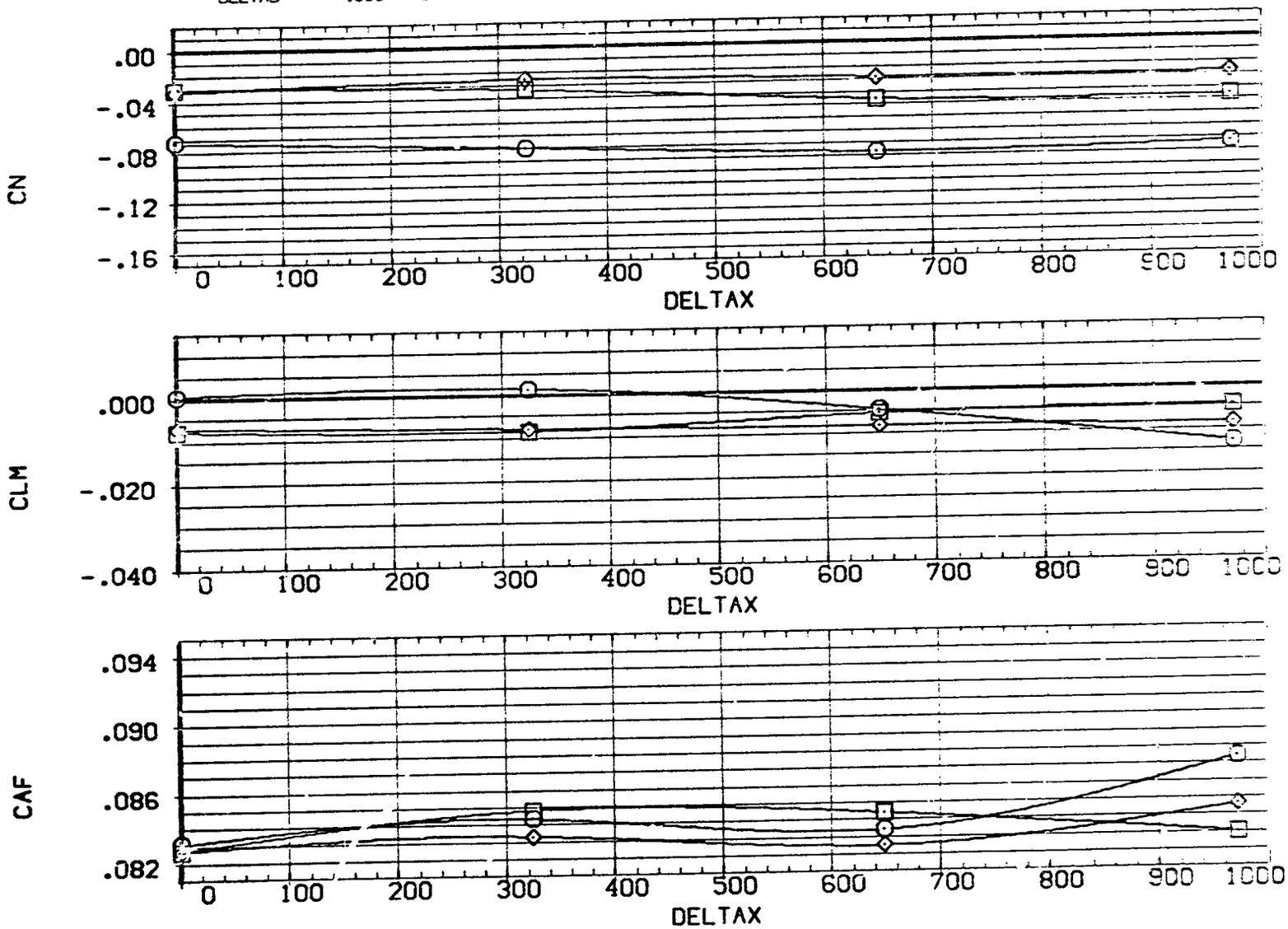
ALPHA	2.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	5.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ
N85T05	162.000
N85T11	810.000
N85T08	486.000

REFERENCE INFORMATION

SREF	2690.0000 SQ.FT.
LREF	1328.3000 FT.
BREF	1328.3000 FT.
XMRP	929.0000 IN.
YMRP	.0000 IN.
ZMRP	.0000 IN.
SCALE	.0040



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T05)

SYMBOL	DELTAZ
○	162.000
□	486.000
◇	810.000

PARAMETRIC VALUES

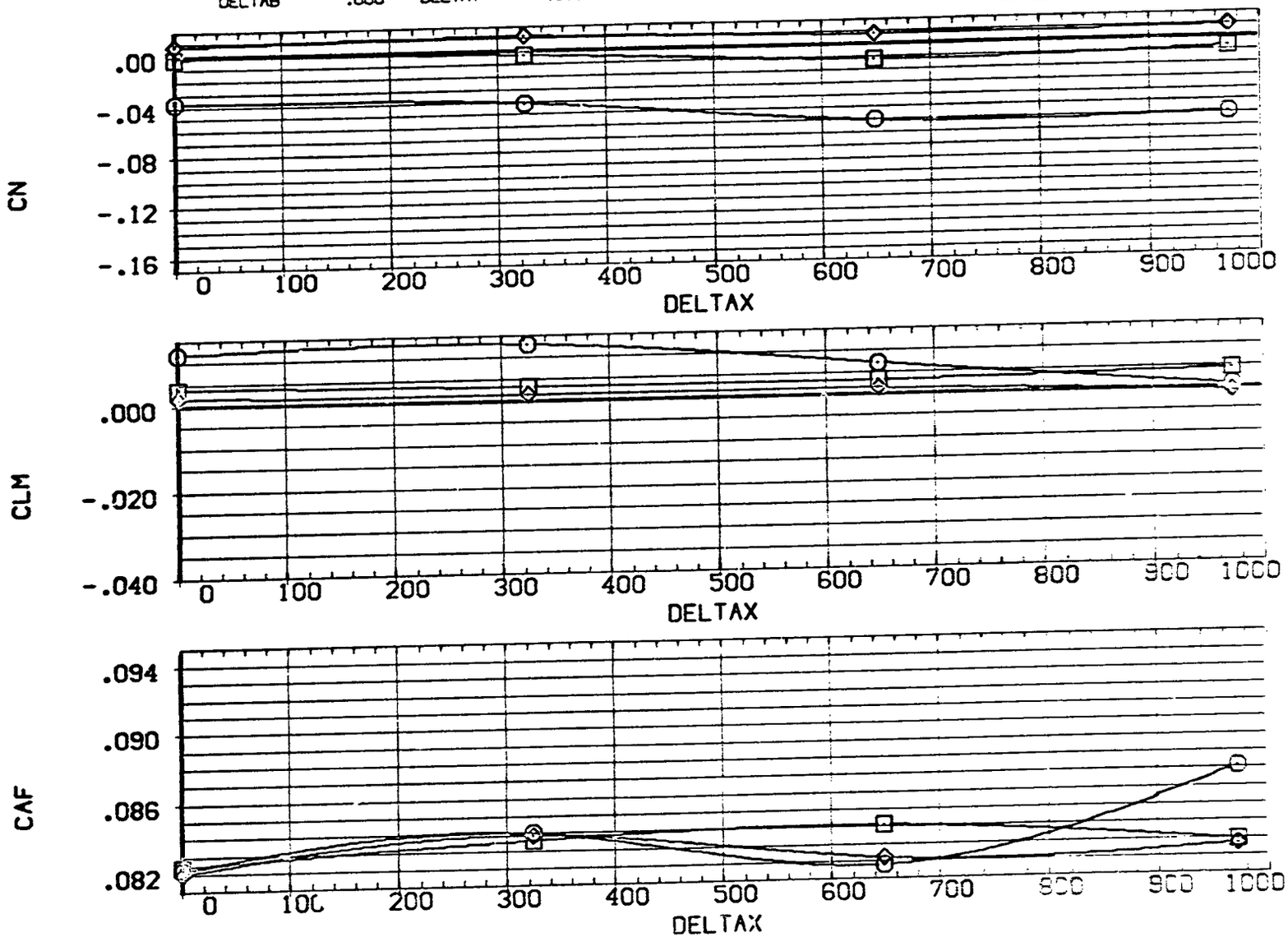
ALPHA	5.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
N85T05	162.000
N85T11	810.000
N85T08	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(0:3) (N85T09)

SYMBOL	DELTAZ
○	486.000
□	810.000

PARAMETRIC VALUES

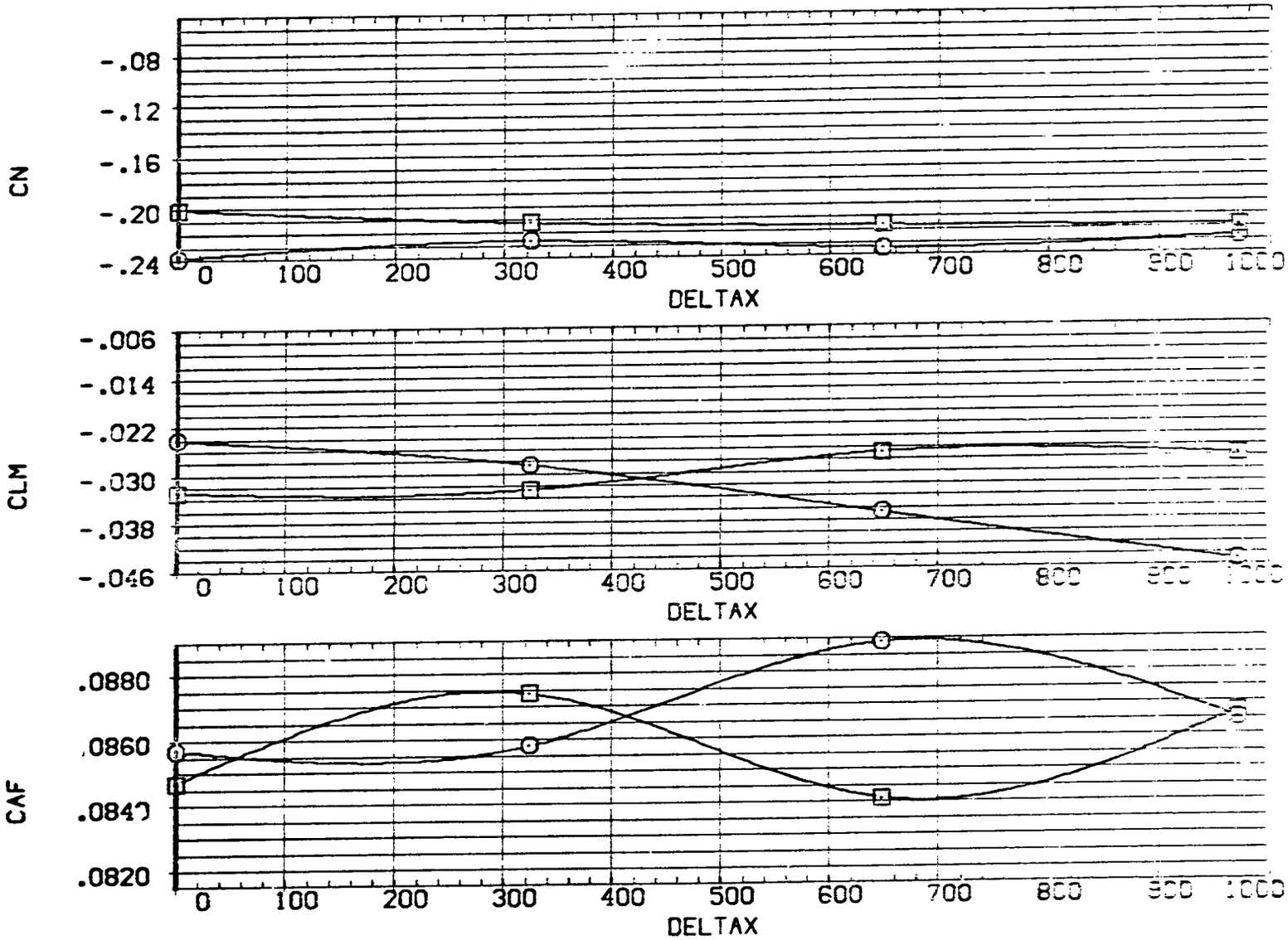
ALPHA	-5.000	BETA	.000	
MACH	4.960	ELEVTR	.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	10.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
N85T09	486.000	N85T12	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1049.1100	IN.
BREF	1309.3000	IN.
XMRP	939.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T09)

SYMBOL	DELTAZ
○	486.000
□	810.000

PARAMETRIC VALUES

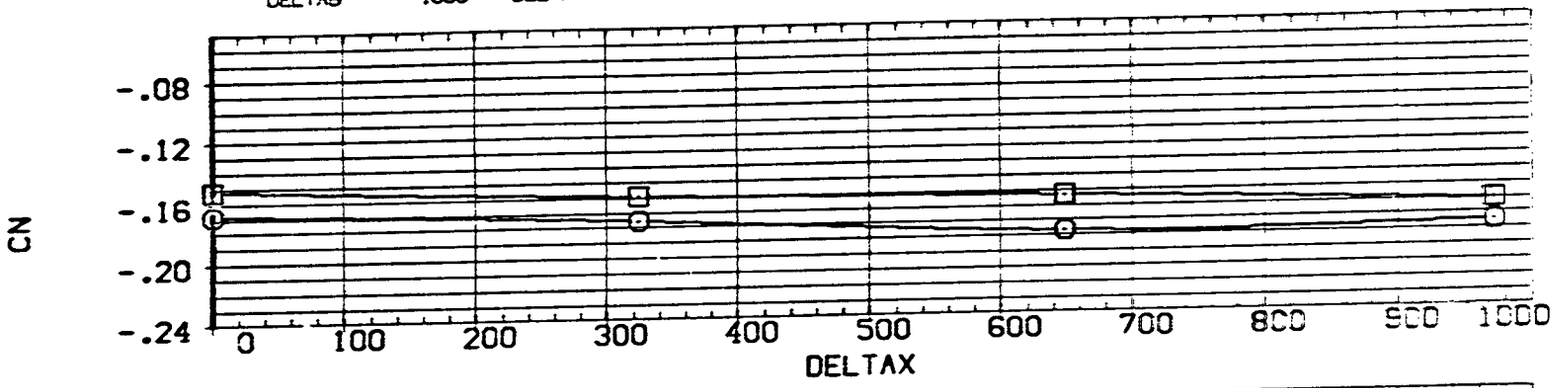
ALPHA	-2.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	10.000
DELTAB	.000	DELTAY	.000

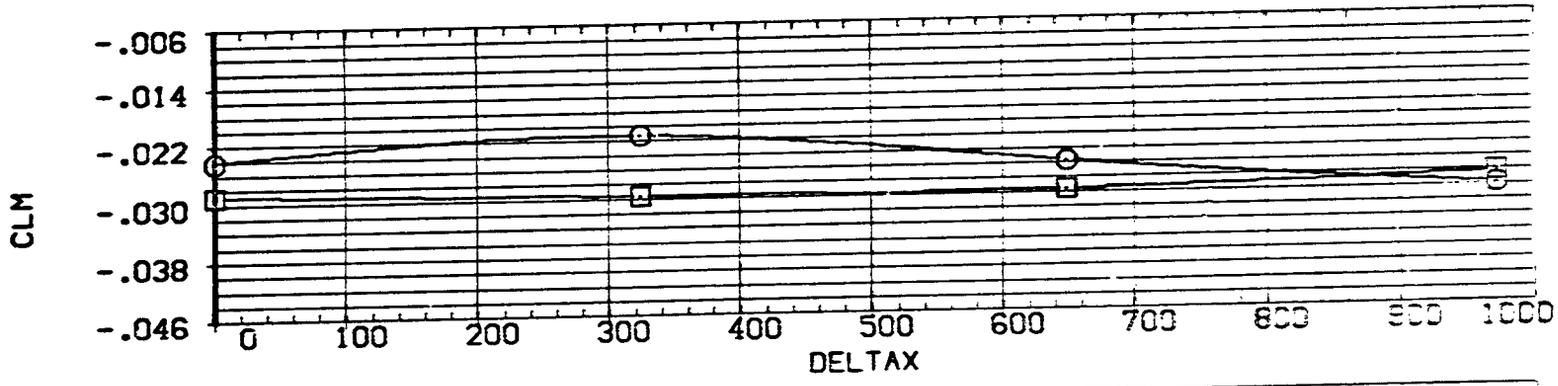
DATA SOURCE

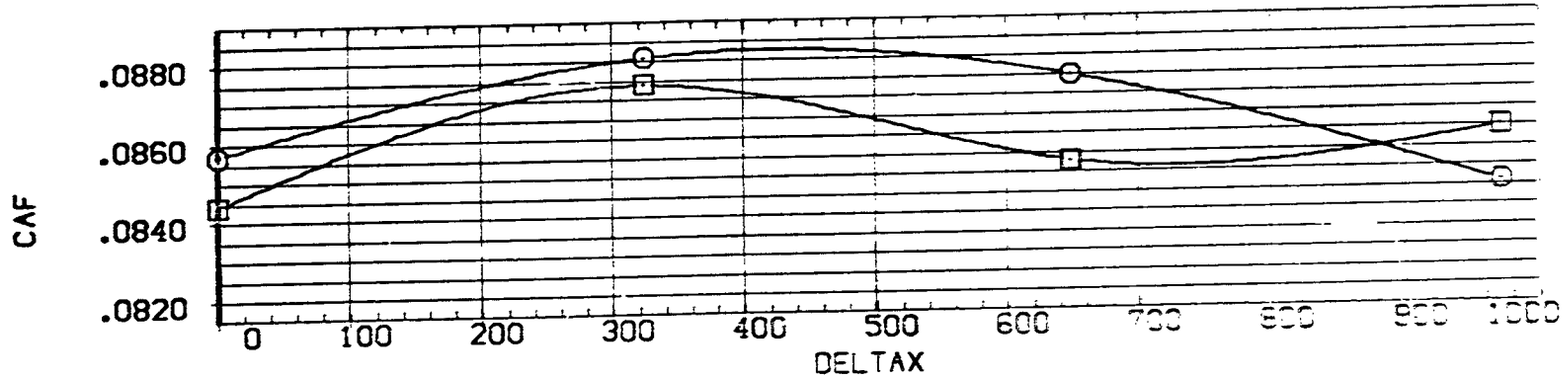
DATASET	DELTAZ	DATASET	DELTAZ
N85T09	486.000	N85T12	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	FT.
BREF	1328.0000	FT.
XMRP	829.0000	FT.
YMRP	.0000	FT.
ZMRP	.0000	FT.
SCALE	.0040	







M571(IA6A) TANK(T8)SEPARATING FROM ORBITER(O1O) (NEST8)

SYMBOL	DELTAZ
O1O	486.000
	810.000

PARAMETRIC VALUES

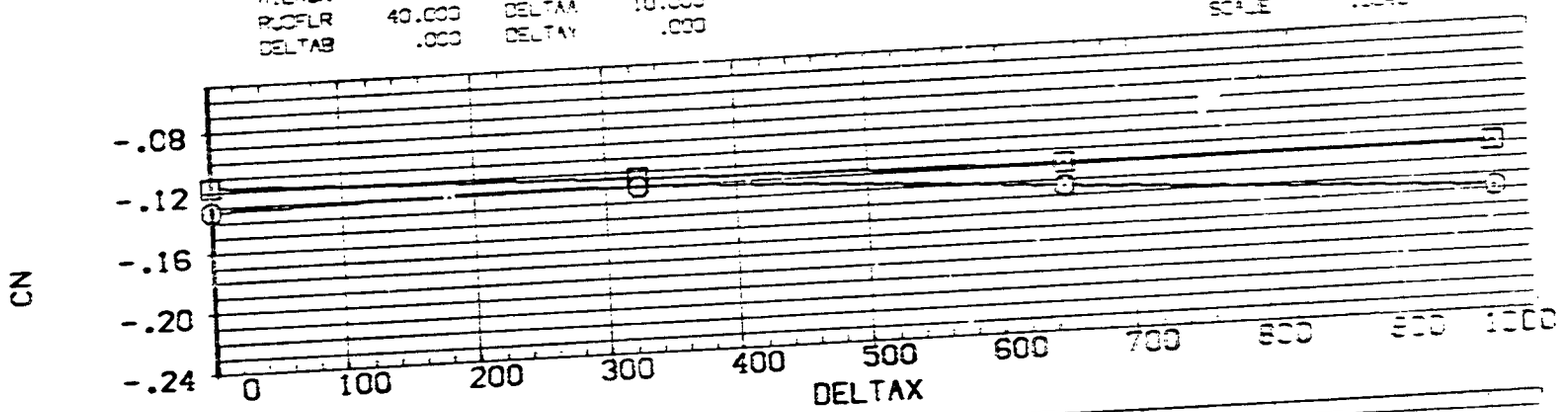
ALPHA	.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	ELEVTR	.000	NEST8	486.000
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	10.000		
DELTAB	.000	DELTAY	.000		

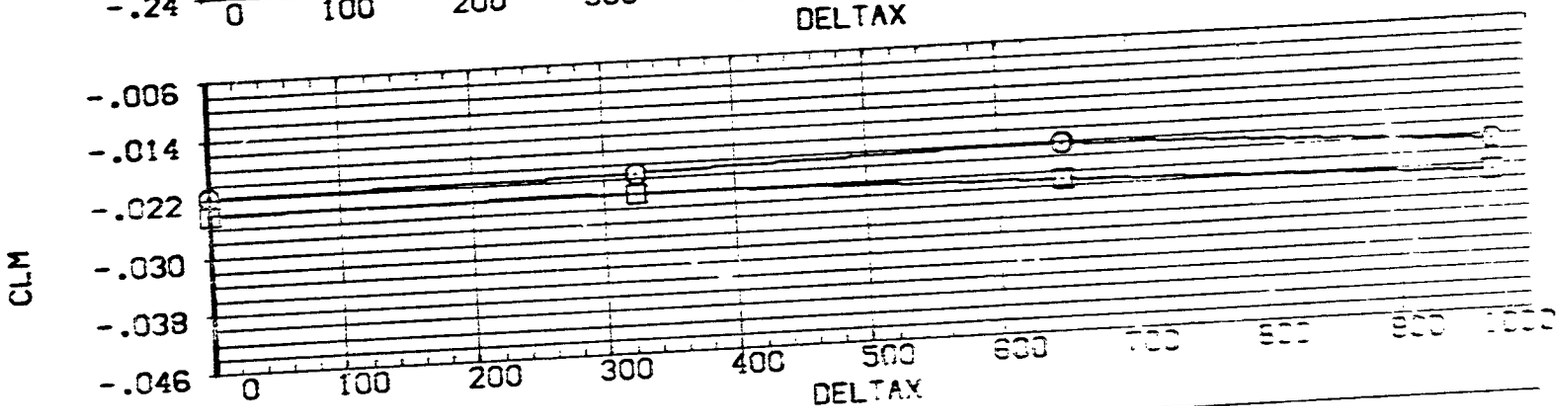
DATA SOURCE

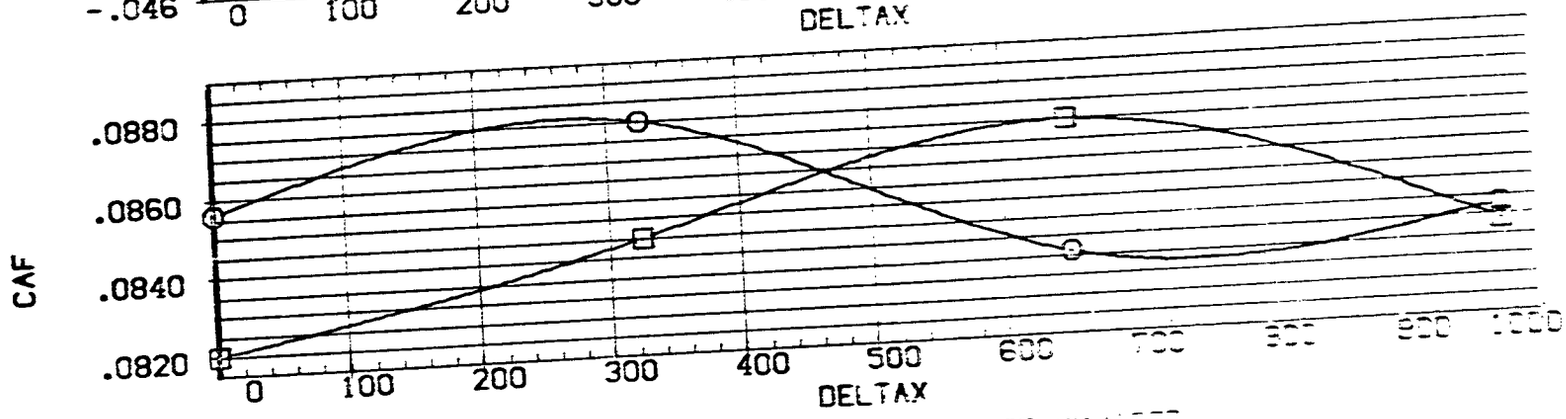
DATASET	DELTAZ
NEST12	810.000

REFERENCE INFORMATION

SREF	2690.1000	SQ.FT.
LREF	1343.0000	IN.
BREF	1343.0000	IN.
XMRP	1039.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0010	







BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85TC9)

SYMBOL	DELTAZ
□	486.000
○	810.000

PARAMETRIC VALUES

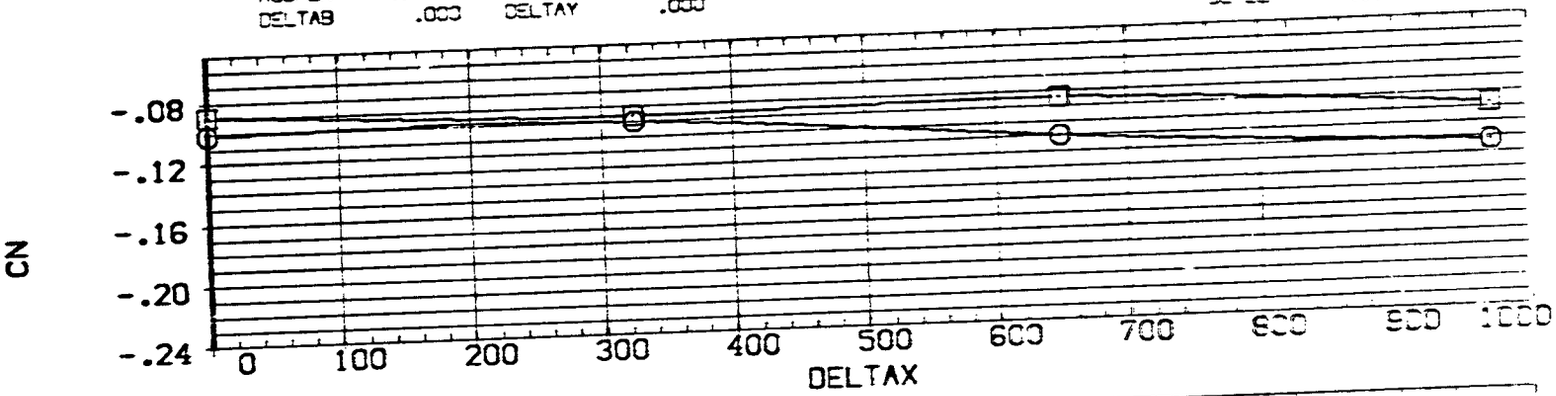
ALPHA	2.000	BETA	.000	DATASET	N85TC9
MACH	4.960	ELEVTR	.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	10.000		
DELTAB	.000	DELTAY	.000		

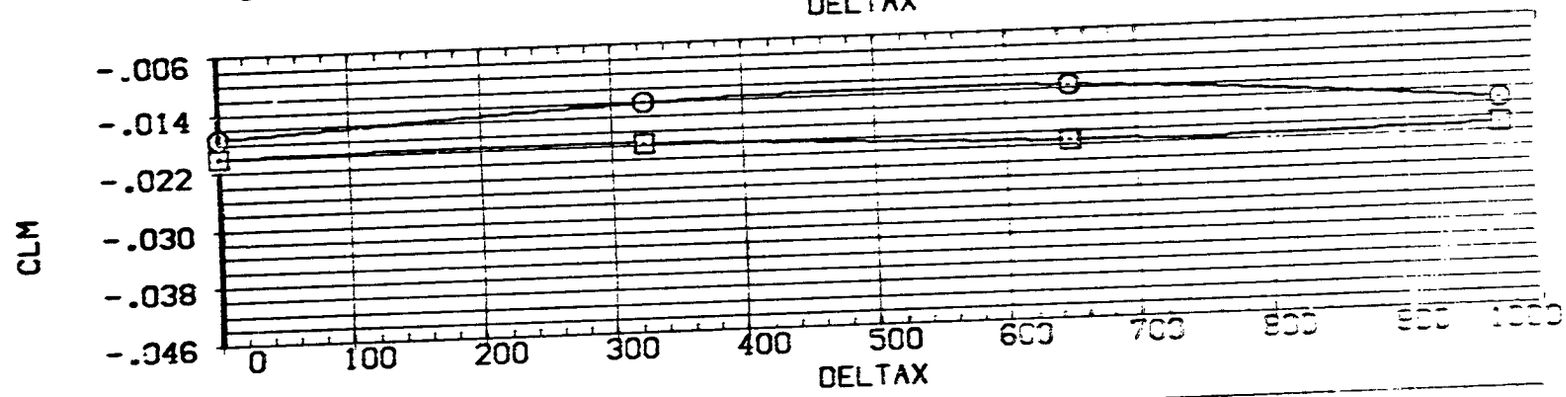
DATA SOURCE

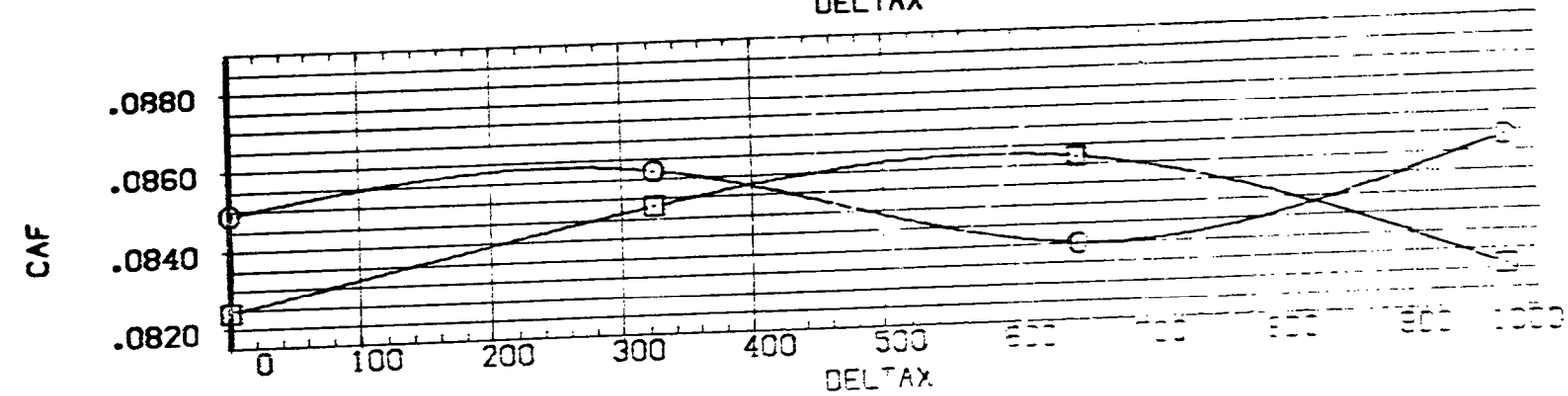
DELTAZ	DATASET	DELTAZ
486.000	N85T:2	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1178.0000	IN.
XMRC	939.0000	IN.
YMRC	.0000	IN.
ZMRC	.0000	IN.
SCALE	.0040	







BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (N85T09)

SYMBOL	DELTAZ
○	486.000
□	810.000

PARAMETRIC VALUES

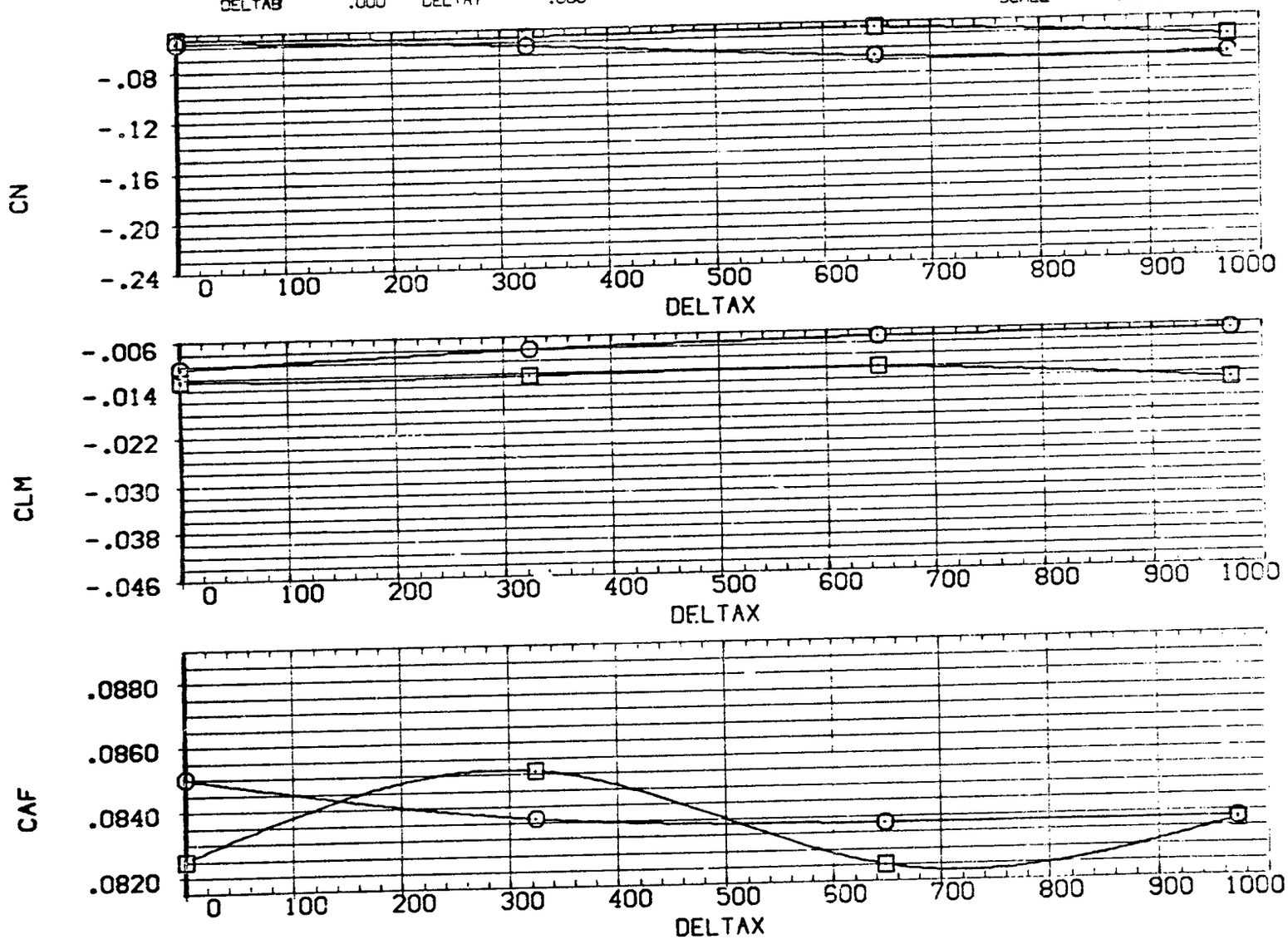
ALPHA	5.000	BETA	.000
MACH	4.960	ELEVTR	.000
AILRCN	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	10.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
N85T09	486.000	N85T12	810.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC SEPARATION DATA- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85013)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

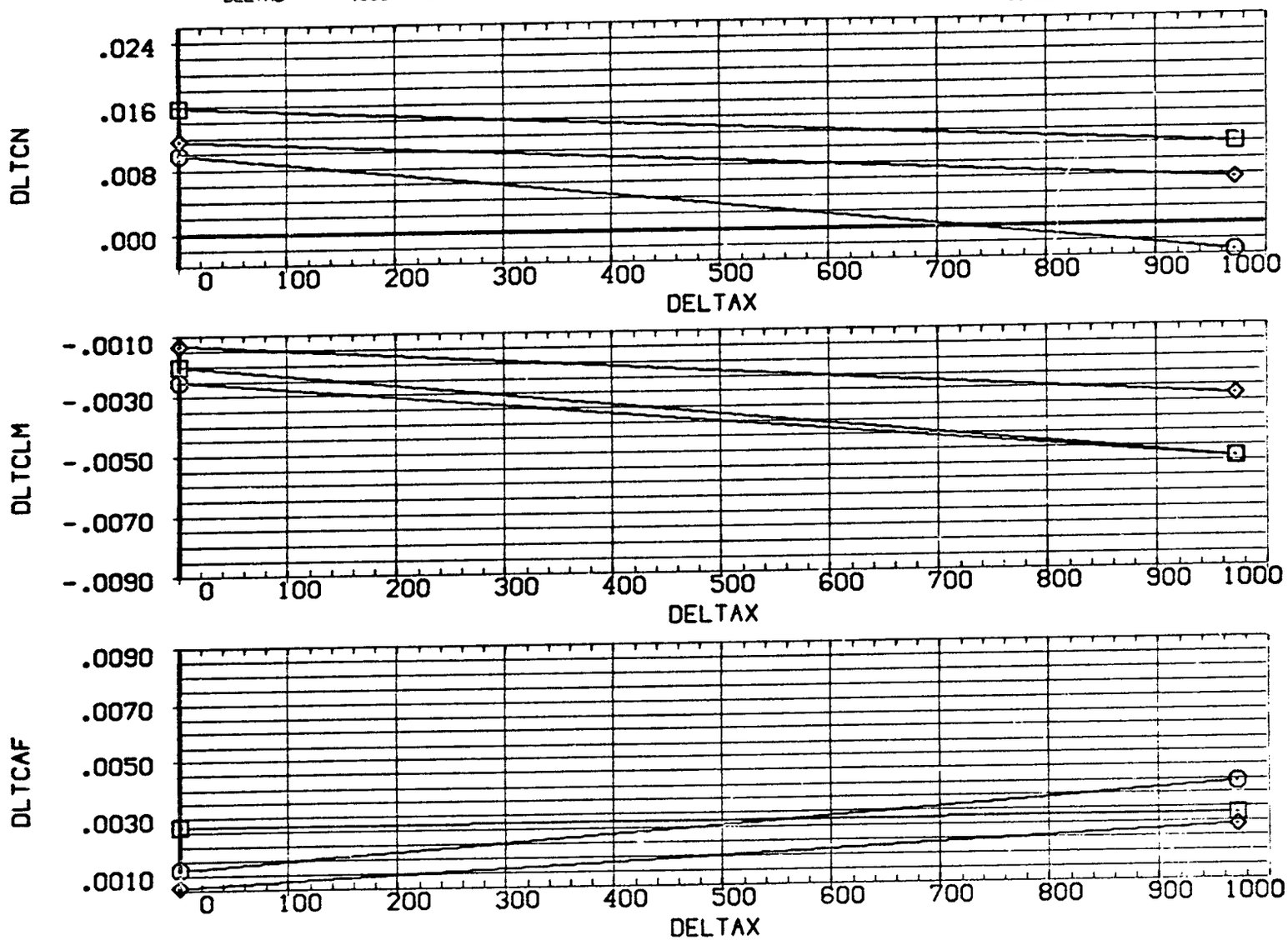
ALPHA	-5.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	DLTELV	10.000	C85013	.000
AILRON	.000	RUDDER	.000	C85016	486.000
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85014	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85013)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

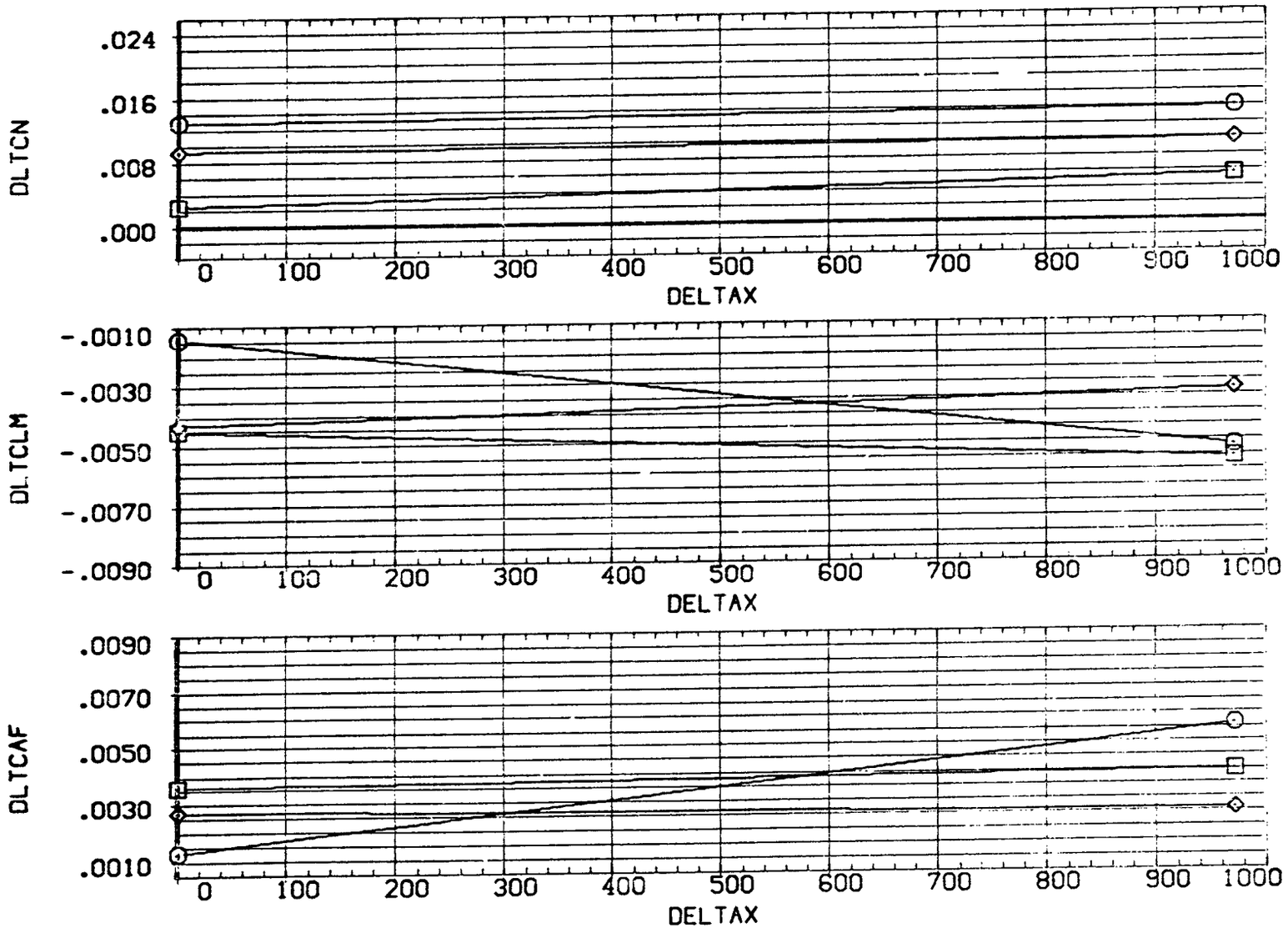
ALPHA	-2.000	BETA	.000	DATASET	C85013
MACH	4.960	DLTELV	10.000		C85016
AILRON	.000	RUDDER	.000		
RLOFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	C85014	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85013)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

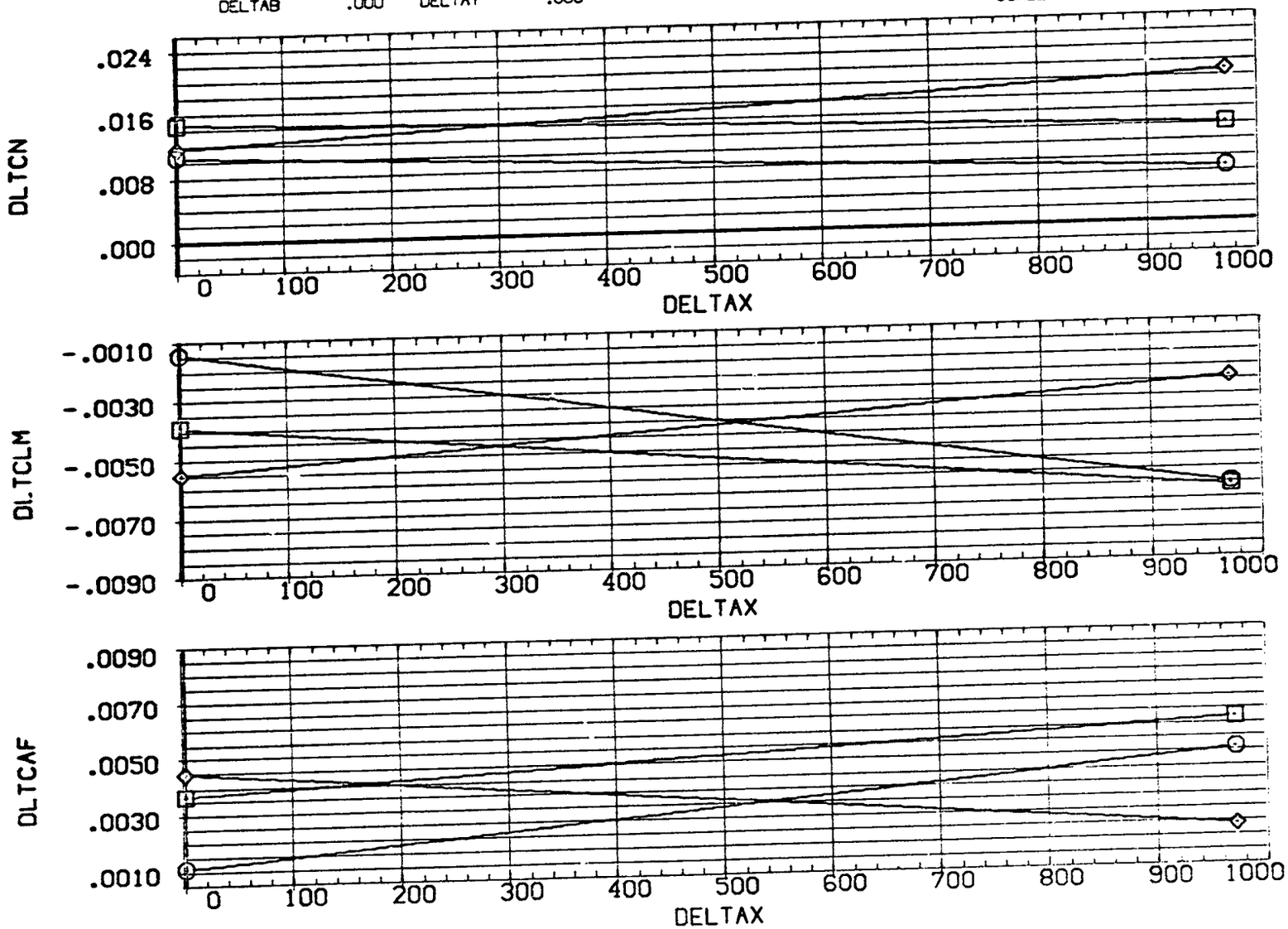
ALPHA	.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	DLTELV	10.000	C85013	.000
AILRON	.000	RUDDER	.000	C85016	486.000
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85014	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85013)

SYMBOL	DELTAZ
◇(1)	.000
	162.000
	486.000

PARAMETRIC VALUES

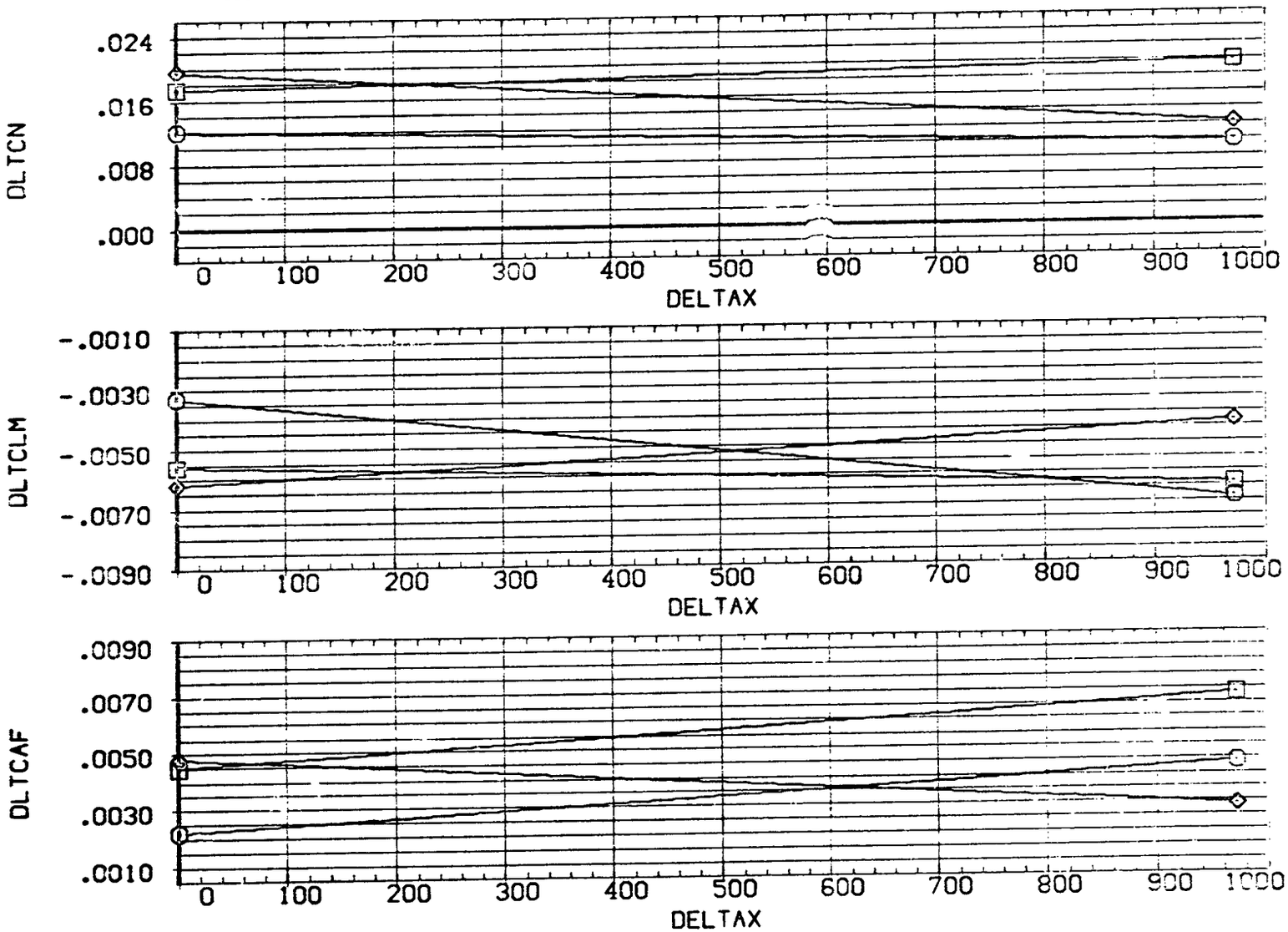
ALPHA	2.000	BETA	.000	DATASET	C85013
MACH	4.960	DLTELV	10.000		C85016
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	C85014	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85013)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

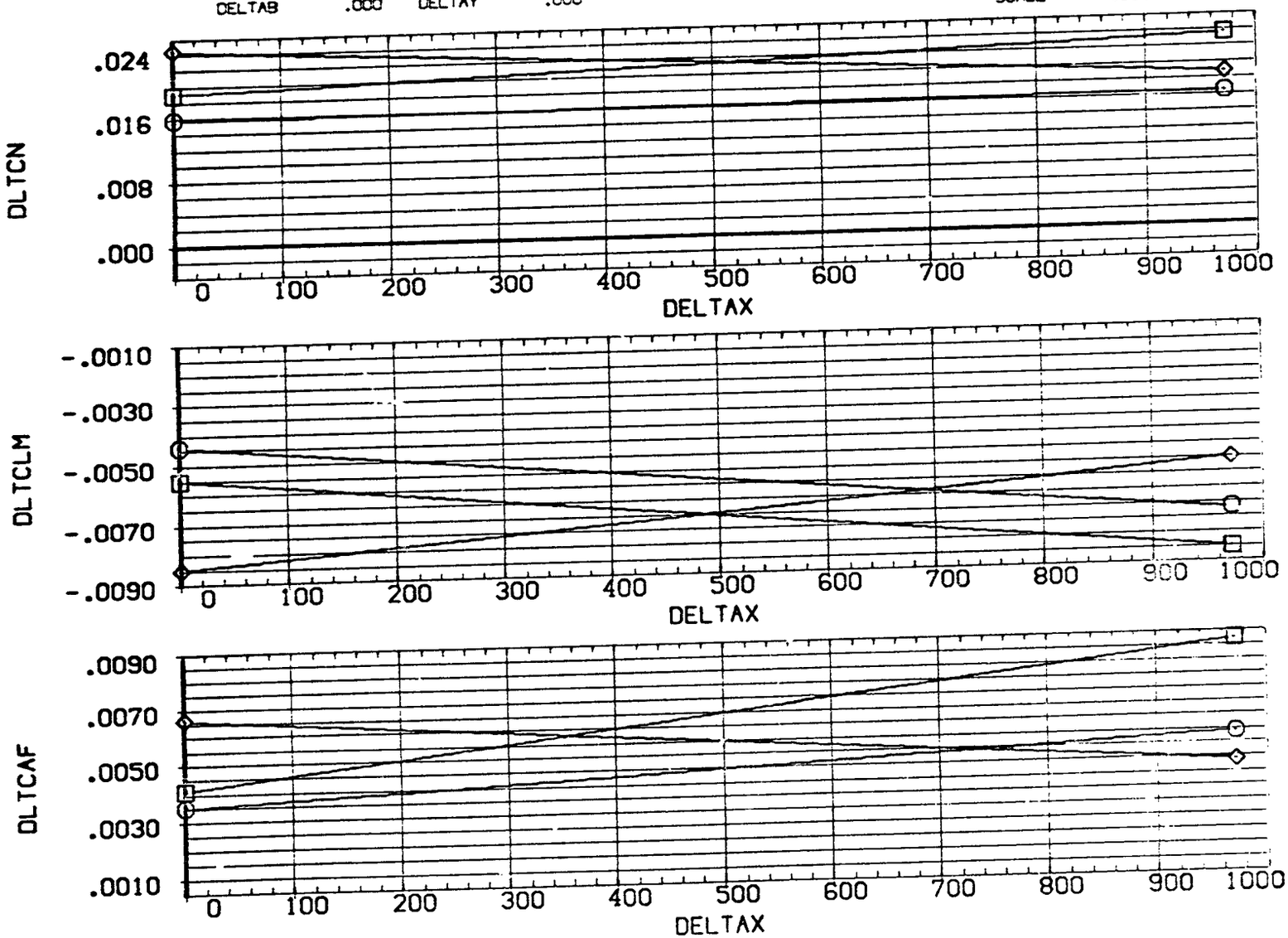
ALPHA	5.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	DLTELV	10.000	C85013	.000
AILRON	.000	RUDDER	.000	C85016	486.000
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85014	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85015)

SYMBOL	DELTAZ
□	162.000
○	486.000

PARAMETRIC VALUES

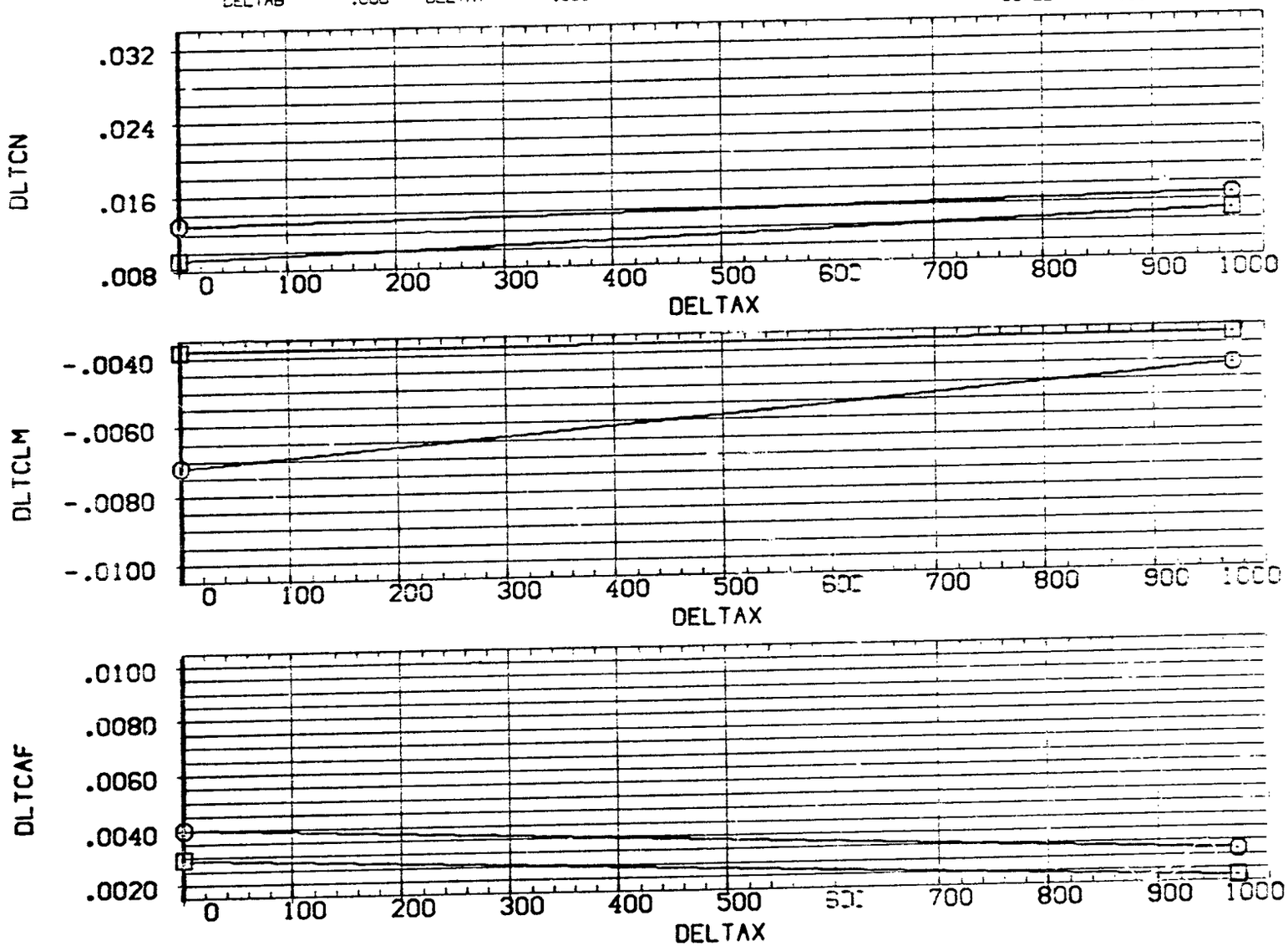
ALPHA	-5.000	BETA	.000	
MACH	4.960	DLTELV	10.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85015	162.000	C85[illegible]	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

E71(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85015)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

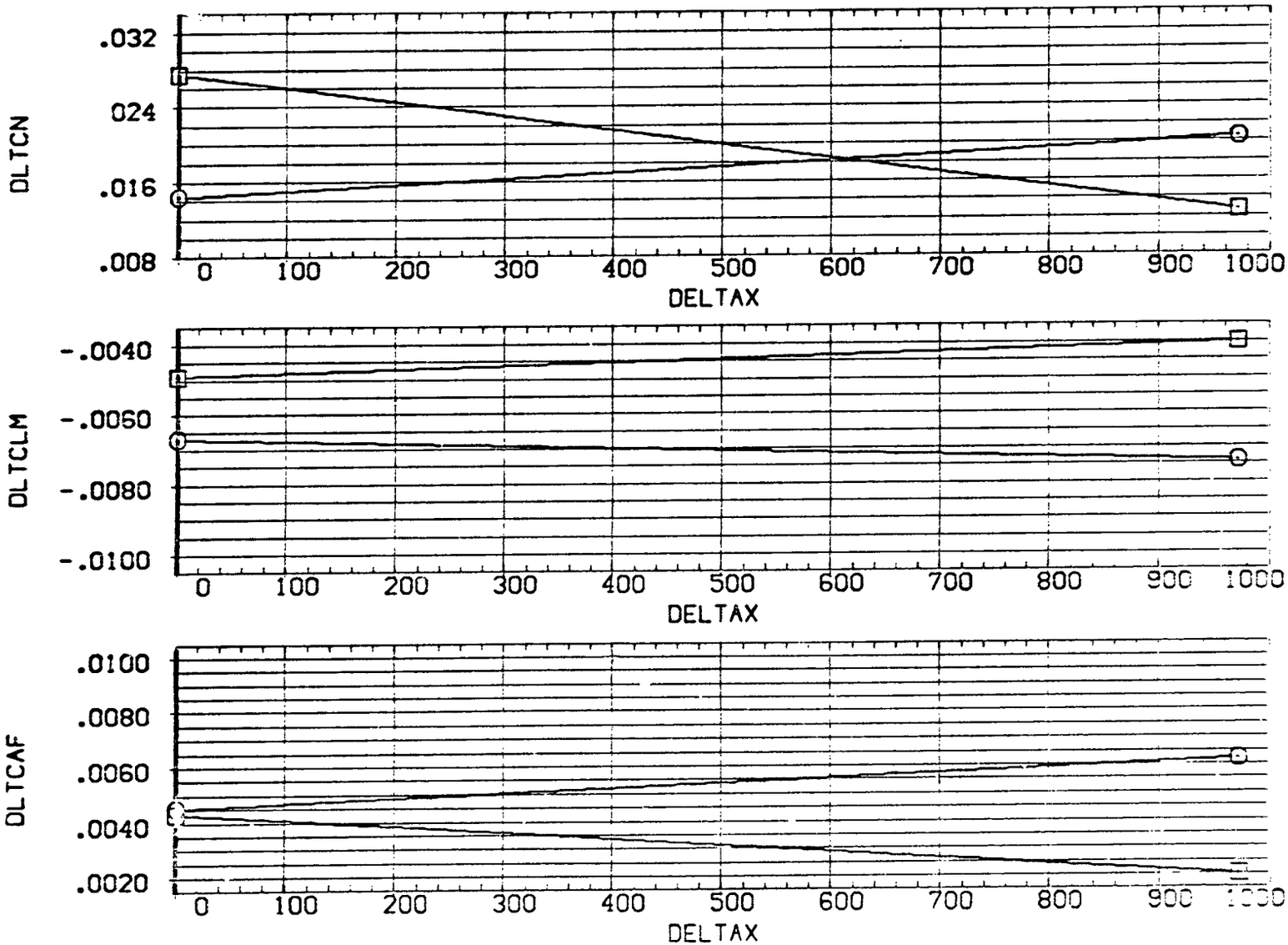
ALPHA	-2.000	BETA	.000	
MACH	4.960	DLTELV	10.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85015	162.000	C85017	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85015)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

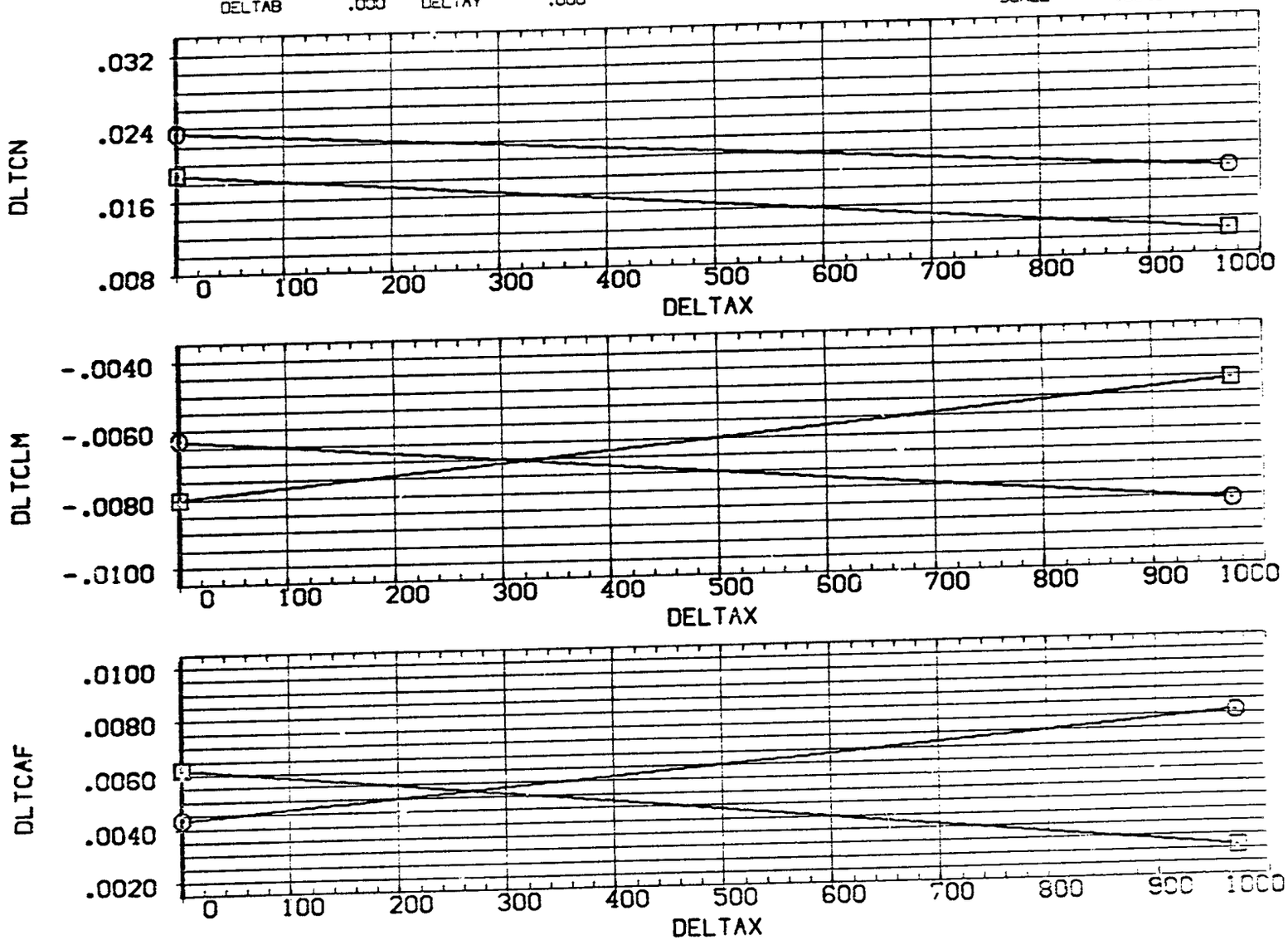
ALPHA	.000	BETA	.000	DATASET	C85015
MACH	4.960	DLTELV	10.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
162.000	C85017	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85015)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

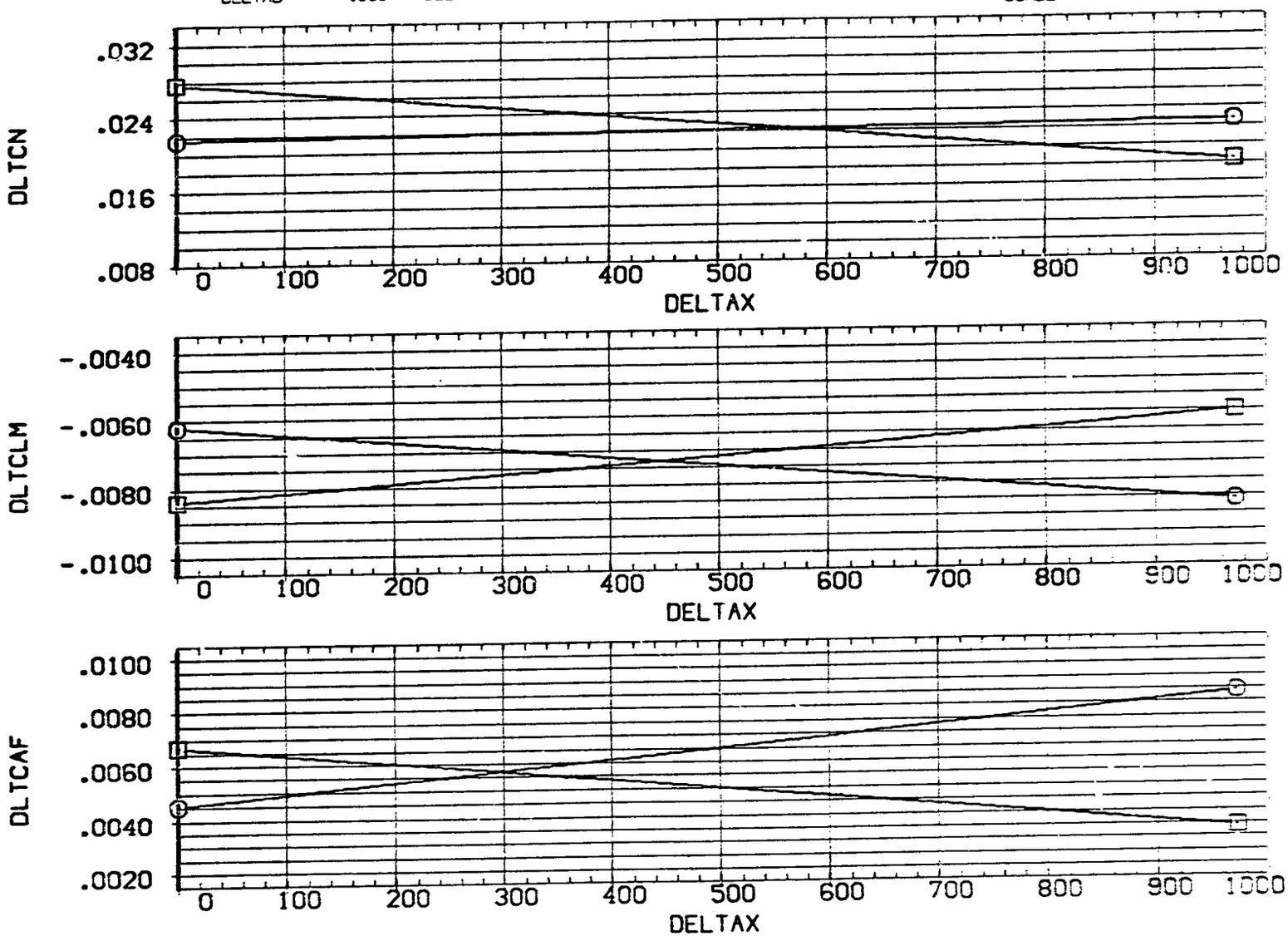
ALPHA	2.000	BETA	.000	
MACH	4.960	DLTELV	10.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85015	162.000	C85017	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85015)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

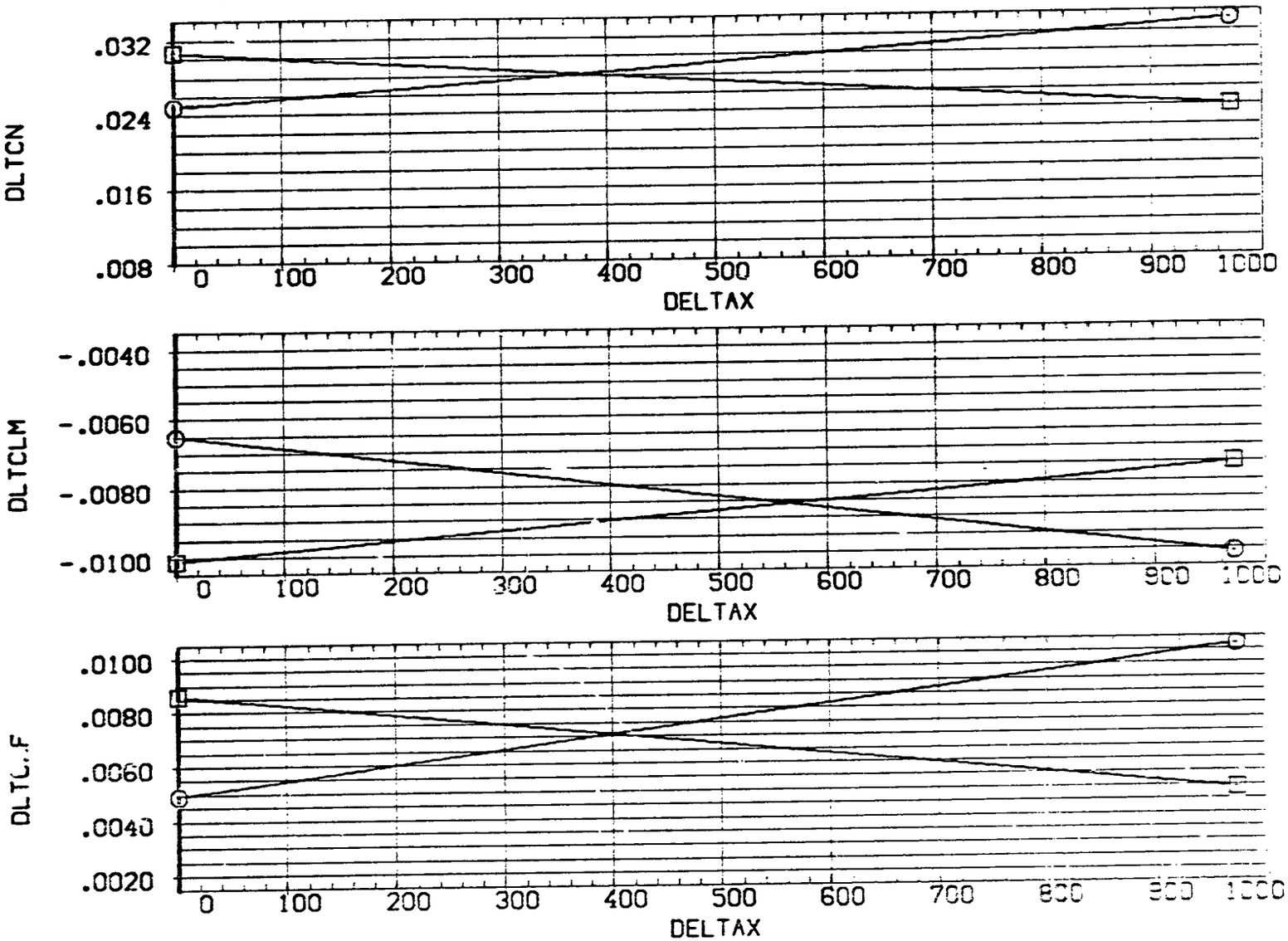
ALPHA	5.000	BETA	.000	
MACH	4.960	DLTELV	10.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85015	162.000	C85017	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	667.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85018)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

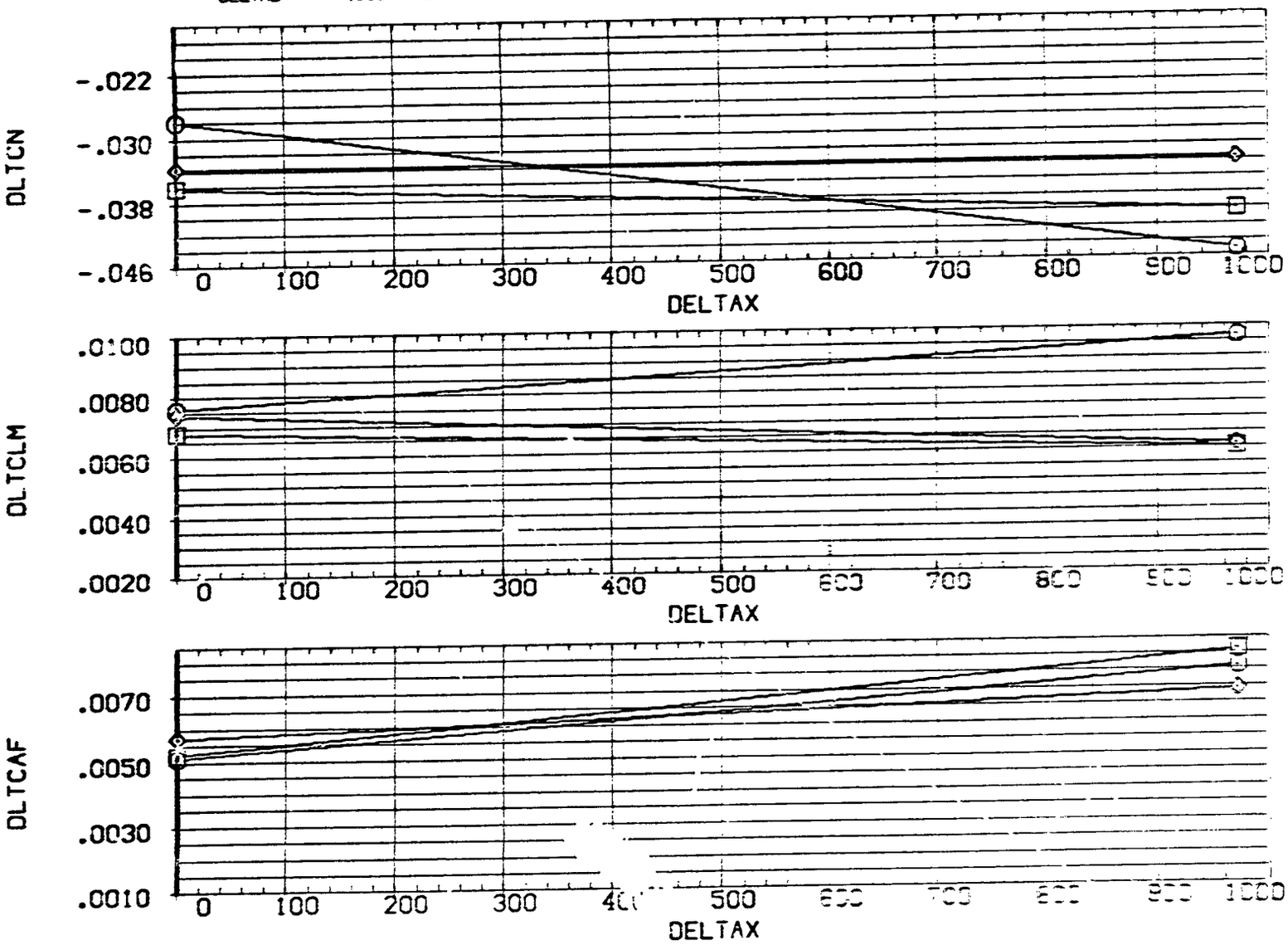
ALPHA	-5.000	BETA	.000	DATASET C85018
MACH	4.960	DLTELV	-20.000	DATASET C85021
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	C85019	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	857.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA8A) ORB (013)WITH TANK (T9) SEPARATING (OSS013)

SYMBOL	DELTAZ
◇(1)	.000
	162.000
	486.000

PARAMETRIC VALUES

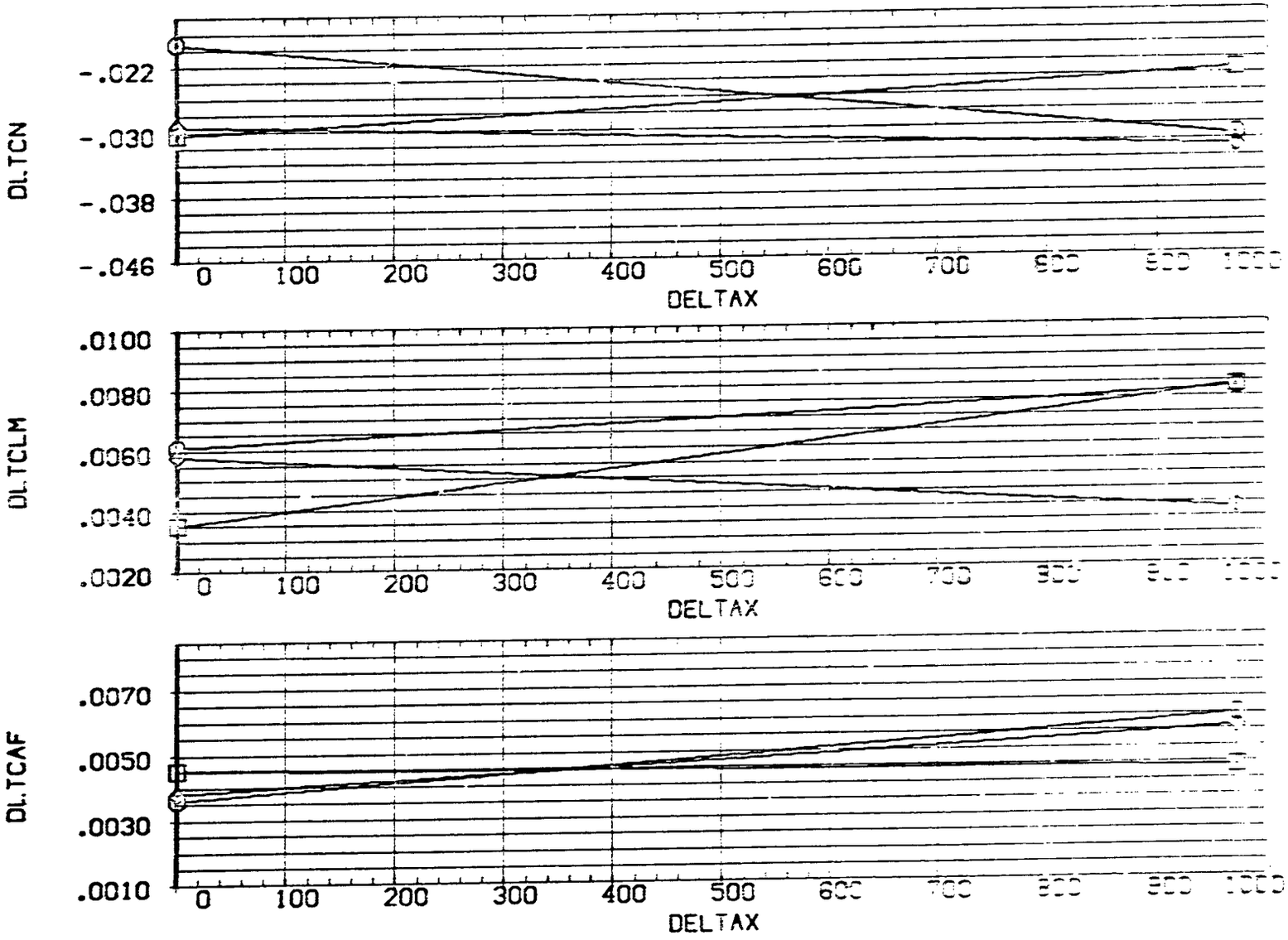
ALPHA	-2.000	BETA	.000	DATASET	OSS018
MACH	4.980	DLTELV	-20.000		OSS021
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
OSS018	.000
OSS019	162.000
OSS021	486.000

REFERENCE INFORMATION

SREF	2690.10000	SQ.FT.
LREF	1408.10000	IN.
BREF	1139.10000	IN.
XMRP	65.10000	IN.
YMRP	.00000	IN.
ZMRP	182.80000	IN.
SCALE	1.0000	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85018)

SYMBOL	DELTAZ
□	.000
◇	162.000
○	486.000

PARAMETRIC VALUES

ALPHA	.000	BETA	.000	DATASET	C85018
MACH	4.950	DLTELV	-20.000		C85021
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	C85019	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
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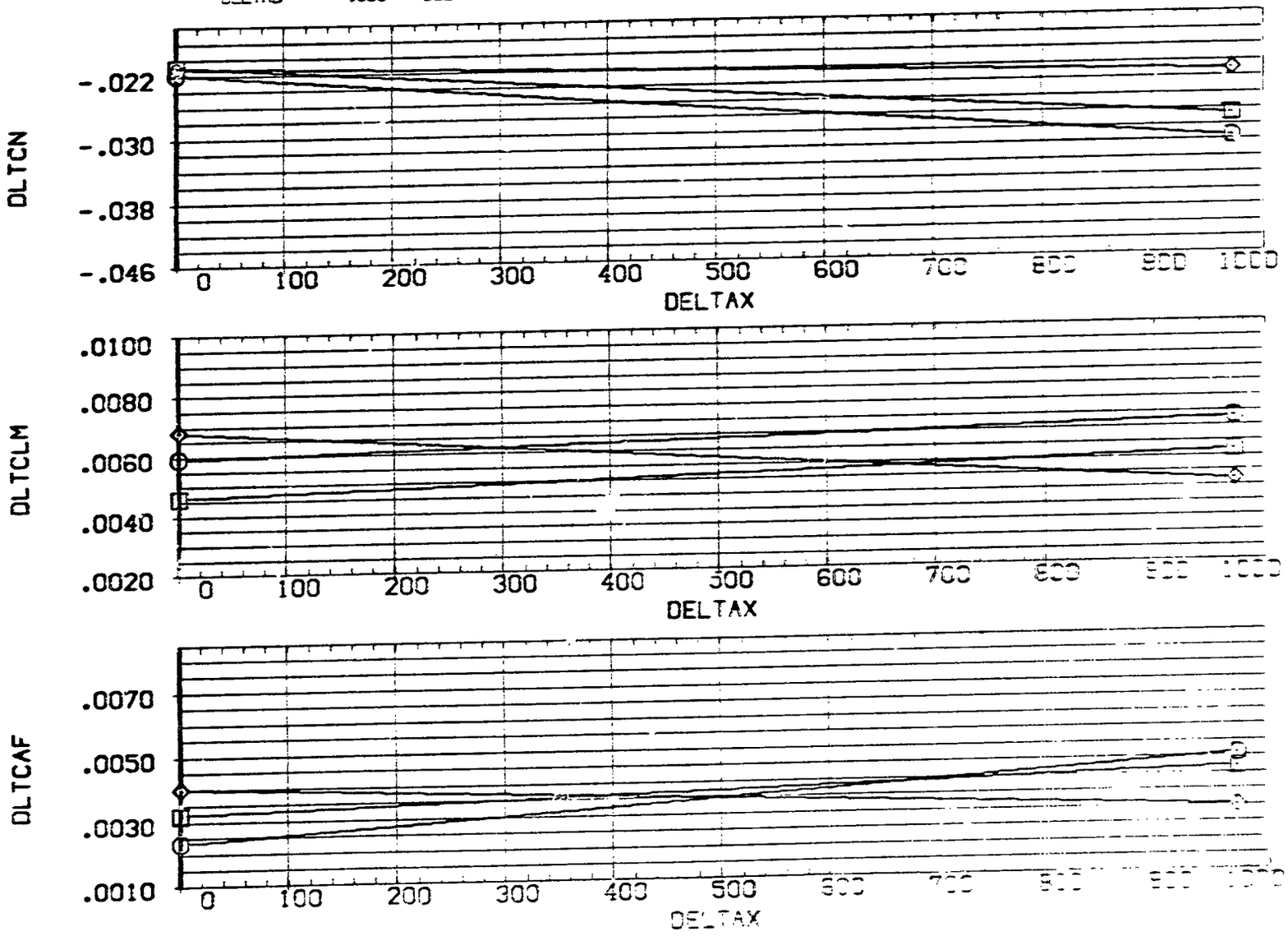
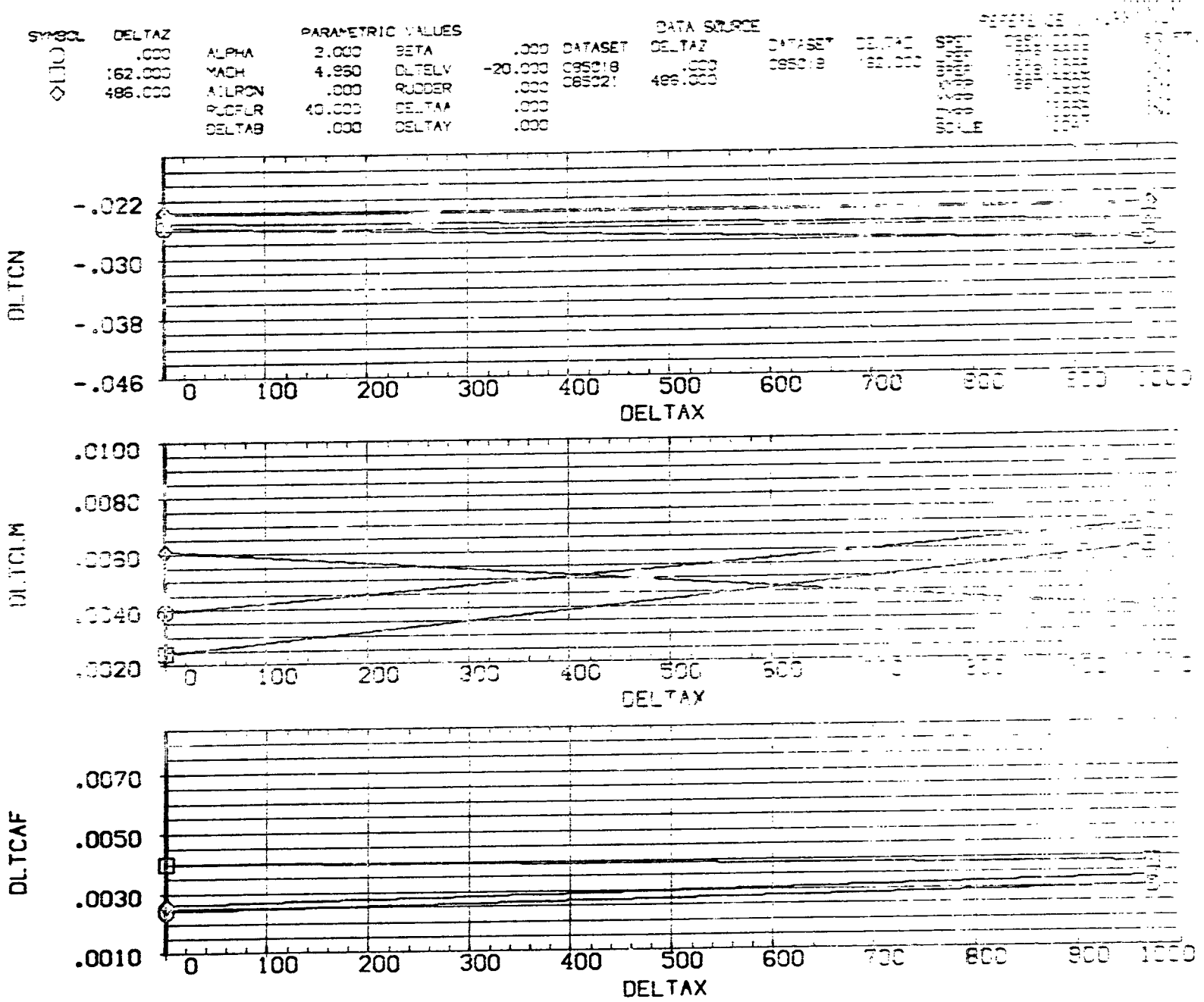
BREF	1309.3000	
XMRP	665.1000	
YMRP	.0000	
ZMRP	.0000	
SCALE	1.0000	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF ENTER[illegible] TANK



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85018)

SYMBOL	DELTAZ
◇	.000
□	162.000
○	486.000

PARAMETRIC VALUES

ALPHA	5.000	BETA	.000	
MACH	4.950	DLTELV	-20.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

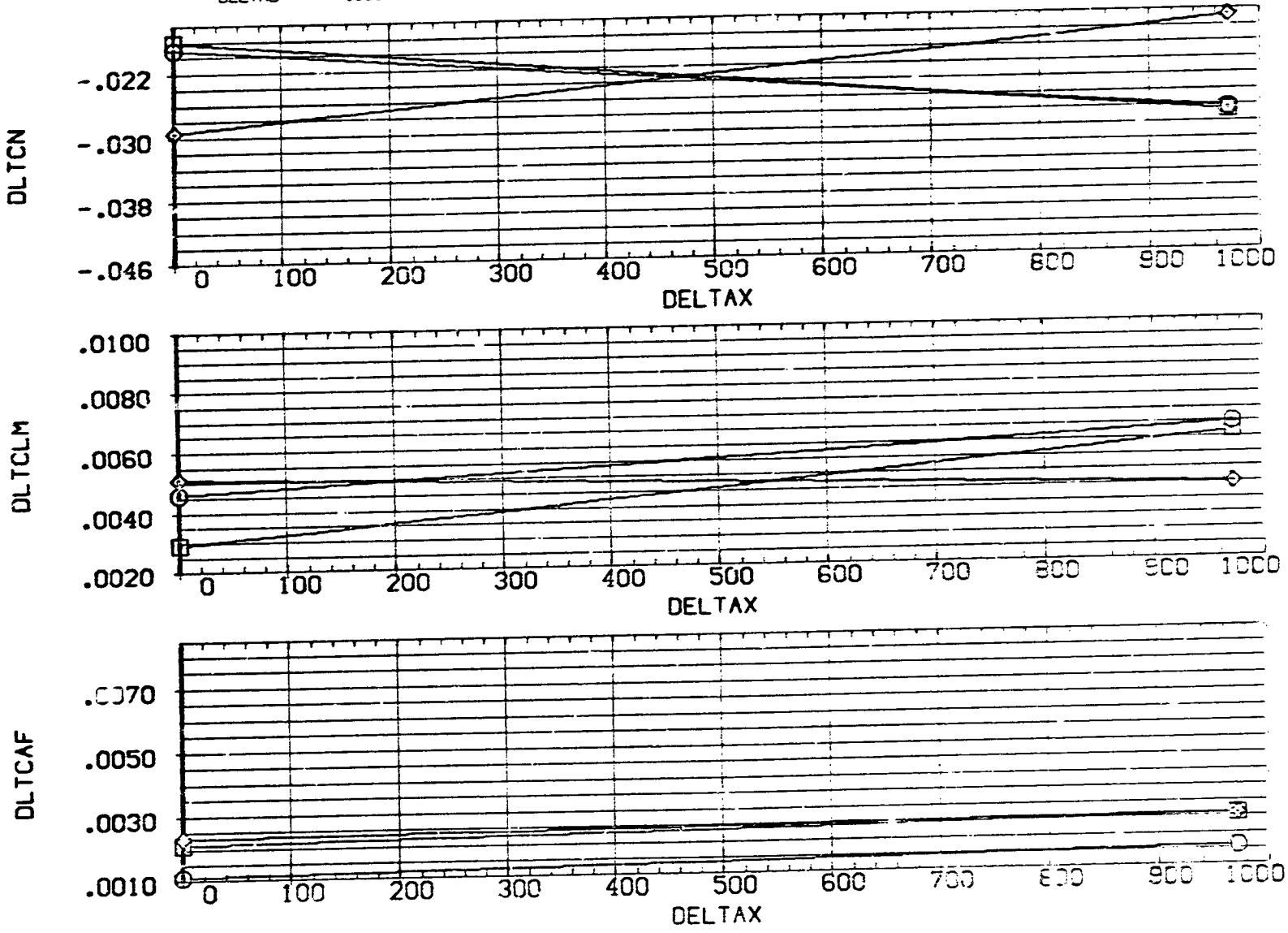
DATA SOURCE

DATASET	DELTAZ
C85018	.000
C85021	486.000

DATASET	DELTAZ
C85019	162.000

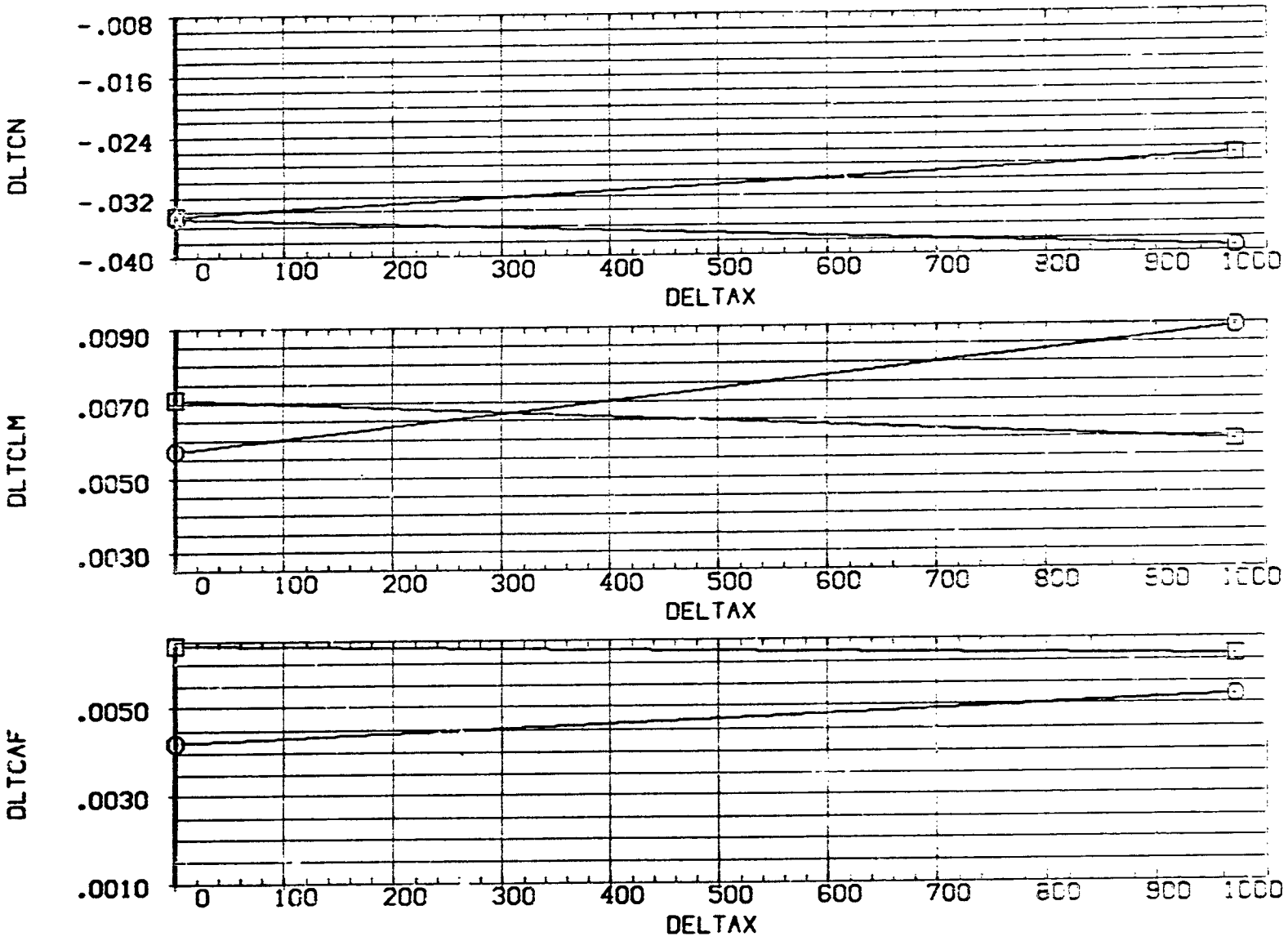
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1349.3000	IN.
BREF	1349.3000	IN.
XMRP	857.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	5.000
DELTAB	.000	DELTAY	.000



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85020)

SYMBOL	DELTAZ
□	162.000
○	486.000

PARAMETRIC VALUES

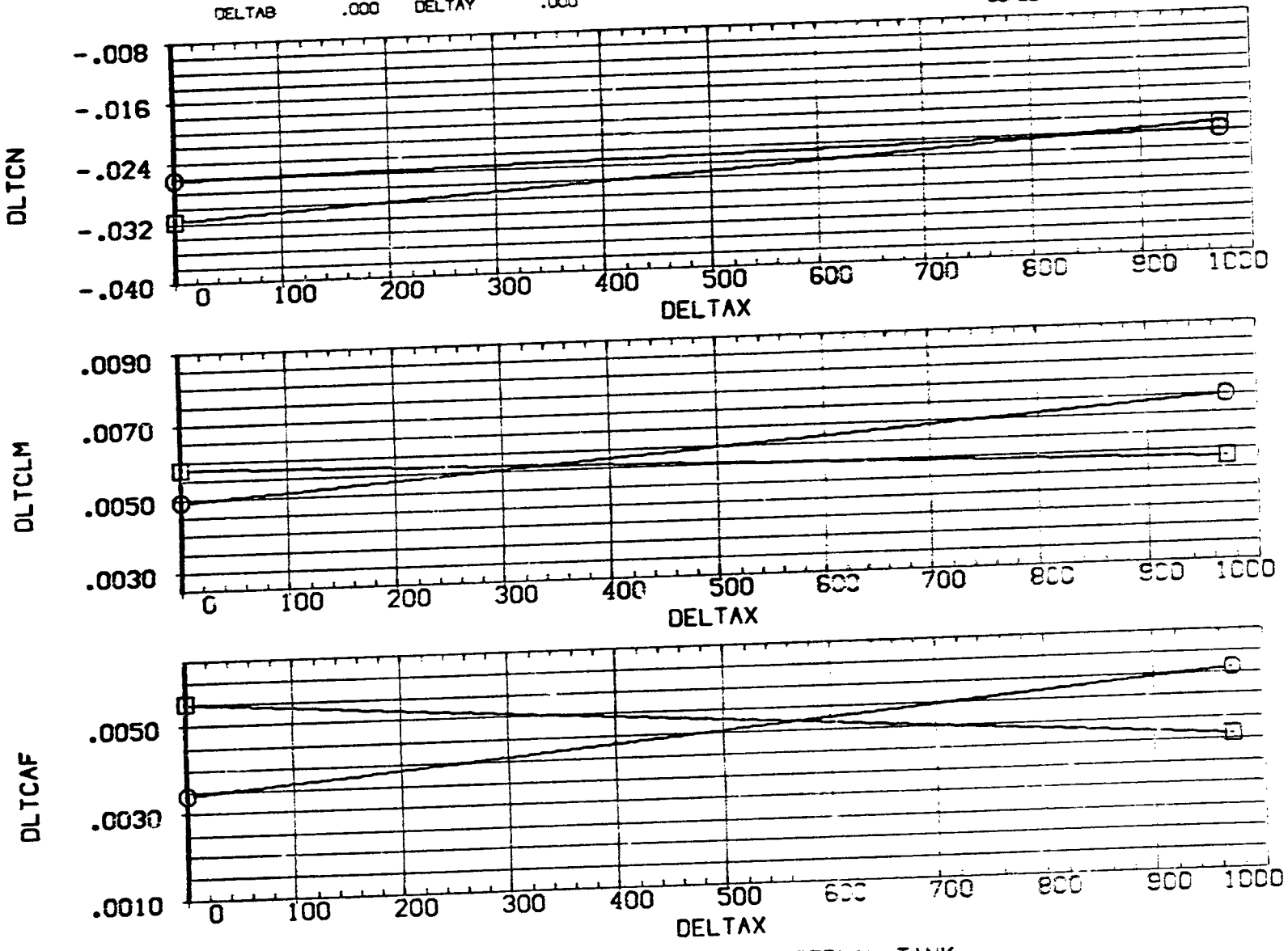
ALPHA	-2.000	BETA	.000	DATASET	C85020
MACH	4.950	DLTELV	-20.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85020	162.000
C85022	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.5000	IN.
XMRP	967.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

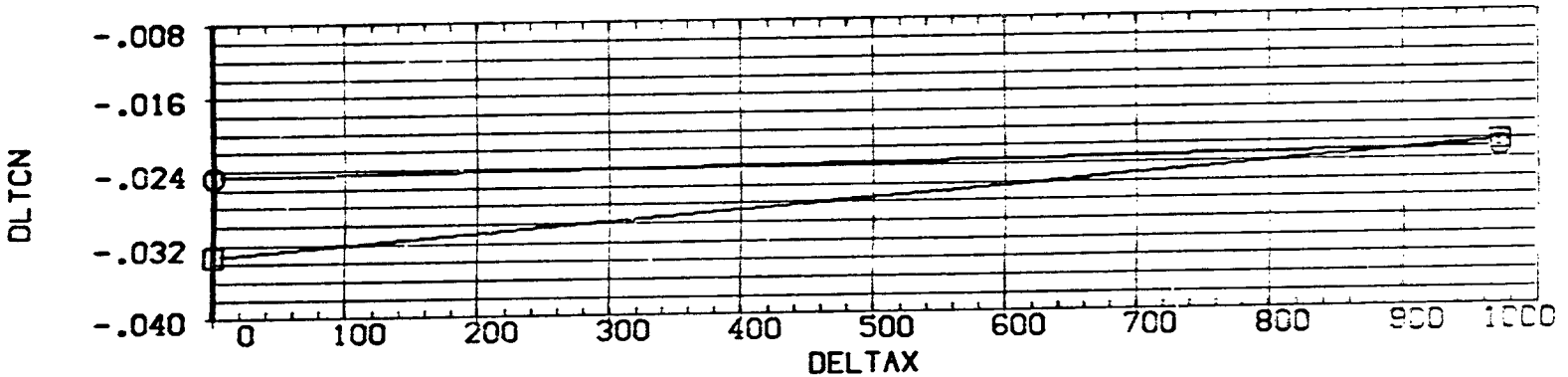
ALPHA	.000	BETA	.000	DATASET
MACH	4.960	DLTELV	-20.000	C85020
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

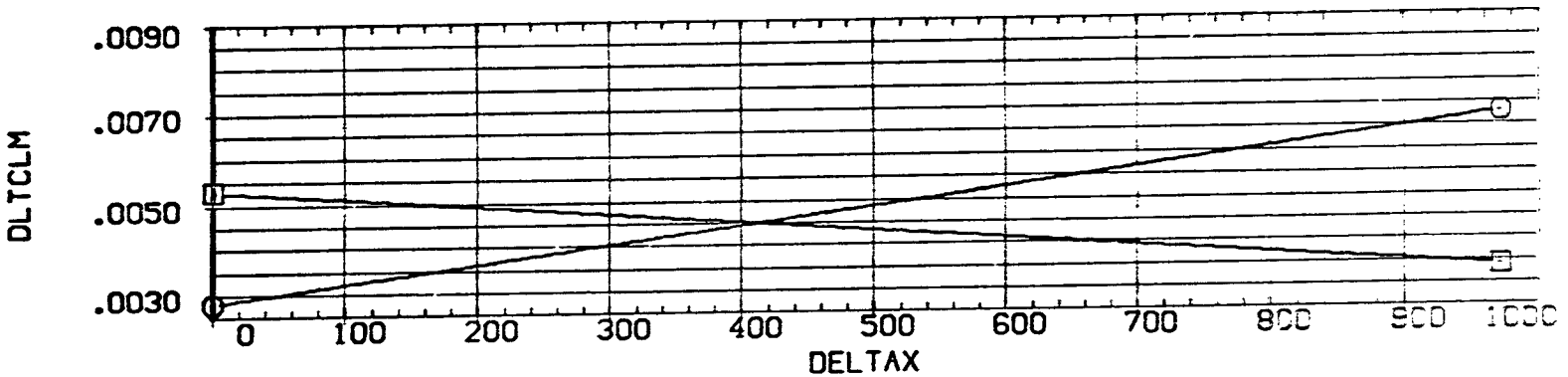
DATA SOURCE

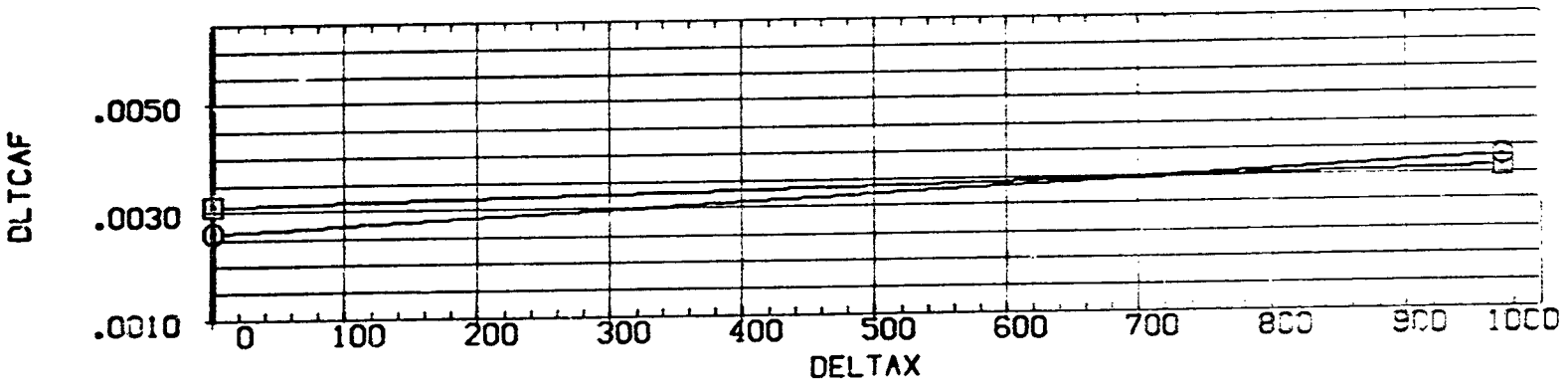
DATASET	DELTAZ	DATASET	DELTAZ
C85020	162.000	C85022	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1349.0000	IN.
XMRP	657.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85020)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

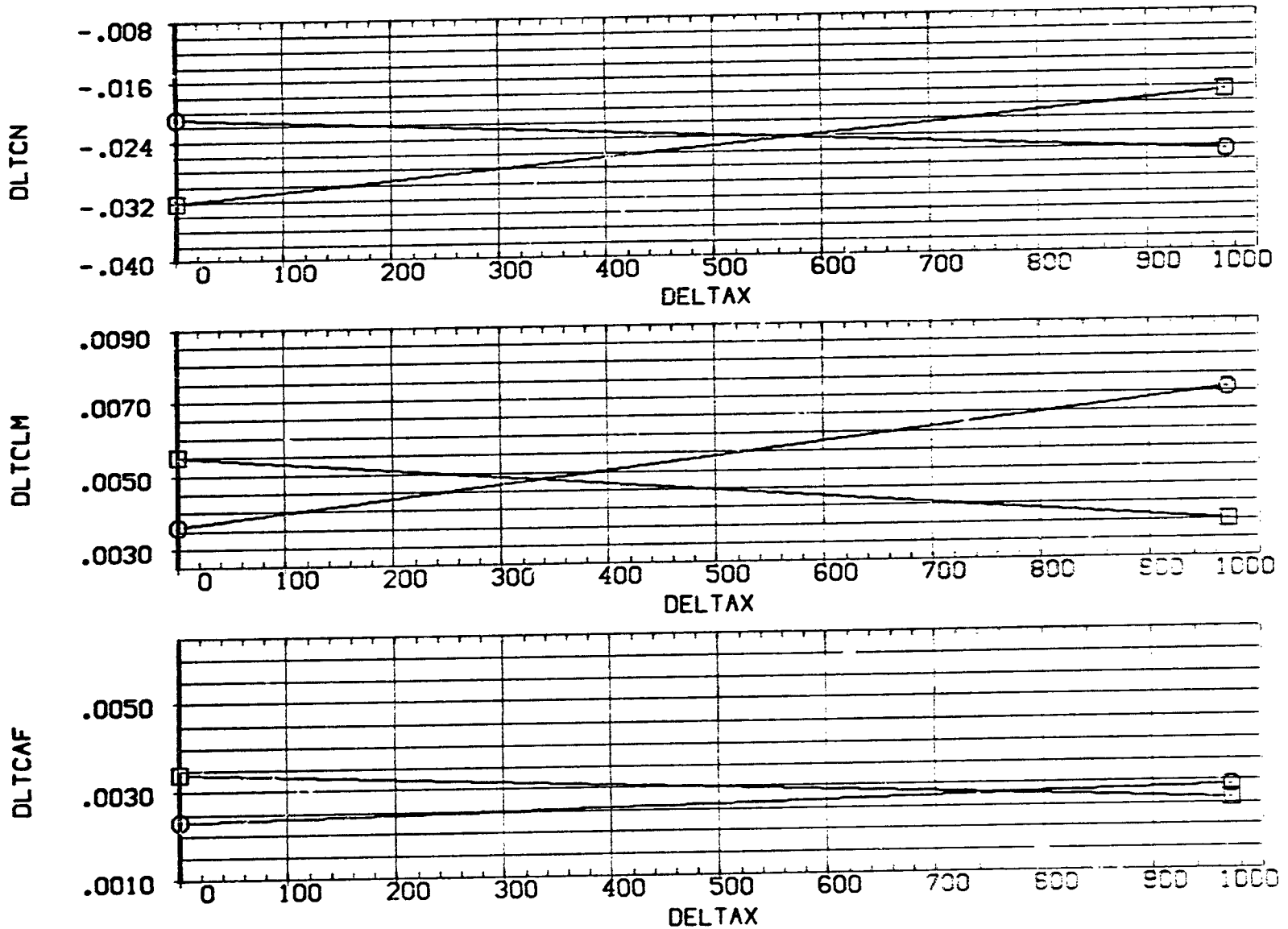
ALPHA	2.000	BETA	.000	DATASET	C85020
MACH	4.950	DLTELV	-20.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
162.000	C85022	486.000

REFERENCE INFORMATION

SREF	2590.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	867.1000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

MS7(CIASA) ORB (OI3)WITH TANK (T9) SEPARATING

SYMBOL	DELTAZ
□	162.000
○	485.000

PARAMETRIC VALUES

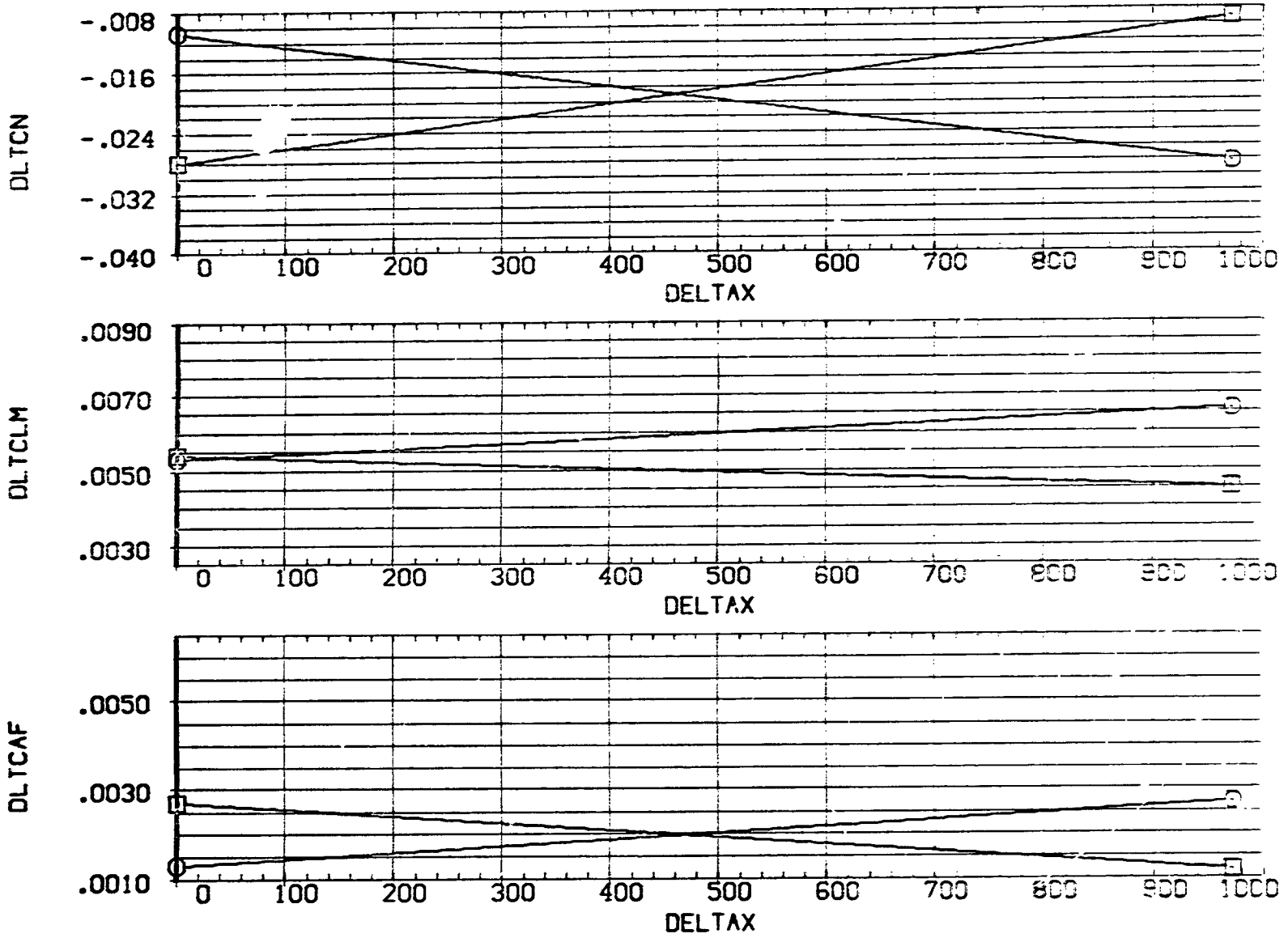
ALPHA	5.000	BETA	.000	
MACH	4.960	DLTELV	-20.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85020	162.000	C85022	485.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
[illegible]	[illegible]	IN.
BREF	[illegible]	IN.
MRP	99.[illegible]	IN.
[illegible]	[illegible]	IN.
[illegible]	[illegible]	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85023)

SYMBOL	DELTAZ
◇	.000
□	162.000
○	486.000

PARAMETRIC VALUES

ALPHA	-5.000	BETA	.000	
MACH	4.960	DLTELV	-40.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

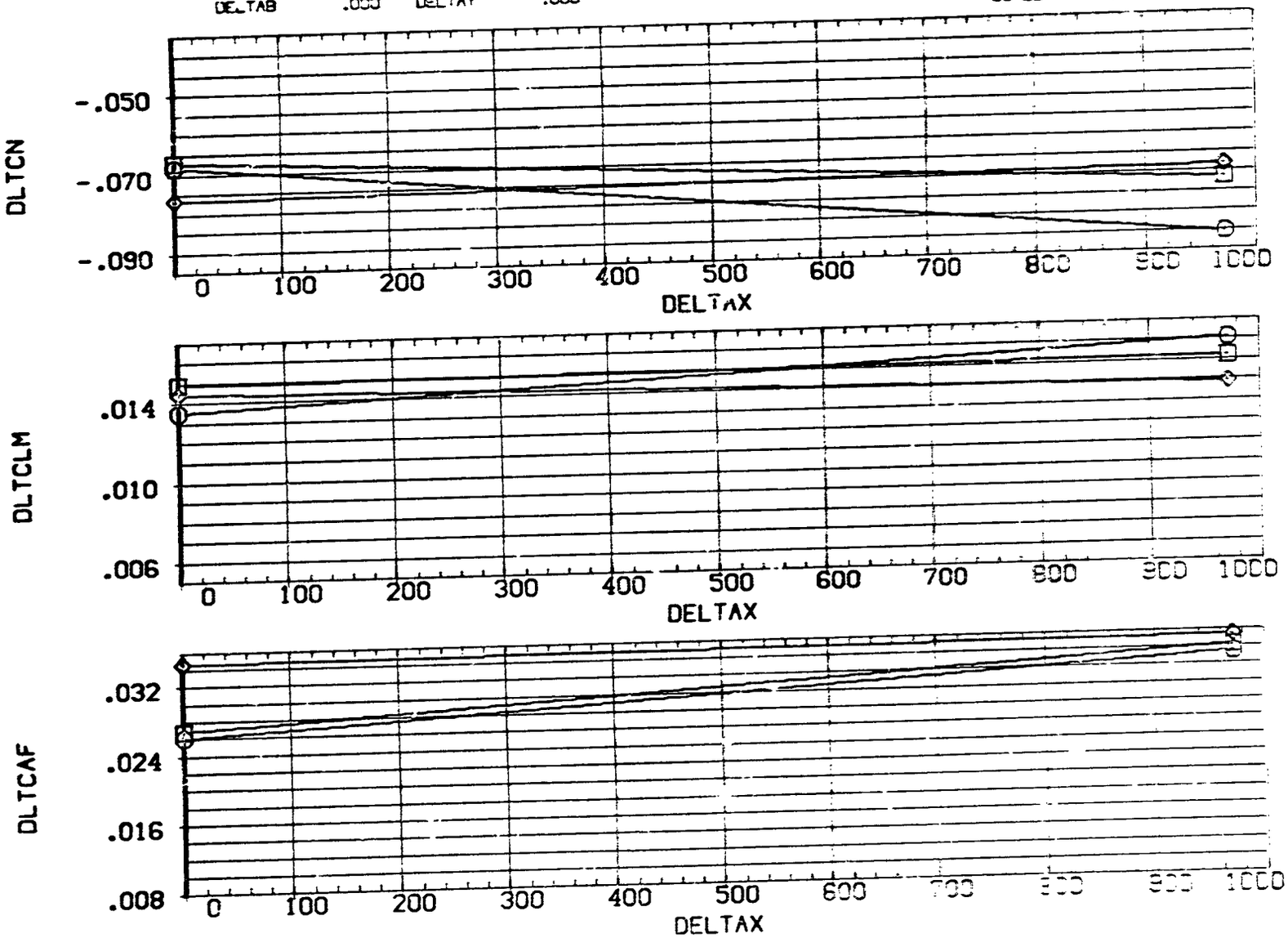
DATA SOURCE

DATASET	DELTAZ
C85023	.000
C85026	486.000

DATASET	DELTAZ
C85024	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1329.3000	IN.
BREF	1329.3000	IN.
XMRP	667.1000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	1.0000	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

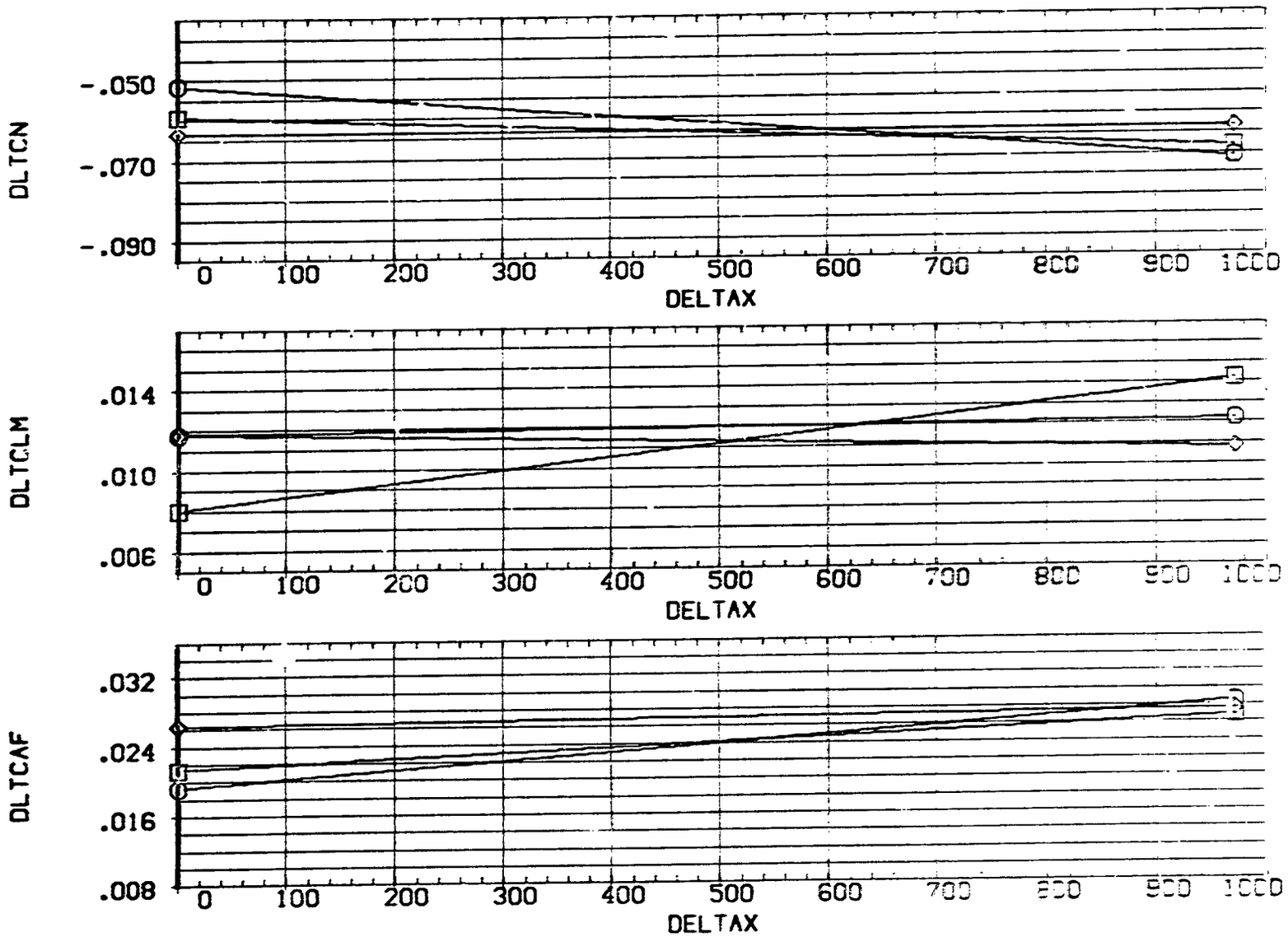
PARAMETRIC VALUES

ALPHA	-2.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	DLTELV	-40.000	C85023	.000
AILRON	.000	RUDDER	.000	C85024	486.000
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
L35024	162.000

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	857.1000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85023)

SYMBOL	DELTAZ
◇	.000
□	162.000
○	486.000

PARAMETRIC VALUES

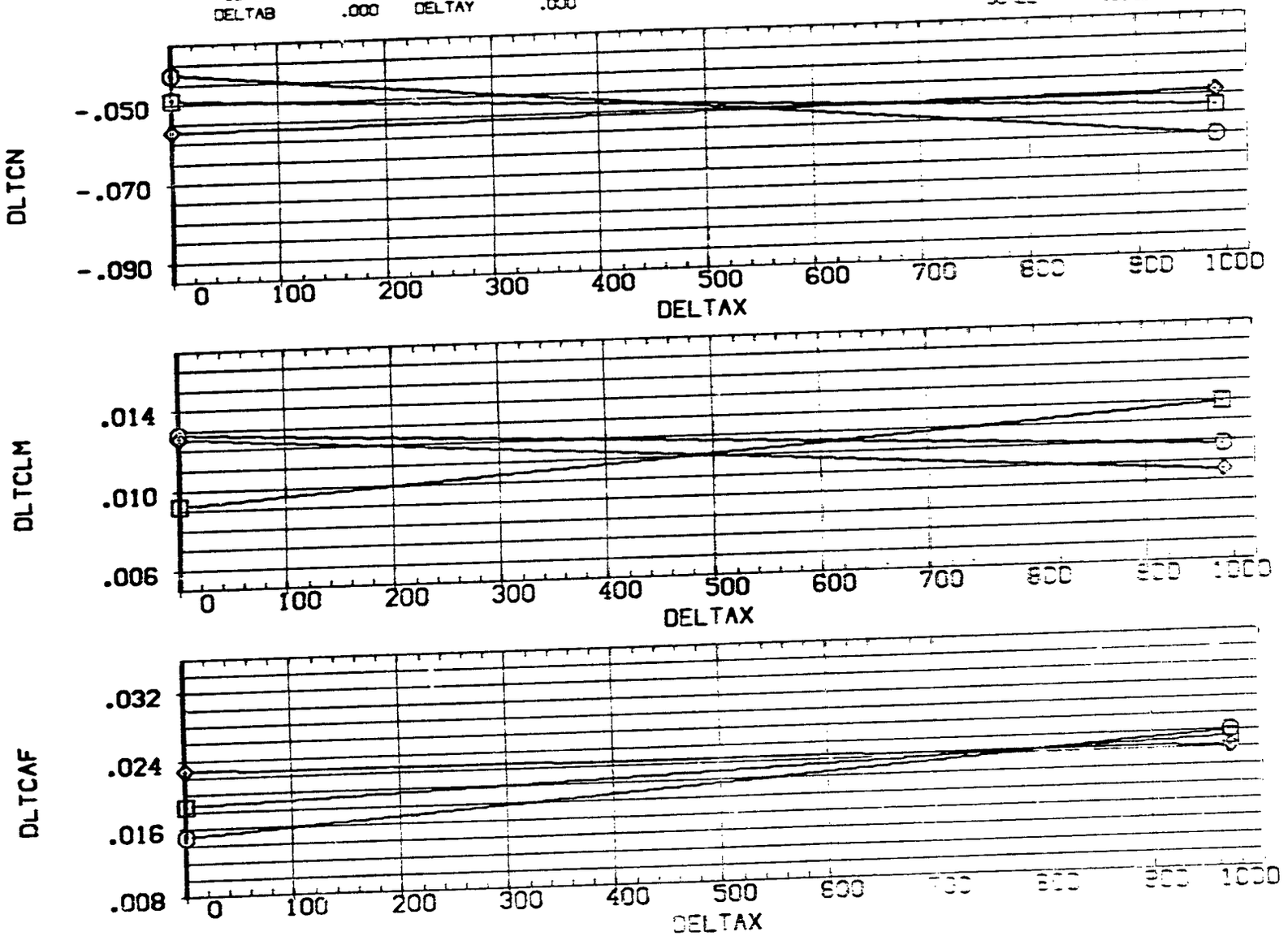
ALPHA	.000	BETA	.000	DATASET	C85023
MACH	4.950	DLTELV	-40.000		C85026
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	C85024	162.000
486.000		

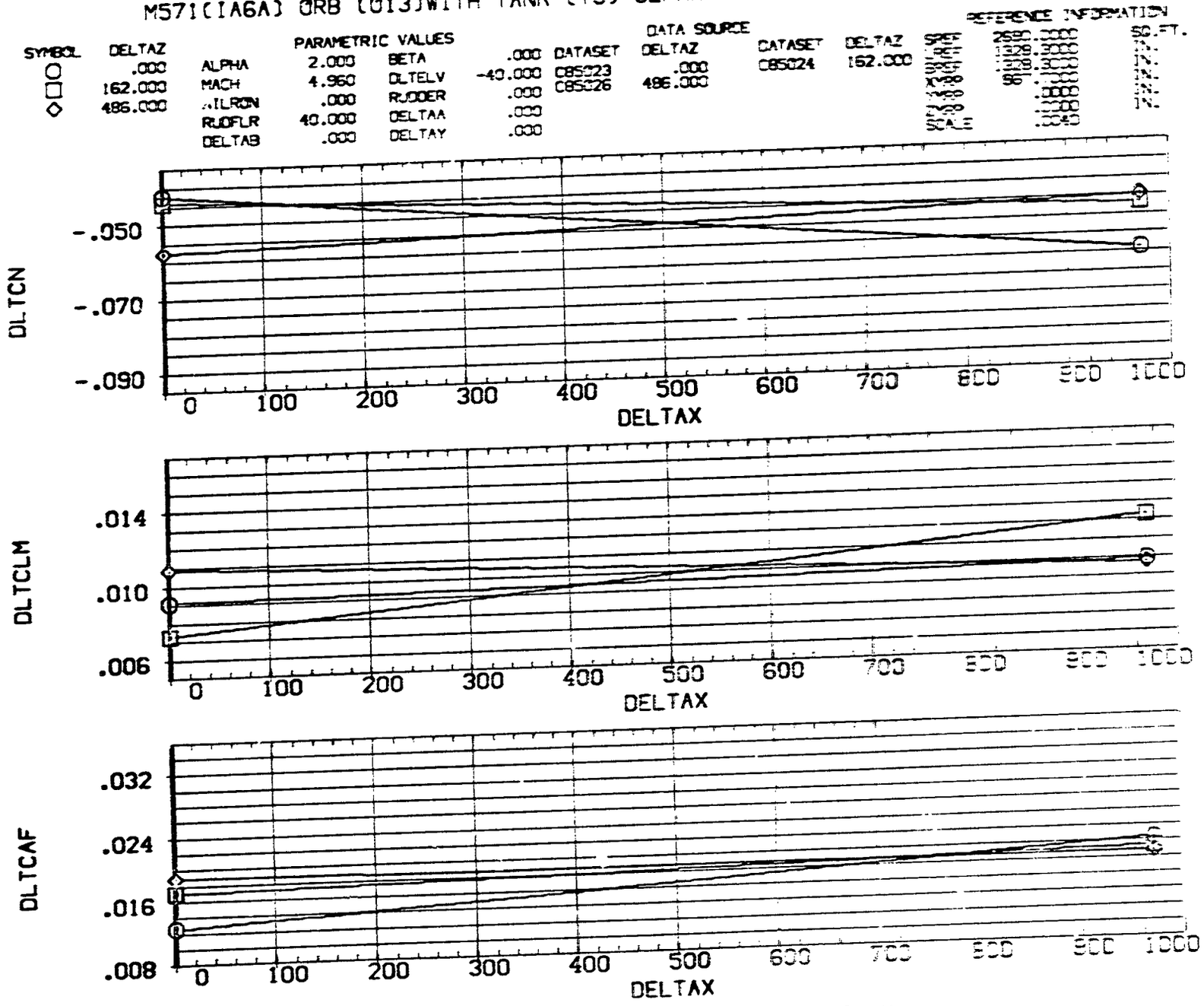
REFERENCE INFORMATION

SREF	2690.3000	SQ.FT.
LREF	1318.3000	IN.
BREF	1329.3000	IN.
XMRP	997.0000	IN.
YMRP	.0000	IN.
ZMRP	1135.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85023)



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85023)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

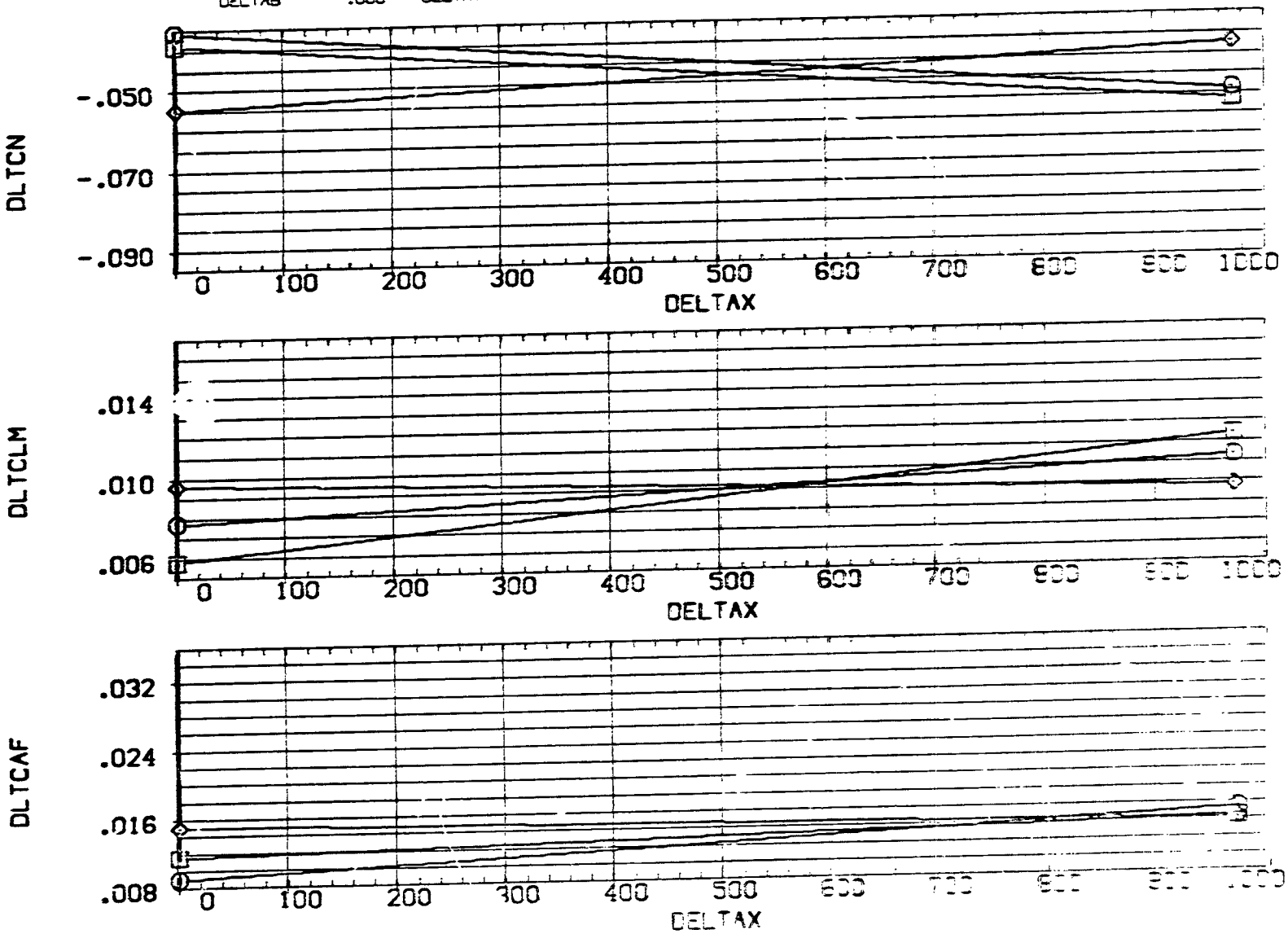
ALPHA	5.000	BETA	.000	DATASET	C85023
MACH	4.960	DLTELV	-40.000		C85026
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	C85024	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.3000	SQ.FT.
BLREF	1328.3000	
BMAC	1329.6000	
XMRP	857.1000	
YMRP	.0000	
ZMRP	.0000	
SCALE	1.0000	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (C13)WITH TANK (T9) SEPARATING (C85025)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

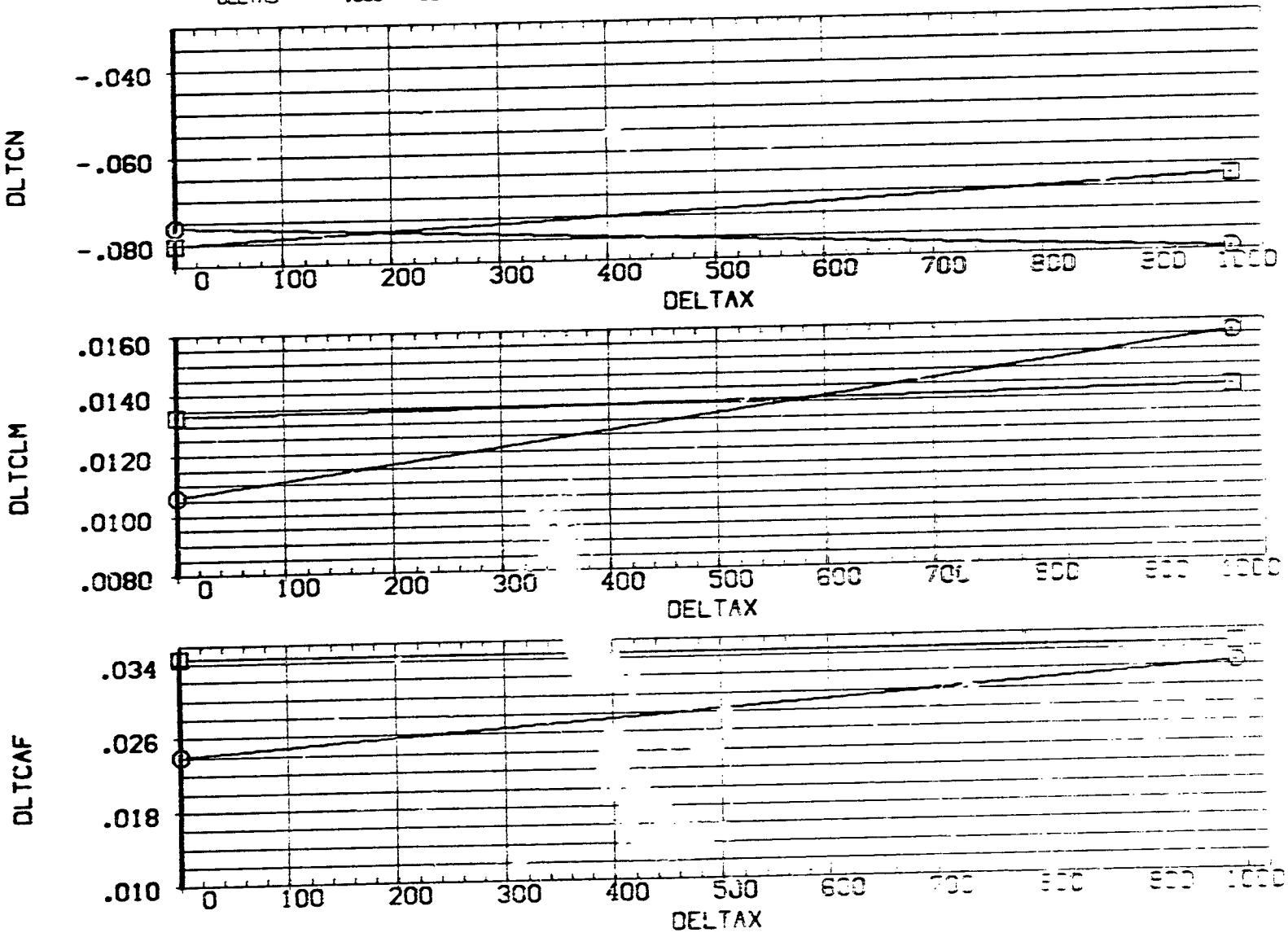
ALPHA	-5.000	BETA	.000	
MACH	4.950	DLTELV	-40.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85025	162.000	C85027	496.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1318.8000	IN.
BREF	1318.8000	IN.
XMRP	1307.1000	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85025)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

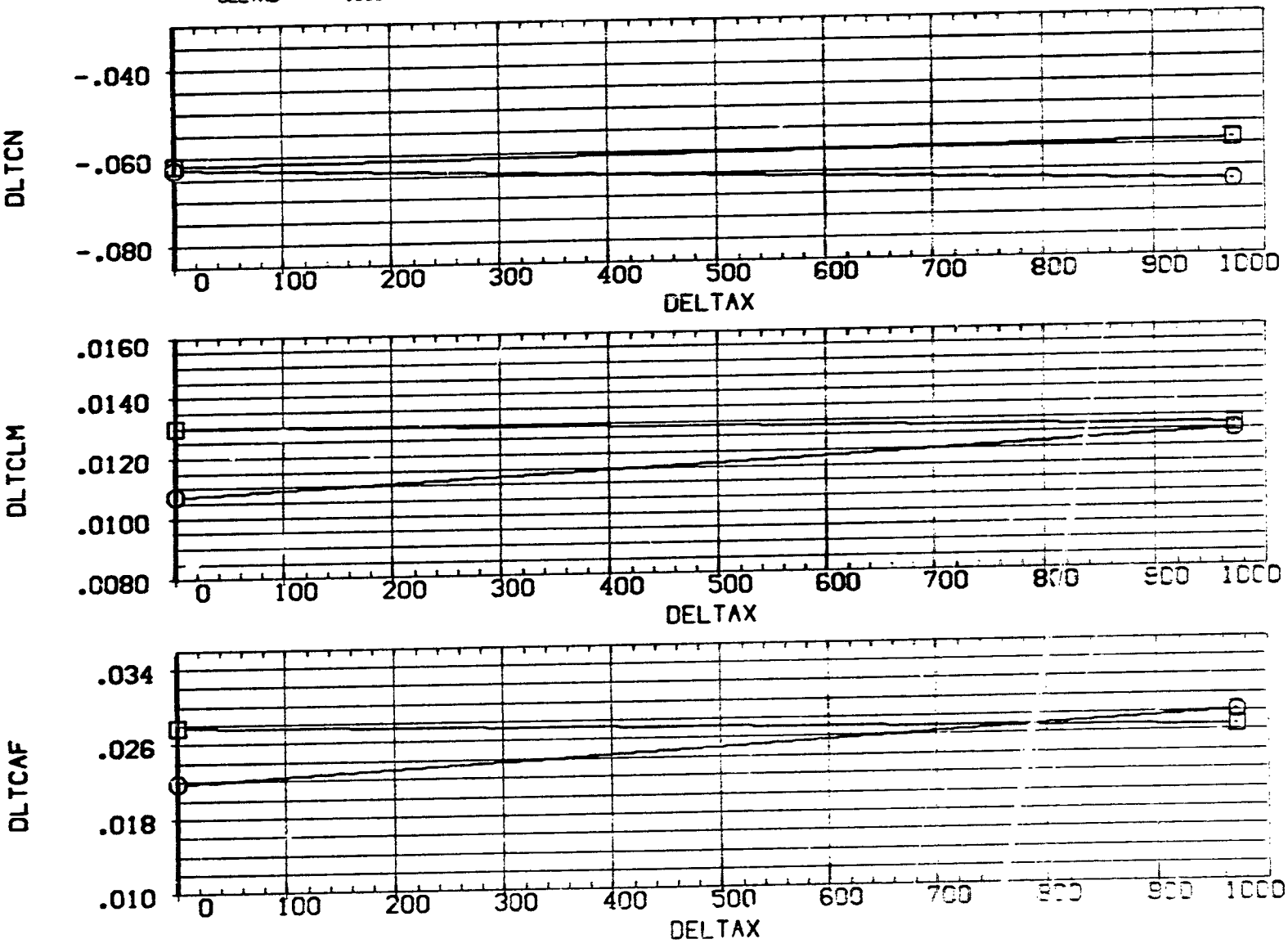
ALPHA	-2.000	BETA	.000	
MACH	4.960	DLTELV	-40.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85025	162.000	C85027	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3400	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0000	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85025)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

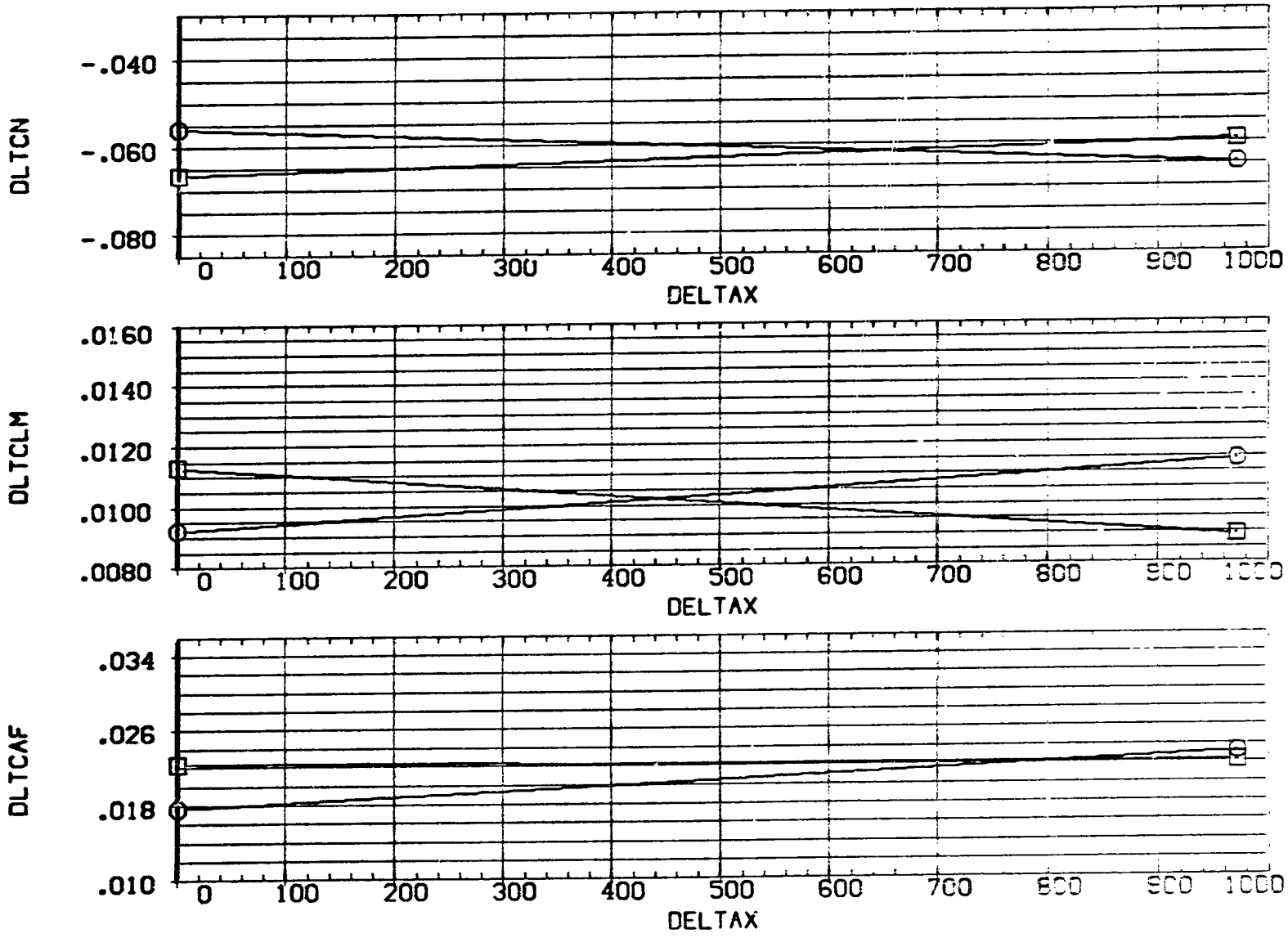
ALPHA	.000	BETA	.000	
MACH	4.960	DLTELV	-40.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85025	162.000	C85027	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (C85025)

SYMBOL	DELTAZ
□	162.000
○	486.000

PARAMETRIC VALUES

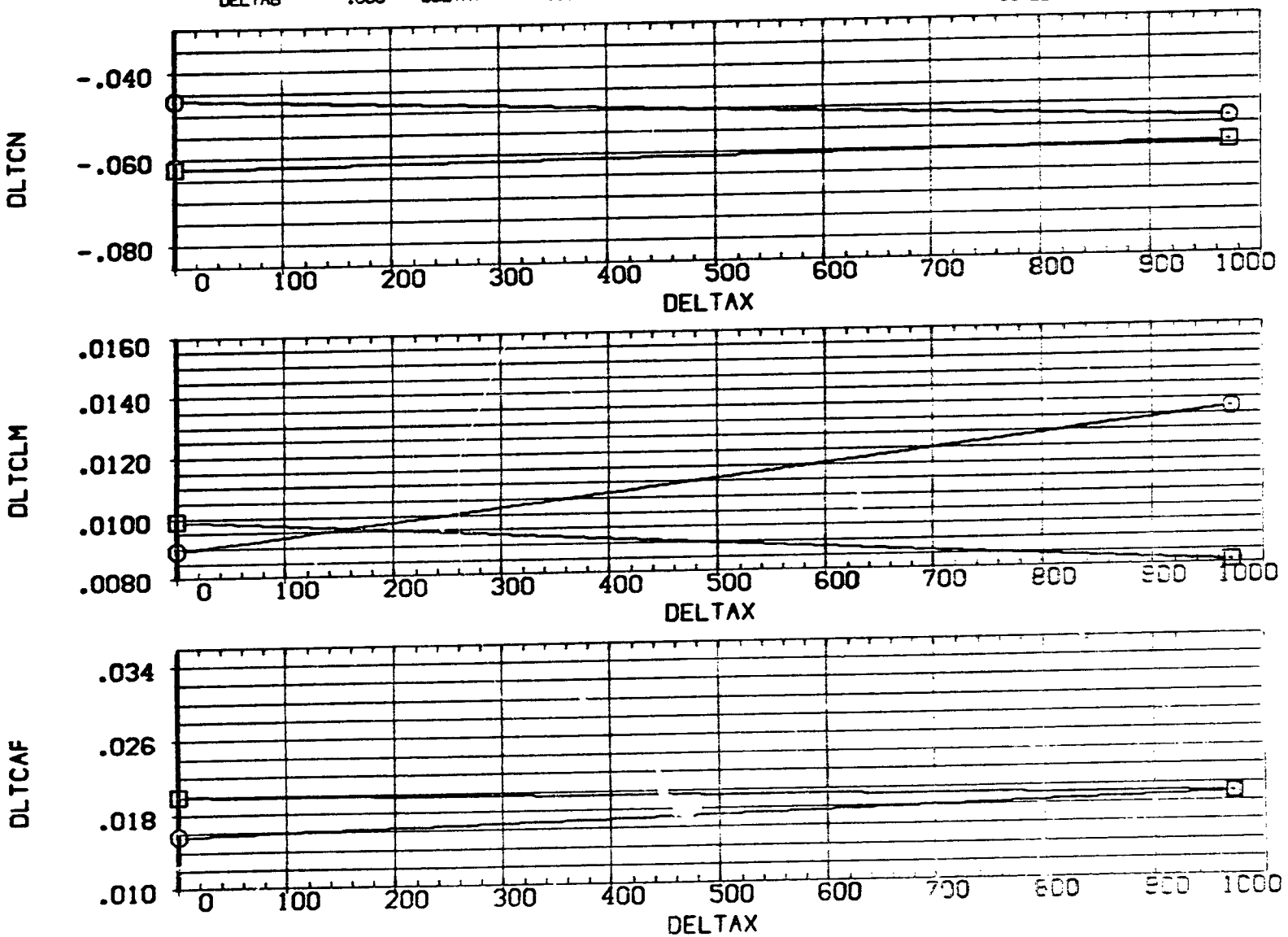
ALPHA	2.000	BETA	.000	DATASET	C85025
MACH	4.960	DLTELV	-40.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
162.000	C85027	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	867.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

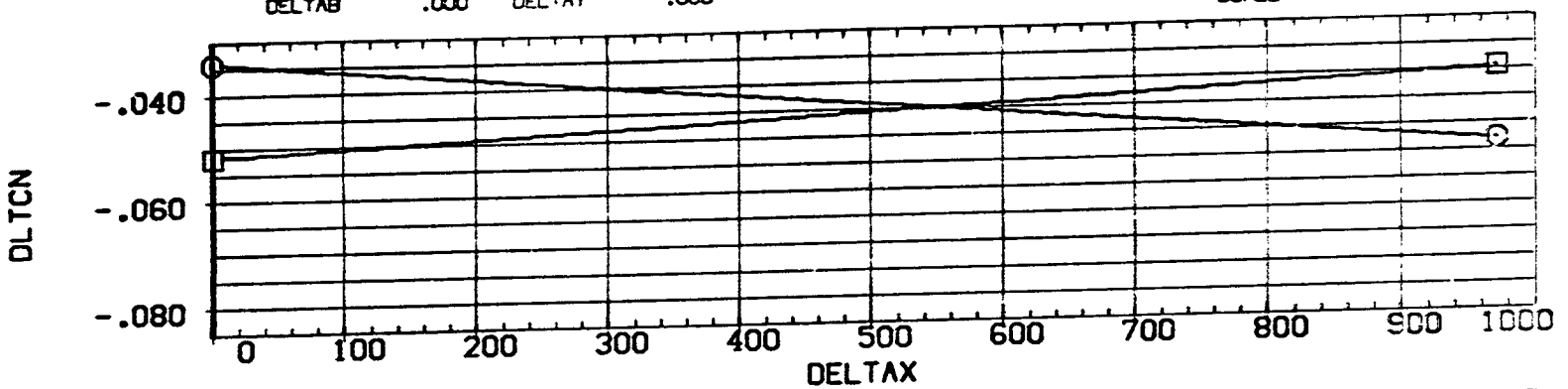
SYMBOL	DELTAZ
○	162.000
□	486.000

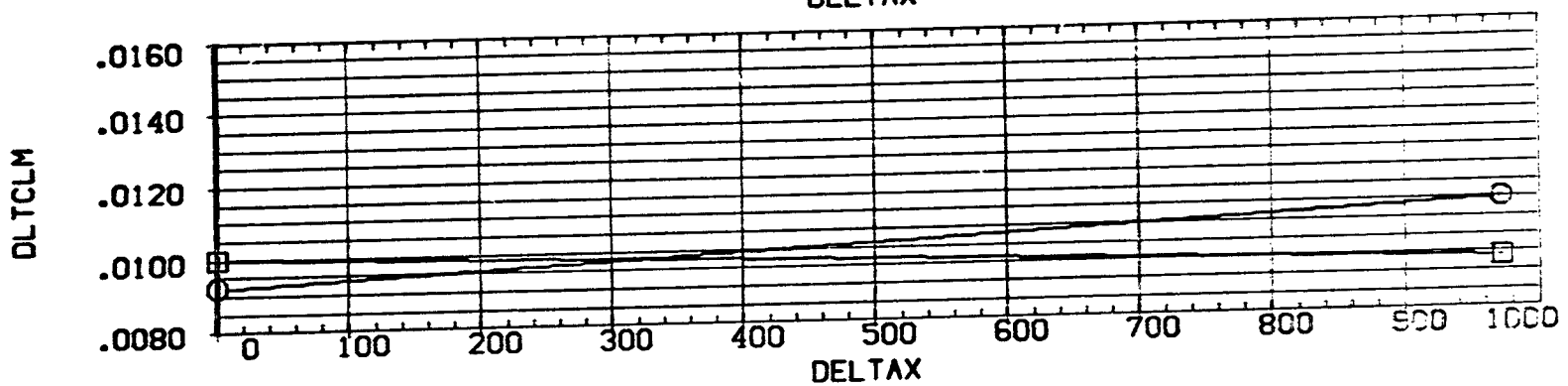
PARAMETRIC VALUES

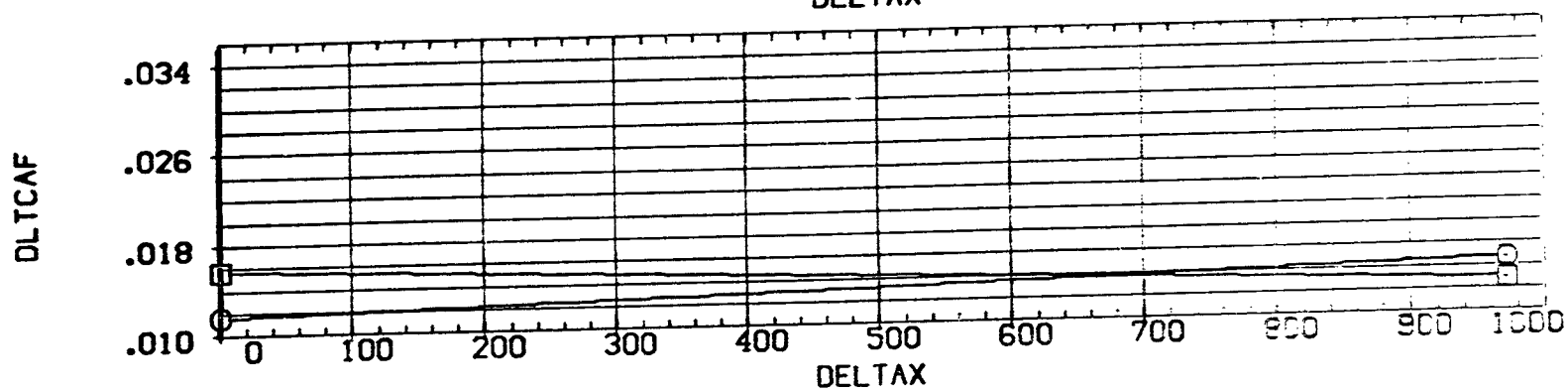
				DATASET	DELTAZ
ALPHA	5.000	BETA	.000	C85025	162.000
MACH	4.960	DLTELV	-40.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATASET	DELTAZ
C85027	486.000

SREF	2690.0000	SQ. FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	667.7000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







ELEVON EFFECTIVENESS- ORBITER IN PRESENCE OF EXTERNAL TANK

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T13)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

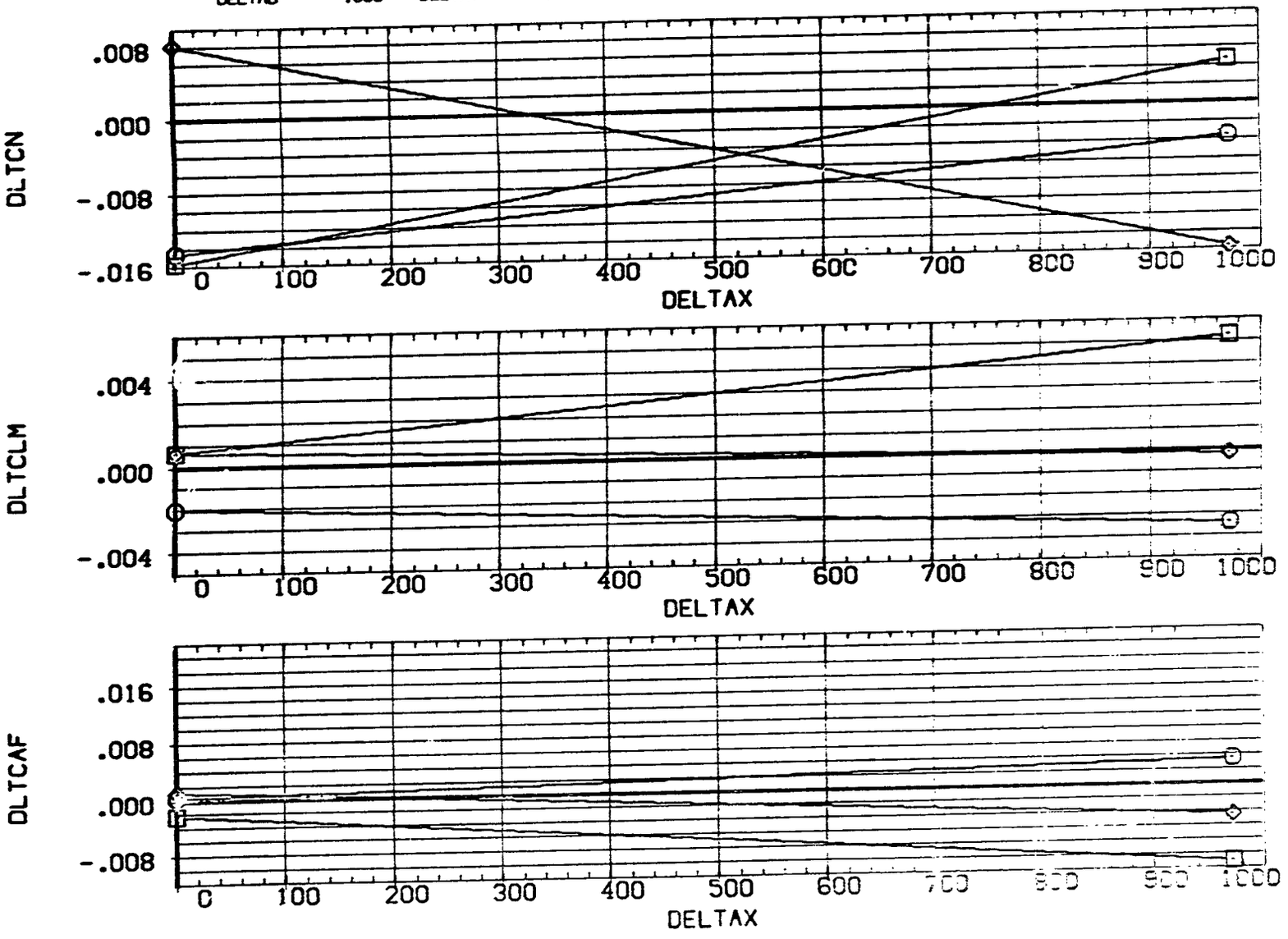
ALPHA	-5.000	BETA	.000	DATASET	C85T13
MACH	4.960	DLTELV	10.000		C85T16
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	C85T14	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M5/1(1A6A) TANK(19)SEPARATING FROM ORBITER

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

ALPHA	-2.000	BETA	.000	
MACH	4.960	DLTELV	10.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

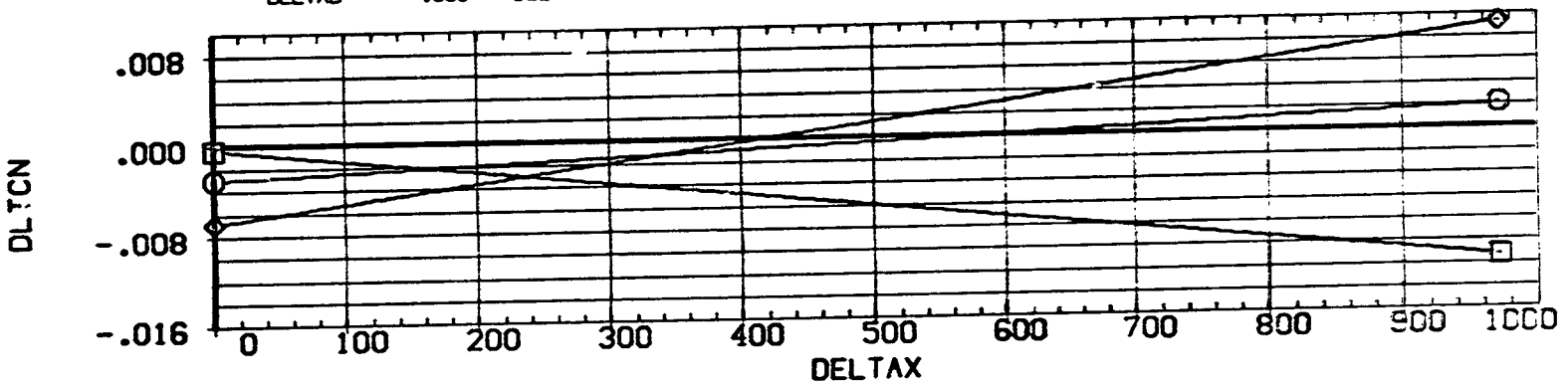
DATA SOURCE

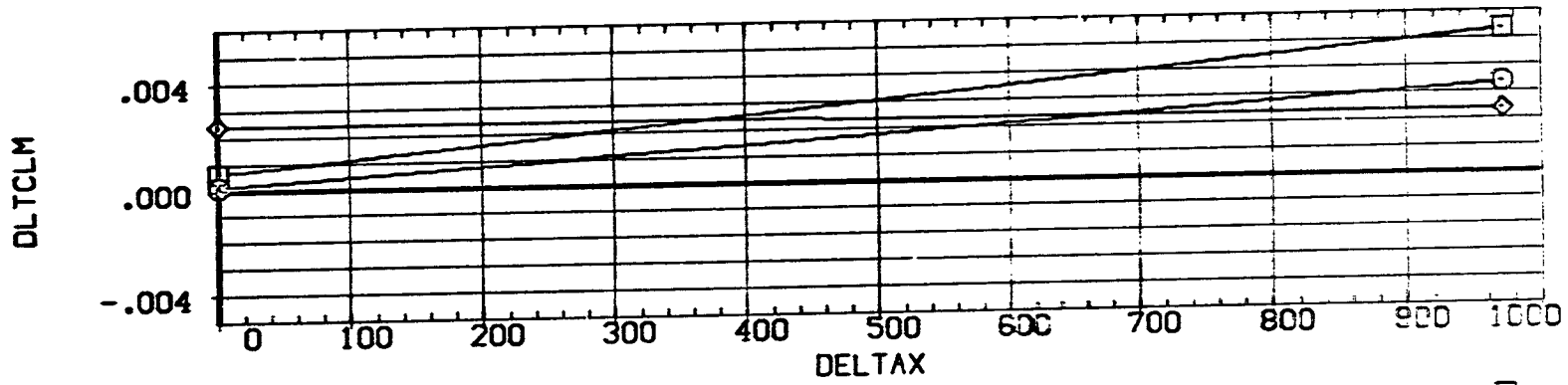
DATASET	DELTAZ
C85T13	.000
C85T16	486.000

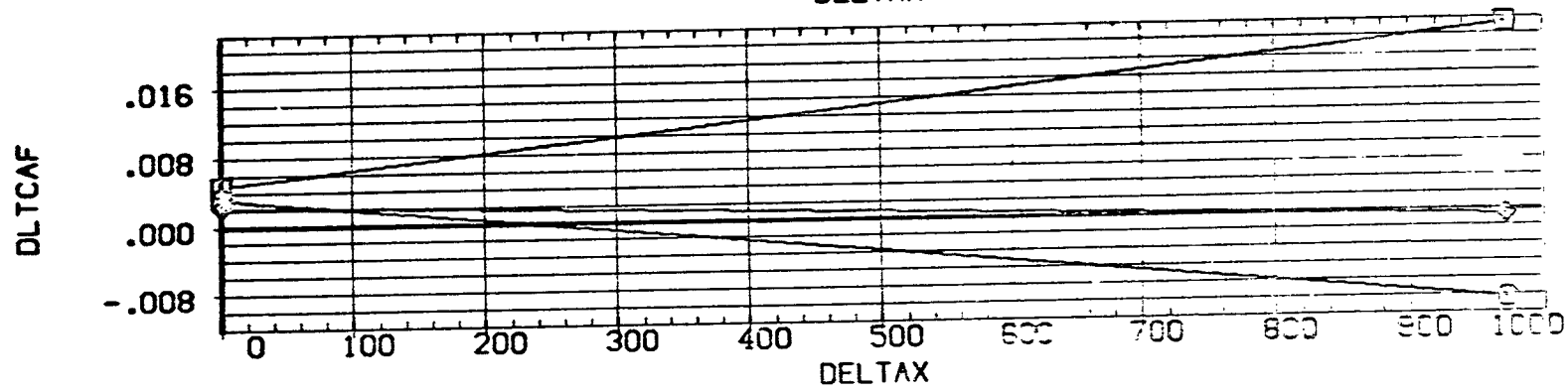
DATASET	DELTAZ
C85T14	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T13)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

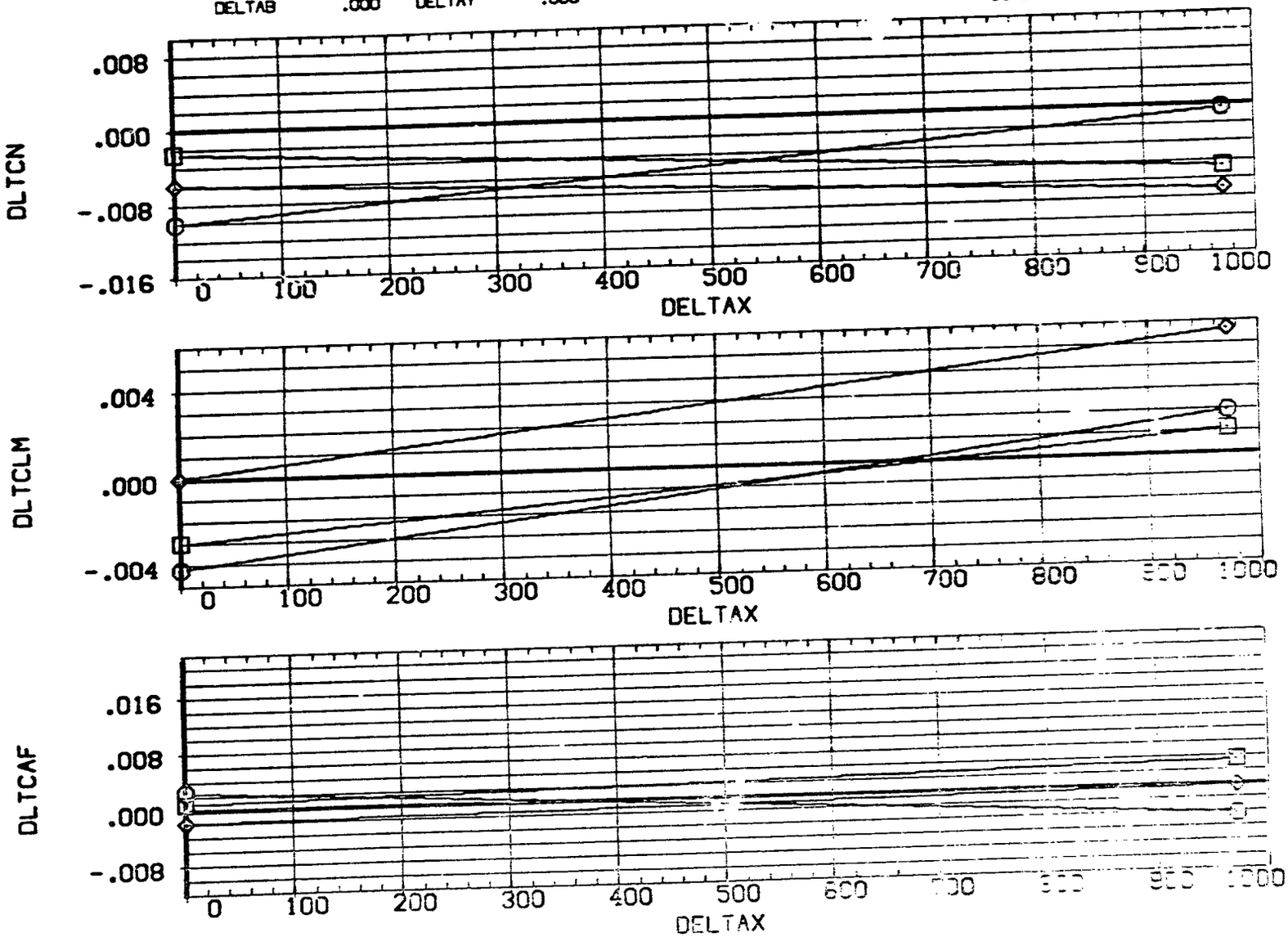
ALPHA	.000	BETA	.000	
MACH	4.960	DLTELV	10.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
C85T13	.000
C85T16	486.000
C85T14	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T13)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

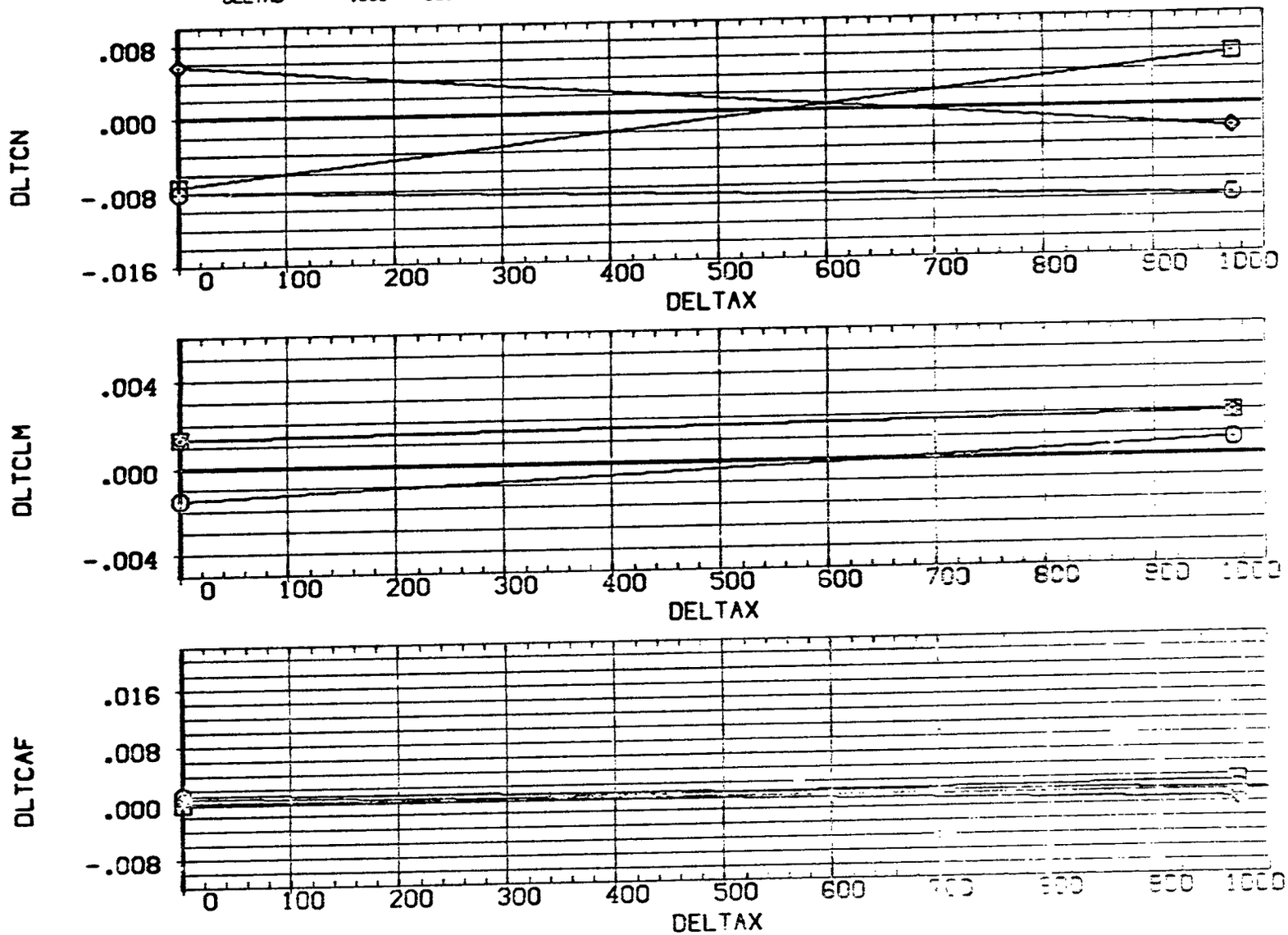
ALPHA	2.000	BETA	.000	
MACH	4.960	DLTELV	10.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
C85T13	.000
C85T16	486.000
C85T14	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T13)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

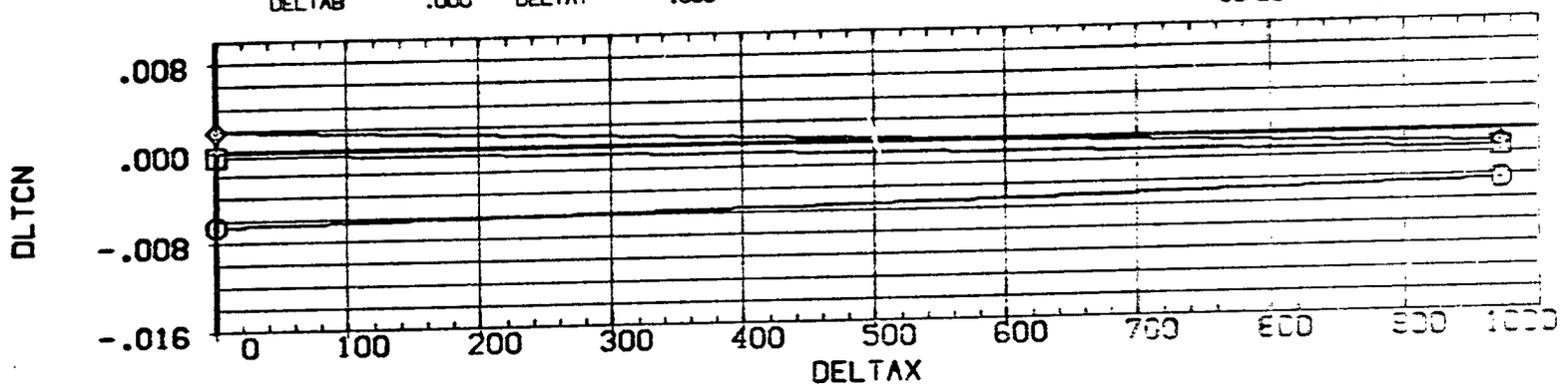
ALPHA	5.000	BETA	.000	DATASET	C85T13
MACH	4.960	DLTELV	10.000		C85T16
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

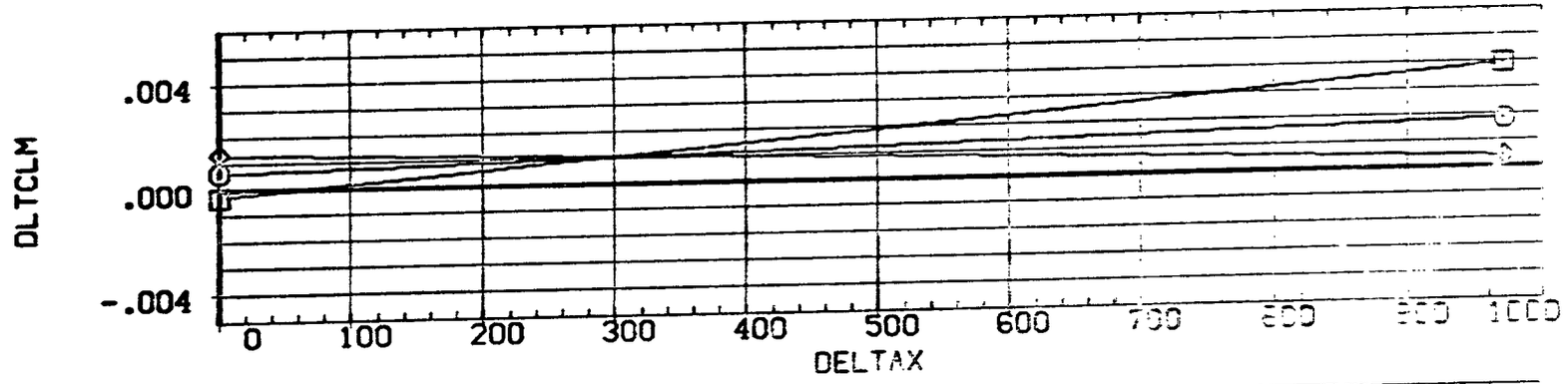
DATA SOURCE

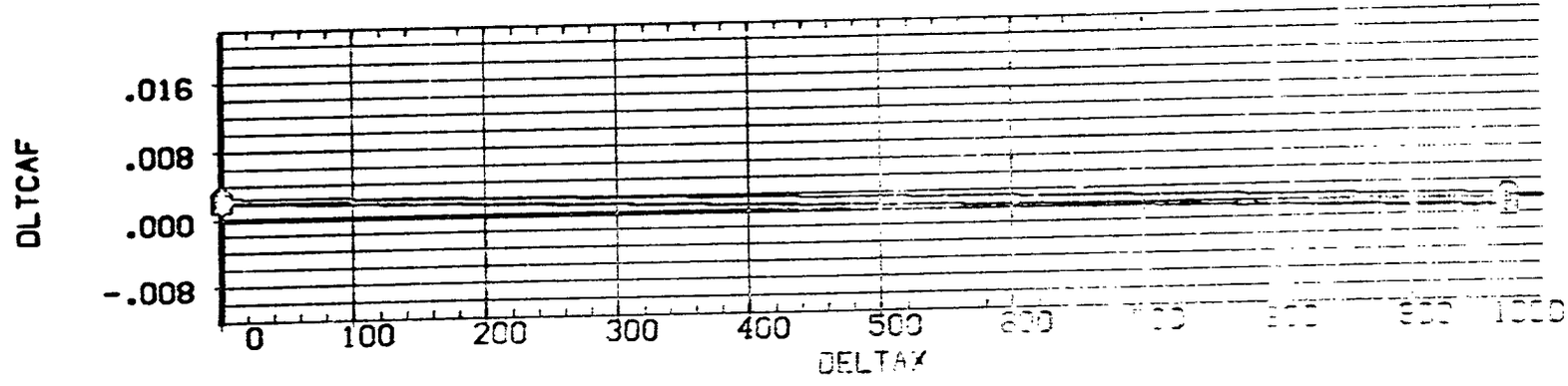
DELTAZ	DATASET	DELTAZ
.000	C85T14	162.000
486.000		

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	939.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C8ST15)

SYMBOL	DELTAZ
□	162.000
○	486.000

PARAMETRIC VALUES

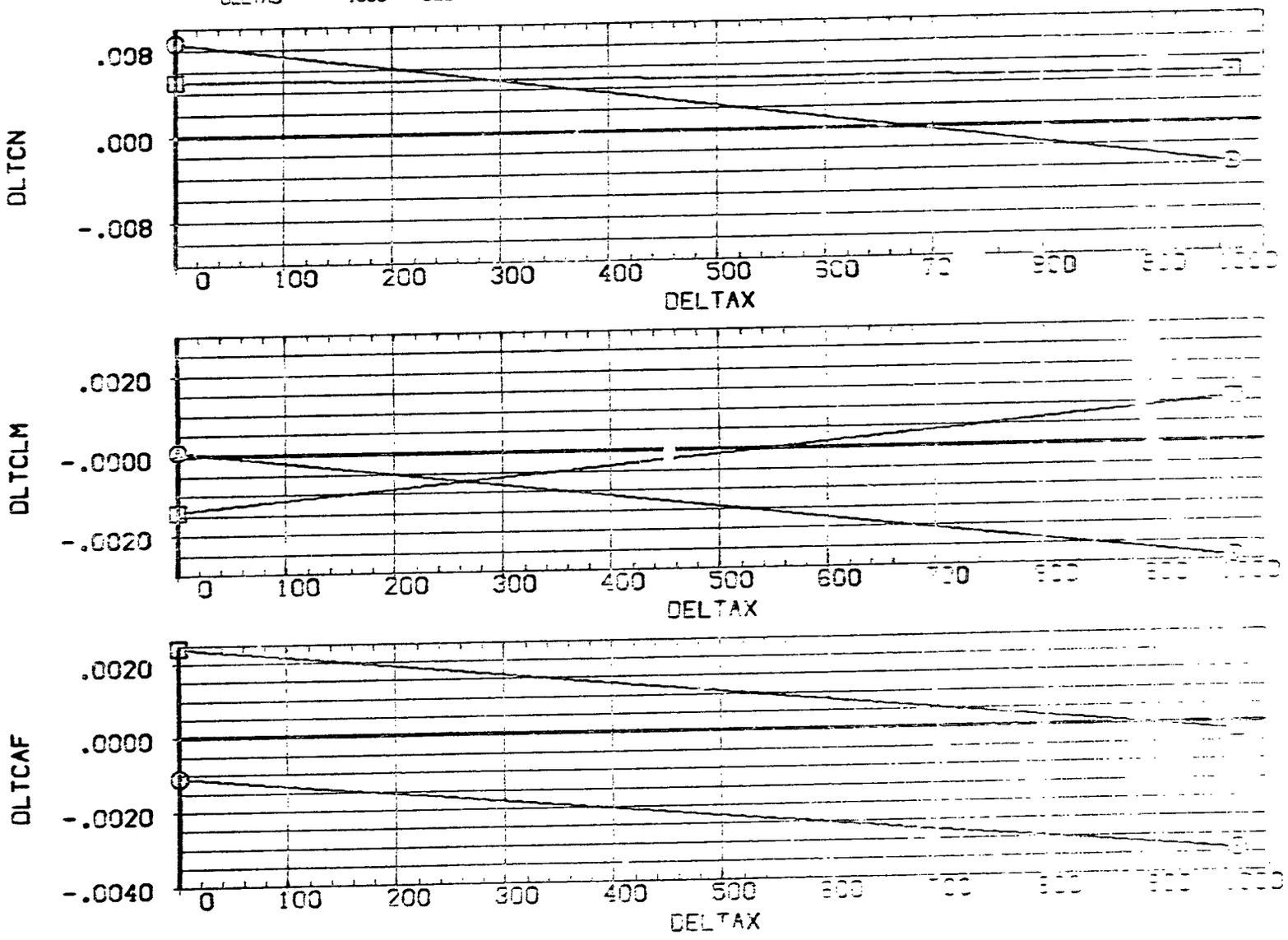
ALPHA	-5.000	BETA	.000	
MACH	4.960	DLTELV	10.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	C8ST15	DATASET	C8ST17
DELTAZ	162.000	DELTAZ	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
CBAR	1145.1000	IN.
BREF	1109.1000	IN.
XMRP	929.1000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (OST15)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

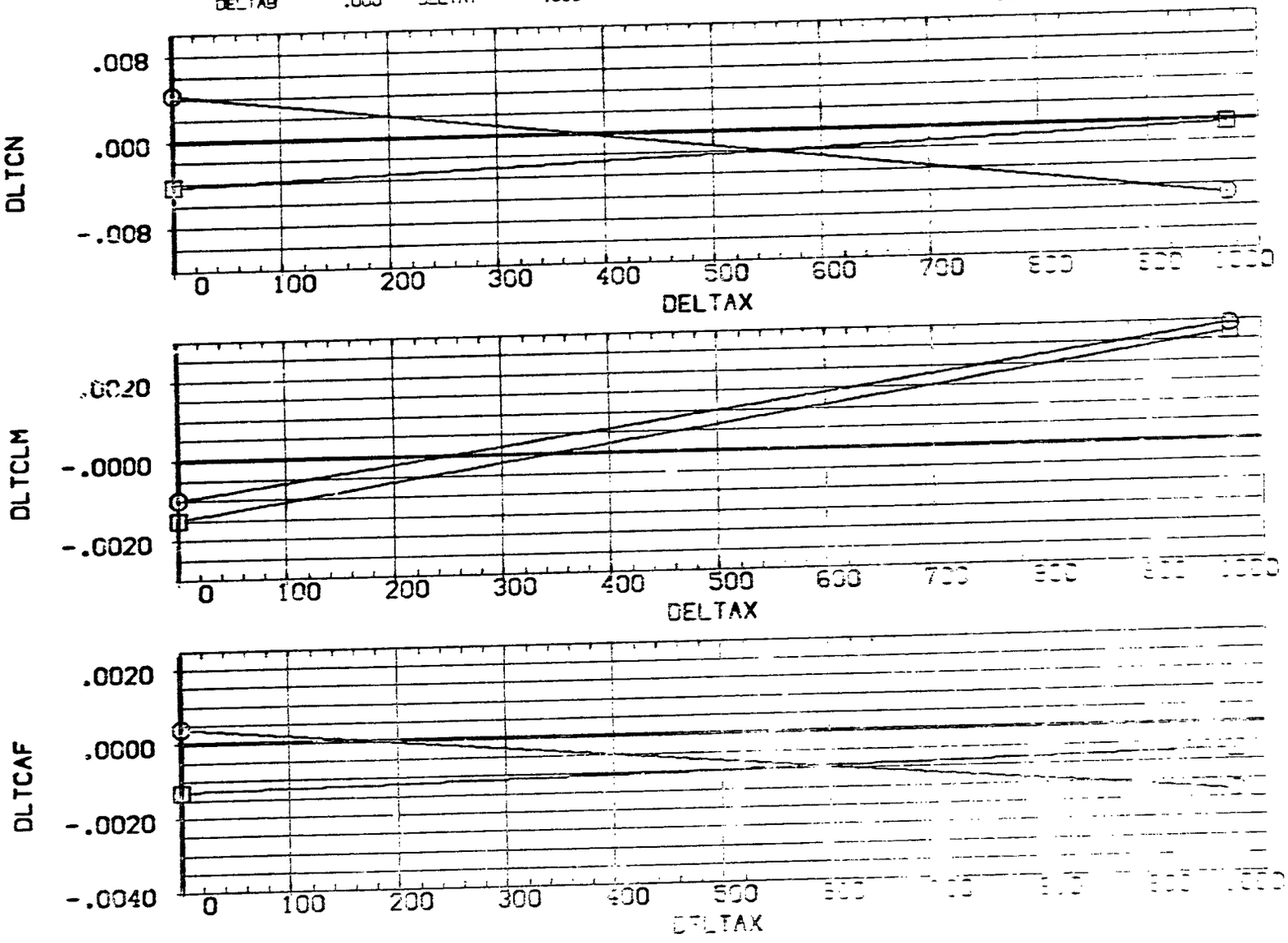
ALPHA	-2.000	BETA	.000
MACH	4.960	ELTELV	10.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	5.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
OST15	162.000	OST17	486.000

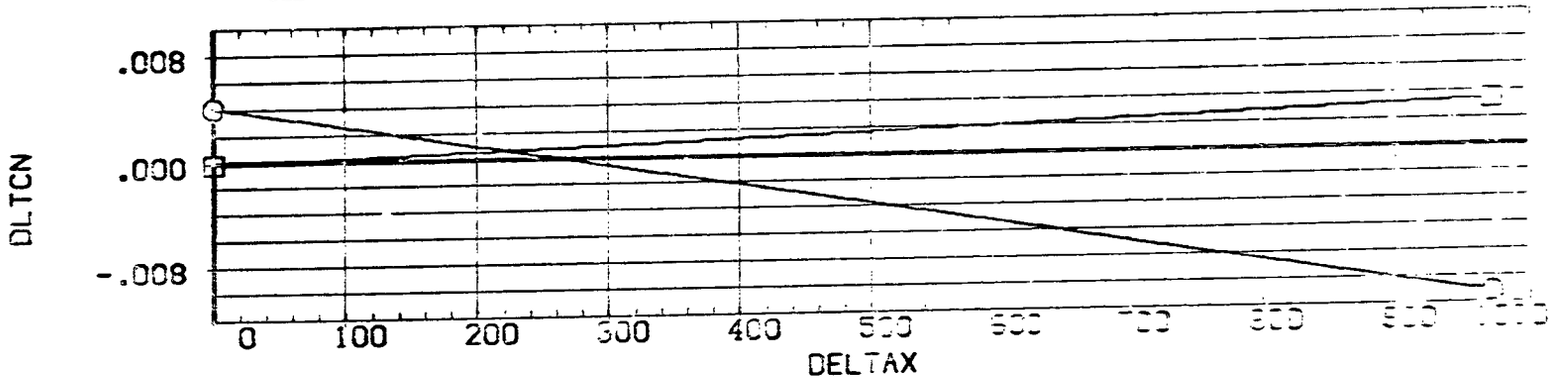
REFERENCE INFORMATION

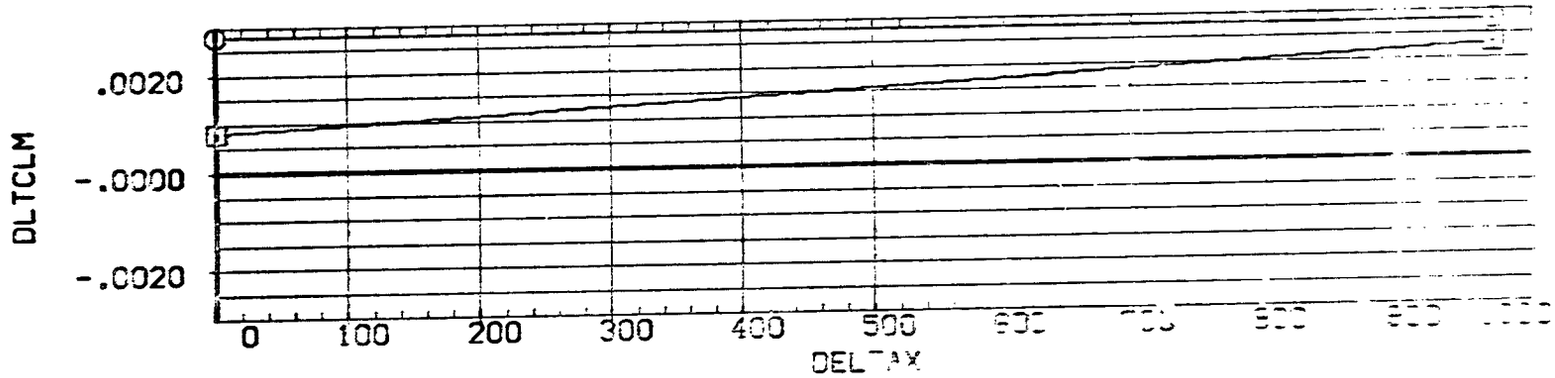
SREF	2690.0000	SQ.FT.
LREF	1196.0000	FT.
BLREF	1029.0000	FT.
XMRP	826.0000	FT.
YMRP	.0000	FT.
ZMRP	474.0000	FT.
SCALE	1.0000	

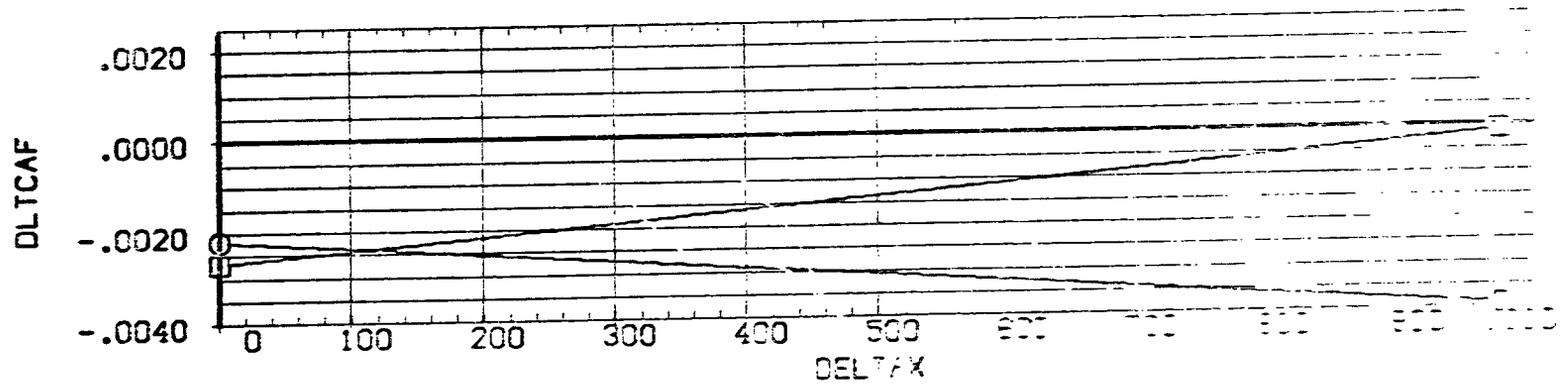


ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

SYMBOL	DELTAZ										
□	162.000	ALPHA	.000	BETA	.000	DATASET	DELTAZ	DATASET	DELTAZ	SCALE	.100
□	495.000	MACH	4.950	DLTELV	10.000	CASTIS	162.000	CASE	-99.000		
		AILRON	.000	RUDDER	.000						
		RUDFLR	40.000	DELTAA	5.000						
		DELTAB	.000	DELTAY	.000						







ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF [illegible]

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (O85T:S)

SYMBOL	DELTAZ
□	162.000
○	486.000

PARAMETRIC VALUES

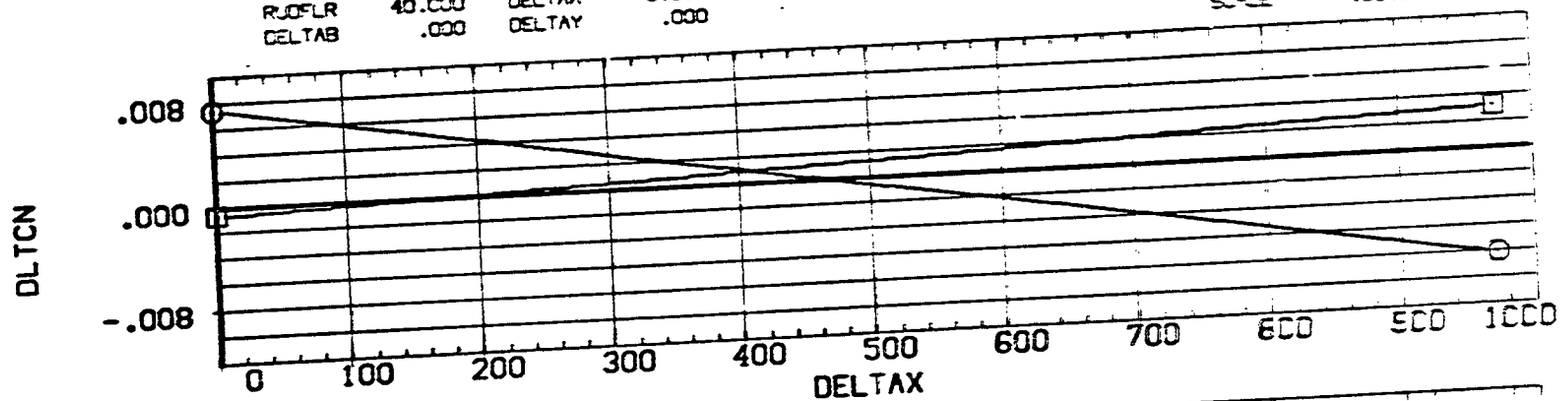
ALPHA	2.000	BETA	.000	DATASET	O85T:S
MACH	4.960	DLTELV	10.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

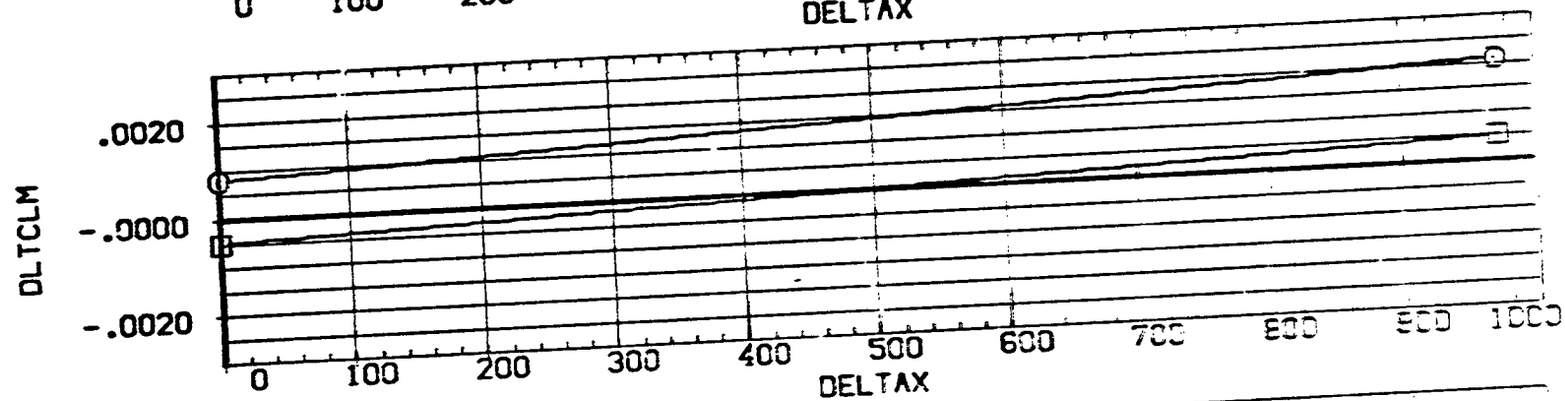
DATA SOURCE

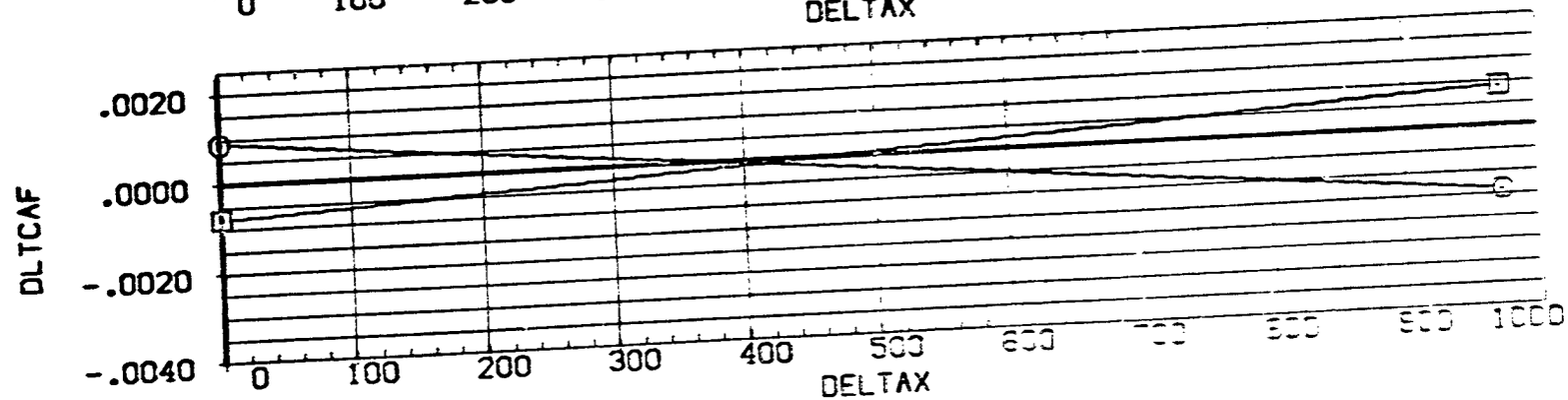
DELTAZ	DATASET	DELTAZ
162.000	O85T:7	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1325.0000	IN.
BREF	1068.0000	IN.
XMRP	828.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T15)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

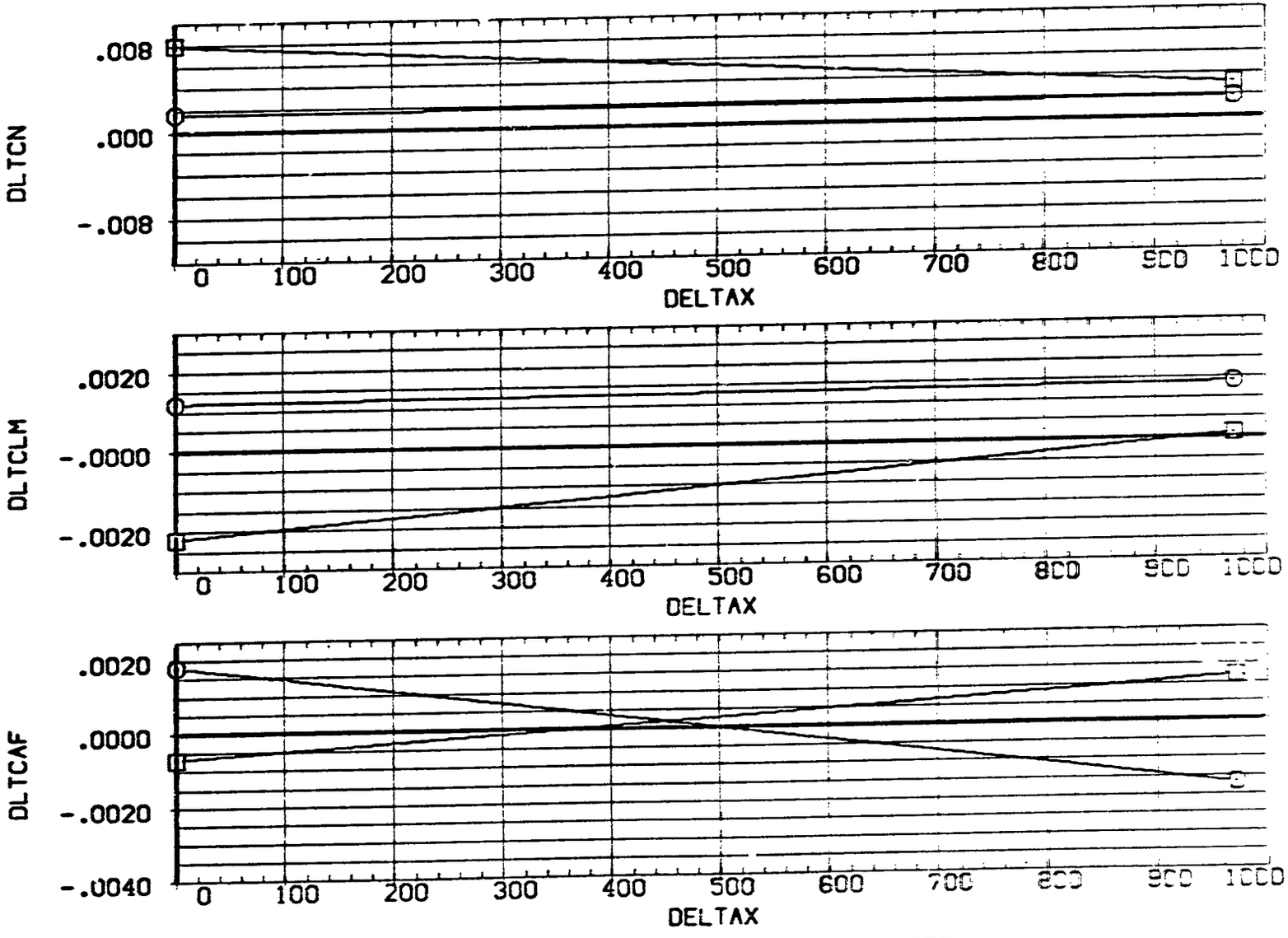
ALPHA	5.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	DLTELV	10.000	C85T15	162.000
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85T17	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1318.0000	IN.
BREF	1318.0000	IN.
XMRP	529.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T.8)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	496.000

PARAMETRIC VALUES

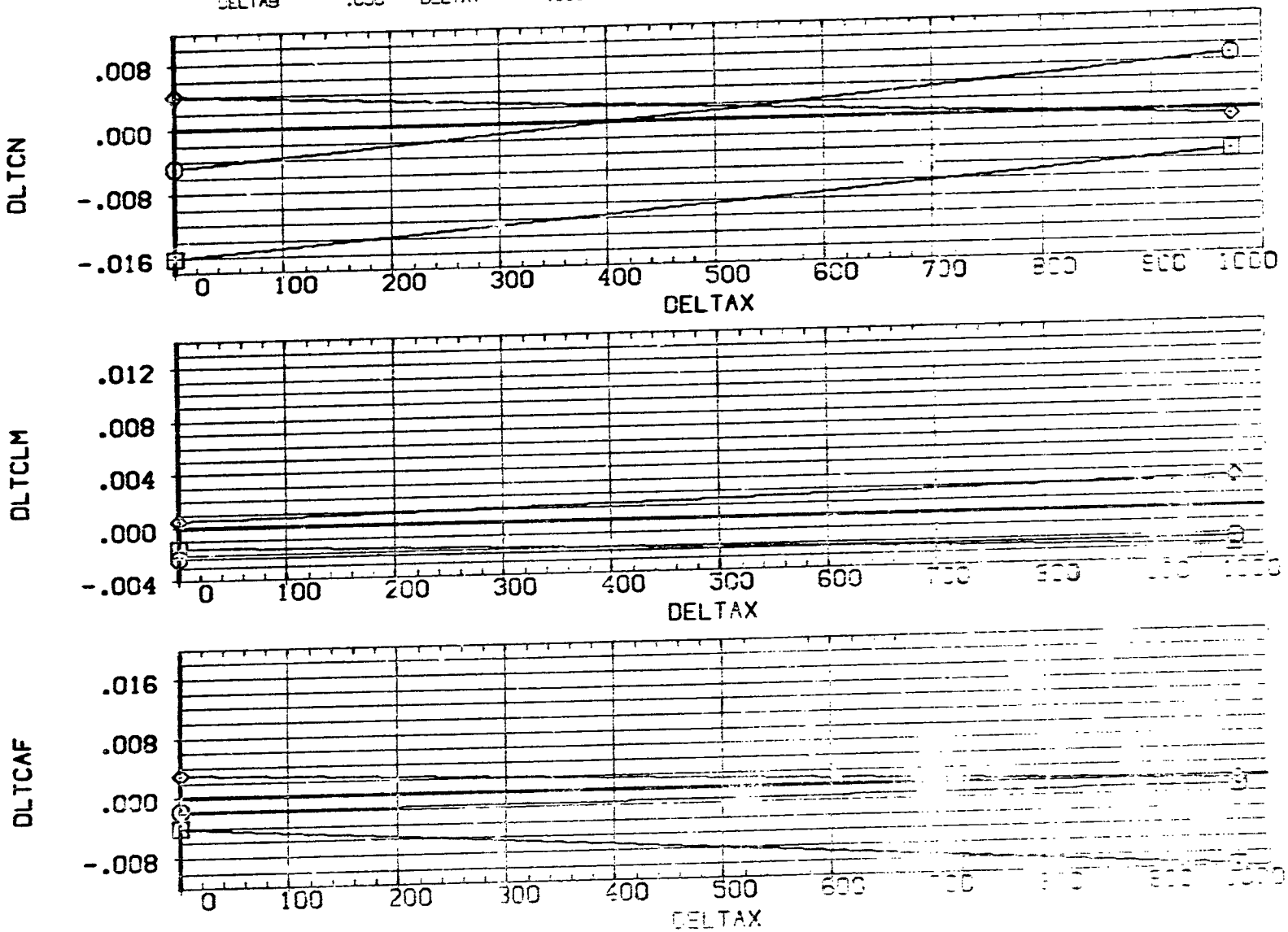
ALPHA	-5.000	BETA	.000	DATASET	C85T19
MACH	4.960	DLTELV	-20.000		C55T21
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	DATASET	DELTAZ
.000	C85T19	162.000
496.000		

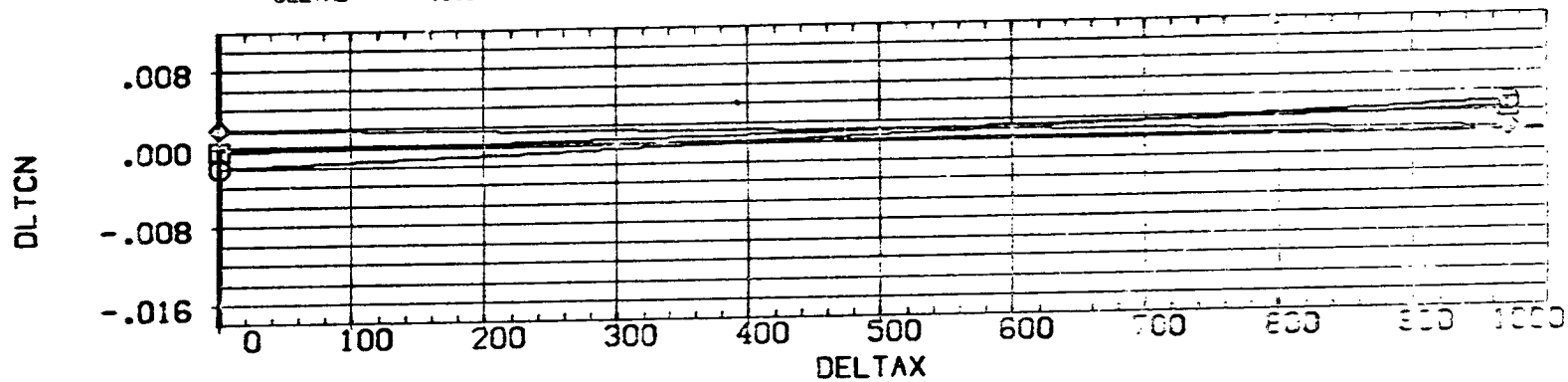
REFERENCE INFORMATION

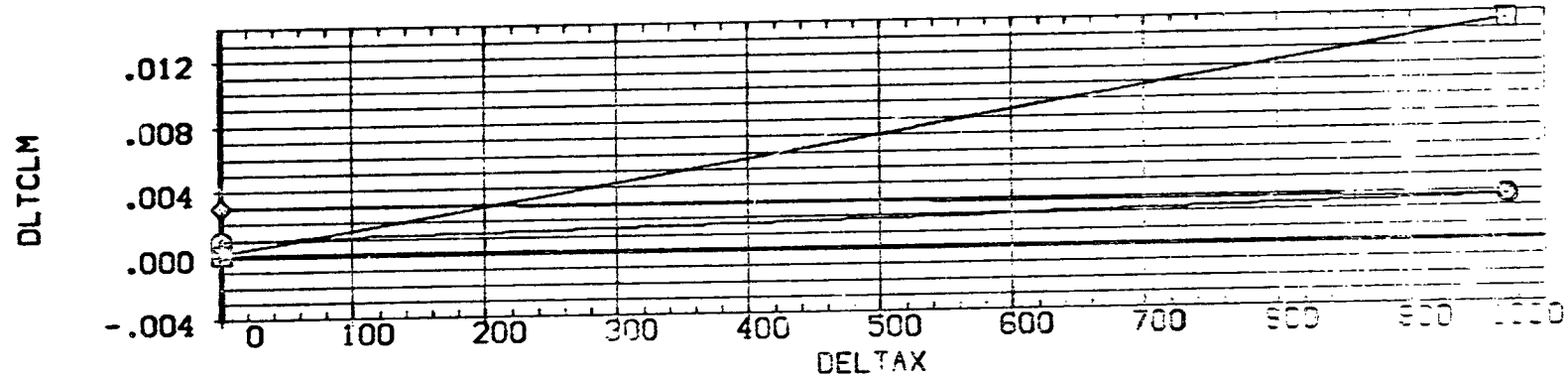
SREF	2690.0000	SQ.FT.
LREF	1300.0000	
BREF	1300.0000	
XMRP	969.0000	
YMRP	.0000	
ZMRP	.0000	
SCALE	.0010	

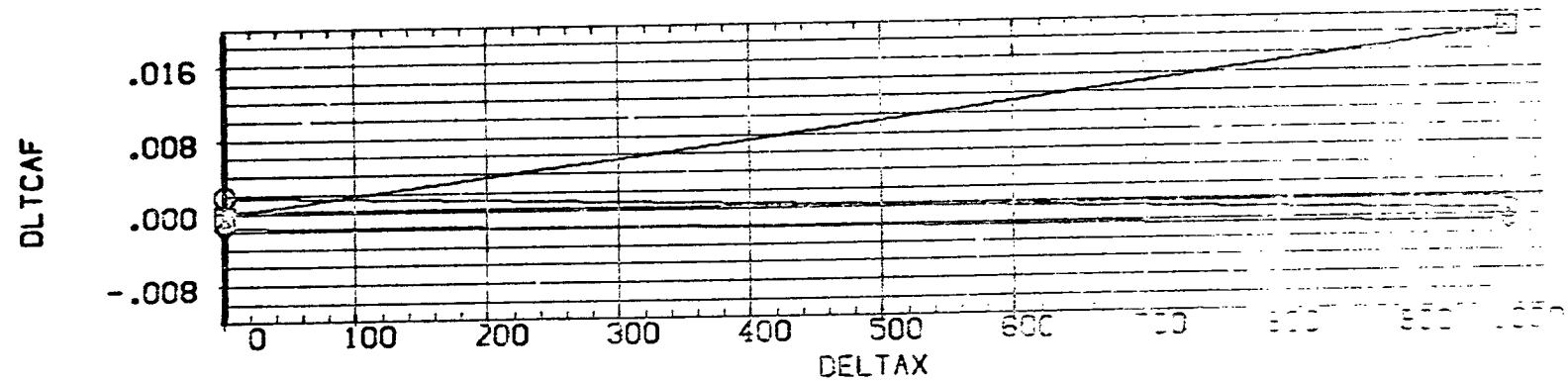


ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

○	.000	ALPHA	-2.000	BETA	.000	DATASET	DELTAZ	DATASET	DELTAZ		
□	162.000	MACH	4.960	DLTELV	-20.000	C85T18	.000	C85T19	162.000		
◇	486.000	AILRON	.000	RUDDER	.000	C85T21	486.000				
		RUDFLR	40.000	DELTAA	.000						
		DELTAB	.000	DELTAY	.000						







ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T18)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

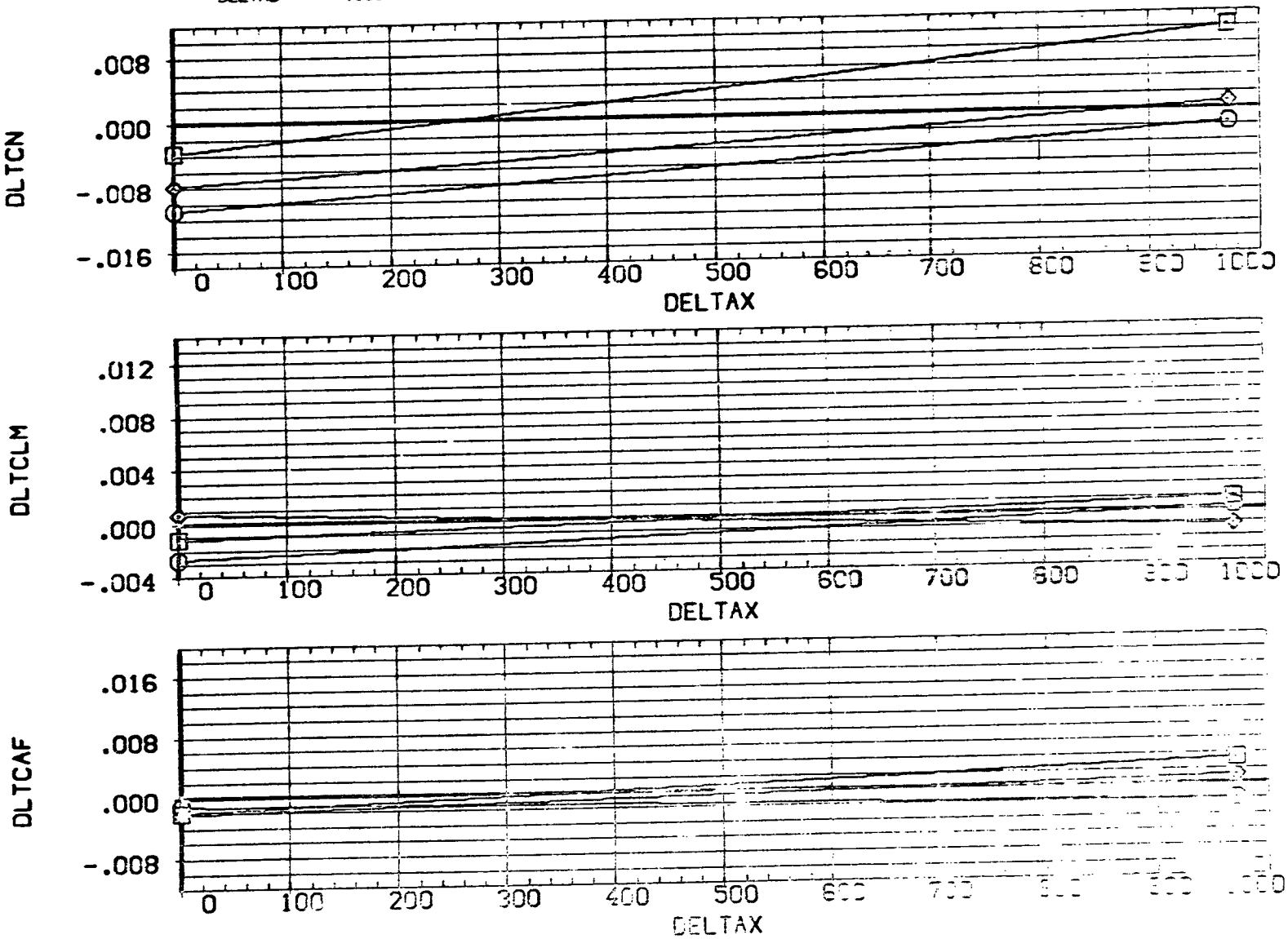
ALPHA	.000	BETA	.000	DATASET	DELTAZ
MACH	4.950	DLTELV	-20.000	C85T18	.000
AILRON	.000	RUDDER	.000	C85T21	486.000
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85T19	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1309.0000	IN.
BREF	1328.0000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(0:3: (C85T18)

SYMBOL	DELTAZ
◇□○	.000
	162.000
	486.000

PARAMETRIC VALUES

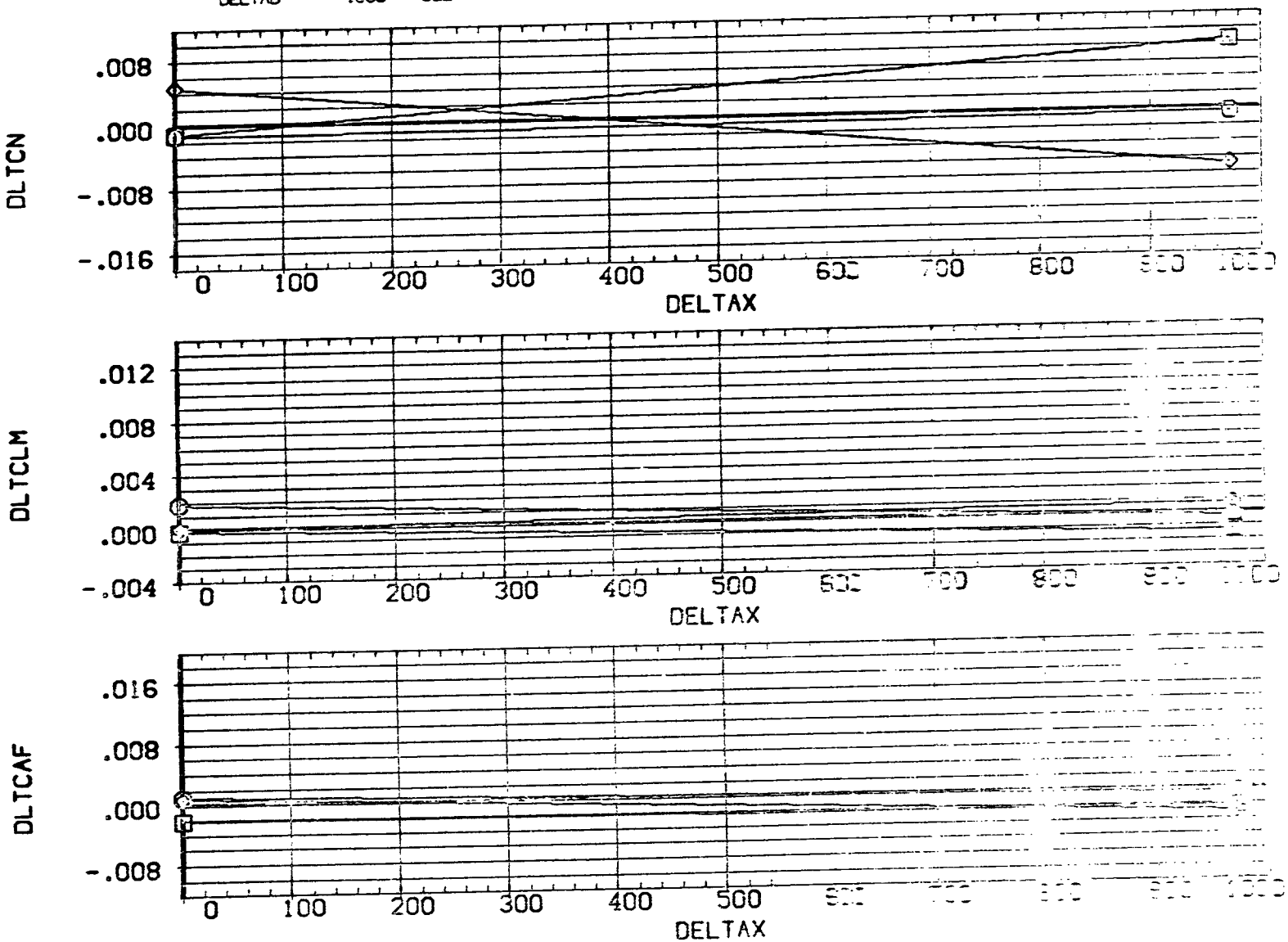
ALPHA	2.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	DLTELV	-20.000	C85T18	.000
AILRON	.000	RUDDER	.000	C85T21	486.000
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85T 9	162.000

REFERENCE INFORMATION

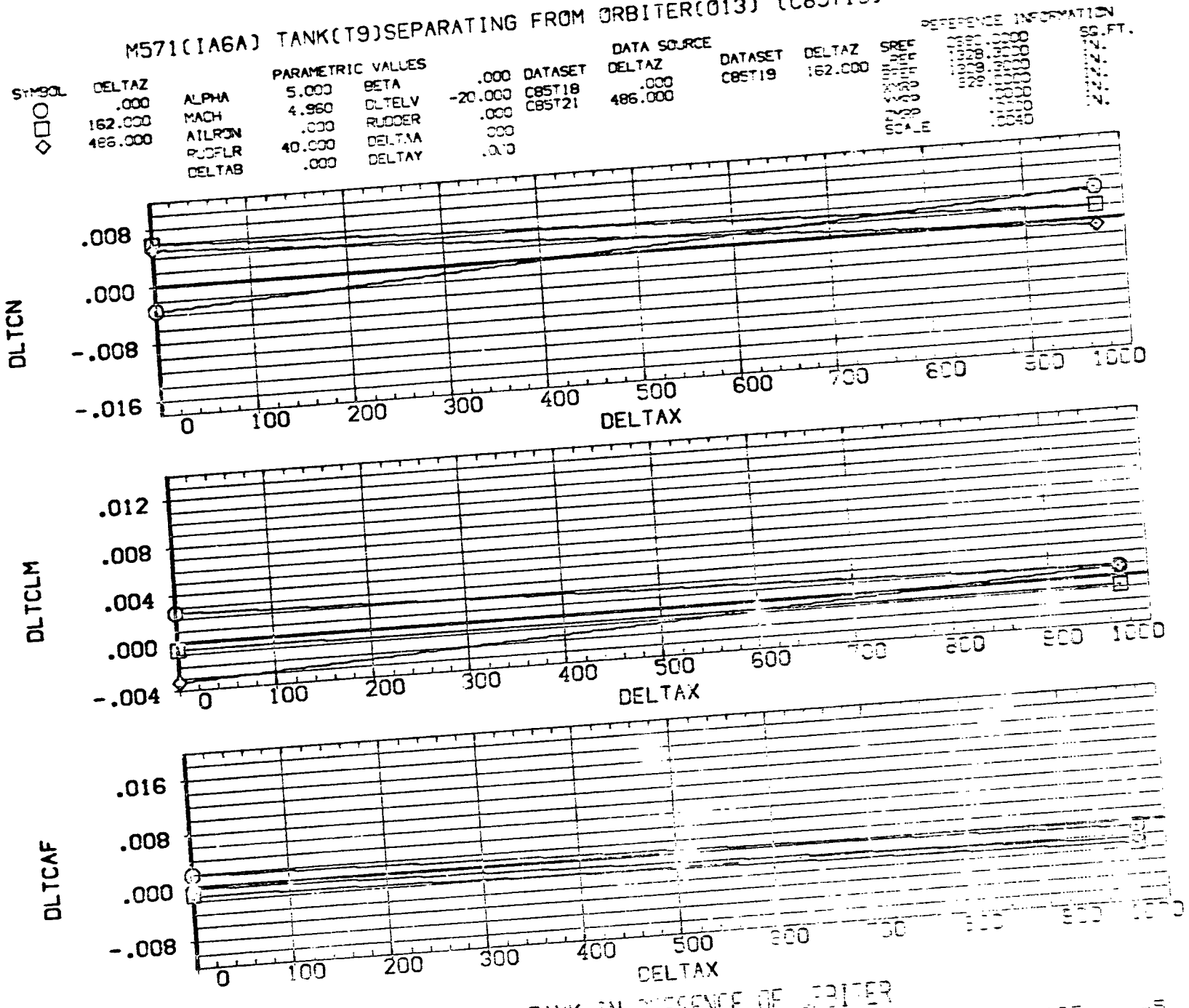
SREF	2690.0000	SQ.FT.
LREF	1328.8000	
BREF	1329.0000	
XMRP	839.0000	
YMRP	.0000	
ZMRP	.0000	
SCALE	.0040	



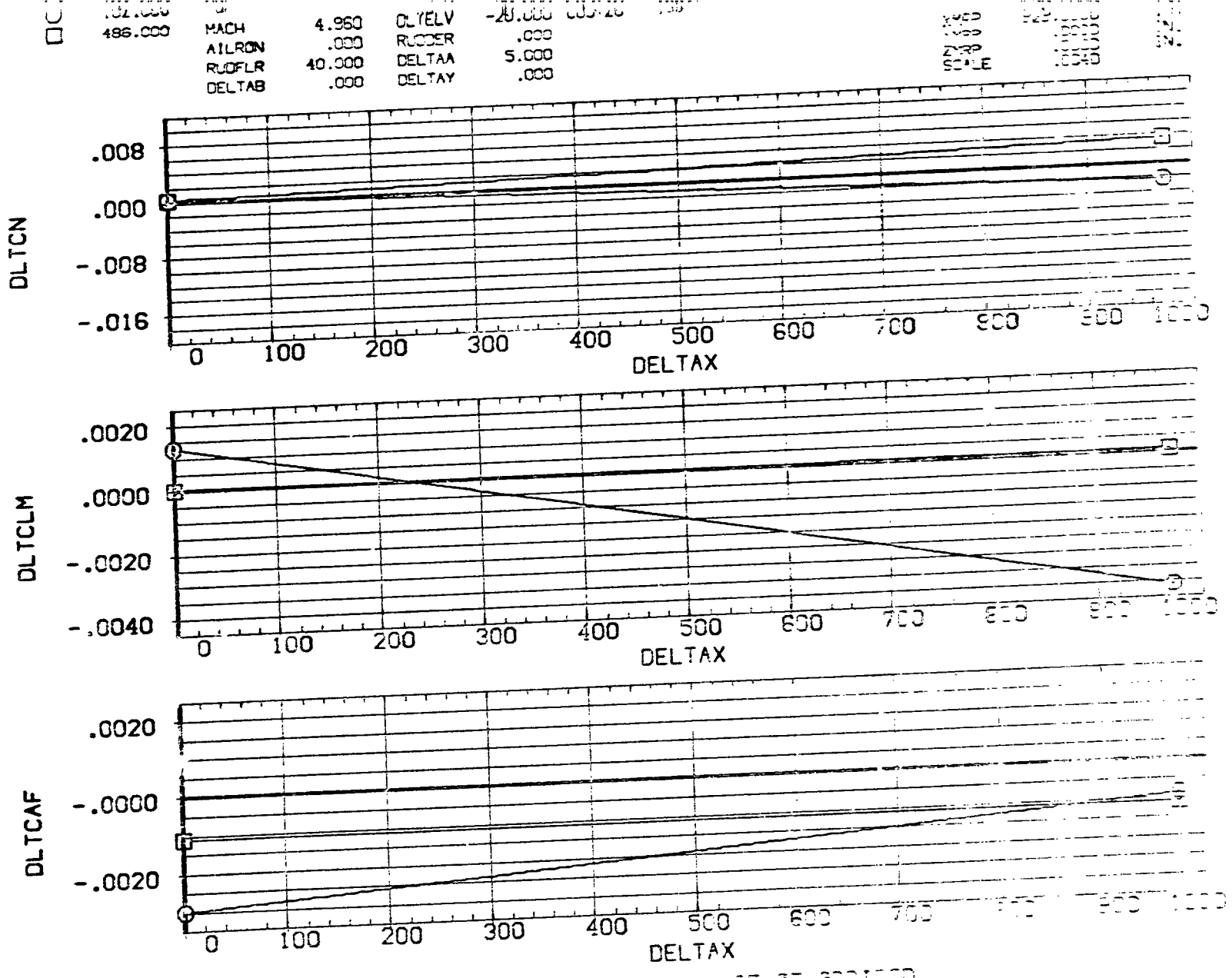
ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

PAGE 94

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T18)



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (C85T20)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

ALPHA	-2.000	BETA	.000
MACH	4.960	ELTELV	-20.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	5.000
DELTAB	.000	DELTAY	.000

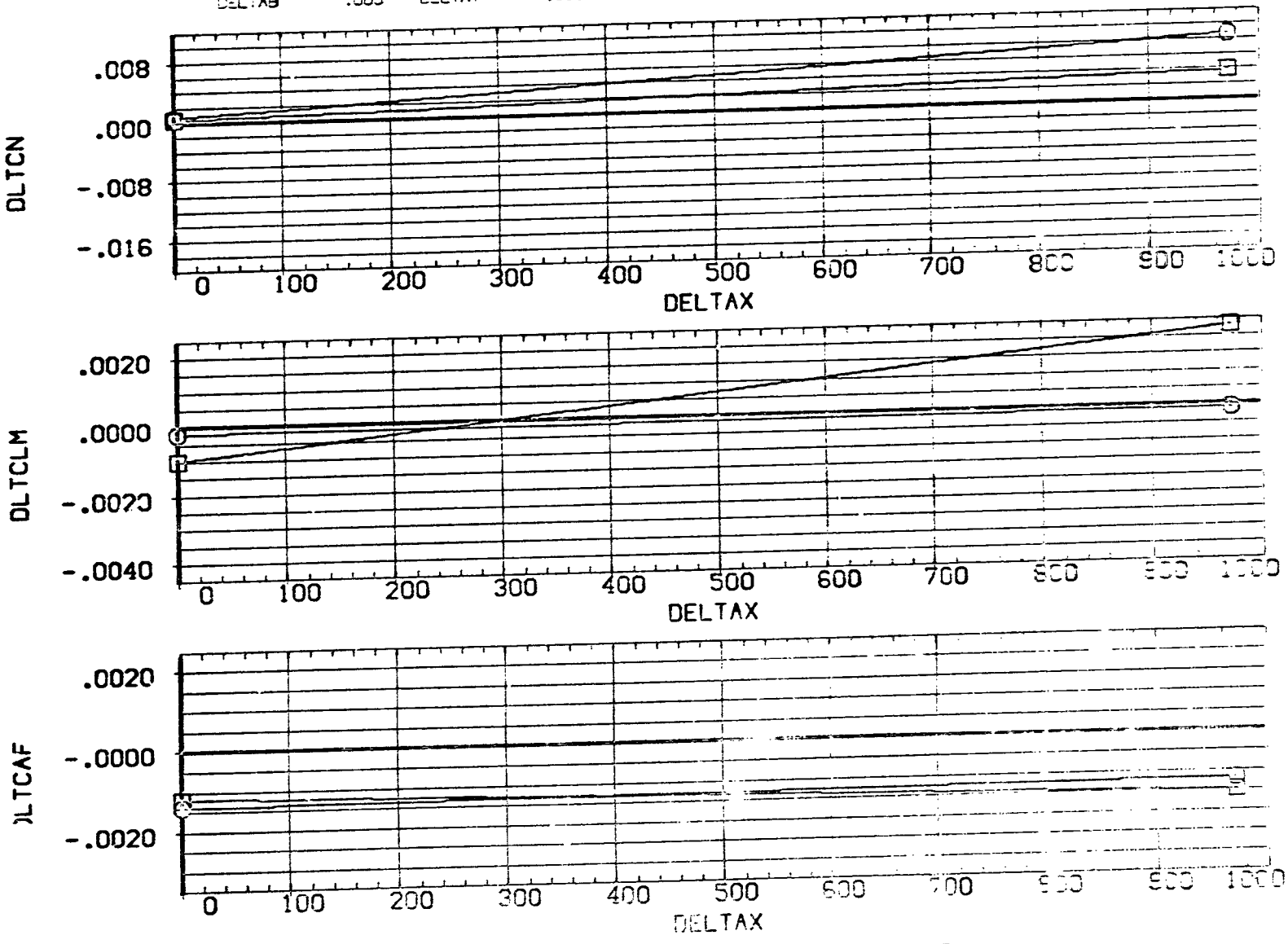
DATA SOURCE

DATASET	DELTAZ
C85T20	162.000

DATASET	DELTAZ
C85T22	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1329.3000	
BREF	329.3000	
XMSP	929.0000	
YMSP	.0000	
ZMSP	.0000	
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

SYMBOL	DELTAZ
○	162.000
□	486.000

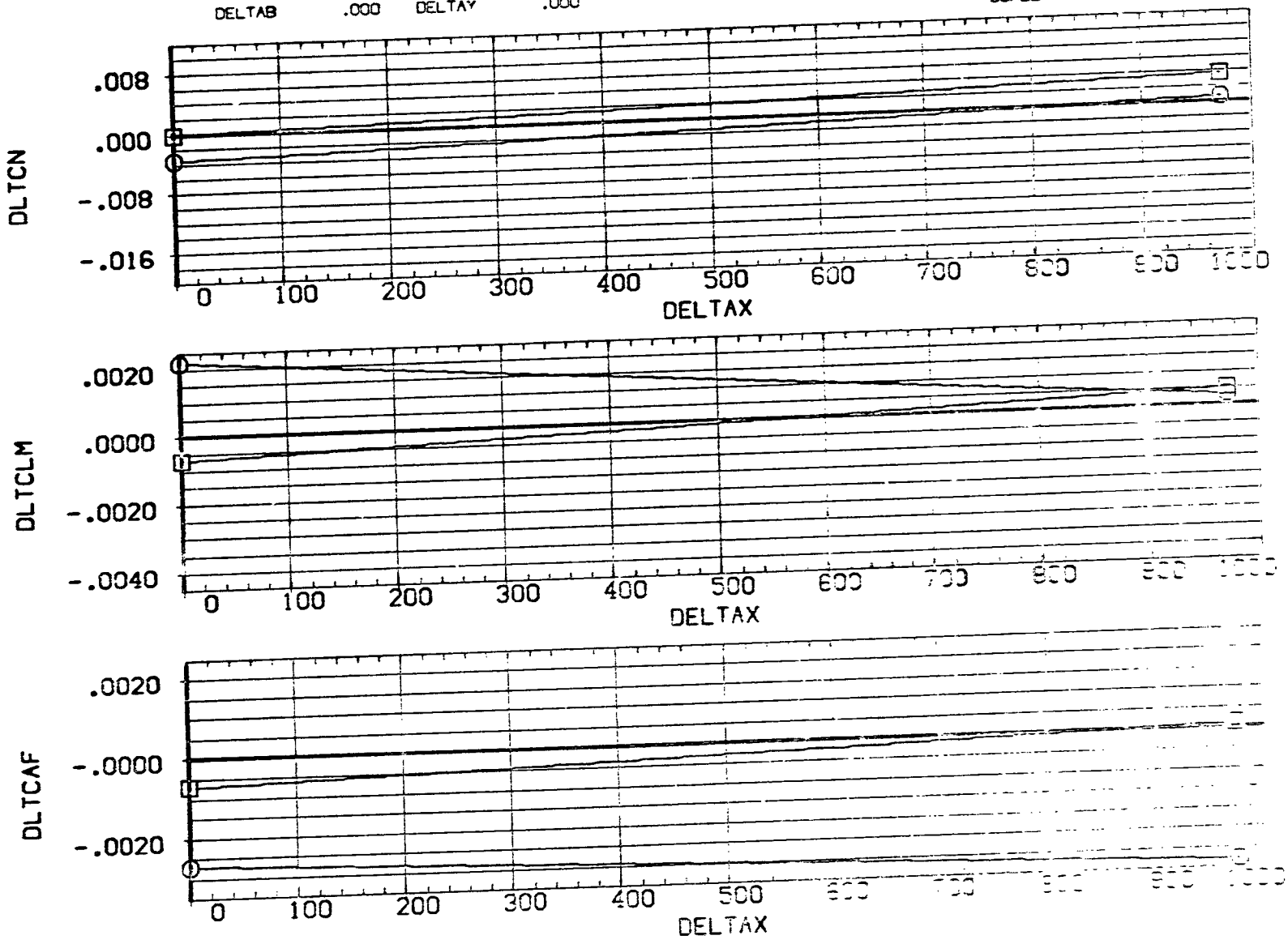
PARAMETRIC VALUES

ALPHA	.000	BETA	.000
MACH	4.960	DLTELV	-20.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTLA	5.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ
C85T20	162.000
C85T22	486.000

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(OI3 OST20)

SYMBOL	DELTAZ
○	162.000
□	495.000

PARAMETRIC VALUES

ALPHA	2.000	BETA	.000	
MACH	4.950	DLTELV	-20.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
OST20	162.000	OST20	495.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
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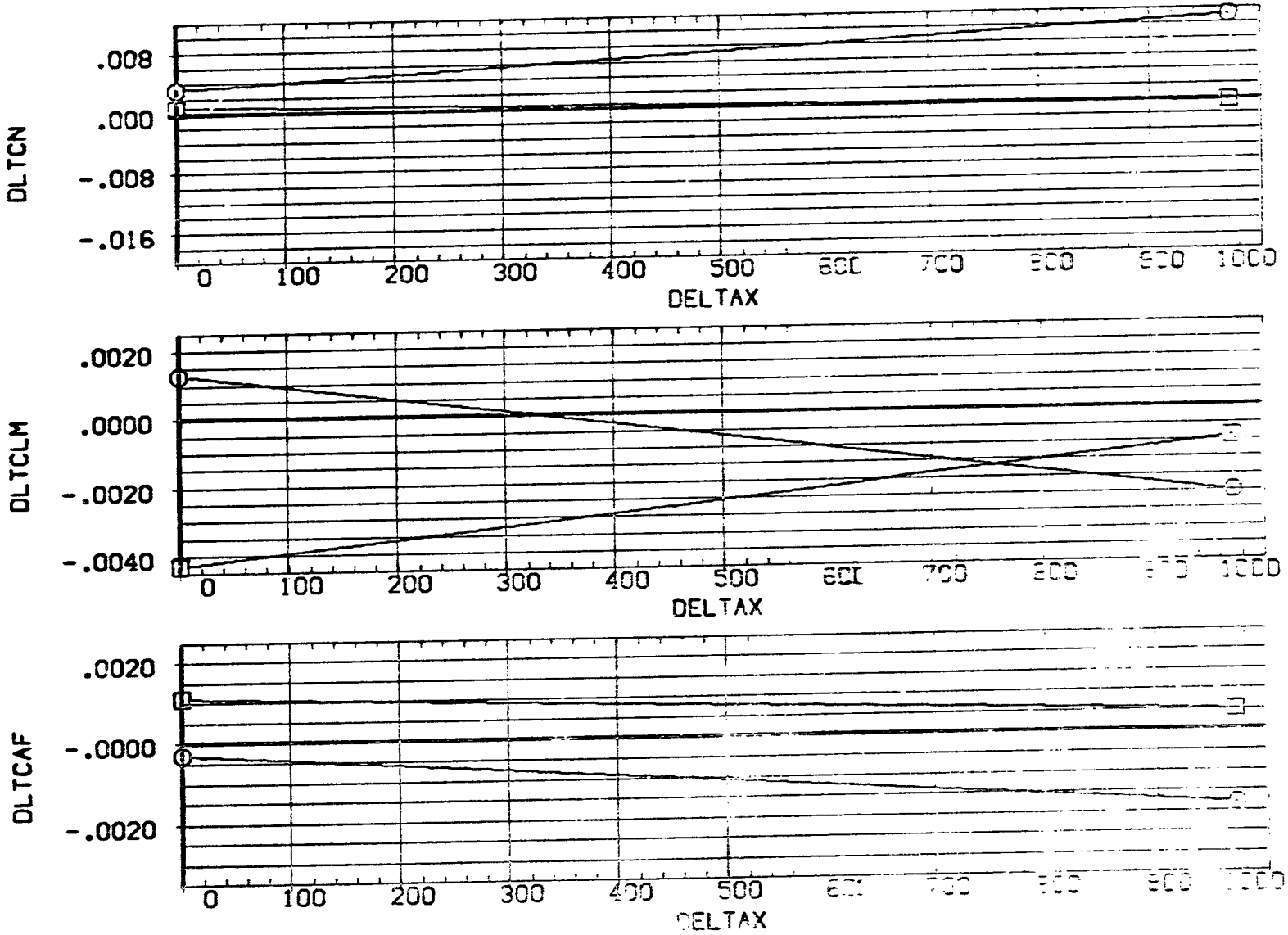
BREF	1249.3000	
XMRP	828.1000	
YMRP	.0000	
ZMRP	.0000	
SCALE	0.50	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

SYMBOL	DELTAZ
○	162.000
□	486.000

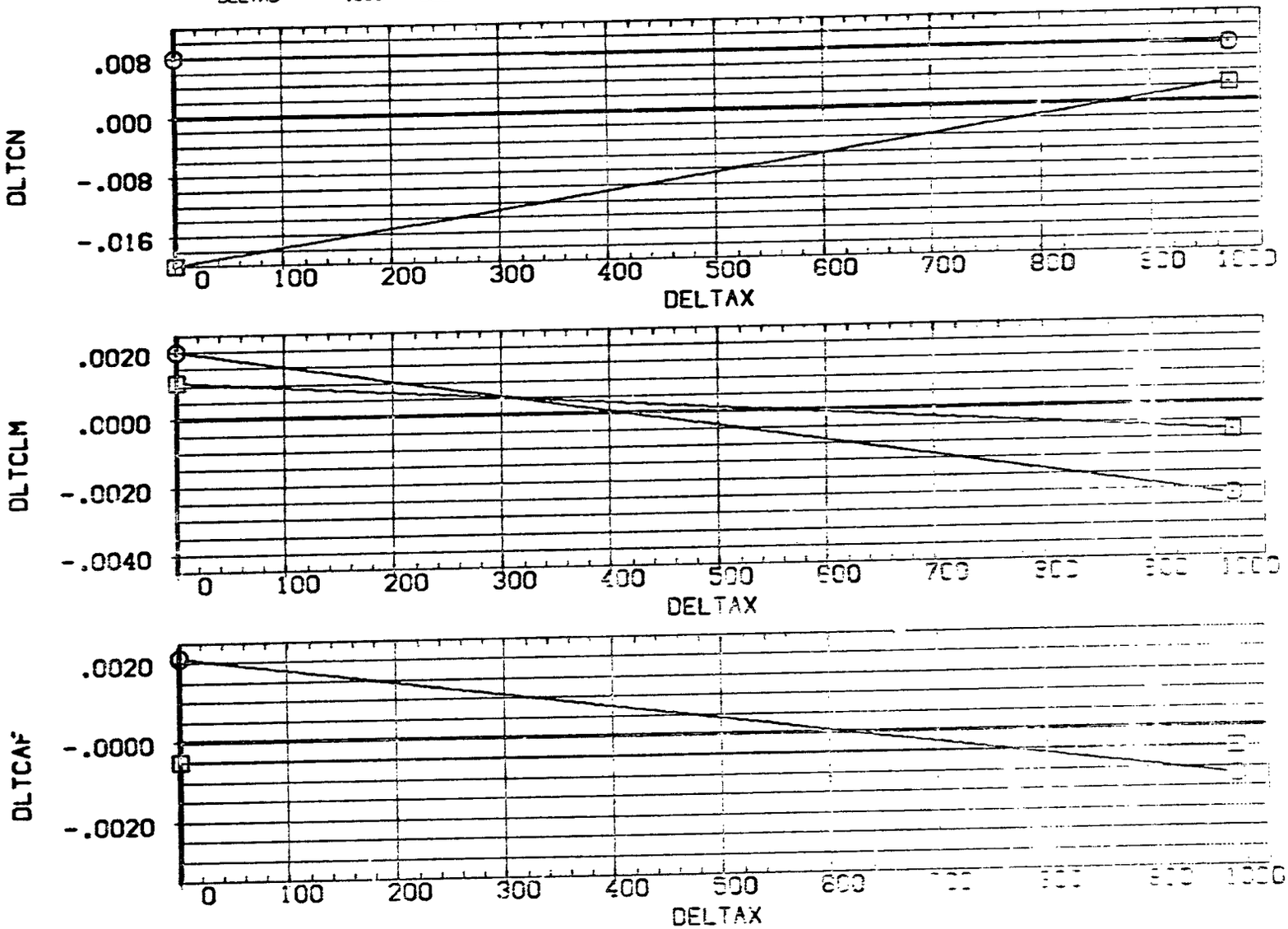
PARAMETRIC VALUES

ALPHA	5.000	BETA	.000	DATASET	C85T20
MACH	4.960	DLTELV	-20.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	162.000
DATASET	C85T22
DELTAZ	486.000

SREF	2690.0000	SQ.FT.
LREF	329.0000	IN.
BREF	1019.0000	IN.
XMRP	829.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (C85T23)

SYMBOL	DELTAZ
◇	.000
□	162.000
○	486.000

PARAMETRIC VALUES

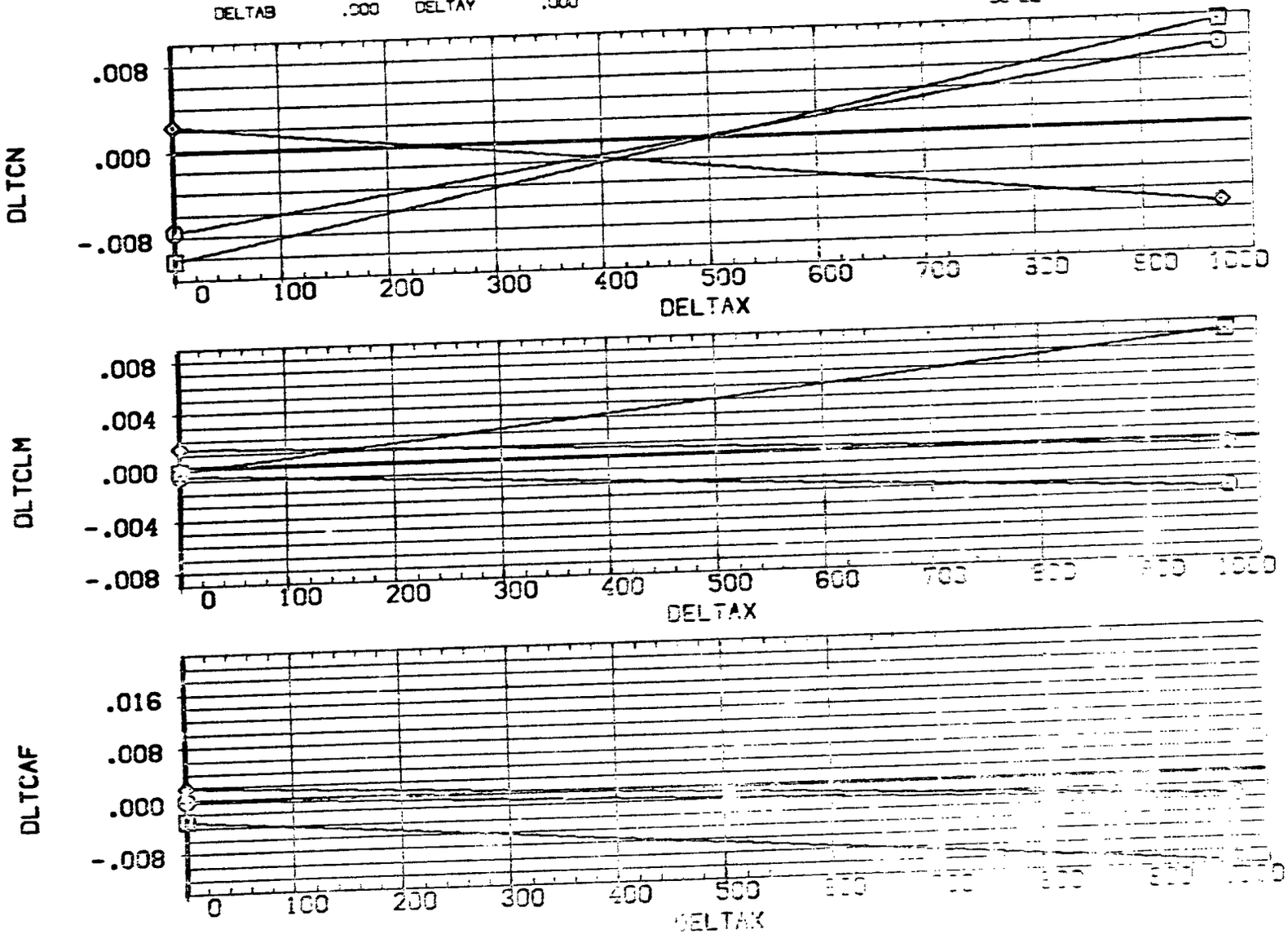
ALPHA	-5.000	BETA	.000	DATASET
MACH	4.950	DLTELV	-40.000	C85T23
AILRON	.000	RUDDER	.000	C85T26
RUDFLR	.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ
	.000
C85T24	162.000
	486.000

REFERENCE INFORMATION

SREF	2690.3000	SQ.FT.
LREF	1300.9000	IN.
BREF	1079.8000	IN.
XCG	939.1100	IN.
YCG	.0000	IN.
ZCG	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER[illegible]

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

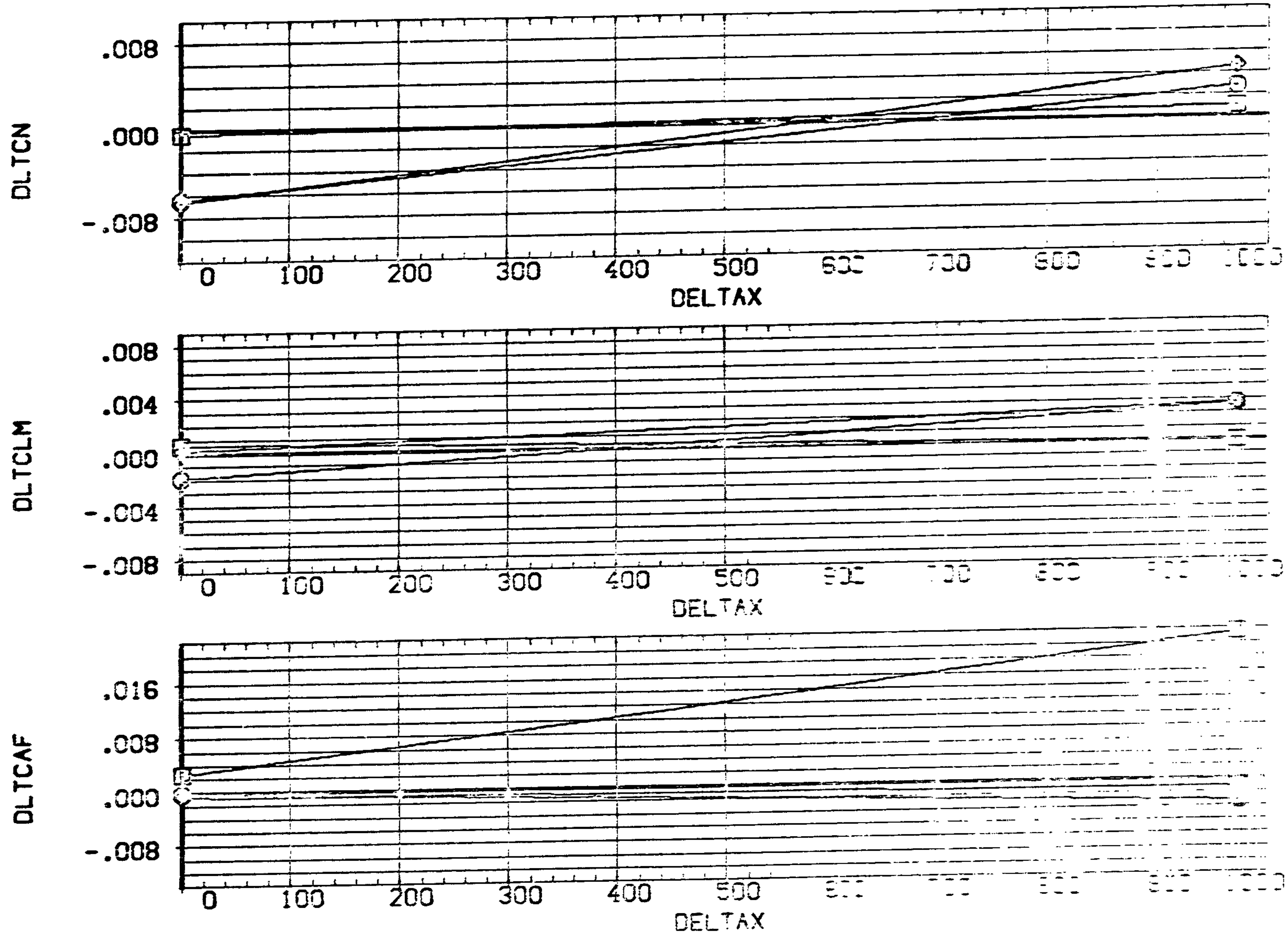
ALPHA	-2.000	BETA	.000
MACH	4.960	DLTELV	-40.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ
C85T23	.000
C85T26	486.000
C85T24	162.000

REFERENCE INFORMATION

SREF [illegible] SQ.FT.
LREF [illegible] IN.
BREF [illegible] IN.
XMRP [illegible] IN.
YMRP [illegible] IN.
ZMRP [illegible] IN.
SCALE [illegible]



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF [illegible]

PAGE [illegible]

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T23)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

ALPHA	.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	DLTELV	-40.000	C85T23	.000
AILRON	.000	RUDDER	.000	C85T26	486.000
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85T24	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1174.8000	IN.
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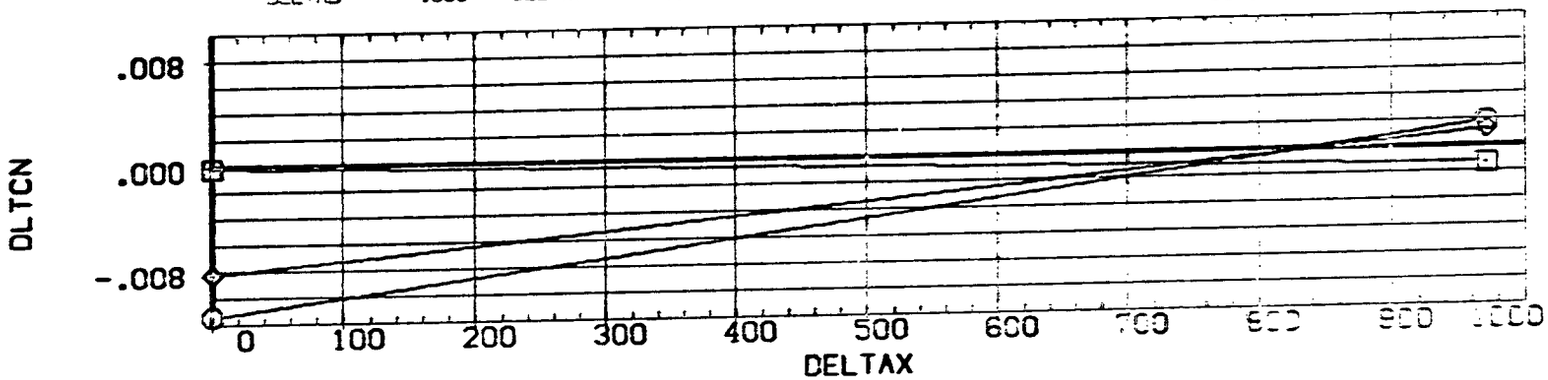
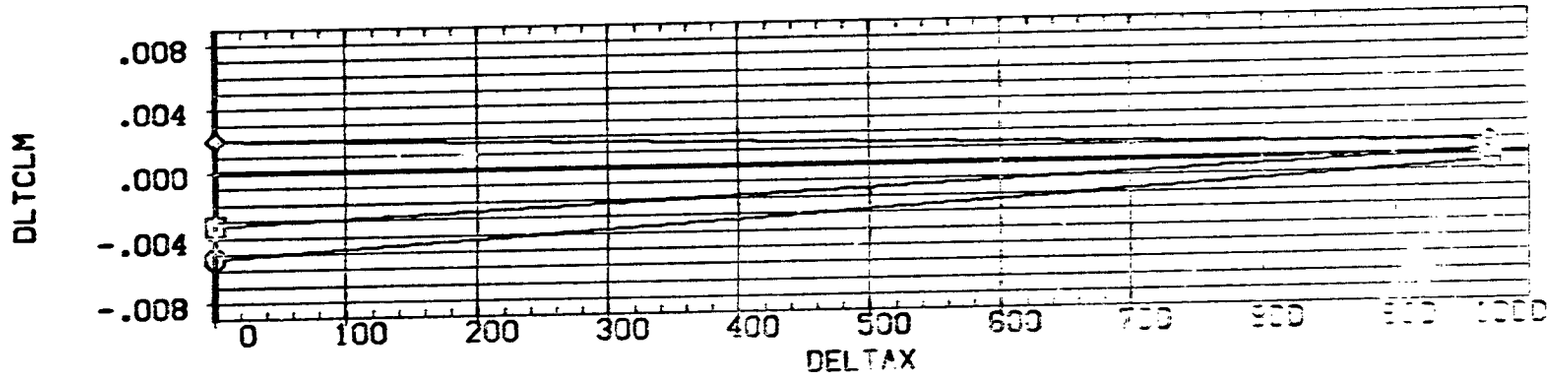
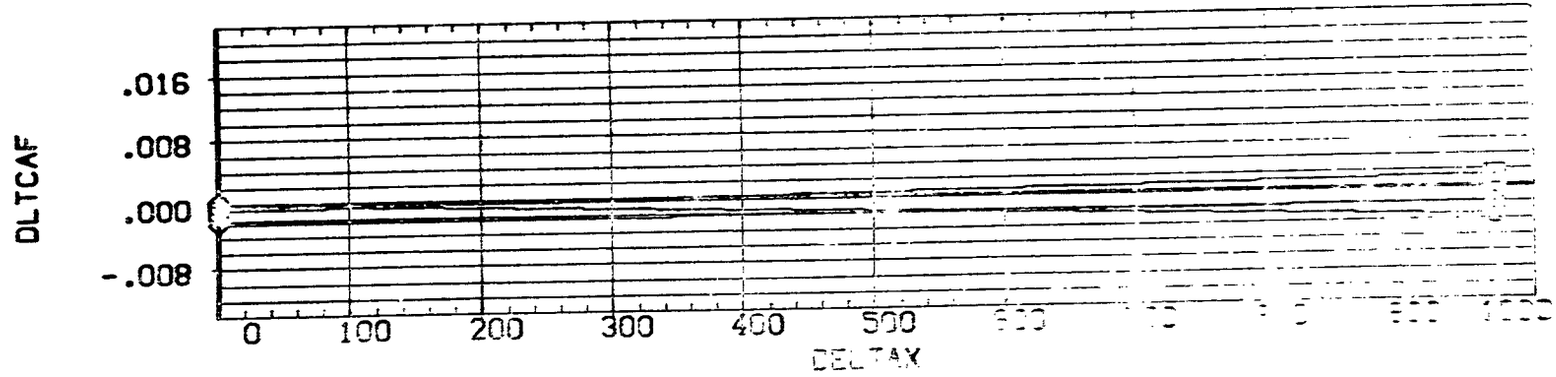
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	







ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571C1A6A1 TANK(19)SEPARATING FROM ORBITER W.T. 4777

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

PARAMETRIC VALUES

ALPHA	2.000	BETA	.000	DATASET	DELTAZ
MACH	4.960	DLTELV	-40.000	C85T23	.000
AILRON	.000	RUDDER	.000	C85T26	486.000
RUDFLR	40.000	DELTAA	.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85T24	162.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
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BREF	1289.3000	
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YMRP	.0000	
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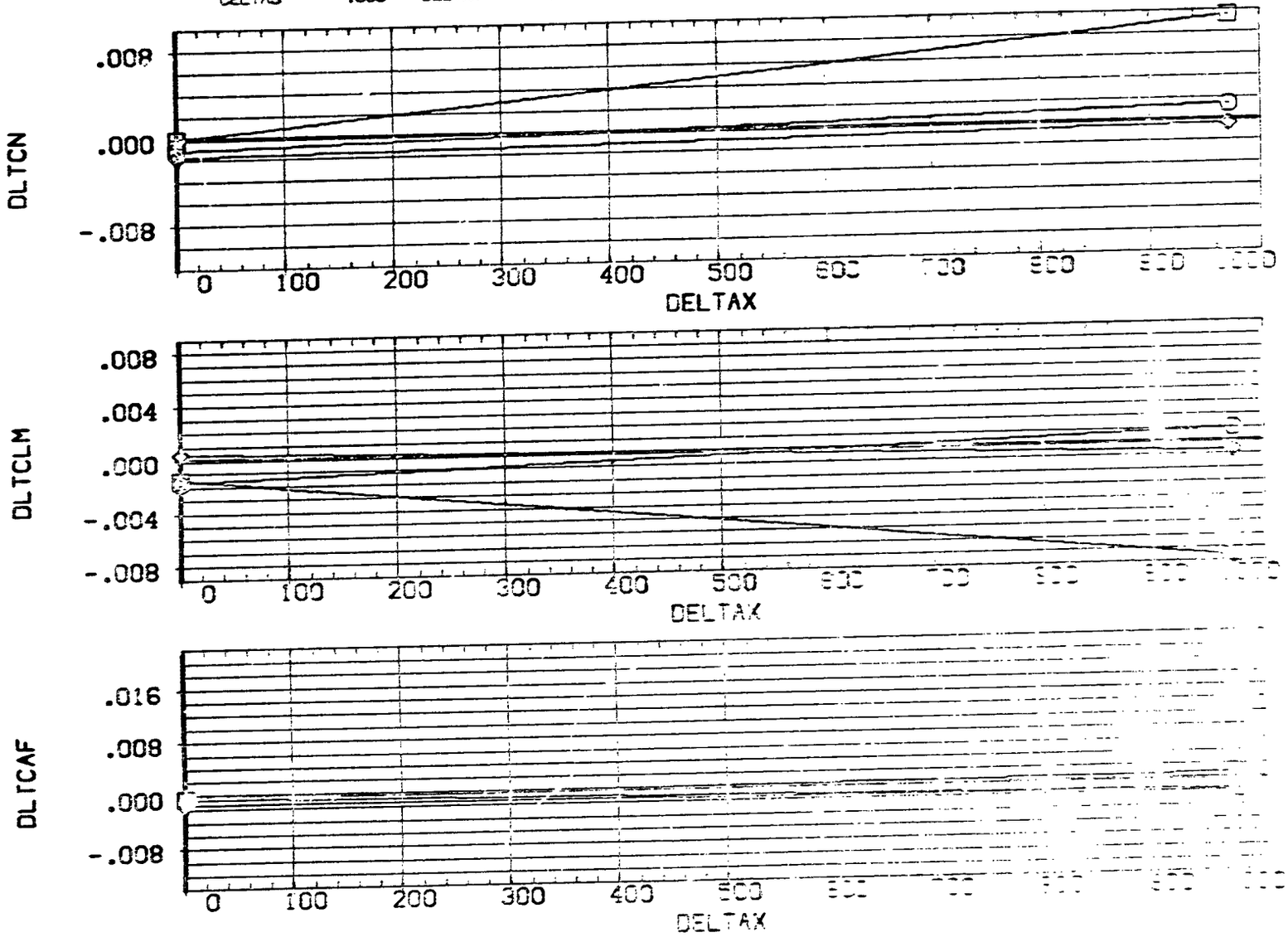
SCALE	1.000	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

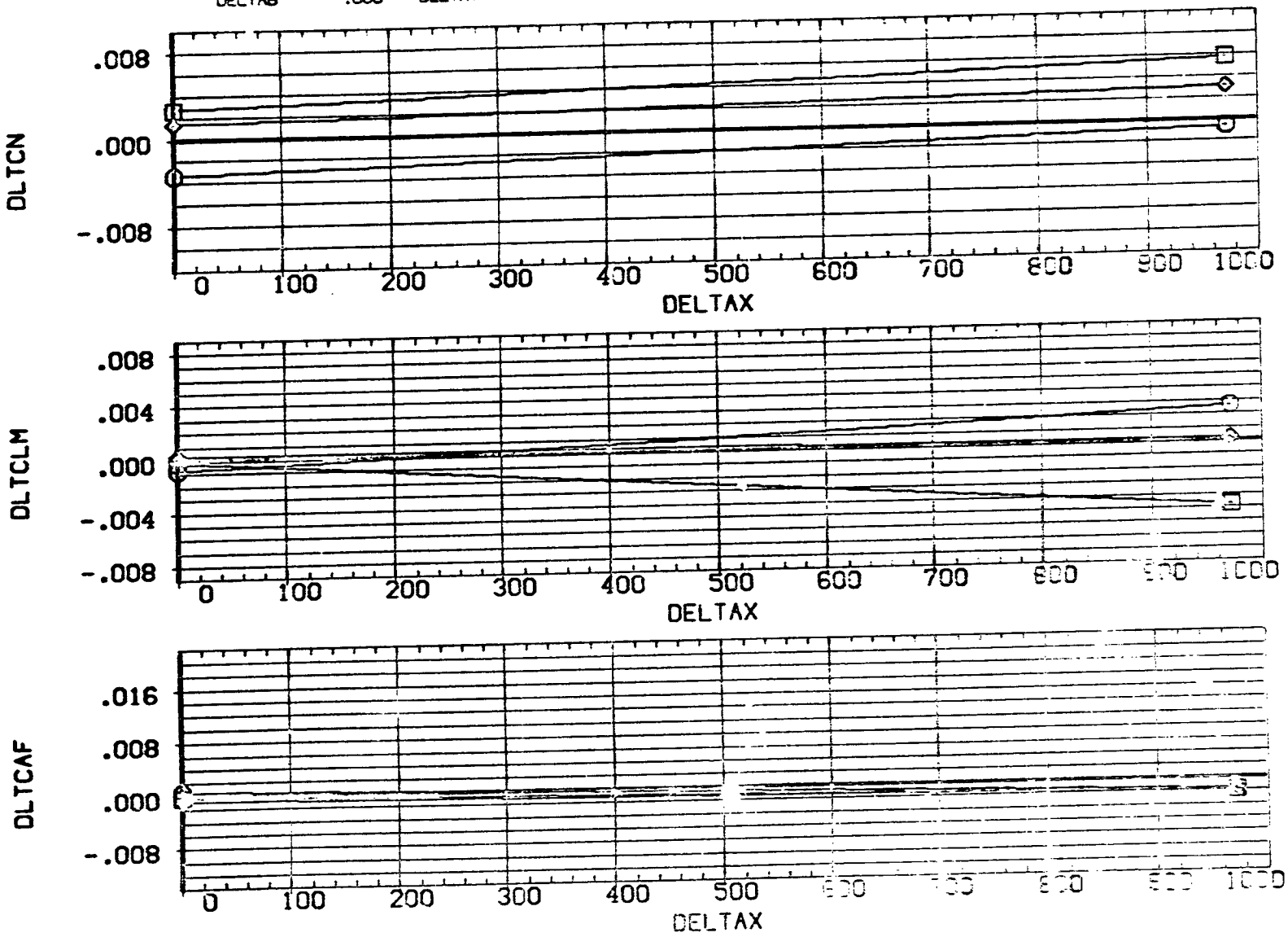
M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T23)

SYMBOL	DELTAZ
○	.000
□	162.000
◇	486.000

	PARAMETRIC VALUES			
ALPHA	5.000	BETA	.000	
MACH	4.960	DLTELV	-40.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE			
DATASET	DELTAZ	DATASET	DELTAZ
C85T23	.000	C85T24	162.000
C85T26	486.000		

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

MULTIBODY TANK CONFIGURATION [illegible]

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

ALPHA	-5.000	BETA	.000	DATASET	C85T25
MACH	4.960	DLTELV	-40.000	DELTAZ	162.000
AILRON	.000	RUDDER	.000	DATASET	C85T25
RUDFLR	40.000	DELTAA	5.000	DELTAZ	486.000
DELTAB	.000	DELTAY	.000		

DATA SOURCE

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1309.3000	IN.
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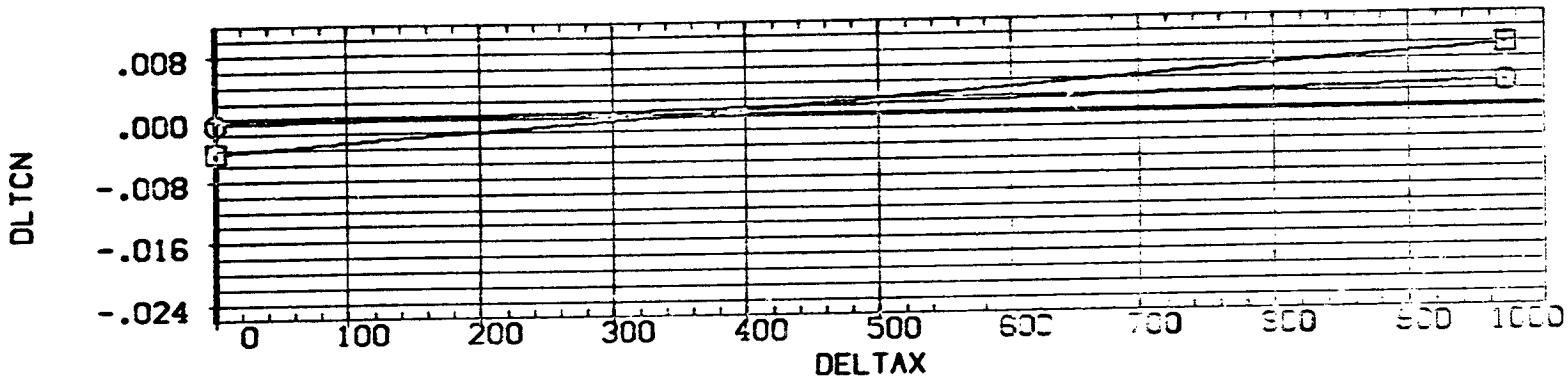
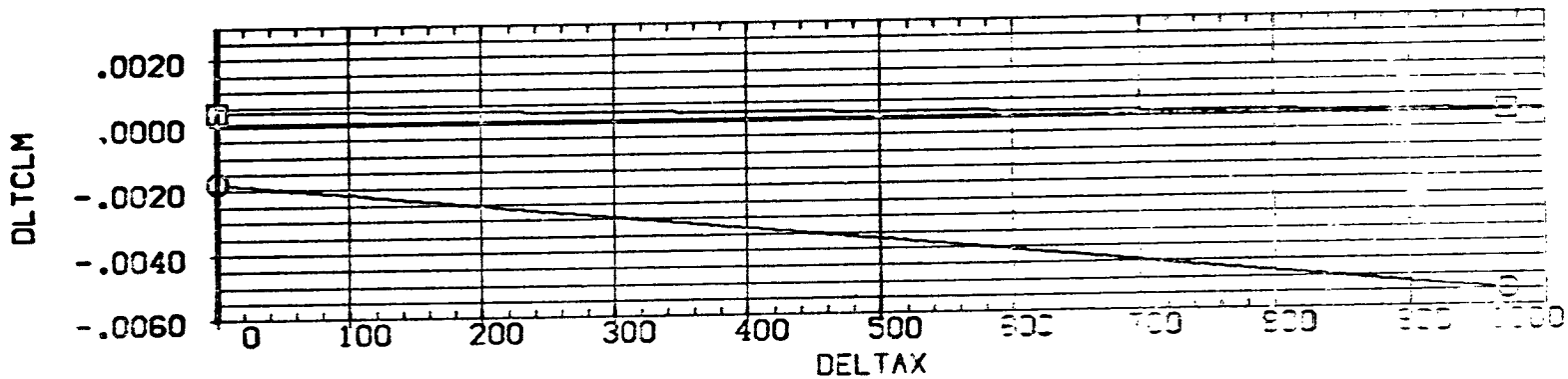
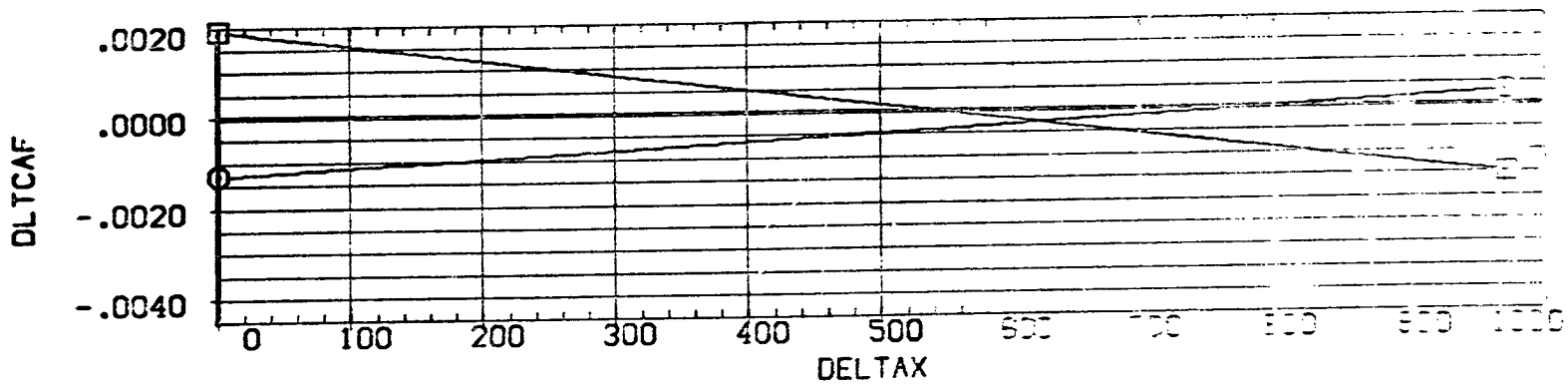
ZMRP	.0000	IN.
SCALE	.0040	







ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF [illegible]

[illegible] 88

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T25)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

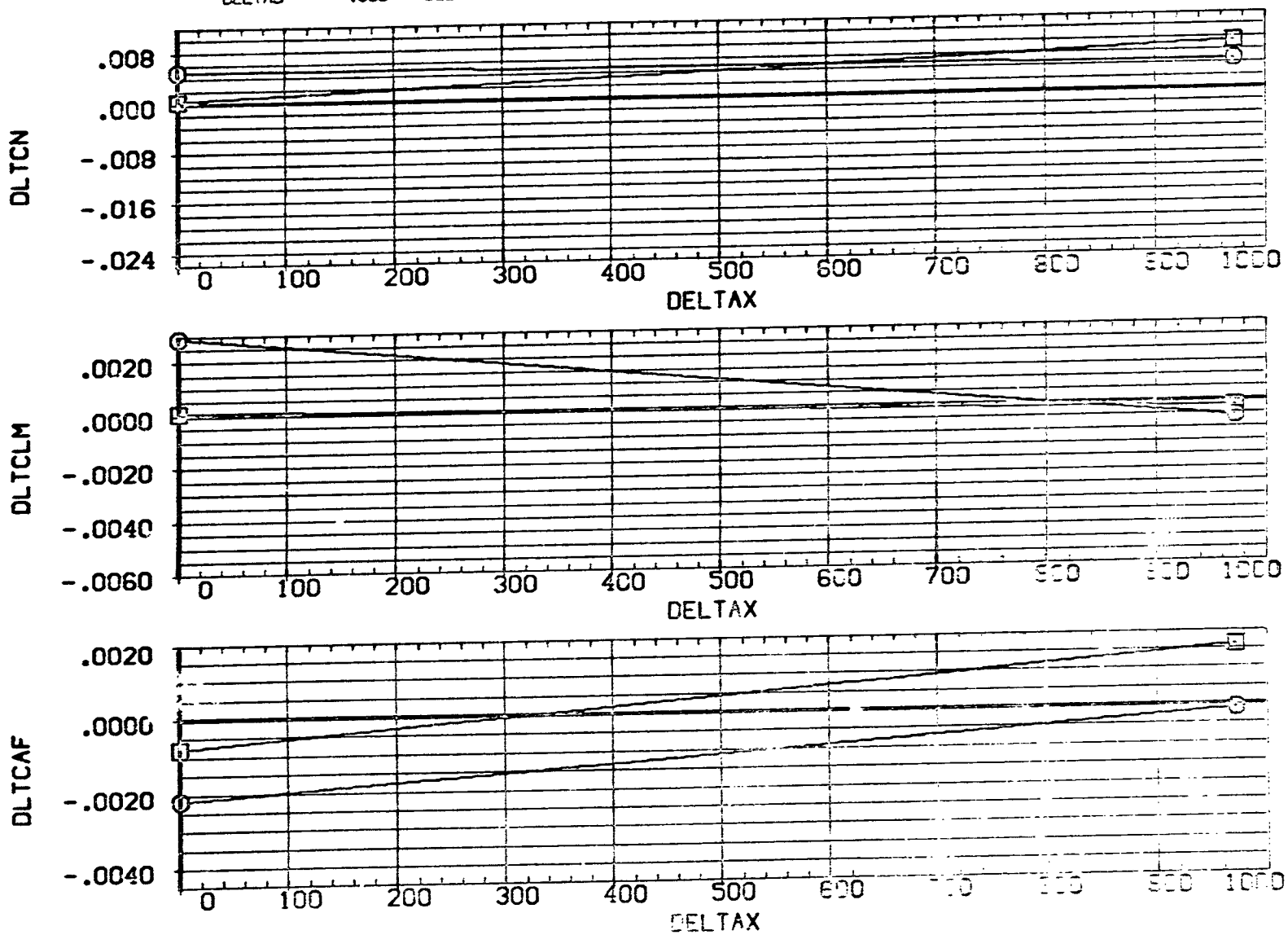
ALPHA	-2.000	BETA	.000	DATASET	C85T25
MACH	4.960	DLTELV	-40.000		
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DELTAZ	162.000	DELTAZ	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
[illegible]	929.0000	IN.
[illegible]	.0000	IN.
[illegible]	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T25)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

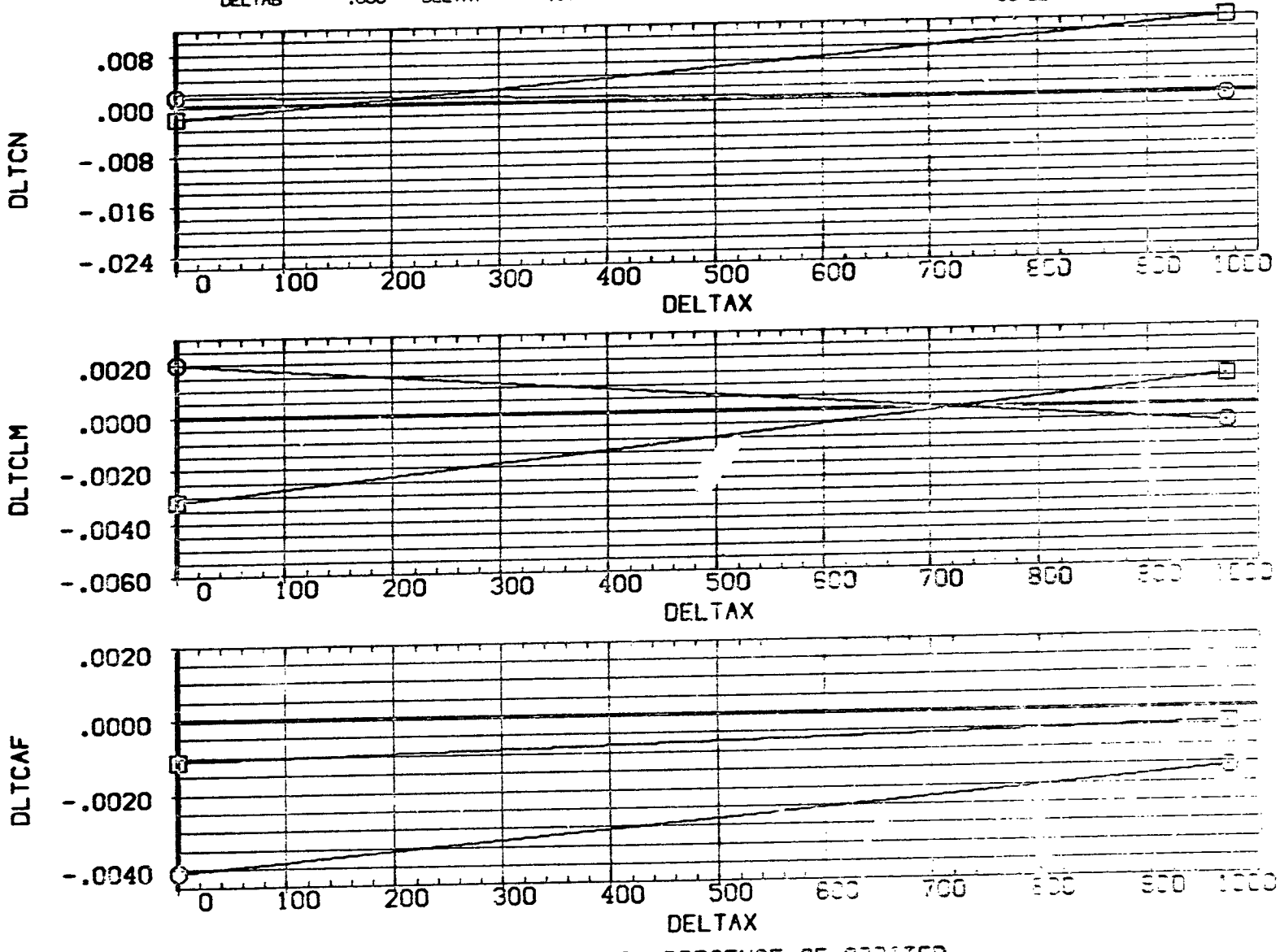
ALPHA	.000	BETA	.000	
MACH	4.960	DLTELV	-40.000	
AILRON	.000	RUDDER	.000	
RUDFLR	40.000	DELTAA	5.000	
DELTAB	.000	DELTAY	.000	

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85T25	162.000	C85T27	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (C85T25)

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

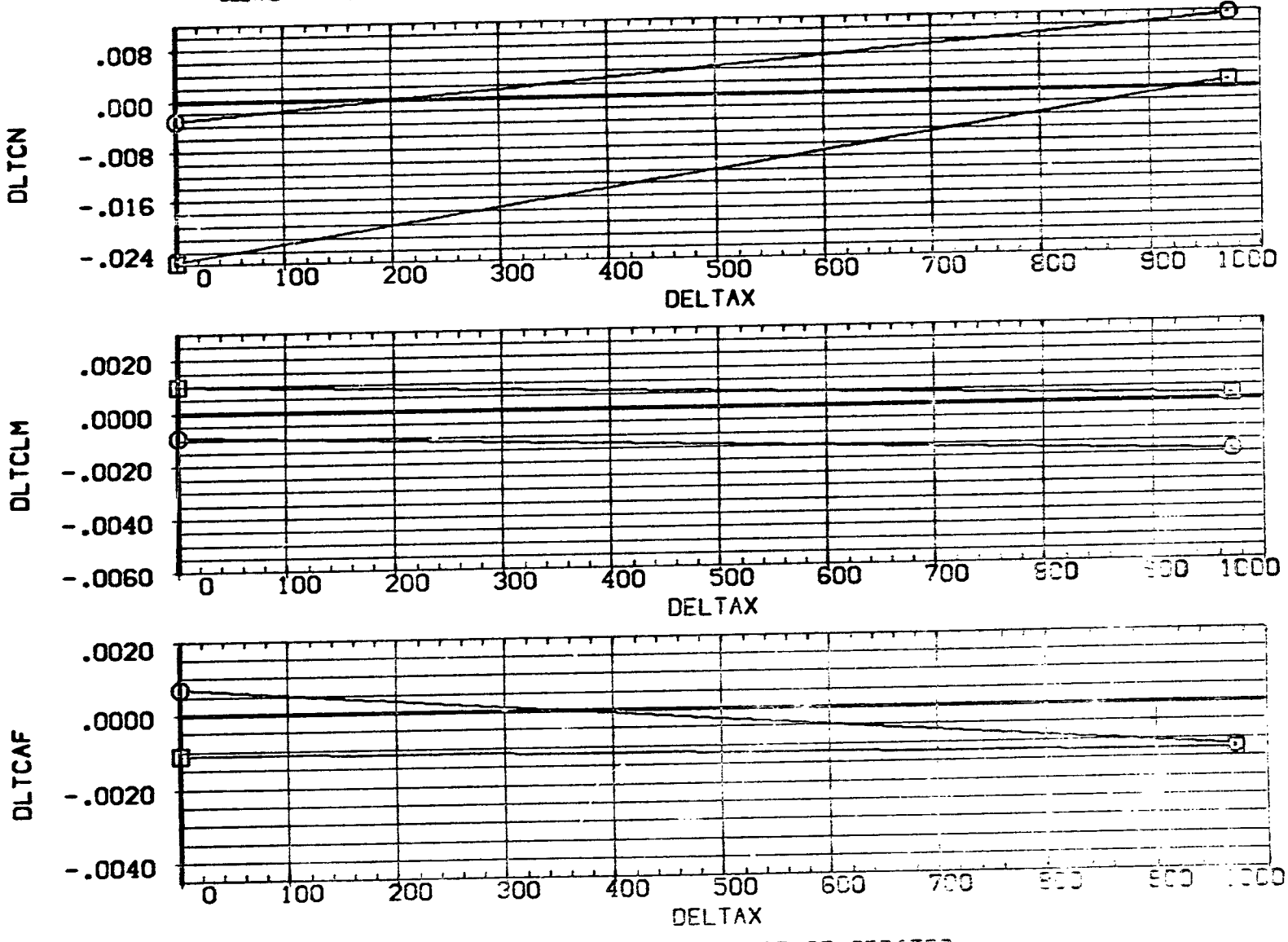
ALPHA	2.000	BETA	.000
MACH	4.960	DLTELV	-40.000
AILRON	.000	RUDDER	.000
RUDFLR	40.000	DELTAA	5.000
DELTAB	.000	DELTAY	.000

DATA SOURCE

DATASET	DELTAZ	DATASET	DELTAZ
C85T25	162.000	C85T27	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1329.3000	IN.
BREF	1329.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

SYMBOL	DELTAZ
○	162.000
□	486.000

PARAMETRIC VALUES

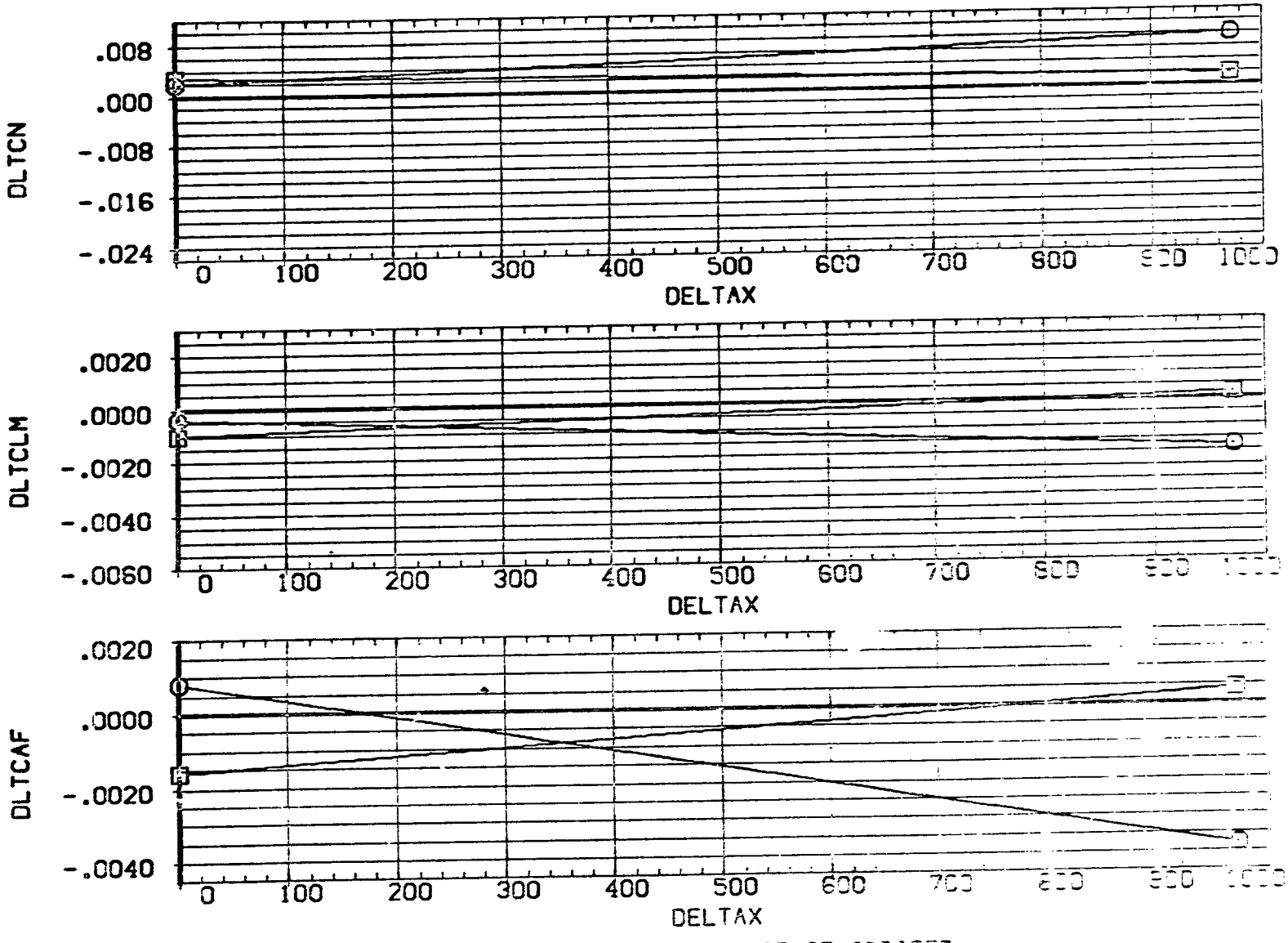
ALPHA	5.000	BETA	.000	DATASET	DELTAZ
MACH	4.950	DLTELV	-40.000	C85T25	162.000
AILRON	.000	RUDDER	.000		
RUDFLR	40.000	DELTAA	5.000		
DELTAB	.000	DELTAY	.000		

DATA SOURCE

DATASET	DELTAZ
C85T27	486.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	928.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



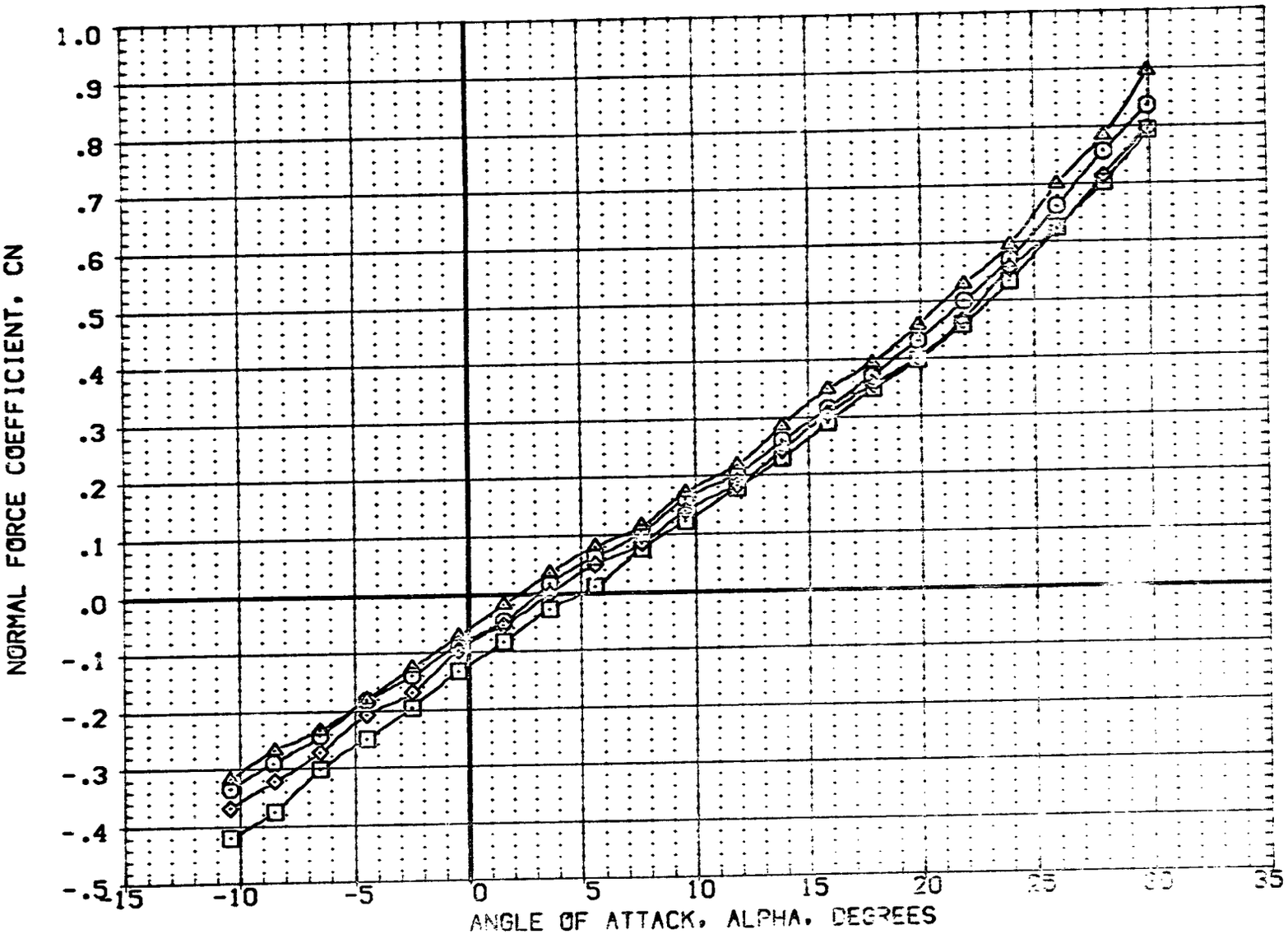
ELEVON EFFECTIVENESS- EXTERNAL TANK IN PRESENCE OF ORBITER

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(S85I04)	□	M57I(IASA) MATED CONFIGURATION (013T9)
(S85I03)	◇	M57I(IASA) MATED CONFIGURATION (013T9)
(S85I01)	○	M57I(IASA) MATED CONFIGURATION (013T9)
(S85I02)	△	M57I(IASA) MATED CONFIGURATION (013T9)

MACH	ELEVTR	AILRON	RUDFLR
4.960	-40.000	.000	40.000
4.960	-20.000	.000	40.000
4.960	.000	.000	40.000
4.960	10.000	.000	40.000

REFERENCE INFORMATION

SREF	2650.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	635.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



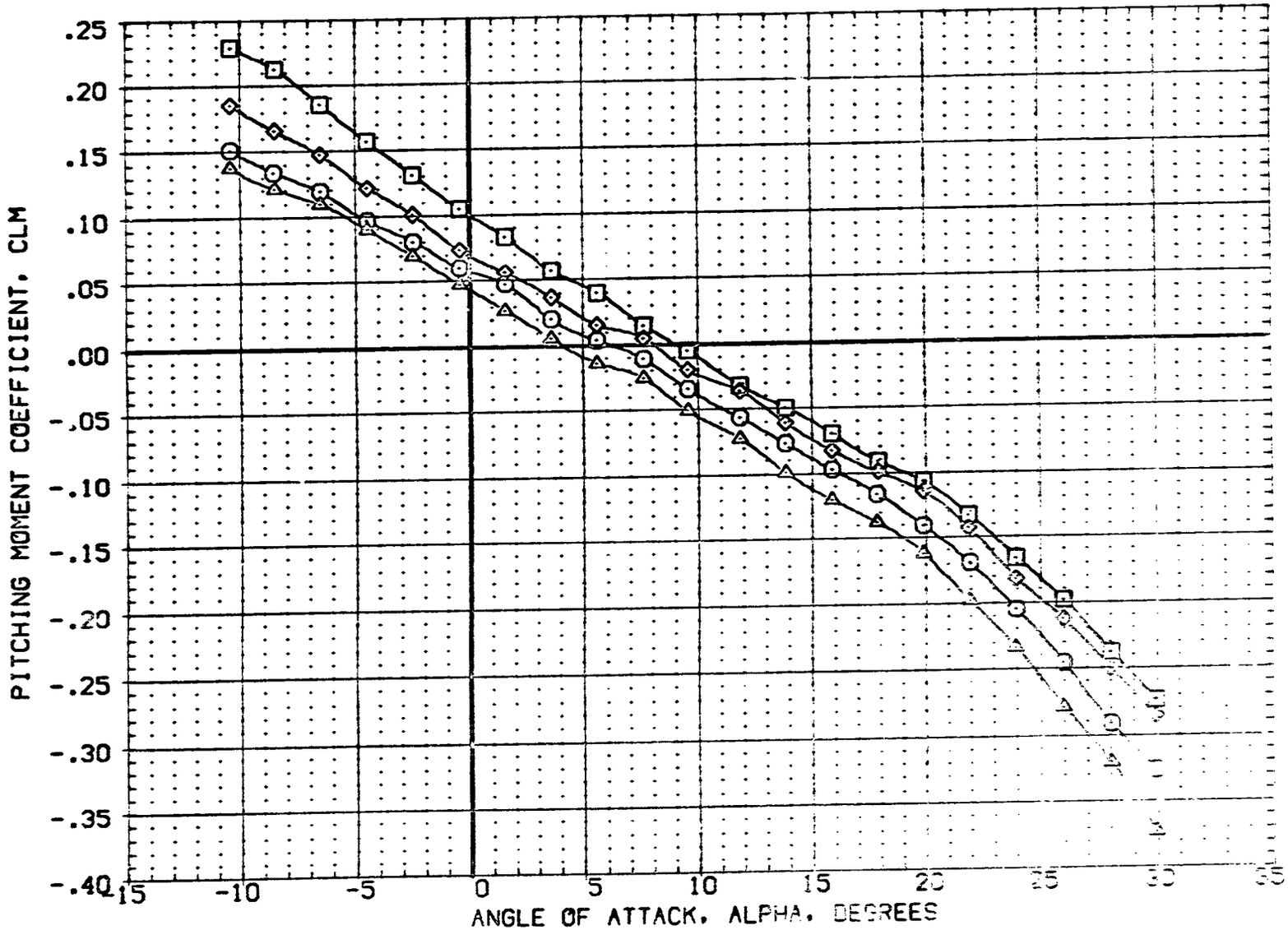
BASIC DATA- INTEGRATED VEHICLE- ELEVON EFFECTIVENESS

(A)DELTAX= .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(S85I04)	□	M571(IA6A) MATED CONFIGURATION (013T9)
(S85I03)	◇	M571(IA6A) MATED CONFIGURATION (013T9)
(S85I01)	○	M571(IA6A) MATED CONFIGURATION (013T9)
(S85I02)	△	M571(IA6A) MATED CONFIGURATION (013T9)

4.960	-40.000	.000	40.000	SREF	2650.0000	SQ.FT.
4.960	-20.000	.000	40.000	LREF	1328.3000	IN.
4.960	.000	.000	40.000	BREF	1328.3000	IN.
4.960	10.000	.000	40.000	XMRP	535.0000	IN.
				YMRP	.0000	IN.
				ZMRP	.0000	IN.
				SCALE	.0040	



BASIC DATA- INTEGRATED VEHICLE- ELEVON EFFECTIVENESS

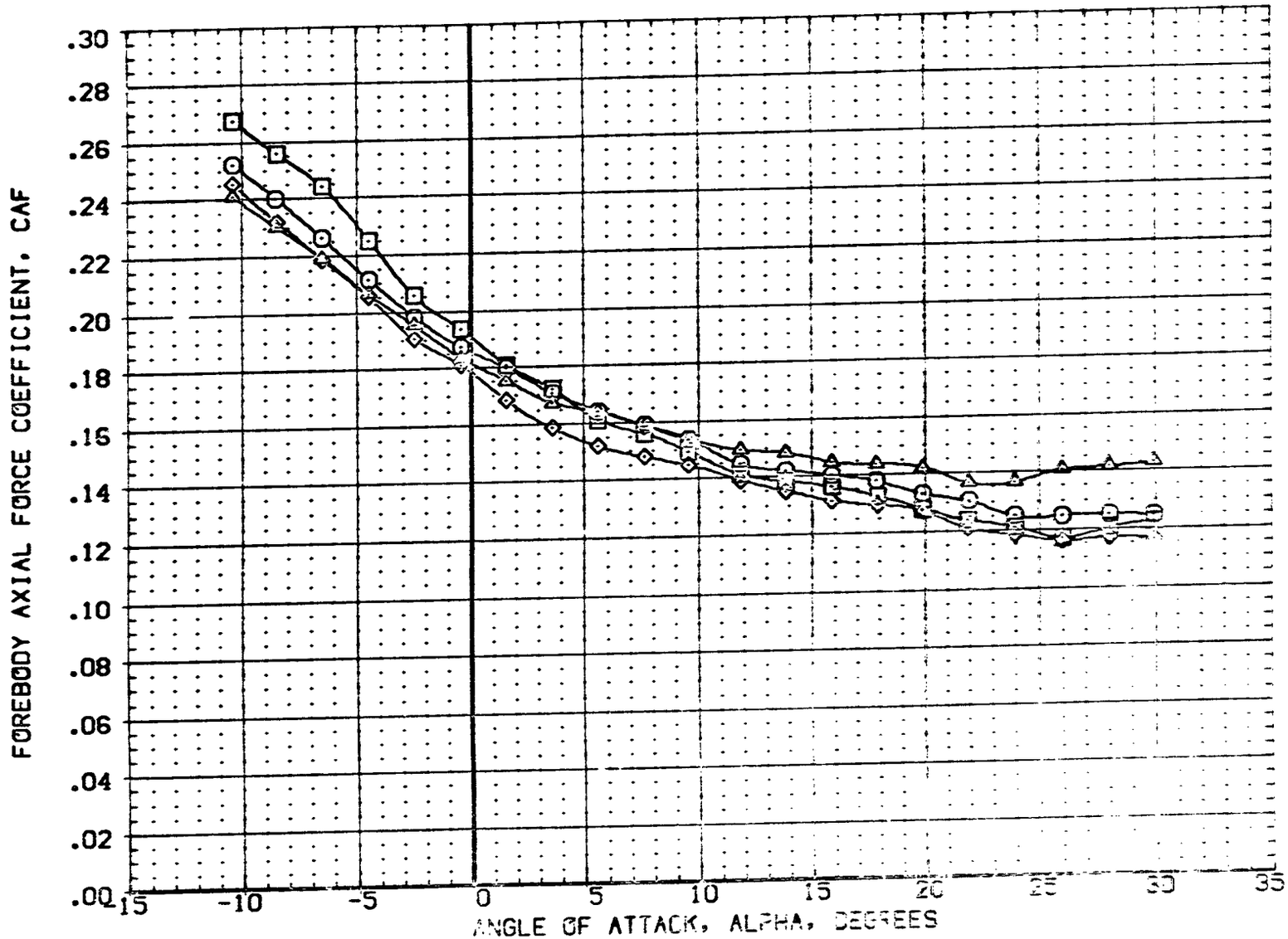
(A)DELTAX= .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(S85104)	□	M571((ASA) MATED CONFIGURATION (013T9)
(S85103)	◇	M571((ASA) MATED CONFIGURATION (013T9)
(S85101)	◇	M571((ASA) MATED CONFIGURATION (013T9)
(S85102)	△	M571((ASA) MATED CONFIGURATION (013T9)

MACH	ELEVTR	AILRON	RUDFLR
4.960	-40.000	.000	40.000
4.960	-20.000	.000	40.000
4.960	.000	.000	40.000
4.960	10.000	.000	40.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	836.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



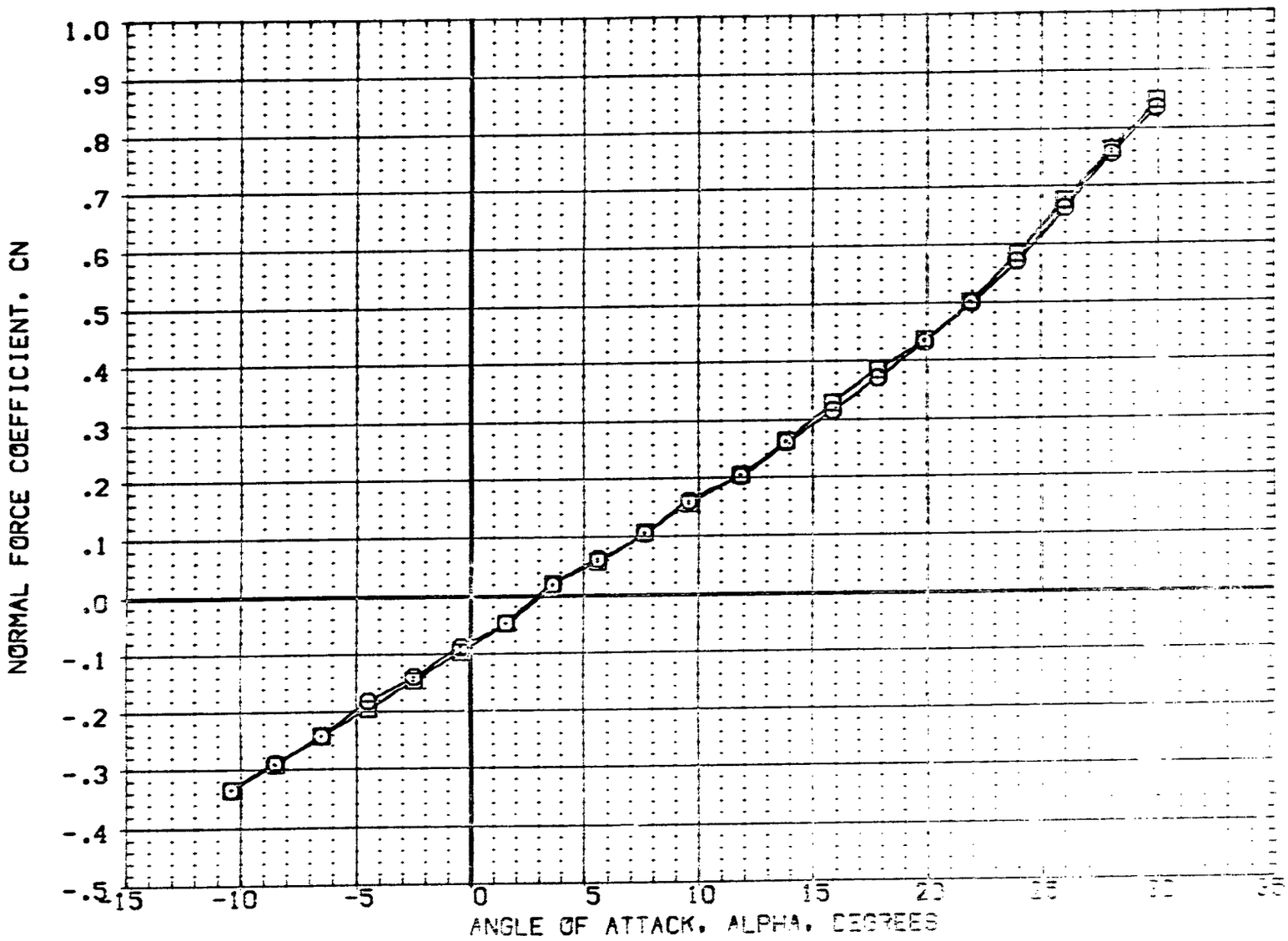
BASIC DATA- INTEGRATED VEHICLE- ELEVON EFFECTIVENESS

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	MACH	ELEVTR	AILRON	RUDFLR
(S85101)	M571((ASA) MATED CONFIGURATION (013T9)	4.960	.000	.000	40.000
(S85105)	M571((ASA) MATED CONFIGURATION (013T9)	4.960	.000	10.000	40.000

REFERENCE INFORMATION

SREF	2560.0000	SQ.FT.
LREF	1315.3600	IN.
BREF	1920.9600	IN.
XMRP	936.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



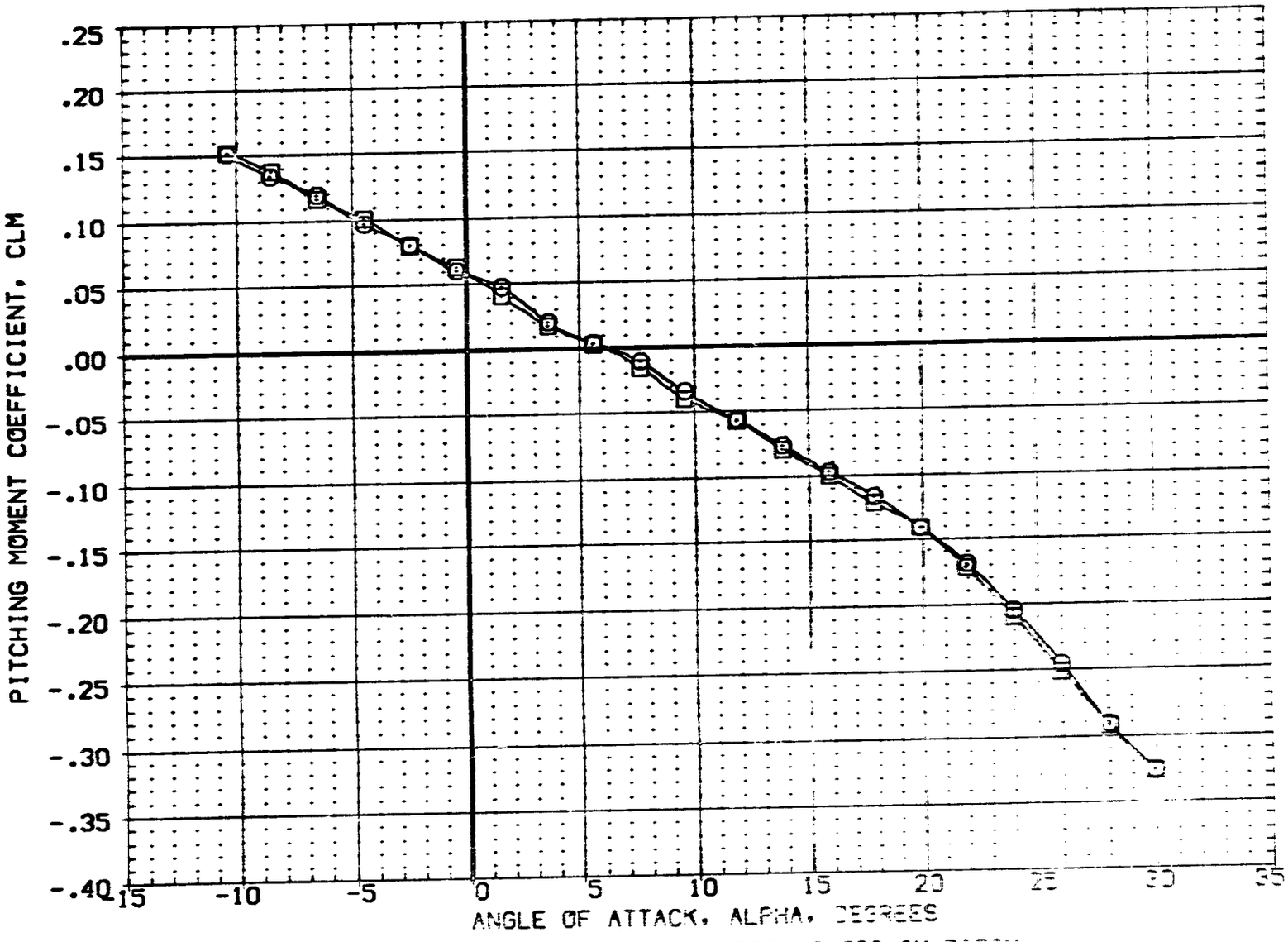
BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS [illegible]

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	MACH	ELEVTR	AILRON	FLOFLR
(S85I01) ○	M57((A6A) MATED CONFIGURATION (013T9)	4.960	.000	.000	40.000
(S85I05) □	M57((A6A) MATED CONFIGURATION (013T9)	4.960	.000	10.000	40.000

REFERENCE INFORMATION

SREF	2680.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	995.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN PITCH

(A)DELTAX= .00

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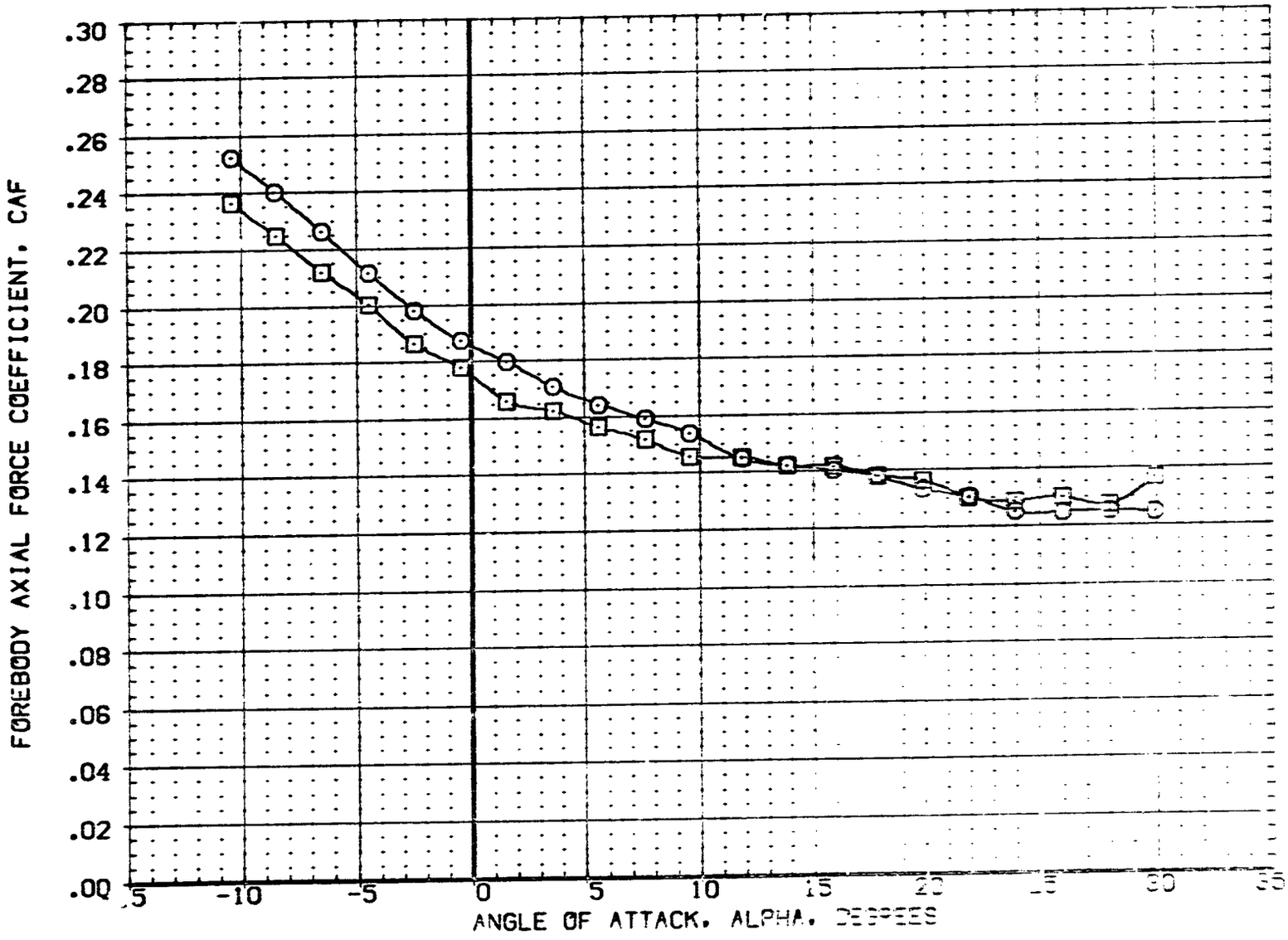
DATA SET SYMBOL		CONFIGURATION DESCRIPTION	MACH	ELEVTR	AILERON	RUDFLR
(S85101)	○	MS71(IASA) MATED CONFIGURATION (013T9)	4.960	.000	.000	40.000
(S85105)	□	MS71(IASA) MATED CONFIGURATION (013T9)	4.960	.000	.000	40.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1338.8000	
BREF	1149.3000	
XMRC	835.0000	
YMRC	.0000	
ZMRC	.0000	
SCALE	1.0000	



BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN PITCH

(A)DELTAX= .00

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DATA SET SYMBOL CONFIGURATION DESCRIPTION

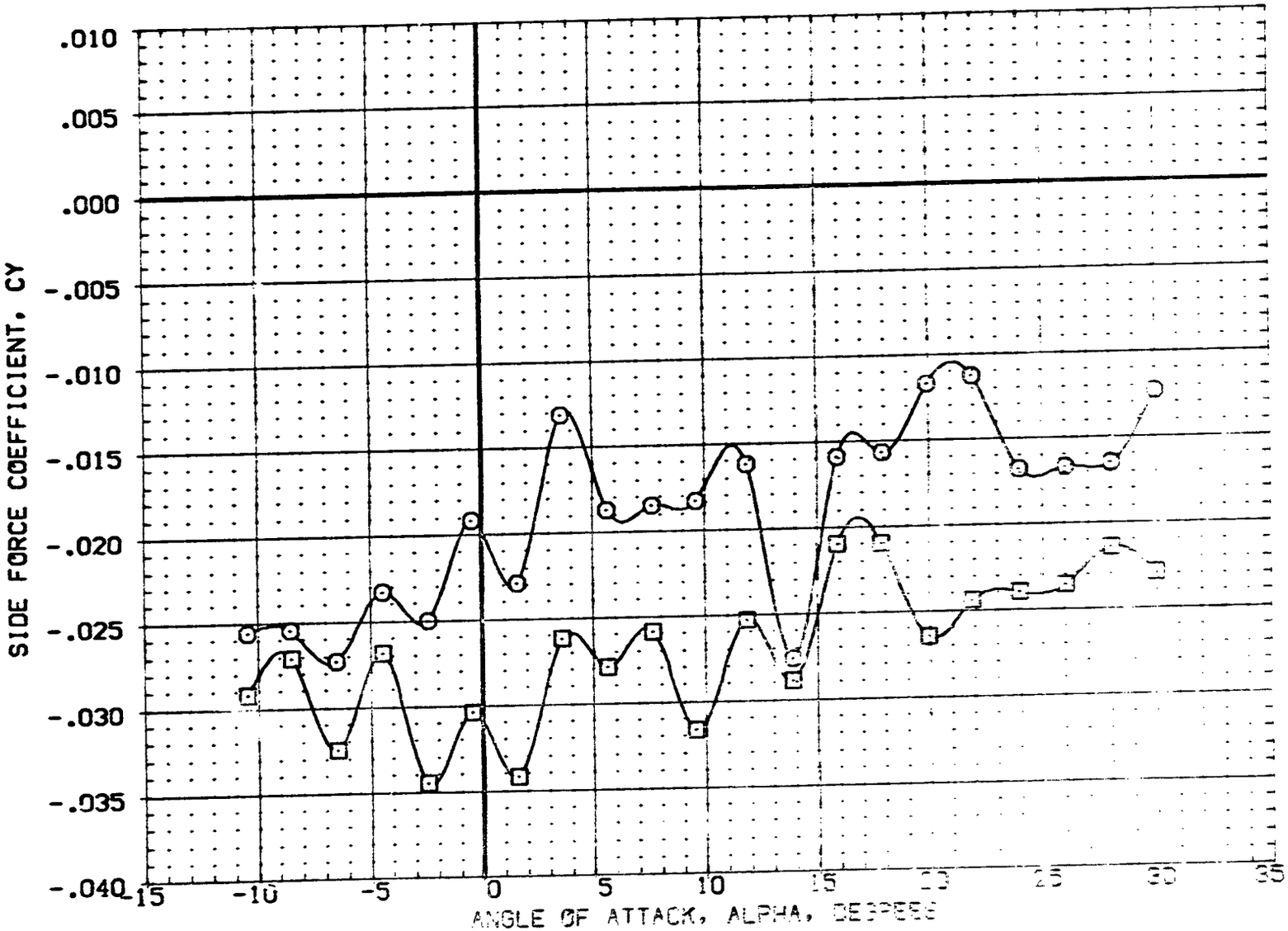
(S8S101) ○ M571([A6A) MATED CONFIGURATION (013T9)

(S8S105) □ M571([A6A) MATED CONFIGURATION (C13T9)

MACH	ELEVTR	AILRON	RUDDER
4.960	.000	.000	40.000
4.950	.000	10.005	40.000

REFERENCE INFORMATION

SREF	2690.	SQ.FT.
LREF	1320.	
BREF	1320.	
XMRP	880.	
ZMRP	0.	
SCALE	.010	



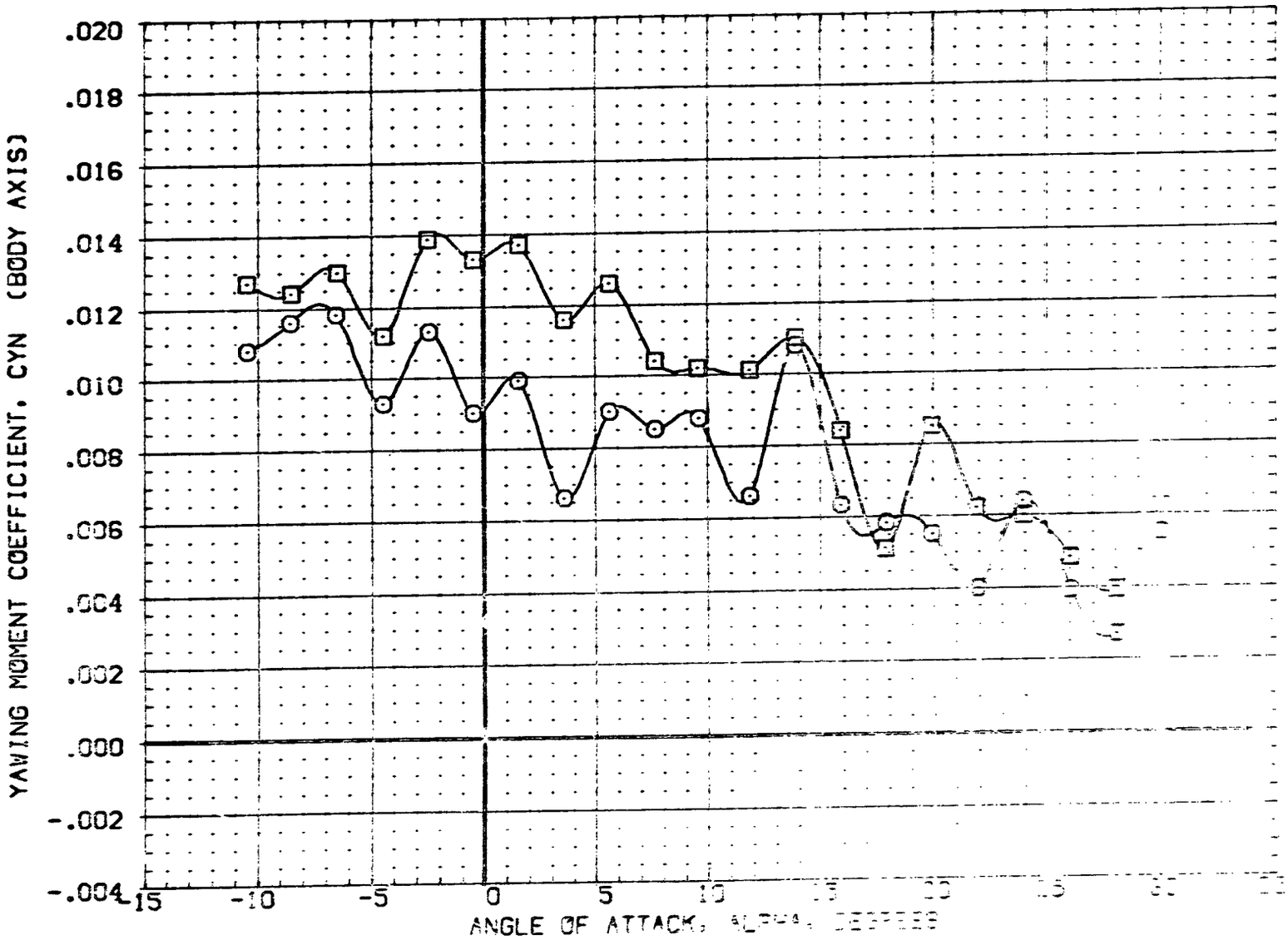
BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN PITCH

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	MACH	ELEVTR	AILRON	RUDDLR
(S85I01) ○	M571(IAGA) MATED CONFIGURATION (013T9)	4.960	.000	.000	40.000
(S85ICS) □	M571(IAGA) MATED CONFIGURATION (013T9)	4.960	.000	10.000	40.000

REFERENCE INFORMATION

SREF	2590.0000	SQ.FT.
LREF	1328.8000	IN.
BREF	1328.8000	IN.
XMRP	995.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	1.0	



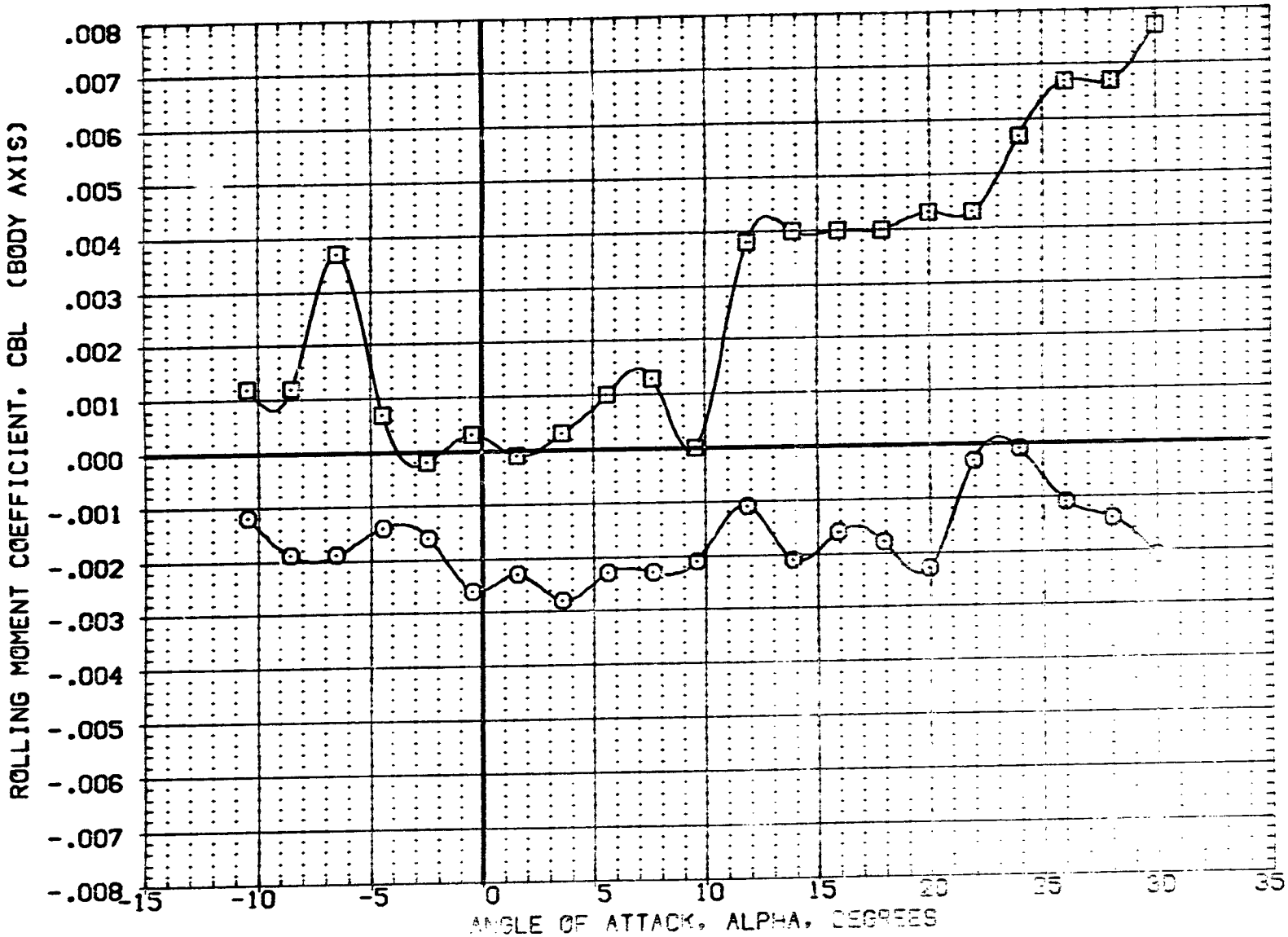
BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVE [illegible]

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	MACH	ELEVTR	AILRON	RUDFLR
(S6S10) ○	M57((ASA) MATED CONFIGURATION (013T9)	4.960	.000	.000	40.000
(S6S10S) □	M57((ASA) MATED CONFIGURATION (013T9)	4.960	.000	10.000	40.000

REFERENCE INFORMATION

SREF	2680.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	655.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



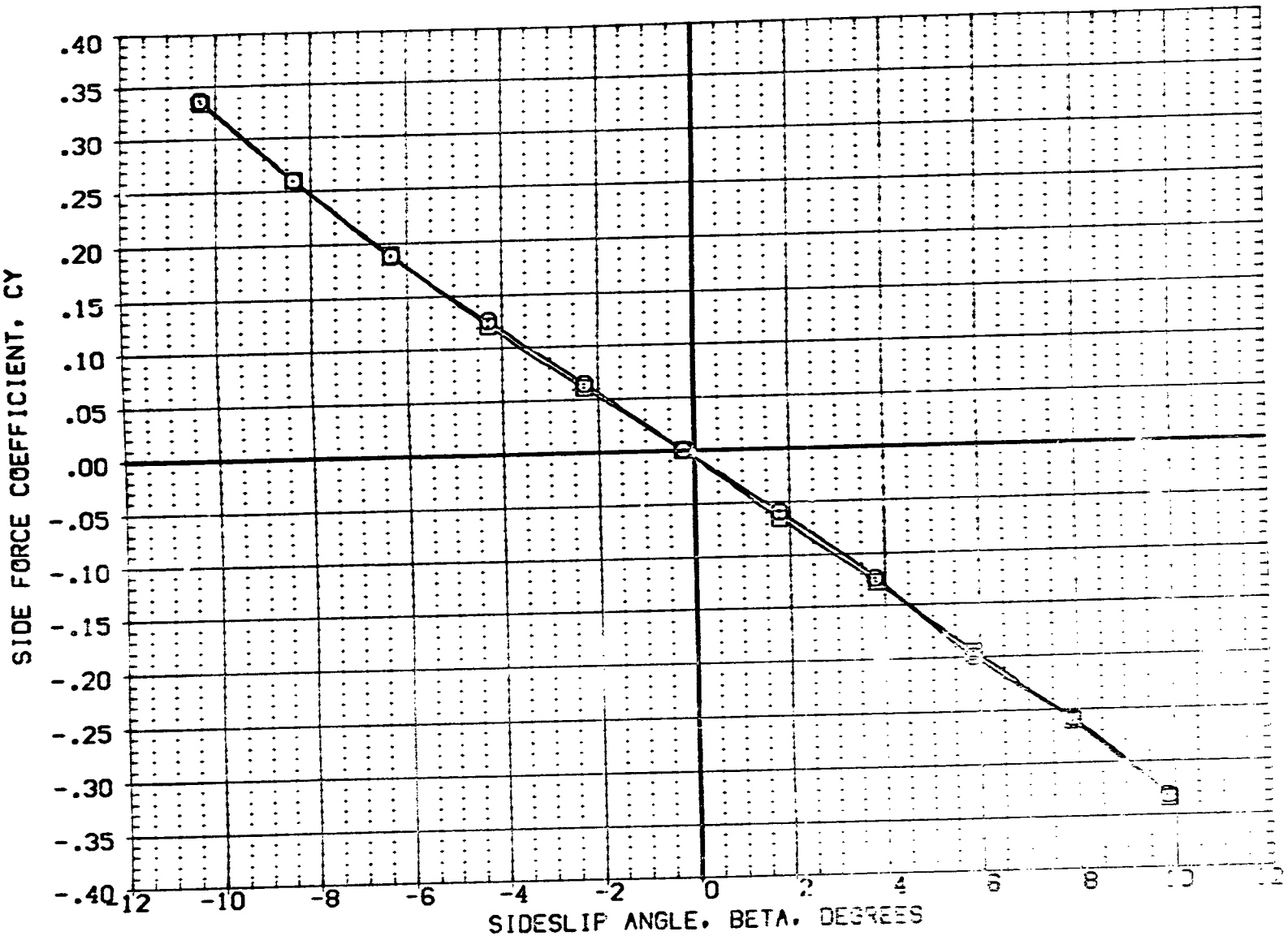
BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN PITCH

(A)DELTAX= .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(A85107) M571(IA6A) MATED CONFIGURATION (013T9)

(A85106) M571(IA6A) MATED CONFIGURATION (013T9)



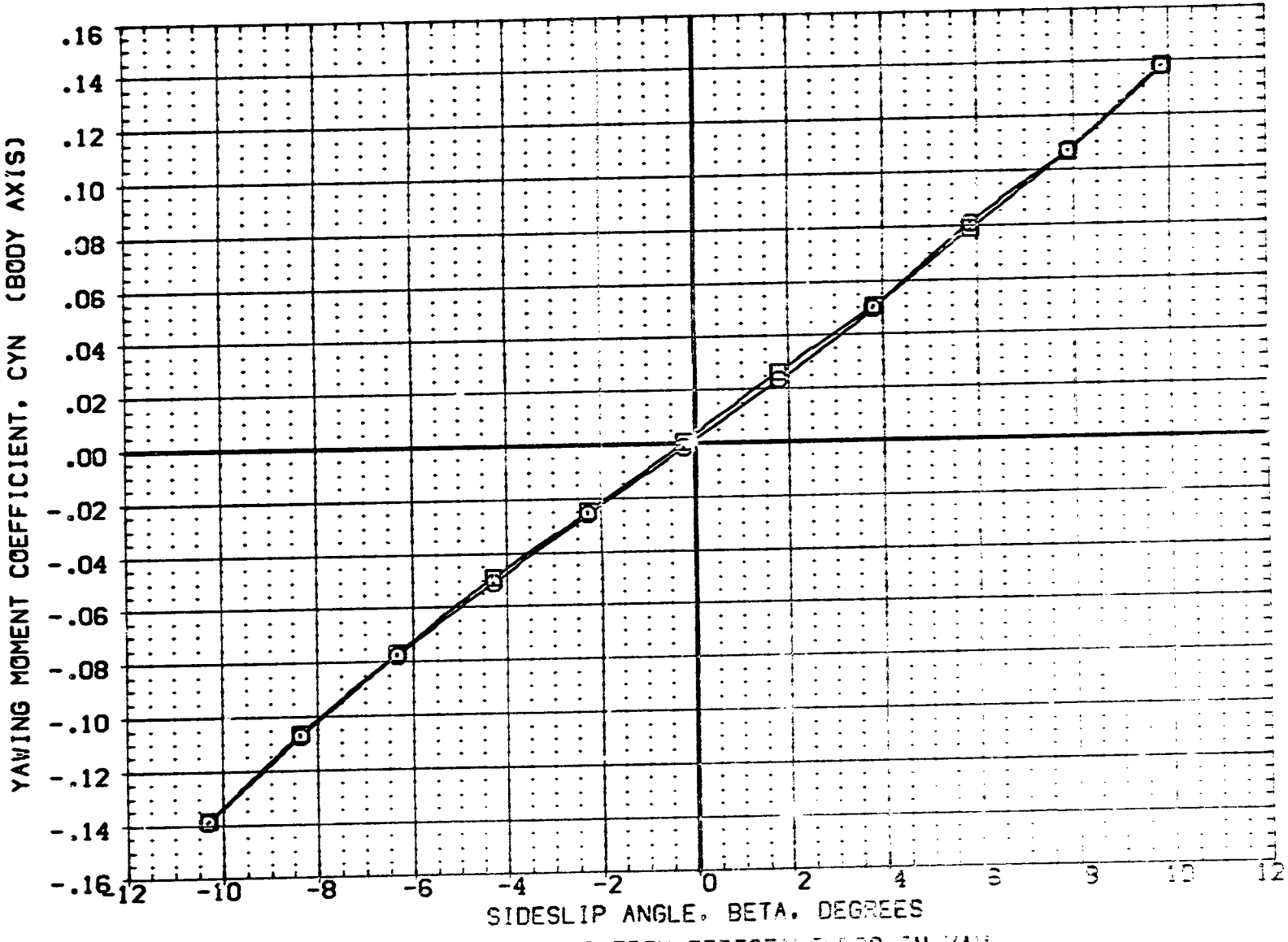
BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN YAW

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	MACH	ELEVTR	AILRON
(A85107)	M571((A6A) MATED CONFIGURATION (013T9)	.000	4.960	.000	10.000
(A85106)	M571((A6A) MATED CONFIGURATION (013T9)	.000	4.960	.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	535.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



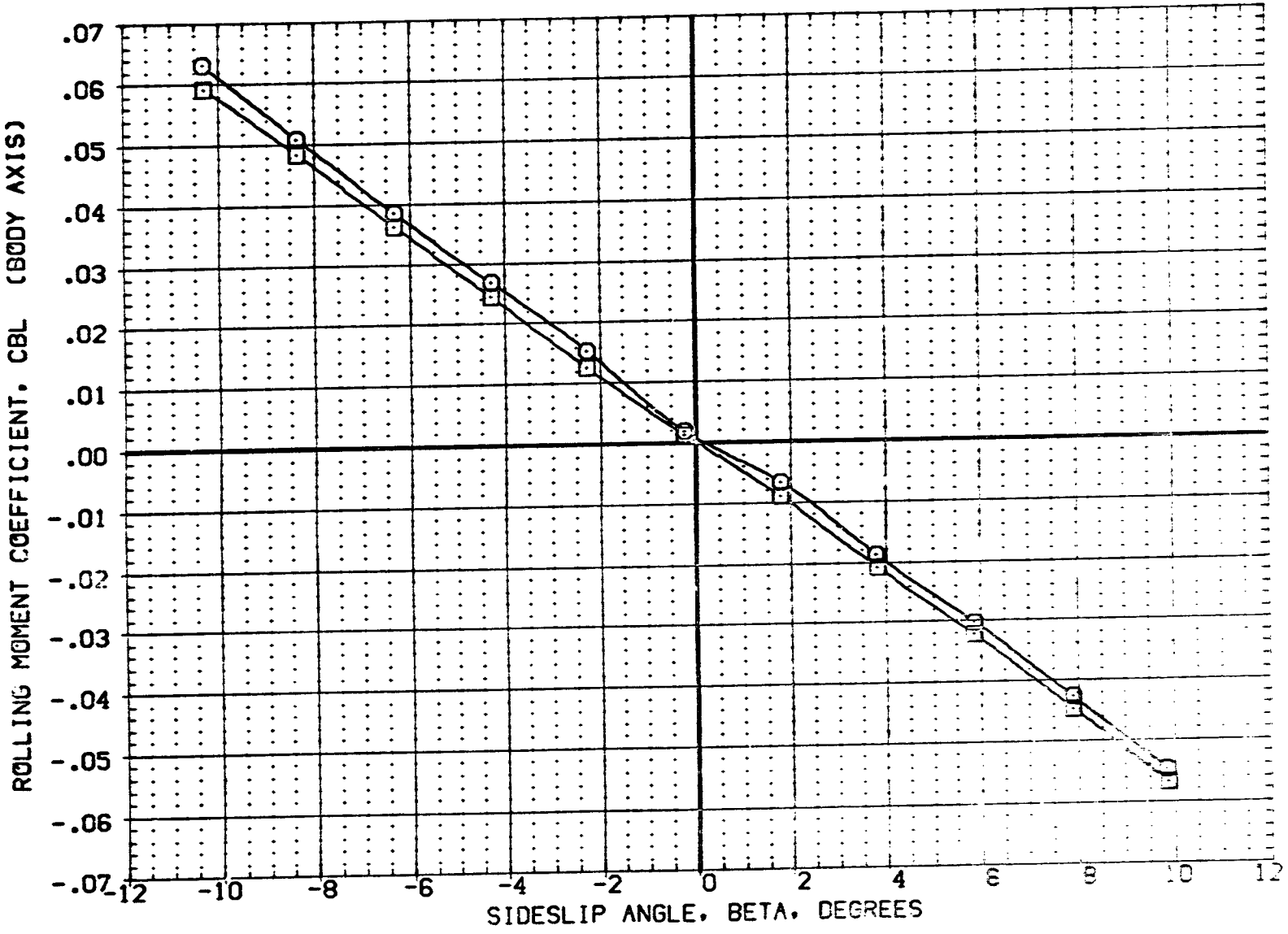
BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN YAW

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ABSIC7)	M571(IASA) MATED CONFIGURATION (013T9)
(ABSIC6)	M571(IASA) MATED CONFIGURATION (013T9)

ALPHA	MACH	ELEVTR	AILRON
.000	4.960	.000	10.000
.000	4.960	.000	.000

SREF	2690.0000	SQ.FT.
LREF	328.3000	IN.
BREF	1308.3000	IN.
XMRP	635.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



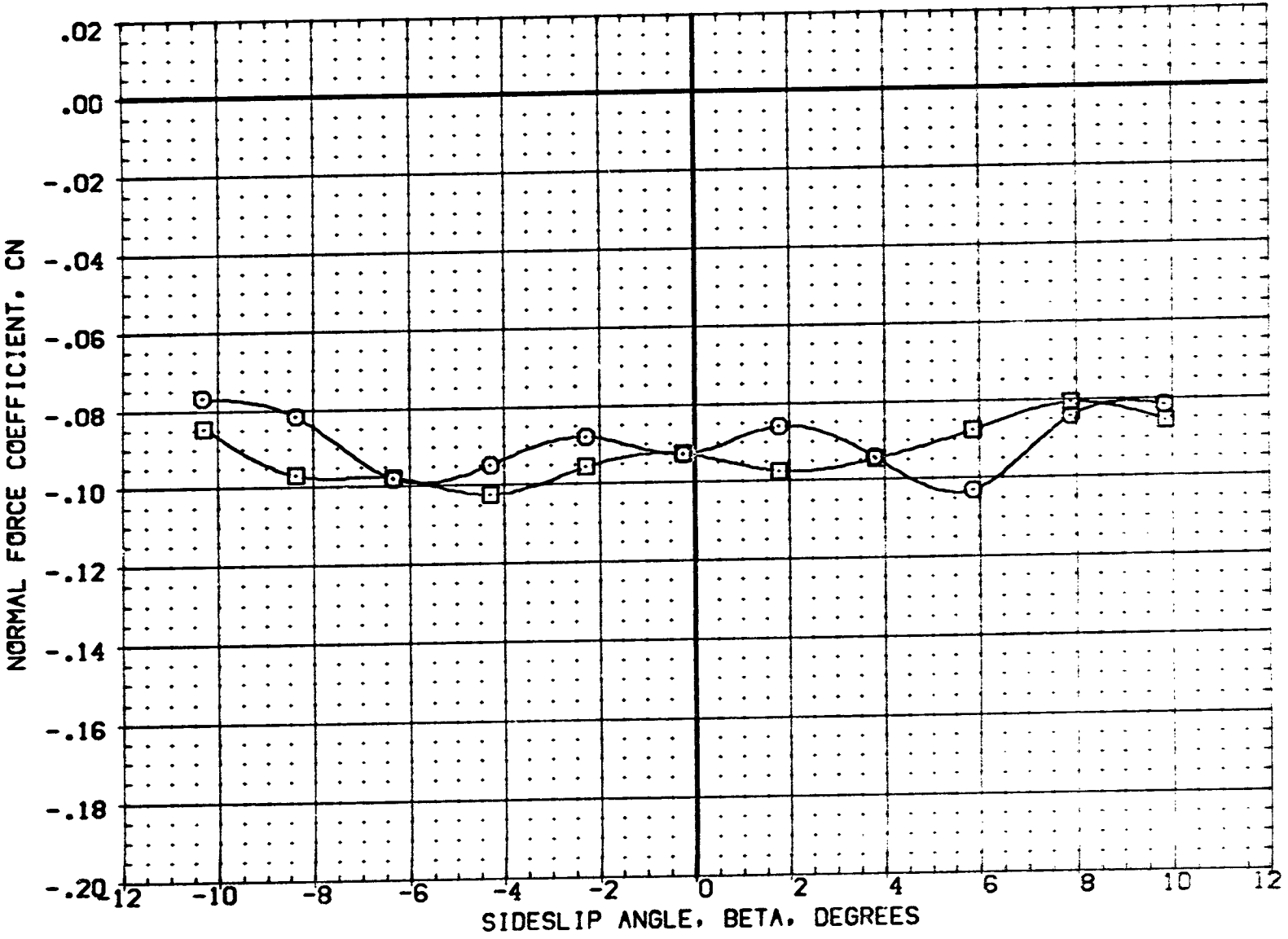
BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN YAW

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	MACH	ELEVTR	AILRON
(A8F107)	MS71((A6A) MATED CONFIGURATION (013T9)	.000	4.960	.000	10.000
(A85106)	MS71((A6A) MATED CONFIGURATION (013T9)	.000	4.960	.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	635.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	

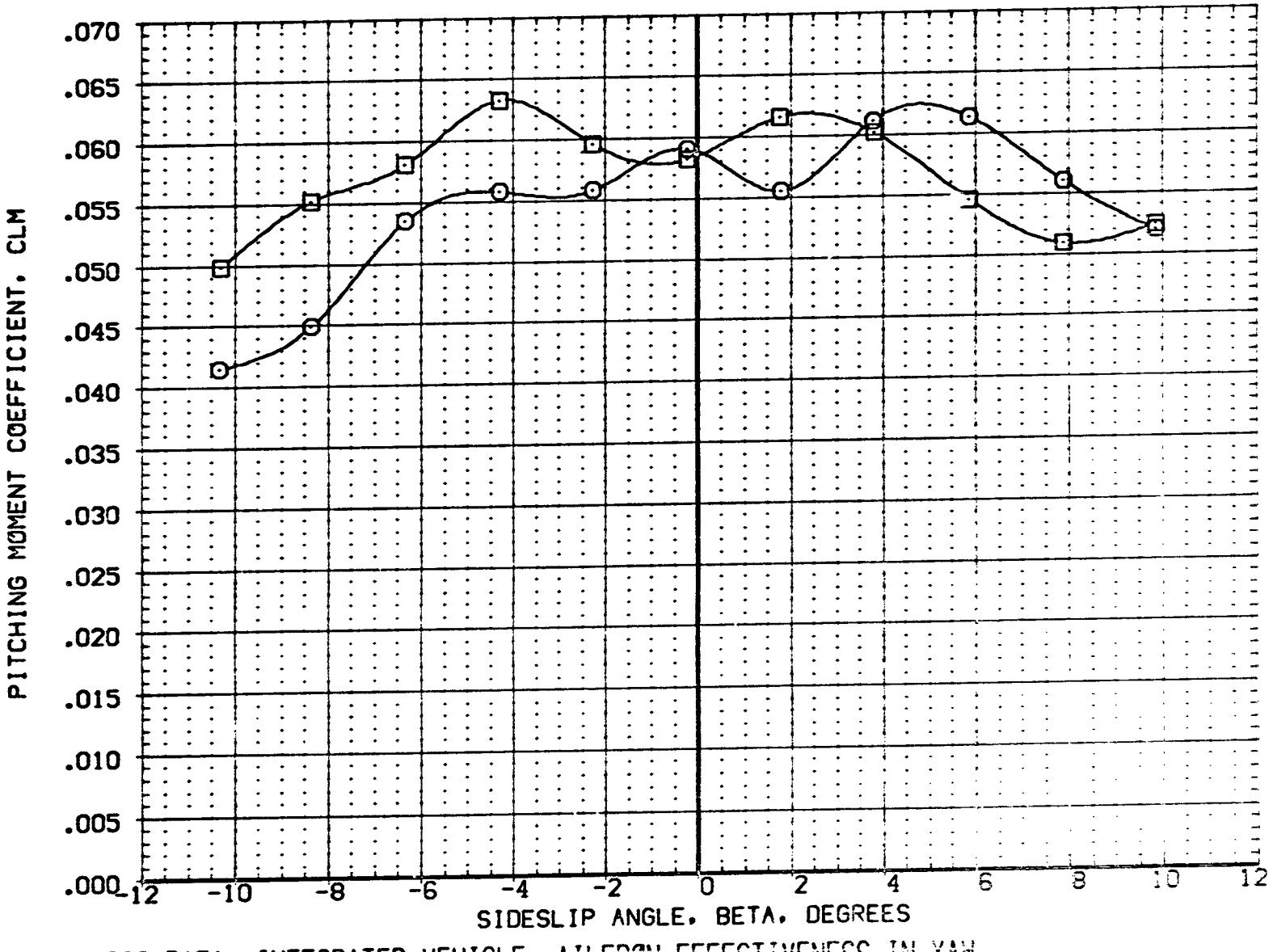


BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN YAW

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	MACH	ELEVTR	AILRON
(A85107) ○	M571(1A6A) MATED CONFIGURATION (013T9)	.000	4.960	.000	10.000
(A85106) □	M571(1A6A) MATED CONFIGURATION (013T9)	.000	4.960	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	635.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	

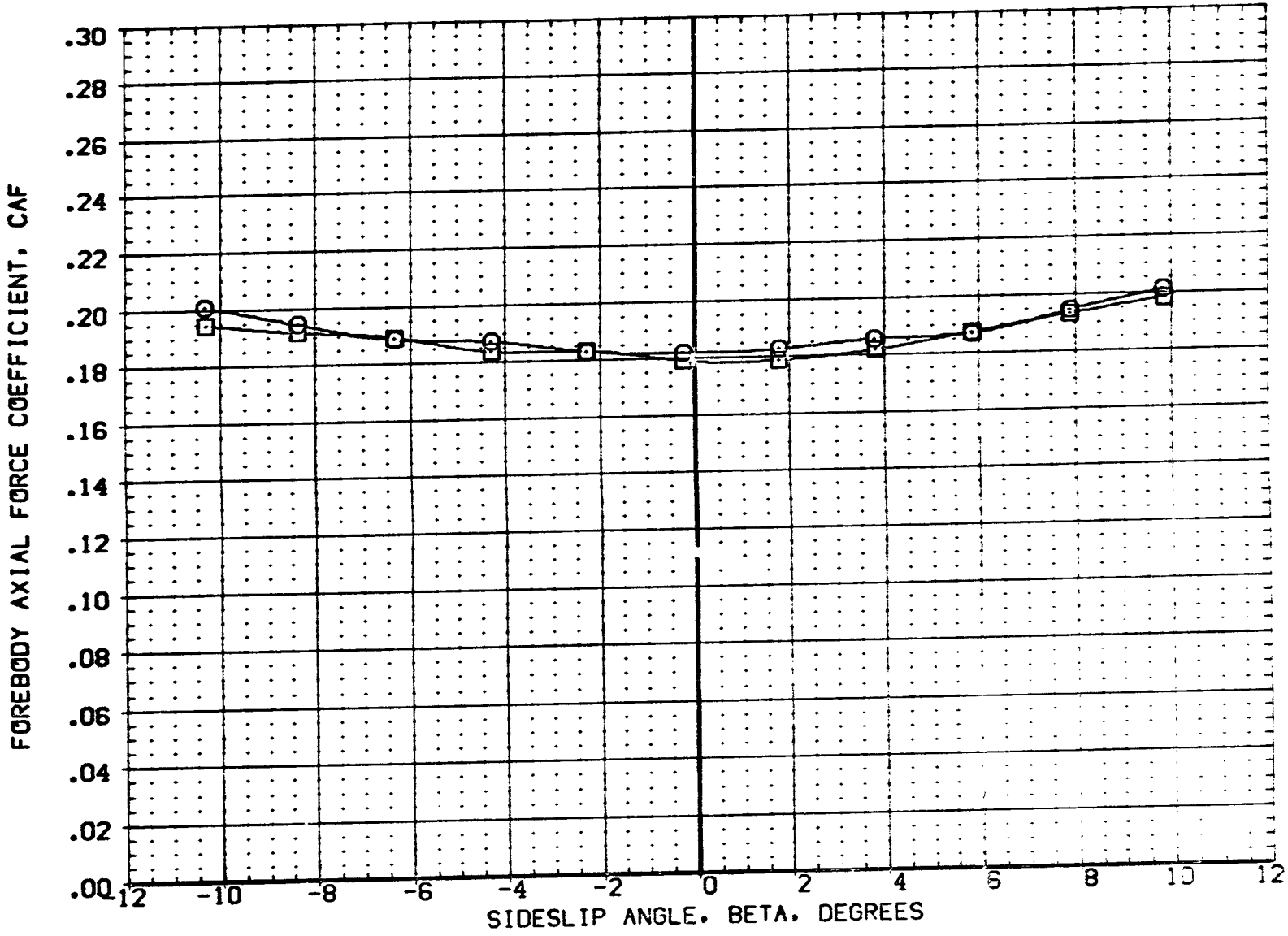


BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN YAW

(A)DELTAX= .00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	MACH	ELEVTR	AILRON
(ABS107) ○	M571((A6A) MATED CONFIGURATION (013T9)	.000	4.960	.000	10.000
(ABS106) □	M571((A6A) MATED CONFIGURATION (013T9)	.000	4.960	.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	635.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC DATA- INTEGRATED VEHICLE- AILERON EFFECTIVENESS IN YAW

(A)DELTAX= .00

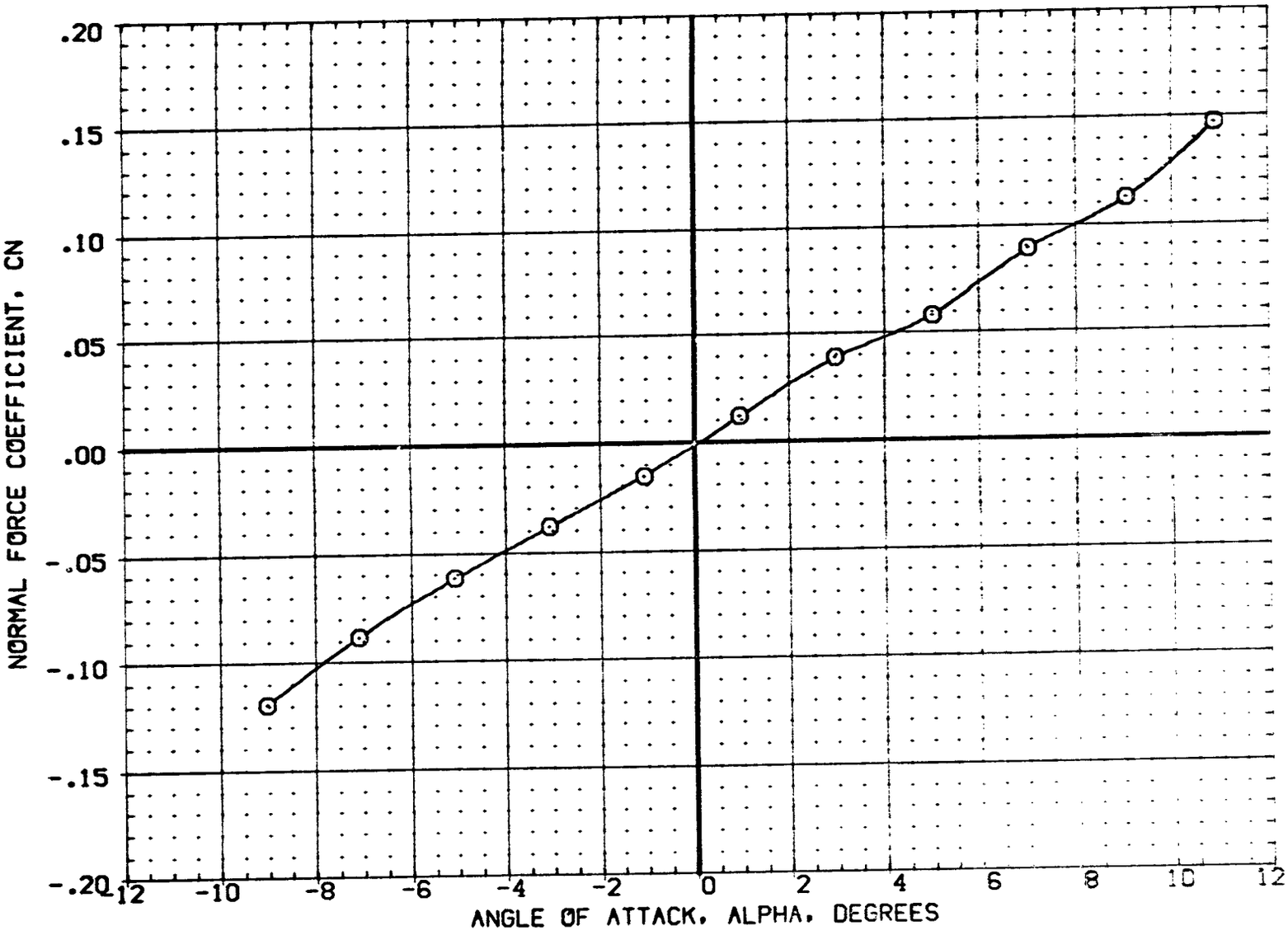
M571(IA6A) TANK(T9) ALONE

(A85T28)

SYMBOL	DELTAX		PARAMETRIC VALUES		
○	.000	BETA	.000	MACH	4.960

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC DATA- EXTERNAL TANK ALONE

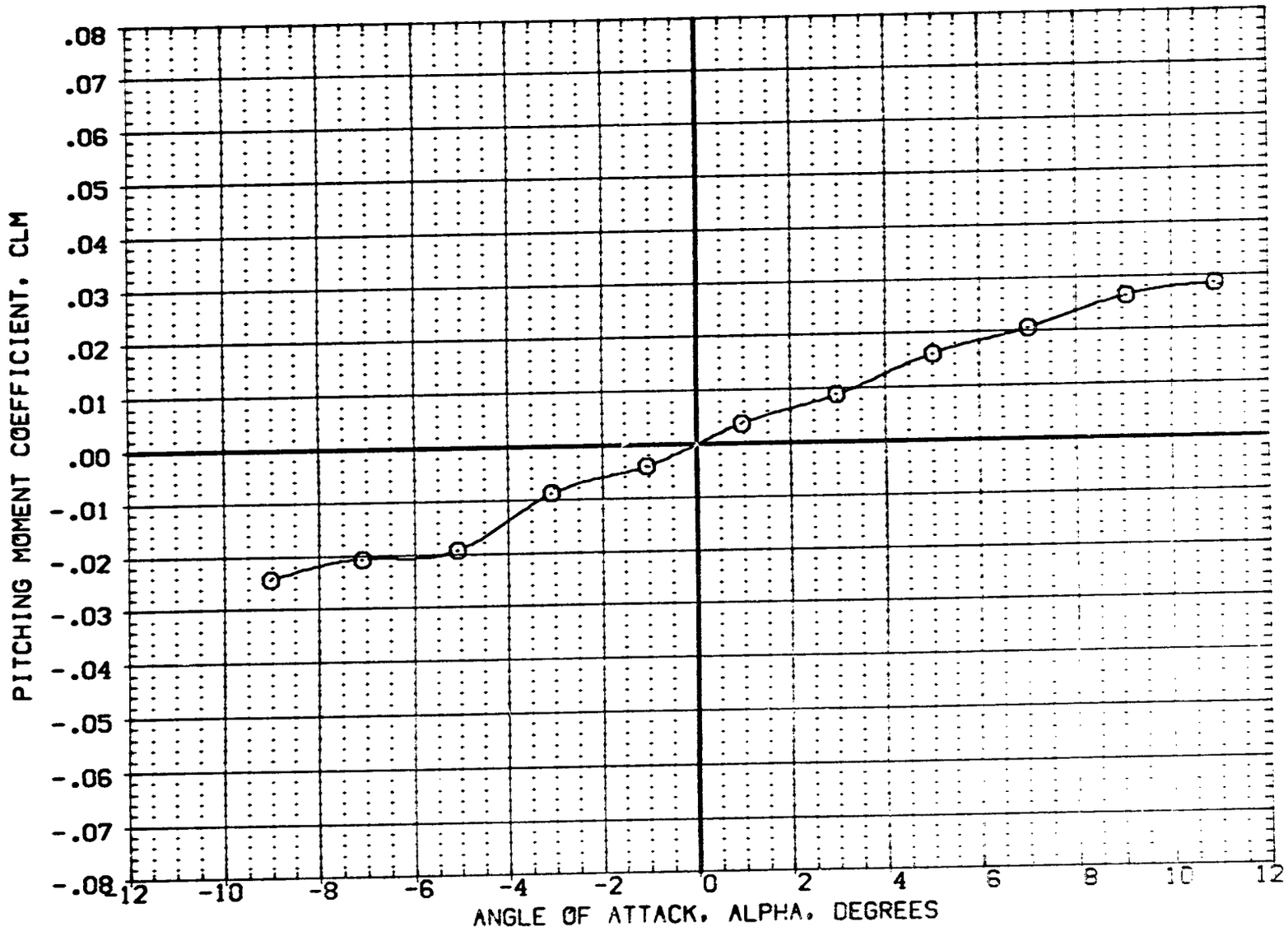
M571(IA6A) TANK(T9) ALONE

(A85T28)

SYMBOL	DELTAX		PARAMETRIC VALUES		
○	.000	BETA	.000	MACH	4.960

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.3000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



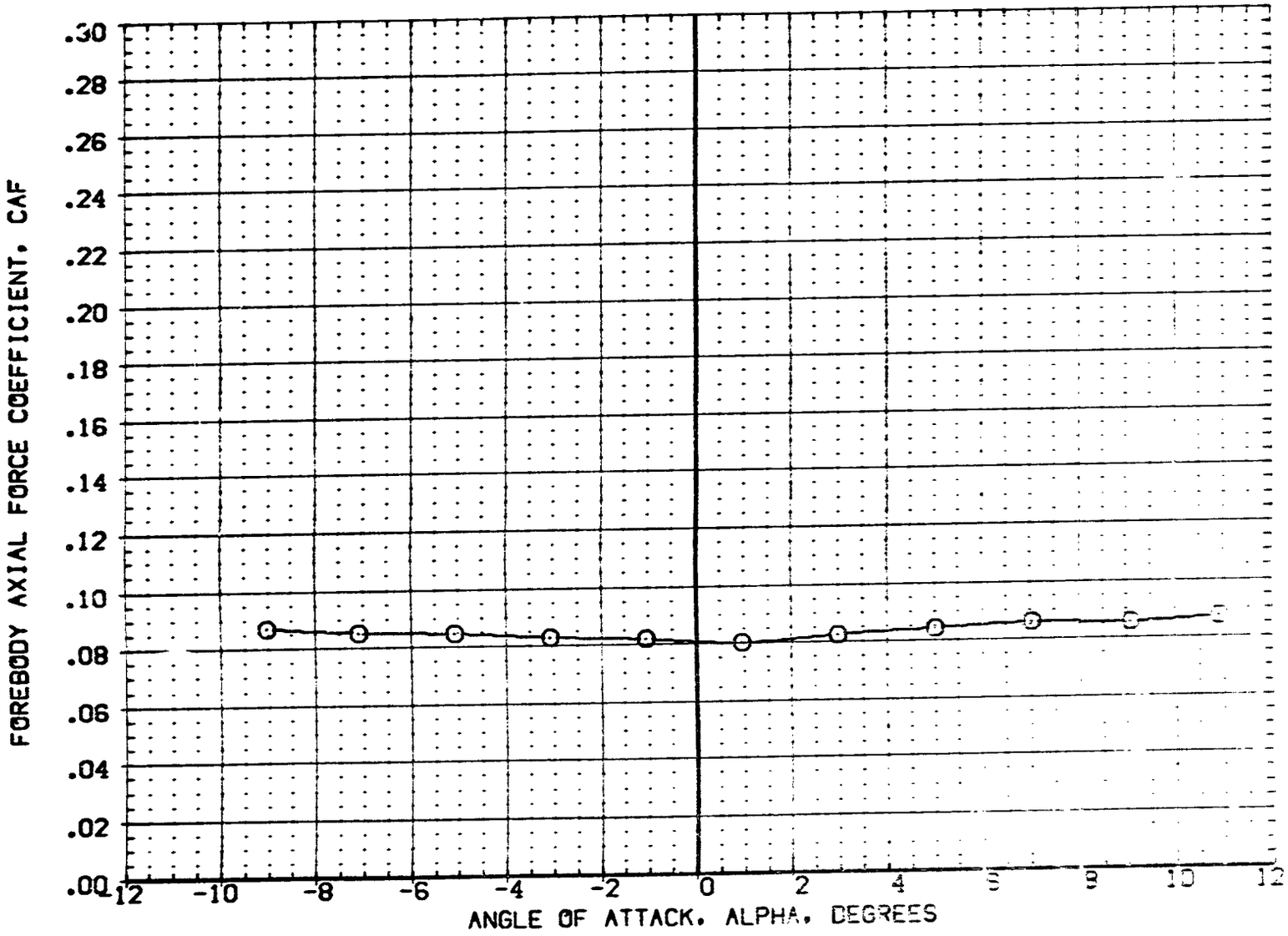
BASIC DATA- EXTERNAL TANK ALONE

M571(IA6A) TANK(T9) ALONE (A85T28)

SYMBOL	DELTAX		PARAMETRIC VALUES		
O	.000	BETA	.000	MACH	4.960

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC DATA- EXTERNAL TANK ALONE

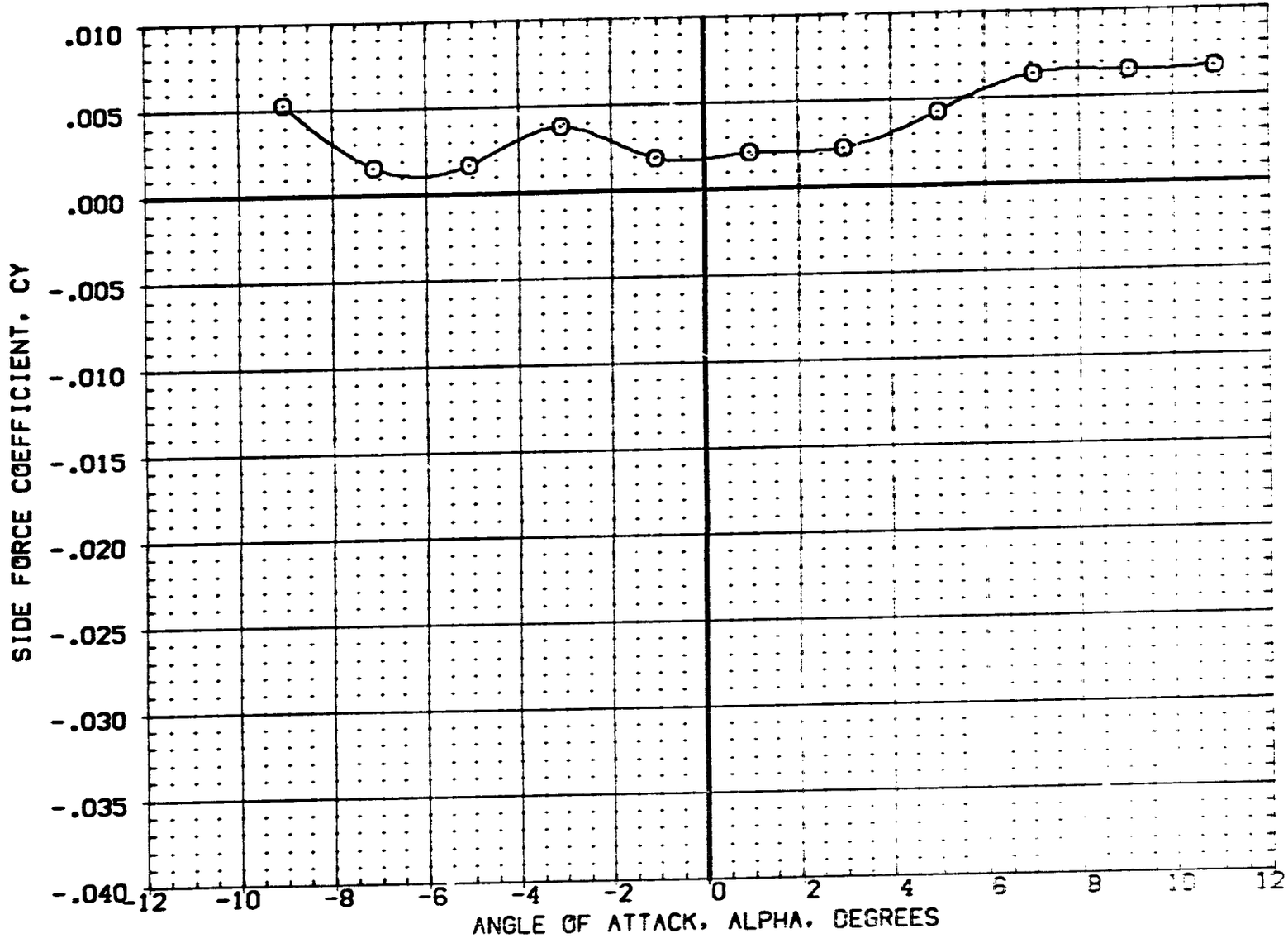
M571(IA6A) TANK(T9) ALONE

(A85T28)

SYMBOL	DELTAX		PARAMETRIC VALUES		
○	.000	BETA	.000	MACH	4.960

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



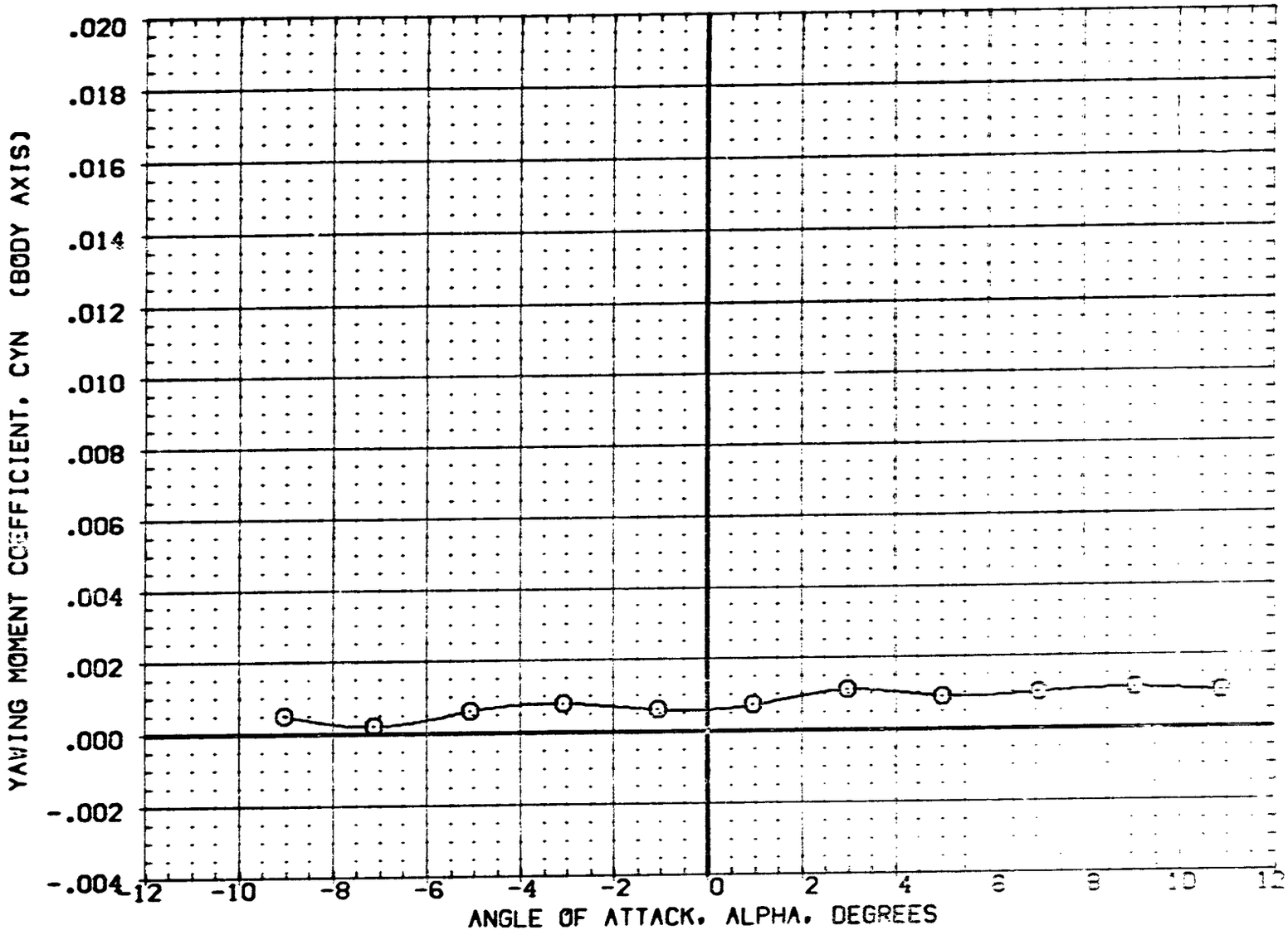
BASIC DATA- EXTERNAL TANK ALONE

M571(IA6A) TANK(T9) ALONE (A85T28)

SYMBOL	DELTAX		PARAMETRIC VALUES		
○	.000	BETA	.000	MACH	4.960

REFERENCE INFORMATION

SREF	2650.0000	SQ.FT.
[illegible]	1328.3000	IN.
[illegible]	1328.2000	IN.
[illegible]	929.0000	IN.
[illegible]	.0000	IN.
[illegible]	.0000	IN.
SCALE	.0040	



BASIC DATA- EXTERNAL TANK ALONE

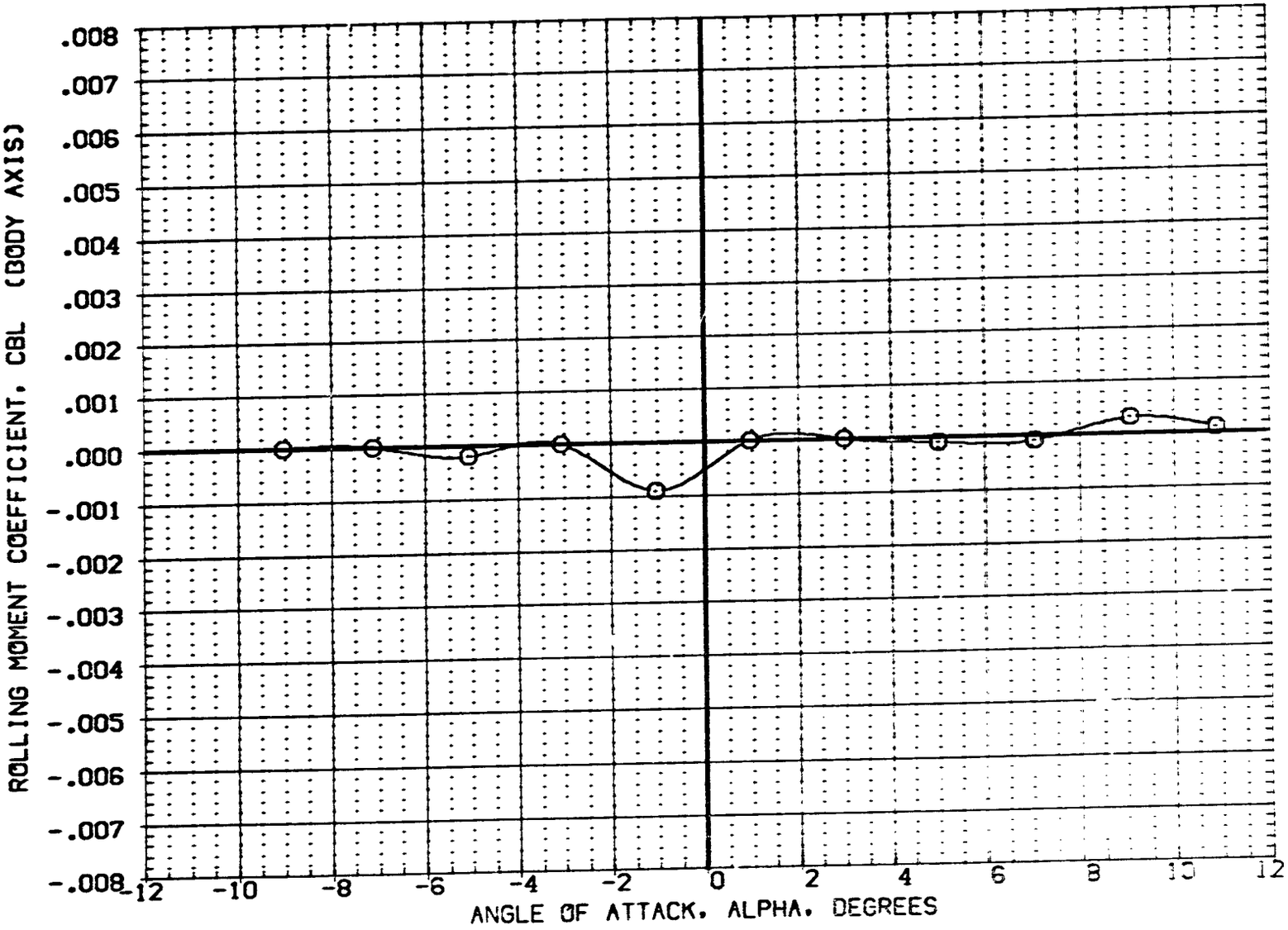
M571(IA6A) TANK(T9) ALONE

(A85T28)

SYMBOL	DELTAX		PARAMETRIC VALUES		
O	.000	BETA	.000	MACH	4.960

REFERENCE INFORMATION

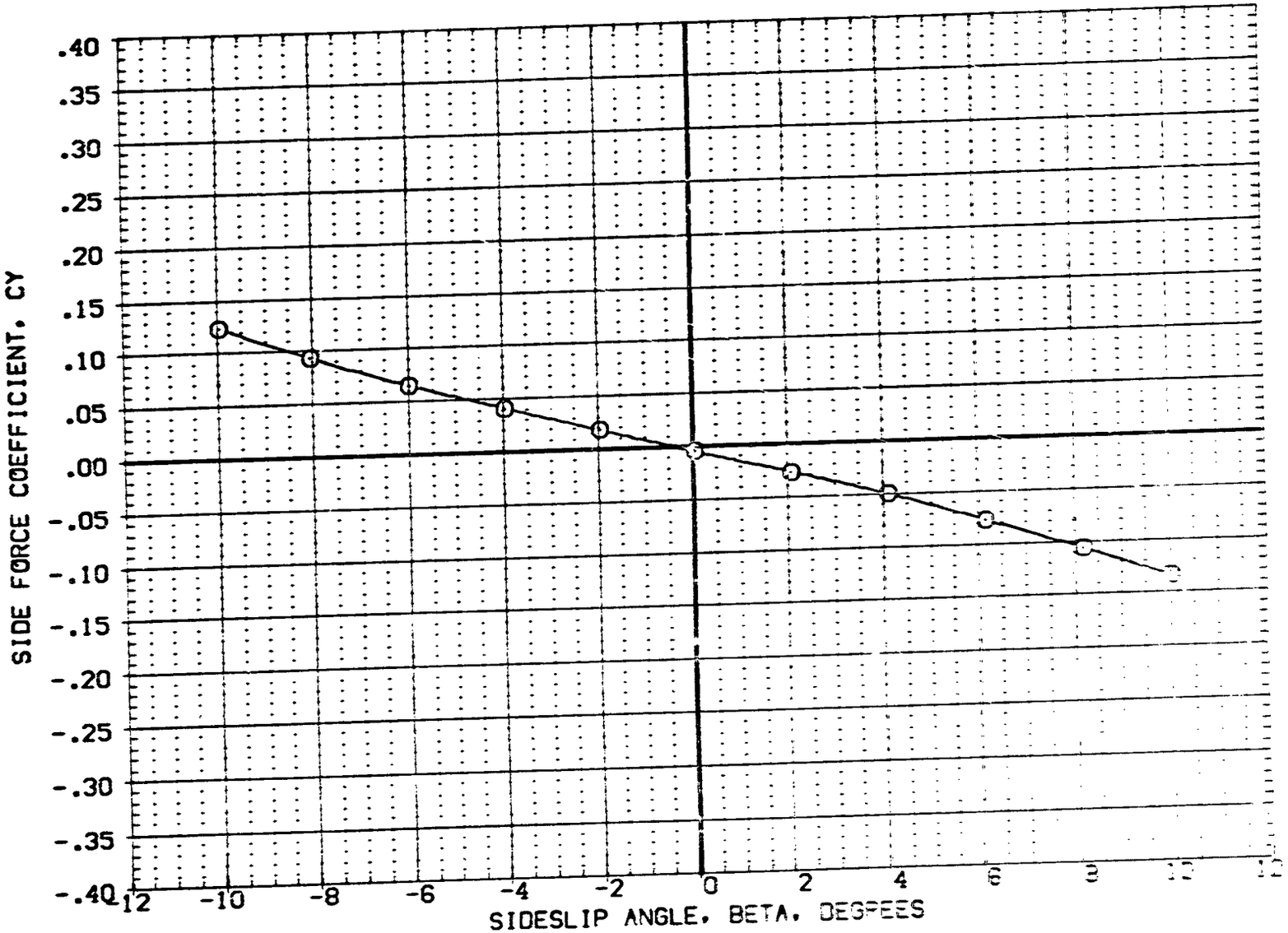
SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC DATA- EXTERNAL TANK ALONE

SYMBOL	DELTAX		PARAMETRIC VALUES		
○	.000	ALPHA	.000	MACH	4.960

SREF	2690.0000	SQ.FT.
LREF	328.3000	IN.
BREF	328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.040	



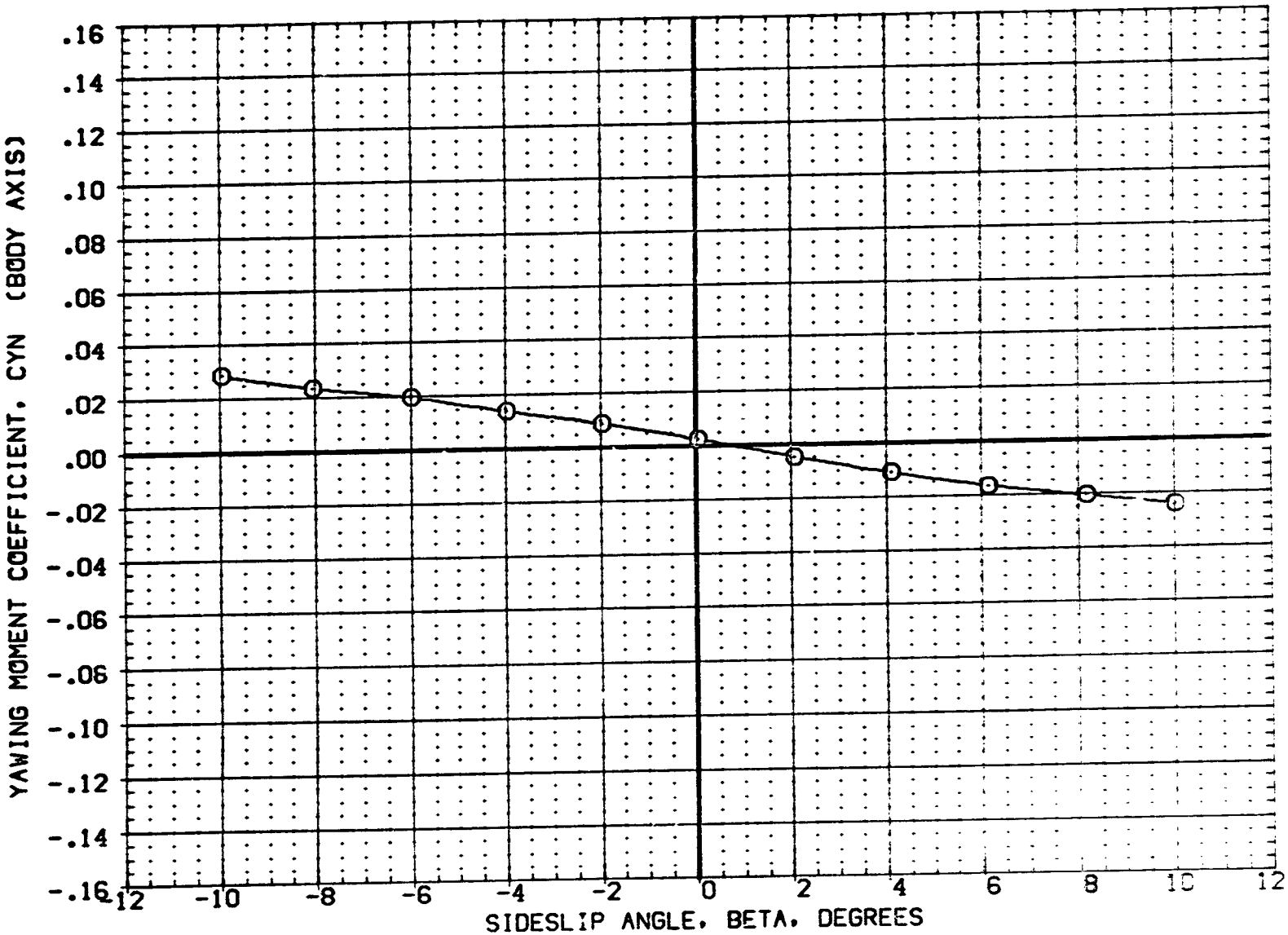
BASIC DATA- EXTERNAL TANK ALONE

M571(IA6A) TANK(T9) ALONE (A85T29)

SYMBOL	DELTAX		PARAMETRIC VALUES		
○	.000	ALPHA	.000	MACH	4.960

REFERENCE INFORMATION

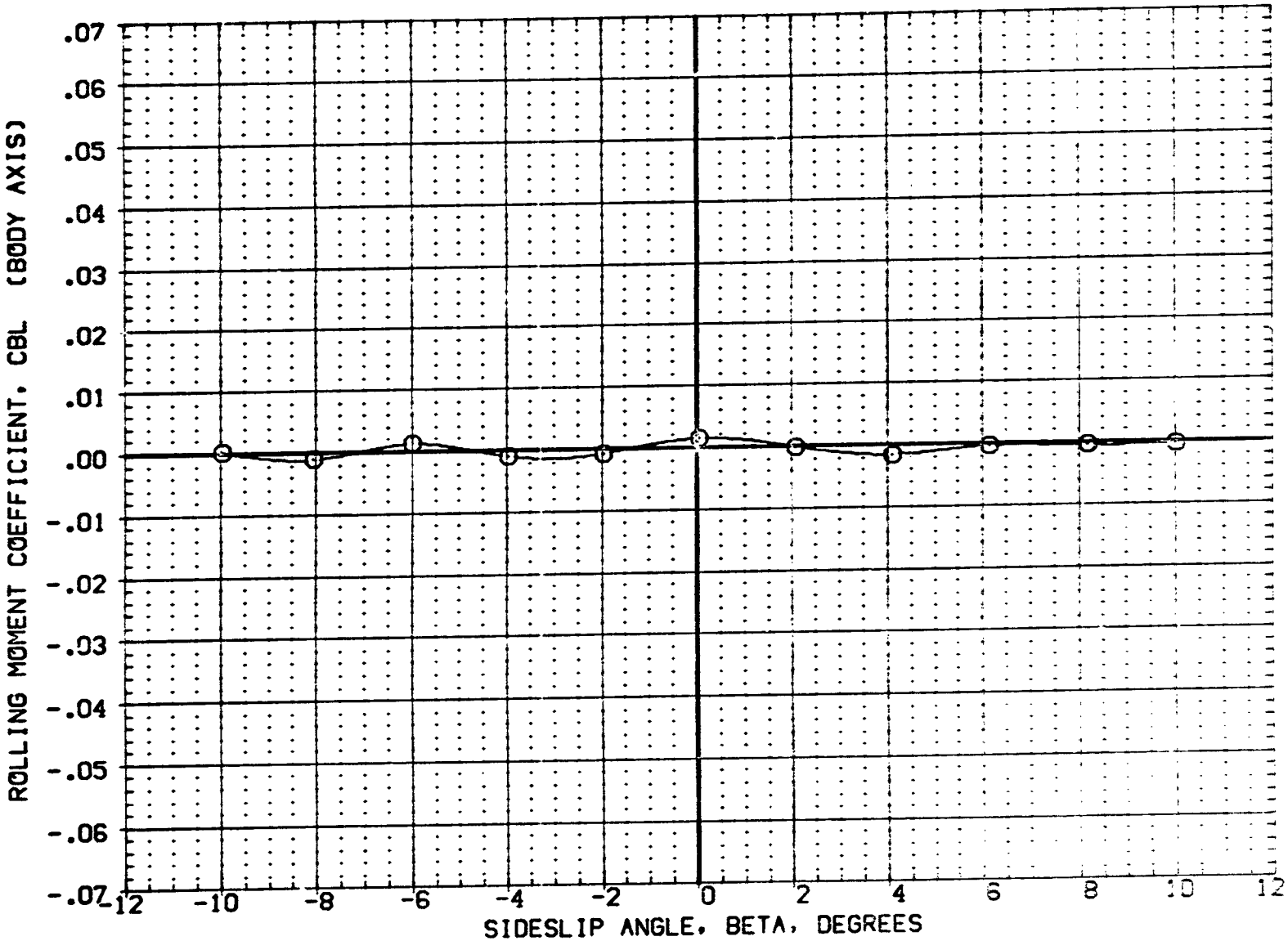
SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC DATA- EXTERNAL TANK ALONE

δ .000 ALPHA .000 MACH 4.000

LREF 1328.3000 IN.
BREF 1328.3000 IN.
XMRP 929.0000 IN.
YMRP .0000 IN.
ZMRP .0000 IN.
SCALE .0040



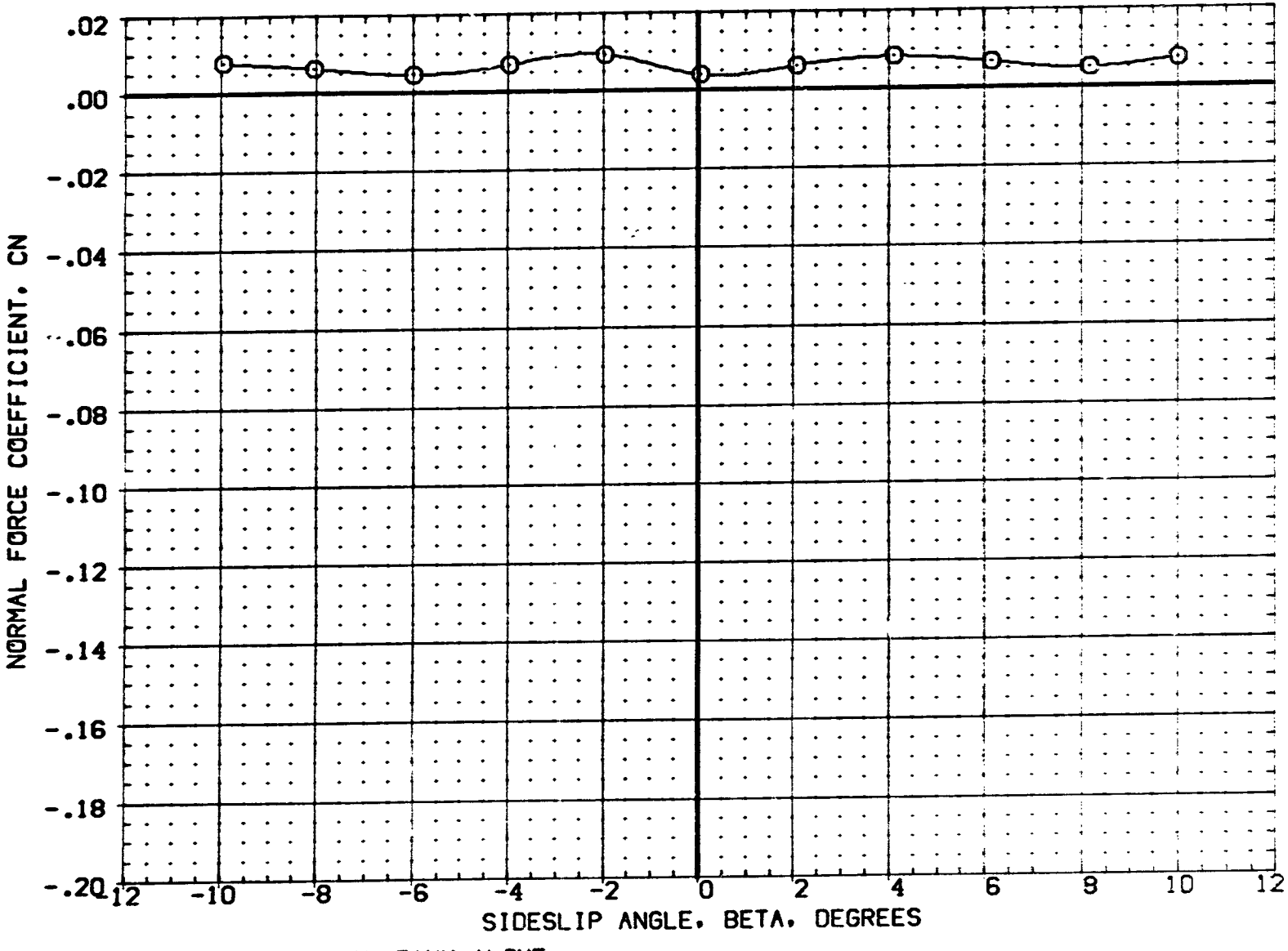
BASIC DATA- EXTERNAL TANK ALONE

M571(IA6A) TANK(T9) ALONE (A85T29)

SYMBOL	DELTAX		PARAMETRIC VALUES		
○	.000	ALPHA	.000	MACH	4.960

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



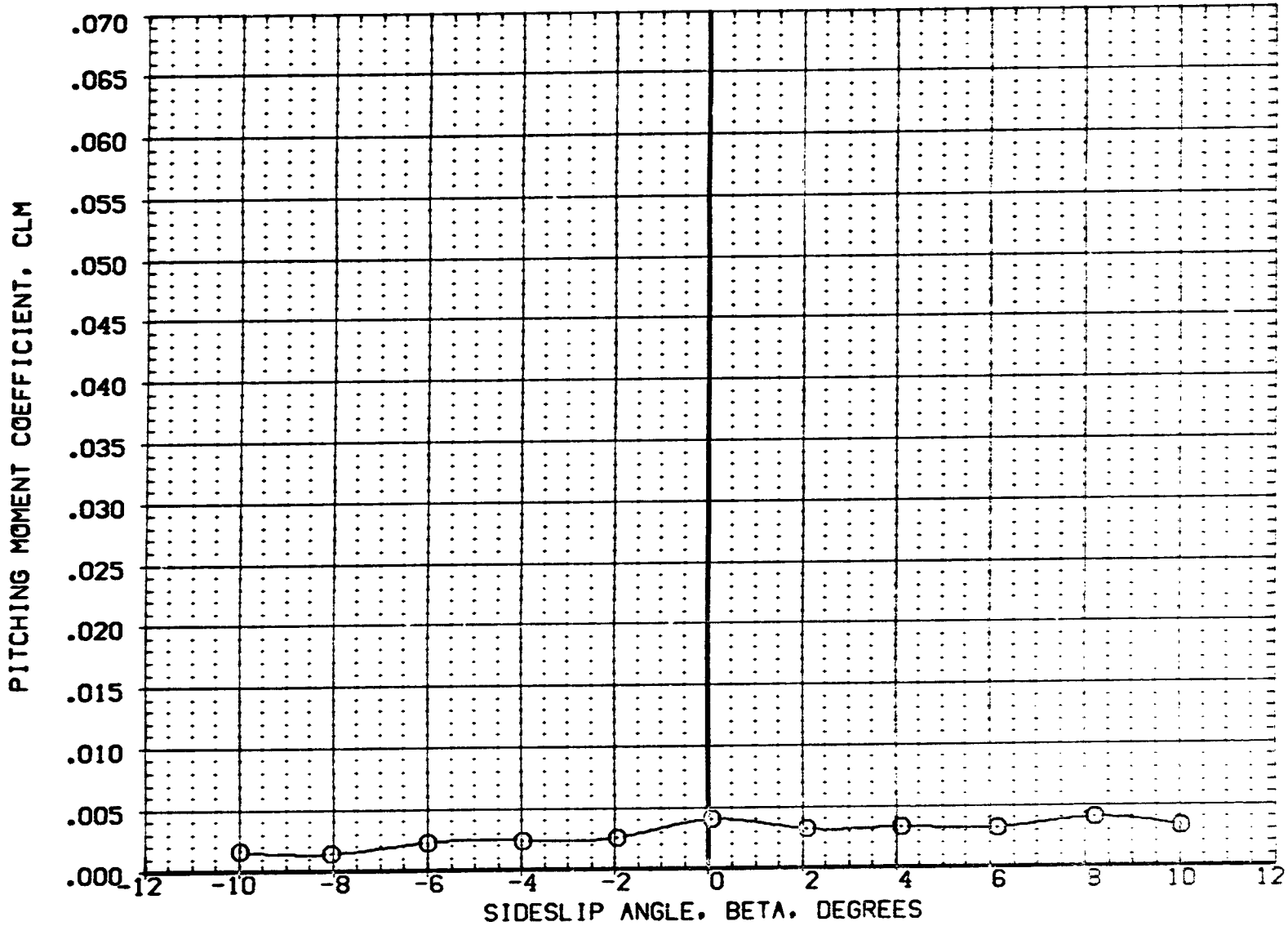
BASIC DATA- EXTERNAL TANK ALONE

M571(IA6A) TANK(T9) ALONE (A85T29)

SYMBOL	DELTAX		PARAMETRIC VALUES		
○	.000	ALPHA	.000	MACH	4.960

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



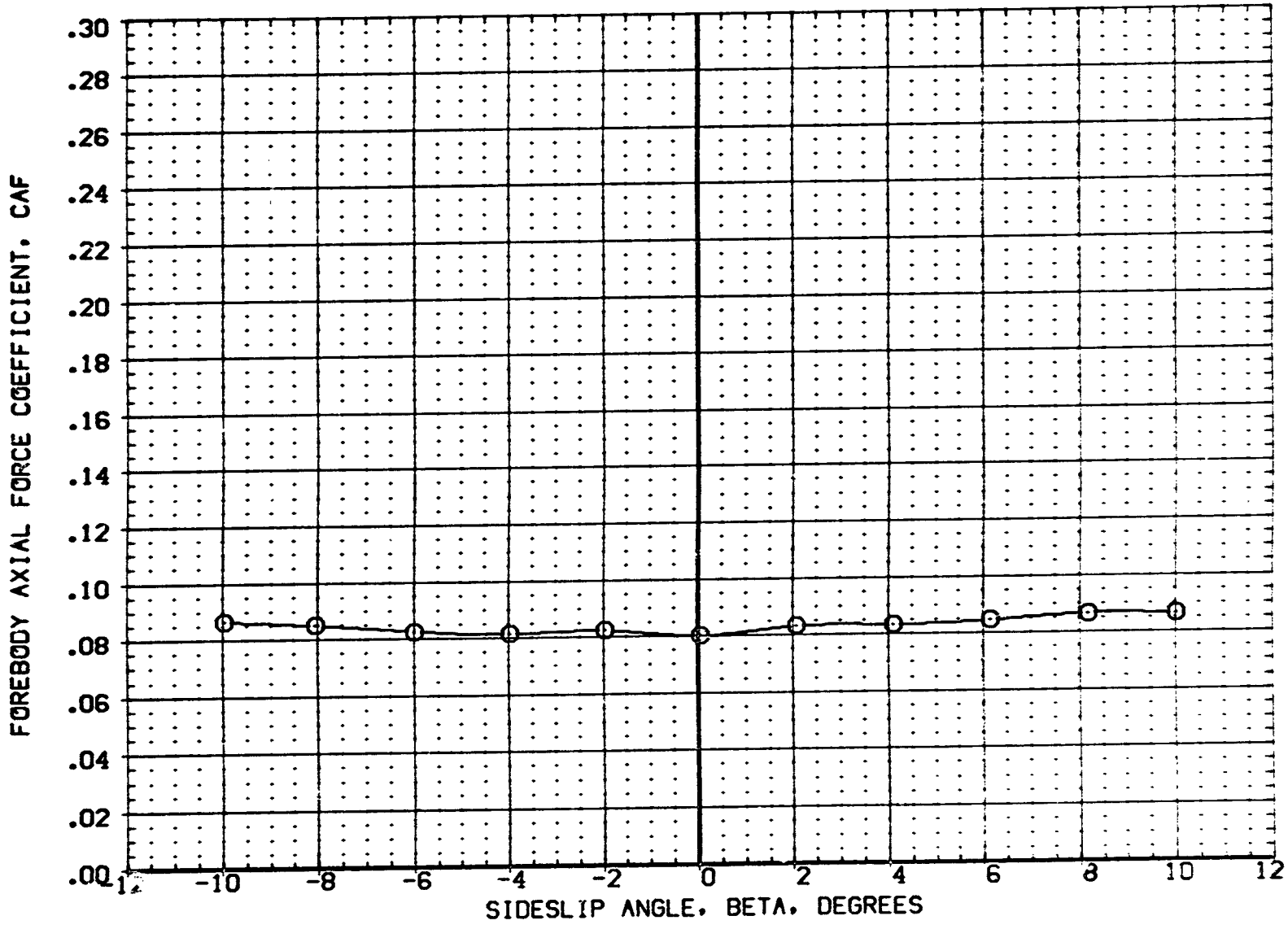
BASIC DATA- EXTERNAL TANK ALONE

M571(IA6A) TANK(T9) ALONE (A85T29)

SYMBOL	DELTAX		PARAMETRIC VALUES		
O	.000	ALPHA	.000	MACH	4.960

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.3000	IN.
BREF	1328.3000	IN.
XMRP	929.0000	IN.
YMRP	.0000	IN.
ZMRP	.0000	IN.
SCALE	.0040	



BASIC DATA- EXTERNAL TANK ALONE

APPENDIX

TABULATED SOURCE DATA

Plotted data available on request
from Data Management Services.

MSFC(IA6A) ORD (013)WITH TANK (T9) SEPARATING (R053011 / 04 OCT 72)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = .000 AILRON = .000
RUDDER = .000 FLAPS = 40.000
DELTAA = -5.000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 1019/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.11040	-.00980	.00800	.00070	.00060	.10630	.00000	.00000	.00000
.000	-2.000	-.08120	-.01090	.01140	.00080	.00030	.09570	.00000	.00000	.00000
.000	.000	-.05420	-.01170	.00830	.00060	.00030	.08690	.00000	.00000	.00000
.000	2.000	-.02650	-.01280	.00810	.00120	.00060	.07910	.00000	.00000	.00000
.000	5.000	.01820	-.01480	.00580	.00110	.00050	.06960	.00000	.00000	.00000
	GRADIENT	.01297	-.00050	-.00030	.00005	.00000	-.00374	.00000	.00000	.00000

RUN NO. 1020/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.08920	.00220	.00790	-.00060	.00000	.10530	.00000	.00000	.00000
324.000	-2.000	-.05310	.00110	.00730	.00000	.00090	.09750	.00000	.00000	.00000
324.000	.000	-.03230	.00070	.00760	.00020	.00090	.09290	.00000	.00000	.00000
324.000	2.000	-.01180	-.00120	.00700	.00040	.00110	.08860	.00000	.00000	.00000
324.000	5.000	.02820	-.00400	.00570	.00060	.00130	.08150	.00000	.00000	.00000
	GRADIENT	.01154	-.00061	-.00019	.00012	.00012	-.00236	.00000	.00000	.00000

RUN NO. 1021/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.05410	.00890	.00350	-.00080	.00030	.10180	.00000	.00000	.00000
648.000	-2.000	.00810	.01130	.00670	-.00080	.00070	.09410	.00000	.00000	.00000
648.000	.000	.02520	.00950	.00500	-.00070	.00090	.08920	.00000	.00000	.00000
648.000	2.000	.04970	.00920	.00350	.00000	.00090	.08260	.00000	.00000	.00000
648.000	5.000	.09500	.00940	.00360	.00010	.00170	.07770	.00000	.00000	.00000
	GRADIENT	.01429	-.00003	-.00010	.00011	.00013	-.00247	.00000	.00000	.00000

RUN NO. 1022/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.03490	-.00180	.00720	.00000	-.00080	.10130	.00000	.00000	.00000
972.000	-2.000	.04420	-.00150	.00300	.00000	-.00100	.09330	.00000	.00000	.00000
972.000	.000	.09100	-.00240	.00040	.00020	.00010	.09130	.00000	.00000	.00000
972.000	2.000	.14260	-.00060	.00030	.00000	.00080	.08980	.00000	.00000	.00000
972.000	5.000	.19780	-.00310	-.00110	.00010	.00180	.08720	.00000	.00000	.00000
	GRADIENT	.02346	-.00015	-.00028	.00006	.00029	-.00134	.00000	.00000	.00000

M571(IA6A) ORB (OC3)WITH TANK (T9) SEPARATING (RB5002) 24 OCT 73

REFERENCE DATA

SREF = 2695.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 ALPHA = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTA2 = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 1035/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.10560	-.00650	.00740	.00070	-.00040	.10430	.00000	.00000	.00000
.000	-2.000	-.06490	-.00790	.00550	.00040	-.00020	.09840	.00000	.00000	.00000
.000	.000	-.04060	-.01000	.00580	.00090	.00000	.08060	.00000	.00000	.00000
.000	2.000	-.00890	-.00820	.00660	.00100	.00030	.07250	.00000	.00000	.00000
.000	5.000	.03550	-.01050	.00410	.00070	.00040	.06480	.00000	.00000	.00000
	GRADIENT	.01409	-.00038	-.00025	.00002	.00009	-.00335	.00000	.00000	.00000

RUN NO. 1040/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.06560	.00690	.00750	-.00040	.00000	.10790	.00000	.00000	.00000
324.000	-2.000	-.03190	.00620	.00530	.00020	.00030	.10120	.00000	.00000	.00000
324.000	.000	-.02230	.00430	.00400	.00020	.00030	.09590	.00000	.00000	.00000
324.000	2.000	.00260	.00160	.00310	.00040	.00040	.09030	.00000	.00000	.00000
324.000	5.000	.04750	-.00010	.00330	.00070	.00070	.08230	.00000	.00000	.00000
	GRADIENT	.01094	-.00045	-.00044	.00010	.00006	-.00258	.00000	.00000	.00000

RUN NO. 1041/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.02040	.01710	.00590	.00040	.00010	.10450	.00000	.00000	.00000
648.000	-2.000	.02410	.01670	.00650	-.00050	.00020	.09560	.00000	.00000	.00000
648.000	.000	.05340	.01600	.00590	-.00010	.00050	.08830	.00000	.00000	.00000
648.000	2.000	.07880	.01490	.00270	.00020	.00050	.08330	.00000	.00000	.00000
648.000	5.000	.12440	.01310	.00160	.00040	.00110	.07690	.00000	.00000	.00000
	GRADIENT	.01437	-.00041	-.00047	.00002	.00060	-.00263	.00000	.00000	.00000

RUN NO. 1046/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	.01090	.00000	.00640	-.00010	-.00060	.10010	.00000	.00000	.00000
972.000	-2.000	.06120	-.00070	-.00100	.00040	-.00070	.09330	.00170	.00000	.00000
972.000	.000	.13070	-.00030	-.00170	.00070	.00000	.08110	.00000	.00000	.00000
972.000	2.000	.17260	-.00160	-.00340	.00120	.00080	.08860	.00000	.00000	.00000
972.000	5.000	.23430	-.00410	-.00580	.00100	.00160	.07760	.00000	.00000	.00000
	GRADIENT	.02249	-.00038	-.00113	.00012	.00023	-.00117	.00017	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (P85073) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0047

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 FLAPLR = 40.000
DELTAA = -5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 1026/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.07270	-.00410	.00520	-.00020	.00000	.10290	.00000	.00000	.00000
.000	-2.000	-.01950	-.00030	.00450	.00040	.00060	.09280	.00000	.00000	.00000
.000	.000	-.00020	.00100	.00300	.00040	.00040	.08280	.00000	.00000	.00000
.000	2.000	.02260	.00250	.00340	.00030	.00090	.08430	.00000	.00000	.00000
.000	5.000	.05980	.00420	.00290	.00040	.00120	.07760	.00000	.00000	.00000
	GRADIENT	.01287	.00081	-.00024	.00005	.00011	-.00244	.00000	.00000	.00000

RUN NO. 1025/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.05710	-.00710	.00560	.00050	.00020	.10700	.00000	.00000	.00000
324.000	-2.000	-.00610	-.00590	.00380	.00060	.00050	.09420	.00000	.00000	.00000
324.000	.000	.02940	-.00190	.00380	.00030	.00040	.08010	.00000	.00000	.00000
324.000	2.000	.05610	.00070	.00230	.00040	.00110	.08630	.00000	.00000	.00000
324.000	5.000	.09510	.00420	.00170	.00000	.00150	.08070	.00000	.00000	.00000
	GRADIENT	.01527	.00120	-.00039	-.00003	.00013	-.00254	.00000	.00000	.00000

RUN NO. 1024/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.06520	-.01290	.00780	.00060	-.00130	.10080	.00000	.00000	.00000
648.000	-2.000	.00740	-.01420	.00580	.00060	-.00100	.09010	.00000	.00000	.00000
648.000	.000	.06410	-.01430	.00320	.00060	-.00140	.08730	.00000	.00000	.00000
648.000	2.000	.11360	-.01440	.00090	.00110	-.00040	.08630	.00000	.00000	.00000
648.000	5.000	.17790	-.01210	-.00190	.00070	.00120	.08530	.00000	.00000	.00000
	GRADIENT	.02462	.00006	-.00101	.00003	.00024	-.00147	.00000	.00000	.00000

RUN NO. 1023/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.06920	-.01690	.00730	.00010	-.00050	.09660	.00000	.00000	.00000
972.000	-2.000	-.02210	-.01700	.00570	.00100	-.00020	.08610	.00000	.00000	.00000
972.000	.000	.01890	-.01680	.00580	.00070	-.00050	.07980	.00000	.00000	.00000
972.000	2.000	.05900	-.01800	.00120	.00080	-.00080	.07760	.00000	.00000	.00000
972.000	5.000	.14360	-.01950	.00020	.00110	-.00080	.07450	.00000	.00000	.00000
	GRADIENT	.02114	-.00026	-.00074	.00008	-.00005	-.00320	.00000	.00000	.00000

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (R85024) 24 OCT 73

REFERENCE DATA

SREF = 2697.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.957
ELEVTR = .000 AILRON = .000
RUDDER = .000 FLPFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 1036/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.06660	-.00270	.00640	.00020	-.00040	.10370	.00000	.00000	.00000
.000	-2.000	-.03440	.00060	.00630	.00040	.00000	.09900	.00000	.00000	.00000
.000	.000	-.02130	-.00100	.00350	.00030	.00000	.09370	.00000	.00000	.00000
.000	2.000	.00680	.00000	.00480	.00070	.00000	.08910	.00000	.00000	.00000
.000	5.000	.04770	-.00260	.00340	.00080	.00000	.08450	.00000	.00000	.00000
	GRADIENT	.01127	-.00001	-.00031	.00006	.00003	-.00170	.00000	.00000	.00000

RUN NO. 1039/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.04630	-.00460	.00590	.00020	-.00030	.10420	.00000	.00000	.00000
324.000	-2.000	.00130	-.00080	.00340	.00040	.00020	.09870	.00000	.00000	.00000
324.000	.000	.02940	.00190	.00240	.00040	.00030	.09390	.00000	.00000	.00000
324.000	2.000	.05350	.00300	.00160	.00050	.00050	.08480	.00000	.00000	.00000
324.000	5.000	.09580	.00540	.00160	.00040	.00070	.07940	.00000	.00000	.00000
	GRADIENT	.01415	.00099	-.00043	.00002	.00010	-.00244	.00000	.00000	.00000

RUN NO. 1042/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.02640	-.01220	.00600	.00050	-.00090	.10220	.00000	.00000	.00000
648.000	-2.000	.04130	-.01320	.00330	.00120	-.00090	.09340	.00000	.00000	.00000
648.000	.000	.08410	-.01370	.00100	.00130	-.00040	.09140	.00000	.00000	.00000
648.000	2.000	.12370	-.01120	.00050	.00110	.00050	.08940	.00000	.00000	.00000
648.000	5.000	.17710	-.00840	-.00250	.00100	.00130	.08590	.00000	.00000	.00000
	GRADIENT	.02125	.00040	-.00093	.00004	.00023	-.00154	.00000	.00000	.00000

RUN NO. 1045/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.04190	-.01670	.00640	.00040	-.00010	.10180	.00000	.00000	.00000
972.000	-2.000	.01170	-.01850	.00520	.00080	-.00060	.09760	.00000	.00000	.00000
972.000	.000	.05020	-.01930	.00330	.00080	-.00050	.09140	.00000	.00000	.00000
972.000	2.000	.08770	-.02030	.00200	.00070	-.00070	.08760	.00000	.00000	.00000
972.000	5.000	.16700	-.02210	-.00160	.00110	-.00090	.07490	.00000	.00000	.00000
	GRADIENT	.02063	-.00053	-.00080	.00006	-.00007	-.00241	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (RSSOCS) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.	XMRP = 867.7000 IN.		
LREF = 1328.3000 IN.	YMRP = .0000 IN.		
BREF = 1328.3000 IN.	ZMRP = .0000 IN.		
SCALE = .0040			

PARAMETRIC DATA

BETA =	.000	MACH =	[illegible]
ELEVTR =	.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	5.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	162.[illegible]

RUN NO. 1065/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	.01760	-.00050	.00370	.00060	.00010	.11010	.00000	.00000	.00000
.000	-2.000	.03200	-.00070	.00380	.00030	-.00010	.10480	.00000	.00000	.00000
.000	.000	.04420	-.00020	.00370	.00070	.00030	.10060	.00000	.00000	.00000
.000	2.000	.05520	-.00260	.00260	.00050	.00020	.09470	.00000	.00000	.00000
.000	5.000	.08020	-.00610	.00230	.00070	.00050	.09720	.00000	.00000	.00000
	GRADIENT	.00620	-.00055	-.00016	.00002	.00004	-.00232	.00000	.00000	.00000

RUN NO. 1068/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	.02100	-.00500	.00380	.00040	.00000	.10160	.00000	.00000	.00000
324.000	-2.000	.06420	-.00200	.00310	.00050	.00000	.09020	.00000	.00000	.00000
324.000	.000	.08350	.00010	.00180	.00100	.00070	.08900	.00000	.00000	.00000
324.000	2.000	.10230	.00040	-.00200	.00040	.00040	.08440	.00000	.00000	.00000
324.000	5.000	.13320	.00280	-.00090	.00030	.00070	.07870	.00000	.00000	.00000
	GRADIENT	.01099	.00076	-.00058	-.00001	.00007	-.00223	.00000	.00000	.00000

RUN NO. 1069/ 0 RN/L = 5.06 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	.02190	-.01420	.00170	.00080	-.00140	.10580	.00000	.00000	.00000
648.000	-2.000	.07910	-.01570	.00070	.00130	-.00060	.09680	.00000	.00000	.00000
648.000	.000	.12030	-.01340	.00040	.00120	.00050	.09270	.00000	.00000	[illegible]
648.000	2.000	.14380	-.01060	-.00180	.00100	.00080	.09030	.00000	.00000	[illegible]
648.000	5.000	.19070	-.00640	-.00340	.00100	.00120	.08570	.00000	.00000	[illegible]
	GRADIENT	.01678	.00085	-.00053	.00001	.00027	-.00195	.00000	[illegible]	[illegible]

RUN NO. 1072/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.00220	-.01950	.00580	.00070	-.00080	.10060	.00000	[illegible]	[illegible]
972.000	-2.000	.04830	-.02050	.00390	.00100	-.00080	.08760	.00000	[illegible]	[illegible]
972.000	.000	.08870	-.02210	.00250	.00080	-.00120	.08180	.00000	[illegible]	[illegible]
972.000	2.000	.12740	-.02400	-.00130	.00070	-.00130	.07950	.00000	[illegible]	[illegible]
972.000	5.000	.20300	-.02450	-.00250	.00120	-.00130	.07640	.00000	[illegible]	[illegible]
	GRADIENT	.02042	-.00055	[illegible]	[illegible]	-.00005	-.00237	.00000	[illegible]	[illegible]

MS71(IA6A) ORB (013)WITH TANK (T9) SEPARATING (995076) 24 OCT 73

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 ALPHA = .000
RUDDER = .000 FLPLE = 40.000
DELTAA = -5.000 DELTAB = .000
DELTAY = .000 DELTAC = 495.000

RUN NO. 1027/ 0 RN/L = 5.03 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABC	CABT	CABS
.000	-5.000	-.13290	-.01020	.00860	.00070	-.00020	.03740	.00000	.00000	.00000
.000	-2.000	-.06720	-.01120	.00710	.00070	.00000	.03590	.00000	.00000	.00000
.000	.000	-.02200	-.01260	.00580	.00080	.00000	.03420	.00000	.00000	.00000
.000	2.000	.03590	-.01410	.00320	.00030	-.00020	.03750	.00000	.00000	.00000
.000	5.000	.14740	-.01920	-.00170	.00130	-.00080	.03650	.00000	.00000	.00000
	GRADIENT	.02772	-.00188	-.00102	.00006	-.00005	-.00209	.00000	.00000	.00000

RUN NO. 1028/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABC	CABT	CABS
324.000	-5.000	-.13180	-.00890	.01140	.00040	.00000	.03760	.00000	.00000	.00000
324.000	-2.000	-.07190	-.00980	.00850	.00070	.00000	.03650	.00000	.00000	.00000
324.000	.000	-.03000	-.01070	.00710	.00070	.00010	.03580	.00000	.00000	.00000
324.000	2.000	.01400	-.01230	.00450	.00080	.00000	.03780	.00000	.00000	.00000
324.000	5.000	.10430	-.01620	.00150	.00120	-.00020	.03700	.00000	.00000	.00000
	GRADIENT	.02332	-.00072	.00799	.00008	-.00002	-.00242	.00000	.00000	.00000

RUN NO. 1029/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABC	CABT	CABS
648.000	-5.000	-.13810	-.00970	.00970	.00010	.00000	.03750	.00000	.00000	.00000
648.000	-2.000	-.07430	-.00890	.00830	.00050	.00010	.03730	.00000	.00000	.00000
648.000	.000	-.03630	-.00970	.00930	.00040	.00030	.03650	.00000	.00000	.00000
648.000	2.000	.00370	-.00890	.00580	.00070	.00010	.03760	.00000	.00000	.00000
648.000	5.000	.07230	-.01070	.00170	.00090	.00000	.03720	.00000	.00000	.00000
	GRADIENT	.02066	-.00079	-.00079	.00008	-.00003	-.00234	.00000	.00000	.00000

RUN NO. 1030/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABC	CABT	CABS
972.000	-5.000	-.12930	-.00890	.00960	.00040	.00000	.03730	.00000	.00000	.00000
972.000	-2.000	-.07110	-.00980	.00840	.00030	.00020	.03610	.00000	.00000	.00000
972.000	.000	-.04020	-.01020	.00500	.00040	-.00020	.03690	.00000	.00000	.00000
972.000	2.000	.00250	-.00980	.00470	.00070	.00010	.03770	.00000	.00000	.00000
972.000	5.000	.05690	-.01060	.00230	.00090	.00020	.03730	.00000	.00000	.00000
	GRADIENT	.01945	-.00018	-.00076	.00006	.00001	-.00232	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.95
ELEVTR = .000 AILRON = .000
RUDDER = .000 FLAPLR = 40.000
DELTA4 = .000 DELTA5 = .000
DELTA7 = .000 DELTA8 = 436.000

RUN NO. 1037/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CA90	CABT	CABS
.000	-5.000	-.12380	-.01390	.00750	.00090	-.00050	.03690	.03000	.00000	.00000
.000	-2.000	-.05070	-.01320	.00690	.00100	-.00010	.03580	.03000	.00000	.00000
.000	.000	.00760	-.01650	.00300	.00050	-.00080	.03150	.03000	.00000	.00000
.000	2.000	.07890	-.01840	.00120	.00080	-.00110	.03130	.03000	.00000	.00000
.000	5.000	.17920	-.01720	-.00240	.00130	.00040	.03260	.03000	.00000	.00000
	GRADIENT	.03059	-.00046	-.00105	.00003	.00004	-.00151	.00000	.00000	.00000

RUN NO. 1038/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CA90	CABT	CABS
324.000	-5.000	-.13670	-.01160	.00710	.00020	-.00050	.03840	.03000	.00000	.00000
324.000	-2.000	-.07620	-.01150	.00600	.00070	-.00080	.03610	.03000	.00000	.00000
324.000	.000	-.03040	-.01310	.00380	.00060	-.00030	.03050	.03000	.00000	.00000
324.000	2.000	.02410	-.01310	.00280	.00080	-.00020	.03070	.03000	.00000	.00000
324.000	5.000	.12320	-.01700	.00100	.00110	-.00030	.03230	.03000	.00000	.00000
	GRADIENT	.02586	-.00052	-.00064	.00008	.00002	-.00249	.00000	.00000	.00000

RUN NO. 1043/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CA90	CABT	CABS
648.000	-5.000	-.12940	-.01010	.00870	.00100	-.00030	.03900	.03000	.00000	.00000
648.000	-2.000	-.07610	-.00720	.00710	.00100	-.00000	.03550	.03000	.00000	.00000
648.000	.000	-.03550	-.00840	.00640	.00090	.00000	.03740	.03000	.00000	.00000
648.000	2.000	.00290	-.00990	.00400	.00070	-.00010	.03730	.03000	.00000	.00000
648.000	5.000	.07870	-.01190	.00080	.00090	.00000	.03850	.03000	.00000	.00000
	GRADIENT	.02058	-.00025	-.00079	.00006	.00002	-.00249	.00000	.00000	.00000

RUN NO. 1044/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CA90	CABT	CABS
972.000	-5.000	-.13030	-.00930	.00820	.00100	-.00030	.03870	.03000	.00000	.00000
972.000	-2.000	-.07320	-.00880	.00560	.00070	-.00060	.03600	.03000	.00000	.00000
972.000	.000	-.03530	-.00870	.00560	.00080	-.00010	.03760	.03000	.00000	.00000
972.000	2.000	.00350	-.00970	.00370	.00130	-.00010	.03730	.03000	.00000	.00000
972.000	5.000	.06900	-.01030	.00190	.00110	.00000	.03840	.03000	.00000	.00000
	GRADIENT	.01984	-.00012	-.00069	.00006	-.00002	-.00249	.00000	.00000	.00000

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 667.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

RUN NO. 1066/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	D4BC	D4BT	D4BB
.000	-5.000	-.10760	-.01390	.00860	.00060	-.00740	.00860	[illegible]	[illegible]	[illegible]
.000	-2.000	-.03100	-.01560	.00650	.00070	-.00050	.00600	[illegible]	[illegible]	[illegible]
.000	.000	.04530	-.01700	.00510	.00080	-.00060	.00480	[illegible]	[illegible]	[illegible]
.000	2.000	.12030	-.01910	.00110	.00120	-.00150	.00460	[illegible]	[illegible]	[illegible]
.000	5.000	.19780	-.01520	-.00170	.00080	-.00090	.00540	[illegible]	[illegible]	[illegible]
	GRADIENT	.03154	-.00123	-.00107	.00004	.00010	-.00103	[illegible]	[illegible]	[illegible]

RUN NO. 1067/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	D4BC	D4BT	D4BB
324.000	-5.000	-.12490	-.01190	.00830	.00070	-.00120	.00810	[illegible]	[illegible]	[illegible]
324.000	-2.000	-.05570	-.01310	.00540	.00070	.00090	.00530	[illegible]	[illegible]	[illegible]
324.000	.000	.00820	-.01490	.00510	.00090	-.00100	.00390	[illegible]	[illegible]	[illegible]
324.000	2.000	.04320	-.01650	.00170	.00060	-.00040	.00660	[illegible]	[illegible]	[illegible]
324.000	5.000	.15970	-.02160	-.00110	.00080	-.00070	.00730	[illegible]	[illegible]	[illegible]
	GRADIENT	.03412	-.00097	-.00106	.00001	-.00006	-.00020	[illegible]	[illegible]	[illegible]

RUN NO. 1070/ 0 RN/L = 5.03 GRADIENT INTERVAL = -5.00 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	D4BC	D4BT	D4BB
648.000	-5.000	-.13190	-.00970	.00980	.00050	-.00750	.00870	[illegible]	[illegible]	[illegible]
648.000	-2.000	-.07250	-.00980	.00550	.00070	-.00130	.00690	[illegible]	[illegible]	[illegible]
648.000	.000	-.02770	-.00910	.00380	.00070	-.00020	.00760	[illegible]	[illegible]	[illegible]
648.000	2.000	.01250	-.01160	.00250	.00060	-.00030	.00760	[illegible]	[illegible]	[illegible]
648.000	5.000	.09470	-.01350	.00170	.00070	-.00040	.00770	[illegible]	[illegible]	[illegible]
	GRADIENT	.02247	-.00039	-.00030	.00004	.00004	-.00020	[illegible]	[illegible]	[illegible]

RUN NO. 1071/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	D4BC	D4BT	D4BB
972.000	-5.000	-.13150	-.01120	.00970	.00060	-.00750	.00880	[illegible]	[illegible]	[illegible]
972.000	-2.000	-.07290	-.01040	.00620	.00080	-.00130	.00760	[illegible]	[illegible]	[illegible]
972.000	.000	-.02800	-.01040	.00420	.00080	-.00020	.00760	[illegible]	[illegible]	[illegible]
972.000	2.000	.01410	-.01210	.00260	.00080	-.00030	.00780	[illegible]	[illegible]	[illegible]
972.000	5.000	.09600	-.01430	.00160	.00070	-.00040	.00780	[illegible]	[illegible]	[illegible]
	GRADIENT	.02259	-.00034	-.00063	.00004	.00004	-.00026	[illegible]	[illegible]	[illegible]

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (R850C91 (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 10.000 DELTAB = .000
DELTAY = .000 DELTAZ = 486.000

RUN NO. 1085/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.05200	-.01930	.00840	.00100	-.00030	.09800	.00000	.00000	.00000
.000	-2.000	.04270	-.02260	.00310	.00120	-.00190	.08920	.00000	.00000	.00000
.000	.000	.10360	-.02190	-.00070	.00160	.00000	.09040	.00000	.00000	.00000
.000	2.000	.15570	-.01790	.00020	.00130	.00080	.09050	.00000	.00000	.00000
.000	5.000	.20710	-.00940	-.00220	.00110	.00130	.08650	.00000	.00000	.00000
	GRADIENT	.02623	.00102	-.00101	.00001	.00023	-.00095	.00000	.00000	.00000

RUN NO. 1088/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.09330	-.01660	.00720	.00110	-.00040	.09660	.00000	.00000	.00000
324.000	-2.000	-.01850	-.01710	.00550	.00140	-.00040	.08470	.00000	.00000	.00000
324.000	.000	.03980	-.02040	.00230	.00130	-.00110	.08080	.00000	.00000	.00000
324.000	2.000	.10900	-.02350	-.00040	.00150	-.00020	.07890	.00000	.00000	.00000
324.000	5.000	.22800	-.02590	-.00600	.00170	-.00080	.08080	.00000	.00000	.00000
	GRADIENT	.03209	-.00102	-.00134	.00006	-.00004	-.00156	.00000	.00000	.00000

RUN NO. 1089/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.12320	-.01290	.01020	.00070	-.00030	.09760	.00000	.00000	.00000
648.000	-2.000	-.06530	-.01300	.00710	.00090	-.00020	.08510	.00000	.00000	.00000
648.000	.000	-.01270	-.01400	.00650	.00090	-.00020	.07960	.00000	.00000	.00000
648.000	2.000	.03230	-.01530	.00400	.00100	-.00020	.07620	.00000	.00000	.00000
648.000	5.000	.11850	-.01950	-.00100	.00140	-.00040	.07200	.00000	.00000	.00000
	GRADIENT	.02420	-.00065	-.00107	.00006	-.00001	-.00251	.00000	.00000	.00000

RUN NO. 1092/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.12470	-.01030	.01040	.00110	-.00010	.09680	.00000	.00000	.00000
972.000	-2.000	-.07490	-.01080	.00640	.00140	-.00020	.08620	.00000	.00000	.00000
972.000	.000	-.03090	-.00970	.00680	.00140	-.00010	.08520	.00000	.00000	.00000
972.000	2.000	.00890	-.01020	.00570	.00180	-.00010	.07770	.00000	.00000	.00000
972.000	5.000	.07710	-.01080	.00250	.00180	-.00010	.07240	.00000	.00000	.00000
	GRADIENT	.02029	-.00002	-.00171	.00007	.00000	-.00231	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (R85010) (04 OCT 77)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 810.000

RUN NO. 1031/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.12830	-.01040	.01050	.00060	-.00070	.09800	.00000	.00000	.00000
.000	-2.000	-.07690	-.01050	.00650	.00070	-.00040	.09830	.00000	.00000	.00000
.000	.000	-.03520	-.00990	.00690	.00080	-.00040	.08200	.00000	.00000	.00000
.000	2.000	.00870	-.00980	.00450	.00090	.00030	.07900	.00000	.00000	.00000
.000	5.000	.06050	-.01040	.00240	.00100	.00010	.07470	.00000	.00000	.00000
	GRADIENT	.00395	.00002	-.00077	.00004	.00009	-.00233	.00000	.00000	.00000

RUN NO. 1032/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.12670	-.00900	.01040	.00070	-.00040	.09780	.00000	.00000	.00000
324.000	-2.000	-.07110	-.01230	.00710	.00080	-.00030	.09670	.00000	.00000	.00000
324.000	.000	-.03040	-.01000	.00710	.00070	-.00020	.08130	.00000	.00000	.00000
324.000	2.000	.00600	-.01060	.00400	.00090	-.00030	.07850	.00000	.00000	.00000
324.000	5.000	.07600	-.01130	.00090	.00140	-.00010	.07490	.00000	.00000	.00000
	GRADIENT	.02013	-.00014	-.00093	.00006	.00003	-.00226	.00000	.00000	.00000

RUN NO. 1033/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.12450	-.01020	.00750	.00060	-.00040	.09720	.00000	.00000	.00000
648.000	-2.000	-.07150	-.01050	.00570	.00040	-.00040	.09630	.00000	.00000	.00000
648.000	.000	-.03520	-.01010	.00620	.00090	.00000	.08190	.00000	.00000	.00000
648.000	2.000	.00340	-.00990	.00450	.00090	-.00060	.07790	.00000	.00000	.00000
648.000	5.000	.07990	-.01020	.00160	.00100	-.00020	.07380	.00000	.00000	.00000
	GRADIENT	.02038	.00002	-.00055	.00005	.00001	-.00231	.00000	.00000	.00000

RUN NO. 1034/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.12370	-.01120	.00730	.00050	-.00040	.09650	.00000	.00000	.00000
972.000	-2.000	-.07150	-.01020	.00640	.00050	-.00030	.09510	.00000	.00000	.00000
972.000	.000	-.02970	-.00980	.00650	.00060	-.00020	.08050	.00000	.00000	.00000
972.000	2.000	.00420	-.01080	.00340	.00070	-.00030	.07740	.00000	.00000	.00000
972.000	5.000	.07230	-.01070	.00110	.00090	-.00027	.07260	.00000	.00000	.00000
	GRADIENT	.02002	.00002	-.00064	.00004	.00002	-.00236	.00000	.00000	.00000

DATE 27 OCT 73

TABULATED SOURCE DATA, MSFC 571, (IA6A)

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING

(R85011) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 FLAPS = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 810.000

RUN NO. 1015/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CASO	CABT	CABS
.000	-5.000	-.13210	-.00960	.00990	-.00020	-.00040	.09850	.00000	.00000	.00000
.000	-2.000	-.07660	-.01030	.00750	.00030	.00000	.08790	.00000	.00000	.00000
.000	.000	-.03880	-.01030	.00640	.00020	.00000	.08230	.00000	.00000	.00000
.000	2.000	.00620	-.00940	.00520	.00060	.00020	.08050	.00000	.00000	.00000
.000	5.000	.07860	-.01030	.00220	.00060	.00020	.07520	.00000	.00000	.00000
	GRADIENT	.02102	-.00003	-.00074	.00003	.00006	-.00228	.00000	.00000	.00000

RUN NO. 1016/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CASO	CABT	CABS
324.000	-5.000	-.12570	-.00930	.01080	.00050	.00000	.09820	.00000	.00000	.00000
324.000	-2.000	-.06690	-.01140	.00690	.00050	.00000	.08740	.00000	.00000	.00000
324.000	.000	-.03540	-.01020	.00740	.00070	.00010	.08200	.00000	.00000	.00000
324.000	2.000	.00440	-.01060	.00480	.00060	.00010	.07950	.00000	.00000	.00000
324.000	5.000	.07670	-.01030	.00350	.00090	.00030	.07510	.00000	.00000	.00000
	GRADIENT	.01991	-.00006	-.00070	.00004	.00003	-.00228	.00000	.00000	.00000

RUN NO. 1017/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CASO	CABT	CABS
648.000	-5.000	-.12830	-.00950	.00980	.00040	.00000	.09820	.00000	.00000	.00000
648.000	-2.000	-.07180	-.00980	.00910	.00060	.00000	.08700	.00000	.00000	.00000
648.000	.000	-.03600	-.01020	.00690	.00040	.00000	.08250	.00000	.00000	.00000
648.000	2.000	.00430	-.00970	.00630	.00080	.00000	.07850	.00000	.00000	.00000
648.000	5.000	.07290	-.01010	.00380	.00100	.00010	.07440	.00000	.00000	.00000
	GRADIENT	.01997	-.00005	-.00061	.00006	.00001	-.00234	.00000	.00000	.00000

RUN NO. 1018/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CASO	CABT	CABS
972.000	-5.000	-.13170	-.01080	.00990	.00020	.00000	.09770	.00000	.00000	.00000
972.000	-2.000	-.07200	-.00890	.00910	.00050	.00000	.08650	.00000	.00000	.00000
972.000	.000	-.03420	-.00940	.00850	.00030	.00010	.08190	.00000	.00000	.00000
972.000	2.000	.00380	-.00970	.00640	.00050	.00020	.07960	.00000	.00000	.00000
972.000	5.000	.06800	-.01010	.00360	.00090	.00030	.07440	.00000	.00000	.00000
	GRADIENT	.01983	.00003	-.00064	.00007	.00003	-.00228	.00000	.00000	.00000

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (R85012) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 10.000 DELTAB = .000
DELTAY = .000 DELTAZ = 810.000

RUN NO. 1086/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.13070	-.01000	.01040	.00110	-.00010	.09810	.00000	.00000	.00000
.000	-2.000	-.07250	-.01130	.00580	.00080	-.00020	.03700	.00000	.00000	.00000
.000	.000	-.02910	-.01080	.00540	.00040	.00000	.08170	.00000	.00000	.00000
.000	2.000	.01460	-.01000	.00470	.00080	.00000	.07860	.00000	.00000	.00000
.000	5.000	.09590	-.01220	.00270	.00110	.00030	.07370	.00000	.00000	.00000
	GRADIENT	.02254	-.00014	-.00070	.00000	.00004	-.00239	.00000	.00000	.00000

RUN NO. 1087/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.12650	-.01070	.00730	.00070	-.00020	.09650	.00000	.00000	.00000
324.000	-2.000	-.06890	-.01000	.00500	.00090	-.00020	.08540	.00000	.00000	.00000
324.000	.000	-.02880	-.01060	.00370	.00090	.00000	.07990	.00000	.00000	.00000
324.000	2.000	.01150	-.01030	.00170	.00090	-.00010	.07760	.00000	.00000	.00000
324.000	5.000	.08140	-.01110	-.00100	.00110	.00000	.07350	.00000	.00000	.00000
	GRADIENT	.02069	-.00004	-.00083	.00003	.00002	-.00225	.00000	.00000	.00000

RUN NO. 1090/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.12850	-.01110	.00760	.00080	-.00040	.09720	.00000	.00000	.00000
648.000	-2.000	-.06320	-.00970	.00720	.00120	-.00010	.08540	.00000	.00000	.00000
648.000	.000	-.03170	-.01090	.00450	.00080	-.00020	.08050	.00000	.00000	.00000
648.000	2.000	.01080	-.01020	.00360	.00130	.00000	.07770	.00000	.00000	.00000
648.000	5.000	.07870	-.01100	.00100	.00120	.00000	.07390	.00000	.00000	.00000
	GRADIENT	.02041	-.00001	-.00069	.00004	.00004	-.00227	.00000	.00000	.00000

RUN NO. 1091/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.12670	-.01070	.00960	.00140	-.00040	.09770	.00000	.00000	.00000
972.000	-2.000	-.06880	-.01360	.00580	.00110	-.00030	.08660	.00000	.00000	.00000
972.000	.000	-.03400	-.01100	.00570	.00100	-.00020	.08090	.00000	.00000	.00000
972.000	2.000	.00640	-.01100	.00330	.00120	-.00030	.07790	.00000	.00000	.00000
972.000	5.000	.07740	-.01090	.00070	.00110	-.00010	.07410	.00000	.00000	.00000
	GRADIENT	.02019	.00007	-.00085	-.00002	-.00004	-.00233	.00000	.00000	.00000

MS71(IA6A) ORB (013)WITH TANK (T9) SEPARATING (R85013) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 1052/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.09570	-.00900	.00940	.00100	.00010	.10550	.00000	.00000	.00000
.000	-2.000	-.05200	-.00930	.00910	.00060	.00020	.08970	.00000	.00000	.00000
.000	.000	-.03000	-.01140	.00720	.00100	.00020	.08170	.00000	.00000	.00000
.000	2.000	.00320	-.01220	.00620	.00080	.00060	.07470	.00000	.00000	.00000
.000	5.000	.05130	-.01490	.00530	.00090	.00100	.06830	.00000	.00000	.00000
	GRADIENT	.01458	-.00061	-.00045	-.00000	.00000	-.00372	.00000	.00000	.00000

RUN NO. 1047/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	.00750	-.00540	.00600	-.00010	-.00050	.10400	.00000	.00000	.00000
972.000	-2.000	.09420	-.00590	.00430	.00050	-.00030	.09790	.00000	.00000	.00000
972.000	.000	.13730	-.00680	.00180	.00070	.00030	.09570	.00000	.00000	.00000
972.000	2.000	.18360	-.00850	-.00100	.00090	.00110	.09400	.00000	.00000	.00000
972.000	5.000	.25080	-.01130	-.00230	.00100	.00120	.09300	.00000	.00000	.00000
	GRADIENT	.02406	-.00060	-.00080	.00011	.00026	-.00108	.00000	.00000	.00000

M571(IA6A) ORB (OL3)WITH TANK (T9) SEPARATING (R85014)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = 10.000 AILRON = .000
RUDDER = .000 FLCFLP = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 1051/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.05080	-.00470	.00550	.00050	-.00020	.10340	.00000	.00000	.00000
.000	-2.000	-.03190	-.00390	.00430	.00060	.00020	.10160	.00000	.00000	.00000
.000	.000	-.00660	-.00490	.00260	.00040	.00020	.09740	.00000	.00000	.00000
.000	2.000	.02420	-.00460	.00350	.00080	.00030	.09360	.00000	.00000	.00000
.000	5.000	.06680	-.00810	.00310	.00120	.00050	.08860	.00000	.00000	.00000
	GRADIENT	.01207	-.00035	-.00023	.00007	.00006	-.00155	.00000	.00000	.00000

RUN NO. 1048/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.03190	-.02210	.03740	.00070	.00000	.10160	.00000	.00000	.00000
972.000	-2.000	.01720	-.02410	.00330	.00090	-.00020	.09160	.00000	.00000	.00000
972.000	.000	.06230	-.02590	.00300	.00090	-.00040	.08710	.00000	.00000	.00000
972.000	2.000	.10760	-.02670	.00200	.00090	-.00030	.08440	.00000	.00000	.00000
972.000	5.000	.19060	-.03060	-.00180	.00150	-.00030	.08360	.00000	.00000	.00000
	GRADIENT	.02230	-.00082	-.00084	.00007	-.00003	-.00180	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (RS5015) (24 OCT 72)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 1076/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	.03050	-.00770	.00120	.00030	-.00020	.11410	.00000	.00000	.00000
.000	-2.000	.04640	-.00740	.00230	.00070	-.00010	.10930	.00000	.00000	.00000
.000	.000	.06770	-.00650	.00380	.00110	.00030	.10490	.00000	.00000	.00000
.000	2.000	.07680	-.00980	.00150	.00090	.00020	.09920	.00000	.00000	.00000
.000	5.000	.10510	-.01260	.00140	.00150	.00070	.09210	.00000	.00000	.00000
	GRADIENT	.00748	-.00047	-.00001	.00002	.00009	-.00224	.00000	.00000	.00000

RUN NO. 1073/ 0 RN/L = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	.01260	-.02410	.00610	.00080	-.00060	.10330	.00000	.00000	.00000
972.000	-2.000	.06880	-.02790	.00320	.00120	-.00080	.09380	.00000	.00000	.00000
972.000	.000	.11620	-.03070	.00180	.00100	-.00100	.08940	.00000	.00000	.00000
972.000	2.000	.15010	-.03260	.00110	.00140	-.00120	.08790	.00000	.00000	.00000
972.000	5.000	.23630	-.03460	-.00170	.00180	-.00130	.08560	.00000	.00000	.00000
	GRADIENT	.02209	-.00107	-.00074	.00009	-.00007	-.00164	.00000	.00000	.00000

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (PA5016) 4 04 OCT 73 1

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1320.0000 IN. YMRP = .0000 IN.
BREF = 131 .3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILTOR = .000
RUDDER = .000 FLOFLP = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 486.000

RUN NO. 1050/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.11220	-.01520	.00950	.00080	.00000	.09950	.00000	.00000	.00000
.000	-2.000	-.04140	-.01750	.00680	.00170	.00020	.09950	.00000	.00000	.00000
.000	.000	.01930	-.02200	.00480	.00090	-.00020	.09600	.00000	.00000	.00000
.000	2.000	.09850	-.02460	.00340	.00120	-.00010	.09610	.00000	.00000	.00000
.000	5.000	.20360	-.02570	-.00060	.00150	.00150	.09820	.00000	.00000	.00000
	GRADIENT	.03205	-.00115	-.00099	.00007	.00012	-.00092	.00000	.00000	.00000

RUN NO. 1049/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.12470	-.01260	.00850	.00040	.00000	.09910	.00000	.00000	.00000
972.000	-2.000	-.06320	-.01210	.00760	.00090	.00020	.09790	.00000	.00000	.00000
972.000	.000	-.01950	-.01260	.00720	.00090	.00040	.09250	.00000	.00000	.00000
972.000	2.000	.01600	-.01400	.00470	.00110	.00020	.09720	.00000	.00000	.00000
972.000	5.000	.08790	-.01580	.00270	.00120	.00040	.07780	.00000	.00000	.00000
	GRADIENT	.02106	-.00034	-.00066	.00008	.00004	-.00210	.00000	.00000	.00000

M571(IA6A) ORB (0*3)WITH TANK (T9) SEPARATING (P85017) (04 OCT 73)

REFERENCE DATA

SREF = 2650.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 486.000

RUN NO. 1075/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.09840	-.01770	.00870	.00130	-.00030	.09970	.00000	.00000	.00000
.000	-2.000	-.00340	-.02050	.00600	.00090	-.00080	.09030	.00000	.00000	.00000
.000	.000	.06420	-.02580	.00340	.00140	-.00120	.08900	.00000	.00000	.00000
.000	2.000	.14800	-.02750	.00190	.00160	-.00090	.09130	.00000	.00000	.00000
.000	5.000	.22850	-.02530	-.00230	.00150	.00080	.09400	.00000	.00000	.00000
	GRADIENT	.03340	-.00090	-.00109	.00004	.00009	-.00046	.00000	.00000	.00000

RUN NO. 1074/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.11840	-.01390	.00780	.00050	-.00020	.09850	.00000	.00000	.00000
972.000	-2.000	-.06020	-.01440	.00700	.00090	-.00030	.08800	.00000	.00000	.00000
972.000	.000	-.01730	-.01450	.00690	.00090	.00000	.08300	.00000	.00000	.00000
972.000	2.000	.03240	-.01500	.00440	.00100	.00000	.08100	.00000	.00000	.00000
972.000	5.000	.10010	-.01780	.00090	.00130	.00000	.07880	.00000	.00000	.00000
	GRADIENT	.02203	-.00036	-.00068	.00007	.00003	-.00194	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (RSS018) 27 OCT 73

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -20.000 ELTRM = .000
RUDDER = .000 RUDTLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 1053/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.13350	.00110	.01170	.00000	-.00020	.10940	.00000	.00000	.00000
.000	-2.000	-.09410	-.00180	.00980	.00040	.00000	.09200	.00000	.00000	.00000
.000	.000	-.06240	-.00410	.00750	.00040	.00010	.08280	.00000	.00000	.00000
.000	2.000	-.03460	-.00500	.00780	.00050	.00020	.07490	.00000	.00000	.00000
.000	5.000	.01650	-.00590	.00740	.00070	.00050	.06590	.00000	.00000	.00000
	GRADIENT	.01464	-.00071	-.00044	.00006	.00007	-.00434	.00000	.00000	.00000

RUN NO. 1058/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.03420	.00970	.00920	.00000	-.00080	.10770	.00000	.00000	.00000
972.000	-2.000	.04880	.00710	.00350	.00030	-.00060	.09930	.00000	.00000	.00000
972.000	.000	.09920	.00650	.00240	.00040	.00010	.09570	.00000	.00000	.00000
972.000	2.000	.14540	.00520	.00070	.00060	.00050	.09260	.00000	.00000	.00000
972.000	5.000	.20810	.00240	-.00210	.00060	.00100	.08920	.00000	.00000	.00000
	GRADIENT	.02405	-.00069	-.00107	.00006	.00019	-.00179	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (R85019) 24 OCT 73

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1329.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = -20.000 AILERON = .000
RUDDER = .000 FLAPLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 152.000

RUN NO. 1054/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.10280	.00410	.00780	.00040	-.00030	.10590	.00000	.00000	.00000
.000	-2.000	-.06480	.00410	.00600	.00040	.00000	.10250	.00000	.00000	.00000
.000	.000	-.04220	.00360	.00580	.00060	.00000	.09690	.00000	.00000	.00000
.000	2.000	-.01830	.00240	.00580	.00090	.00000	.09310	.00000	.00000	.00000
.000	5.000	.02970	.00030	.00520	.00090	.00010	.08660	.00000	.00000	.00000
	GRADIENT	.01303	-.00039	-.00023	.00006	.00003	-.00199	.00000	.00000	.00000

RUN NO. 1057/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.08200	-.01070	.00760	.00040	-.00100	.10690	.00000	.00000	.00000
972.000	-2.000	-.01160	-.01060	.00710	.00080	-.00080	.09200	.00000	.00000	.00000
972.000	.000	.02160	-.01360	.00530	.00090	-.00080	.08560	.00000	.00000	.00000
972.000	2.000	.06200	-.01430	.00340	.00130	-.00090	.08140	.00000	.00000	.00000
972.000	5.000	.13840	-.01590	-.00080	.00160	-.00100	.07750	.00000	.00000	.00000
	GRADIENT	.02154	-.00058	-.00085	.00012	-.00000	-.00290	.00000	.00000	.00000

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1367.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = -20.000 AILRON = .000
RUDDER = .000 RUDDLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 152.000

RUN NO. 1080/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CA90	CABT	CABS
.000	-5.000	-.01720	.00520	.00540	.00100	-.00020	.11430	.00000	.00000	.00000
.000	-2.000	.00580	.00420	.00320	.00030	-.00030	.10820	.00000	.00000	.00000
.000	.000	.01960	.00260	.00240	.00060	.00000	.10320	.00000	.00000	.00000
.000	2.000	.03430	.00100	.00290	.00060	.00000	.09730	.00000	.00000	.00000
.000	5.000	.06950	-.00080	.00410	.00100	.00050	.08850	.00000	.00000	.00000
	GRADIENT	.00846	-.00053	-.00012	.00001	.00007	-.00261	.00000	.00000	.00000

RUN NO. 1077/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CA90	CABT	CABS
972.000	-5.000	-.04140	-.01060	.00690	.00050	-.00100	.10580	.00000	.00000	.00000
972.000	-2.000	.02440	-.01350	.00580	.00090	-.00070	.09320	.00000	.00000	.00000
972.000	.000	.06590	-.01530	.00300	.00100	-.00110	.08560	.00000	.00000	.00000
972.000	2.000	.10090	-.01690	.00160	.00100	-.00130	.08240	.00000	.00000	.00000
972.000	5.000	.17480	-.01790	-.00200	.00170	-.00140	.07910	.00000	.00000	.00000
	GRADIENT	.02128	-.00075	-.00091	.00011	-.00006	-.00267	.00000	.00000	.00000

DATE 27 OCT 73

TABULATED SOURCE DATA, MSFC 571, (IA6A)

M571(IA6A) ORB (OC3)WITH TANK (T9) SEPARATING (R85021) 24 OCT 73

REFERENCE DATA

SREF	=	2690.0000 SQ.FT.	XMRP	=	867.7000 IN.
LREF	=	1328.3000 IN.	YMRP	=	.0000 IN.
BREF	=	1328.3000 IN.	ZMRP	=	.0000 IN.
SCALE	=	.0040			

PARAMETRIC DATA

BETA	=	.000	MACH	=	4.950
ELEVTR	=	-20.000	AILRON	=	.000
RUDDER	=	.000	RUDDLR	=	40.000
DELTAA	=	.000	DELTAB	=	.000
DELTAY	=	.000	DELTAZ	=	486.000

RUN NO. 1055/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.15760	-.00650	.00990	.00040	-.00090	.10460	.00000	.00000	.00000
.000	-2.000	-.08000	-.00740	.00850	.00060	-.00070	.09060	.00000	.00000	.00000
.000	.000	-.01350	-.00970	.00670	.00080	-.00070	.08550	.00000	.00000	.00000
.000	2.000	.05520	-.01230	.00420	.00100	-.00 [illegible]	.08390	.00000	.00000	.00000
.000	5.000	.14990	-.01210	-.00080	.00147	-.00 [illegible]	.08190	.00000	.00000	.00000
	GRADIENT	.03116	-.00065	-.00107	.00011	-.00029	-.00 [illegible]	.00000	.00000	.00000

RUN NO. 1056/ 0 RN/L = 4.92 GRADIENT INTERVA [illegible] -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	[illegible]	CAF	CABO	CABT	CABS
972.000	-5.000	-.16400	-.00320	.01020	.00060	-.00 [illegible]	.10160	.00000	.00000	.00000
972.000	-2.000	-.10590	-.00500	.00710	.00060	-.00 [illegible]	.09090	.00000	.00000	.00000
972.000	.000	-.06170	-.00600	.00580	.00 [illegible]	-.00 [illegible]	.08360	.00000	.00000	.00000
972.000	2.000	-.01990	-.00590	.00560	.0009	.00020	.08060	.00000	.00000	.00000
972.000	5.000	.05220	-.00590	.00390	.0011	.00030	.07600	.00000	.00000	.00000
	GRADIENT	.02161	-.00026	-.00059	.00005	.00006	-.00273	.00000	.00000	.00000

MSFC(IA6A) OFB (013)WITH TANK (T9) SEPARATING (P85022) 04 OCT 73

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -20.000 ALPHA = .000
FLDER = .000 FLDFLP = 40.000
DELT A = 5.000 DELTB = .00
DELTC = .000 DELTD = 495.000

RUN NO. 1079/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.14210	-.00680	.00950	.00340	-.00080	.00320	.00000	.00000	.00000
.000	-2.000	-.06270	-.00980	.00510	.00070	-.00080	.00150	.00000	.00000	.00000
.000	.000	.01210	-.01250	.00380	.00080	-.00140	.00690	.00000	.00000	.00000
.000	2.000	.09810	-.01360	.00120	.00170	-.00120	.00800	.00000	.00000	.00000
.000	5.000	.16980	-.00980	-.00290	.00160	-.00060	.00810	.00000	.00000	.00000
	GRADIENT	.03209	-.00039	-.00115	.00014	.00010	-.00142	.00000	.00000	.00000

RUN NO. 1078/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.15840	-.00430	.00690	.00020	-.00100	.00290	.00000	.00000	.00000
972.000	-2.000	-.09580	-.00510	.00700	.00160	-.00060	.00710	.00000	.00000	.00000
972.000	.000	-.05010	-.00670	.00550	.00040	-.00050	.00400	.00000	.00000	.00000
972.000	2.000	-.00450	-.00560	.00530	.00100	-.00080	.00700	.00000	.00000	.00000
972.000	5.000	.05690	-.00590	.00340	.00120	-.00120	.00510	.00000	.00000	.00000
	GRADIENT	.02257	-.00014	-.00036	.00010	.00005	-.00134	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (985023) (04 OCT 73)

REFERENCE DATA

SREF =	2695.0000 SQ.FT.	XMRP =	867.7000 IN.
LREF =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.960
ELEVTR =	-40.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	.000

RUN NO. 1064/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.17380	.00700	.00920	.00040	-.00050	.13030	.00000	.00000	.00000
.000	-2.000	-.11650	.00390	.00800	.00040	-.00030	.10760	.00000	.00000	.00000
.000	.000	-.08300	.00280	.00880	.00100	.00000	.09560	.00000	.00000	.00000
.000	2.000	-.05120	.00020	.00640	.00050	-.00010	.08500	.00000	.00000	.00000
.000	5.000	-.00010	-.00280	.00490	.00090	.00020	.07370	.00000	.00000	.00000
	GRADIENT	.01723	-.00097	-.00043	.00004	.000 .	-.00566	.00000	.00000	.00000

RUN NO. 1059/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.07960	.01610	.00850	.00000	-.00100	.13350	.00000	.00000	.00000
972.000	-2.000	.00930	.01150	.00200	.00100	-.00130	.12080	.00000	.00000	.00000
972.000	.000	.06540	.01050	-.00130	.00100	-.00040	.11500	.00000	.00000	.00000
972.000	2.000	.10960	.00830	-.00040	.00110	.00010	.11000	.00000	.00000	.00000
972.000	5.000	.18040	.00620	.00020	.00070	.00070	.10300	.00000	.00000	.00000
	GRADIENT	.02588	-.00096	-.00080	.00006	.00019	-.00300	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (R65024) (04 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	867.7000 IN.
LREF =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.960
ELEVTR =	-40.000	AILRON =	.000
RUDDER =	.000	SUBFLR =	40.000
DELTAA =	.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	162.000

RUN NO. 1063/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.13360	.01220	.00810	.00040	-.00080	.12750	.00000	.00000	.00000
.000	-2.000	-.09360	.00860	.00480	.00040	-.00010	.11930	.00000	.00000	.00000
.000	.000	-.07030	.00820	.00440	.00060	-.00010	.11230	.00000	.00000	.00000
.000	2.000	-.03720	.00730	.00510	.00080	.00000	.10610	.00000	.00000	.00000
.000	5.000	.00900	.00320	.00270	.00100	-.00010	.09600	.00000	.00000	.00000
	GRADIENT	.01424	-.00082	-.00046	.00007	.00006	-.00317	.00000	.00000	.00000

RUN NO. 1060/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.11860	-.00150	.00980	.00050	-.00100	.13300	.00000	.00000	.00000
972.000	-2.000	-.05650	-.00430	.00640	.00070	-.00090	.11440	.00000	.00000	.00000
972.000	.000	-.00760	-.00640	.00590	.00100	-.00110	.10460	.00000	.00000	.00000
972.000	2.000	.03570	-.00800	.00290	.00100	-.00130	.09690	.00000	.00000	.00000
972.000	5.000	.11060	-.01070	-.00170	.00140	-.00170	.08930	.00000	.00000	.00000
	GRADIENT	.02294	-.00092	-.00103	.00009	-.00007	-.00437	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (R85025) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1329.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -40.000 AILRON = .010
RUDDER = .000 RUDFLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 1081/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.05840	.01010	.00370	.00030	-.00040	.13410	.00000	.00010	.00000
.000	-2.000	-.03050	.01000	.00500	.00030	-.00020	.12650	.00000	.00000	.00000
.000	.000	-.01150	.00900	.00510	.00040	-.00020	.11820	.00000	.00000	.00000
.000	2.000	.00890	.00630	.00380	.00020	-.00010	.11030	.00000	.00000	.00000
.000	5.000	.04630	.00310	.00460	.00070	.00010	.09880	.00000	.00000	.00000
	GRADIENT	.01038	-.00073	.00004	.00003	.00005	-.00360	.00000	.00000	.00000

RUN NO. 1084/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.08650	-.00390	.00730	.00060	-.00140	.13300	.00000	.00000	.00000
972.000	-2.000	-.01970	-.00800	.00450	.00160	-.00110	.11570	.00000	.00000	.00000
972.000	.000	.02400	-.01070	.00300	.00150	-.00160	.10490	.00000	.00000	.00000
972.000	2.000	.07410	-.01080	.00230	.00190	-.00170	.09840	.00000	.00000	.00000
972.000	5.000	.15010	-.01350	-.00230	.00210	-.00230	.09110	.00000	.00000	.00000
	GRADIENT	.02363	-.00092	-.00090	.00014	-.00010	-.00421	.00000	.00000	.00000

M571(IA6A) ORB (O13)WITH TANK (T9) SEPARATING (R85026) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -40.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 486.000

RUN NO. 1062/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.20050	.00050	.00990	.00060	-.00090	.13350	.00000	.00000	.00000
.000	-2.000	-.11420	-.00140	.00810	.00100	-.00040	.11310	.00000	.00000	.00000
.000	.000	-.04940	-.00390	.00560	.00100	-.00080	.10420	.00000	.00000	.00000
.000	2.000	.02120	-.00750	.00220	.00140	-.00150	.10010	.00000	.00000	.00000
.000	5.000	.12440	-.00760	-.00110	.00180	-.00010	.09860	.00000	.00000	.00000
	GRADIENT	.03268	-.00091	-.00115	.00012	.00003	-.00346	.00000	.00000	.00000

RUN NO. 1061/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.20370	.00460	.01220	.00080	-.00080	.13200	.00000	.00000	.00000
972.000	-2.000	-.13650	.00200	.00660	.00020	-.00040	.11290	.00000	.00000	.00000
972.000	.000	-.09240	-.00020	.00610	.00070	-.00050	.10280	.00000	.00000	.00000
972.000	2.000	-.04590	.00000	.00560	.00110	-.00060	.09600	.00000	.00000	.00000
972.000	5.000	.02680	-.00150	.00270	.00130	-.00040	.08760	.00000	.00000	.00000
	GRADIENT	.02299	-.00059	-.00085	.00007	.00003	-.00441	.00000	.00000	.00000

M571(IA6A) ORB (013)WITH TANK (T9) SEPARATING (R85027) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 867.7500 IN.
LREF = 1320.3000 IN. YMRP = .0000 IN.
BREF = 1320.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = -40.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 486.000

RUN NO. 1082/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.18760	-.00060	.00840	.00060	-.00090	.13140	.00000	.00000	.00000
.000	-2.000	-.09270	-.00260	.00730	.00110	-.00070	.11370	.00000	.00000	.00000
.000	.000	-.02110	-.00650	.00350	.00100	-.00180	.10510	.00000	.00000	.00000
.000	2.000	.05800	-.00920	-.00120	.00190	-.00160	.10450	.00000	.00000	.00000
.000	5.000	.14620	-.00520	-.00060	.00160	.00020	.10110	.00000	.00000	.00000
	GRADIENT	.03397	-.00062	-.00107	.00011	.00006	-.00293	.00000	.00000	.00000

RUN NO. 1083/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.19890	.00360	.00980	.00050	-.00080	.13140	.00000	.00000	.00000
972.000	-2.000	-.13170	.00230	.00770	.00090	-.00020	.11260	.00000	.00000	.00000
972.000	.000	-.08730	-.00050	.00500	.00090	-.00060	.10250	.00000	.00000	.00000
972.000	2.000	-.04500	-.00090	.00410	.00130	-.00080	.09660	.00000	.00000	.00000
972.000	5.000	.03670	-.00090	.00250	.00160	-.00040	.08680	.00000	.00000	.00000
	GRADIENT	.02330	-.00050	-.00075	.00011	.00002	-.00440	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (R85T01) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA =	.000	MACH =	4.950
ELEVTR =	.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	-5.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	.000

RUN NO. 2019/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.02110	-.00790	.00610	.00230	.00000	.08430	.00000	.00000	.00000
.000	-2.000	.01910	.00340	.00360	.00170	-.00080	.08280	.00000	.00000	.00000
.000	.000	.03170	.01110	.00580	.00180	-.00110	.08270	.00000	.00000	.00000
.000	2.000	.05670	.01640	.00290	.00280	-.00020	.08350	.00000	.00000	.00000
.000	5.000	.10180	.02710	.00390	.00320	-.00050	.08650	.00000	.00000	.00000
	GRADIENT	.01189	.00347	-.00021	.00012	-.00002	.00021	.00000	.00000	.00000

RUN NO. 2020/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	.00920	-.01410	.00620	.00210	-.00230	.08490	.00000	.00000	.00000
324.000	-2.000	.02060	-.00120	.00390	.00260	-.00100	.08440	.00000	.00000	.00000
324.000	.000	.03540	.00670	.00590	.00230	-.00270	.08630	.00000	.00000	.00000
324.000	2.000	.05400	.01140	.00270	.00240	-.00130	.08580	.00000	.00000	.00000
324.000	5.000	.08790	.02120	.00350	.00260	-.00090	.08830	.00000	.00000	.00000
	GRADIENT	.00794	.00348	-.00027	.00004	.00011	.00034	.00000	.00000	.00000

RUN NO. 2021/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.04110	-.02510	-.00030	.00460	-.00240	.09530	.00000	.00000	.00000
648.000	-2.000	.00740	-.01620	.00340	.00350	-.00120	.09300	.00000	.00000	.00000
648.000	.000	.02380	-.00870	.00750	.00330	-.00260	.09520	.00000	.00000	.00000
648.000	2.000	.04600	-.00040	.00600	.00320	-.00250	.09170	.00000	.00000	.00000
648.000	5.000	.07730	.01210	.00910	.00270	-.00090	.09290	.00000	.00000	.00000
	GRADIENT	.01154	.00375	.00090	-.00017	.00004	-.00025	.00000	.00000	.00000

RUN NO. 2022/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	.00550	-.01330	-.00740	.00450	-.00180	.09690	.00000	.00000	.00000
972.000	-2.000	.01850	-.01250	.00520	.00340	-.00080	.10460	.00000	.00000	.00000
972.000	.000	.02550	-.01170	.00620	.00170	-.00160	.10450	.00000	.00000	.00000
972.000	2.000	.03600	-.00720	.00360	.00330	-.00150	.10240	.00000	.00000	.00000
972.000	5.000	.06010	.00250	.01000	.00270	-.00170	.10230	.00000	.00000	.00000
	GRADIENT	.00531	.00154	.00144	-.00016	-.00002	.00039	.00000	.00000	.00000

M571 (IA6A) TANK (T9) SEPARATING FROM ORBITER (013) (F85T02) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 45.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 2035/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.07360	-.01810	.00250	.00070	-.00240	.08410	.00000	.00000	.00000
.000	-2.000	-.04500	-.00930	.00100	.00150	-.00140	.08320	.00000	.00000	.00000
.000	.000	-.01850	.00130	.00710	.00080	-.00150	.08470	.00000	.00000	.00000
.000	2.000	.00490	.00590	.00300	.00060	-.00200	.08320	.00000	.00000	.00000
.000	5.000	.03660	.01640	.00130	.00100	-.00180	.08230	.00000	.00000	.00000
	GRADIENT	.01122	.00350	-.00003	-.00001	.00003	-.00016	.00000	.00000	.00000

RUN NO. 2040/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.07810	-.02920	.00360	.00130	-.00190	.08530	.00000	.00000	.00000
324.000	-2.000	-.04470	-.02000	.00490	.00460	-.00120	.08540	.00000	.00000	.00000
324.000	.000	-.01830	-.01310	.00900	.00210	-.00130	.08600	.00000	.00000	.00000
324.000	2.000	.00610	-.00670	.00840	.00190	-.00130	.08690	.00000	.00000	.00000
324.000	5.000	.02900	.00580	.00350	.00200	-.00180	.08520	.00000	.00000	.00000
	GRADIENT	.01098	.00348	.00011	-.00003	.00001	.00004	.00000	.00000	.00000

RUN NO. 2041/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.08530	-.04190	.00570	.00060	-.00170	.09580	.00000	.00000	.00000
648.000	-2.000	-.05830	-.03610	.00530	.00250	-.00120	.09260	.00000	.00000	.00000
648.000	.000	-.03990	-.02230	.00720	.00230	-.00260	.09170	.00000	.00000	.00000
648.000	2.000	-.01760	-.02130	.00600	.00290	-.00140	.09110	.00000	.00000	.00000
648.000	5.000	.01980	-.00860	.00850	.00290	.00000	.08930	.00000	.00000	.00000
	GRADIENT	.01046	.00338	.00027	.00021	.00014	-.00061	.00000	.00000	.00000

RUN NO. 2046/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.07050	-.02530	.00400	.00290	-.00020	.10090	.00000	.00000	.00000
972.000	-2.000	-.05550	-.03430	.00150	.00320	-.00070	.10980	.00000	.00000	.00000
972.000	.000	-.04460	-.03360	.00430	.00310	-.00210	.10830	.00000	.00000	.00000
972.000	2.000	-.02990	-.03150	.00730	.00280	-.00070	.10660	.00000	.00000	.00000
972.000	5.000	-.00250	-.02740	.00720	.00300	-.00050	.10190	.00000	.00000	.00000
	GRADIENT	.00674	-.00308	.00240	-.00001	-.00003	.00071	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (R85T03) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = -5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 2026/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.02430	-.00110	.00230	.00190	-.00020	.08080	.00000	.00000	.00000
.000	-2.000	.01810	.00980	.00030	.00270	.00000	.08230	.00000	.00000	.00000
.000	.000	.04160	.01650	.00000	.00330	-.00110	.08260	.00000	.00000	.00000
.000	2.000	.06730	.02430	.00540	.00250	-.00120	.08590	.00000	.00000	.00000
.000	5.000	.11560	.03070	.00710	.00220	-.00030	.08740	.00000	.00000	.00000
	GRADIENT	.01376	.00324	.00059	.00002	-.00005	.00069	.00000	.00000	.00000

RUN NO. 2025/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.01630	-.00210	.00640	.00300	.00030	.08620	.00000	.00000	.00000
324.000	-2.000	.01950	.00960	.00390	.00160	-.00170	.08440	.00000	.00000	.00000
324.000	.000	.03470	.01770	.00610	.00220	-.00110	.08590	.00000	.00000	.00000
324.000	2.000	.06350	.02240	.00290	.00290	-.00190	.08510	.00000	.00000	.00000
324.000	5.000	.10630	.03190	.00210	.00300	-.00140	.08930	.00000	.00000	.00000
	GRADIENT	.01209	.00337	-.00041	.00004	-.00012	.00029	.00000	.00000	.00000

RUN NO. 2024/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.01860	-.00160	.00670	.00210	-.00130	.08620	.00000	.00000	.00000
648.000	-2.000	.01470	.00570	.00190	.00250	-.00120	.08470	.00000	.00000	.00000
648.000	.000	.04210	.01510	.00610	.00180	-.00010	.08600	.00000	.00000	.00000
648.000	2.000	.05800	.02210	.00130	.00270	-.00070	.08560	.00000	.00000	.00000
648.000	5.000	.09660	.03210	.00160	.00380	-.00020	.08750	.00000	.00000	.00000
	GRADIENT	.01142	.00347	-.00046	.00015	.00011	.00014	.00000	.00000	.00000

RUN NO. 2023/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.02340	-.01160	.00570	.00380	.00030	.09130	.00000	.00000	.00000
972.000	-2.000	.01450	.00190	.00610	.00230	-.00160	.08980	.00000	.00000	.00000
972.000	.000	.04190	.00880	.00210	.00250	-.00020	.08540	.00000	.00000	.00000
972.000	2.000	.05790	.01990	.00940	.00180	.00000	.08755	.00000	.00000	.00000
972.000	5.000	.09640	.03090	.00370	.00220	-.00140	.08730	.00000	.00000	.00000
	GRADIENT	.01182	.00428	-.00006	-.00016	-.00009	-.00039	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (RSSTC4) (04 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	929.0000 IN.
LREI =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.950
ELEVTR =	.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	162.000

RUN NO. 2036/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.07250	-.01080	.00970	.00150	-.00220	.08770	.00000	.00000	.00000
.000	-2.000	-.04790	-.00220	.00170	.00190	-.00170	.08380	.00000	.00000	.00000
.000	.000	-.02600	.00720	.00540	.00230	-.00070	.08410	.00000	.00000	.00000
.000	2.000	.00400	.01160	.00260	.00200	-.00480	.08590	.00000	.00000	.00000
.000	5.000	.03530	.02030	.00010	.00180	-.00340	.08450	.00000	.00000	.00000
	GRADIENT	.01108	.00316	-.00080	.00003	-.00021	-.00020	.00000	.00000	.00000

RUN NO. 2039/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.08850	-.01520	-.00040	.00270	-.00040	.08550	.00000	.00000	.00000
324.000	-2.000	-.04800	-.00430	.00730	.00170	.00000	.08700	.00000	.00000	.00000
324.000	.000	-.02830	.00570	.00650	.00140	-.00110	.08540	.00000	.00000	.00000
324.000	2.000	-.00610	.01040	.00270	.00220	-.00140	.08540	.00000	.00000	.00000
324.000	5.000	.03100	.02040	.00290	.00250	-.00100	.08680	.00000	.00000	.00000
	GRADIENT	.01175	.00358	.00013	.00000	-.00010	.00006	.00000	.00000	.00000

RUN NO. 2042/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.08960	-.01810	.00000	.00300	-.00100	.08530	.00000	.00000	.00000
648.000	-2.000	-.05690	-.00770	.00080	.00200	-.00220	.08620	.00000	.00000	.00000
648.000	.000	-.02850	.00160	.00520	.00230	-.00160	.08590	.00000	.00000	.00000
648.000	2.000	-.01850	.01090	.00240	.00220	-.00200	.08520	.00000	.00000	.00000
648.000	5.000	.01500	.02260	.00370	.00140	-.00130	.08459	.00000	.00000	.00000
	GRADIENT	.01034	.00415	.00037	-.00013	-.00002	-.00010	.00000	.00000	.00000

RUN NO. 2045/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.08680	-.03250	.00820	.00260	.00020	.10550	.00000	.00000	.00000
972.000	-2.000	-.05500	-.01780	-.00040	.00120	-.00110	.08640	.00000	.00000	.00000
972.000	.000	-.03770	-.00560	.00460	.00200	-.00240	.08380	.00000	.00000	.00000
972.000	2.000	-.03040	.00650	.00420	.00270	-.00040	.08720	.00000	.00000	.00000
972.000	5.000	.00610	.02020	.00500	.00190	-.00010	.08790	.00000	.00000	.00000
	GRADIENT	.00886	.00538	-.00012	-.00001	-.00000	-.00030	.00000	.00000	.00000

M571 (IA6A) TANK (T9) SEPARATING FROM ORBITER (013) (SBSTPS) (24 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	929.0000 IN.
LREF =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.950
ELEVTR =	.000	AILRON =	.000
RUDDER =	.000	FLAPLR =	40.000
DELTAA =	5.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	162.000

RUN NO. 2065/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.16840	-.01650	.01040	-.00310	-.00180	.08740	.00000	.00000	.00000
.000	-2.000	-.12730	-.00990	.01050	-.00300	-.00010	.08630	.00000	.00000	.00000
.000	.000	-.09630	-.00650	.00910	-.00340	-.00180	.08620	.00000	.00000	.00000
.000	2.000	-.07230	.00040	.01240	-.00400	-.00100	.08310	.00000	.00000	.00000
.000	5.000	-.03770	.01170	.01340	-.00430	-.00170	.08220	.00000	.00000	.00000
	GRADIENT	.01316	.00279	.00032	-.00014	-.00002	-.00056	.00000	.00000	.00000

RUN NO. 2068/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.16820	-.02020	.01720	-.00560	-.00060	.08480	.00000	.00000	.00000
324.000	-2.000	-.11920	-.01140	.01870	-.00530	-.00160	.08750	.00000	.00000	.00000
324.000	.000	-.12800	-.00240	.01460	-.00380	-.00120	.08650	.00000	.00000	.00000
324.000	2.000	-.08000	.00140	.01790	-.00510	-.00110	.08430	.00000	.00000	.00000
324.000	5.000	-.04100	.01280	.01900	-.00590	-.00030	.08400	.00000	.00000	.00000
	GRADIENT	.01232	.00329	.00013	-.00003	.00004	-.00018	.00000	.00000	.00000

RUN NO. 2069/ 0 RN/L = 5.06 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.16350	-.02870	.01520	-.00570	-.00120	.08490	.00000	.00000	.00000
648.000	-2.000	-.12940	-.01940	.01830	-.00530	-.00190	.08400	.00000	.00000	.00000
648.000	.000	-.10620	-.01260	.01480	-.00460	-.00150	.08130	.00000	.00000	.00000
648.000	2.000	-.08710	-.00460	.01620	-.00500	-.00100	.08340	.00000	.00000	.00000
648.000	5.000	-.05010	.00730	.01680	-.00460	-.00130	.08180	.00000	.00000	.00000
	GRADIENT	.01037	.00359	.00007	.00009	.00002	-.00029	.00000	.00000	.00000

RUN NO. 2072/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.14760	-.03910	.02600	-.00670	-.00020	.08430	.00000	.00000	.00000
972.000	-2.000	-.11740	-.03240	.01380	-.00170	.00050	.08870	.00000	.00000	.00000
972.000	.000	-.09480	-.02430	.02170	-.00410	-.00020	.08960	.00000	.00000	.00000
972.000	2.000	-.08310	-.01310	.01530	-.00340	-.00020	.08740	.00000	.00000	.00000
972.000	5.000	-.05840	.00060	.01190	-.00180	-.00010	.08710	.00000	.00000	.00000
	GRADIENT	.00891	.00409	-.00116	.00036	-.00002	-.00064	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (RBSTOS 04 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	929.0000 IN.
LREF =	1320.3000 IN.	YMRP =	.0000 IN.
BREF =	1320.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.950
ELEVTR =	.000	AILRON =	.000
RUDDER =	.000	RUDPLR =	40.000
DELTAA =	-5.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	426.000

RUN NO. 2027/ 0 RN/L = 5.03 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	.00040	-.00100	.00500	.00170	-.00010	.08350	.00000	.00000	.00000
.000	-2.000	.03450	.00750	.00860	.00250	.00020	.08370	.00000	.00000	.00000
.000	.000	.05690	.01230	.00310	.00100	.00000	.08400	.00000	.00000	.00000
.000	2.000	.08310	.01760	.00240	.00270	-.00110	.08500	.00000	.00000	.00000
.000	5.000	.12470	.02370	.00110	.00230	-.00140	.08580	.00000	.00000	.00000
	GRADIENT	.01239	.00248	-.00055	.00006	-.00016	.00024	.00000	.00000	.00000

RUN NO. 2028/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.00310	.00070	.00230	.00120	-.00230	.08290	.00000	.00000	.00000
324.000	-2.000	.03020	.00700	-.00010	.00230	-.00110	.08310	.00000	.00000	.00000
324.000	.000	.05770	.01360	.00370	.00130	-.00110	.08480	.00000	.00000	.00000
324.000	2.000	.07640	.02300	.00410	.00220	-.00080	.08430	.00000	.00000	.00000
324.000	5.000	.11940	.02560	.00890	.00130	-.00130	.08650	.00000	.00000	.00000
	GRADIENT	.01215	.00270	.00071	.00001	.00010	.00046	.00000	.00000	.00000

RUN NO. 2029/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.01720	.00100	.00150	.00250	-.00120	.08210	.00000	.00000	.00000
648.000	-2.000	.02970	.00590	.00220	.00200	-.00210	.08330	.00000	.00000	.00000
648.000	.000	.05250	.01270	.00010	.00140	-.00150	.08360	.00000	.00000	.00000
648.000	2.000	.08280	.01820	.00410	.00170	.00040	.08580	.00000	.00000	.00000
648.000	5.000	.12520	.02430	.00200	.00190	-.00070	.08660	.00000	.00000	.00000
	GRADIENT	.01411	.00233	.00011	-.00006	.00013	.00047	.00000	.00000	.00000

RUN NO. 2030/ 0 RN/L = 4.88 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.00210	-.00040	-.00130	.00220	-.00170	.08230	.00000	.00000	.00000
972.000	-2.000	.02650	.00980	.00400	.00220	-.00120	.08450	.00000	.00000	.00000
972.000	.000	.05210	.01220	.00020	.00190	-.00130	.08280	.00000	.00000	.00000
972.000	2.000	.08260	.01730	.00560	.00230	-.00080	.08680	.00000	.00000	.00000
972.000	5.000	.12630	.02250	.00190	-.01280	-.00130	.08270	.00000	.00000	.00000
	GRADIENT	.01300	.00223	.00033	-.00130	.00005	.00056	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (FPS***) (24 OCT 72)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = .000 AILRON = .000
RUDDER = .000 RCSFLP = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 495.000

RUN NO. 2037/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.06370	-.01630	-.00690	.00230	-.00050	.03360	.00000	.00000	.00000
.000	-2.000	-.02720	-.00910	.00050	.00140	-.00250	.03280	.00000	.00000	.00000
.000	.000	.00450	-.00200	.00570	.00180	-.00040	.03430	.00000	.00000	.00000
.000	2.000	.02150	.00490	.00110	.00190	-.00080	.03270	.00000	.00000	.00000
.000	5.000	.05840	.01430	.00320	.00170	-.00040	.03440	.00000	.00000	.00000
	GRADIENT	.01221	.00312	.00089	-.00003	.00006	.00007	.00000	.00000	.00000

RUN NO. 2038/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.07160	-.01380	.00080	.00140	-.00110	.03240	.00000	.00000	.00000
324.000	-2.0	-.02630	-.00910	-.00080	.00130	-.00010	.03360	.00000	.00000	.00000
324.000	.000	.02230	-.00490	.00510	.00170	-.00070	.03480	.00000	.00000	.00000
324.000	2.000	.03210	.00490	.00470	.00130	-.00100	.03260	.00000	.00000	.00000
324.000	5.000	.05900	.01380	.00130	.00160	-.00110	.03330	.00000	.00000	.00000
	GRADIENT	.01327	.00286	.00023	.00002	-.00003	.00009	.00000	.00000	.00000

RUN NO. 2043/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.06830	-.01070	.00760	.00140	-.00150	.03800	.00000	.00000	.00000
648.000	-2.000	-.03900	-.00790	.00020	.00120	-.00100	.03340	.00000	.00000	.00000
648.000	.000	-.00080	-.00220	.00180	.00220	-.00180	.03440	.00000	.00000	.00000
648.000	2.000	.02130	.00400	.00030	.00190	-.00110	.03230	.00000	.00000	.00000
648.000	5.000	.05400	.01370	.00270	.00230	.00000	.03540	.00000	.00000	.00000
	GRADIENT	.01262	.00251	-.00042	.00010	.00013	-.00007	.00000	.00000	.00000

RUN NO. 2044/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.06300	-.01400	.00460	.00230	-.00010	.03610	.00000	.00000	.00000
972.000	-2.000	-.04200	-.00780	.00120	.00170	-.00130	.03470	.00000	.00000	.00000
972.000	.000	-.00870	.00040	-.00030	.00220	-.00120	.03570	.00000	.00000	.00000
972.000	2.000	.01960	.00620	.00340	.00210	-.00120	.03510	.00000	.00000	.00000
972.000	5.000	.05790	.01370	.00360	.00270	.00000	.03650	.00000	.00000	.00000
	GRADIENT	.01255	.00287	.00002	.00005	.00003	.00016	.00000	.00000	.00000

DATE 27 OCT 73

TABULATED SOURCE DATA, MSFC 571, (IA6A)

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (RBSTD9) 04 OCT 73

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 FLAPS = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAF = 445.000

RUN NO. 2066/ 0 RN/L = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.12620	-.02390	.01440	-.00370	-.00120	.08350	.00000	.00013	.00000
.000	-2.000	-.08420	-.01850	.01350	-.00420	.00000	.08340	.00000	.00000	.00000
.000	.000	-.05770	-.01360	.00550	-.00160	-.00080	.08470	.00000	.00000	.00000
.000	2.000	-.03040	-.00780	.01210	-.00340	-.00020	.08270	.00000	.00000	.00000
.000	5.000	-.00140	.00380	.01420	-.00480	.00000	.08240	.00000	.00000	.00000
	GRADIENT	.01261	.00276	-.00007	-.00004	.00003	-.00016	.00000	.00000	.00000

RUN NO. 2067/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.13450	-.01860	.01710	-.00610	.00100	.08390	.00000	.00000	.00000
324.000	-2.000	-.08430	-.01570	.01310	-.00420	.00090	.08370	.00000	.00000	.00000
324.000	.000	-.05720	-.01060	.01310	-.00320	.00000	.08510	.00000	.00000	.00000
324.000	2.000	-.03370	-.00860	.01140	-.00370	.00000	.08480	.00000	.00000	.00000
324.000	5.000	-.00280	.00310	.00960	-.00400	.00010	.08360	.00000	.00000	.00000
	GRADIENT	.01310	.00210	-.00071	.00011	.00007	.00001	.00000	.00000	.00000

RUN NO. 2070/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.14420	-.02150	.01450	-.01330	-.00120	.08430	.00000	.00000	.00000
648.000	-2.000	-.10760	-.01200	.01310	-.00790	-.00060	.08330	.00000	.00000	.00000
648.000	.000	-.06950	-.01150	.01120	-.00290	.00000	.08340	.00000	.00000	.00000
648.000	2.000	-.04560	-.00550	.00940	-.00270	-.00010	.08440	.00000	.00000	.00000
648.000	5.000	-.01160	.00310	.00920	-.00260	-.00020	.08410	.00000	.00000	.00000
	GRADIENT	.01357	.00234	-.00058	.00009	.00001	-.00003	.00000	.00000	.00000

RUN NO. 2071/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.14570	-.02570	.02120	-.01780	-.00120	.08470	.00000	.00000	.00000
972.000	-2.000	-.09920	-.01730	.01500	-.00570	-.00020	.08410	.00000	.00000	.00000
972.000	.000	-.07610	-.01170	.01470	-.00570	-.00020	.08400	.00000	.00000	.00000
972.000	2.000	-.04600	-.00450	.01340	-.00590	.00000	.08370	.00000	.00000	.00000
972.000	5.000	-.00710	.00430	.01260	-.00570	-.00150	.08391	.00000	.00000	.00000
	GRADIENT	.01378	.00303	-.00119	.00007	-.00002	-.00019	.00000		

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (R85T09) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 10.000 DELTAB = .000
DELTAY = .000 DELTAZ = 426.000

RUN NO. 2085/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.23820	-.02410	.01920	-.00570	-.00170	.08570	.00000	.00000	.00000
.000	-2.000	-.16810	-.02420	.01320	-.00360	.00020	.08570	.00000	.00000	.00000
.000	.000	-.13270	-.02170	.01020	-.00370	.00020	.08560	.00000	.00000	.00000
.000	2.000	-.10150	-.01740	.01570	-.00570	.00020	.08490	.00000	.00000	.00000
.000	5.000	-.05640	-.01040	.01650	-.00510	.00000	.08500	.00000	.00000	.00000
	GRADIENT	.01797	.00142	-.00015	-.00002	.00015	-.00009	.00000	.00000	.00000

RUN NO. 2088/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.22650	-.02860	.01810	-.00640	-.00010	.08580	.00000	.00000	.00000
324.000	-2.000	-.17530	-.02130	.01830	-.00530	.00000	.08810	.00000	.00000	.00000
324.000	.000	-.12970	-.02120	.01840	-.00560	-.00010	.08750	.00000	.00000	.00000
324.000	2.000	-.10030	-.01410	.01880	-.00670	-.00070	.08570	.00000	.00000	.00000
324.000	5.000	-.06230	-.00810	.01730	-.00650	-.00020	.08360	.00000	.00000	.00000
	GRADIENT	.01674	.00202	-.00005	-.00006	-.00003	-.00027	.00000	.00000	.00000

RUN NO. 2089/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.23400	-.03680	.01420	-.00600	.00000	.08890	.00000	.00000	.00000
648.000	-2.000	-.18670	-.02570	.01600	-.00630	-.00080	.08750	.00000	.00000	.00000
648.000	.000	-.14380	-.02030	.02020	-.00710	-.00110	.08360	.00000	.00000	.00000
648.000	2.000	-.11940	-.01360	.01750	-.00600	-.00120	.08350	.00000	.00000	.00000
648.000	5.000	-.07630	-.00700	.01190	-.00370	-.00020	.08330	.00000	.00000	.00000
	GRADIENT	.01592	.00299	-.00015	.00021	-.00003	-.00062	.00000	.00000	.00000

RUN NO. 2092/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.22700	-.04510	.01340	-.00430	-.00040	.08650	.00000	.00000	.00000
972.000	-2.000	-.18430	-.02980	.01840	-.00580	-.00210	.08460	.00000	.00000	.00000
972.000	.000	-.15790	-.02260	.01690	-.00520	-.00100	.08430	.00000	.00000	.00000
972.000	2.000	-.13170	-.01740	.01490	-.00450	-.00080	.08590	.00000	.00000	.00000
972.000	5.000	-.07820	-.00670	.01790	-.00560	-.00190	.08330	.00000	.00000	.00000
	GRADIENT	.01464	.00374	.00027	-.00007	-.00008	-.00023	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (R85T10) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 45.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 810.000

RUN NO. 2031/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.05870	-.01220	.00360	.00280	-.00100	.08090	.00000	.00000	.00000
.000	-2.000	-.02340	-.00410	.00260	.00190	-.00070	.08120	.00000	.00000	.00000
.000	.000	-.00420	.00270	-.00420	.00300	-.00210	.07930	.00000	.00000	.00000
.000	2.000	.02420	.00750	-.00520	.00280	-.00040	.07990	.00000	.00000	.00000
.000	5.000	.07250	.01590	.00060	.00180	.00010	.08370	.00000	.00000	.00000
	GRADIENT	.01295	.00282	-.00053	-.00006	.00011	.00020	.00000	.00000	.00000

RUN NO. 2032/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.05760	-.01170	-.00100	.00290	-.00080	.07920	.00000	.00000	.00000
324.000	-2.000	-.00800	-.00860	.00390	.00210	-.00090	.08200	.00000	.00000	.00000
324.000	.000	.00460	.00200	.00050	.00280	-.00110	.07980	.00000	.00000	.00000
324.000	2.000	.02600	.00750	.00030	.00240	-.00020	.07910	.00000	.00000	.00000
324.000	5.000	.06910	.01440	.00050	.00160	-.00070	.08220	.00000	.00000	.00000
	GRADIENT	.01209	.00281	.00001	-.00010	.00003	.00016	.00000	.00000	.00000

RUN NO. 2033/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.05180	-.01370	-.00110	.00200	-.00230	.07850	.00000	.00000	.00000
648.000	-2.000	-.02720	-.00270	.00380	.00260	-.00020	.08140	.00000	.00000	.00000
648.000	.000	.00620	.00300	.00300	.00160	-.00090	.08030	.00000	.00000	.00000
648.000	2.000	.02640	.00670	-.00370	.00250	-.00080	.07880	.00000	.00000	.00000
648.000	5.000	.07100	.01480	-.00850	.00290	-.00130	.08050	.00000	.00000	.00000
	GRADIENT	.01243	.00278	-.00090	.00007	.00007	.00008	.00000	.00000	.00000

RUN NO. 2034/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.05410	-.01470	-.00850	.00310	-.00120	.08110	.00000	.00000	.00000
972.000	-2.000	-.02110	-.00600	-.00070	.00220	-.00090	.08050	.00000	.00000	.00000
972.000	.000	.01380	.00100	.00180	.00290	-.00140	.08200	.00000	.00000	.00000
972.000	2.000	.03130	.00820	.00250	.00210	-.00200	.08030	.00000	.00000	.00000
972.000	5.000	.06640	.01660	-.00330	.00210	-.00140	.08160	.00000	.00000	.00000
	GRADIENT	.01219	.00319	.00056	-.00009	-.00006	.00004	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T11) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 810.000

RUN NO. 2015/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.12770	-.02310	.00610	.00270	-.00020	.08550	.00000	.00000	.00000
.000	-2.000	-.09140	-.01770	.00000	.00300	-.00010	.08320	.00000	.00000	.00000
.000	.000	-.05950	-.01280	.00490	.00230	-.00180	.08570	.00000	.00000	.00000
.000	2.000	-.03190	-.00710	.00410	.00160	-.00130	.08270	.00000	.00000	.00000
.000	5.000	.00820	.00160	.00240	.00140	-.00020	.08200	.00000	.00000	.00000
	GRADIENT	.01377	.00249	-.00018	-.00016	-.00004	-.00032	.00000	.00000	.00000

RUN NO. 2016/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.12290	-.02310	.00110	.00340	-.00030	.08560	.00000	.00000	.00000
324.000	-2.000	-.07560	-.01980	.00050	.00250	-.00030	.08330	.00000	.00000	.00000
324.000	.000	-.05420	-.01260	-.00010	.00340	-.00030	.08390	.00000	.00000	.00000
324.000	2.000	-.02540	-.00800	.00290	.00260	-.00010	.08330	.00000	.00000	.00000
324.000	5.000	.01200	.00120	.00370	.00260	-.00080	.08390	.00000	.00000	.00000
	GRADIENT	.01336	.00250	.00031	-.00007	-.00004	-.00015	.00000	.00000	.00000

RUN NO. 2017/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.12080	-.02380	.00100	.00120	-.00140	.08230	.00000	.00000	.00000
648.000	-2.000	-.08240	-.01750	.00140	.00120	-.00200	.08240	.00000	.00000	.00000
648.000	.000	-.05090	-.01360	.00500	.00160	-.00020	.08410	.00000	.00000	.00000
648.000	2.000	-.02790	-.00840	.00270	.00210	-.00080	.08250	.00000	.00000	.00000
648.000	5.000	.00830	.00120	.00170	.00190	-.00050	.08220	.00000	.00000	.00000
	GRADIENT	.01301	.00247	.00011	.00009	.00012	-.00001	.00000	.00000	.00000

RUN NO. 2018/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.13140	-.02060	.00190	.00280	.00000	.08500	.00000	.00000	.00000
972.000	-2.000	-.08490	-.01860	-.00040	.00210	-.00200	.08190	.00000	.00000	.00000
972.000	.000	-.05310	-.01870	.00150	.00280	-.00030	.08500	.00000	.00000	.00000
972.000	2.000	-.02760	-.00860	.00370	.00180	-.00090	.08460	.00000	.00000	.00000
972.000	5.000	.01010	-.00070	-.00430	.00210	-.00120	.08270	.00000	.00000	.00000
	GRADIENT	.01417	.00206	-.00039	-.00007	-.00007	-.00011	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T12) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 10.000 DELTAB = .000
DELTAY = .000 DELTAZ = 810.000

RUN NO. 2086/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.20070	-.03280	.01800	-.00530	-.00280	.08470	.00000	.00000	.00000
.000	-2.000	-.15170	-.02900	.01030	-.00390	.00000	.08440	.00000	.00000	.00000
.000	.000	-.11680	-.02430	.01580	-.00510	-.00100	.08200	.00000	.00000	.00000
.000	2.000	-.08870	-.02000	.01680	-.00750	-.00010	.08240	.00000	.00000	.00000
.000	5.000	-.05350	-.01260	.01230	-.00590	.00010	.08250	.00000	.00000	.00000
	GRADIENT	.01486	.00205	-.00027	-.00018	.00025	-.00026	.00000	.00000	.00000

RUN NO. 2087/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
324.000	-5.000	-.21240	-.03260	.01460	-.00550	-.00140	.08740	.00000	.00000	.00000
324.000	-2.000	-.15910	-.02960	.01390	-.00580	.00040	.08740	.00000	.00000	.00000
324.000	.000	-.12410	-.02400	.01820	-.00650	.00000	.08450	.00000	.00000	.00000
324.000	2.000	-.09660	-.01970	.01360	-.00590	-.00140	.08480	.00000	.00000	.00000
324.000	5.000	-.05520	-.01250	.01370	-.00510	-.00070	.08510	.00000	.00000	.00000
	GRADIENT	.01571	.00207	-.00009	.00003	-.00000	-.00029	.00000	.00000	.00000

RUN NO. 2090/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
648.000	-5.000	-.21650	-.02680	.02120	-.00530	-.00010	.08410	.00000	.00000	.00000
648.000	-2.000	-.16310	-.02960	.01270	-.00350	.00000	.08530	.00000	.00000	.00000
648.000	.000	-.12880	-.02520	.01250	-.00340	-.00150	.08700	.00000	.00000	.00000
648.000	2.000	-.09420	-.02130	.01430	-.00400	-.00020	.08570	.00000	.00000	.00000
648.000	5.000	-.05390	-.01220	.01490	-.00460	.00010	.08200	.00000	.00000	.00000
	GRADIENT	.01639	.00154	-.00049	.00004	.00001	-.00017	.00000	.00000	.00000

RUN NO. 2091/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.21870	-.02760	.01900	-.00580	-.00170	.08670	.00000	.00000	.00000
972.000	-2.000	-.17090	-.02820	.01440	-.00580	-.00100	.08600	.00000	.00000	.00000
972.000	.000	-.12830	-.02690	.01630	-.00710	-.00180	.08390	.00000	.00000	.00000
972.000	2.000	-.10710	-.02090	.01660	-.00640	-.00110	.08260	.00000	.00000	.00000
972.000	5.000	-.06470	-.01510	.01350	-.00570	-.00100	.08320	.00000	.00000	.00000
	GRADIENT	.01548	.00133	-.00040	-.00001	.00006	-.00042	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T13) (04 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	929.0000 IN.
LREF =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.960
ELEVTR =	10.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	.000

RUN NO. 2052/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.08820	-.02010	.00180	.00120	-.00290	.08430	.00000	.00000	.00000
.000	-2.000	-.04800	-.00920	.00740	.00100	-.00020	.08630	.00000	.00000	.00000
.000	.000	-.02860	-.00290	.00630	.00130	-.00090	.08710	.00000	.00000	.00000
.000	2.000	-.00310	.00440	.00240	.00150	-.00090	.08420	.00000	.00000	.00000
.000	5.000	.03000	.01700	.00580	.00160	-.00030	.08470	.00000	.00000	.00000
	GRADIENT	.01174	.00367	.00017	.00005	.00020	-.00004	.00000	.00000	.00000

RUN NO. 2047/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.07410	-.02870	-.00030	.00250	-.00190	.10420	.00000	.00000	.00000
972.000	-2.000	-.05340	-.03100	.00690	.00190	-.00030	.09860	.00000	.00000	.00000
972.000	.000	-.04500	-.03170	.00800	.00180	-.00020	.10410	.00000	.00000	.00000
972.000	2.000	-.03960	-.03080	.00470	.00220	.00000	.10670	.00000	.00000	.00000
972.000	5.000	-.00690	-.02560	.00450	.00290	.00000	.10220	.00000	.00000	.00000
	GRADIENT	.00627	.00027	.00034	.00004	.00017	.00011	.00000	.00000	.00000

M571 (IA6A) TANK (T9) SEPARATING FROM ORBITER (O13) (R85T14) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 2051/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.08820	-.01020	.00910	.00210	.00000	.08540	.00000	.00000	.00000
.000	-2.000	-.04820	-.00160	.00310	.00190	.00000	.08840	.00000	.00000	.00000
.000	.000	-.02850	.00420	.02360	-.00110	-.00060	.08490	.00000	.00000	.00000
.000	2.000	-.00330	.01290	.00890	.00100	-.00100	.08560	.00000	.00000	.00000
.000	5.000	.03500	.02000	-.00570	.00270	-.00140	.08640	.00000	.00000	.00000
	GRADIENT	.01217	.00310	-.00108	.00002	-.00016	-.00001	.00000	.00000	.00000

RUN NO. 2048/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.08220	-.02730	.00500	.00190	.00040	.09450	.00000	.00000	.00000
972.000	-2.000	-.06630	-.01250	-.00020	.00230	-.00170	.08770	.00000	.00000	.00000
972.000	.000	-.04430	-.00450	.00090	.00210	-.00040	.08710	.00000	.00000	.00000
972.000	2.000	-.02480	.00840	.00500	.00170	.00000	.08830	.00000	.00000	.00000
972.000	5.000	.00460	.02410	.00360	.00100	-.00120	.08670	.00000	.00000	.00000
	GRADIENT	.00891	.00515	.00006	-.00010	-.00008	-.00065	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (R85T15) (04 OCT 73)

REFERENCE DATA

SREF = 2695.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILRON = .000
RUDDER = 0 RUDFLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 2076/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CASO	CABT	CABS
.000	-5.000	-.15980	-.01640	.01980	-.00480	-.00110	.08630	.00000	.00000	.00000
.000	-2.000	-.12300	-.01090	.01380	-.00310	.00000	.08670	.00000	.00000	.00000
.000	.000	-.09220	-.00370	.02230	-.00590	-.00100	.08400	.00000	.00000	.00000
.000	2.000	-.06490	.00120	.01760	-.00450	-.00090	.08400	.00000	.00000	.00000
.000	5.000	-.03610	.01290	.01620	-.00420	-.00090	.08400	.00000	.00000	.00000
	GRADIENT	.01267	.00294	-.00018	.00000	-.00001	-.00029	.00000	.00000	.00000

RUN NO. 2073/ 0 RN/L = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CASO	CABT	CABS
972.000	-5.000	-.15140	-.04200	.01760	-.00430	-.00130	.09060	.00000	.00000	.00000
972.000	-2.000	-.12520	-.02950	.02010	-.00590	.00000	.08690	.00000	.00000	.00000
972.000	.000	-.10590	-.02150	.01860	-.00540	-.00160	.08570	.00000	.00000	.00000
972.000	2.000	-.08120	-.01100	.01670	-.00480	-.00030	.08600	.00000	.00000	.00000
972.000	5.000	-.05660	.00200	.01780	-.00310	-.00070	.08540	.00000	.00000	.00000
	GRADIENT	.00934	.00443	-.00010	.00014	.00004	-.00048	.00000	.00000	.00000

M571 (IA6A) TANK (T9) SEPARATING FROM ORBITER (013) (R85T16) (04 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	929.0000 IN.
LREF =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.960
ELEVTR =	10.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	486.000

RUN NO. 2050/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.05560	-.01570	.00120	.00250	-.00110	.08460	.00000	.00000	.00000
.000	-2.000	-.03410	-.00670	.00710	.00110	-.00120	.08500	.00000	.00000	.00000
.000	.000	-.00140	-.00200	-.00430	.00290	-.00020	.08240	.00000	.00000	.00000
.000	2.000	.02730	.00620	00190	.00240	-.00120	.08340	.00000	.00000	.00000
.000	5.000	.06030	.01560	.00540	.00210	-.00060	.08620	.00000	.00000	.00000
	GRADIENT	.01211	.00314	.00018	.00001	.00004	.00008	.00000	.00000	.00000

RUN NO. 2049/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.07860	-.01420	.00030	.00140	-.00150	.08170	.00000	.00000	.00000
972.000	-2.000	-.03270	-.00550	.00600	.00120	.00040	.08410	.00000	.00000	.00000
972.000	.000	-.01770	.00600	.00220	.00190	-.00140	.08340	.00000	.00000	.00000
972.000	2.000	.01710	.00810	.00520	.00190	-.00040	.08380	.00000	.00000	.00000
972.000	5.000	.05680	.01410	.00680	.00150	.00010	.08560	.00000	.00000	.00000
	GRADIENT	.01339	.00291	.00053	.00003	.00011	.00033	.00000	.00000	.00000

M571 (IA6A) TANK (T9) SEPARATING FROM ORBITER (013) (R85T17) (24 OCT 73)

REFERENCE DATA

SREF = 2695.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILRON = .000
RUDDER = .000 FLAPLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 486.000

RUN NO. 2075/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.12120	-.02530	.01280	-.00300	-.00210	.08620	.00000	.00000	.00000
.000	-2.000	-.08840	-.02000	.01460	-.00470	-.00140	.08210	.00000	.00000	.00000
.000	.000	-.05790	-.01280	.01680	-.00510	-.00140	.08200	.00000	.00000	.00000
.000	2.000	-.03110	-.00830	.01510	-.00400	-.00080	.08190	.00000	.00000	.00000
.000	5.000	.00650	.00160	.01490	-.00410	-.00080	.08170	.00000	.00000	.00000
	GRADIENT	.01298	.00272	.00020	-.00007	.00015	-.00039	.00000	.00000	.00000

RUN NO. 2074/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.14110	-.02460	.01920	-.00610	-.00160	.08450	.00000	.00000	.00000
972.000	-2.000	-.09950	-.01460	.01490	-.00440	-.00090	.08340	.00000	.00000	.00000
972.000	.000	-.07270	-.00940	.01670	-.00440	-.00020	.08290	.00000	.00000	.00000
972.000	2.000	-.04290	-.00400	.01530	-.00150	-.00110	.08390	.00000	.00000	.00000
972.000	5.000	-.00400	.00440	.01190	-.00230	-.00040	.08410	.00000	.00000	.00000
	GRADIENT	.01377	.00287	-.00062	.00043	.00010	-.00002	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T18) (04 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	929.0000 IN.
LREF =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.960
ELEVTR =	-20.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	.000

RUN NO. 2053/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.07840	-.02040	.00200	.00150	-.00130	.08220	.00000	.00000	.00000
.000	-2.000	-.04700	-.00840	.00730	.00170	-.00140	.08490	.00000	.00000	.00000
.000	.000	-.02940	-.00140	.00580	.00060	-.00090	.08350	.00000	.00000	.00000
.000	2.000	.00360	.00770	.00750	.00060	-.00100	.08410	.00000	.00000	.00000
.000	5.000	.03320	.01890	.00540	.00120	-.00090	.08410	.00000	.00000	.00000
	GRADIENT	.01137	.00394	.00030	-.00006	.00005	.00014	.00000	.00000	.00000

RUN NO. 2058/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.06370	-.02760	.00500	.00200	-.00136	.09980	.00000	.00000	.00000
972.000	-2.000	-.05250	-.03160	.00590	.00250	-.00010	.10740	.00000	.00000	.00000
972.000	.000	-.04630	-.03340	.00370	.00290	.00000	.10630	.00000	.00000	.00000
972.000	2.000	-.03030	-.03180	.00650	.00290	.00000	.10610	.00000	.00000	.00000
972.000	5.000	.00200	-.02660	.00960	.00200	-.00080	.10110	.00000	.00000	.00000
	GRADIENT	.00643	.00008	.00042	.00001	.00005	.00007	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T19) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = -20.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 2054/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.08860	-.01230	-.00060	.00130	-.00120	.08360	.00000	.00000	.00000
.000	-2.000	-.04820	-.00210	.00160	.00150	-.00030	.08360	.00000	.00000	.00000
.000	.000	-.02970	.00600	.00150	.00150	-.00080	.08210	.00000	.00000	.00000
.000	2.000	.00290	.01140	.00540	.00170	-.00150	.08380	.00000	.00000	.00000
.000	5.000	.04130	.01970	.00250	.00220	-.00210	.08330	.00000	.00000	.00000
	GRADIENT	.01296	.00322	.00040	.00008	-.00010	-.00002	.00000	.00000	.00000

RUN NO. 2057/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.09190	-.03530	-.00010	.00210	-.00110	.08380	.00000	.00000	.00000
972.000	-2.000	-.05270	-.00420	.00100	.00210	-.00110	.08470	.00000	.00000	.00000
972.000	.000	-.02750	-.00470	.00620	.00120	-.00100	.08720	.00000	.00000	.00000
972.000	2.000	-.02180	.00510	-.00530	.00350	-.00010	.08480	.00000	.00000	.00000
972.000	5.000	.00600	.01940	-.00200	.00400	-.00030	.08460	.00000	.00000	.00000
	GRADIENT	.00968	.00504	-.00038	.00021	.00010	-.00079	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T20) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3900 IN. YMRP = .0000 IN.
BREF = 1328.3900 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = -20.000 AILRON = .000
RUDDER = .000 FLAPLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 2080/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.16820	-.01520	.02170	-.00580	-.00130	.08440	.00000	.00000	.00000
.000	-2.000	-.12660	-.01010	.01240	-.00400	-.00020	.08490	.00000	.00000	.00000
.000	.000	-.08980	-.00430	.01590	-.00410	.00000	.08350	.00000	.00000	.00000
.000	2.000	-.06910	.00170	.01840	-.00490	-.00010	.08280	.00000	.00000	.00000
.000	5.000	-.02970	.01370	.01910	-.00450	-.00140	.08430	.00000	.00000	.00000
	GRADIENT	.01392	.00290	-.00002	.00008	-.00001	-.00008	.00000	.00000	.00000

RUN NO. 2077/ 0 RN/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.14990	-.04320	.01070	-.00420	-.00140	.09310	.00000	.00000	.00000
972.000	-2.000	-.10970	-.03250	.02200	-.00680	-.00130	.08750	.00000	.00000	.00000
972.000	.000	-.08420	-.02400	.01870	-.00550	-.00140	.08630	.00000	.00000	.00000
972.000	2.000	-.07200	-.01560	.02030	-.00480	-.00120	.08560	.00000	.00000	.00000
972.000	5.000	-.05070	-.00210	.01610	-.00390	-.00030	.08590	.00000	.00000	.00000
	GRADIENT	.00995	.00413	.00041	.00009	.00010	-.00069	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(OI3) (RBST21) 24 OCT 73

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -20.000 AILRON = .000
RUDDER = .000 FLAPS = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 486.000

RUN NO. 2055/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.05950	-.01580	.00560	.00140	-.00190	.08660	.00000	.00000	.00000
.000	-2.000	-.02530	-.00610	.00470	.00100	-.00080	.08110	.00020	.00000	.01000
.000	.000	-.00330	-.00130	.00050	.00170	-.00100	.08210	.00000	.00010	.00000
.000	2.000	.02620	.00490	.00160	.00160	-.00090	.08350	.00000	.00000	.00000
.000	5.000	.06360	.01150	.00110	.00180	-.00120	.08430	.00000	.00000	.00000
	GRADIENT	.01239	.00269	-.00049	.00006	.00006	-.00012	.00000	.00000	.00000

RUN NO. 2056/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.06370	-.01170	.01020	.00080	.00010	.08580	.00000	.00000	.00000
972.000	-2.000	-.04160	-.00510	-.00750	.00250	-.00130	.08200	.00000	.00000	.00000
972.000	.000	-.00790	-.00080	.00070	.00170	-.00100	.08480	.00000	.00000	.00000
972.000	2.000	.01270	.00690	.00050	.00140	-.00010	.08210	.00000	.00000	.00000
972.000	5.000	.03710	.01450	.00130	.00110	-.00130	.08400	.00000	.00000	.00000
	GRADIENT	.01229	.00267	-.00049	-.00001	-.00009	-.00015	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T22) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.950
ELEVTR = -20.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = 5.000 DELTAB = .000
DELTAY = .000 DELTAZ = 496.000

RUN NO. 2079/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.12590	-.02390	.01660	-.00390	-.00060	.08270	.00000	.00000	.00000
.000	-2.000	-.08380	-.01950	.02730	-.00690	-.00170	.08220	.00000	.00000	.00000
.000	.000	-.05770	-.01430	.01200	-.00180	-.00020	.08400	.00000	.00000	.00000
.000	2.000	-.02960	-.01210	.01440	-.00310	-.00010	.08380	.00000	.00000	.00000
.000	5.000	-.02130	.00490	.01540	-.00410	-.00100	.08190	.00000	.00000	.00000
	GRADIENT	.01009	.00274	-.00055	.00011	.00002	-.00001	.00000	.00000	.00000

RUN NO. 2078/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.14210	-.02560	.01440	-.00470	-.00100	.08360	.00000	.00000	.00000
972.000	-2.000	-.09540	-.01500	.01690	-.00440	-.00120	.08260	.00000	.00000	.00000
972.000	.000	-.07240	-.01120	.01510	-.00230	.00000	.08310	.00000	.00000	.00000
972.000	2.000	-.04620	-.00540	.01150	-.00150	-.00150	.08350	.00000	.00000	.00000
972.000	5.000	-.00470	.00350	.01240	-.00320	-.00060	.08243	.00000	.00000	.00000
	GRADIENT	.01354	.00284	-.00036	.00023	.00002	-.00007	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(C13) (REV723) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 939.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -40.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 2064/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.08110	-.01870	.00140	.00300	-.00020	.09410	.00000	.00000	.00000
.000	-2.000	-.05140	-.01120	.00210	.00240	.00000	.09290	.00000	.00000	.00000
.000	.000	-.02990	-.00400	.00010	.00280	-.00170	.09460	.00000	.00000	.00000
.000	2.000	.00380	.00420	.00160	.00180	.00010	.09260	.00000	.00000	.00000
.000	5.000	.03330	.01560	.00310	.00170	-.00830	.09290	.00000	.00000	.00000
	GRADIENT	.01177	.00349	.00013	-.00013	-.00069	-.00011	.00000	.00000	.00000

RUN NO. 2059/ 0 RN/L = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.06320	-.02900	-.00440	.00280	-.00060	.09730	.00000	.00000	.00000
972.000	-2.000	-.05280	-.03160	.00940	.00240	-.00160	.10550	.00000	.00000	.00000
972.000	.000	-.04280	-.03410	.00260	.00310	-.00050	.10470	.00000	.00000	.00000
972.000	2.000	-.02850	-.03050	.00790	.00260	-.00010	.10480	.00000	.00000	.00000
972.000	5.000	-.00320	-.02480	.00850	.00210	-.00110	.10010	.00000	.00000	.00000
	GRADIENT	.00601	.00040	.00106	-.00005	.00001	.00022	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T24) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -40.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = 162.000

RUN NO. 2063/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.08270	-.01110	.00650	.00090	.00160	.08450	.00000	.00000	.00000
.000	-2.000	-.04830	-.00160	.00220	.00240	-.00330	.08640	.00000	.00000	.00000
.000	.000	-.02620	.00390	-.00010	.00190	-.00150	.08340	.00000	.00000	.00000
.000	2.000	.00390	.01010	.00510	.00180	-.00030	.08540	.00000	.00000	.00000
.000	5.000	.03800	.02010	.00290	.00190	.00000	.08420	.00000	.00000	.00000
	GRADIENT	.01221	.00309	-.00021	.00007	-.00003	-.00006	.00000	.00000	.00000

RUN NO. 2060/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.07730	-.02430	.00670	.00190	-.00180	.09190	.00000	.00000	.00000
972.000	-2.000	-.05410	-.01790	.00180	.00240	-.00130	.08790	.00000	.00000	.00000
972.000	.000	-.03900	-.00540	.00300	.00180	-.00190	.08520	.00000	.00000	.00000
972.000	2.000	-.02090	-.00210	.00550	.00180	-.00110	.08790	.00000	.00000	.00000
972.000	5.000	.01180	.01540	.00340	.00210	-.00080	.08590	.00000	.00000	.00000
	GRADIENT	.00883	.00397	-.00016	-.00000	.00009	-.00052	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013) (R85T25) (04 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	929.0000 IN.
LREF =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.960
ELEVTR =	-40.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	5.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	162.000

RUN NO. 2081/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.16900	-.01830	.01280	-.00350	-.00060	.08610	.00000	.00000	.00000
.000	-2.000	-.12220	-.00700	.02200	-.00550	-.00150	.08410	.00000	.00000	.00000
.000	.000	-.09490	-.00450	.02110	-.00550	-.00020	.08210	.00000	.00000	.00000
.000	2.000	-.07540	-.00050	.01370	-.00390	-.00100	.08380	.00000	.00000	.00000
.000	5.000	-.03570	.01130	.01400	-.00390	-.00150	.08300	.00000	.00000	.00000
	GRADIENT	.01311	.00278	-.00018	.00002	-.00006	-.00028	.00000	.00000	.00000

RUN NO. 2084/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.14460	-.04460	.01320	-.00390	-.00090	.09430	.00000	.00000	.00000
972.000	-2.000	-.11380	-.03300	.01900	-.00490	-.00160	.08860	.00000	.00000	.00000
972.000	.000	-.09520	-.02500	.01890	-.00280	-.00080	.08800	.00000	.00000	.00000
972.000	2.000	-.07170	-.01500	.02100	-.00570	-.00210	.08620	.00000	.00000	.00000
972.000	5.000	-.05030	-.00120	.02250	-.00540	-.00070	.08330	.00000	.00000	.00000
	GRADIENT	.00958	.00436	.00087	-.00016	-.00000	-.00103	.00000	.00000	.00000

DATE 27 OCT 73

TABULATED SOURCE DATA, MSFC 571, (IA6A)

(R85T26) (04 OCT 73)

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(013)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	923.0000 IN.
LREF =	1320.3000 IN.	YMRP =	.0000 IN.
BREF =	1320.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.960
ELEVTR =	-40.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	486.000

RUN NO. 2062/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.06140	-.01490	.01060	.00090	-.00010	.08550	.00000	.00000	.00000
.000	-2.000	-.03380	-.00890	-.00750	.00250	.00000	.08210	.00000	.00000	.00000
.000	.000	-.00370	.00000	.00040	.00170	-.00080	.08190	.00000	.00000	.00000
.000	2.000	.01980	.00530	.00190	.00150	-.00150	.08140	.00000	.00000	.00000
.000	5.000	.05980	.01460	.00350	.00170	-.00060	.08360	.00000	.00000	.00000
	GRADIENT	.01230	.00303	-.00029	.00003	-.00009	-.00019	.00000	.00000	.00000

RUN NO. 2061/ 0 RN/L = 4.90 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.07040	-.01440	.00160	.00230	-.00010	.08260	.00000	.00000	.00000
972.000	-2.000	-.03750	-.00510	.00390	.00210	-.00010	.08340	.00000	.00000	.00000
972.000	.000	-.00750	.00120	.00450	.00150	.00000	.08170	.00000	.00000	.00000
972.000	2.000	.01920	.00550	.00070	.00250	-.00090	.08340	.00000	.00000	.00000
972.000	5.000	.06090	.01390	.00400	.00290	-.00040	.08480	.00000	.00000	.00000
	GRADIENT	.01327	.00281	.00010	.00007	-.00005	.00019	.00000	.00000	.00000

M571(IA6A) TANK(T9)SEPARATING FROM ORBITER(O13) (R85T27: (24 OCT 73)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	929.0000 IN.
LREF =	1328.3000 IN.	YMRP =	.0000 IN.
BREF =	1328.3000 IN.	ZMRP =	.0000 IN.
SCALE =	.0040		

PARAMETRIC DATA

BETA =	.000	MACH =	4.950
ELEVTR =	-40.000	AILRON =	.000
RUDDER =	.000	RUDFLR =	40.000
DELTAA =	5.000	DELTAB =	.000
DELTAY =	.000	DELTAZ =	486.000

RUN NO. 2082/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-5.000	-.13060	-.02350	.01390	-.00150	-.00100	.08570	.00000	.00000	.00000
.000	-2.000	-.08380	-.01840	.01730	-.00440	-.00090	.08260	.00000	.00000	.00000
.000	.000	-.05990	-.01680	.00940	-.00040	.00000	.08360	.00000	.00000	.00000
.000	2.000	-.05600	-.00680	.01220	-.00150	-.00020	.08160	.00000	.00000	.00000
.000	5.000	.00150	.00280	.01790	-.00410	-.00020	.08080	.00000	.00000	.00000
	GRADIENT	.01235	.00267	.00017	-.00012	.00009	-.00046	.00000	.00000	.00000

RUN NO. 2083/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
972.000	-5.000	-.13790	-.02570	.01920	-.00430	-.00100	.08320	.00000	.00000	.00000
972.000	-2.000	-.09170	-.01750	.01490	-.00200	-.00150	.08570	.00000	.00000	.00000
972.000	.000	-.06420	-.01060	.01700	-.00420	-.00170	.08260	.00000	.00000	.00000
972.000	2.000	-.04500	-.00430	.01550	-.00360	-.00170	.08170	.00000	.00000	.00000
972.000	5.000	-.00530	.00450	.01200	-.00300	-.00120	.08330	.00000	.00000	.00000
	GRADIENT	.01304	.00306	-.00060	.00006	-.00002	-.00013	.00000	.00000	.00000

DATE 27 OCT 73

TABULATED SOURCE DATA, MSFC 571, (IA6A)

(R85T28) (04 OCT 73)

M571(IA6A) TANK(T9) ALONE

PARAMETRIC DATA

BETA = .000 MACH = 4.960

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 2095/ 0 RN/L = 5.03 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-9.040	-.11940	-.02430	.00530	.00050	.00000	.08690	.00000	.00640	.00000
.000	-7.120	-.08870	-.02070	.00160	.00020	.00000	.08520	.00000	.00640	.00000
.000	-5.080	-.06170	-.01930	.00170	.00060	-.00020	.08450	.00000	.00530	.00000
.000	-3.080	-.03840	-.00890	.00380	.00080	.00000	.08280	.00000	.00310	.00000
.000	-1.070	-.01530	-.00410	.00190	.00060	-.00090	.08180	.00000	.00230	.00000
.000	.960	.01170	.00370	.00210	.00070	.00000	.08010	.00000	.00330	.00000
.000	2.980	.03870	.00880	.00230	.00110	.00000	.08240	.00000	.00230	.00000
.000	5.000	.05810	.01610	.00430	.00090	-.00010	.08410	.00000	.00370	.00000
.000	7.040	.08900	.02060	.00640	.00100	-.00010	.08580	.00000	.00550	.00000
.000	9.070	.11220	.02640	.00650	.00110	.00030	.08550	.00000	.00640	.00000
.000	10.890	.14680	.02840	.00670	.00100	.00010	.08720	.00000	.00670	.00000
	GRADIENT	.01222	.00311	.00007	.00003	.00003	.00016	.00000	.00006	.00000

(R85T29) (04 OCT 73)

M571(IA6A) TANK(T9) ALONE

PARAMETRIC DATA

ALPHA = .000 MACH = 4.960

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 929.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 2096/ 0 RN/L = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	BETA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-9.980	.00800	.00160	.12280	.02860	.00020	.08640	.00000	.00600	.00000
.000	-8.050	.00630	.00140	.09350	.02350	-.00110	.08480	.00000	.00630	.00000
.000	-5.990	.00470	.00230	.06460	.01940	.00120	.08250	.00000	.00600	.00000
.000	-3.980	.00700	.00240	.04110	.01380	-.00100	.08120	.00000	.00380	.00000
.000	-1.960	.00940	.00260	.01780	.00870	-.00080	.08210	.00000	.00260	.00000
.000	.060	.00390	.00400	-.00530	.00230	.00150	.08000	.00000	.00210	.00000
.000	2.080	.00610	.00320	-.02700	-.00480	-.00020	.08300	.00000	.00340	.00000
.000	4.110	.00820	.00330	-.05050	-.01120	-.00160	.08330	.00000	.00500	.00000
.000	6.150	.00660	.00320	-.07760	-.01660	-.00040	.08440	.00000	.00600	.00000
.000	8.200	.00500	.00400	-.10670	-.02080	-.00050	.08650	.00000	.00640	.00000
.000	10.020	.00740	.00330	-.13380	-.02430	-.00040	.08630	.00000	.00640	.00000
	GRADIENT	-.00004	.00012	-.01128	-.00314	-.00003	.00025	.00000	-.00012	.00000

M571(IA6A) MATED CONFIGURATION (O13T9) (R85I01) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3001/ 0 RN/L = 5.05 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-10.450	-.33520	.15160	-.02560	.01080	-.00120	.25240	-.00660	.00150	.00000
.000	-8.540	-.28930	.13430	-.02550	.01160	-.00190	.24020	-.00560	.00160	.00000
.000	-6.520	-.24370	.11890	-.02730	.01180	-.00190	.22610	-.00430	.00230	.00000
.000	-4.490	-.18320	.09670	-.02330	.00930	-.00140	.21140	-.00140	.00260	.00000
.000	-2.470	-.14080	.08090	-.02500	.01130	-.00160	.19820	-.00180	.00240	.00000
.000	-.450	-.08770	.05970	-.01920	.00900	-.00260	.18710	.00030	.00180	.00000
.000	1.560	-.04900	.04740	-.02290	.00990	-.00230	.17960	-.00210	.00160	.00000
.000	3.580	.01590	.02010	-.01310	.00660	-.00280	.17060	-.00100	.00110	.00000
.000	5.600	.06170	.00380	-.01870	.00900	-.00230	.16410	-.00110	.00100	.00000
.000	7.620	.10380	-.01100	-.01850	.00850	-.00230	.15880	-.00100	.00040	.00000
.000	9.560	.16120	-.03430	-.01830	.00880	-.00210	.15360	-.00120	.00010	.00000
	GRADIENT	.02429	-.00926	.00112	-.00034	-.00017	-.00497	.00002	-.00019	.00000

M571(IA6A) MATED CONFIGURATION (O13T9) (R85I02) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3004/ 0 RN/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-10.450	-.31620	.13770	-.02180	.00980	-.00200	.24120	.00160	.00480	.00000
.000	-8.530	-.26850	.12090	-.03330	.01360	-.00320	.23040	.00140	.00450	.00000
.000	-6.510	-.23380	.10980	-.02920	.01290	-.00140	.21920	.00100	.00450	.00000
.000	-4.490	-.18000	.09060	-.02710	.01120	-.00140	.20630	.00010	.00410	.00000
.000	-2.470	-.12640	.06960	-.02510	.01120	-.00210	.19510	.00050	.00470	.00000
.000	-.450	-.07330	.04750	-.02680	.01130	-.00240	.18340	.00260	.00300	.00000
.000	1.560	-.01920	.02740	-.02090	.00950	-.00290	.17520	.00110	.00470	.00000
.000	3.580	.03420	.00540	-.02270	.01010	-.00340	.16720	.00130	.00350	.00000
.000	5.600	.08010	-.01360	-.02050	.00970	-.00190	.16390	.00200	.00290	.00000
.000	7.620	.11450	-.02560	-.02620	.01180	-.00210	.15830	.00170	.00210	.00000
.000	9.540	.17170	-.05100	-.02270	.00980	-.00780	.15370	.00270	.00260	.00000
	GRADIENT	.02655	-.01054	.00064	-.00019	-.00024	-.00486	.00015	-.00008	.00000

M571(IA6A) MATED CONFIGURATION (O13T9) (R85103) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -20.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3005/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-10.450	-.36810	.16580	-.02370	.01170	-.00120	.24530	.00510	.00490	.00000
.000	-8.530	-.32230	.16580	-.02740	.01250	-.00140	.23220	.00550	.00450	.00000
.000	-6.510	-.27250	.14710	-.03110	.01380	-.00120	.21880	.00570	.00520	.00000
.000	-4.490	-.20750	.12170	-.02120	.00920	-.00040	.20540	.00600	.00590	.00000
.000	-2.480	-.16940	.10080	-.02700	.01210	-.00190	.19020	.00600	.00710	.00000
.000	-.450	-.09680	.07350	-.02880	.01180	-.00310	.18100	.00640	.00670	.00000
.000	1.540	-.05440	.05580	-.02100	.01010	-.00260	.16830	.00620	.00750	.00000
.000	3.580	-.00080	.03660	-.02460	.01140	-.00210	.15850	.00630	.00660	.00000
.000	5.600	.04890	.01520	-.01870	.00910	-.00230	.15170	.00620	.00570	.00000
.000	7.620	.08350	.00500	-.02230	.01140	-.00160	.14760	.00620	.00550	.00000
.000	9.560	.14070	-.02010	-.02220	.01030	-.00210	.14450	.00620	.00490	.00000
	GRADIENT	.02621	-.01068	-.00004	.00012	-.00020	-.00574	.00004	.00005	.00000

M571(IA6A) MATED CONFIGURATION (O13T9) (R85104) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -40.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3008/ 0 RN/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-10.450	-.42040	.22910	-.03730	.01650	-.00240	.26770	.00190	.00640	.00000
.000	-8.530	-.37450	.21270	-.03520	.01610	-.00240	.25590	.00240	.00660	.00000
.000	-6.500	-.30180	.18540	-.02720	.01350	-.00190	.24400	.00350	.00670	.00000
.000	-4.490	-.24890	.15710	-.03100	.01390	-.00190	.22510	.00410	.00670	.00000
.000	-2.490	-.19560	.13140	-.03300	.01450	-.00440	.20550	.00440	.00630	.00000
.000	-.450	-.13430	.10460	-.03070	.01440	-.00230	.19340	.00510	.00610	.00000
.000	1.560	-.08440	.08310	-.02670	.01330	-.00230	.18070	.00490	.00560	.00000
.000	3.580	-.02720	.05690	-.02470	.01150	-.00280	.17190	.00500	.00610	.00000
.000	5.590	.01070	.03980	-.03420	.01410	-.00310	.16090	.00510	.00650	.00000
.000	7.620	.07600	.01440	-.02820	.01270	-.00280	.15580	.00500	.00710	.00000
.000	9.560	.12180	-.00550	-.03010	.01280	-.00360	.14920	.00470	.00810	.00000
	GRADIENT	.02747	-.01232	.00194	-.00030	.00002	-.00650	.00011	-.00019	.00000

M571(IA6A) MATED CONFIGURATION (O13T9) (R85I05) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = 10.000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3009/ 0 RN/L = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-10.450	-.33410	.15260	-.02920	.01270	.00120	.23650	.00440	.00640	.00000
.000	-8.530	-.29190	.13770	-.02710	.01240	.00120	.22490	.00470	.00660	.00000
.000	-6.510	-.24240	.11630	-.03250	.01300	.00370	.21190	.00480	.00670	.00000
.000	-4.490	-.19630	.10080	-.02690	.01120	.00070	.20020	.00500	.00670	.00000
.000	-2.480	-.14670	.07940	-.03450	.01390	-.00020	.18610	.00510	.00640	.00000
.000	-.450	-.09670	.06250	-.03040	.01330	.00030	.17770	.00520	.00600	.00000
.000	1.530	-.04710	.04110	-.03420	.01370	-.00010	.16590	.00510	.00530	.00000
.000	3.580	.01810	.01750	-.02620	.01160	.00030	.16220	.00530	.00470	.00000
.000	5.600	.05650	.00320	-.02790	.01260	.00100	.15620	.00510	.00390	.00000
.000	7.620	.10610	-.01540	-.02590	.01040	.00130	.15160	.00510	.00360	.00000
.000	9.550	.15540	-.03960	-.03170	.01020	.00000	.14550	.00520	.00290	.00000
	GRADIENT	.02623	-.01017	.00009	.00003	-.00003	-.00477	.00003	-.00025	.00000

M571(IA6A) MATED CONFIGURATION (O13T9) (R85I06) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3012/ 0 RN/L = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	BETA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-10.310	-.08460	.04990	.33500	-.13890	.05930	.19460	.00500	.00550	.00000
.000	-8.380	-.09700	.05520	.25930	-.10670	.04840	.19150	.00520	.00510	.00000
.000	-6.340	-.09780	.05810	.18920	-.07710	.03630	.18910	.00520	.00510	.00000
.000	-4.300	-.10250	.06330	.12110	-.04910	.02440	.18360	.00530	.00540	.00000
.000	-2.270	-.09570	.05960	.06050	-.02500	.01250	.18320	.00540	.00520	.00000
.000	-.240	-.09270	.05820	.00020	.00040	.00130	.17910	.00570	.00570	.00000
.000	1.770	-.09750	.06160	-.06590	.02630	-.00900	.17870	.00560	.00580	.00000
.000	3.810	-.09460	.06020	-.12830	.05070	-.02090	.18170	.00550	.00580	.00000
.000	5.860	-.09770	.05460	-.19440	.07680	-.03230	.18740	.00530	.00570	.00000
.000	7.900	-.08090	.05090	-.26070	.10690	-.04470	.19310	.00560	.00600	.00000
.000	9.860	-.08560	.05240	-.33460	.13940	-.05690	.19820	.00570	.00590	.00000
	GRADIENT	.00069	-.00021	-.03086	.01238	-.00553	-.00041	.00002	.00007	.00000

M571(IA6A) MATED CONFIGURATION (O13T9) (R85I07) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 MACH = 4.960
ELEVTR = .000 AILRON = 10.000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3011/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	BETA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	-10.340	-.07700	.04150	.33730	-.13920	.06310	.20070	.00490	.00540	.00000
.000	-8.370	-.08190	.04490	.25950	-.10760	.05090	.19420	.00510	.00550	.00000
.000	-6.340	-.09010	.05350	.18750	-.07780	.03850	.18840	.00530	.00590	.00000
.000	-4.300	-.09490	.05580	.12510	-.05110	.02680	.18710	.00530	.00570	.00000
.000	-2.270	-.08800	.05580	.06470	-.02600	.01520	.18290	.00540	.00570	.00000
.000	-.230	-.09280	.05910	.00020	-.00130	.00180	.18170	.00550	.00580	.00000
.000	1.790	-.08600	.05550	-.05990	.02320	-.00670	.18260	.00510	.00540	.00000
.000	3.800	-.09440	.06120	-.12430	.04970	-.01890	.18560	.00530	.00590	.00000
.000	5.860	-.10310	.06140	-.20000	.08100	-.03030	.18690	.00540	.00580	.00000
.000	7.890	-.08450	.05600	-.25840	.10710	-.04270	.19420	.00550	.00600	.00000
.000	9.850	-.08170	.05190	-.33240	.13760	-.05490	.20090	.00550	.00590	.00000
	GRADIENT	.00015	.00052	-.02077	.01238	-.00559	-.00016	-.00001	-.00000	.00000

M571(IA6A) MATED CONFIGURATION (O13T9) (R85I08) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3002/ 0 RN/L = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	9.880	.14530	-.03340	-.01650	.00670	-.00180	.14690	.00150	.00480	.00000
.000	11.800	.20270	-.05680	-.01620	.00660	-.00110	.14450	.00140	.00390	.00000
.000	13.830	.26020	-.07730	-.02760	.01060	-.00210	.14200	.00020	.00010	.00000
.000	15.850	.31420	-.09750	-.01590	.00630	-.00160	.14020	-.00020	.00260	.00000
.000	17.870	.37170	-.11630	-.01570	.00580	-.00180	.13770	-.00040	.00150	.00000
.000	19.900	.43250	-.14130	-.01170	.00550	-.00230	.13290	.00040	.00270	.00000
.000	21.920	.49790	-.16930	-.01130	.00400	-.00170	.13010	.00080	.00140	.00000
.000	23.950	.57040	-.20490	-.01680	.00640	-.00010	.12470	.00040	-.00150	.00000
.000	25.980	.66200	-.24590	-.01670	.00380	-.00010	.12450	.00020	-.00110	.00000
.000	28.010	.75730	-.29200	-.01050	.00270	-.00140	.12610	.00000	-.00230	.00000
.000	29.960	.83410	-.33650	-.01130	.00550	-.00200	.12430	.00000	-.00260	.00000
	GRADIENT	.03382	-.01433	.00135	-.00081	.00009	-.00107	.00001	-.00047	.00000

DATE 27 OCT 73 TABULATED SOURCE DATA, MSFC 571, (IA6A)

M571 (IA6A) MATED CONFIGURATION (O13T9) (R85I09) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1320.3000 IN. YMRP = .0000 IN.
BREF = 1320.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = 10.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3003/ 0 RN/L = 5.01 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	9.880	.17170	-.05370	-.01830	.00690	-.00040	.15040	.00240	.00390	.00000
.000	11.800	.21760	-.07280	-.01820	.00720	-.00140	.14940	.00200	.00370	.00000
.000	13.830	.28660	-.09960	-.01810	.00710	-.00290	.14820	.00160	.00270	.00000
.000	15.860	.34840	-.12070	-.01390	.00640	-.00180	.14470	.00030	.00190	.00000
.000	17.870	.39410	-.13790	-.01560	.00560	-.00110	.14370	.00060	.00050	.00000
.000	19.900	.45910	-.16250	-.01360	.00520	-.00240	.14210	.00220	-.00160	.00000
.000	21.920	.52810	-.19840	-.01340	.00500	-.00210	.13650	.00040	-.00140	.00000
.000	23.940	.59640	-.23440	-.02280	.00610	-.00140	.13650	.00020	-.00220	.00000
.000	25.980	.70020	-.27880	-.01260	.00410	-.00020	.14040	.00000	-.00360	.00000
.000	28.010	.78410	-.32070	-.01640	.00520	-.00170	.14140	.00050	-.00520	.00000
.000	29.960	.89490	-.37360	-.01030	.00410	-.00220	.14290	.00200	-.00810	.00000
	GRADIENT	.03494	-.01540	.00022	-.00015	-.00001	-.00053	-.00006	-.00056	.00000

M571 (IA6A) MATED CONFIGURATION (O13T9) (R85I10) (04 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1320.3000 IN. YMRP = .0000 IN.
BREF = 1320.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -20.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3006/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	9.880	.13300	-.01820	-.02040	.00780	-.00160	.13980	.00570	.00440	.00000
.000	11.810	.18300	-.03600	-.01240	.00620	-.00150	.13900	.00600	.00390	.00000
.000	13.830	.24410	-.06170	-.02170	.00960	-.00030	.13490	.00590	.00310	.00000
.000	15.850	.30510	-.08290	-.01790	.00530	-.00130	.13130	.00620	.00240	.00000
.000	17.880	.31520	-.09970	-.01190	.00440	-.00150	.12940	.00610	.00170	.00000
.000	19.900	.40130	-.11510	-.02130	.00920	-.00180	.12710	.00670	.00140	.00000
.000	20.150	1.41620	-.71150	-.03030	.01240	-.00580	.15920	.00420	-.00770	.00000
.000	21.900	.46600	-.14320	-.01930	.00520	-.00150	.12070	.00670	.00110	.00000
.000	23.950	.55440	-.18190	-.01490	.00670	-.00030	.11920	.00630	-.00000	.00000
.000	25.980	.62270	-.21330	-.02260	.00620	-.00130	.11590	.00670	-.00000	.00000
.000	28.010	.71490	-.25760	-.01630	.00560	-.00010	.11690	.00670	-.00980	.00000
.000	29.960	.79540	-.28540	-.01610	.00790	-.00160	.11610	.00630	-.00980	.00000
	GRADIENT	.03288	-.01332	-.00004	-.00004	.00002	-.00133	.00001	-.00043	.00000

M571(IA6A) MATED CONFIGURATION (01379) (RB5111) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = -40.000 AILRON = .000
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = .000
DELTAY = .000 DELTAZ = .000

RUN NO. 3007/ 0 RN/L = 4.94 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	9.580	.11800	-.00500	-.02030	.00970	-.00150	.14610	.00590	.00440	[illegible]
.000	11.610	.17910	-.03160	-.01630	.00720	-.00200	.14110	.00600	.00390	[illegible]
.000	13.830	.22900	-.04960	-.01630	.00750	-.00320	.13930	.00620	.00340	[illegible]
.000	15.850	.29030	-.06920	-.01410	.00670	-.00300	.13610	.00620	.00270	[illegible]
.000	17.880	.34720	-.09140	-.01010	.00420	-.00320	.13250	.00610	[illegible]	[illegible]
.000	19.900	.39750	-.10720	-.02140	.00580	-.00300	.12770	.00610	[illegible]	[illegible]
.000	21.900	.45380	-.13300	-.01730	.00680	-.00250	.12350	.00600	.00130	[illegible]
.000	23.950	.53150	-.16590	-.01720	.00750	-.00350	.12090	.00600	.00030	[illegible]
.000	25.990	.62340	-.19350	-.01280	.00450	-.00130	.11670	.00600	-.00110	[illegible]
.000	28.010	.70340	-.23790	-.01650	.00570	-.00180	.12020	.00600	-.00310	[illegible]
.000	29.970	.79190	-.27390	-.01440	.00730	-.00380	.12240	.00600	-.00450	[illegible]
	GRADIENT	.03264	-.01284	.00012	-.00011	-.00002	-.00128	-.00000	-.00041	[illegible]

M571(IA6A) MATED CONFIGURATION (01379) (RB5110) (24 OCT 73)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 635.0000 IN.
LREF = 1328.3000 IN. YMRP = .0000 IN.
BREF = 1328.3000 IN. ZMRP = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

BETA = .000 MACH = 4.960
ELEVTR = .000 AILRON = [illegible]
RUDDER = .000 RUDFLR = 40.000
DELTAA = .000 DELTAB = [illegible]
DELTAY = .000 DELTAZ = [illegible]

RUN NO. 3010/ 0 RN/L = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

DELTAX	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CABO	CABT	CABS
.000	9.890	.16000	-.03330	-.02180	.00840	.00280	[illegible]	.00450	.00240	[illegible]
.000	11.810	.20570	-.05730	-.02530	[illegible]	.00390	.14510	.00490	[illegible]	[illegible]
.000	13.830	.26290	-.07980	-.02830	[illegible]	[illegible]	[illegible]	.00510	[illegible]	[illegible]
.000	15.860	.32830	[illegible]	[illegible]	.00943	[illegible]	.14370	[illegible]	[illegible]	[illegible]
.000	17.860	.38540	-.12010	-.02100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
.000	19.900	.43530	-.14080	-.02650	[illegible]	.01430	.13610	[illegible]	[illegible]	[illegible]
.000	21.900	[illegible]	-.17260	-.02440	.00620	.00430	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	23.950	.54430	[illegible]	[illegible]	[illegible]	[illegible]	.12350	[illegible]	[illegible]	[illegible]
[illegible]	25.990	.67600	-.25170	-.03350	[illegible]	[illegible]	.12060	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	.76390	-.28310	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	-.3266	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	GRADIENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]