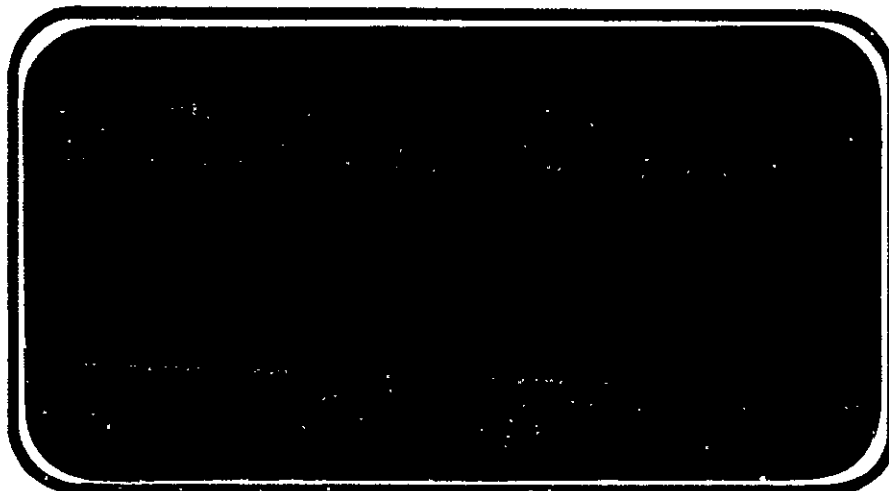




NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA CR-

141825



(NASA-CR-141825) RESULTS OF AN
INVESTIGATION OF THE 0.003-SCALE SPACE
SHUTTLE EXTERNAL TANK MSFC MODEL 460 IN THE
NASA/MSFC 14 X 14 INCH TRISONIC WIND TUNNEL
TO DETERMINE STATIC PRESSURE DISTRIBUTIONS

N76-16155

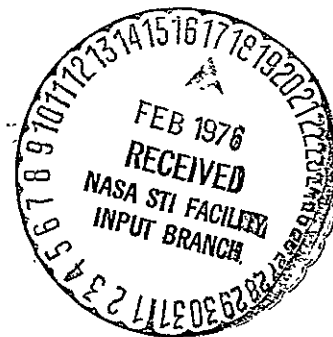
HC \$21.25

Unclas

G3/18 13810

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA Management services

SPACE DIVISION



CHRYSLER CORPORATION

November, 1975

DMS-DR-2165
NASA CR-141,825

VOLUME 3 OF 5

RESULTS OF AN INVESTIGATION OF THE 0.003-SCALE
SPACE SHUTTLE EXTERNAL TANK MSFC MODEL 460
IN THE NASA/MSFC 14 X 14-INCH TRISONIC WIND TUNNEL
TO DETERMINE STATIC PRESSURE DISTRIBUTIONS DURING
REENTRY (TA2F)

by

P. E. Ramsey, MSFC
G. W. Winkler, NSI

Prepared under NASA Contract Number NAS9-13247

by

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

for

Engineering Analysis Division
Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: MSFC TWT 596
NASA Series Number: TA2F
Model Number: 460
Test Dates: July 20-23, 1974
Occupancy Hours: 104

FACILITY COORDINATOR:

C. D. Andrews
Marshall Space Flight Center
Mail Code ED32
Huntsville, Ala. 35801

Phone: (205) 453-2519

PROJECT ENGINEERS:

Paul Ramsey
Marshall Space Flight Center
Mail Code ED32
Huntsville, Ala. 35801

Phone: (205) 453-2519

G. W. Winkler
Northrop Services, Inc.
6025 Technology Drive
Huntsville, Ala. 35807

Phone: (205) 837-0580

DATA MANAGEMENT SERVICES:

Prepared by: Liaison--V. W. Sparks
Operations--G. W. Klug, Maurice Moser, Jr.

Reviewed by: D. E. Poucher

Approved: J. L. Glynn
J. L. Glynn, Manager
Data Operations

Concurrence: N. D. Kemp
N. D. Kemp, Manager
Data Management Services

Chrysler Corporation Space Division assumes no responsibility for the data presented other than display characteristics.

RESULTS OF AN INVESTIGATION OF AN 0.003-SCALE
SPACE SHUTTLE EXTERNAL TANK MSFC MODEL 460 IN THE
NASA/MSFC 14 x 14-INCH TRISONIC WIND TUNNEL TO
DETERMINE STATIC PRESSURE DISTRIBUTIONS DURING REENTRY
(TA2F)

by

P. E. Ramsey, MSFC, and G. W. Winkler, NSI

ABSTRACT

Objective of the test was to obtain static pressure distributions for the ET at reentry conditions. Basic configuration of the model was the MCR 0200 ET modified to include a rectangular crossbar at the aft ET/orbiter attach point. Mach numbers were 1.96, 3.48, and 4.96. Reynolds number per foot at these Mach numbers were 6.95 million, 6.42 million, and 4.95 million, respectively. Angle of attack range was -8 to 100 degrees and roll angle was 0 to 315 degrees. Occupancy hours were 104.

(This page intentionally left blank.)

TABLE OF CONTENTS

	Page
ABSTRACT	iii
INDEX OF MODEL FIGURES	3
INDEX OF DATA FIGURES	4
NOMENCLATURE	6
INTRODUCTION	10
MODEL DESCRIPTION	11
CONFIGURATIONS INVESTIGATED	13
TEST FACILITY DESCRIPTION	14
TEST PROCEDURE	16
DATA REDUCTION	17
REFERENCES	19
TABLES	
I. TEST CONDITIONS	20
II. DATA SET/RUN NUMBER COLLATION SUMMARY	21
III. MODEL DIMENSIONAL DATA	29
IV. TABULATED DATA PRINT-OUT FORMAT AND COLLATION BETWEEN TUBE NUMBER, ORIFICE NUMBER, AND ORIFICE LOCATION ON MODEL--SIDE-MOUNTED ET	41
V. TABULATED DATA PRINT-OUT FORMAT AND COLLATION BETWEEN TUBE NUMBER, ORIFICE NUMBER, AND ORIFICE LOCATION ON MODEL--TAIL MOUNTED ET	43
VI. 0.003-SCALE 324-INCH ET REFERENCE DIMENSIONS	45
FIGURES	
MODEL	46

TABLE OF CONTENTS (Concluded)

	Page
DATA	51
VOLUME 1--Pages 1-720	
VOLUME 2--Pages 721-1200	
VOLUME 3--Pages 1201-2000	
VOLUME 4--Pages 2001-2740	
APPENDIX	
TABULATED SOURCE DATA	51
VOLUME 5	

INDEX OF MODEL FIGURES

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1.	Missile Axis Systems	46
2.	Model Sketches	
	a. General Arrangement of MSFC Model 460, Configuration T ₁ External Tank with Protuberances	47
	b. External Tank Model Pressure Orifice Locations	48
3.	Model Photographs	
	a. External Tank Model No. 460, Configuration T ₁ Tail-Mounted with Protuberances	49
	b. External Tank Model No. 460, Configuration T ₂ Side-Mounted without Protuberances	50

INDEX OF DATA FIGURES

FIGURE NUMBER	TITLE	CONDITIONS VARYING	PLOTTED COEFFICIENTS SCHEDULE	PAGES
<u>VOLUMES 1 AND 2</u>				
4	PRESSURE DISTRIBUTION OVER ET - T1 MODEL WITH PROTUBERANCES	PHI, ALPHA, THETA, MACH	A	1-1200
<u>VOLUME 3</u>				
5	CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES	PHI, ALPHA, X/LB, MACH	B	1201-2000
<u>VOLUME 4</u>				
6	LOCAL NORMAL FORCE DISTRIBUTION - T1 WITH PROTUBERANCES	PHI, ALPHA, MACH	C	2001-2040
7	LOCAL SIDE FORCE DISTRIBUTION - T1 WITH PROTUBERANCES	PHI, ALPHA, MACH	D	2041-2080
8	PRESSURE DISTRIBUTION OVER ET - T2 MODEL WITHOUT PROTUBERANCES	ALPHA, THETA, MACH	A	2081-2440
9	CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T2 WITHOUT PROTUBERANCES	ALPHA, X/LB, MACH	B	2441-2680
10	LOCAL NORMAL FORCE DISTRIBUTION - T2 WITHOUT PROTUBERANCES	ALPHA, MACH	C	2681-2692
11	LOCAL SIDE FORCE DISTRIBUTION - T2 WITHOUT PROTUBERANCES	ALPHA	D	2693-2704
12	STABILITY CHARACTERISTICS - WITH AND WITHOUT PROTUBERANCES (T1 - T2)	PHI, MACH CONFIGURATION	E	2705-2740

INDEX OF DATA FIGURES (Concluded)

SCHEDULE OF COEFFICIENTS PLOTTED:

- A) CP vs. X/LB
- B) CP vs. THETA
- C) DCNM/D(X/LB) vs. X/LB
- D) DCYM/D(X/LB) vs. X/LB
- E) CNM vs. ALPHA
CLMM
CYM
CYNM

NOMENCLATURE

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>	<u>Units</u>
a		speed of sound	m/sec, ft/sec
A_b		base area; cross-sectional area of the cylindrical ET	in. ²
b_{ref}	BREF	reference span; diameter of the cylindrical section of the model	in.
ET		external tank	
FA		axial force (AF), positive in the negative direction of x_m	lb
F_N		normal force (NF), positive in the negative direction of z_m	lb
F_y		side force (SF), positive in the positive direction of y_m	lb
l_B	LBODY	length of the ET	in.
l_{ref}	LREF	reference length; diameter of the cylindrical section of the model	in.
M	MACH	Mach number; V/a	
MRP	MRP	moment reference point located in the x_m , y_m , z_m axes by XMRP, YMRP, and ZMRP (See Data Reduction section)	
M_x		rolling moment (RM); a moment about the x_m axis (a positive rolling moment tends to rotate the positive y_m axis toward the positive z_m axis)	in.-lb
M_y		pitching moment (PM); a moment about the y_m axis (a positive pitching moment tends to rotate the positive z_m axis toward the positive x_m axis)	in.-lb
\dot{c}_g		center of gravity	

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>	<u>Units</u>
M_z		yawing moment (YM); a moment about the z_m axis (a positive yawing moment tends to rotate the positive x_m axis toward the positive y_m axis)	in.-lb
p_∞	P	pressure, freestream	psi
p_0	P0	stagnation pressure	psi
q_∞	Q(PSI)	free stream dynamic pressure	psi
S_{ref}	SREF	reference area; cross-sectional area of the cylindrical section of the model	in. ²
RN/L	RN/L	unit Reynolds number	per m, per ft
SRB		solid rocket booster	
V		velocity	m/sec, ft/sec
x_m, y_m, z_m		missile axis system (see Data Reduction section)	
X		distance from nose of ET model in the negative x_m direction	in.
X_T, Y_T, Z_T		model stations; (see figure 2a)	in.
X_{CP}/l_B	XCP/L	longitudinal position of the center of pressure, expressed as a fraction of the ET length, measured from the ET nose	
		$\frac{X_{CP}}{l_B} = \frac{X_{MRP}}{l_B} - \frac{C_{m_m}}{C_{N_m}} \frac{l_{ref}}{l_B}$	
\bar{c}		aerodynamic chord	m,ft
COEFFICIENTS			
C_{A_m}	CA	axial force coefficient; $F_A/q S_{ref}$	

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>	<u>Units</u>
$C_{A_{b_m}}$	CAB	base axial force coefficient; $(p_\infty - p_b) A_B/q S_{ref}$	
C_{A_f}	CAF	forebody axial force coefficient; $C_{A_m} - C_{A_{b_m}}$	
C_{ℓ_m}	CBL	rolling moment coefficient; $M_x/q S_{ref} b_{ref}$	
C_{m_m}	CLMM	pitching moment coefficient; $M_y/q S_{ref} \ell_{ref}$	
C_{N_m}	CNM	normal force coefficient; $F_N/q S_{ref}$	
C_{n_m}	CYNM	yawing moment coefficient; $M_z/q S_{ref} b_{ref}$	
C_p	CP	pressure coefficient; $(p - p_\infty)/q$	
C_{Y_m}	CYM	side force coefficient; $F_y/q S_{ref}$	
C_{N_m}'	DCN/DX	local normal force coefficient; $\partial C_N / \partial (X/D)$	
C_{Y_m}'	DCY/DX	local side force coefficient; $\partial C_Y / \partial (X/D)$	

SYMBOLS

α	ALPHA	angle of attack	deg.
β	BETA	angle of sideslip	deg.
ϕ	PHI	angle of roll	deg.
ψ	PSI	angle of yaw	deg.

NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>	<u>Units</u>
θ	THETA	circumferential location	deg.
ρ		mass density	kg/m ³ , slugs/ft ³
ref		reference conditions	
∞		free stream conditions	
b		base	
c		cavity	
t		total conditions	
B		model body	
T		external tank	
m		missile axis system	
l		local	
s		static conditions	
	MOUNT	1.0 indicates tail mounted (T_1) 2.0 indicates side mounted (T_2)	

INTRODUCTION

After the solid rocket boosters and the external tank separate from the orbiter, the ET will reenter the earth's atmosphere at high supersonic or even hypersonic Mach numbers. This test is the second of two tests conducted in the NASA-MSFC 14-inch Trisonic Wind Tunnel to obtain force and pressure data on the 324-inch diameter ET at typical reentry angles of attack.

Model (MSFC No. 460) configuration is a 0.003-scale representation of the ET with fuel lines and forward and aft SRB and orbiter attach hardware. Also included is the ET/orbiter rectangular crossbar attach structure.

Pressure taps (192 total) were used to obtain data for evaluating the load distribution on the ET. Further evaluation of the ET aerodynamic characteristics can be made by comparing data from this test with data from TWT 583 (reference 4).

Pressure data were taken at three Mach numbers: 1.96, 3.48, and 4.96. Angle of attack range was -8 to 100 degrees, which was obtained by using two ET model mountings. Range -8 to 30 degrees used a tail-mounted model (T_1) for each of eight roll positions, 0 to 315 degrees. This model had attach structure and protuberances. For the range of 51 to 100 degrees, a side-mounted model (T_2) at 0° roll position was used.

MODEL DESCRIPTION

The model is a 0.003-scale of the MCR 0200 space shuttle ET configuration modified to include a crossbar at the aft orbiter/ET attach points. General arrangement of the model is shown in figure 2a. The model is designated MSFC #460, and it consists of two ET models (one tail-mounted and one side-mounted); protuberances simulating fuel lines, attachment hardware, etc.; and model adapters which allowed the tanks to be supported in the tunnel on RI stings #1 and #3. The models were built by NASA to conform to the configuration specified by Rockwell International drawing VL78-000041B (Reference Drawing 6) and Martin-Marietta memo SA-A-74-9 (Reference Report 2).

Both ET models were made of stainless steel and contained 192 pressure orifices each. From these orifices, stainless steel and annealed 0.032-inch OD tubing was routed out the base (or the side) of the model. Four feet of 0.050-inch OD tubing was brazed onto each of the 0.032-inch tubes as close to the exit cavity as possible.

When placed in the tunnel test section, the tubing bundle from the model was secured along the sting and routed down the sector through the tunnel floor. At this point, Tygon tubing was used to connect the steel tubing to quick disconnects, which were connected to the scanivalves. Installation photographs for the tail mounted (T_1) and side mounted (T_2) models are in figures 3a and 3b, respectively.

Model stations are sometimes used to describe locations of various components of the model. When used, these stations will be given in

MODEL DESCRIPTION (Concluded)

inches model scale and the zero reference points will be same as in Rockwell International drawing VL72-000088"D" (Reference Drawing 2). Zero reference points are shown in figure 2a.

CONFIGURATIONS INVESTIGATED

Two ET configurations investigated are defined as follows:

T₁--MCR 0200 tail-mounted, modified to include crossbar configuration with protuberances.

T₂--MCR 0200 side-mounted, "clean" configuration (without protuberances).

Each of the configurations consists of the following model components:

T₁--T₁₂ AT₅ AT₆ AT₇ AT₈ AT₉ PT₁ PT₂ PT₃ FL₁ FL₂ FR₆

T₂--T₁₂

Brief descriptions of each component are below. Refer to table III for dimensional data.

T ₁₂	Baseline 324-inch diameter external oxygen-hydrogen tank
AT ₅	Forward orbiter/ET attach structure
AT ₆	Left rear orbiter/ET attach structure
AT ₇	Right rear orbiter/ET attach structure
AT ₈	Forward SRB/ET attach structure
AT ₉	Aft SRB/ET attach structure
PT ₁	LOX vent line fairing
PT ₂	LOX feed line
PT ₃	LH ₂ feed line
FL ₁	LOX feed line
FL ₂	LH ₂ feed line
FR ₆	Aft ET/orbiter crossbar

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 is tilted and translated automatically to produce any desired Mach number in .25 increments.

Air is supplied to a 6000 cubic foot storage tank at approximately -40°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 20° (+10°). Sting offsets are available for obtaining various maximum angles of attack up to 95°.

TEST FACILITY DESCRIPTION (Concluded)

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

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

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

TEST PROCEDURE

First part of the test was conducted using a side-mounted, "clean" configuration (T₂ without protuberances). Since it was a "clean" configuration, the roll angle was considered to always be 0 degrees. Angle of attack range was from 51 to 100 degrees in increments of 3 degrees. Data were obtained at Mach numbers of 1.96, 3.48, and 4.96.

Second part of the test consisted of using a tail-mounted model with attach hardware, fuel lines, and electrical tunnel. Angle of attack range was from -8 to 30 degrees in increments of 4 degrees. Data were obtained at eight roll positions, 0 to 315 degrees in 45-degree increments. All orifices and tubing were checked for leakage at the beginning of the test and after each roll position change. A leak check after rolling the model insured that correct measurements were being received from the orifices. Response time for the scanivalve function was within the one-second intervals allowed each scanivalve.

List of average test conditions is in table I. Dataset run number collation summary is in table II.

DATA REDUCTION

Location of each pressure orifice and the numbering system are presented in tables IV and V. Also special identification of blocked or inoperative pressure orifices is made for both tail-mounted and side-mounted models in these tables. Locations of these orifices are shown in figure 2b.

Sting deflections were measured outside the tunnel by using check weights. Sting deflections versus load curve for the pressure test (TWT 596) was found to be the same, within allowable accuracy, as that of the force test (TWT 583). The same ET configuration and only slightly different support hardware were used in both force and pressure tests. Increments of α due to sting bending in the force test were added to the nominal α 's for the pressure test. This gave reasonably accurate values of angle of attack, accuracy comparable to force test, when the pressure model was tested at the same Mach number and tunnel total pressure as the force model.

Pressure data were reduced to coefficient form and are tabulated along with wind tunnel parameters, configuration, and run number in the appendix. Plots are presented for both longitudinal and circumferential pressure distributions (C_p vs X/ℓ_B and C_p vs θ). These plots are shown for each Mach number, angle of attack, and roll position at which tests were conducted. In addition, the pressure coefficients were integrated to obtain the following missile axis force and moment coefficients:

DATA REDUCTION (Concluded)

$C_{N_m} = F_N/q S_{ref}$	normal force coefficient
$C_{Y_m} = F_Y/q S_{ref}$	side force coefficient
$C_{m_m} = M_Y/q S_{ref} l_{ref}$	pitching moment coefficient
$C_{n_m} = M_Z/q S_{ref} b_{ref}$	yawing moment coefficient
$C_{N_m}' = \partial C_N / \partial (X/D)$	local normal force coefficient
$C_{Y_m}' = \partial C_Y / \partial (X/D)$	local side force coefficient

Force and moment coefficients obtained from the integration of pressures are for comparison with the results from the force test.

Model reference dimensions used in the data reduction are presented in table VI. The axis system diagram is presented in figure 1. The missile axis system (x_m, y_m, z_m) is a non-rolling body axis system that is frequently used in wind tunnel tests and studies of missile flight dynamics. It is a system of axes that rotates with a missile or wind tunnel model through angles of sideslip and angles of attack but never through angles of roll; i.e., it never rotates about the missile or model longitudinal axis. The orientation of the missile axis coefficients is defined in figure 1. The missile axis system is identical with the body axis system at zero roll angle.

Moment reference point (MRP) for the 0.003-scale model is taken to be at the dry weight center of gravity of the ET. For the full-scale ET, the center of gravity is located at $X_T = 1395.4$ inches. Thus, the MRP for the 0.003-scale ET model is 3.259 inches from the model nose, on the centerline (figure 2a).

REFERENCES

1. NASA TMX-53185, "The George C. Marshall Space Flight Center's 14 x 14 Inch Trisonic Wind Tunnel Technical Handbook," Simon, Erwin; December 1964.
2. SA-A-74-9, "Space Shuttle External Tank Entry Force and Moment Wind Tunnel Test Requirements," Michna, D. J., Michoud Operations, Martin Marietta Corporation, February 1974.
3. NSI-M-9230-74-270, "A Pre-test Report for MSFC TWT 596, An Investigation to Determine the Static Pressure Distributions During Reentry of a 0.003-scale Modified MCR 200 Space Shuttle External Tank Model in the NASA-MSFC 14 x 14-Inch Trisonic Wind Tunnel," Robertson, M, K. and Winkler, G. W., April 1974.
4. DMS-DR-2145, NASA CR-134,420, "Static Stability Characteristics of the Space Shuttle External Tank (MSFC Model 458) During Reentry in the MSFC 14-inch TWT (TAIF)," by Ramsey, Paul E., Robertson, Michael K., and Winkler, Gary W. October 1974.

REFERENCE DRAWINGS

1. VL72-000106, 8-6-73; SRB to ET Aft Attach, Approved Link Concept, Shuttle Study; Rockwell International.
2. VL72-000088 "D", 8-3-73; Shuttle Configuration Control, MCR 0200 Baseline Rev. III, Dated 7-2-73; Rockwell International.
3. VL78-000031 "A", 6-29-73; Thermal Protection-External Tank MCR 0200 Baseline Dated 4-11-73; Rockwell International.
4. VL77-000051 "A", 9-10-73; SRB Single PT.-Fwd Thrust Fitting (MCR 0190 Rev. 3 Baseline 8-13-73); Rockwell International.
5. SS-A01176 (Wind Tunnel Model Group); Details - .015 Scale EOHT Attachments (140 A/B) (67-OTS) 11-20-73; Rockwell International.
6. VL78-000041 "B", 5-30-73; External Tank Configuration Control MCR 0200 Revision 1 Dated 5-16-73; Rockwell International.

Table I.

TEST: MSFC TWT 596			DATE: Aug 1974	
TEST CONDITIONS				
MACH NUMBER	REYNOLDS NUMBER (per foot)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)	STAGNATION PRESSURE (pounds/sq. inch)
1.96	6.95×10^6	10.2	104	28.0
3.48	6.42×10^6	6.9	143	60.0
4.96	4.95×10^6	3.1	143	90.0

BALANCE UTILIZED: None - Pressure Test; 50 PSIA Transducers

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	_____	_____	_____
SF	_____	_____	_____
AF	_____	_____	_____
PM	_____	_____	_____
RM	_____	_____	_____
YM	_____	_____	_____

COMMENTS: Transducer capacity of 50 psia, accuracy of $\pm .25$ psi, and coefficient tolerance of $\pm .025$ @ $q = 10$ psi.

TABLE II.

TEST: MSFC TWT 596		DATA SET/RUN NUMBER COLLATION SUMMARY						DATE: July 1974													
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)												
		α	β	REF-SET	MT.	ϕ			1.96	3.48	4.96										
RIA001	T, (TAIL MOUNTED	-8	0	0	TAIL	0		3	86	140	139										
002	E.T. WITH	-4						3	87	137	138										
003	PROTUBERANCES)	0						5	88	136	135										
004		4						3	89	133	134										
005		8		Y				5	90	132	131										
006		12			20			3	85	141	142										
007		16						3	84	144	143										
008		20						3	83	145	146										
009		24						3	82	148	147										
010		28		Y		Y		3	81	149	150										
011		-8		0		90		3	80	170	169										
012		-4						3	79	167	168										
013		0						3	78	166	165										
014		4						3	77	163	164										
015		8		Y				3	76	162	161										
016		12			20			3	75	159	160										
Y 017		16						3	74	158	157										
RIA 018	Y	20	Y	Y	Y	Y		3	73	155	156										

21

TEST RUN NUMBERS

1	7	13	19	25	31	37	43	49	55	61	67	75	76
CP													
COEFFICENTS										IDVAR (1)	IDVAR (2)	NDV	
α OR β		_____						_____					
SCHEDULES		_____						_____					

TABLE II. (Continued)

TEST: MSFC TWT 596		DATA SET/RUN NUMBER COLLATION SUMMARY						DATE: July 1974												
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES			NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)												
		α	β	OFF-SET	MT.	ϕ		1.96	3.48	4.96										
R1A 019	T, (TAIL-MOUNTED	24	0	20	TAIL	90	3	72	154	153										
020	ET WITH	28		↓		↓	3	71	151	152										
021	PROTUBERANCES)	-8		0		135	2		179	180										
022		-4					2		178	177										
023		0					2		175	176										
024		4					2		173	172										
025		8		↓			2		174	171										
026		12		20			2		190	189										
027		16					2		187	188										
028		20					2		186	185										
029		24					2		183	184										
030		28		↓		↓	2		182	181										
031		-8		0		180	3	61	210	209										
032		-4					3	62	207	208										
033		0					3	63	206	205										
034		4					3	64	203	204										
035		8		↓			3	65	202	201										
R1A 036	Y	12	Y	20	Y	Y	3	66	199	200										

TEST RUN NUMBERS

22

1	7	13	19	25	31	37	43	49	55	61	67	75	76		
COEFFICIENTS													IDVAR (1)	IDVAR (2)	NDV
α OR β		_____										_____		_____	
SCHEDULES		_____										_____		_____	

TABLE II. (Continued).

TEST: MSFC TWT 596		DATA SET/RUN NUMBER COLLATION SUMMARY						DATE: July 1974										
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES			NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)										
		α	β	OFF-SET	MT.	ϕ		1.96	3.48	4.96								
R1A 037	T, (TAIL-MOUNTED)	16	0	20	TAIL	180	3	67	198	197								
038	E.T. WITH	20					3	68	195	196								
039	PROTUBERANCES)	24					3	69	194	193								
040		28		Y		Y	3	70	191	192								
041		-8		0		225	2		255	126								
042		-4					2		254	127								
043		0					2		253	128								
044		4					2		252	129								
045		8		Y			2		251	130								
046		12		20			2		260	121								
047		16					2		259	122								
048		20					2		258	123								
049		24					2		257	124								
050		28		Y		Y	2		256	125								
051		-8		0		270	3	96	101	102								
052		-4					3	97	104	103								
053		0					3	98	105	106								
R1A 054	Y	4	Y	Y	Y	Y	3	99	108	107								

TEST RUN NUMBERS

23

1	7	13	19	25	31	37	43	49	55	61	67	73	76
CP													
COEFFICENTS						IDVAR (1) IDVAR (2) NDV							
α OR β		_____					_____						
SCHEDULES		_____					_____						

TABLE II. (Continued)

TEST: MSFC TWT 596		DATA SET/RUN NUMBER COLLATION SUMMARY							DATE: July 1974						
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES			NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)							
		α	β	OFF-SET	ϕ			196	3.48	4.96					
R1A055	T, TAIL-MOUNTED	8	0	TAIL	270		3	100	109	110					
056	ET WITH	12					3	95	120	119					
057	PROTUBERANCES)	16					3	94	117	118					
058		20					3	93	116	115					
059		24					3	92	113	114					
R1A060	Y	28	Y	Y	Y		3	91	112	111					

TEST RUN NUMBERS

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

CP

COEFFICIENTS

IDVAR (1) IDVAR (2) NDV

α OR β _____

SCHEDULES _____

24

TABLE II. (Continued)

TEST: MSFC TWT 596		DATA SET/RUN NUMBER COLLATION SUMMARY							DATE: July 1974										
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)										
		α	β	OFF SET	MT.	β	STING COMB		1.96	3.48	4.96								
RIA 061	T ₂ (SIDE-MOUNTED	51	0	60	SIDE	0	C	3	60	1/1	2								
062	ET WITHOUT	54						3	59	4	3								
063	PROTUBERANCES)	57						3	58	5	6								
064		60						3	57	8	7								
065		63						3	56	9	10								
066		66						3	55	12	11								
067		69		Y			Y	3	54	13	14								
068		70		80			D	3	53	16/1	15								
069		72						3	52	17	18								
070		75						3	51	20	19								
071		78		Y			Y	3	50	21	22								
072		80		90			E	3	49	24	23								
073		82						3	48	25	26								
074		85						3	47	28	27								
075		88						3	46	29	30								
076		90						3	45	32	31								
Y 077		92						3	44	33	34								
RIA 078	Y	95	Y	Y	Y	Y	Y	3	43	36	35								

TEST RUN NUMBERS

25

1	7	13	19	25	31	37	43	49	55	61	67	75	76
CP													
COEFFICIENTS													
α OR β	α C: 50° → 70°						α E: 80° → 100°						
SCHEDULES	α D: 70° → 90°												
							IDVAR (1) IDVAR (2) NDV						

TABLE II. (Continued)

TEST: MSFC TWT 596		DATA SET/RUN NUMBER COLLATION SUMMARY							DATE: July 1974											
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES			NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)												
		α	β	OFF SET	MT.	ϕ		1.96	3.48	4.96										
R1A 081	T ₁ (TAIL-MOUNTED	-8	0	0	TAIL	45	2		219	220										
082	ET WITH	-4					2		218	217										
083	PROTUBERANCES)	0					2		215	216										
084		4					2		214	213										
085		8		↓			2		211	212										
086		12		20			2		230	229										
087		16					2		227	228										
088		20					2		226	225										
089		24					2		223	224										
090		28		↓		↓	2		222	221										
091		-8		0		315	2		250	249										
092		-4					2		247	248										
093		0					2		246	245										
094		4					2		243	244										
095		8		↓			2		242	241										
096		12		20			2		239	240										
↓ 097		16					2		238	237										
R1A 098	↓	20	↓	↓	↓	↓	2		235	236										

TEST RUN NUMBERS

27

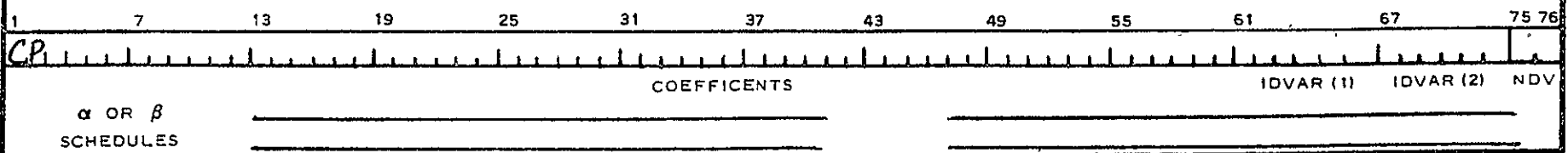


TABLE III. MODEL DIMENSIONAL DATA

MODEL COMPONENT: EXTERNAL TANK - T₁₂

GENERAL DESCRIPTION: EXTERNAL OXYGEN - HYDROGEN TANK WITH OGIVE NOSE AND
SEMI-ELLIPTICAL TAIL. BEGINNING AT MODEL TANK STATION 0.927 AND ENDING AT STATION
6.522

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000041B

<u>DIMENSIONS:</u>	THEORETICAL	
	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1865 in.</u>	<u>5.595 in.</u>
Max. Width	<u>324 in.</u>	<u>0.972 in.</u>
Fineness Ratio	<u>5.756 in.</u>	<u>5.756 in.</u>
Max. Cross-Sectional	<u>572.555 ft²</u>	<u>0.742 in.²</u>
Base	<u>572.555 ft²</u>	<u>0.742 in.²</u>
WL OF TANK CENTERLINE	<u>400 in.</u>	<u>1.200 in.</u>

TABLE III. (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT₅

GENERAL DESCRIPTION: FORWARD ORBITER/ET ATTACH STRUCTURE

(2 MEMBERS)

MODEL SCALE: 0.003

REFERENCE DRAWING: VL72-000088D

ALL DIMENSIONS IN INCHES MODEL SCALE

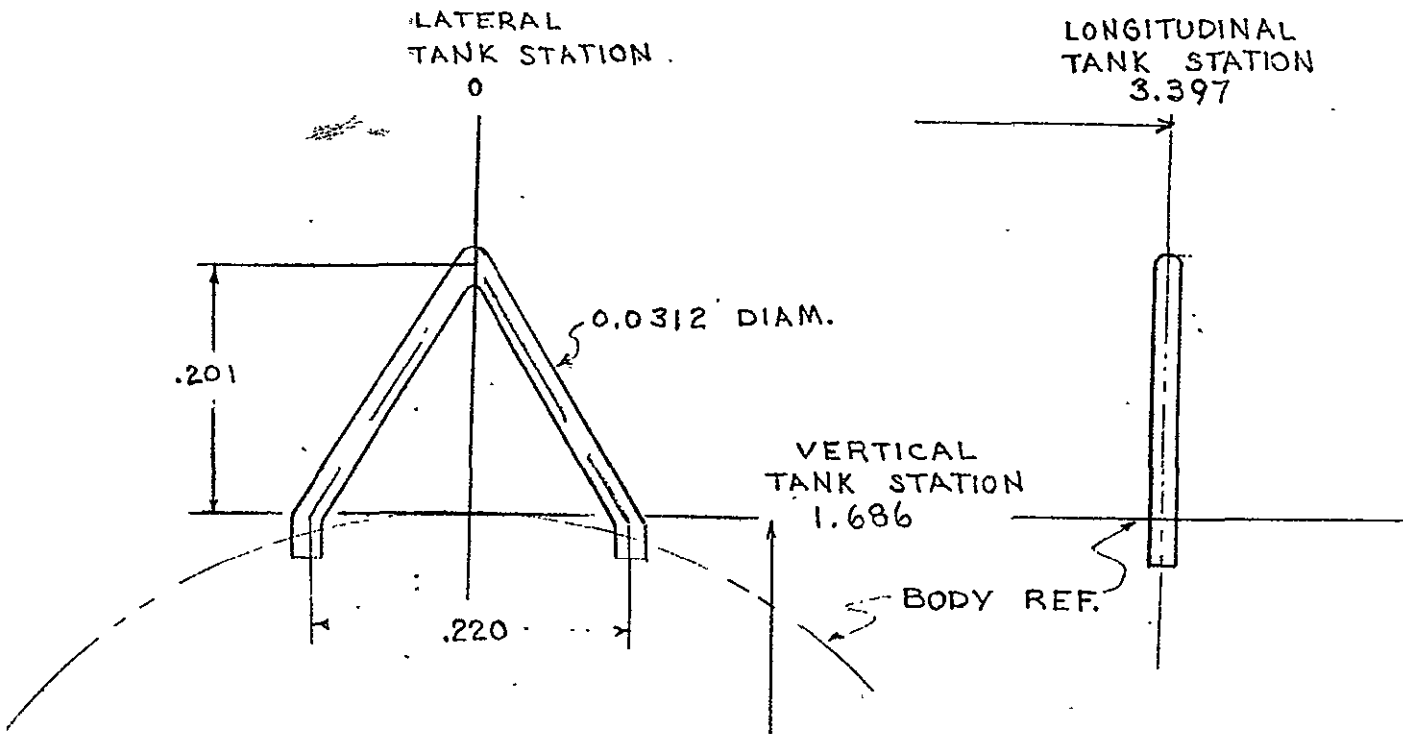


TABLE III. (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT₆

GENERAL DESCRIPTION: LEFT REAR ORBITER/ET ATTACH STRUCTURE (2 MEMBERS)

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000050

ALL DIMENSIONS IN INCHES MODEL SCALE

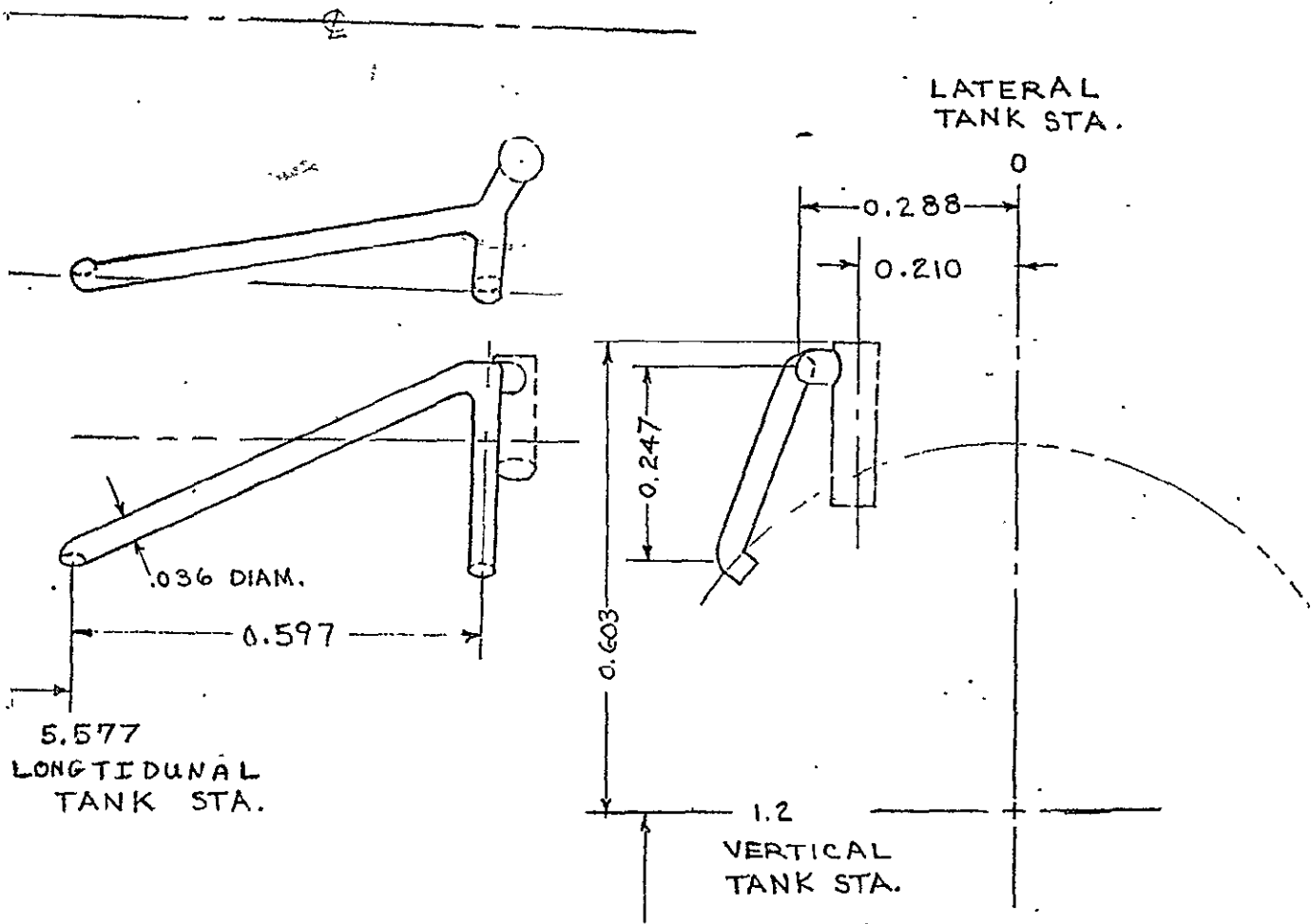


TABLE III. (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT7

GENERAL DESCRIPTION: RIGHT REAR ORBITER/ET ATTACH STRUCTURE (3 MEMBERS)

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000050

ALL DIMENSIONS IN INCHES MODEL SCALE

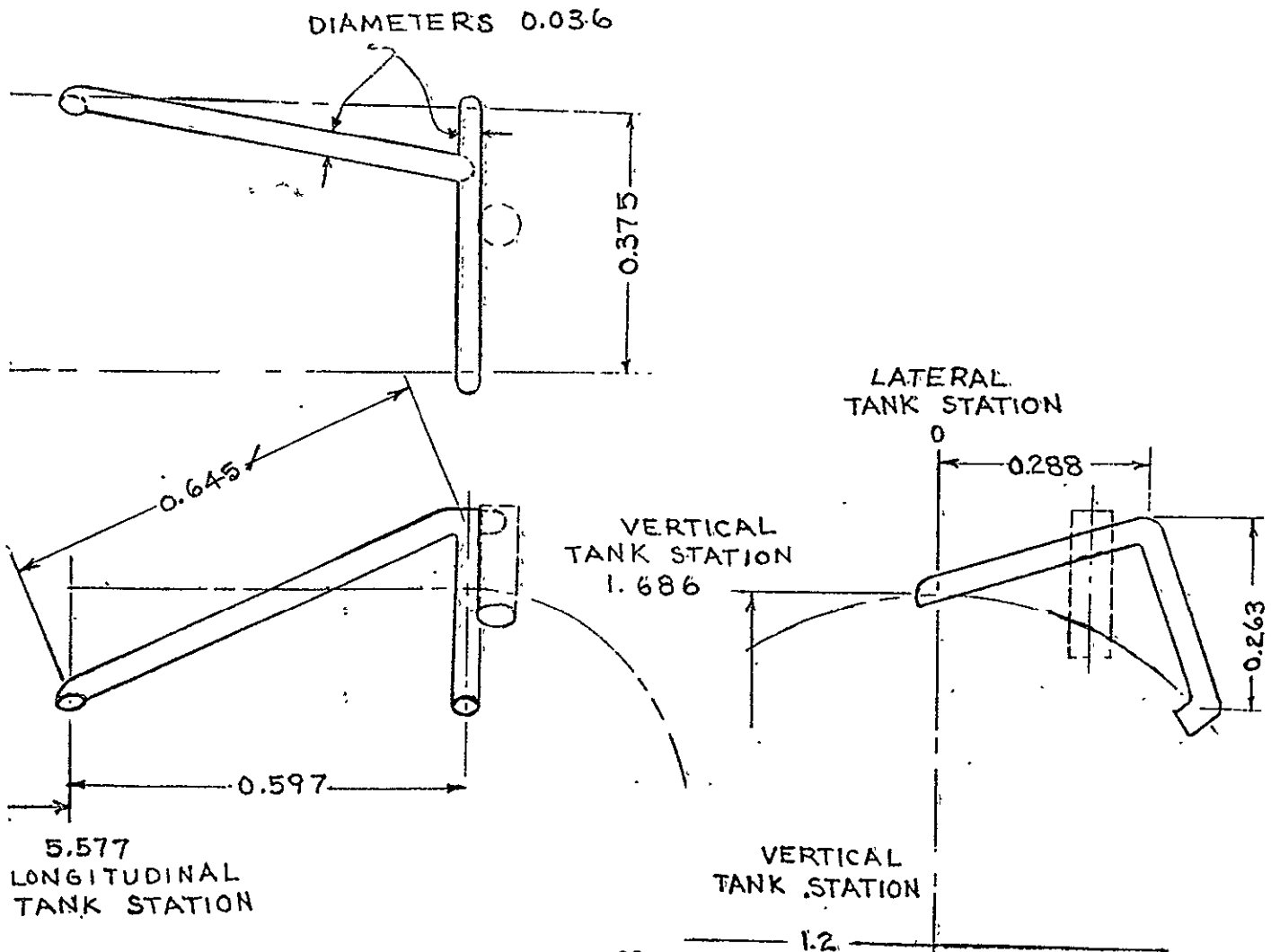


TABLE III. (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT₈

GENERAL DESCRIPTION: FORWARD SRB/ET ATTACH STRUCTURE (ET PORTION TESTED ONLY)

MODEL SCALE: 0.003

REFERENCE DRAWING: VL77-000051A

ALL DIMENSIONS IN INCHES MODEL SCALE

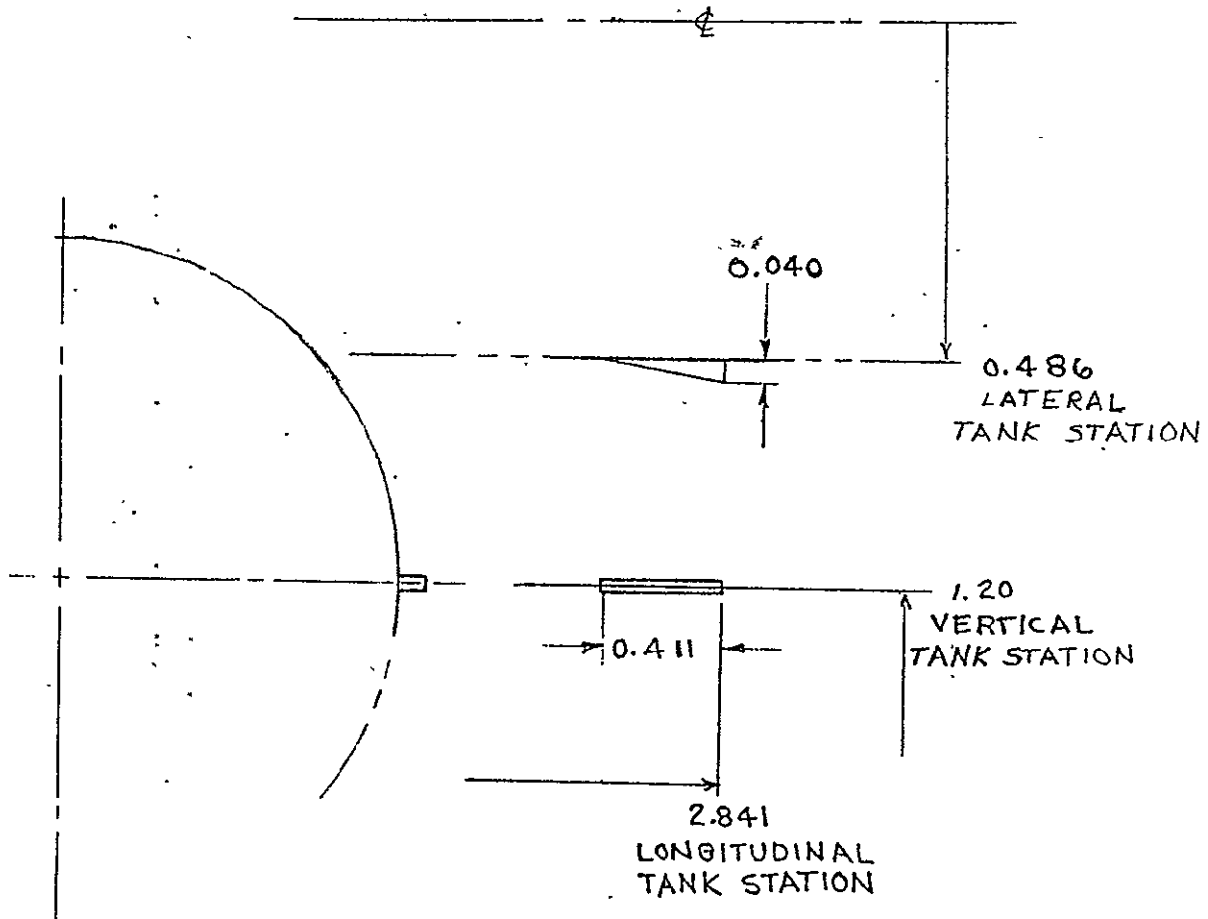


TABLE III. (Continued)

MODEL COMPONENT: ATTACH STRUCTURE - AT₉

GENERAL DESCRIPTION: AFT SRB/ÉT ATTACH STRUCTURE (3 MEMBERS) (ÉT PORTION TESTED ONLY)

MODEL SCALE: 0.003

REFERENCE DRAWING: VL72-000106

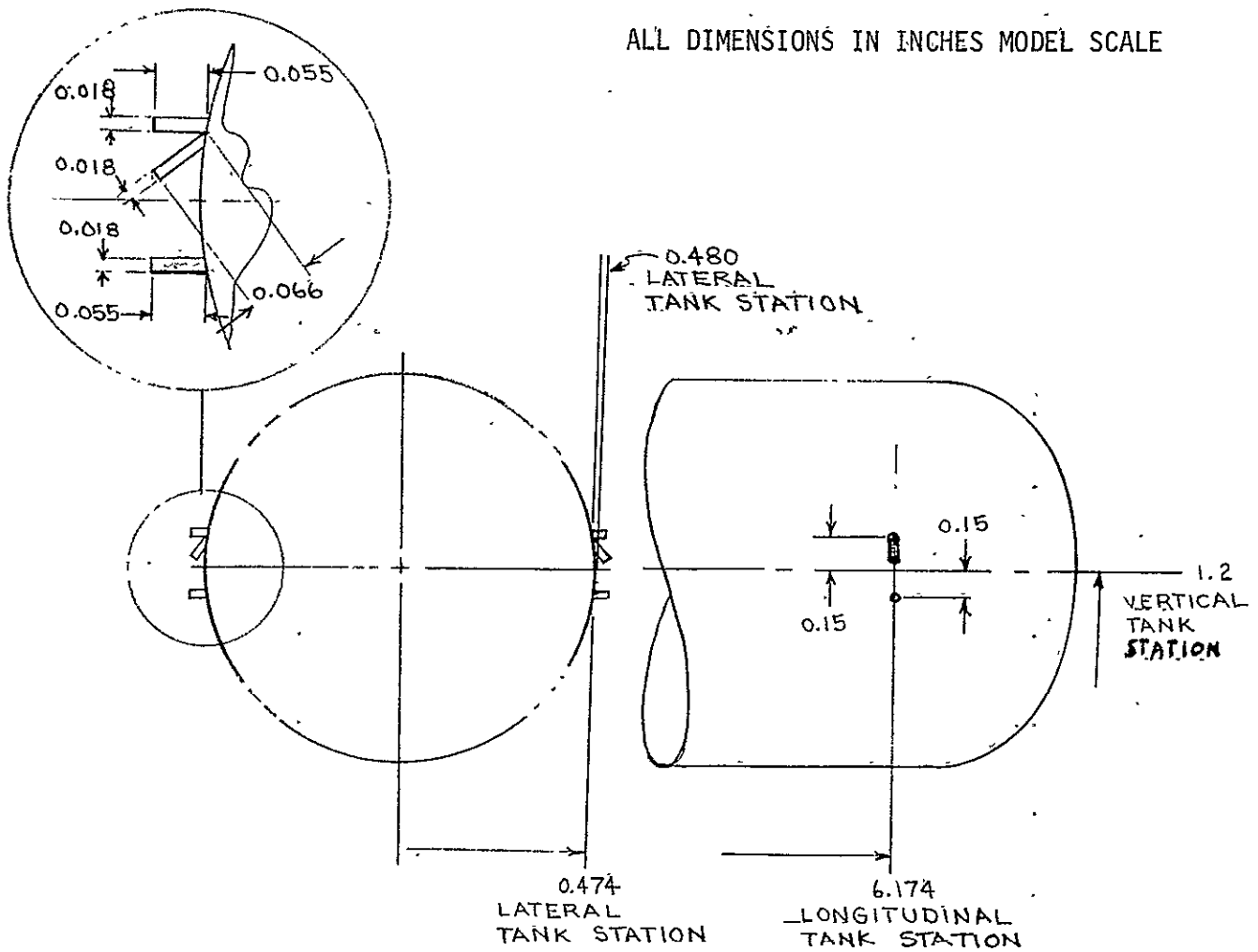


TABLE III. (Continued)

MODEL COMPONENT: LOX VENT LINE FAIRING - PT_T

GENERAL DESCRIPTION: VENT LINE ALONG UPPER RIGHT SIDE OF ET OGIVE NOSE

BEGINNING AT MODEL STATIONS $X_T = 0.927$, $Y_T = 0$, AND $Z_T = 1.2$; TERMINATING AT

$X_T = 2.841$, $Y_T = 0.162$, $Z_T = 1.658$

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000031A

<u>DIMENSIONS:</u>	<u>THEORETICAL</u>	
	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>638 in.</u>	<u>1.914 in.</u>
Max. Width	<u>17.7 in.</u>	<u>0.053 in.</u>
Max. Depth	<u>9.3 in.</u>	<u>0.028 in.</u>
Radial Position	<u>19 1/2°</u>	<u>19 1/2°</u>

TABLE III. (Continued)

MODEL COMPONENT: LOX FEED LINE - PT₂

GENERAL DESCRIPTION: LONGITUDINAL FUEL LINE ALONG UPPER RIGHT SIDE OF ET

BEGINNING AT MODEL STATIONS $X_T = 2.841$, $-Y_T = 0.194$, AND $Z_T = 1.645$; TERMINATING
AT $X_T = 6.116$, $-Y_T = 0.194$, AND $Z_T = 1.645$

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000031A

<u>DIMENSIONS:</u>	<u>THEORETICAL</u>	
	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1092 in.</u>	<u>3.275 in.</u>
Max. Width	<u>30.7 in.</u>	<u>0.092 in.</u>
Max. Height	<u>28 in.</u>	<u>0.084 in.</u>
Radial Position	<u>23 1/2°</u>	<u>23 1/2°</u>

TABLE III. (Continued)

MODEL COMPONENT: LH₂ FEED LINE - PT₃

GENERAL DESCRIPTION: LONGITUDINAL FUEL LINE ALONG UPPER LEFT SIDE OF ET

BEGINNING AT MODEL STATIONS X_T = 2.841, Y_T = 0.275, AND Z_T = 1.601

TERMINATING AT STATIONS X_T = 6.116, Y_T = 0.275, AND Z_T = 1.601

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000031A

<u>DIMENSIONS:</u>	<u>THEORETICAL</u>	
	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1092 in.</u>	<u>3.275 in.</u>
Max. Width	<u>25.7 in.</u>	<u>0.077 in.</u>
Max. Depth	<u>14.7 in.</u>	<u>0.044 in.</u>
Radial Position	<u>-33°</u>	<u>-33°</u>

TABLE III. (Continued)

MODEL COMPONENT: LOX FEED LINE - FL₇

GENERAL DESCRIPTION: 18-INCH DIAMETER VERTICAL FUEL LINE AT AFT END OF ET ON
RIGHT

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000050

ALL DIMENSIONS IN INCHES MODEL SCALE

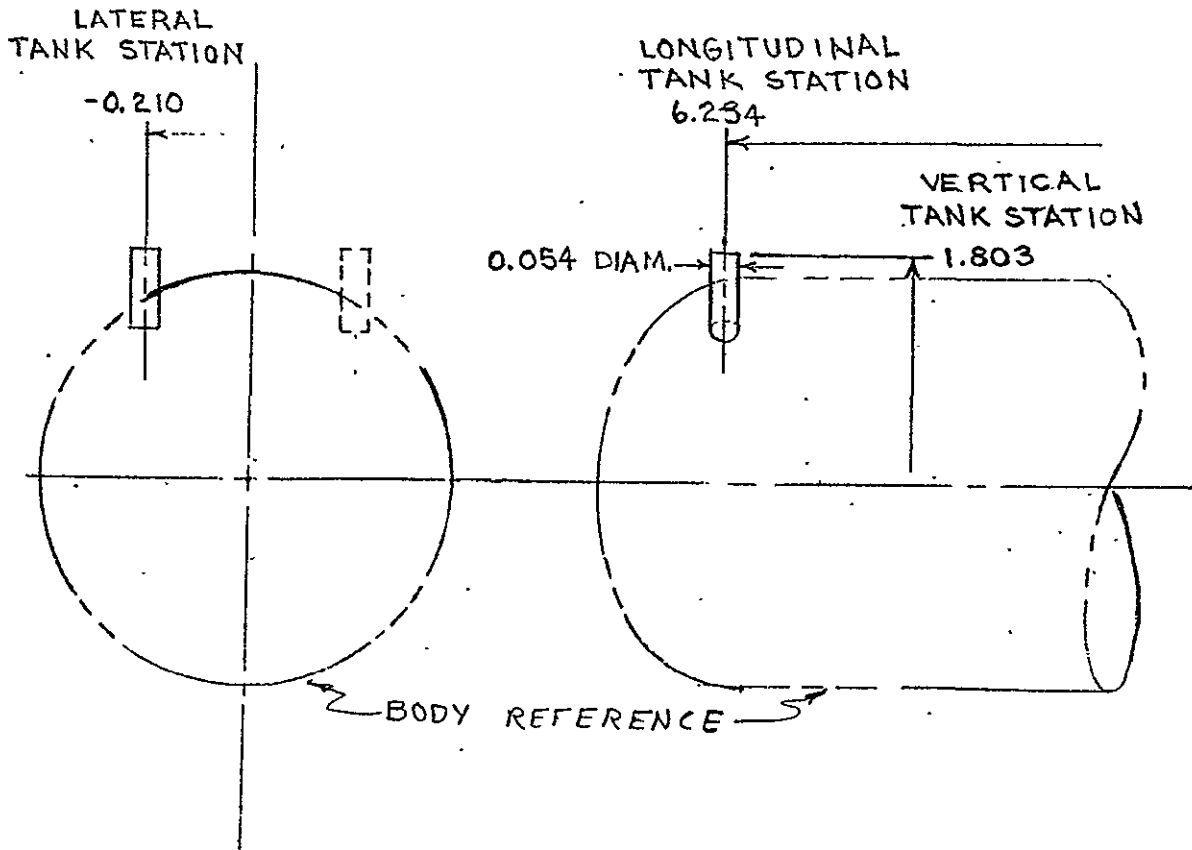


TABLE III. (Continued)

MODEL COMPONENT: LH₂ FEED LINE - FL₂

GENERAL DESCRIPTION: 18-INCH DIAMETER VERTICAL FUEL LINE AT AFT END OF ET

ON LEFT

MODEL SCALE: 0.003

REFERENCE DRAWING: VL78-000050

ALL DIMENSIONS IN INCHES MODEL SCALE

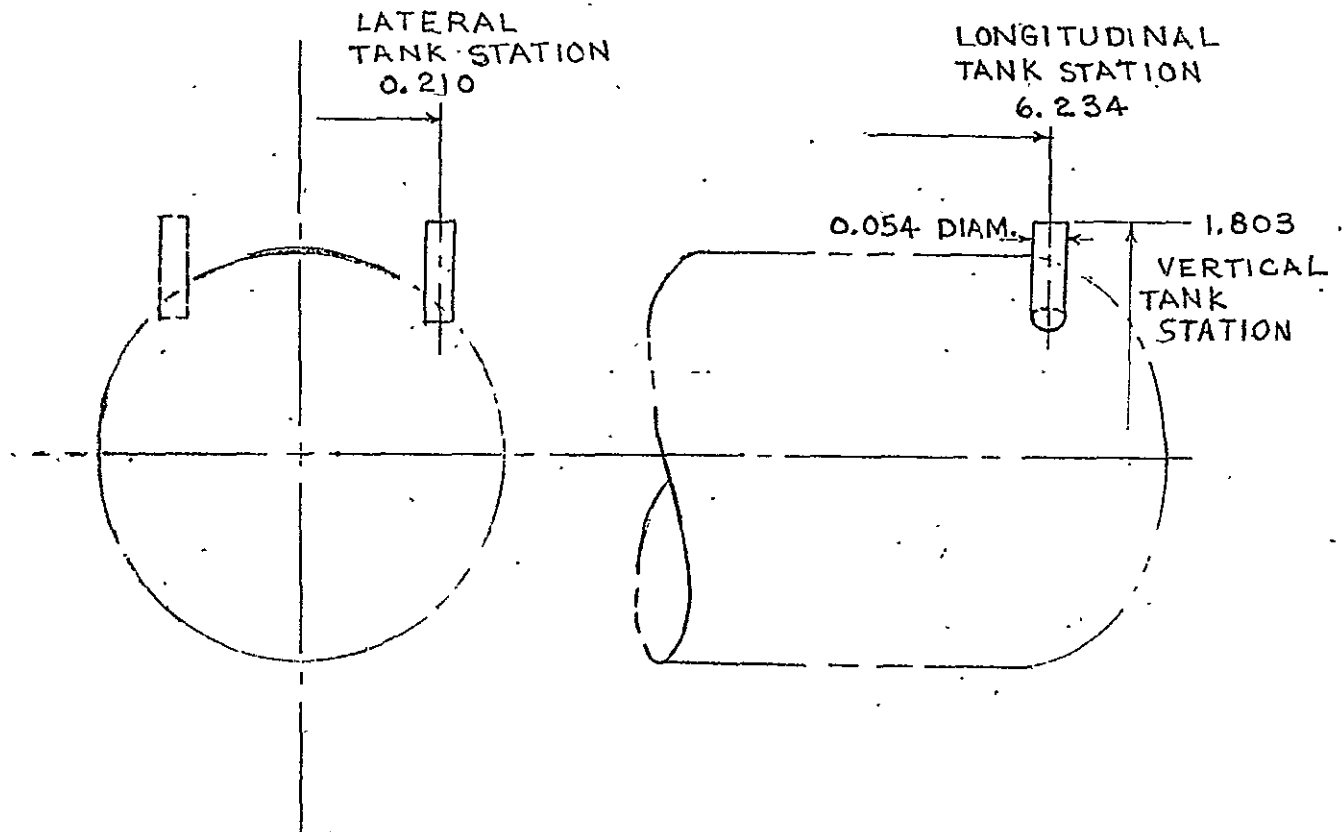


TABLE III. (Concluded)

MODEL COMPONENT: ATTACH STRUCTURE - FR₆

GENERAL DESCRIPTION: AFT ET/ORBITER CROSS MEMBER (CROSS SECTION 11 IN. x 15 IN.)

LOCATED AT ET-STATION 2050.5

MODEL SCALE: 0.003

REFERENCE DRAWING: FIGURE 3, MARTIN MARIETTA MEMO SA-A-74-9

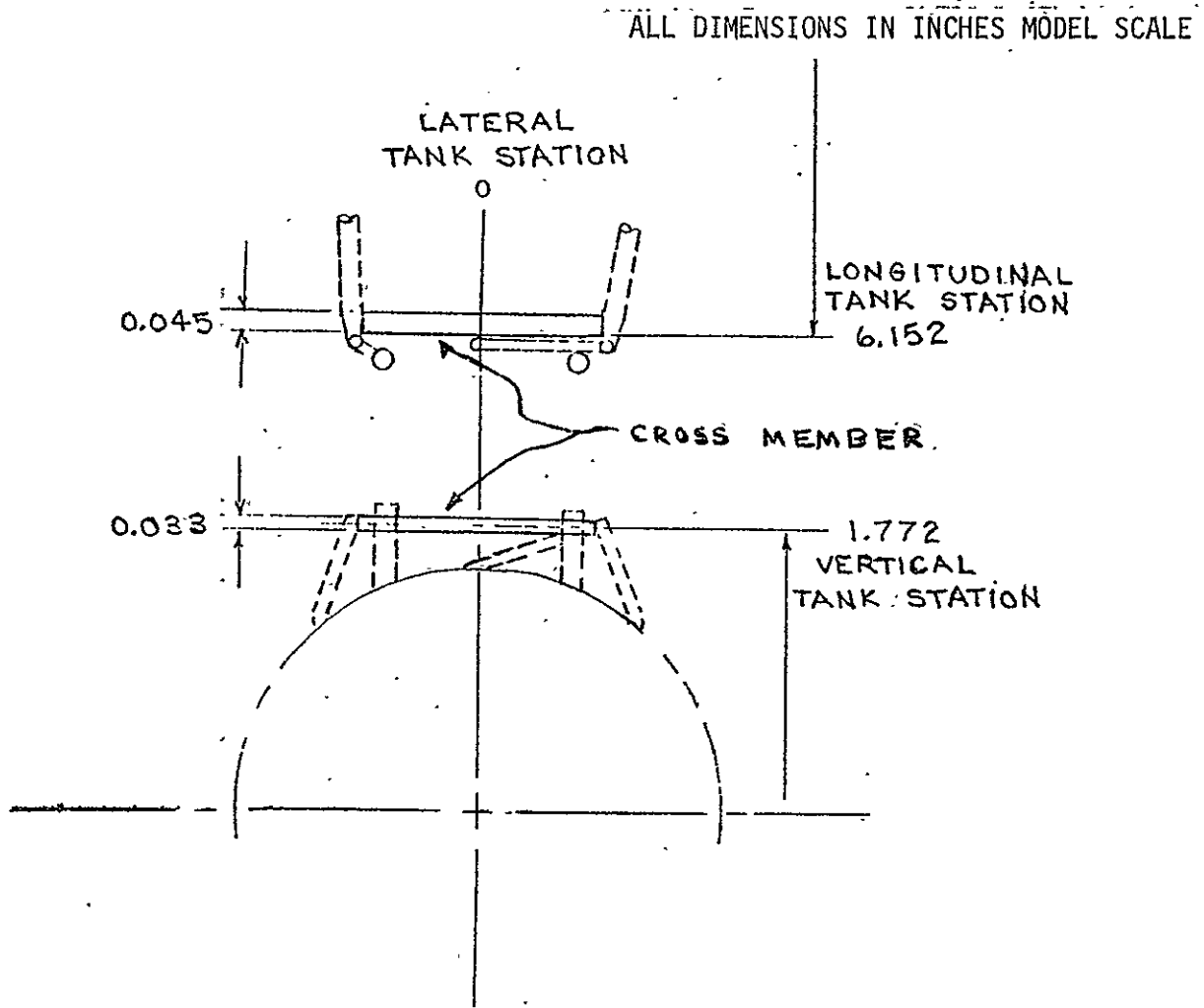


TABLE IV. TABULATED DATA PRINT-OUT FORMAT AND CORRELATION BETWEEN TUBE NUMBER, ORIFICE NUMBER, AND ORIFICE LOCATION ON MODEL

SIDE-MOUNTED ET (T₂ CONFIGURATION)

*inoperable orifice

X/R
LONG. STA. X (In.)
LONG STA. NO.
RADIAL ROW NO.
RADIAL LOCATION θ
(deg.)

		0.055	0.108	0.162	0.216	0.322	0.518	0.610	0.735	0.860	0.892	0.923	0.954
		0.305	0.605	0.905	1.205	1.800	2.900	3.410	4.110	4.810	4.985	5.160	5.335
		1	2	3	4	5	6	7	8	9	10	11	12
0	A	1	2	3	4	5	*6	*7	8	9	10	11	12
14	B	X	13	14	15	16	*17	*18	19	20	21	22	23
24	C	X	X	X	X	X	X	X	X	24	25	26	27
45	D	28	29	30	31	32	33	34	35	36	37	38	39
67½	E	X	40	41	42	43	44	45	46	47	48	49	50
90	F	51	52	53	54	55	56	57	58	59	60	61	62
112½	G	X	63	64	65	66	67	68	69	70	71	72	73
135	H	74	75	76	77	78	79	80	81	82	83	84	85
157½	I	X	86	87	88	89	90	91	92	93	94	95	96
180	J	97	98	99	100	101	102	103	104	105	106	107	108
202½	K	X	109	110	111	112	113	114	115	116	117	118	119
225	L	120	121	122	123	124	125	126	127	128	129	130	131
247½	M	X	132	133	134	135	136	137	138	139	140	141	142
270	N	143	144	145	146	147	148	149	150	151	152	153	154
292½	O	X	155	156	157	158	159	160	161	162	163	164	165
315	P	166	167	168	169	170	171	172	173	174	175	176	177
326	Q	X	X	X	X	X	X	X	X	178	179	180	181
346	R	X	182	183	184	185	*186	*187	188	189	190	191	192

TABLE IV. TABULATED DATA PRINT-OUT FORMAT AND CORRELATION BETWEEN TUBE NUMBER, ORIFICE NUMBER, AND ORIFICE LOCATION ON MODEL (CONCLUDED)

SIDE-MOUNTED ET (T₂ CONFIGURATION)

* inoperable orifice

LONG. STA. X (in.)
LONG. STA. X (ft.)
CIRCUM. ROW
CIRCUM. STA. θ (deg.)

		0.055	0.108	0.162	0.216	0.322	0.518	0.610	0.735	0.860	0.892	0.923	0.954
		0.305	0.605	0.905	1.205	1.800	2.900	3.410	4.110	4.810	4.985	5.160	5.335
		1	2	3	4	5	6	7	8	9	10	11	12
0	A	1	2	3	4	5	* 6	* 7	8	9	10	11	12
14	B	X	13	14	15	16	* 17	* 18	19	20	21	22	23
24	C	X	X	X	X	X	X	X	X	24	25	26	27
45	D	28	29	30	31	32	33	34	35	36	37	38	39
67½	E	X	40	41	42	43	44	45	46	47	48	49	50
90	F	51	52	53	54	55	56	57	58	59	60	61	62
112½	G	X	63	64	65	66	67	68	69	70	71	72	73
135	H	74	75	76	77	78	79	80	81	82	83	84	85
157½	I	X	86	87	88	89	90	91	92	93	94	95	96
180	J	97	98	99	100	101	102	103	104	105	106	107	108
202½	K	X	109	110	111	112	113	114	115	116	117	118	119
225	L	120	121	122	123	124	125	126	127	128	129	130	131
247½	M	X	132	133	134	135	136	137	138	139	140	141	142
270	N	143	144	145	146	147	148	149	150	151	152	153	154
292½	O	X	155	156	157	158	159	160	161	162	163	164	165
315	P	166	167	168	169	170	171	172	173	174	175	176	177
326	Q	X	X	X	X	X	X	X	X	178	179	180	181
346	R	X	182	183	184	185	* 186	* 187	188	189	190	191	192

TABLE V. TABULATED DATA PRINT-OUT FORMAT AND CORRELATION BETWEEN TUBE NUMBER, ORIFICE NUMBER, AND ORIFICE LOCATION ON MODEL

TAIL-MOUNTED ET (T₁ CONFIGURATION)

inoperable orifice

		0.055	0.108	0.162	0.216	0.322	0.518	0.610	0.735	0.860	0.892	0.923	0.954
		0.305	0.605	0.905	1.205	1.800	2.900	3.410	4.110	4.810	4.985	5.160	5.335
		1	2	3	4	5	6	7	8	9	10	11	12
X/P	LONG. STA. X (IN.)												
LONG. STA. X (IN.)	RADIAL ROW NO.												
RADIAL ROW NO.	RADIAL LOCATION θ (deg.)												
0	A	1	2	3	4	5	6	7	8	9	10	11	12
14	B	X	13	14	15	16	17	18	19	20	21	22	23
24	C	X	X	X	X	X	X	X	X	24	25	26	27
45	D	28	29	30	31	32	33	34	35	36	37	38	39
67½	E	X	40	41	42	43	44	45	46	47	48	49	50
90	F	51	52	53	54	*55	56	57	58	59	60	61	62
112½	G	X	63	64	65	66	67	68	69	70	71	72	73
135	H	74	75	76	77	78	79	80	81	*82	83	84	85
157½	I	X	86	87	88	89	90	91	92	93	94	95	96
180	J	97	98	99	100	101	102	103	104	105	106	107	108
202½	K	X	109	110	111	112	113	114	115	116	117	118	119
225	L	120	121	122	123	124	125	126	127	128	129	130	131
247½	M	X	132	133	134	135	136	137	138	139	140	141	142
270	N	143	144	145	146	*147	148	149	150	151	152	153	154
292½	O	X	155	156	157	158	159	160	161	162	163	164	165
315	P	166	167	168	169	170	171	172	173	174	175	176	177
326	Q	X	X	X	X	X	X	X	X	178	179	180	181
346	R	X	182	183	184	185	186	187	188	189	190	191	192

TABLE V. TABULATED DATA PRINT-OUT FORMAT AND CORRELATION BETWEEN TUBE NUMBER, ORIFICE NUMBER, AND ORIFICE LOCATION ON MODEL (CONCLUDED)

TAIL-MOUNTED ET (T₁ CONFIGURATION)

* inoperable orifice.

X/L
 LONG. STA. X (IN.)
 LONG. STA. No.
 CIRCUM. ROW
 CIRCUM. STA. θ (DEG.)

		0.055	0.108	0.162	0.216	0.322	0.518	0.610	0.735	0.860	0.892	0.923	0.954
		0.305	0.605	0.905	1.205	1.800	2.900	3.410	4.110	4.810	4.985	5.160	5.335
		1	2	3	4	5	6	7	8	9	10	11	12
0	A	1	2	3	4	5	6	7	8	9	10	11	12
14	B	X	13	14	15	16	17	18	19	20	21	22	23
24	C	X	X	X	X	X	X	X	X	24	25	26	27
45	D	28	29	30	31	32	33	34	35	36	37	38	39
67½	E	X	40	41	42	43	44	45	46	47	48	49	50
90	F	51	52	53	54	* 55	56	57	58	59	60	61	62
112½	G	X	63	64	65	66	67	68	69	70	71	72	73
135	H	74	75	76	77	78	79	80	81	* 82	83	84	85
157½	I	X	86	87	88	89	90	91	92	93	94	95	96
180	J	97	98	99	100	101	102	103	104	105	106	107	108
202½	K	X	109	110	111	112	113	114	115	116	117	118	119
225	L	120	121	122	123	124	125	126	127	128	129	130	131
247½	M	X	132	133	134	135	136	137	138	139	140	141	142
270	N	143	144	145	146	* 147	148	149	150	151	152	153	154
292½	O	X	155	156	157	158	159	160	161	162	163	164	165
315	P	166	167	168	169	170	171	172	173	174	175	176	177
326	Q	X	X	X	X	X	X	X	X	178	179	180	181
346	R	X	182	183	184	185	186	187	188	189	190	191	192

Table VI.

0.003-SCALE 324-INCH ET REFERENCE DIMENSIONS

DIMENSION	FULL SCALE	MODEL SCALE
Reference Area, S_{ref} (cross-sectional area of ET)	572.555 FT ²	0.742 IN. ²
Reference Length, l_{ref} (ET diameter)	324 IN.	0.972 IN.
Reference Span, b_{ref} (ET diameter)	324 IN.	0.972 IN.
Moment Reference Point, MRP (dry weight c.g.)		
XMRP (from nose)	1086.4 IN.	3.259 IN.
YMRP	0	0
ZMRP (model centerline)	400 IN.	1.2 IN.
Base Area, A_b (cross-sectional area of ET)	572.555 FT ²	0.742 IN. ²

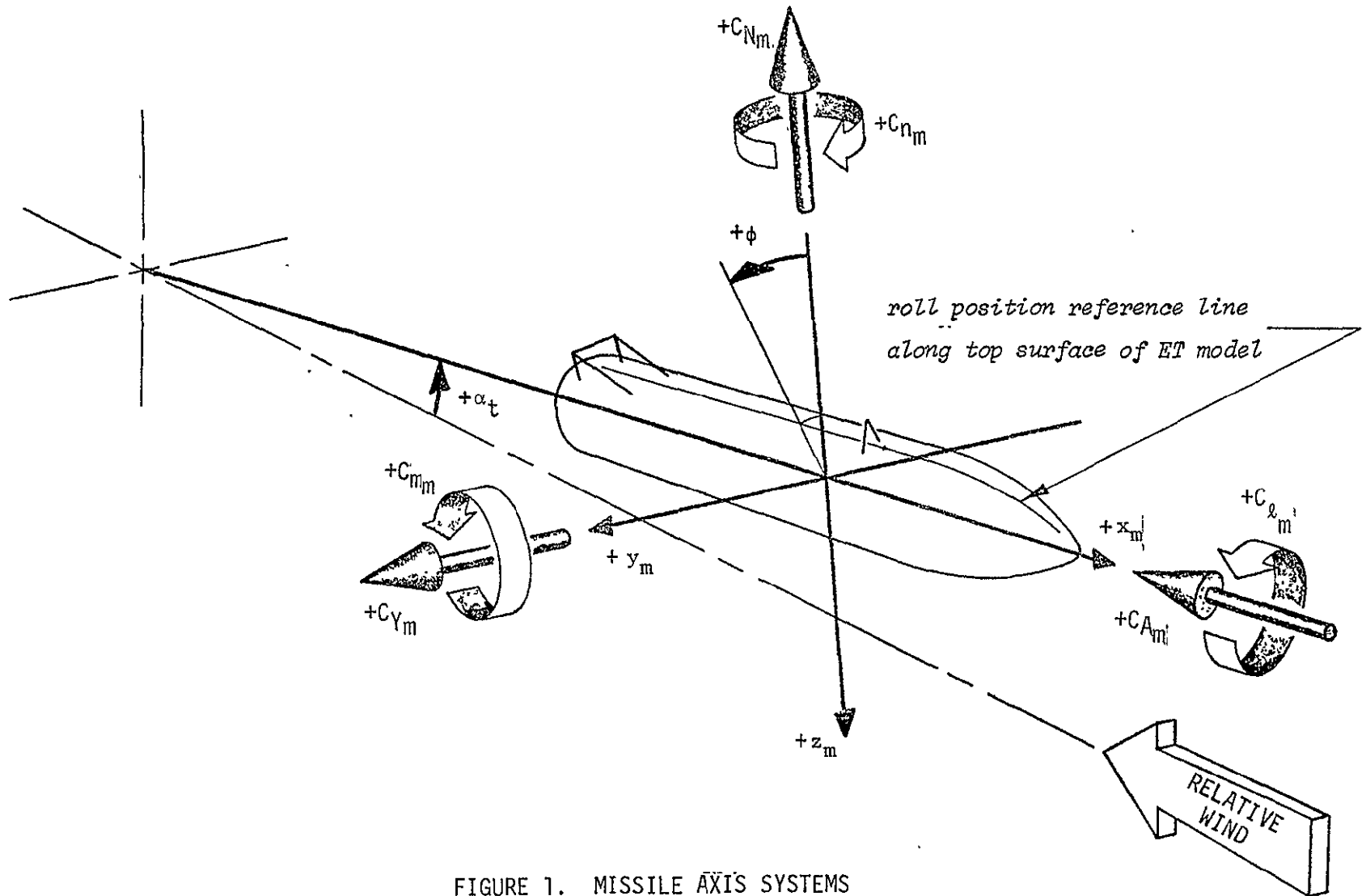
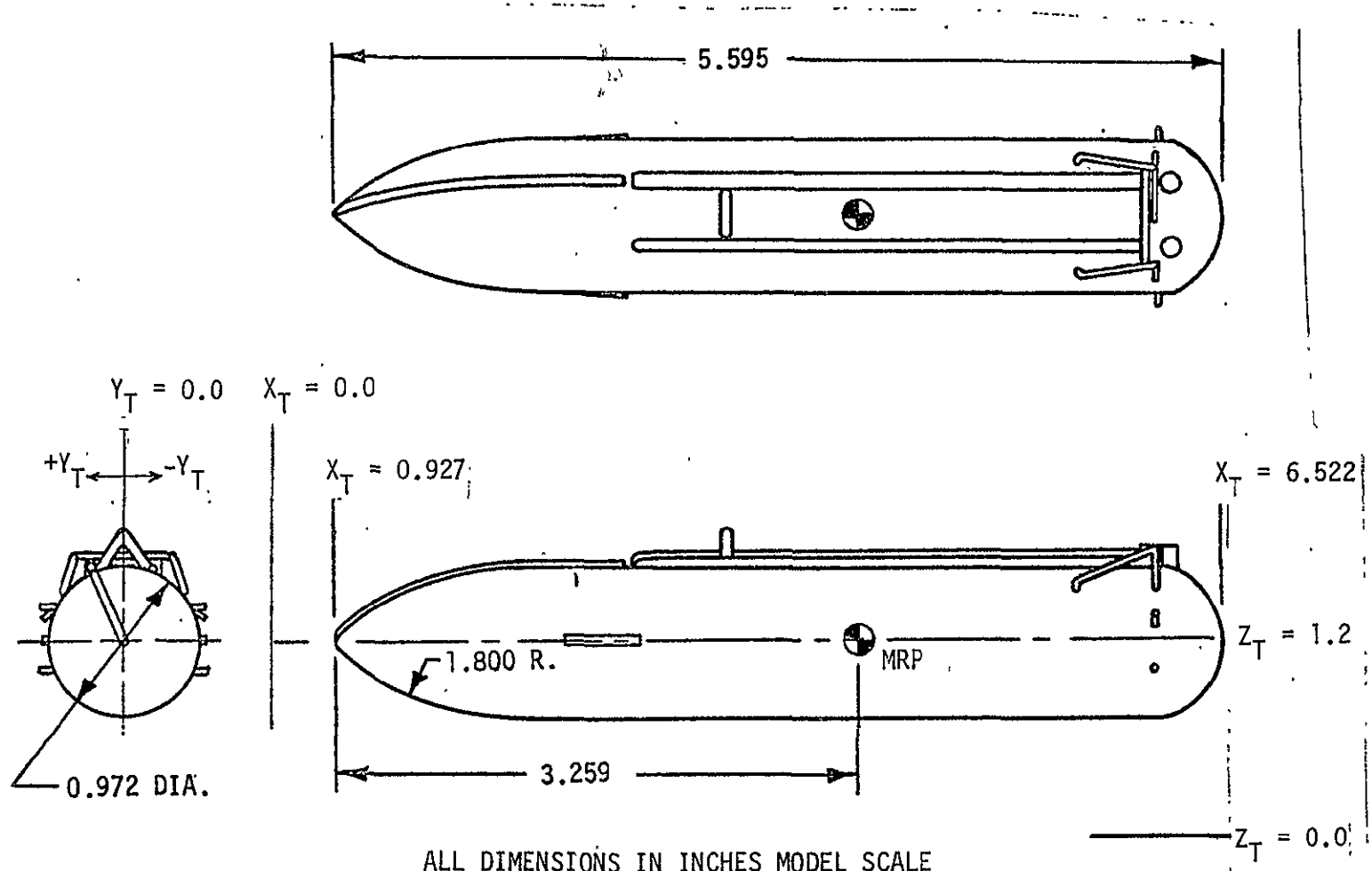
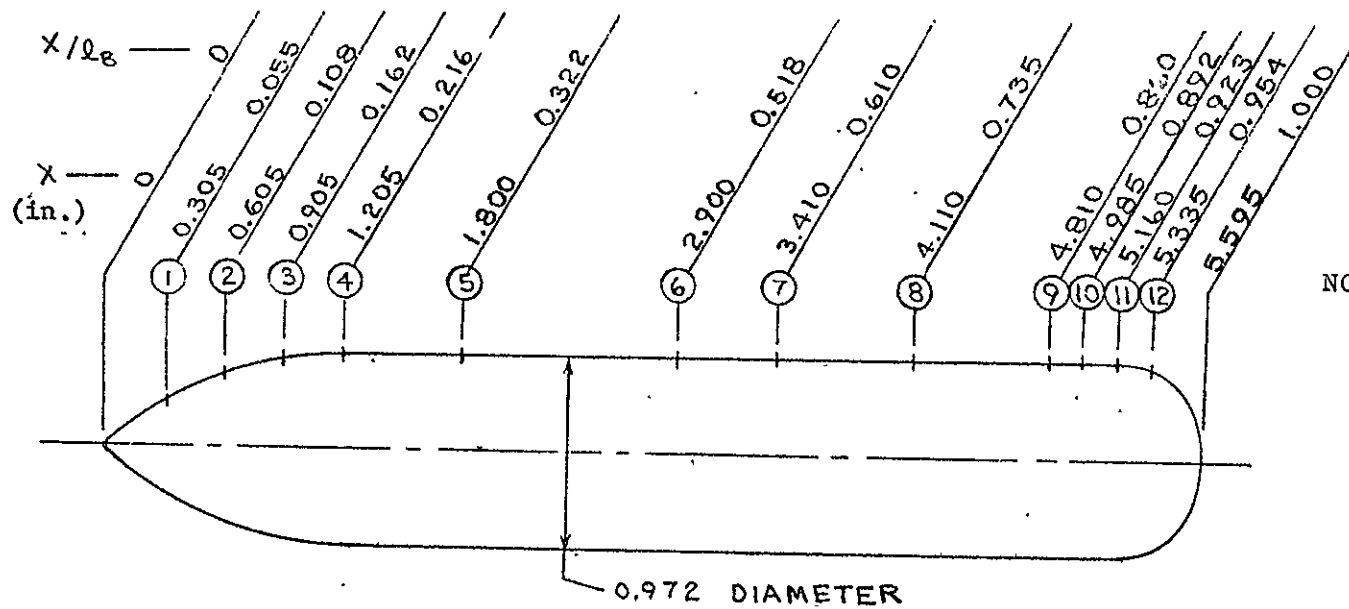


FIGURE 1. MISSILE AXIS SYSTEMS



ALL DIMENSIONS IN INCHES MODEL SCALE

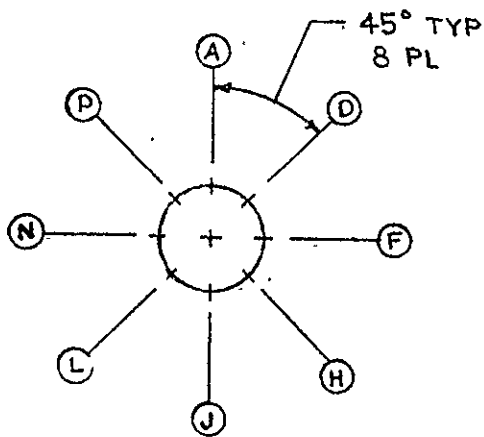
a. GENERAL ARRANGEMENT OF MSFC MODEL NO. 460, CONFIGURATION T₁ EXTERNAL TANK WITH PROTUBERANCES
Figure 2. MODEL SKETCHES



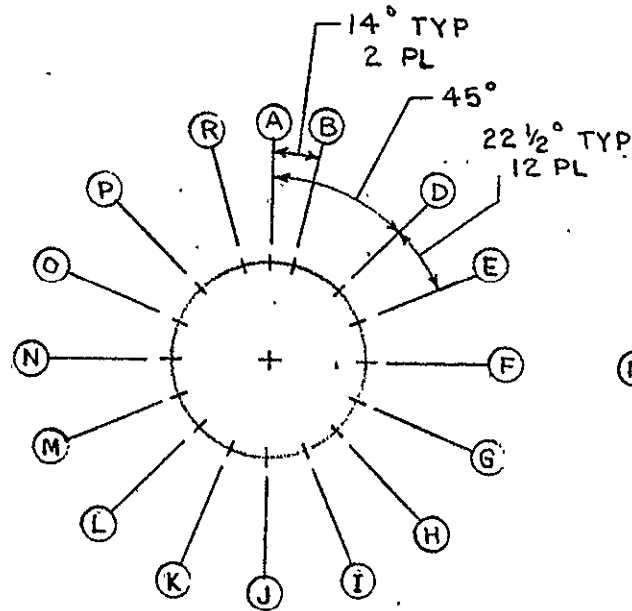
NOTE: ○ Denotes longitudinal and radial location of orifices. (192 total, though some may be missing due to sting cavities or protuberances.)

ALL SECTIONS
LOOKING AFT

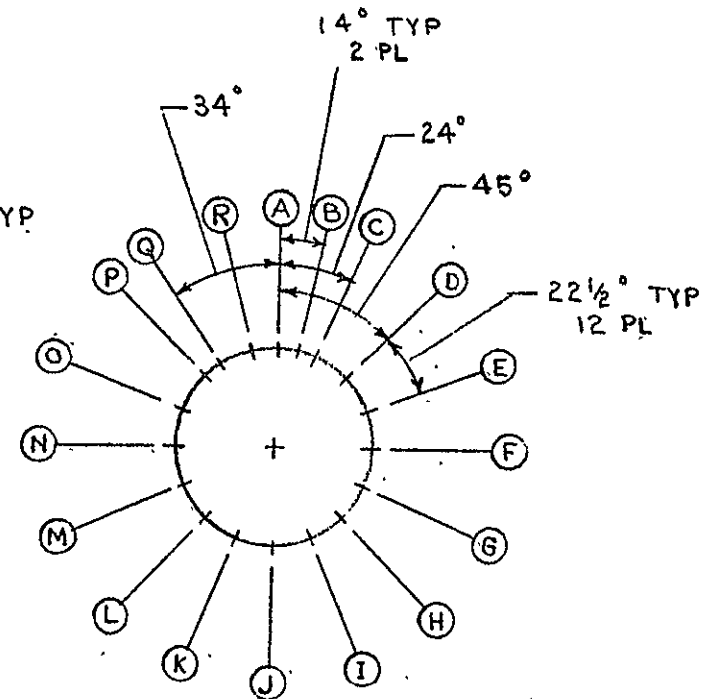
48



STATION 1



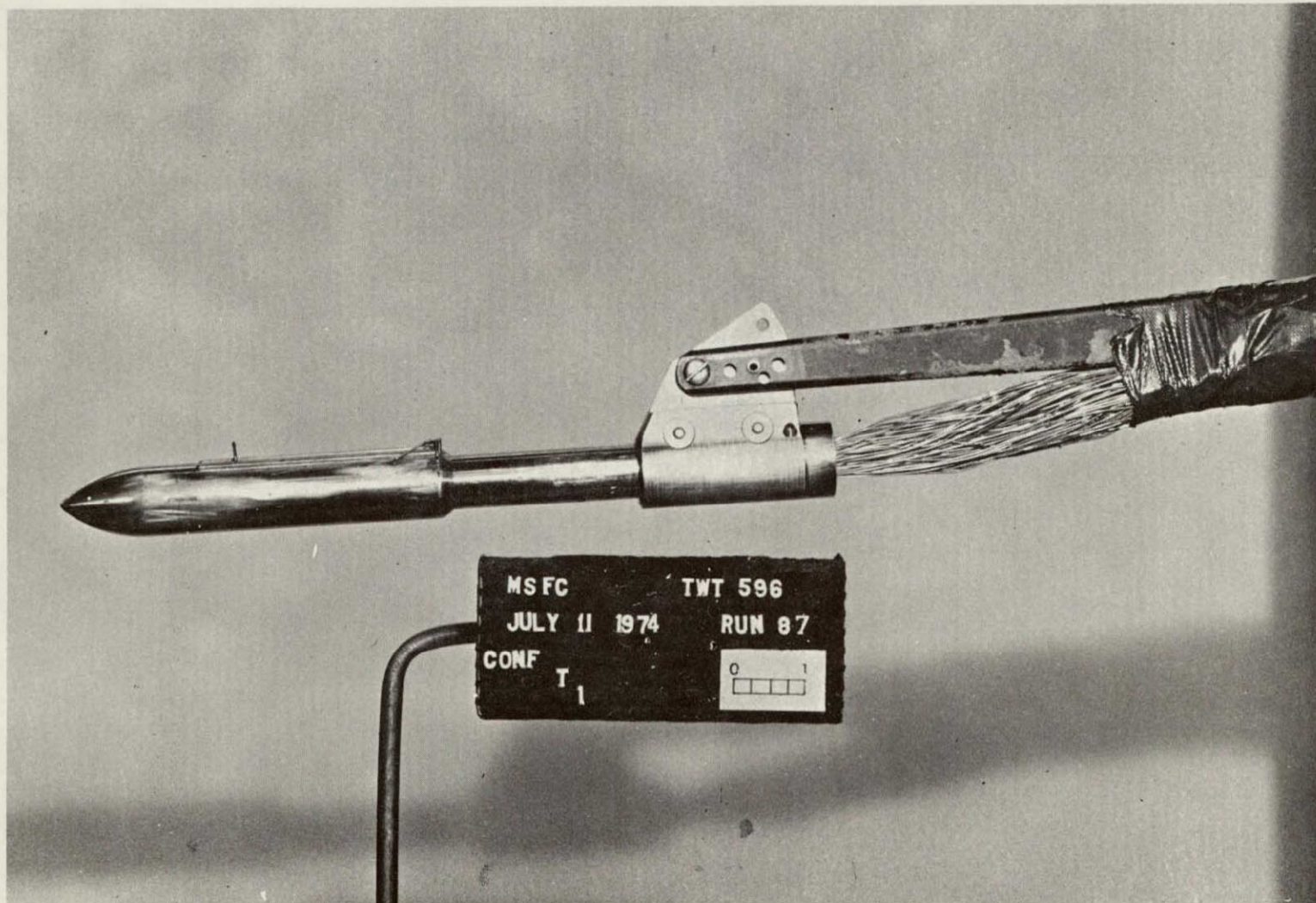
STATIONS 2 THRU 8



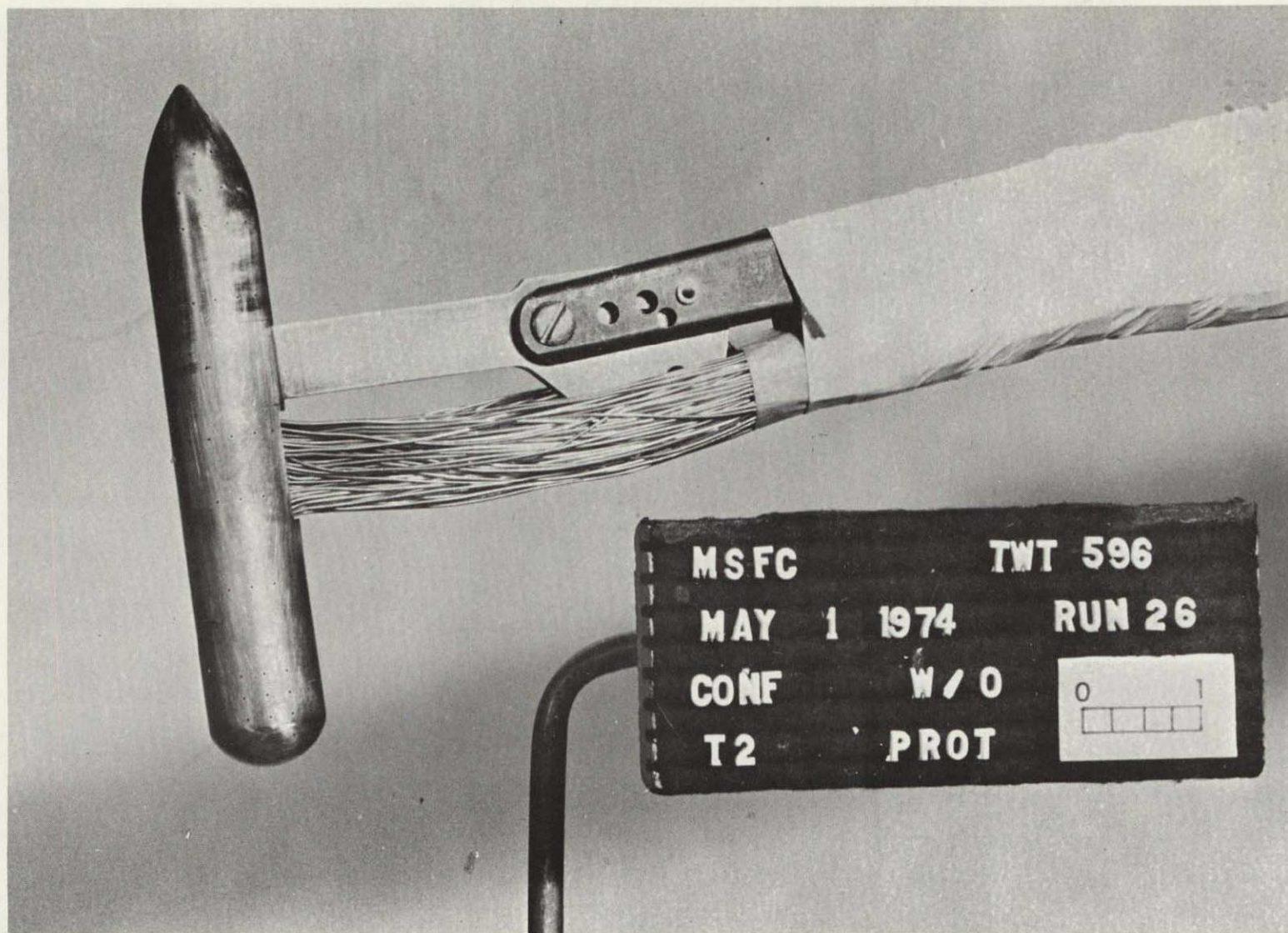
STATIONS 9 THRU 12

b. EXTERNAL TANK MODEL PRESSURE ORIFICE LOCATIONS

Figure 2. CONCLUDED



EXTERNAL TANK MODEL NO. 460, CONFIGURATION T₁ TAIL-MOUNTED WITH PROTUBERANCES
Figure 3. MODEL PHOTOGRAPHS



b. EXTERNAL TANK MODEL NO. 460, CONFIGURATION T₂ SIDE-MOUNTED WITHOUT PROTUBERANCES
Figure 2. CONCLUDED

DATA FIGURES

VOLUME 1--Pages 1-720
VOLUME 2--Pages 721-1200
VOLUME 3--Pages 1201-2000
VOLUME 4--Pages 2001-2740

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.055	-8.380	1.960	MOUNT	1.000		.000
□	.108						.000
	.162						.000

PRECEDING PAGE BLANK NOT FILLED

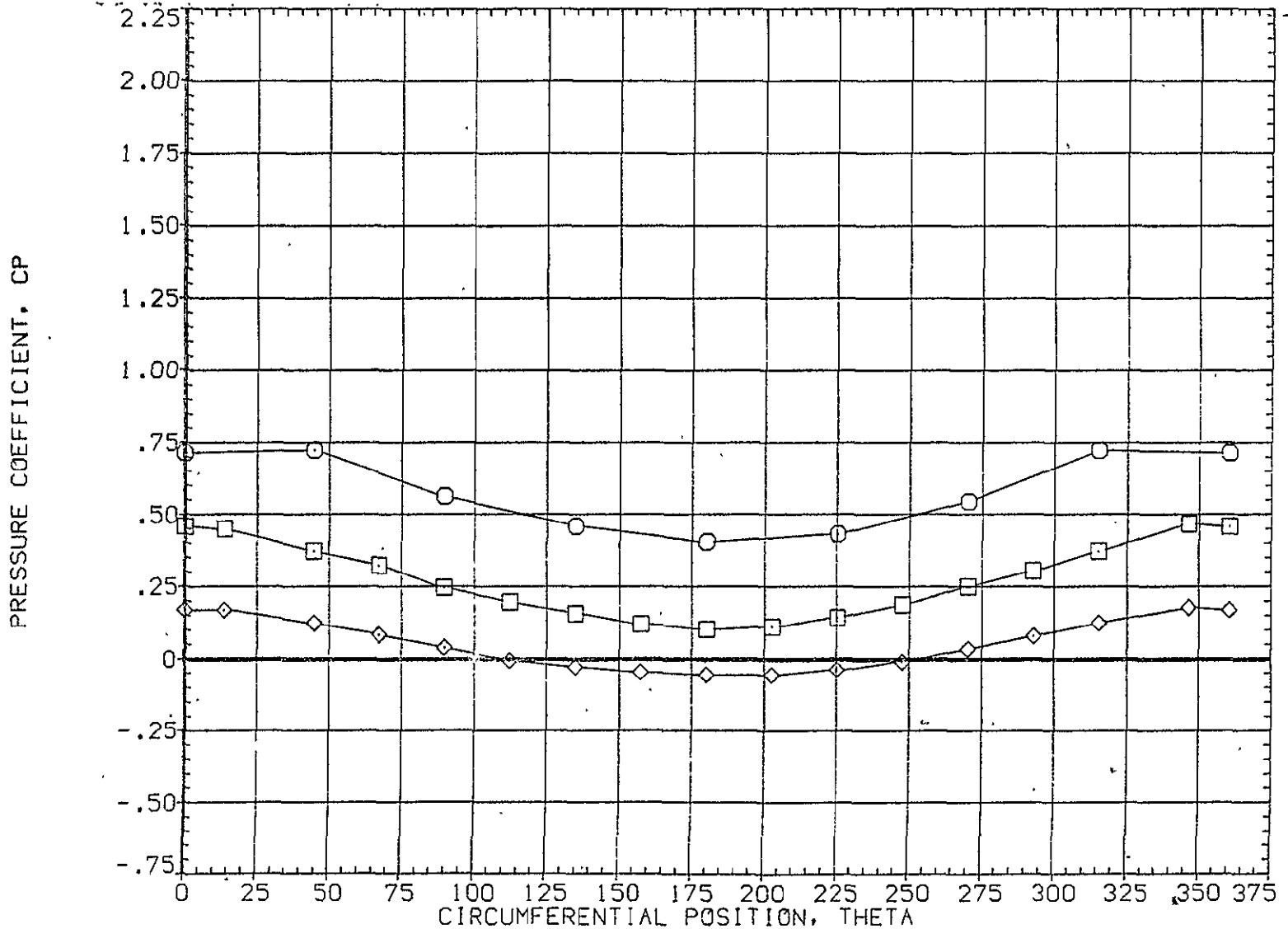


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.380	1.960	.000	.000	.000
□	.322			1.000		.000
◇	.518					

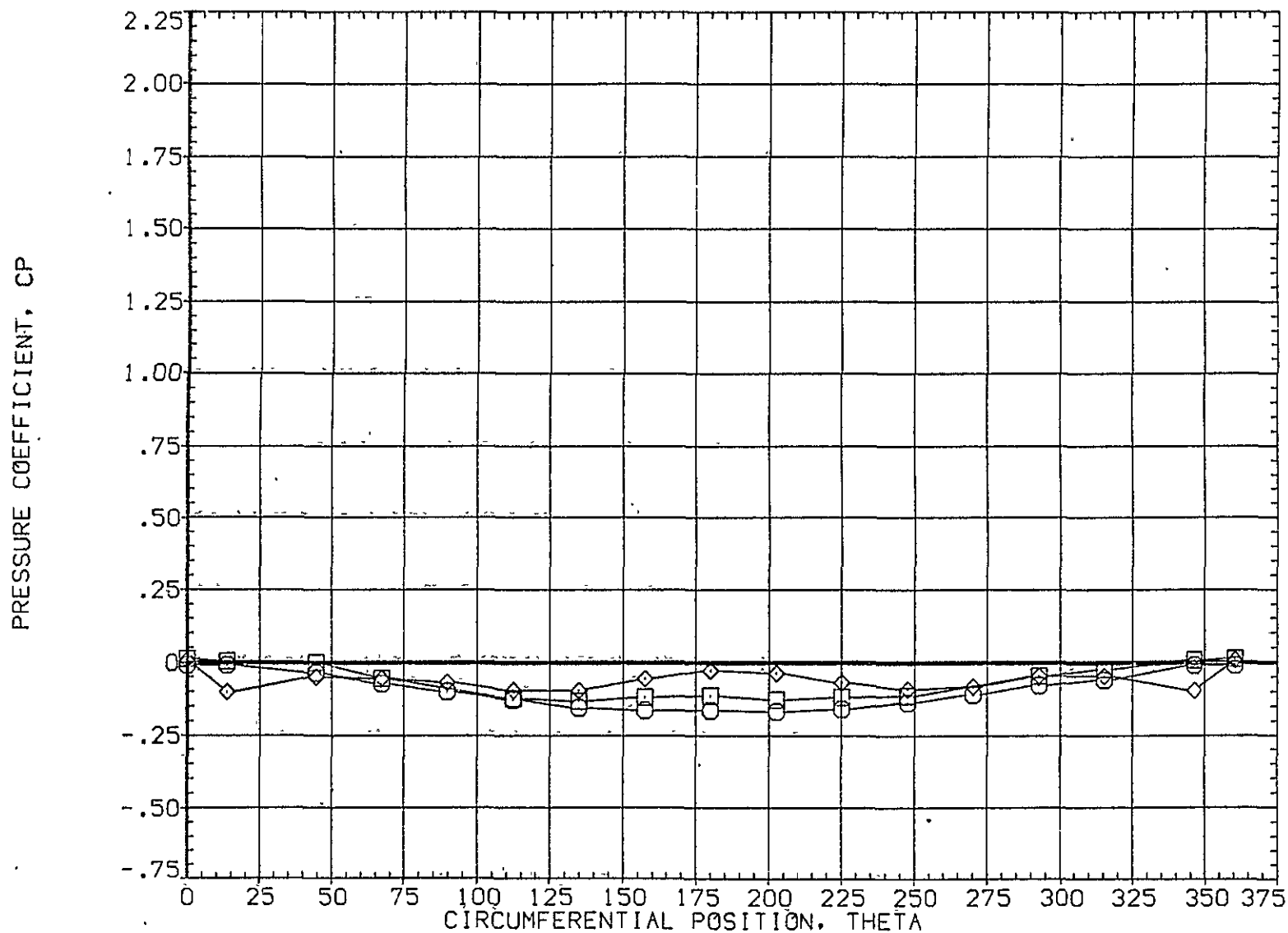


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A001)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.380	1.960	.000	.000	.000
□	.735			1.000		.000
◇	.860					

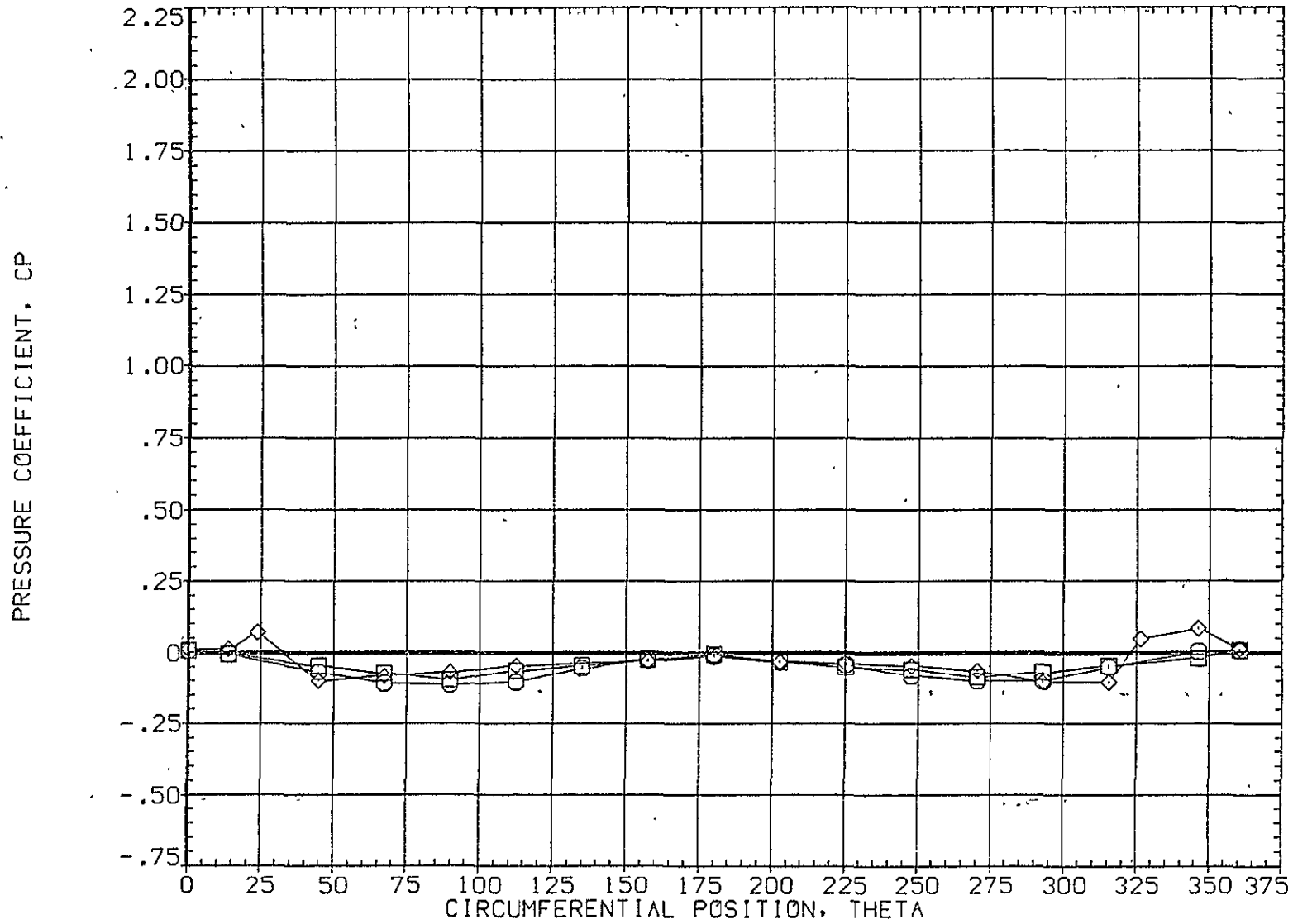


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	-8.380	1.960	.000	.000	.000
□	.923			1.000	PHI	.000
◇	.954					

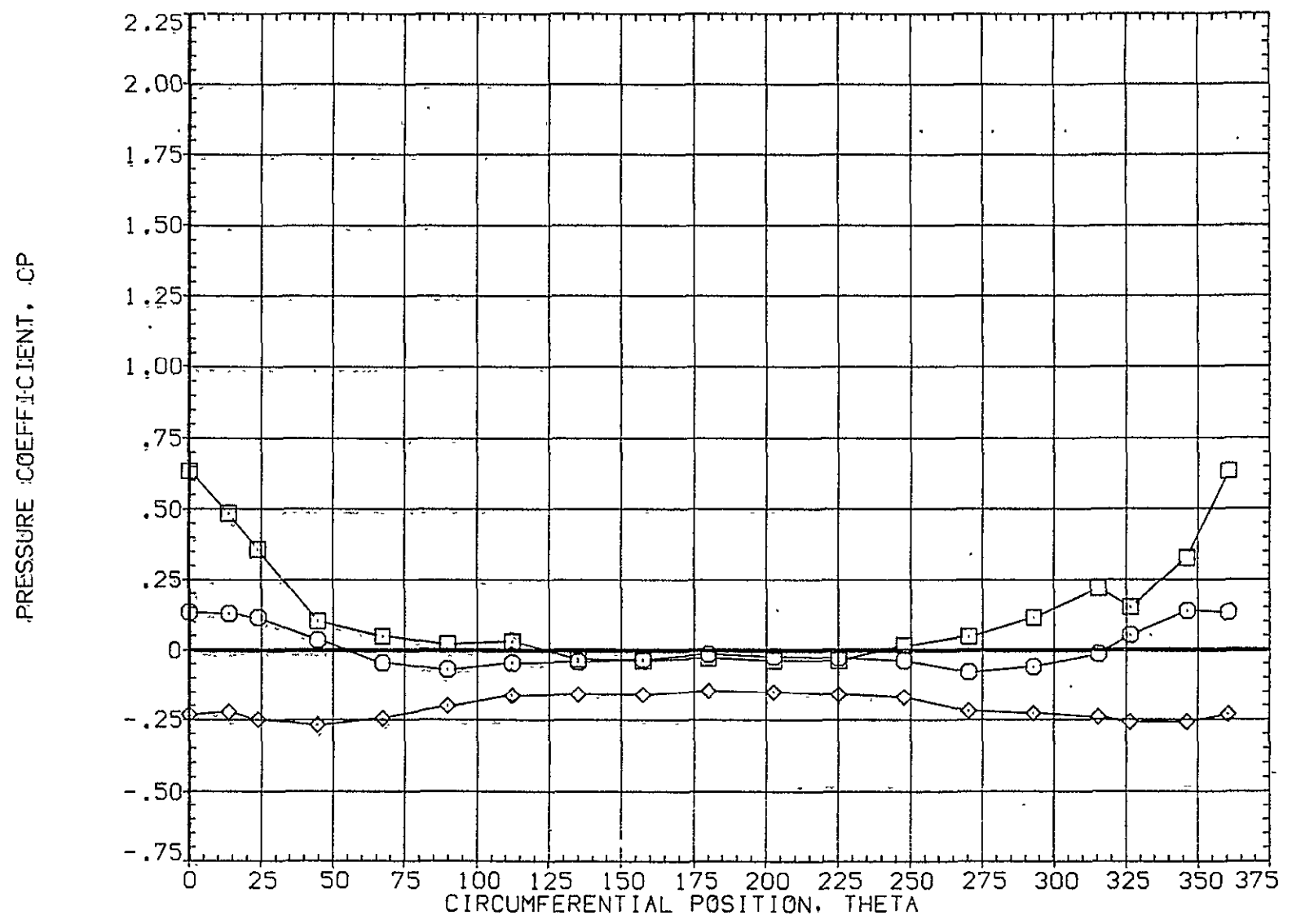


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-4.330	1.960	MOUNT	1.000	PHI	.000
□	.108						.000
◇	.162						.000

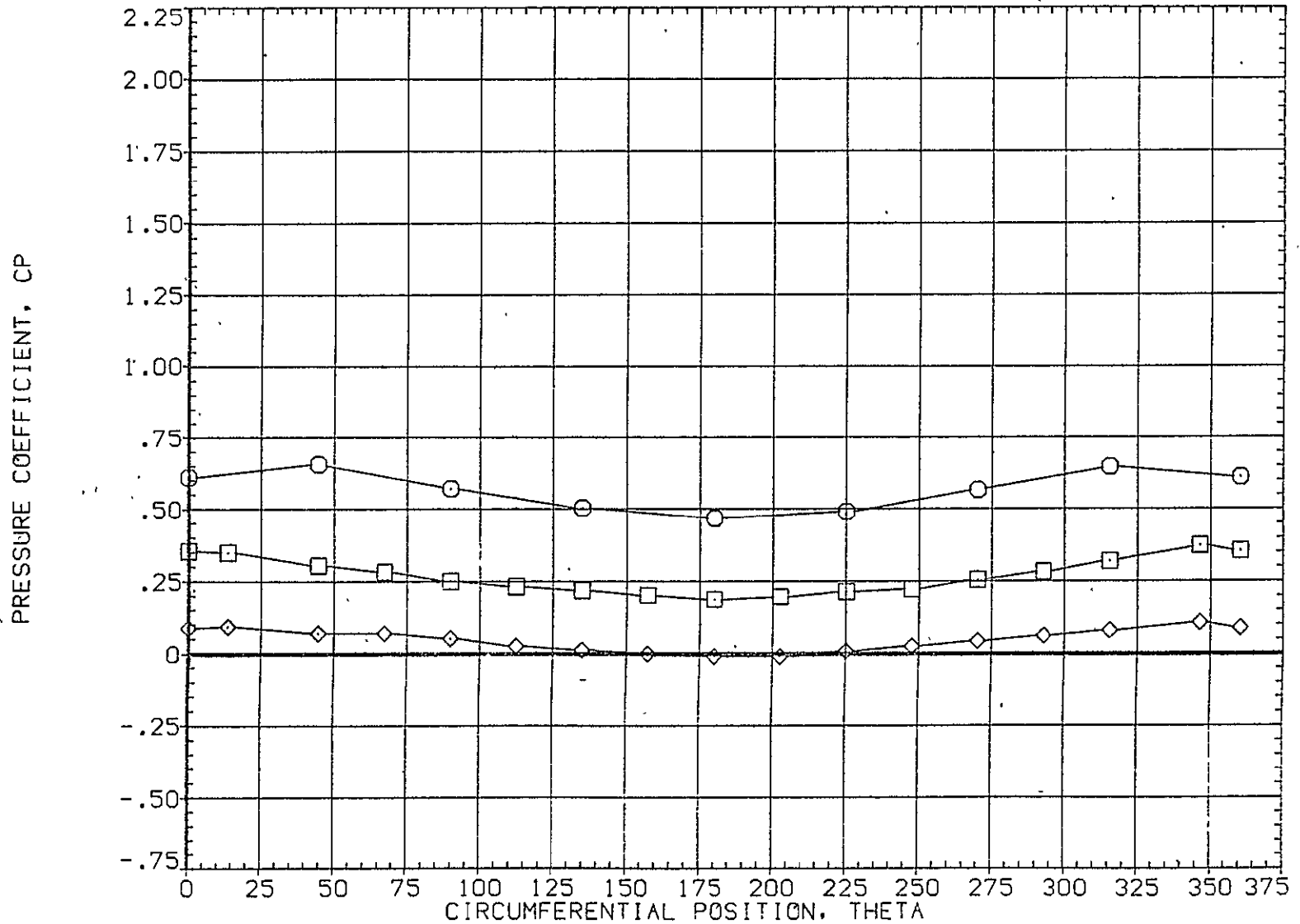


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	-4.330	1.960	MOUNT	1.000	PHI	.000
□	.322						
◇	.518						

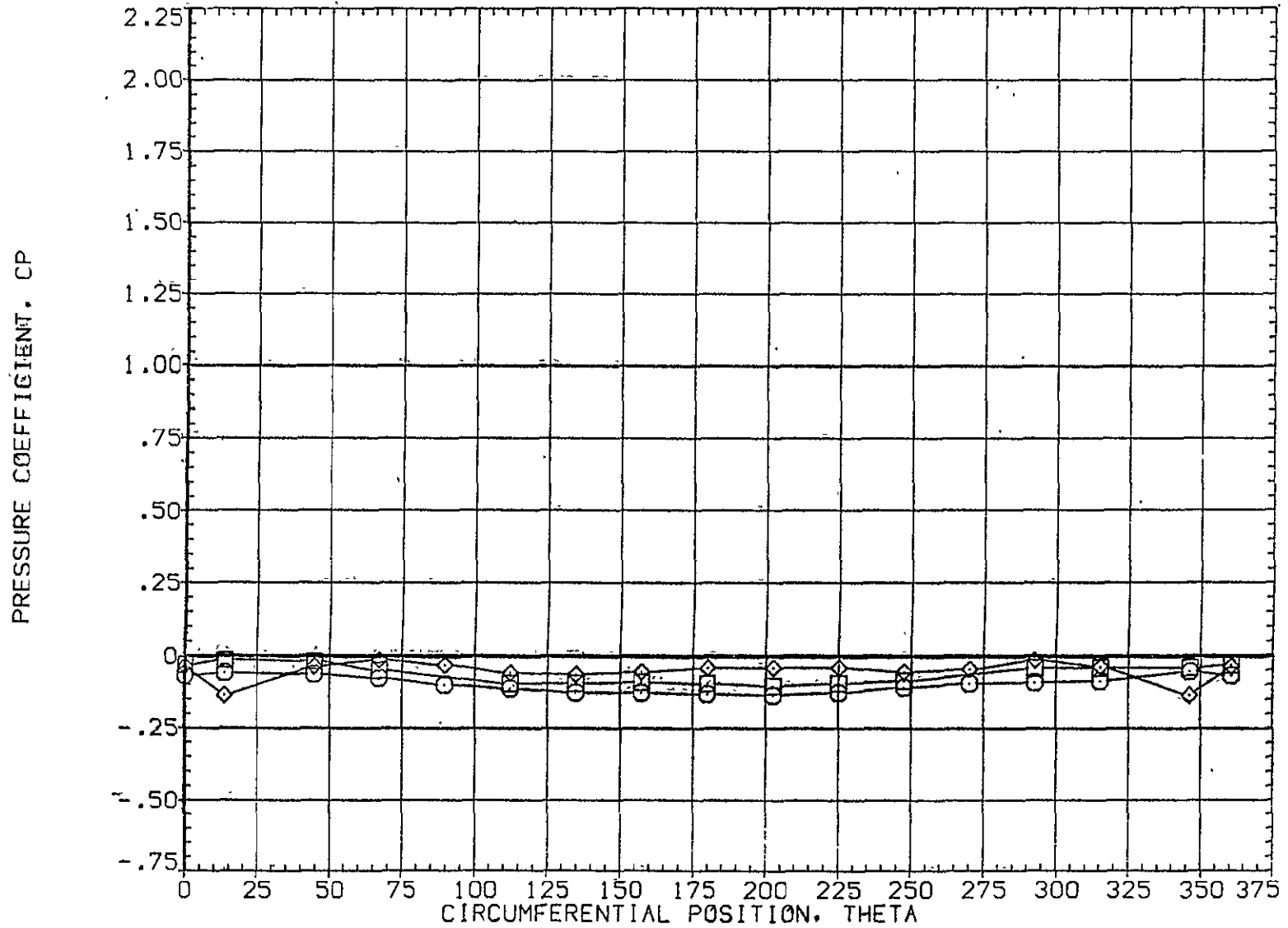


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A002)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.330	1.960	.000		.000
□	.735			1.000		.000
◇	.860					

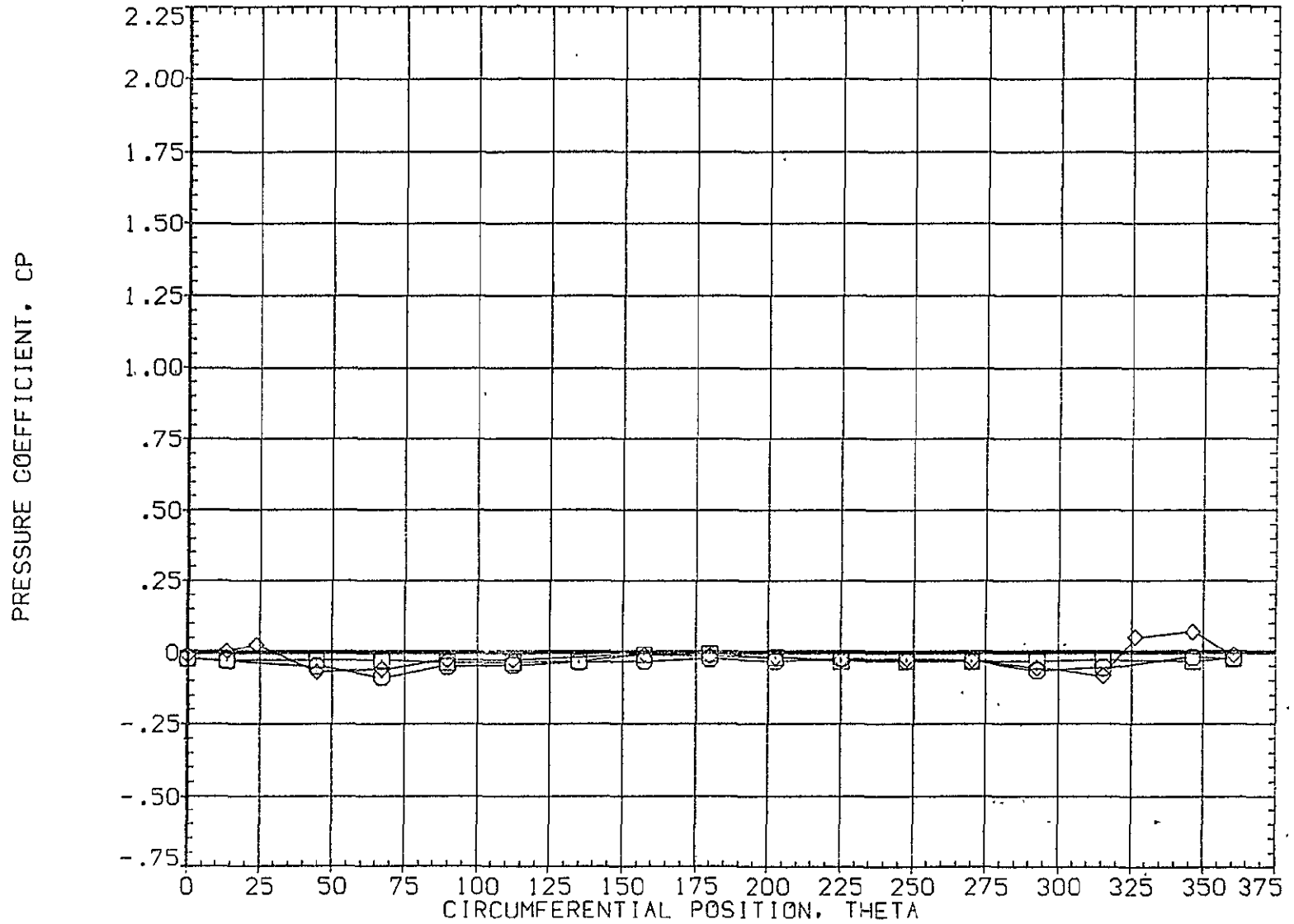


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES.

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-4.330	1.960	MOUNT	1.000	PHI	.000
□	.923						.000
◇	.954						.000

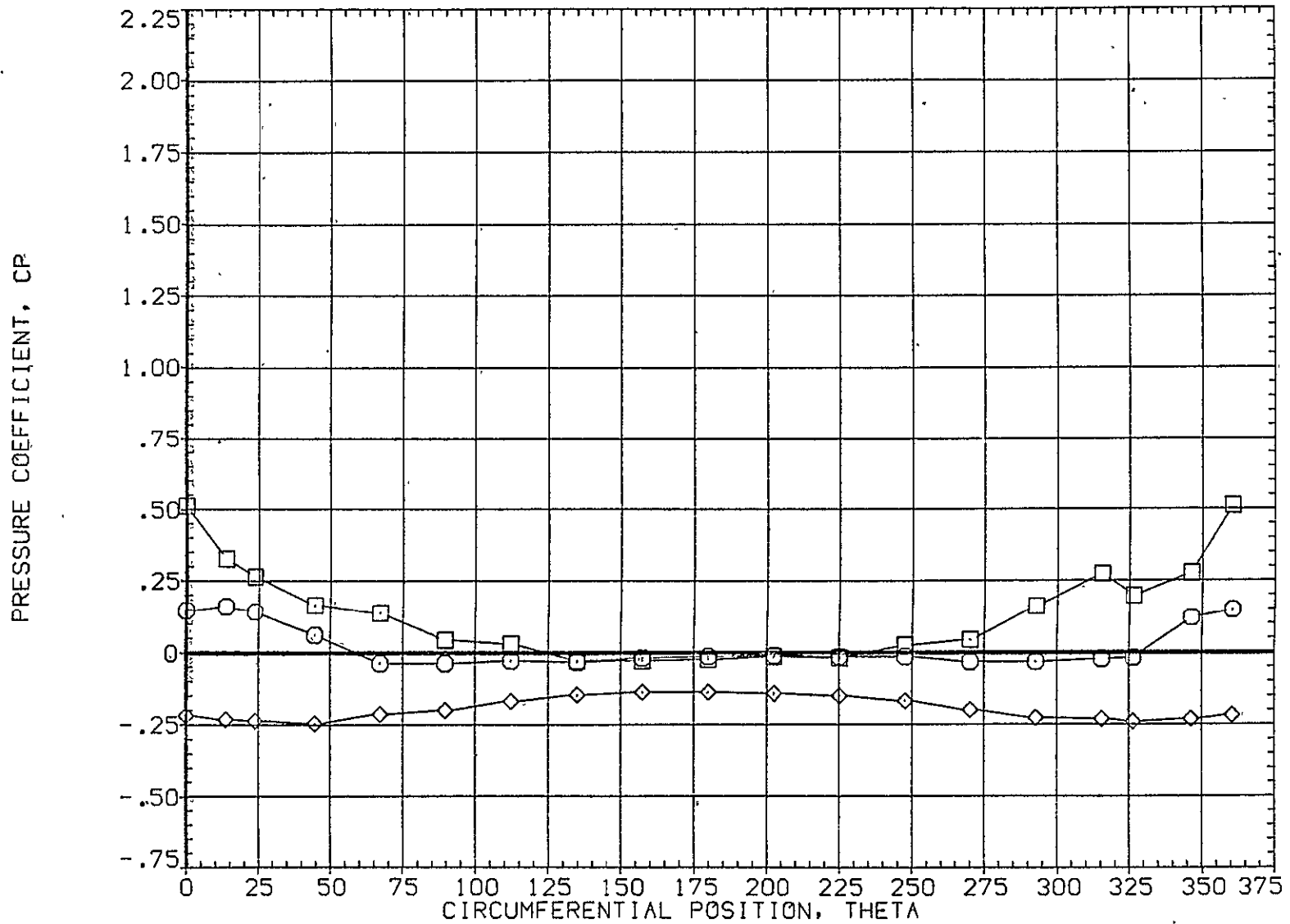


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A003)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	1.960	.000	.000	.000
□	.108			1.000		.000
◇	.162					

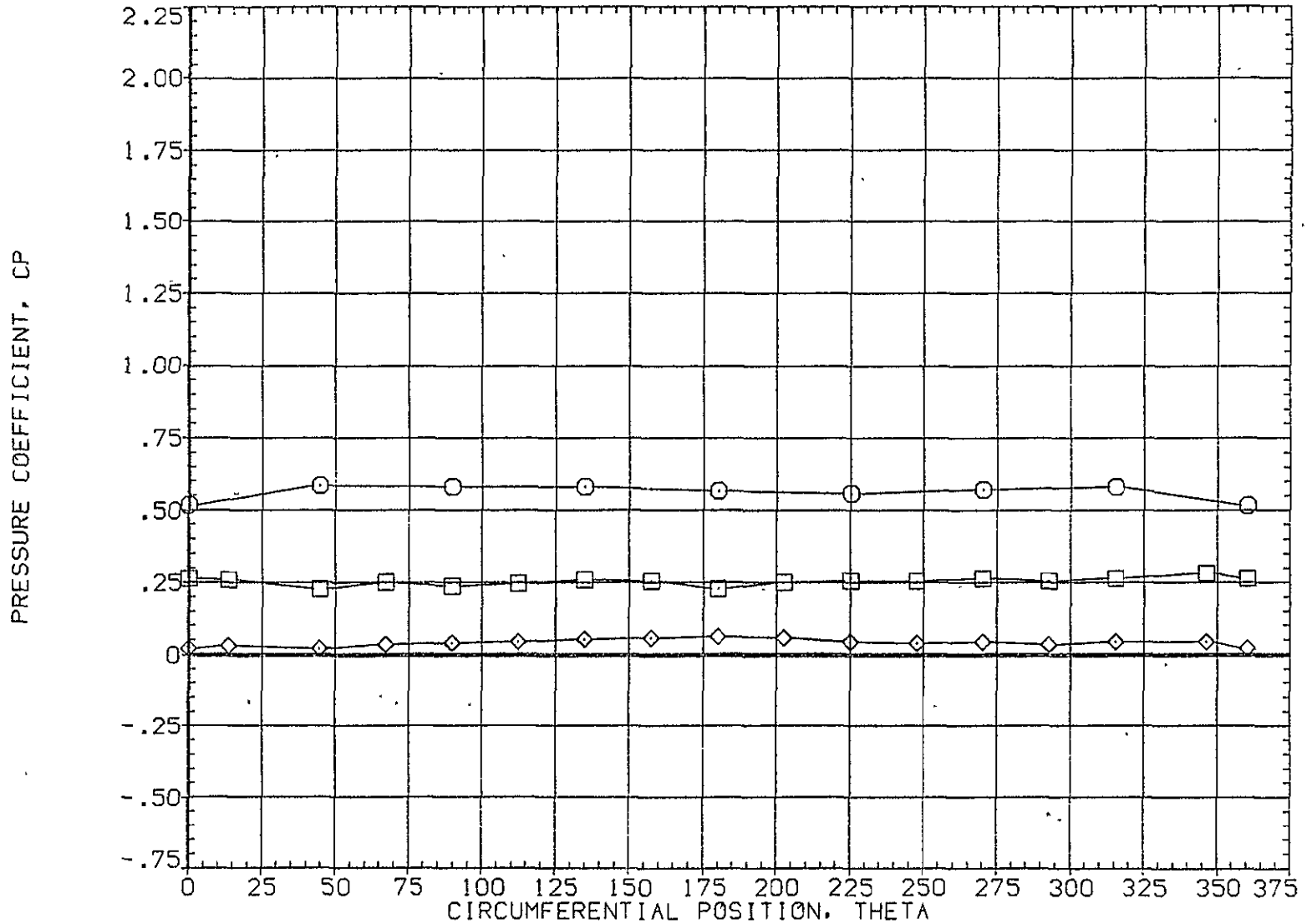


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	.216	-.280	1.960	.000	OFFSET	.000	
□	.322			1.000	PHI	.000	
◇	.518						

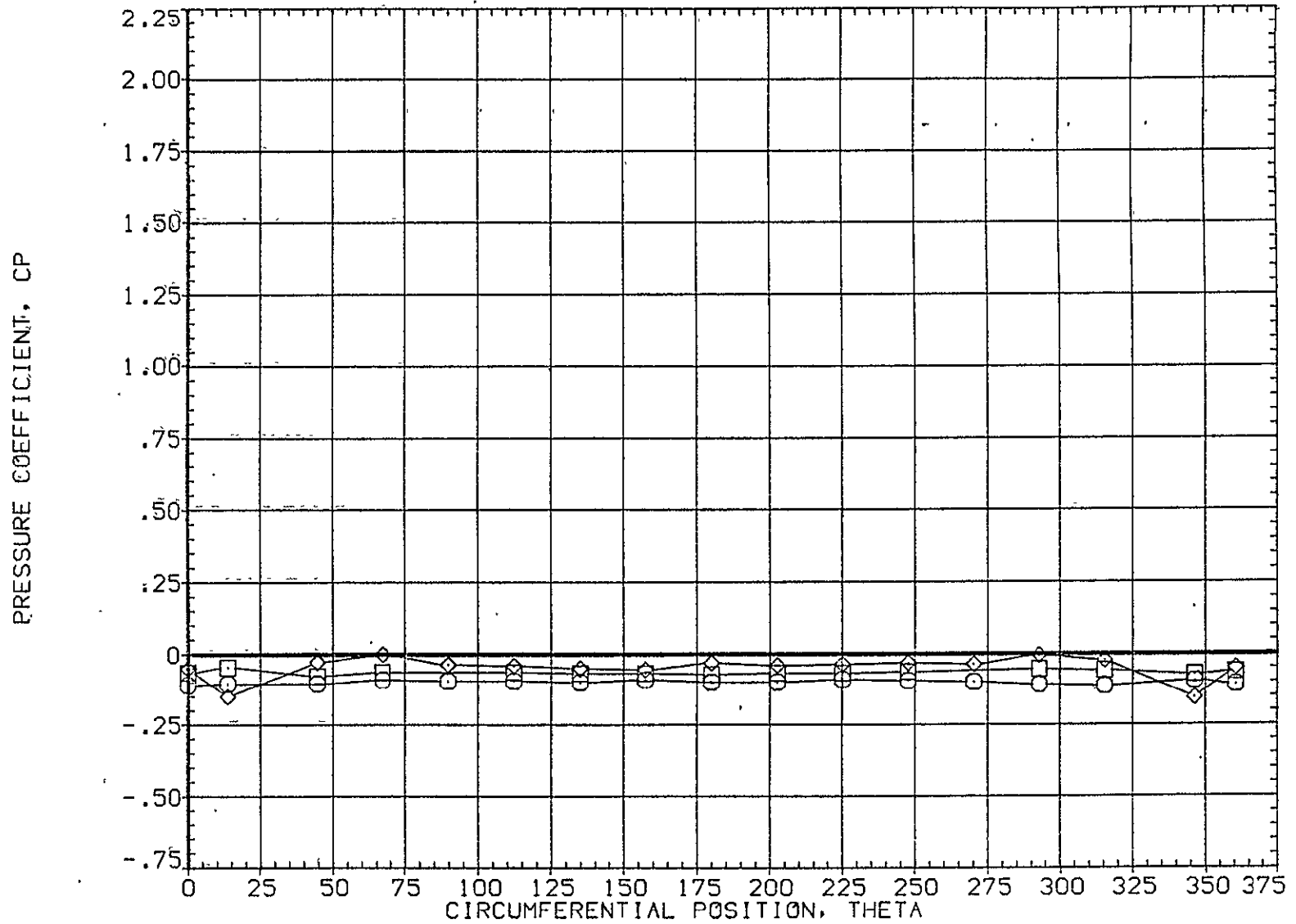


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	.280	1.960	MOUNT	1.000	PHI	.000
□	.735						.000
◇	.860						.000

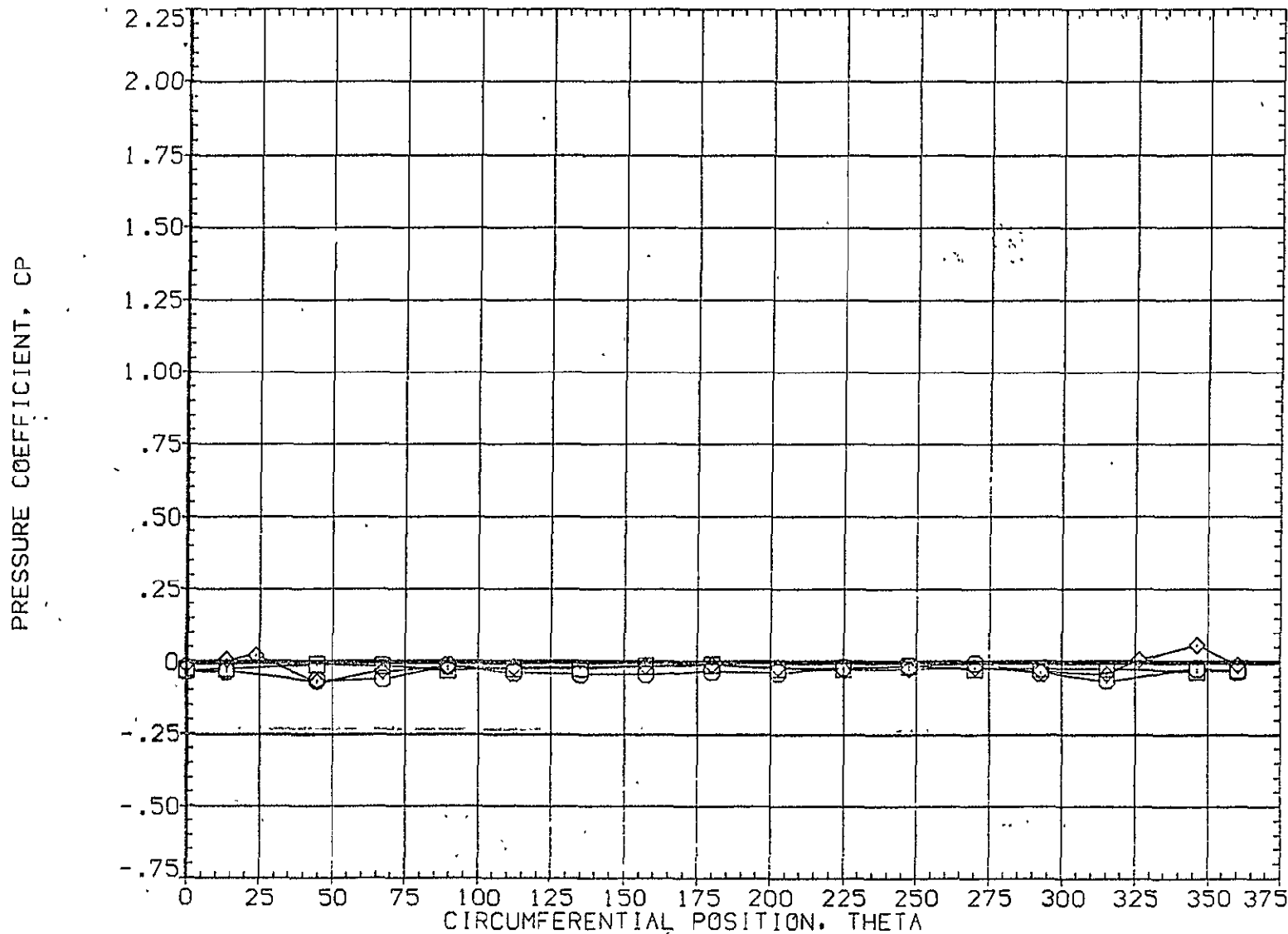


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	1.960	.000	.000	.000
□	.923			1.000		.000
◇	.954					

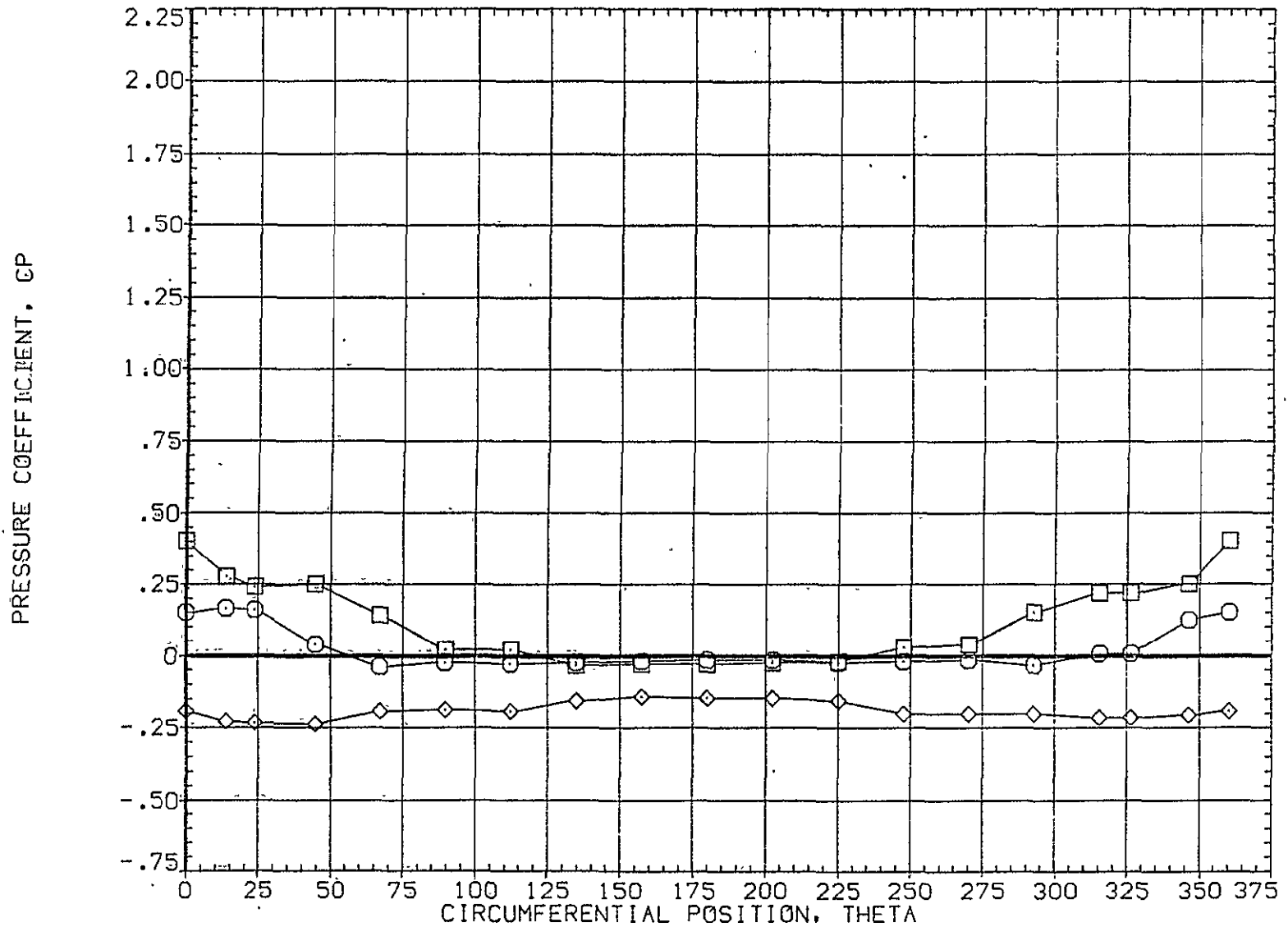


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A004)

SYMBOL	X/LB'	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.790	1.960	.000	.000	.000
□	.108			1.000		.000
◇	.162					

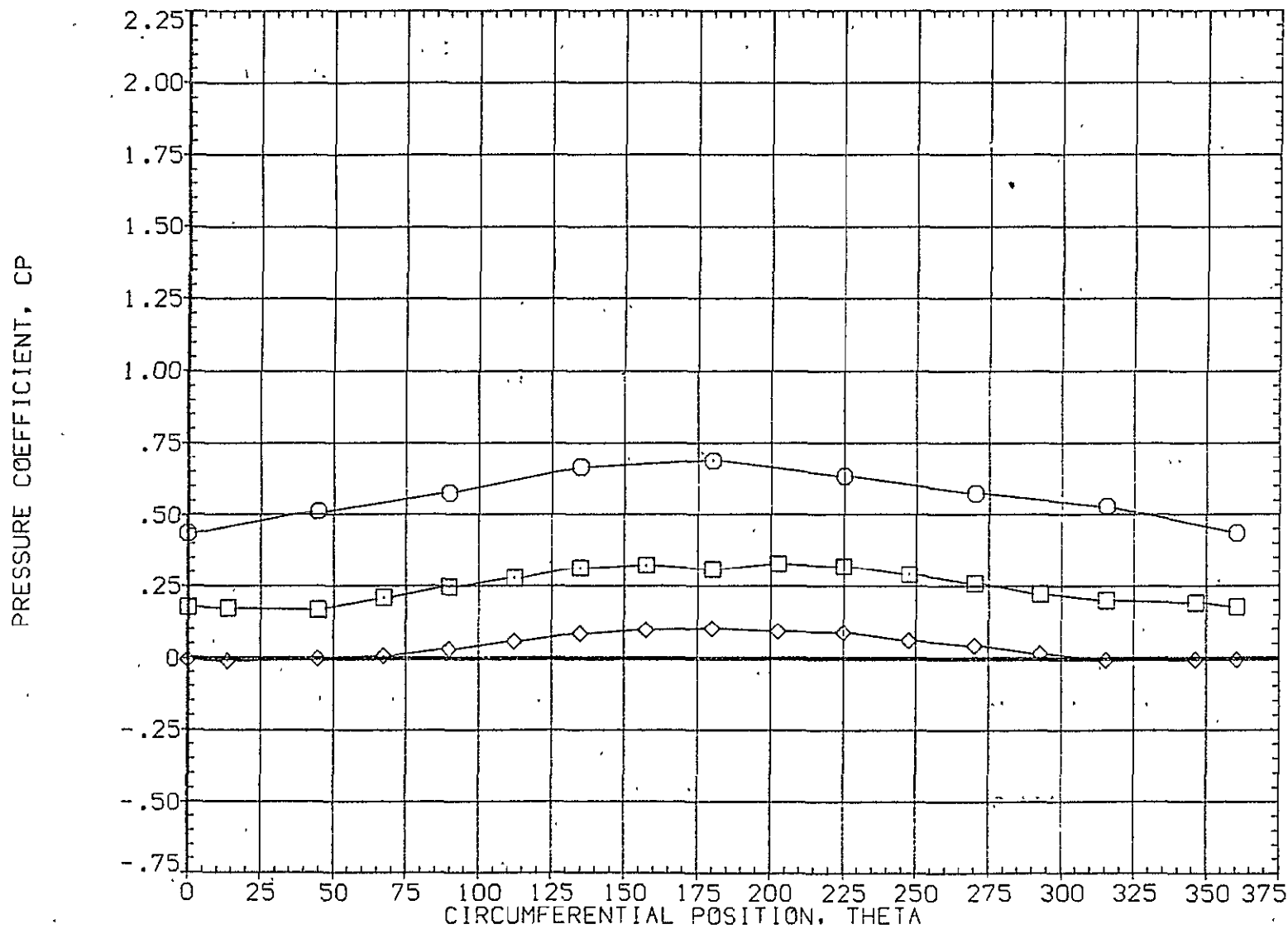


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.790	1.960	.000	.000	.000
□	.322			1.000		.000
◇	.518					

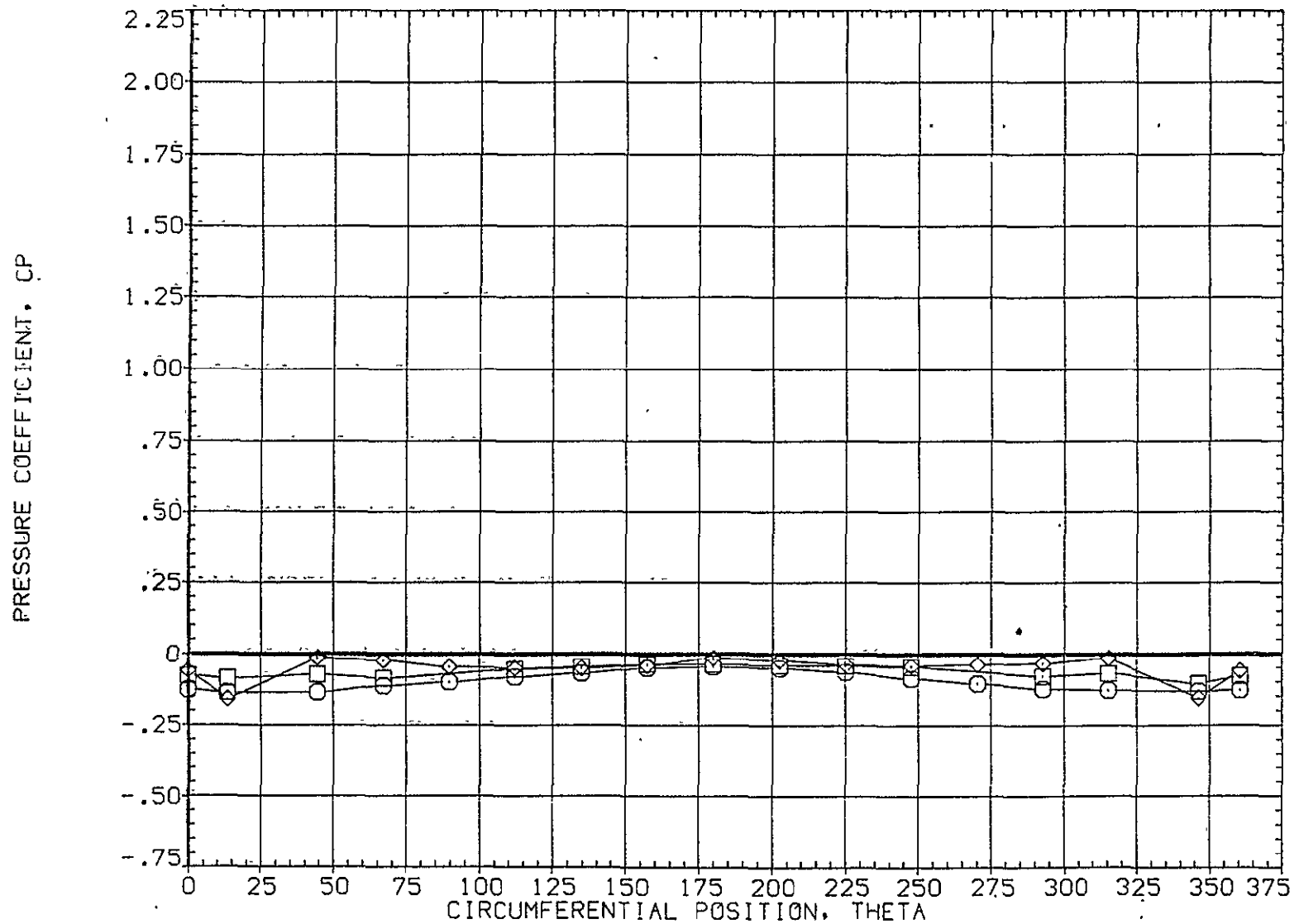


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A004)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	3.790	1.960	.000	.000	.000
□	.735			1.000		
◇	.860					

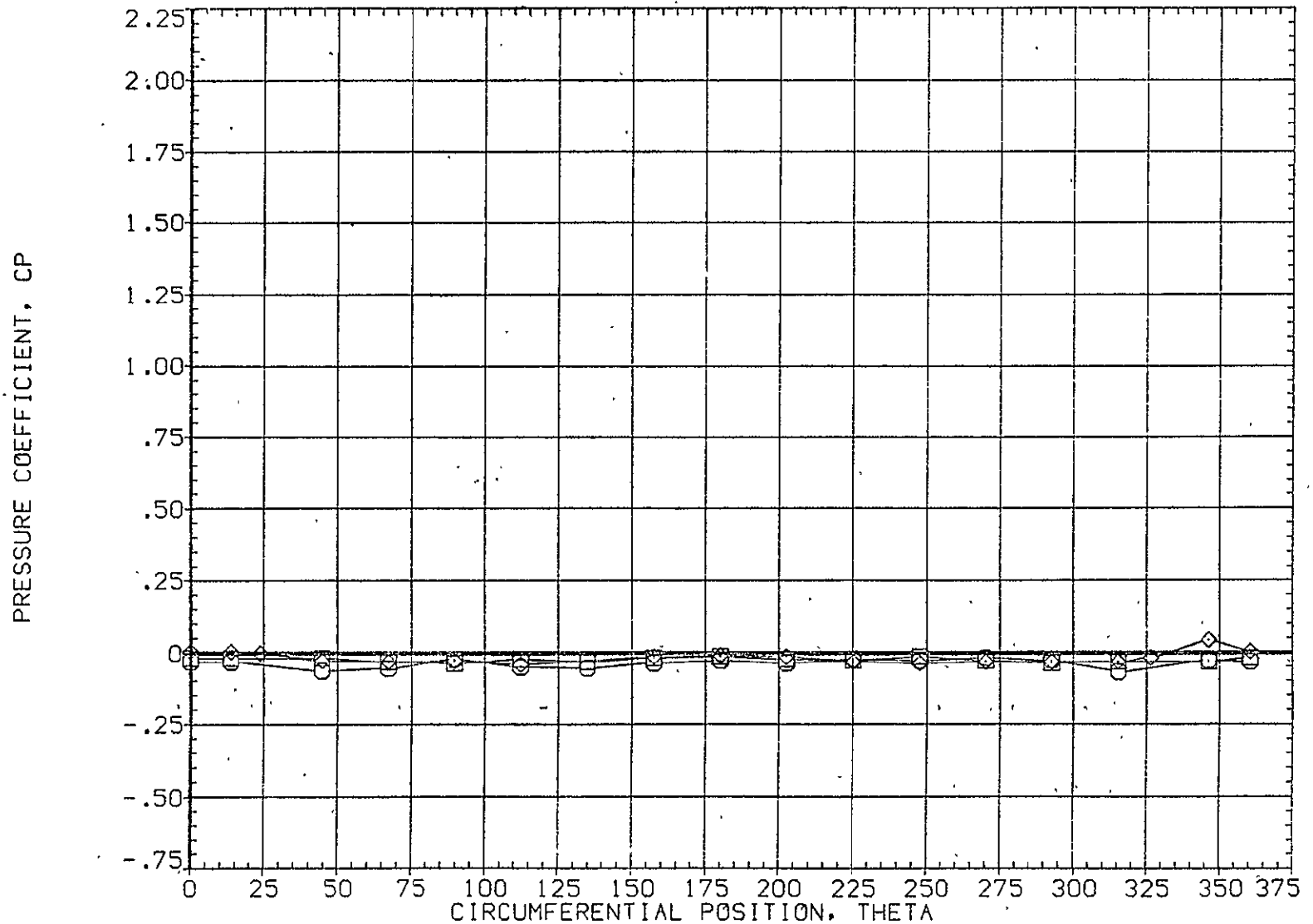


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	3.790	1.960	.000	.000	.000
□	.923			1.000		.000
◇	.954					

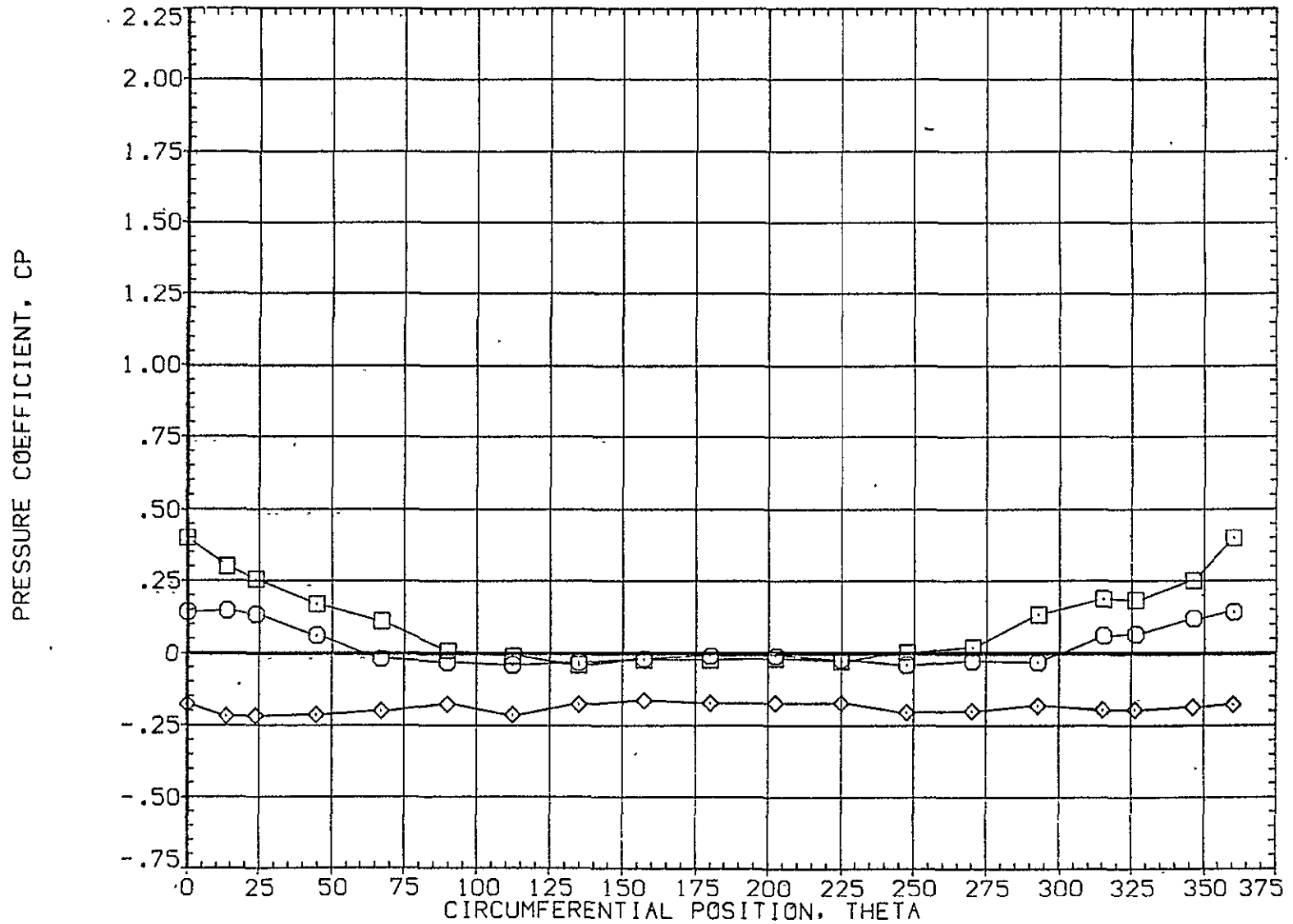


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A005)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.055	7.860	1.960	MOUNT	1.000	PHI
□	.108					
◇	.162					

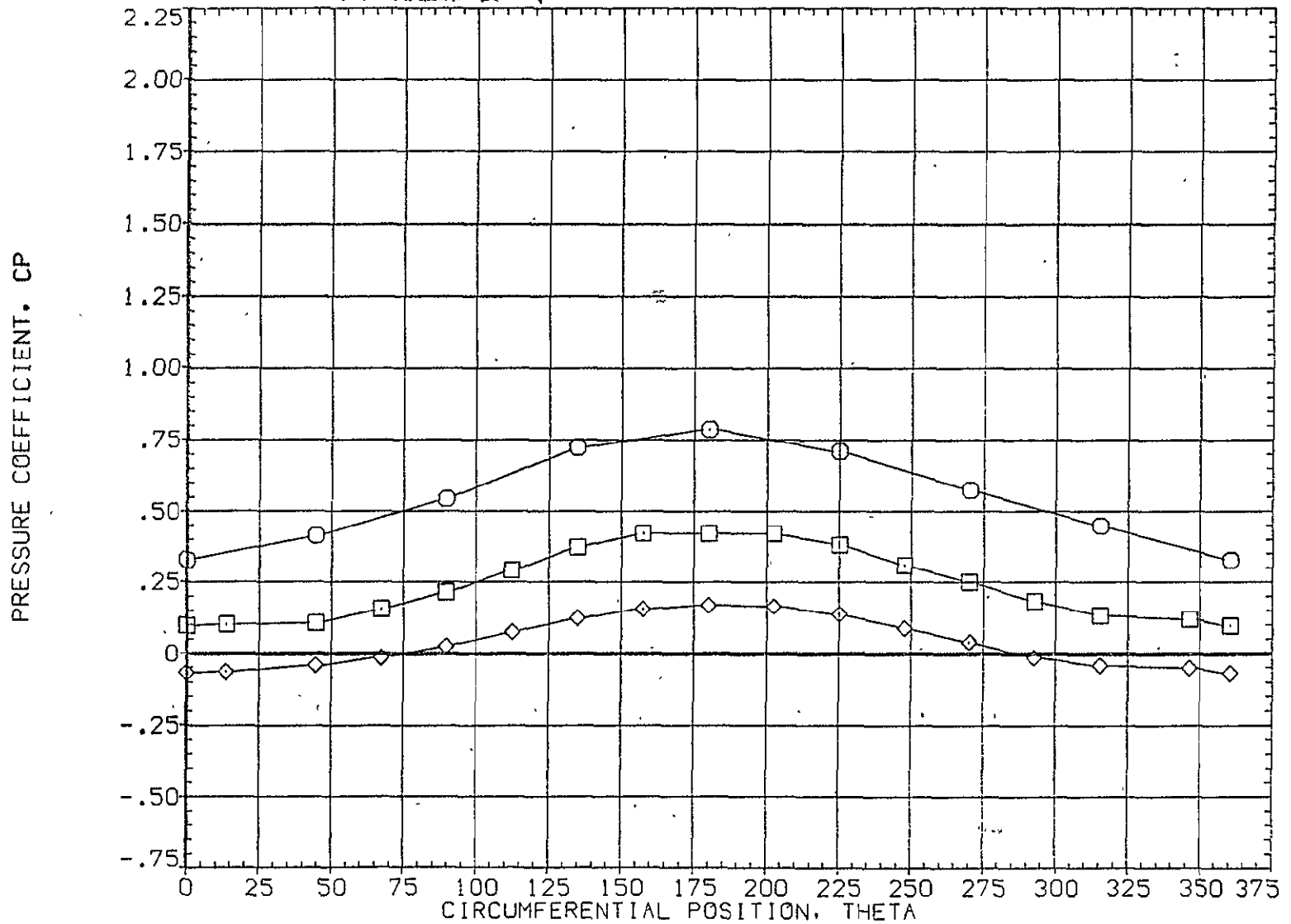


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.216	7.860	1.960	BETA	.000	OFFSET	.000
□	.322			MOUNT	1.000	PHI	.000
◇	.518						

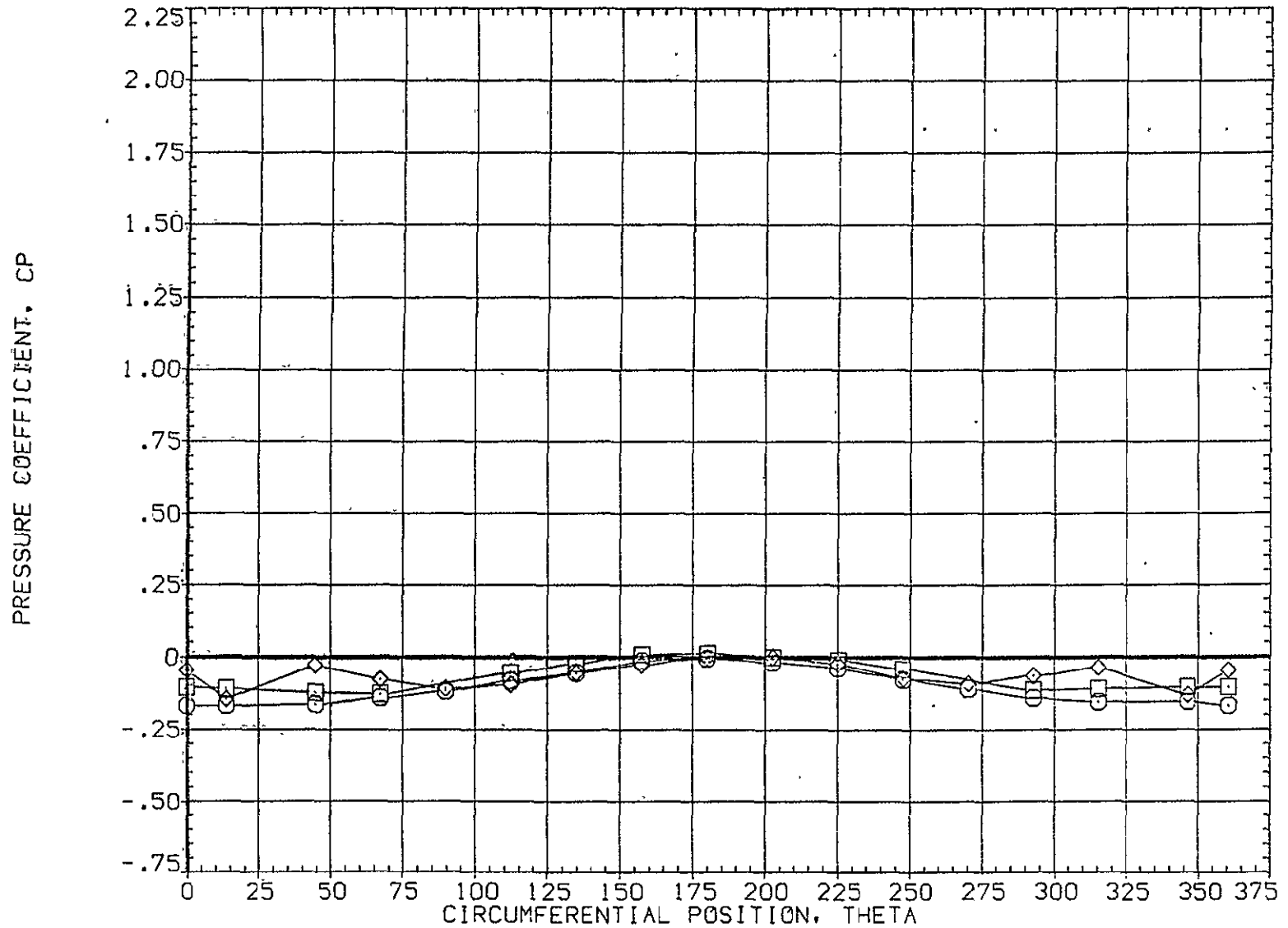


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	7.860	1.960	.000	.000	.000
□	.735			1.000		.000
◇	.860					

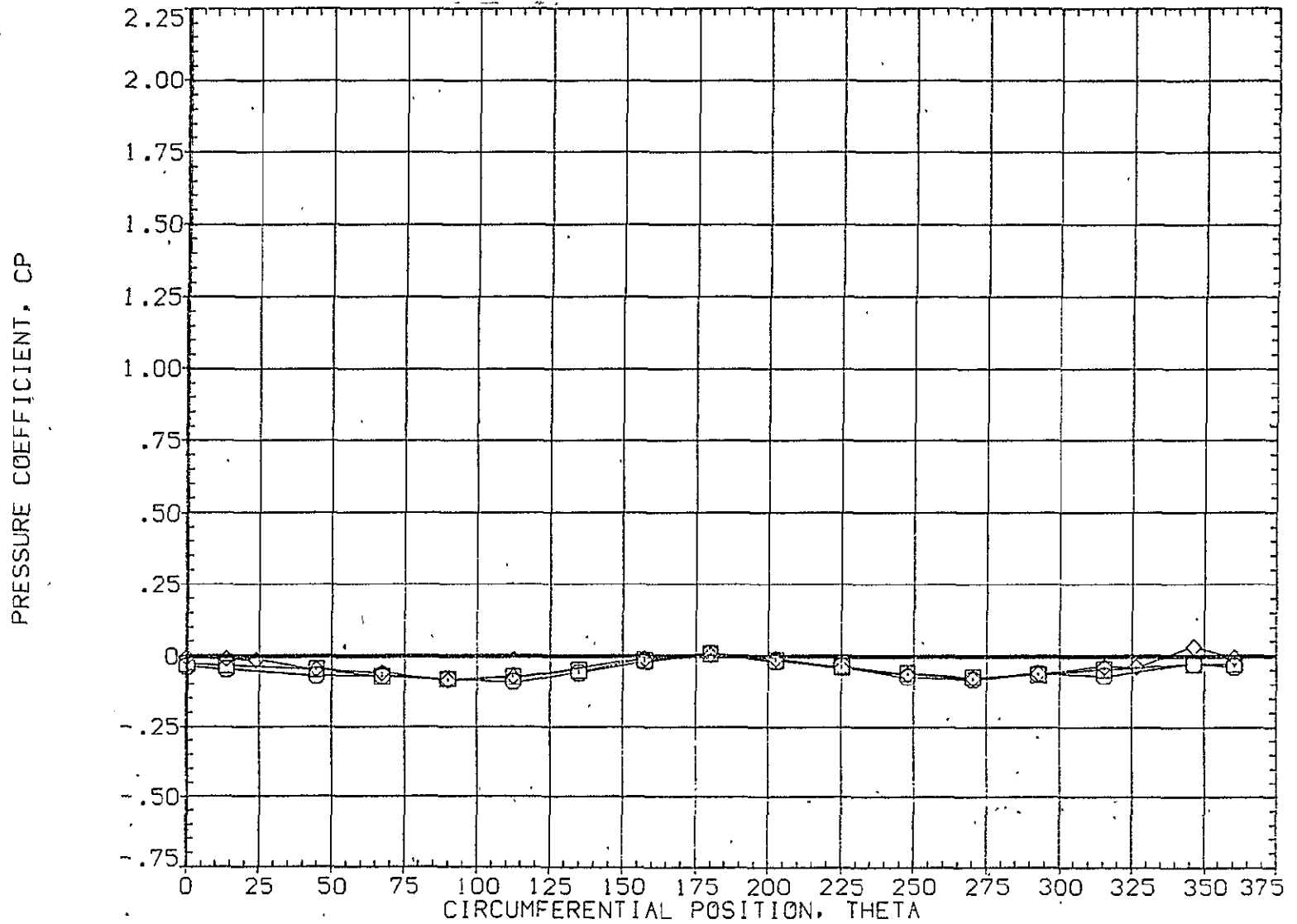


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	7.860	1.960	MOUNT	1.000	PHI	.000
□	.923						.000
◇	.954						.000

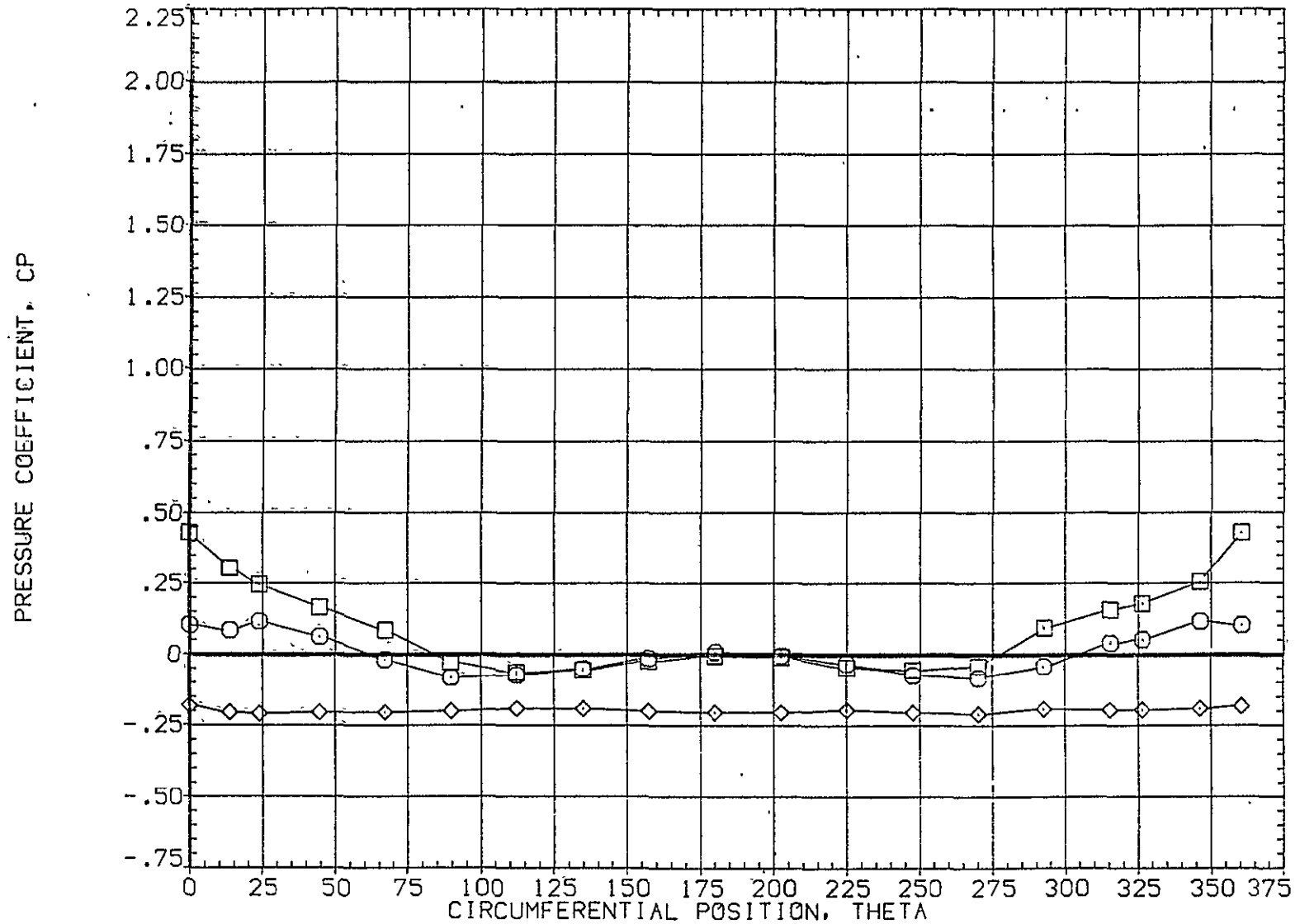


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A006)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.055	12.570	1.970	MOUNT	1.000	PHI	.000
□	.108						
◇	.162						

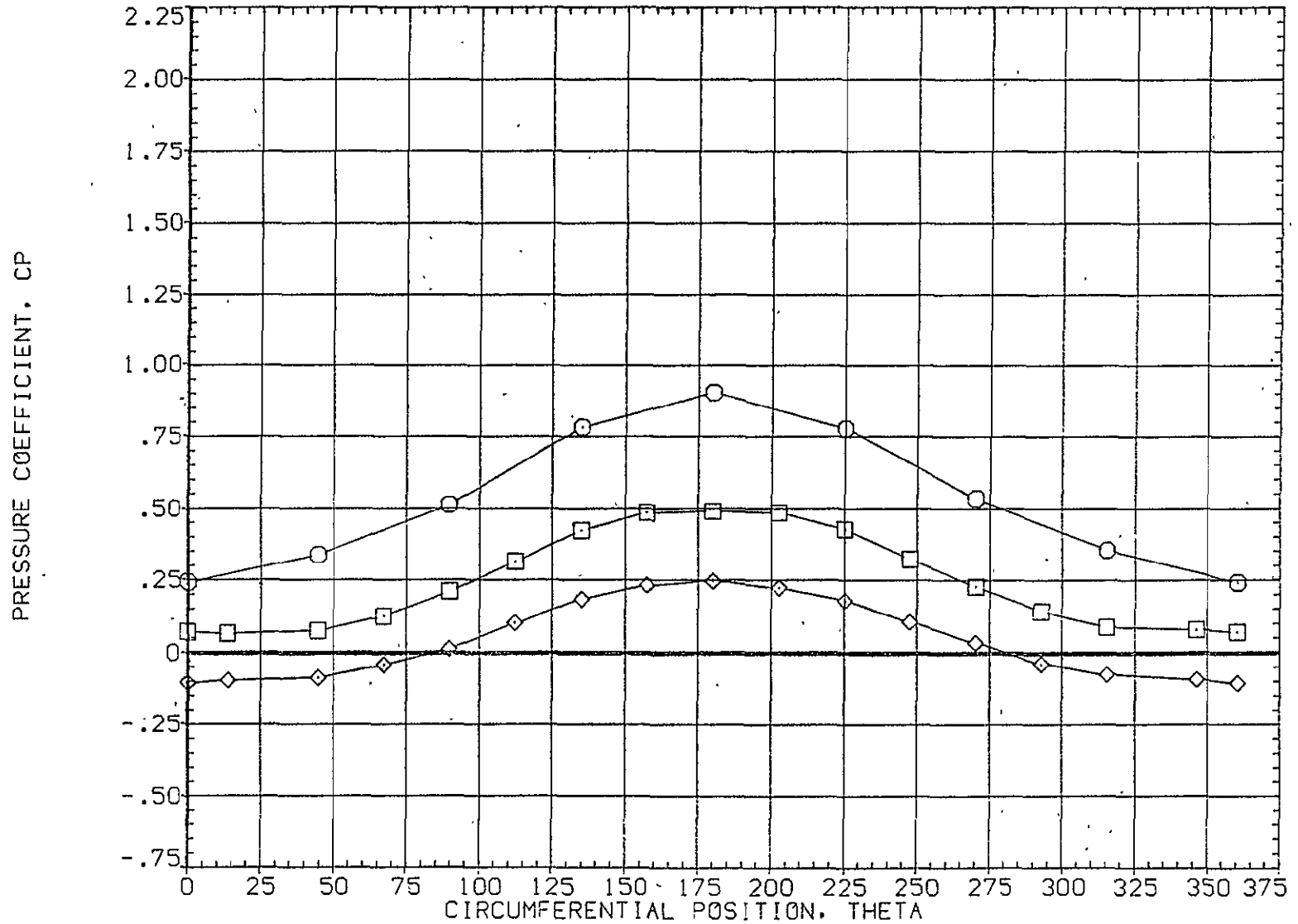


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	12.570	1.970	MOUNT	1.000	PHI	.000
□	.322						
◇	.518						

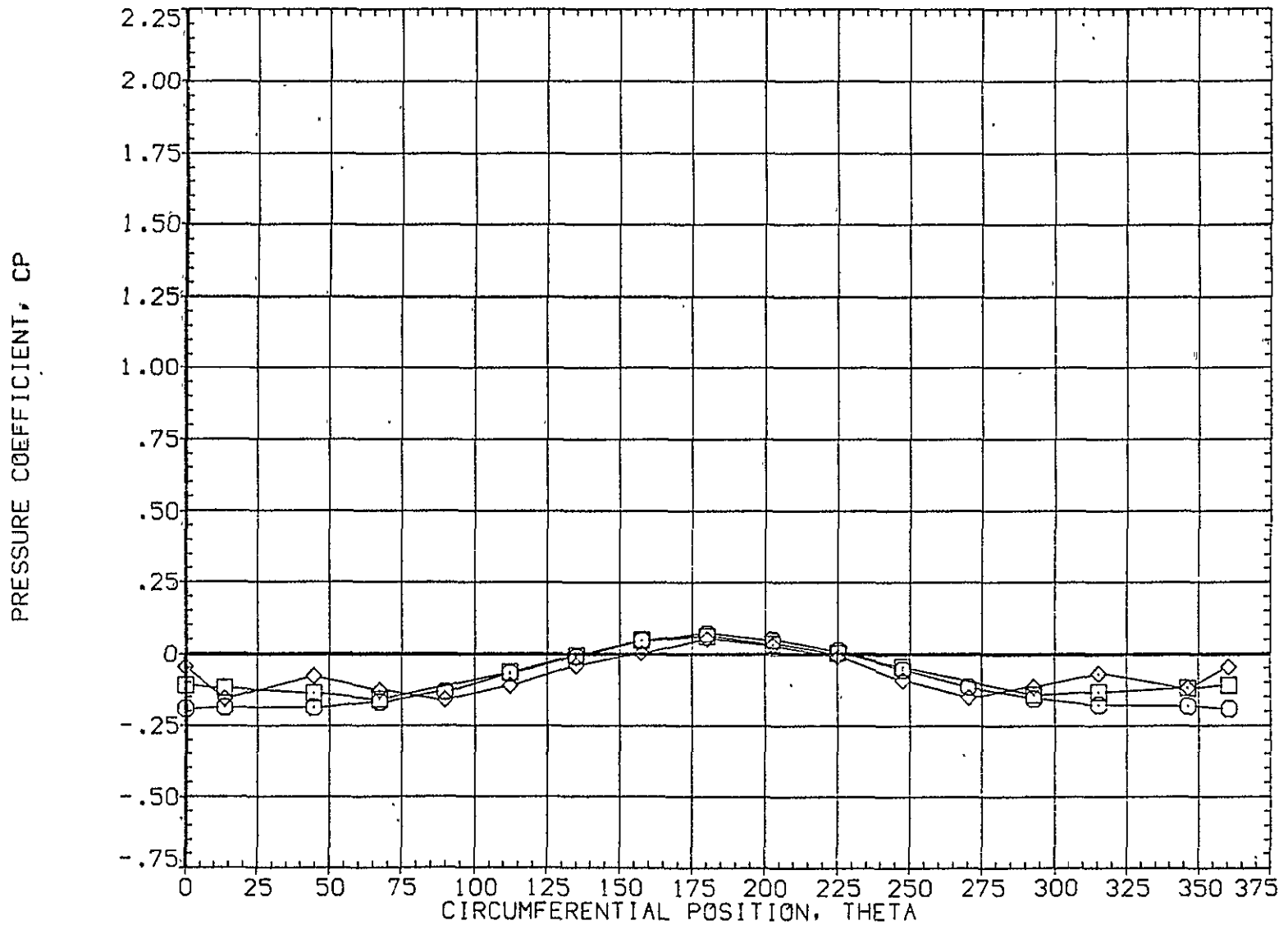


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A006)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	12.570	1.970	.000	20.000	
□	.735			1.000		
◇	.860					

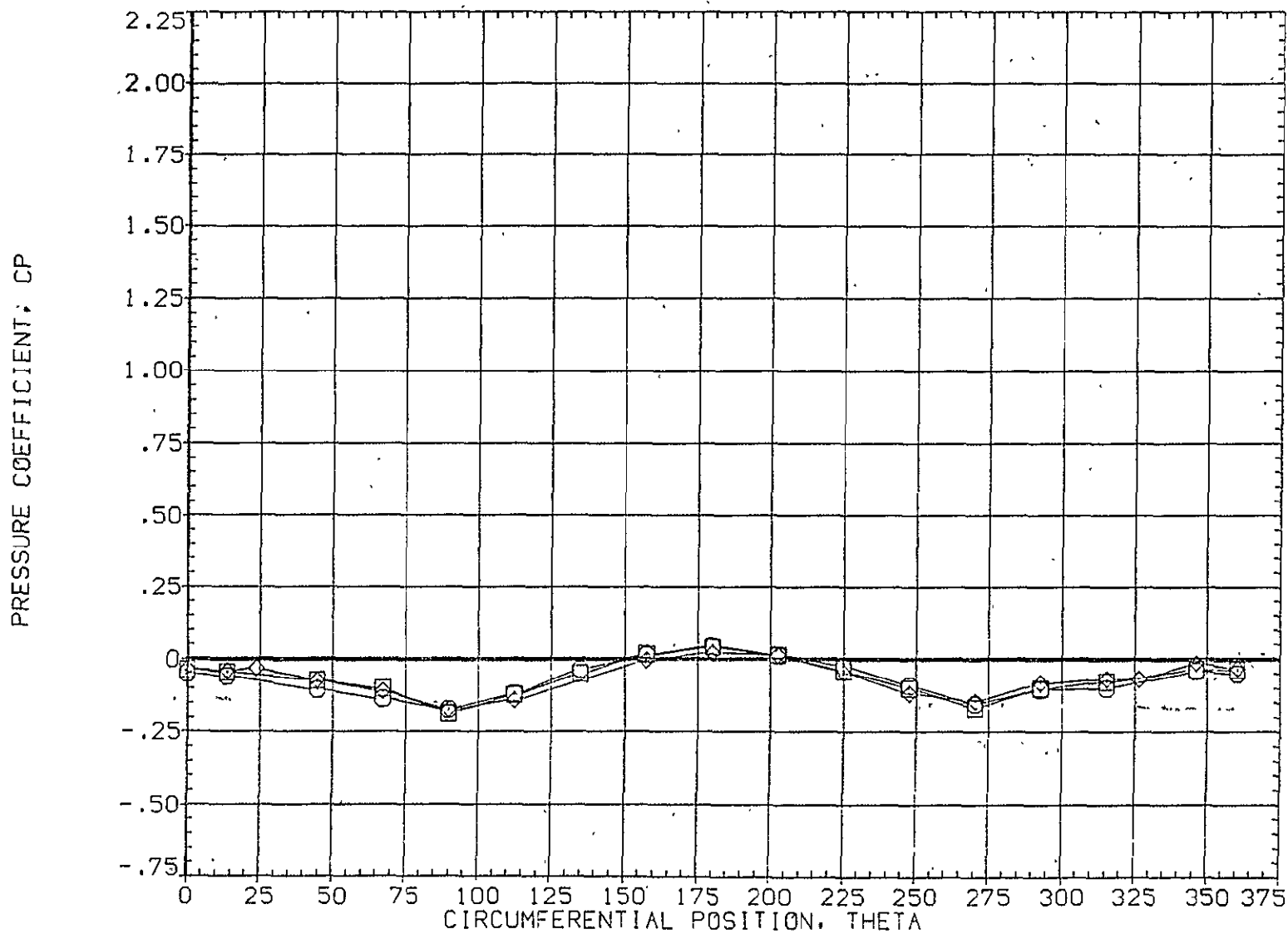


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	12.570	1.970	.000	20.000	
□	.923			1.000		.000
◇	.954					

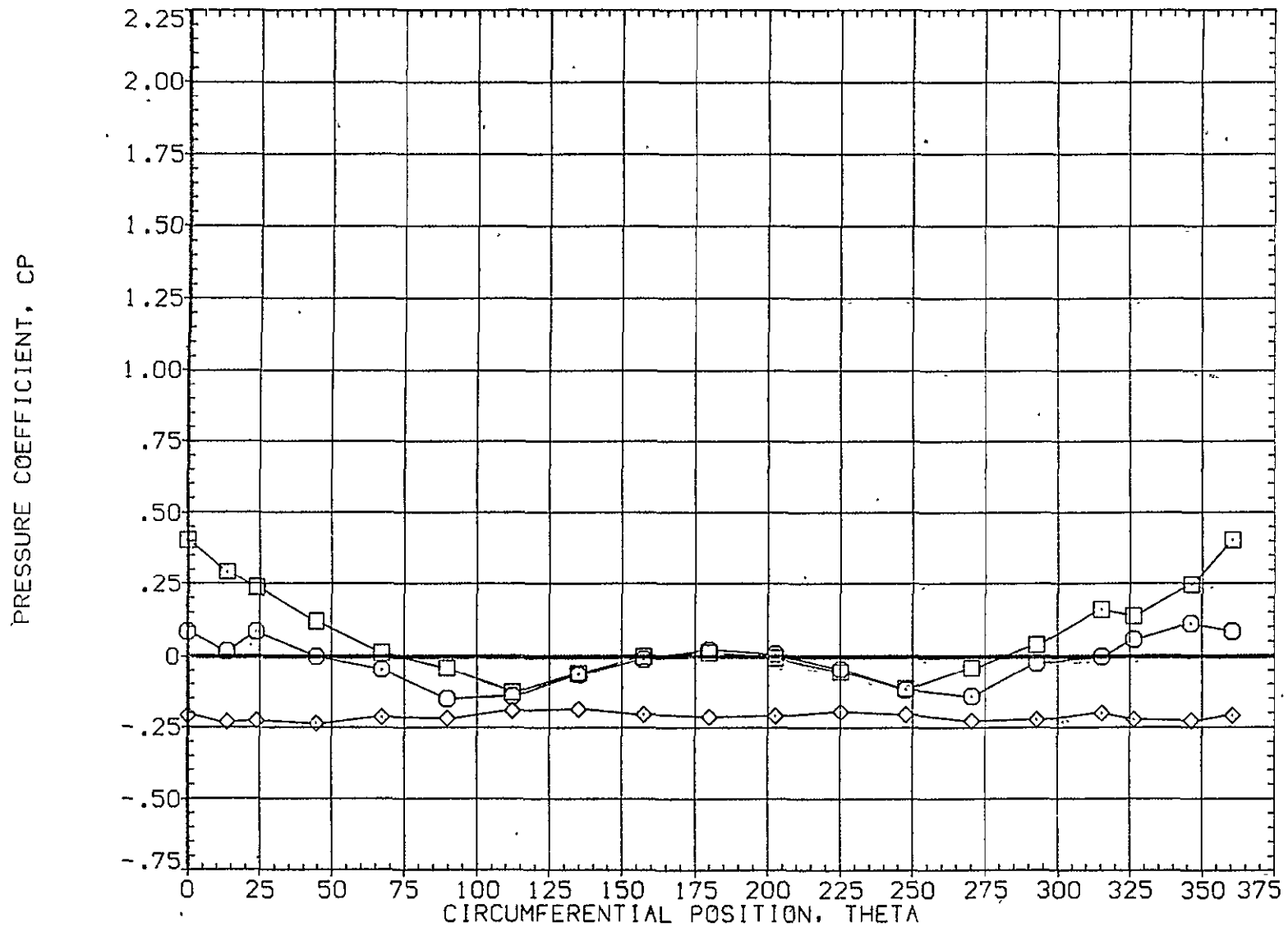


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
○	.055	16.660	1.960	BETA	.000	OFFSET 20.000
□	.108			MOUNT	1.000	PHI .000
◇	.162					

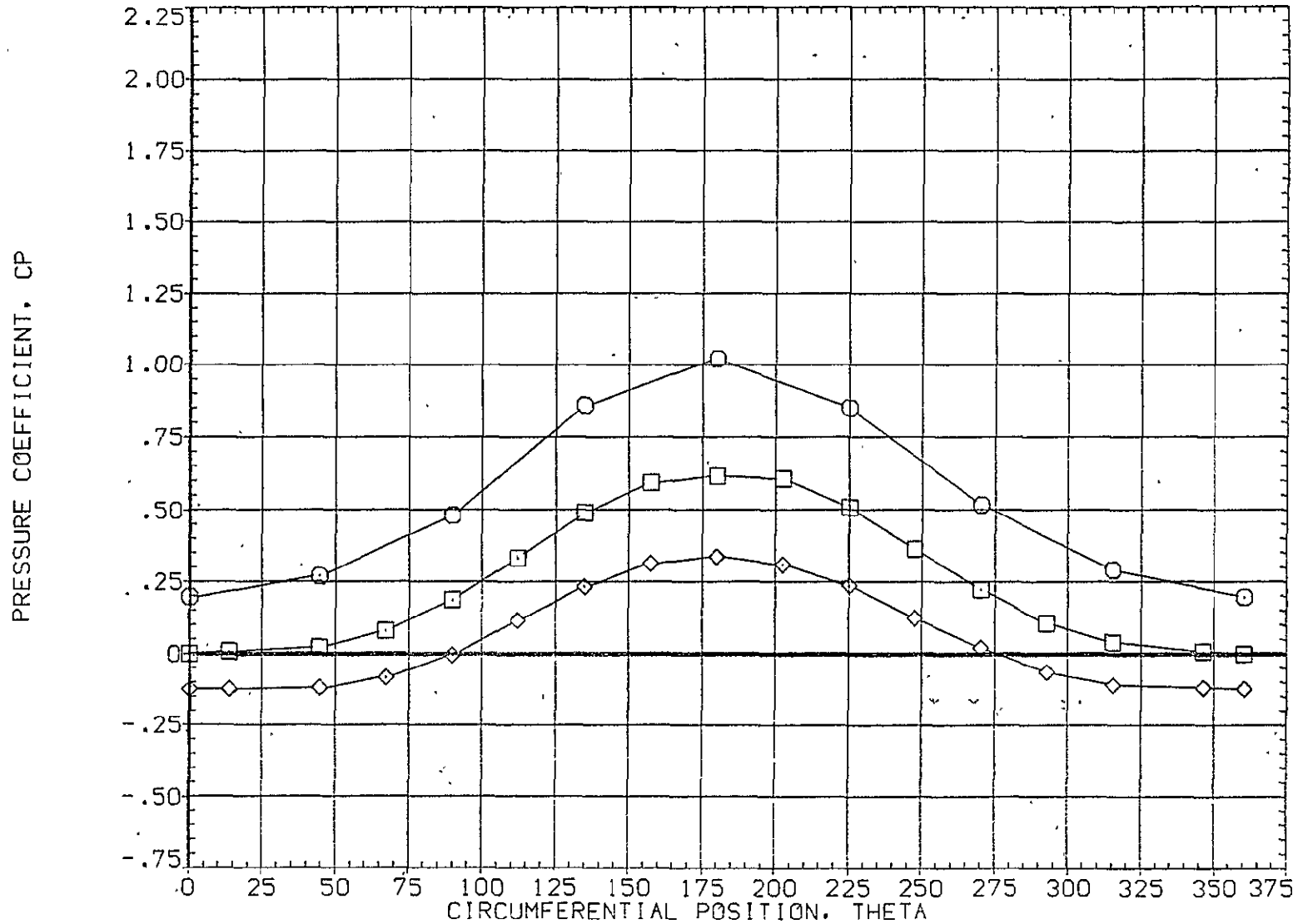


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET		
○	.216	16.660	1.960	MOUNT	1.000	PHI	20.000
□	.322						.000
◇	.518						.000

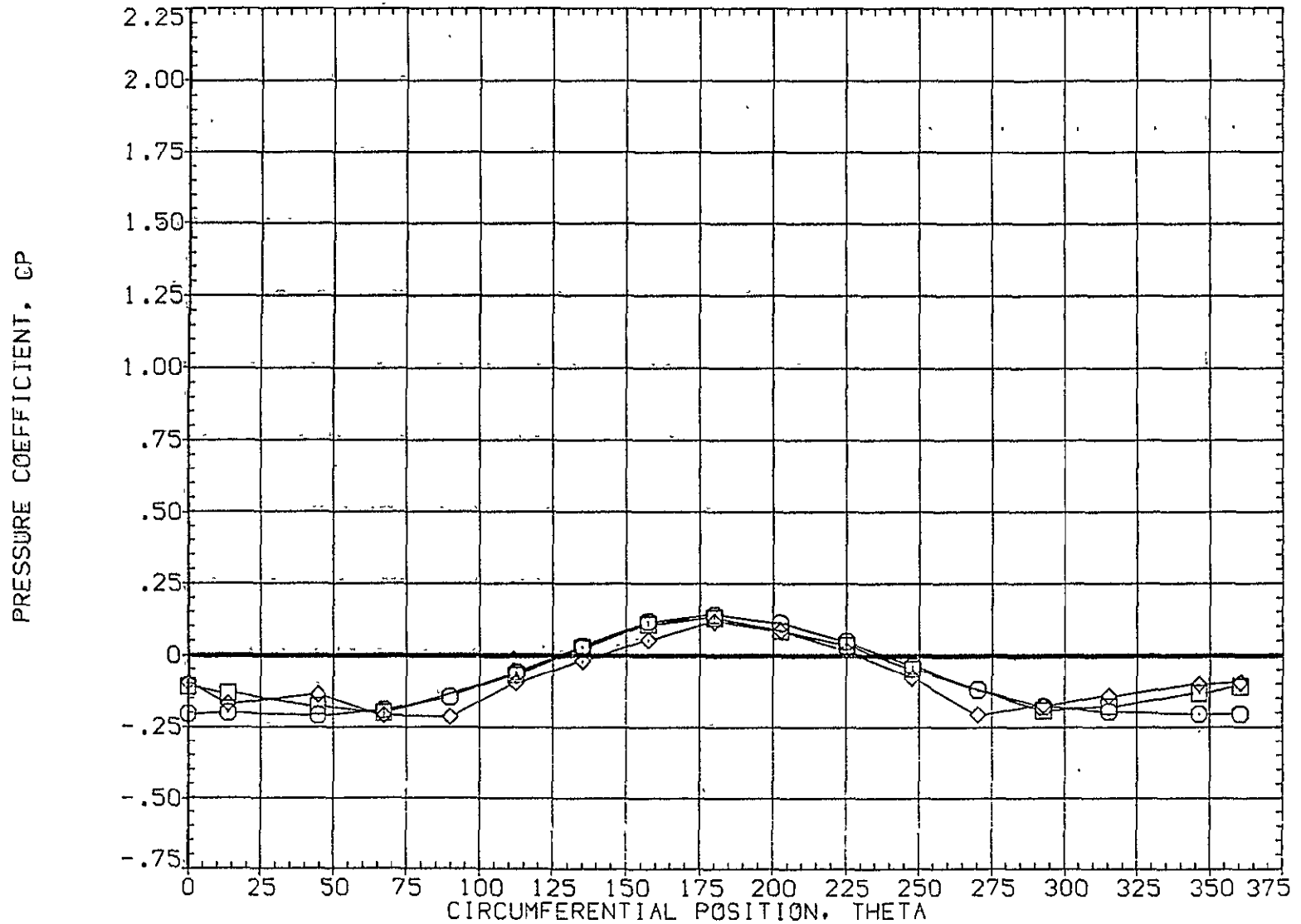


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A007)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	16.660	1.960	.000	20.000		
□	.735			1.000			
◇	.860						

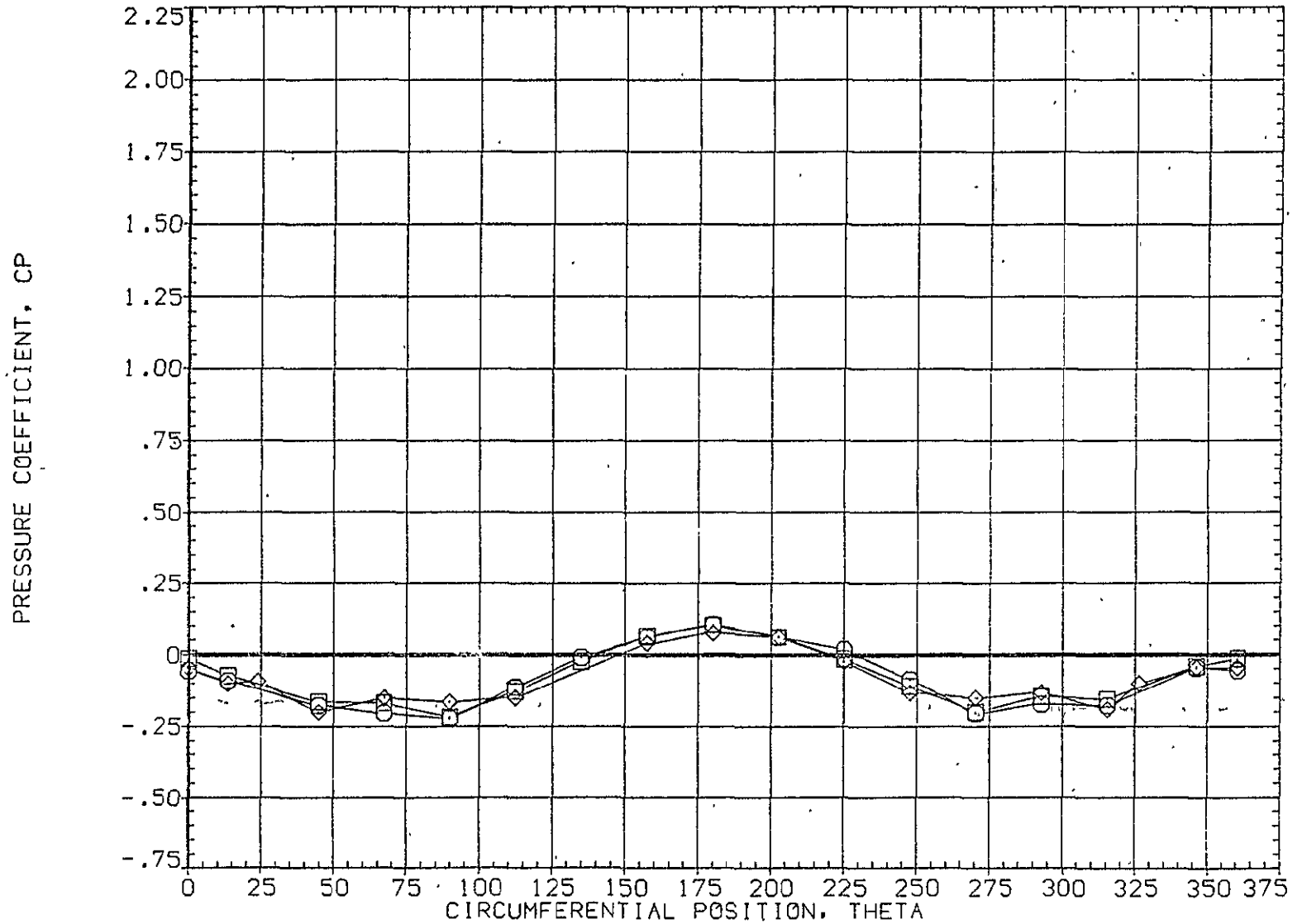


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 16.660
 MACH 1.960

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET 20.000
 PHI .000

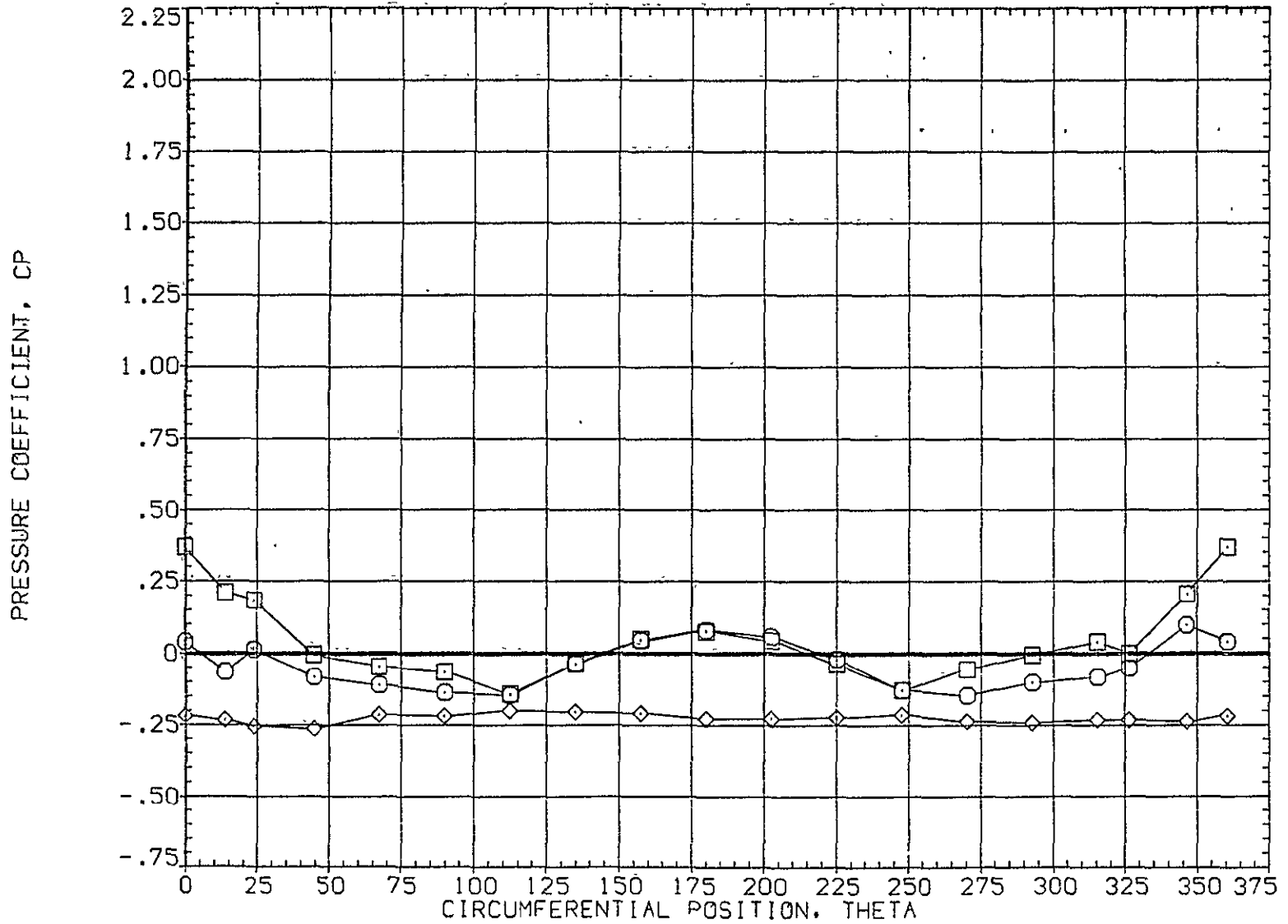


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.740	1.960	MOUNT	1.000	PHI	.000
□	.108						
◇	.162						

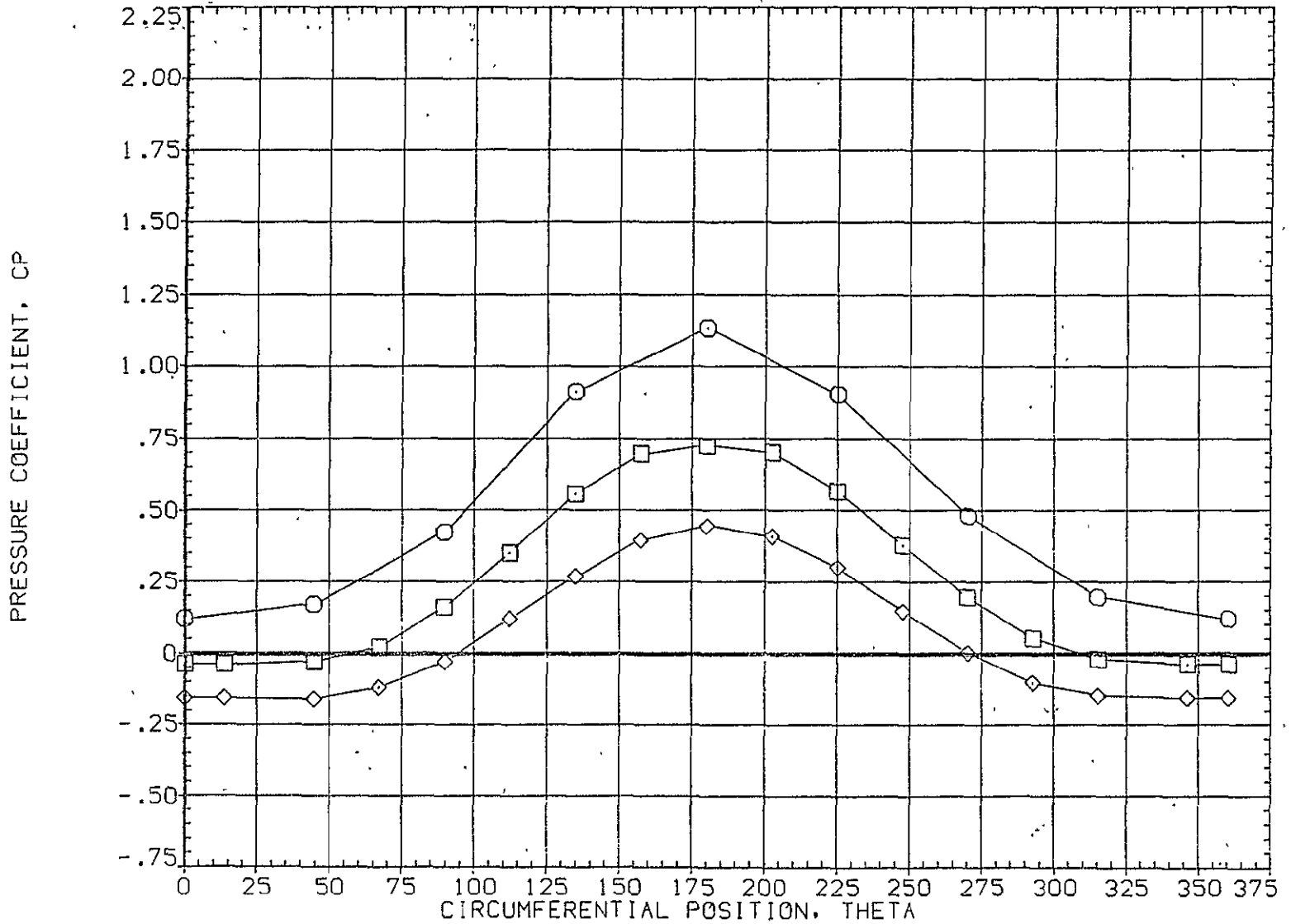


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES	OFFSET	PHI
○	.216	20.740	1.960	.000		20.000	
□	.322			1.000			
◇	.518						

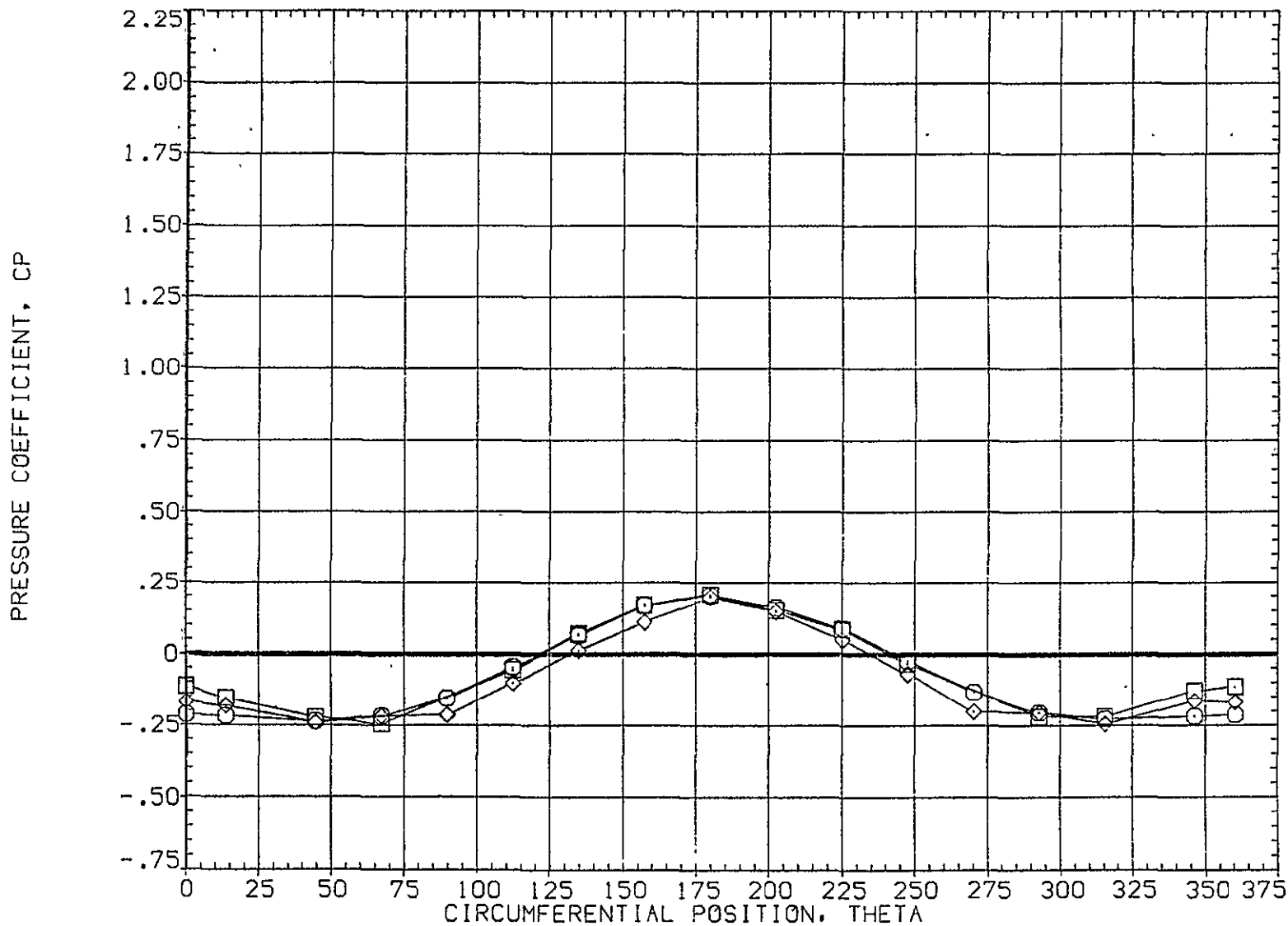


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A008)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.740	1.960	MOUNT	1.000	PHI	.000
□	.735						
◇	.860						

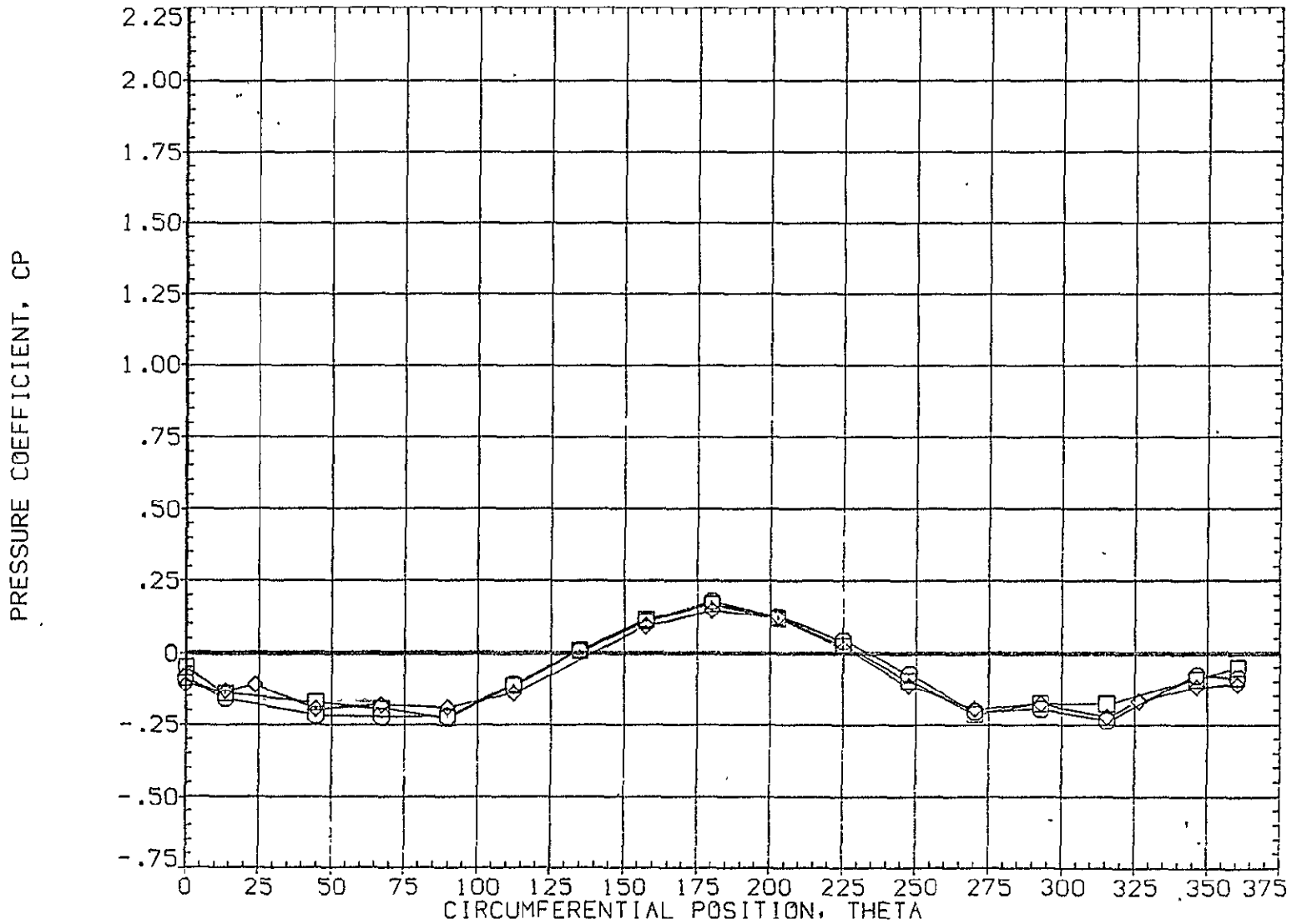


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .892
.923
.954
ALPHA 20.740
MACH 1.960

BETA .000
MOUNT 1.000
PARAMETRIC VALUES
OFFSET 20.000
PHI .000

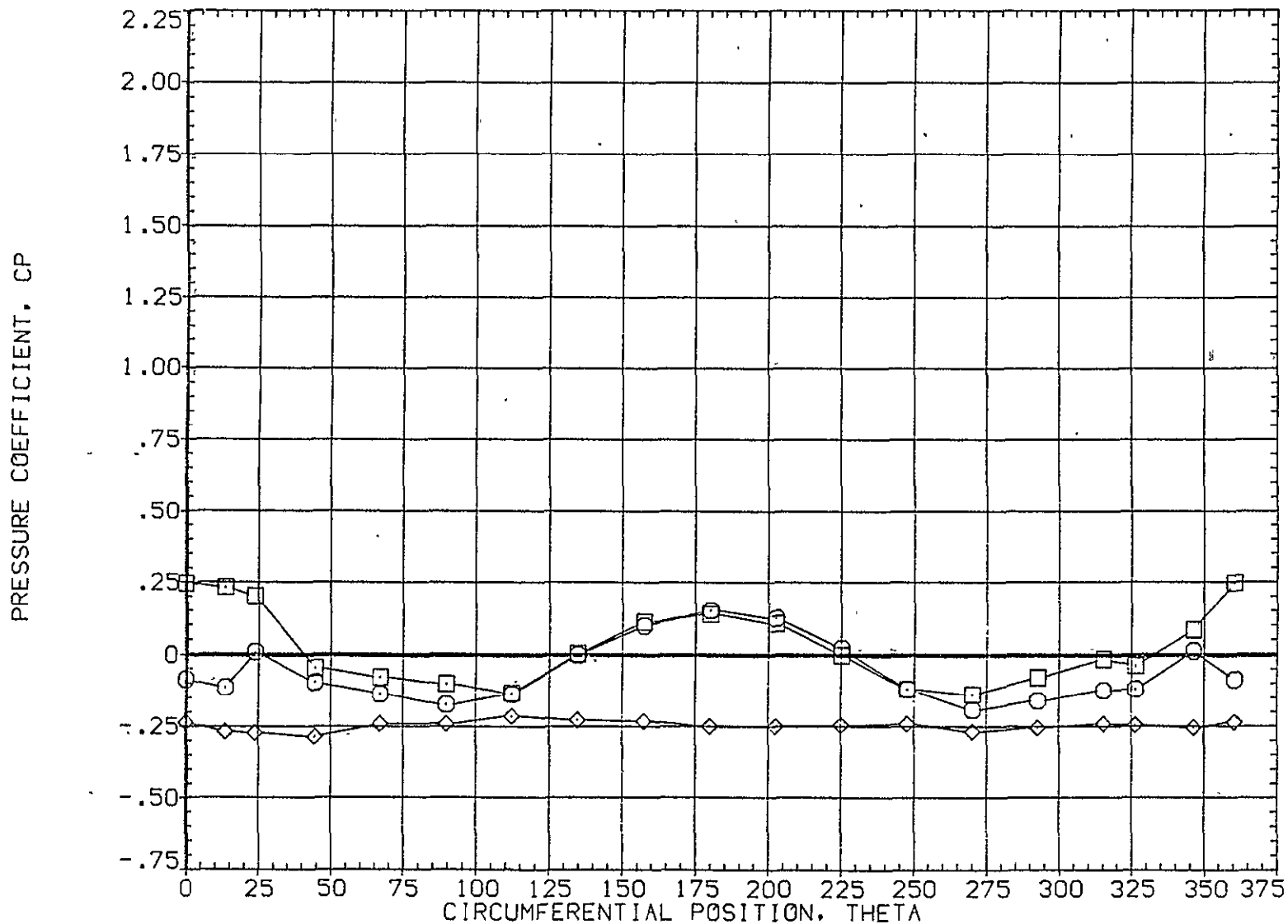


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	24.850	1.960	.000	20.000	
□	.108			MOUNT	1.000	
◇	.162					.000

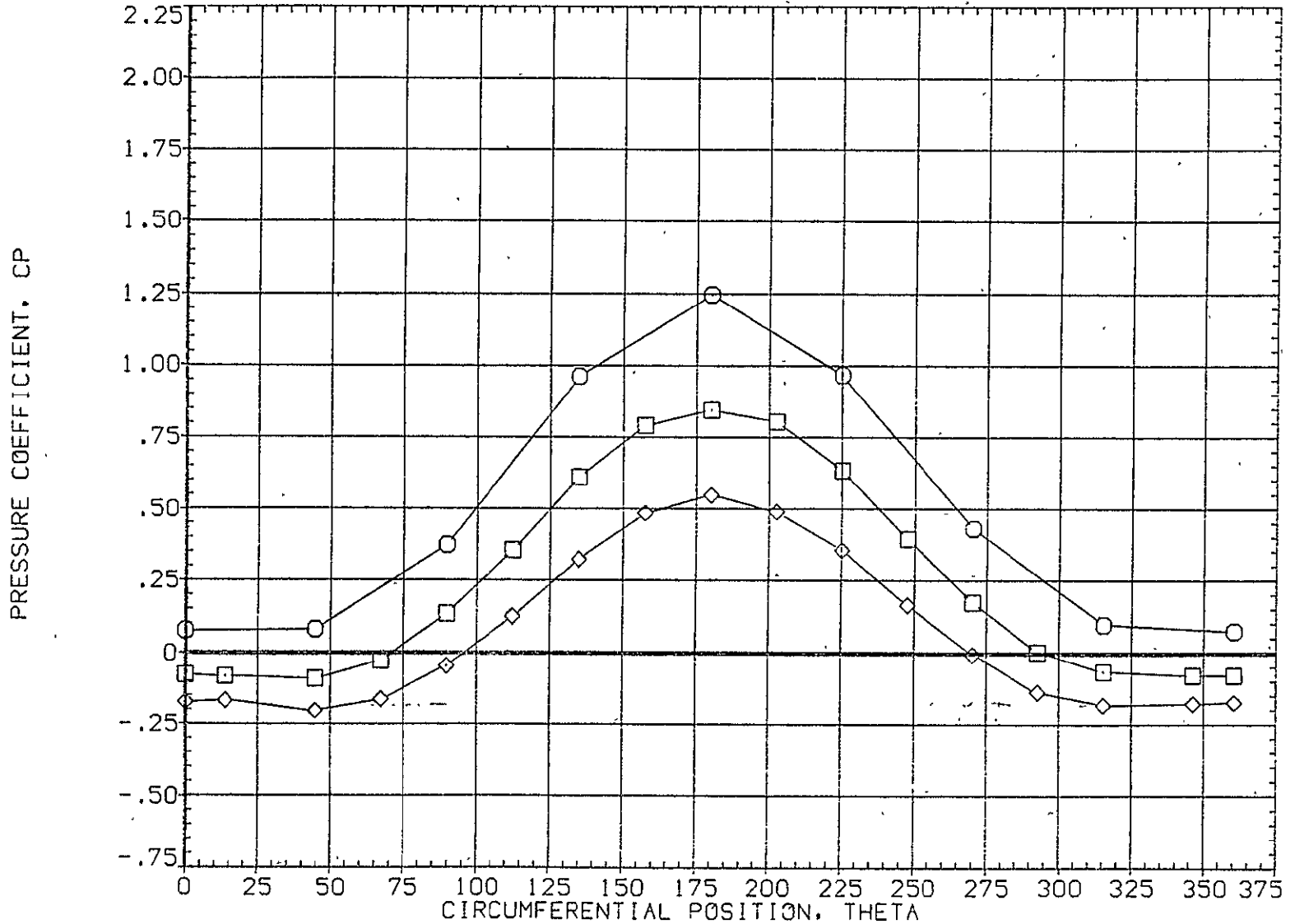


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	.216	24.850	1.960		.000	OFFSET	20.000
□	.322			MOUNT	1.000	PHI	.000
◇	.518						

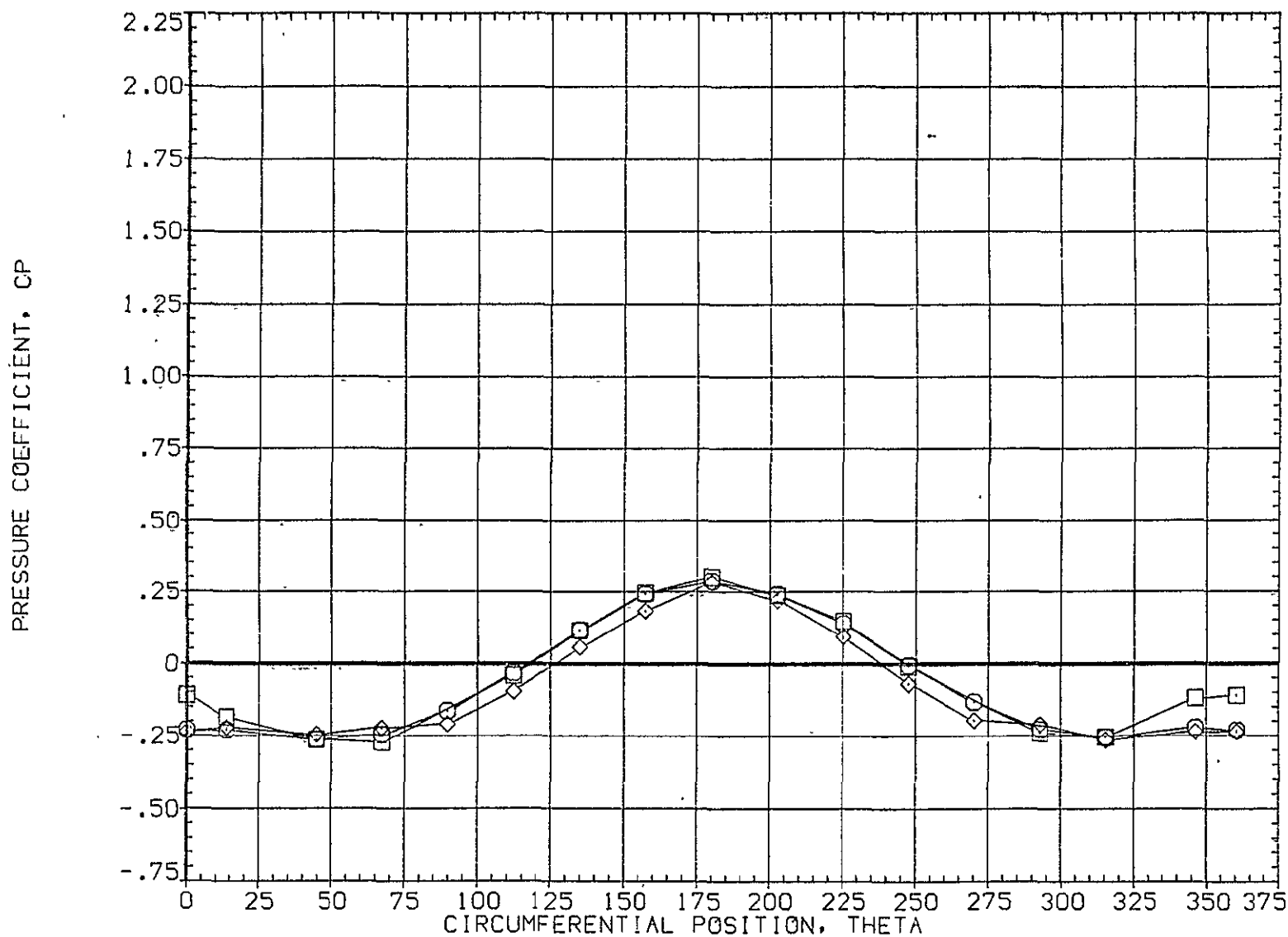


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.610	24.850	1.960	BETA	.000	OFFSET	20.000
□	.735			MOUNT	1.000	PHI	.000
◇	.860						

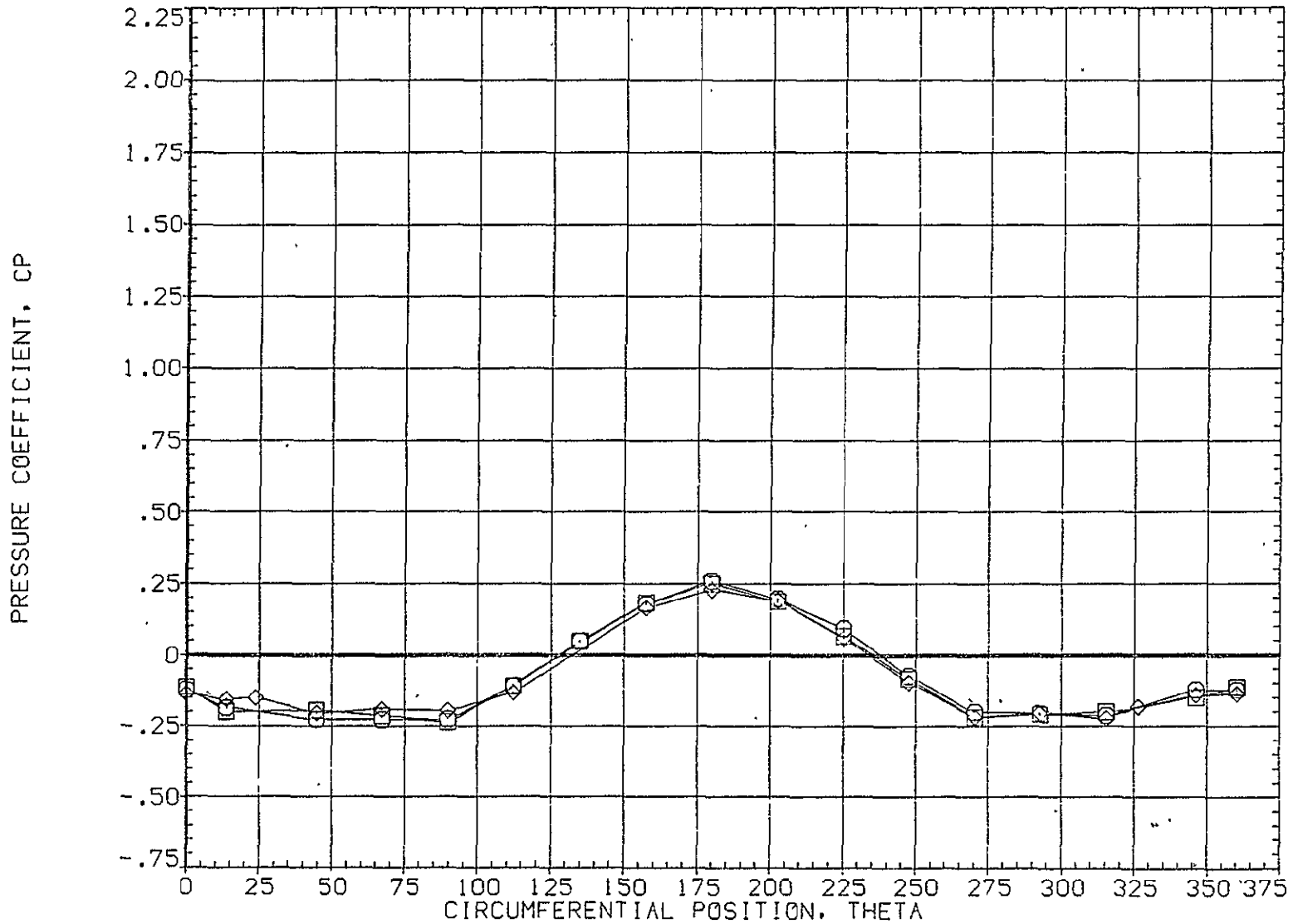


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 24.850 1.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI .000

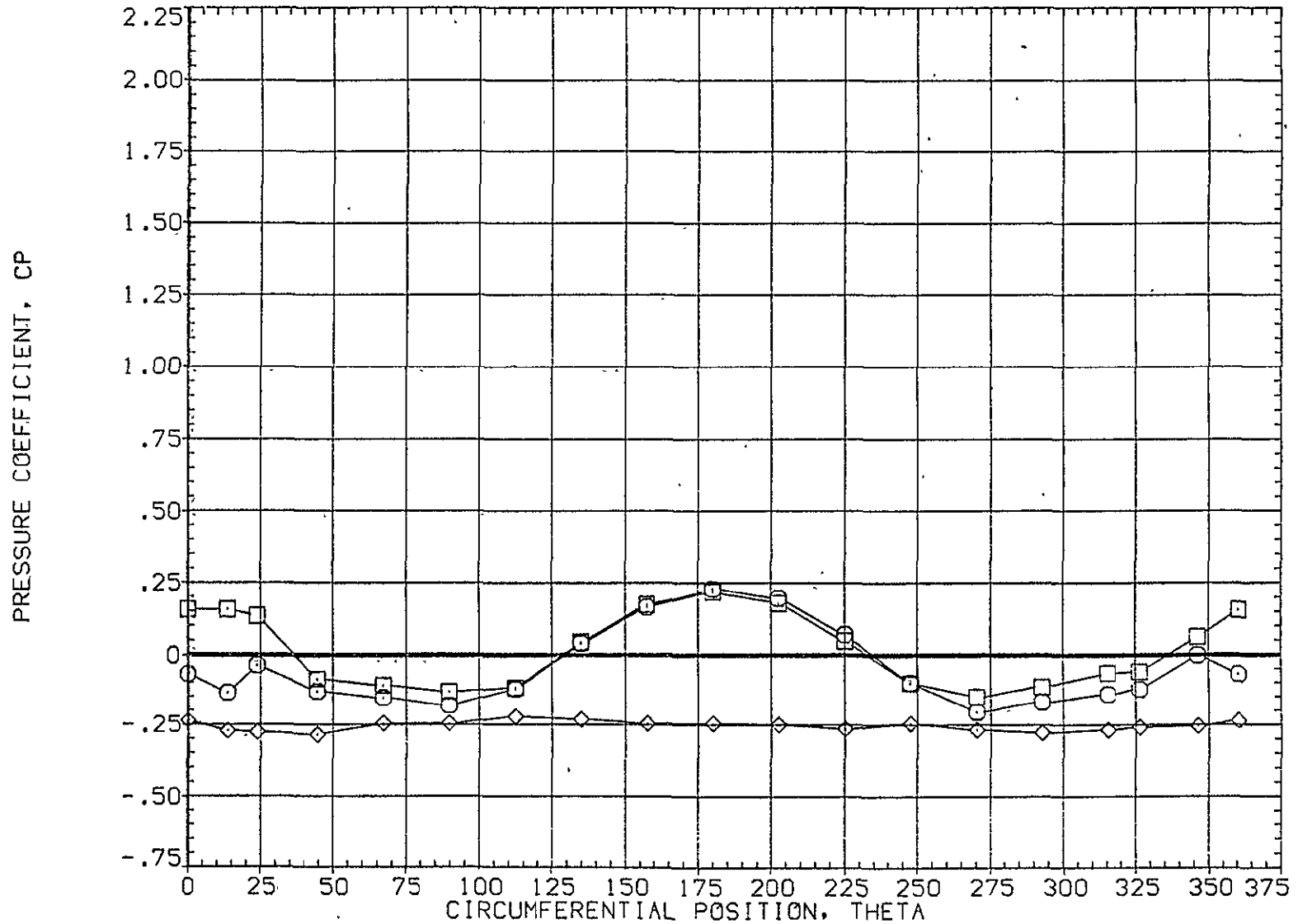


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	HACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	28.950	1.960	.000	20.000		
□	.108			1.000			
◇	.162						

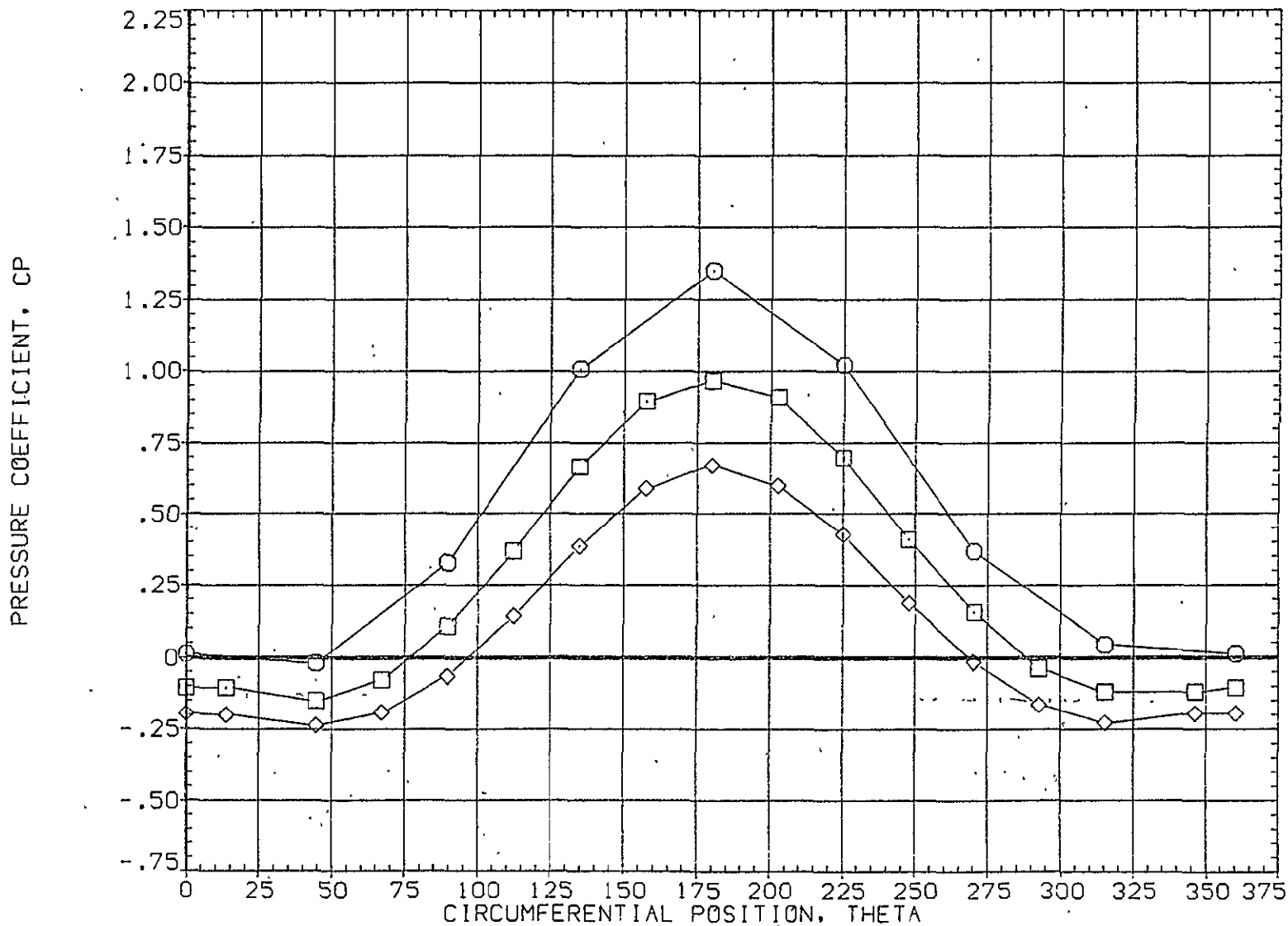


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
○	.216	28.950	1.960	BETA	.000	OFFSET 20.000
□	.322			MOUNT	1.000	PHI .000
◇	.518					

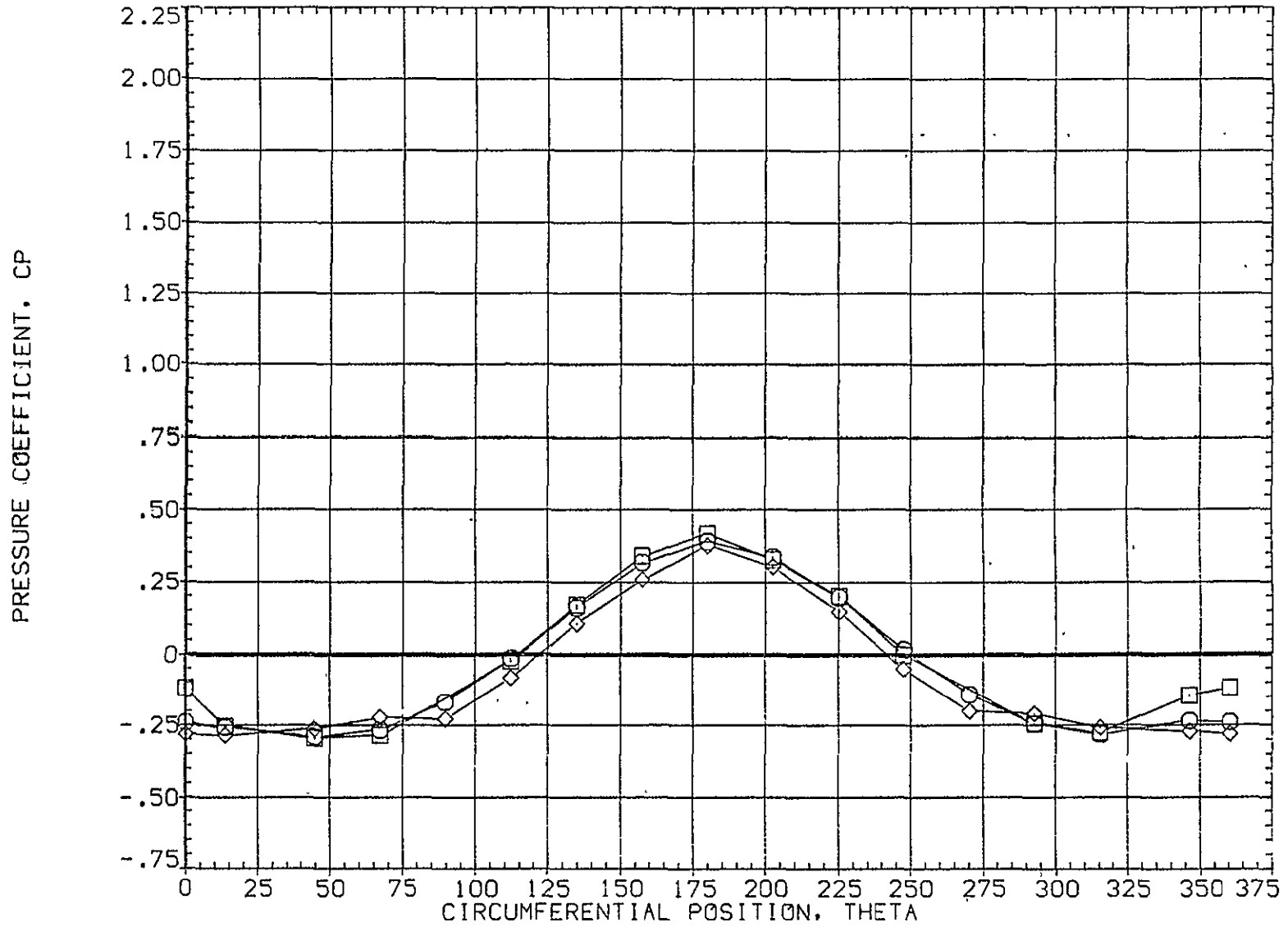


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.610	28.950	1.960	MOUNT	1.000	PHI	.000
□	.735						
◇	.860						

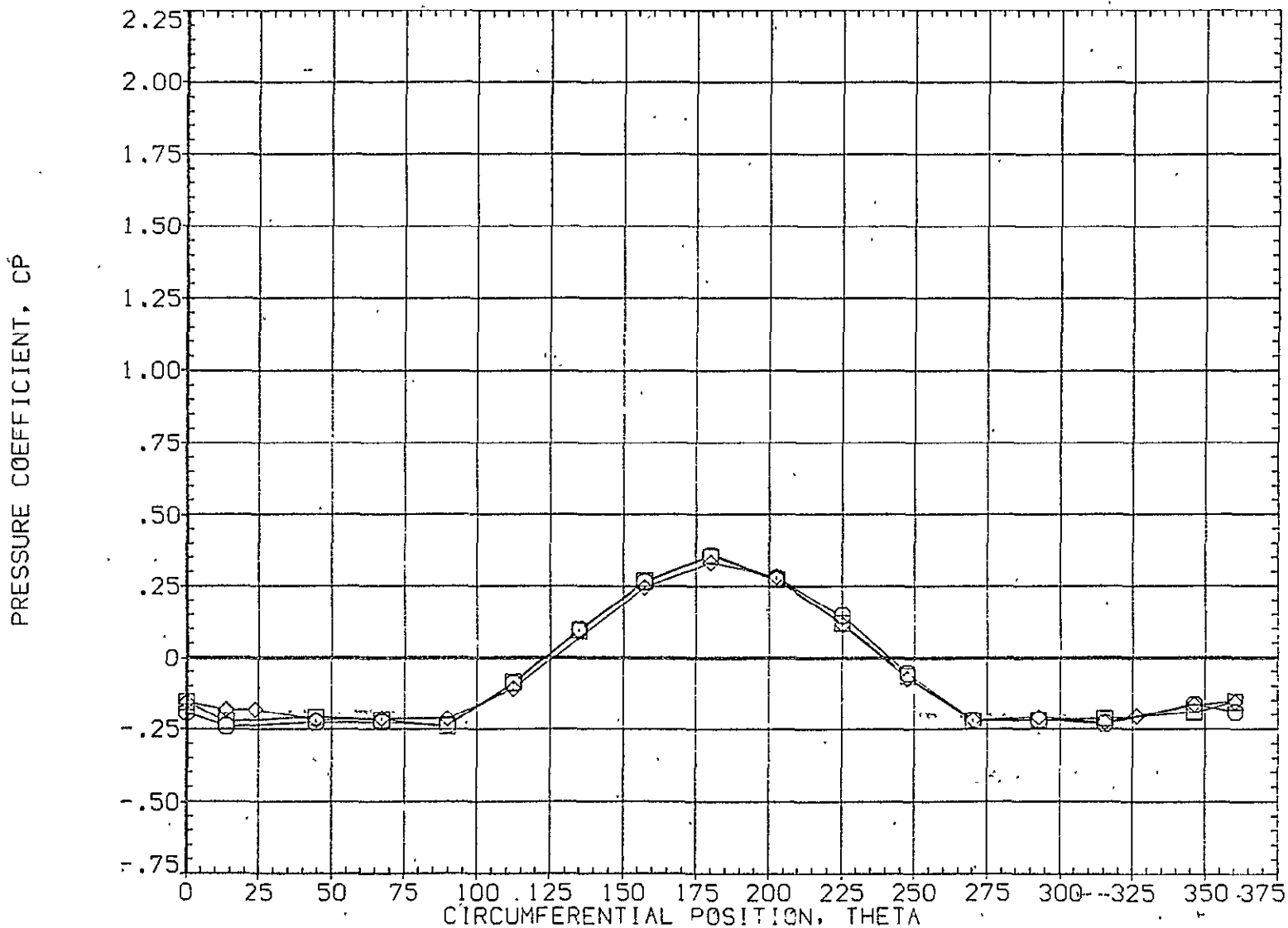


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	28.950	1.960	.000	20.000	
□	.923			1.000	PHI	.000
◇	.954					

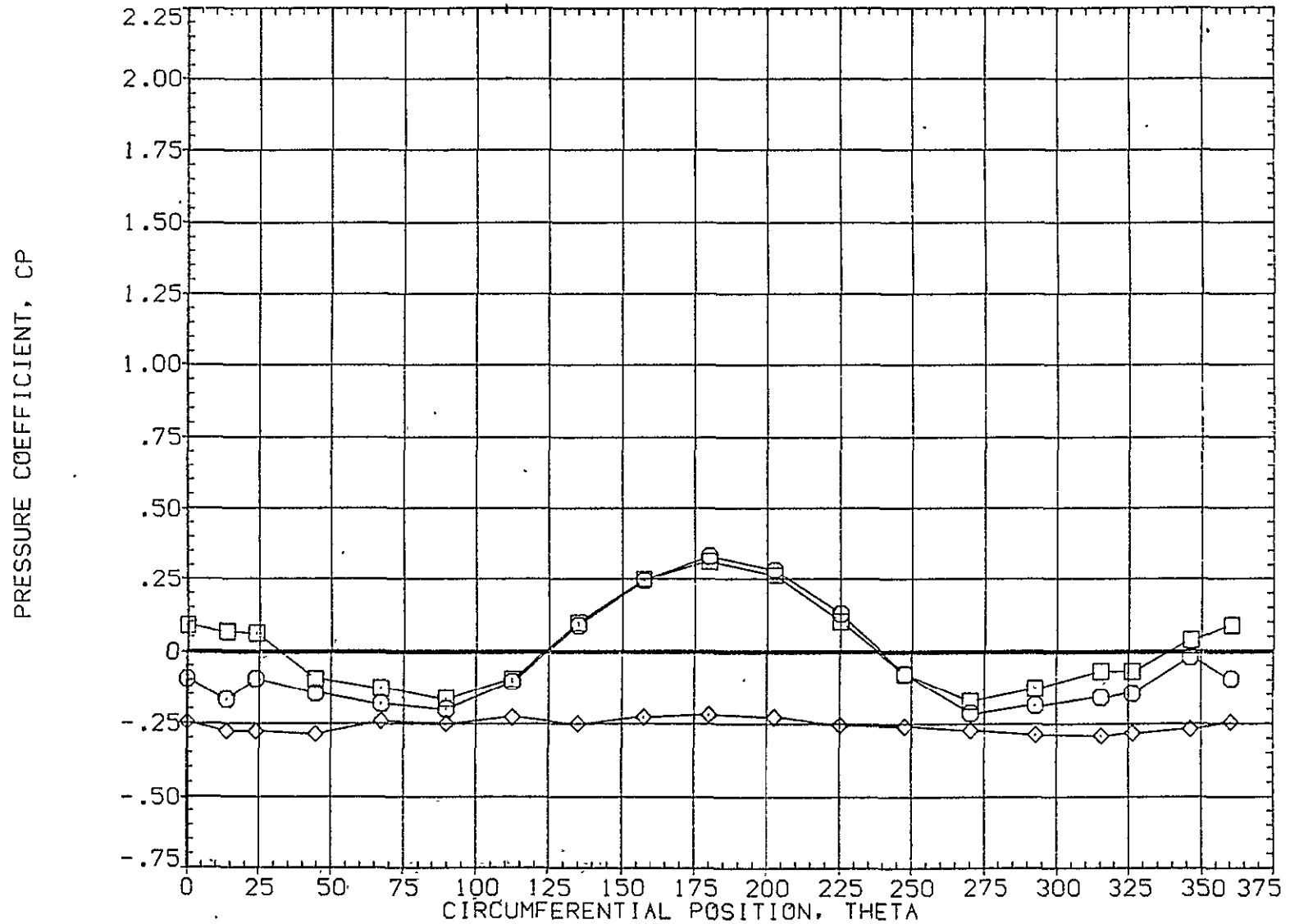


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.055	-8.380	1.960	BETA	.000	OFFSET	.000
□	.108			MOUNT	1.000	PHI	90.000
◇	.162						

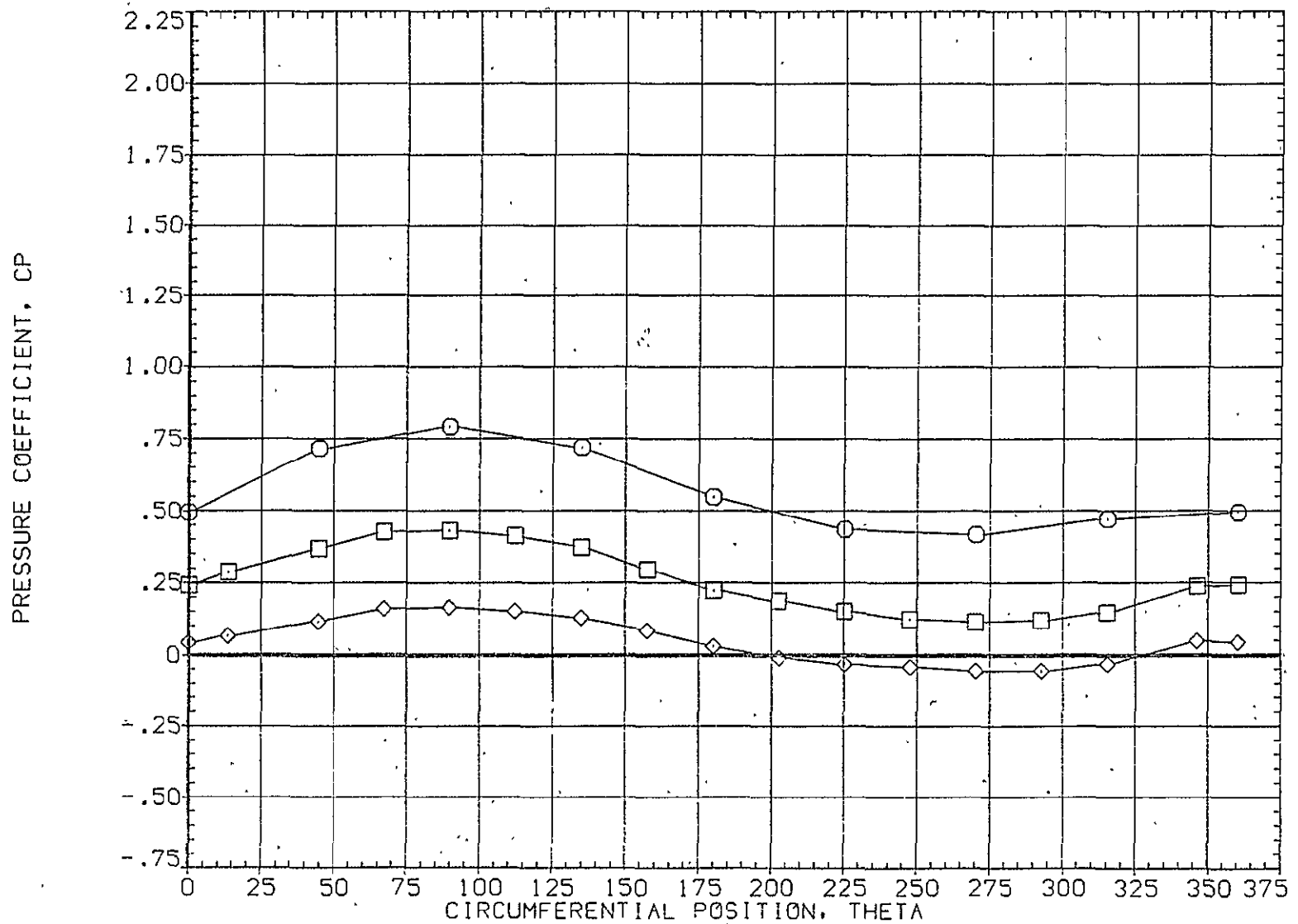


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER-ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.380	1.960	.000	.000	.000
□	.322			1.000	90.000	
◇	.518					

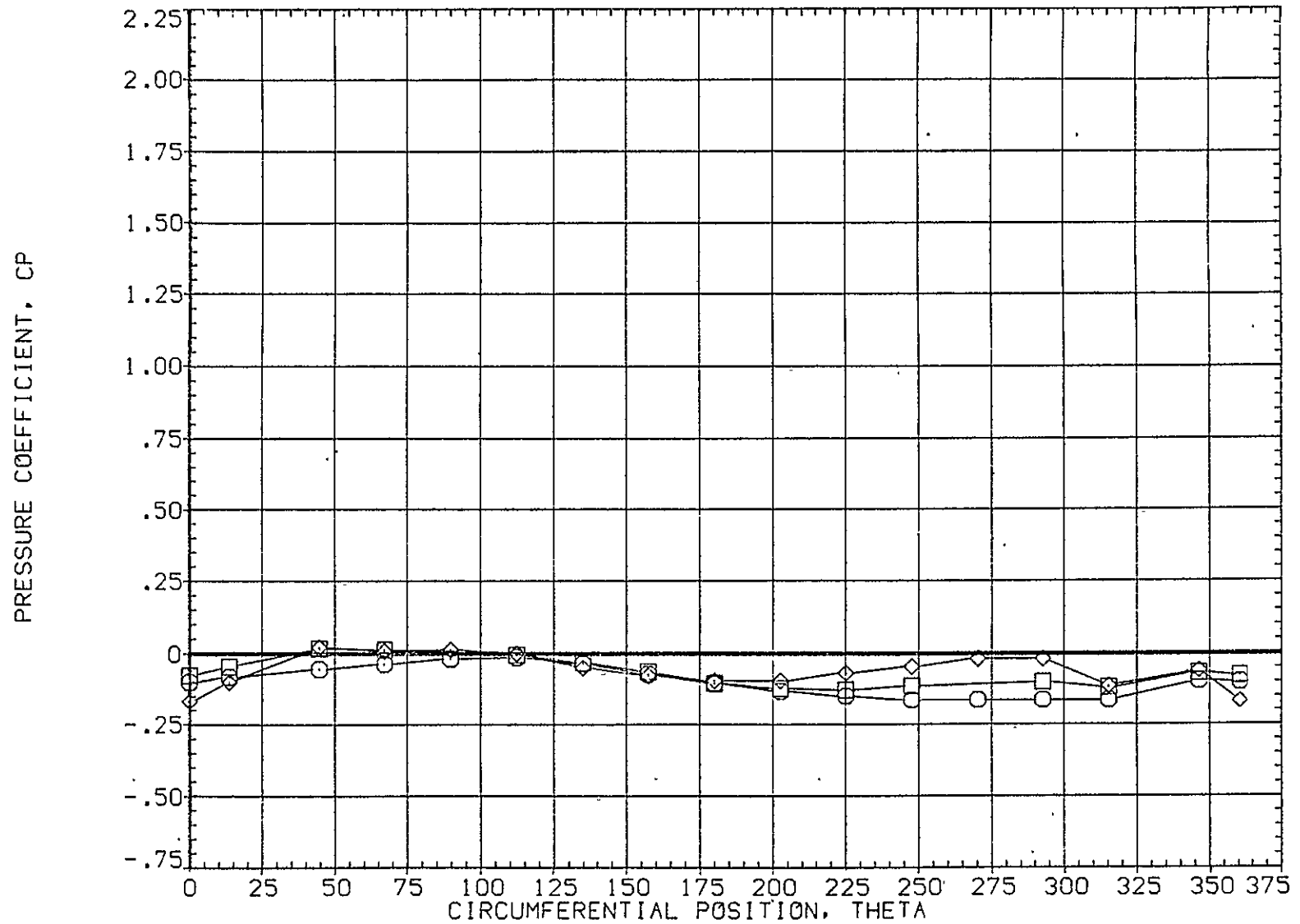


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

2.2

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A011)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.380	1.960	.000	.000	.000
□	.735			1.000		90.000
◇	.860					

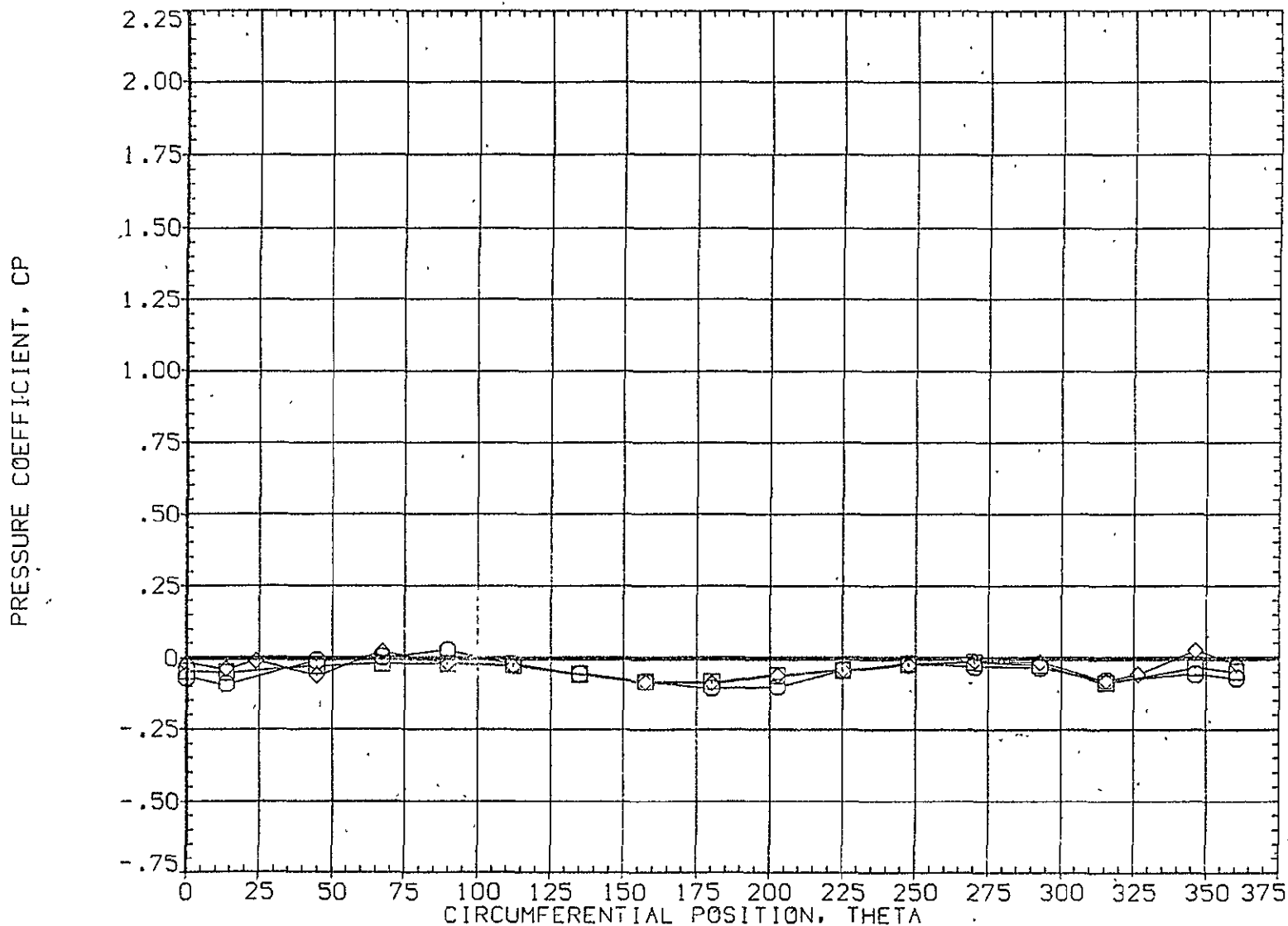


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-8.380	1.960	MOUNT	1.000	PHI	90.000
□	.923						
◇	.954						

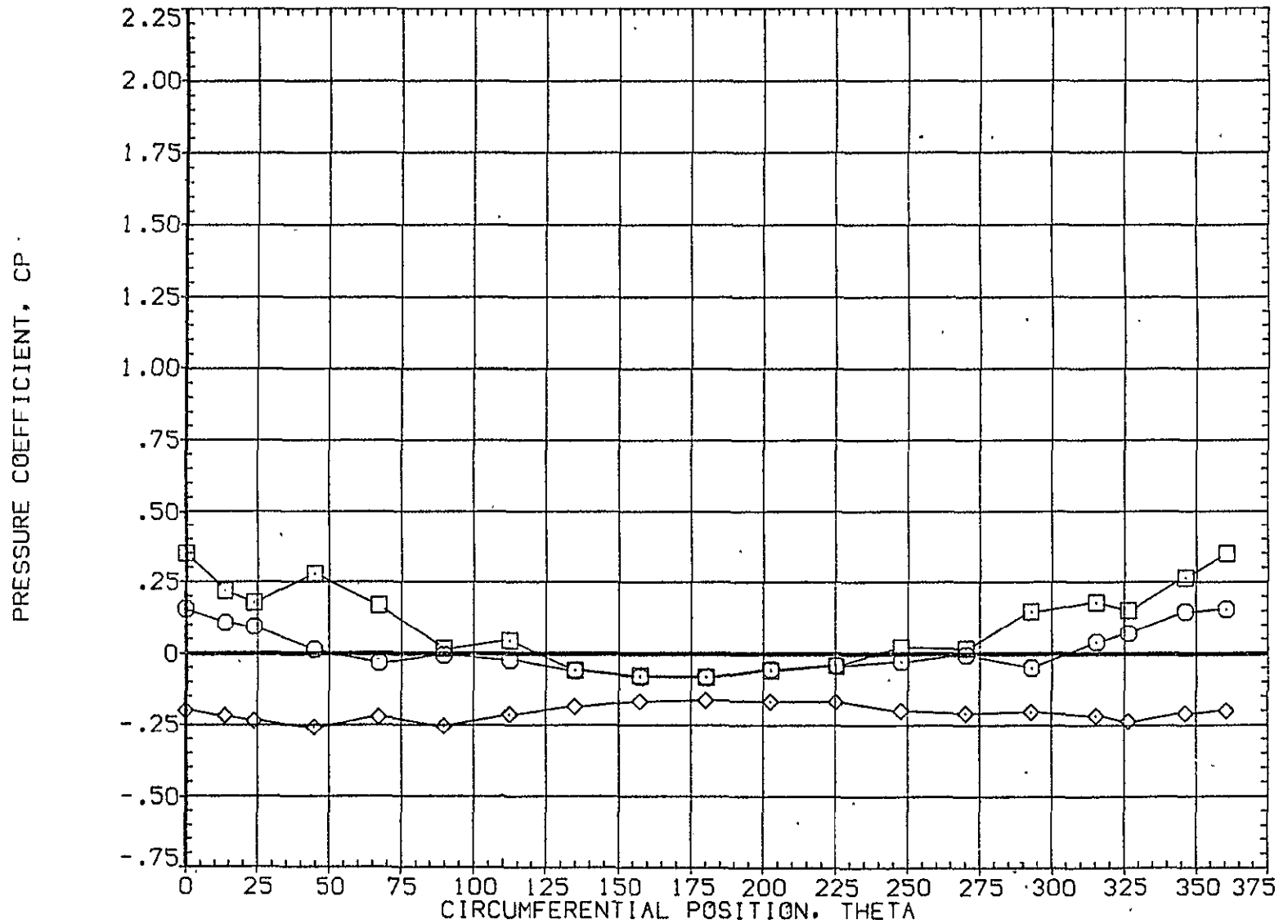


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	,000	
○	.055	-4.330	1.960	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

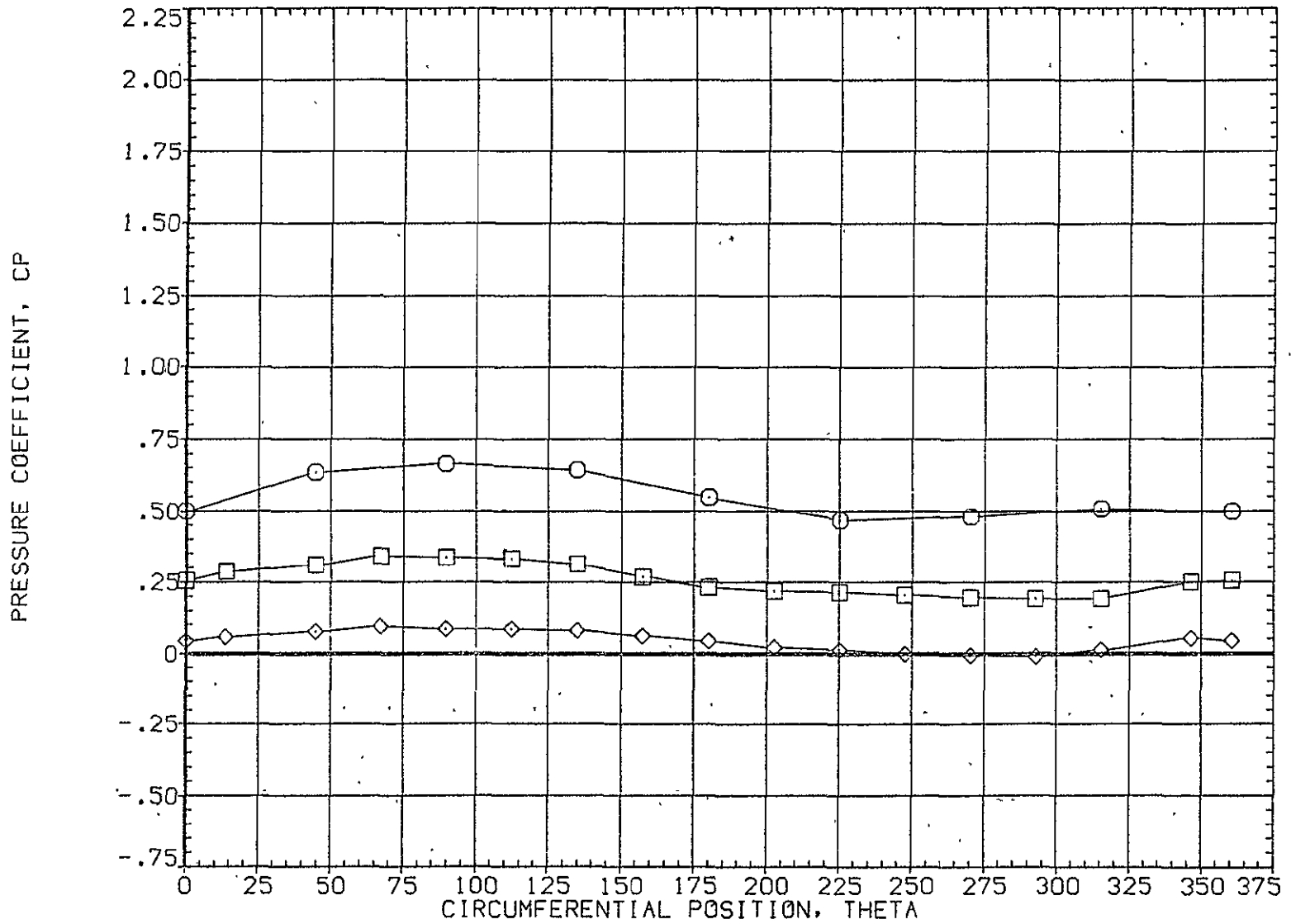


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-4.330	1.960	.000	.000	.000
□	.322			1.000		90.000
◇	.518					

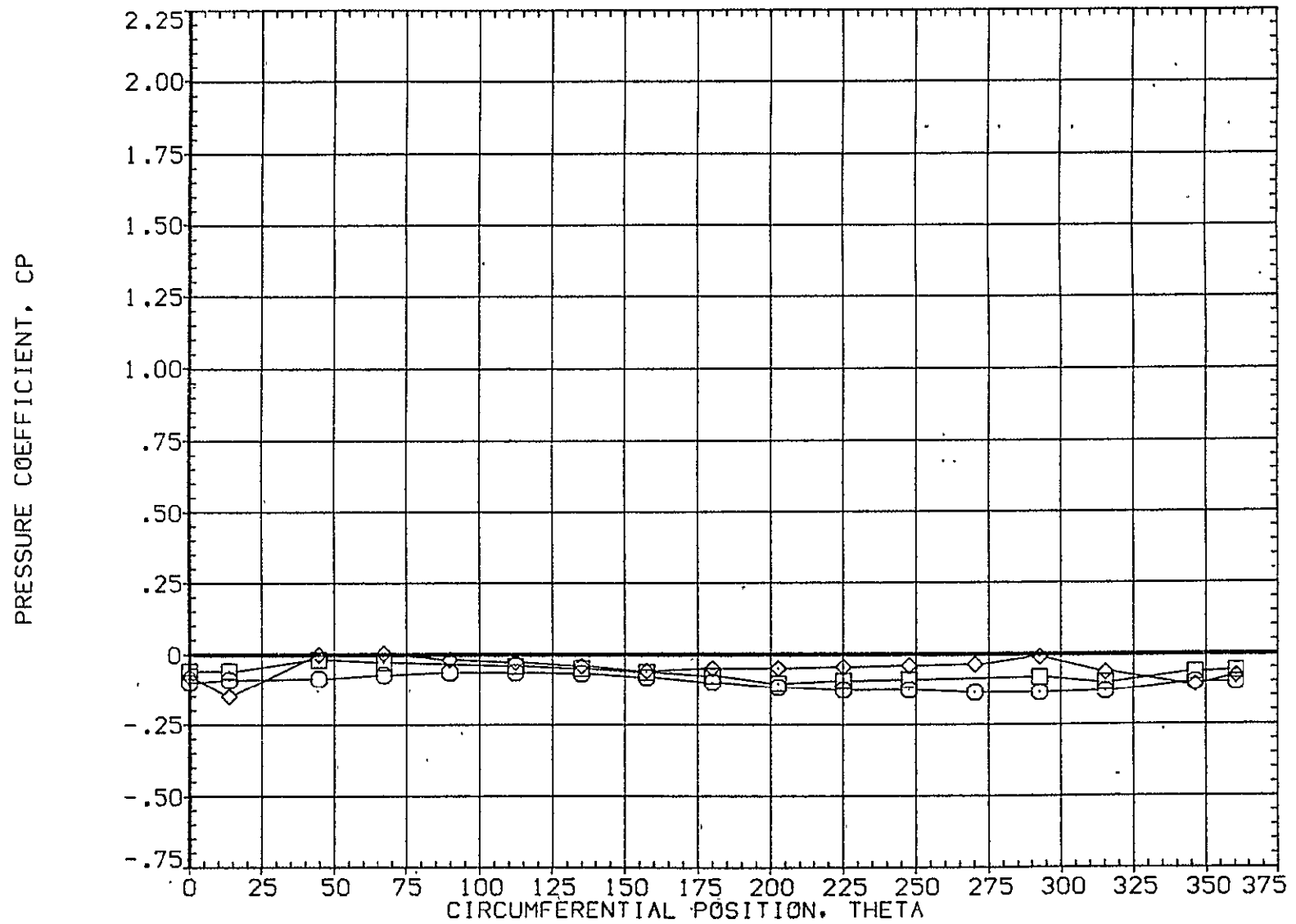


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(PIA012)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA MOUNT.	OFFSET PHI	.000 .000 .000
○	.610	-4.330	1.960			
□	.735					
◇	.860					

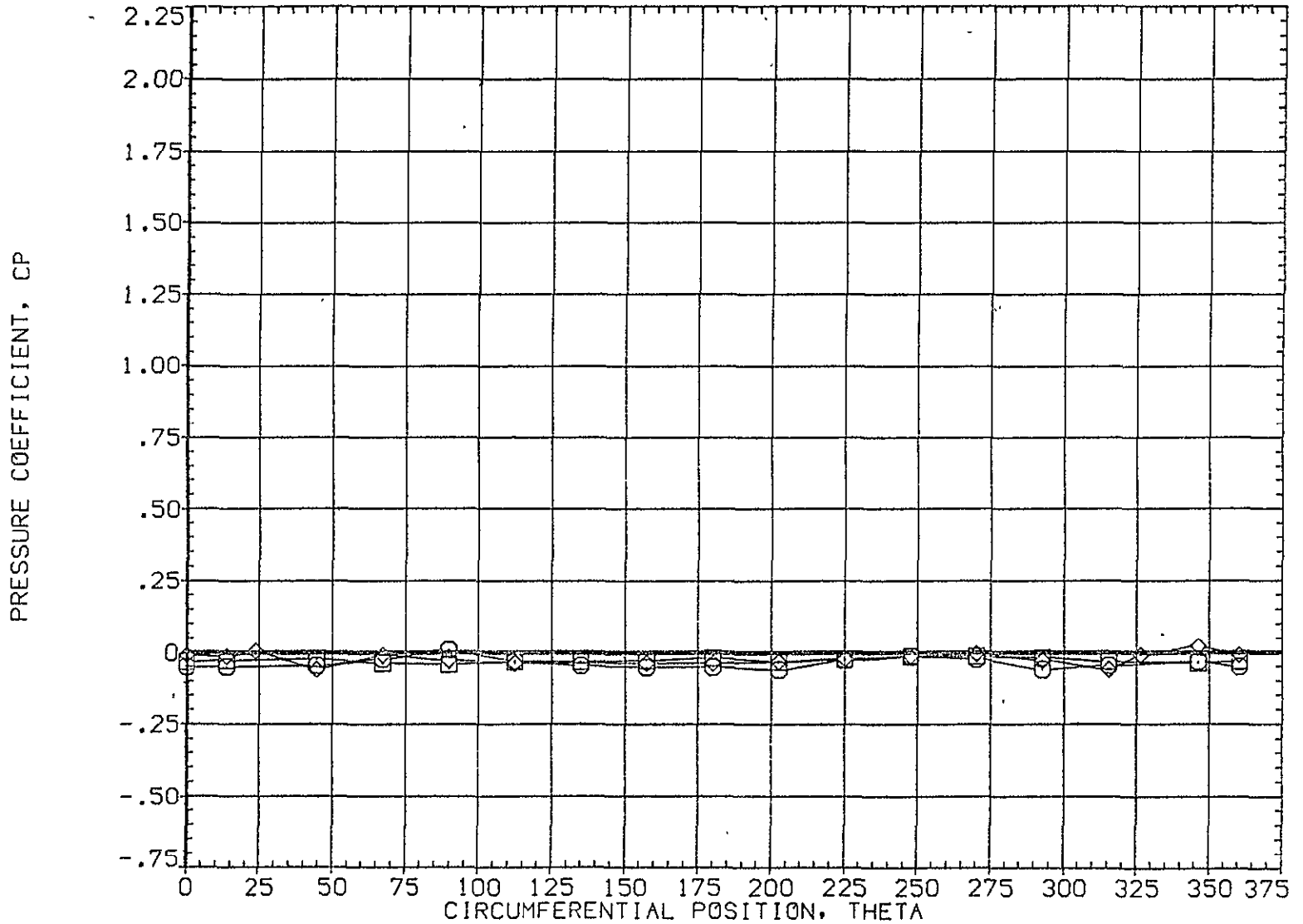


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.330	1.960	.000	.000	.000
□	.923			1.000		90.000
◇	.954					

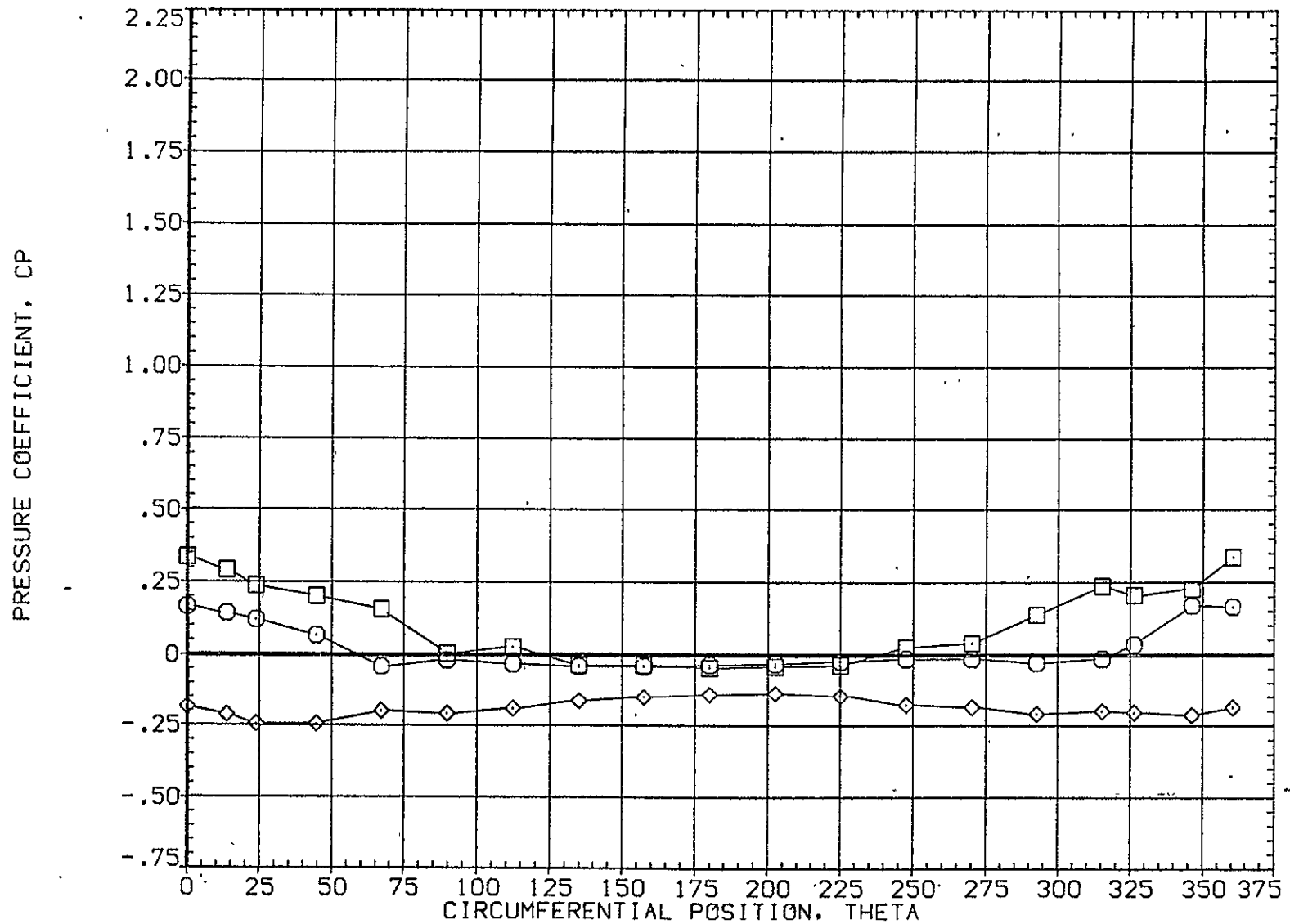


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-.280	1.970	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

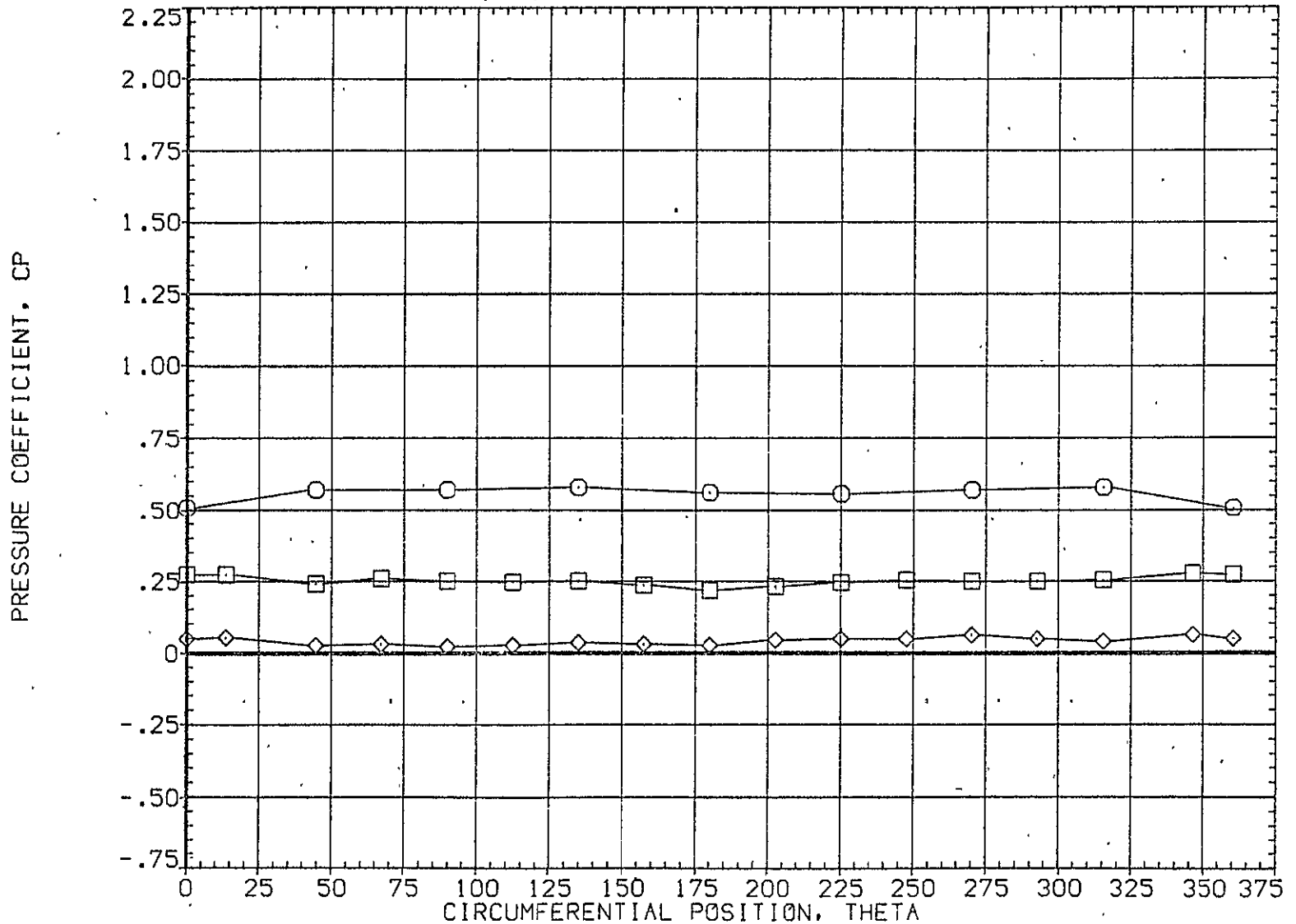


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
○	.216	-.280	1.970	BETA	.000	OFFSET .000
□	.322			MOUNT	1.000	PHI 90.000
◇	.518					

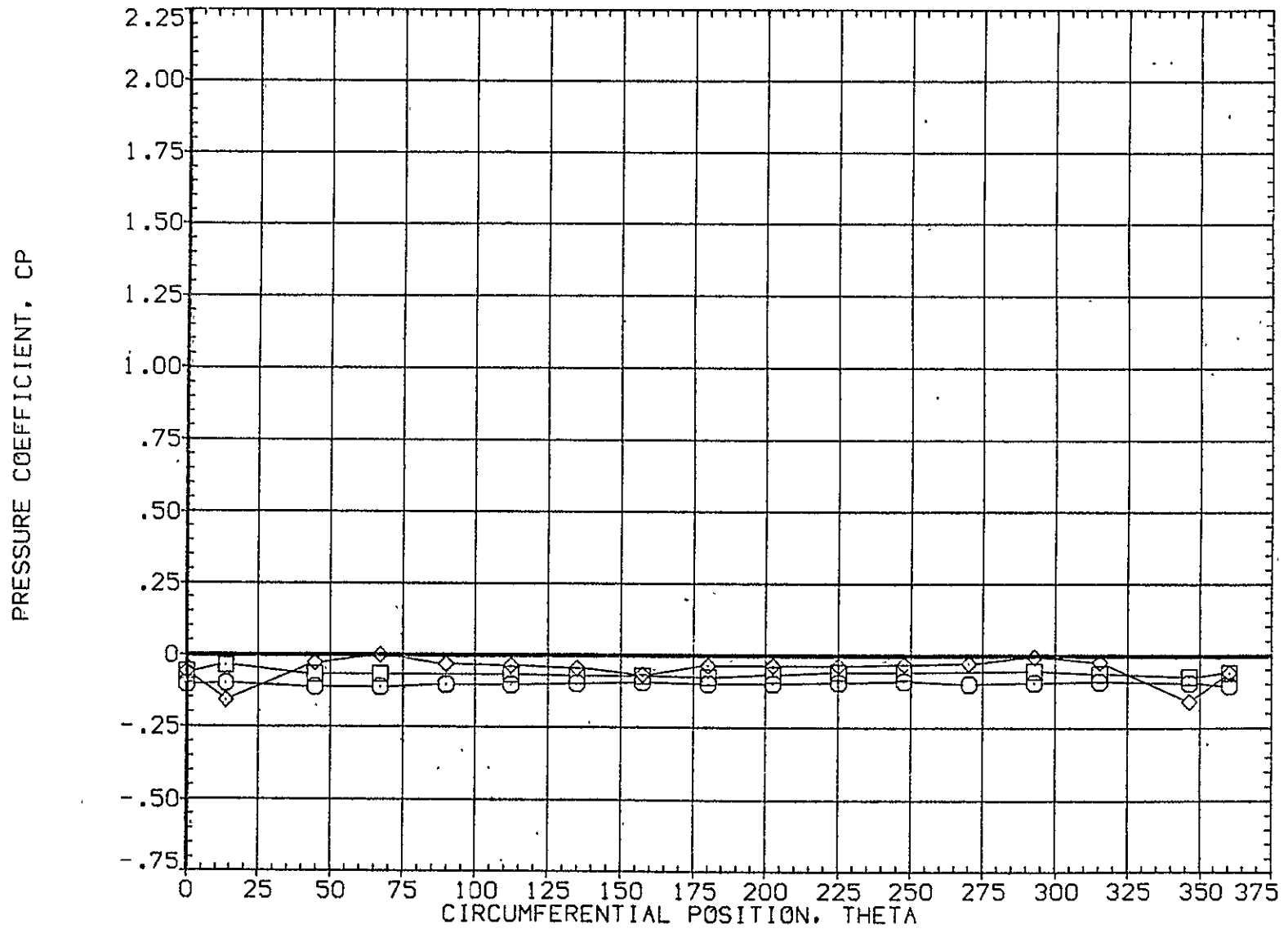


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A013)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-.280	1.970	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

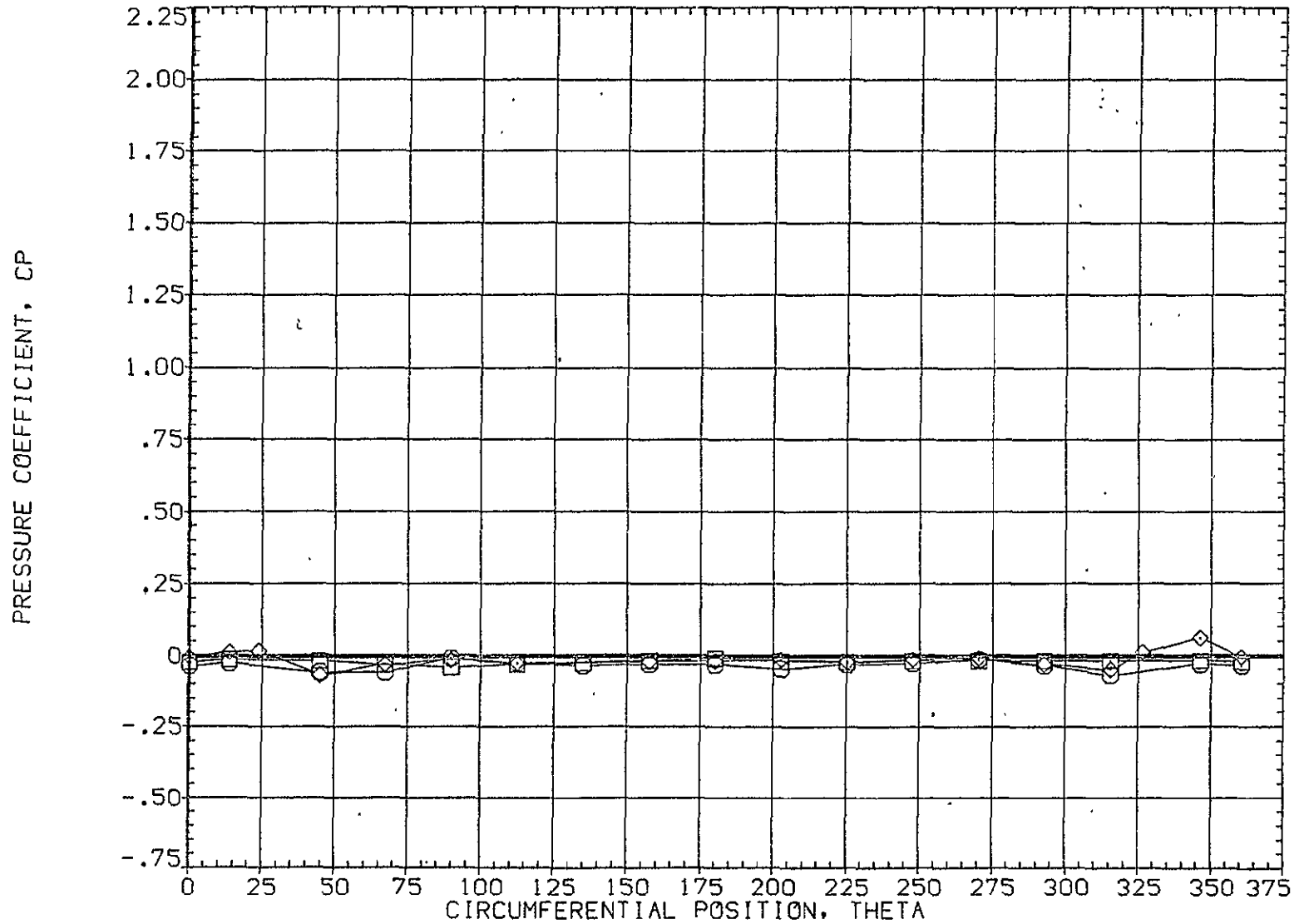


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	-.280	1.970	.000	.000	.000
□	.923			1.000	PHI	90.000
◇	.954					

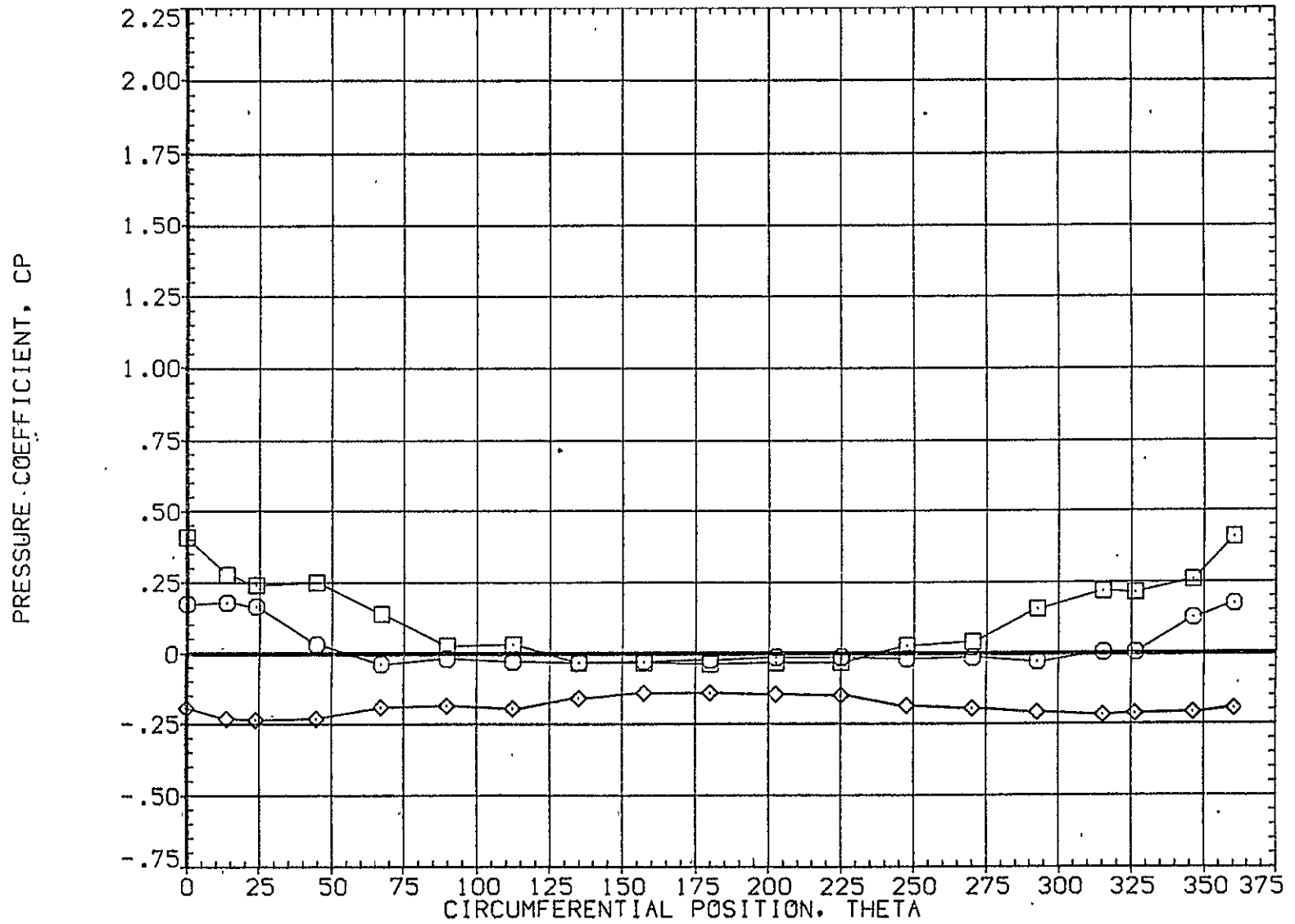


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A014)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI.	.000
○	.055	3.790	1.960	MOUNT	1.000	90.000	
□	.108						
◇	.162						

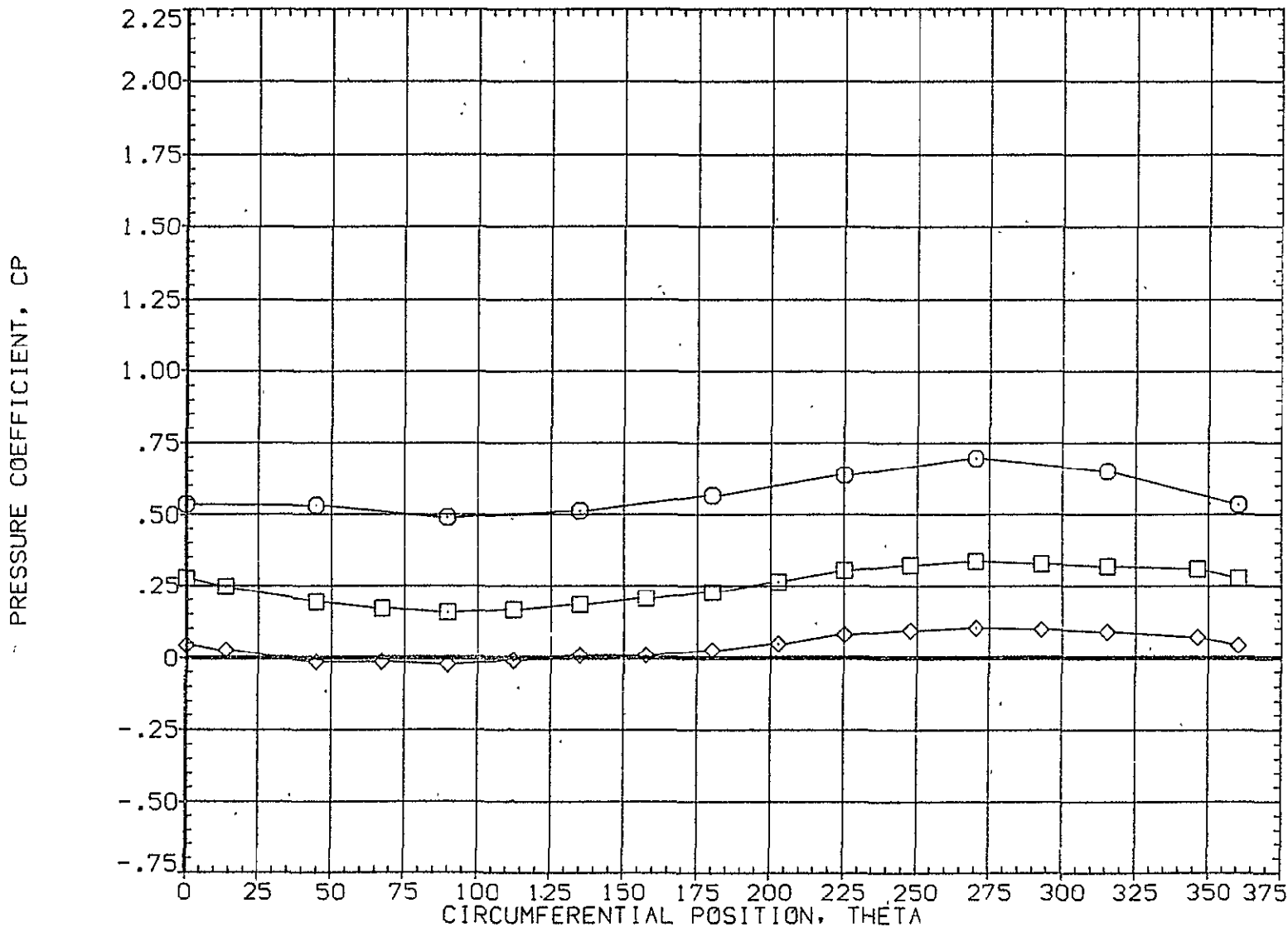


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 3.790 1.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 90.000

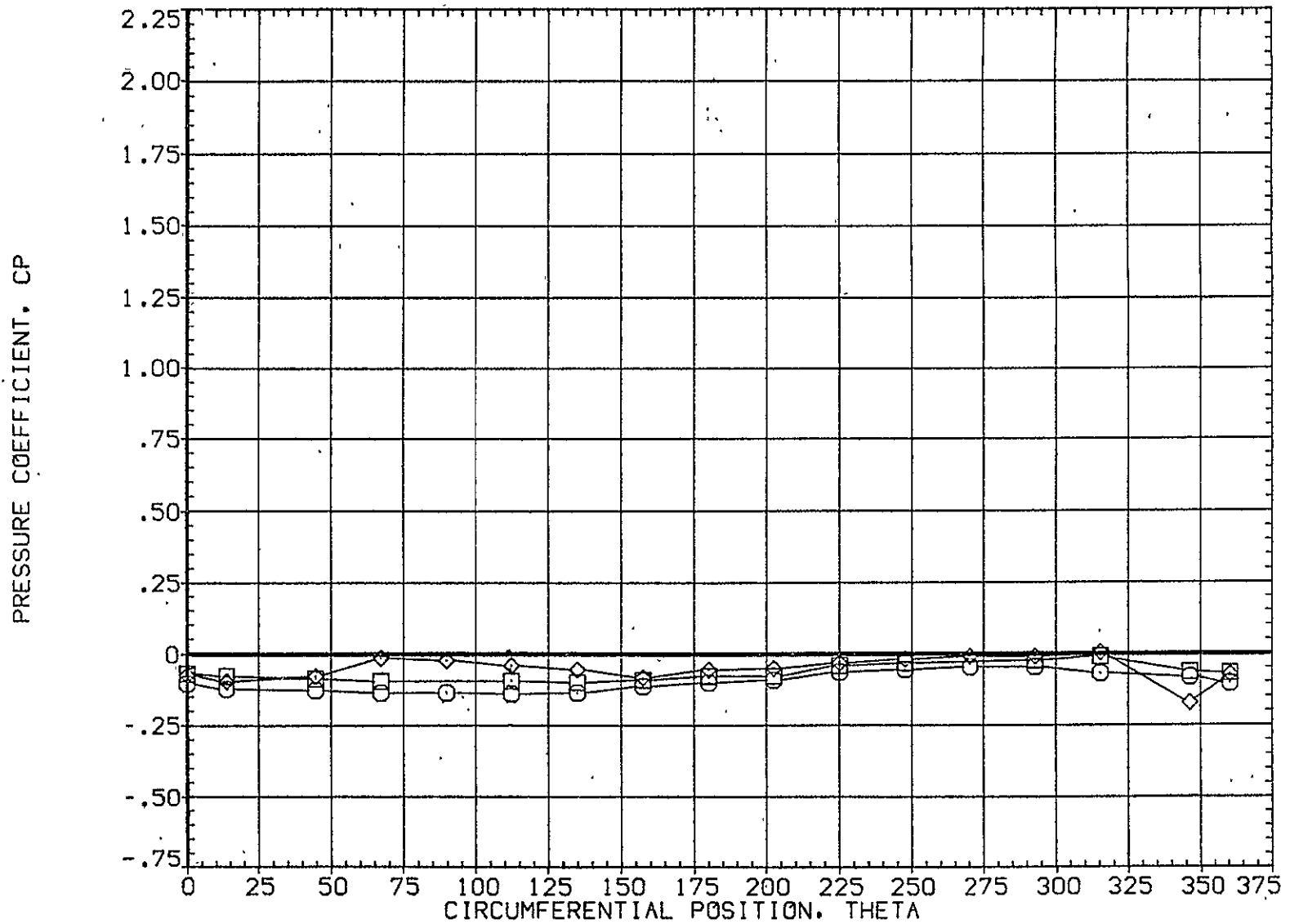


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A014)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	3.790	1.960	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

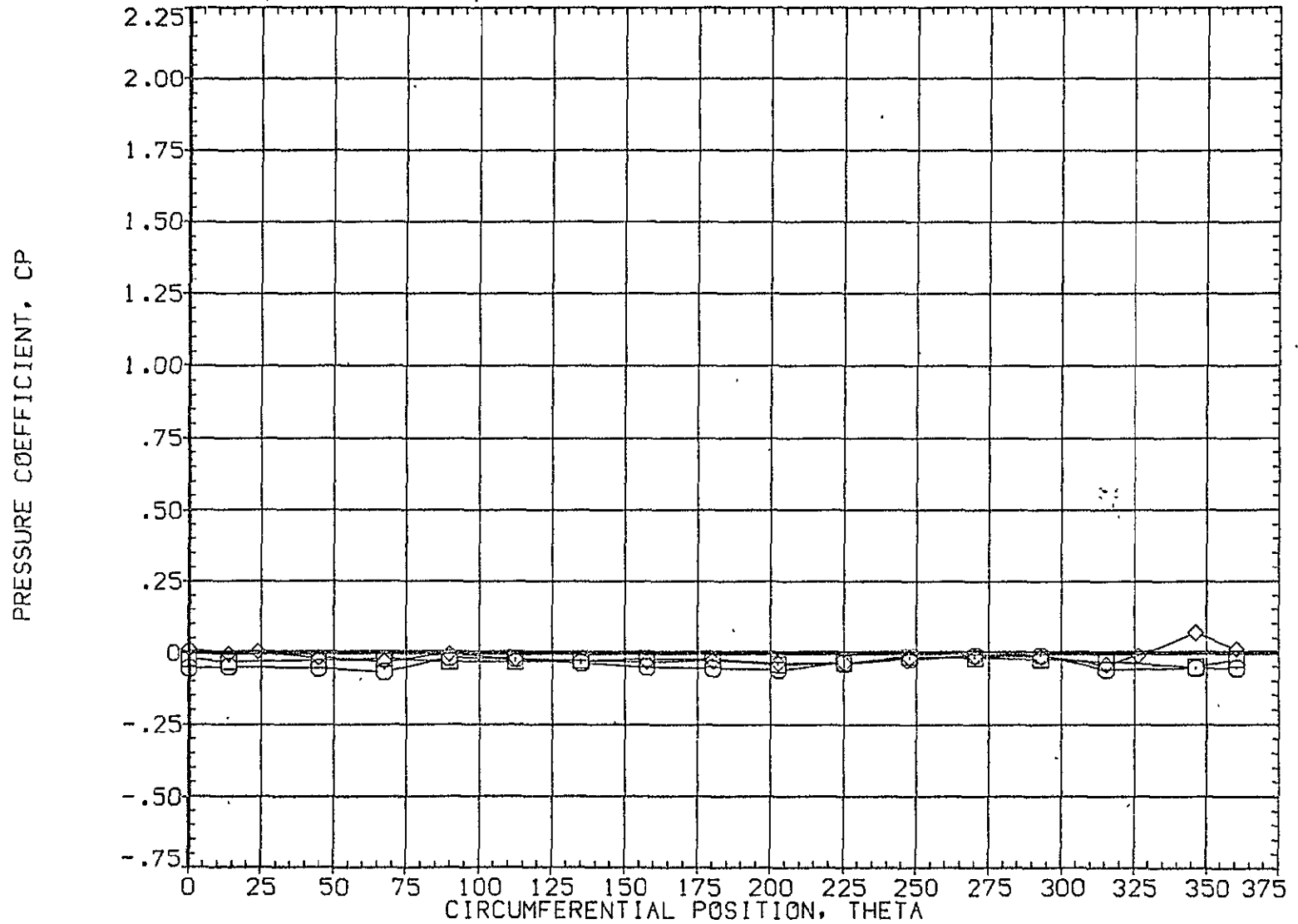


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	3.790	1.960	MOUNT	1.000	PHI	90.000
□	.923						
◇	.954						

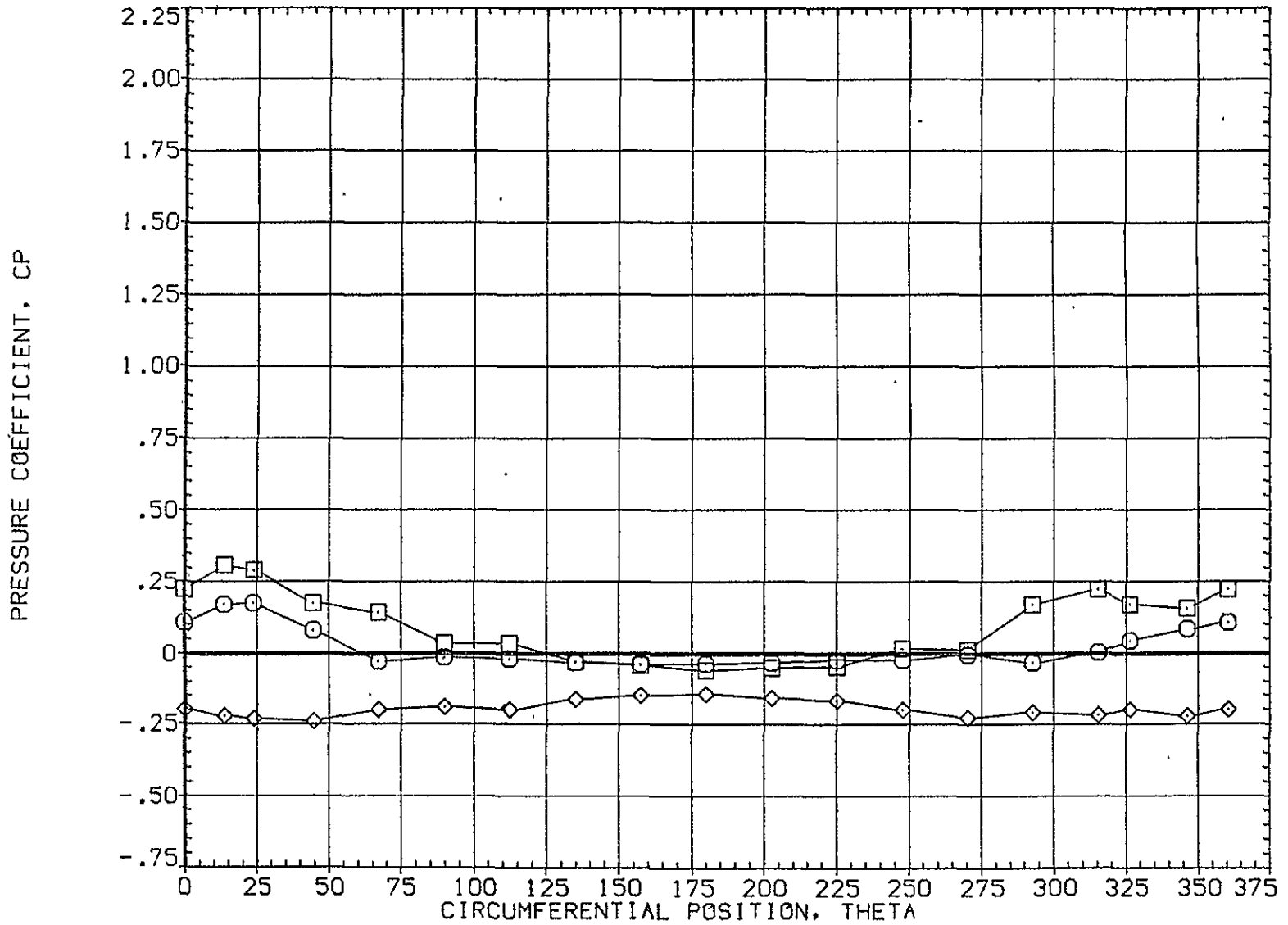


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.840	1.960	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

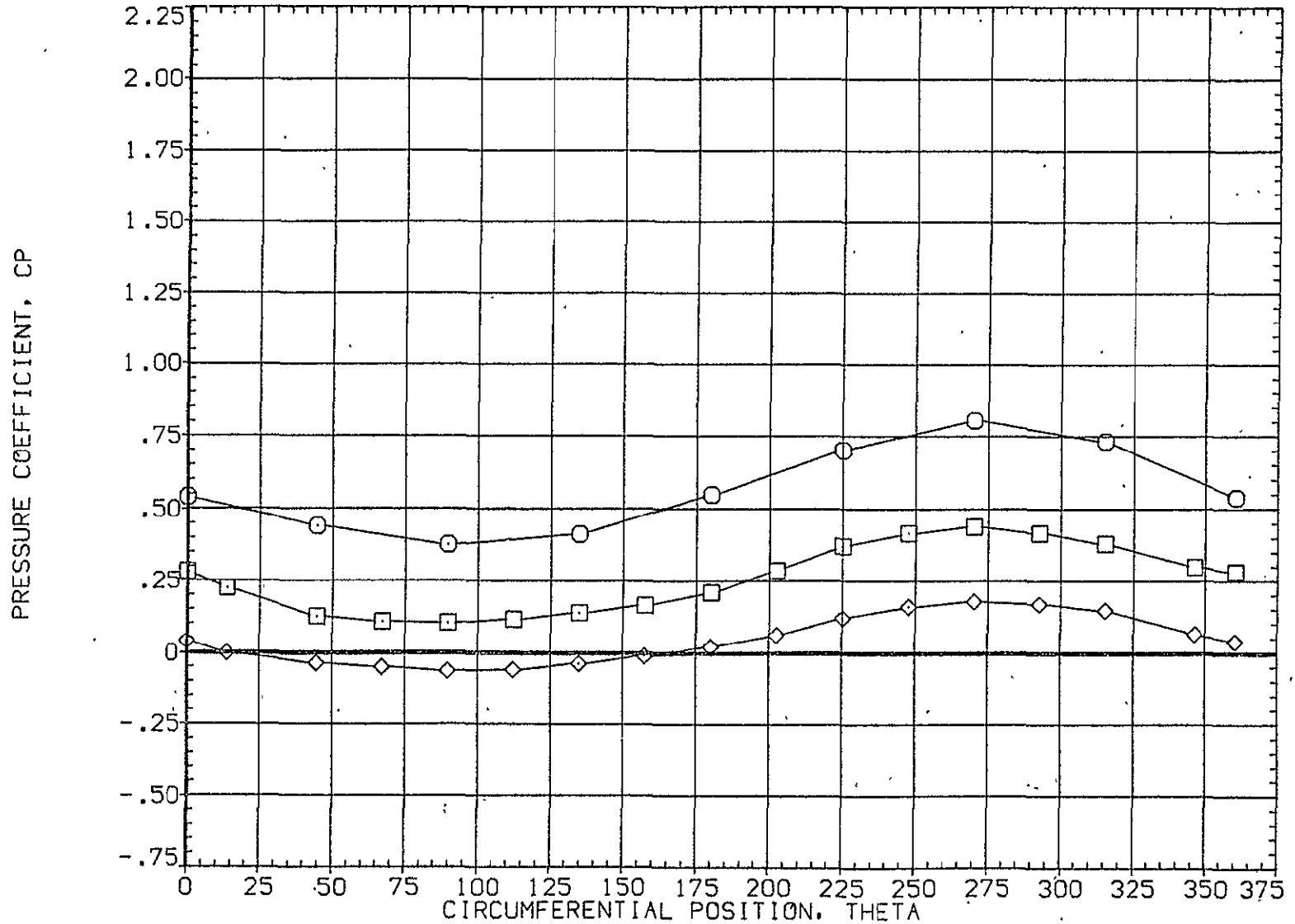


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	7.840	1.960	MGUNT	1.000	PHI	90.000
□	.322						
◇	.518						

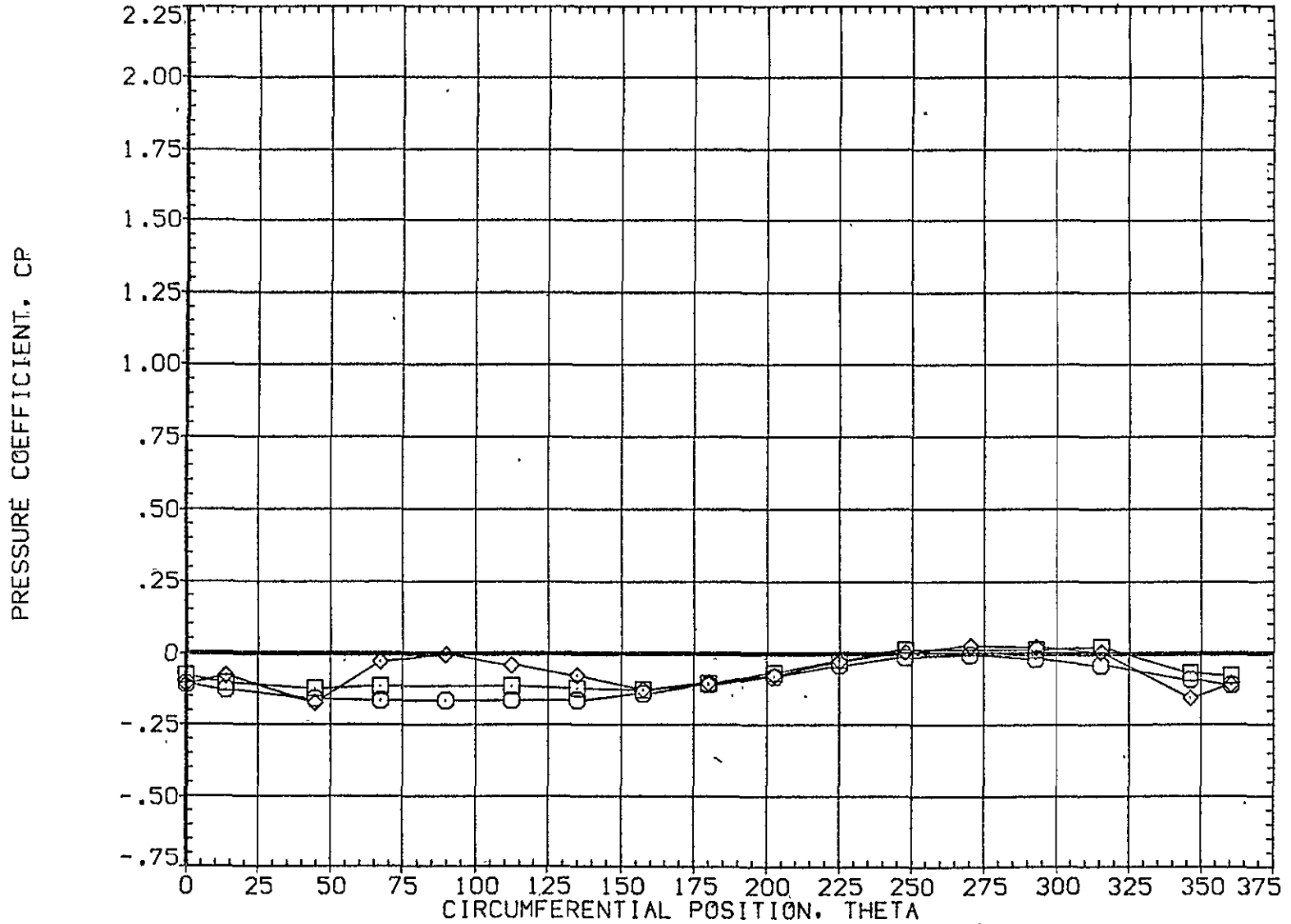


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A015)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.840	1.960	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

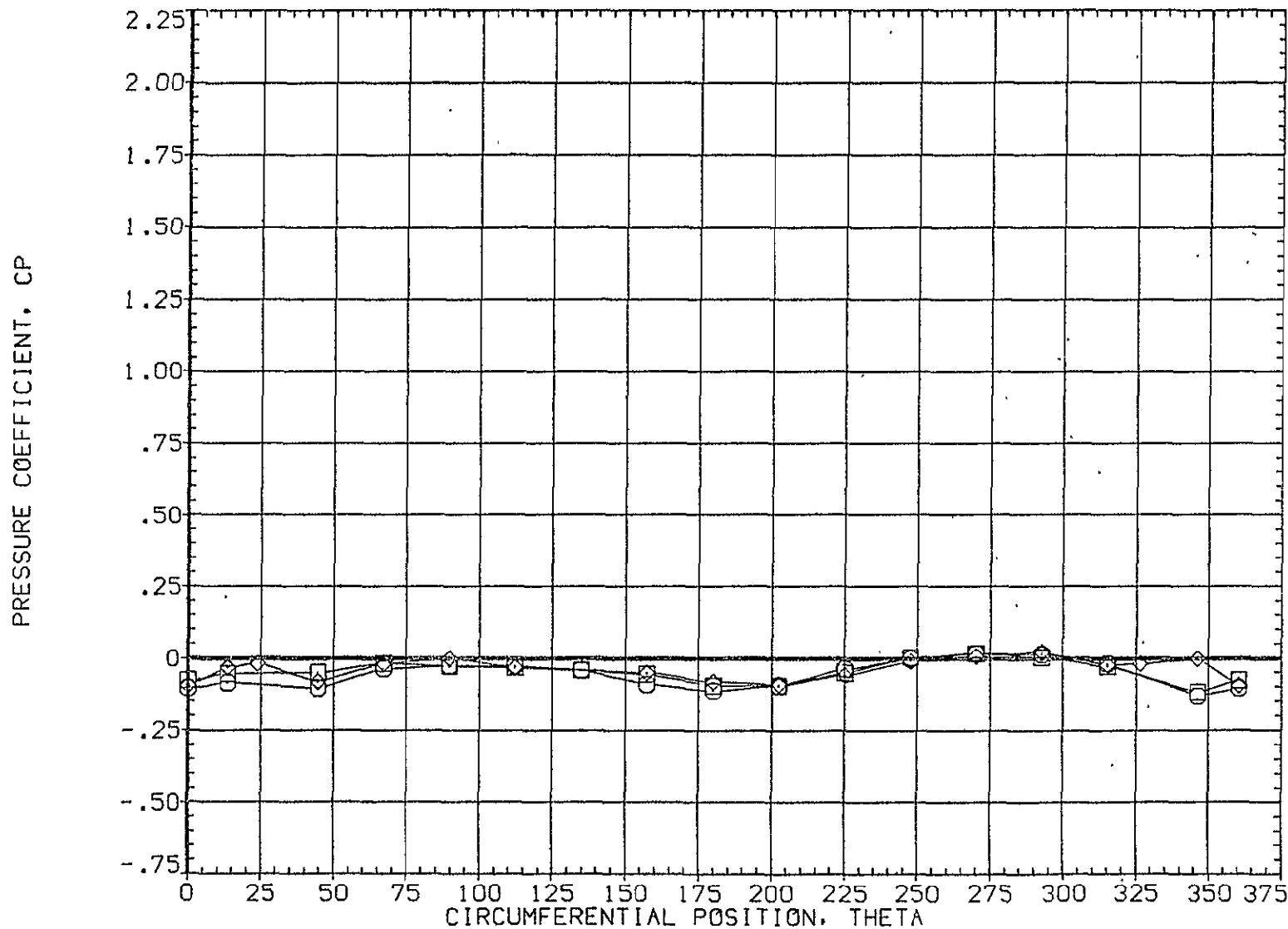


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ◊ □ ○

X/LB .892
 .923
 .954

ALPHA 7.840

MACH 1.960

BETA .000
 MOUNT 1.000

PARAMETRIC VALUES
 OFFSET .000
 PHI 90.000

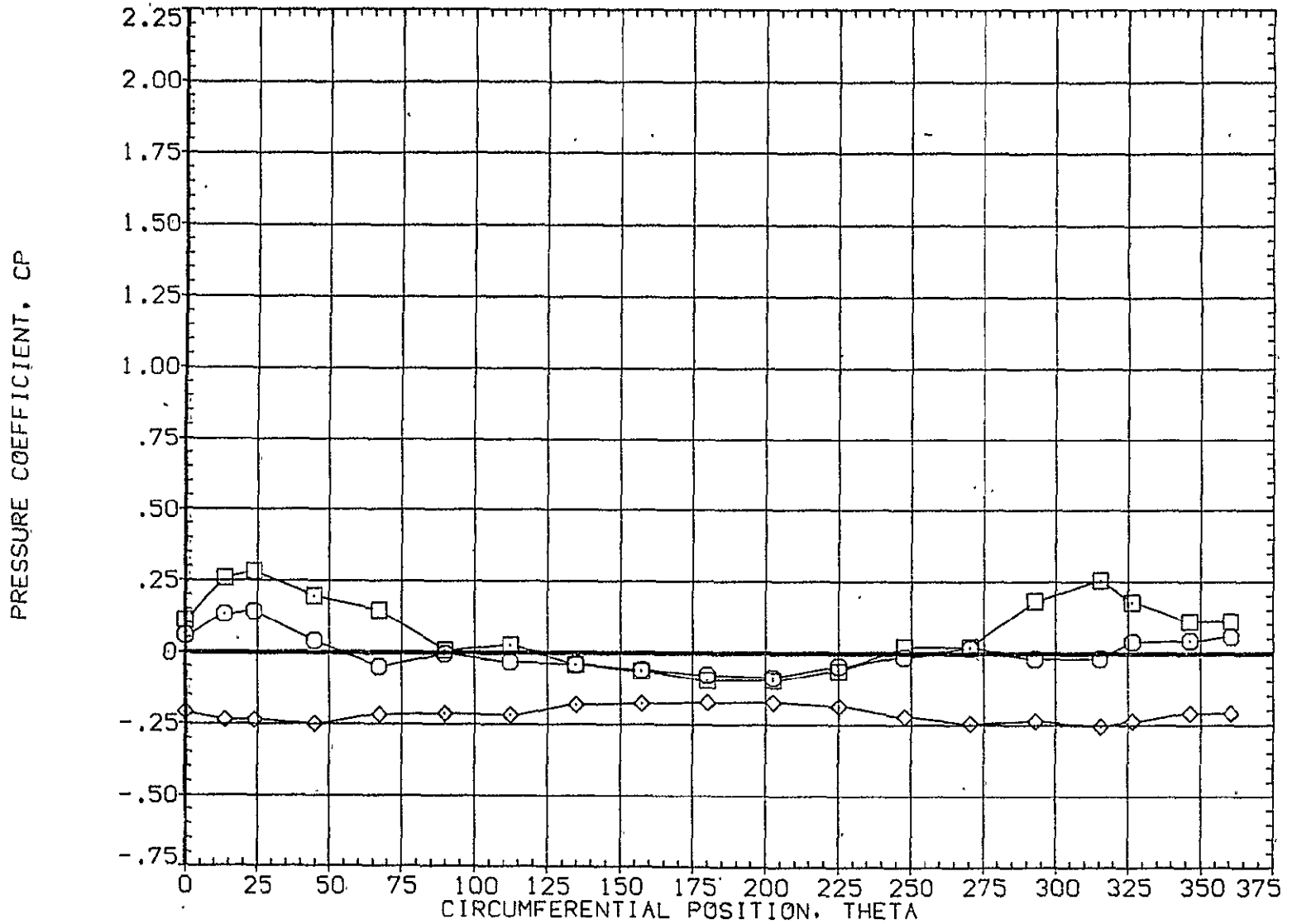


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A016)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	.000	OFFSET	20.000
○	.055	12.550	1.960	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

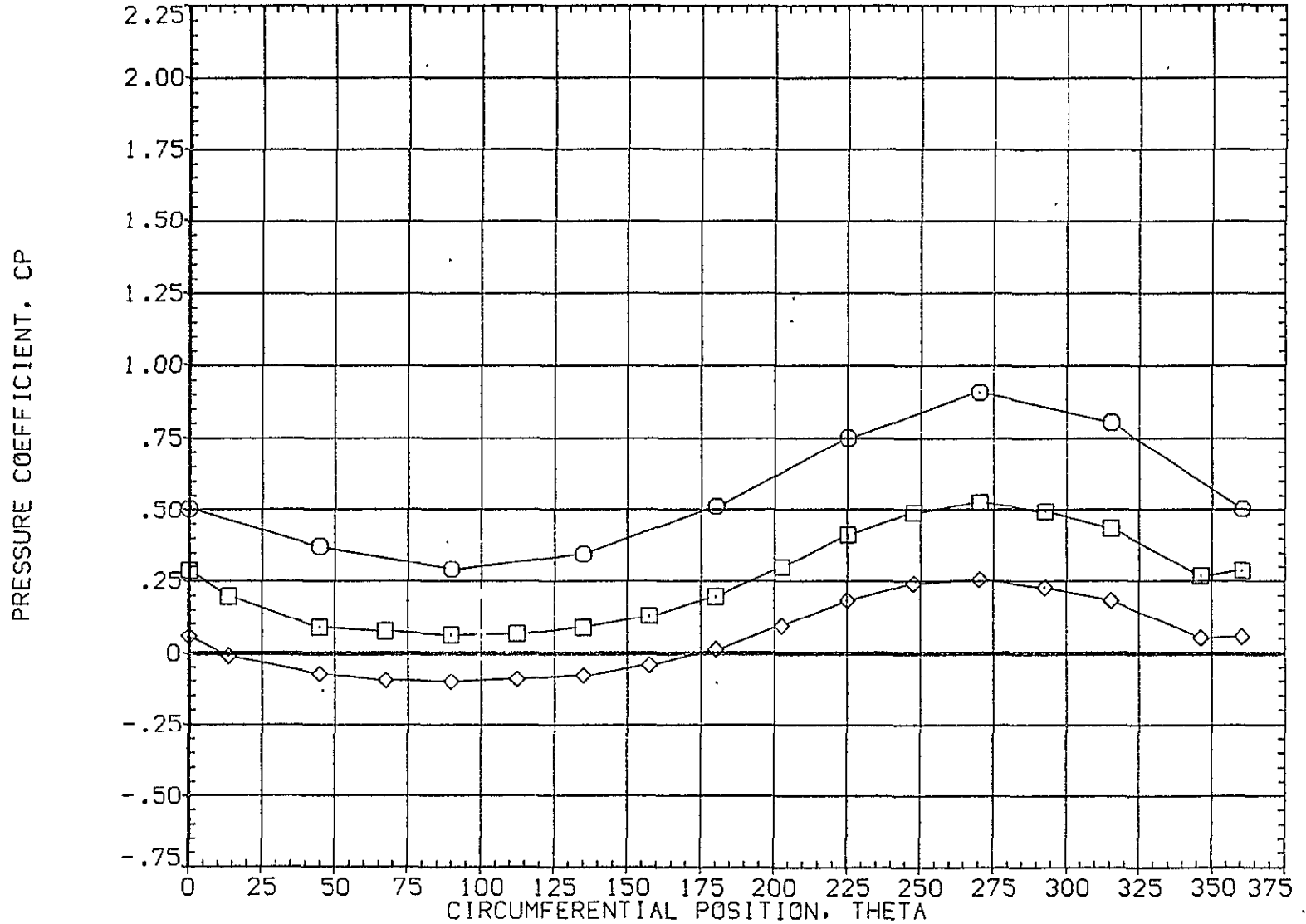


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.216	12.550	1.960	MOUNT	1.000	90.000	
□	.322						
◇	.518						

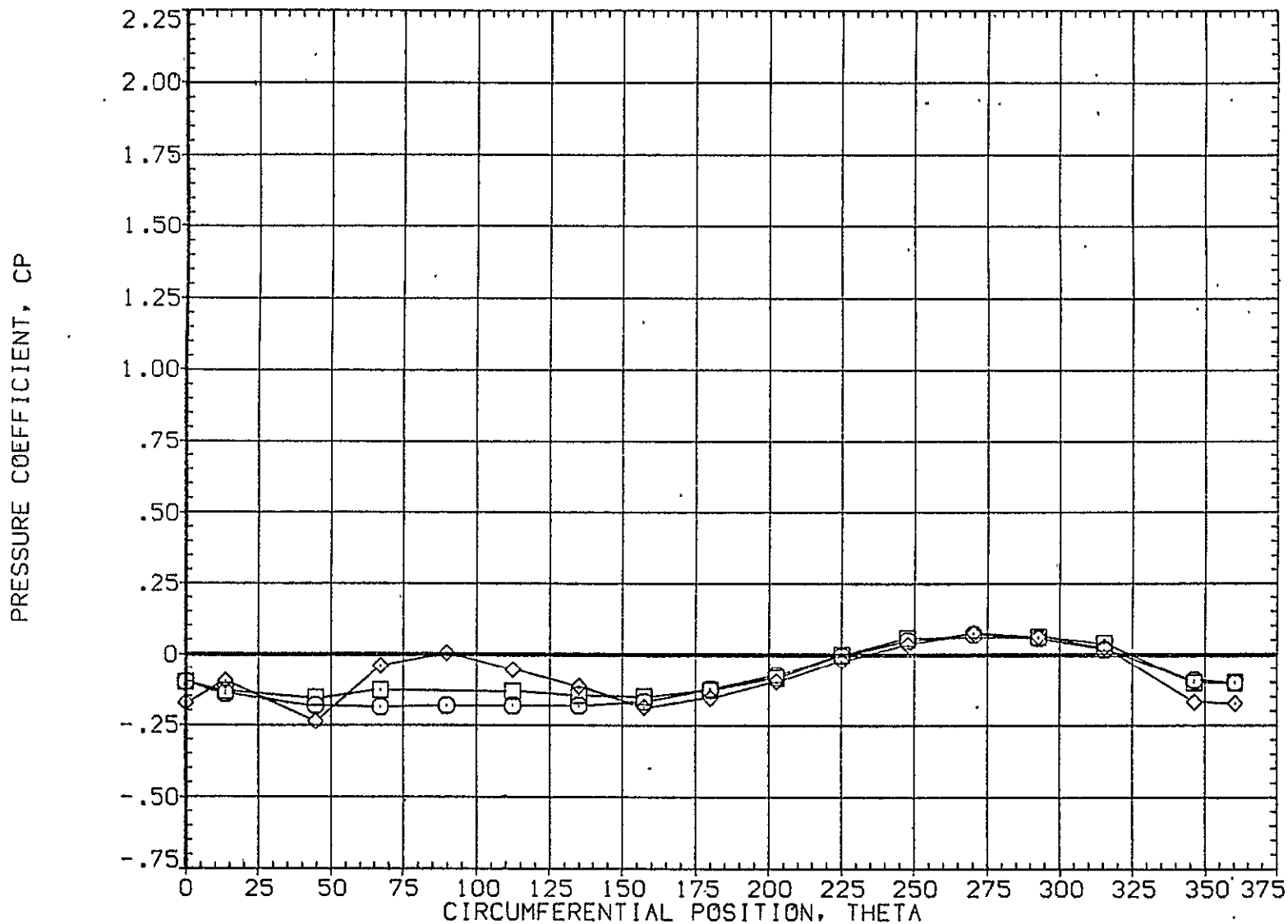


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A016)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	12.550	1.960	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

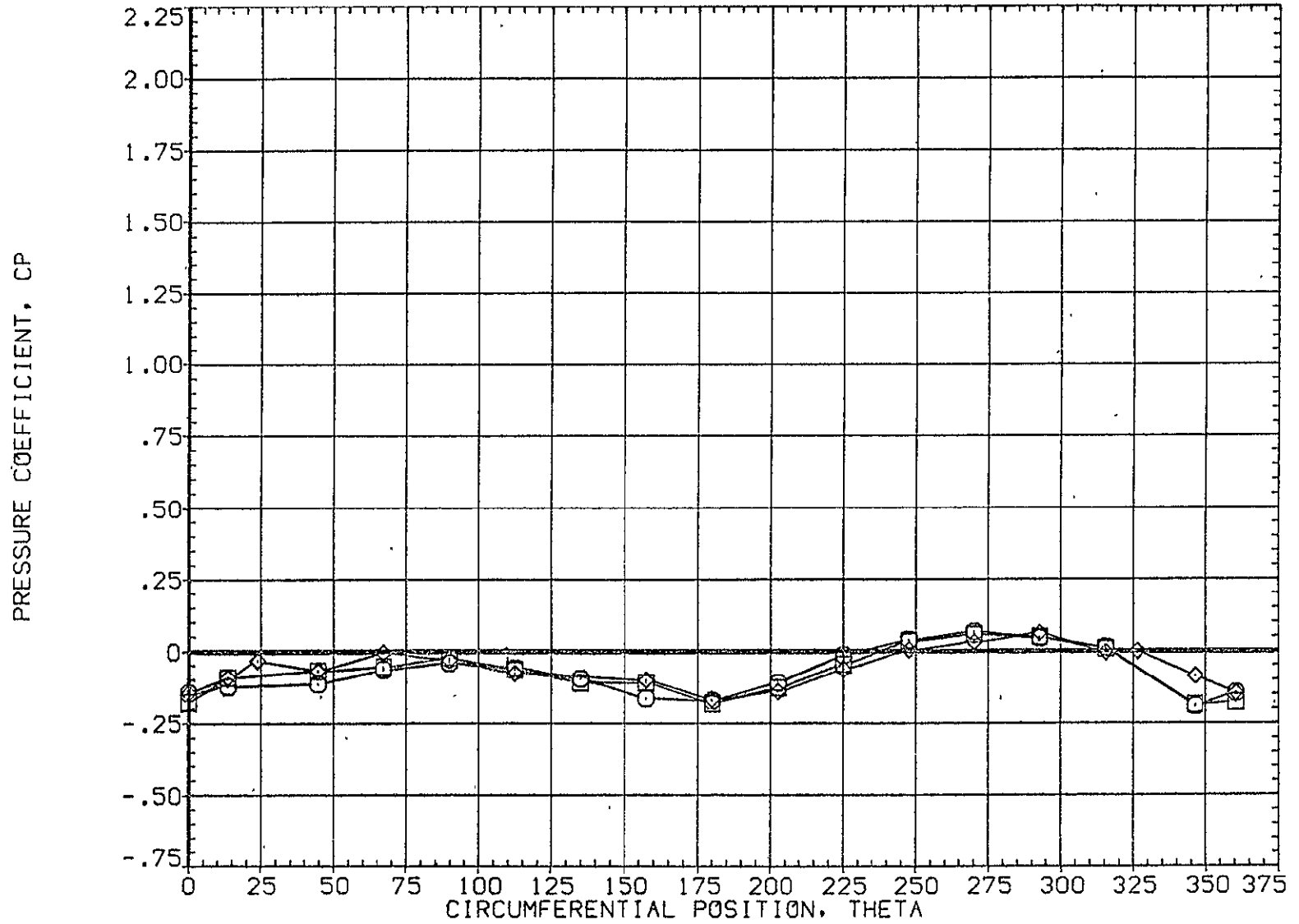


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	12.550	1.960	.000	20.000	
□	.923			1.000	90.000	
◇	.954					

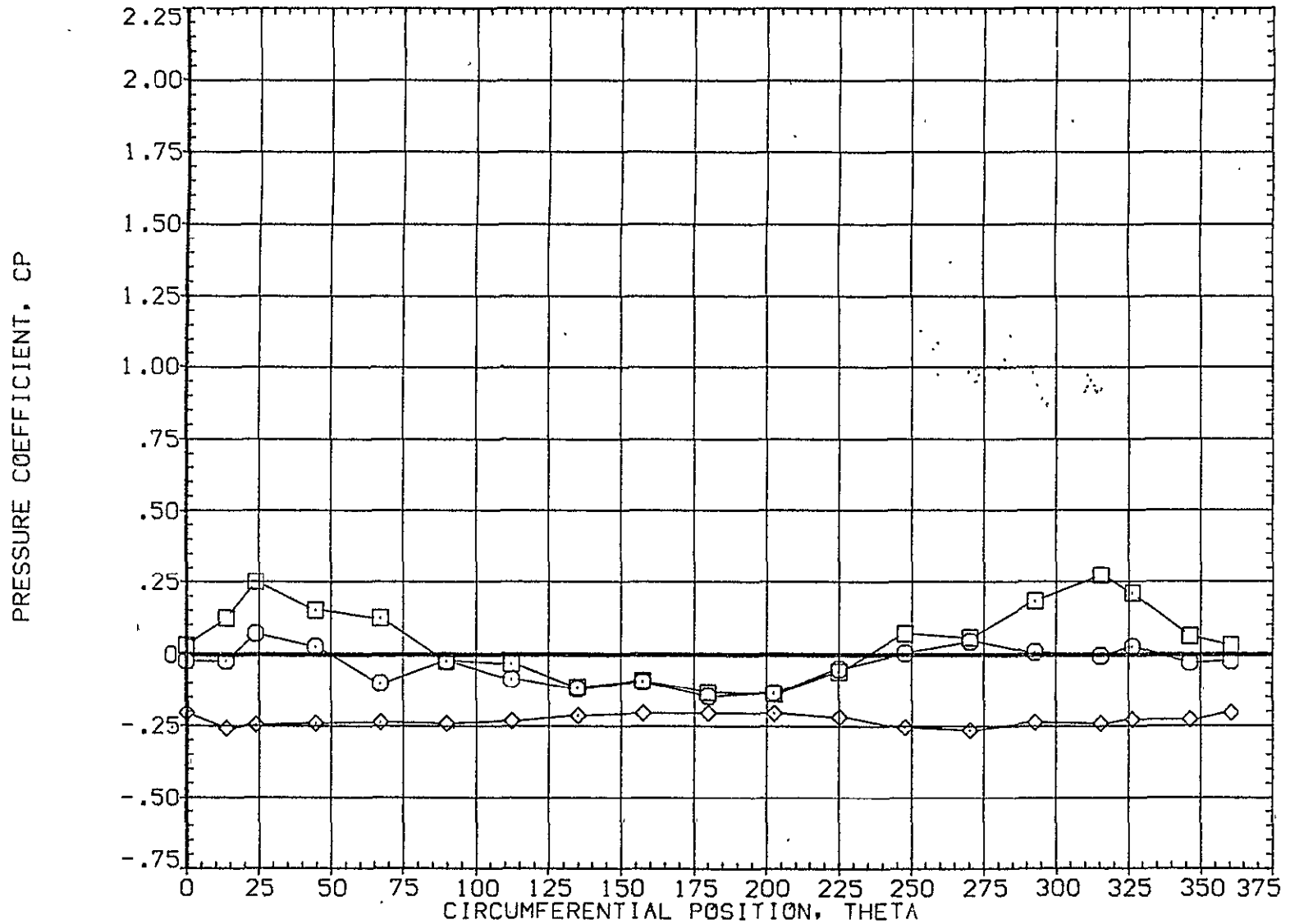


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A017)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	16.660	1.960	1.000	20.000		
□	.108			1.000	90.000		
◇	.162						

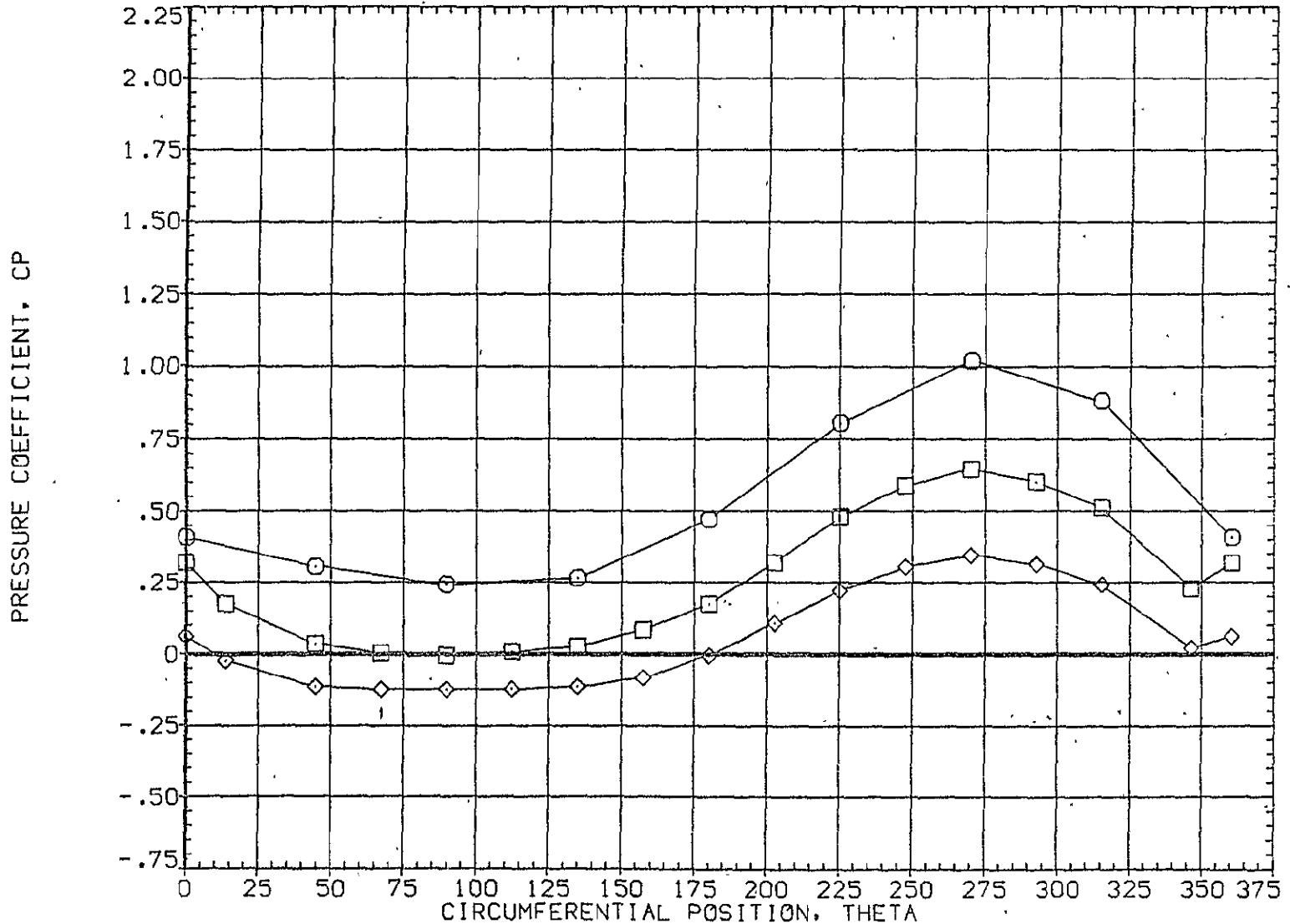


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.216	16.660	1.960
□	.322		
◇	.518		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	90.000

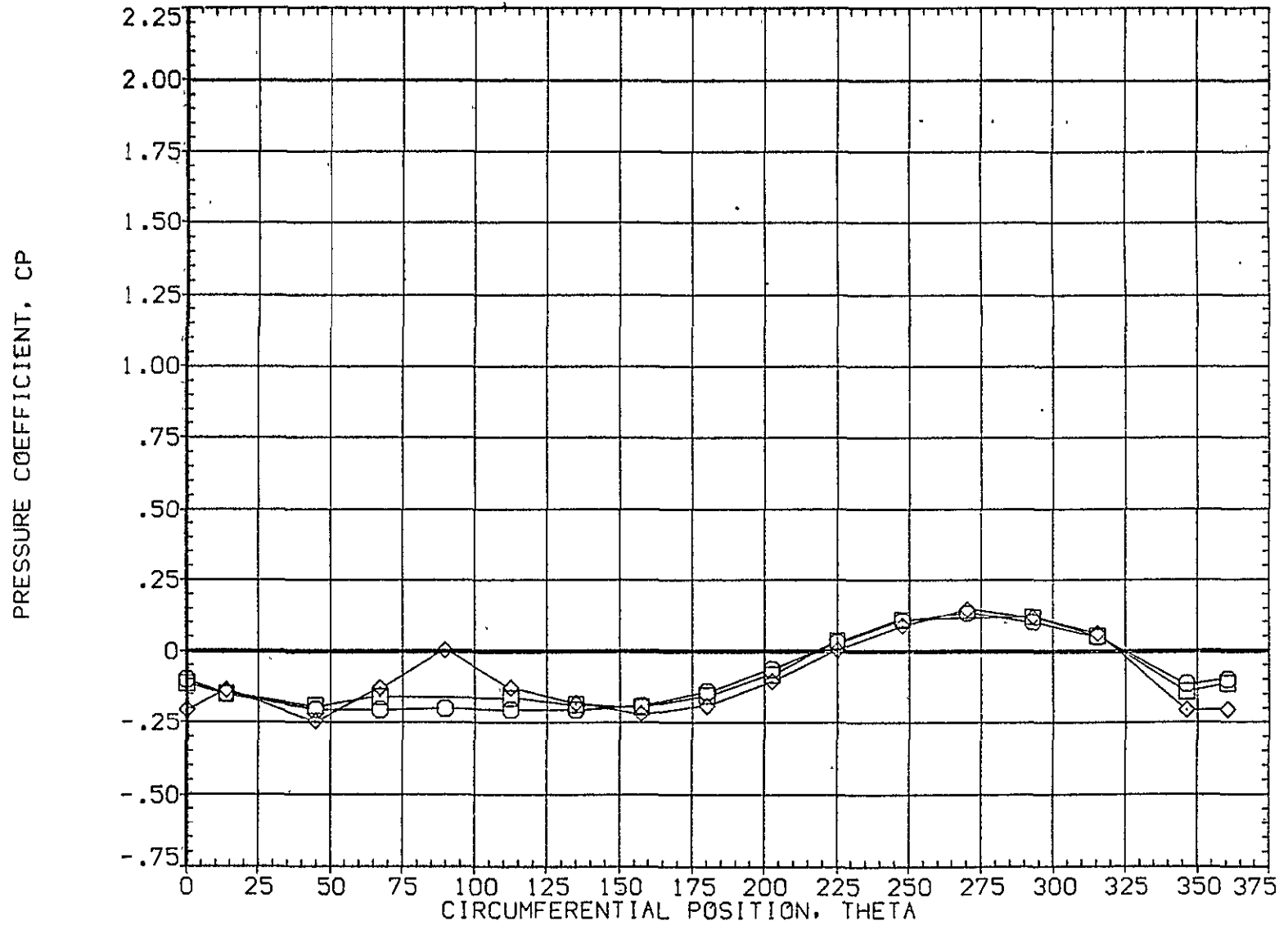


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A017)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	16.660	1.960	.000			20.000
□	.735			1.000			90.000
◇	.860						

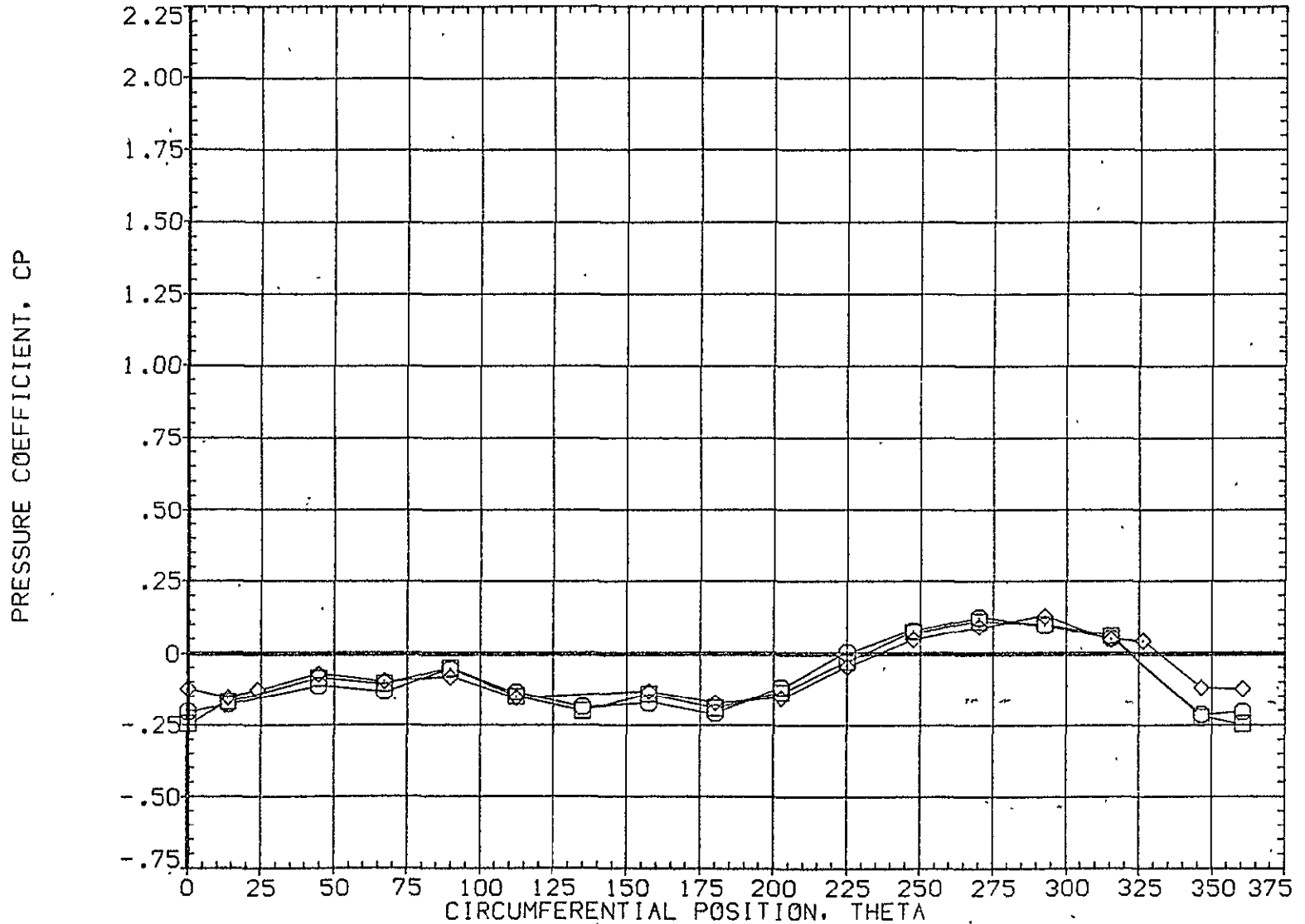


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 16.660 1.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 90.000

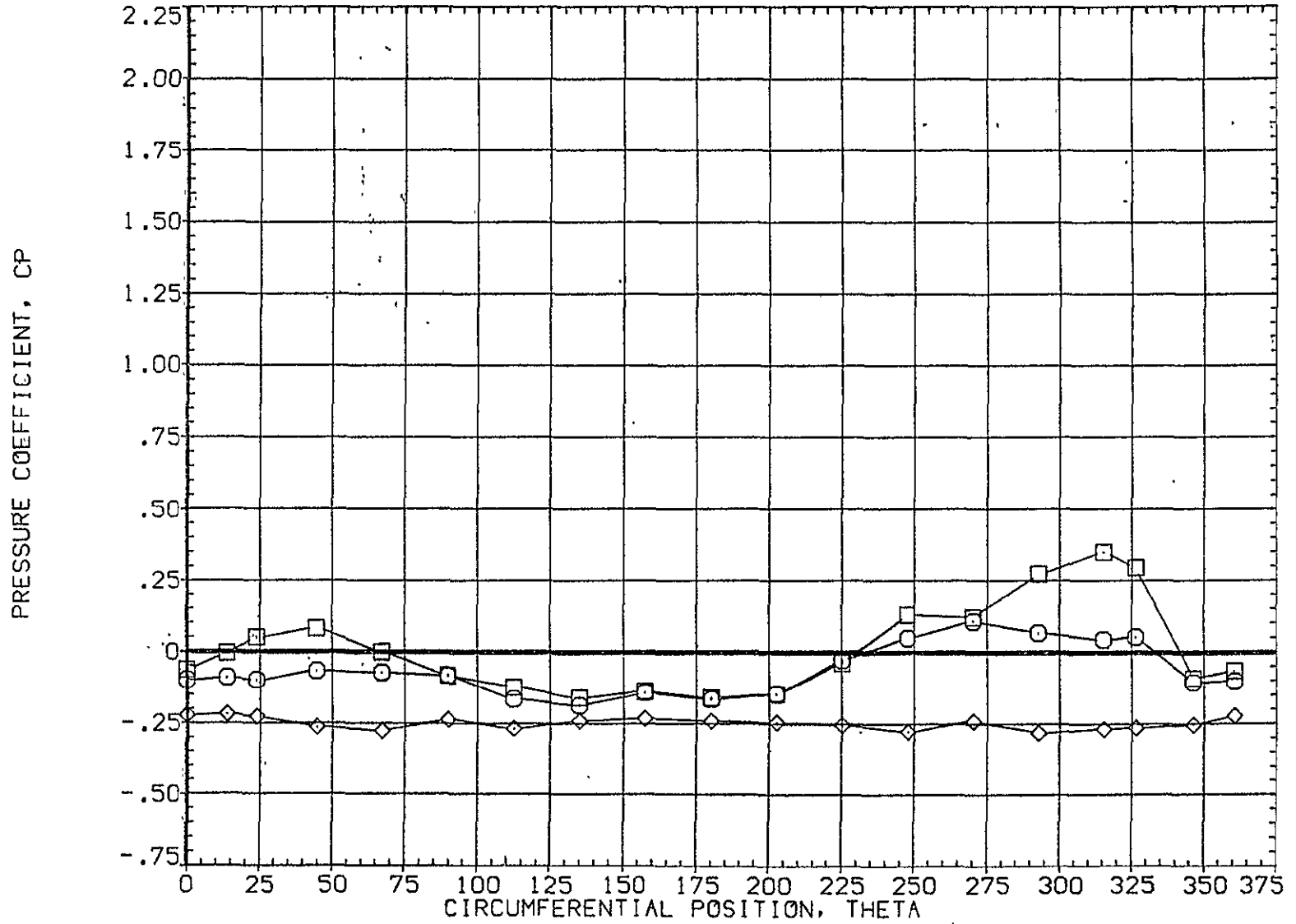


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.055	20.740	1.960
□	.108		
◇	.162		

PARAMETRIC VALUES			
BETA	OFFSET	PHI	
MOUNT	.000	1.000	20.000
	1.000		90.000

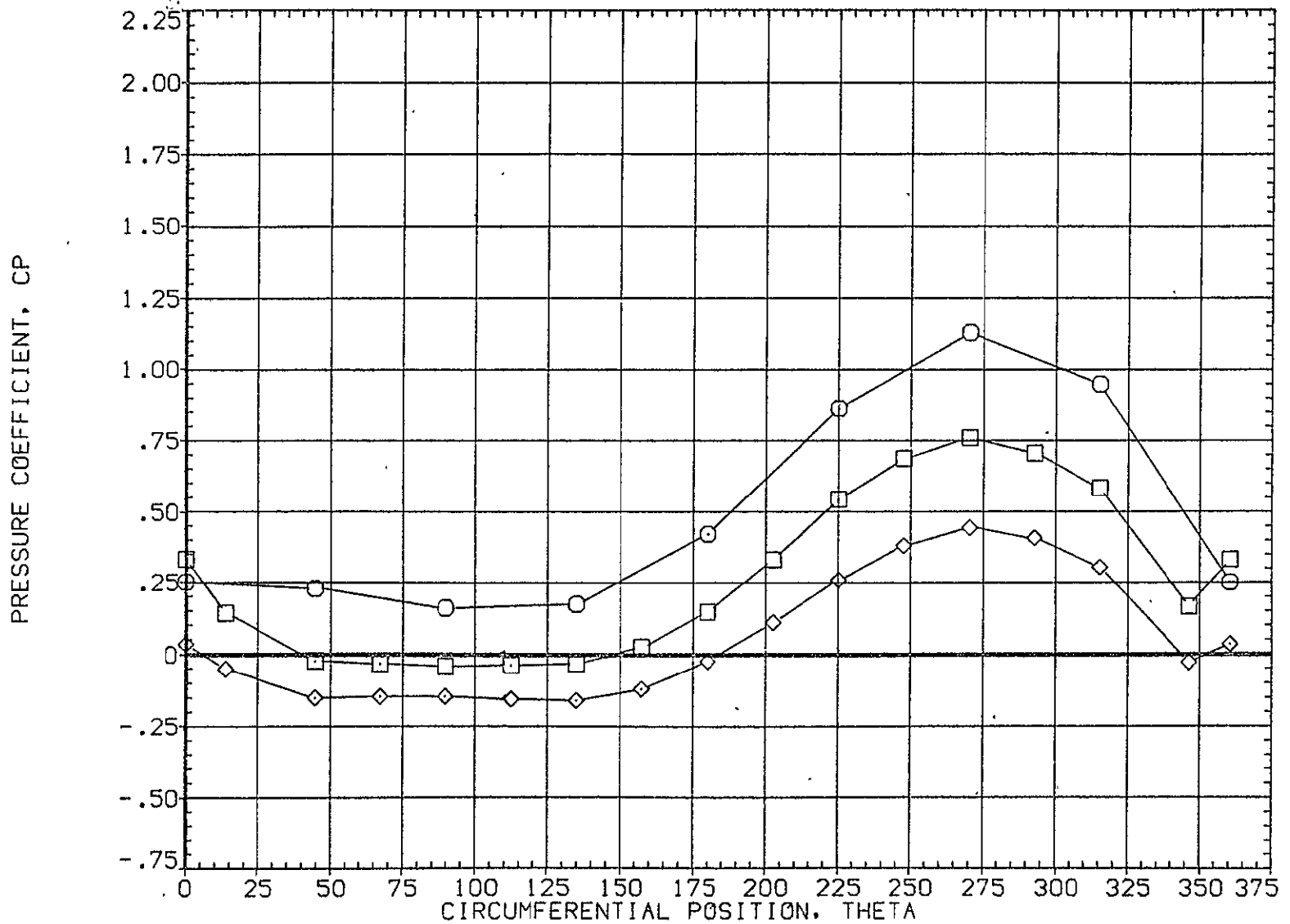


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .216
ALPHA 20.740
MACH 1.960

PARAMETRIC VALUES
BETA .000 OFFSET 20.000
MOUNT 1.000 PHI 90.000

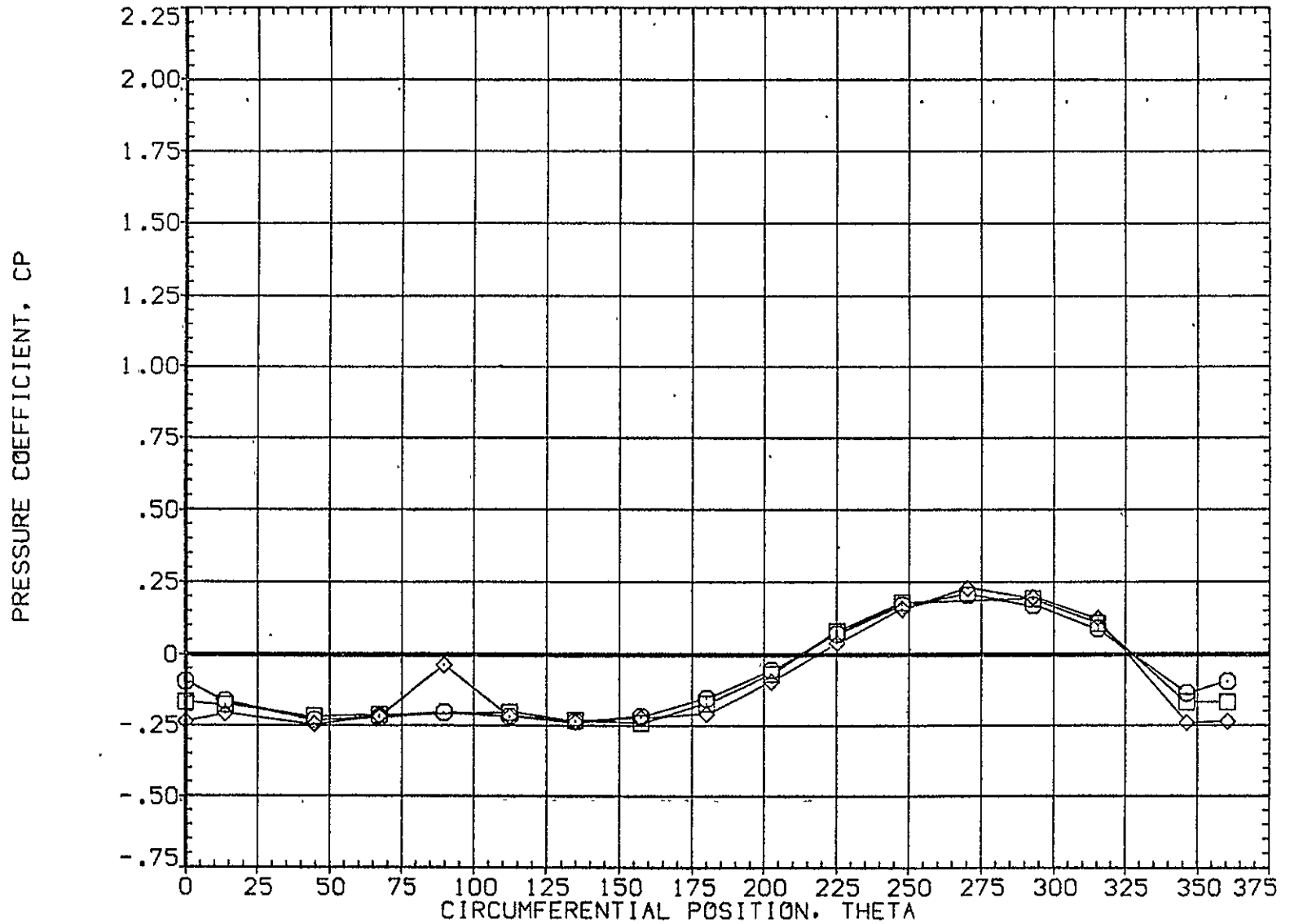


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK,

(P1A018)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.740	1.960	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

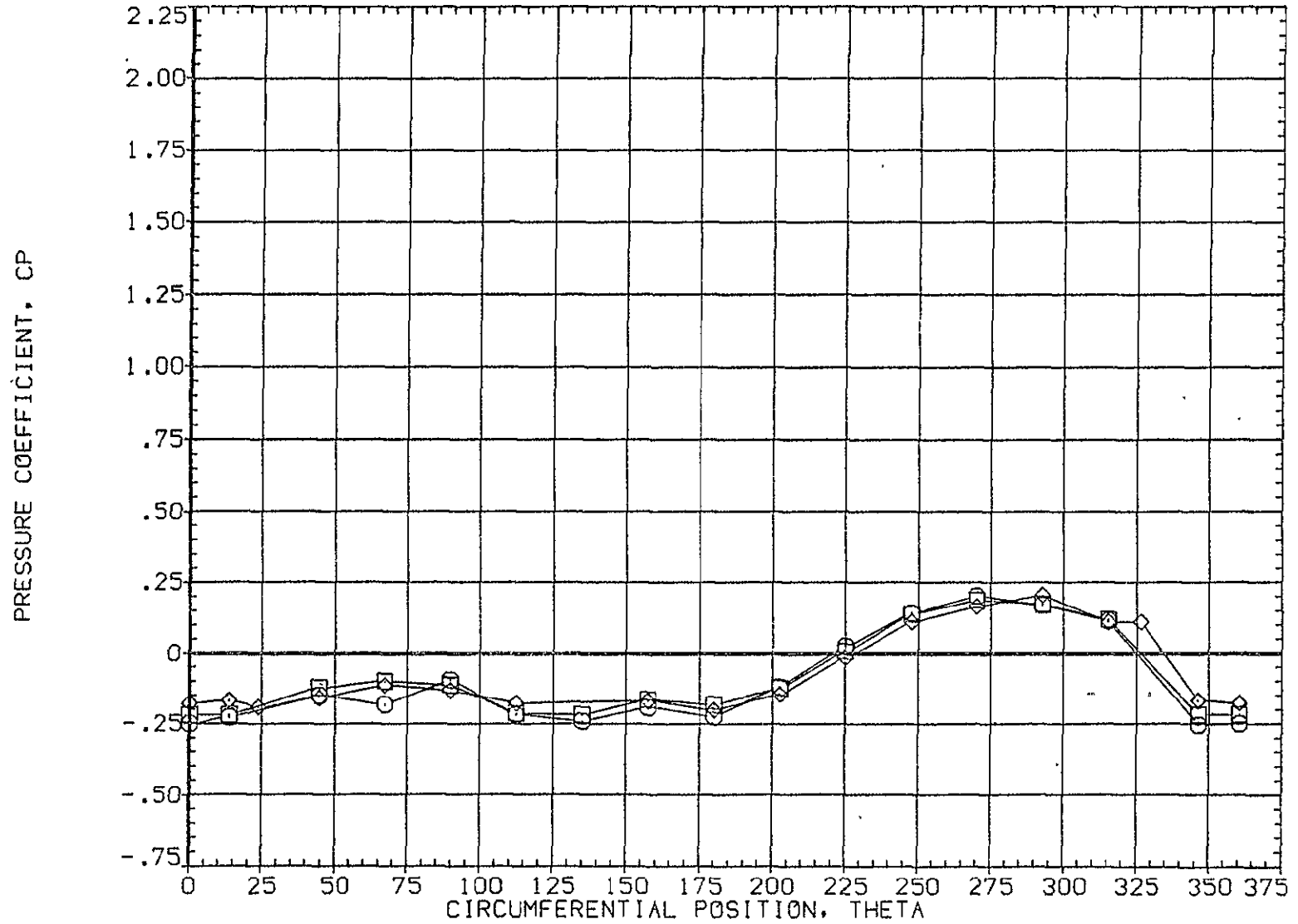


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.892	20.740	1.960	MOUNT	1.000	90.000	
□	.923						
◇	.954						

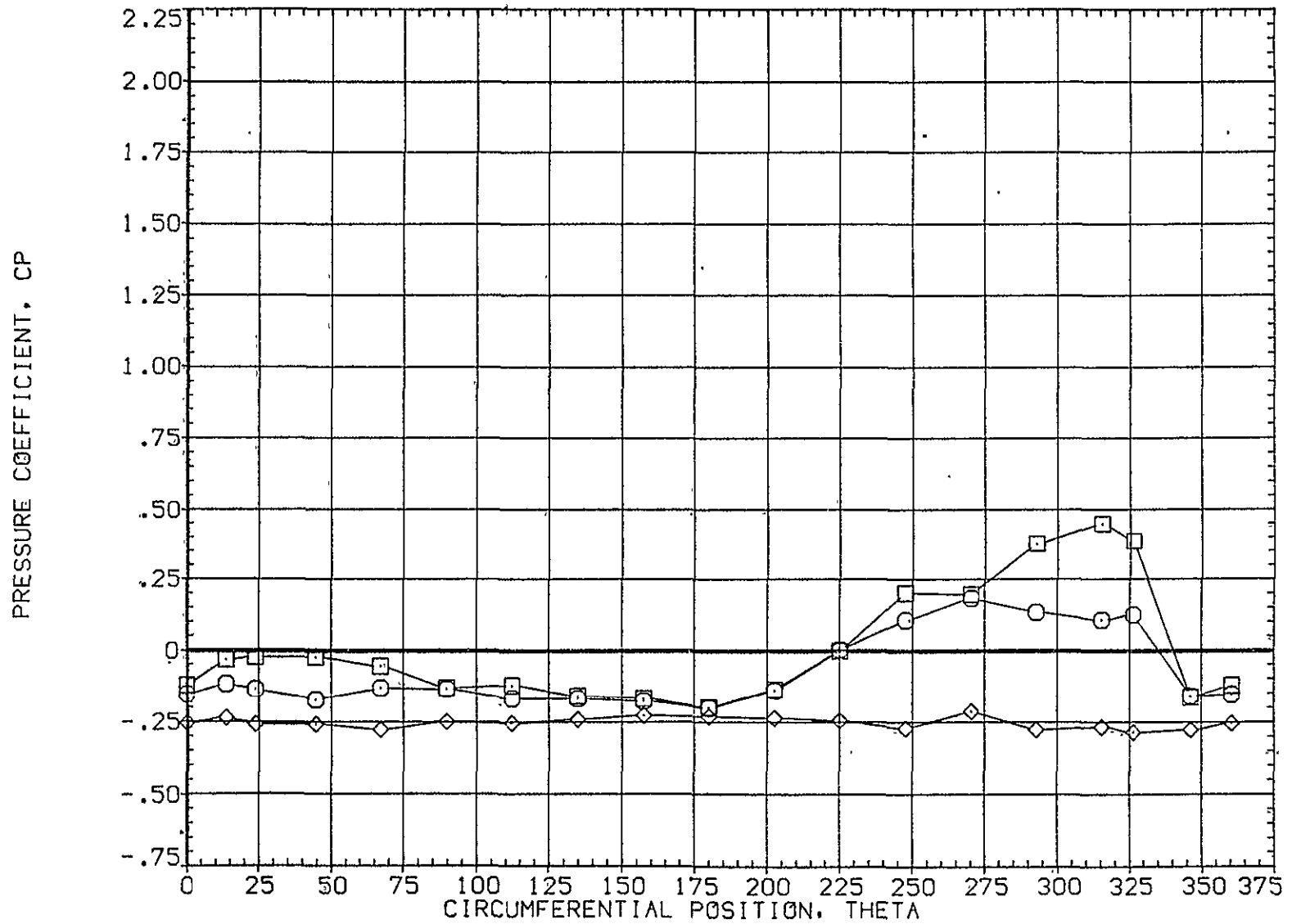


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	24.850	1.960	.000	20.000		
□	.108			1.000	90.000		
◇	.152						

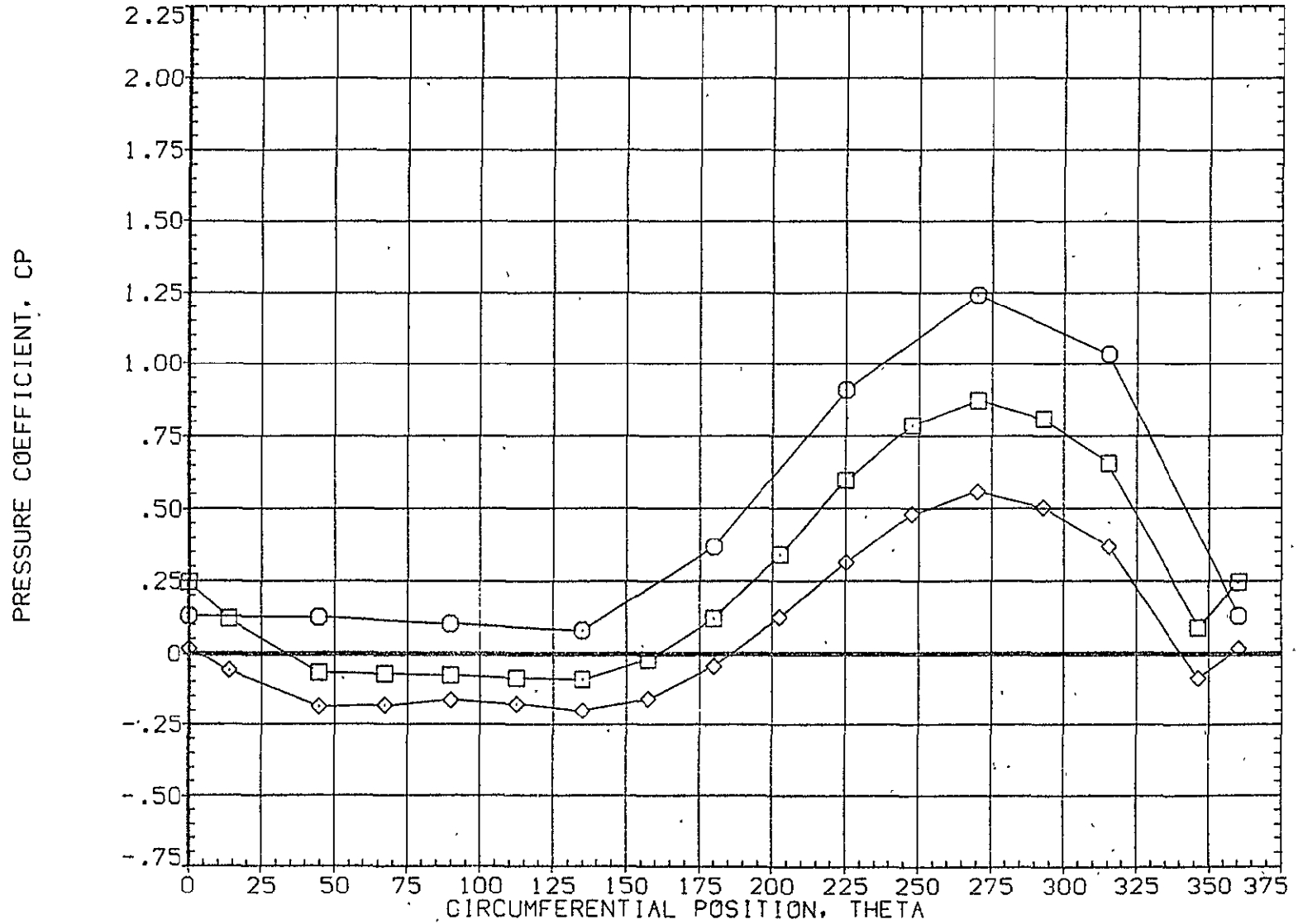


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.216	24.850	1.960		20.000		
□	.322				90.000		
◇	.518						

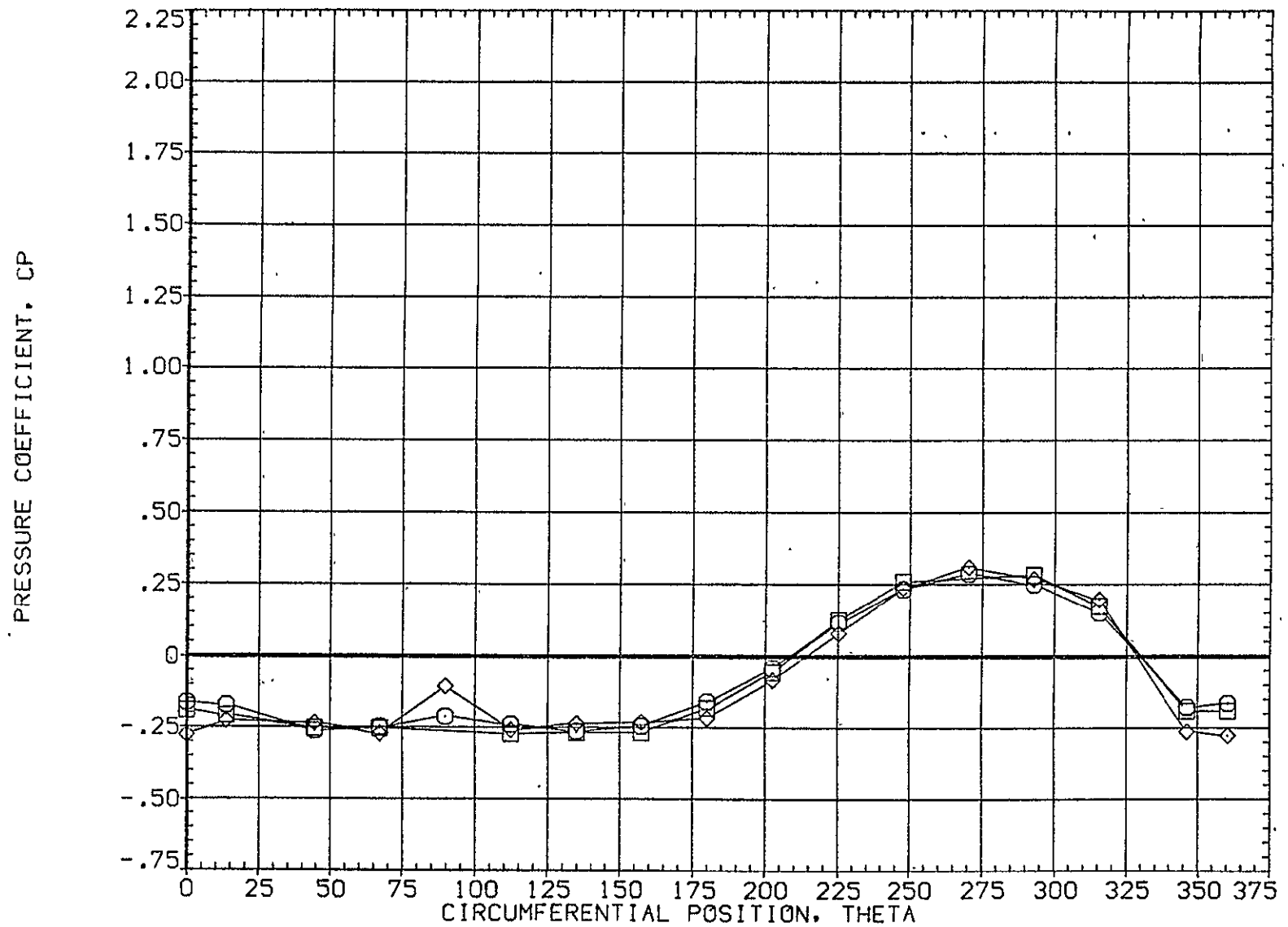


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES	OFFSET	20,000
○	.610	24.850	1.960	MOUNT	.000	PHI	90.000
□	.735				1.000		
◇	.860						

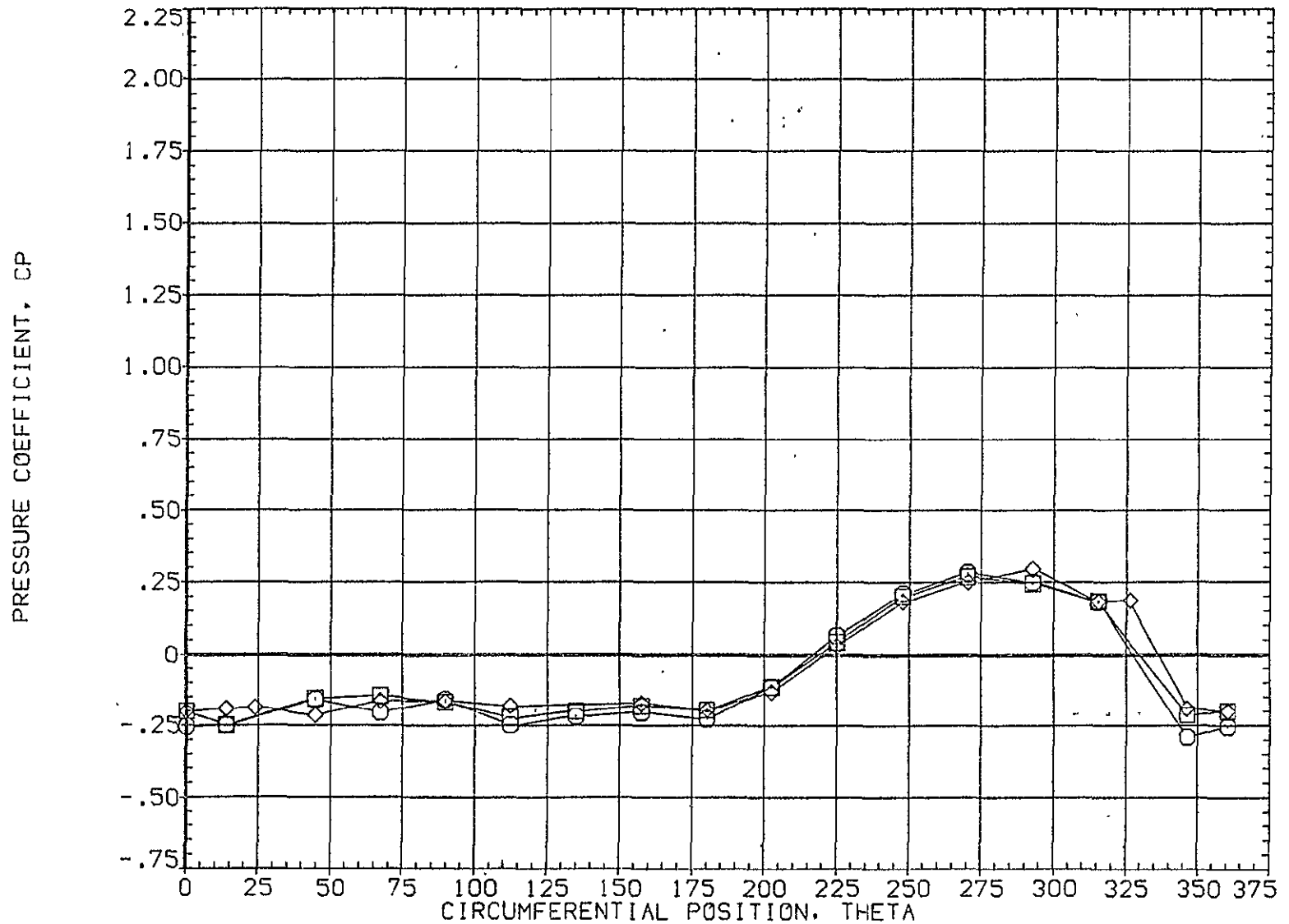


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.892	24.850	1.960	MOUNT	1.000	PHI	90,000
□	.923						
◇	.954						

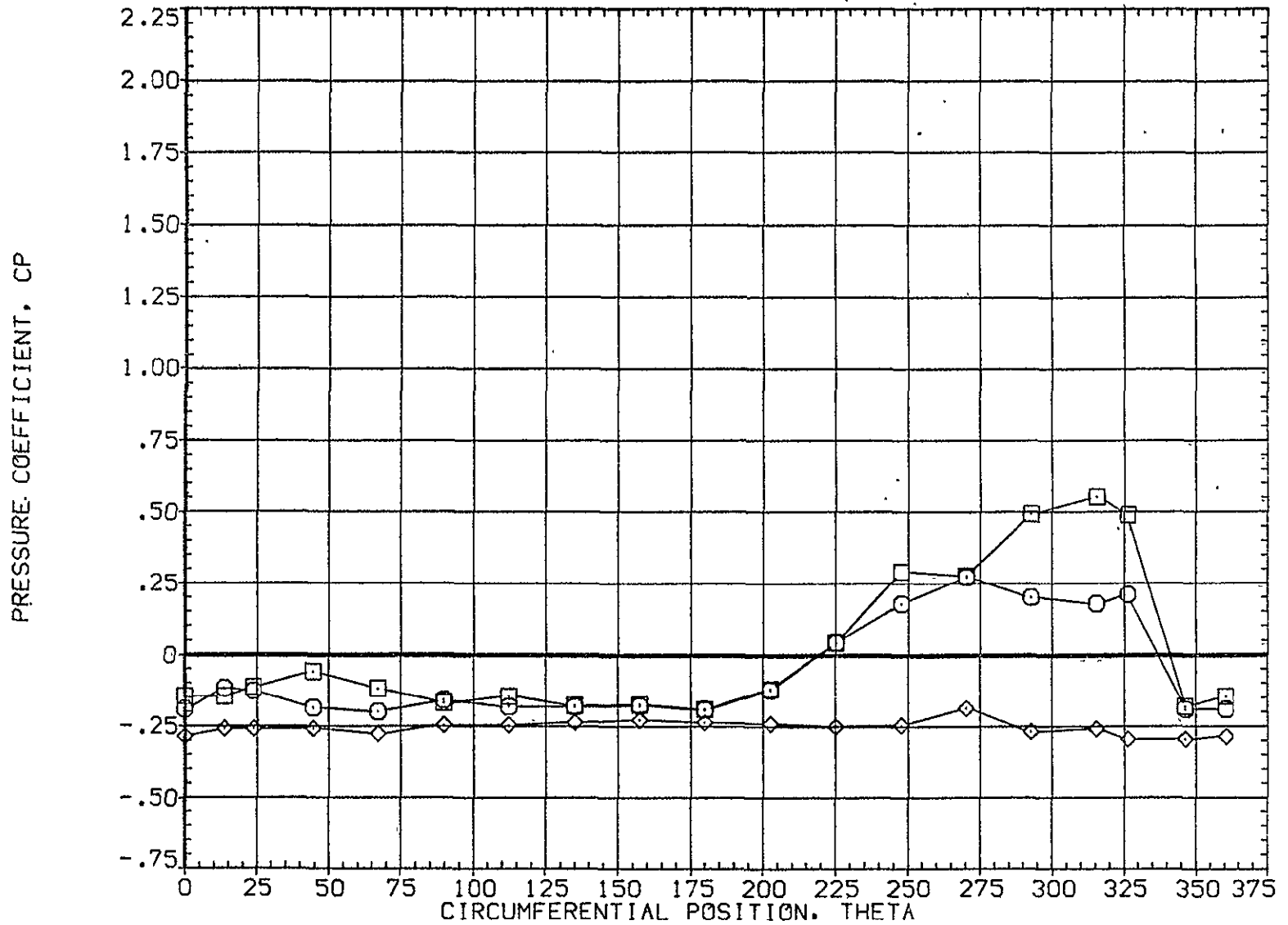


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A020)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	28.930	1.960	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

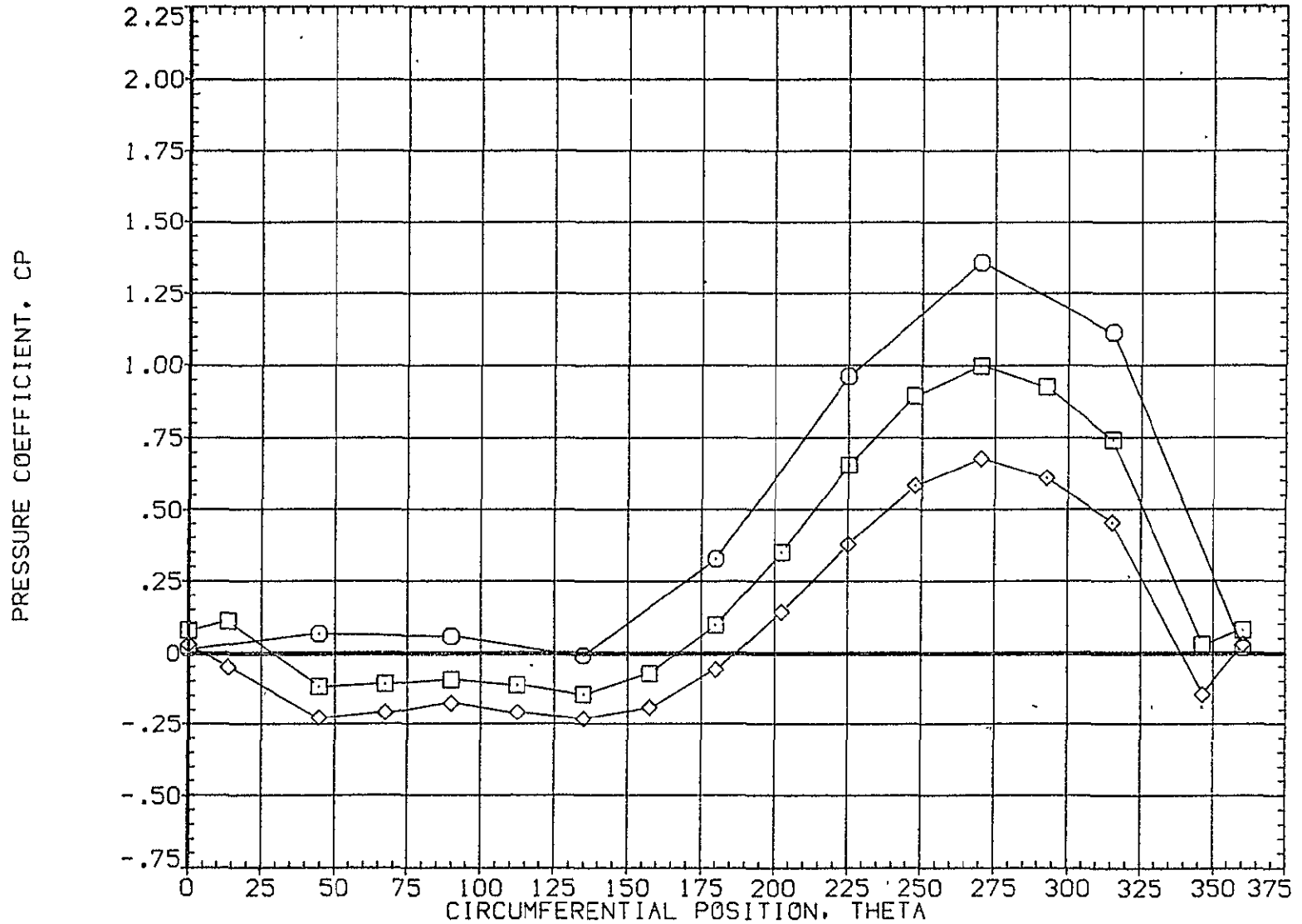


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	28.930	1.960	MOUNT	1.000	PHI	90.000
□	.322						
◇	.518						

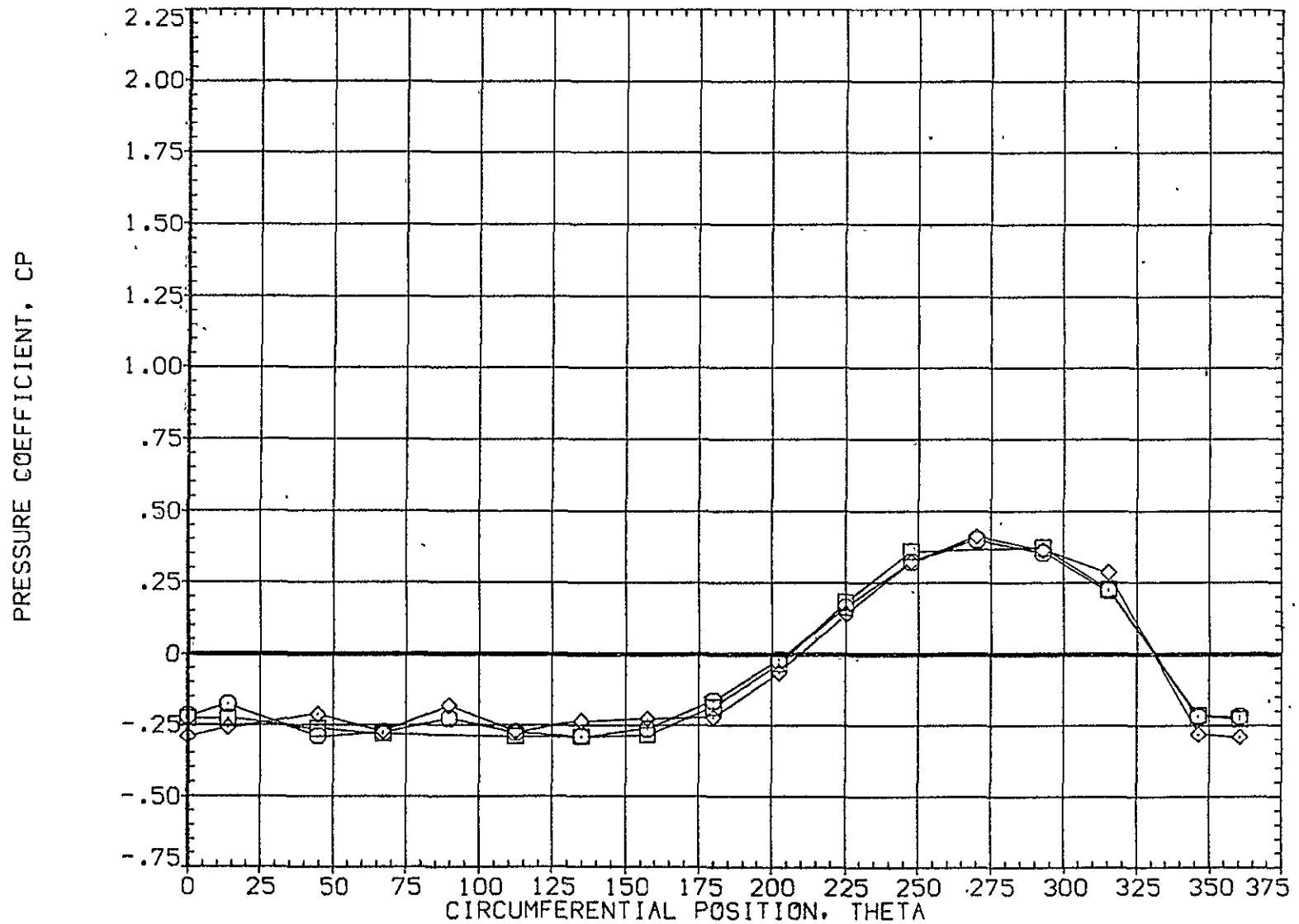


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A020)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	28.930	1.960	.000	20.000		
□	.735			1.000	90.000		
◇	.860						

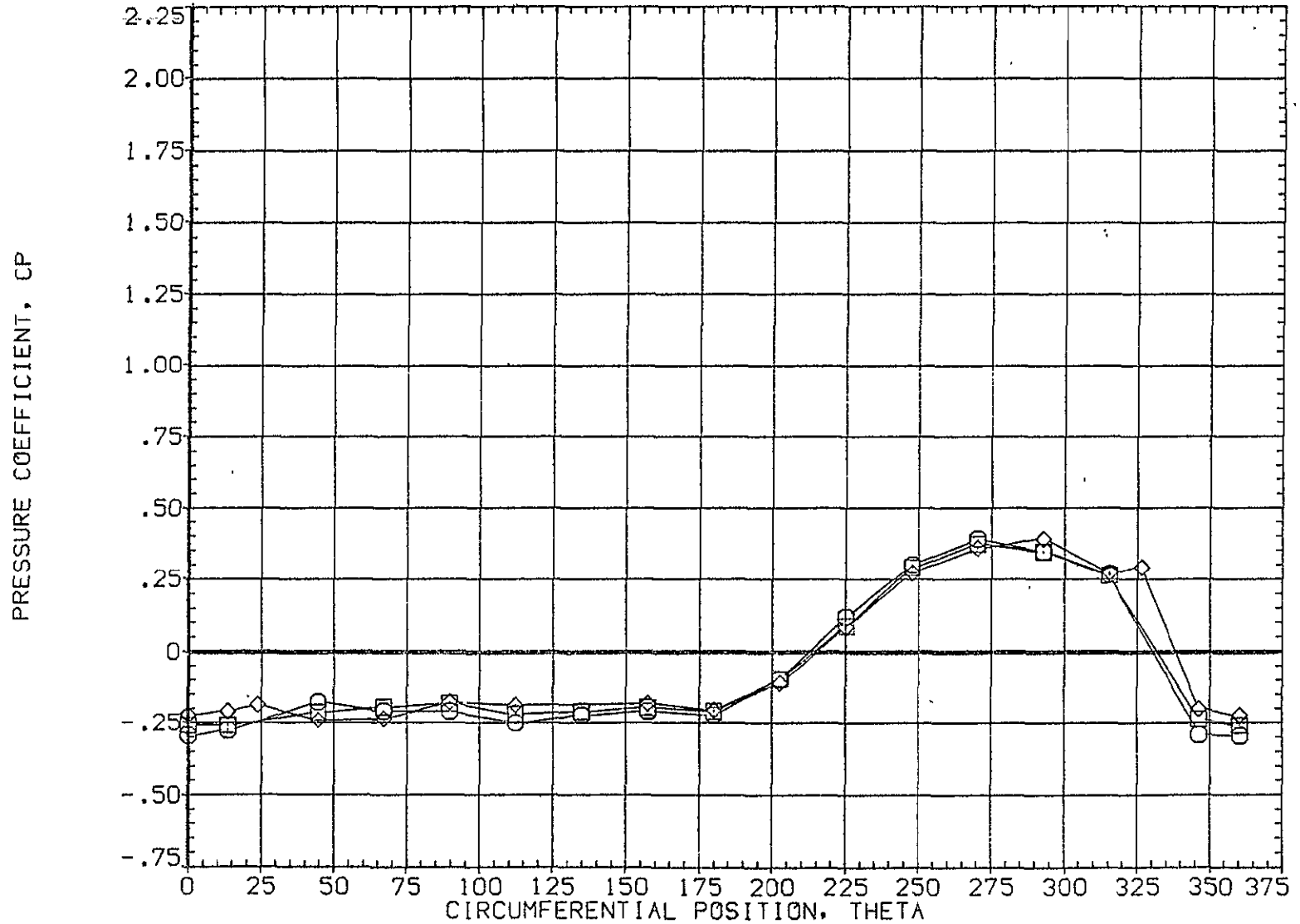


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.892	28.930	1.960
□	.923		
◇	.954		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	90.000

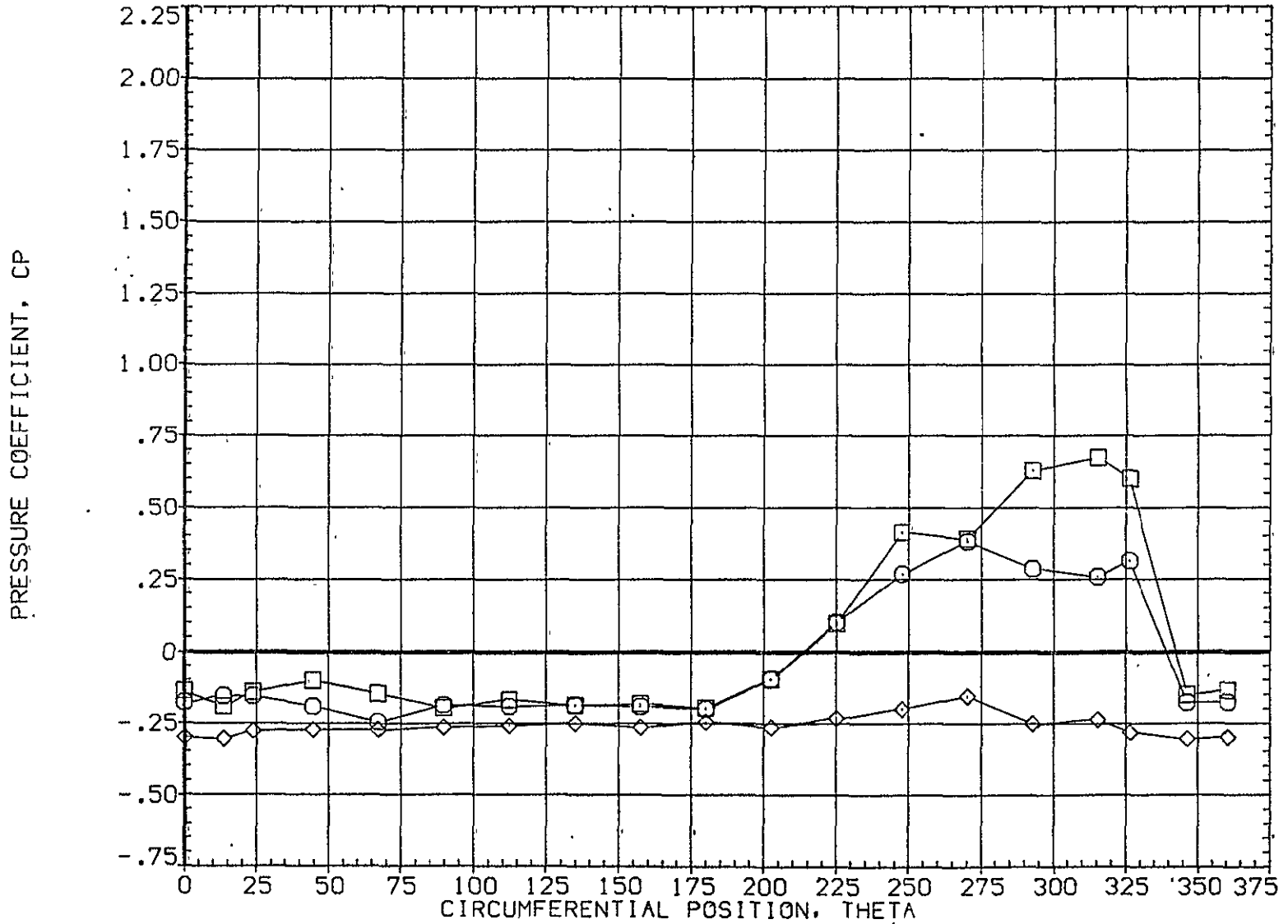


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A031)

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	.055	-8.390	1.960	MOUNT	.000	OFFSET	.000
□	.108				1.000	PHI	180.000
◇	.162						

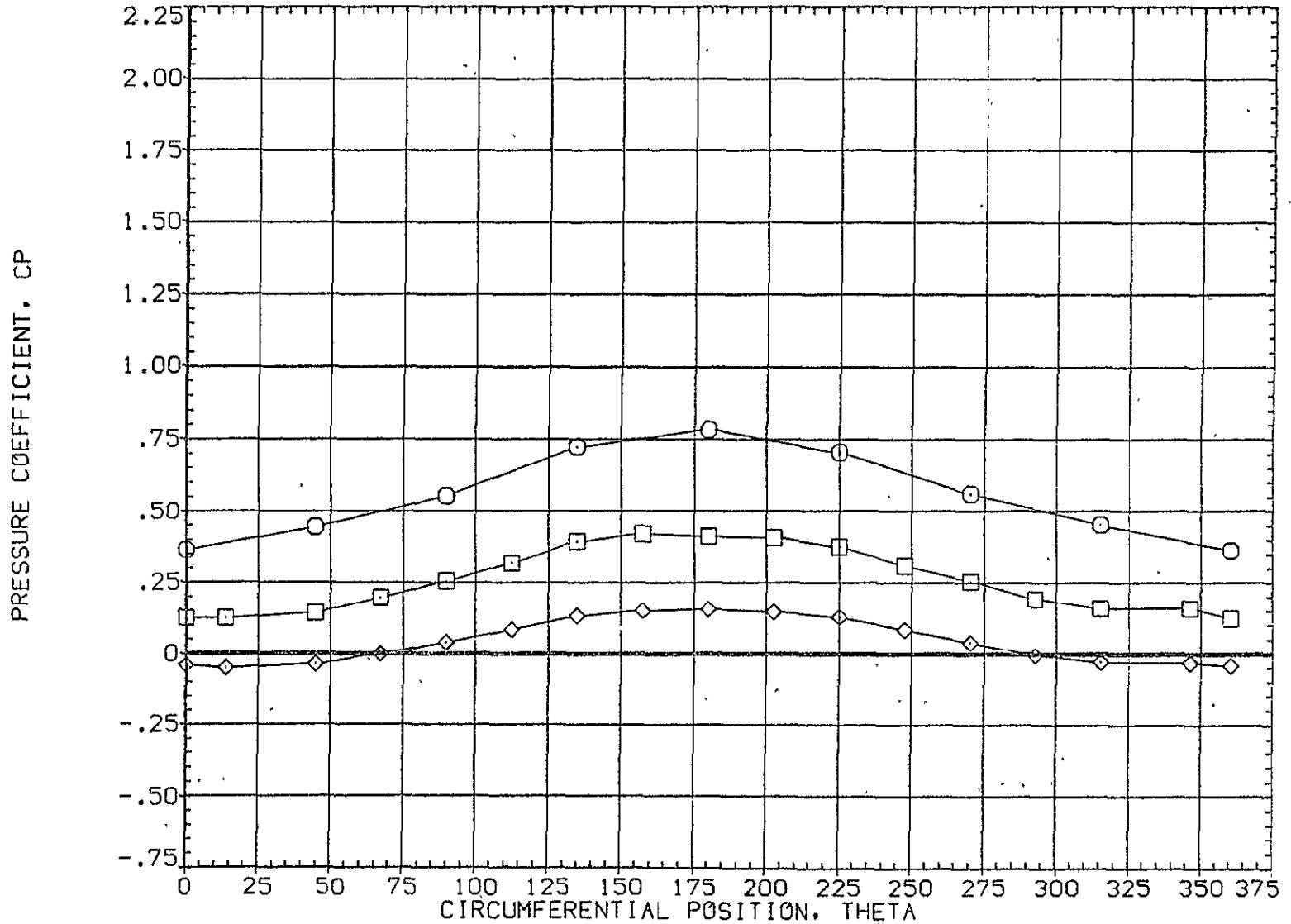


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.380	1.960	.000	.000	.000
□	.322			1.000		180.000
◇	.518					

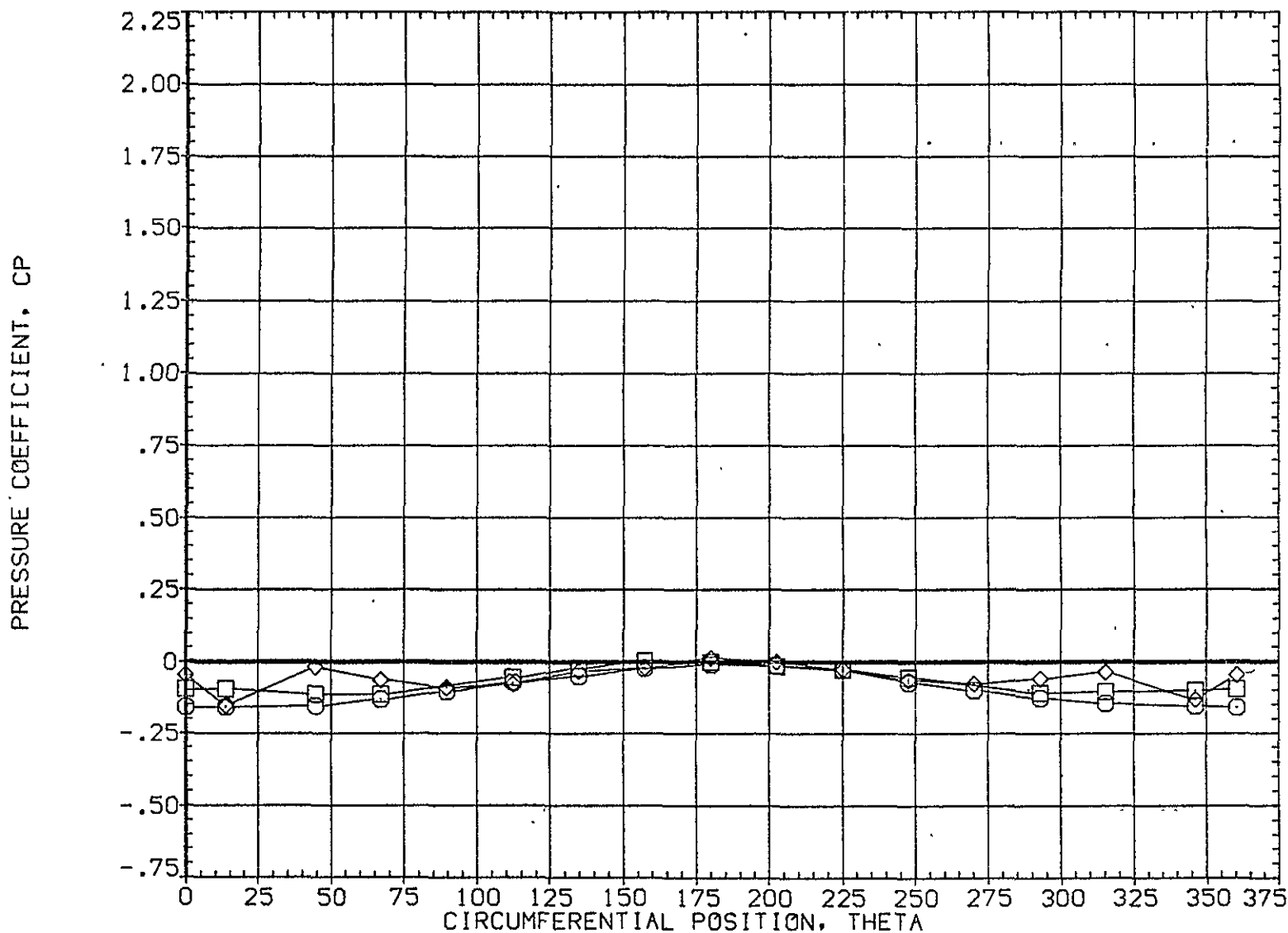


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A031)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.380	1.960	.000	.000	.000
□	.735			1.000	180.000	
◇	.860					

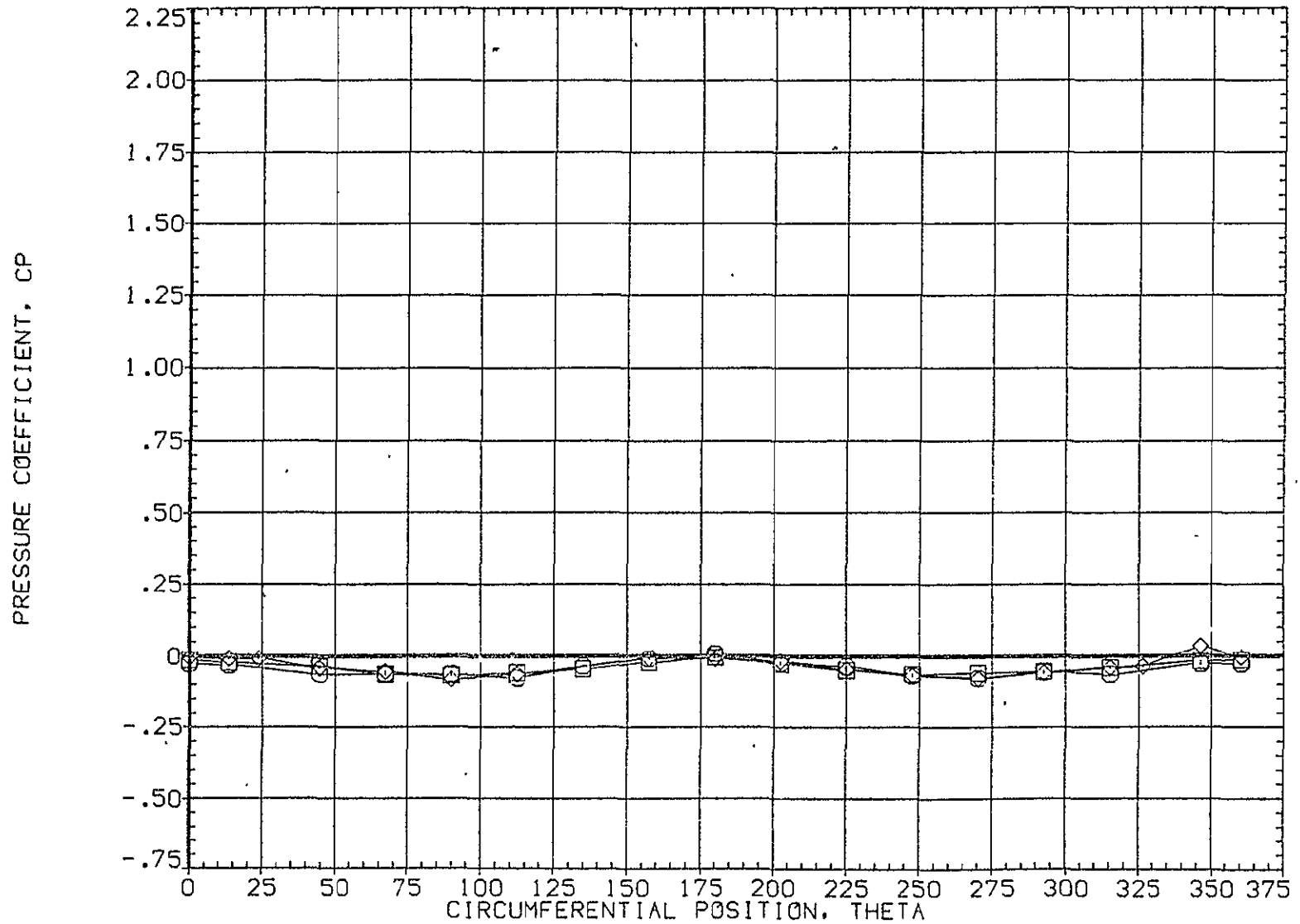


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-8.380	1.960	.000	.000	.000
□	.923			1.000		180.000
◇	.954					

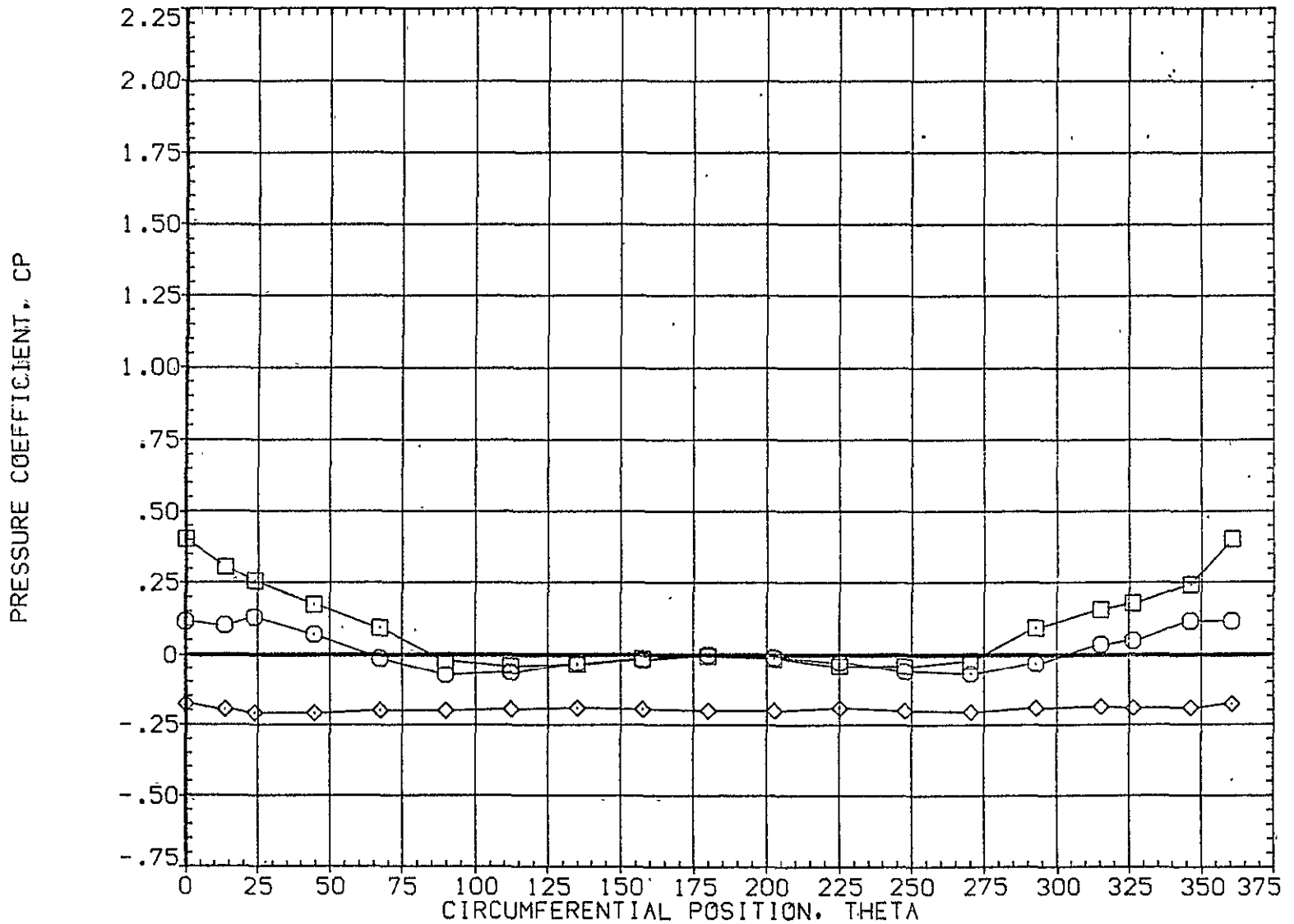


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-4.330	1.960	MOUNT	1.000	PHI	180.000
□	.108						
◇	.162						

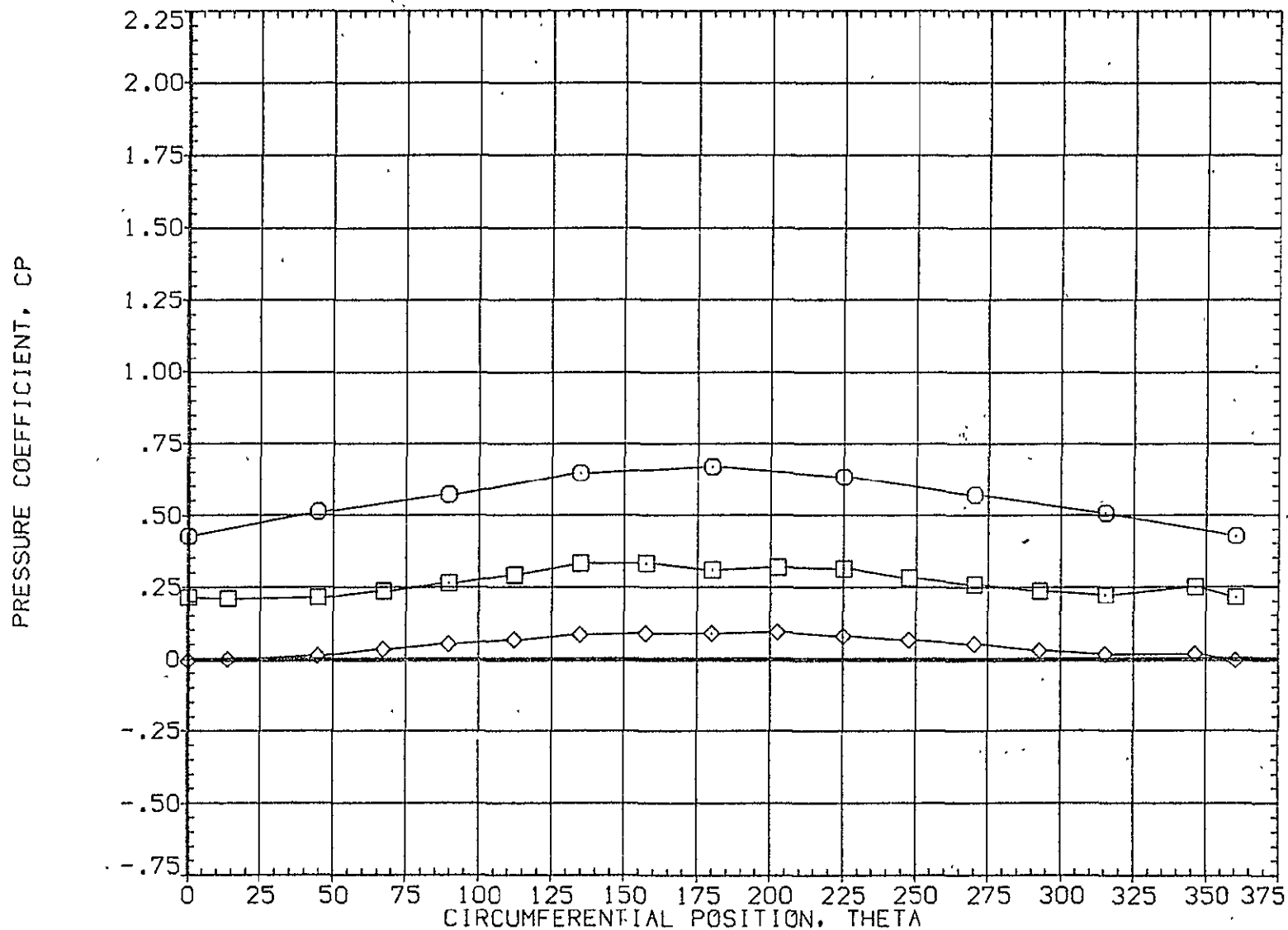


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	-4.330	1.960	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

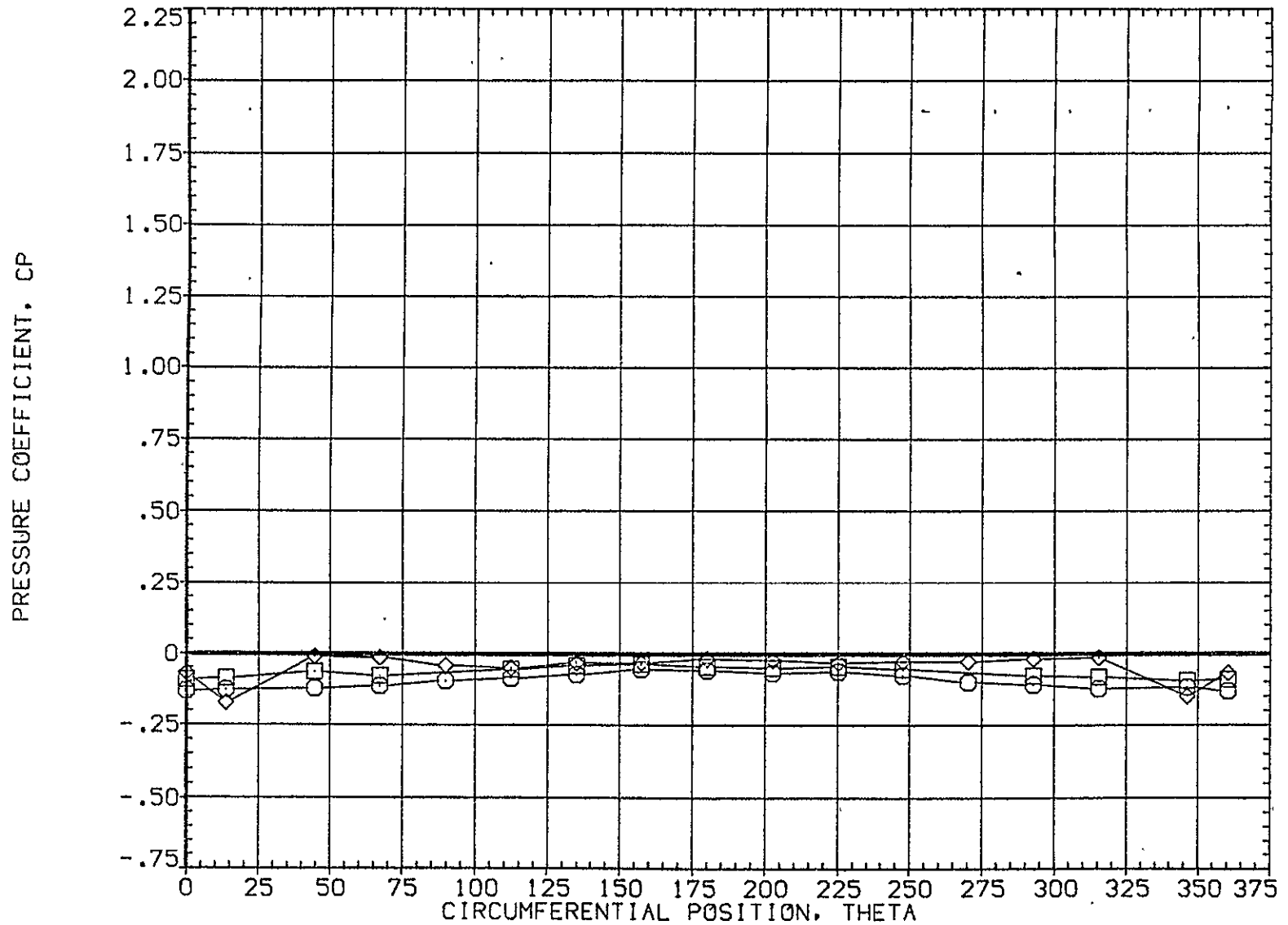


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.330	1.960	.000	.000	.000
□	.735			1.000	180.000	
◇	.860					

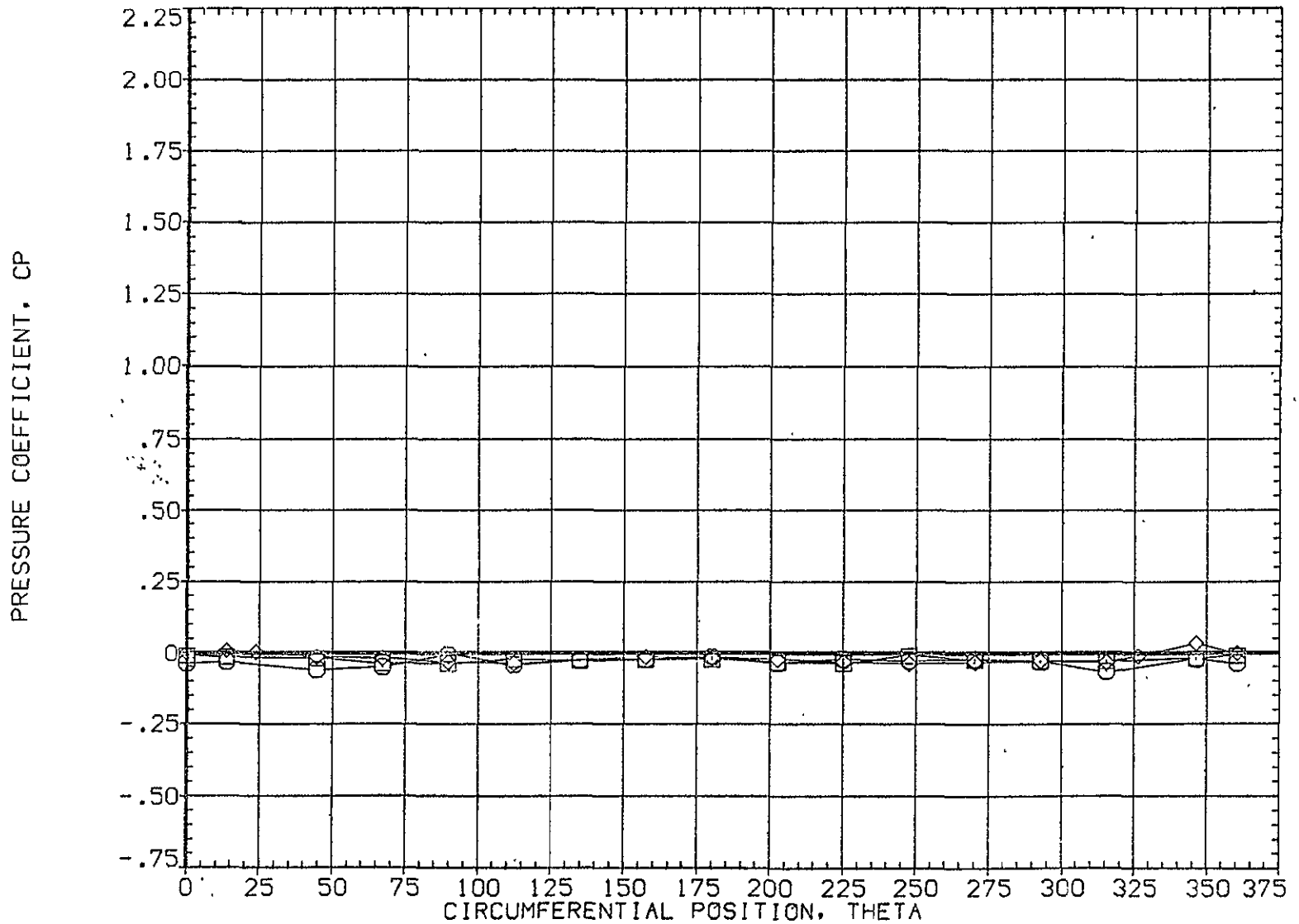


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.330	1.960	.000	.000	.000
□	.923			1.000	180.000	
◇	.954					

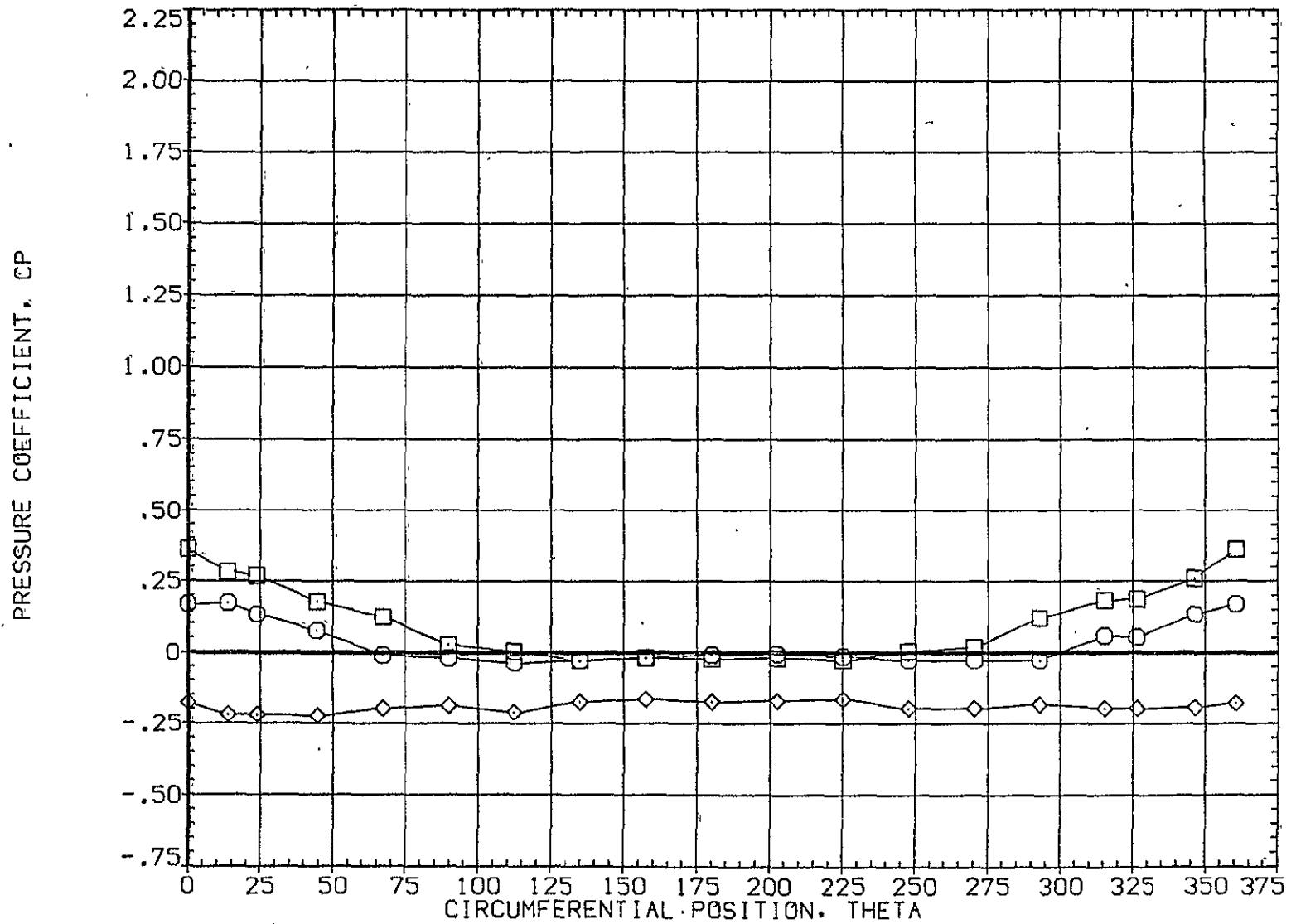


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-.280	1.960	MOUNT	1.000	PHI	180.000
□	.108						
◇	.162						

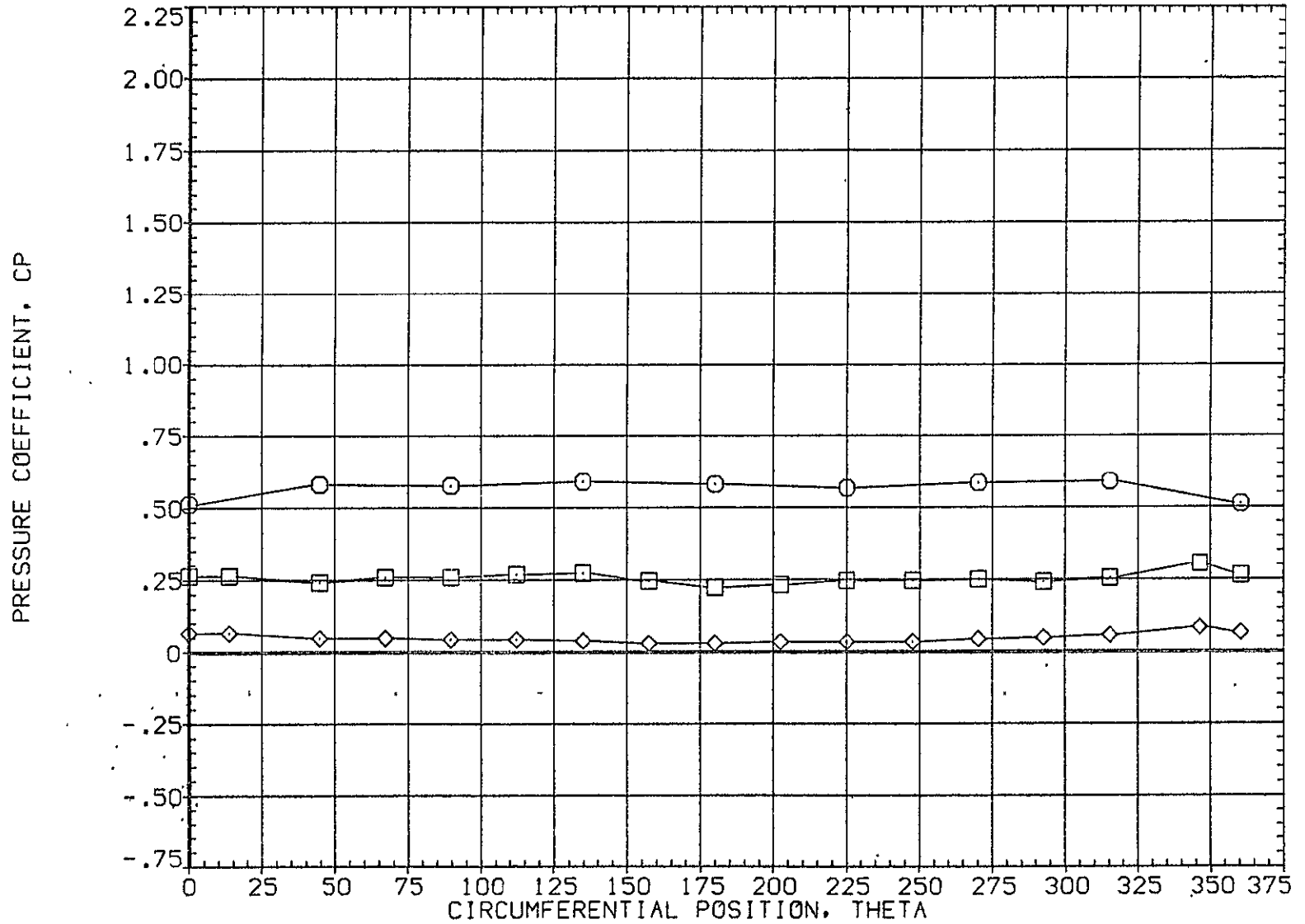


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-.280	1.960	.000	.000	.000
□	.322			1.000	180.000	
◇	.518					

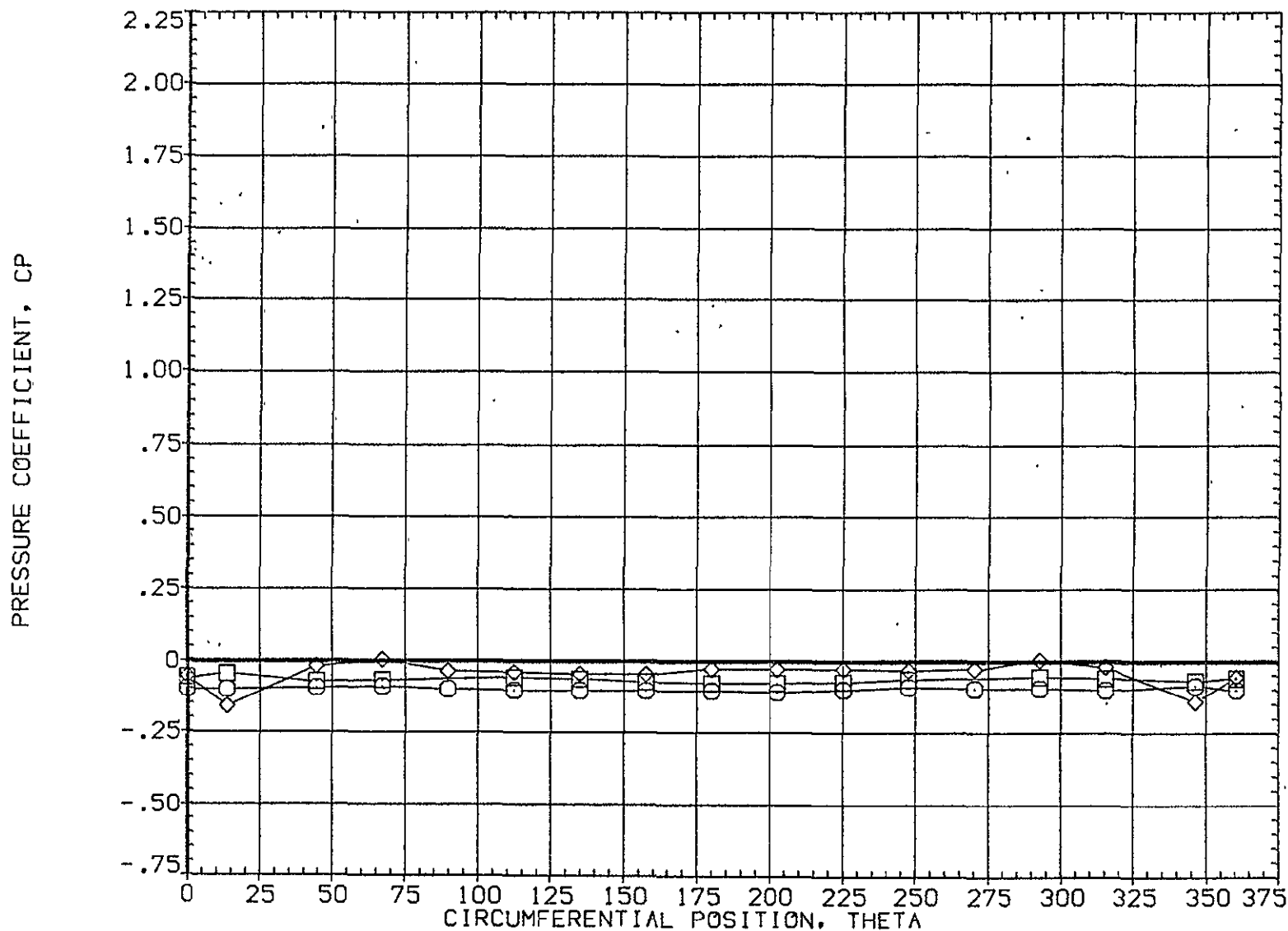


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A033)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	1.960	MOUNT	.000	.000
□	.735				1.000	180.000
◇	.860					

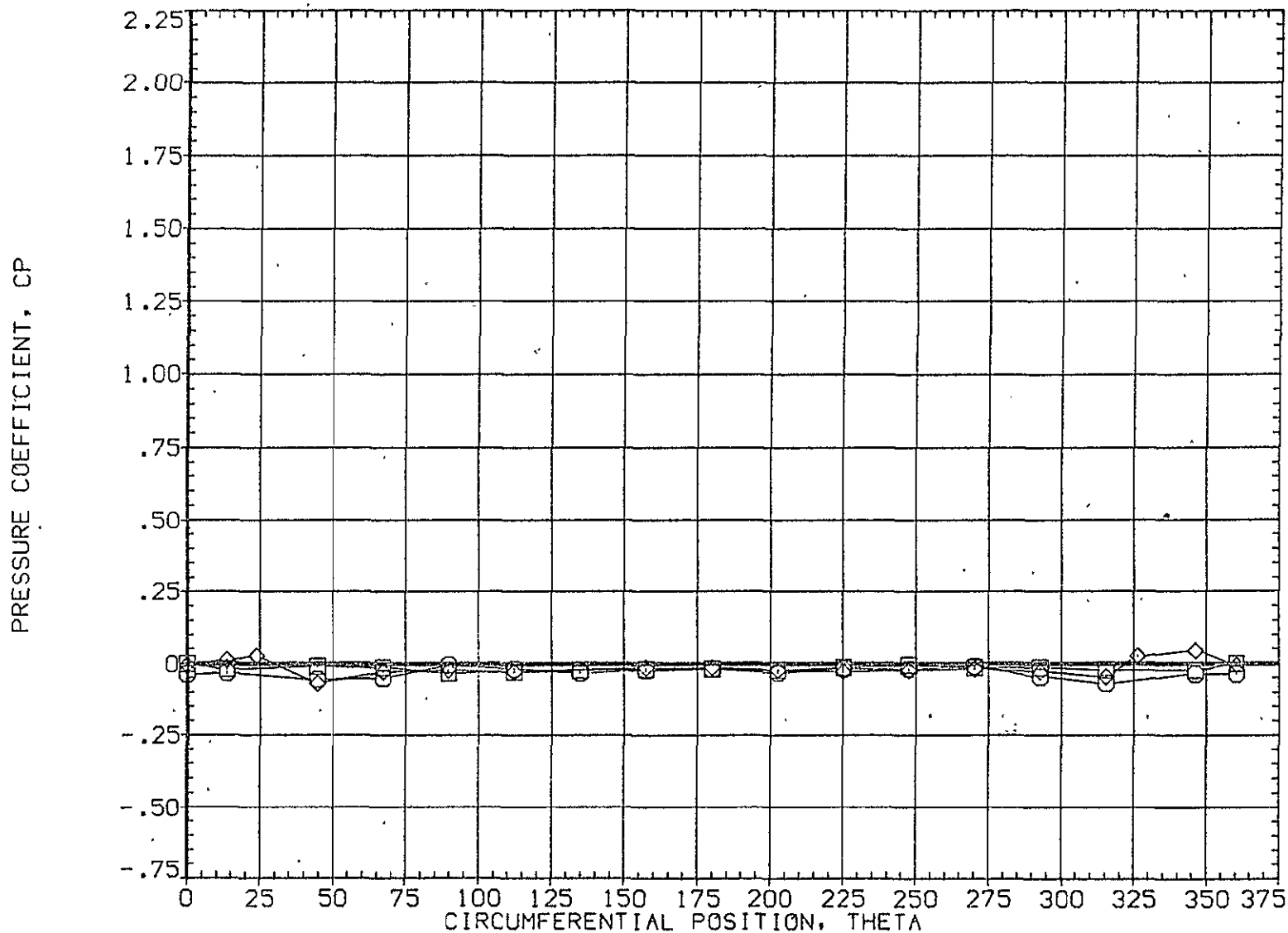


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA -.280
 MACH 1.960

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET .000
 PHI 180.000

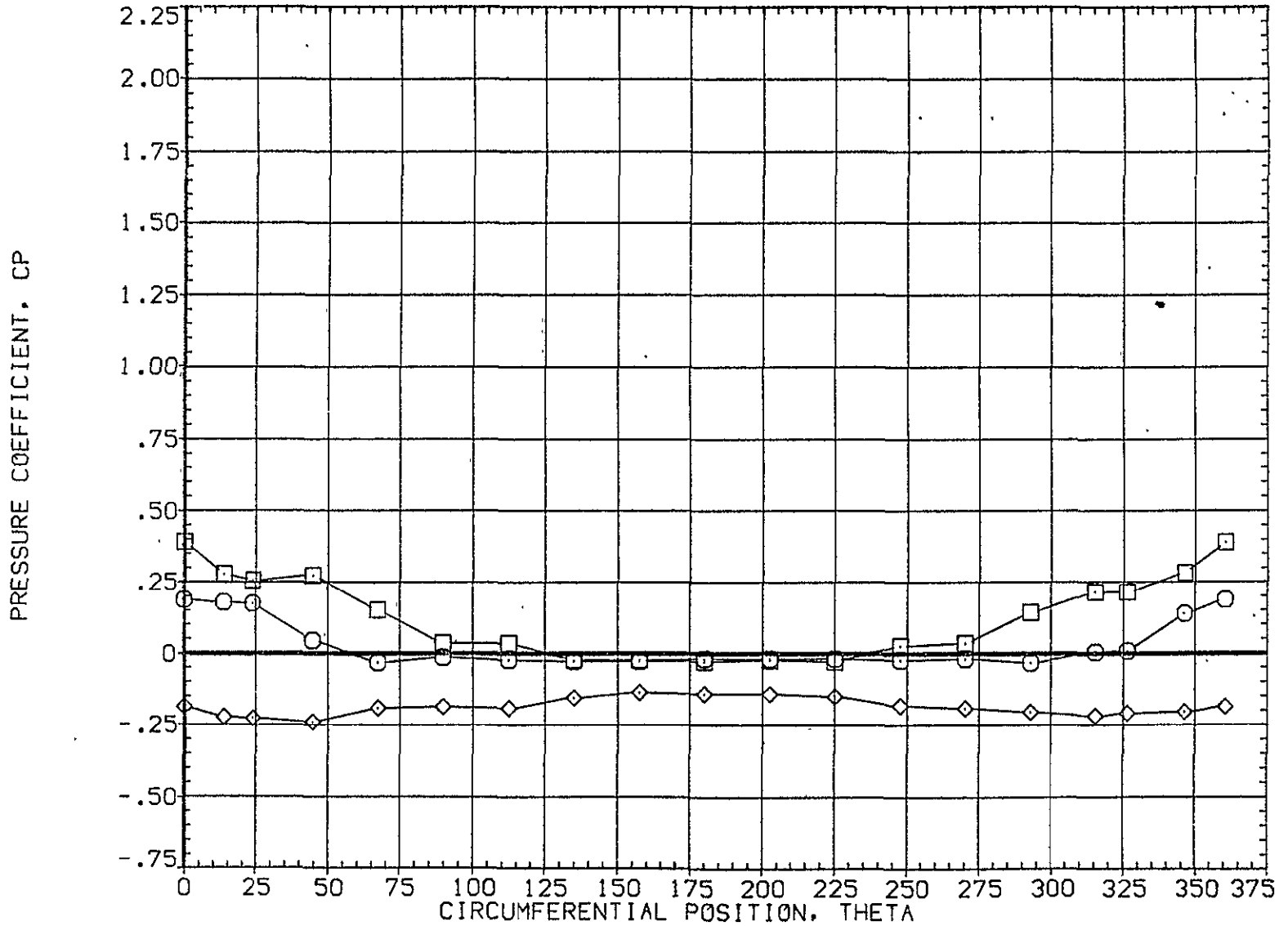


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A034)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.770	1.960	.000	.000	.000
□	.108			1.000	PHI	180.000
◇	.162					

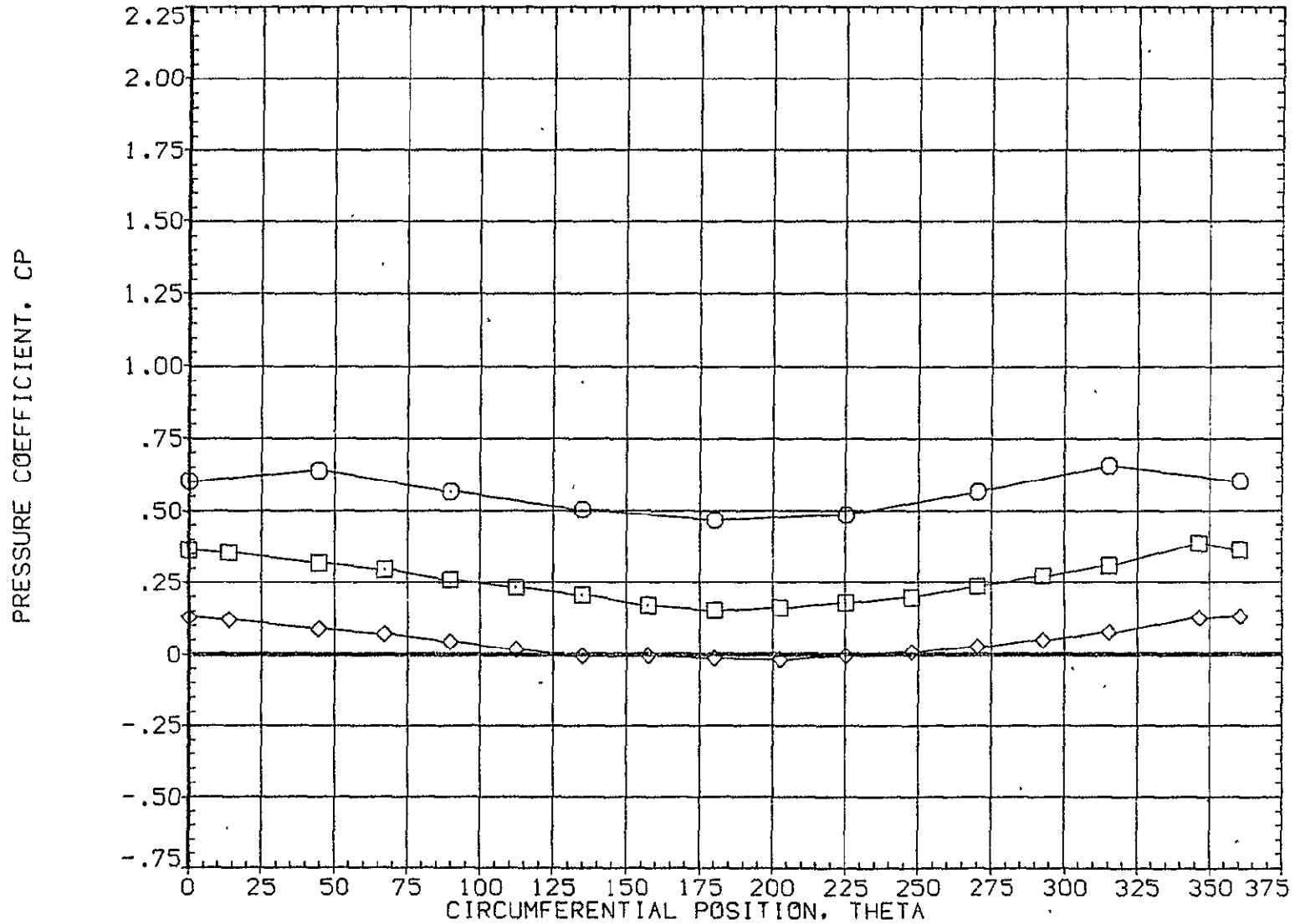


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB	ALPHA	MACH
.216	3.770	1.960
.322		
.518		

PARAMETRIC VALUES		
BETA	OFFSET	
MOUNT	1.000	PHI 180.000

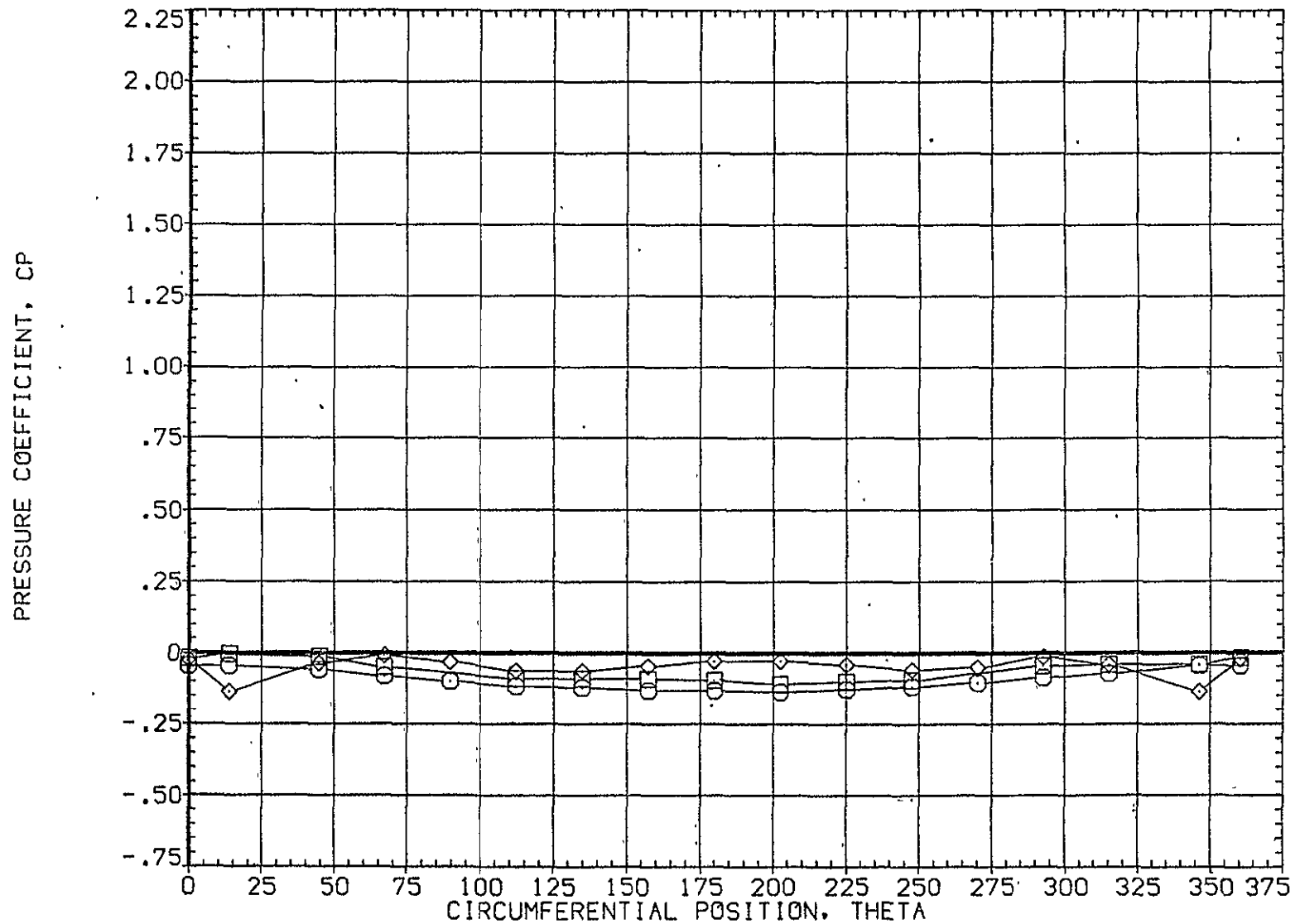


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(PIA034)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	3.770	1.960	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

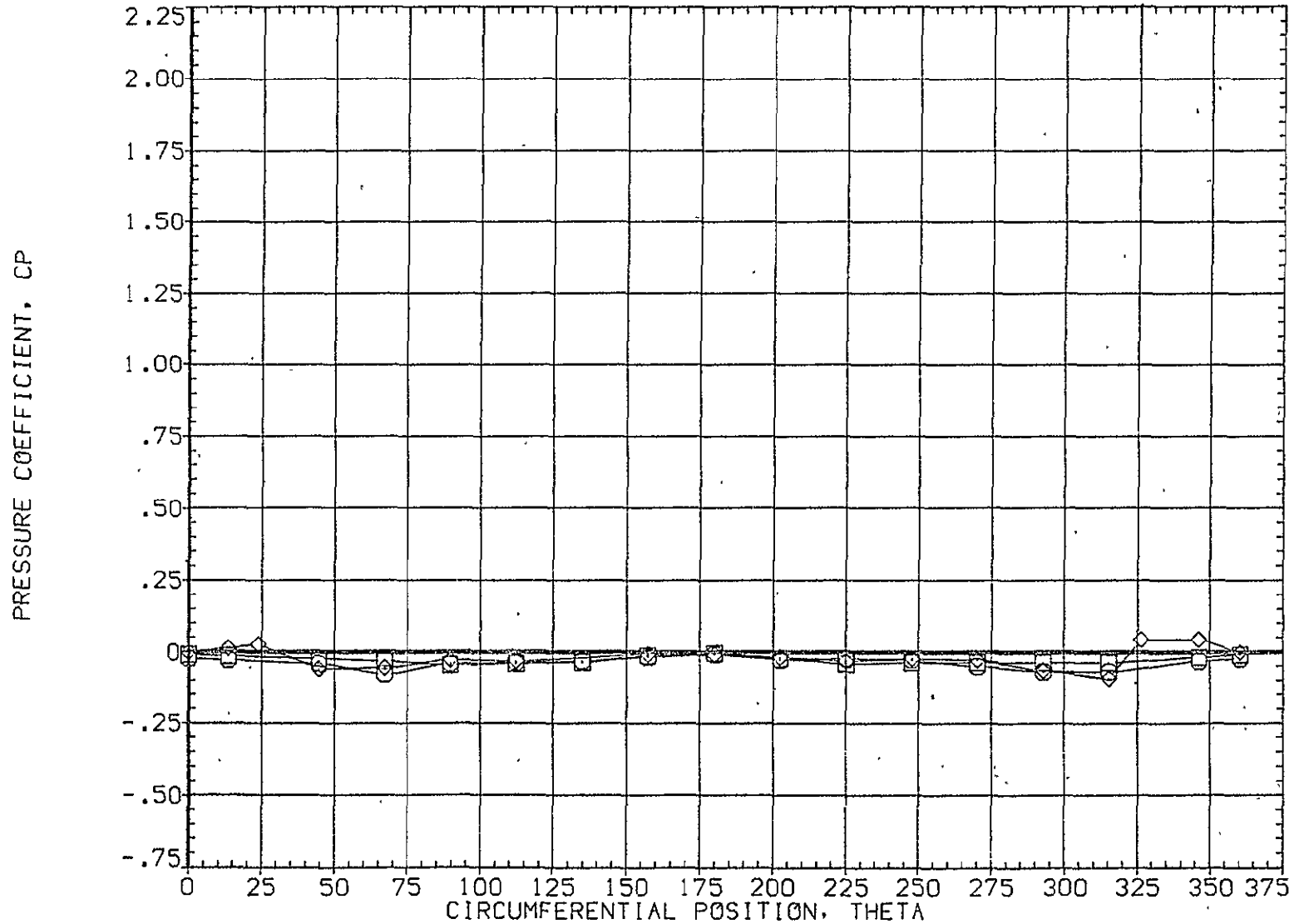


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	3.770	1.960	.000	.000	.000
□	.923			1.000		180.000
◇	.954					

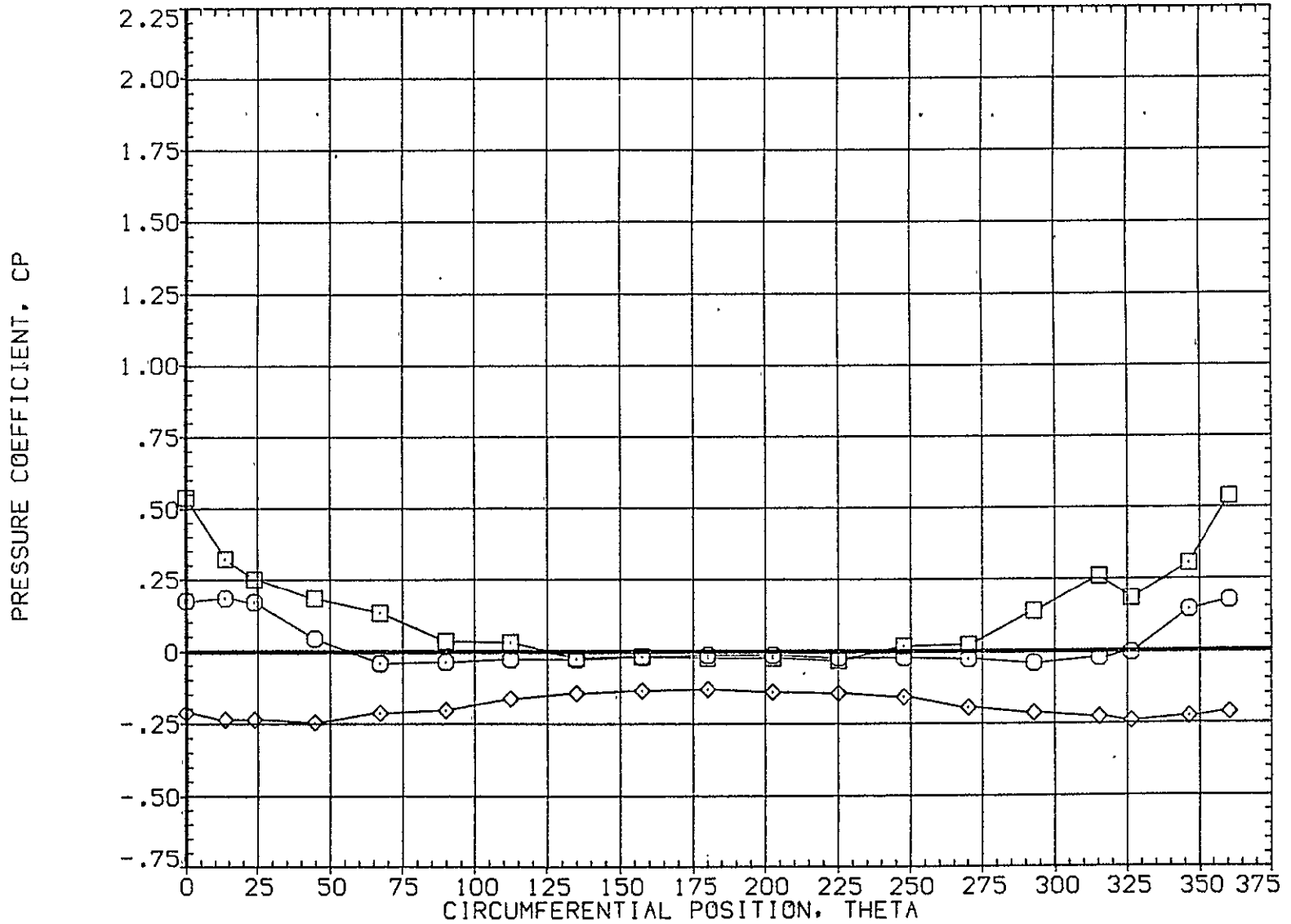


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .055
.108
.162

ALPHA 7.820

MACH 1.960

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI 180.000

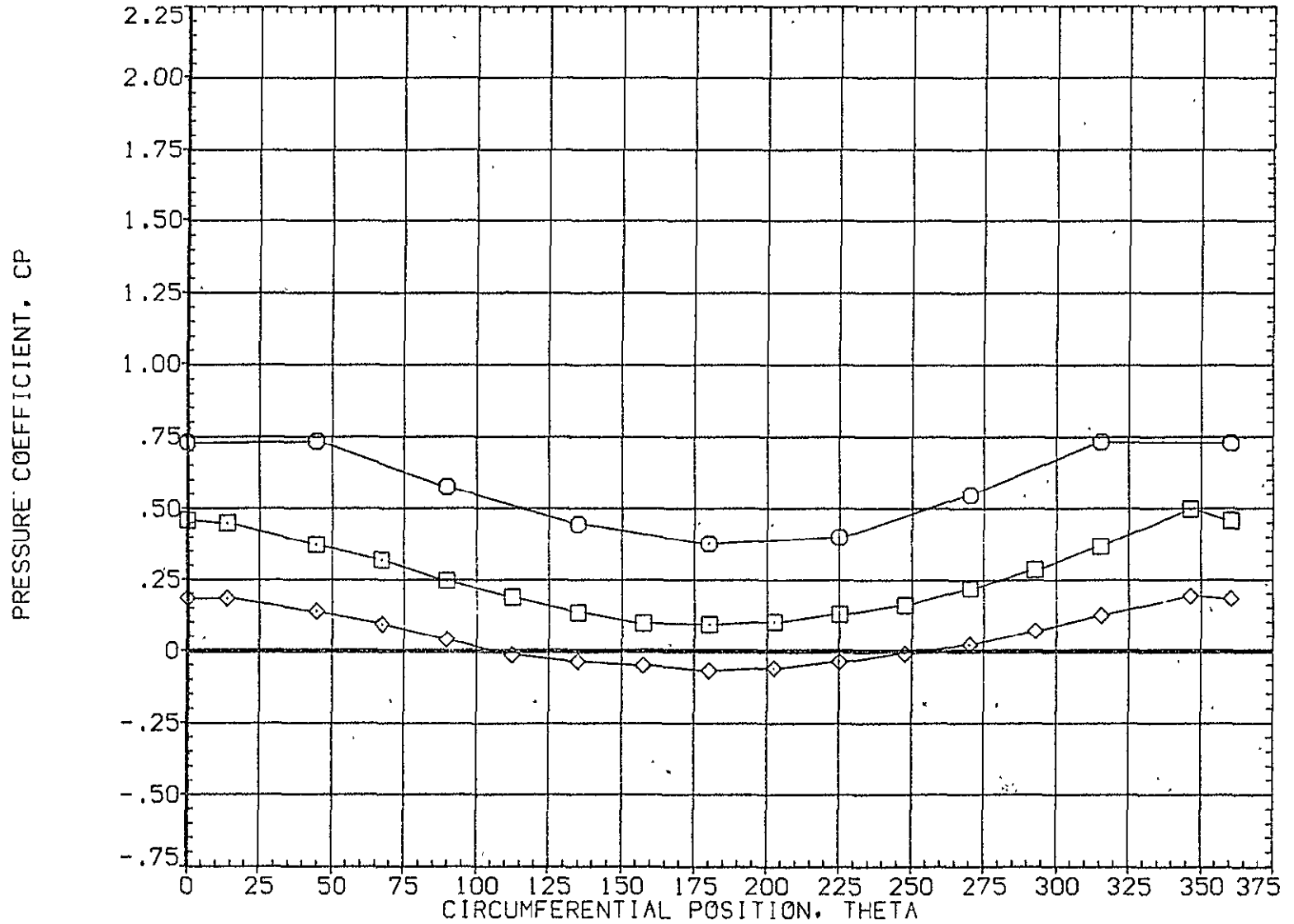


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	7.820	1.960	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

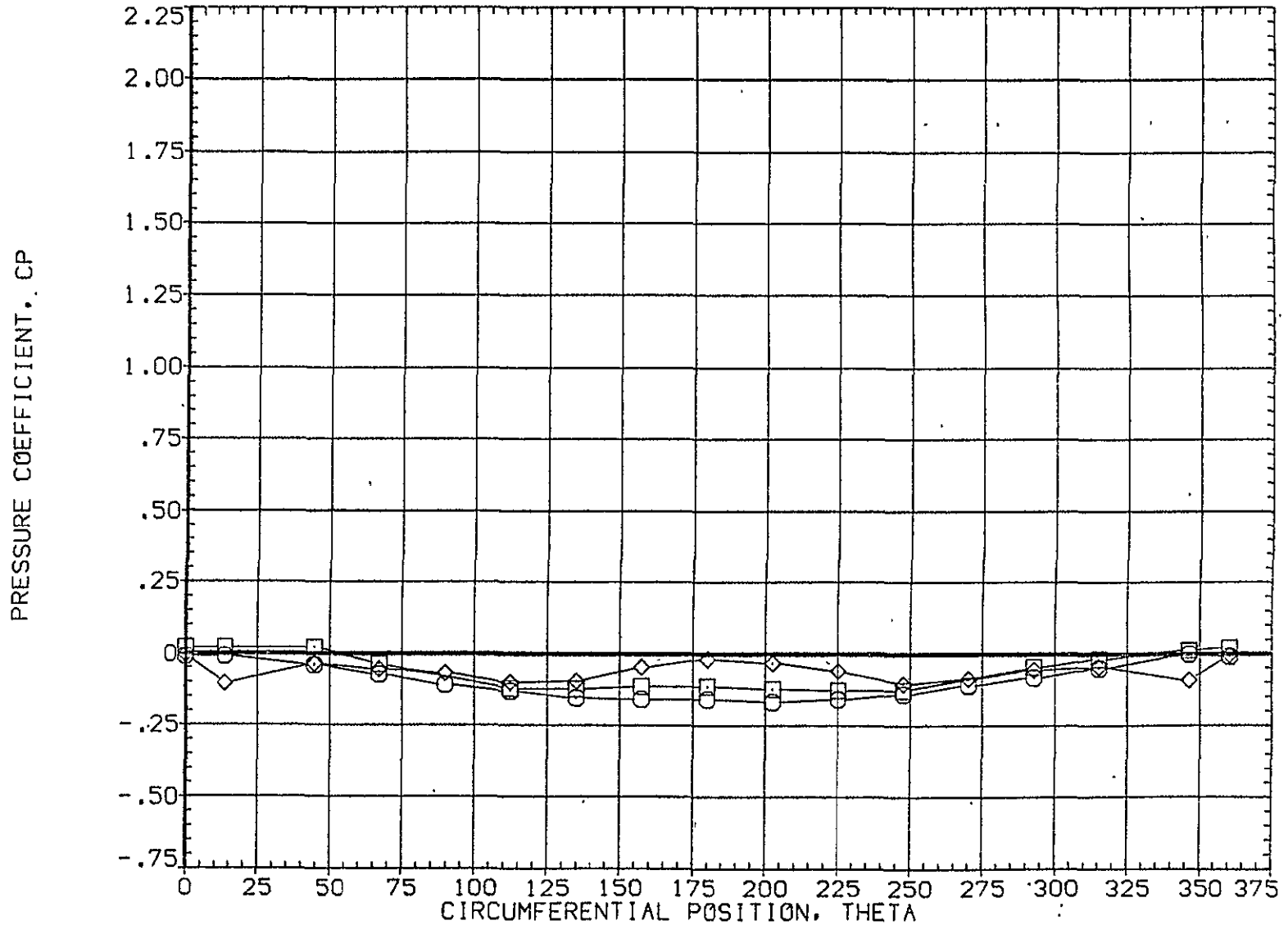


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A035)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	7.820	1.960	.000	.000	.000
□	.735			1.000	180.000	
◇	.860					

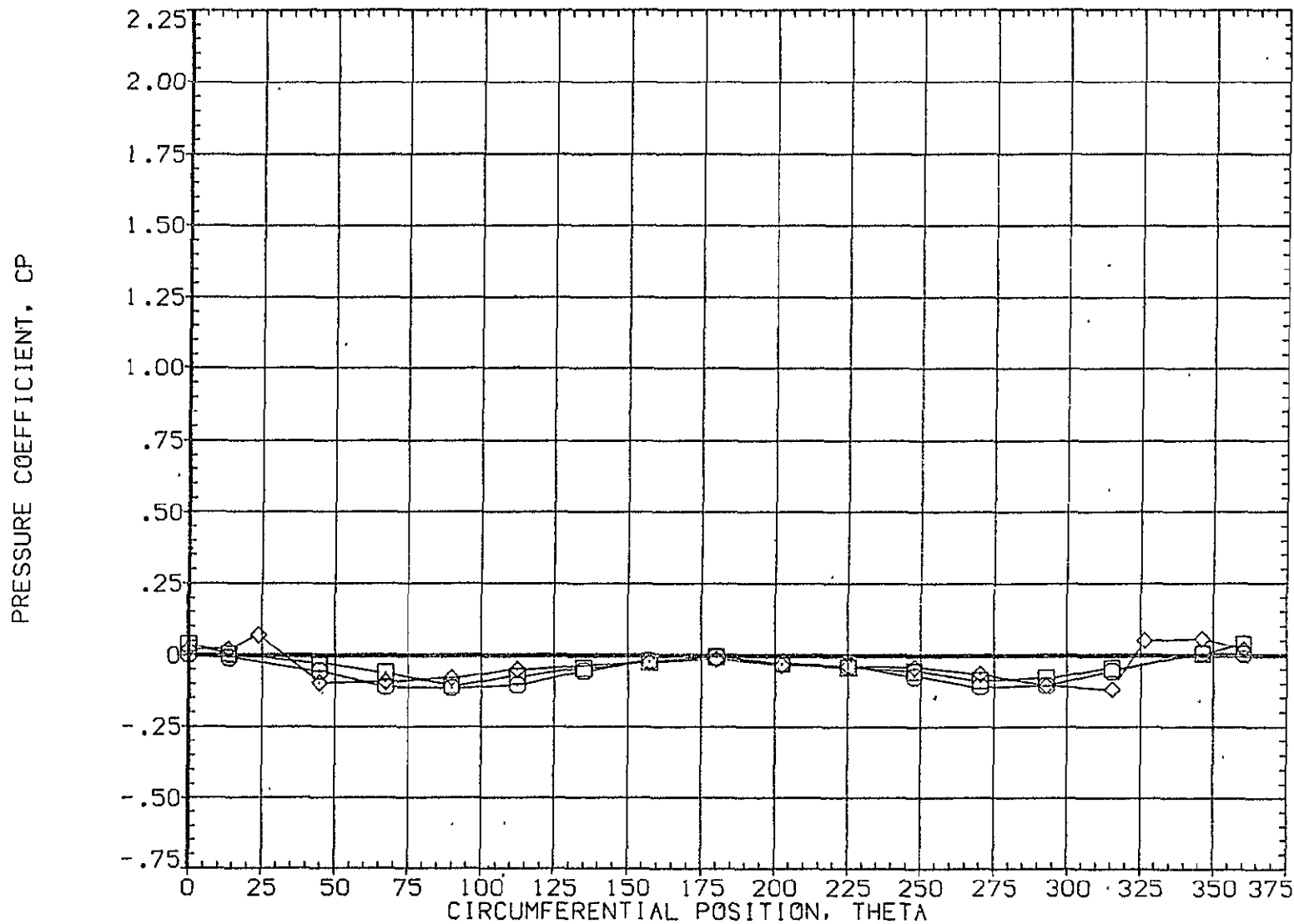


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	7.820	1.960	.000	.000	.000
□	.923			1.000		180.000
◇	.954					

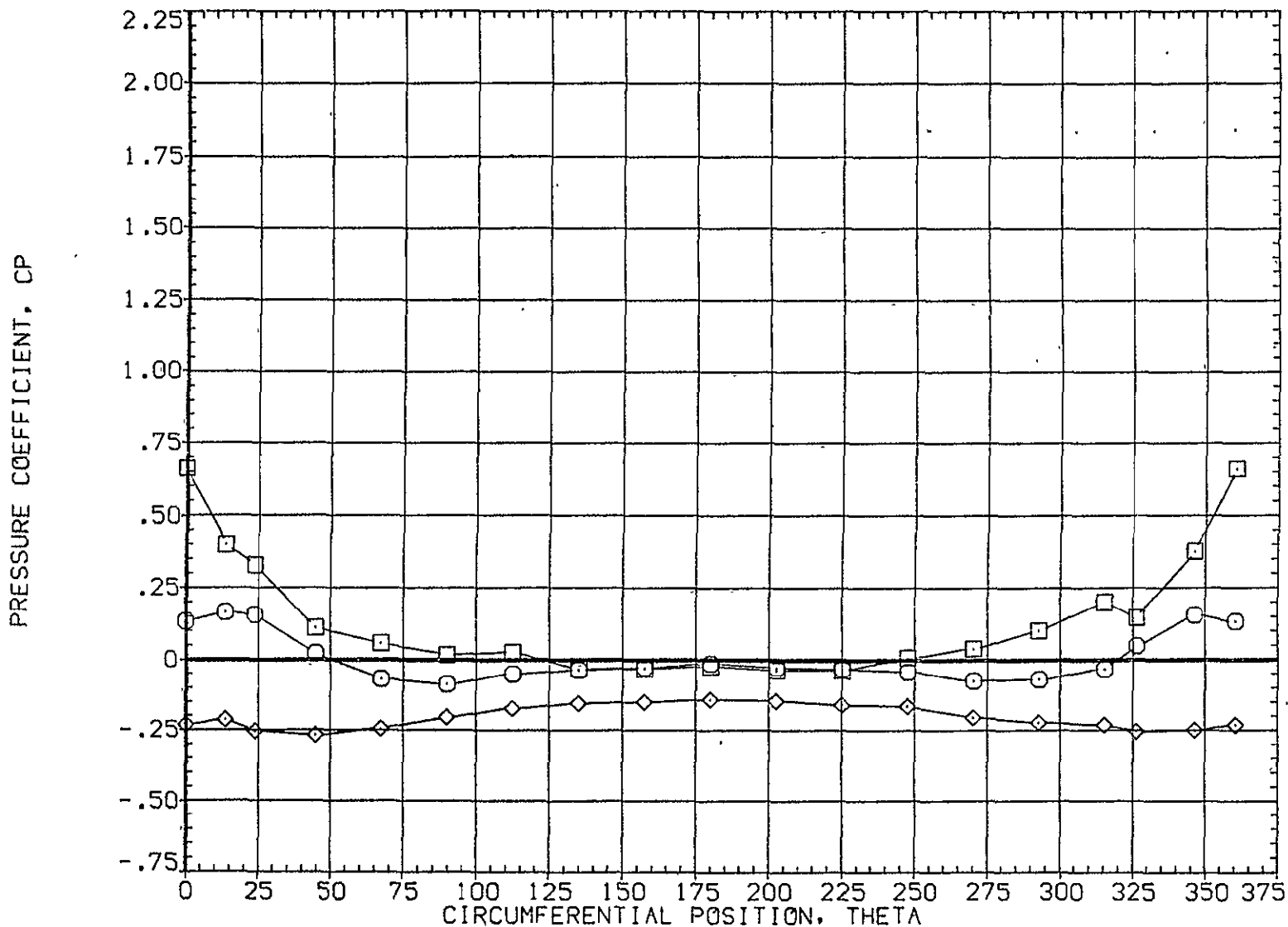


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	12.570	1.970	MCOUNT	1.000	PHI	180.000
□	.108						
◇	.162						

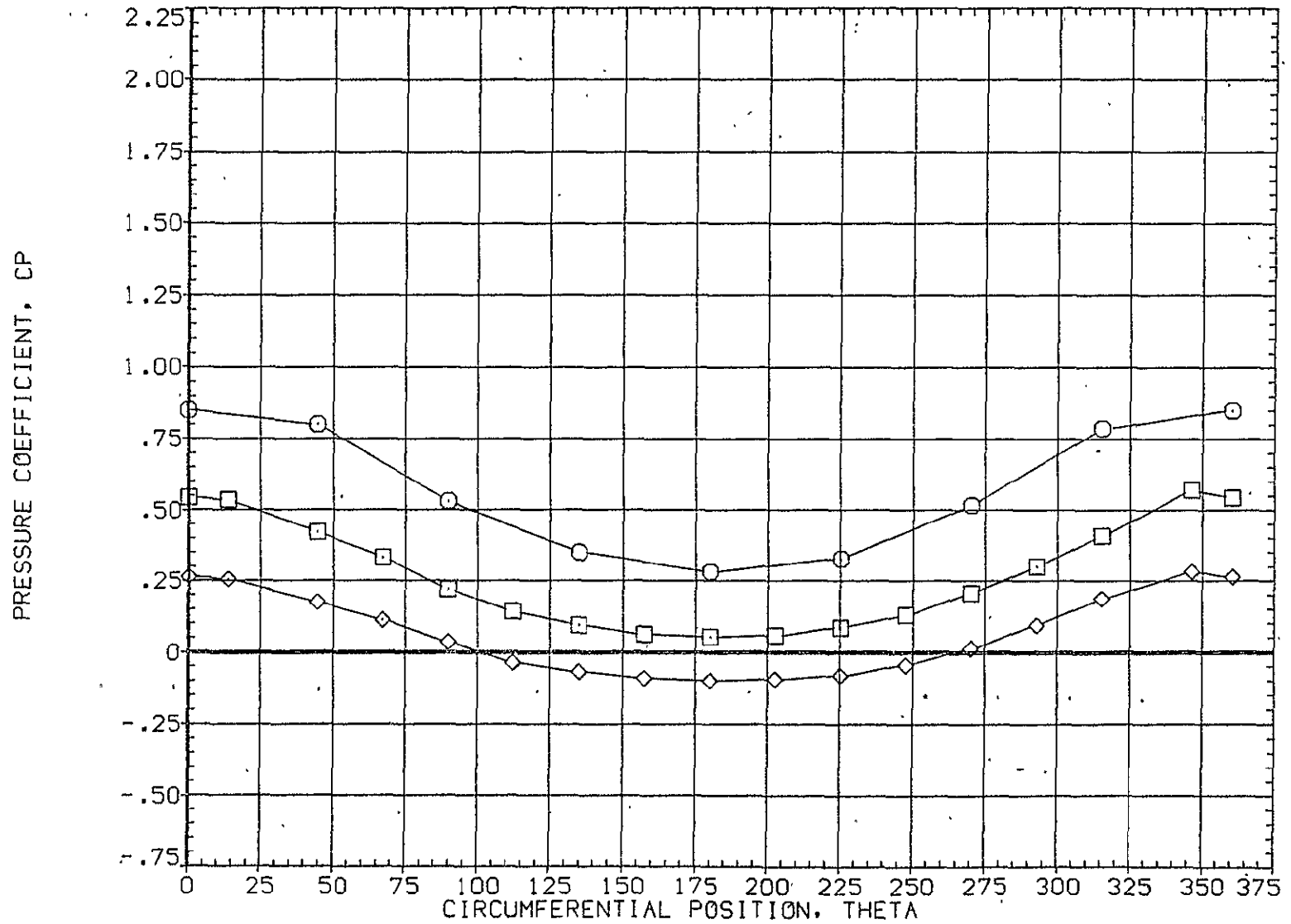


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	12.570	1.970	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

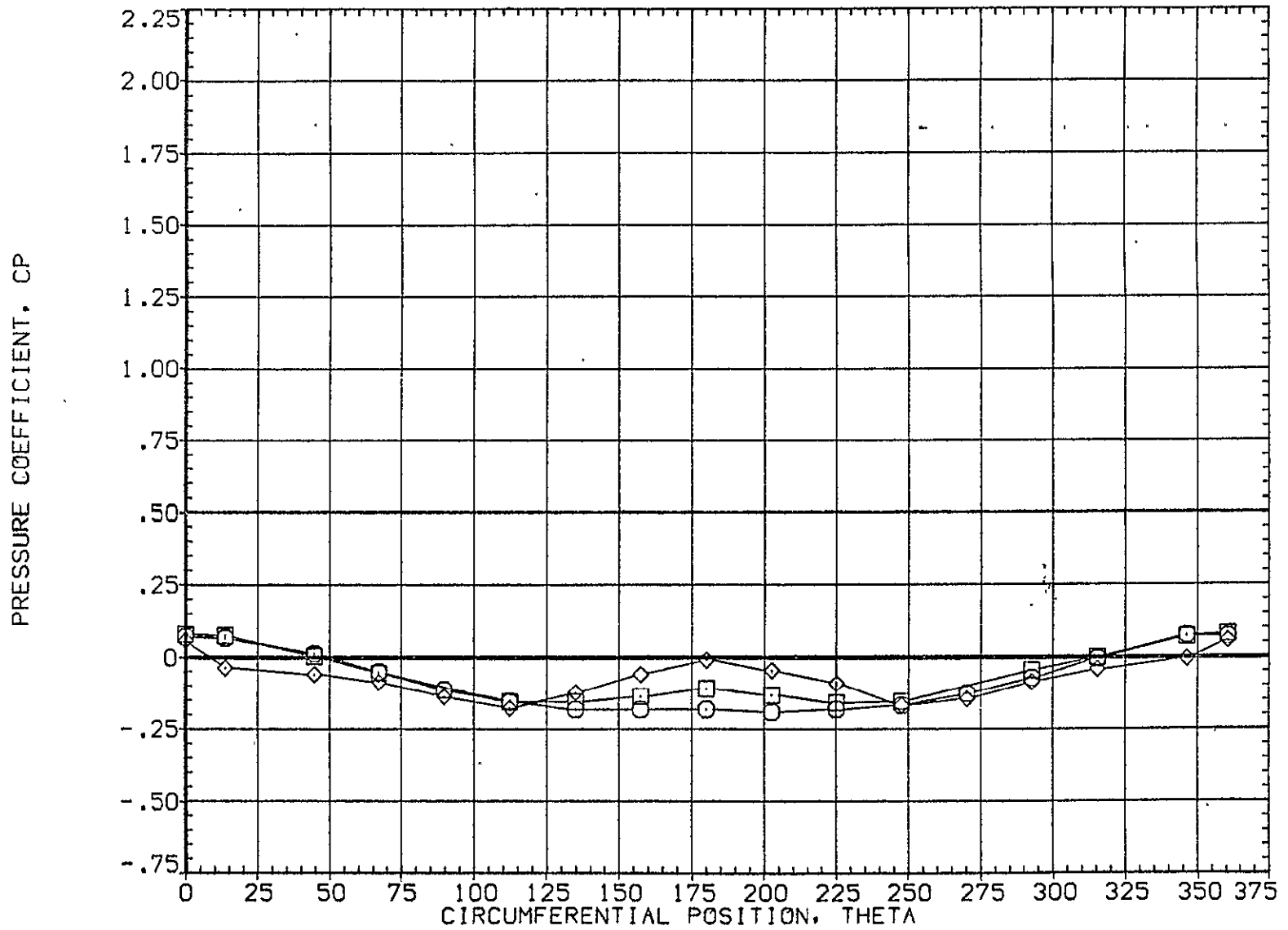


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A036)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	12.570	1.970	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

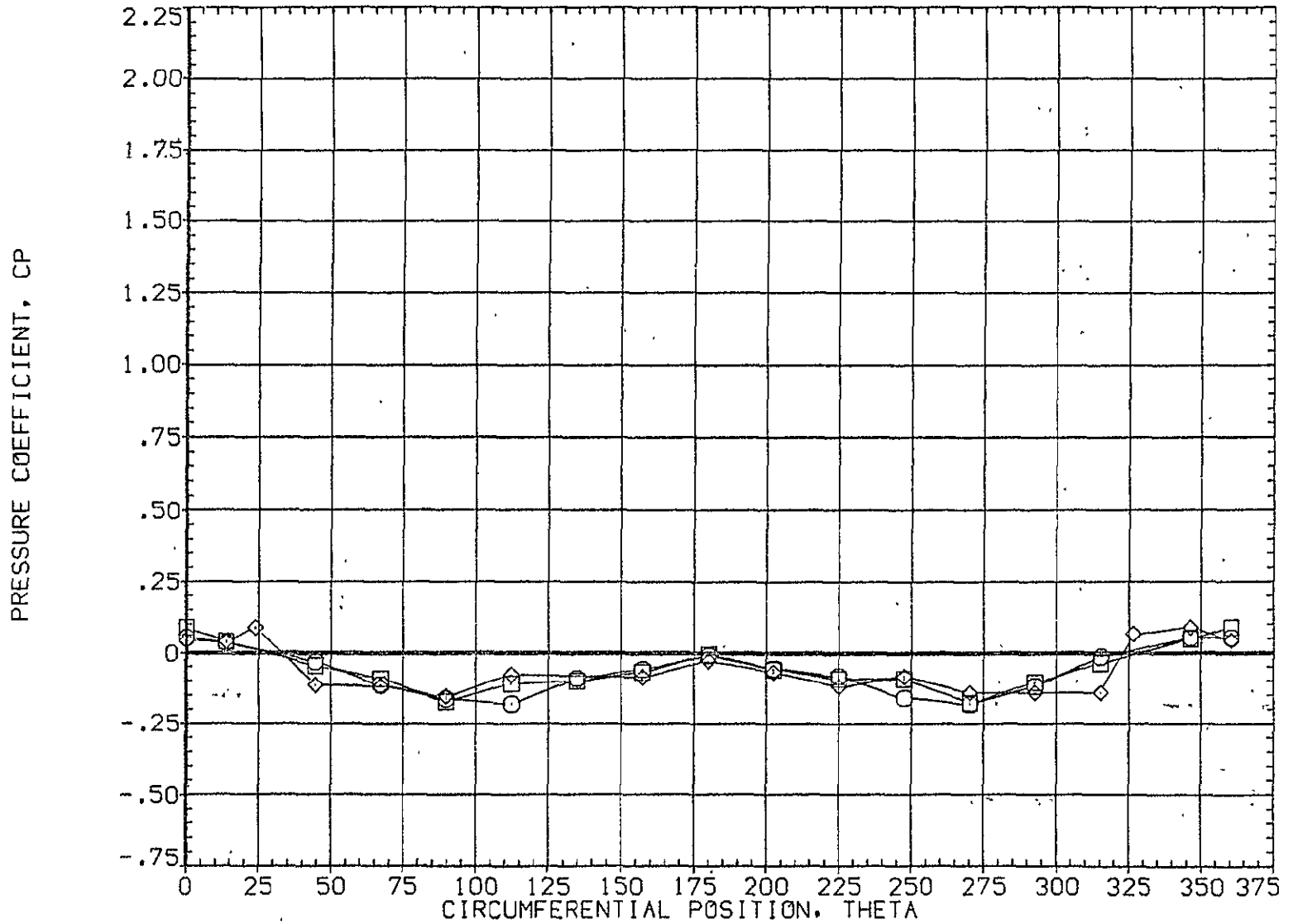


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	12.570	1.970	MOUNT	1.000	PHI	180.000
□	.923						
◇	.954						

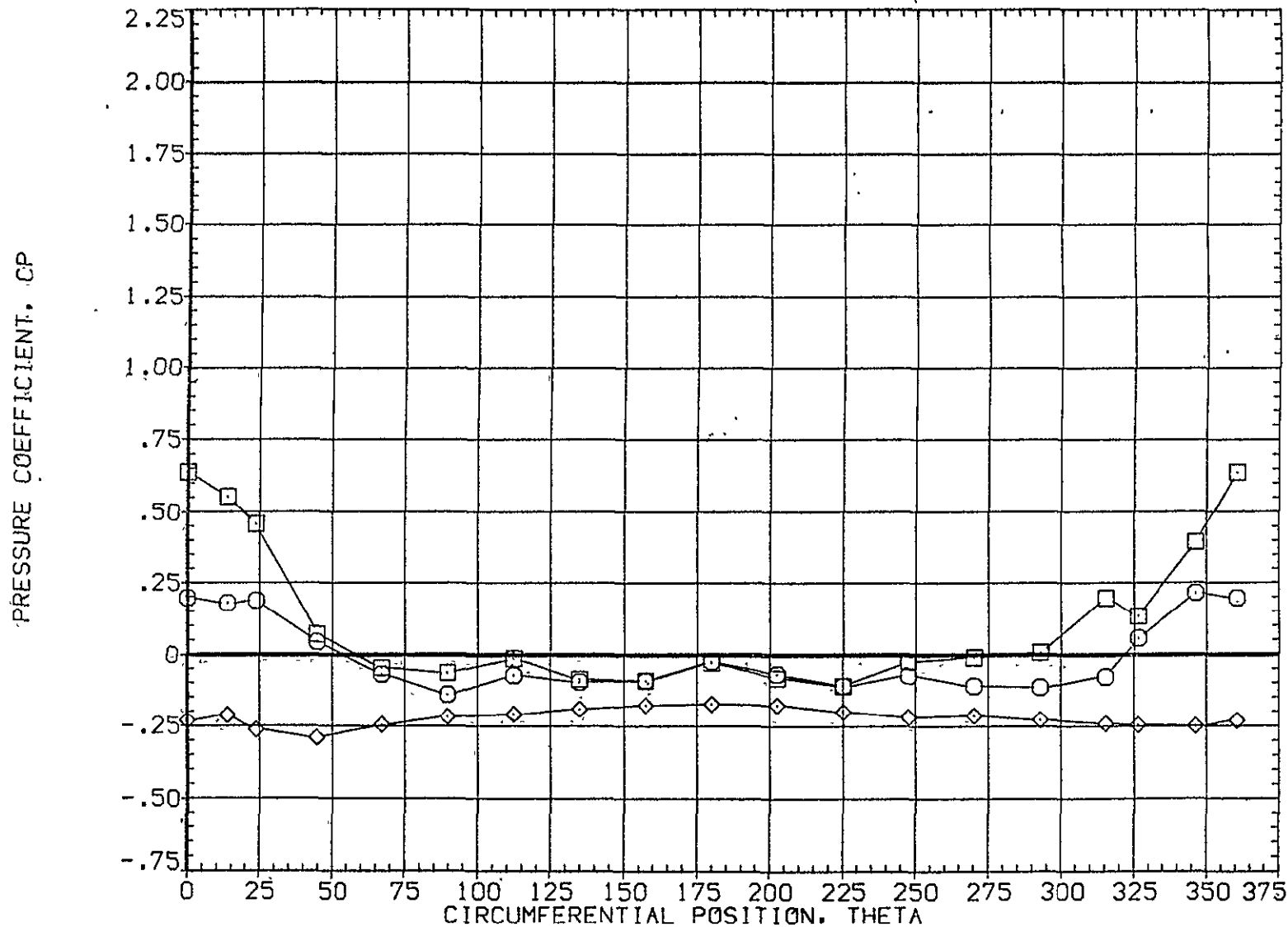


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	16.660	1.960	.000	20.000	
□	.108			1.000	180.000	
◇	.162					

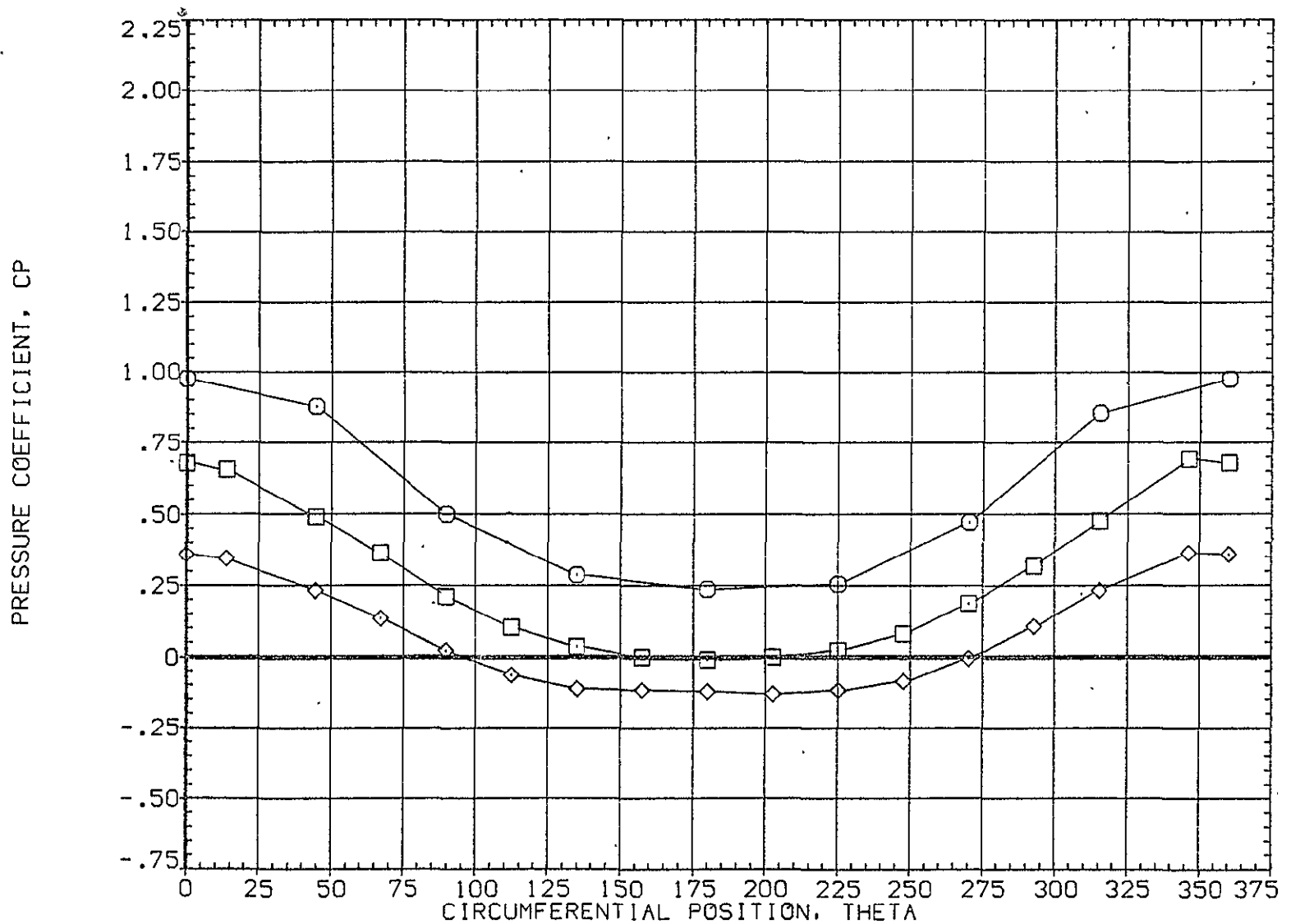


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	16.660	1.960	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

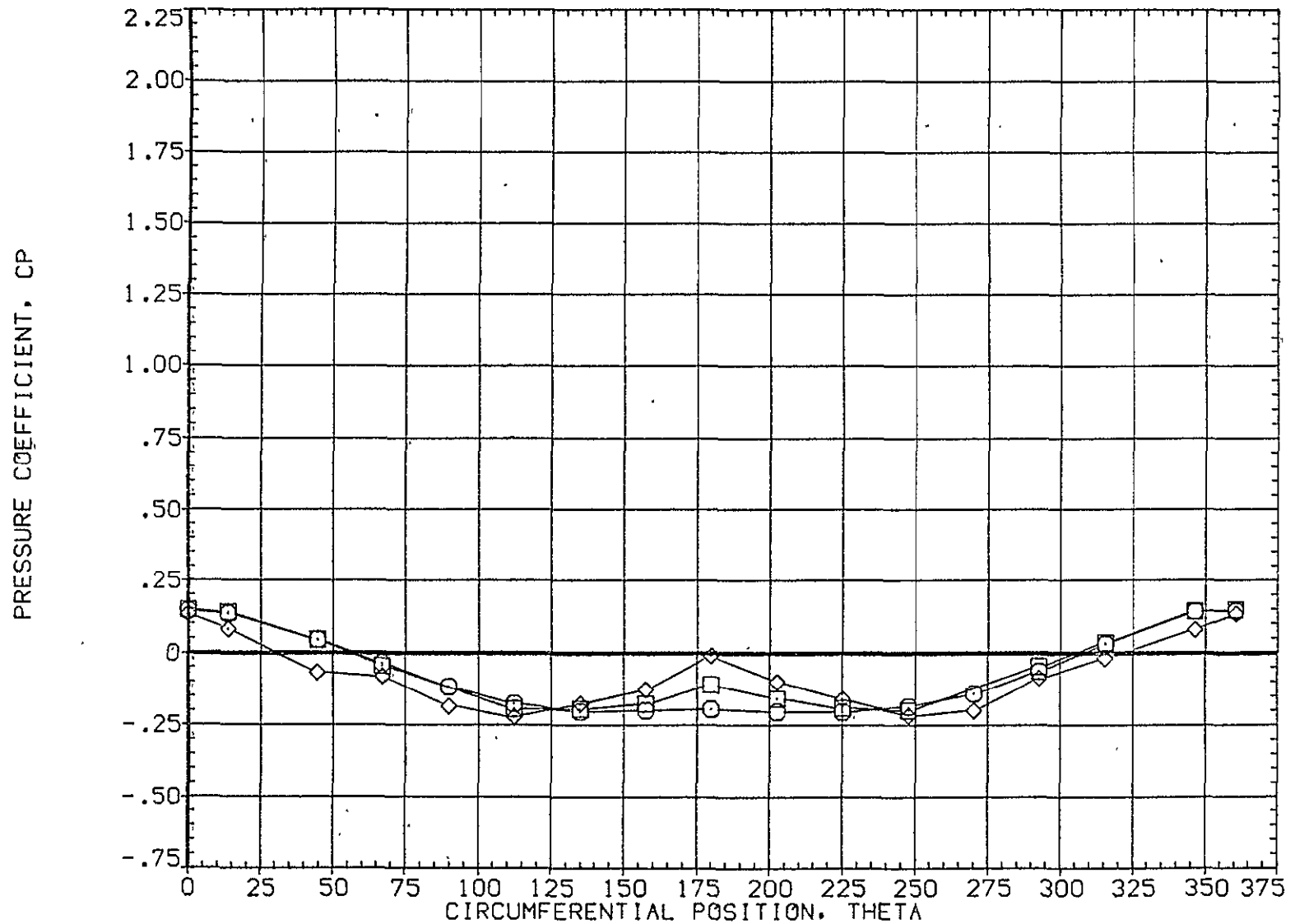


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A037)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	16.660	1.960	.000	20.000	
□	.735			1.000	180.000	
◇	.860					

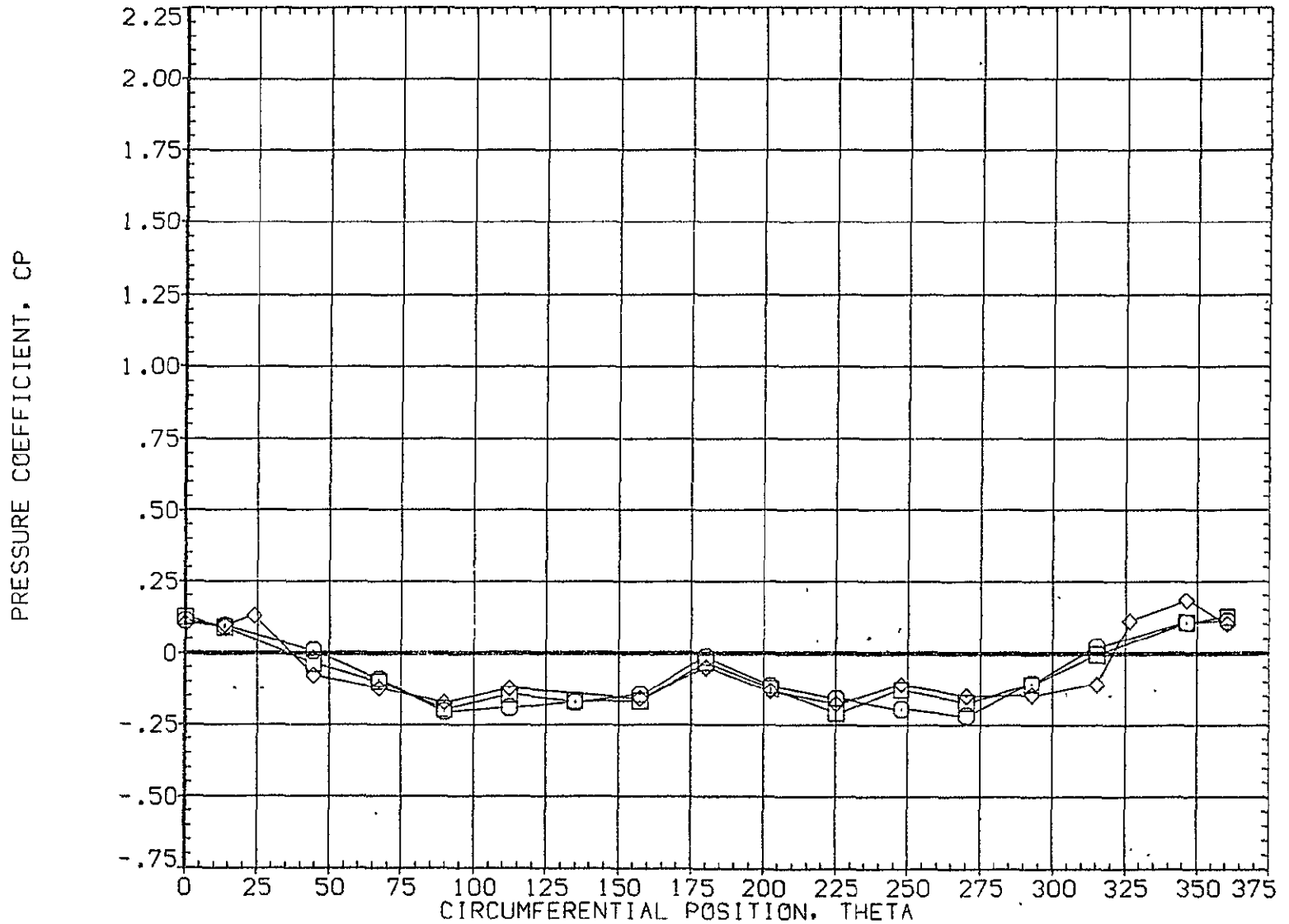


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 16.660 1.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET : 20.000
 MOUNT 1.000 PHI 180.000

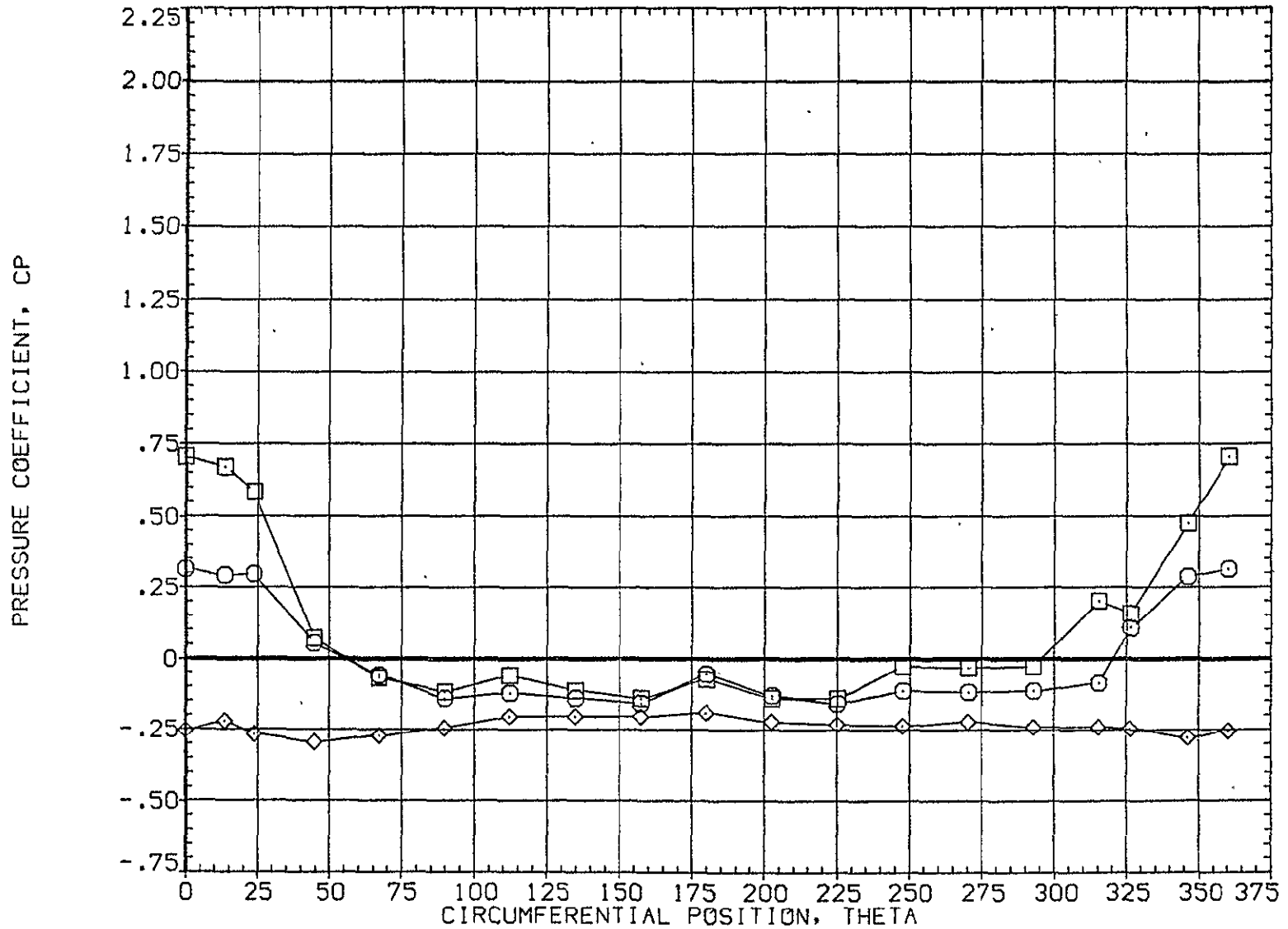


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A038)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	20.000
○	.055	20.740	1.960	MOUNT	1.000	PHI 180.000
□	.108					
◇	.162					

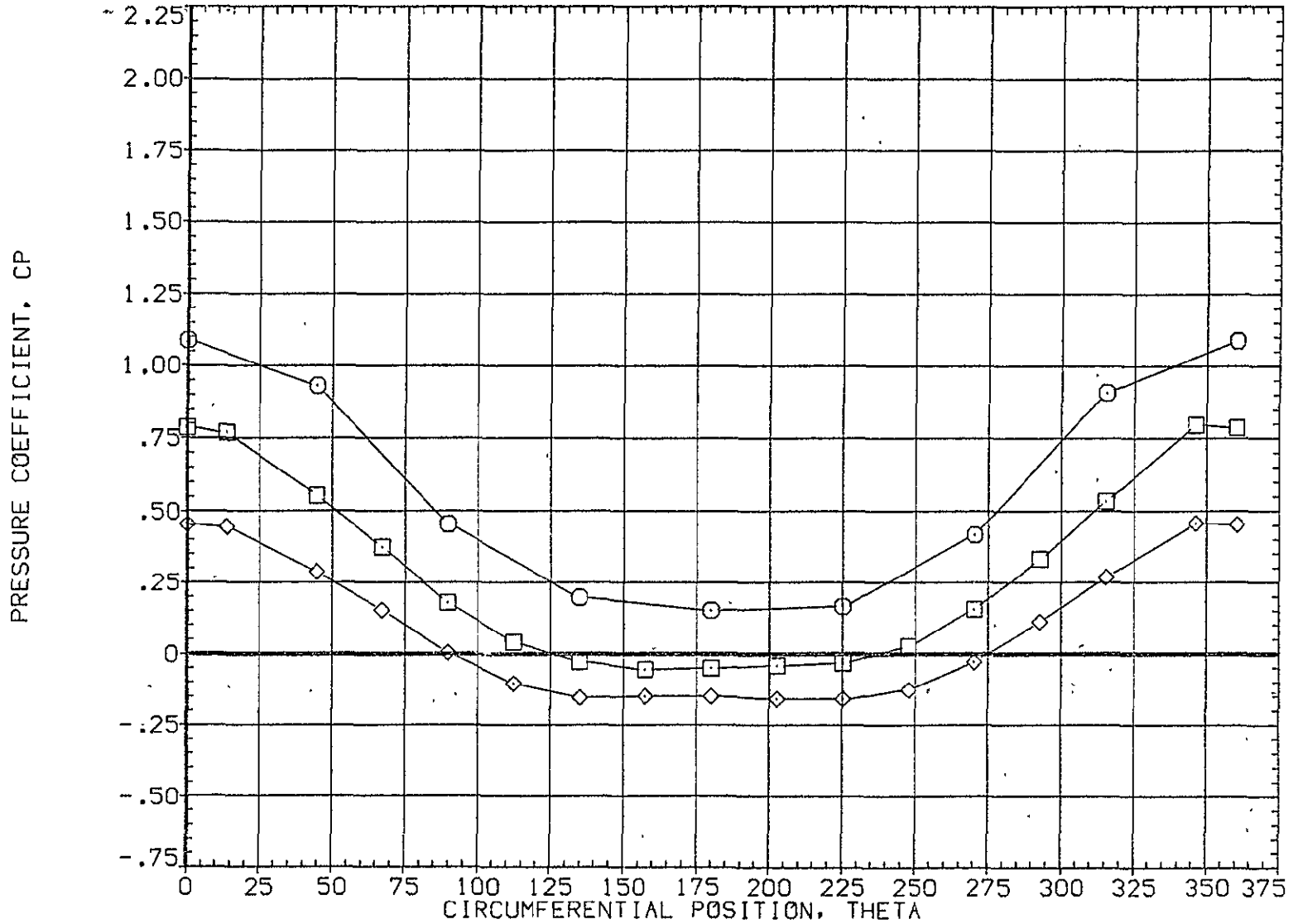


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.216	20.740	1.960
□	.322		
◇	.518		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	180.000

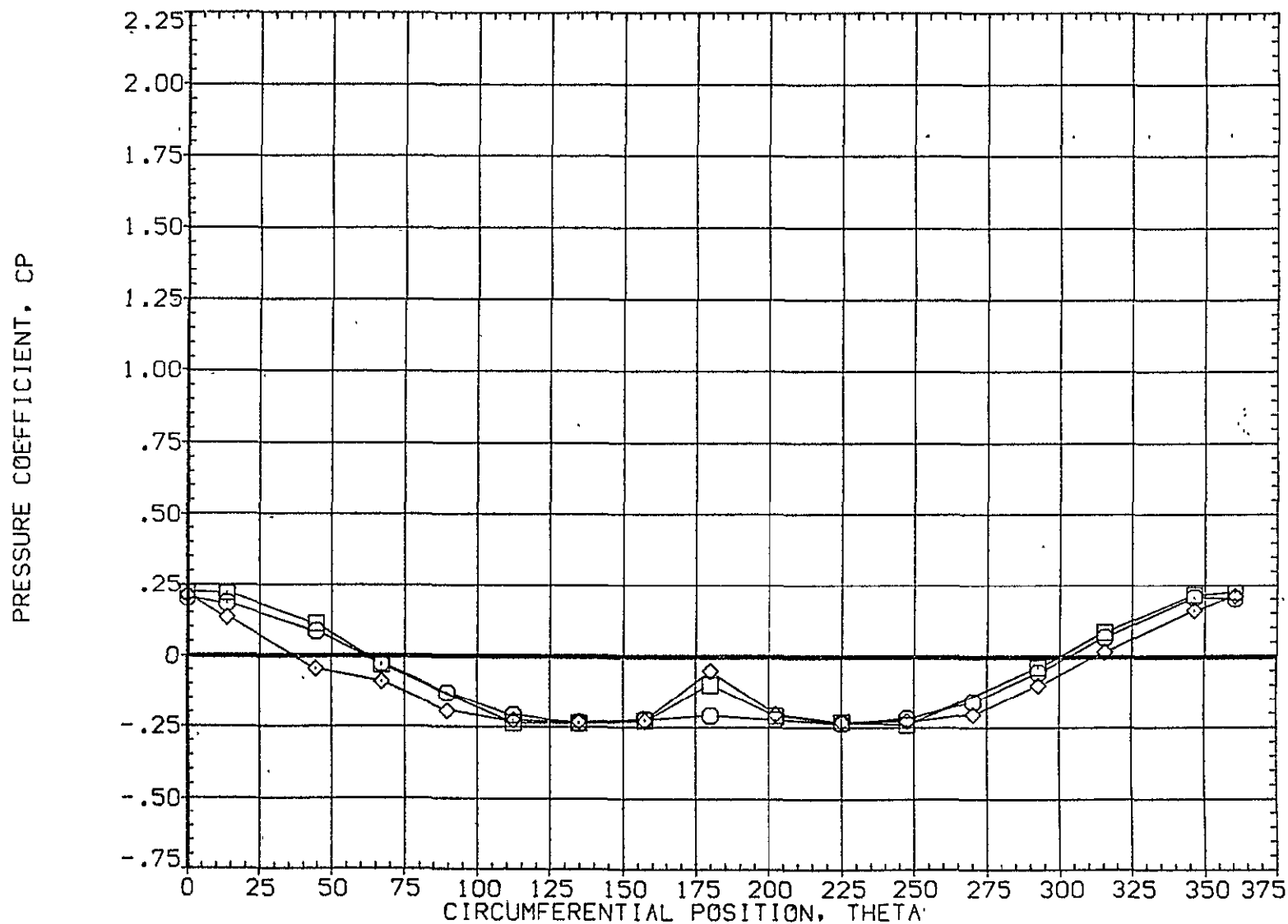


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A038)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.740	1.960	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

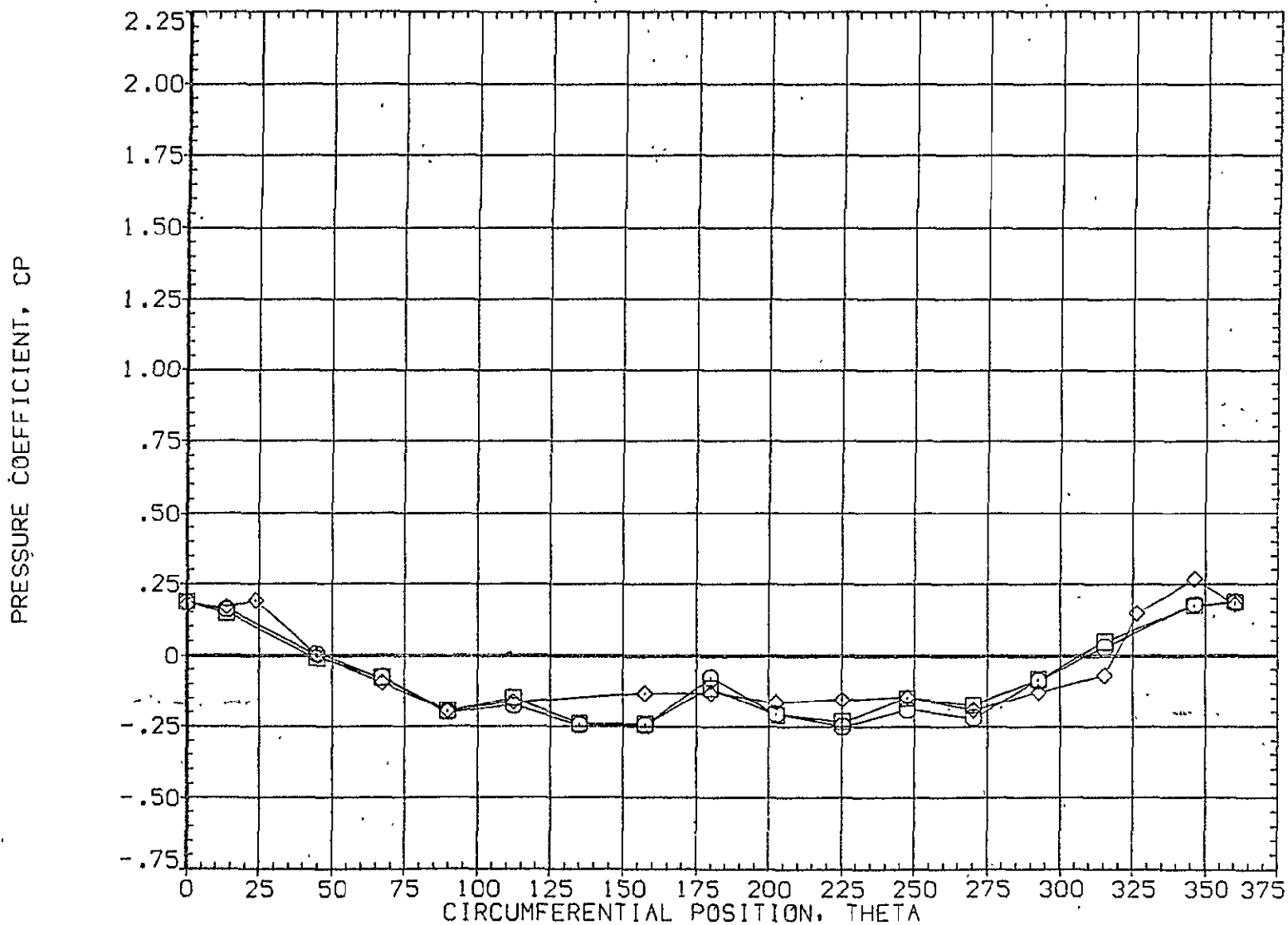


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 20.740 1.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 180.000

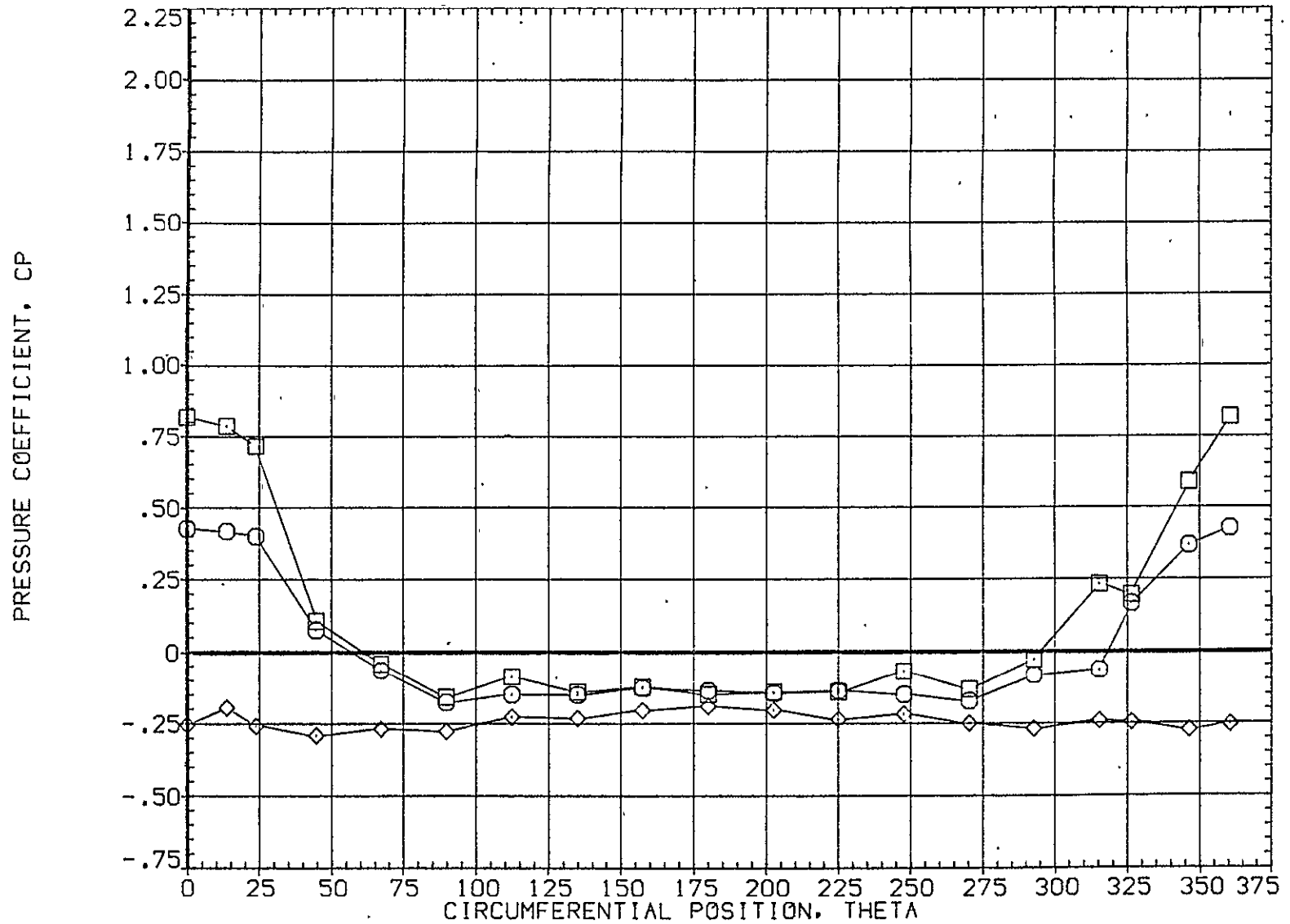


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	24.870	1.960	MOUNT	1.000	PHI	180.000
□	.108						
◇	.162						

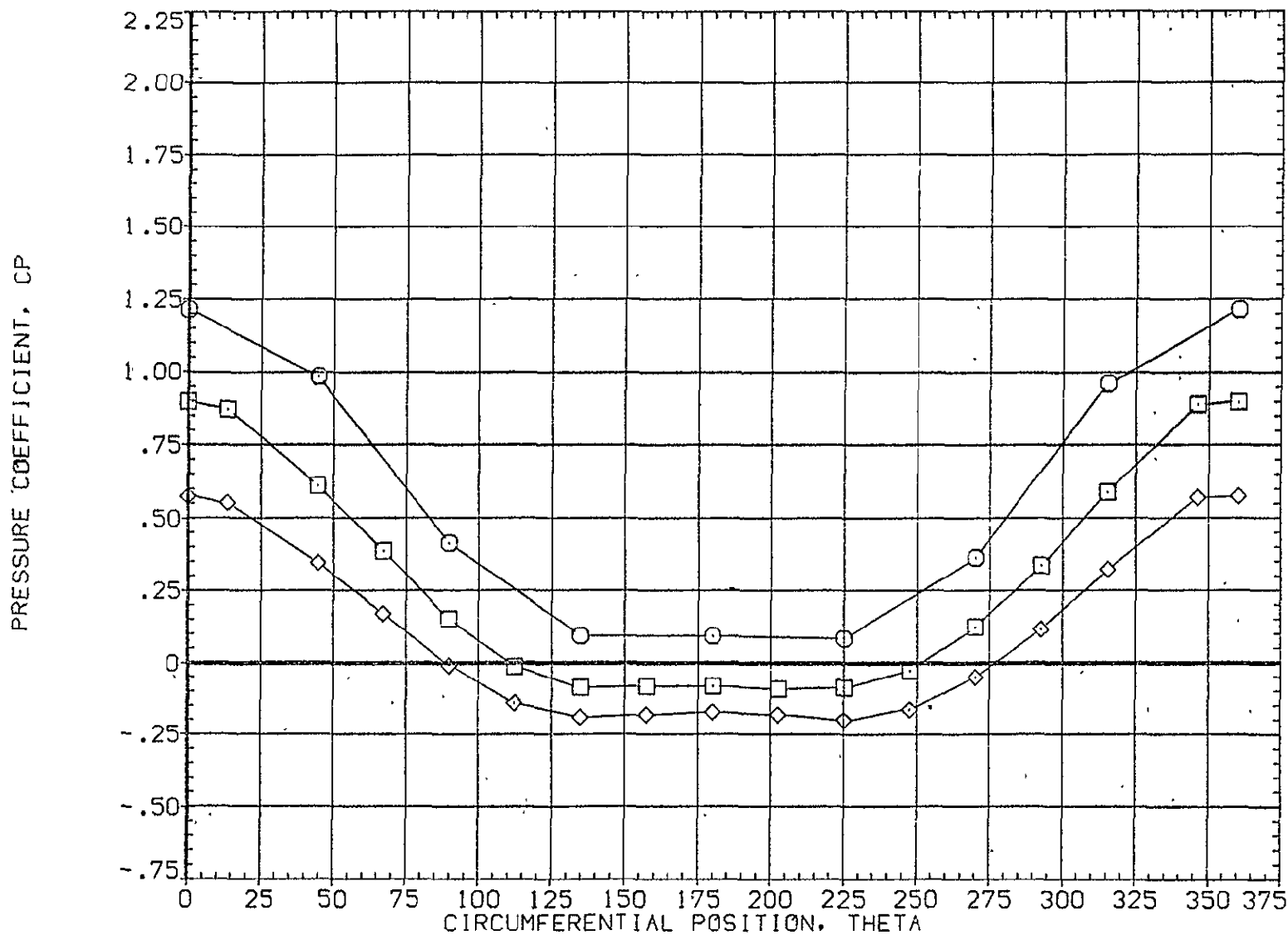


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	24.870	1.960	.000	20.000	
□	.322			1.000	180.000	
◇	.518					

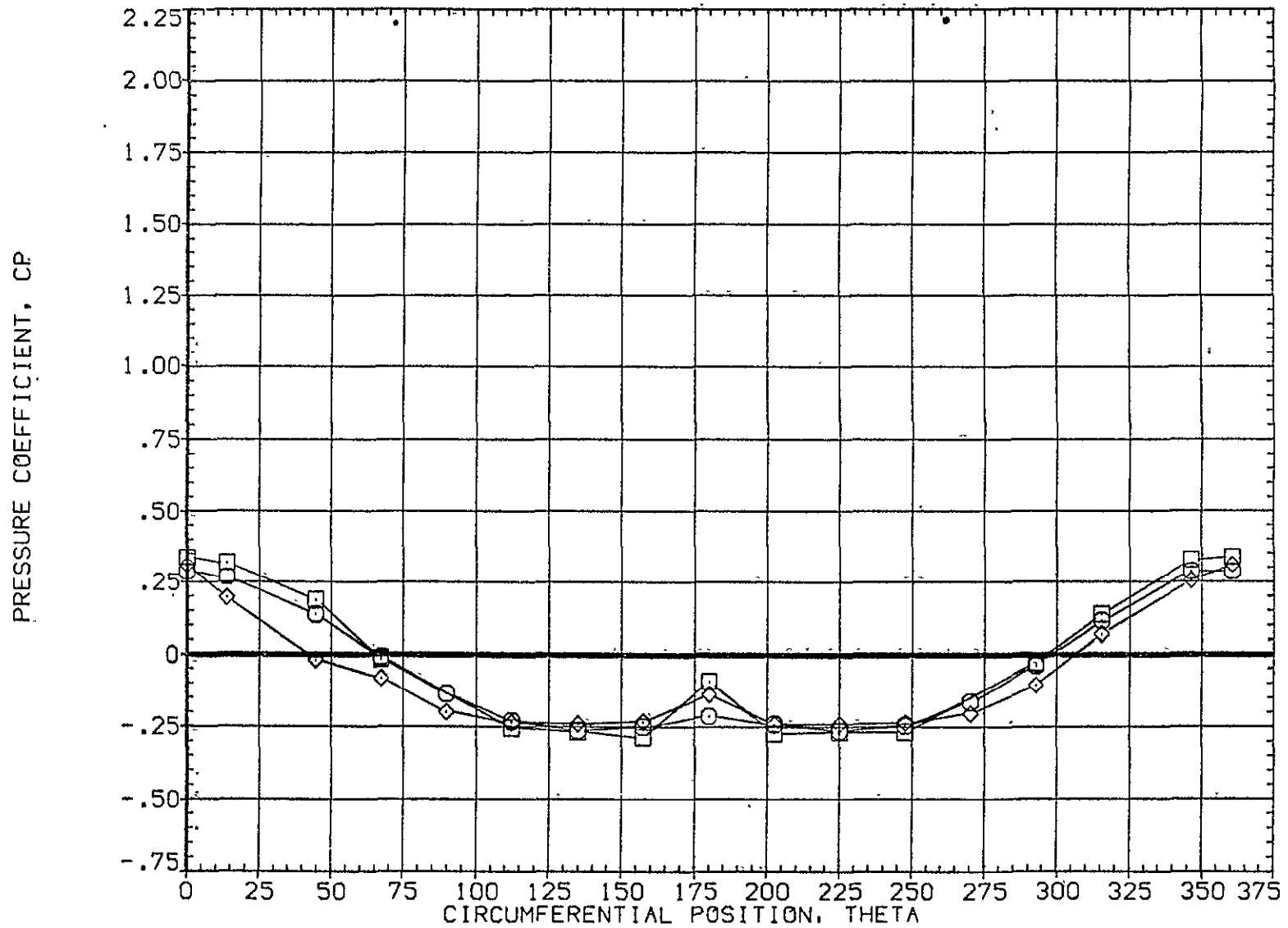


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(PIA039)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.610	24.870	1.960	BETA	.000	OFFSET	20.000
□	.735			MDUNT	1.000	PHI	180.000
◇	.860						

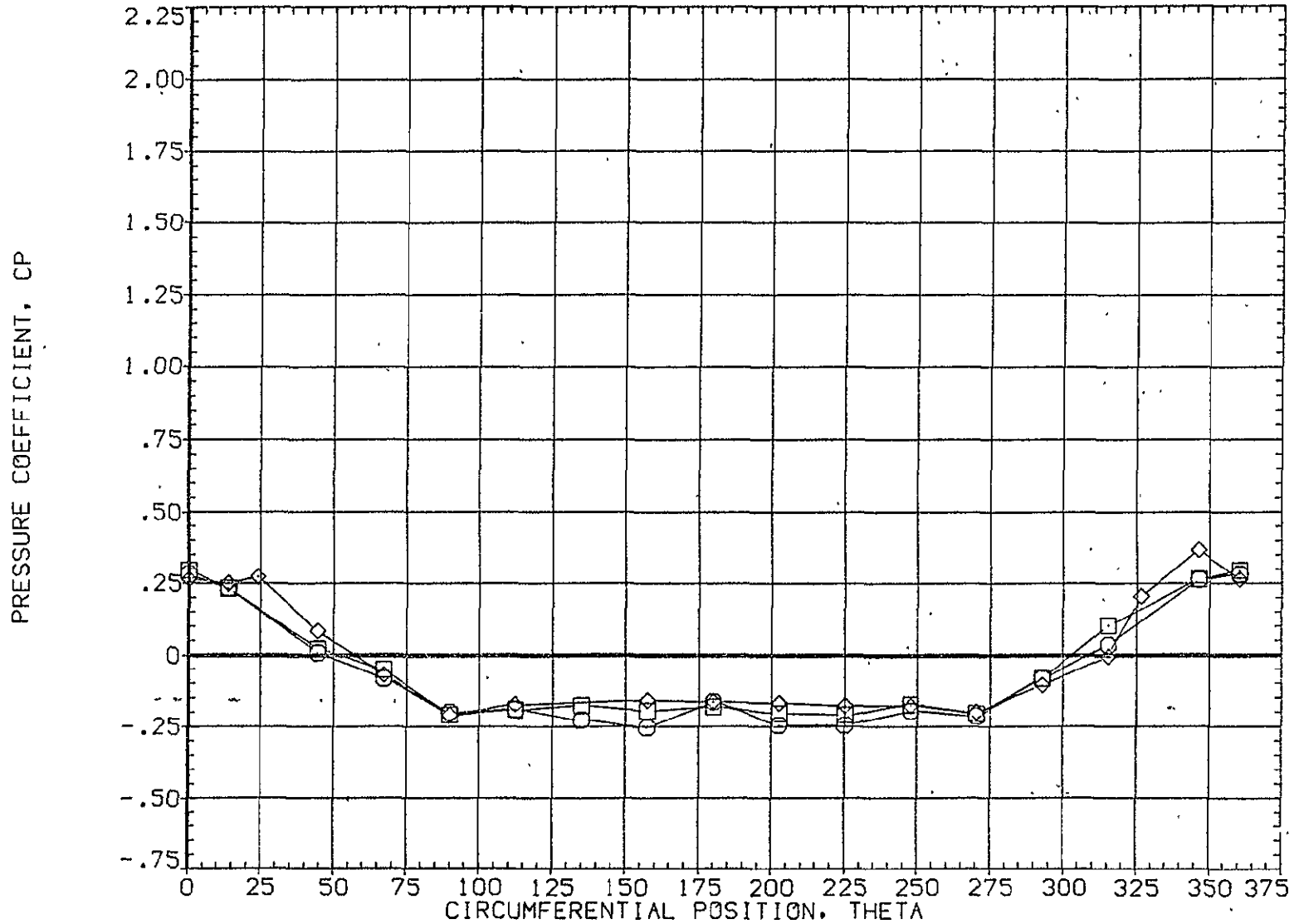


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 24.870
 MACH 1.960

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 180.000

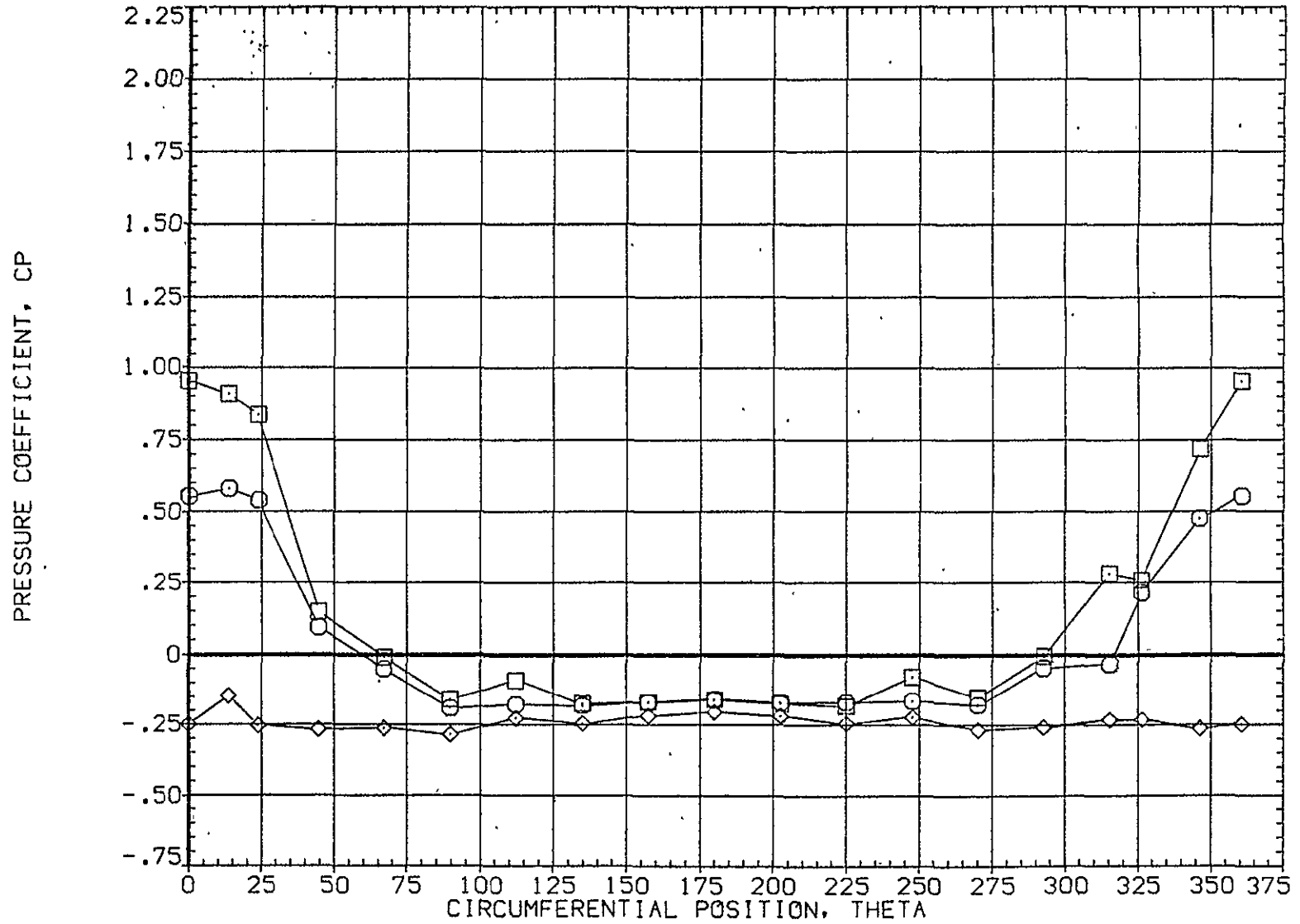


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A040)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	28.930	1.960	.000	20.000		
□	.108			1.000	180.000		
◇	.152						

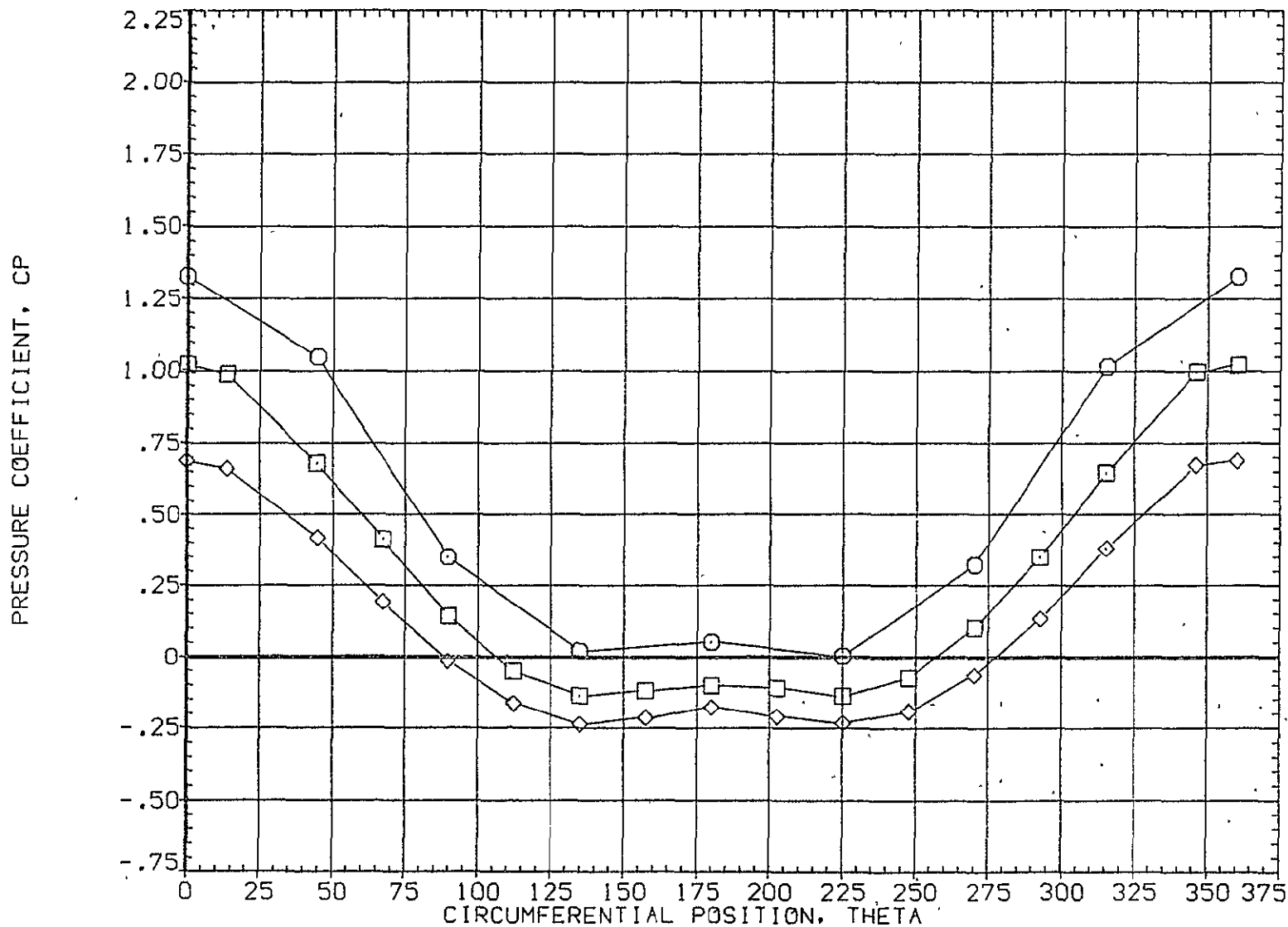


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.216	28.930	1.960	BETA	.000	OFFSET	20.000
□	.322			MOUNT	1.000	PHI	180.000
◇	.518						

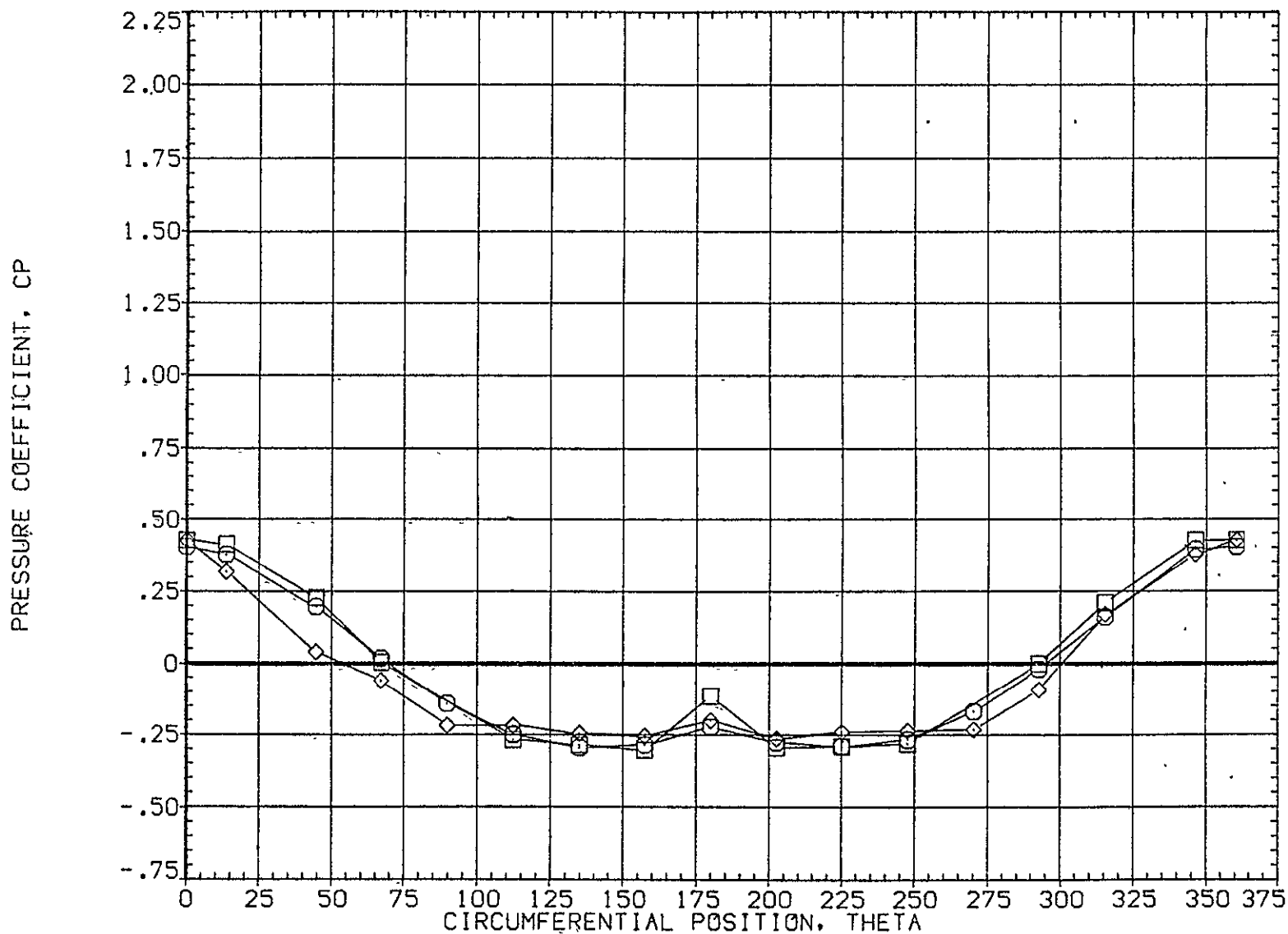


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A040)

SYMBOL
○
□
◇

X/LB .610
ALPHA 28.930
MACH 1.960

PARAMETRIC VALUES
BETA .000 OFFSET 20.000
MOUNT 1.000 PHI 180.000

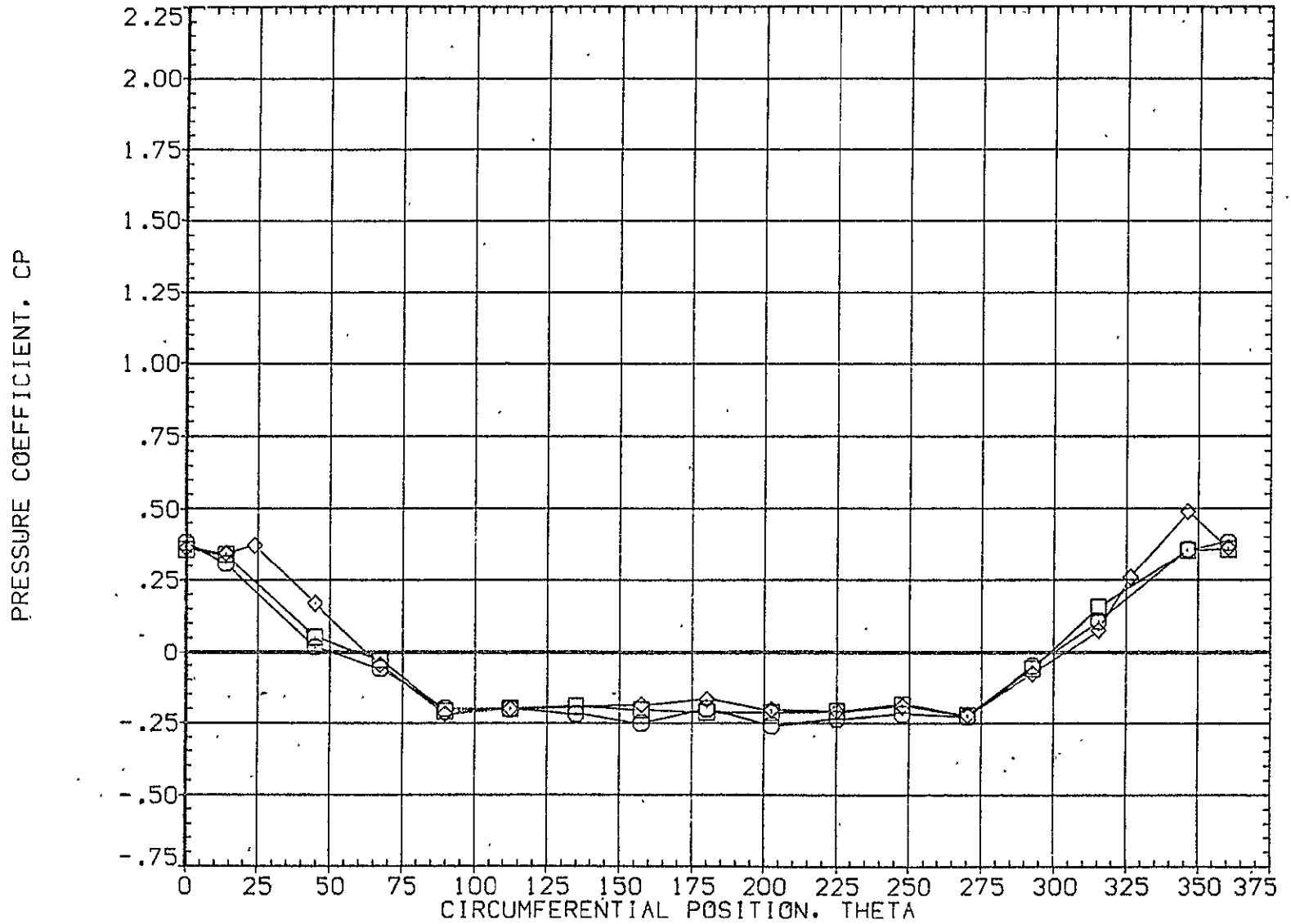


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 28.930 1.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 180.000

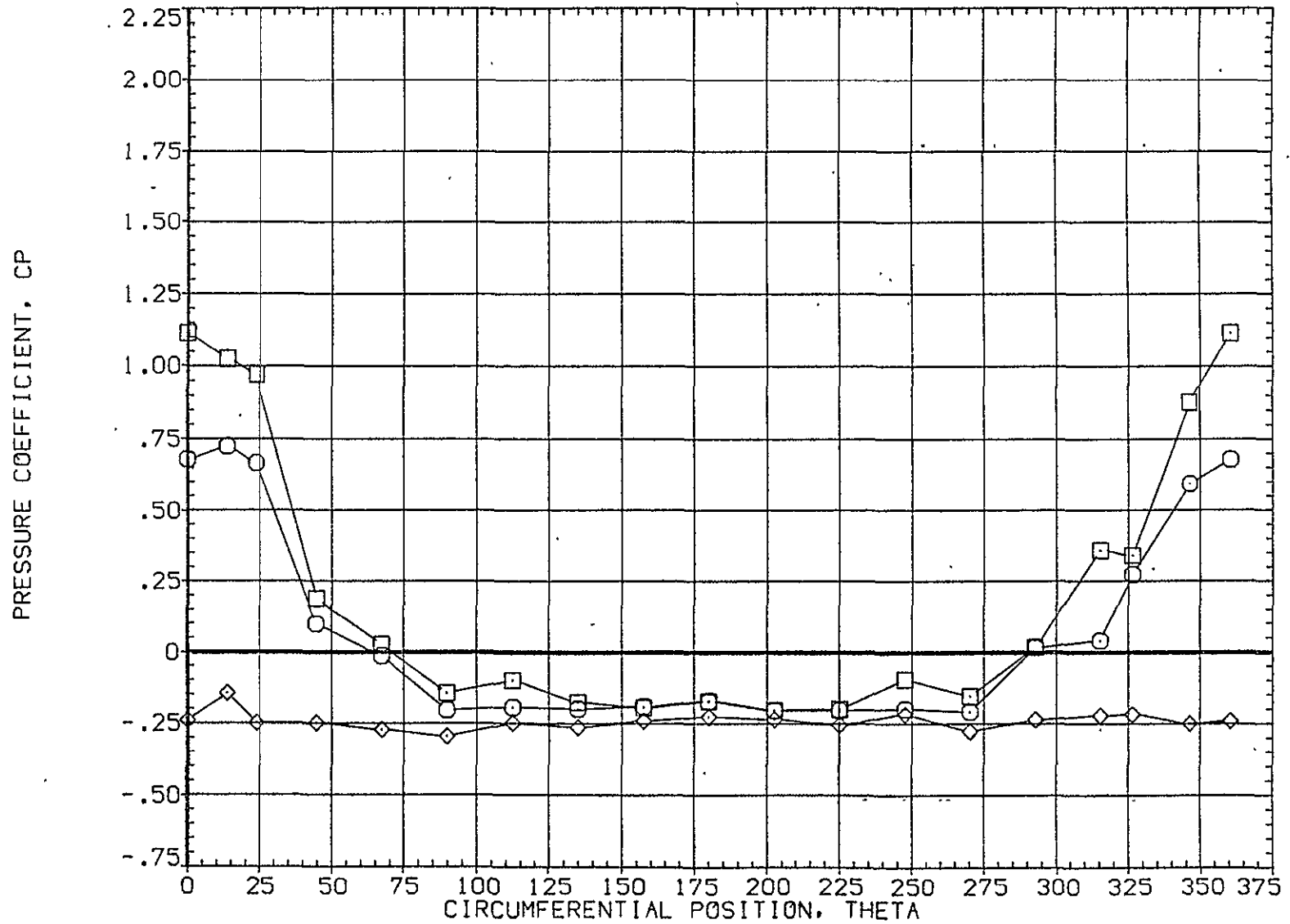


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(PIA051)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-8.380	1.950	.000	.000	.000
□	.108			1.000		270.000
◇	.162					

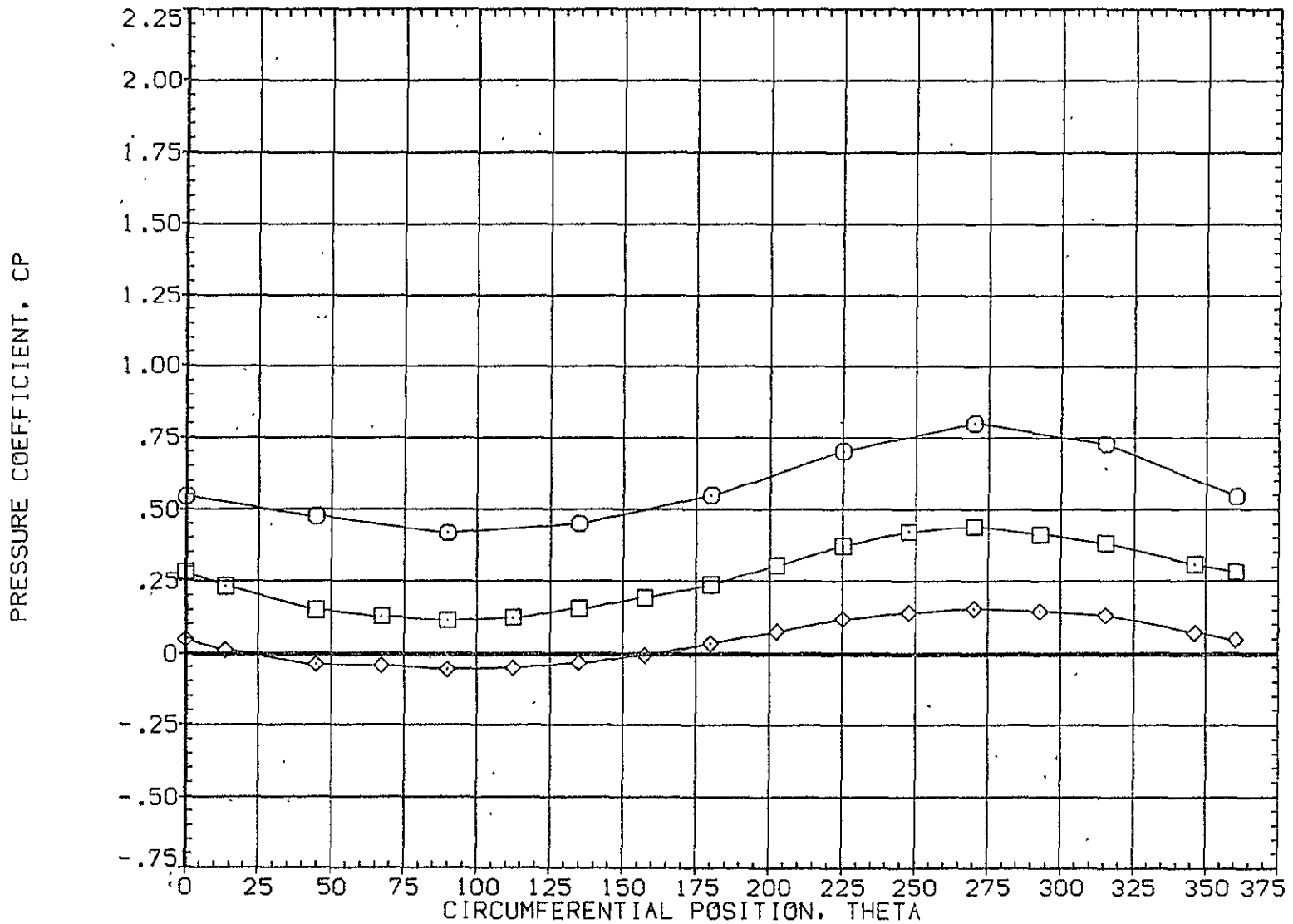


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB.	ALPHA	MACH	PARAMETRIC VALUES		
○	.216	-8.380	1.950	BETA	.000	OFFSET .000
□	.322			MOUNT	1.000	PHI 270.000
◇	.518					

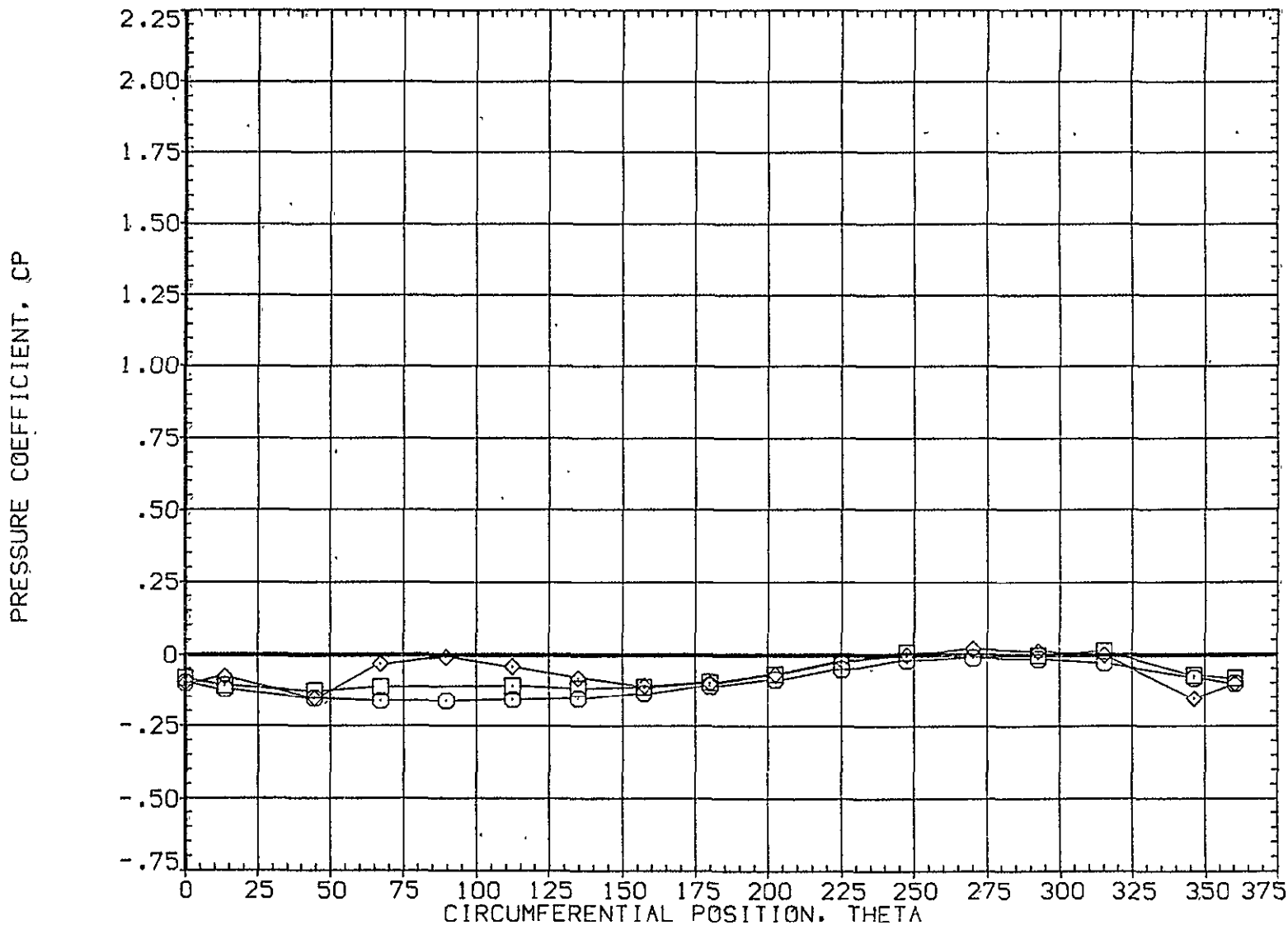


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A051)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	-8.380	1.950	.000	.000		.000
□	.735			1.000			270.000
◇	.860						

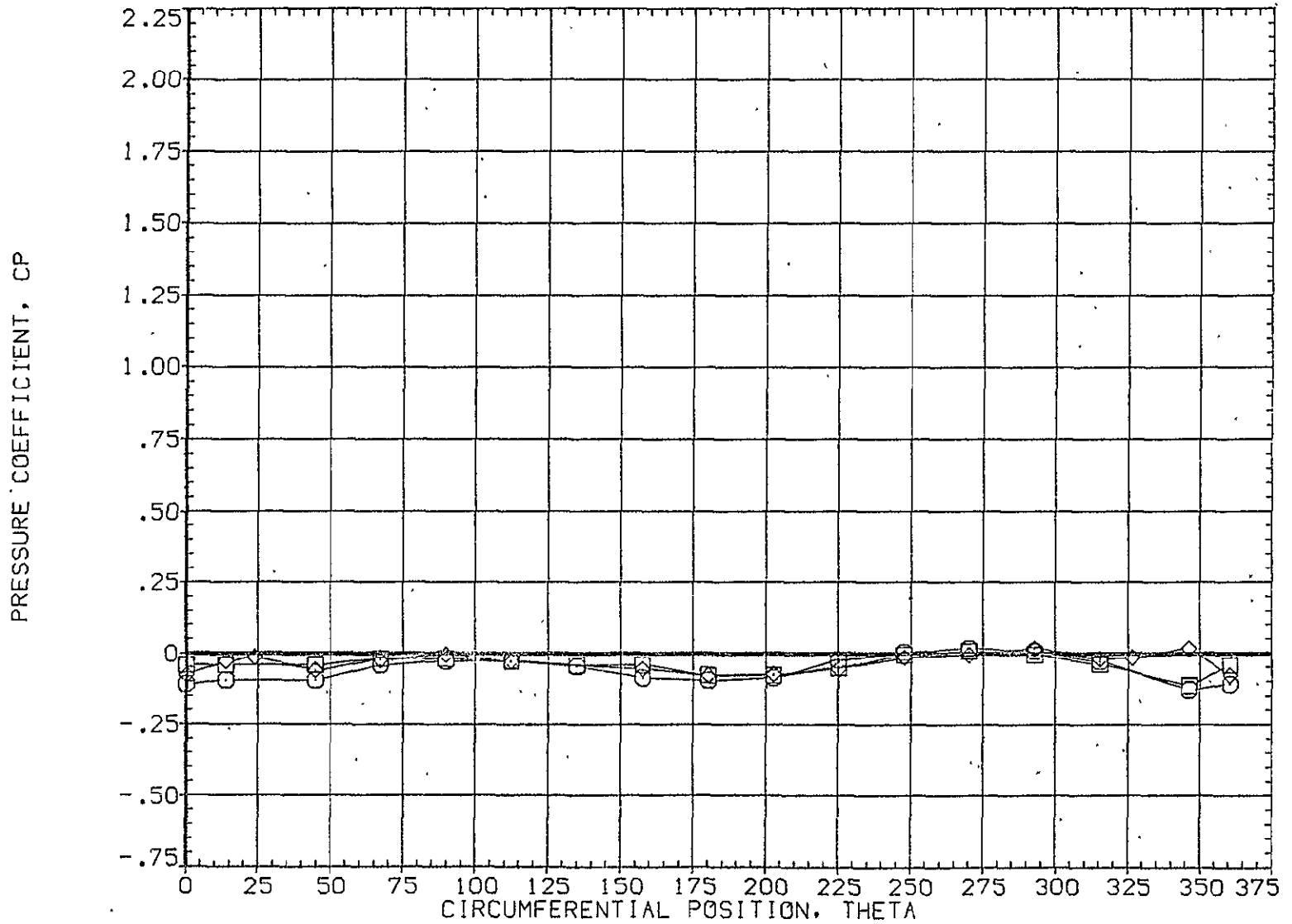


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	-8.380	1.950	.000	.000	.000
□	.923			1.000	PHI	270.000
◇	.954					

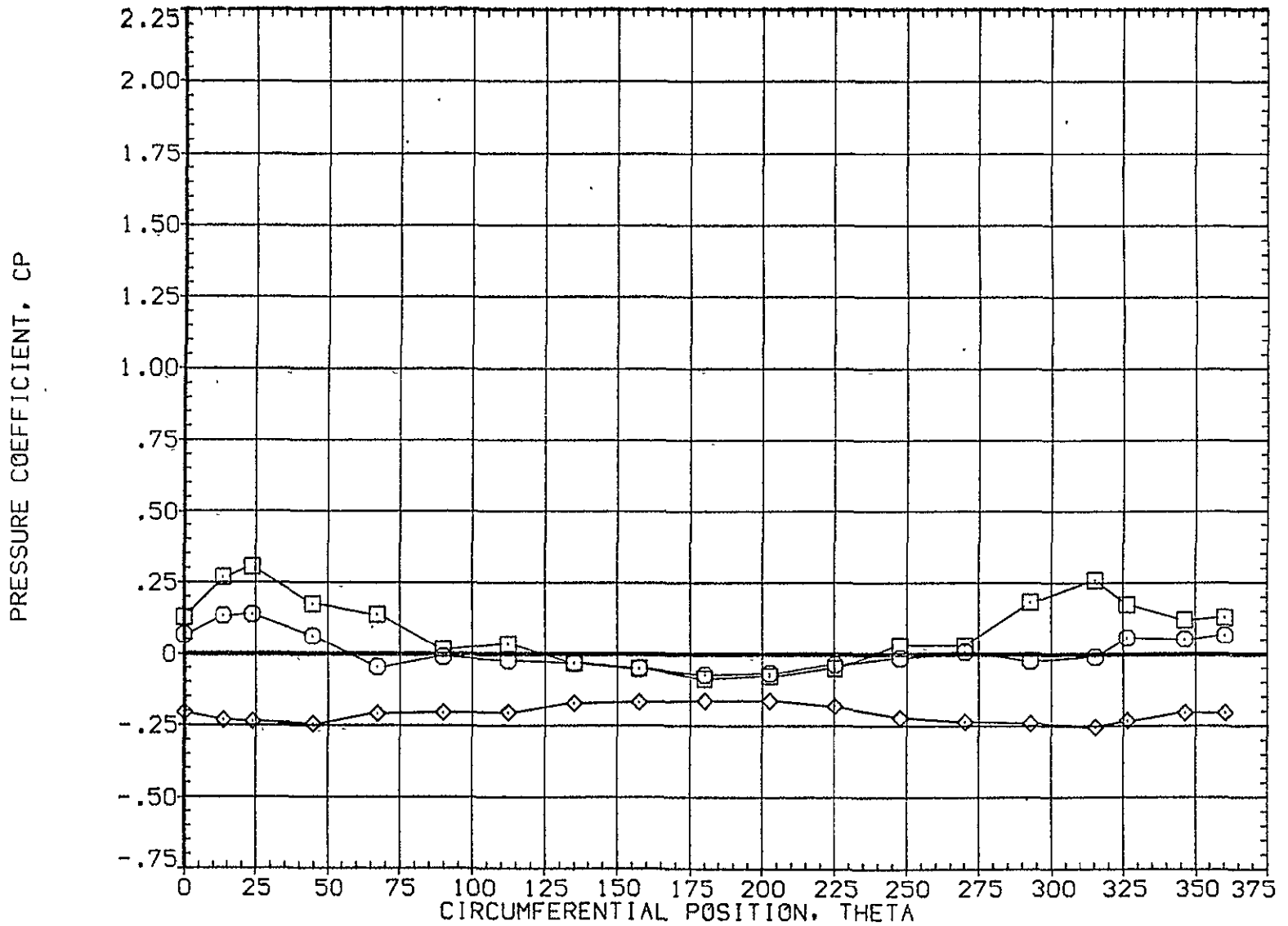


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A052)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-4.350	1.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

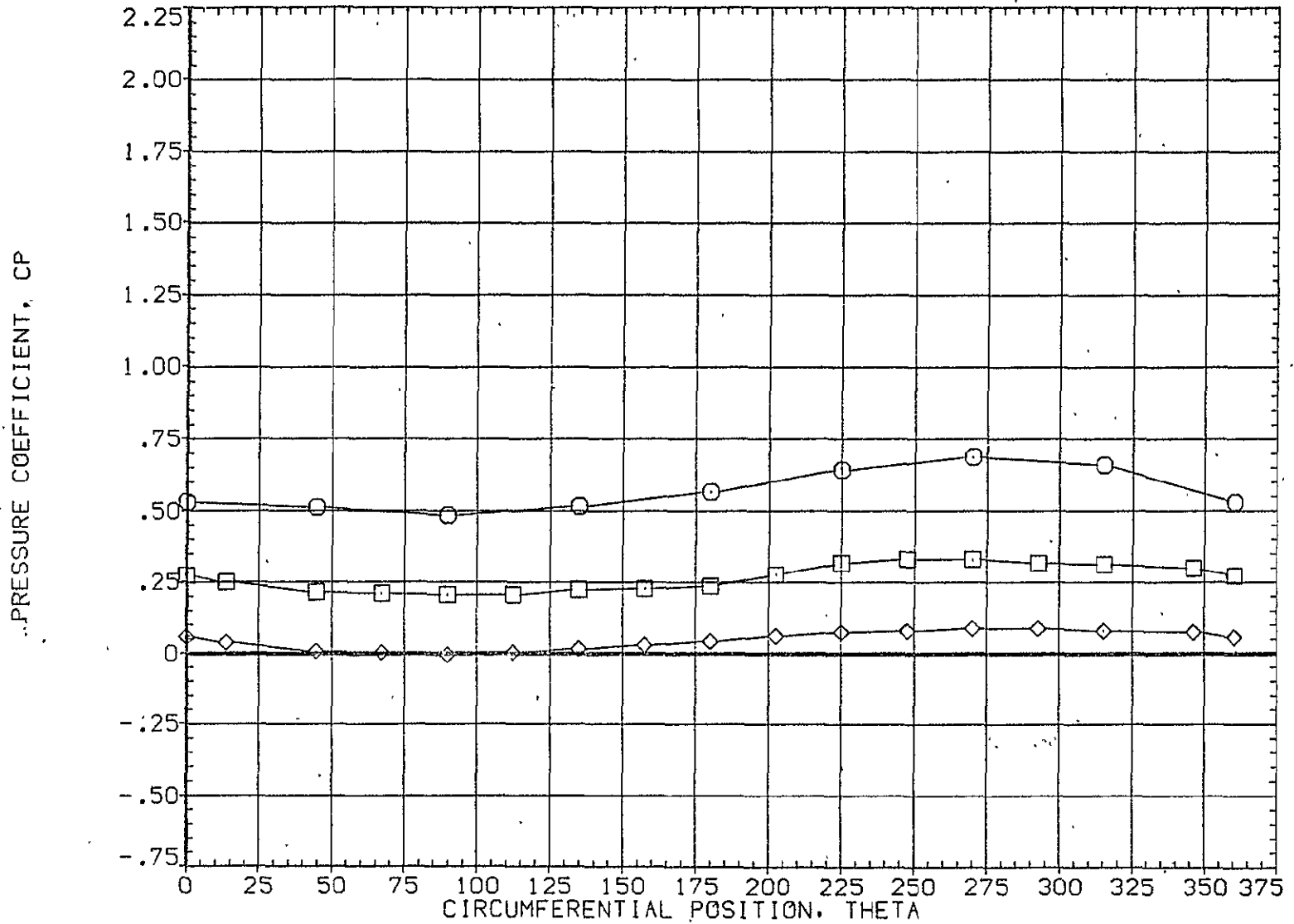


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-4.350	1.960	.000	.000	.000
□	.322			1.000	270.000	
◇	.518					

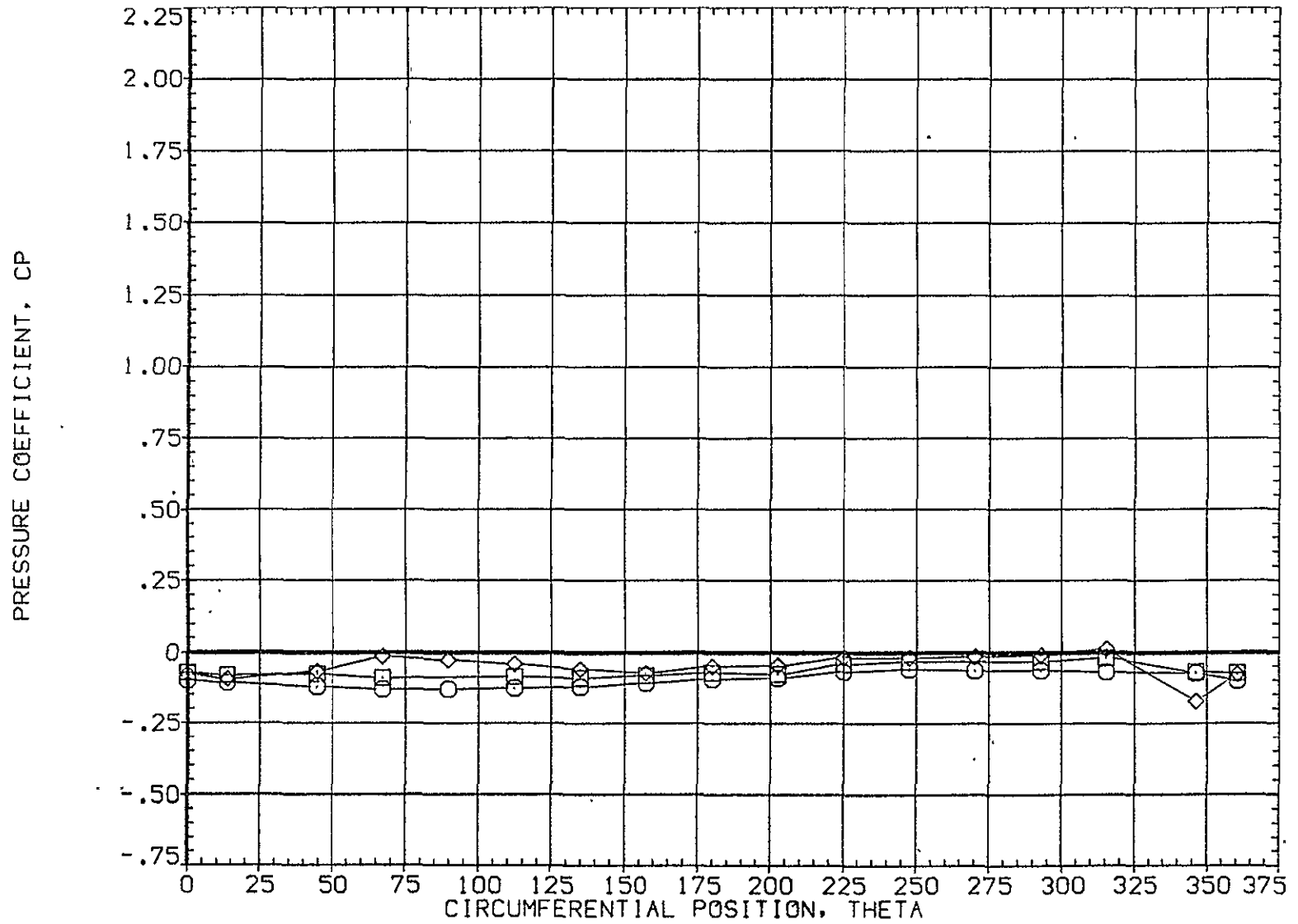


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	4.350	1.960	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

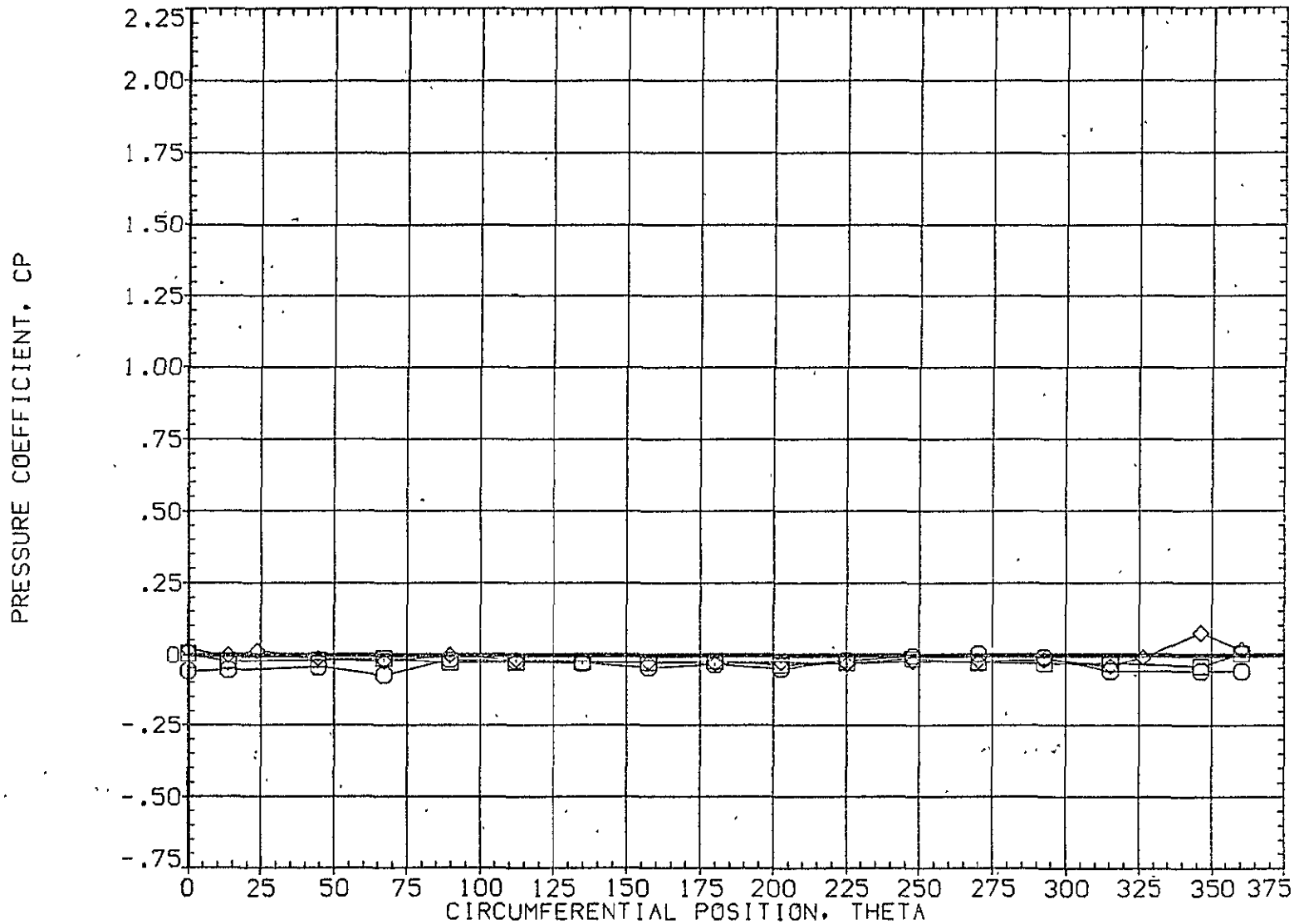


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL

X/LB

ALPHA

MACH

PARAMETRIC VALUES

○
□
◇

.892
.923
.954

-4.350

1.960

BETA

.000

OFFSET

.000

MOUNT

1.000

PHI

270.000

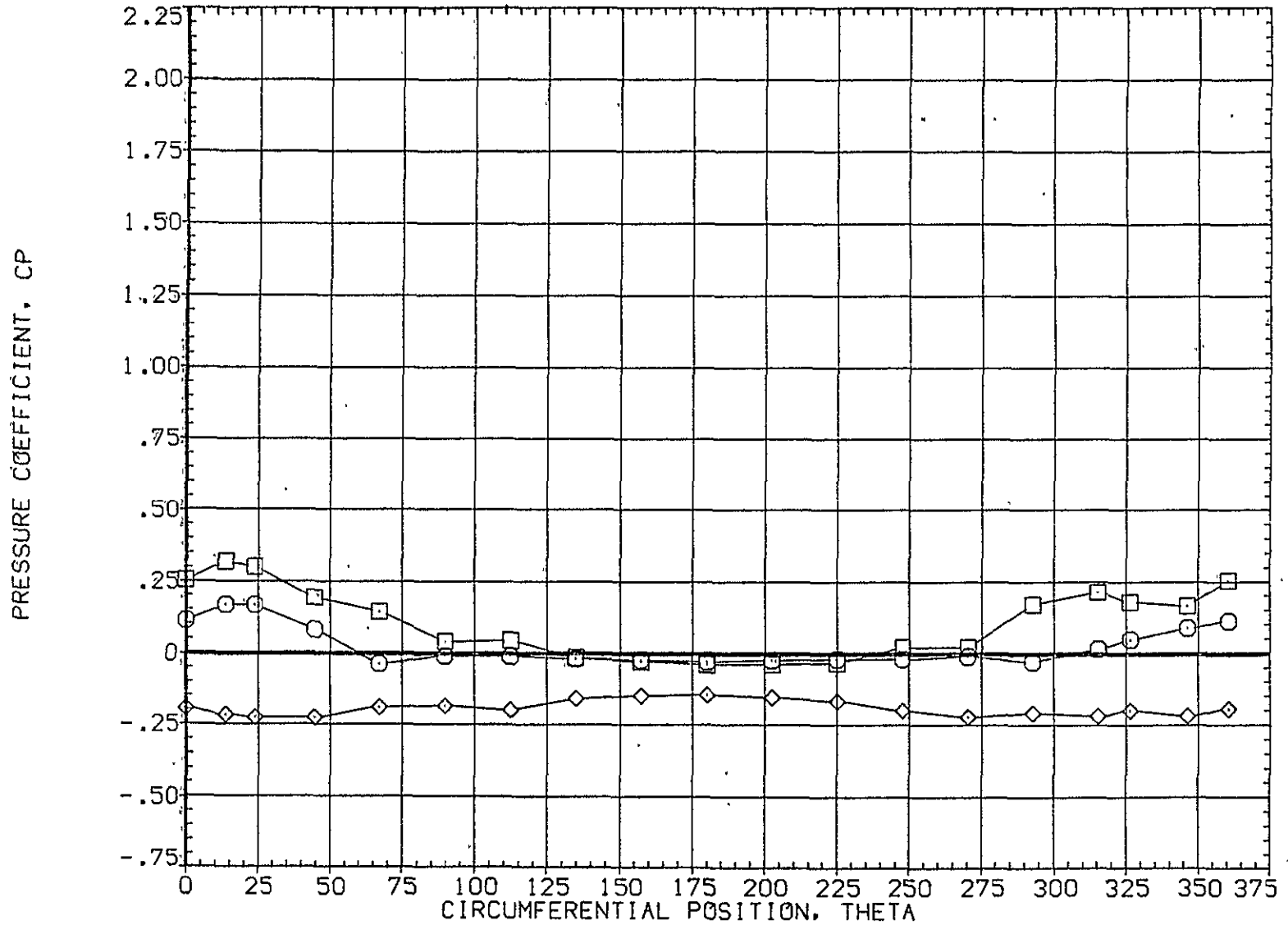


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A053)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	1.960	.000		.000
□	.108			1.000		270.000
◇	.162					

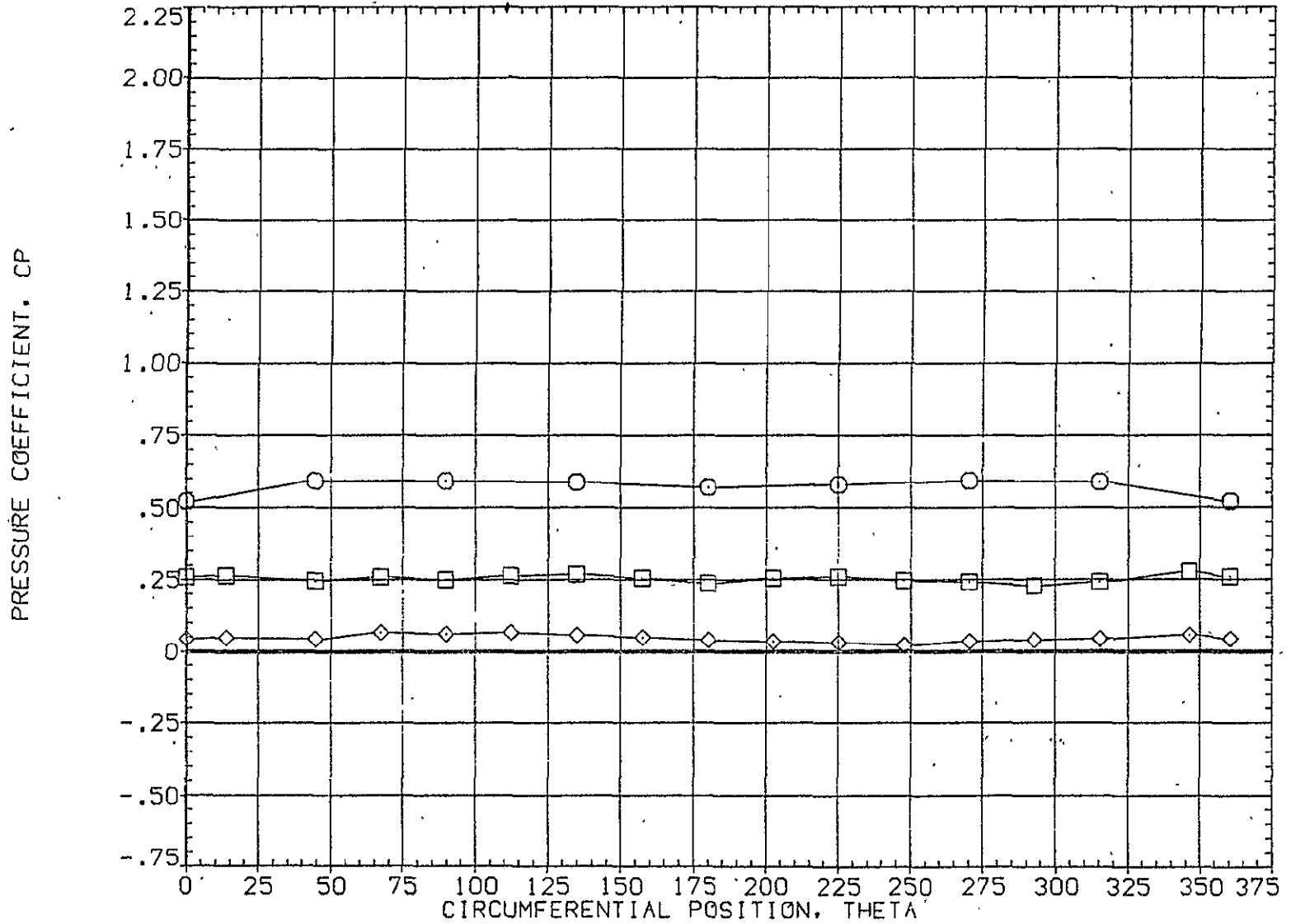


FIG. 5. CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	-.280	1.960	MOUNT	1.000	PHI	270.000
□	.322						
◇	.518						

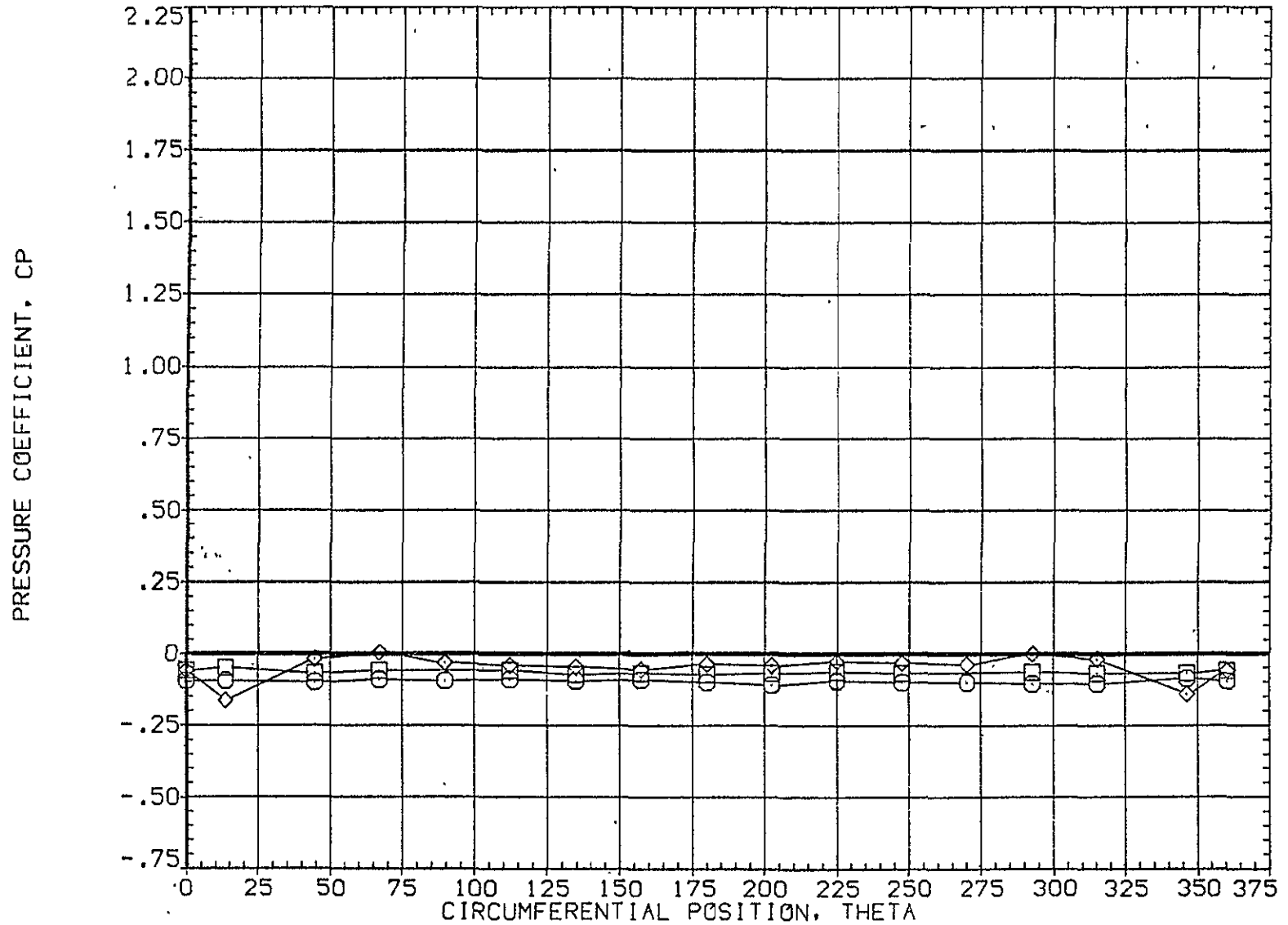


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A053)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	1.960	.000		.000
□	.735			1.000		270.000
◇	.860					

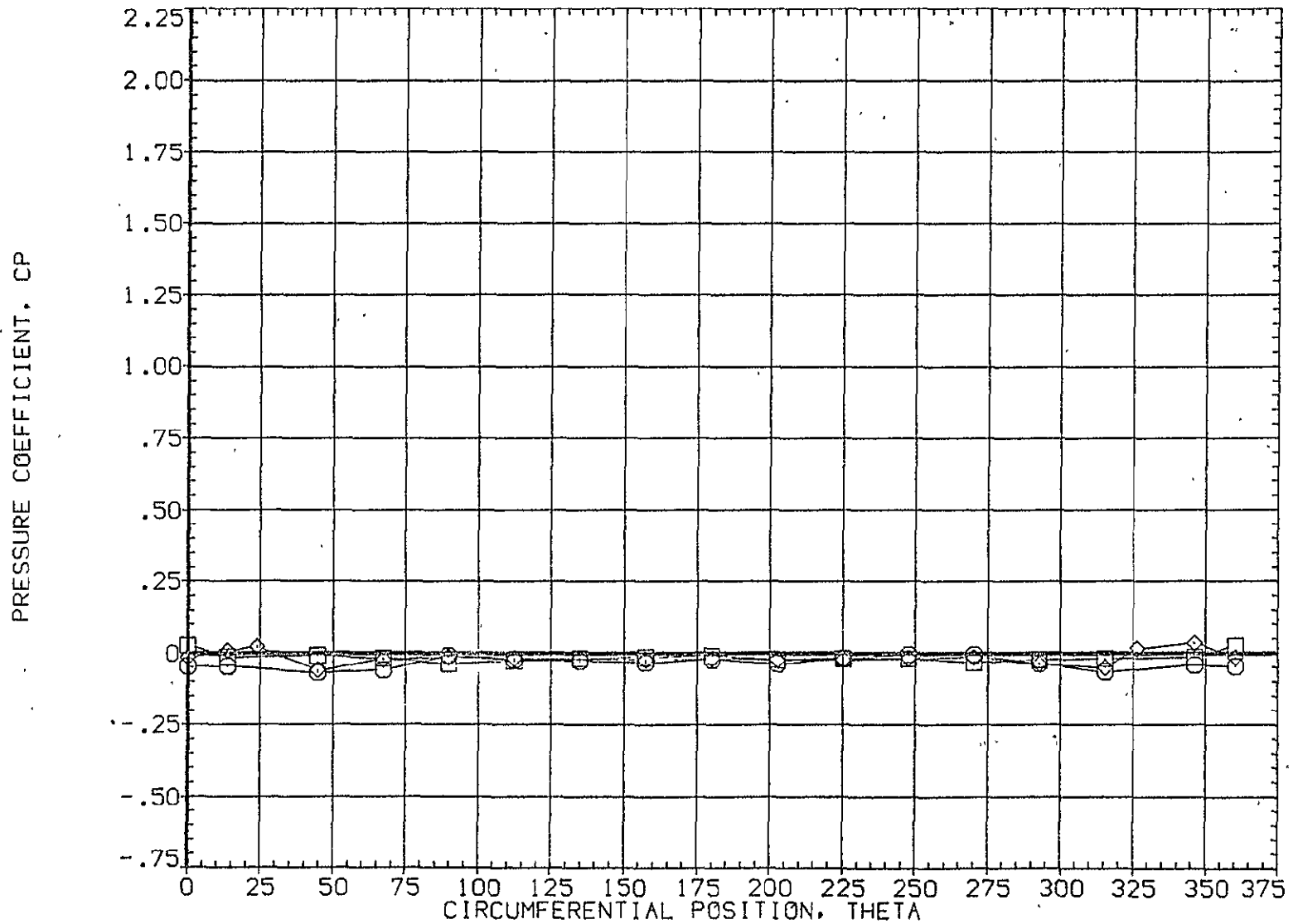


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	1.960	.000	.000	.000
□	.923			1.000		270.000
◇	.954					

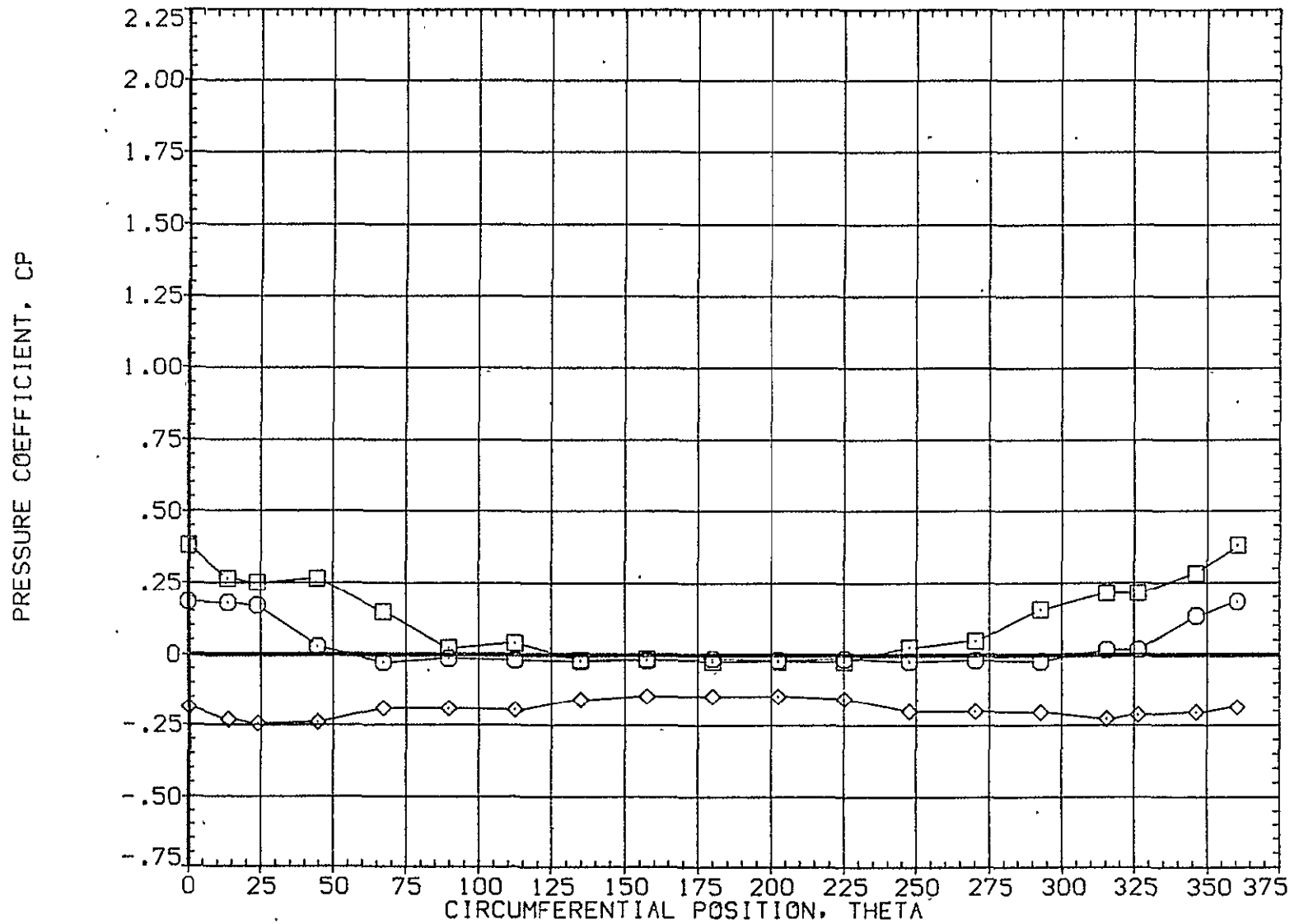


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(PIA054)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	3.770	1.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

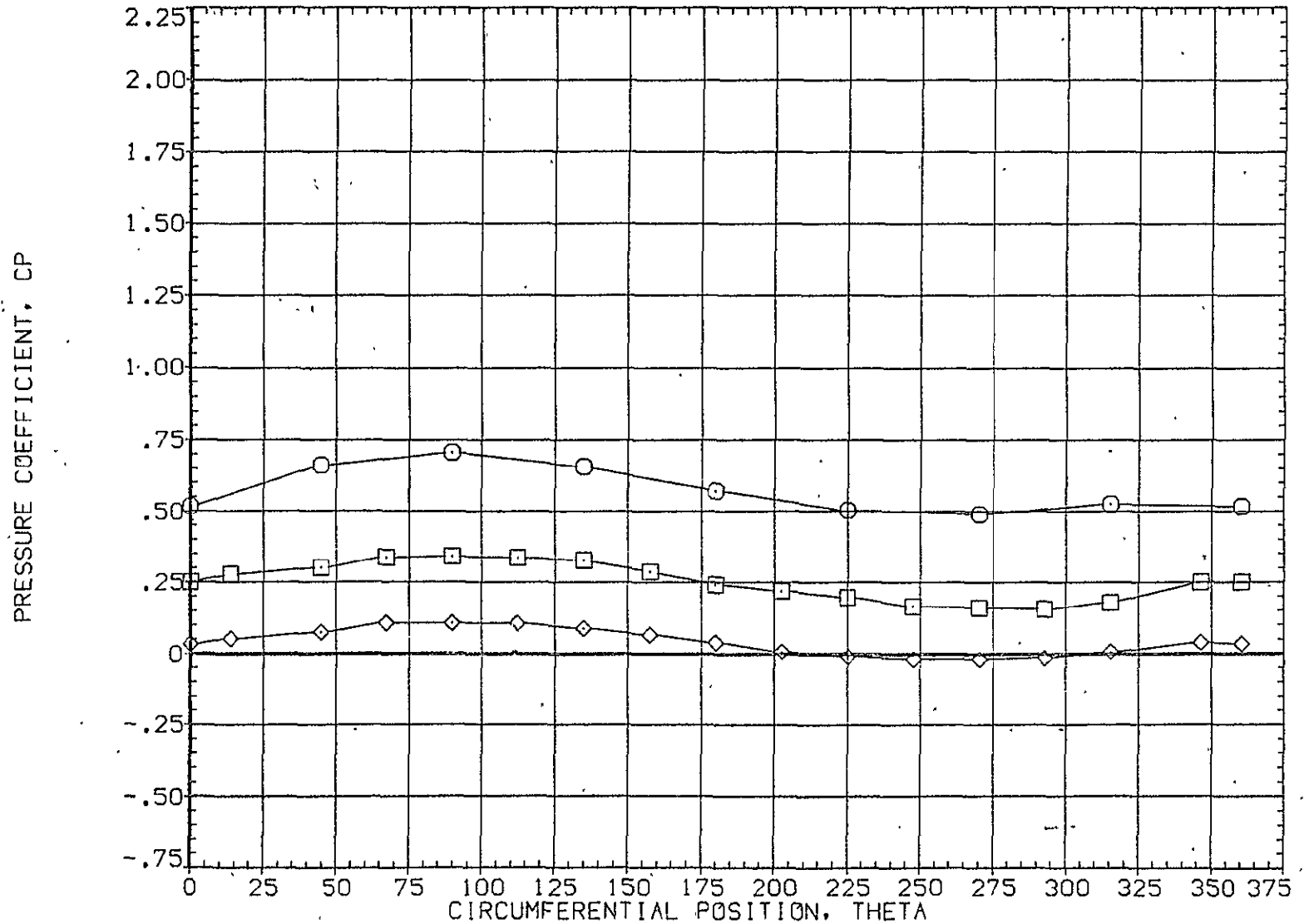


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.770	1.960	.000	.000	.000
□	.322			1.000		270.000
◇	.518					

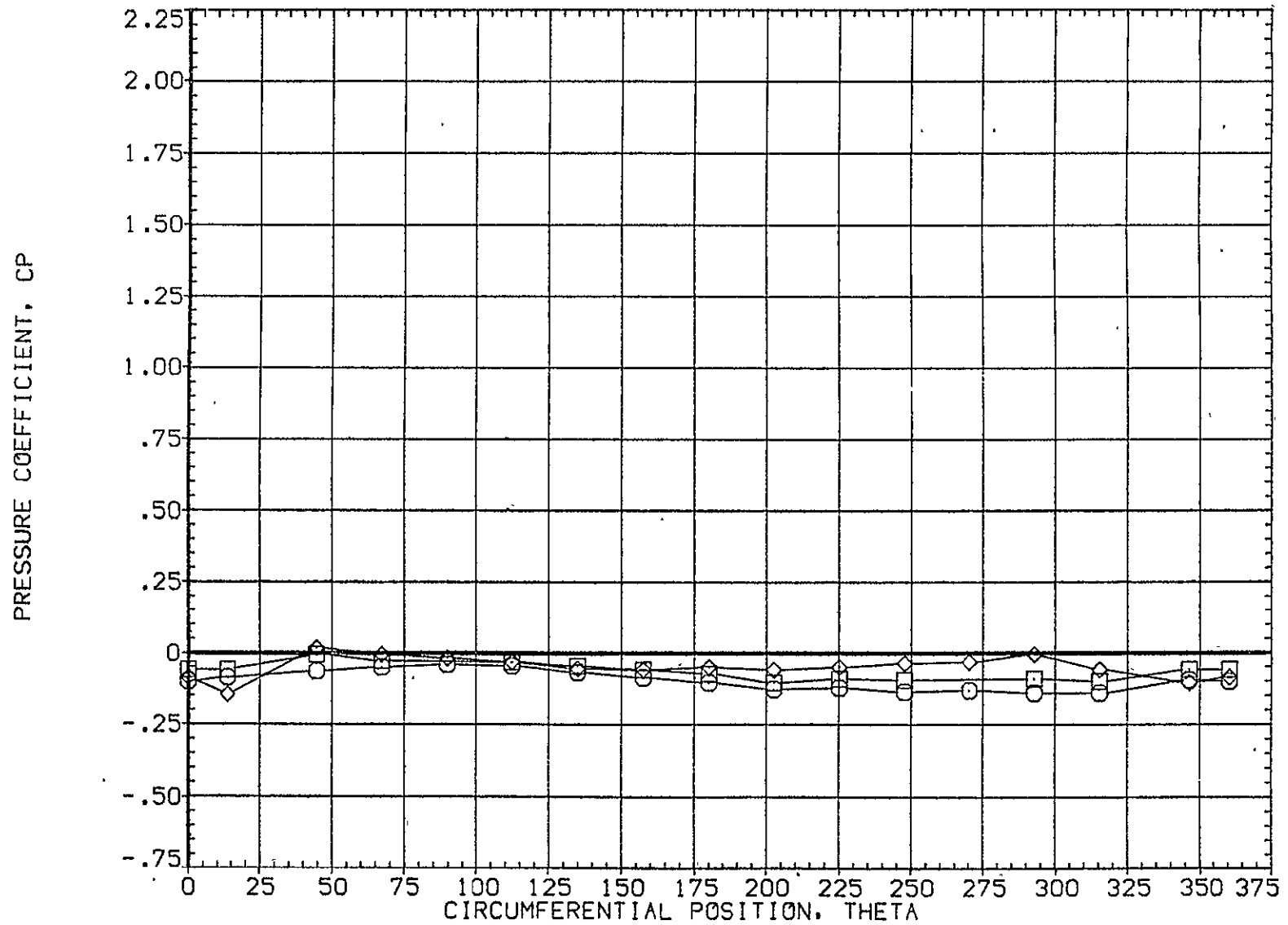


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A054)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	3.770	1.960	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

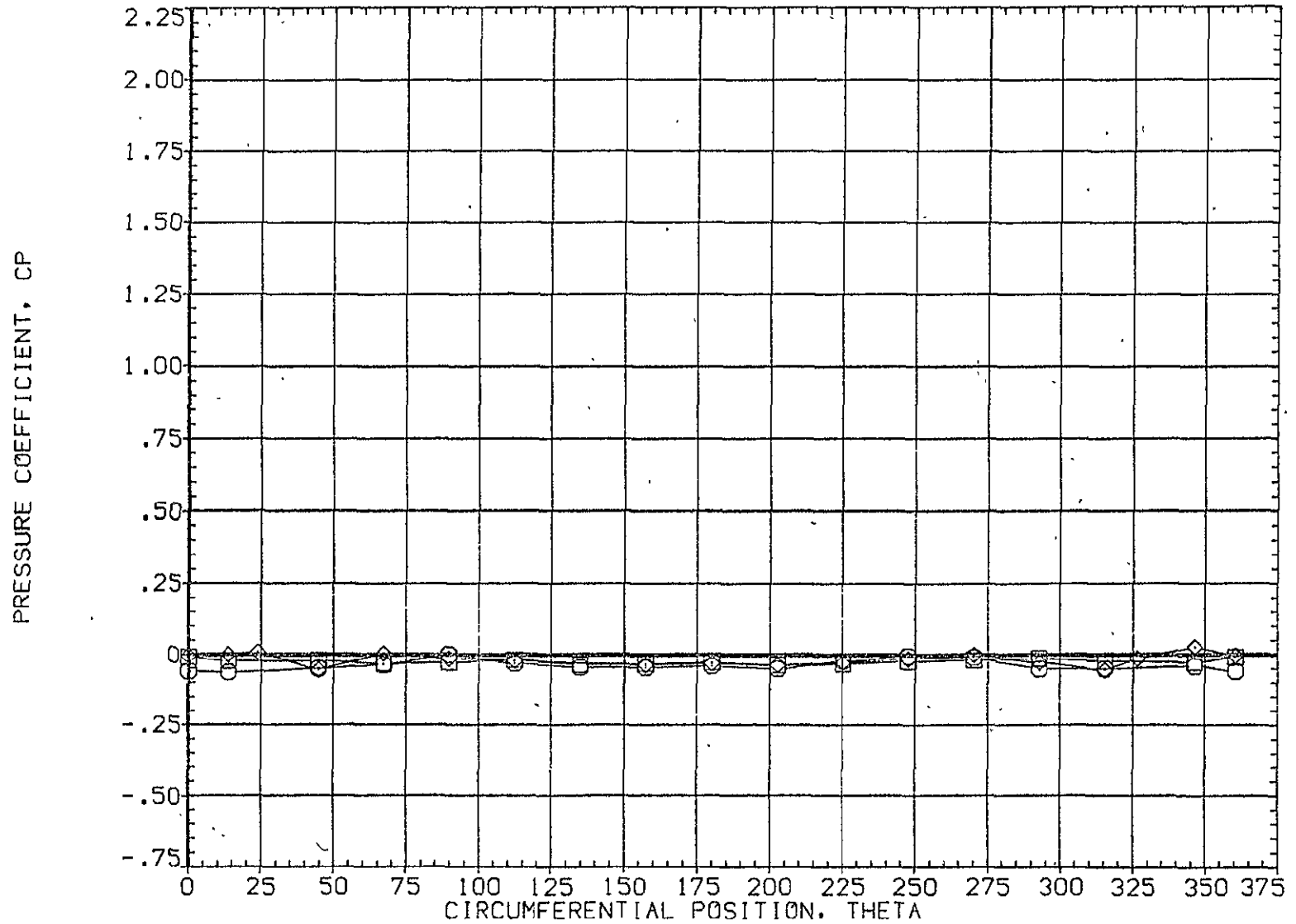


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	3.770	1.960	.000	.000	.000
□	.923			1.000		270.000
◇	.954					

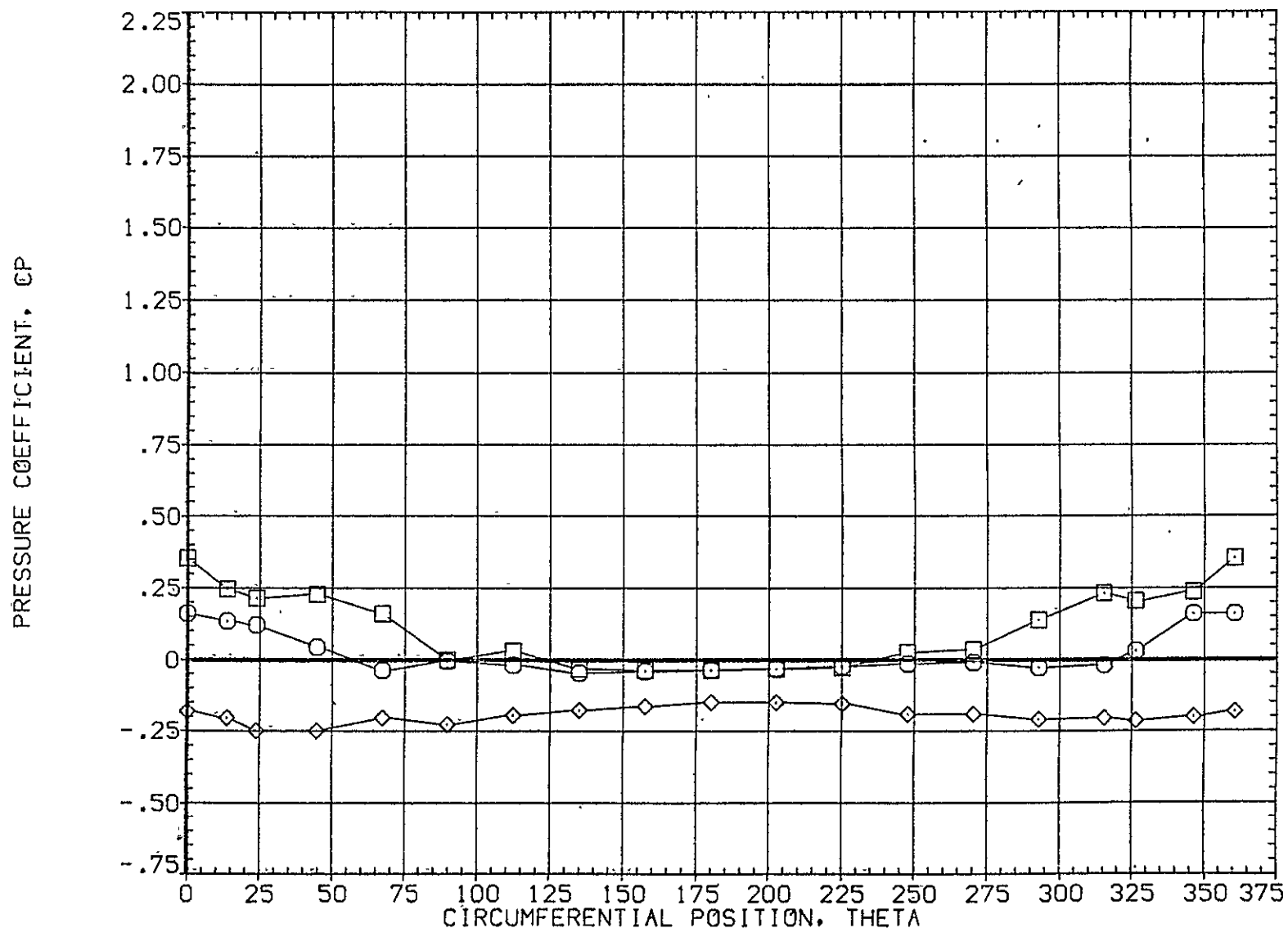


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A055)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.860	1.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

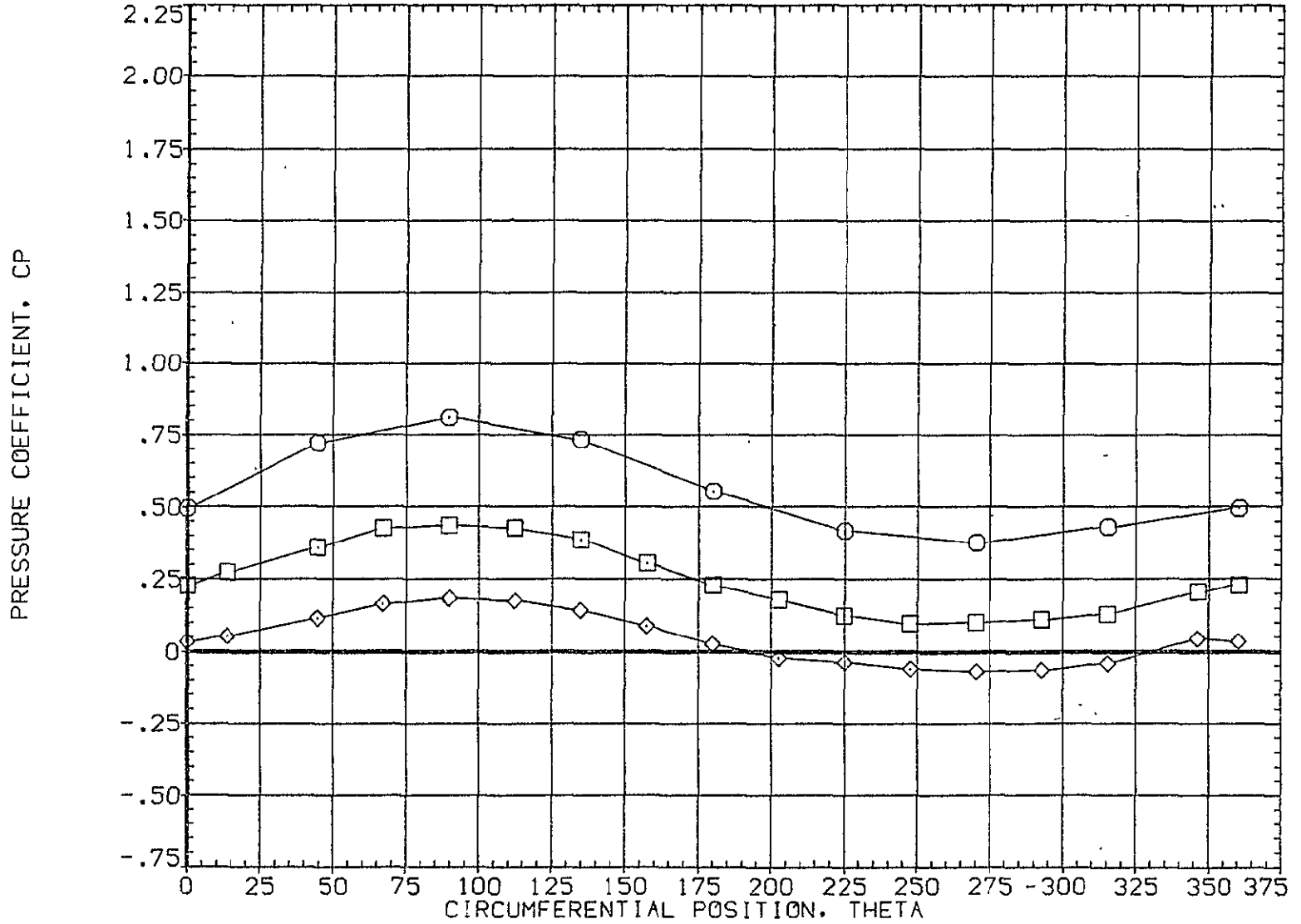


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	Y000
○	.216	7.860	1.960	.000	PHI	270.000
□	.322			1.000		
◇	.518					

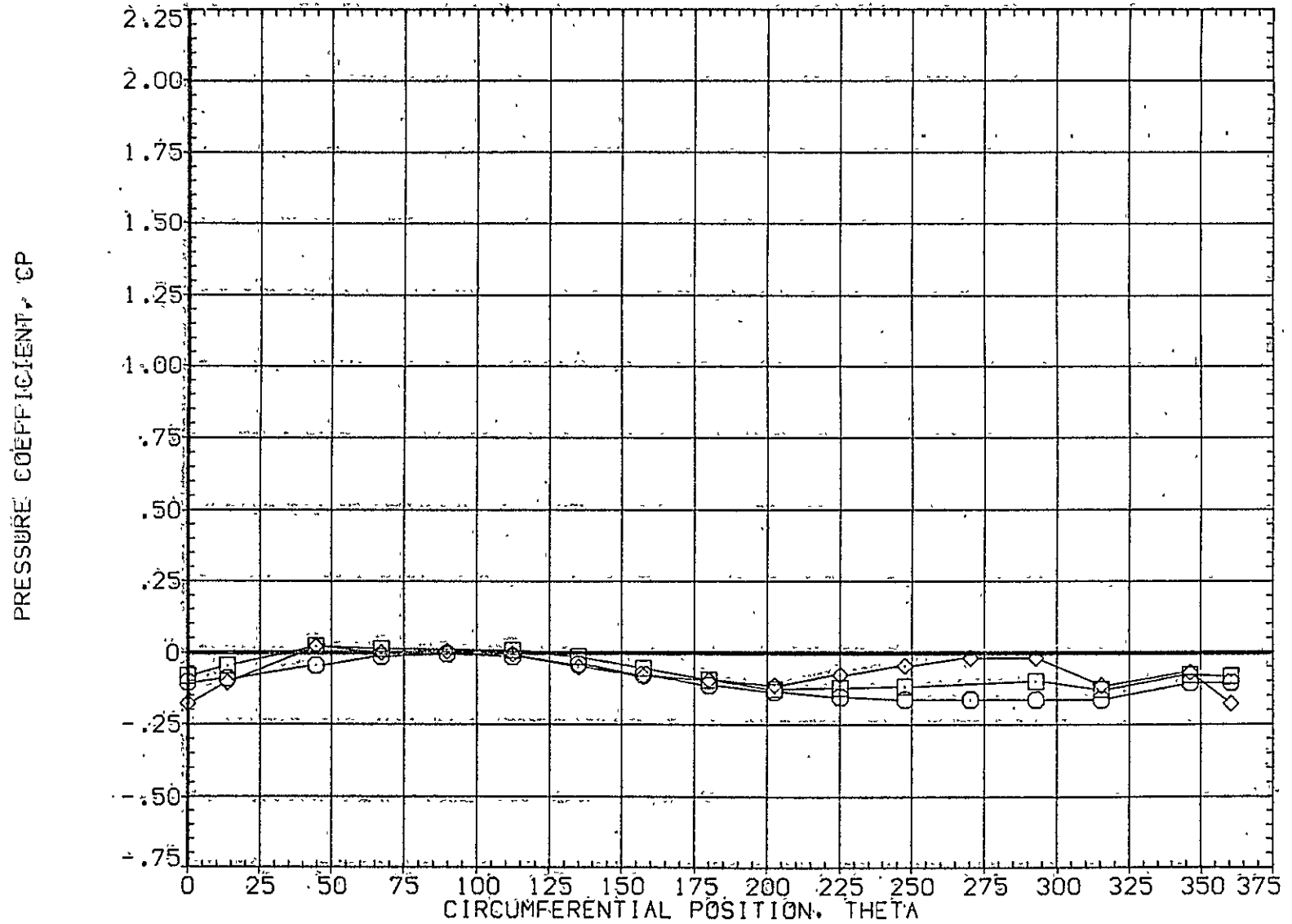


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A055)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	7.860	1.960	.000	.000	.000
□	.735			1.000		270.000
◇	.860					

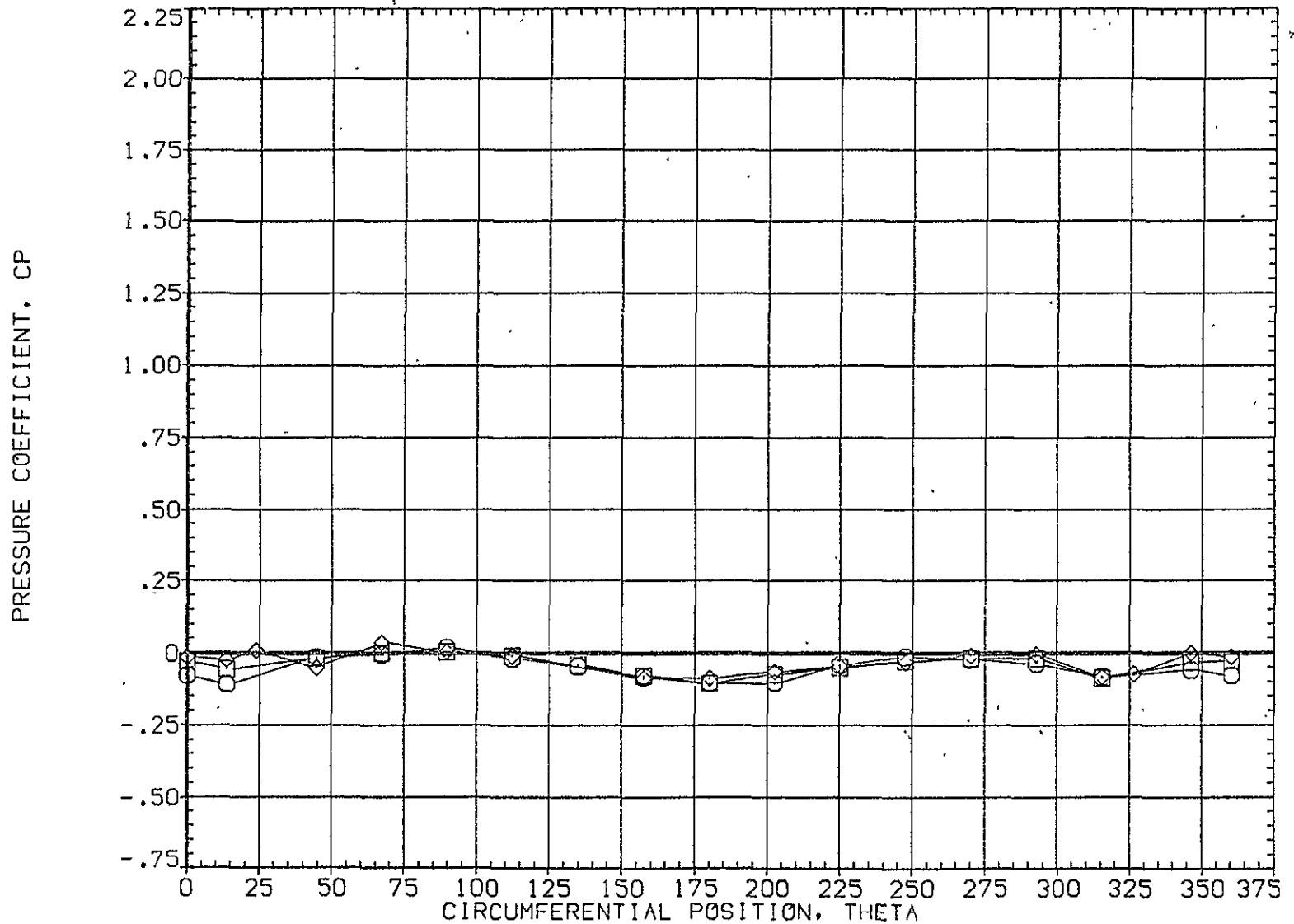


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB'	ALPHA	MACH	PARAMETRIC VALUES		
				BETA'	OFFSET	PHI
◇	.892	7.860	1.960	.000	.000	.000
□	.923			1.000		270.000
○	.954					

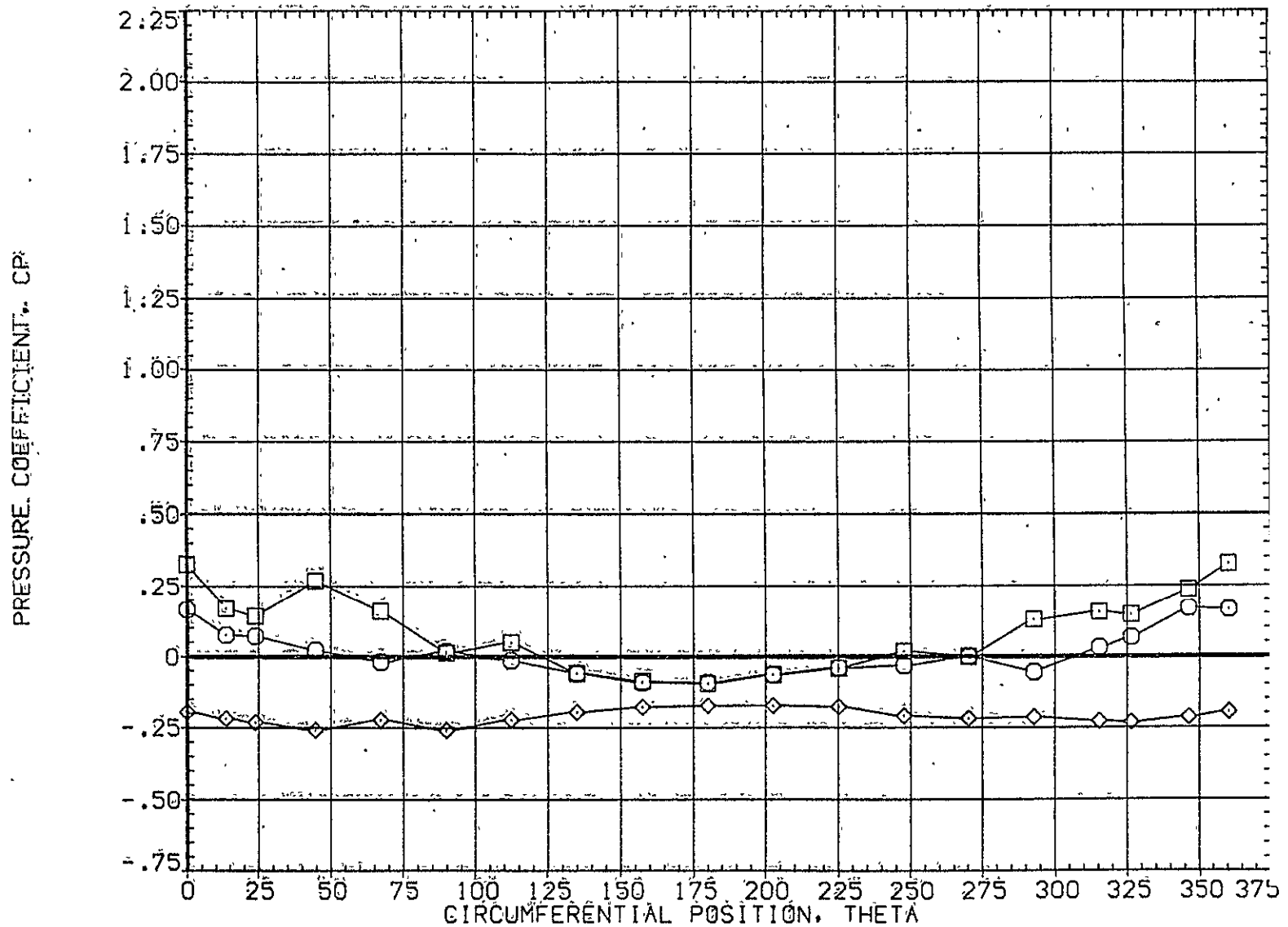


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	12.570	1.970	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

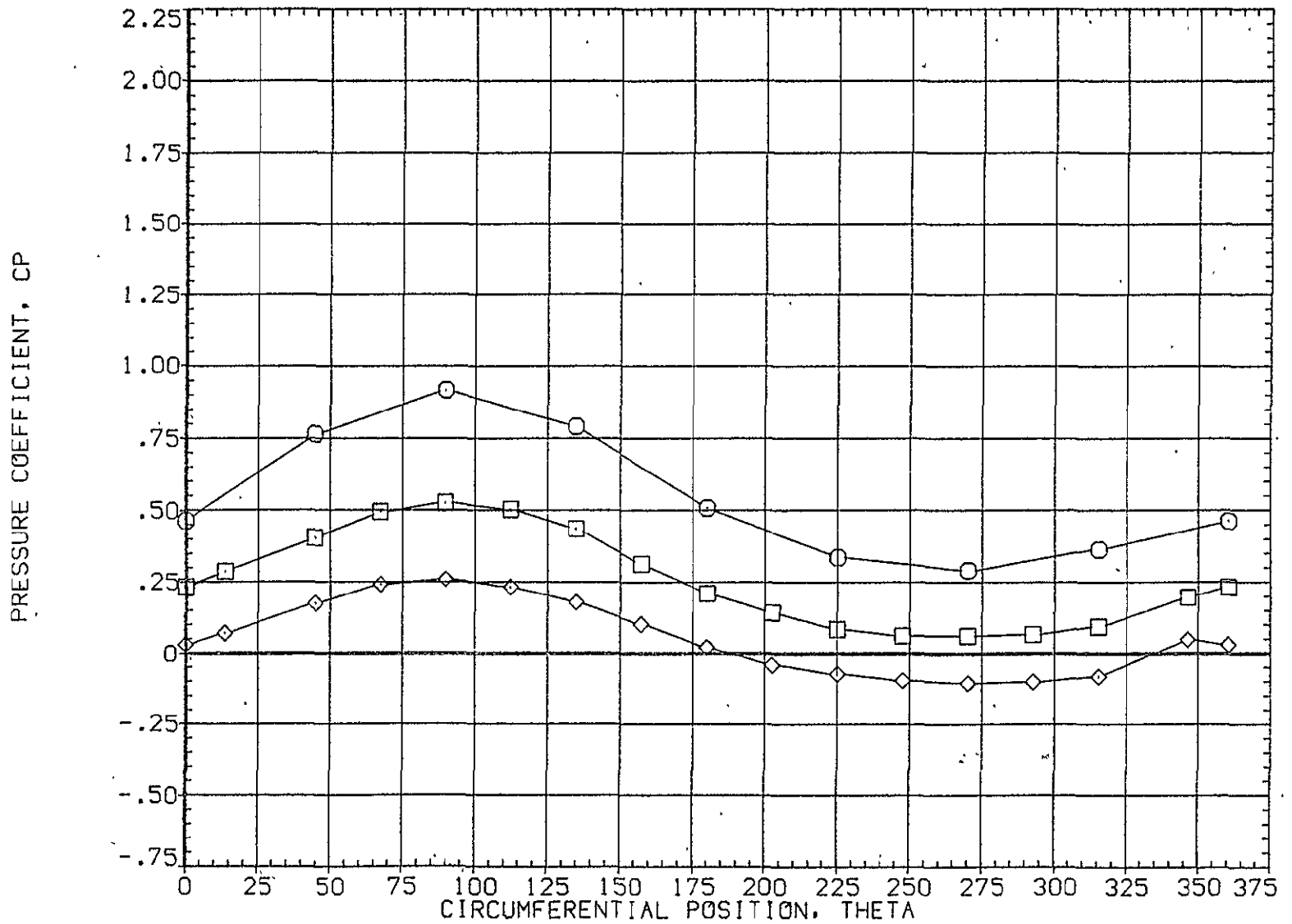


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.216	12.570	1.970	.000	20.000		
□	.322			1.000	270.000		
◇	.518						

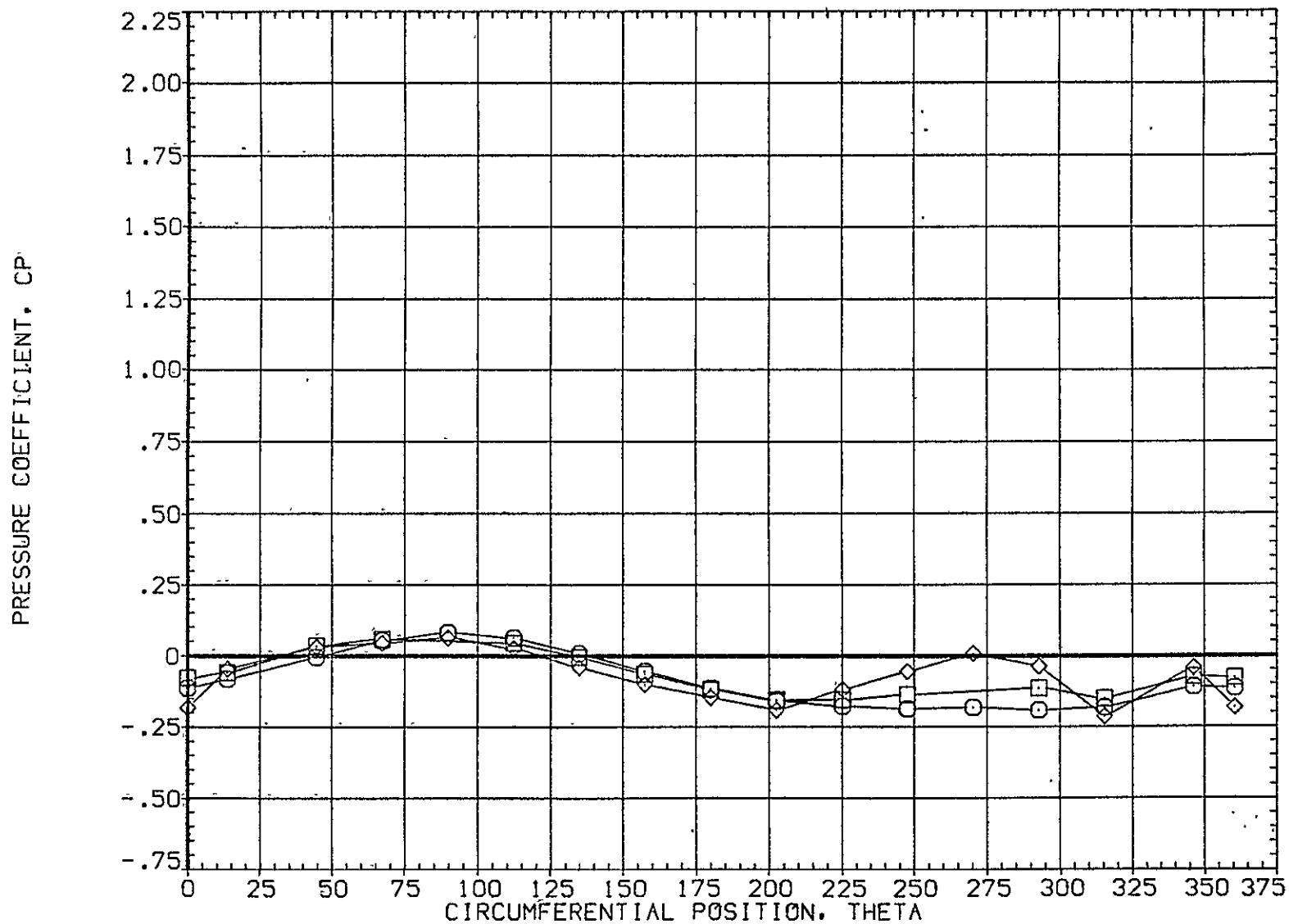


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	12.570	1.970	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

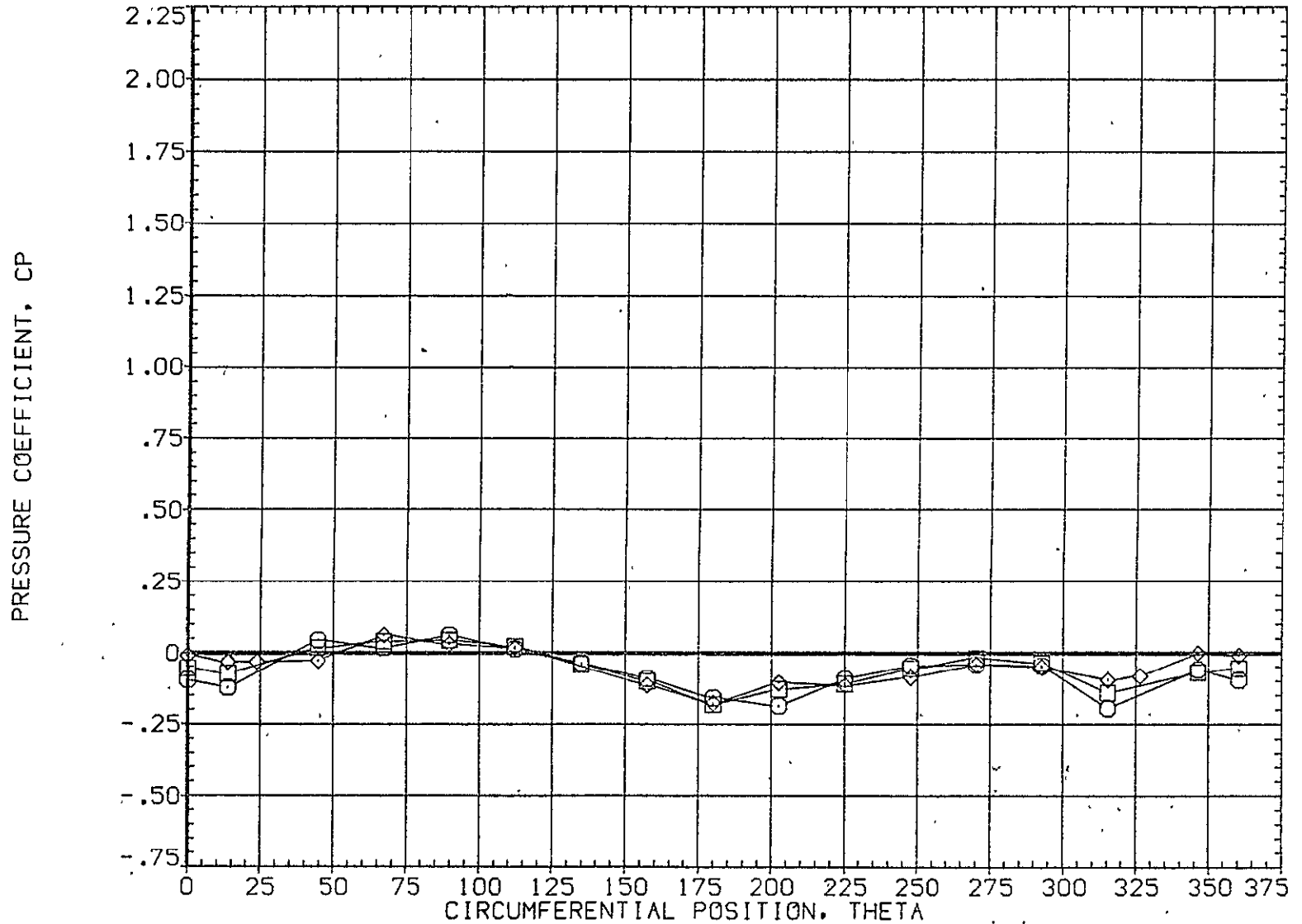


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	12.570	1.970	MOUNT	1.000	PHI	270.000
□	.923						
◇	.954						

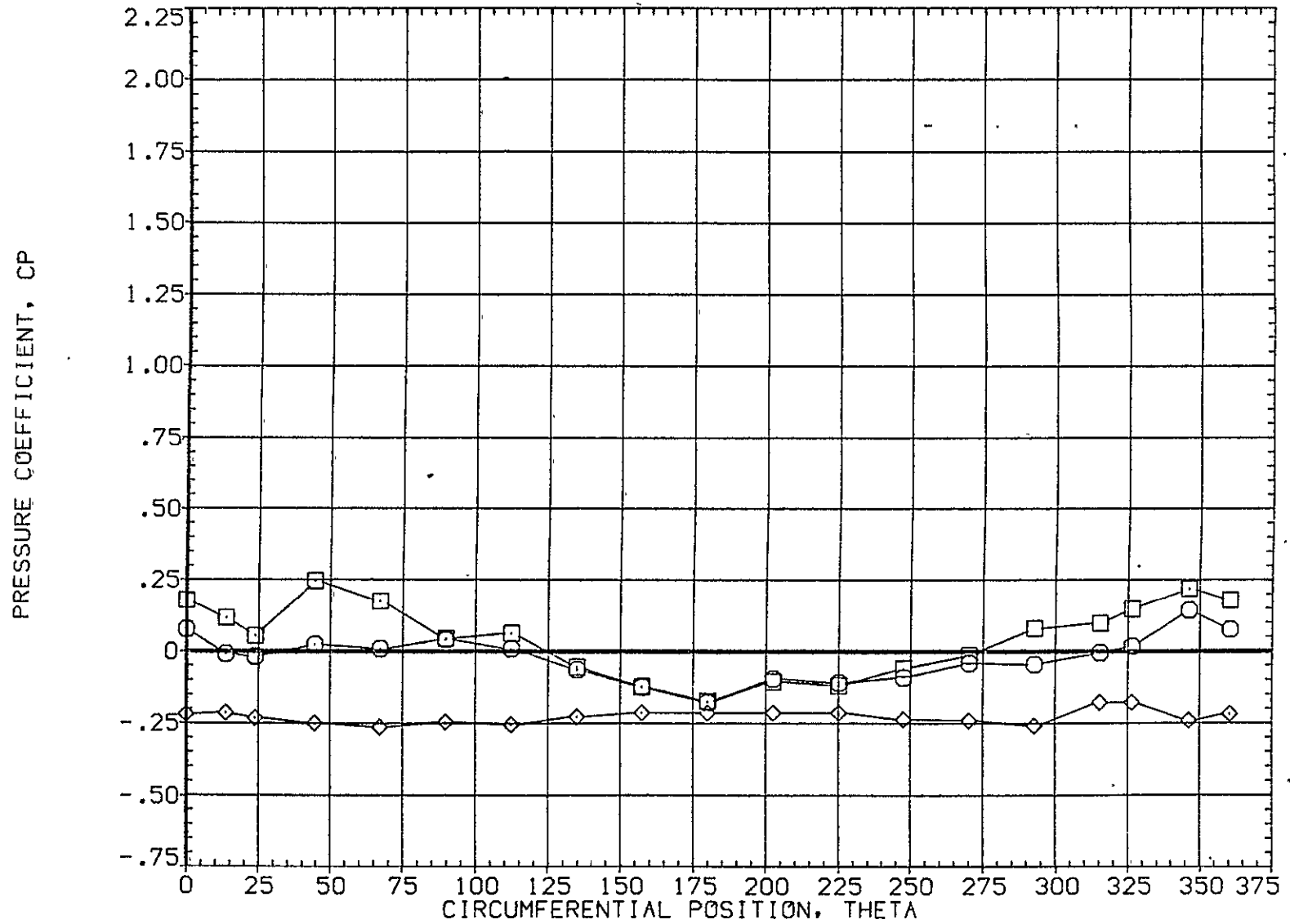


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.055	16.640	1.960	MOUNT	1.000	270.000	
□	.108						
◇	.162						

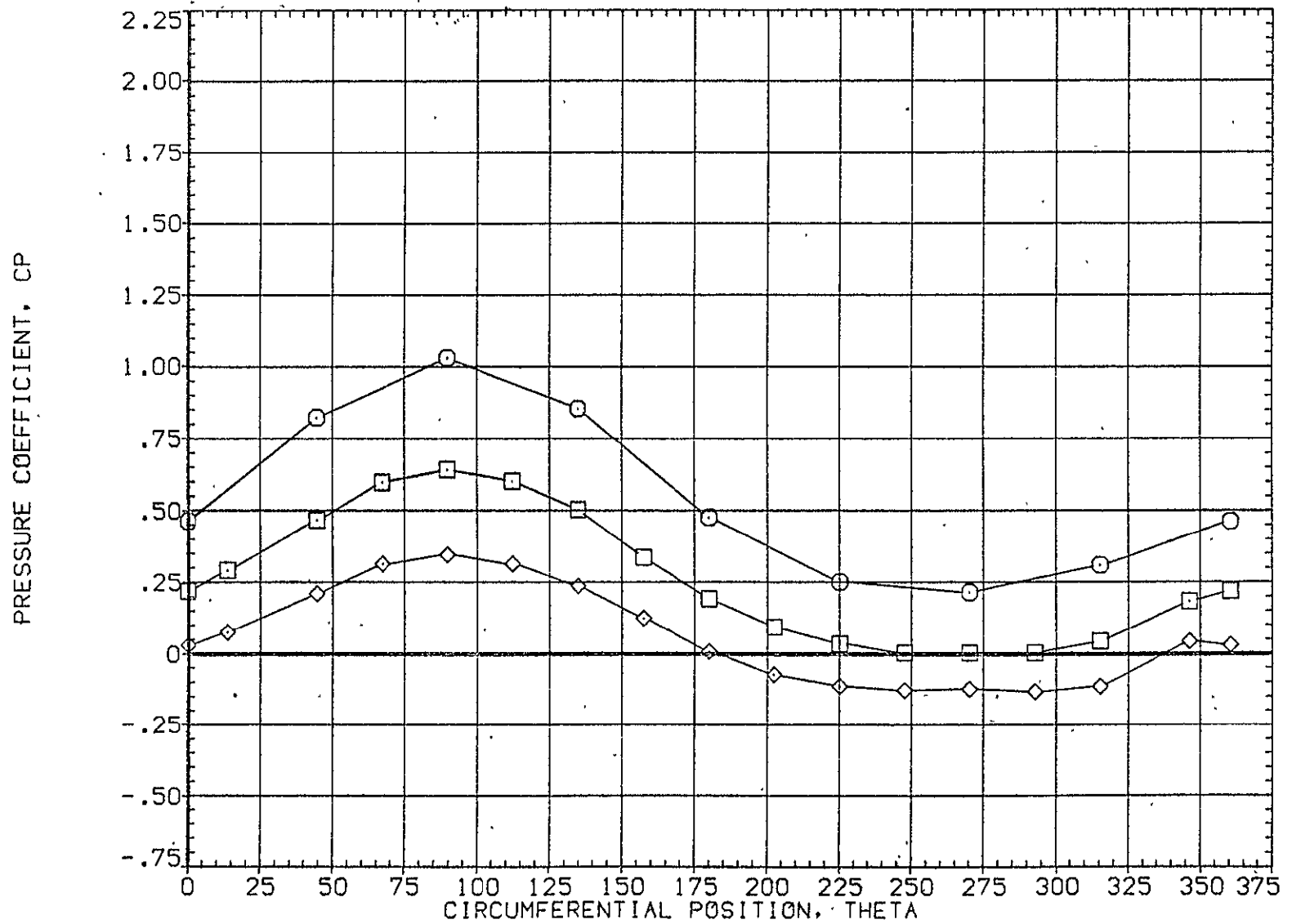


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	16.640	1.960	.000	20.000	
□	.322			1.000	PHI	270.000
◇	.518					

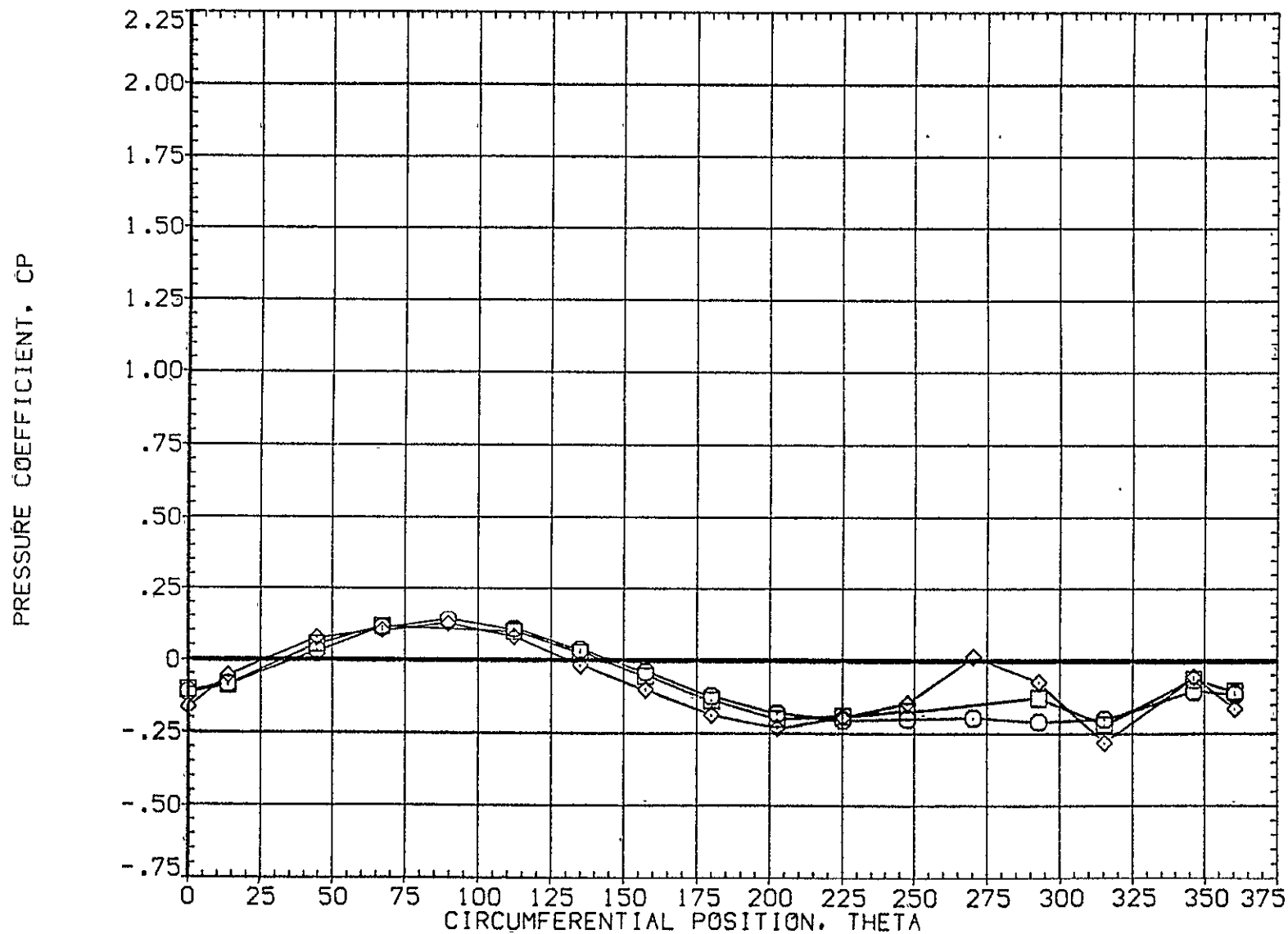


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A057)

SYMBOL	X/LB	ALPHA	MACH
○	.610	16.640	1.960
□	.735		
◇	.960		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	270.000

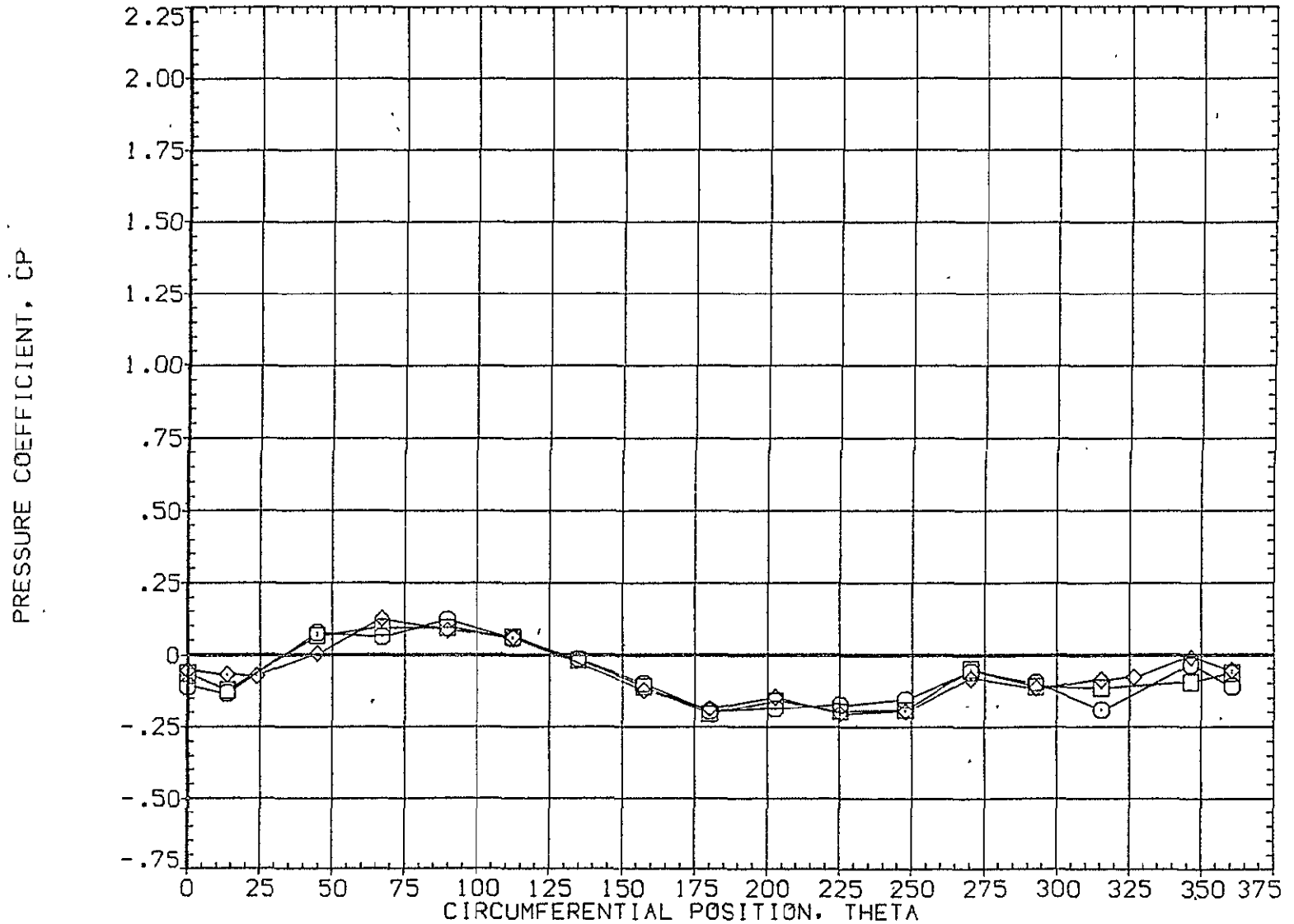


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .992
.923
.954

ALPHA 16.640

MACH 1.960

BETA .000
MOUNT 1.000

PARAMETRIC VALUES
OFFSET 20,000
PHI 270,000

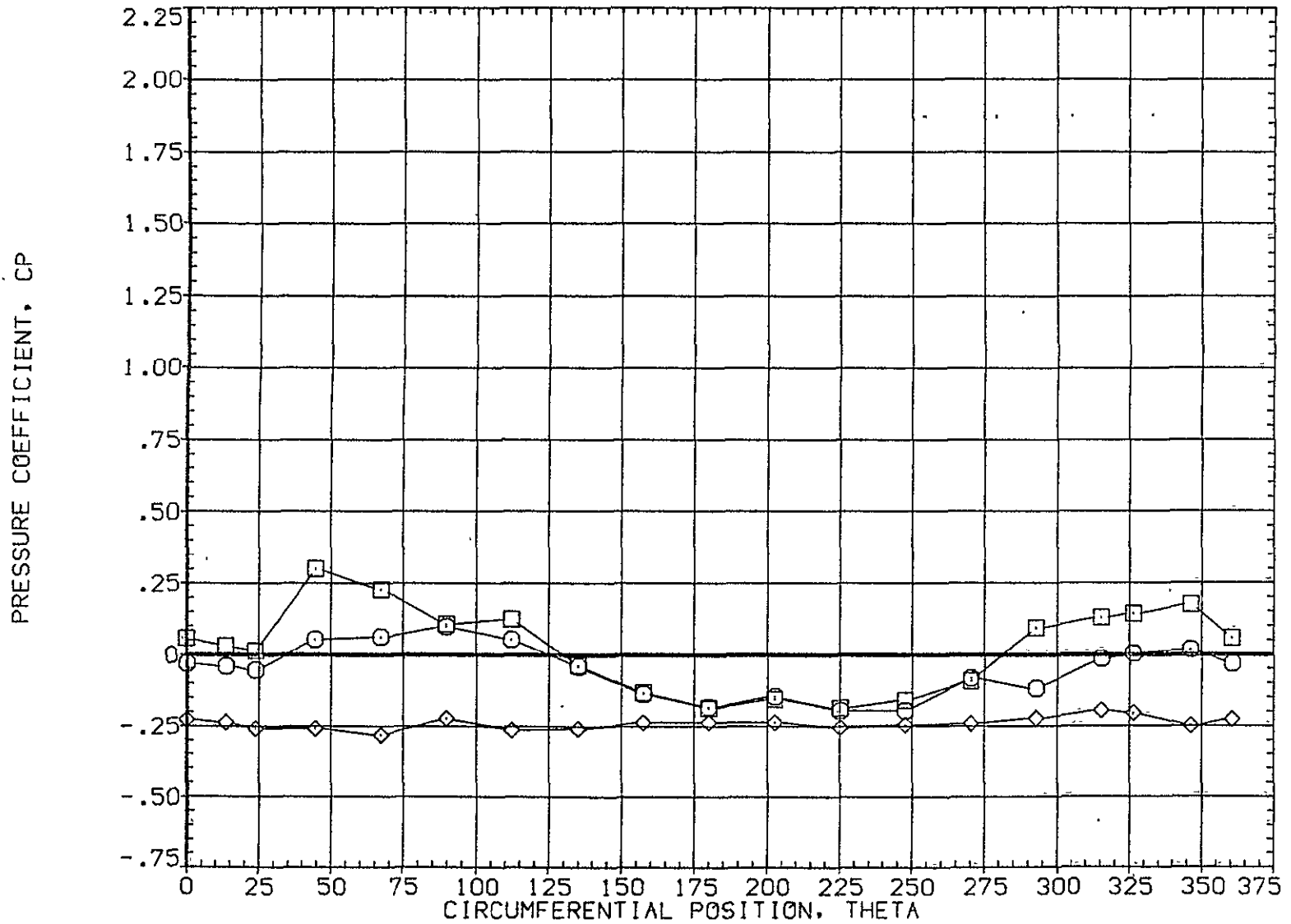


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A058)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.740	1.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

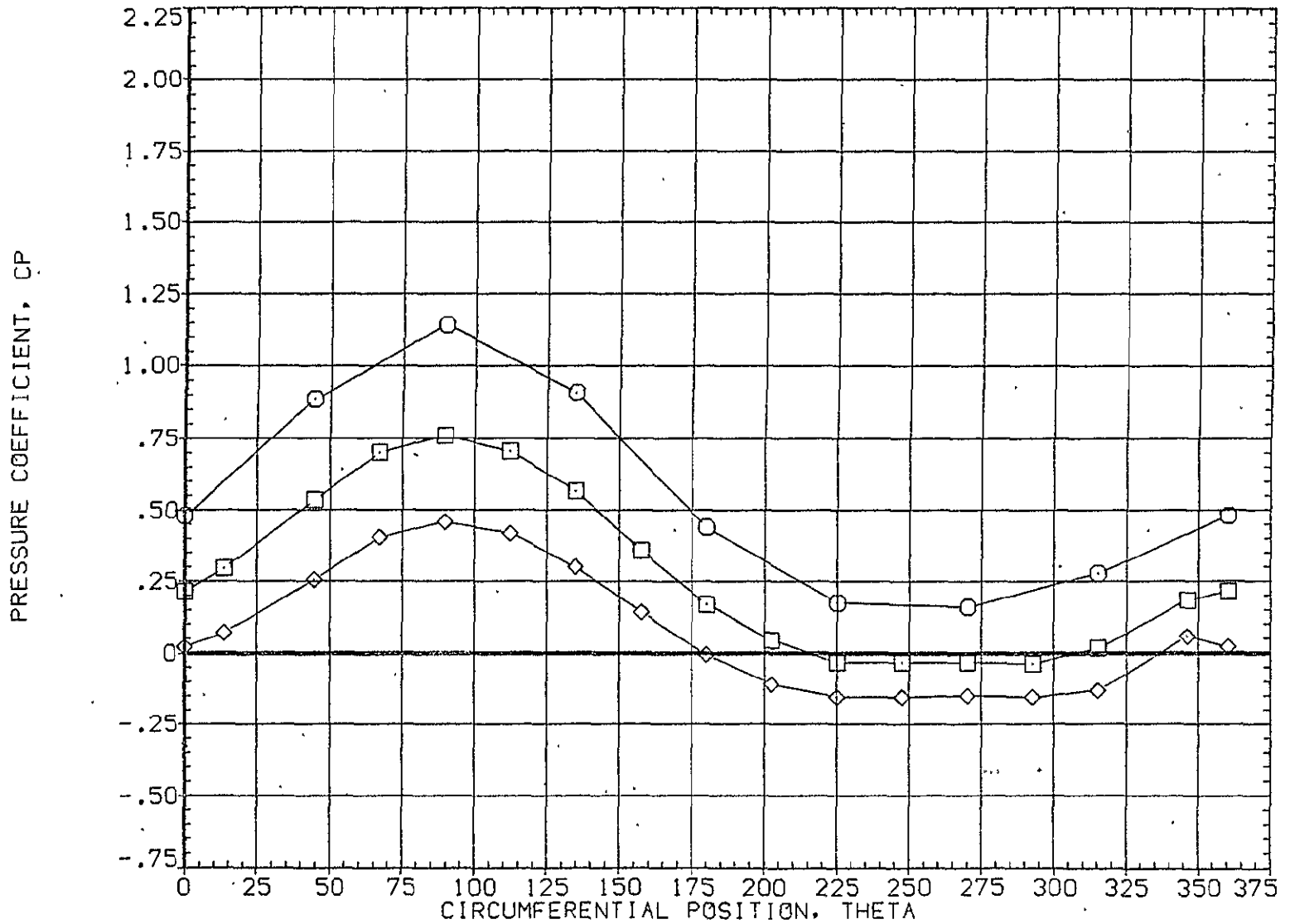


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.216	20.740	1.960	MOUNT	1.000	PHI	270.000
□	.322						
◇	.518						

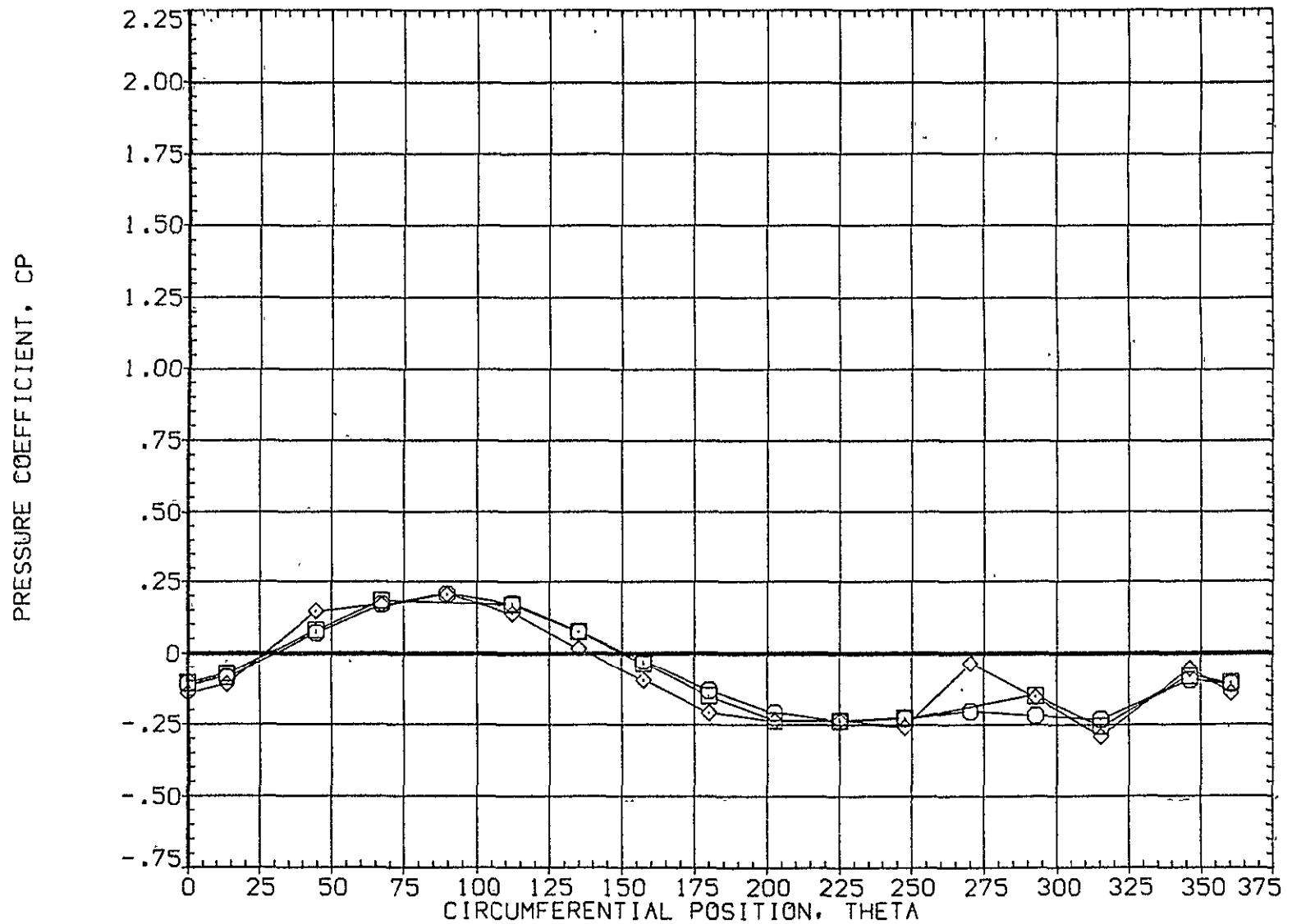


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A058)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	20.740	1.960	.000	20.000	
□	.735			1.000	270.000	
◇	.860					

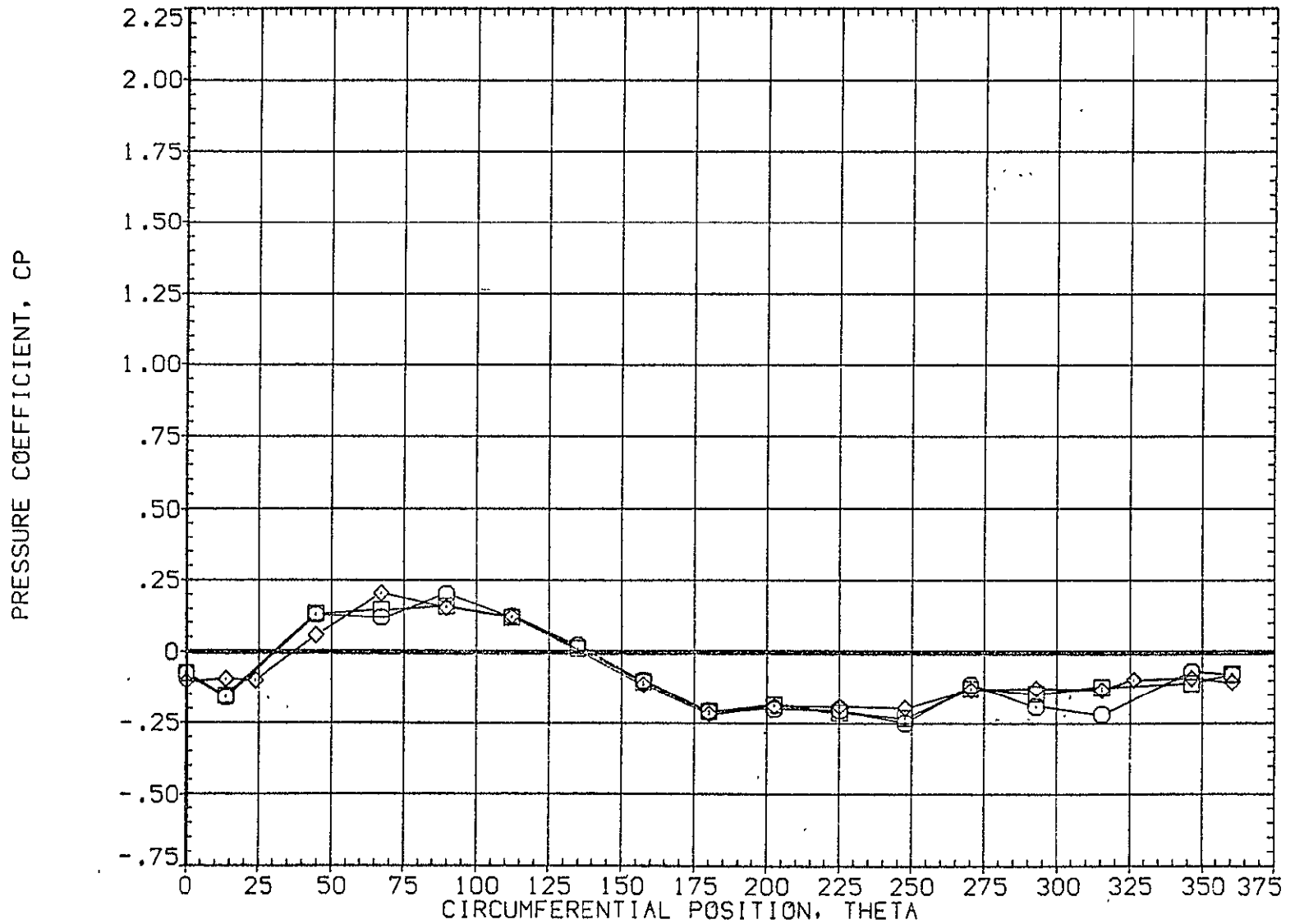


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	20.740	1.960	.000	20.000	
□	.923			1.000	PHI	270.000
◇	.954					

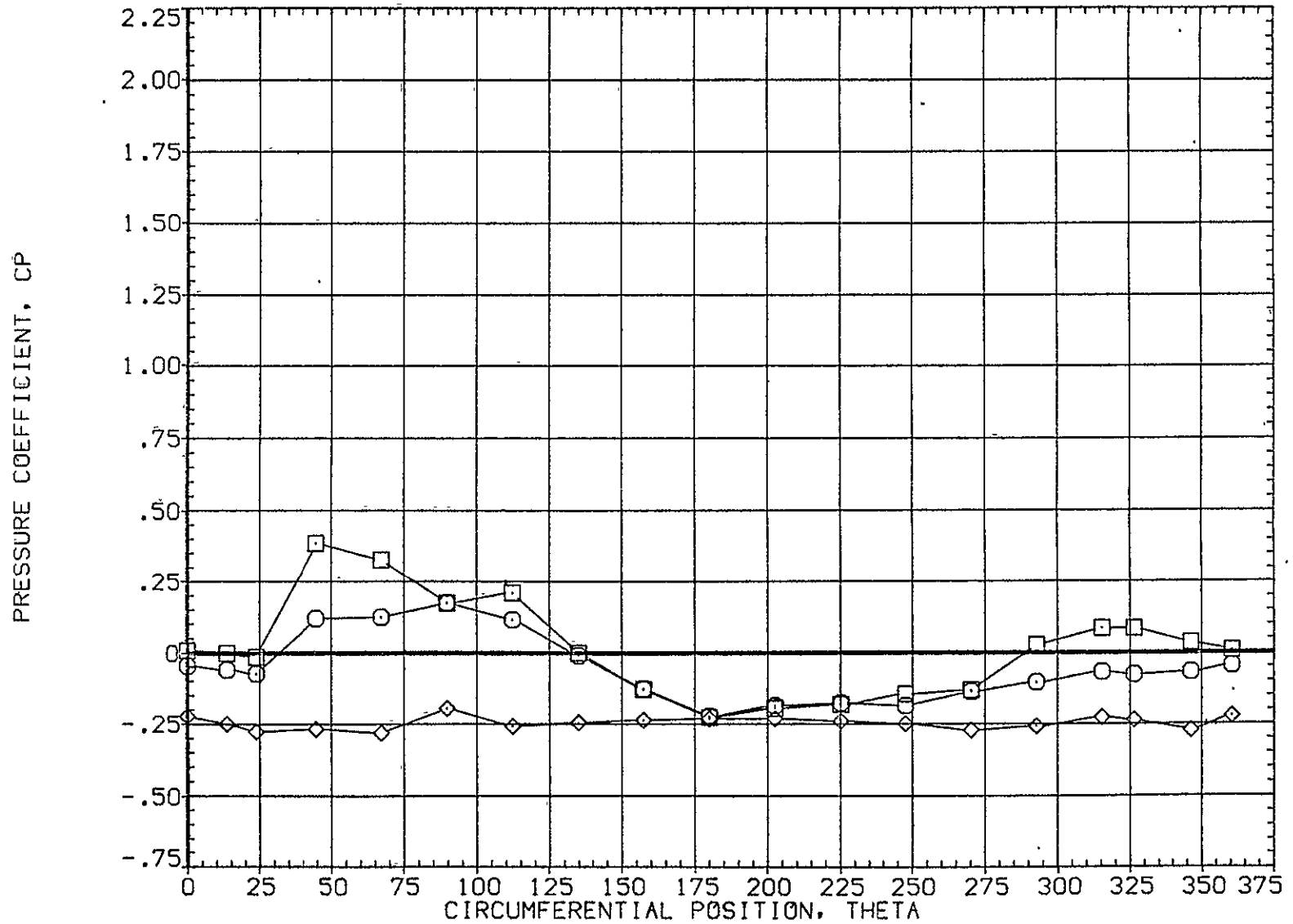


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	24.850	1.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

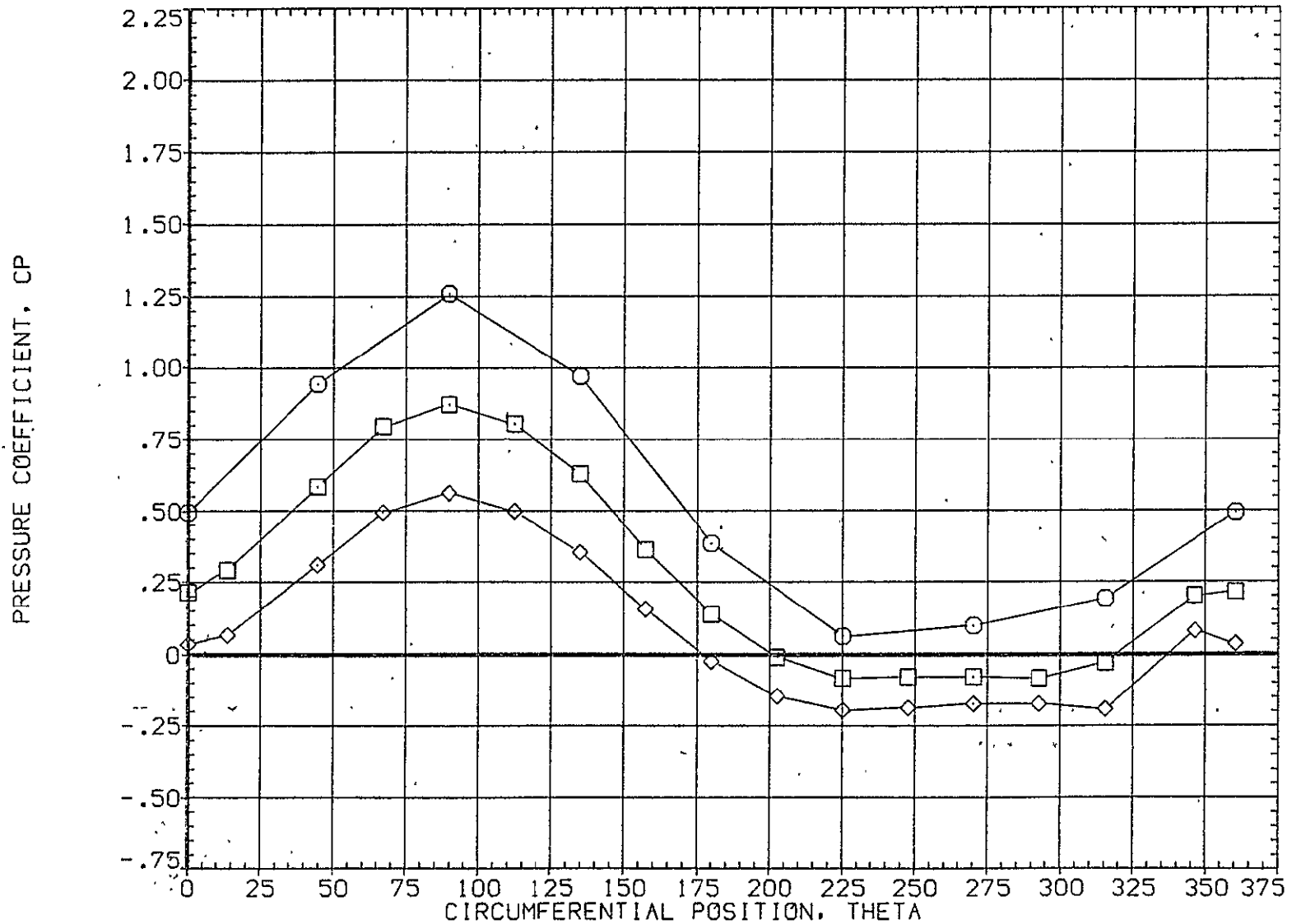


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
○	.216	24.850	1.960	BETA	.000	OFFSET 20.000
□	.322			MOUNT	1.000	PHI 270.000
◇	.518					

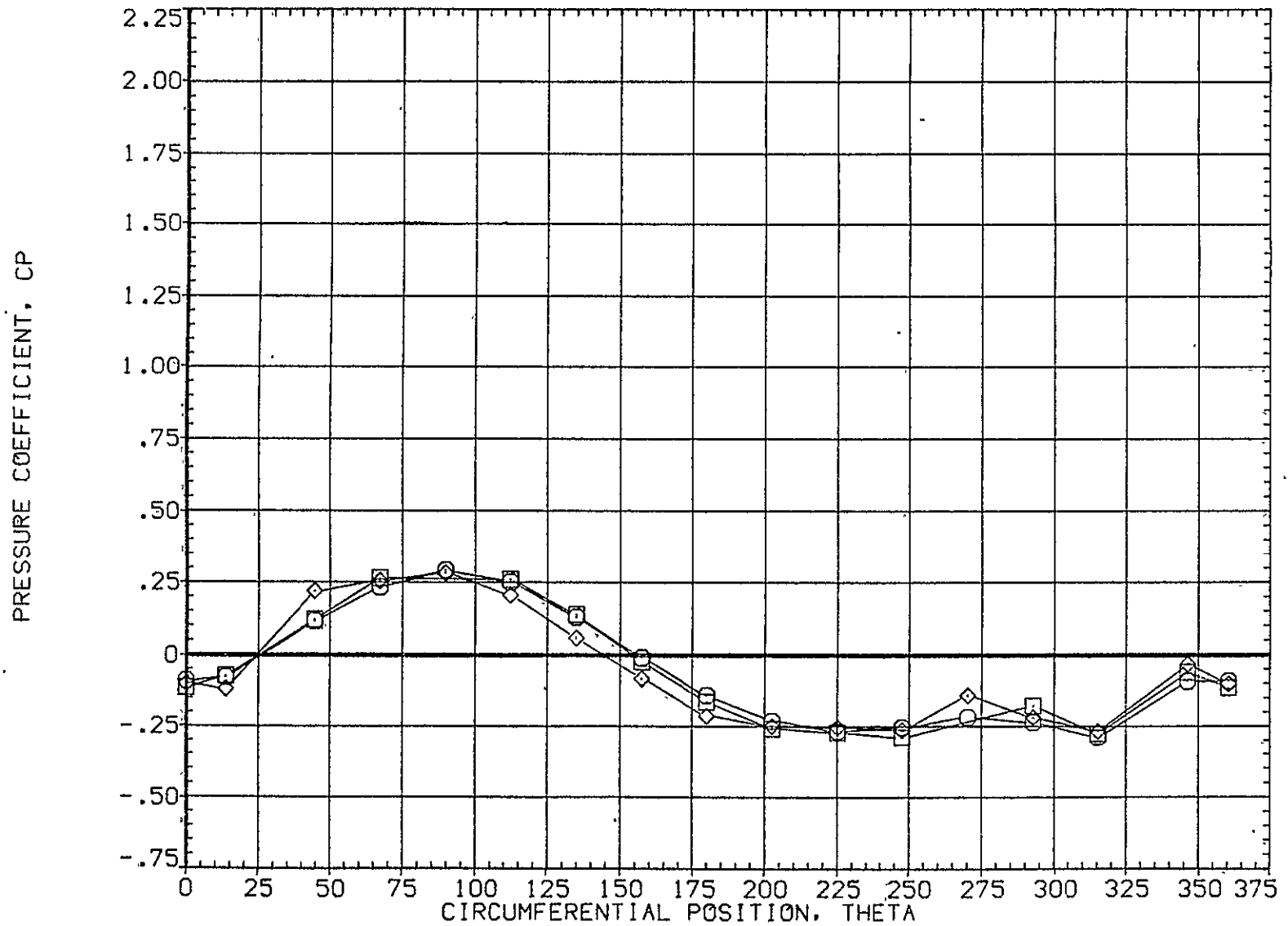


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A059)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	24.850	1.960	.000	20,000		
□	.735			1.000			
◇	.860						

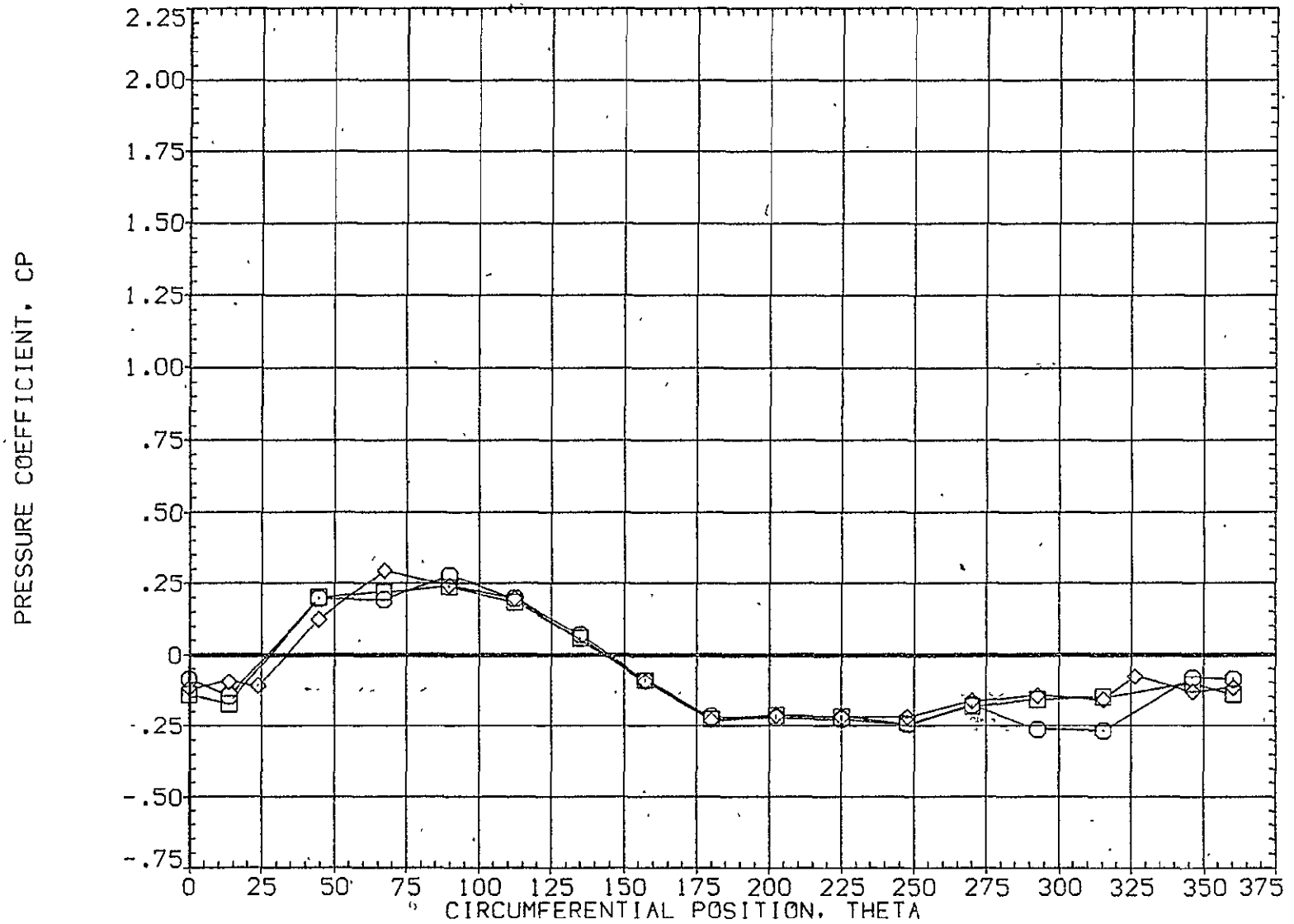


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.892	24.850	1.960	BETA	.000	OFFSET**	20.000
□	.923			MOUNT	1.000	PHI	270.000
◇	.954						

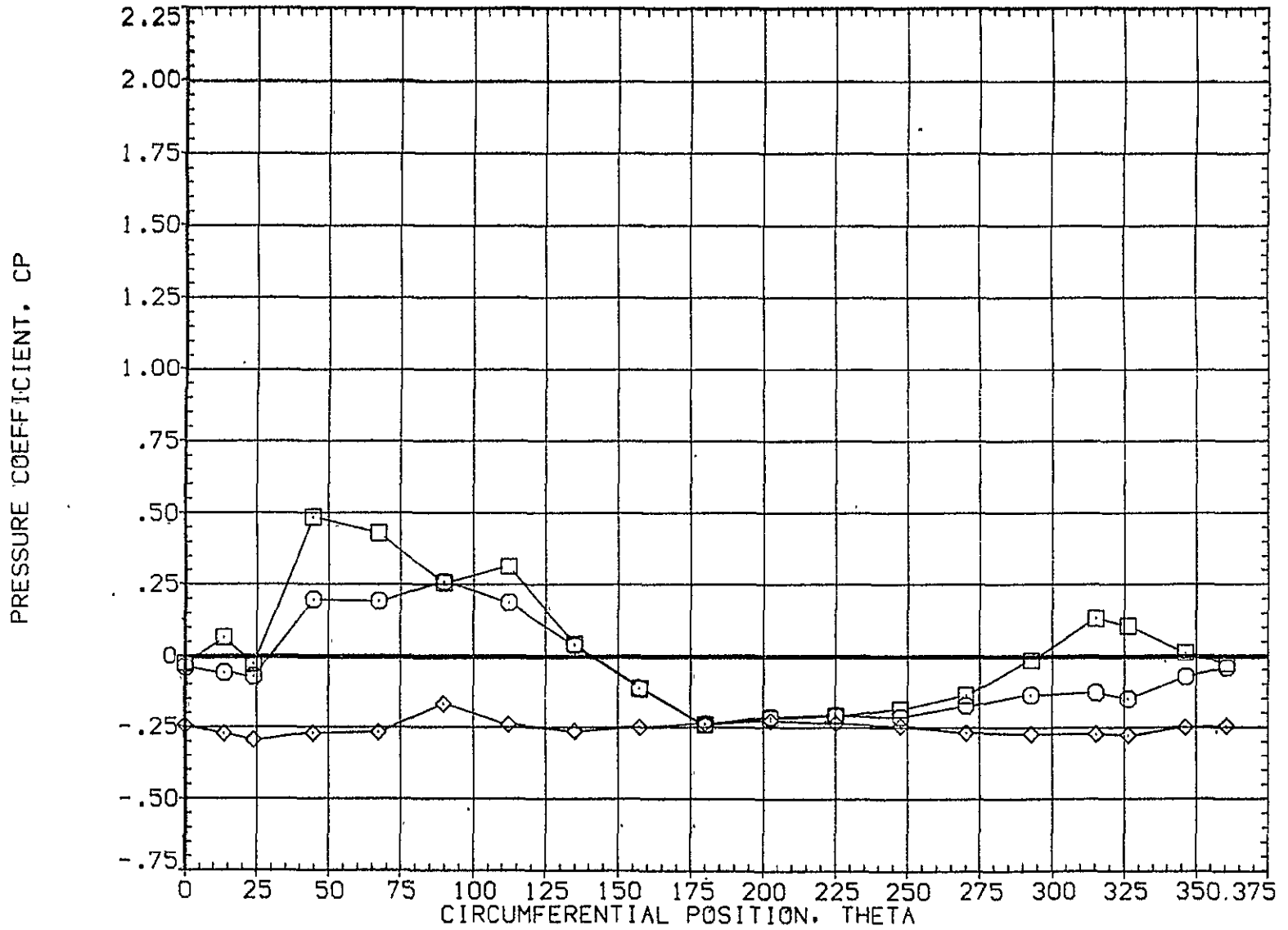


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.055	28.930	1.960	MOUNT	1.000	PHI	270,000
□	.108						
◇	.162						

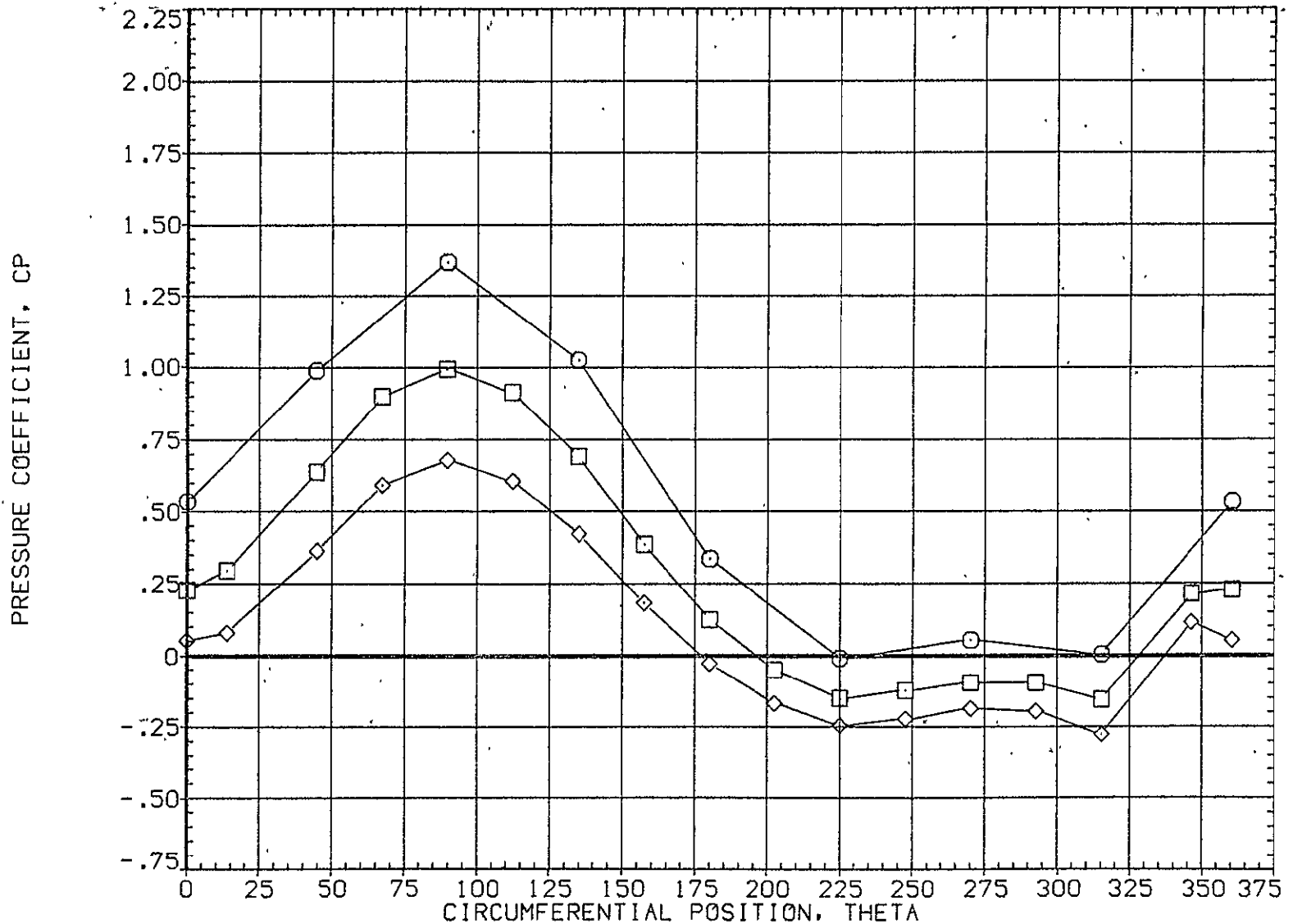


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	28.930	1.960	MOUNT	1.000	PHI	270.000
□	.322						
◇	.518						

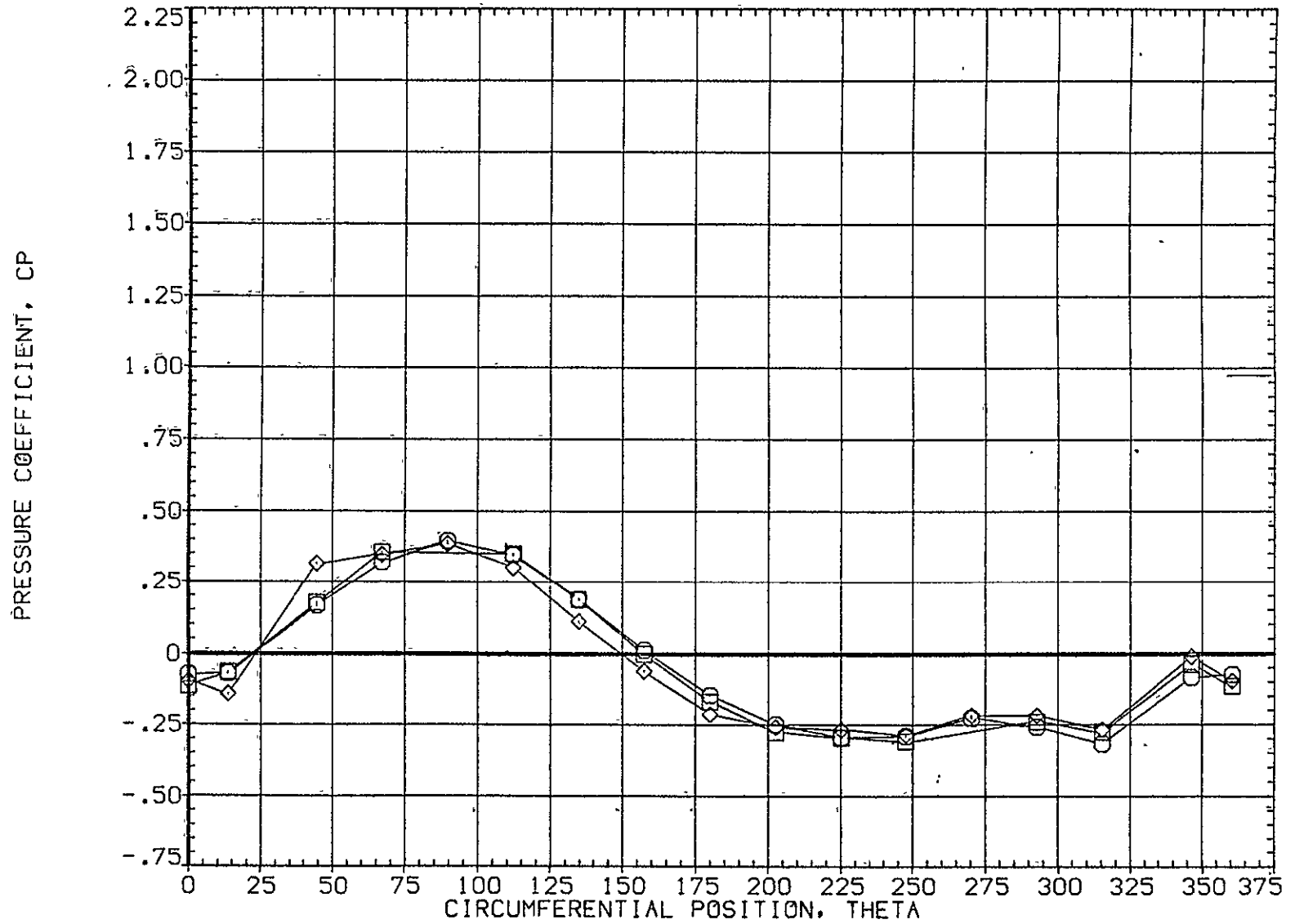


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A060)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	28.930	1.960	.000		20.000
□	.735			1.000		270.000
◇	.860					

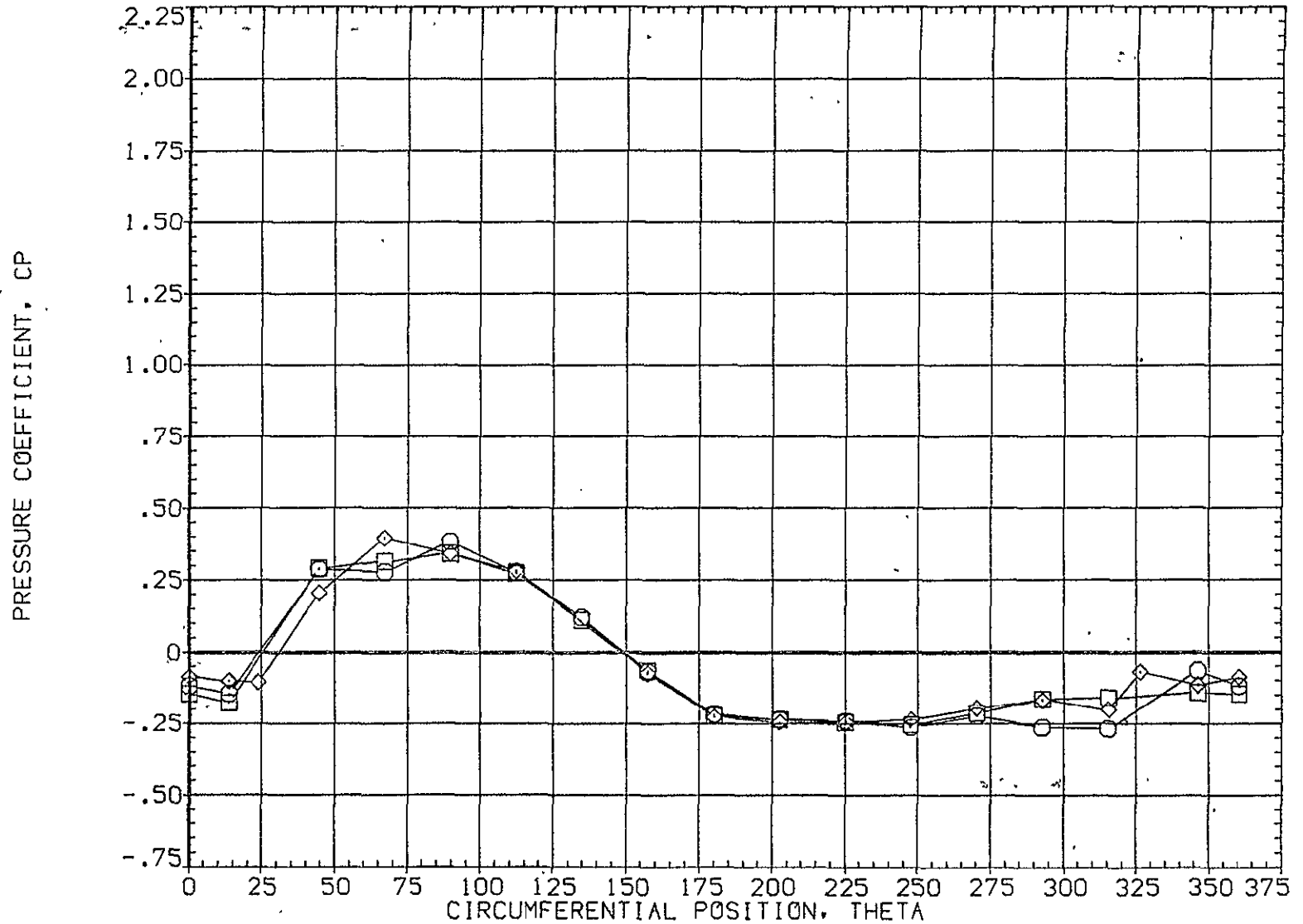


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	28.930	1.960	.000	20.000	
□	.923			1.000	270.000	
◇	.954					

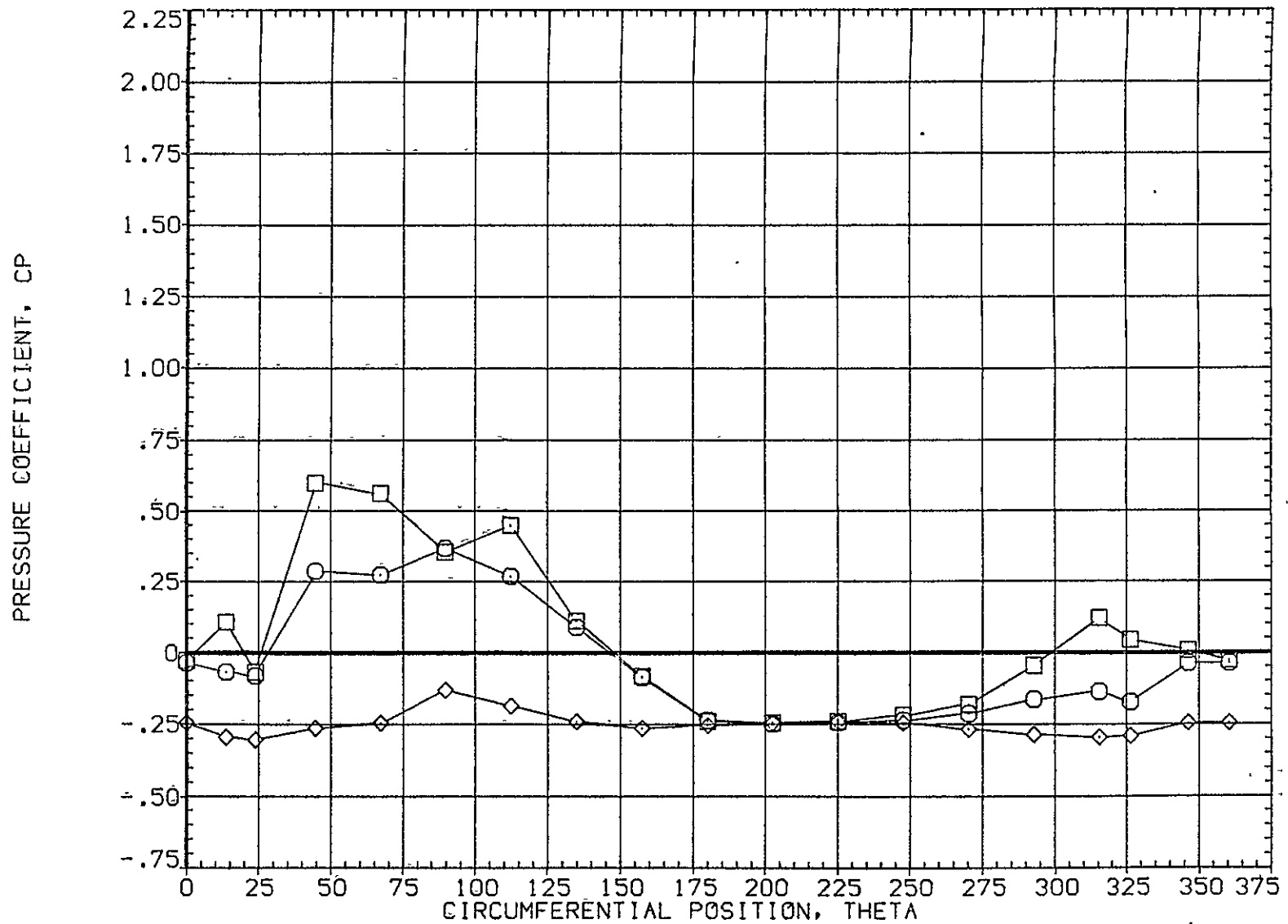


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A001)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	-8.360	3.480	.000	.000		.000
□	.108			1.000			.000
◇	.162						

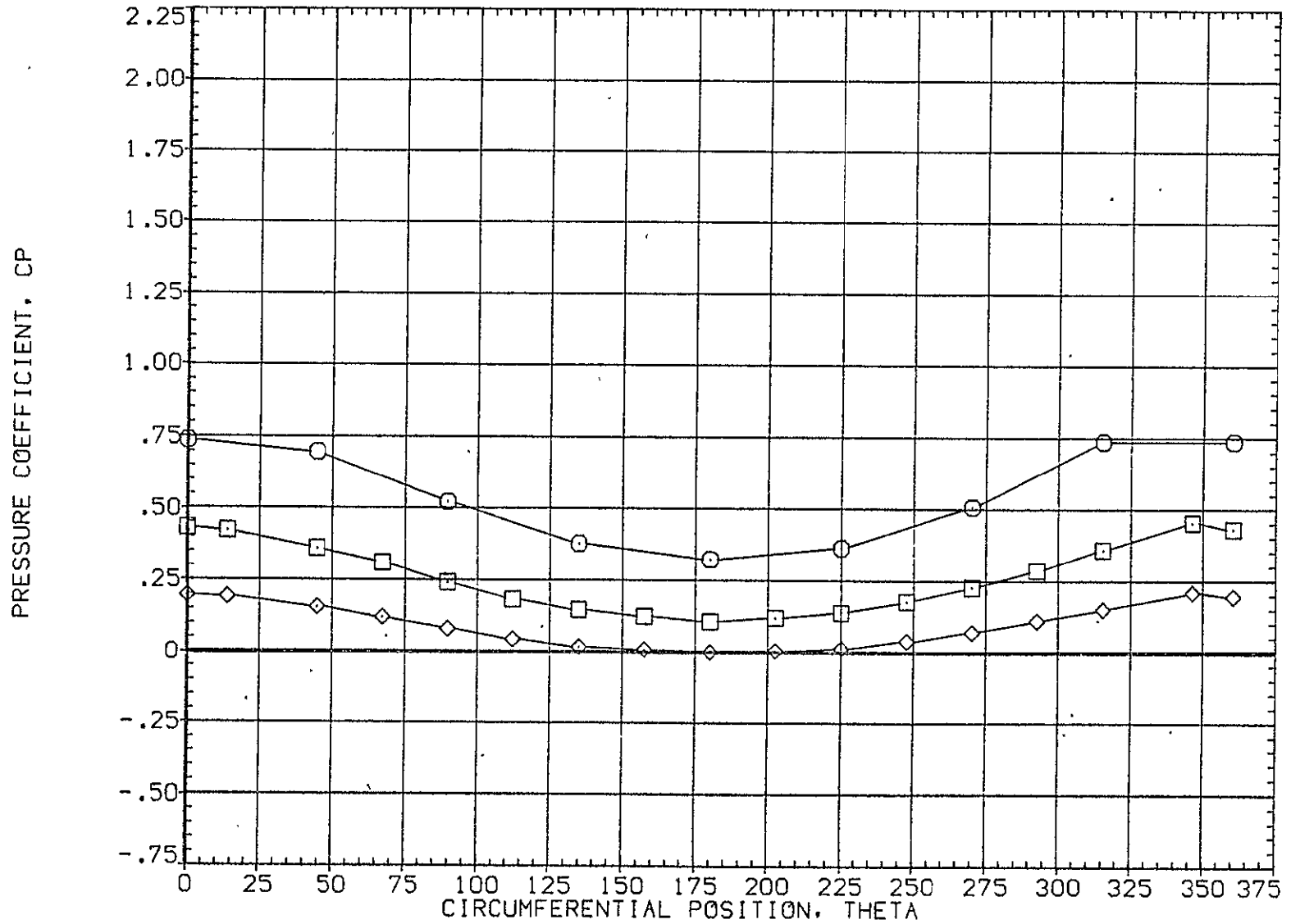


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.216	-8.360	3.480	BETA	.000	OFFSET	.000
□	.322			MOUNT	1.000	PHI	.000
◇	.518						

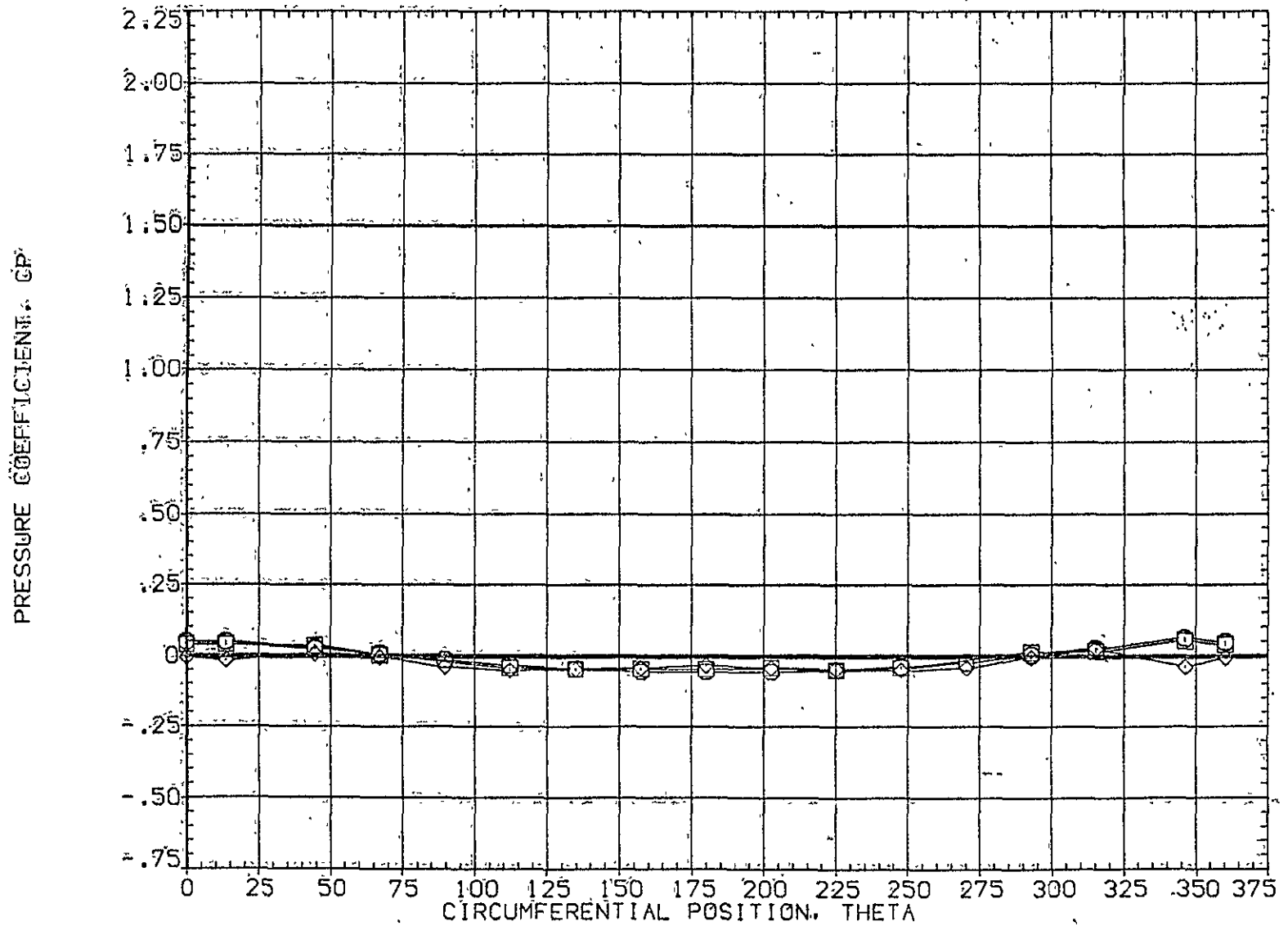


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A001)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.610	-8.360	3.480	BETA	.000	OFFSET	.000
□	.735			MOUNT	1.000	PHI	.000
◇	.860						

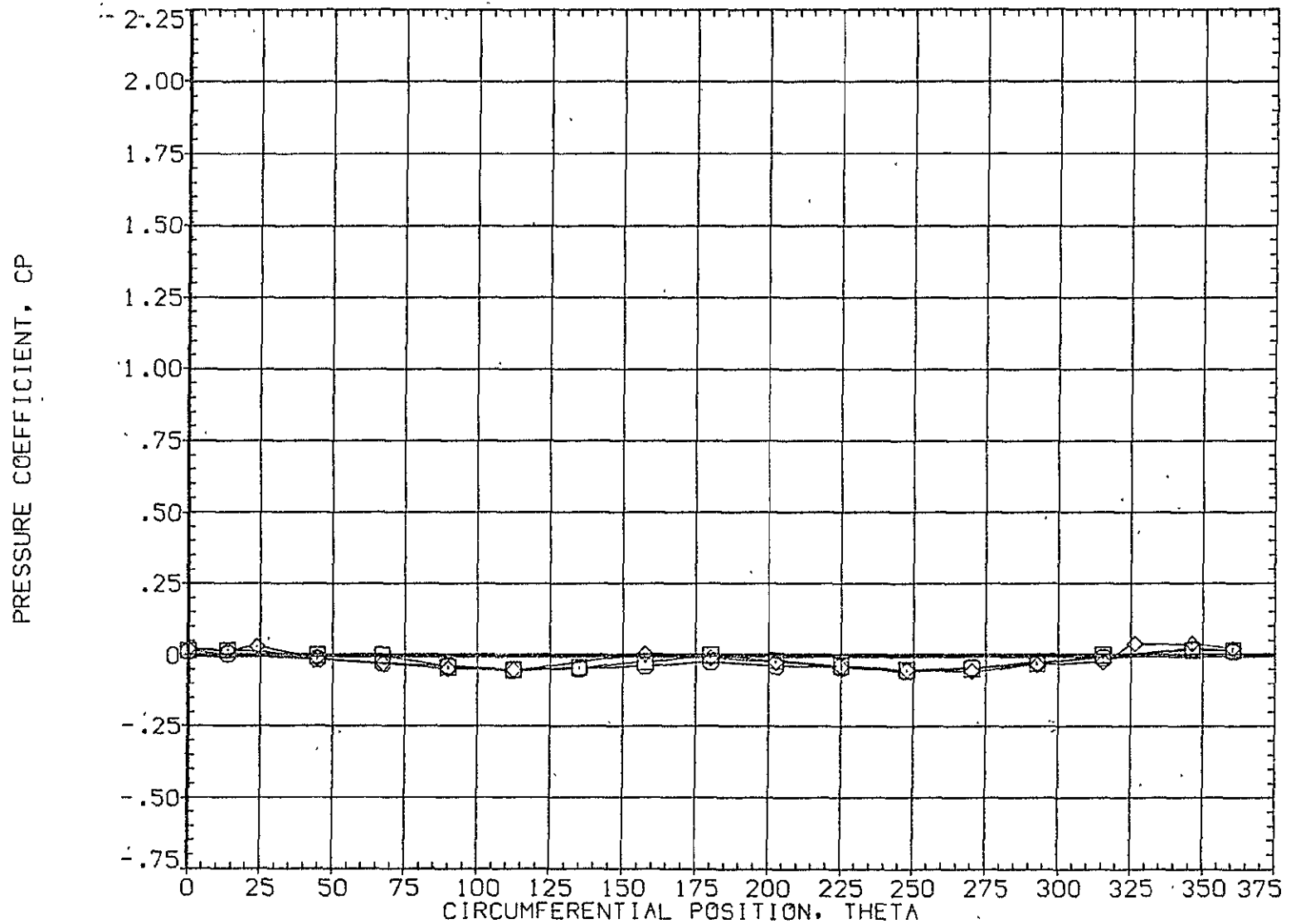


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES	OFFSET	.000
○	.892	-8.360	3.480				
□	.923						
◇	.954						
				MOUNT	1.000	PHI	.000

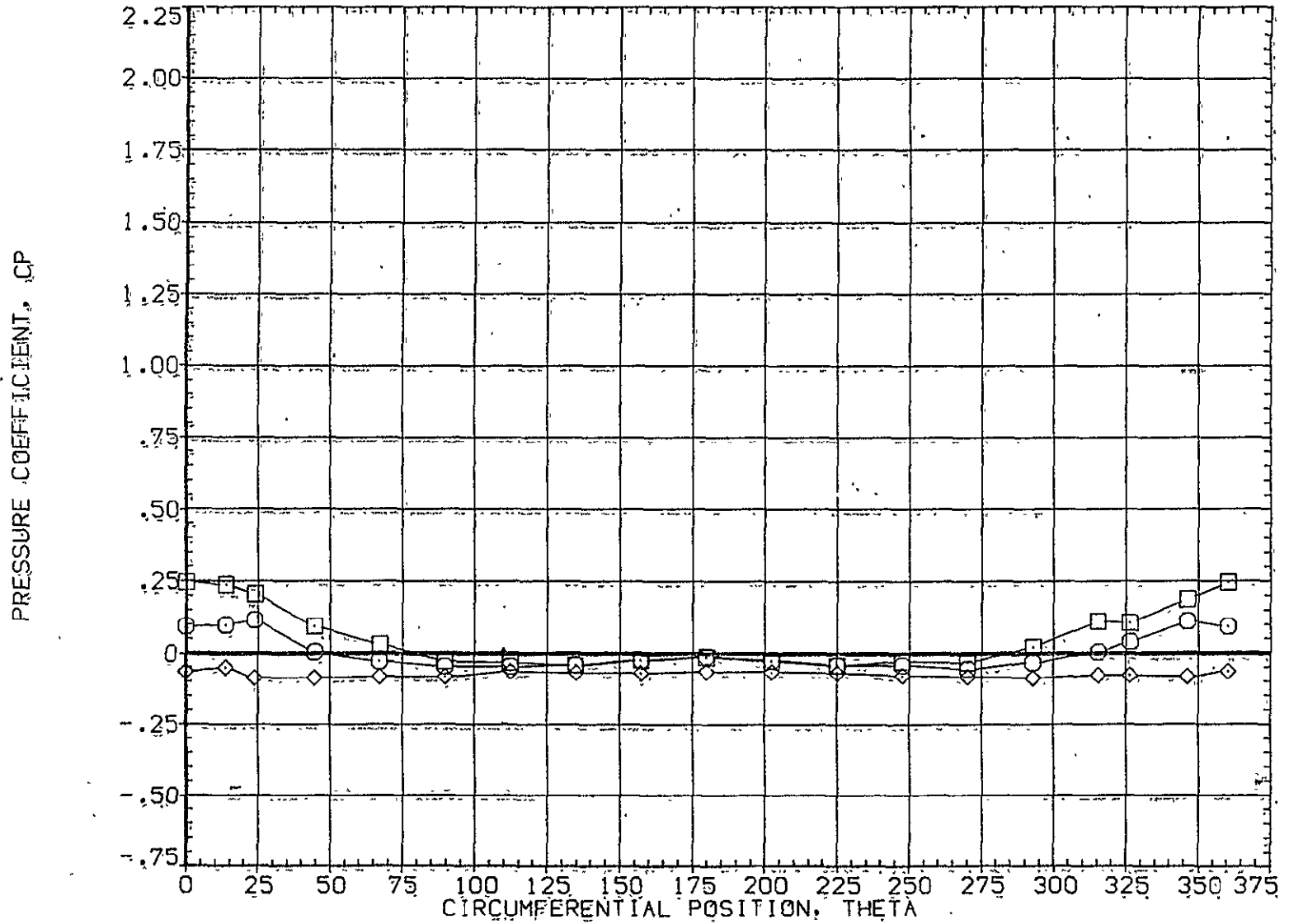


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET = T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A002)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	.000	OFFSET	.000
○	.055	-4.330	3.480	MOUNT	1.000	PHI	.000
□	.108						
◇	.162						

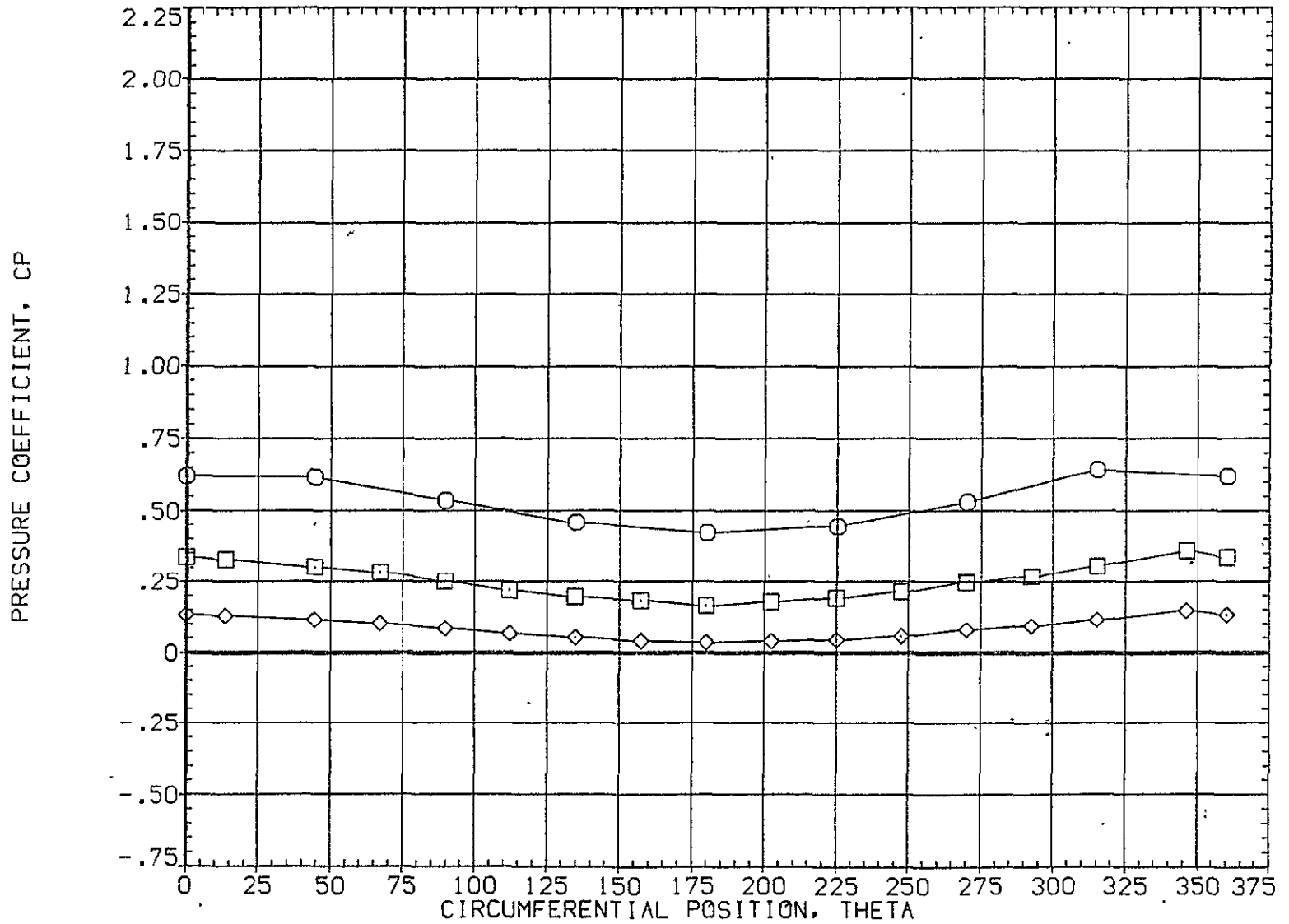


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-4.330	3.480	.000	.000	.000
□	.322			1.000	PHI	.000
◇	.518					

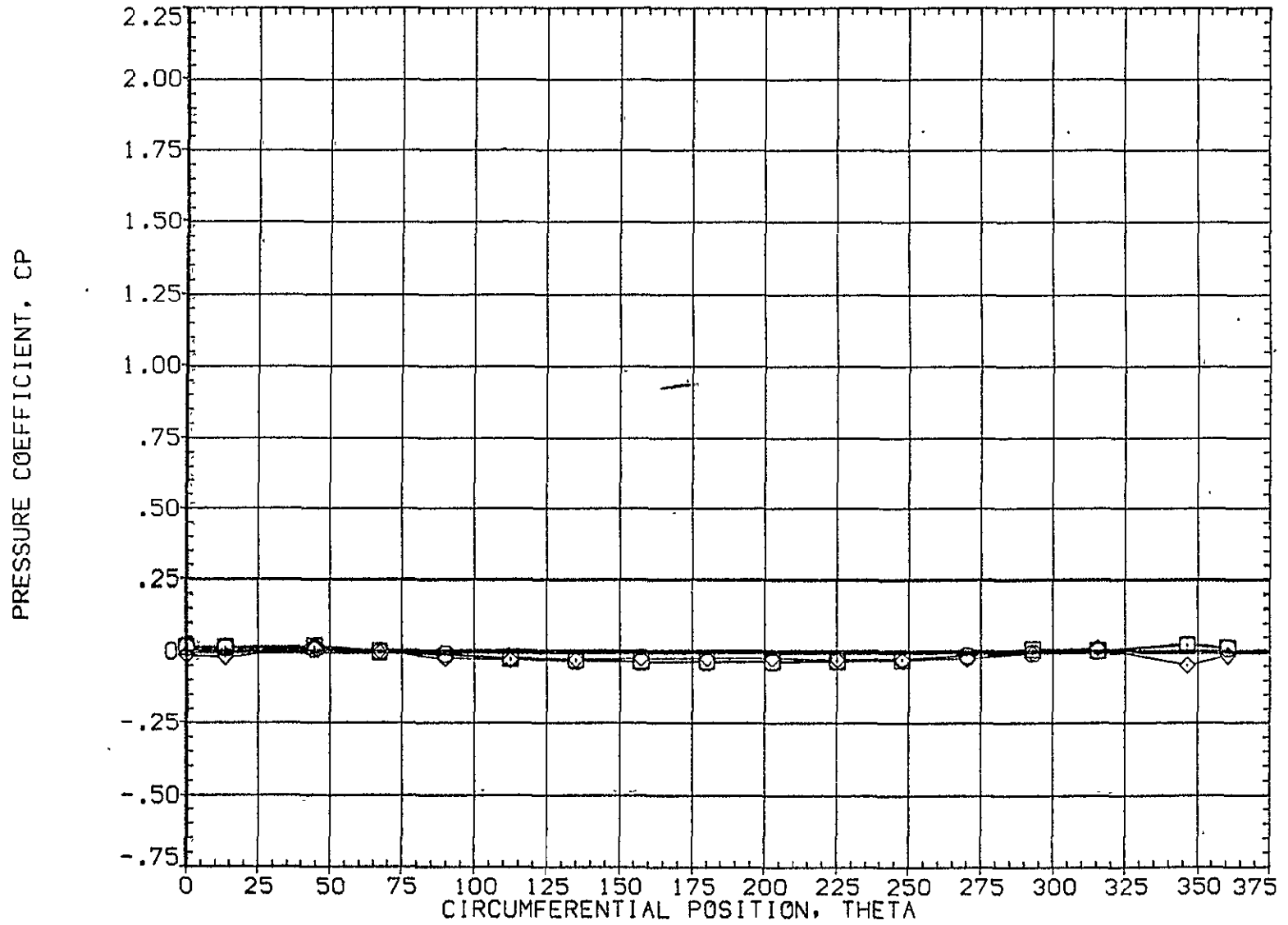


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A002)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-4.330	3.480	MOUNT	1.000	PHI	.000
□	.735						
◇	.860						

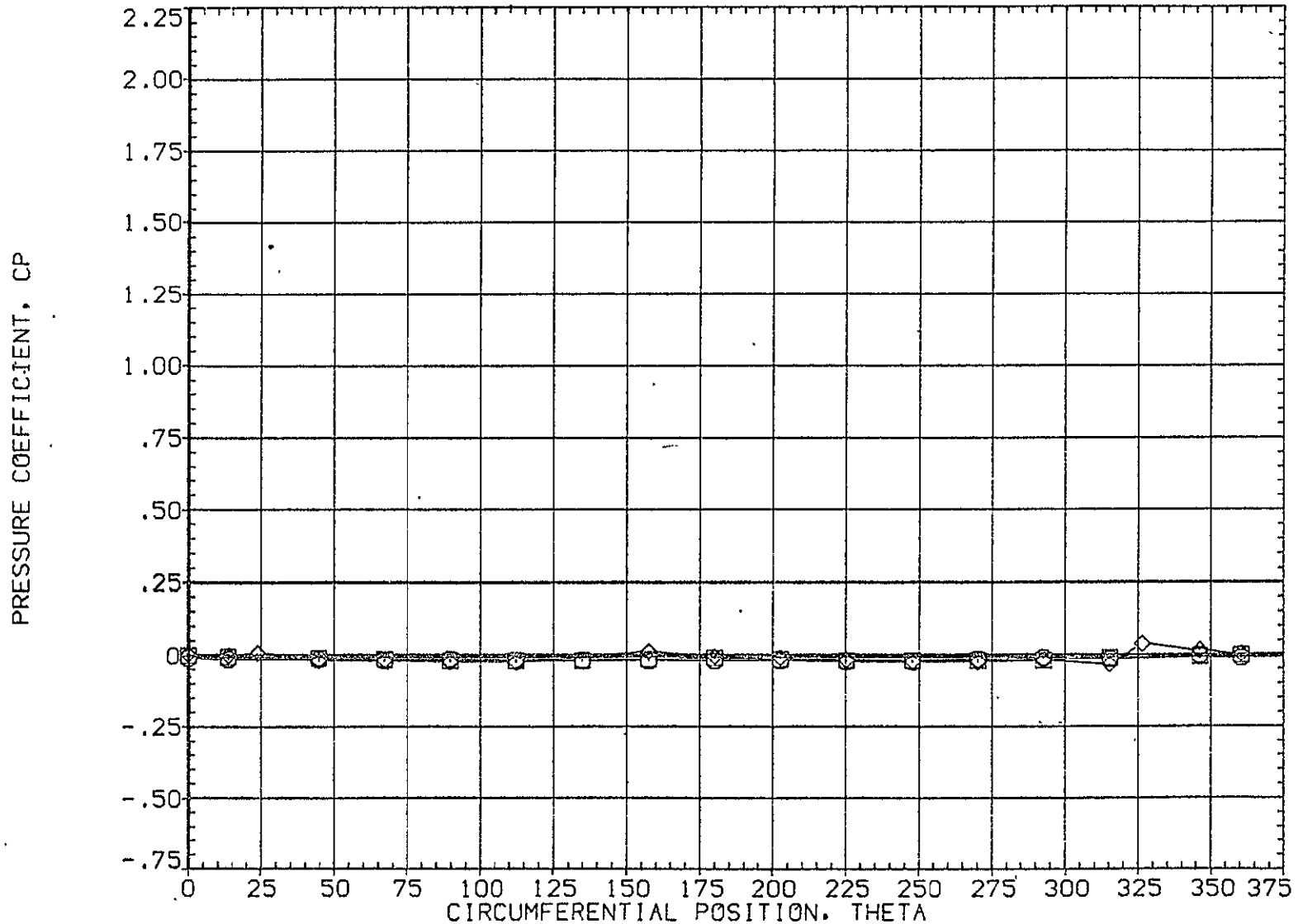


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.330	3.480	.000	.000	.000
□	.923			1.000		.000
◇	.954					

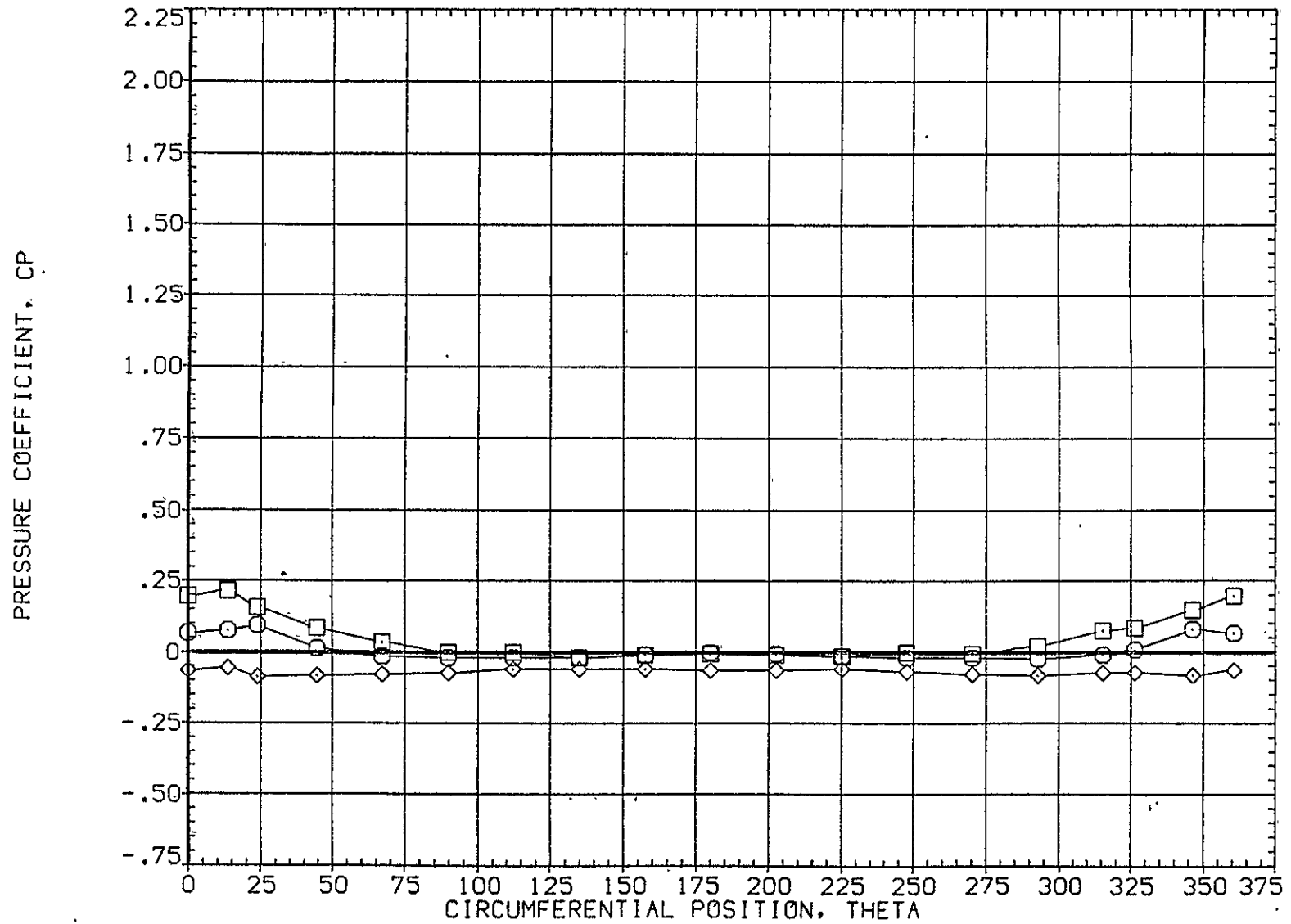


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-.280	3.480	MOUNT	1.000	PHI	.000
□	.108						.000
◇	.162						

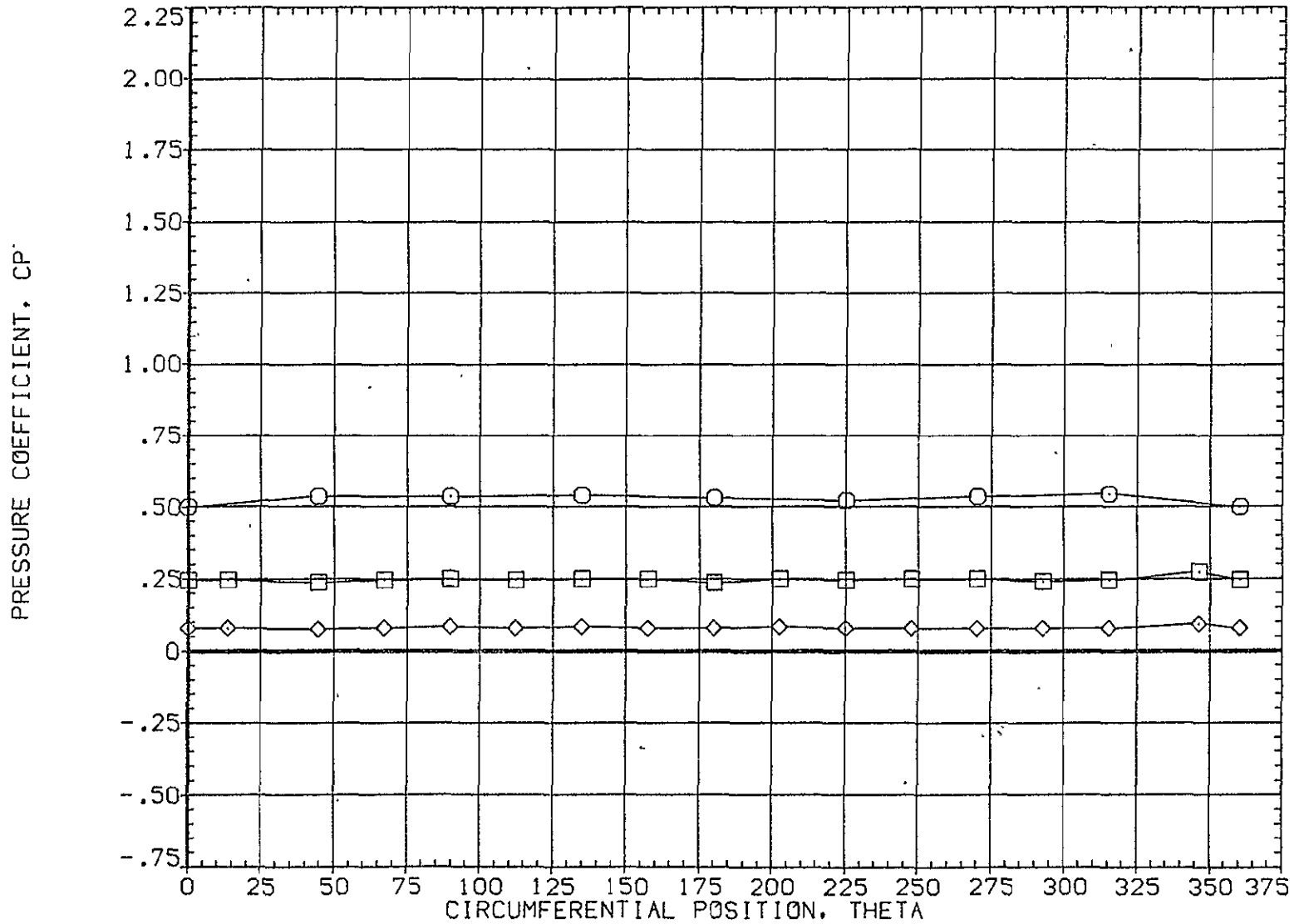


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-.280	3.480	MOUNT	1.000	PHI
□	.322					
◇	.518					

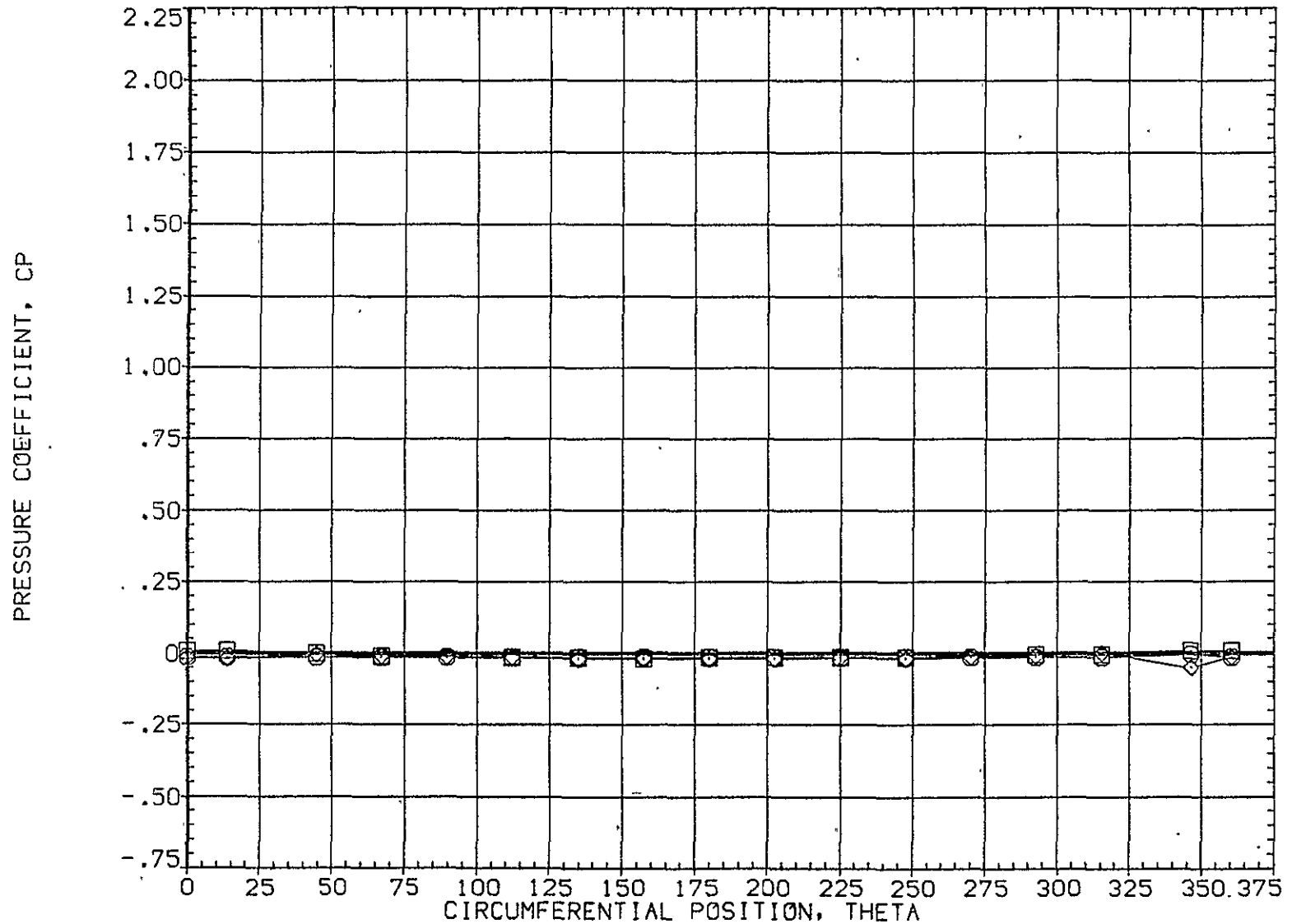


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A003)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	3.480	.000		.000
□	.735			1.000		.000
◇	.860					

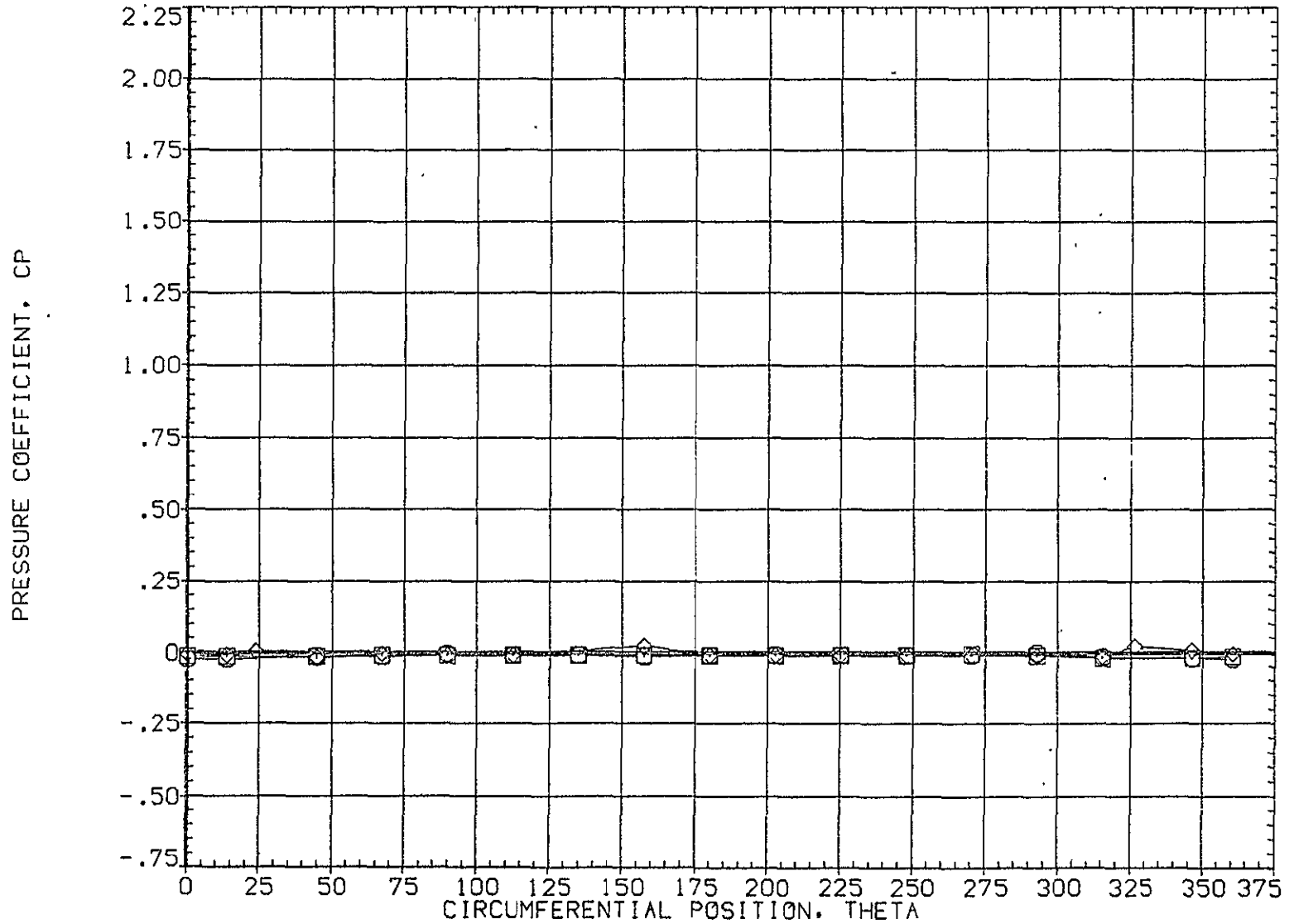


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA -.280
 MACH 3.480

PARAMETRIC VALUES
 BETA .000
 HOUNT 1.000
 OFFSET .000
 PHI .000

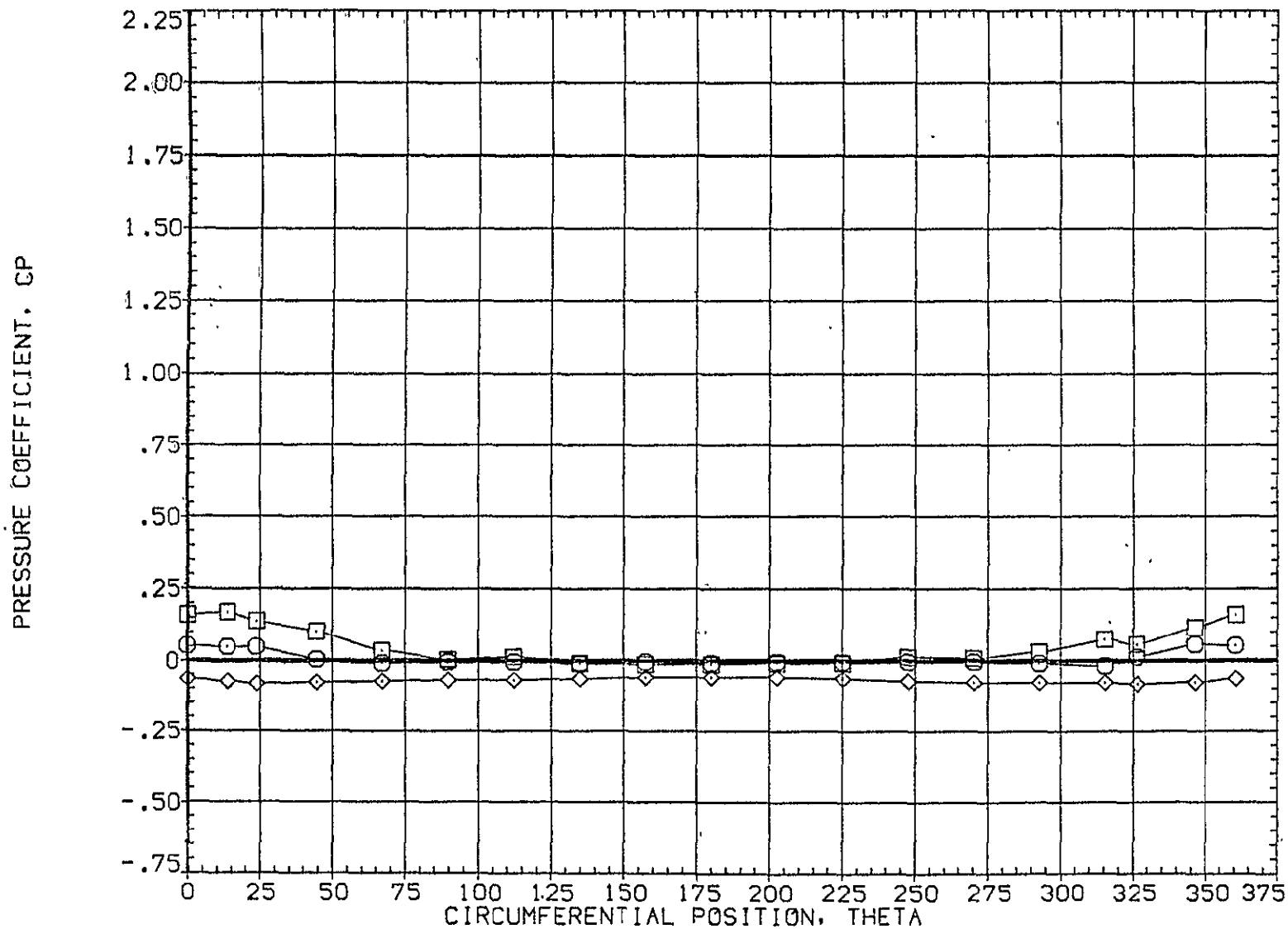


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A004)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.770	3.480	.000	.000	.000
□	.108			1.000		.000
◇	.162					

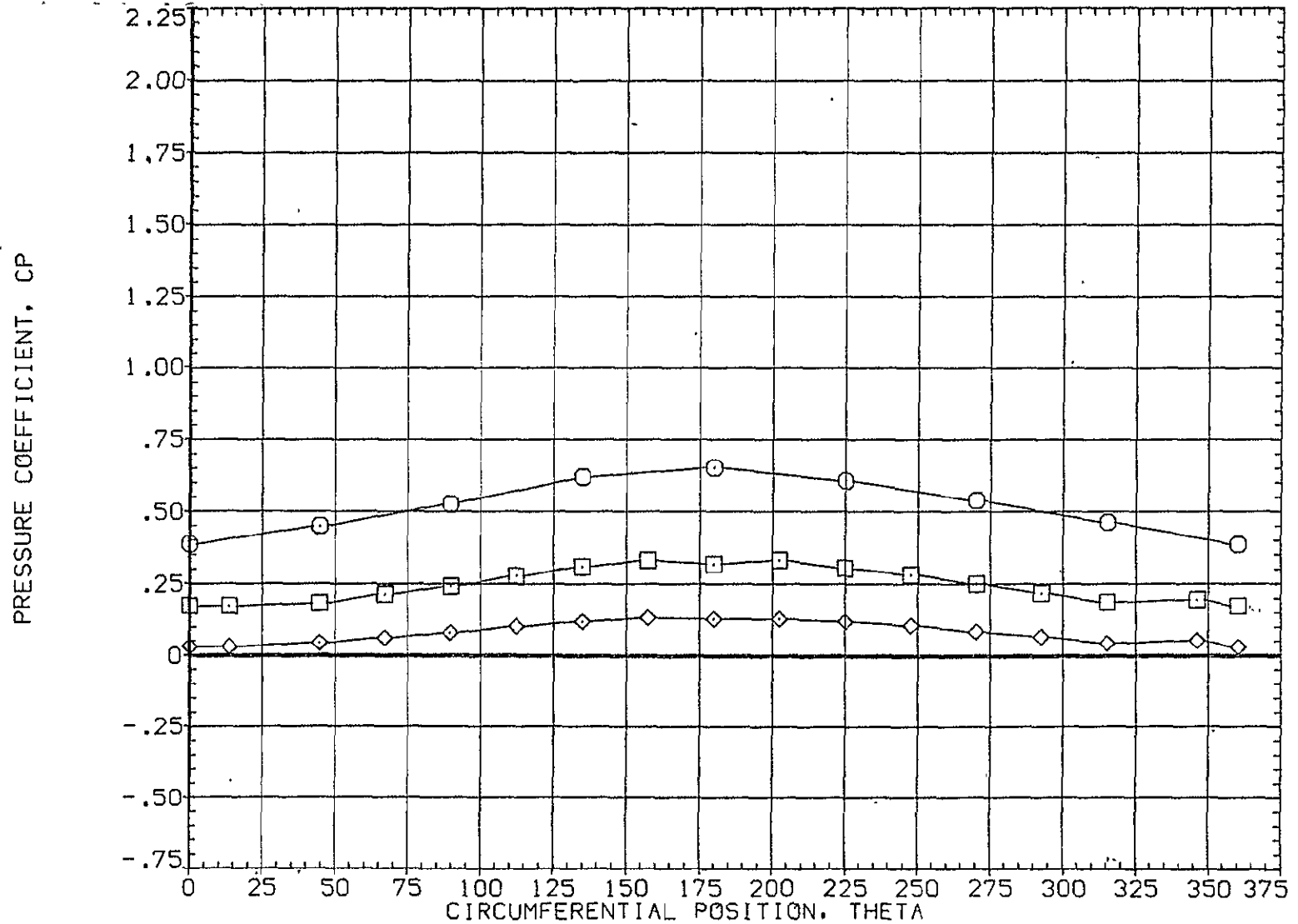


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.770	3.480	.000	.000	.000
□	.322			1.000		.000
◇	.518					

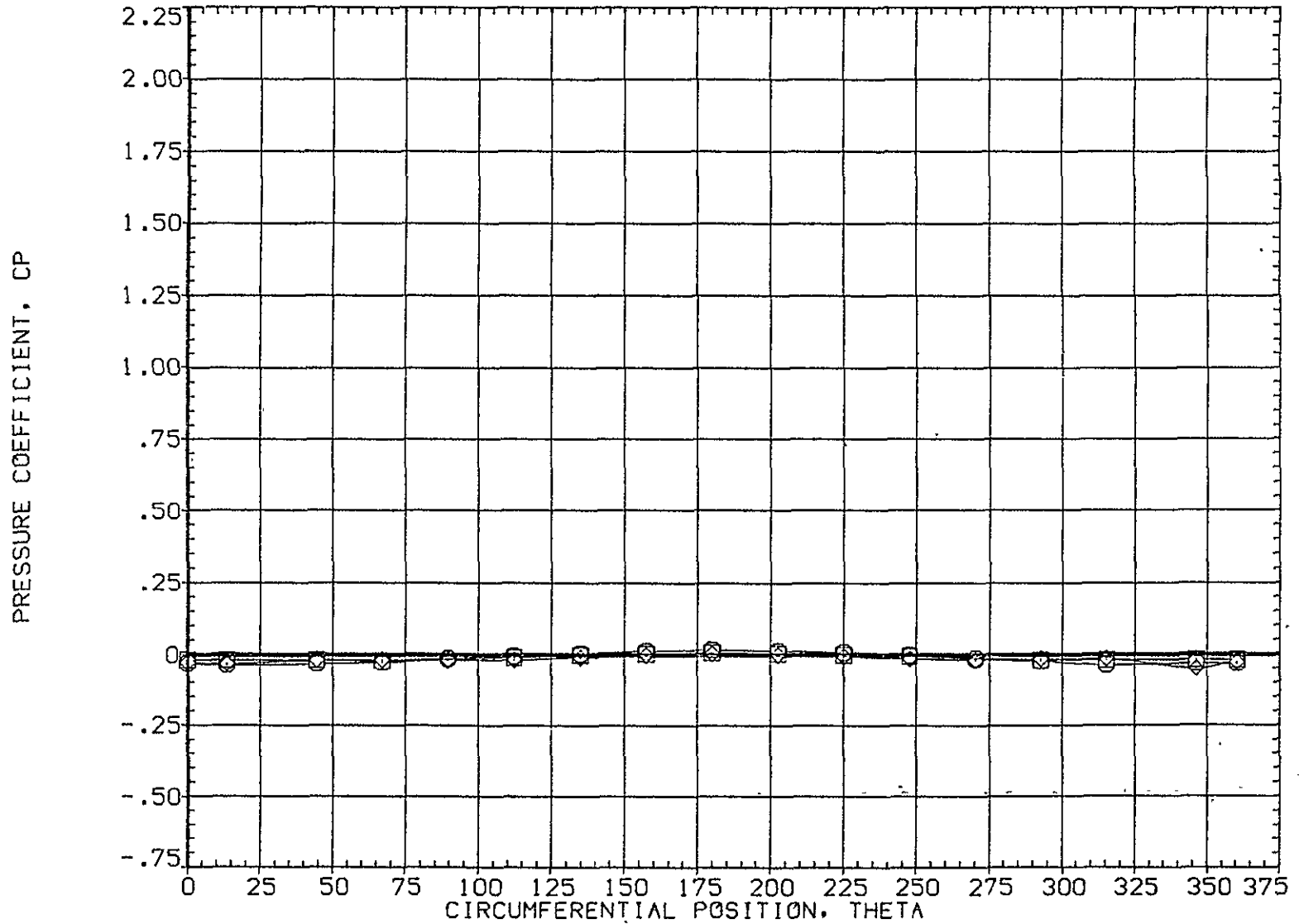


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A004)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	3.770	3.480	.000	.000	.000
□	.735			1.000		.000
◇	.860					

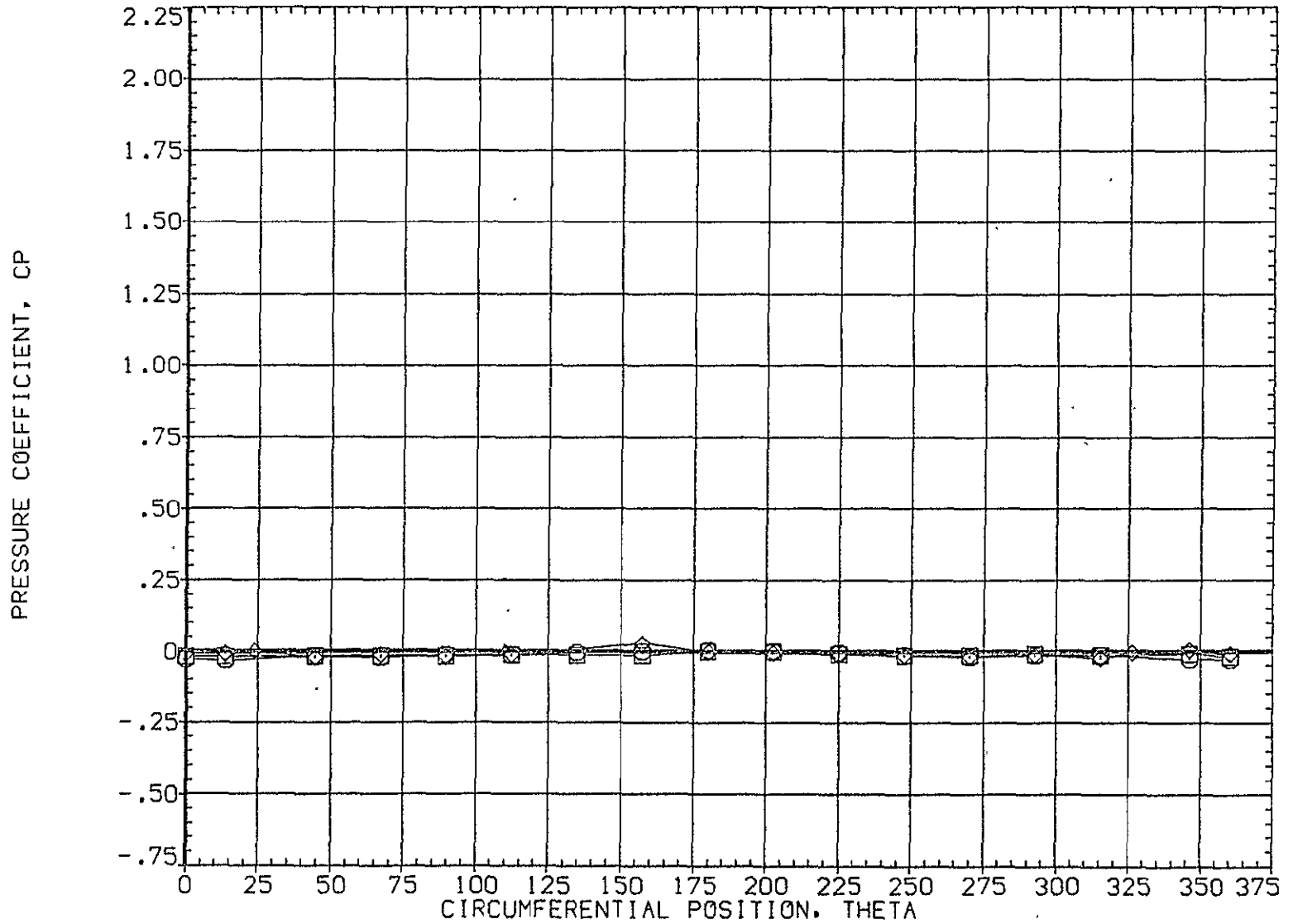


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	3.770	3.480	.000	PHI	.000
□	.923			1.000		.000
◇	.954					

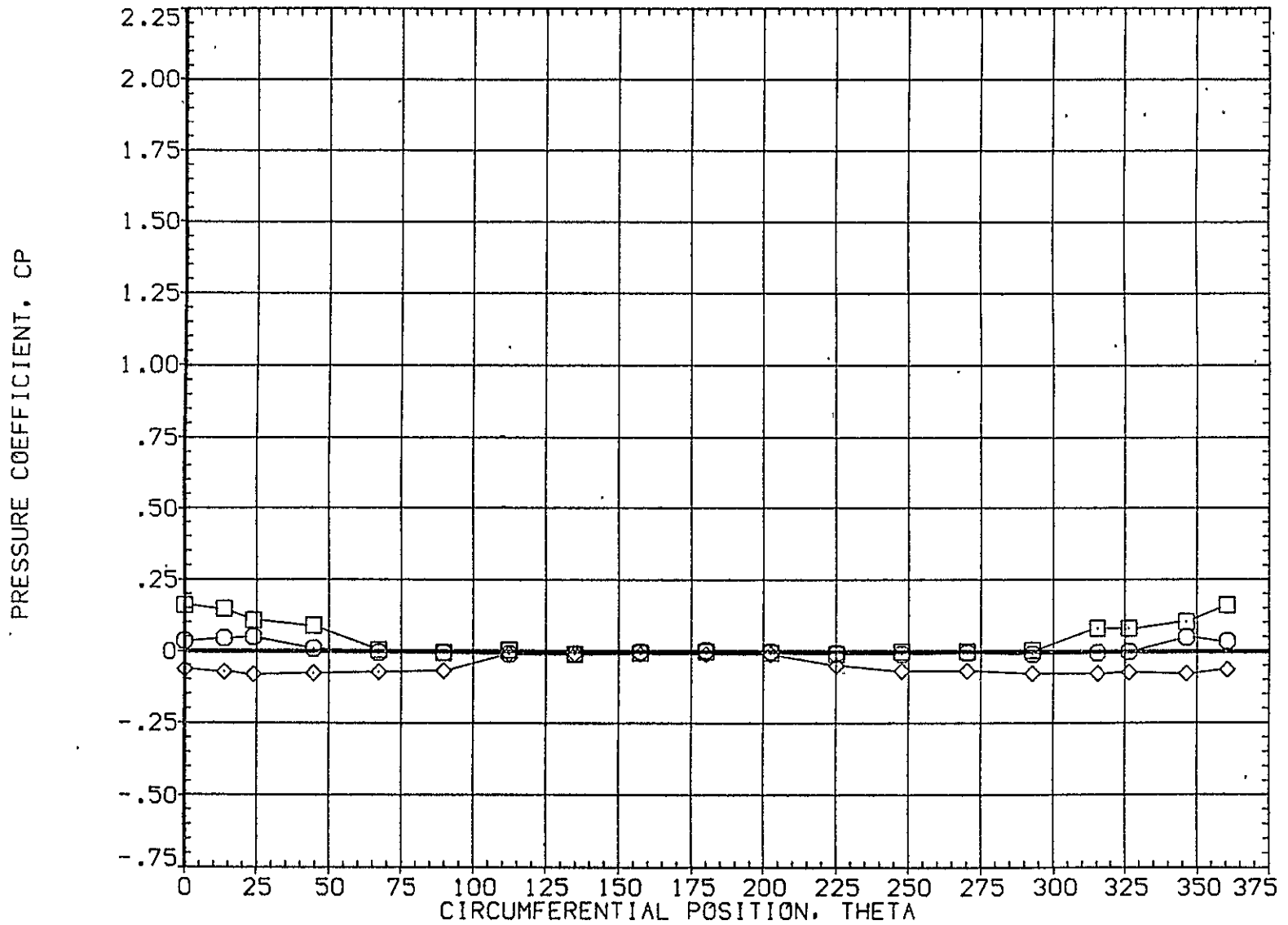


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A005)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.800	3.480	MOUNT	1.000	PHI	.000
□	.108						.000
◇	.162						.000

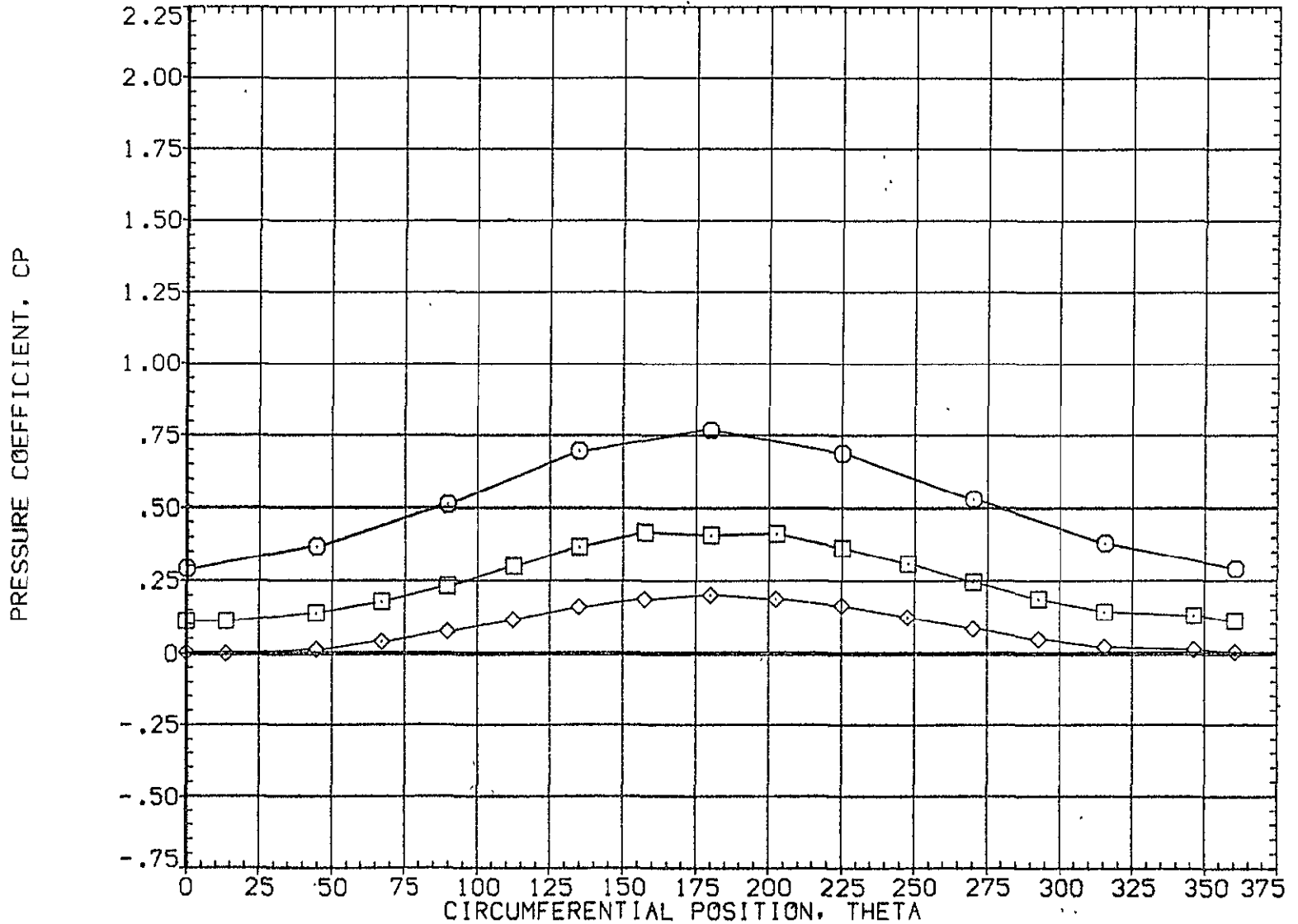


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	7.800	3.480	.000	.000	.000
□	.322			1.000		.000
◇	.518					

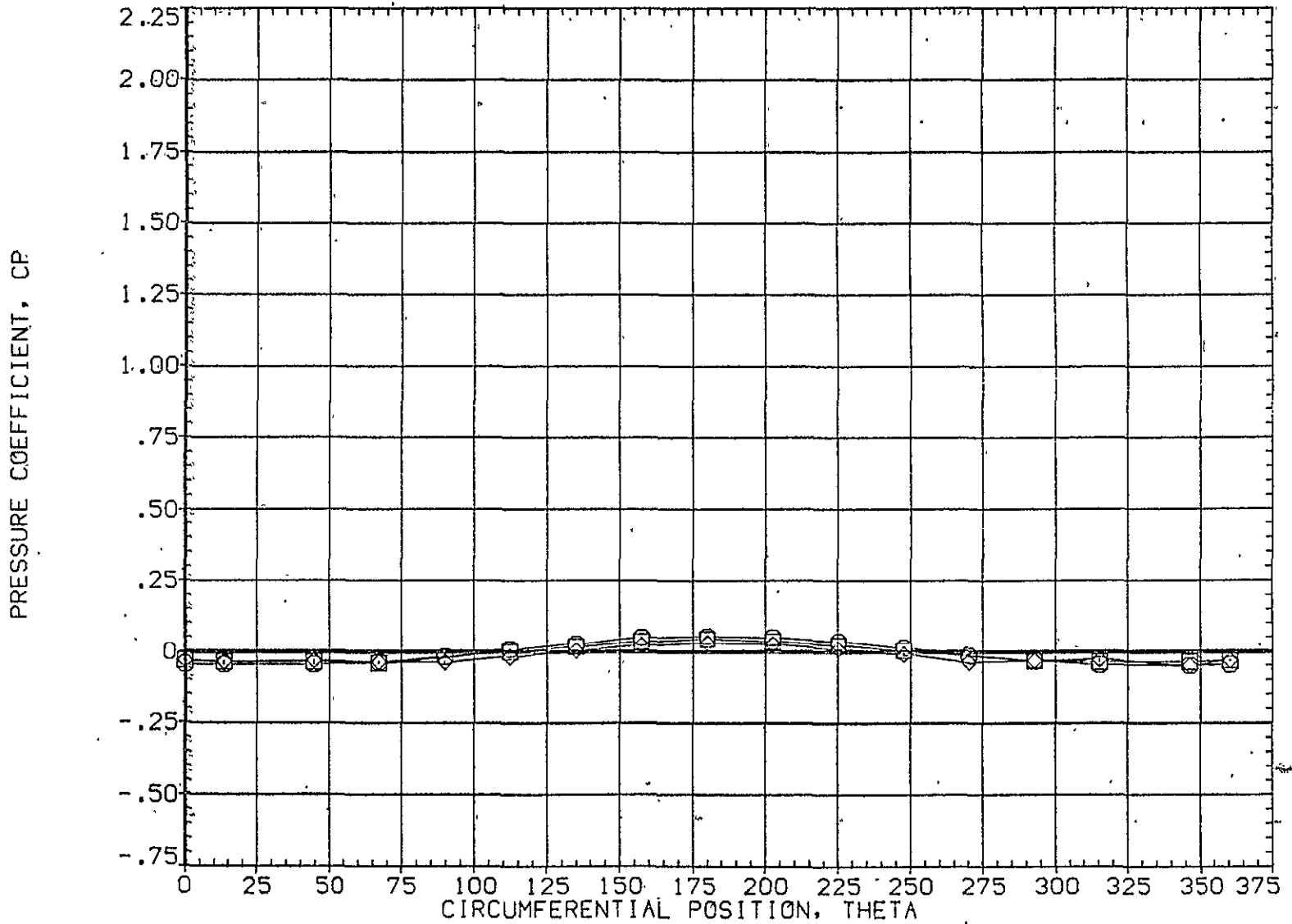


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.600	3.480	MOUNT	1.000	PHI	.000
□	.735						.000
◇	.860						.000

ORIGINAL PAGE IS
OF POOR QUALITY

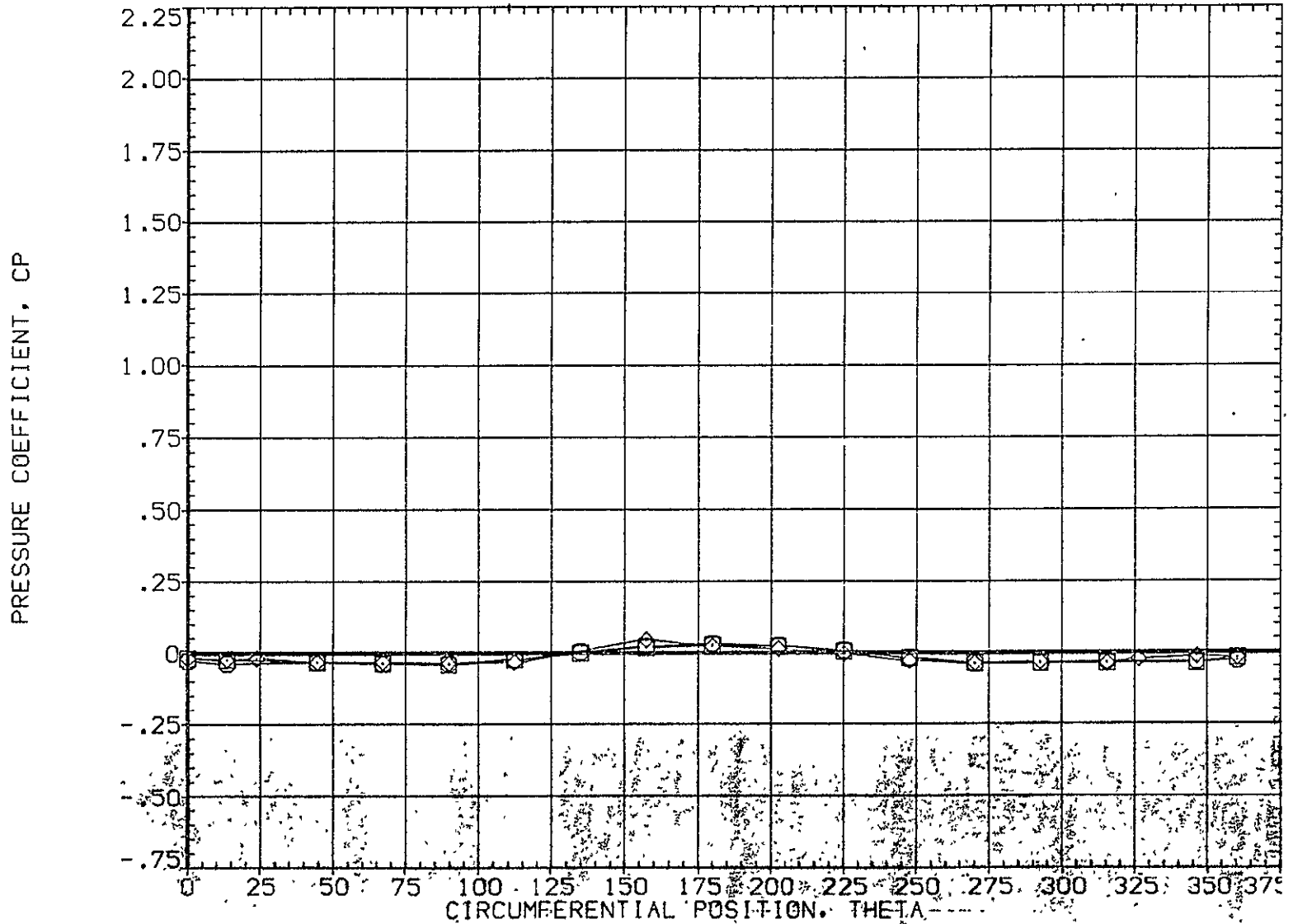


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	7.800	3.480	.000	.000	.000
□	.923			1.000	PHI	.000
◇	.954					

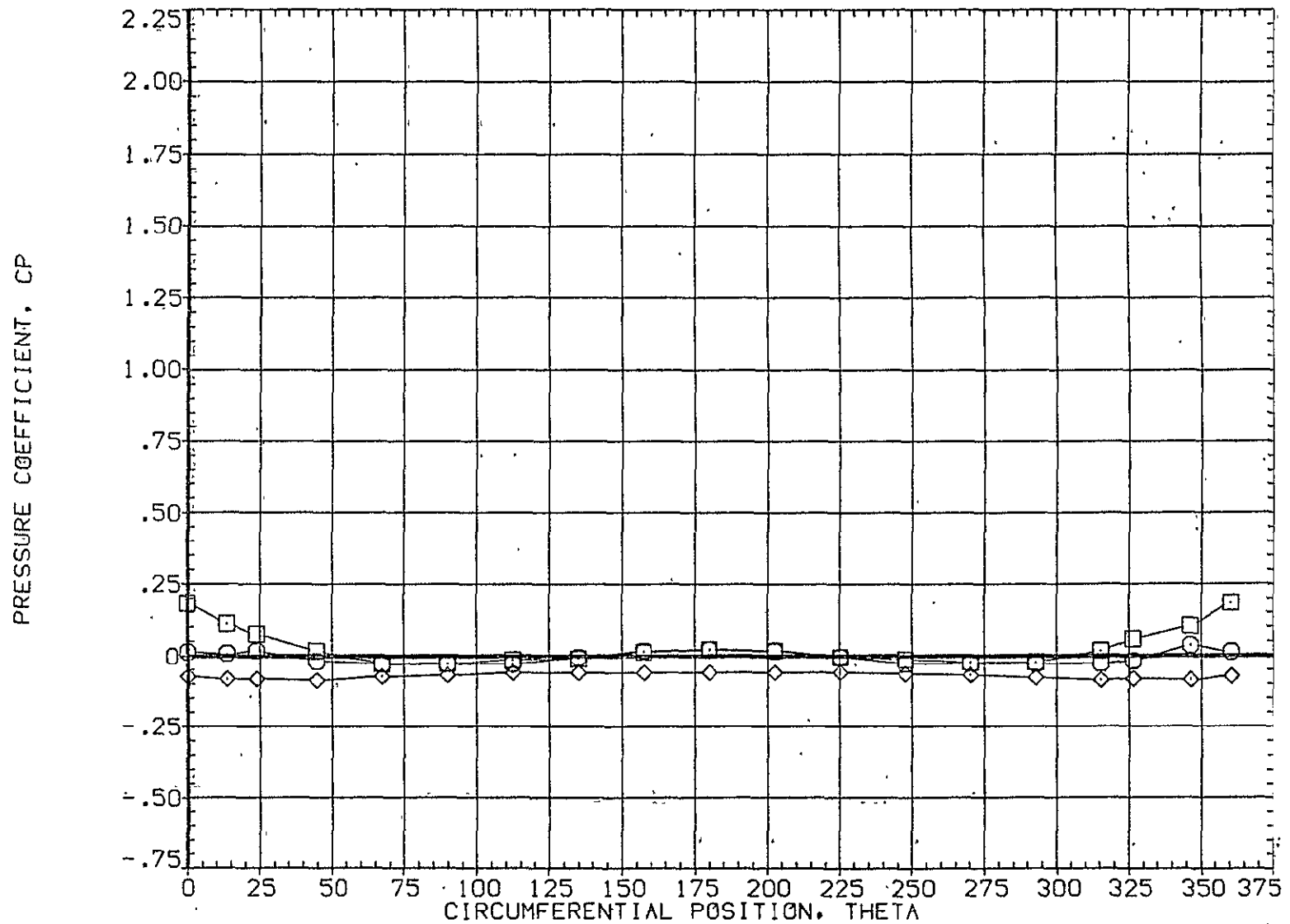


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.055	12.520	3.480	MOUNT	1.000	PHI	.000
□	.108						
◇	.162						

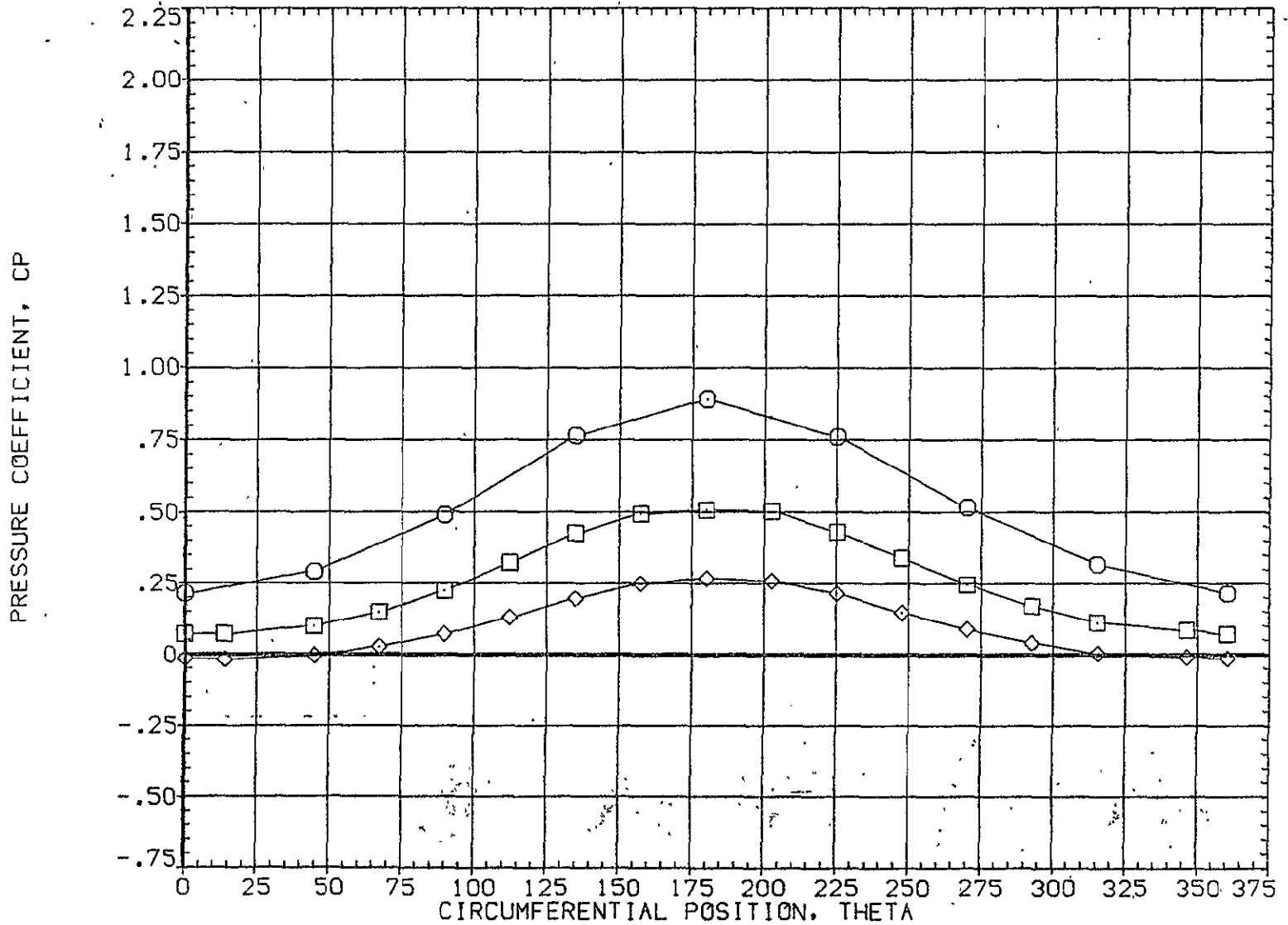


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000'	
○	.216	12.520	3.480	MOUNT	1.000	PHI	.000
□	.322						.000
◇	.518						.000

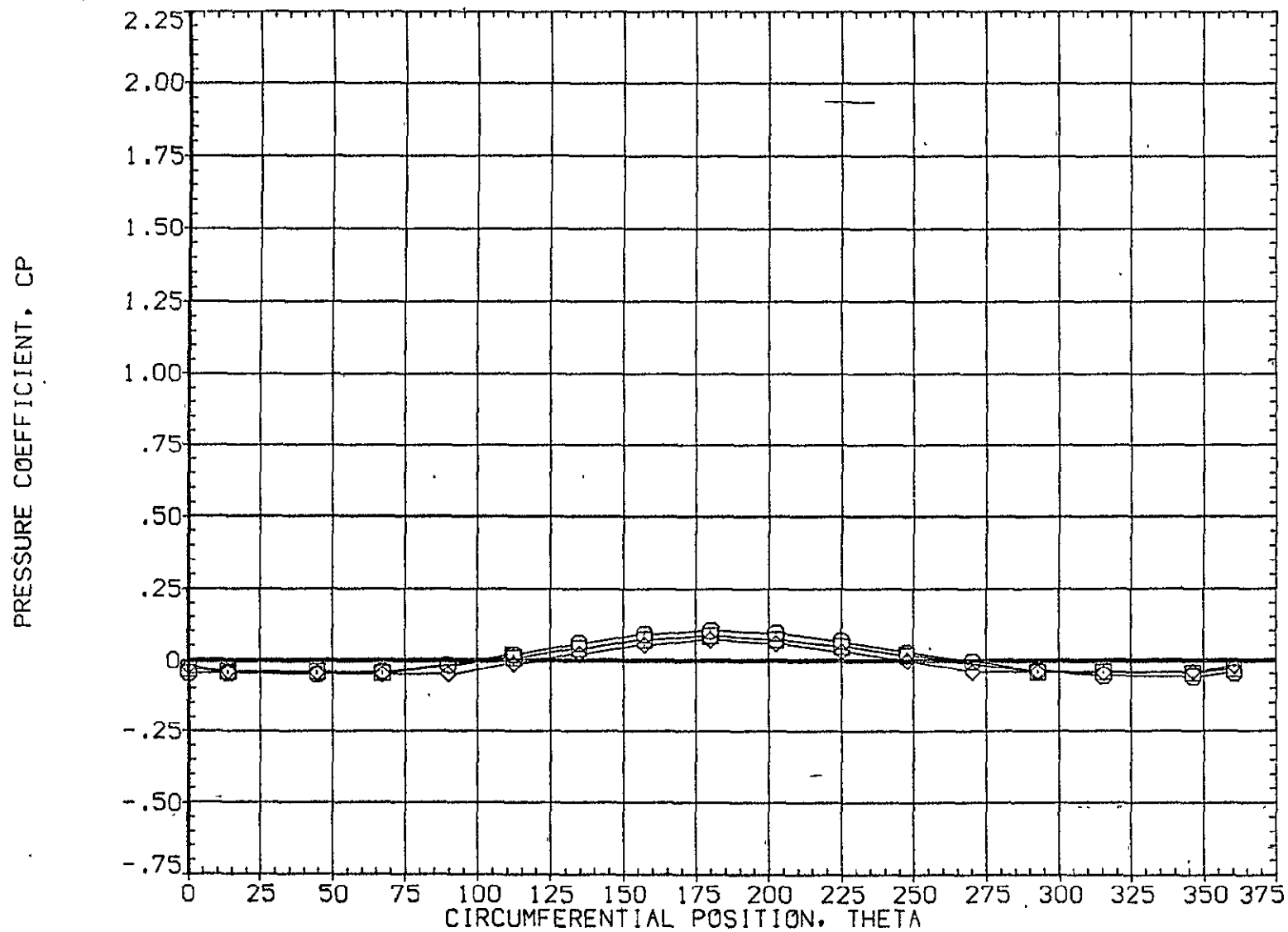


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A006)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	12.520	3.480	.000	20.000	
□	.735			1.000		
◇	.860					.000

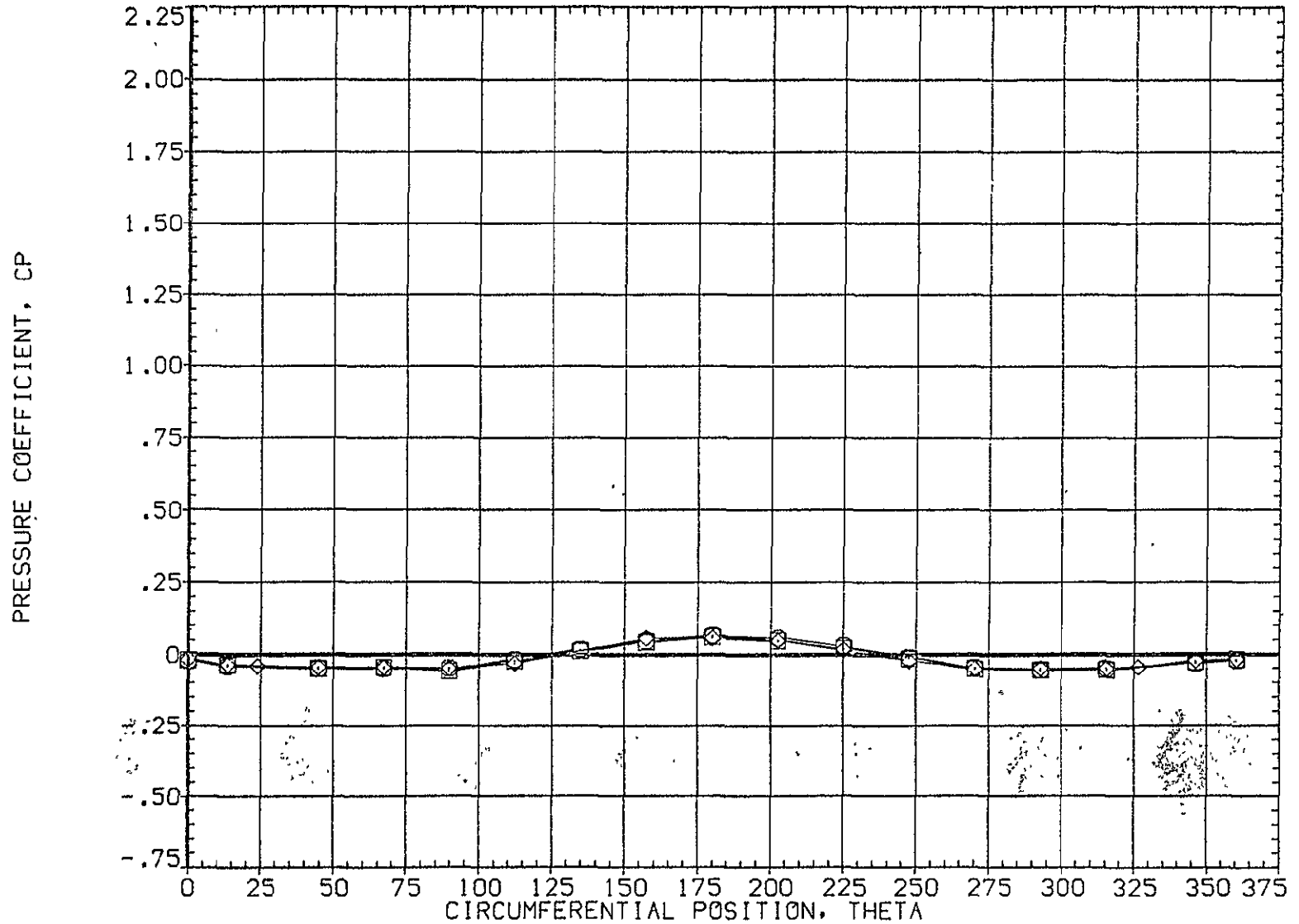


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 12.520 3.480
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI .000

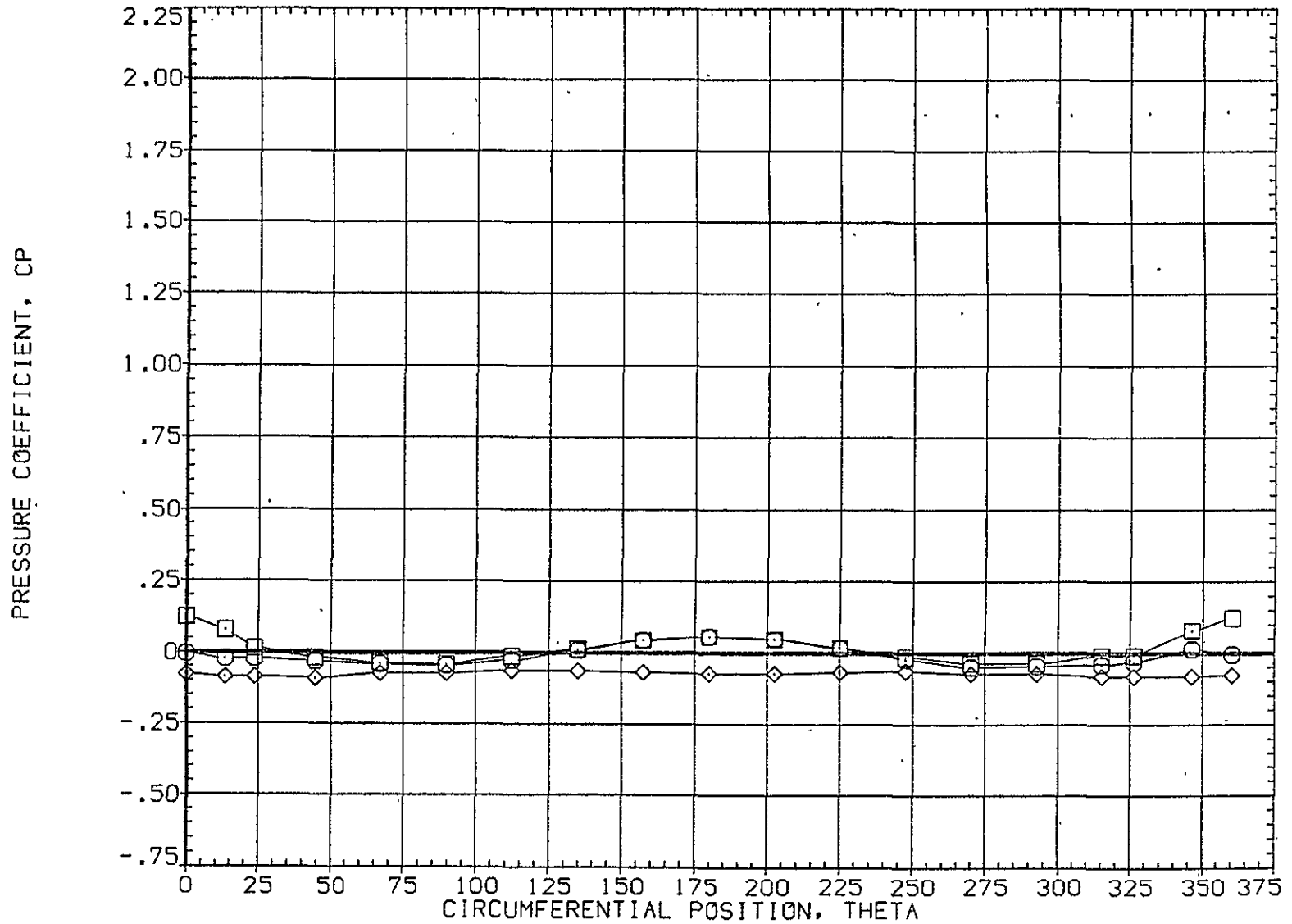


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES				
				BETA	OFFSET	20,000		
○	.055	16.560	3.480	MOUNT	1.000	PHI	.000	.000
□	.108							
◇	.162							

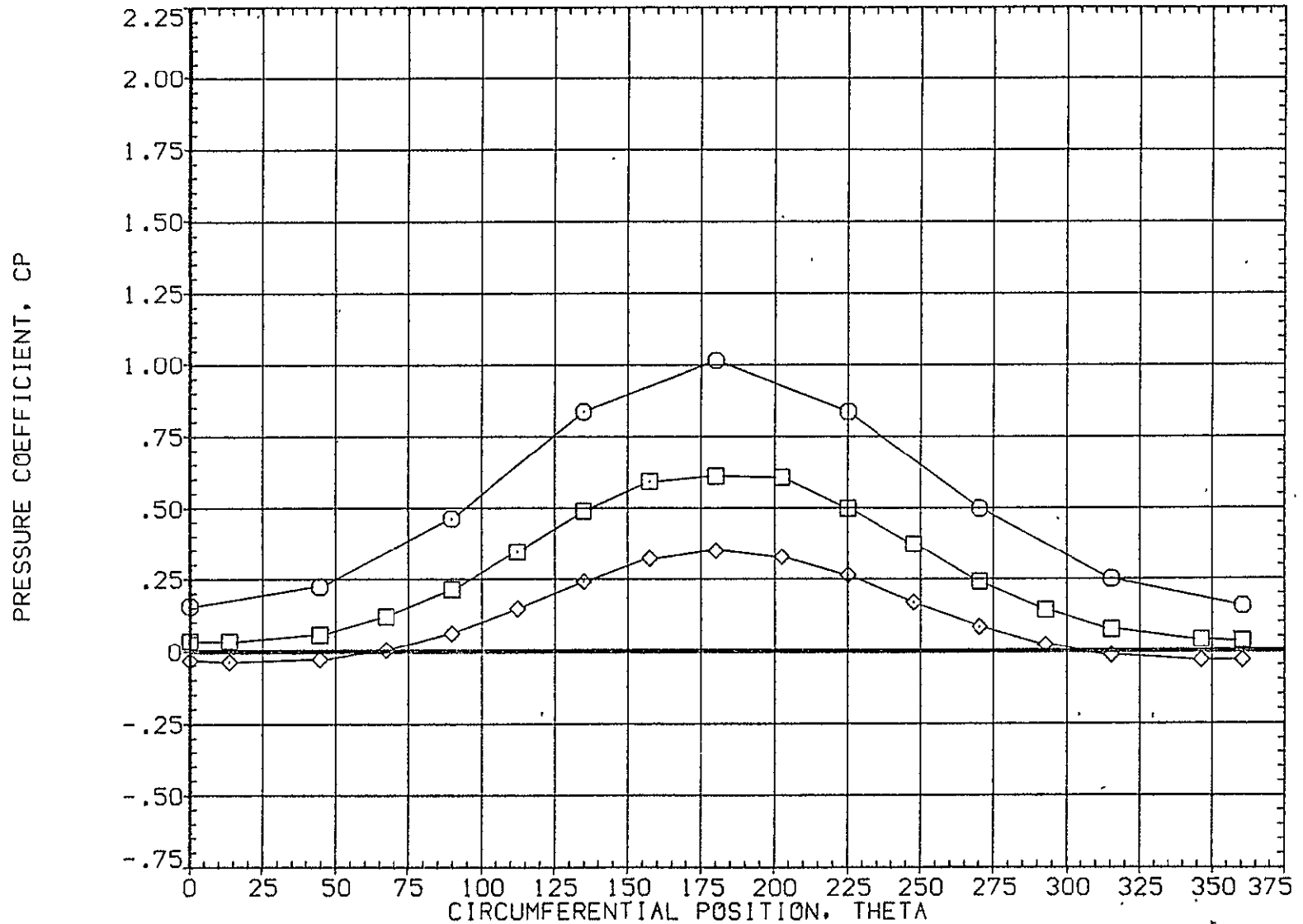


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 16.560 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI .000

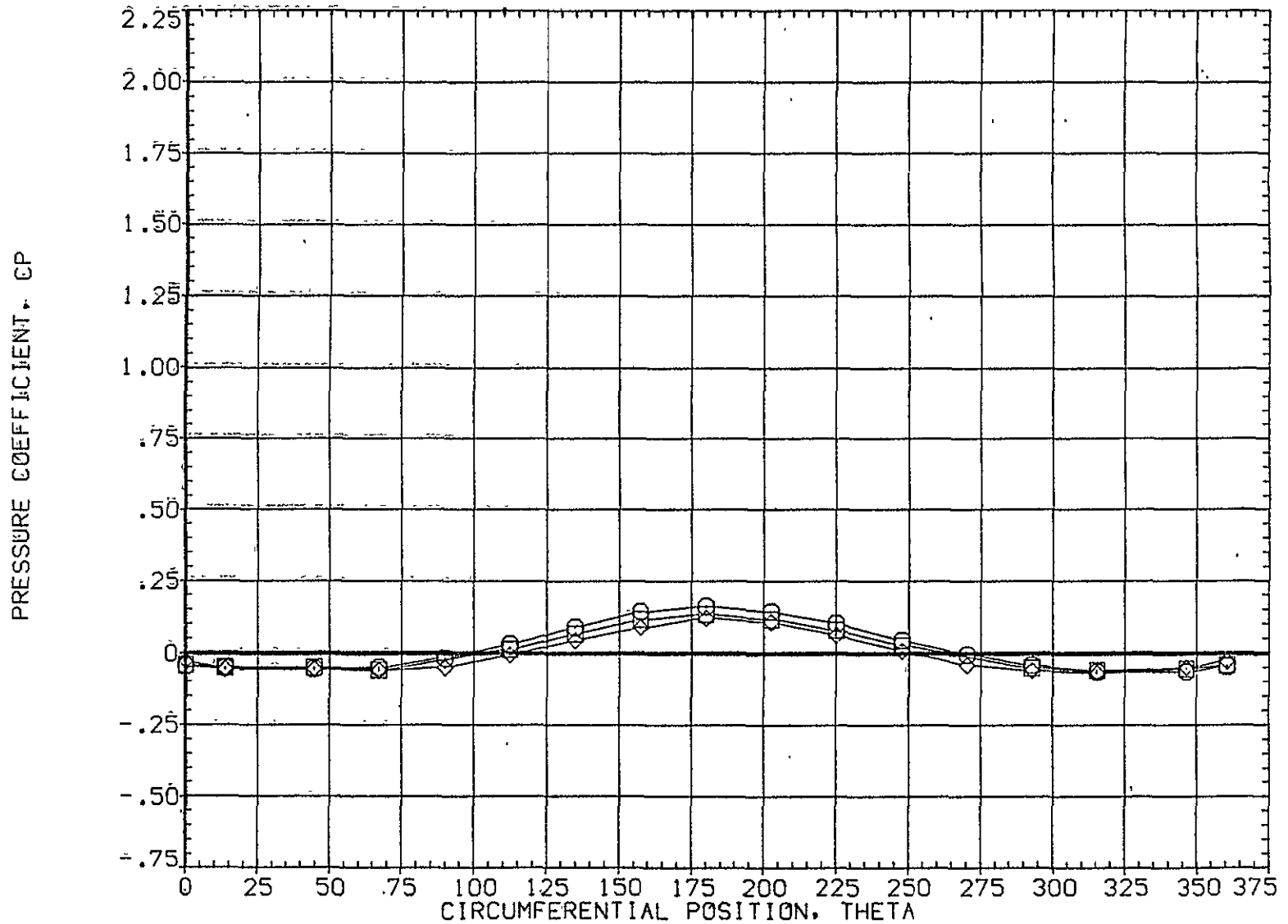


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.810	16.560	3.480	.000	20.000	
□	.735			1.000	PHI	.000
◇	.860					

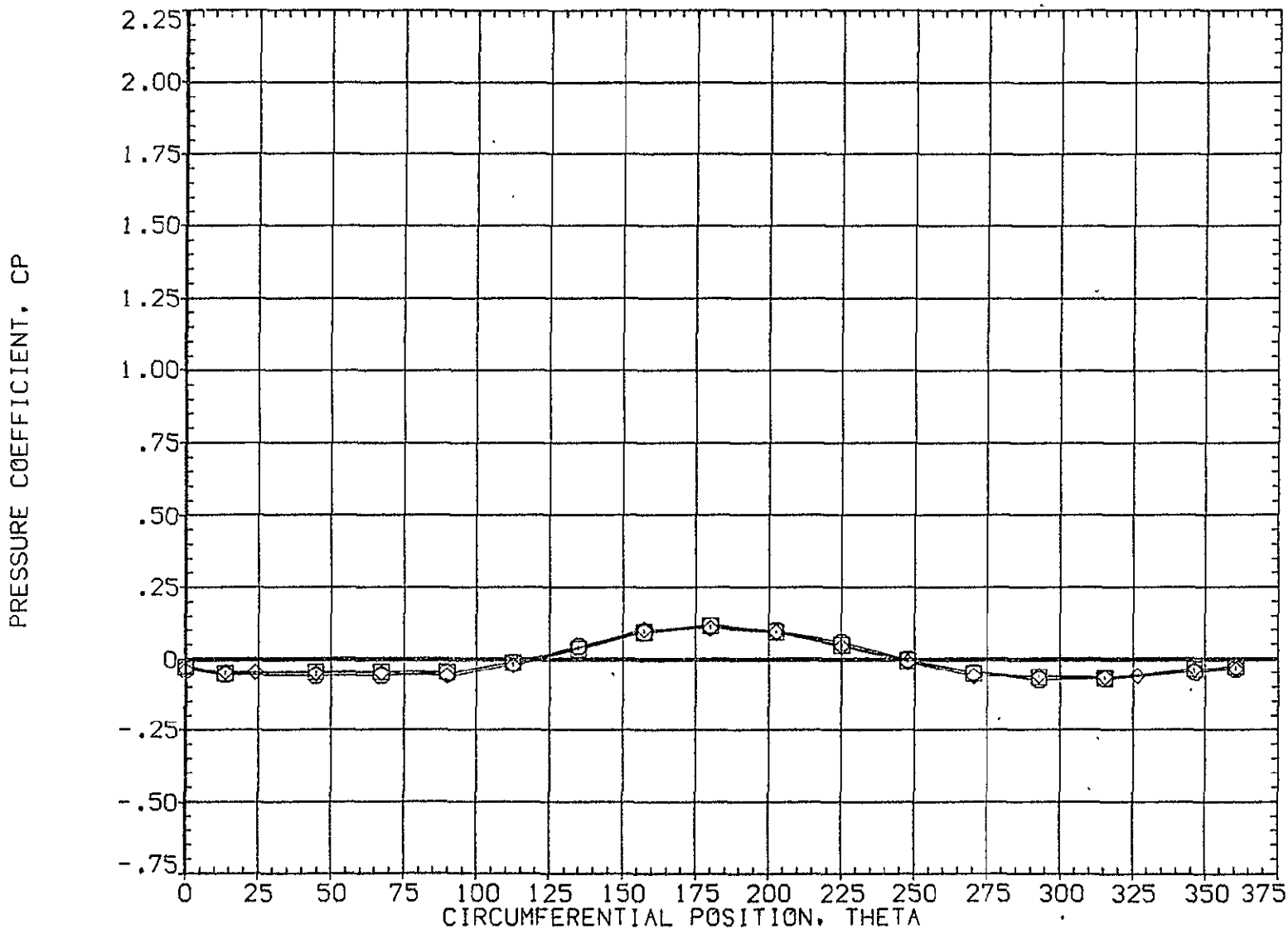


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES*		
○	.892	16.560	3.480	MOUNT	.000	OFFSET	20.000
□	.923				1.000	PHI	.000
◇	.954						

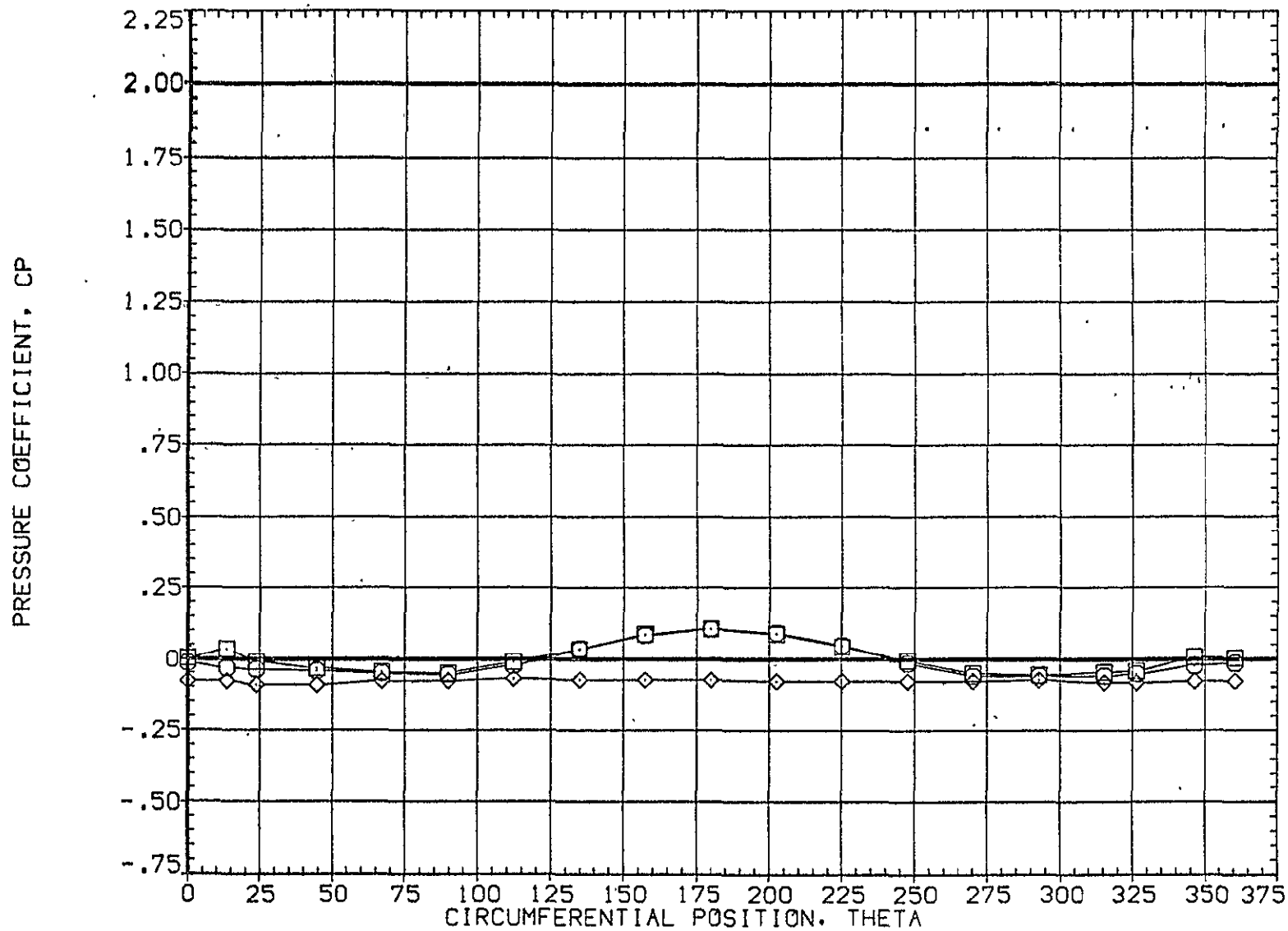


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.610	3.480	MOUNT	1.000	PHI	.000
□	.108						.000
◇	.162						.000

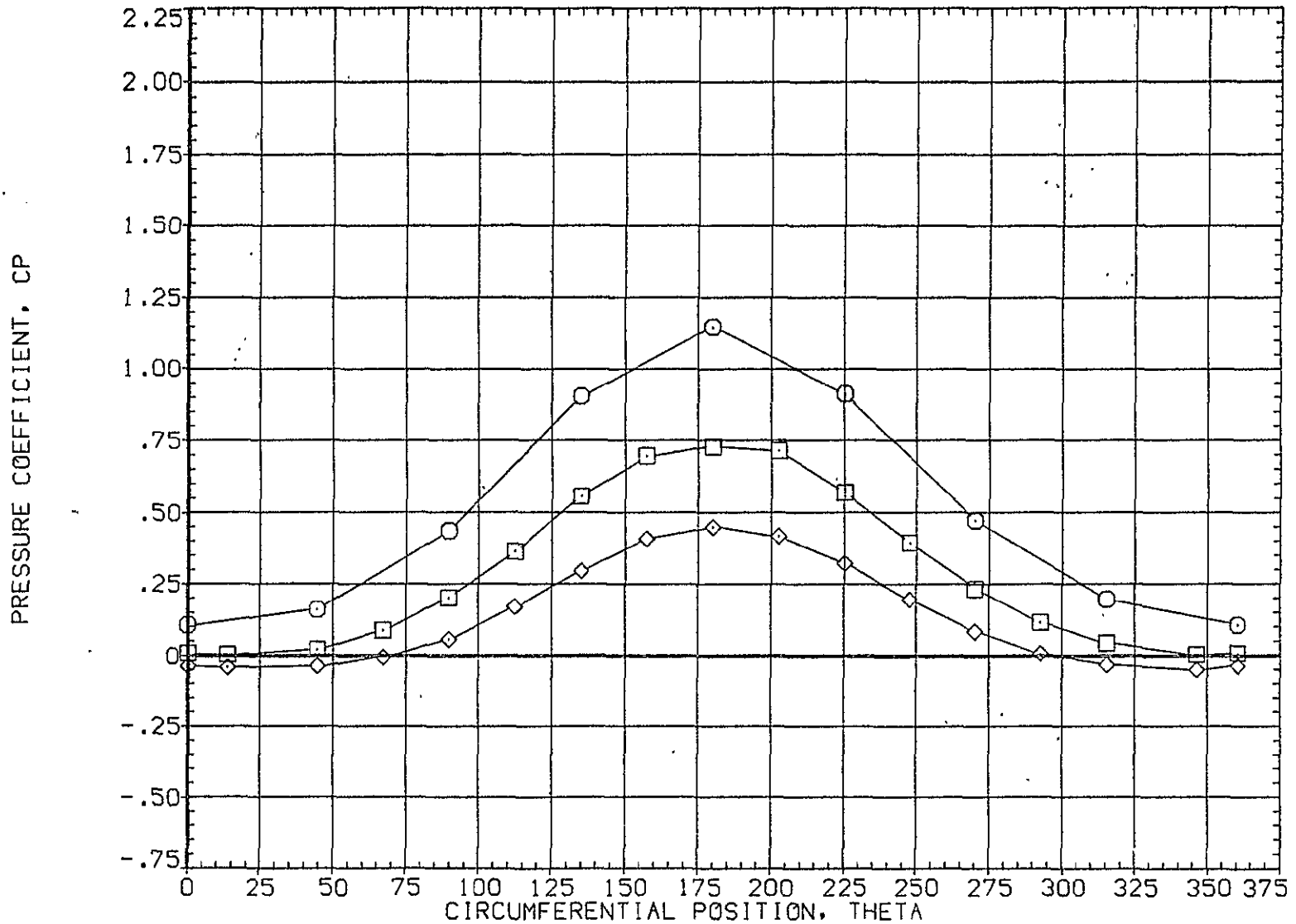


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	20.610	3.480	MOUNT	1.000	PHI	.000
□	.322						
◇	.518						

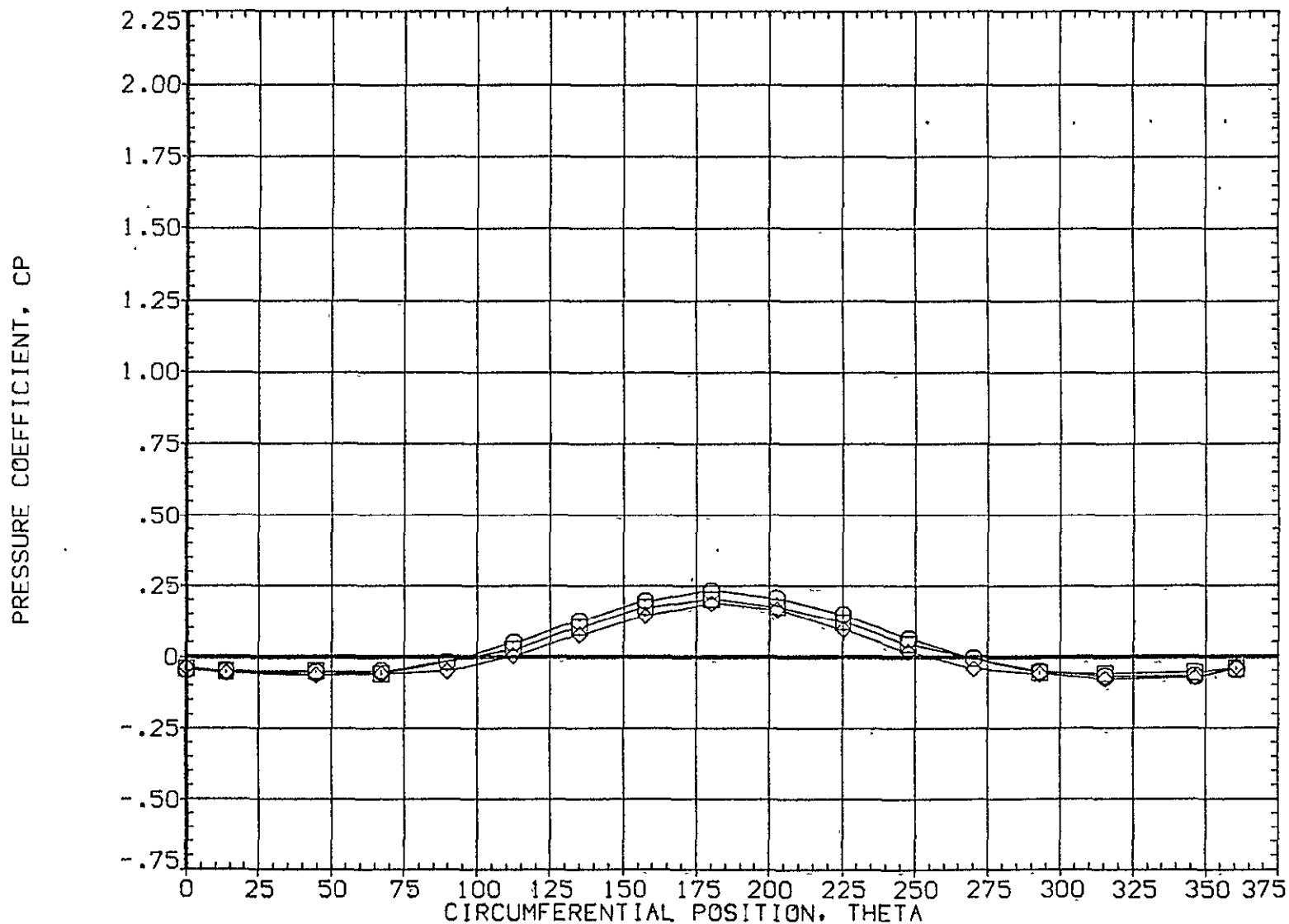


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	20.610	3.480	.000	20.000	
□	.735			1.000		.000
◇	.860					

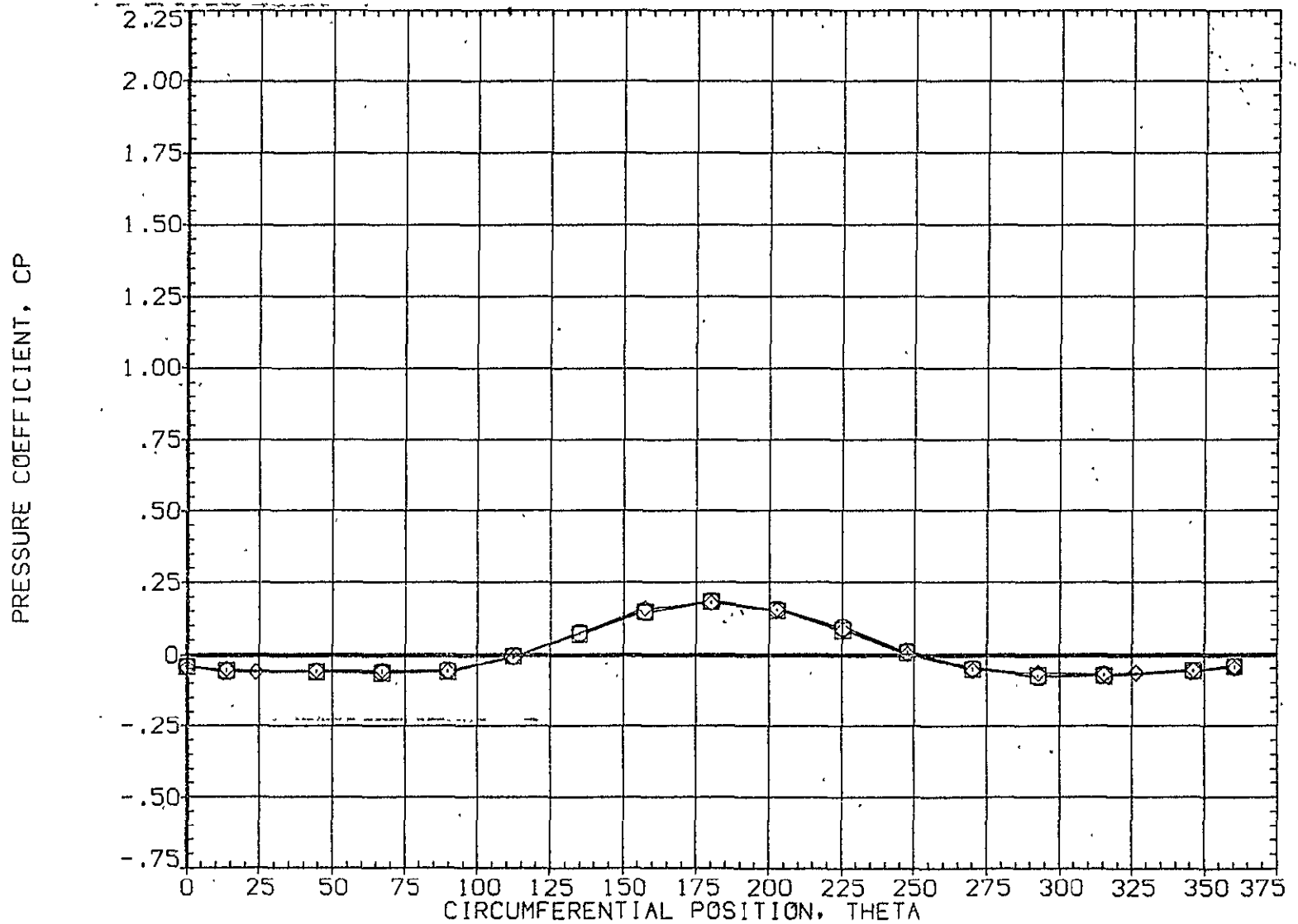


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	20,000
○	.892	20.610	3.480	MOUNT	1.000	PHI .000
□	.923					
◇	.954					

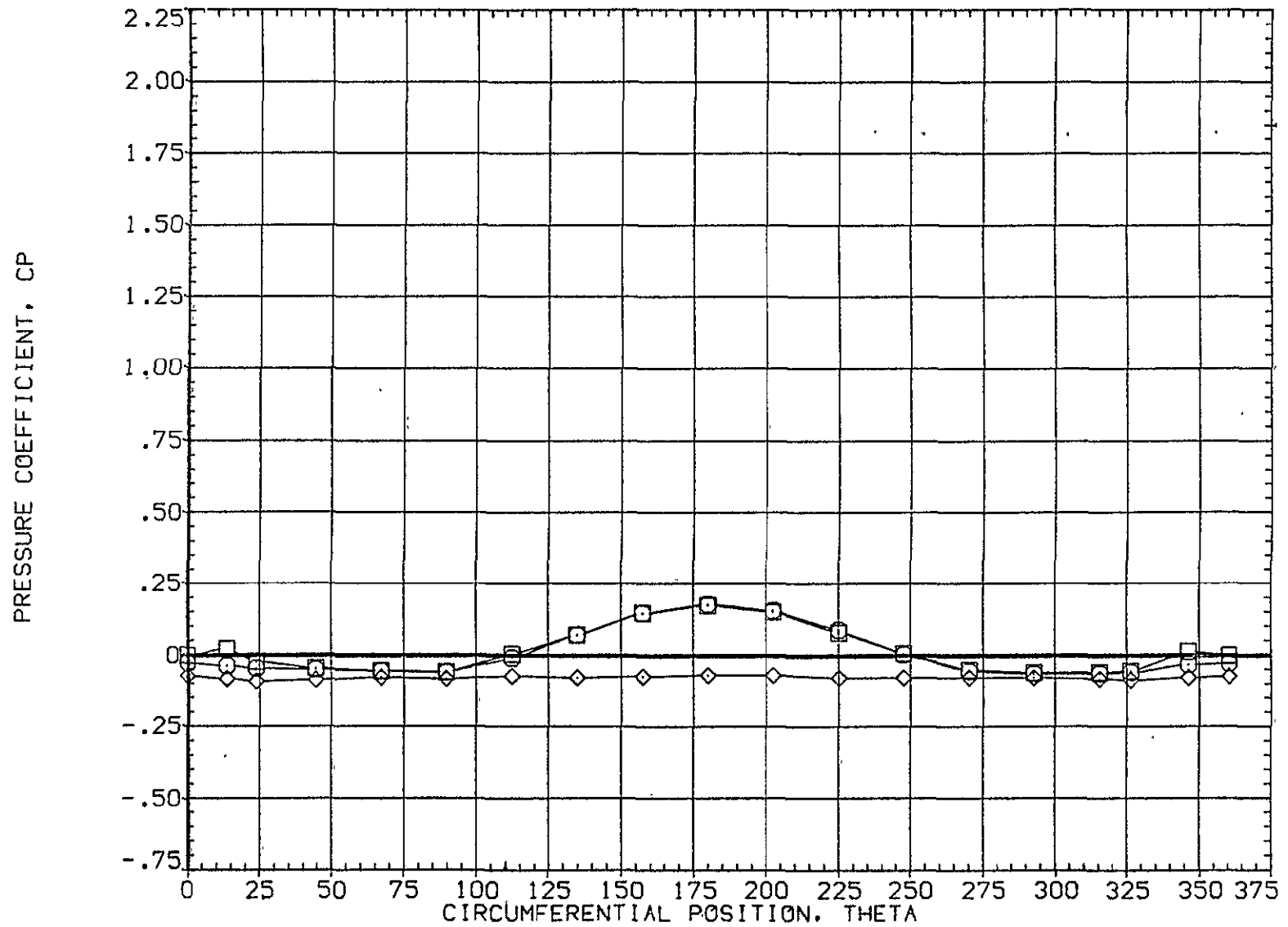


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	24.660	3.480	MOUNT	1.000	PHI	.000
□	.108						.000
◇	.162						.000

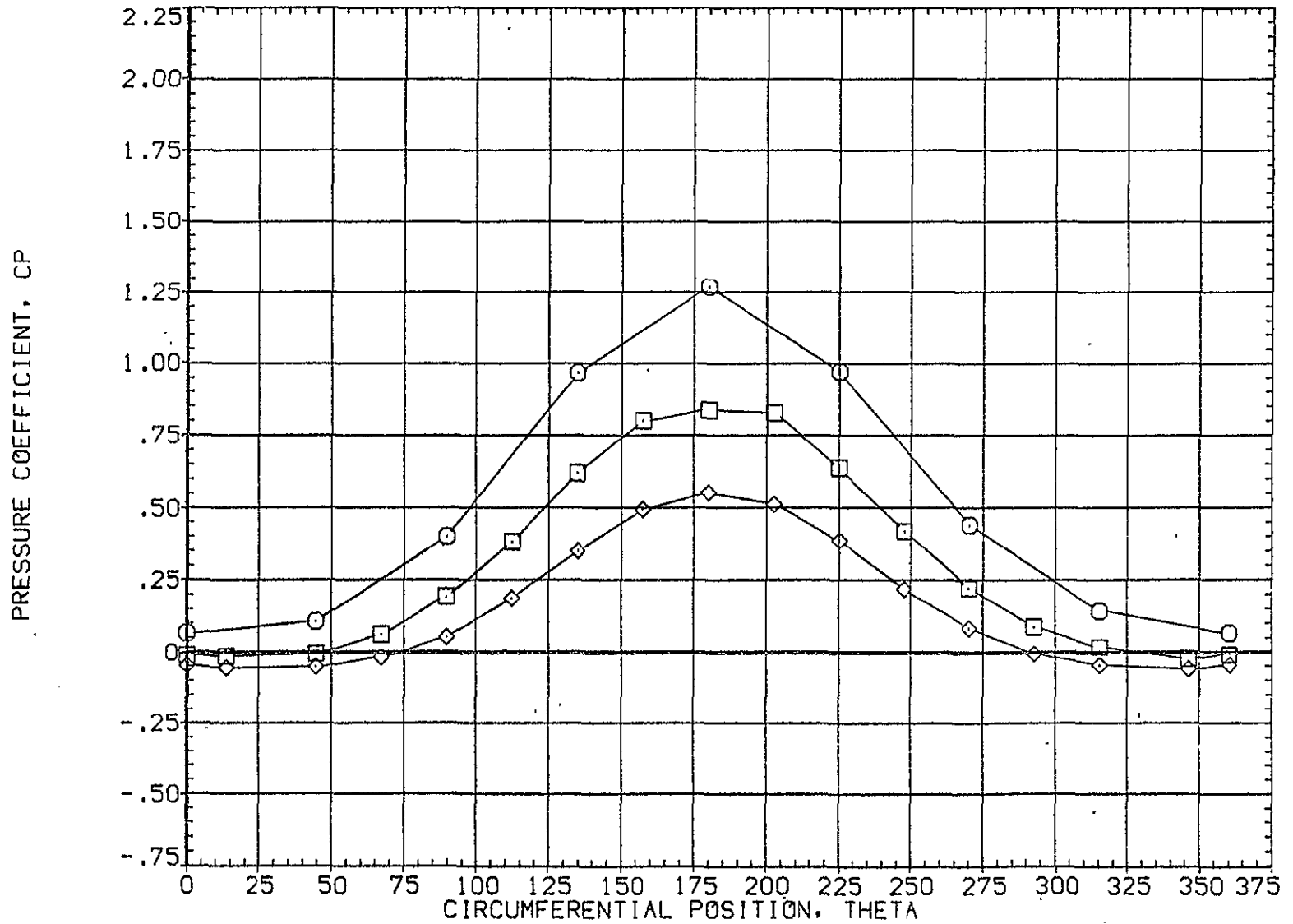


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	24.660	3.480	MOUNT	1.000	PHI	.000
□	.322						
◇	.518						

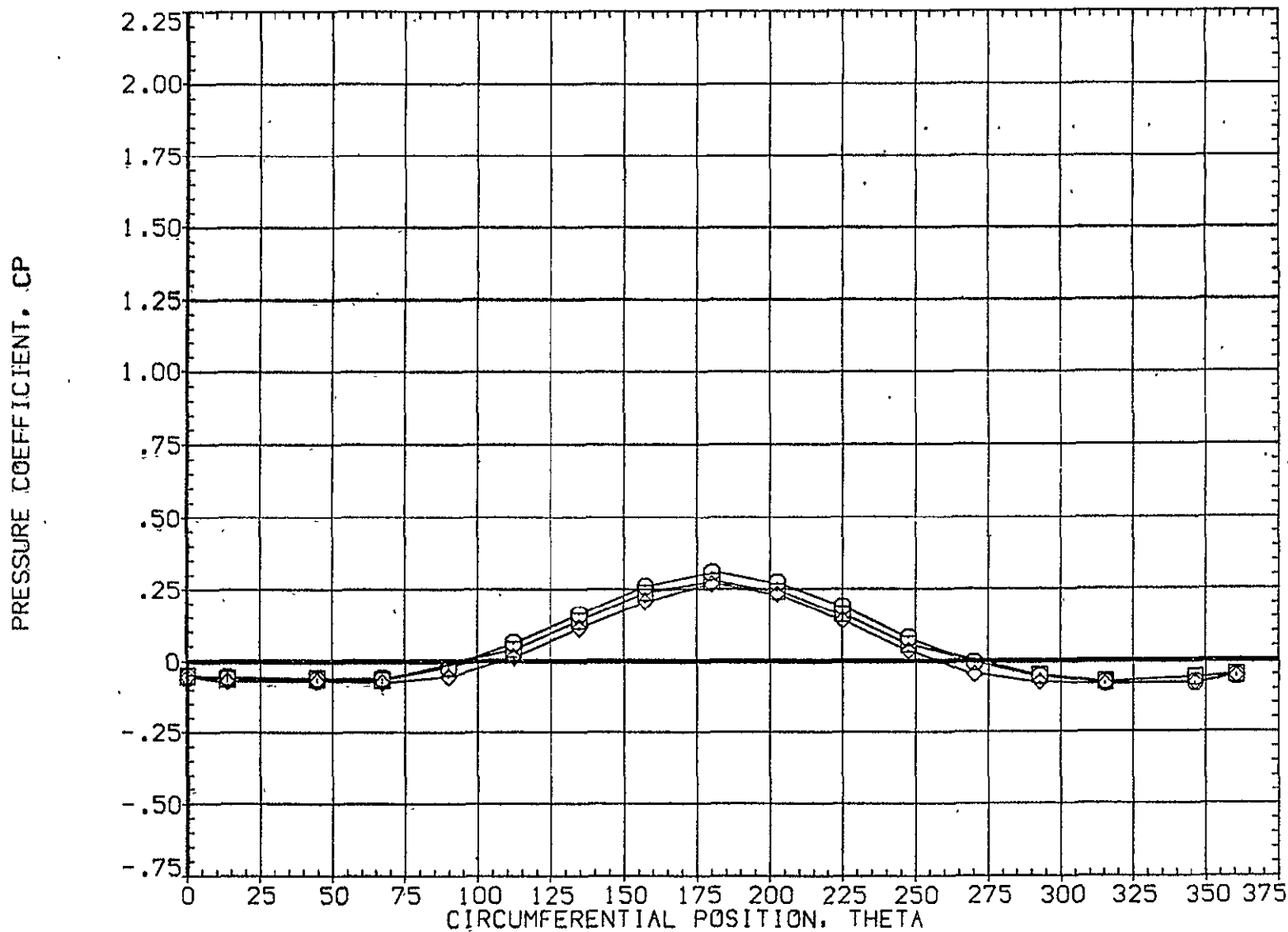


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	24.660	3.480	.000	20.000	
□	.735			1.000		.000
◇	.860					

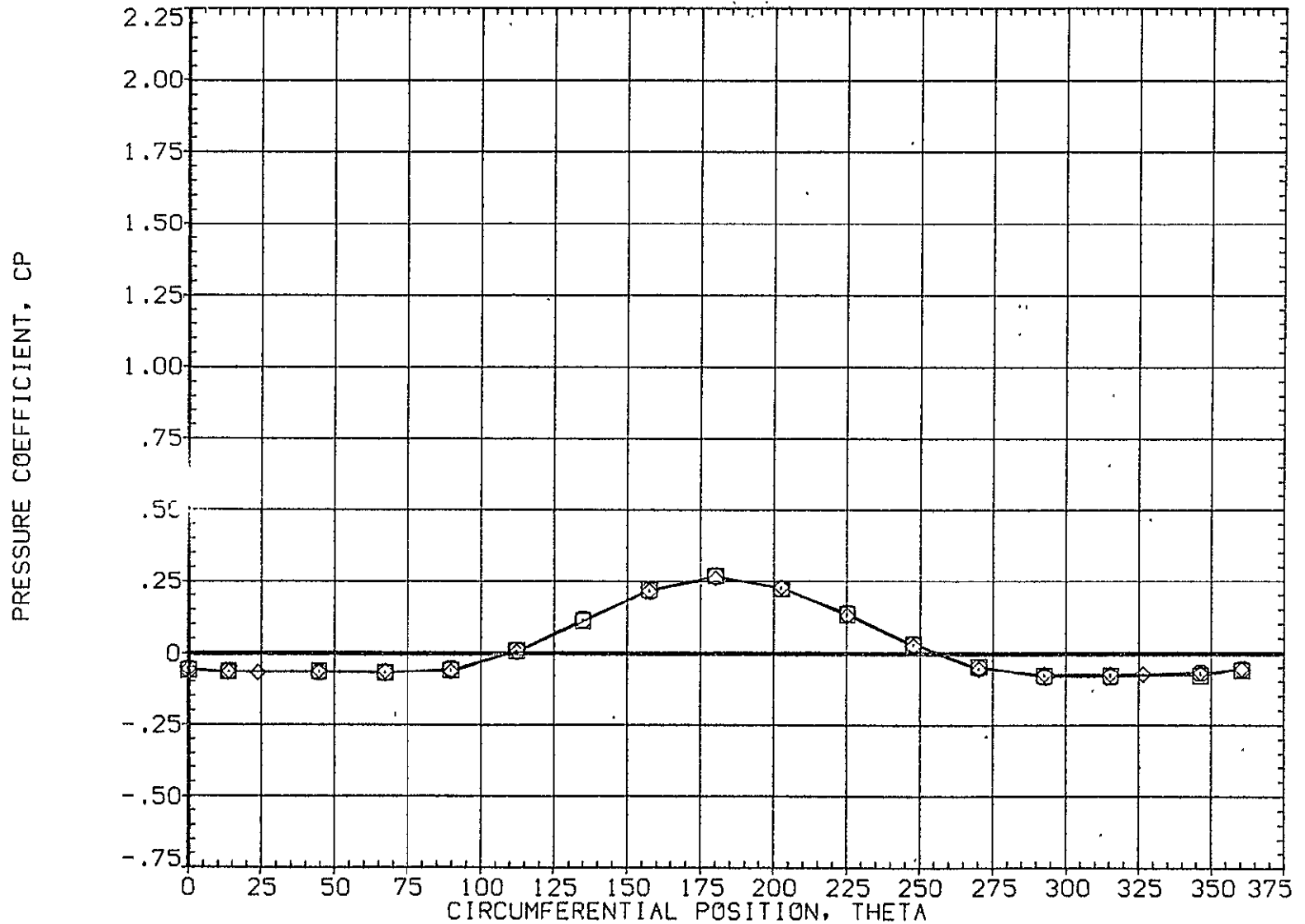


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB: .892
 .923
 .954
 ALPHA 24.660
 MACH: 3.480

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET 20.000
 PHI .000

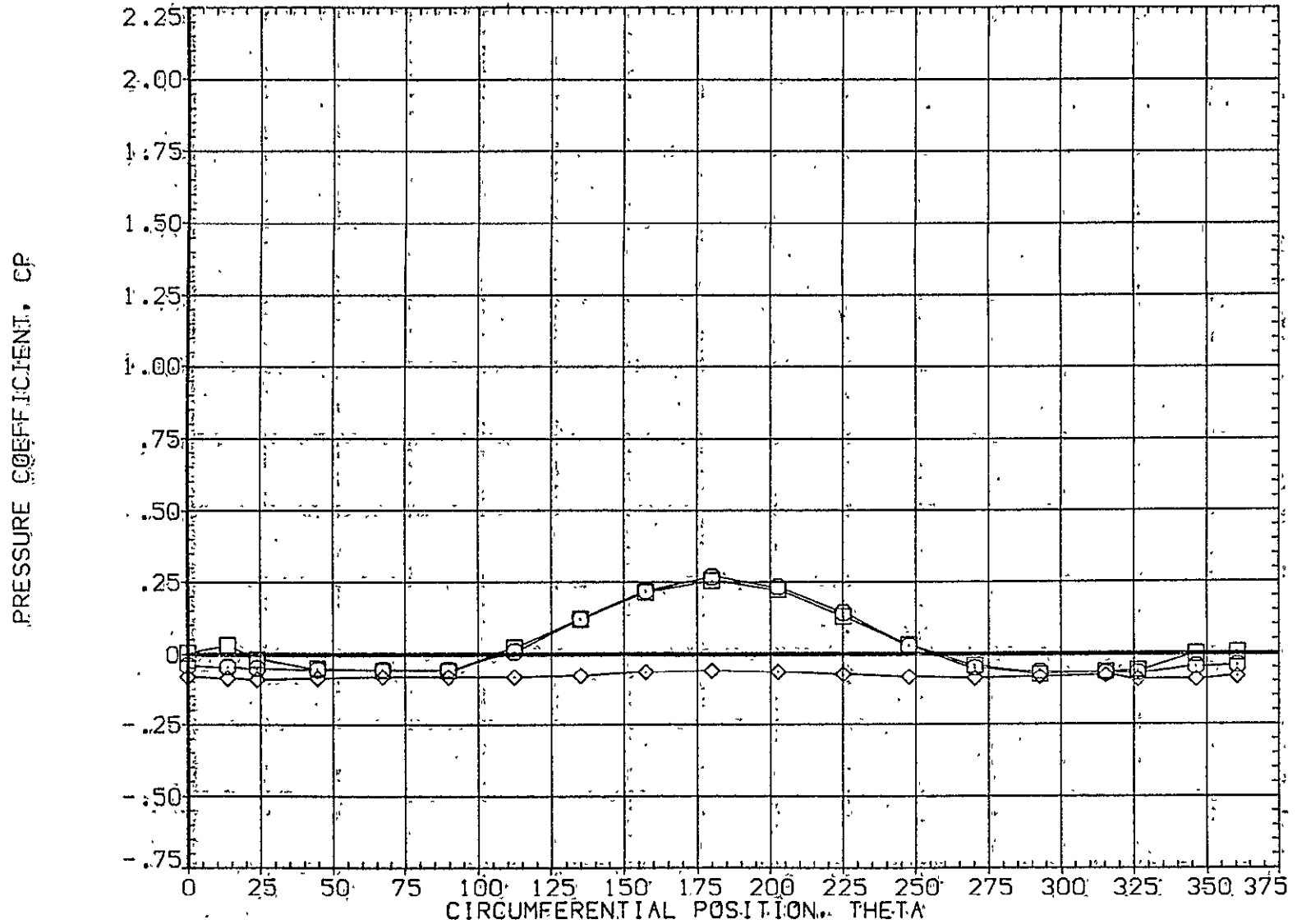


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A010)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES				
				BETA	OFFSET	20,000		
○	.055	28.700	3.480	MOUNT	1.000	PHI	.000	.000
□	.108							
◇	.162							

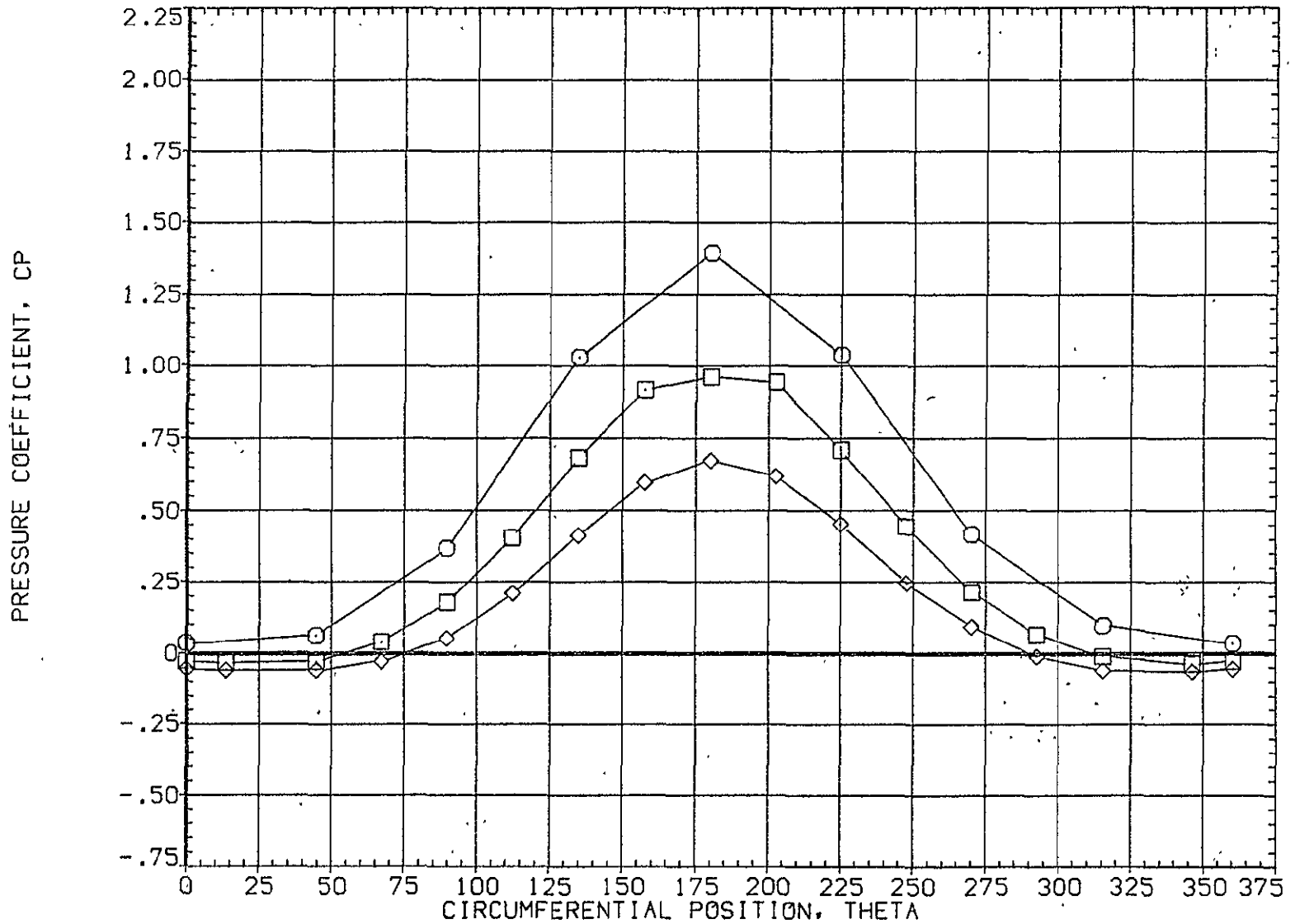


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB: .216
 .322
 .518
 ALPHA: 28.700
 MACH: 3.480

PARAMETRIC VALUES
 BETA: .000
 MOUNT 1.000
 OFFSET: 20.000
 PHI: .000

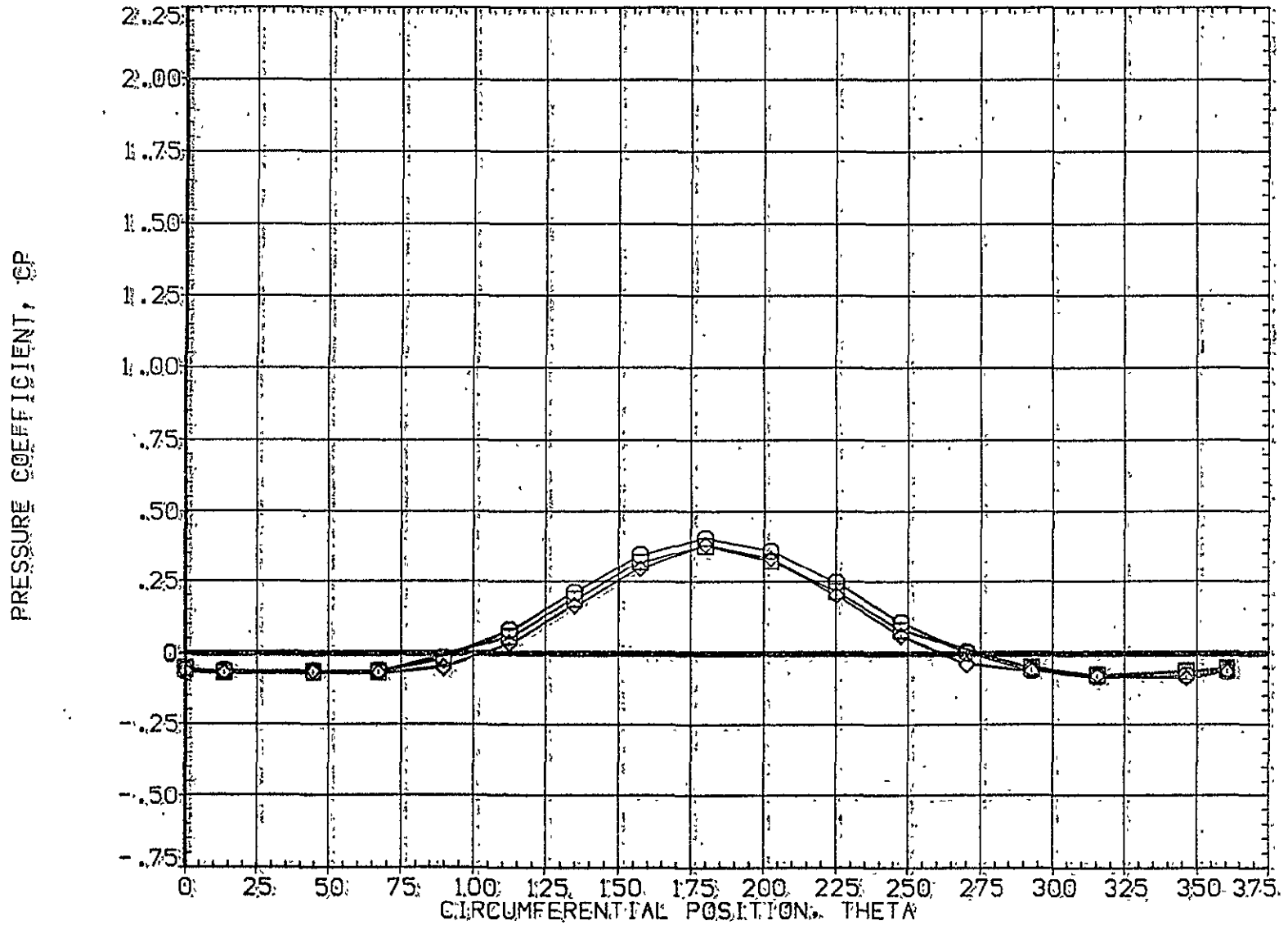


FIG. 5. CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	28.700	3.480				20.000
□	.735			MOUNT	1.000		.000
◇	.860						

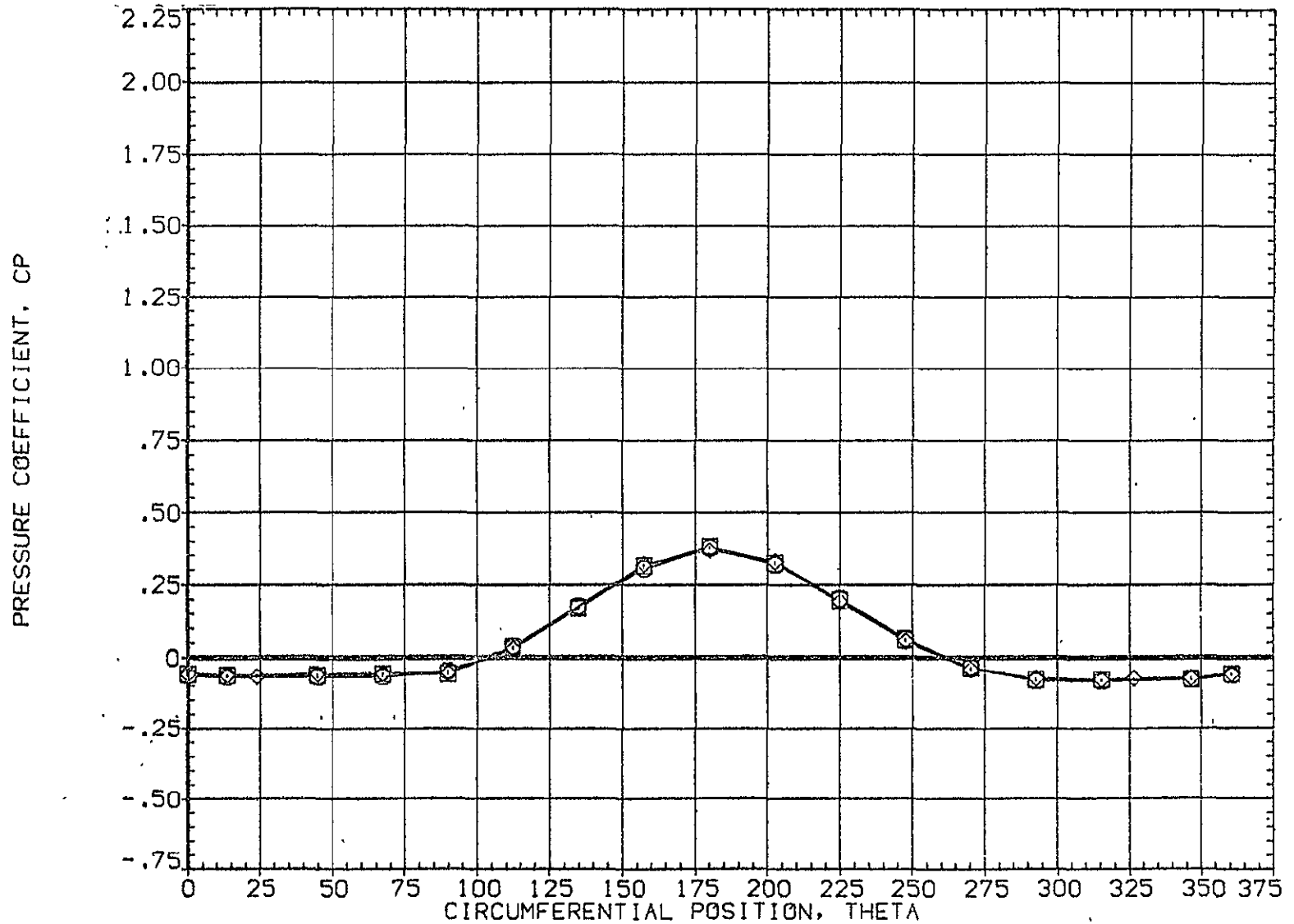


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	28.700	3.480	MOUNT	1.000	PHI	.000
□	.923						
◇	.954						

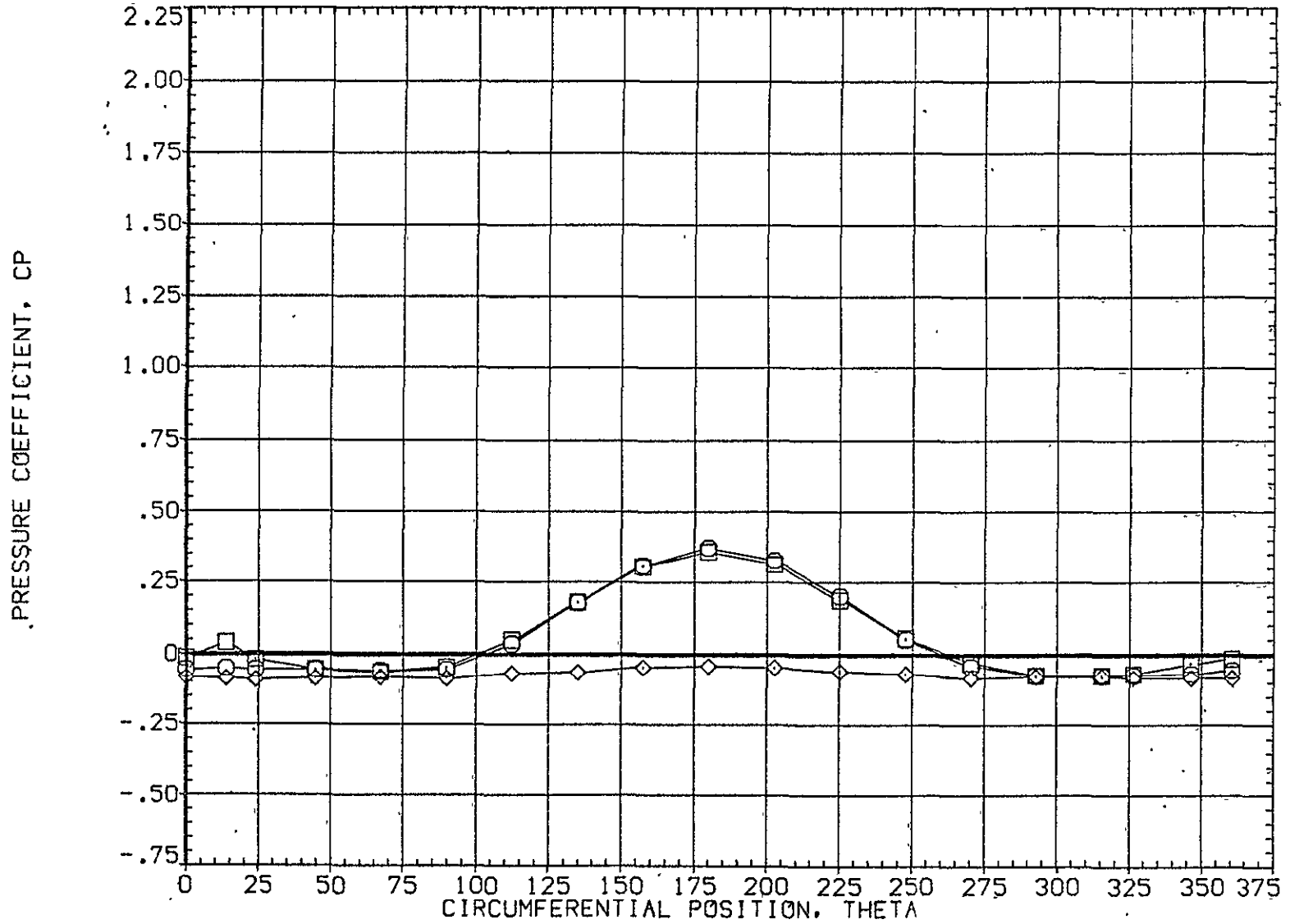


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .055
 .108
 .162
 ALPHA -8.380
 MACH 3.480

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET .000
 PHI 45.000

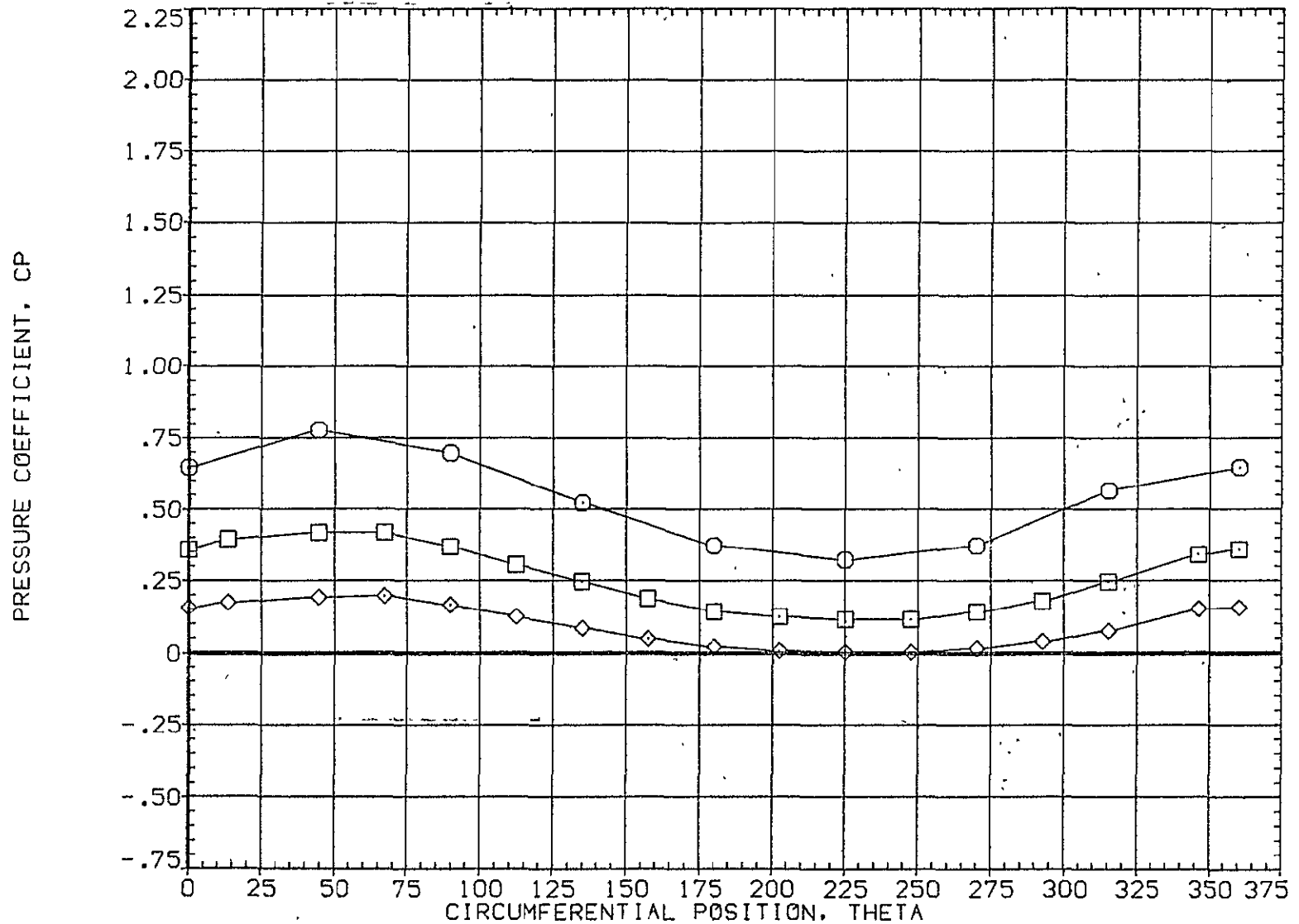


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 -8.380 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 45.000

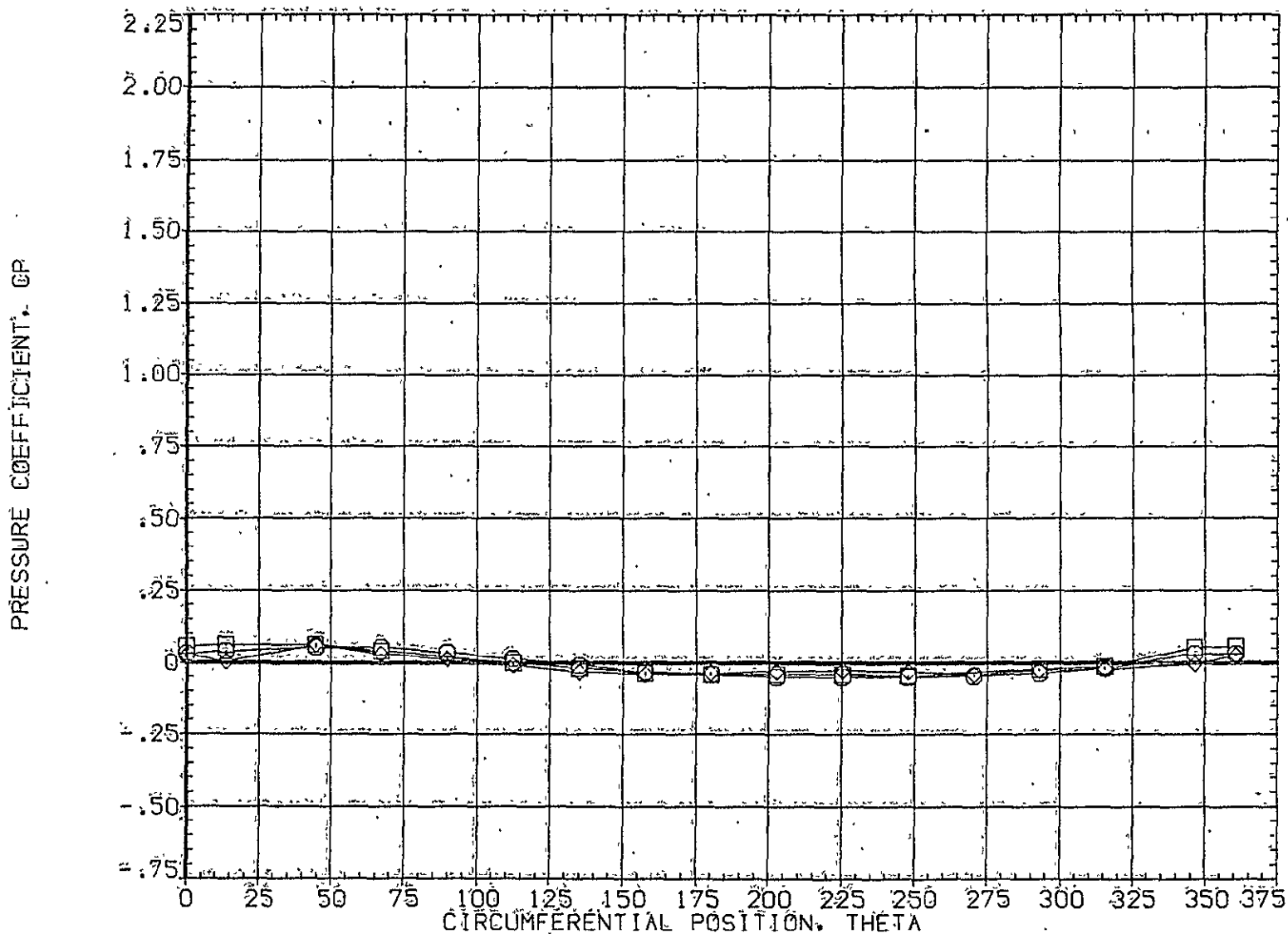


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A081)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	.000
○	.610	-0.380	3.480	1.000	PHI	45.000
□	.735					
◇	.860					

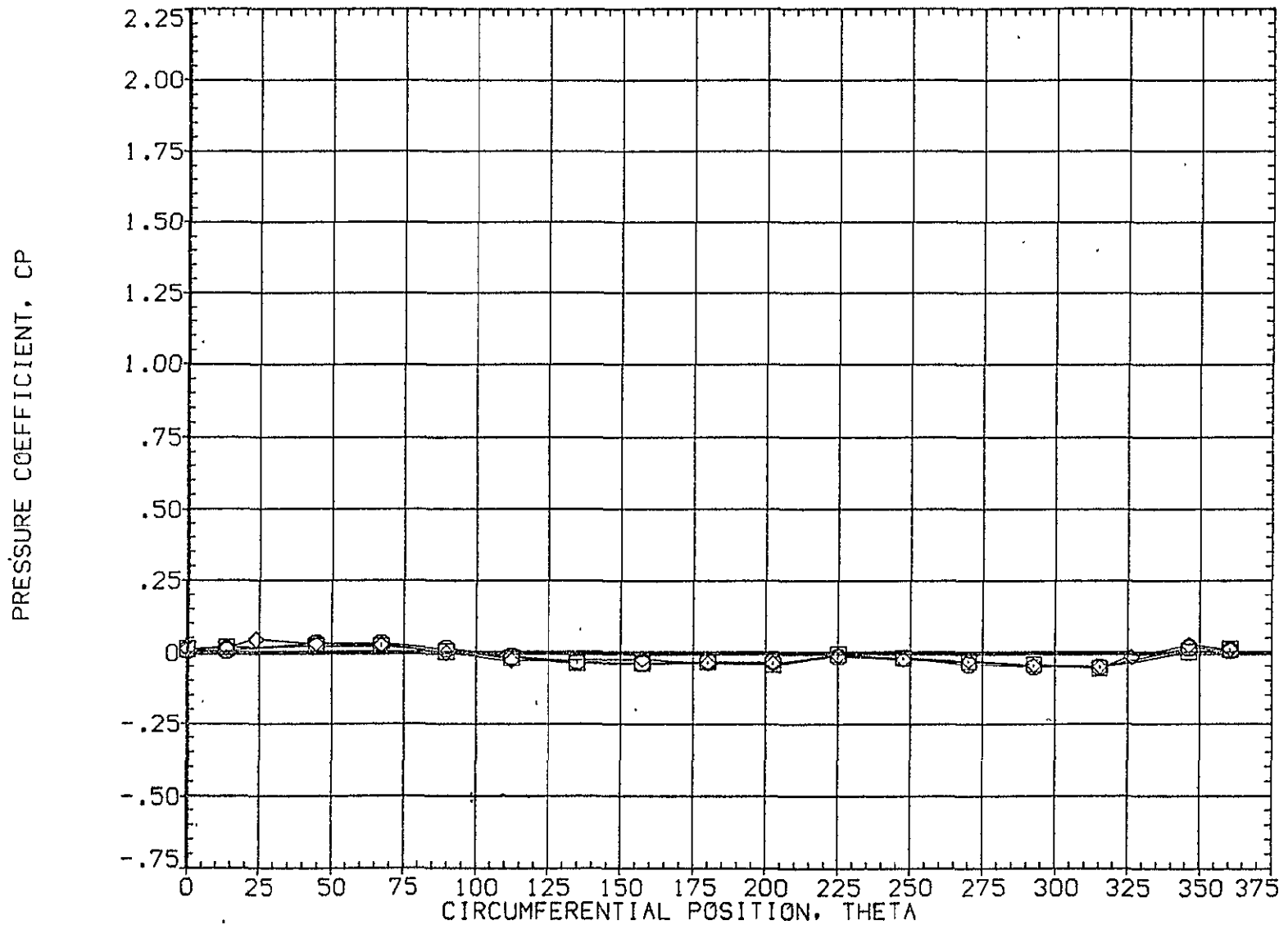


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-8.380	3.480	MOUNT	1.000	PHI	45.000
□	.923						
◇	.954						

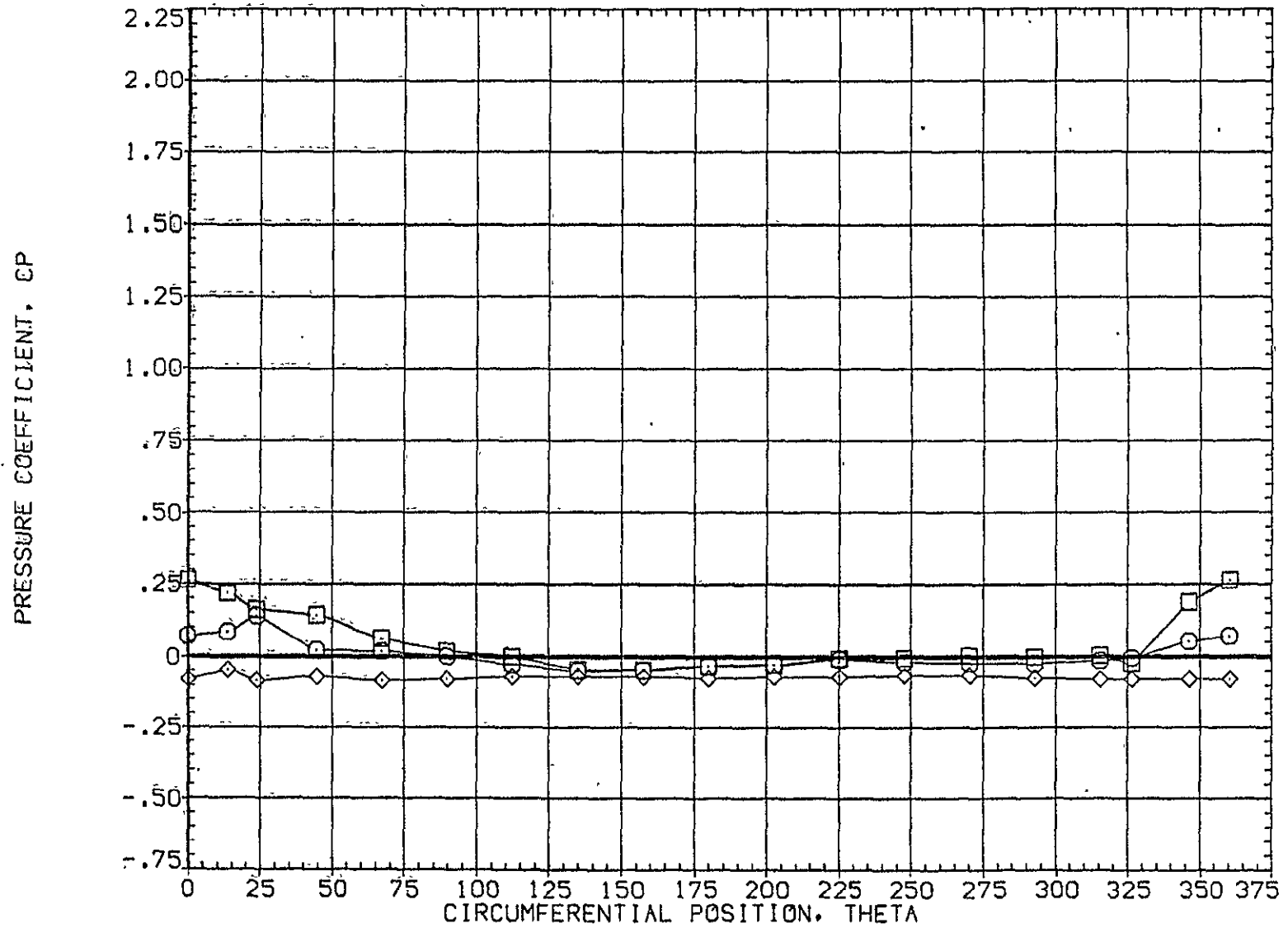


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A082)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.330	3.480	.000	.000	.000
□	.108			1.000		45.000
◇	.162					

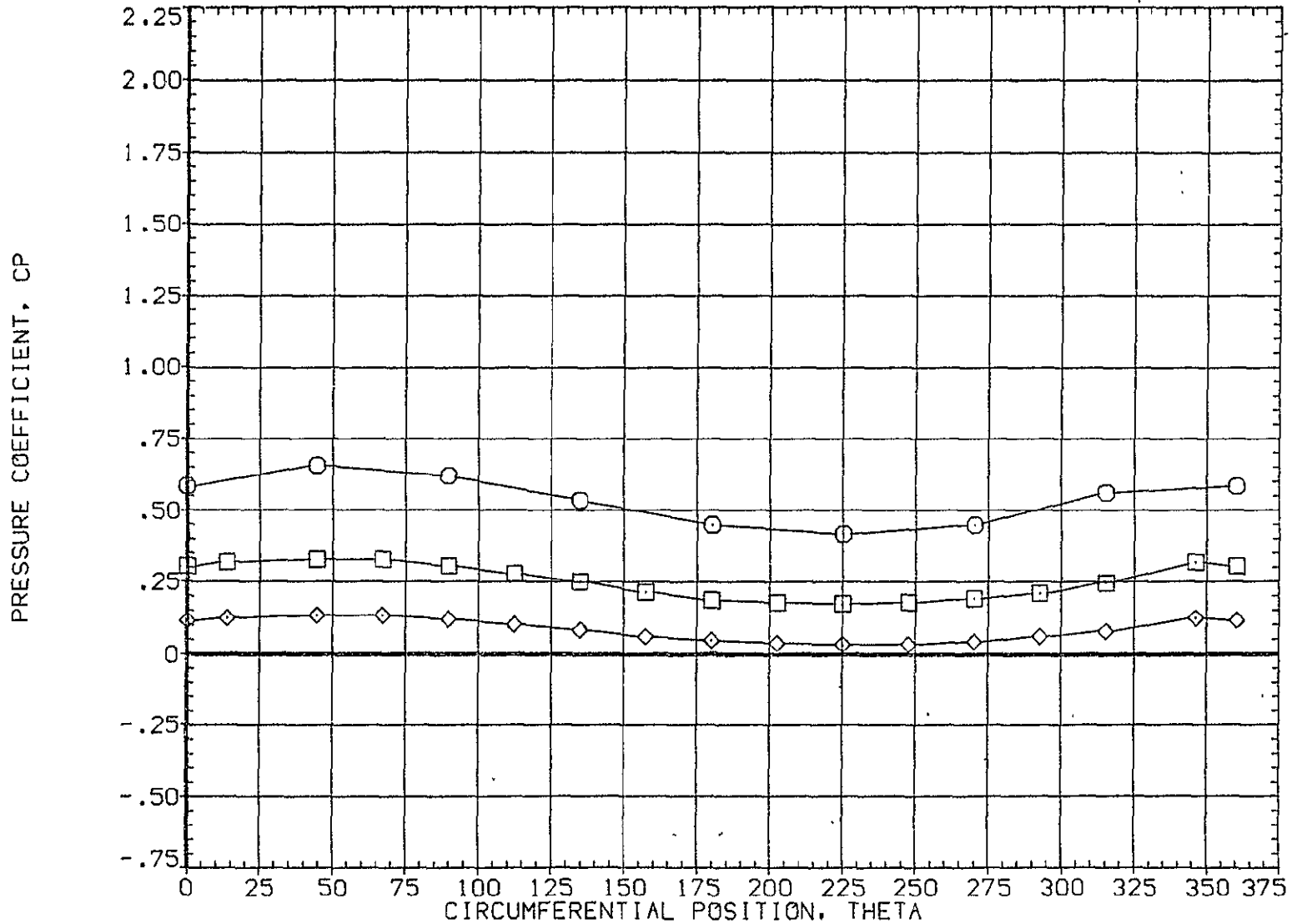


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	-4.330	3.480	MOUNT	1.000	PHI	45.000
□	.322						
◇	.518						

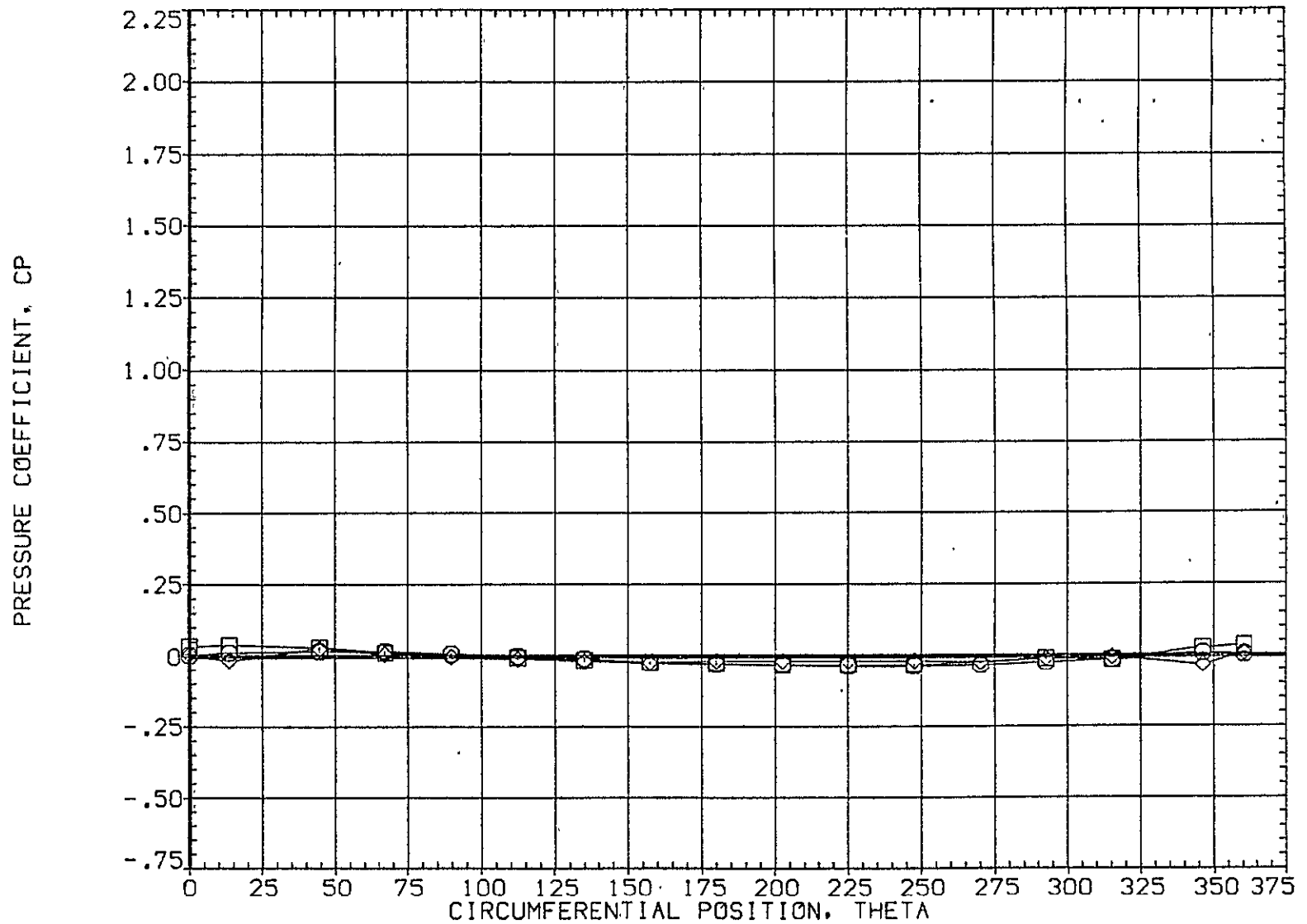


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A082)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	-4.330	3.480	.000	.000		.000
□	.735			1.000			45.000
◇	.860						

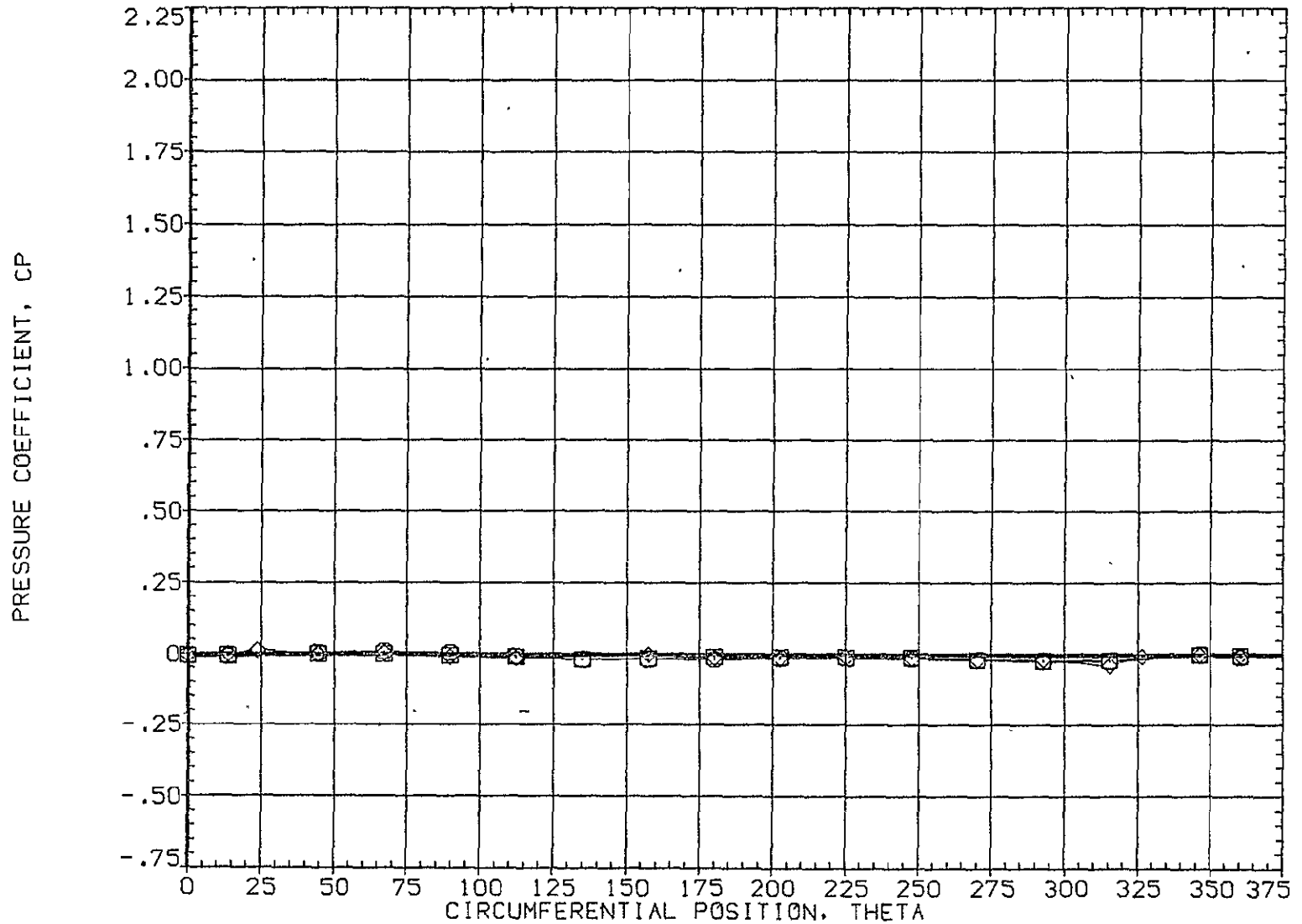


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.330	3.480	.000	.000	.000
□	.923			1.000		45.000
◇	.954					

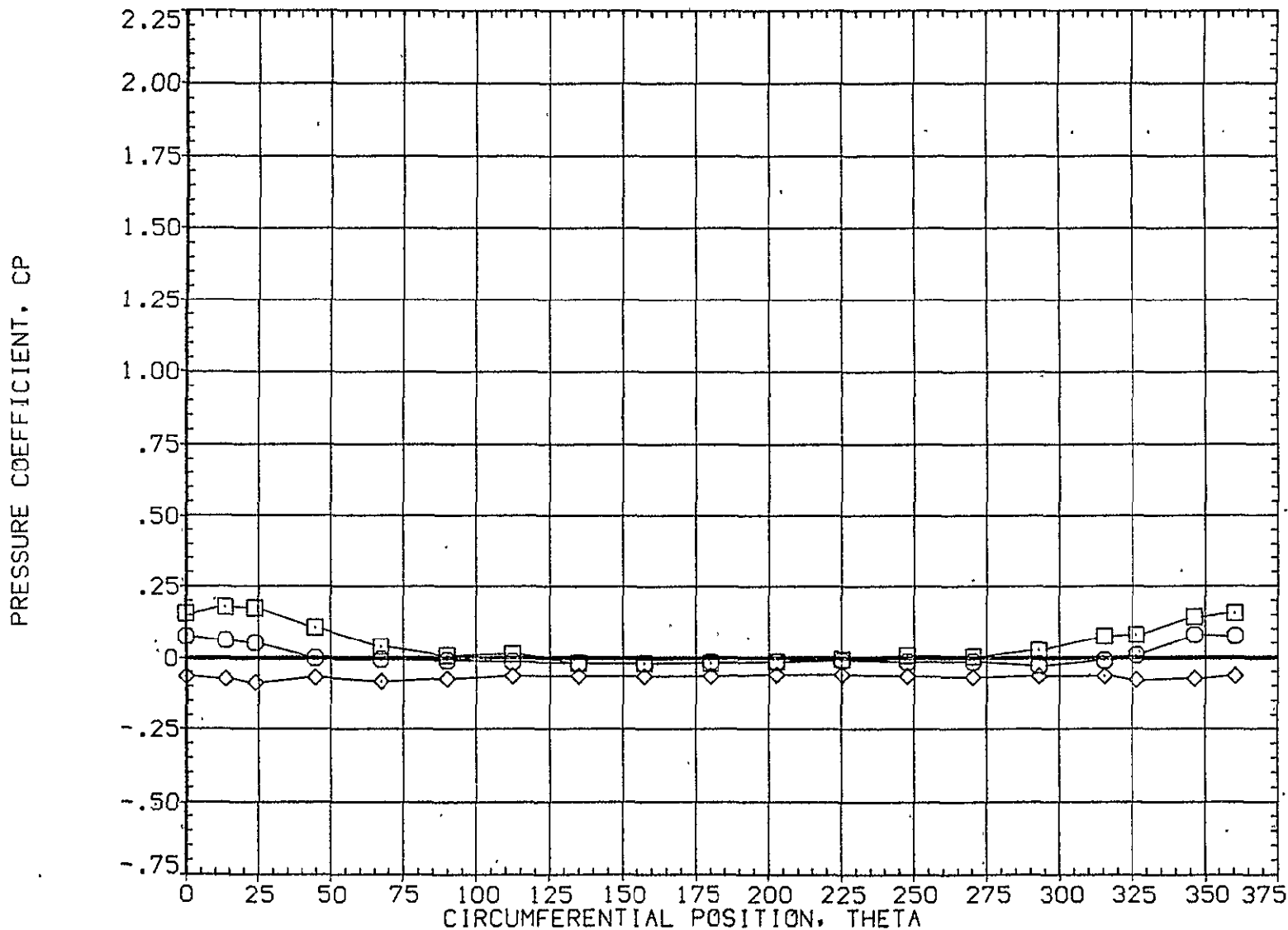


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A083)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	.280	3.480	.000	.000	.000
□	.108			1.000	PHI	45.000
◇	.162					

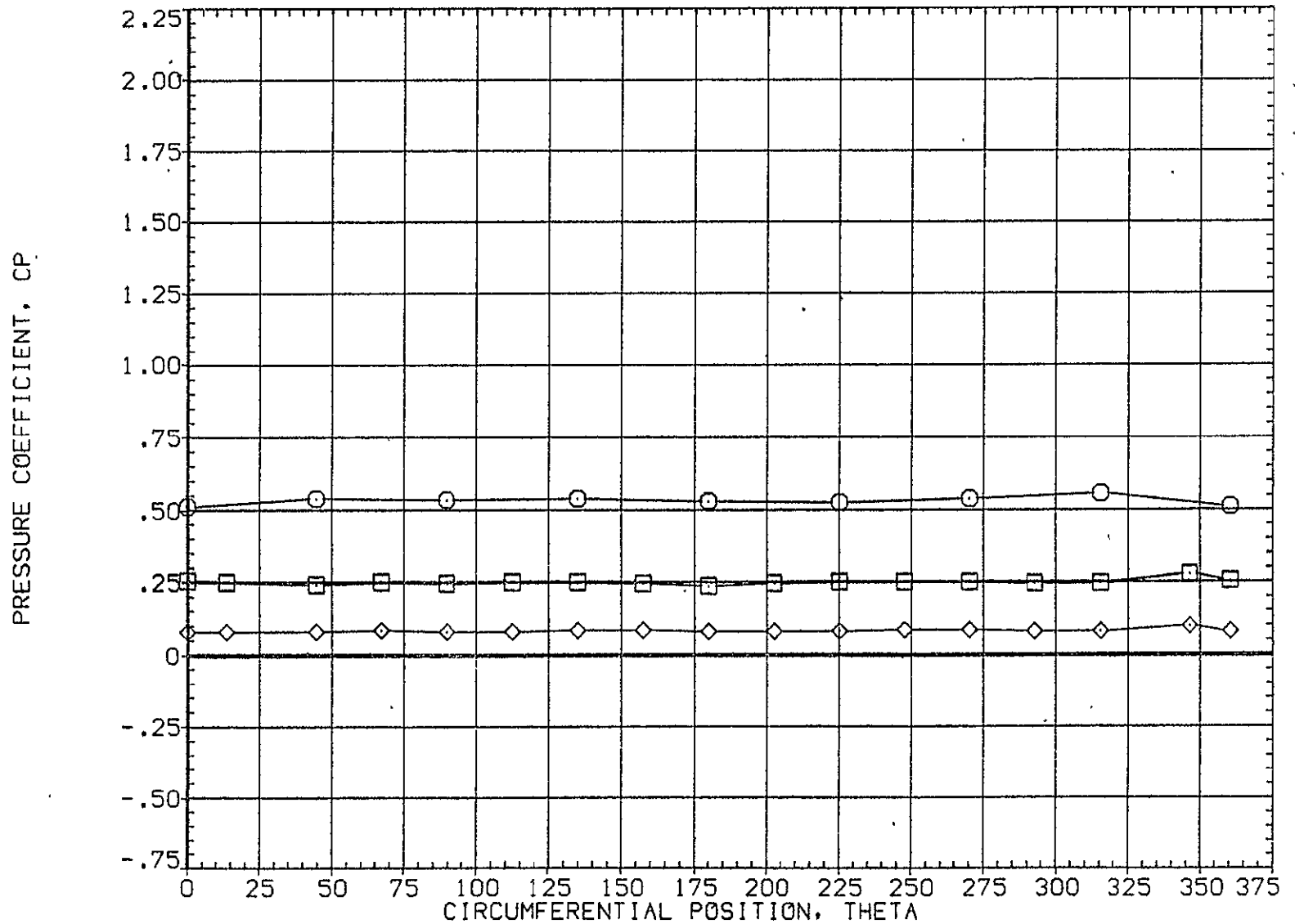


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-.280	3.480	.000	.000	.000
□	.322			1.000	PHI	45.000
◇	.518					

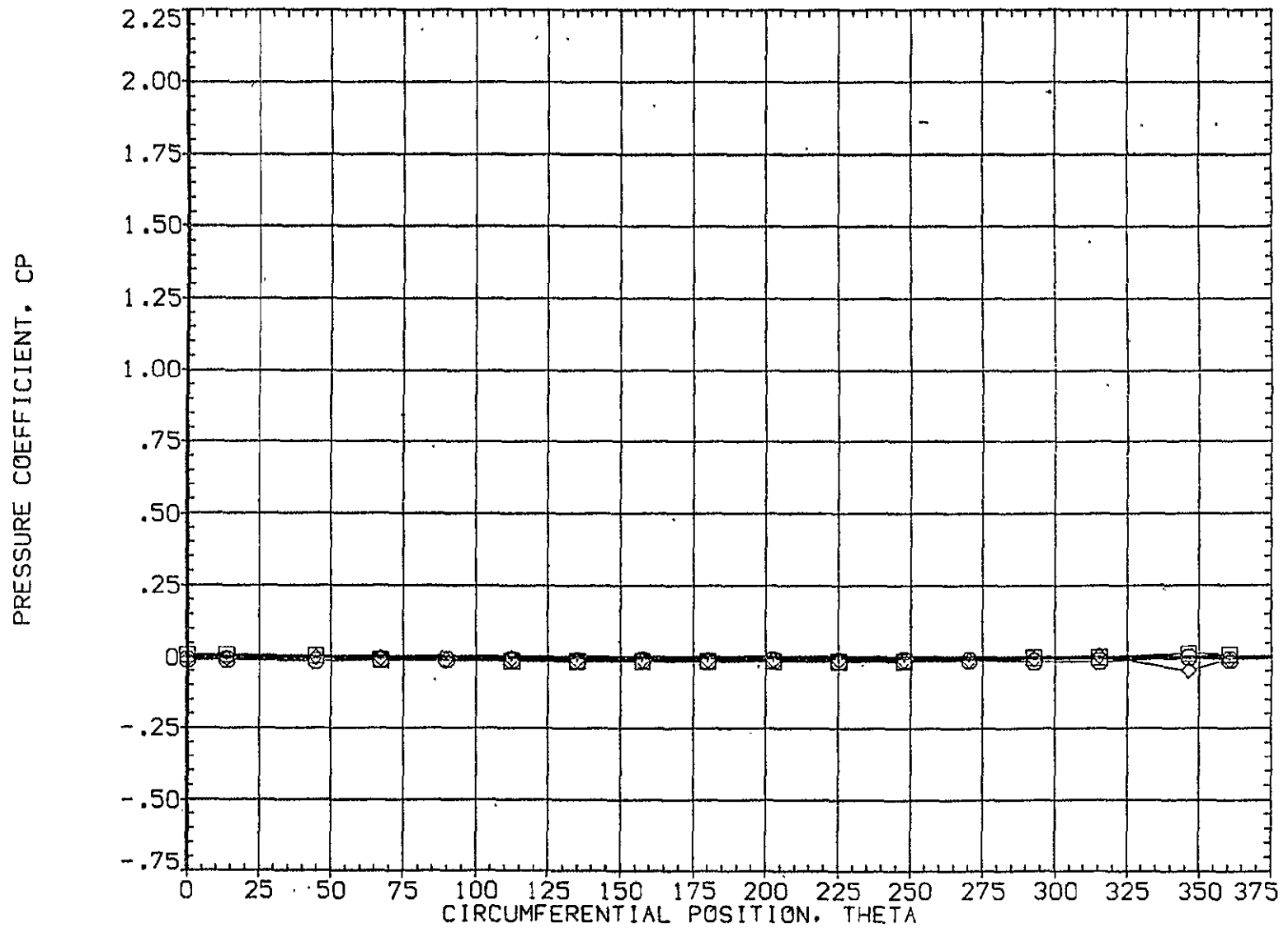


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A083)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	.000
○	.610	-.280	3.480	MOUNT	1.000	PHI 45.000
□	.735					
◇	.860					

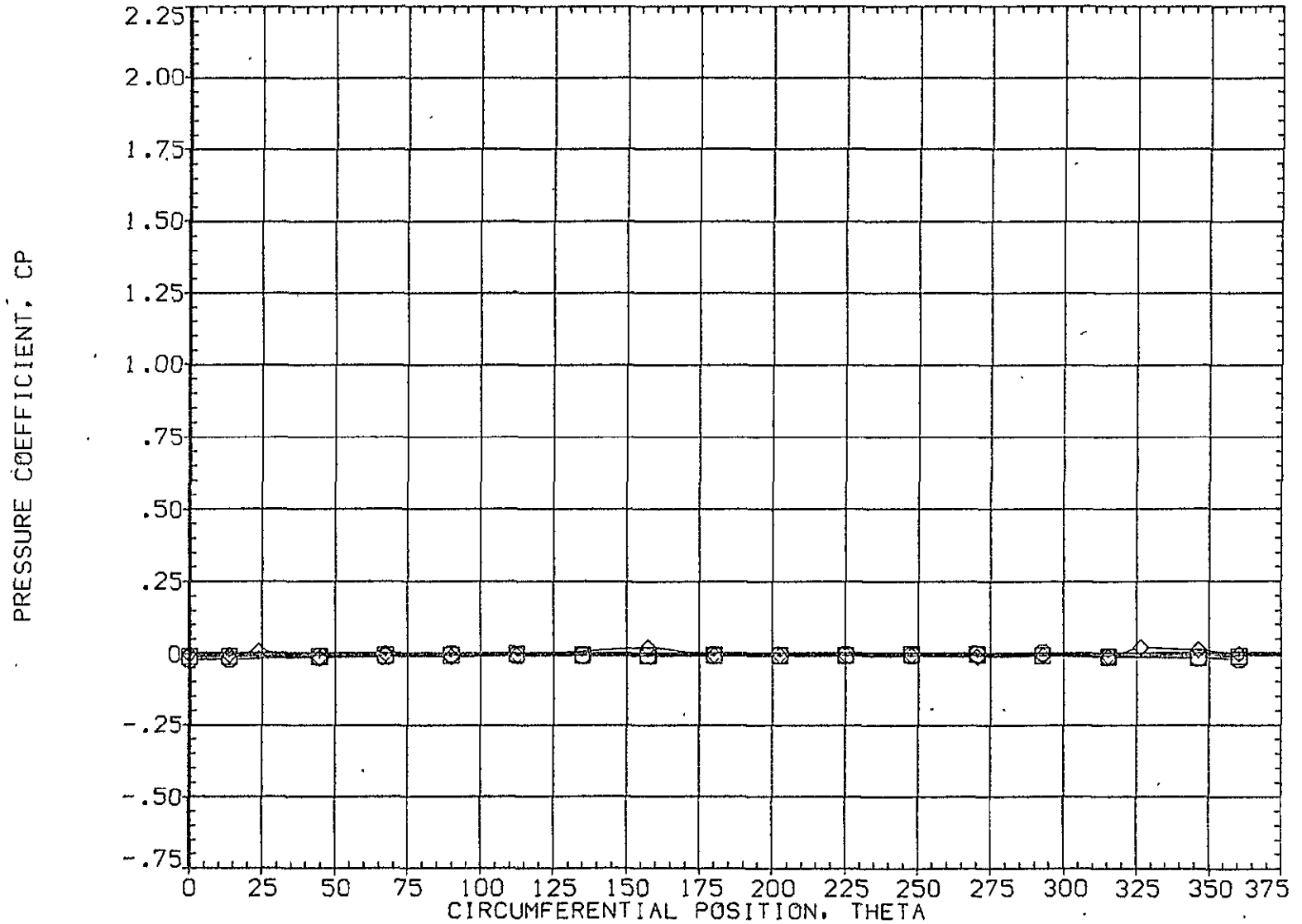


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/L8	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	-.280	3.480	MOUNT	1.000	PHI
□	.923					.000
◇	.954					45.000

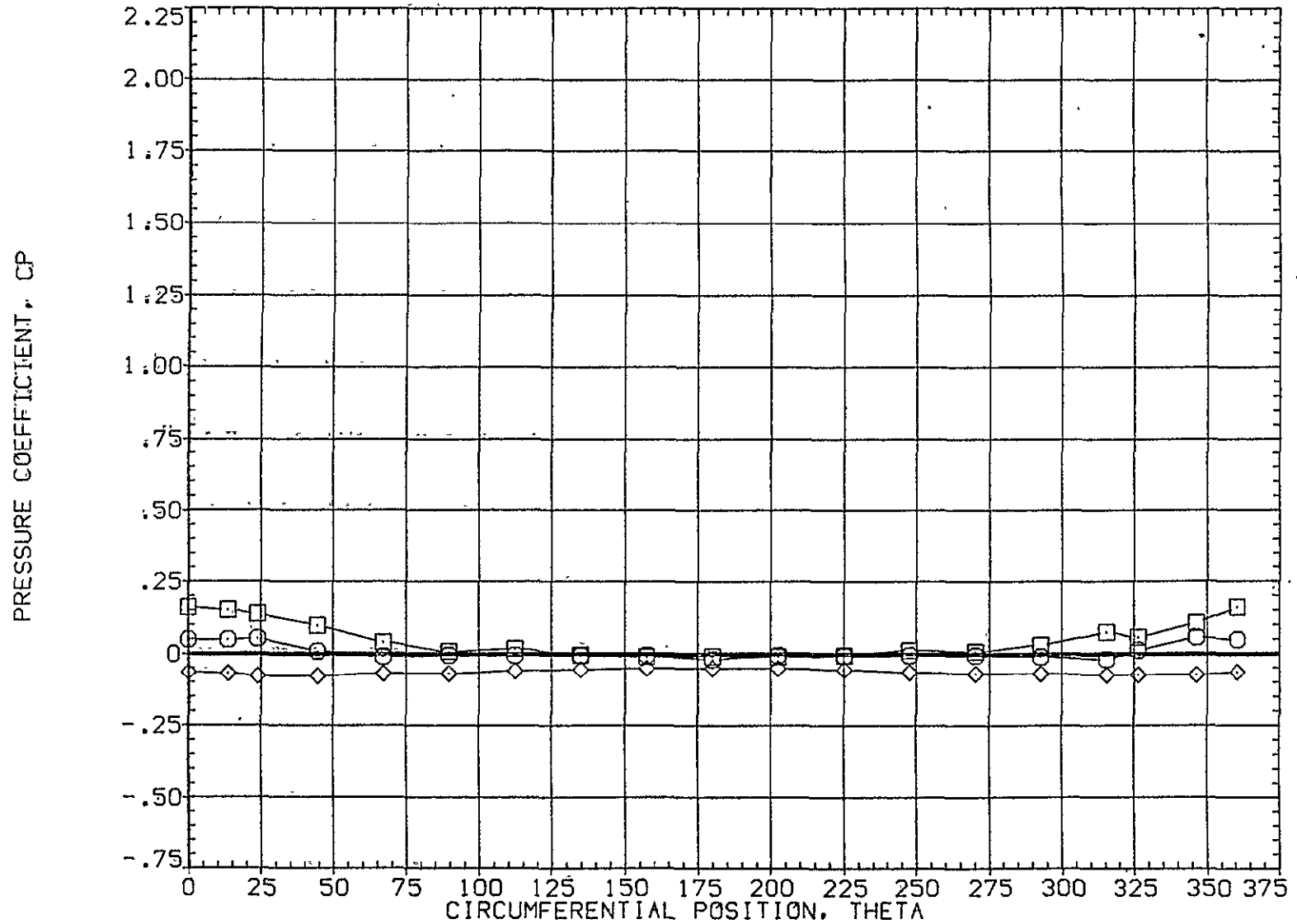


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.770	3.480	.000	.000	.000
□	.108			1.000		45.000
◇	.162					

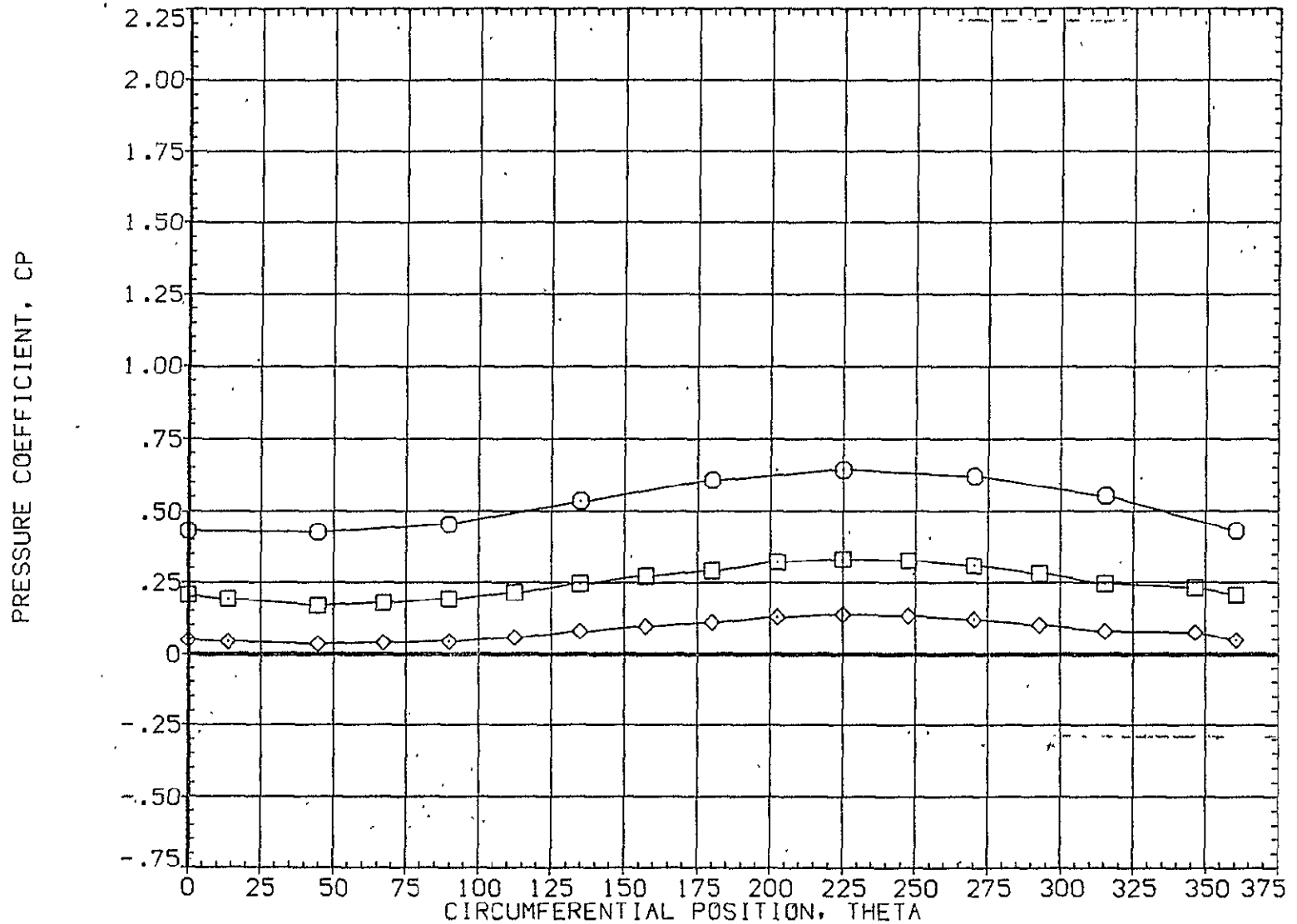


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.770	3.480	.000	.000	.000
□	.322			1.000		45.000
◇	.518					

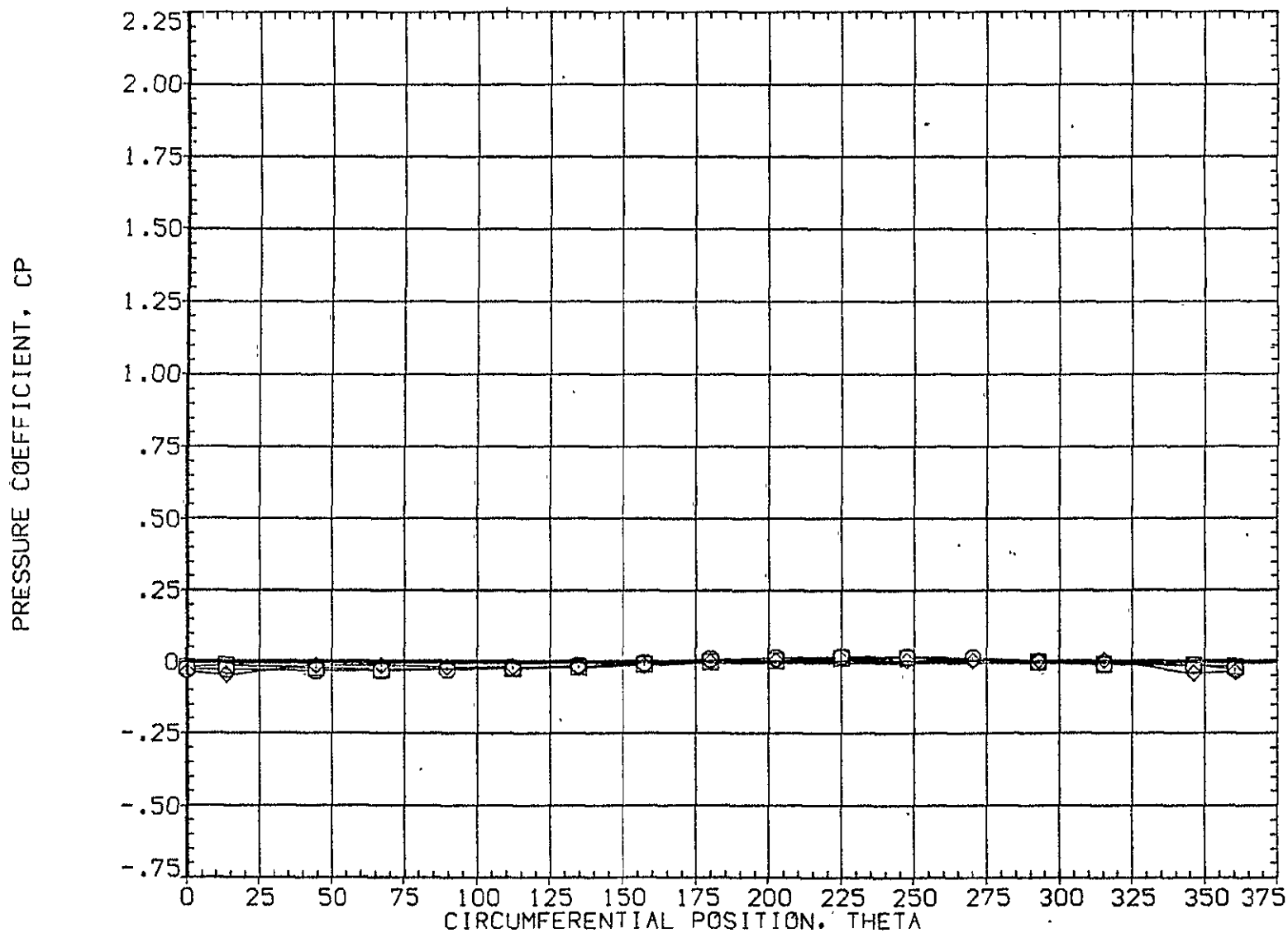


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.610	3.770	3.480	.000		.000
□	.735			1.000	PHI	45.000
◇	.860					

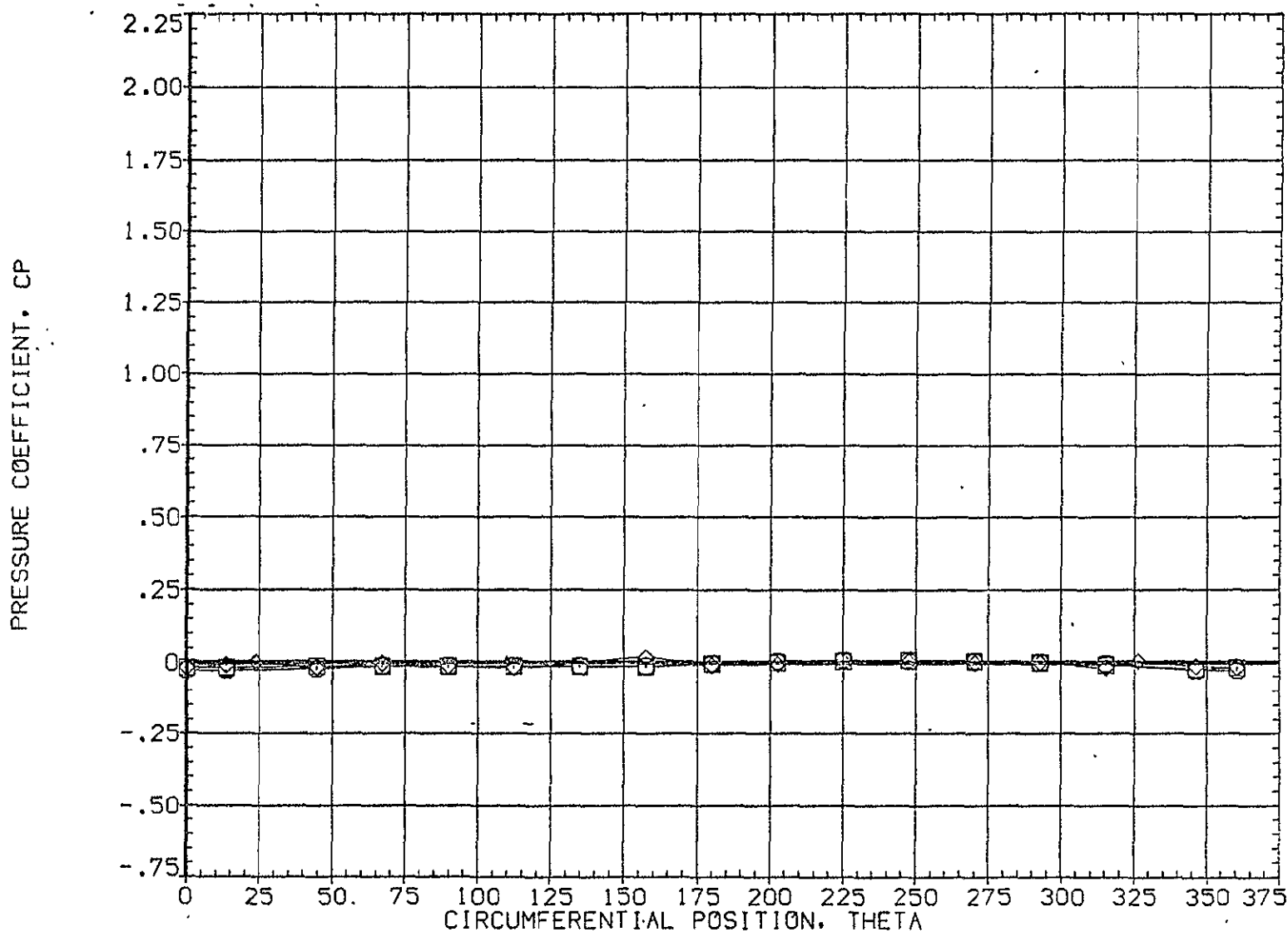


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	3.770	3.480	.000	.000	.000
□	.923			1.000		45.000
◇	.954					

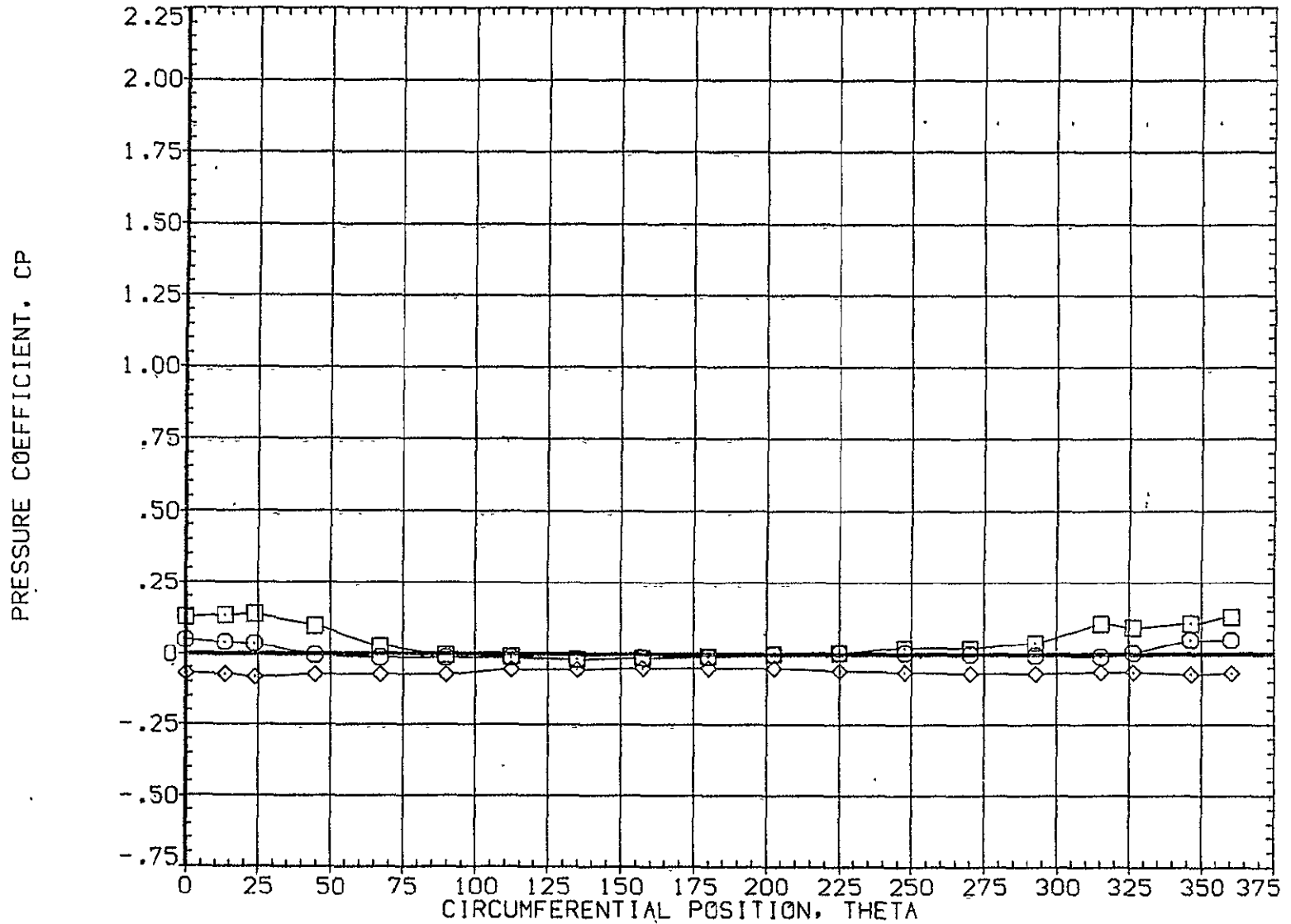


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK,

(P1A085)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	7.800	3.480	.000	.000	.000
□	.108			1.000		45.000
◇	.162					

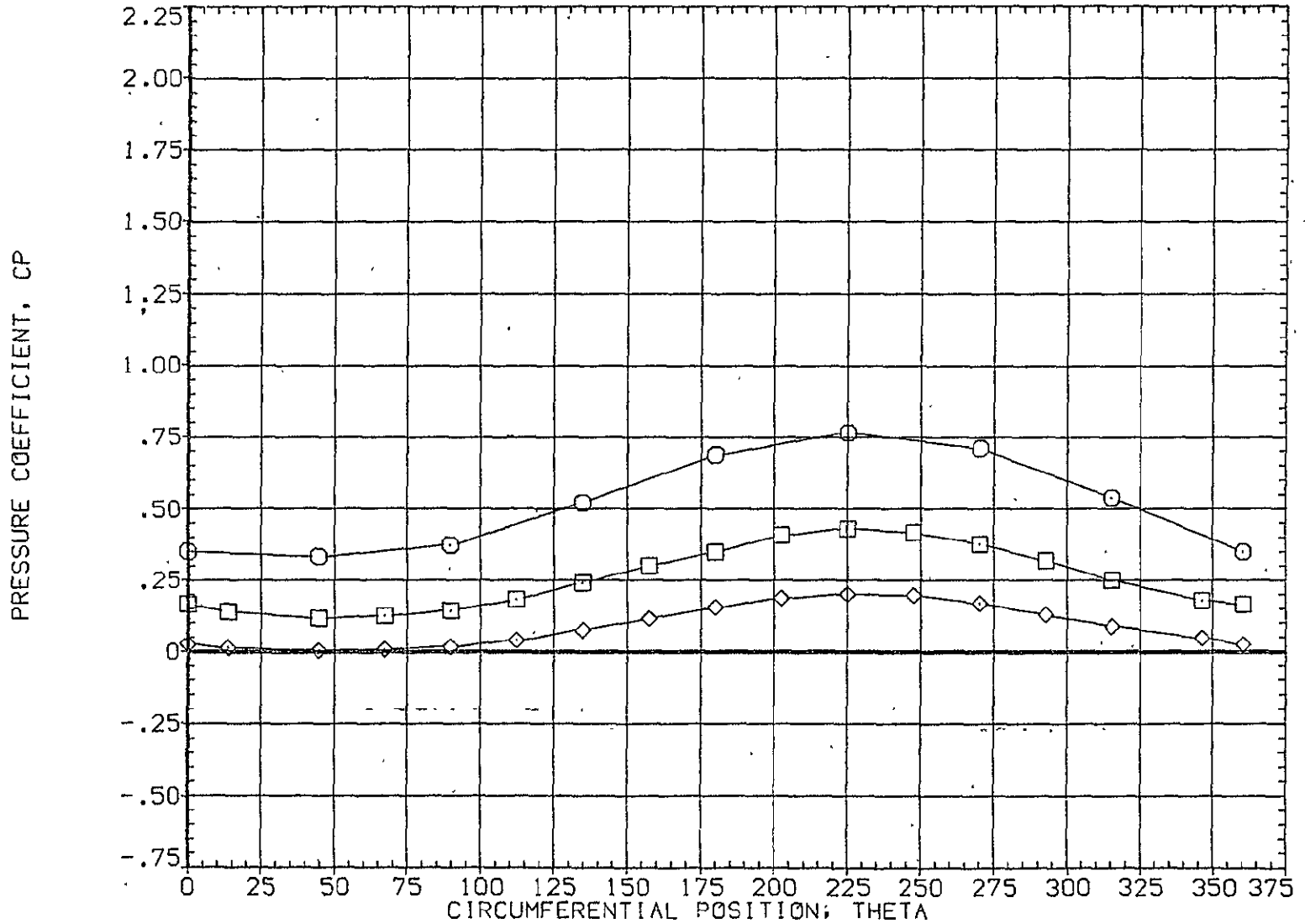


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	7.800	3.480	.000	.000	.000
□	.322			1.000	PHI	45.000
◇	.518					

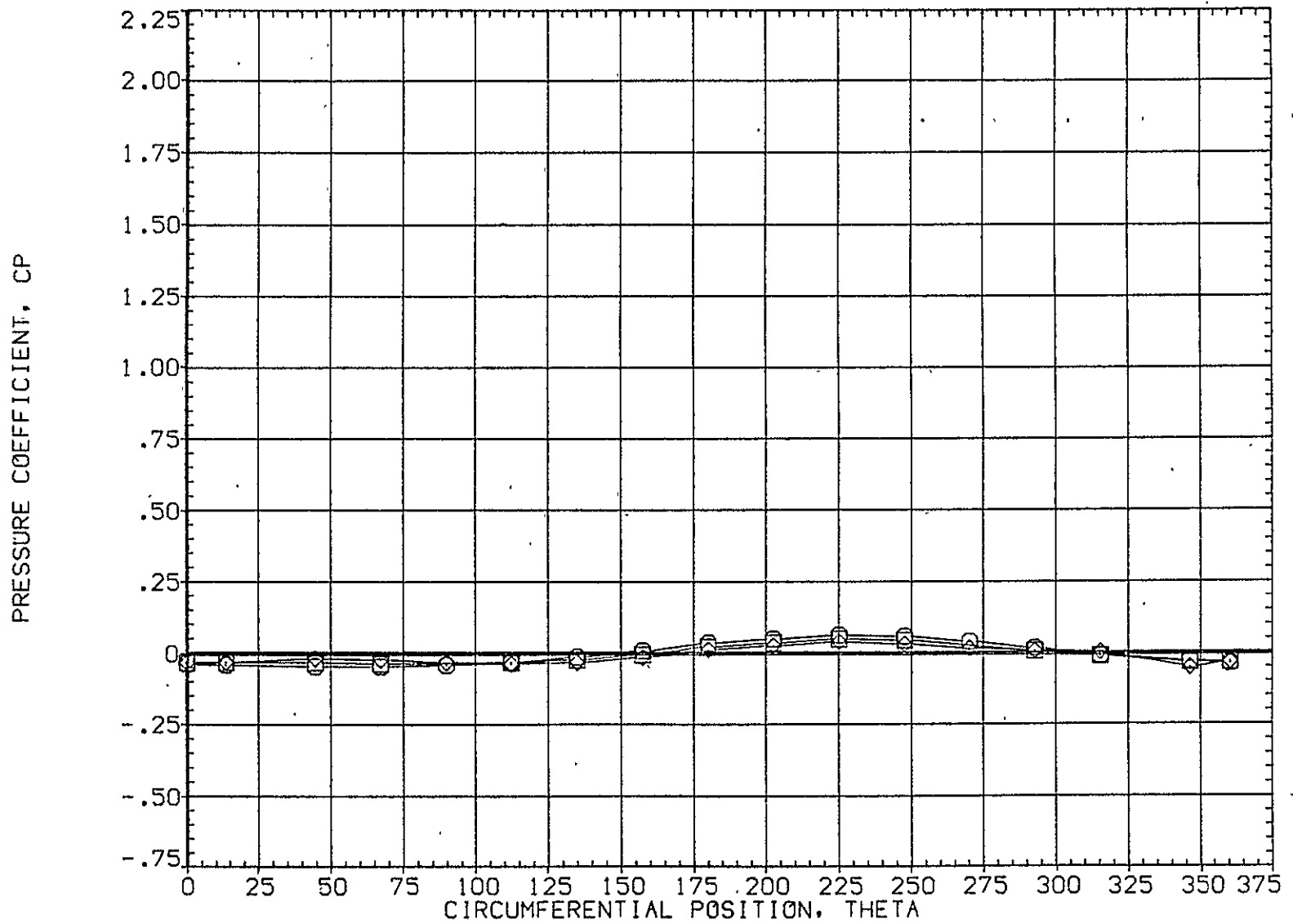


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A085)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.800	3.480	MOUNT	1.000	PHI	45.000
□	.735						
◇	.860						

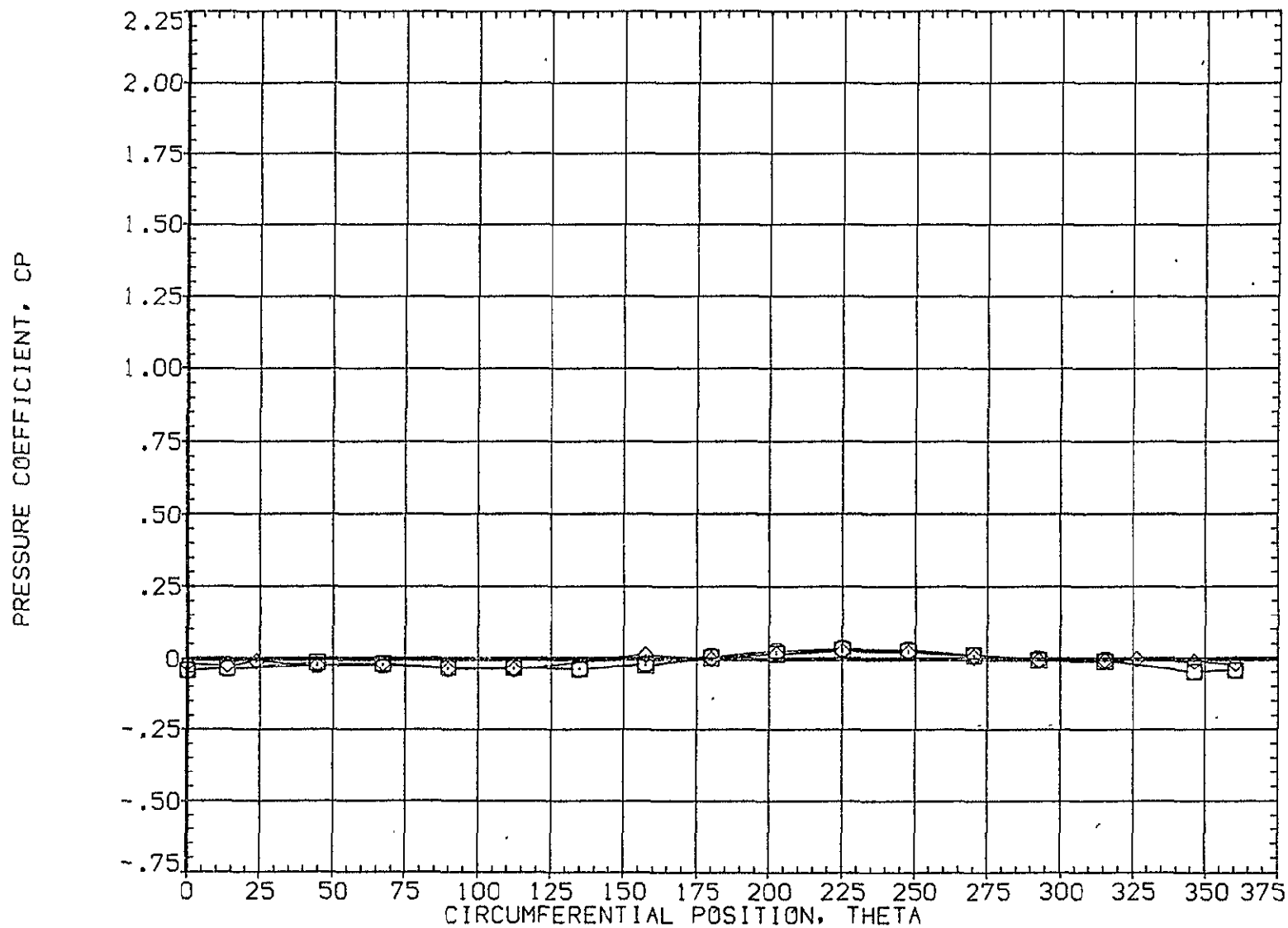


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	7.800	3.480	.000	.000	.000
□	.923			1.000		45.000
◇	.954					

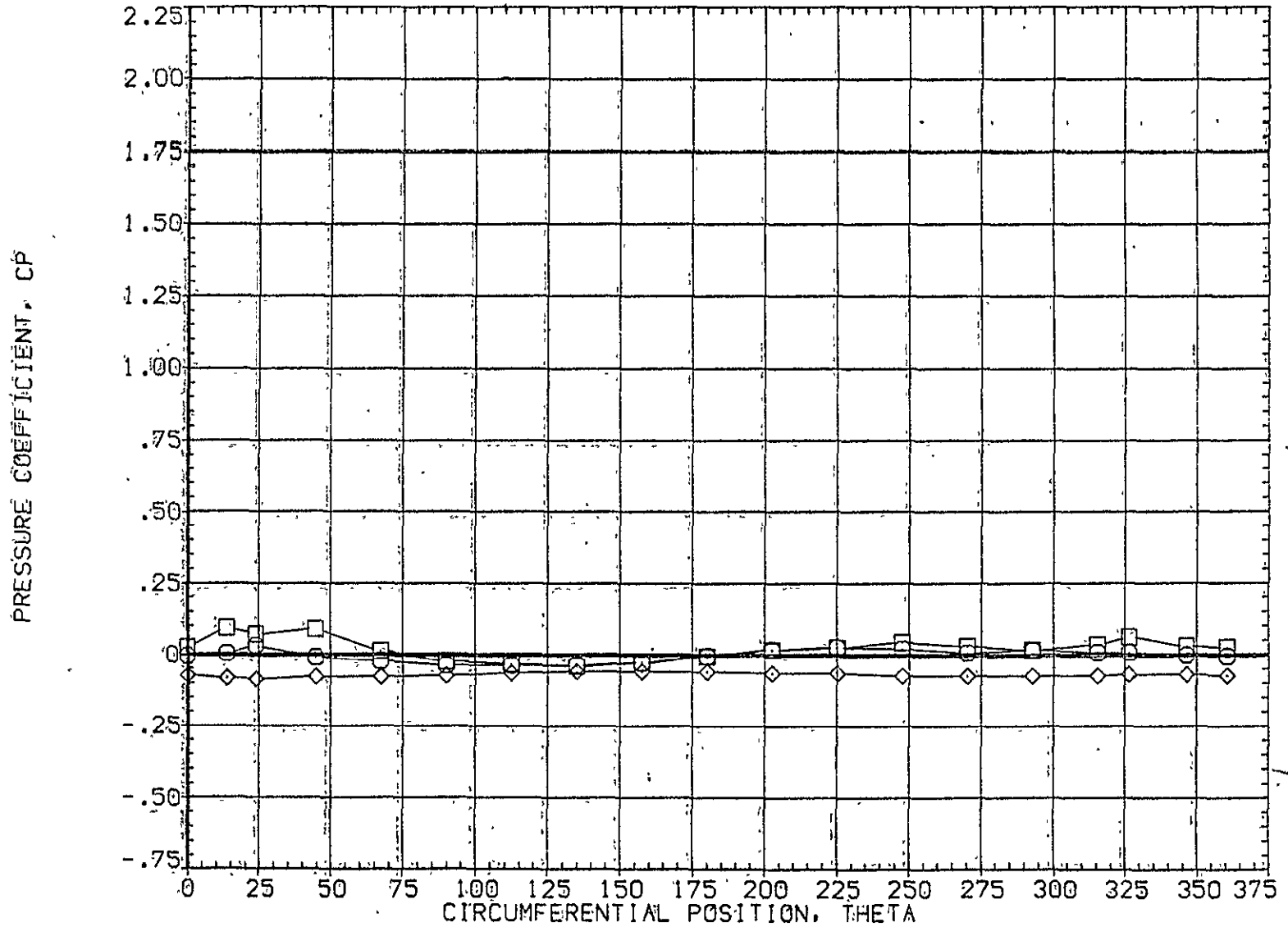


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	12.520	3.480	.000	20.000	
□	.108			1.000	45.000	
◇	.162					

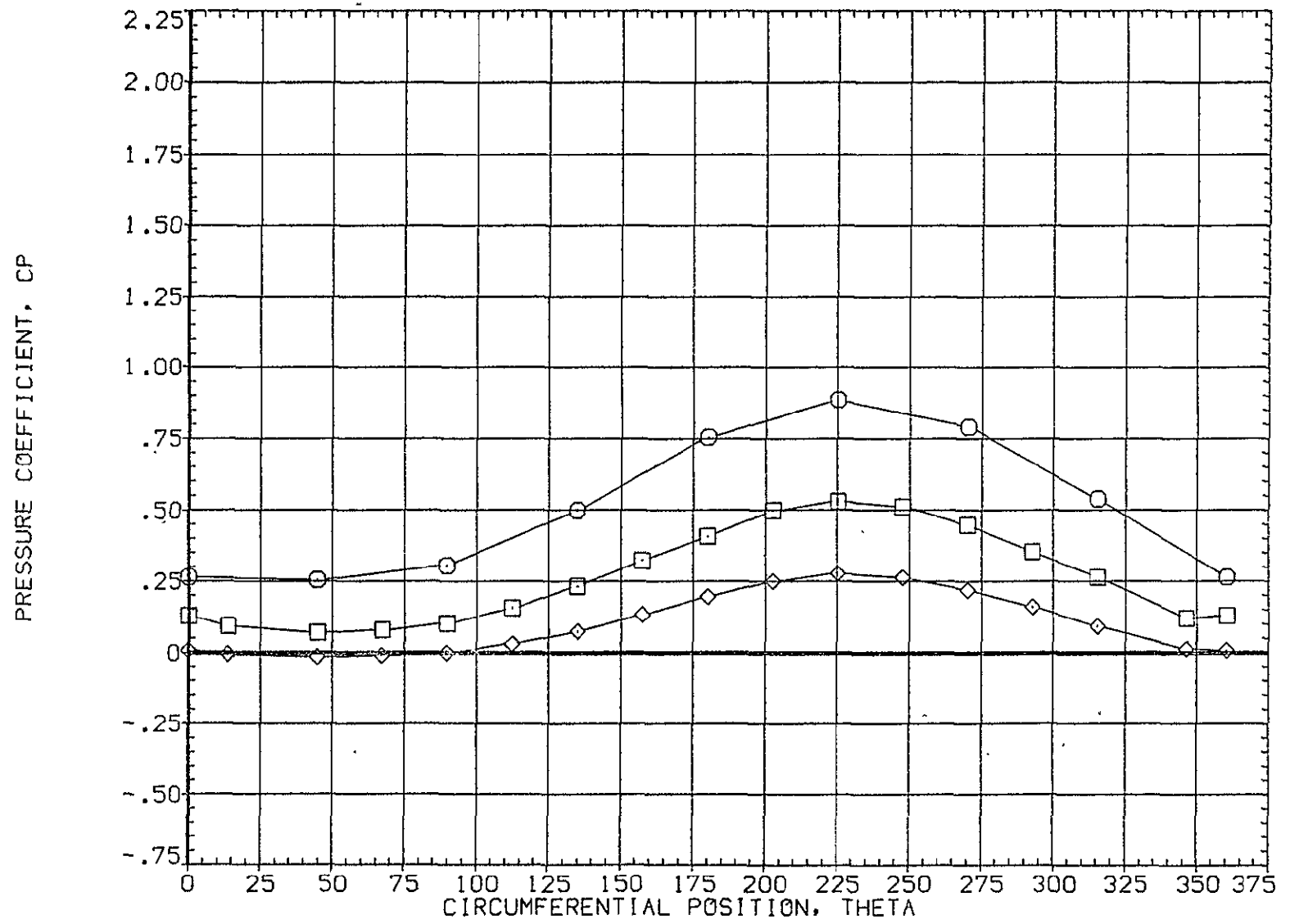


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	12.520	3.480	MOUNT	1.000	PHI	45.000
□	.322						
◇	.518						

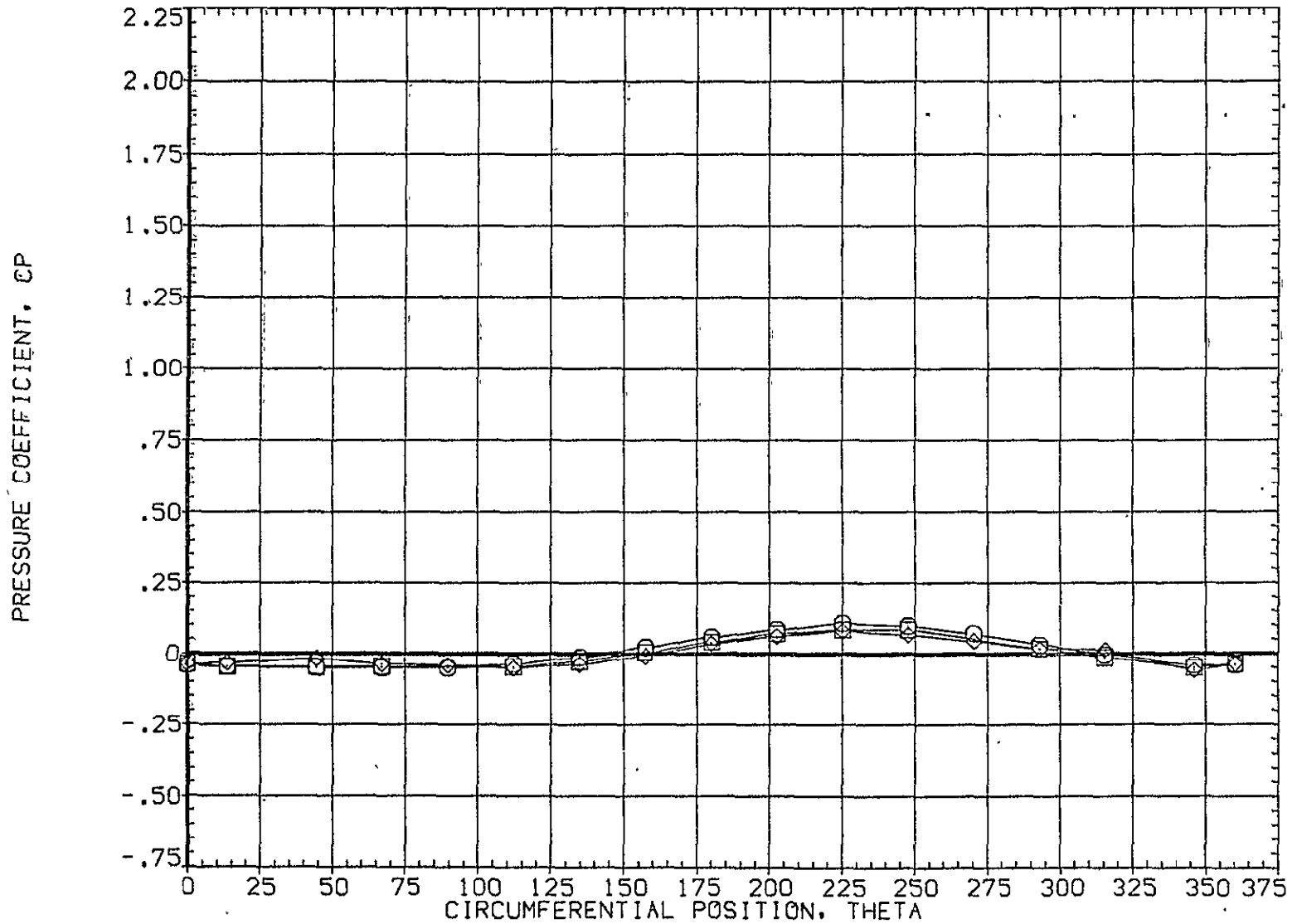


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A086)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	12.520	3.480	MOUNT	1.000	PHI	45.000
□	.735						
◇	.860						

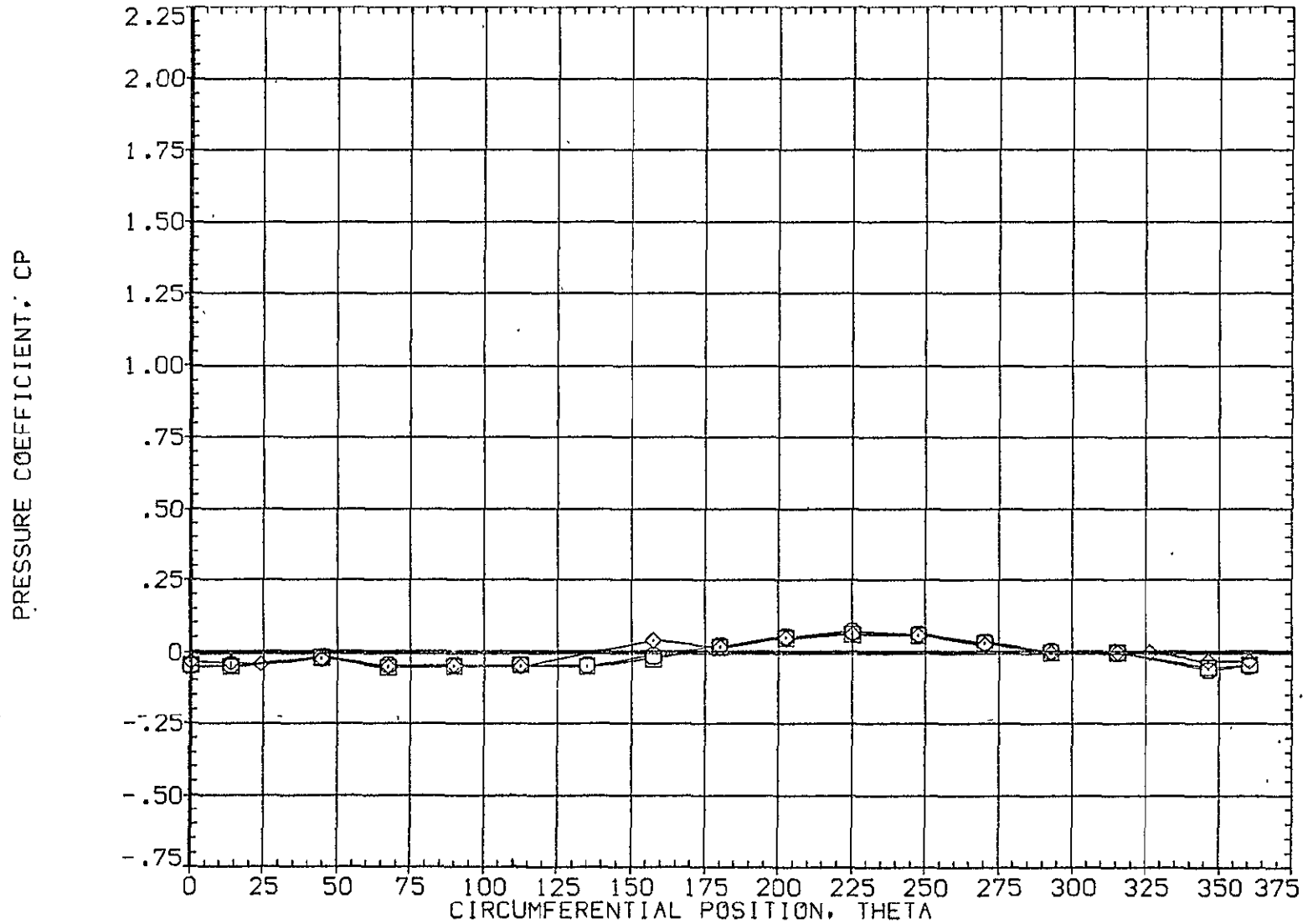


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	12.520	3.480		20.000	
□	.923			MOUNT	1.000	PHI
◇	.954					45.000

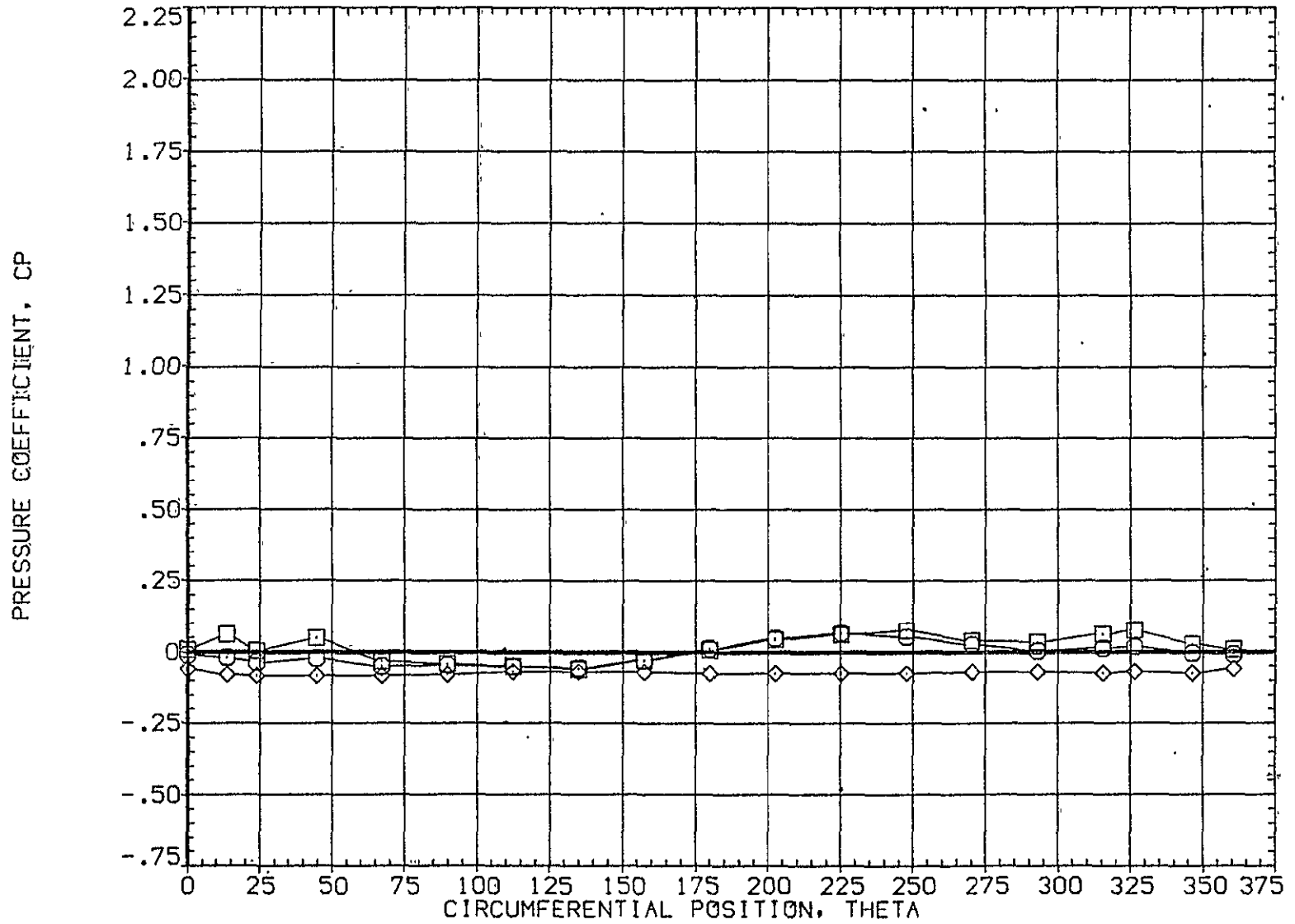


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A087)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	16.560	3.480		20.000		
□	.108			1.000		45.000	
◇	.162						

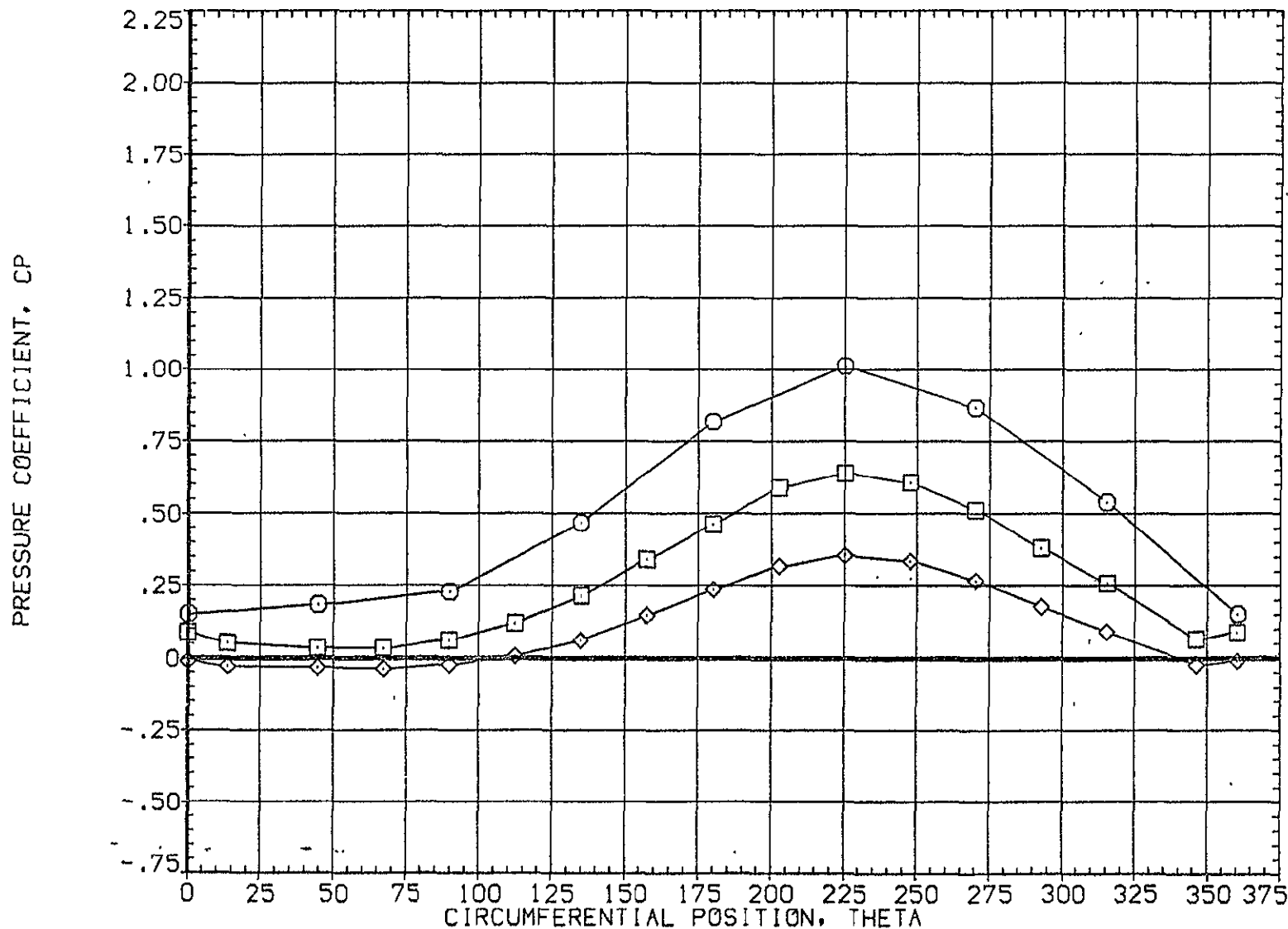


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ⊙
 ⊠
 ◇

X/LB	ALPHA	MACH
.216	16.560	3.480
.322		
.518		

PARAMETRIC VALUES		
BETA	OFFSET	20.000
MOUNT	PHI	45.000
.000		
1.000		

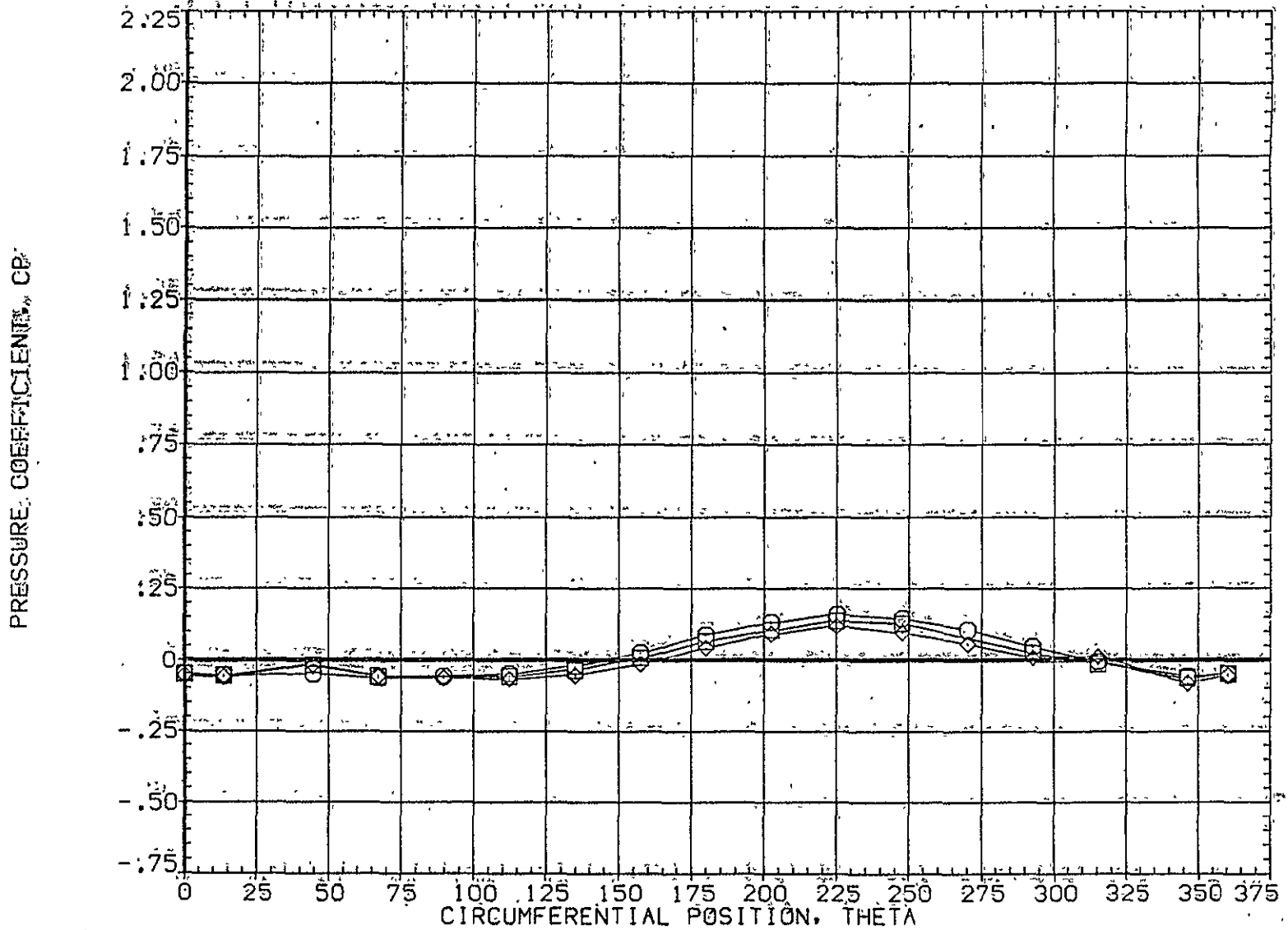


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A087)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	16.560	3.480	.000	20.000	
□	.735			1.000	45.000	
◇	.860					

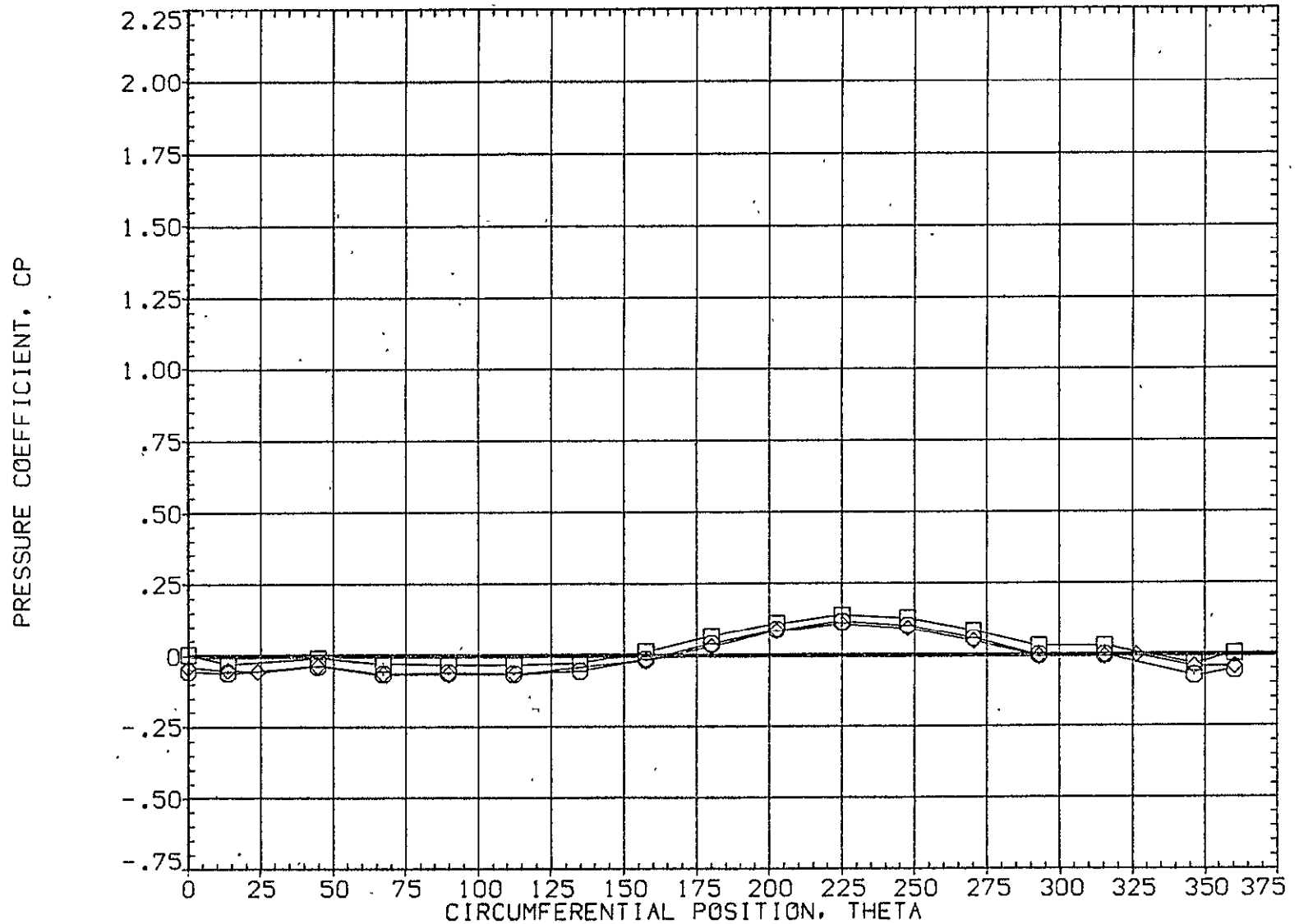


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 16.560 3.480
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 45.000

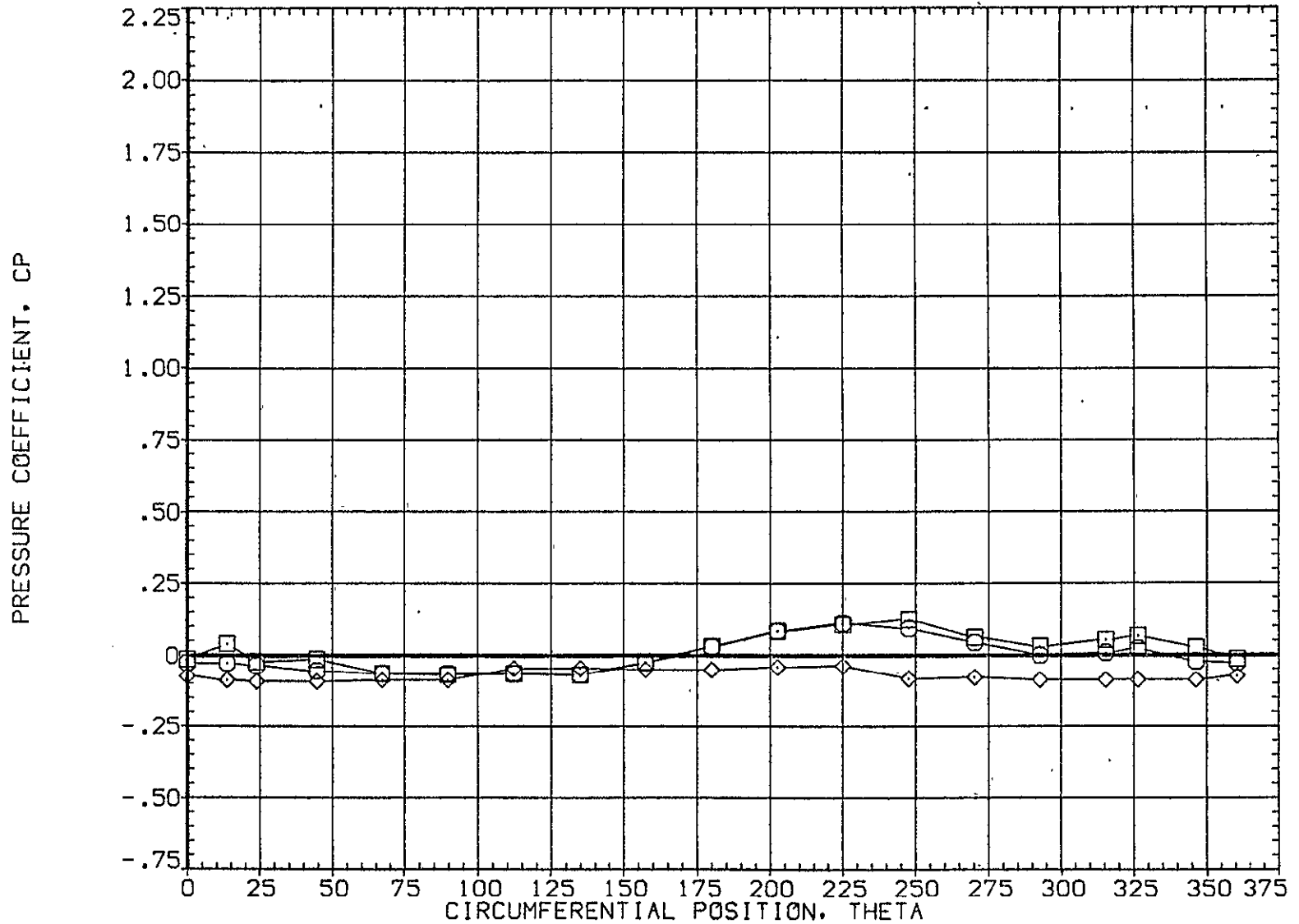


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.610	3.480	MOUNT	1.000	PHI	45.000
□	.108						
◇	.162						

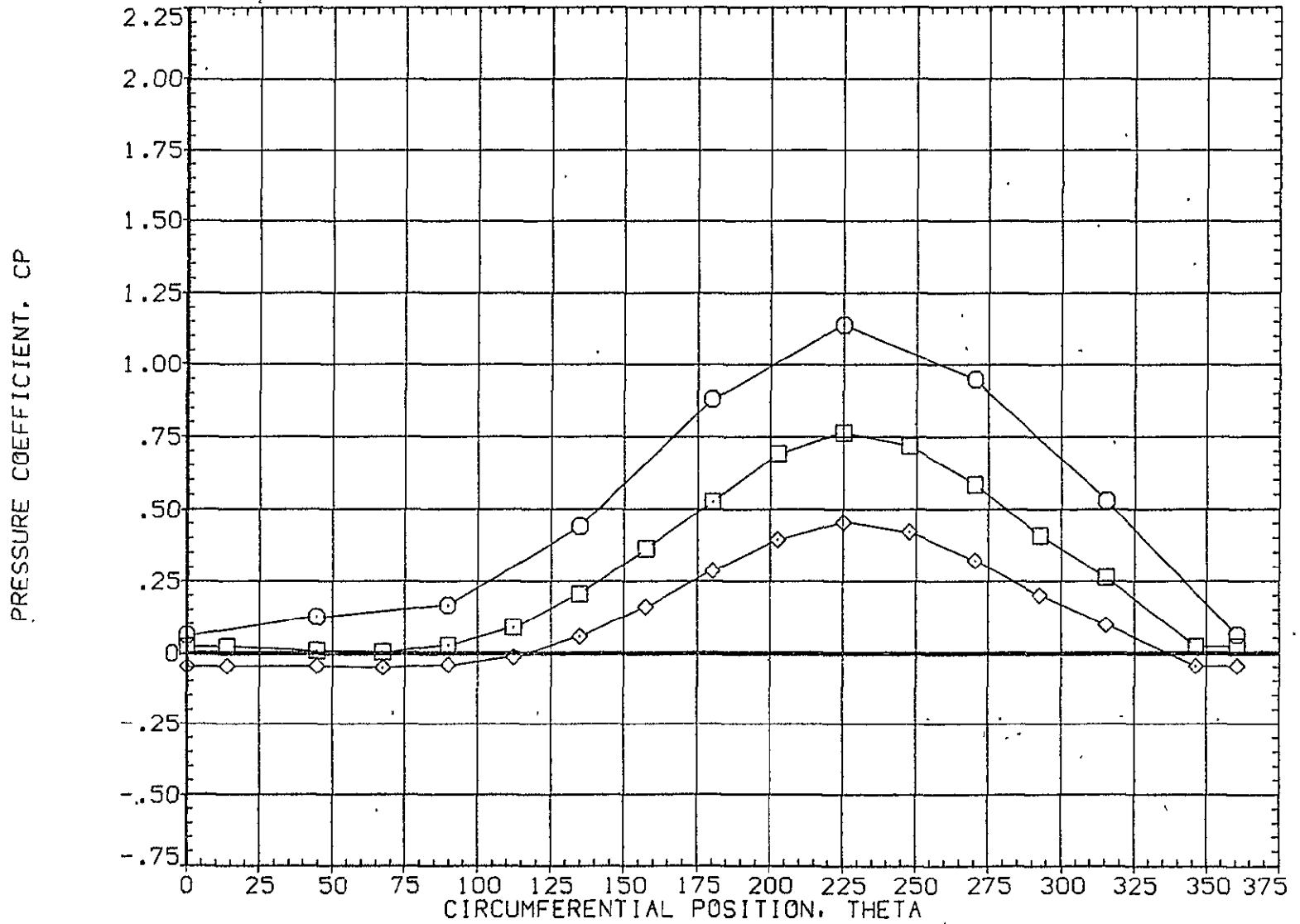


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.216	20.610	3.480	BETA	.000	OFFSET	20.000
□	.322			MOUNT	1.000	PHI	45.000
◇	.518						

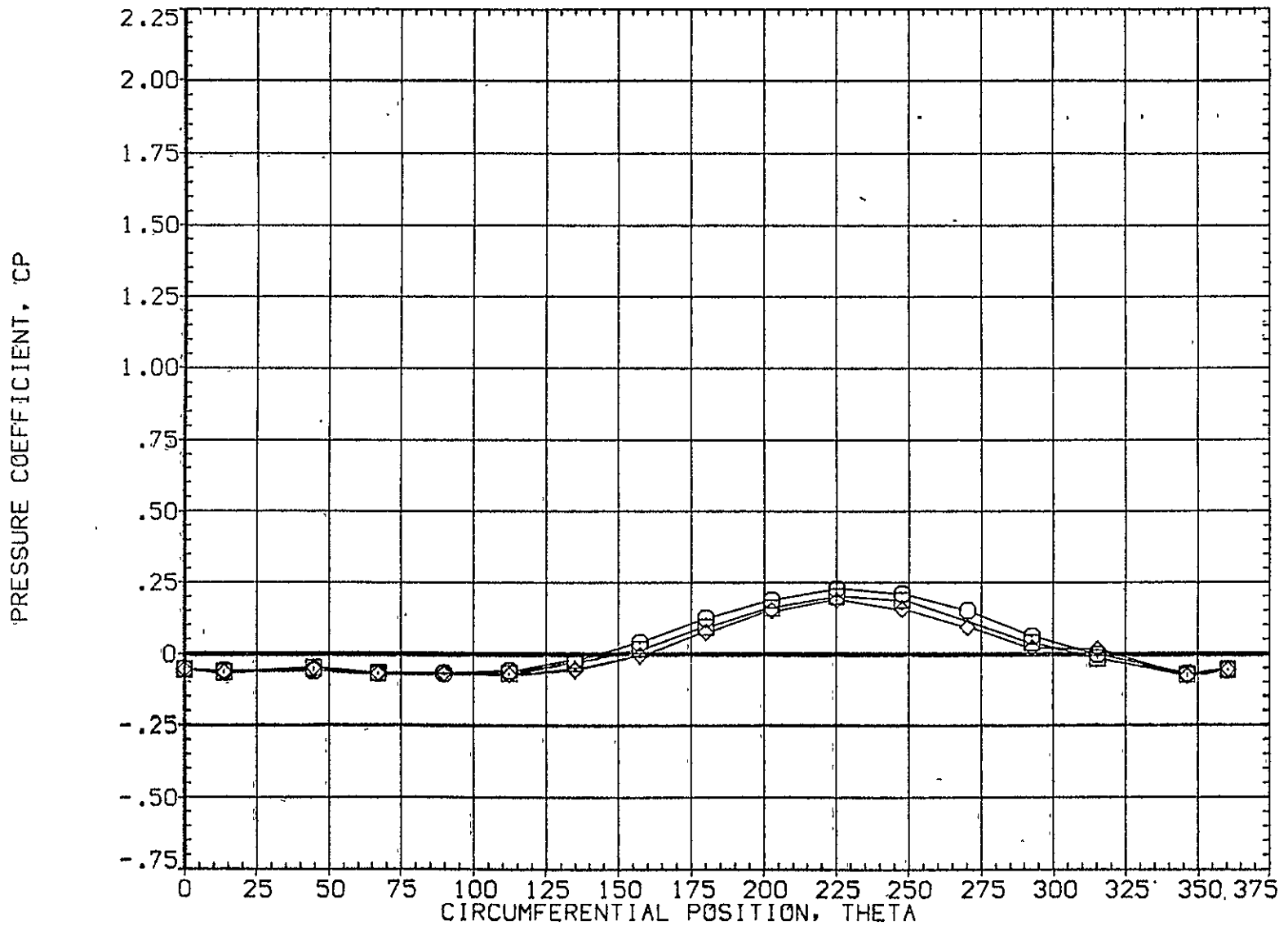


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A088)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.610	3.480	MOUNT	1.000	PHI	45.000
□	.735						
◇	.860						

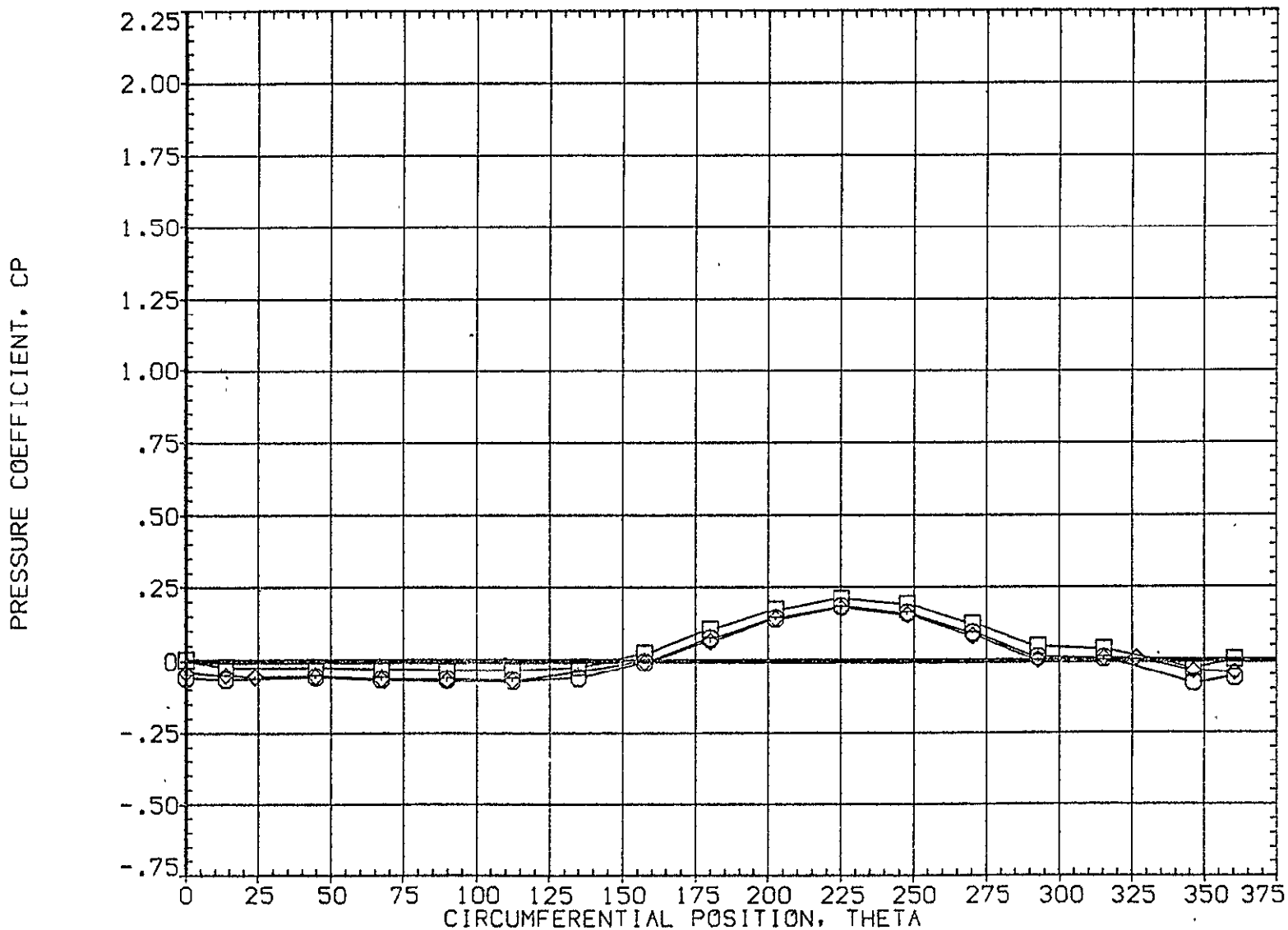


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	20.610	3.480	MOUNT	1.000	PHI	45.000
□	.923						
◇	.954						

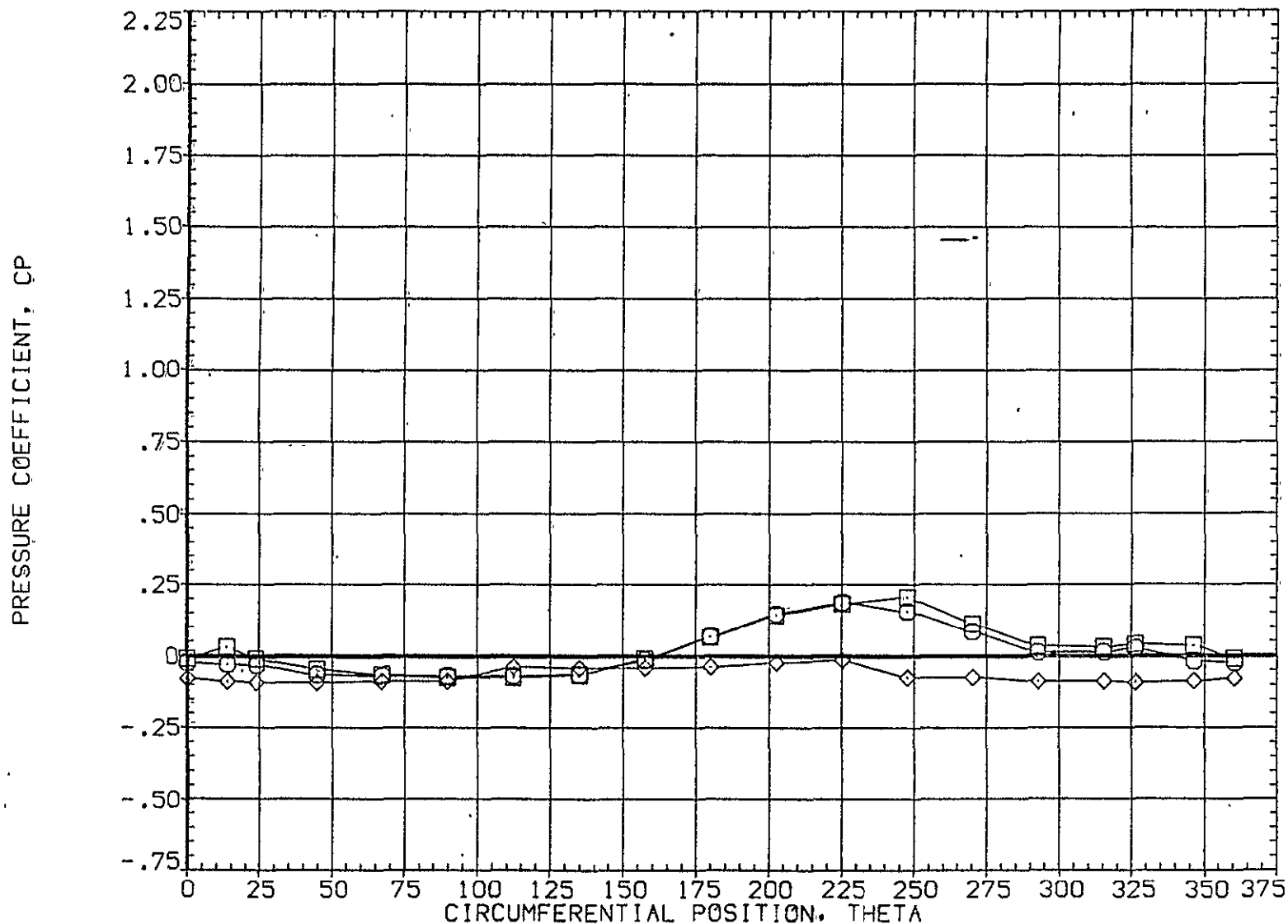


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	24.660	3.480	.000	20.000	
□	.108			1.000	45.000	
◇	.162					

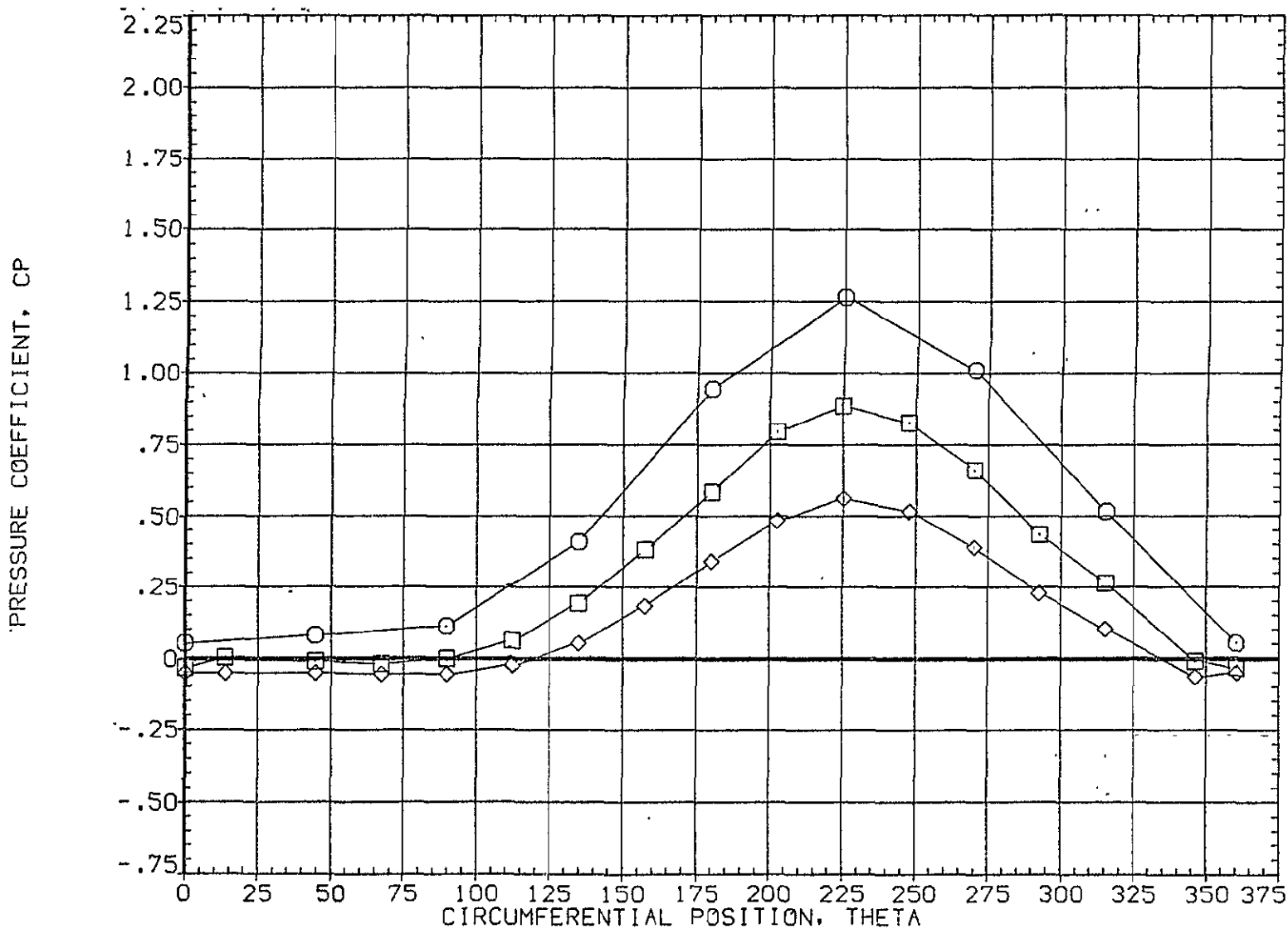


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 24.660 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 45.000

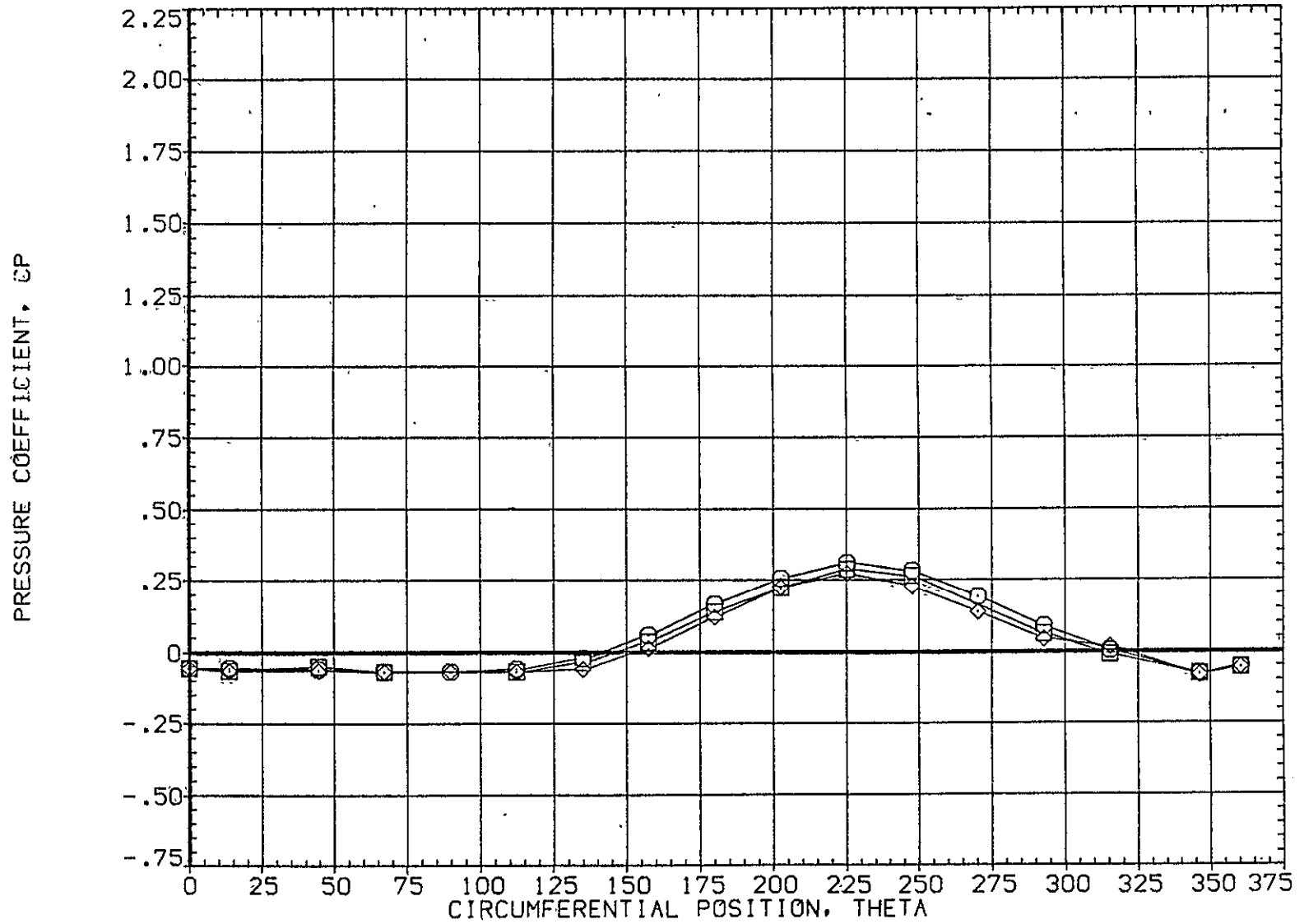


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK,

(P1A089)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	24.660	3.480	MOUNT	1.000	PHI	45.000
□	.735						
◇	.860						

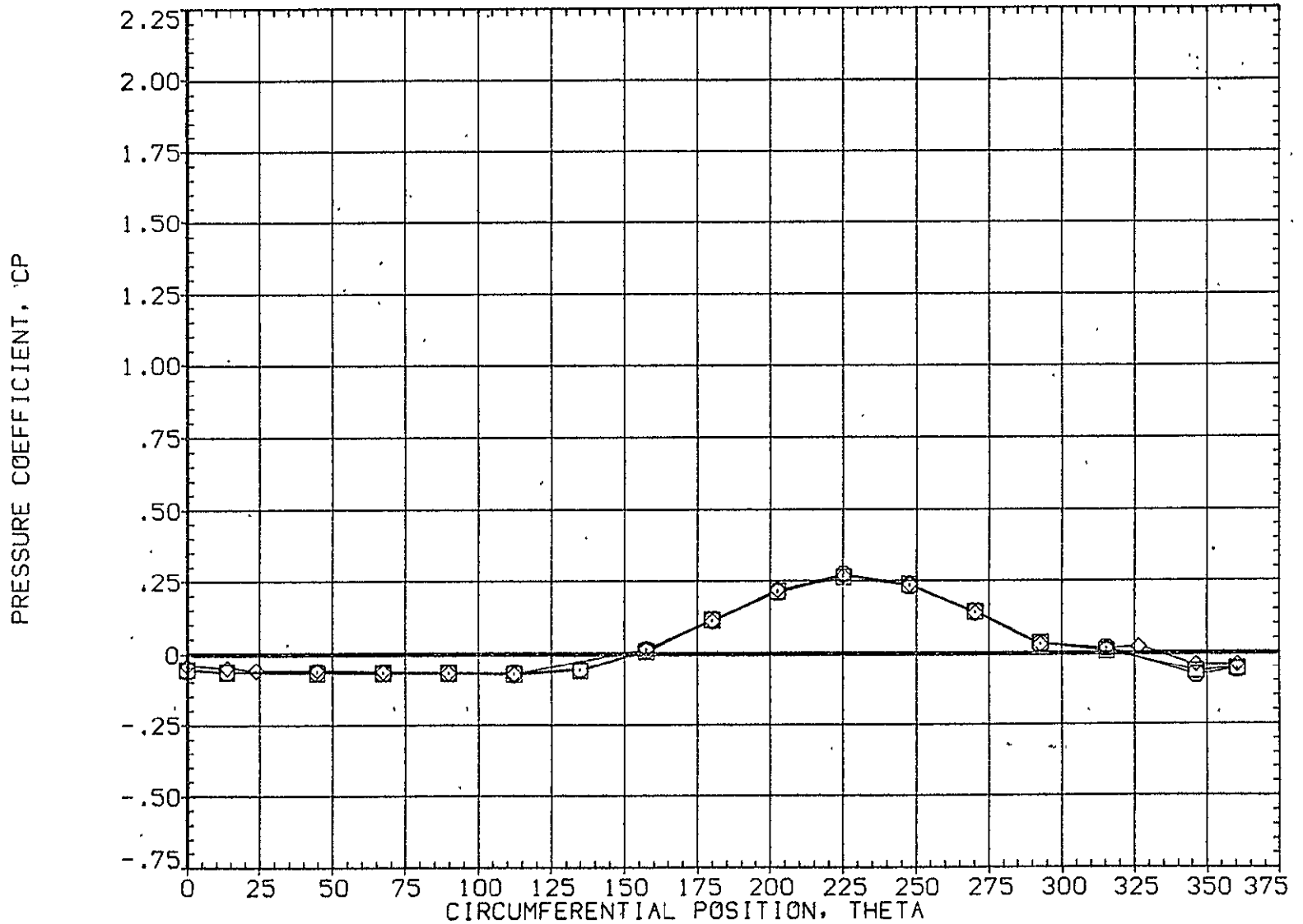


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 24.660 3.480
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 45.000

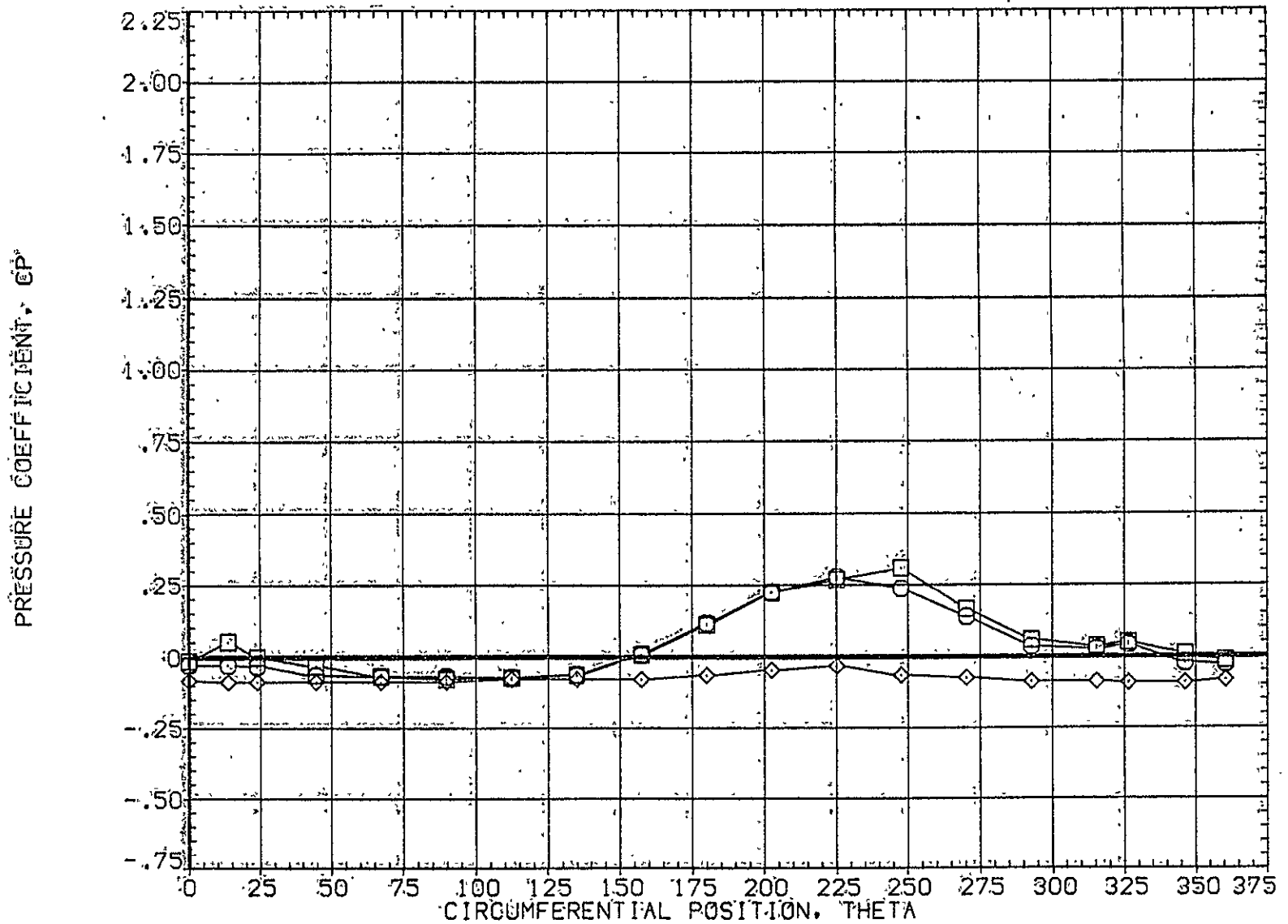


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

C-4

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A090)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	28.700	3.480	MOUNT	1.000	PHI	45.000
□	.108						
◇	.162						

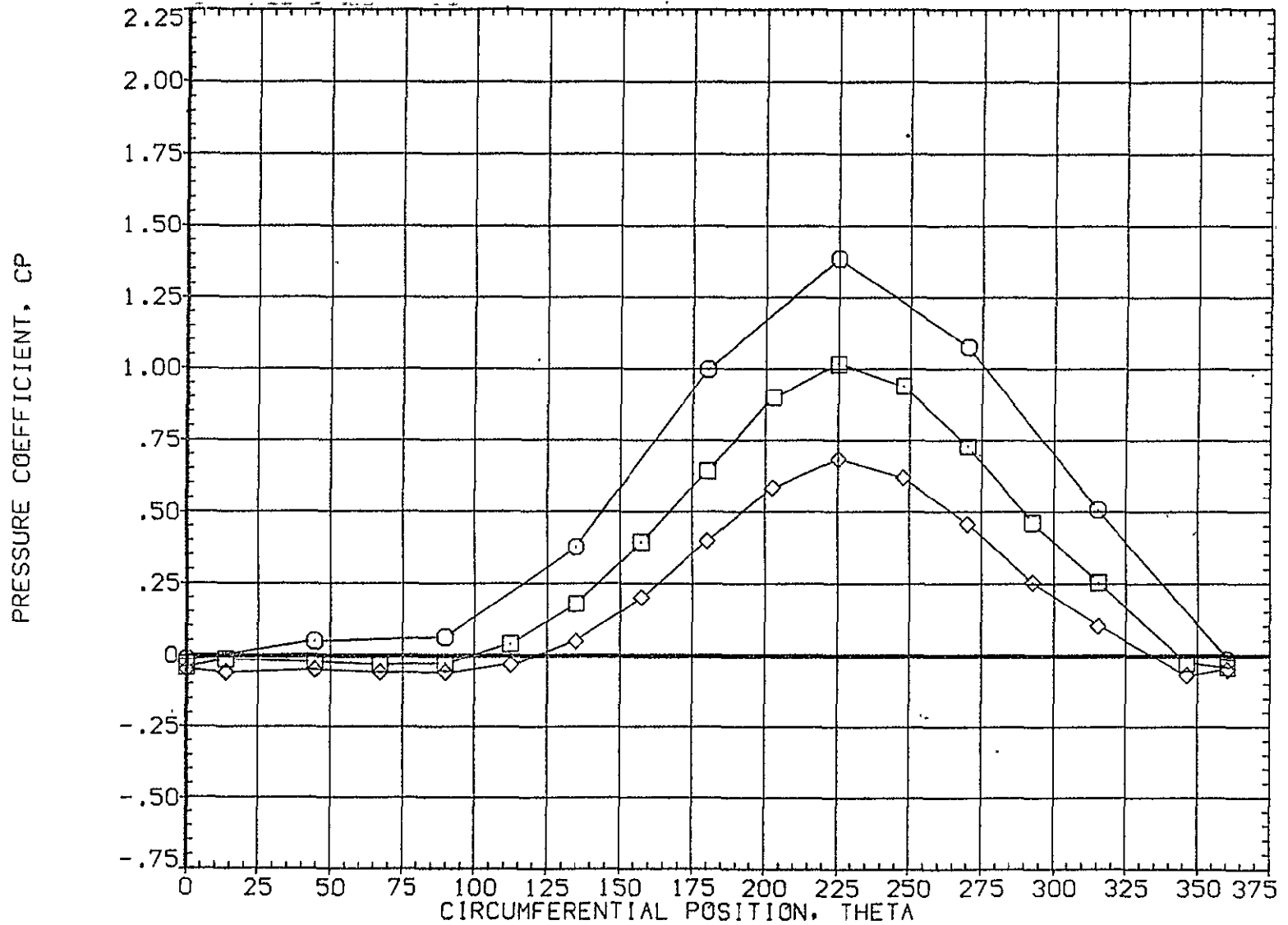


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 28.700 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 45.000

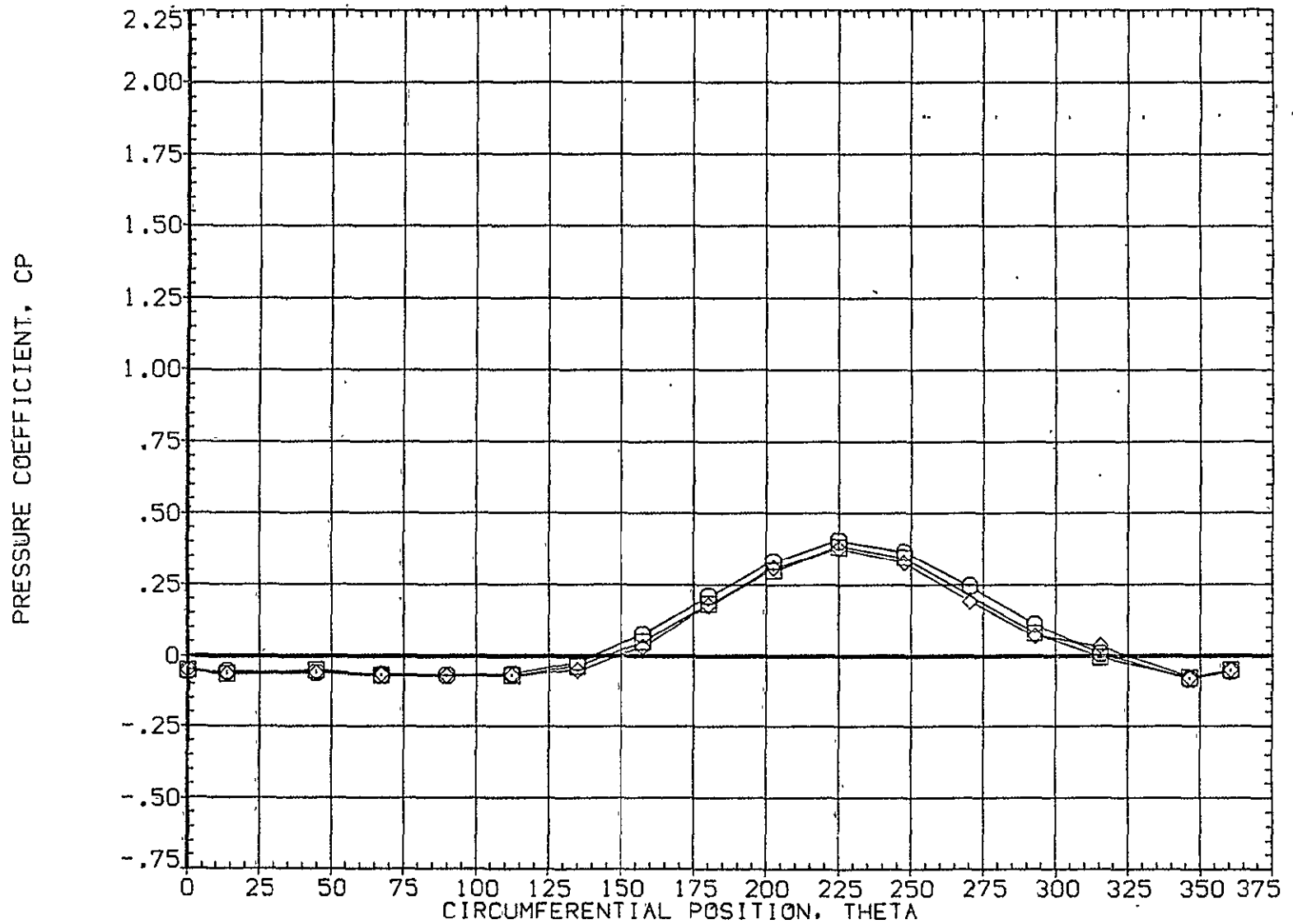


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A090)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	28.700	3.480		.000		20.000
□	.735			MOUNT	1.000		45.000
◇	.860						

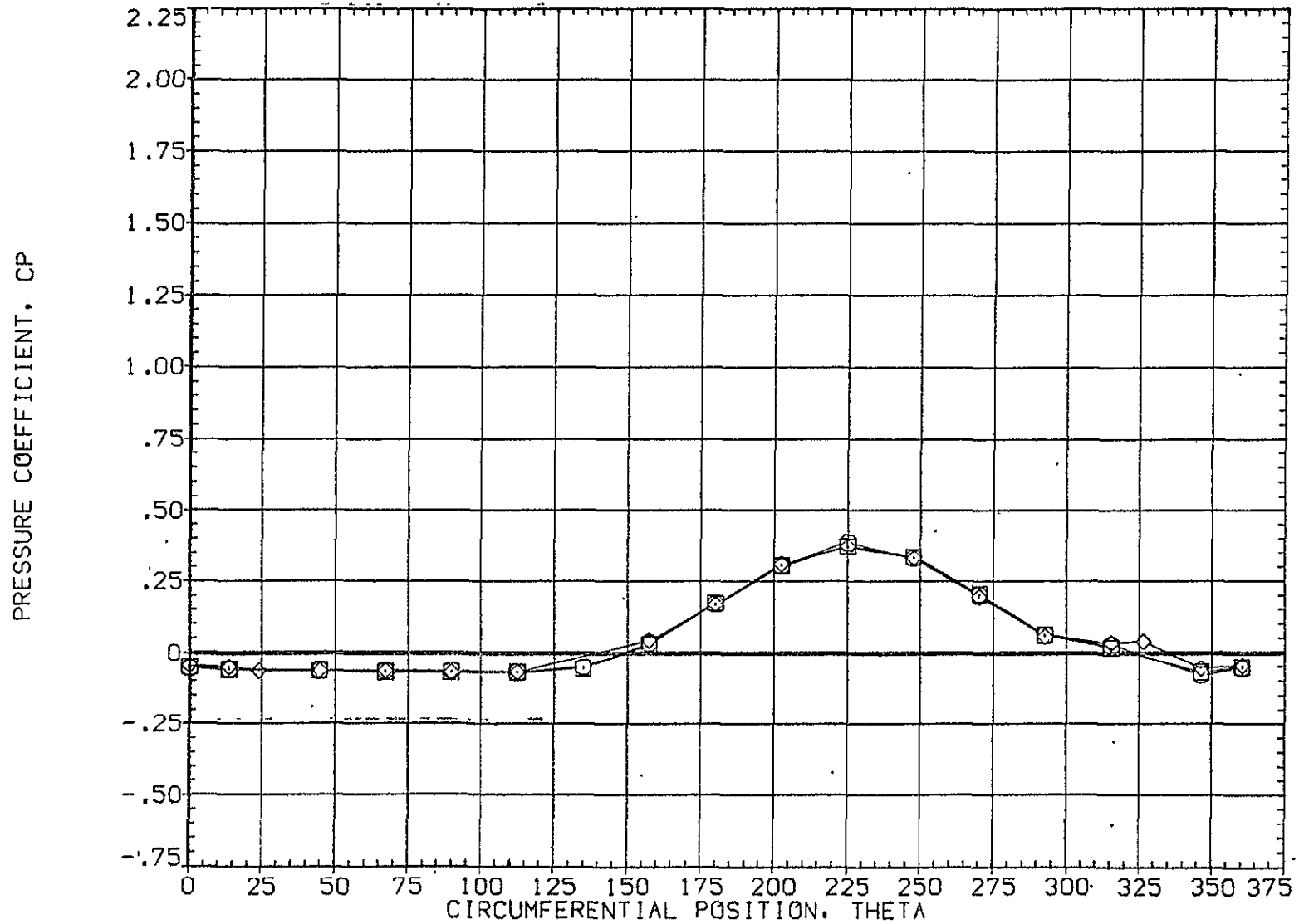


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	28.700	3.480	.000	20.000	
□	.923			1.000	PHI	45.000
◇	.954					

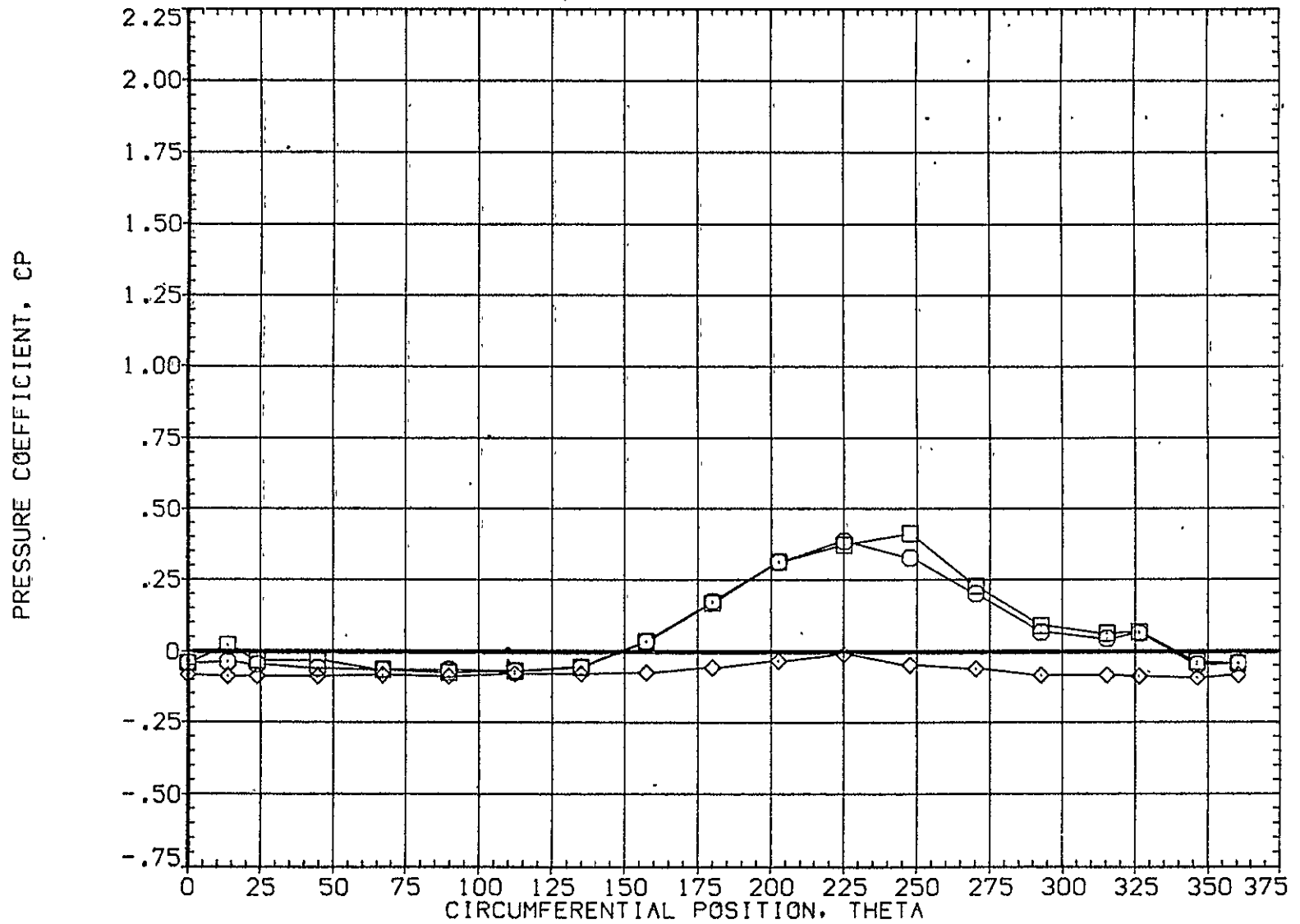


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA, MOUNT	OFFSET PHI	,000
○	.055	-8.360	3.480	.000		.000
□	.108			1.000		90.000
◇	.162					

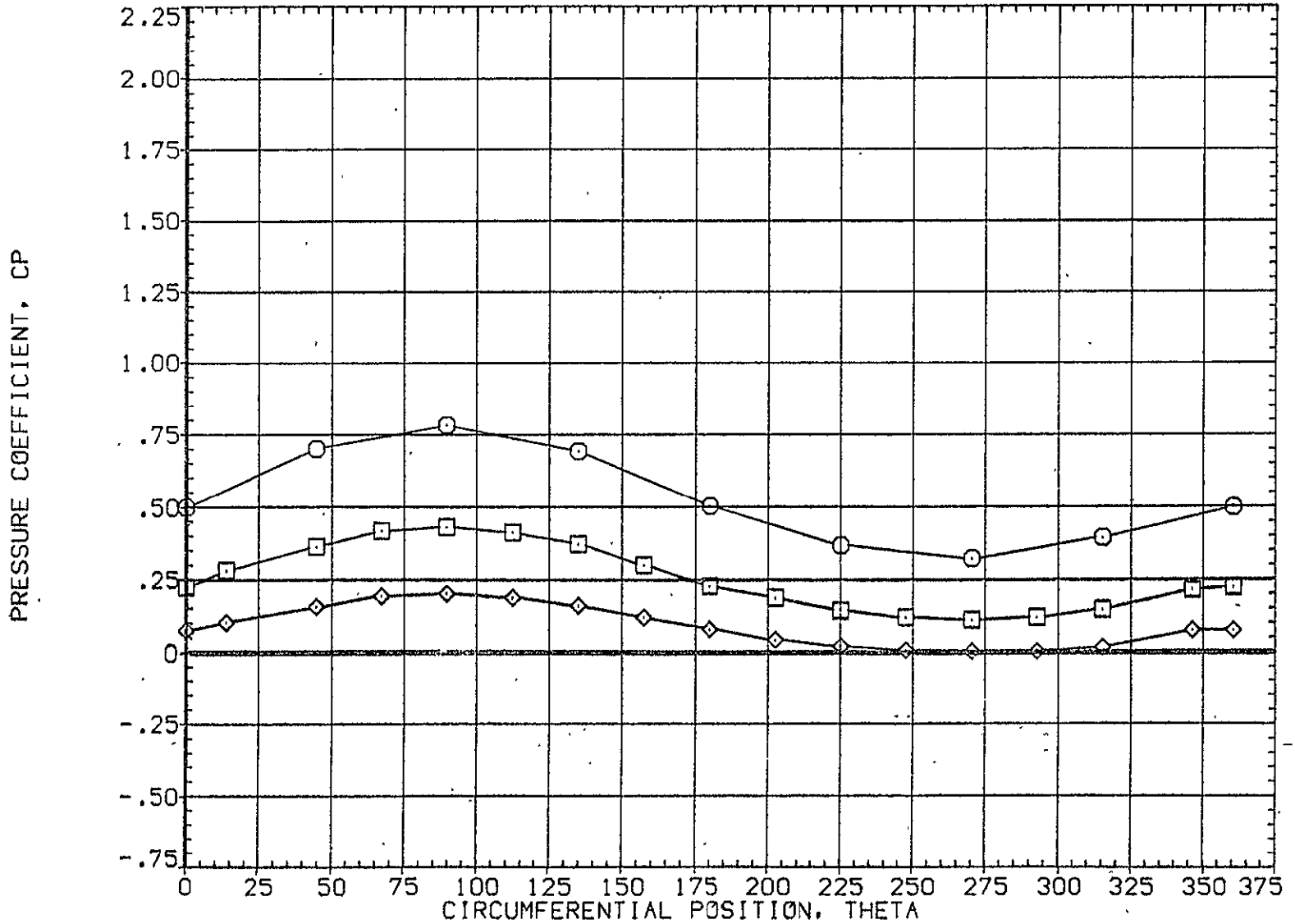


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.360	3.480	.000	.000	.000
□	.322			1.000	PHI	90.000
◇	.518					

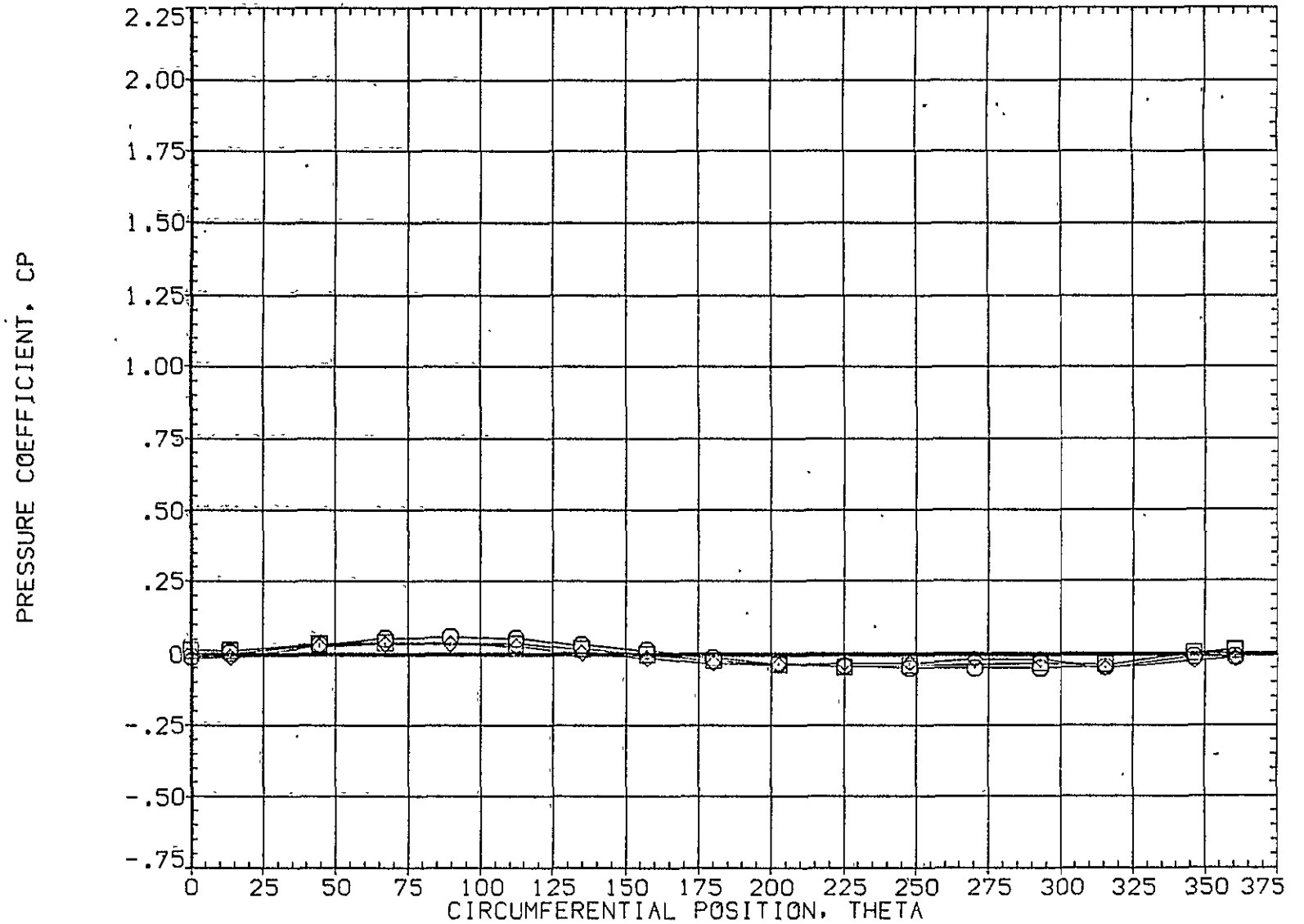


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.610	-8.360	3.480	MOUNT	1.000	90.000	
□	.735						
◇	.860						

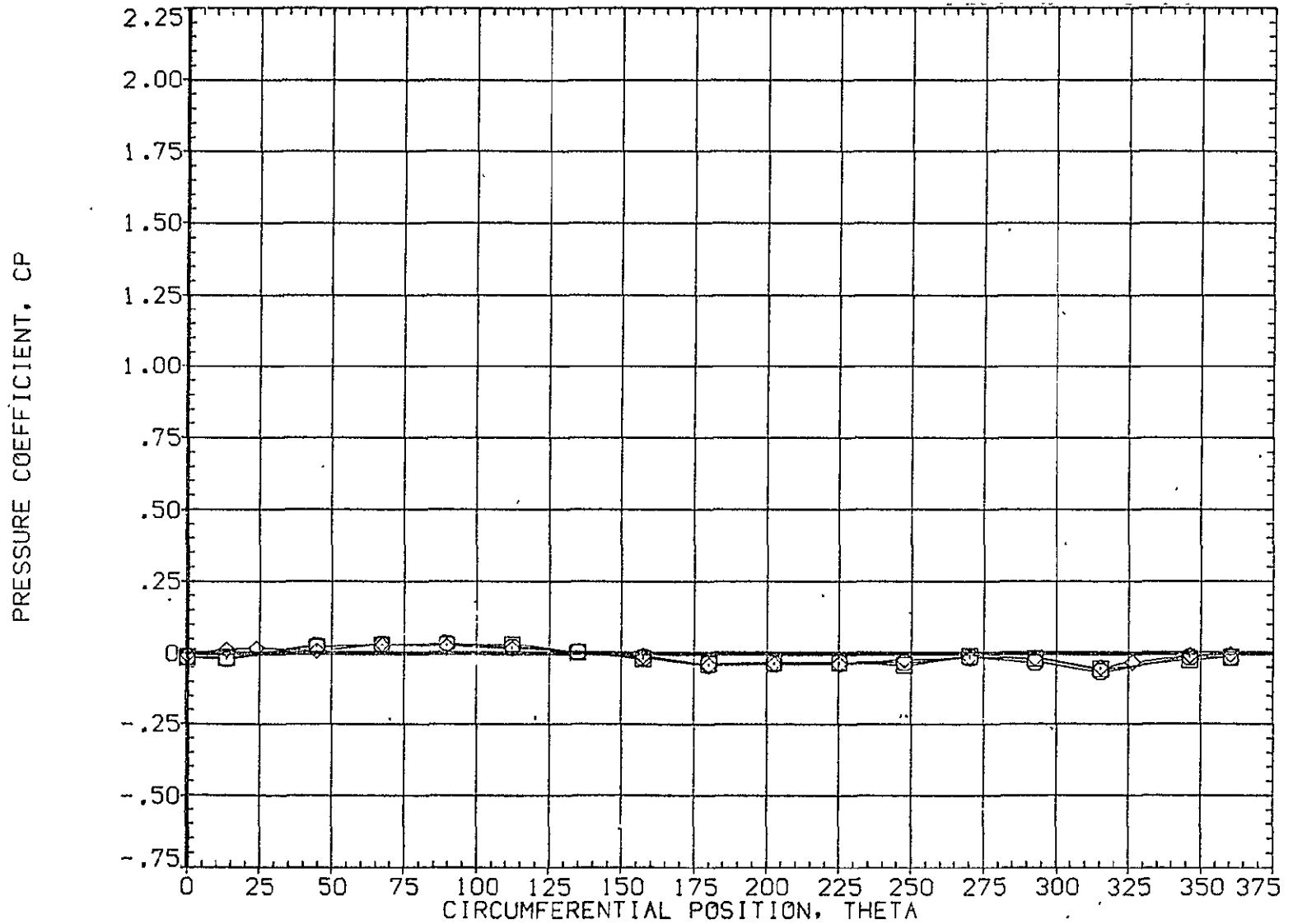


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	-8.360	3.480	.000	.000	.000
□	.923			1.000	PHI	90.000
◇	.954					

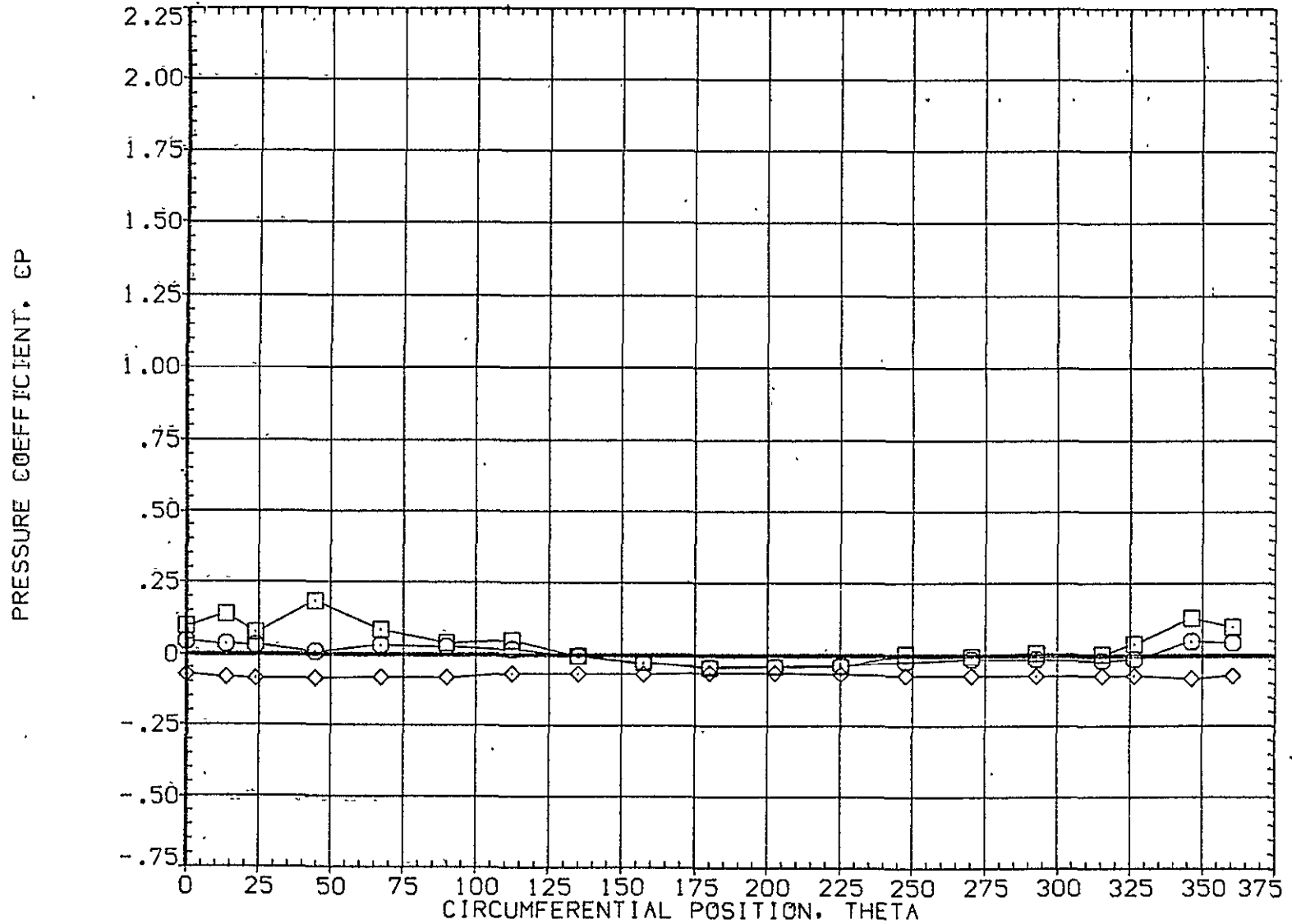


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.330	3.480	.000	.000	.000
□	.108			1.000		90.000
◇	.162					

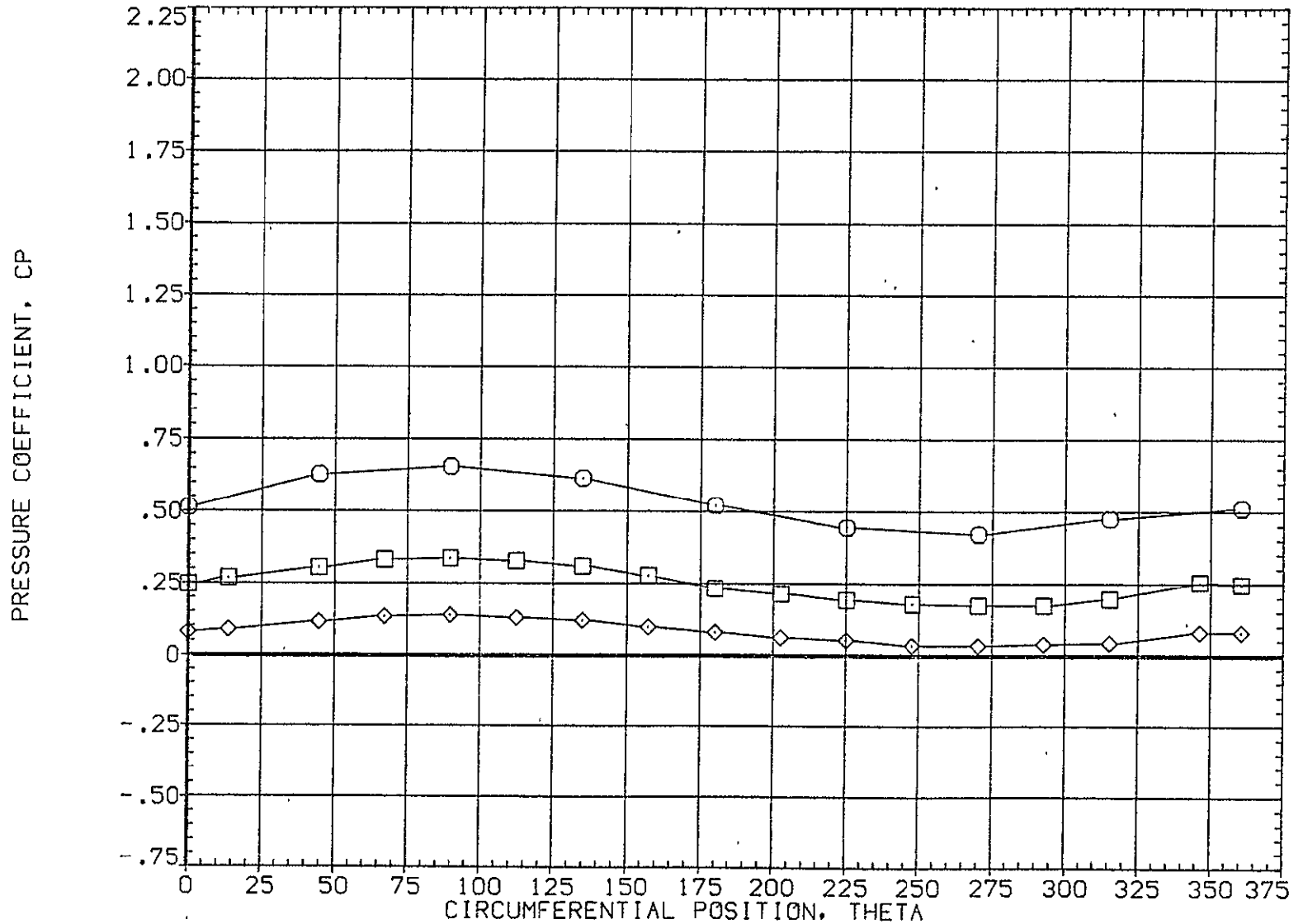


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	ANGLE
○	.216	-4.330	3.480	.000		.000
□	.322			1.000	PHI	90.000
◇	.518					

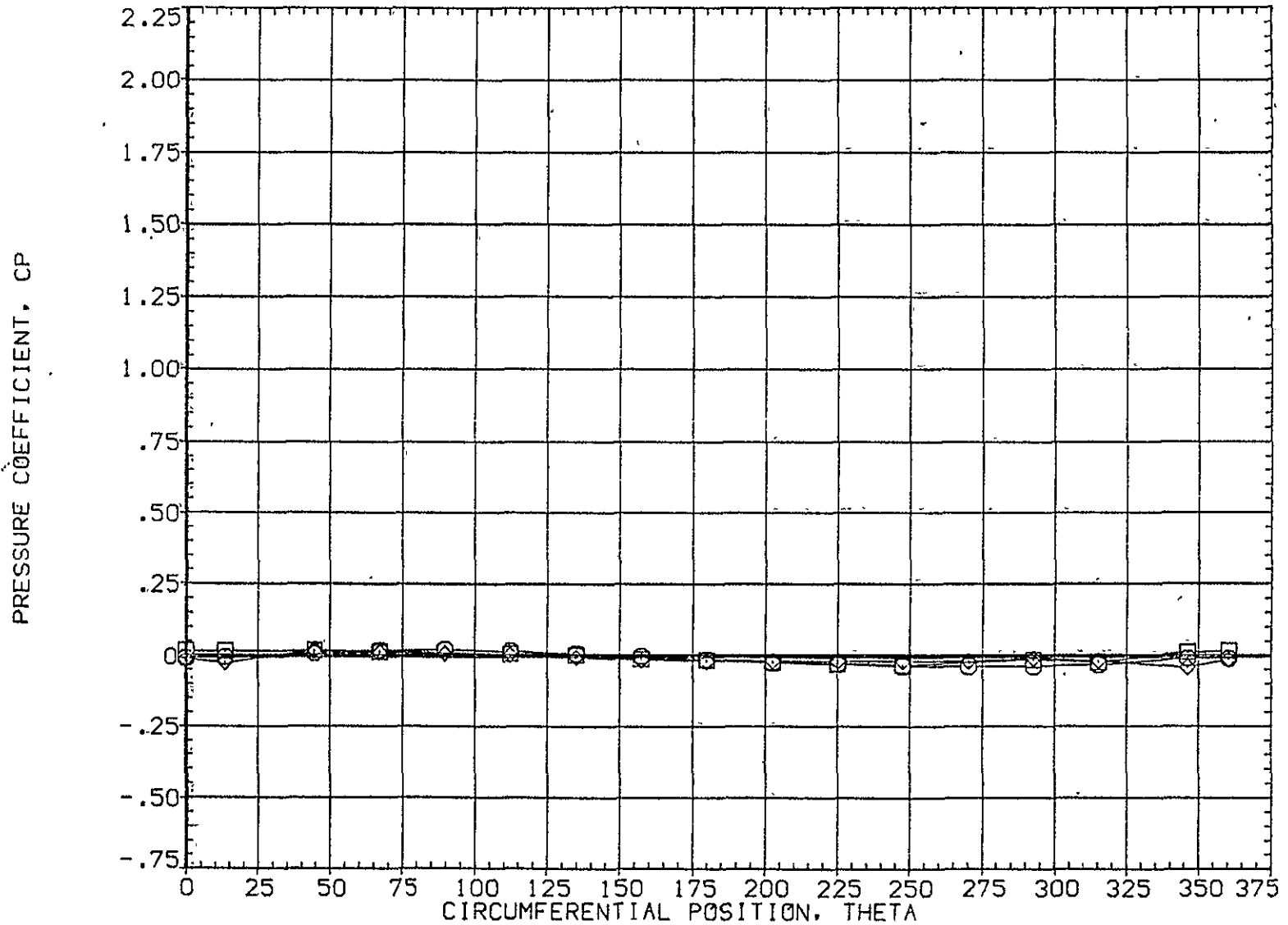


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(PIA012)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.330	3.480	.000	.000	.000
□	.735			1.000		90.000
◇	.860					

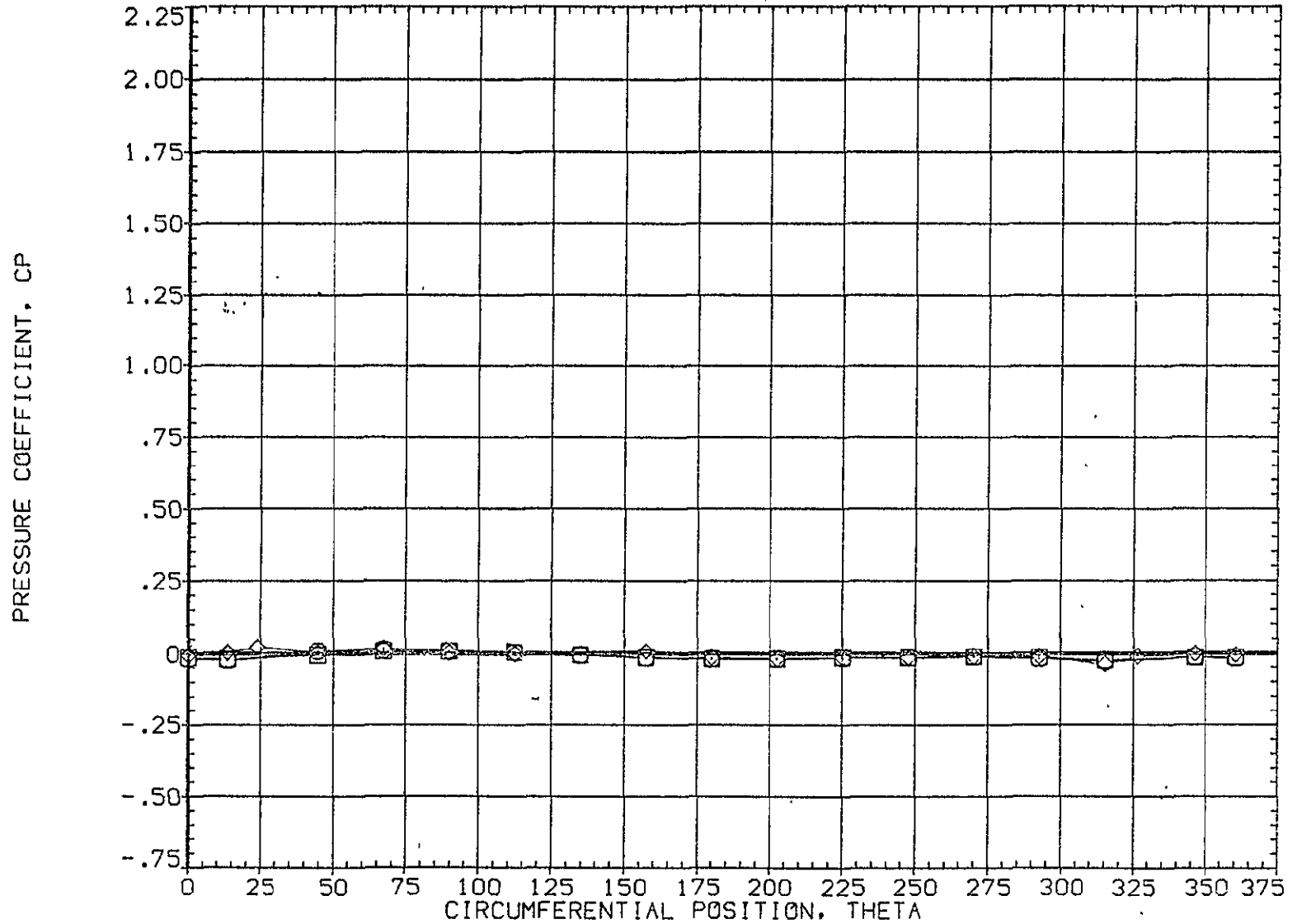


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.330	3.480	.000	.000	.000
□	.923			1.000	PHI	90.000
◇	.954					

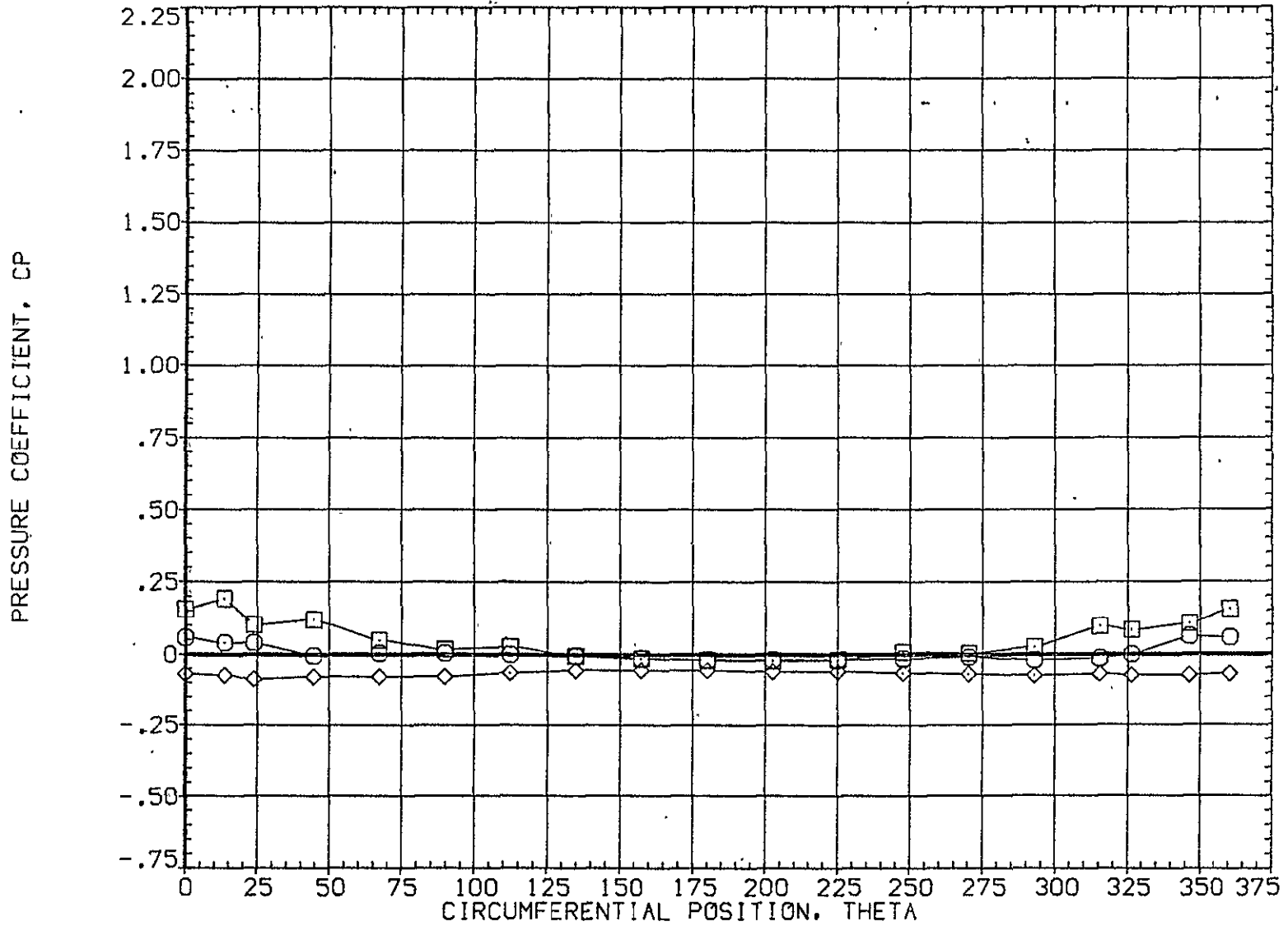


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-.280	3.480	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

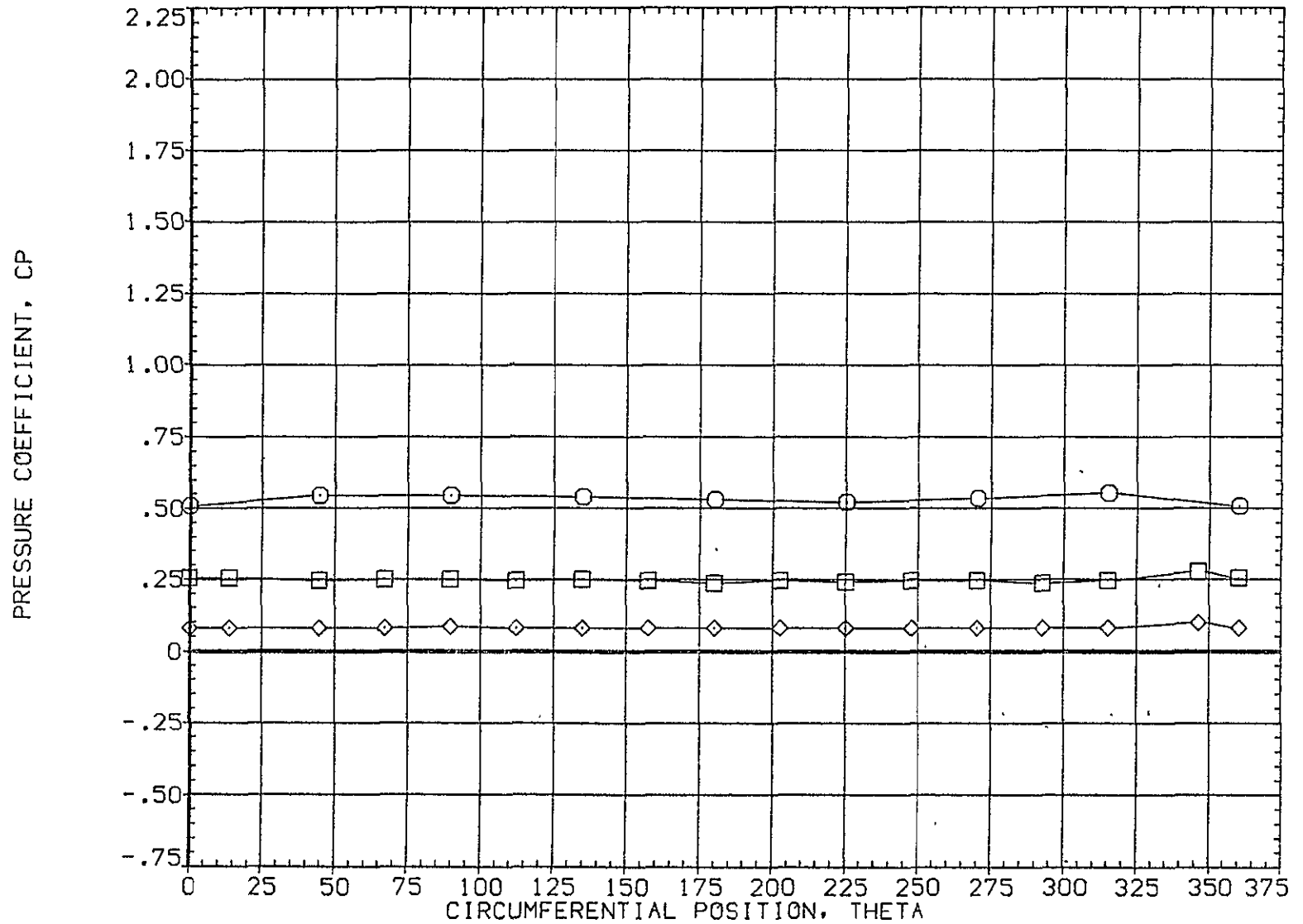


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-.280	3.480	.000	.000	.000
□	.322			1.000		90.000
◇	.518					

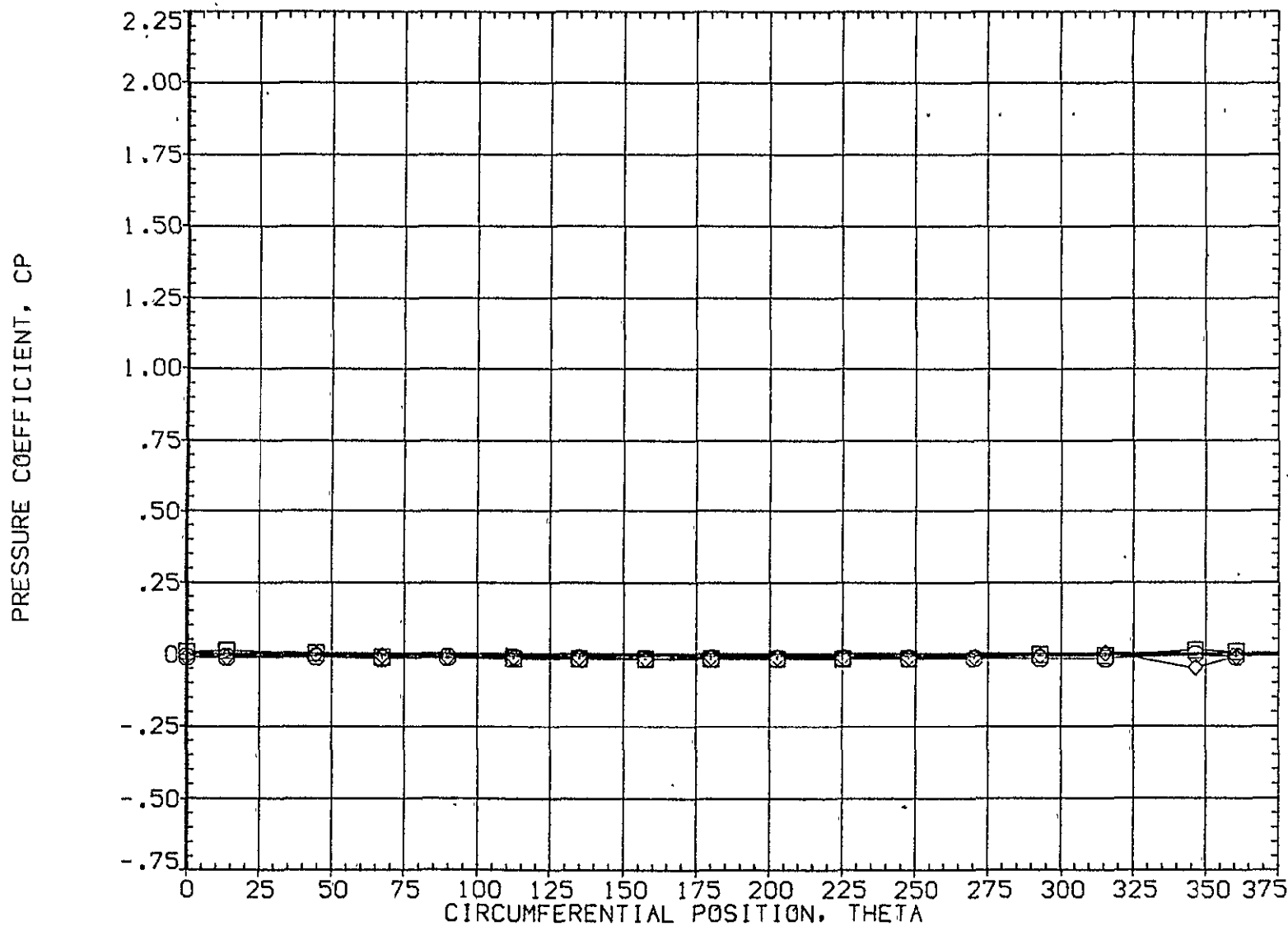


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A013)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-.280	3.480	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

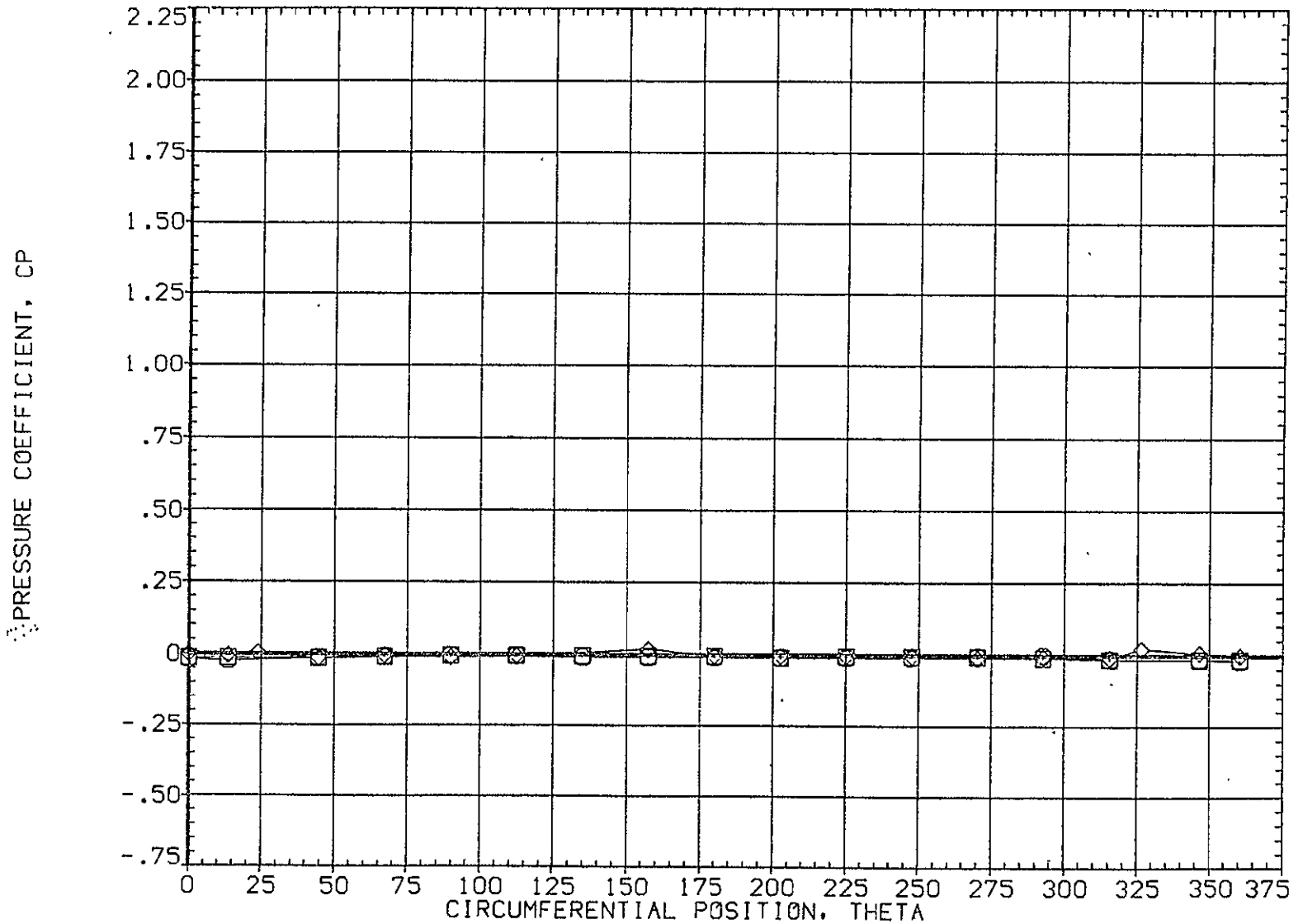


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	3.480	MOUNT	.000	.000
□	.923				1.000	90.000
◇	.954					

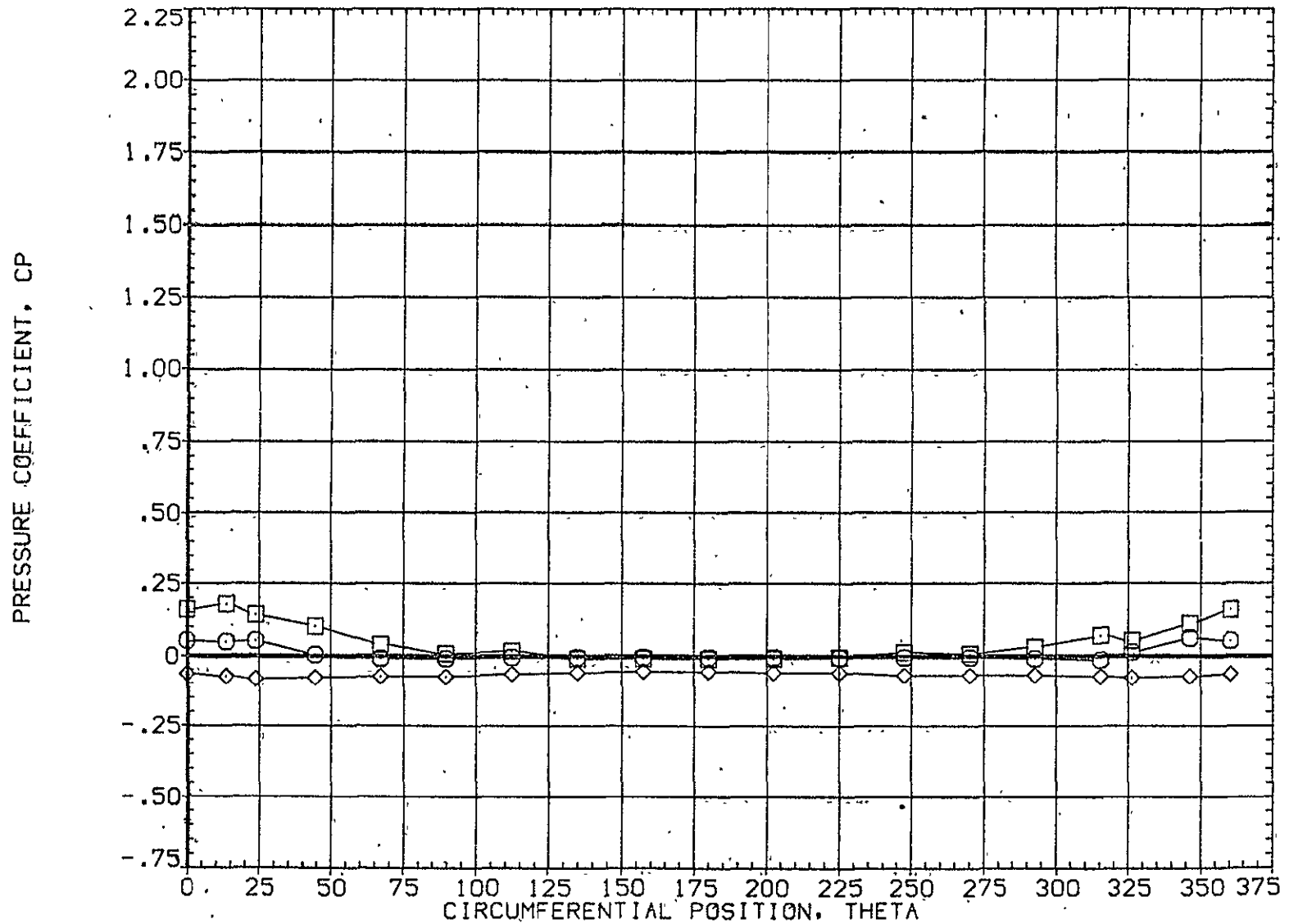


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.770	3.480	.000	.000	.000
□	.108			1.000		90.000
◇	.162					

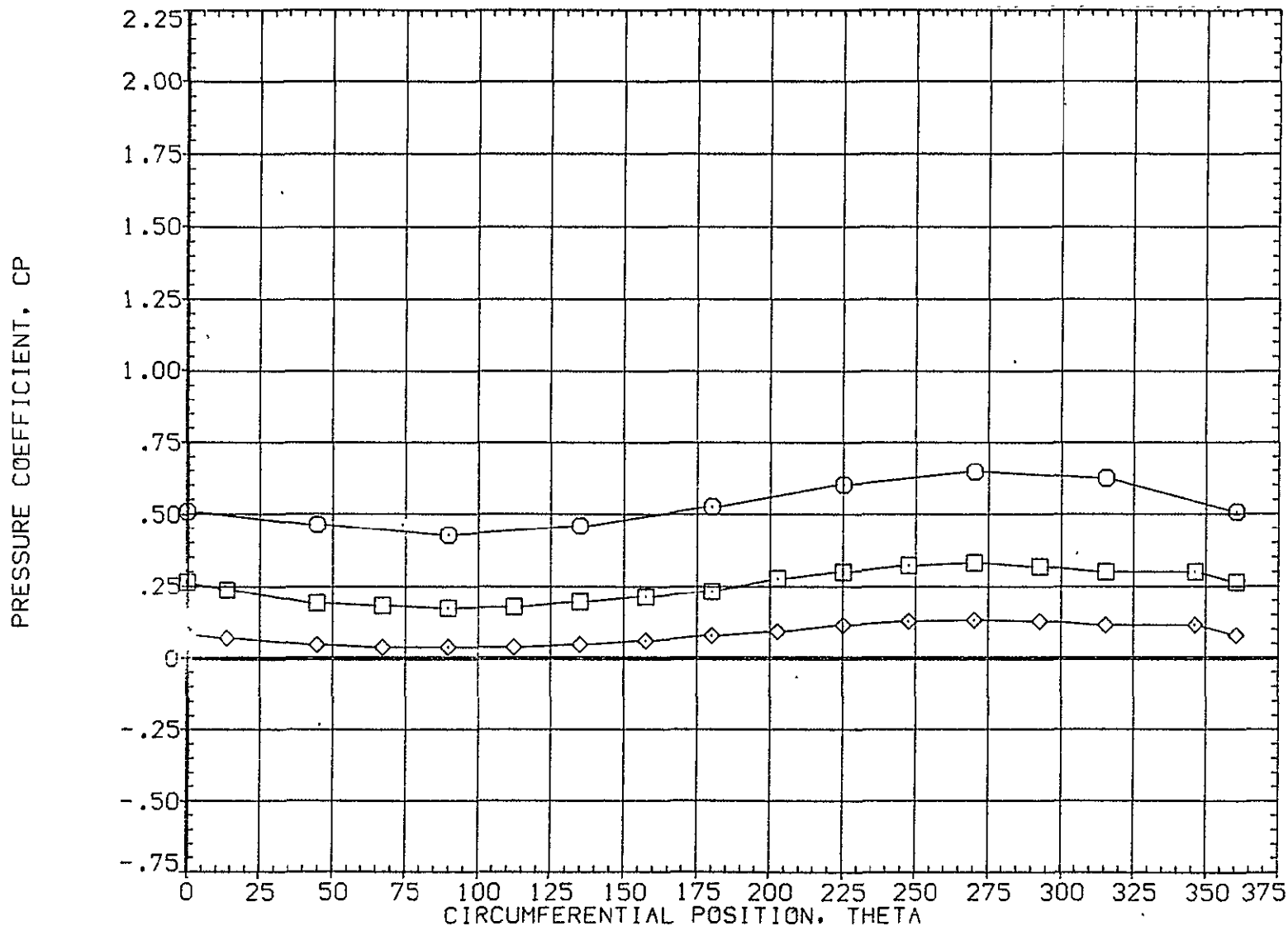


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB	ALPHA	MACH
.216	3.770	3.480
.322		
.518		

PARAMETRIC VALUES			
BETA	OFFSET	PHI	
.000	.000		.000
MOUNT	1.000		90.000

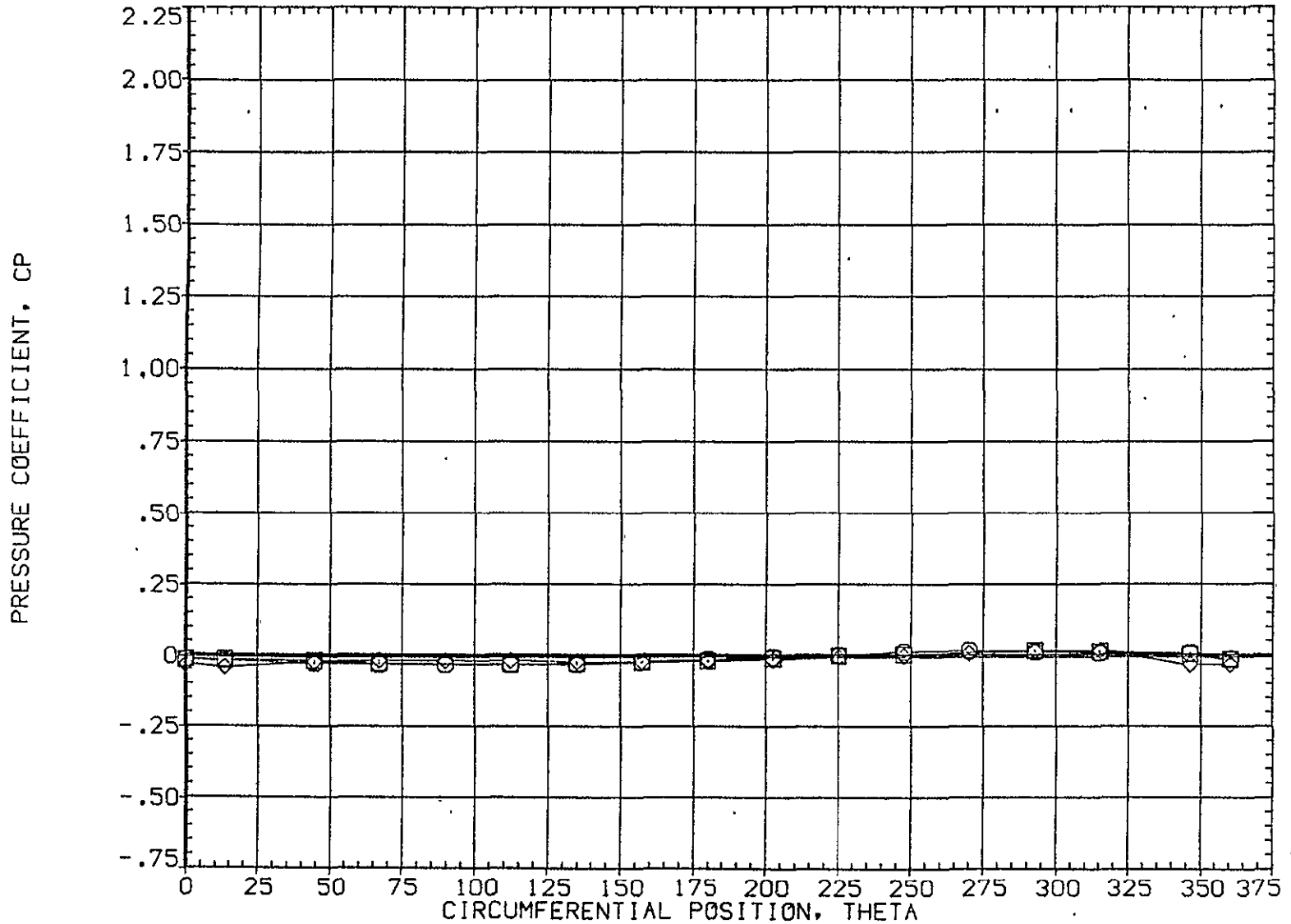


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	3.770	3.480	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

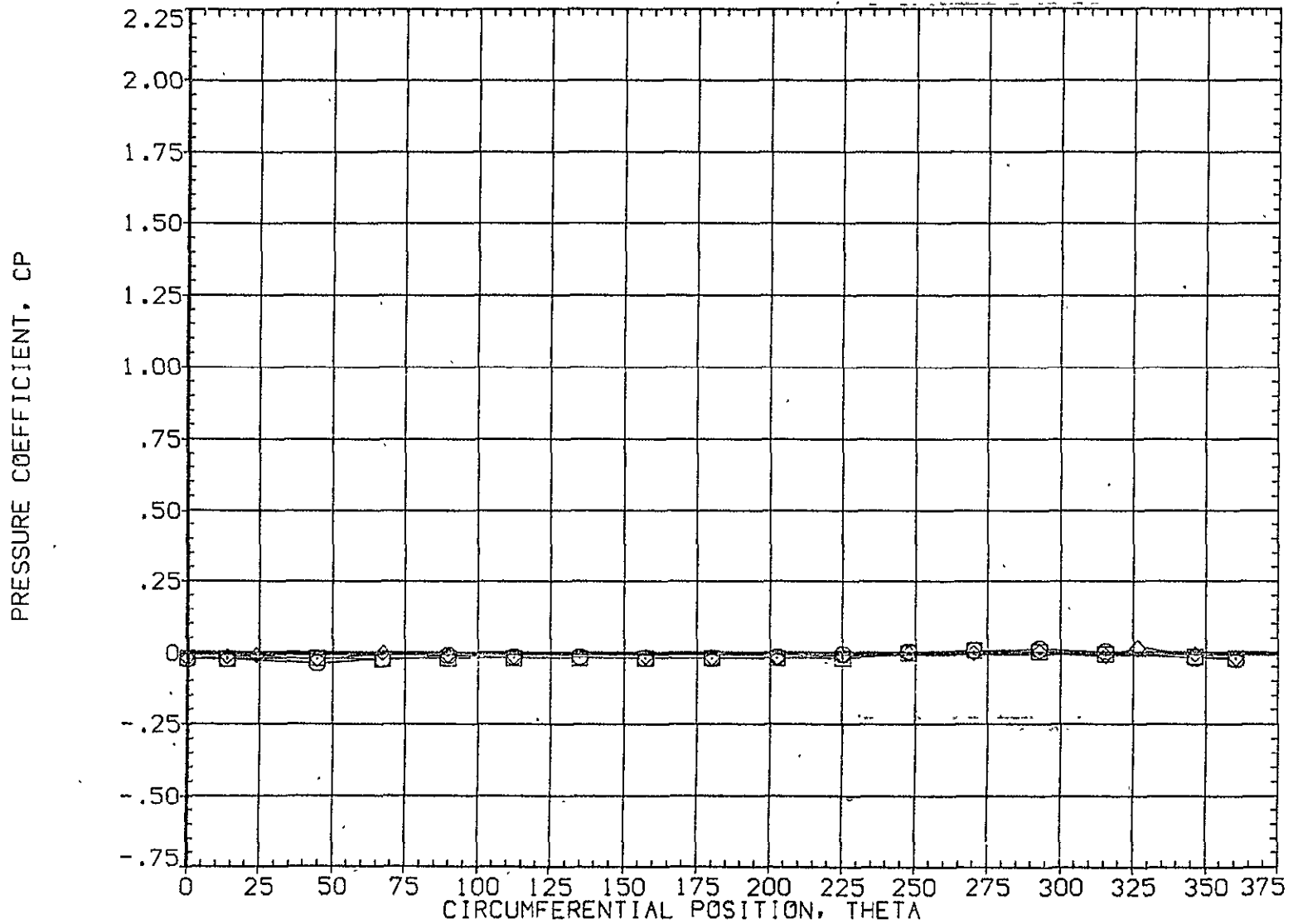


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	3.770	3.480	MOUNT	1.000	PHI	90.000
□	.923						
◇	.954						

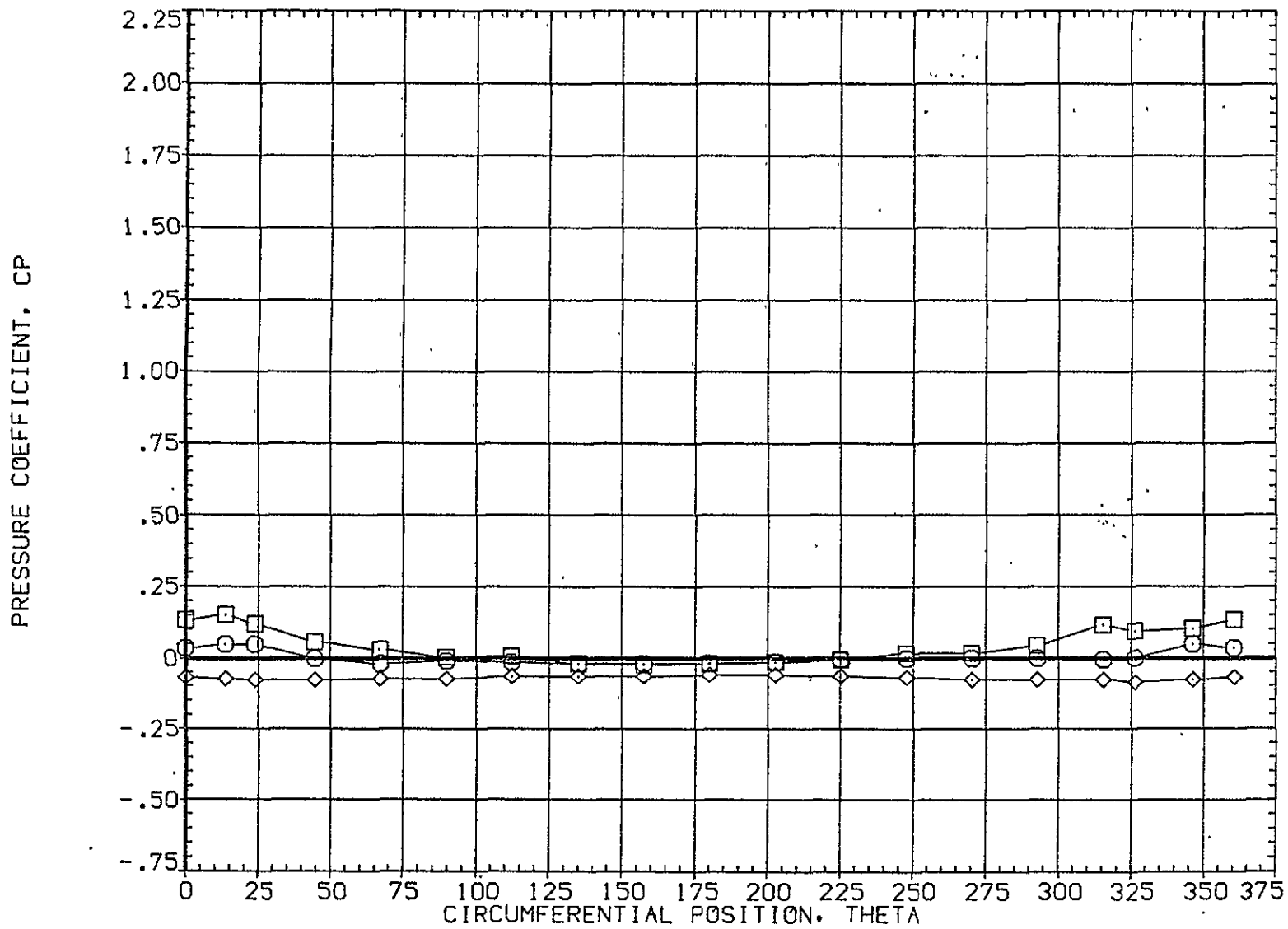


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A015)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	7.800	3.480	.000	.000	.000
□	.108			1.000		90.000
◇	.162					

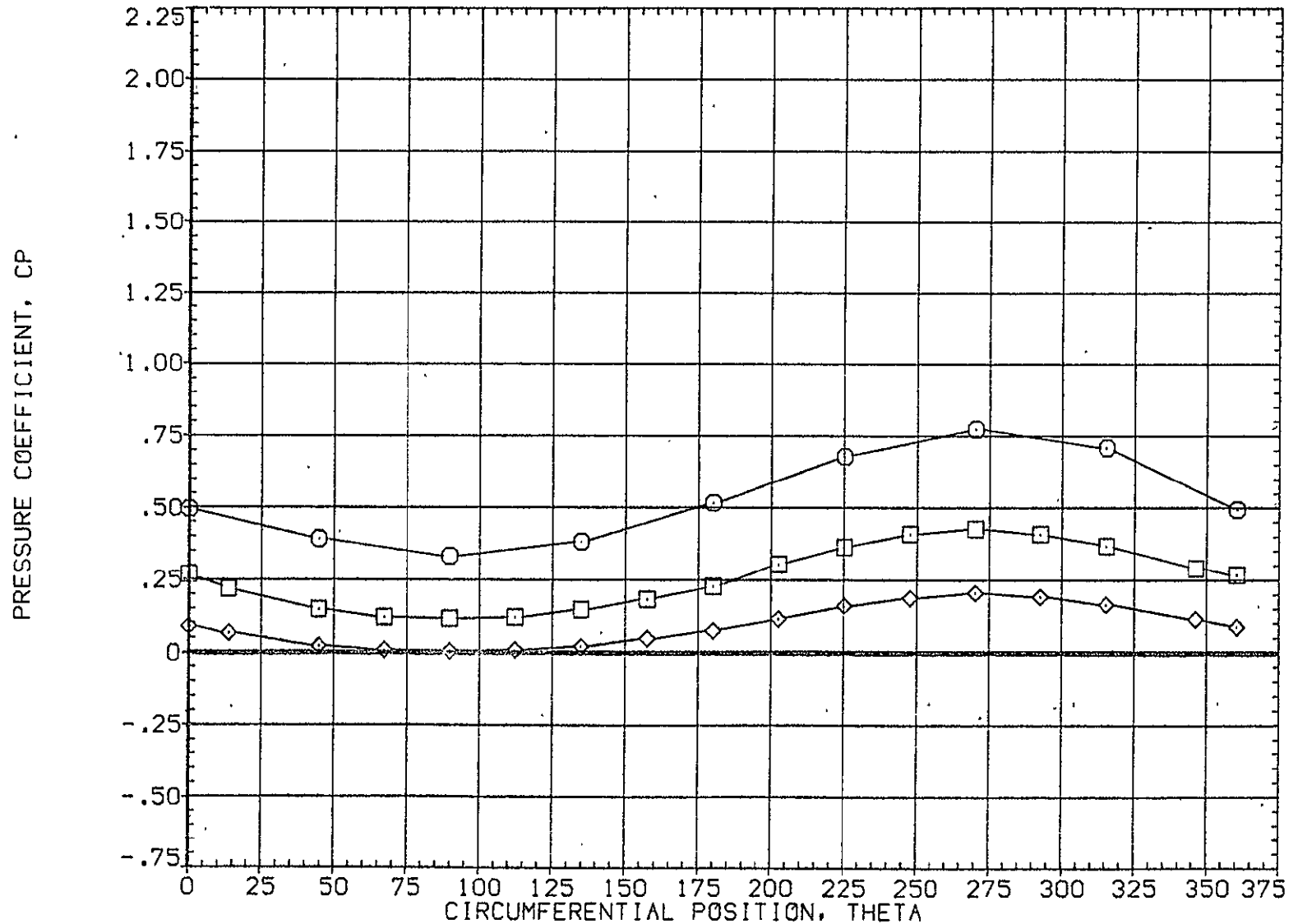


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET		
○	.216	7.800	3.480	MOUNT	.000	PHI	.000
□	.322				1.000		90.000
◇	.518						

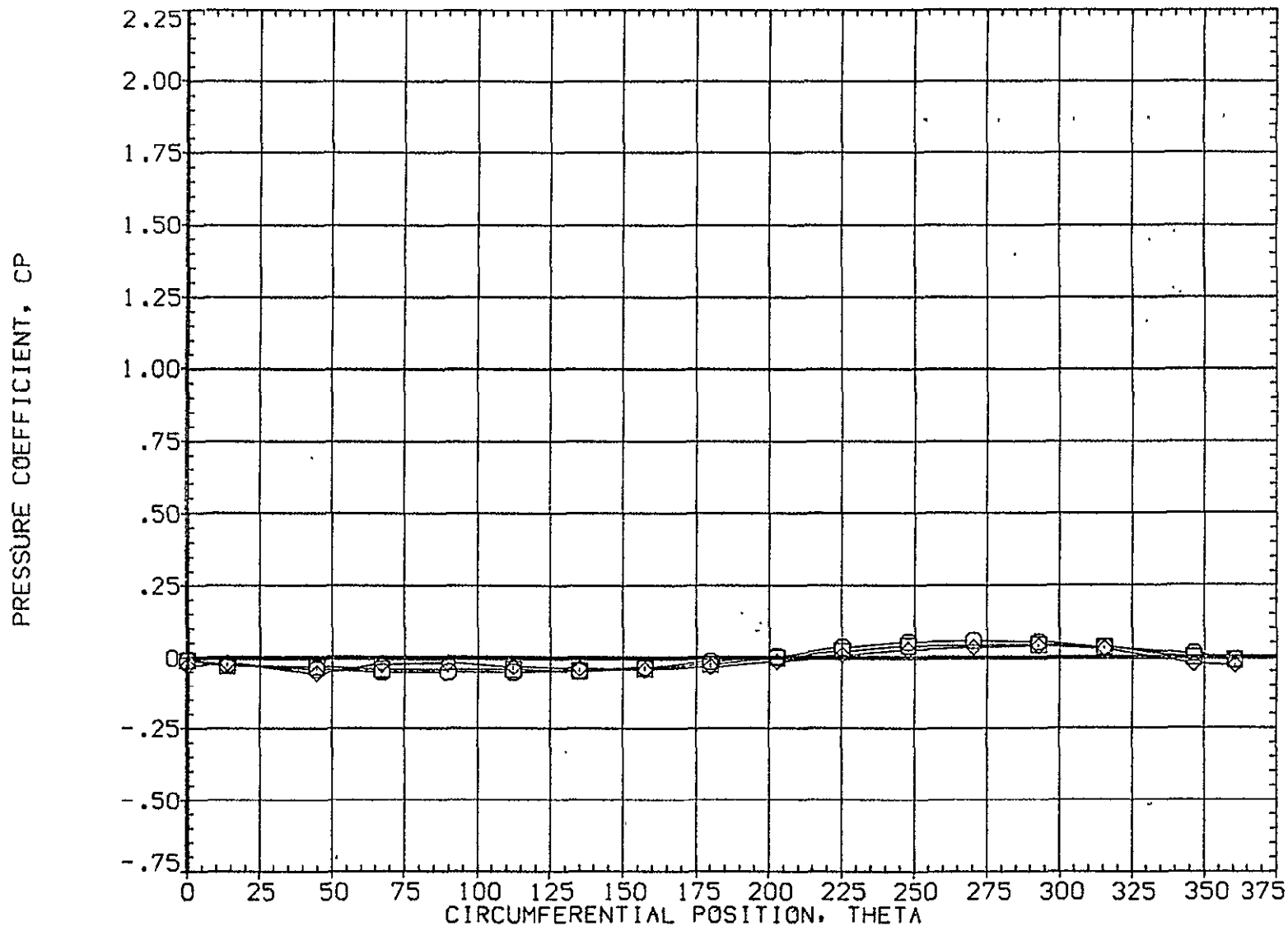


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	7.800	3.480	.000	.000	.000
□	.735			1.000		90.000
◇	.860					

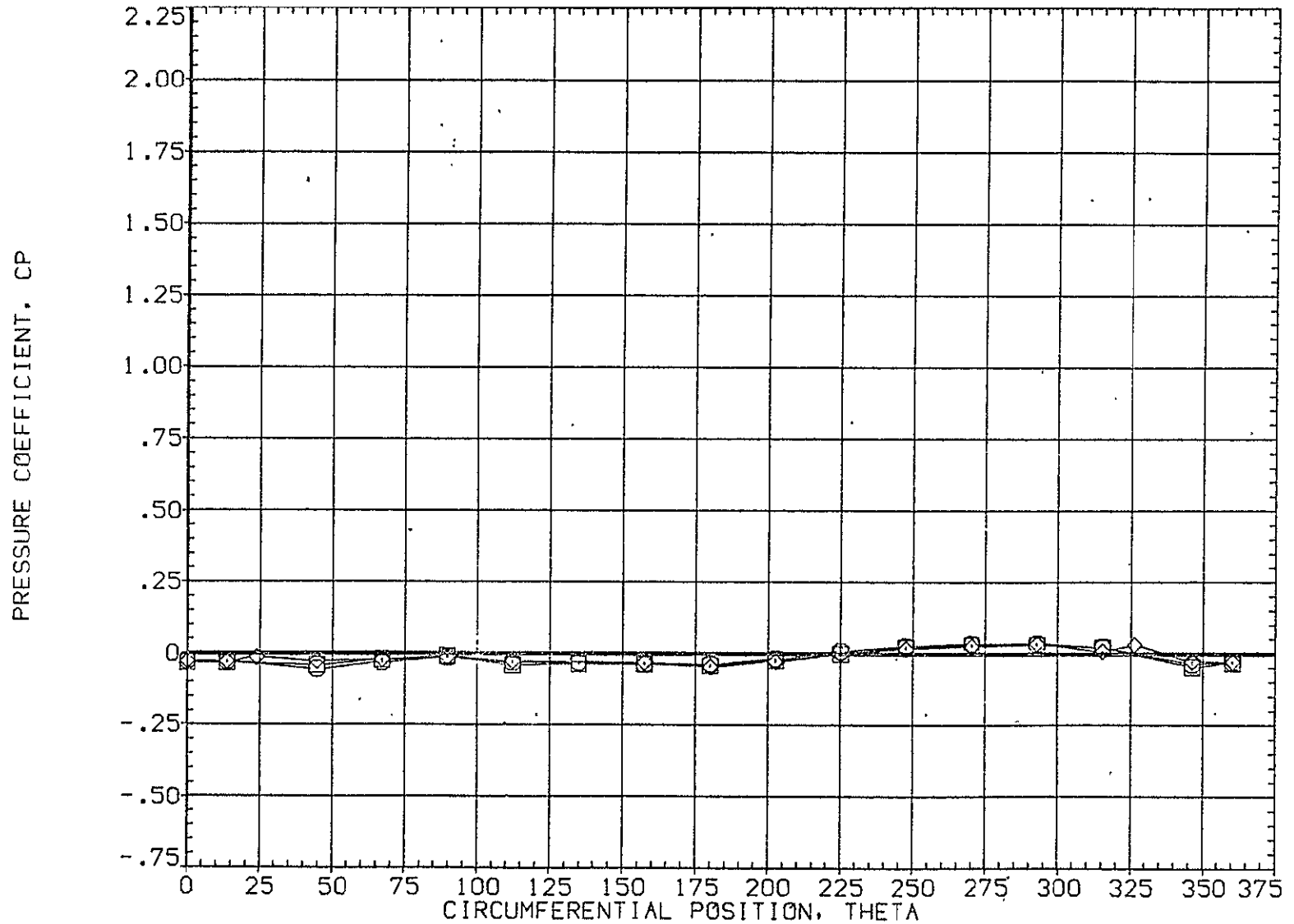


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	7.800	3.480	.000	.000	.000
□	.923			1.000		90.000
◇	.954					

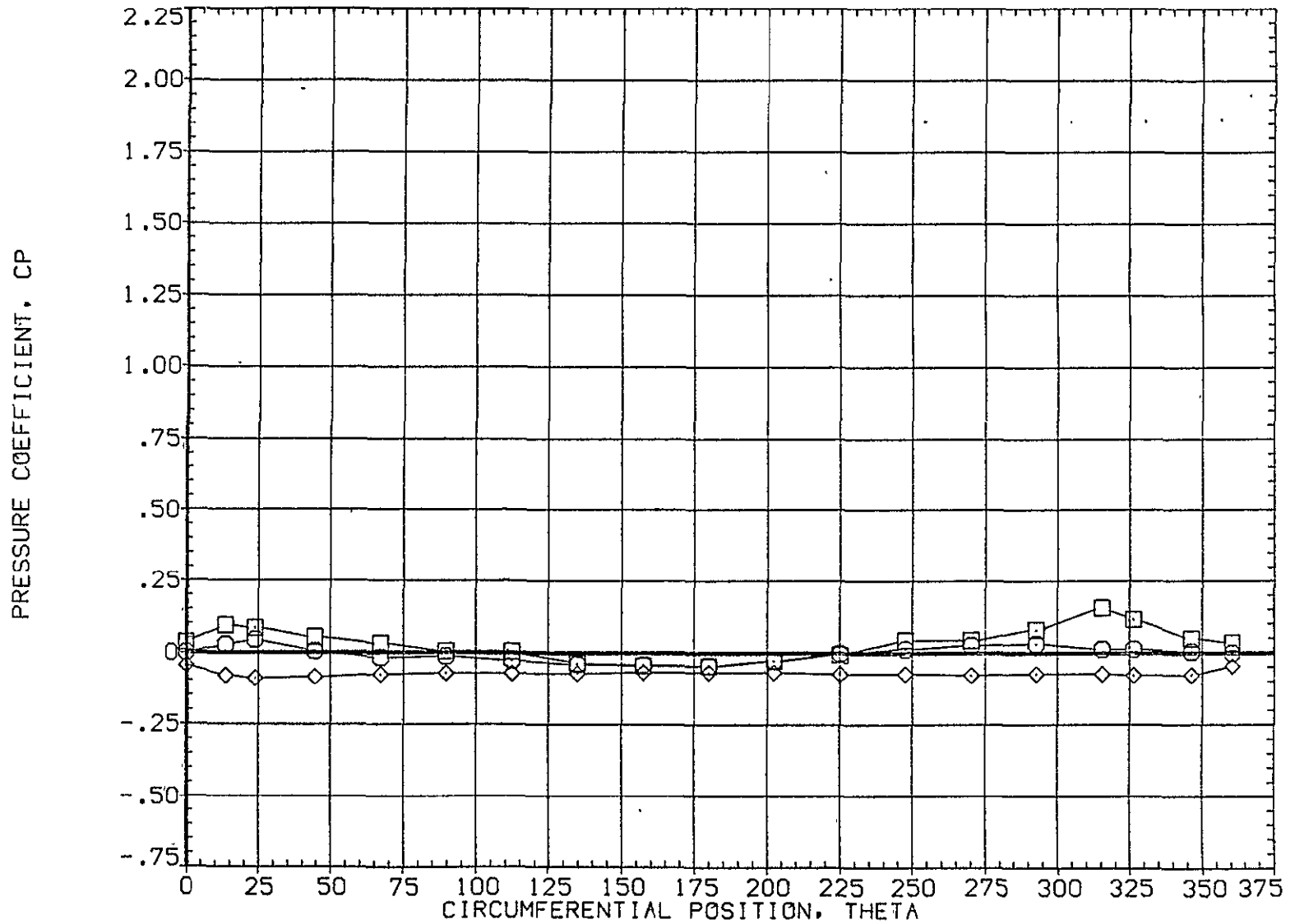


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	12.520	3.480	.000	20.000	
□	.108			1.000	90.000	
◇	.162					

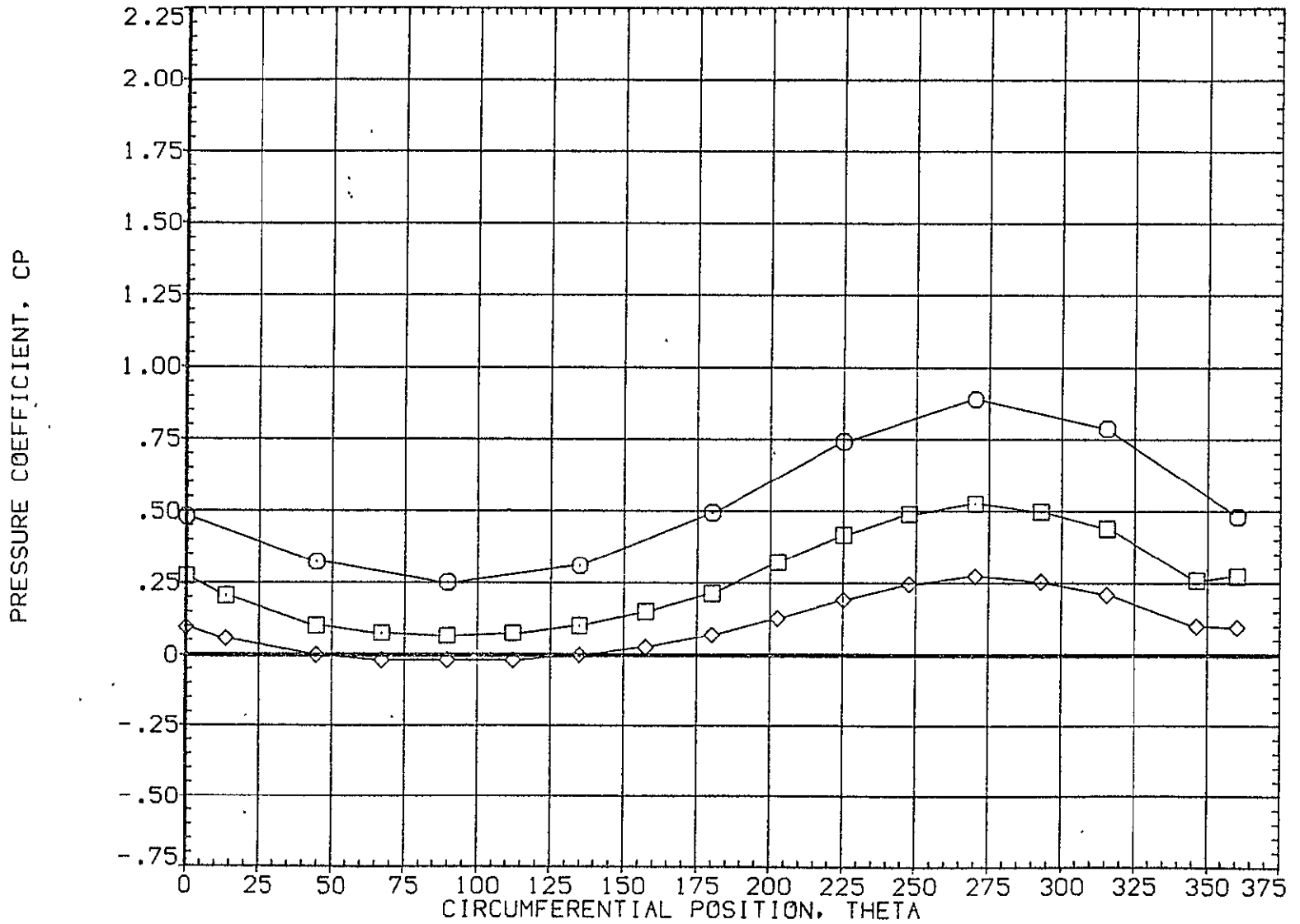


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.216	12.520	3.480	BETA	.000	OFFSET	20.000
□	.322			MOUNT	1.000	PHI	90.000
◇	.518						

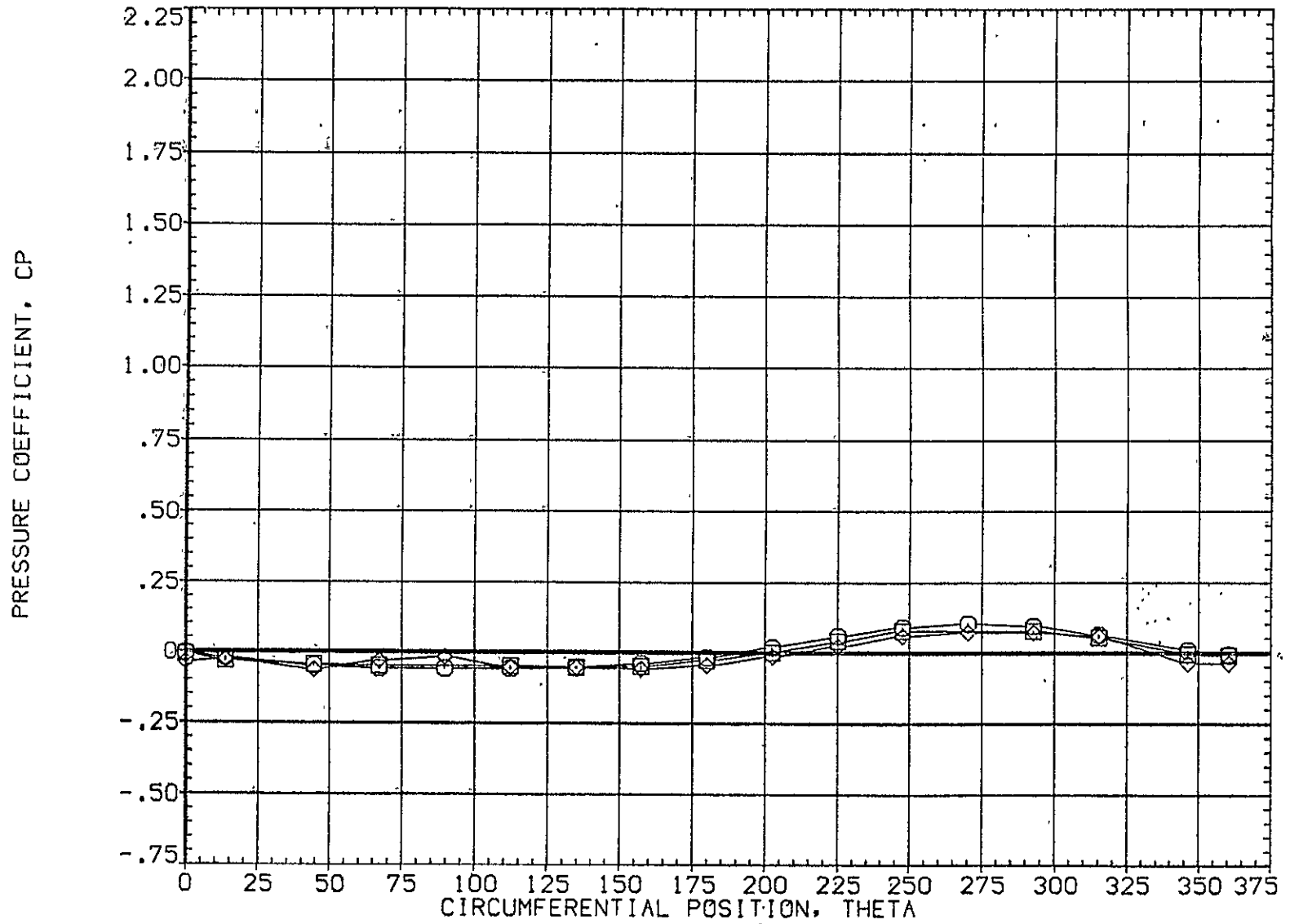


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	12.520	3.480	.000			20.000
□	.735			1.000			90.000
◇	.860						

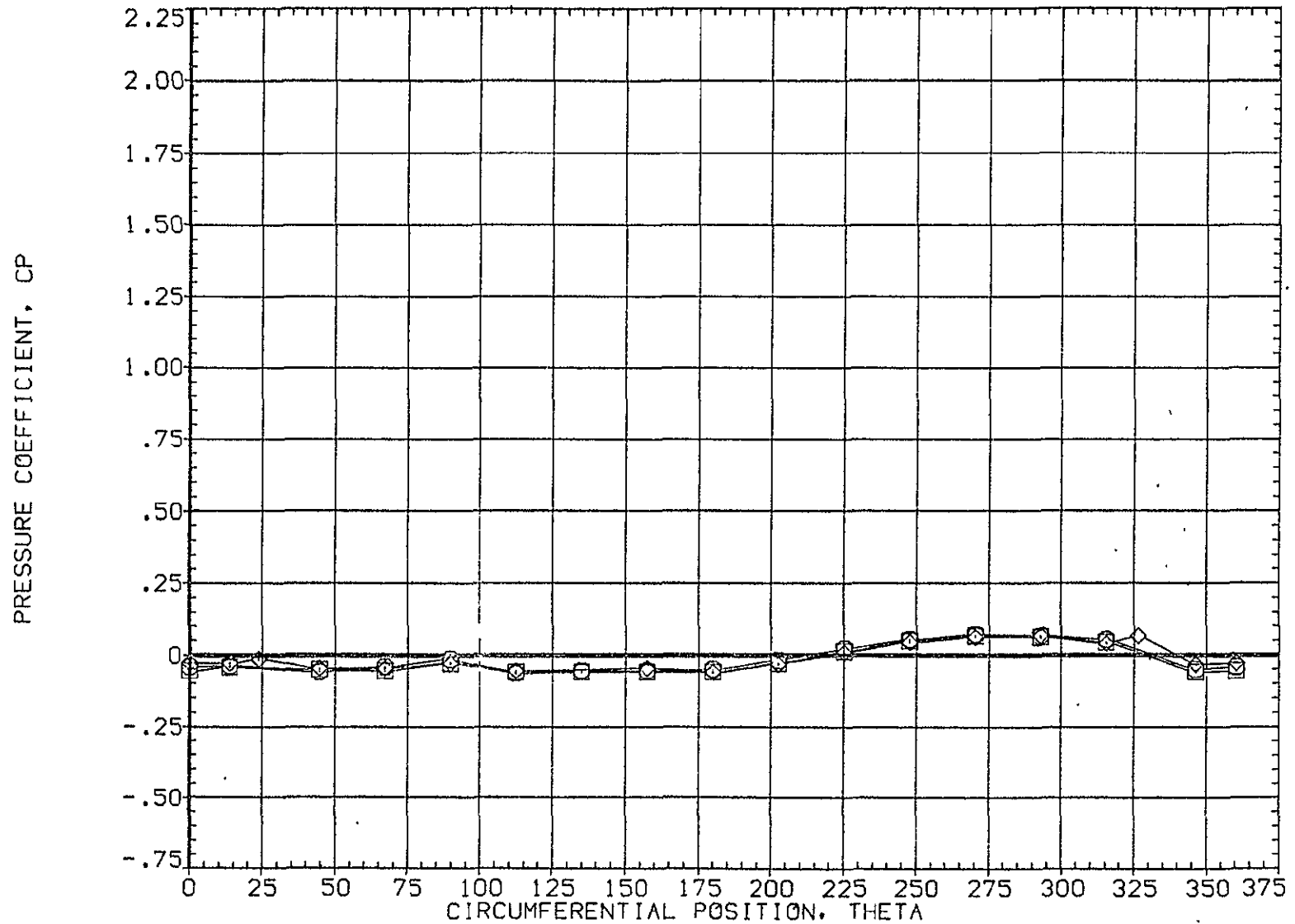


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 12.520
 MACH 3.480

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 90.000

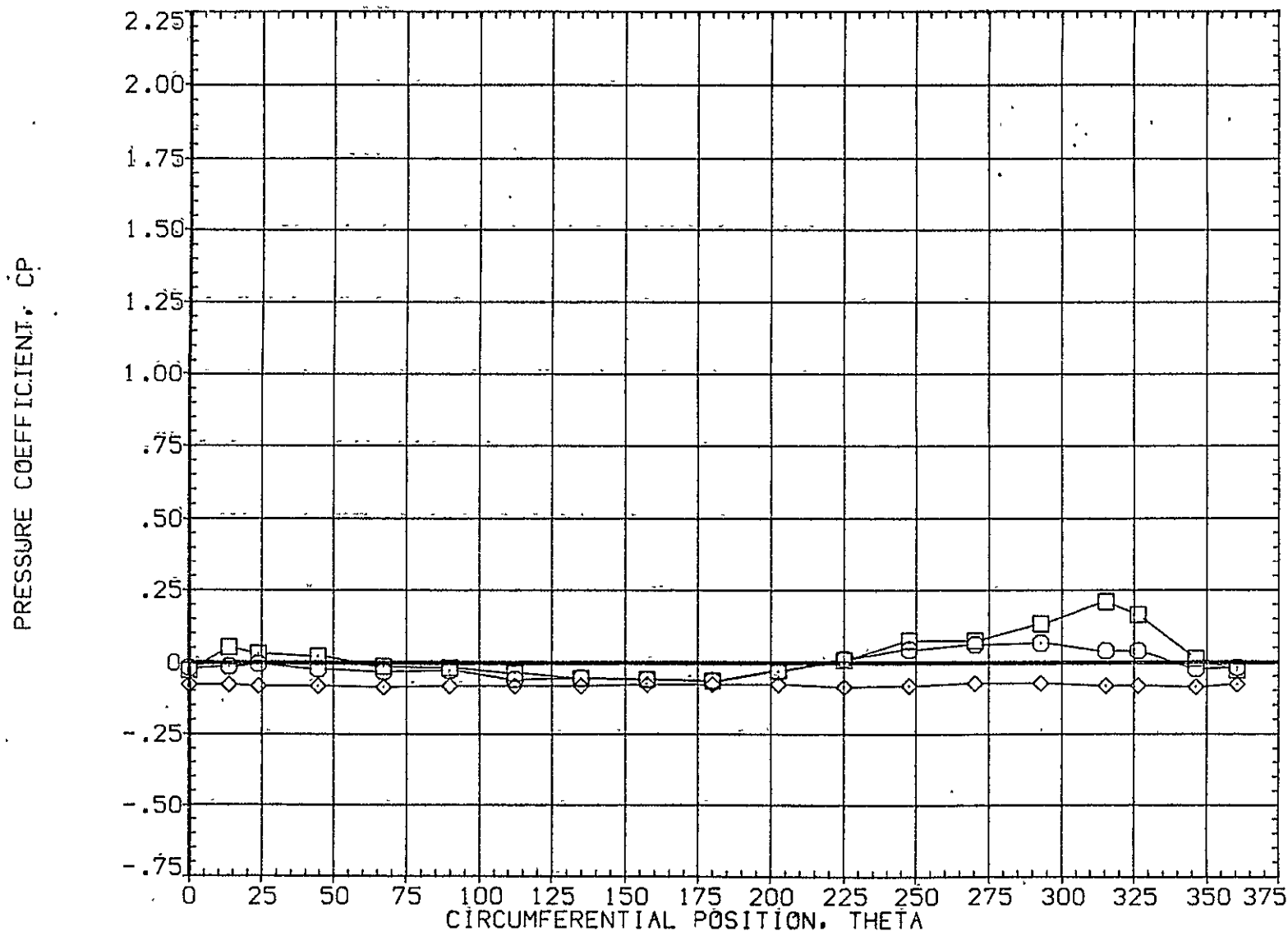


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.055	16.560	3.480	BETA	.000	OFFSET	20.000
□	.108			MOUNT	1.000	PHI	90.000
◇	.162						

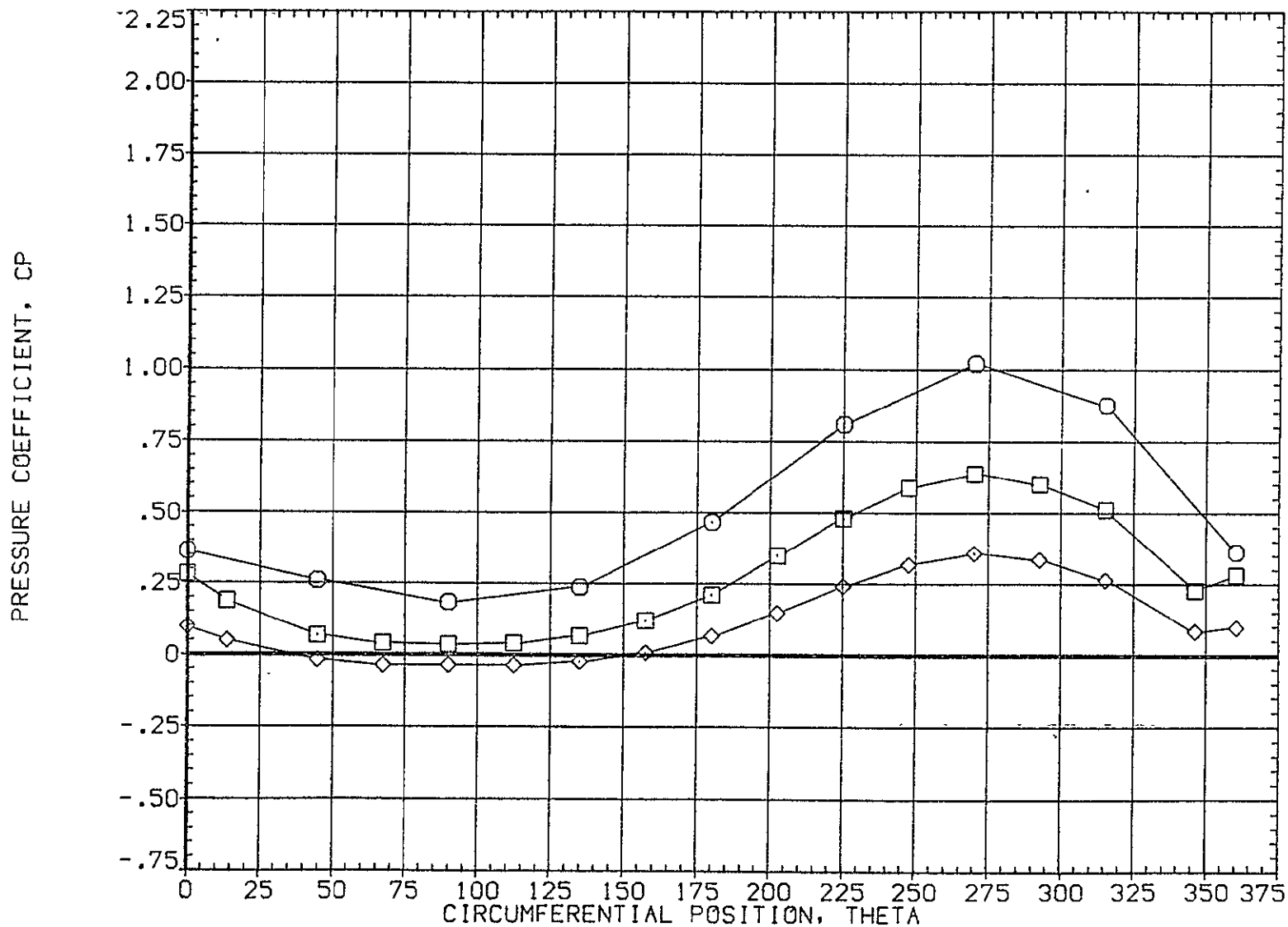


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .216
 .322
 .518
 ALPHA 16.560
 MACH 3.480

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 90.000

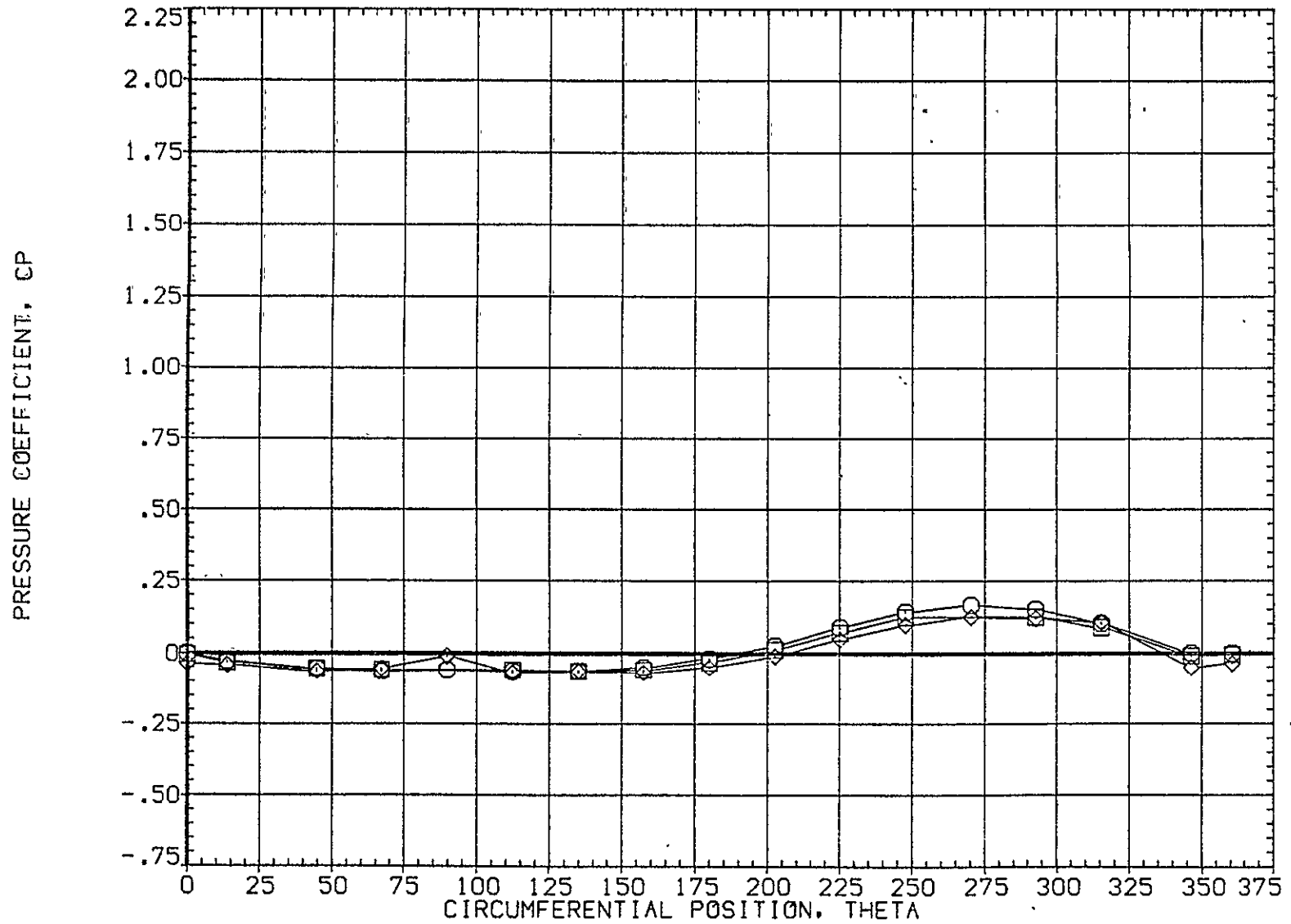


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	.000	OFFSET	20.000
○	.610	16.560	3.480	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

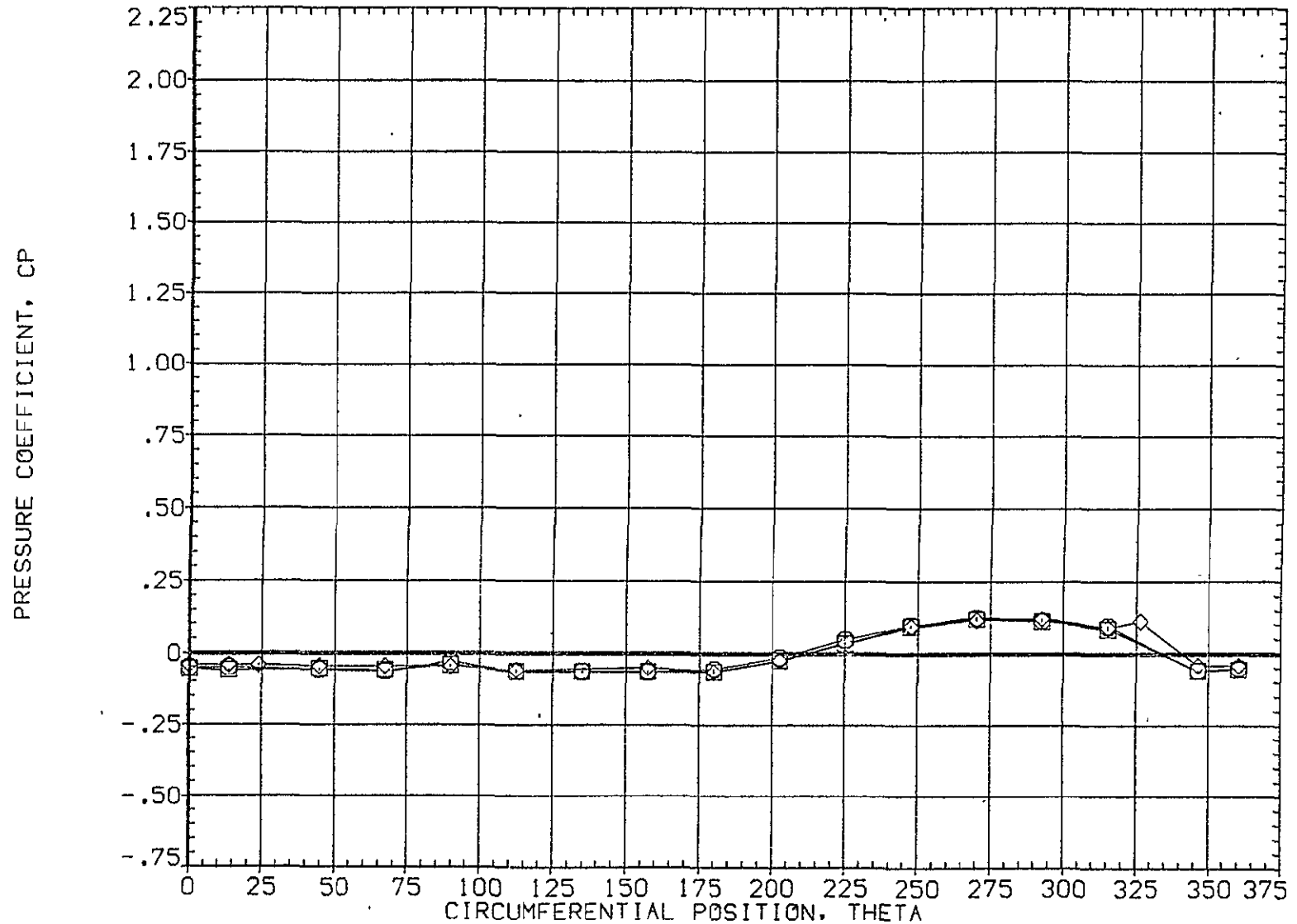


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB
 .892
 .923
 .954

ALPHA
 16.560

MACH
 3.480

PARAMETRIC VALUES

BETA .000
 MOUNT 1.000

OFFSET 20.000
 PHI 90.000

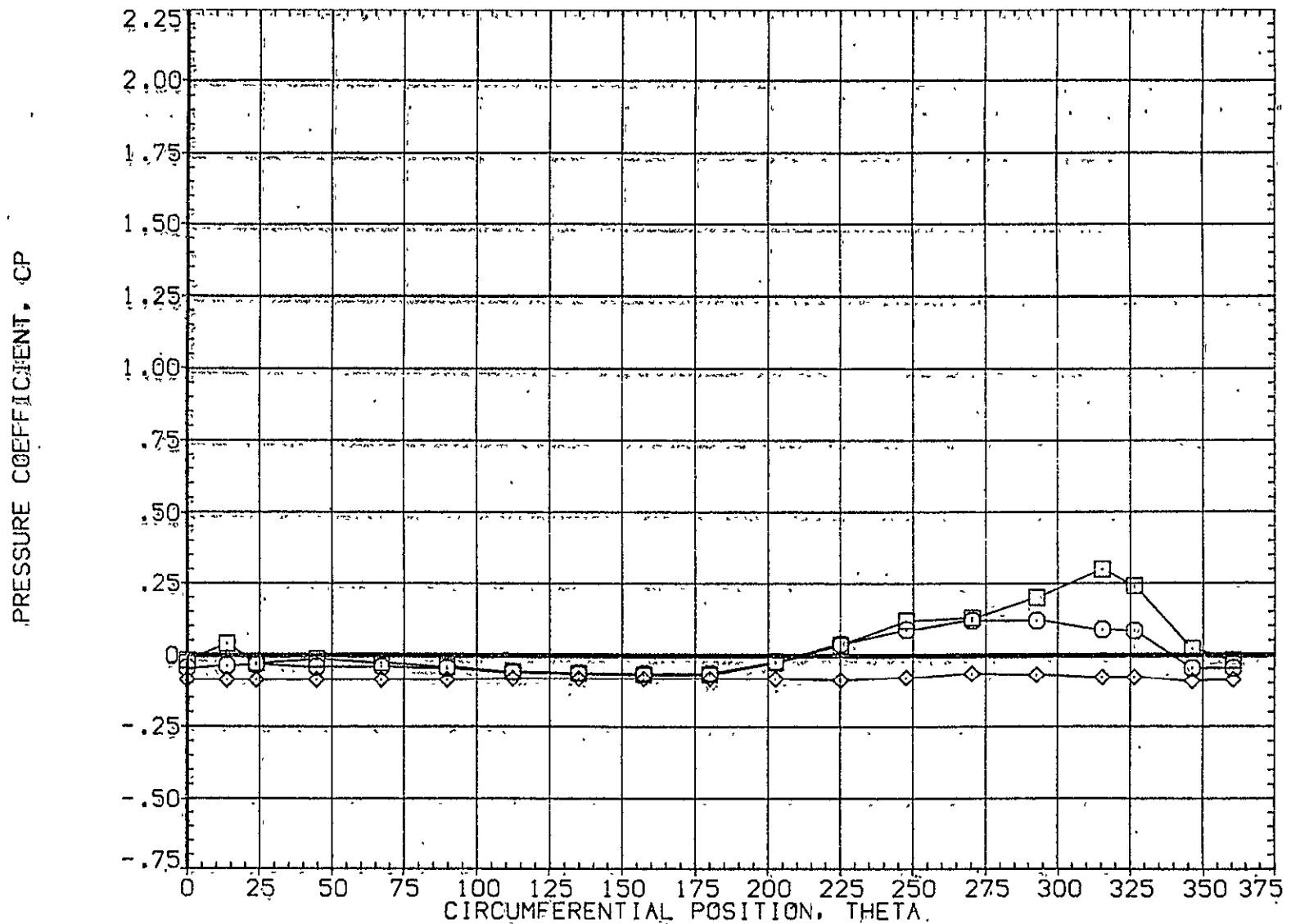


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	20.610	3.480	.000	20.000	
□	.108			1.000		
◇	.162				90.000	

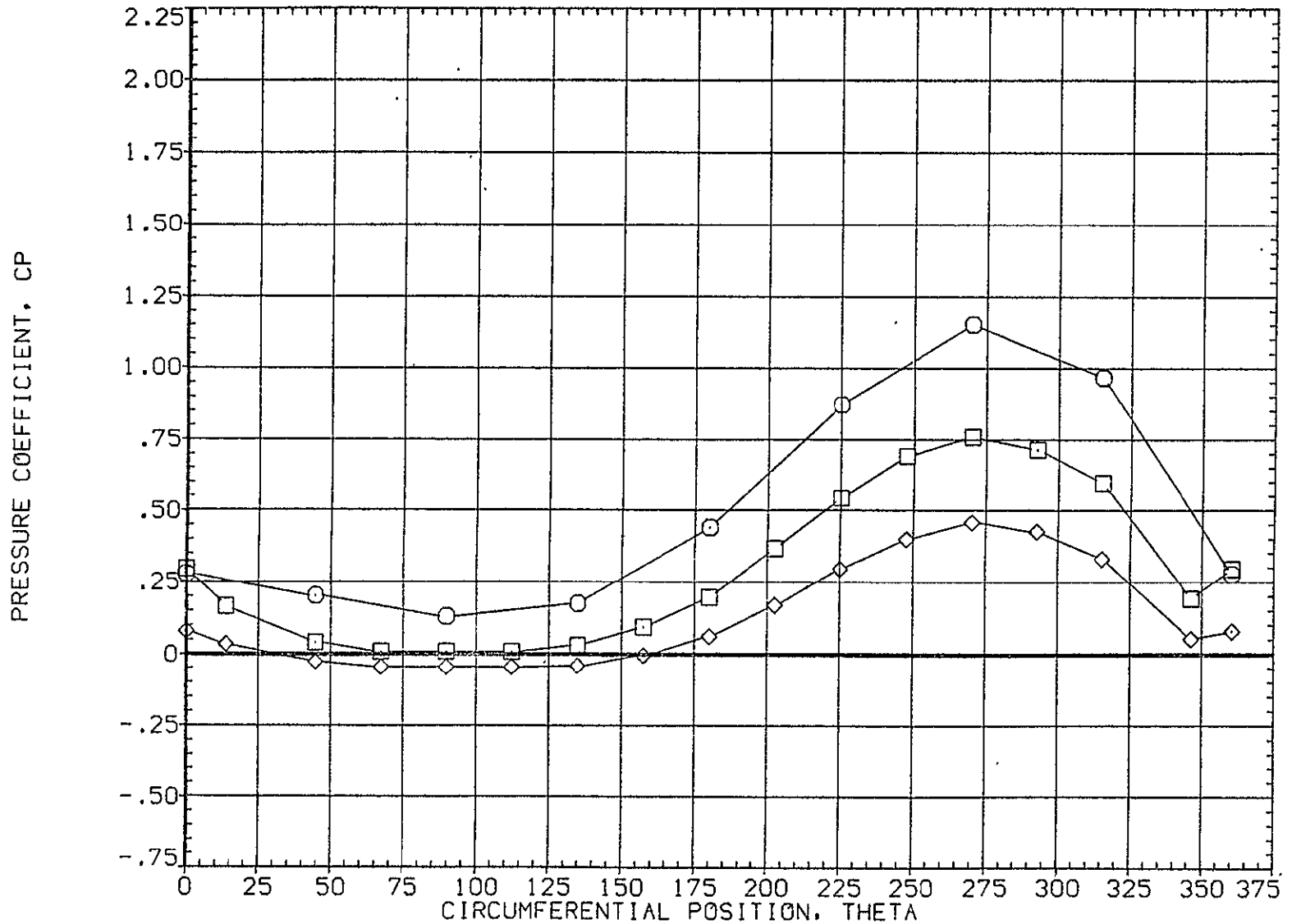


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
◇	.216	20.610	3.480	MOUNT	1.000	90.000	20.000
◇	.322						90.000
◇	.518						

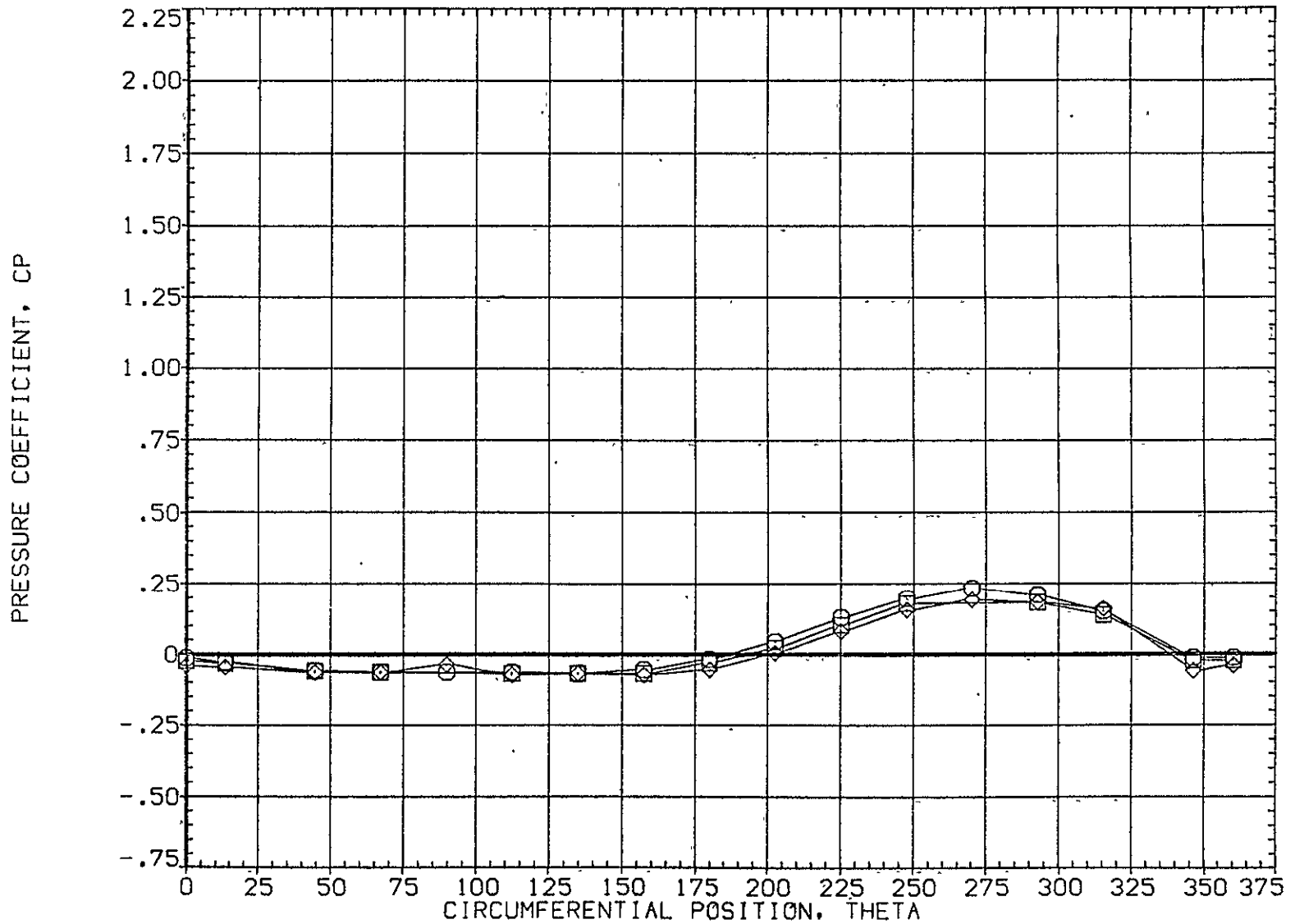


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A018)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.610	3.480	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

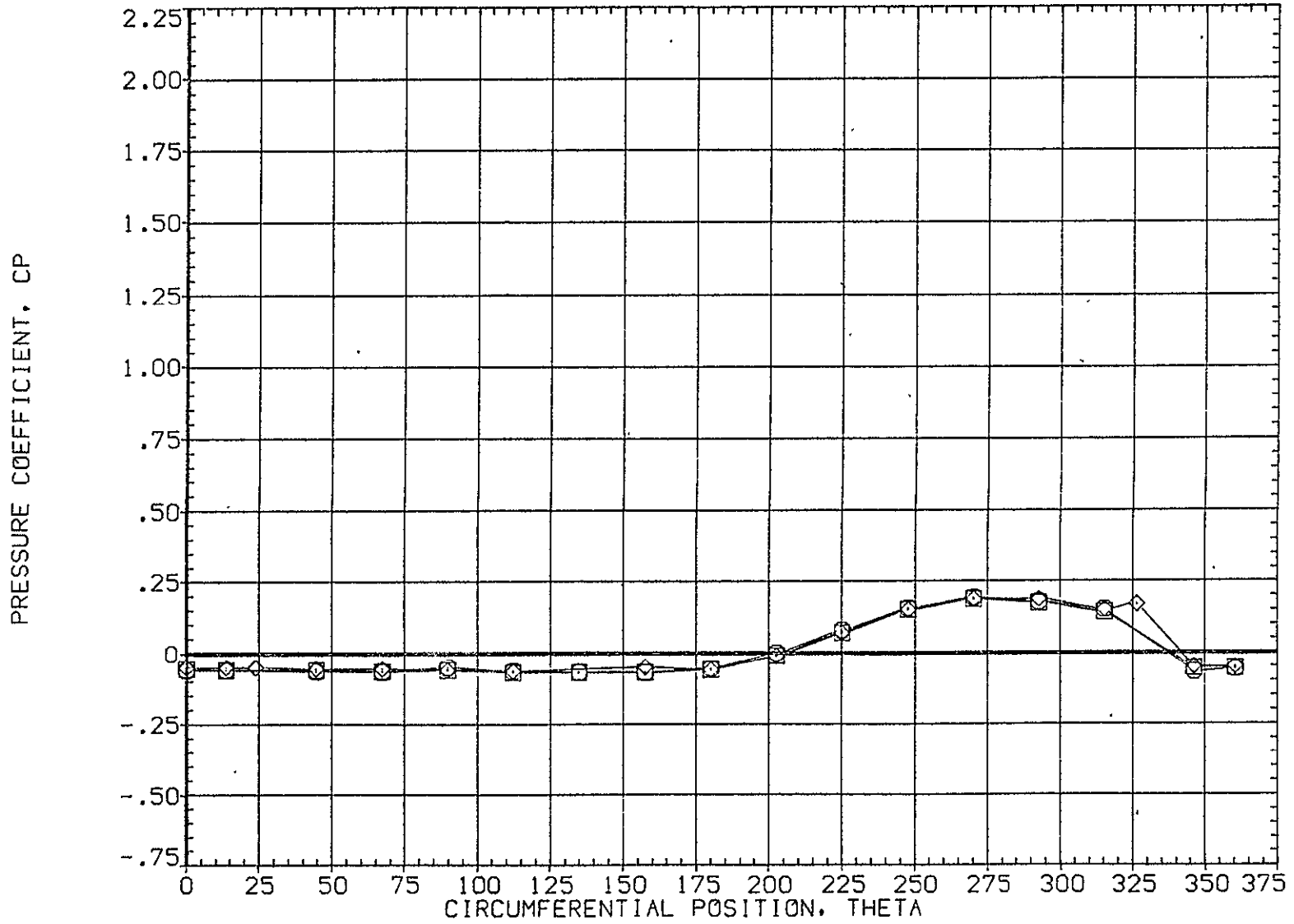


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 20.610
 MACH 3.480

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET 20.000
 PHI 90.000

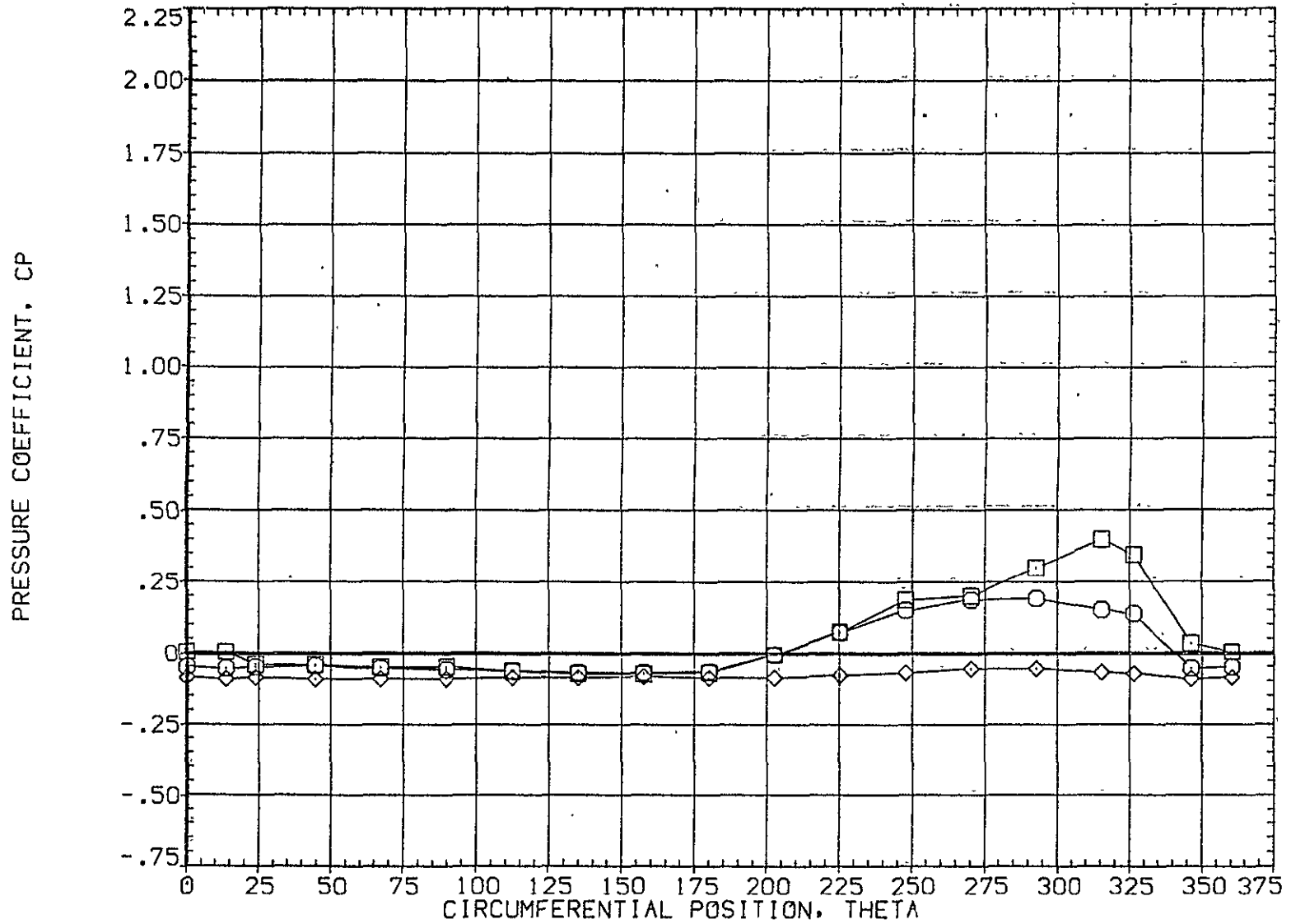


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	24.660	3.480	.000	20.000	
□	.108			1.000	90.000	
◇	.162					

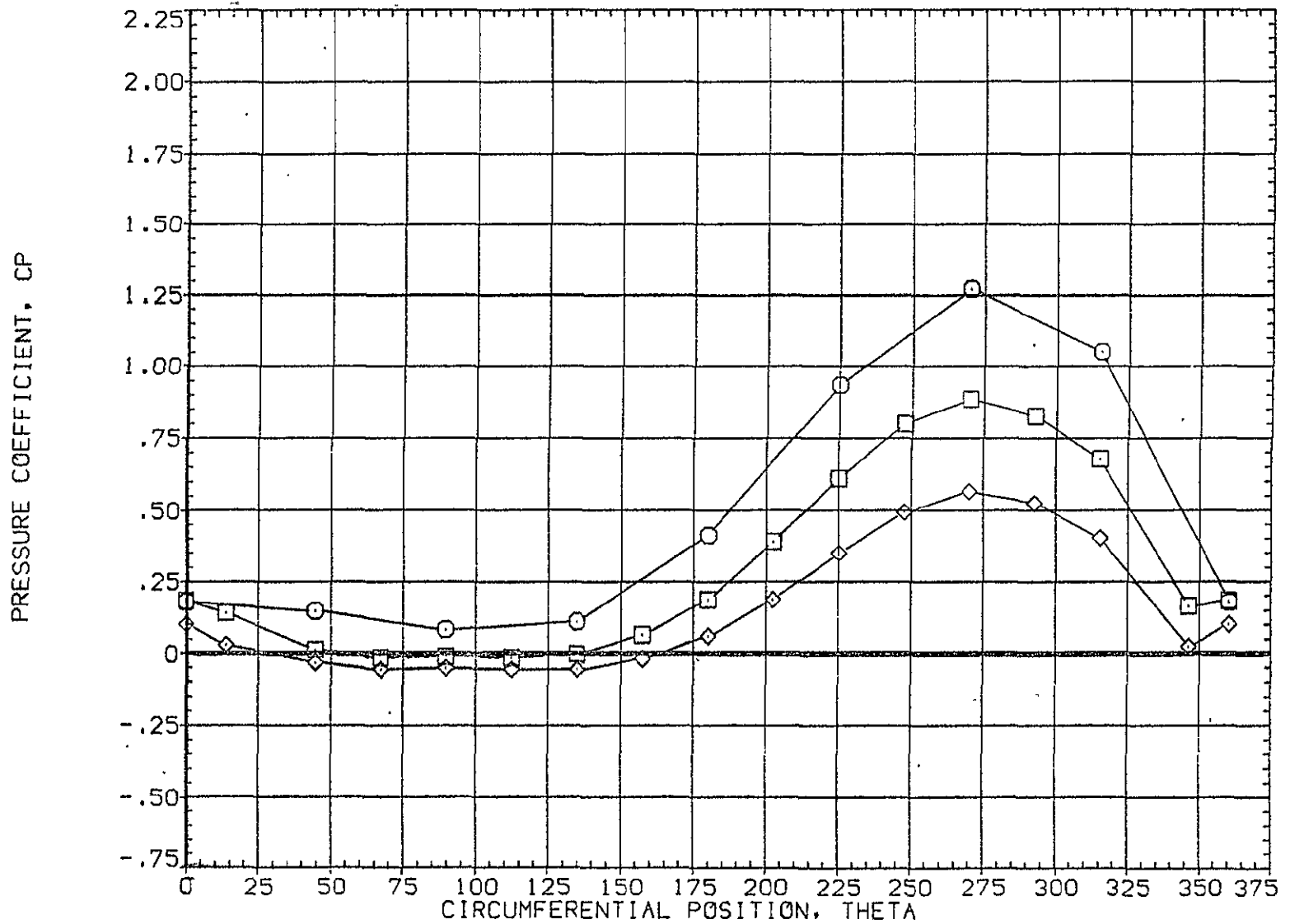


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .216
 .322
 .518
 ALPHA 24.660
 MACH 3.480

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 90.000

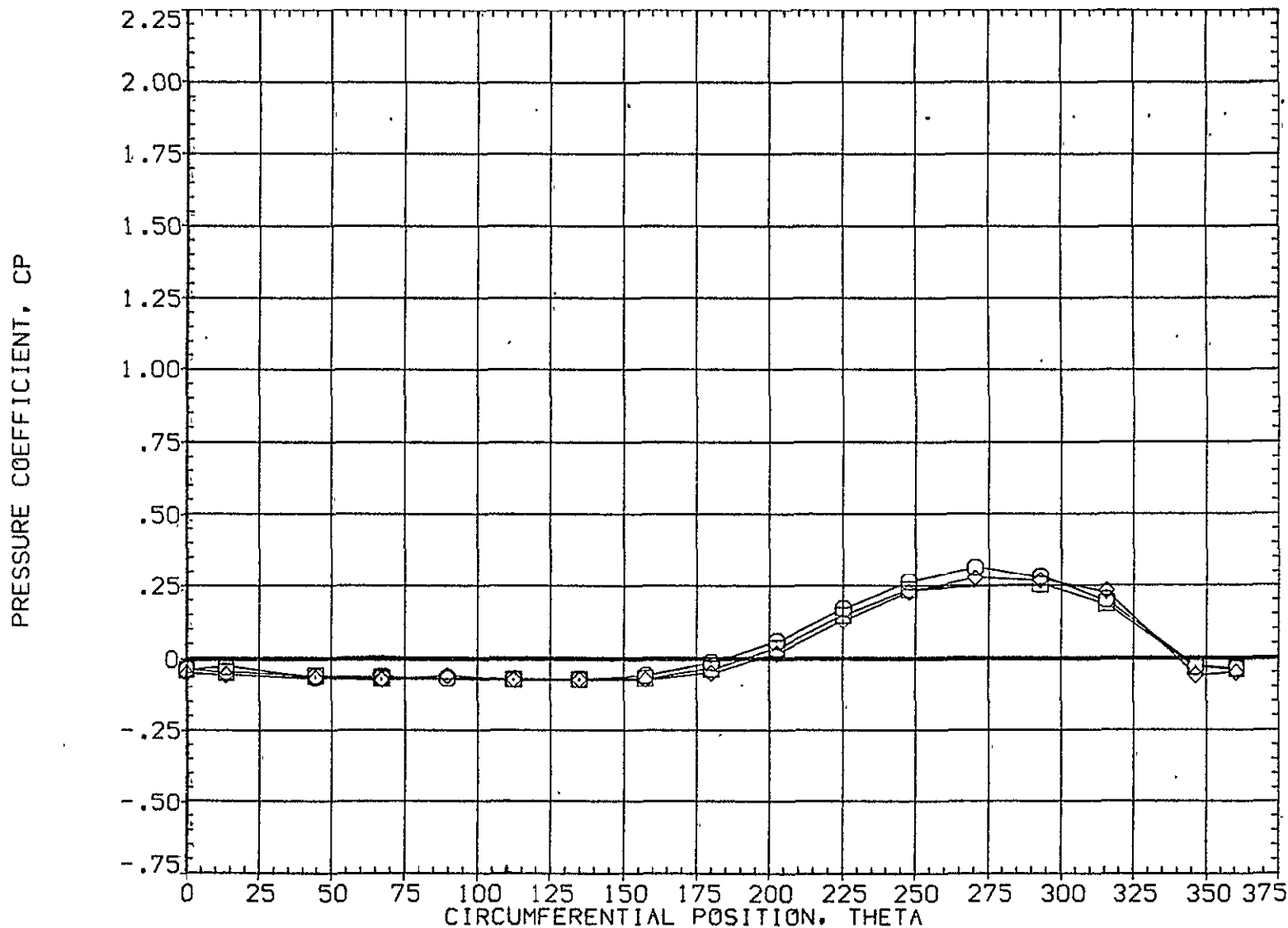


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	24.660	3.480	.000	20.000	
□	.735			1.000	90.000	
◇	.860					

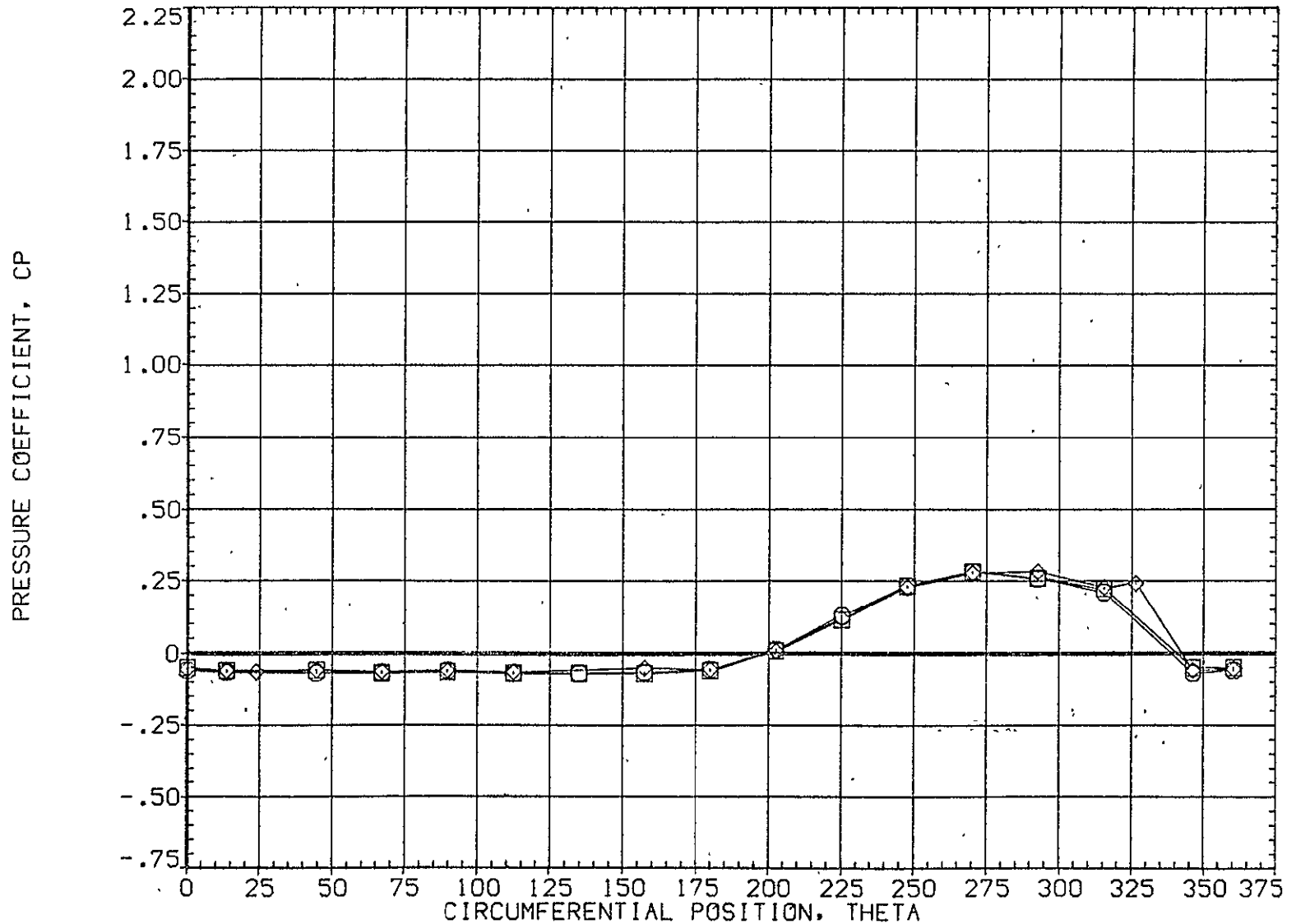


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	24.660	3.480	.000	20.000	
□	.923			1.000	90.000	
◇	.954					

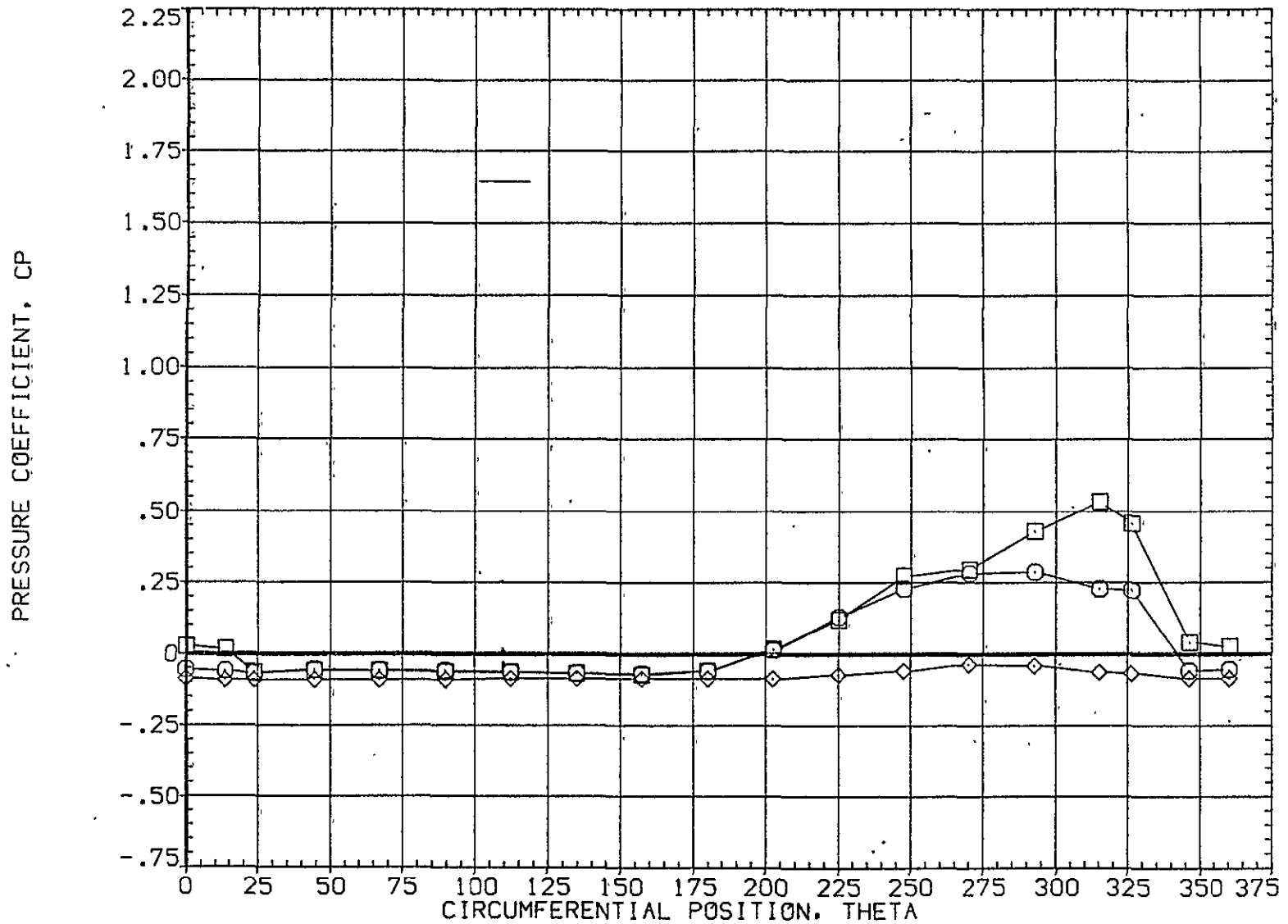


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	28.700	3.480	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

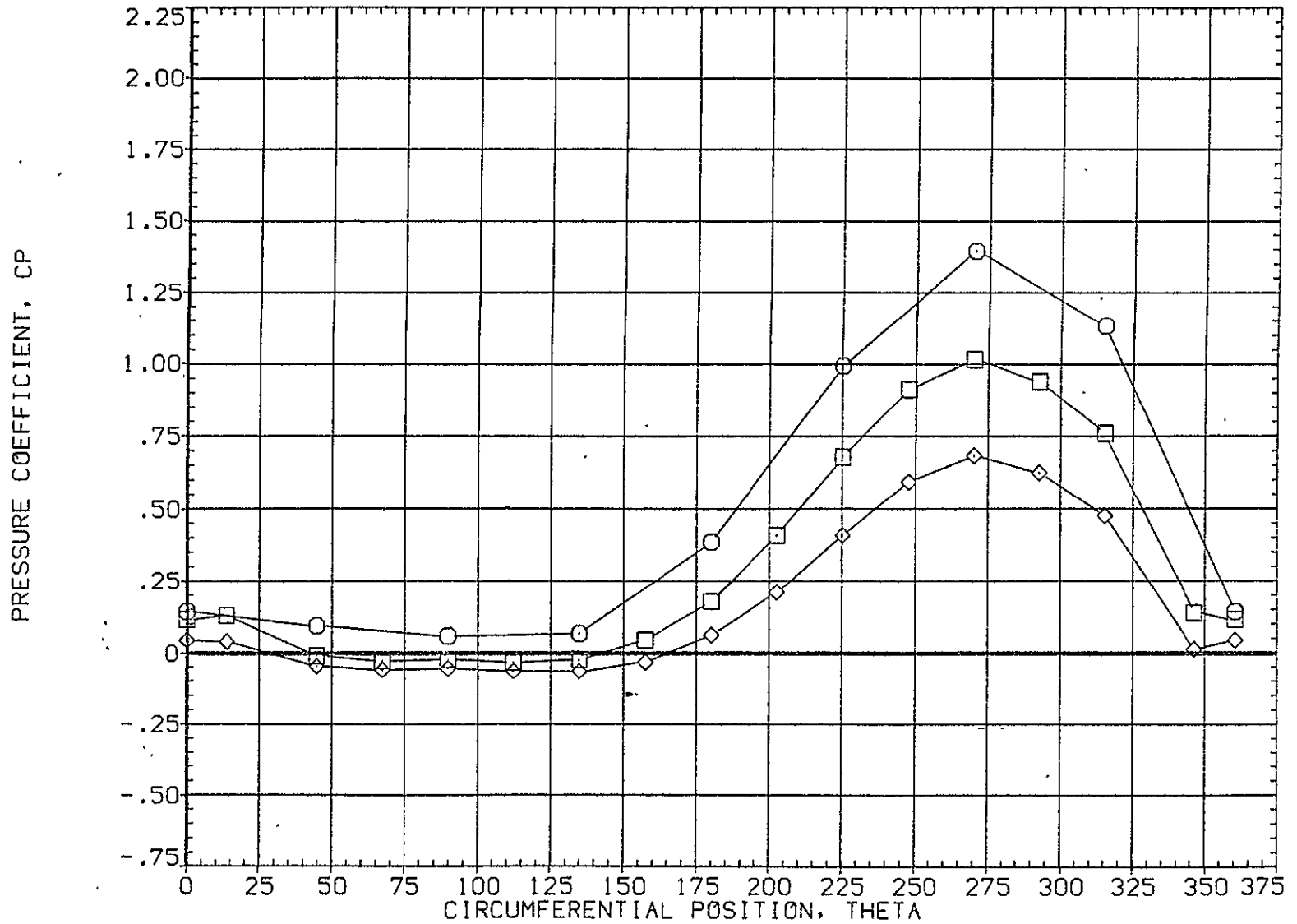


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .216
.322
.518
ALPHA 28.700
MACH 3.480

BETA .000
MOUNT 1.000
PARAMETRIC VALUES
OFFSET 20.000
PHI 90.000

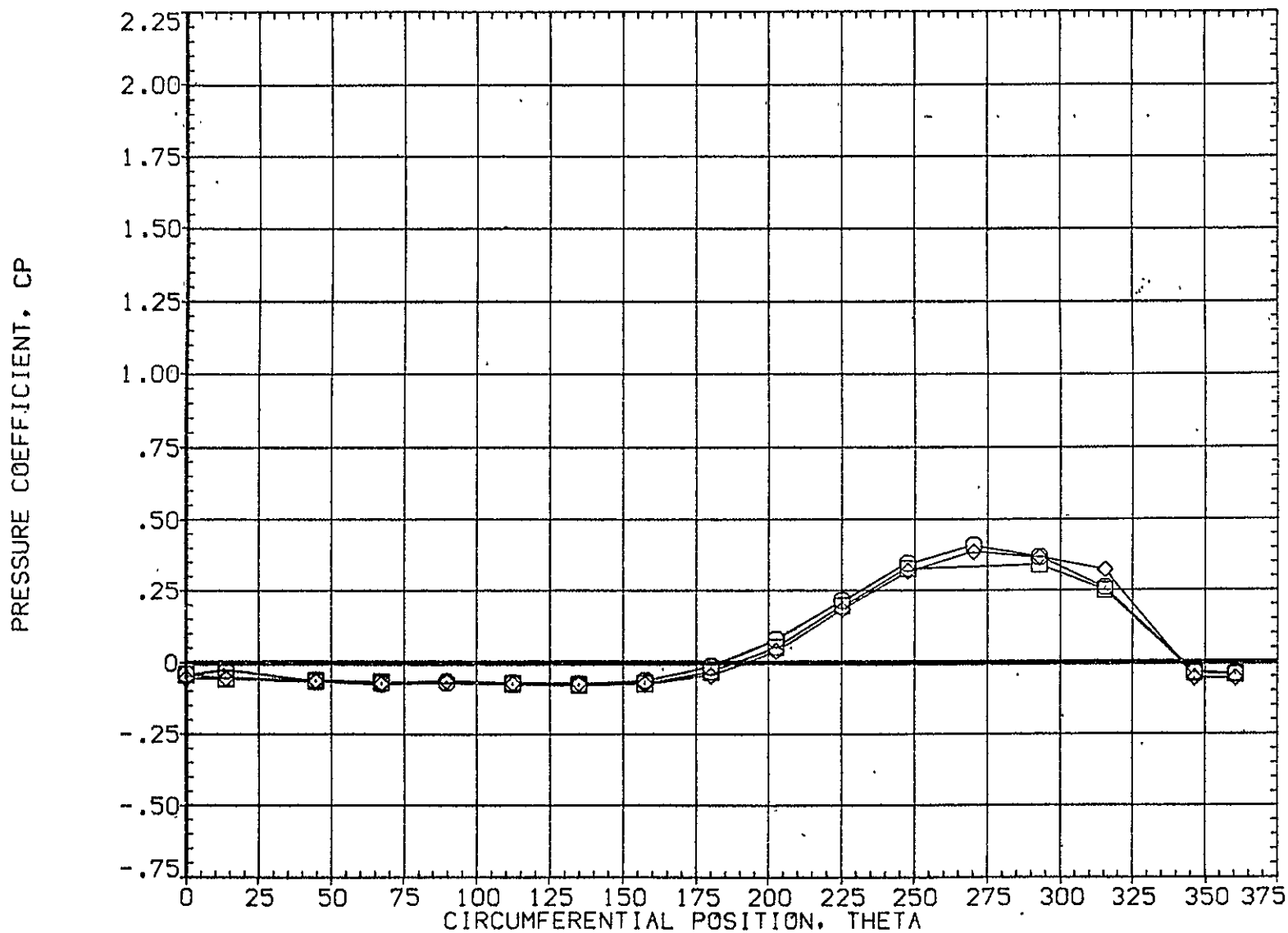


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A020)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	28.700	3.480	.000	20.000		
□	.735			1.000	90.000		
◇	.860						

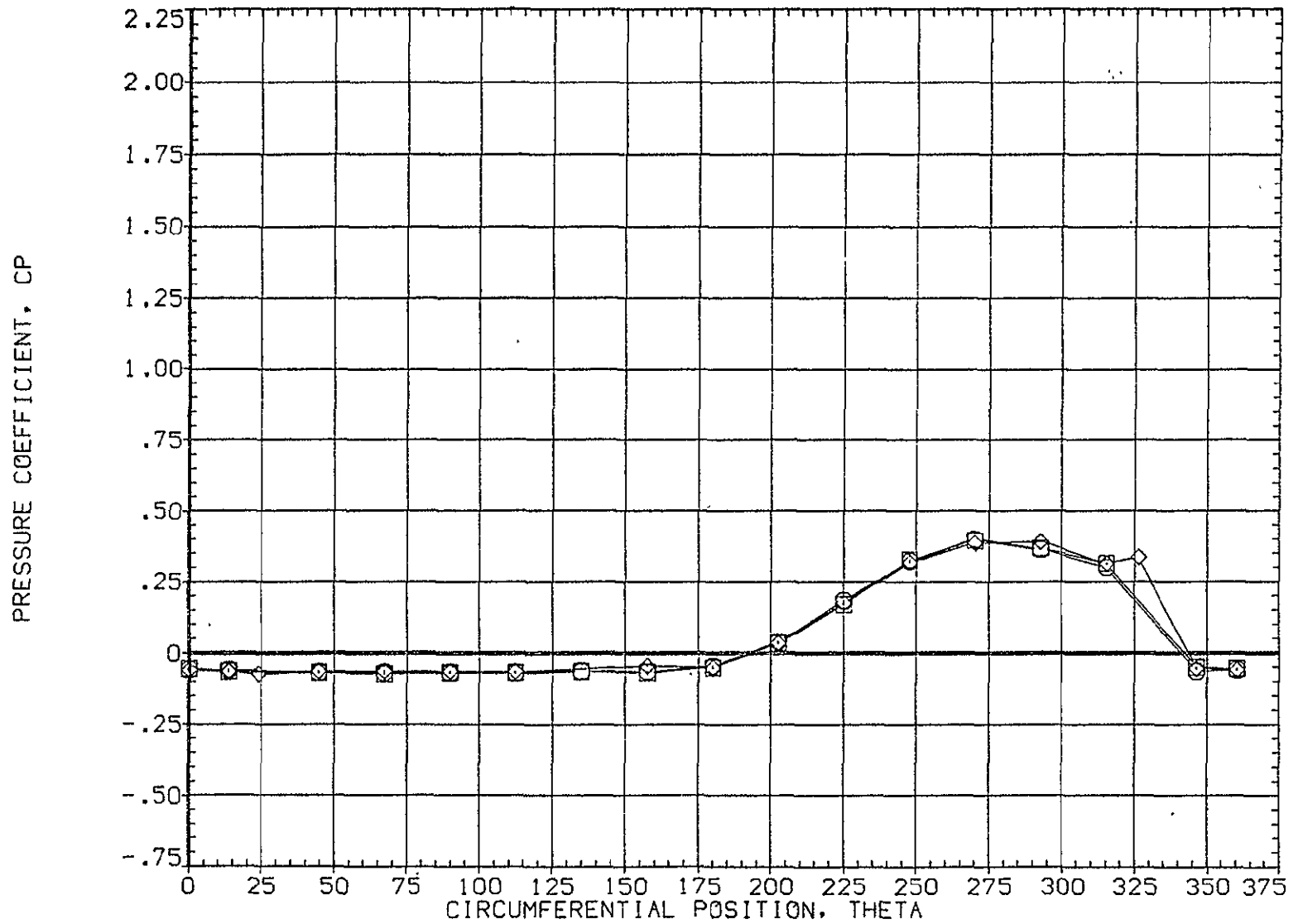


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .892
.923
.954

ALPHA 28.700

MACH 3.480

BETA .000
MOUNT 1.000

PARAMETRIC VALUES
OFFSET 20.000
PHI 90.000

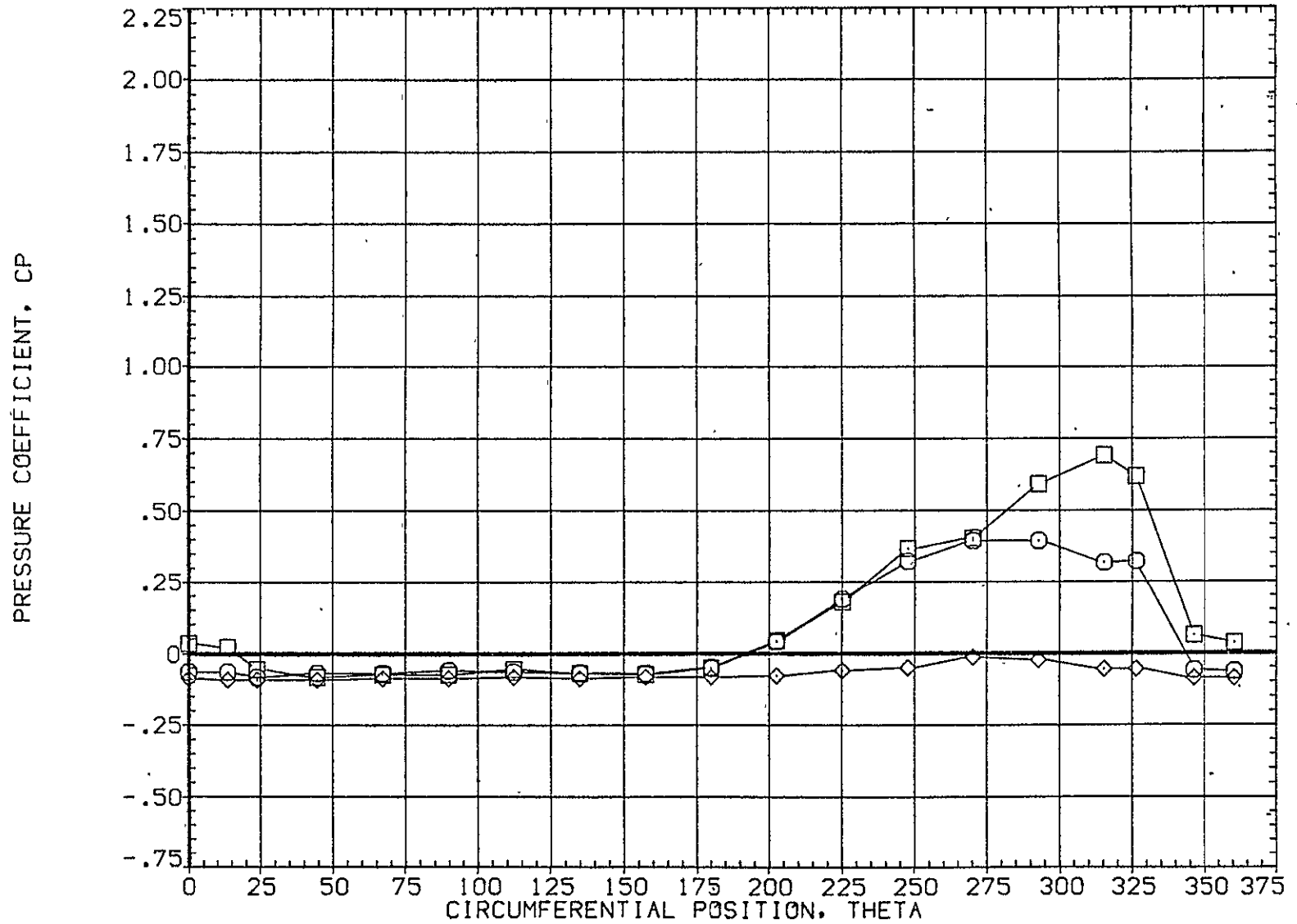


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-8.360	3.480	.000	.000	.000
□	.108			1.000		135.000
◇	.162					

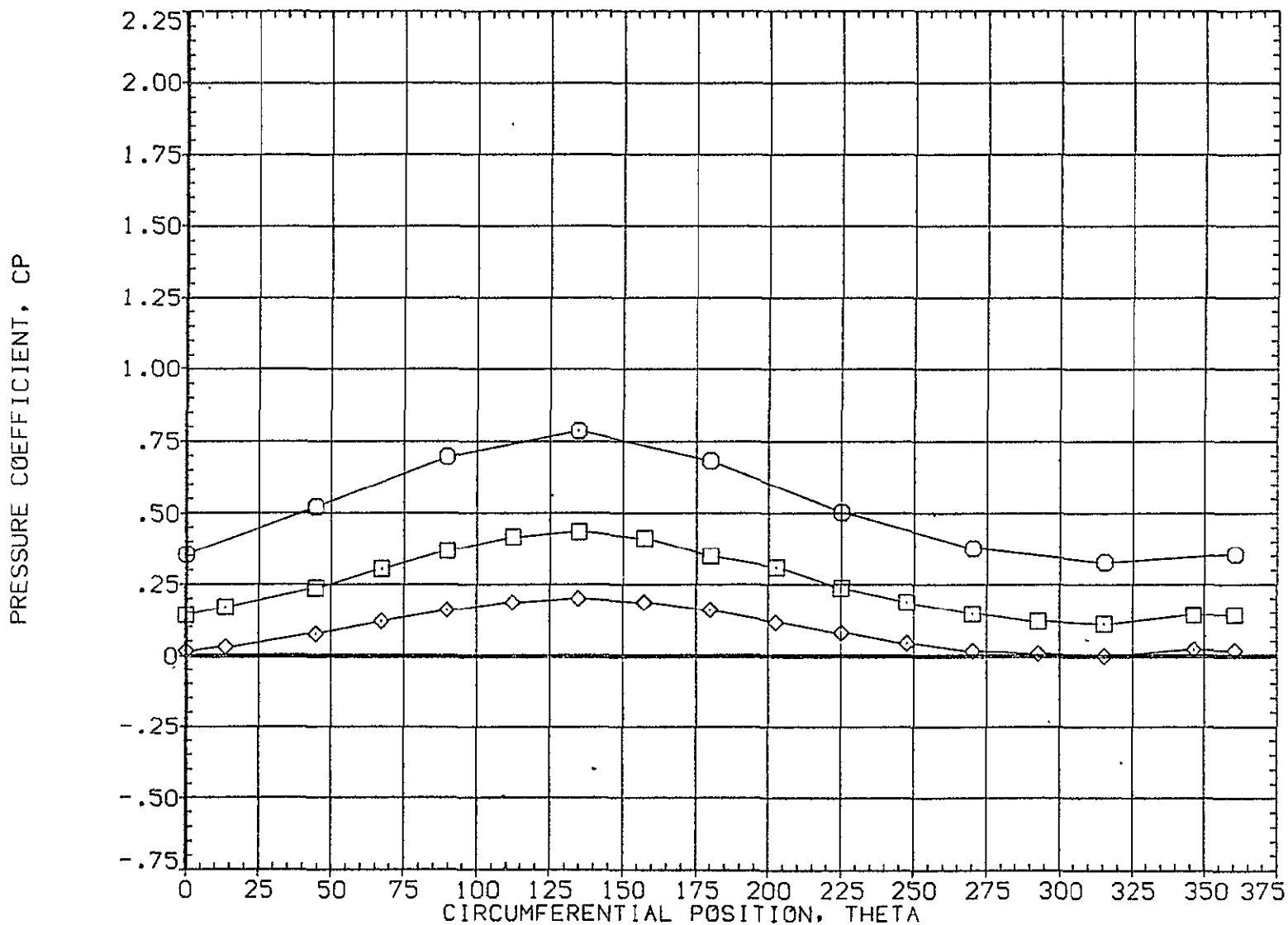


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.360	3.480	.000	.000	.000
□	.322			1.000		135.000
◇	.518					

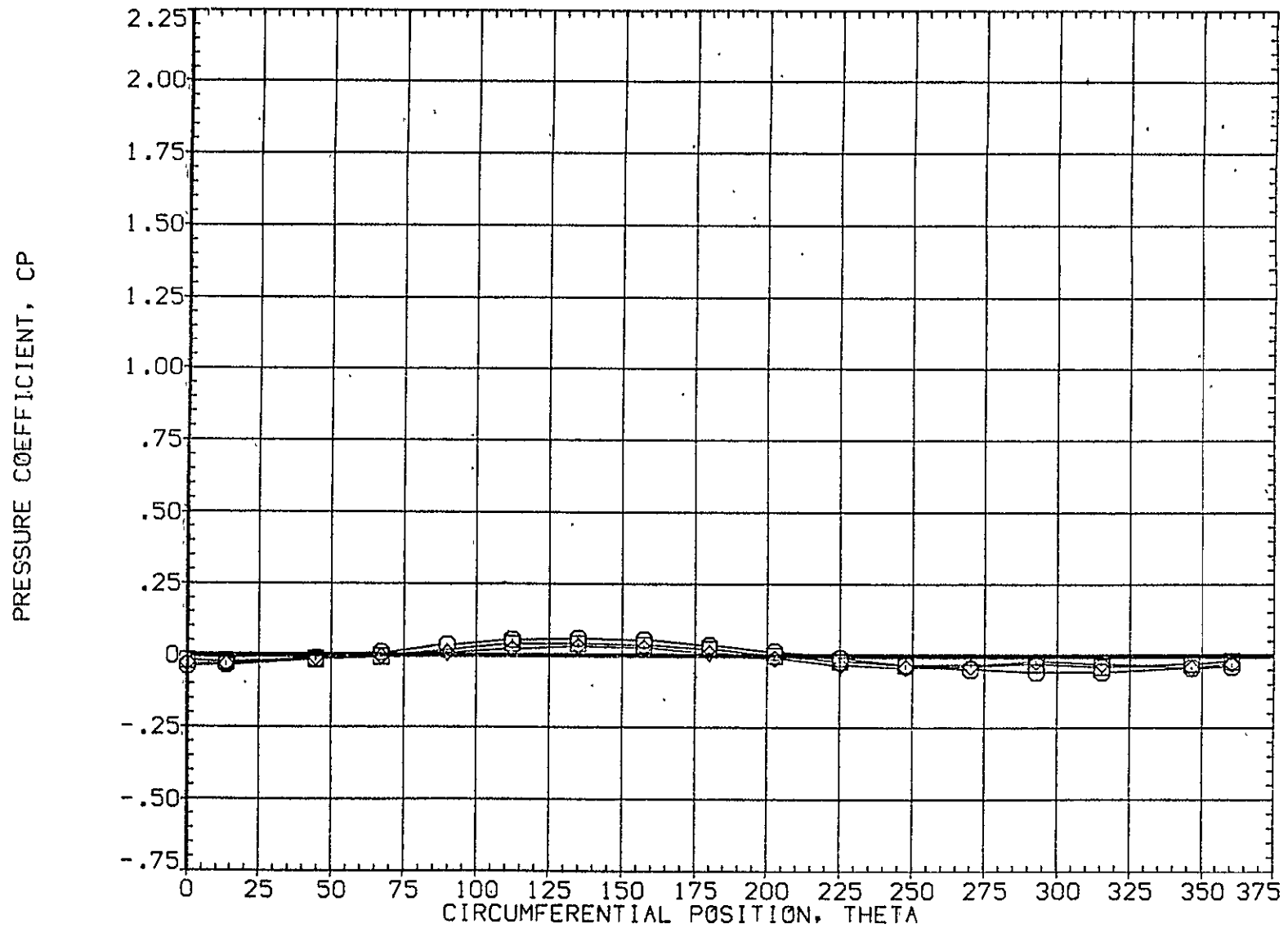


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.360	3.480	.000	.000	.000
□	.735			1.000		135.000
◇	.860					

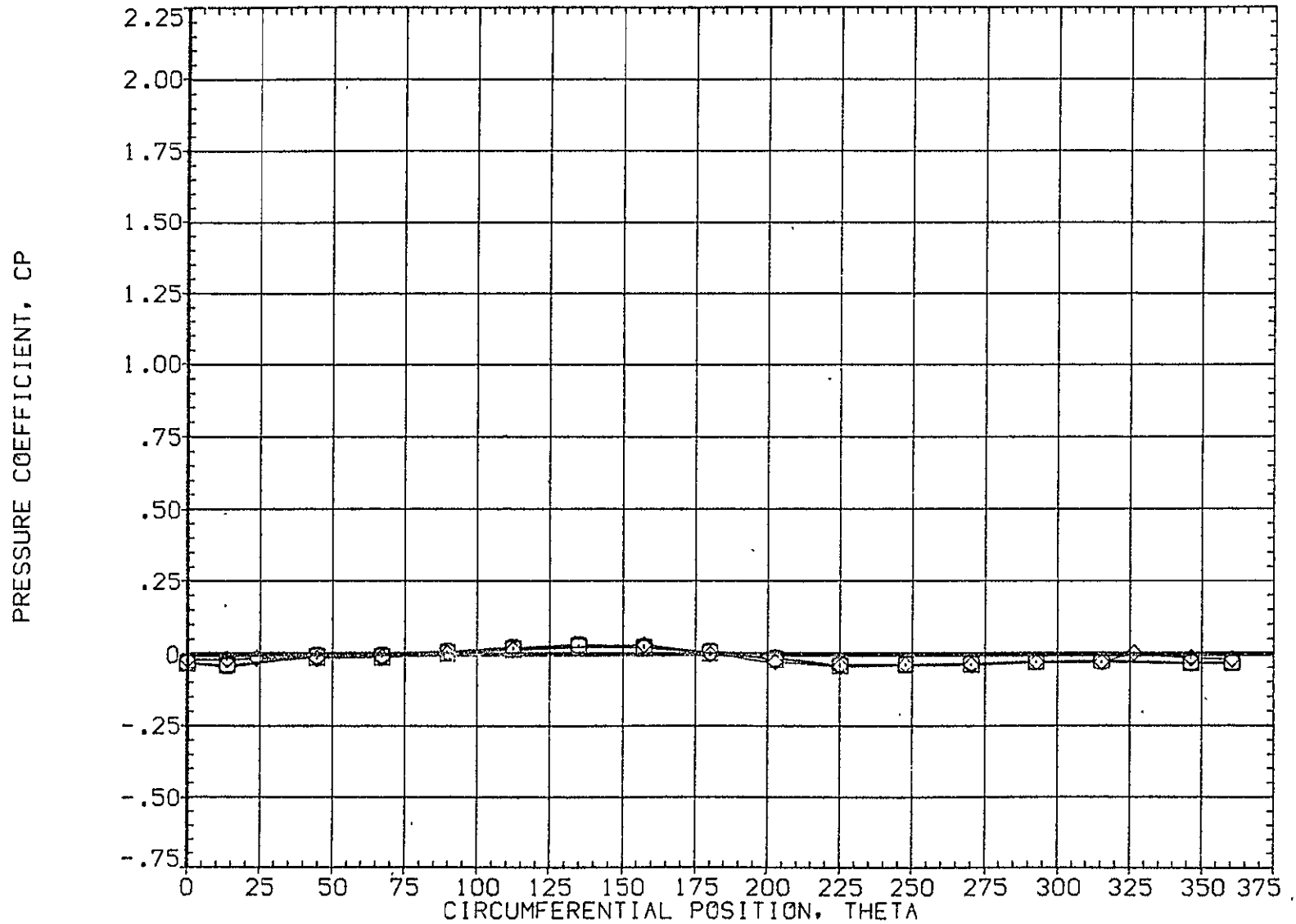


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-8.360	3.480	.000	.000	.000
□	.923			1.000	135.000	
◇	.954					

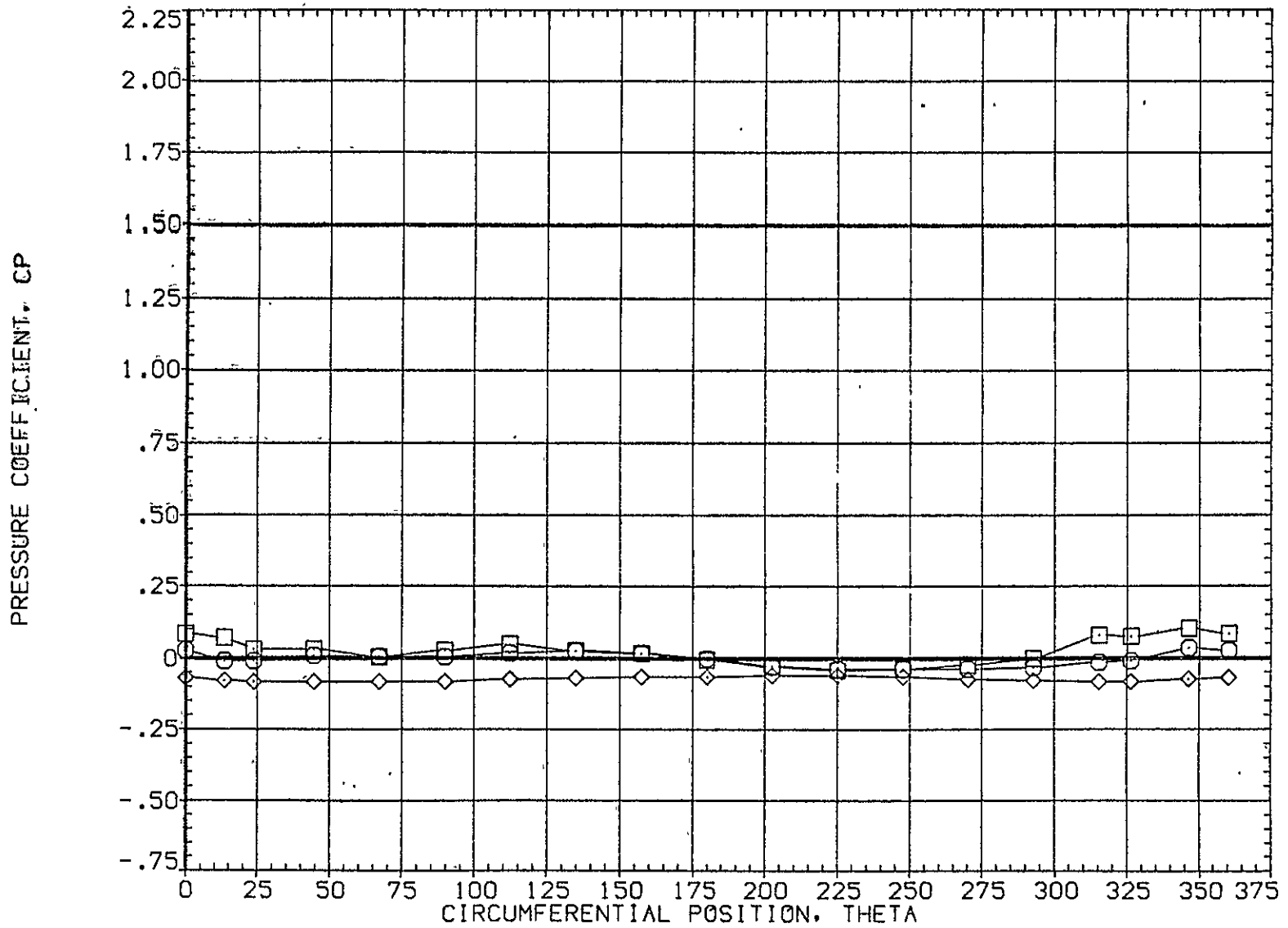


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.330	3.480	.000	.000	.000
□	.108			1.000		135.000
◇	.162					

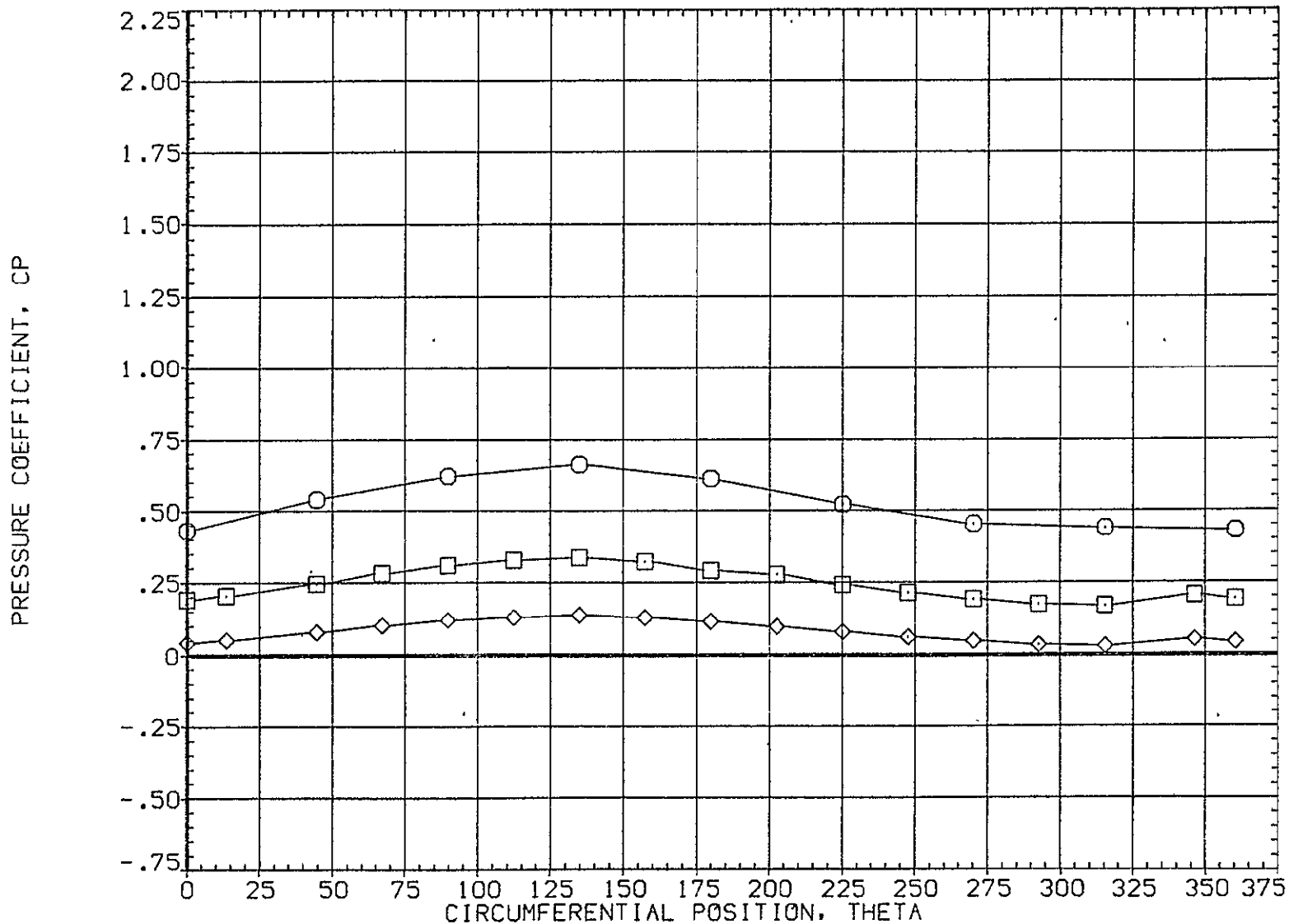


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .216
 .322
 .518
 ALPHA -4.330
 MACH 3.480

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET .000
 PHI 135.000

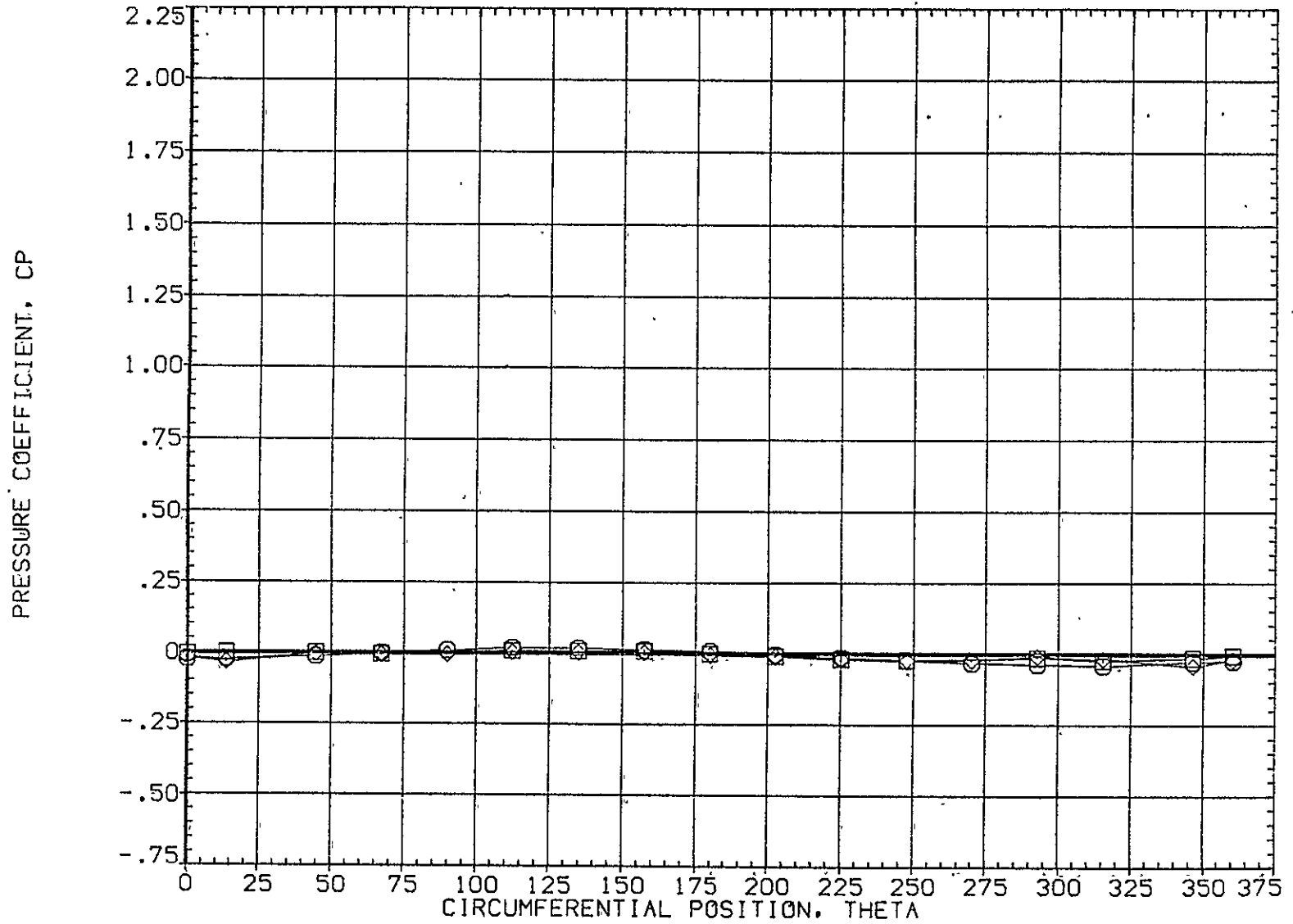


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A022)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-4.330	3.480	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

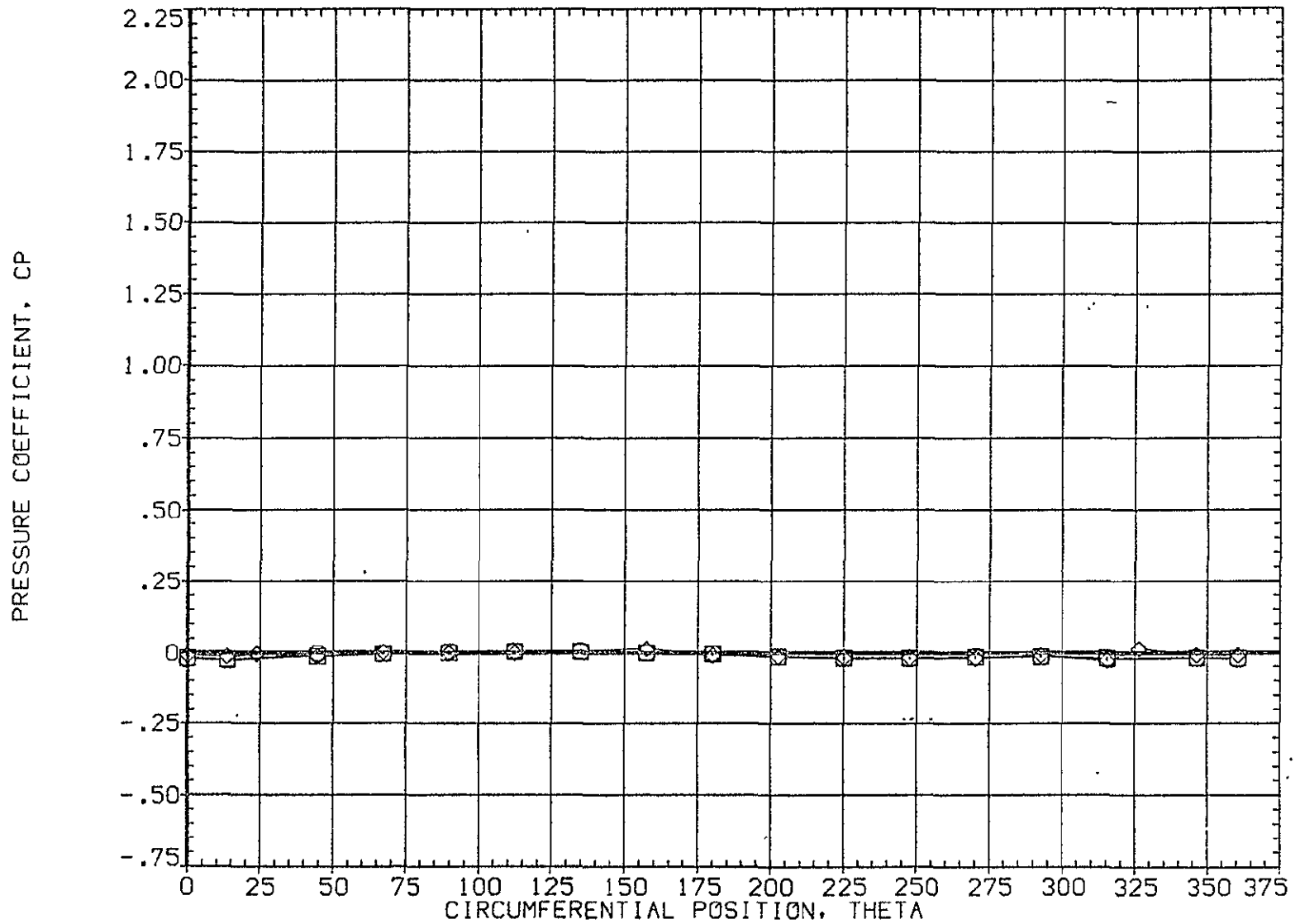


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 -4.330 3.480
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 135.000

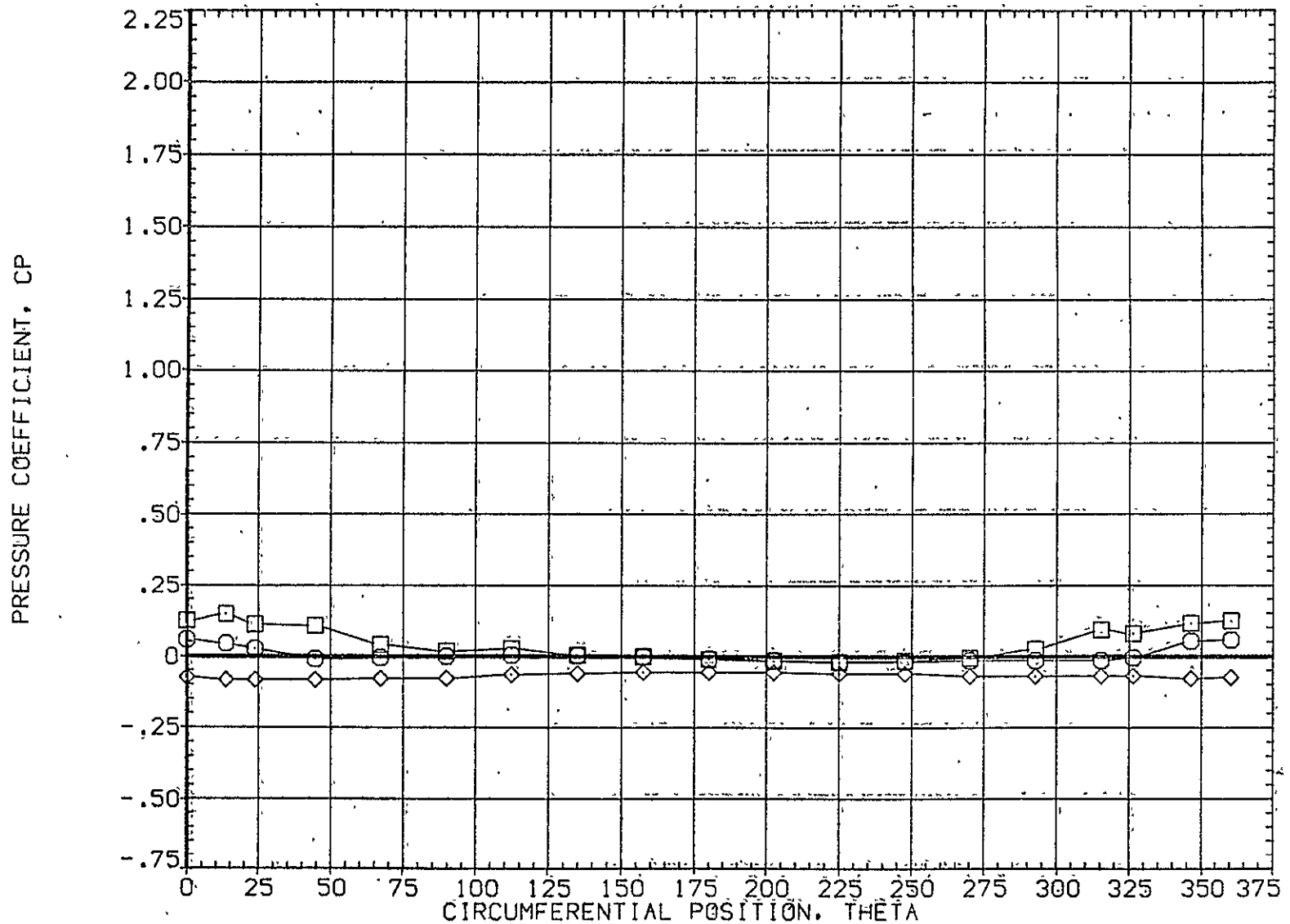


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A023)

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	.055	-.280	3.480	MOUNT	.000	OFFSET	.000
□	.108				1.000	PHI	135.000
◇	.162						

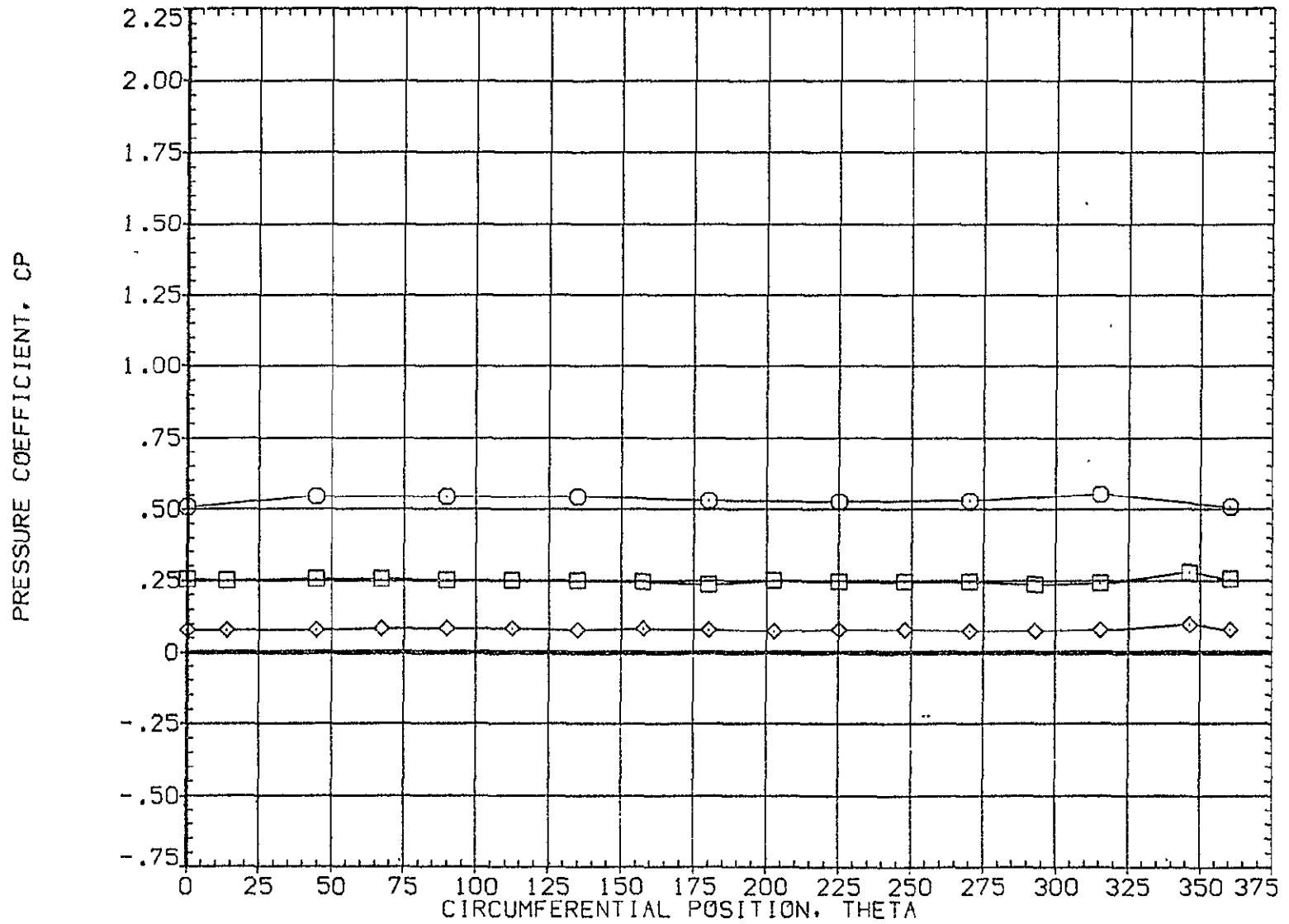


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-.280	3.480	.000	.000	.000
□	.322			1.000	135.000	
◇	.518					

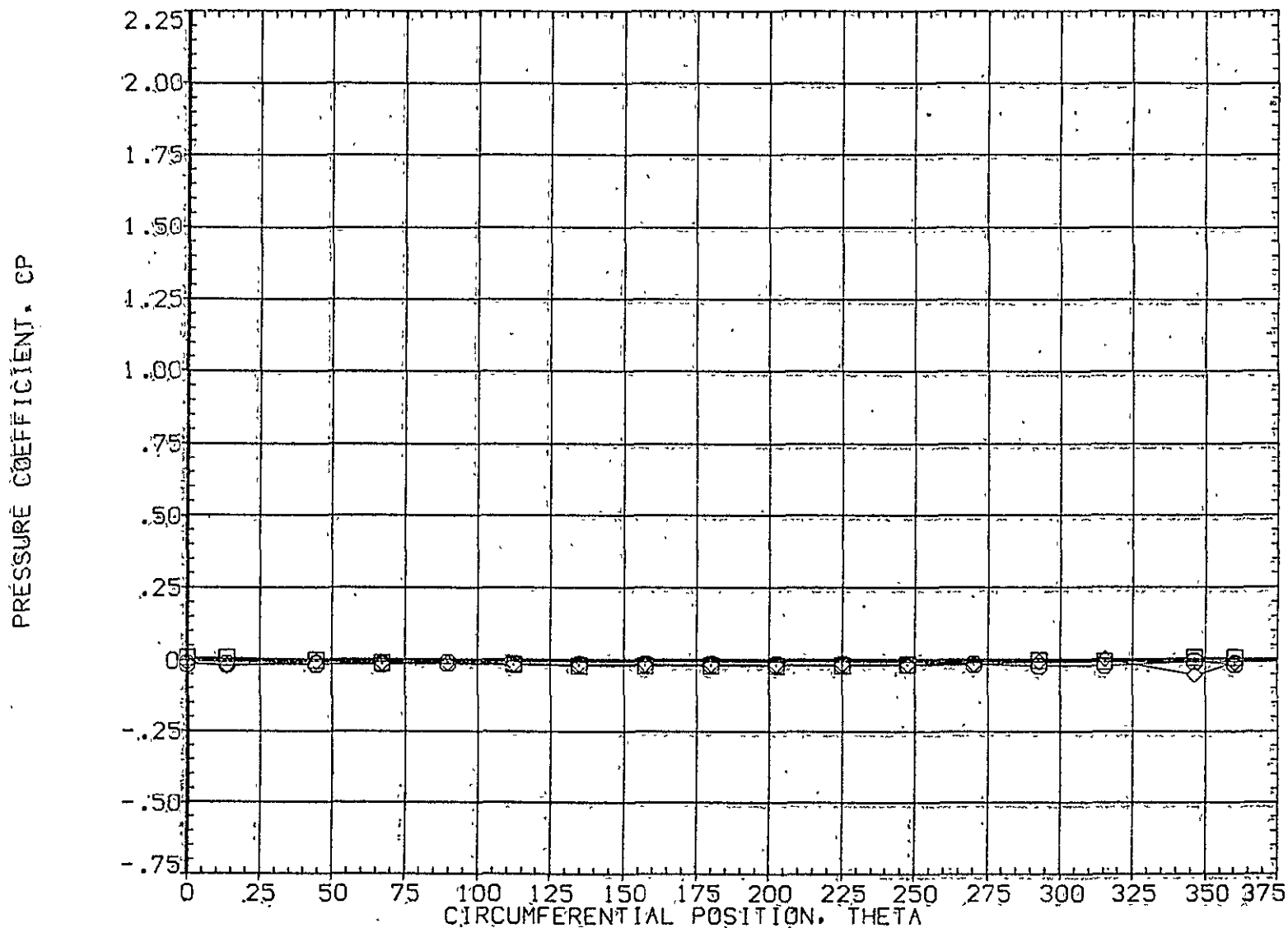


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A023)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-.290	3.480	HOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

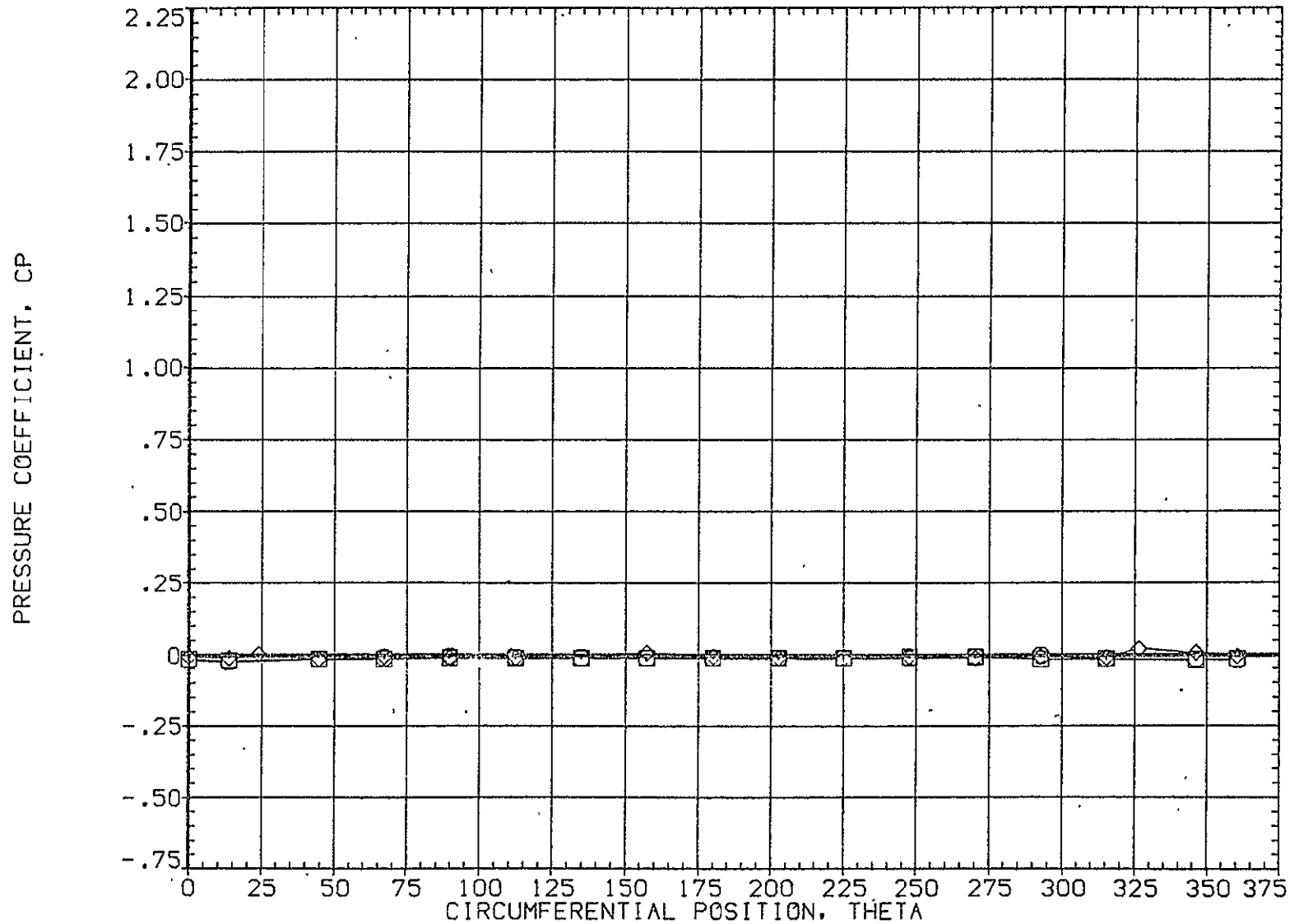


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .892
.923
.954
ALPHA -.280
MACH 3.480

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI 135.000

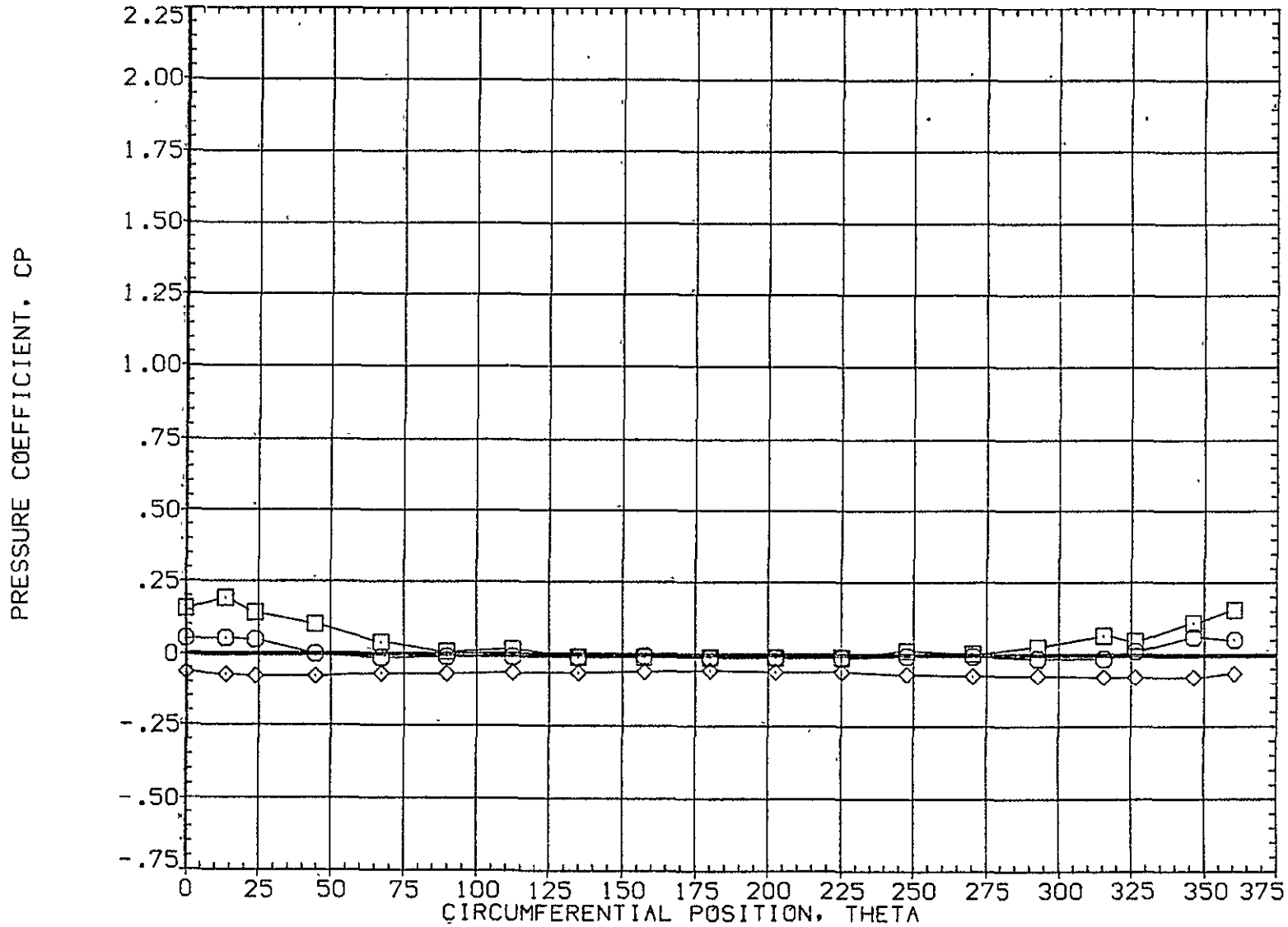


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	,000	
○	.055	3.720	3.480	MOUNT	1.000	PHI	135.000
□	.108						
◇	.162						

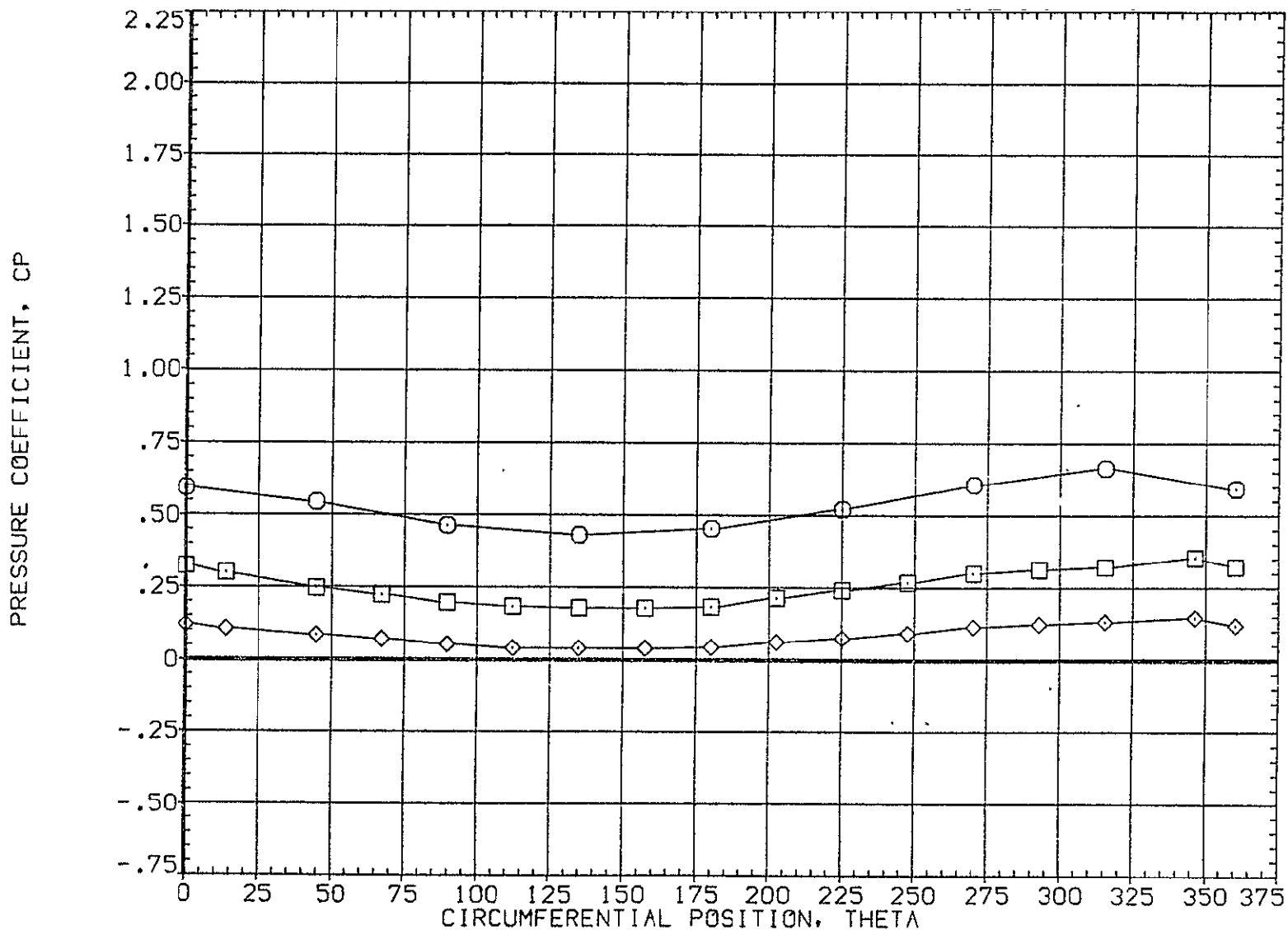


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 3.720 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 135.000

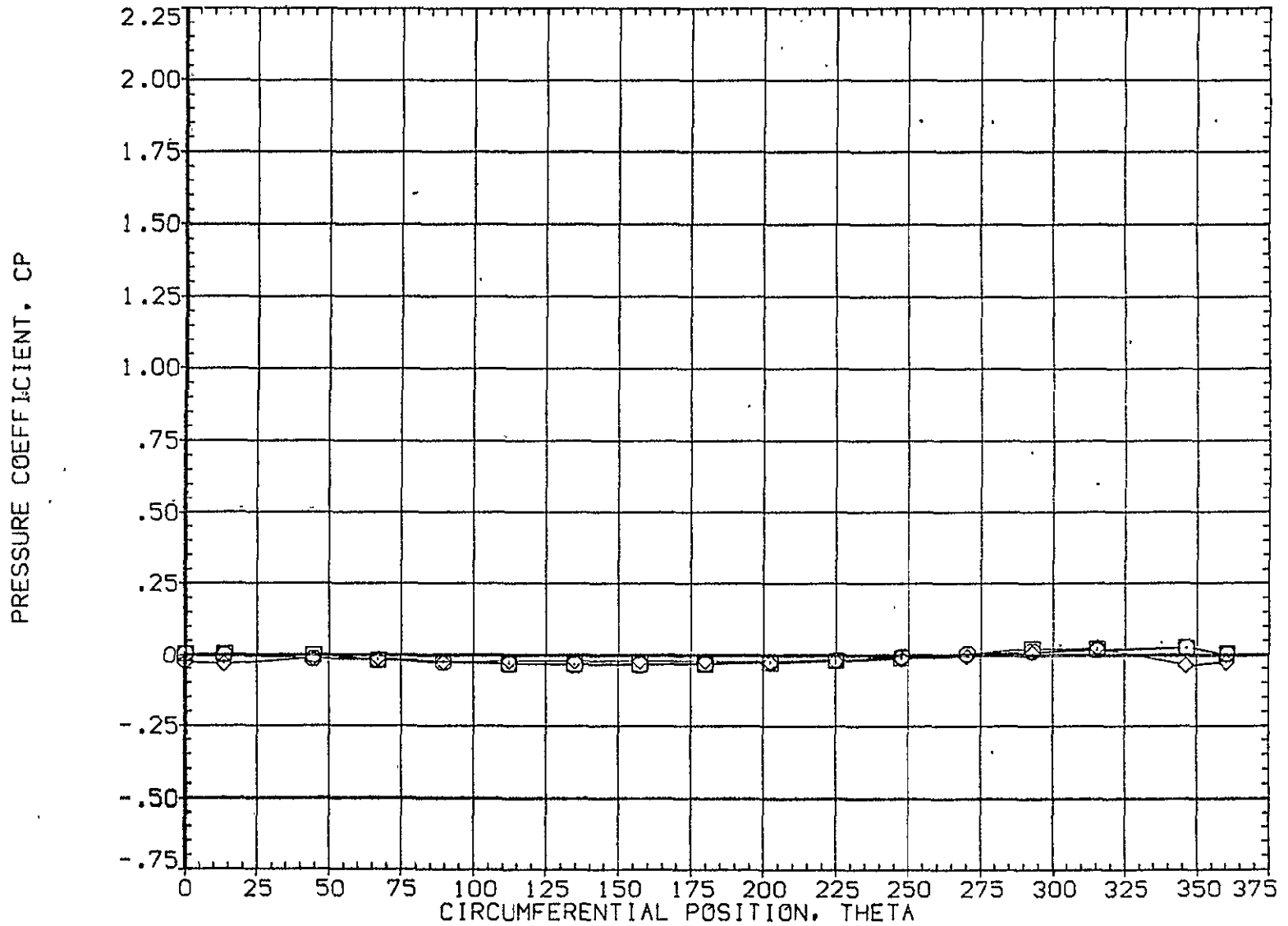


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A024)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	3.720	3.480	.000	.000	.000
□	.735			1.000		135.000
◇	.860					

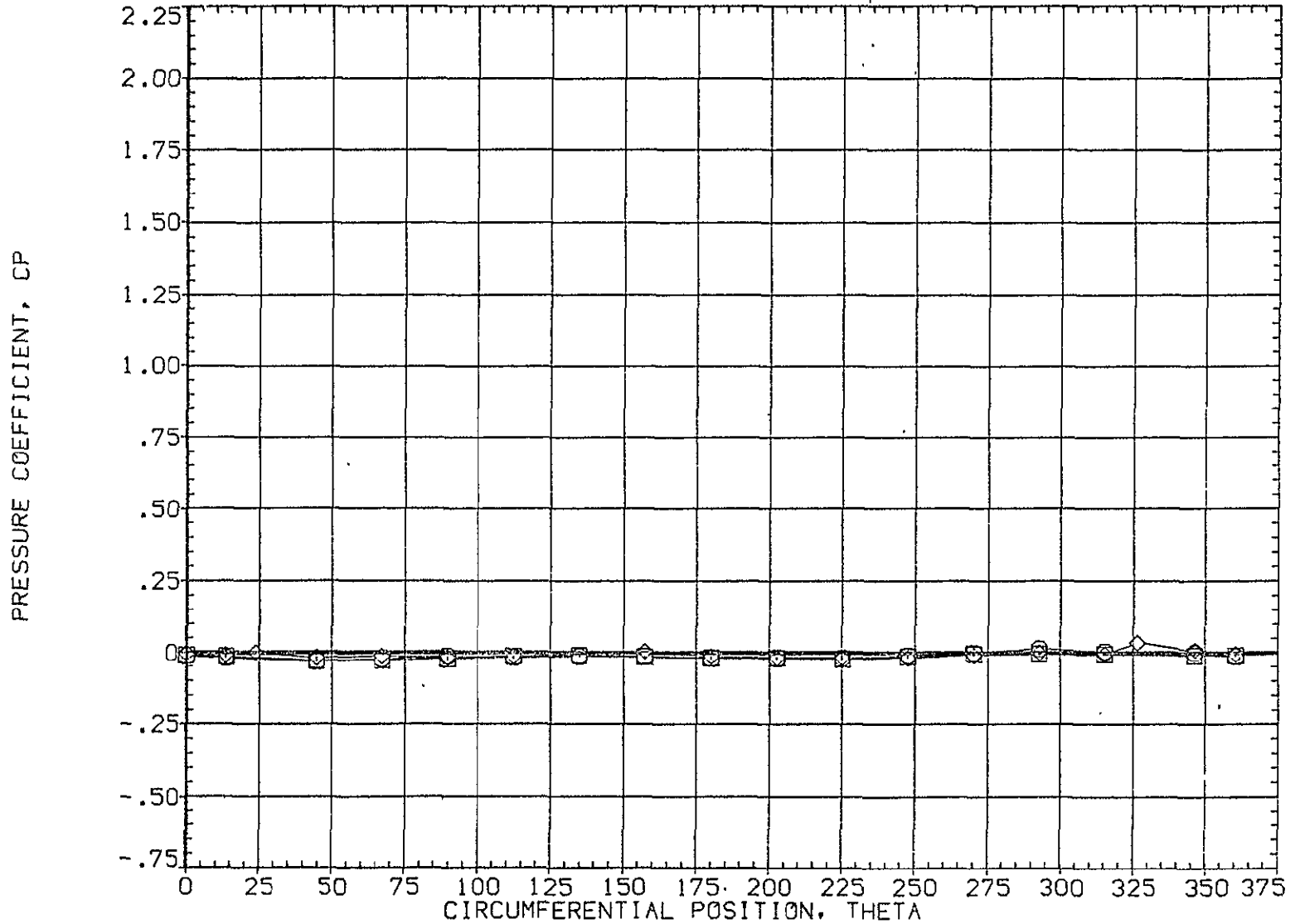


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	3.720	3.480	BETA	.000	OFFSET	.000
□	.923			MOUNT	1.000	PHI	135.000
◇	.954						

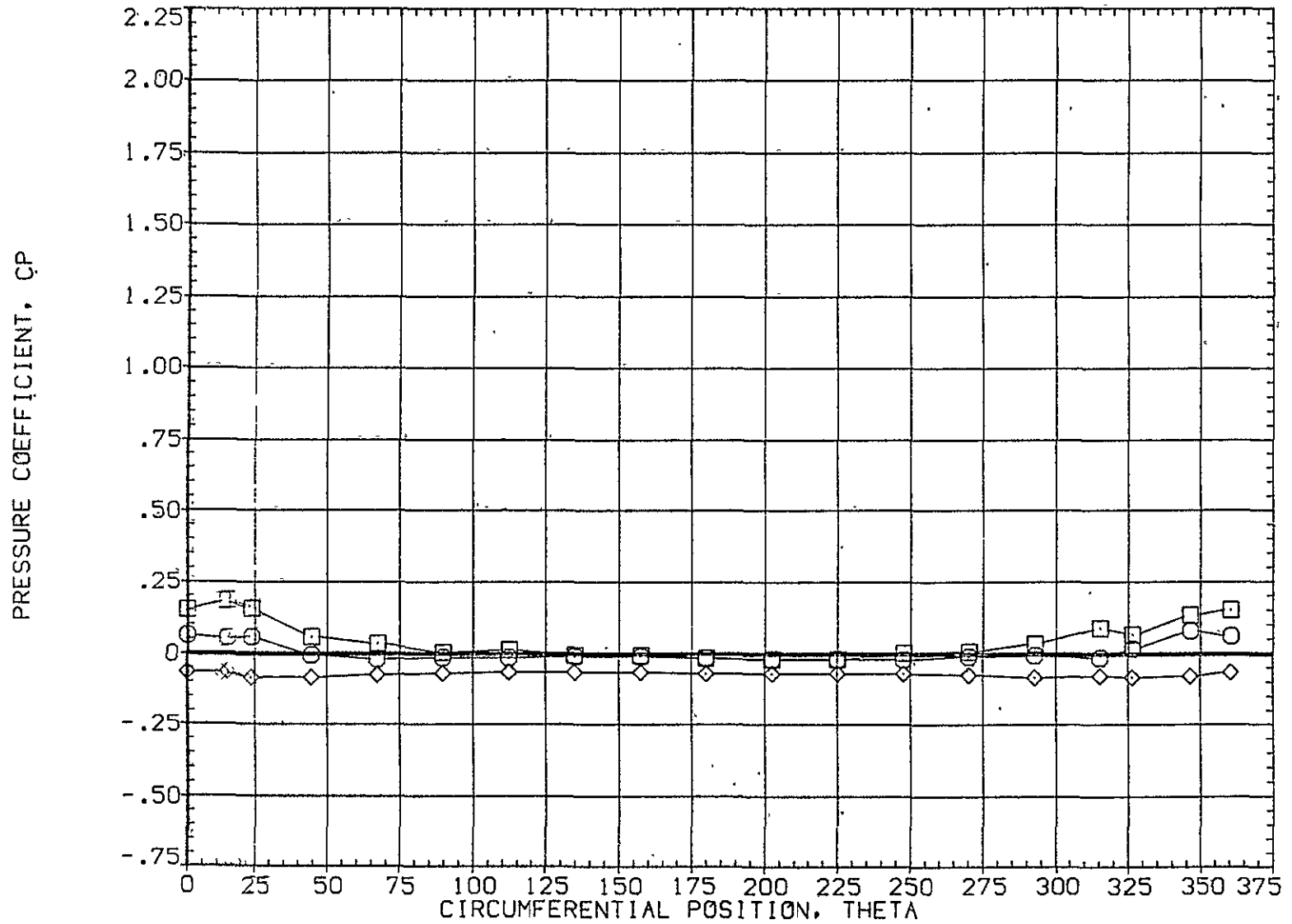


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA MOUNT	.000 OFFSET PHI	.000 .135.000
○	.055	7.710	3.480			
□	.108					
◇	.162					

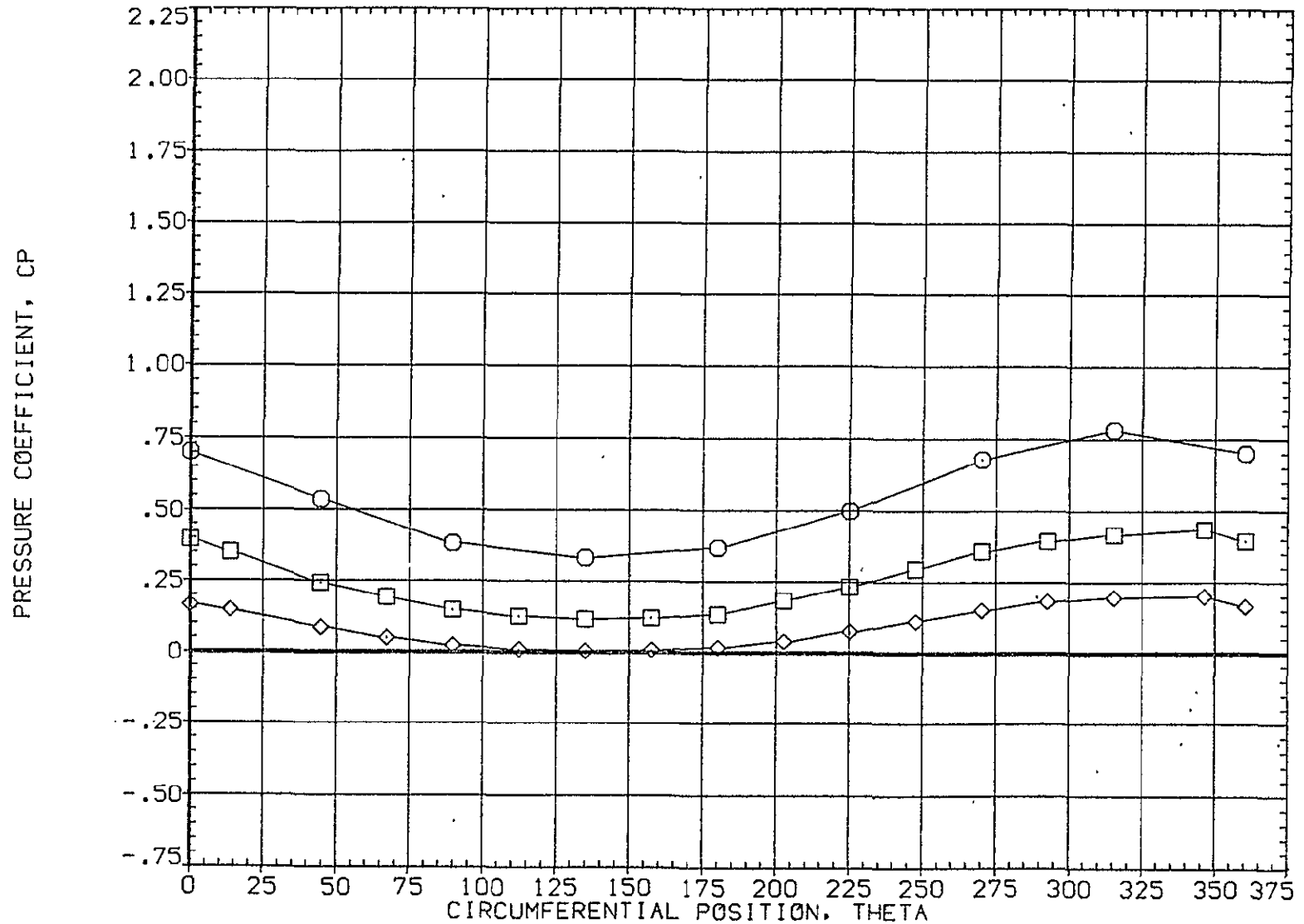


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 7.710 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 135.000

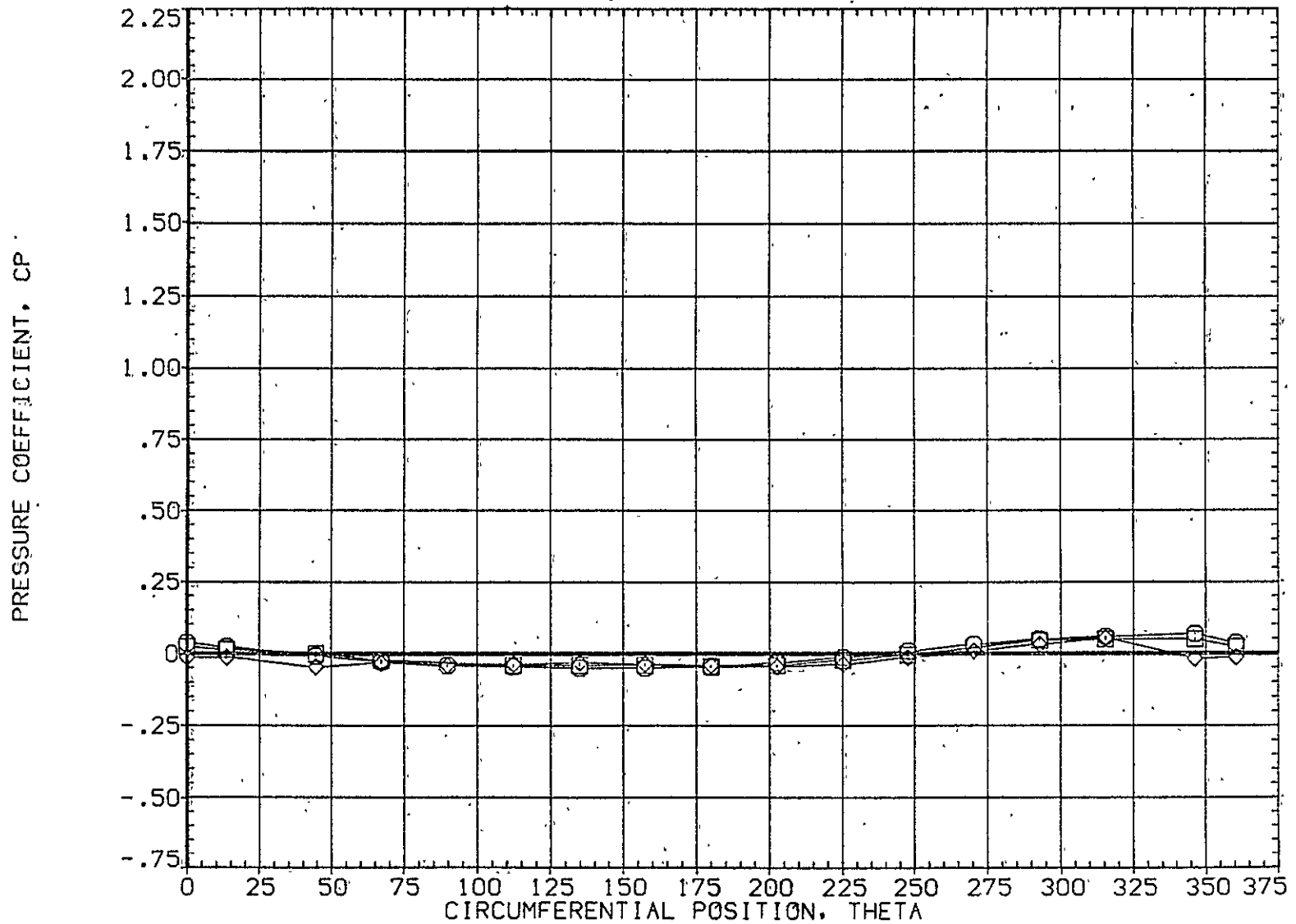


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A025)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.710	3.480	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

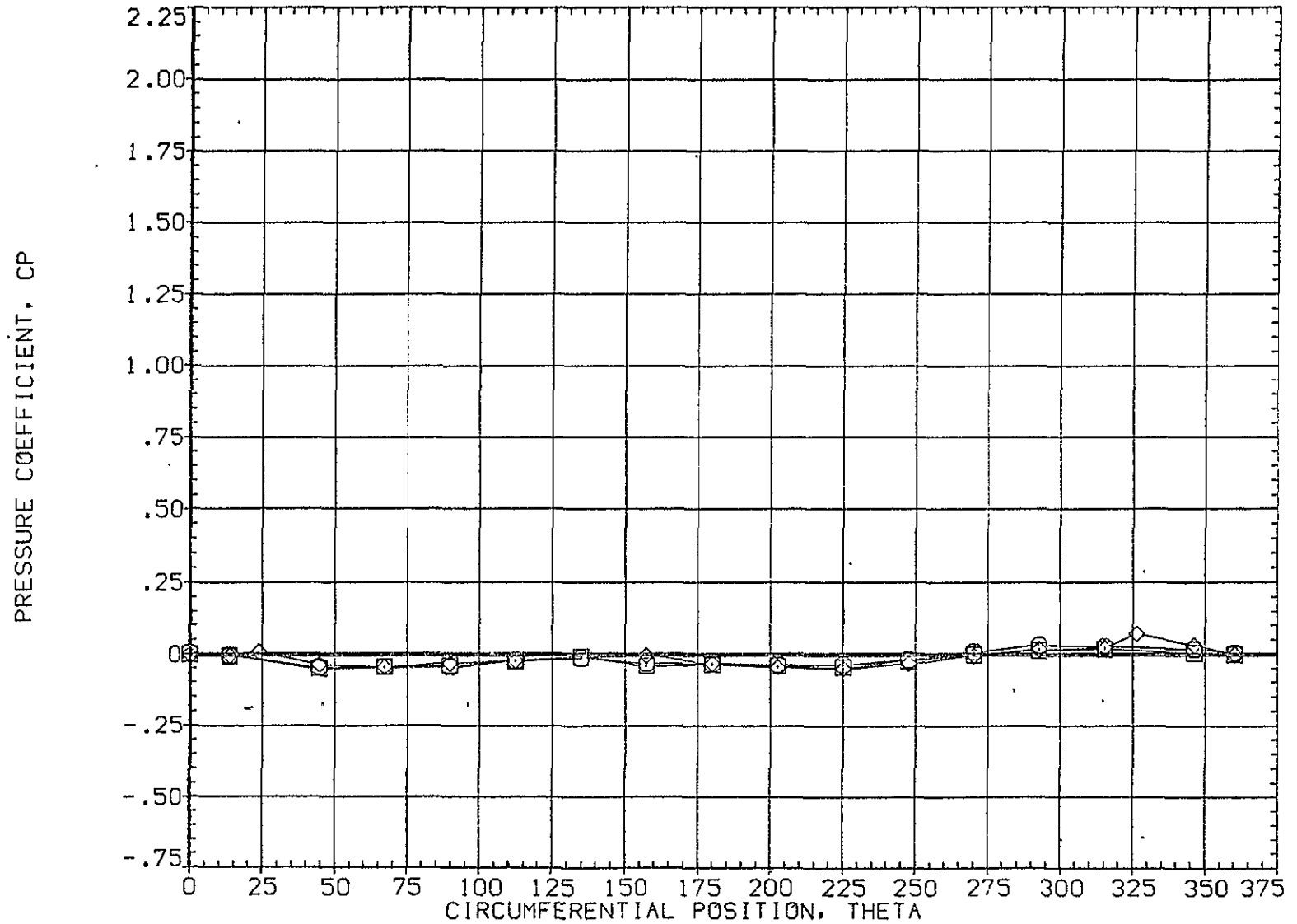


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL

X/LB

ALPHA

MACH

PARAMETRIC VALUES

○
□
◇

.892
.923
.954

7.710

3.480

BETA

.000

OFFSET

.000

MCUNT

1.000

PHI

135.000

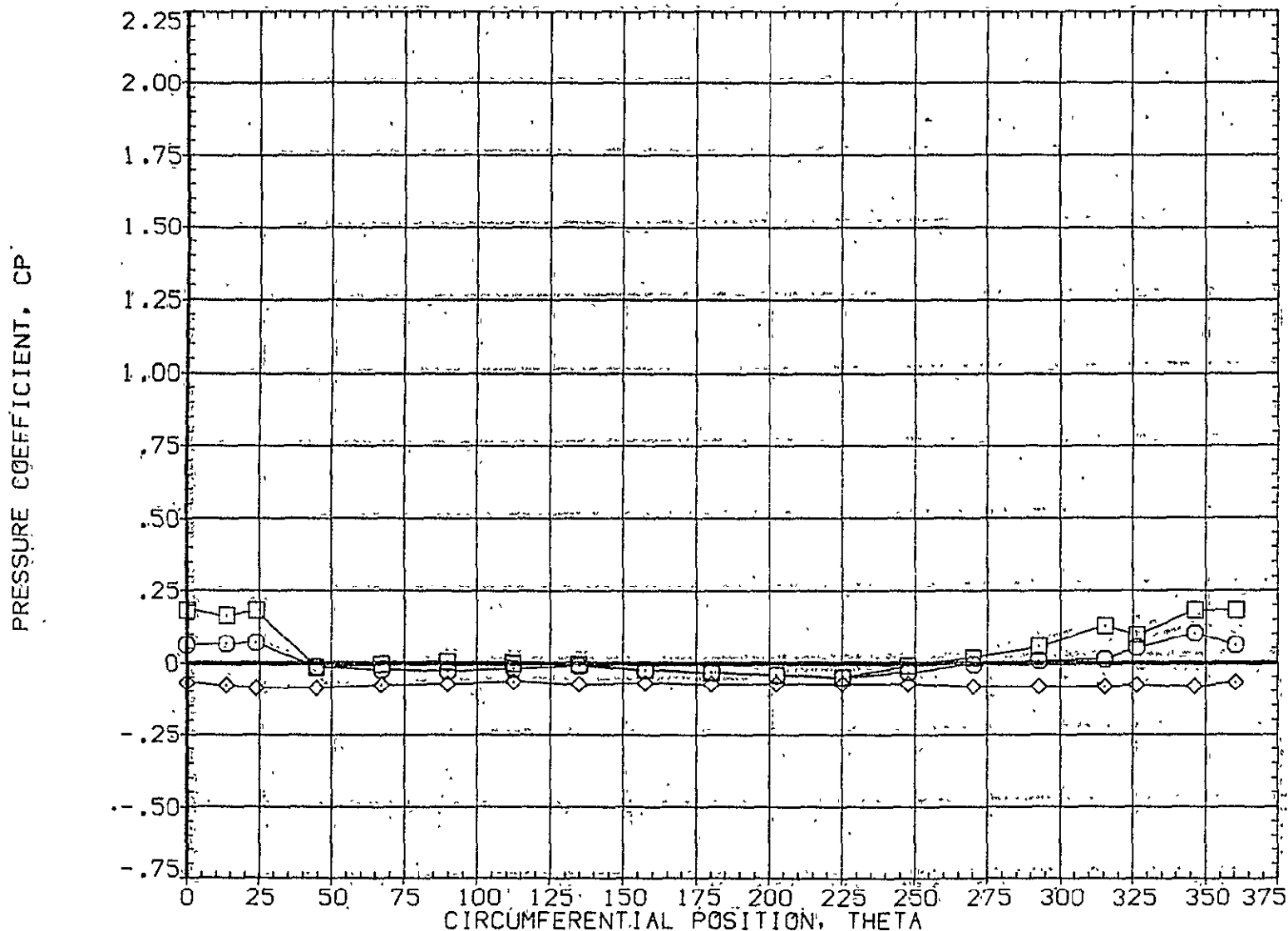


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	12.520	3.480	.000	20.000	
□	.108			1.000		135.000
◇	.162					

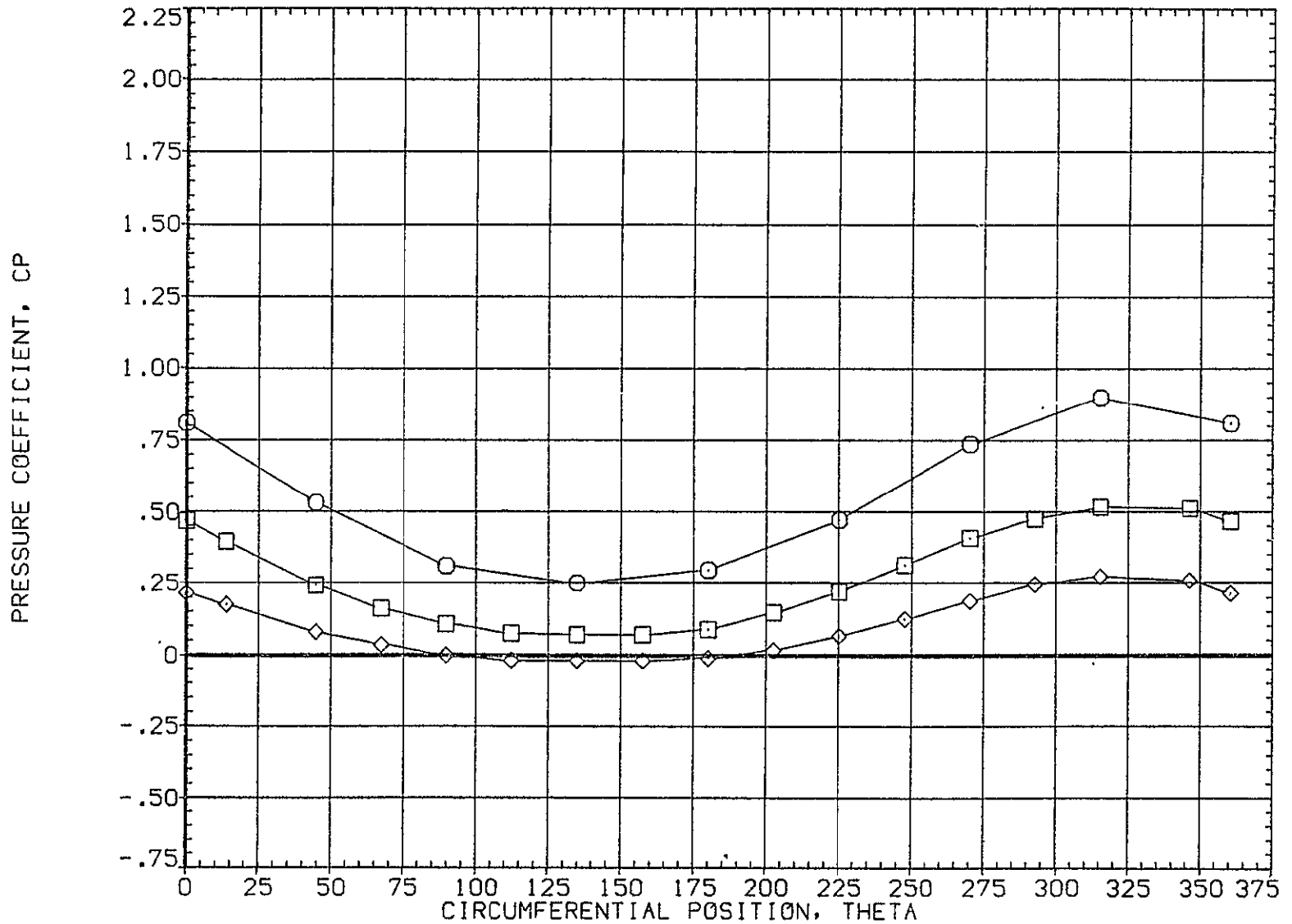


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB ALPHA MACH
.216 12.520 3.480
.322
.518

PARAMETRIC VALUES
BETA .000 OFFSET 20.000
MOUNT 1.000 PHI 135.000

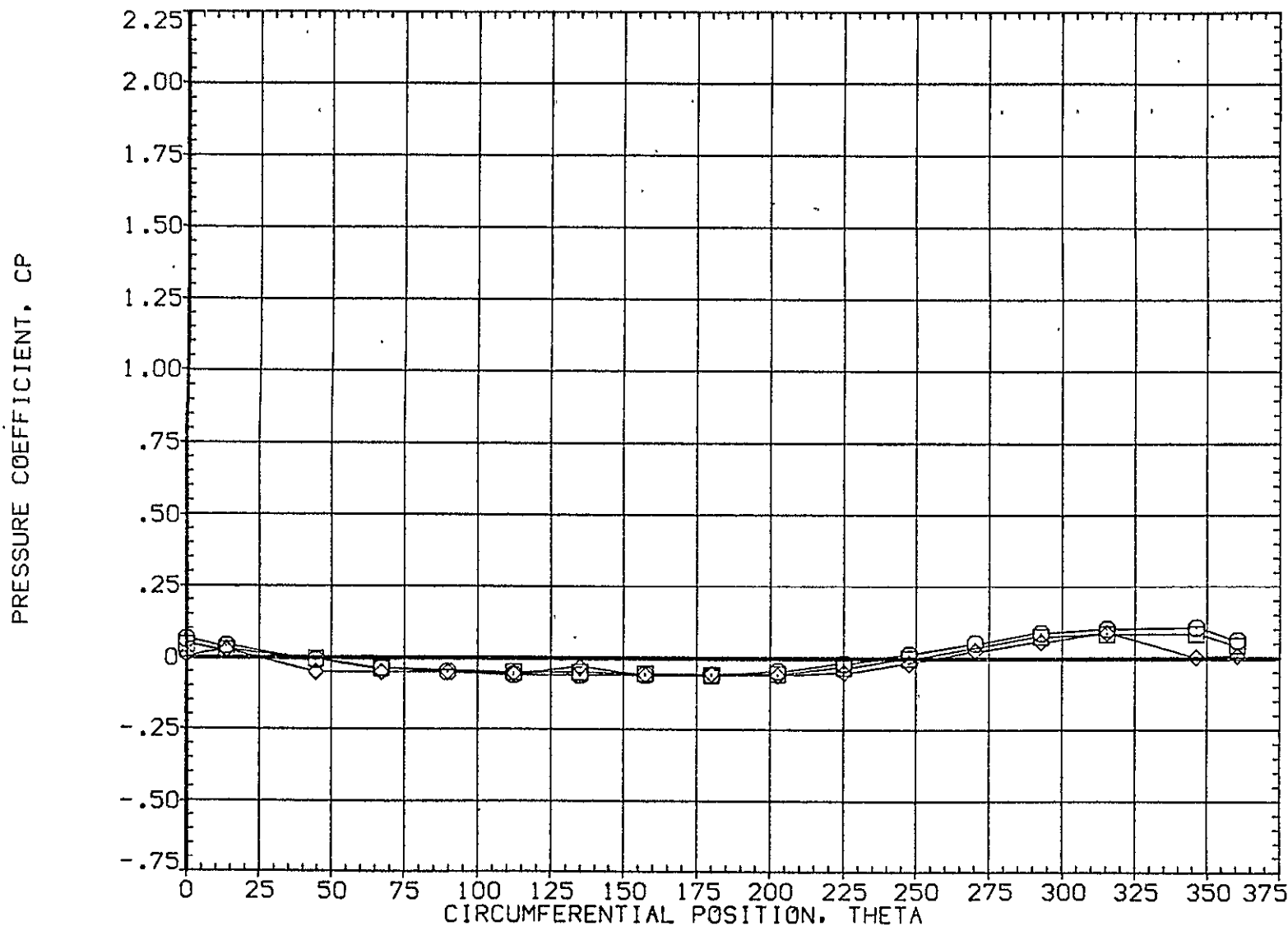


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A026)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	12.520	3.480	.000		20.000
□	.735			1.000		135.000
◇	.860					

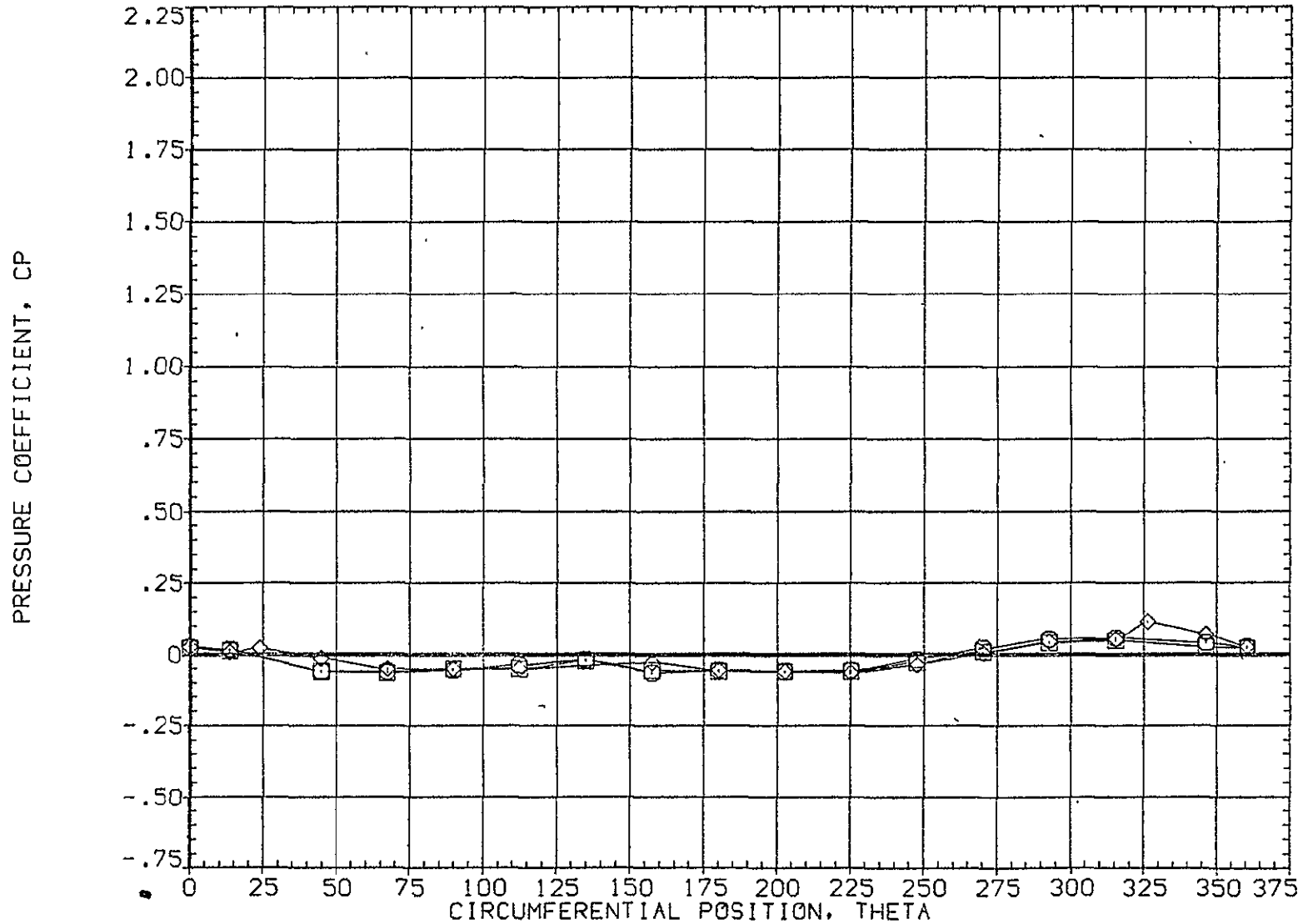


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	12.520	3.480	MOUNT	1.000	PHI	135.000.
□	.923						
◇	.954						

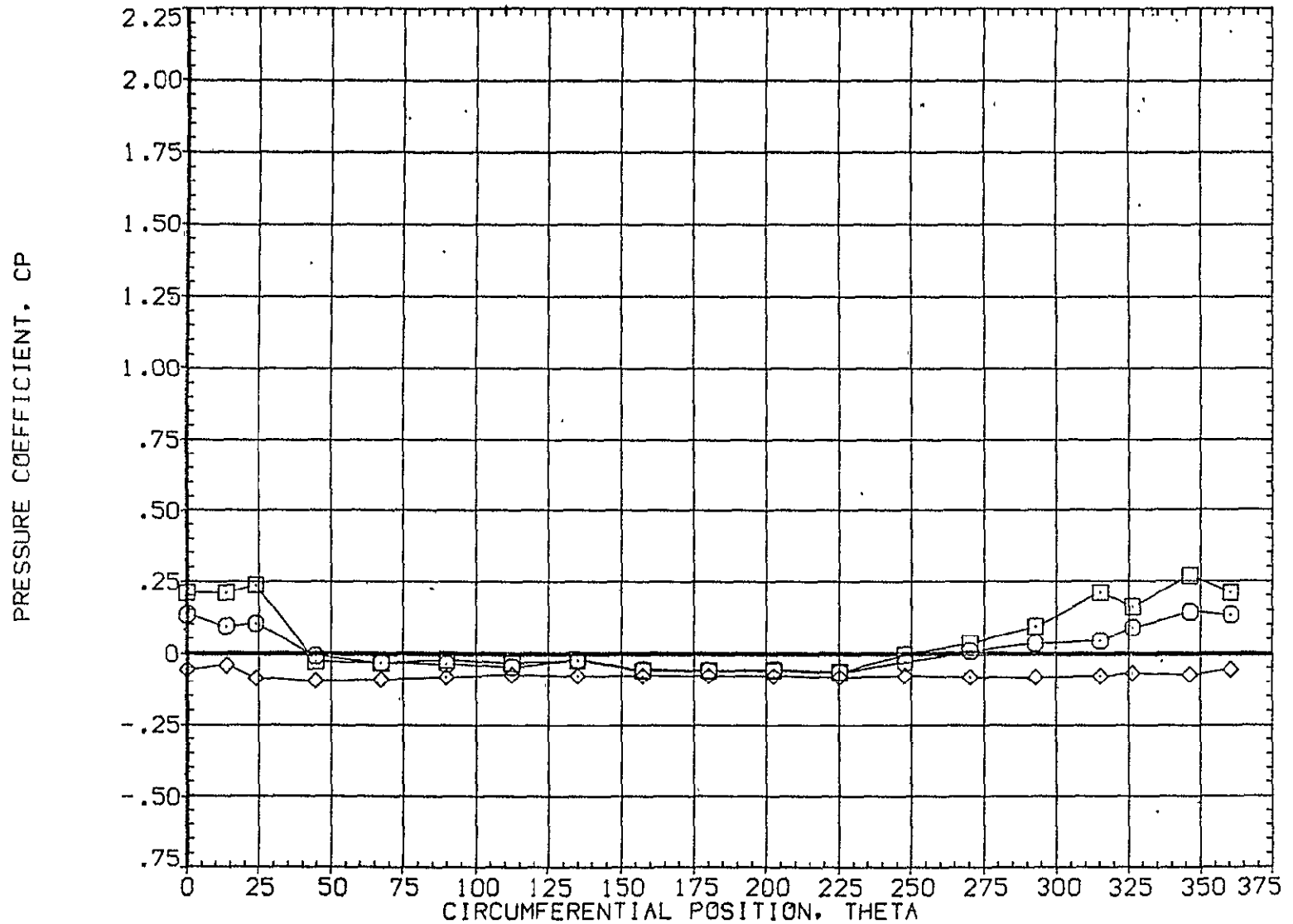


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	16.540	3.480	MOUNT	1.000	PHI	135.000
□	.108						
◇	.162						

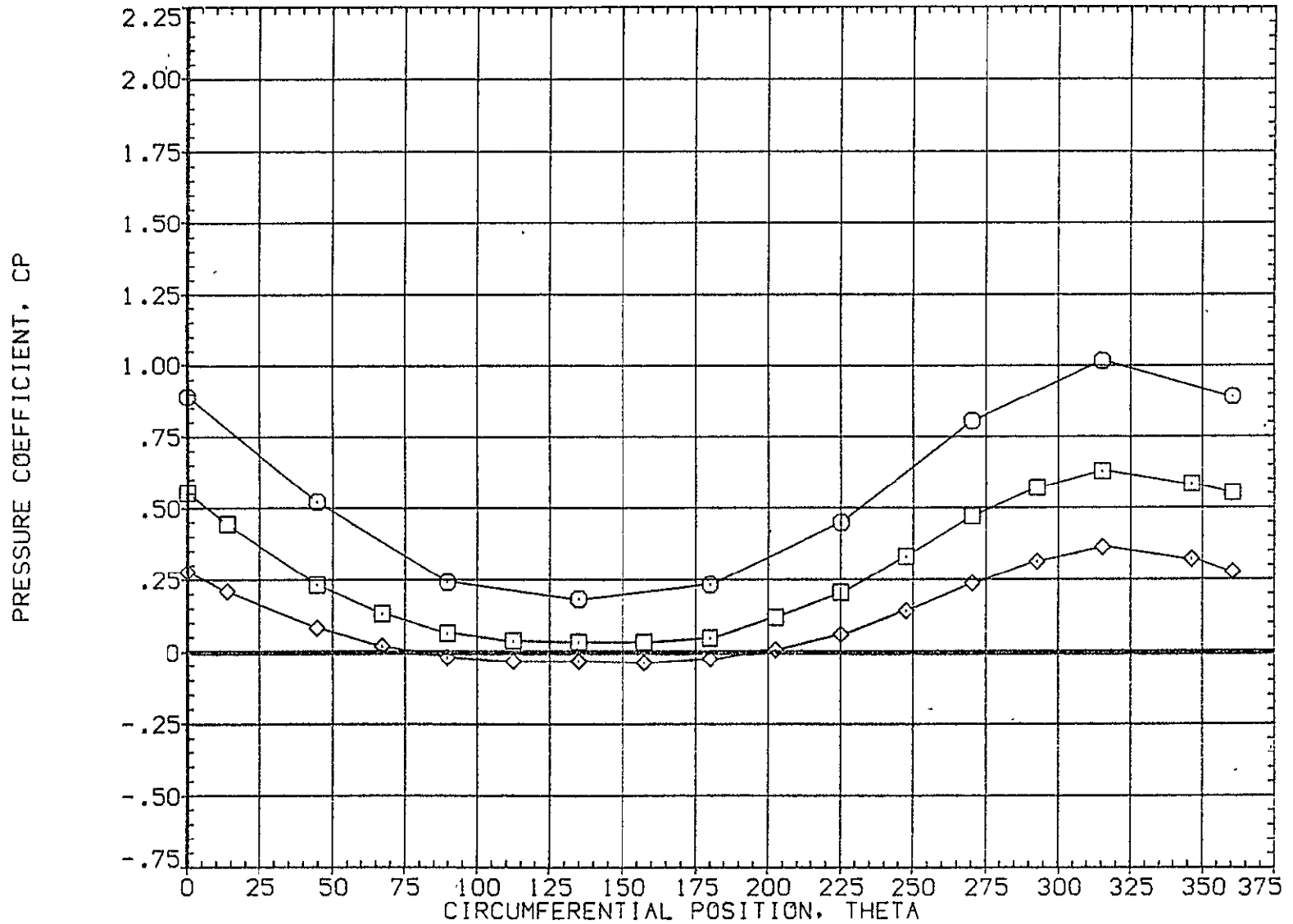


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 16.540 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 135.000

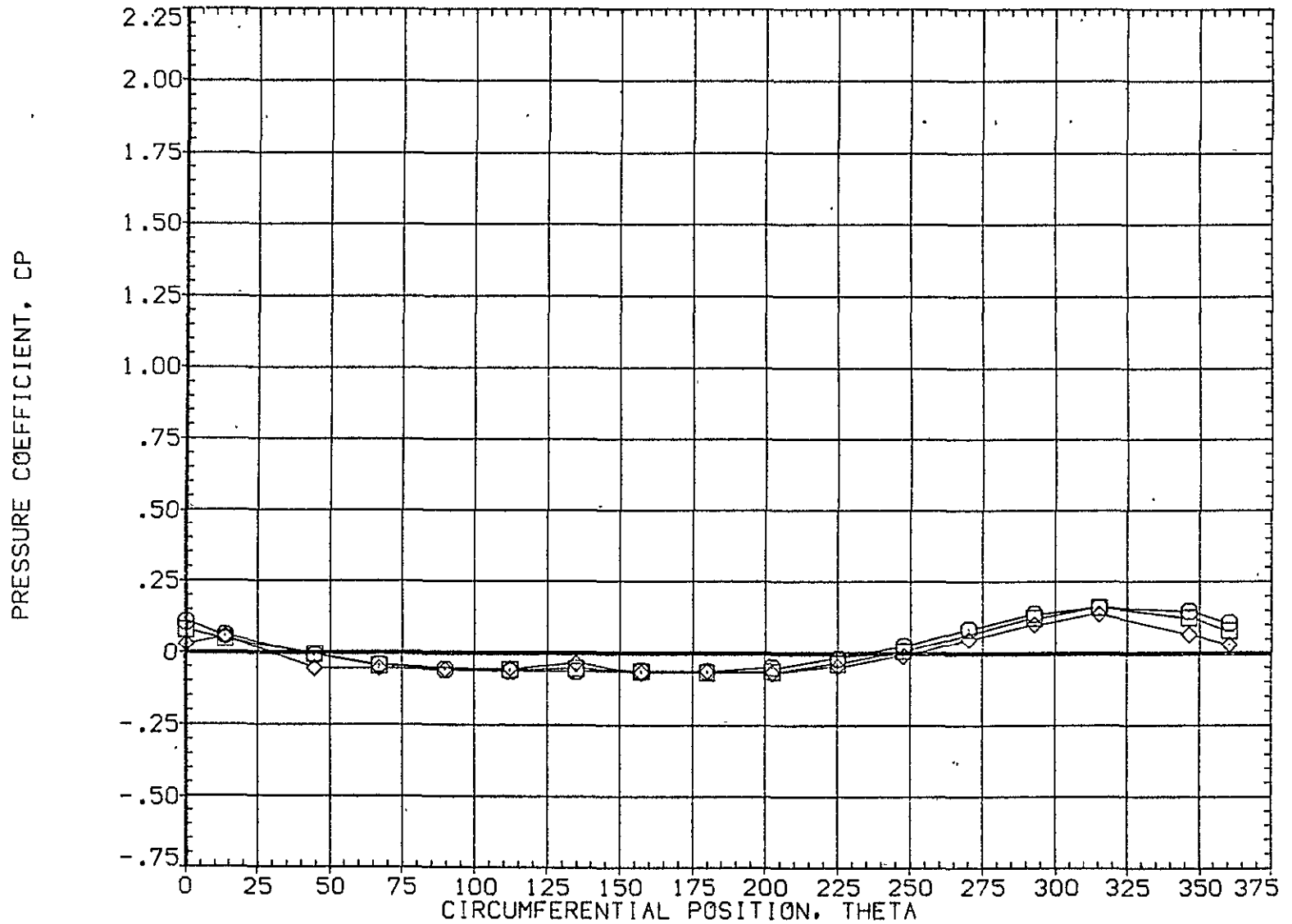


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	16.540	3.480	.000	20.000		
□	.735			1.000	135.000		
◇	.860						

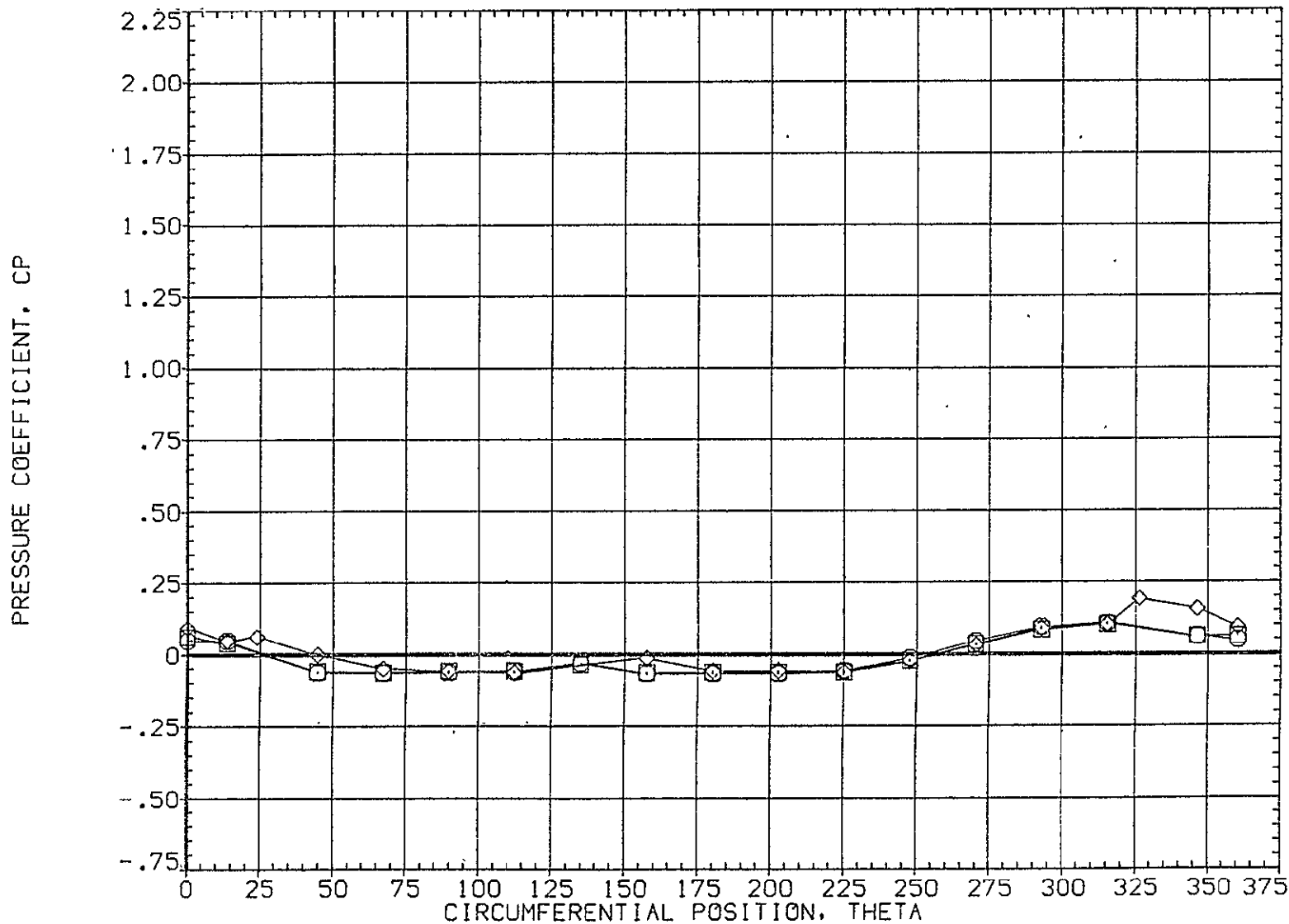


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	16.540	3.480	MOUNT	1.000	PHI	135.000
□	.923						
◇	.954						

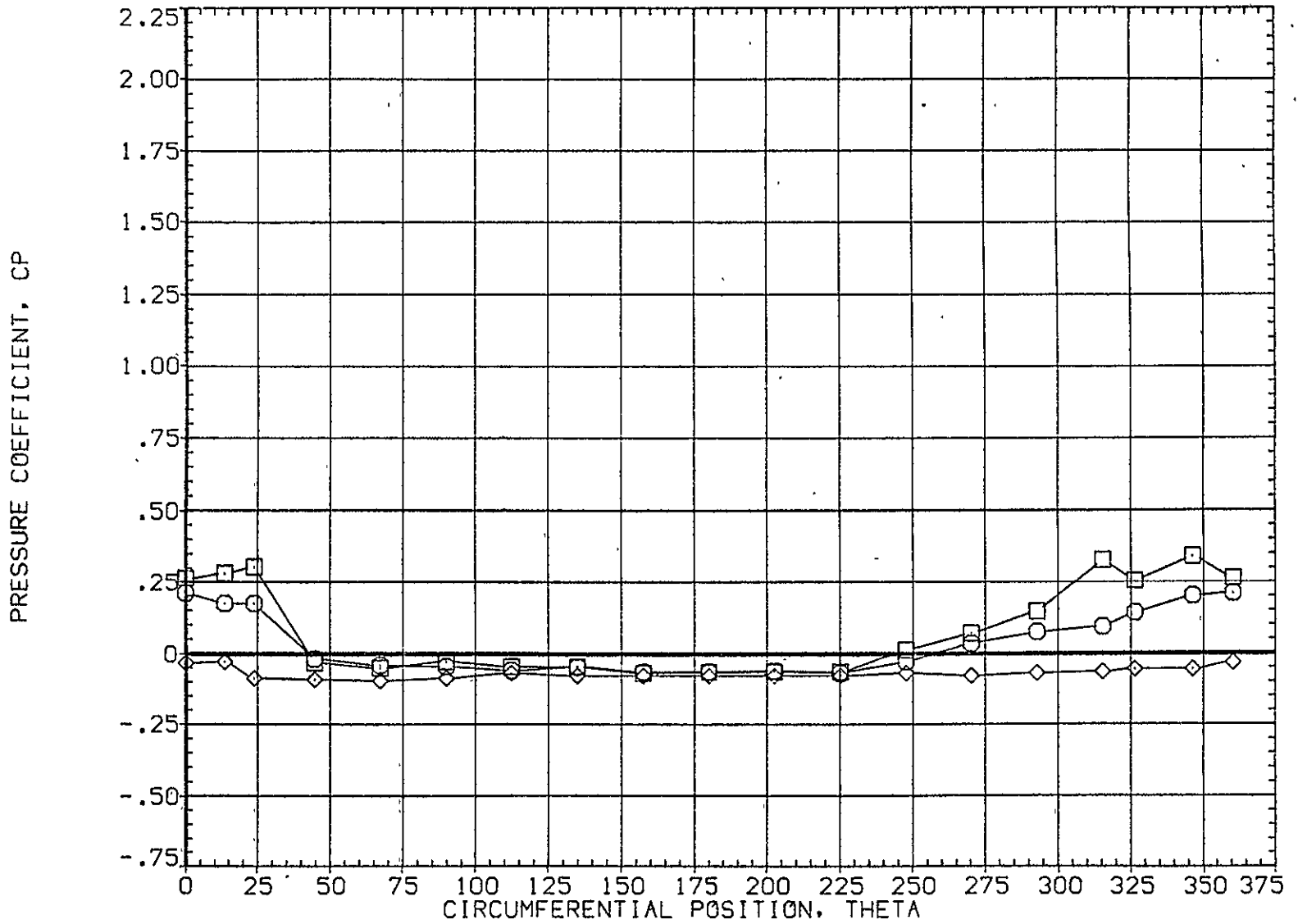


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	20.610	3.480	.000	20.000	
□	.108			1.000		
◇	.162				135.000	

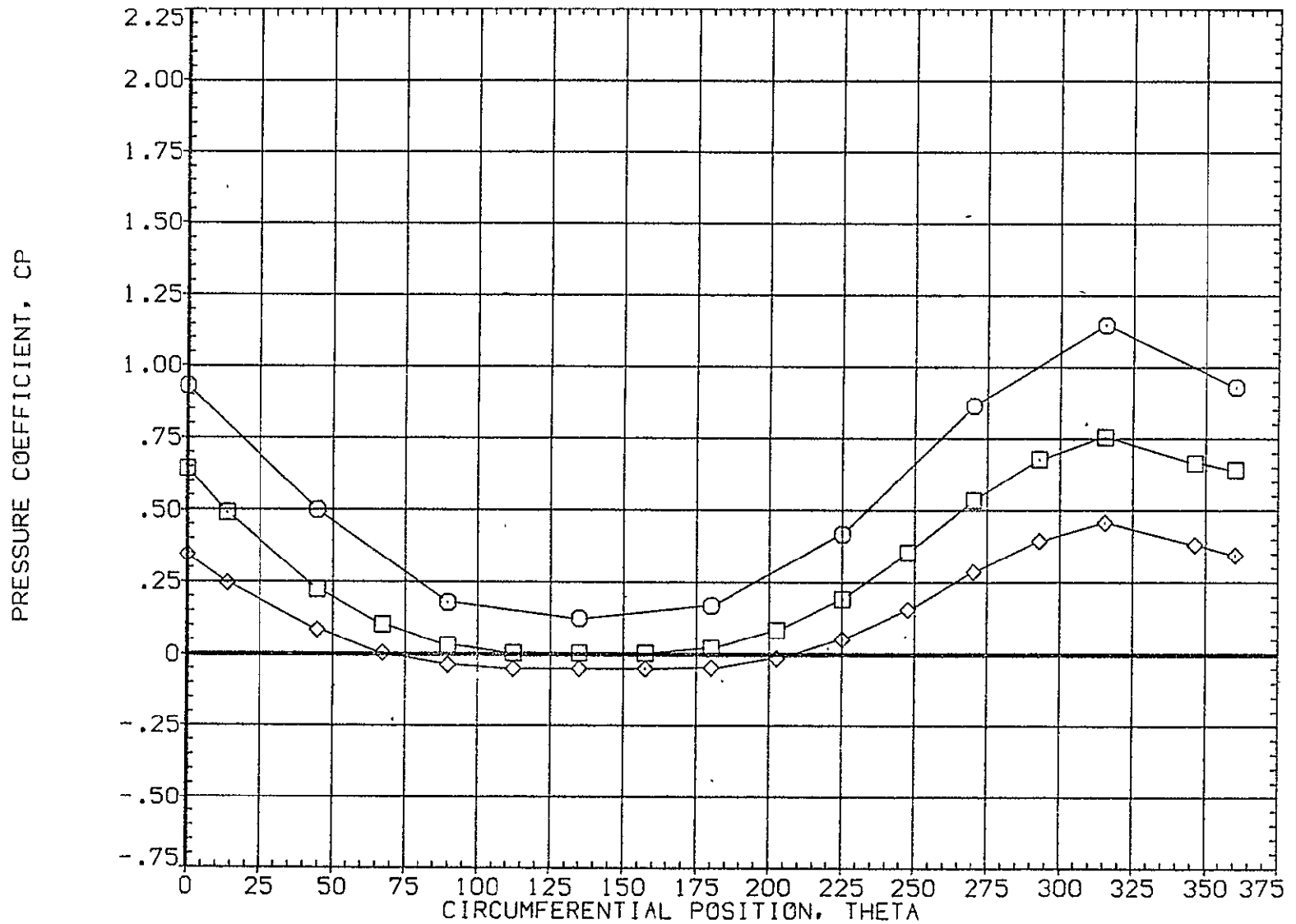


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.216	20.610	3.480
□	.322		
◇	.518		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	135.000

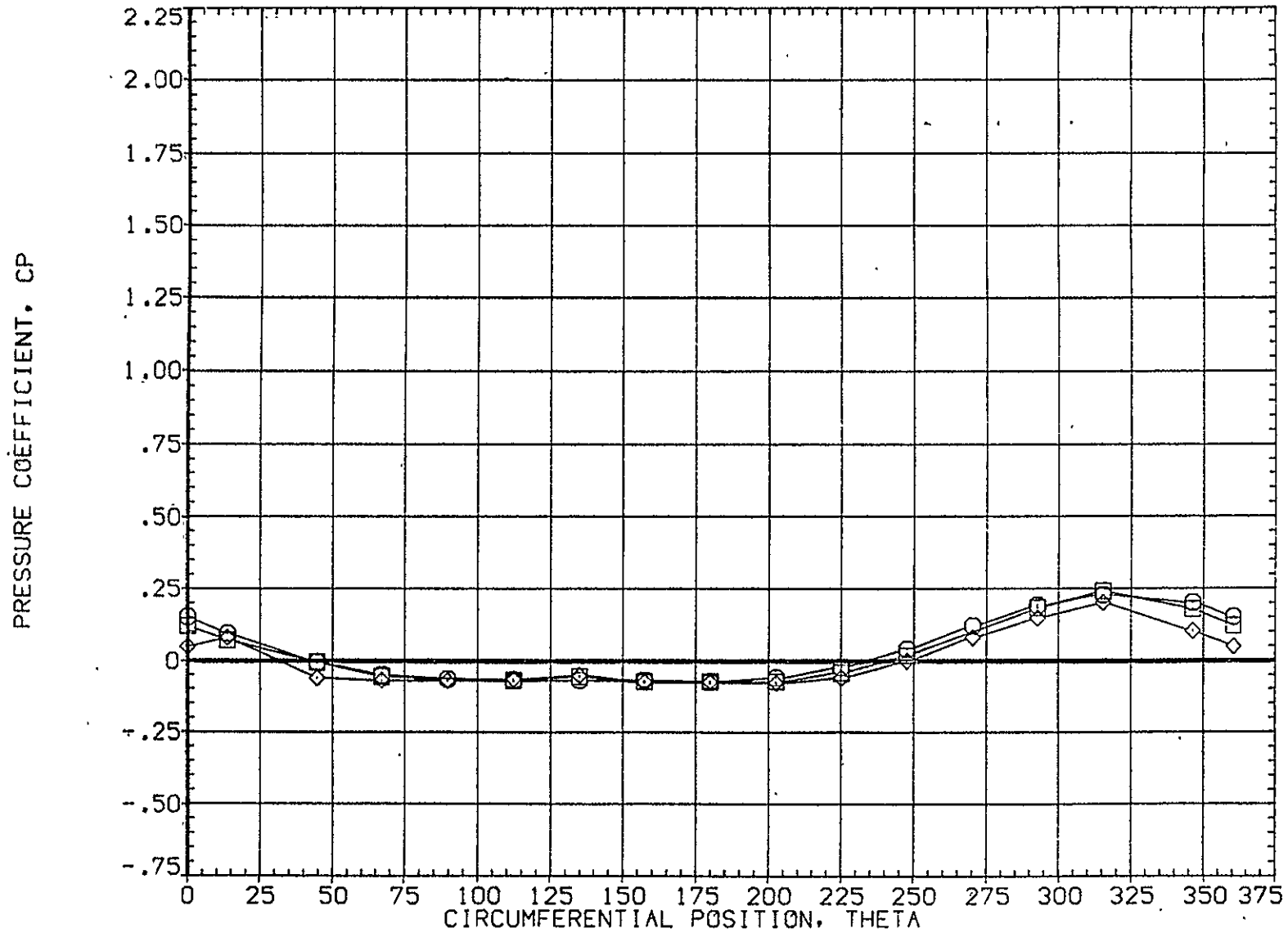


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A028)

SYMBOL	X/LB	ALPHA	MACH
○	.610	20.610	3.480
□	.735		
◇	.860		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	135.000

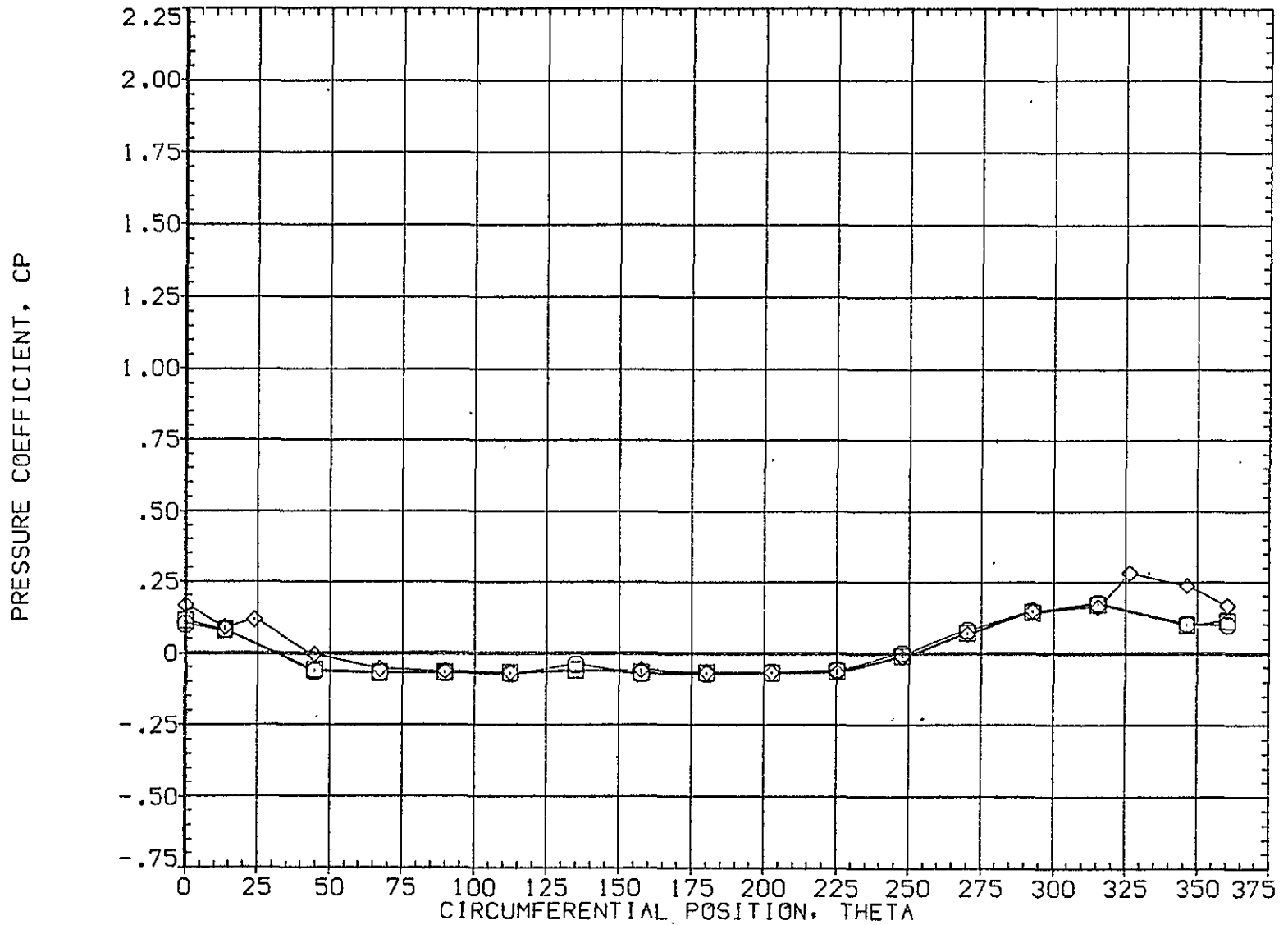


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 20.610 3.480
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 135.000

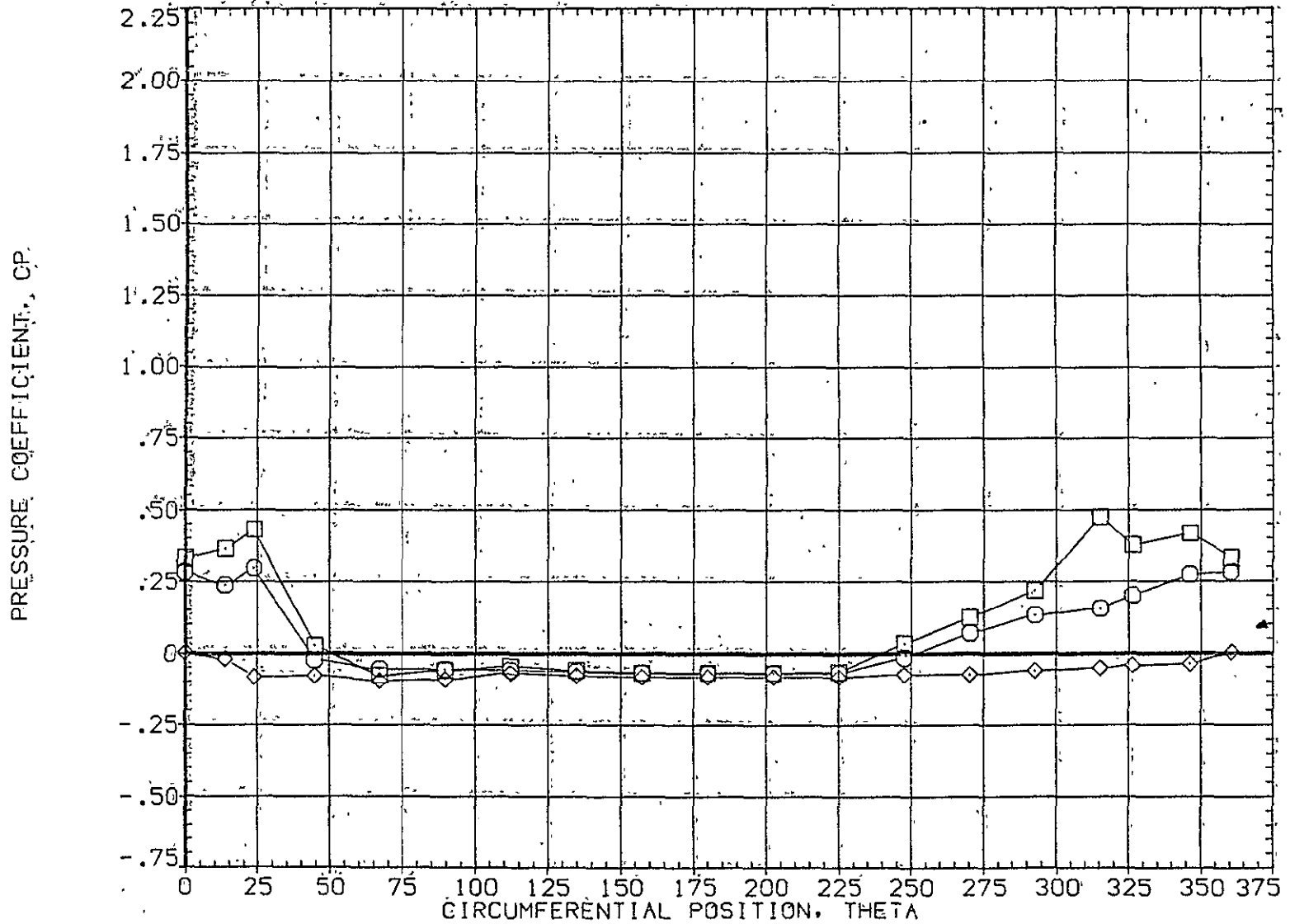


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	24.660	3.480	.000	20.000		
□	.108			1.000	135.000		
◇	.162						

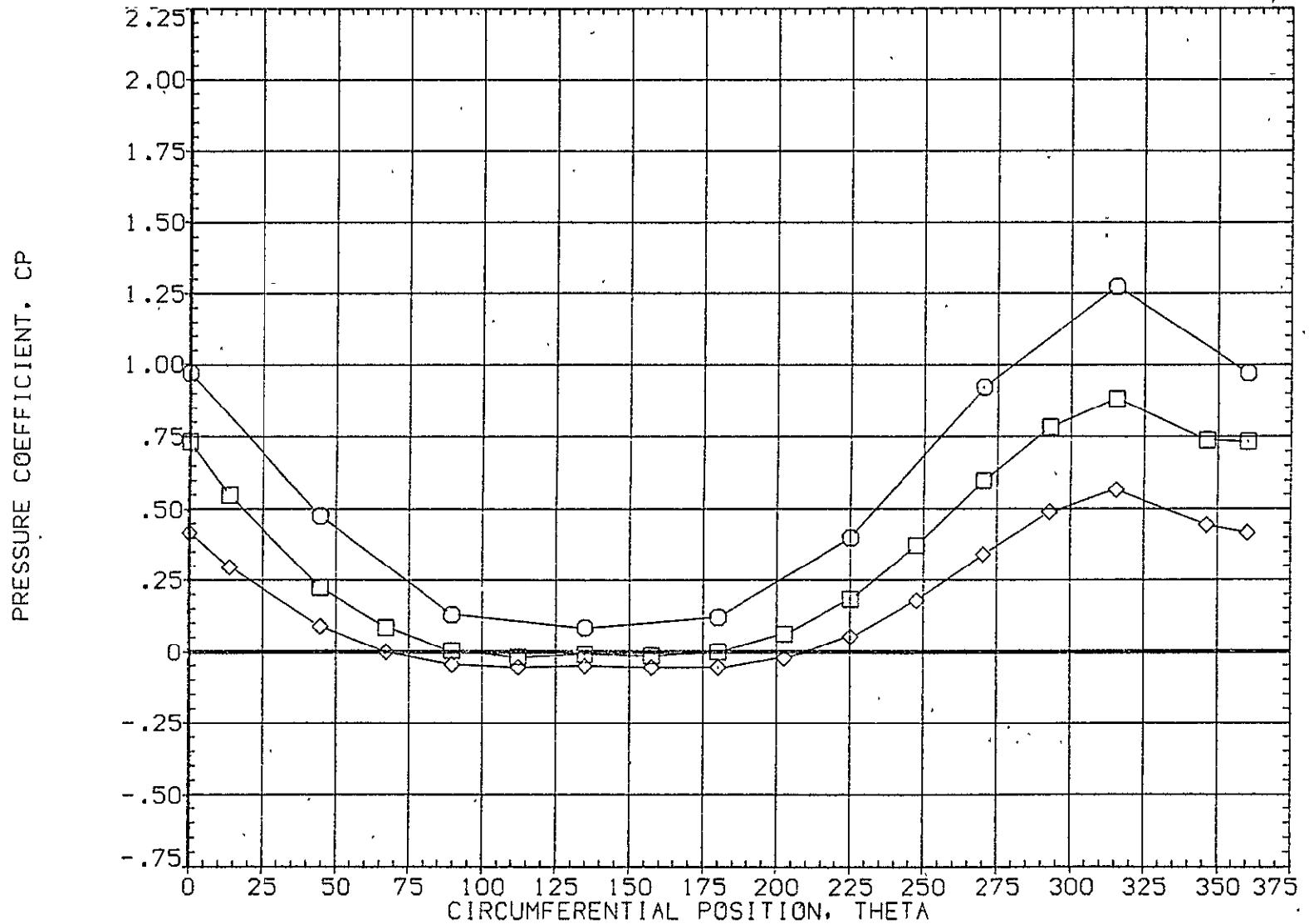


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	24.660	3.480		20.000	
□	.322			MOUNT	1.000	135.000
◇	.518					

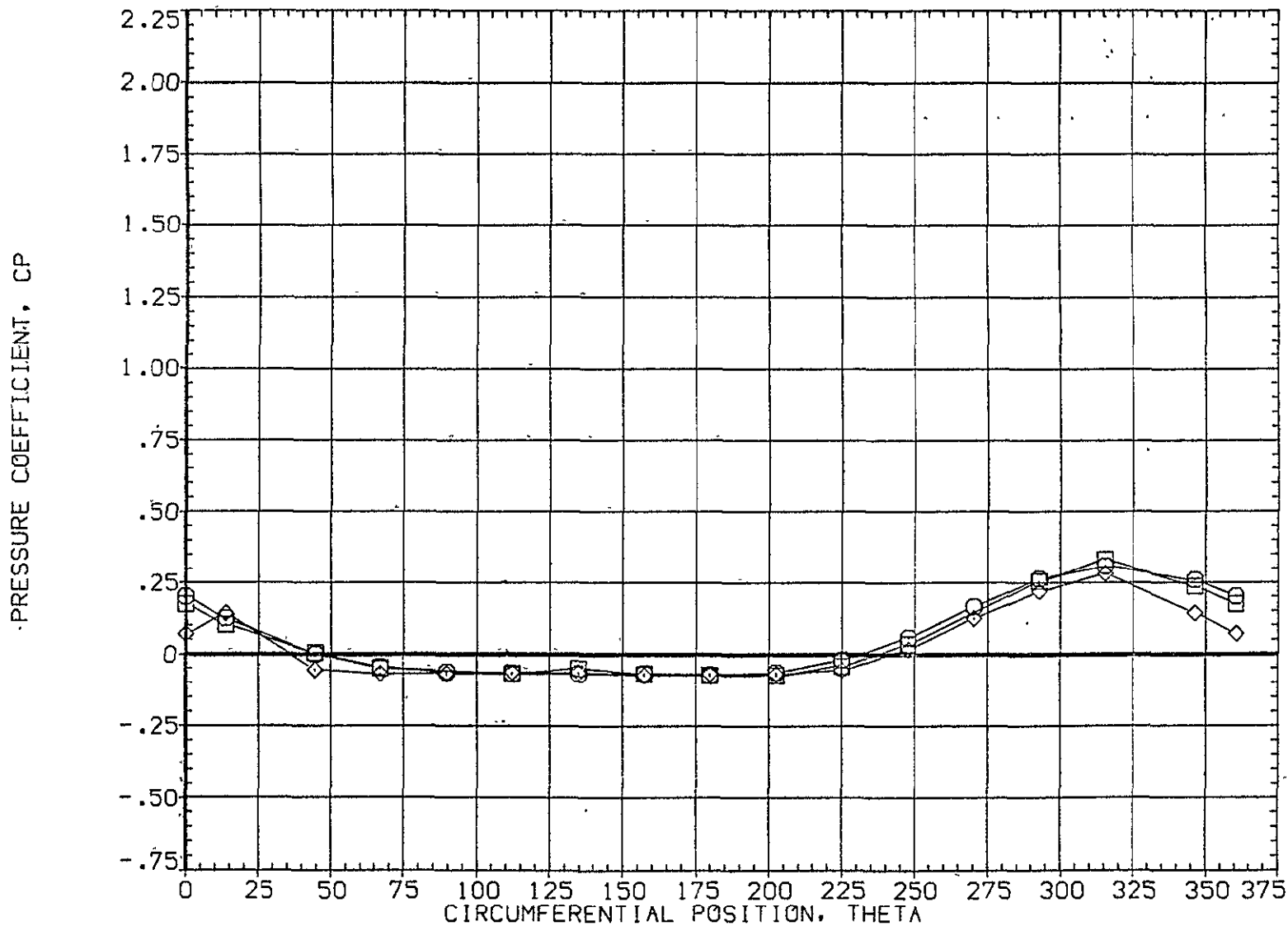


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	24.660	3.480	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

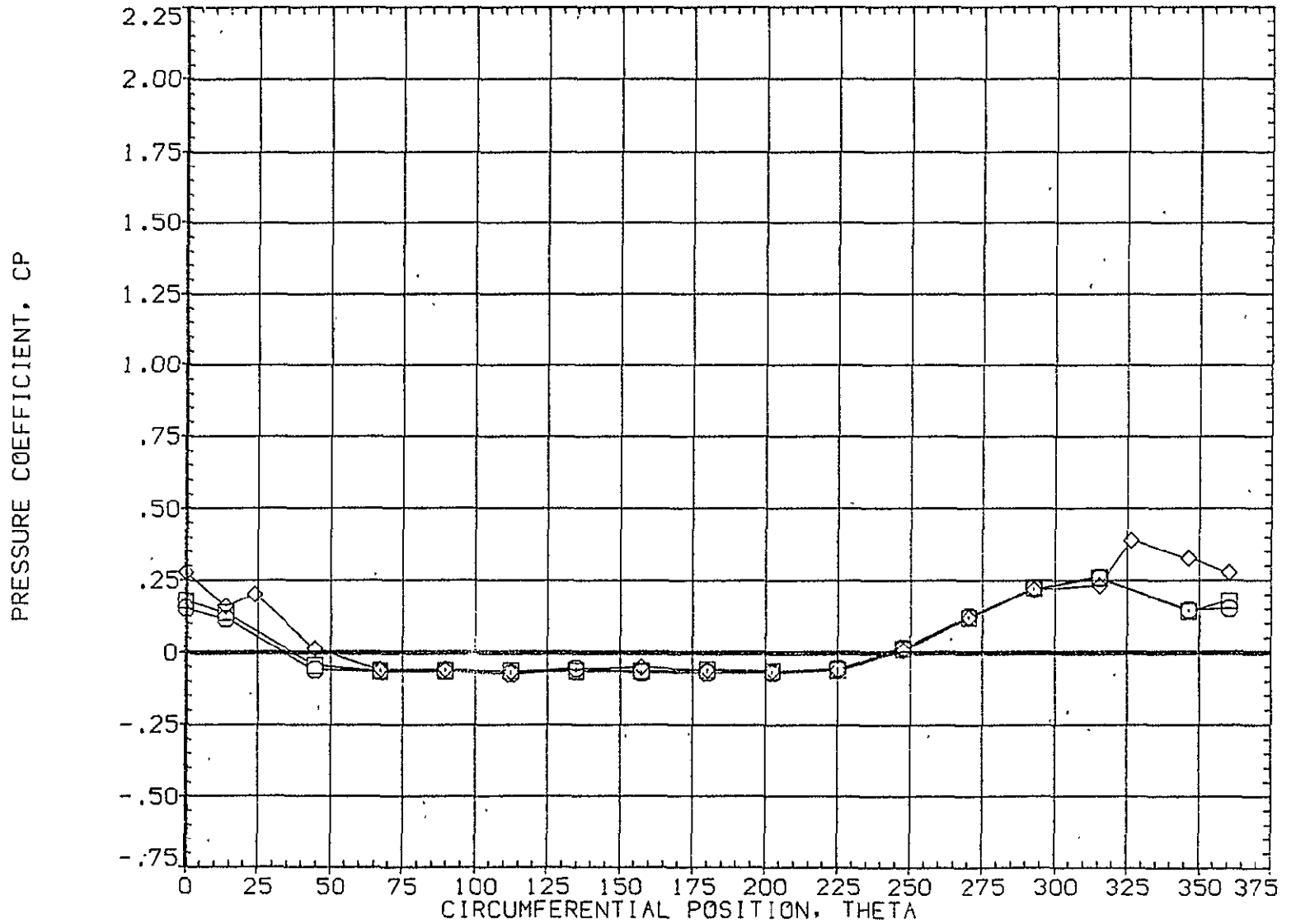


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	24.660	3.480	.000	20.000	
□	.923			1.000	135.000	
◇	.954					

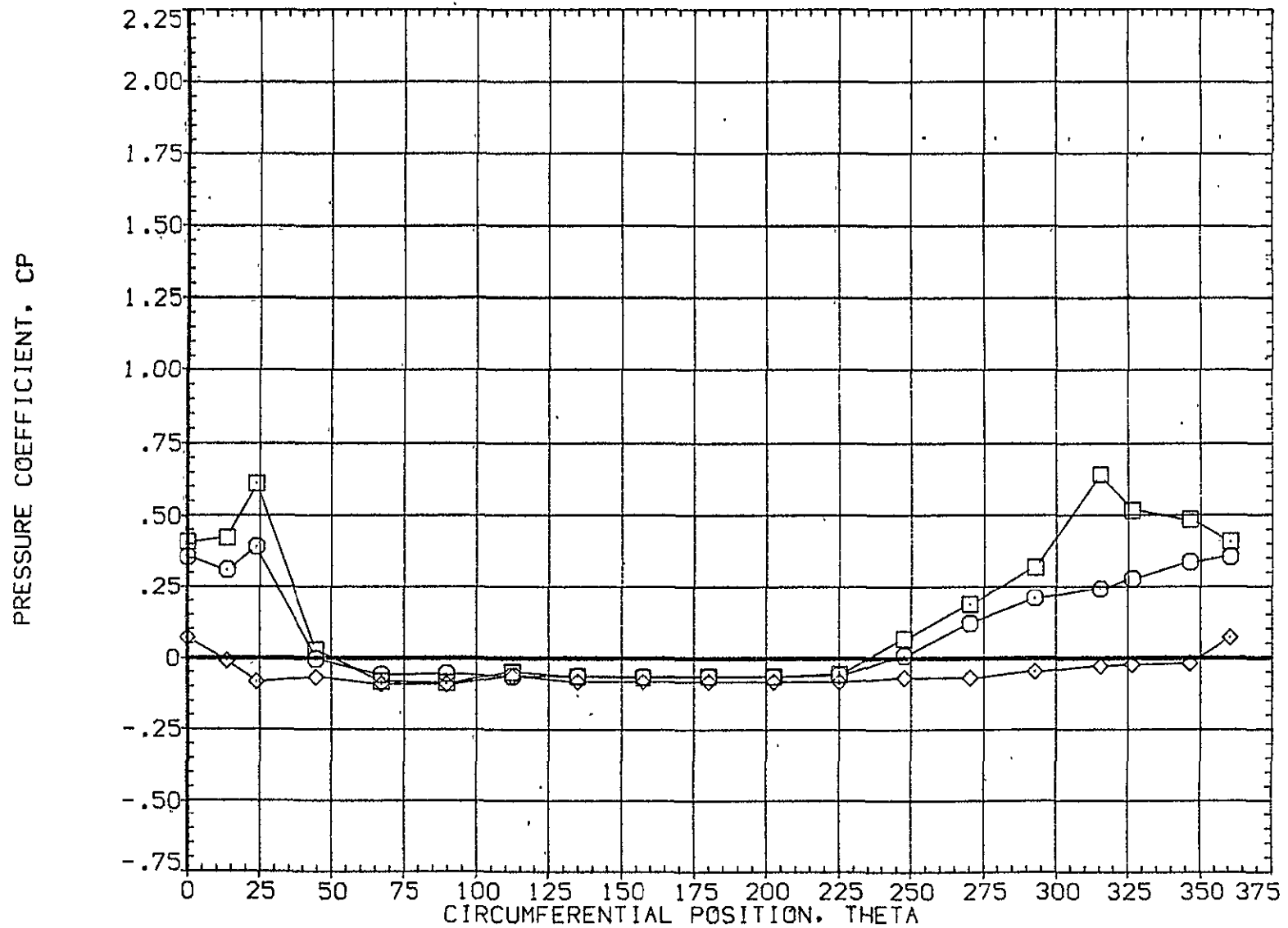


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	29.700	3.480		20.000		
□	.108			1.000			135.000
◇	.162						

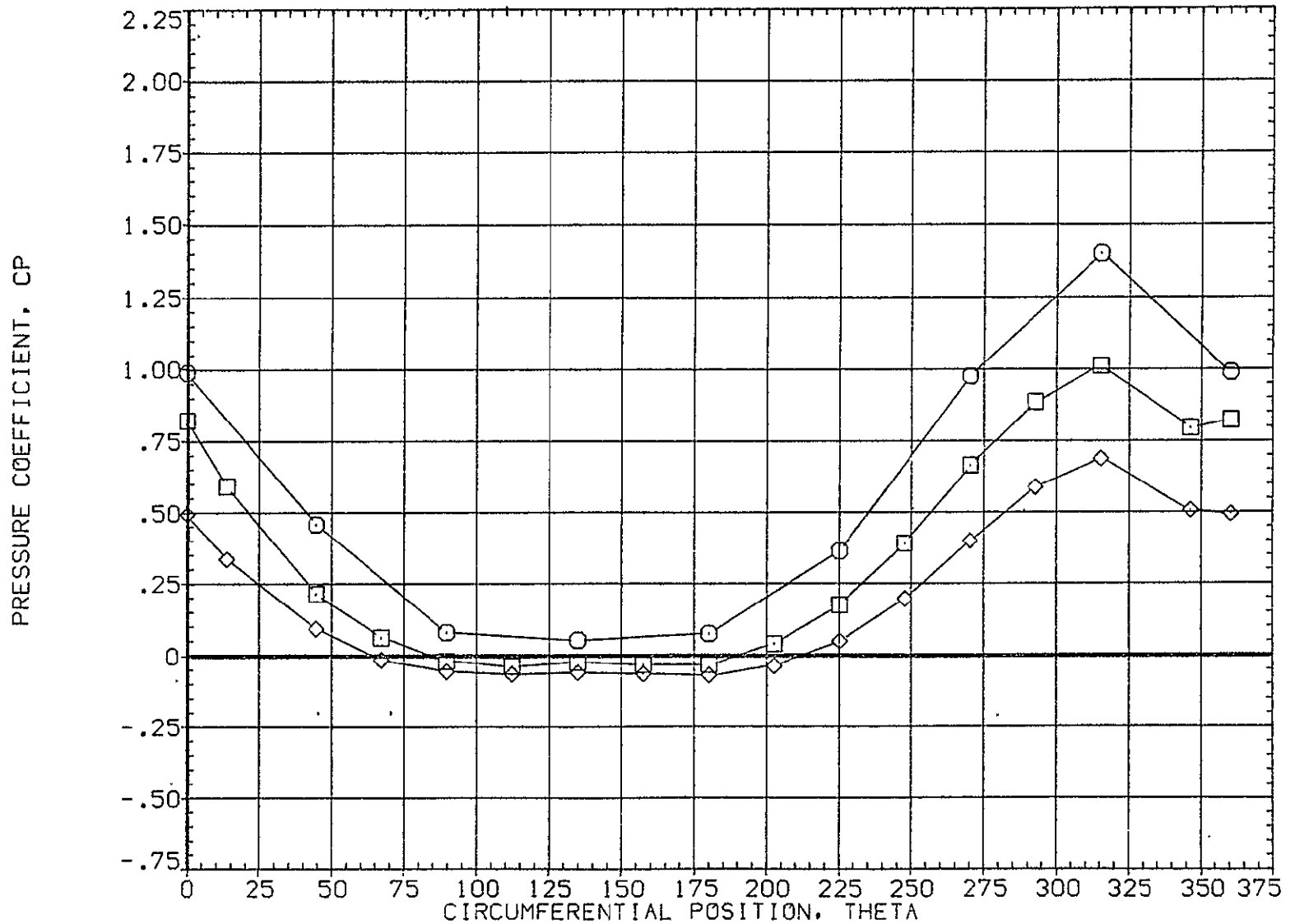


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.216	28.700	3.480	BETA	.000	OFFSET	20.000
□	.322			MOUNT	1.000	PHI	135.000
◇	.518						

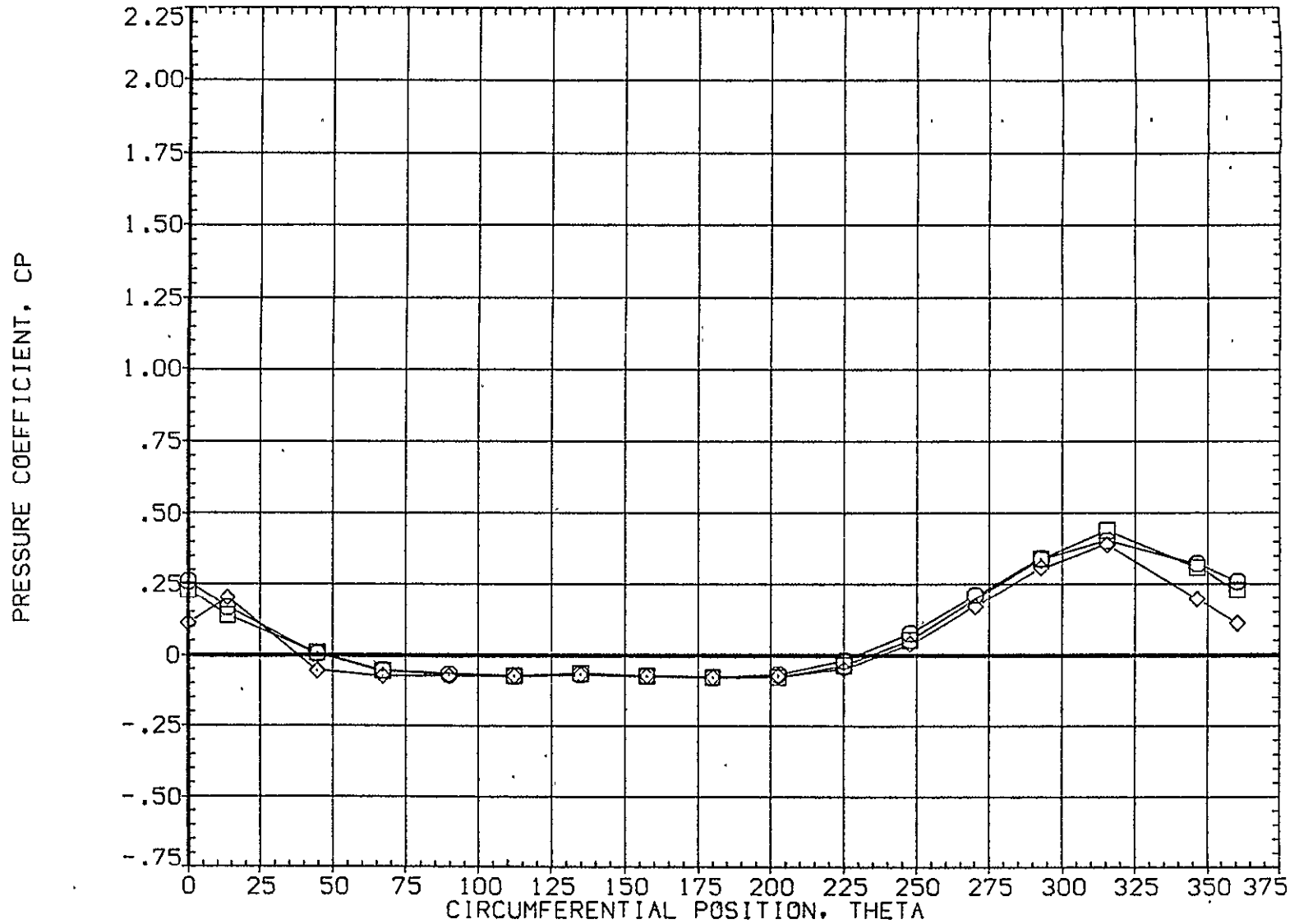


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET = T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.610	28.700	3.480
□	.735		
◇	.860		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	135.000

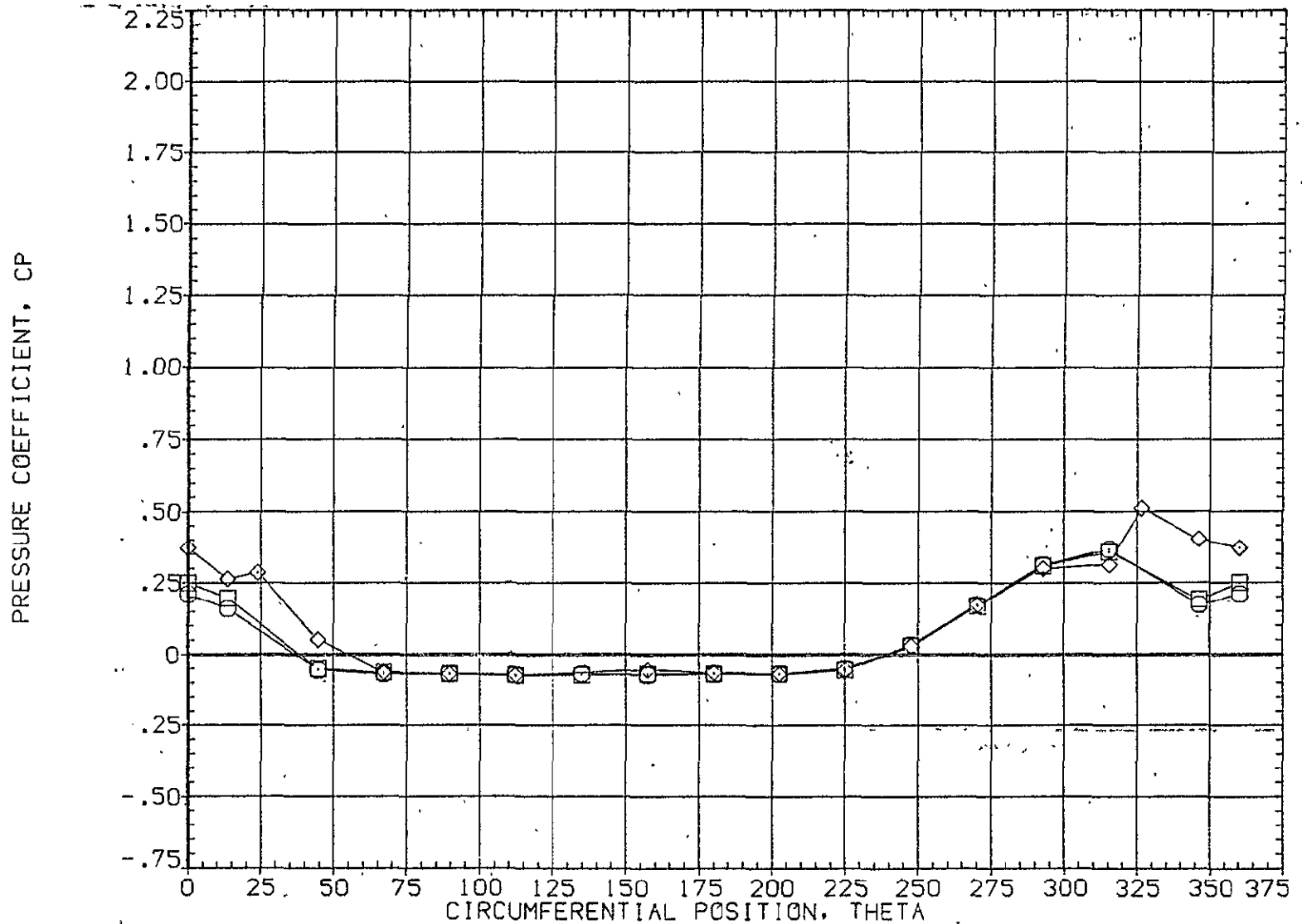


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 ALPHA 28.700
 MACH 3.480

BETA .000
 MOUNT 1.000
 PARAMETRIC VALUES
 OFFSET 20.000
 PHI 135.000

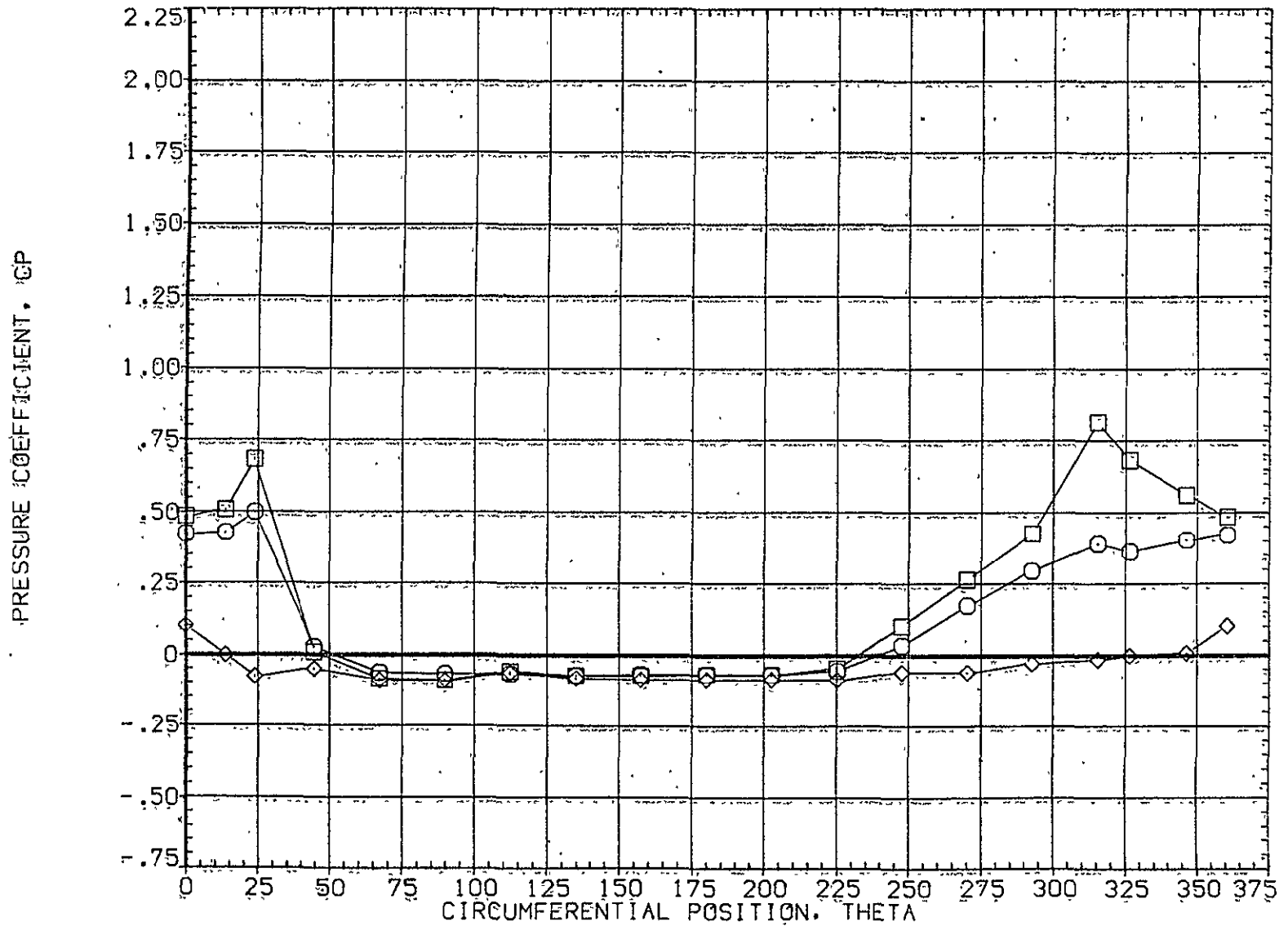


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A031)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-8.360	3.480	MOUNT	1.000	PHI	180.000
□	.108						
◇	.162						

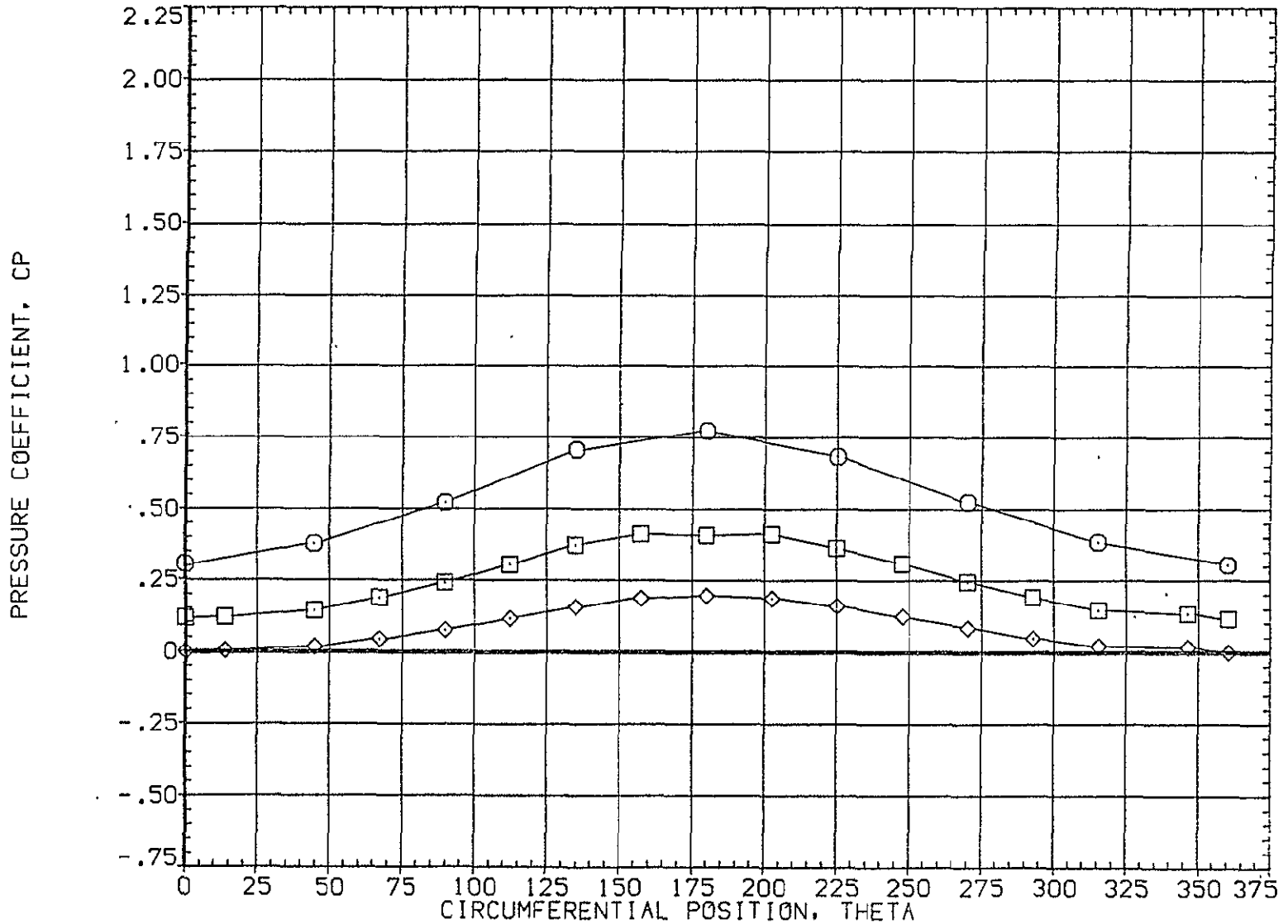


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-8.360	3.480	.000	.000	.000
□	.322			1.000	PHI	180.000
◇	.518					

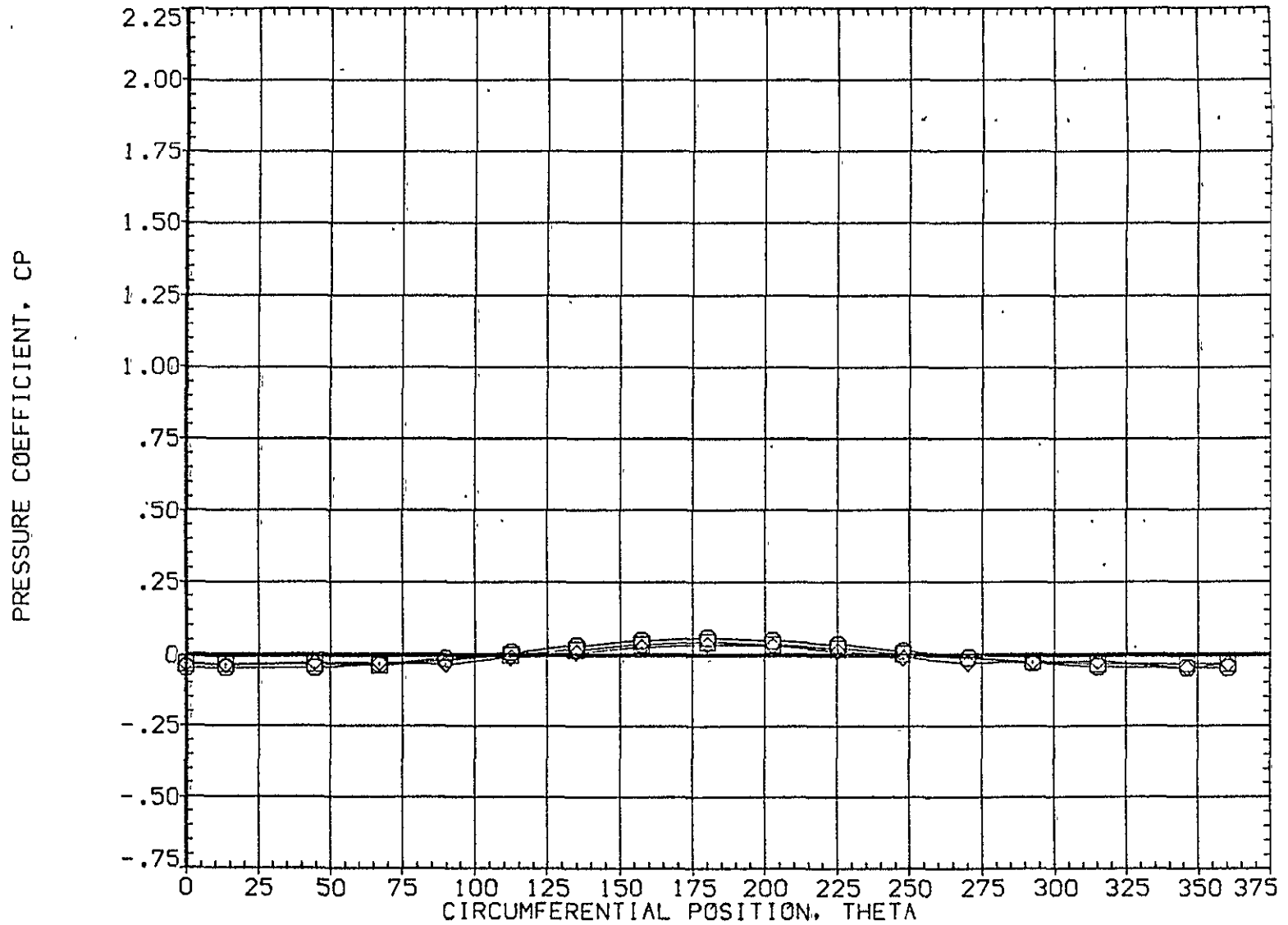


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A031)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.360	3.480	.000	.000	.000
□	.735			1.000		180.000
◇	.860					

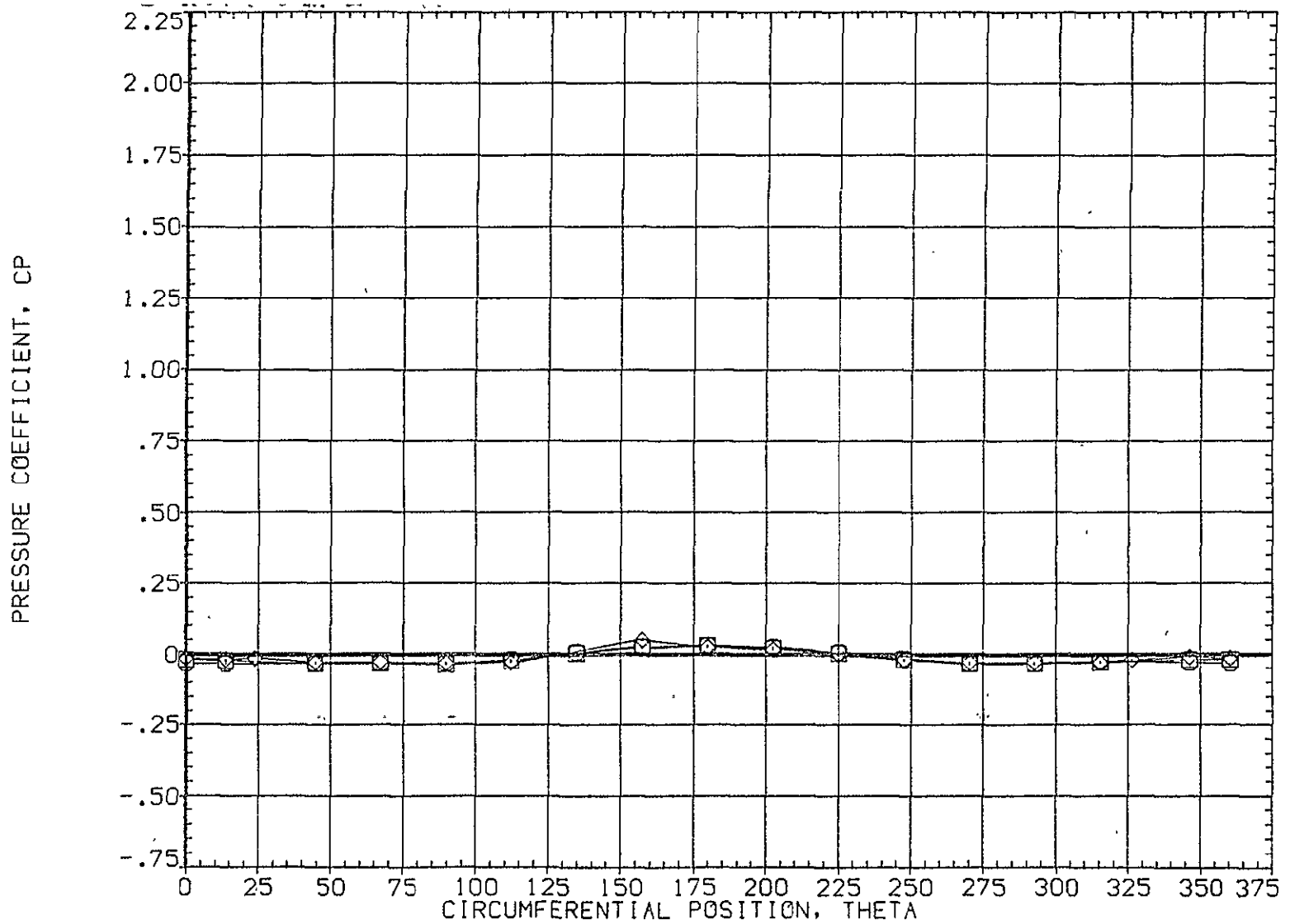


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-8.360	3.480	.000	.000	.000
□	.923			1.000		180.000
◇	.954					

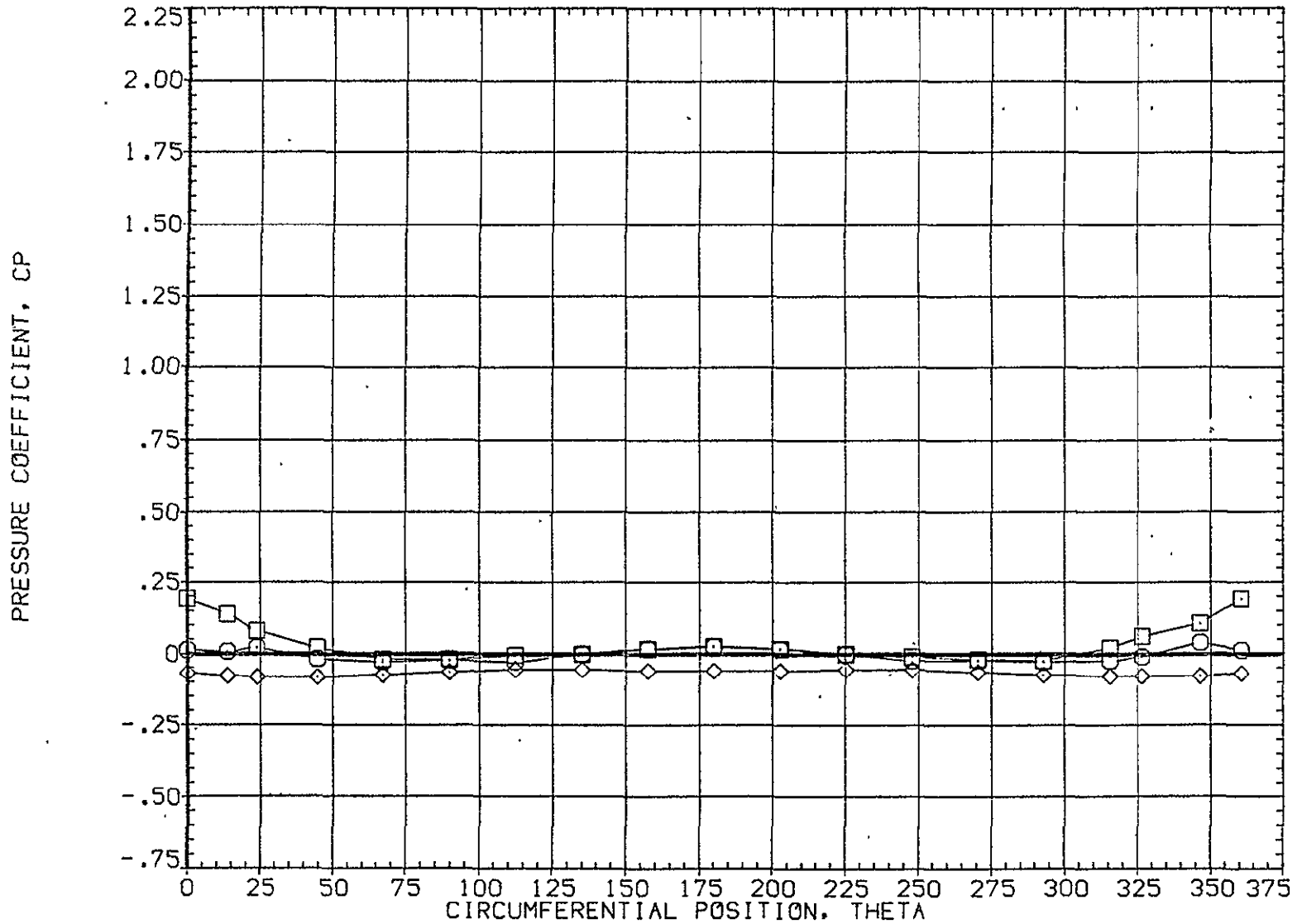


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.330	3.480	.000	.000	.000
□	.108			1.000	180.000	
◇	.162					

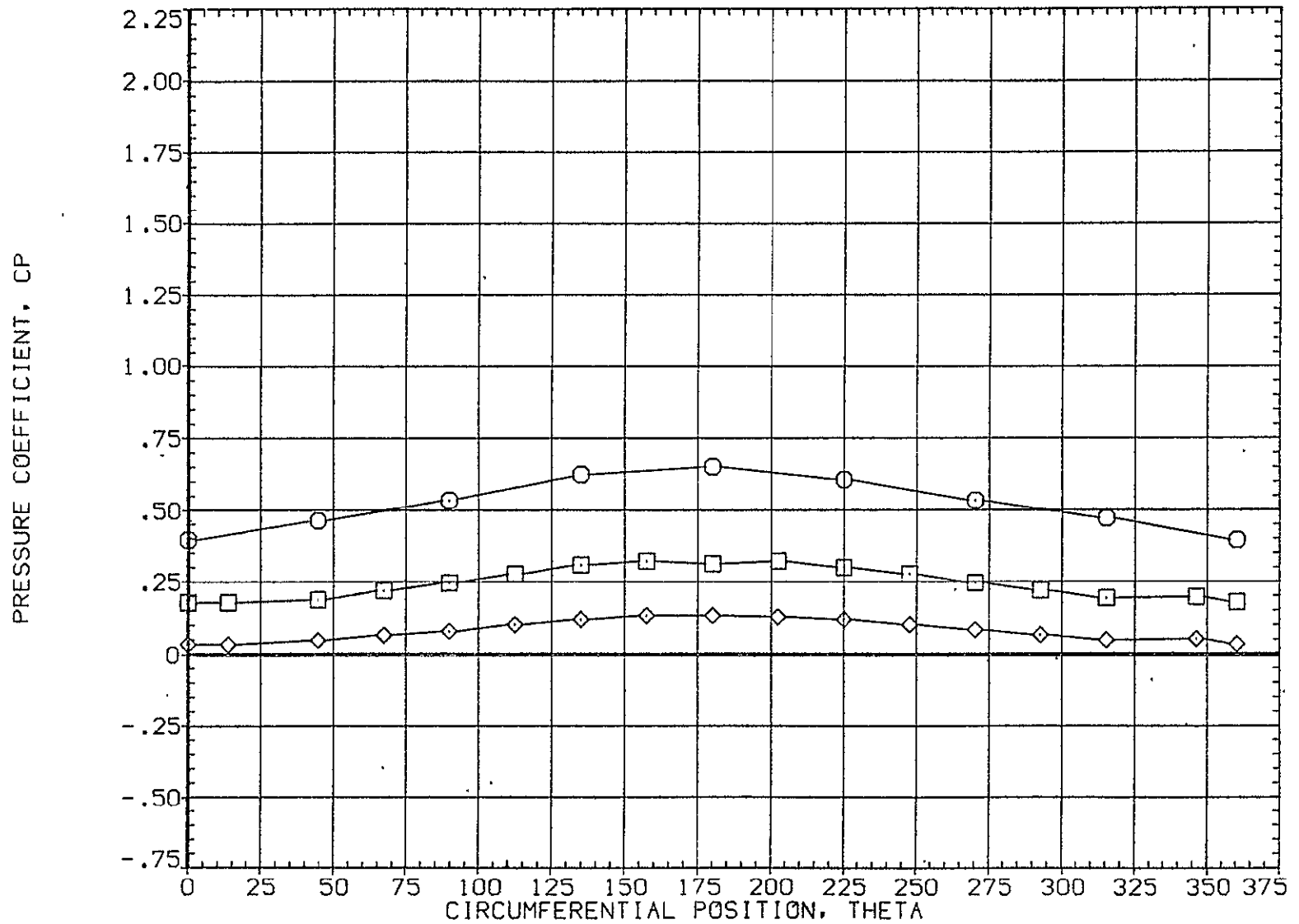


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-4.330	3.480	.000	.000	.000
□	.322			1.000	PHI	180.000
◇	.518					

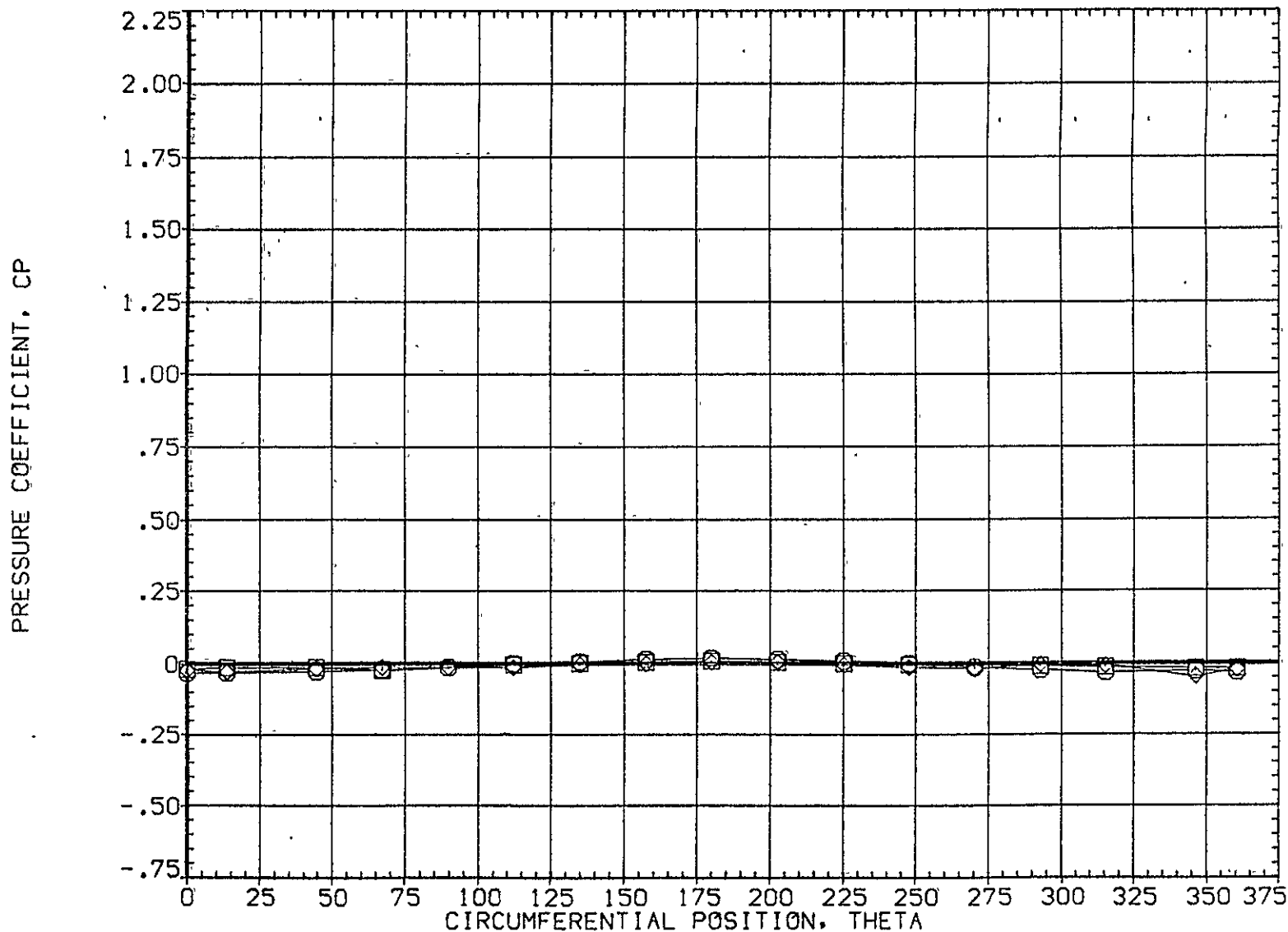


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A032)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.330	3.480	.000	.000	.000
□	.735			1.000	180.000	
◇	.860					

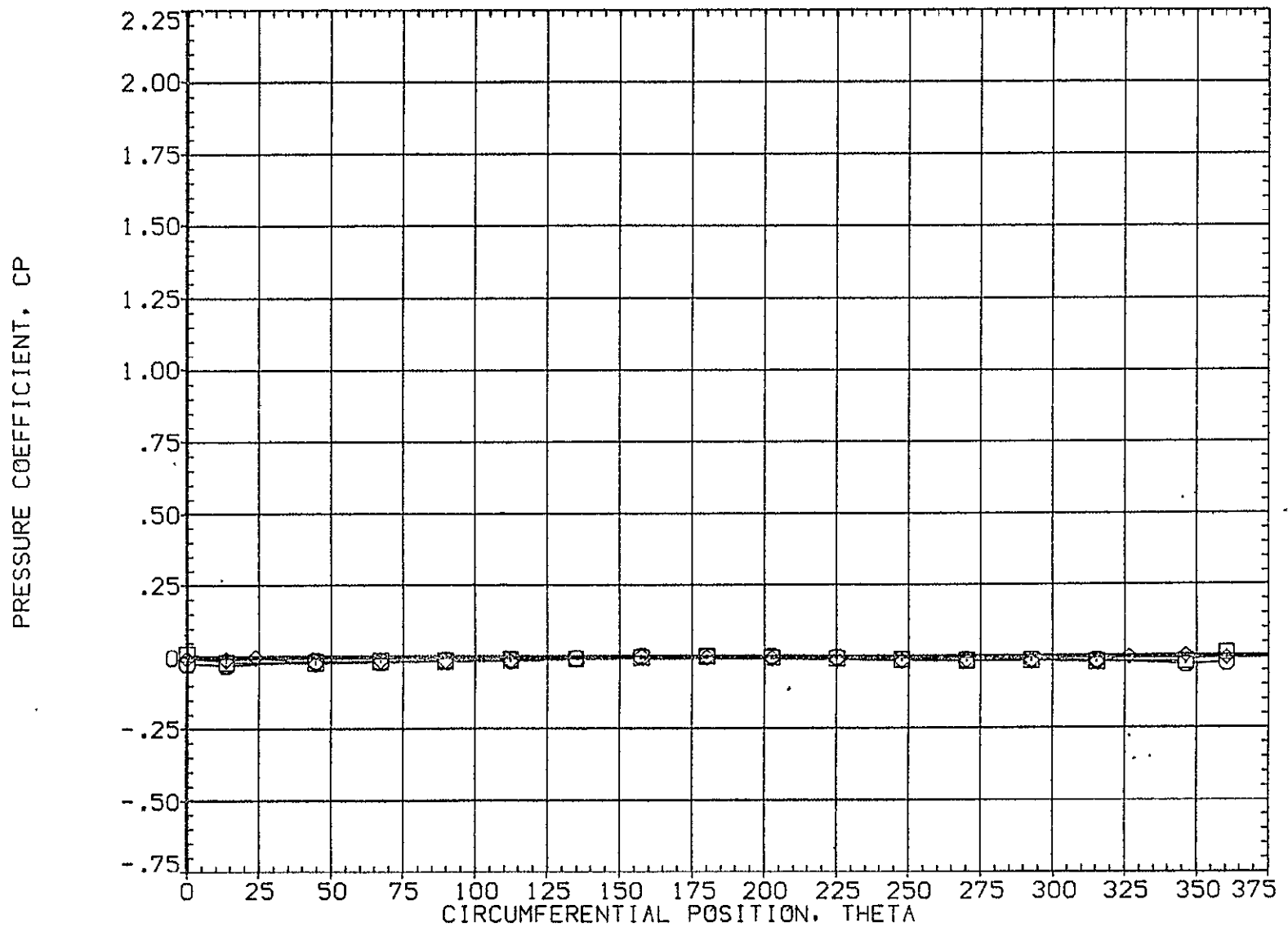


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.330	3.480	.000	.000	.000
□	.923			1.000	PHI	180.000
◇	.954					

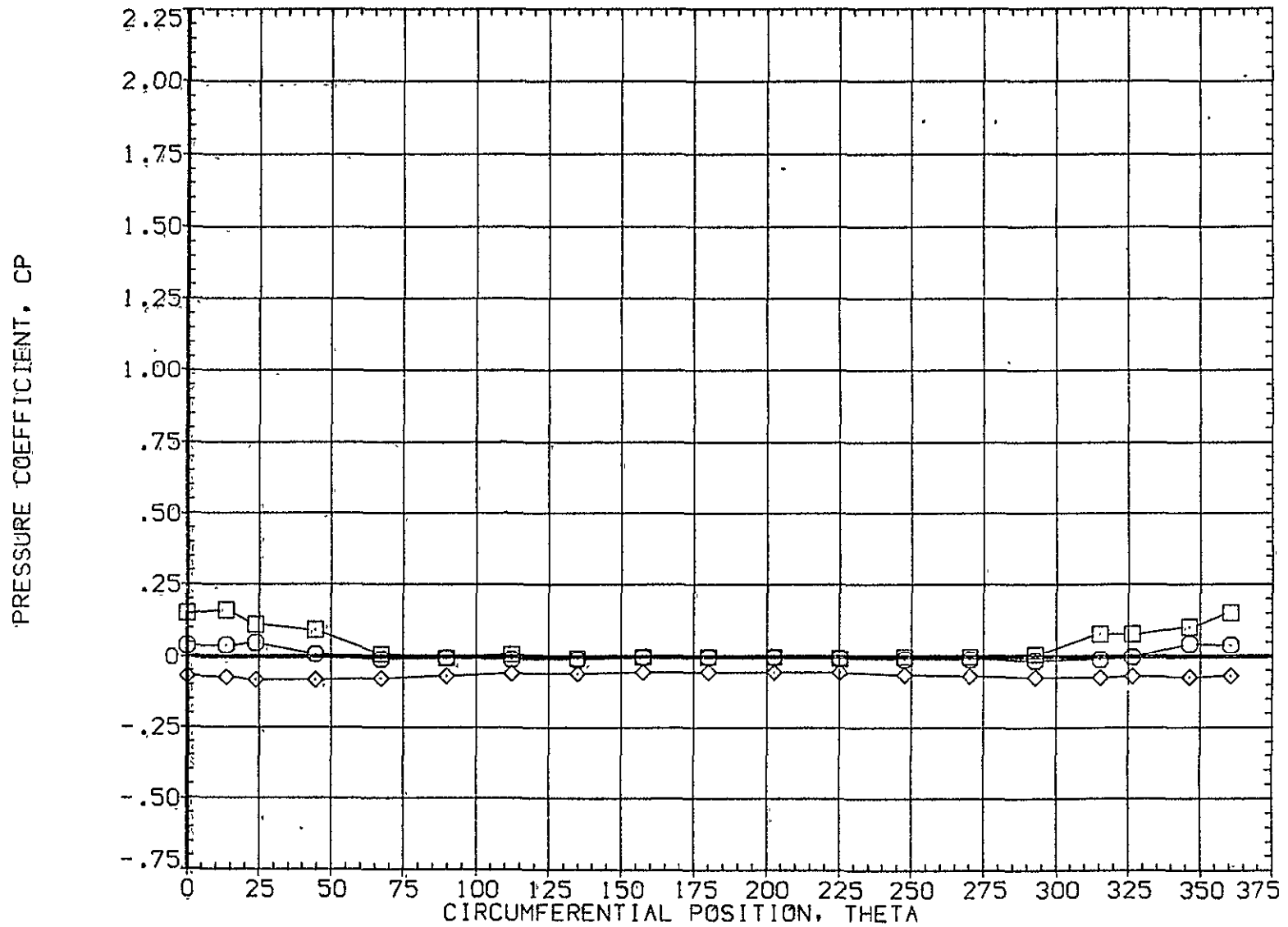


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	3.480	.000	.000	.000
□	.108			1.000		180.000
◇	.162					

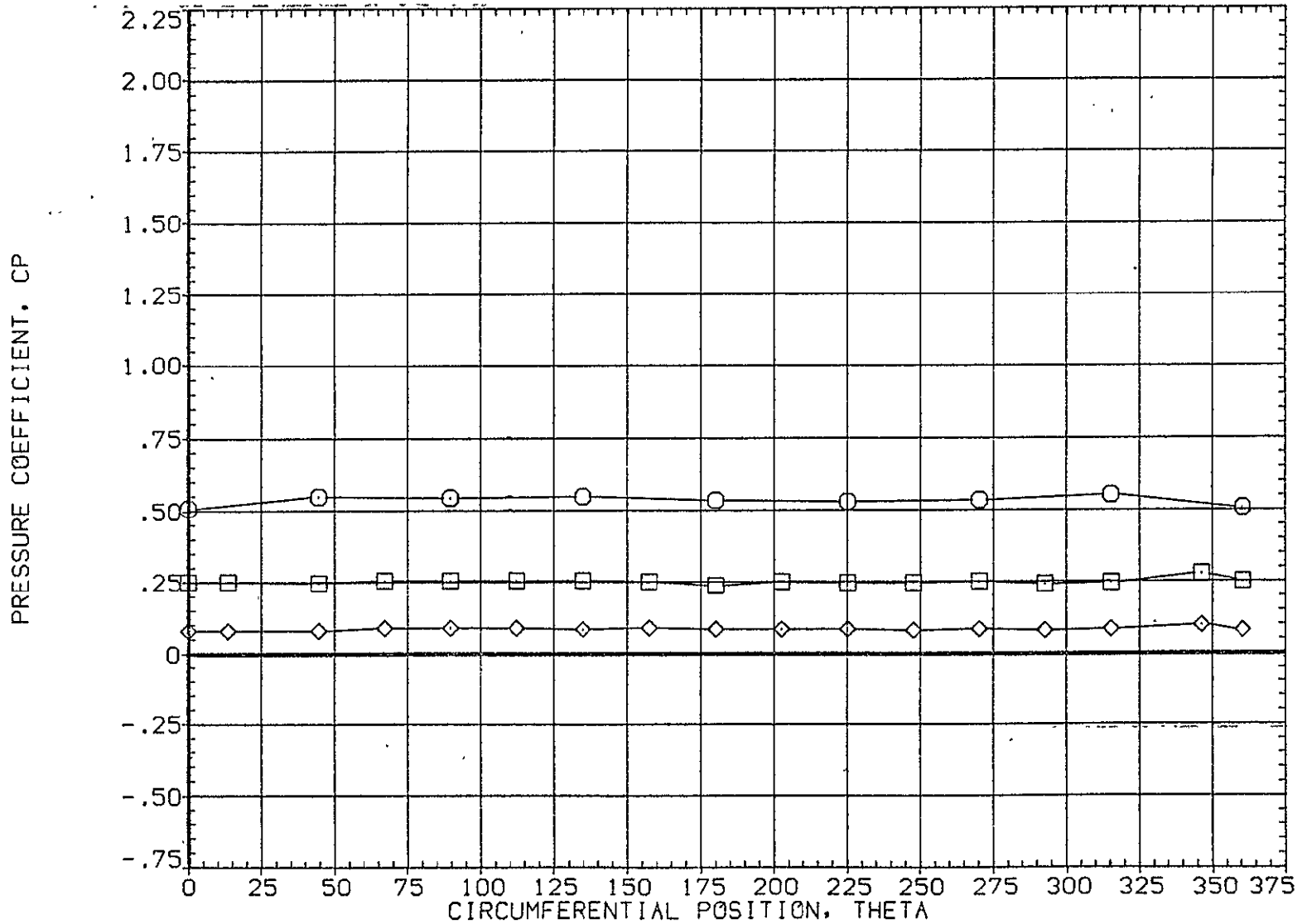


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-.280	3.480	.000	.000	
□	.322			1.000	PHI	180.000
◇	.518					

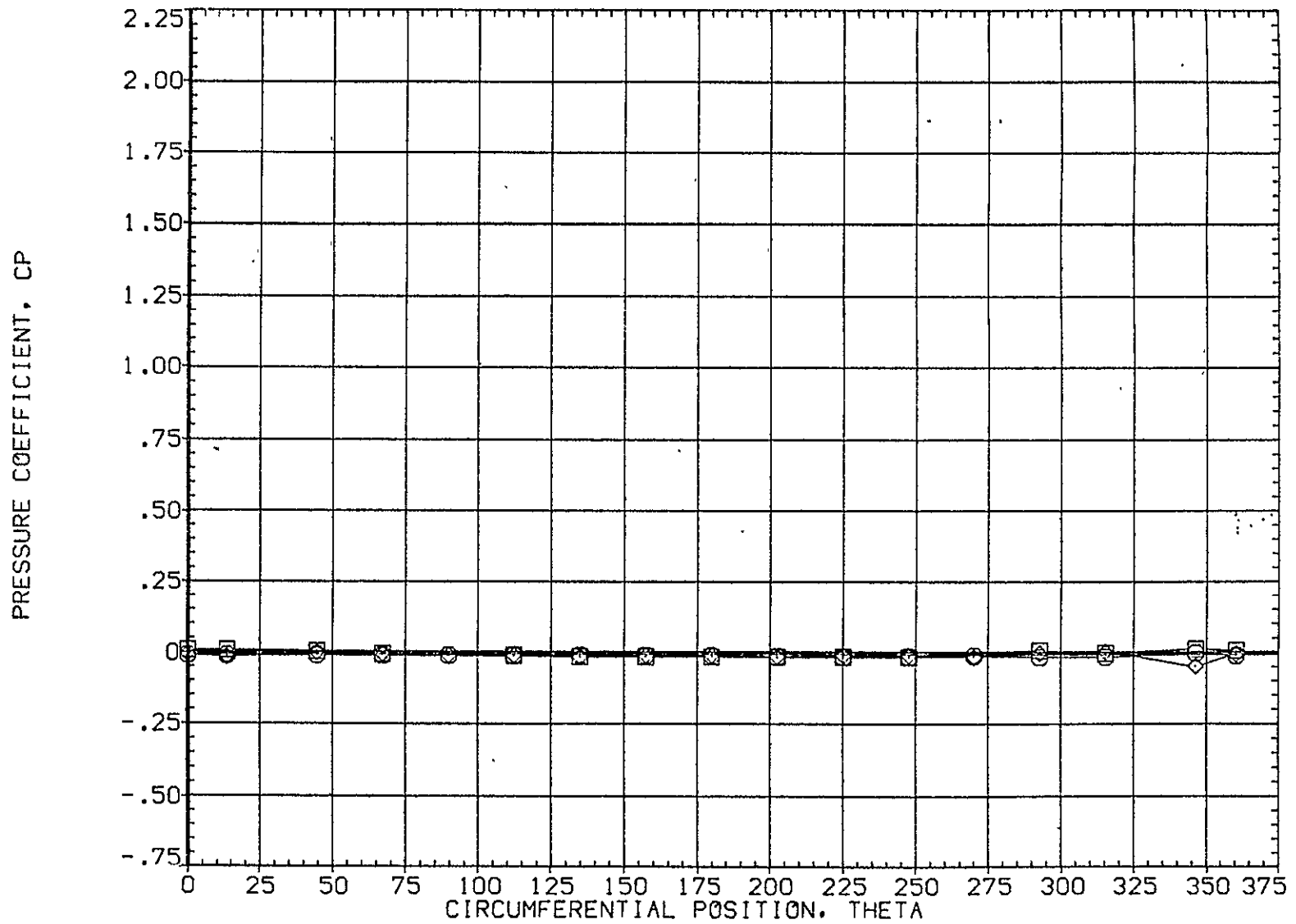


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	3.480	.000	.000	.000
□	.735			1.000		180.000
◇	.860					

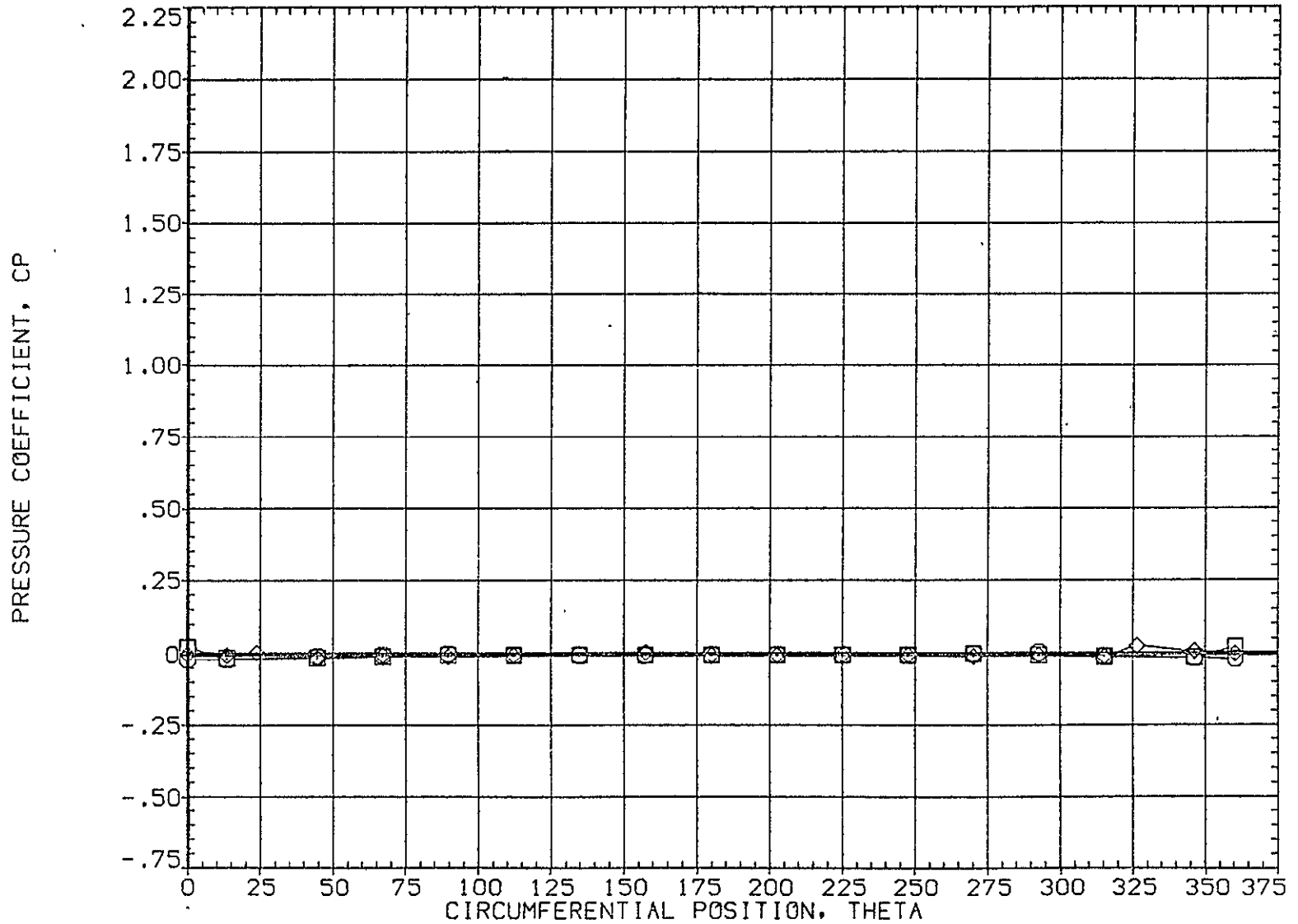


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	3.480	.000	.000	.000
□	.923			1.000	180.000	
◇	.954					

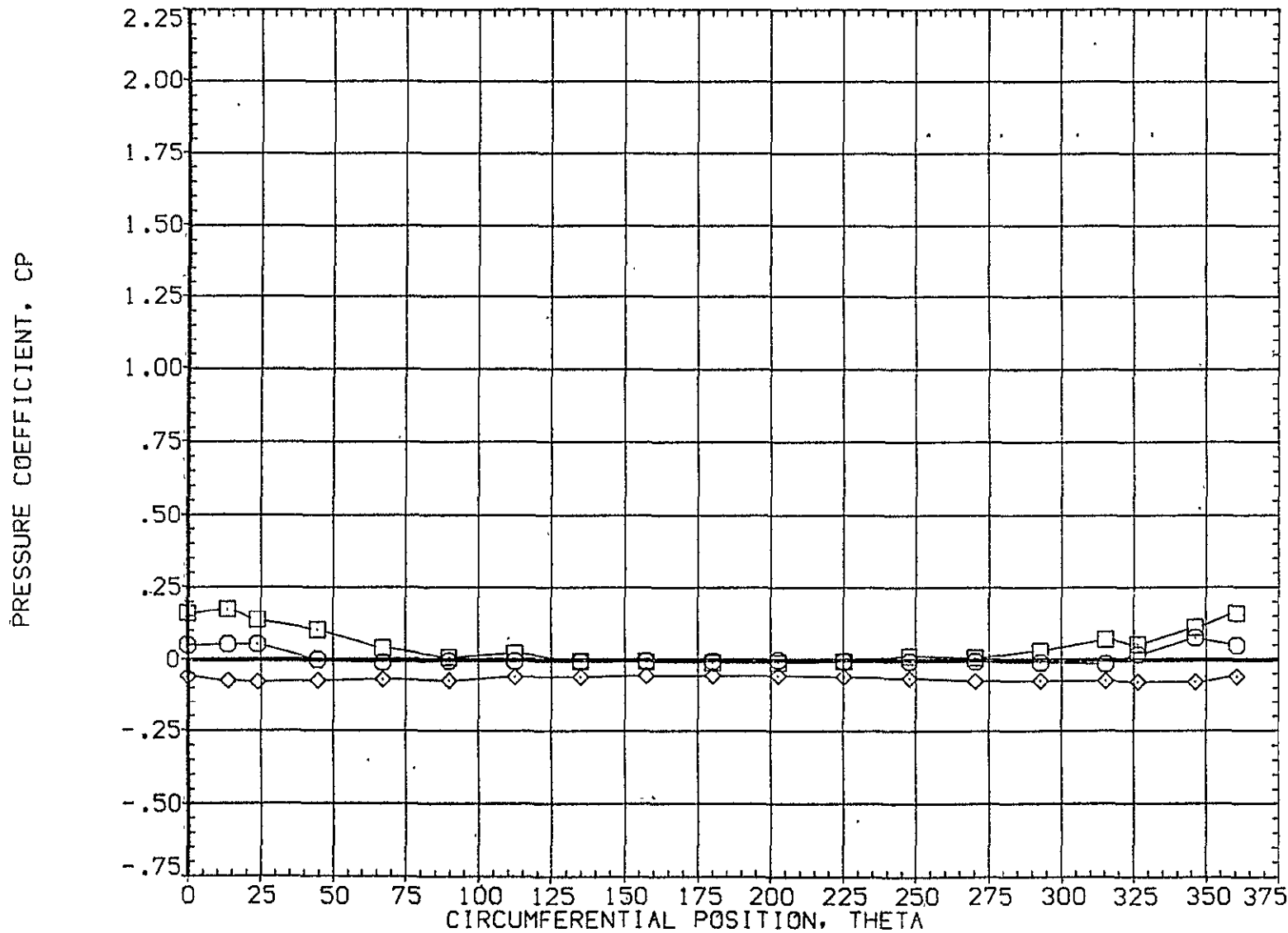


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.770	3.480	.000	.000	.000
□	.108			1.000		180.000
◇	.162					

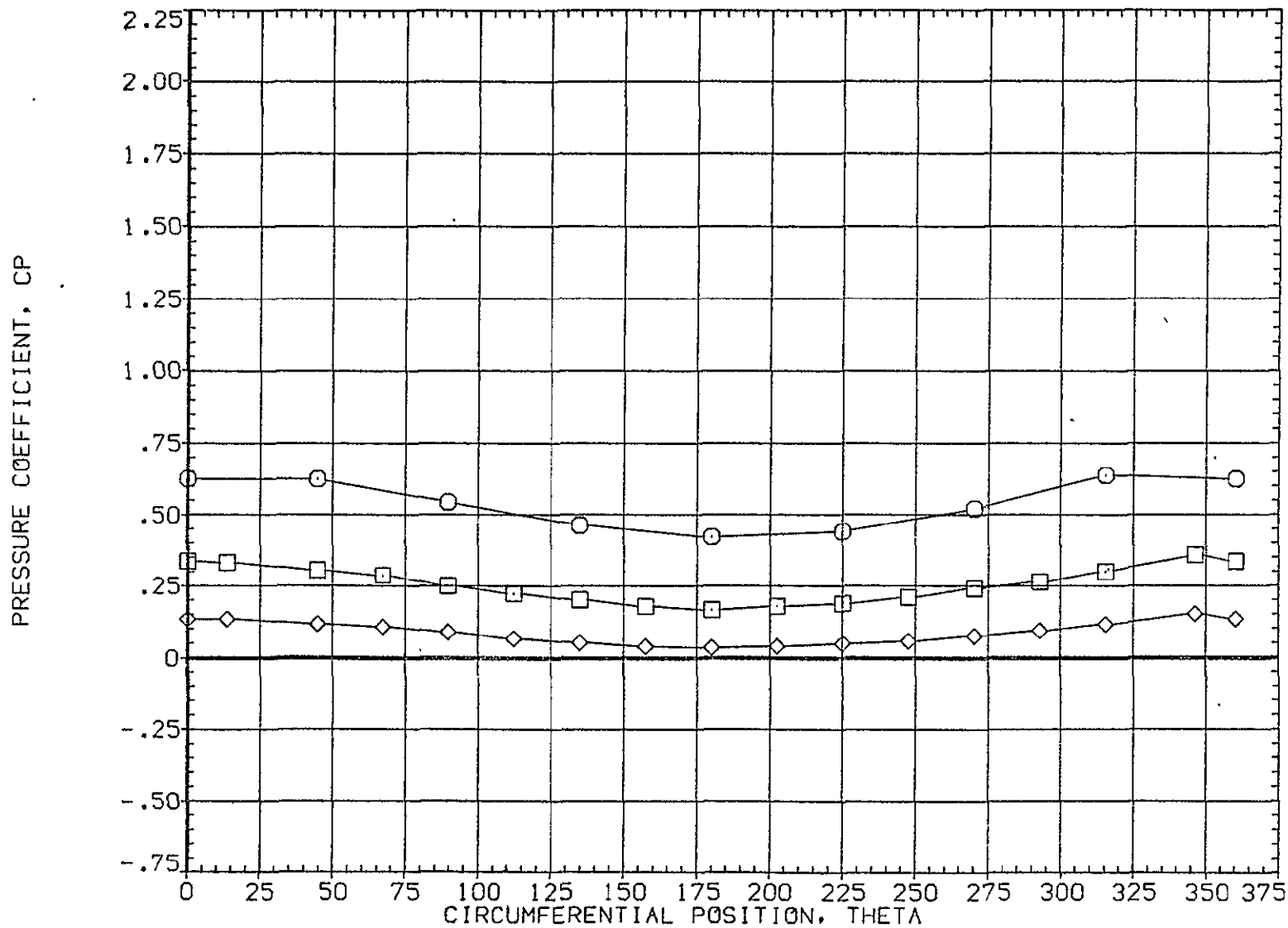


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

C-5

SYMBOL
○
□
◇

X/LB ALPHA MACH
.216 3.770 3.480
.322
.518

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI 180.000

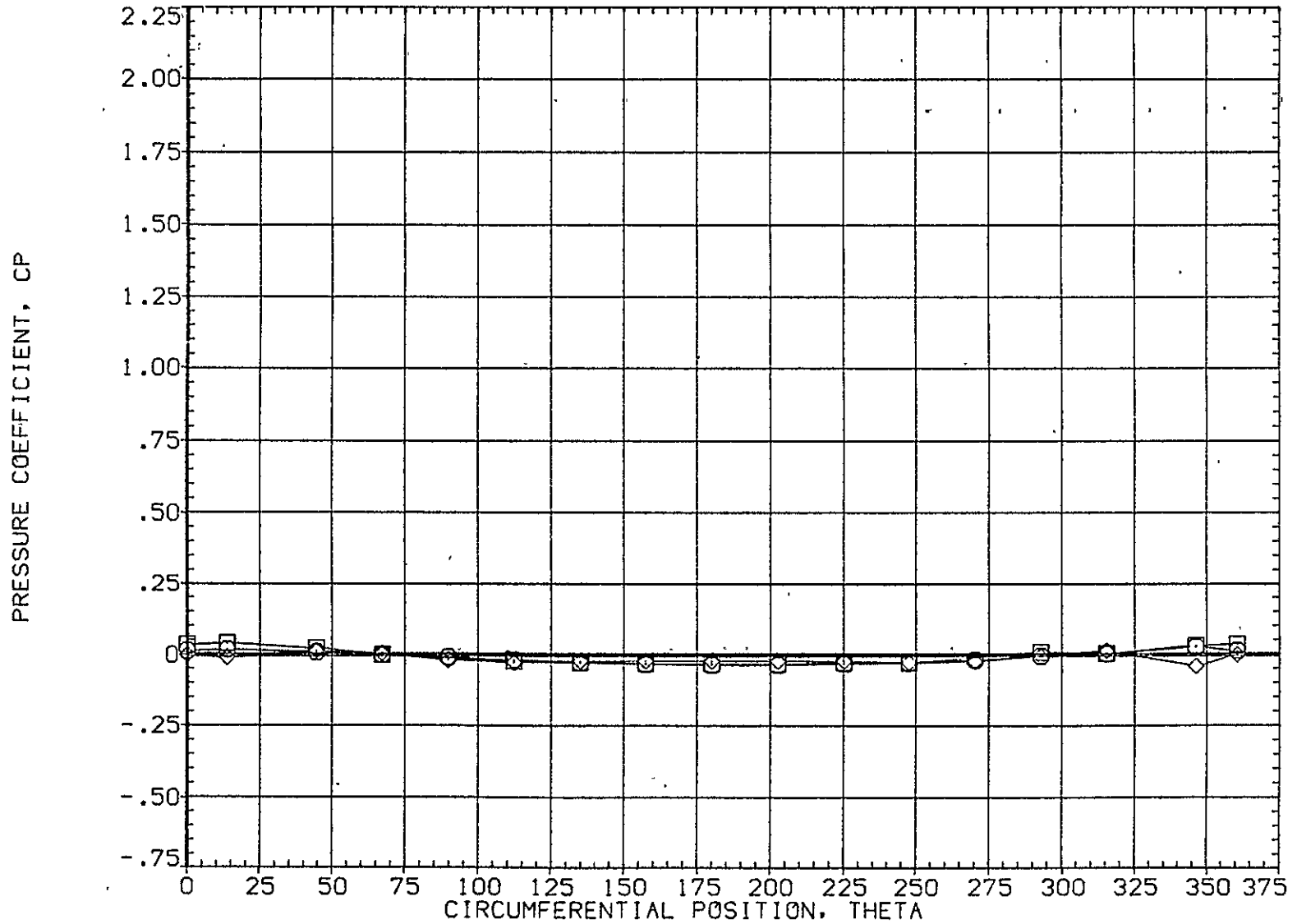


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	3.770	3.480	.000	.000	.000
□	.735			1.000	180.000	
◇	.860					

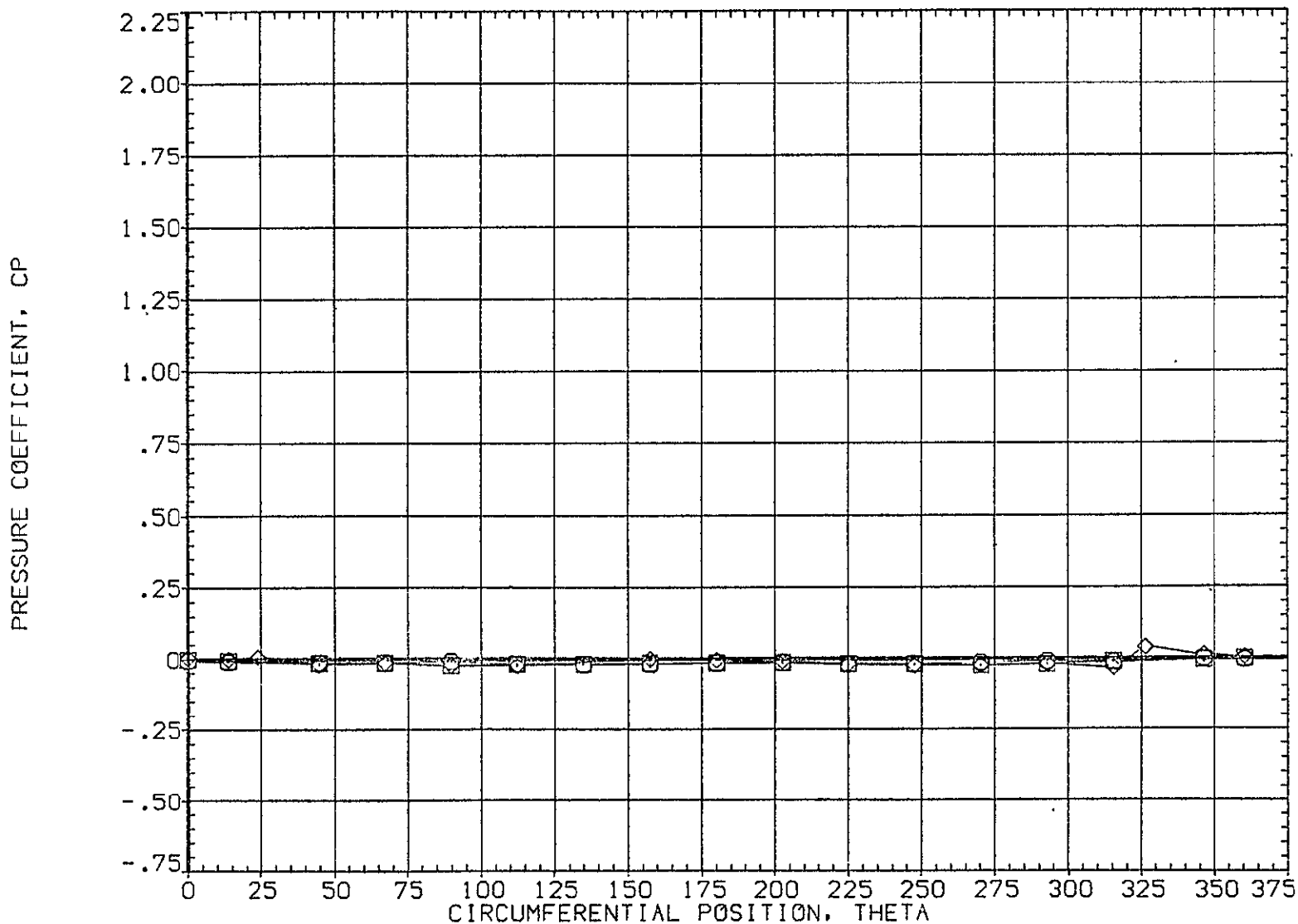


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 3.770 3.480
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 180.000

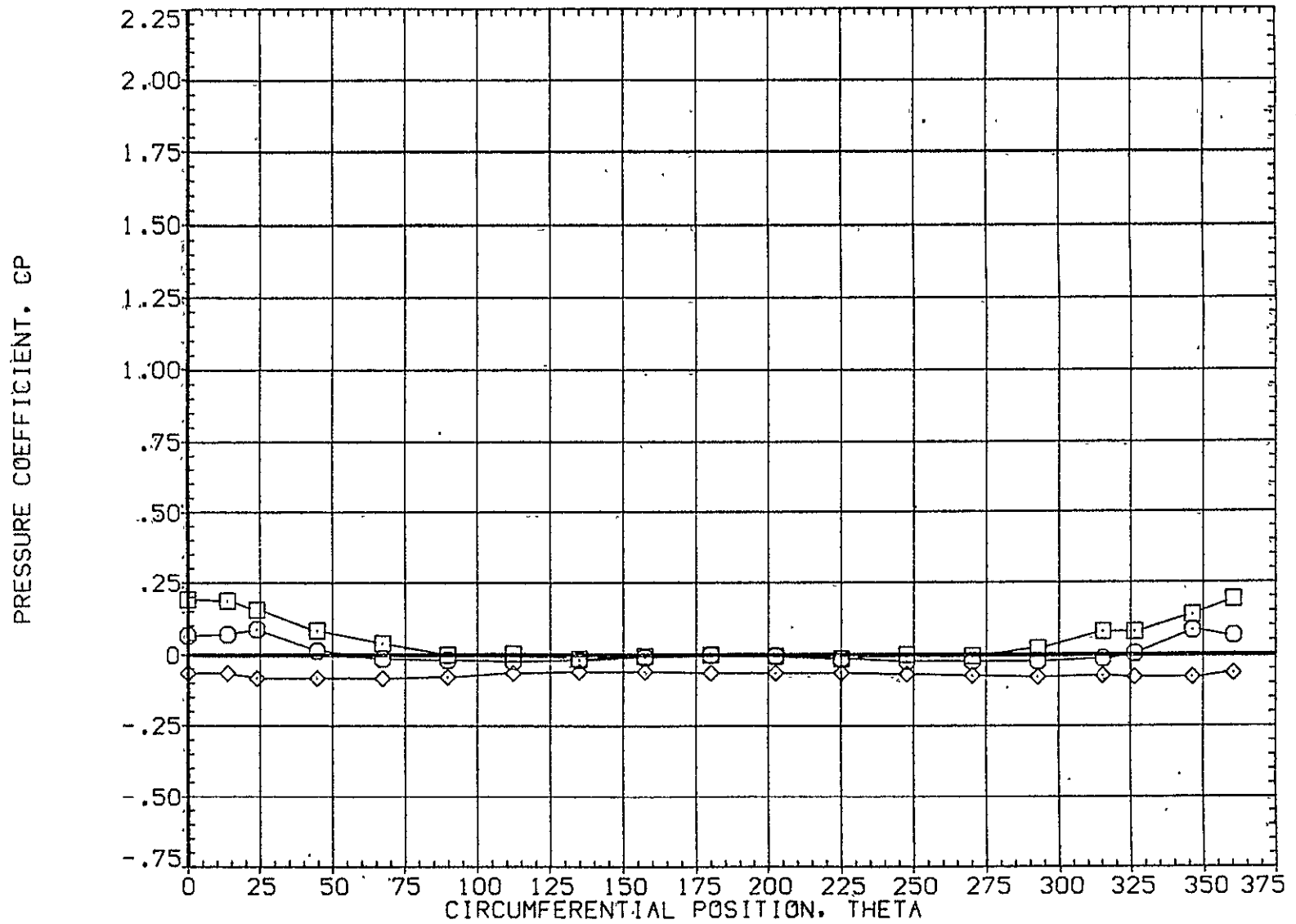


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	7.800	3.480	.000	.000	.000
□	.108			1.000		180.000
◇	.162					

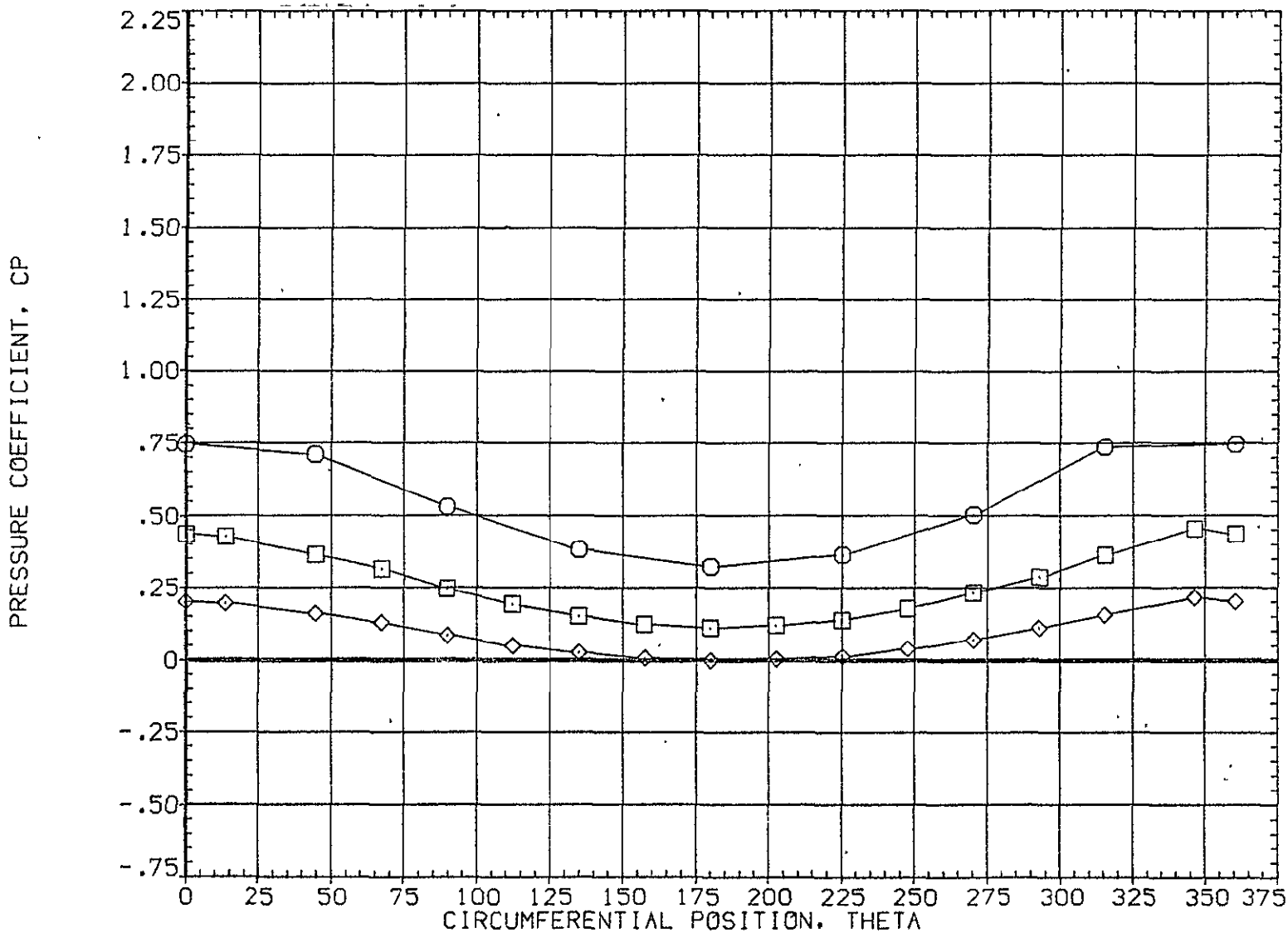


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 7.800 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 180.000

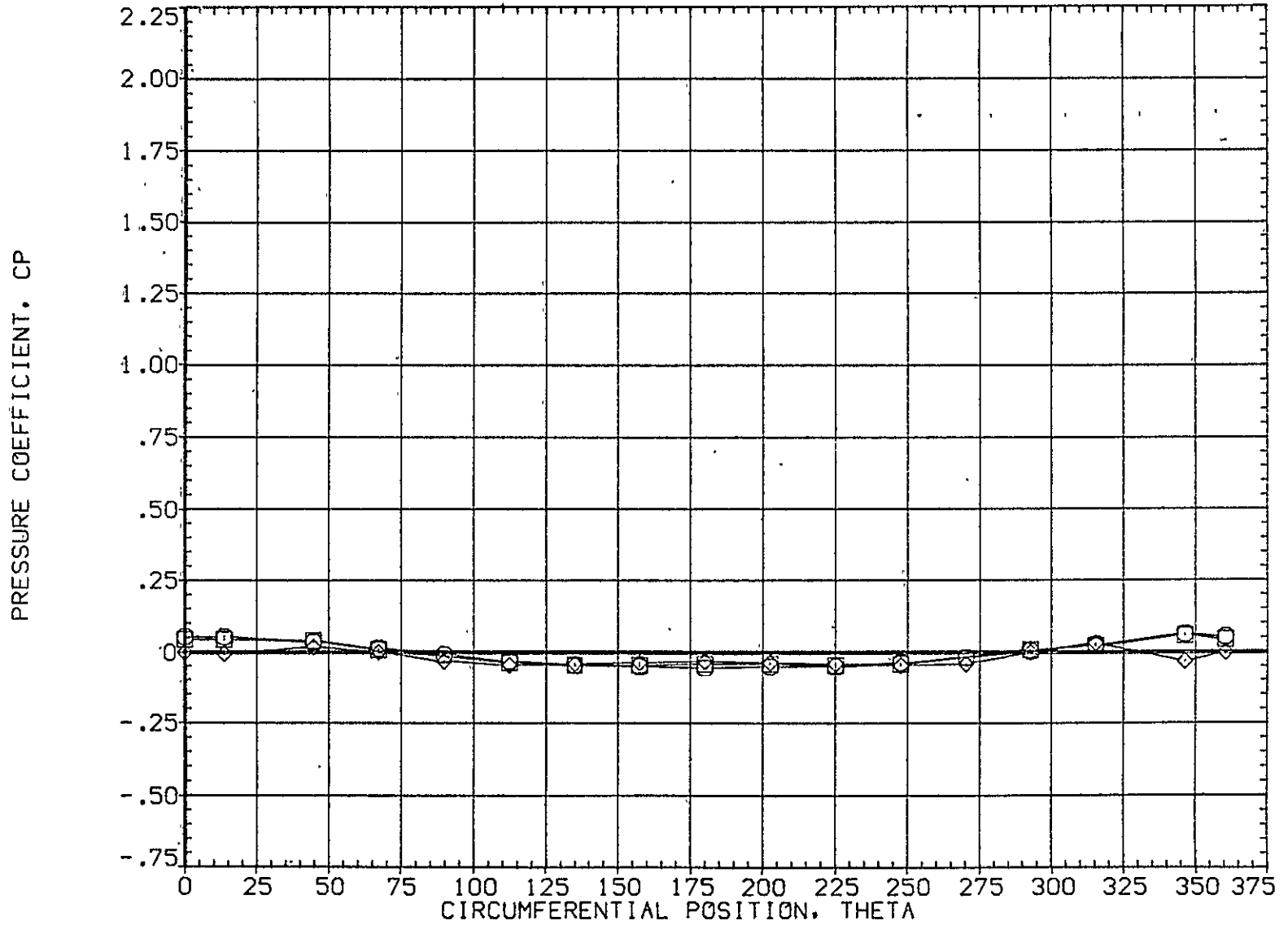


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A035)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
◇	.610	7.800	3.480	MOUNT	1.000	PHI	180.000
□	.735						
○	.860						

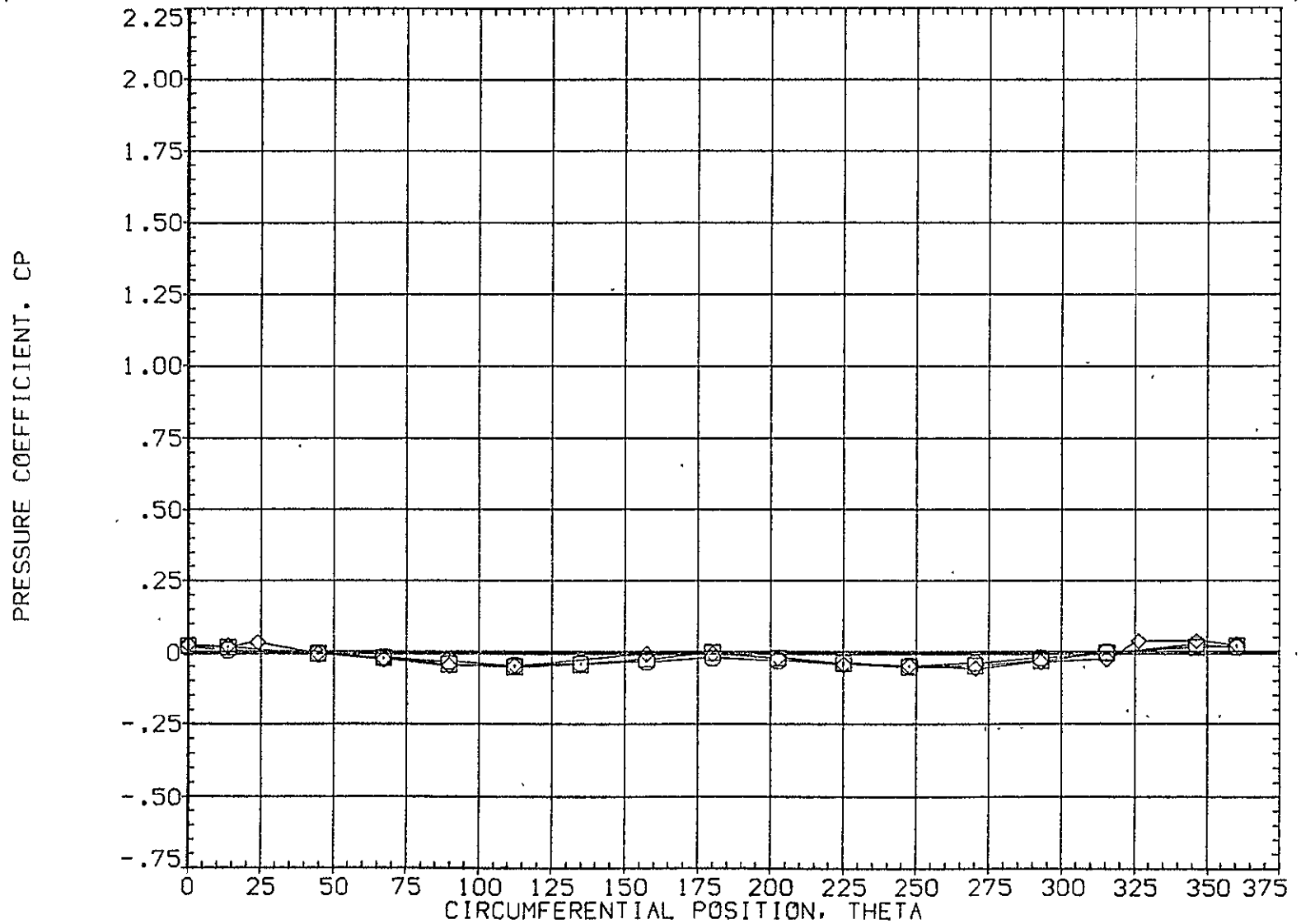


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	.000
○	.892	7.800	3.480	MOUNT	1.000	PHI 180.000
□	.923					
◇	.954					

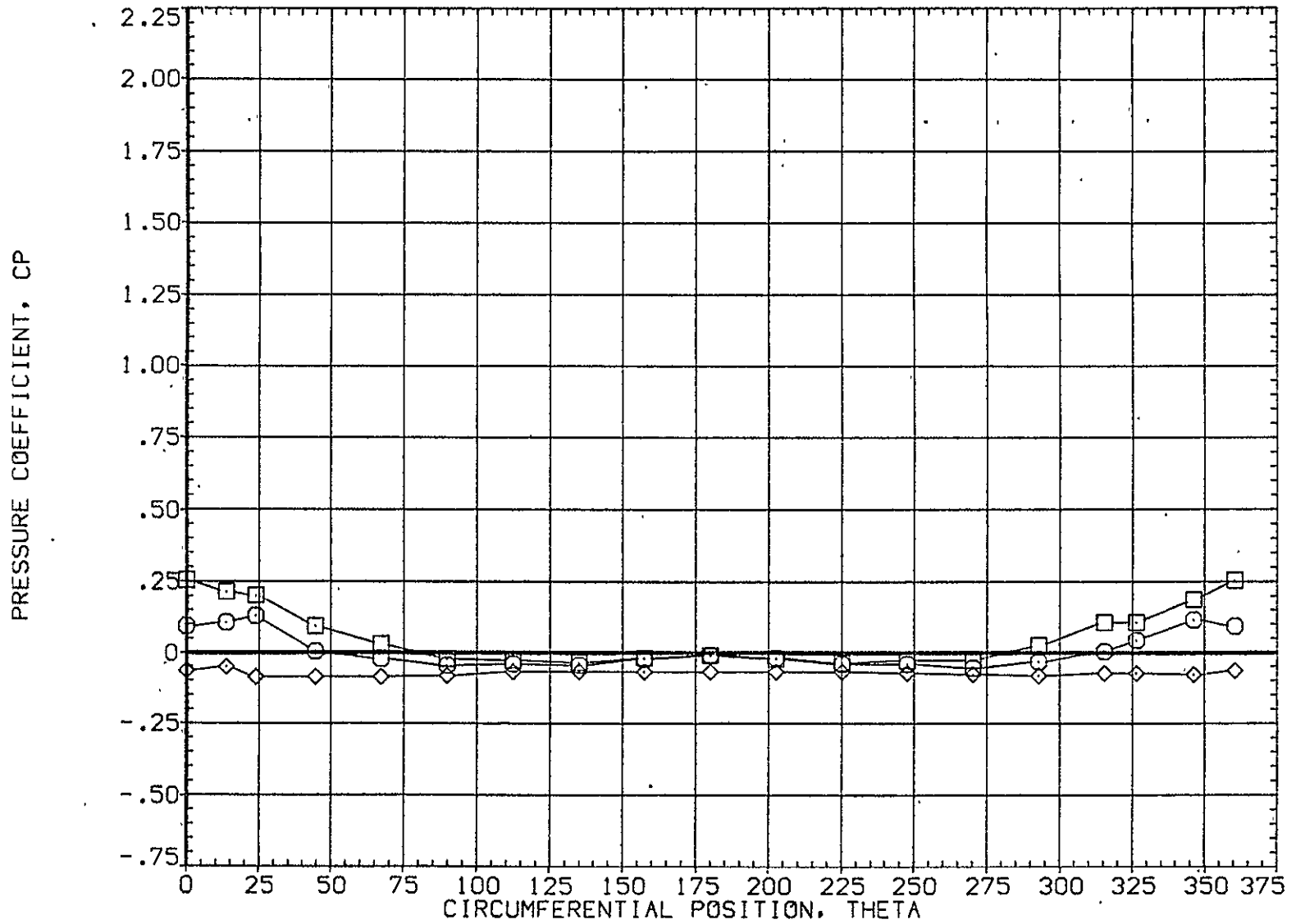


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	%X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	12.540	3.480	.000	20.000	
□	.108			1.000		
◇	.162				180.000	

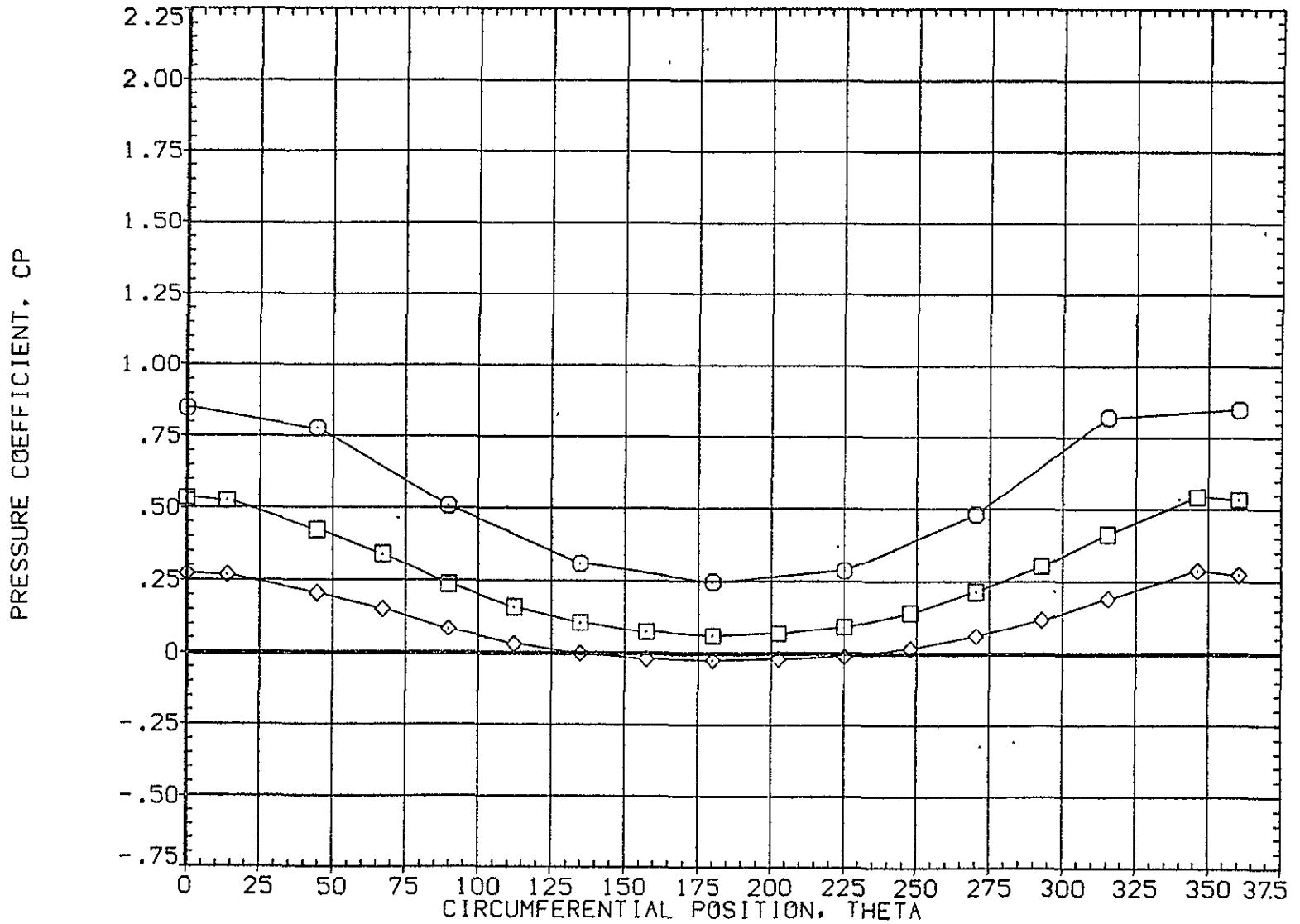


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	12.540	3.480	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

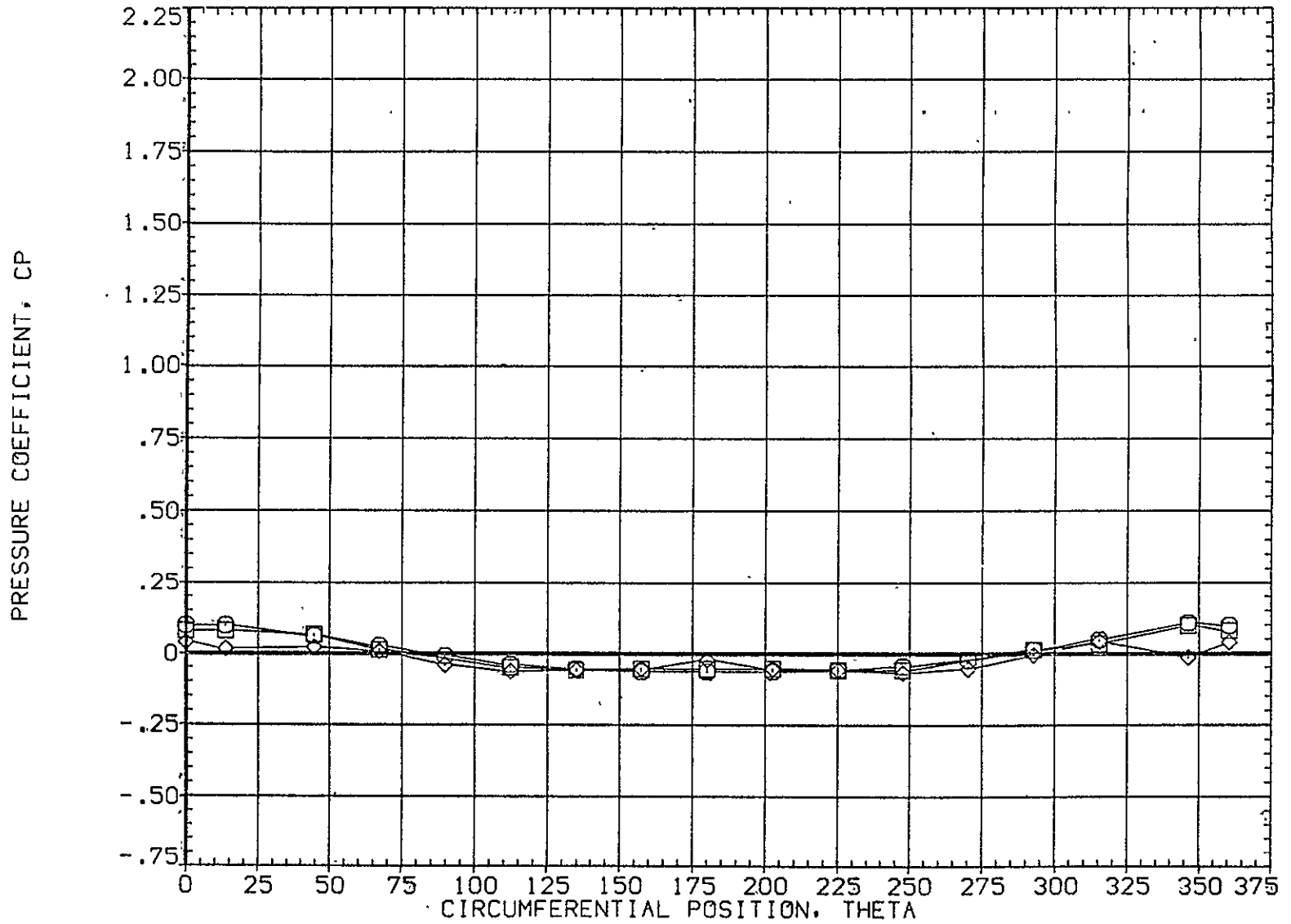


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A036)

SYMBOL	X/LB	ALPHA	MACH
○	.610	12.540	3.480
□	.735		
◇	.860		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	180.000

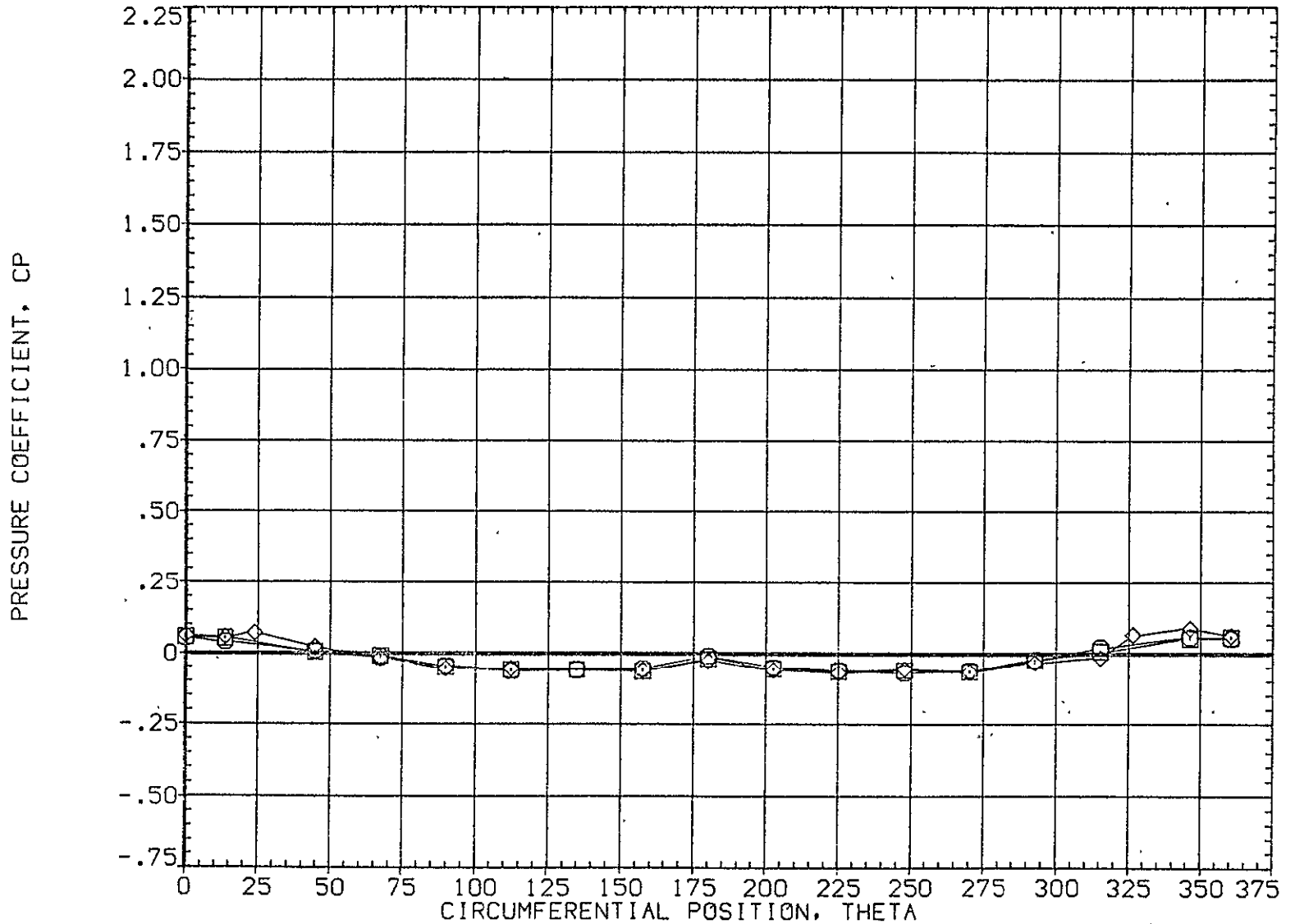


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	12.540	3.480	.000	20.000	
□	.923			1.000	PHI	180.000
◇	.954					

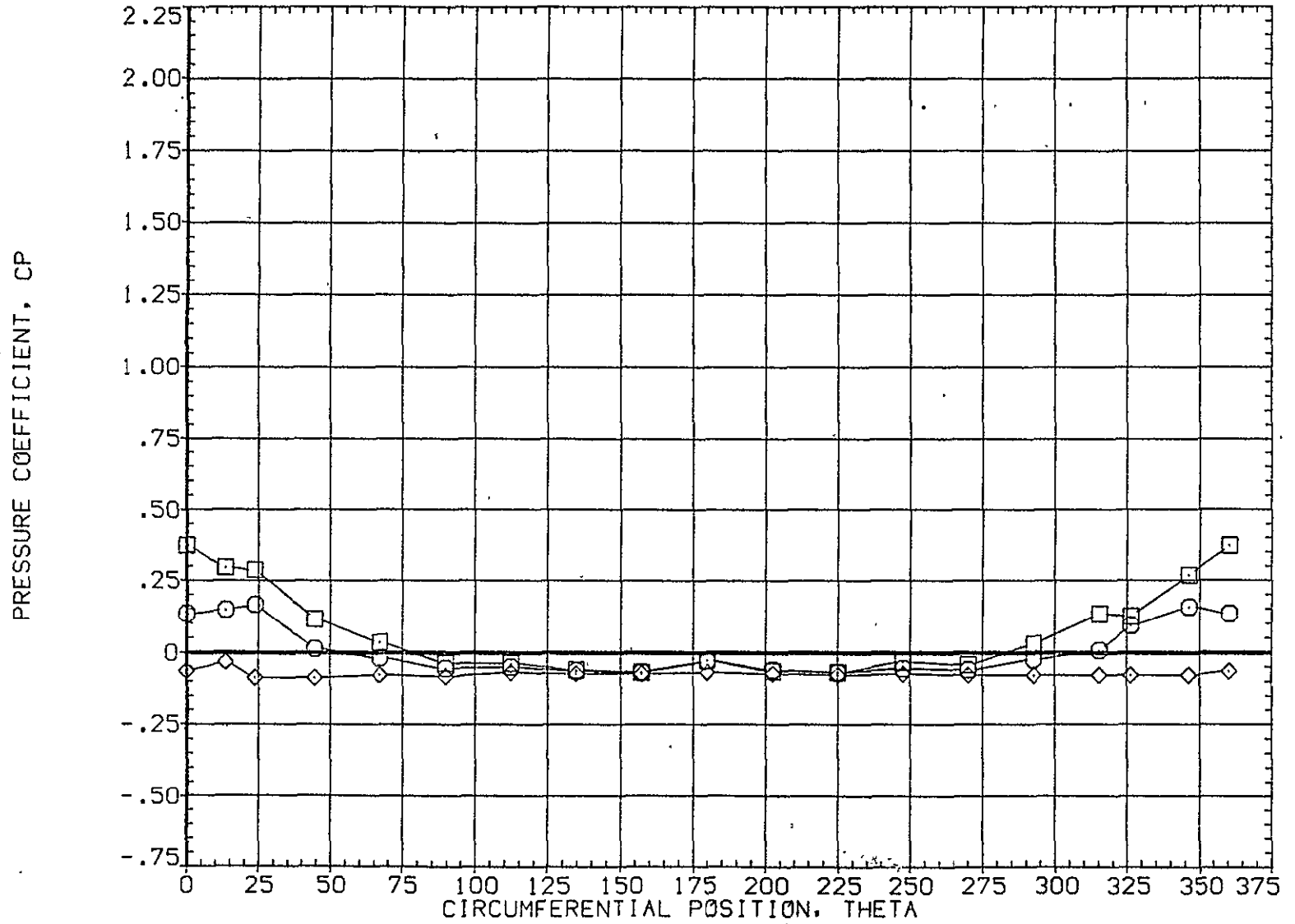


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	MOUNT	PHI
○	.055	16.560	3.480	.000	20.000		
□	.108			1.000			
◇	.162				180.000		

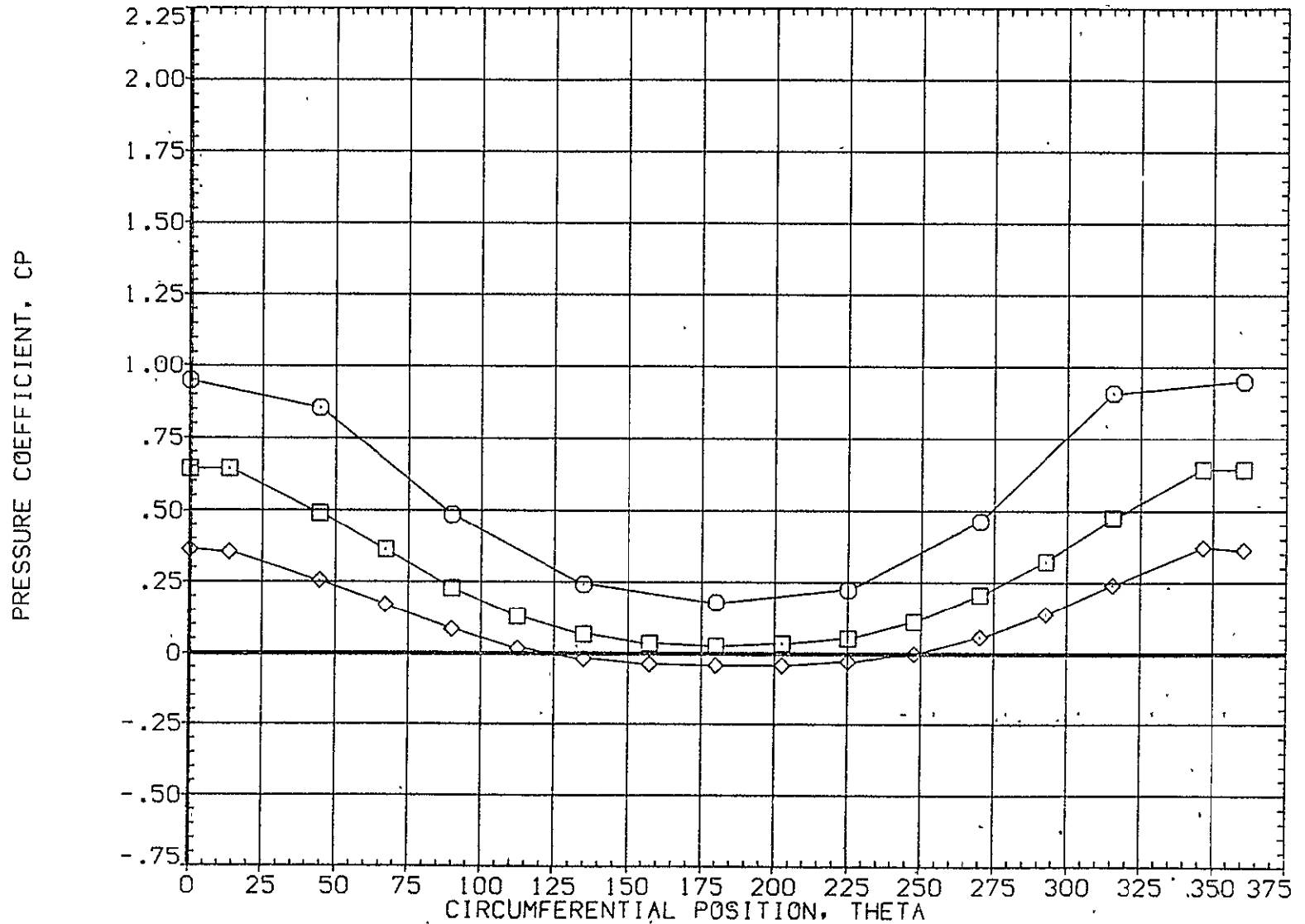


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 16.560 3.480
 .322
 .518

PARAMETRIC VALUES-
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 180.000

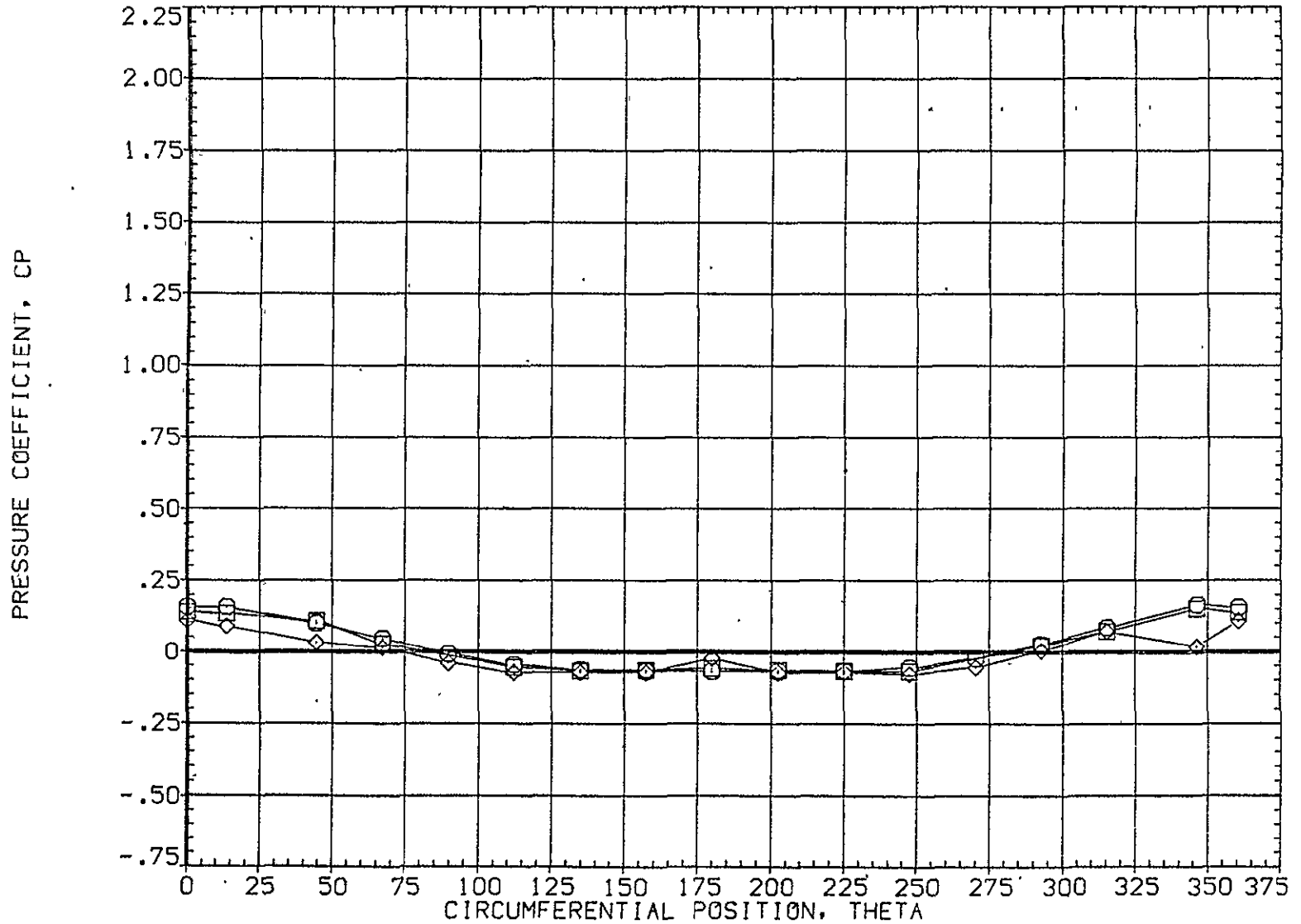


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A037)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	16.560	3.480	.000	20.000	
□	.735			1.000		
◇	.860					

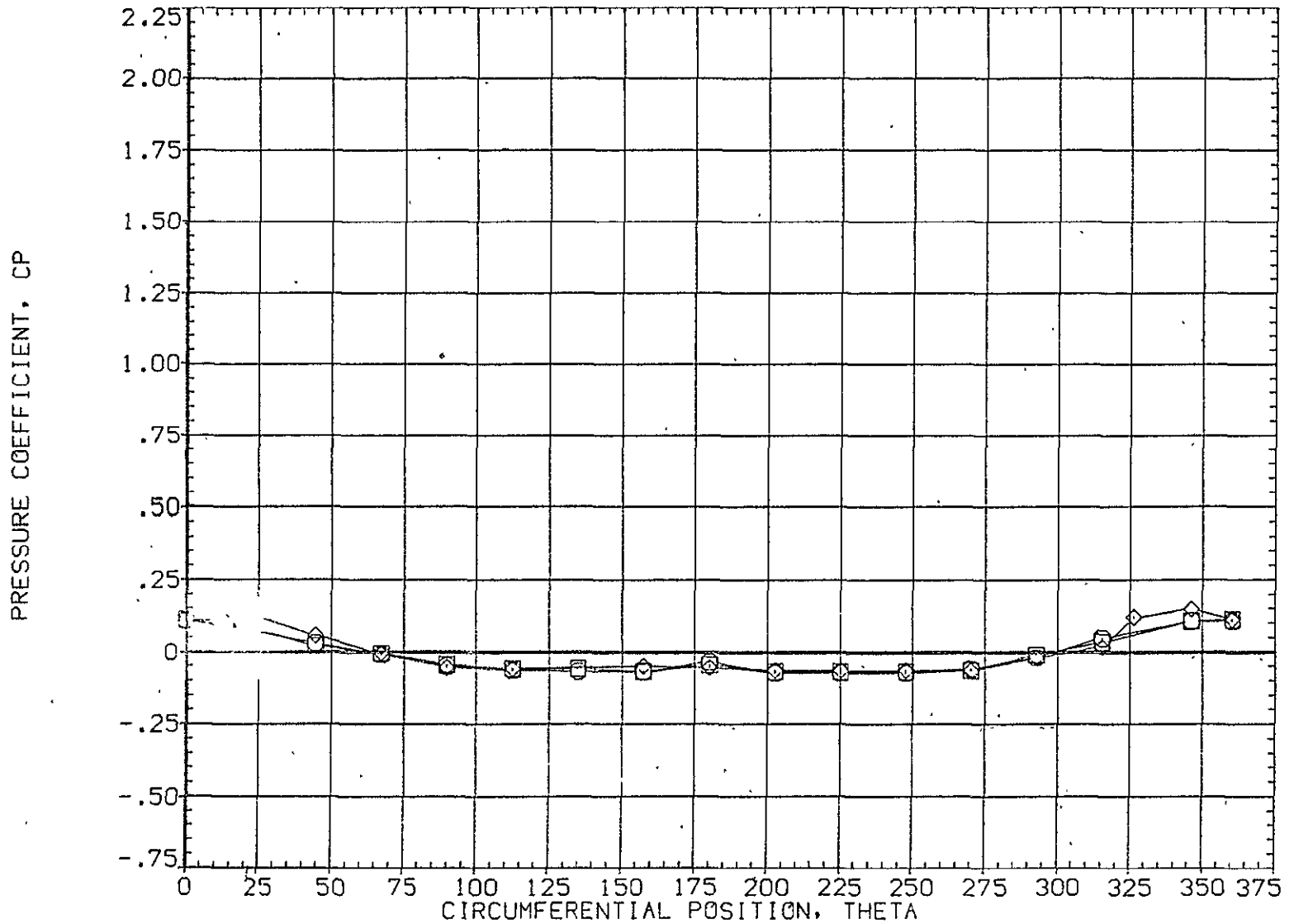


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.892	16.560	3.480	MOUNT	1.000	PHI	180.000
□	.923						
◇	.954						

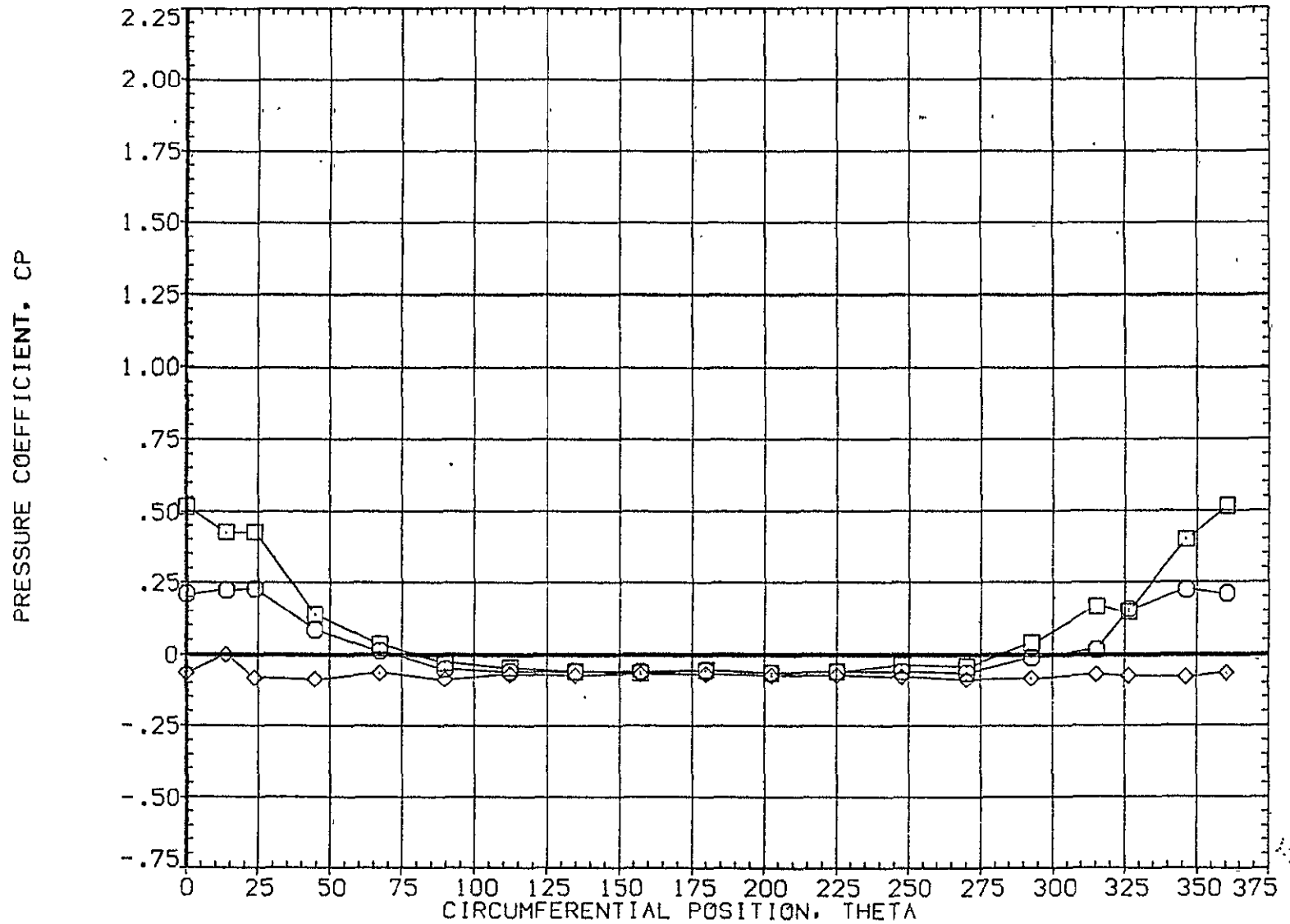


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	20.610	3.480		.000	20.000	
□	.108			MOUNT	1.000	180.000	
◇	.162						

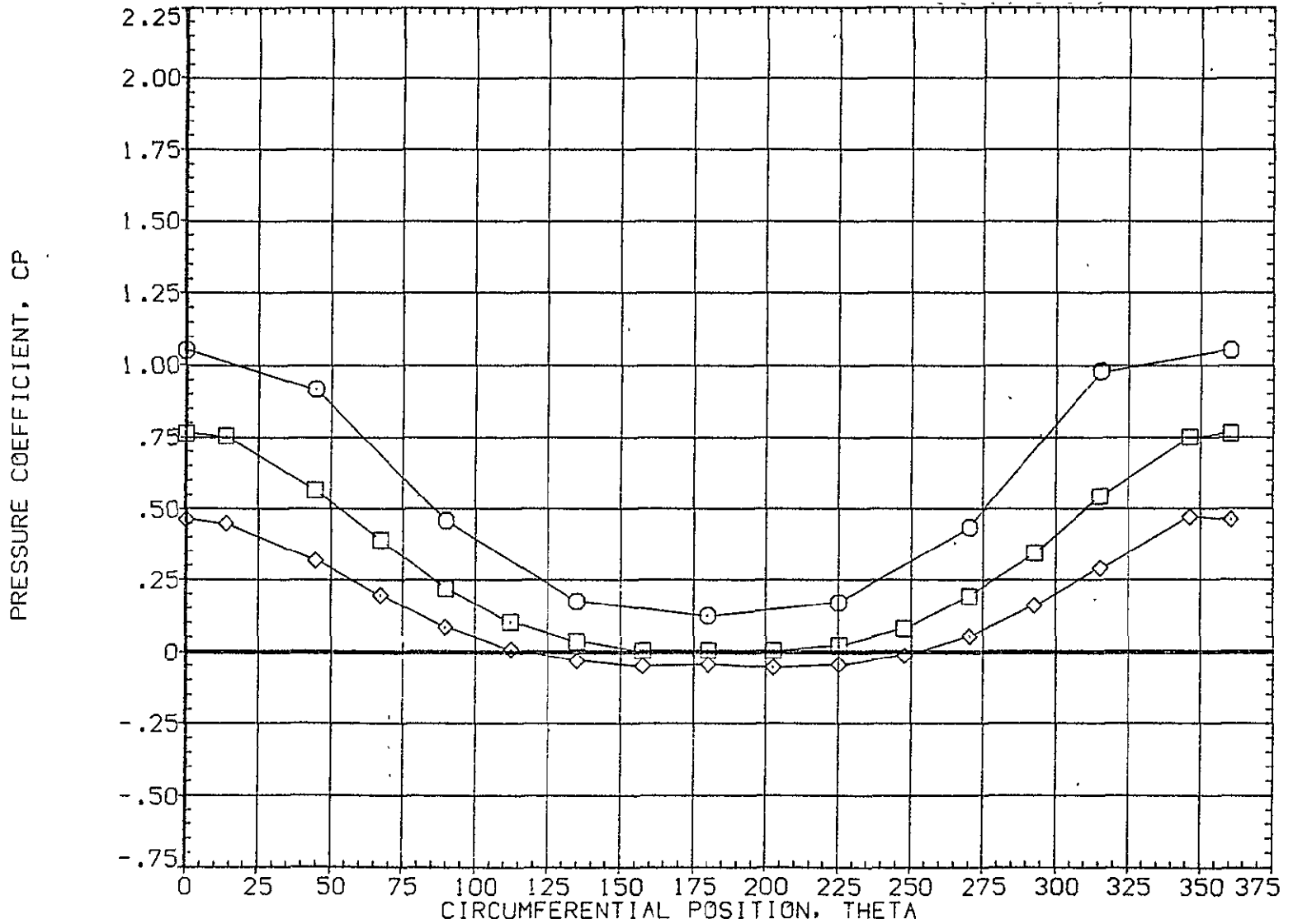


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	20.610	3.480	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

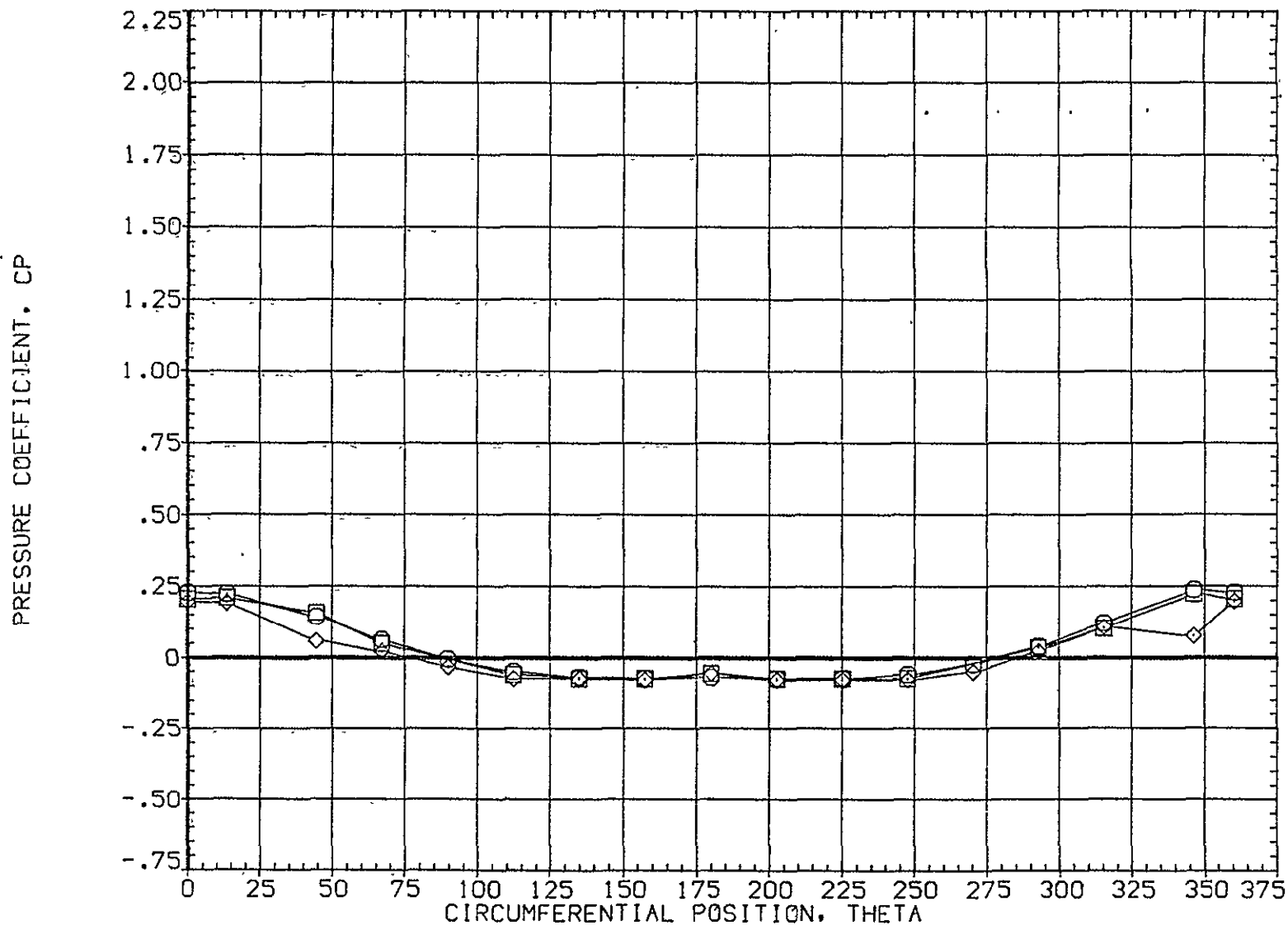


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.610	3.480	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

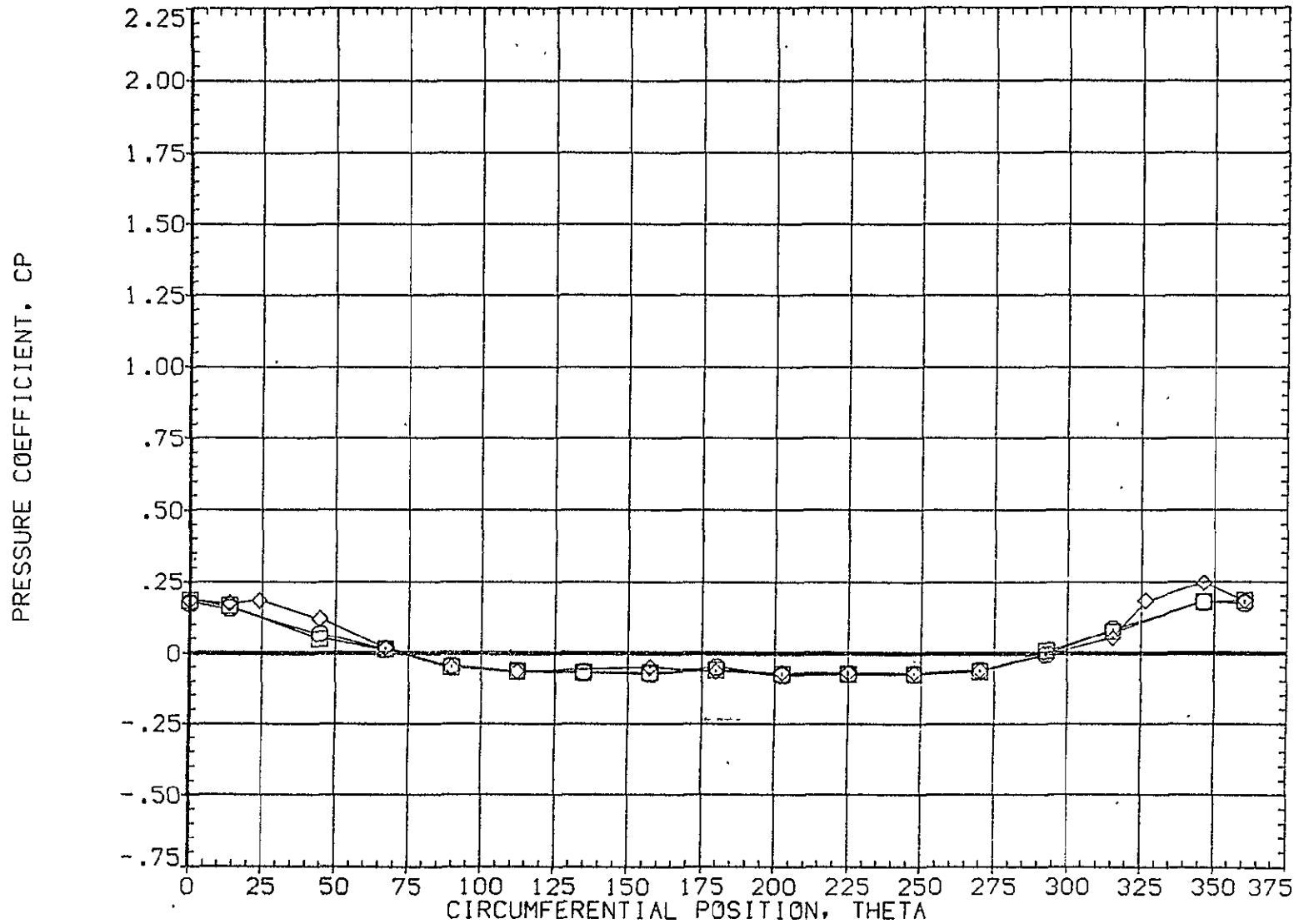


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 20.610
 MACH 3.480

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET 20.000
 PHI 180.000

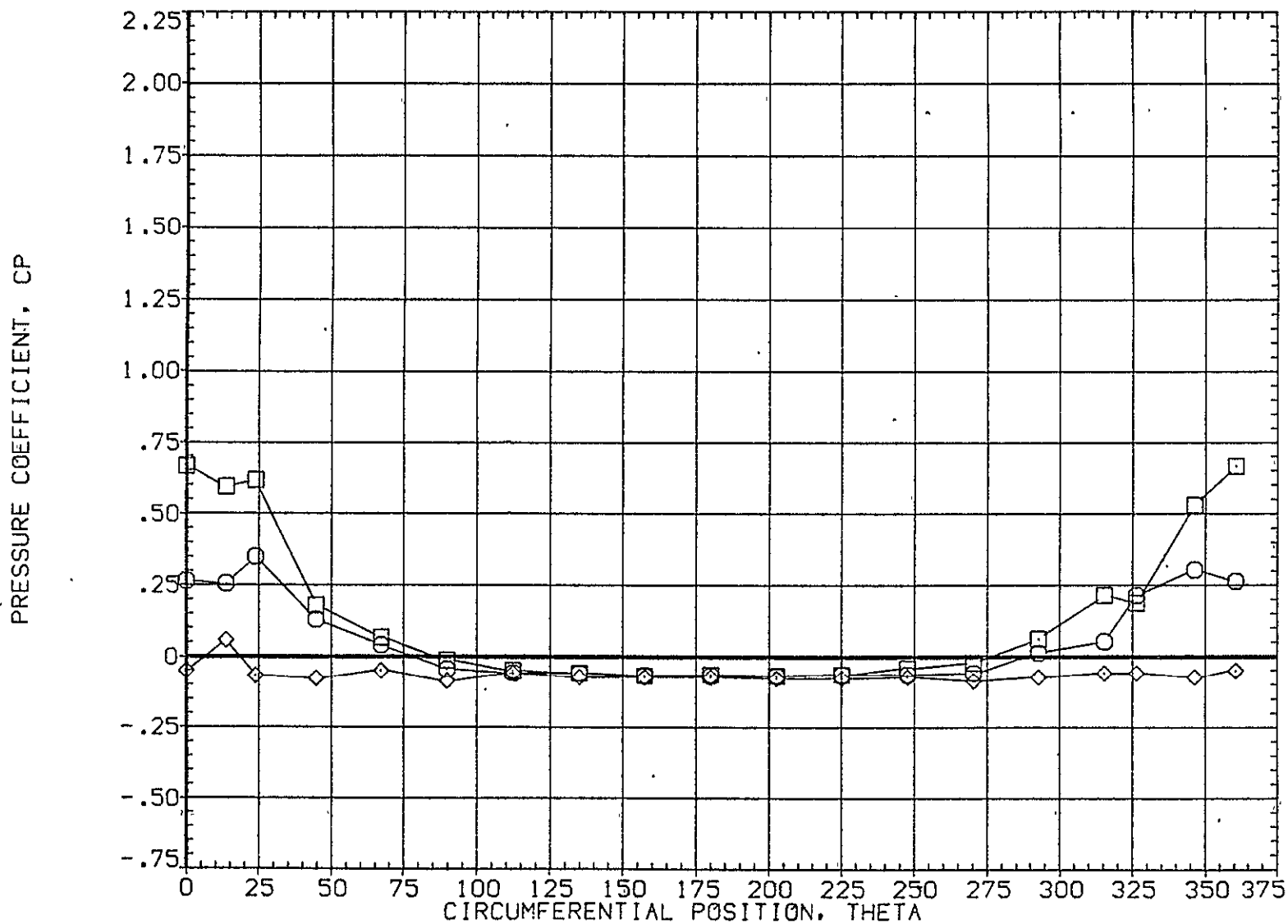


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	24.660	3.480	.000		20.000
□	.108			1.000		180.000
◇	.162					

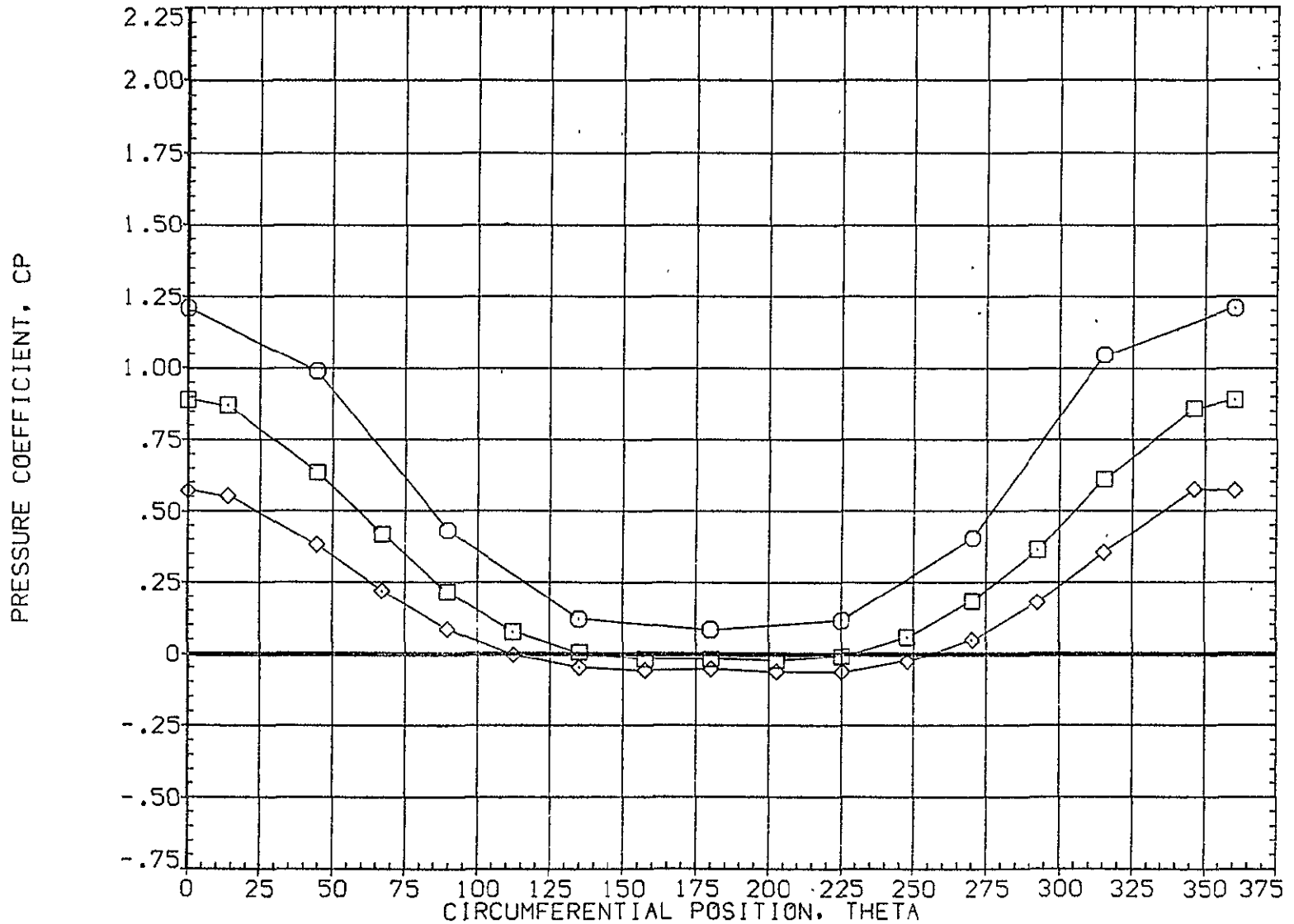


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	24.660	3.480	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

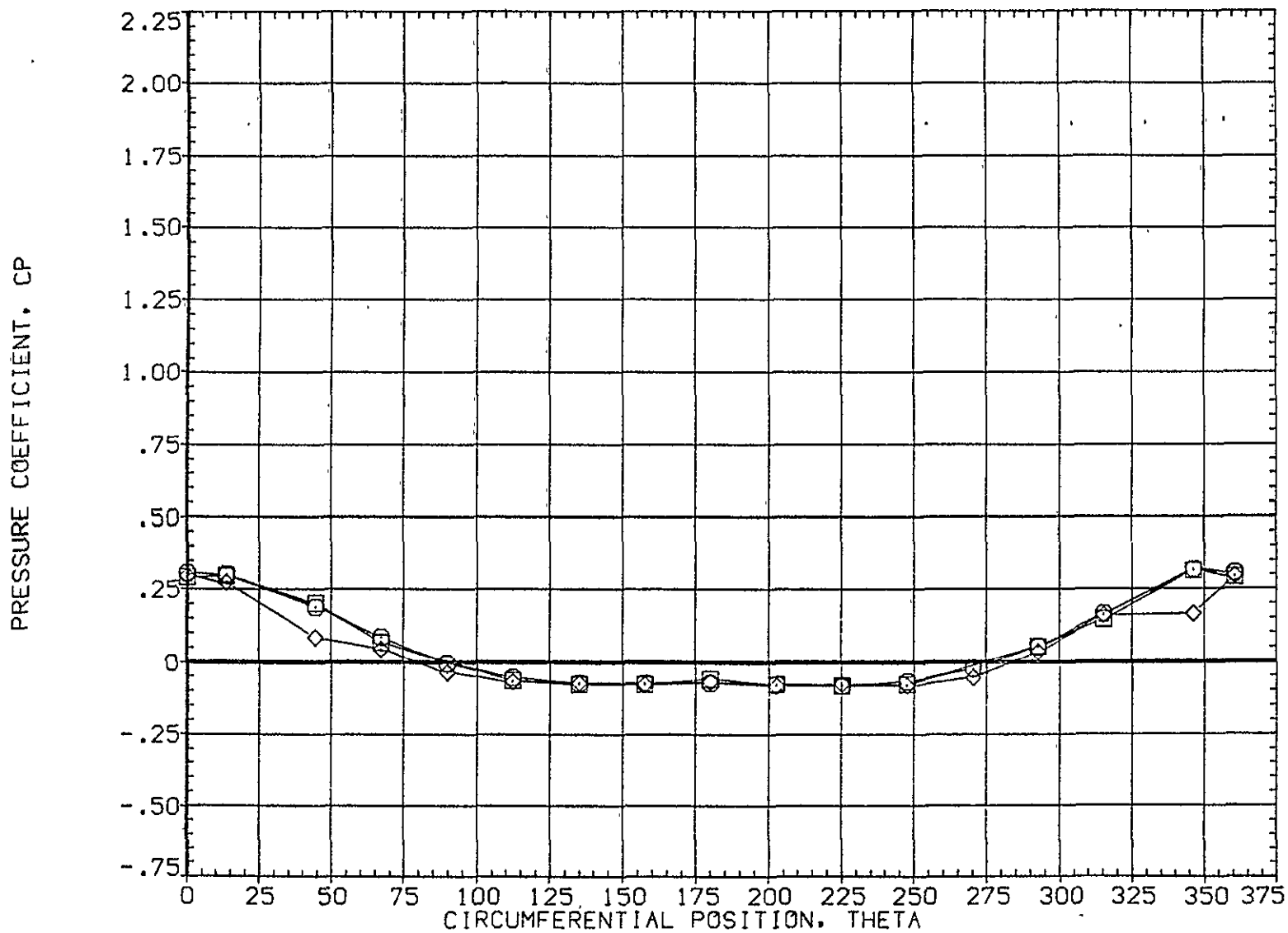


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	24.660	3.480	.000	20.000	
□	.735			1.000	180.000	
◇	.860					

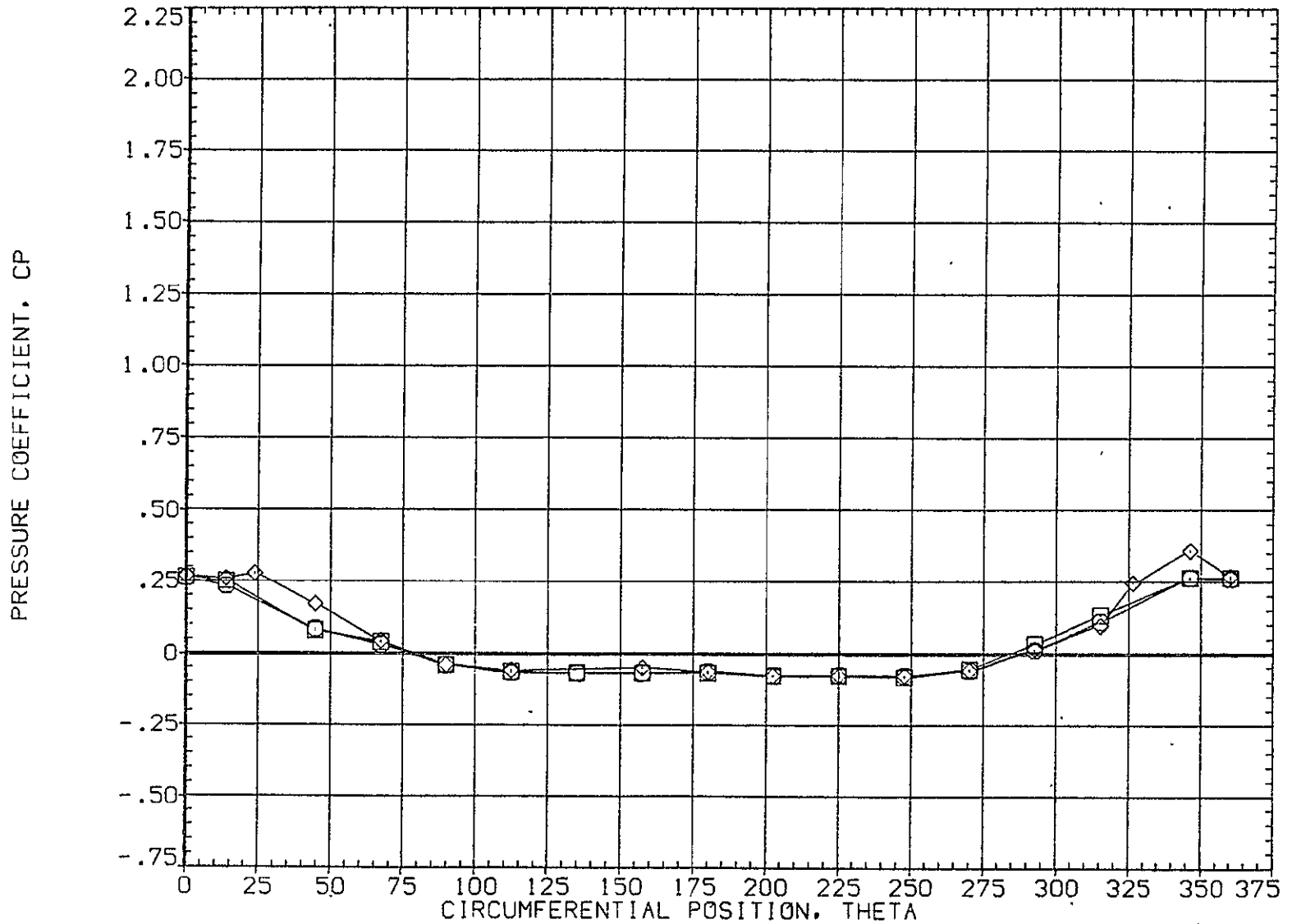


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	24.660	3.480	.000	20.000	
□	.923			1.000	180.000	
◇	.954					

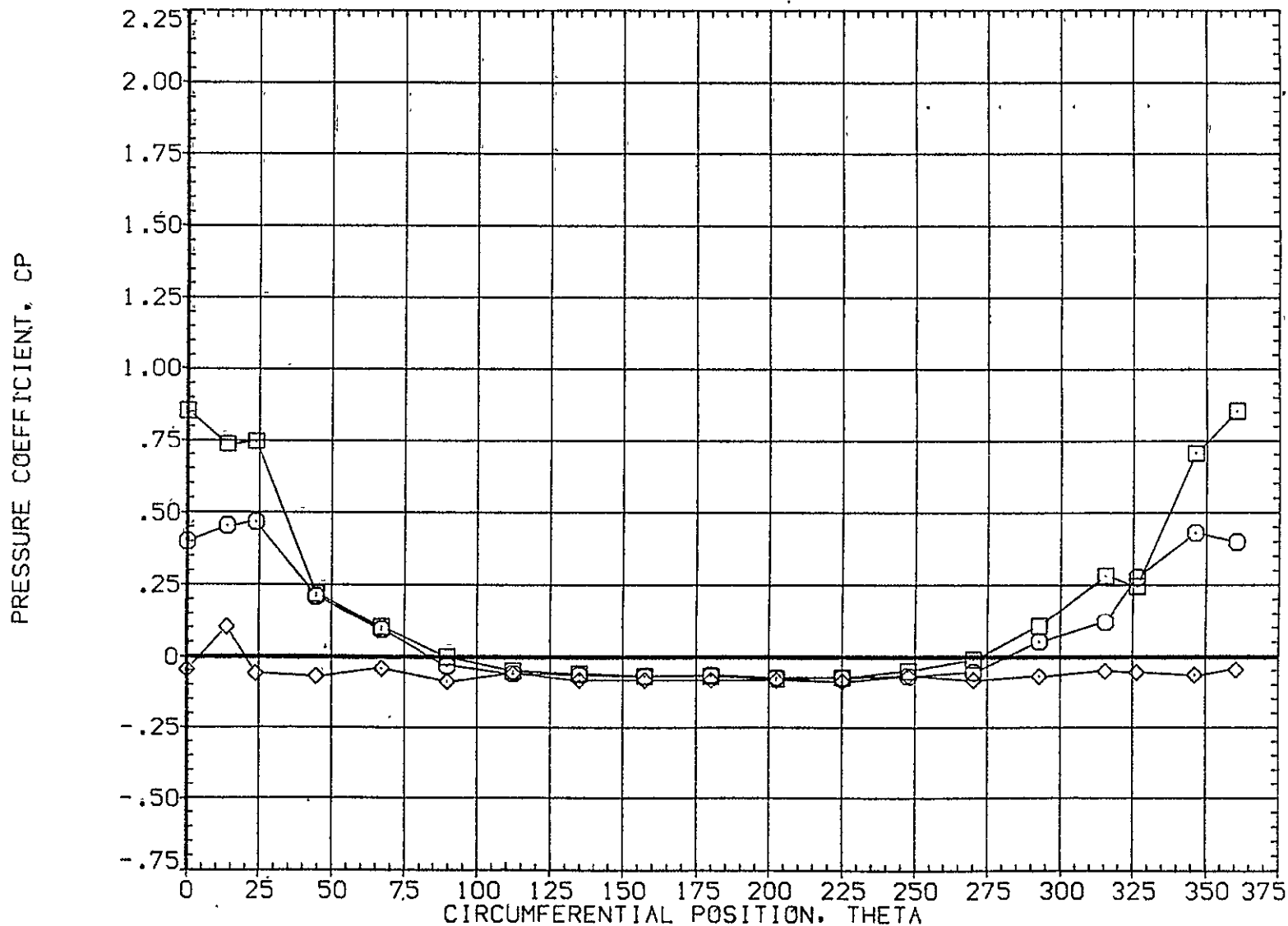


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A040)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	28.700	3.480	MOUNT	1.000	PHI	180.000
□	.108						
◇	.162						

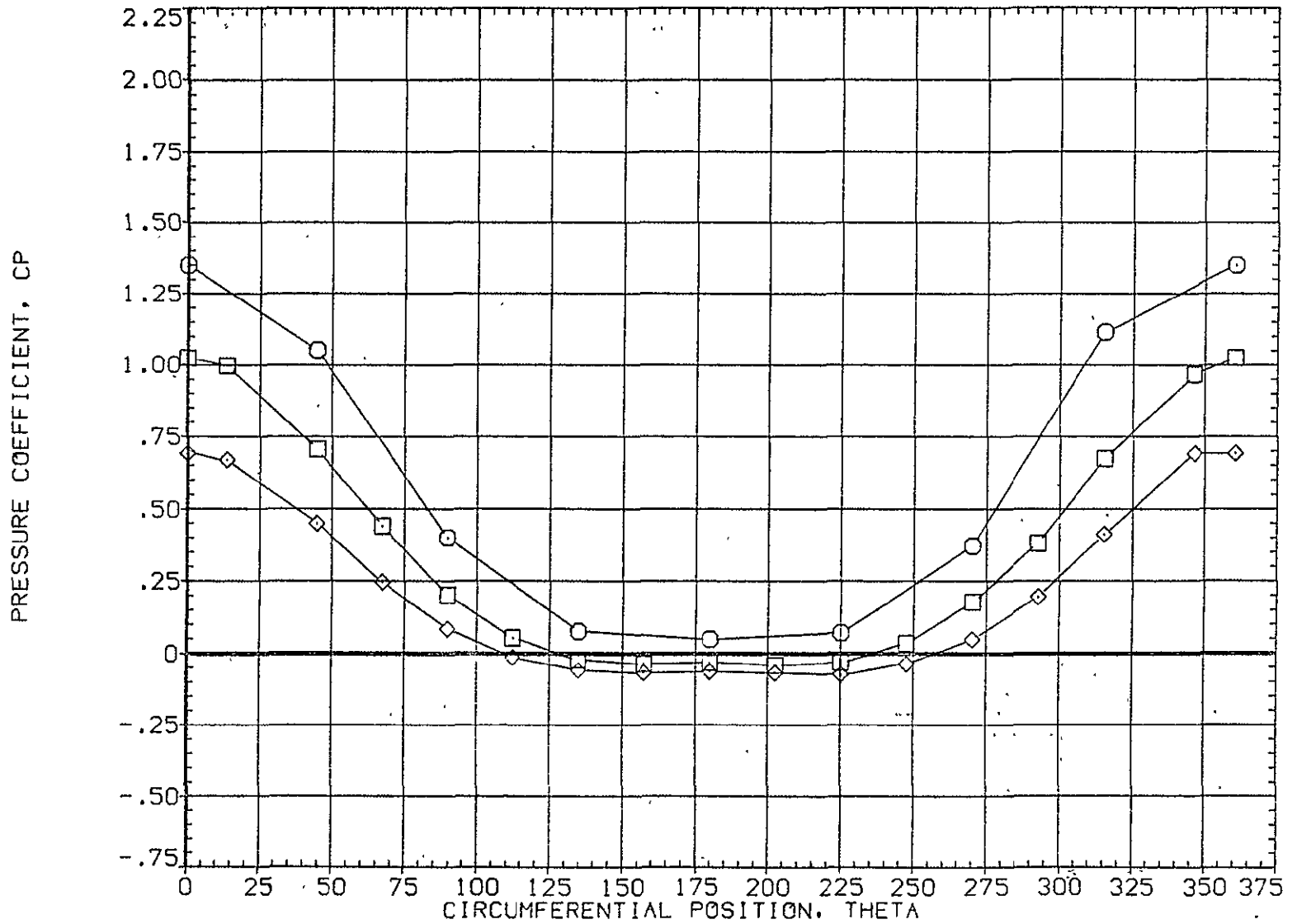


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
◇	.216	28.700	3.480	MOUNT	1.000	PHI	180.000
□	.322						
○	.518						

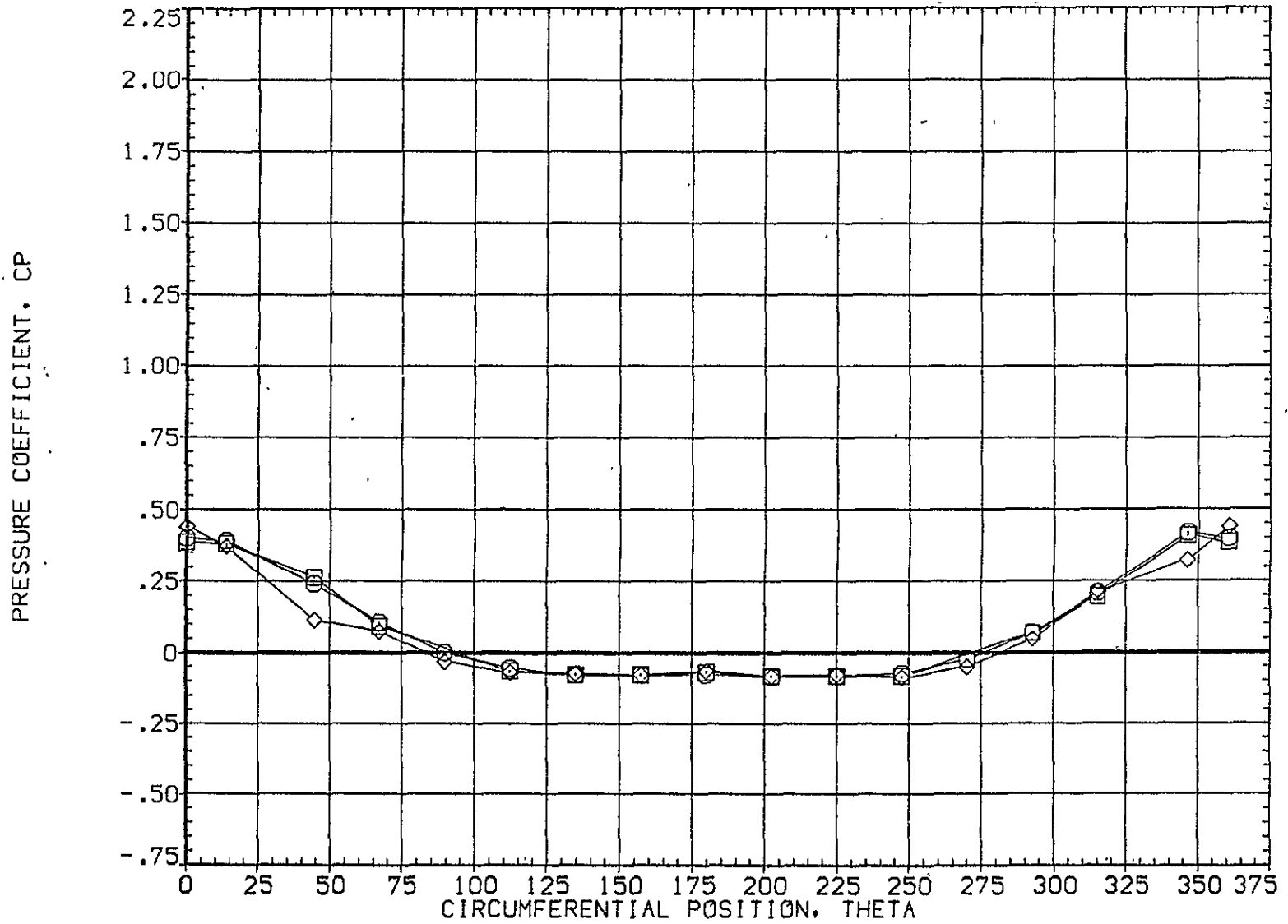


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	28.700	3.480	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

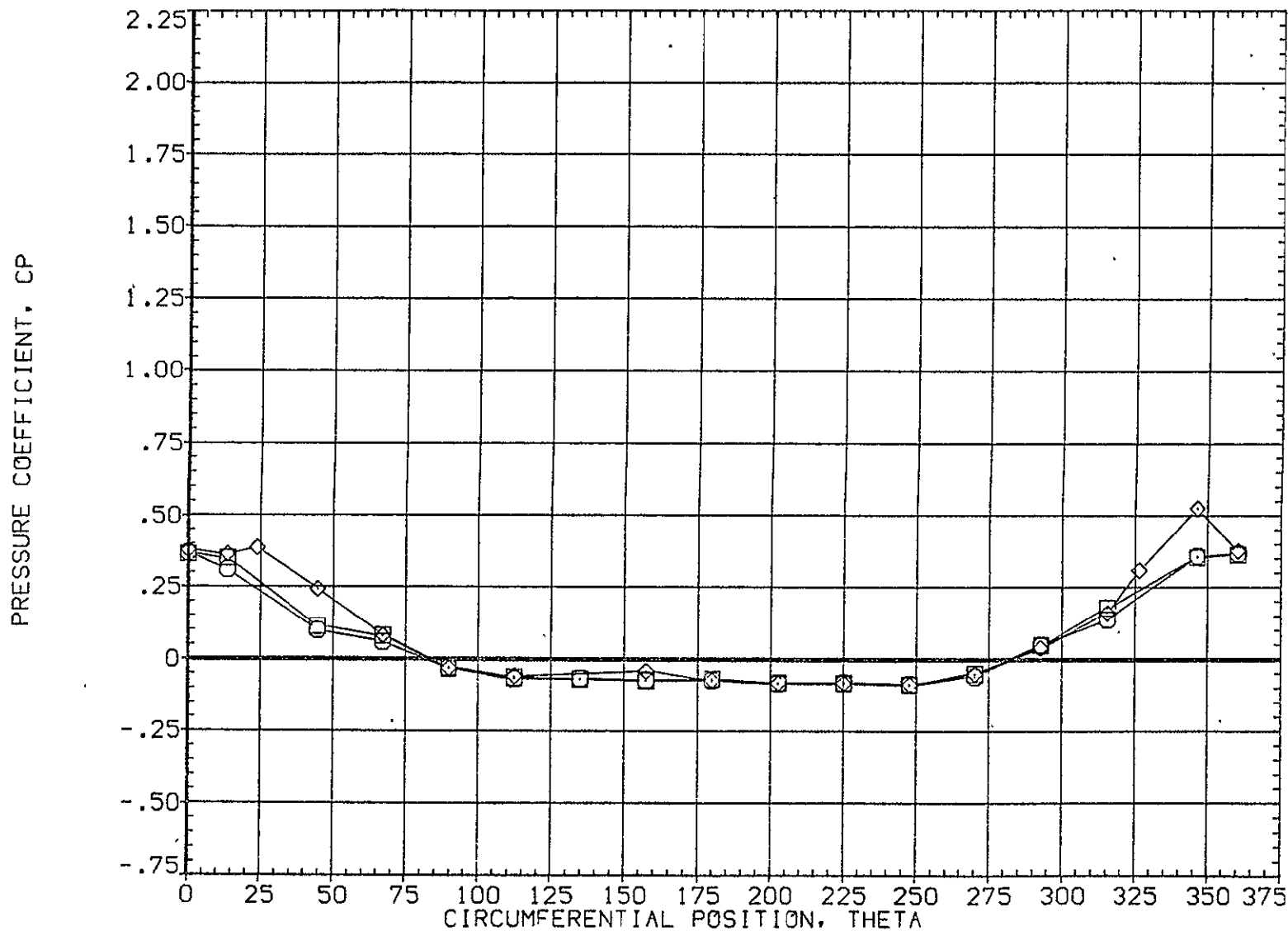


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 28.700 3.480
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 180.000

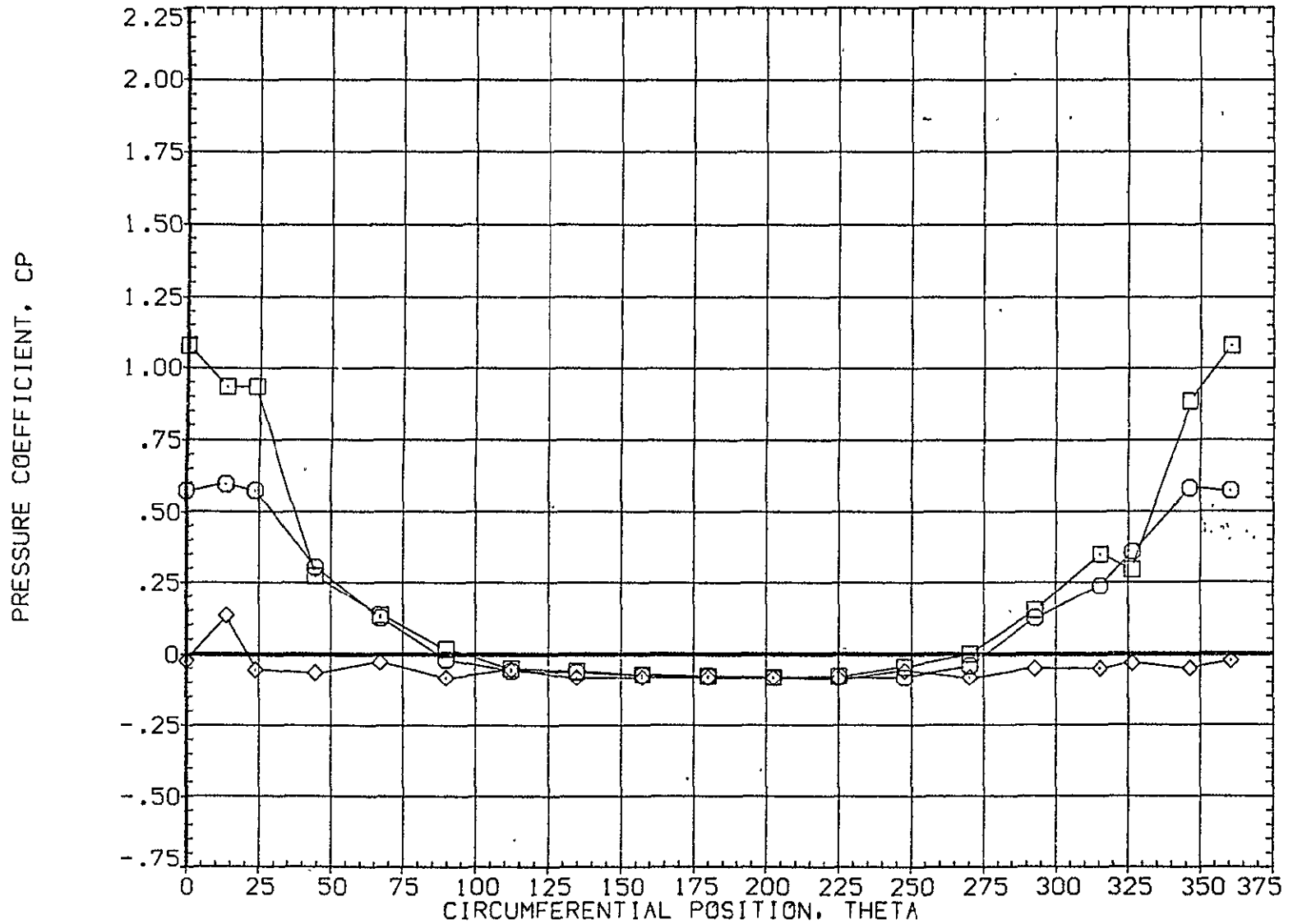


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
○	.055	-8.360	3.480	BETA	.000	OFFSET .000
□	.108			MOUNT	1.000	PHI 225.000
◇	.162					

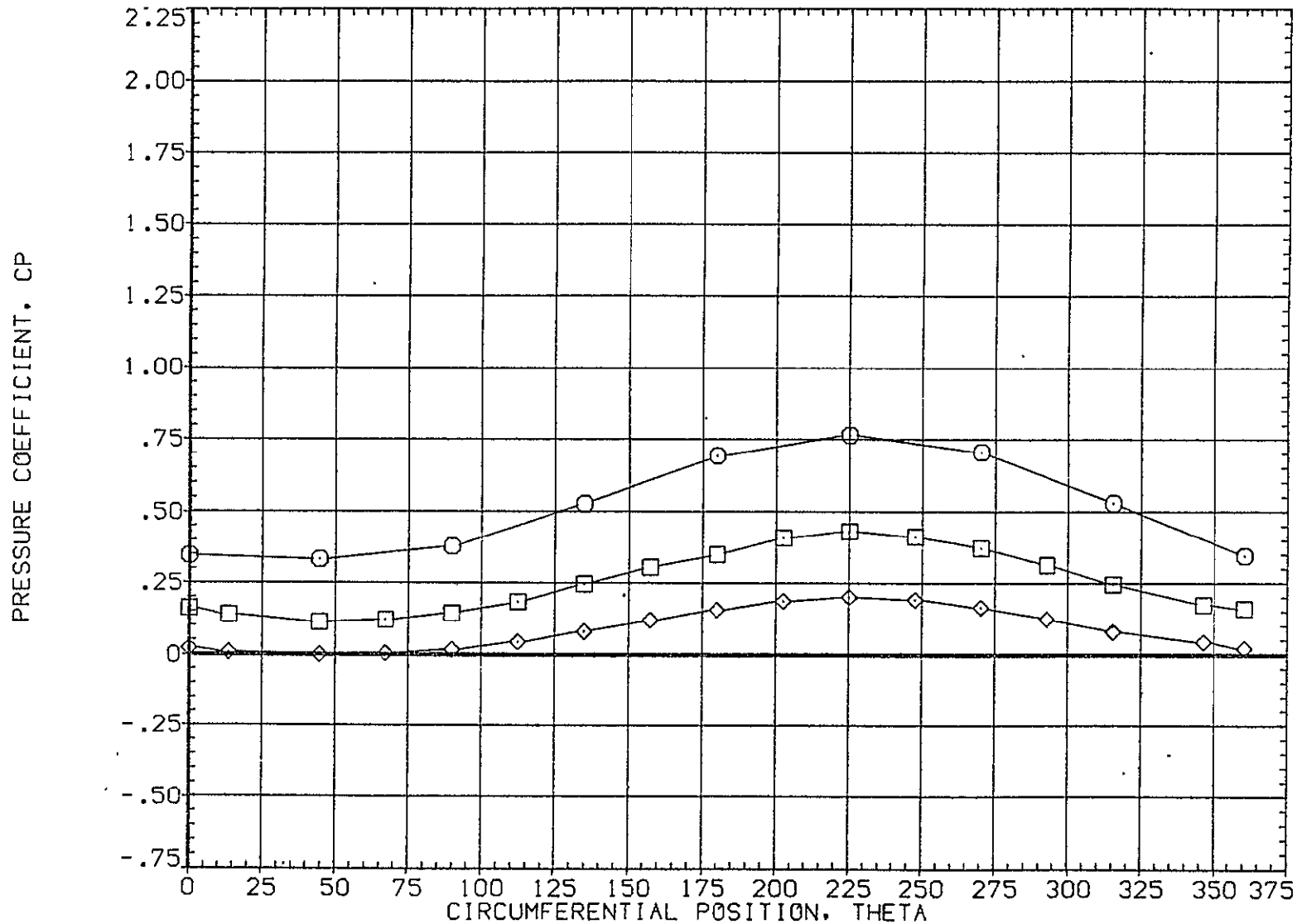


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.360	3.480	.000	.000	.000
□	.322			1.000	225.000	
◇	.518					

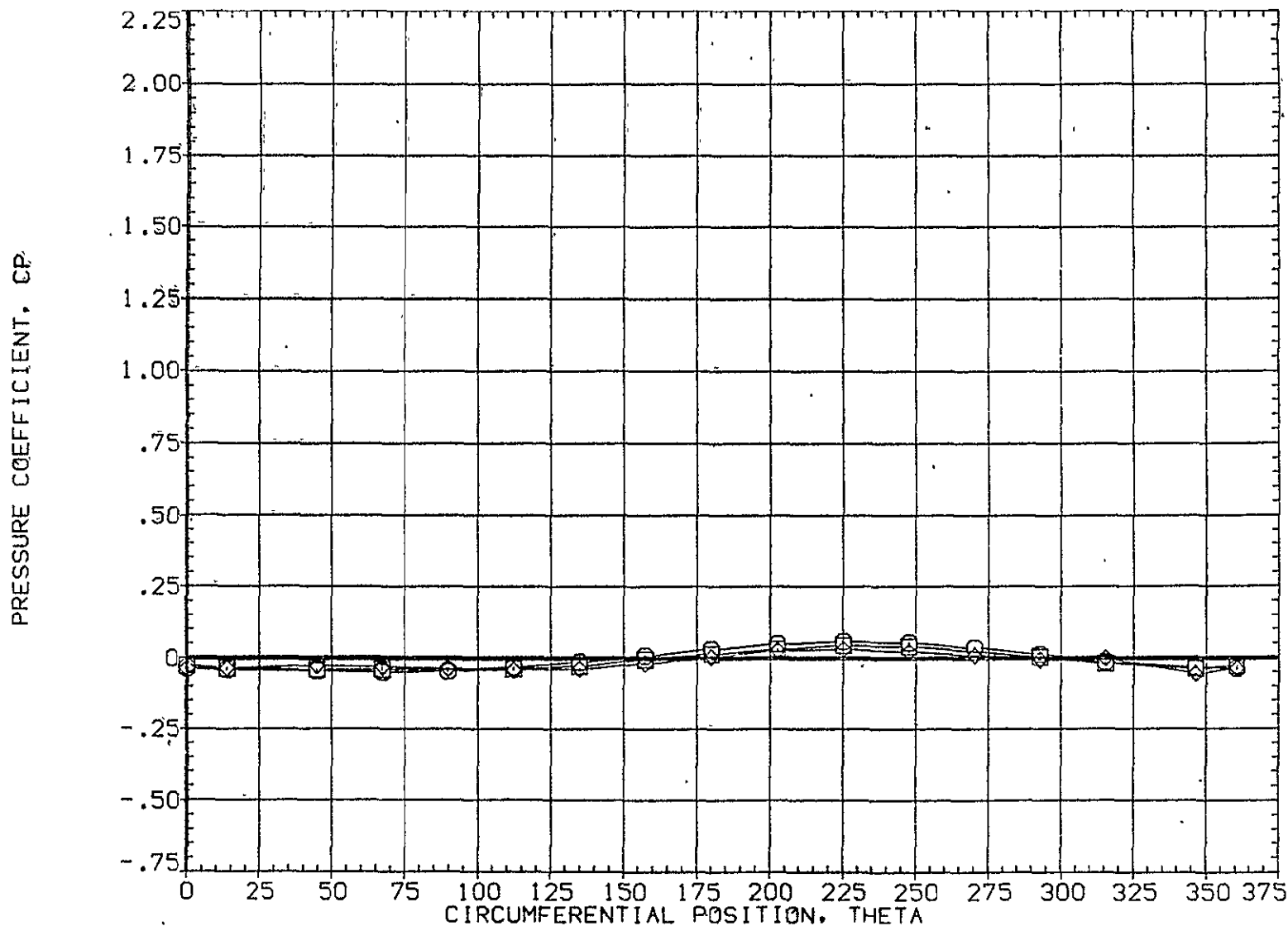


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	,000	
○	.610	-8.360	3.480	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

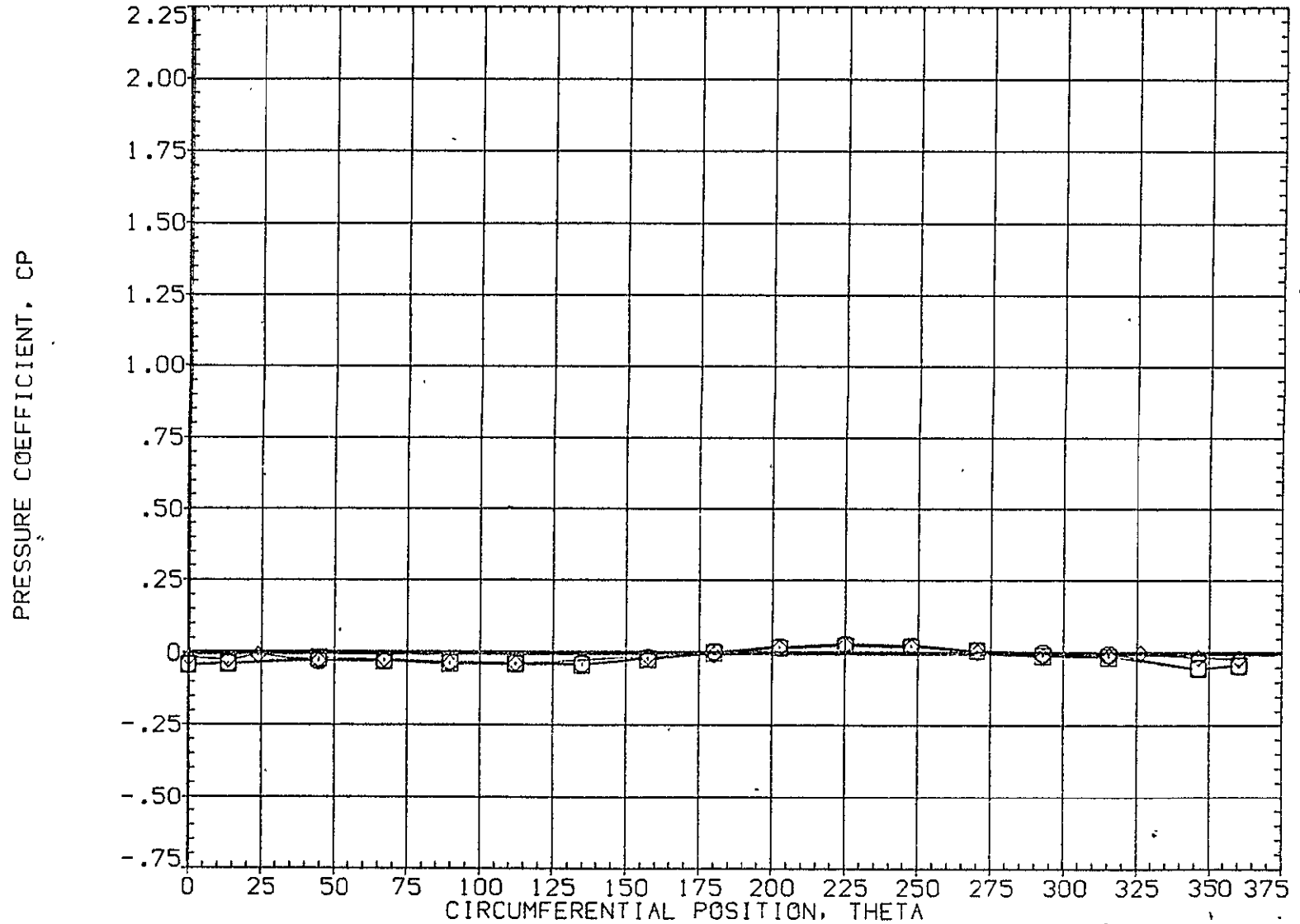


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-8.360	3.480	.000	.000	.000
□	.923			1.000		225.000
◇	.954					

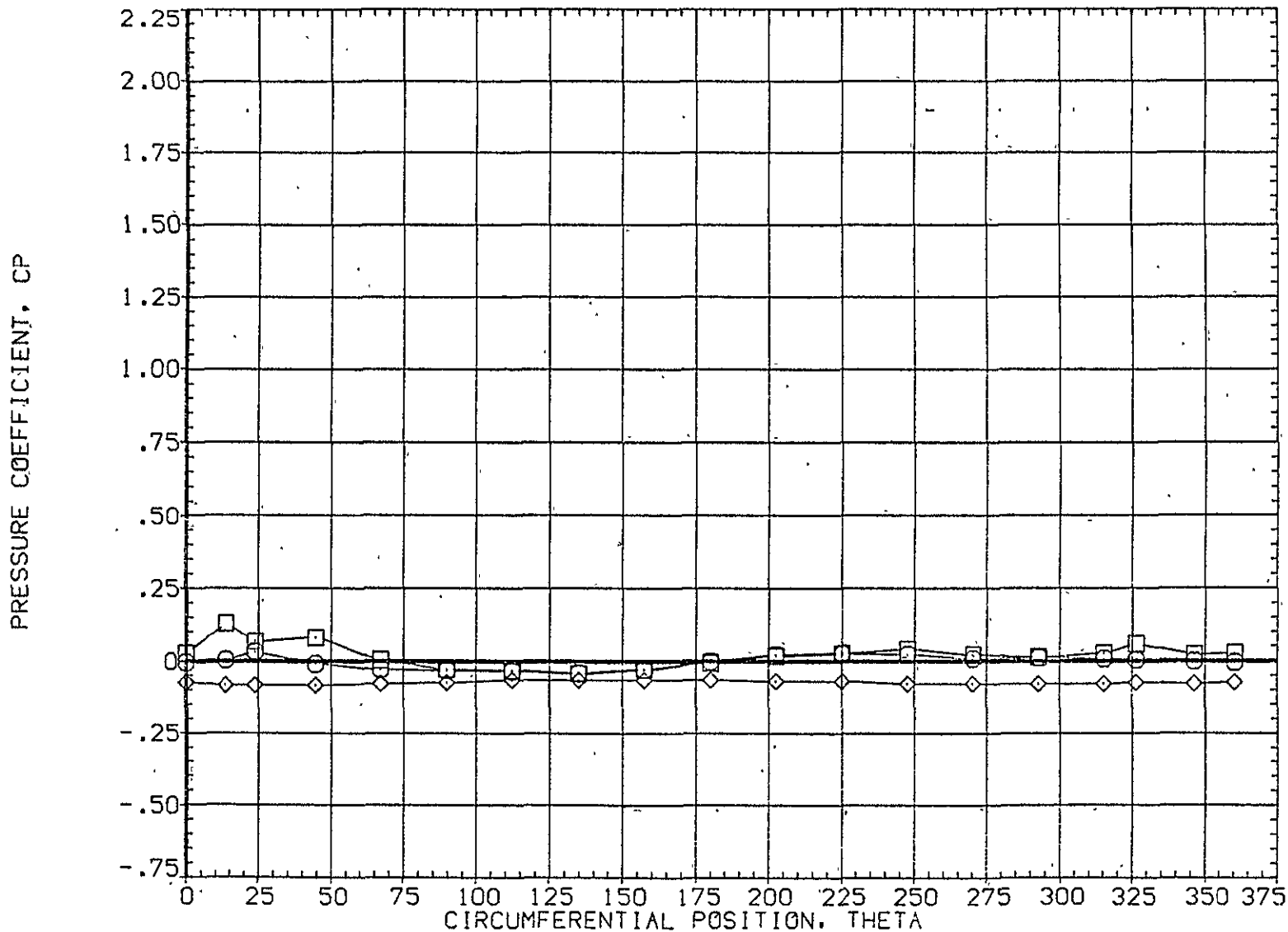


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES.

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.055	-4.330	3.480	BETA	.000	OFFSET	.000
□	.108			MOUNT	1.000	PHI	225.000
◇	.162						

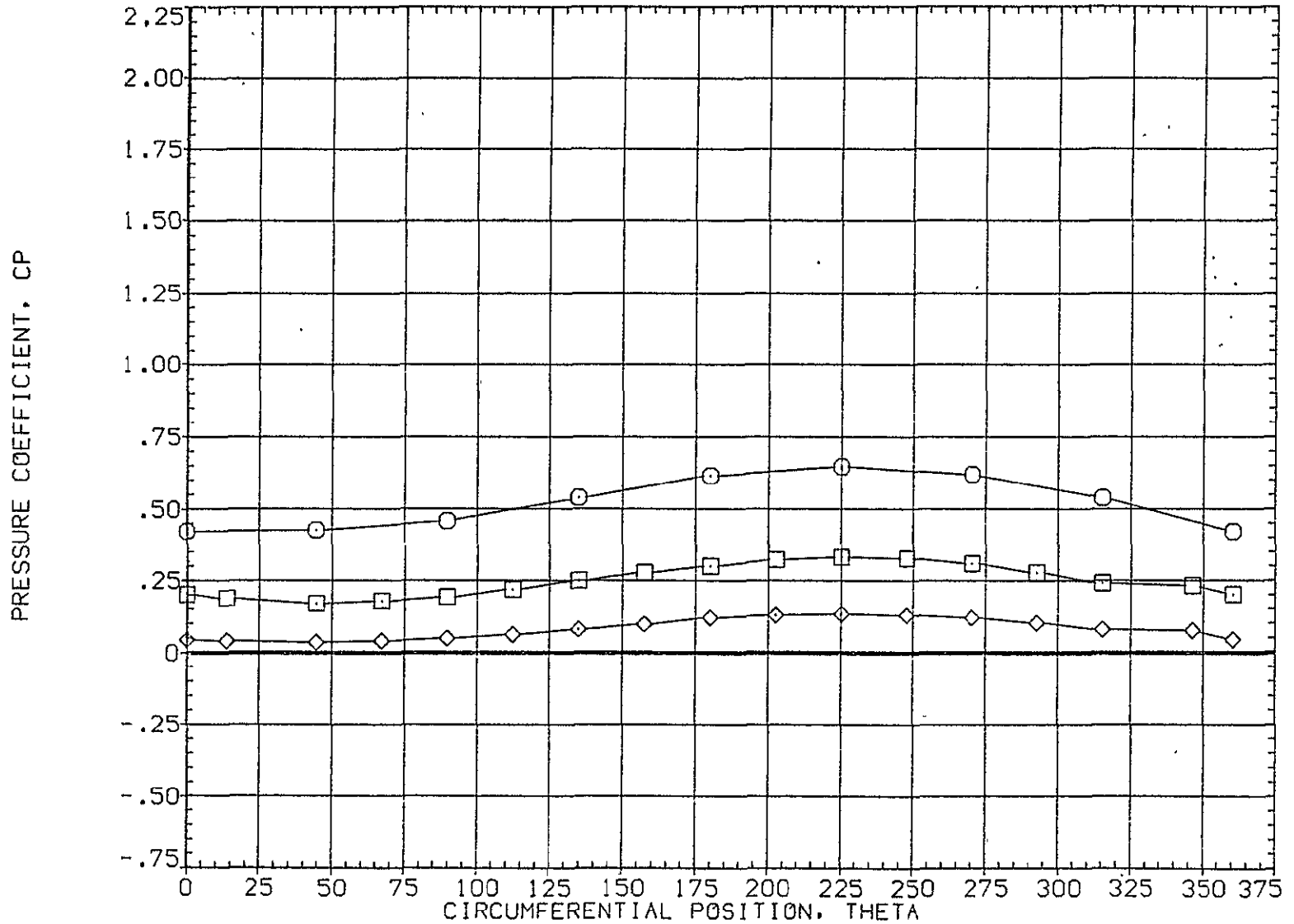


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 -4.330 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 225.000

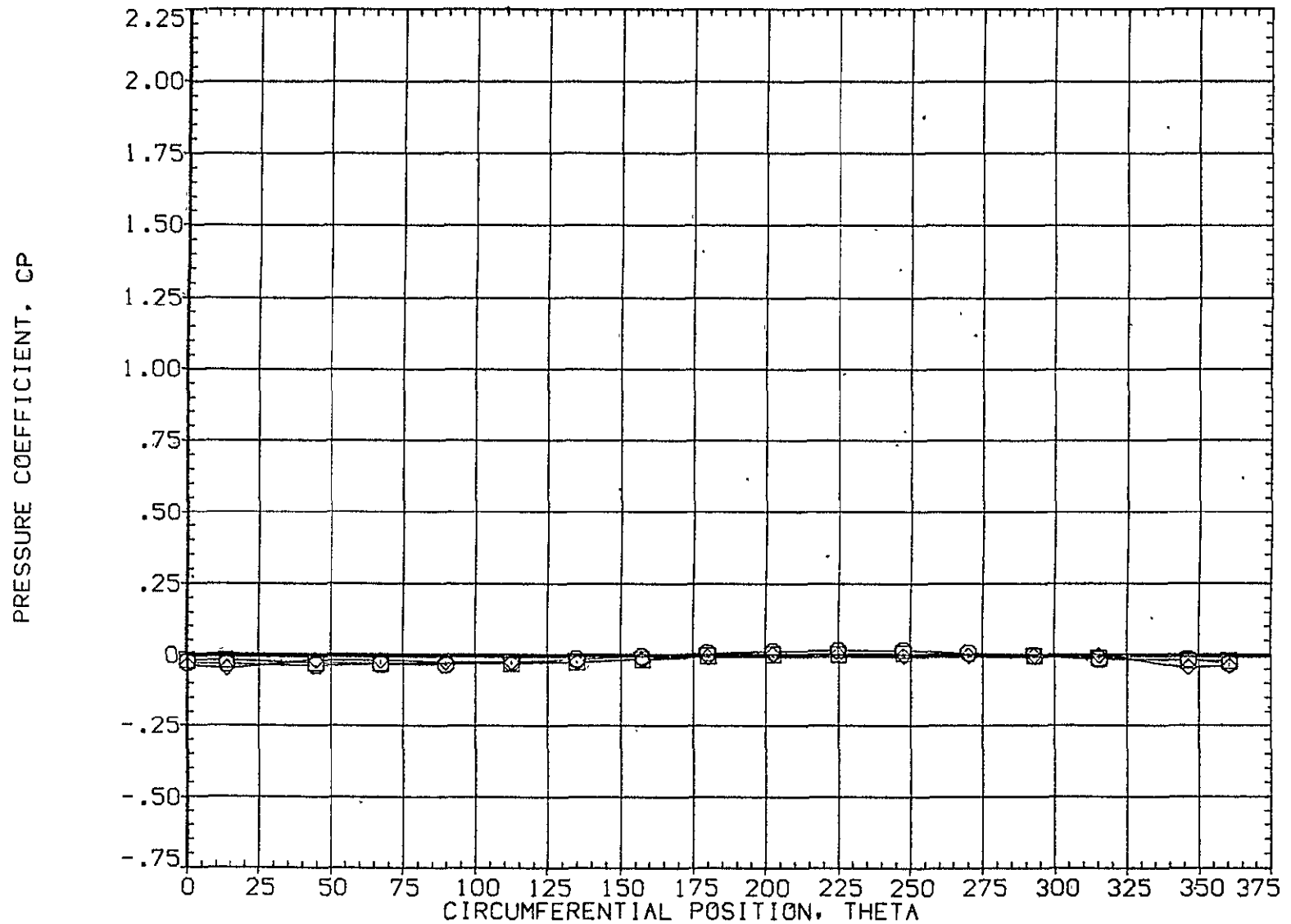


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.330	3.480	.000	.000	.000
□	.735			1.000		225.000
◇	.860					

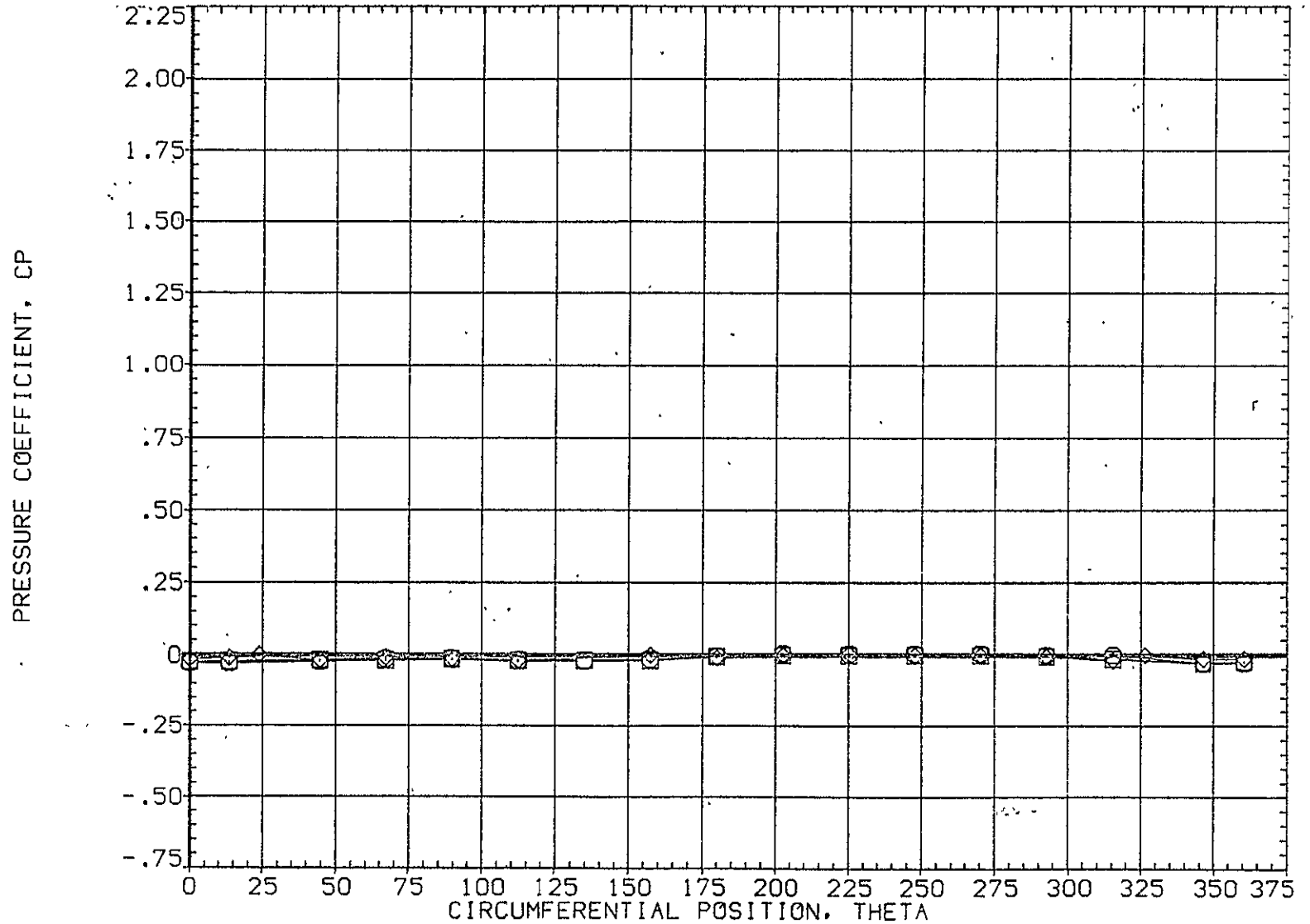


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 -4.330 3.480
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 225.000

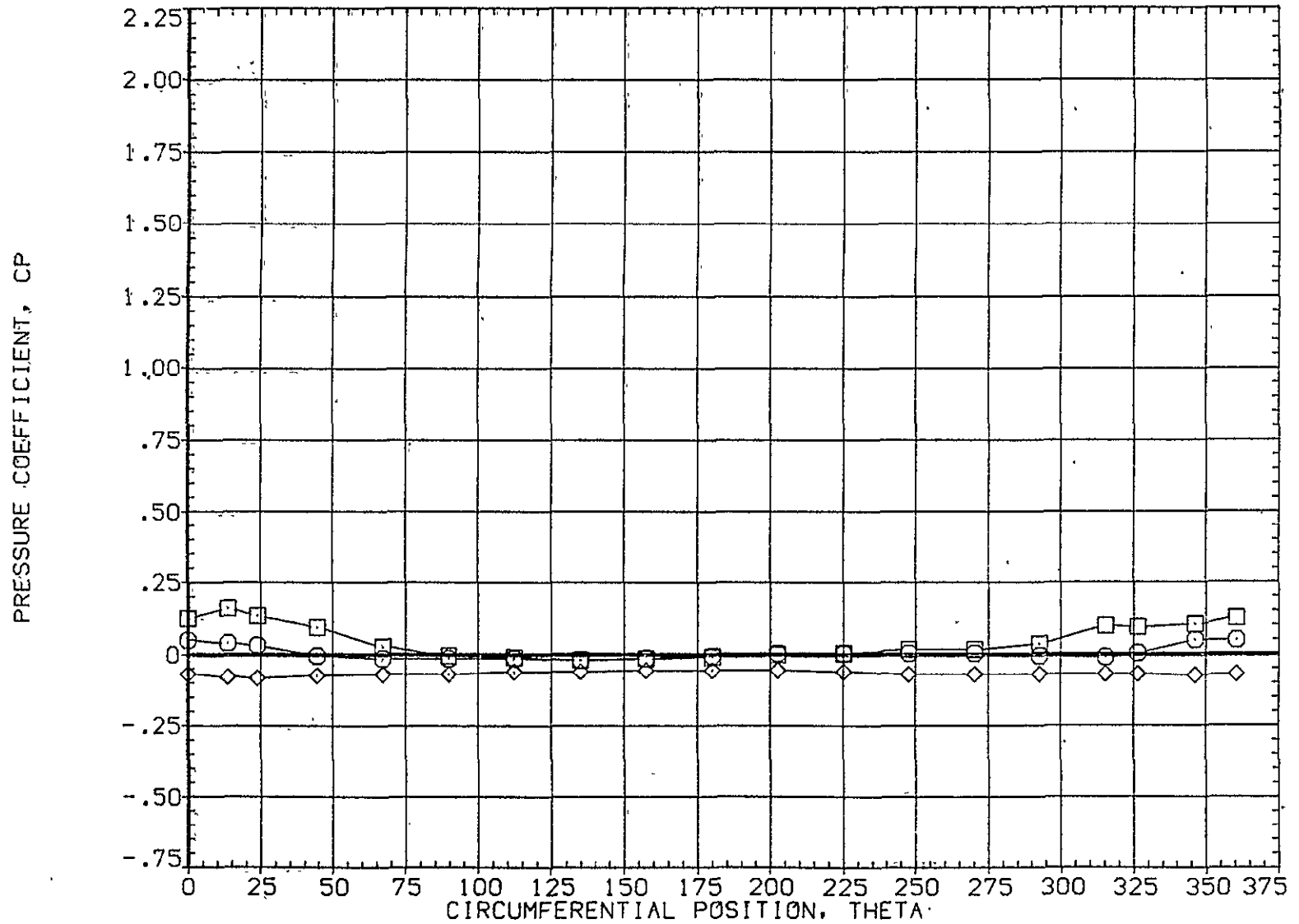


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	3.480	.000	.000	.000
□	.108			1.000		225.000
◇	.162					

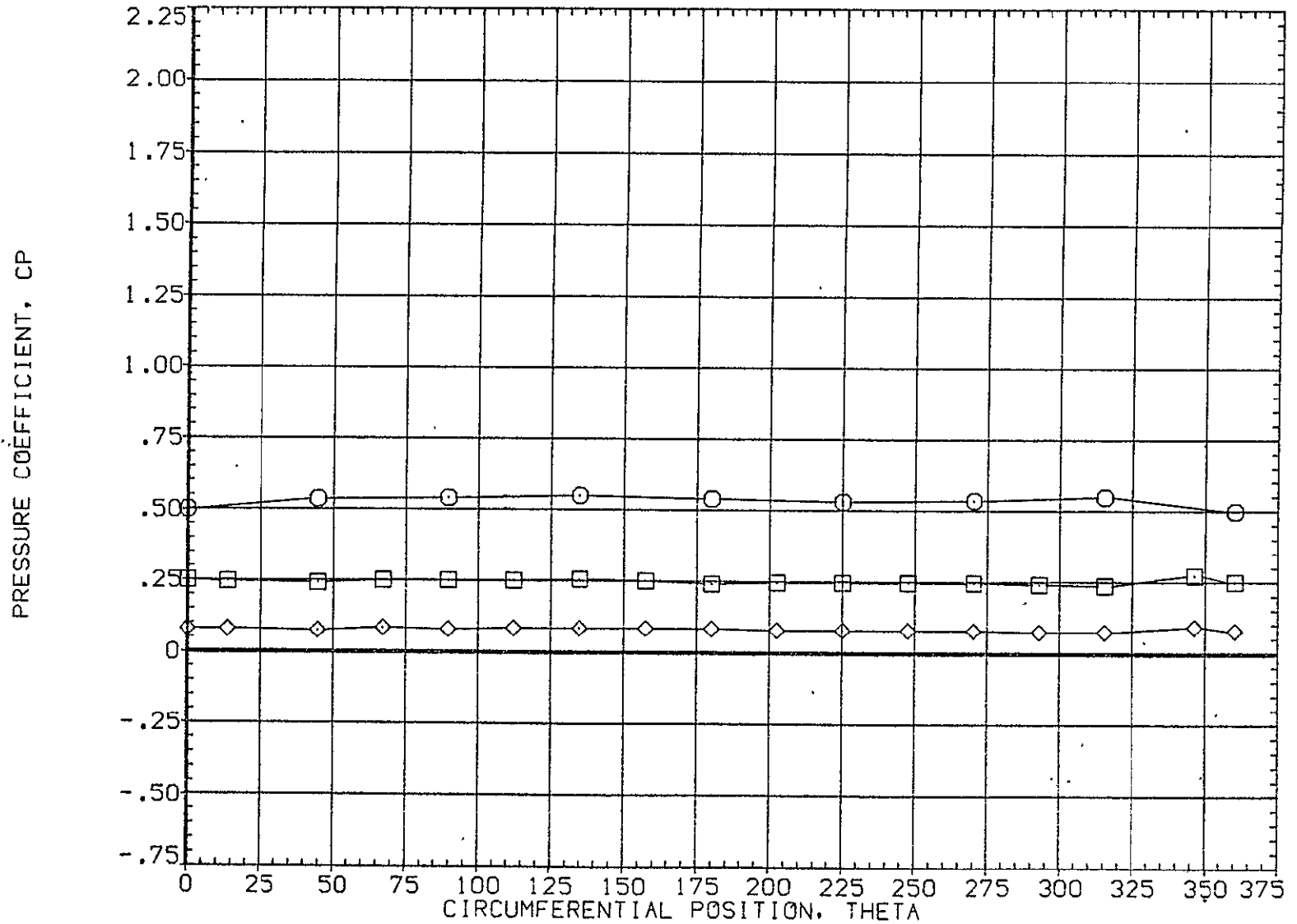


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-.280	3.480	.000	.000	.000
□	.322			1.000	225.000	
◇	.518					

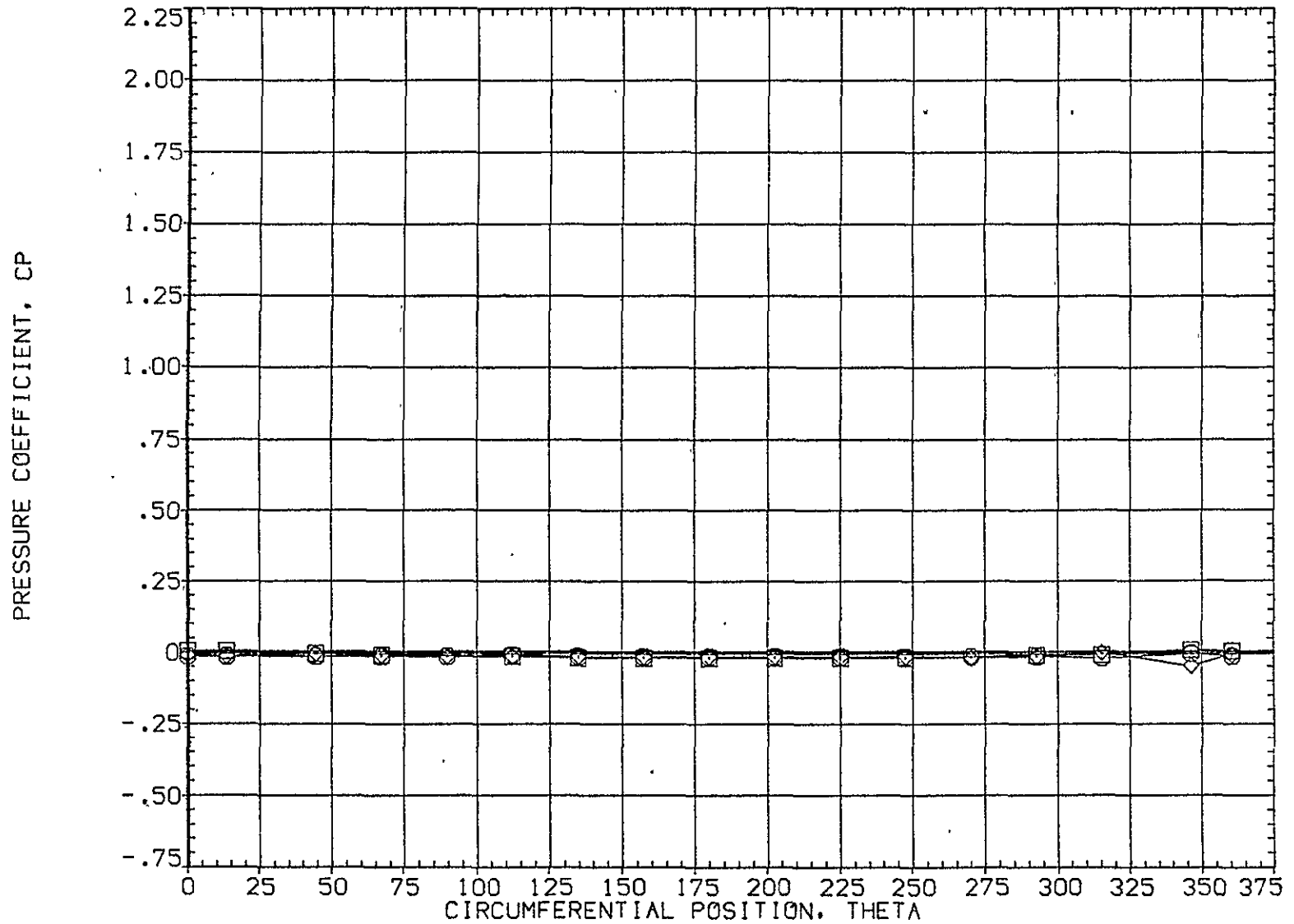


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A043)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-.280	3.480	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

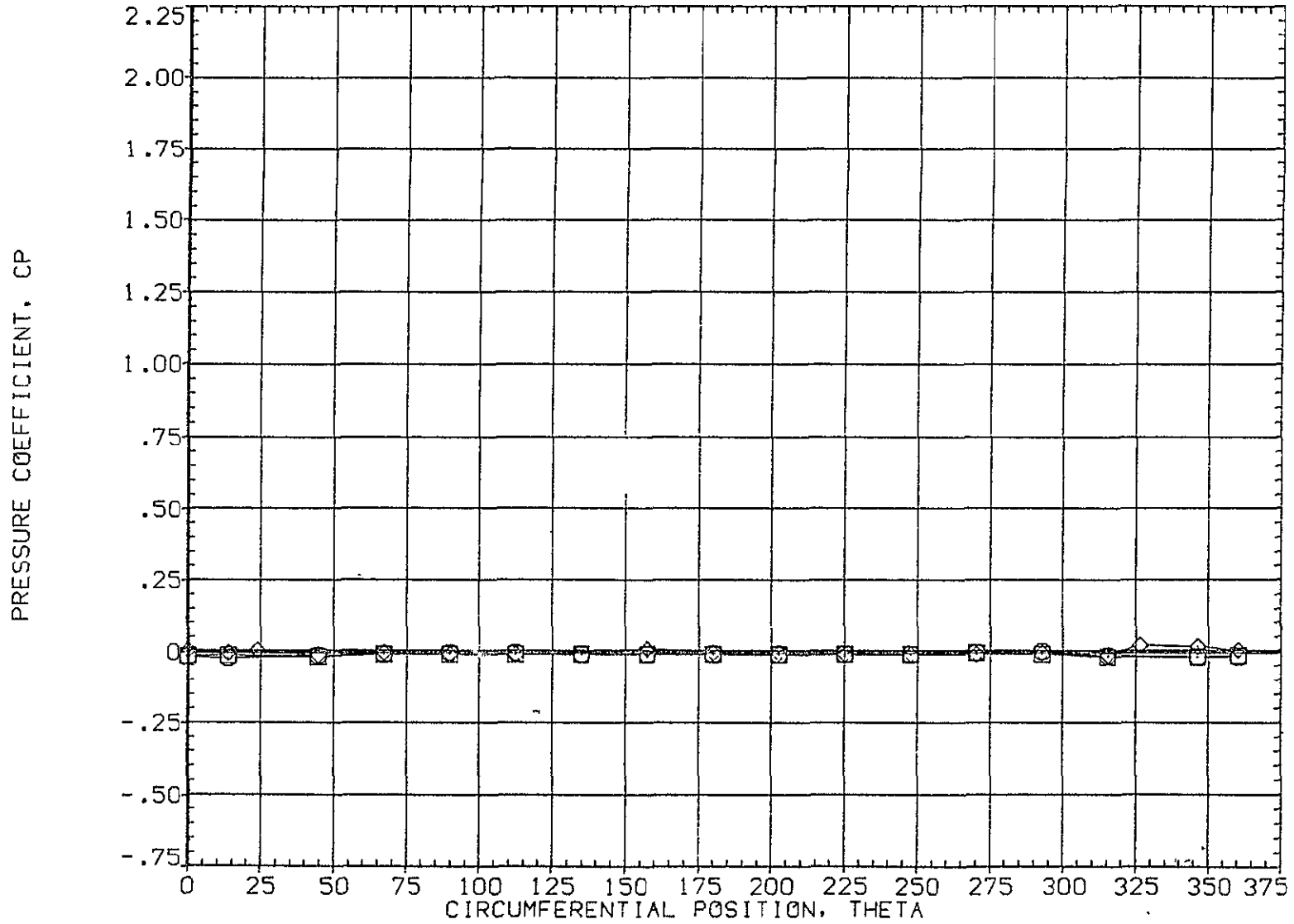


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	3.480	.000	.000	.000
□	.923			1.000		225.000
◇	.954					

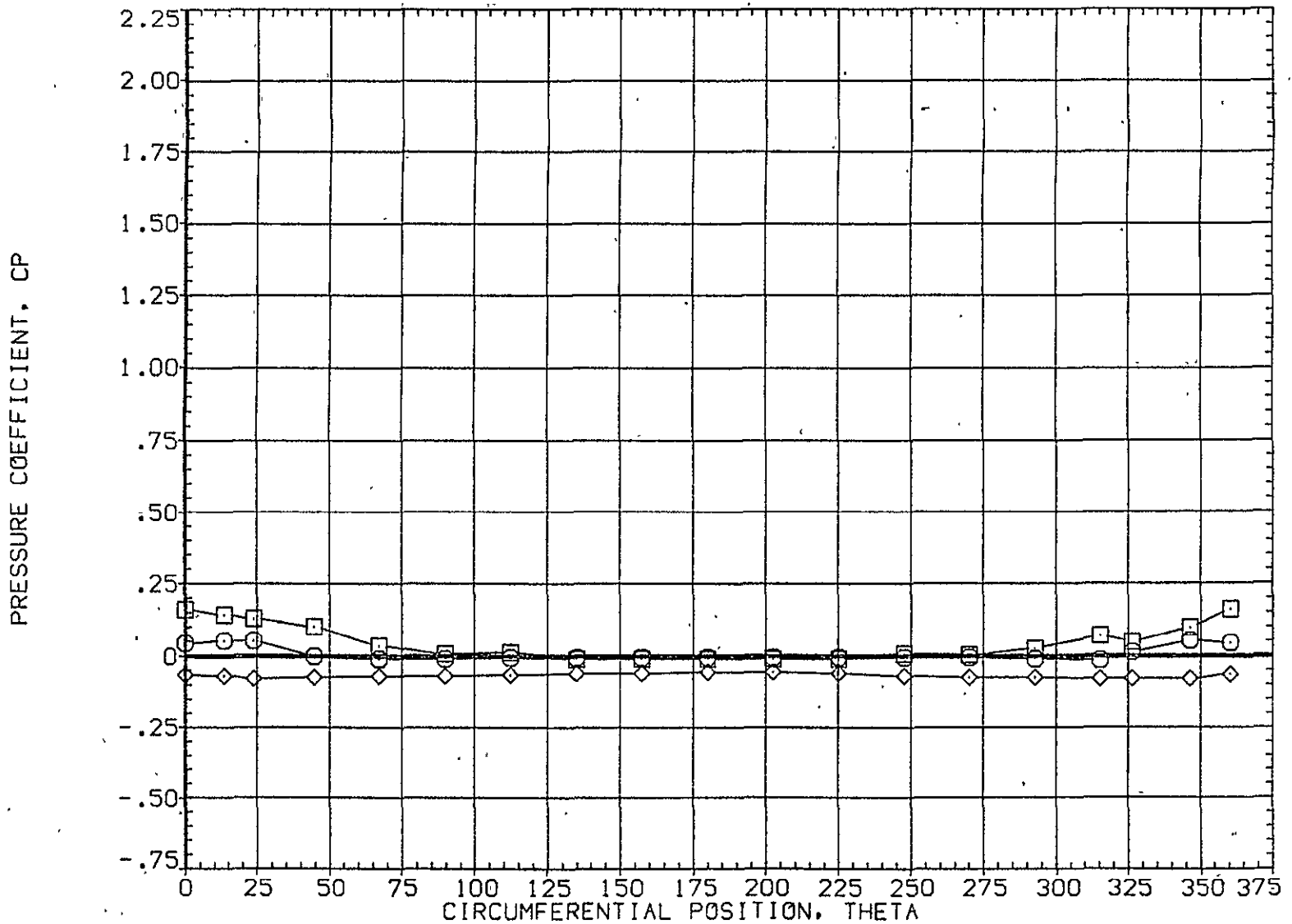


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	3.770	3.480	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

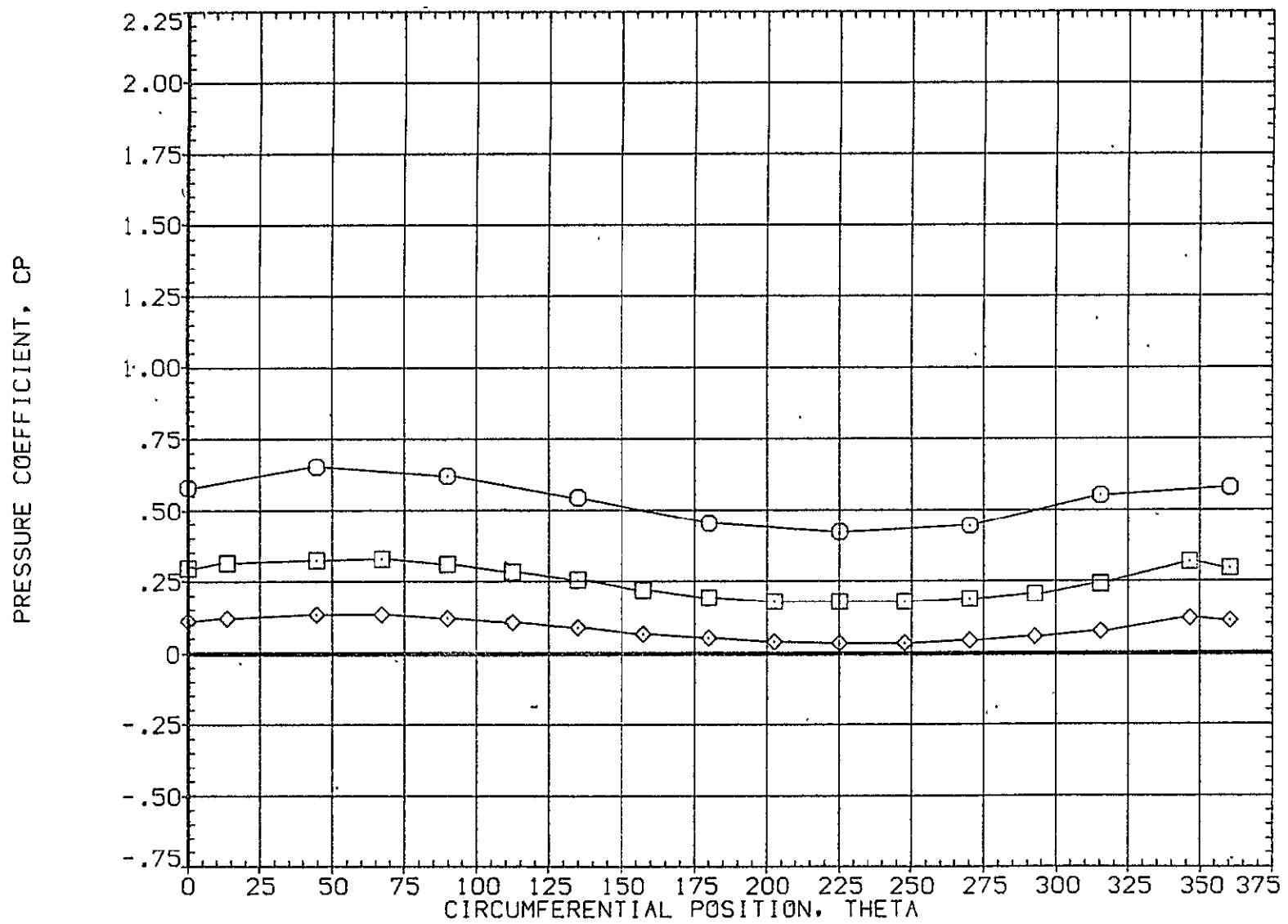


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.770	3.480	.000		.000
□	.322			MOUNT	1.000	225.000
◇	.518					

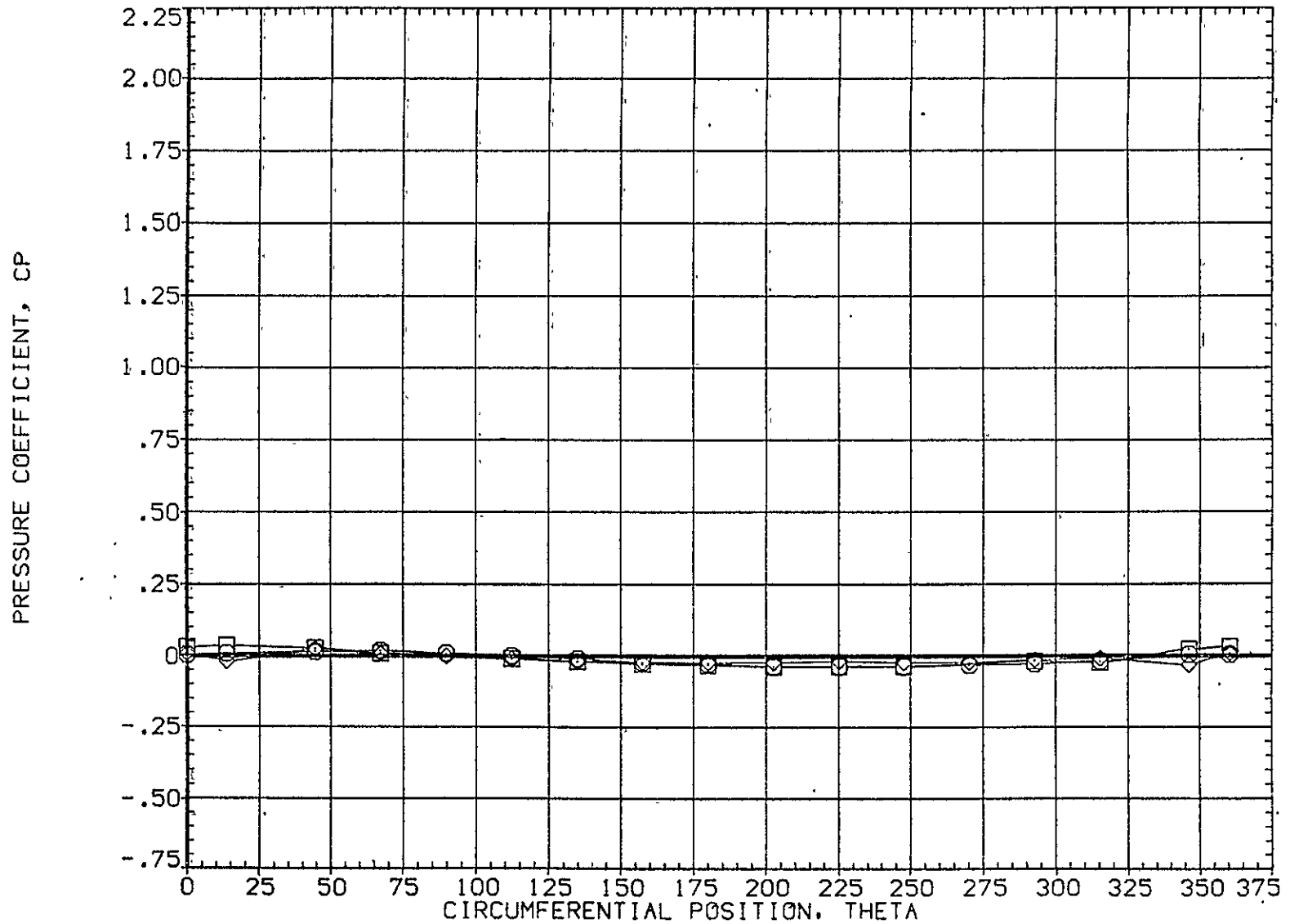


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	3.770	3.480	.000	.000		.000
□	.735			1.000			225.000
◇	.860						

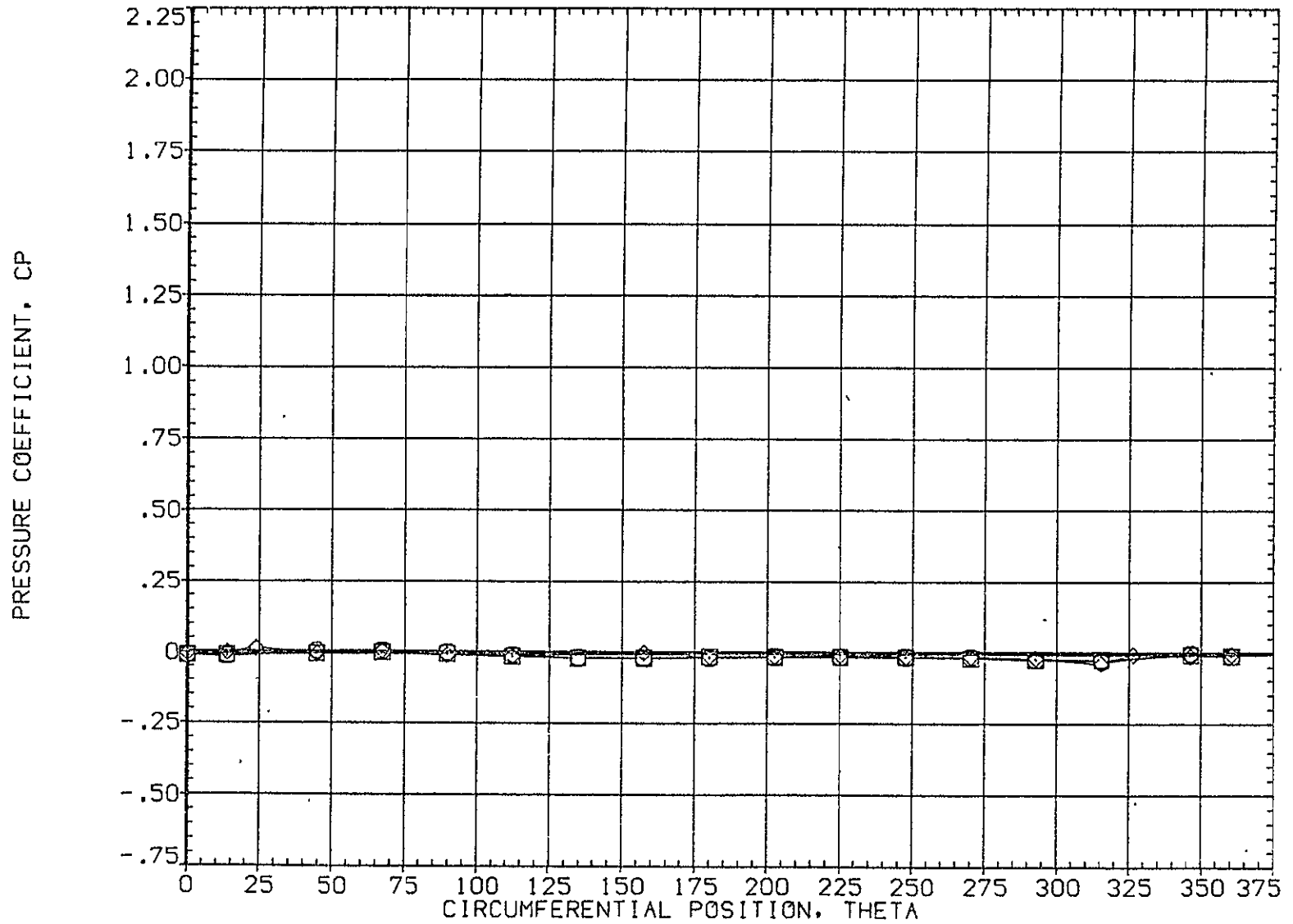


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	3.770	3.480	.000	.000	.000
□	.923			1.000	225.000	
◇	.954					

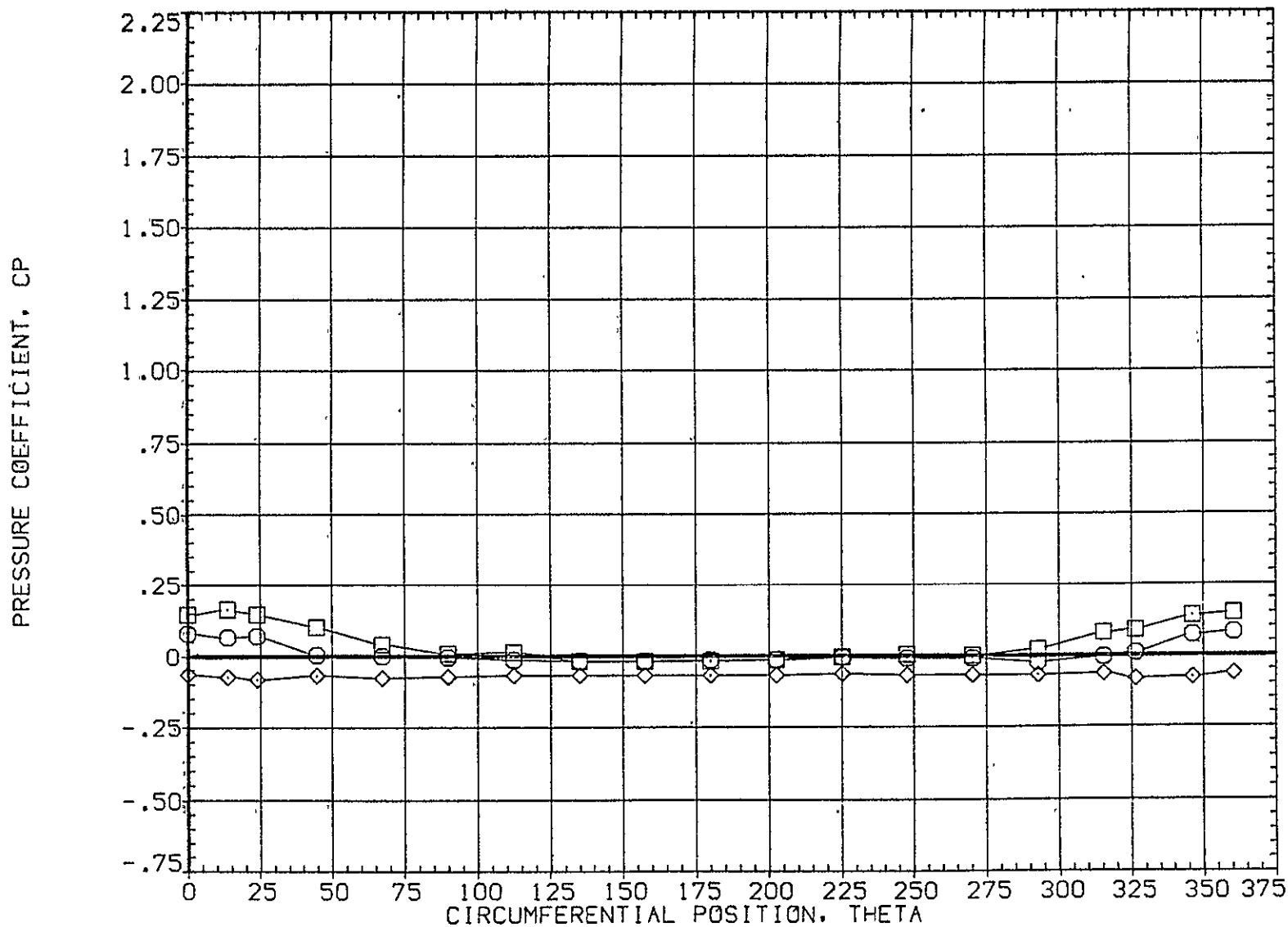


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.800	3.480	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

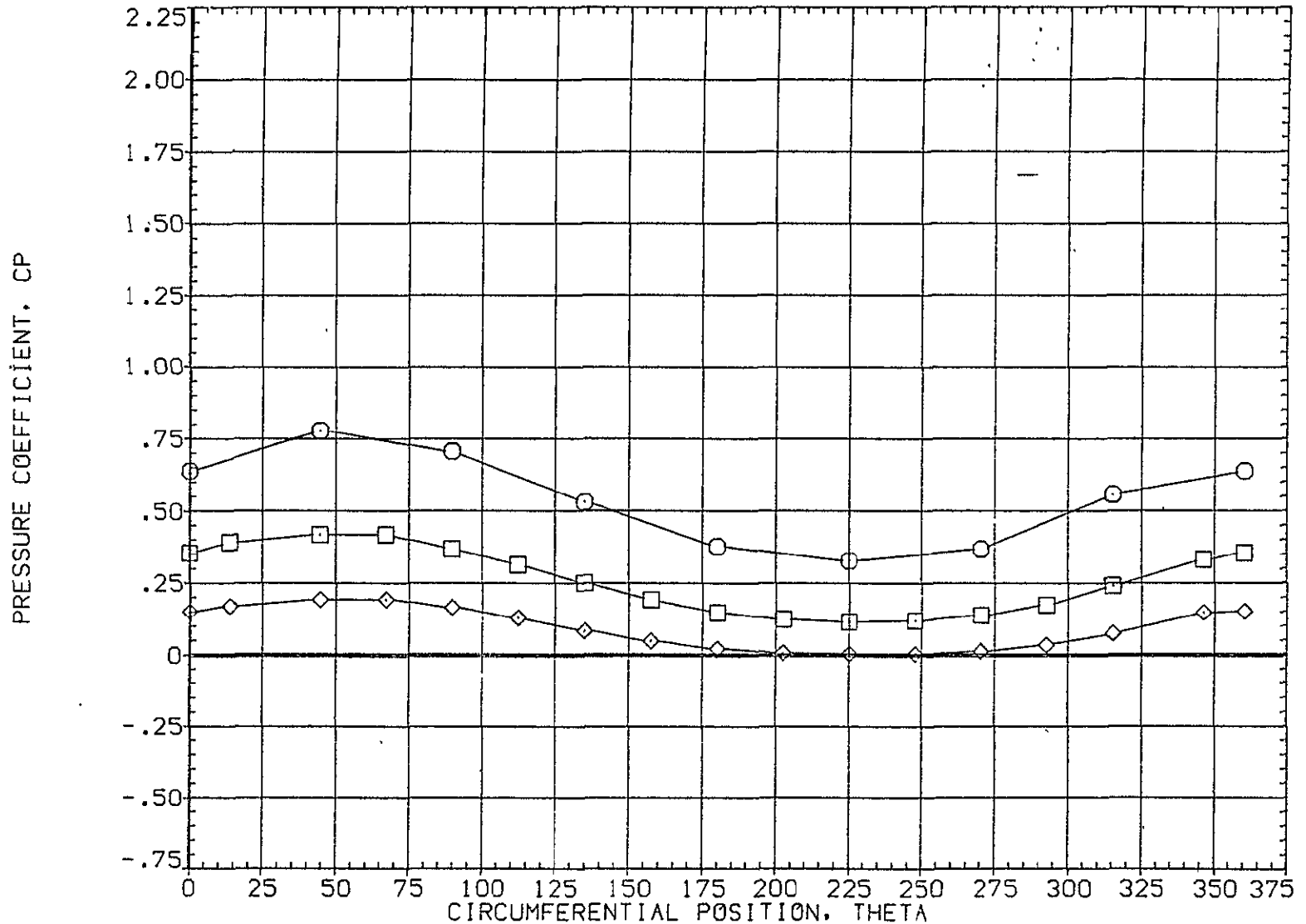


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	7.800	3.480	.000	.000	.000
□	.322			1.000		225.000
◇	.518					

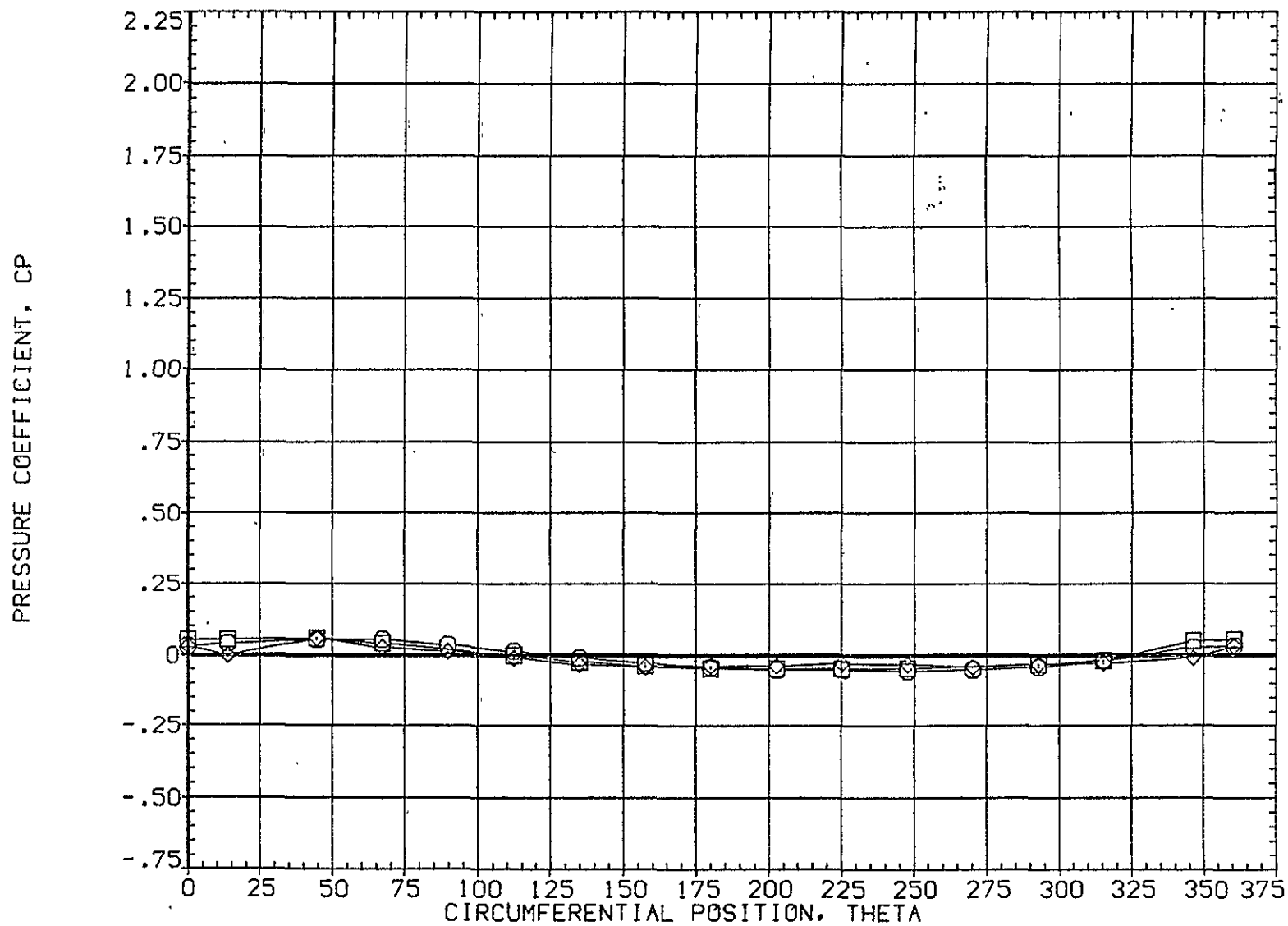


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A045)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.800	3.480	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

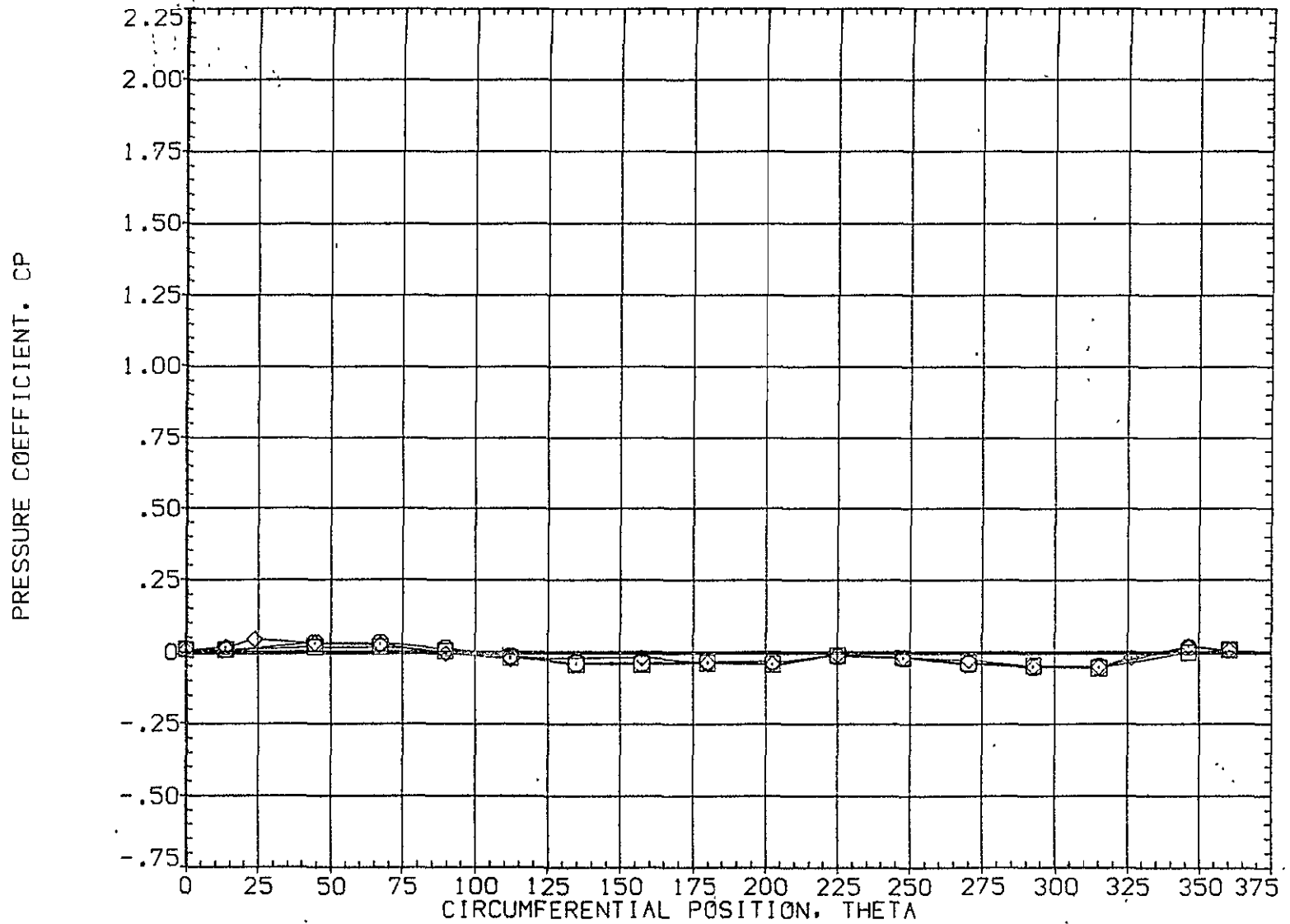


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.892	7.800	3.480
□	.923		
◇	.954		

PARAMETRIC VALUES		
BETA	.000	OFFSET .000
MOUNT	1.000	PHI 225.000

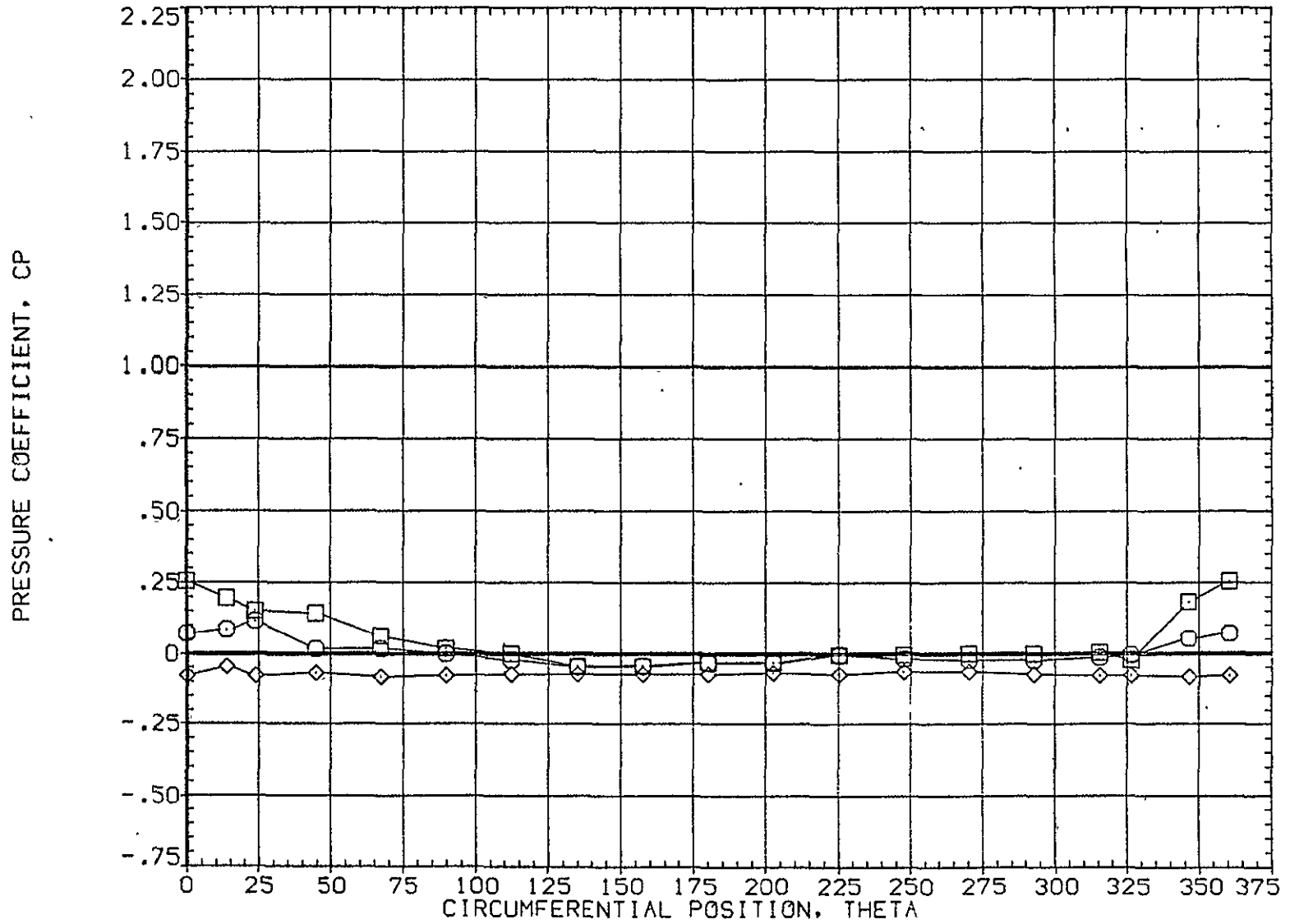


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A046)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	12.520	3.480	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

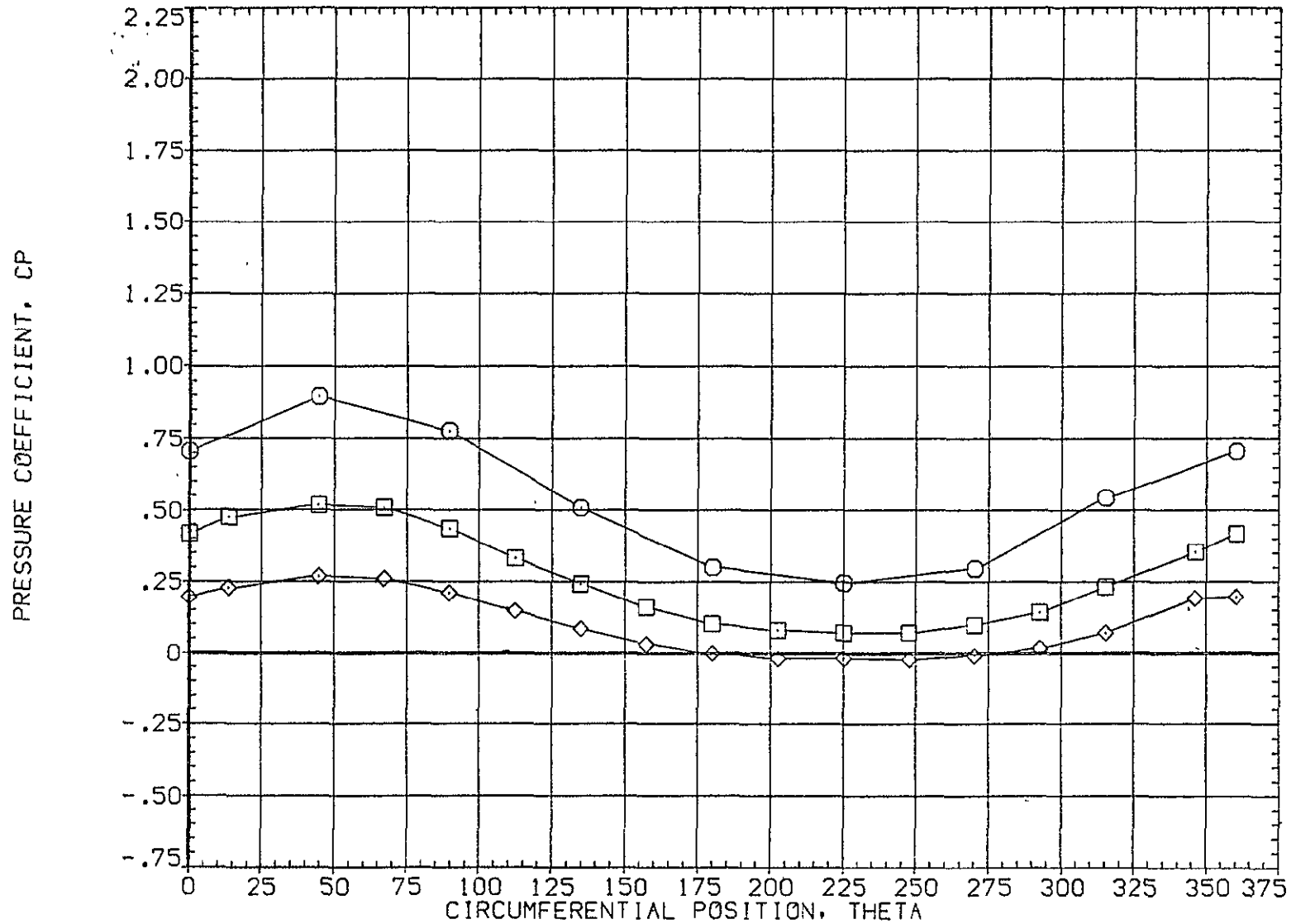


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	12.520	3.480	MOUNT	1.000	PHI	225.000
□	.322						
◇	.518						

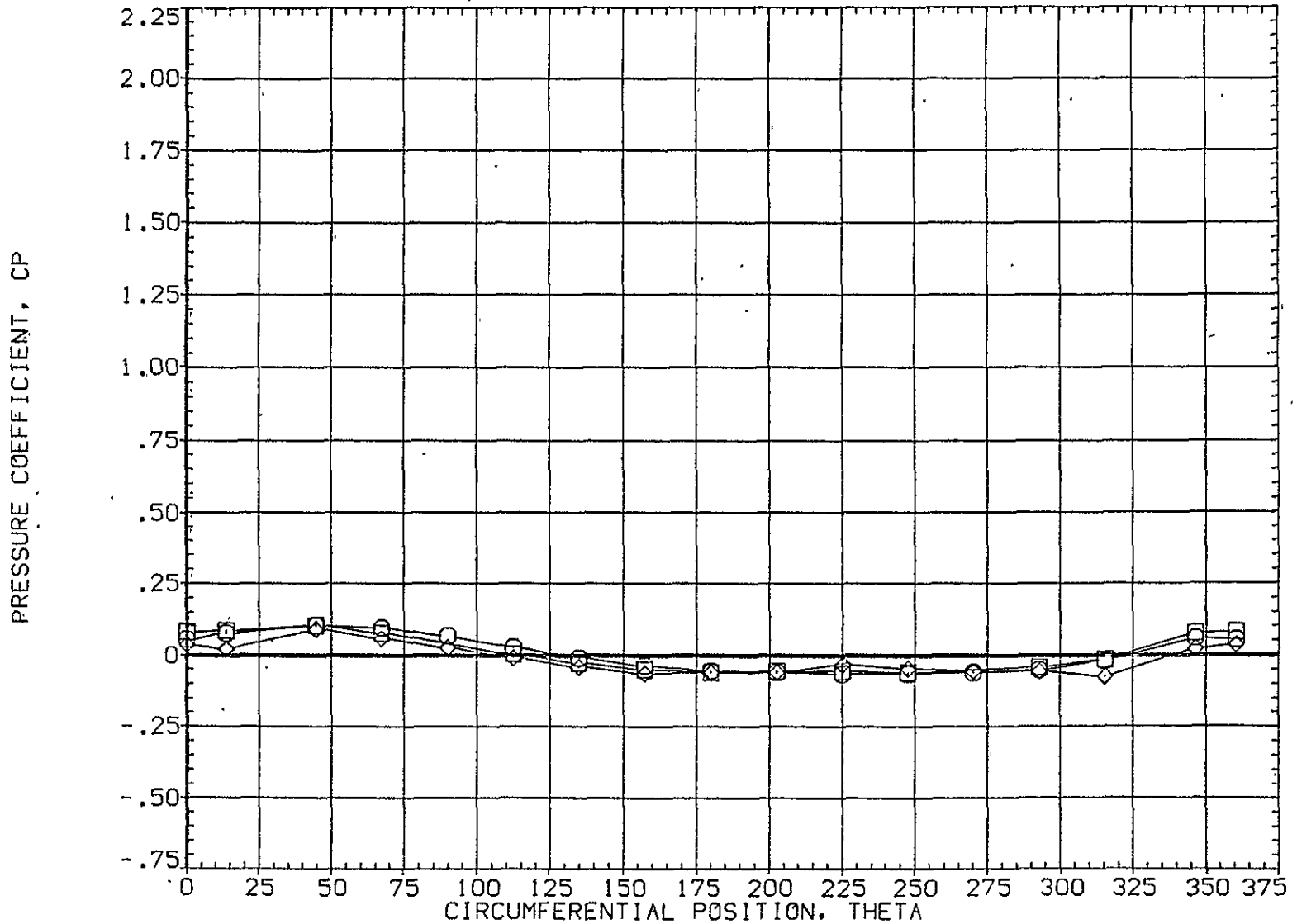


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	12.520	3.480				20.000
□	.735			MOUNT	1.000		225.000
◇	.860						

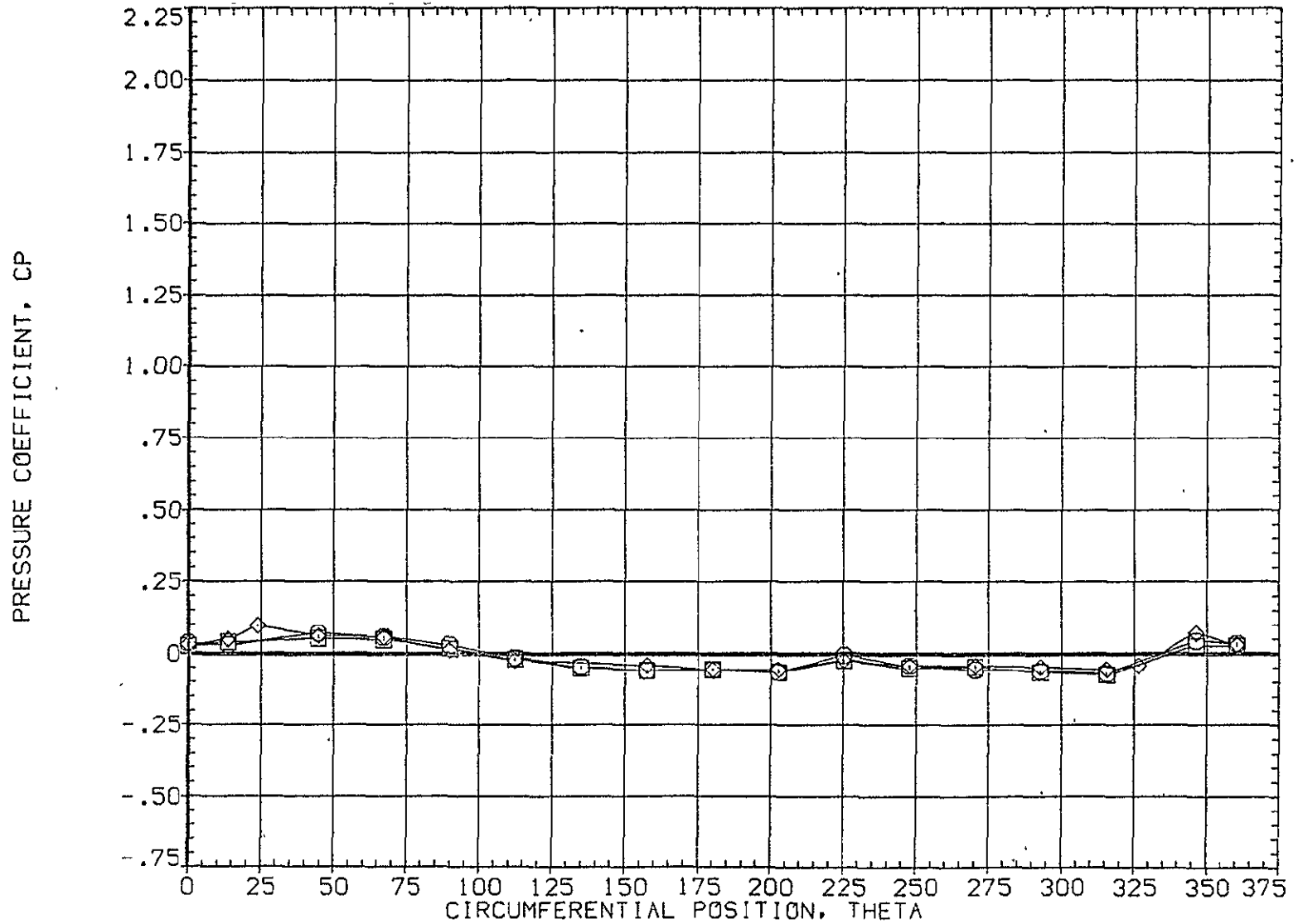


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.892	12.520	3.480	BETA	.000	OFFSET	20.000
□	.923			MOUNT	1.000	PHI	225.000
◇	.954						

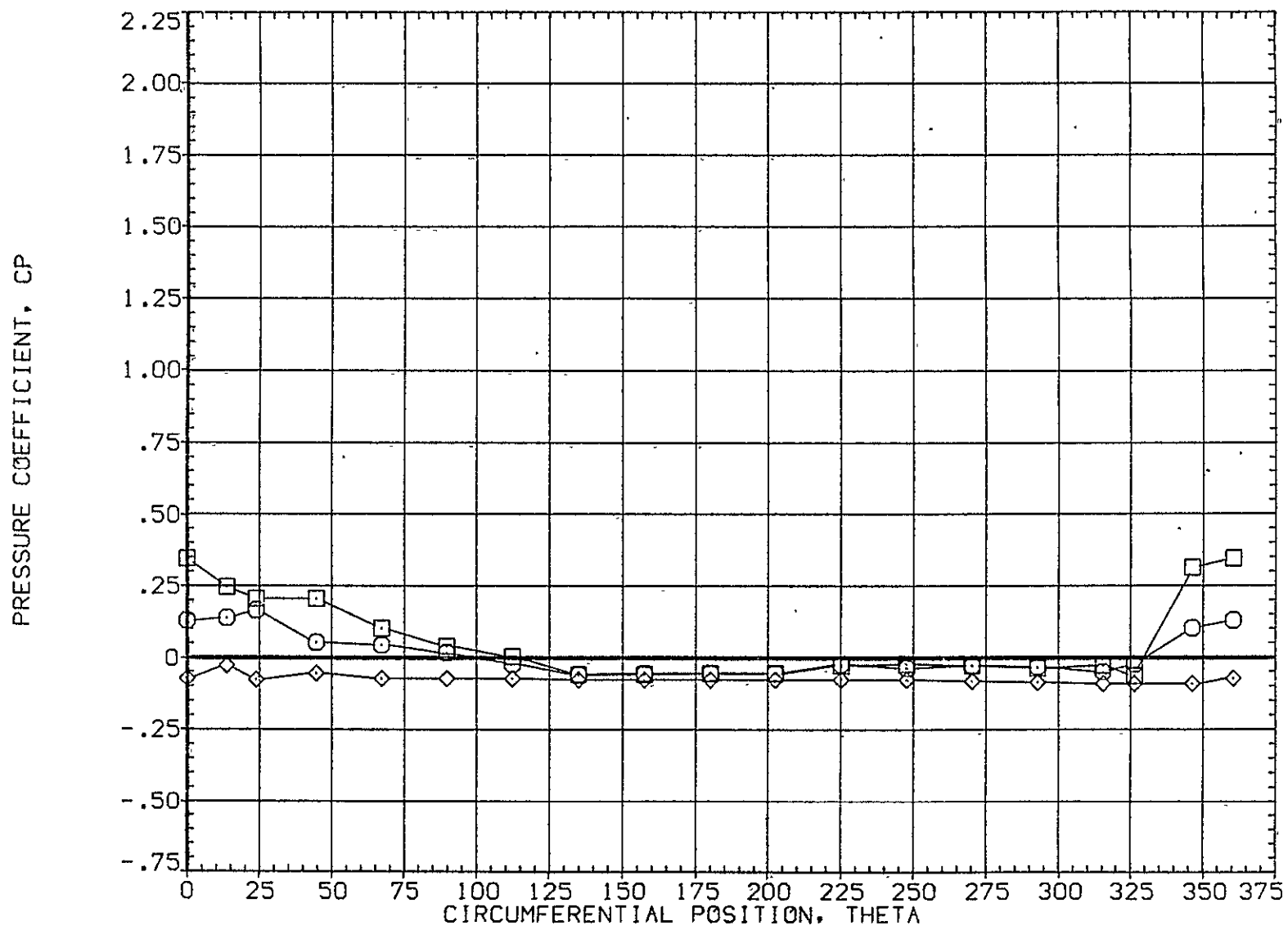


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	16.560	3.480	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

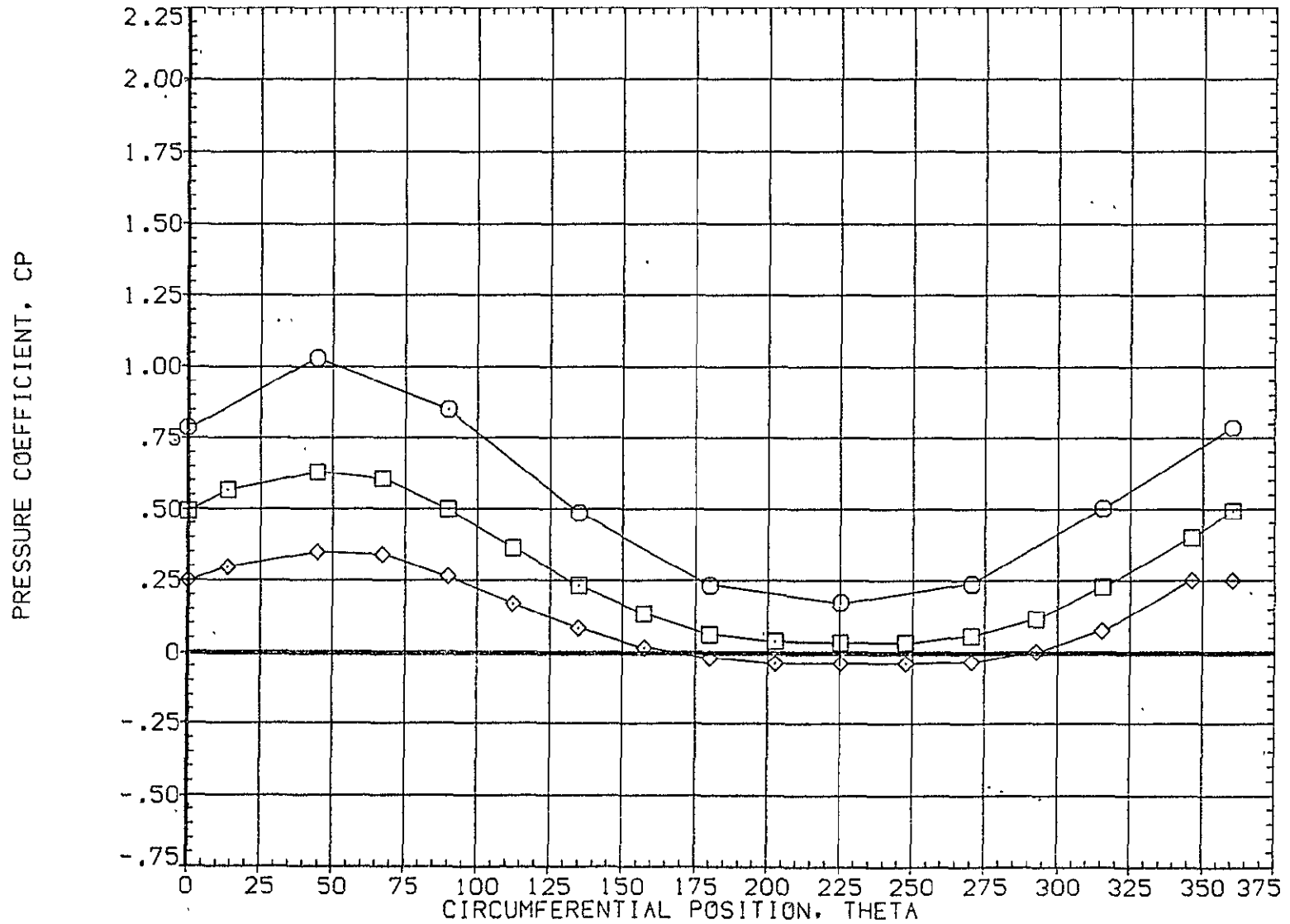


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	16.560	3.480	MOUNT	1.000	PHI	225.000
□	.322						
◇	.518						

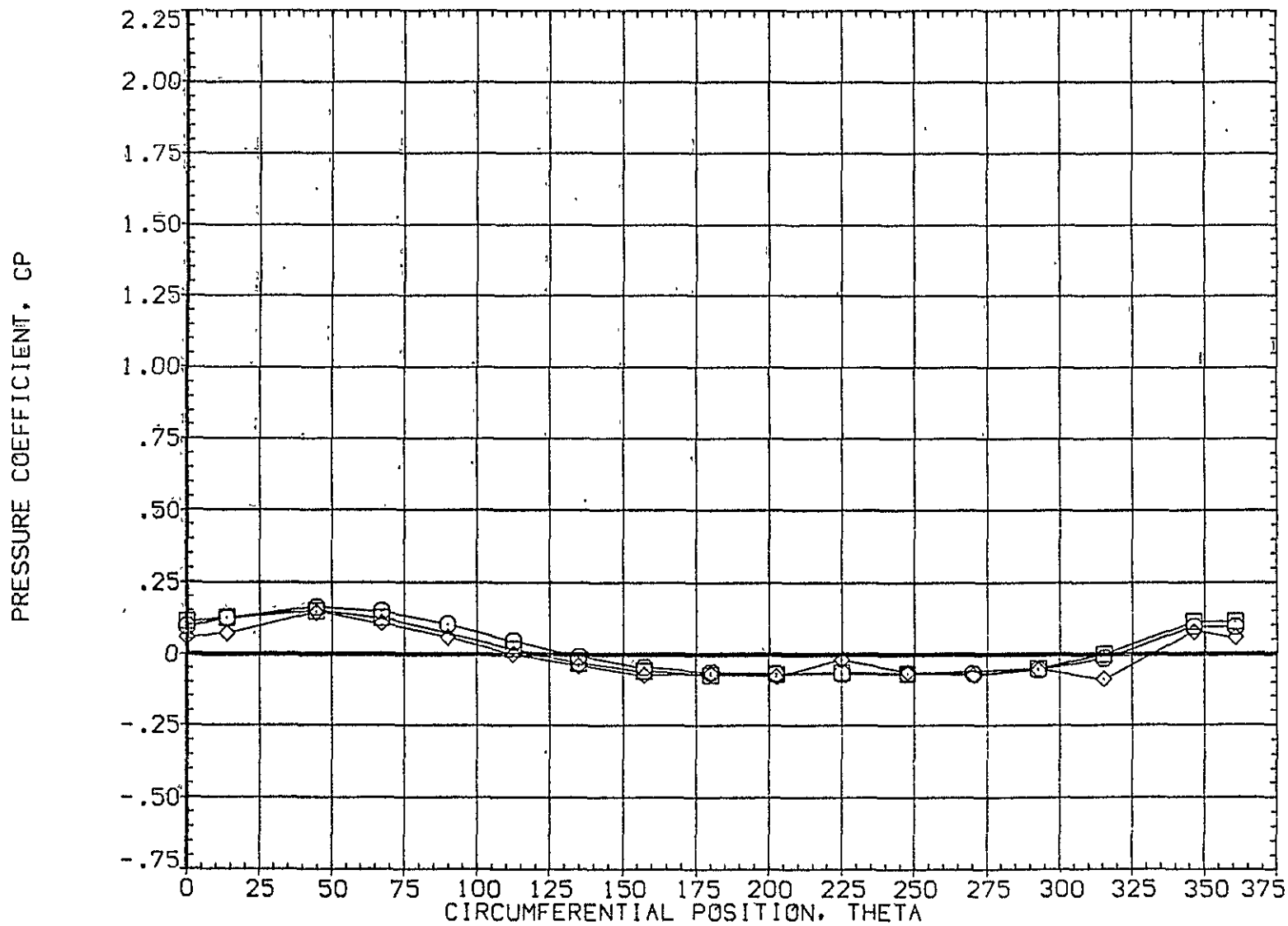


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A047)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	16.560	3.480	.000	20.000		
□	.735			1.000			
◇	.860						

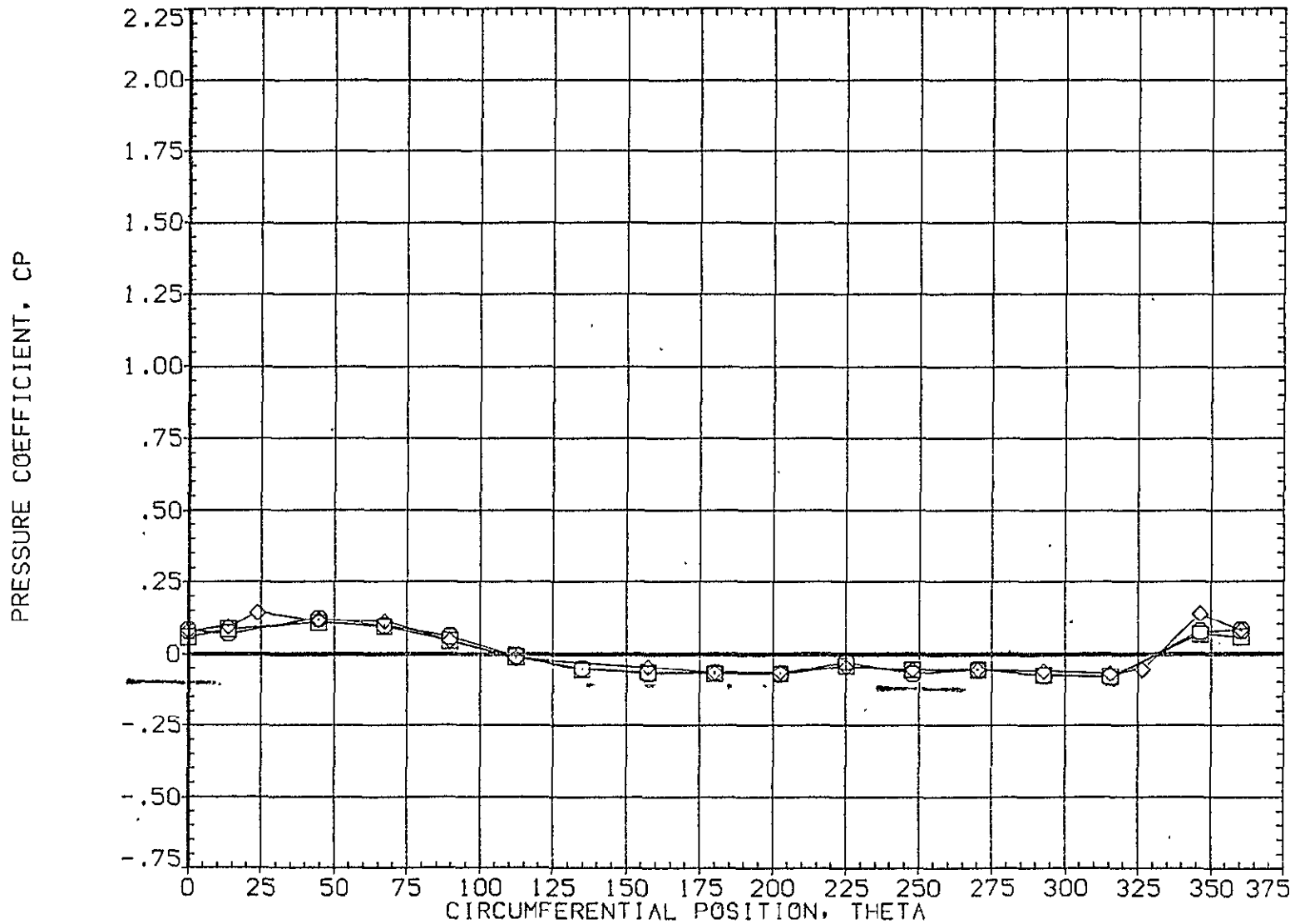


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	16.560	3.480	.000	20.000	
□	.923			1.000	PHI	225.000
◇	.954					

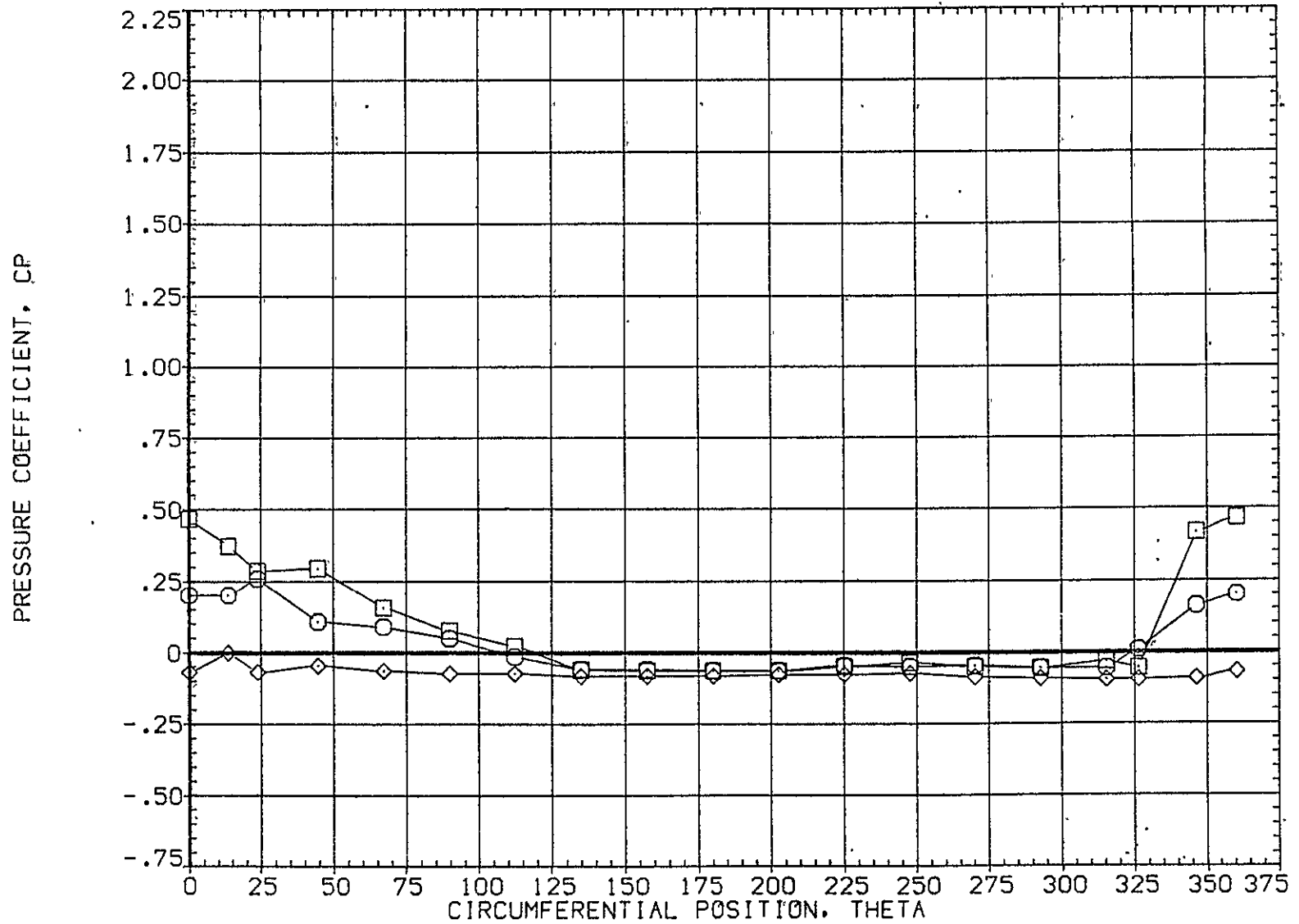


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.055	20.610	3.480	MOUNT	1.000	225.000	
□	.108						
◇	.162						

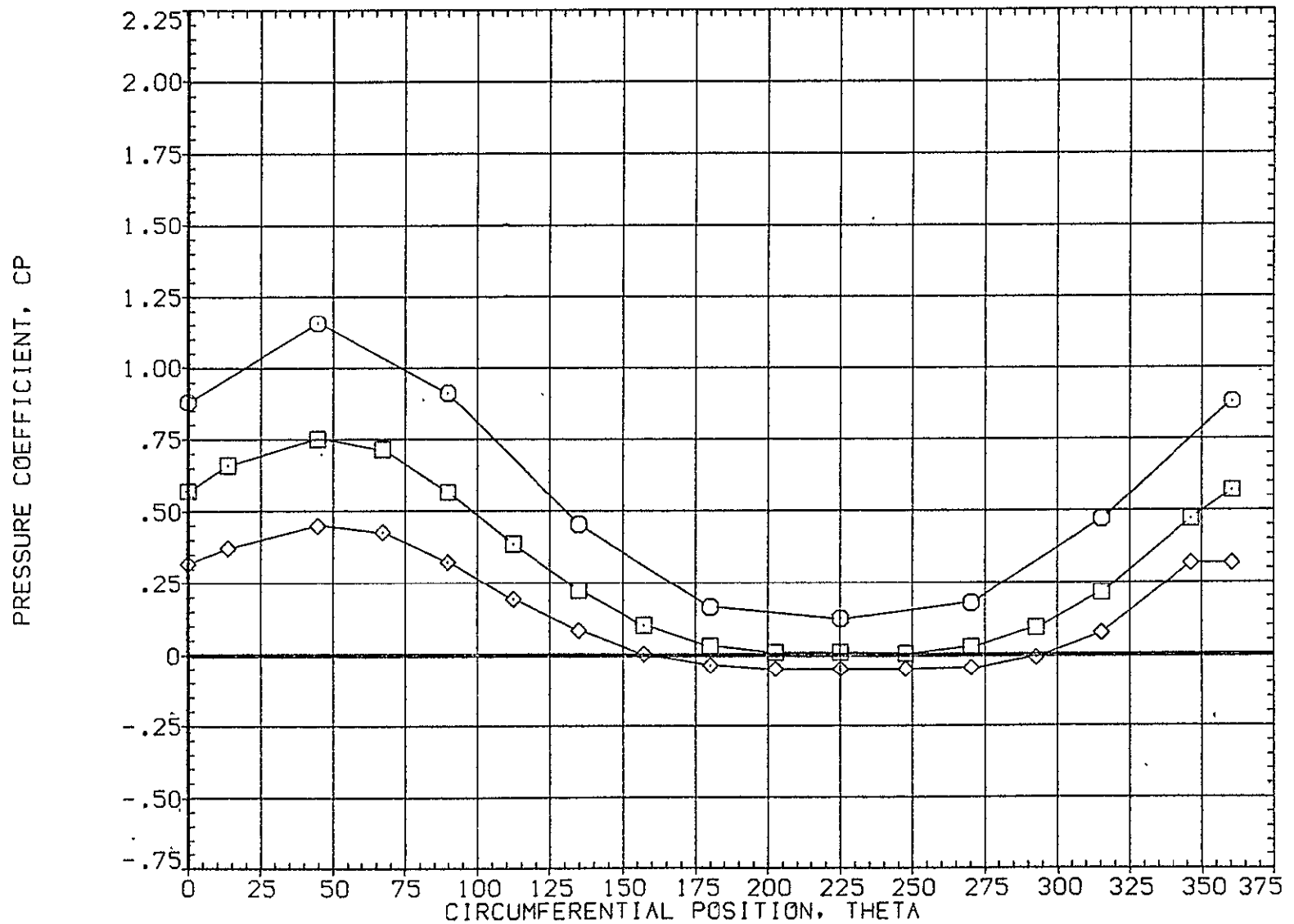


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 20.610 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 225.000

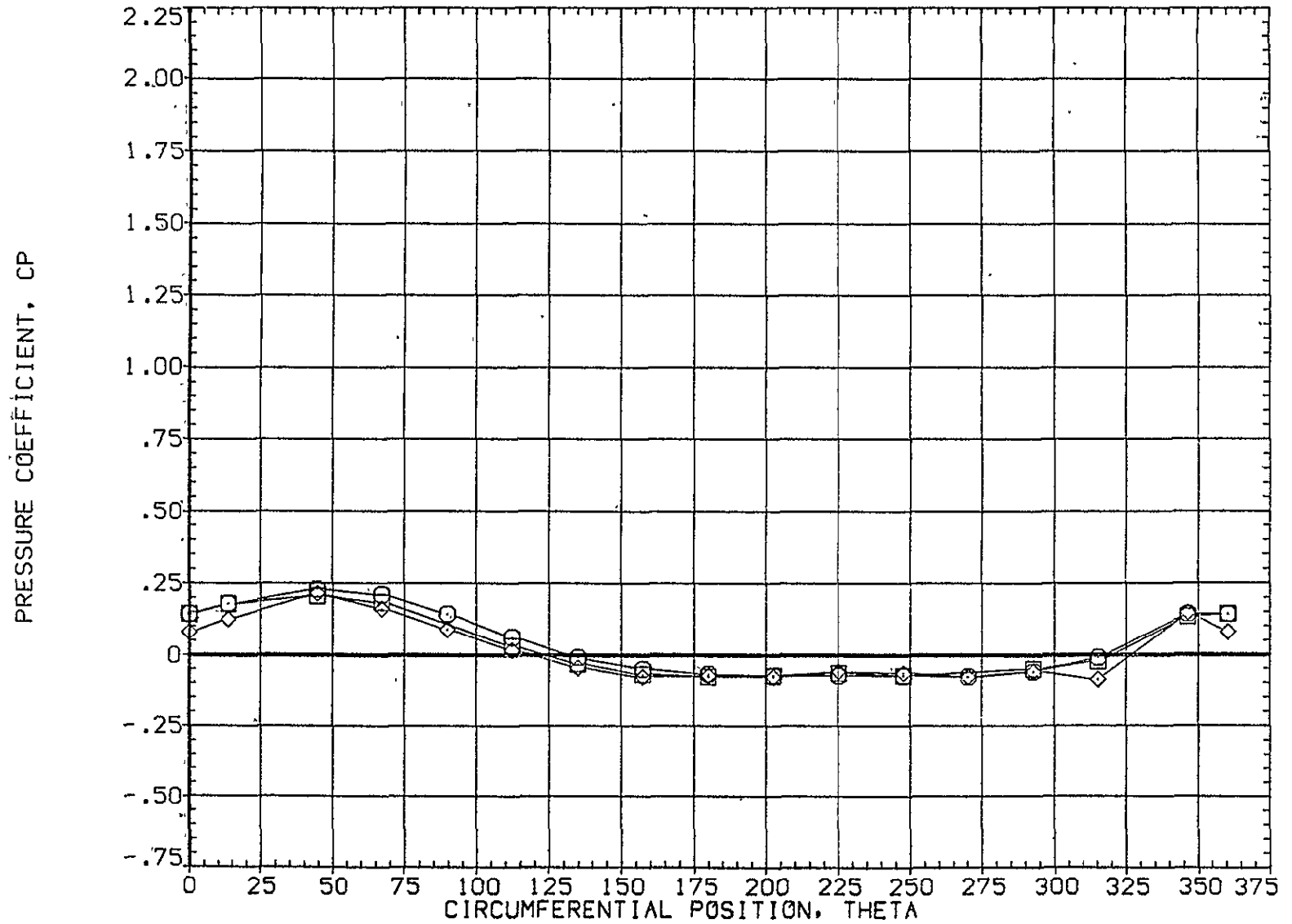


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A048)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.610	3.480	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

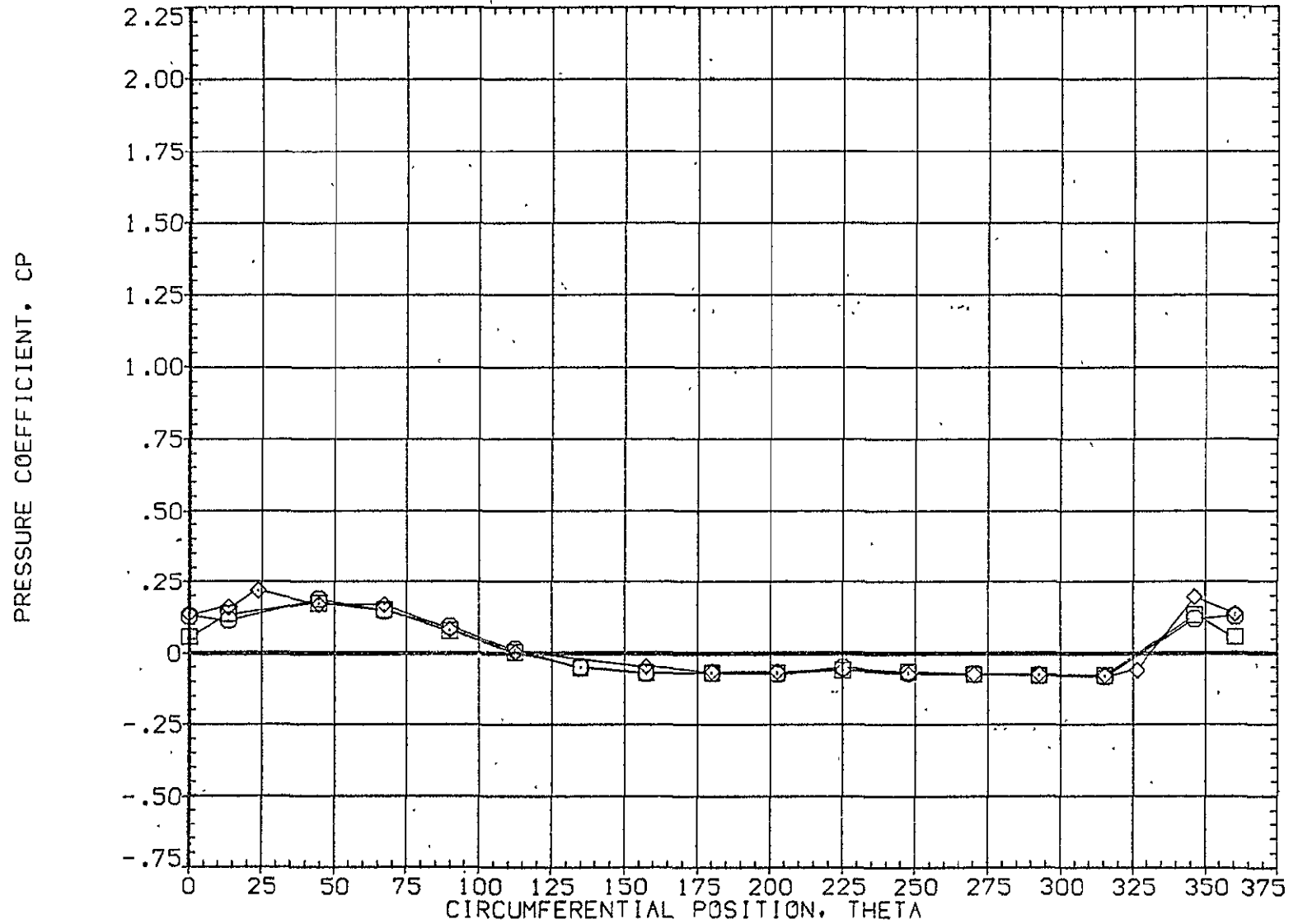


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 20.610
 MACH 3.480

BETA .000
 MOUNT 1.000
 PARAMETRIC VALUES
 OFFSET 20.000
 PHI 225.000

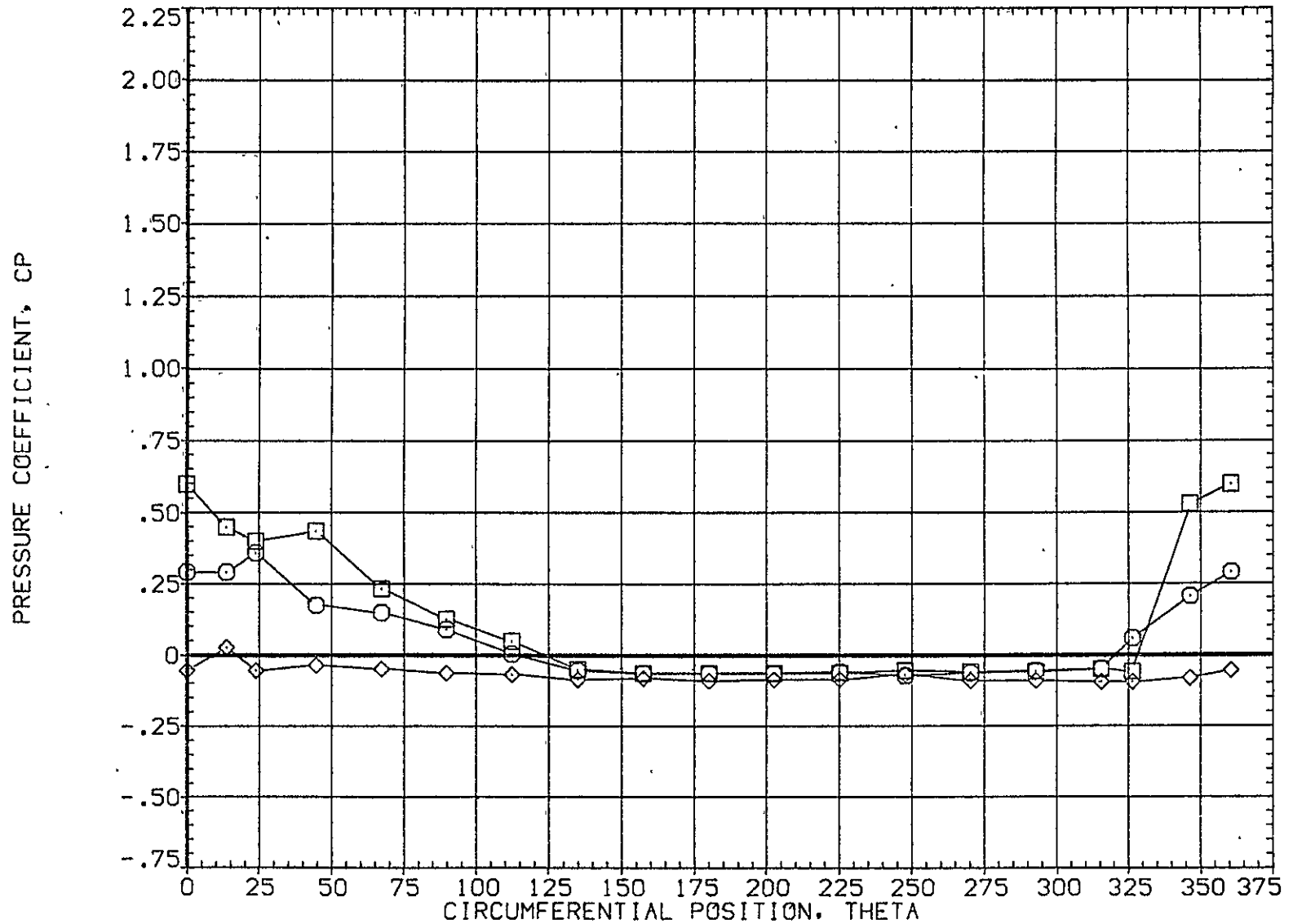


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB
 .055
 .108
 .162

ALPHA
 24.660

MACH
 3.480

PARAMETRIC VALUES
 BETA
 .000
 1.000
 OFFSET
 PHI
 20.000
 225.000

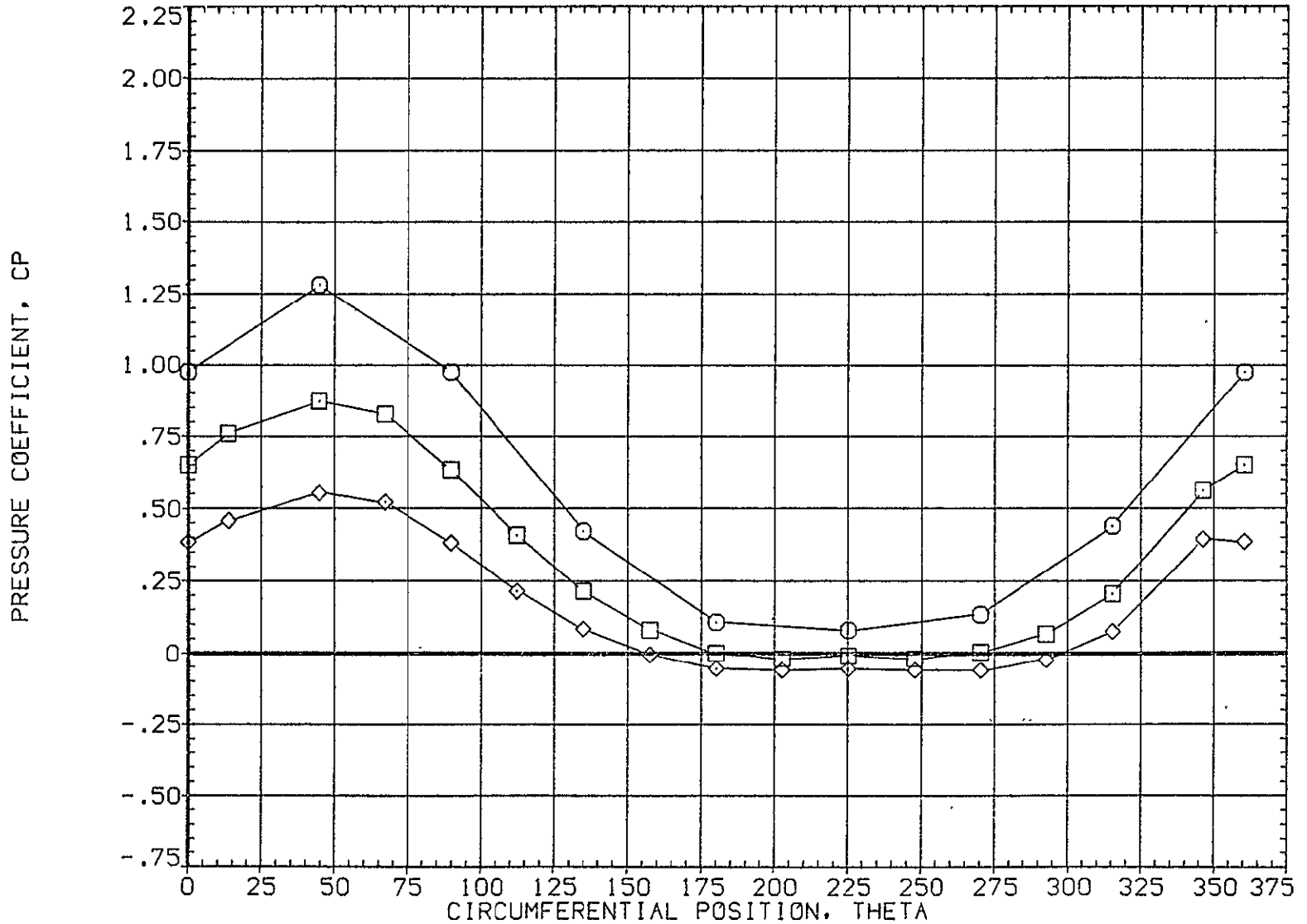


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	24.660	3.480	MOUNT	1.000	PHI	225.000
□	.322						
◇	.518						

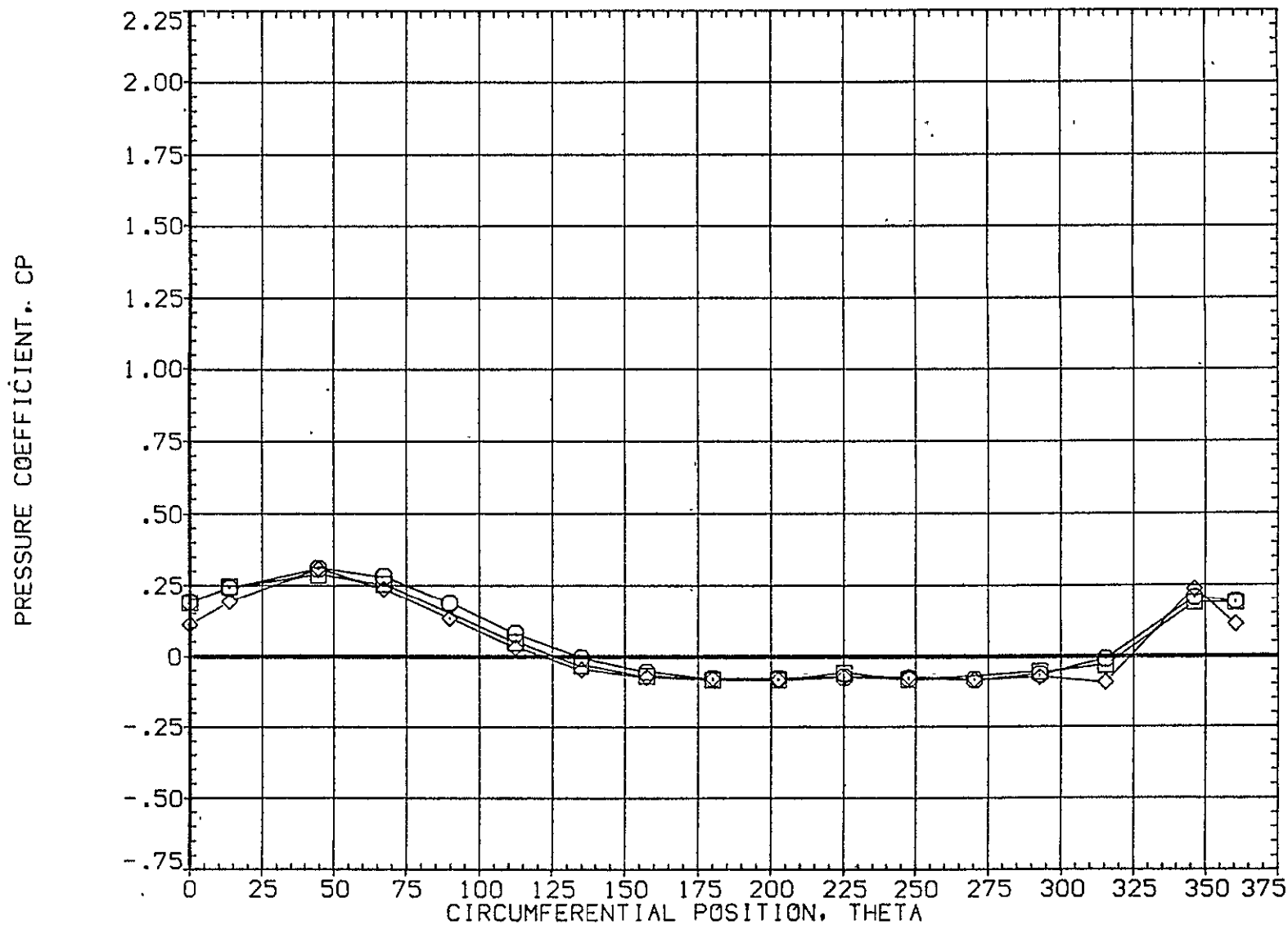


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	24.660	3.480	.000	20.000		
□	.735			1.000	225.000		
◇	.860						

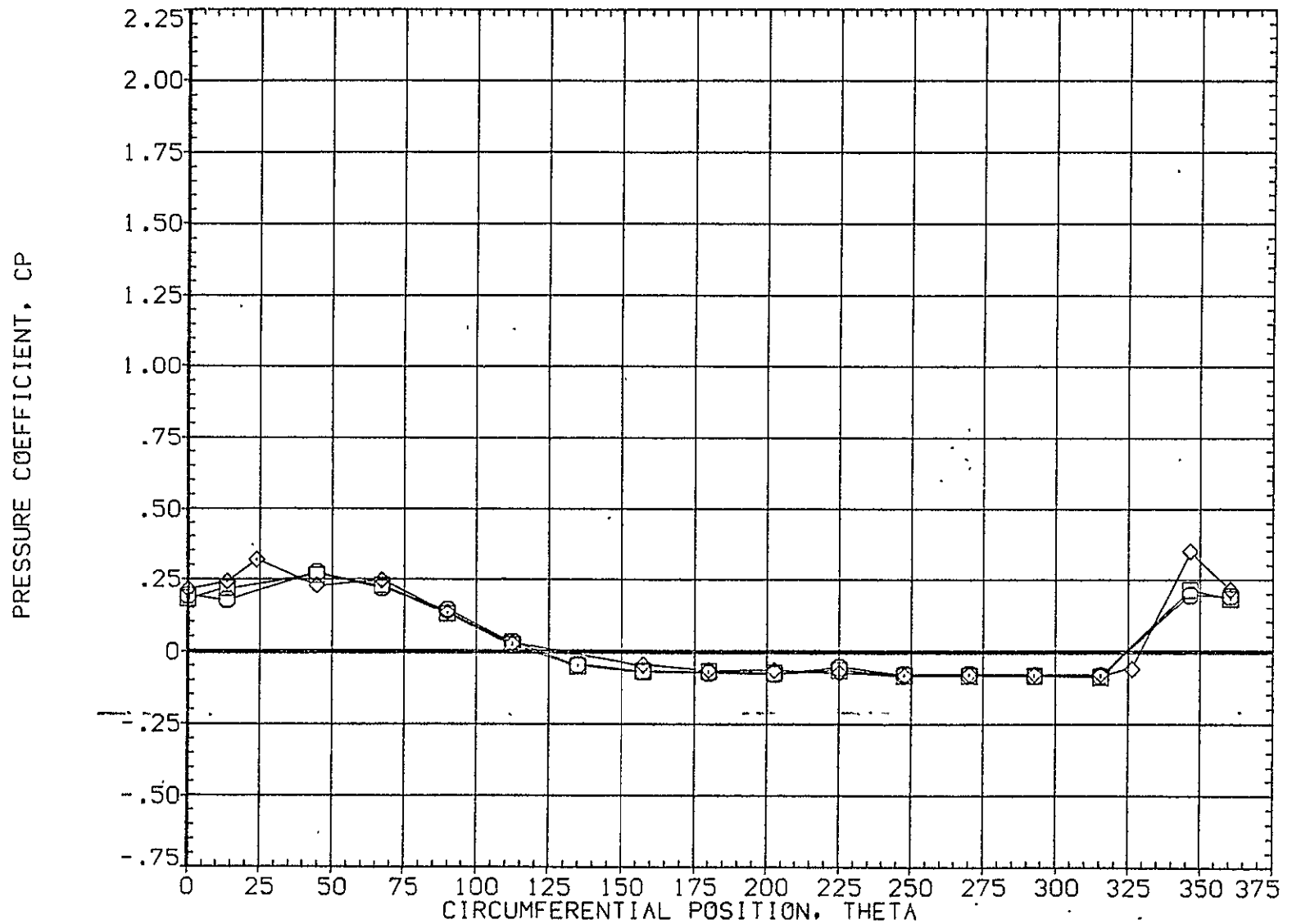


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.892	24.660	3.480	MOUNT	1.000	PHI	225.000
□	.923						
◇	.954						

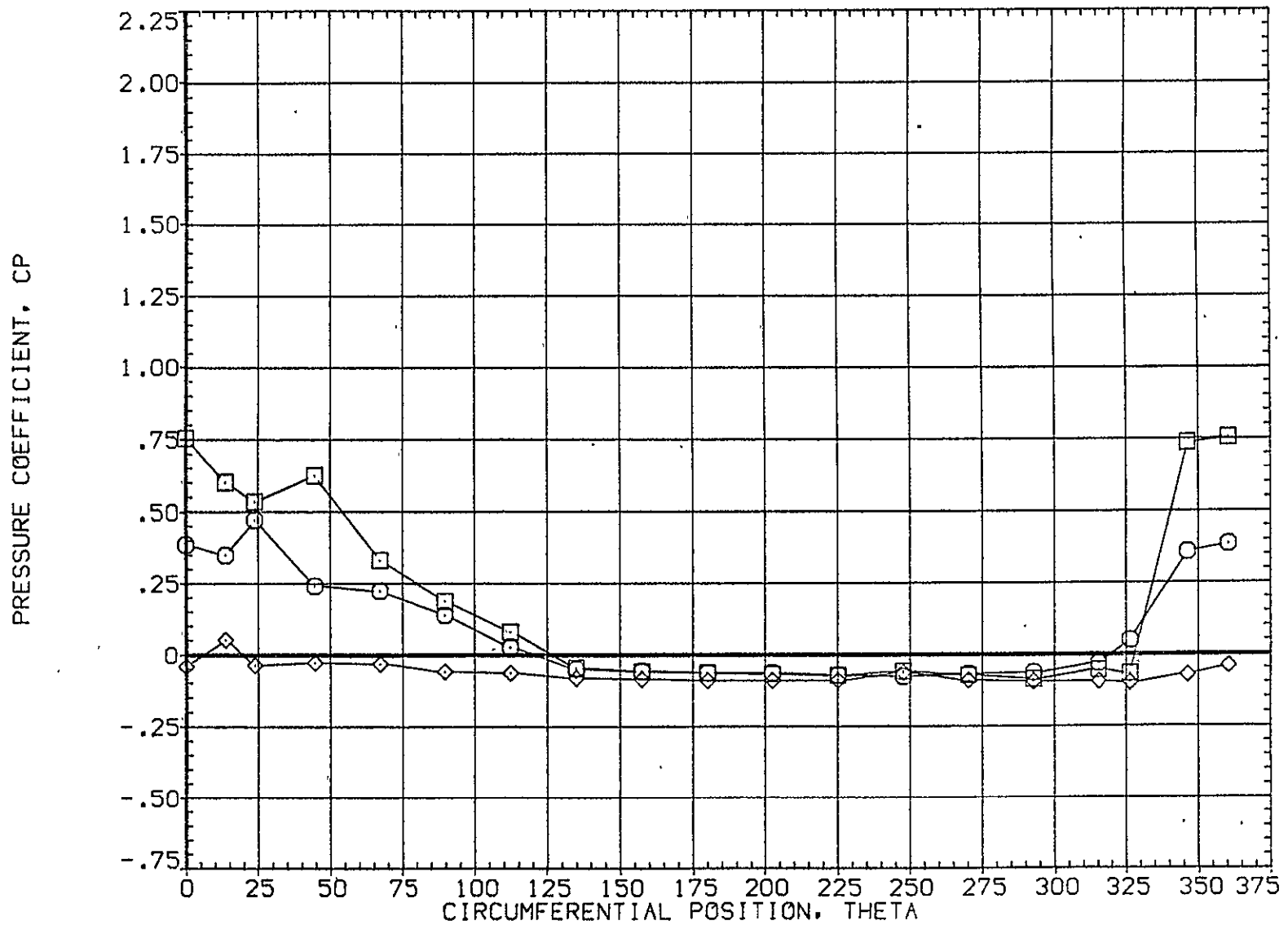


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A050)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.055	28.720	3.480	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

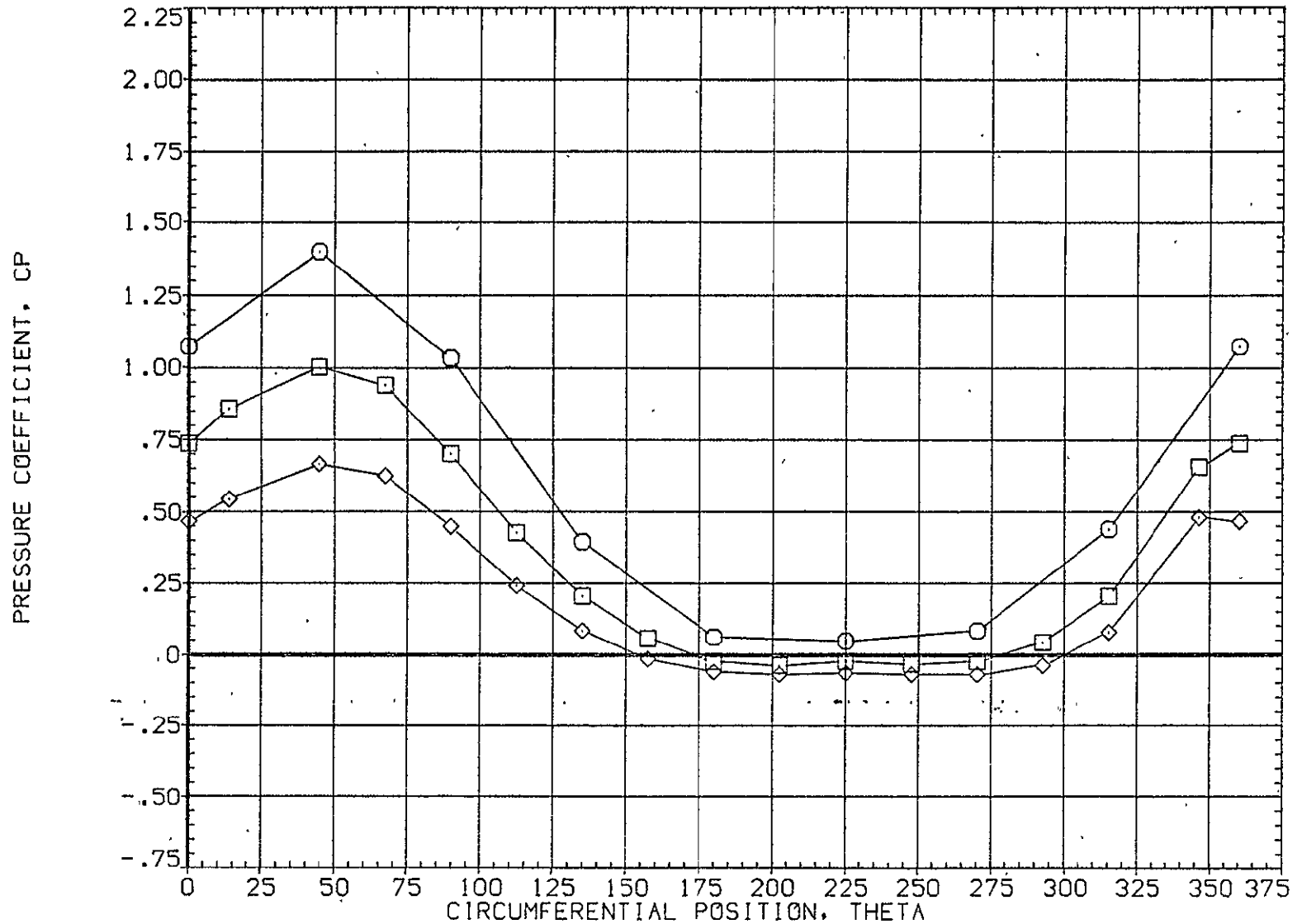


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 28.720 3.480
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 225.000

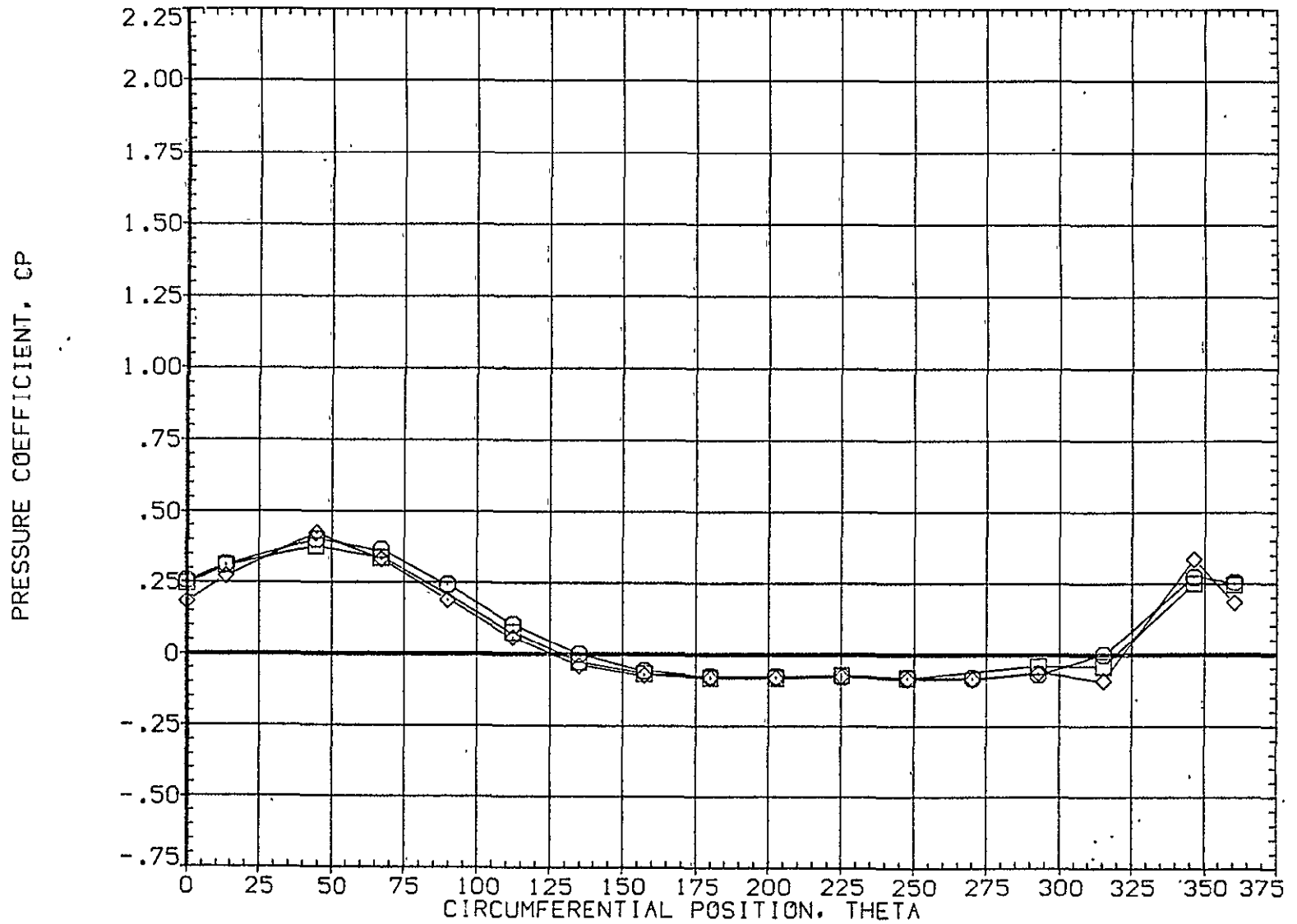


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	20.000
○	.610	28.720	3.480	.000	PHI	225.000
□	.735			1.000		
◇	.860					

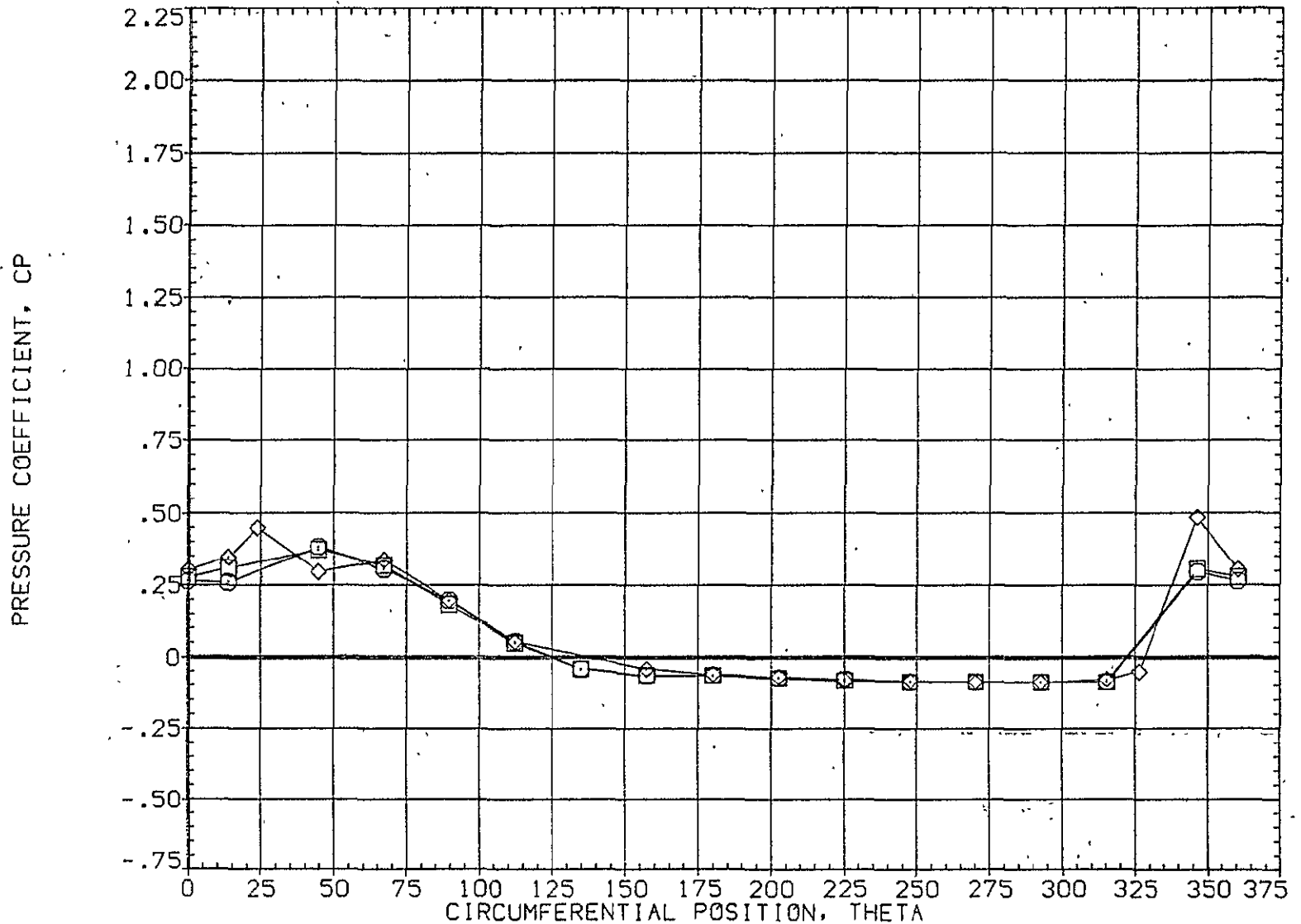


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	28.720	3.480	MOUNT	1.000	PHI	225.000
□	.923						
◇	.954						

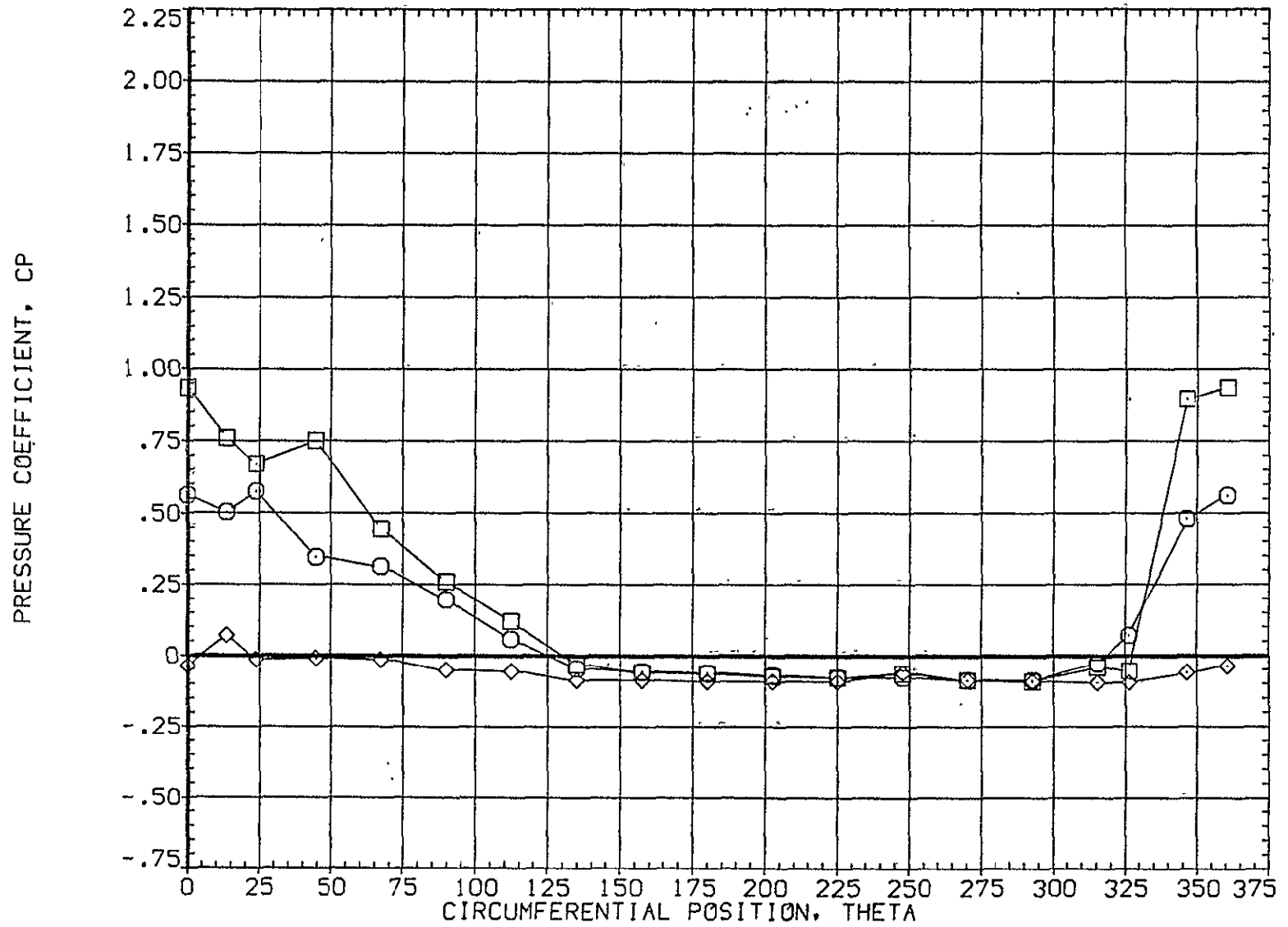


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-8.360	3.480	.000	.000	.000
□	.108			1.000		270.000
◇	.162					

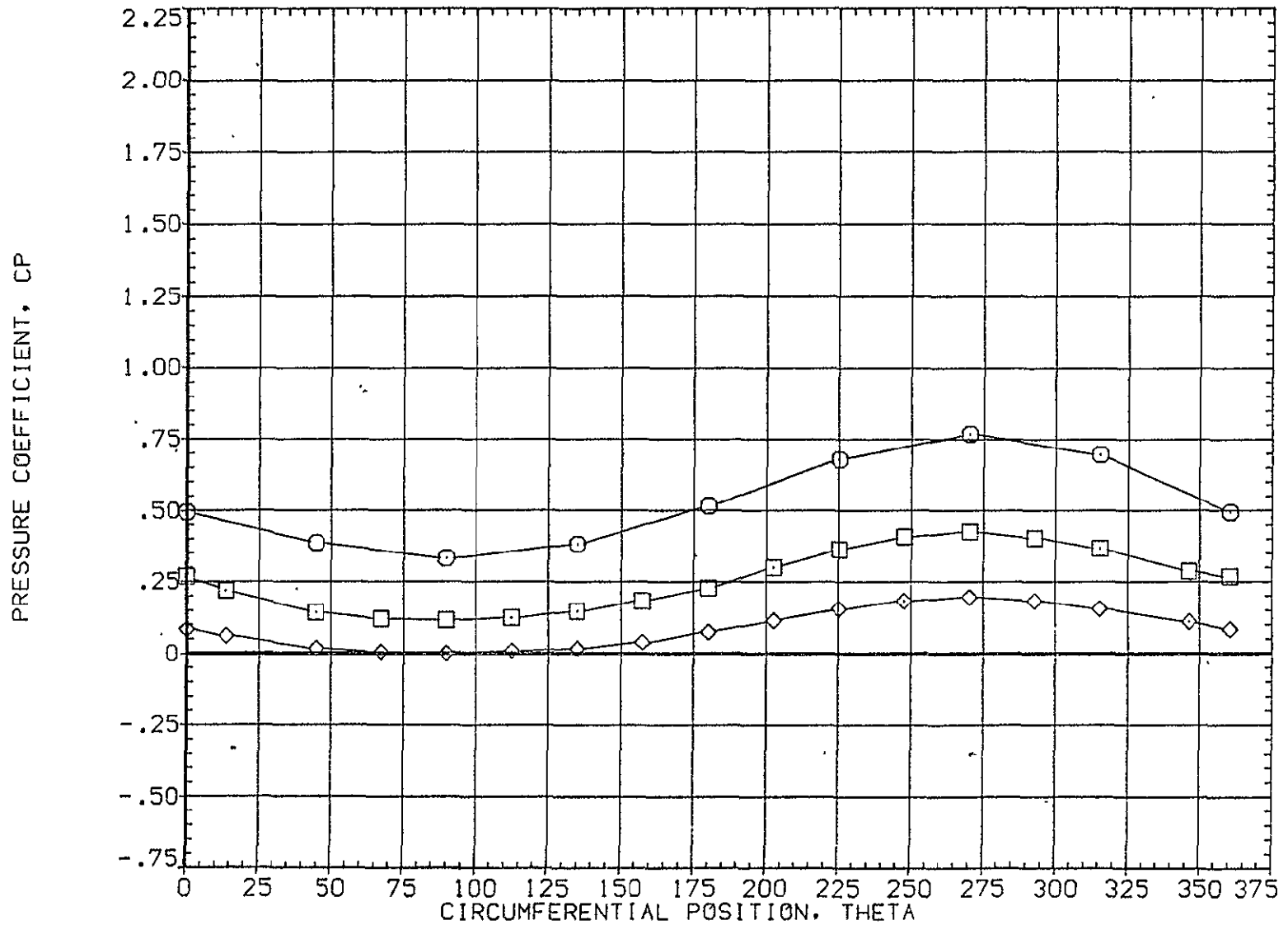


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-8.360	3.480	.000	.000	
□	.322			1.000	PHI	270.000
◇	.518					

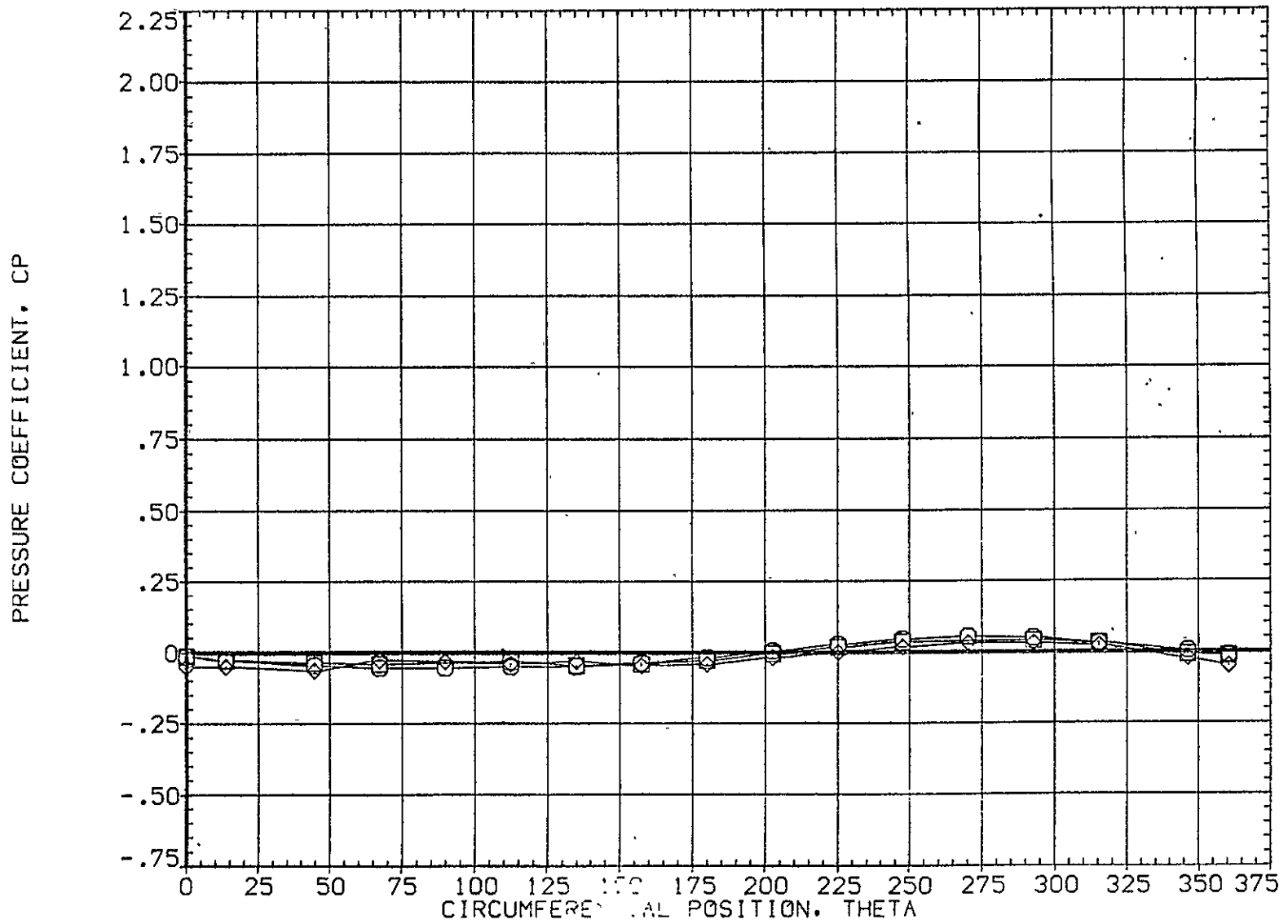


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET. - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.360	3.480	.000	.000	.000
□	.735			1.000	270.000	
◇	.860					

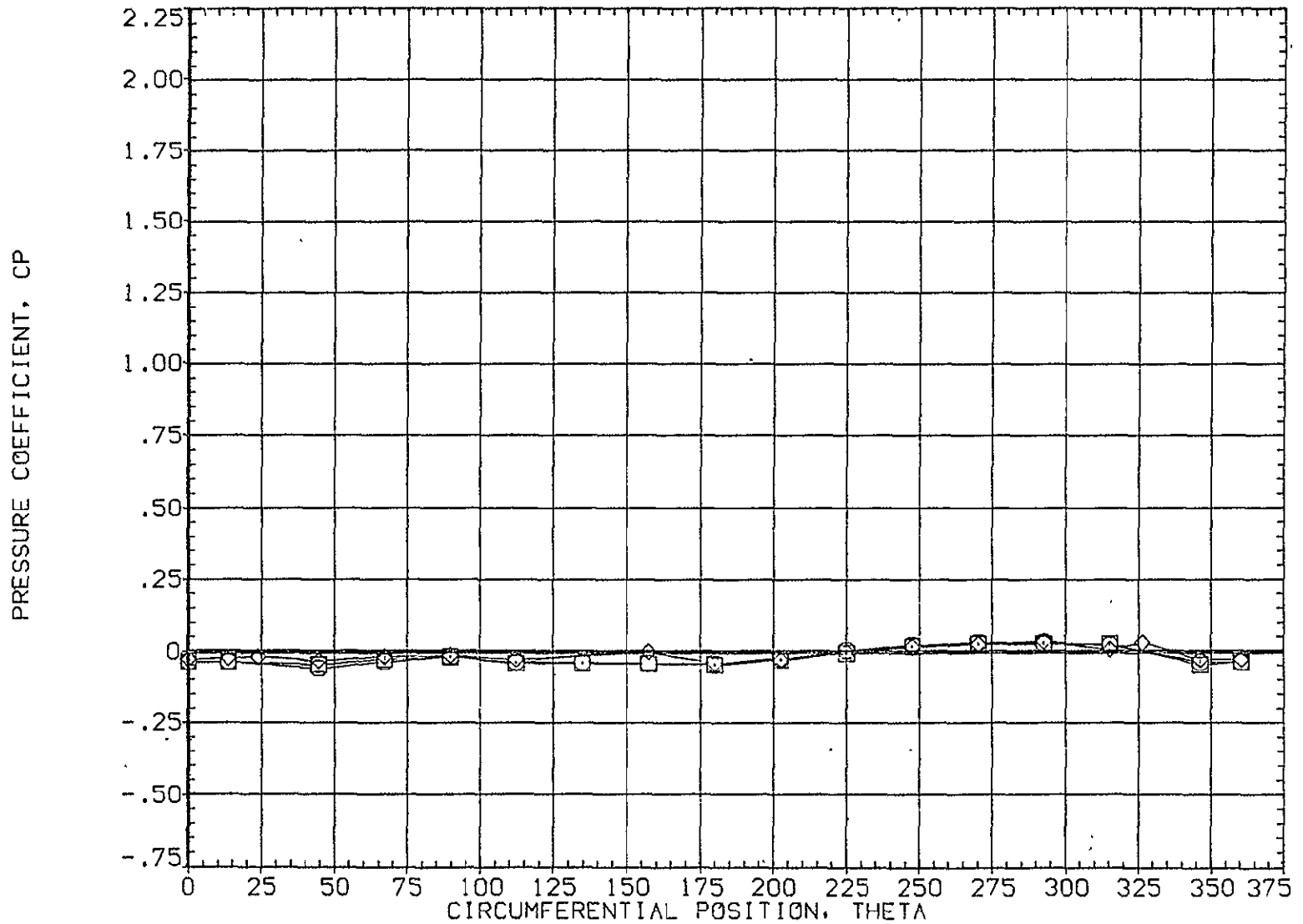


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-8.360	3.480	.000	.000	.000
□	.923			1.000	270.000	
◇	.954					

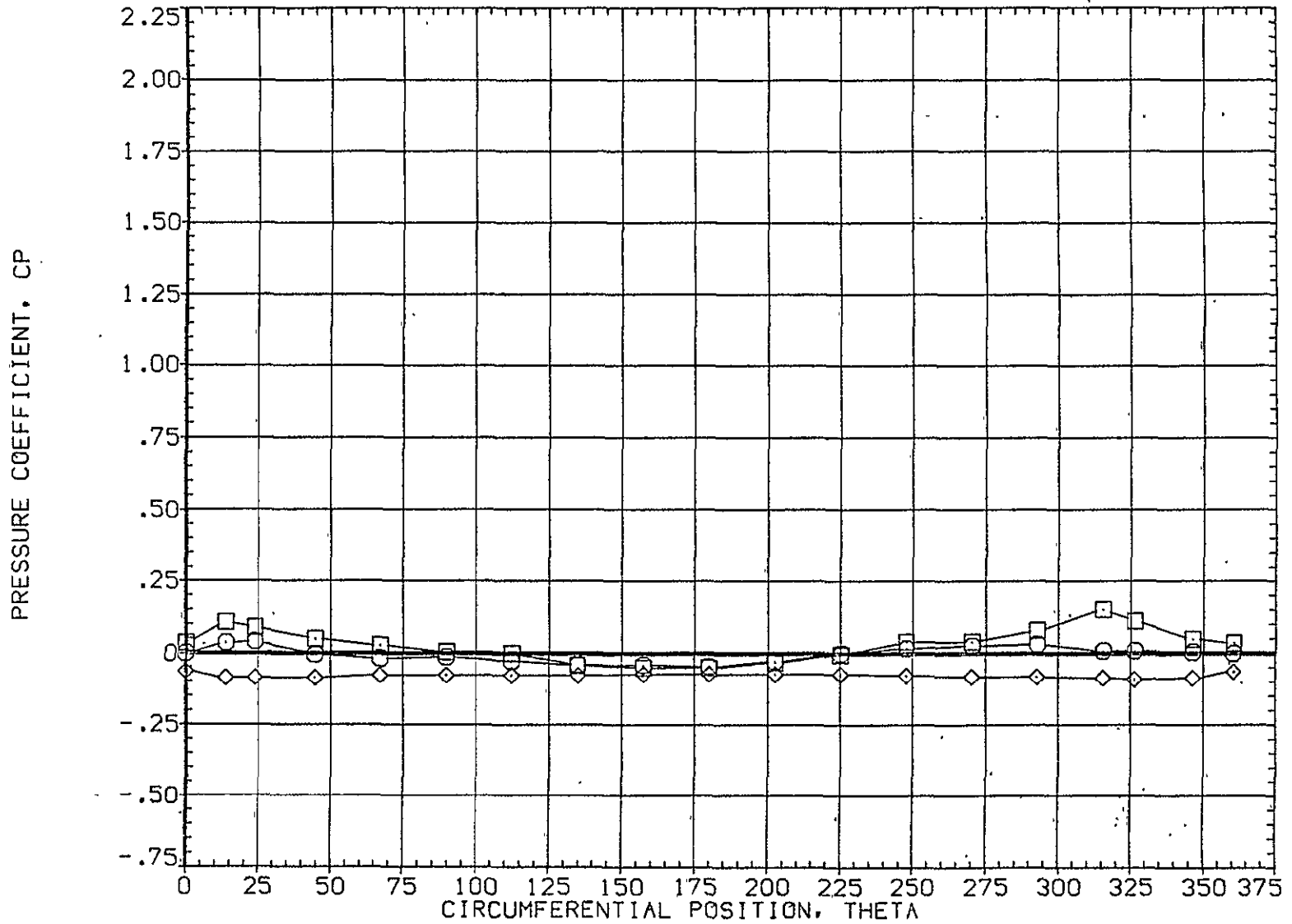


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.330	3.480	.000	.000	.000
□	.108			1.000		270.000
◇	.162					

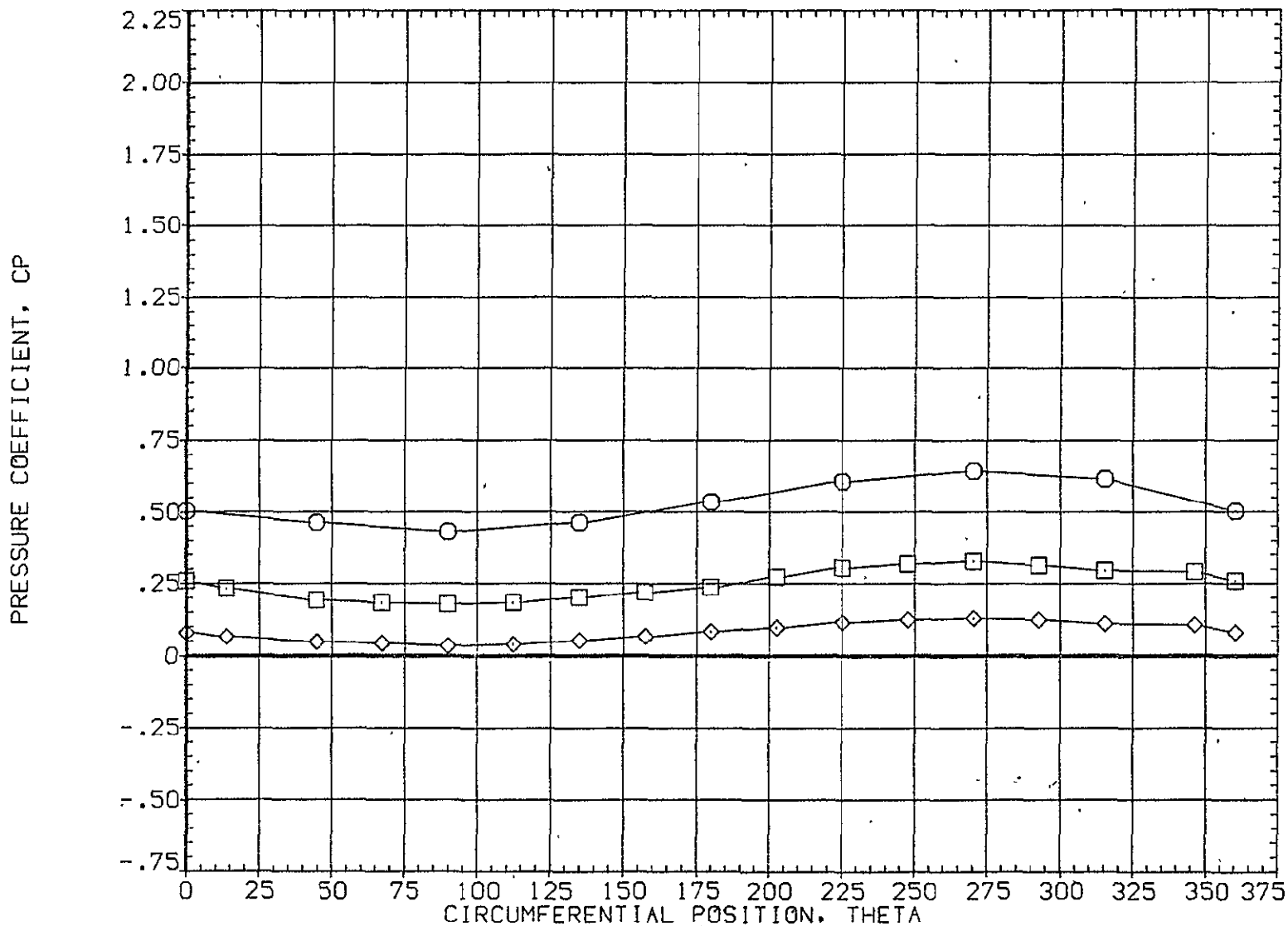


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	-4.330	3.480	MOUNT	1.000	PHI	270.000
□	.322						
◇	.518						

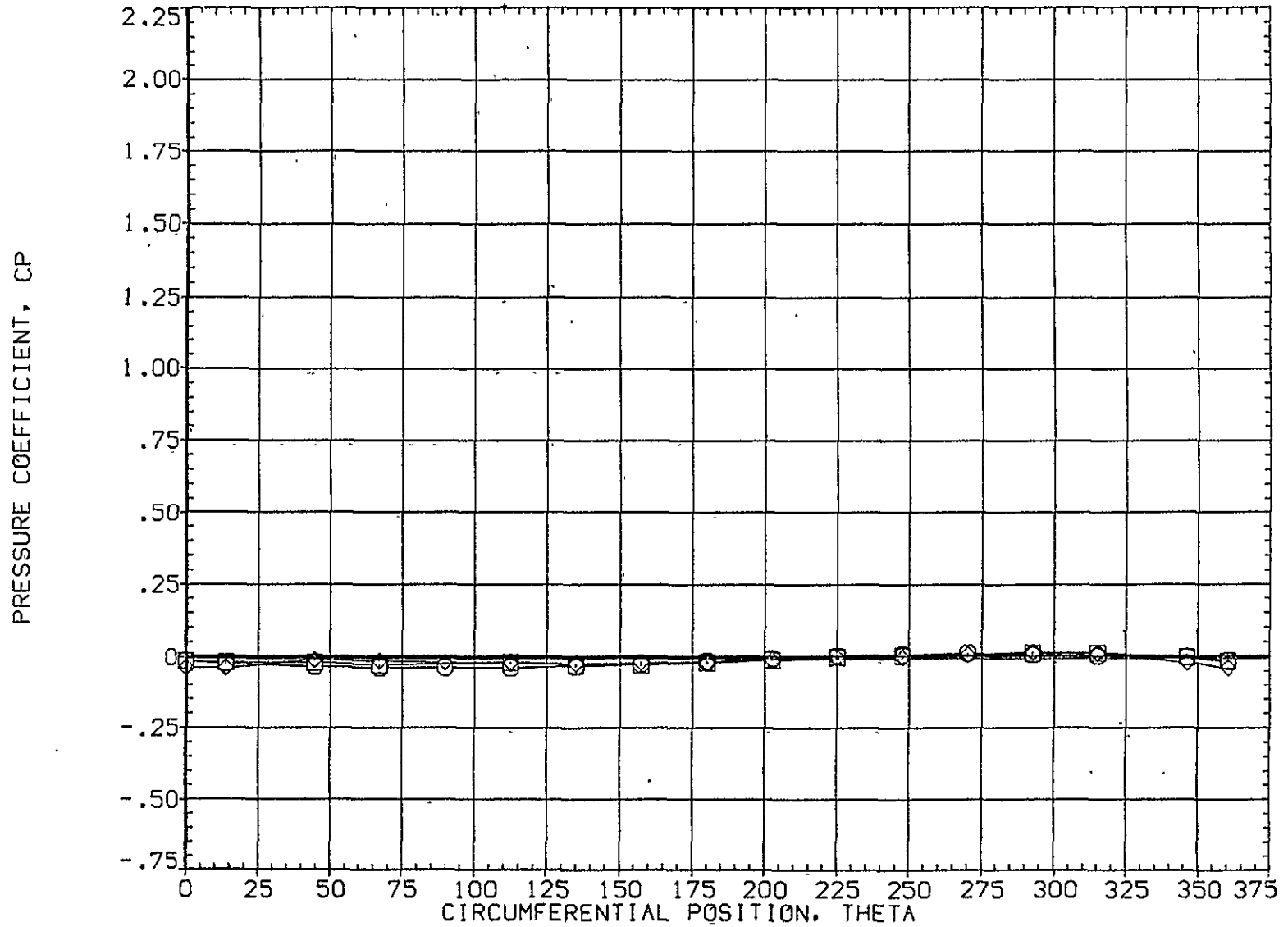


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.330	3.480	.000	.000	.000
□	.735			1.000		270.000
◇	.860					

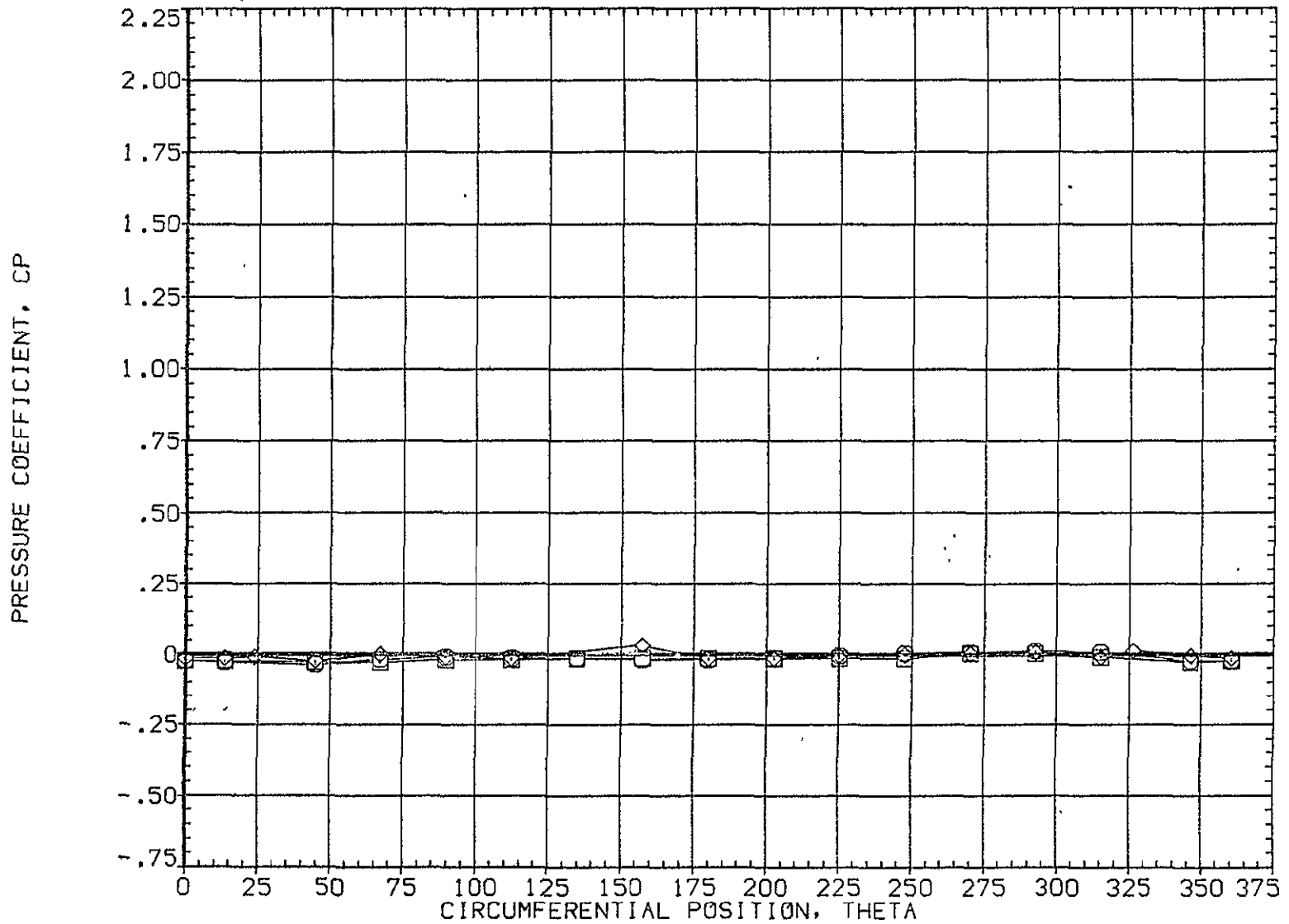


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-4.330	3.480	MOUNT	1.000	PHI	270.000
□	.923						
◇	.954						

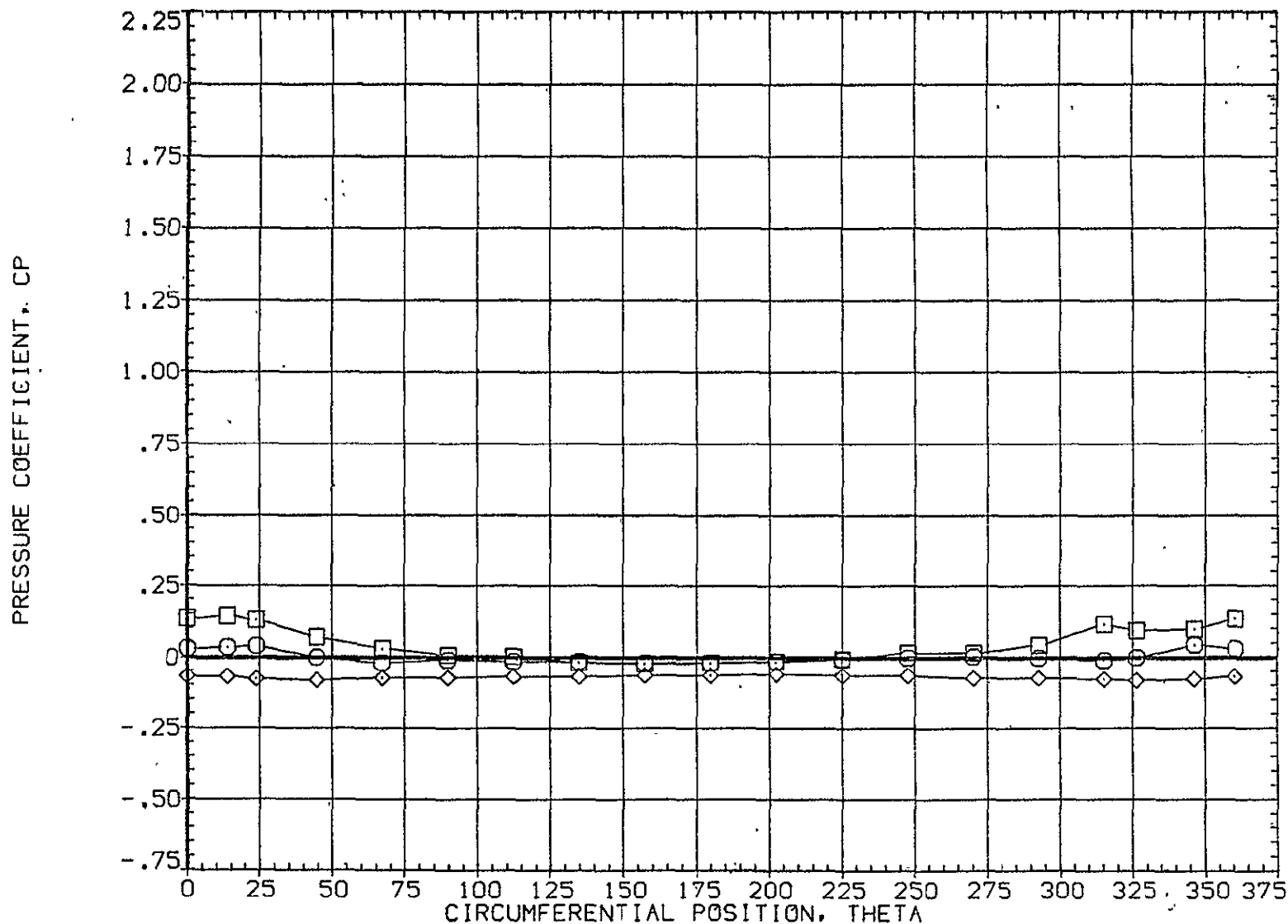


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.055	-.280	3.480	BETA	.000	OFFSET	.000
□	.108			MOUNT	1.000	PHI	270.000
◇	.162						

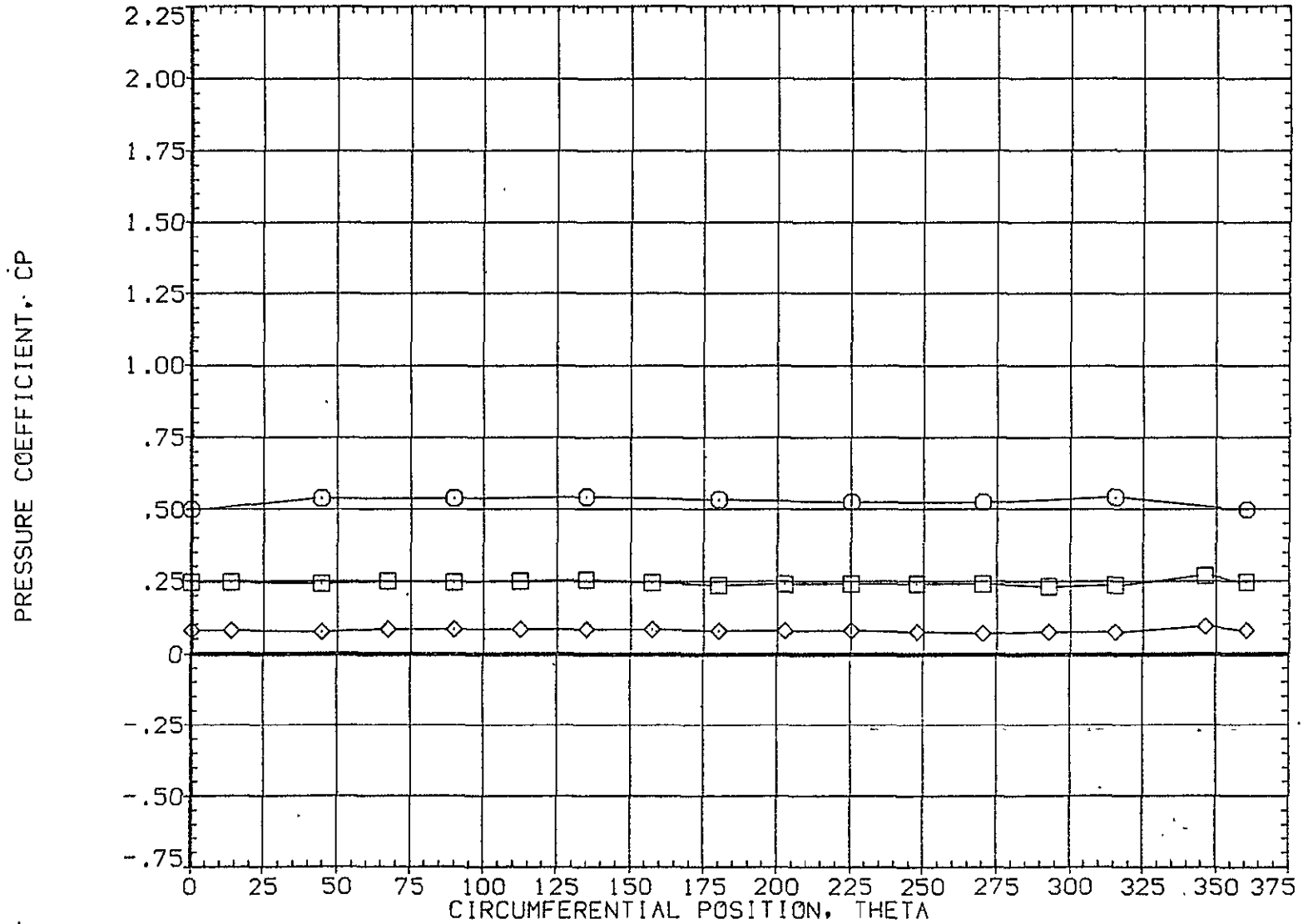


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	-.280	3.480	MOUNT	1.000	PHI	270.000
□	.322						
◇	.518						

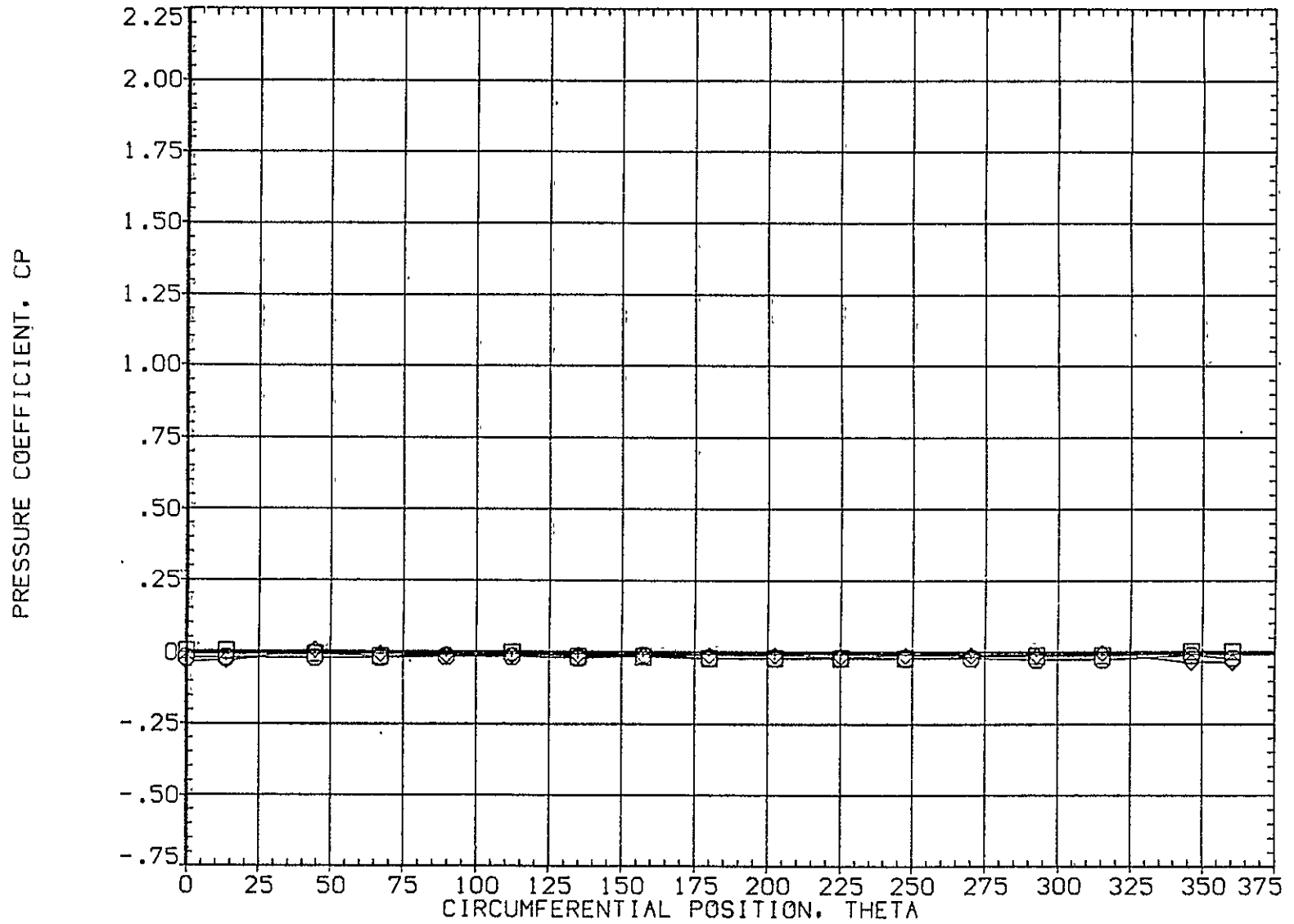


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-.280	3.480	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

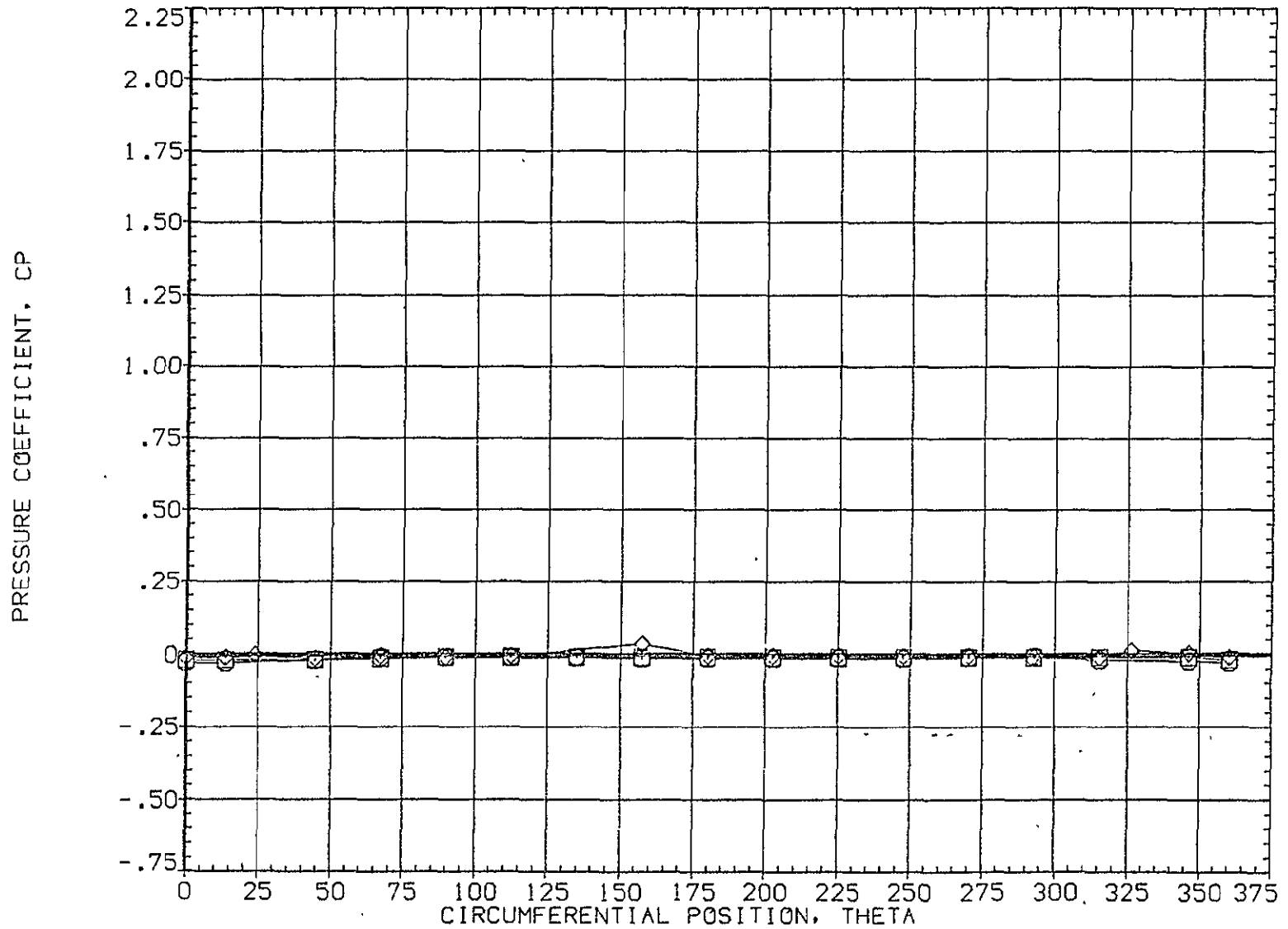


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	3.480	.000	.000	.000
□	.923			1.000		270.000
◇	.954					

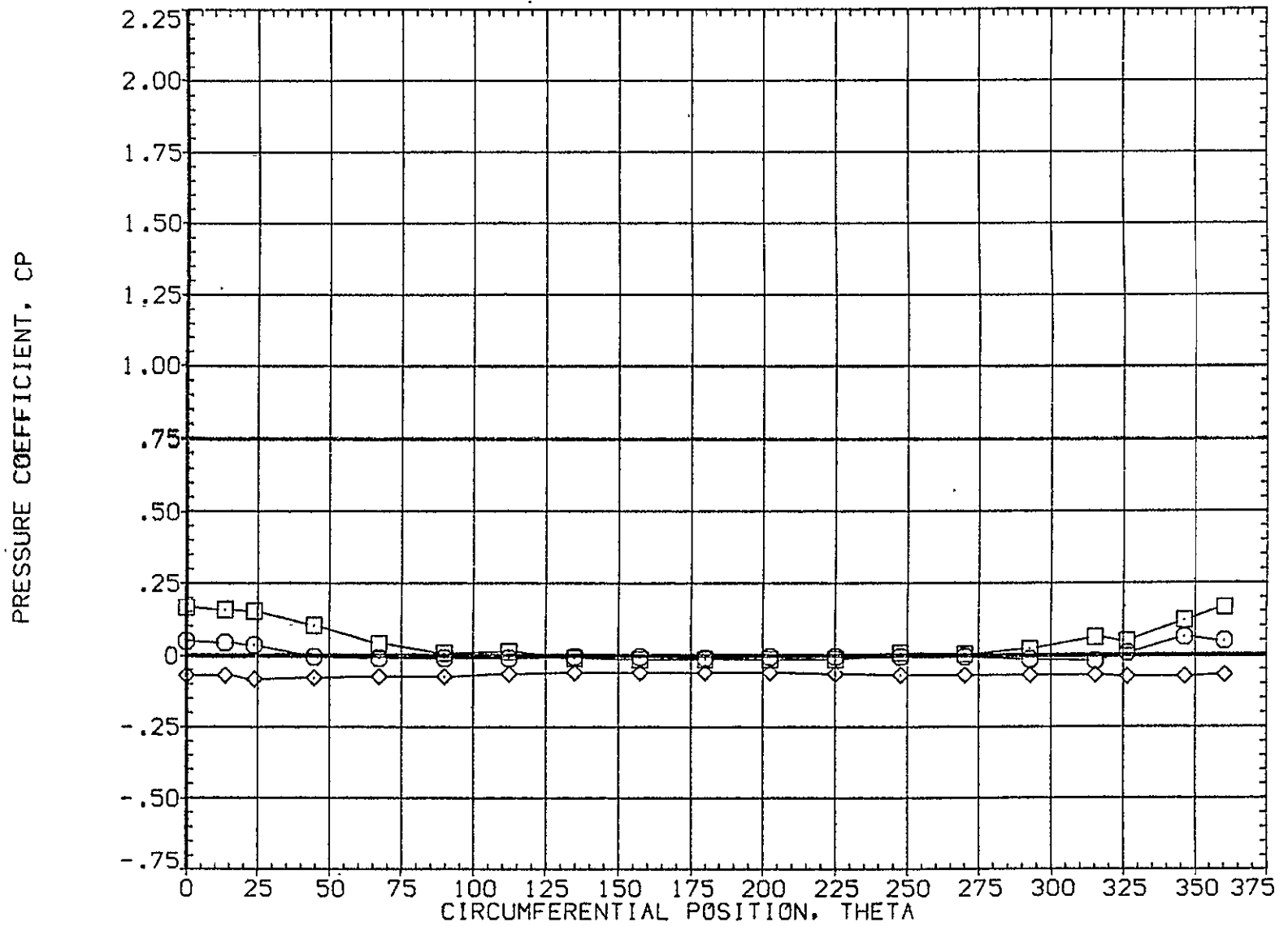


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	3.790	3.480	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

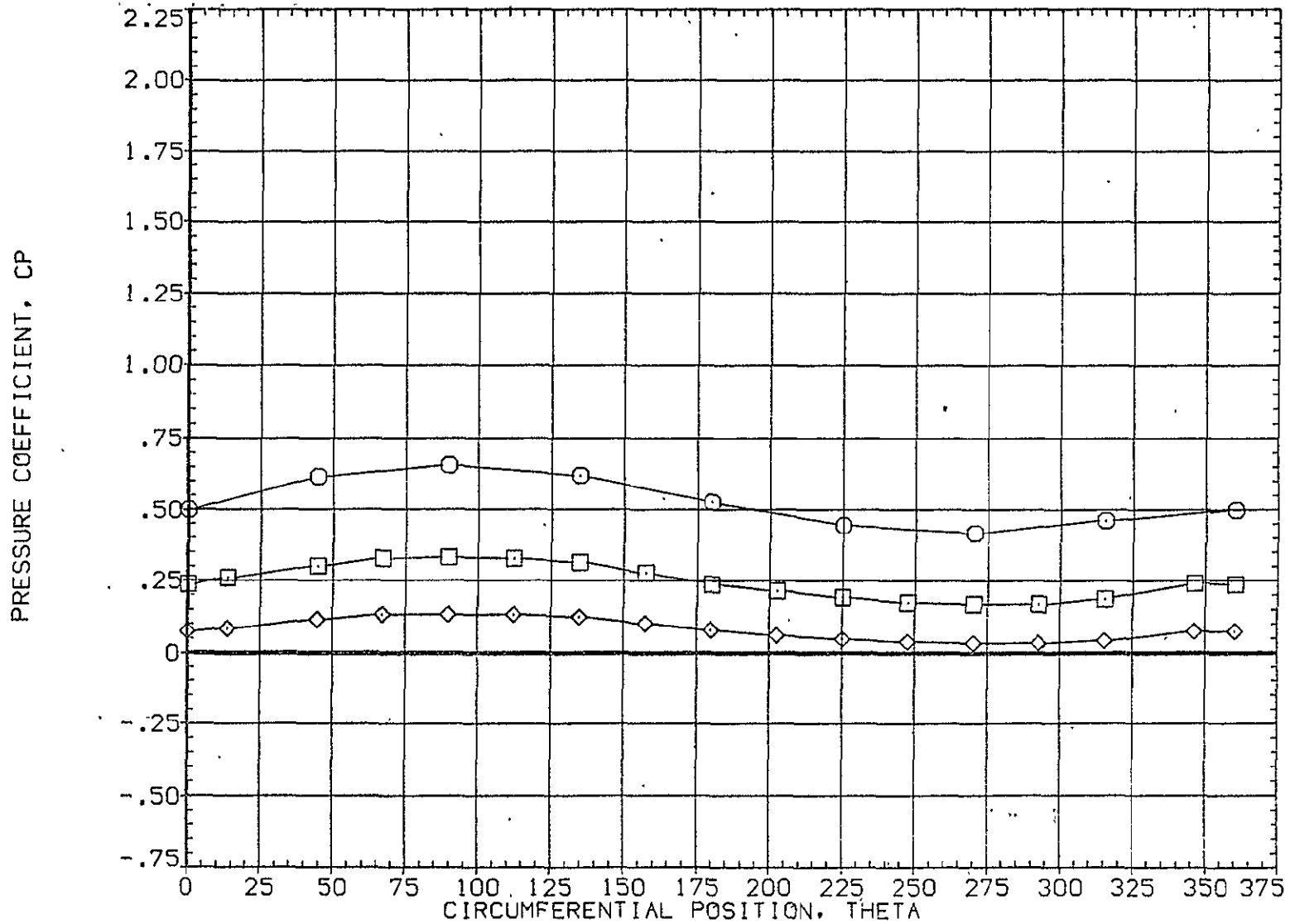


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.790	3.480	.000	.000	.000
□	.322			1.000		270.000
◇	.518					

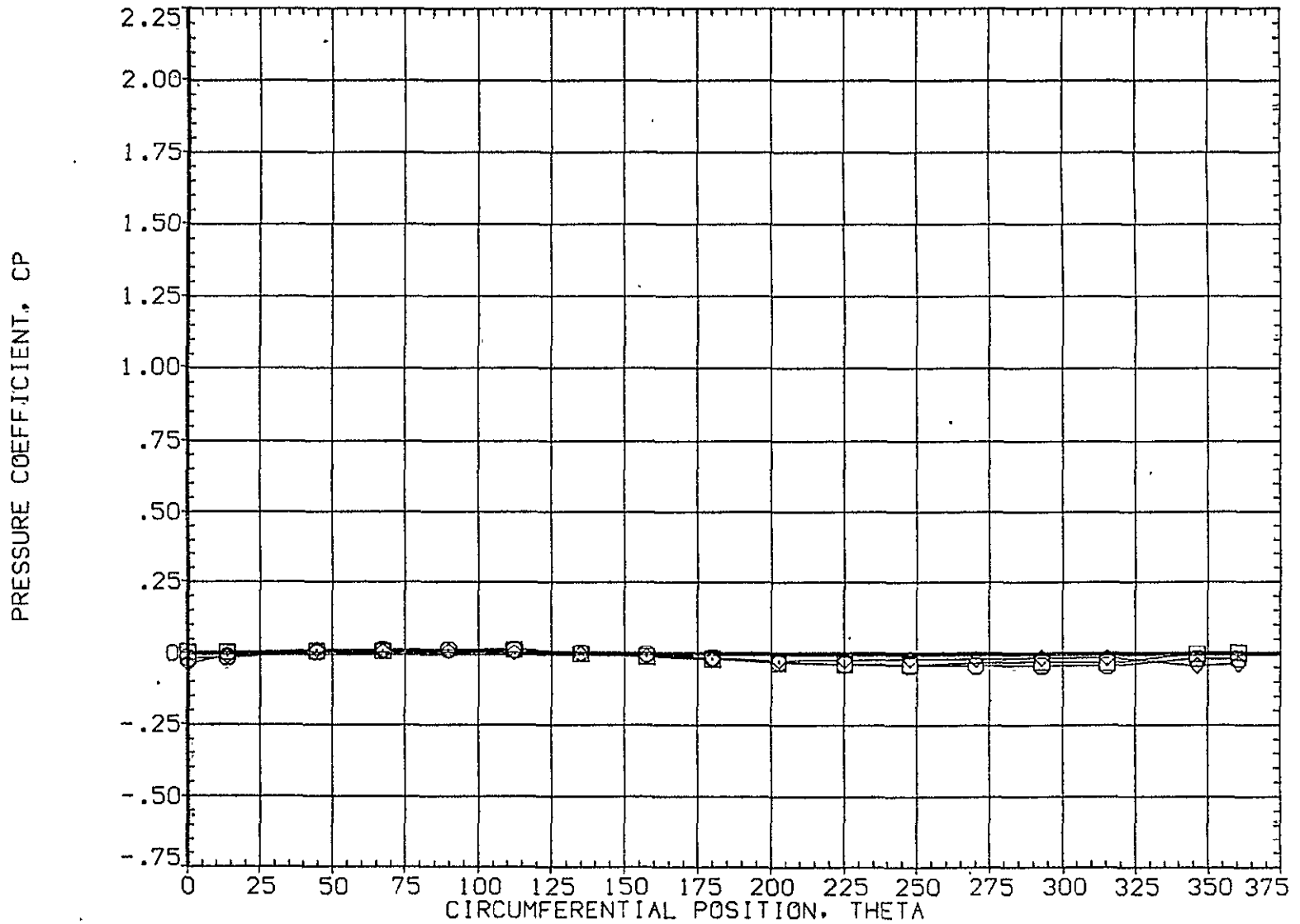


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.810	3.790	3.480	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

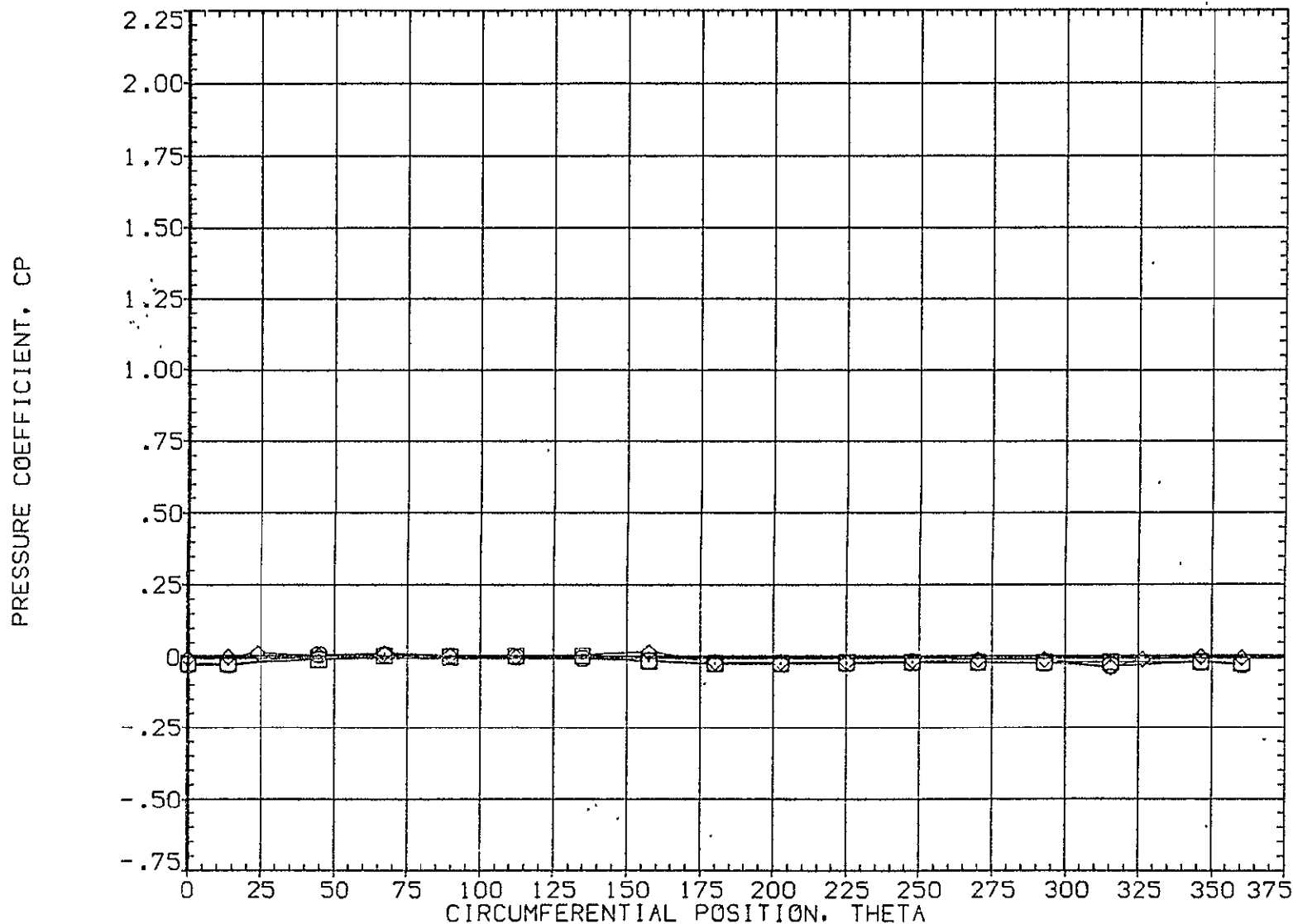


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	3.790	3.480	MOUNT	1.000	PHI	270.000
□	.923						
◇	.954						

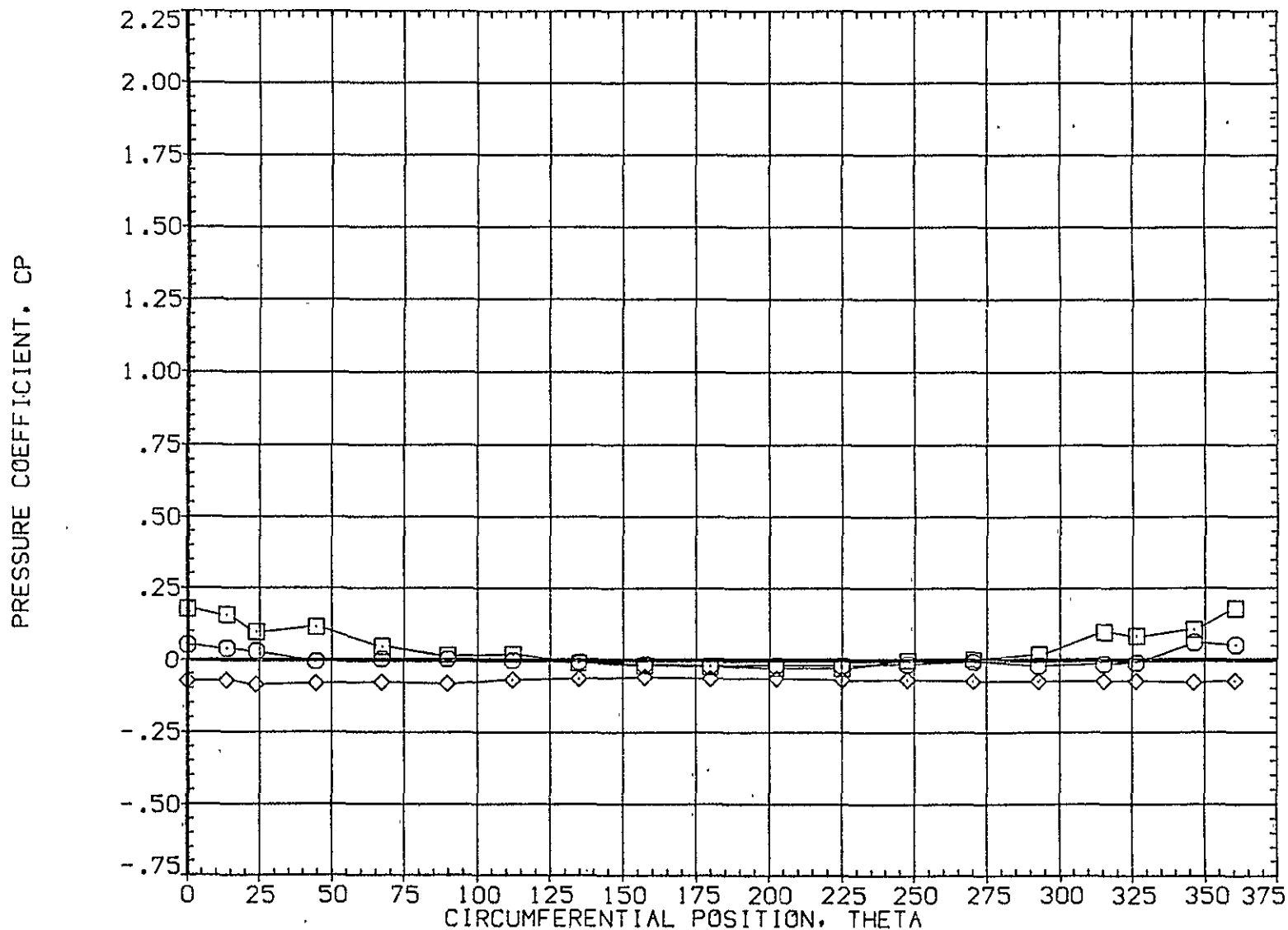


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	7.800	3.480	.000	.000	.000
□	.108			1.000		270.000
◇	.162					

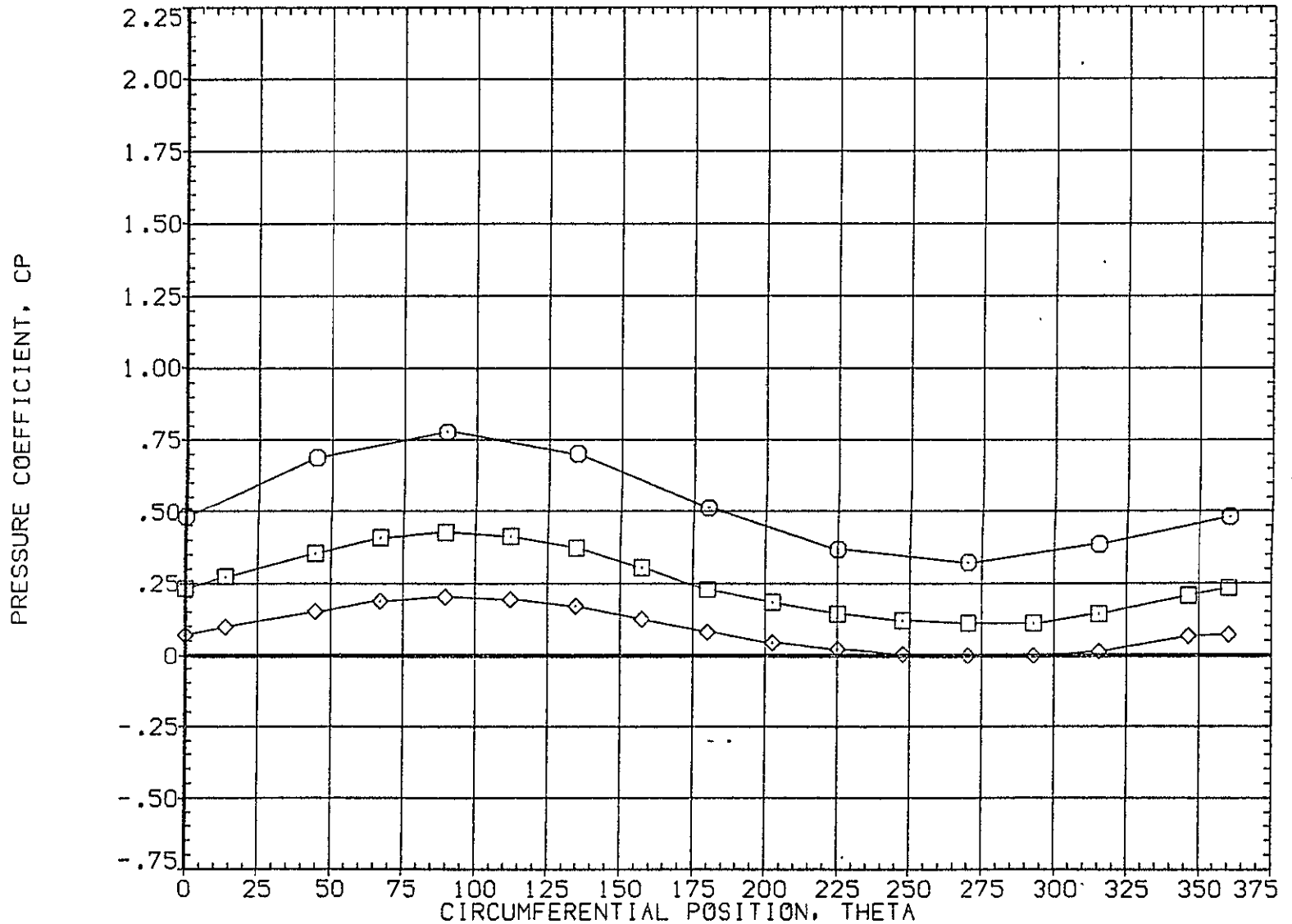


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	,000	
○	.216	7.800	3.480	MOUNT	1.000	PHI	270.000
□	.322						
◇	.518						

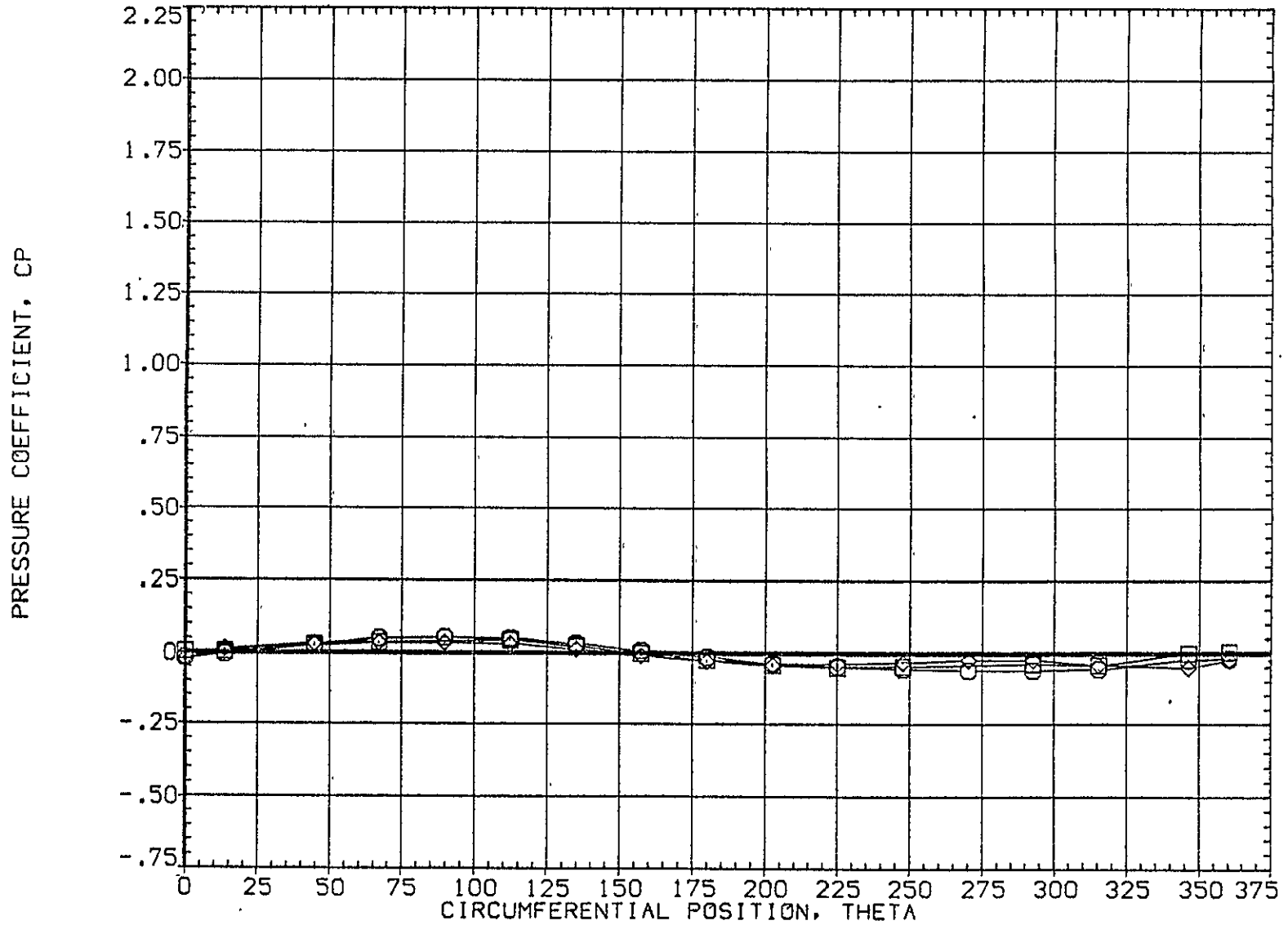


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.800	3.480	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

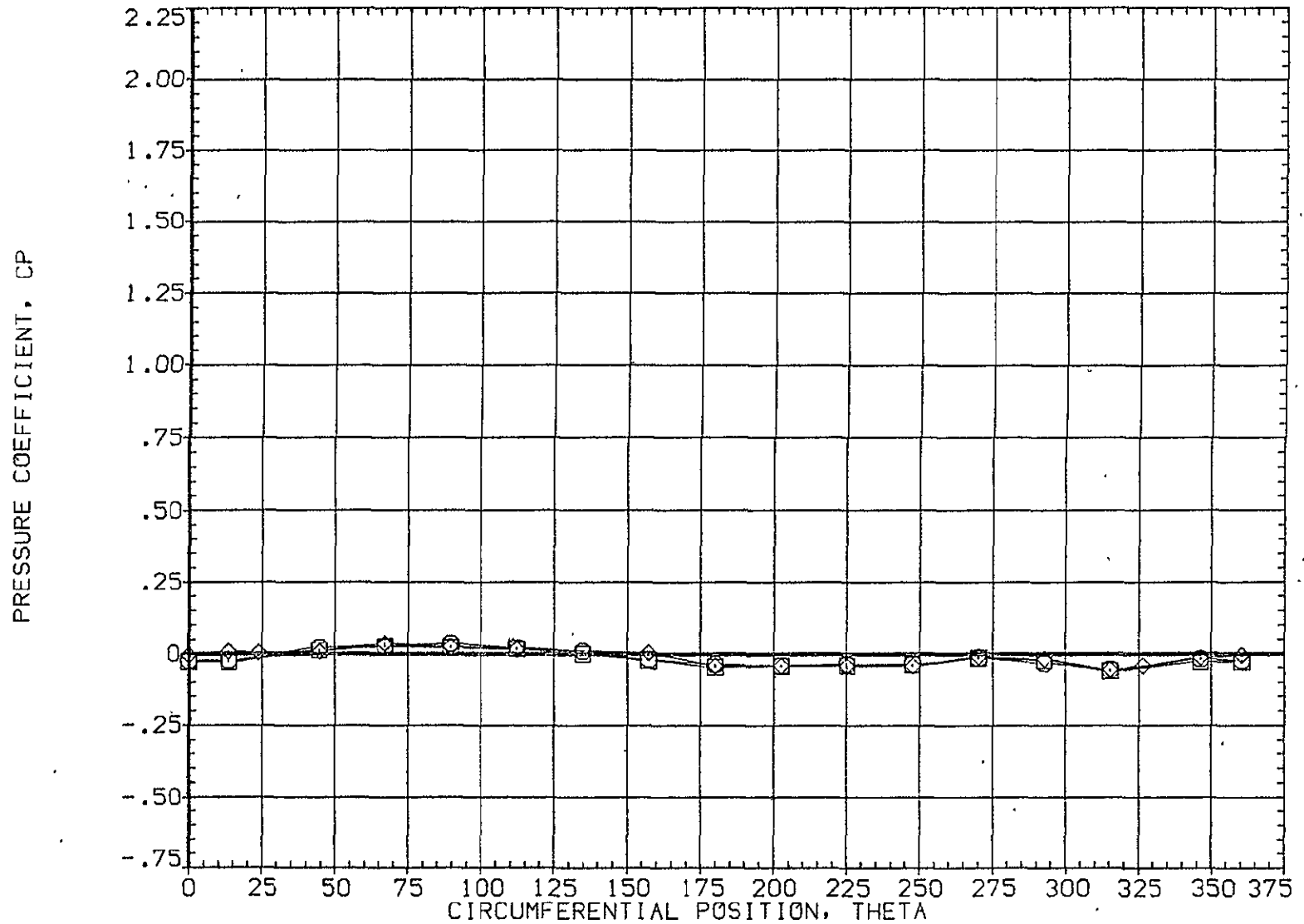


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	7.800	3.480	.000	.000	.000
□	.923			1.000	PHI	270.000
◇	.954					

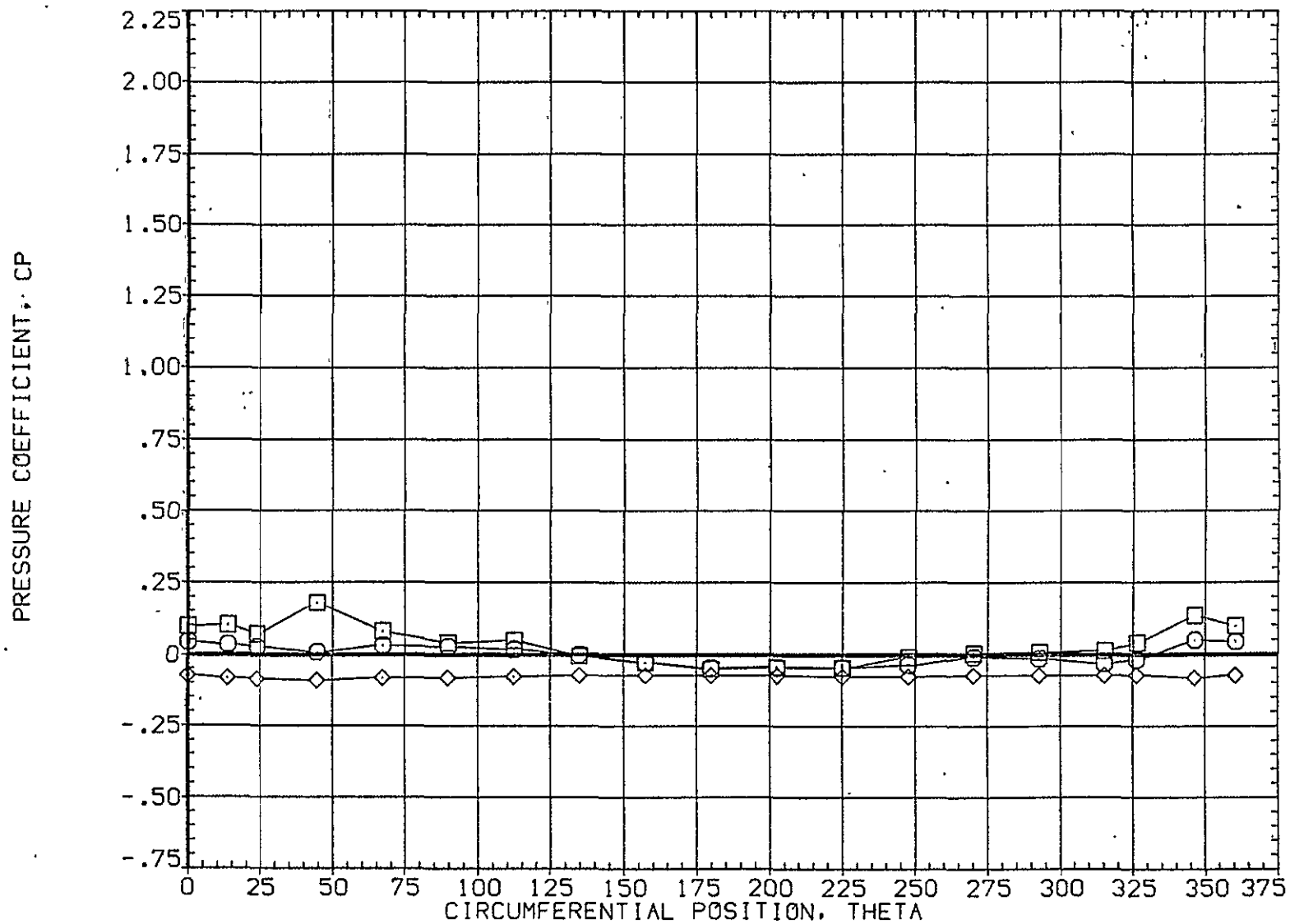


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	12.520	3.480	.000	20.000		
□	.108			1.000			
◇	.162						

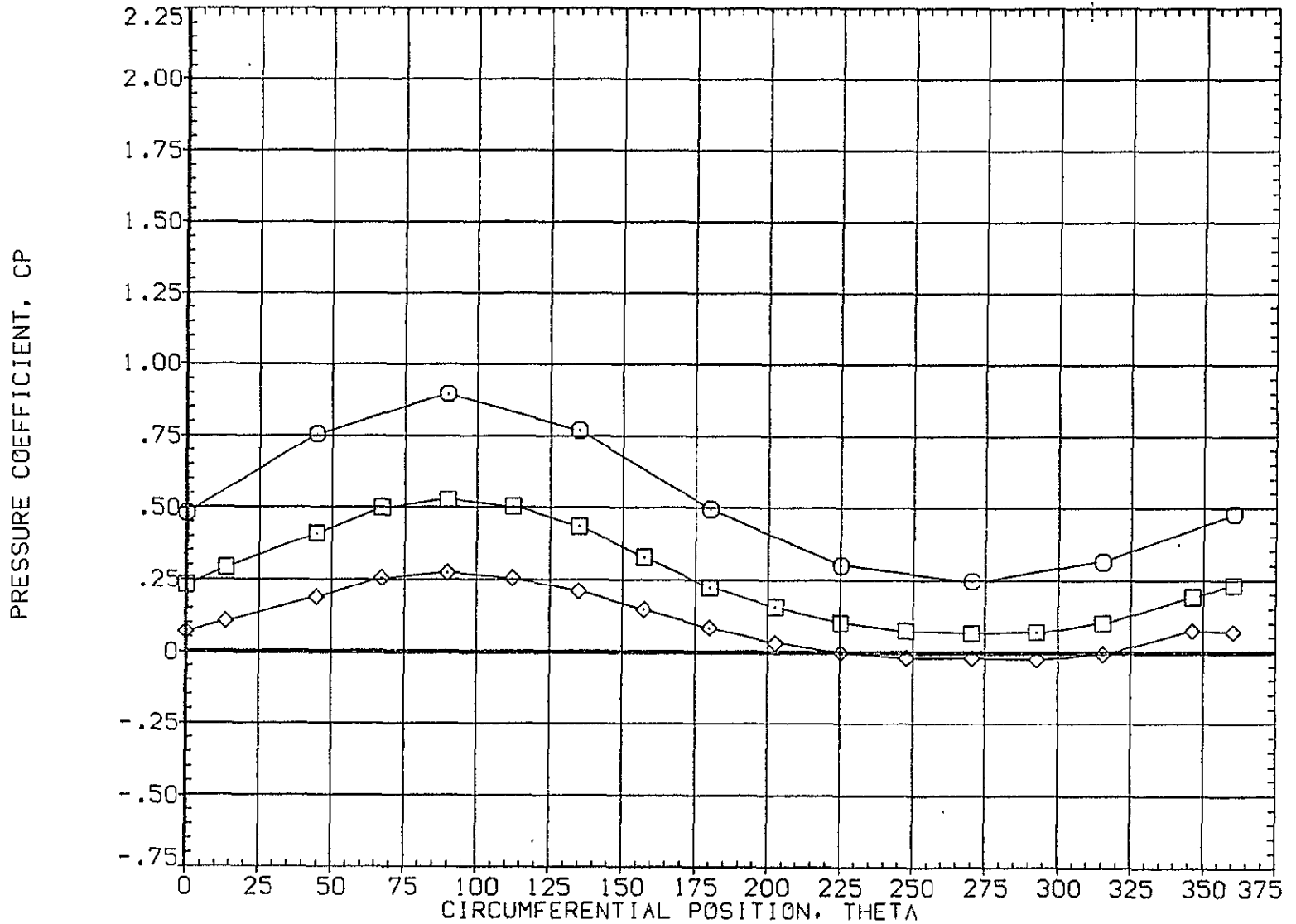


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	12.520	3.480	.000	20.000	
□	.322			1.000	PHI	270.000
◇	.518					

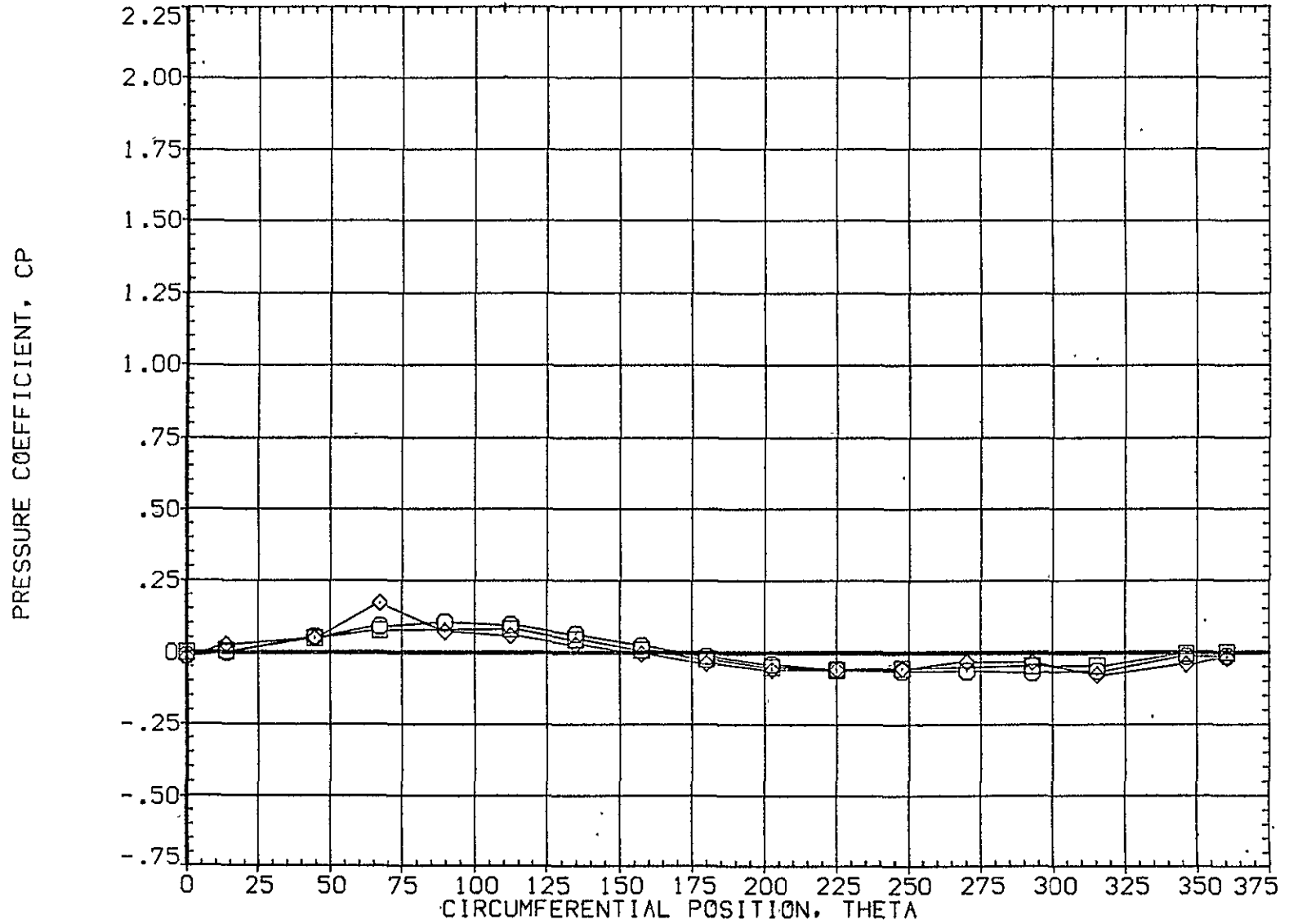


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A056)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	12.520	3.480	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

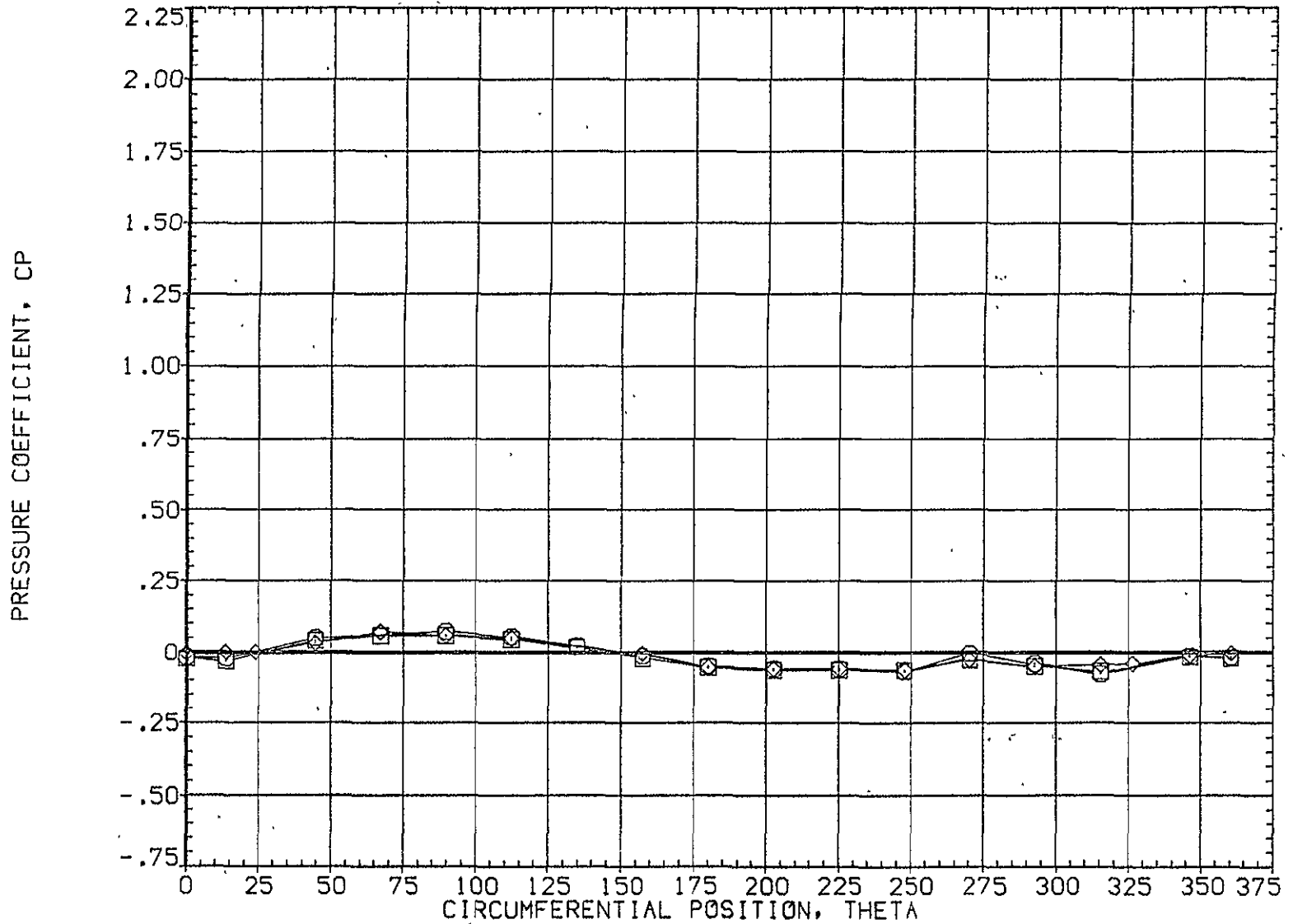


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	12.520	3.480	MOUNT	1.000	PHI	270.000
□	.923						
◇	.954						

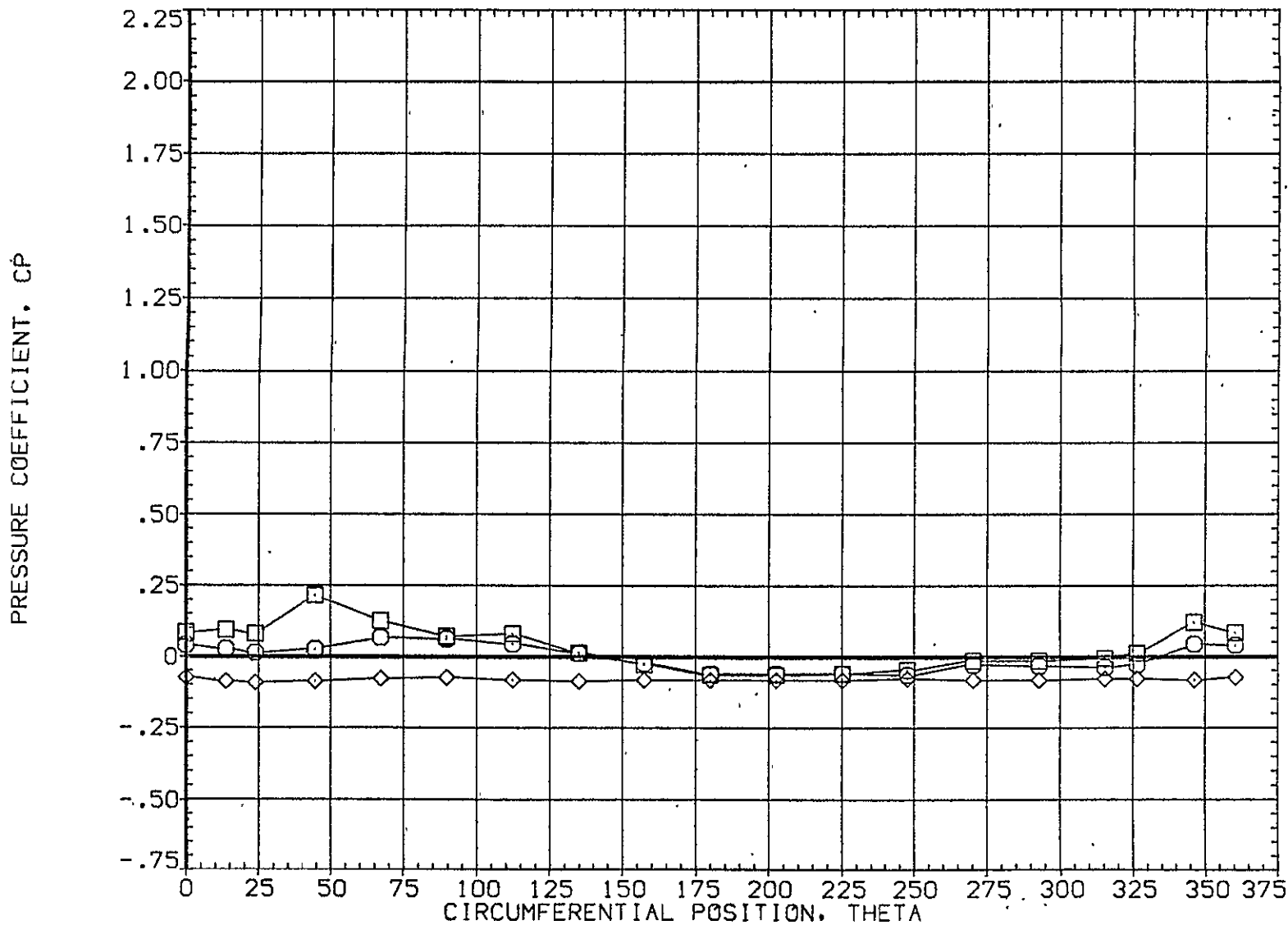


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .055
 ALPHA 16.540
 MACH 3.480

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET 20.000
 PHI 270.000

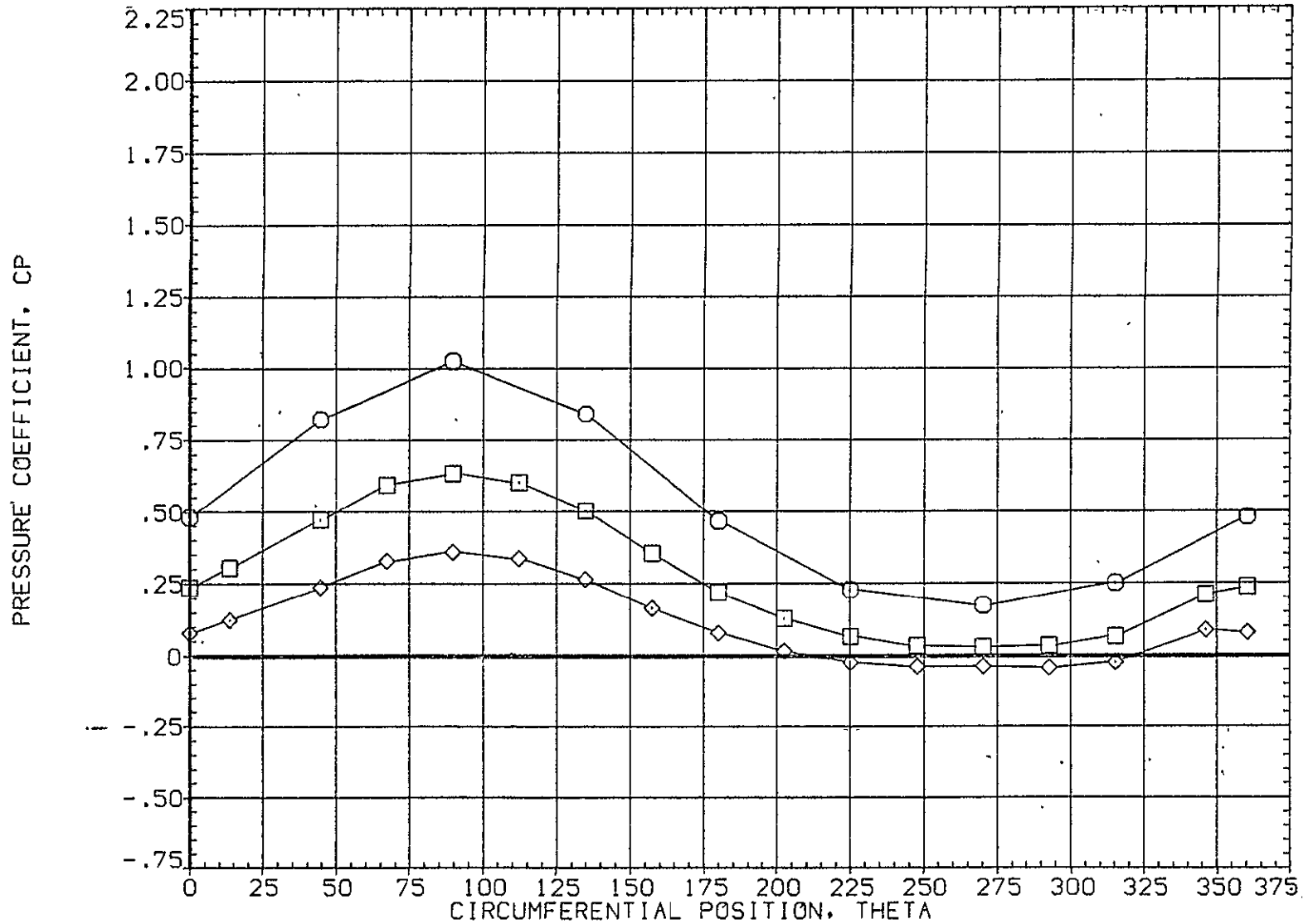


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	16.540	3.480	.000	20.000	
□	.322			1.000	270.000	
◇	.518					

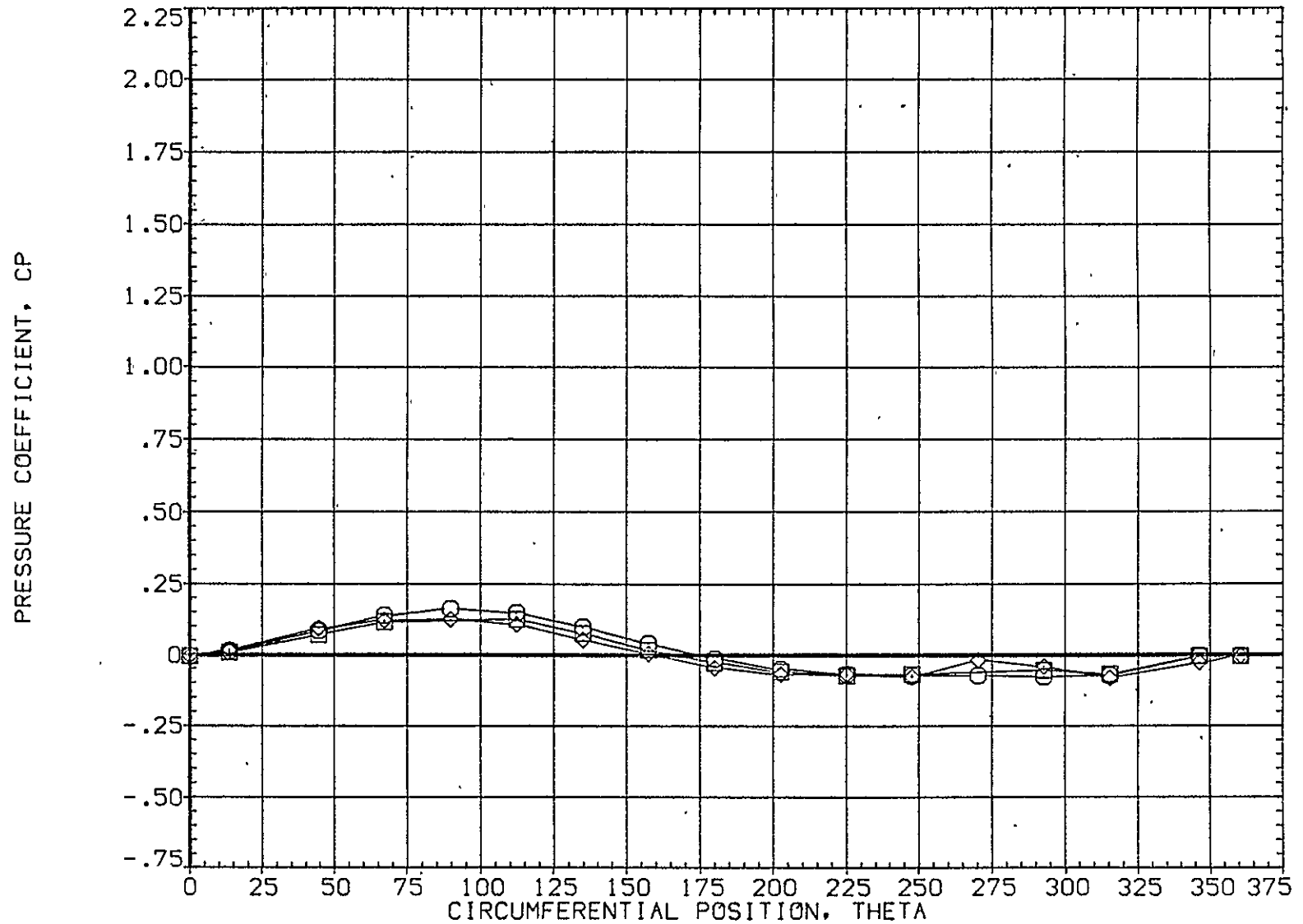


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	16.540	3.480	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

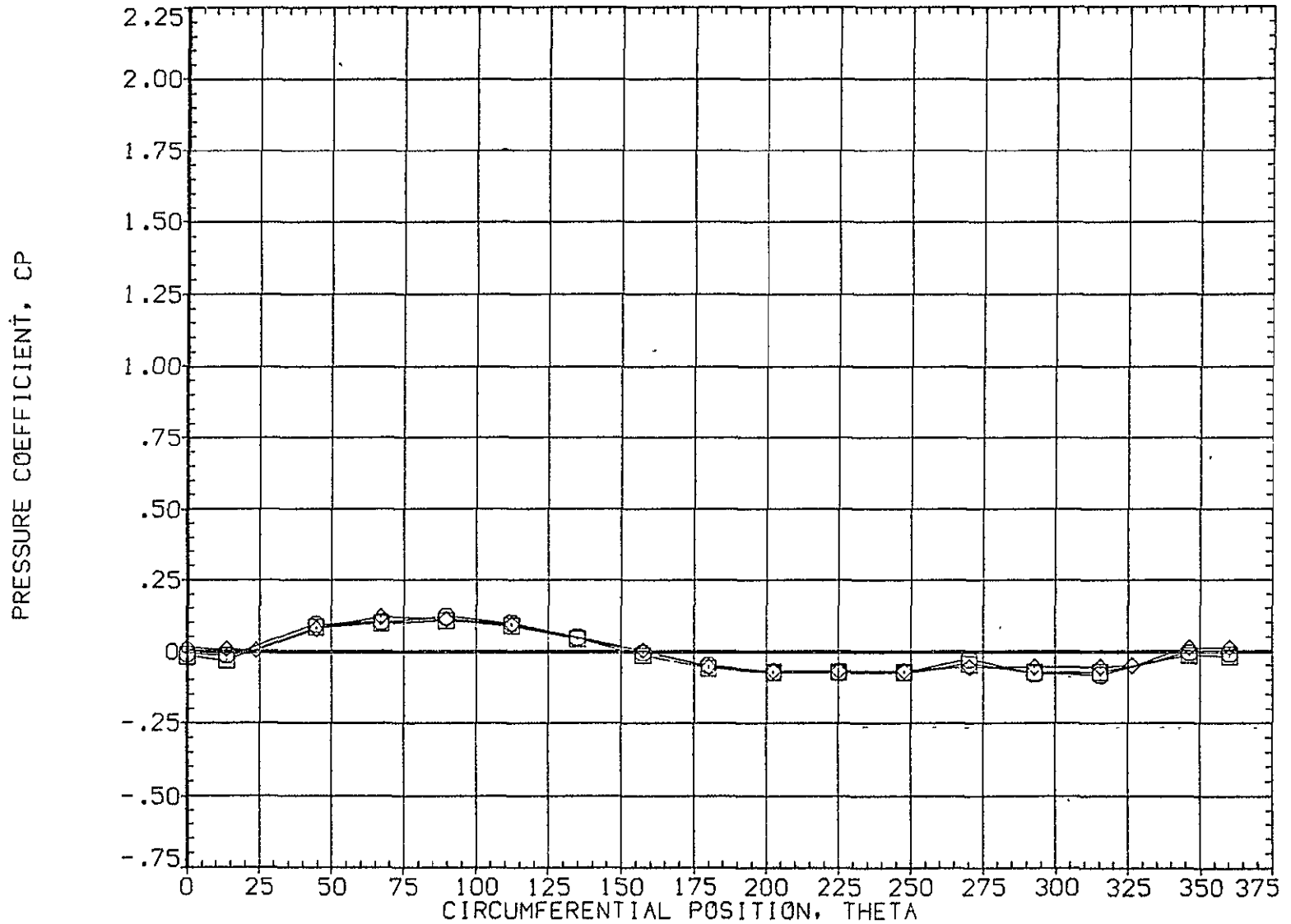


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	16.540	3.480	MDUNT	1.000	PHI	270.000
□	.923						
◇	.954						

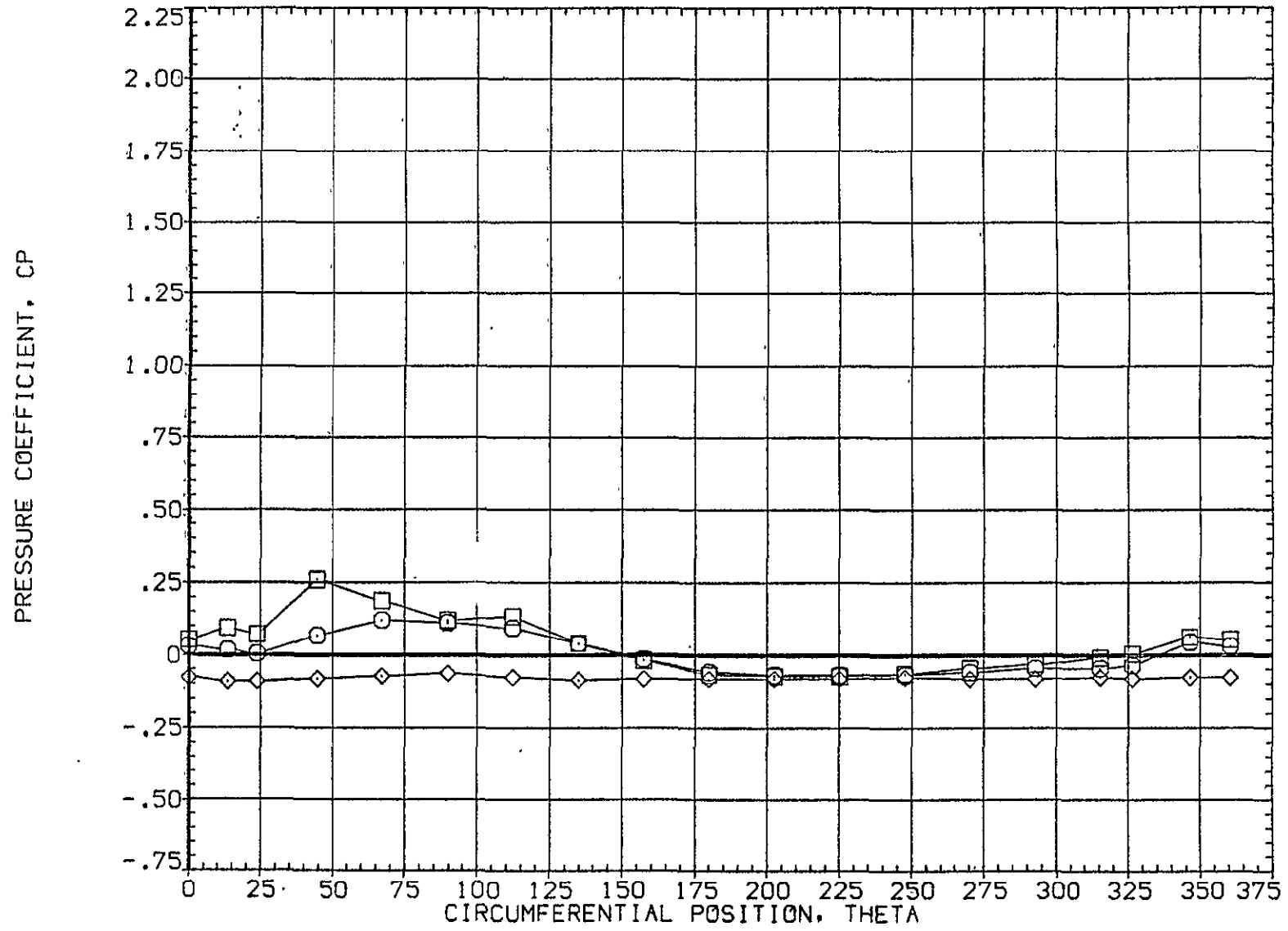


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.610	3.480	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

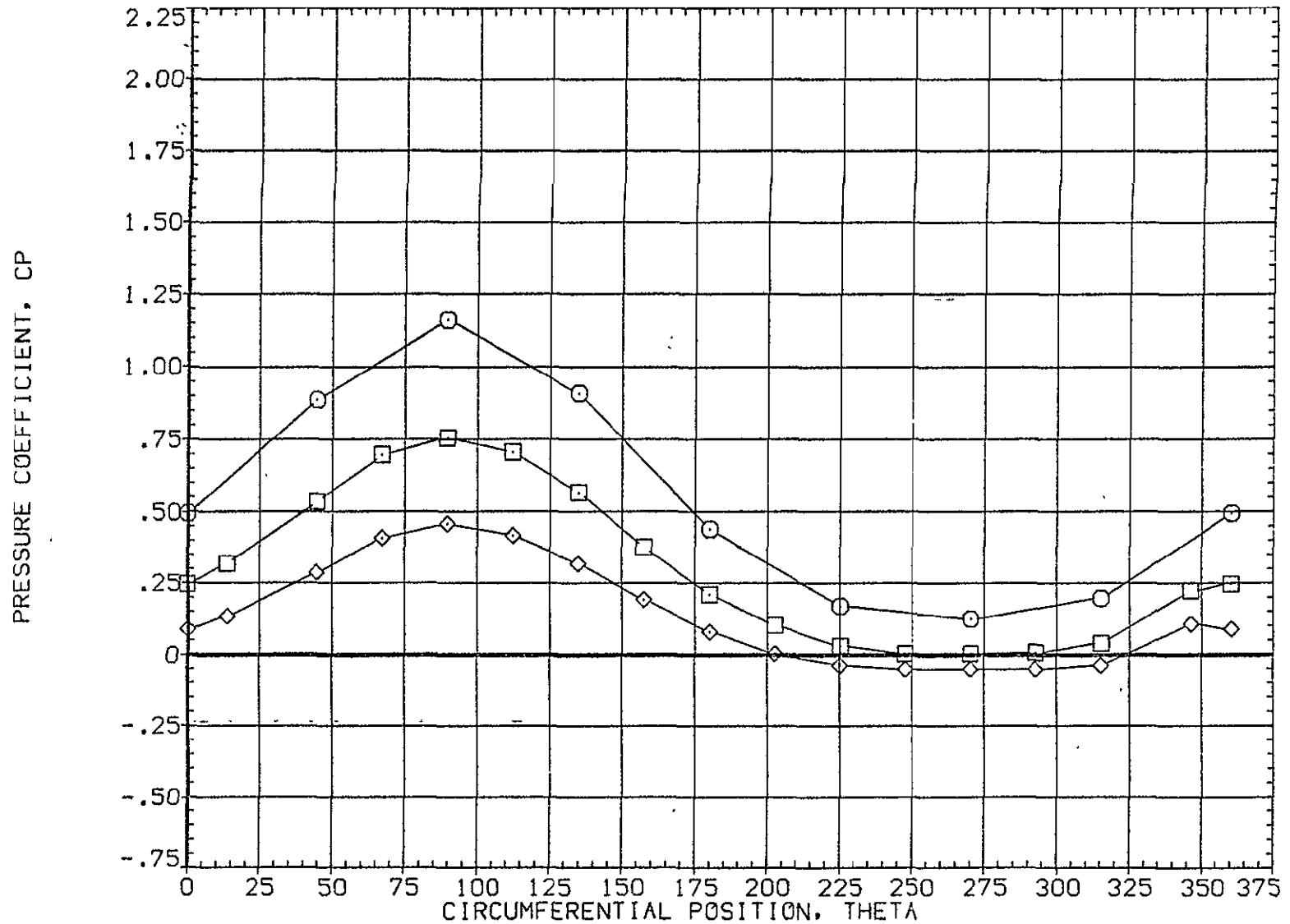


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES	OFFSET	
○	.216	20.610	3.480		.000	20.000	
□	.322			MOUNT	1.000	PHI	270.000
◇	.518						

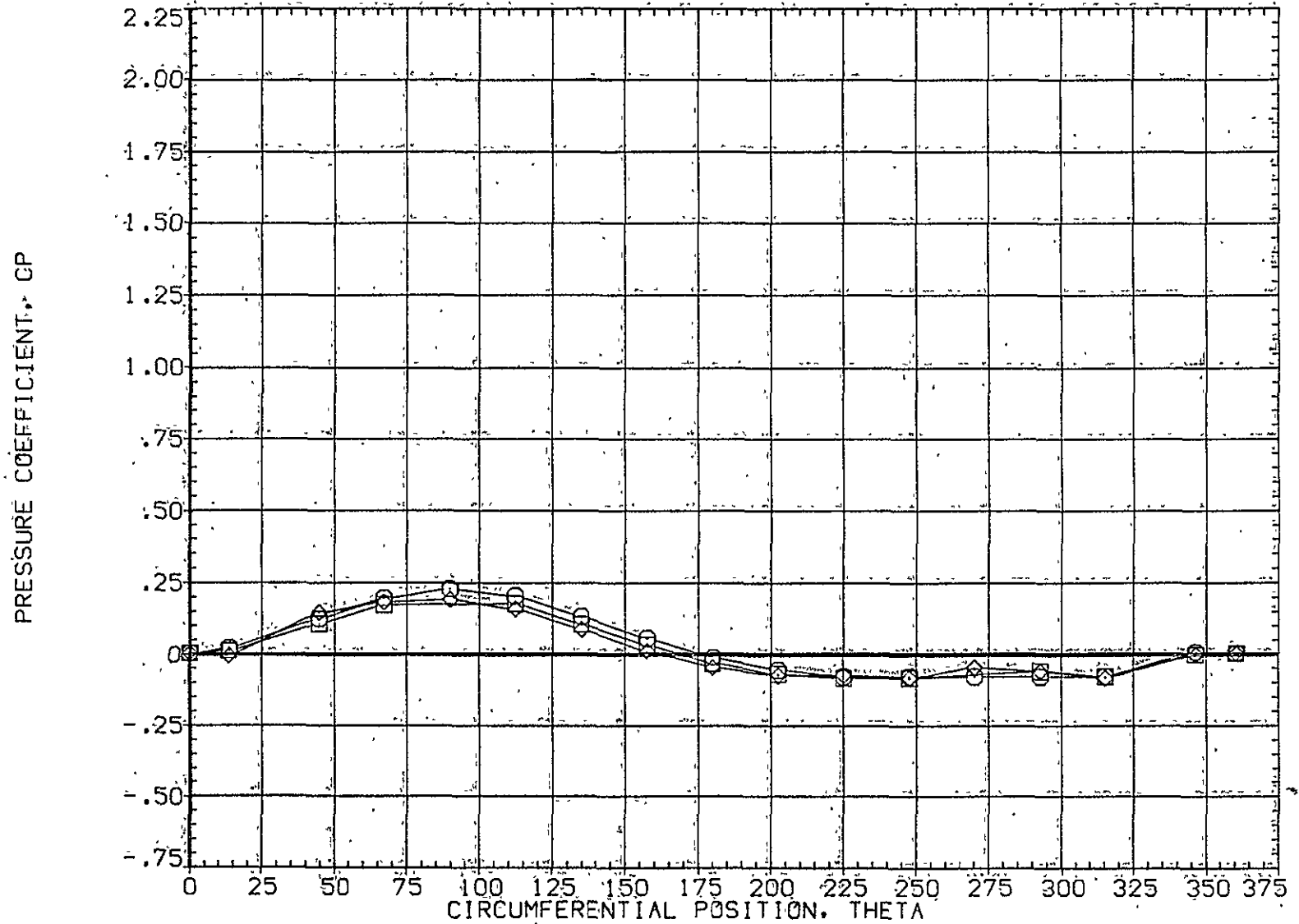


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

C. 4

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A058)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.610	3.480	MOUNT	1.000	RHI	270.000
□	.735						
◇	.860						

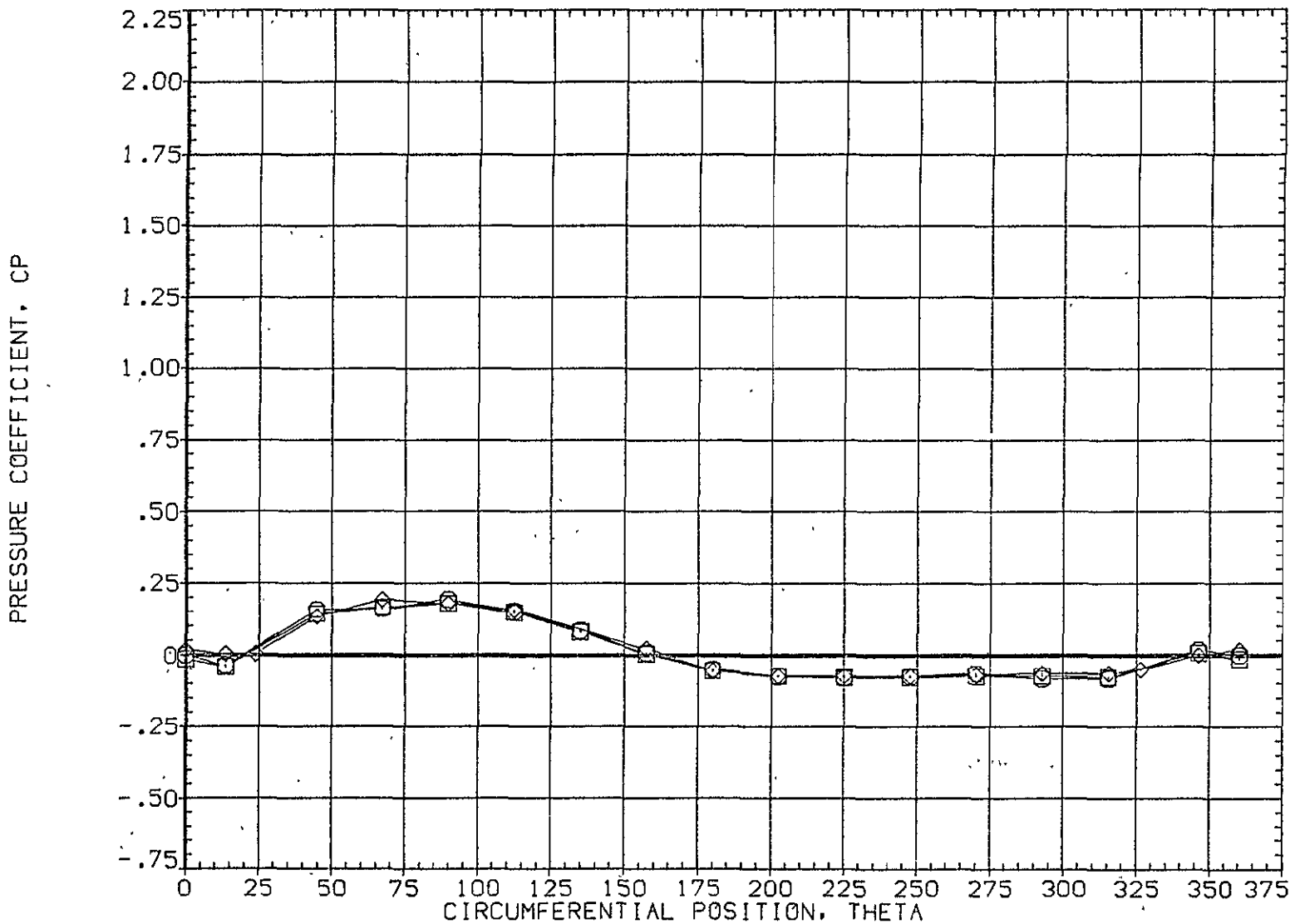


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	20.610	3.480	MOUNT	1.000	PHI	270.000
□	.923						
◇	.954						

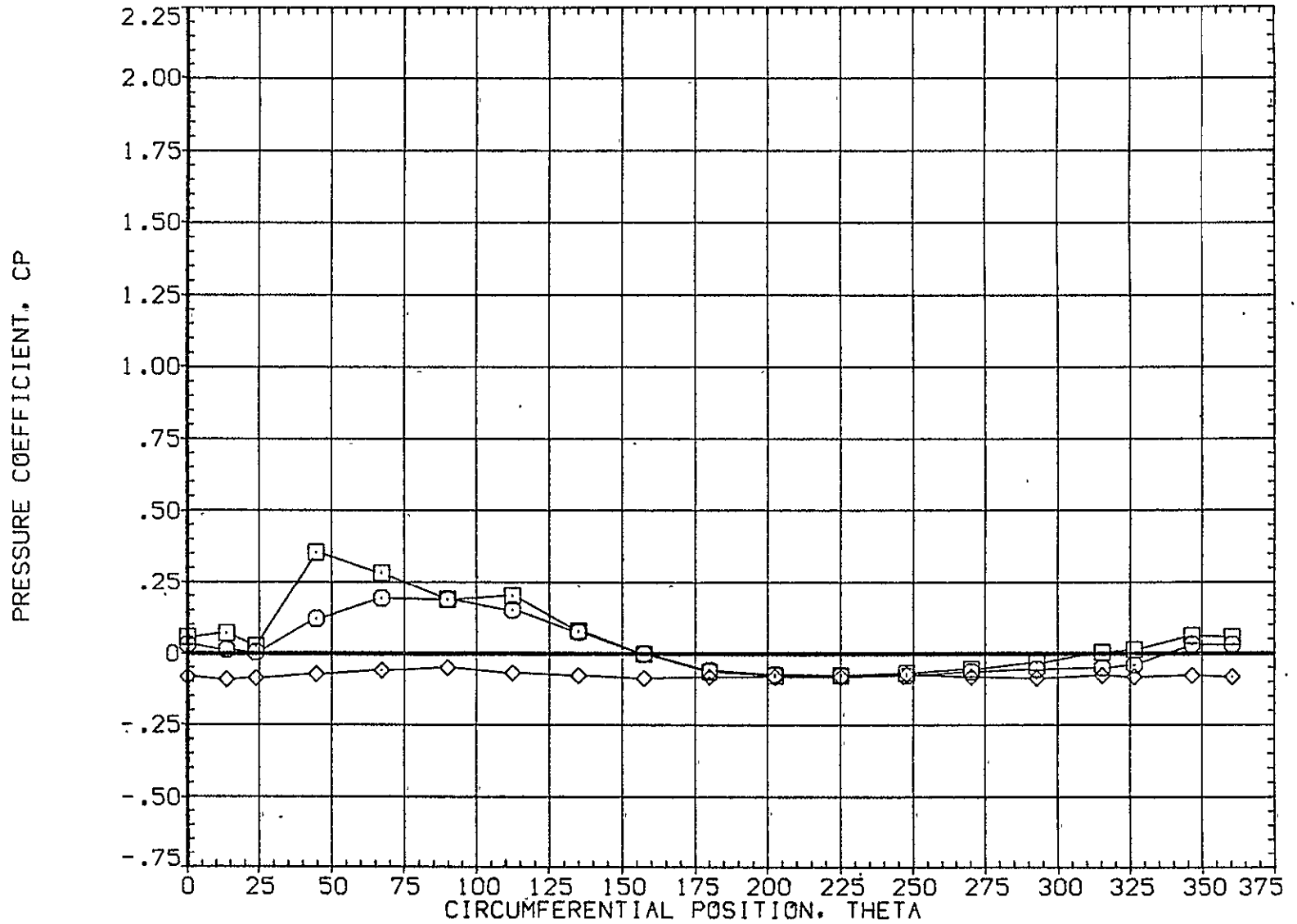


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	24.680	3.480	.000	20.000	
□	.108			1.000		270.000
◇	.162					

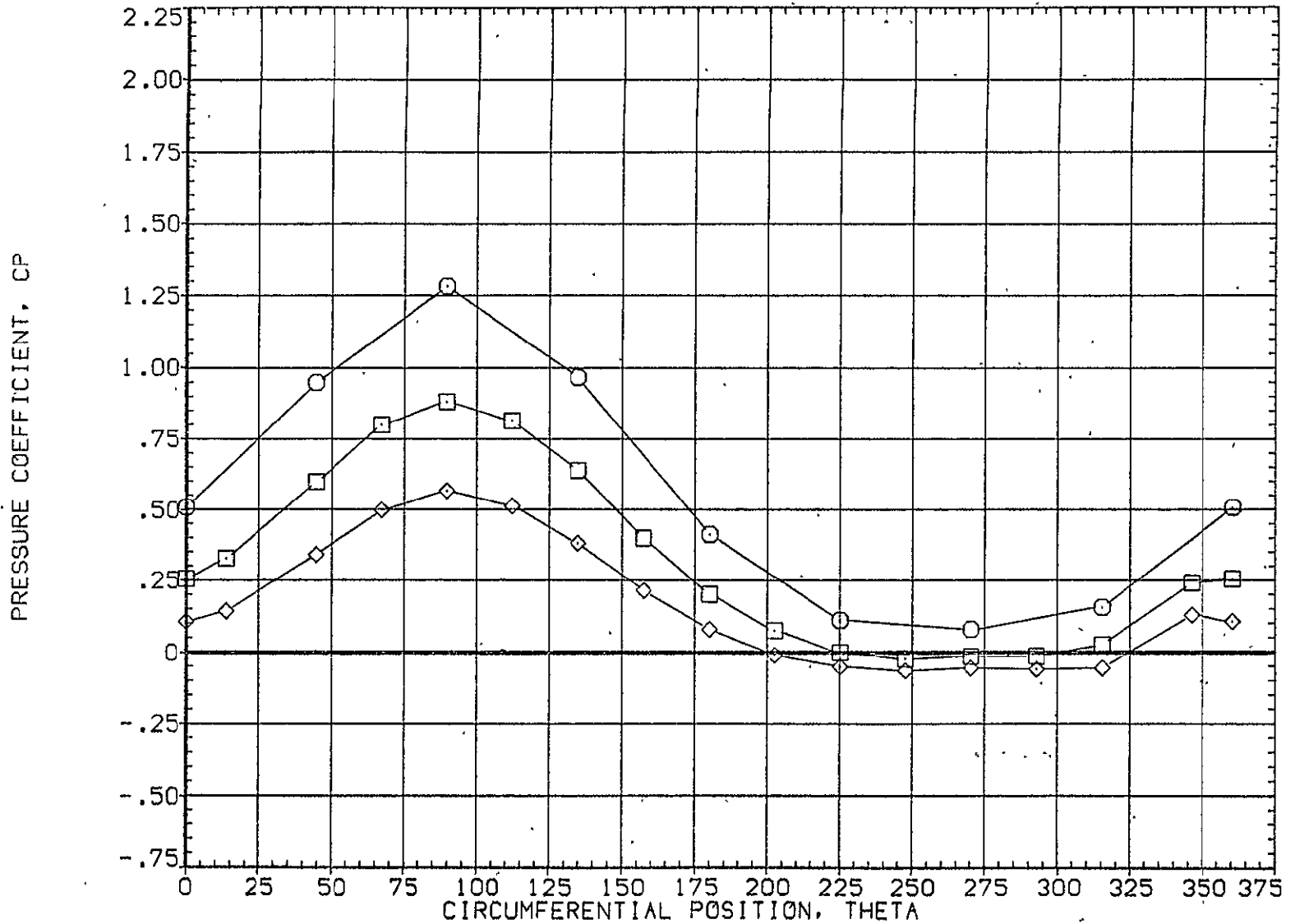


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET		
○	.216	24.680	3.480	MOUNT	1.000	PHI	20.000
□	.322						270.000
◇	.518						

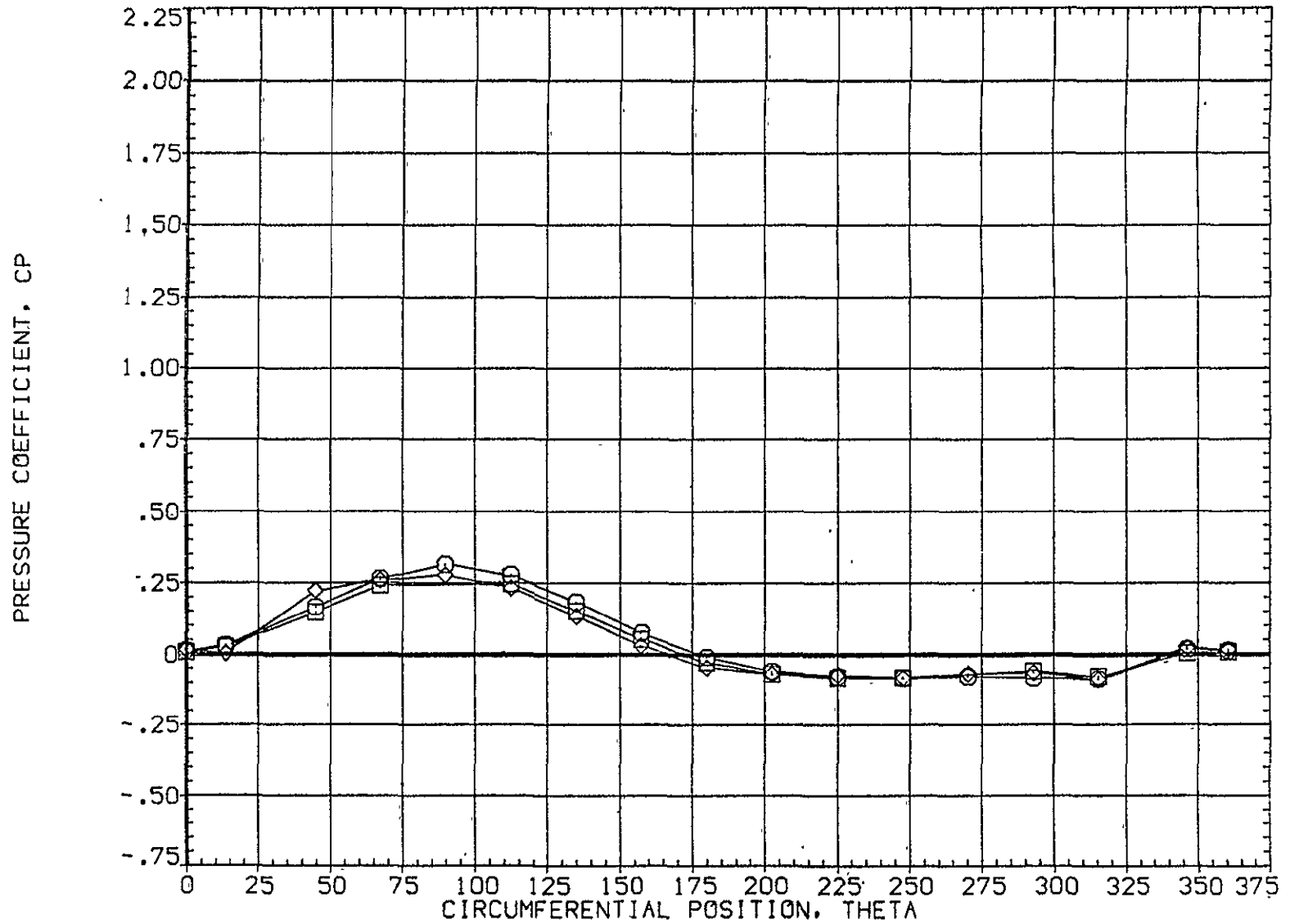


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	24.680	3.480	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

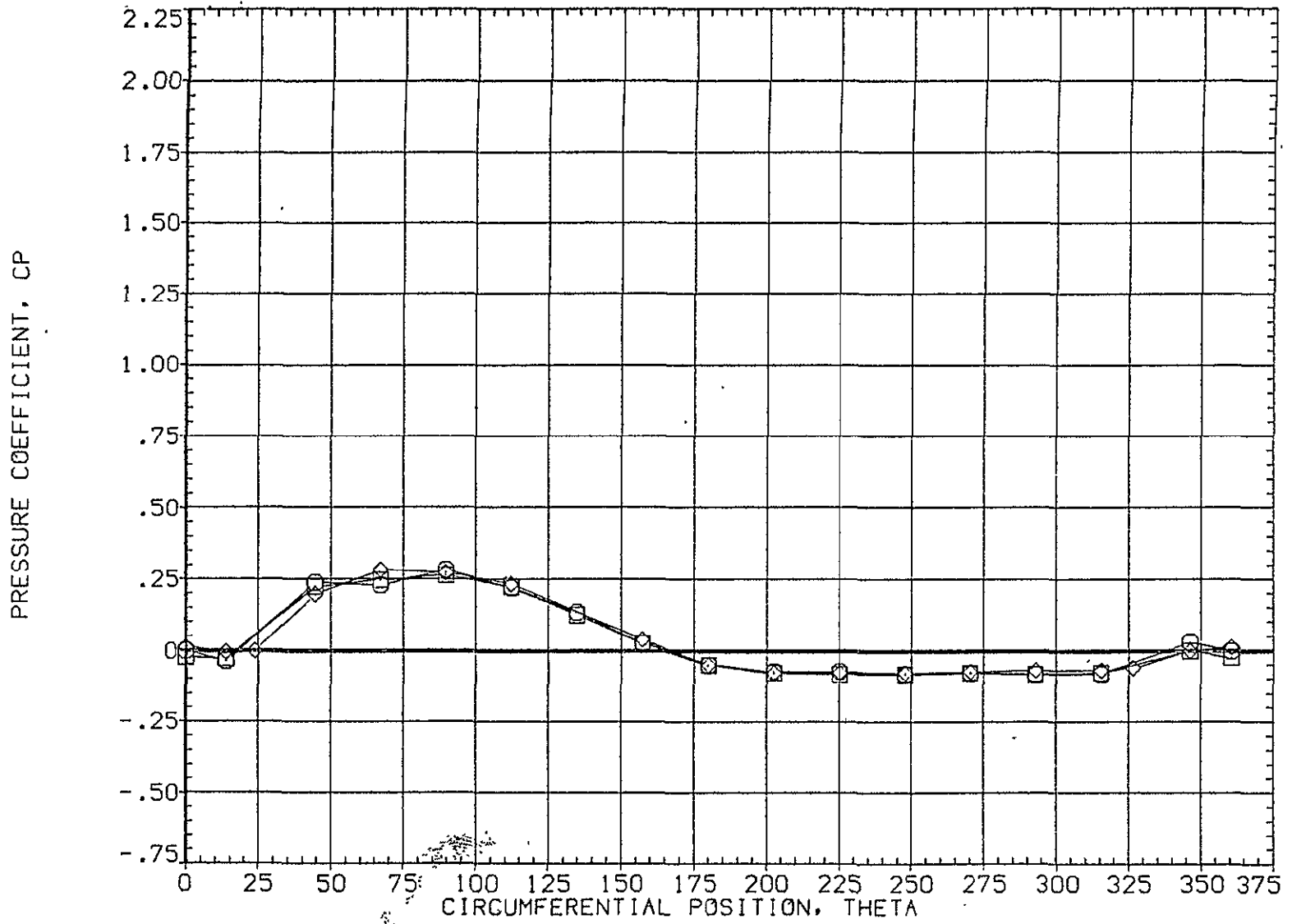


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	24.680	3.480	MOUNT	1.000	PHI	270.000
□	.923						
◇	.954						

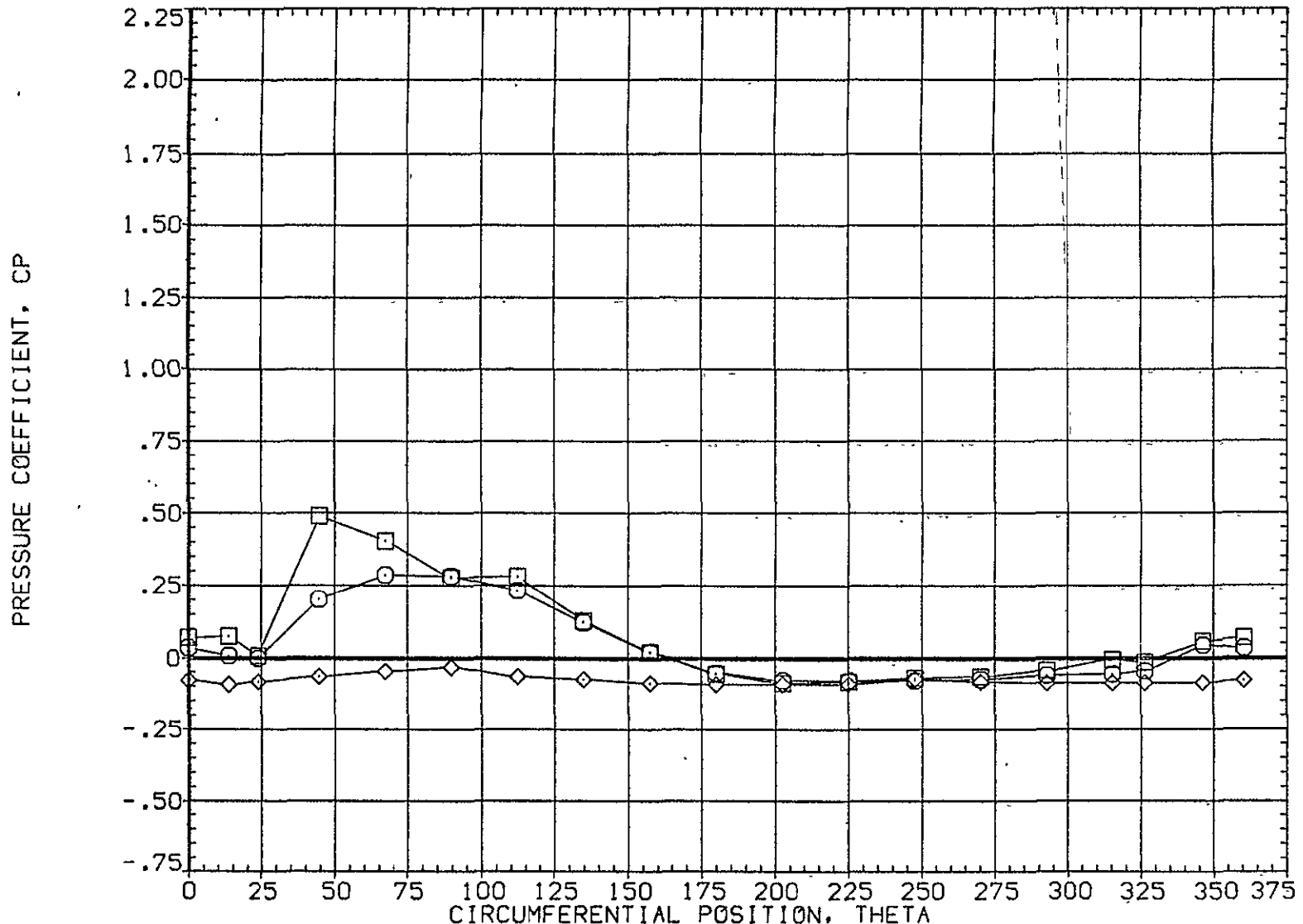


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC. 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A060)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	28.700	3.480	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

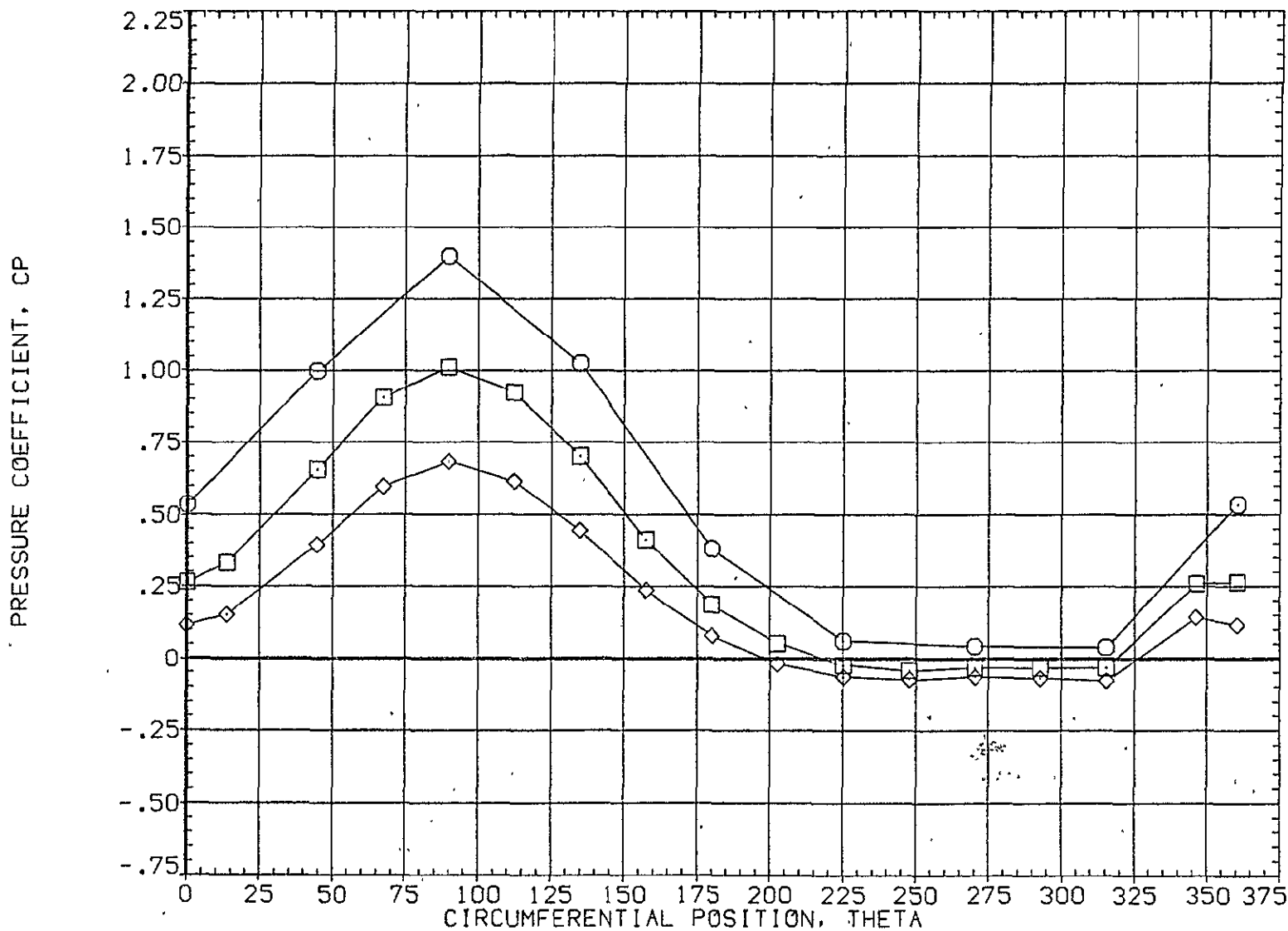


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ◊ □ ○

X/LB	ALPHA	MACH
.216	29.700	3.480
.322		
.518		

PARAMETRIC VALUES		
BETA	.000	OFFSET 20.000
MOUNT	1.000	PHI 270.000

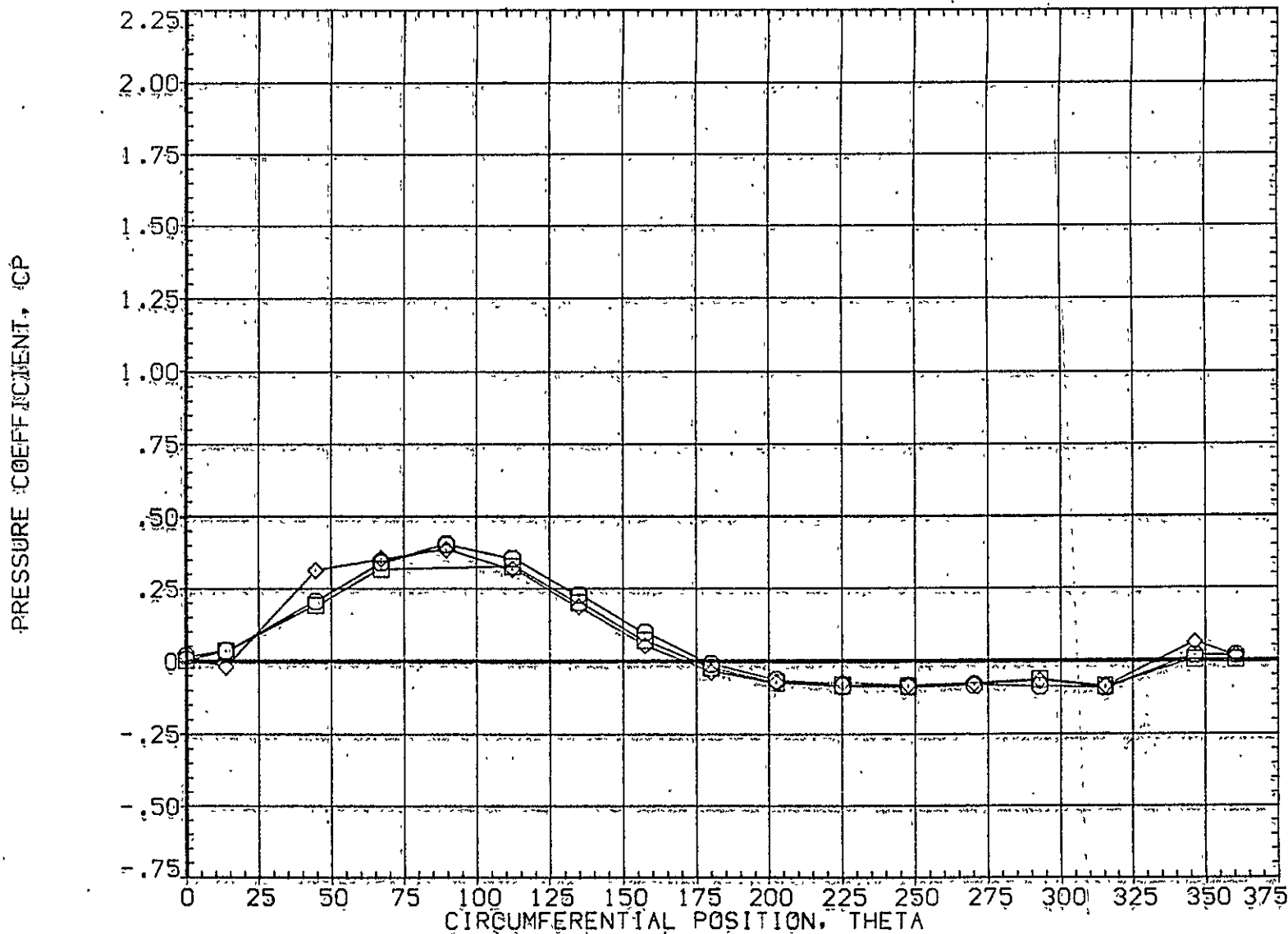


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20,000
○	.610	28.700	3.480	MOUNT	1.000	270.000	
□	.735						
◇	.860						

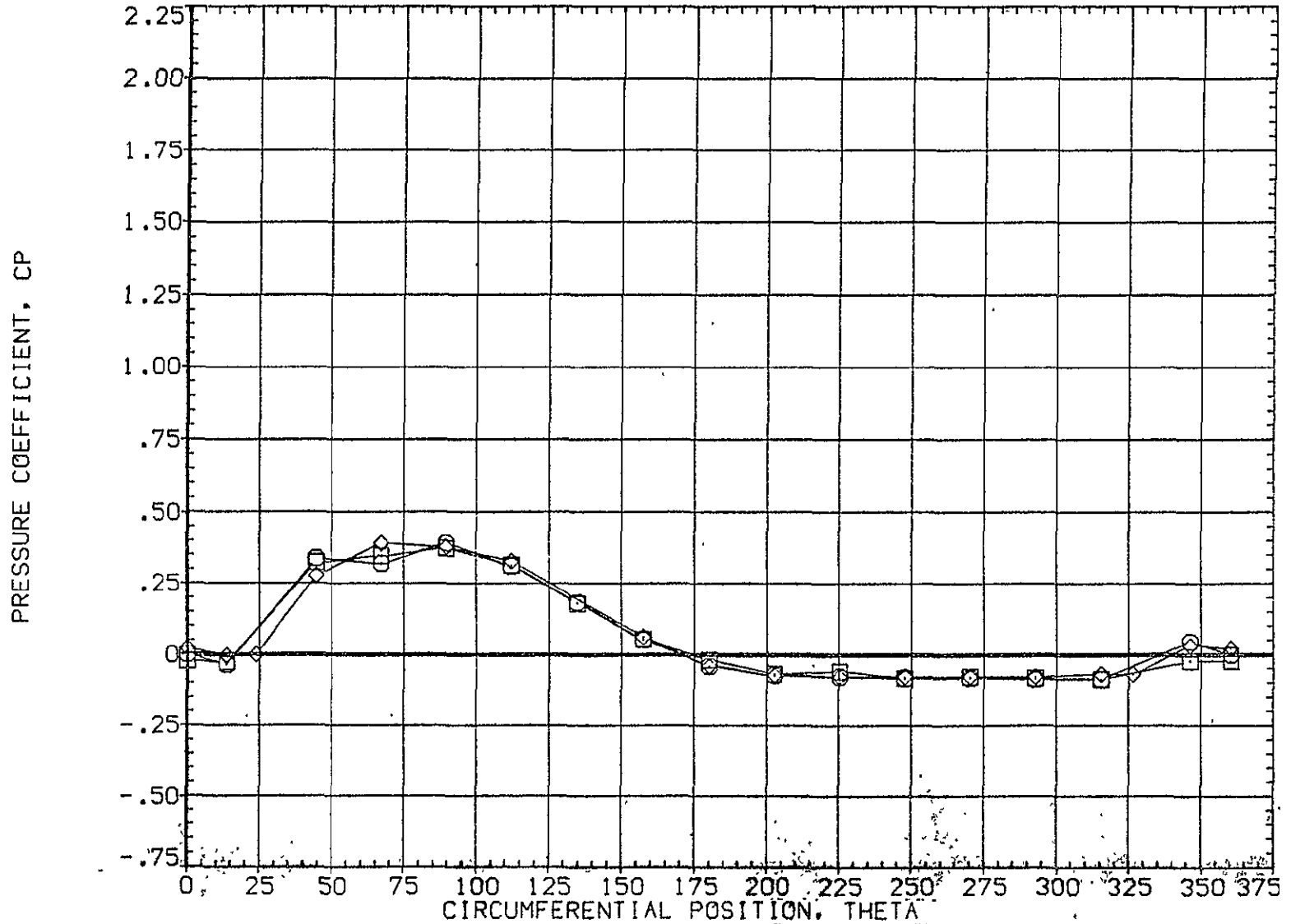


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL

○
□
◇

X/LB

.892
.923
.954

ALPHA

28.700

MACH

3.480

BETA

PARAMETRIC VALUES

MOUNT

.000

OFFSET

20.000

1.000

PHI

270.000

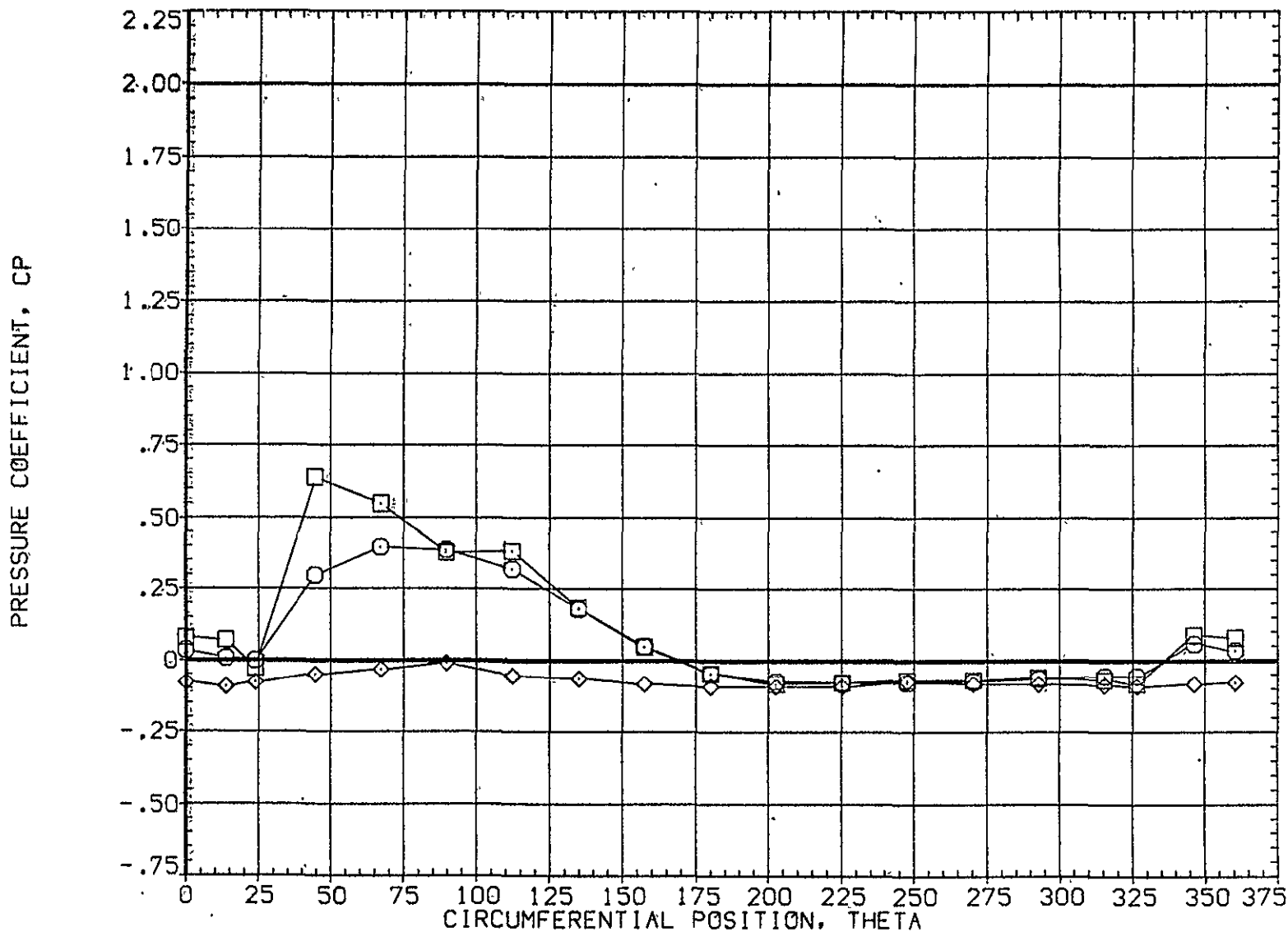


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-8.360	3.480	MOUNT	1.000	PHI	315.000
□	.108						
◇	.162						

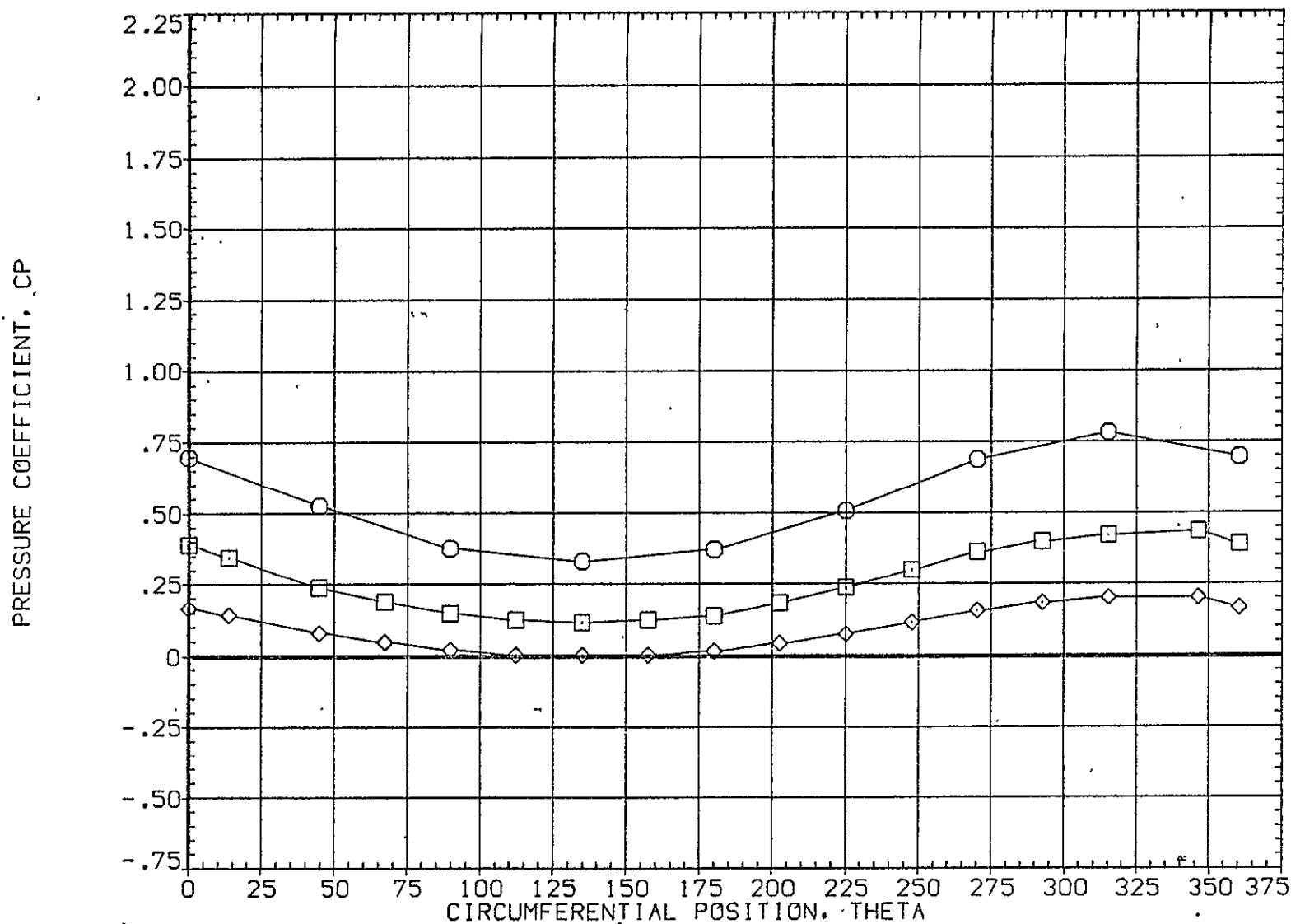


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB	ALPHA	MACH
.216	-8.360	3.480
.322		
.518		

PARAMETRIC VALUES		
BETA	OFFSET	.000
MOUNT	PHI	315.000

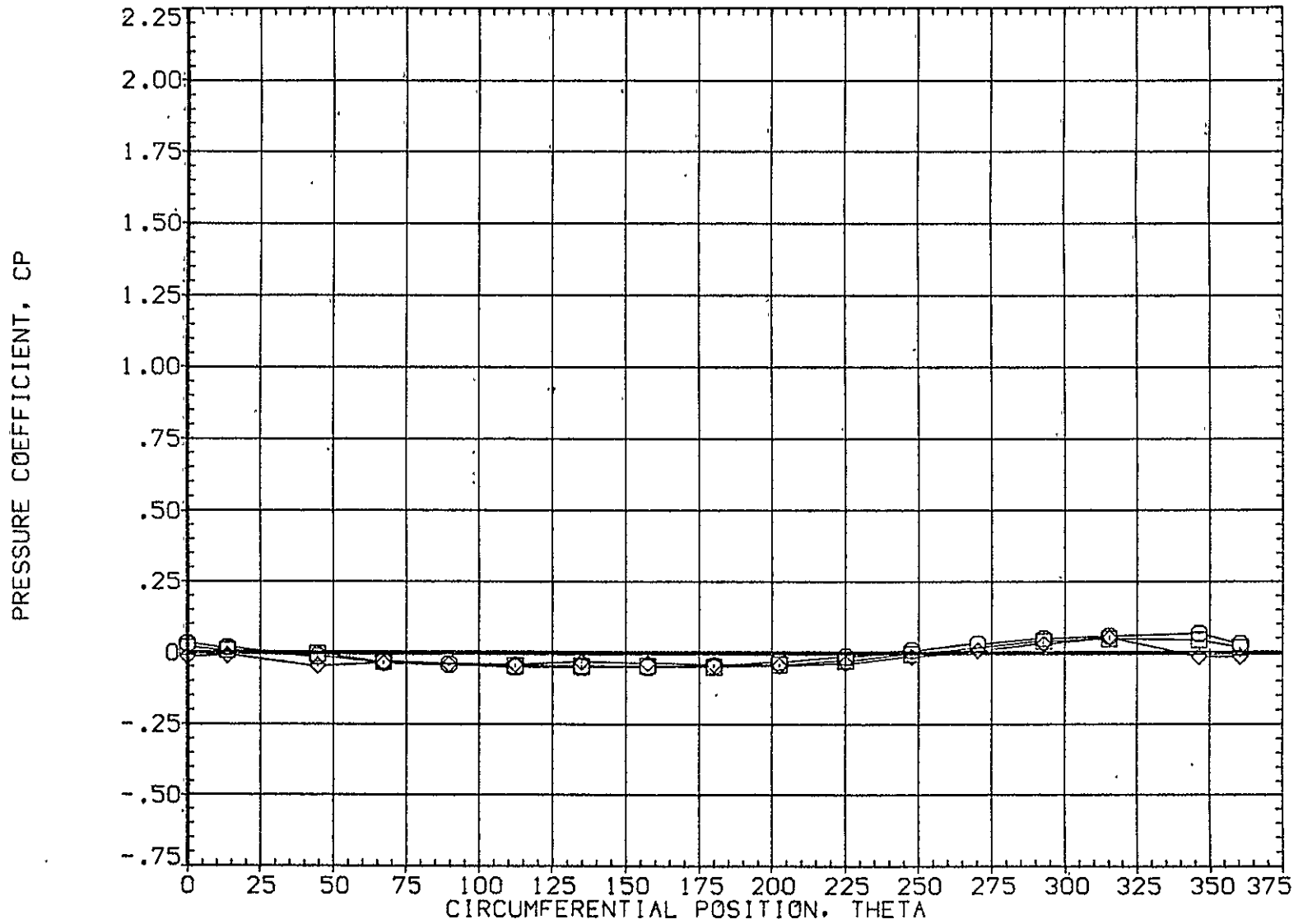


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A091)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.360	3.480	.000	.000	.000
□	.735			1.000		315.000
◇	.860					

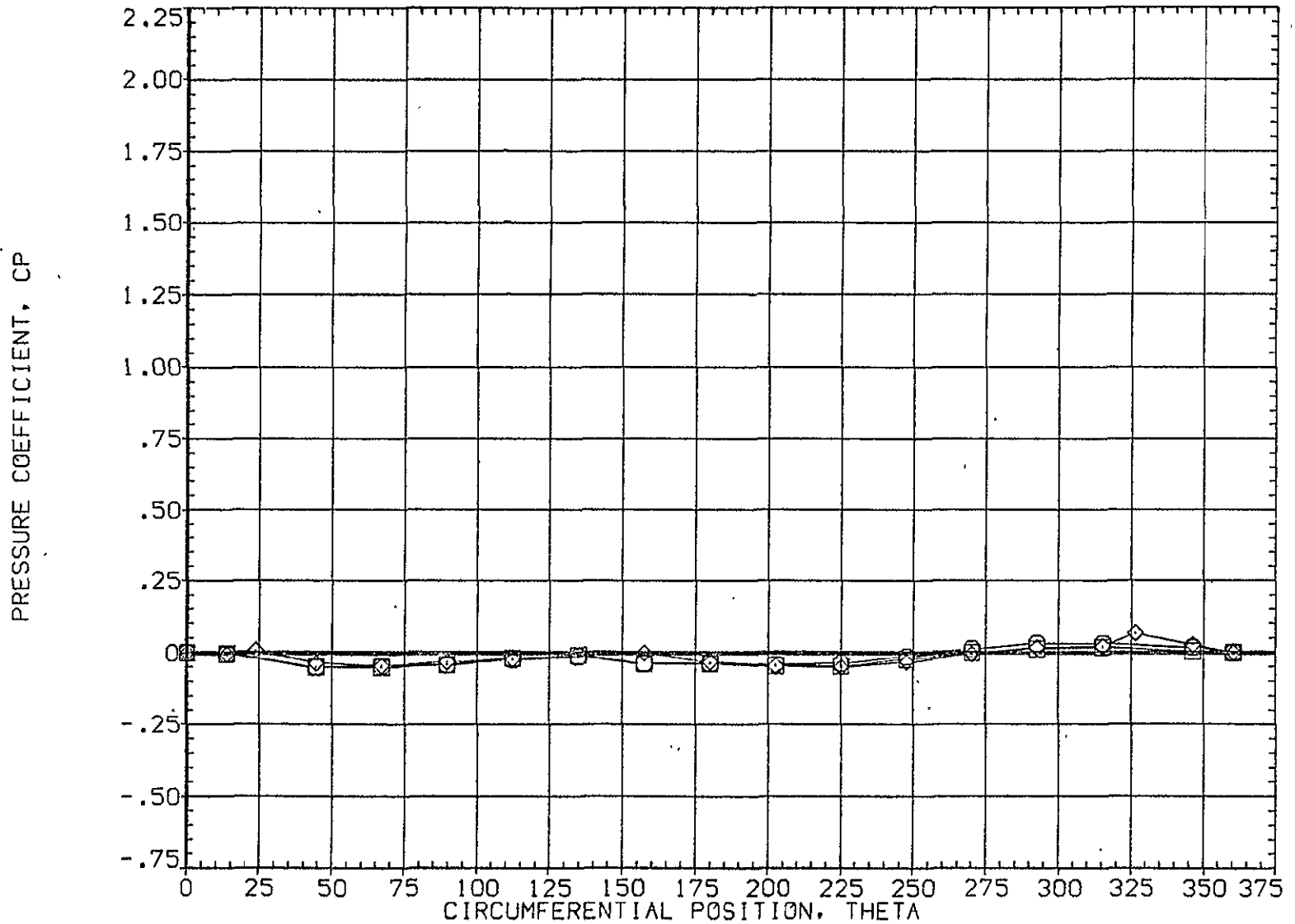


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-8.360	3.480	.000	.000	.000
□	.923			1.000		315.000
◇	.954					

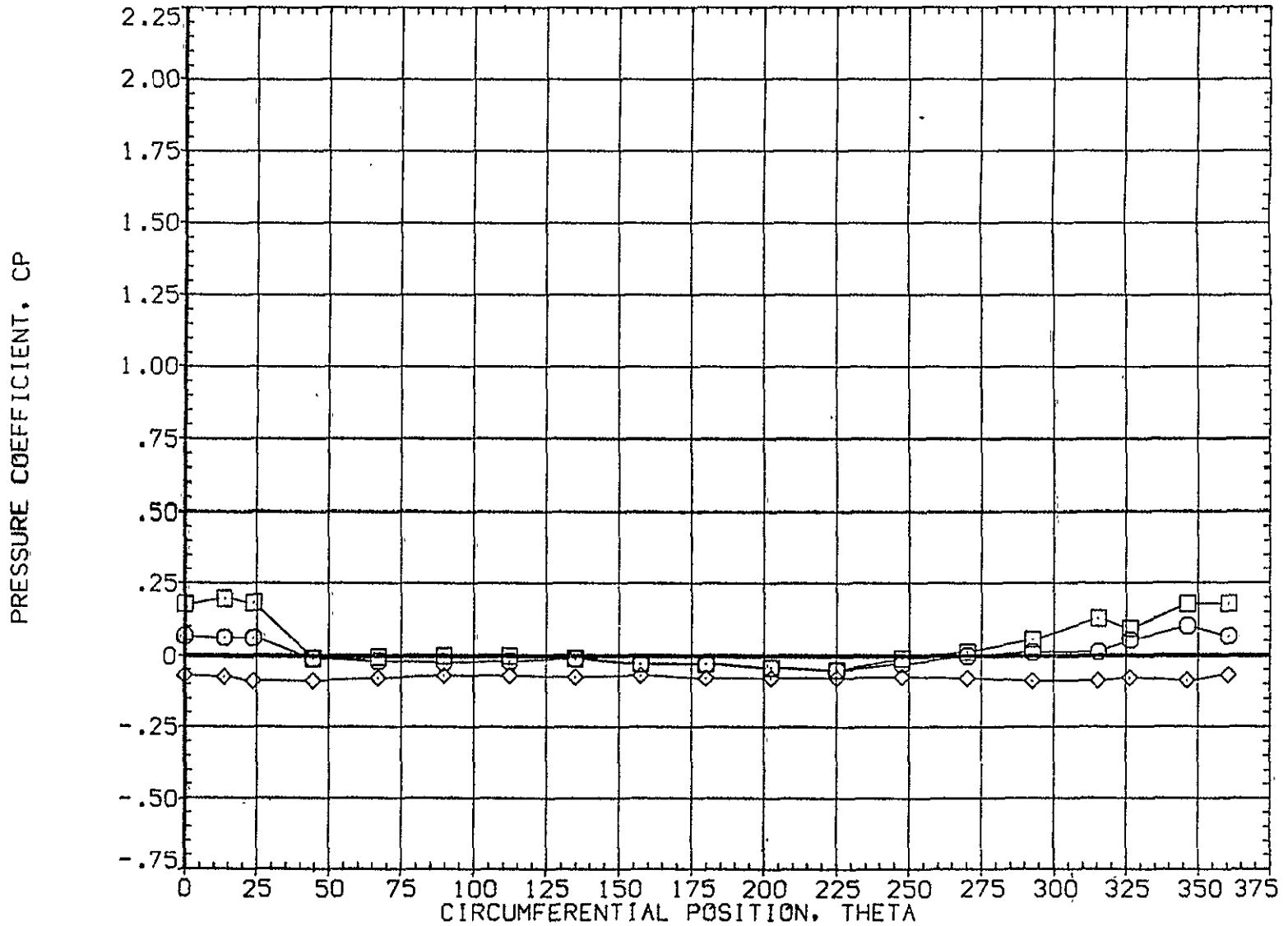


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.330	3.480	.000	.000	.000
□	.108			1.000		315.000
◇	.162					

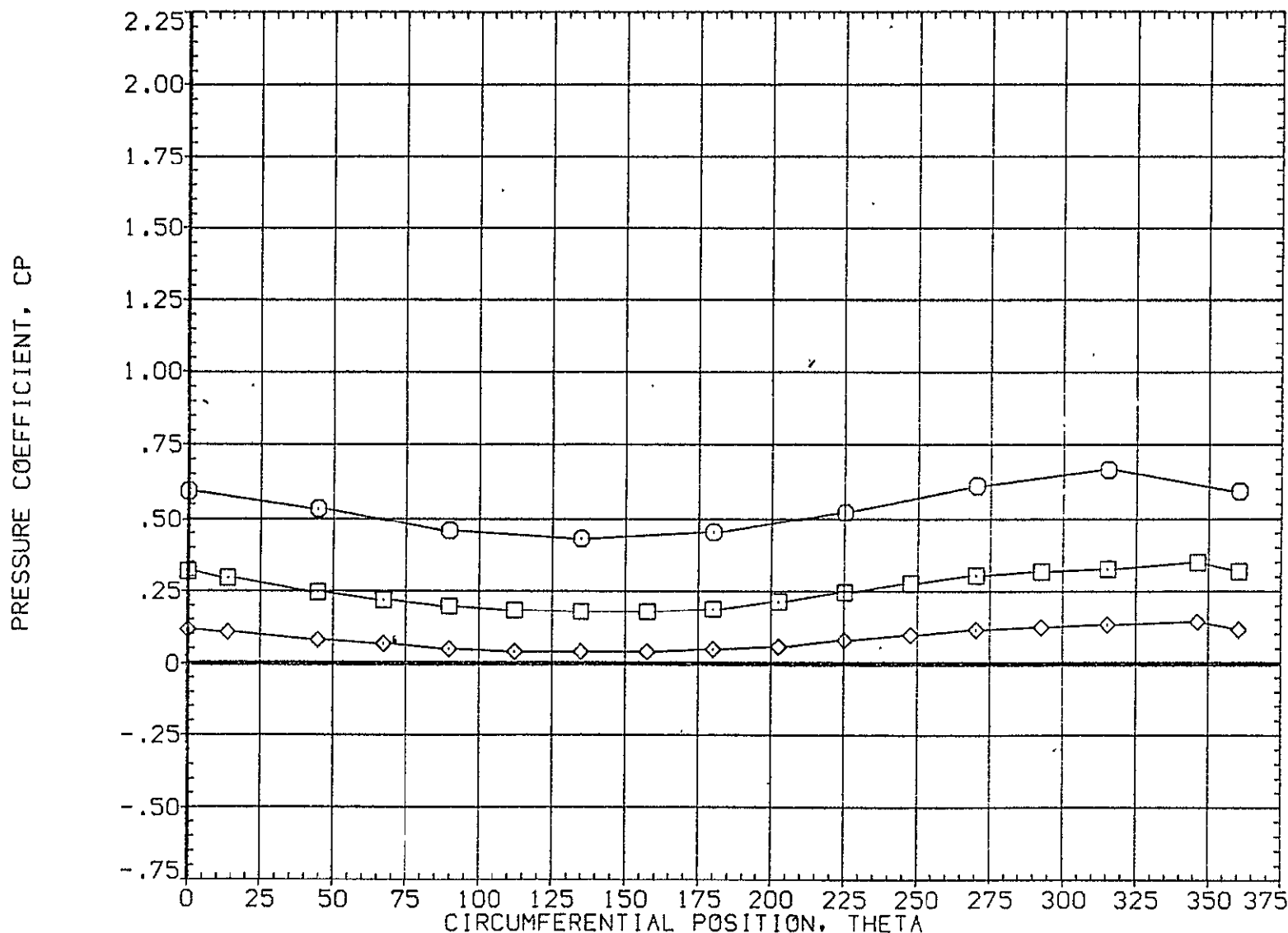


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-4.330	3.480	.000	.000	.000
□	.322			1.000		315.000
◇	.518					

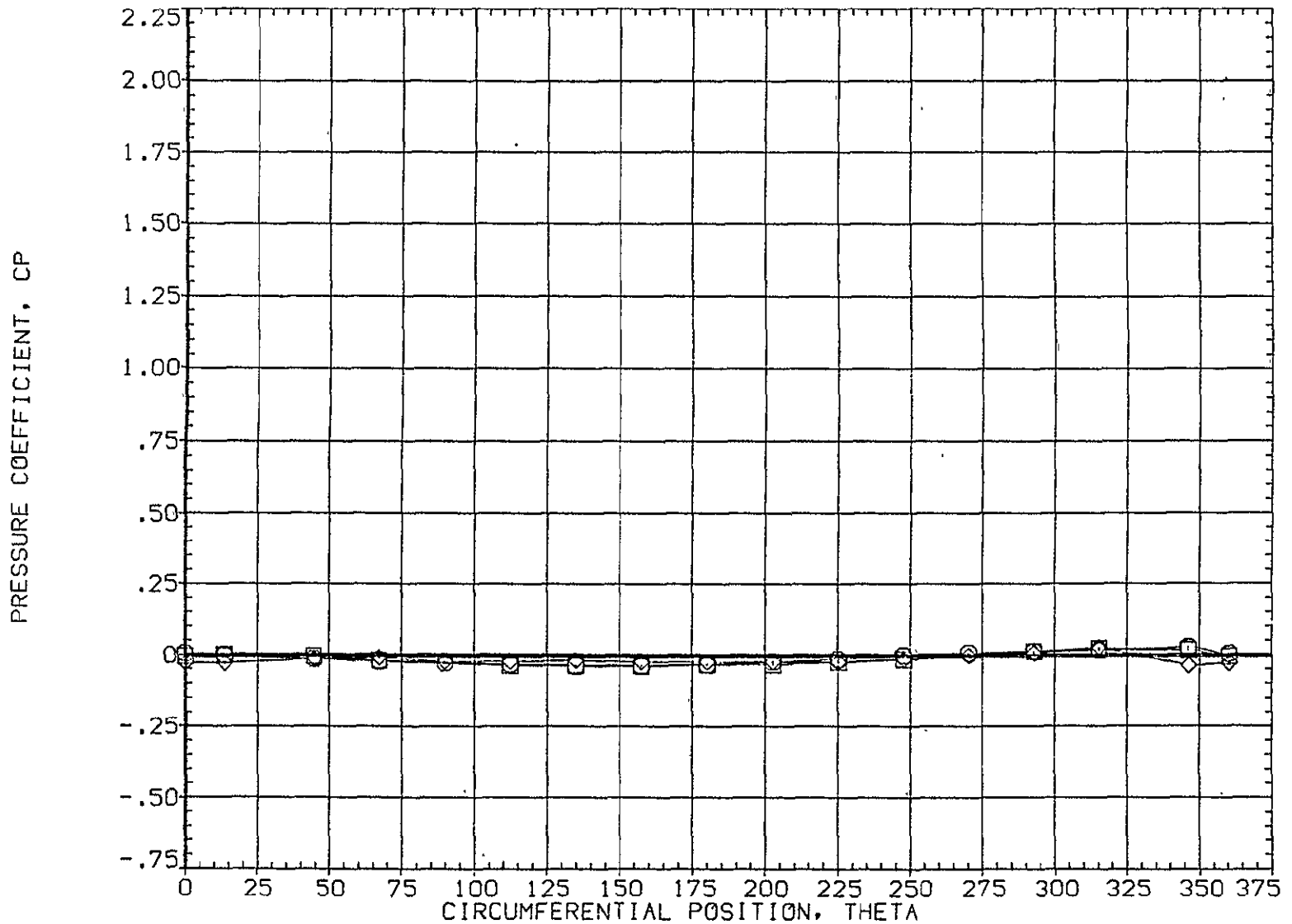


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.330	3.480	.000	.000	.000
□	.735			1.000		315.000
◇	.860					

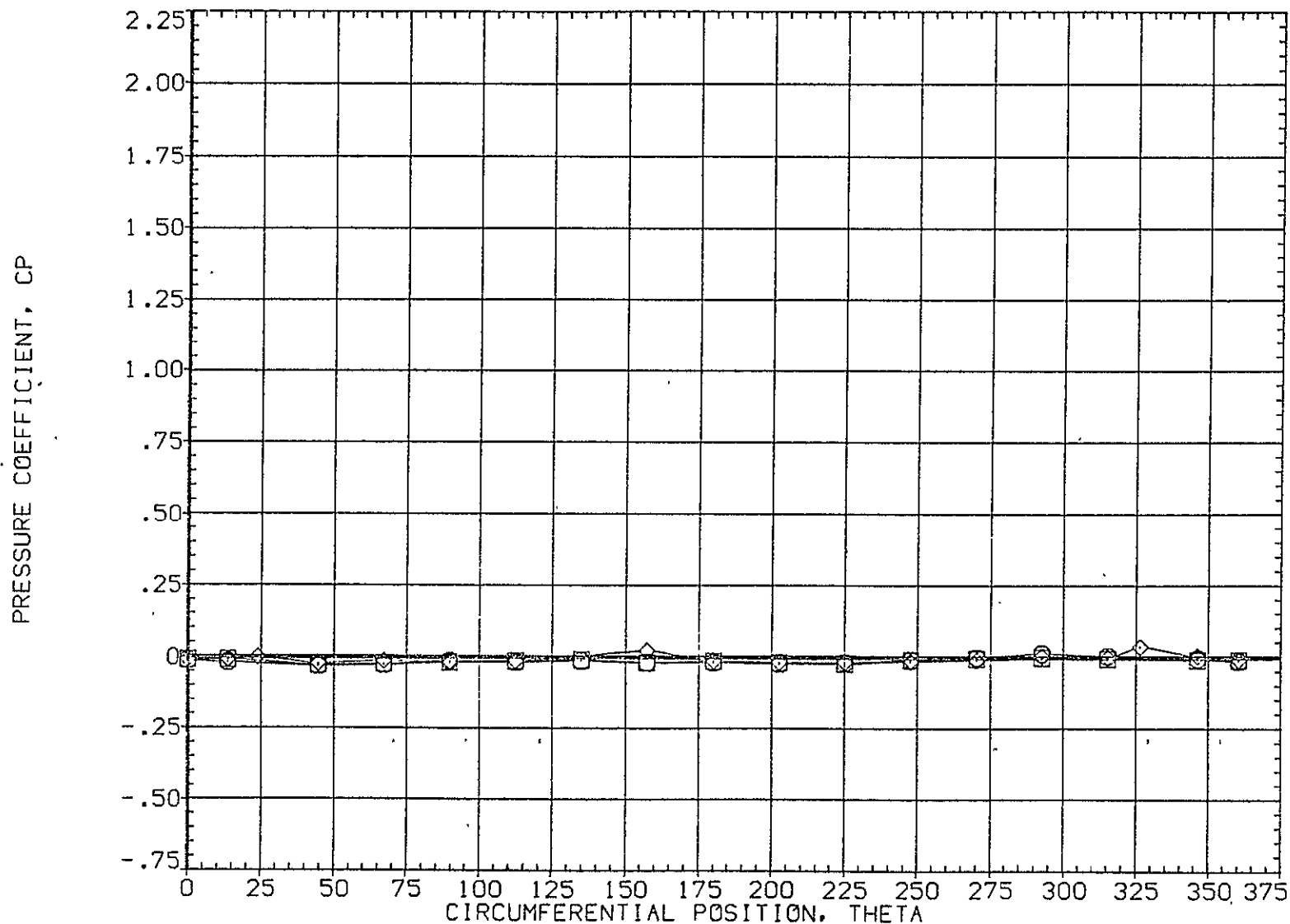


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.330	3.480	.000	.000	.000
□	.923			1.000		315.000
◇	.954					

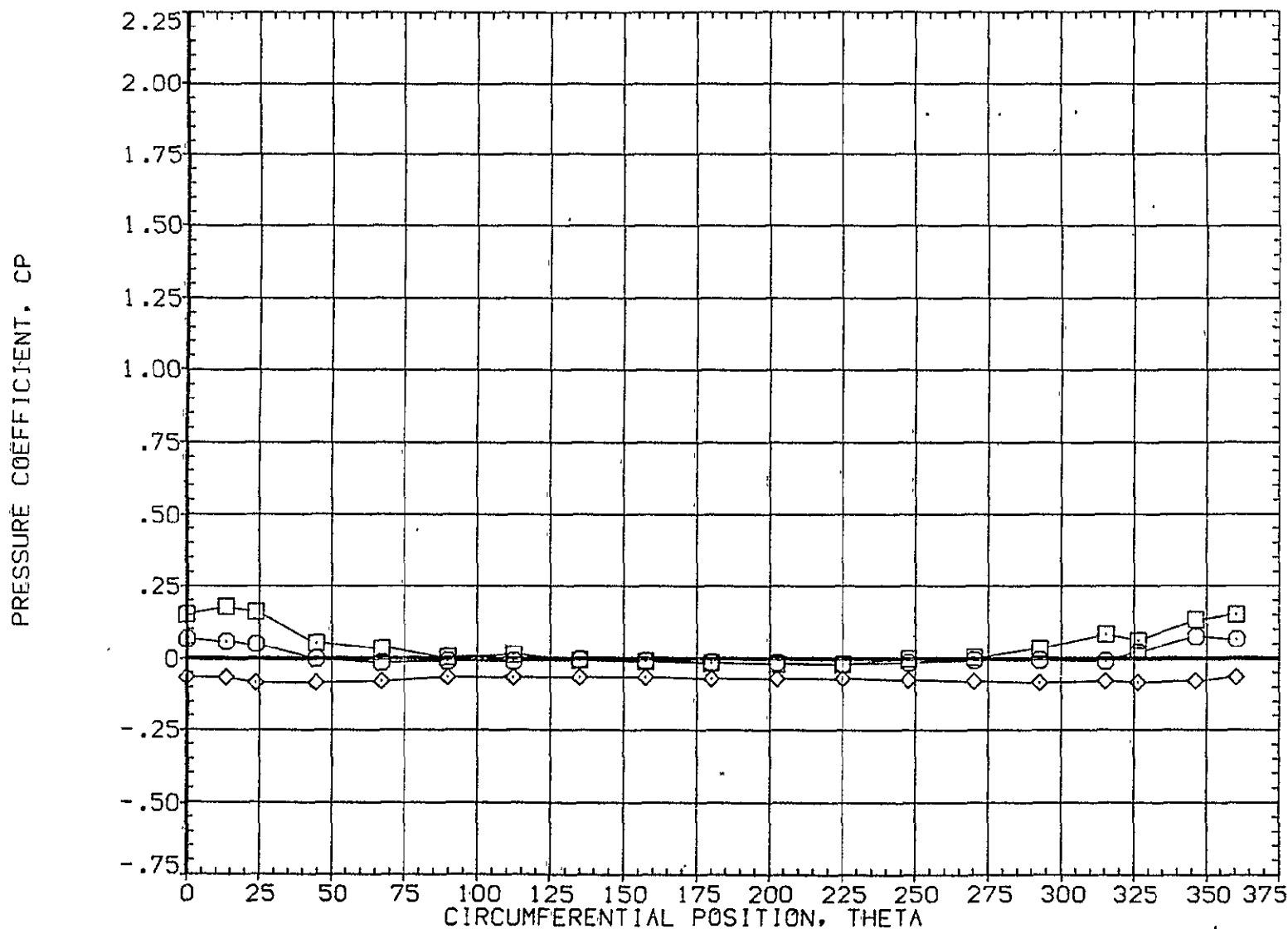


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	3.480	.000	.000	.000
□	.108			1.000		315.000
◇	.162					

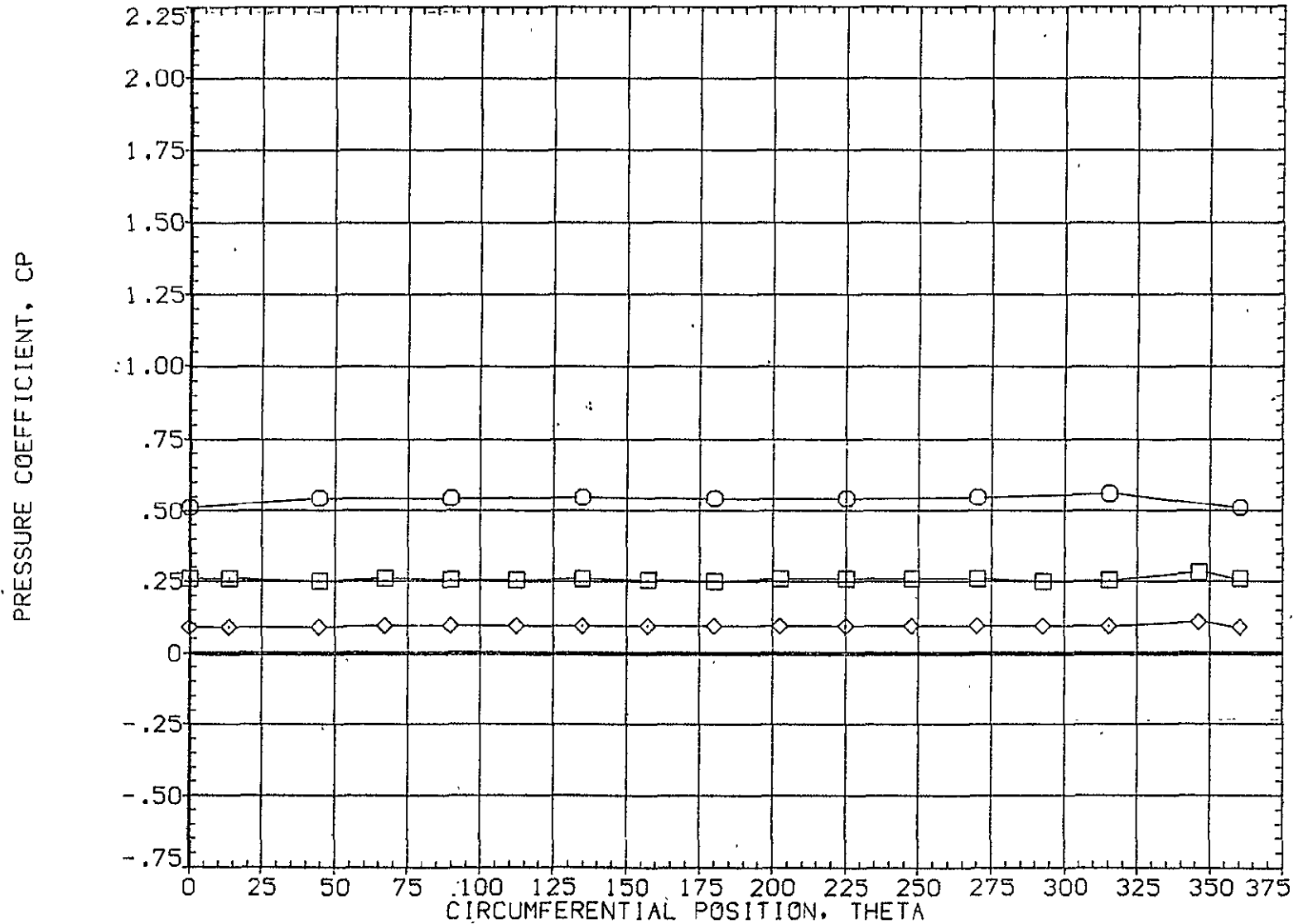


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL

○
□
◇

X/LB

.216

.322

.518

ALPHA

-.280

MACH

3.480

PARAMETRIC VALUES

BETA

.000

OFFSET

.000

MOUNT

1.000

PHI

315.000

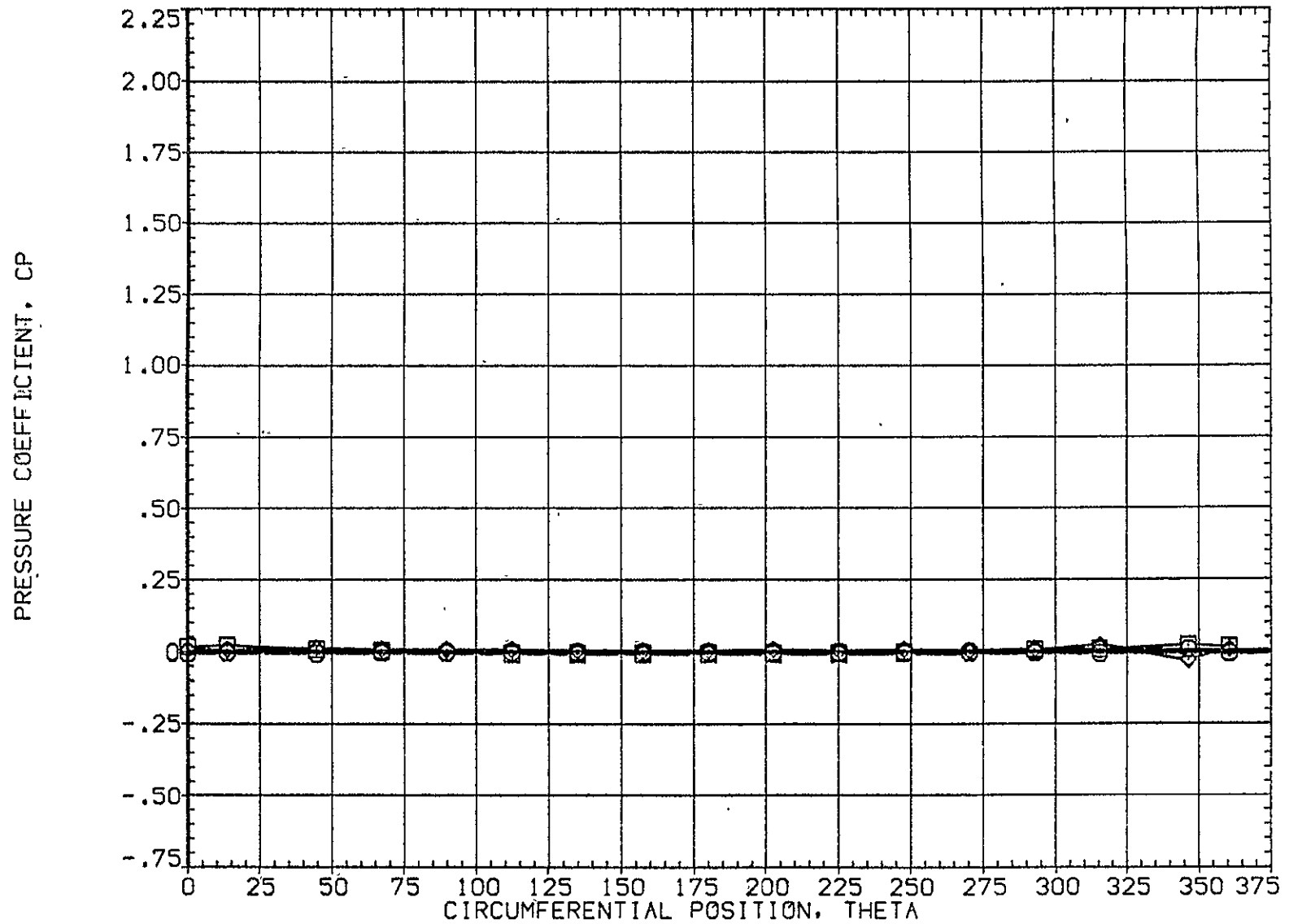


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	3.480	---	.000	.000
□	.735			MOUNT	1.000	315.000
◇	.860					

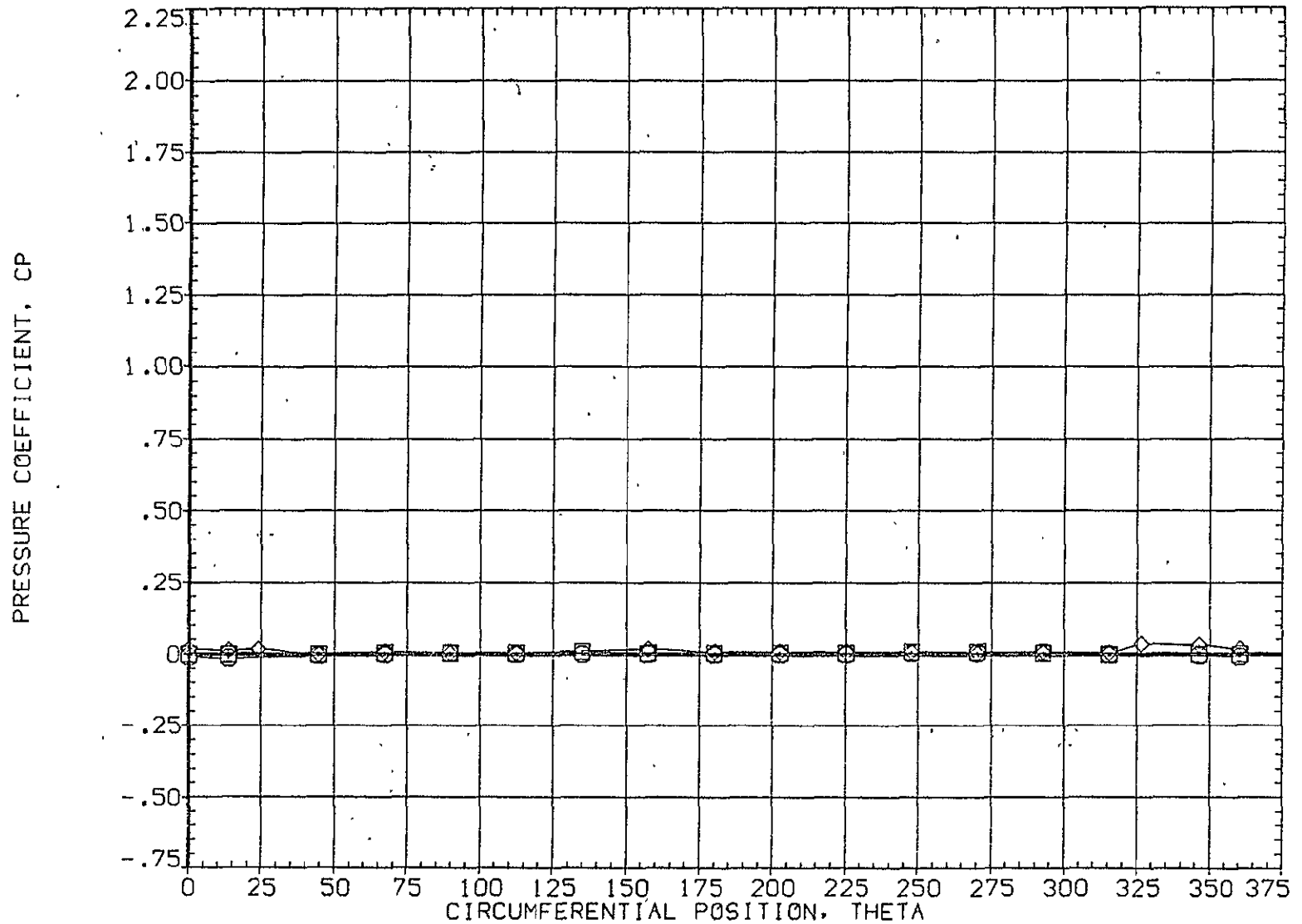


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-.280	3.480	MOUNT	1.000	PHI	315.000
□	.923						
◇	.954						

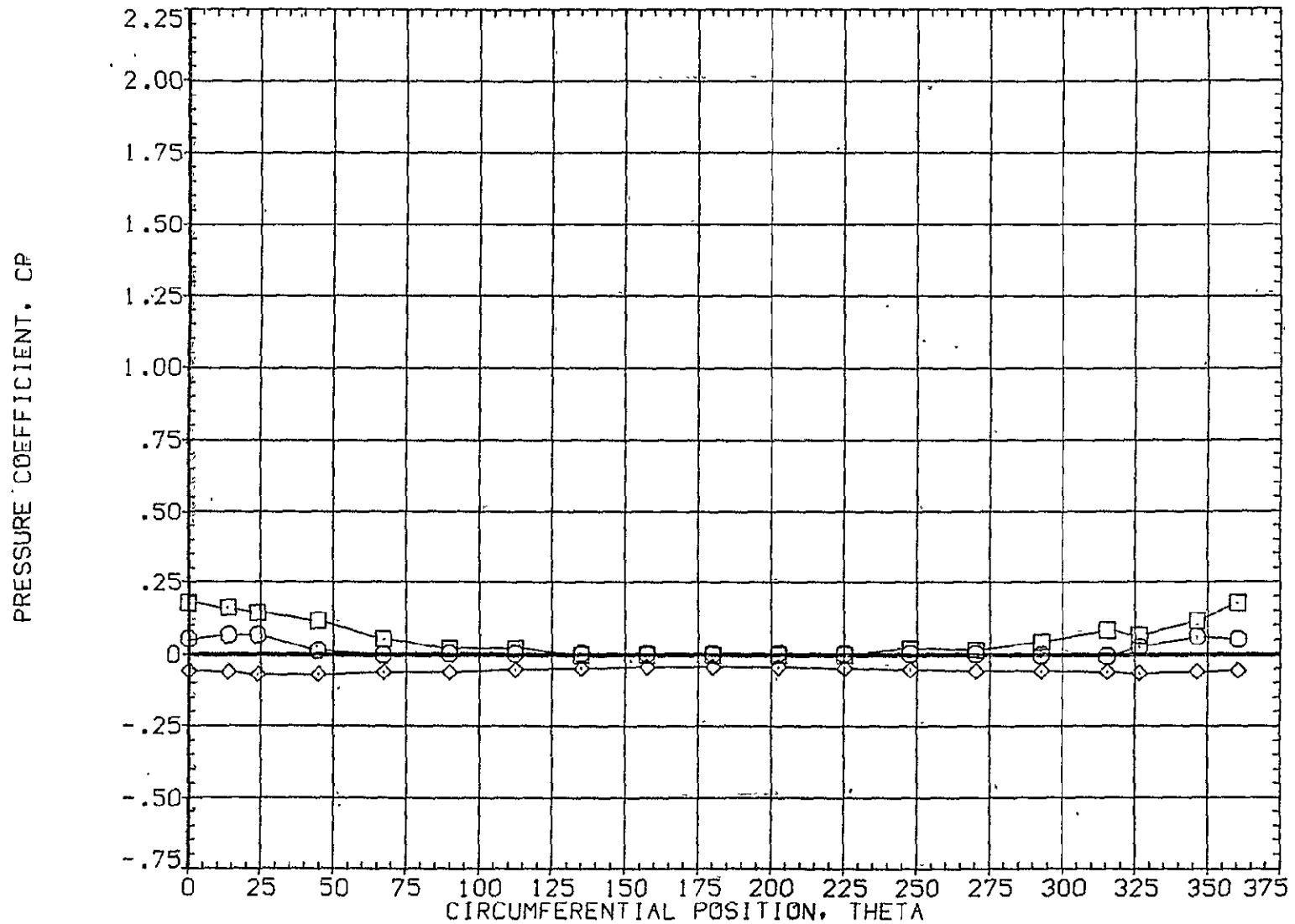


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.770	3.480	.000	.000	.000
□	.108			1.000		315.000
◇	.162					

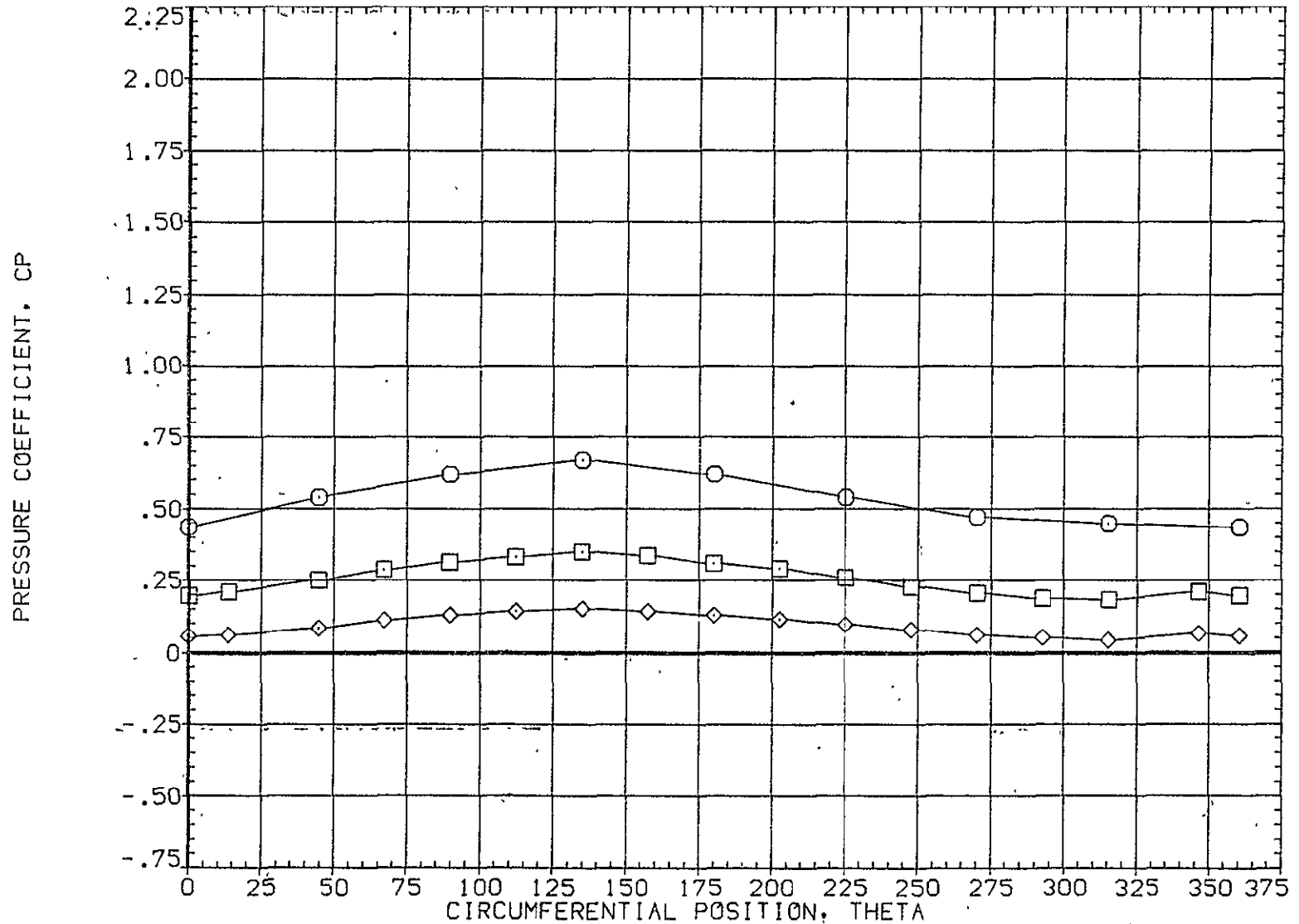


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.770	3.480	.000	.000	.000
□	.322			1.000		315.000
◇	.518					

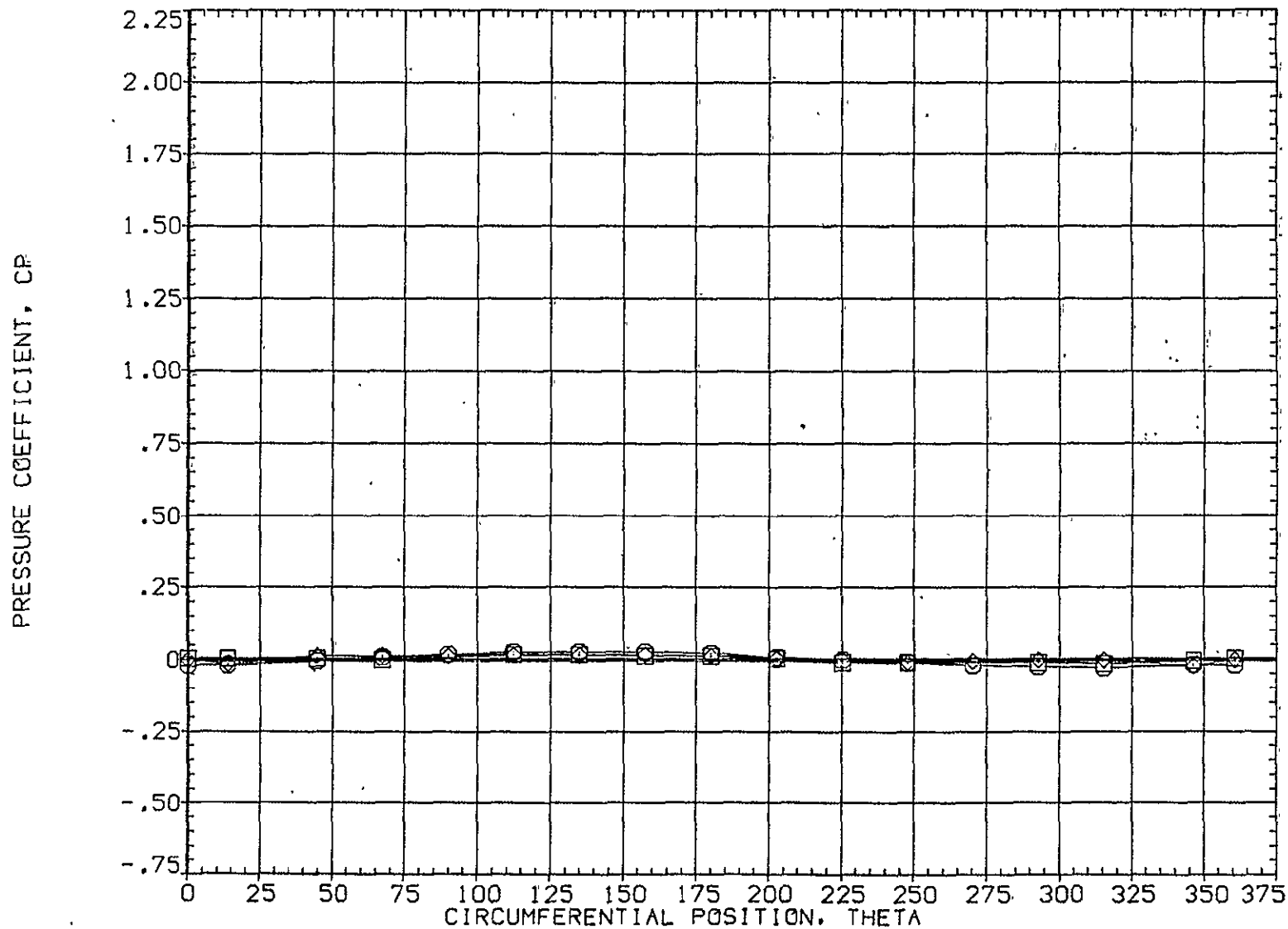


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
◇	.610	3.770	3.480	.000	.000		.000
□	.735			1.000			315.000
◇	.860						

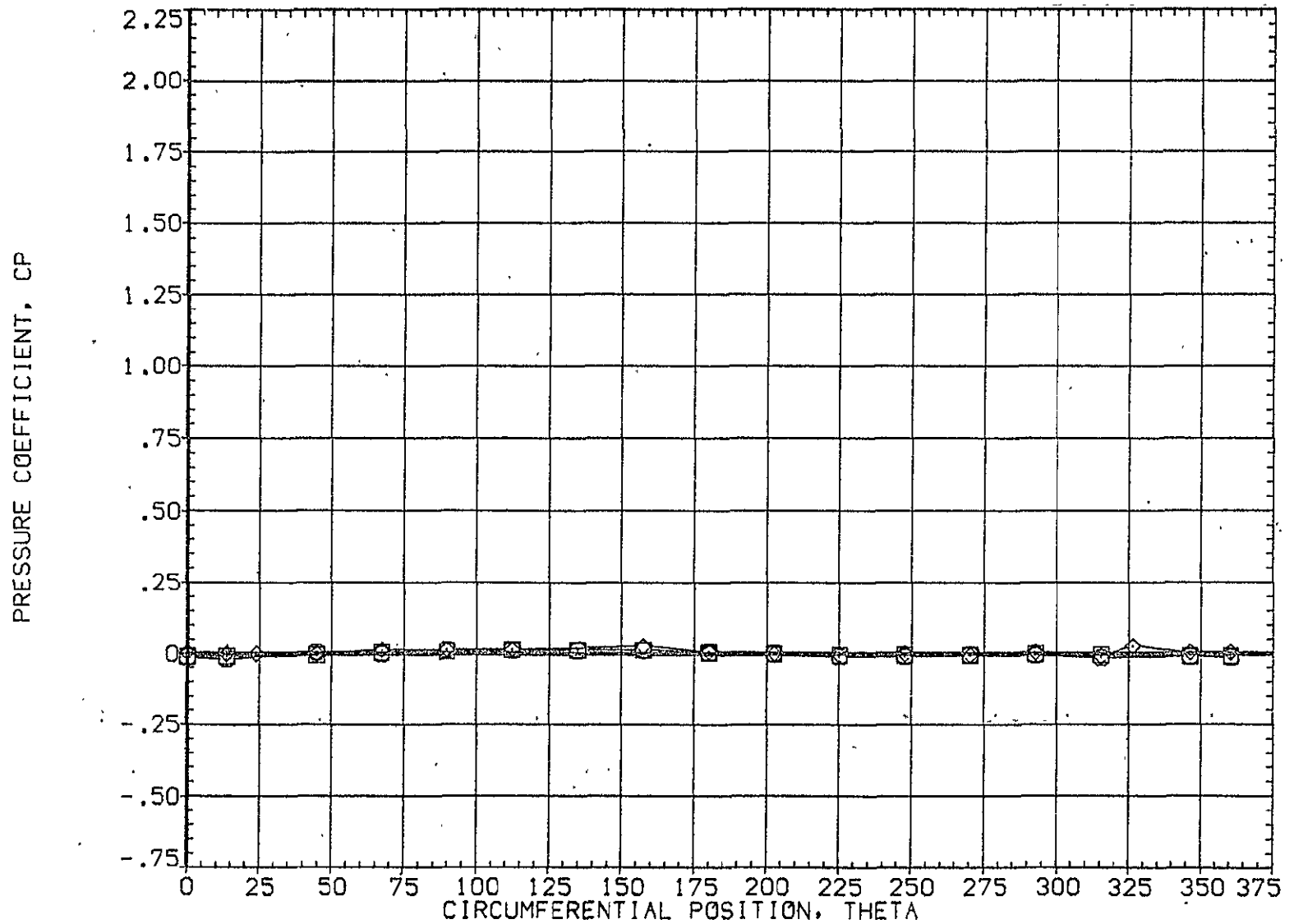


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	3.770	3.480	.000	.000	.000
□	.923			1.000		315.000
◇	.954					

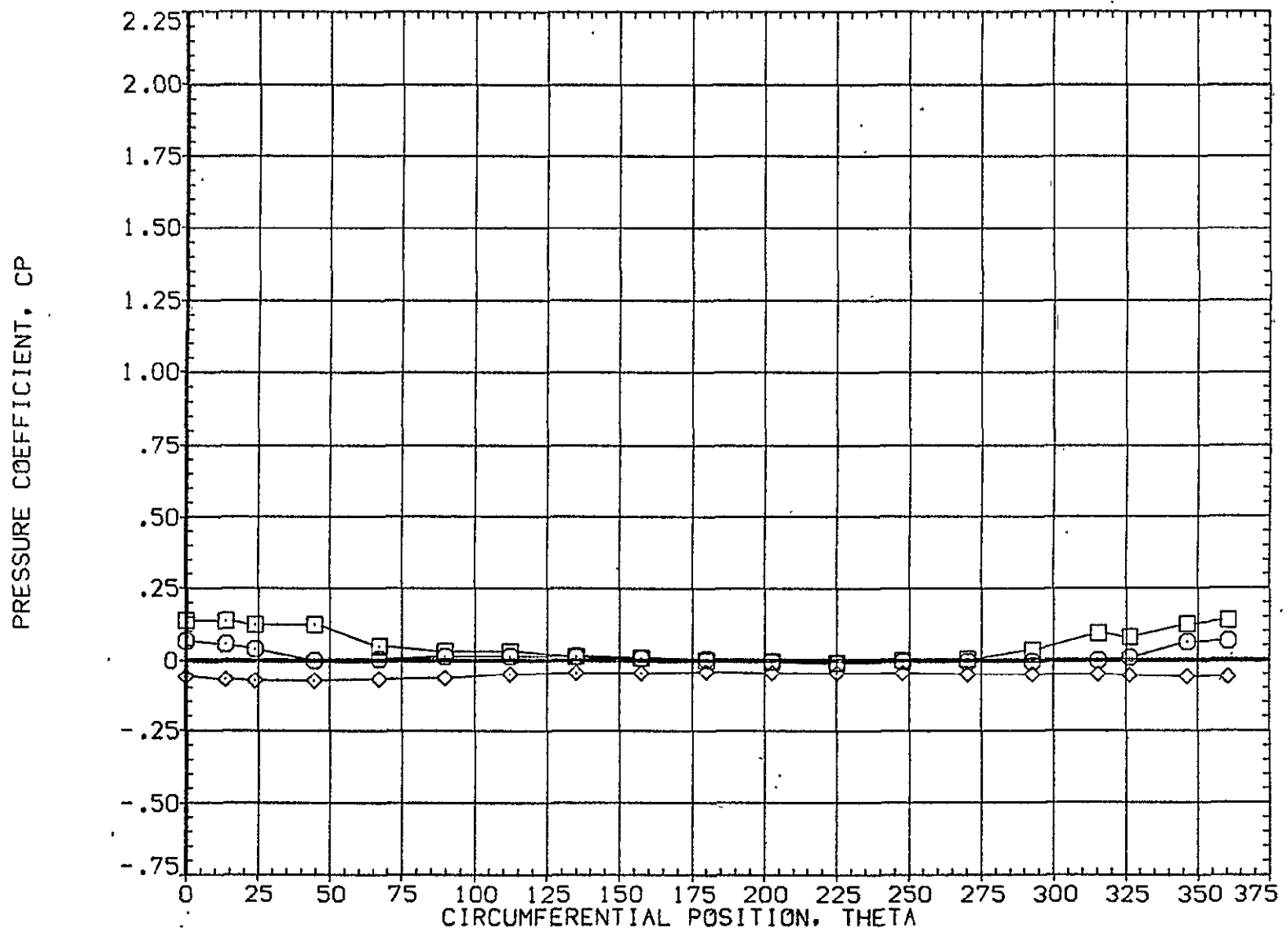


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.600	3.480	MOUNT	1.000	PHI	315.000
□	.108						
◇	.162						

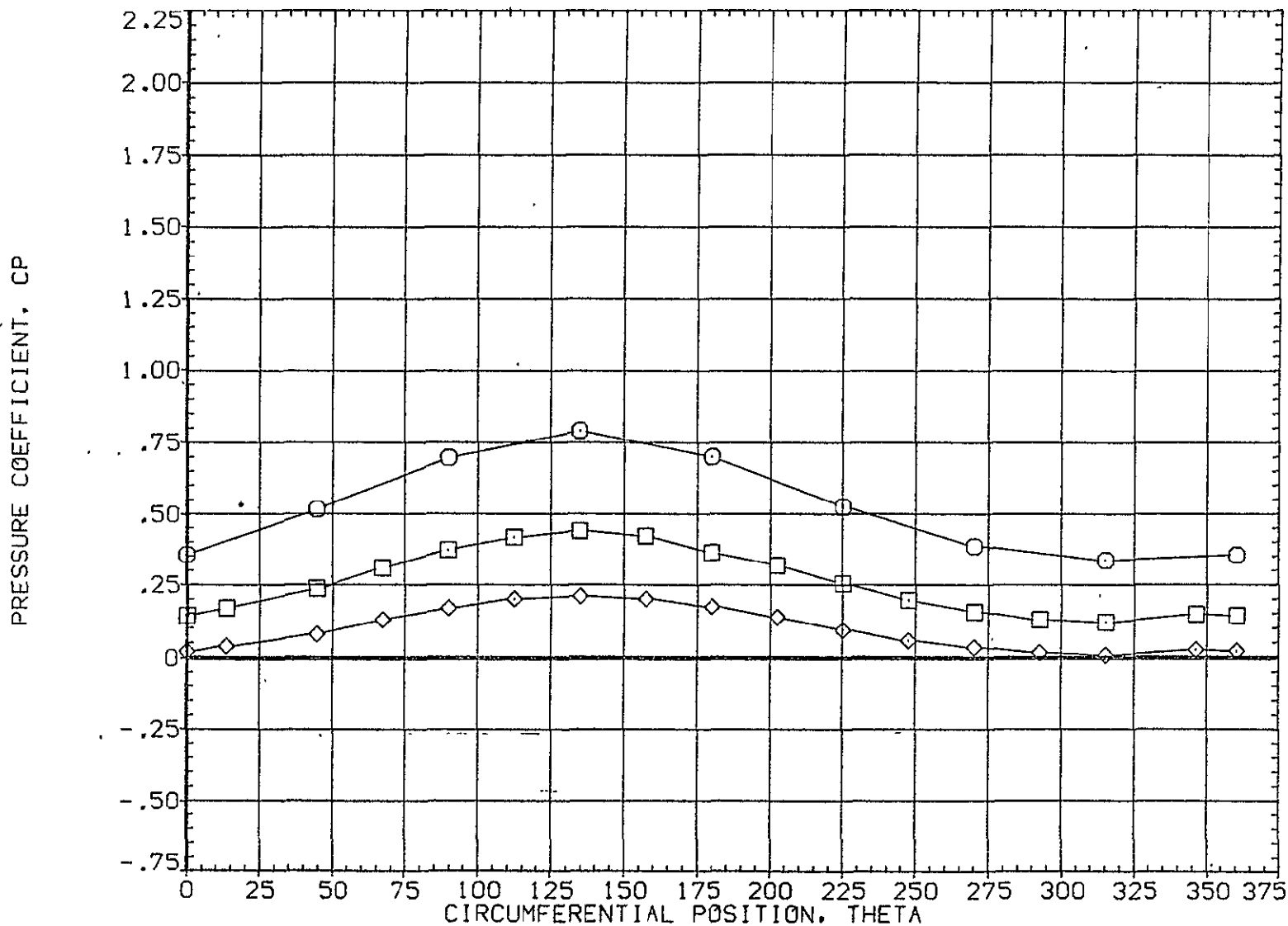


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	7.800	3.480	.000	.000	.000
□	.322			1.000	315.000	
◇	.518					

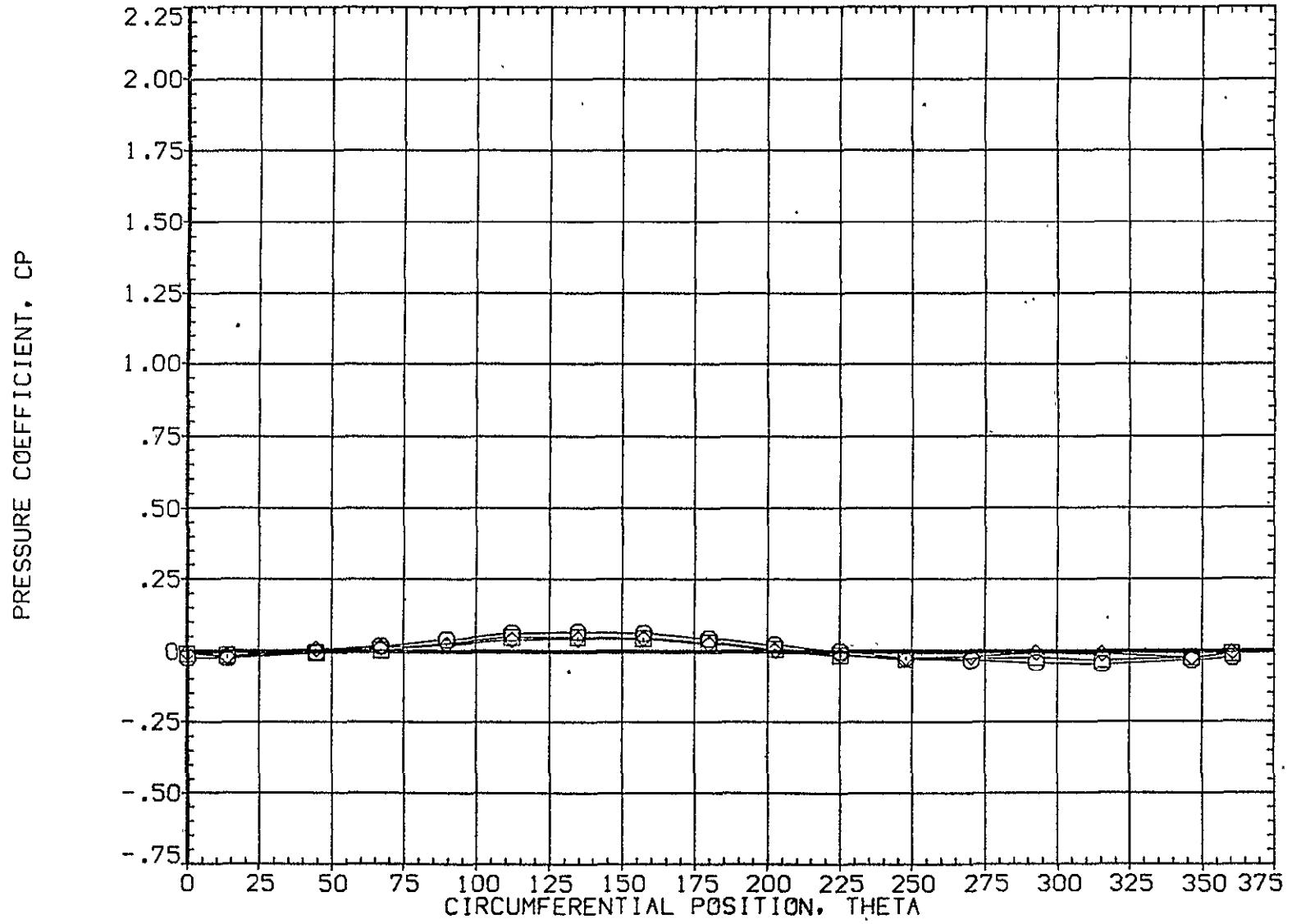


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.800	3.480	MOUNT	1.000	PHI	315.000
□	.735						
◇	.860						

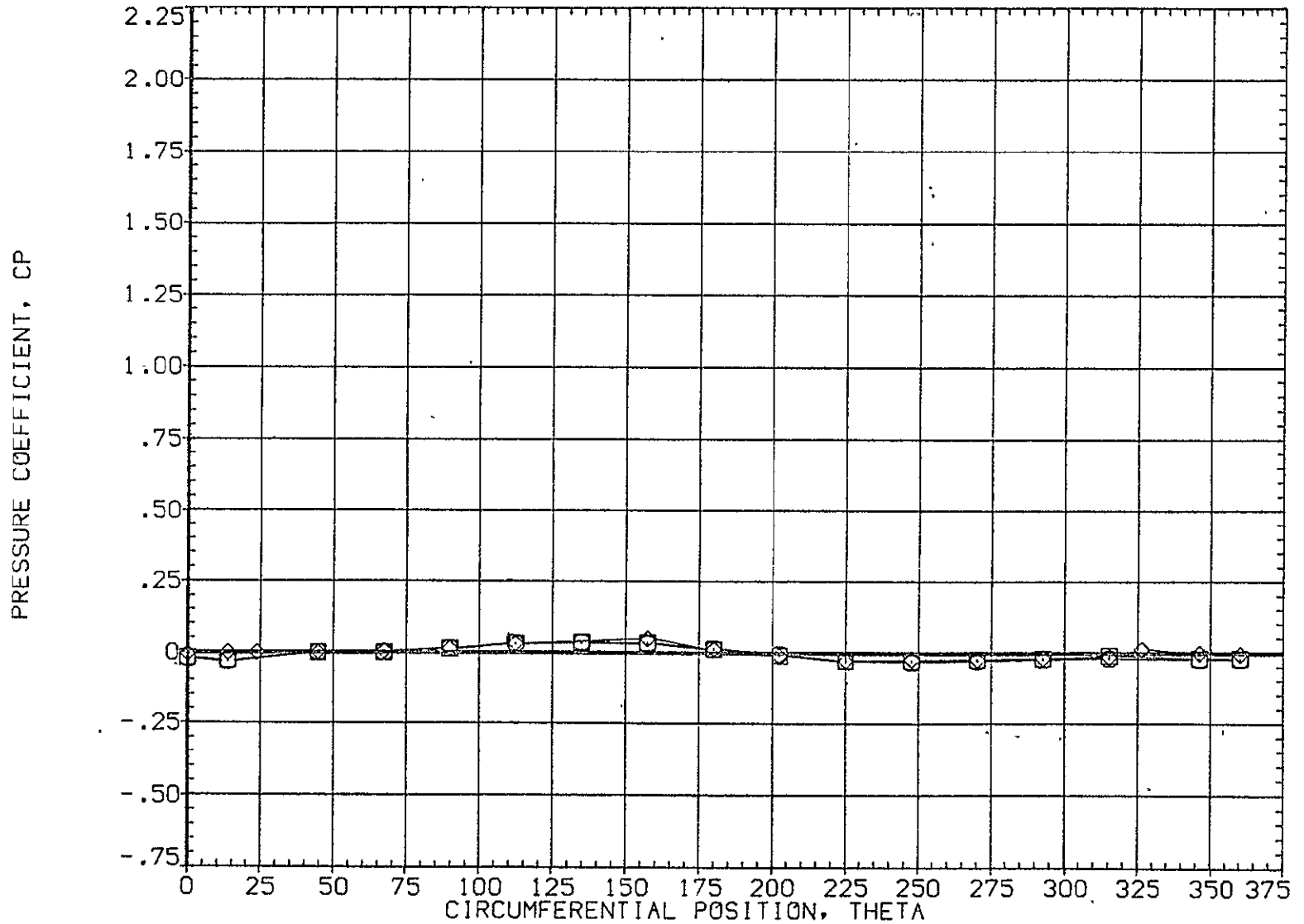


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	7.800	3.480	.000	.000	.000
□	.923			1.000		315.000
◇	.954					

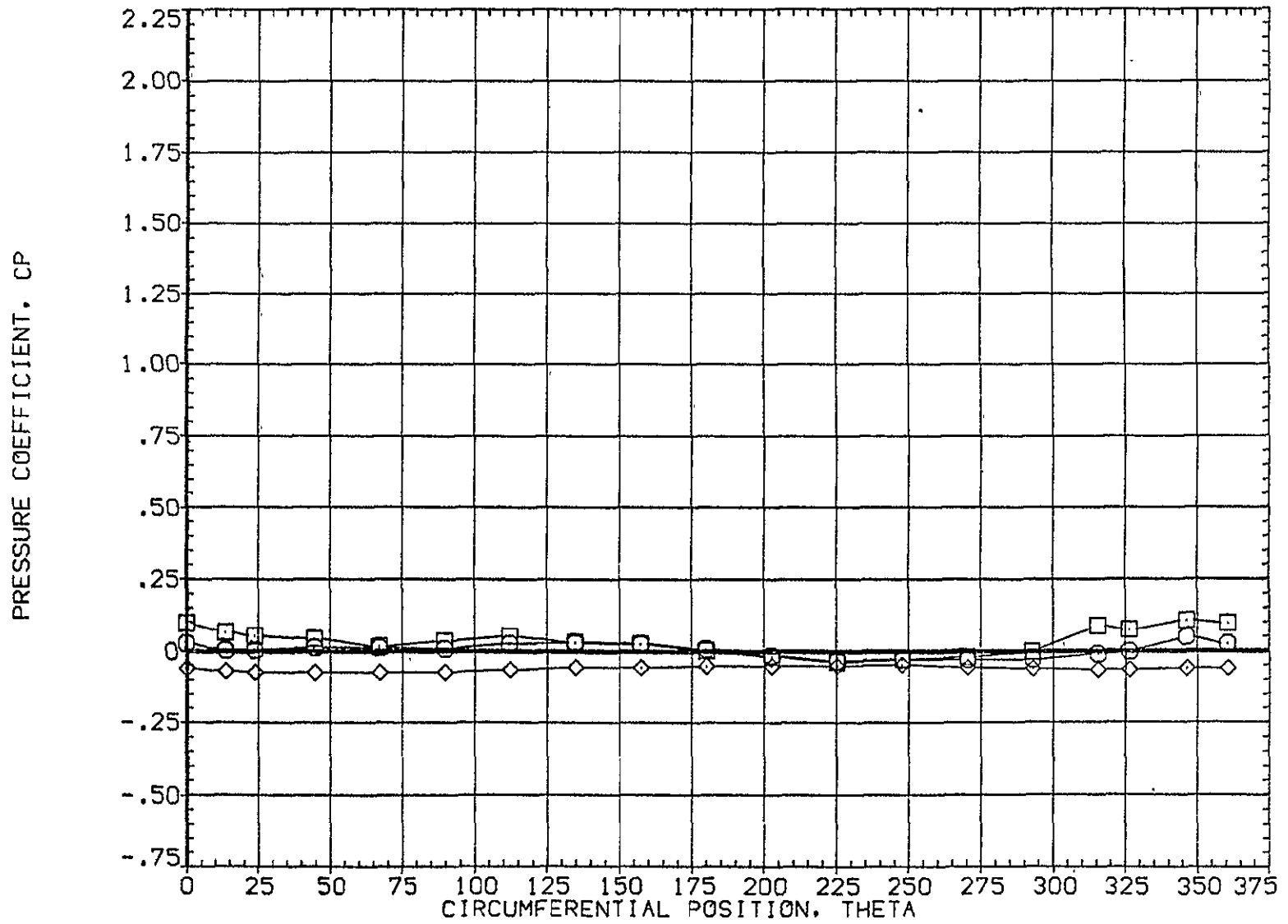


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	.055	12.500	3.480	MOUNT	.000	OFFSET	20.000
□	.108				1.000	PHI	315.000
◇	.162						

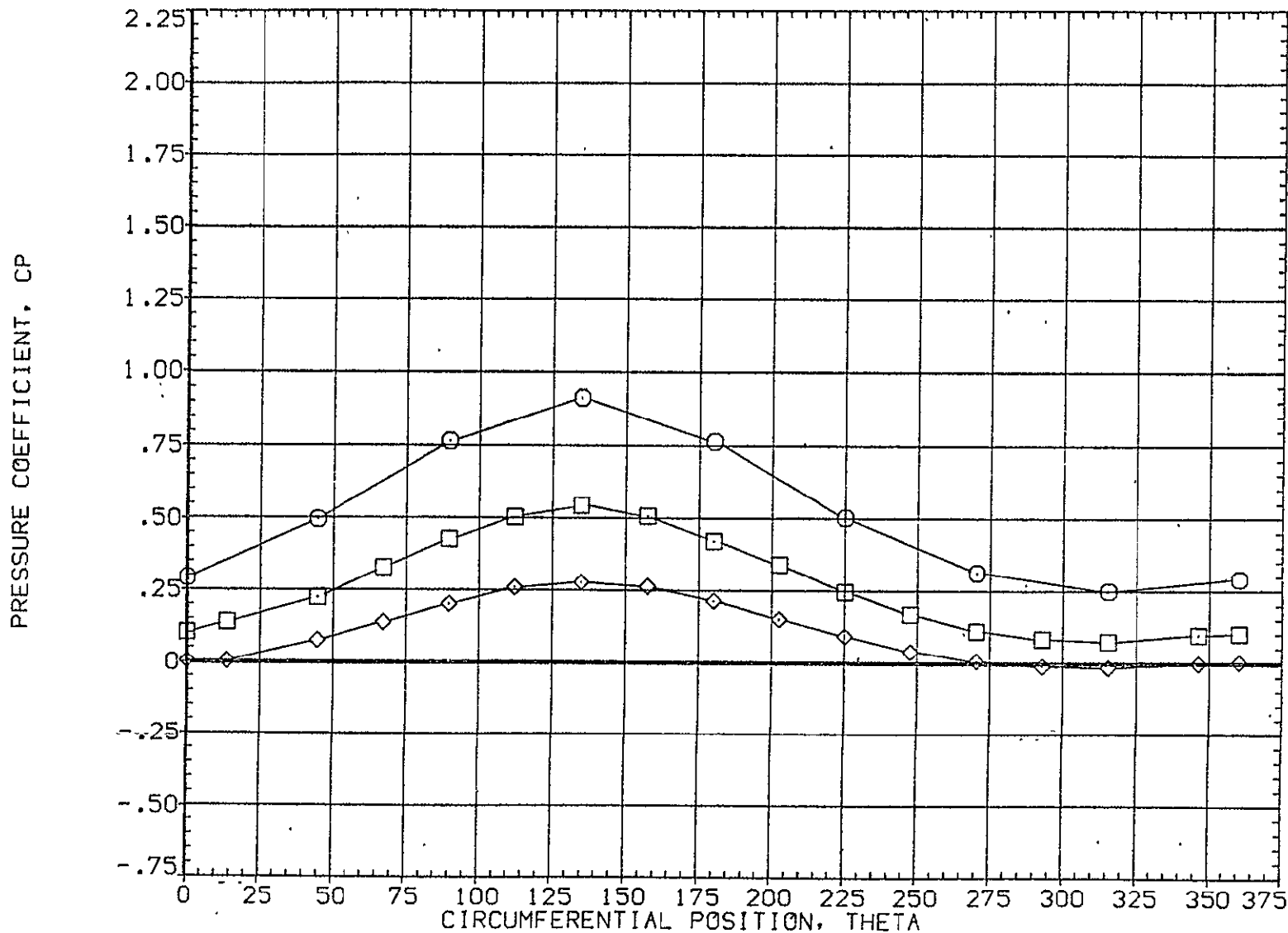


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	12.500	3.480	.000	20.000	
□	.322			1.000	PHI	315.000
◇	.518					

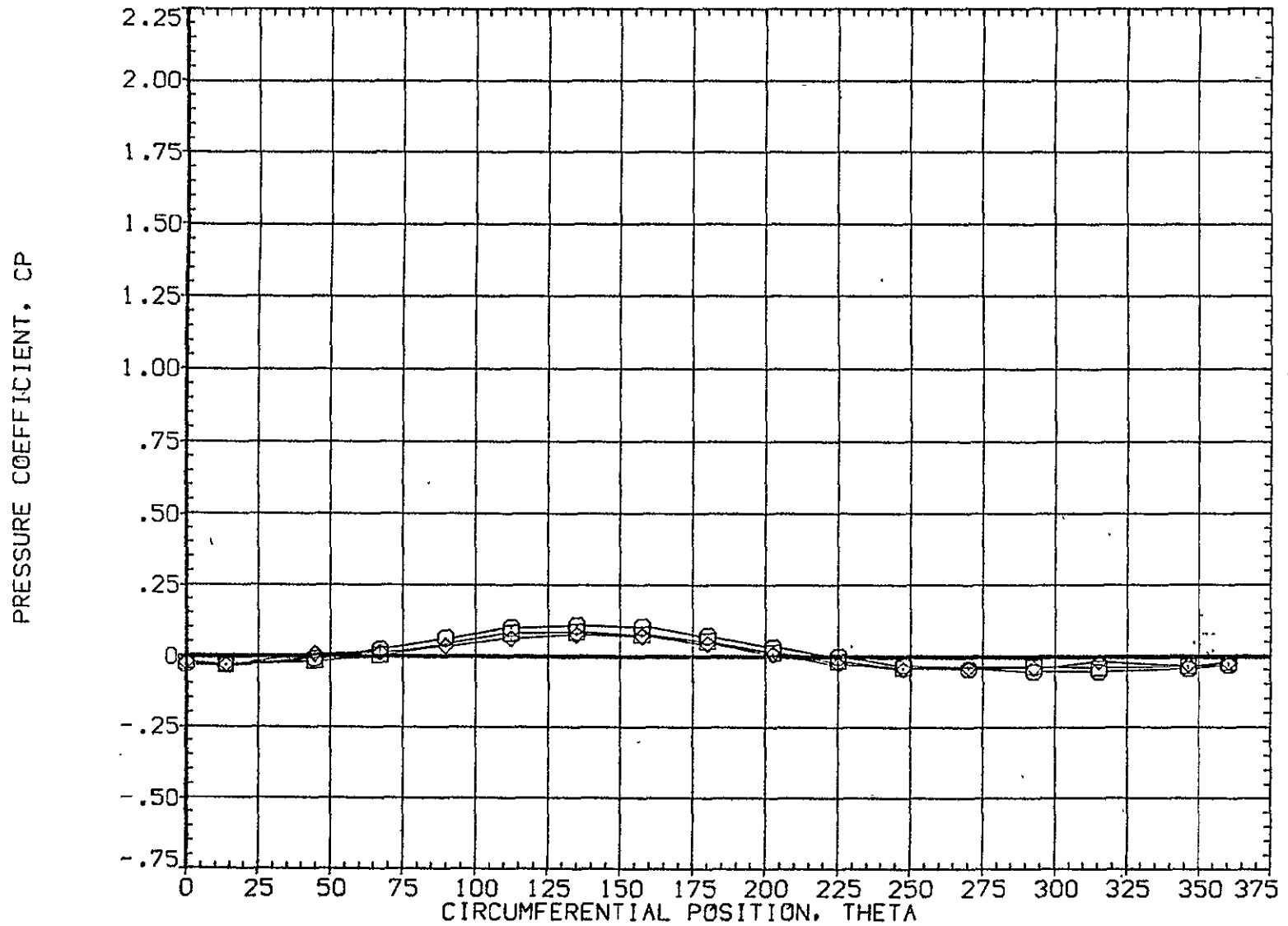


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.610	12.500	3.480	MOUNT	1.000	PHI	315.000
□	.735						
◇	.860						

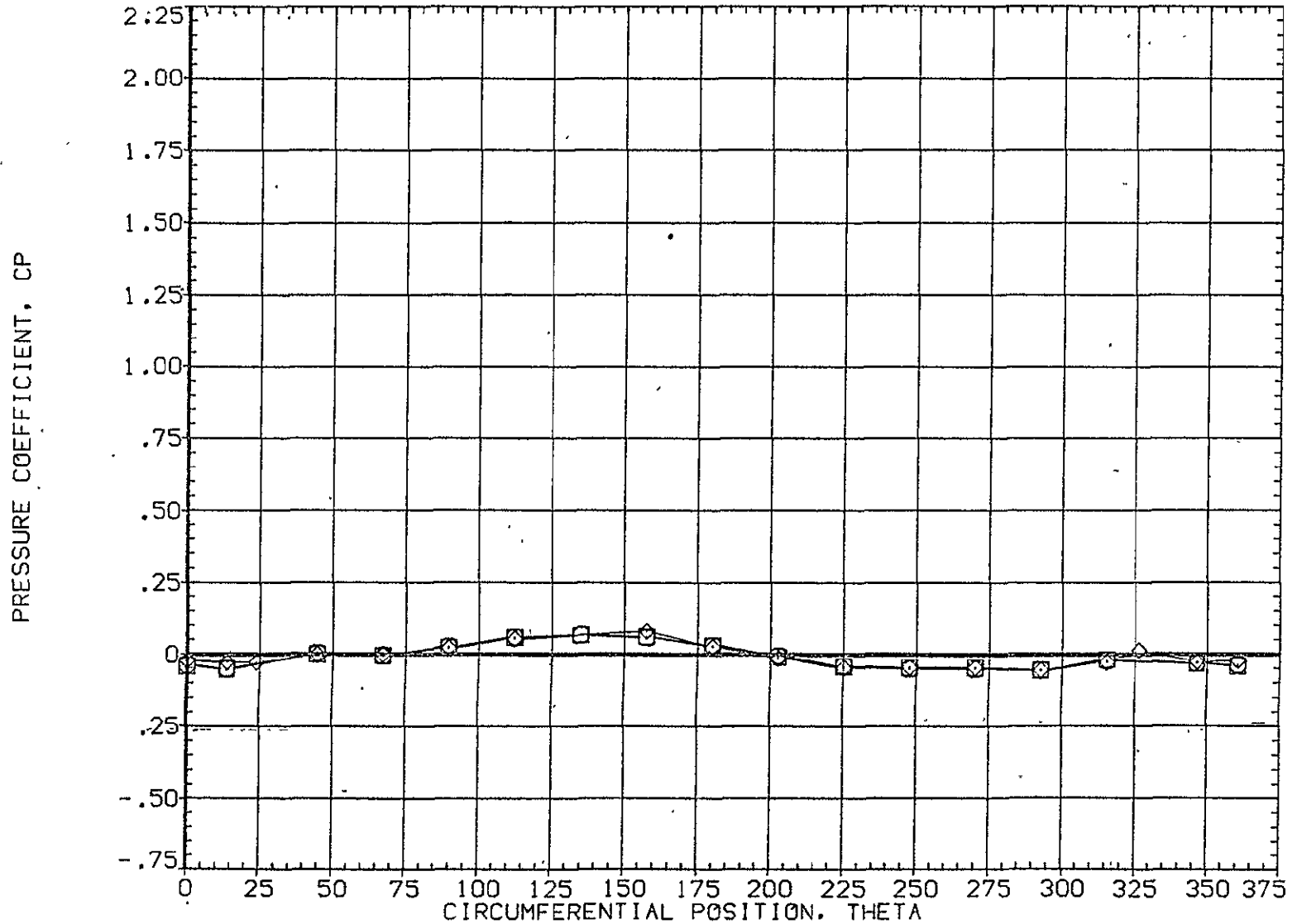


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 12.500
 MACH 3.480

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET 20.000
 PHI 315.000

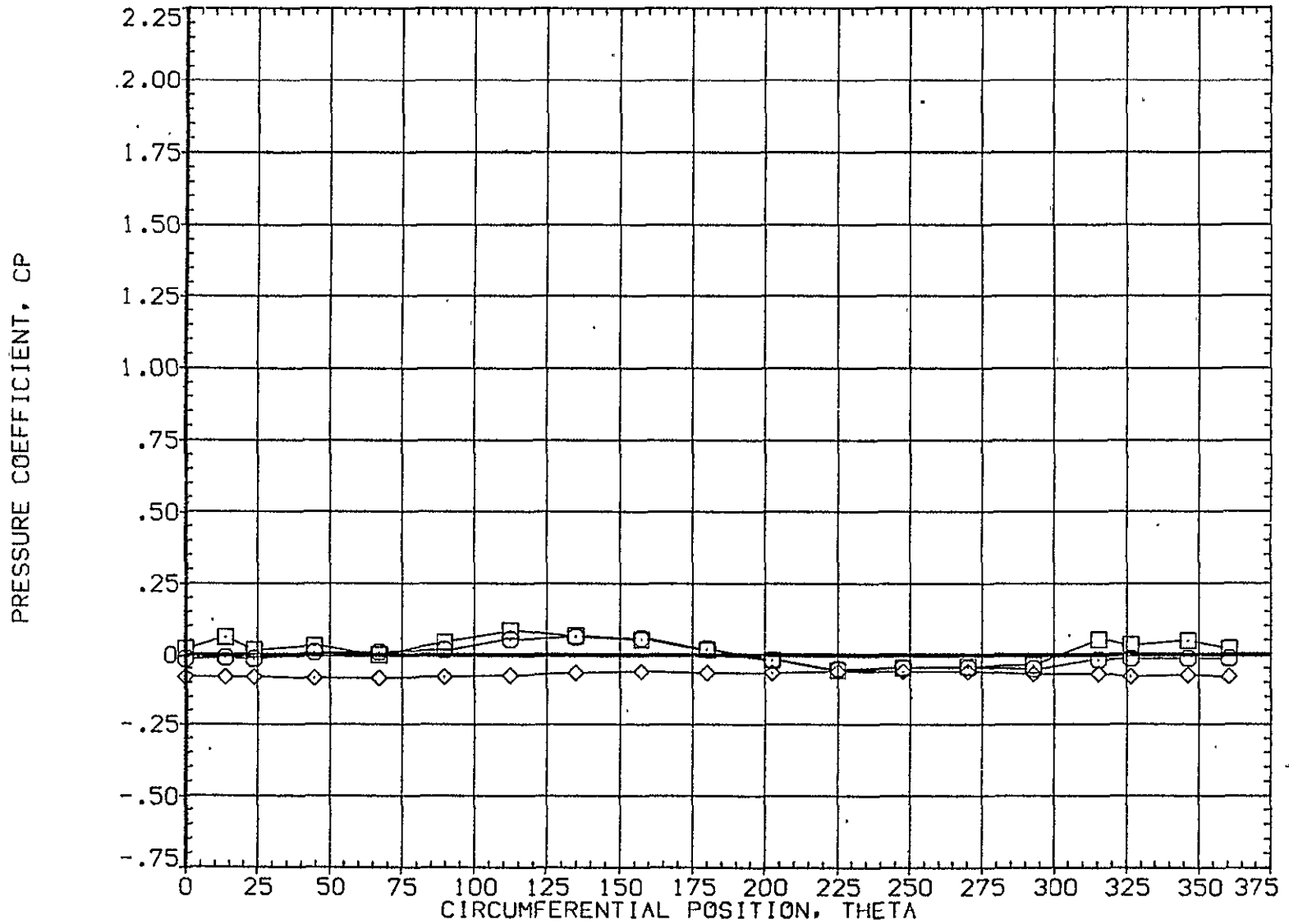


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	16.560	3.480				20.000
□	.108			MOUNT	1.000		315.000
◇	.162						

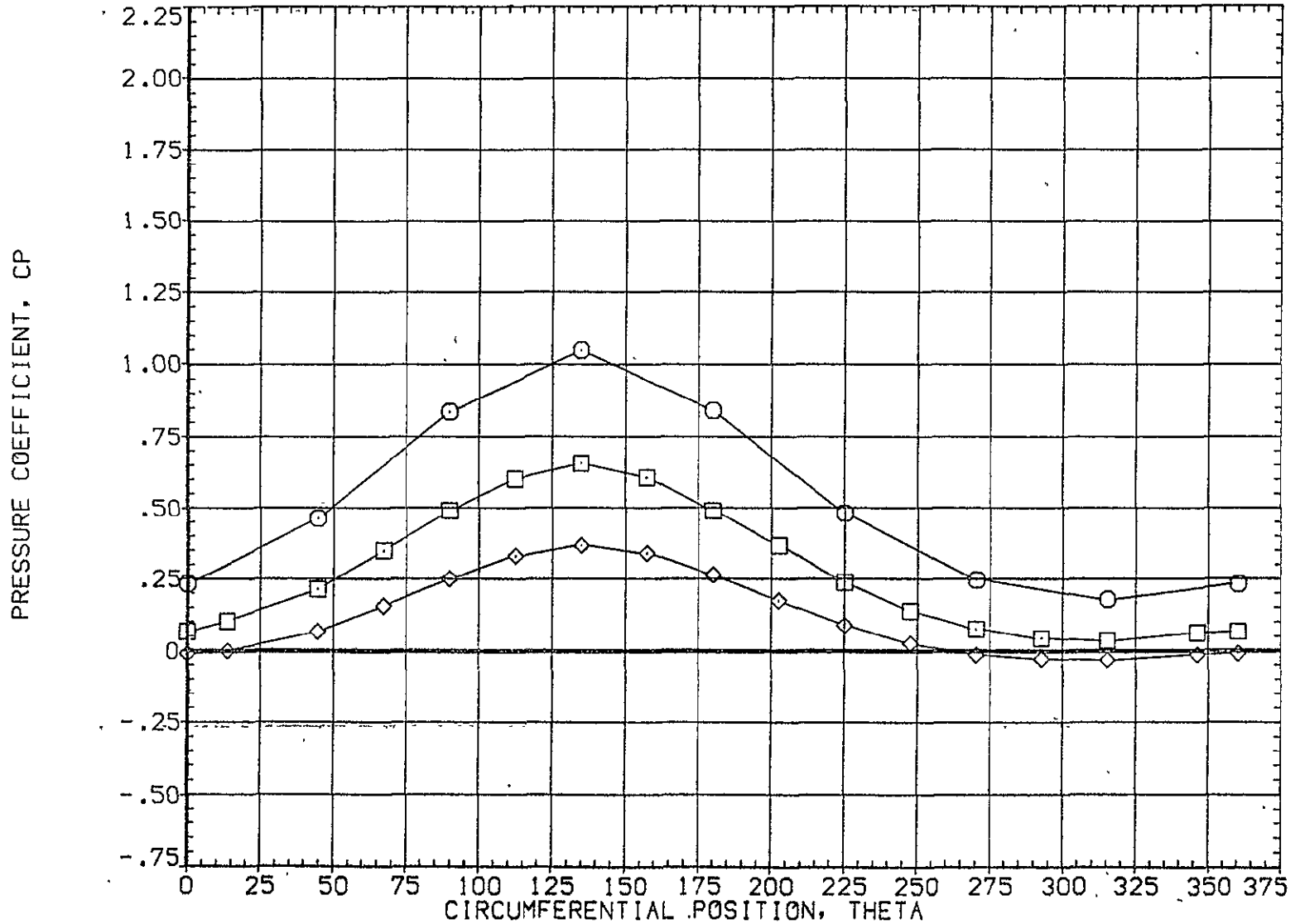


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	16.560	3.480	.000	20.000	
□	.322			1.000	315.000	
◇	.518					

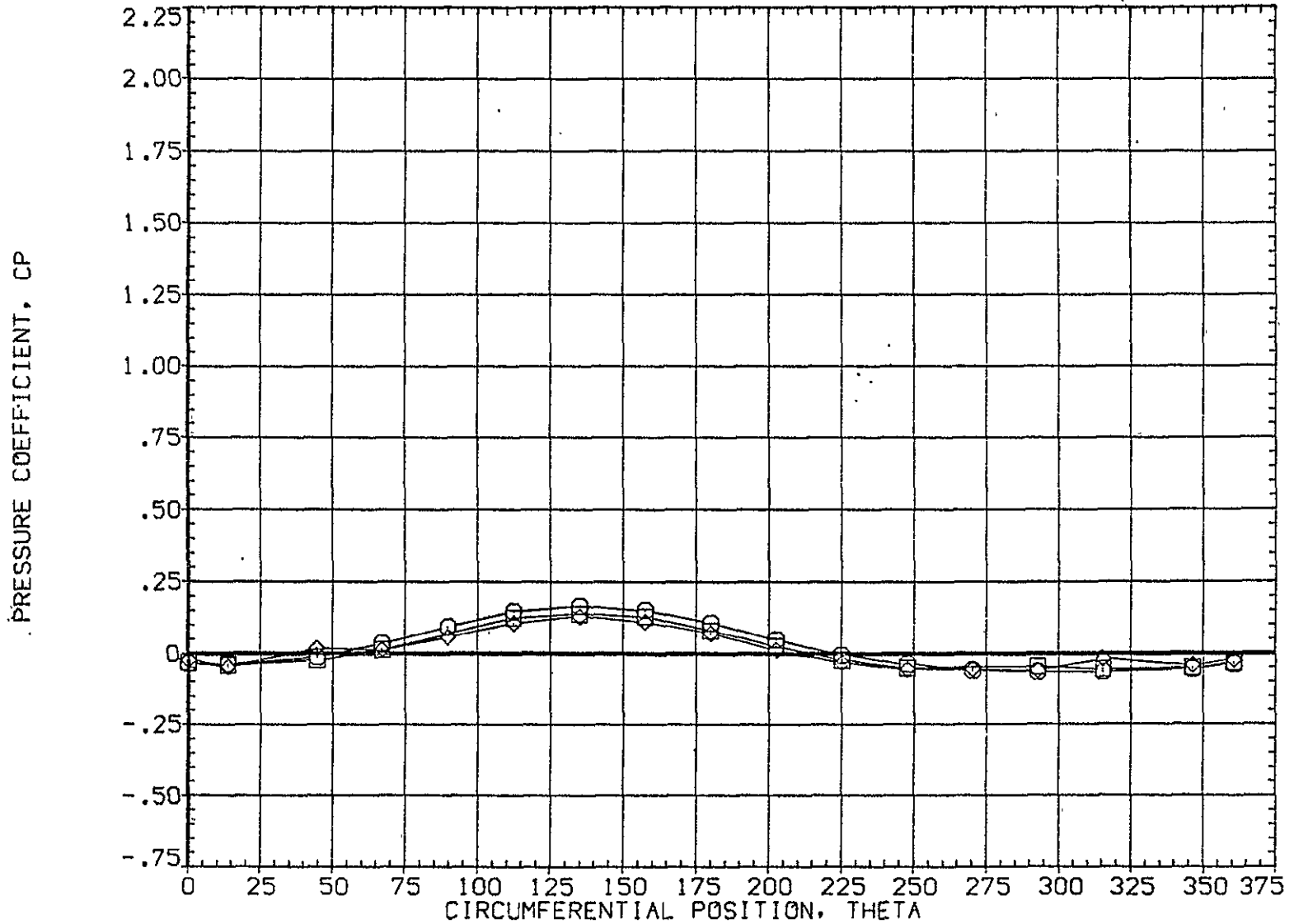


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .610 16.560 3.480
 .735
 .860

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 315.000

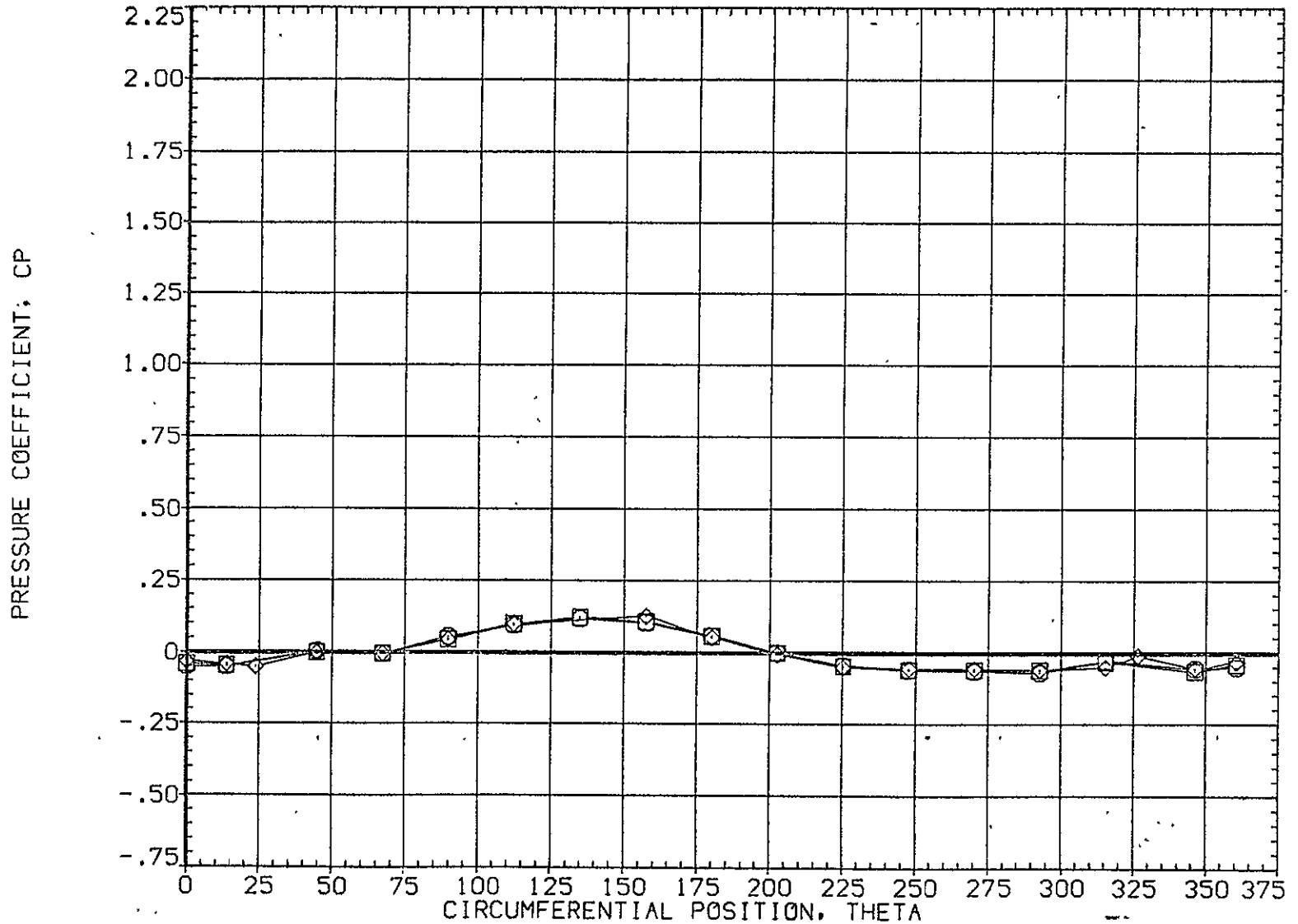


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	16.560	3.480	MOUNT	1.000	PHI	315.000
□	.923						
◇	.954						

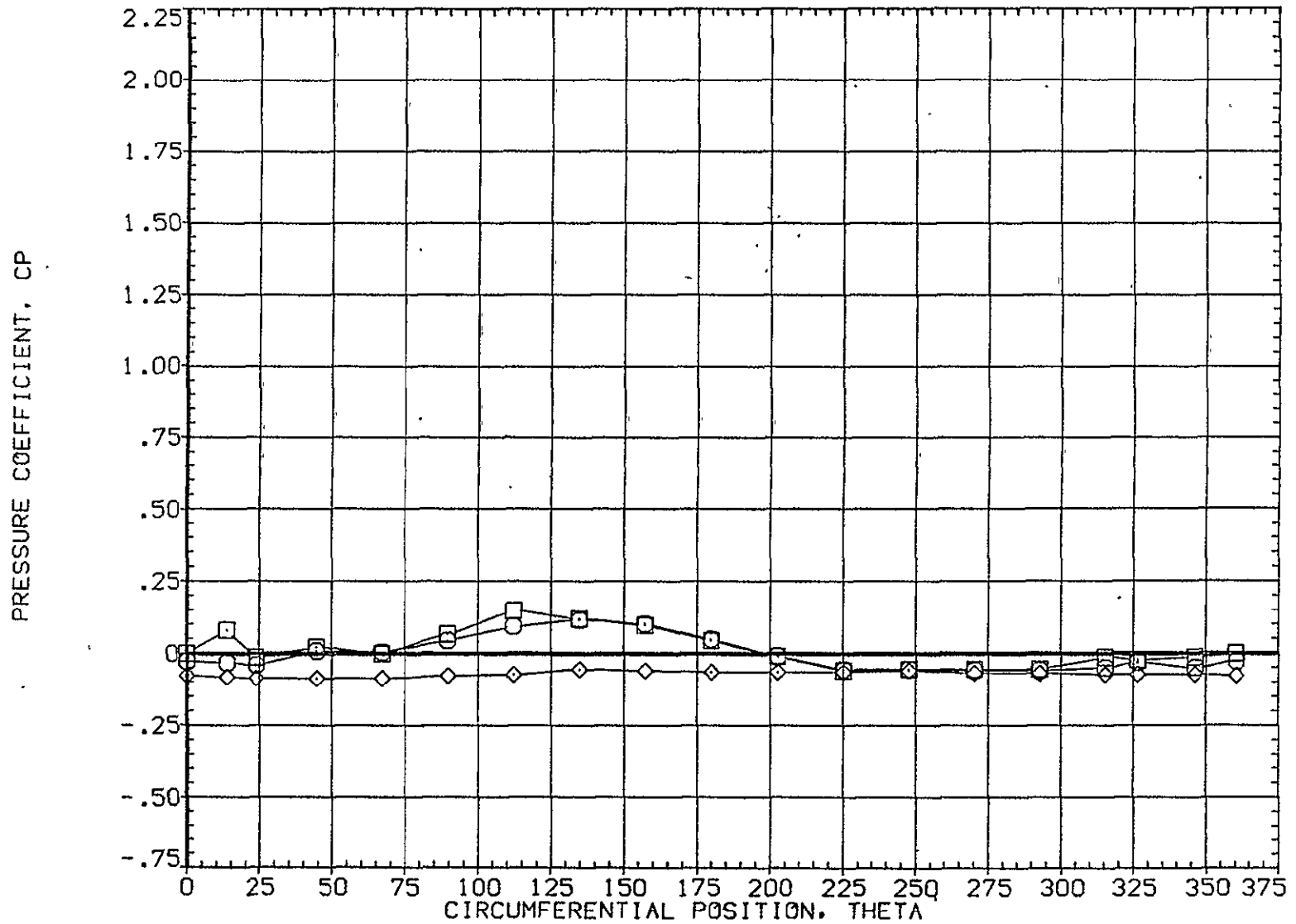


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.055	20.610	3.480	BETA	.000	OFFSET	20.000
□	.108			MOUNT	1.000	PHI	315.000
◇	.162						

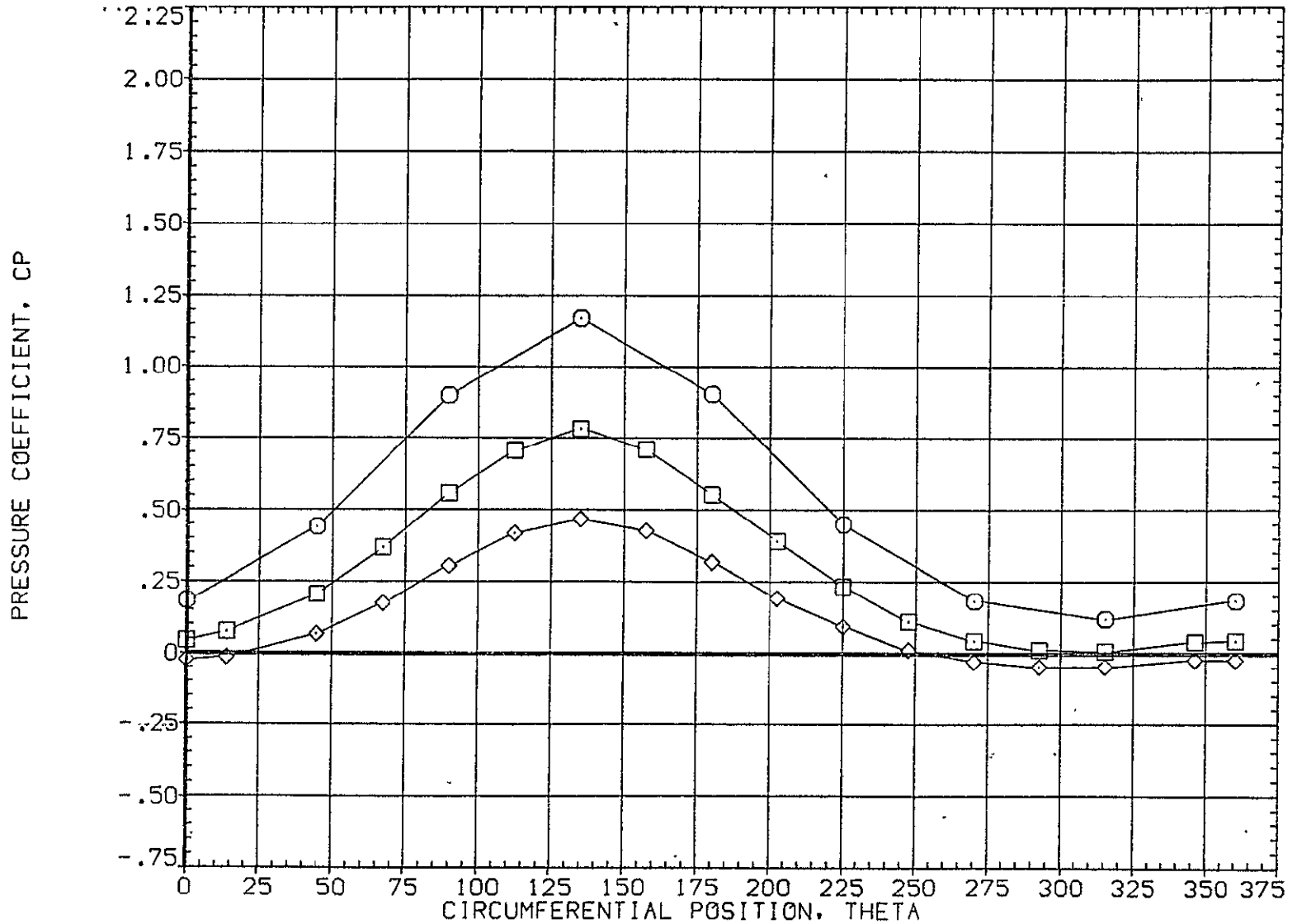


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	20.610	3.480	.000	20.000	
□	.322			1.000	PHI	315.000
◇	.518					

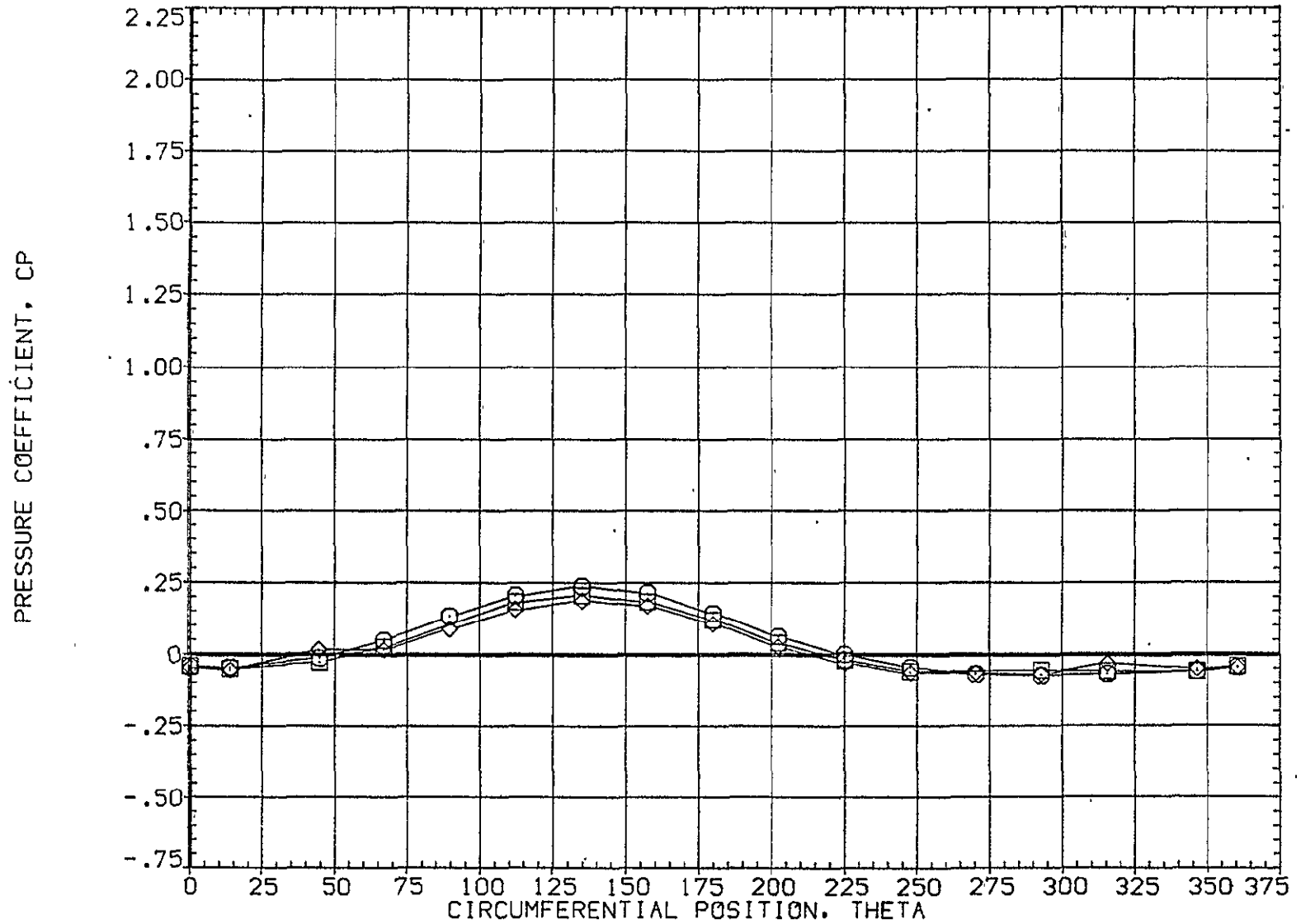


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.610	20.610	3.480
□	.735		
◇	.860		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	315.000

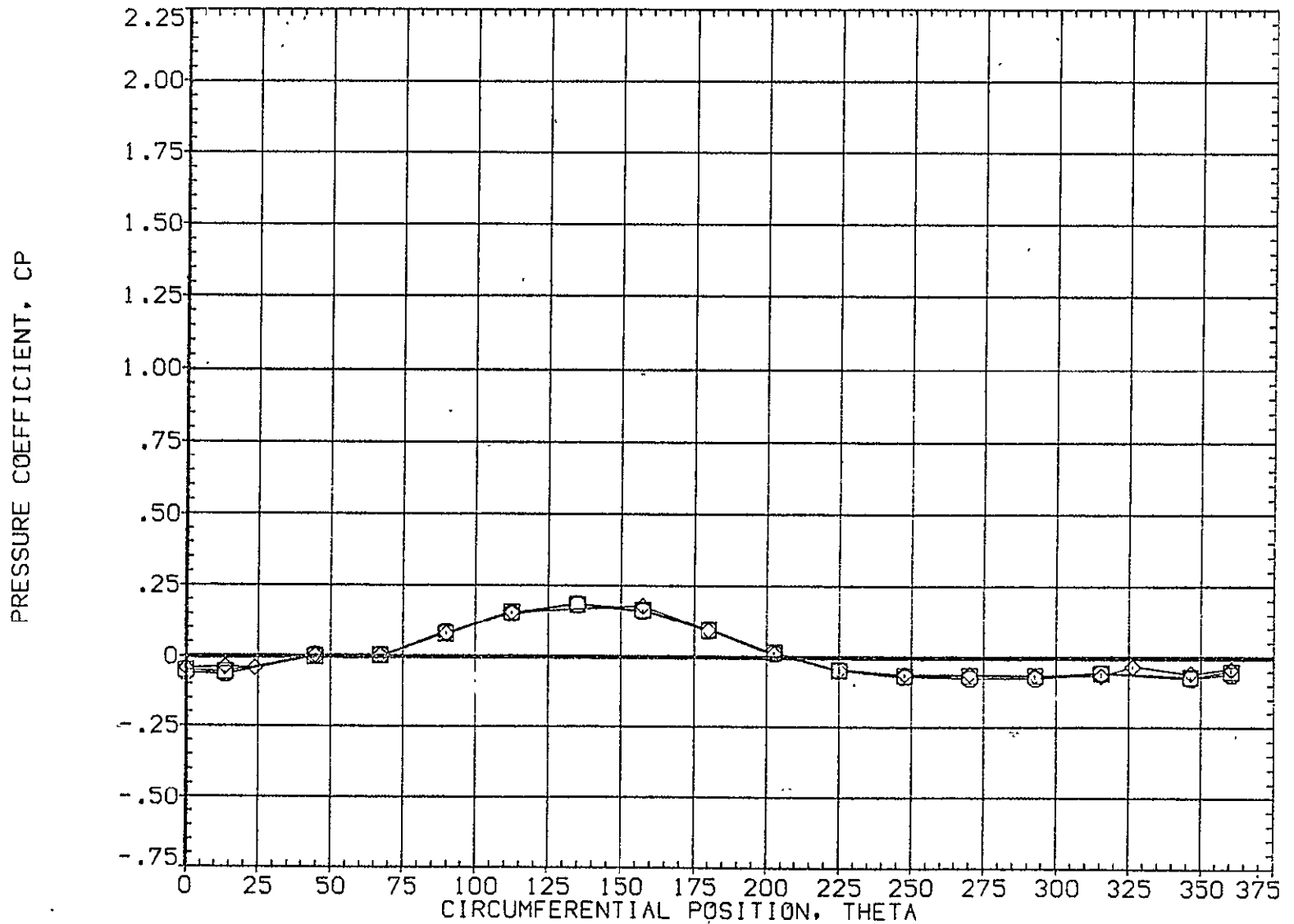


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	20.610	3.480	MOUNT	1.000	PHI	315.000
□	.923						
◇	.954						

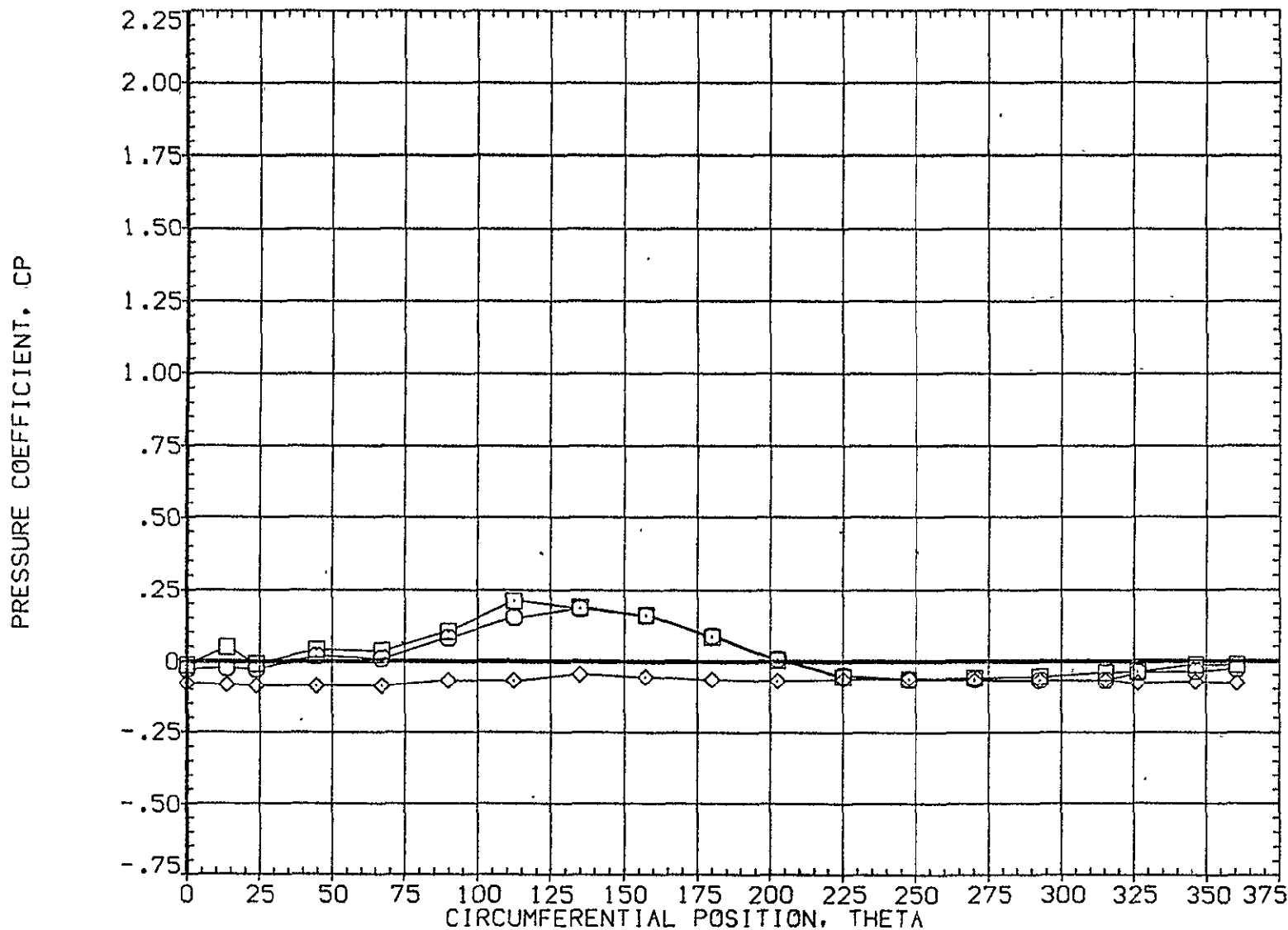


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	24.660	3.480		20.000		
□	.108			1.000			
◇	.162				315.000		

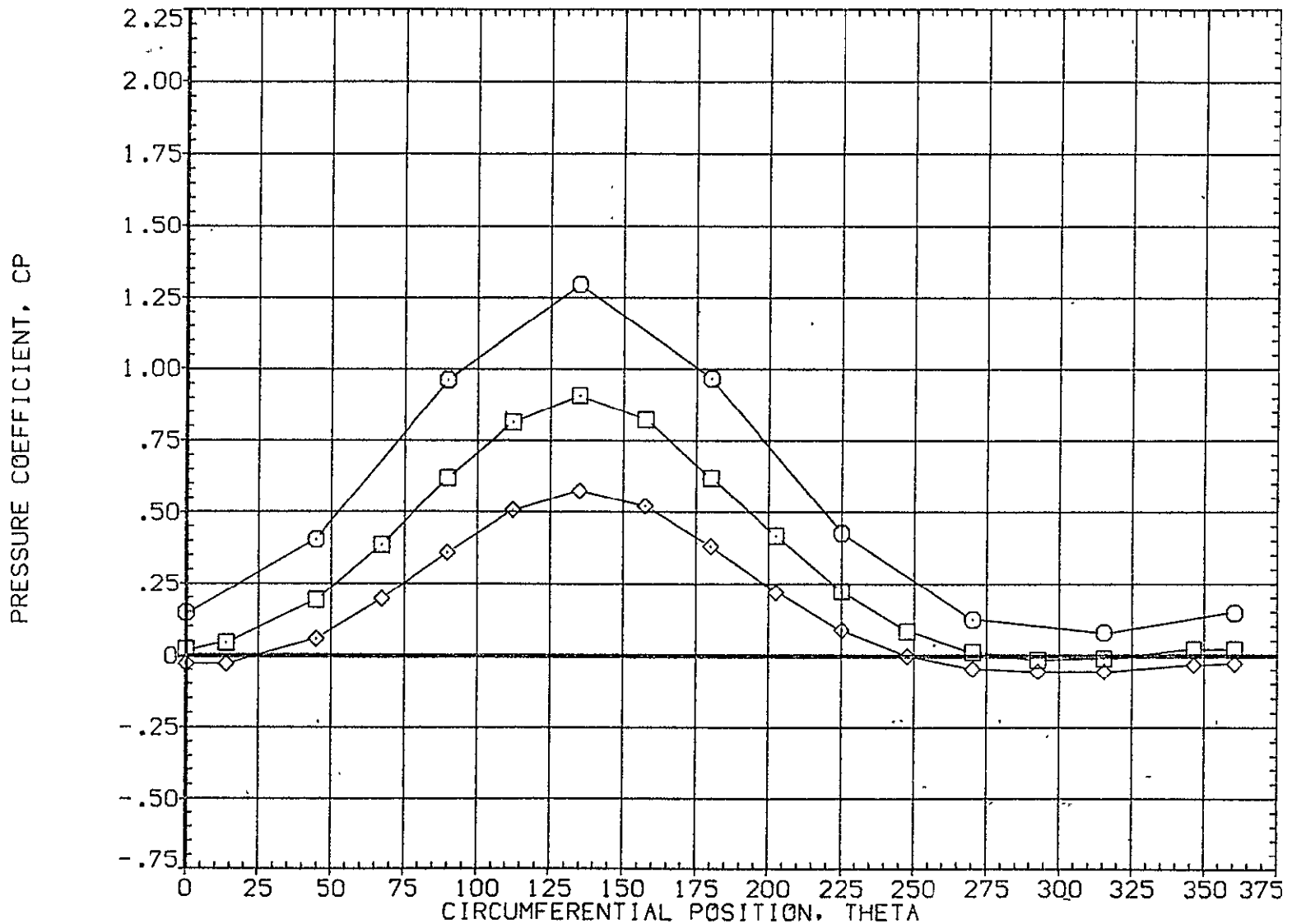


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	24.660	3.480	.000	20.000	
□	.322			1.000	315.000	
◇	.518					

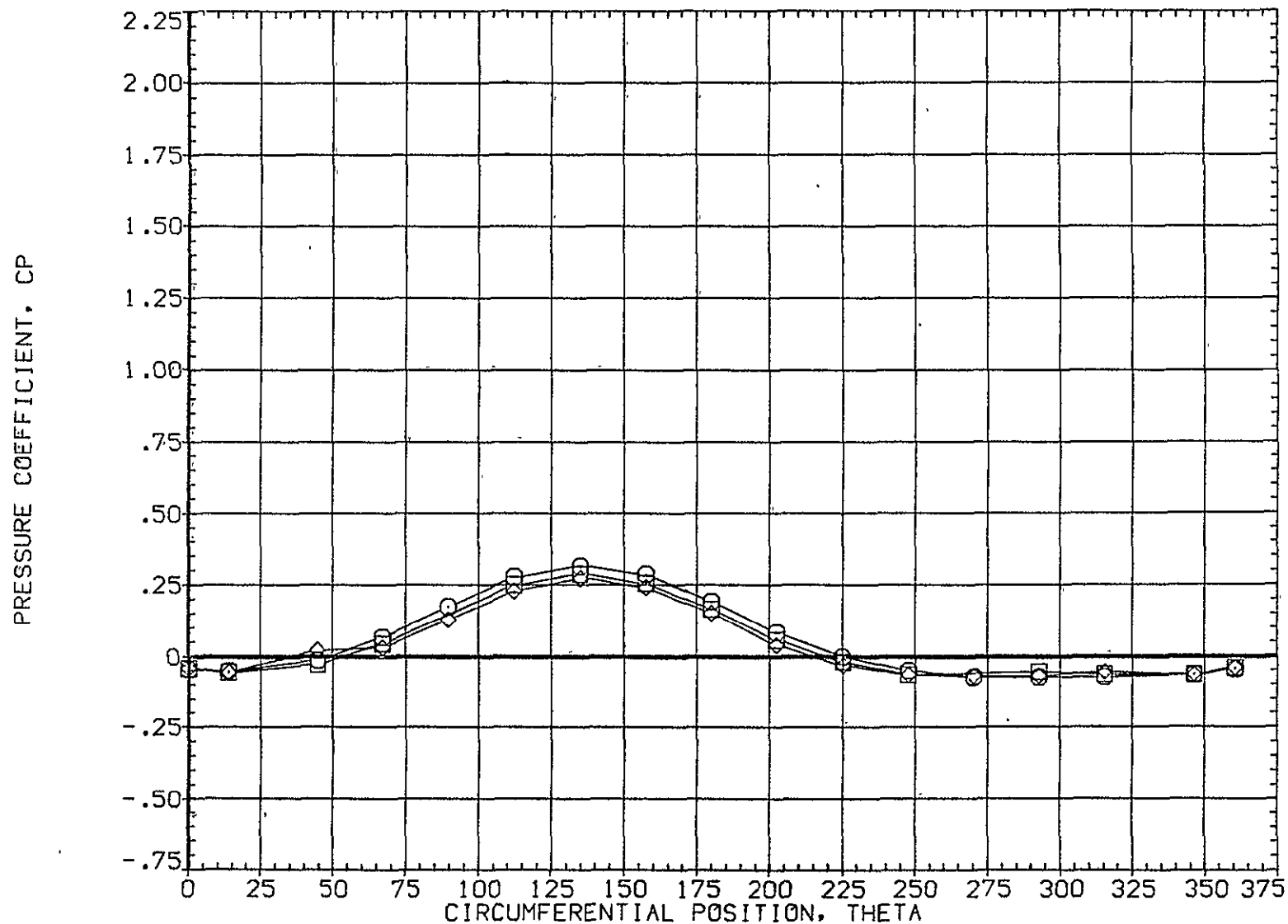


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	24.660	3.480	.000	20.000	
□	.735			1.000	315.000	
◇	.860					

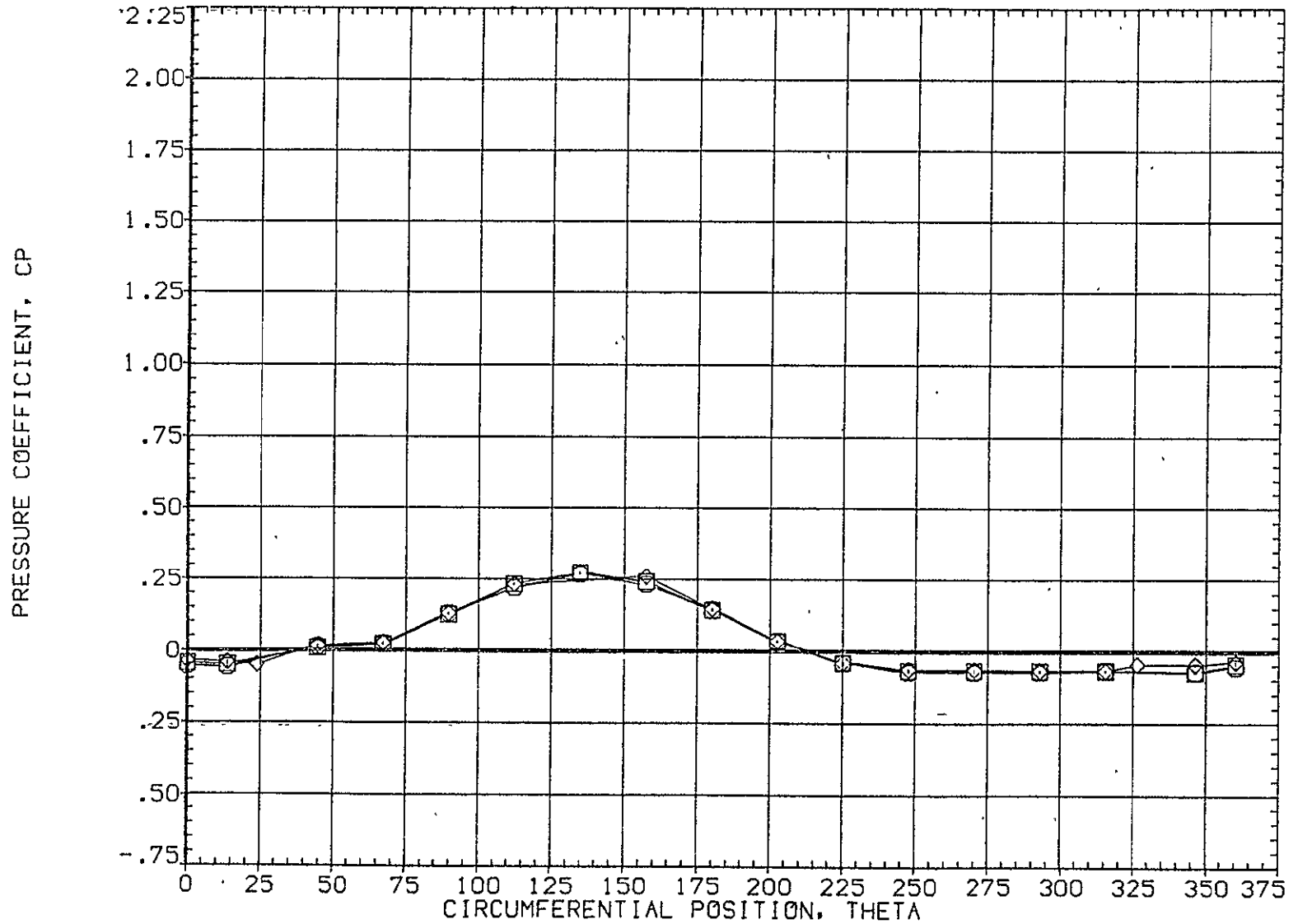


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 24.660
 MACH 3.480

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET 20.000
 PHI 315.000

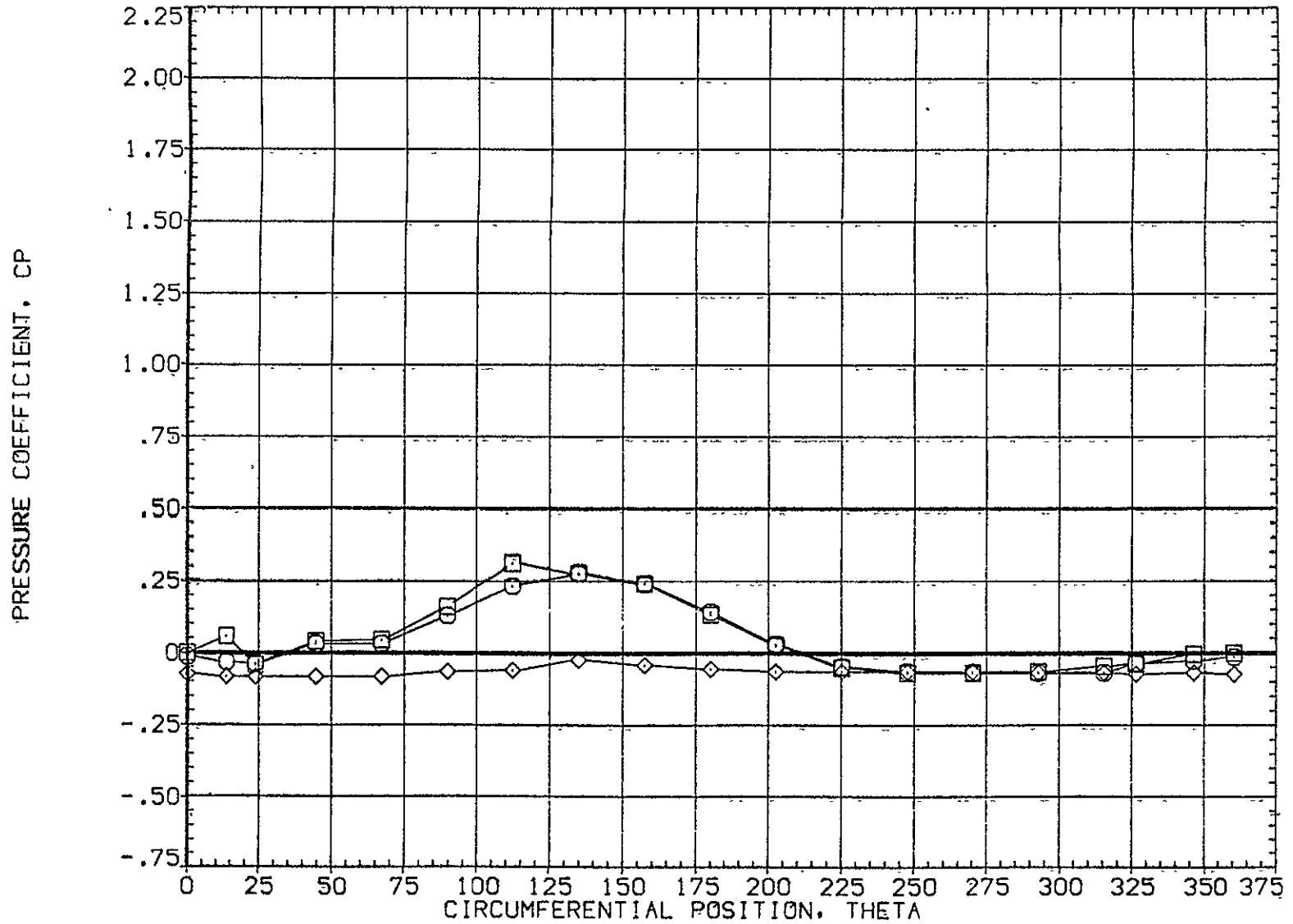


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A100)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.055	28,700	3,480	MOUNT	1,000	PHI	315,000
□	.108						
◇	.162						

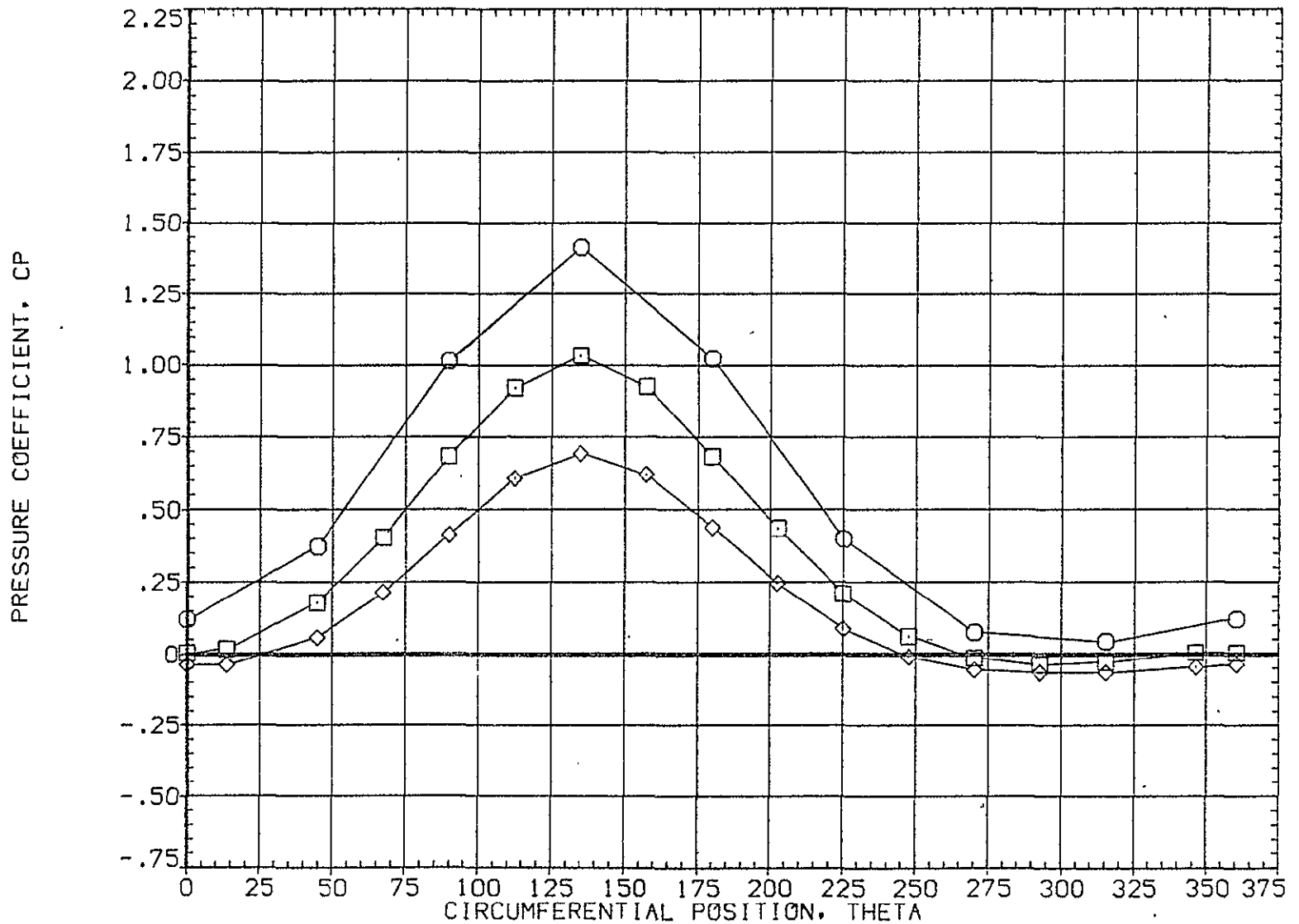


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .216
.322
.518
ALPHA 28.700
MACH 3.480

PARAMETRIC VALUES
BETA .000 OFFSET 20.000
MOUNT 1.000 PHI 315.000

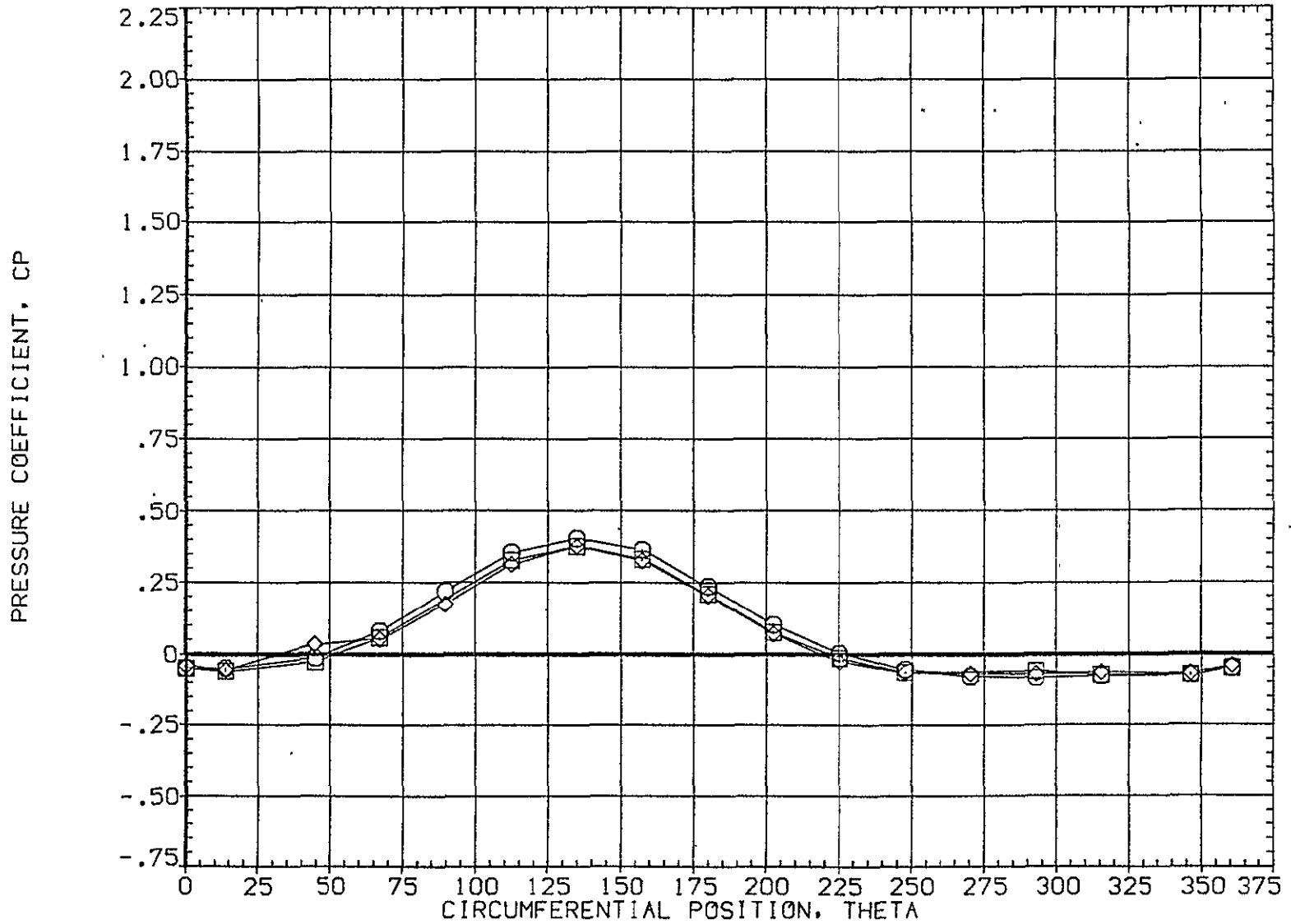


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A100)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.610	28.700	3.480	BETA	.000	OFFSET	20.000
□	.735			MOUNT	1.000	PHI	315.000
◇	.860						

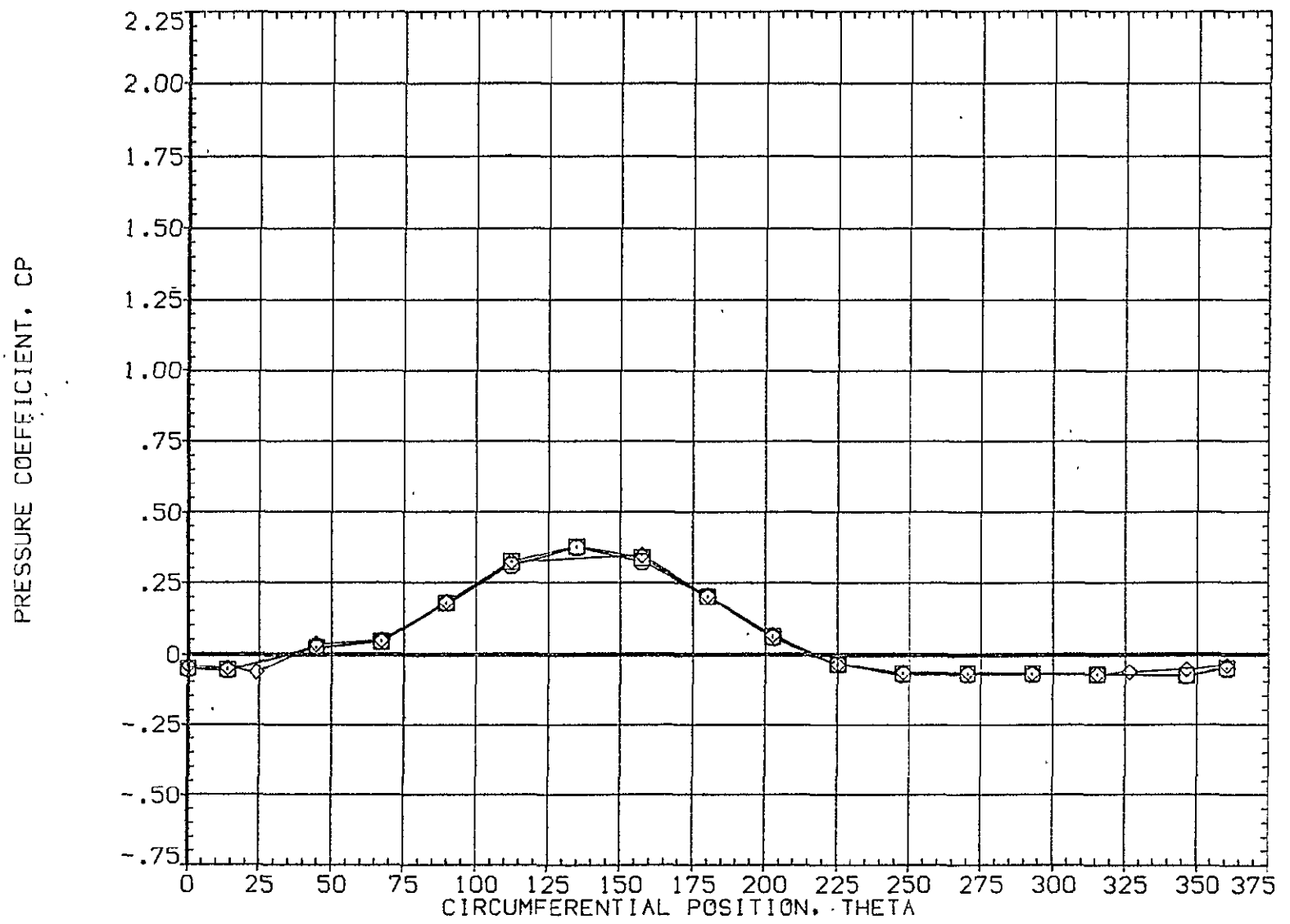


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	28.700	3.480	MOUNT	1.000	PHI	315.000
□	.923						
◇	.954						

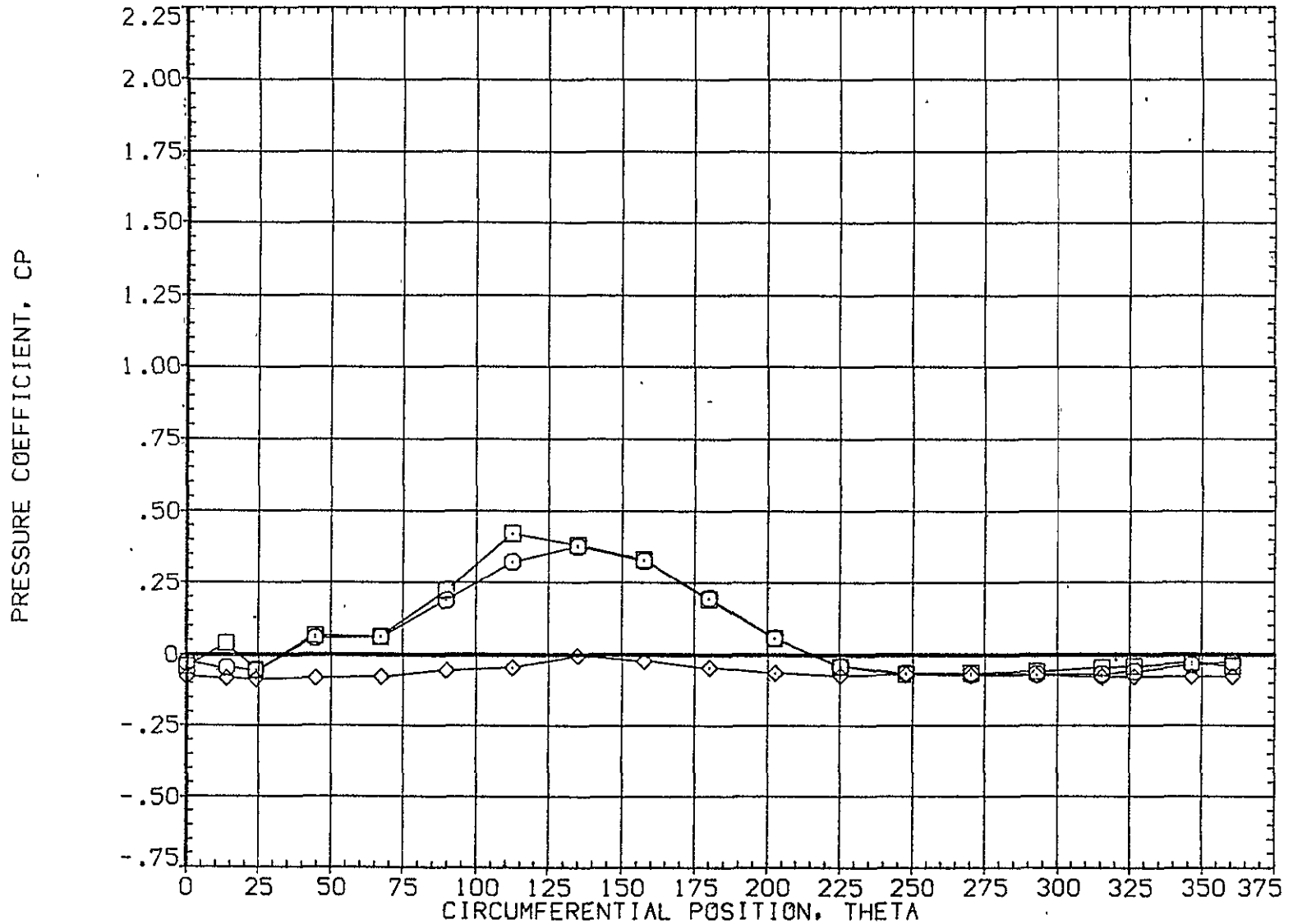


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-8.310	4.960	MOUNT	1.000	PHI	.000
□	.108						
◇	.162						

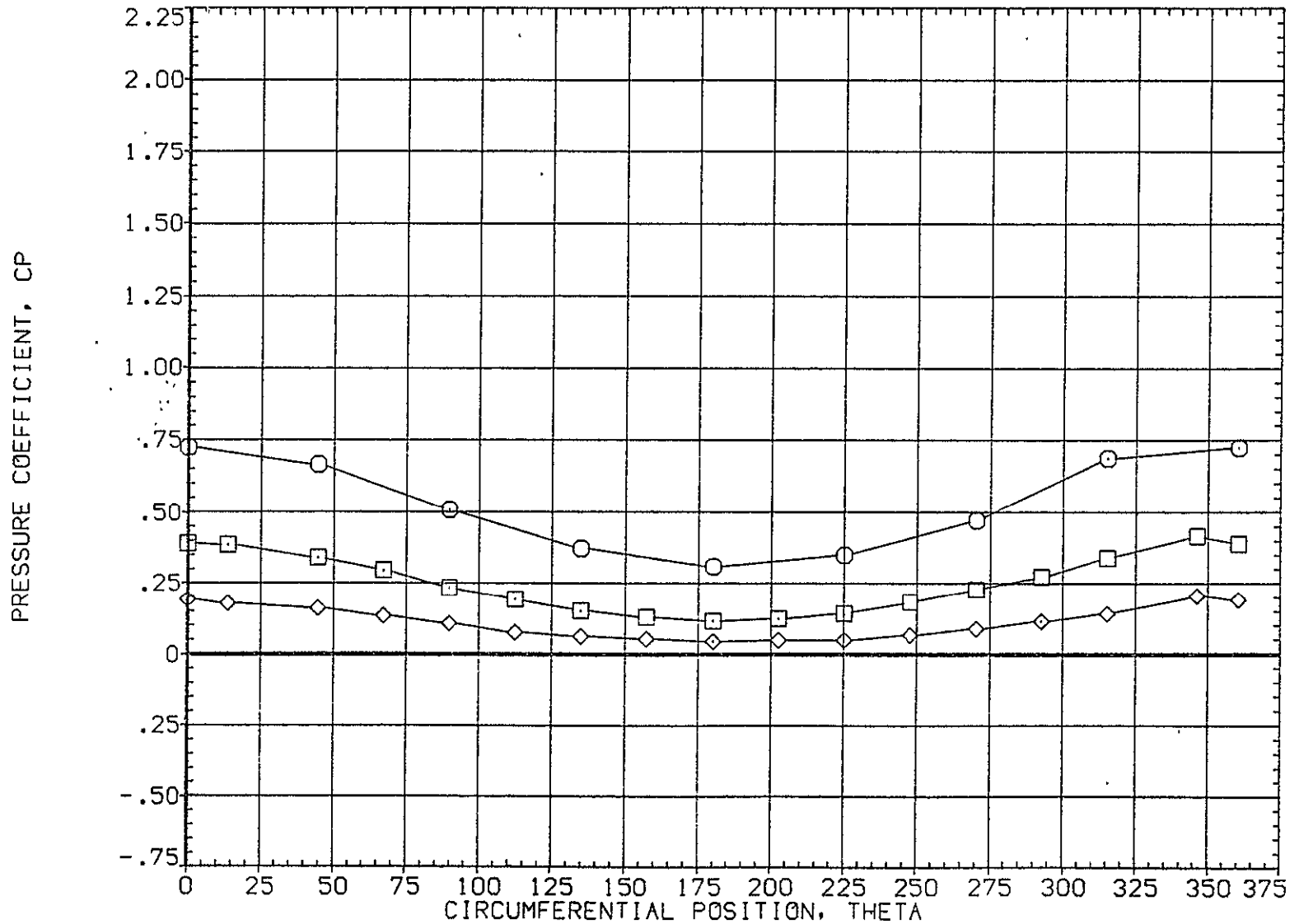


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB ALPHA MACH
.216 -8.310 4.960
.322
.518

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI .000

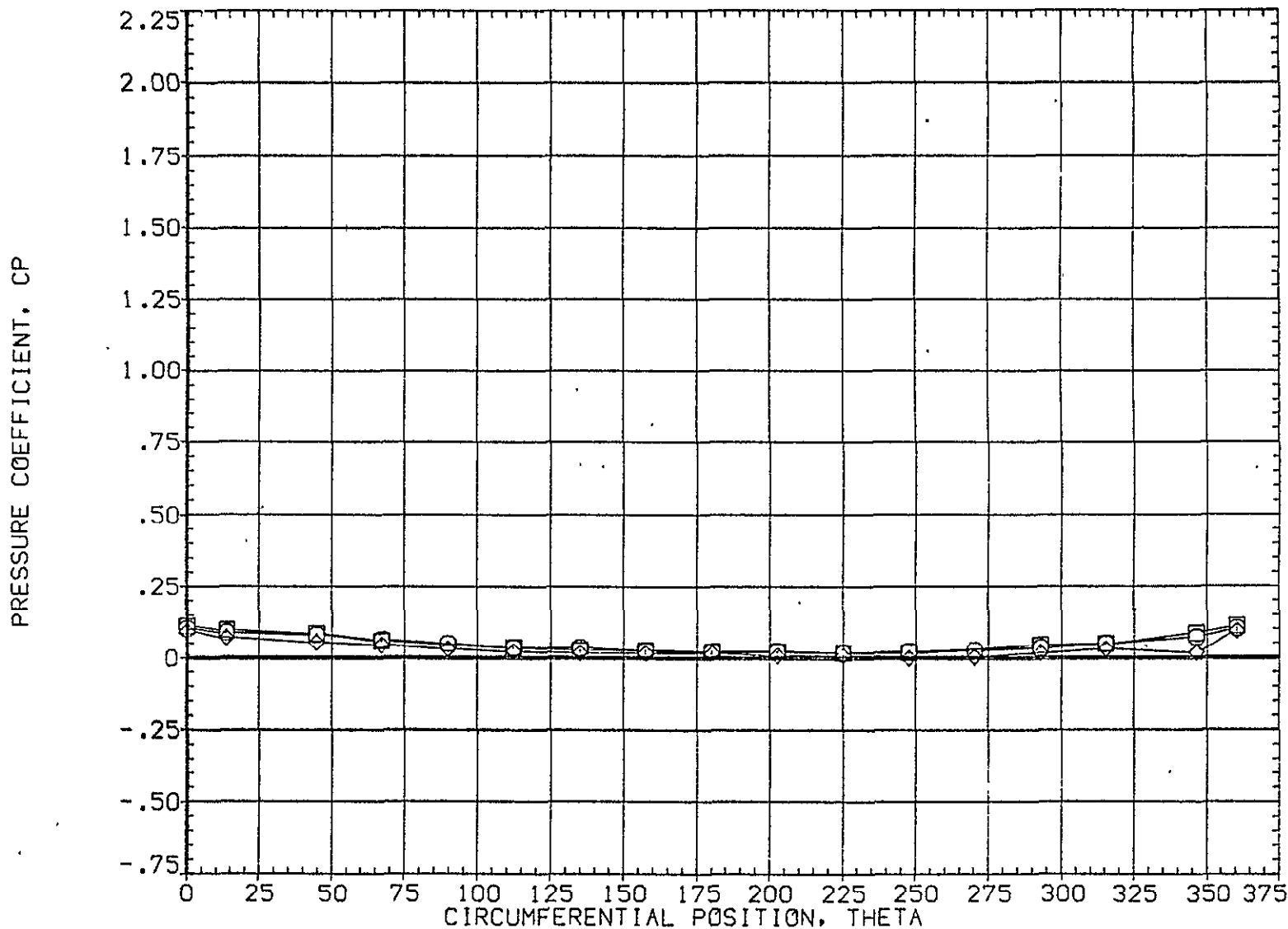


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-8.310	4.960	MOUNT	1.000	PHI	.000
□	.735						.000
◇	.860						.000

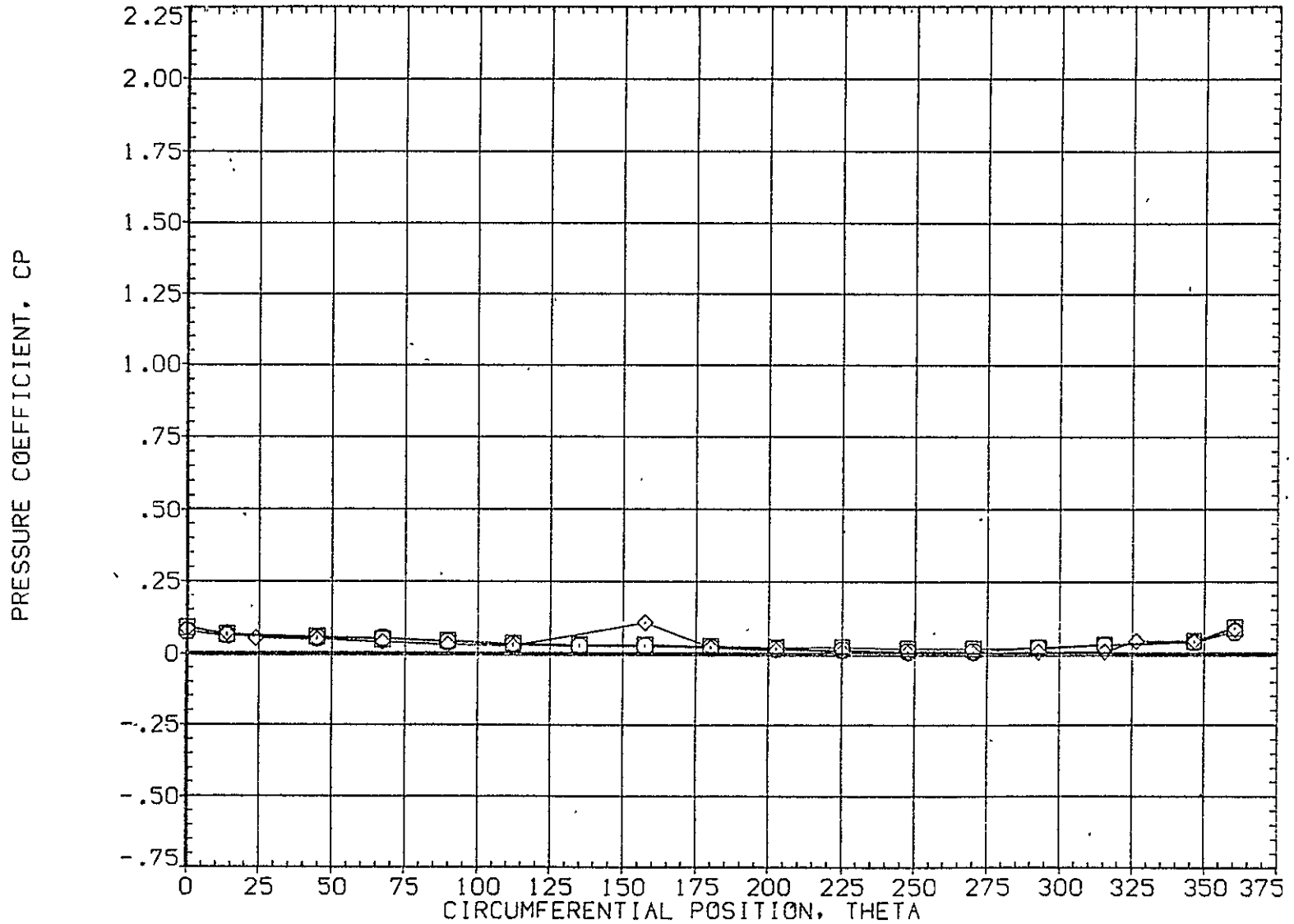


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-8.310	4.960	MOUNT	1.000	PHI	.000
□	.923						.000
◇	.954						.000

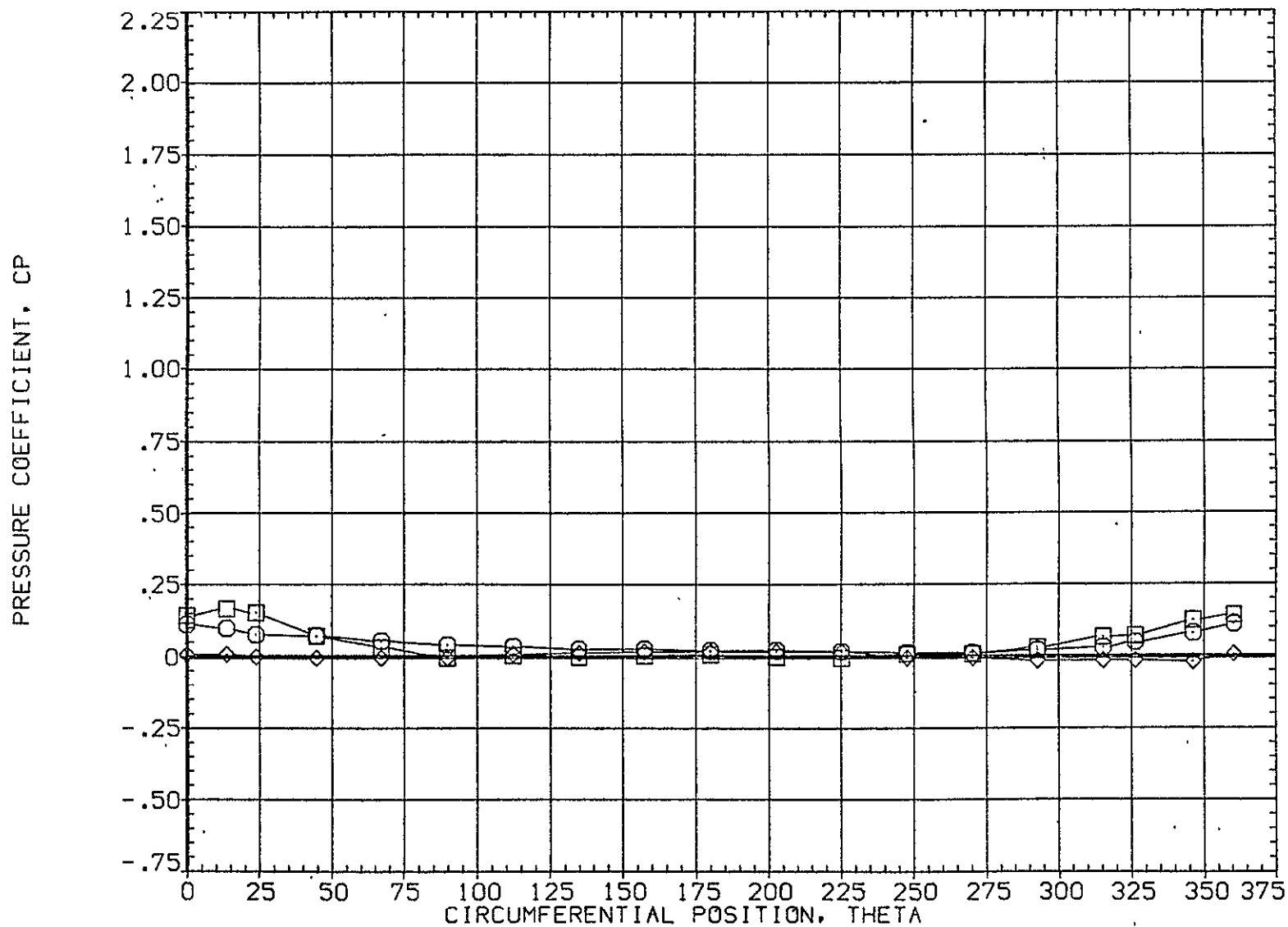


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.290	4.960	.000	.000	.000
□	.108			1.000		.000
◇	.162					

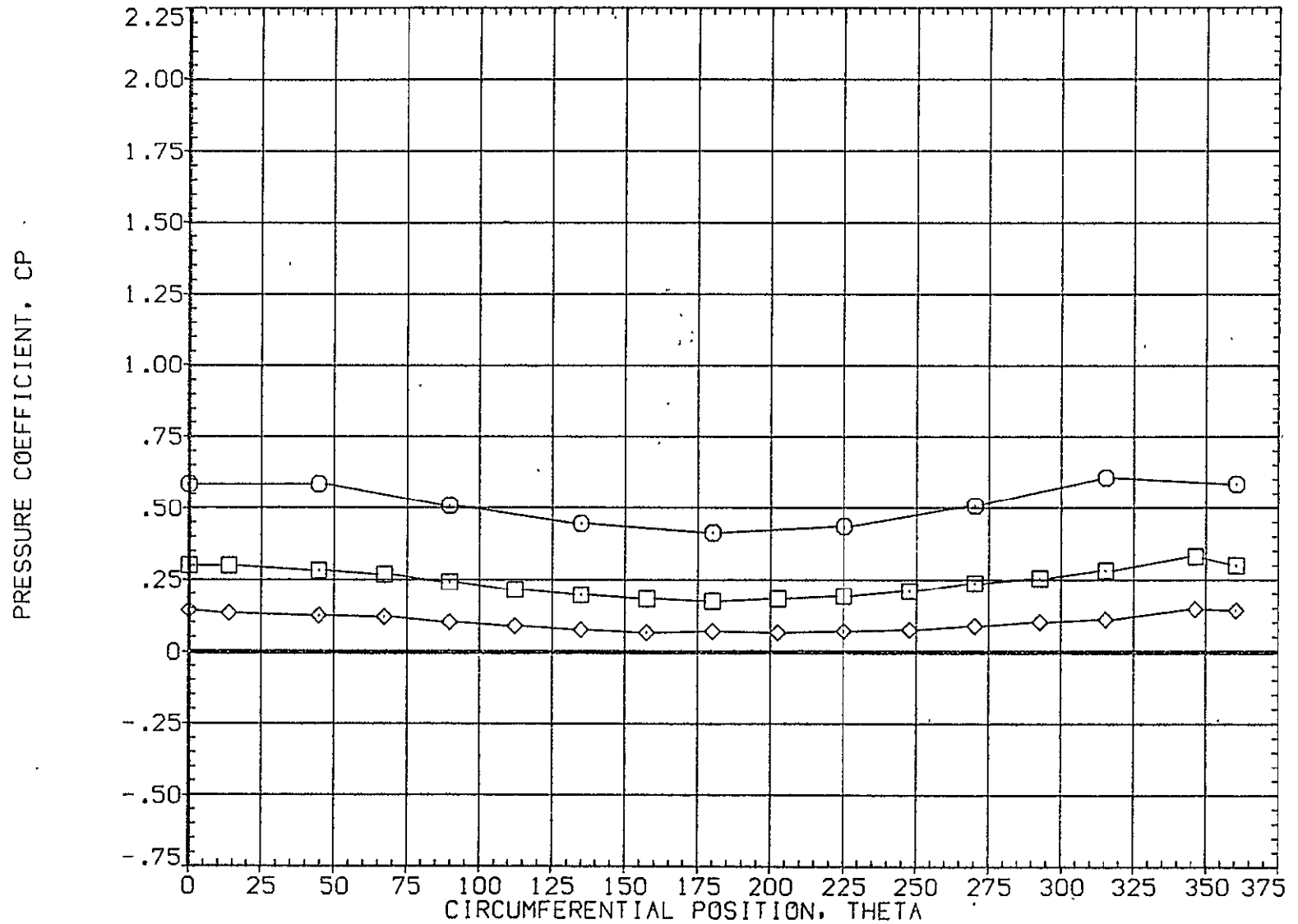


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	-4.290	4.960	MOUNT	1.000	PHI	.000
□	.322						
◇	.518						

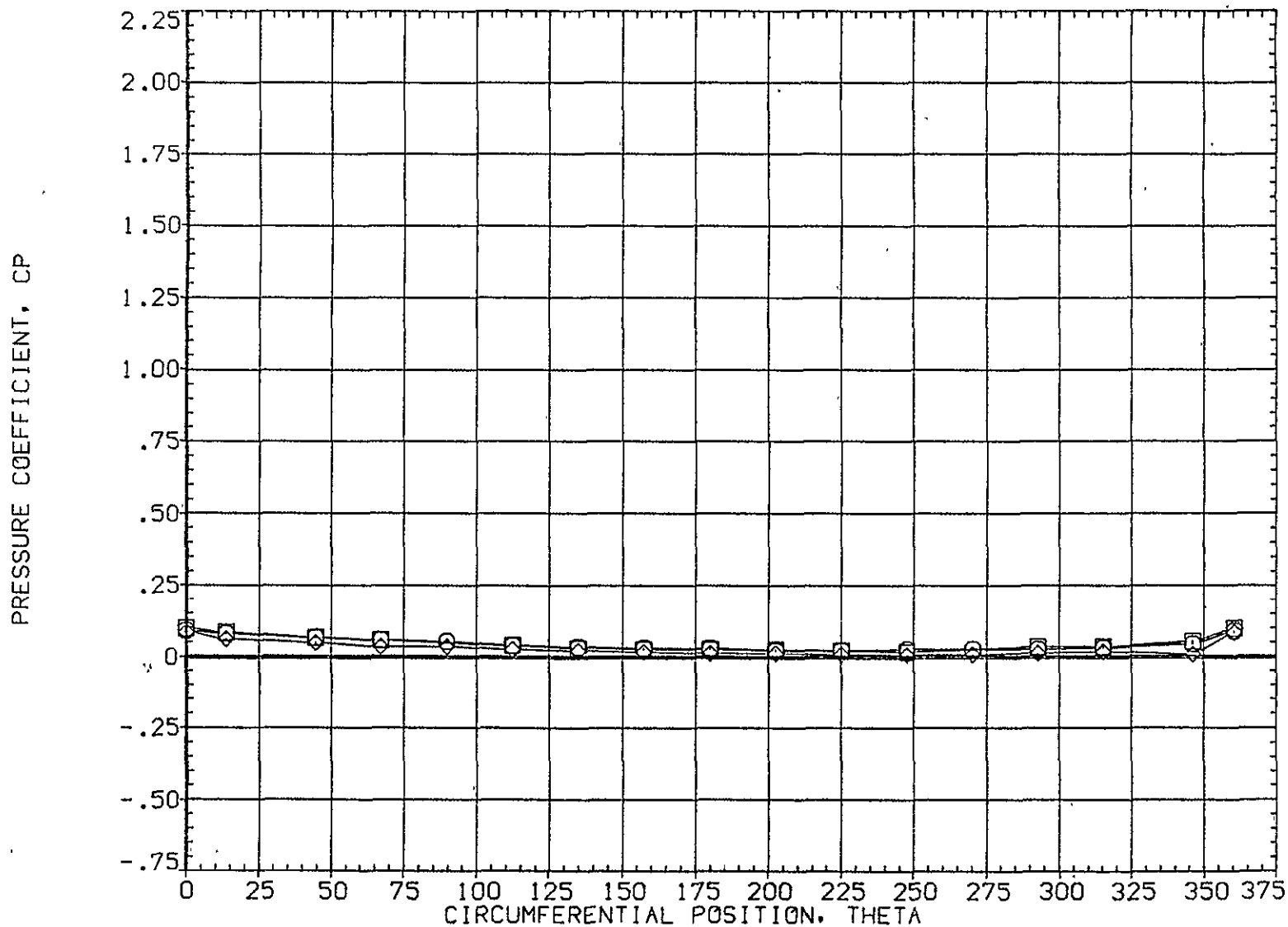


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A002)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-4.290	4.960	MOUNT	1.000	PHI	.000
□	.735						.000
◇	.860						.000

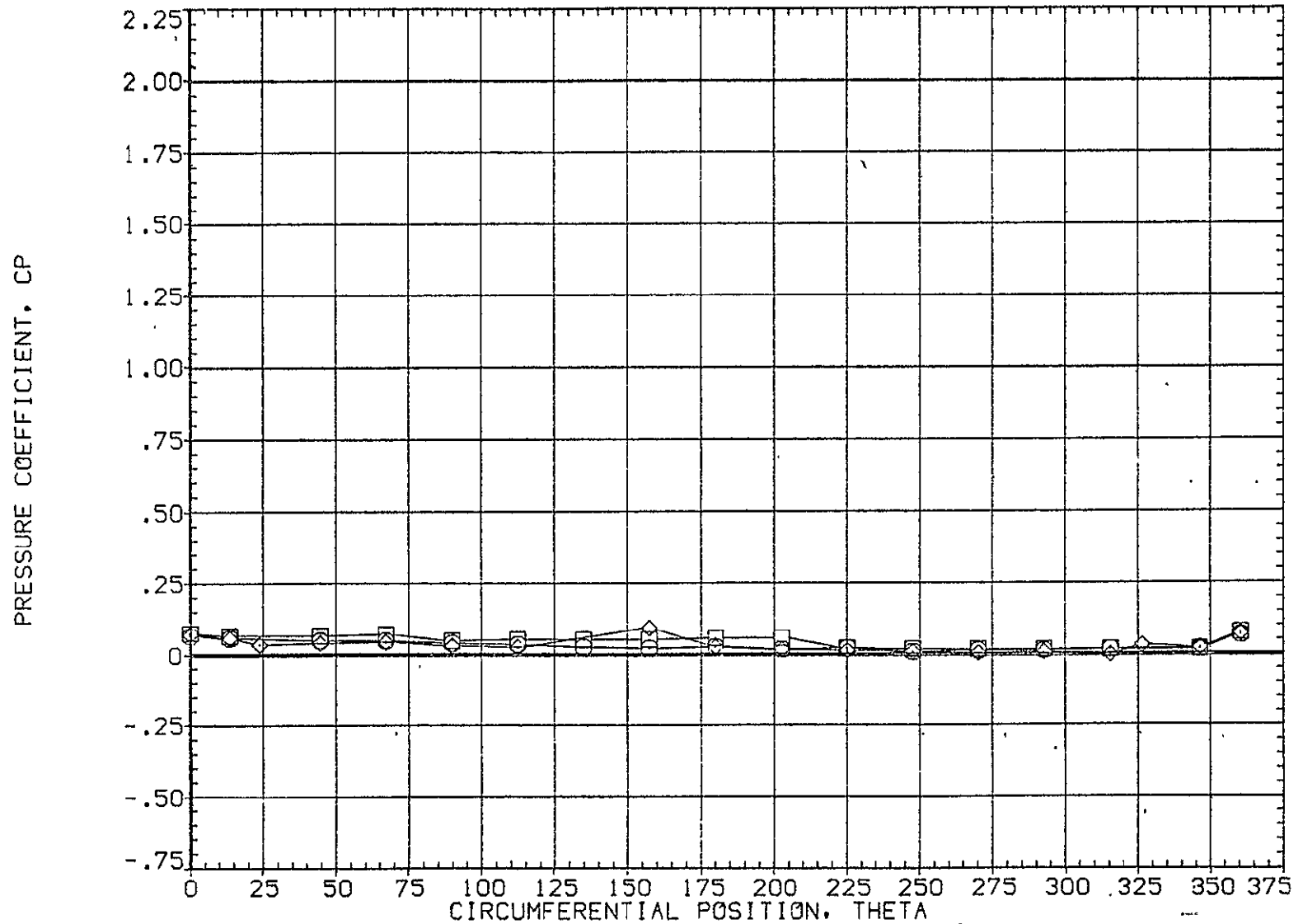


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.892	-4.290	4.960	BETA	.000	OFFSET	.000
□	.923			MOUNT	1.000	PHI	.000
◇	.954						

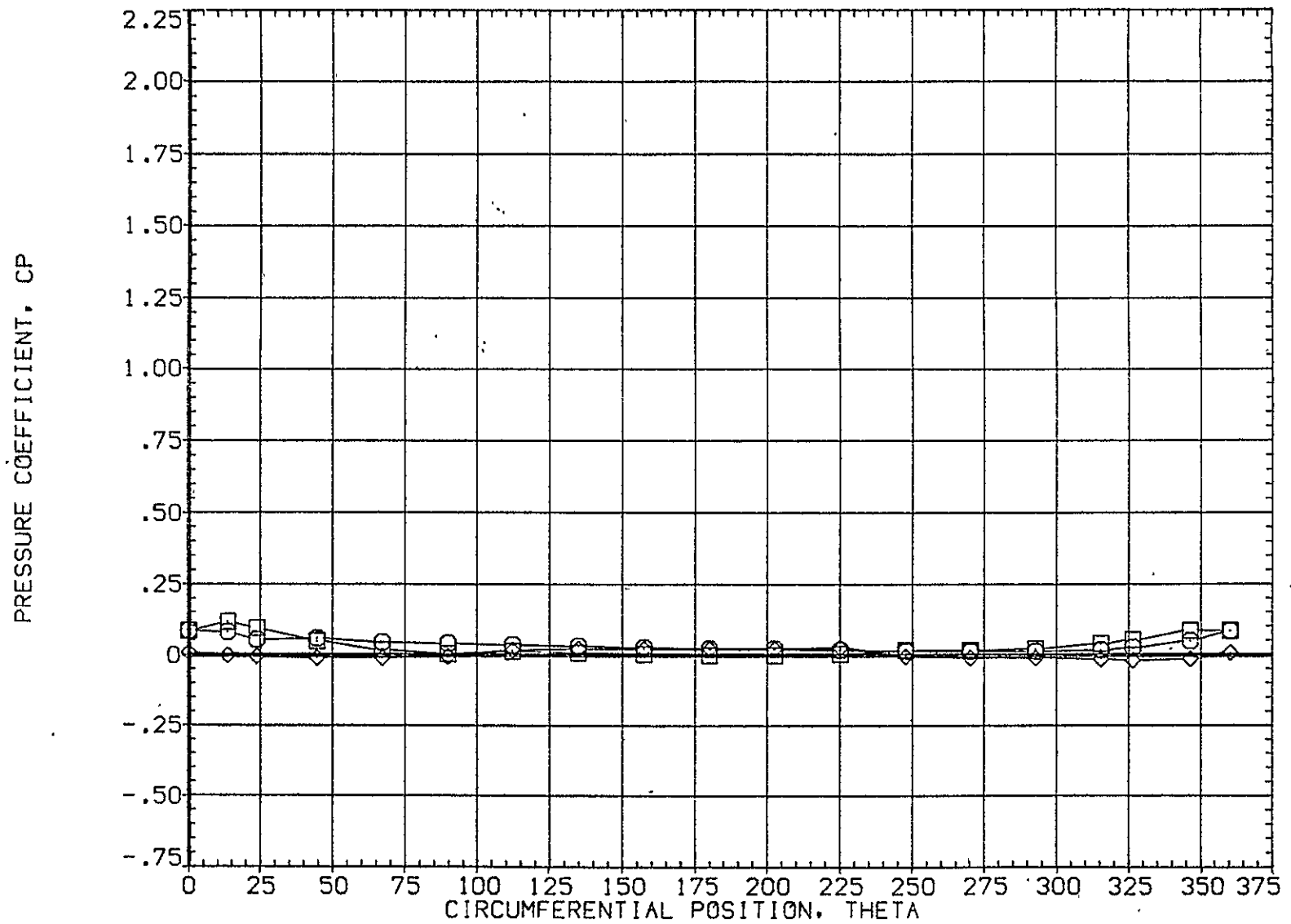


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-.280	4.960	MOUNT	1.000	PHI	.000
□	.108						
◇	.162						

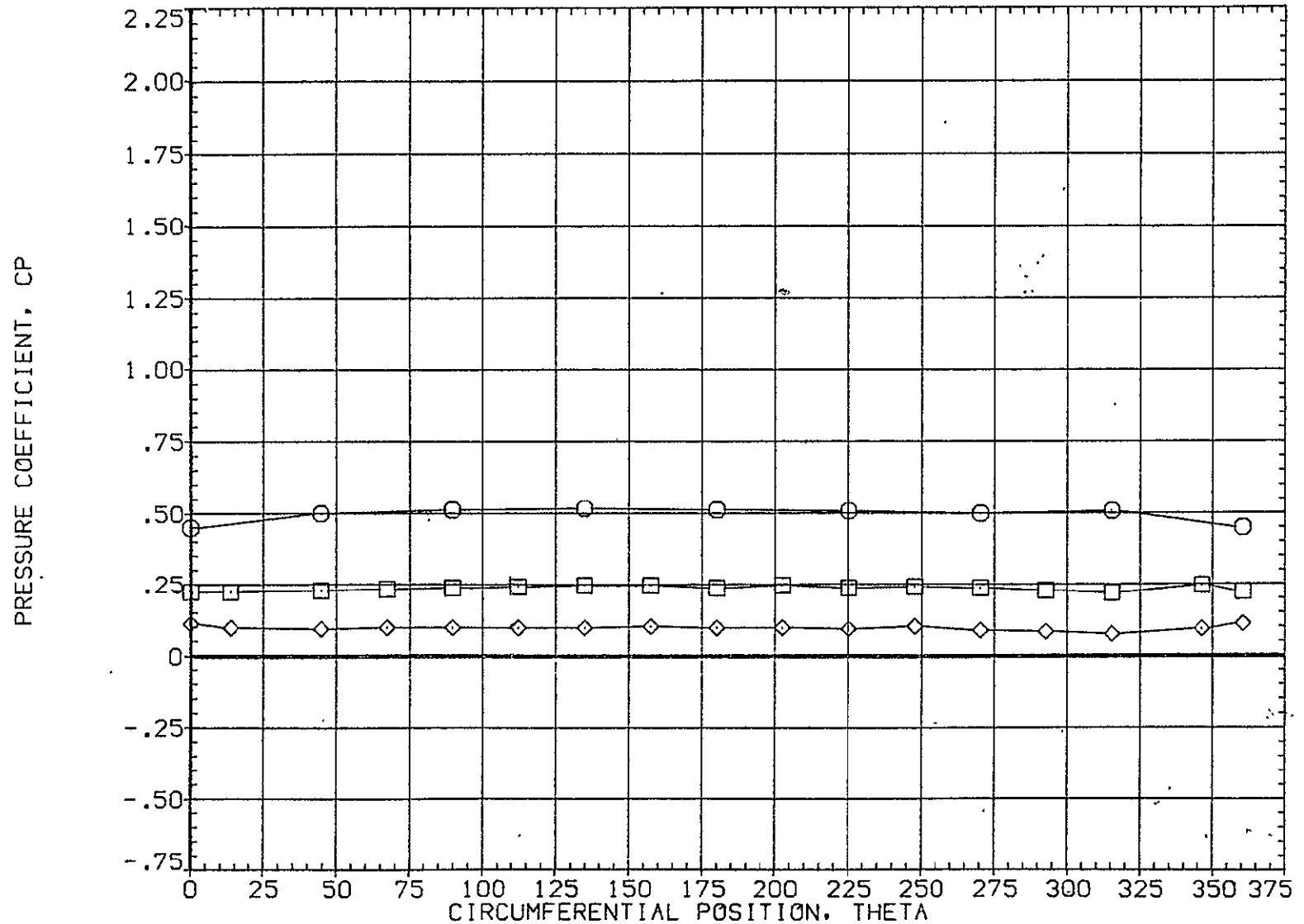


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-.280	4.960	.000	.000	.000
□	.322			1.000	PHI	.000
◇	.518					

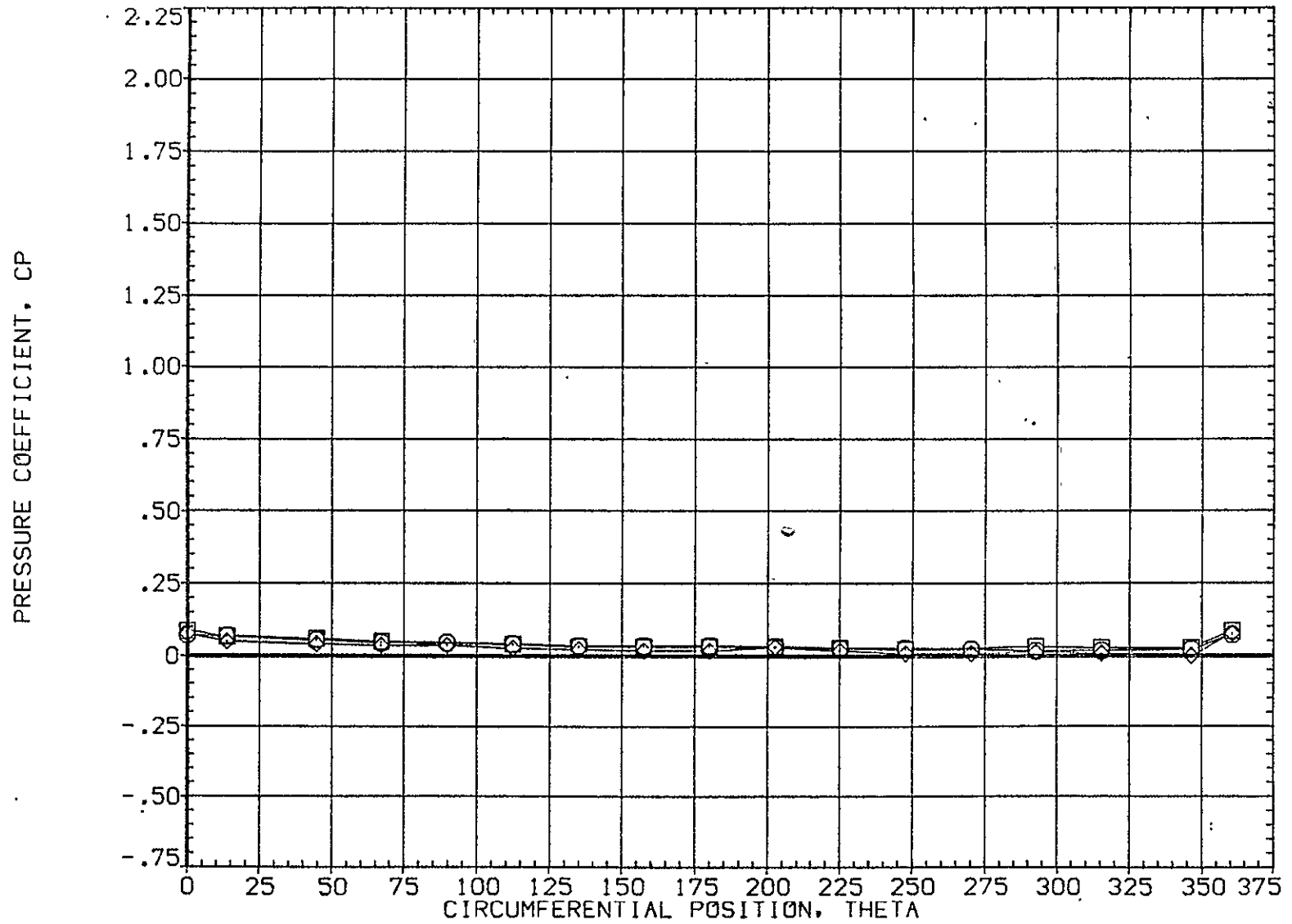


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	4.960	.000	.000	.000
□	.735			1.000		.000
◇	.860					

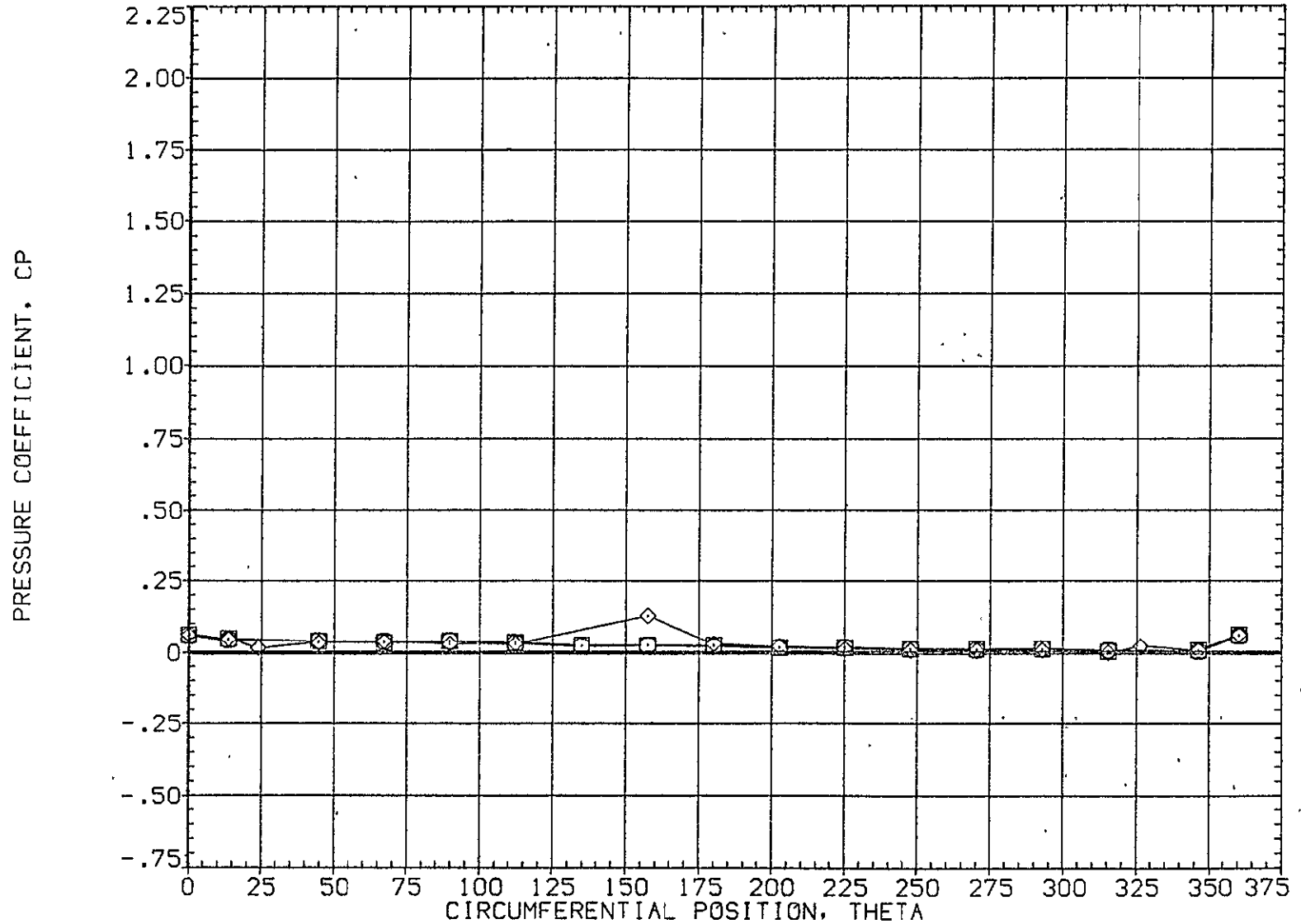


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-.280	4.960	MOUNT	1.000	PHI	.000
□	.923						.000
◇	.954						.000

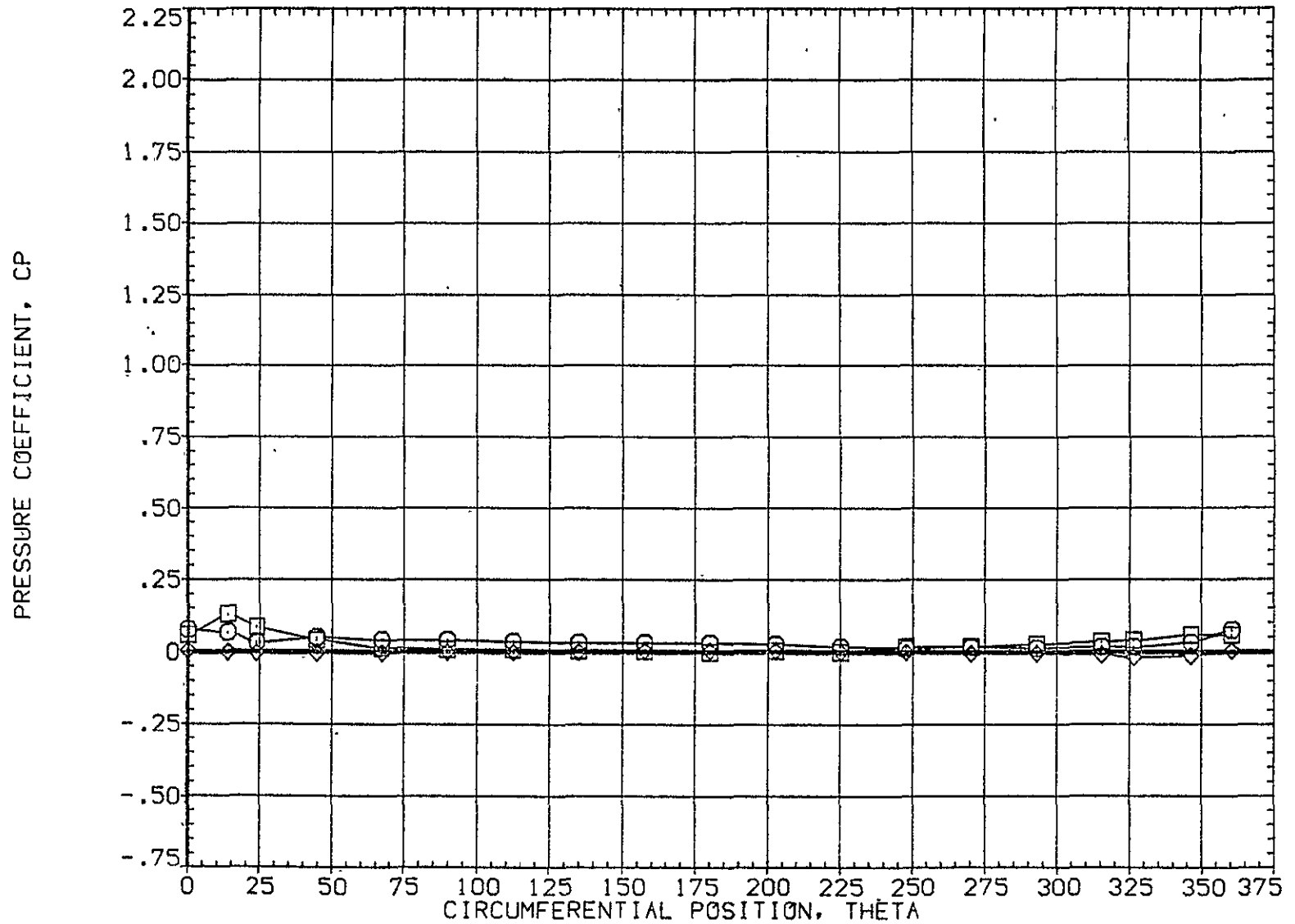


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	3.730	4.960	MOUNT	1.000	PHI	.000
□	.108						.000
◇	.162						.000

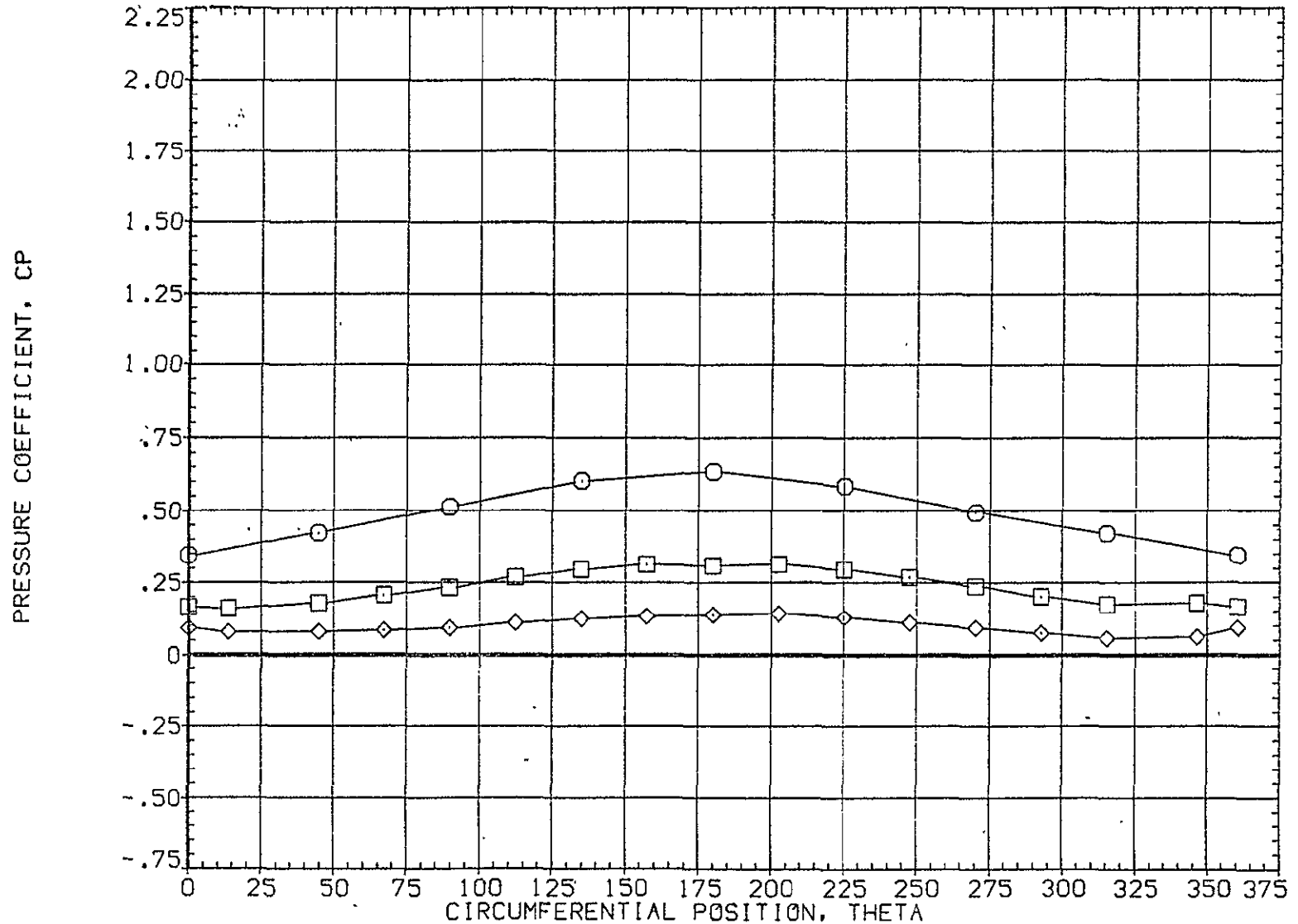


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.730	4.960	.000	.000	.000
□	.322			1.000		.000
◇	.518					

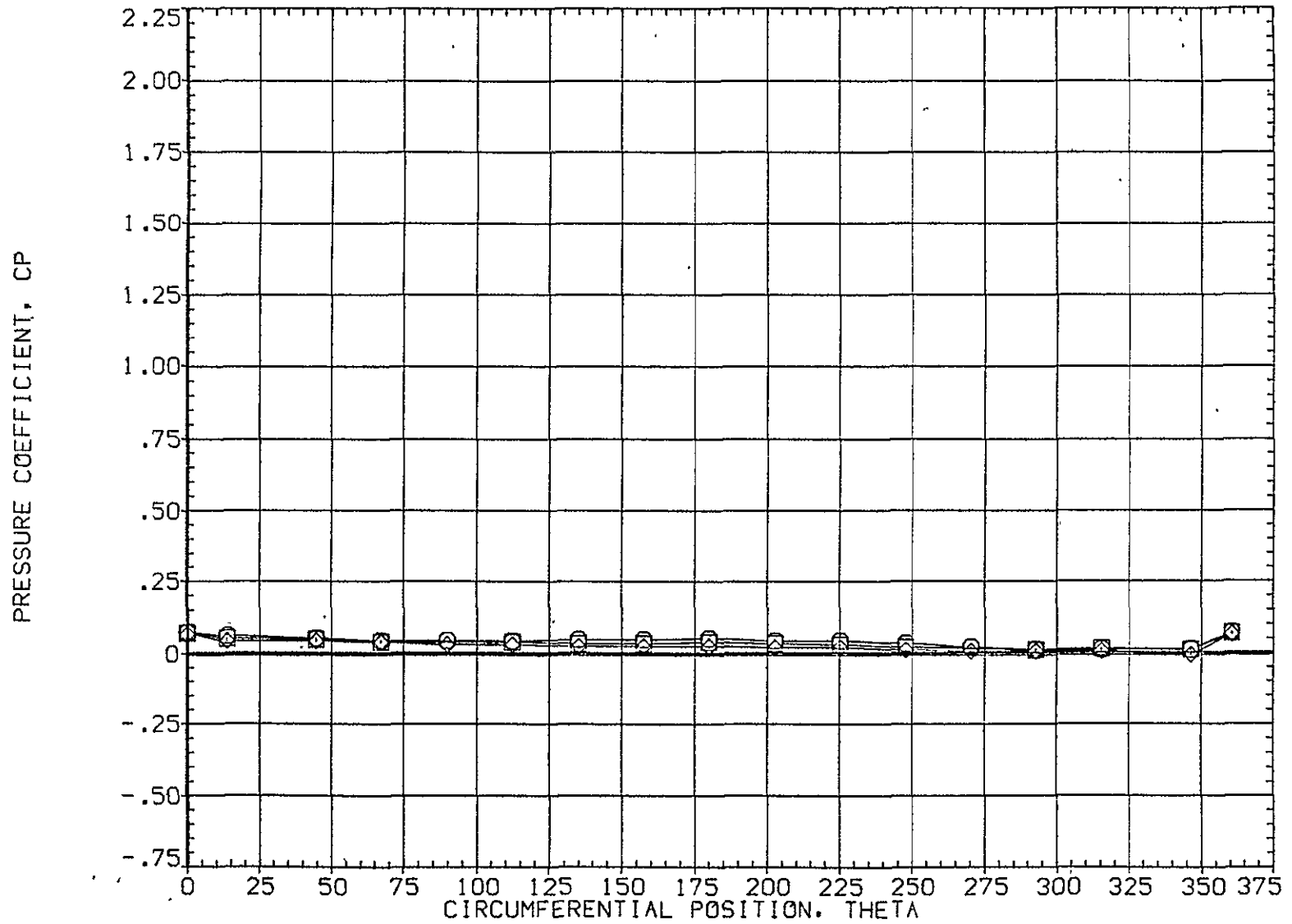


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.610	3.730	4.960	MOUNT	1.000		.000
□	.735						.000
◇	.860						.000

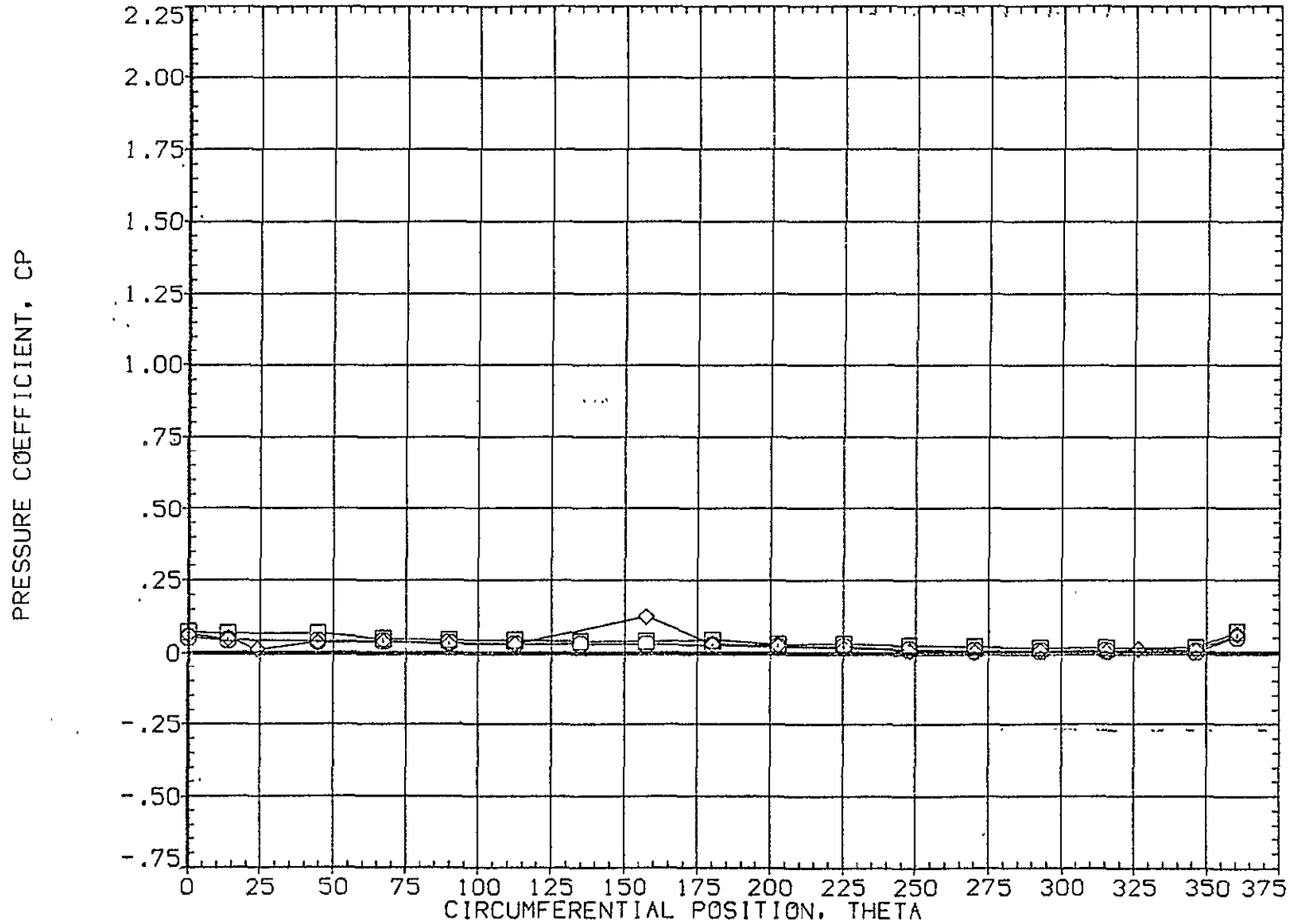


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	3.730	4.960	MOUNT	1.000	PHI	.000
□	.923						
◇	.954						

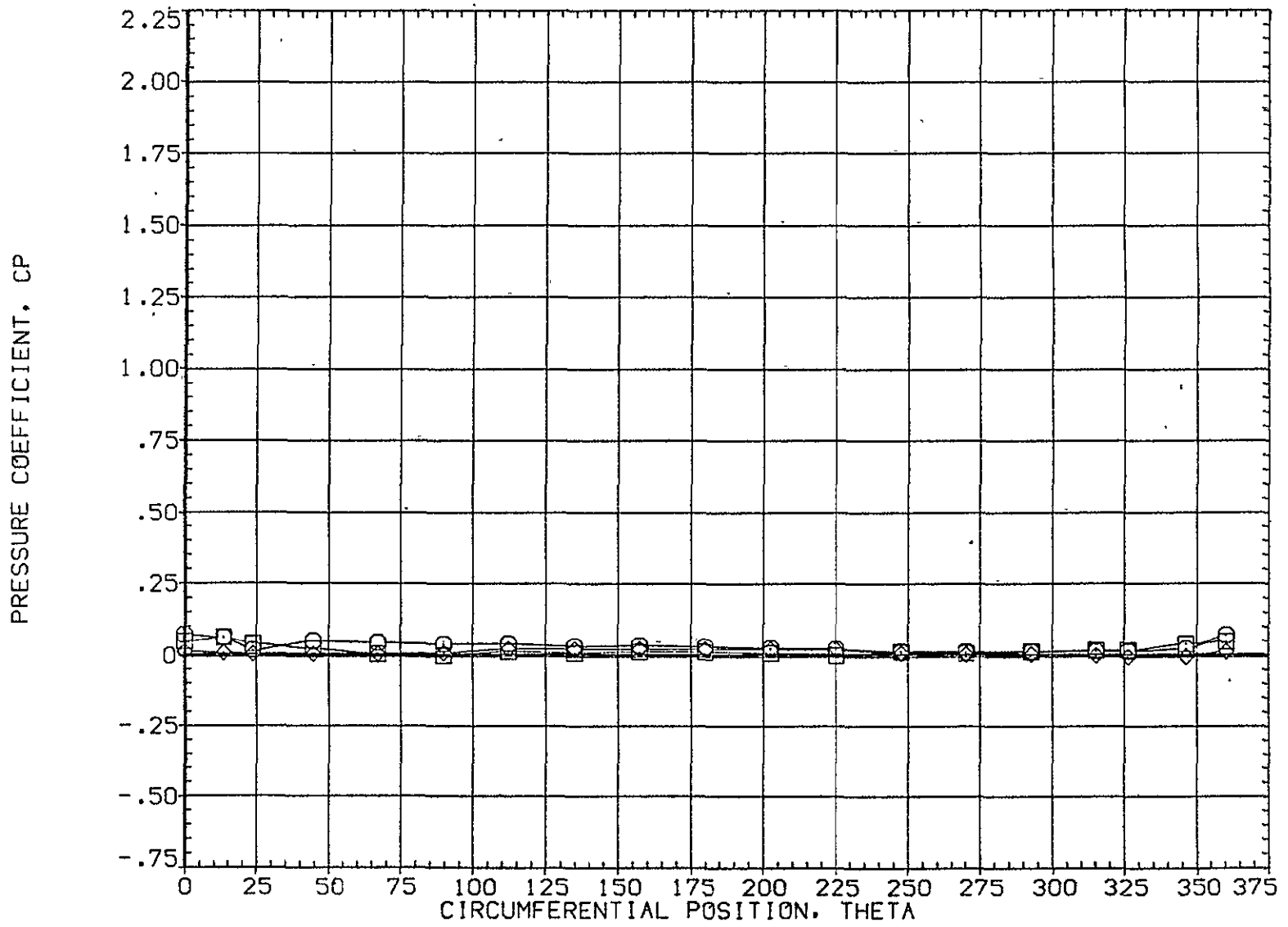


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.750	4.960	MOUNT	1.000	PHI	.000
□	.108						.000
◇	.162						.000

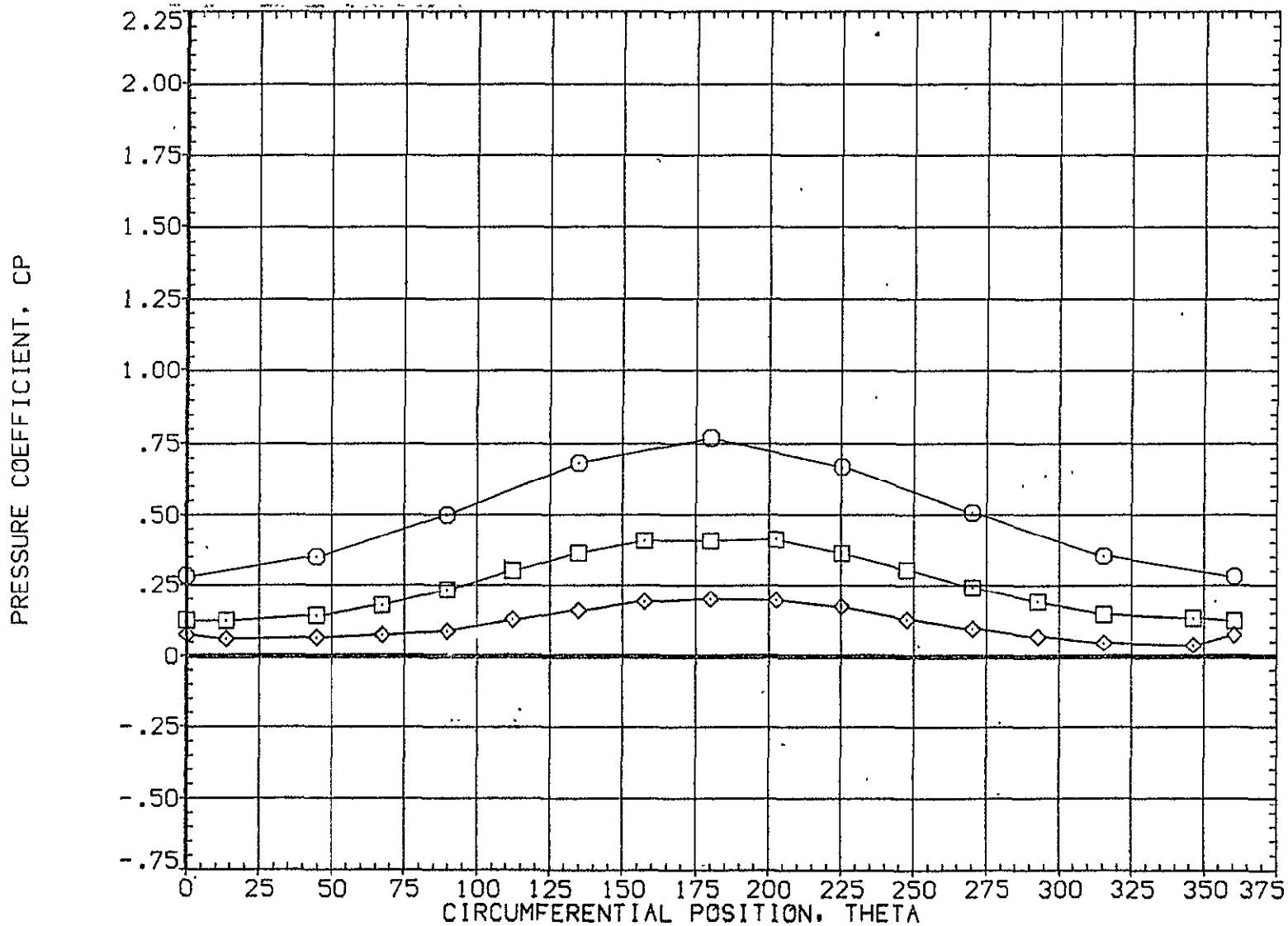


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.216	7.750	4.960	MOUNT	.000		.000
□	.322				1.000		.000
◇	.518						

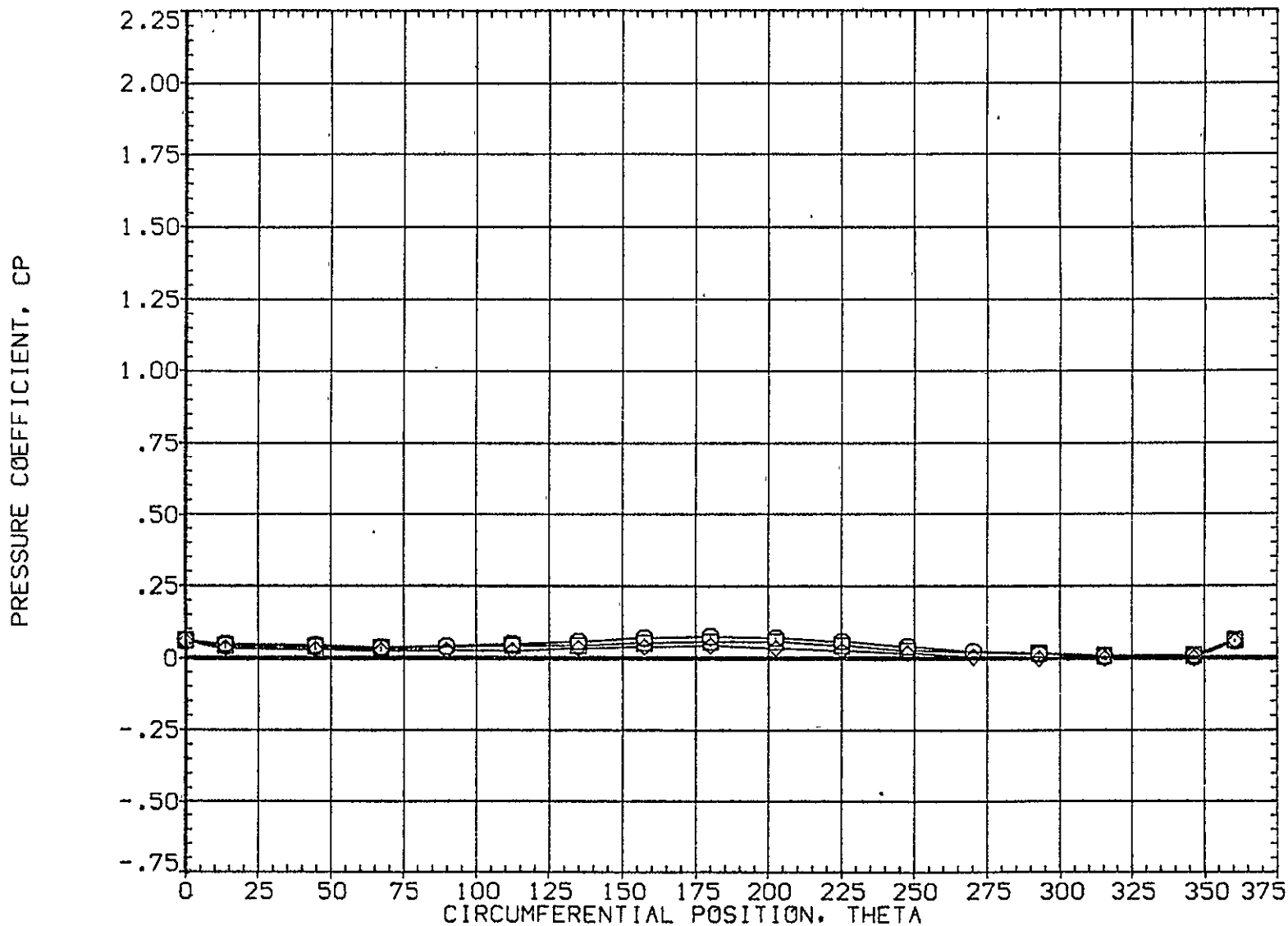


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A005)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.750	4.960	MOUNT	1.000	PHI	.000
□	.735						.000
◇	.860						.000

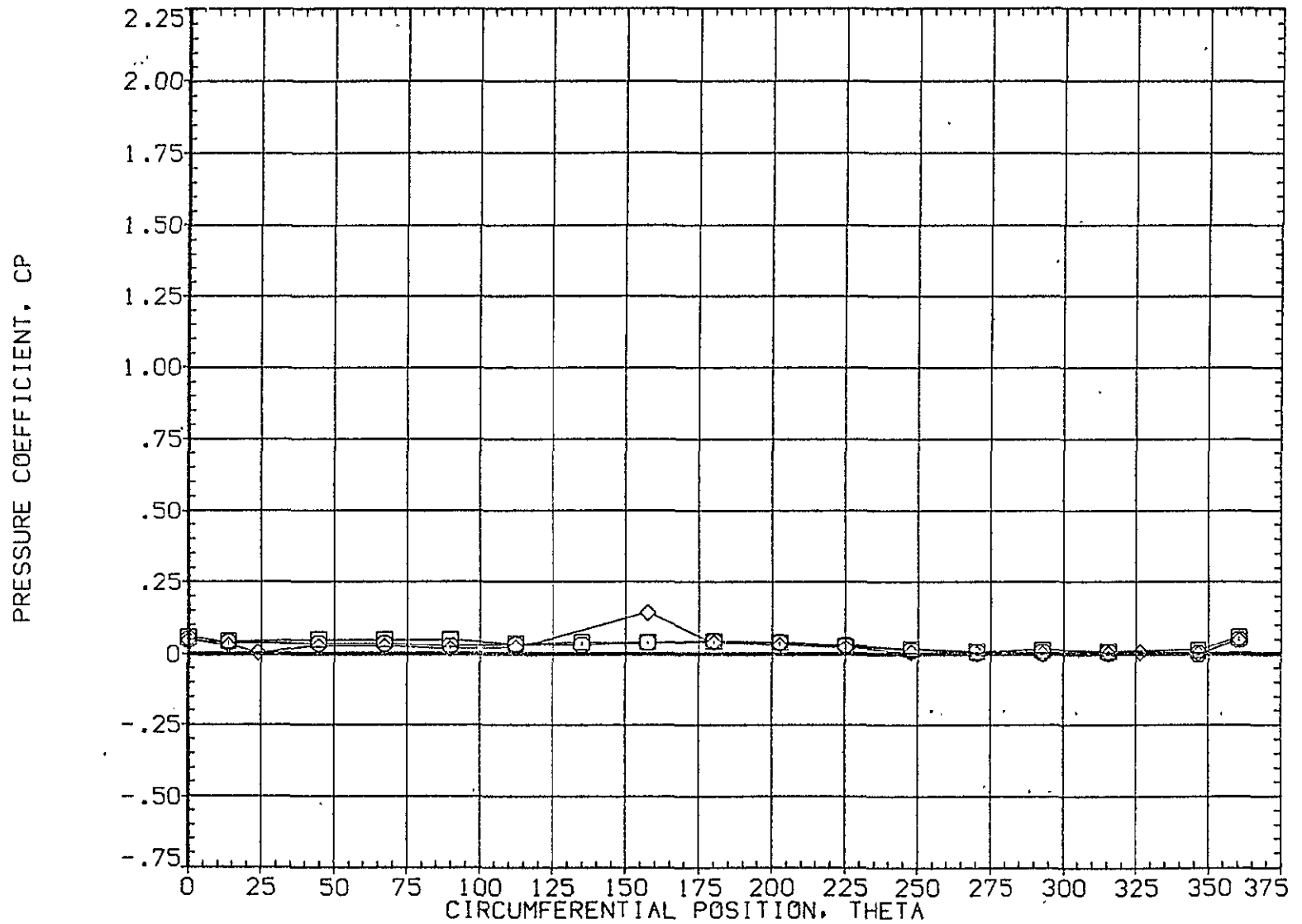


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	7.750	4.960	MOUNT	1.000	PHI	.000
□	.923						.000
◇	.954						.000

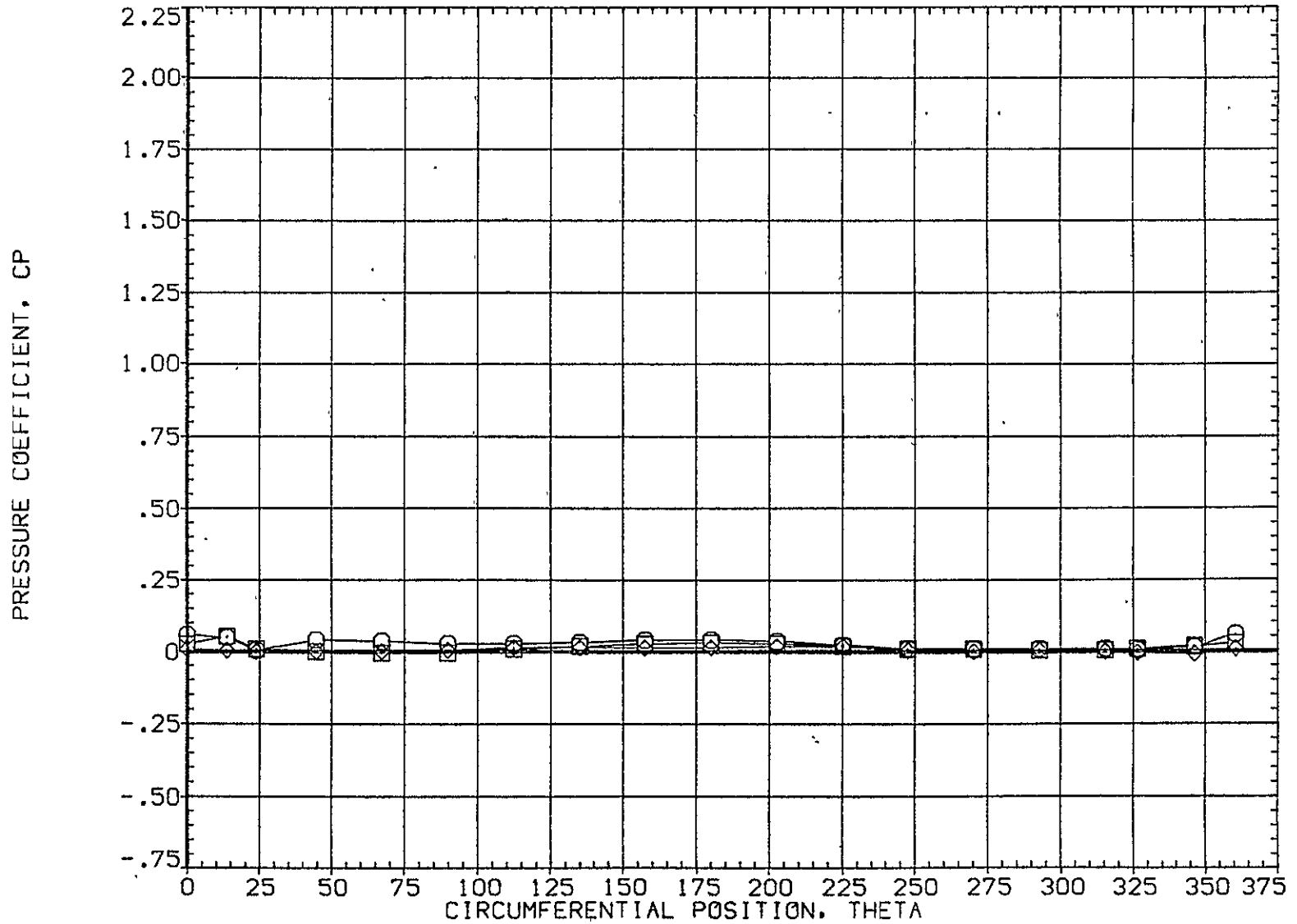


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20,000
○	.055	12.450	4.960	.000	.000	.000	20,000
□	.108			1.000			.000
◇	.162						

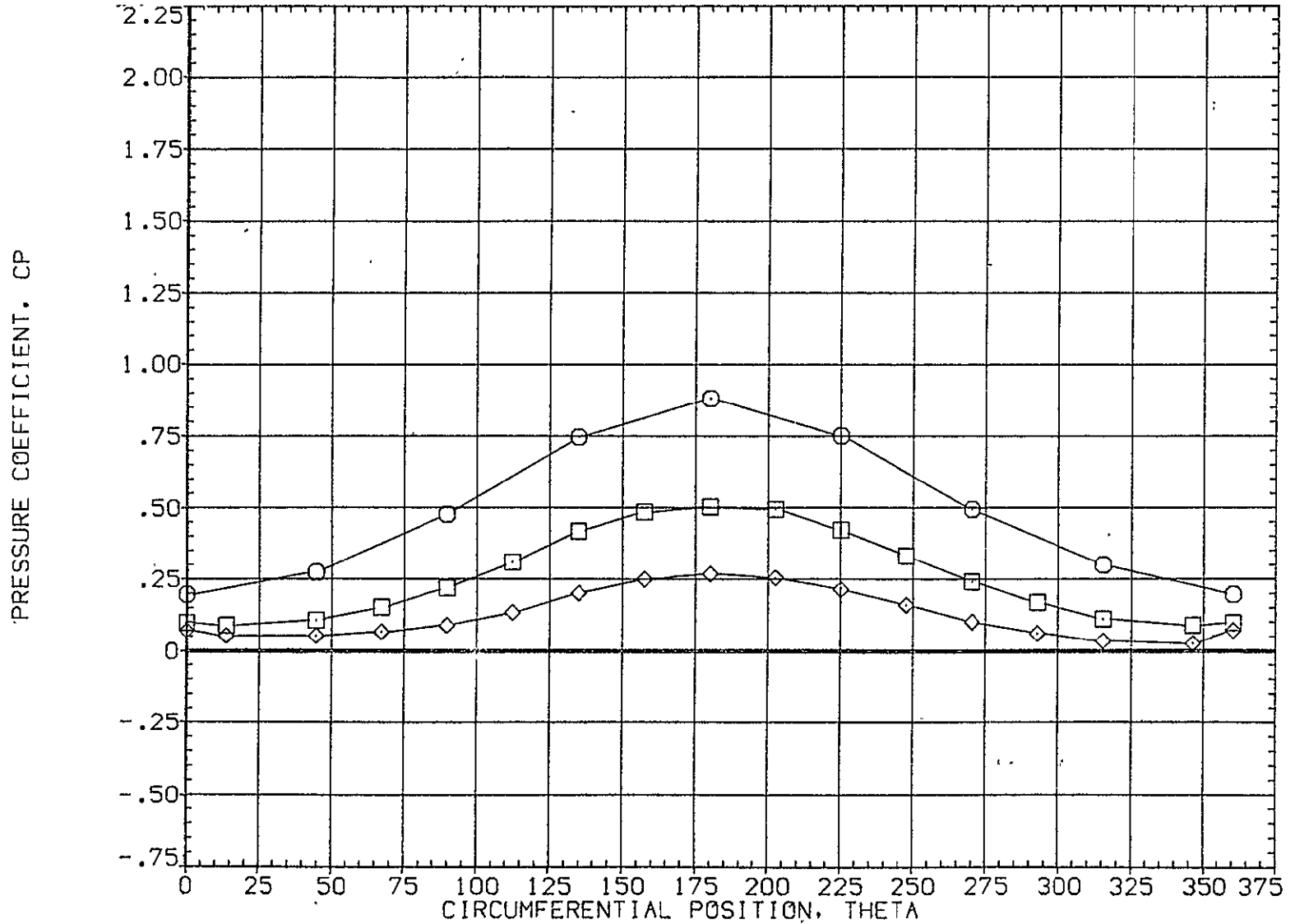


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	12.450	4.960	MGUNT	1.000	PHI	.000
□	.322						
◇	.518						

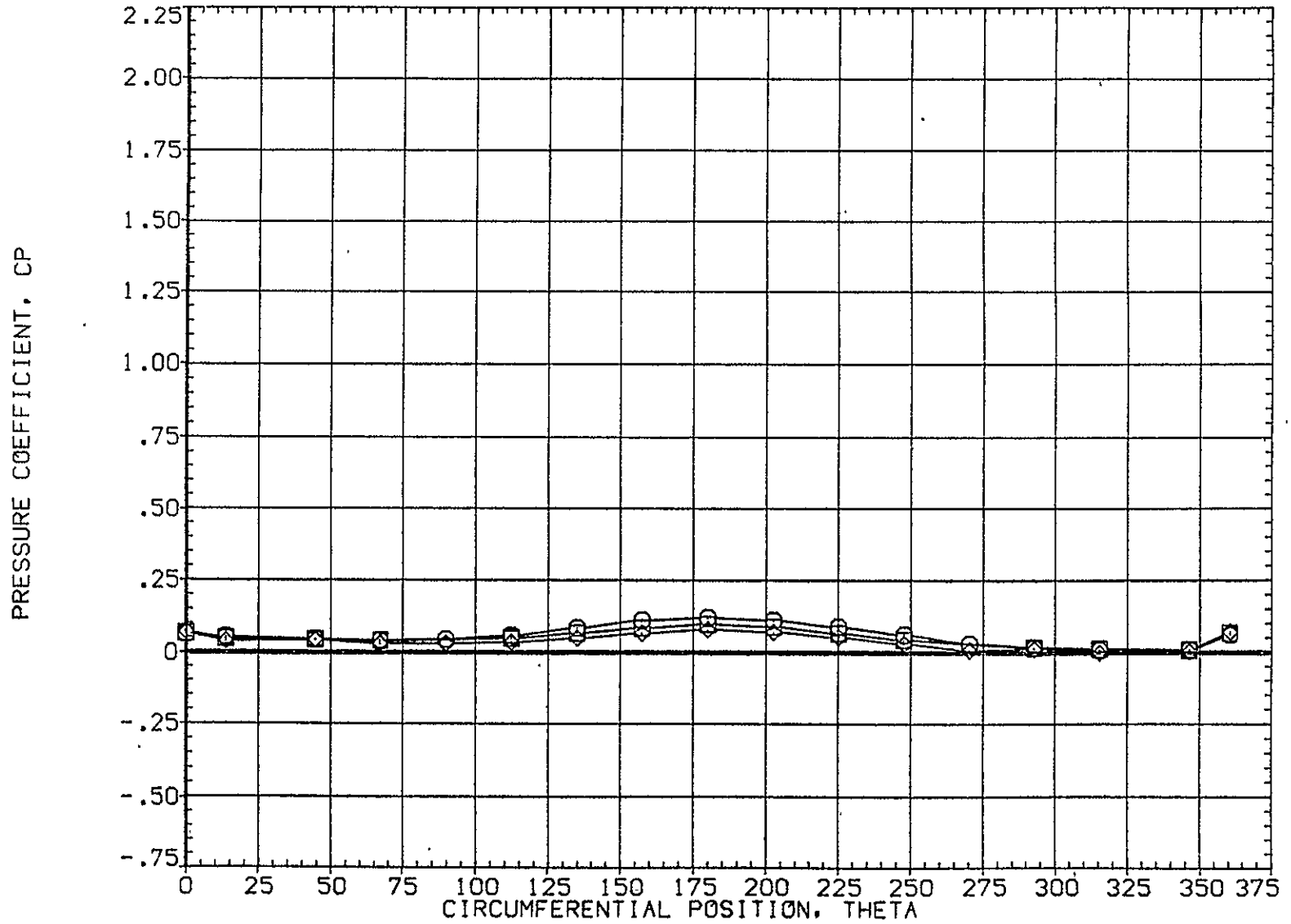


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A006)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	12.450	4.960	MOUNT	1.000	PHI	.000
□	.735						
◇	.860						

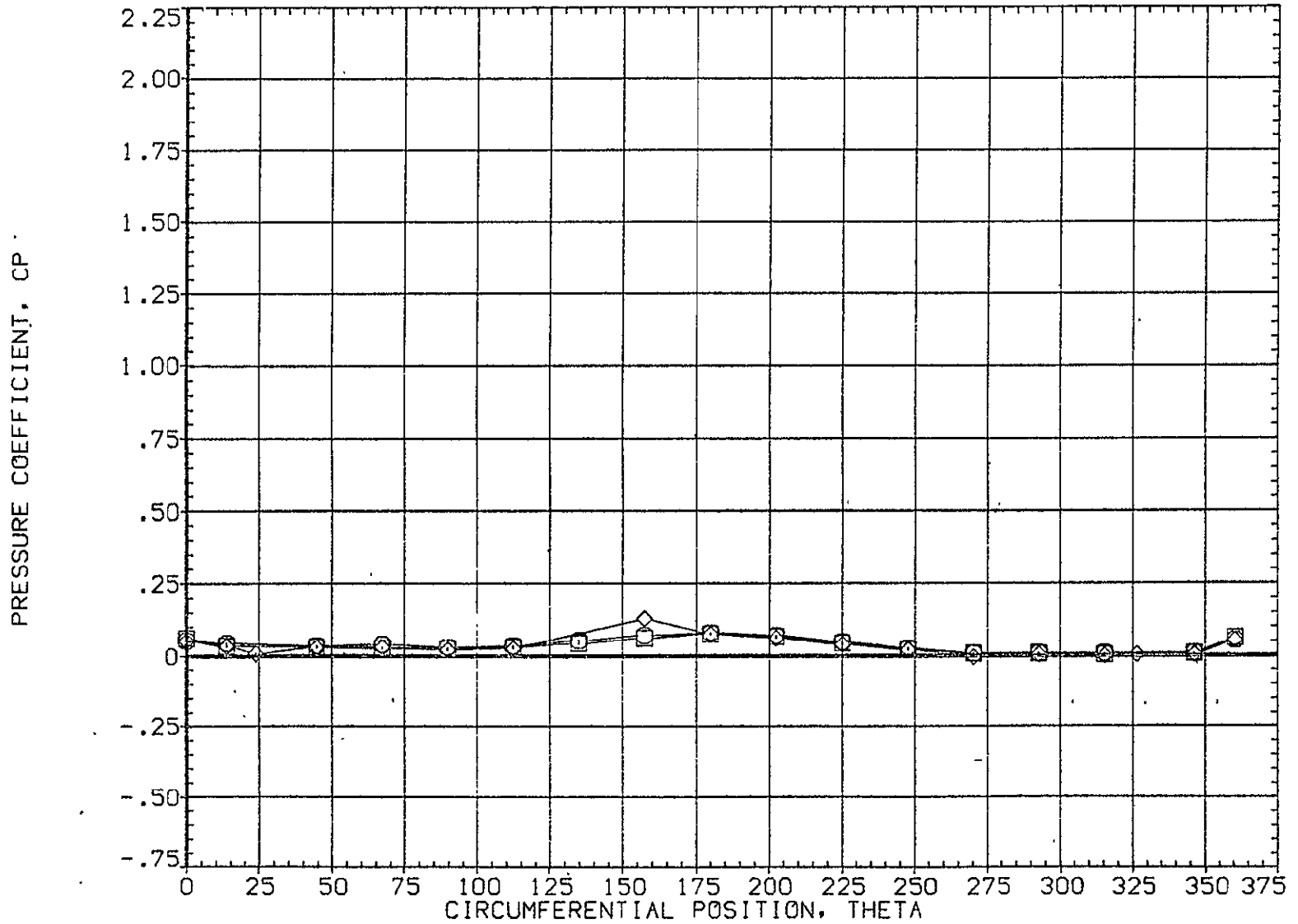


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET		
○	.892	12.450	4.960	MOUNT	1.000	PHI	20.000
□	.923						.000
◇	.954						.000

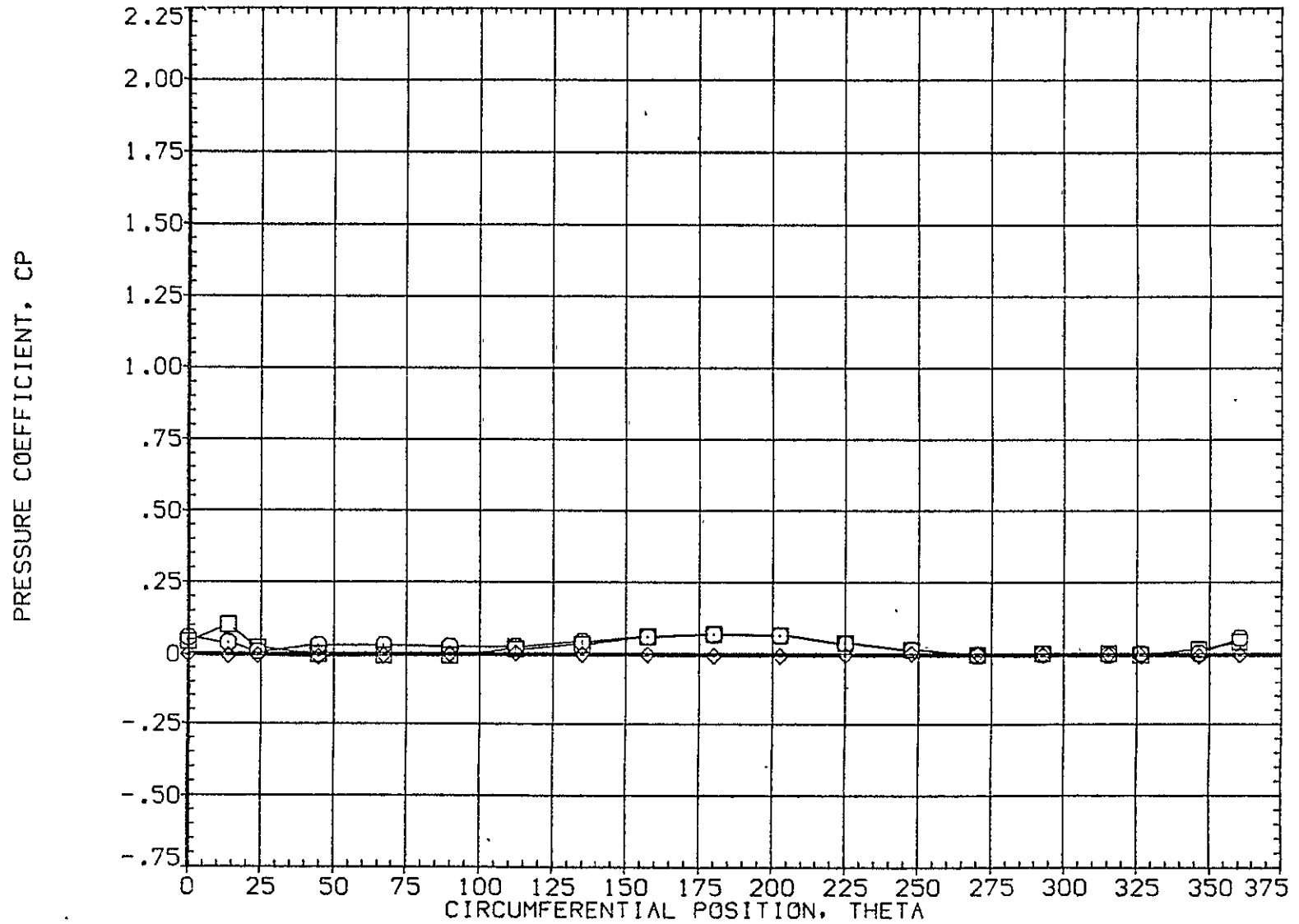


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.055	16.470	4.960	MOUNT	1.000	PHI	.000
□	.108						
◇	.162						

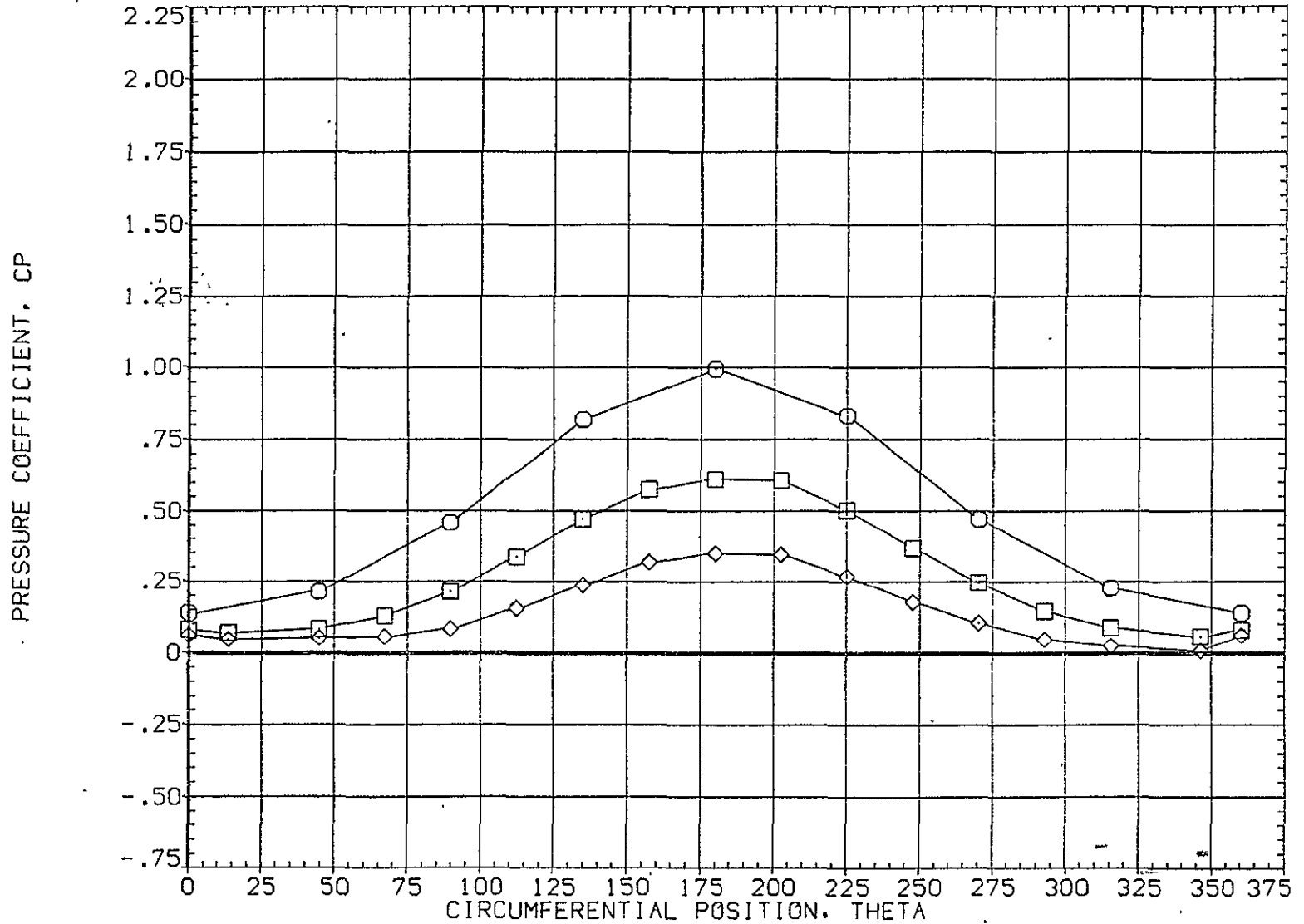


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 16.470 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI .000

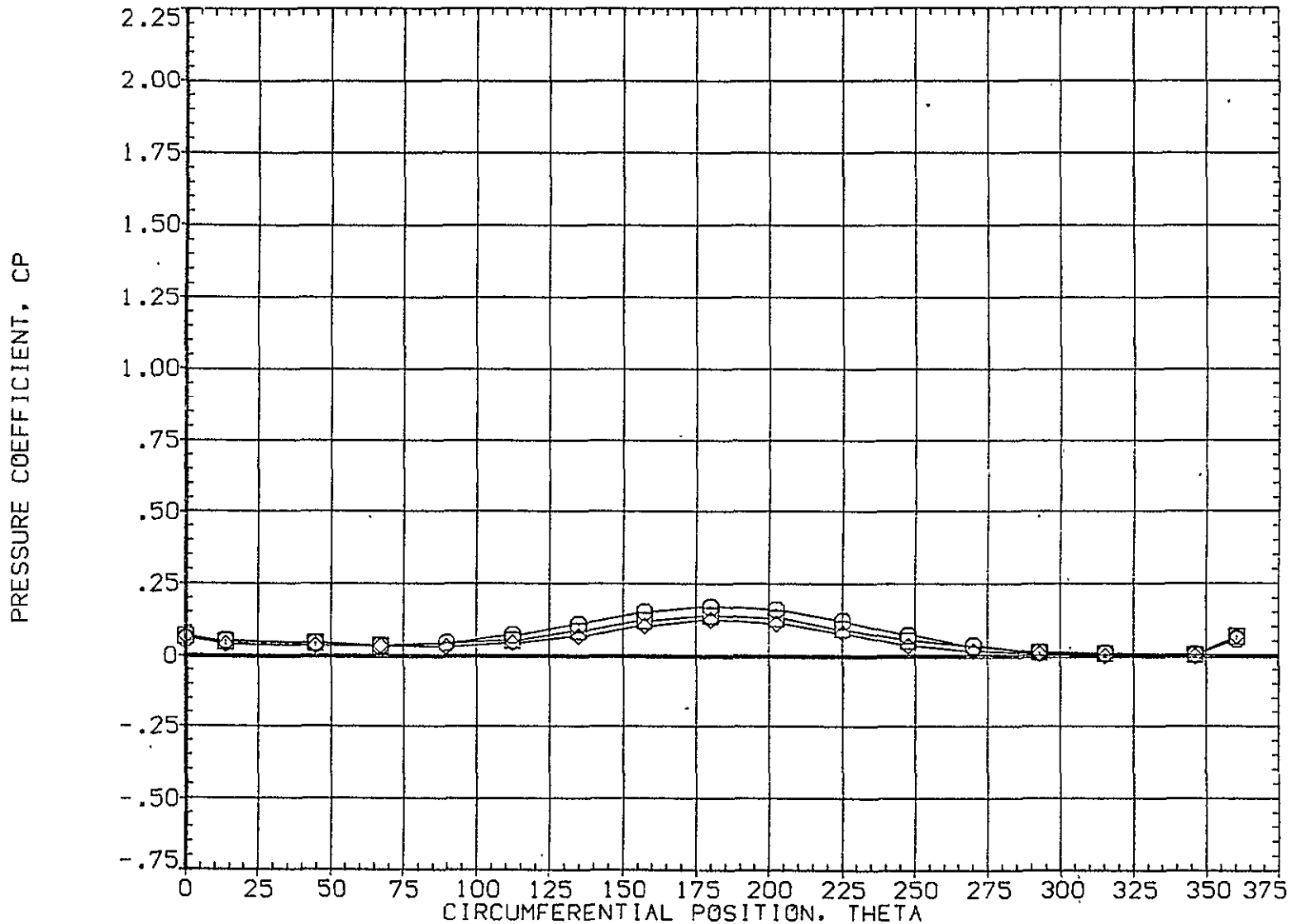


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	16.470	4.960	.000	20.000	
□	.735			1.000		
◇	.860					

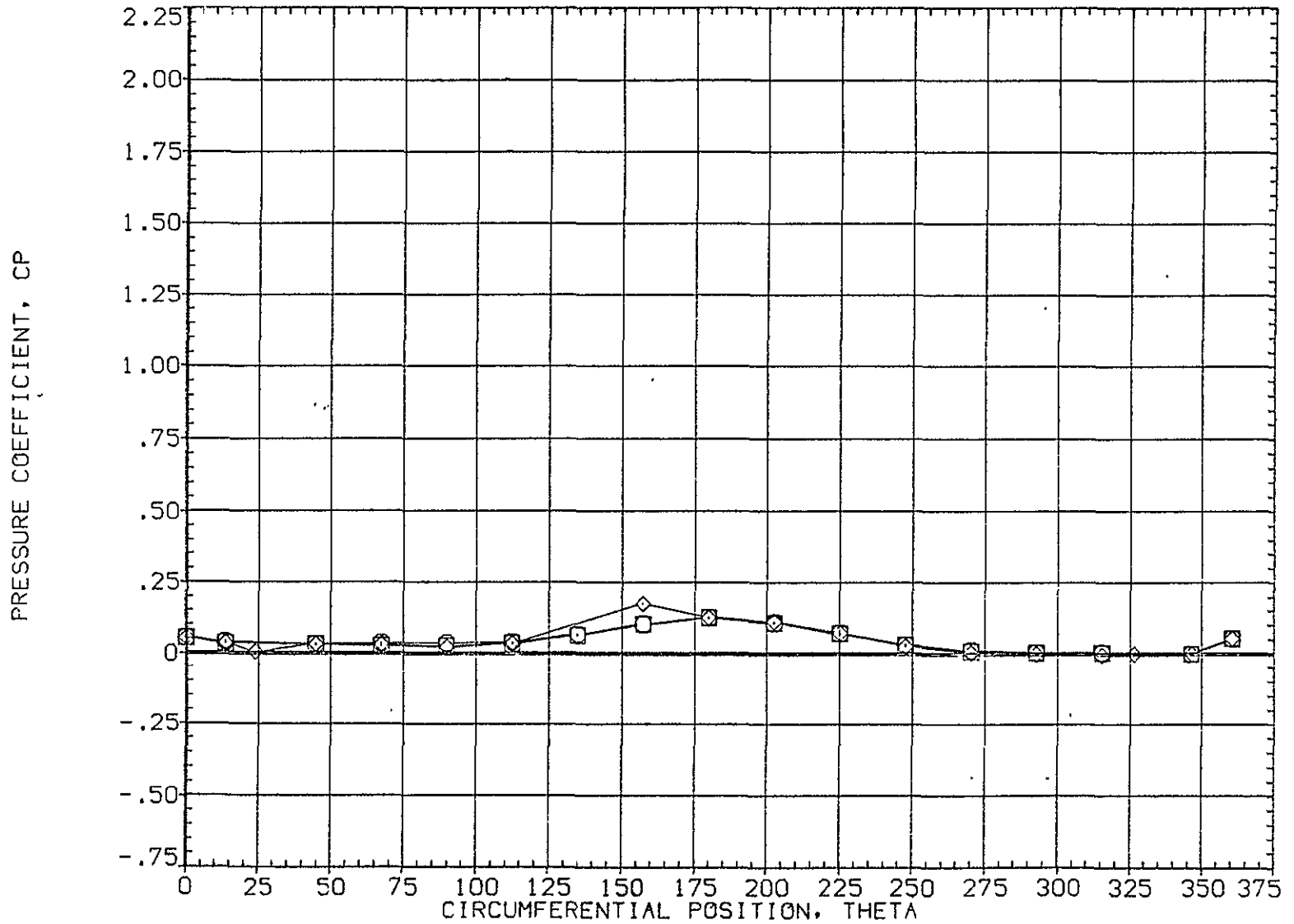


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	16.470	4.960	MOUNT	1.000	PHI	.000
□	.923						
◇	.954						

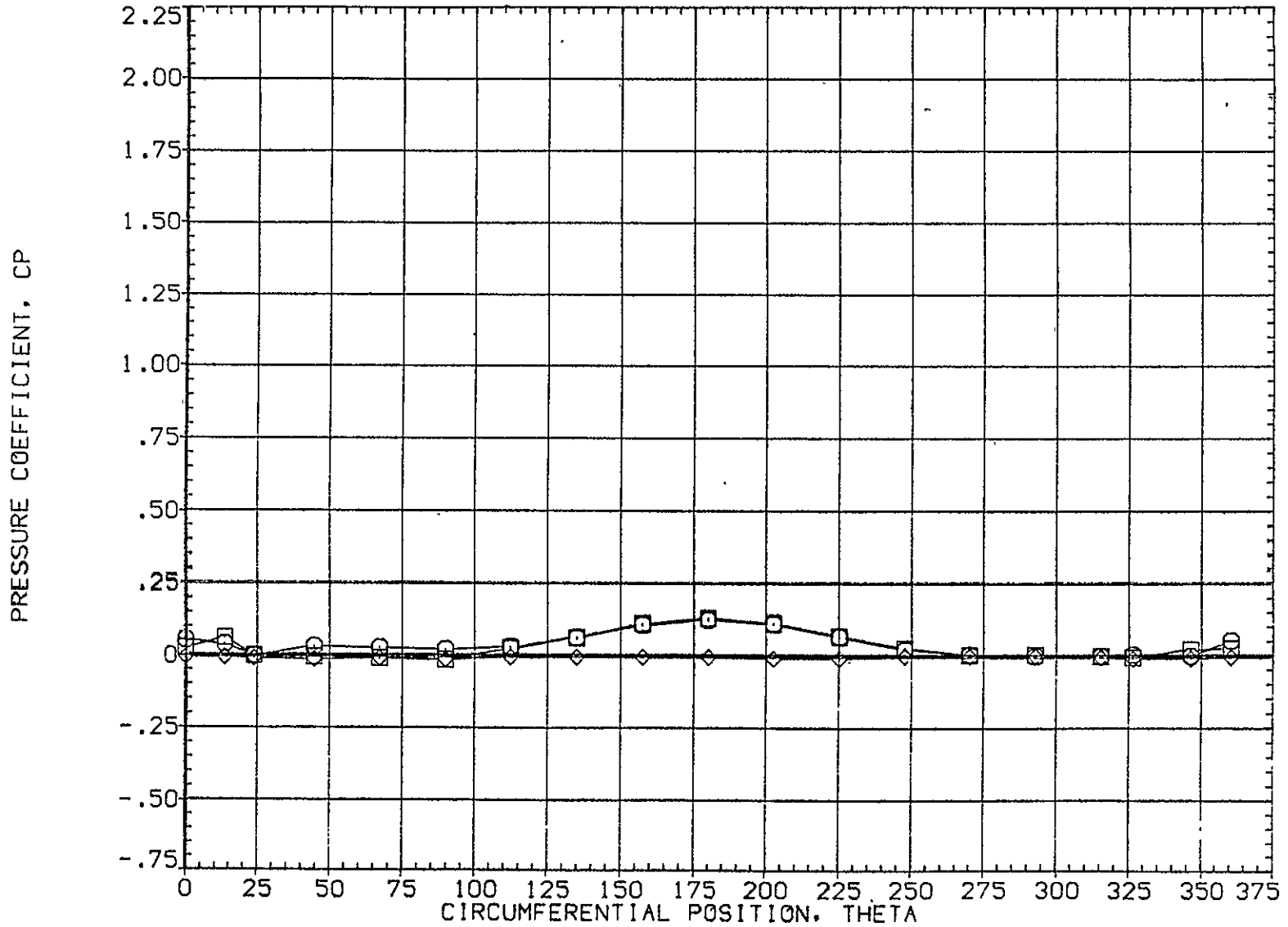


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.055	20.490	4.960	BETA	.000	OFFSET	20.000
□	.108			MOUNT	1.000	PHI	.000
◇	.162						

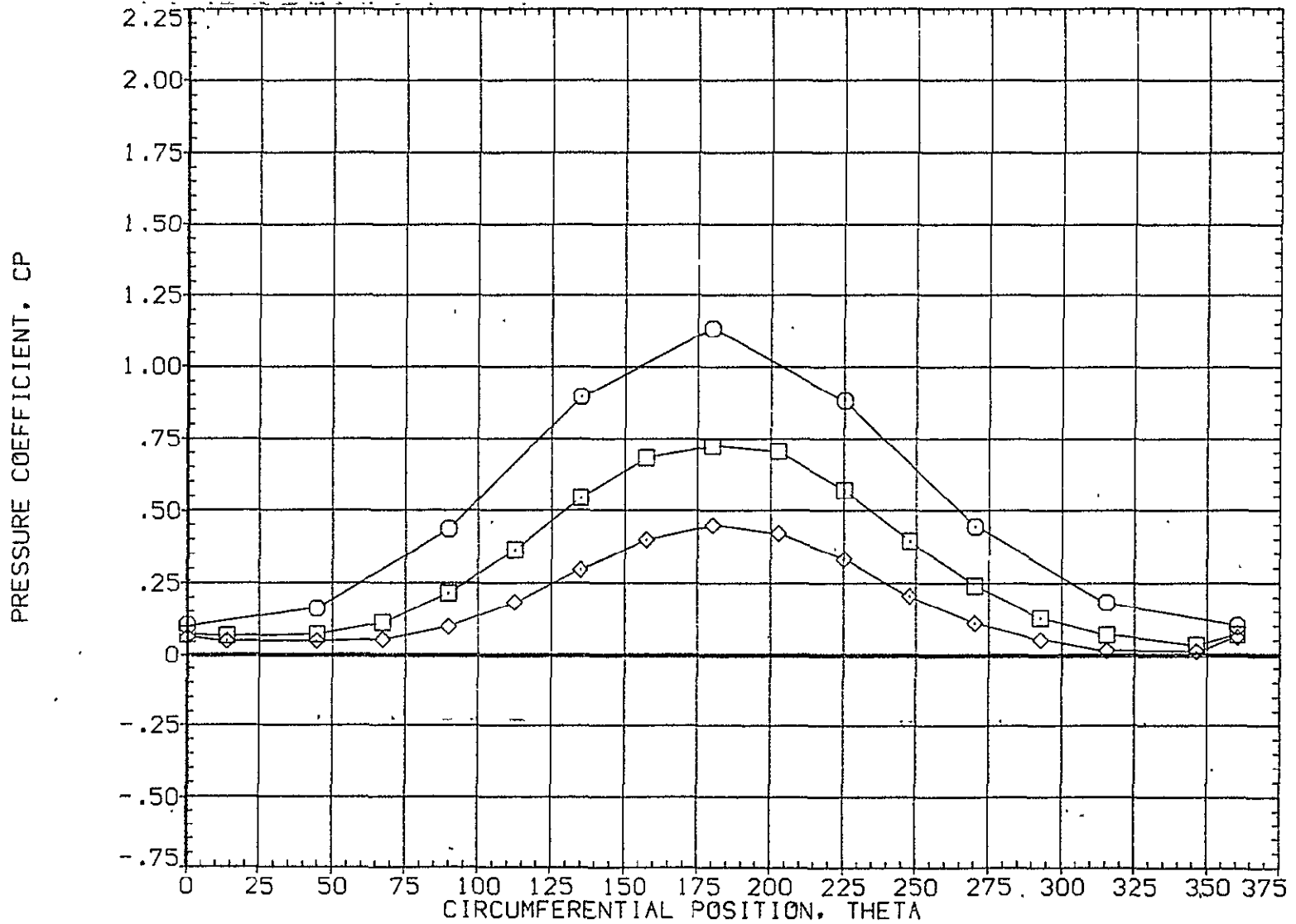


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 20.490 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI .000

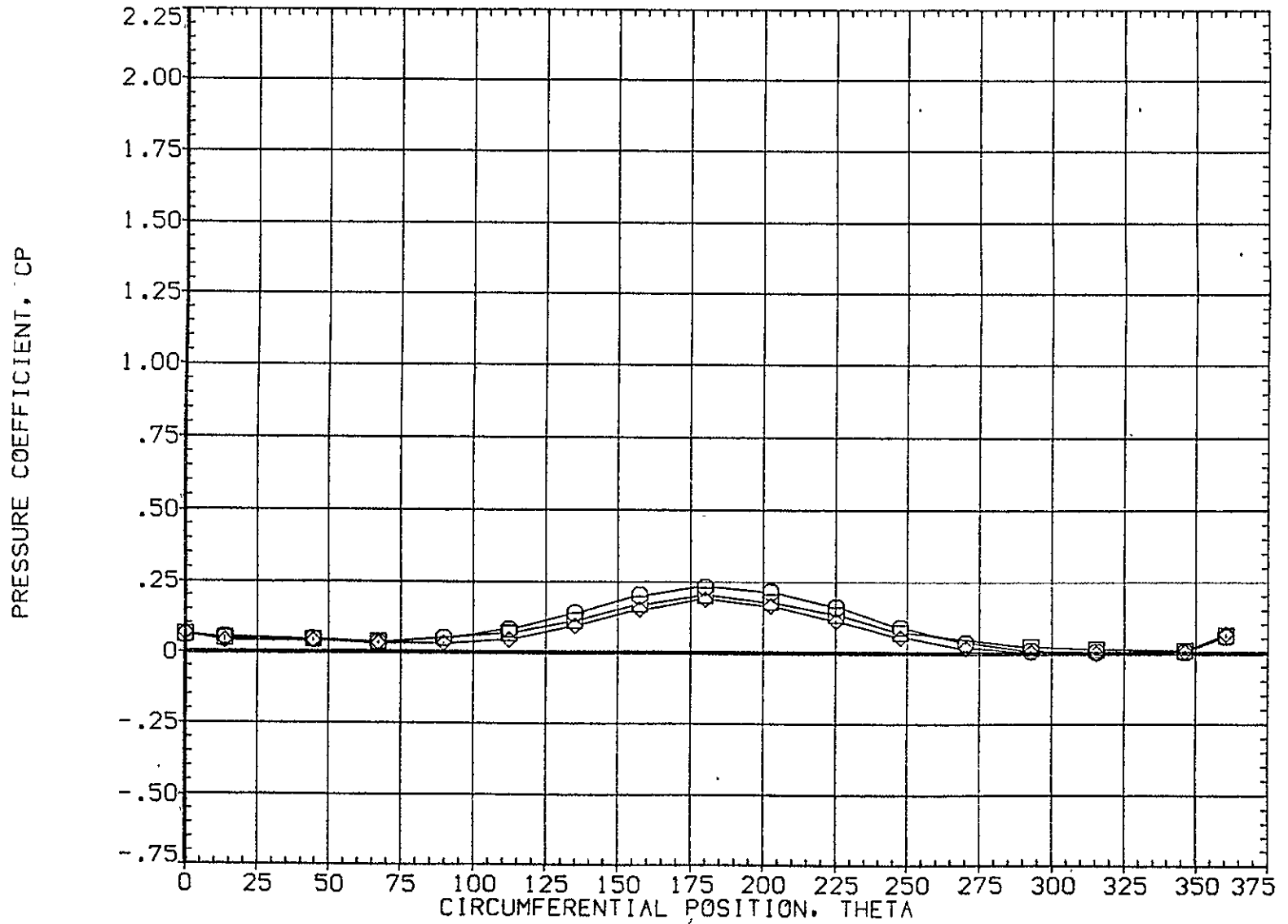


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	20.490	4.960	.000	20.000	
□	.735			1.000		
◇	.860					

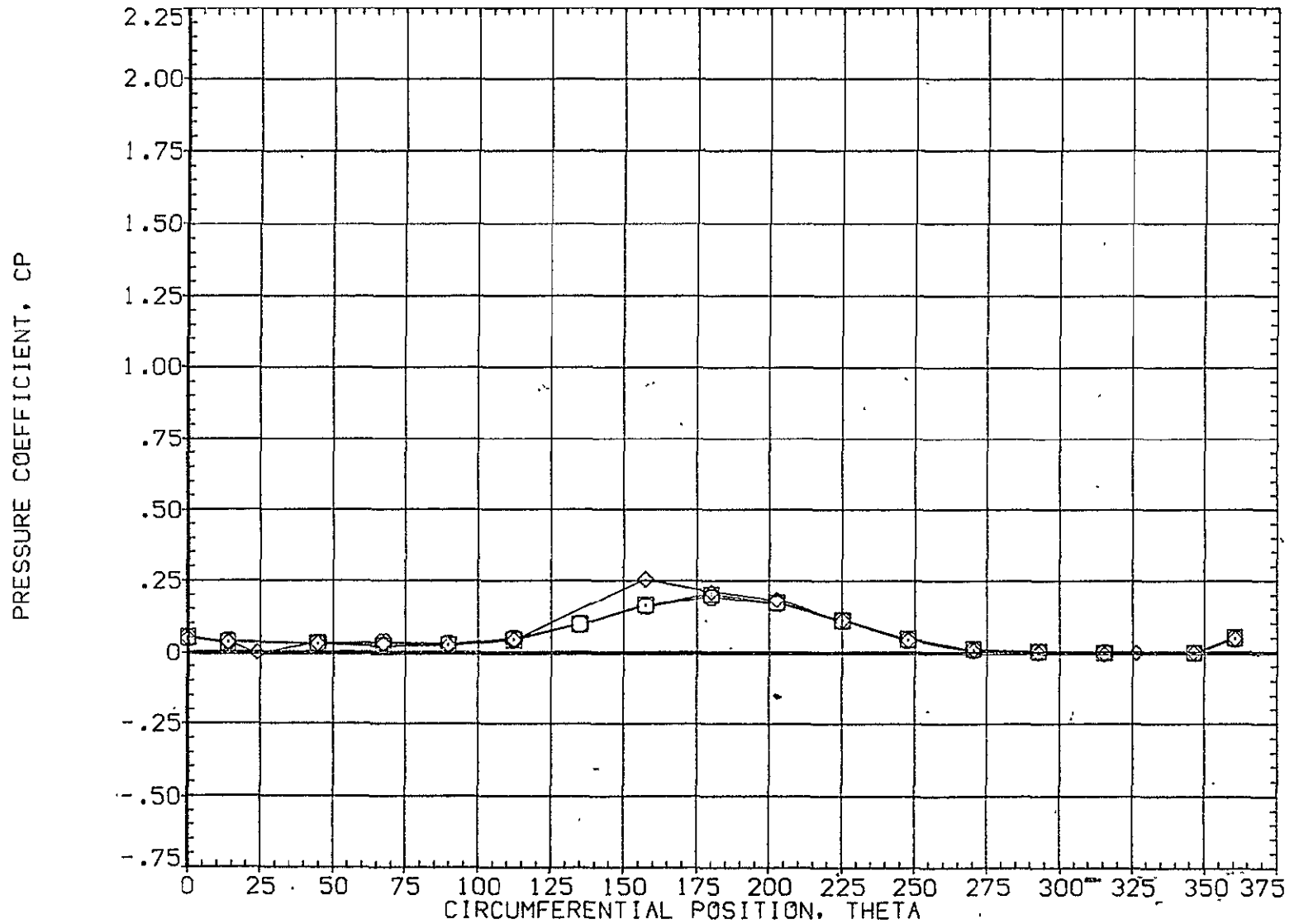


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES.

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	20.490	4.960	.000	20.000	
□	.923			1.000		.000
◇	.954					

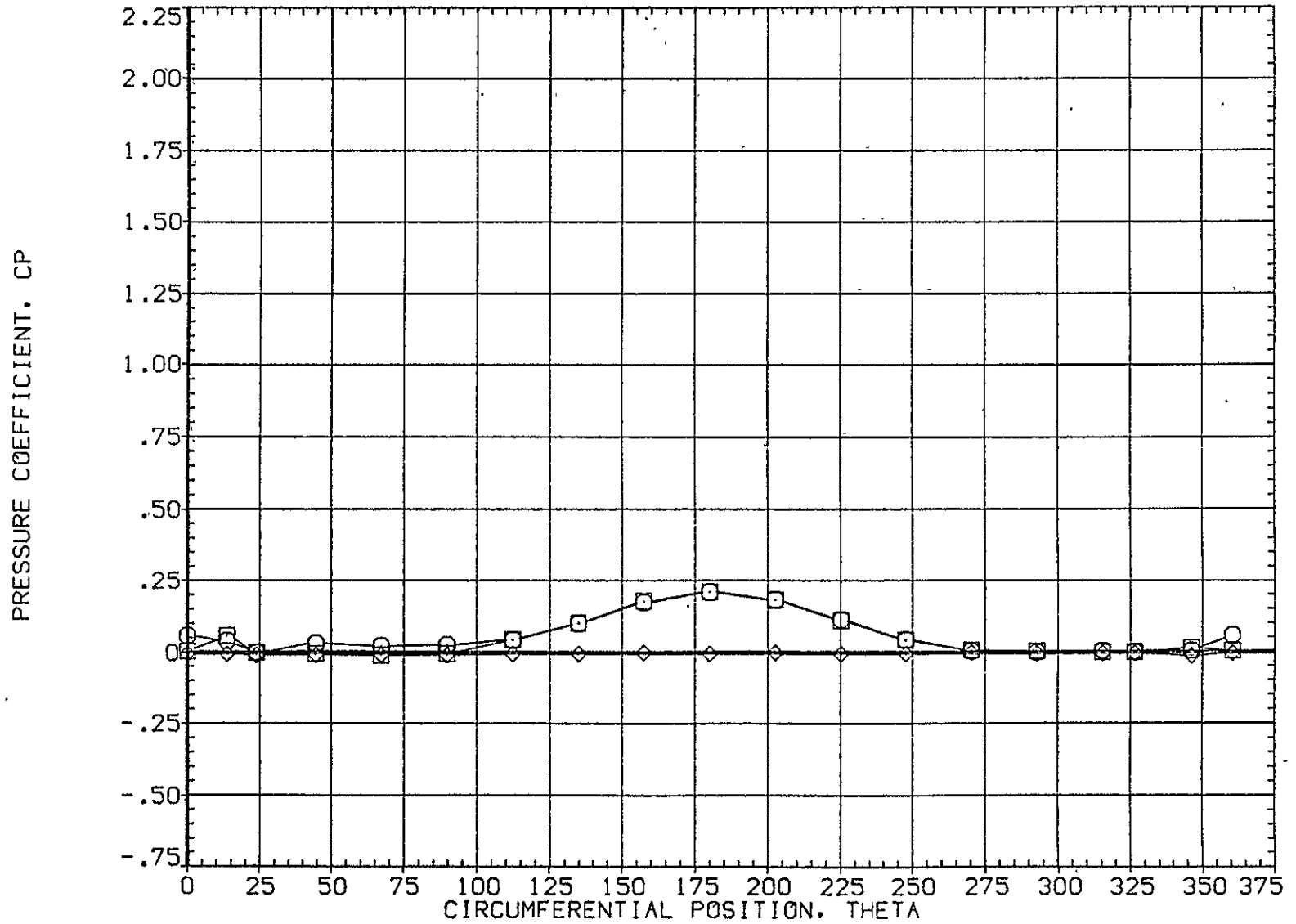


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	24.510	4.960	MOUNT	1.000	PHI	.000
□	.108						
◇	.162						

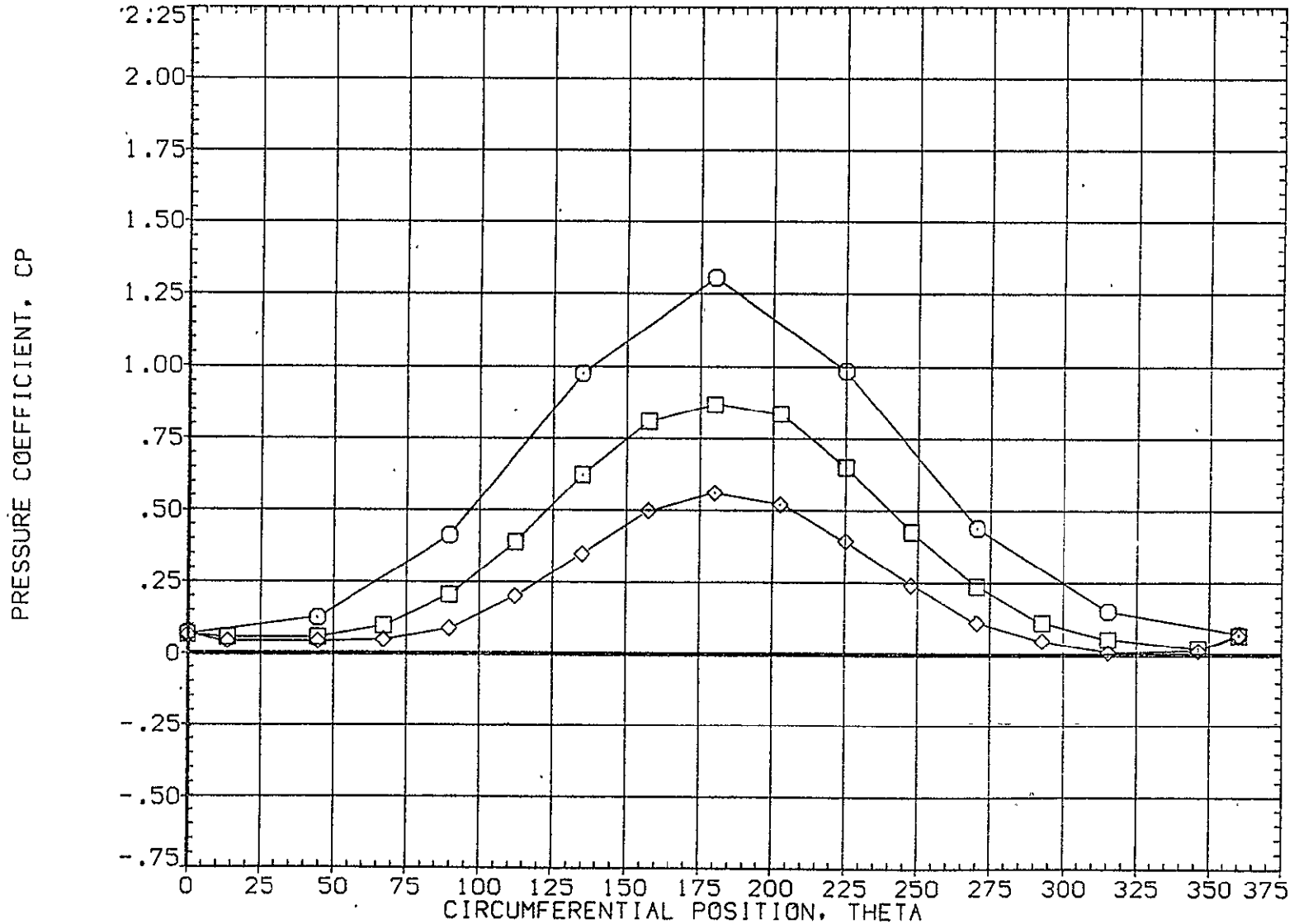


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	24.510	4.960	MOUNT	1.000	PHI	.000
□	.322						
◇	.518						

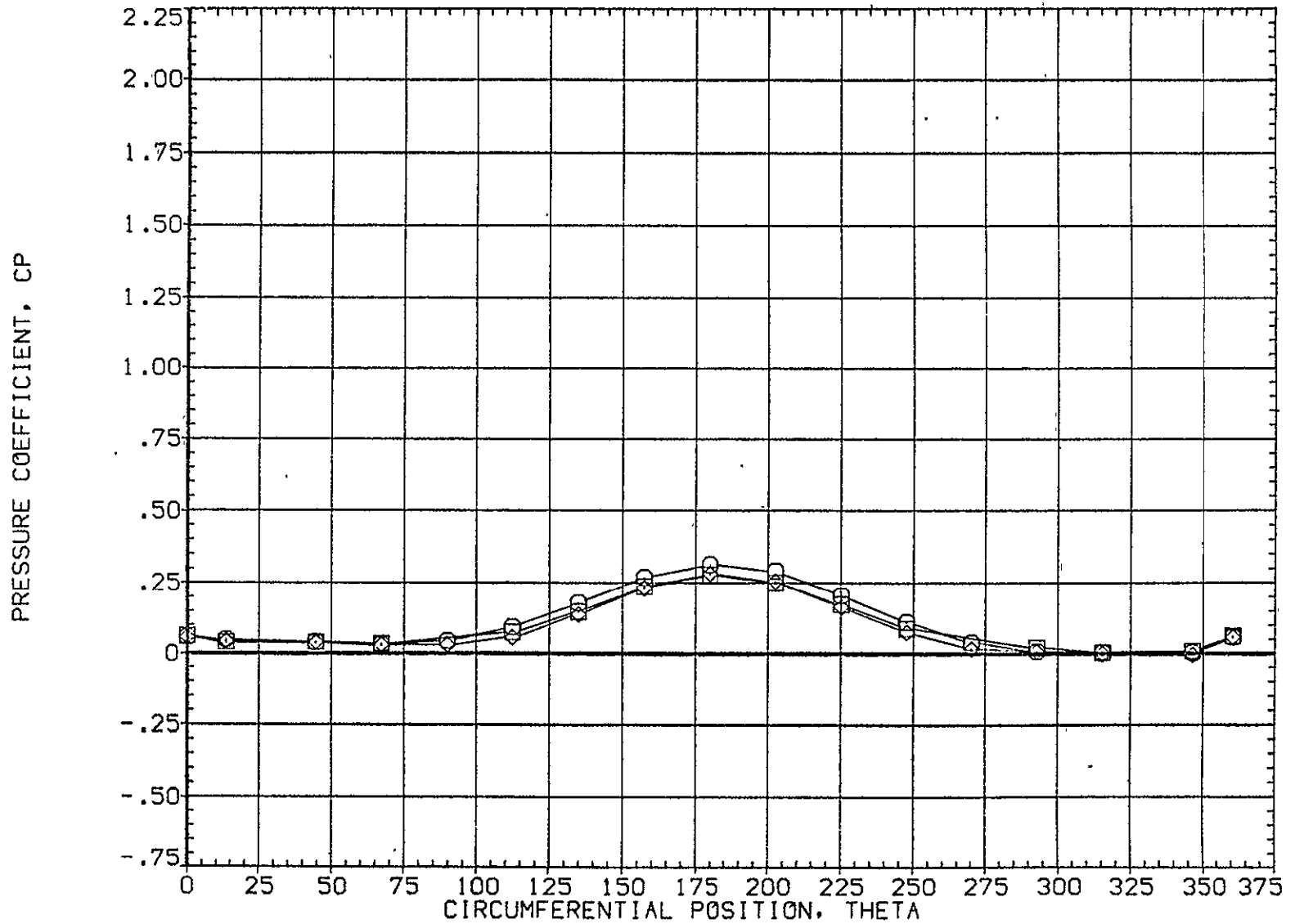


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .610 24.510 4.960
 .735
 .860

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI .000

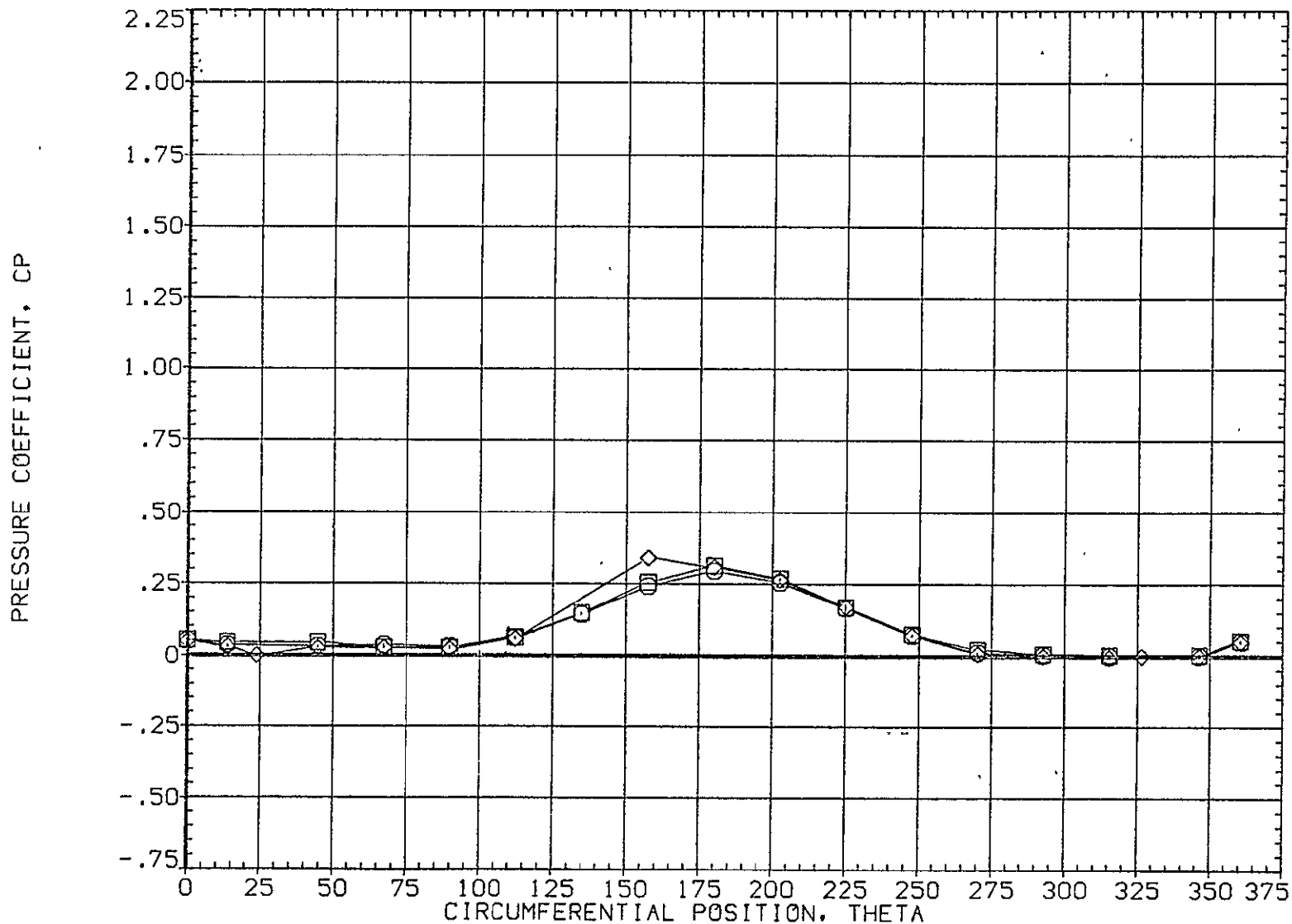


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	24.510	4.960		20.000	
□	.923			MOUNT	1.000	PHI
◇	.954					.000

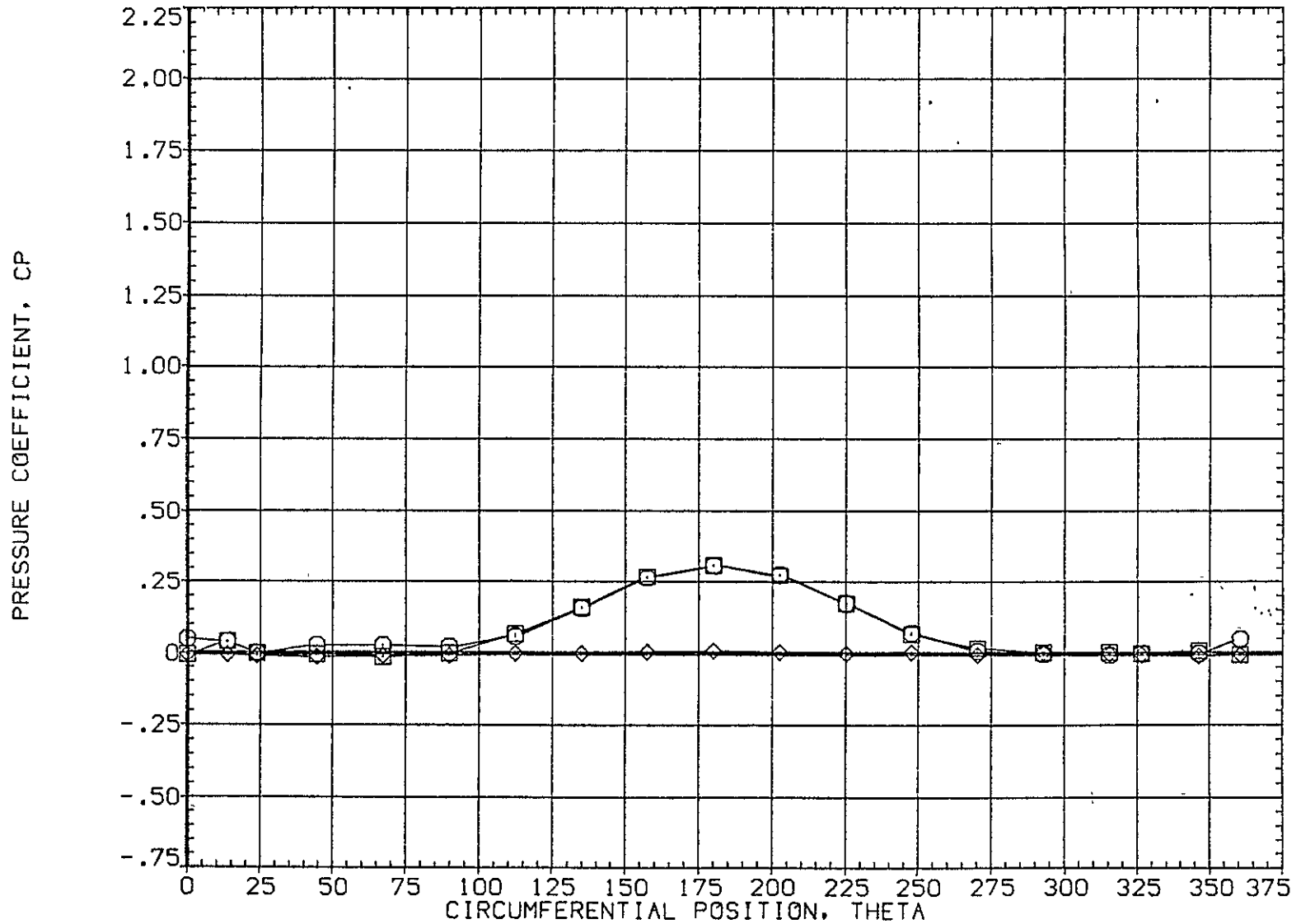


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.055	28.540	4.960
□	.108		
◇	.162		

PARAMETRIC VALUES			
BETA	.000	OFFSET	20.000
MOUNT	1.000	PHI	.000

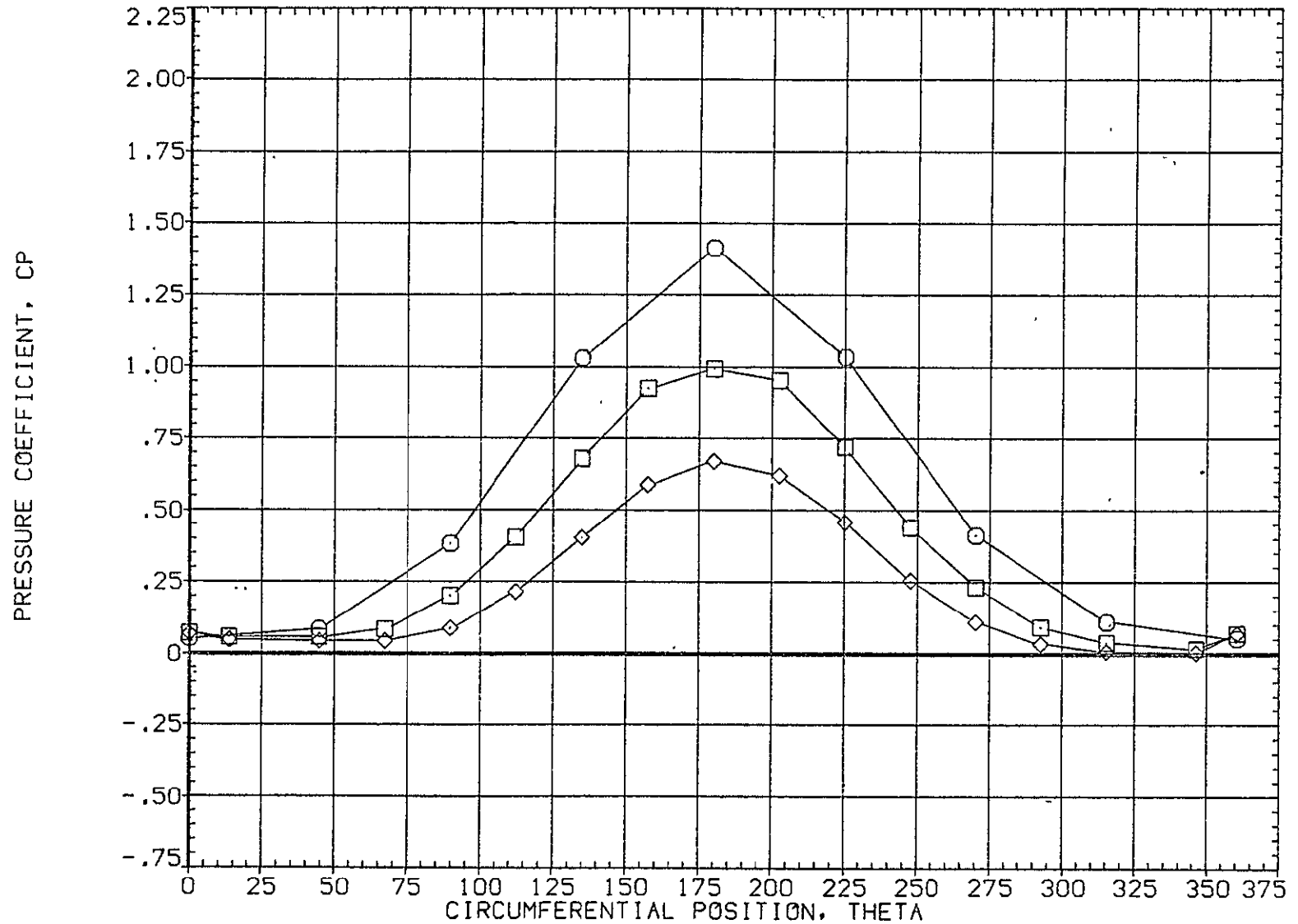


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	28.540	4.960	MOUNT	1.000	PHI	.000
□	.322						
◇	.518						

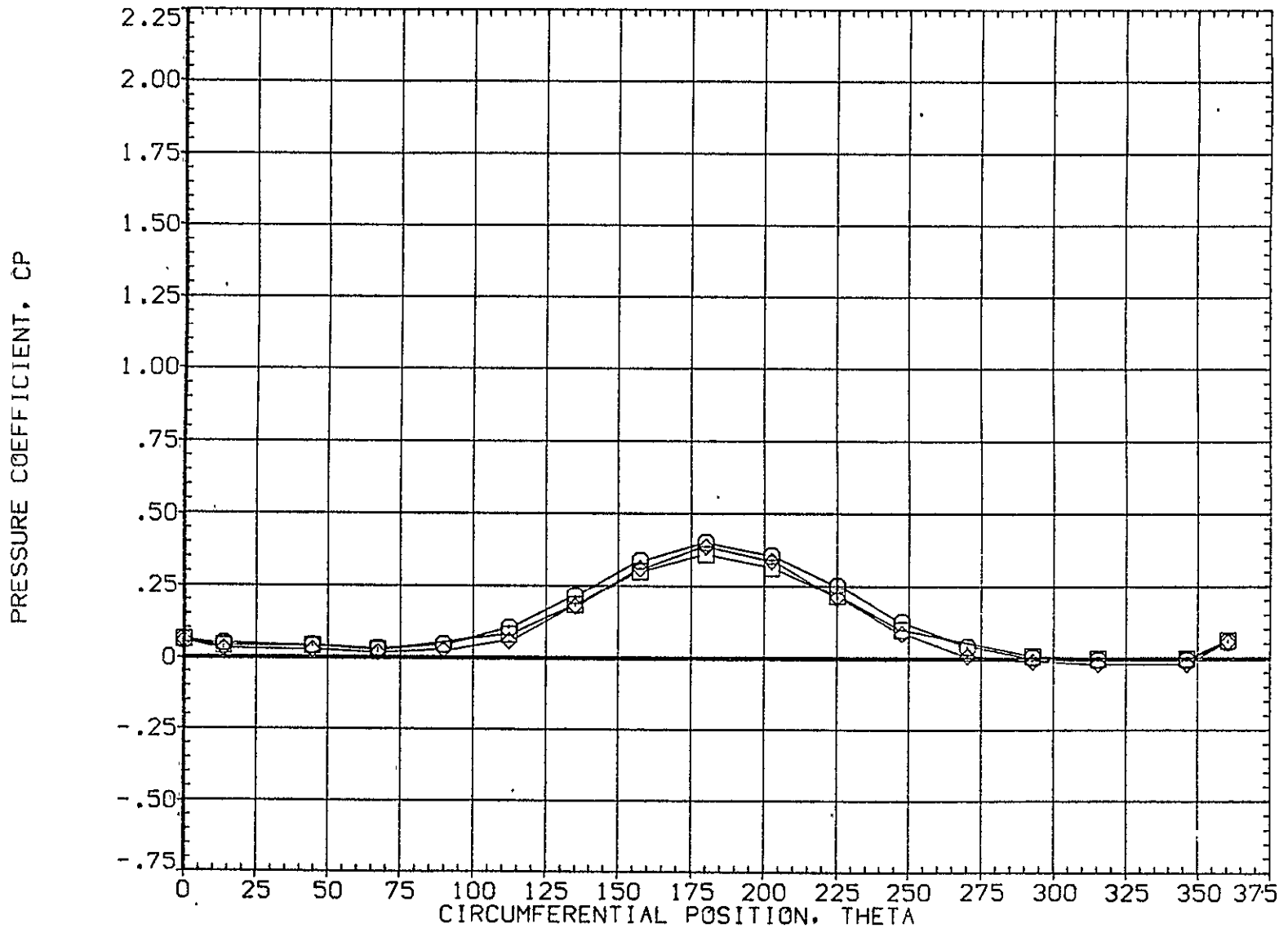


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	28.540	4.960	.000	20.000	
□	.735			1.000		.000
◇	.860					

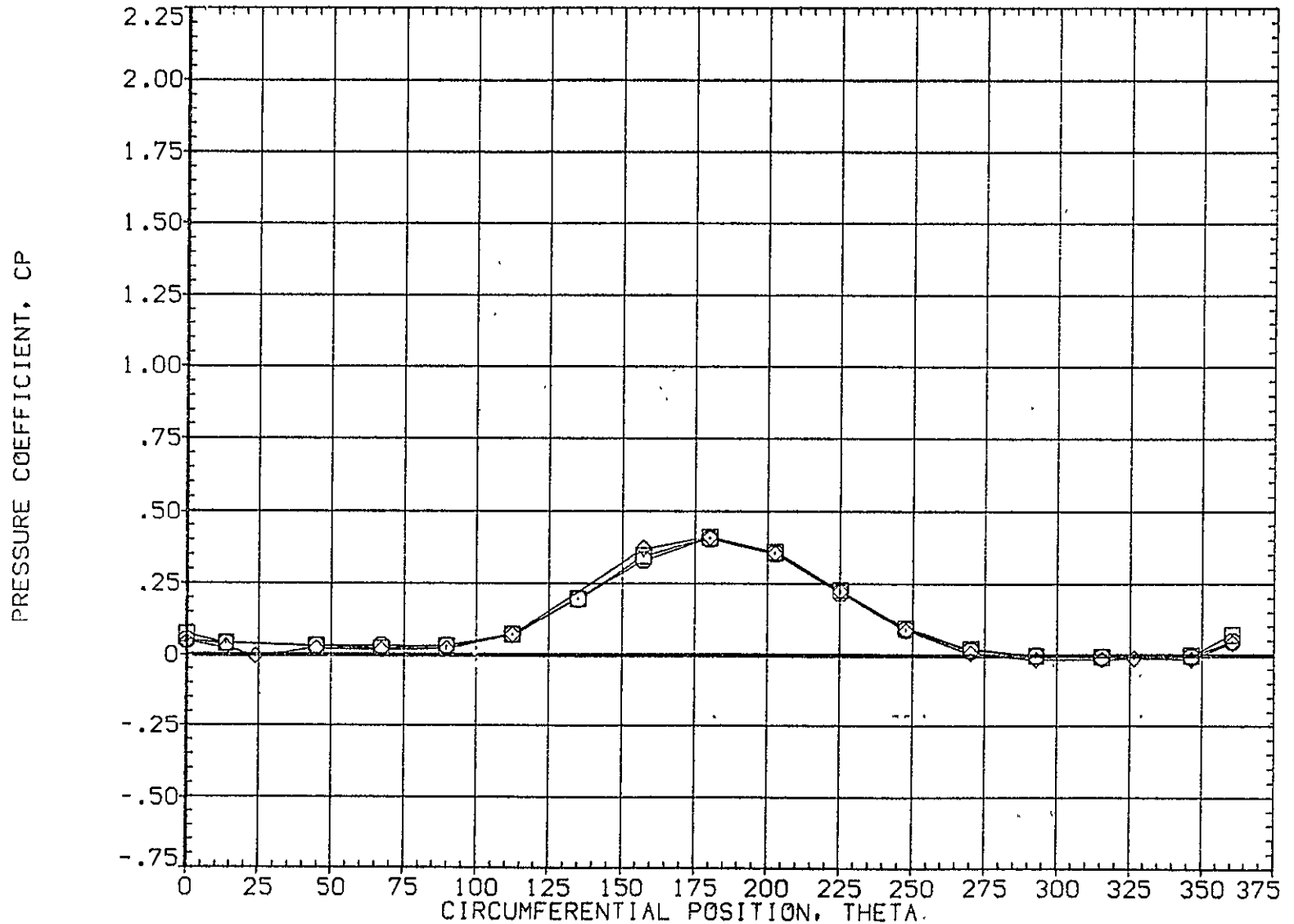


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 28.540 4.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI .000

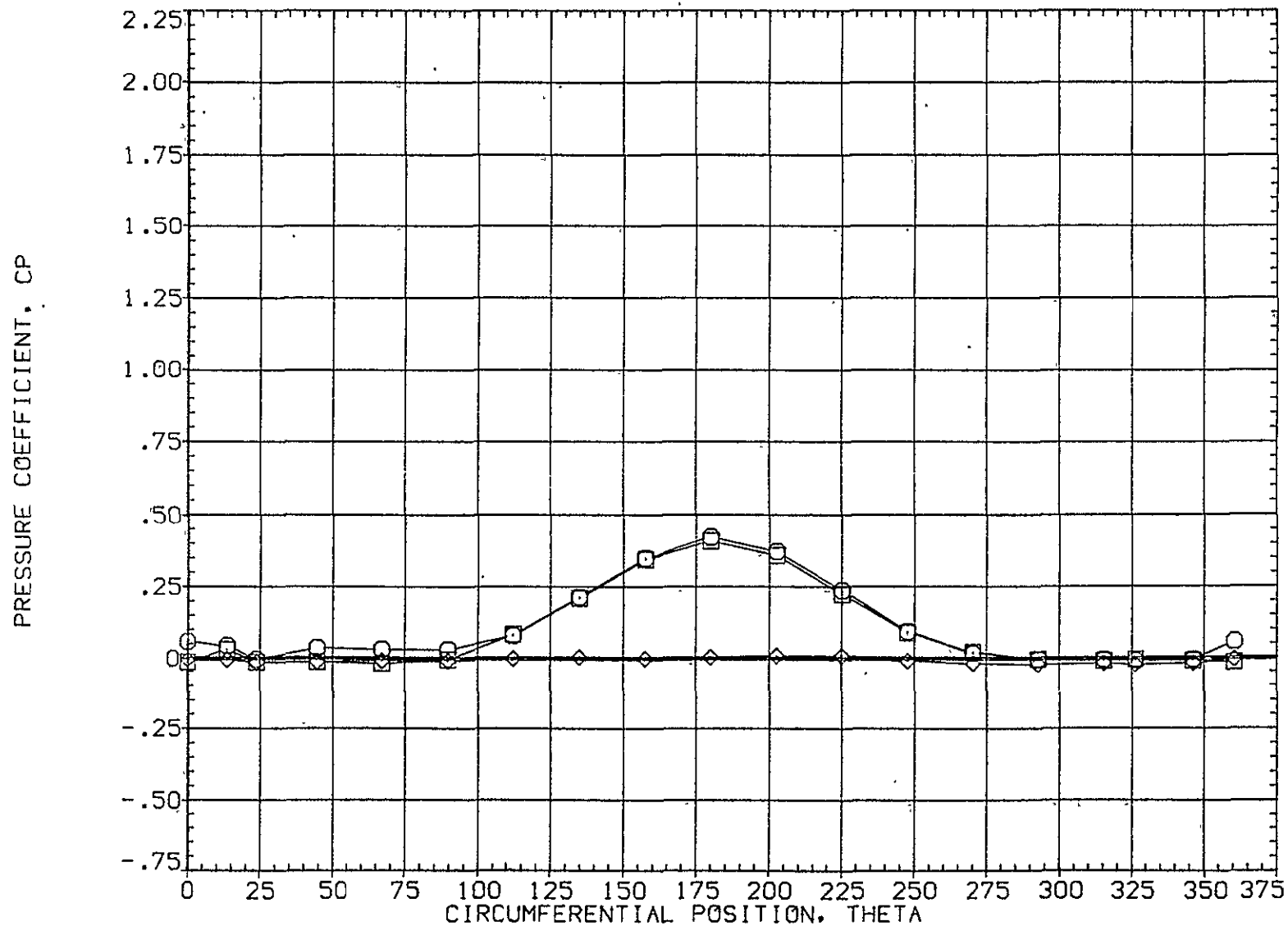


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-8.330	4.960	.000	.000	.000
□	.108			1.000		45.000
◇	.162					

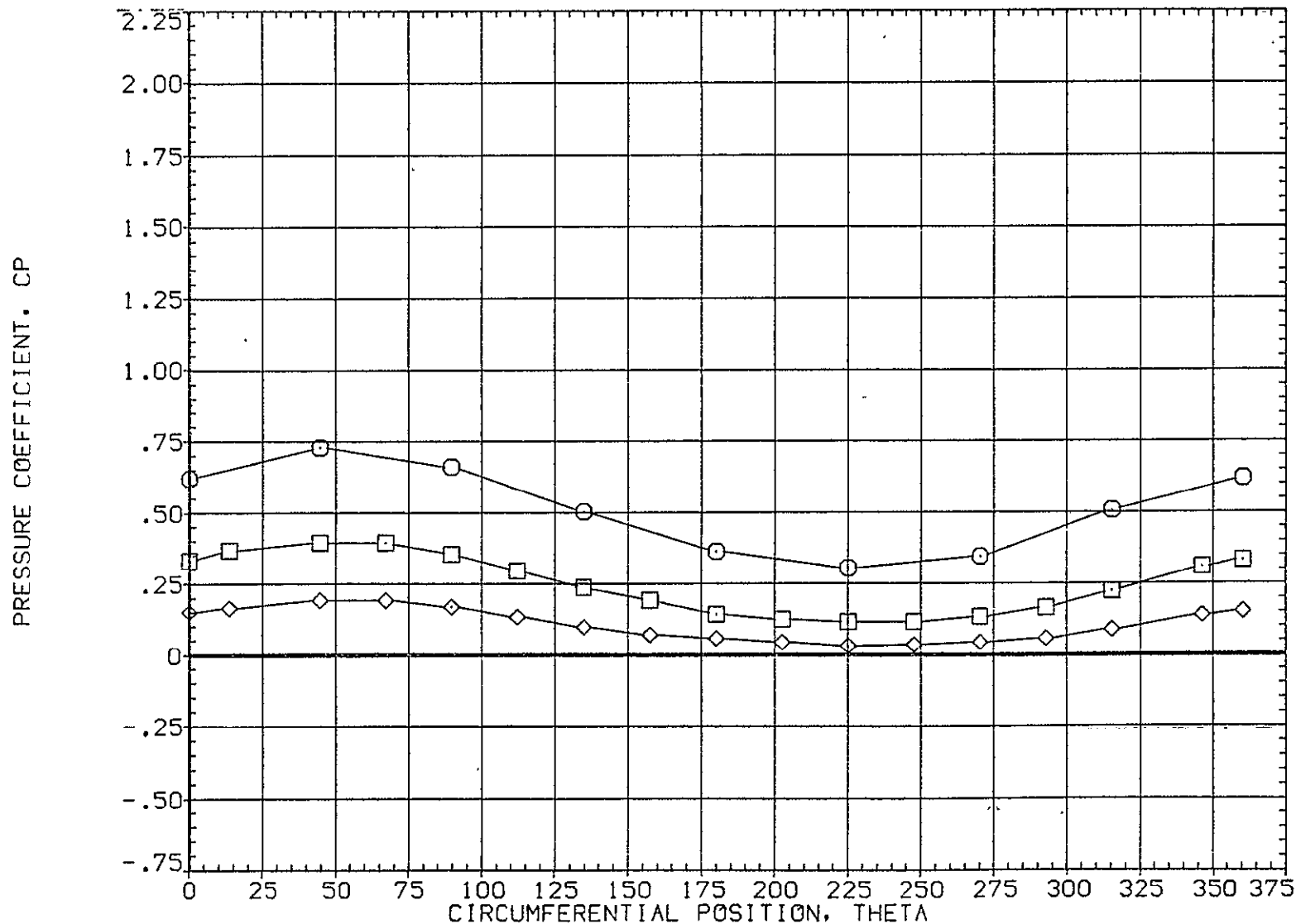


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB ALPHA MACH
.216 -8.330 4.960
.322
.518

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI 45.000

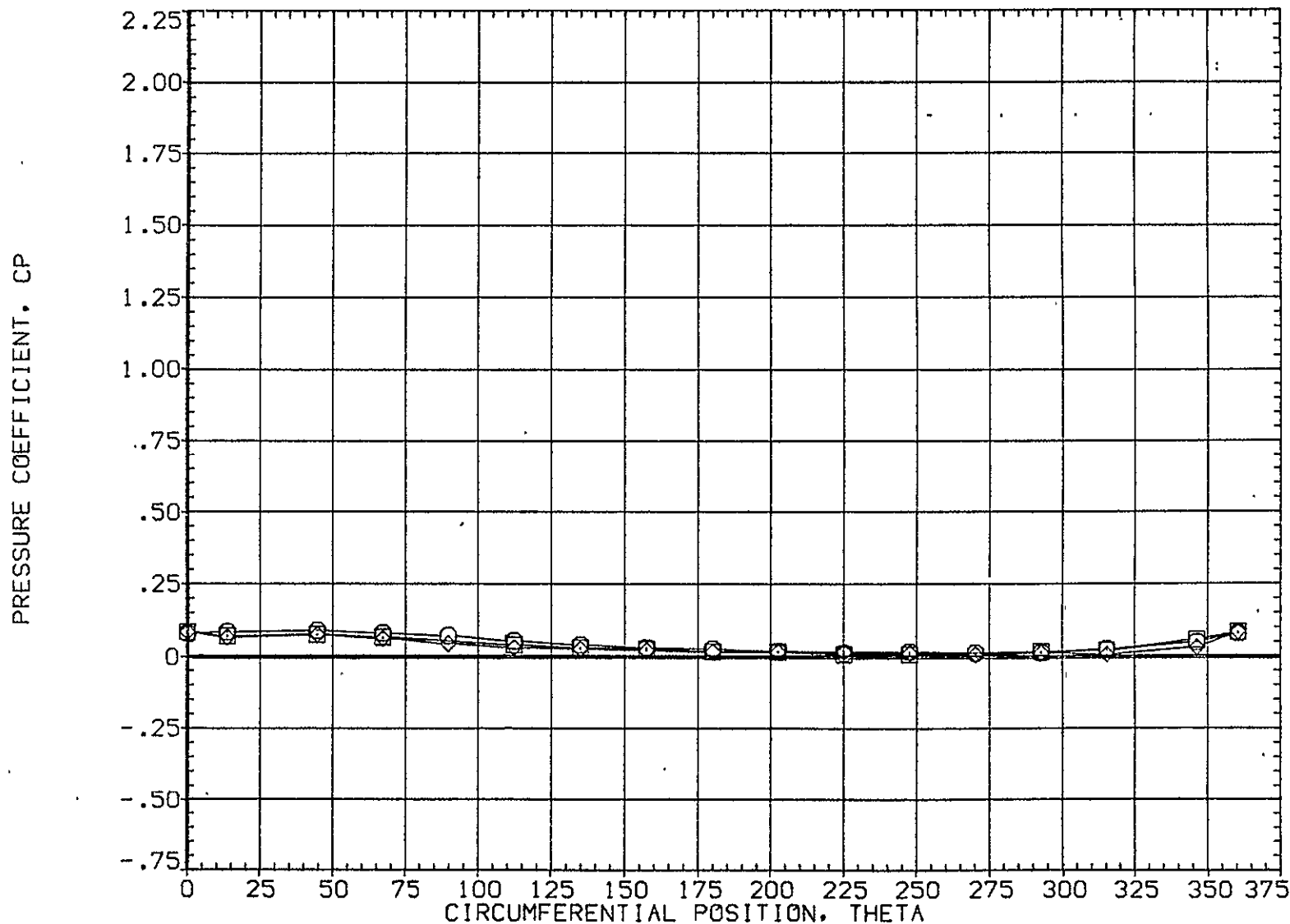


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.330	4.960	.000	.000	.000
□	.735			1.000		45.000
◇	.860					

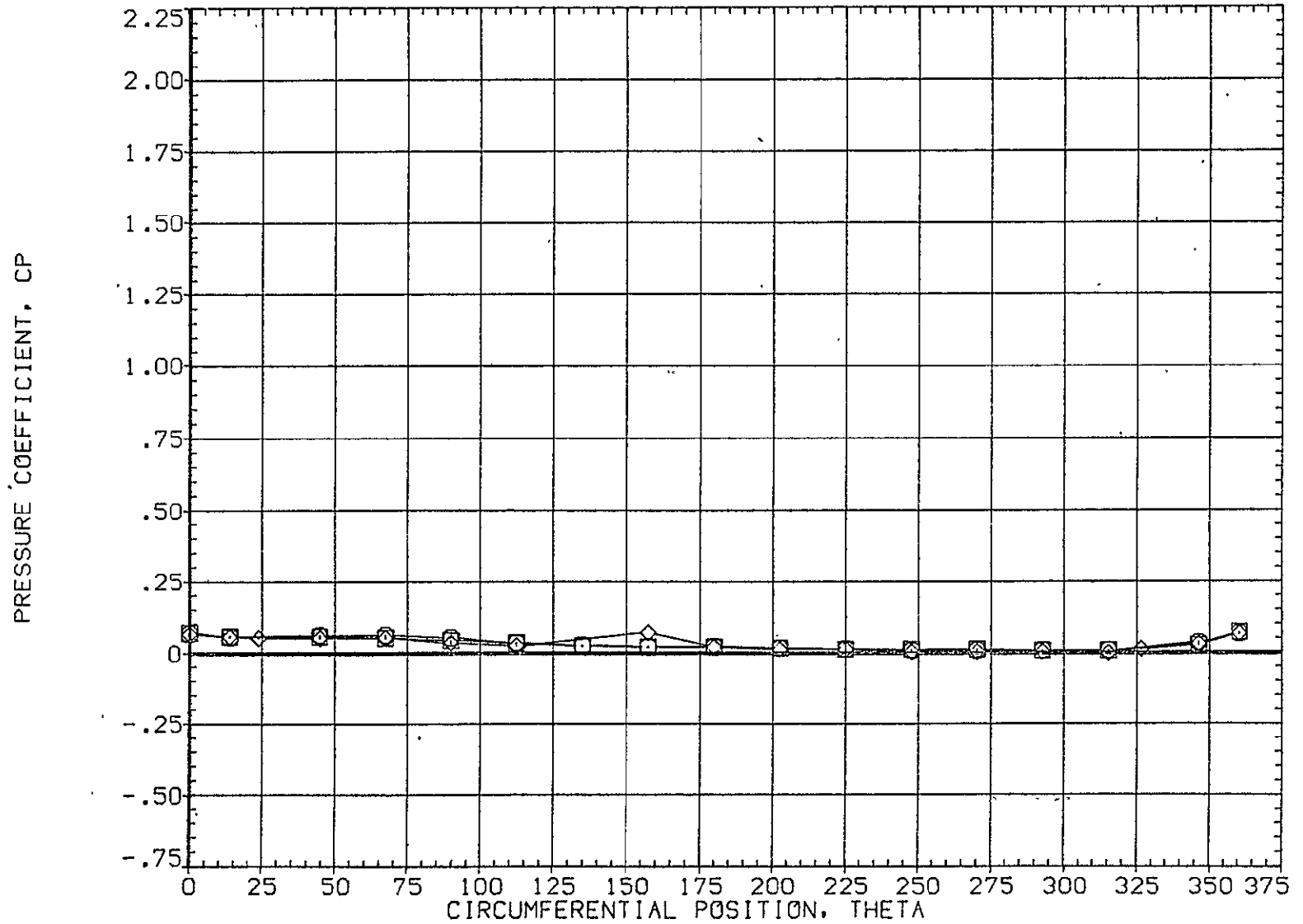


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-8.330	4.960	MOUNT	1.000	PHI	45.000
□	.923						
◇	.954						

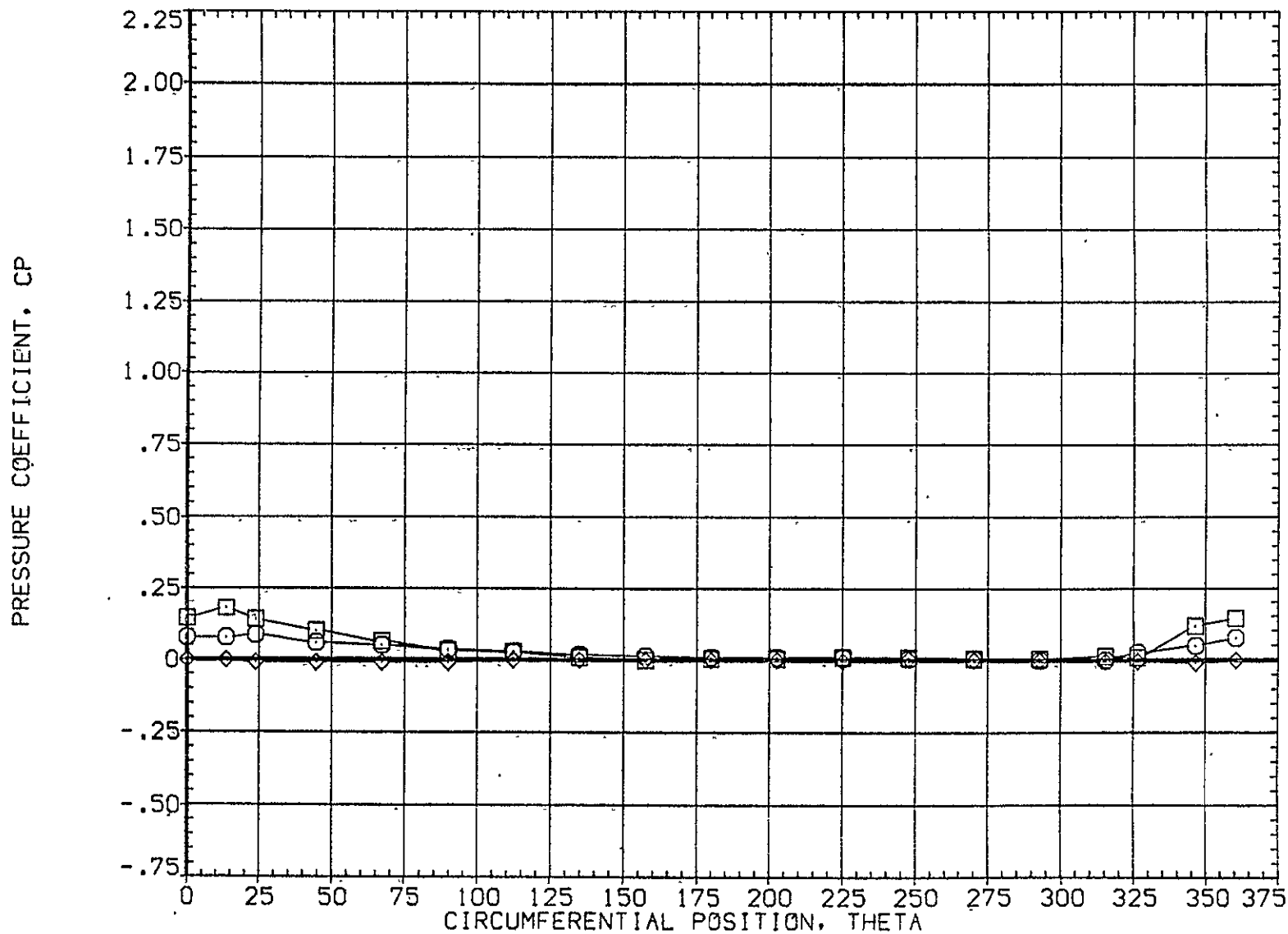


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A082)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.290	4.960	.000	.000	.000
□	.108			1.000		45.000
◇	.162					

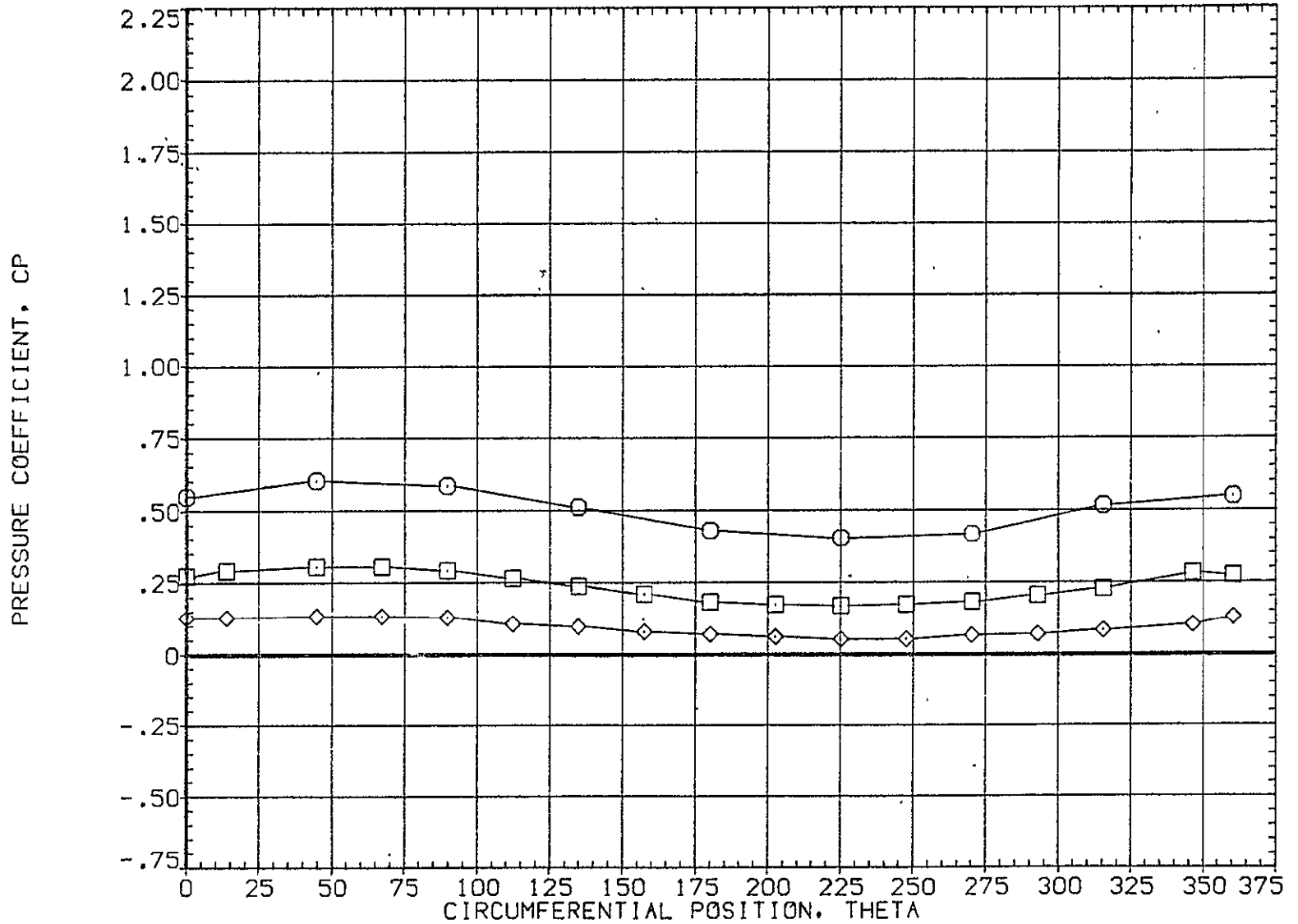


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB	ALPHA	MACH
.216	-4.290	4.960
.322		
.518		

PARAMETRIC VALUES			
BETA	OFFSET	PHI	
.000	.000		.000
MOUNT	1.000		45.000

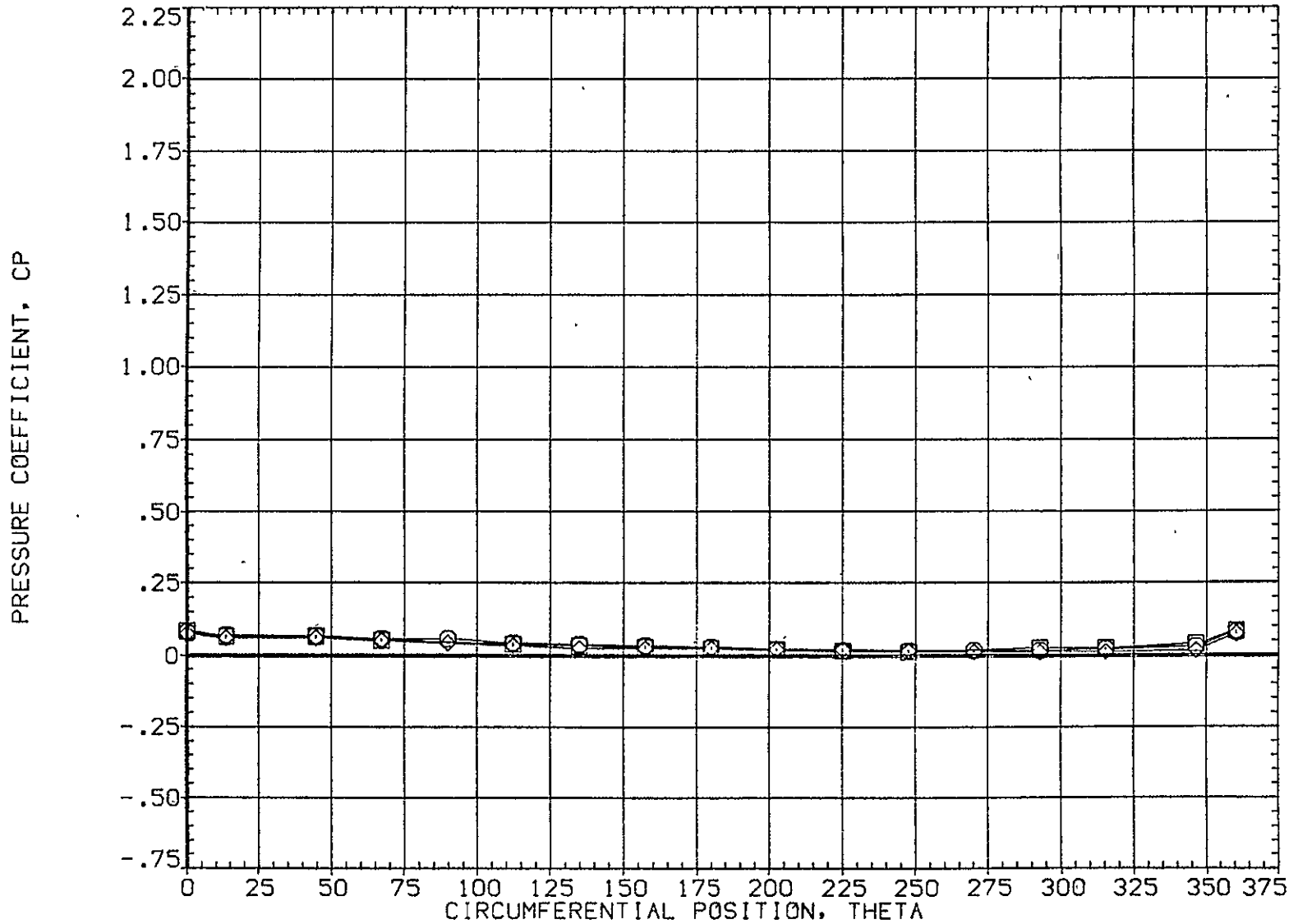


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.610	-4.290	4.960	MOUNT	1.000	PHI	45.000
□	.735						
◇	.860						

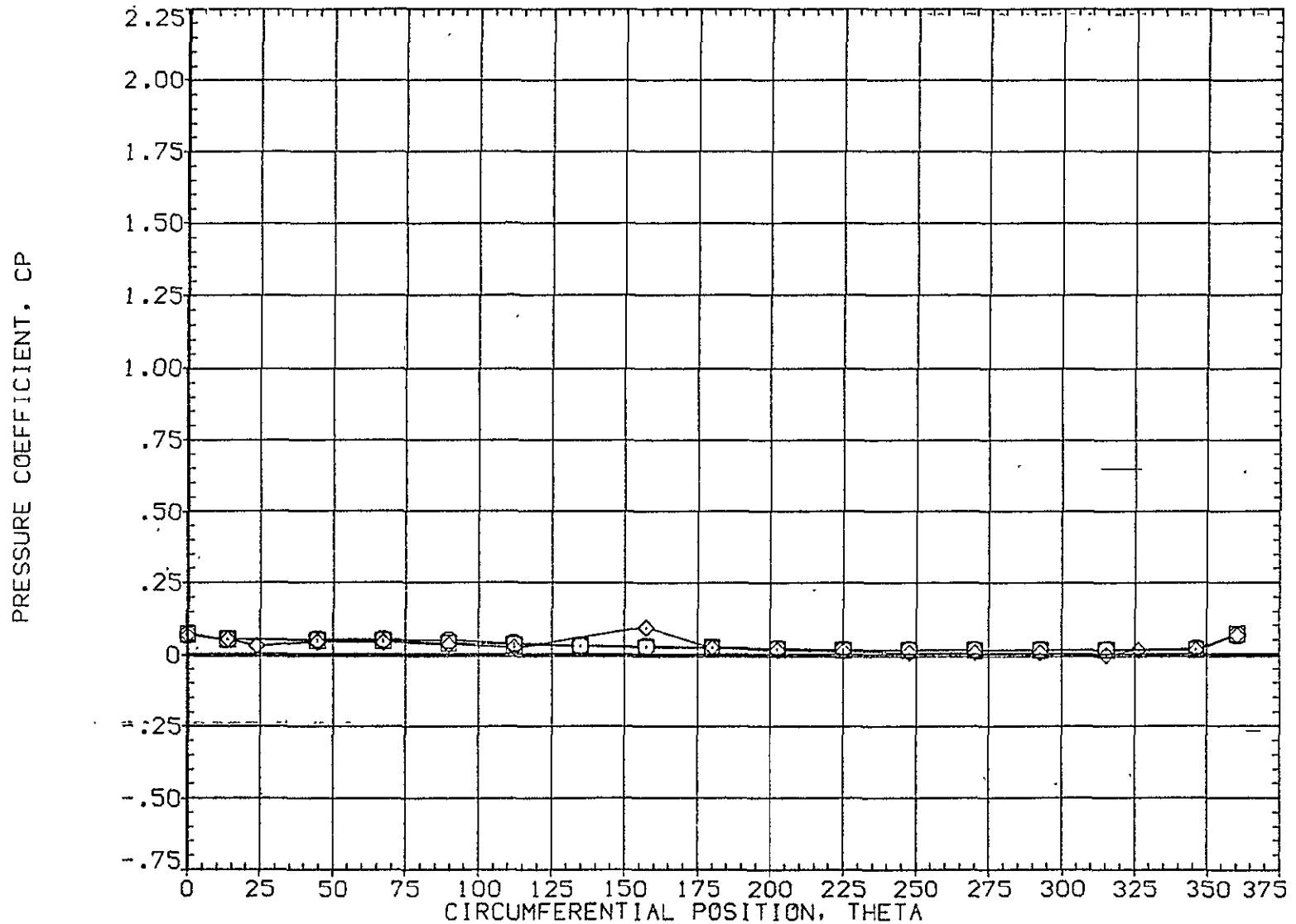


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

6.7

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.290	4.960	.000	.000	.000
□	.923			1.000		45.000
◇	.954					

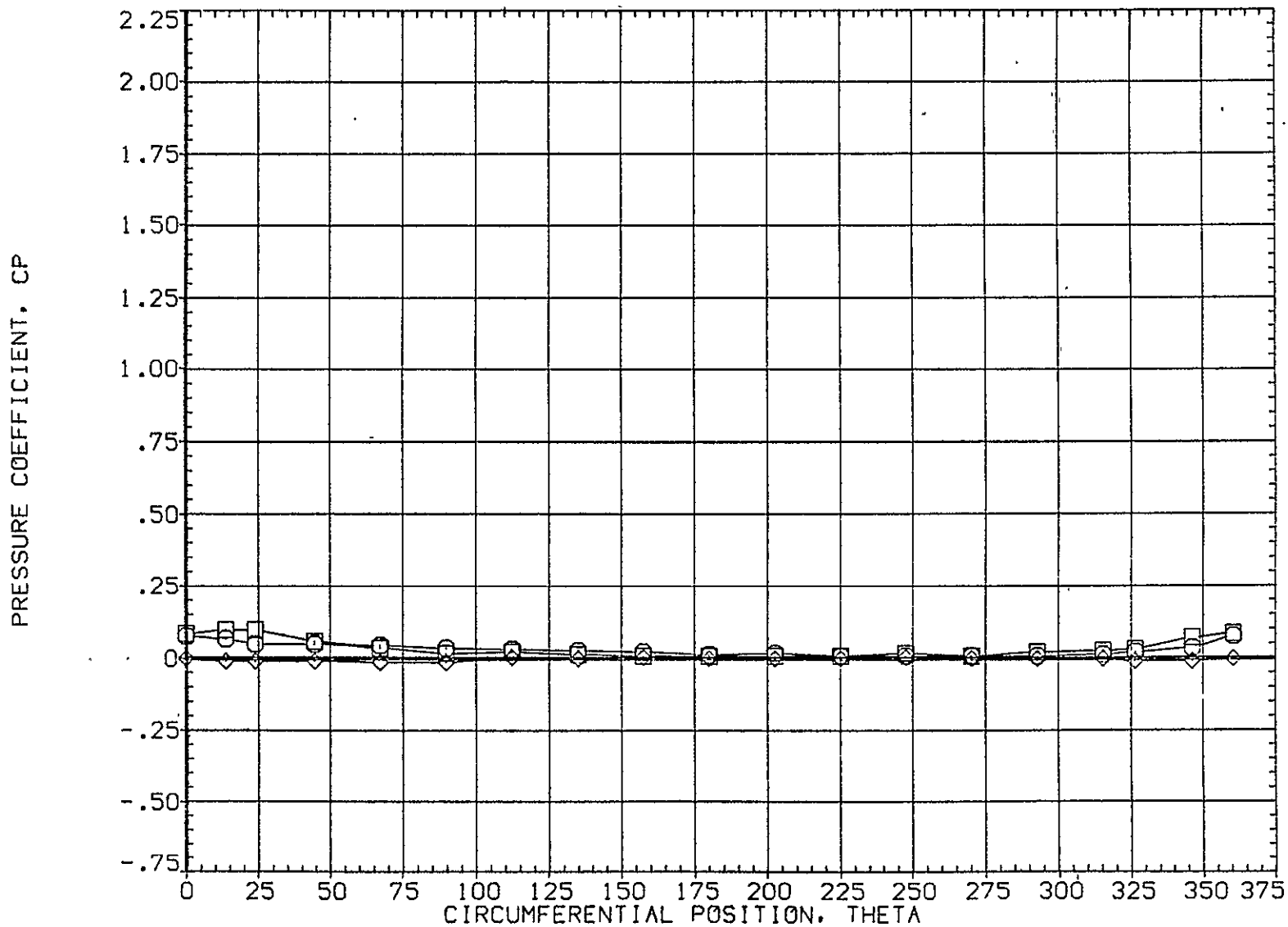


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	4.960	.000	.000	.000
□	.108			1.000		45.000
◇	.162					

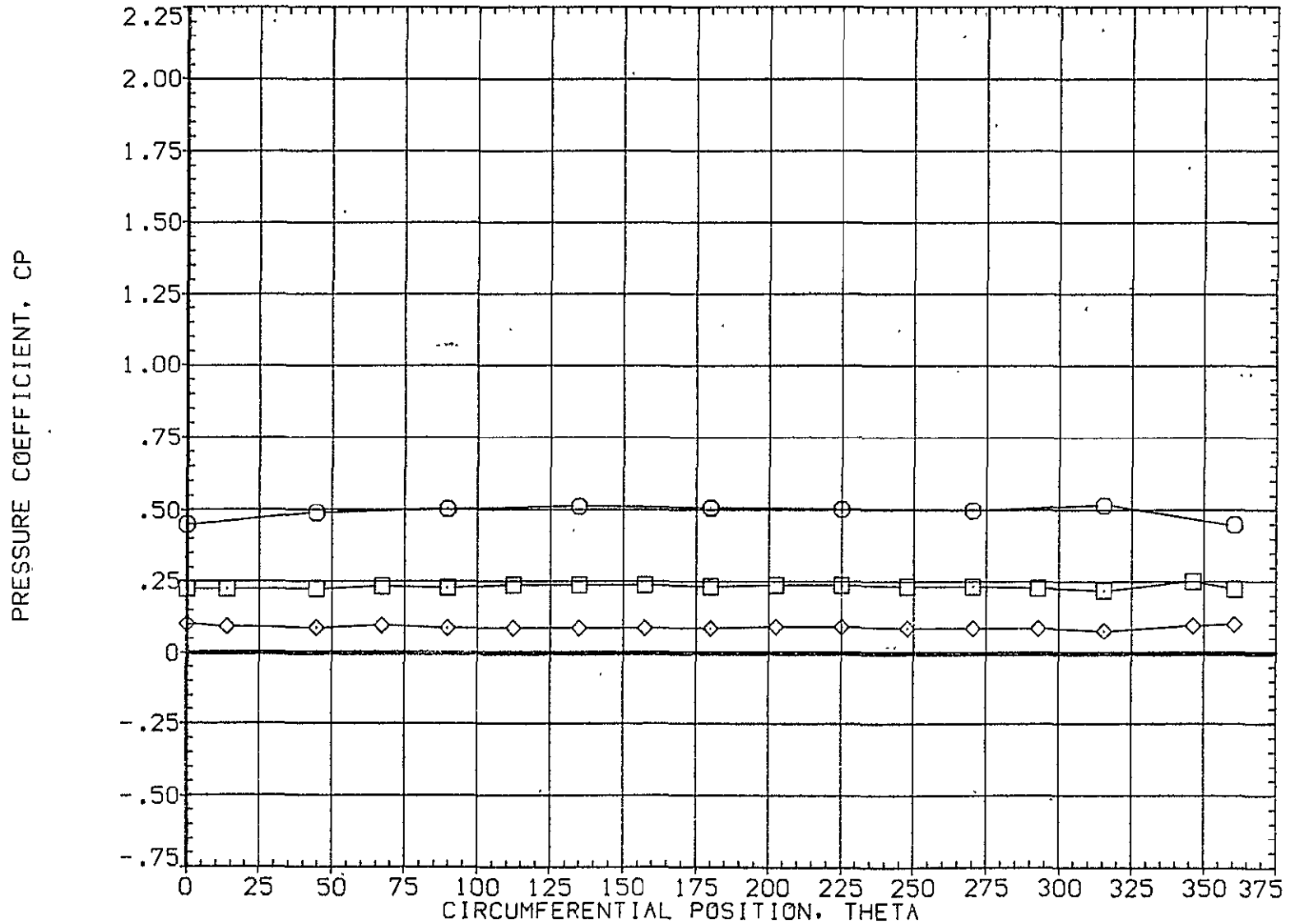


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB ALPHA MACH
.216 -.280 4.960
.322
.518

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI 45.000

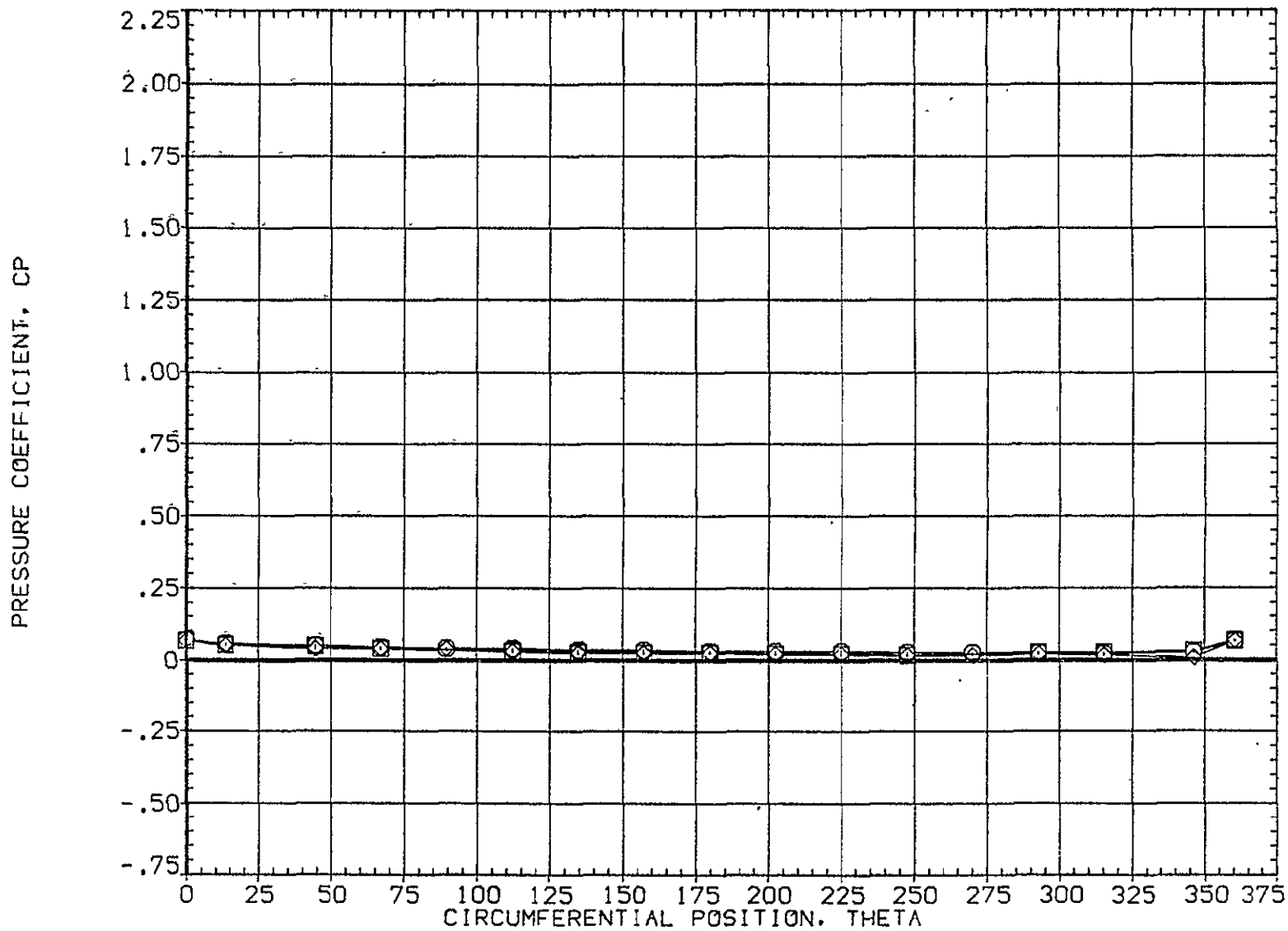


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	4.960	.000	.000	.000
□	.735			1.000		45.000
◇	.860					

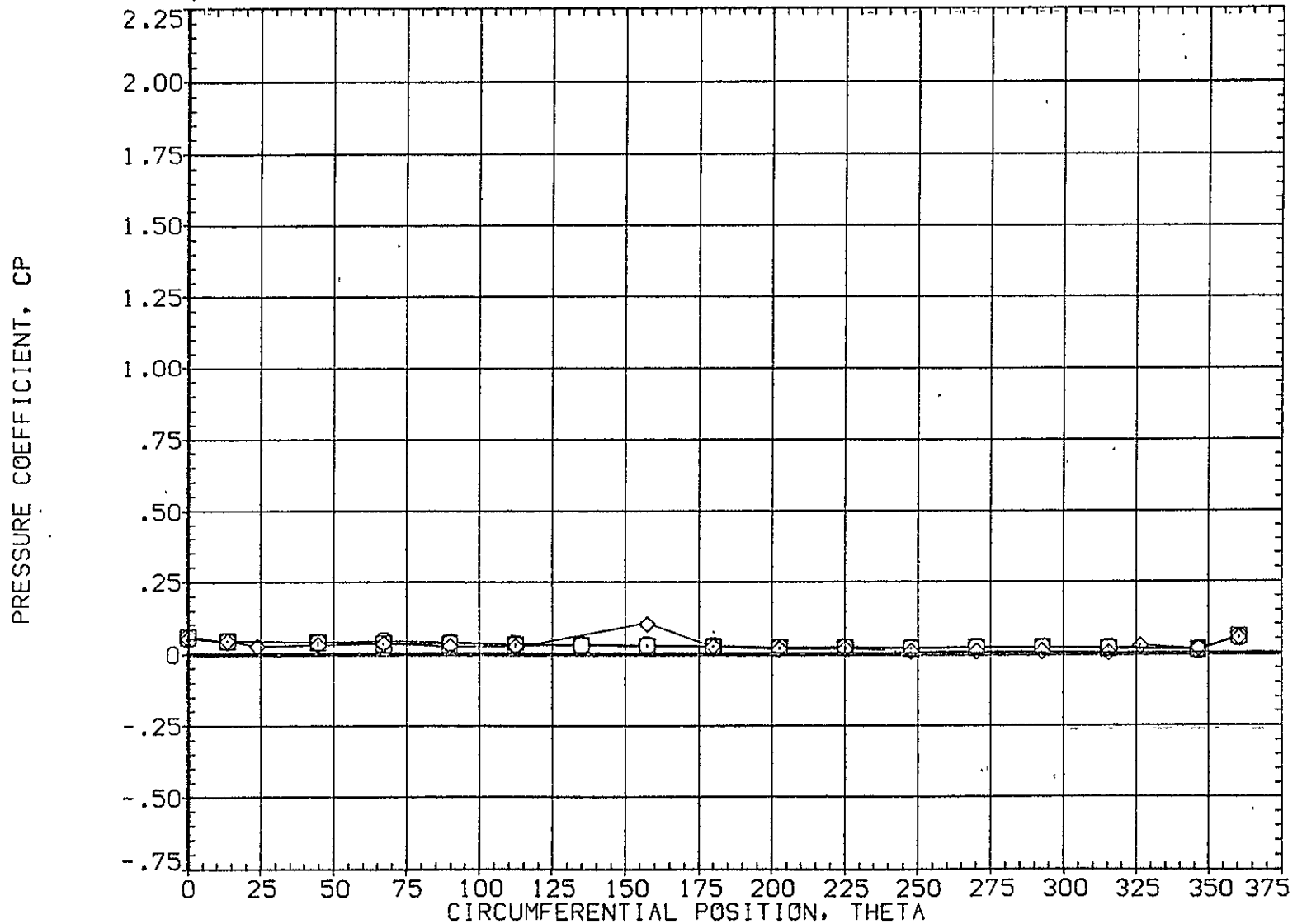


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-.280	4.960	MOUNT	1.000	PHI	45.000
□	.923						
◇	.954						

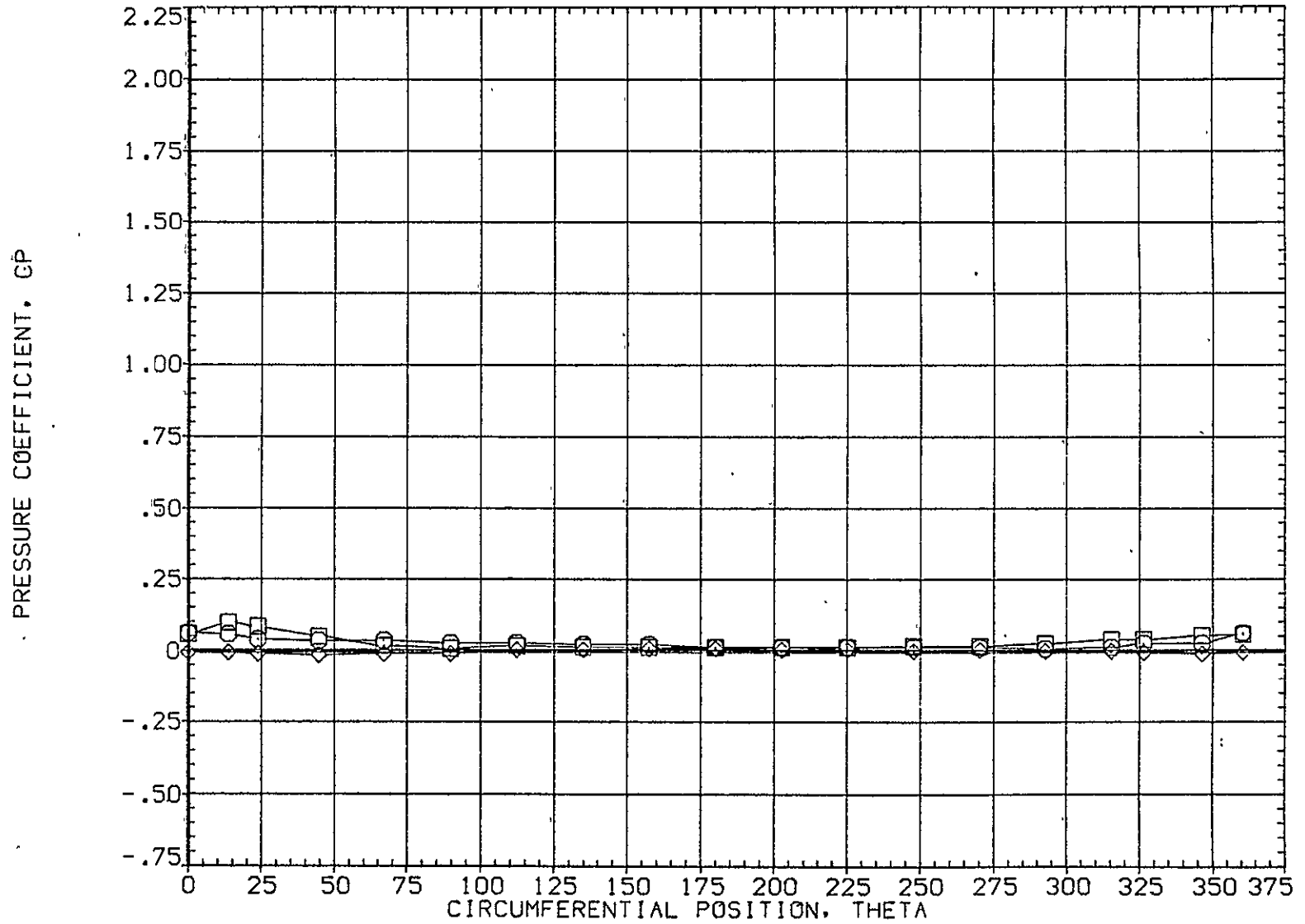


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.730	4.960	.000	.000	.000
□	.108			1.000		45.000
◇	.162					

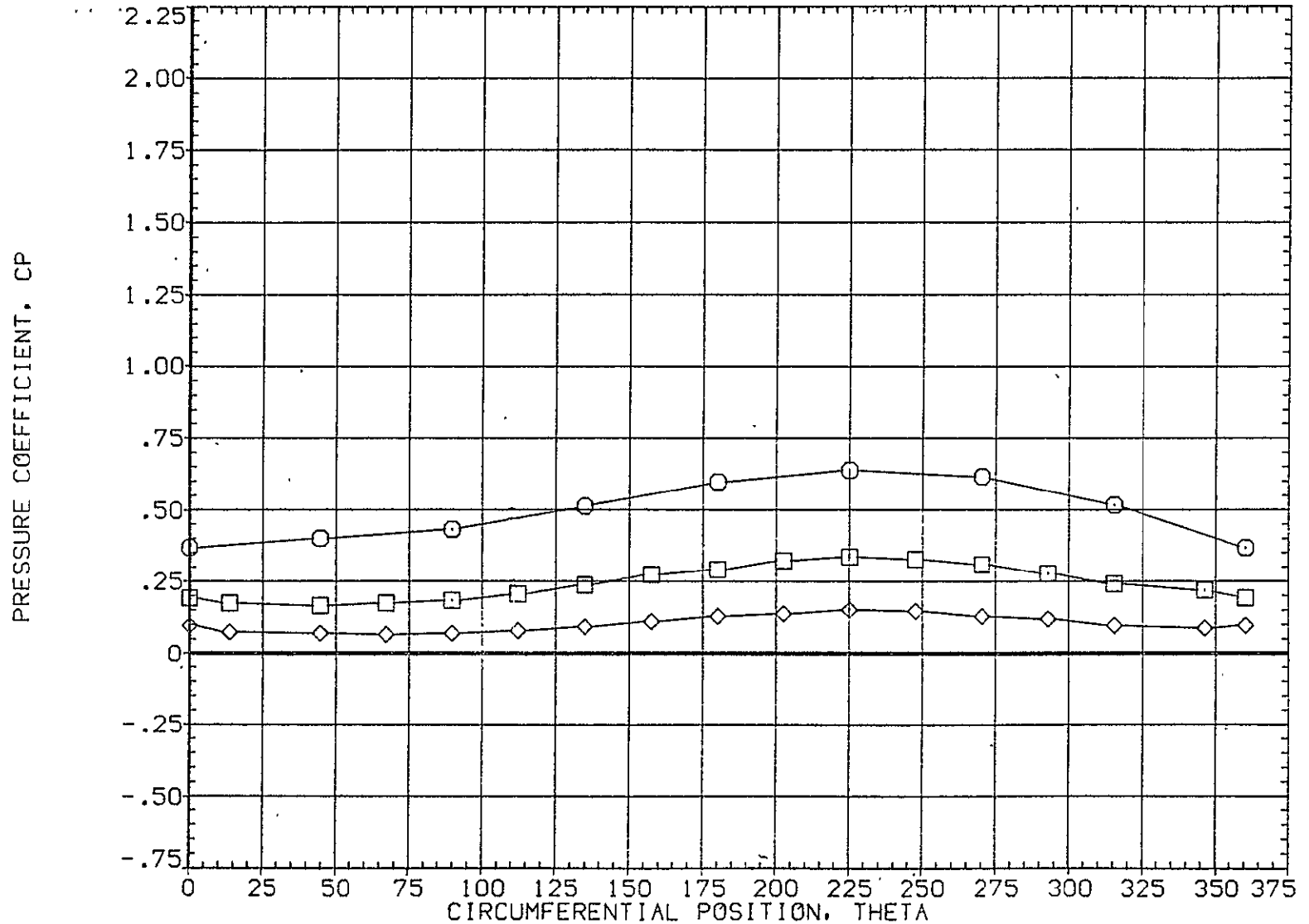


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.730	4.960	.000	.000	.000
□	.322			MOUNT	1.000	45.000
◇	.518					

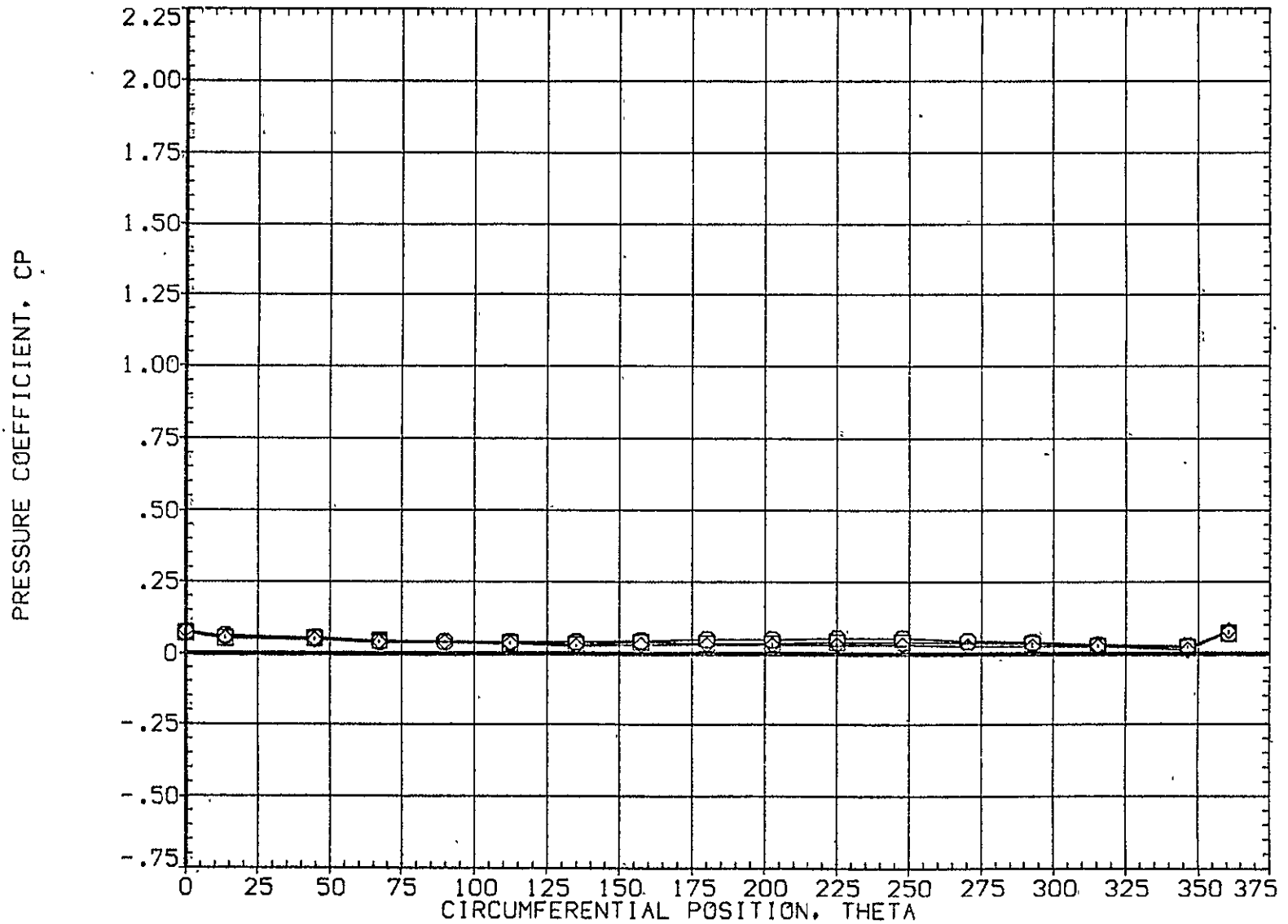


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A084)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	3.730	4.960	MOUNT	1.000	PHI	45.000
□	.735						
◇	.860						

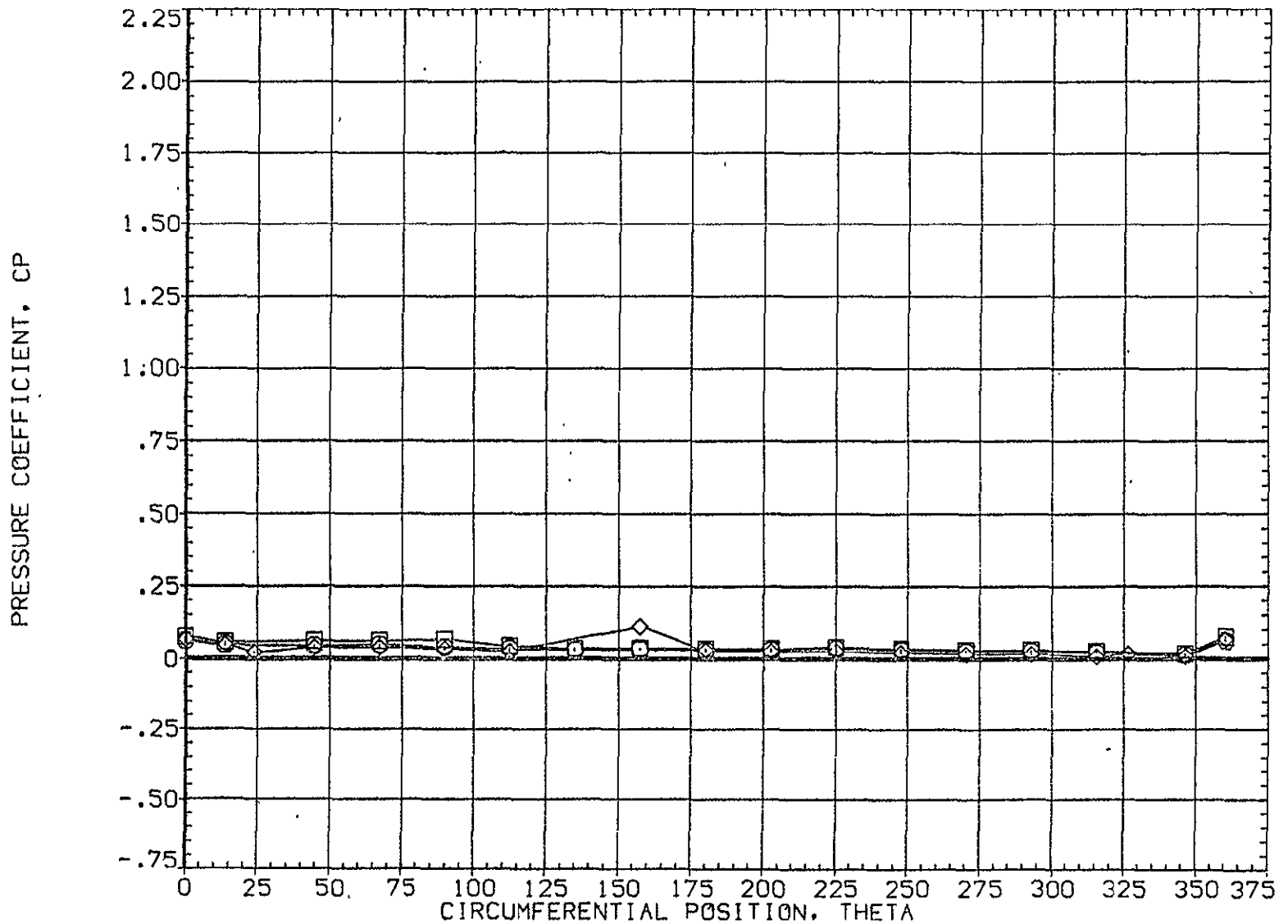


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.892	3.730	4.960	MOUNT	1.000	45.000	
□	.923						
◇	.954						

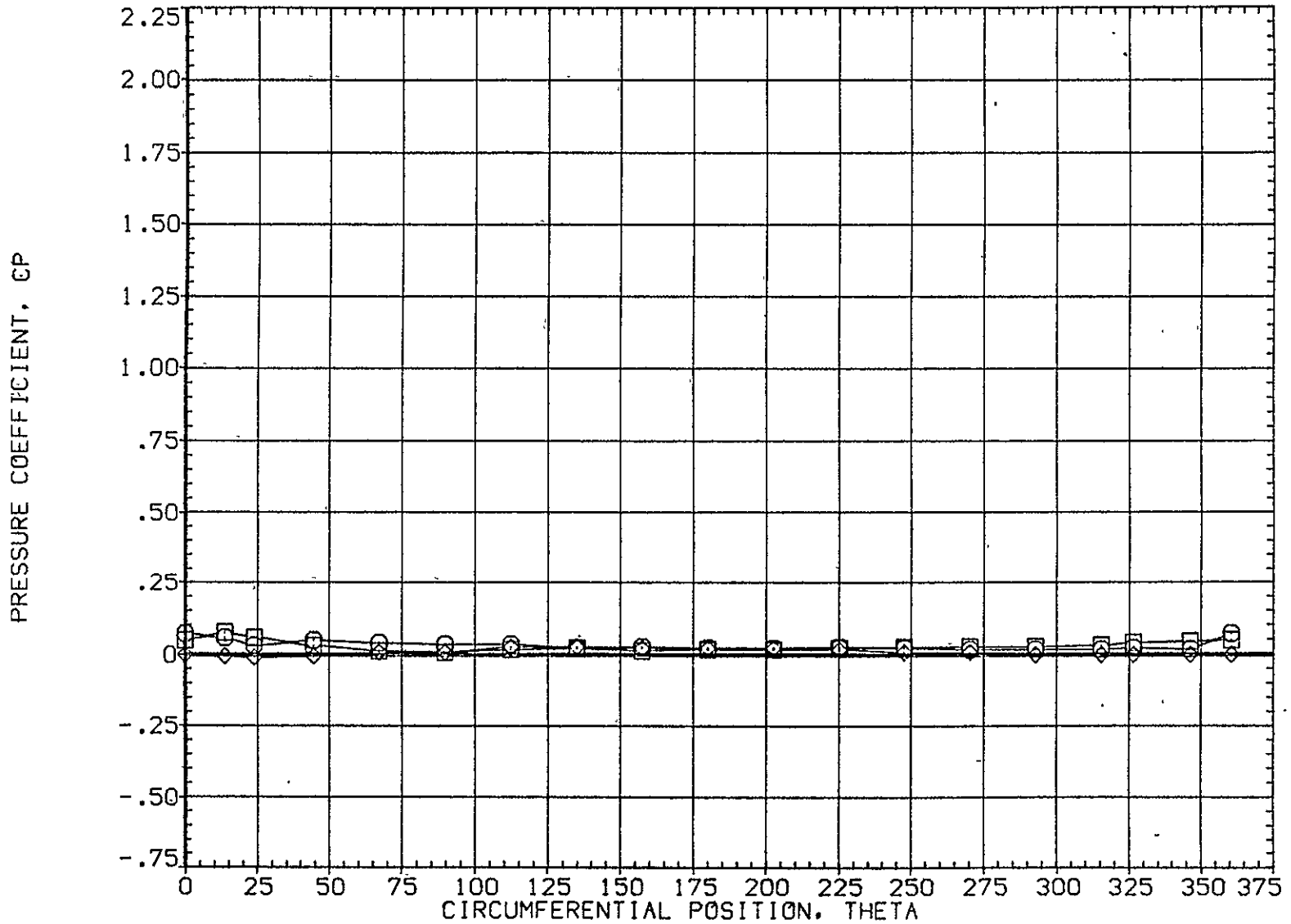


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.750	4.960	MOUNT	1.000	PHI	45.000
□	.108						
◇	.162						

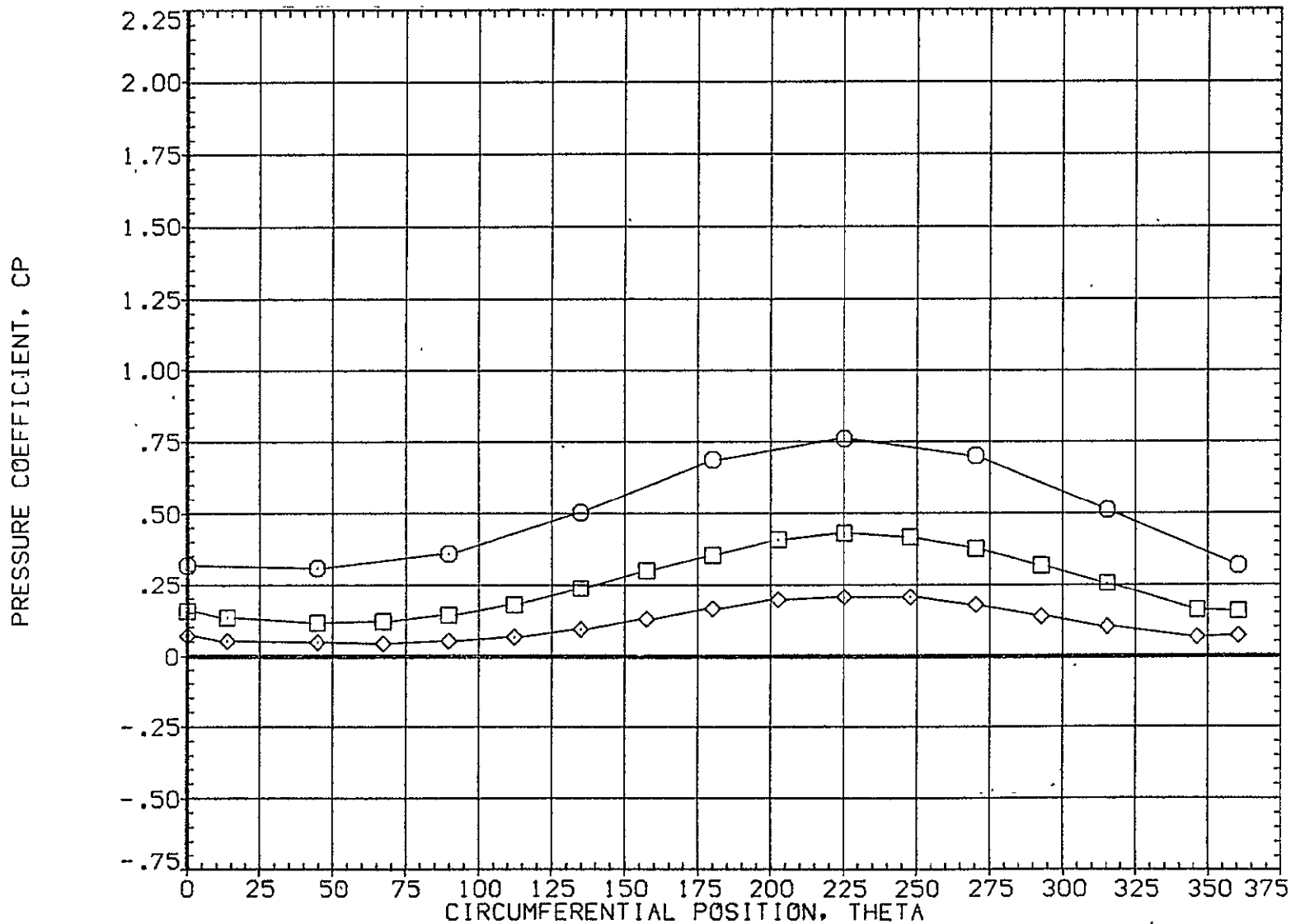


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.216	7.750	4.960	MOUNT	1.000	45.000	
□	.322						
◇	.518						

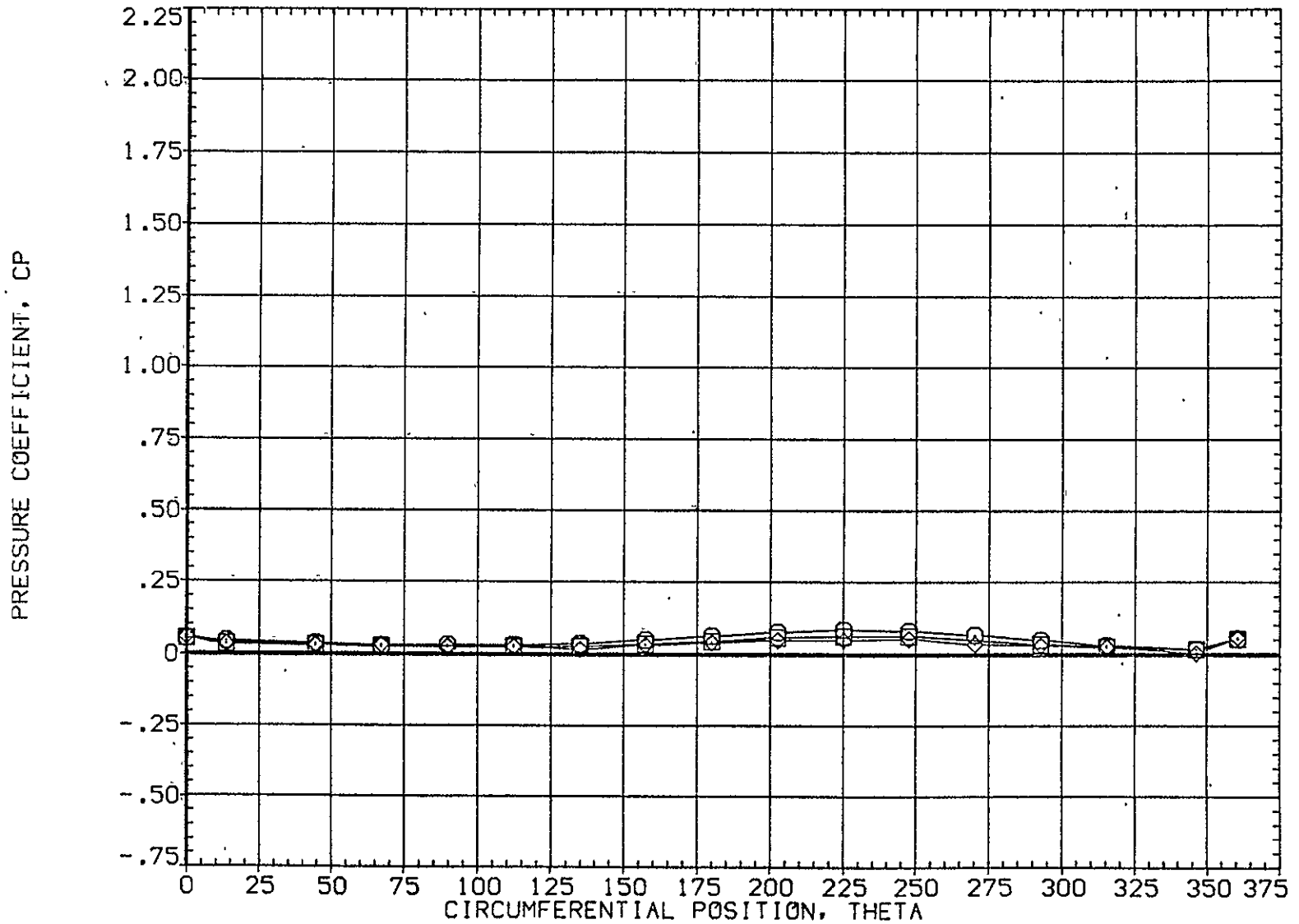


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A085)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.750	4.960	MOUNT	1.000	PHI	45.000
□	.735						
◇	.860						

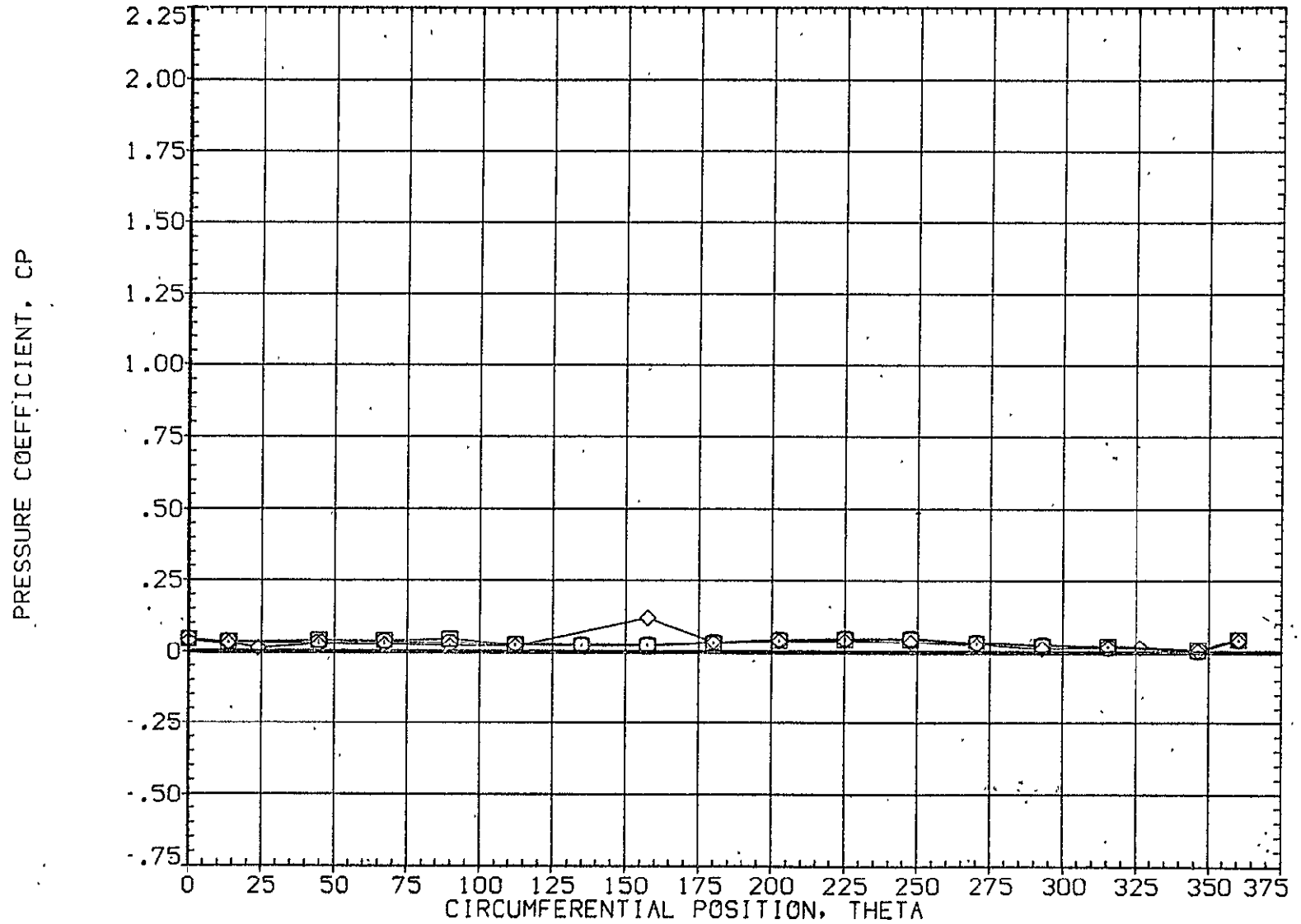


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	7.750	4.960	MOUNT	1.000	PHI	45.000
□	.923						
◇	.954						

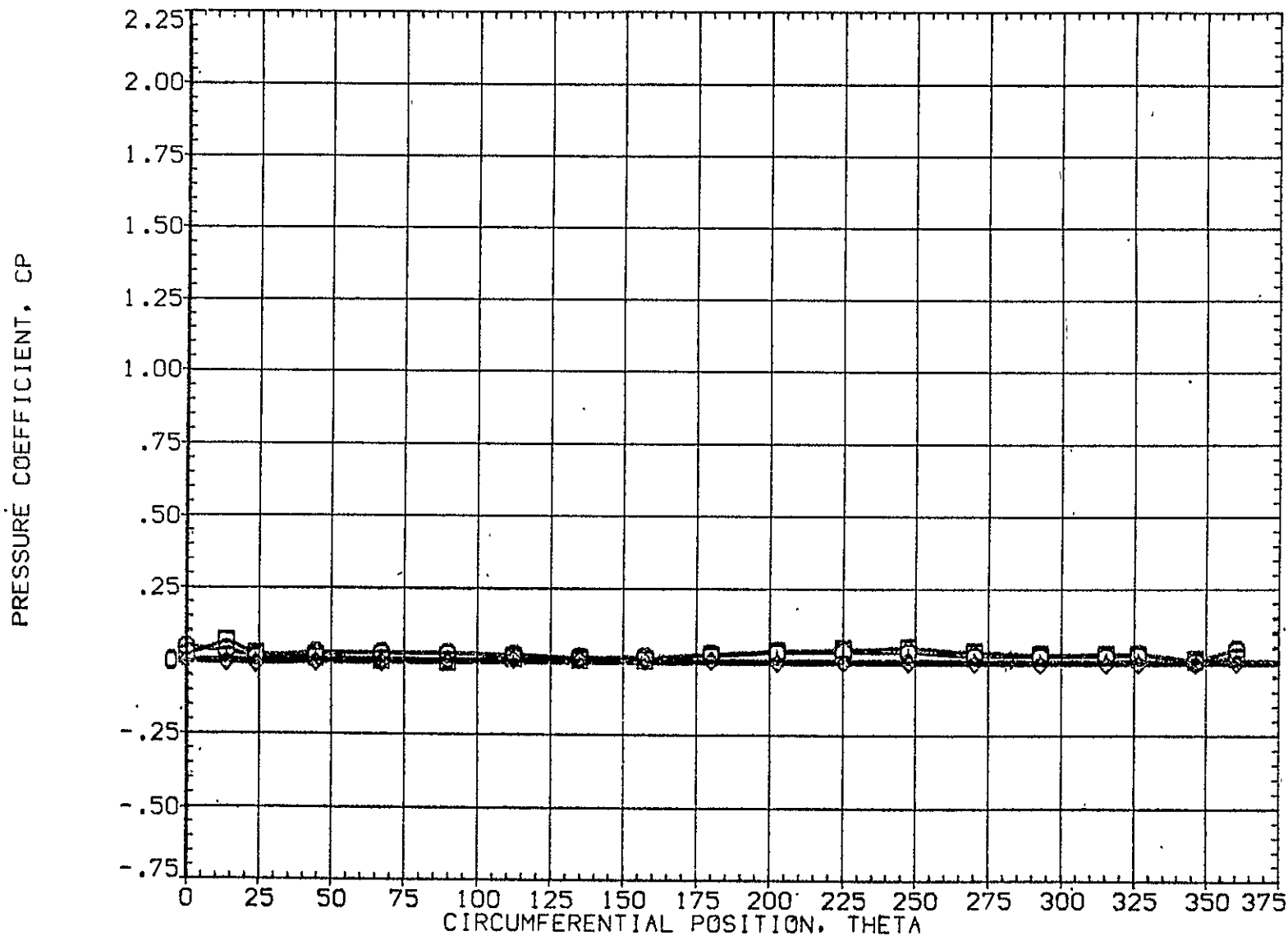


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	12.450	4.960	.000	20.000	
□	.108			1.000	45.000	
◇	.162					

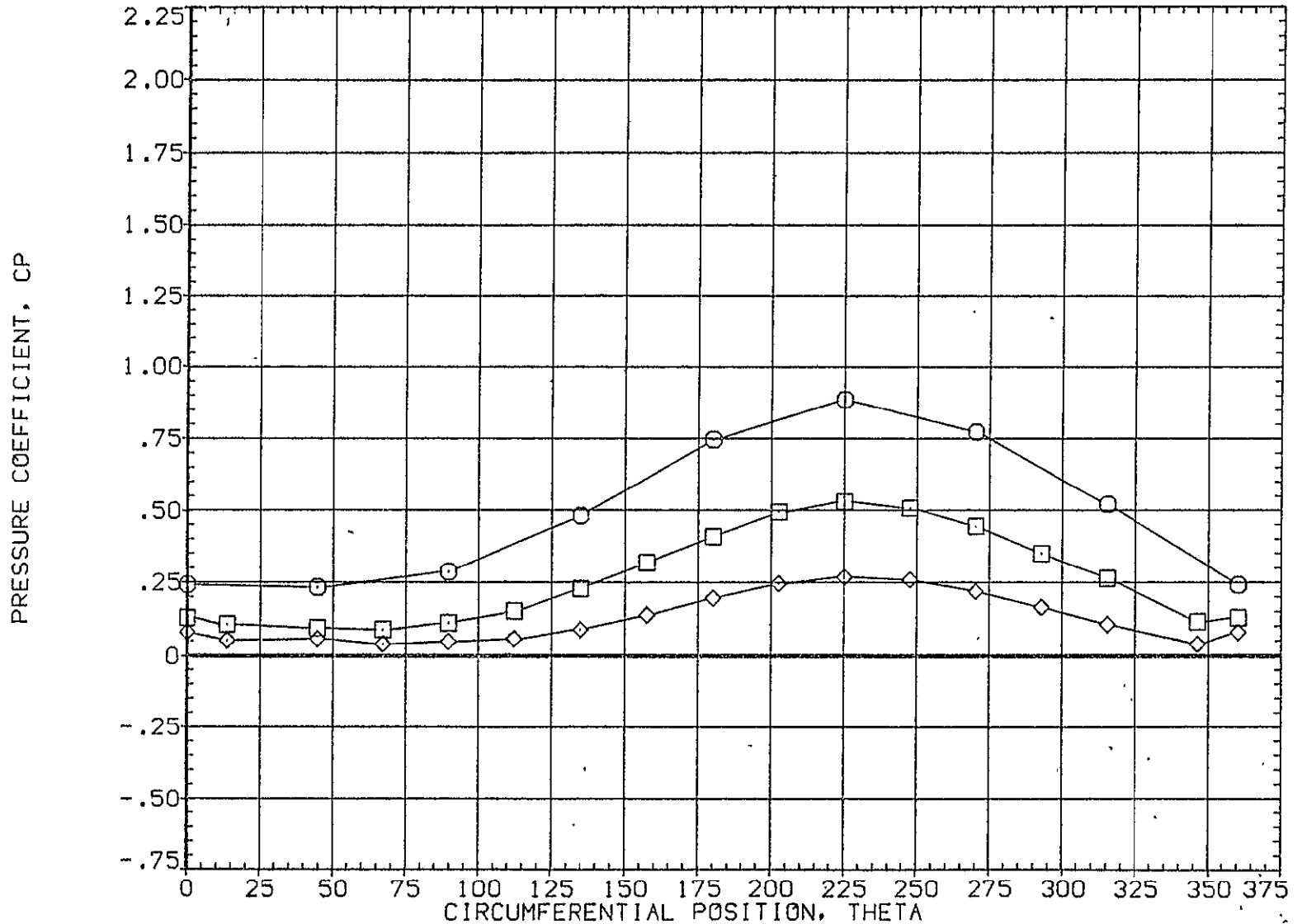


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.216	12.450	4.960		20.000		
□	.322			MOUNT	1.000		45.000
◇	.518						

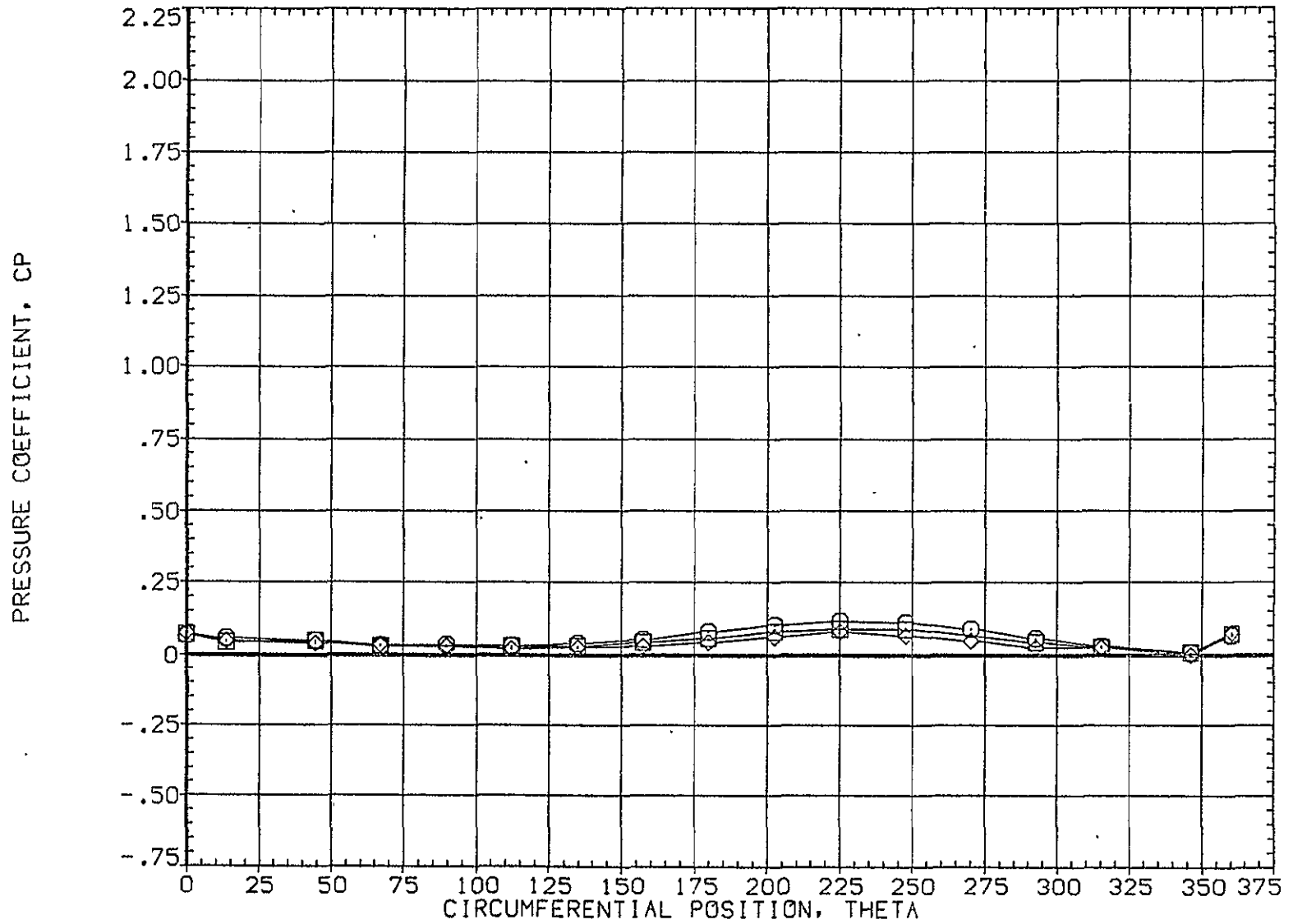


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.610	12.450	4.960	MOUNT	1.000		45.000
□	.735						
◇	.860						

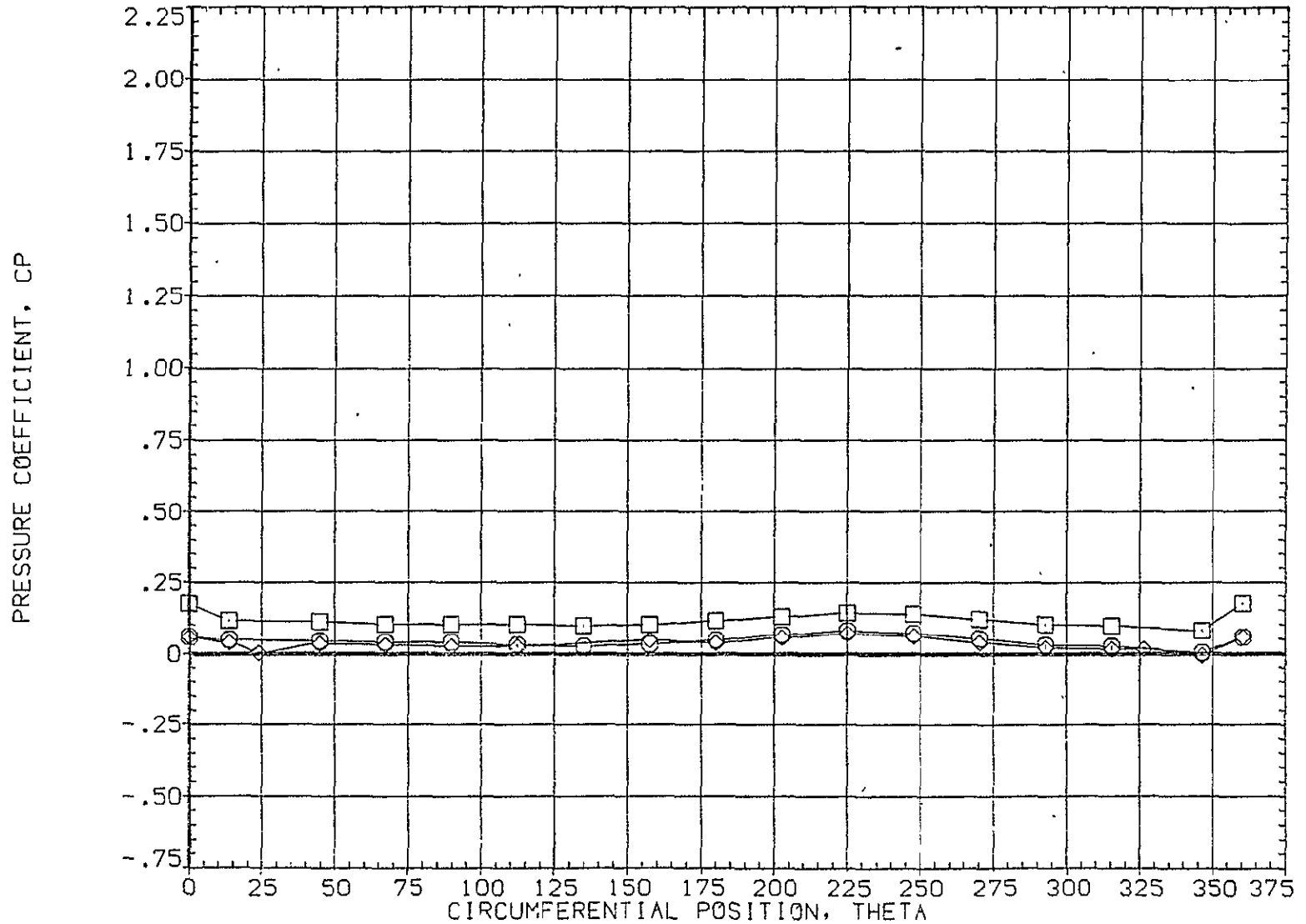


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 12.450
 MACH 4.960

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 45.000

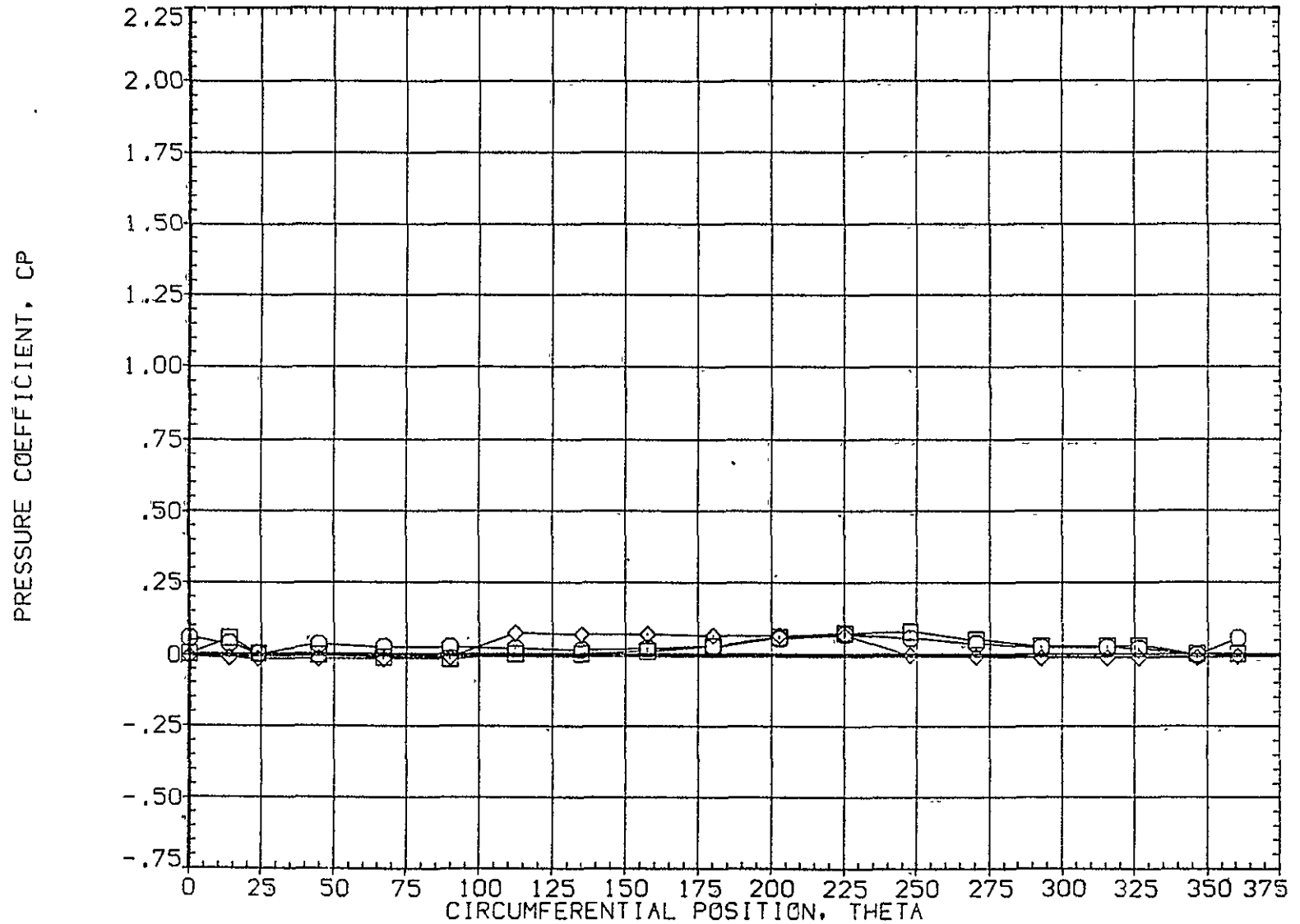


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	16.470	4.960	.000	20.000	
□	.108			1.000	45.000	
◇	.162					

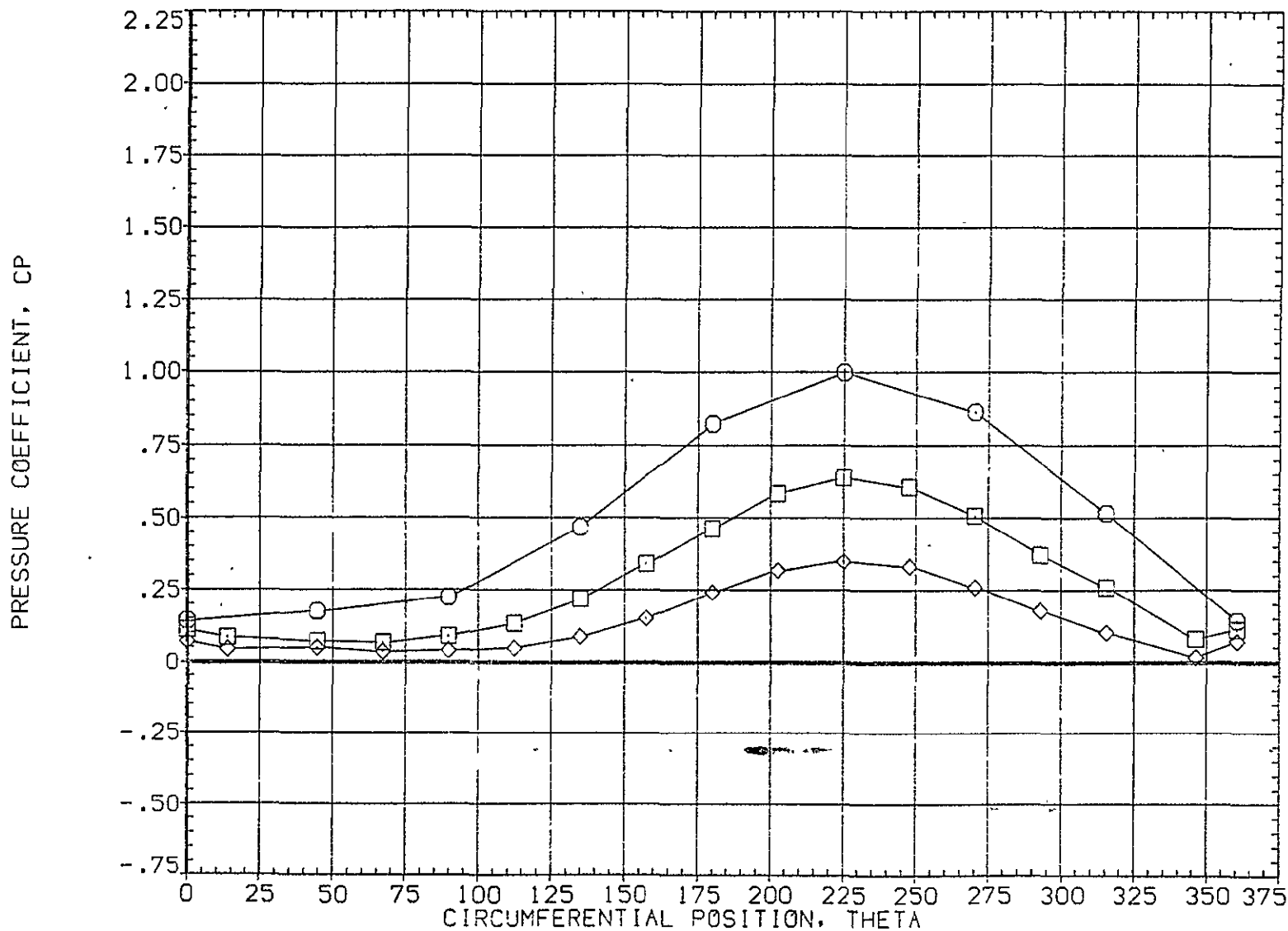


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .216
.322
.518
ALPHA 16.470
MACH 4.960

PARAMETRIC VALUES
BETA .000 OFFSET 20.000
MOUNT 1.000 PHI 45.000

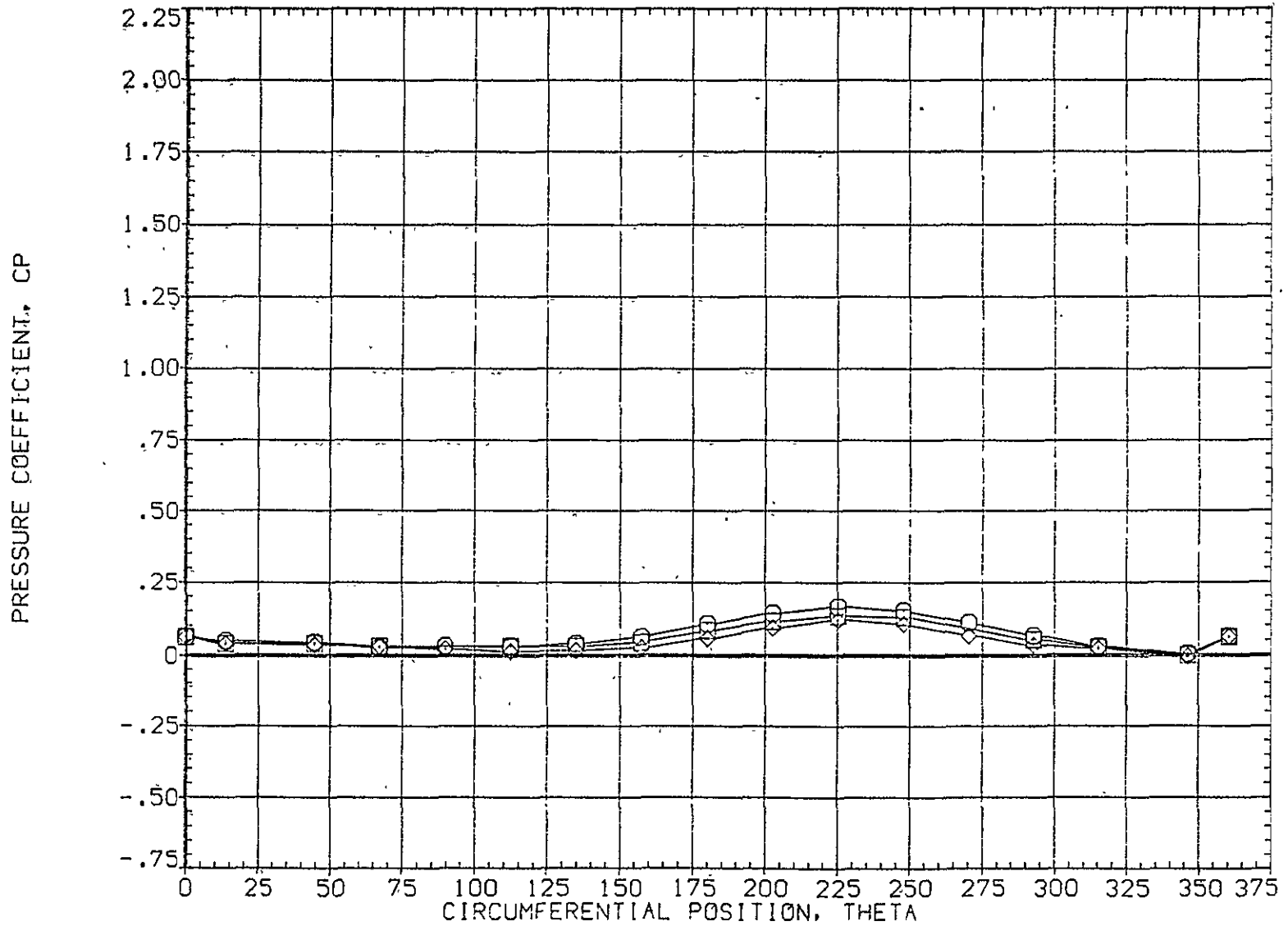


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	16.470	4.960	MOUNT	1.000	PHI	45.000
□	.735						
◇	.860						

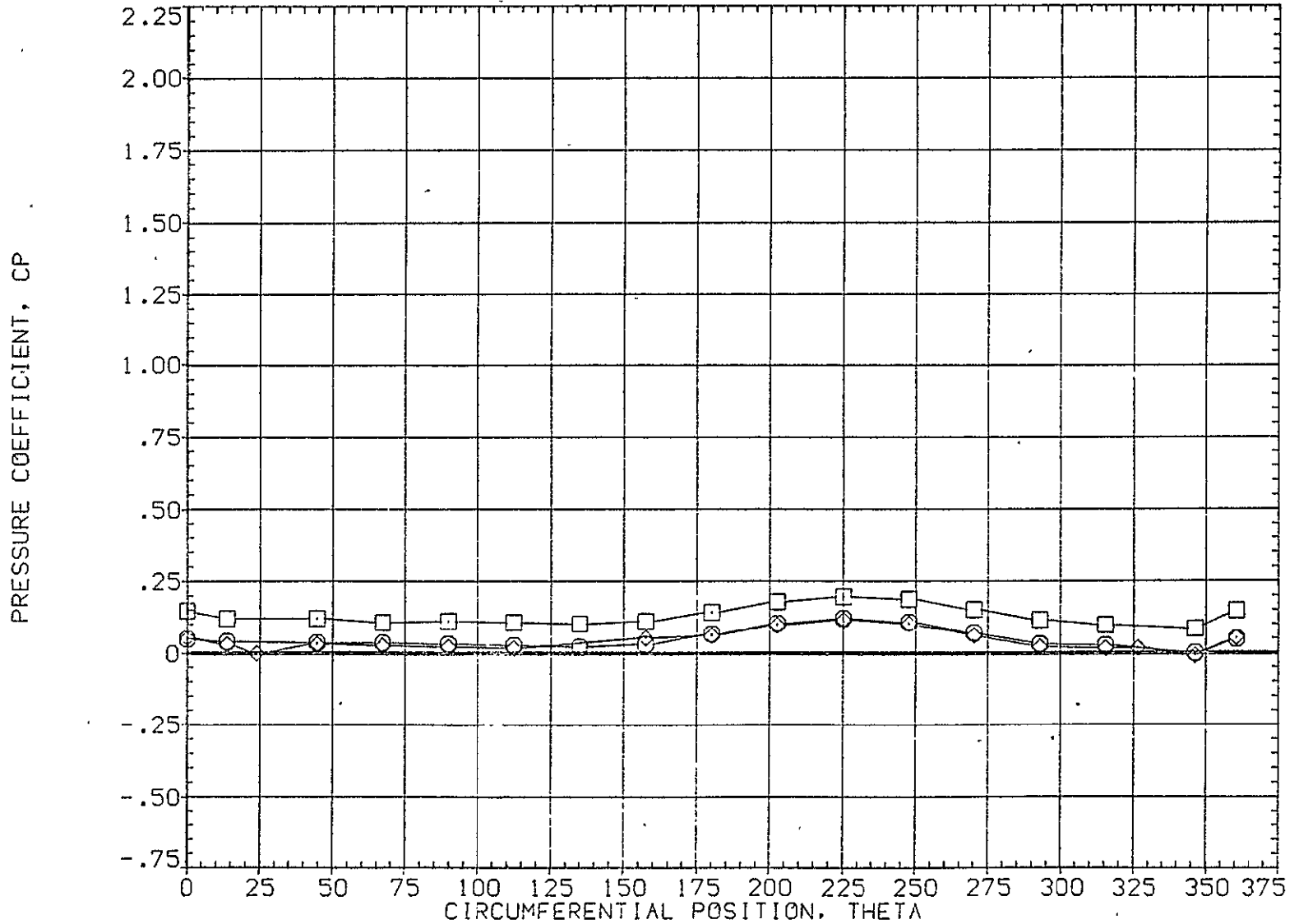


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.892	16.470	4.960		20.000		
□	.923			MOUNT	1.000	PHI	45.000
◇	.954						

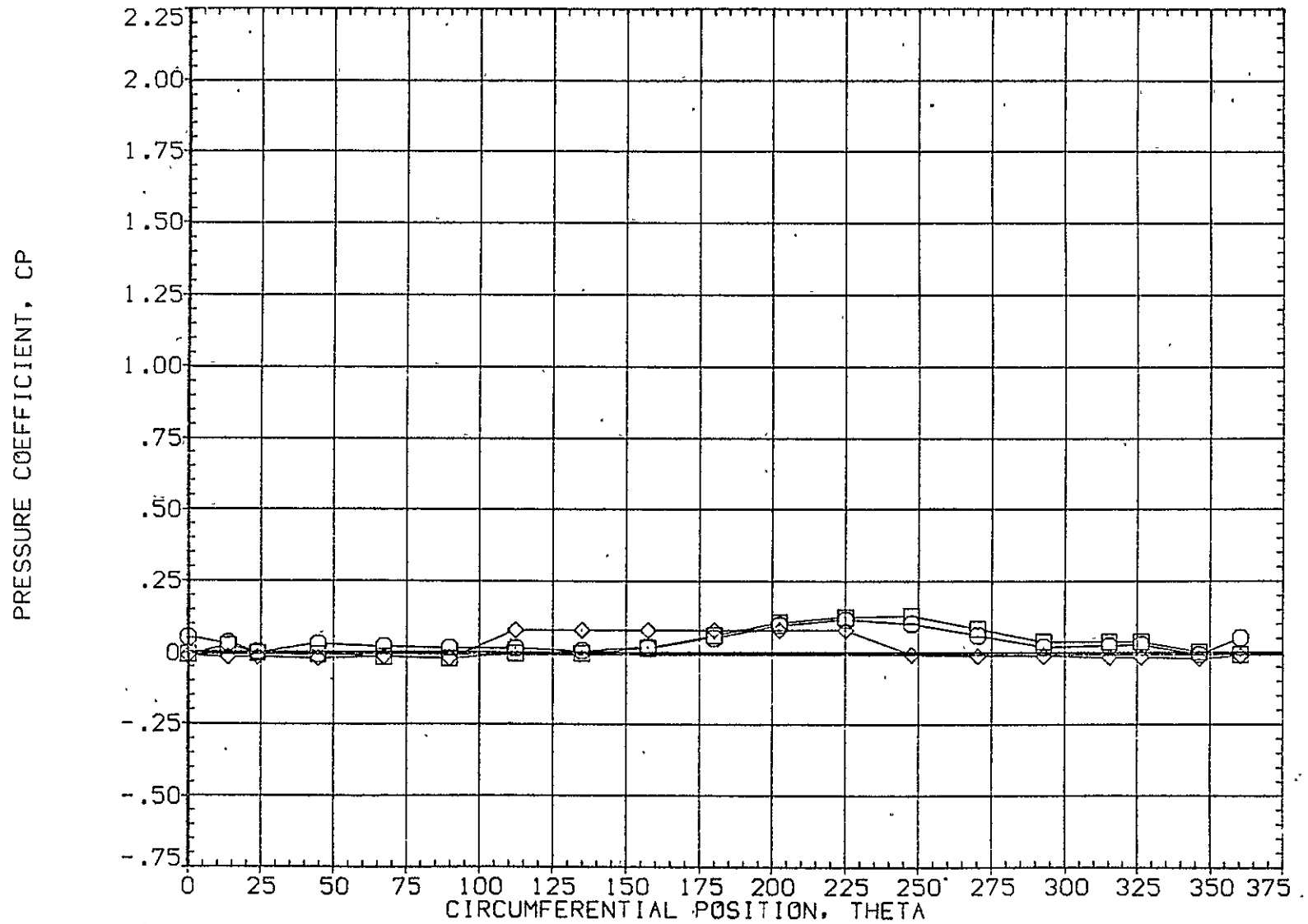


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.490	4.960	MOUNT	1.000	PHI	45.000
□	.108						
◇	.162						

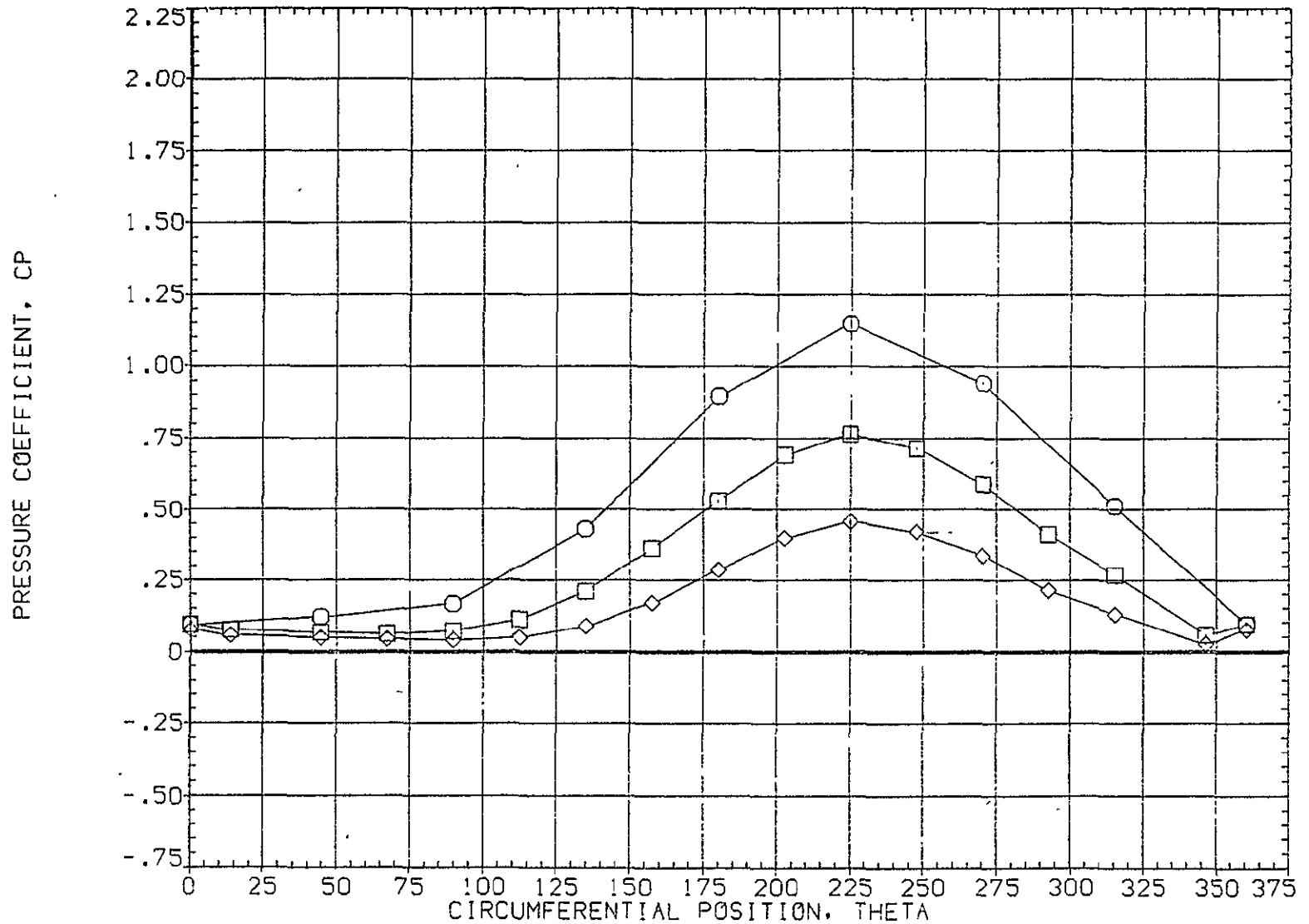


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.216	20.490	4.960		20.000		
□	.322						
◇	.518			MOUNT	1.000	PHI	45.000

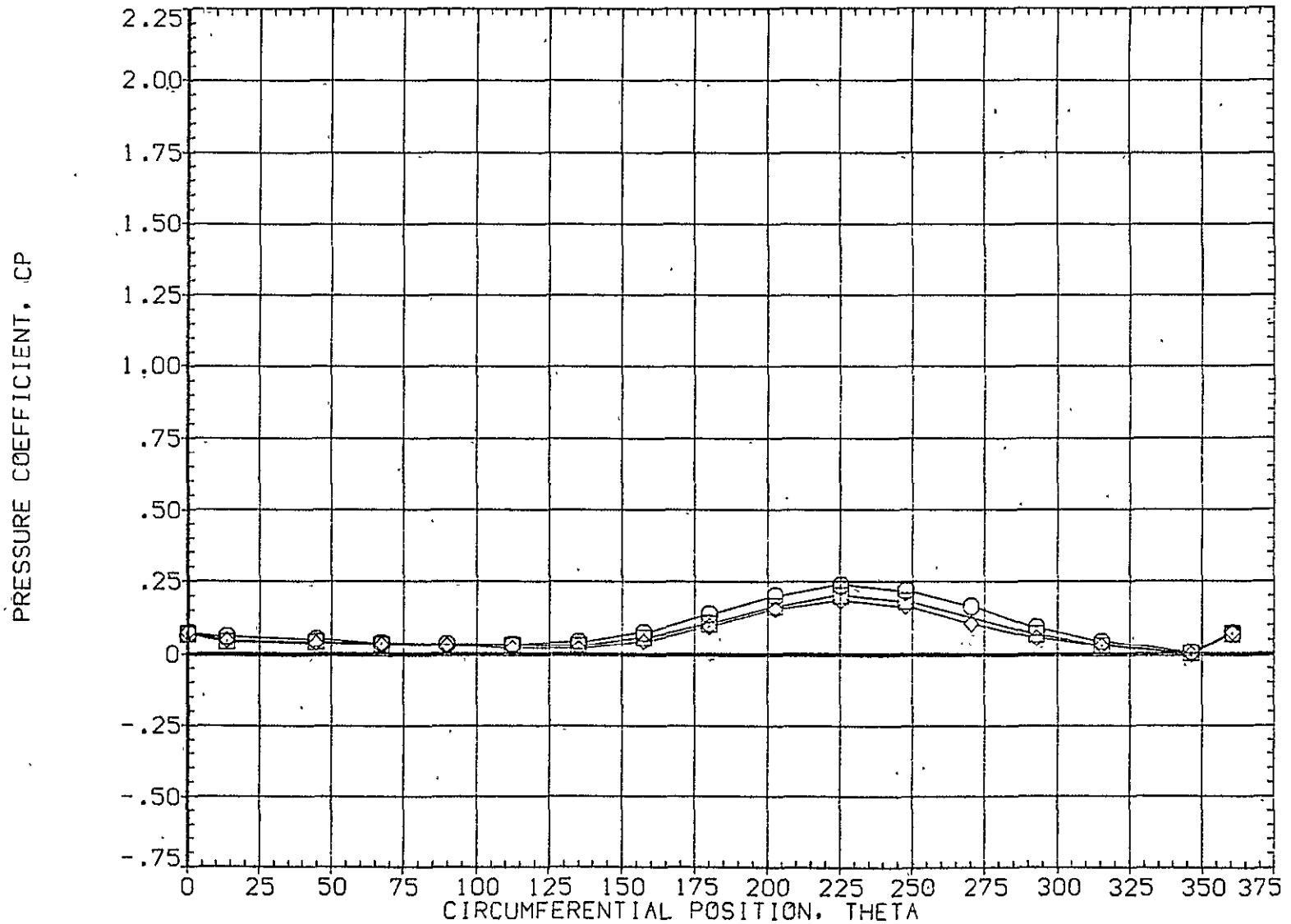


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	MCOUNT	OFFSET	PHI
○	.610	20.490	4.960	.000		20.000	
□	.735			1.000		45.000	
◇	.860						

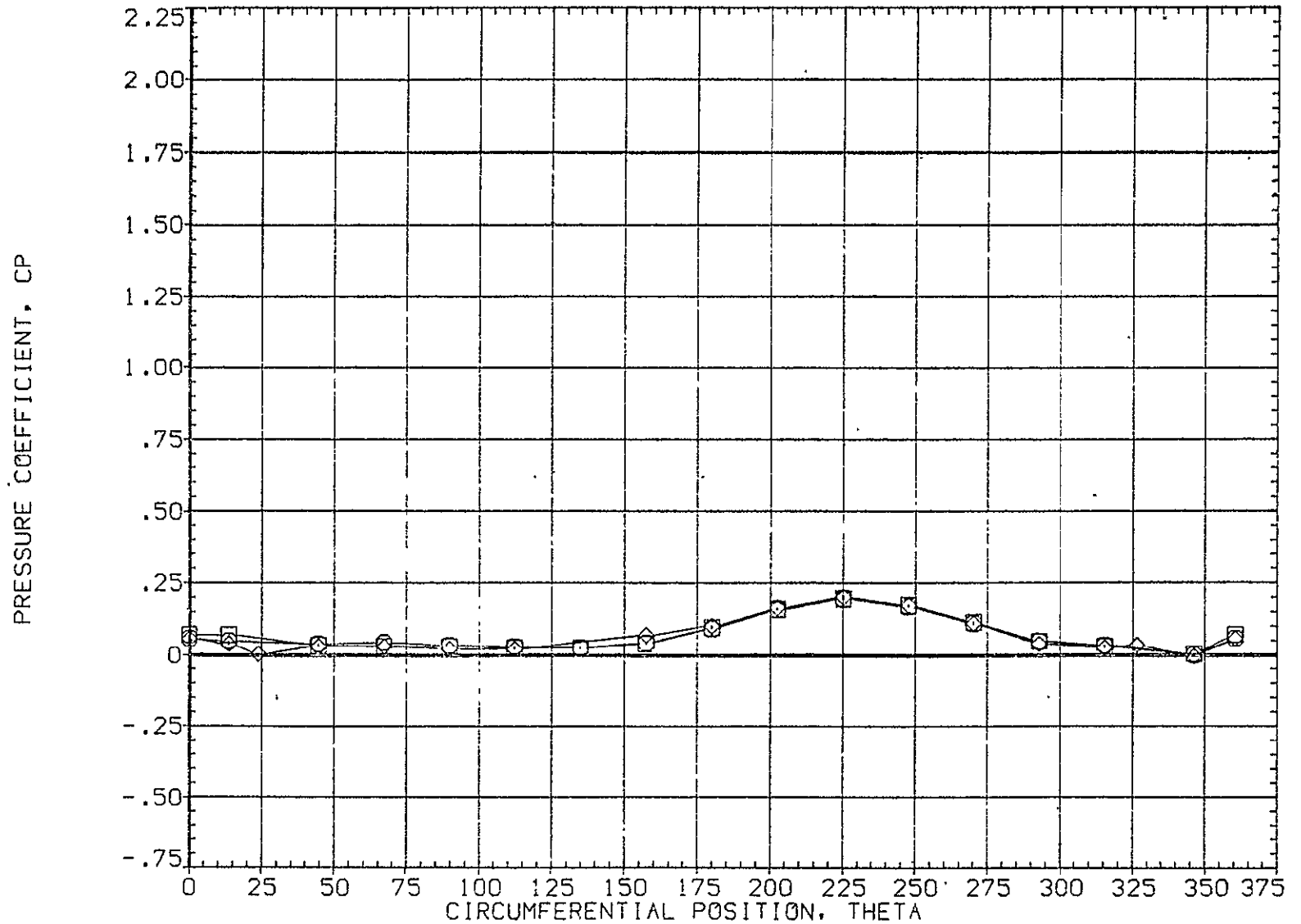


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	20.490	4.960	MOUNT	1.000	PHI	45.000
□	.923						
◇	.954						

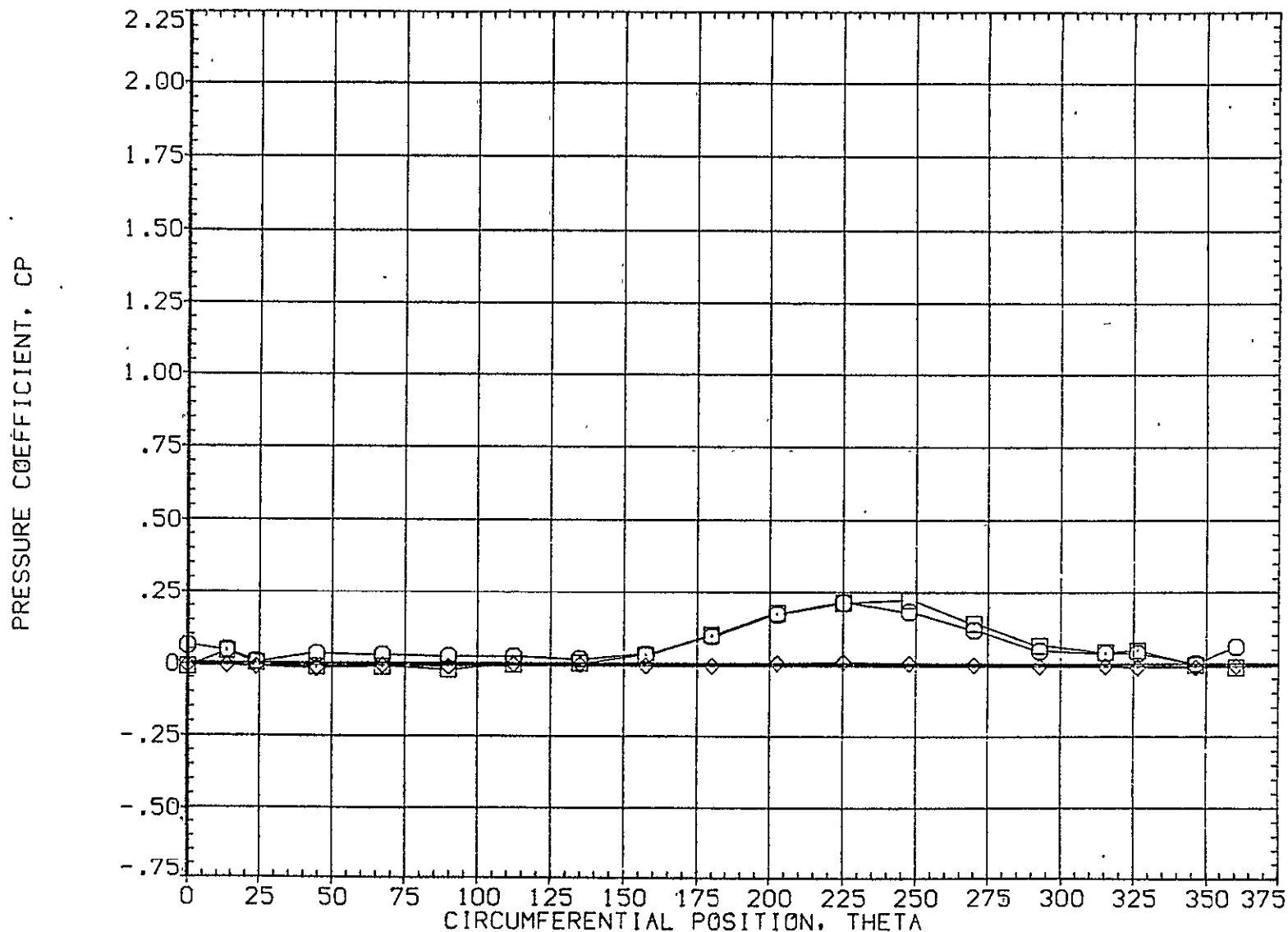


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	24.510	4.960		20.000		
□	.108						
◇	.162						
				MOUNT	1.000		45.000

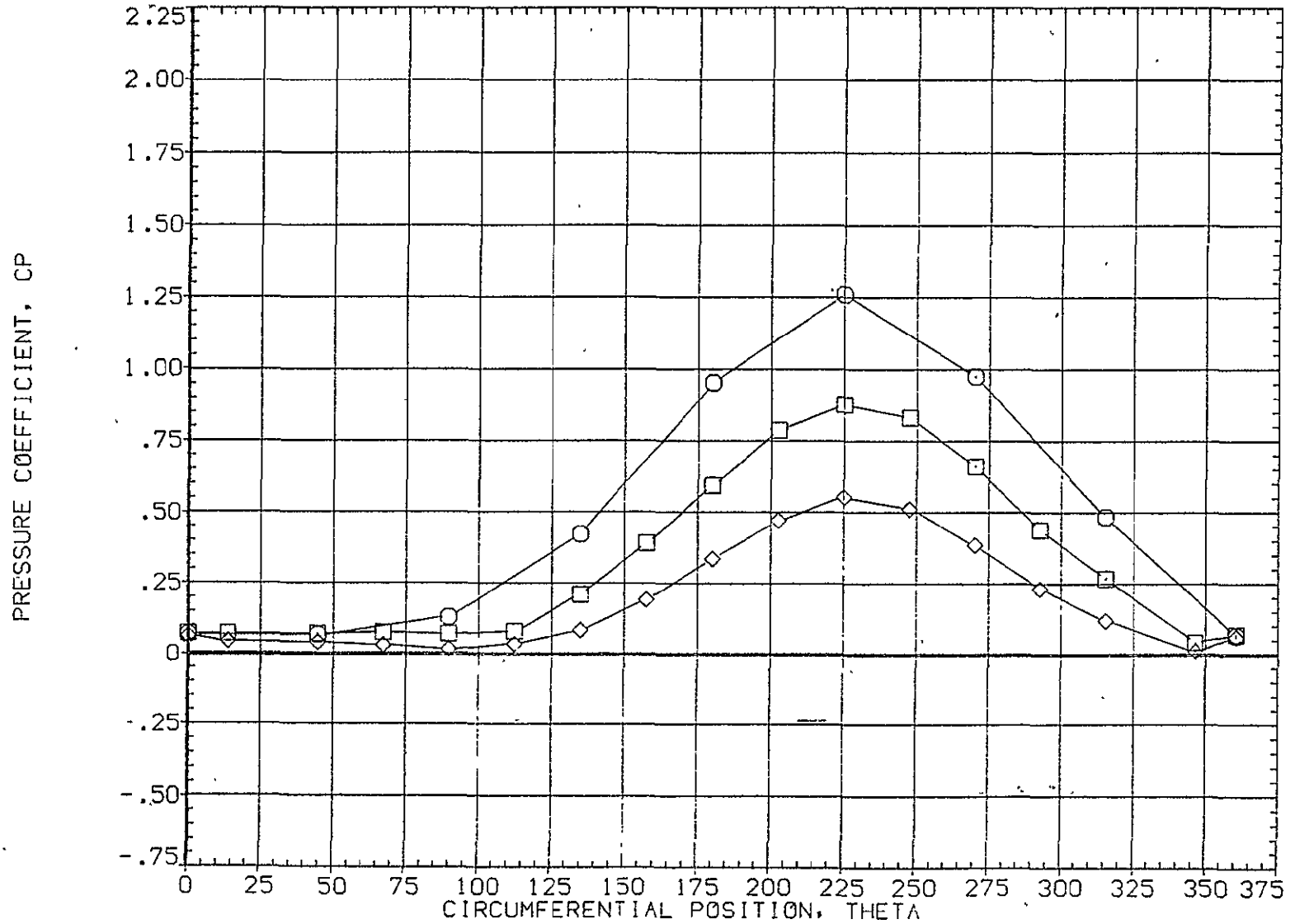


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 24.510 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 45.000

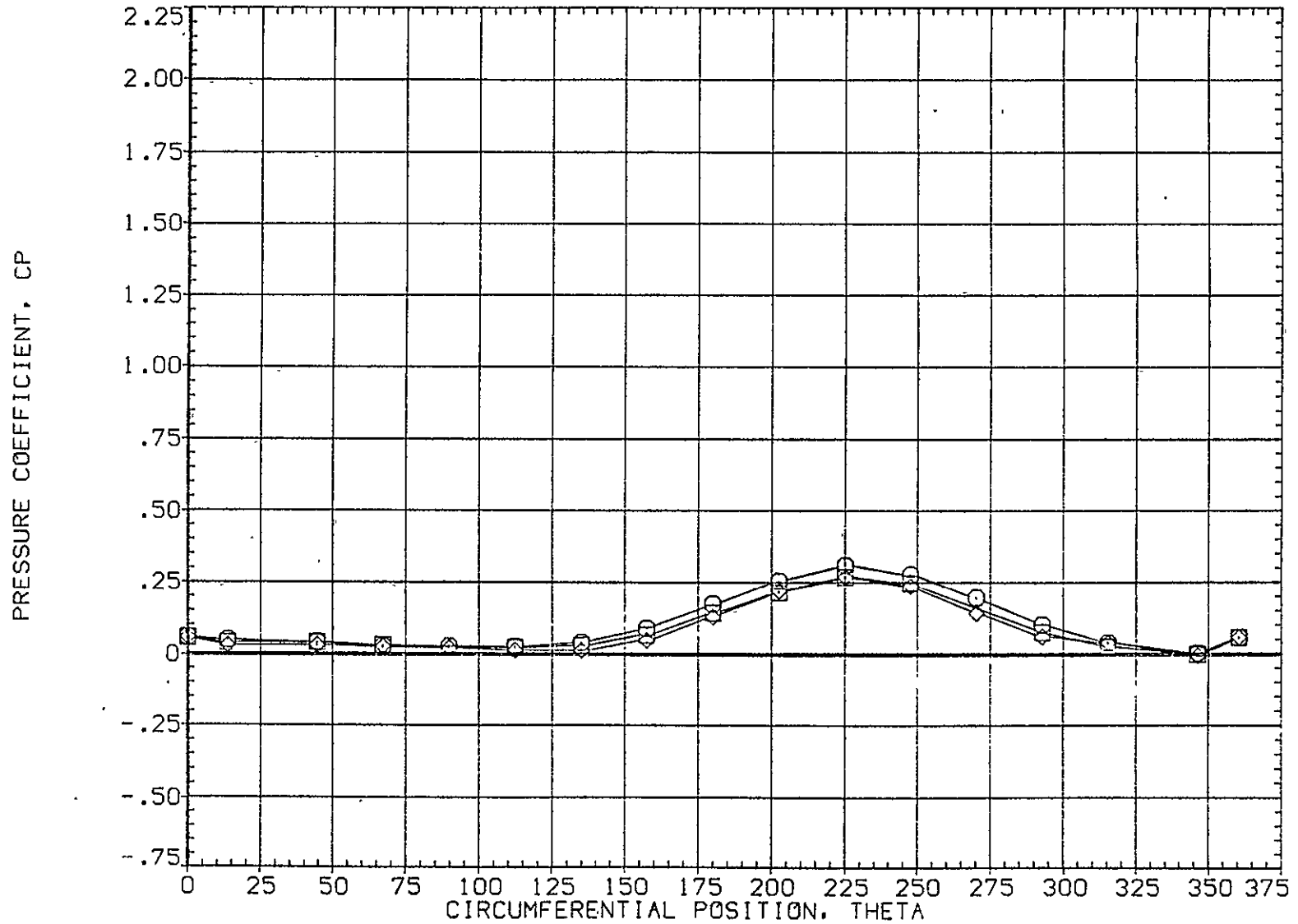


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	24.510	4.960	.000	20.000	
□	.735			1.000	45.000	
◇	.860					

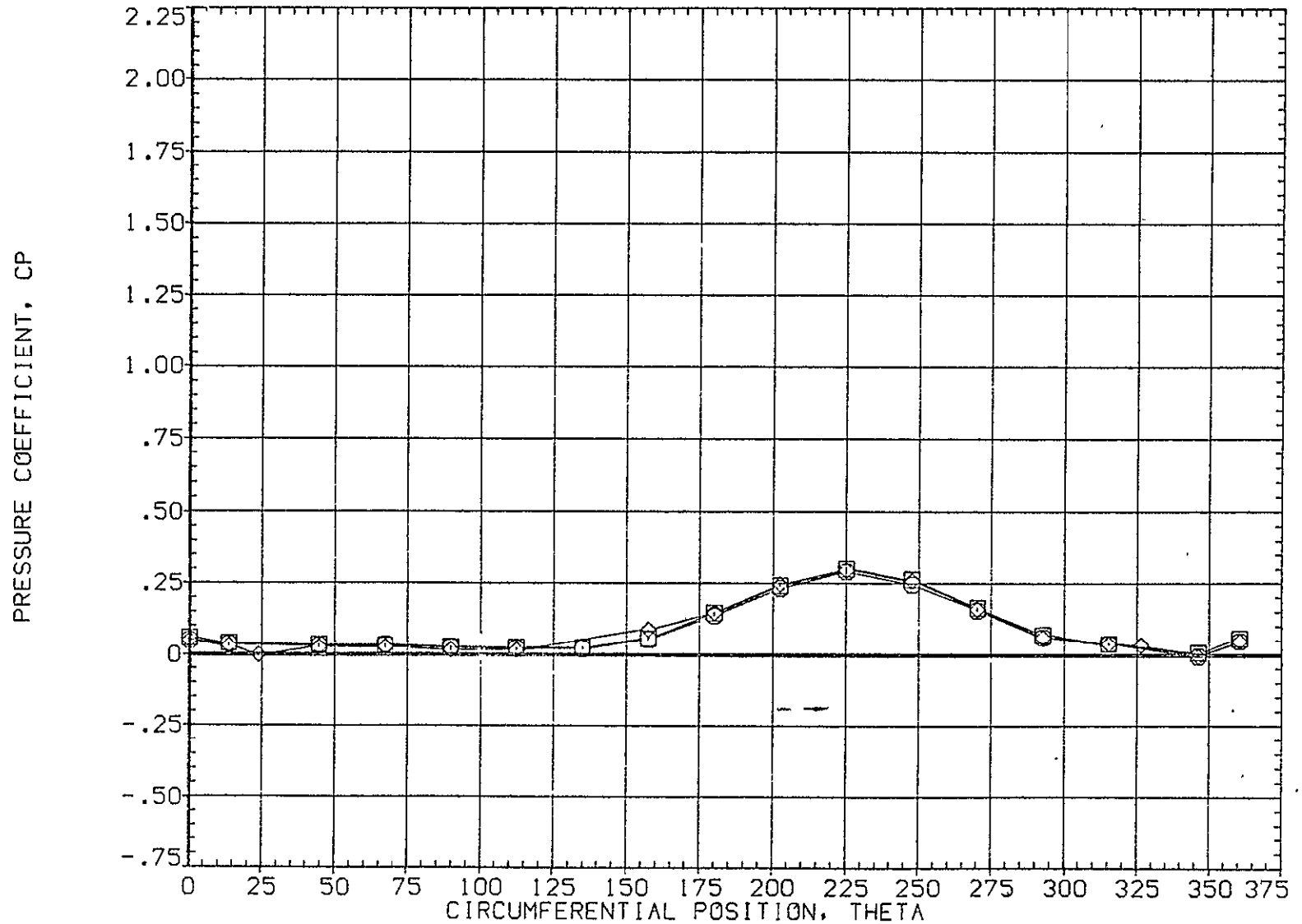


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 24.510
 MACH 4.960

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 45.000

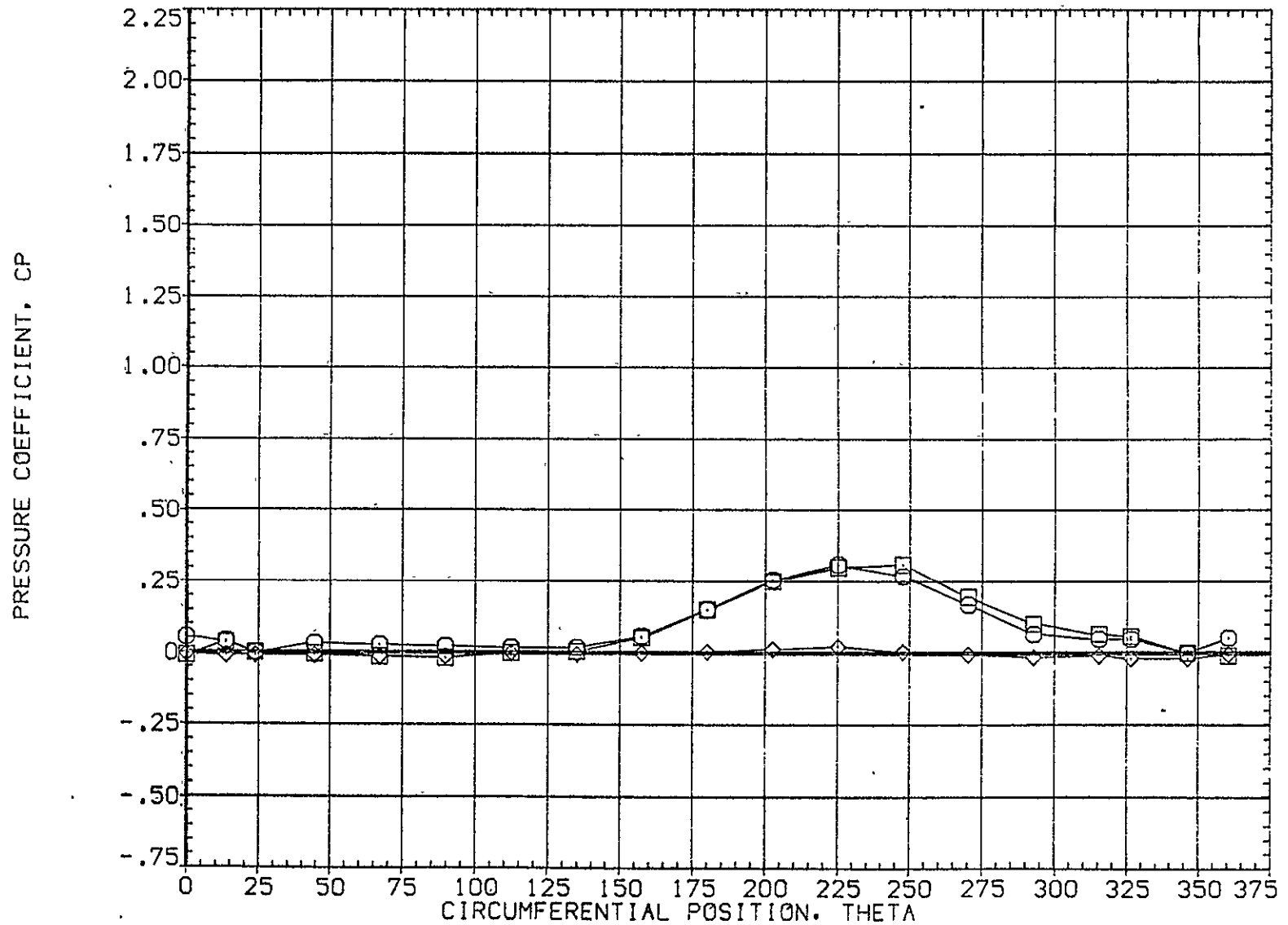


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	28.540	4.960	.000	20.000	
□	.108			1.000	45.000	
◇	.162					

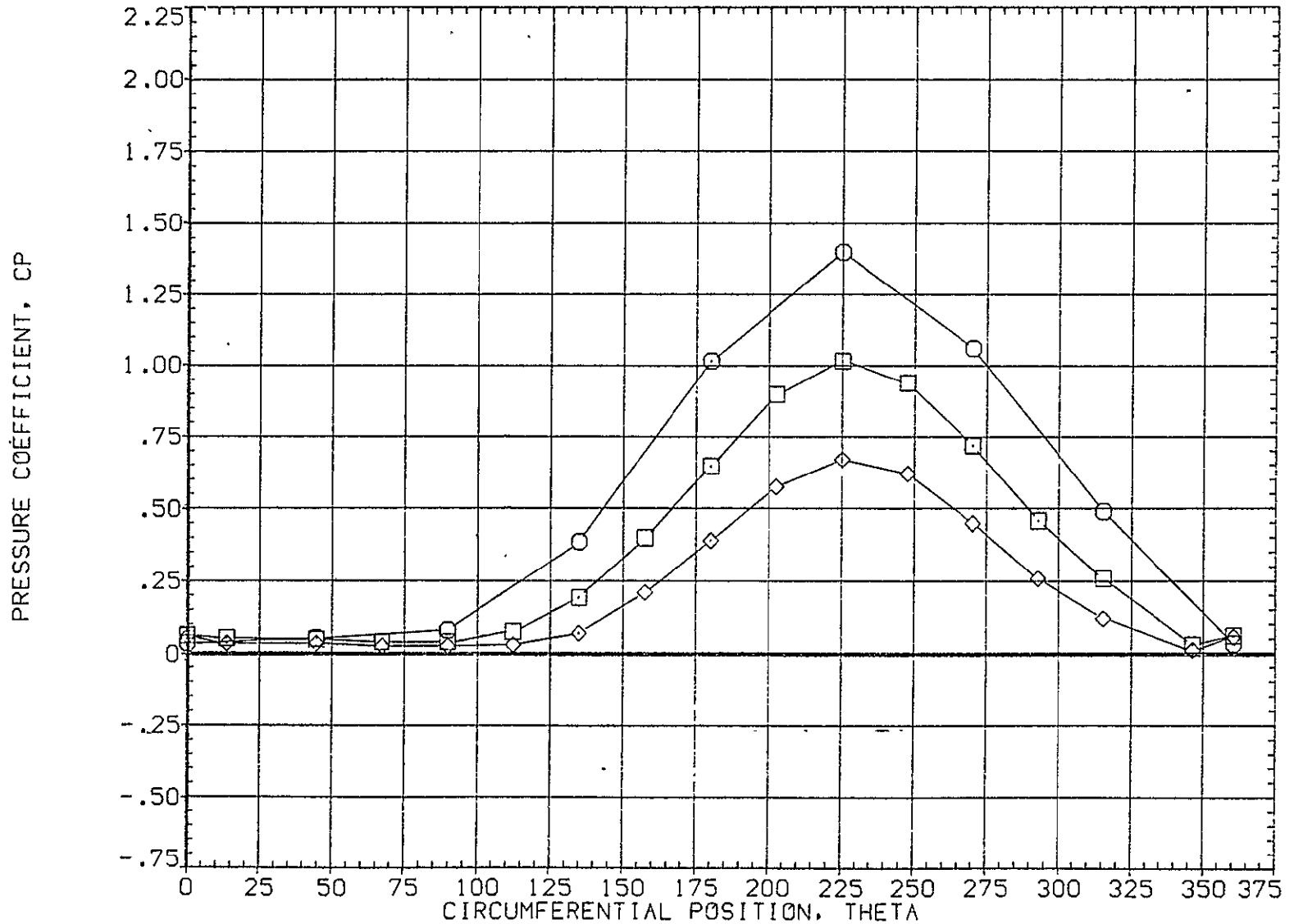


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 28.540 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 45.000

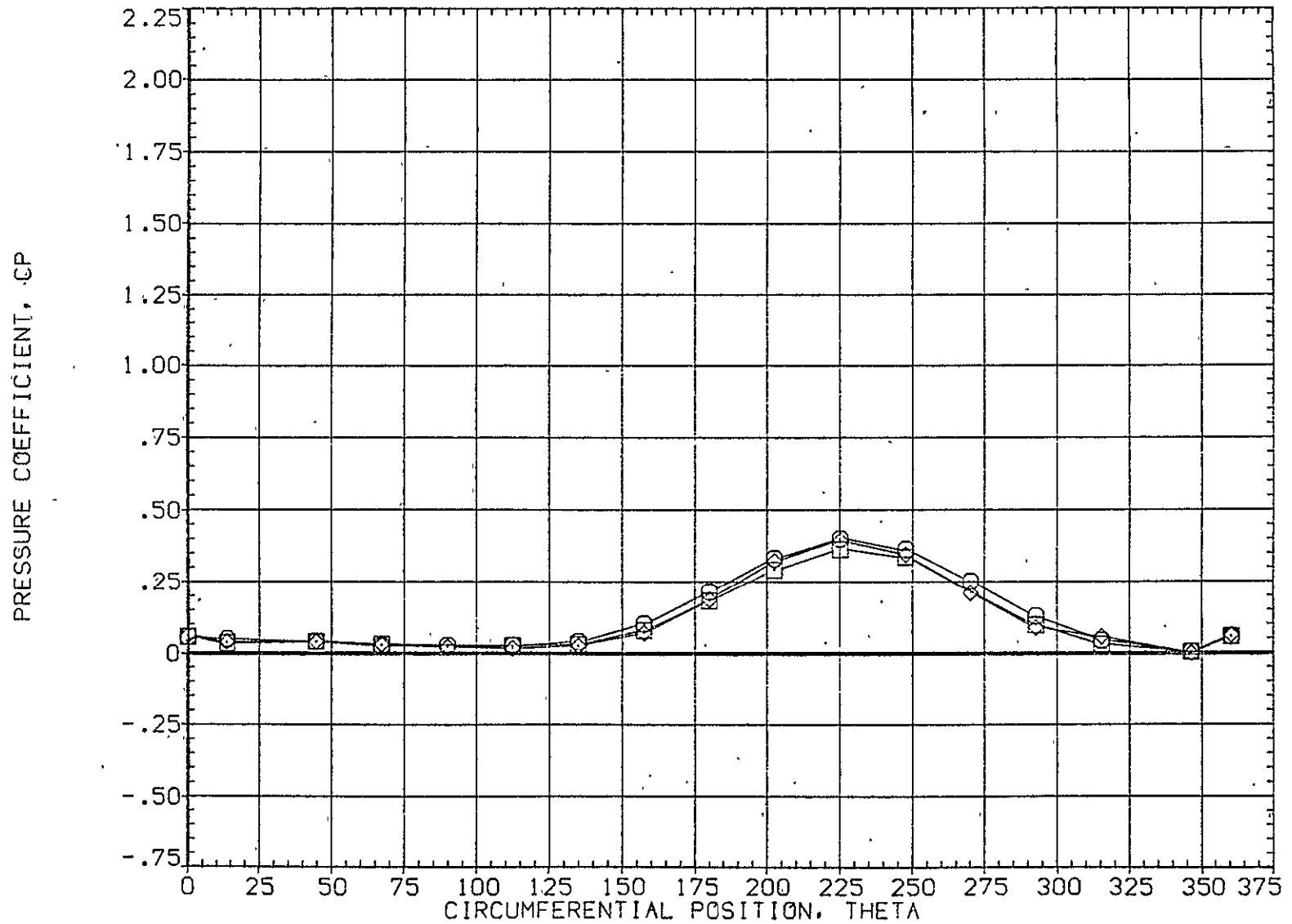


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A090)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	28.540	4.960		20.000		
□	.735			1.000		45.000	
◇	.860						

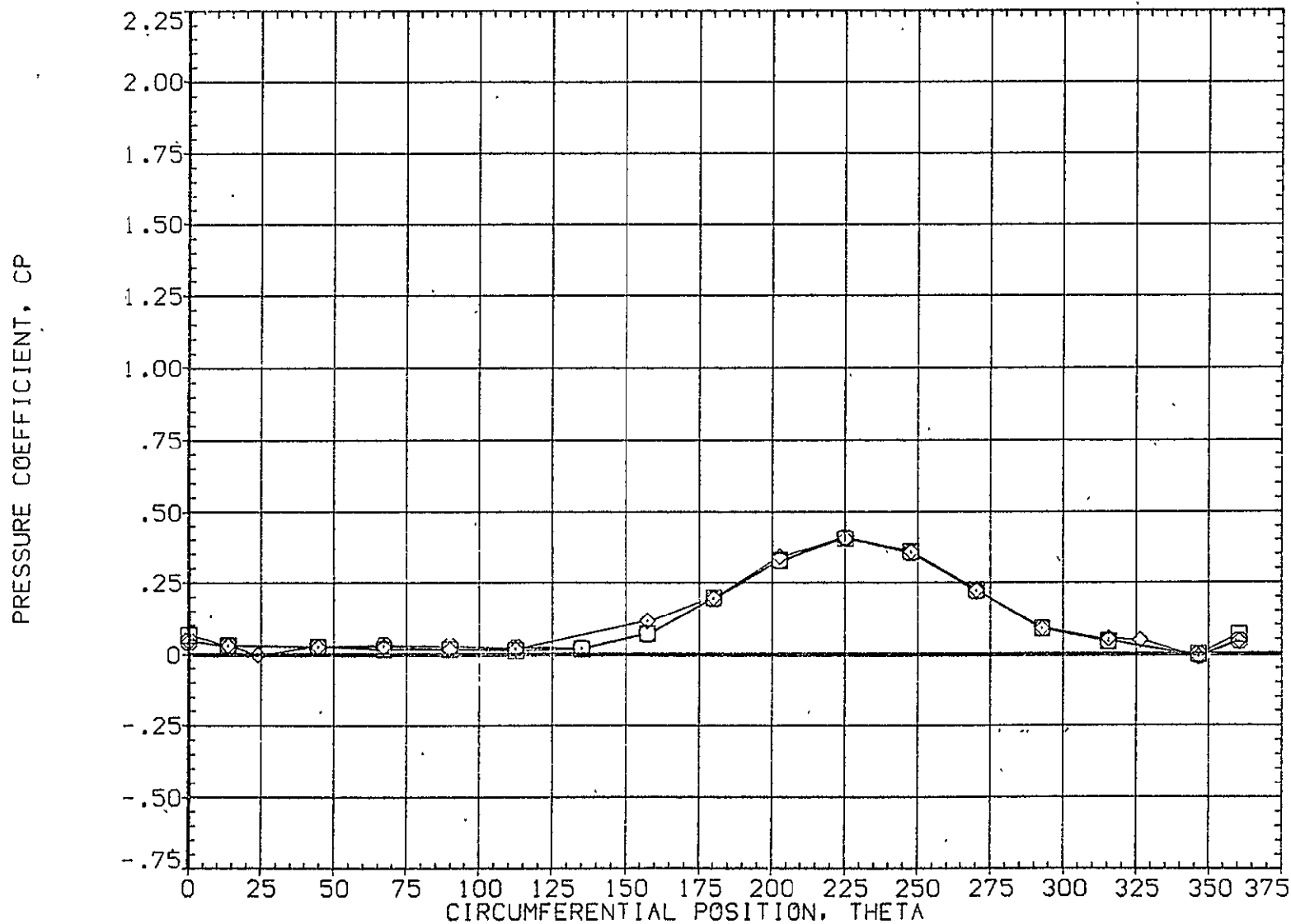


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	28.540	4.960	.000	20.000	
□	.923			1.000	PHI	45.000
◇	.954					

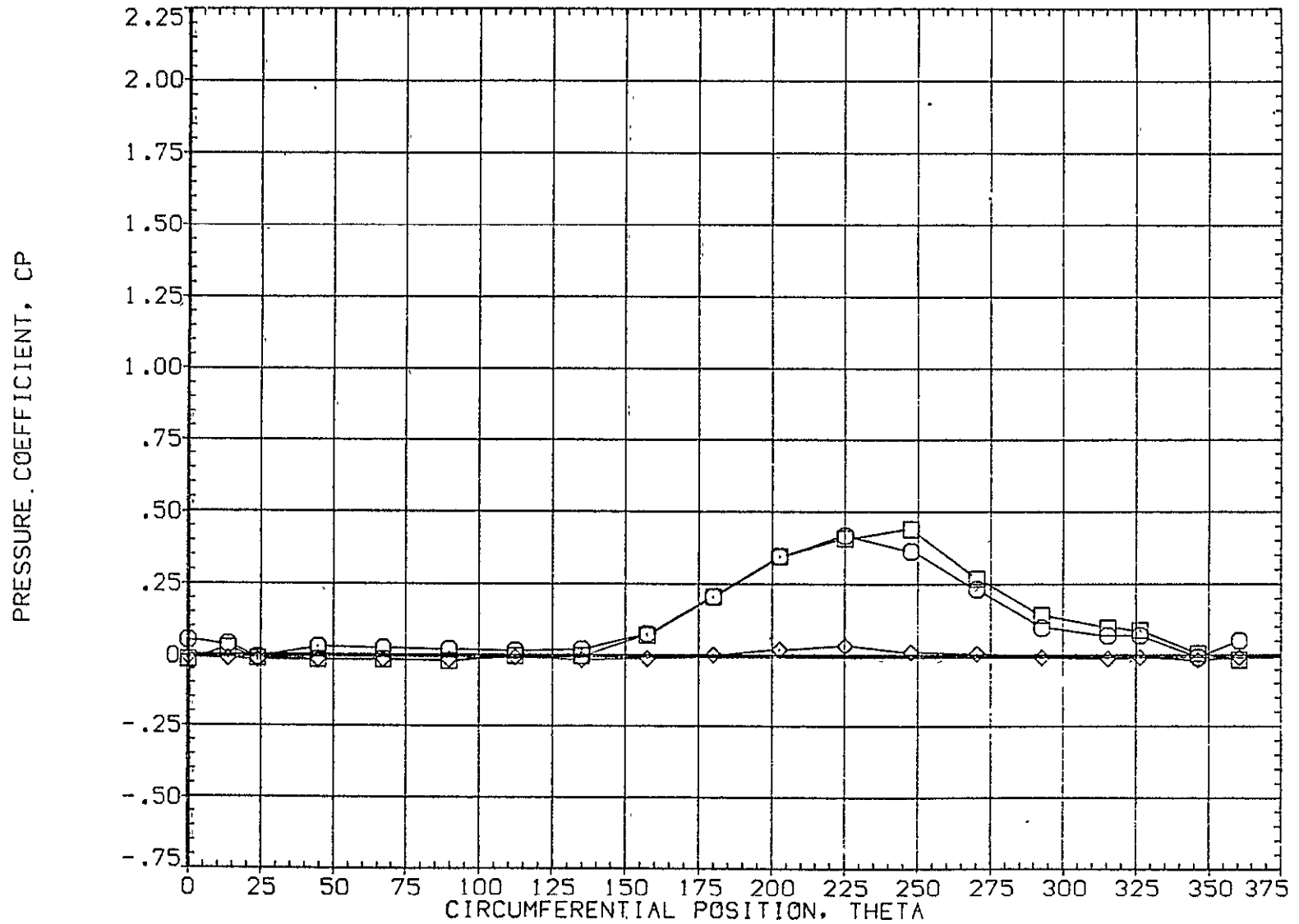


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-8.310	4.960	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

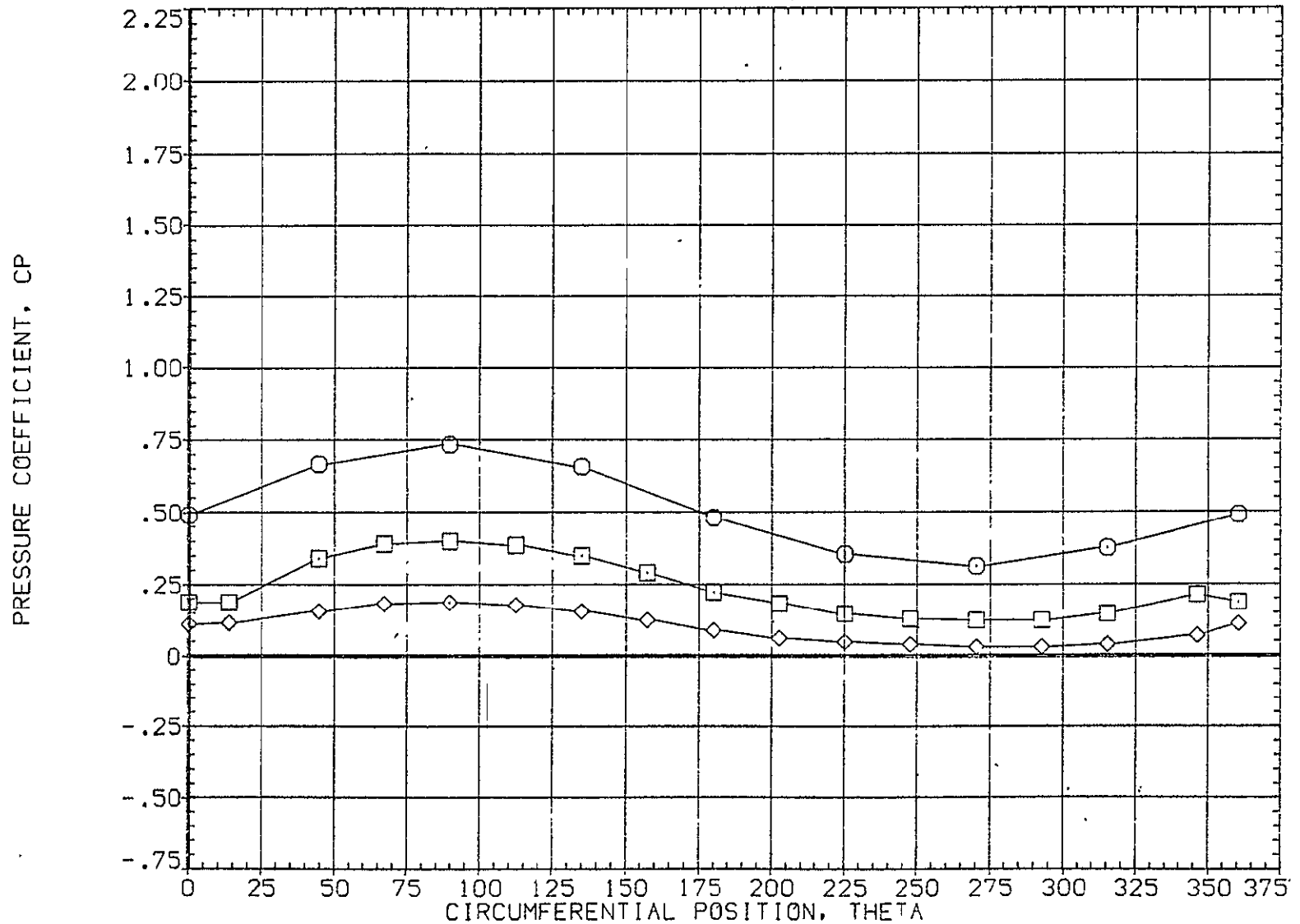


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
◇	.216	-8.310	4.960	.000	.000	.000
□	.322			1.000		90.000
◇	.518					

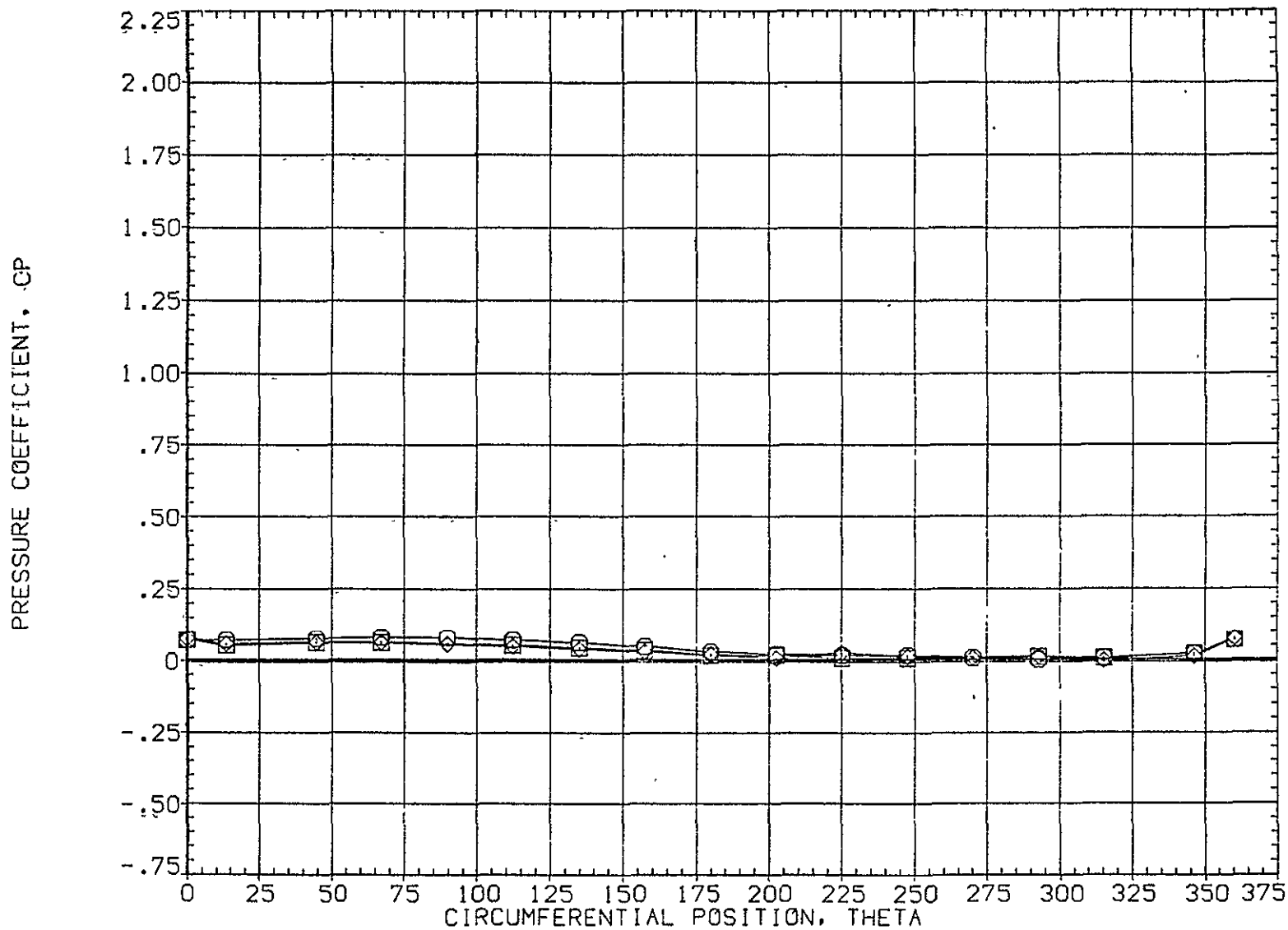


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.310	4.960	.000	.000	.000
□	.735			1.000		90.000
◇	.860					

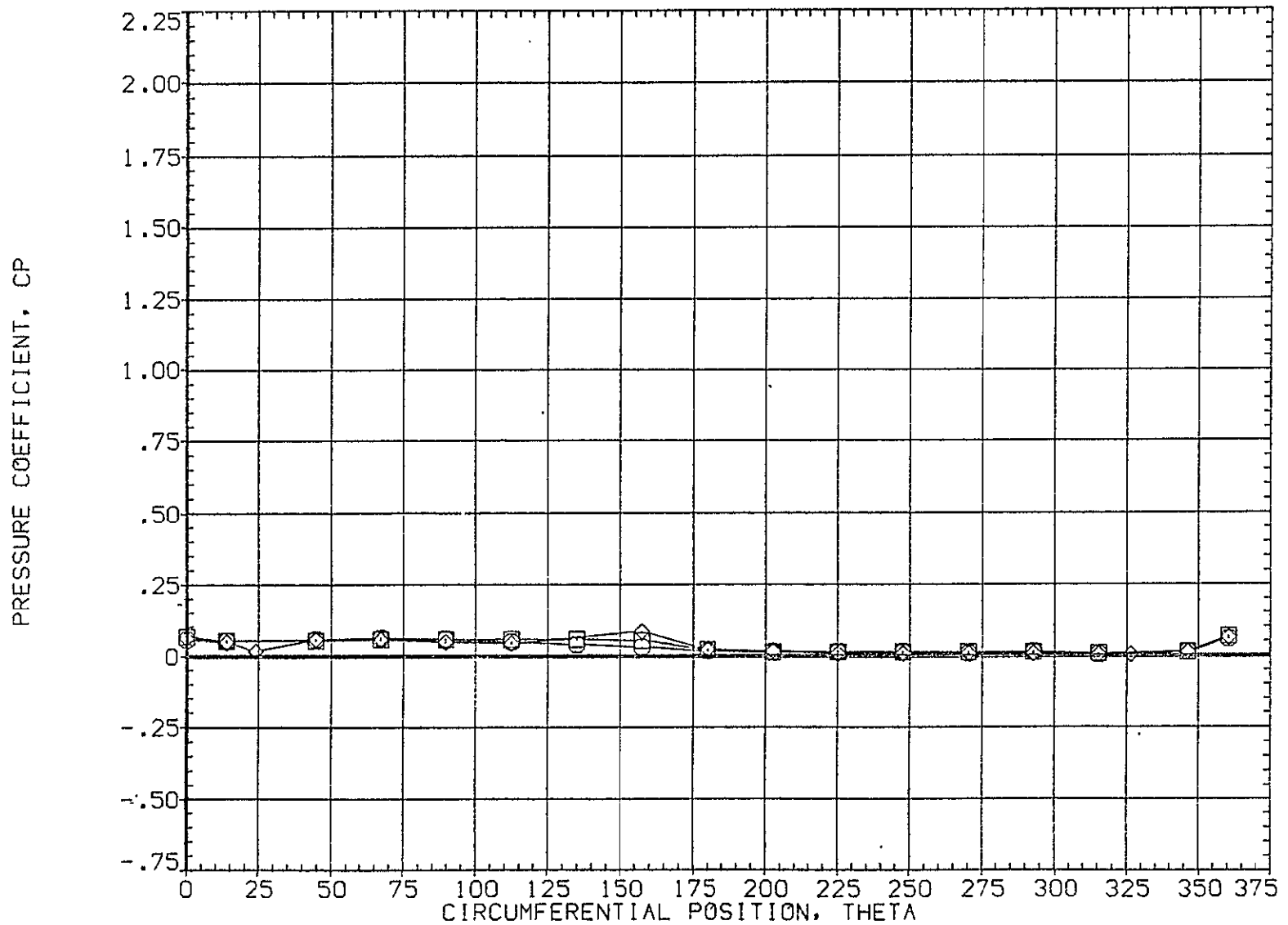


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.892	-8.310	4.960	.000	.000		.000
□	.923			1.000			90.000
◇	.954						

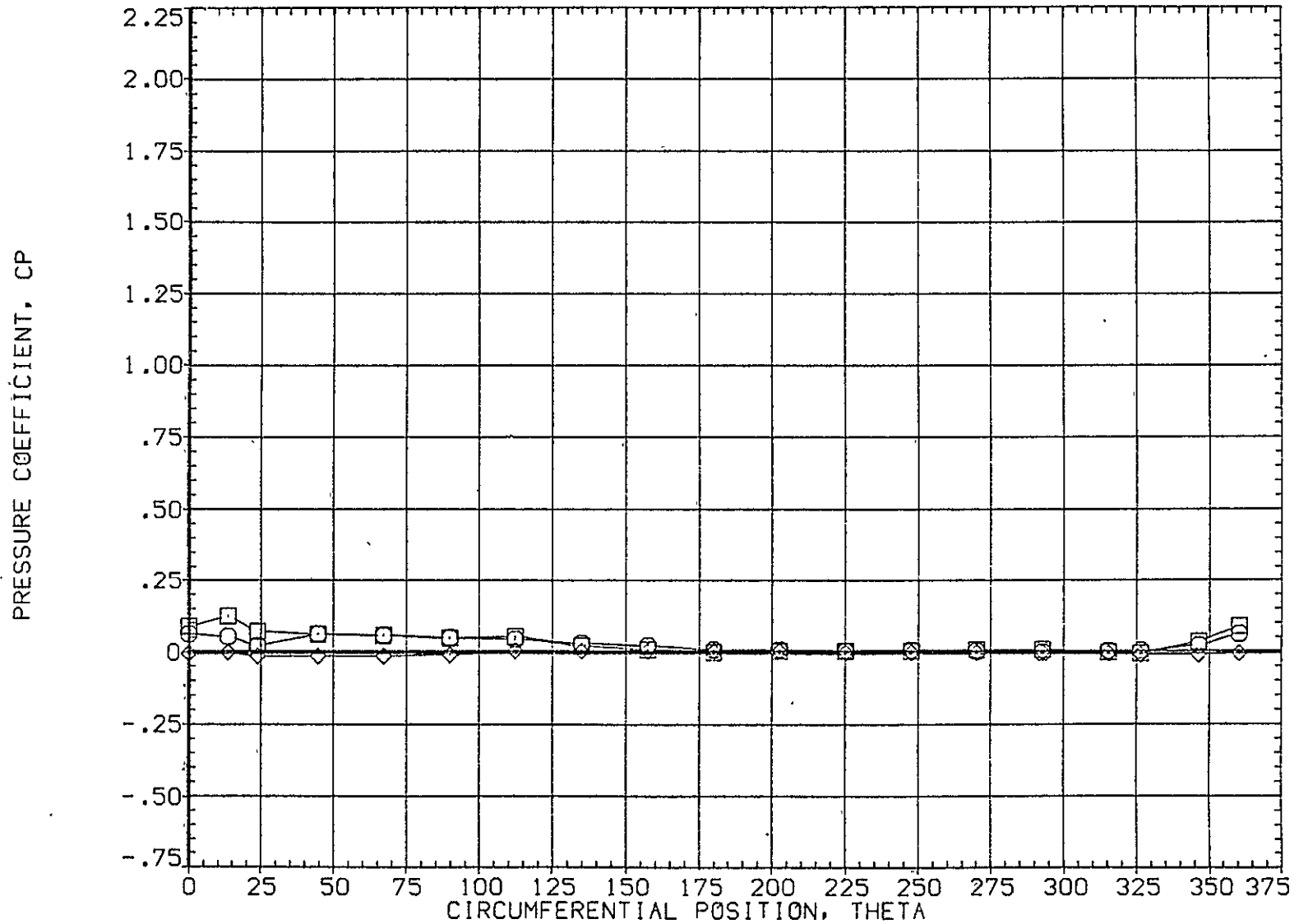


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.290	4.960	.000	.000	.000
□	.108			1.000		90.000
◇	.162					

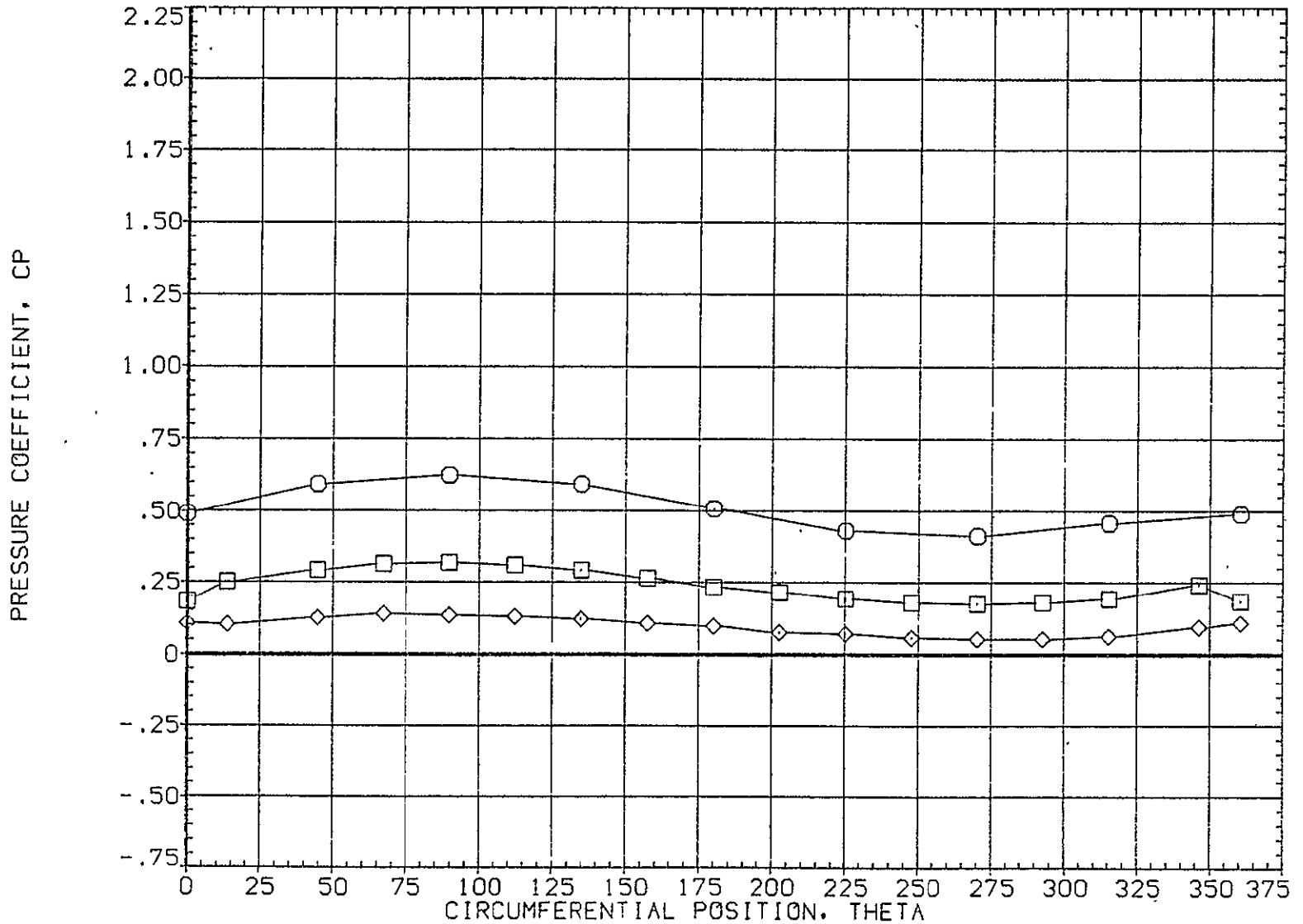


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 -4.290 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 90.000

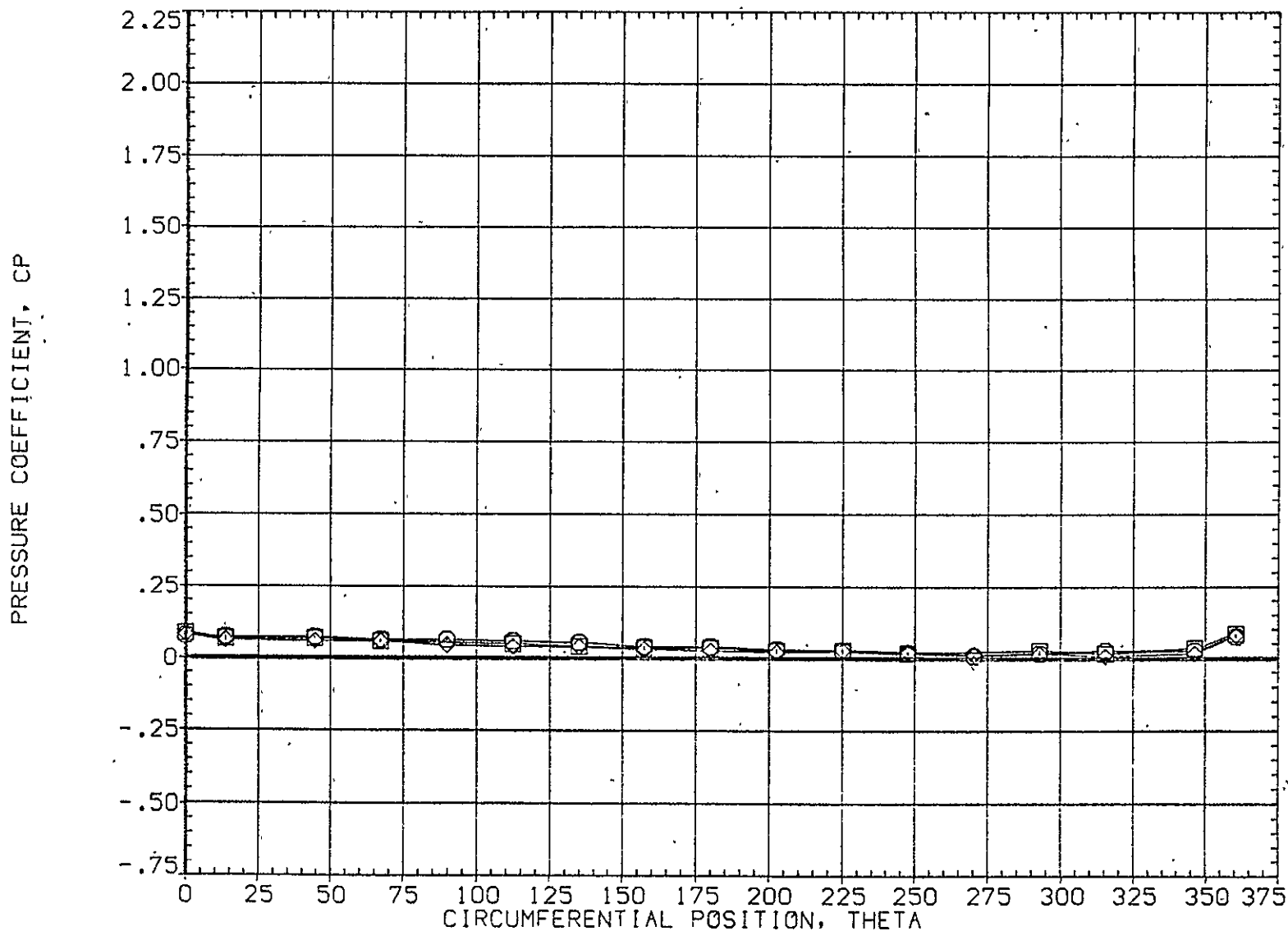


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.290	4.960	.000	.000	.000
□	.735			1.000		90.000
◇	.860					

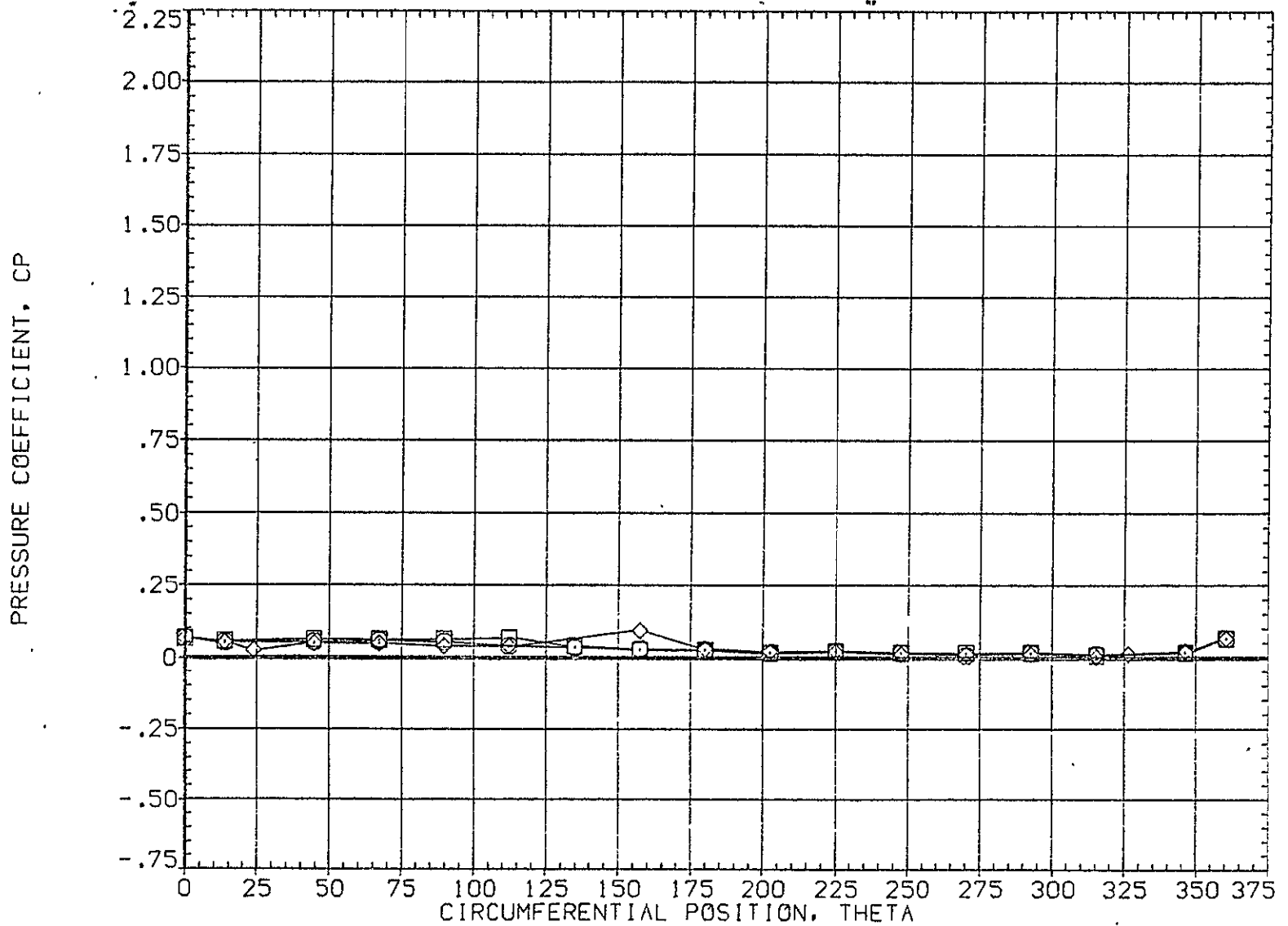


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .892
.923
.954

ALPHA -4.290

MACH 4.960

BETA .000
MOUNT 1.000

PARAMETRIC VALUES
OFFSET .000
PHI 90.000

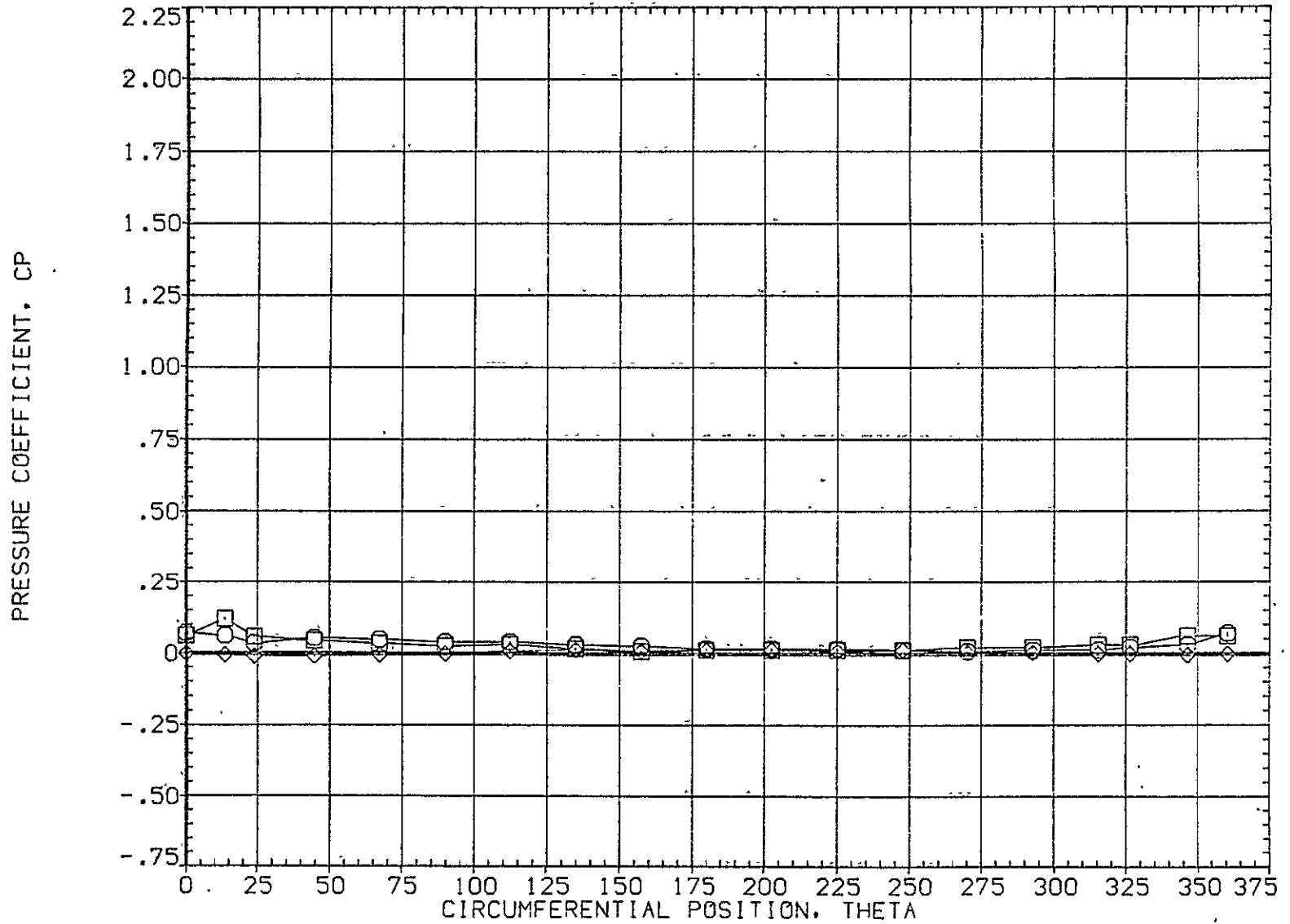


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	4.960	.000	.000	.000
□	.108			1.000		90.000
◇	.162					

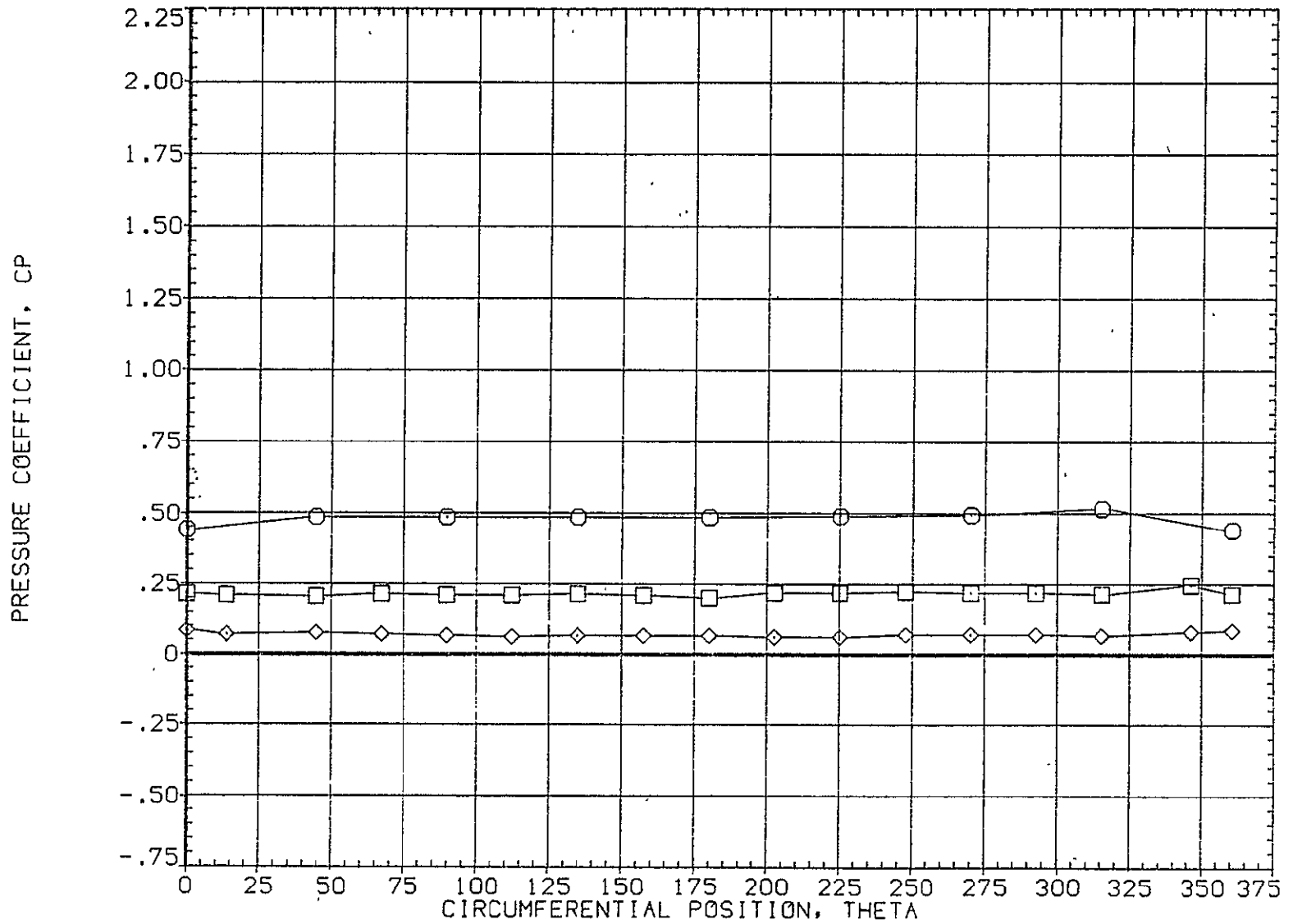


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.216	-.280	4.960	.000	.000		.000
□	.322			1.000			90.000
◇	.518						

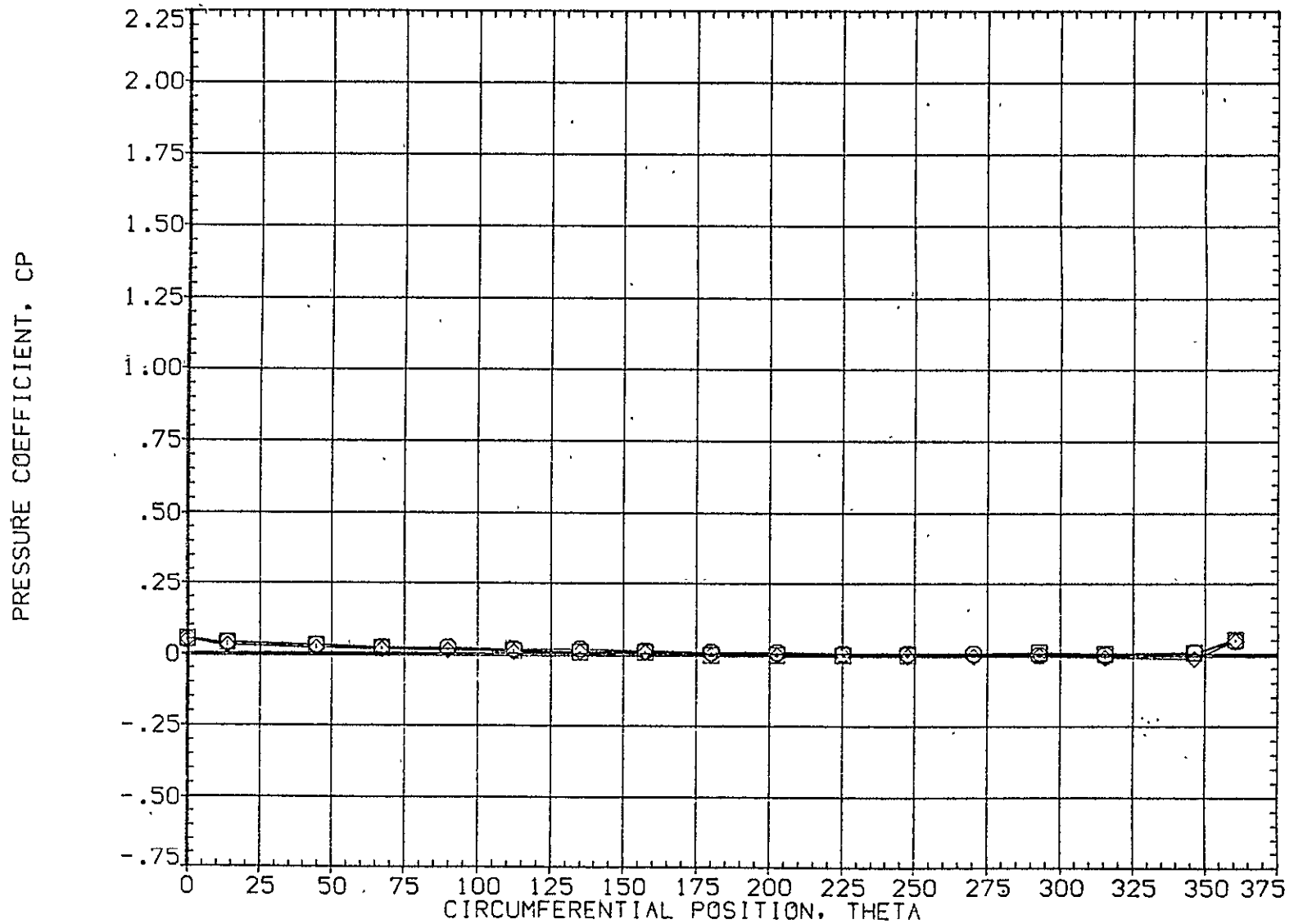


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A013)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	4.960	.000	.000	.000
□	.735			1.000		90.000
◇	.860					

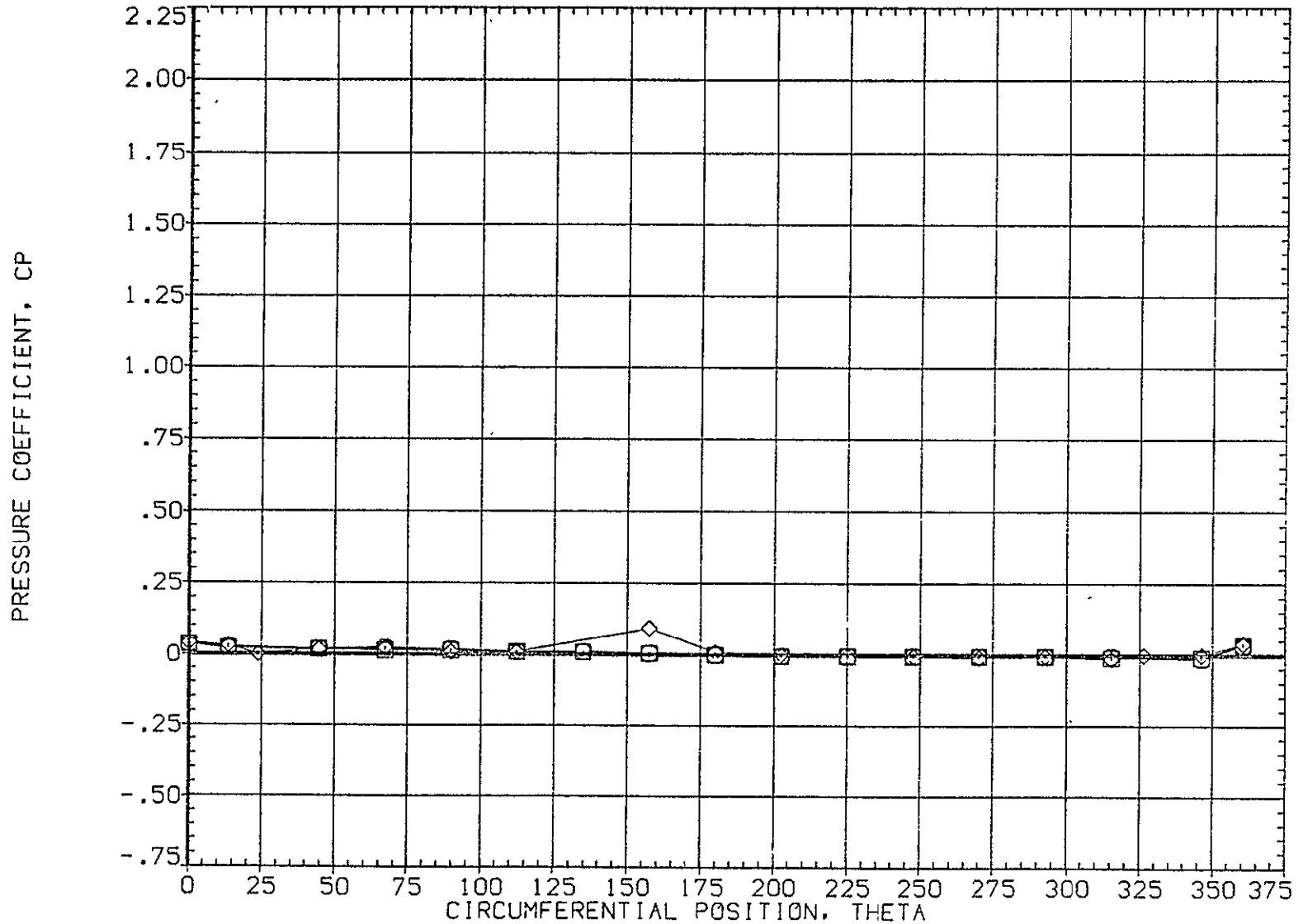


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB.	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	4.960	.000	.000	.000
□	.923			1.000		90.000
◇	.954					

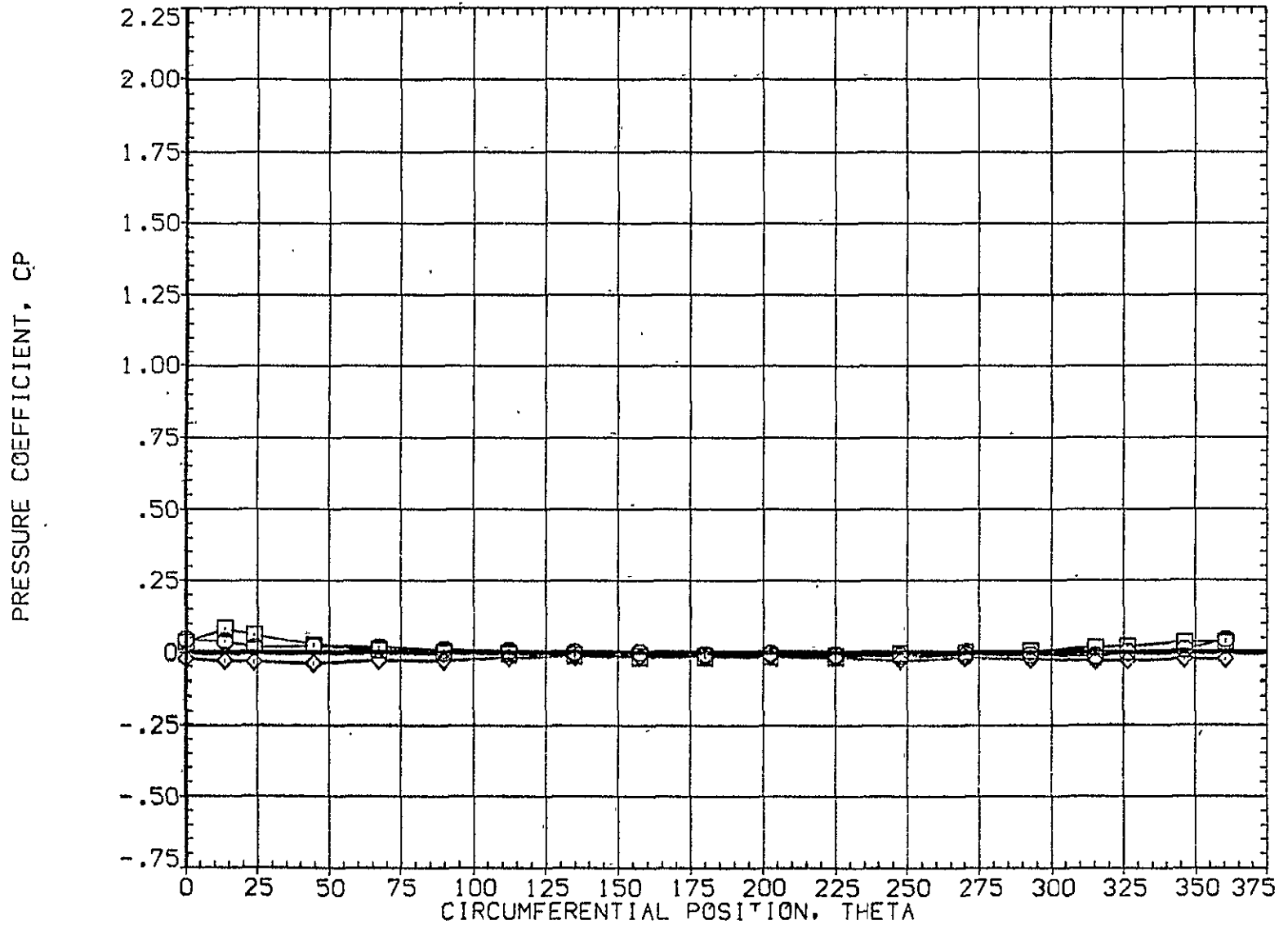


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES.

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	3.730	4.960	MOUNT	1.000	PHI	90.000
□	.108						
◇	.162						

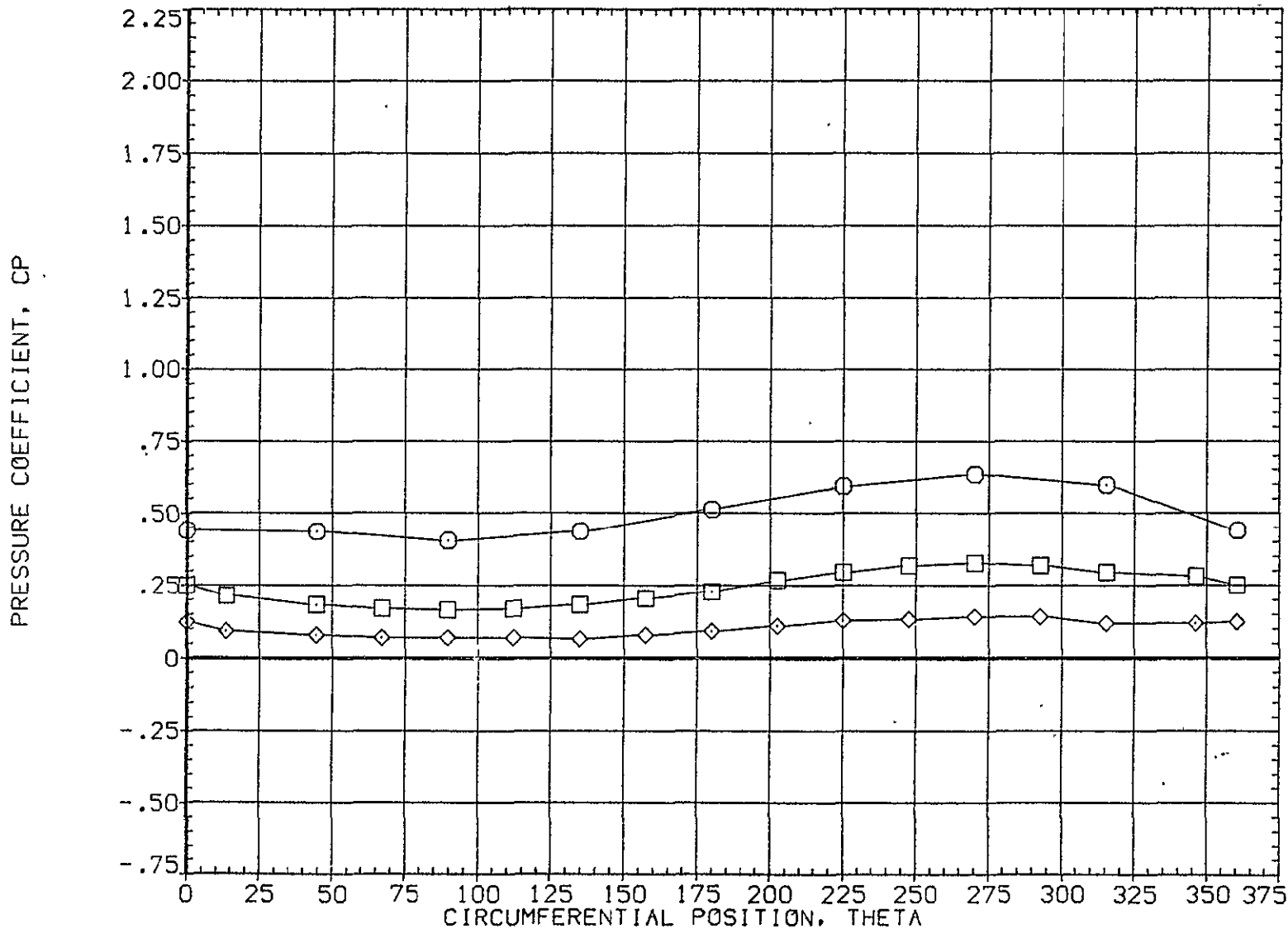


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 3.730 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 90.000

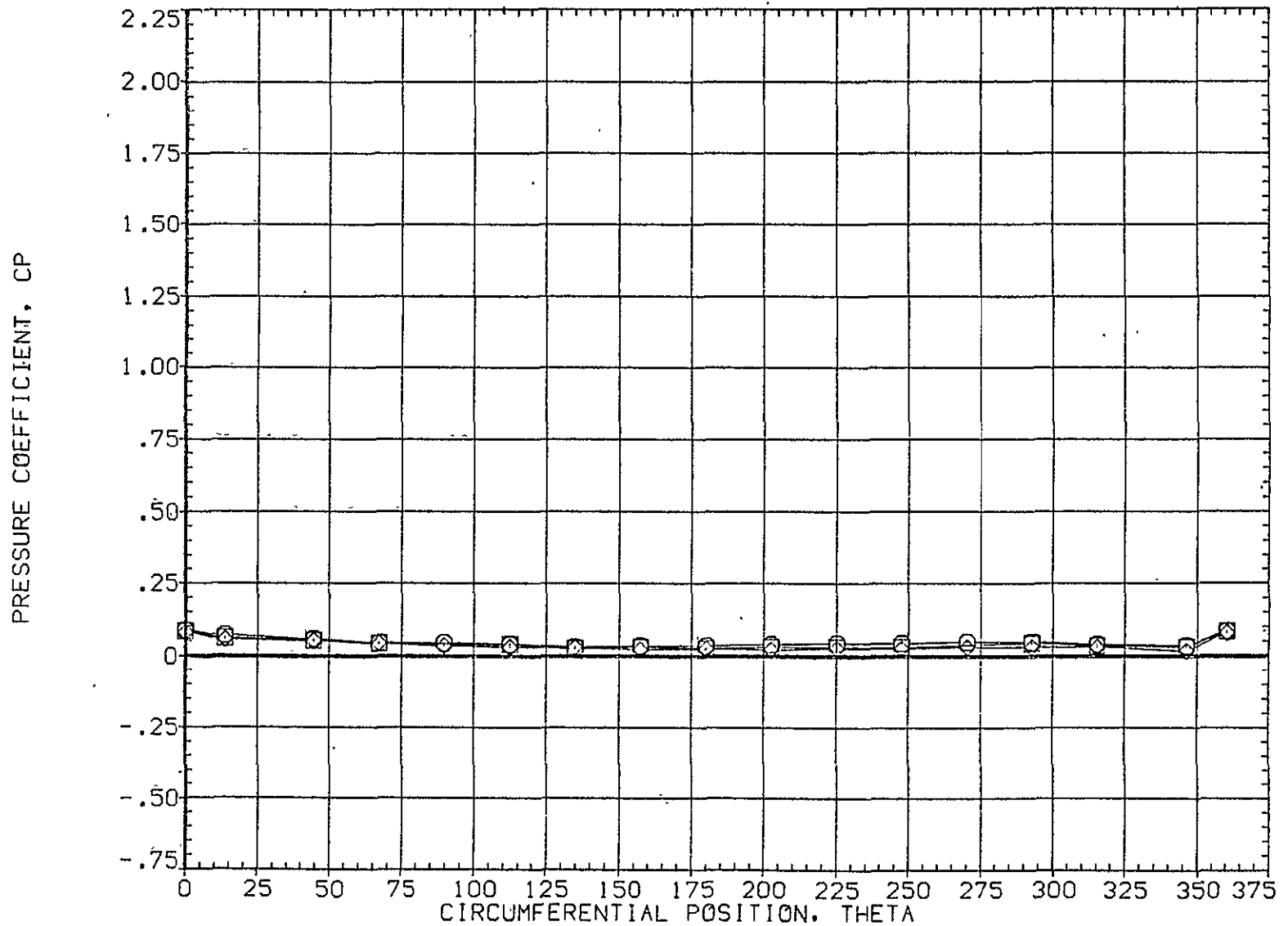


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A014)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	3.730	4.960	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

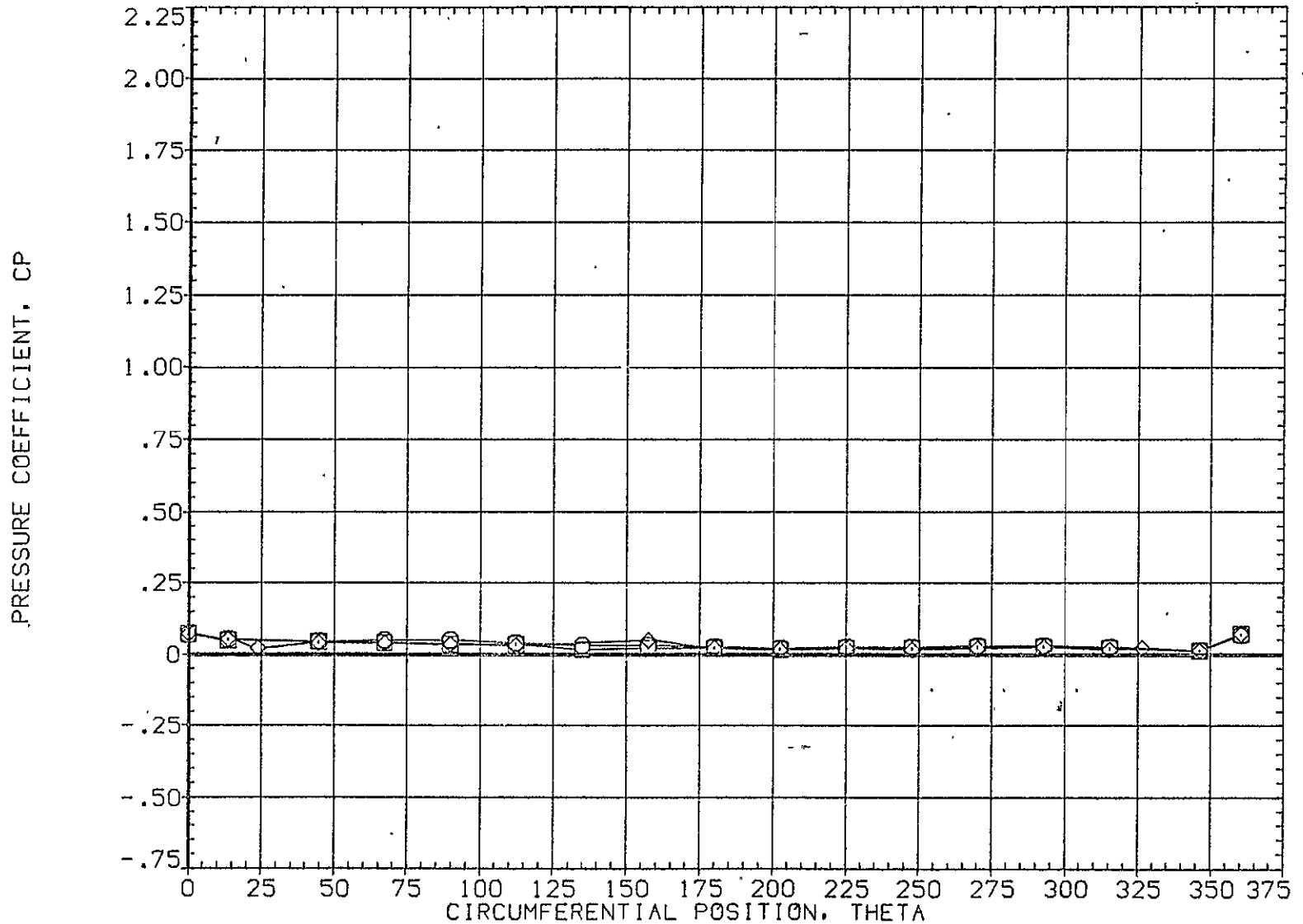


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	3.730	4.960	.000	.000	.000
□	.923			1.000		90.000
◇	.954					

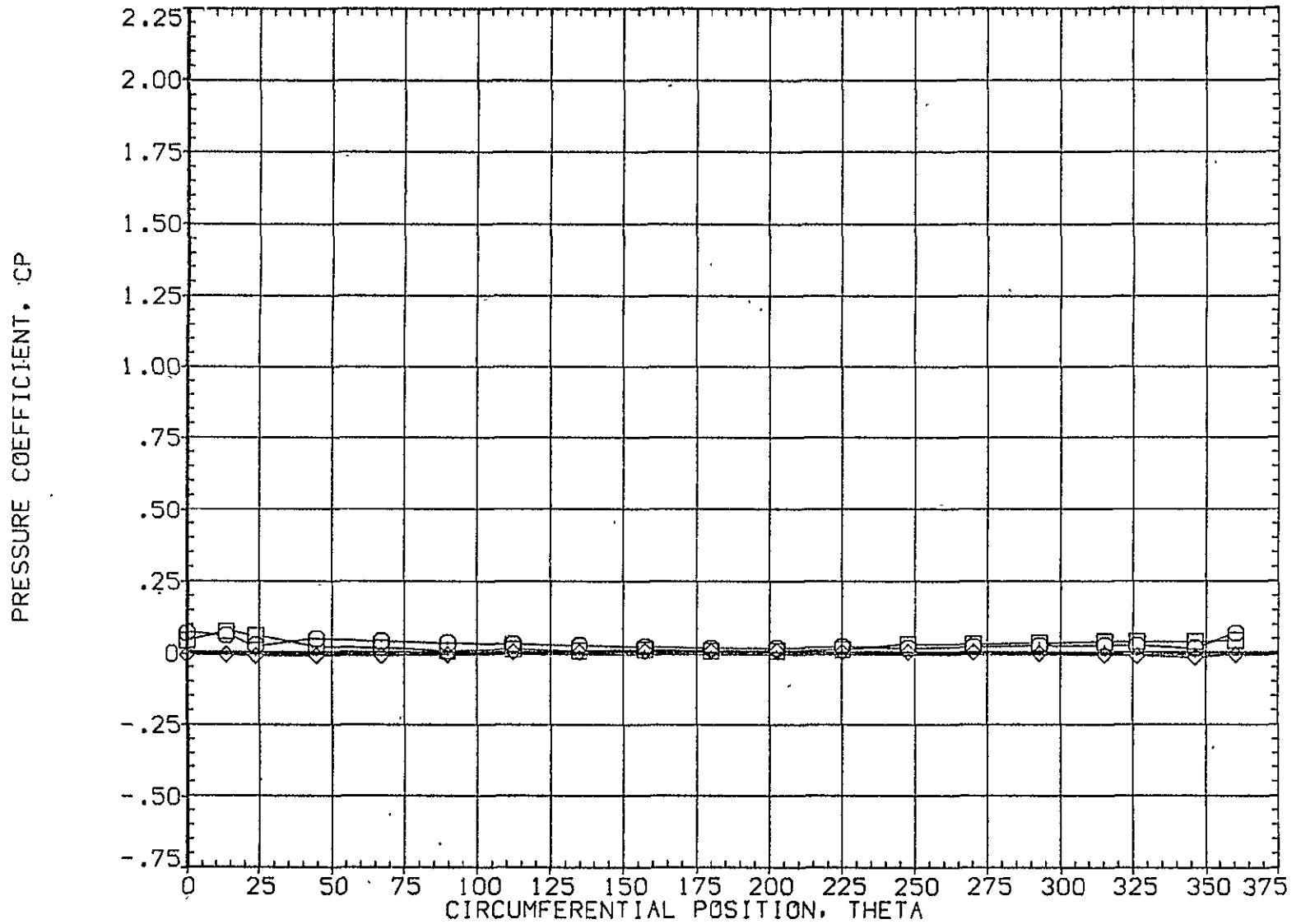


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (1A-2F) MICROZOU EXTERNAL TANK,

(PLAUIS)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	7.750	4.960	.000	.000	.000
□	.108			1.000		90.000
◇	.162					

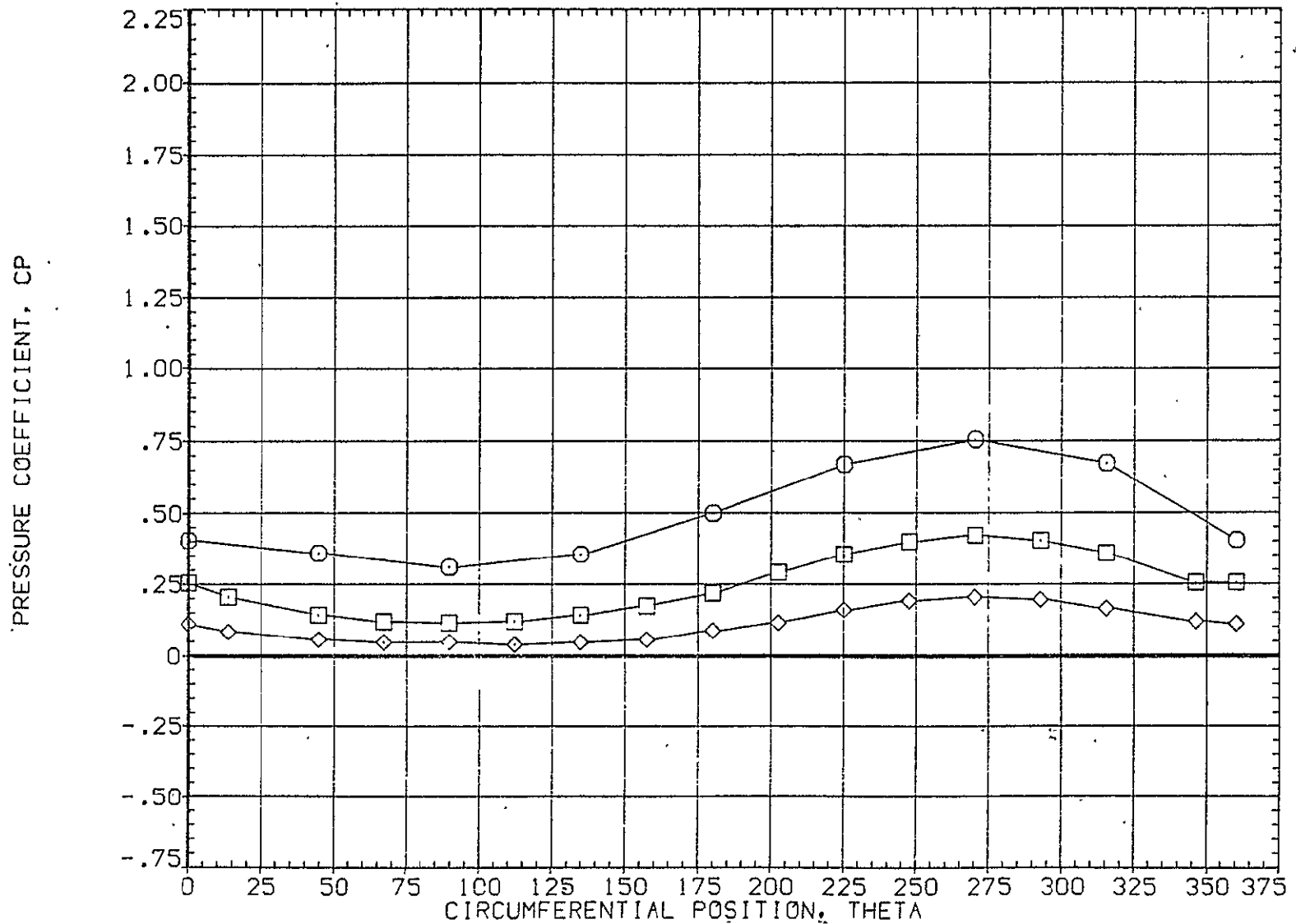


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	,000	
○	.216	7.750	4.960	MOUNT	1.000	PHI	90.000
□	.322						
◇	.518						

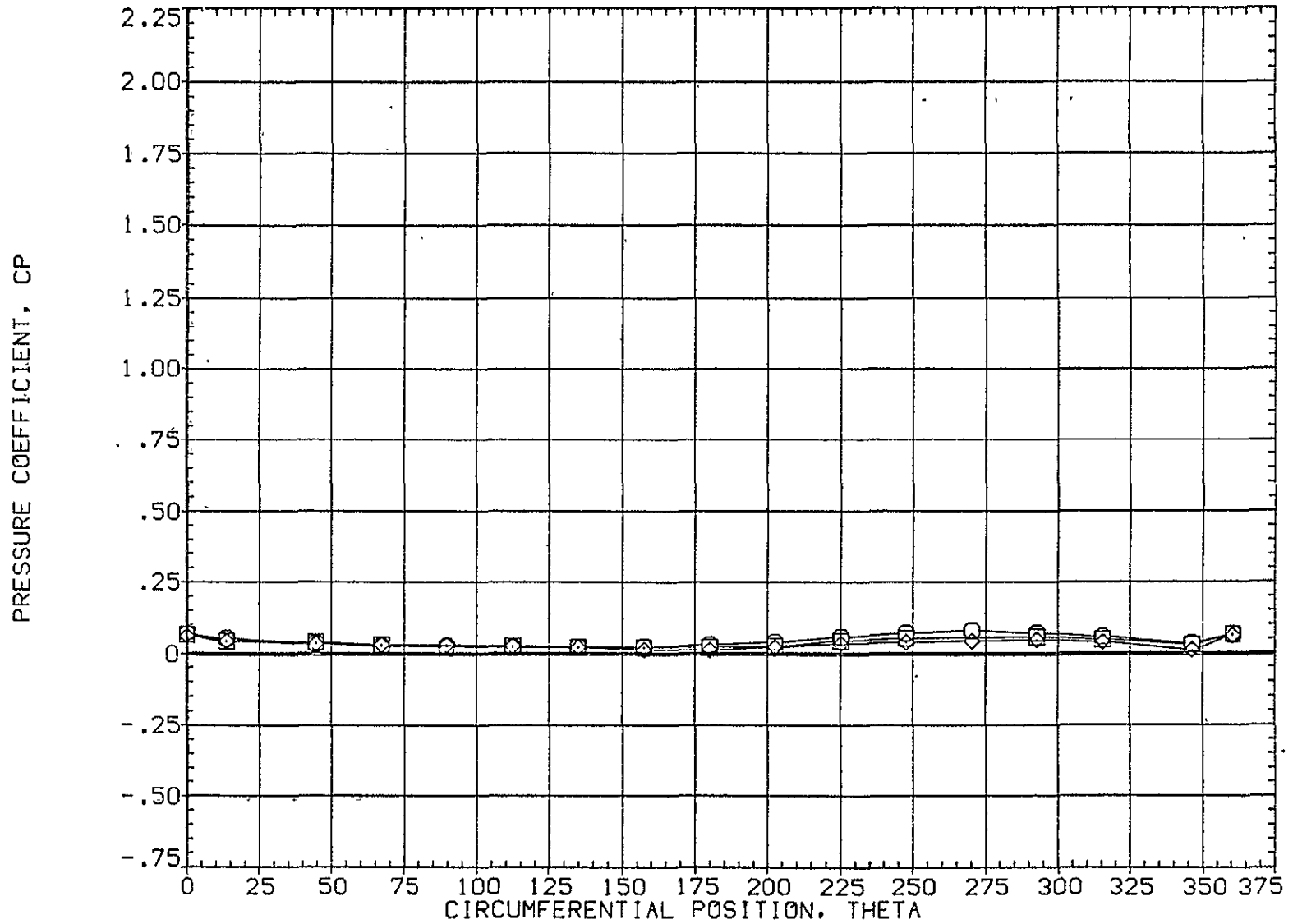


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A015)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.610	7.750	4.960	MOUNT	1.000	90.000	
□	.735						
◇	.860						

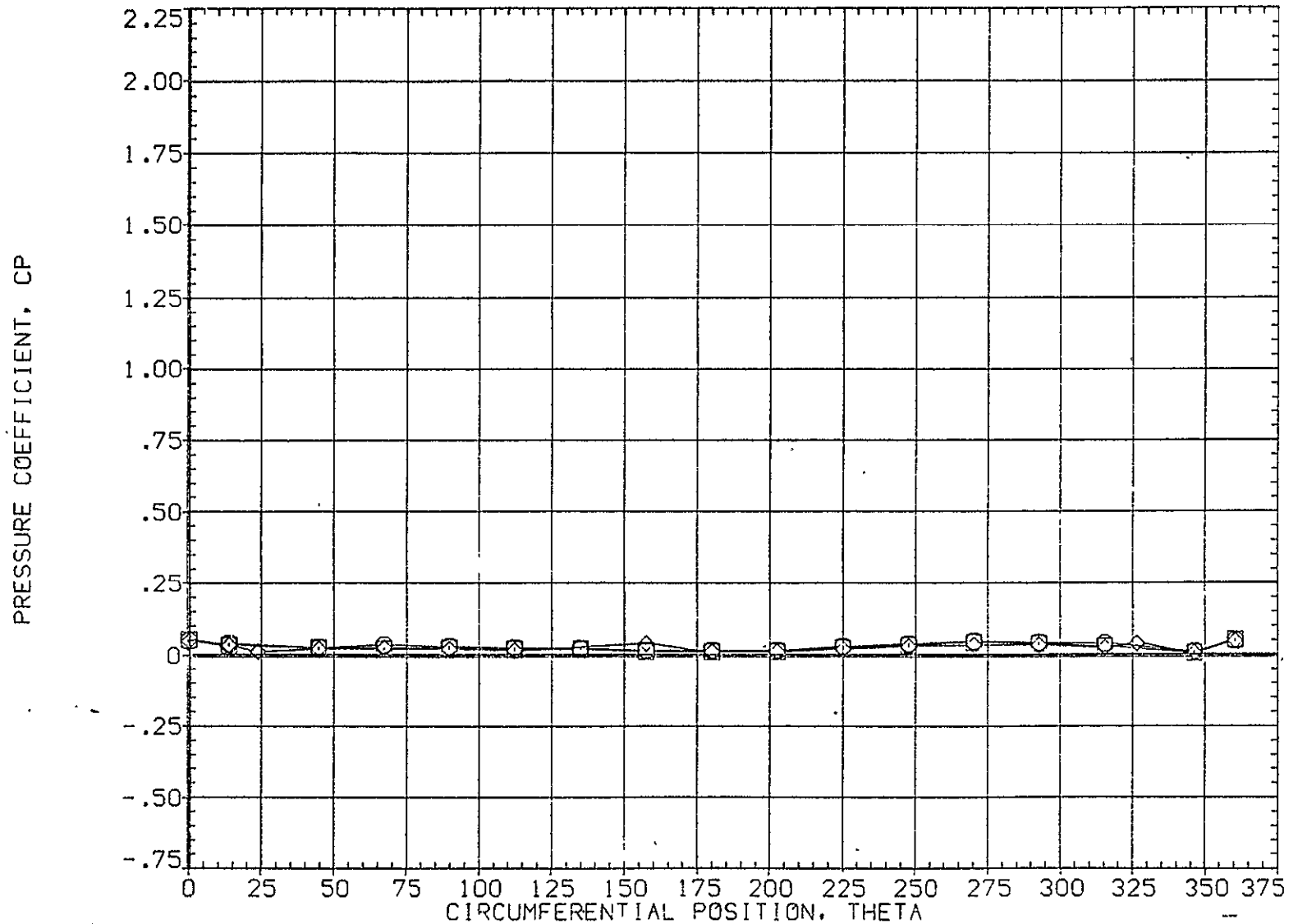


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	7.750	4.960	MOUNT	1.000	PHI	90.000
□	.923						
◇	.954						

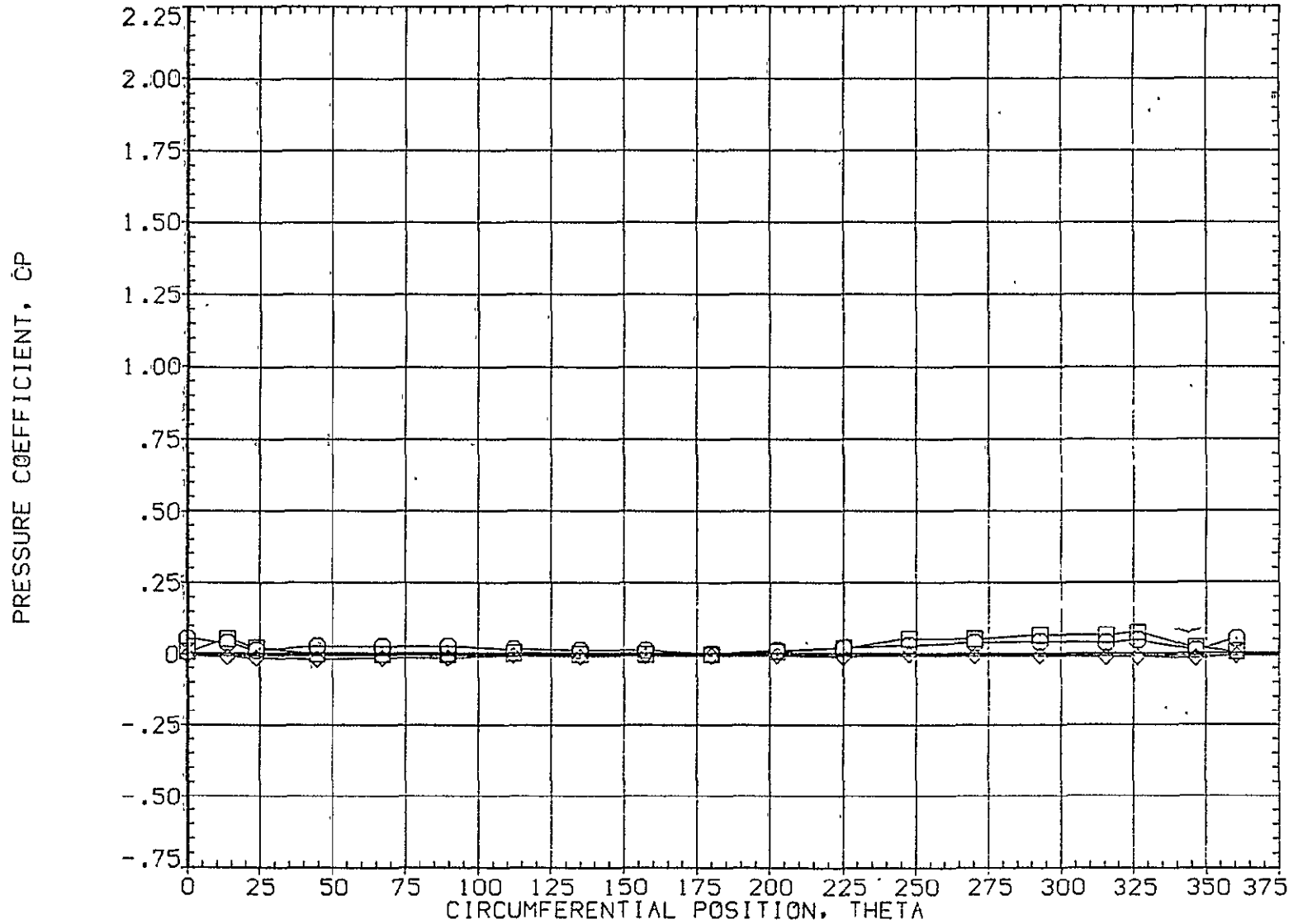


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	12.450	4.960				20.000
□	.108			MOUNT	1.000		90.000
◇	.162						

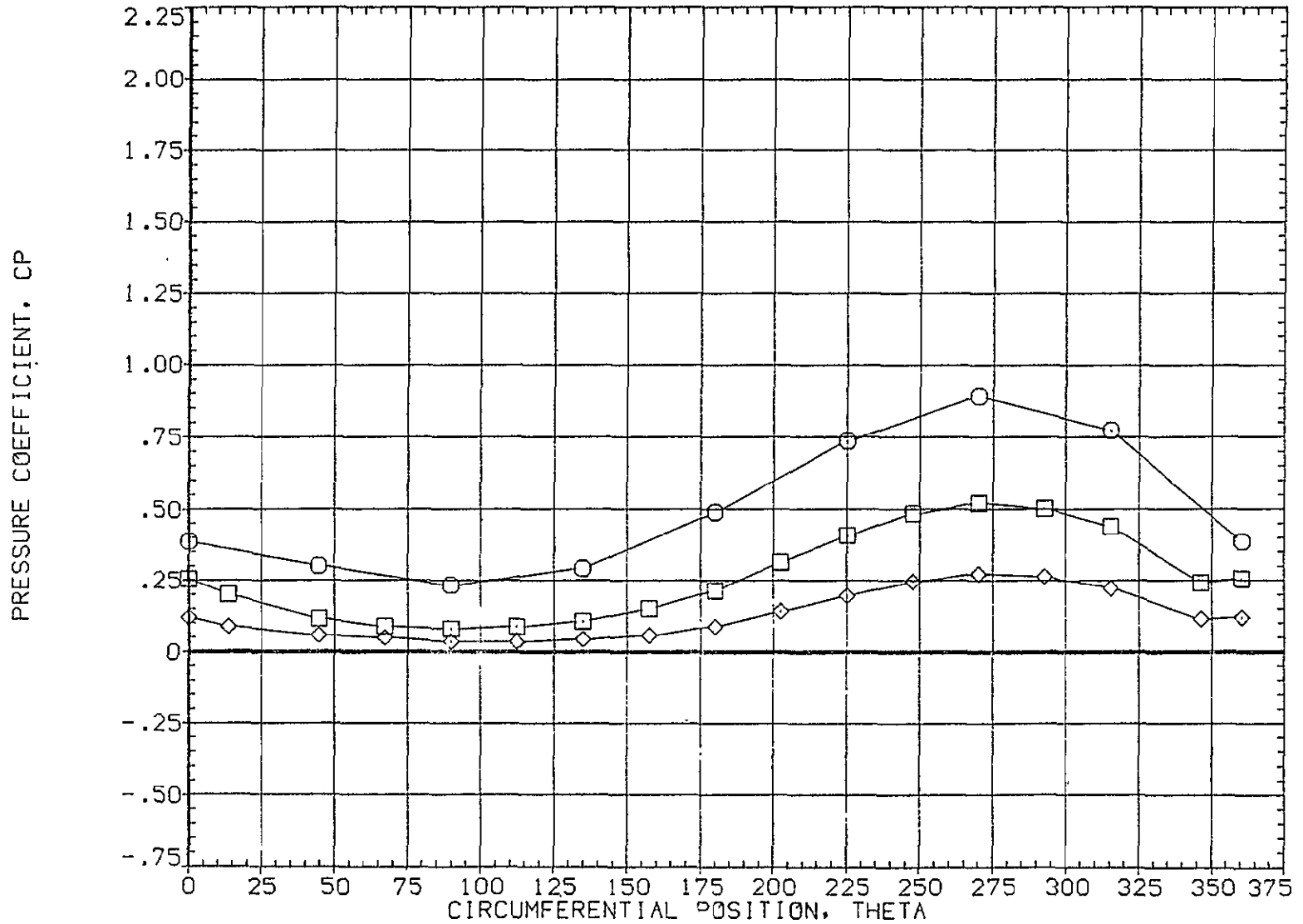


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	12.450	4.960	.000	20.000	
□	.322			1.000	90.000	
◇	.518					

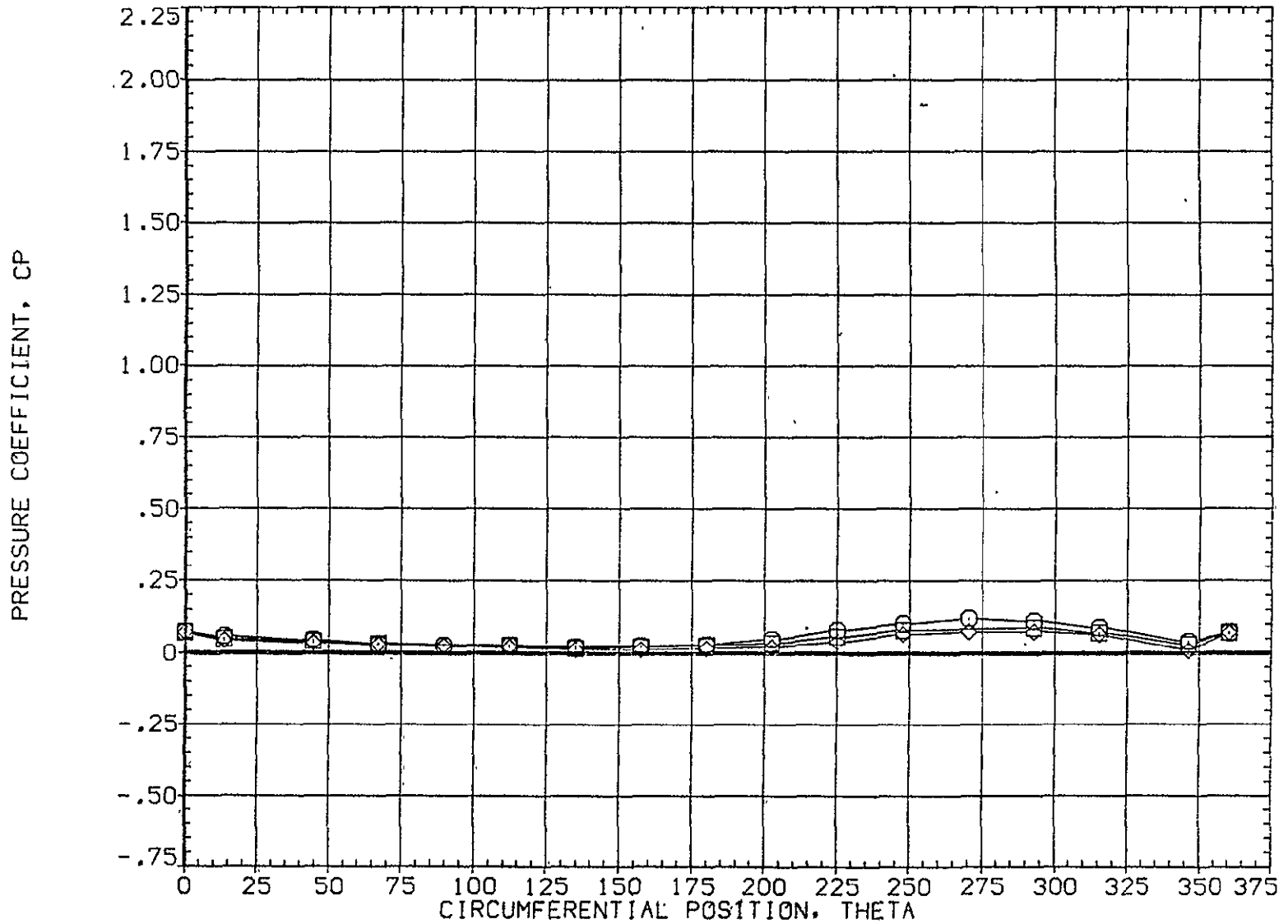


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A016)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	12.450	4.960	.000	20.000	
□	.735			1.000	PHI	90.000
◇	.860					

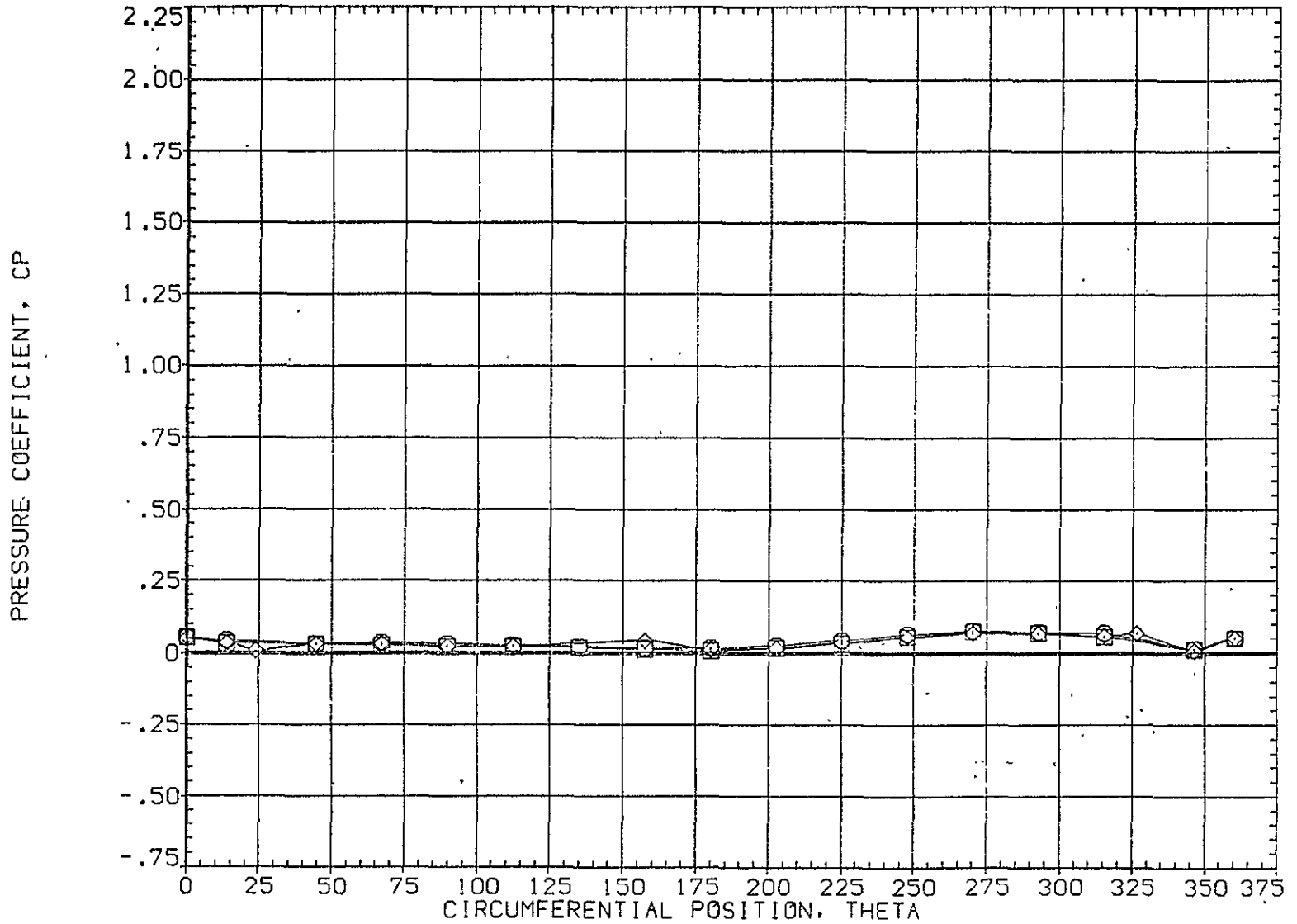


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .892
.923
.954

ALPHA 12.450

MACH 4.960

PARAMETRIC VALUES

BETA .000 OFFSET 20.000

MOUNT 1.000 PHI 90.000

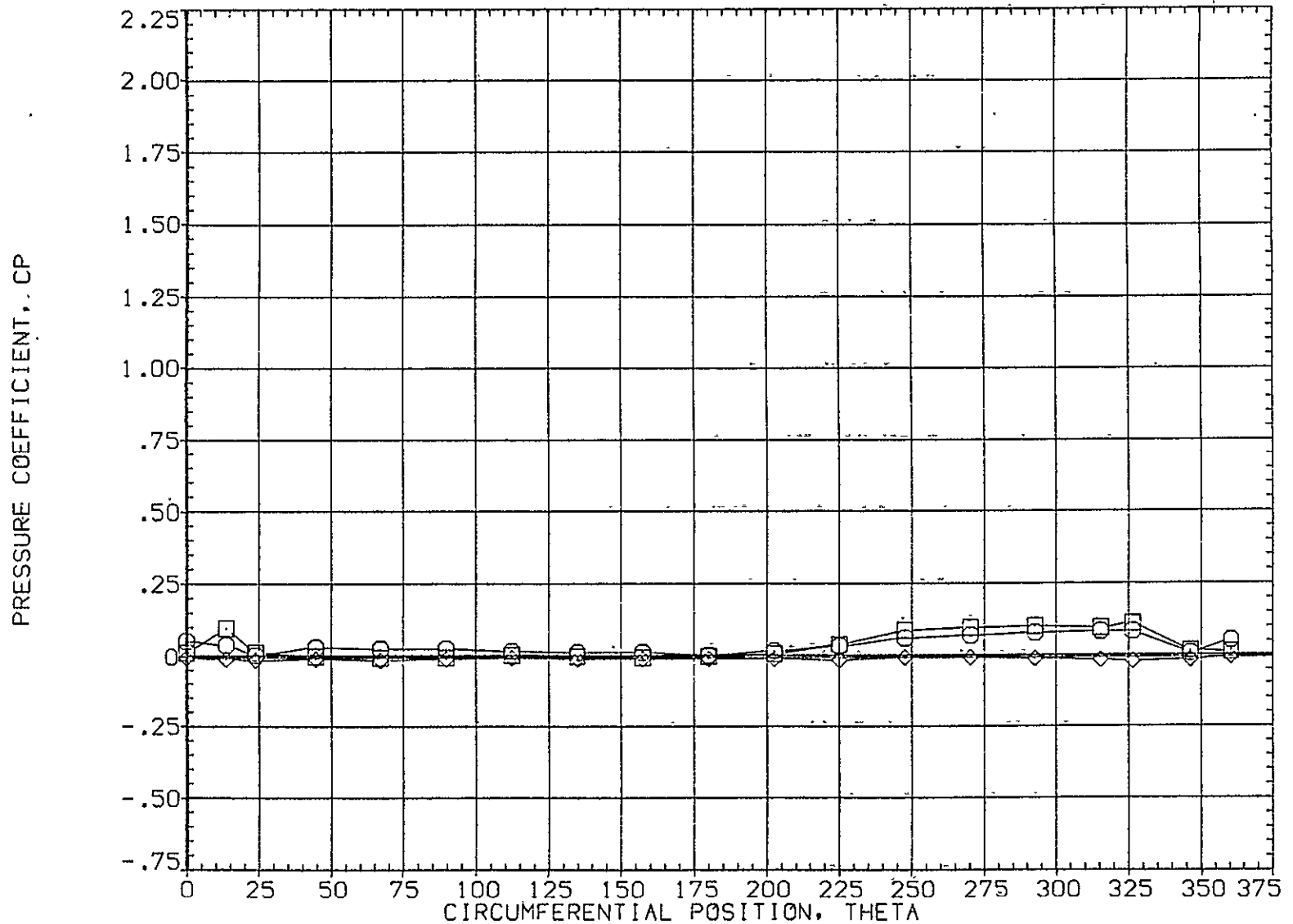


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.055	16.470	4.960	1.000	90.000		
□	.108						
◇	.162						

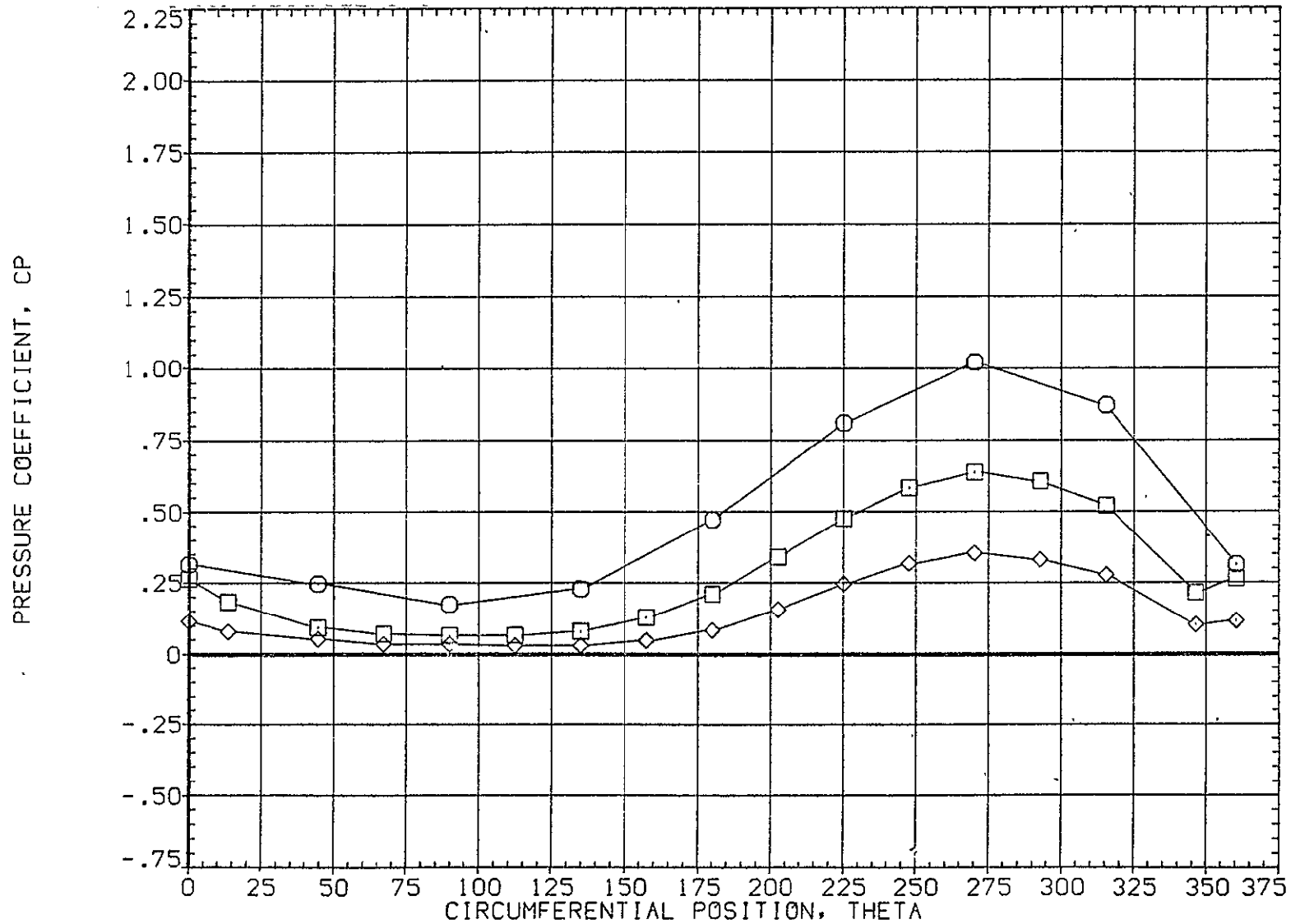


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 16.470 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 90.000

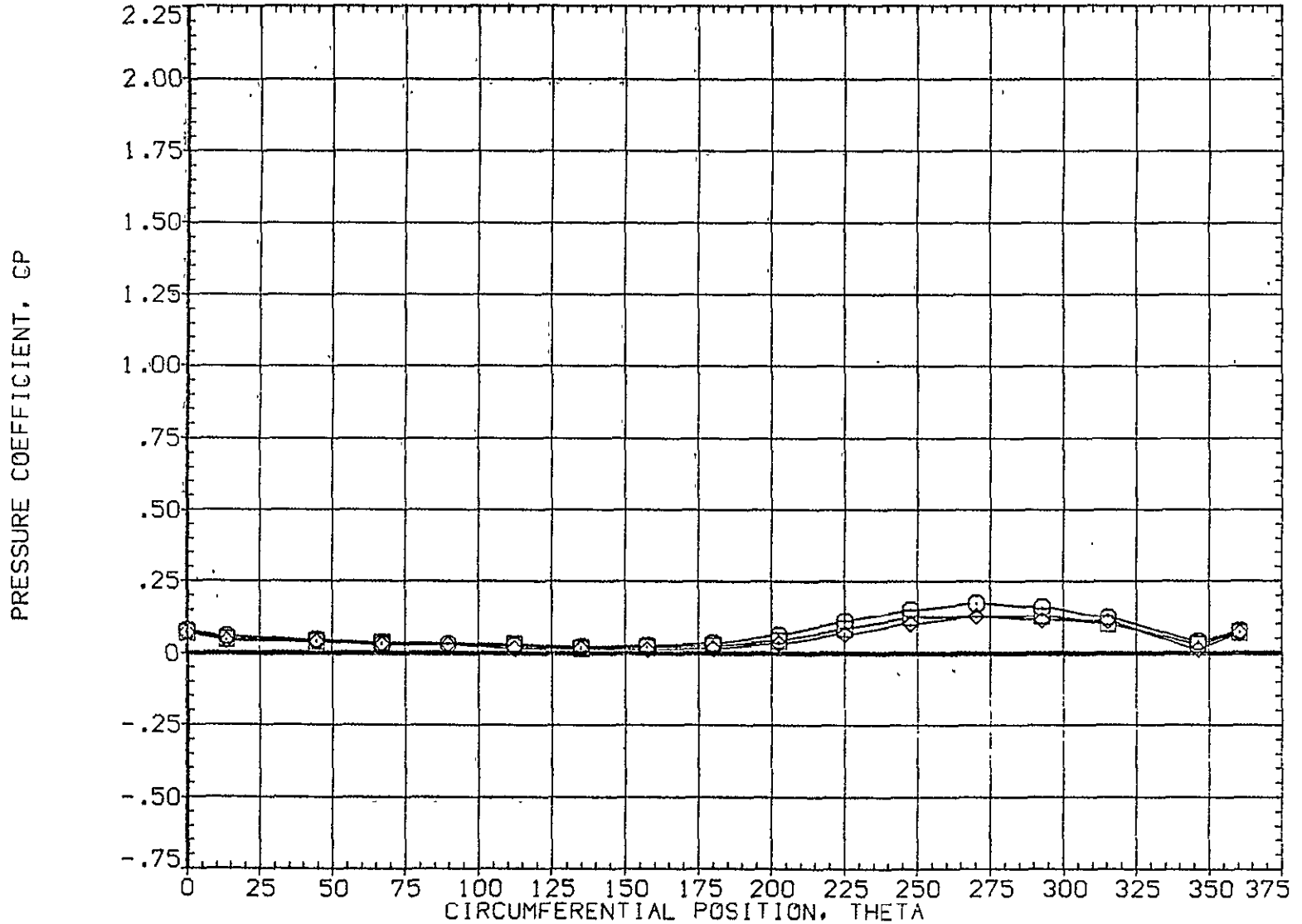


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A017)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	16.470	4.960	.000	20.000	
□	.735			1.000	90.000	
◇	.860					

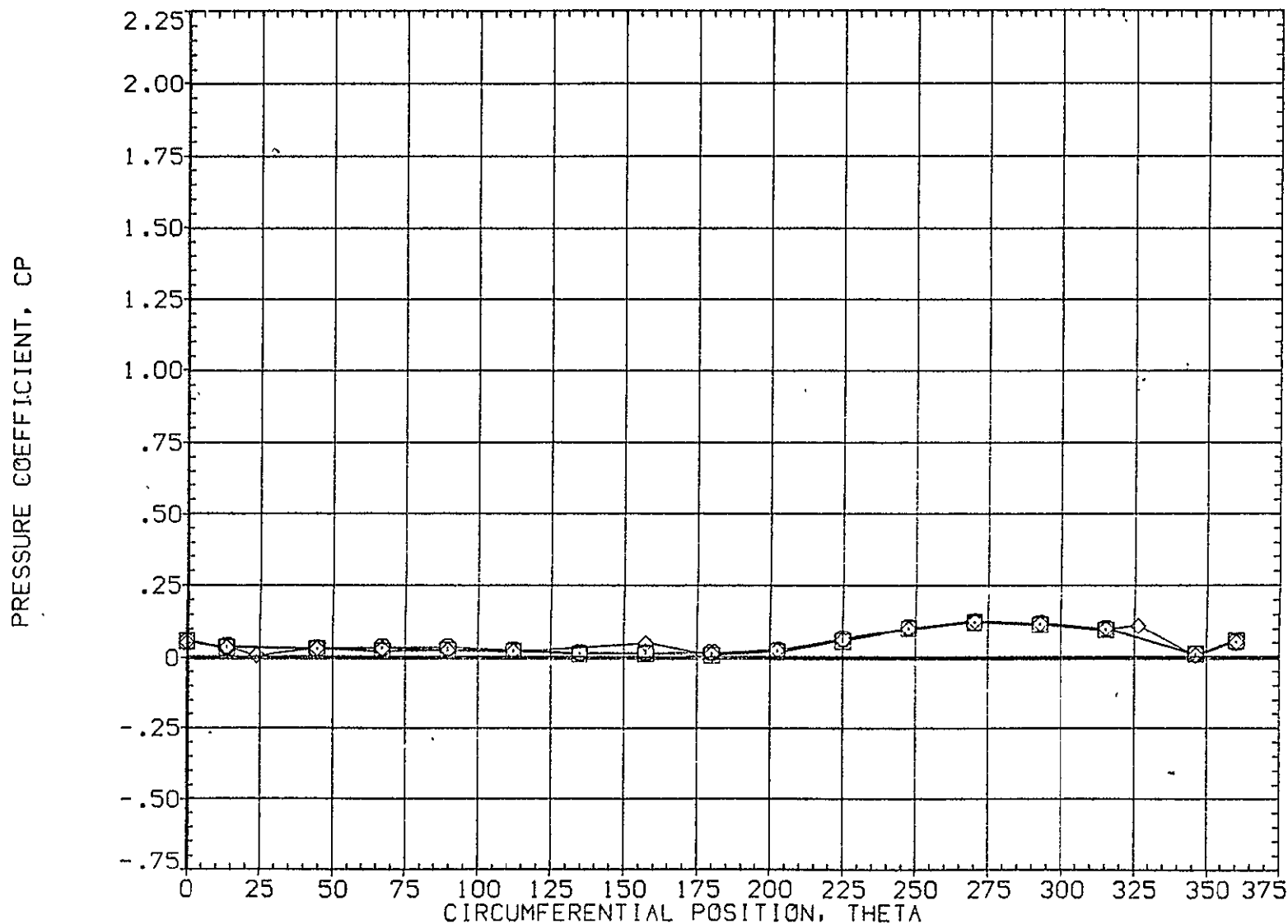


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.892	16.470	4.960	.000	20.000		
□	.923			1.000	90.000		
◇	.954						

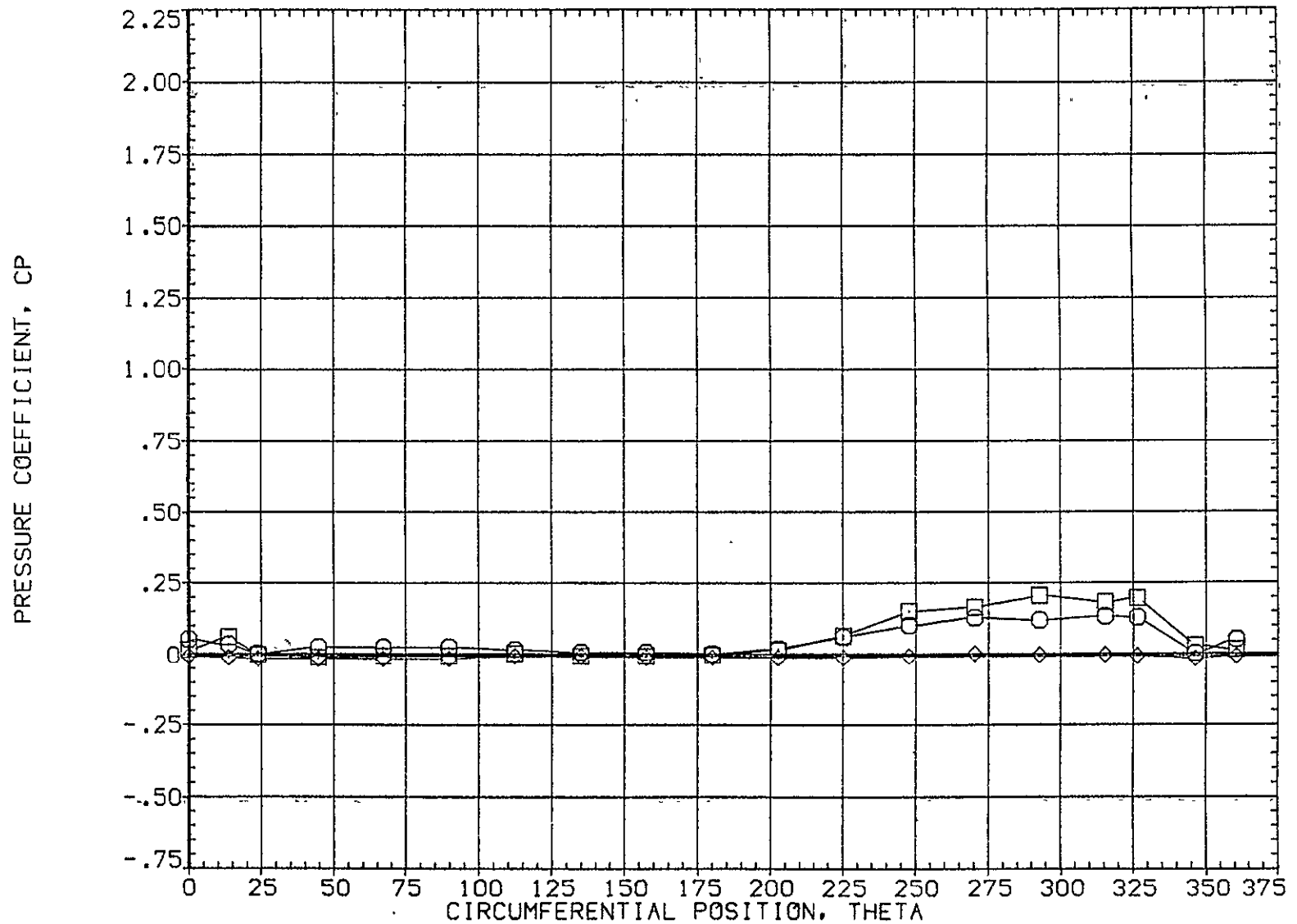


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.055	20.490	4.960	MOUNT	1.000	90.000	
□	.108						
◇	.162						

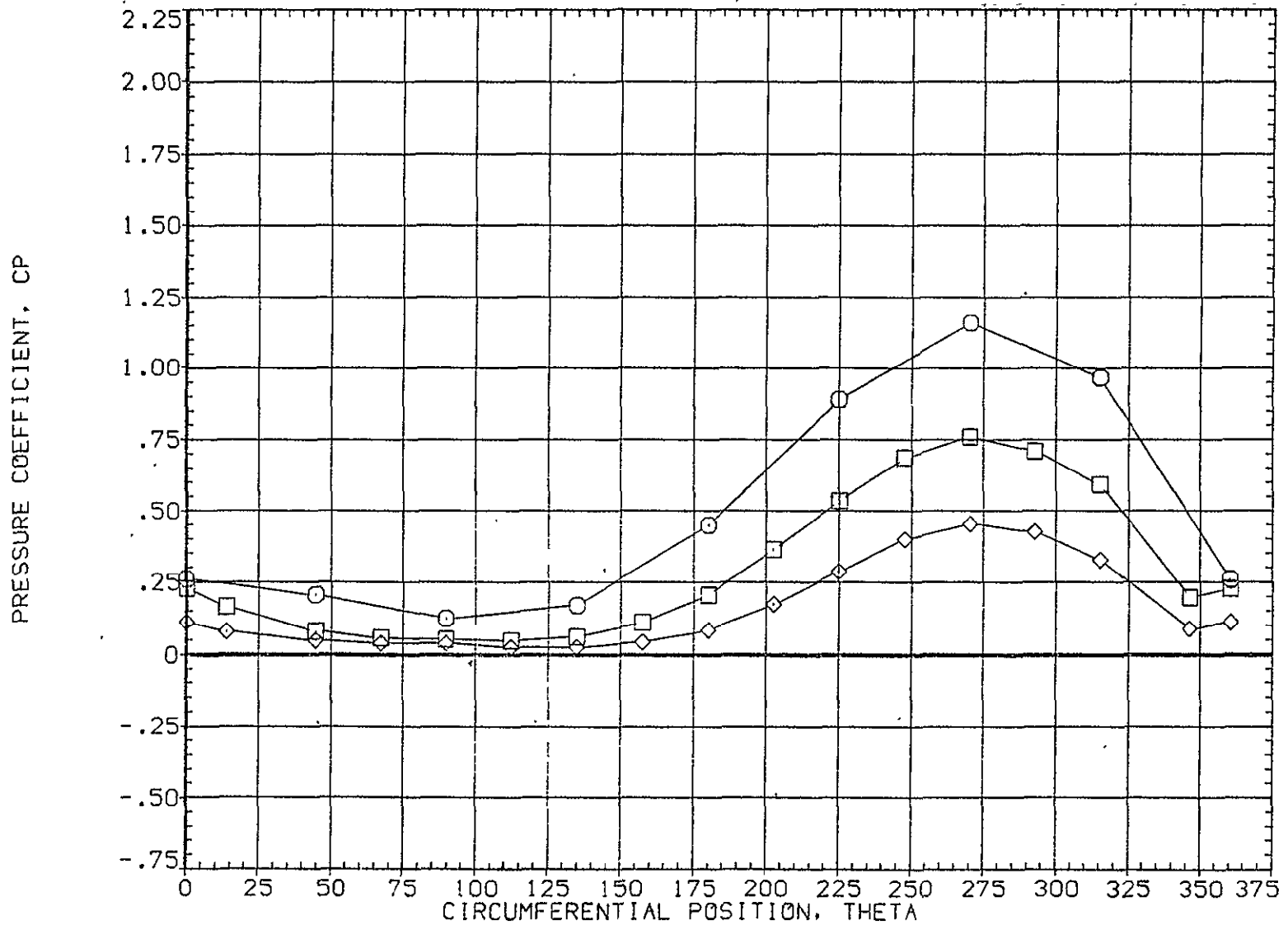


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 20.490 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 90.000

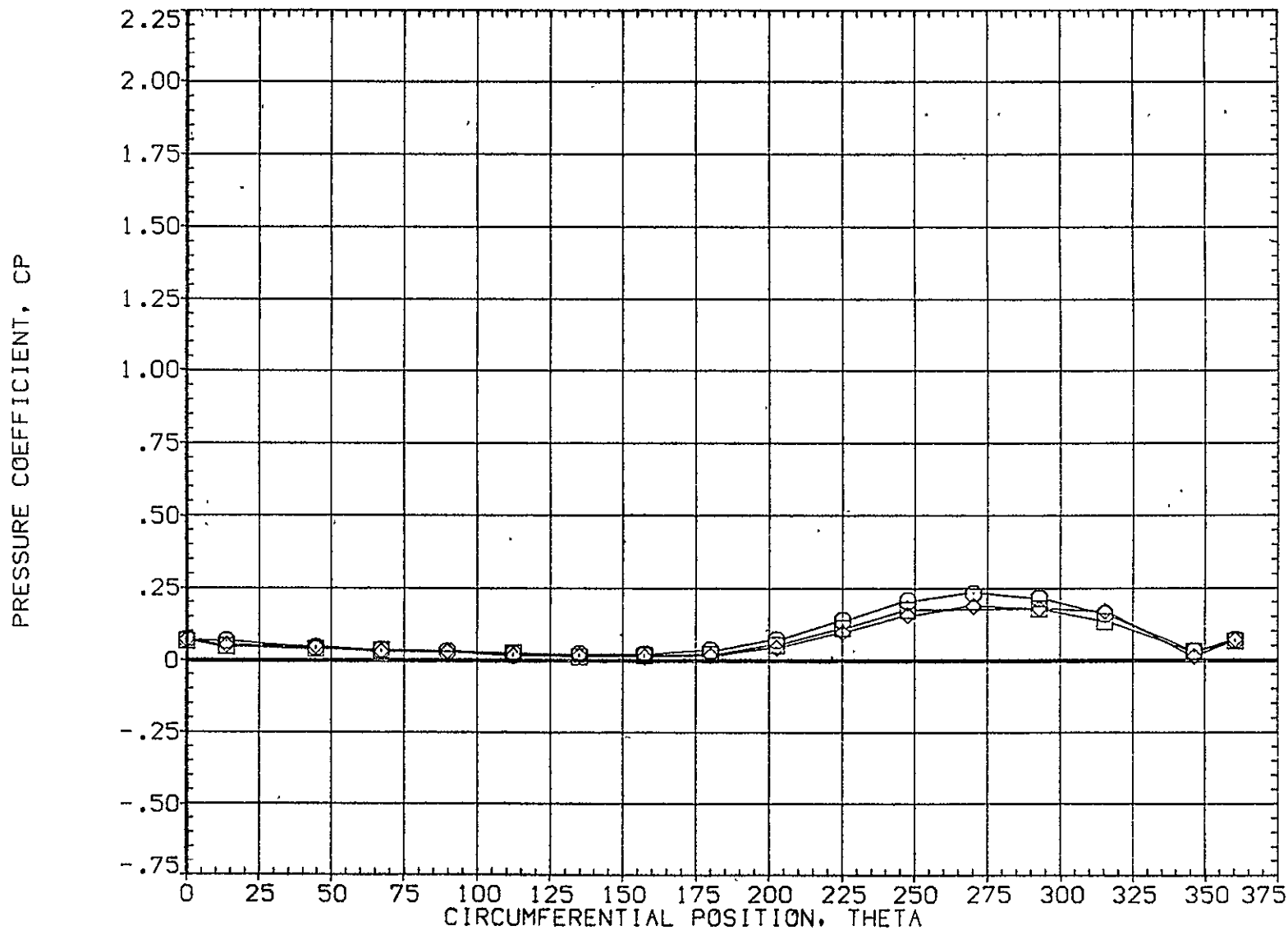


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A018)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	20.490	4.960	.000	20.000	
□	.735			1.000		90.000
◇	.860					

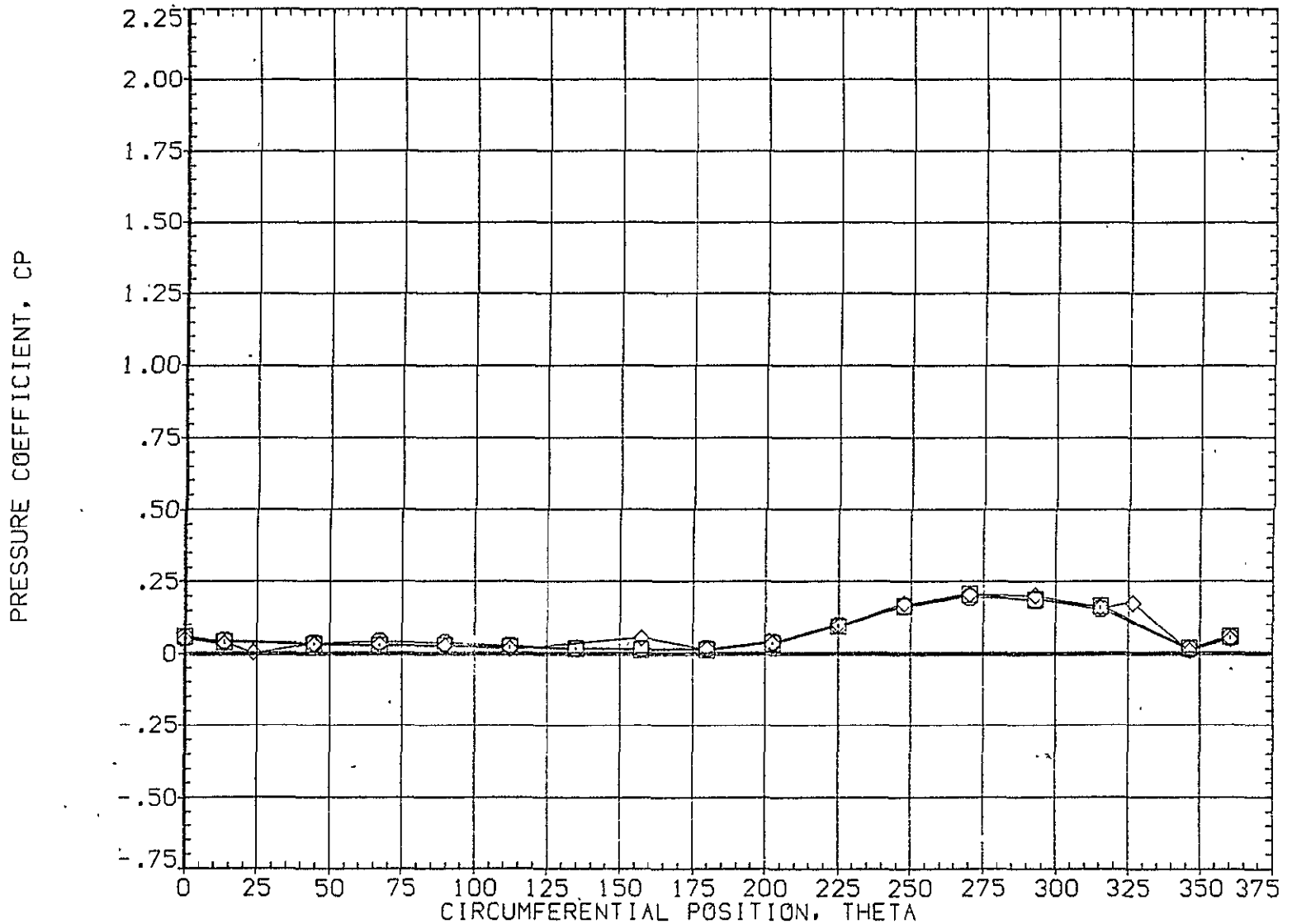


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.892	20.490	4.960	MOUNT	1.000	90.000	
□	.923						
◇	.954						

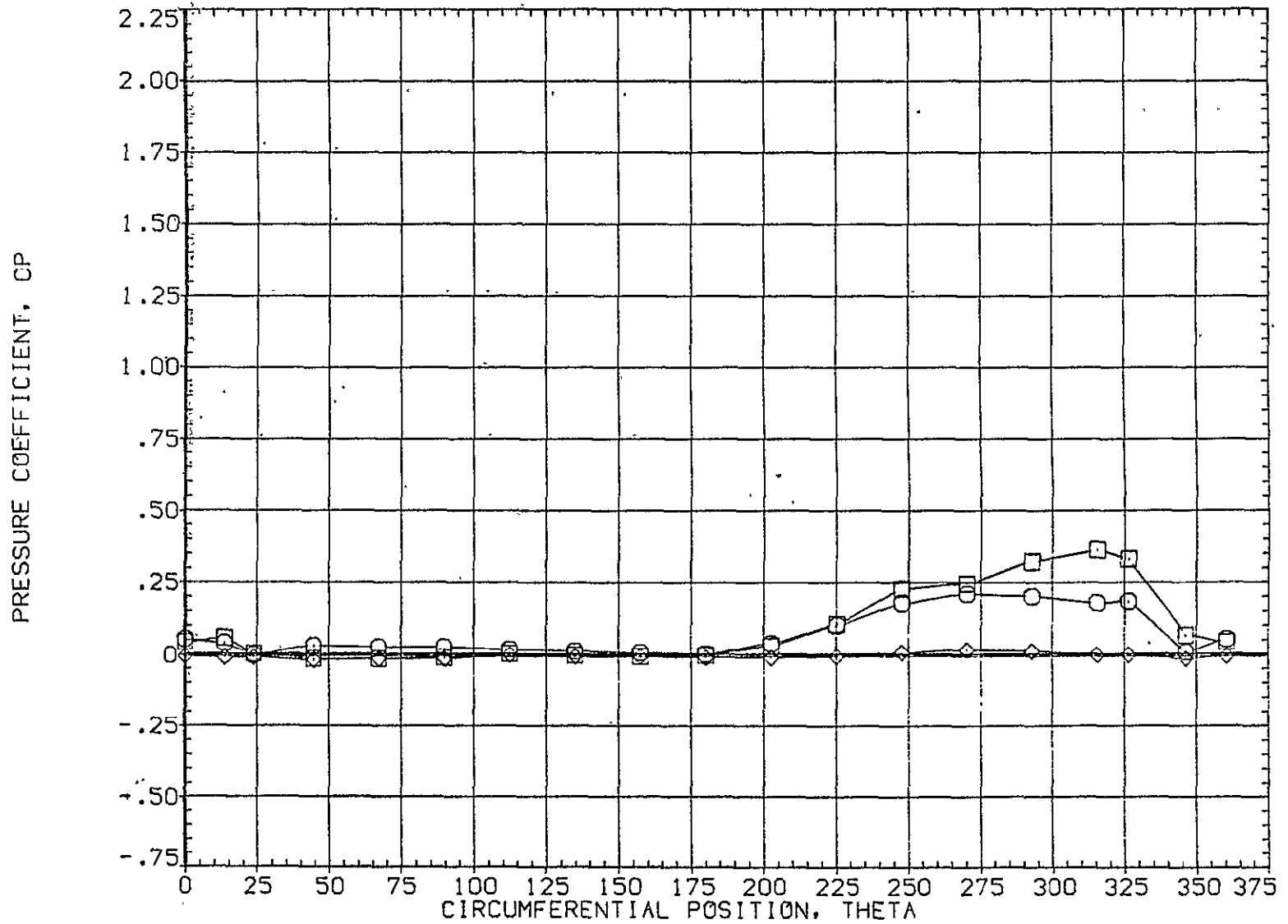


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A019)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	24.510	4.960	.000	20.000	
□	.108			1.000	90.000	
◇	.162					

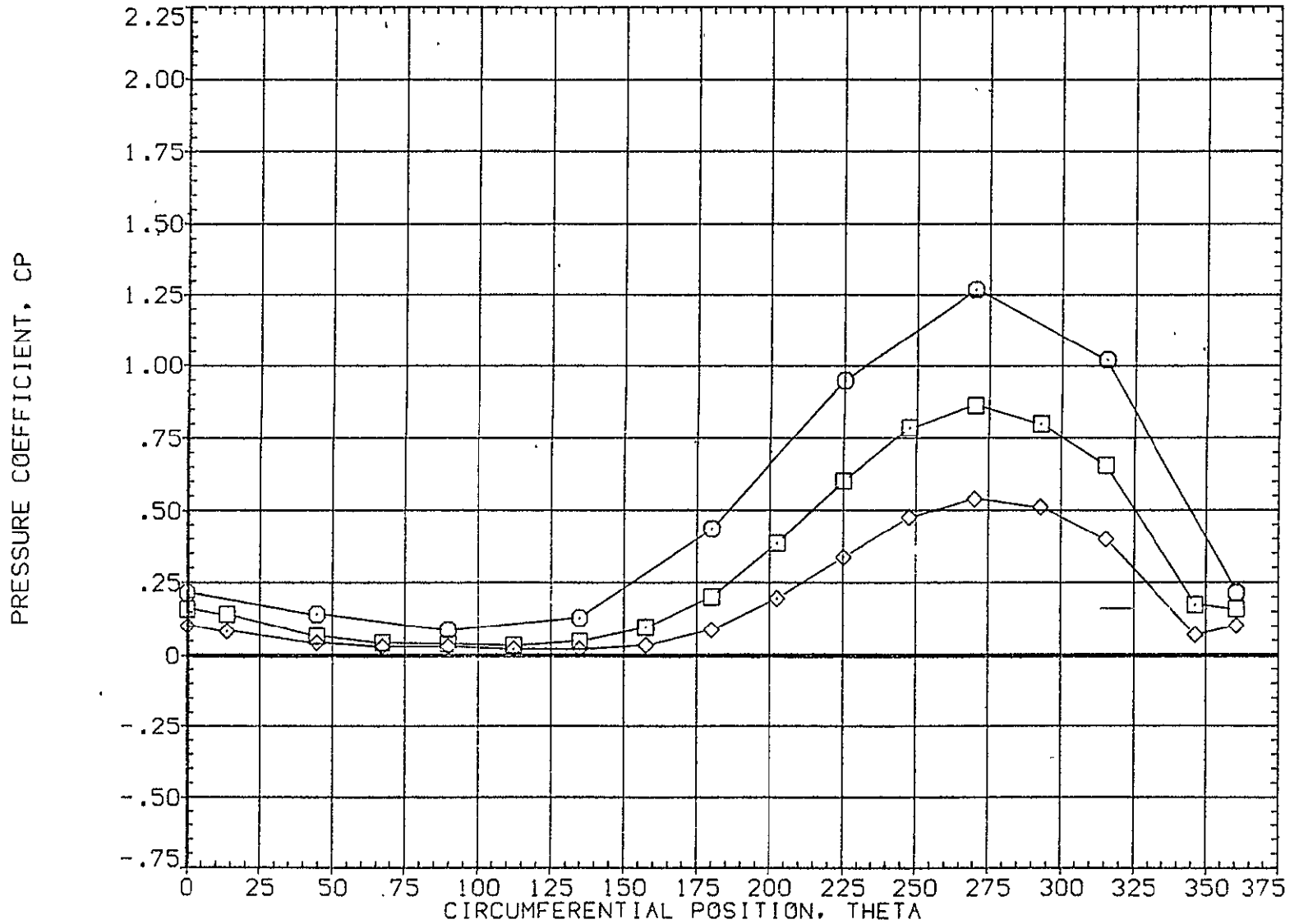


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	24.510	4.960	.000	20.000	
□	.322			1.000	PHI	90.000
◇	.518					

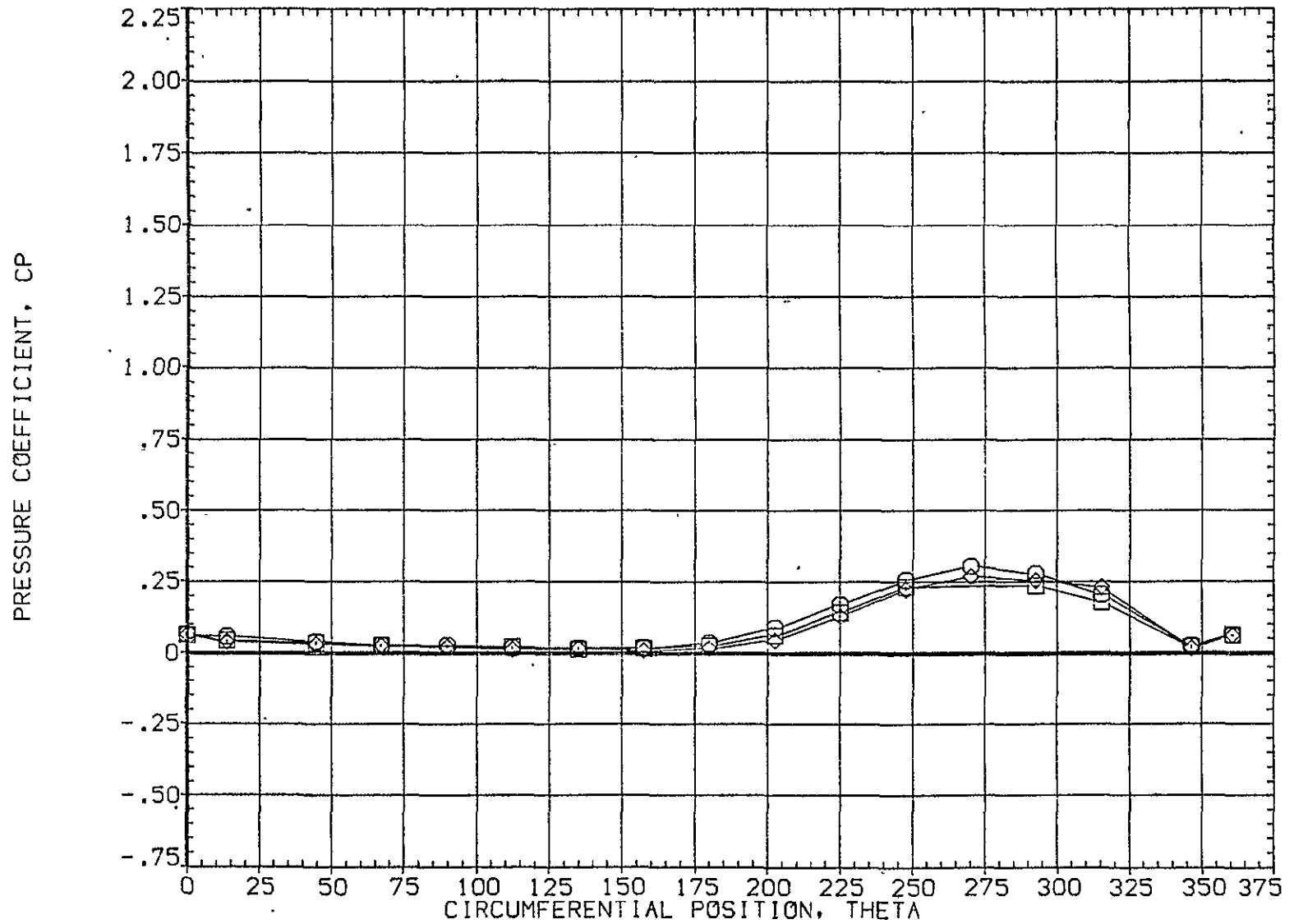


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	24.510	4.960	.000	20.000	
□	.735			1.000	90.000	
◇	.860					

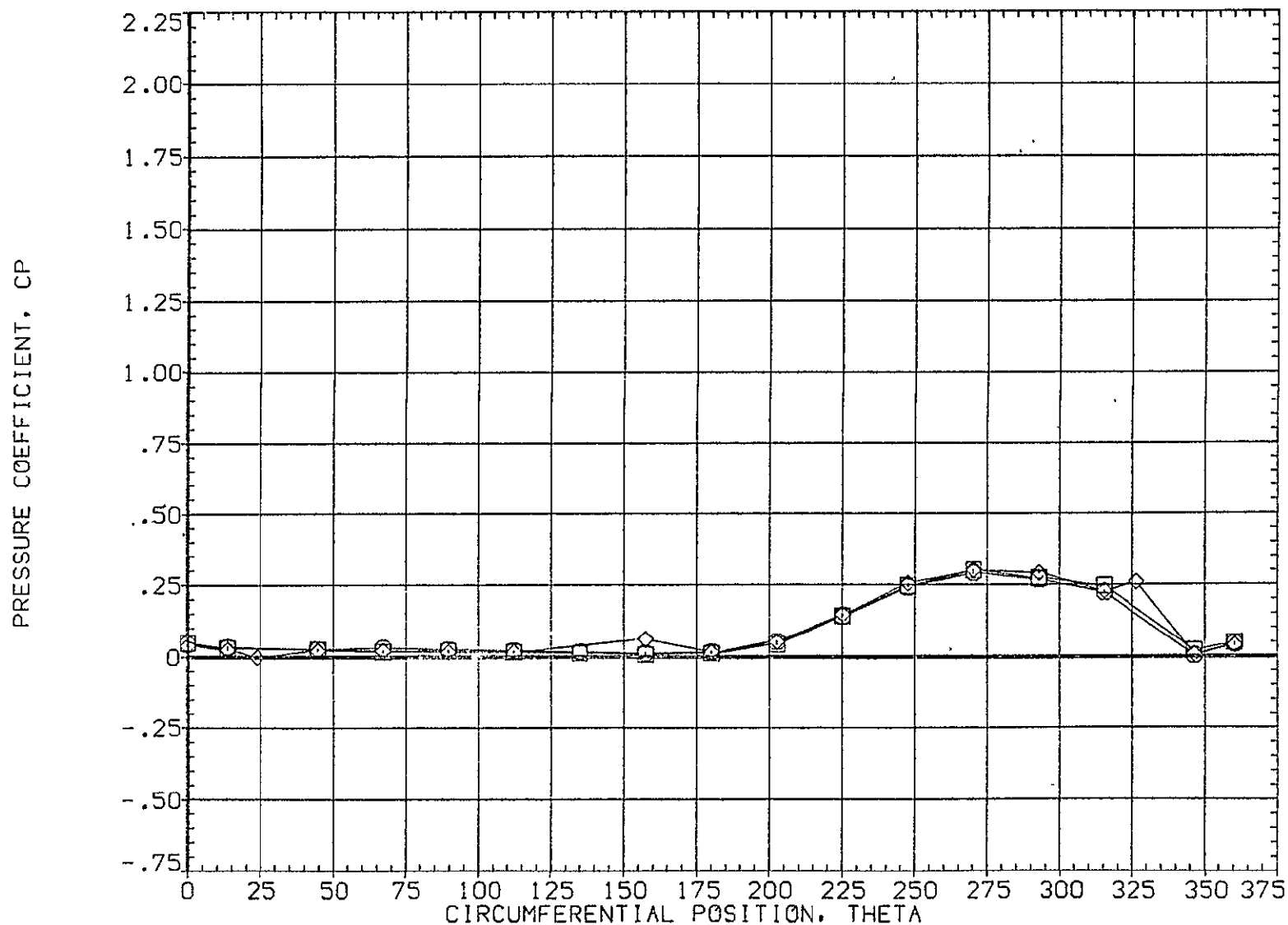


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 24.510 4.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 90.000

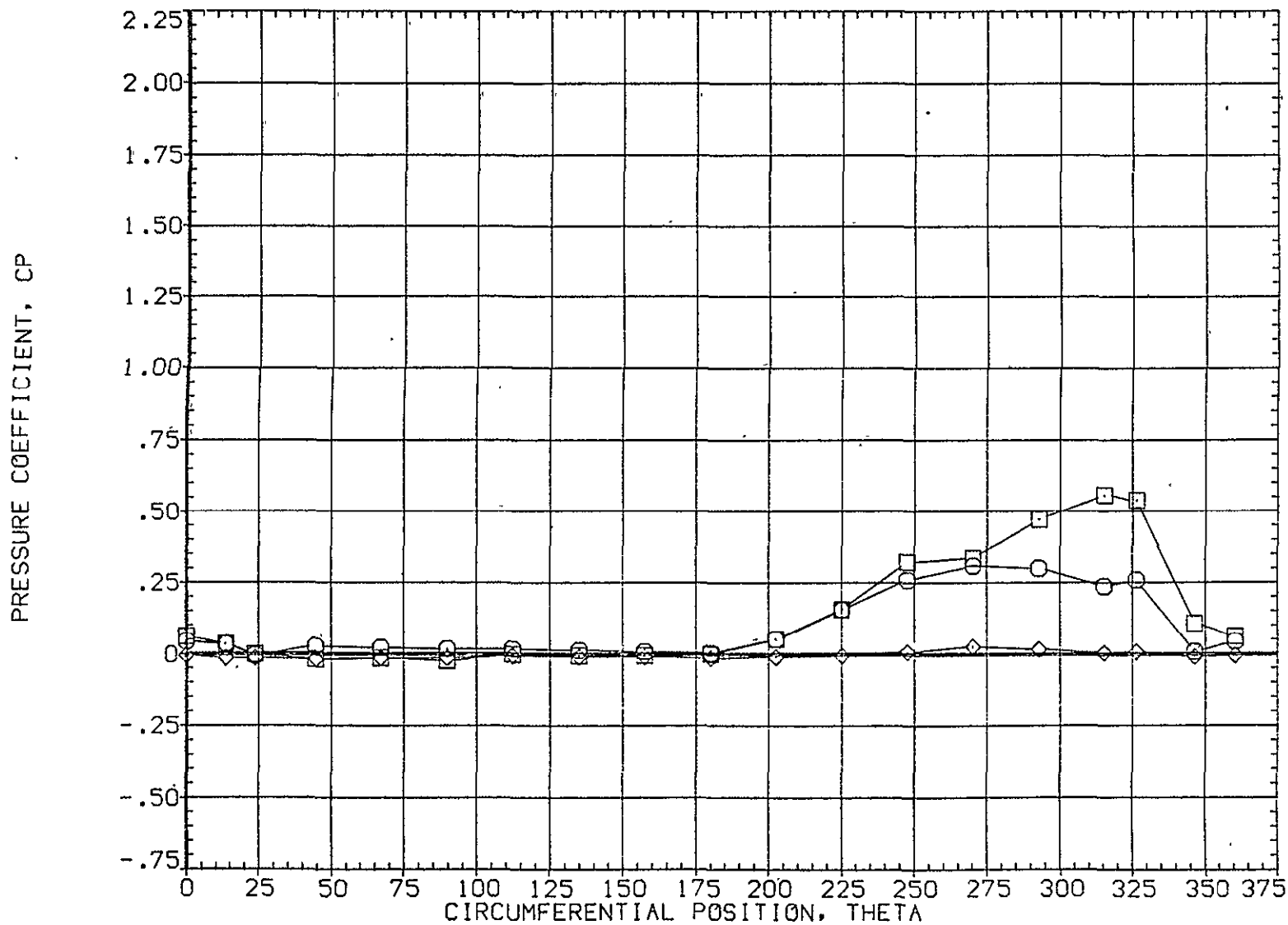


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	28.540	4.960	.000	20.000	
□	.108			1.000	90.000	
◇	.162					

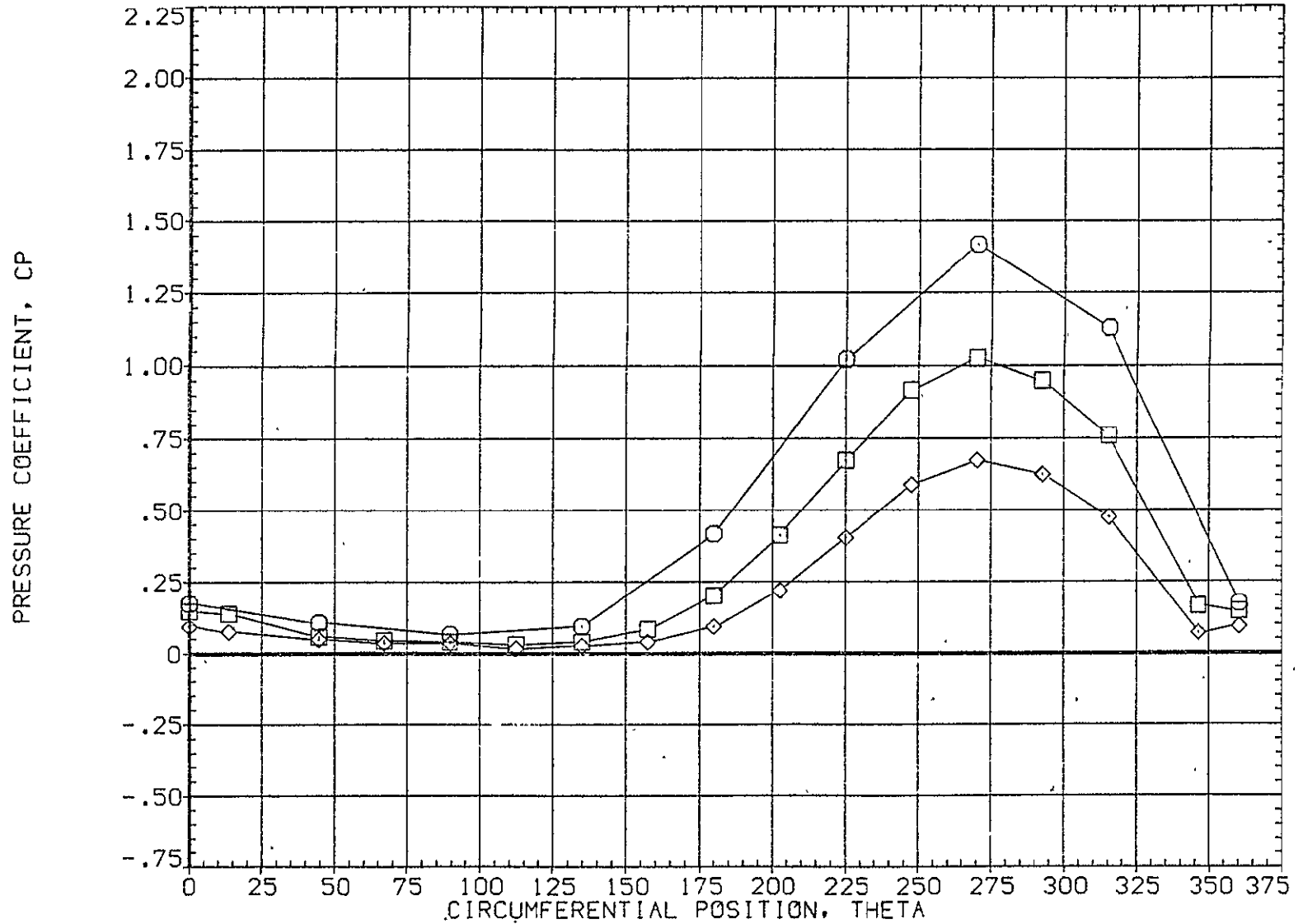


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.216	28.540	4.960	.000	20.000		
□	.322			1.000	90.000		
◇	.518						

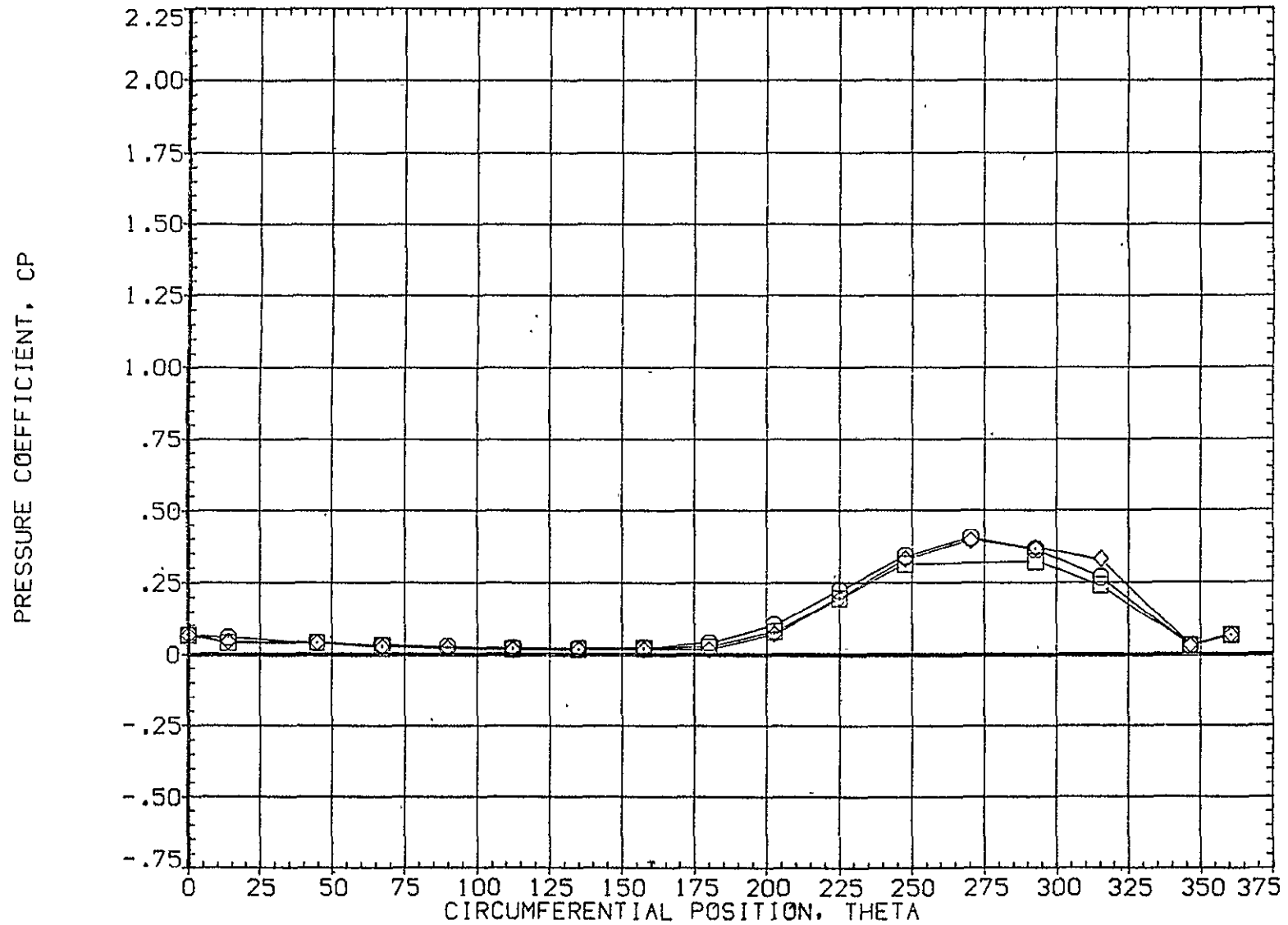


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A020)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	28.540	4.960	MOUNT	1.000	PHI	90.000
□	.735						
◇	.860						

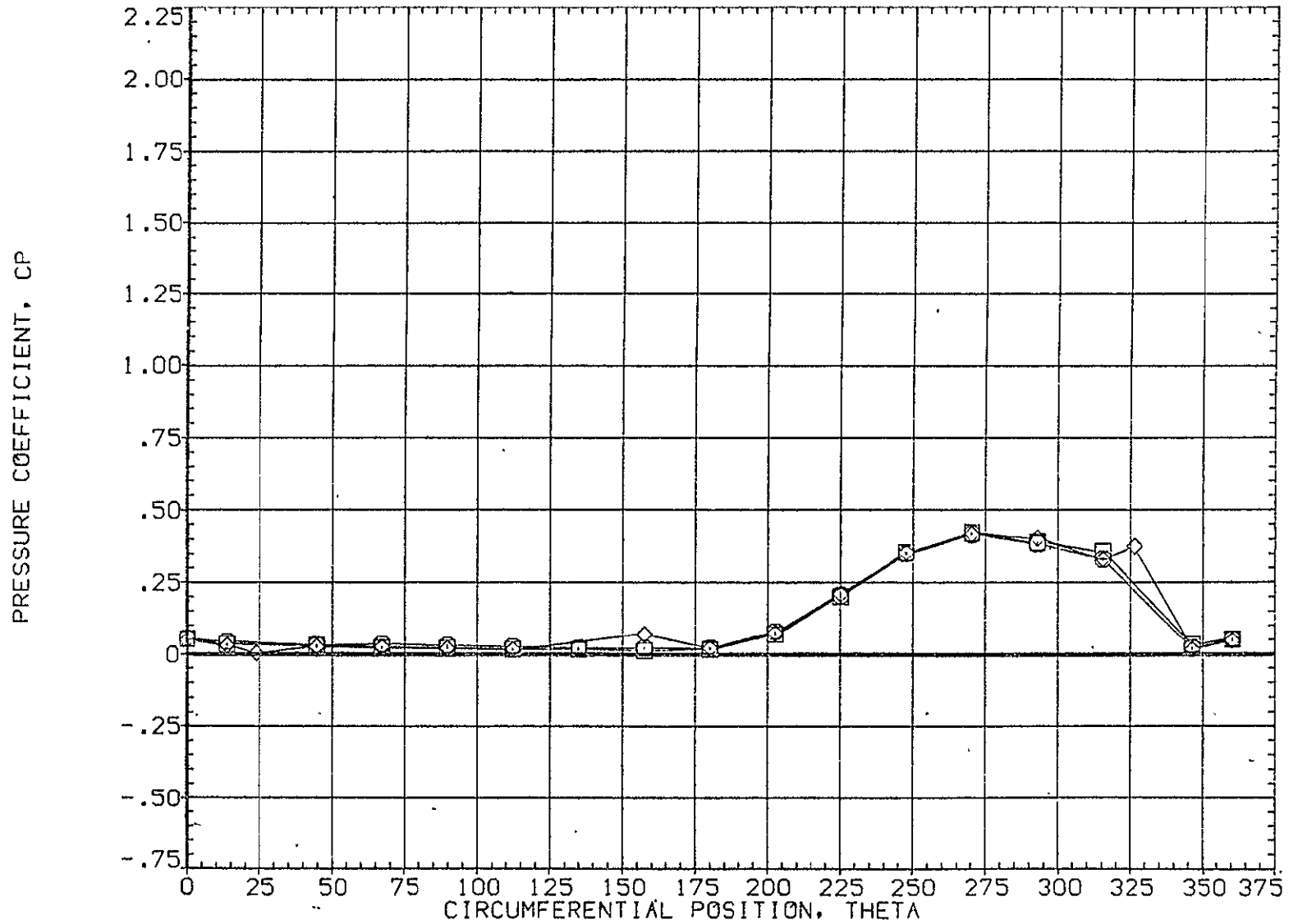


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 28.540
 MACH 4.960

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 90.000

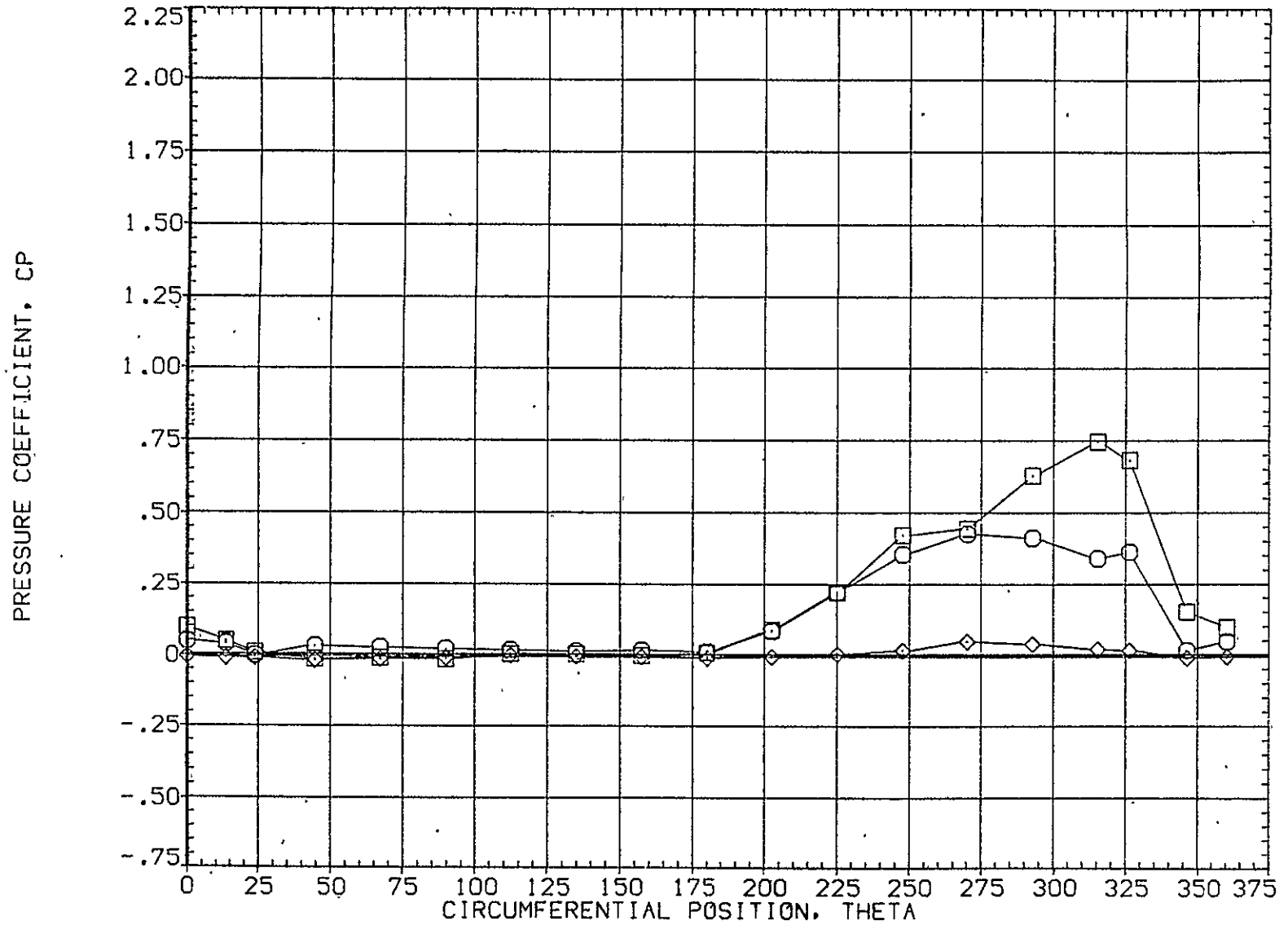


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.055	-8.310	4.960
□	.108		
◇	.162		

PARAMETRIC VALUES		
BETA	.000	OFFSET .000
MOUNT	1.000	PHI 135.000

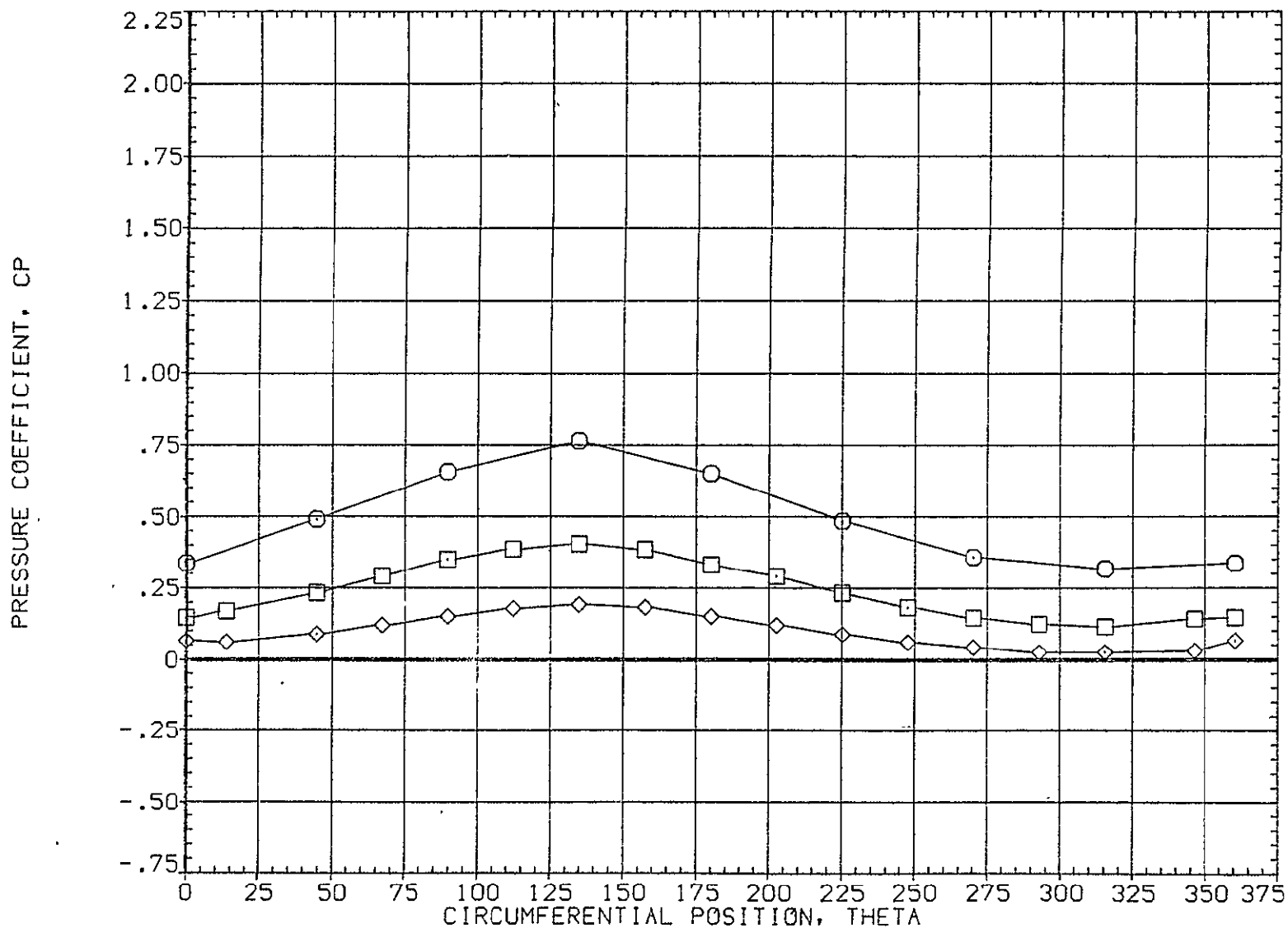


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.310	4.960	.000	.000	.000
□	.322			1.000		135.000
◇	.518					

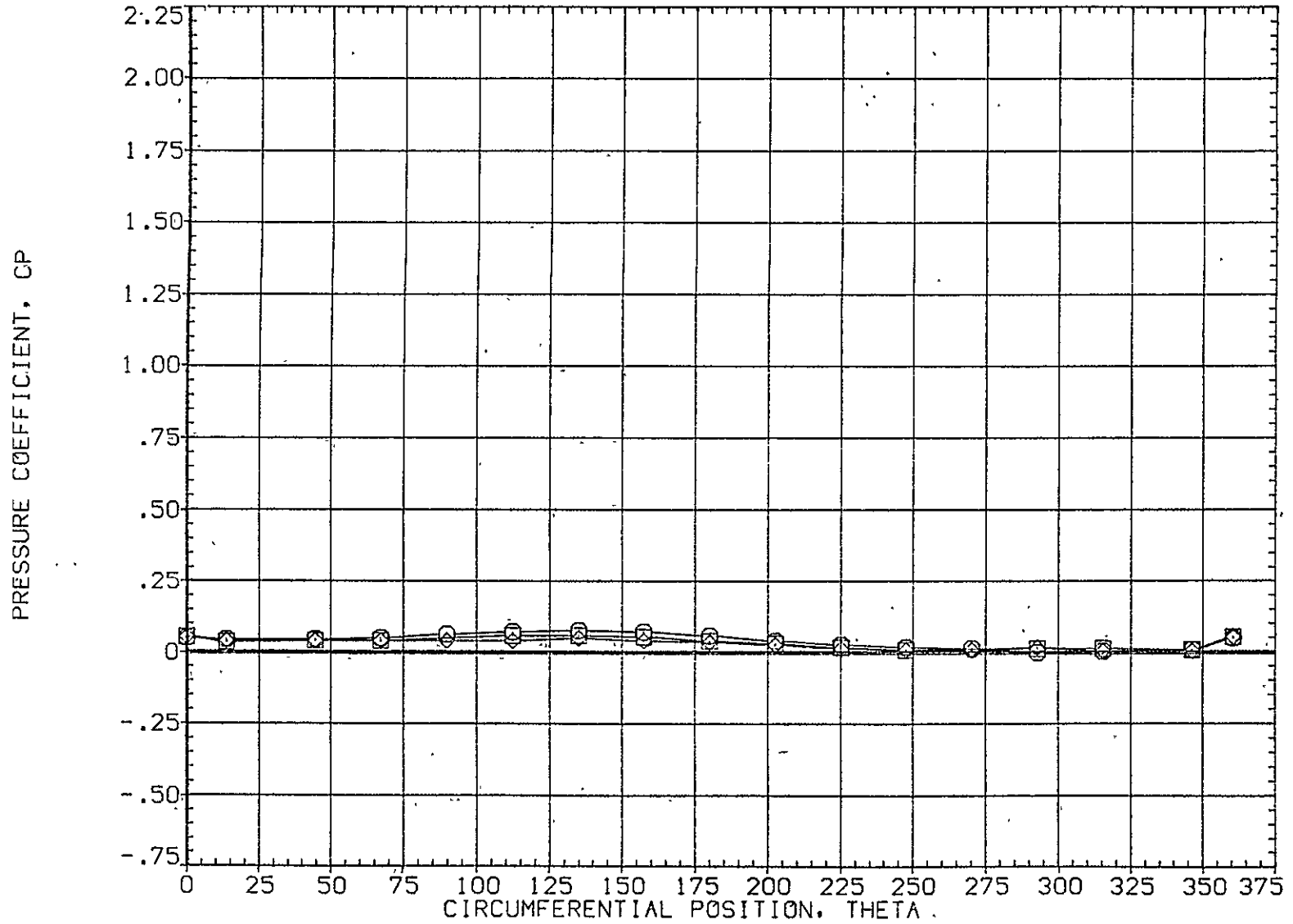


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	.000
○	.610	-8.310	4.960	MOUNT	1.000	PHI 135.000
□	.735					
◇	.860					

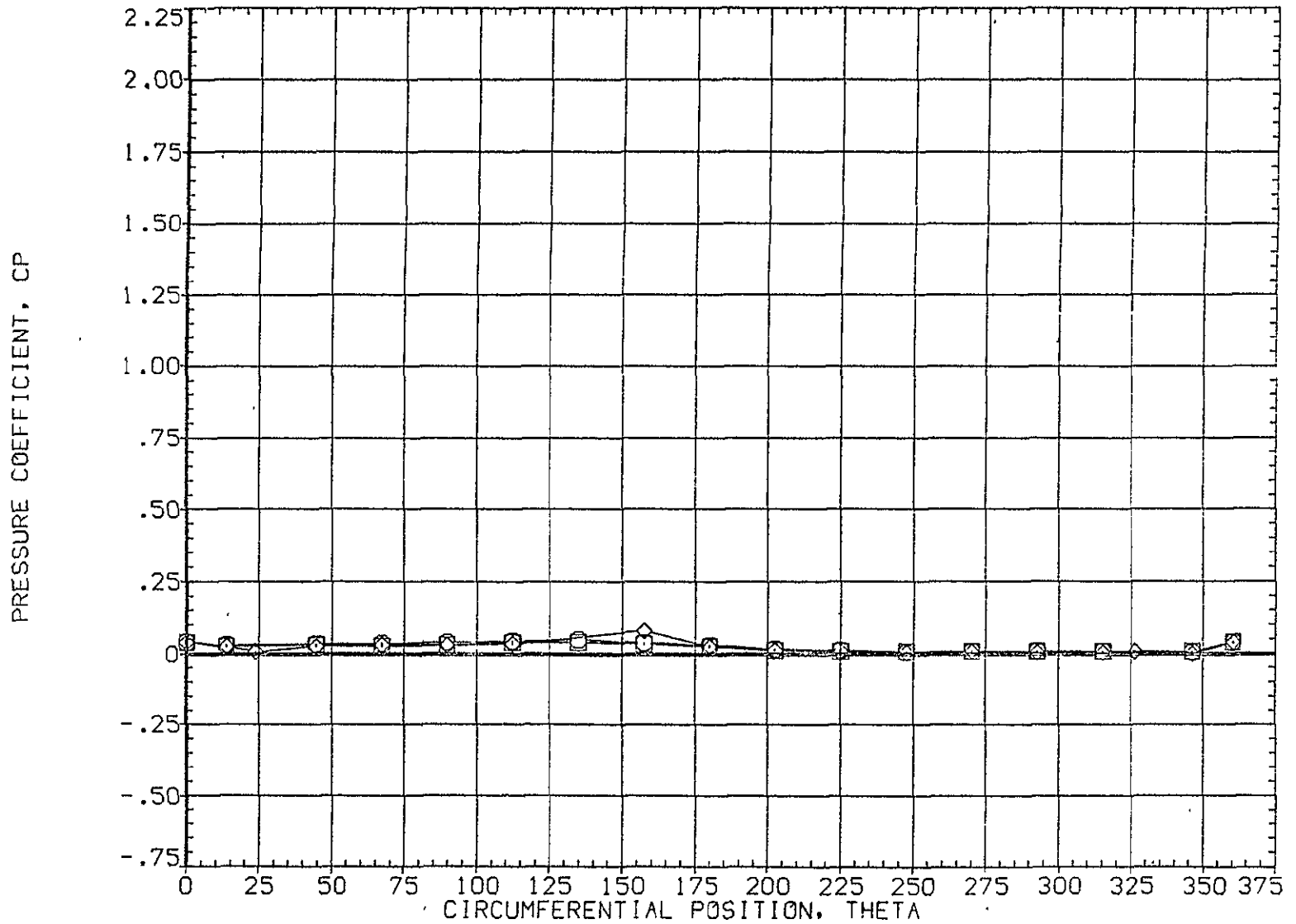


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB	ALPHA	MACH
.892	-8.310	4.960
.923		
.954		

PARAMETRIC VALUES		
BETA	.000	OFFSET .000
MOUNT	1.000	PHI 135.000

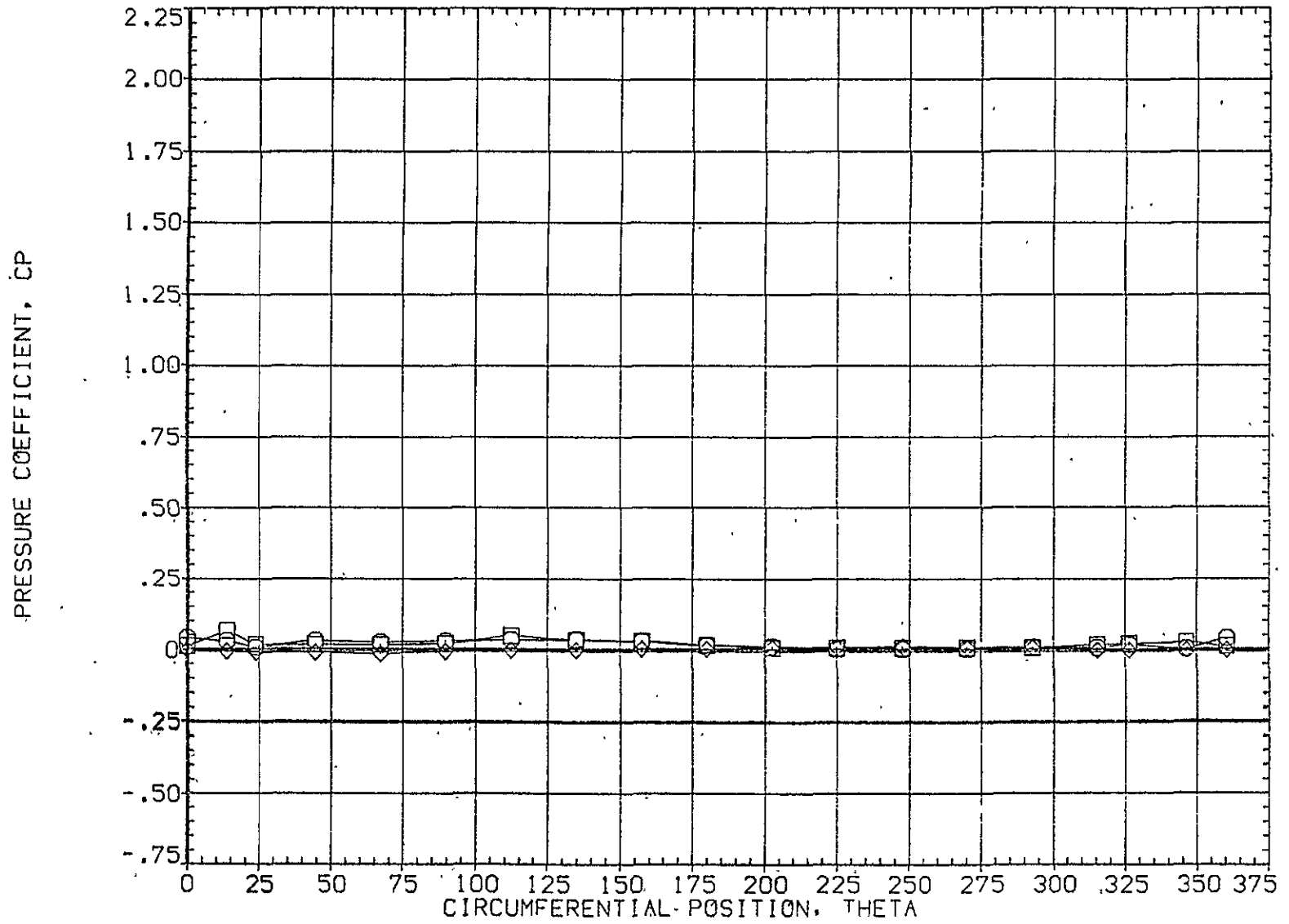


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.290	4.960	.000	.000	.000
□	.108			1.000		135.000
◇	.162					

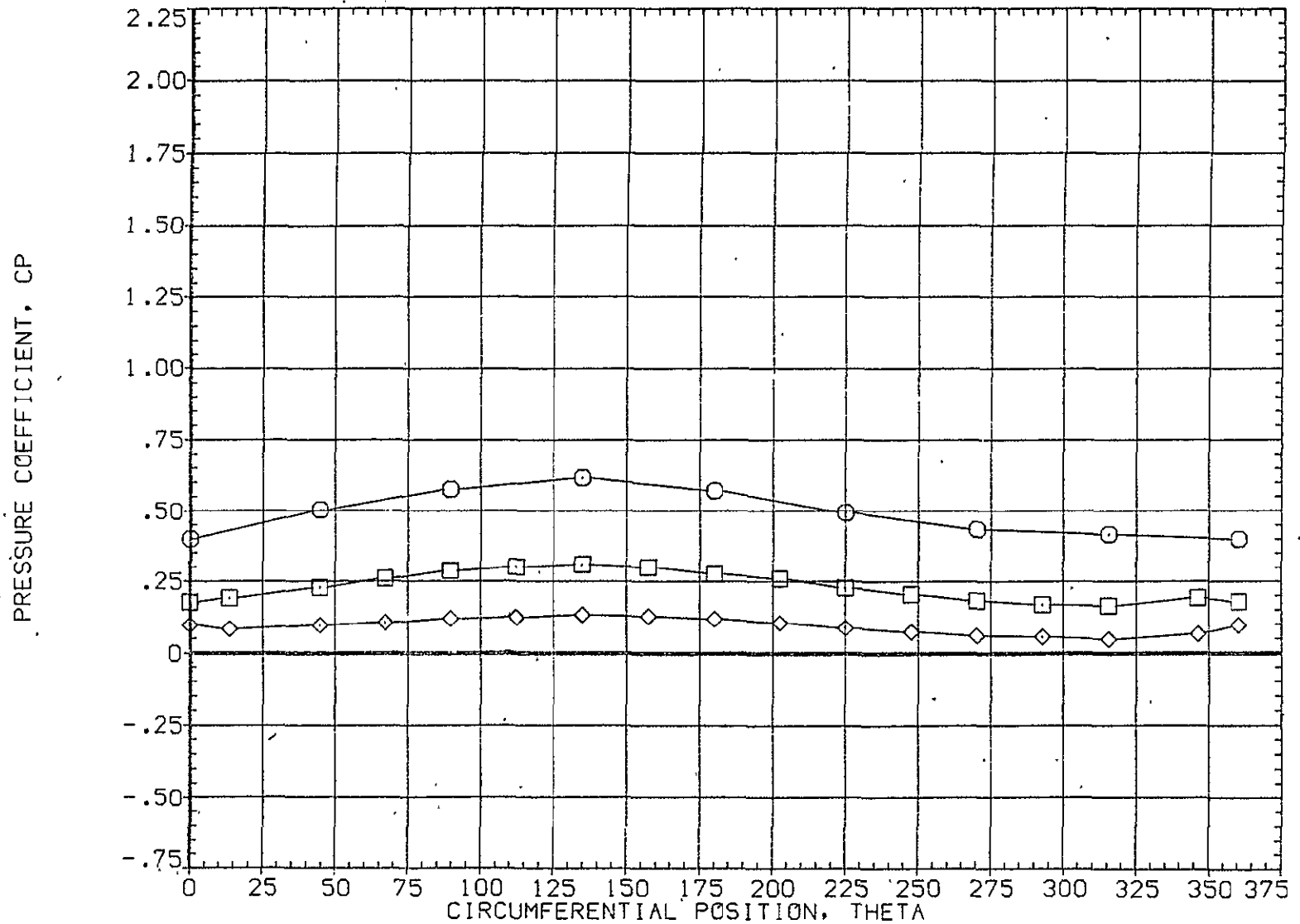


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-4.290	4.960	.000	.000	.000
□	.322			1.000	135.000	
◇	.518					

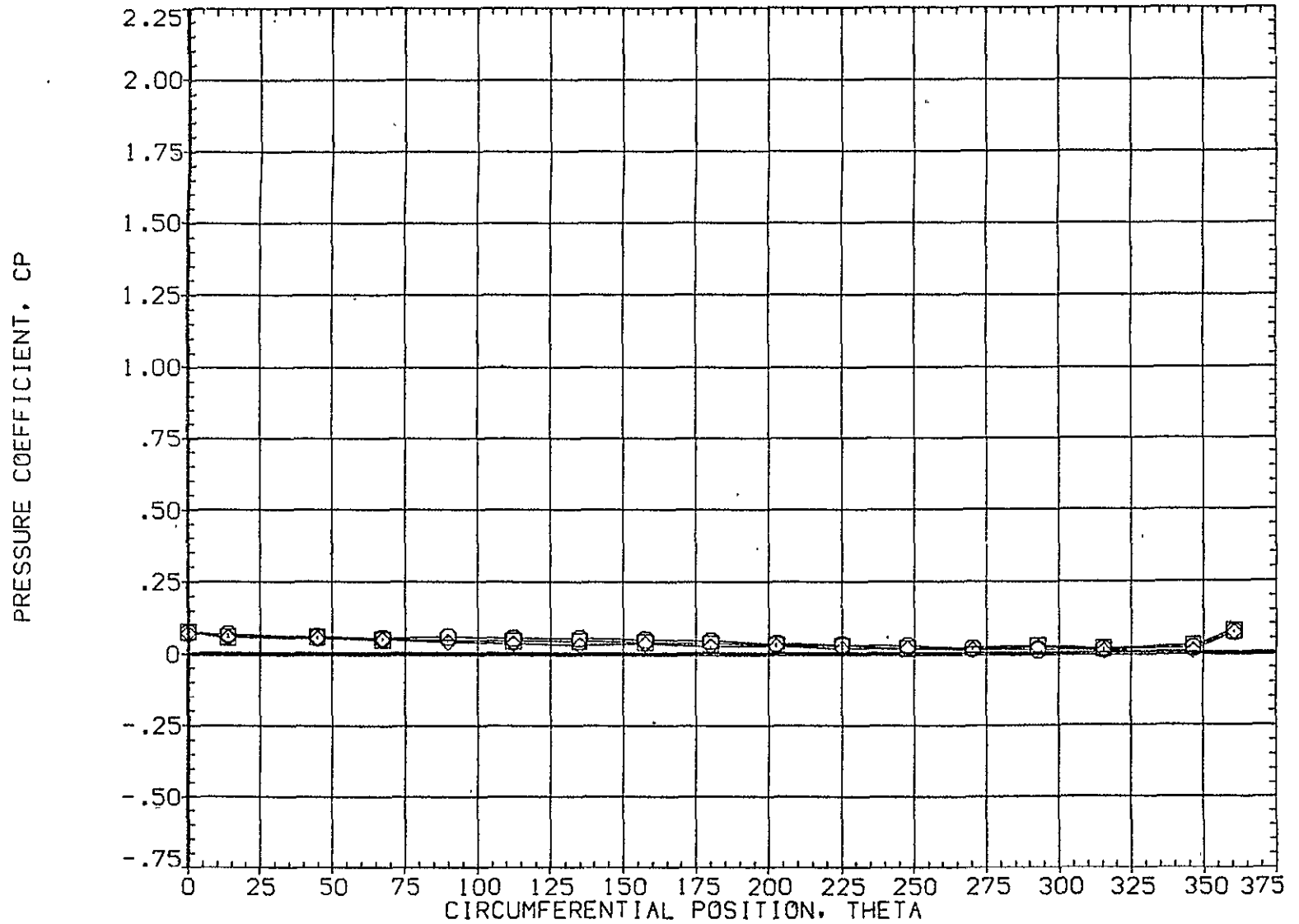


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A022)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	,000	
○	.610	-4.290	4.960	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

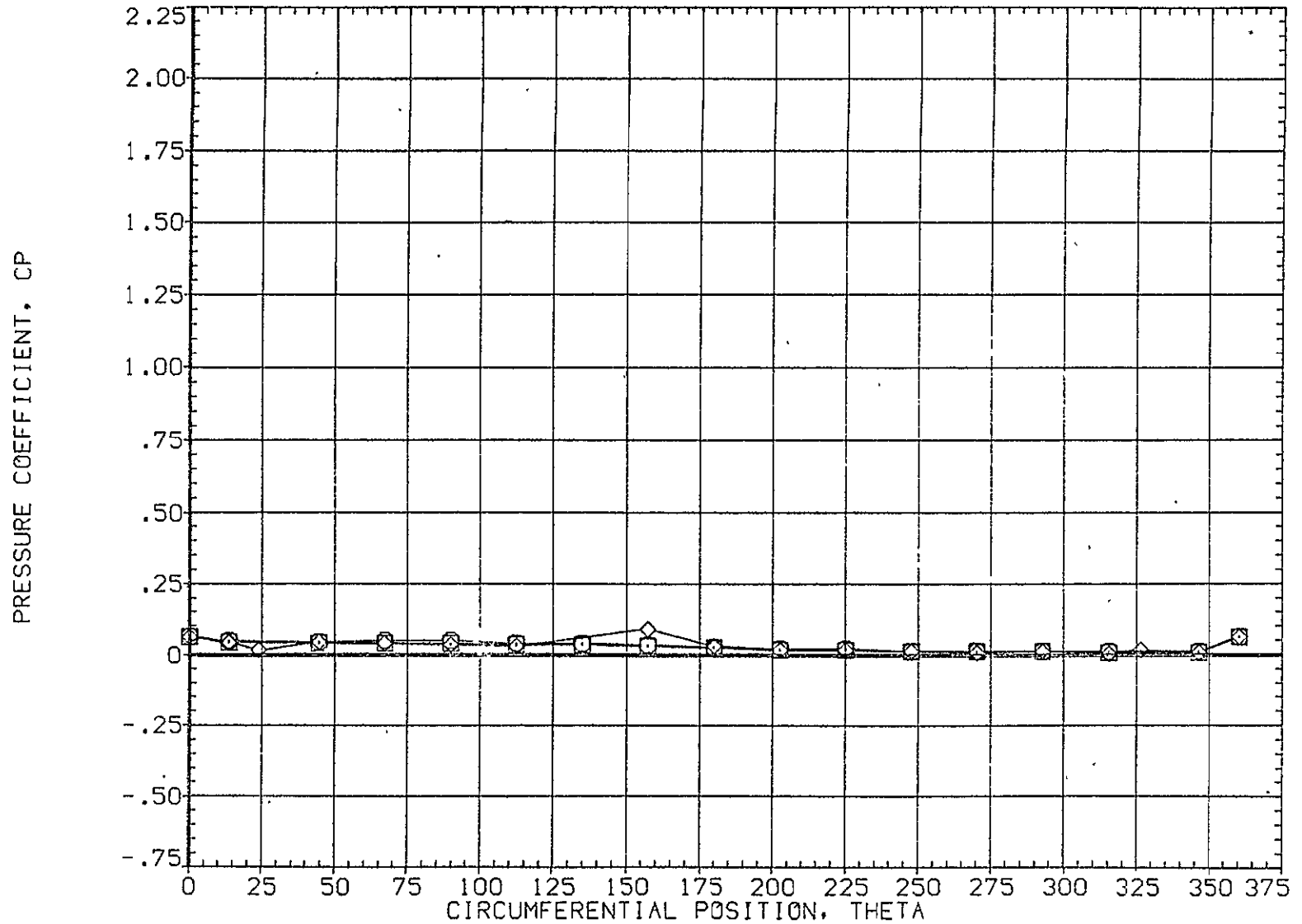


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.290	4.960	.000	.000	.000
□	.923			1.000		135.000
◇	.954					

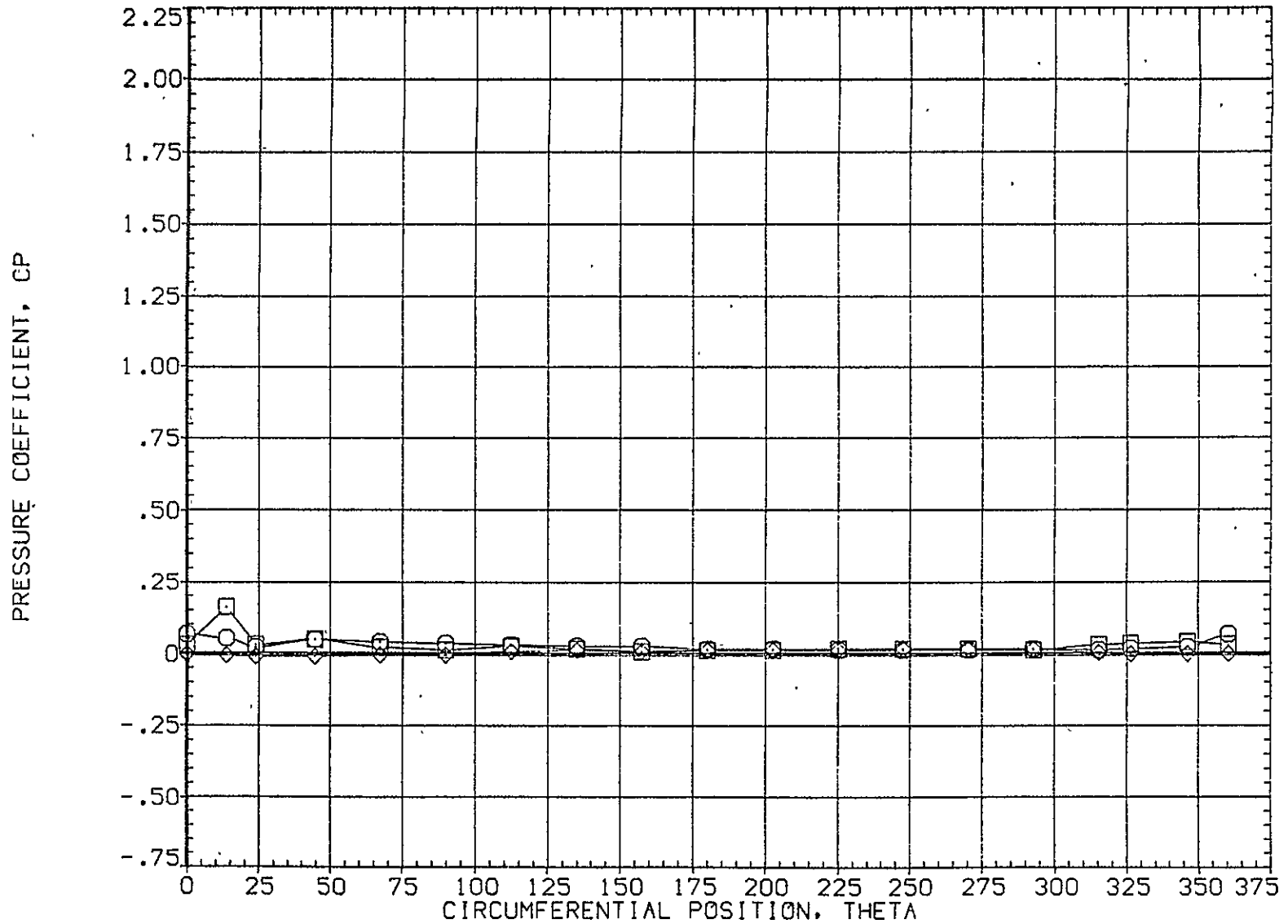


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	4.960	.000	.000	.000
□	.108			1.000		135.000
◇	.162					

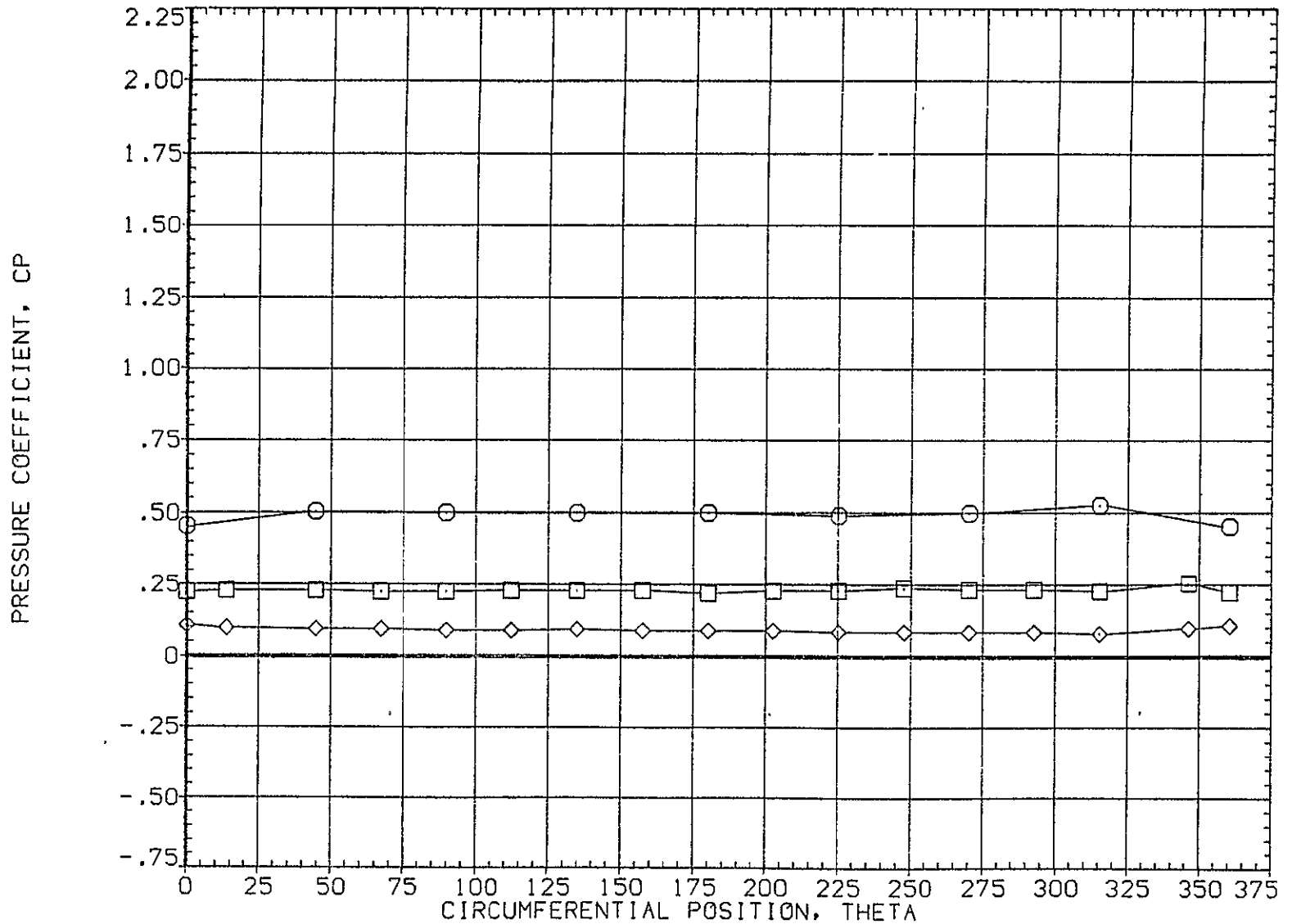


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	-.280	4.960	MOUNT	1.000	PHI	135.000
□	.322						
◇	.518						

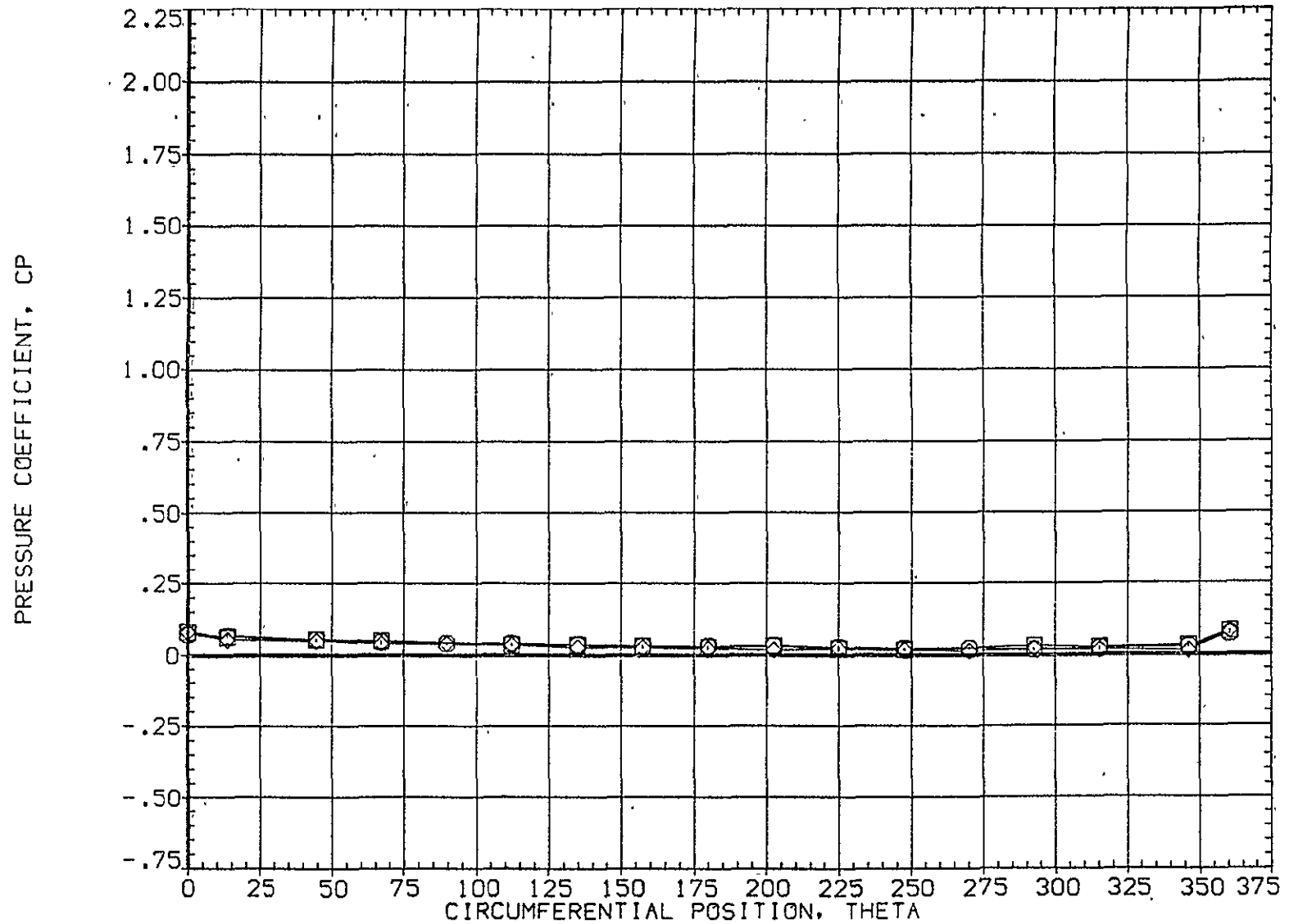


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A023)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	4.960	.000	.000	
□	.735			1.000		135.000
◇	.860					

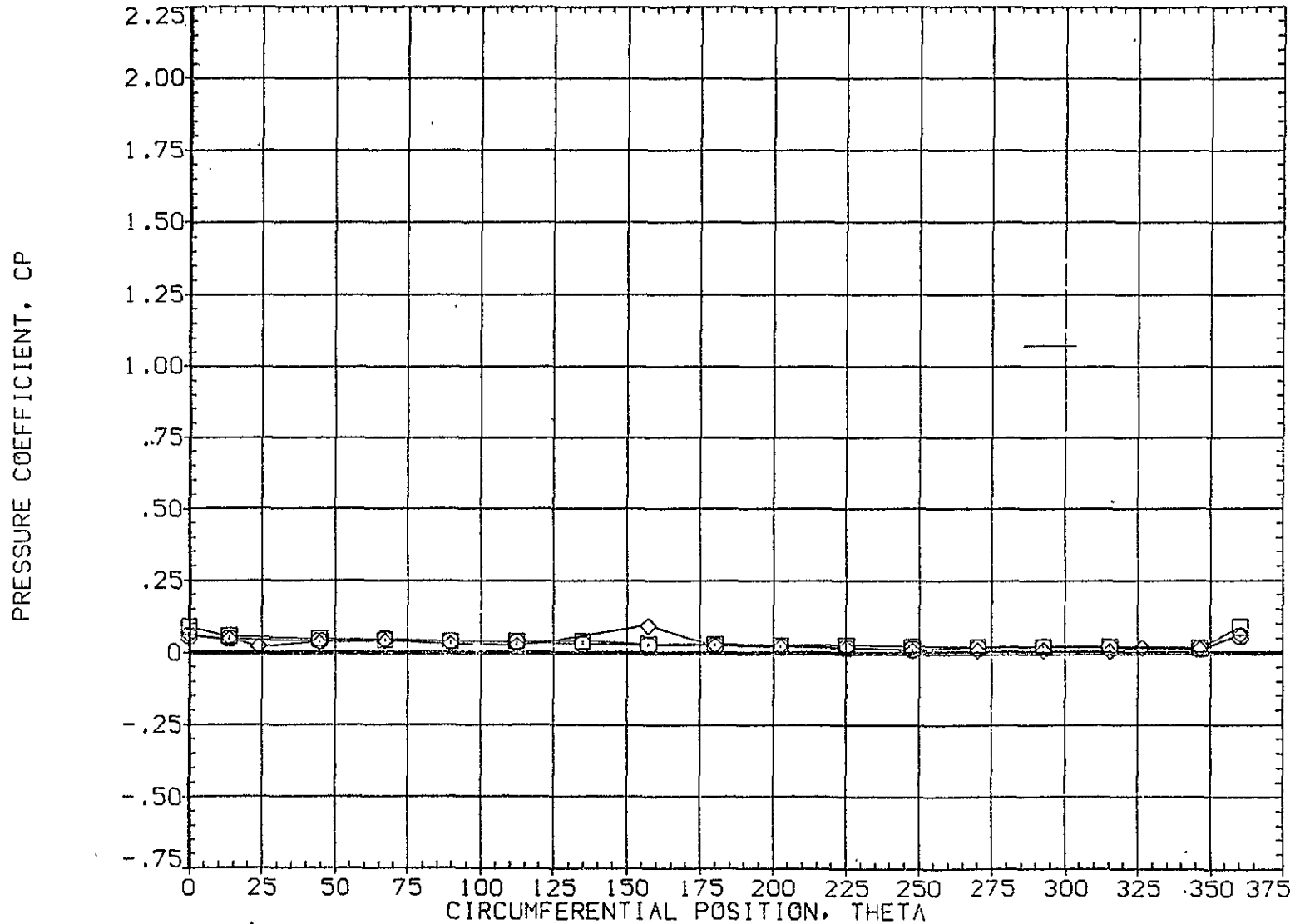


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-.280	4.960	MOUNT	1.000	PHI	135.000
□	.923						
◇	.954						

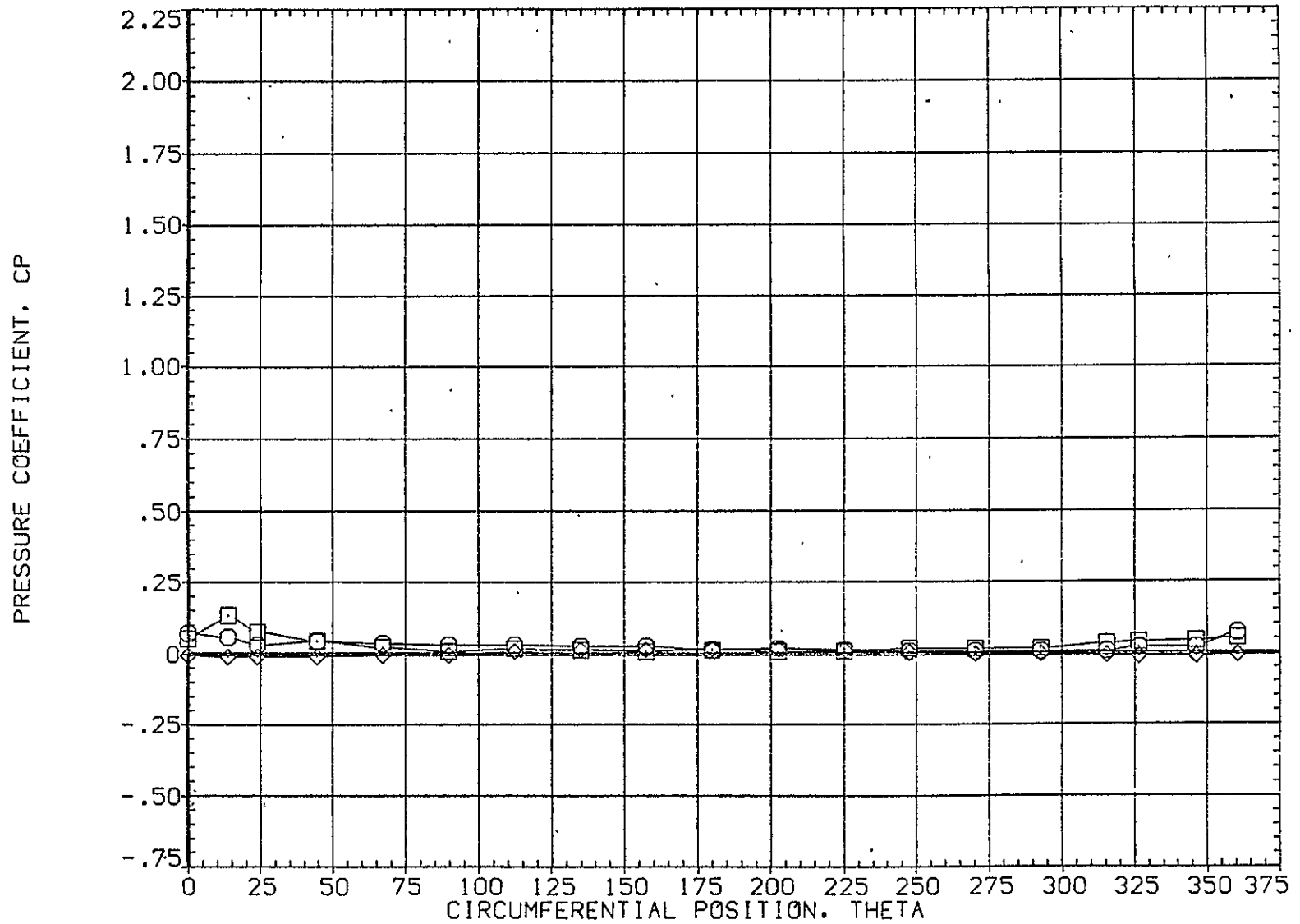


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.730	4.960	.000	.000	.000
□	.108			1.000		135.000
◇	.162					

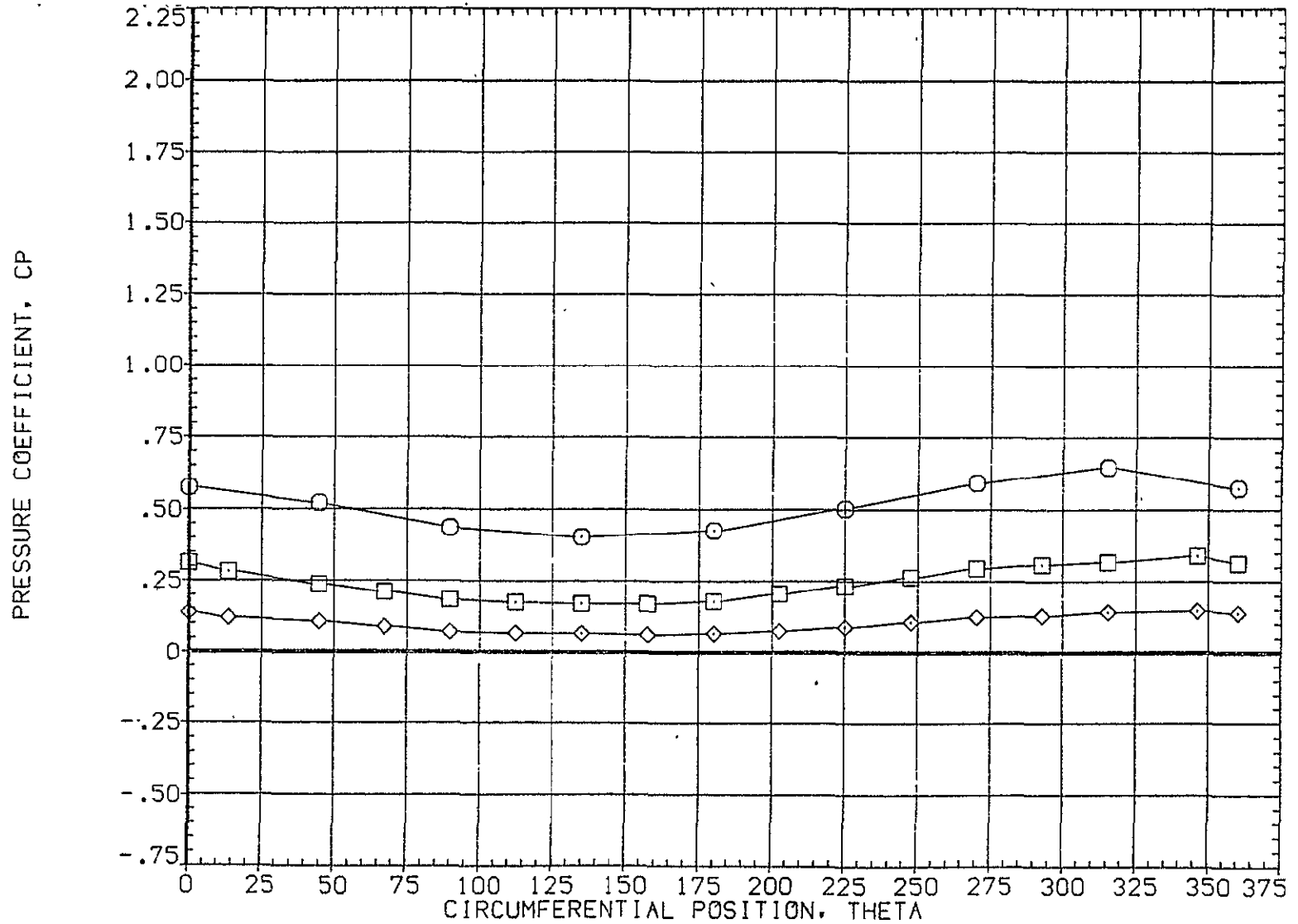


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.730	4.960	.000	.000	.000
□	.322			1.000		135.000
◇	.518					

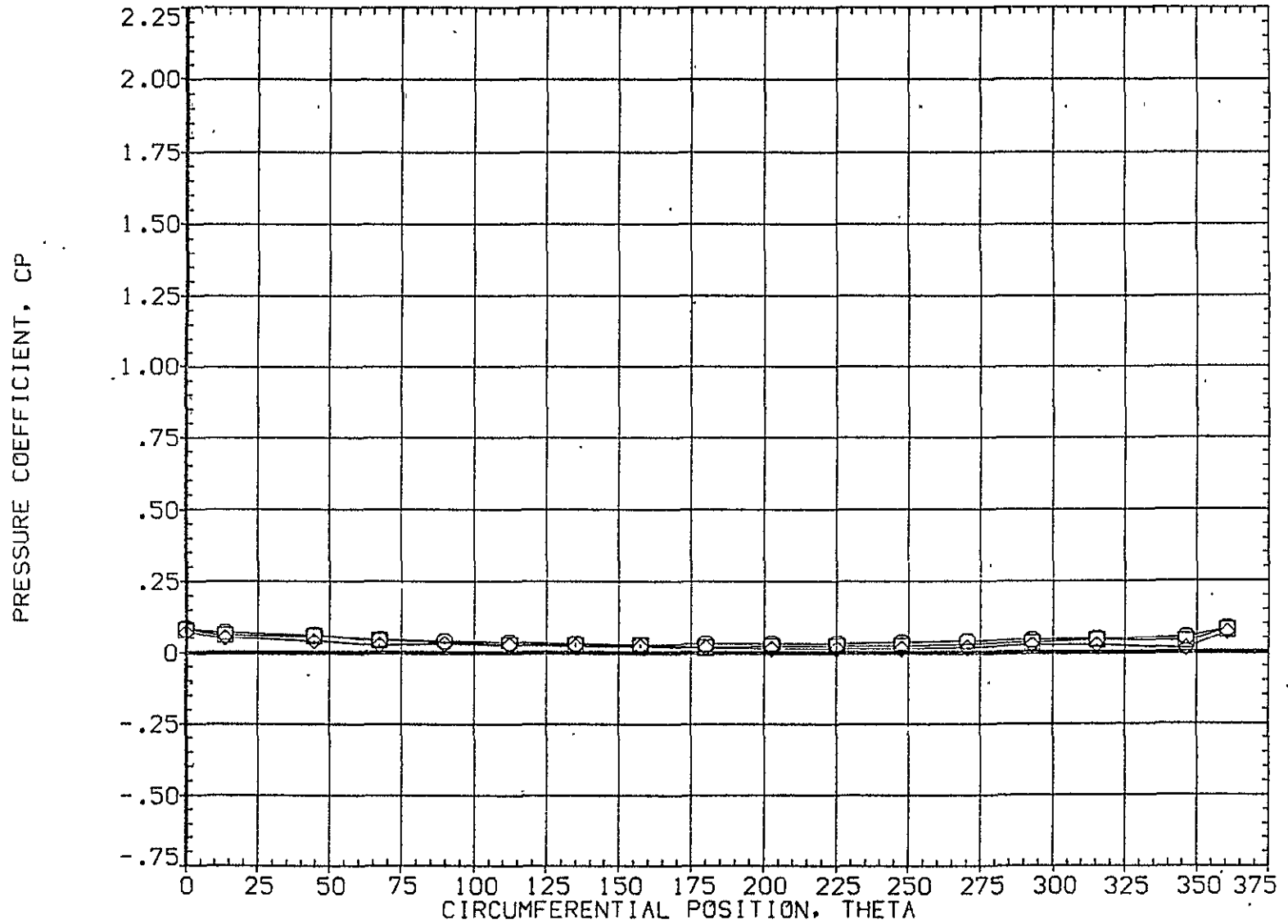


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
◇	.610	3.730	4.960	.000			.000
□	.735			1.000			135.000
◇	.860						

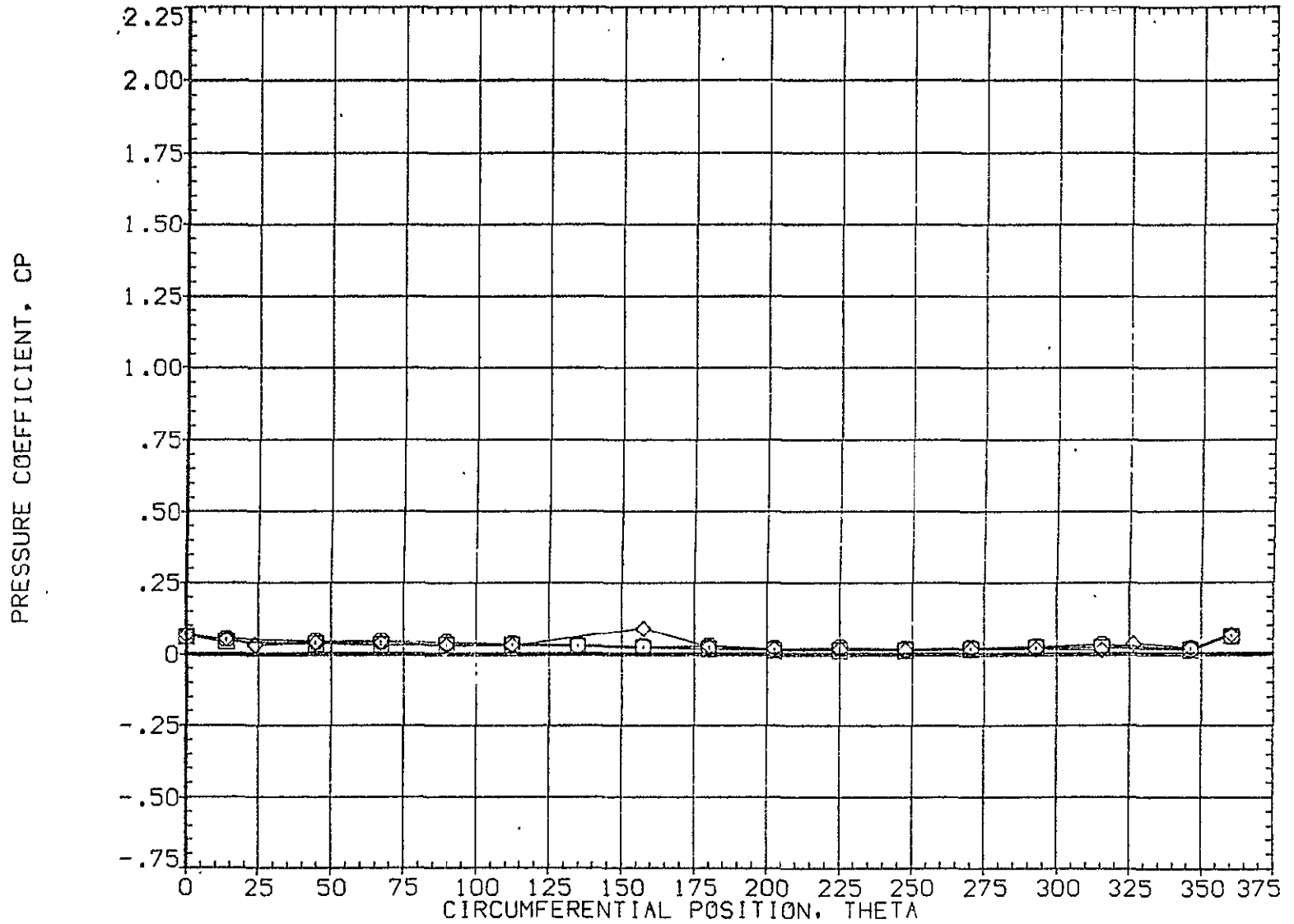


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 3.730 4.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 135.000

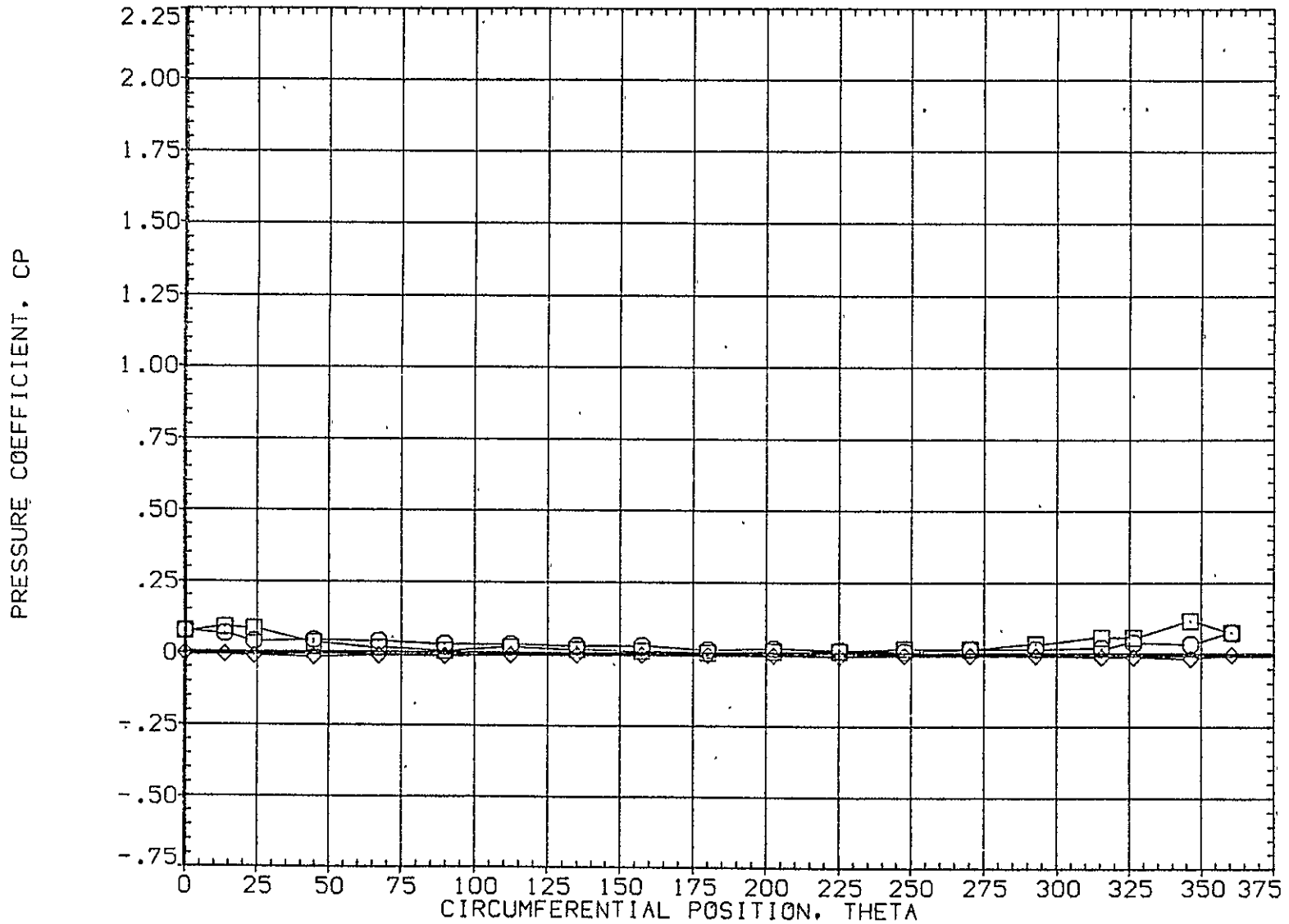


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A025)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.750	4.960	MOUNT	1.000	PHI	135.000
□	.108						
◇	.162						

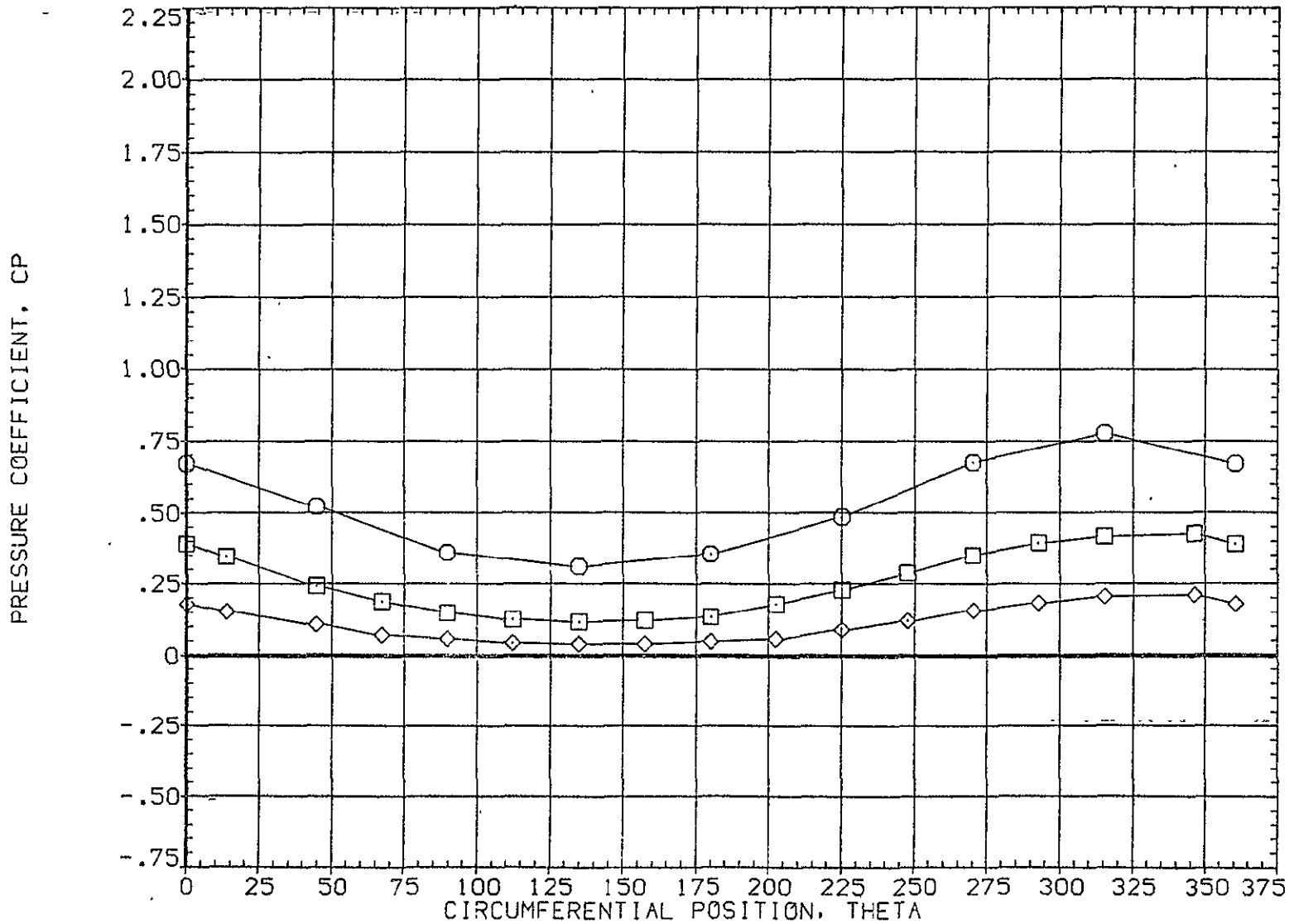


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB ALPHA MACH
.216 7.750 4.960
.322
.518

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI 135.000

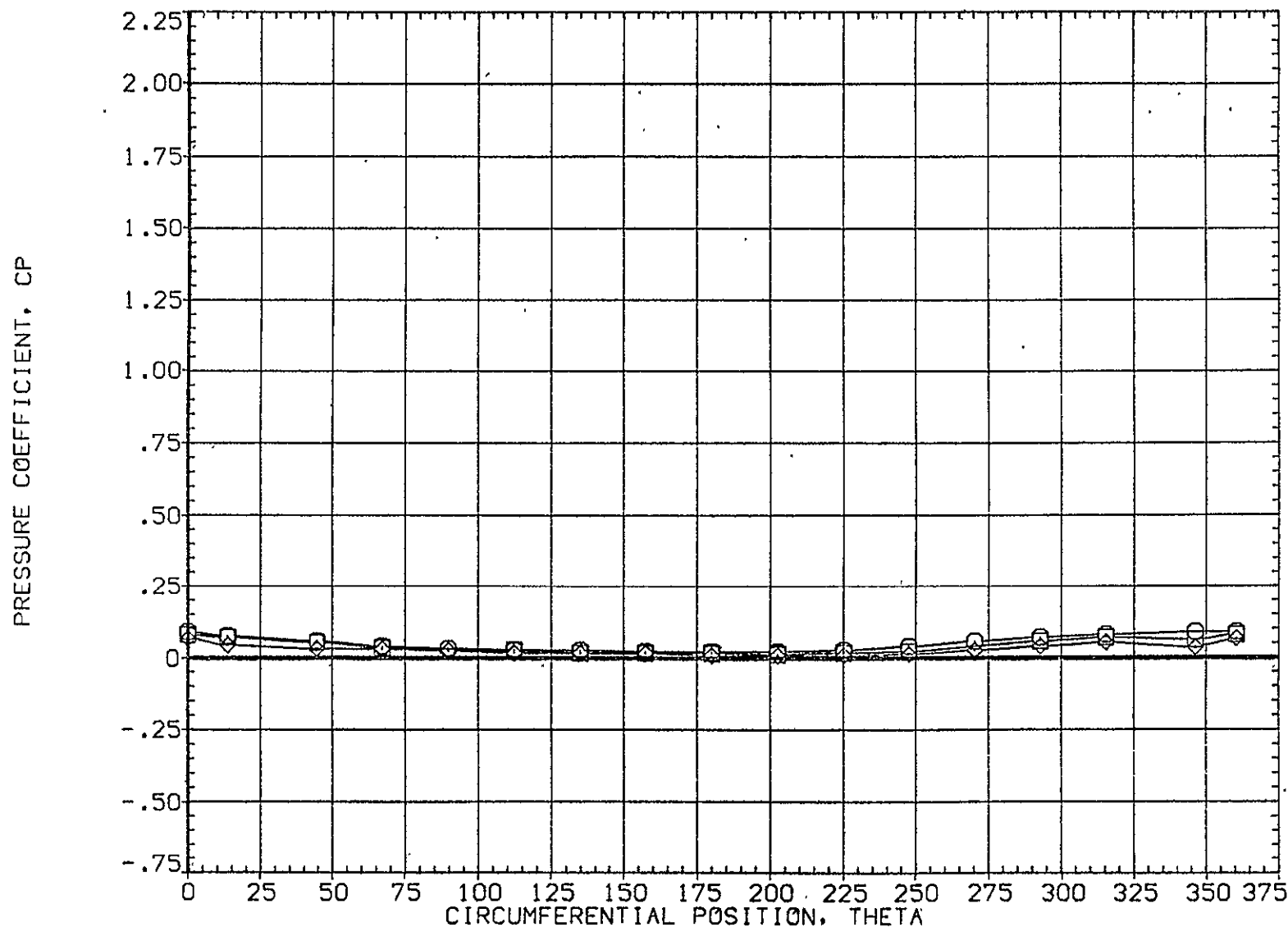


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A025)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	7.750	4.960	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

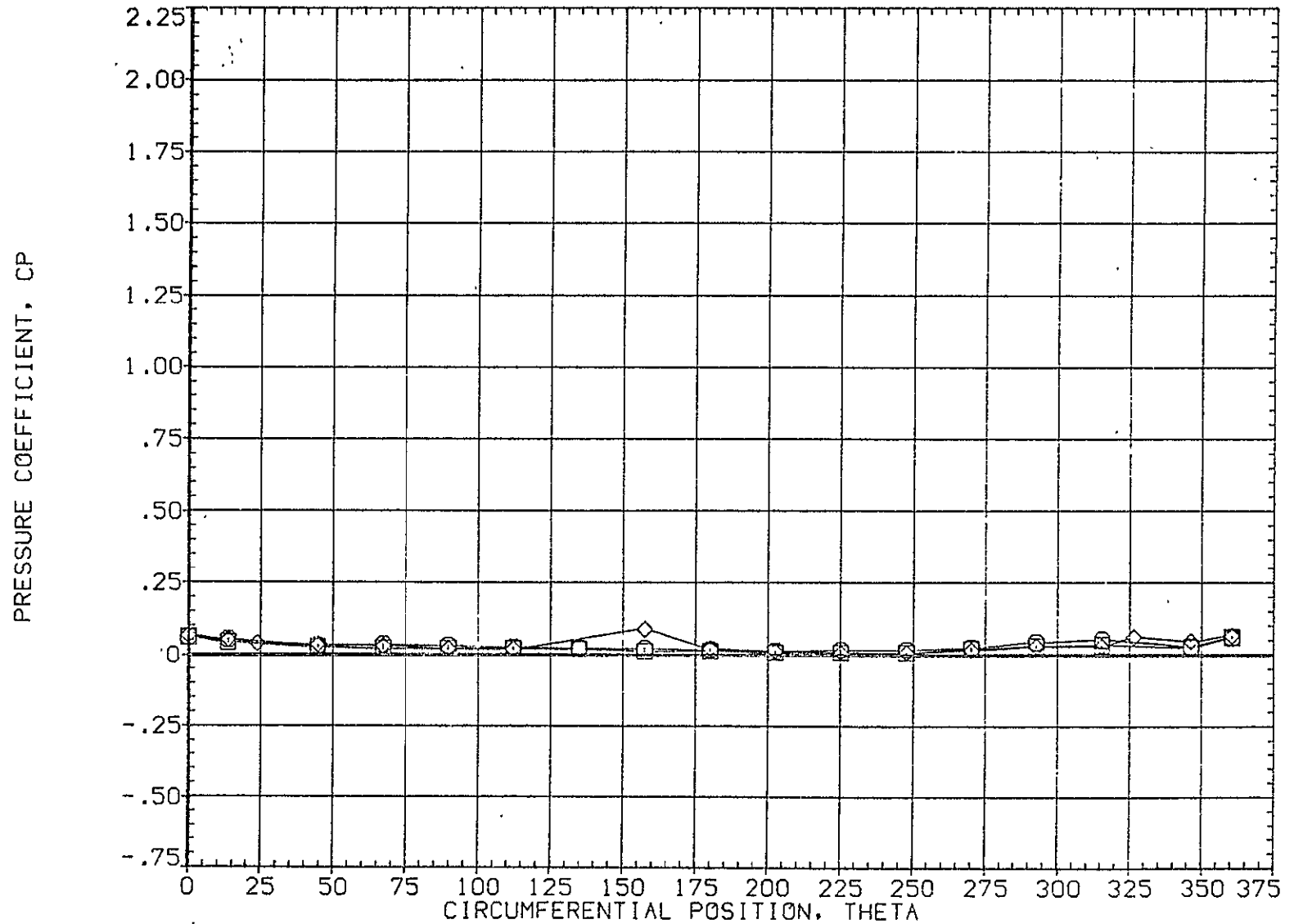


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	7.750	4.960	.000	.000	.000
□	.923			1.000	PHI	135.000
◇	.954					

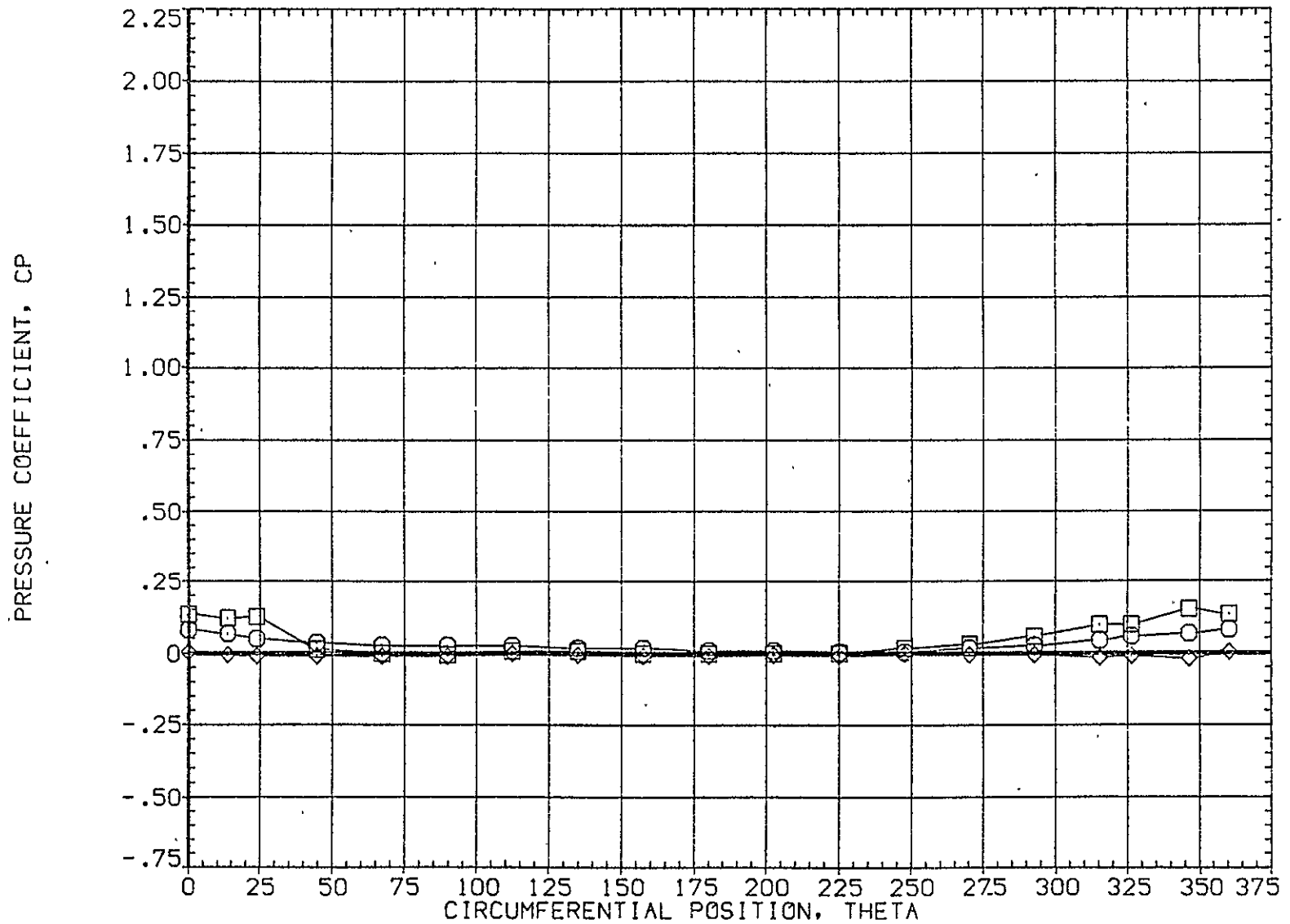


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	12.450	4.960	MOUNT	1.000	PHI	135.000
□	.108						
◇	.162						

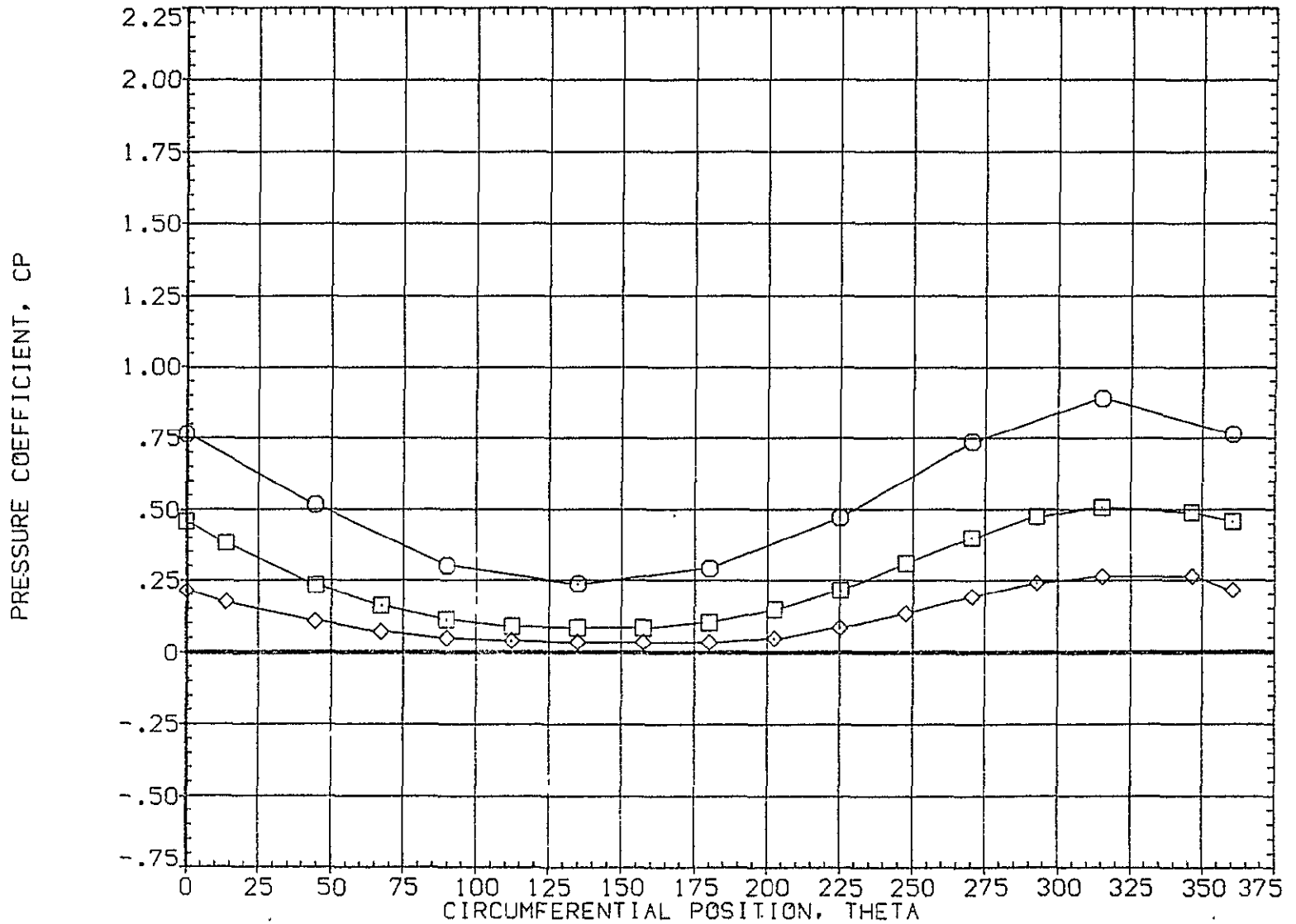


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 12.450 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 135.000

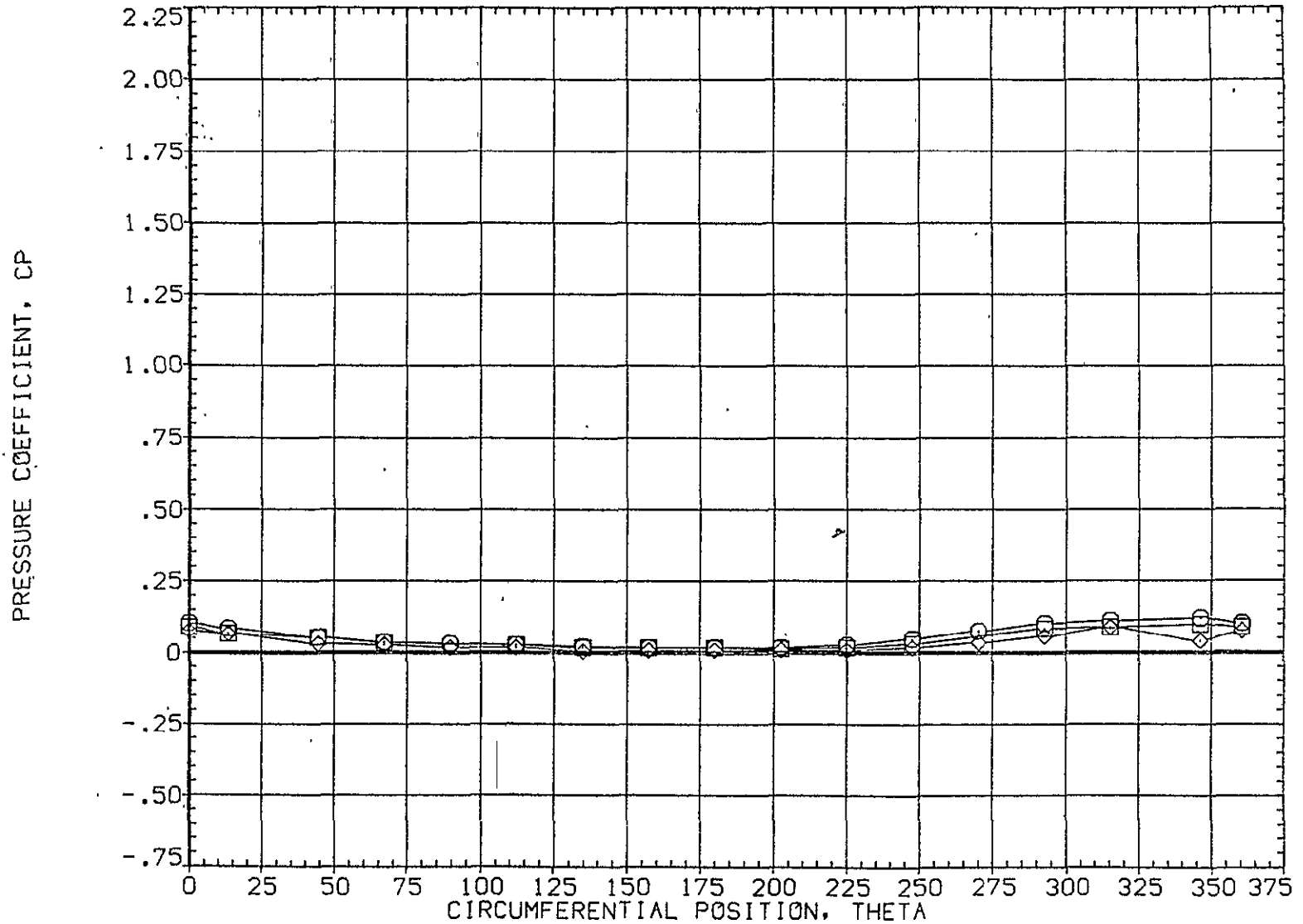


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A026)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.610	12.450	4.960	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

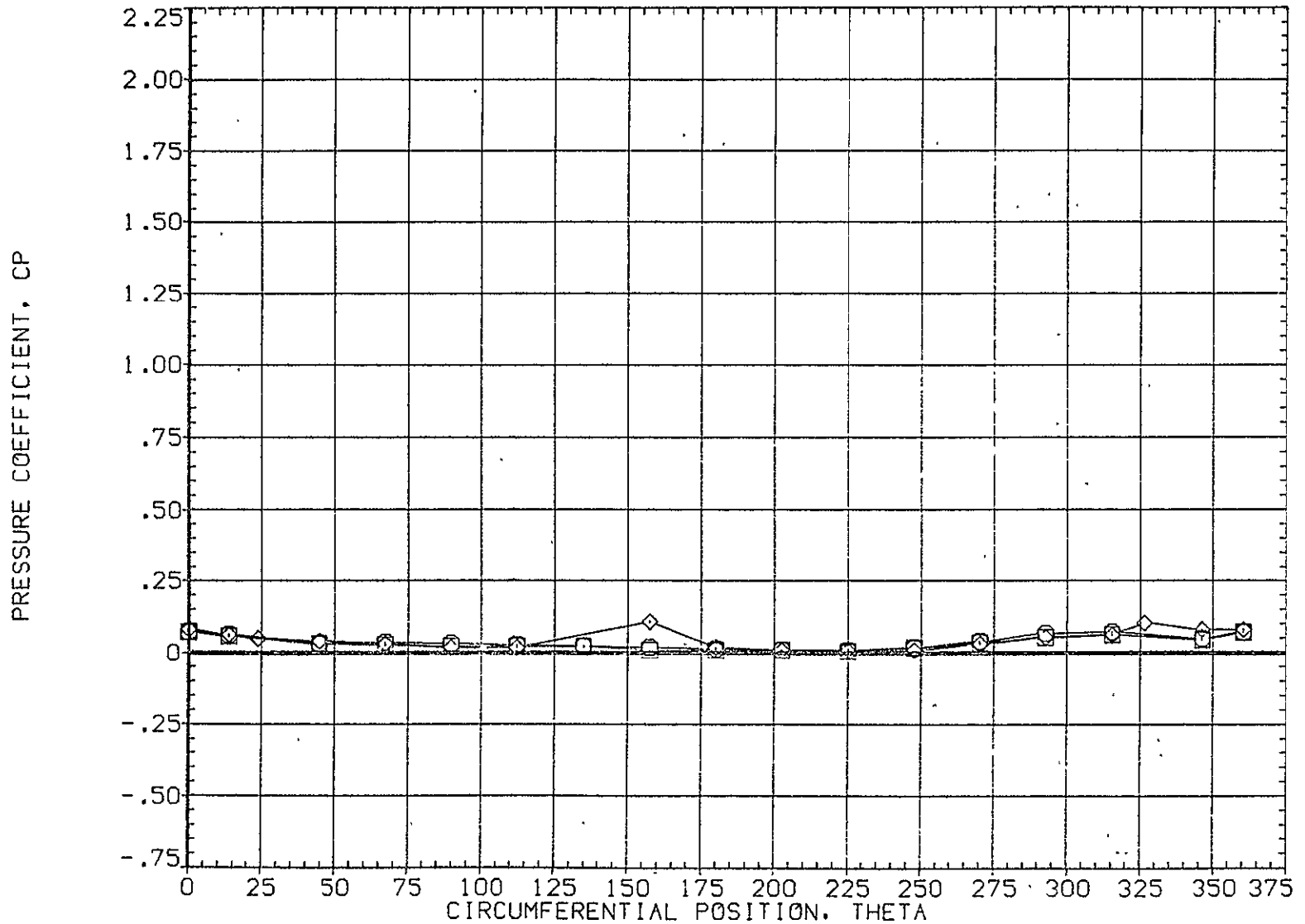


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	12.450	4.960	.000	20.000	
□	.923			1.000	135.000	
◇	.954					

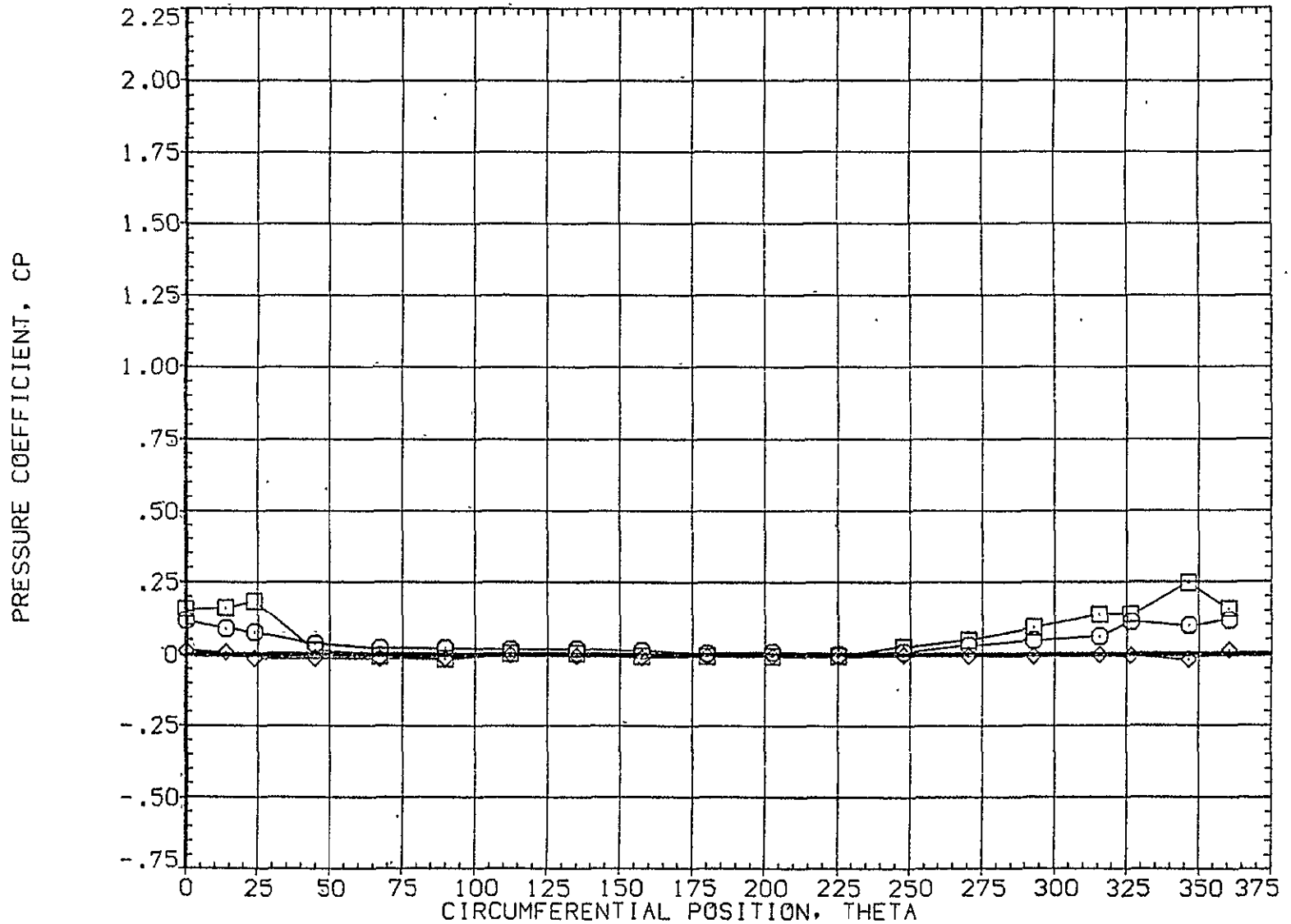


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

C. 8

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1-

(P1A027)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	16.450	4.960	.000	20.000	
□	.108			1.000	135.000	
◇	.162					

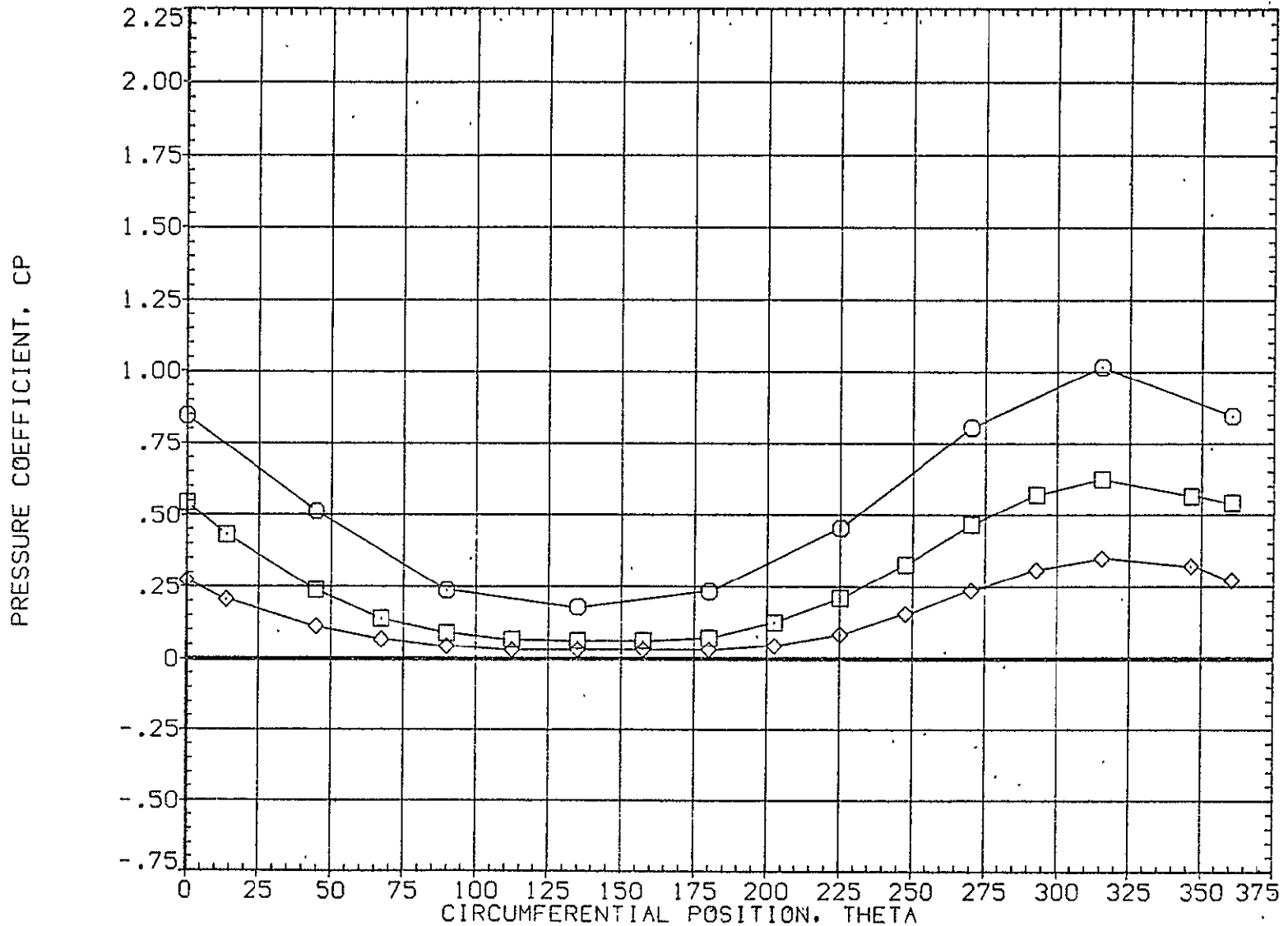


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 16.450 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 135.000

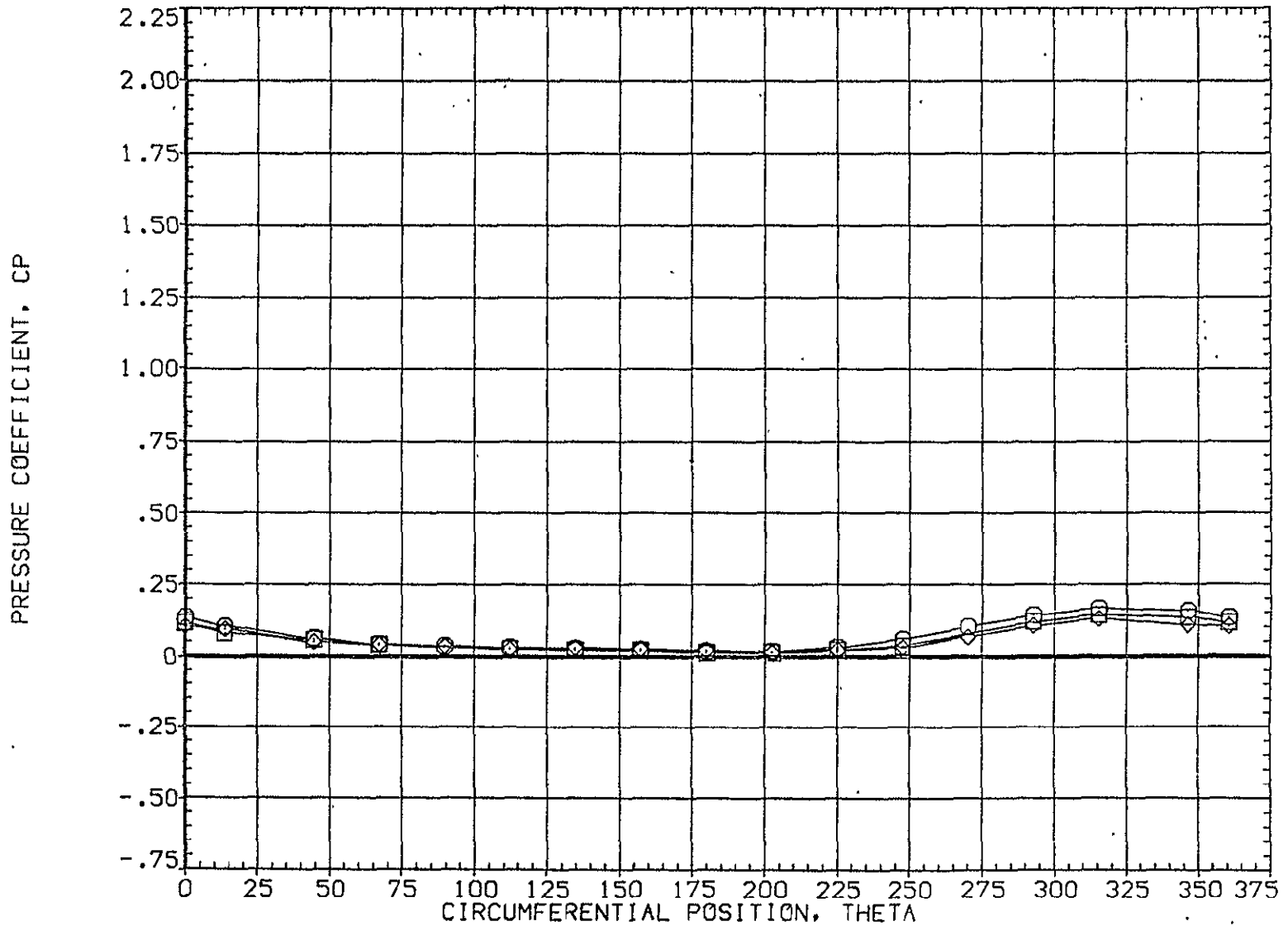


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.610	16.450	4.960	MDUNT	1.000	135.000	
□	.735						
◇	.860						

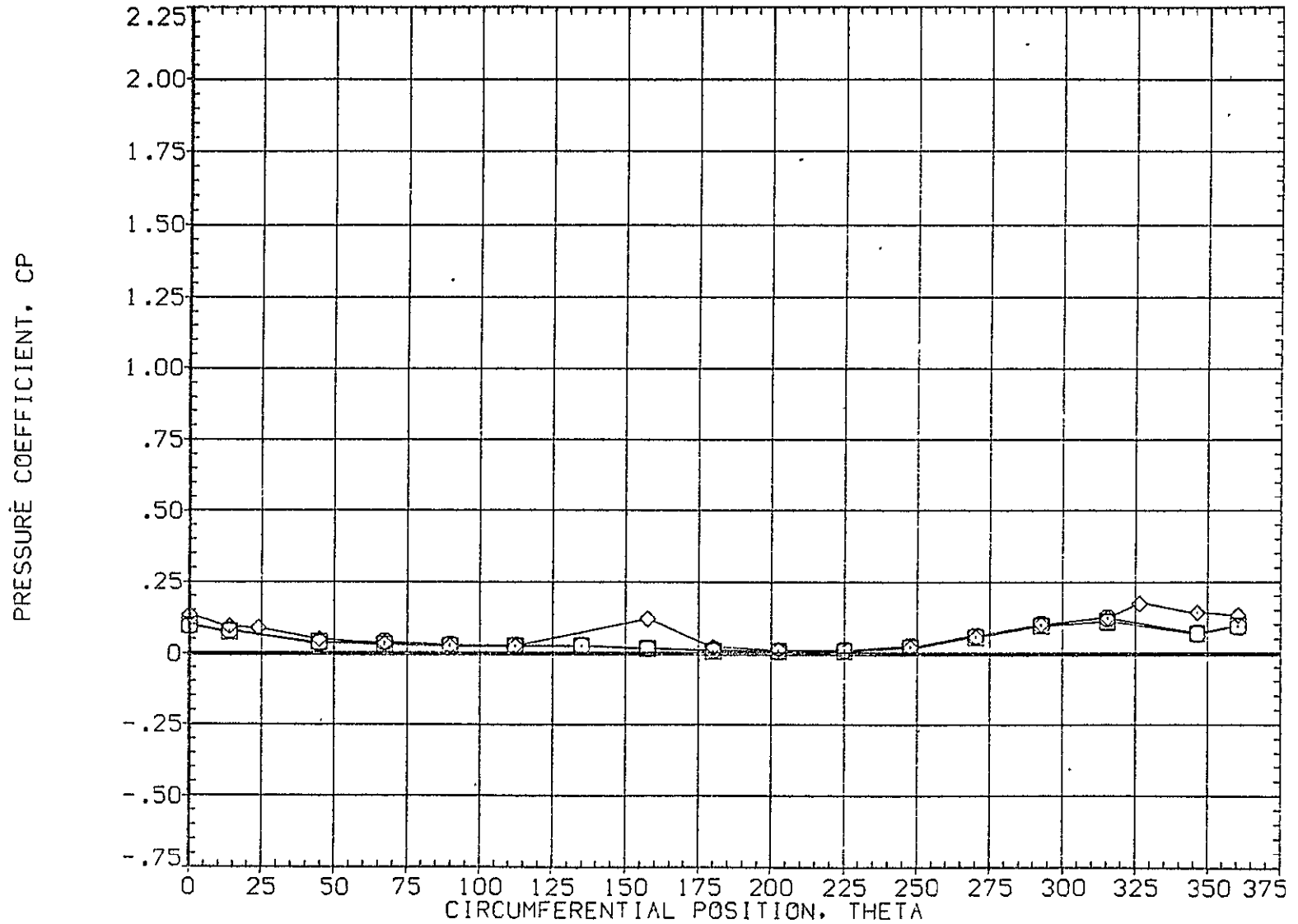


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	16.450	4.960	MOUNT	1.000	PHI	135.000
□	.923						
◇	.954						

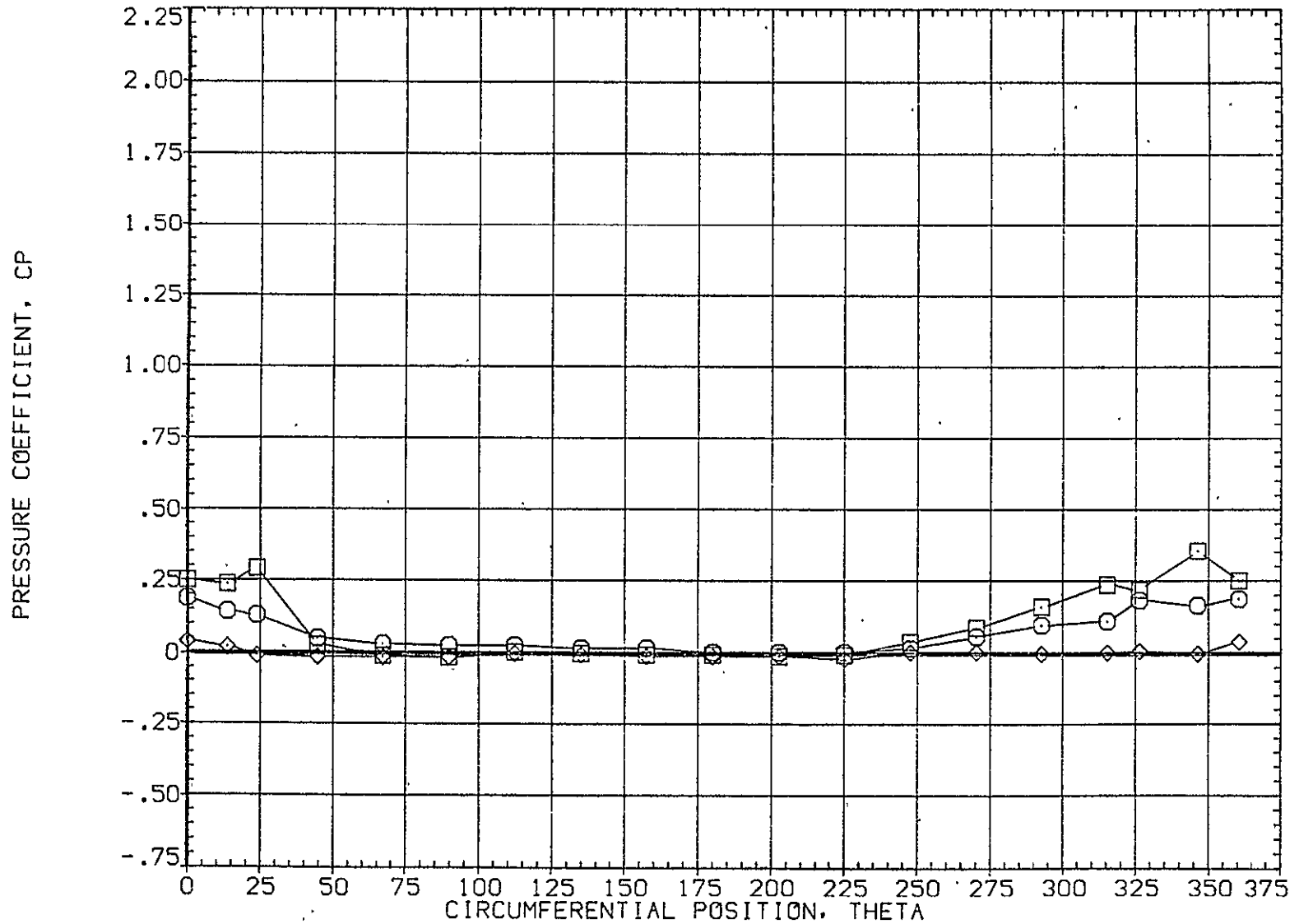


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.490	4.960	MOUNT	1.000	PHI	135.000
□	.108						
◇	.162						

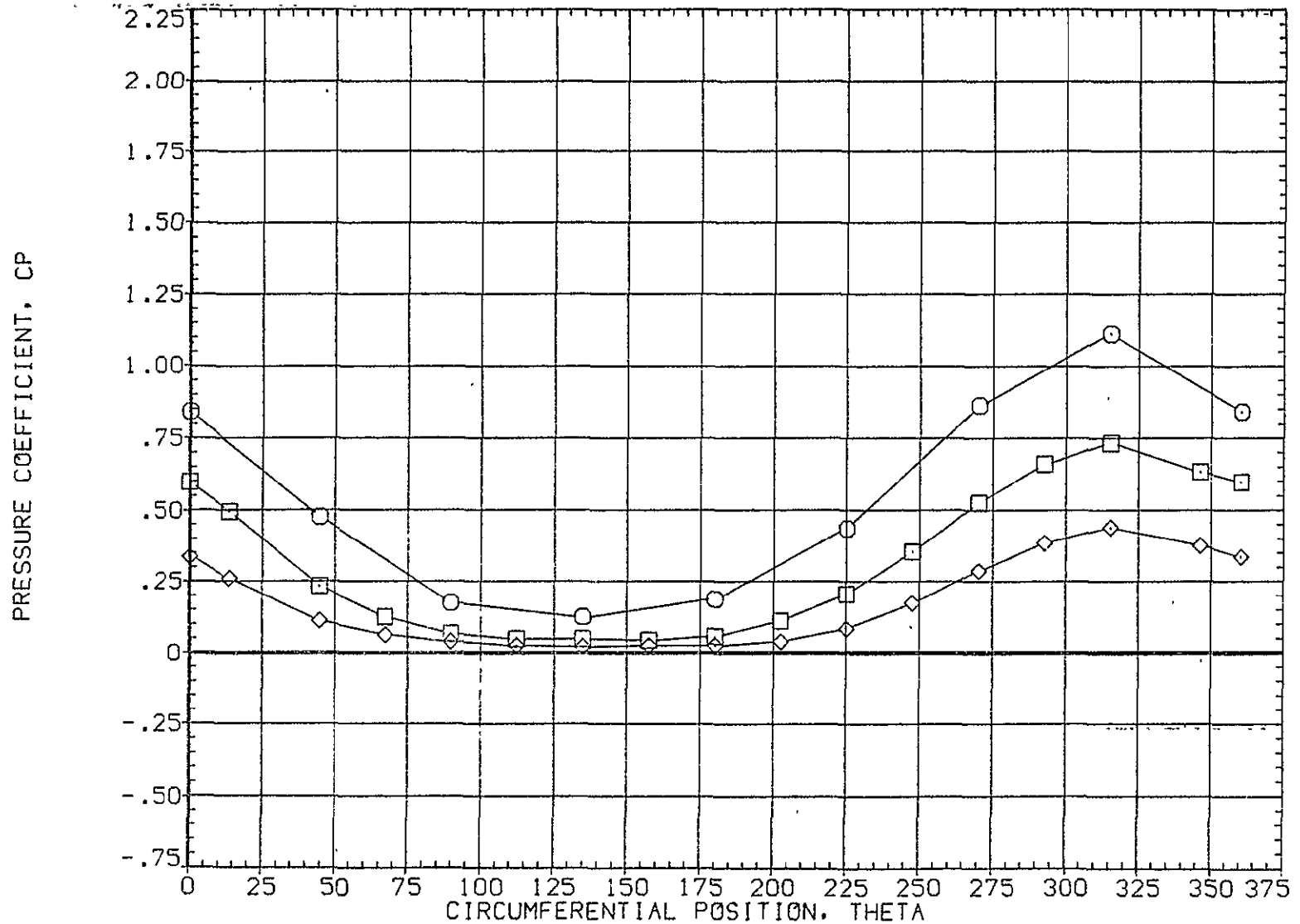


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 20.490 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 135.000

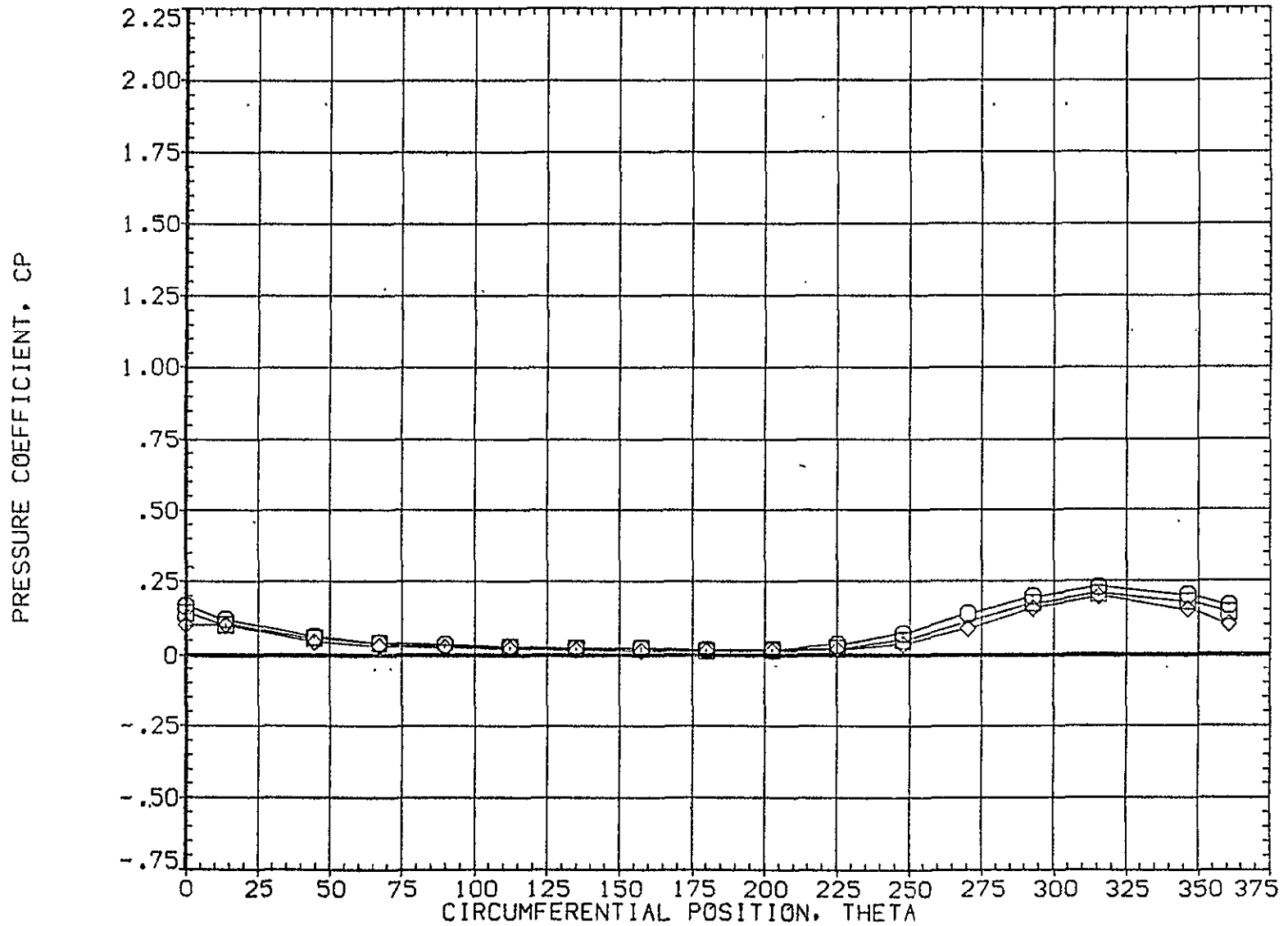


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.490	4.960	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

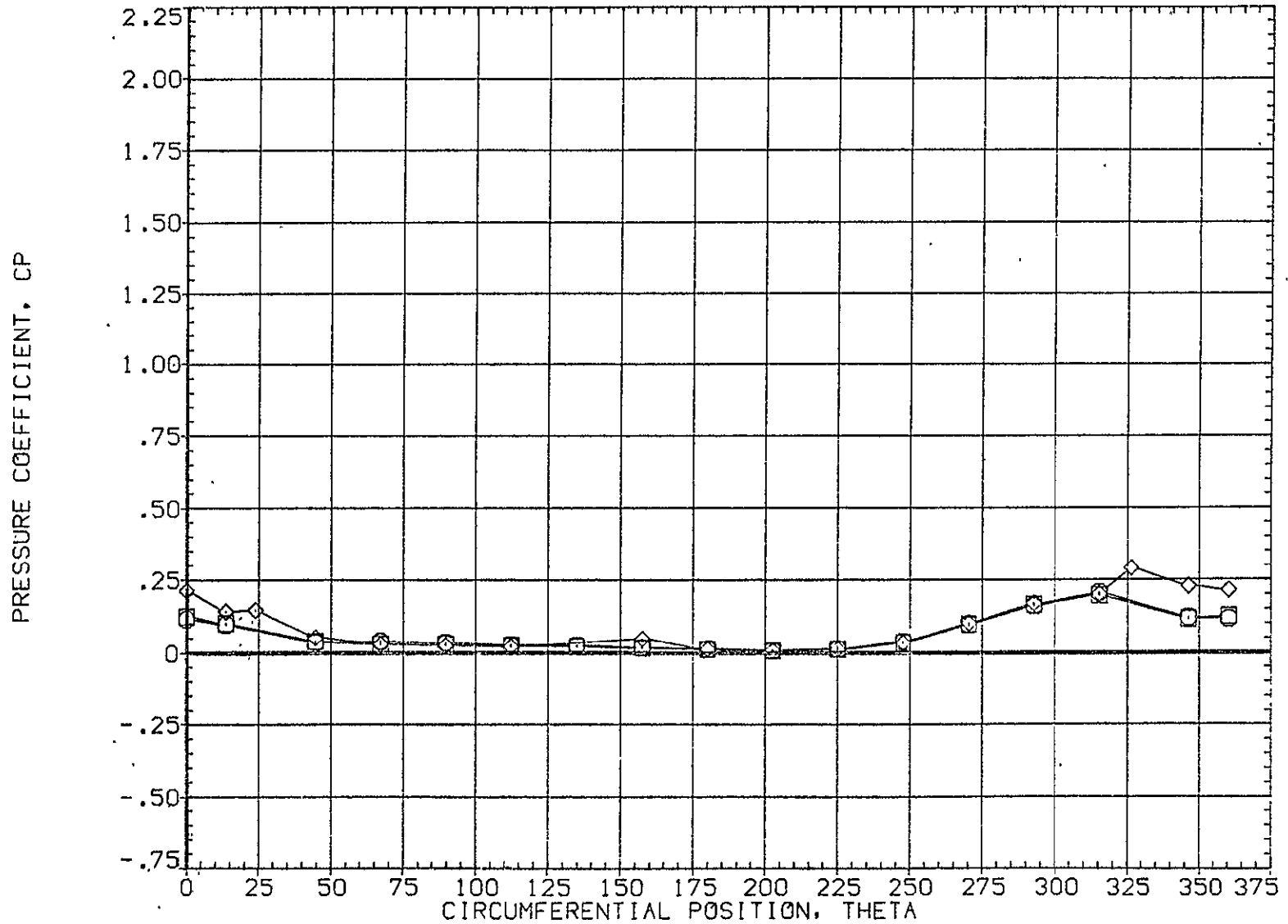


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 20.490
 MACH 4.960

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 135.000

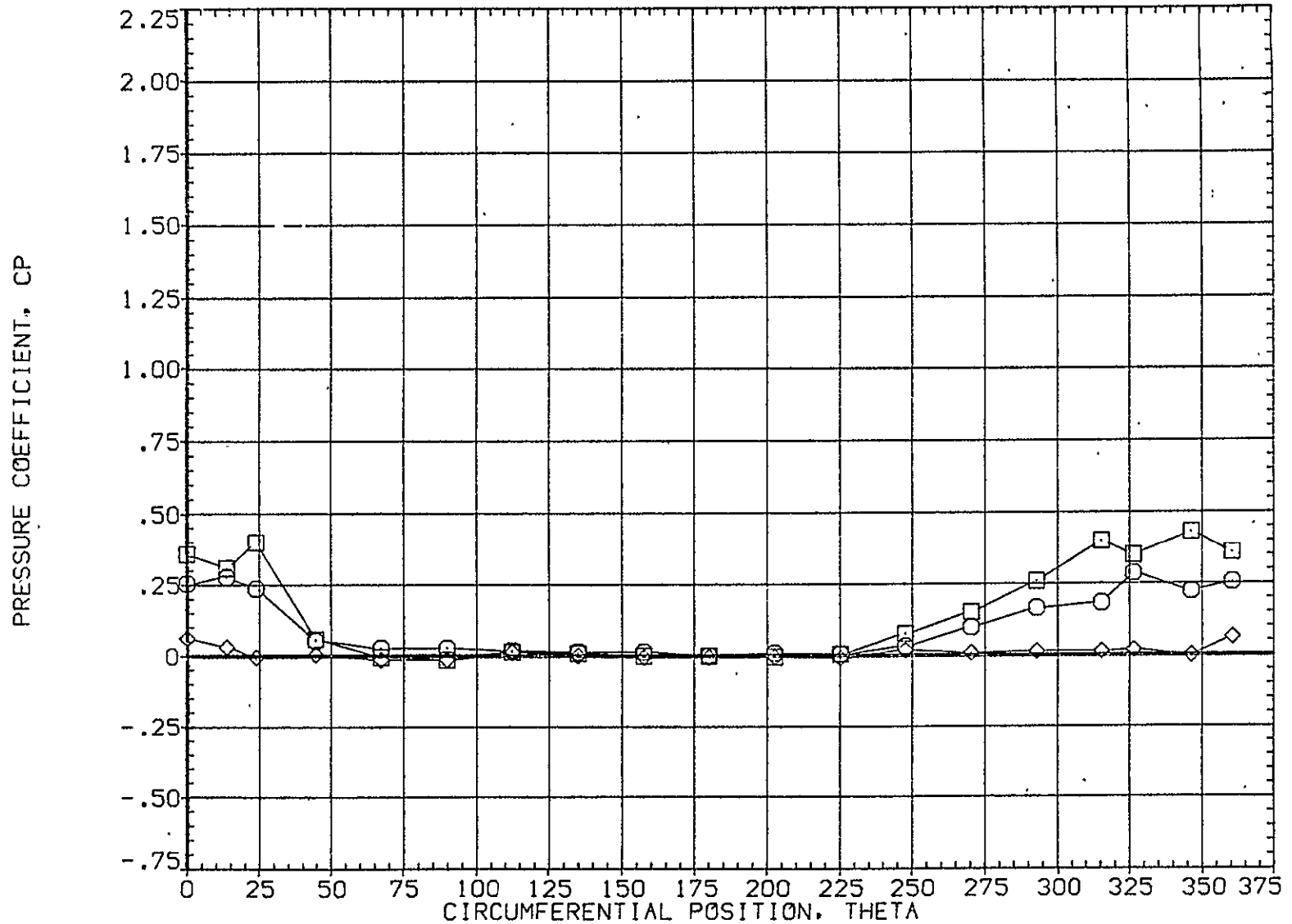


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	24.510	4.960	.000	20.000	
□	.108			1.000	135.000	
◇	.162					

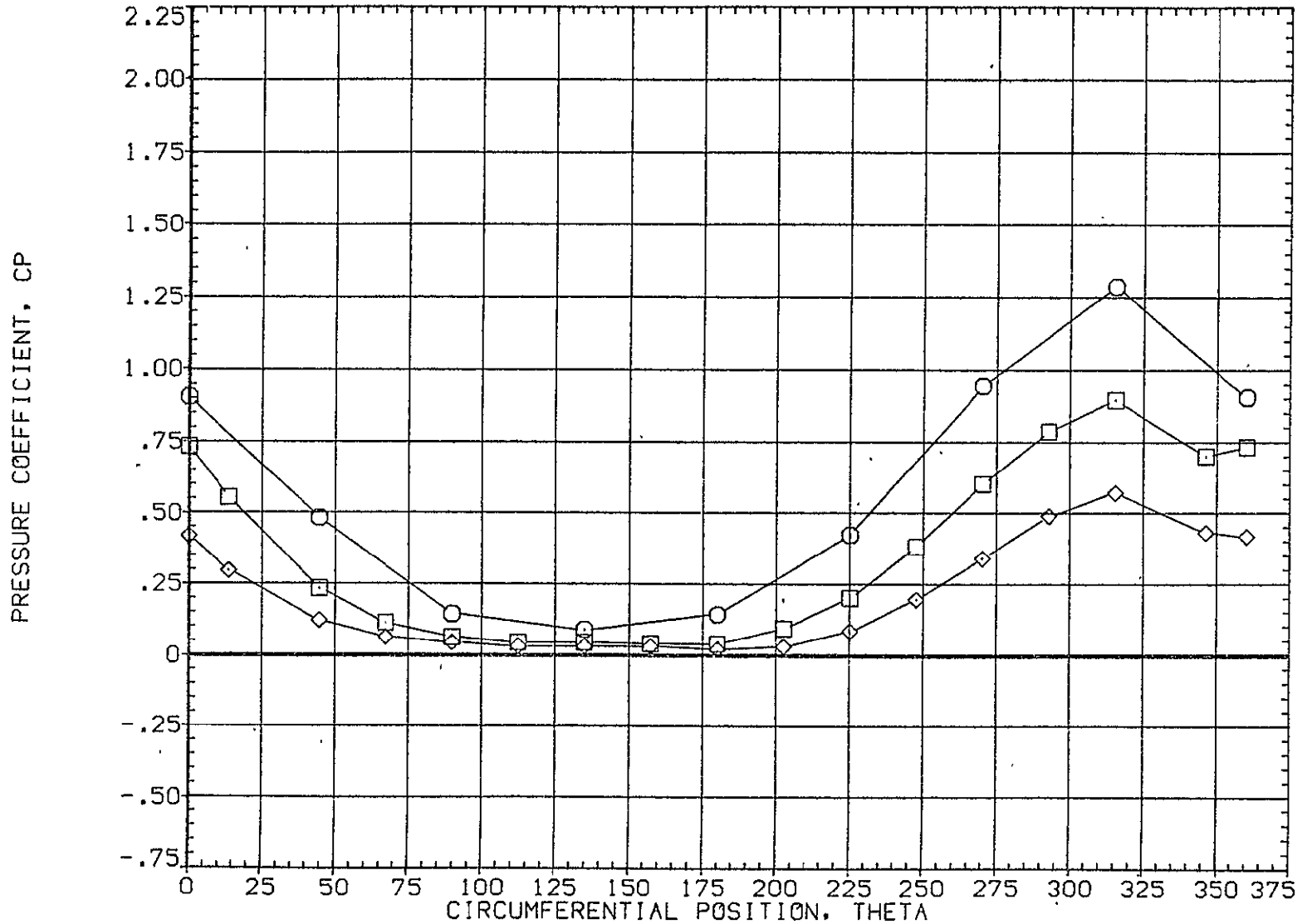


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	24.510	4.960	MOUNT	1.000	PHI	135.000
□	.322						
◇	.518						

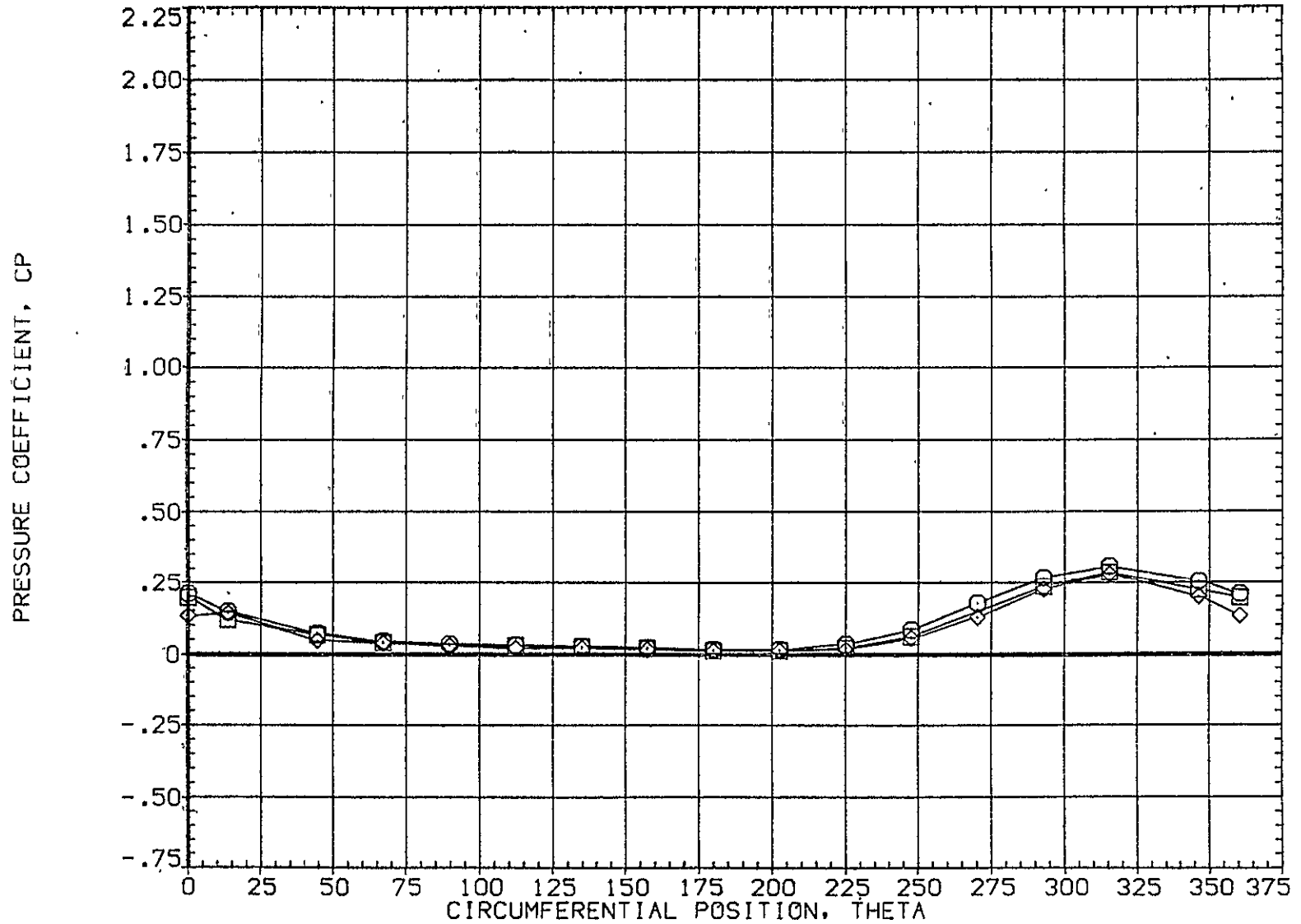


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20,000
○	.610	24.510	4.960	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

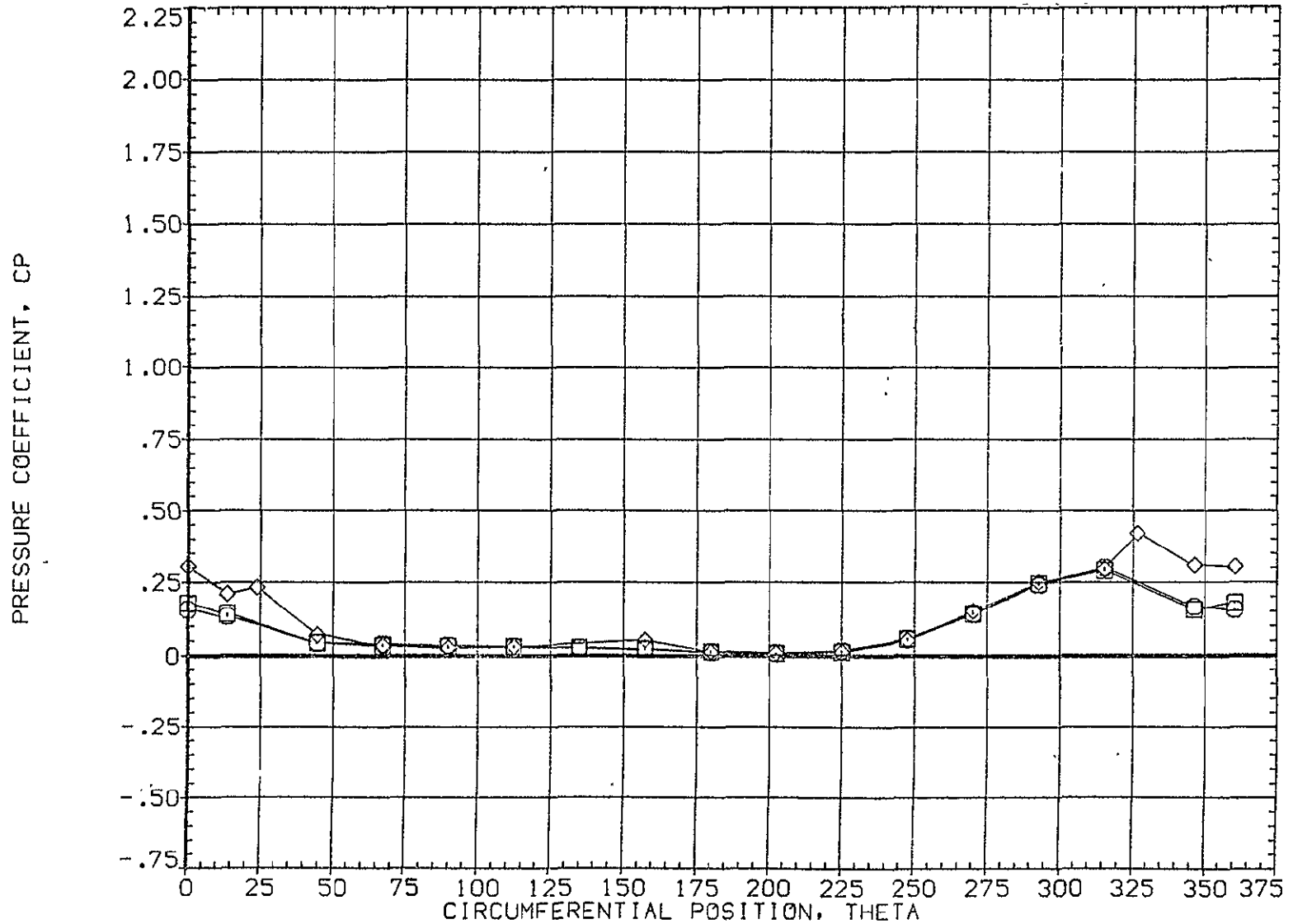


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 24.510 4.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 135.000

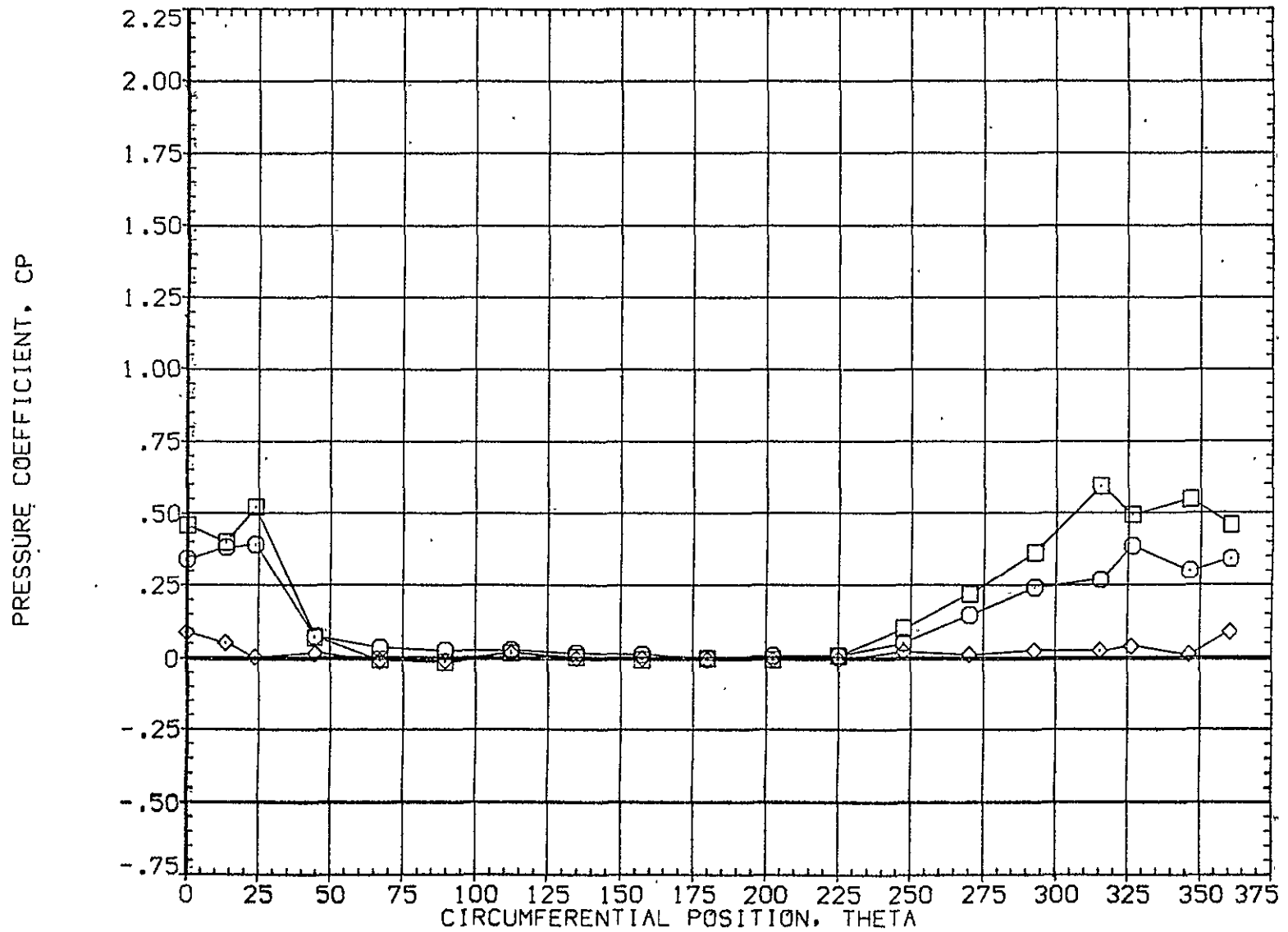


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	20.000
○	.055	28.510	4.960	MOUNT	1.000	135.000	
□	.108						
◇	.162						

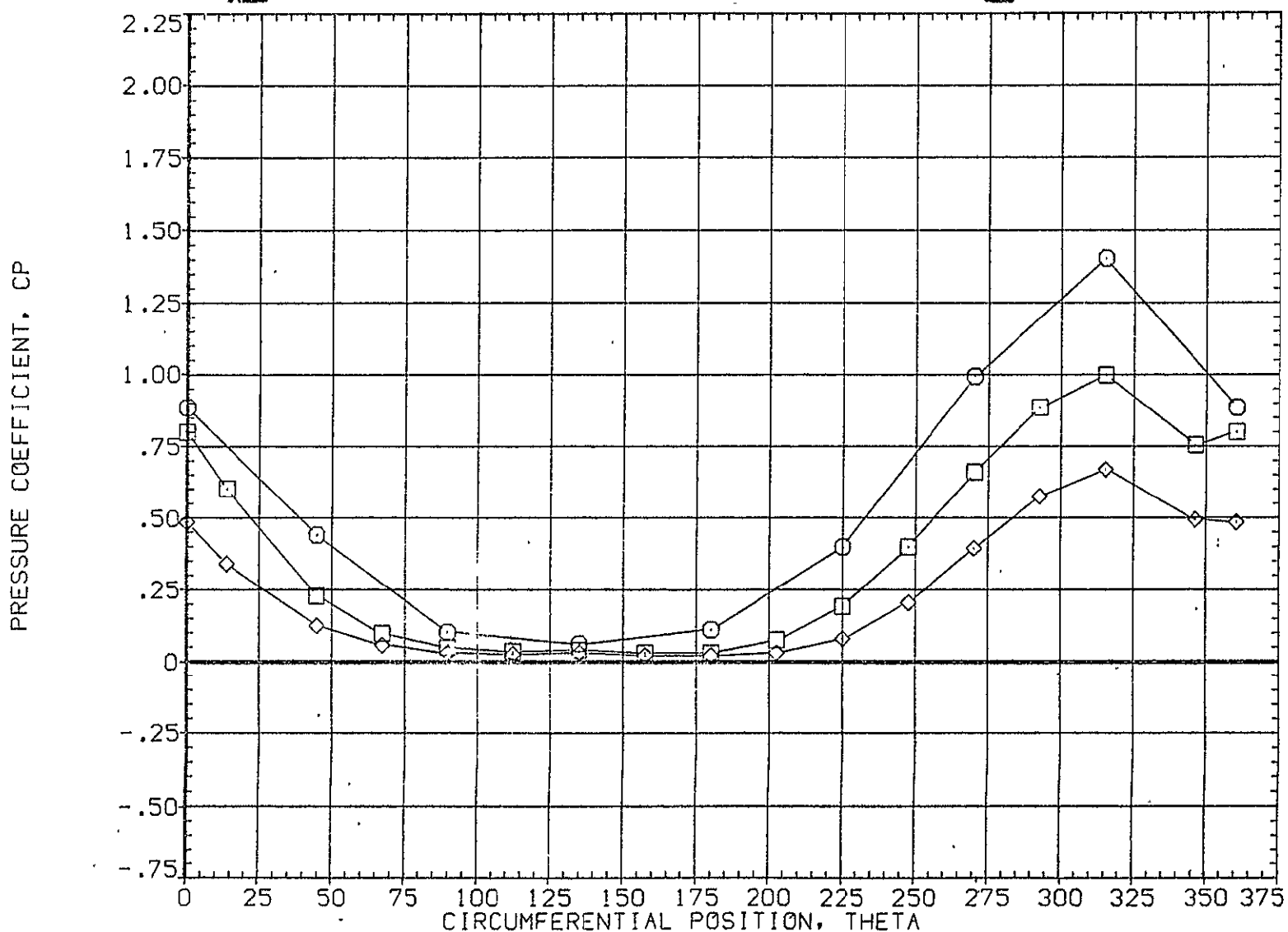


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .216
 .322
 .518
 ALPHA 28.510
 MACH 4.960

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 135.000

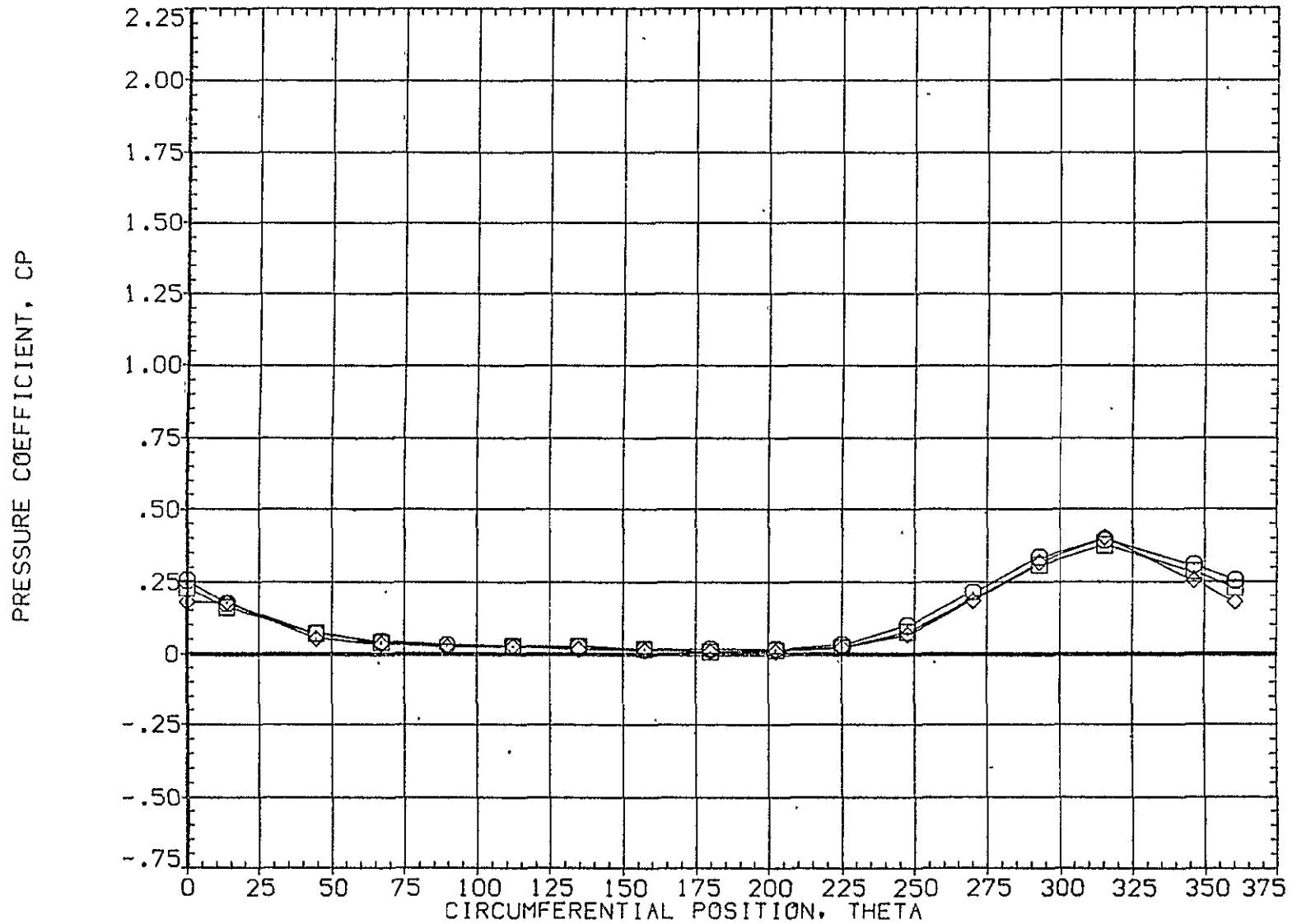


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.510	4.960	MOUNT	1.000	PHI	135.000
□	.735						
◇	.860						

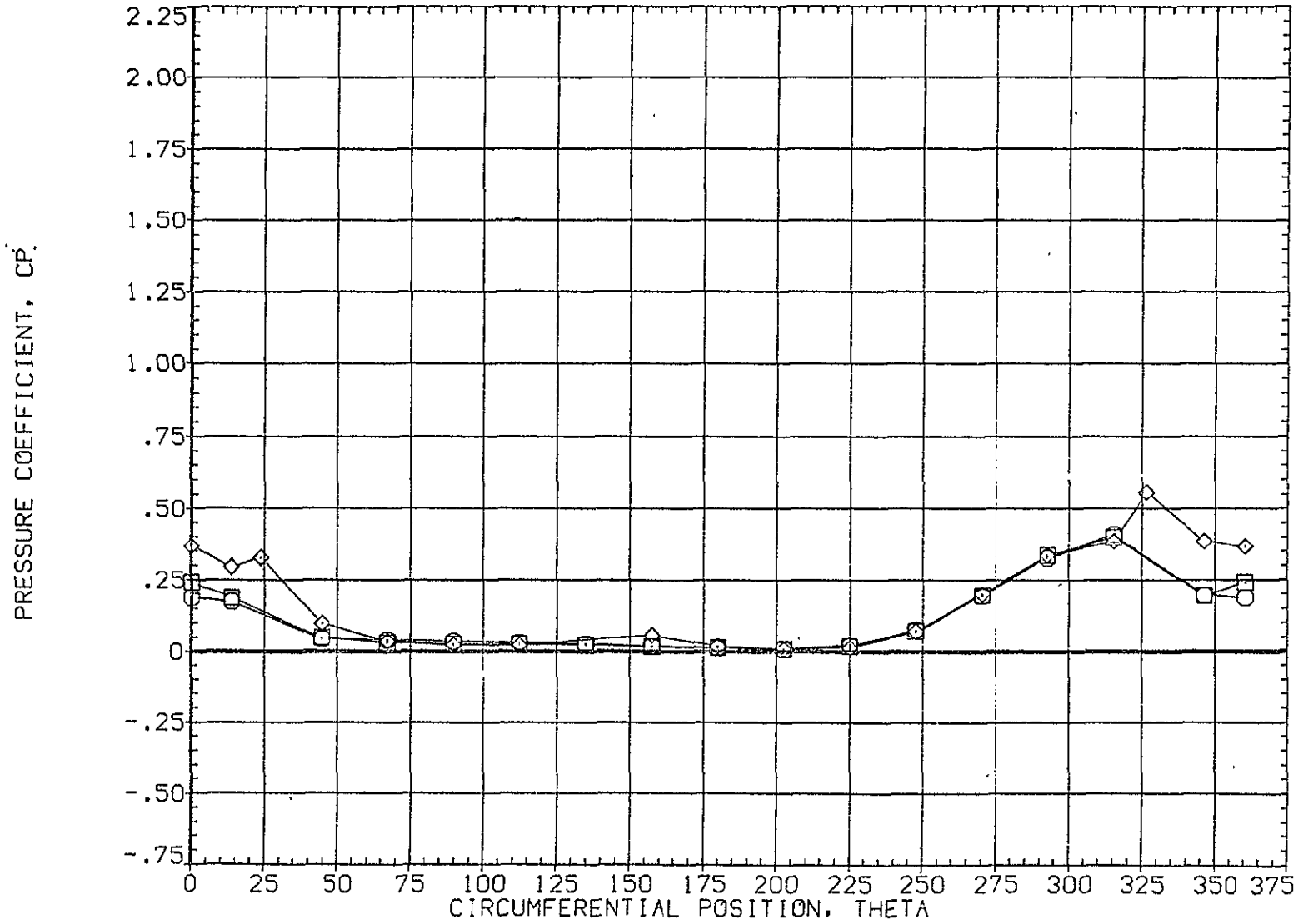


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .892
.923
.954
ALPHA 28.510
MACH 4.960

PARAMETRIC VALUES
BETA .000 OFFSET 20.000
MOUNT 1.000 PHI 135.000

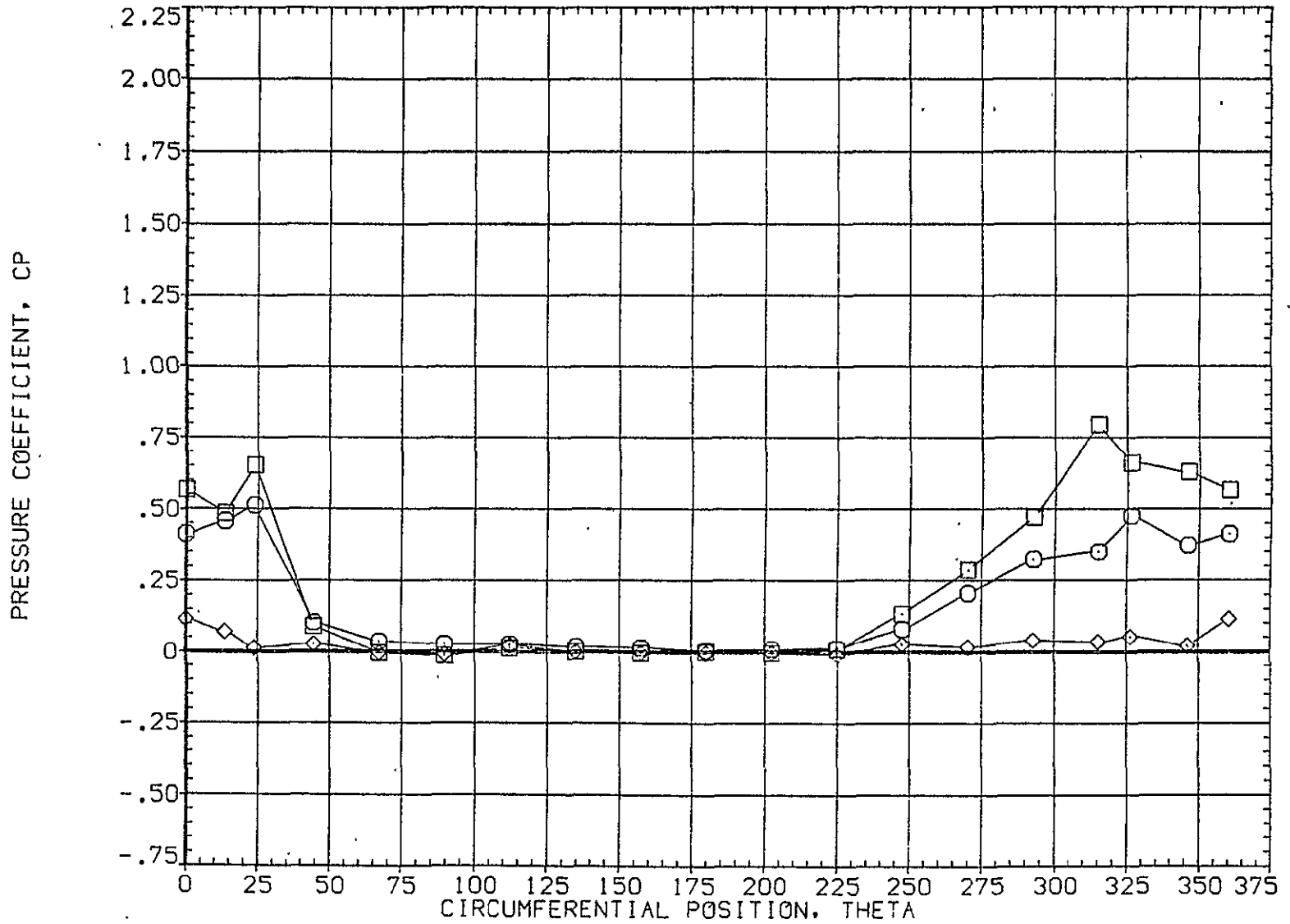


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-8.290	4.960	.000	.000	.000
□	.108			1.000	180.000	
◇	.162					

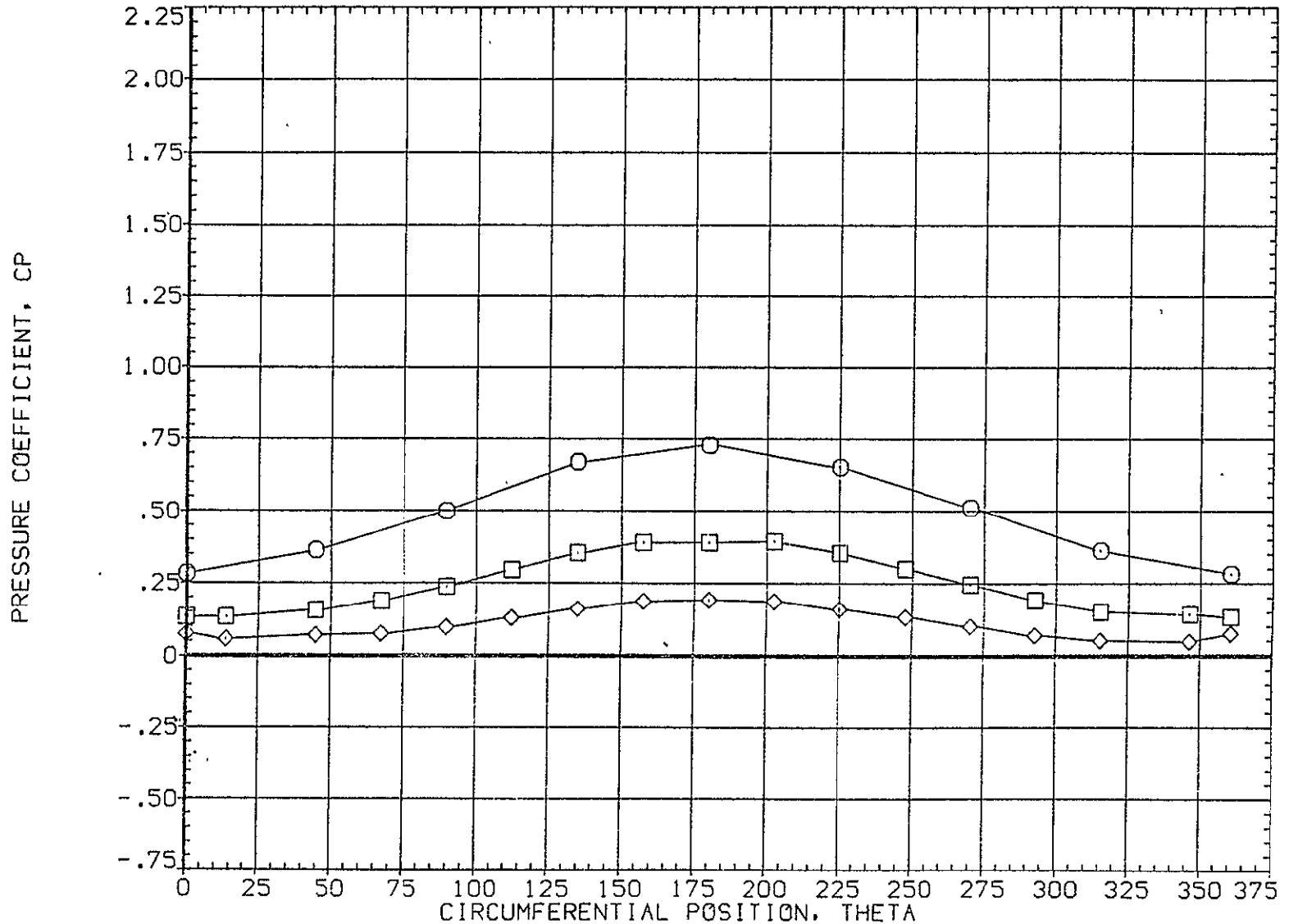


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.290	4.960	.000	.000	.000
□	.322			1.000		180.000
◇	.518					

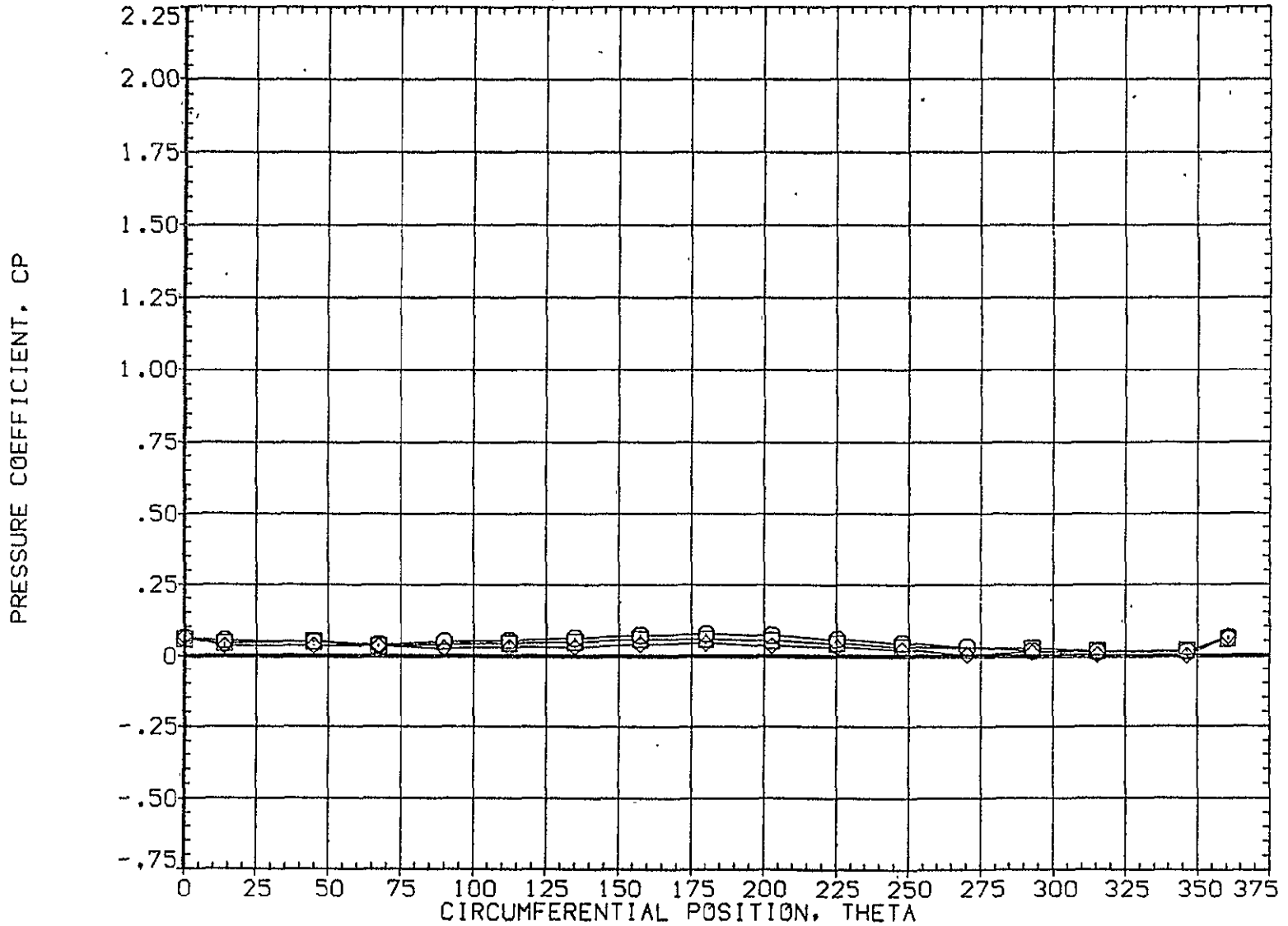


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A031)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.290	4.960	.000	.000	.000
□	.735			1.000		180.000
◇	.860					

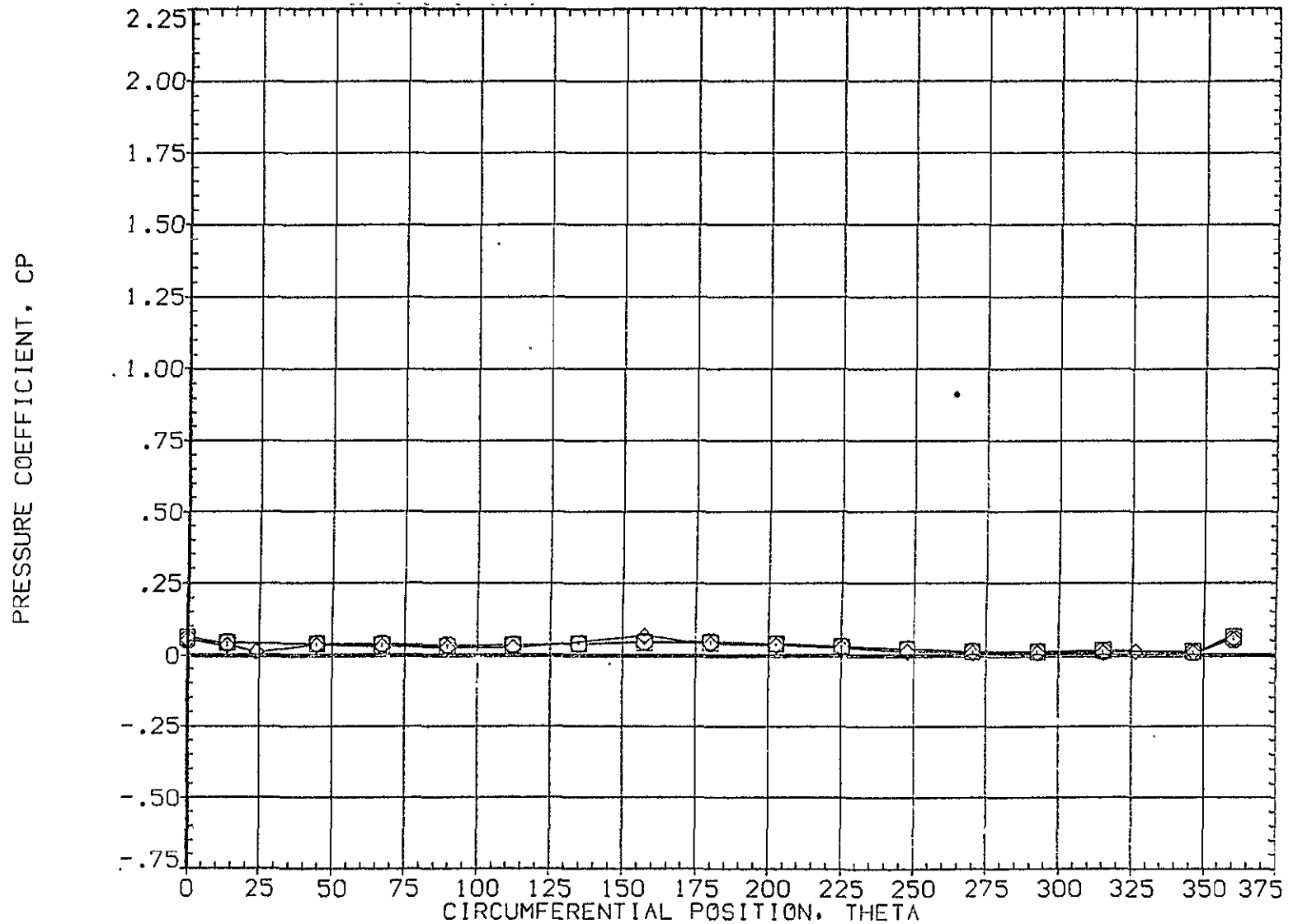


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA -8.290
 MACH 4.960

PARAMETRIC VALUES
 BETA .000
 HOUNT 1.000
 OFFSET .000
 PHI 180.000

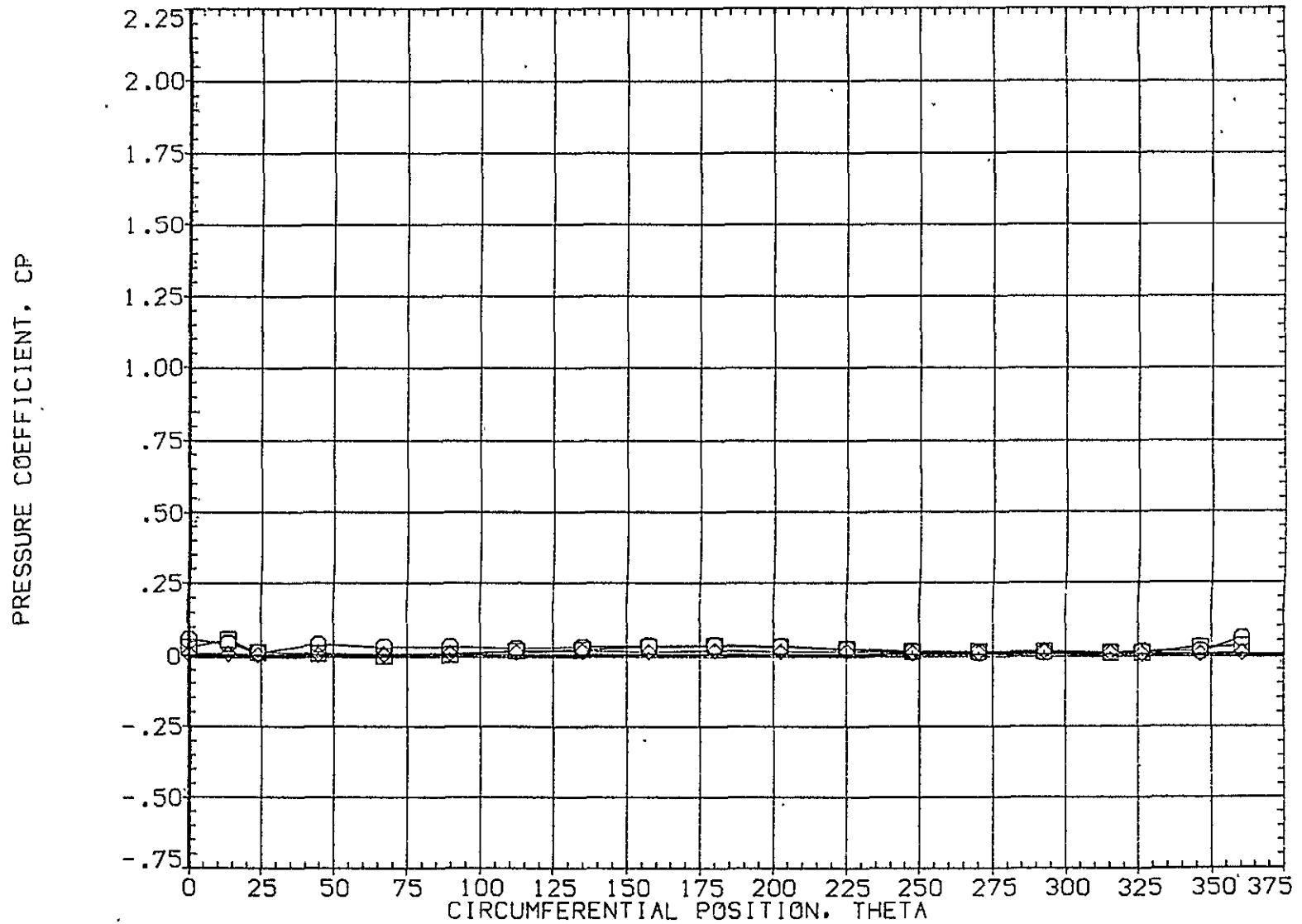


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	.000
○	.055	-4.290	4.960	MOUNT	1.000	PHI 180.000
□	.108					
◇	.162					

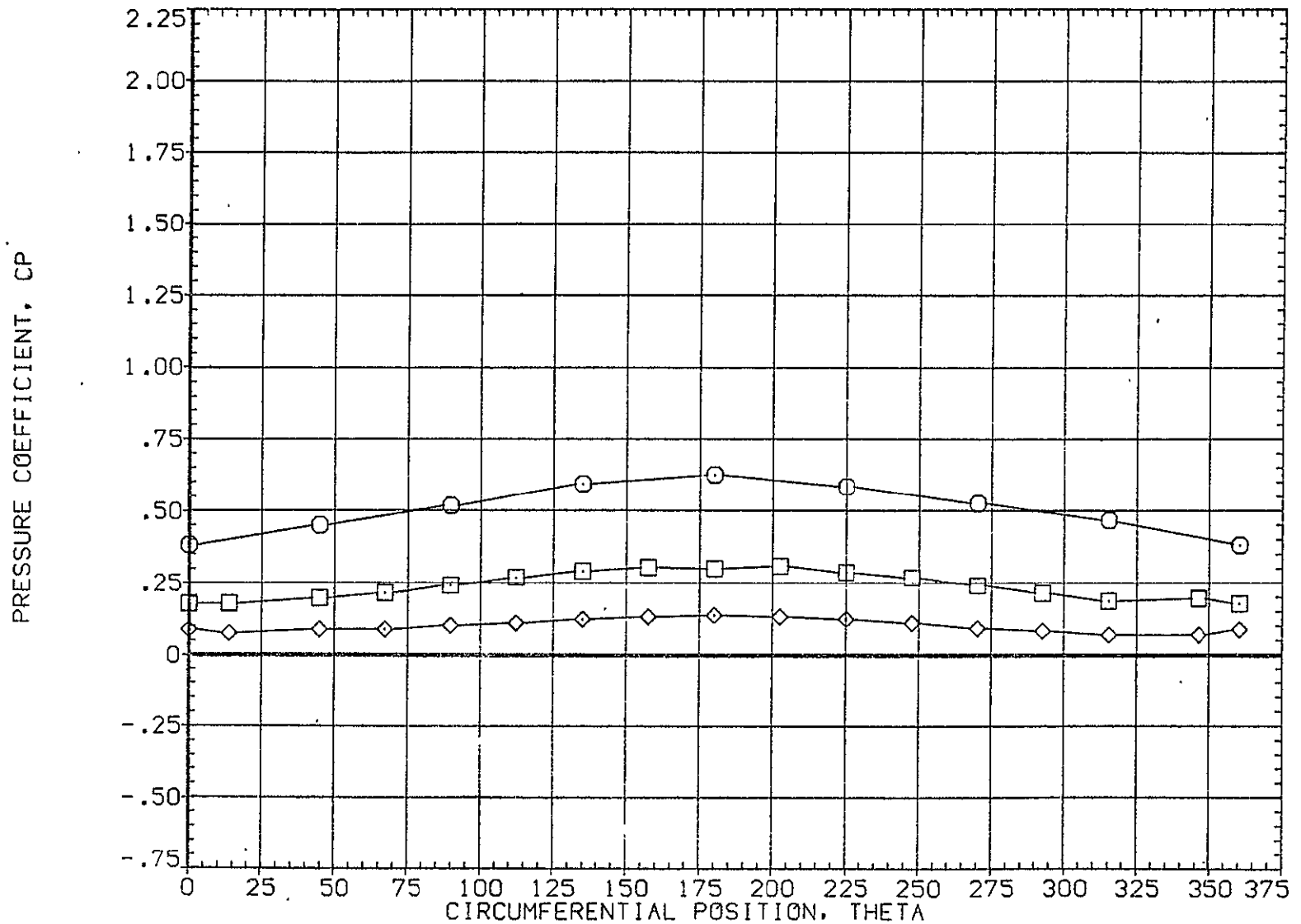


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
◇	.216	-4.290	4.960	BETA	.000	OFFSET .000
□	.322			MOUNT	1.000	PHI 180.000
◇	.518					

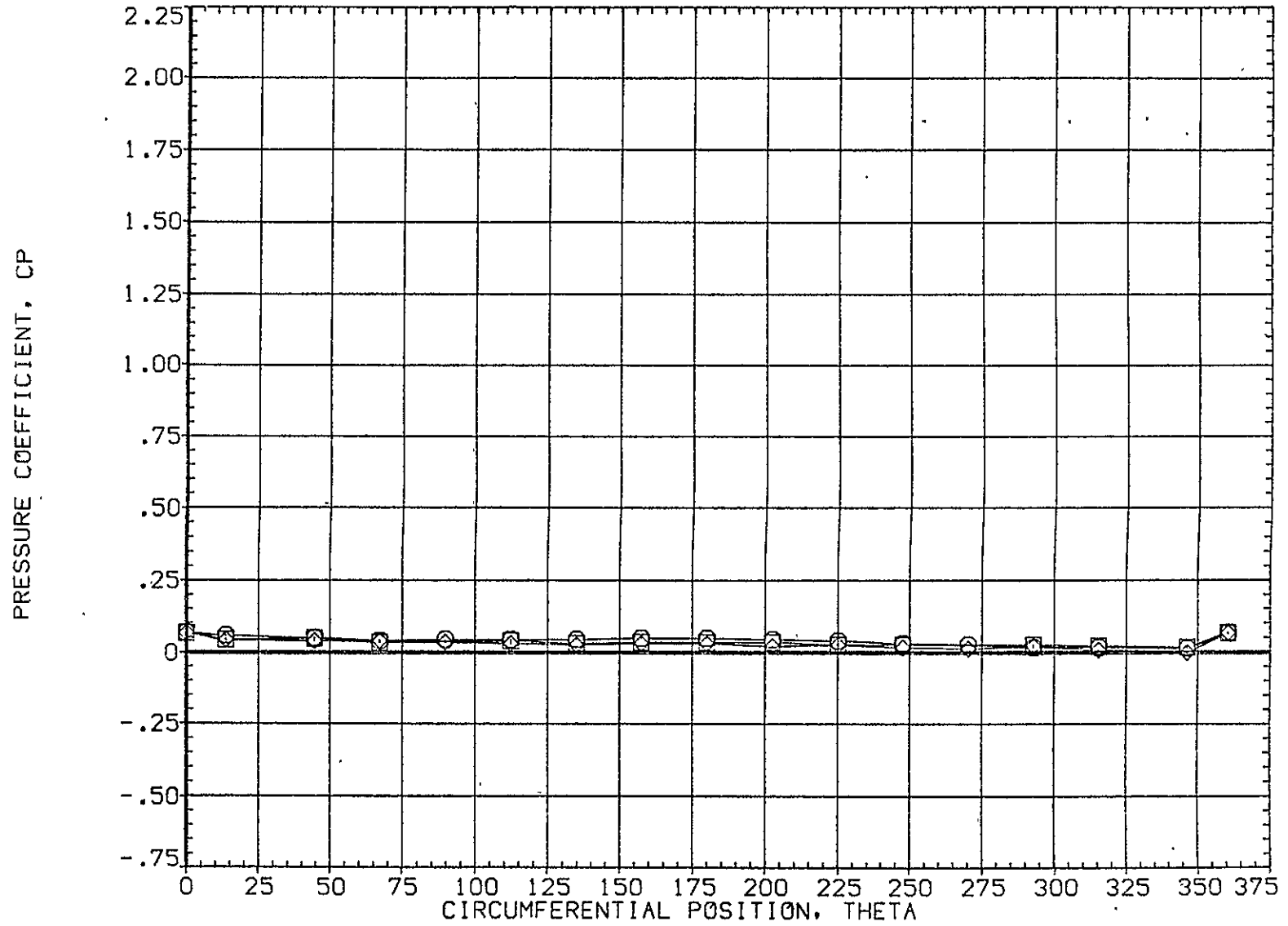


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A032)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-4.290	4.960	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

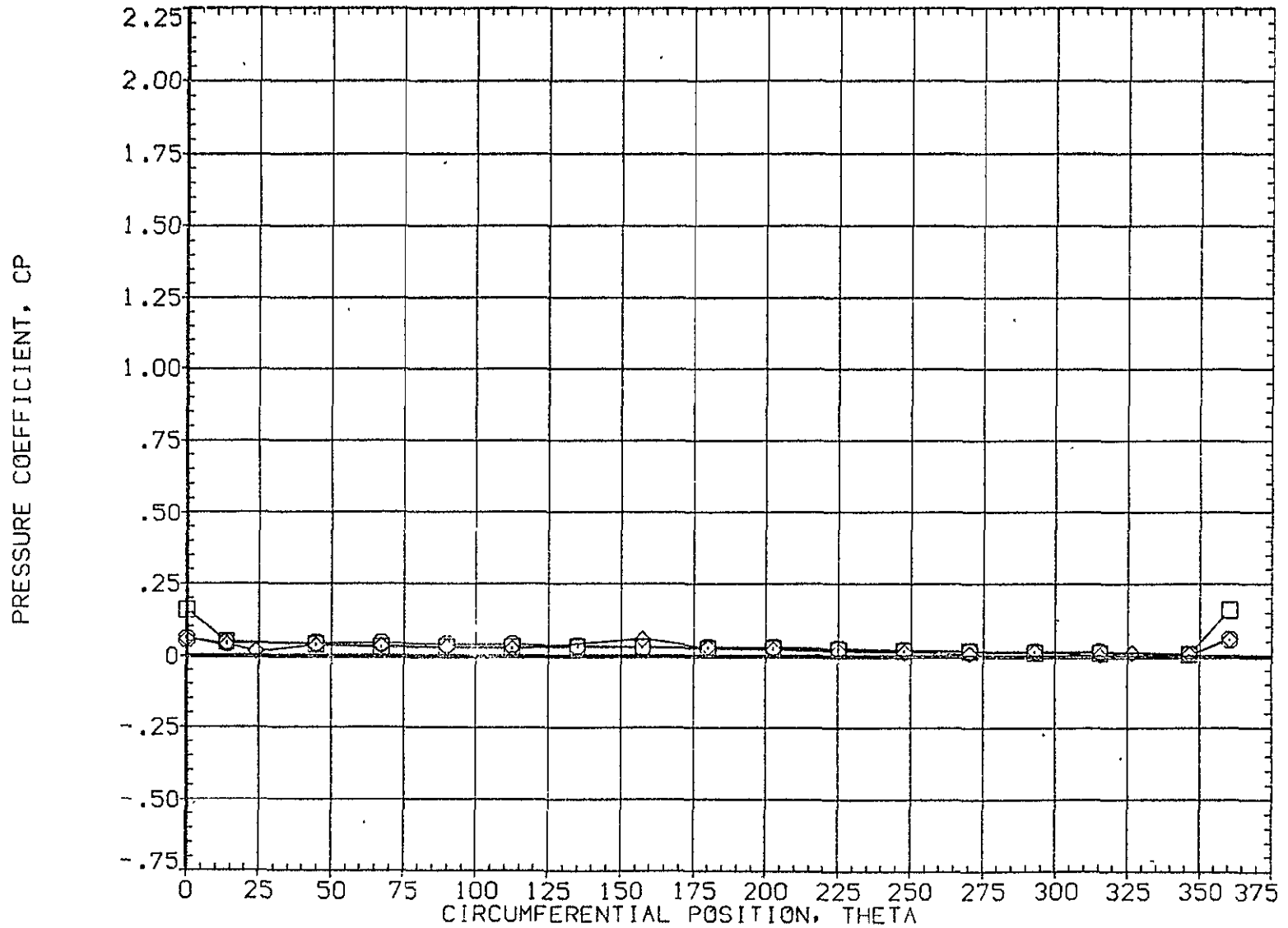


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-4.290	4.960	.000	.000	.000
□	.923			1.000		180.000
◇	.954					

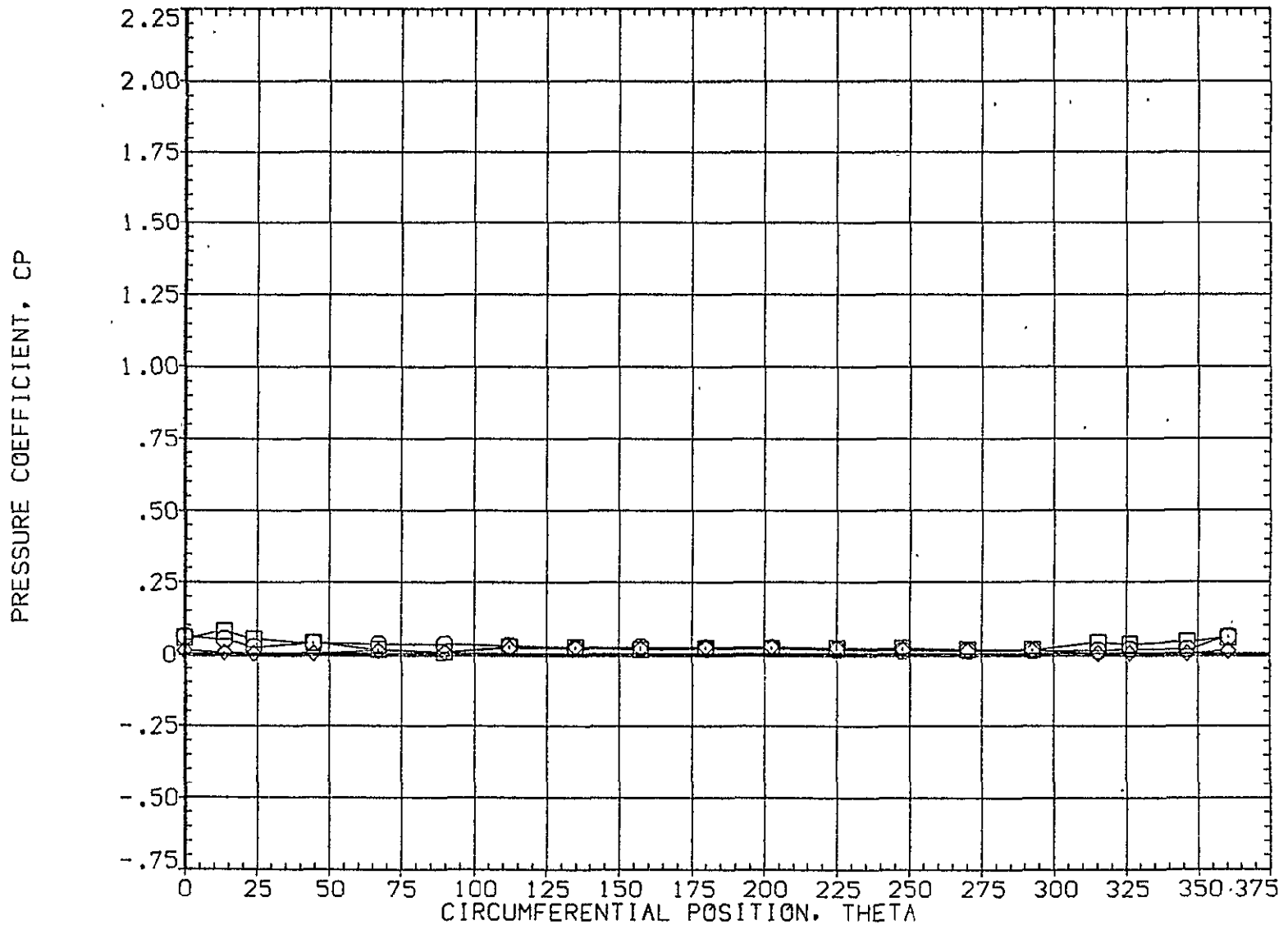


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A033)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	4.960	.000	.000	.000
□	.108			1.000		180.000
◇	.162					

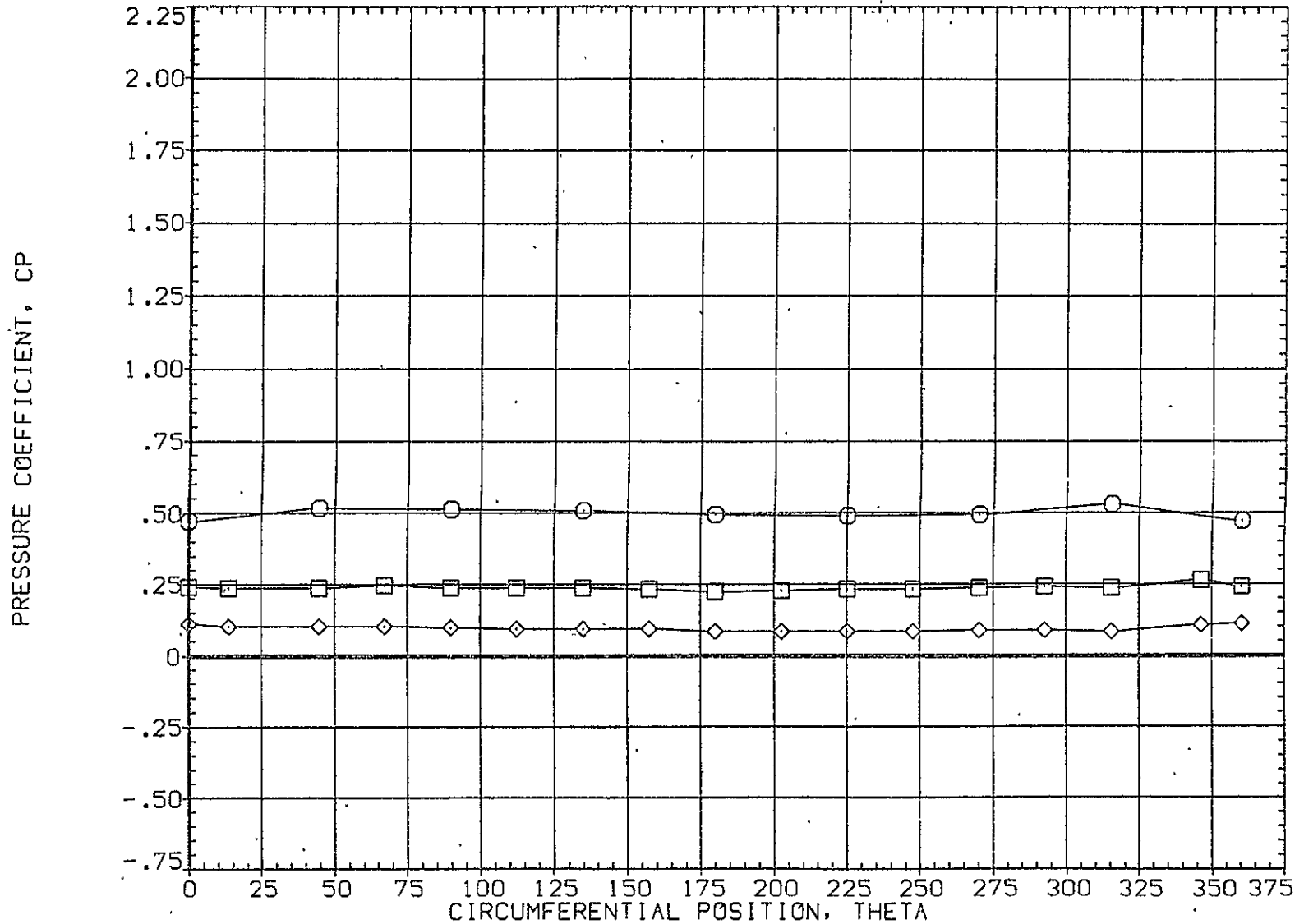


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-.280	4.960	.000	.000	.000
□	.322			1.000		180.000
◇	.518					

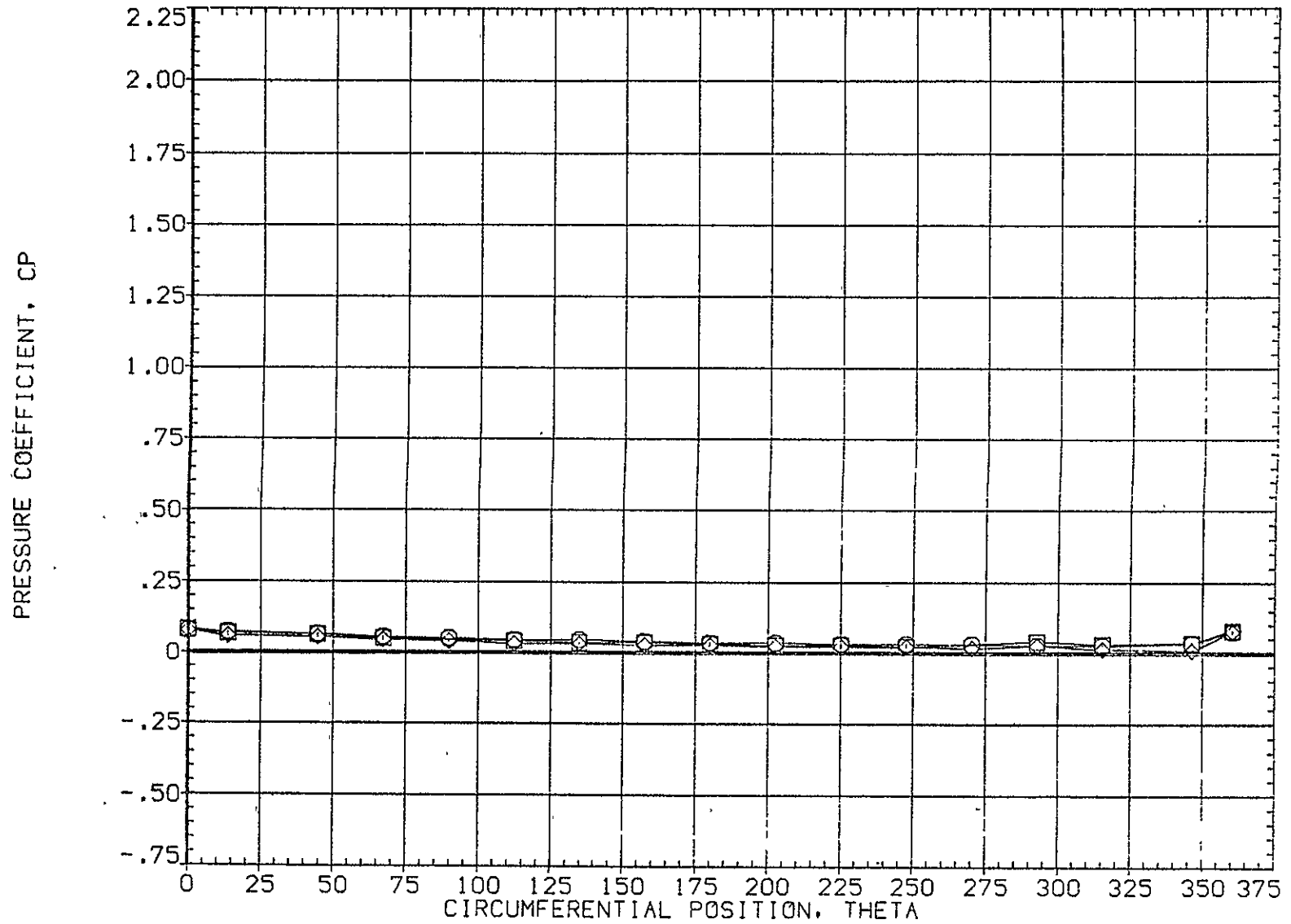


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A033)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-.280	4.960	.000	.000	.000
□	.735			1.000		180.000
◇	.860					

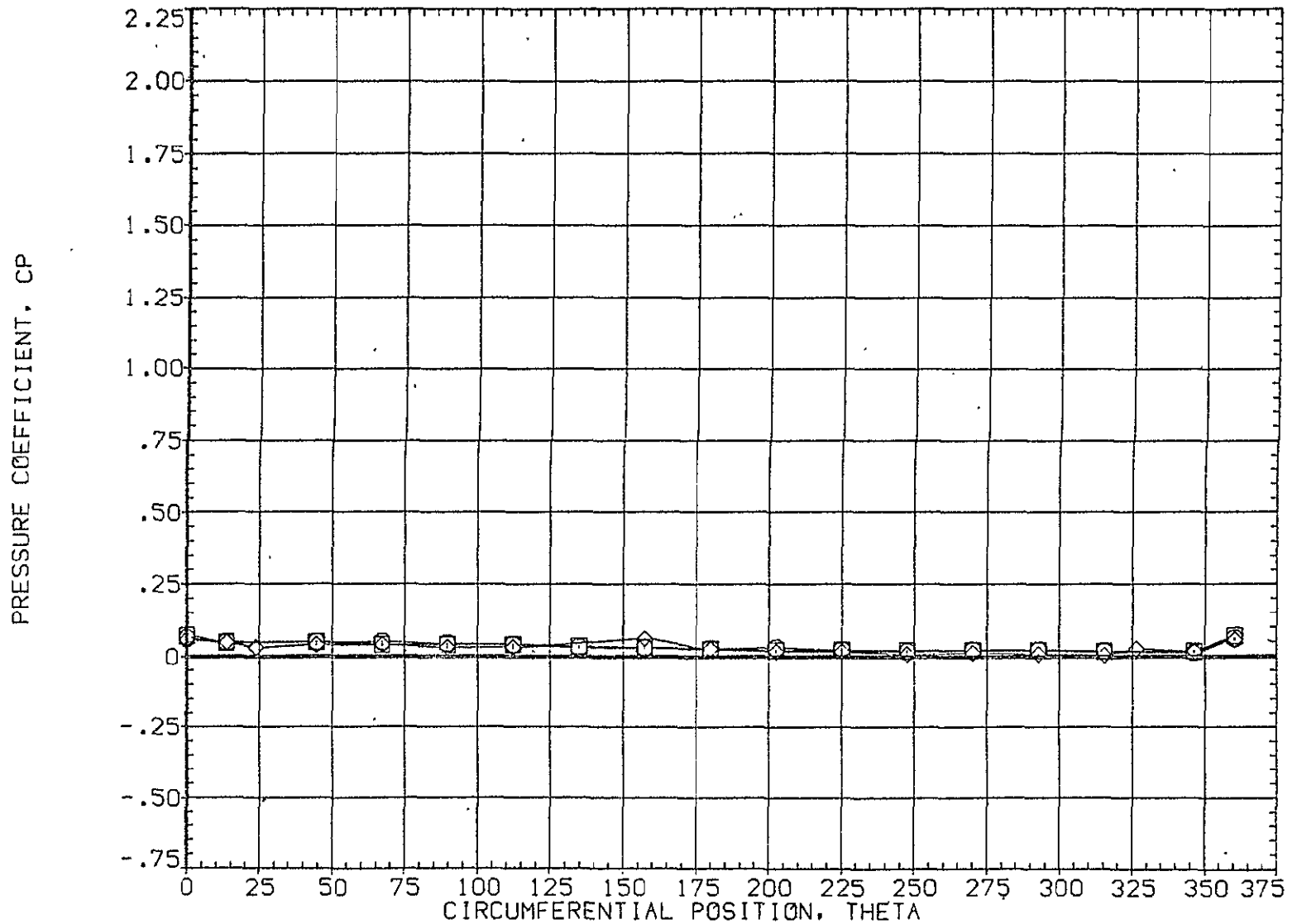


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	4.960	.000	.000	.000
□	.923			1.000	PHI	180.000
◇	.954					

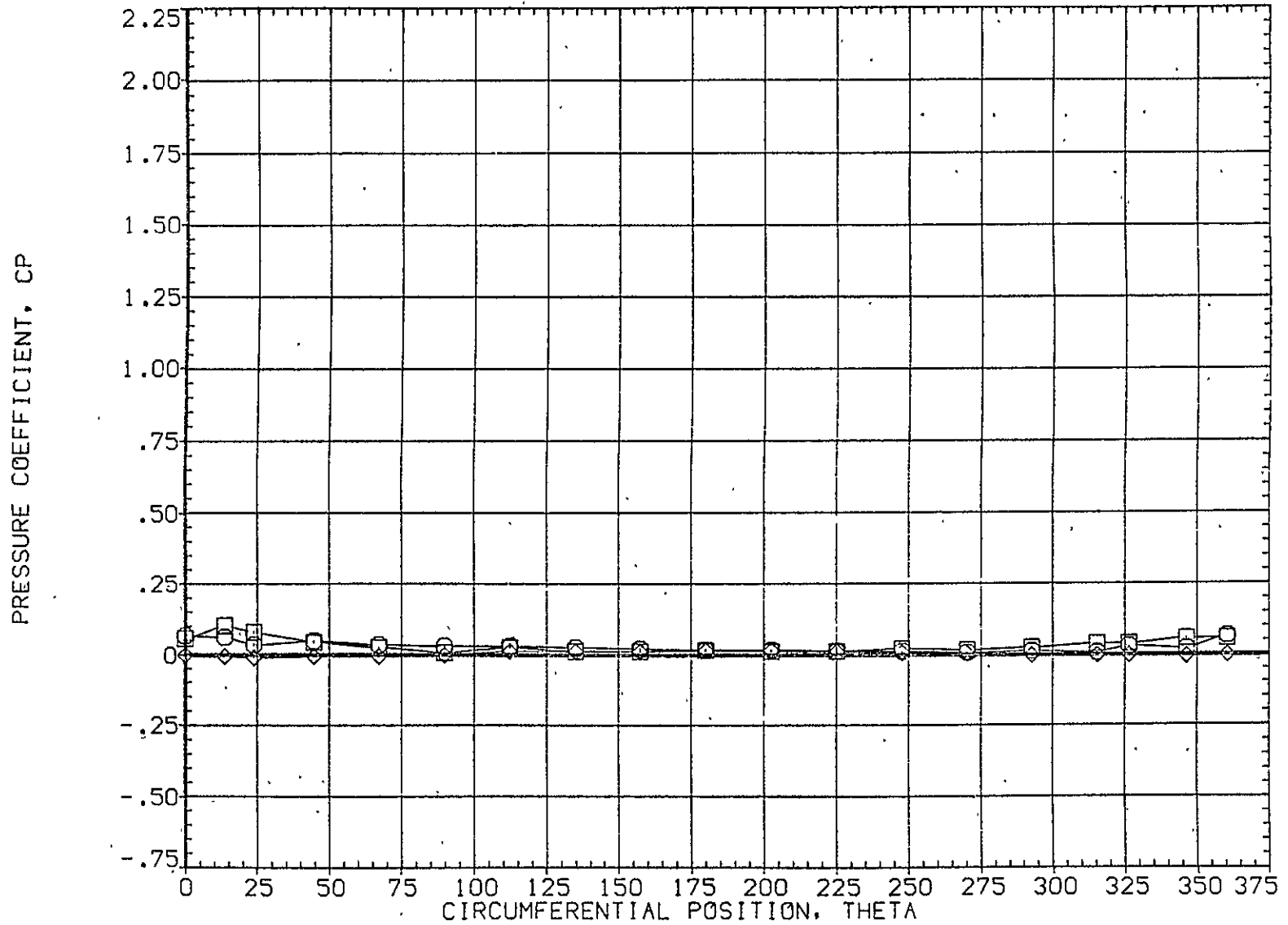


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A034)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	3.730	4.960	.000	.000	.000
□	.108			1.000		180.000
◇	.162					

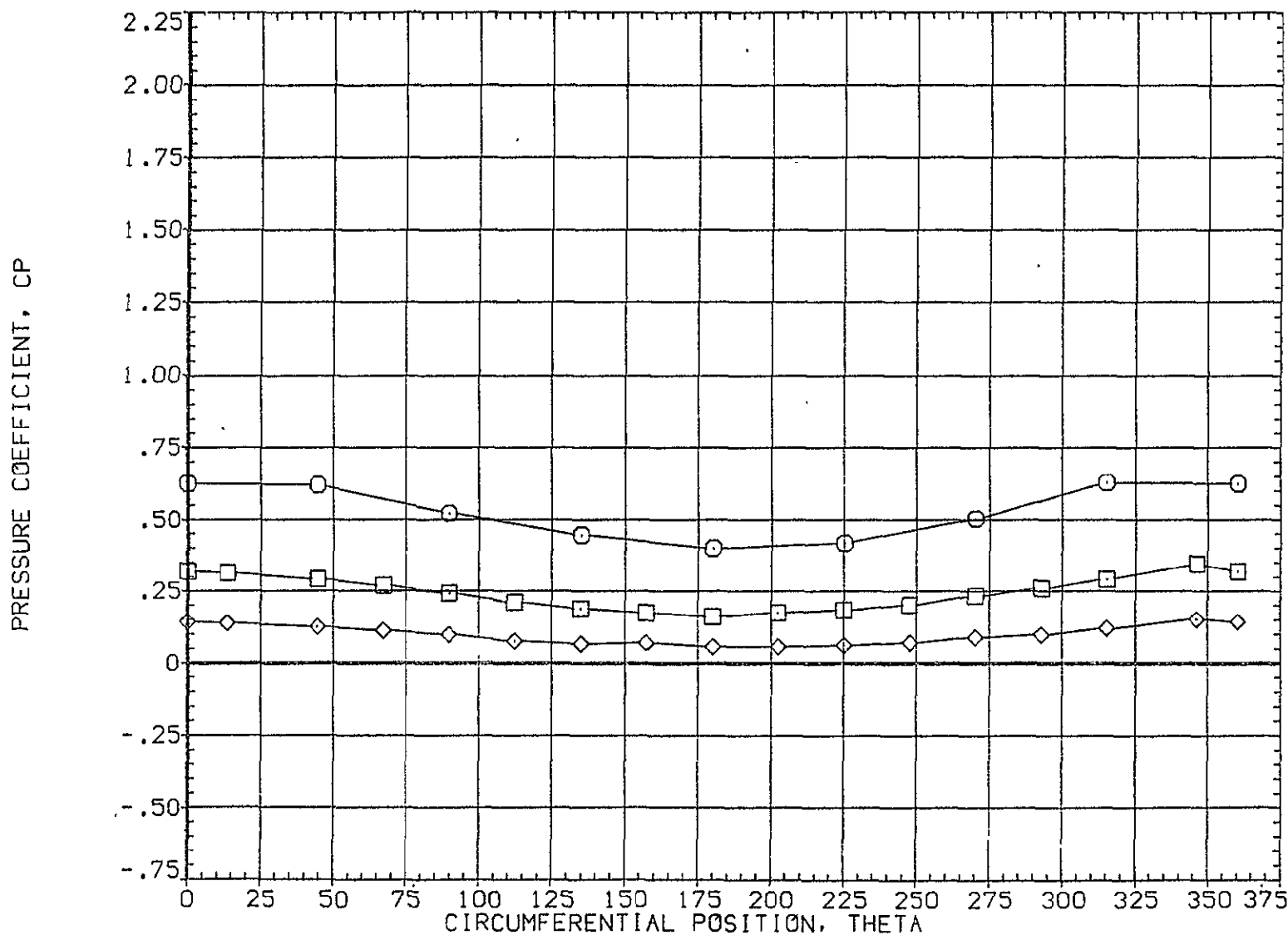


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.730	4.960	.000	.000	.000
□	.322			1.000		180.000
◇	.518					

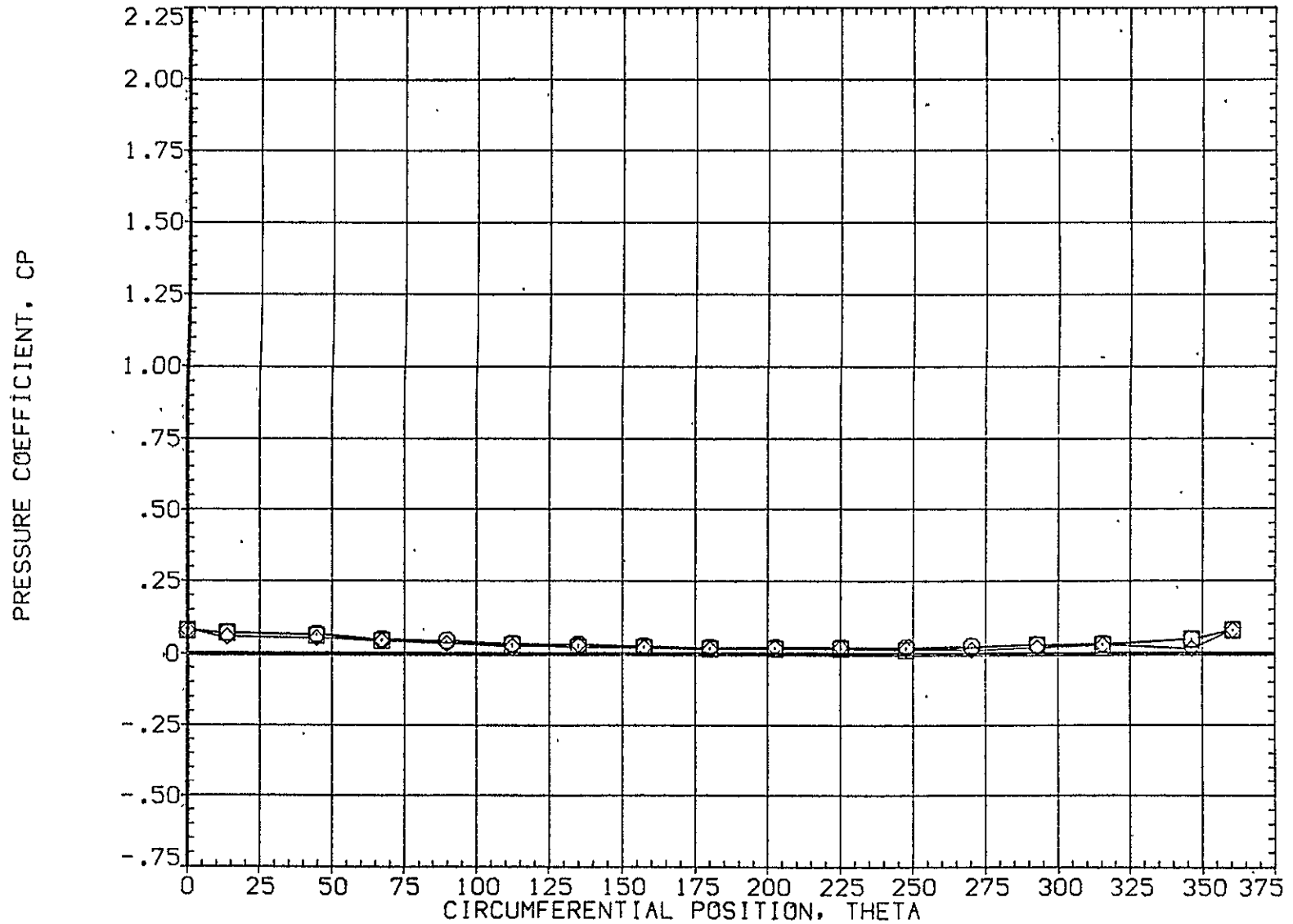


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A034)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	3.730	4.960	.000	.000	.000
□	.735			1.000	180.000	
◇	.860					

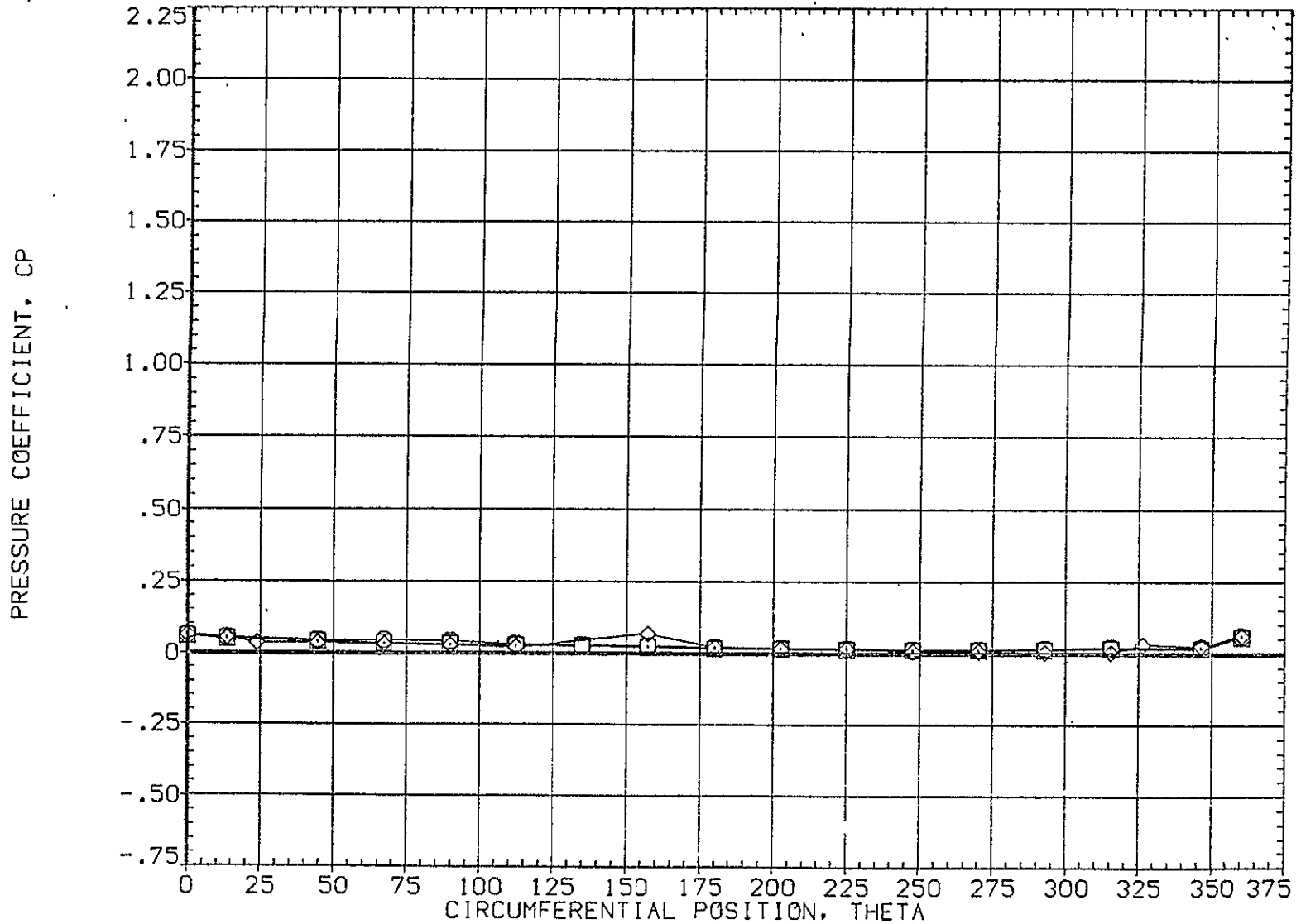


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 3.730 4.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 180.000

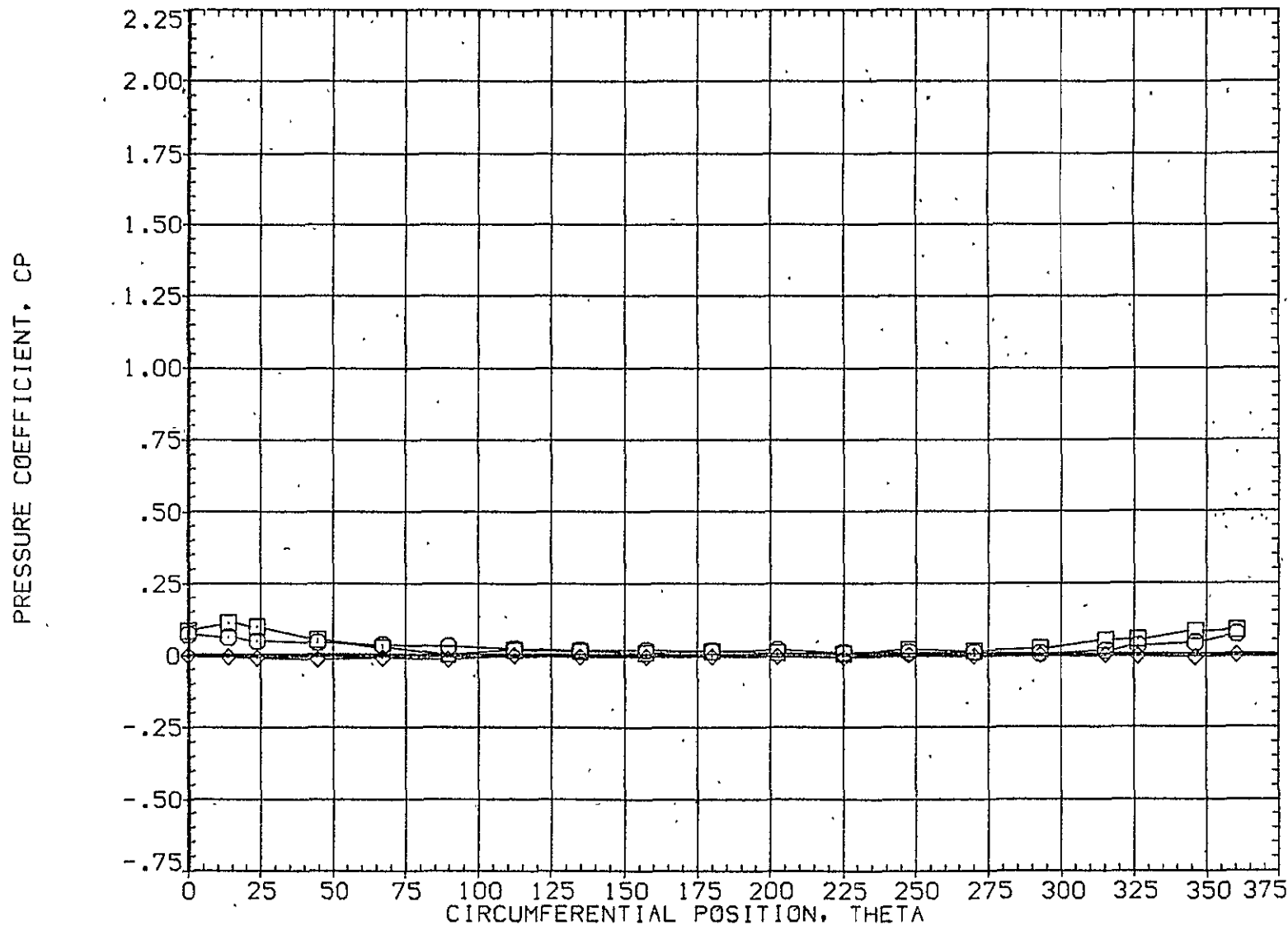


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET		
○	.055	7.750	4.960	MOUNT	.000	.000	
□	.108				1.000	PHI	180.000
◇	.162						

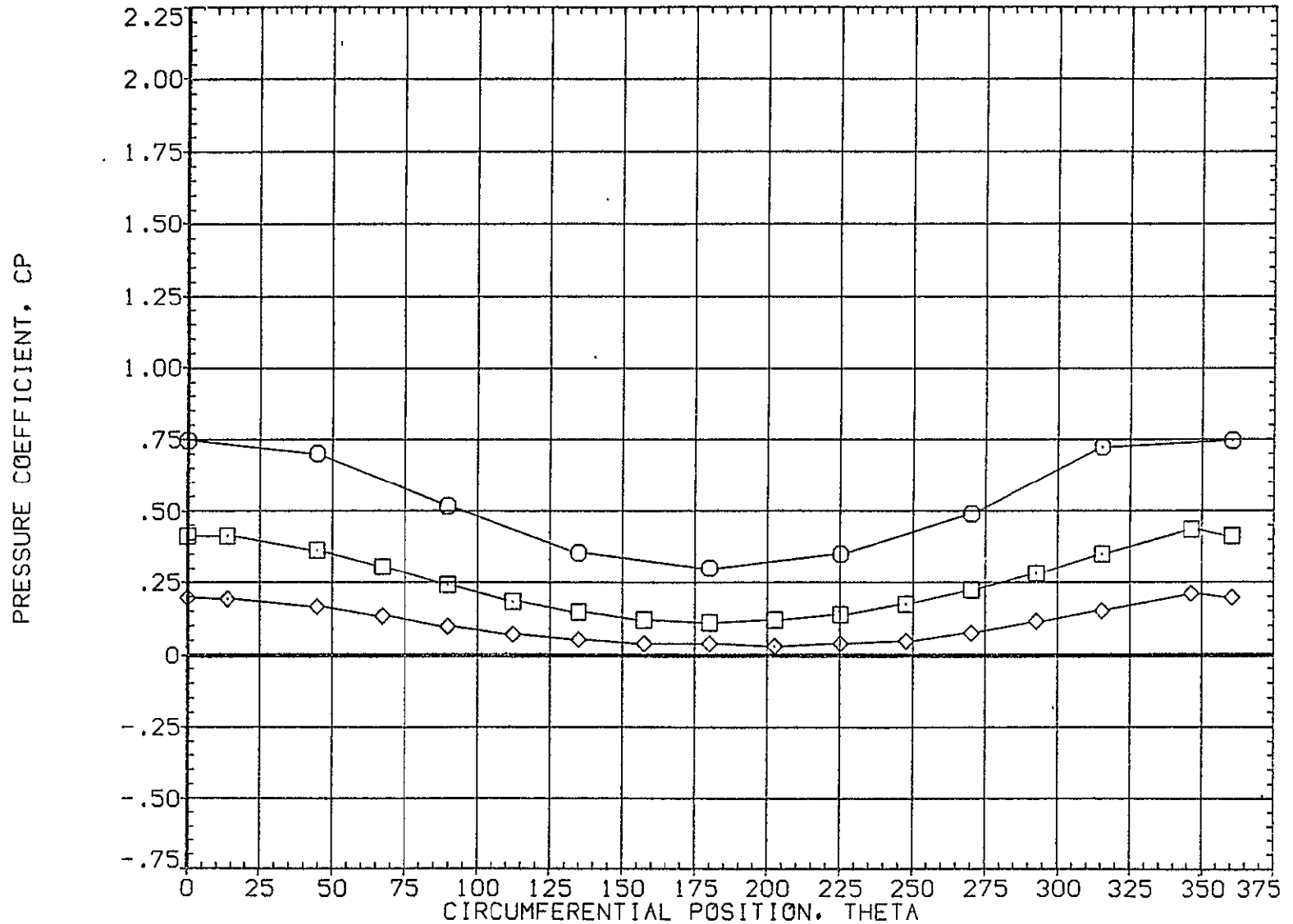


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	.000
○	.216	7.750	4.960	MOUNT	1.000	PHI . 180.000
□	.322					
◇	.518					

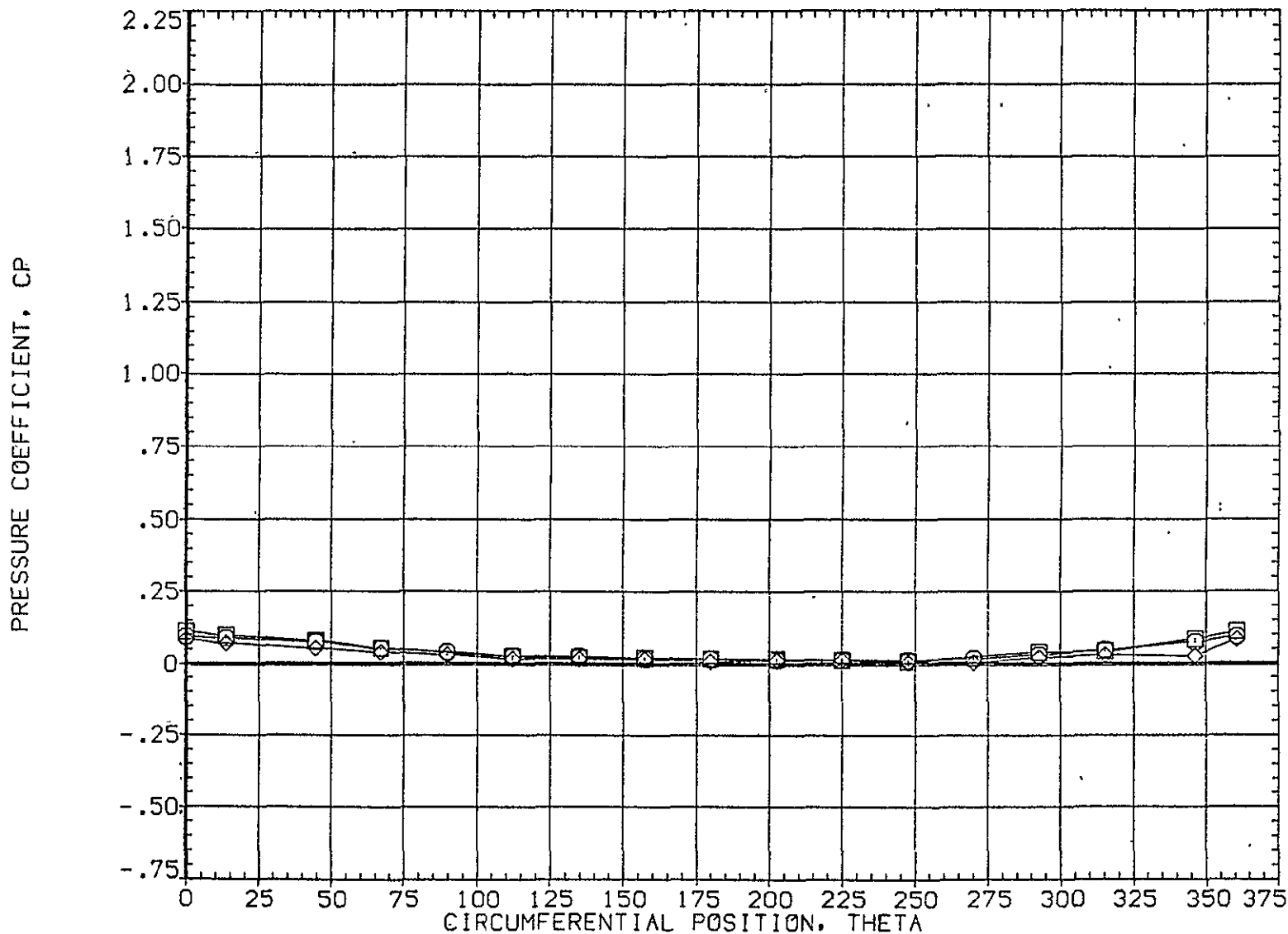


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK.

(P1A035)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA MOUNT	OFFSET PHI	.000 .000 .000
○	.610	7.750	4.960			
□	.735			1.000		180.000
◇	.860					

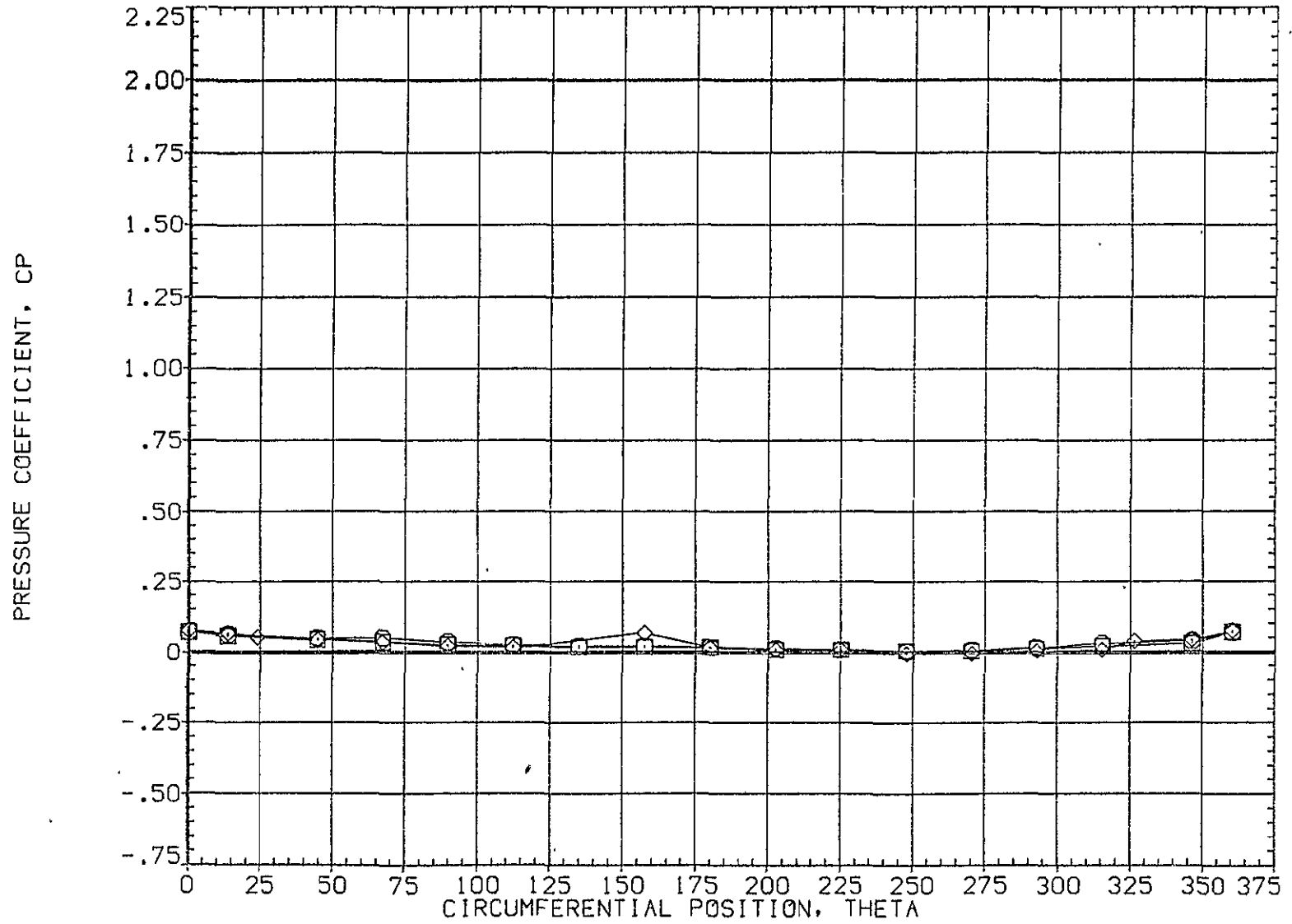


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	7.750	4.960	MOUNT	1.000	PHI	180.000
□	.923						
◇	.954						

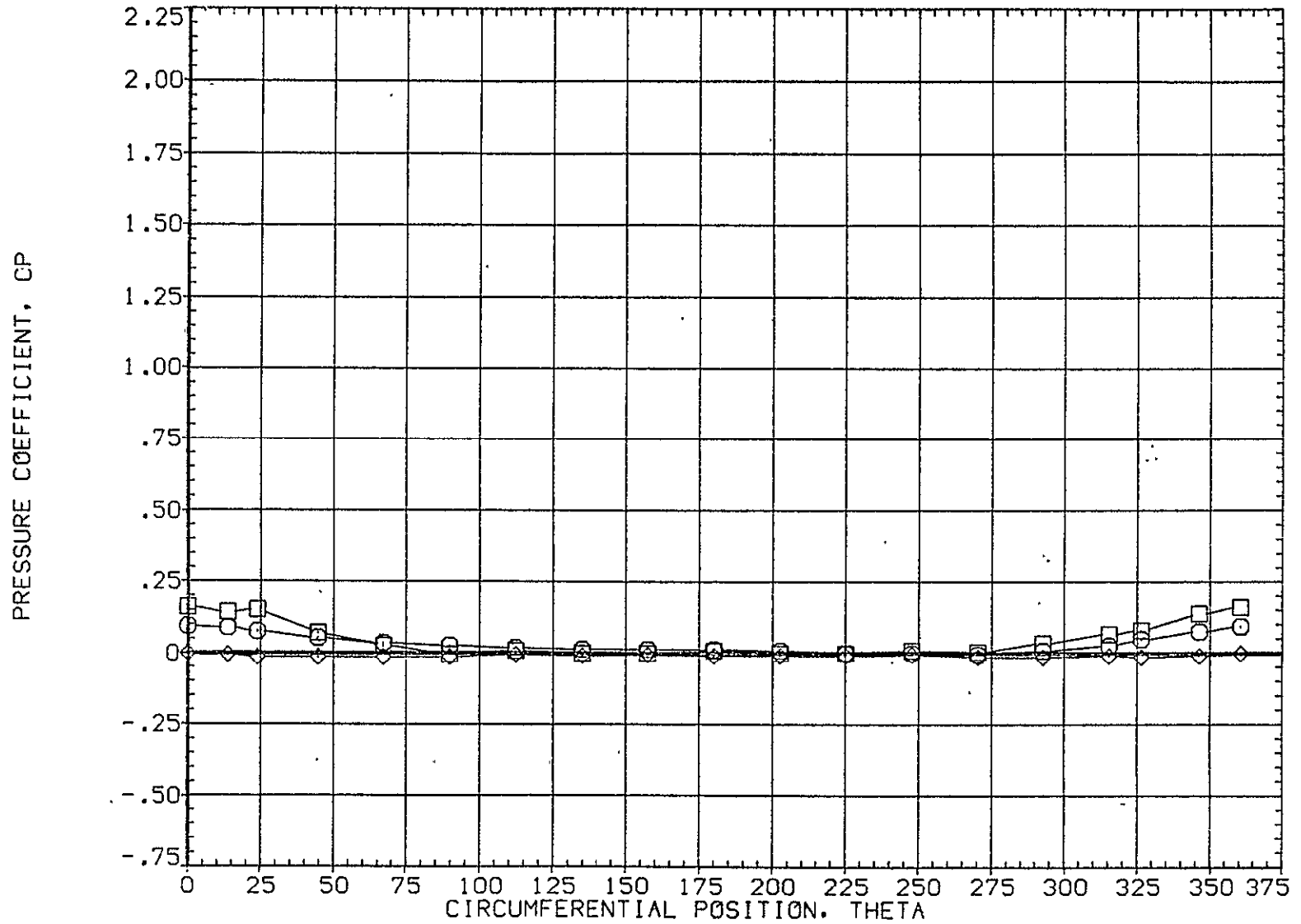


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A036)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	12.450	4.960	MOUNT	1.000	PHI	180.000
□	.108						
◇	.162						

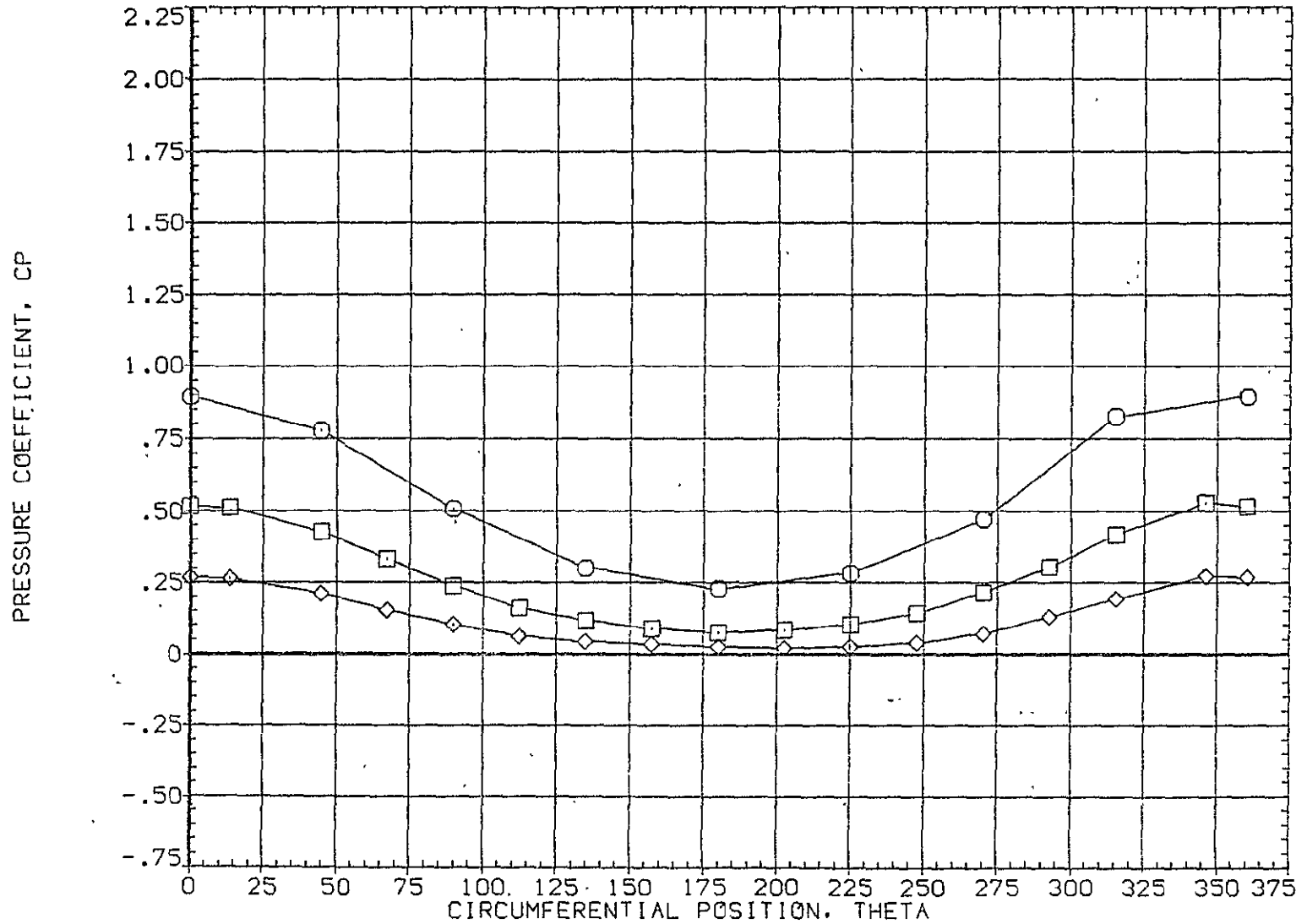


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	12.450	4.960	.000	20.000	
□	.322			1.000	PHI	180.000
◇	.518					

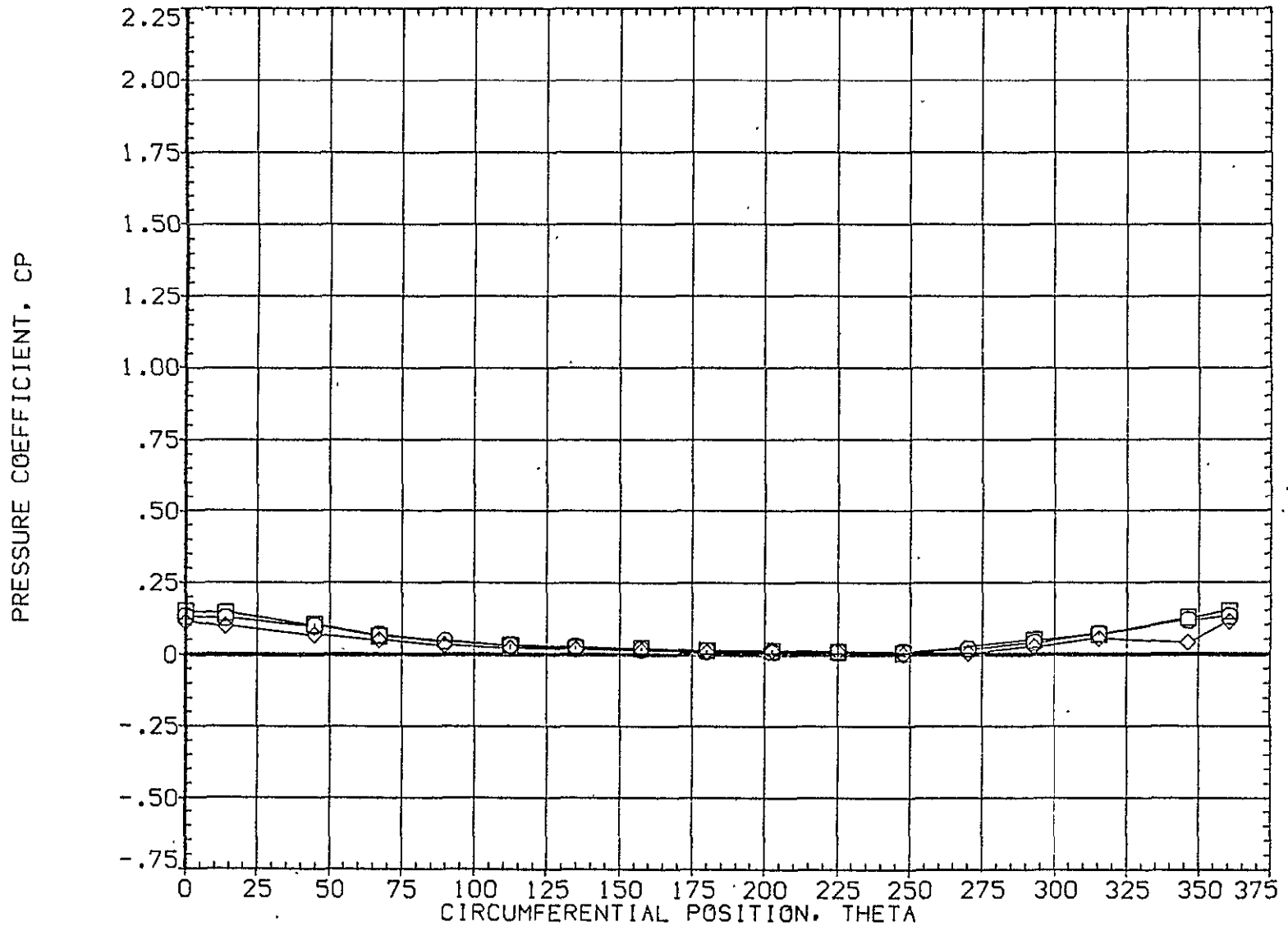


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A036)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	12.450	4.960				20,000
□	.735			MOUNT	1.000		180,000
◇	.860						

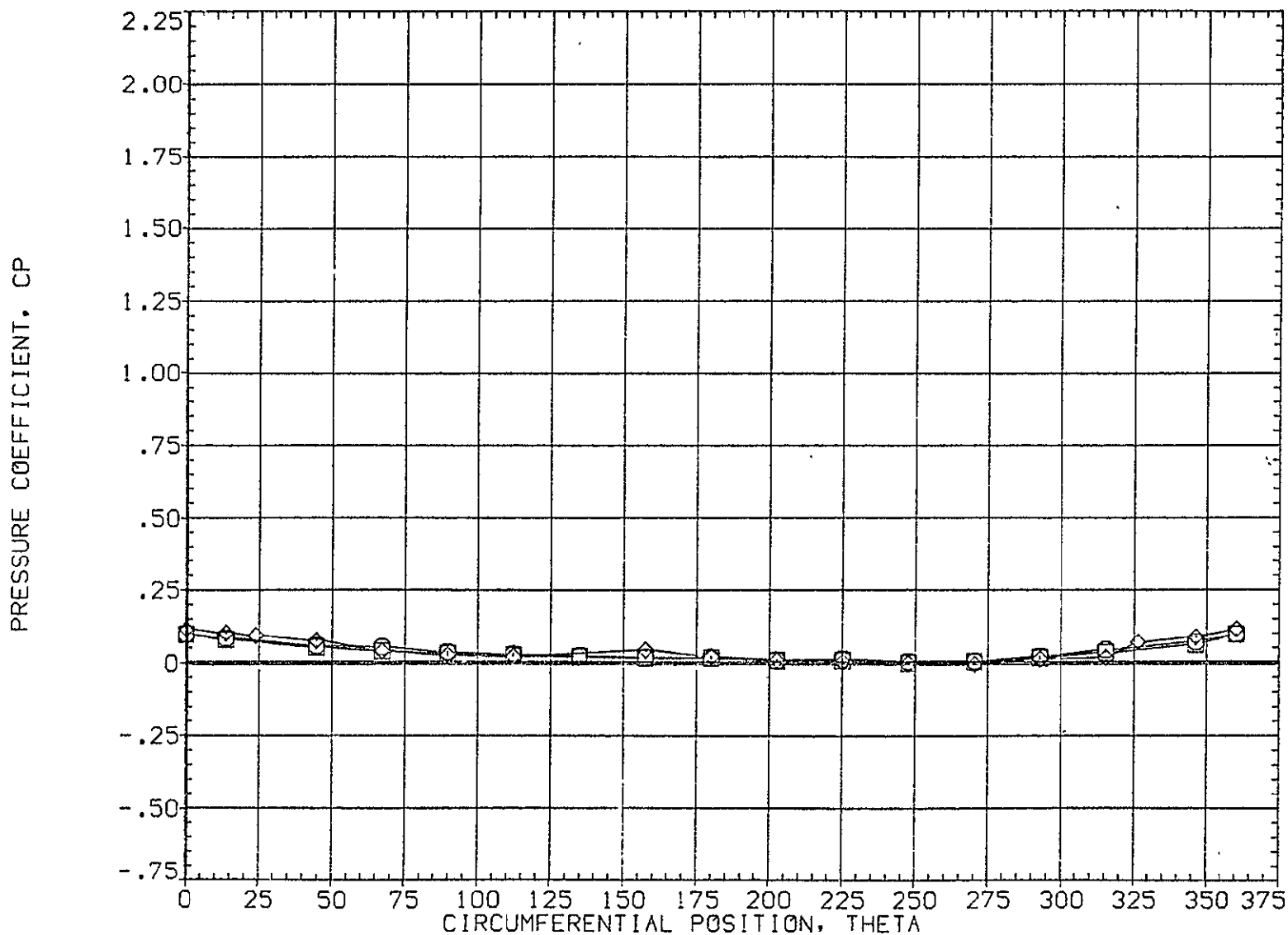


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	12.450	4.960	MOUNT	1.000	PHI	180.000
□	.923						
◇	.954						

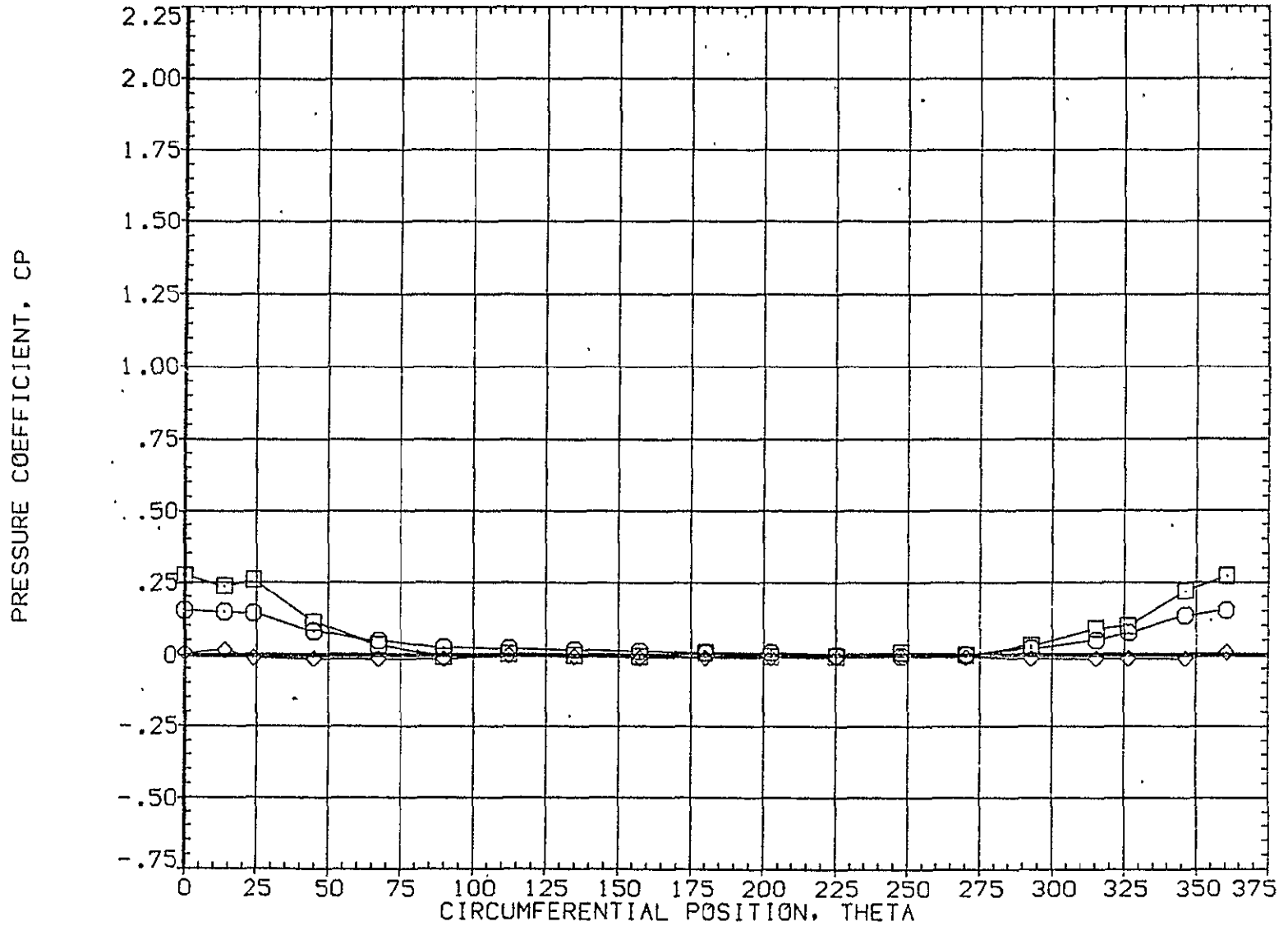


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(PIA037)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.055	16.470	4.960				20.000
□	.108			MOUNT	1.000		180.000
◇	.162						

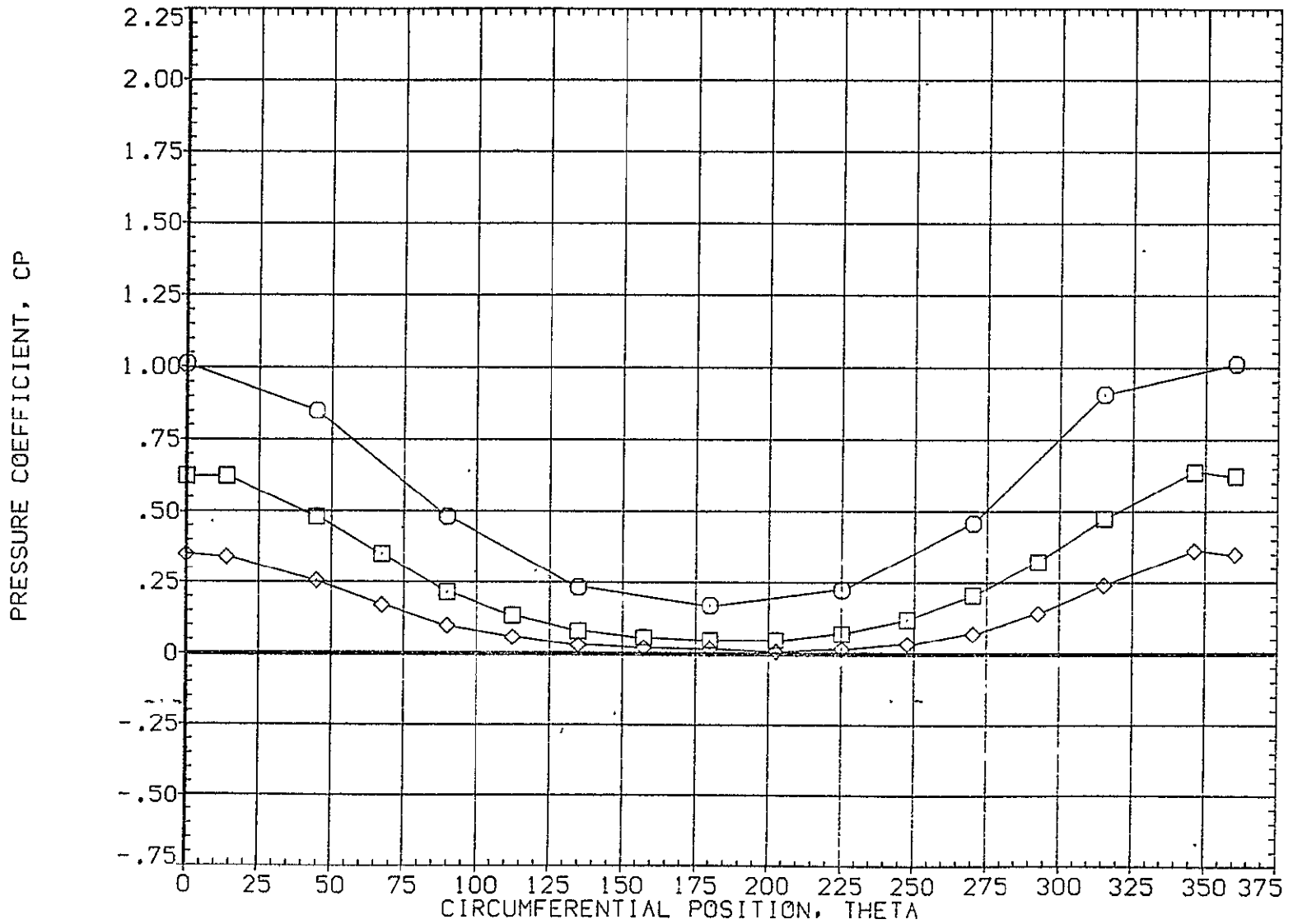


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .216
 ALPHA 16.470
 MACH 4.960

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 180.000

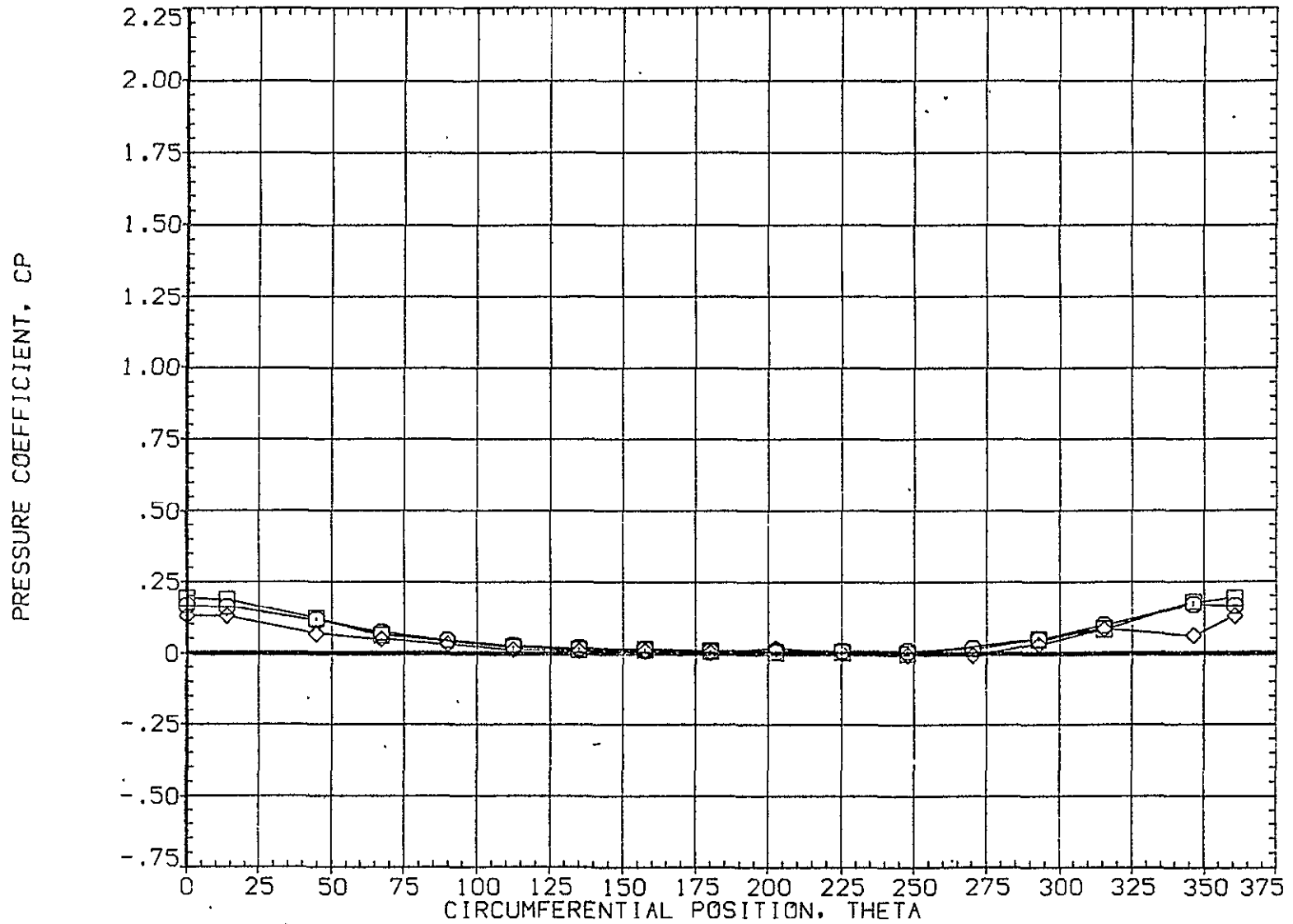


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A037)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	16.470	4.960	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

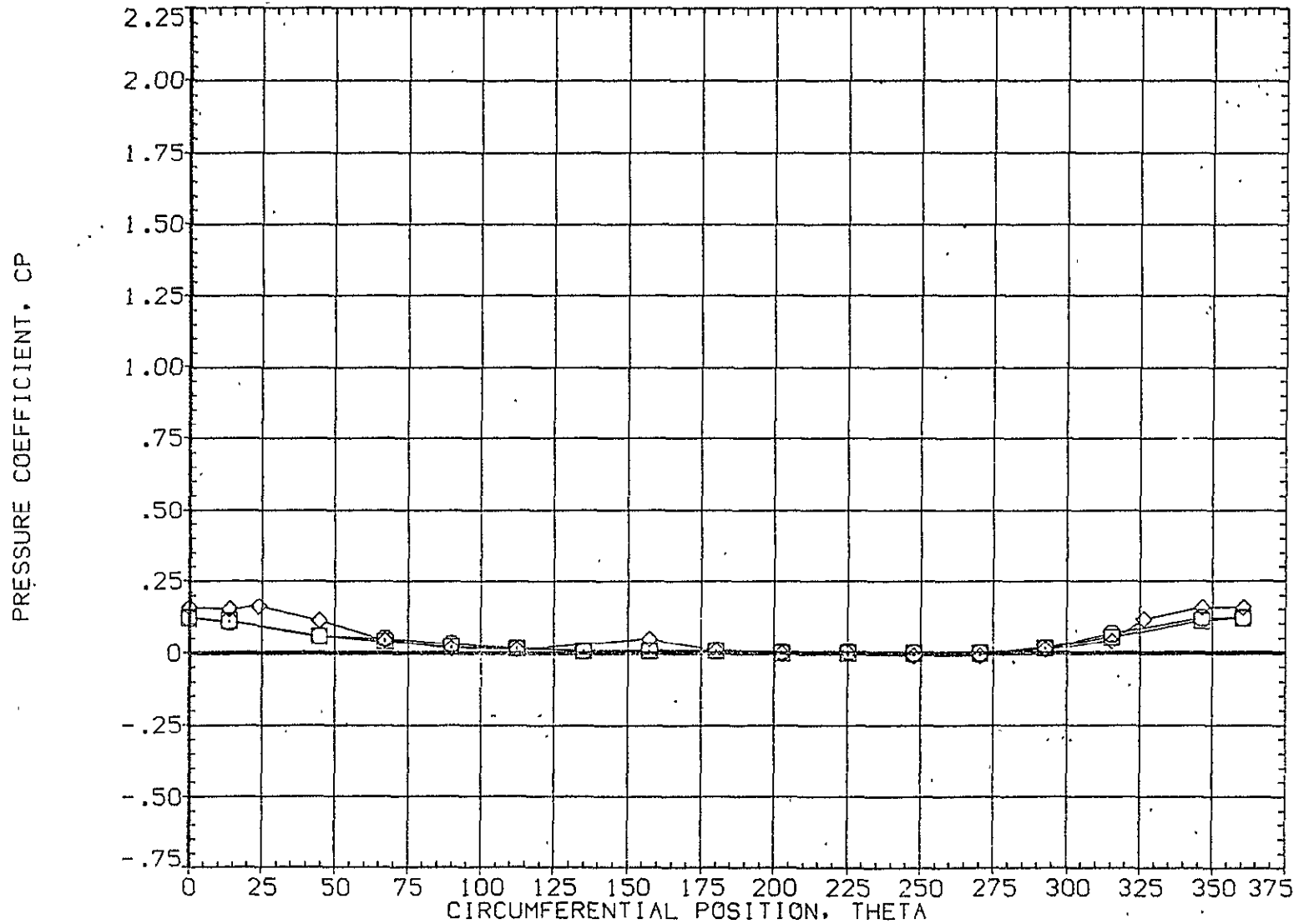


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.892	16.470	4.960	MOUNT	1.000	PHI	180.000
□	.923						
◇	.954						

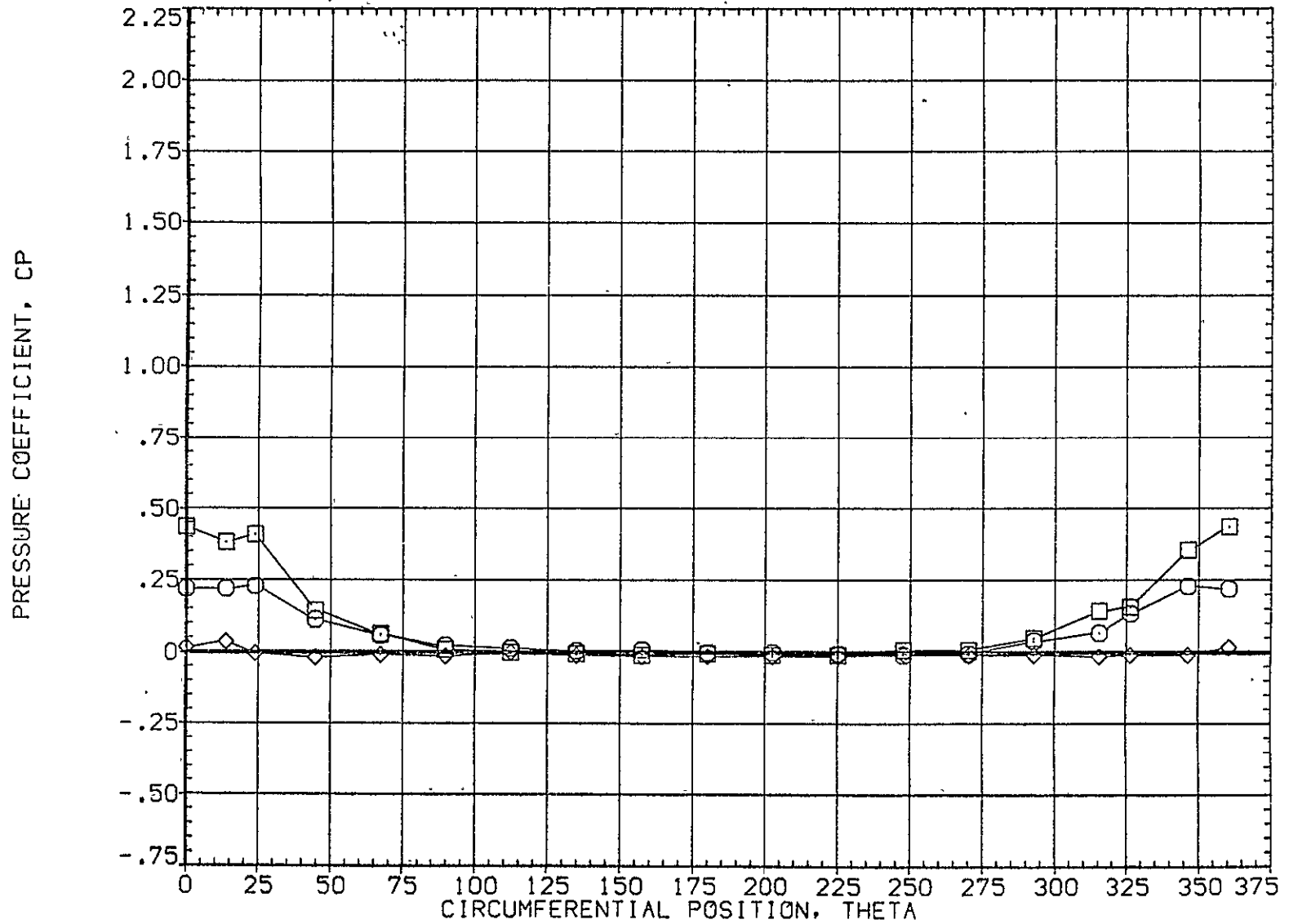


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.490	4.960	MGUNT	1.000	PHI	180.000
□	.108						
◇	.162						

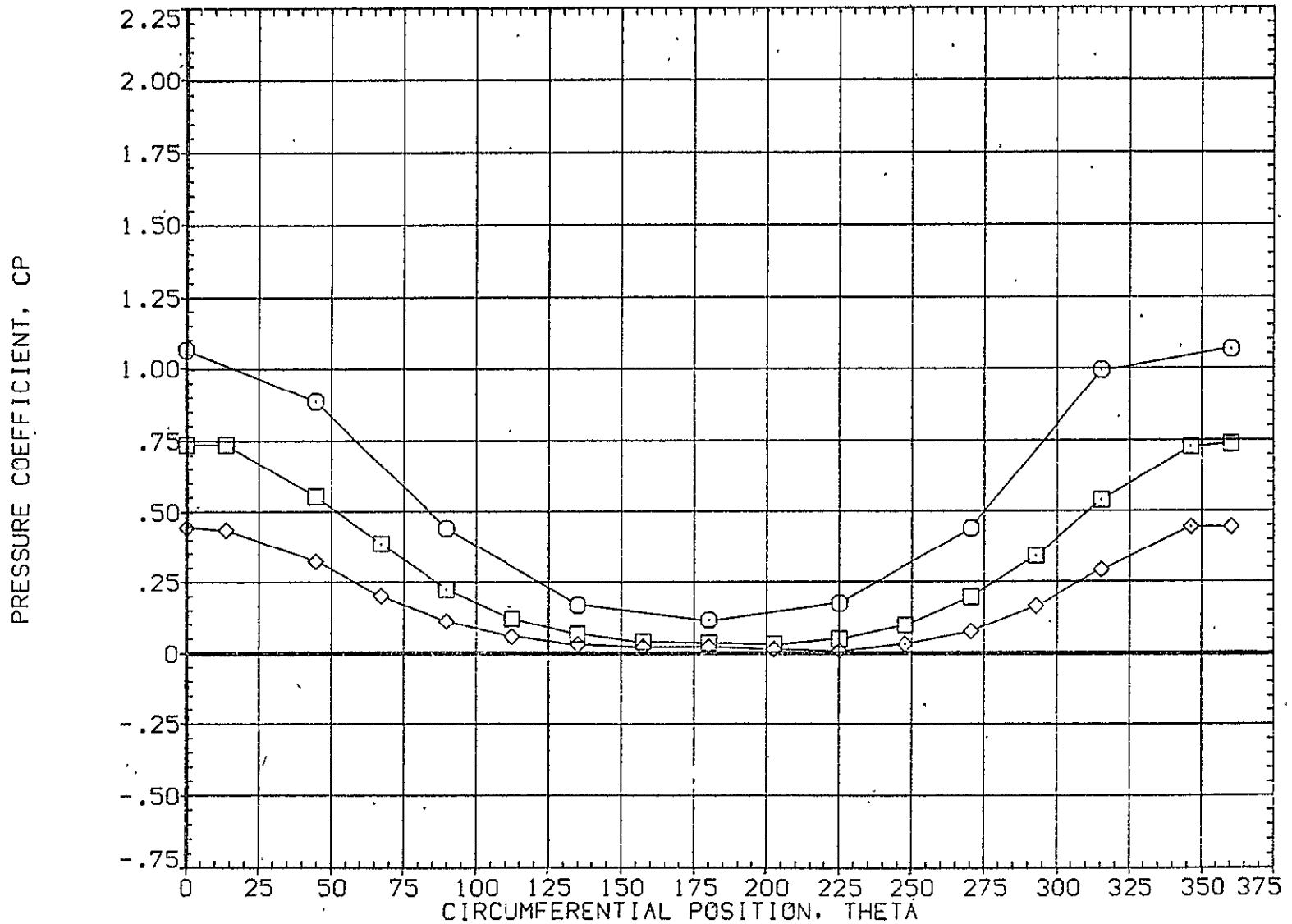


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	20.490	4.960	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

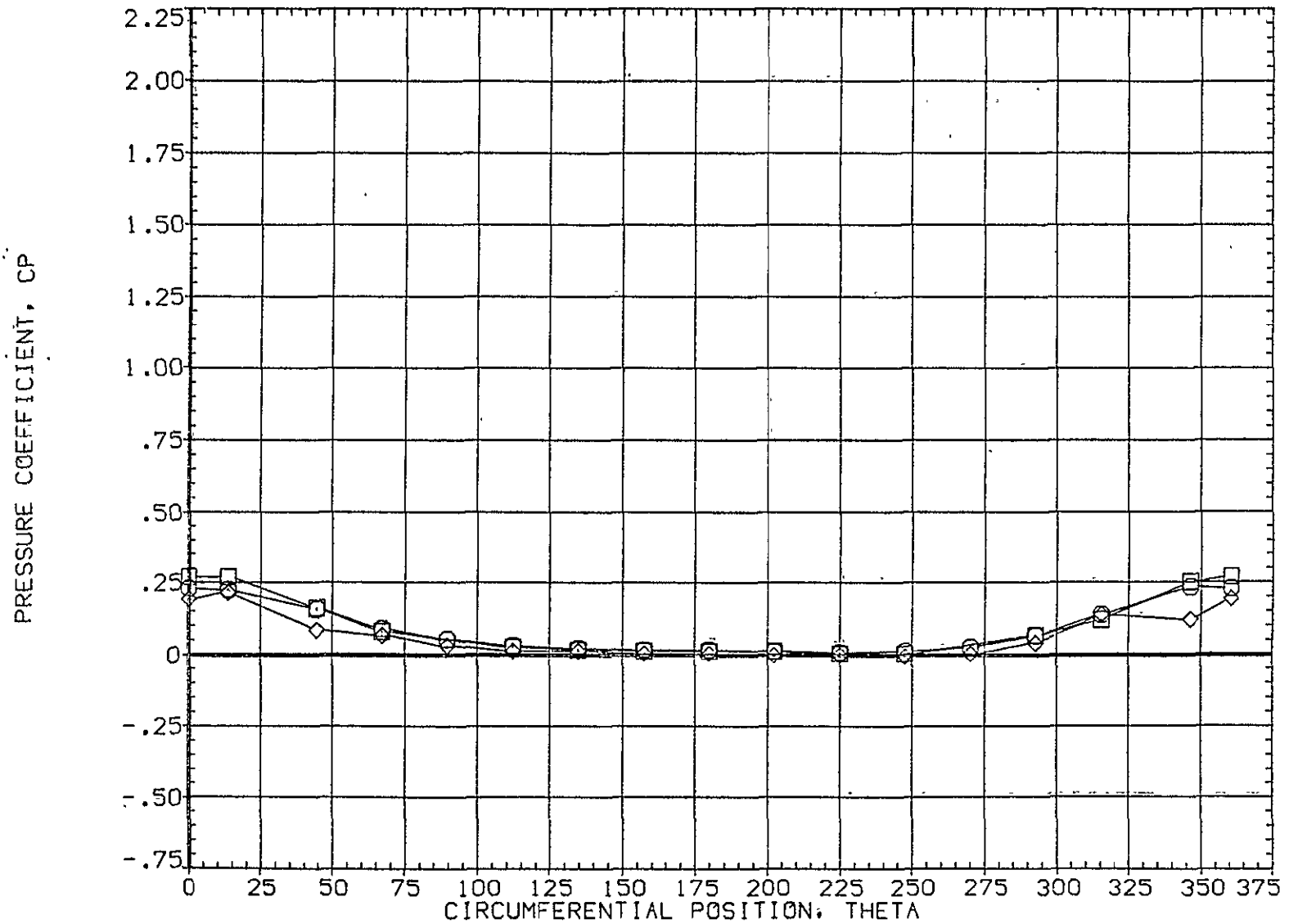


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.490	4.960	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

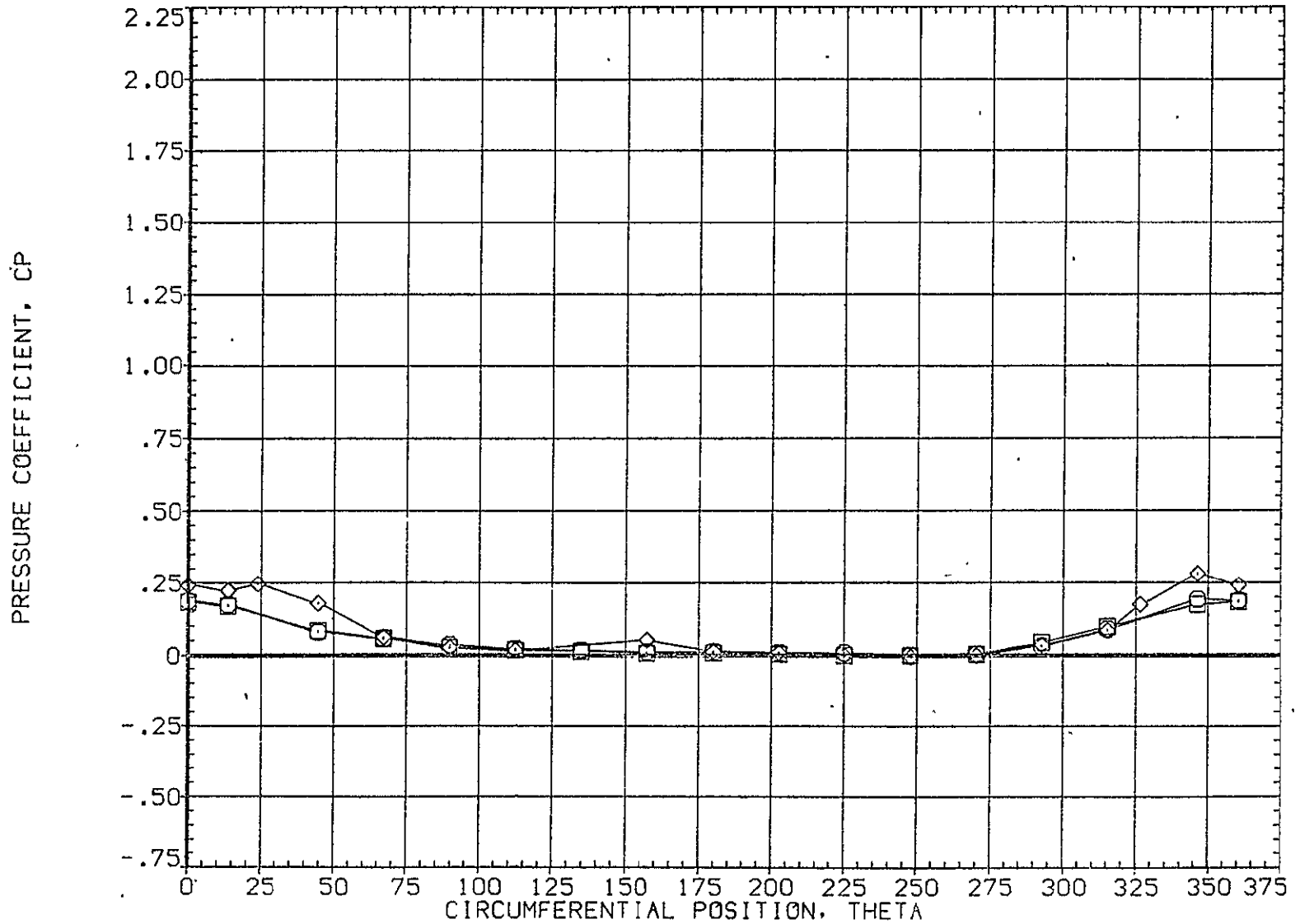


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	20.490	4.960	MOUNT	1.000	PHI	180.000
□	.923						
◇	.954						

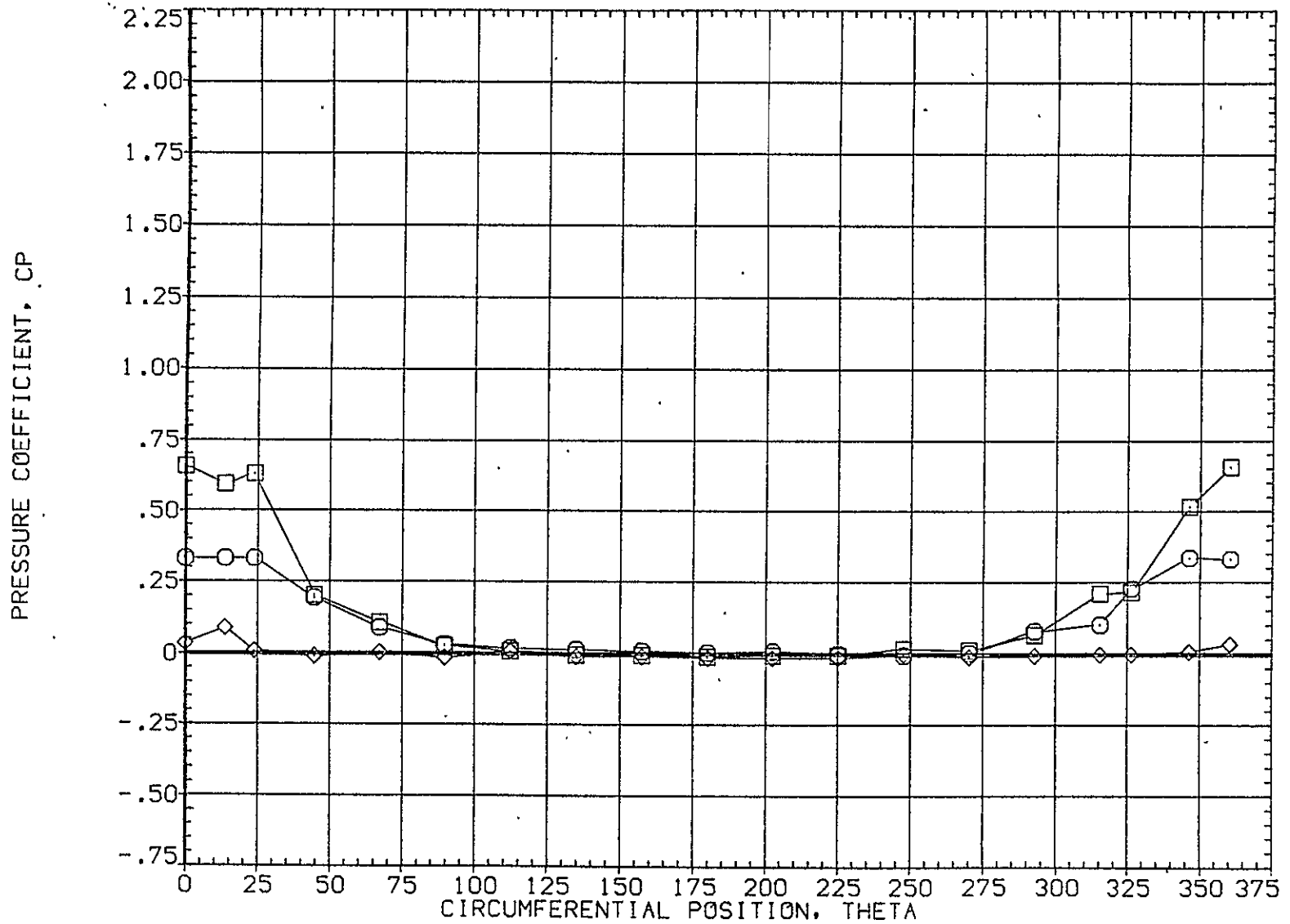


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	24.510	4.960	MOUNT	1.000	PHI	180.000
□	.108						
◇	.162						

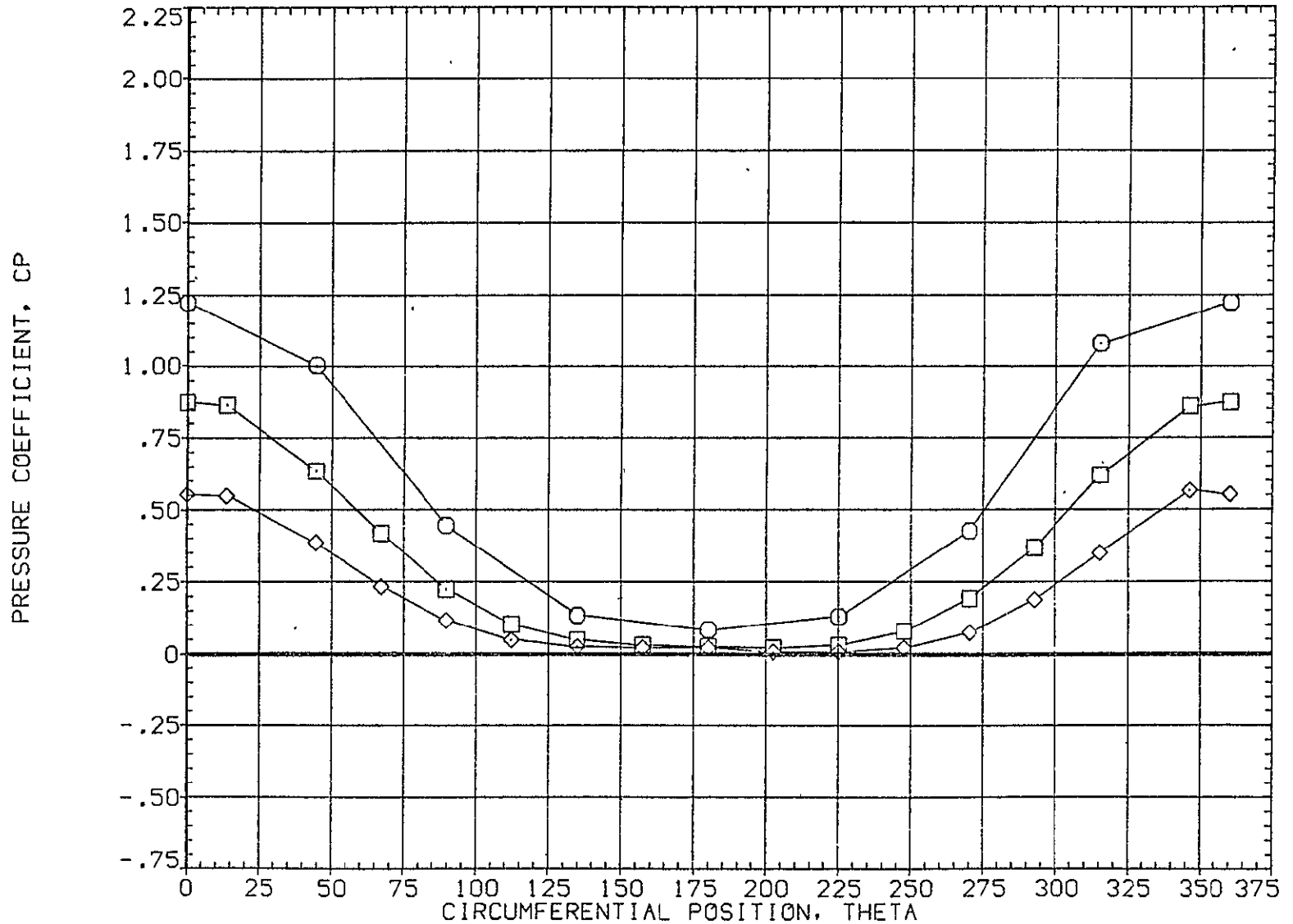


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	24.510	4.960	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

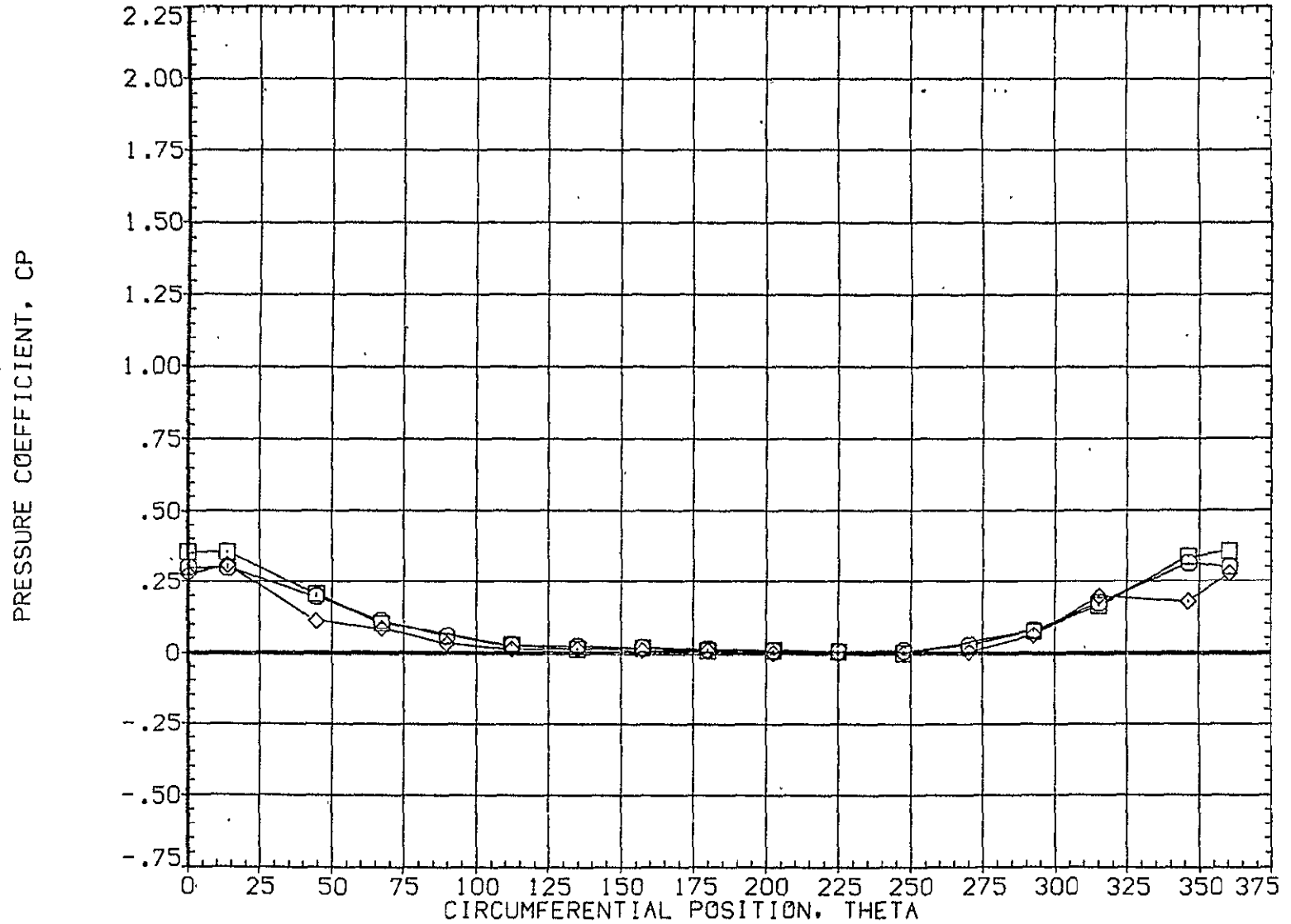


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A039)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.810	24.510	4.960	.000	20.000	
□	.735			1.000	180.000	
◇	.860					

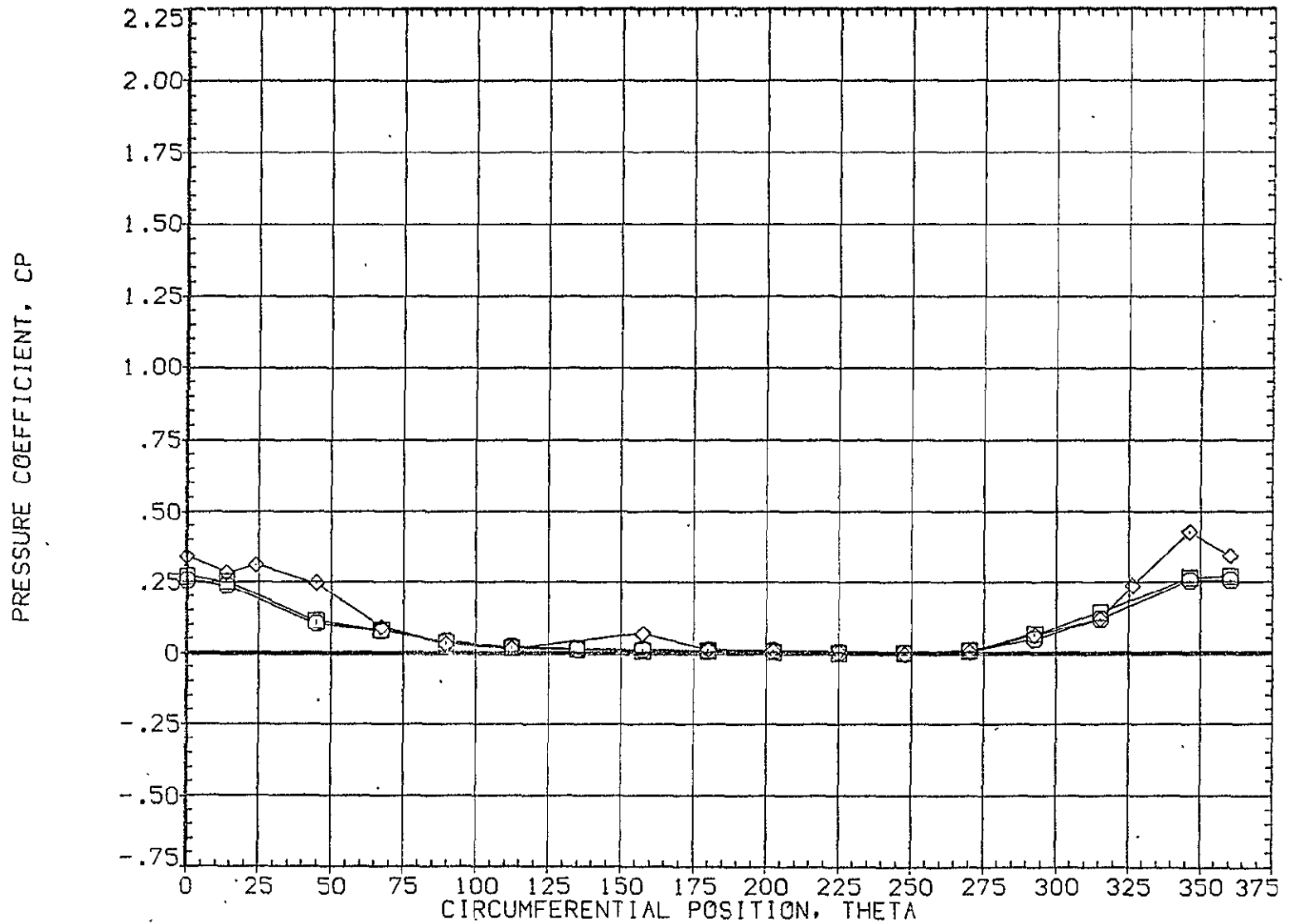


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	24.510	4.960	MOUNT	1.000	PHI	180.000
□	.923						
◇	.954						

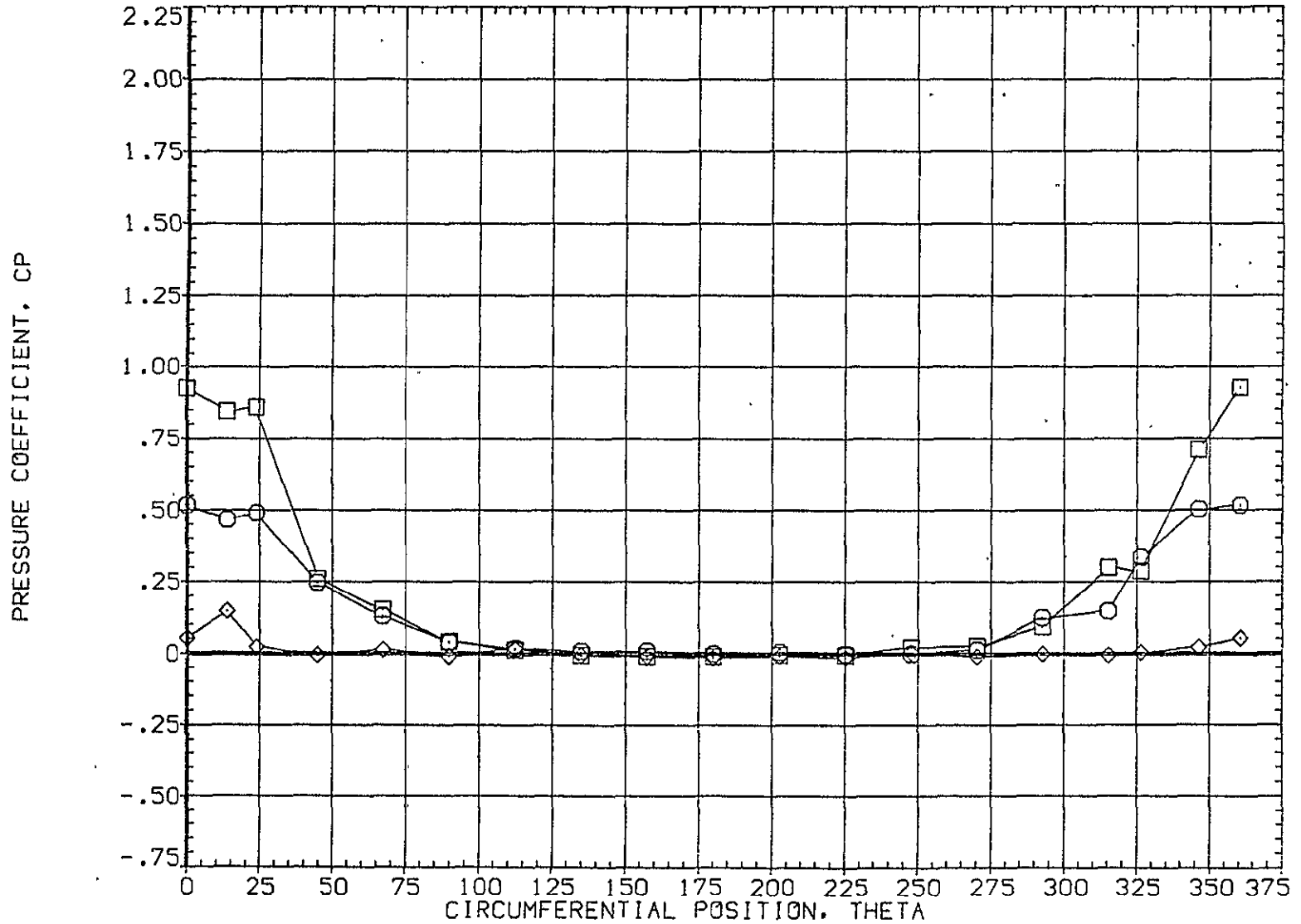


FIG. 5. CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.055	28.560	4.960	BETA	.000	OFFSET	20.000
□	.108			MOUNT	1.000	PHI	180.000
◇	.162						

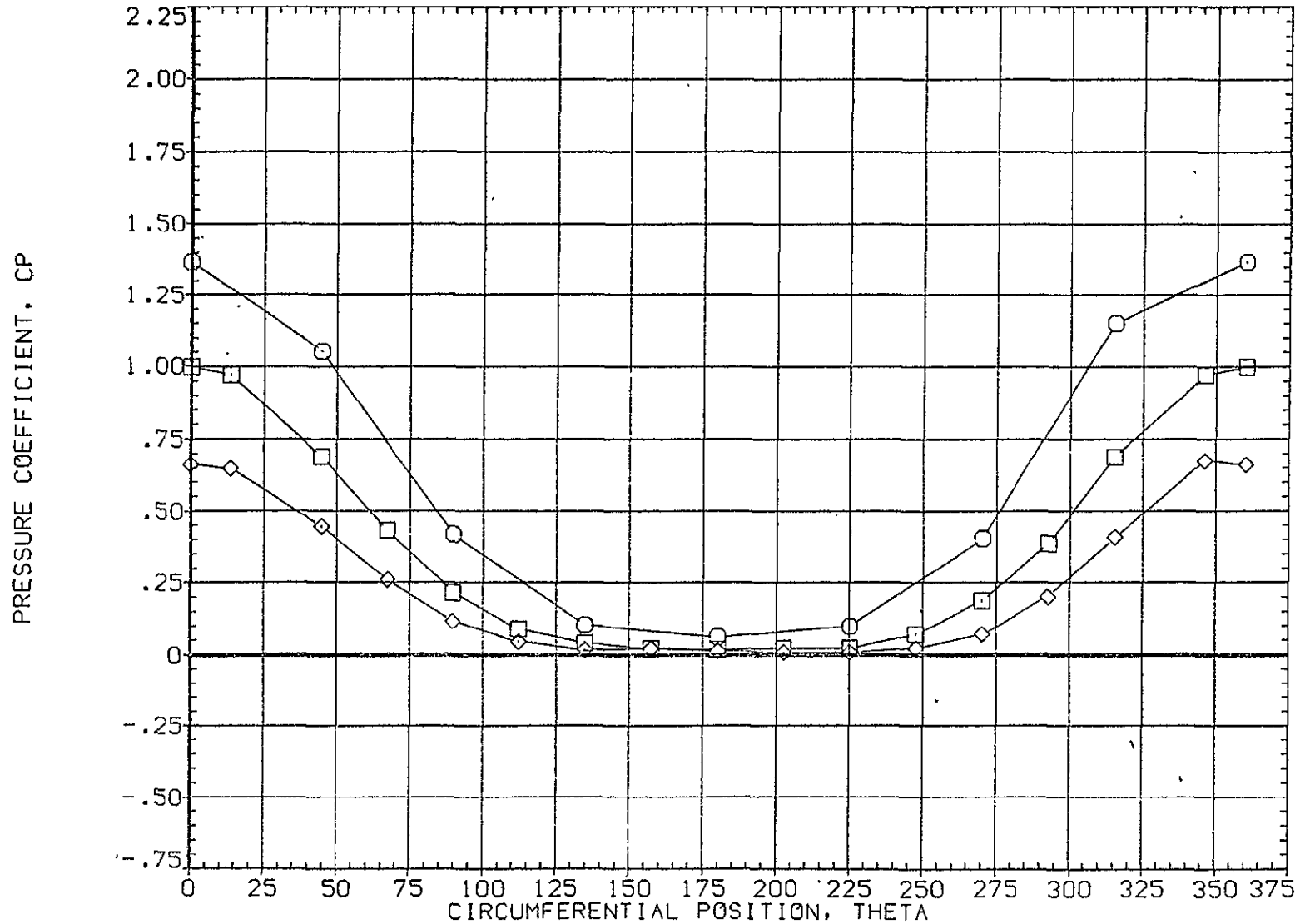


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.216	28.560	4.960	MOUNT	1.000	PHI	180.000
□	.322						
◇	.518						

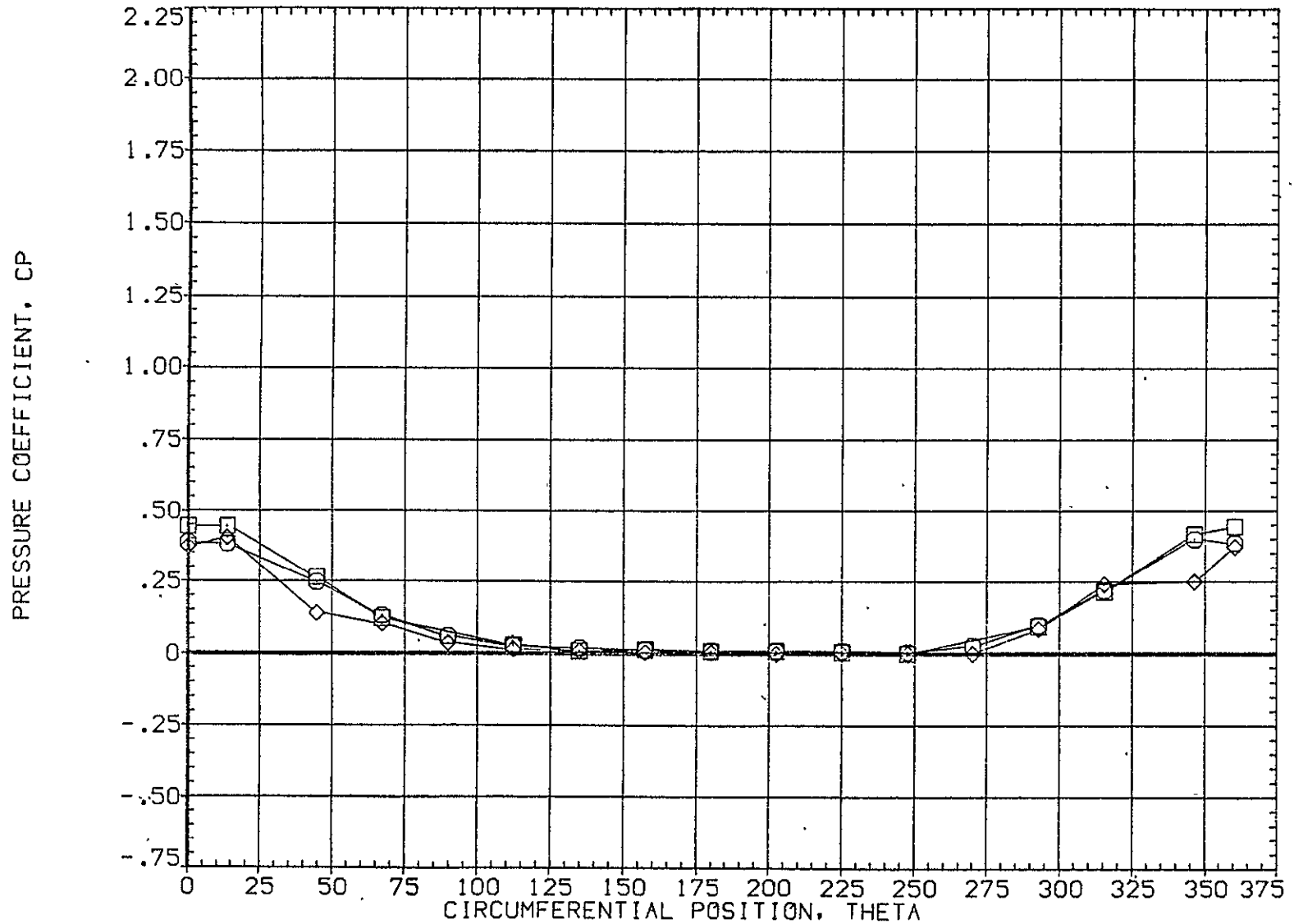


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A040)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	28.560	4.960	MOUNT	1.000	PHI	180.000
□	.735						
◇	.860						

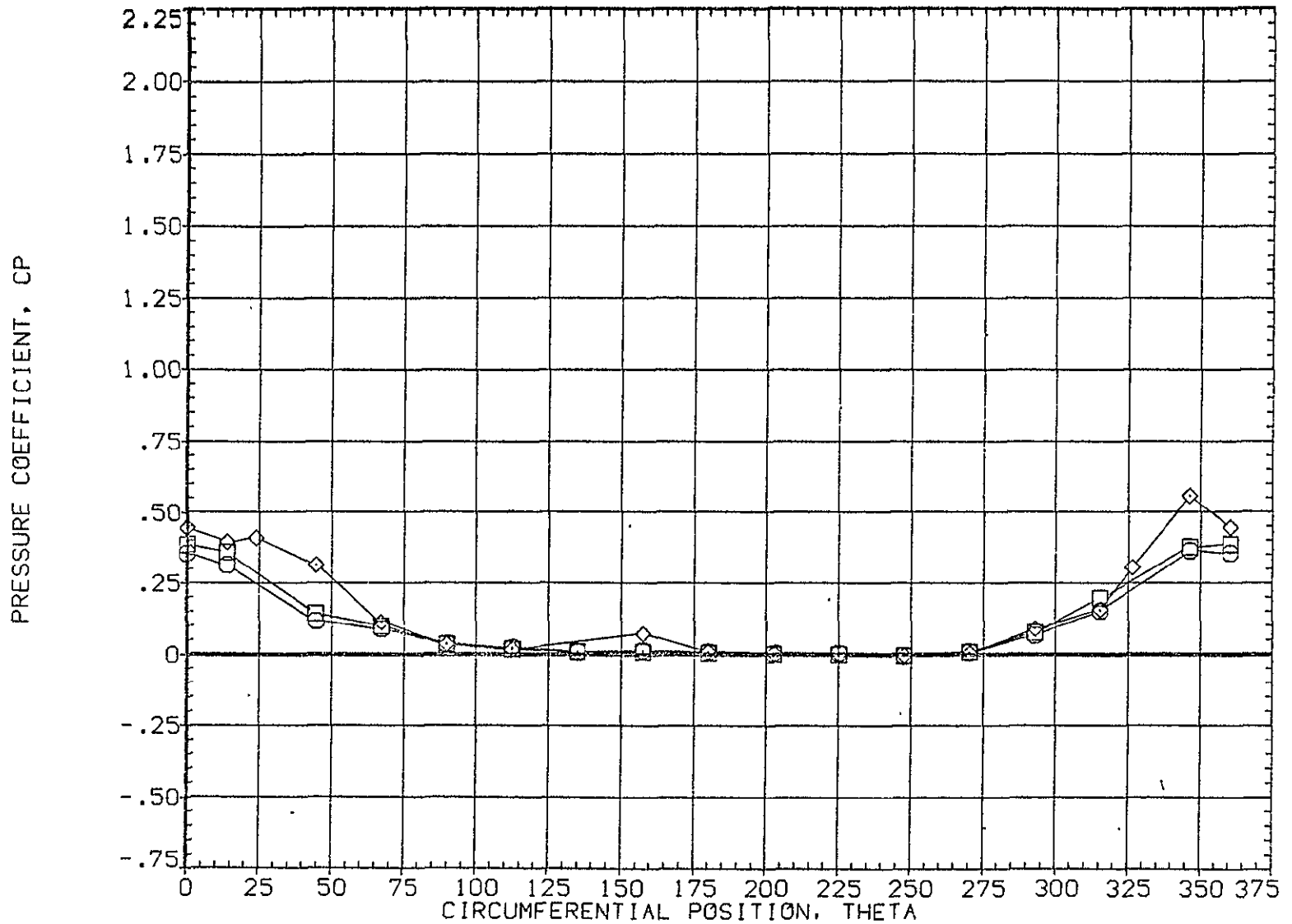


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 28.560 4.960
 .923
 .954

PARAMETRIC VALUES-
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 180.000

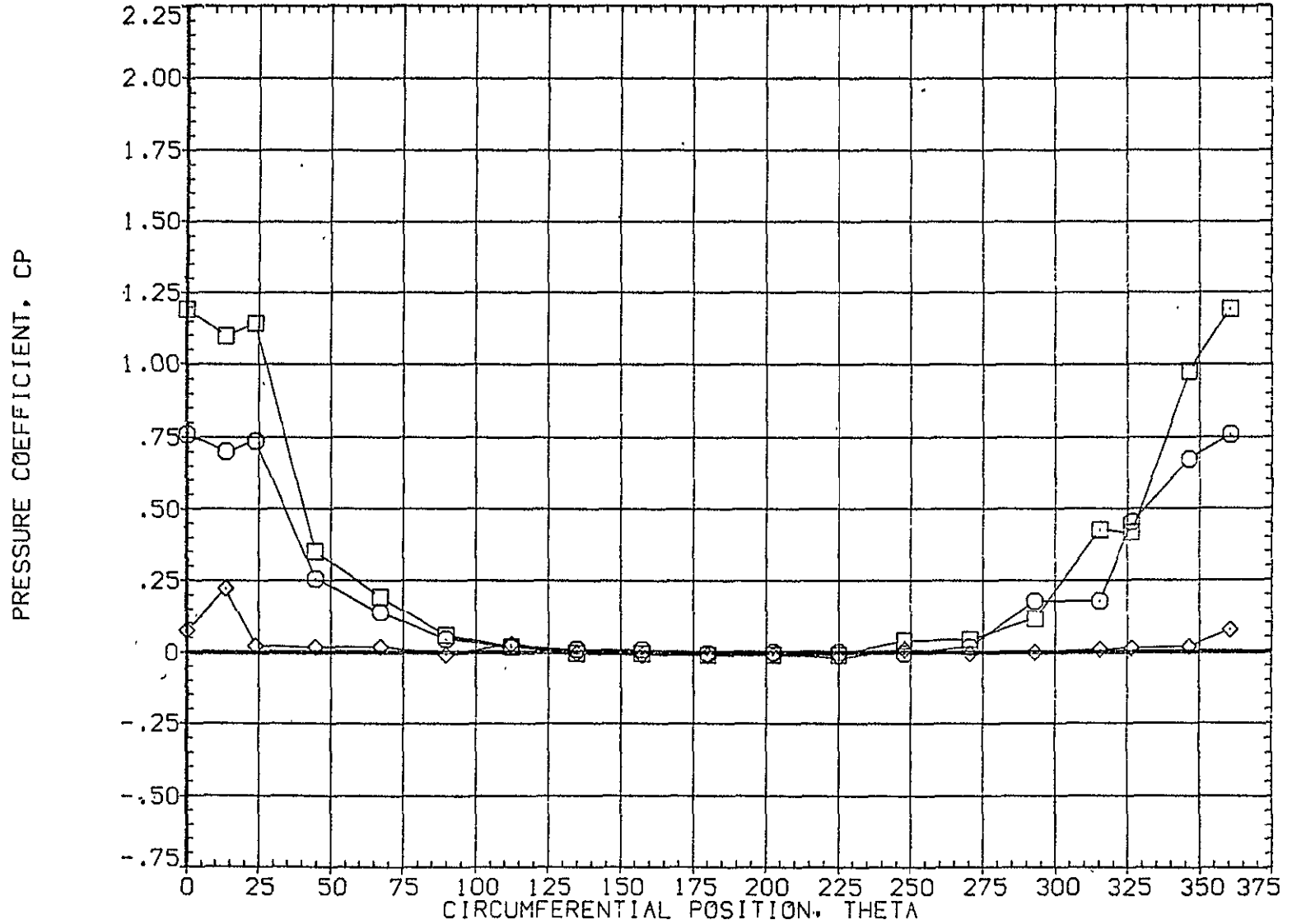


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A041)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-8.310	4.960	.000	.000	.000
□	.108			1.000	225.000	
◇	.162					

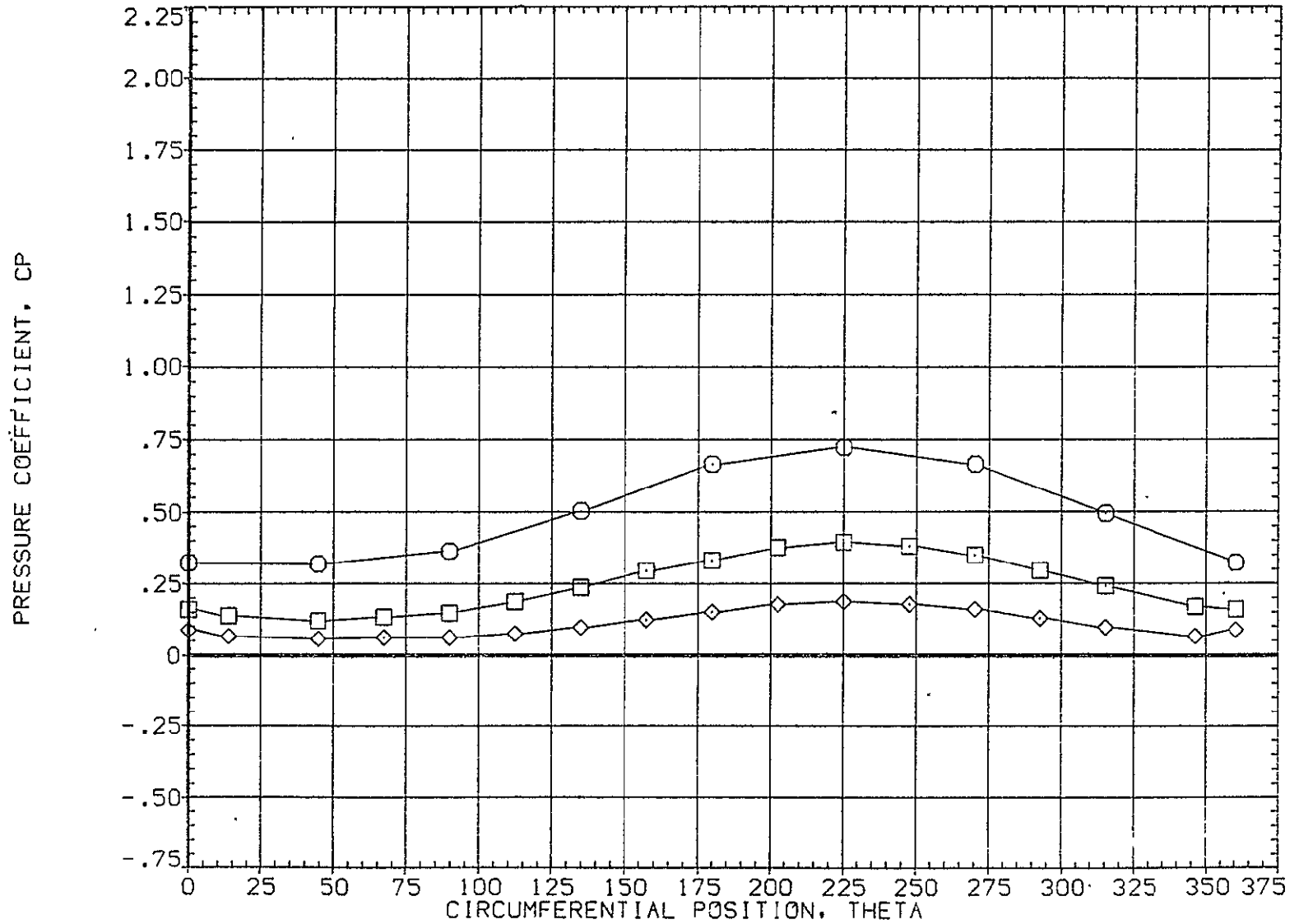


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB	ALPHA	MACH
.216	-8.310	4.960
.322		
.518		

PARAMETRIC VALUES		
BETA	OFFSET	.000
MOUNT	PHI	225.000

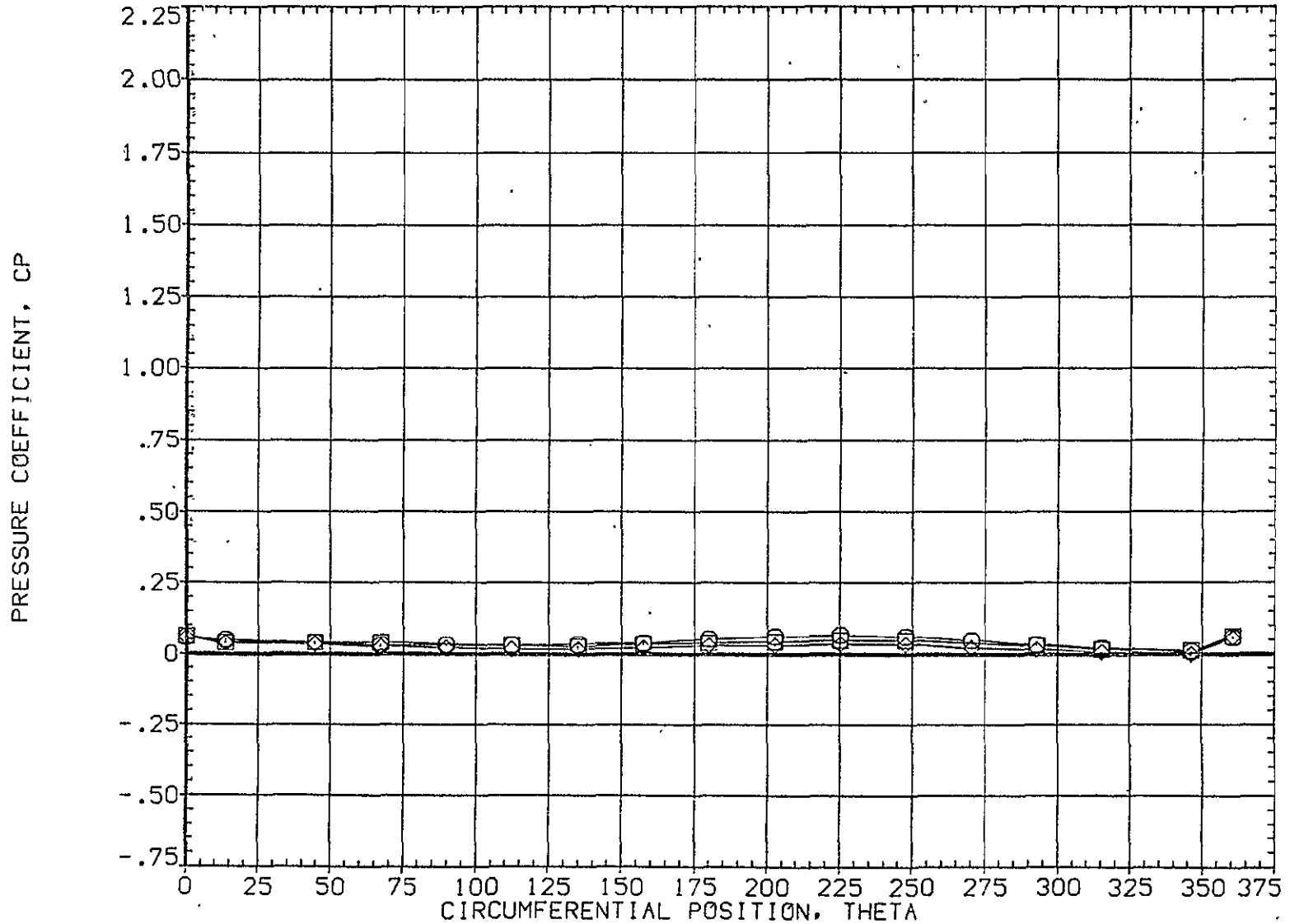


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-8.310	4.960	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

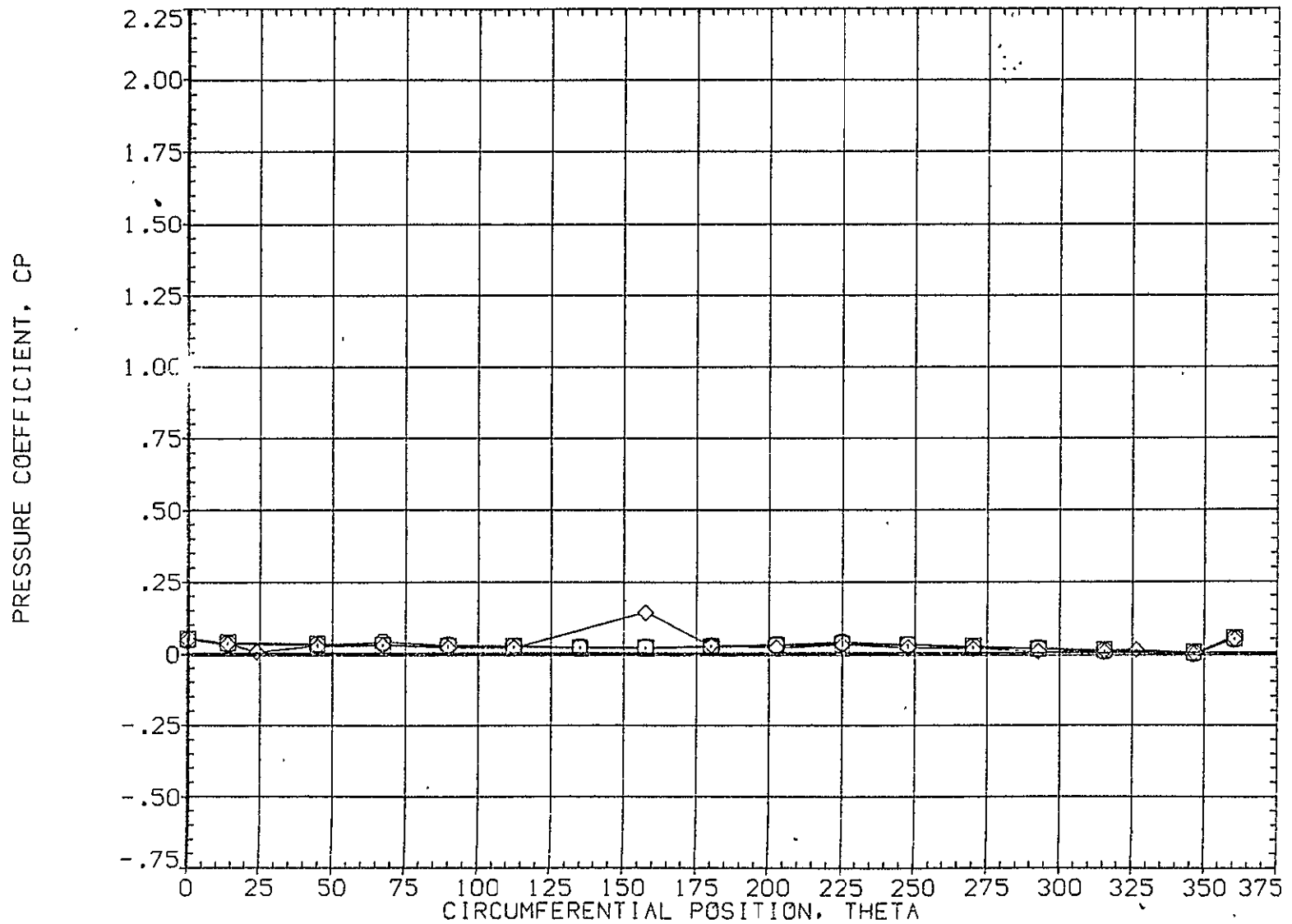


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-8.310	4.960	MOUNT	1.000	PHI	225.000
□	.923						
◇	.954						

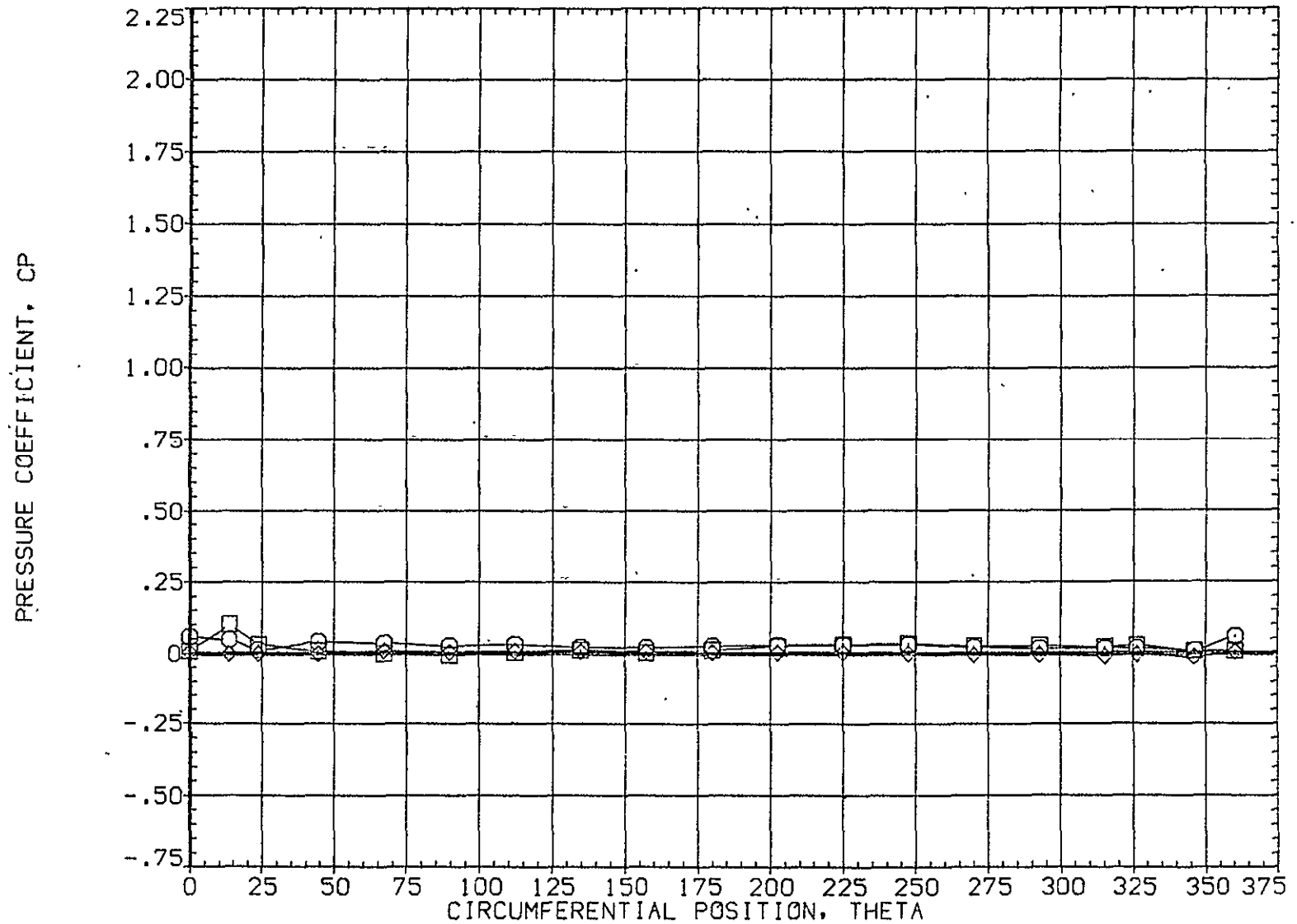


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A042)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.290	4.960	.000		.000
□	.108			1.000		225.000
◇	.162					

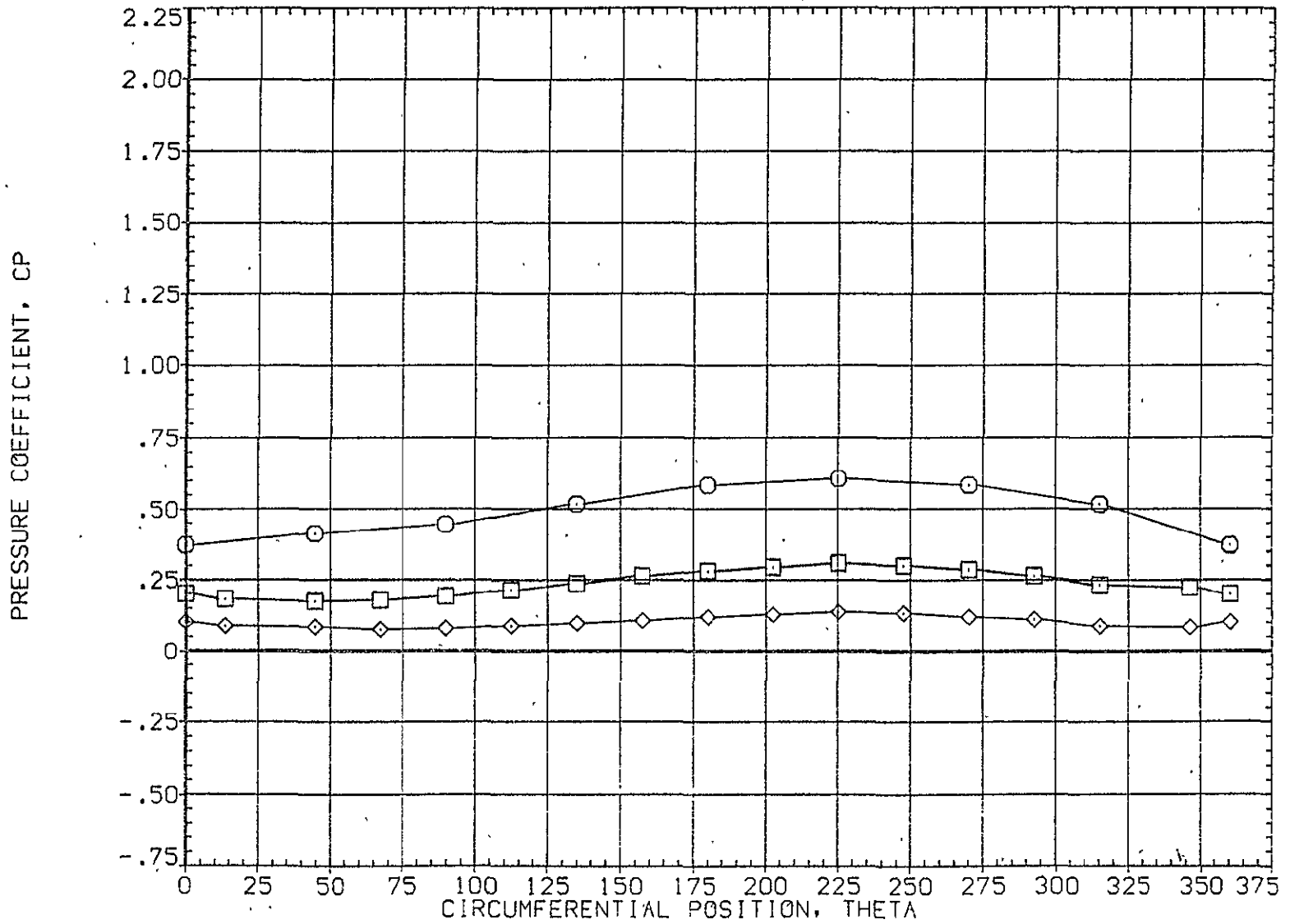


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-4.290	4.960	.000	.000	.000
□	.322			1.000		225.000
◇	.518					

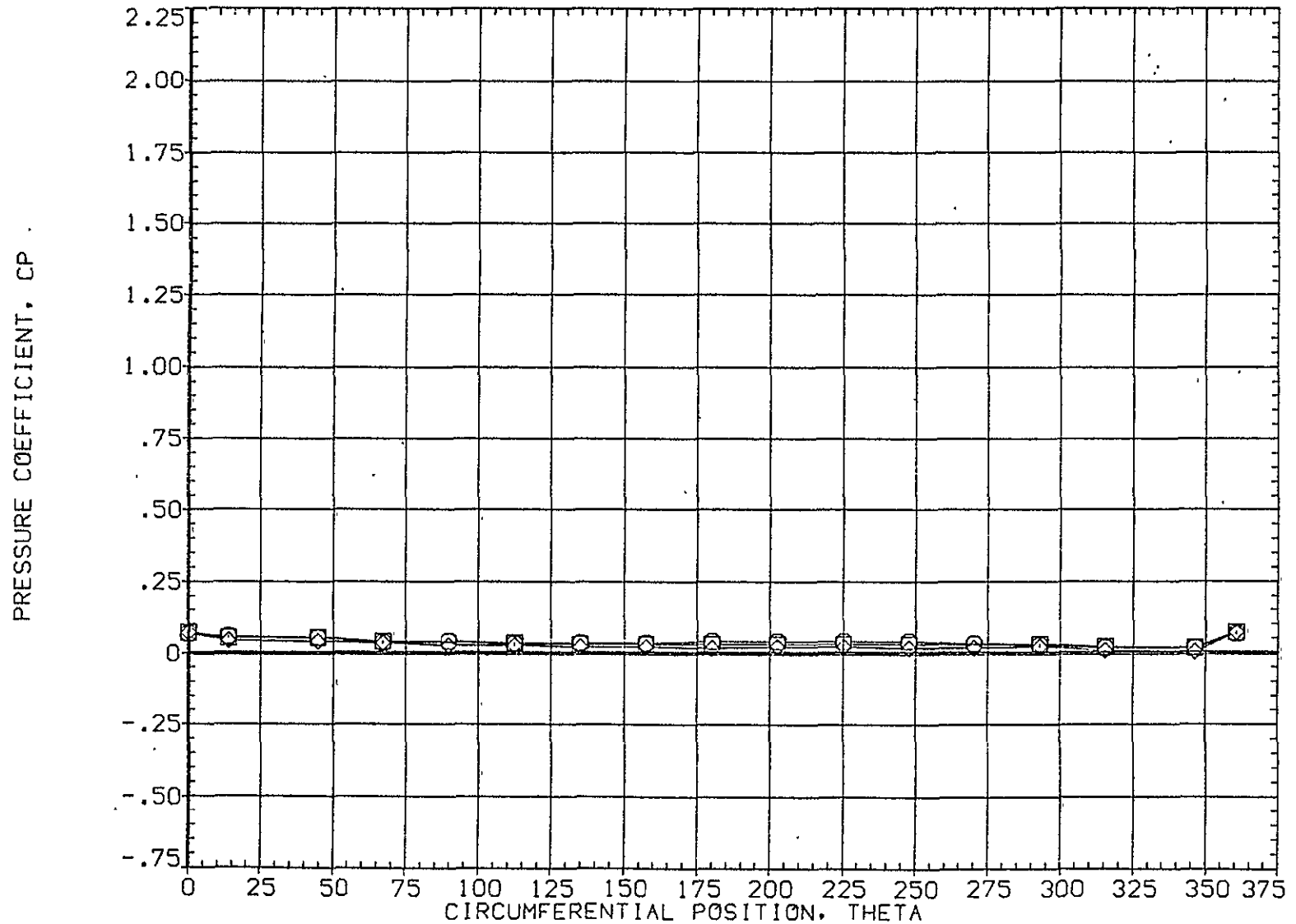


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A042)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-4.290	4.960	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

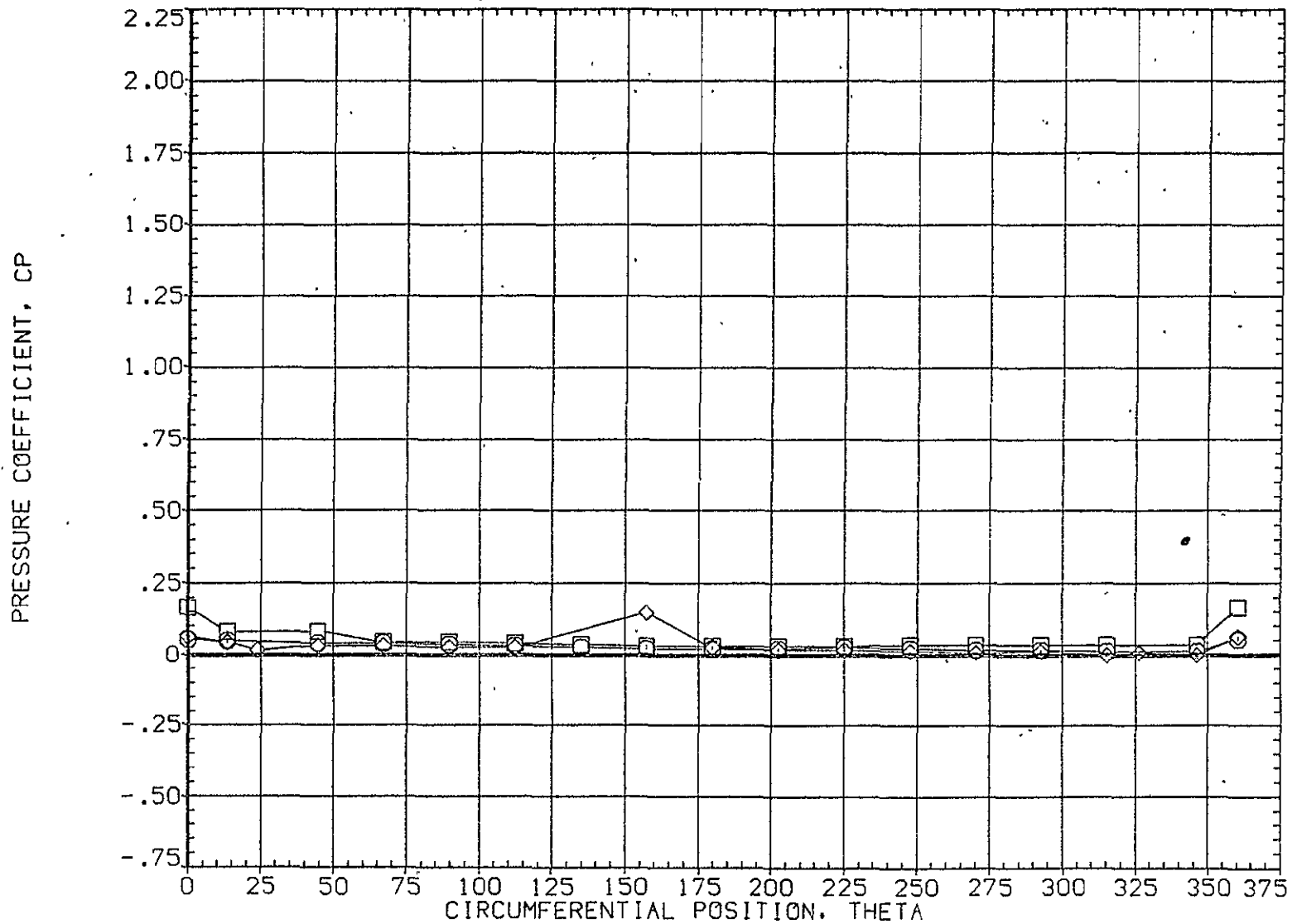


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 -4.290 4.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 225.000

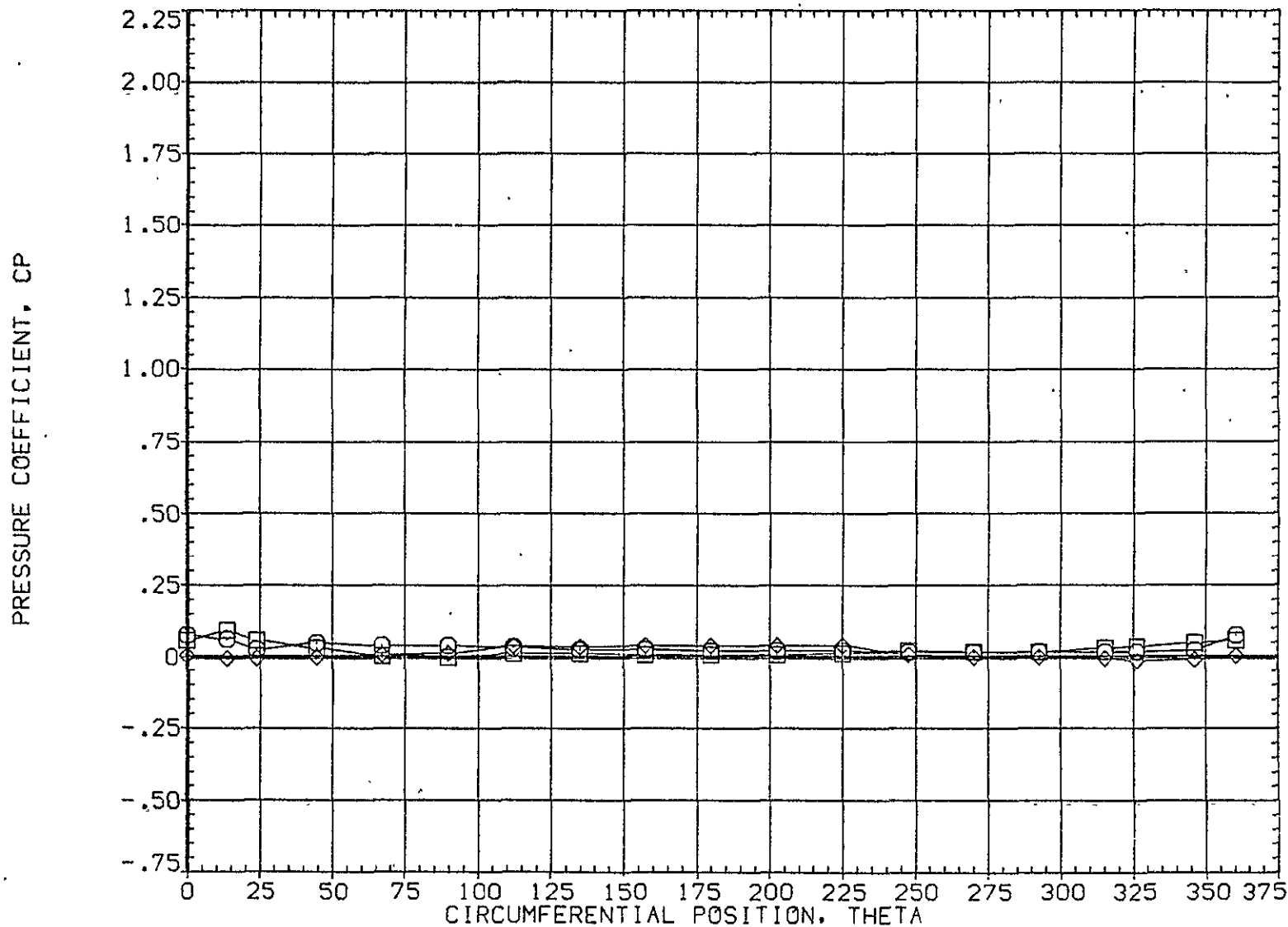


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES.

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-.280	4.960	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

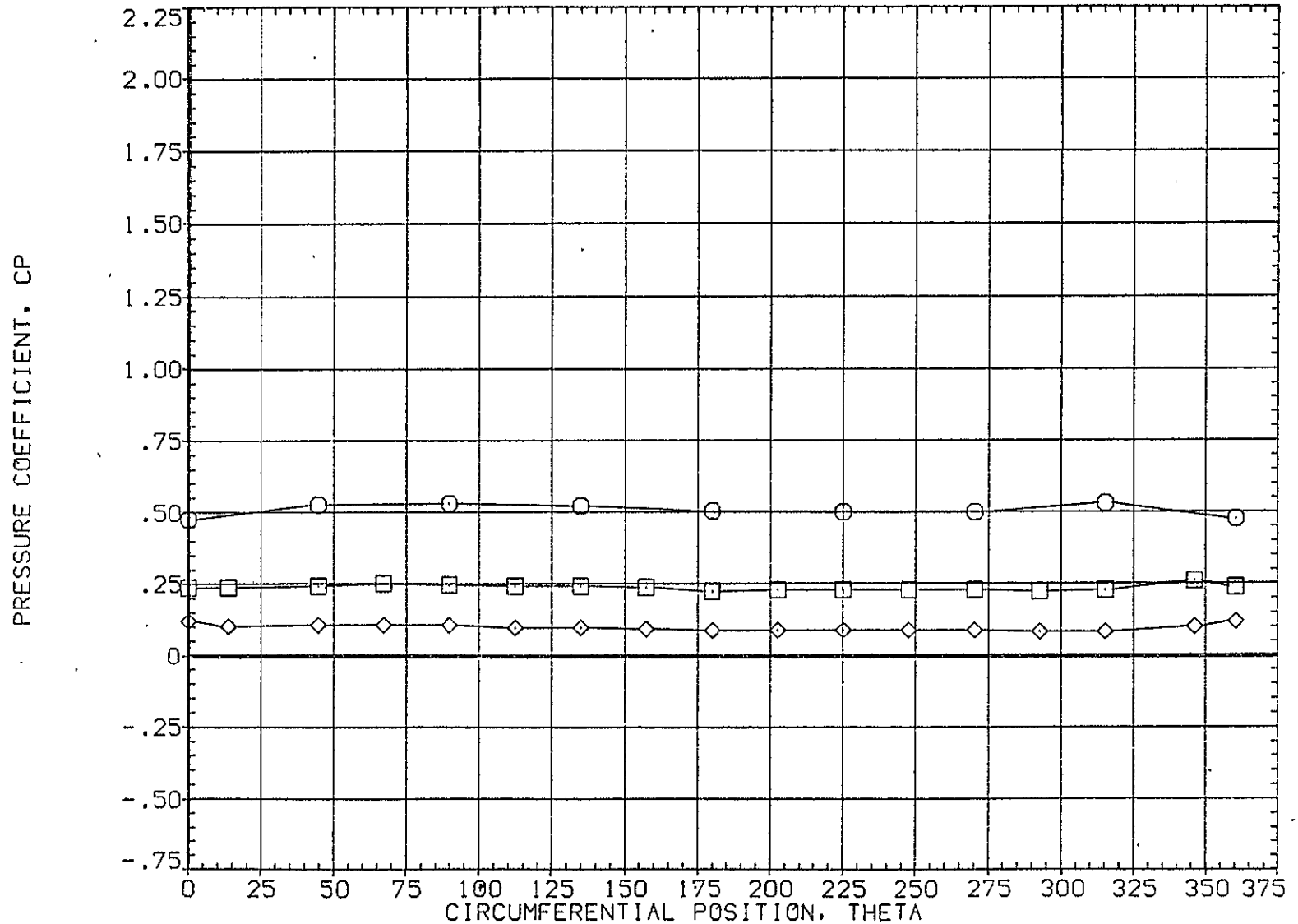


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-.280	4.960	.000	.000	.000
□	.322			1.000	PHI	225.000
◇	.518					

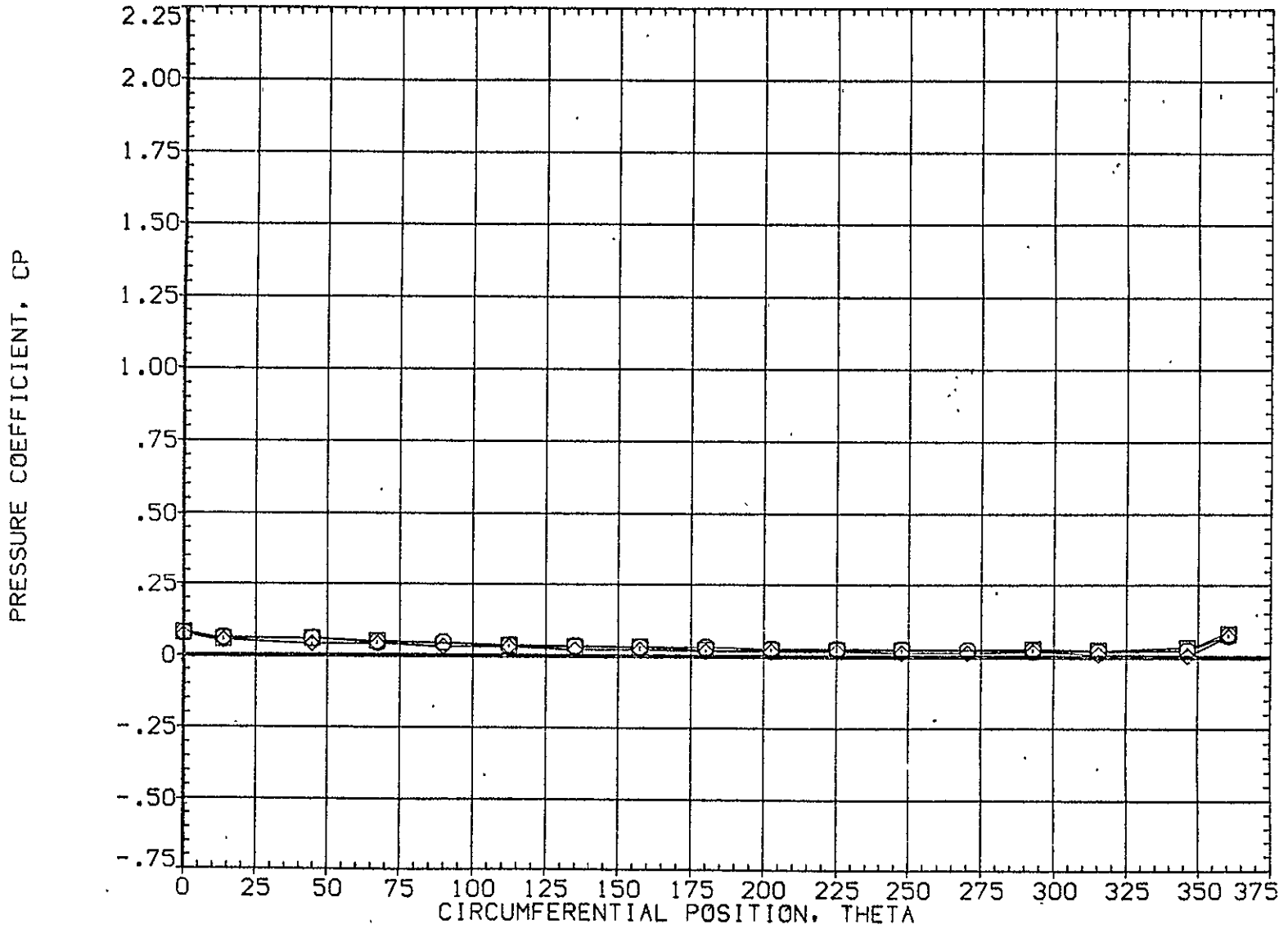


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A043)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-.280	4.960	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

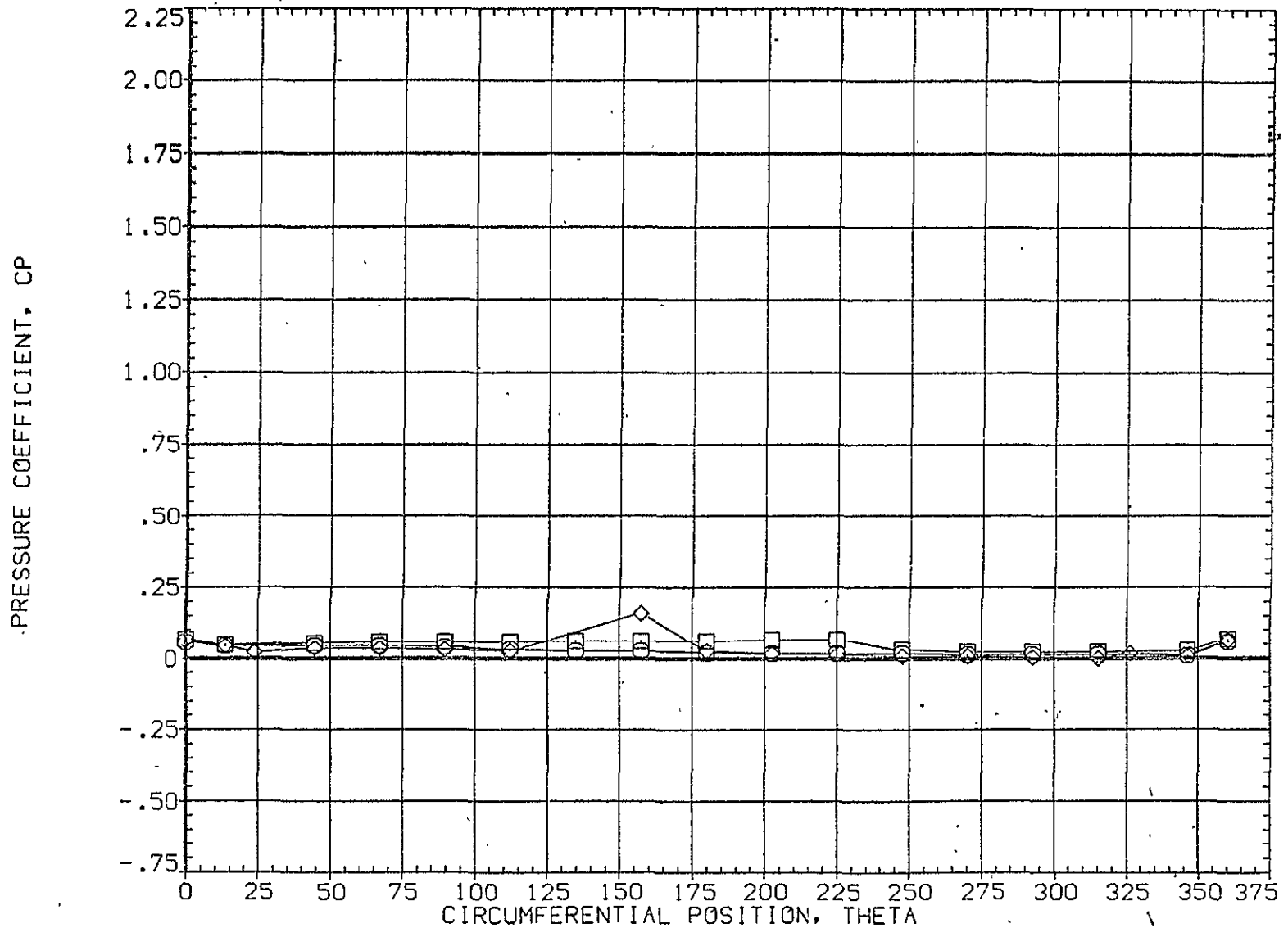


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	-.280	4.960	MOUNT	1.000	PHI	225.000
□	.923						
◇	.954						

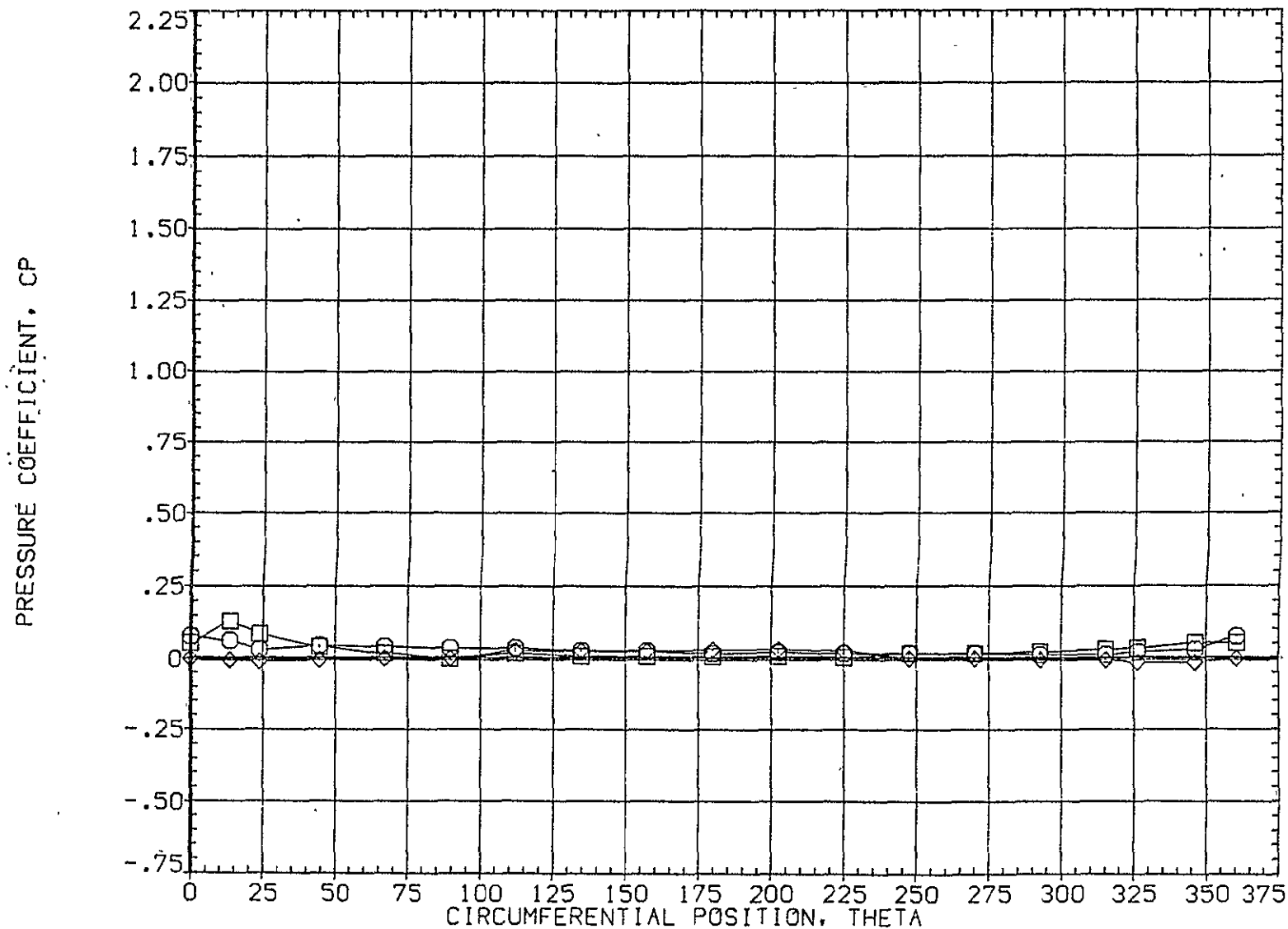


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A044)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	3.730	4.960	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

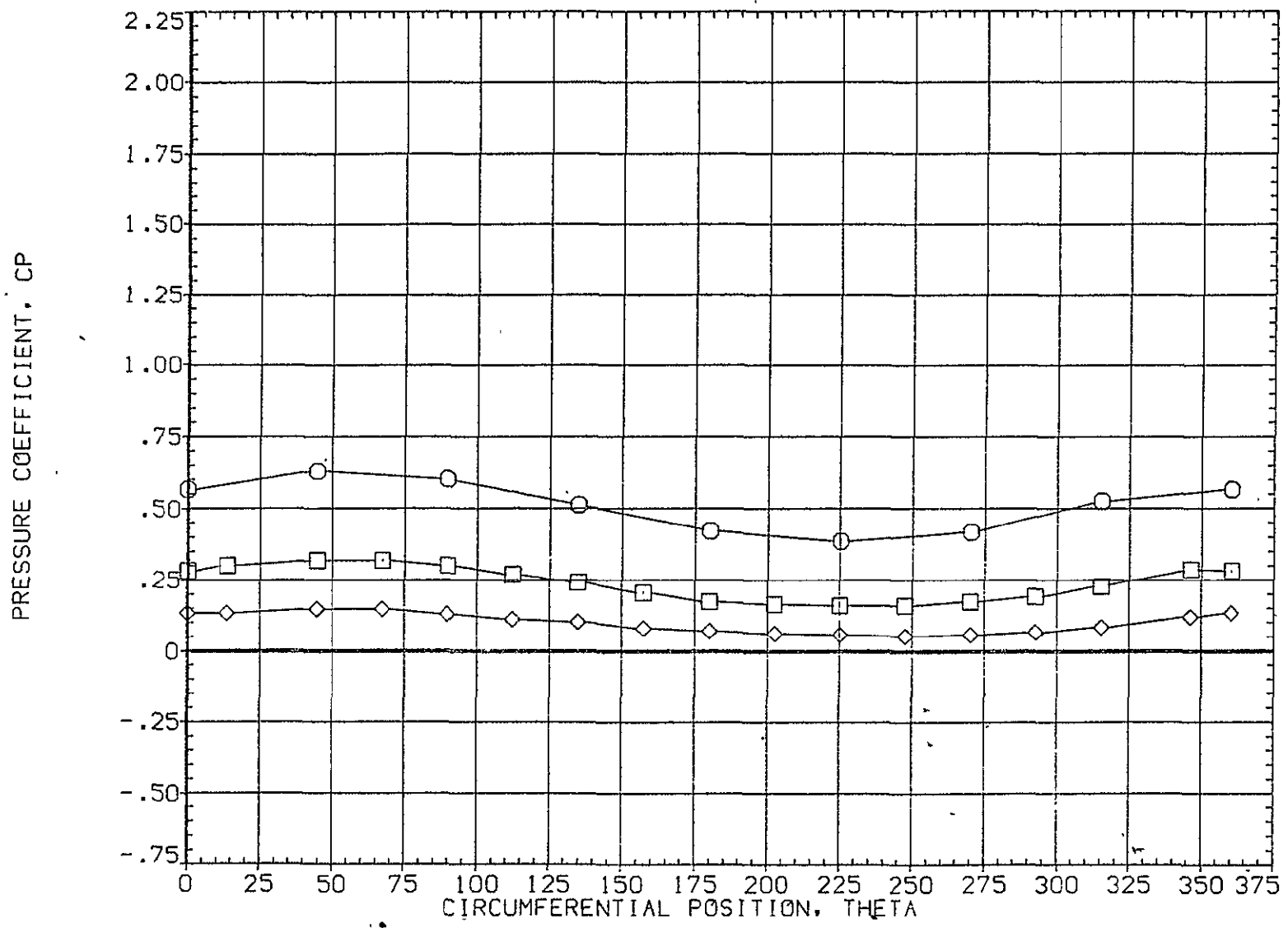


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	3.730	4.960	.000	.000	.000
□	.322			1.000		225.000
◇	.518					

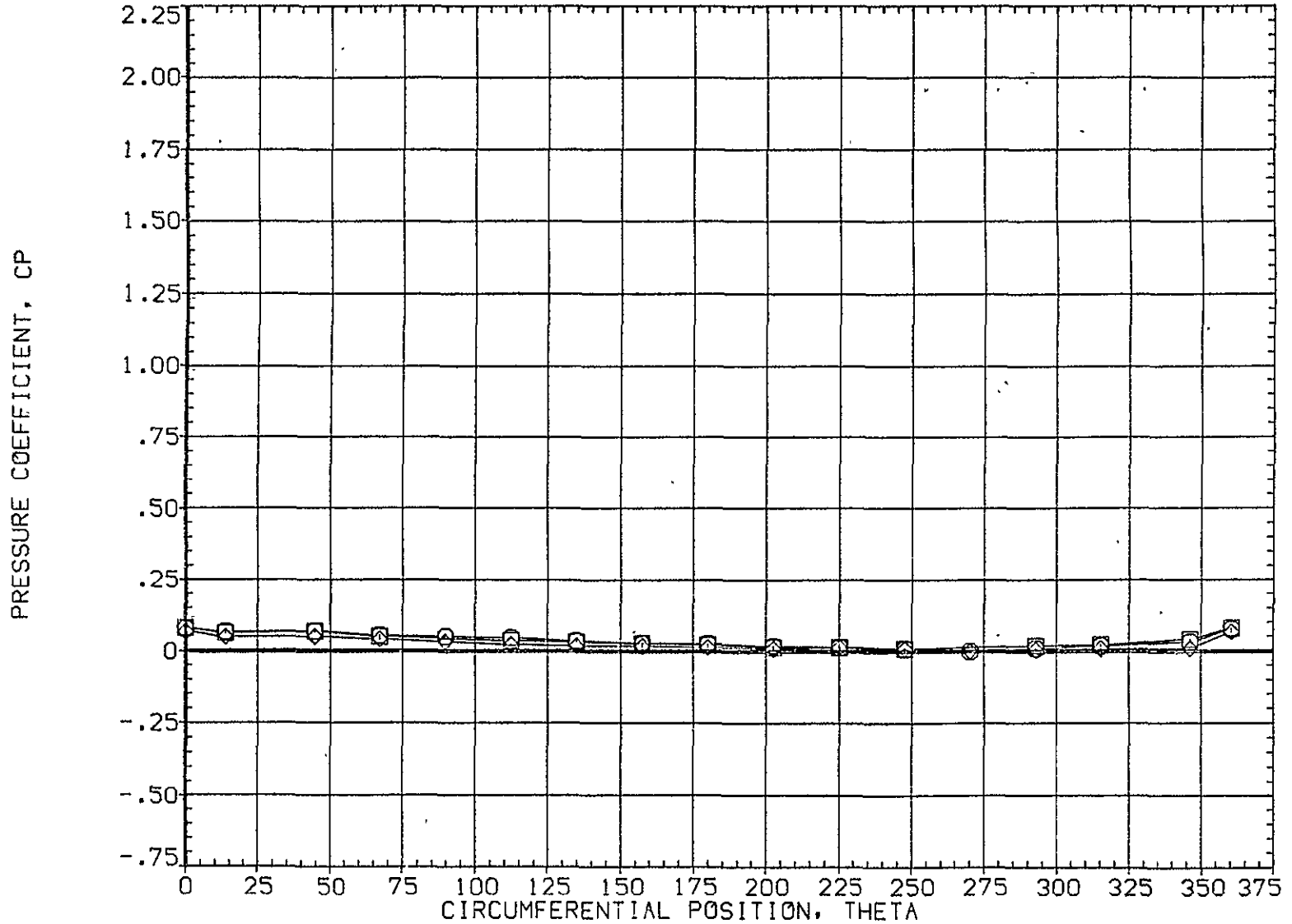


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK,

(P1A044)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	,000	
○	.610	3.730	4.960	MCUNT	1.000	PHI	225.000
□	.735						
◇	.860						

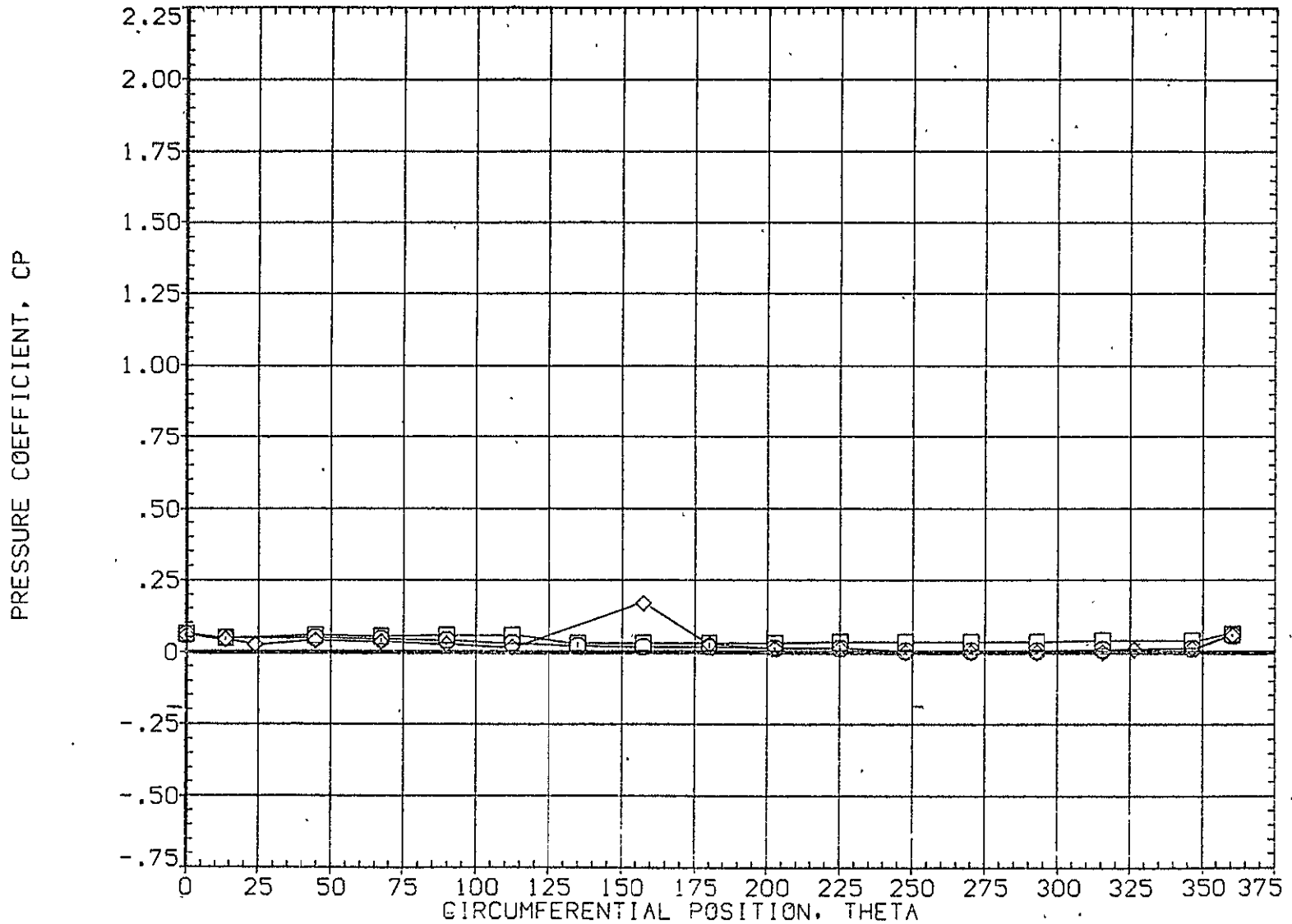


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - TI WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB	ALPHA	MACH
.892	3.730	4.960
.923		
.954		

PARAMETRIC VALUES		
BETA	.000	OFFSET .000
MOUNT	1.000	PHI 225.000

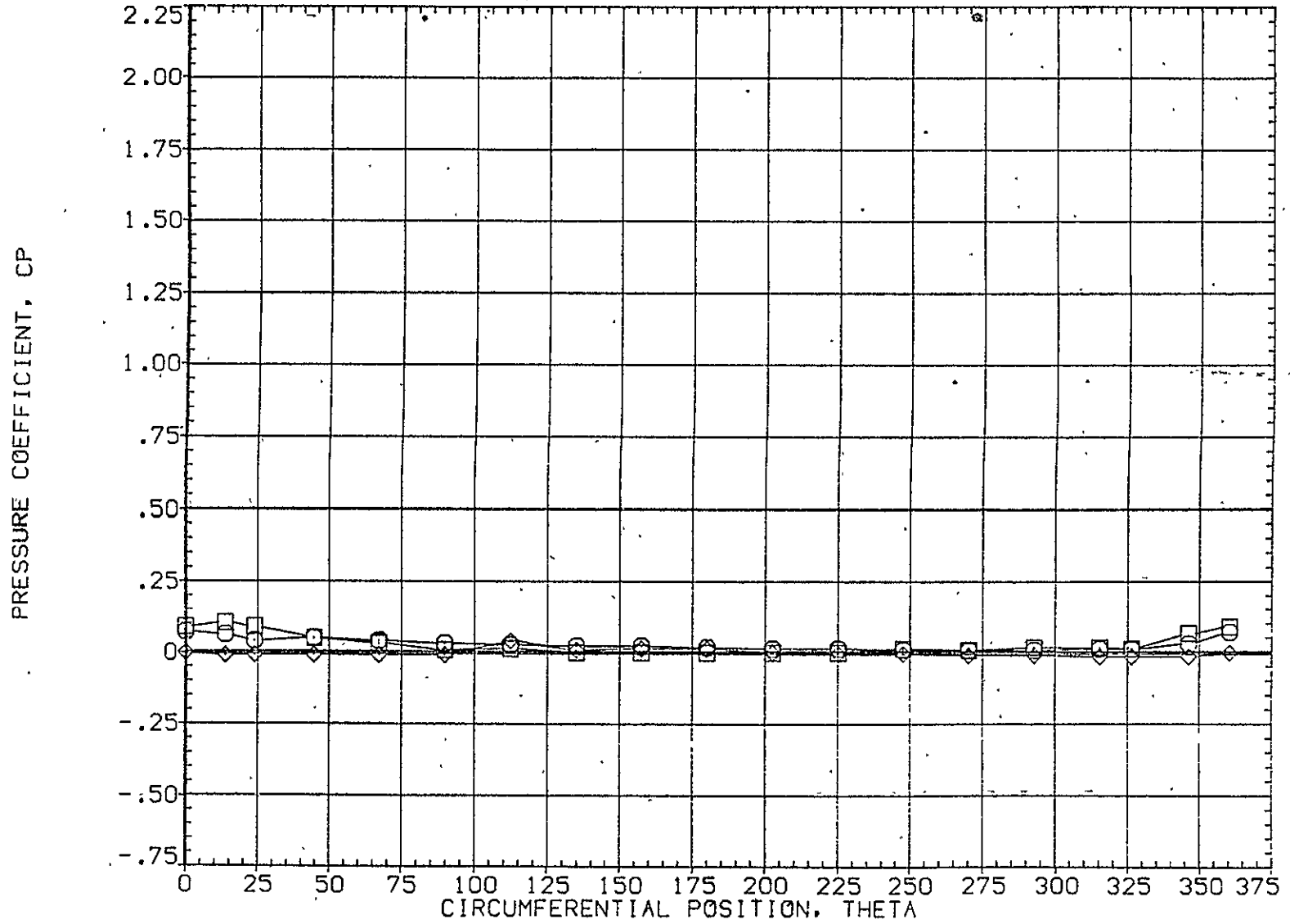


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	7.750	4.960	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

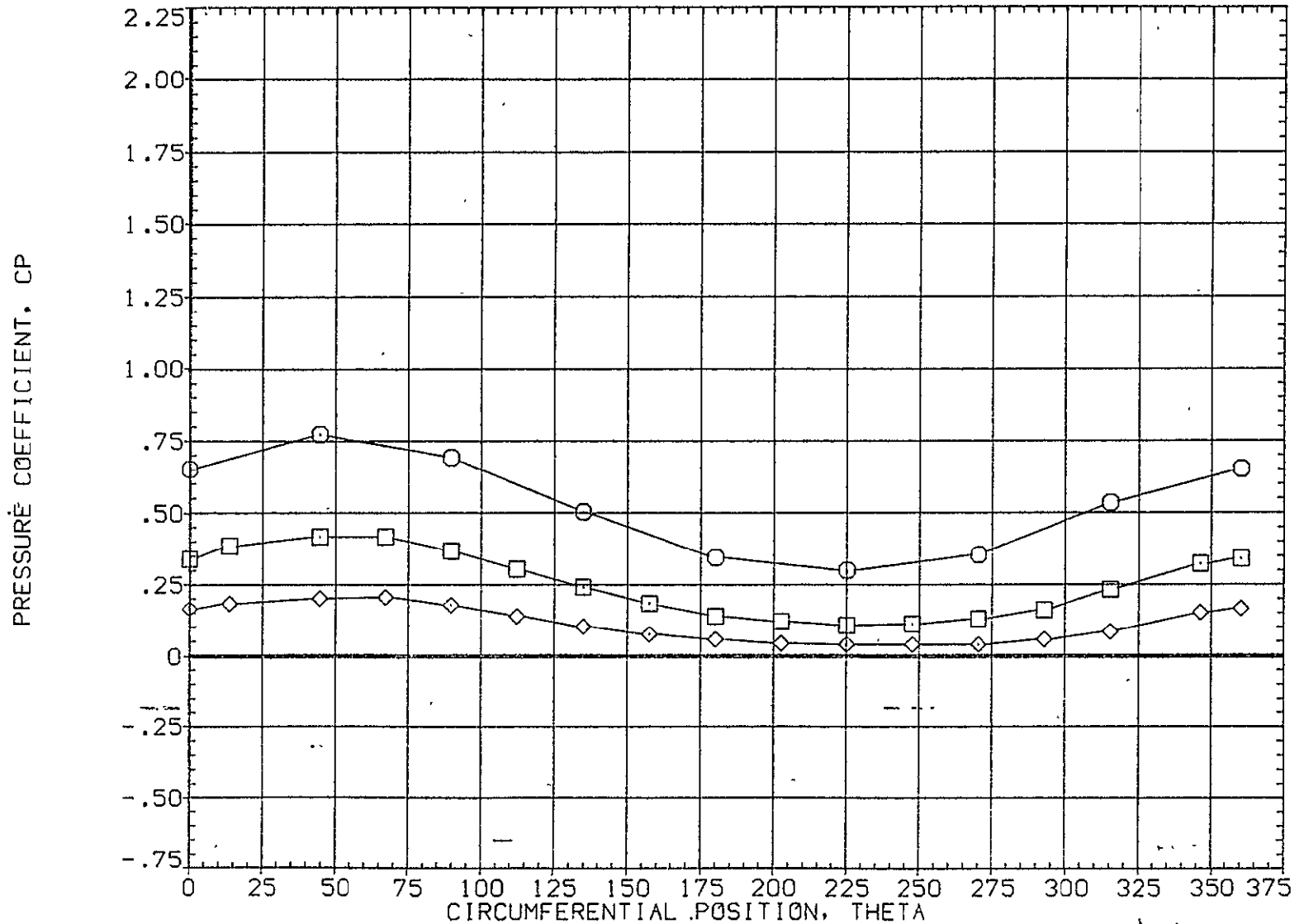


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	7.750	4.960	.000	.000	.000
□	.322			1.000		225.000
◇	.518					

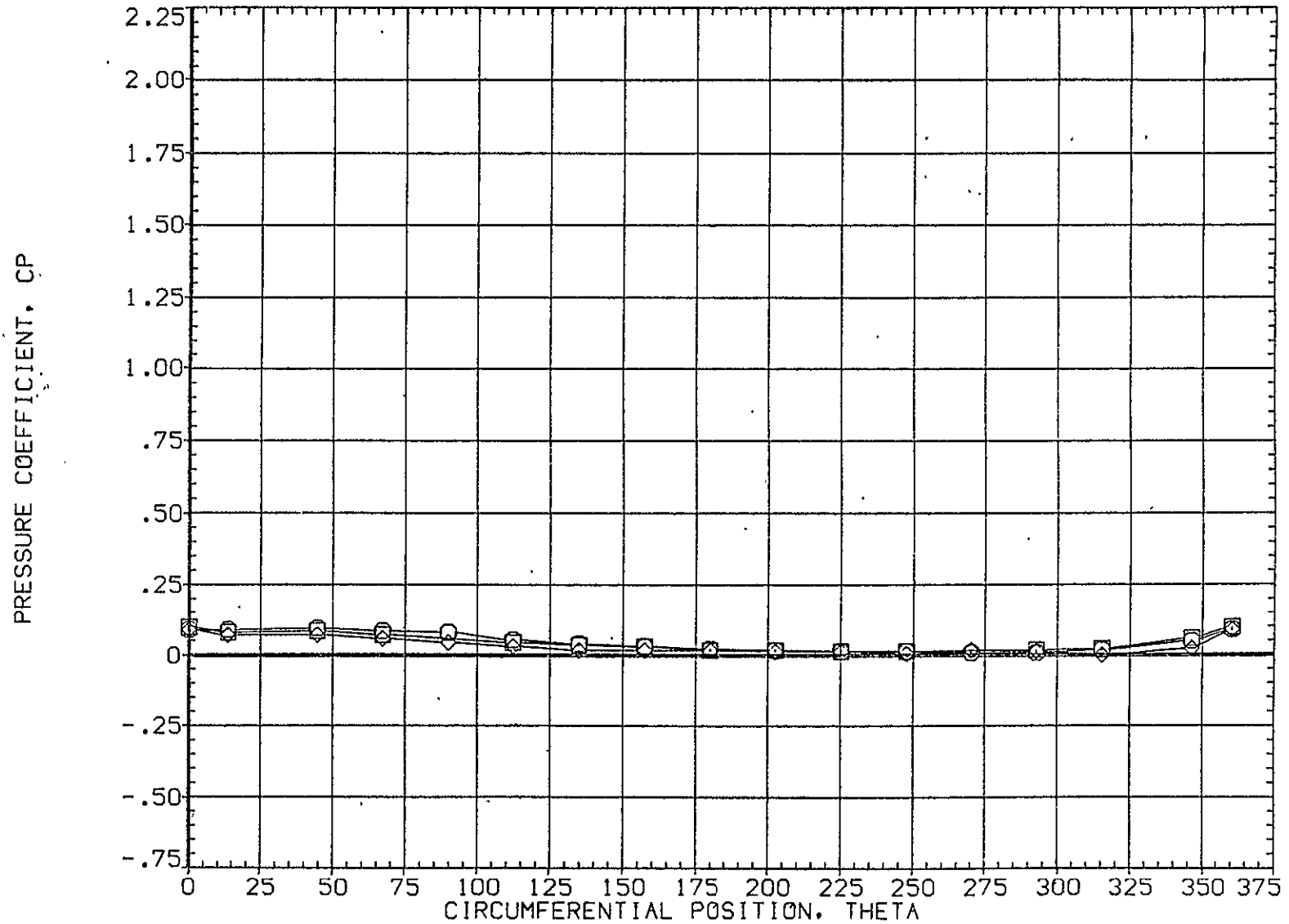


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A045)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	7.750	4.960	.000	.000	.000
□	.735			1.000		225.000
◇	.860					

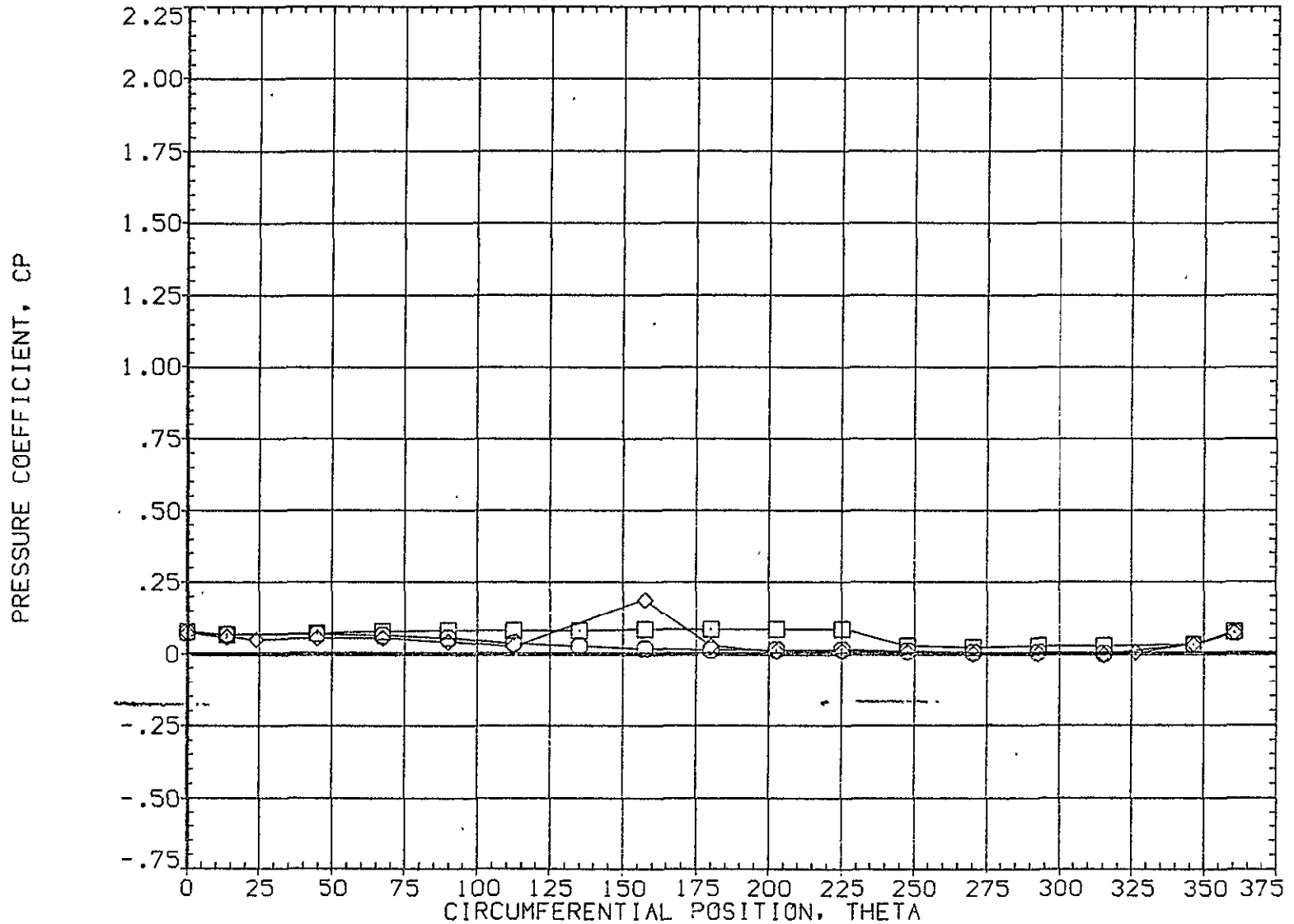


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	7.750	4.960	.000		.000
□	.923			1.000	PHI	225.000
◇	.954					

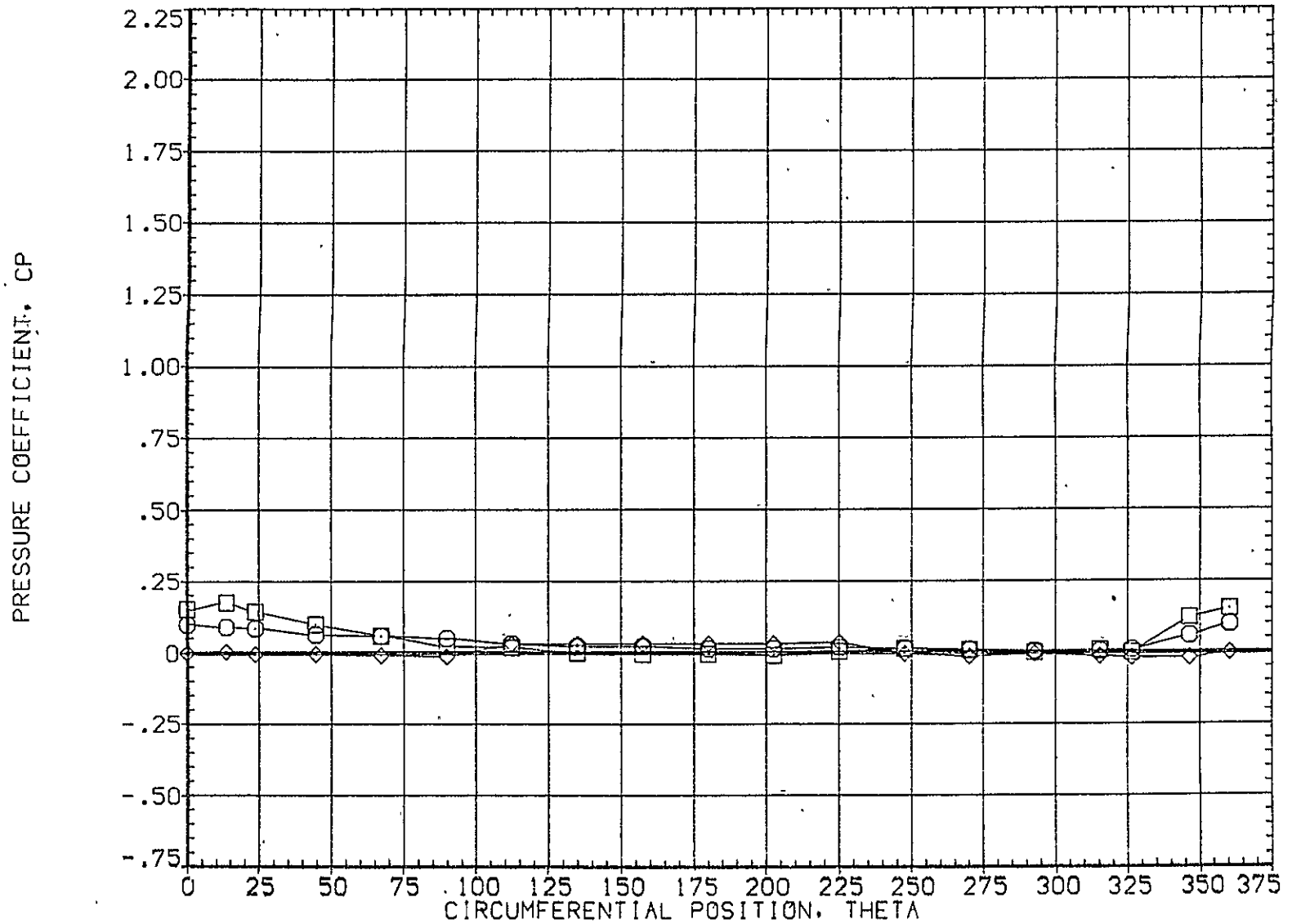


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A046)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.055	12.450	4.960	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

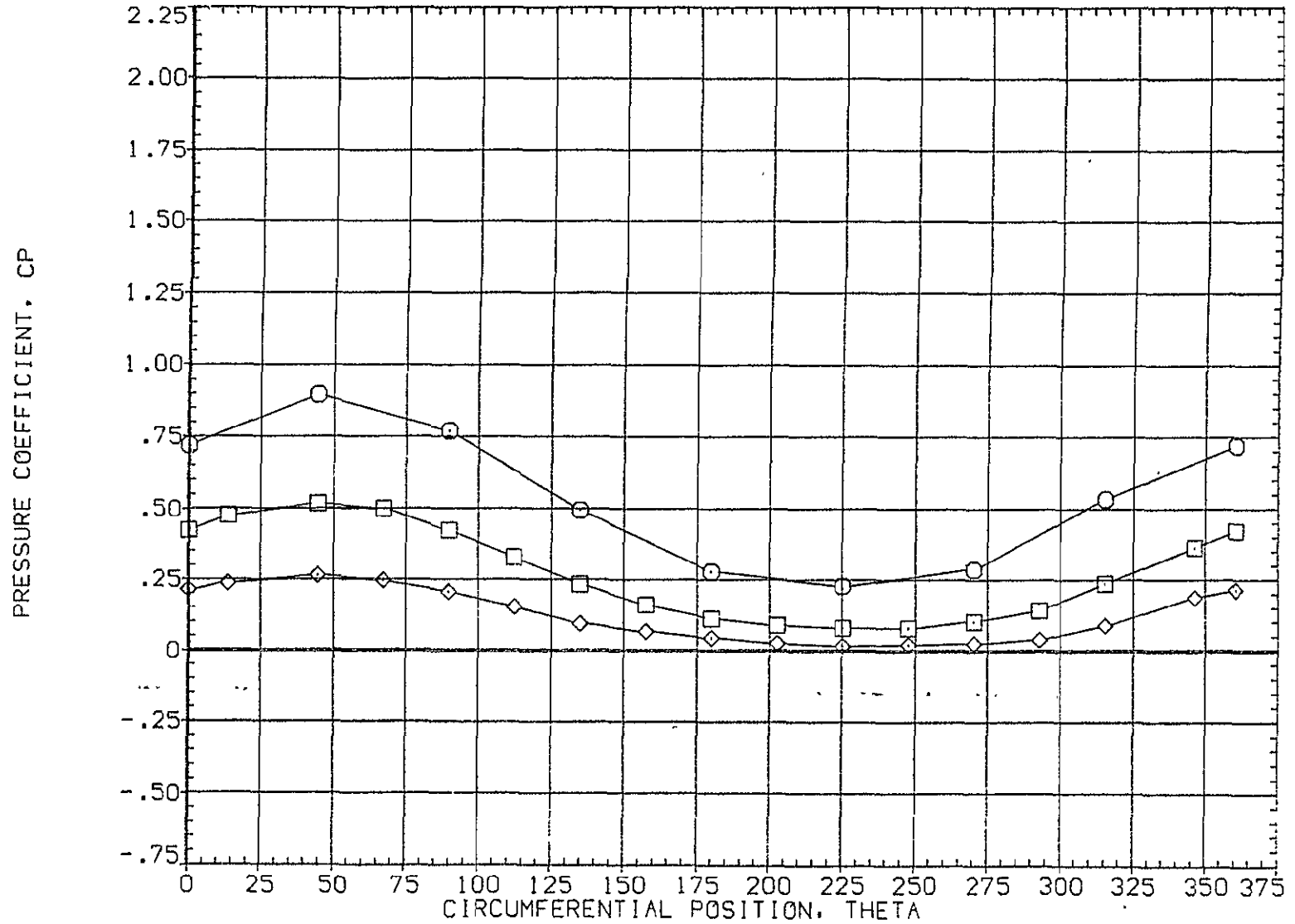


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES.

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	12.450	4.960	.000	20.000	
□	.322			1.000	225.000	
◇	.518					

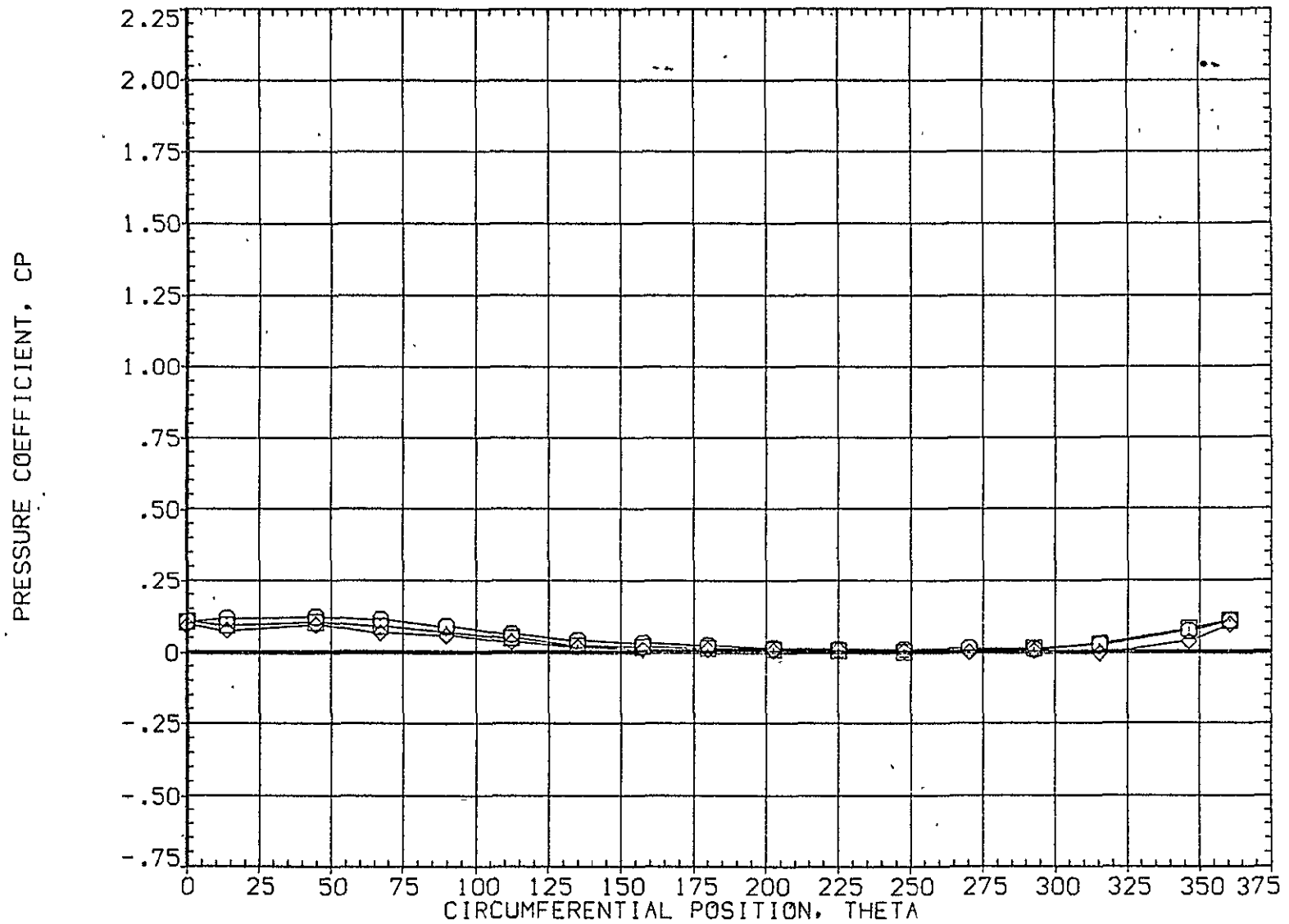


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A046)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	12.450	4.960	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

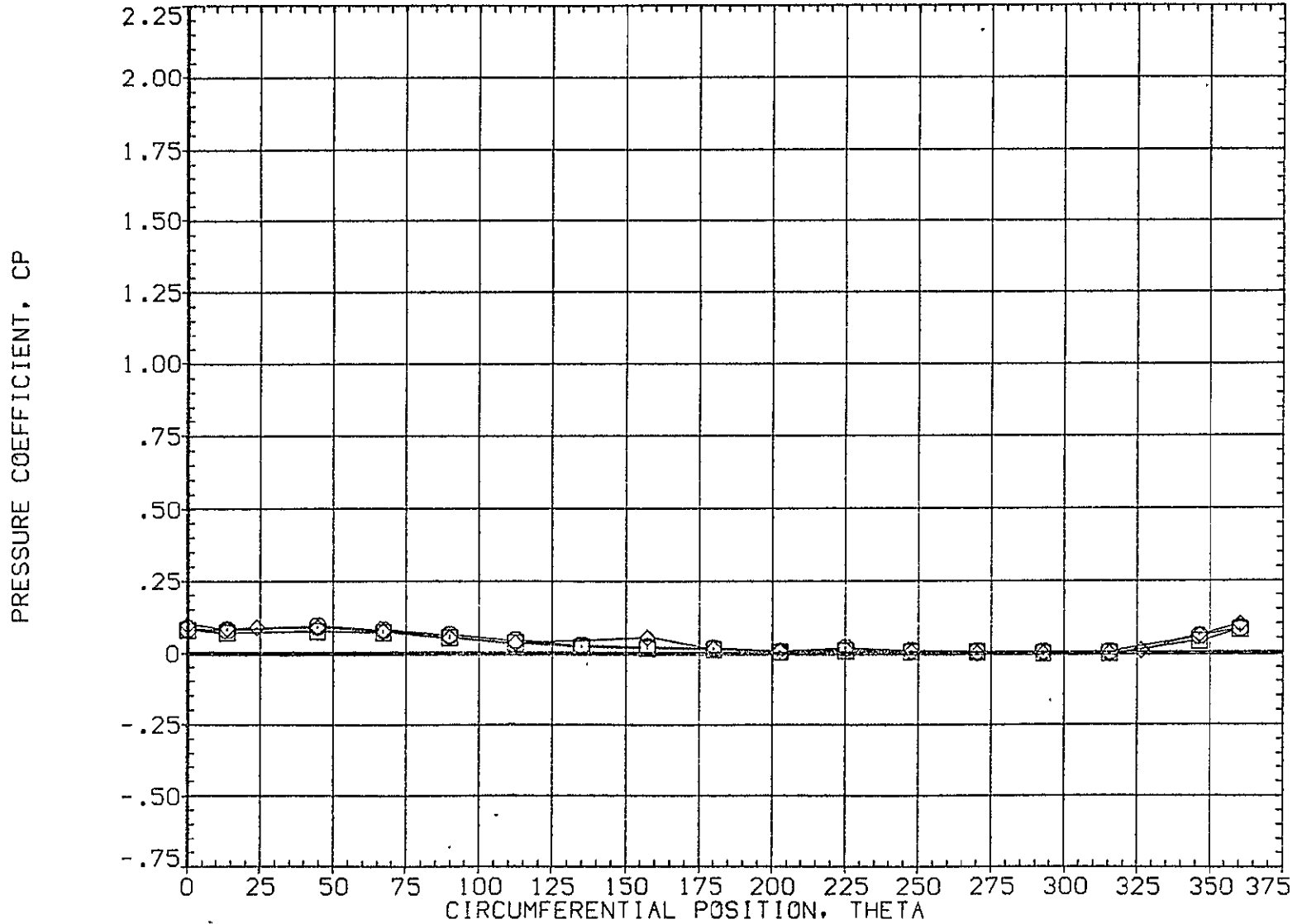


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
○	.892	12.450	4.960	BETA	.000	OFFSET	20.000
□	.923			MOUNT	1.000	PHI	225.000
◇	.954						

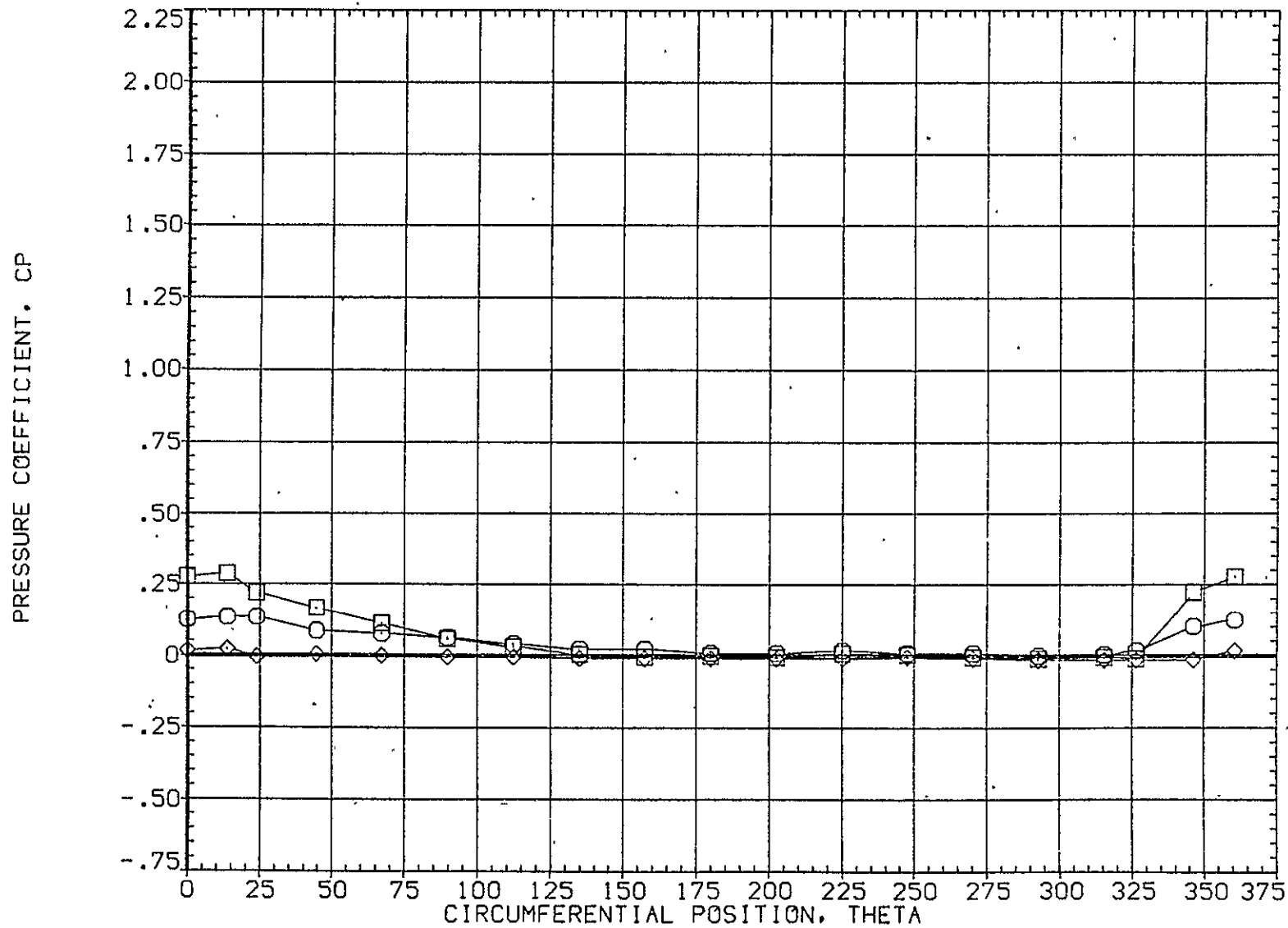


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	16.450	4.960	.000	20.000	
□	.108			1.000	225.000	
◇	.162					

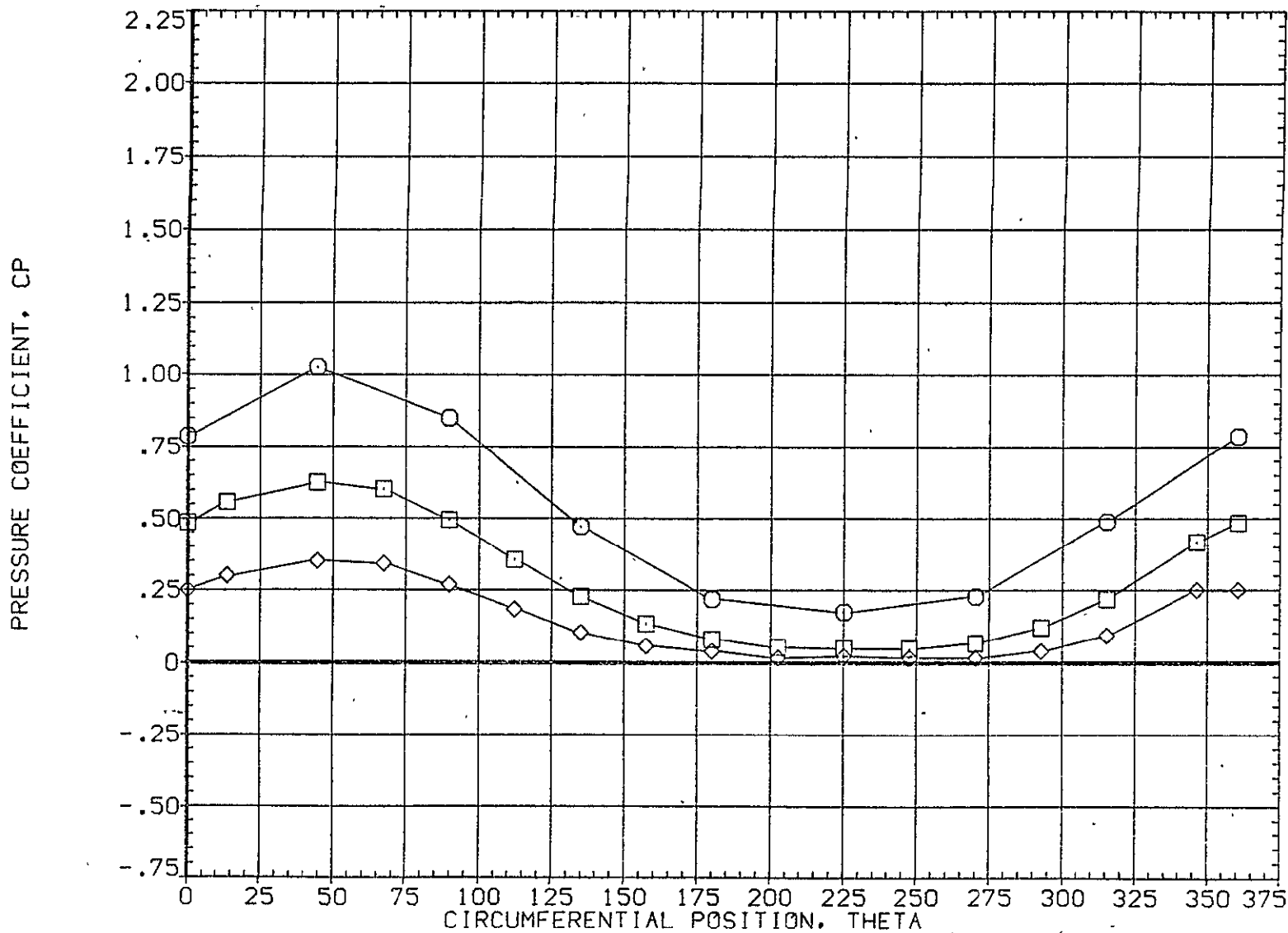


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	16.450	4.960	.000	20.000	
□	.322			1.000	PHI	225.000
◇	.518					

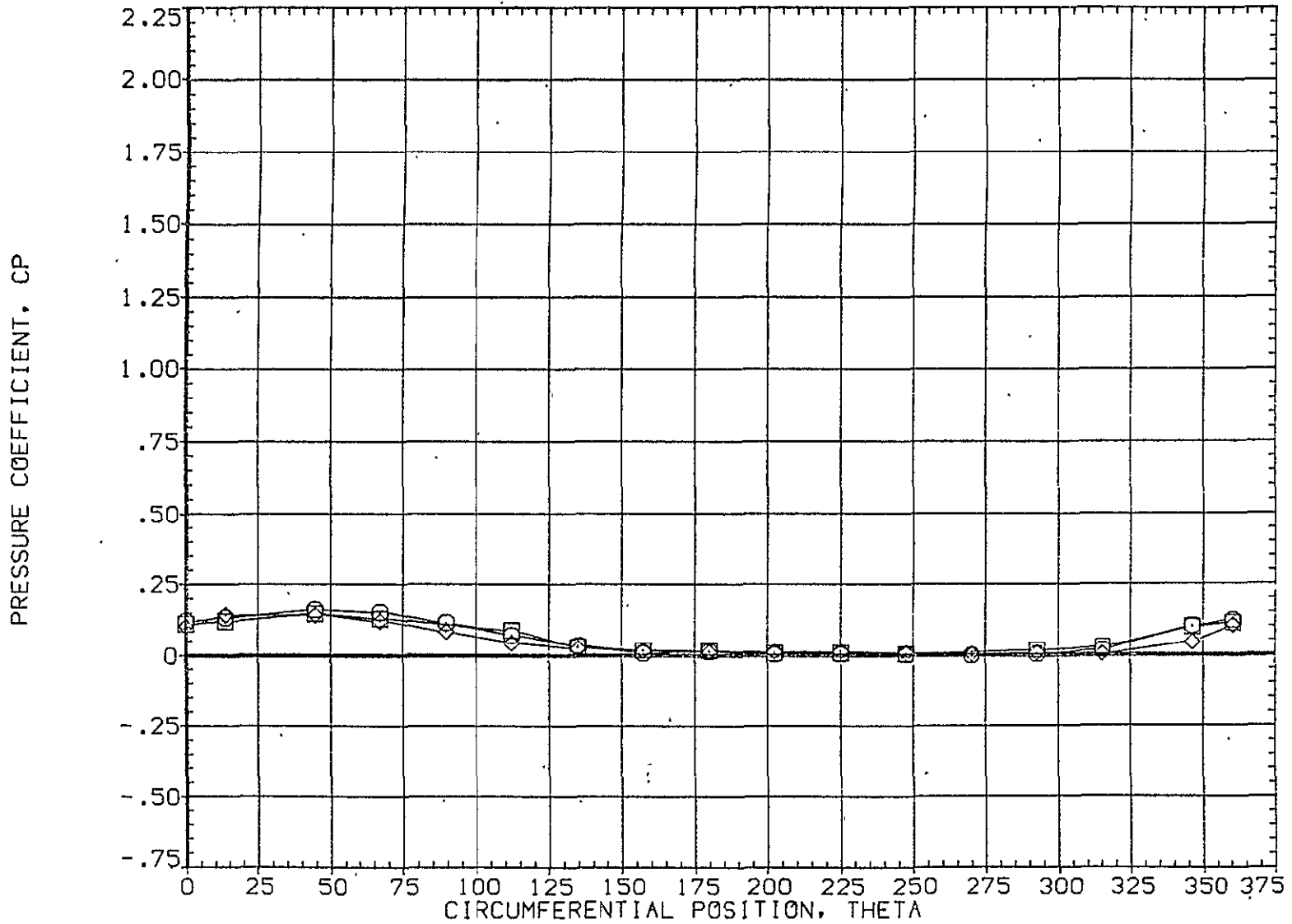


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A047)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	16.450	4.960	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

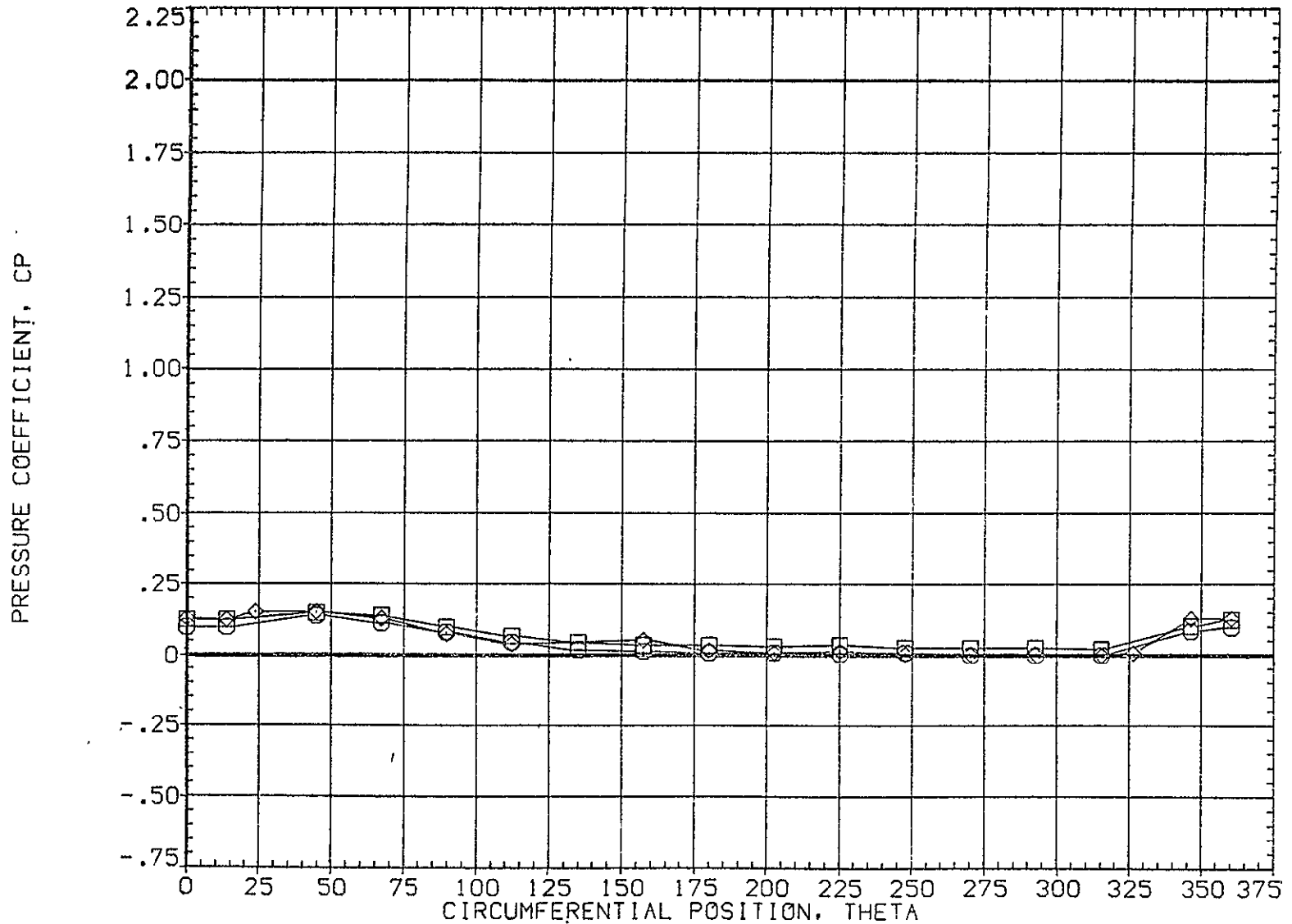


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	16.450	4.960	MOUNT	1.000	PHI	225.000
□	.923						
◇	.954						

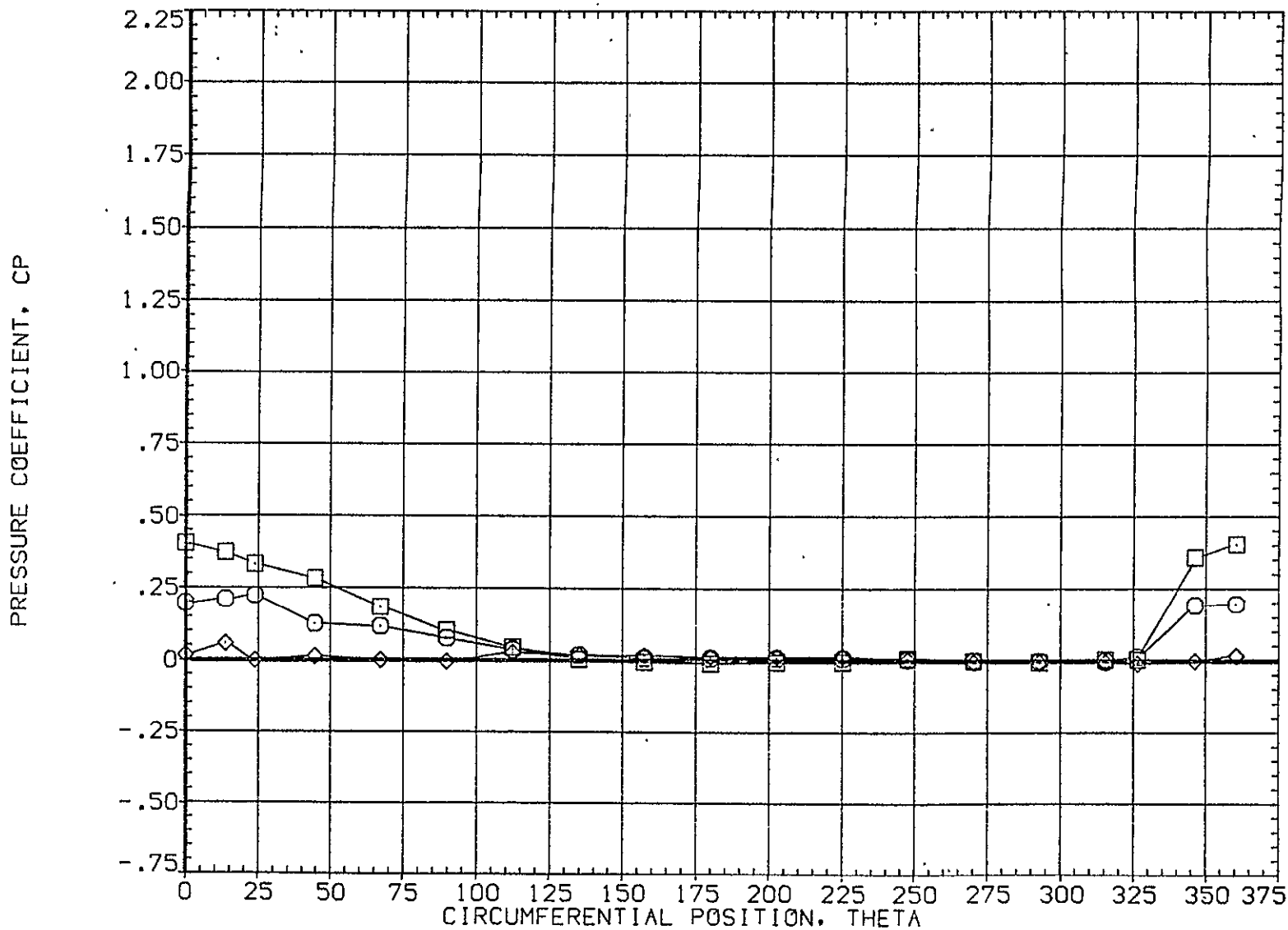


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.490	4.960	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

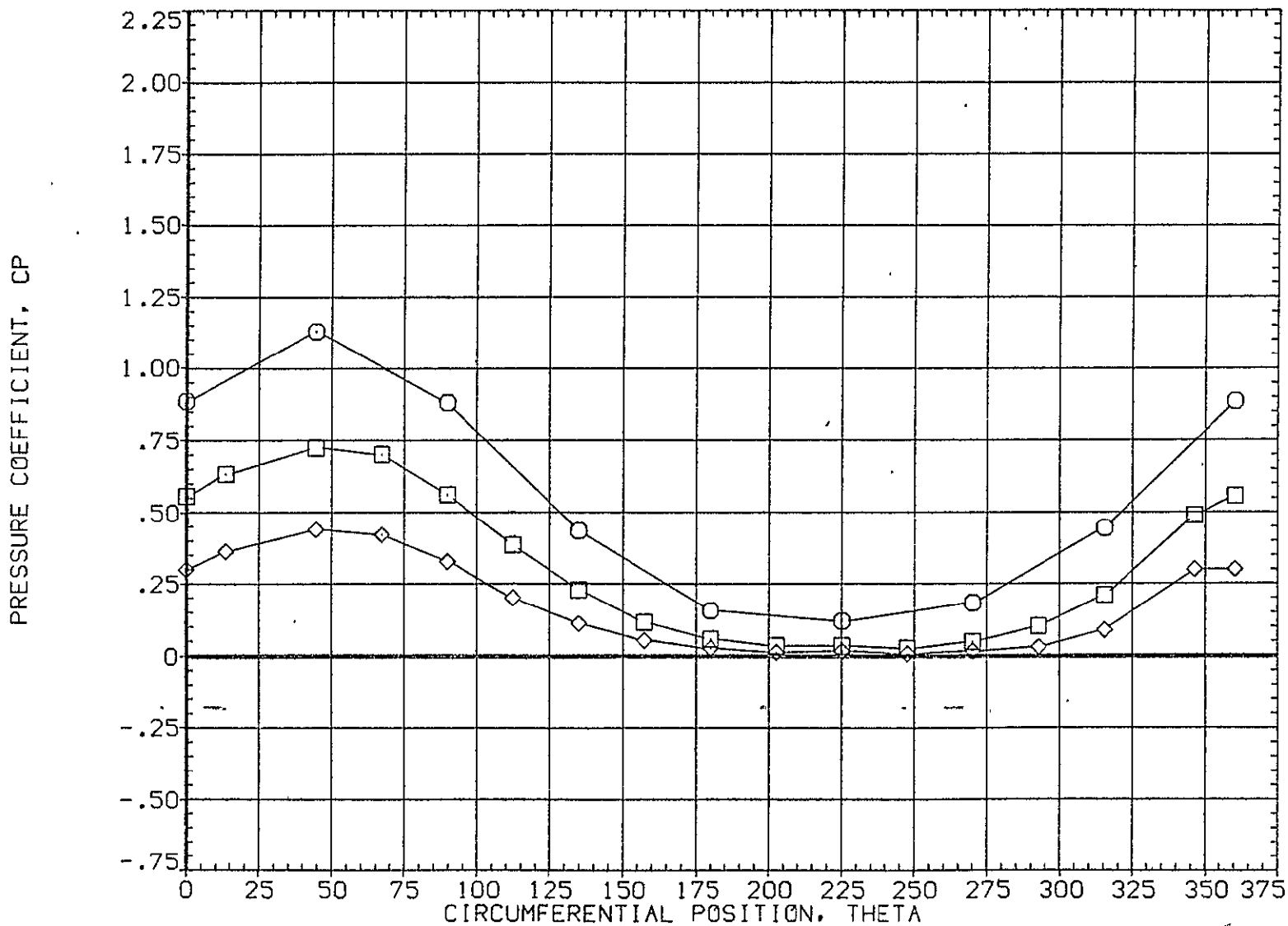


FIG. 5. CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	20.490	4.960	.000	20.000	
□	.322			1.000	225.000	
◇	.518					

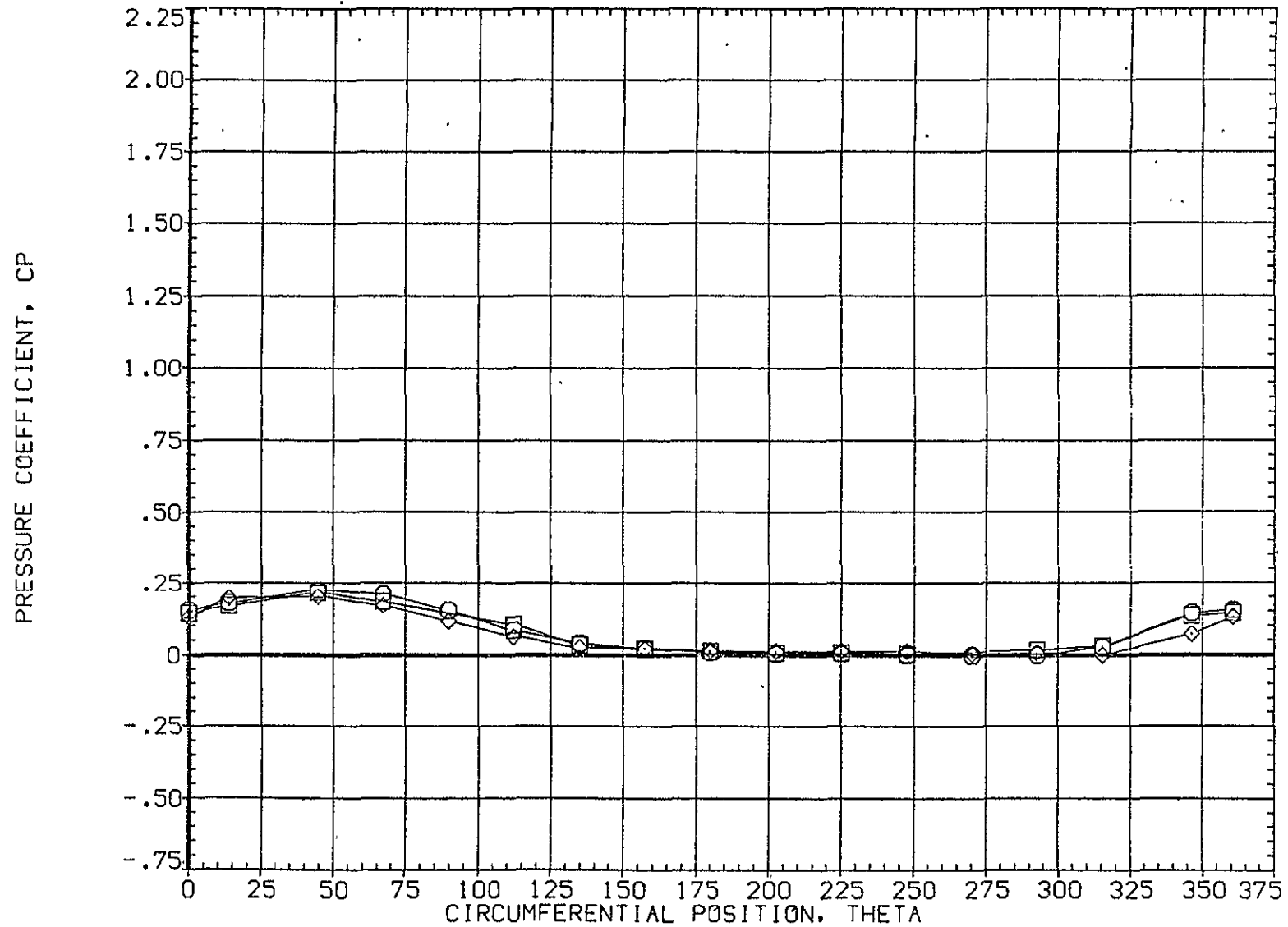


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A048)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	20.490	4.960	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

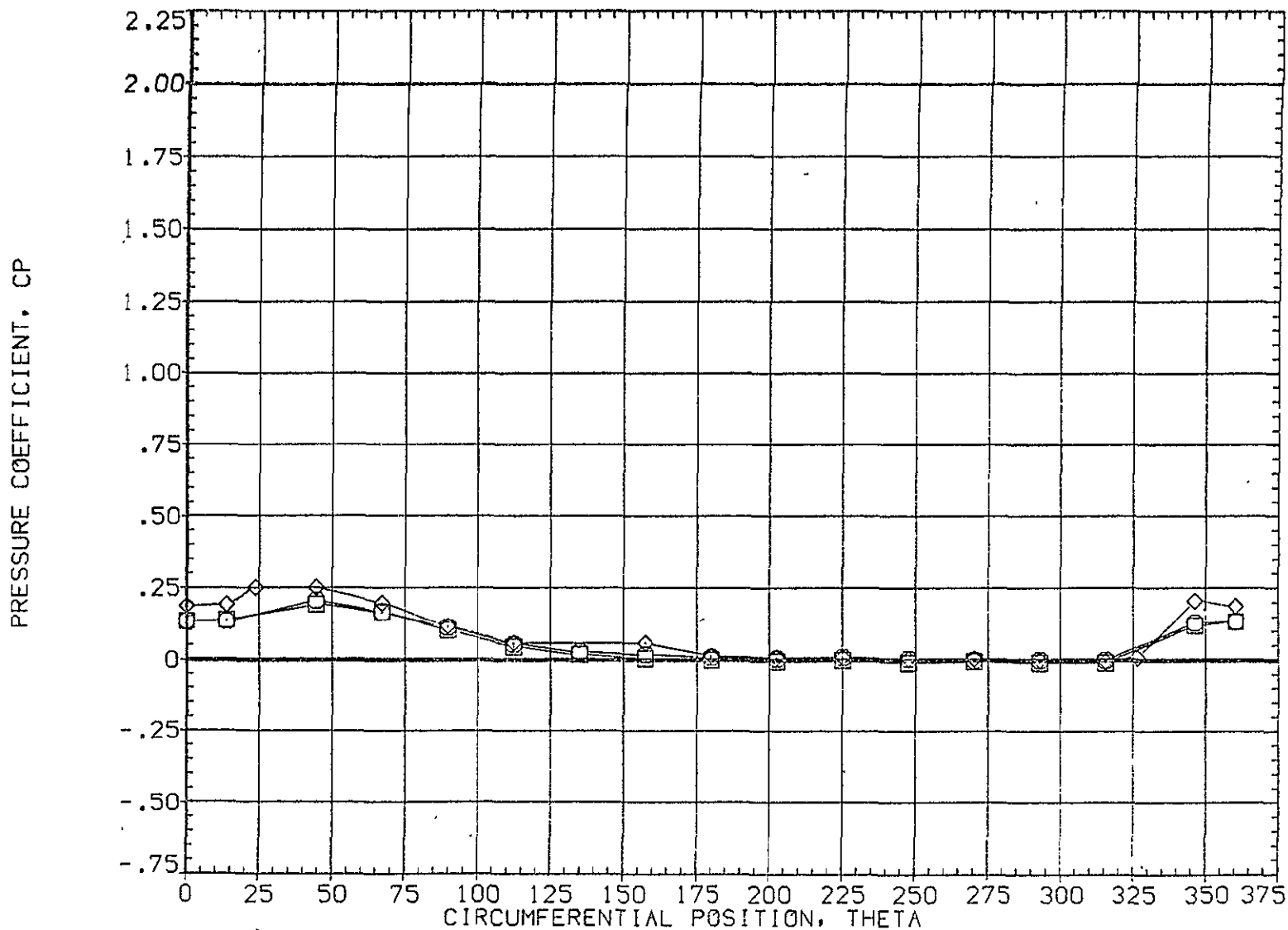


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .892
 .923
 .954
 ALPHA 20.490
 MACH 4.960

PARAMETRIC VALUES
 BETA .000
 MOUNT 1.000
 OFFSET 20.000
 PHID 225.000

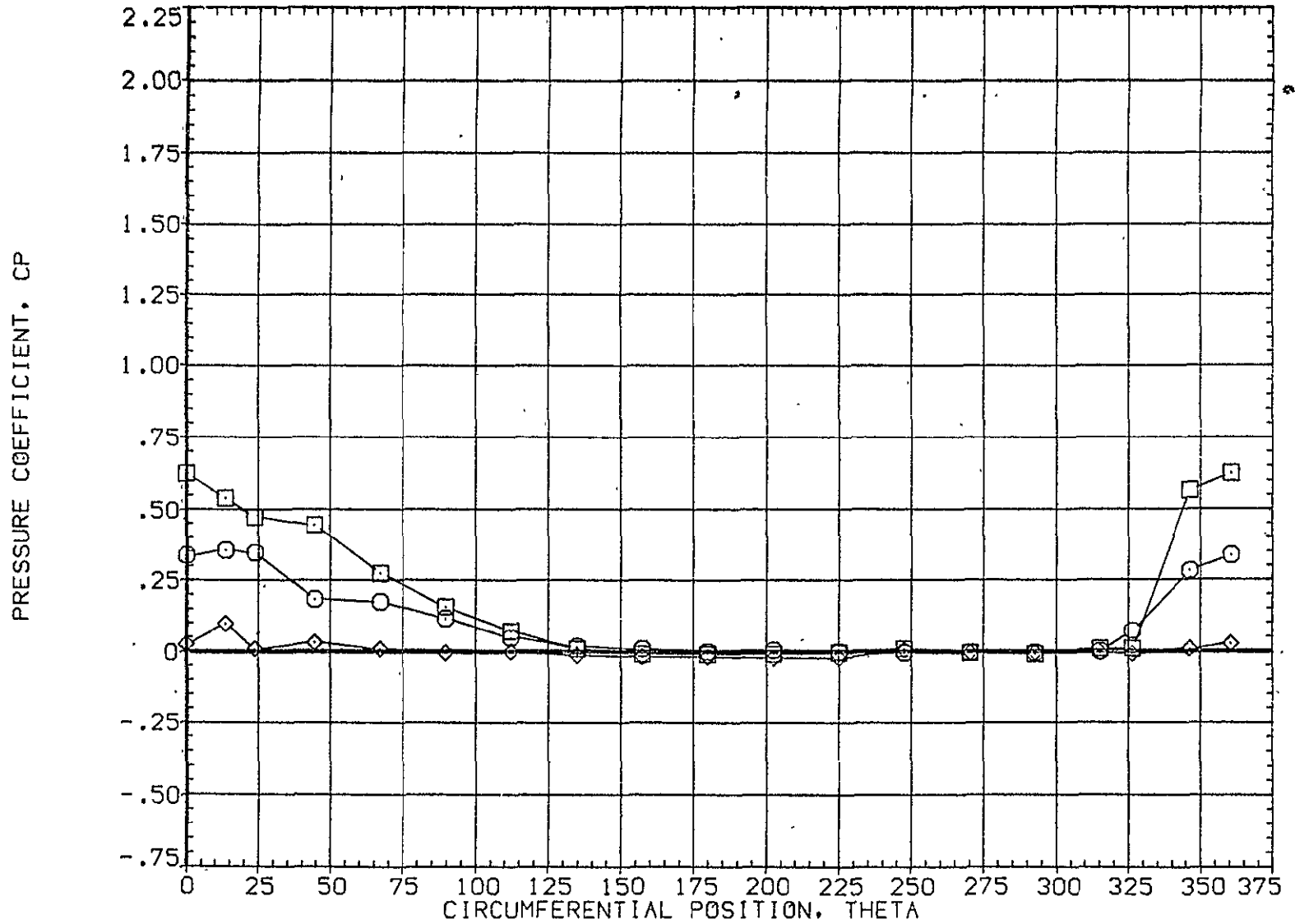


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	.000 OFFSET	-- 20.000
○	.055	24.510	4.960	MOUNT	1.000	PHI 225.000
□	.108					
◇	.162					

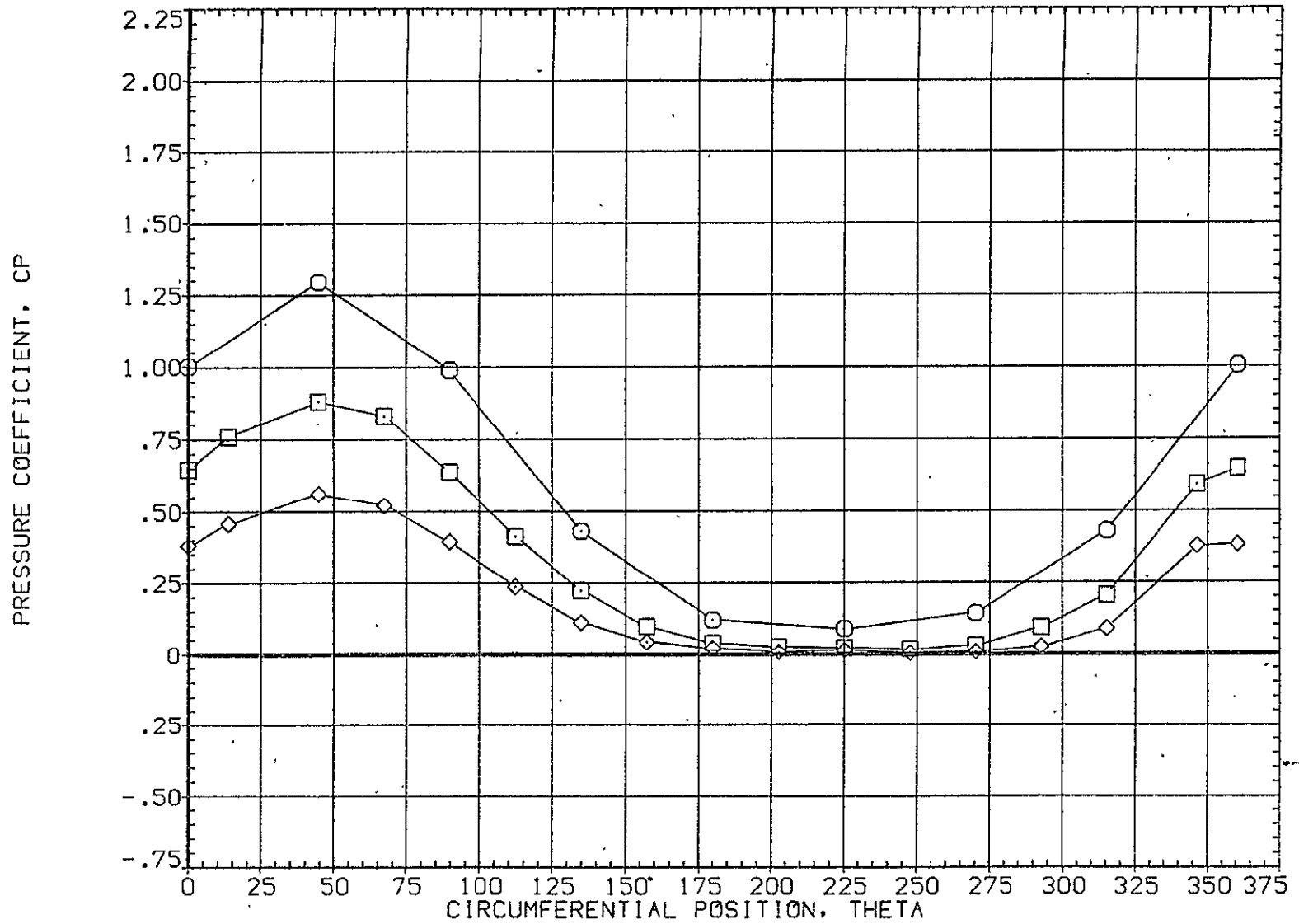


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ◊ □ ○
 ◊ □ ○

X/LB	ALPHA	MACH
.216	24.510	4.960
.322		
.518		

PARAMETRIC VALUES		
BETA	.000	OFFSET 20.000
MOUNT	1.000	PHI 225.000

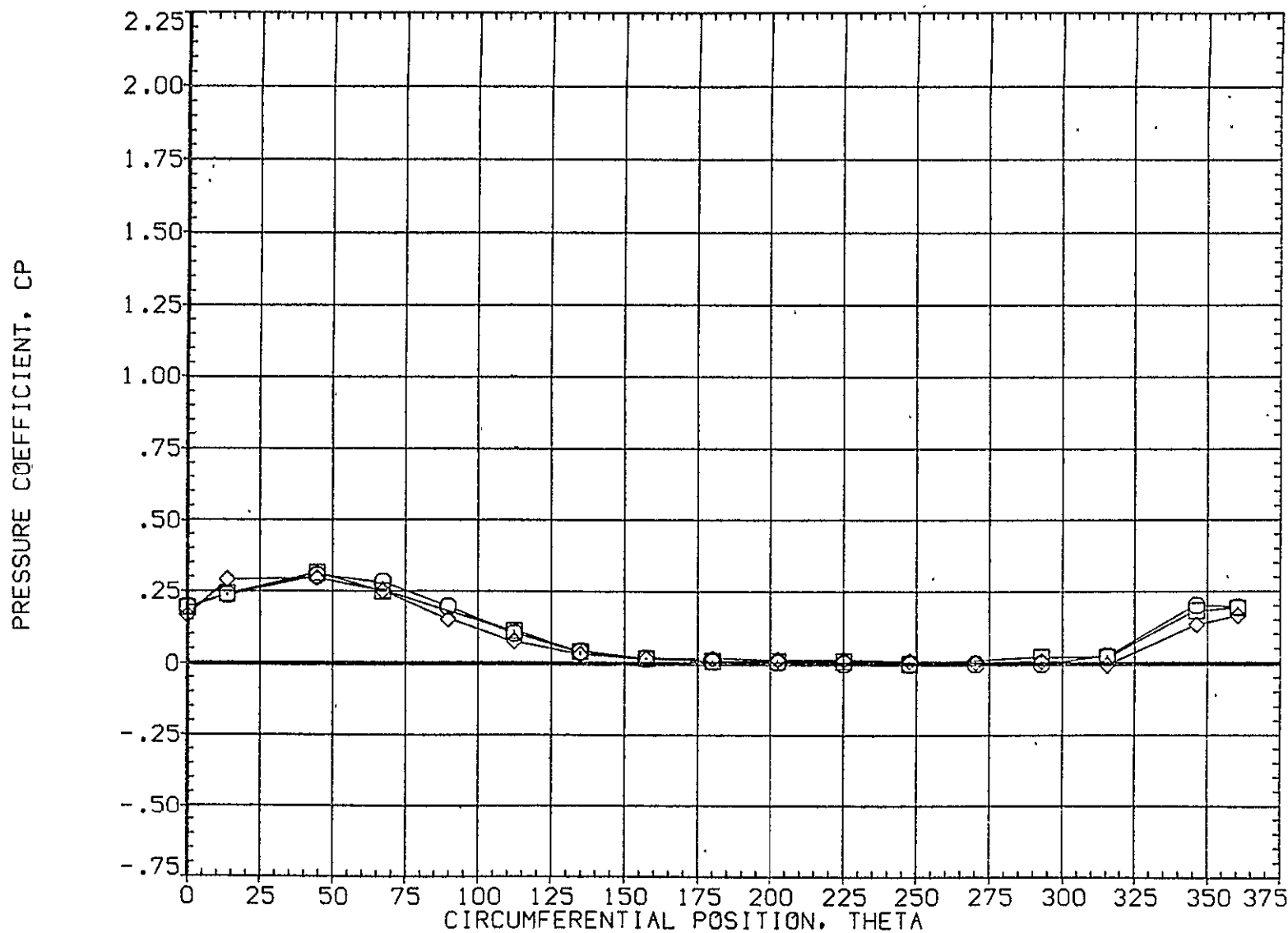


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	24.510	4.960	.000	20.000	
□	.735			1.000	225.000	
◇	.860					

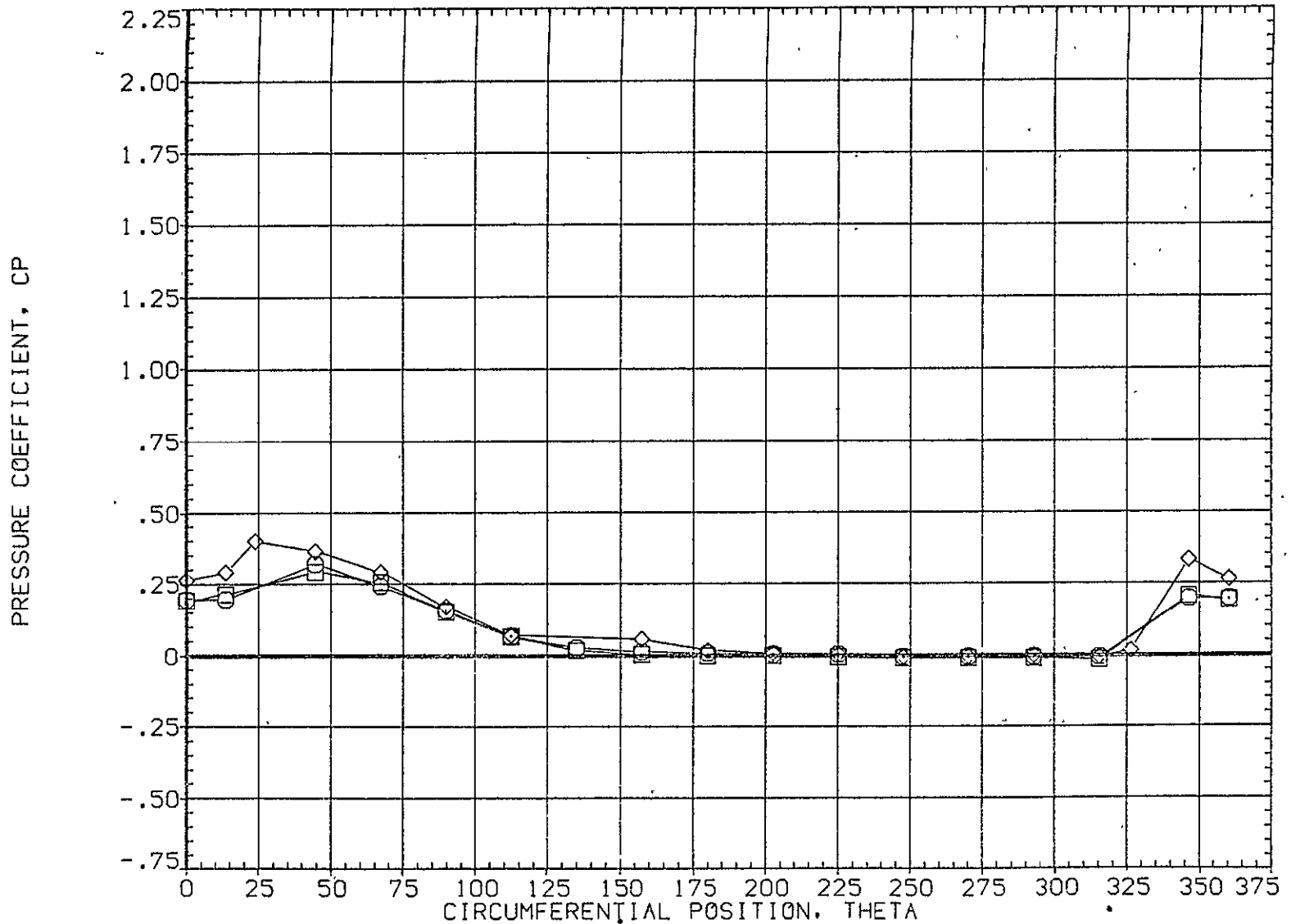


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	24.510	4.960	.000	20.000	
□	.923			1.000		
◇	.954				225.000	

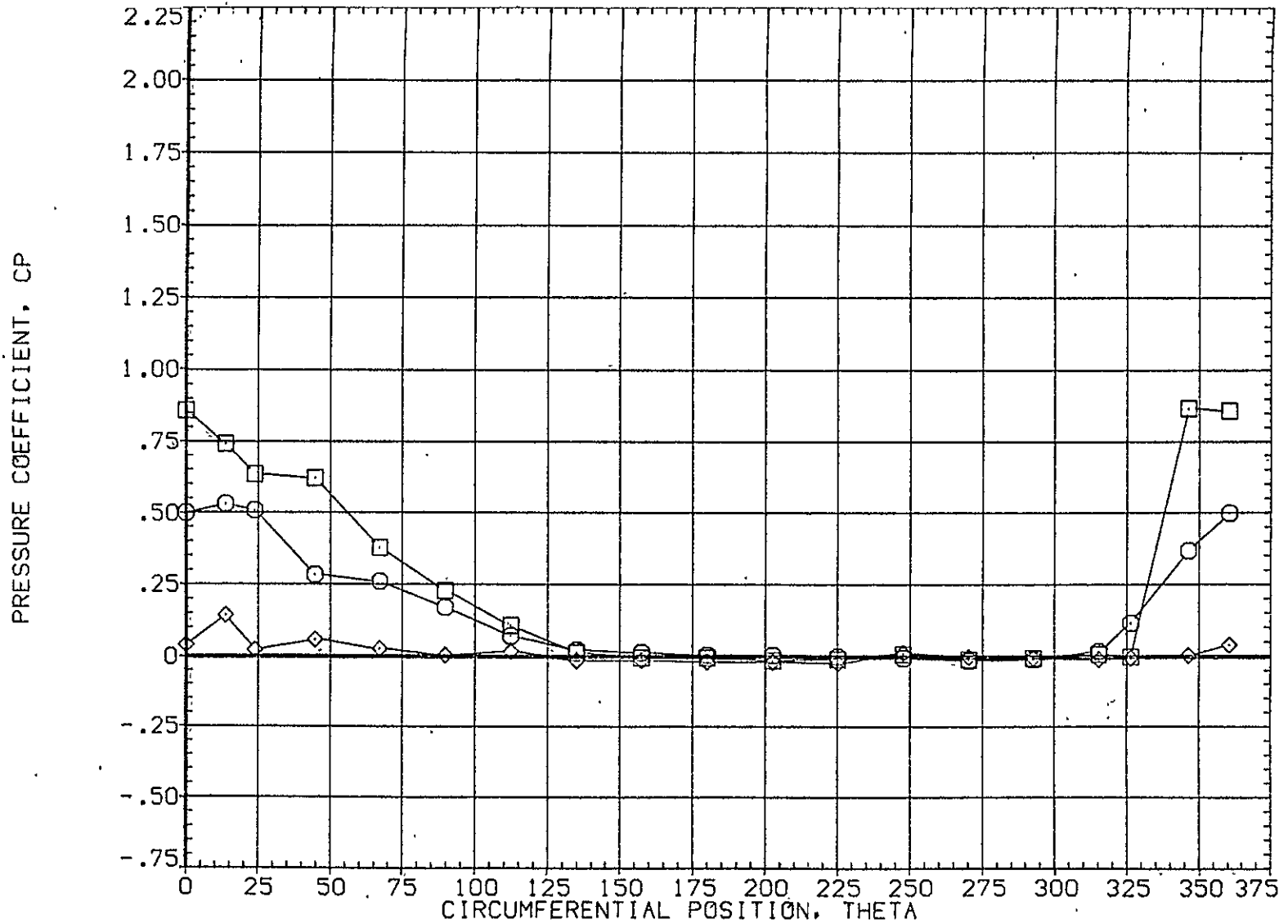


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	28.540	4.960	MOUNT	1.000	PHI	225.000
□	.108						
◇	.162						

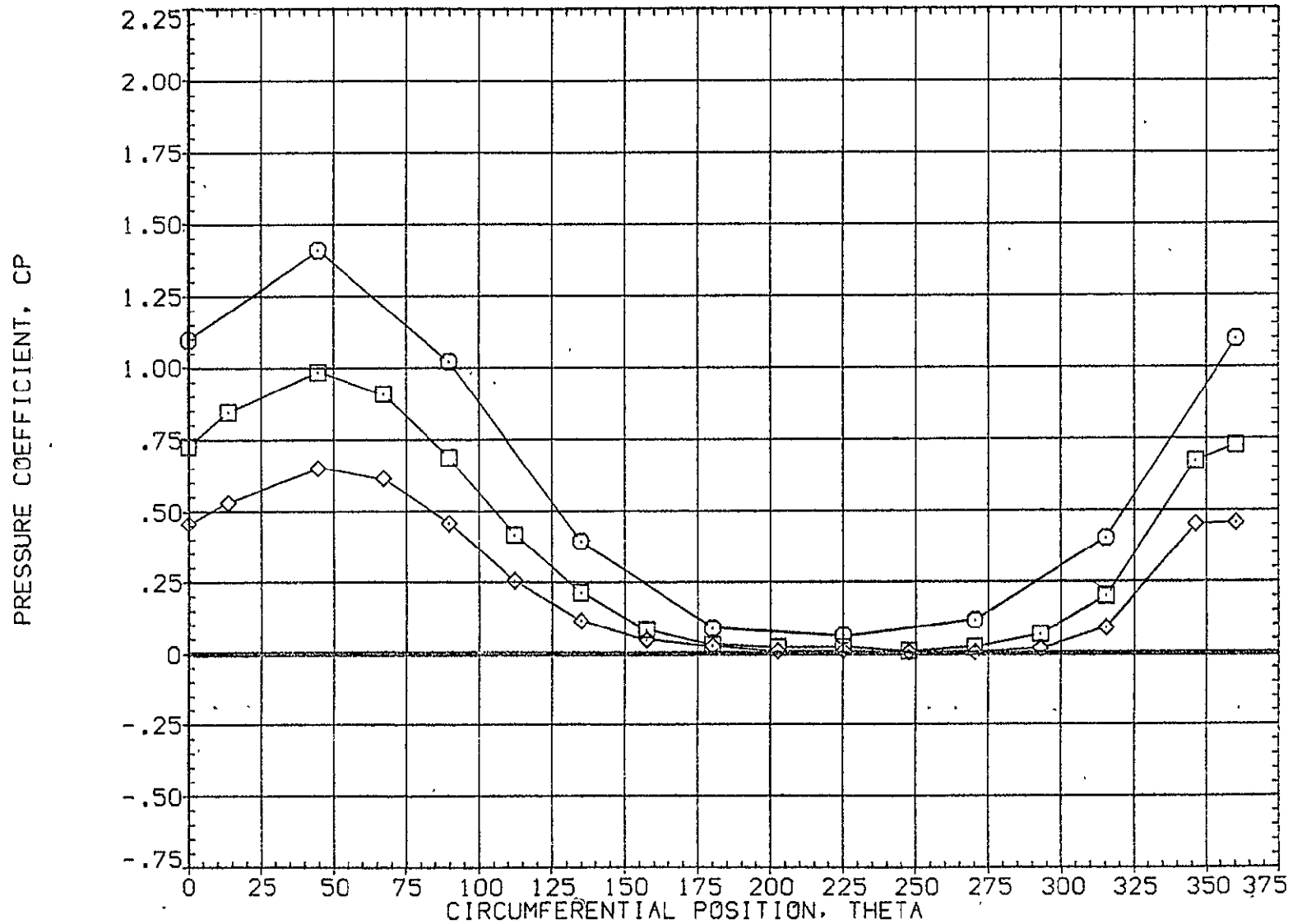


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUÉS	OFFSET	20.000
○	.216	28.540	4.960	MDUNT	1.000	PHI	225.000
□	.322						
◇	.518						

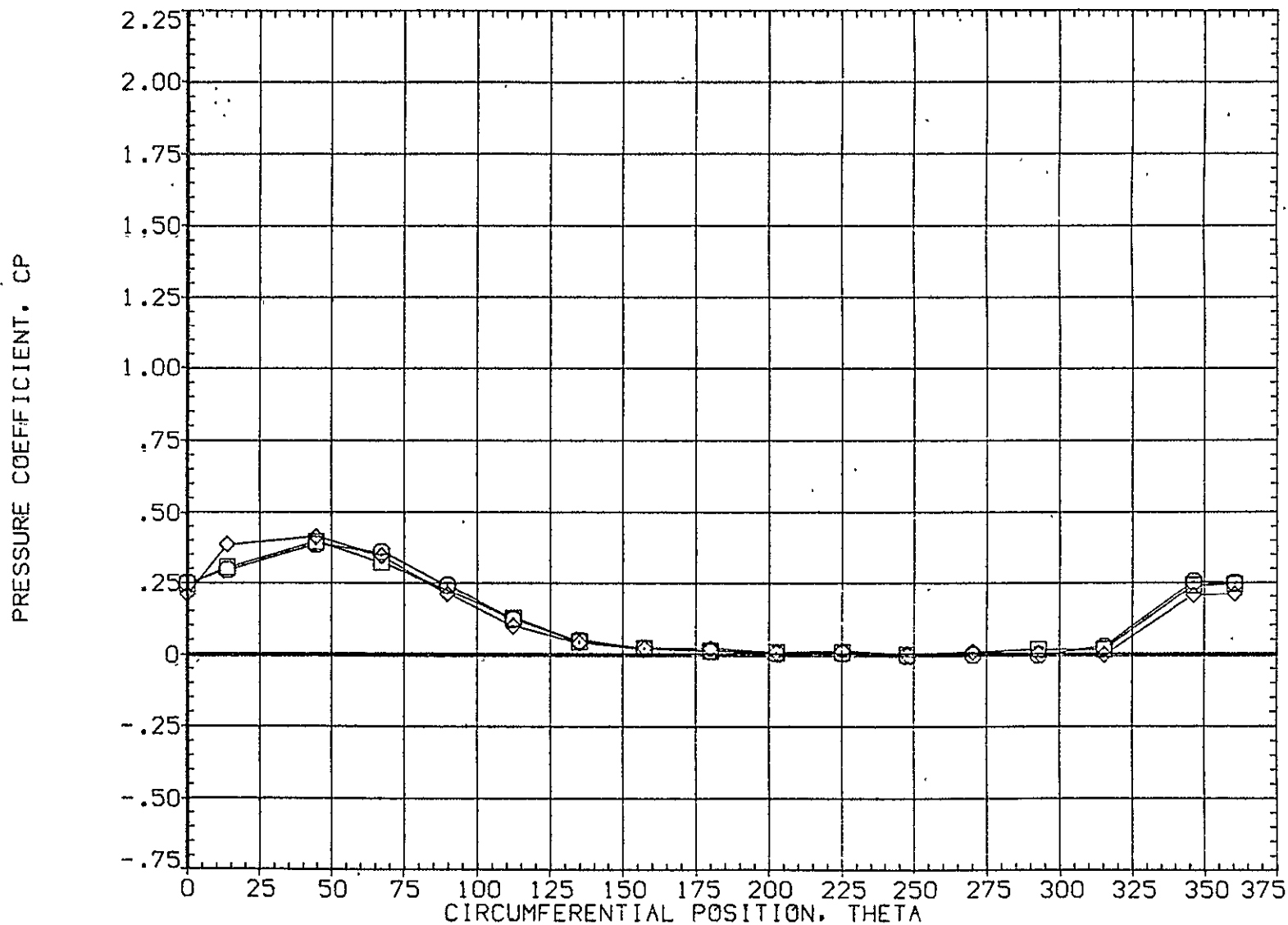


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A050)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	28.540	4.960	MOUNT	1.000	PHI	225.000
□	.735						
◇	.860						

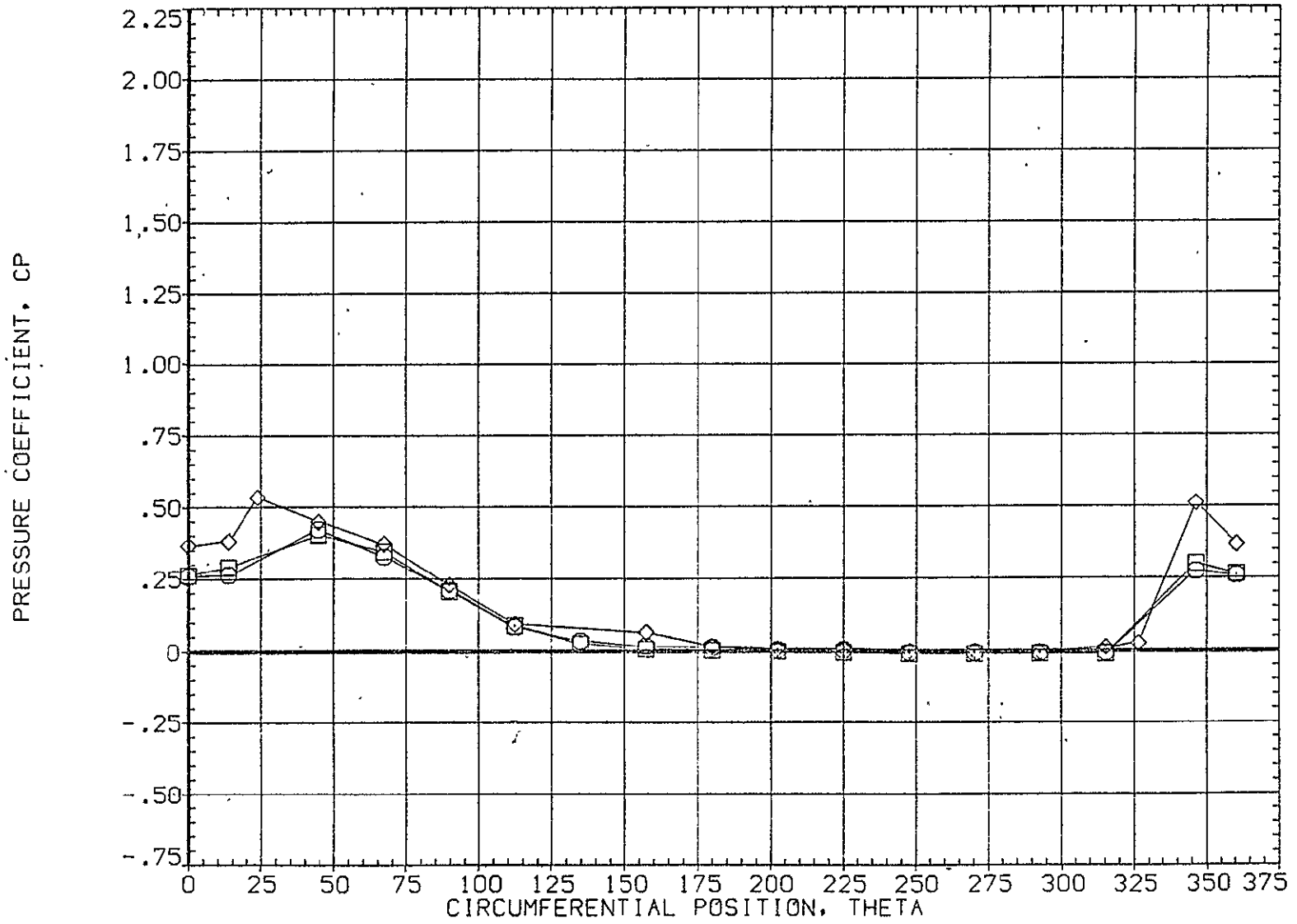


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	28.540	4.960	MOUNT	1.000	PHI	225.000
□	.923						
◇	.954						

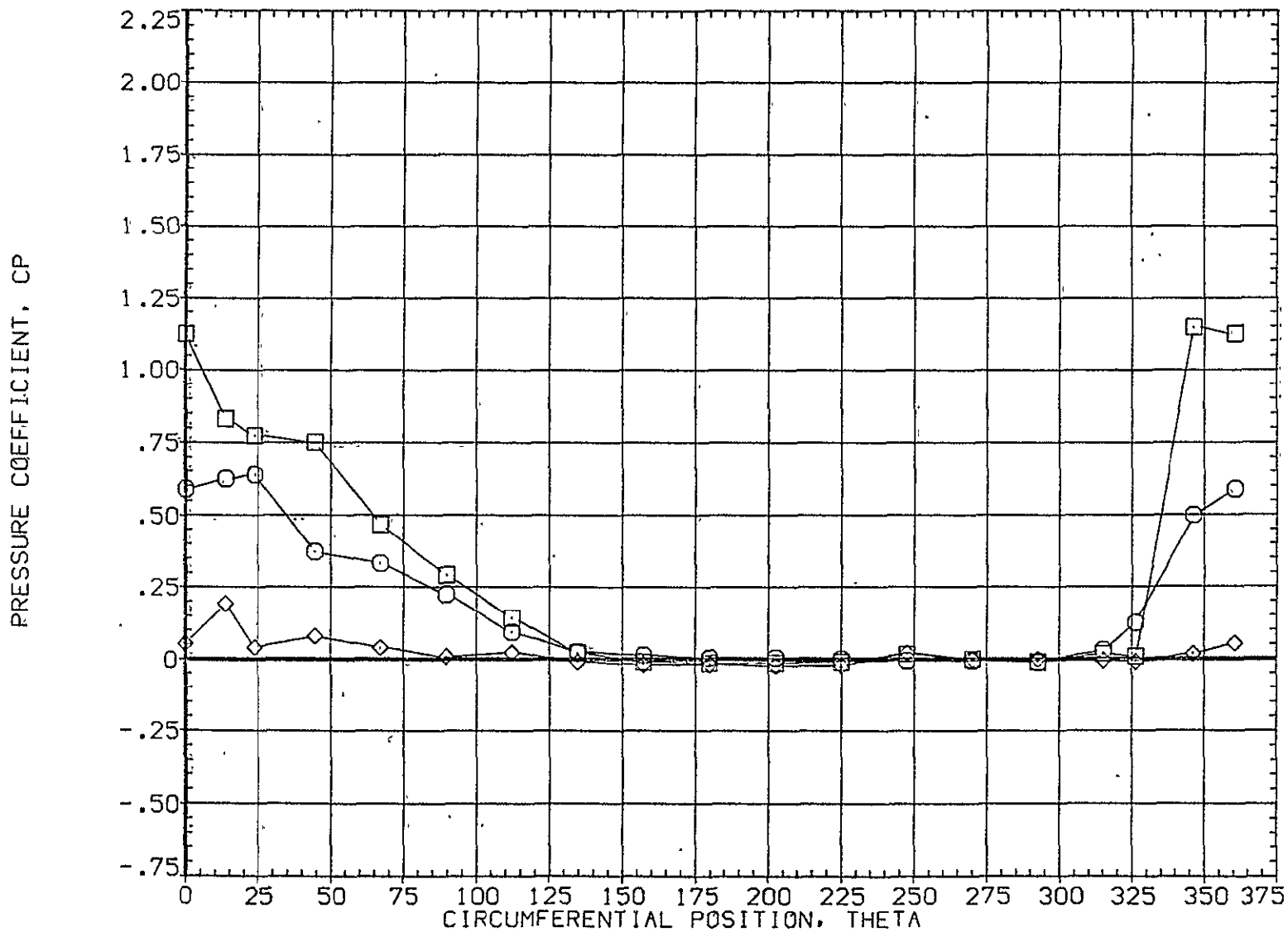


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A051)

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES		
○	.055	-8.310	4.960	MOUNT	.000	OFFSET	.000
□	.108				1.000	PHI	270.000
◇	.162						

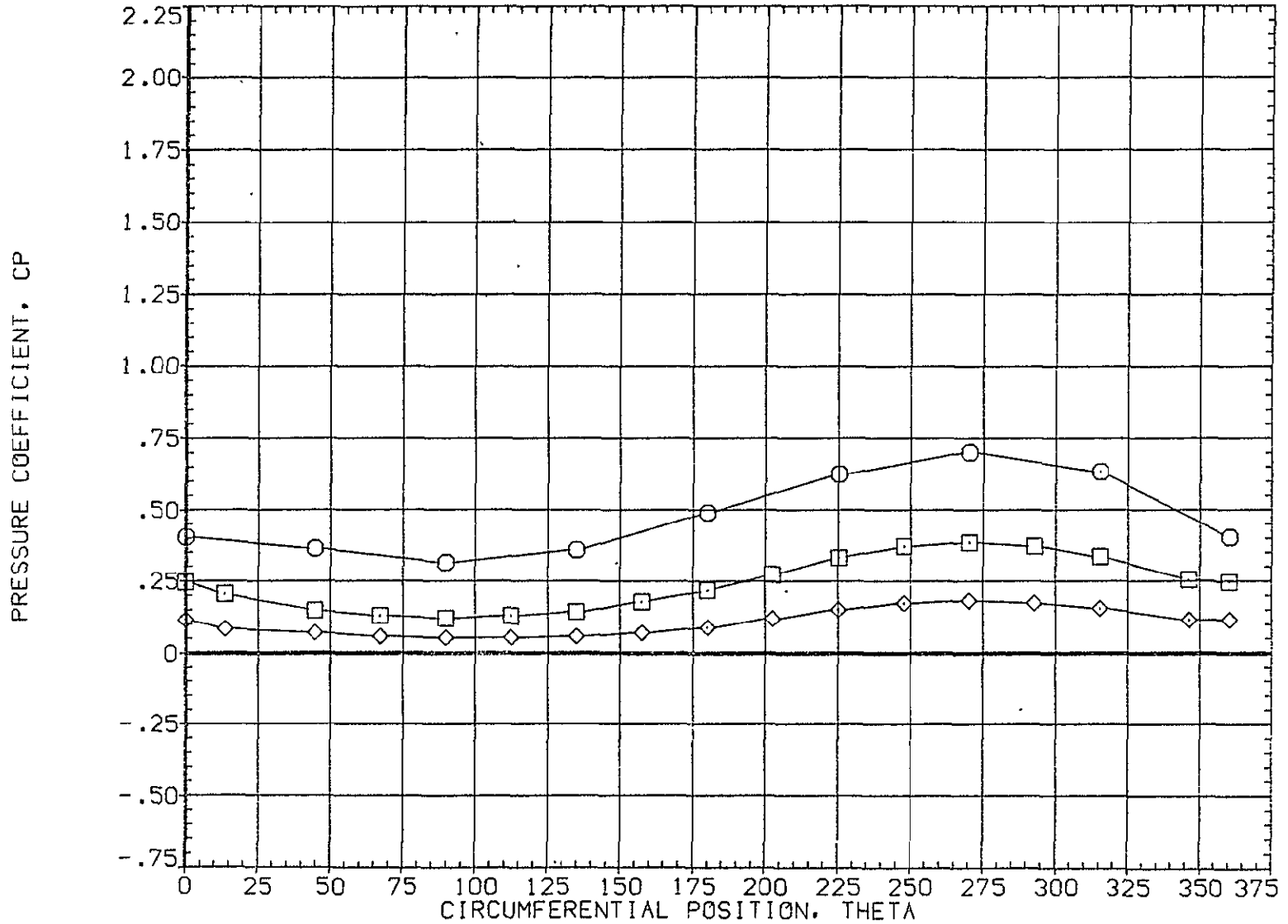


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

C-9

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-8.310	4.960	.000	.000	.000
□	.322			1.000		270.000
◇	.518					

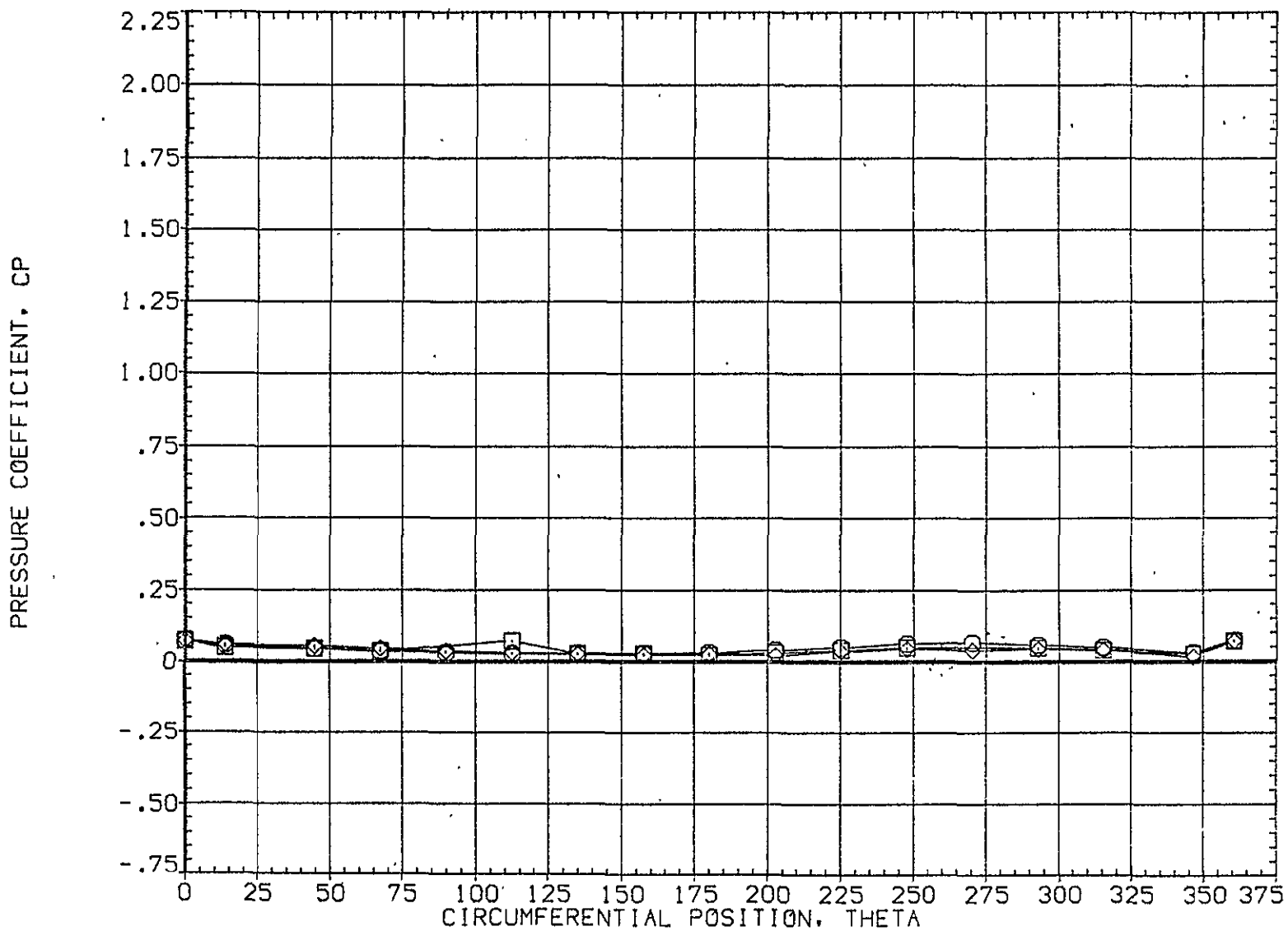


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A051)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-8.310	4.960	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

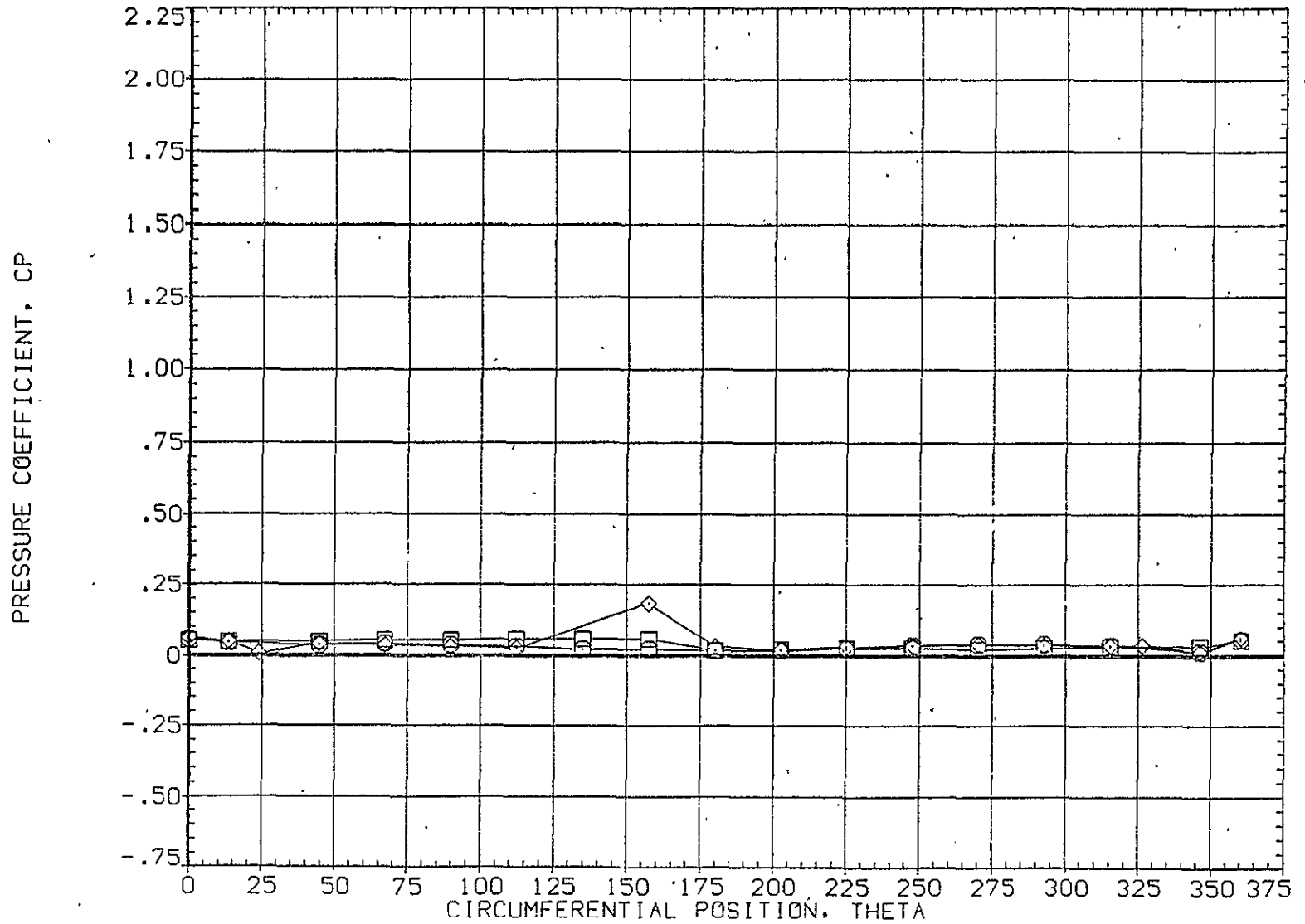


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-8.310	4.960	.000	.000	.000
□	.923			1.000		270.000
◇	.954					

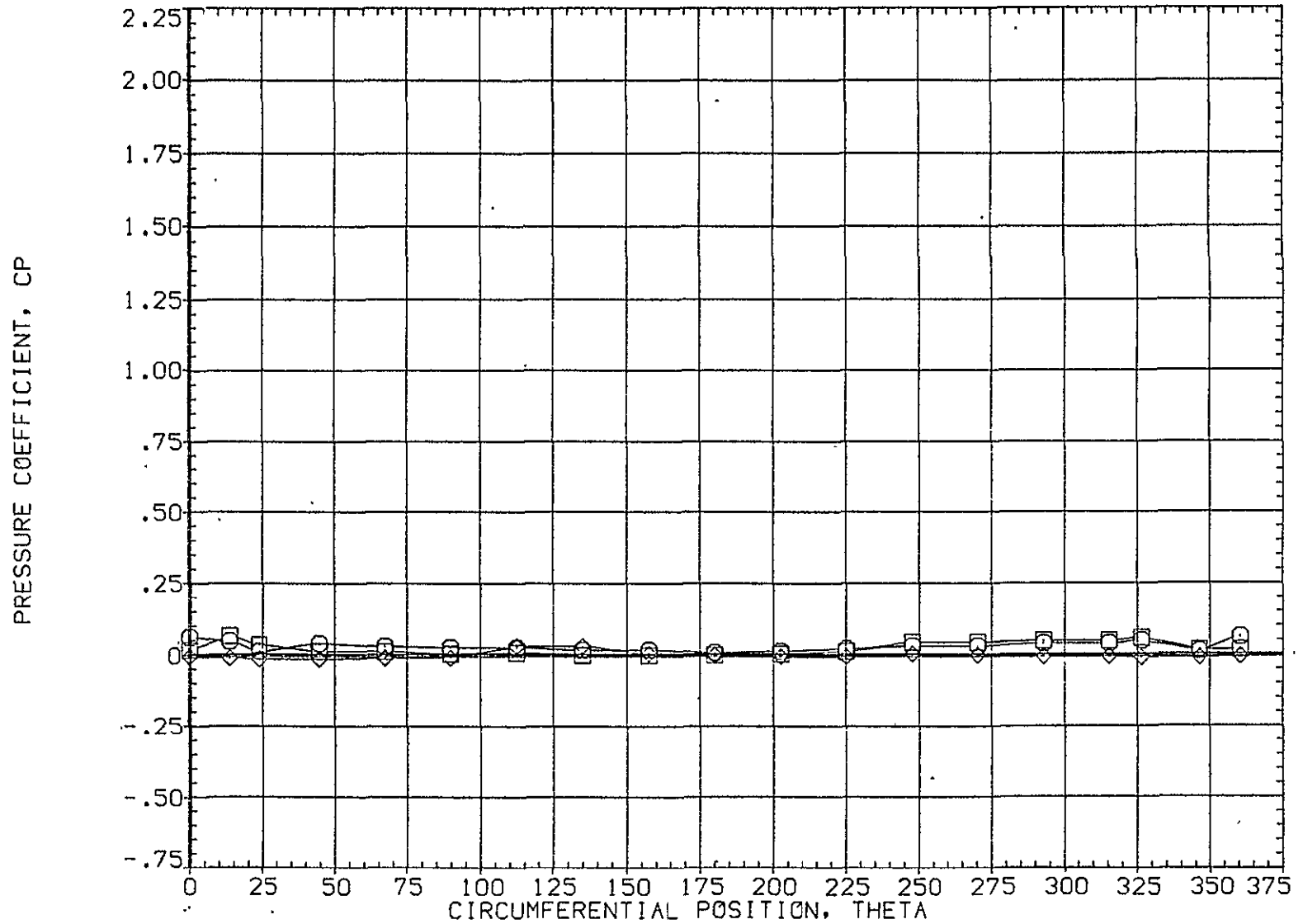


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	-4.290	4.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

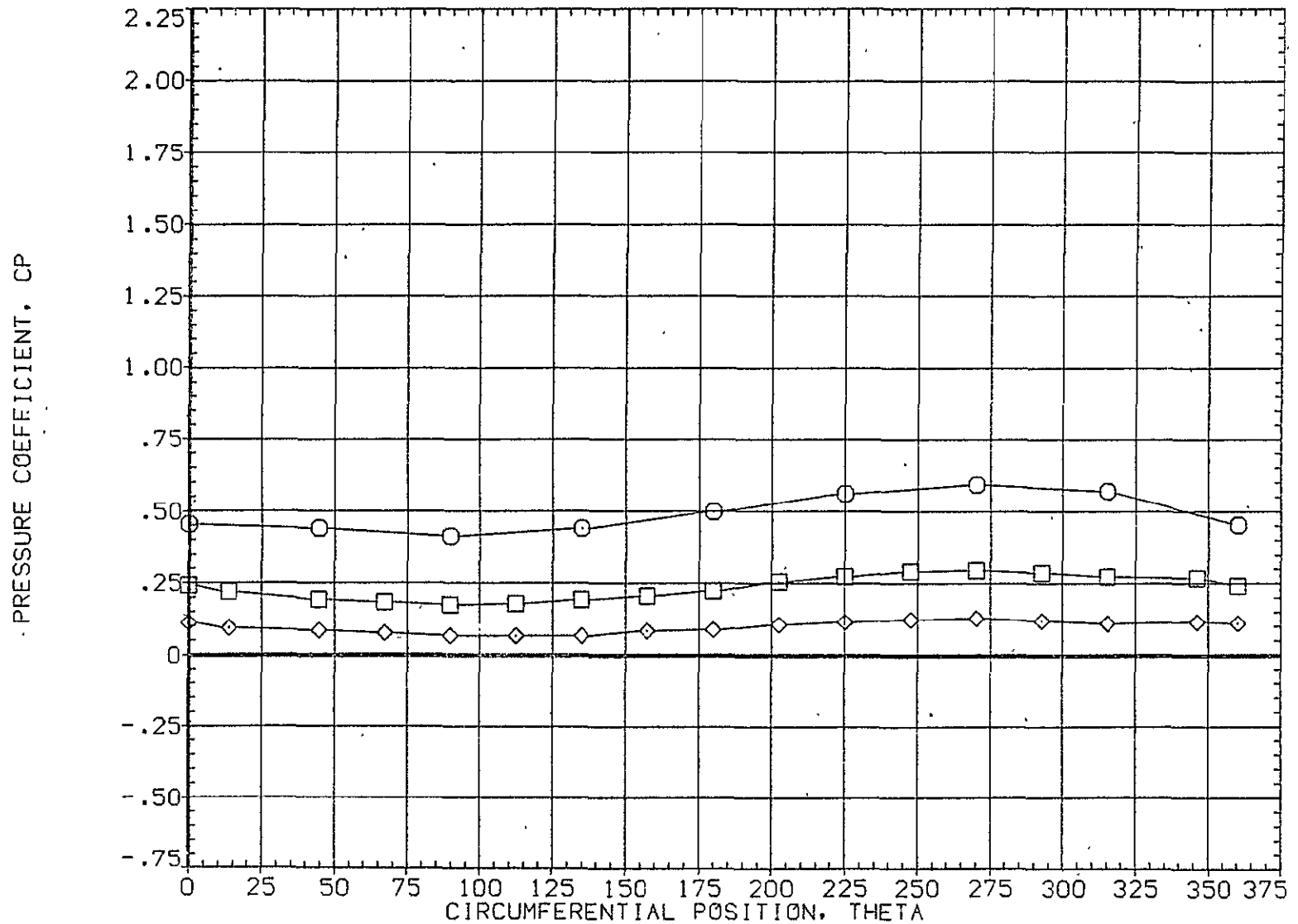


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-4.290	4.960	.000	.000	.000
□	.322			1.000	PHI	270.000
◇	.518					

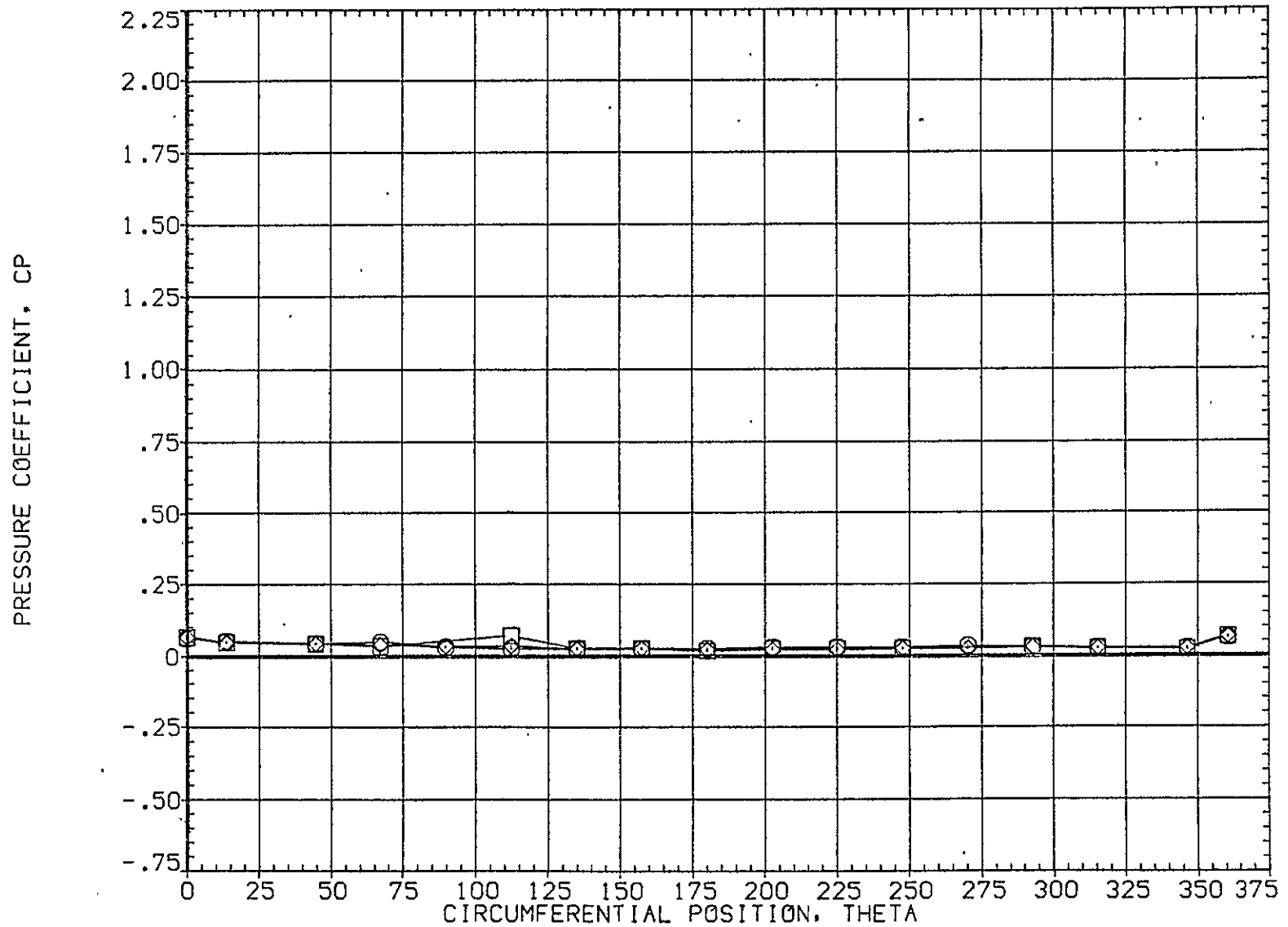


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.290	4.960	.000	.000	.000
□	.735			1.000	270.000	
◇	.860					

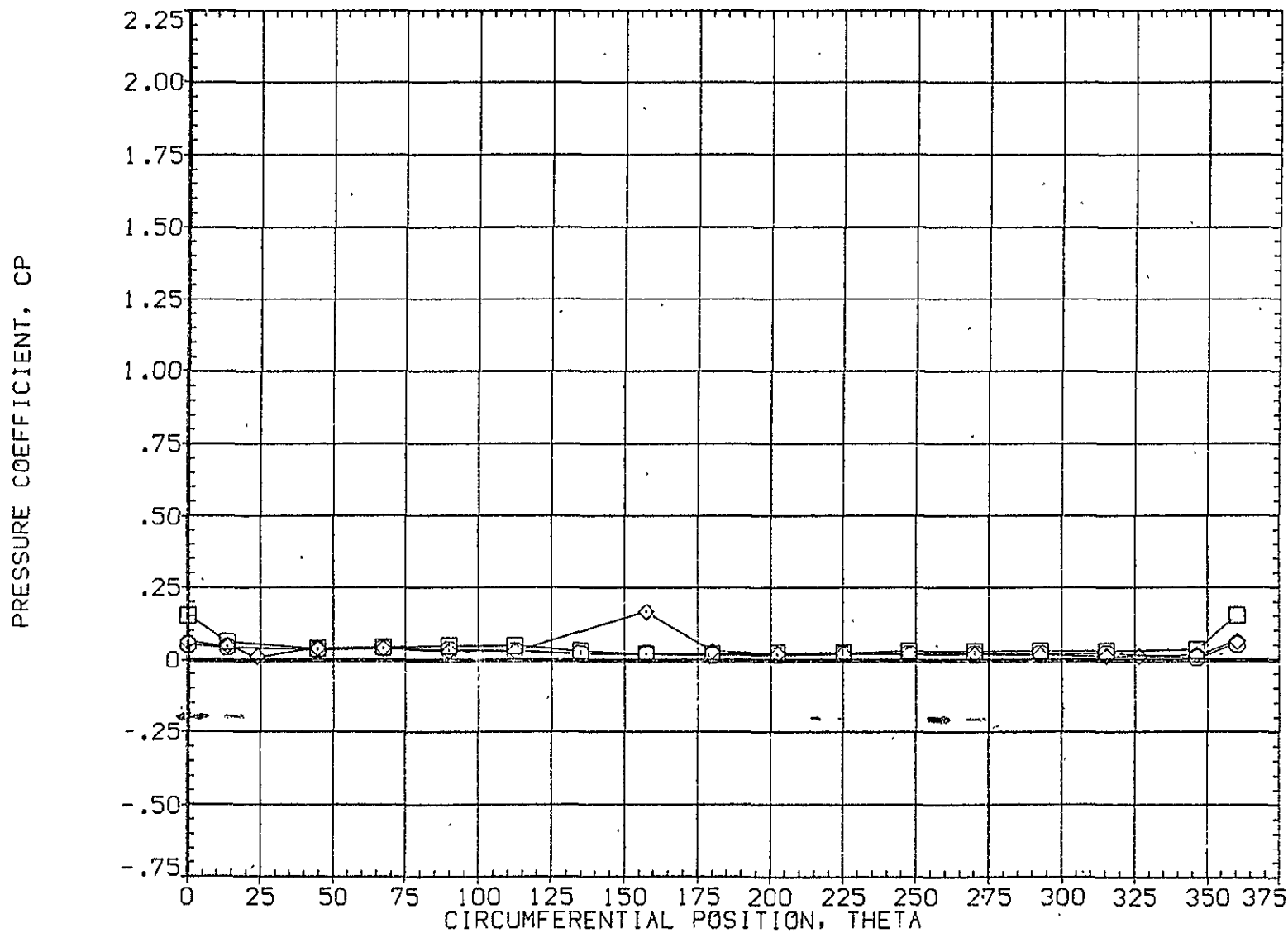


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES	OFFSET	
○	.892	-4.290°	4.960	.000		.000	
□	.923			1.000	PHI		270.000
◇	.954						

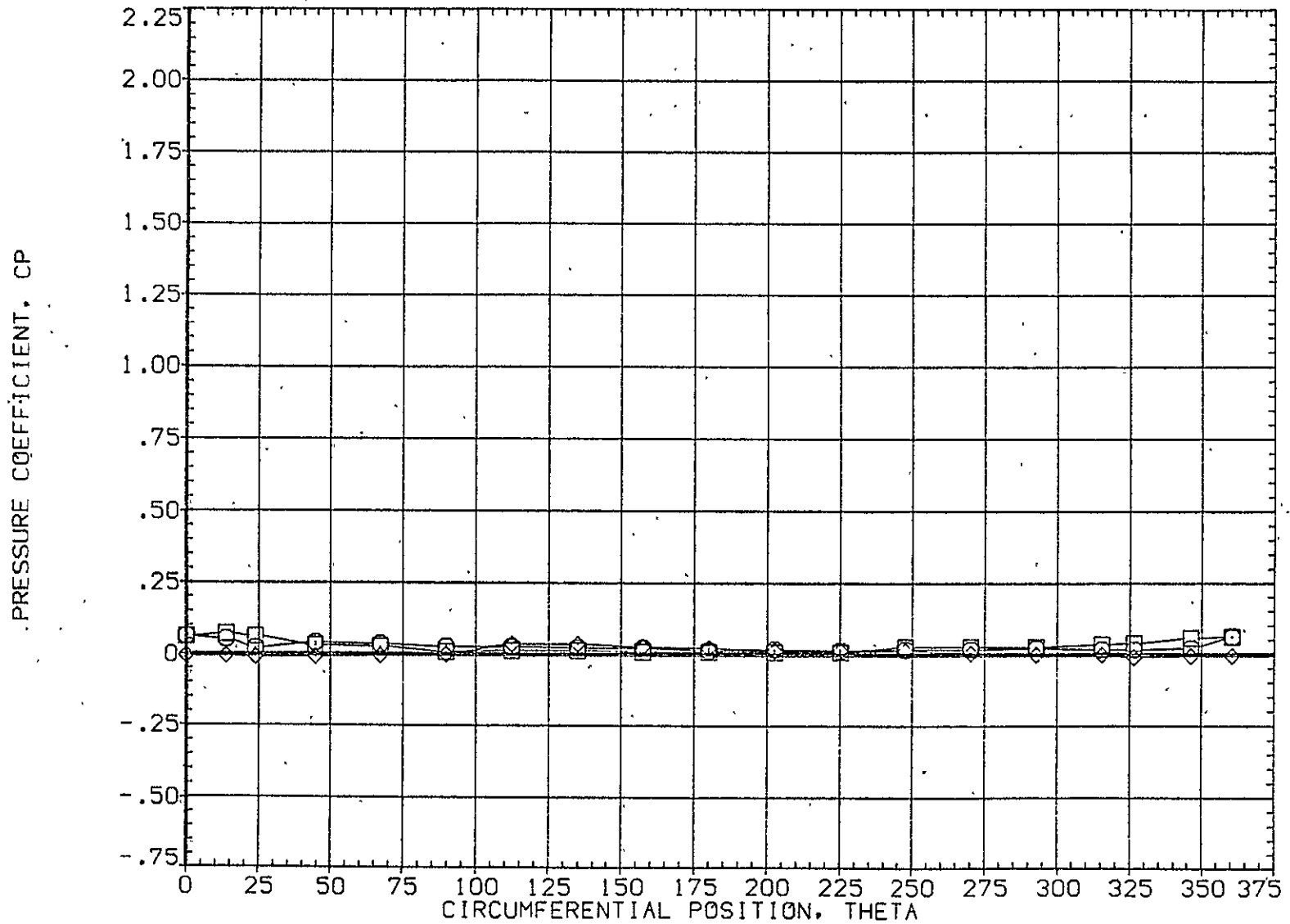


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES					
		○	.055	-.280	4.960	BETA	.000	OFFSET	.000
		□	.109			MOUNT	1.000	PHI	270.000
◇	.162								

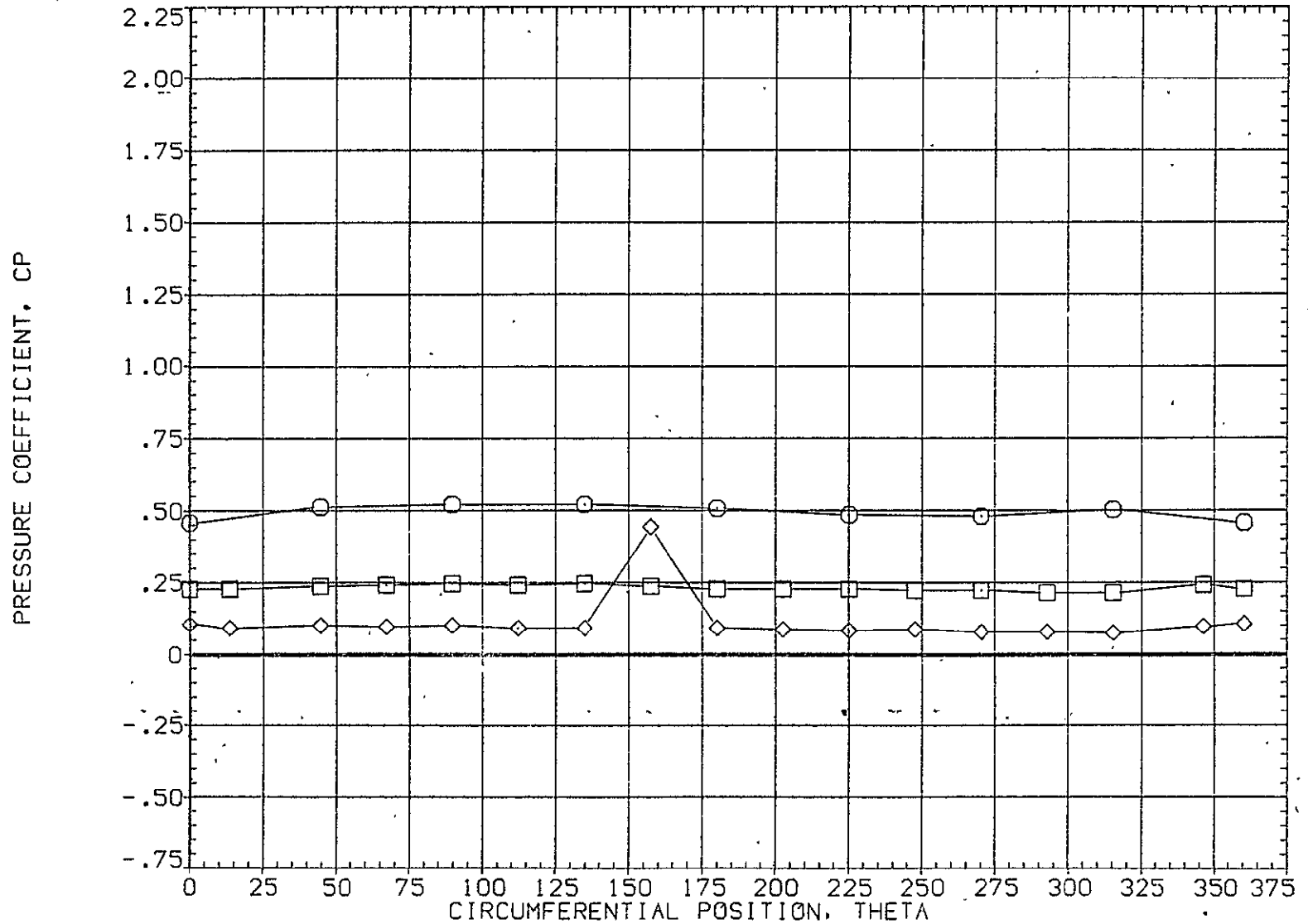


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	-.280	4.960	.000	.000	.000
□	.322			1.000		270.000
◇	.518					

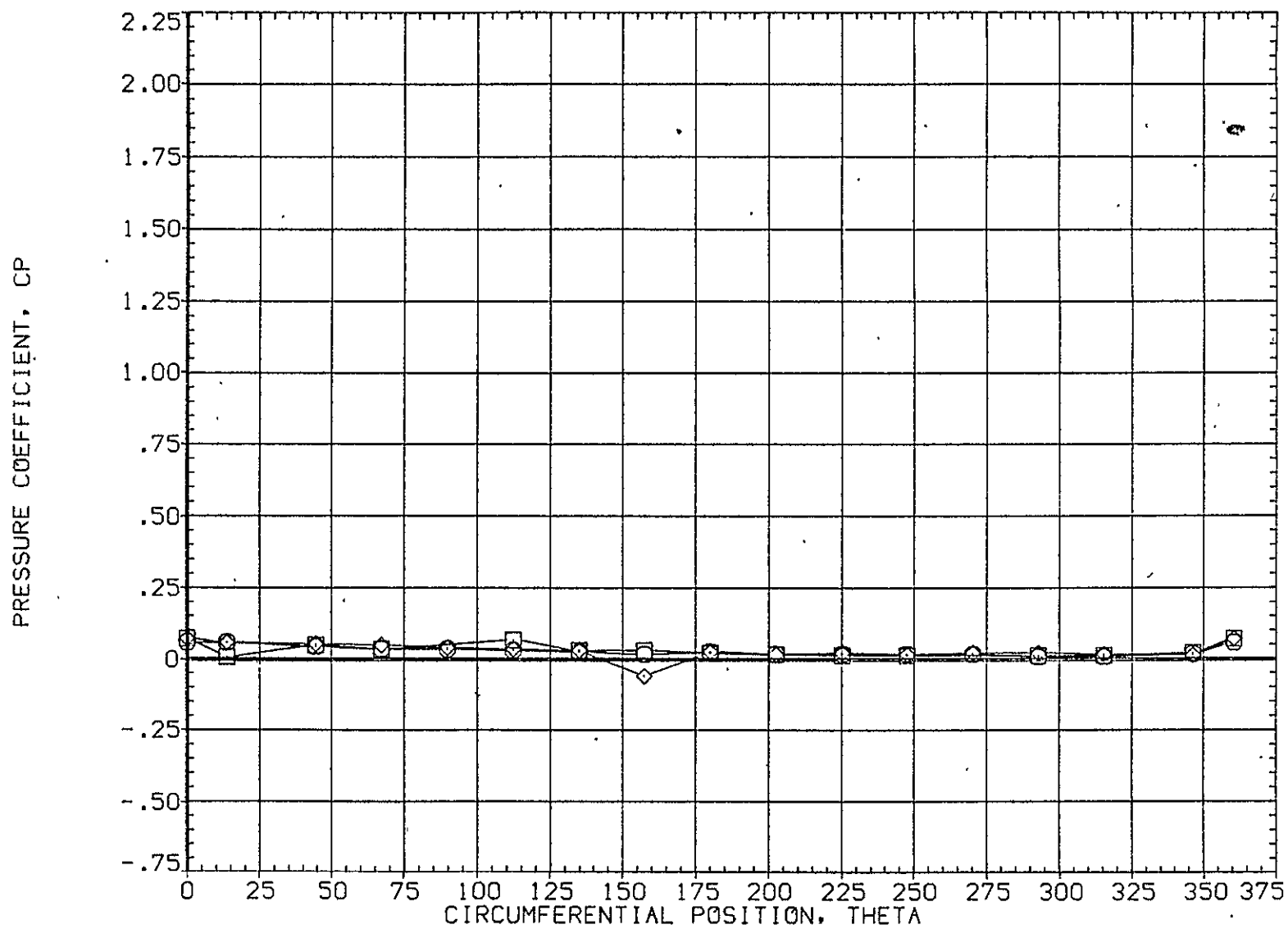


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES.

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A053)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-.280	4.960	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

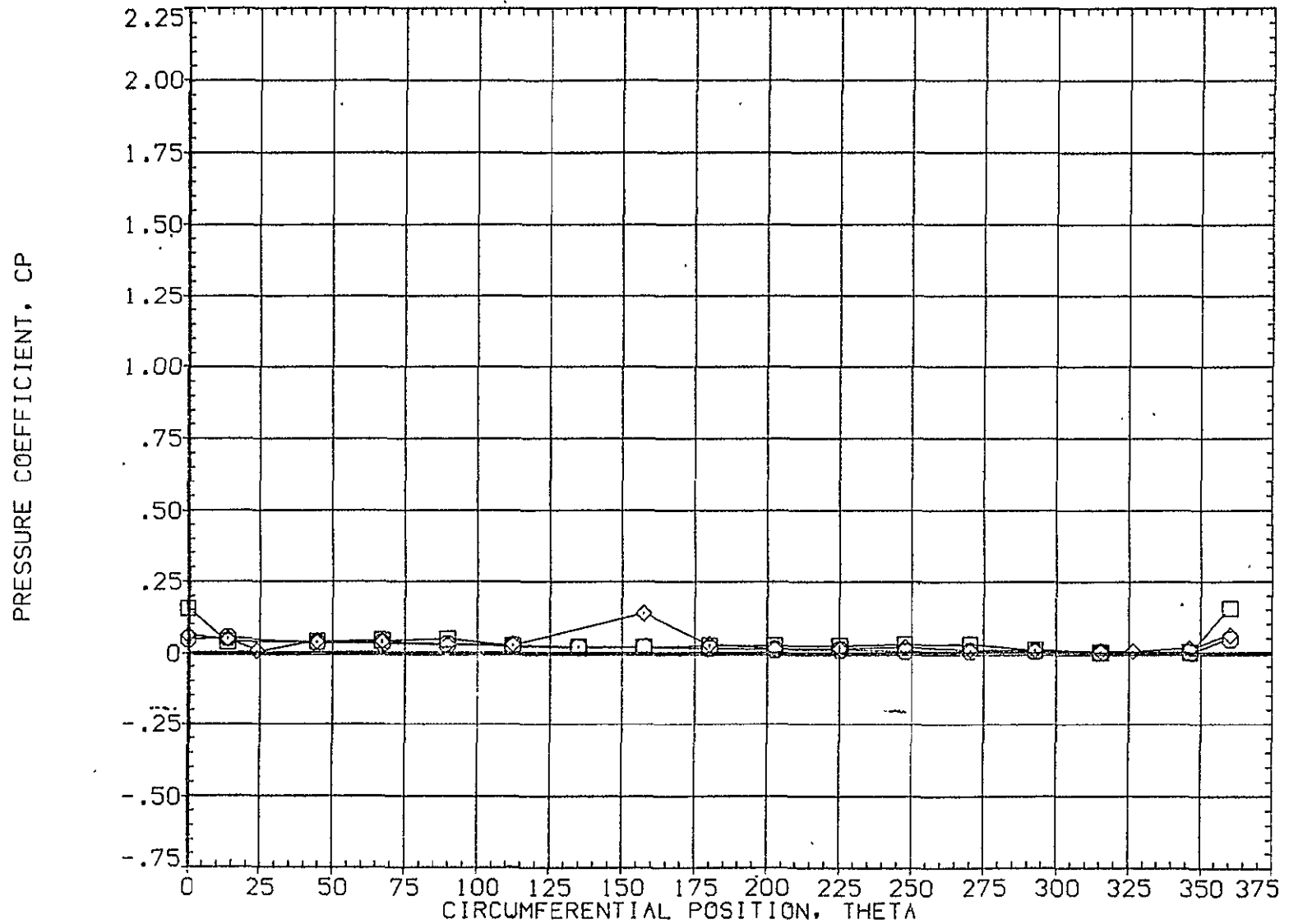


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	4.960	.000	.000	.000
□	.923			1.000		270.000
◇	.954					

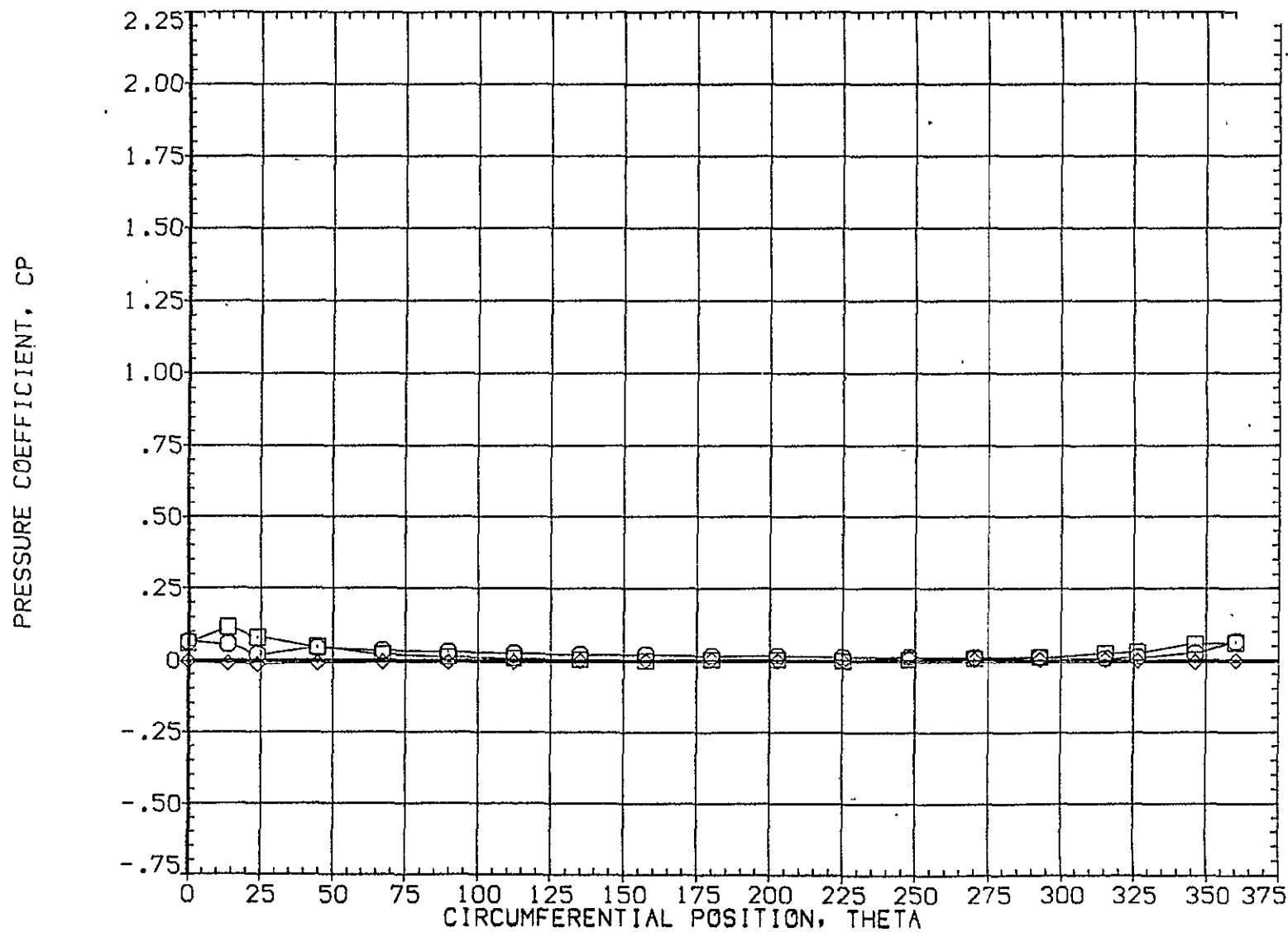


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.055	3.750	4.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

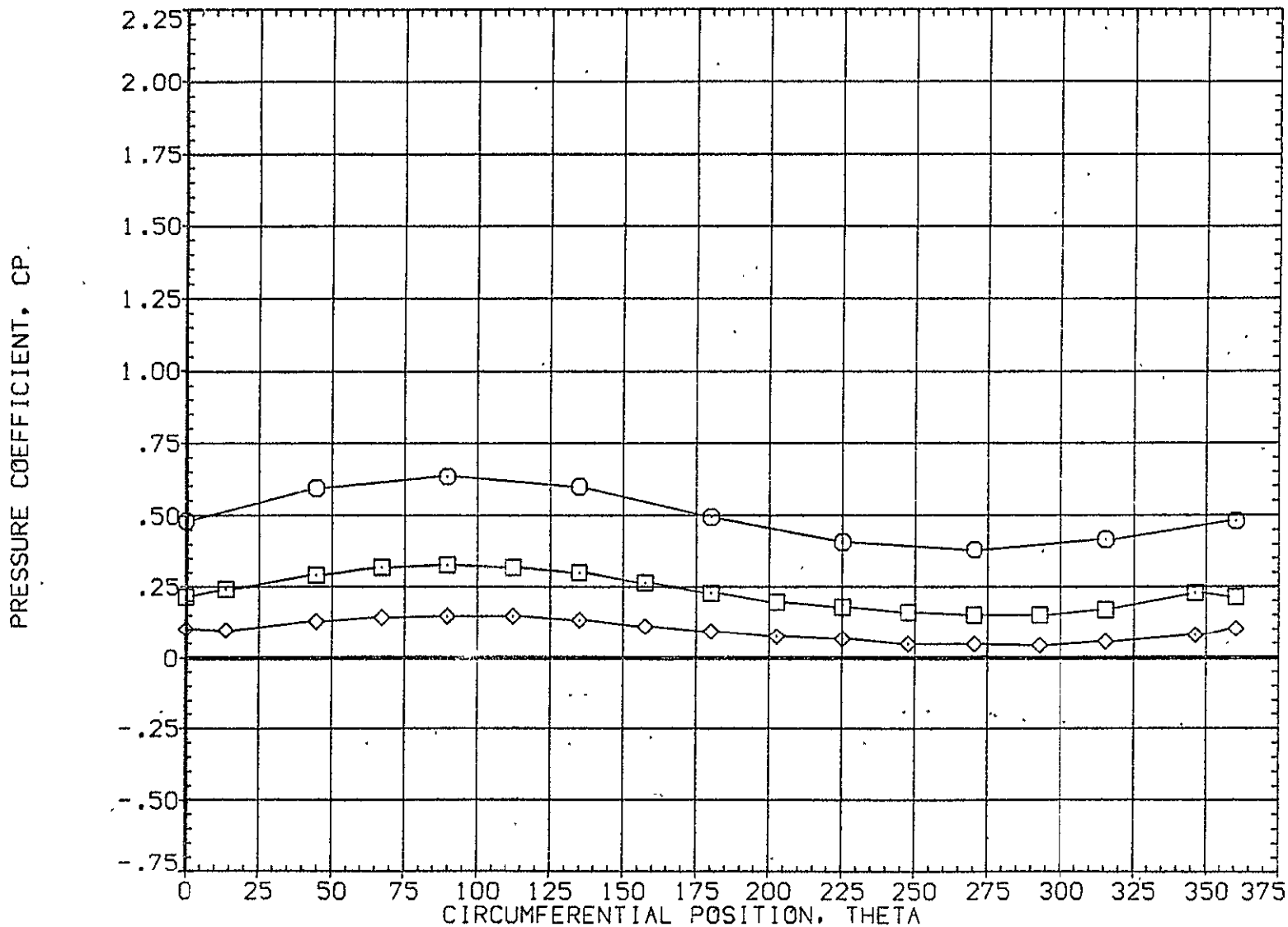


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.216	3.750	4.960	.000	.000		.000
□	.322			1.000			270.000
◇	.518						

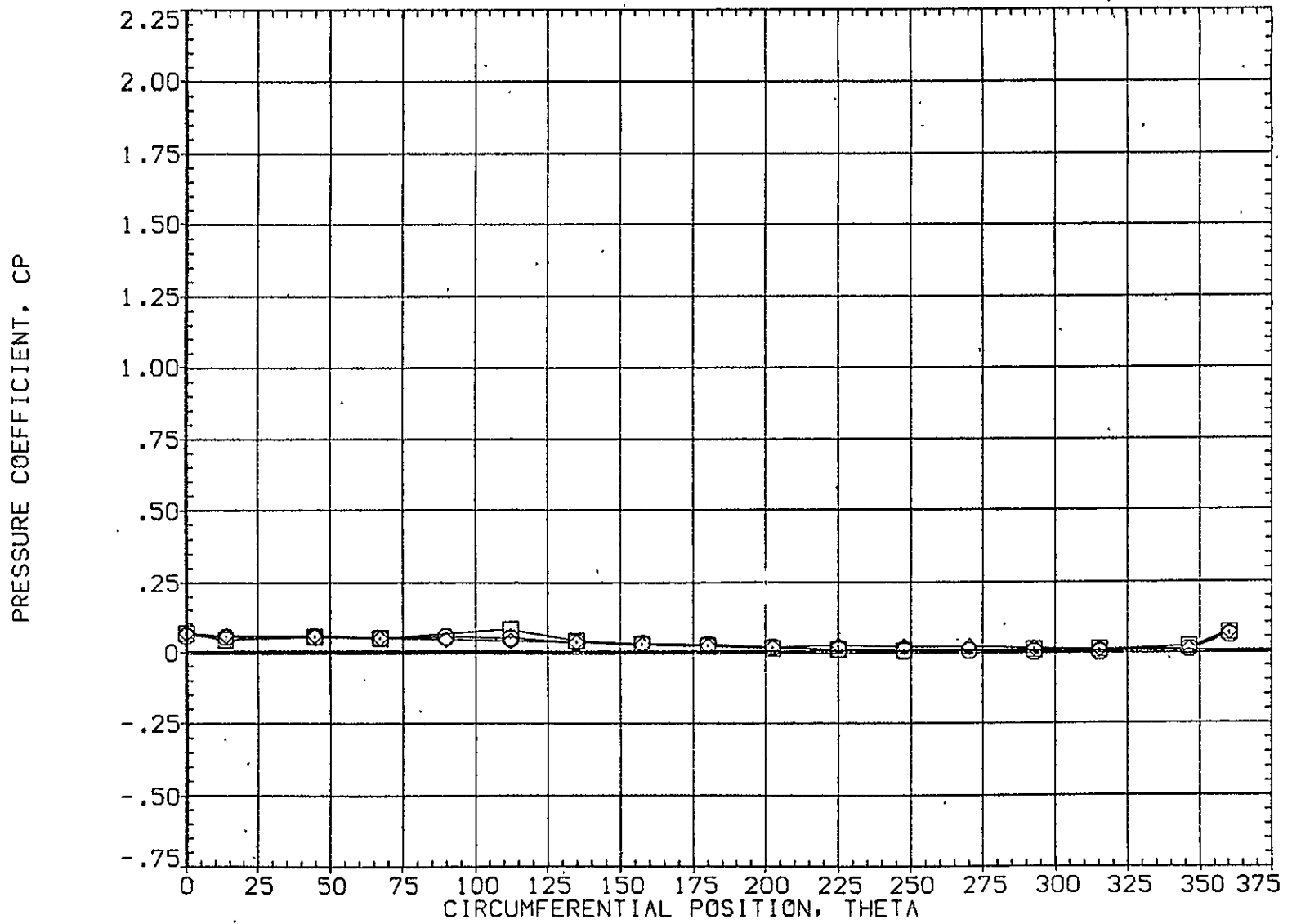


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A054)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	3.750	4.960	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

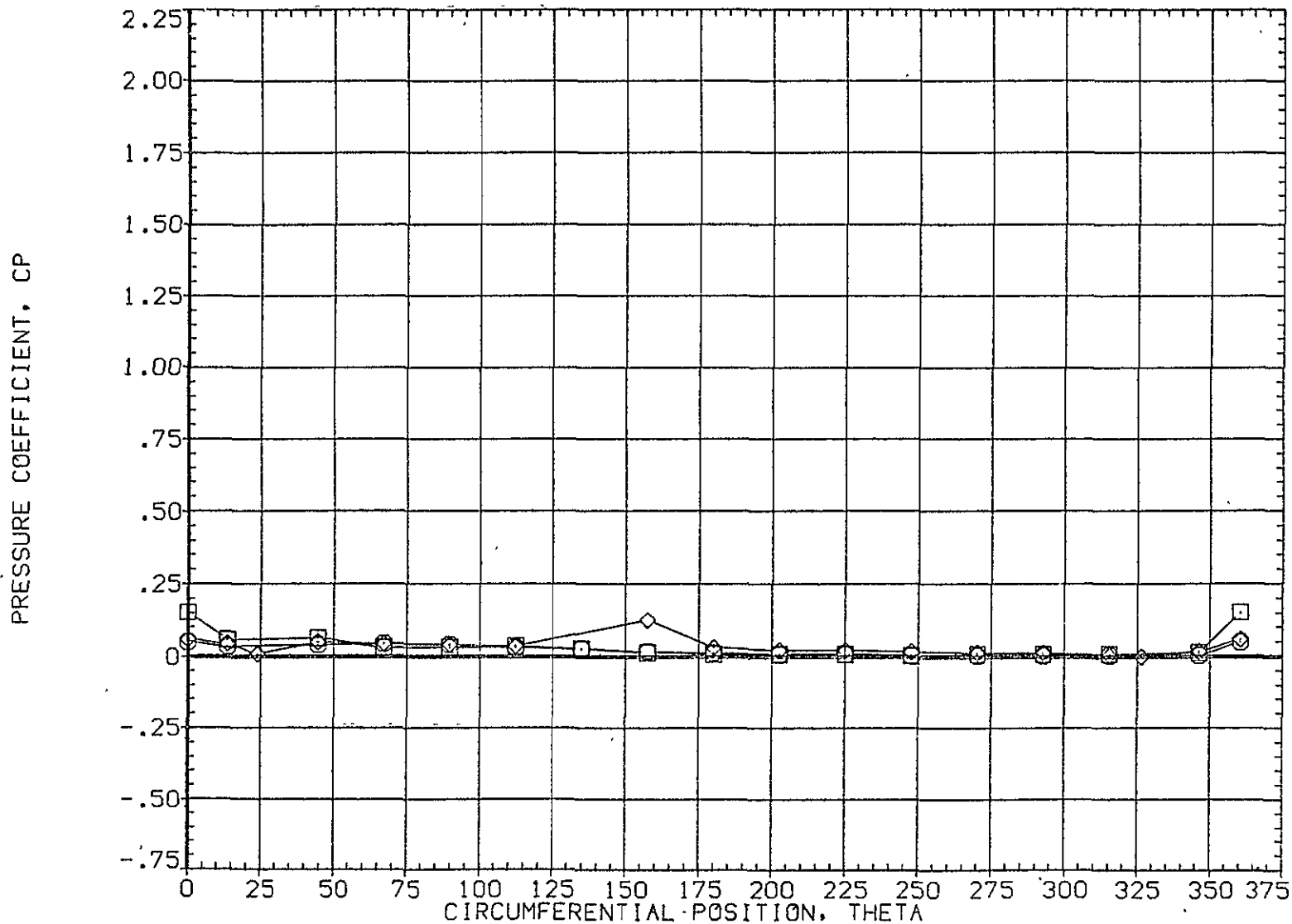


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.892	3.750	4.960	MOUNT	1.000	PHI	270.000
□	.923						
◇	.954						

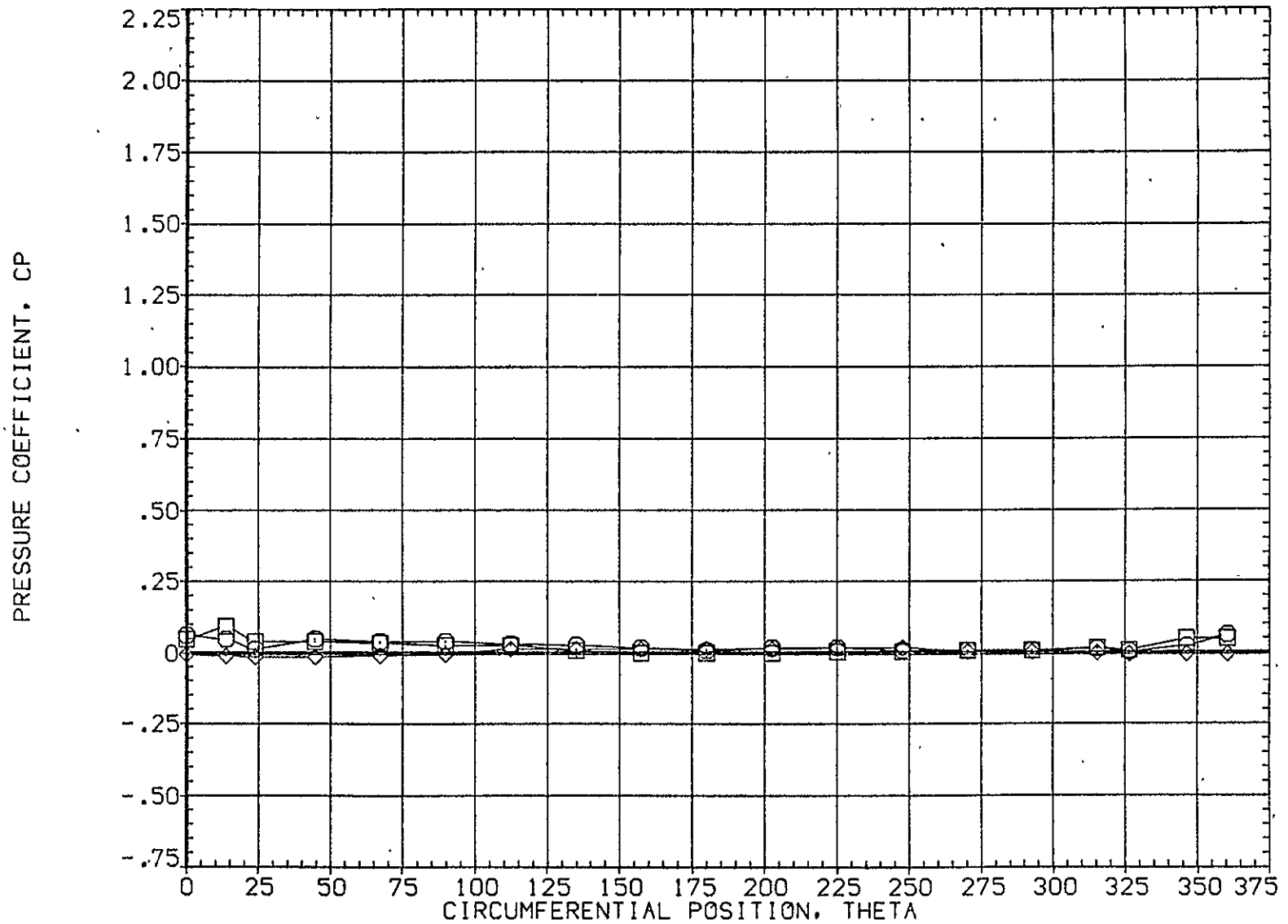


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A055)

SYMBOL
○
□
◇

X/LB .055
.108
.162
ALPHA 7.750
MACH 4.960

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI 270.000

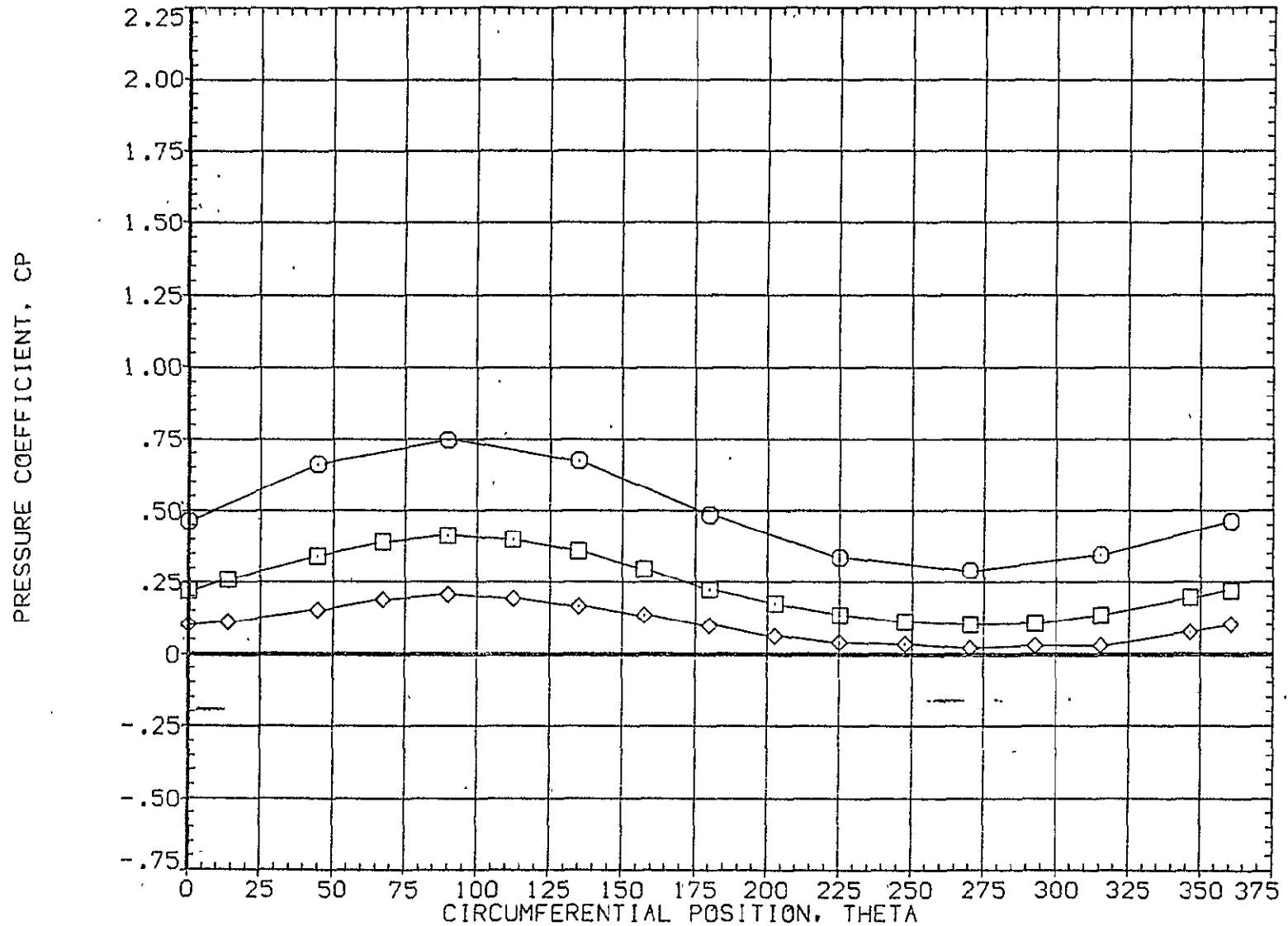


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
○	.216	7.750	4.960	BETA	.000	OFFSET .000
□	.322			MOUNT	1.000	PHI 270.000
◇	.518					

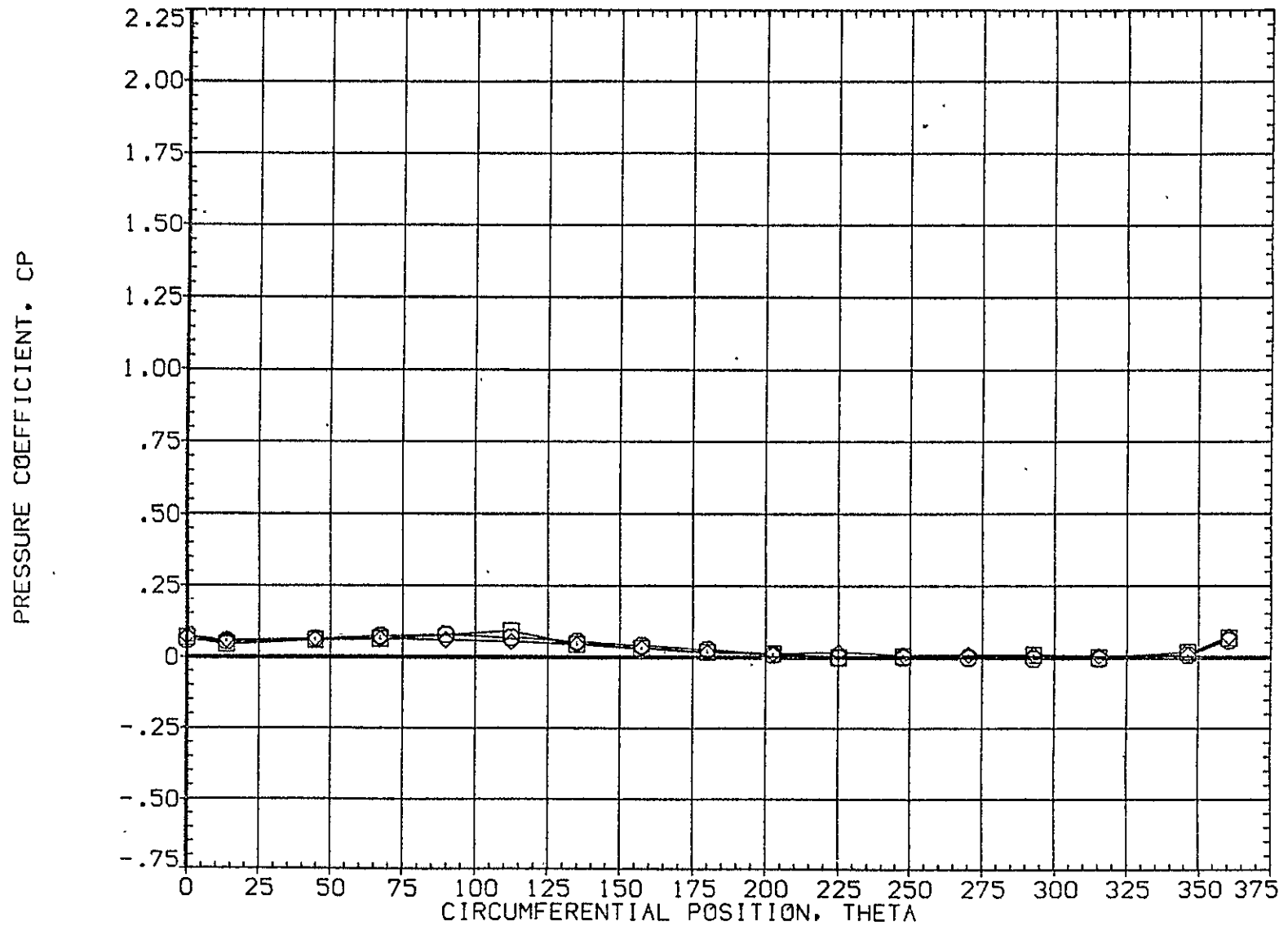


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A055)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	7.730	4.960	.000	.000	.000
□	.735			1.000	270.000	
◇	.860					

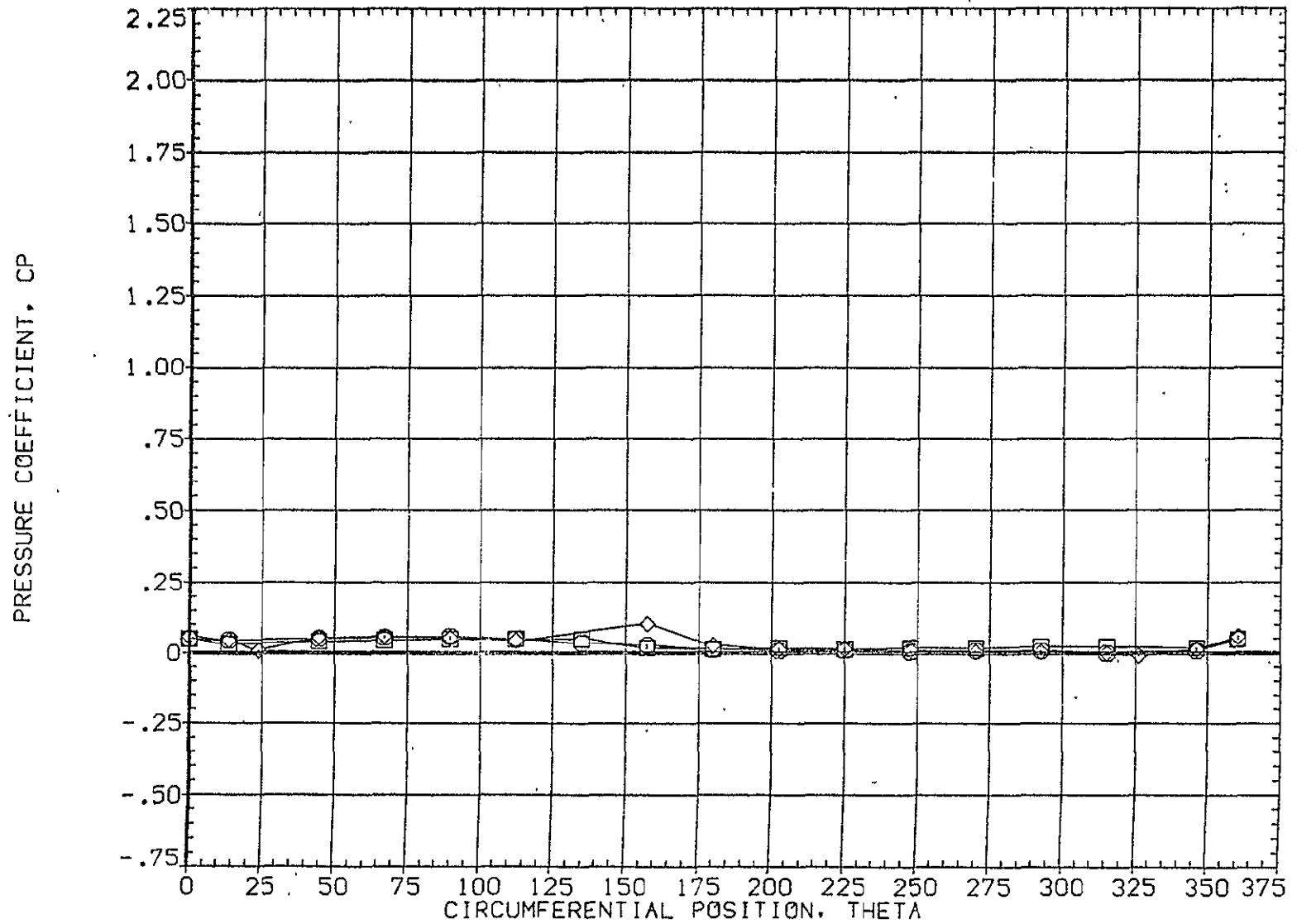


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	7.750	4.960	.000	.000	.000
□	.923			1.000		270.000
◇	.954					

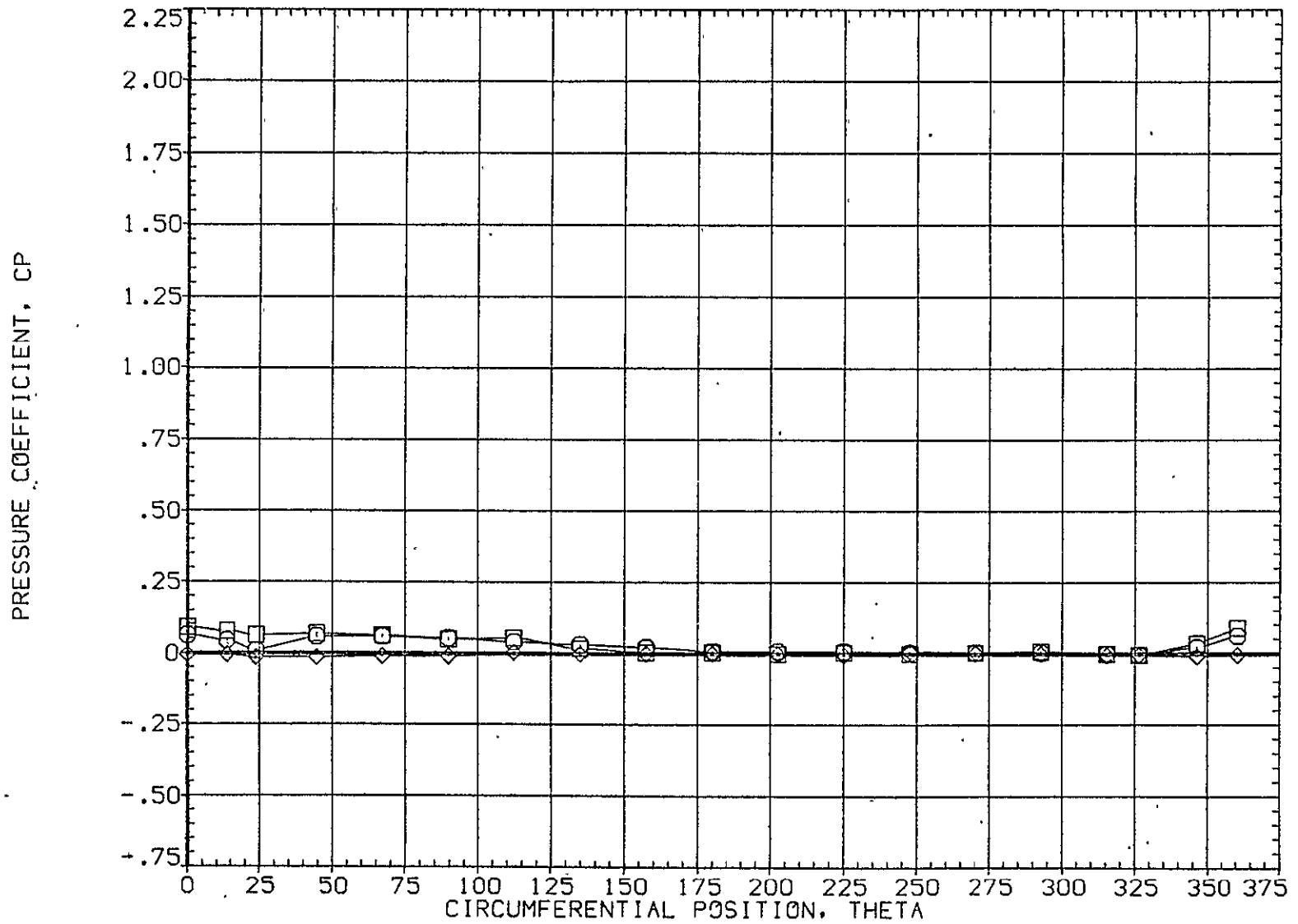


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	12.450	4.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

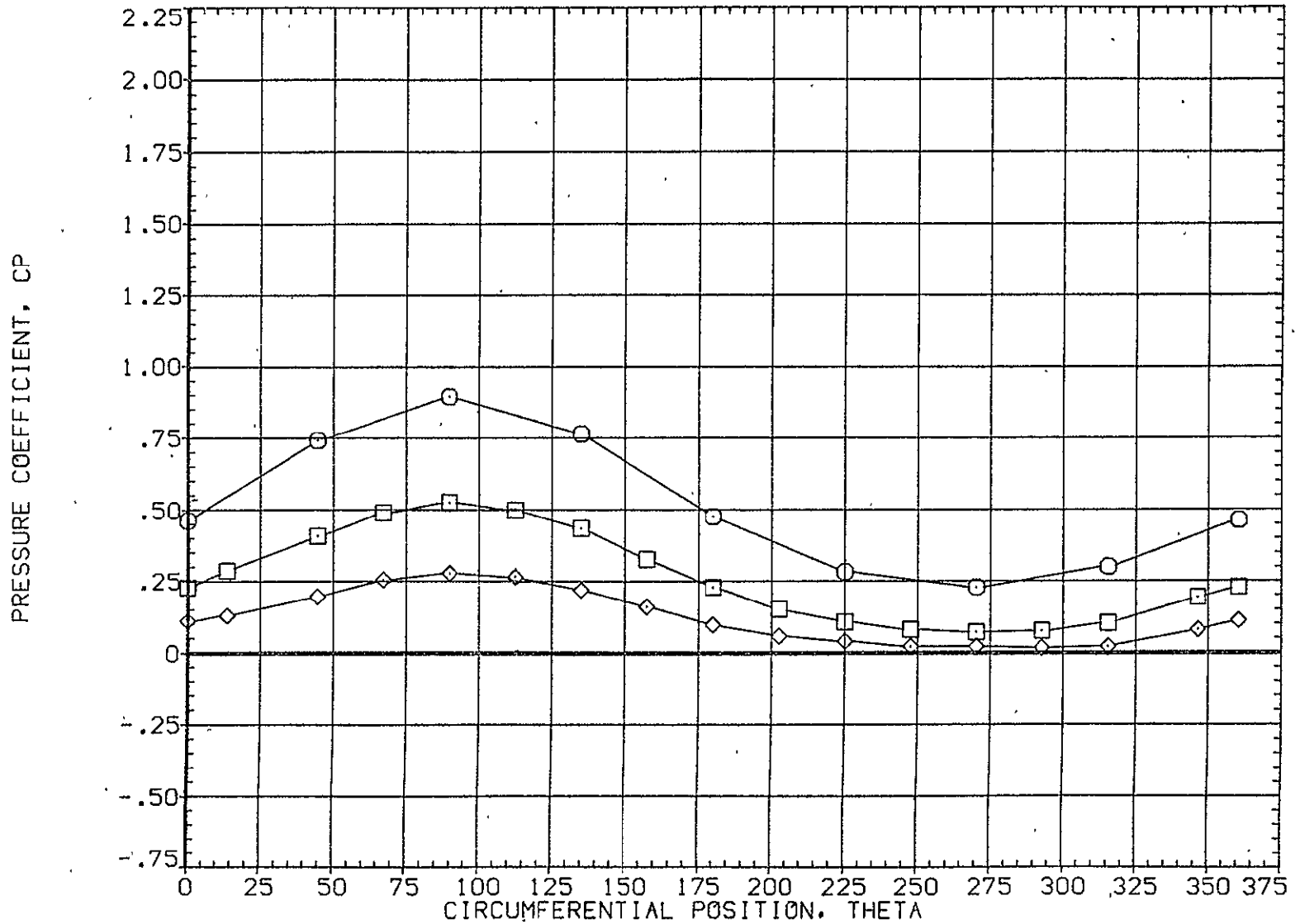


FIG. 5. CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	12.450	4.960	.000	20.000	
□	.322			1.000	PHI	270.000
◇	.518					

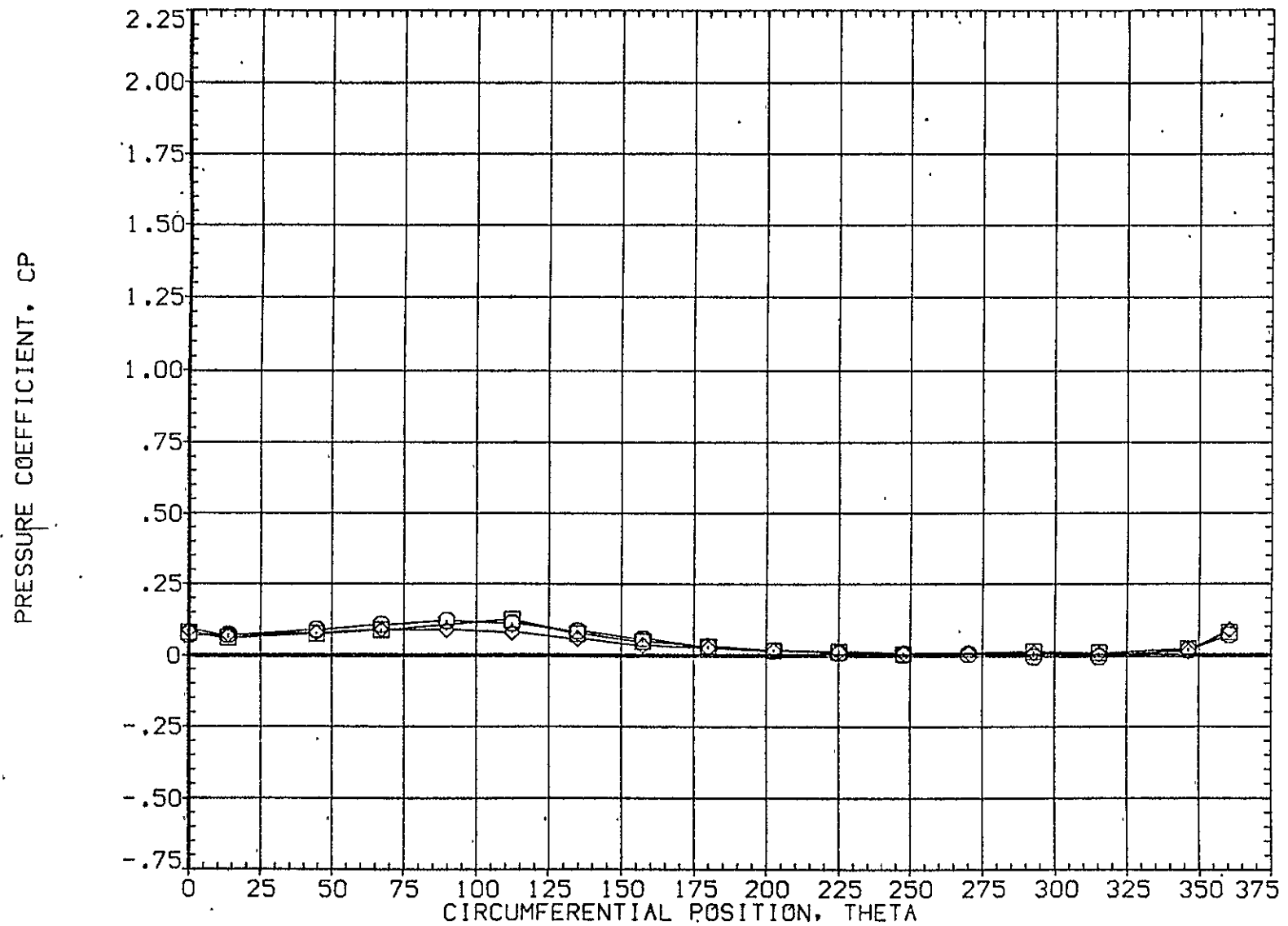


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A056)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	12.450	4.960		20.000		
□	.735			MOUNT	1.000		270.000
◇	.860						

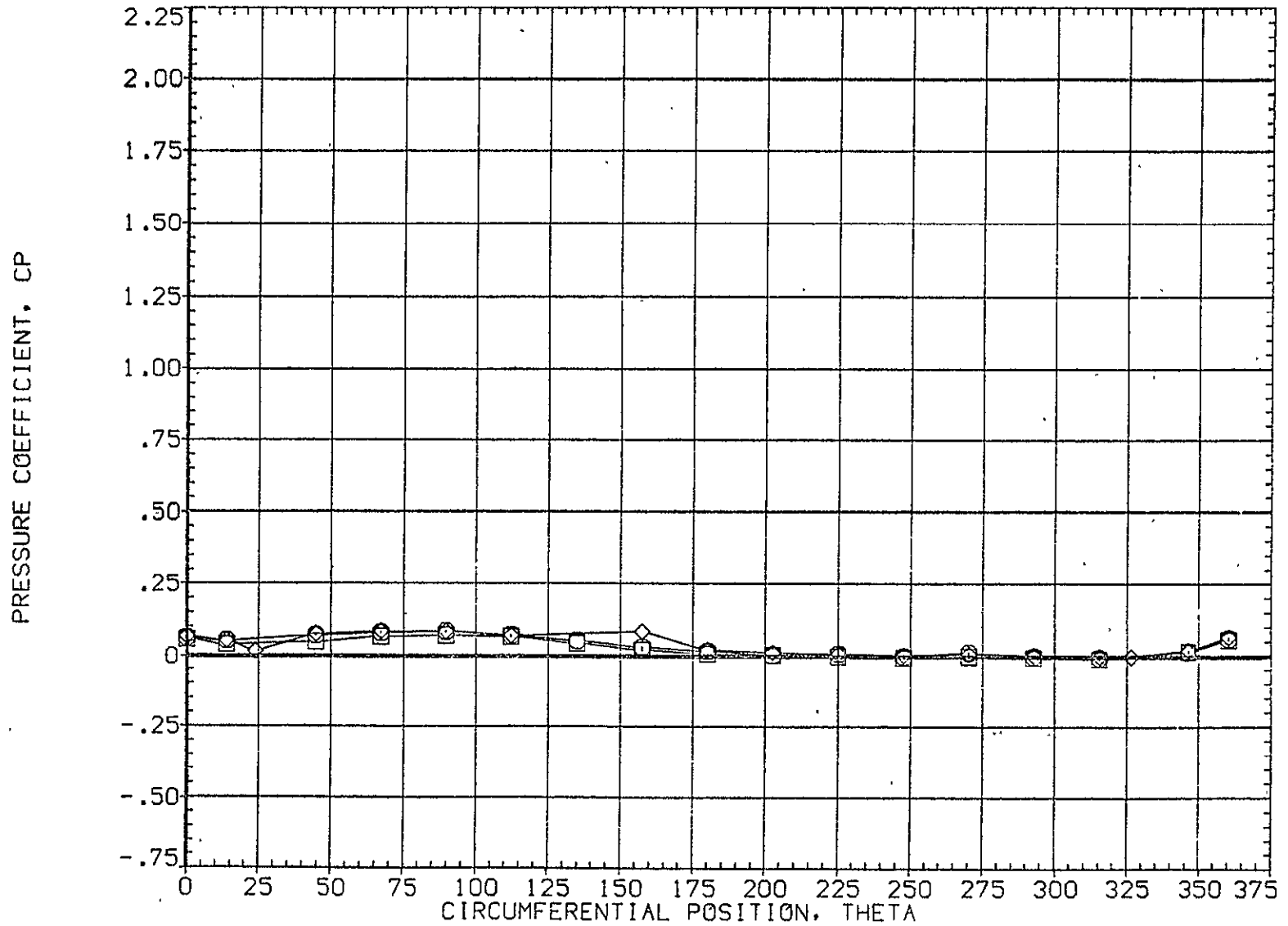


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH
○	.892	12.450	4.960
□	.923		
◇	.954		

PARAMETRIC VALUES		
BETA	.000	OFFSET 20.000
MOUNT	1.000	PHI 270.000

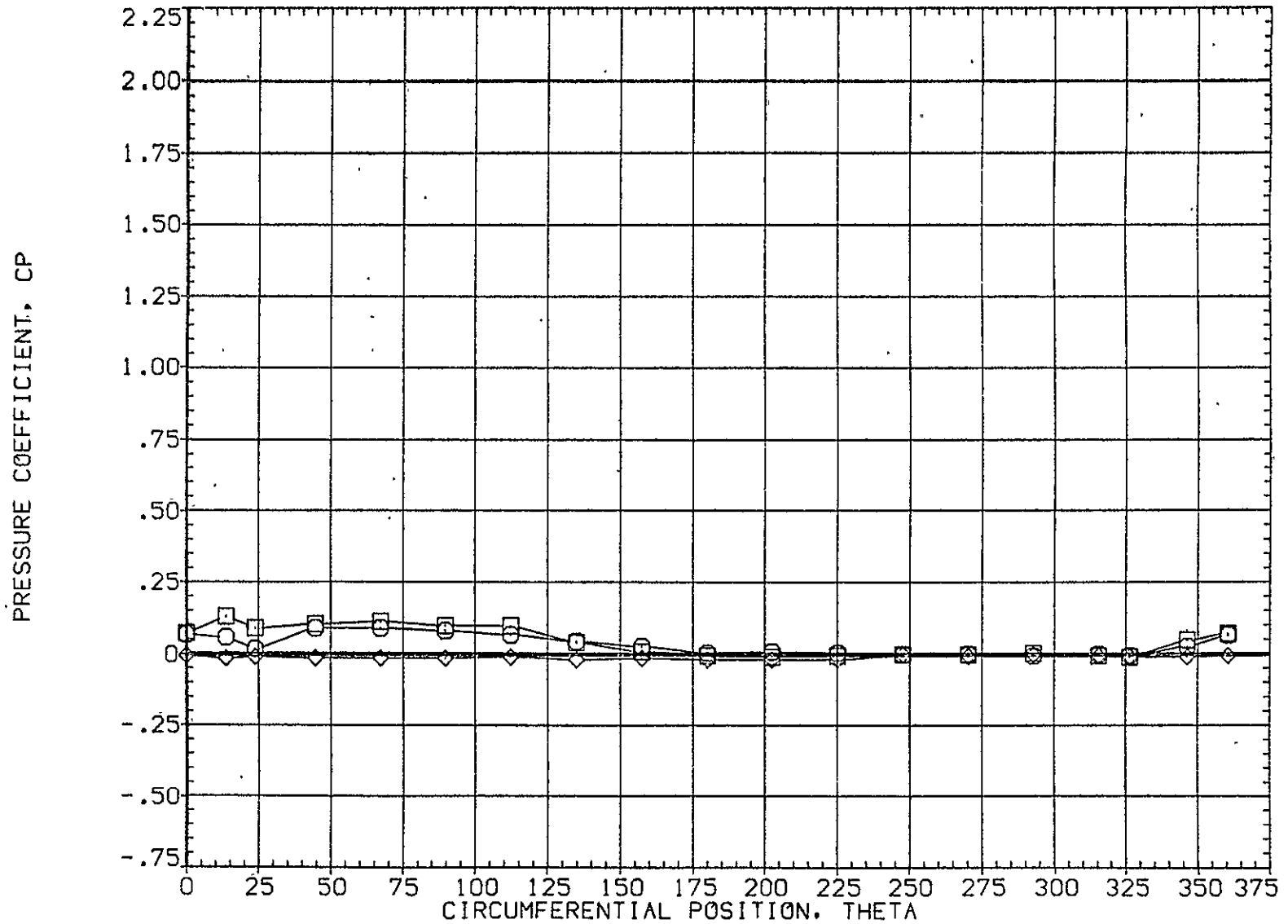


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	16.450	4.960	.000	20.000	
□	.108			1.000	270.000	
◇	.162					

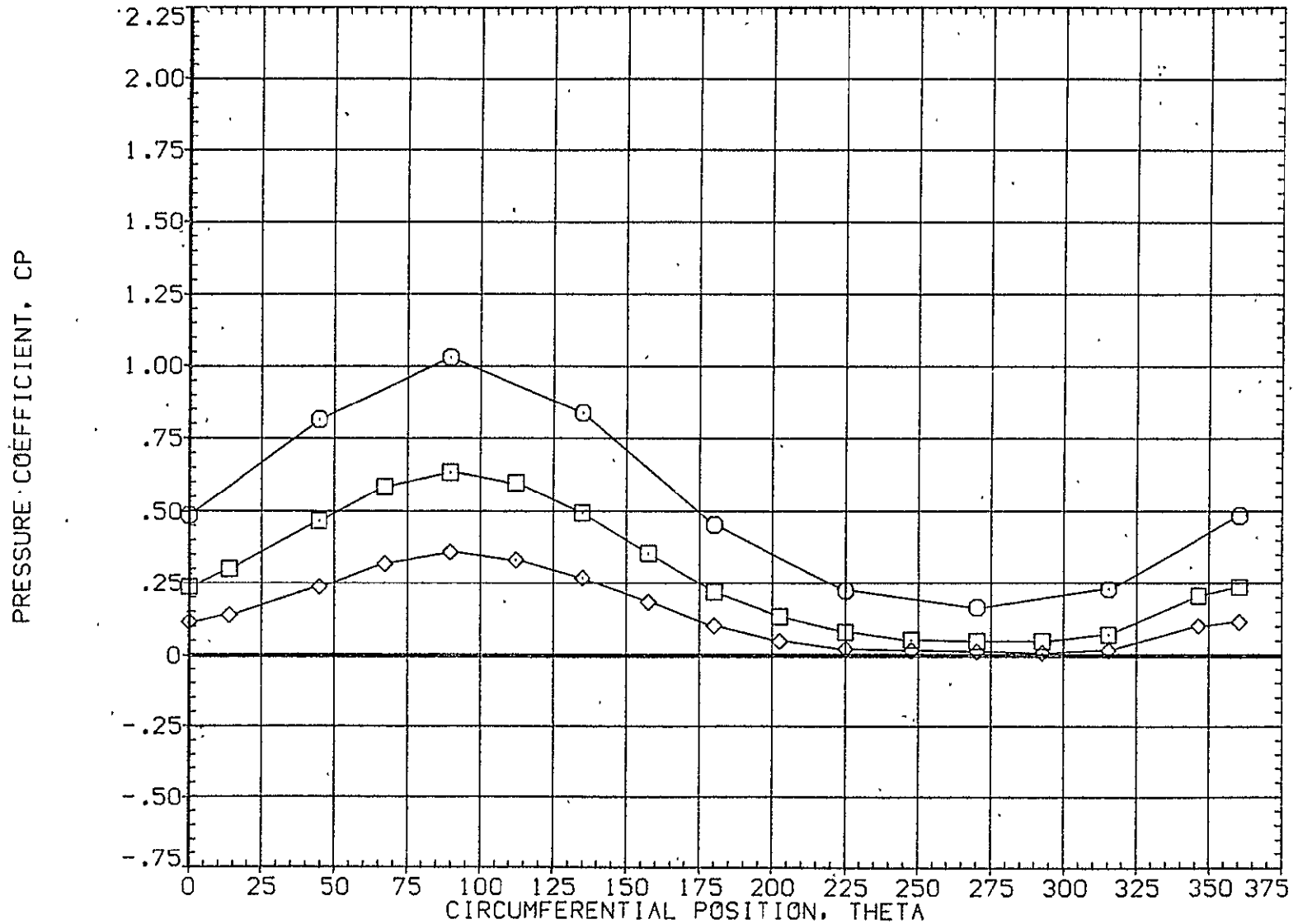


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 16.450 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 270.000

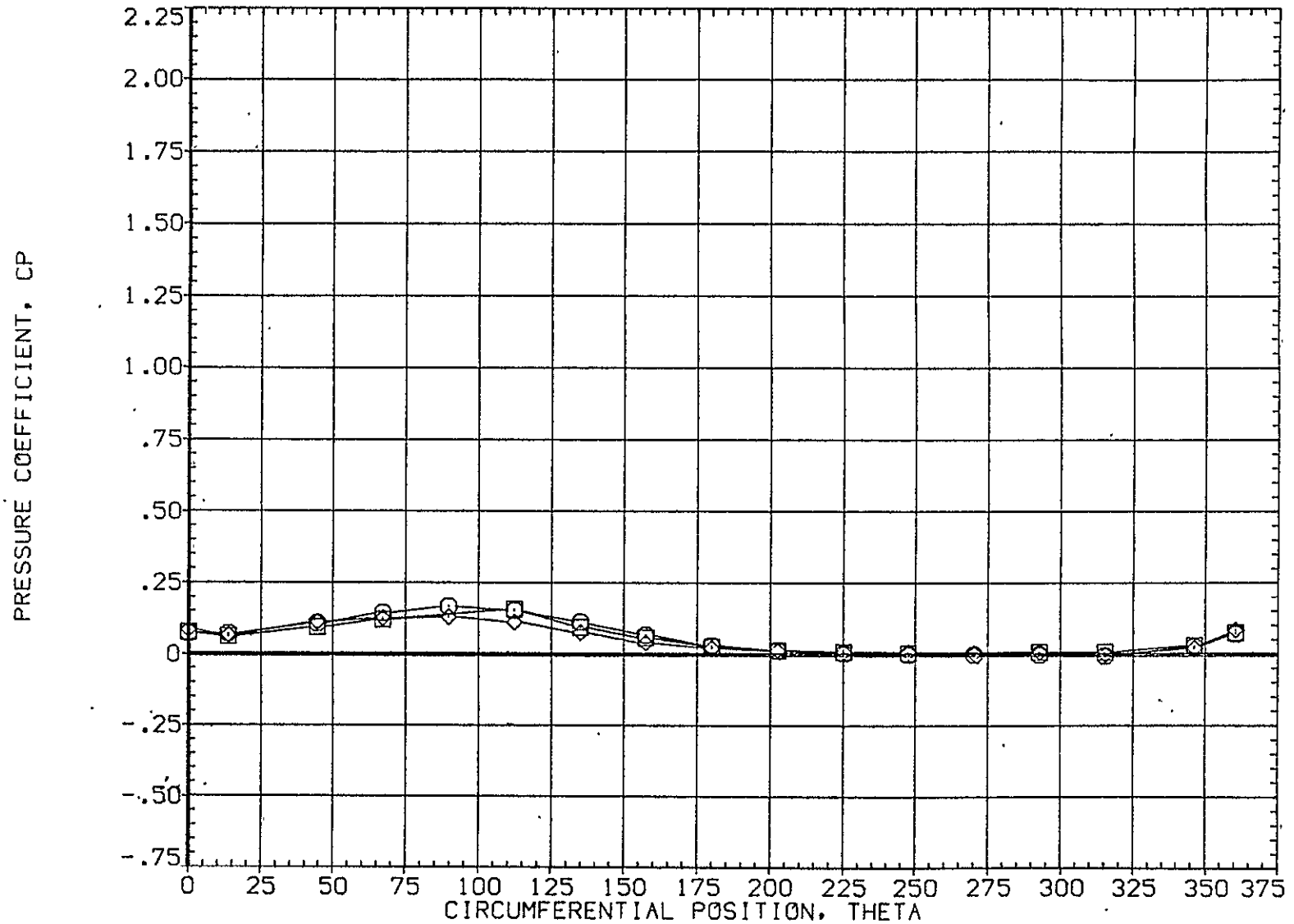


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A057)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	16.450	4.960	.000	20.000	
□	.735			1.000	270.000	
◇	.860					

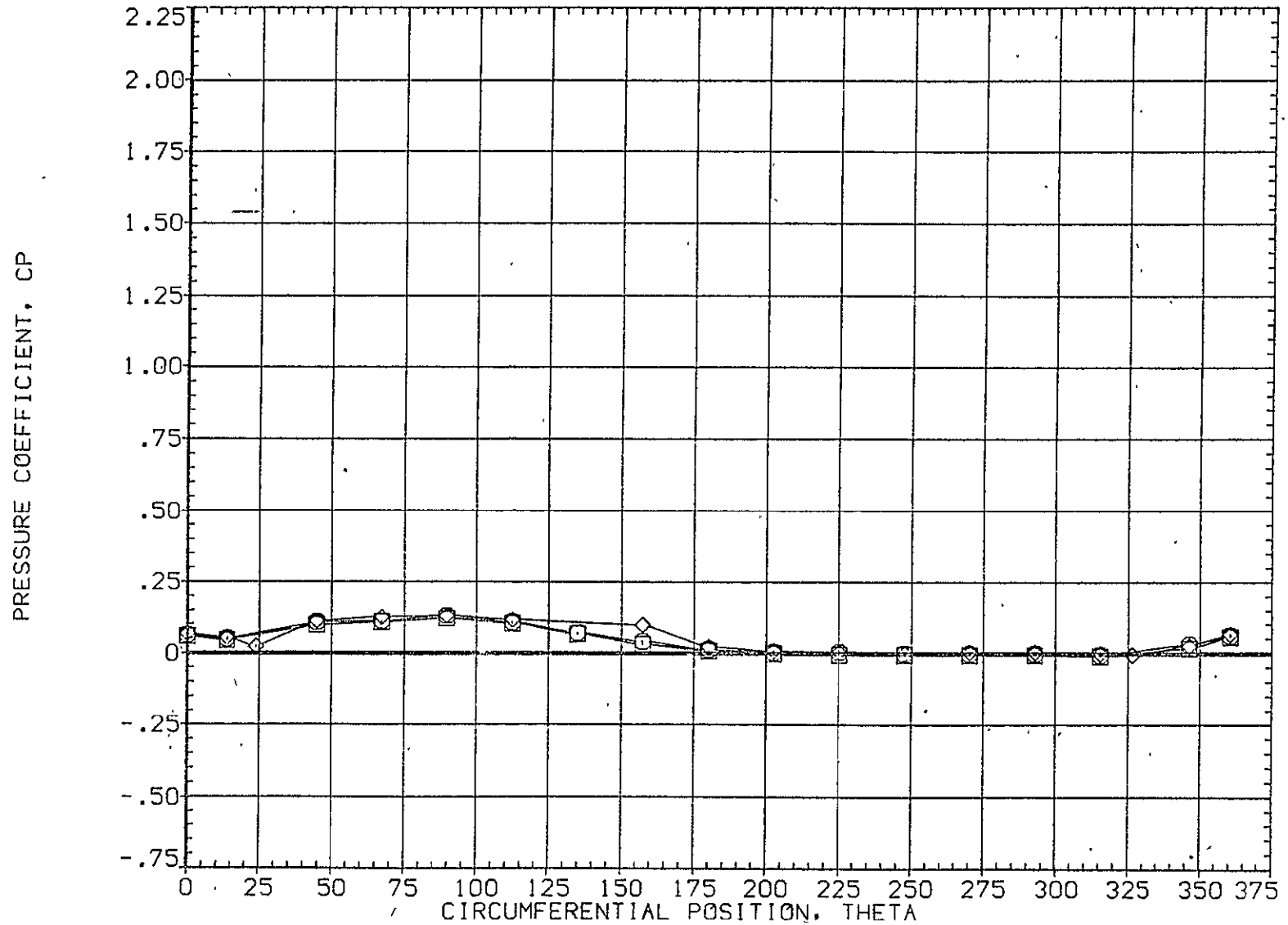


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 16.450 4.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 270.000

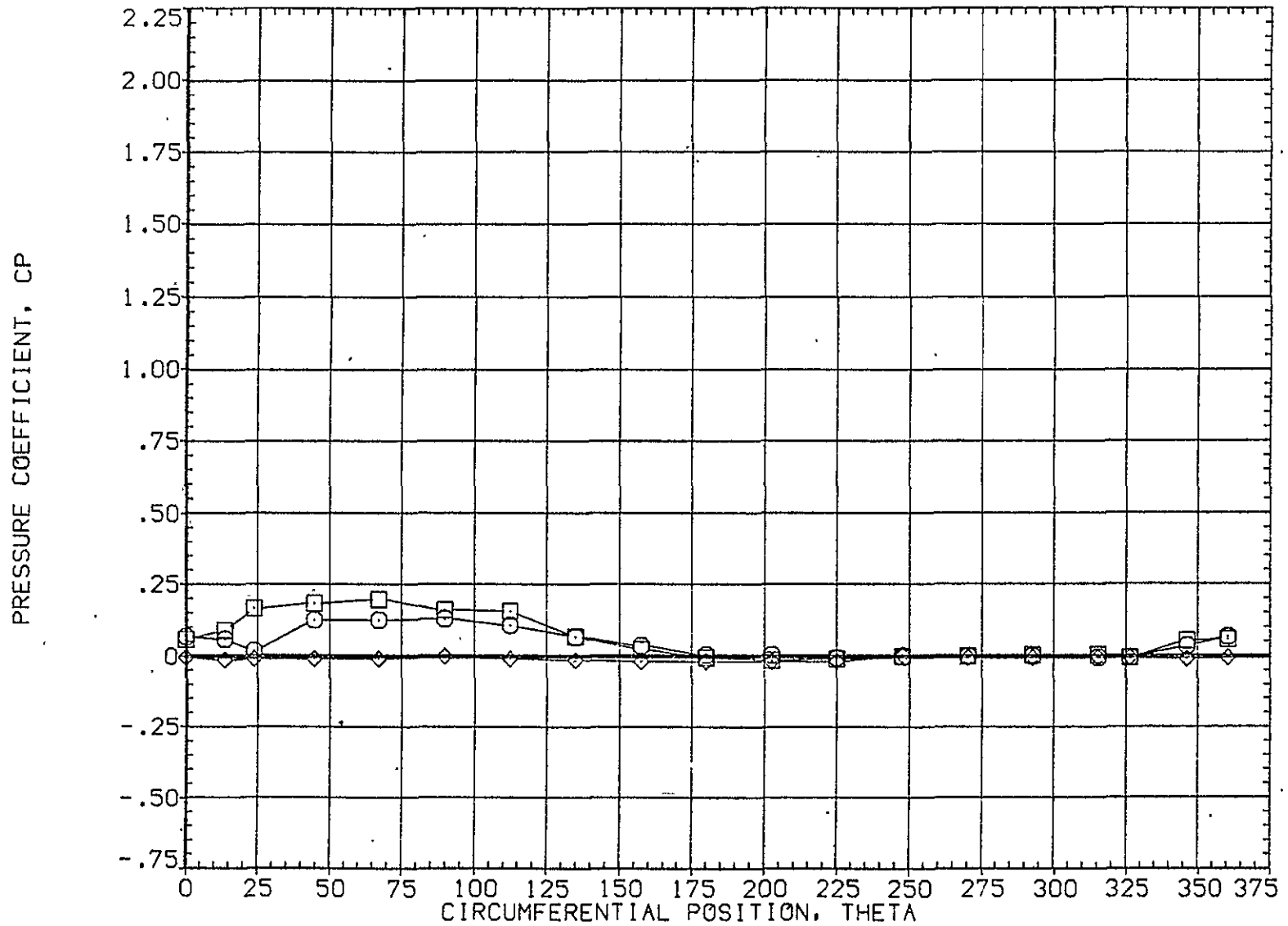
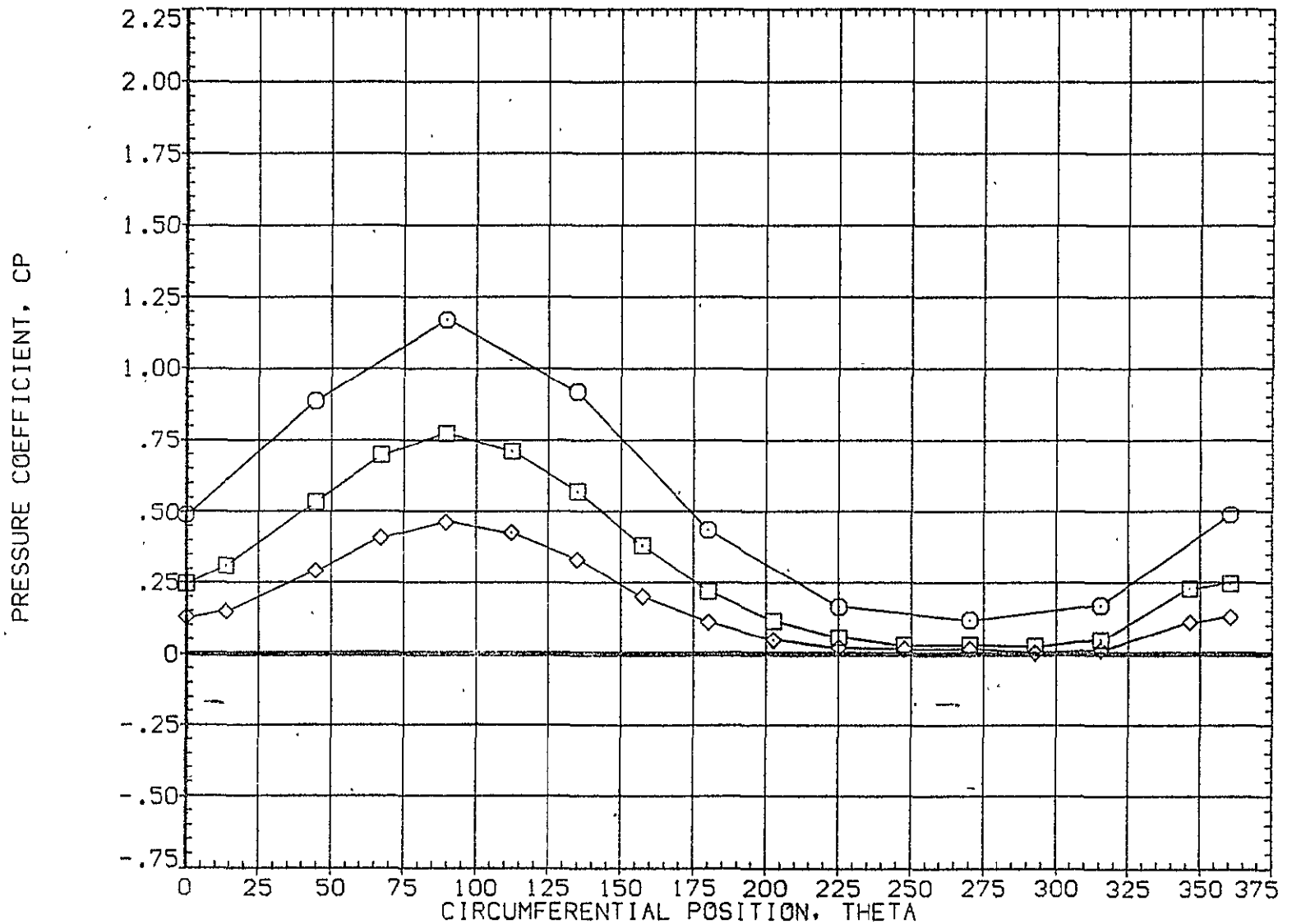


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.490	4.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						



IG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB ALPHA MACH
.216 20.490 4.960
.322
.518

PARAMETRIC VALUES
BETA .000 OFFSET 20.000
MOUNT 1.000 PHI 270.000

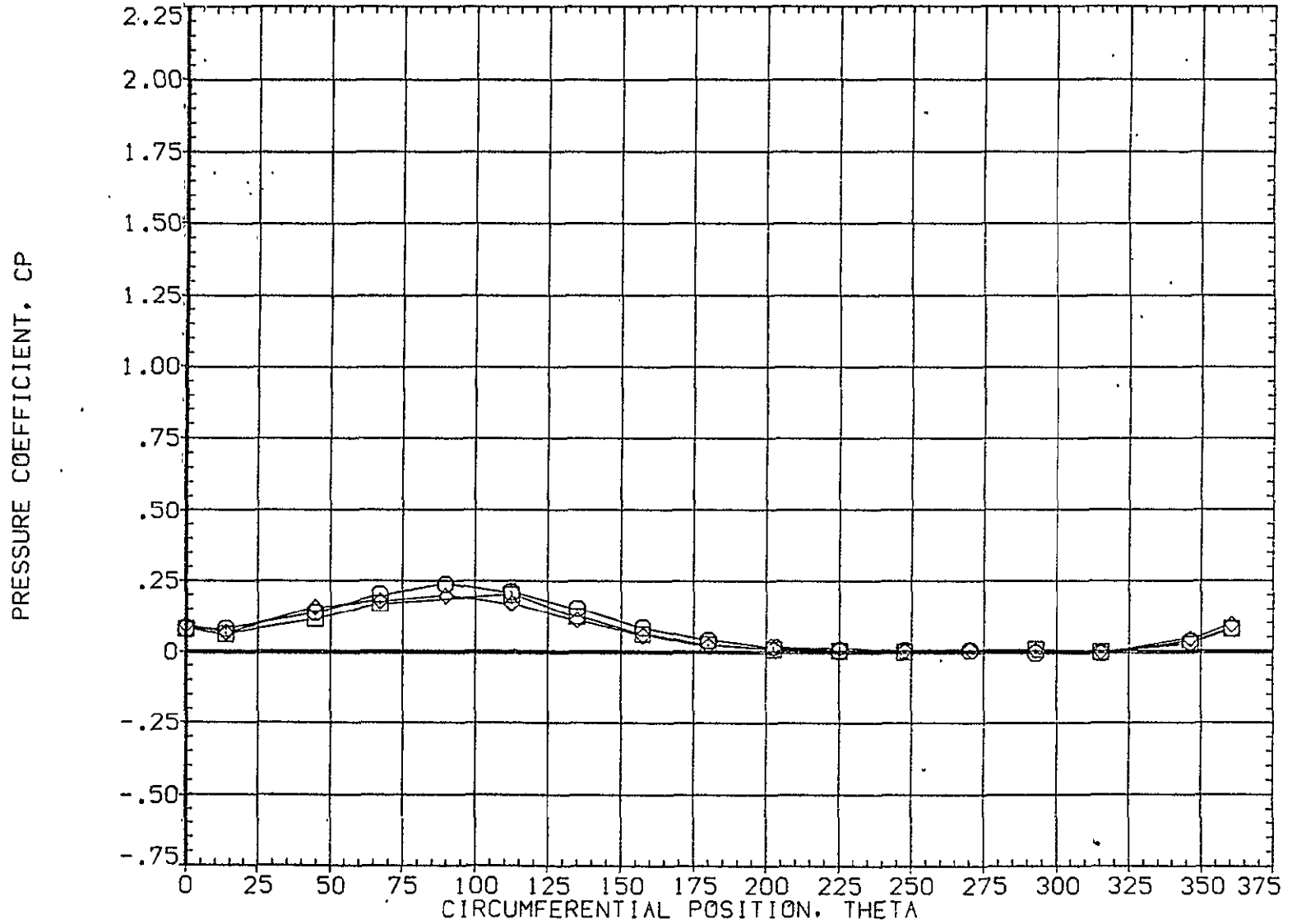


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A058)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.610	20.490	4.960		20.000		
□	.735			1.000			
◇	.860						

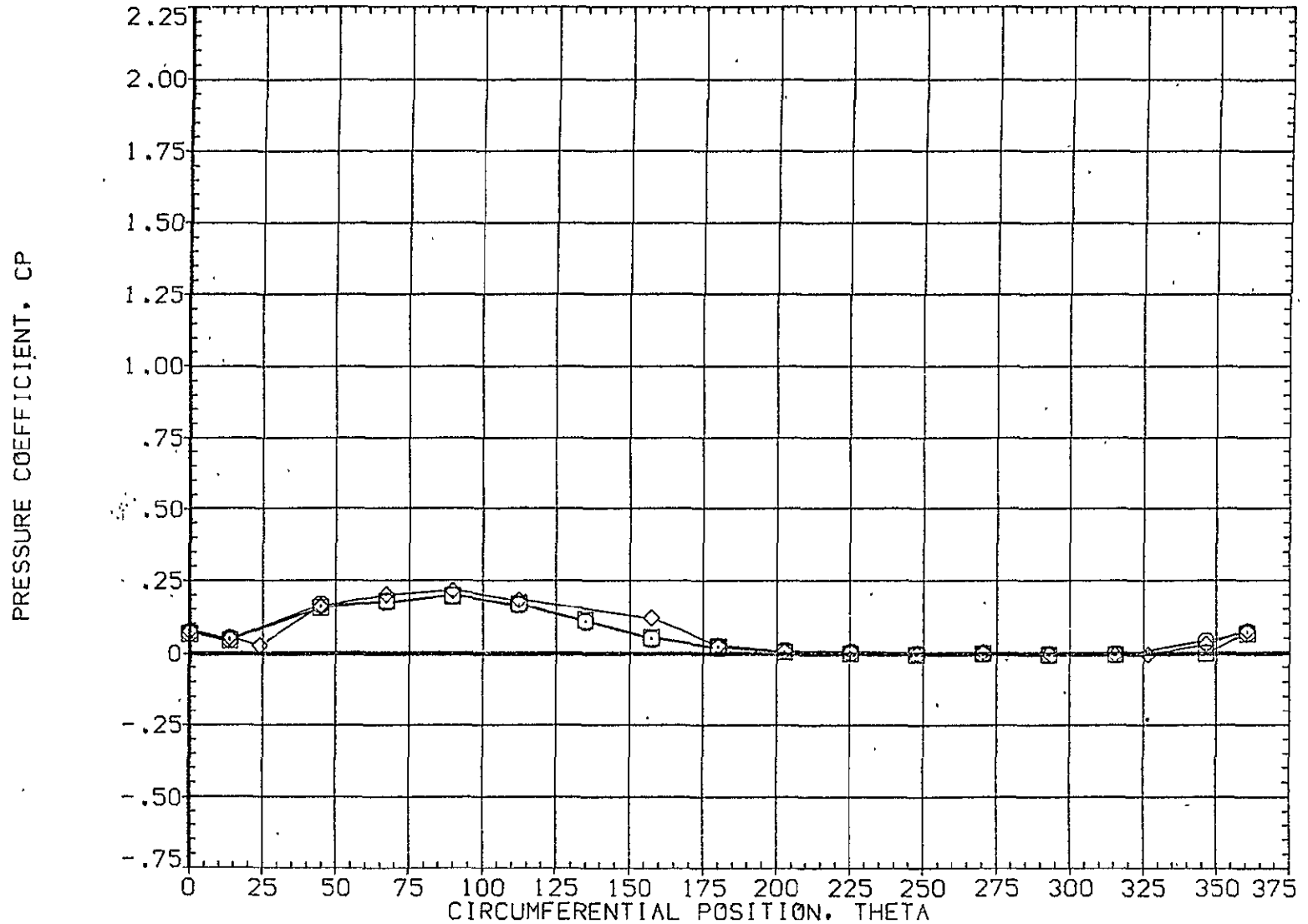


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	
○	.892	20.490	4.960	.000	20,000		
□	.923			1.000	270,000		
◇	.954						

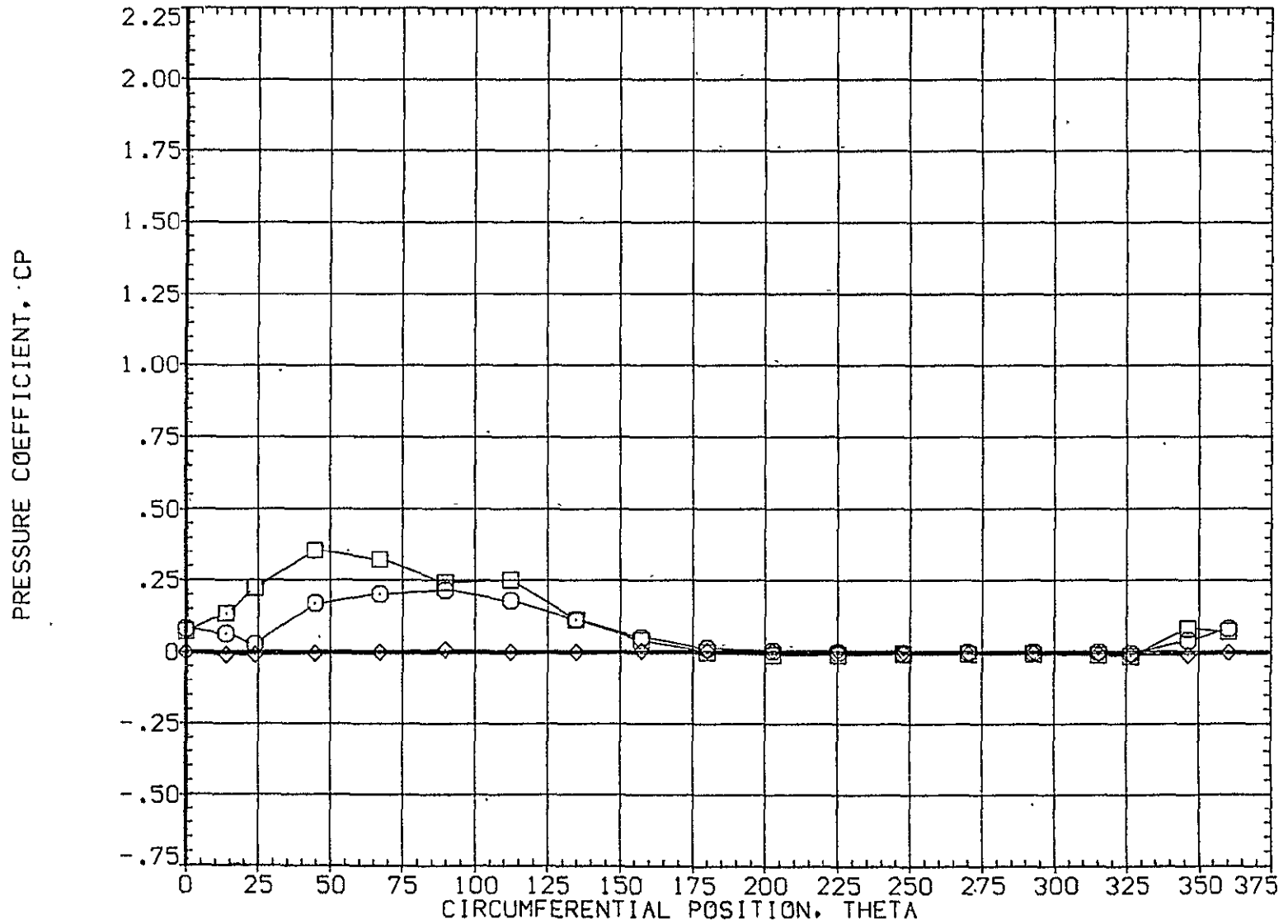


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.055	24.530	4.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

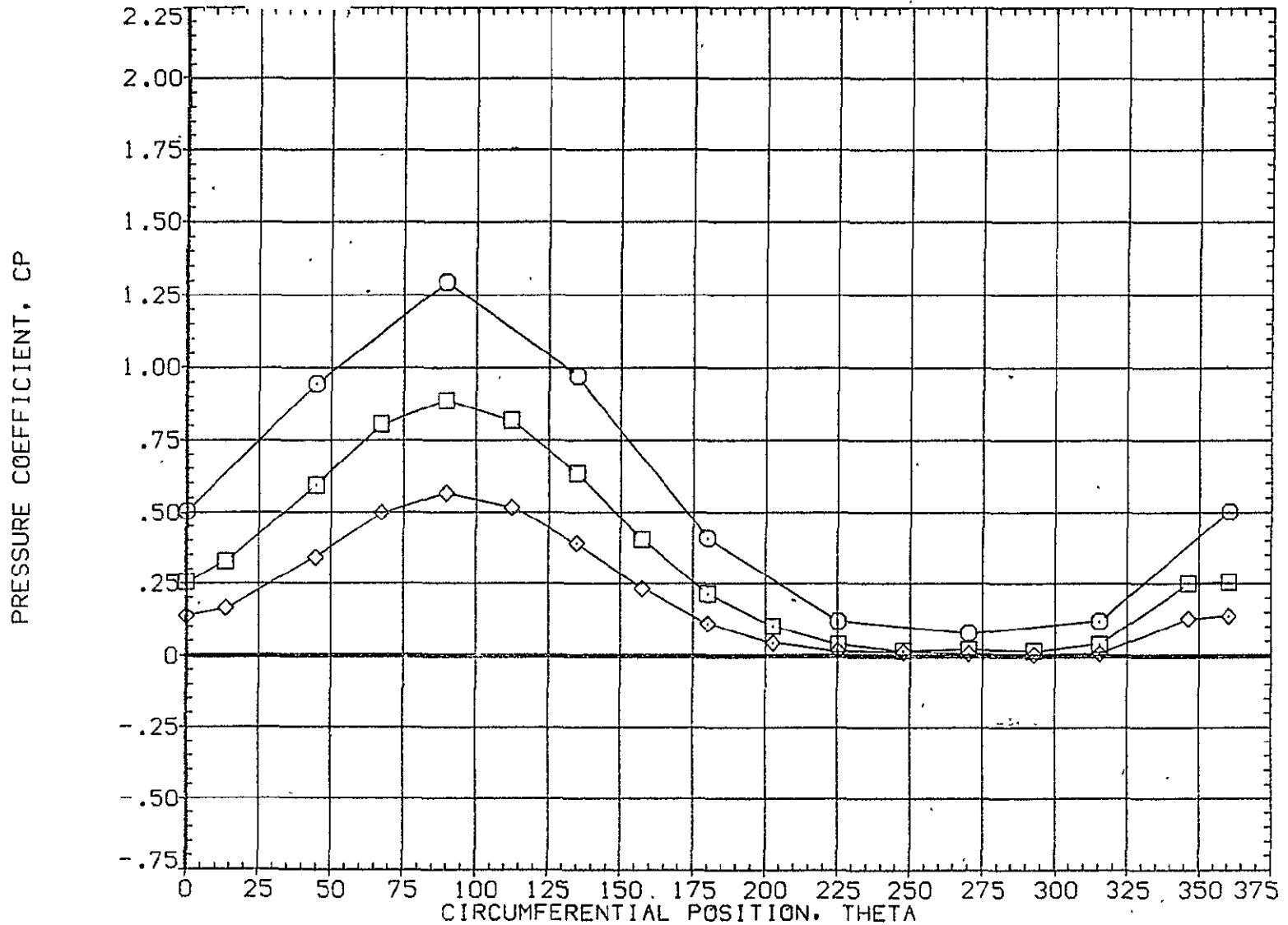


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	24.530	4.960	.000	20.000	
□	.322			1.000	270.000	
◇	.518					

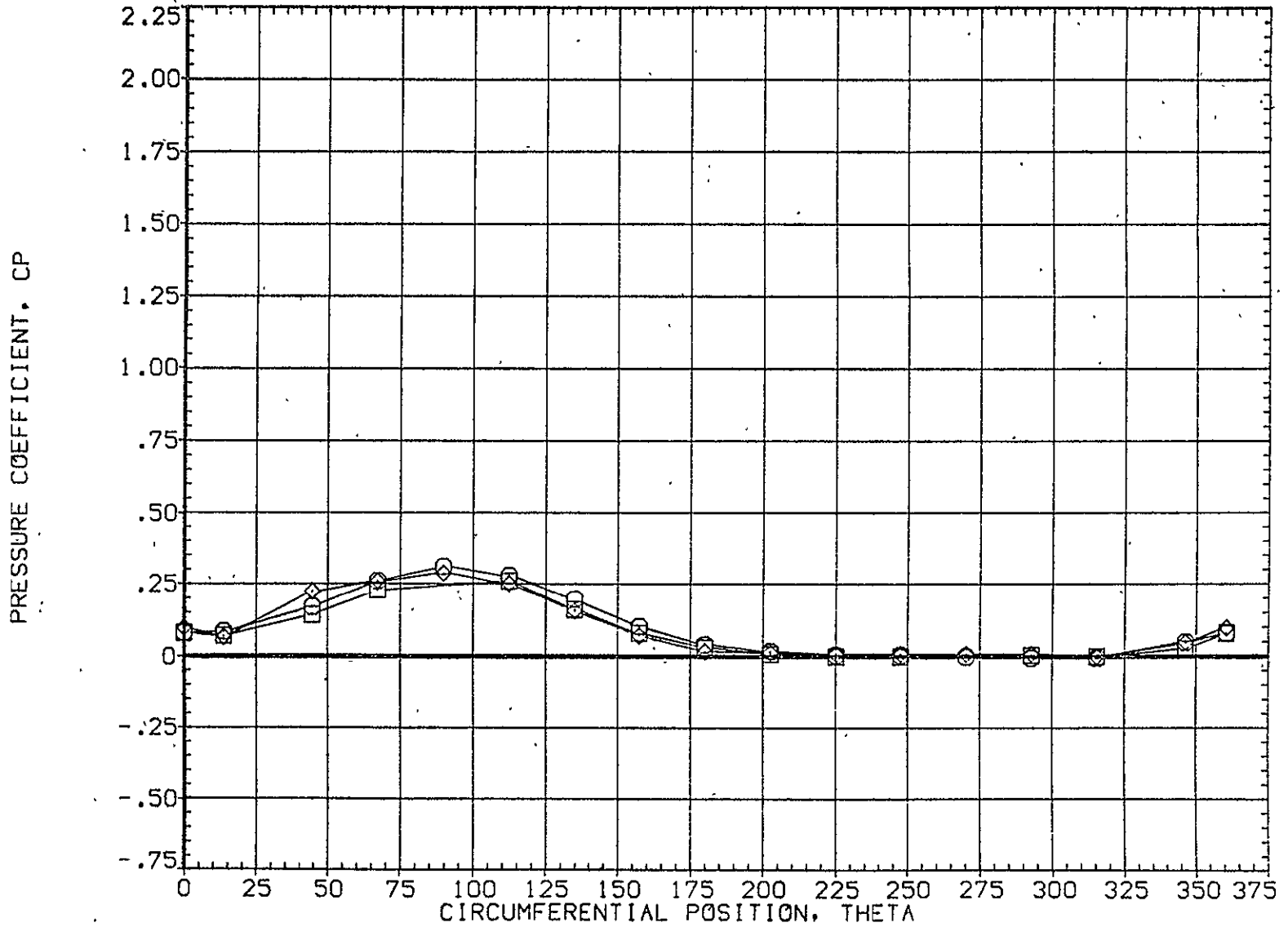


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A059)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20,000	
○	.610	24.530	4.960	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

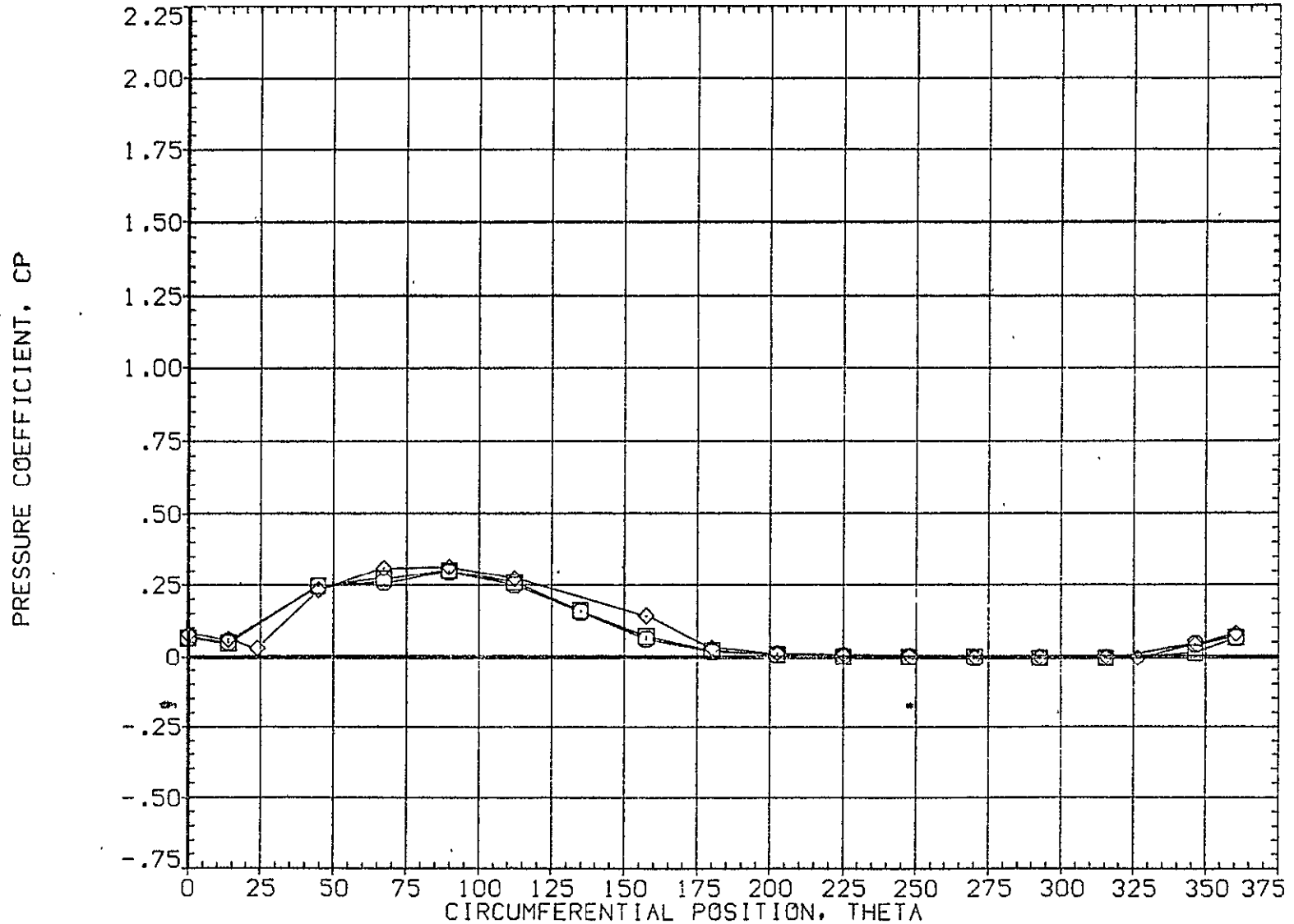


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	24.530	4.960	.000	20.000	
□	.923			1.000	270.000	
◇	.954					

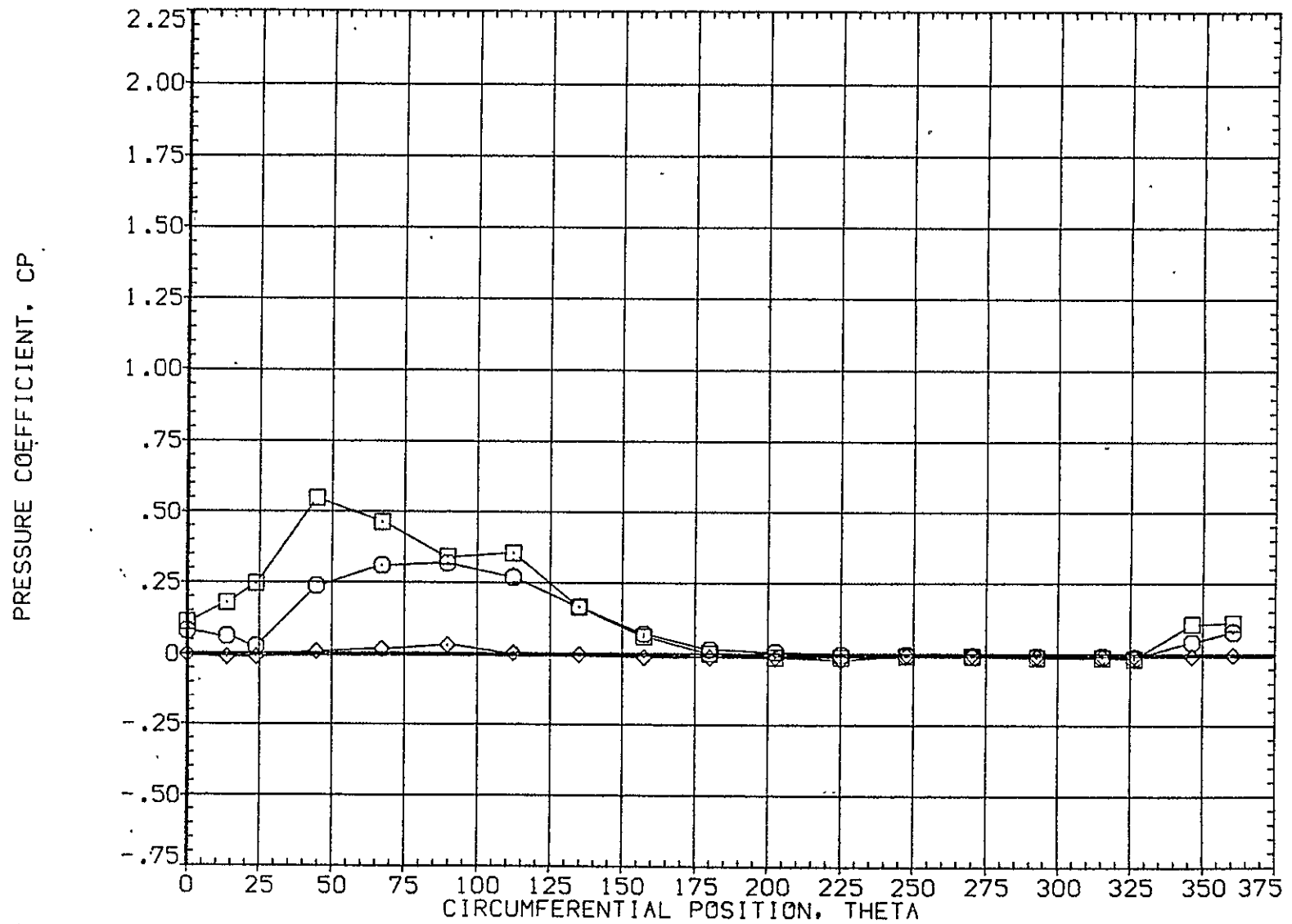


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A060)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	28.540	4.960	MOUNT	1.000	PHI	270.000
□	.108						
◇	.162						

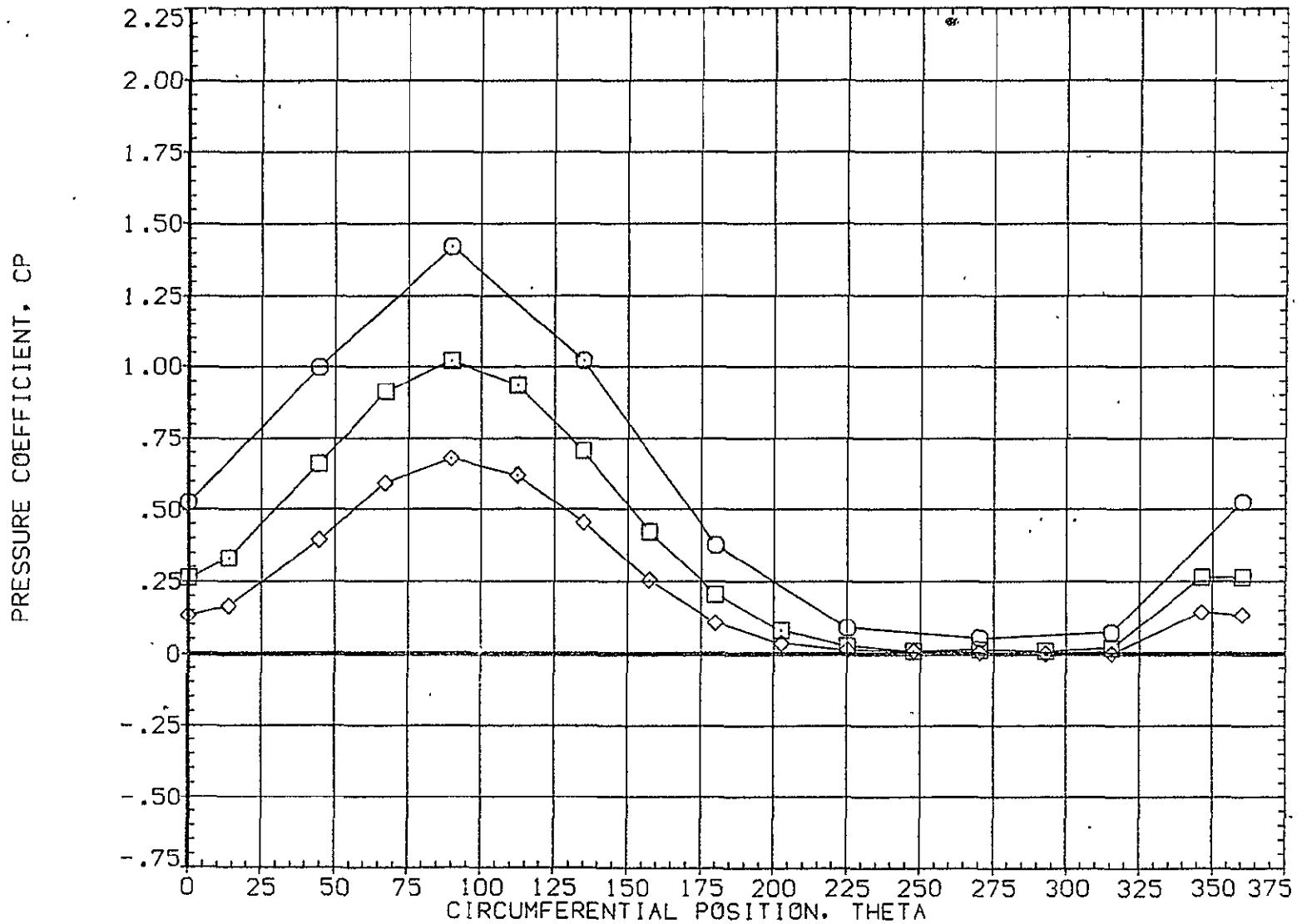


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.216	28.540	4.960	.000	20.000	
□	.322			1.000	270.000	
◇	.518					

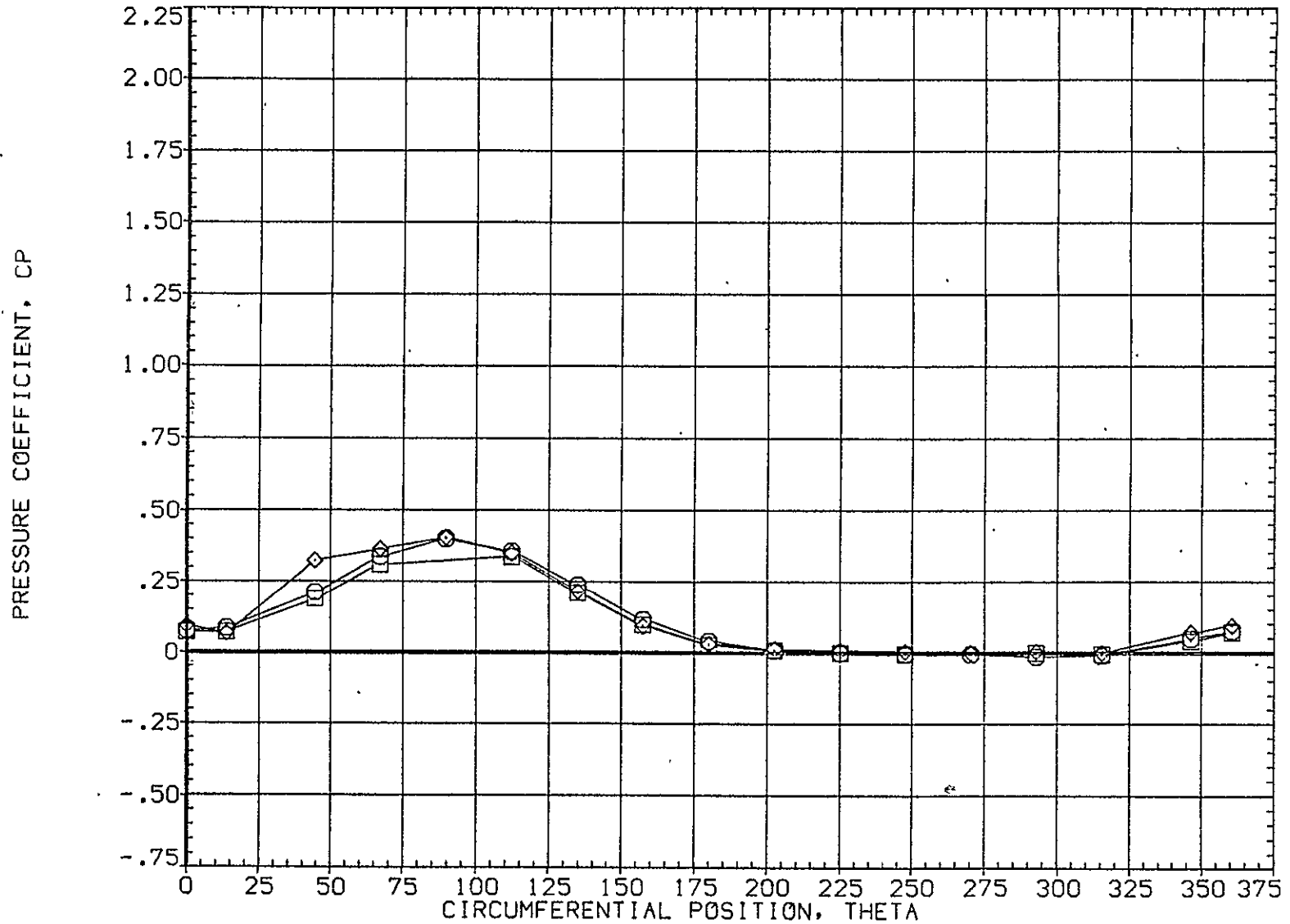


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	28.540	4.960	MOUNT	1.000	PHI	270.000
□	.735						
◇	.860						

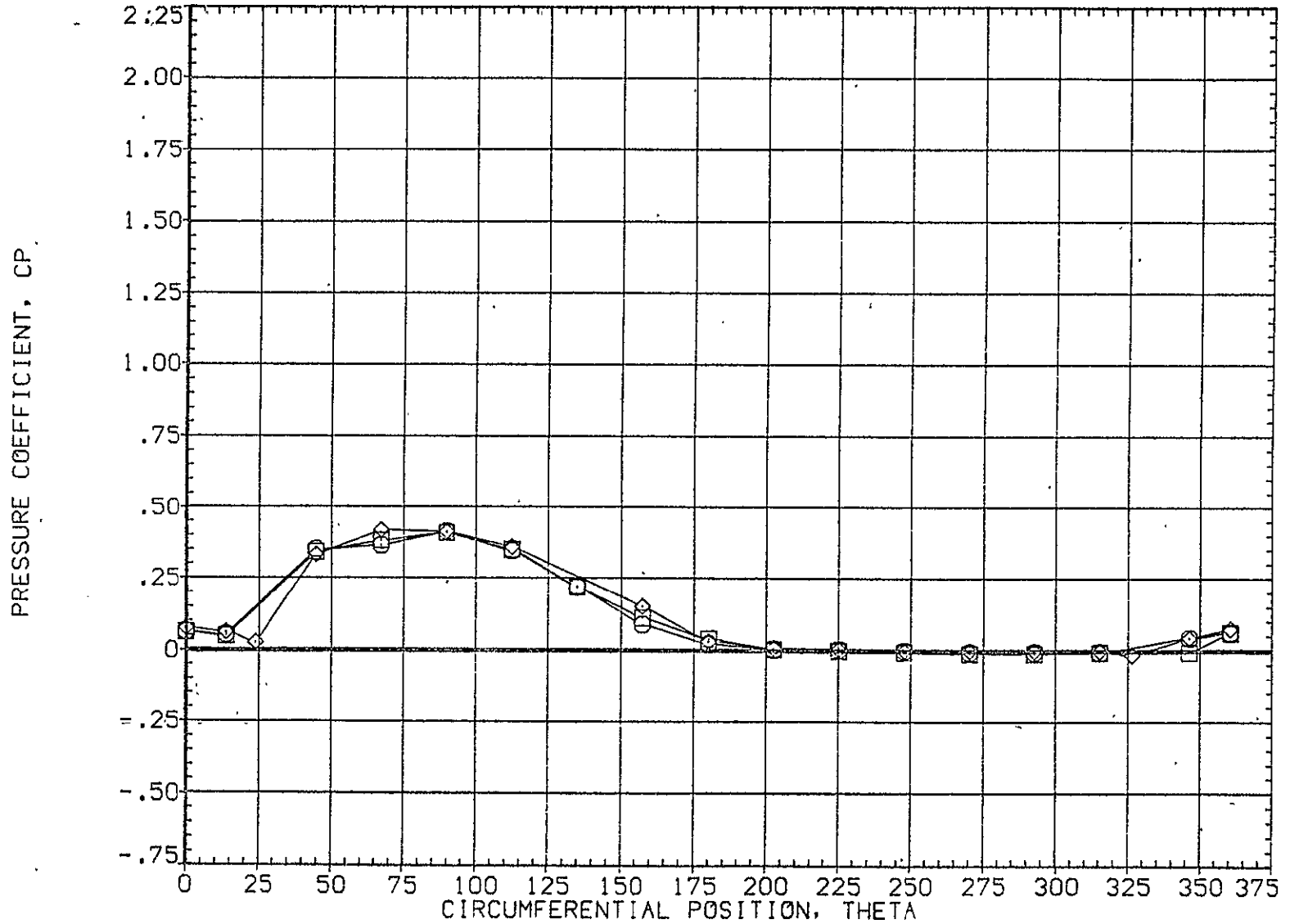


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	28.540	4.960	MOUNT	1.000	PHI	270.000
□	.923						
◇	.954						

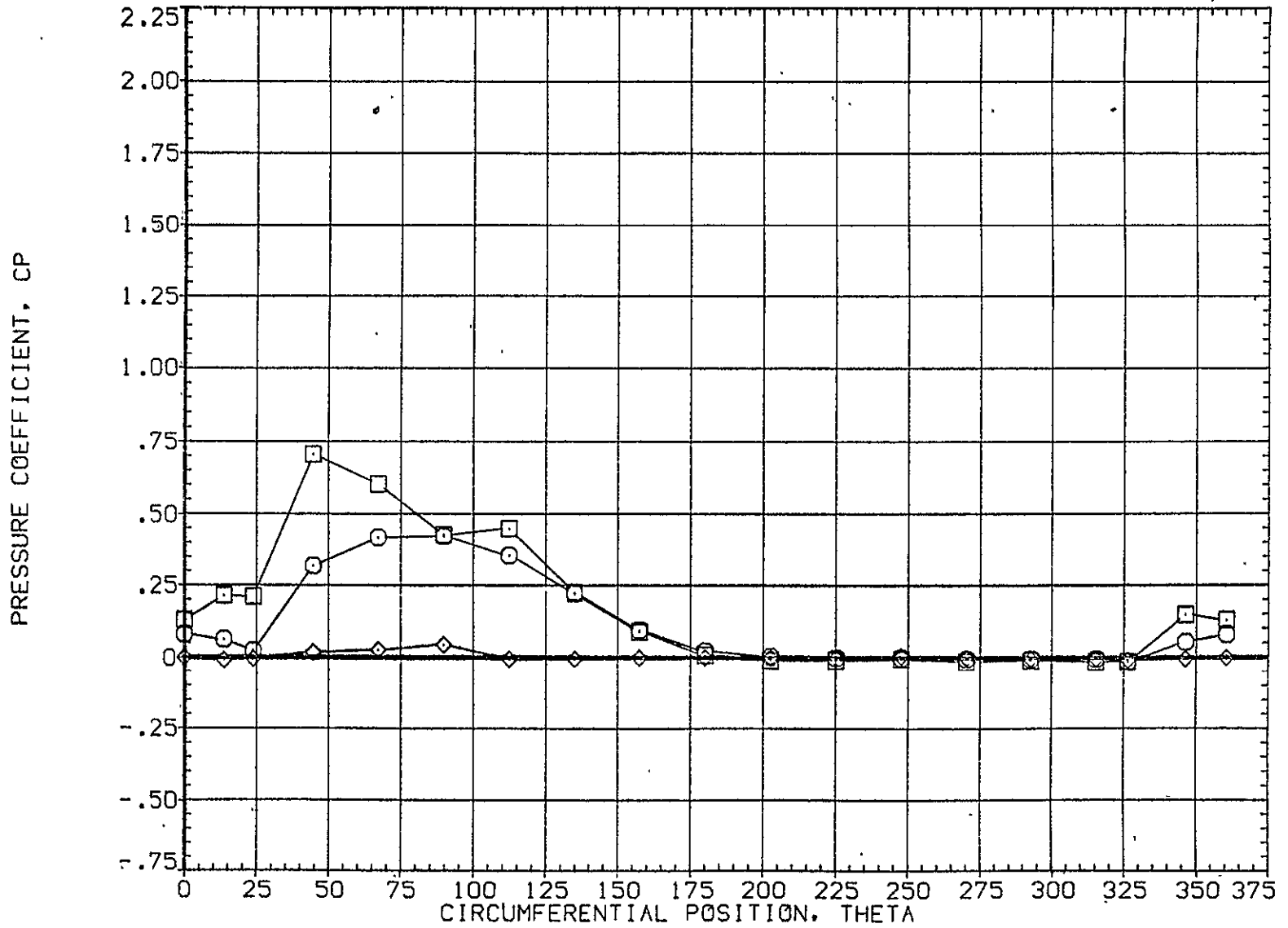


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES
 PAGE 1960

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	PHI	.000
○	.055	-8.310	4.960	MOUNT	1.000	315.000	
□	.108						
◇	.162						

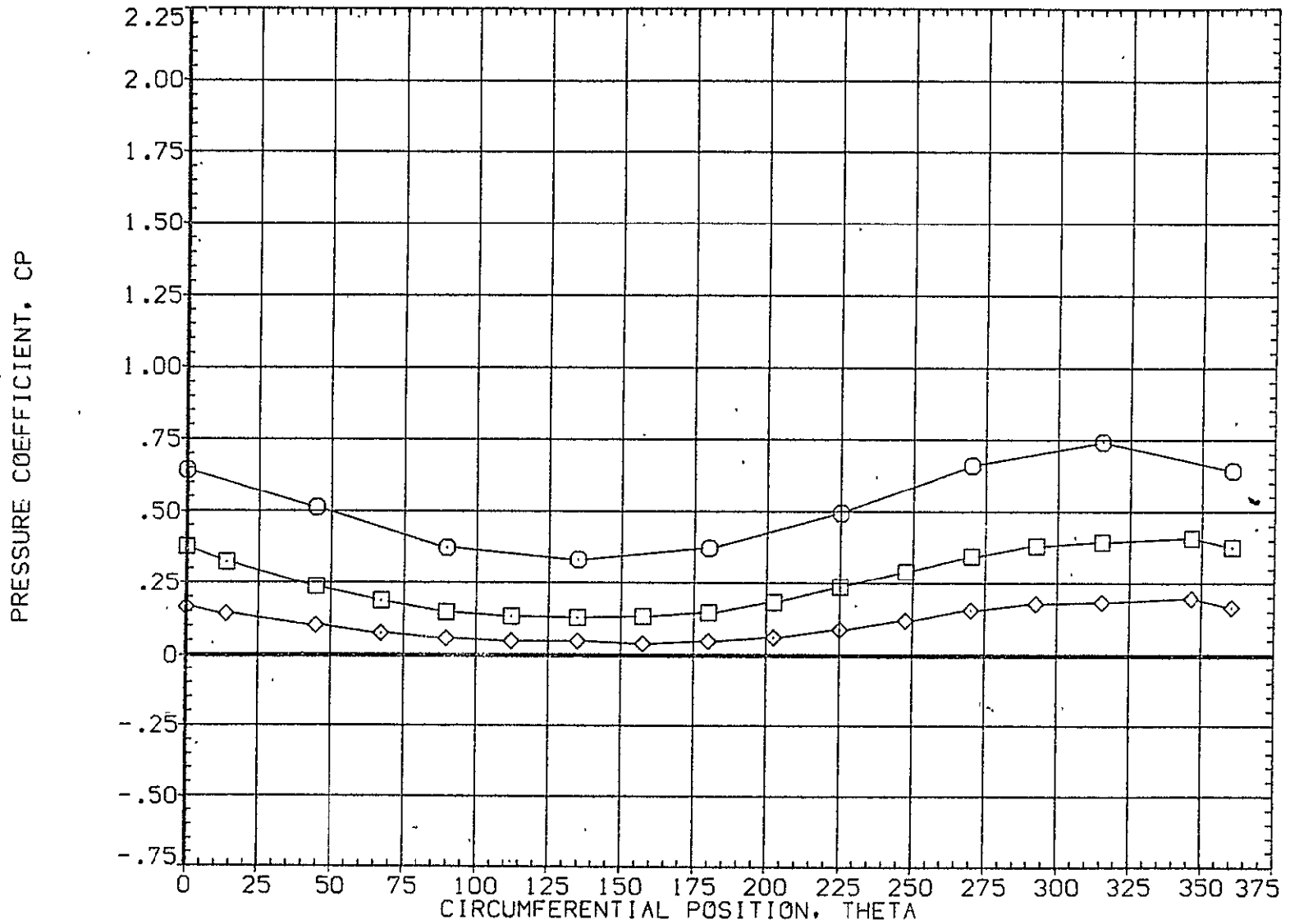


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-8.310	4.960	.000	.000	.000
□	.322			1.000	PHI	315.000
◇	.518					

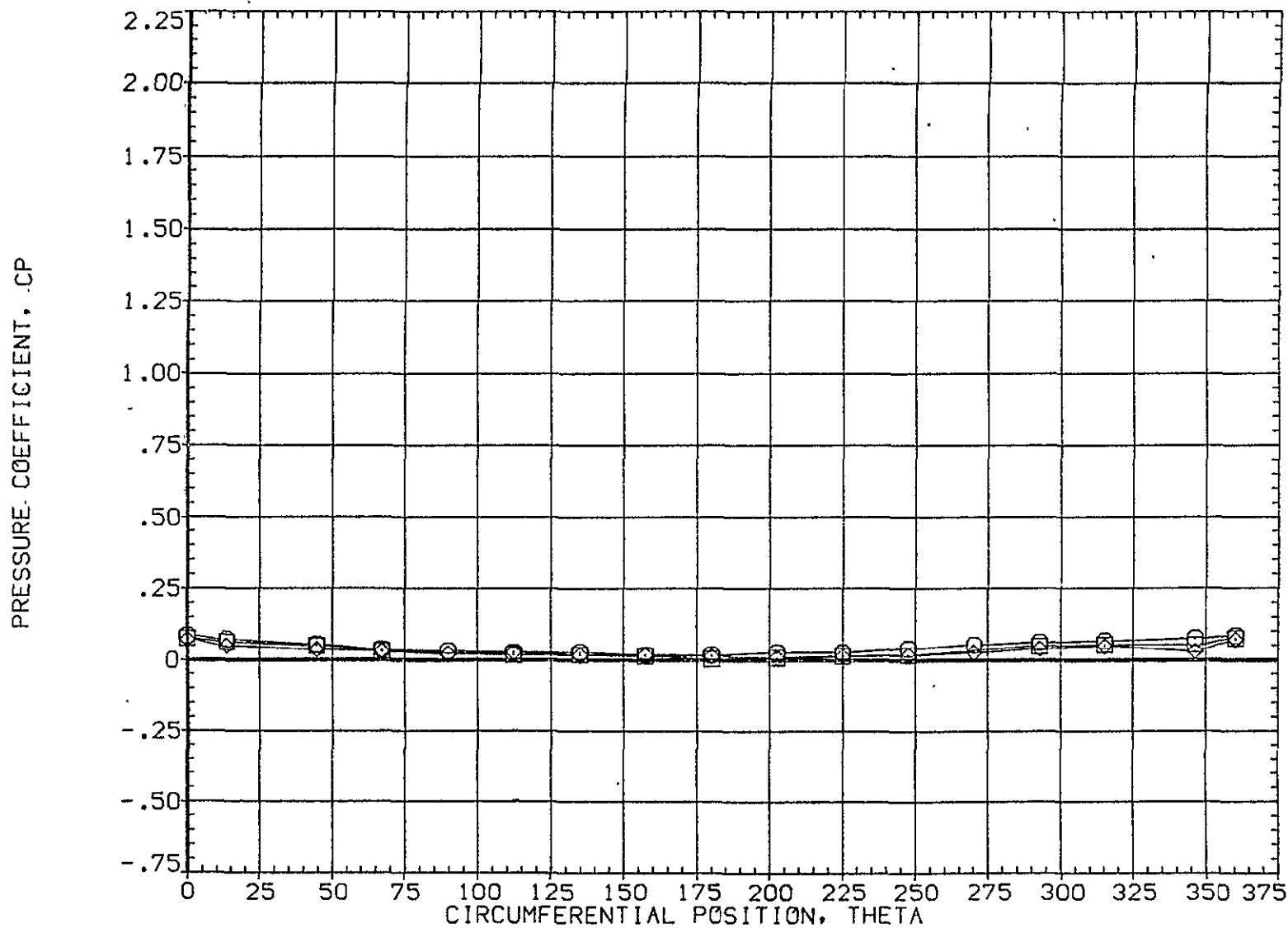


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-8.310	4.960	.000	.000	.000
□	.735			1.000	PHI	315.000
◇	.860					

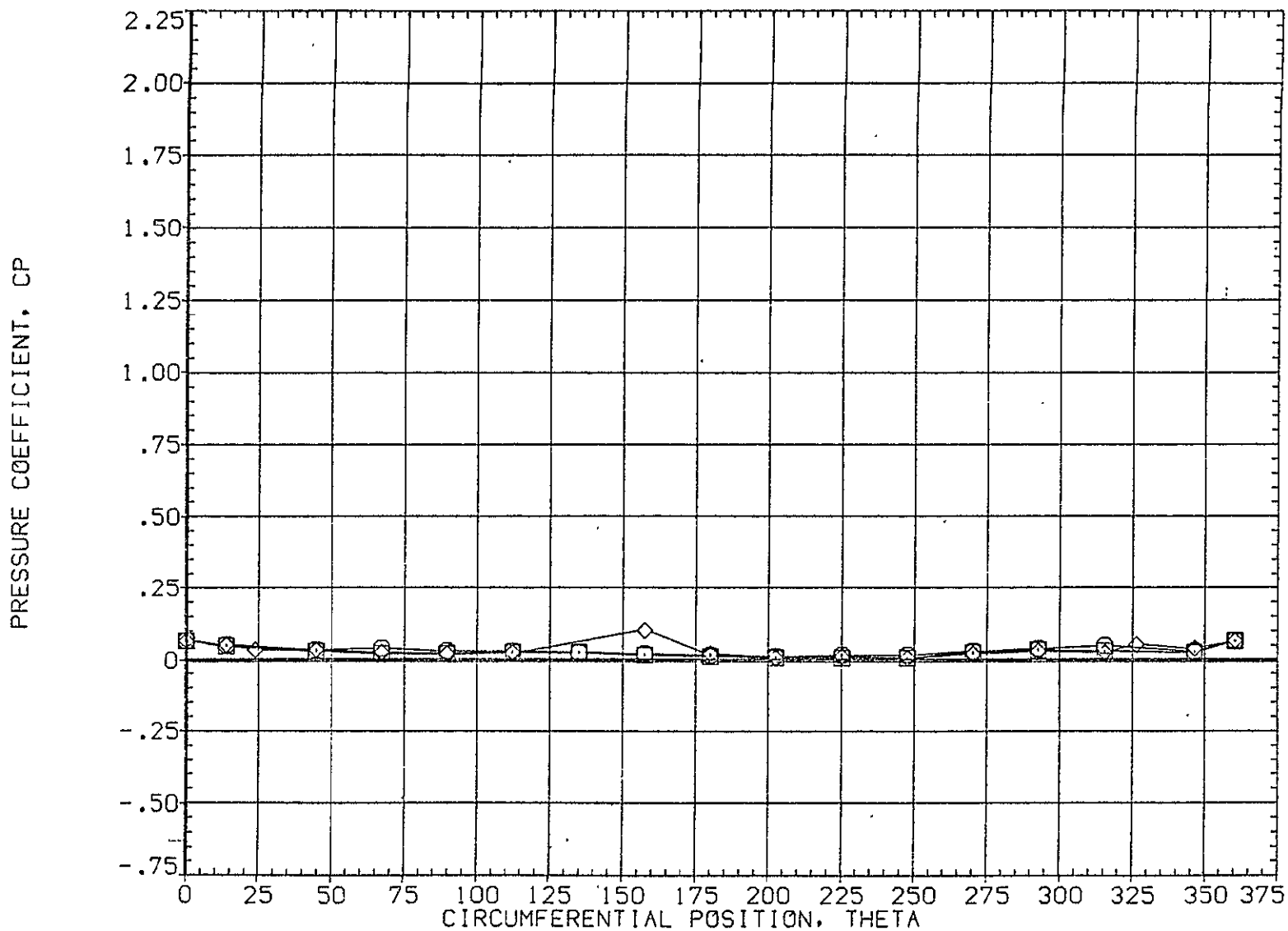


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .892
.923
.954
ALPHA -8.310
MACH 4.960

PARAMETRIC VALUES
BETA .000 OFFSET .000
MOUNT 1.000 PHI 315.000

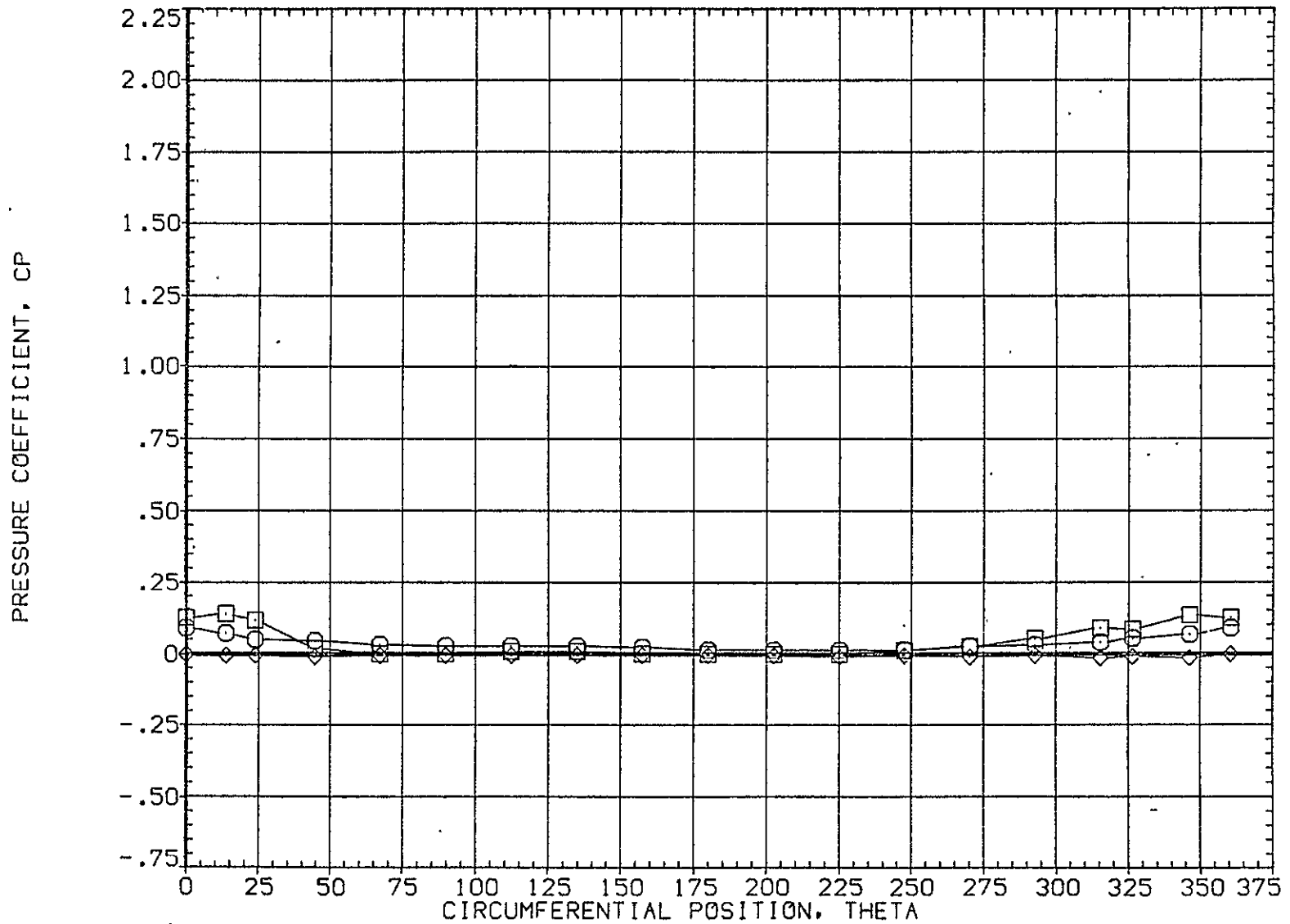


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-4.290	4.960	.000	.000	.000
□	.108			1.000		315.000
◇	.162					

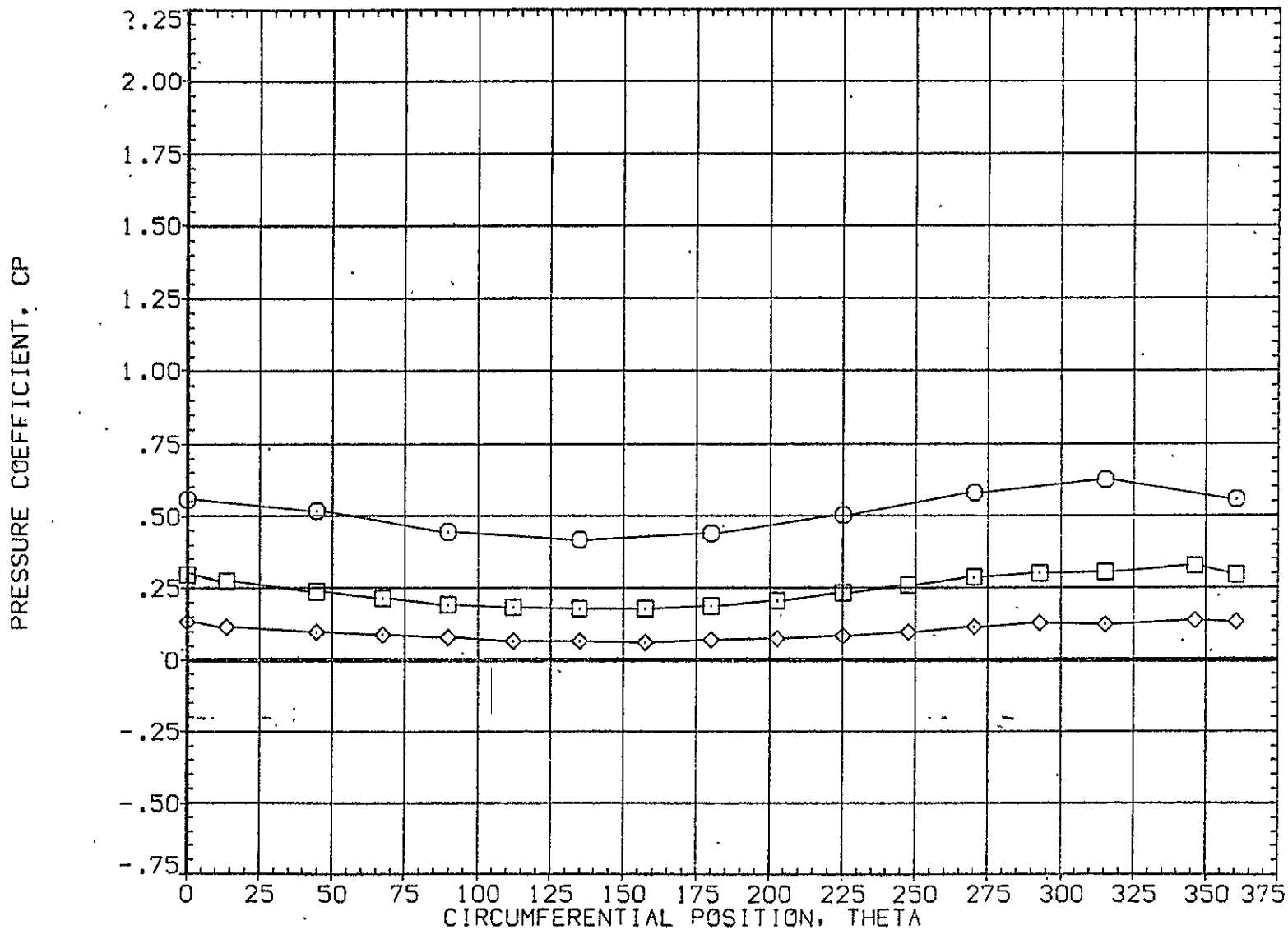


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 -4.290 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET .000
 MOUNT 1.000 PHI 315.000

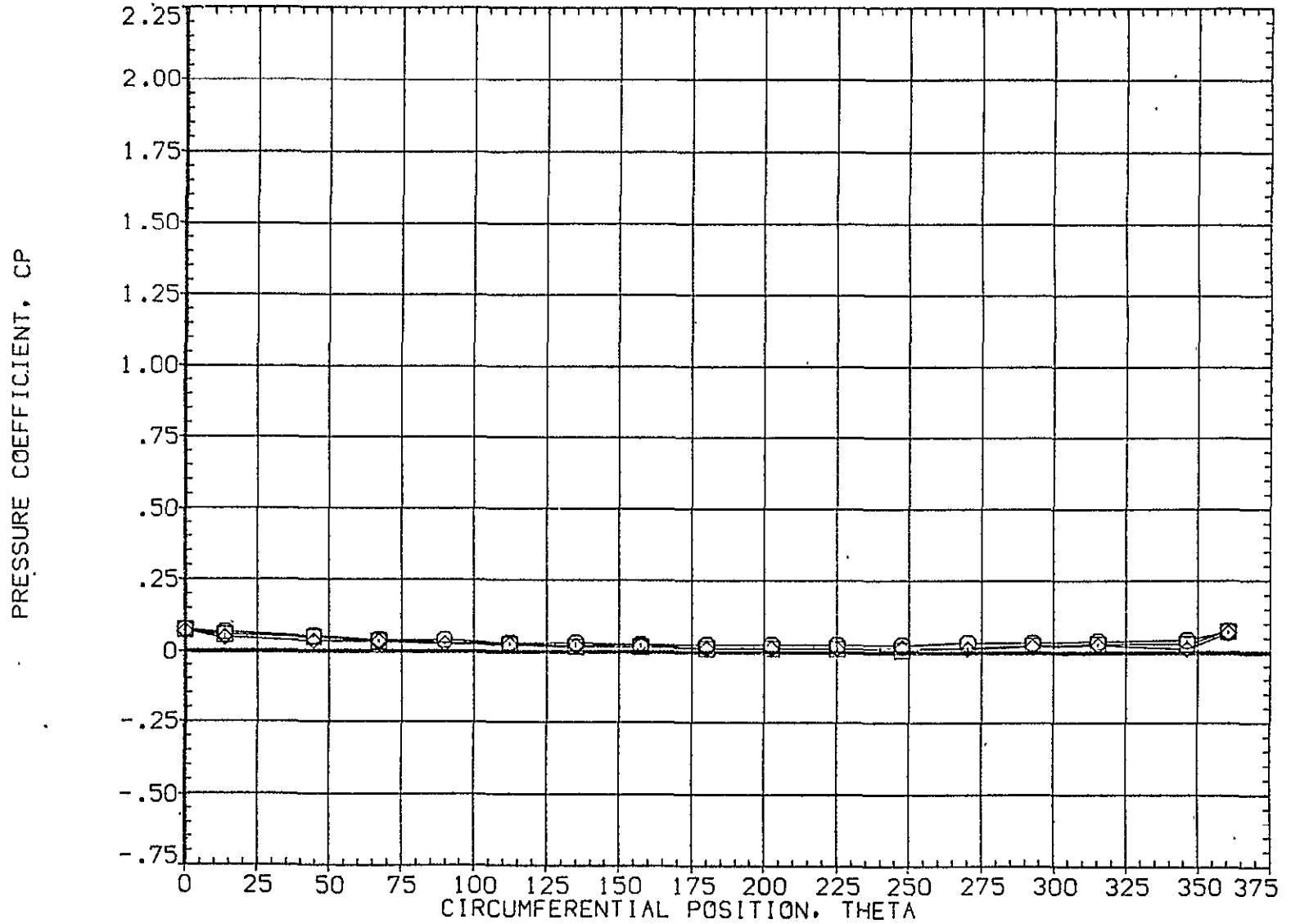


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A092)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	-4.290	4.960	.000	.000	.000
□	.735			1.000		315.000
◇	.860					

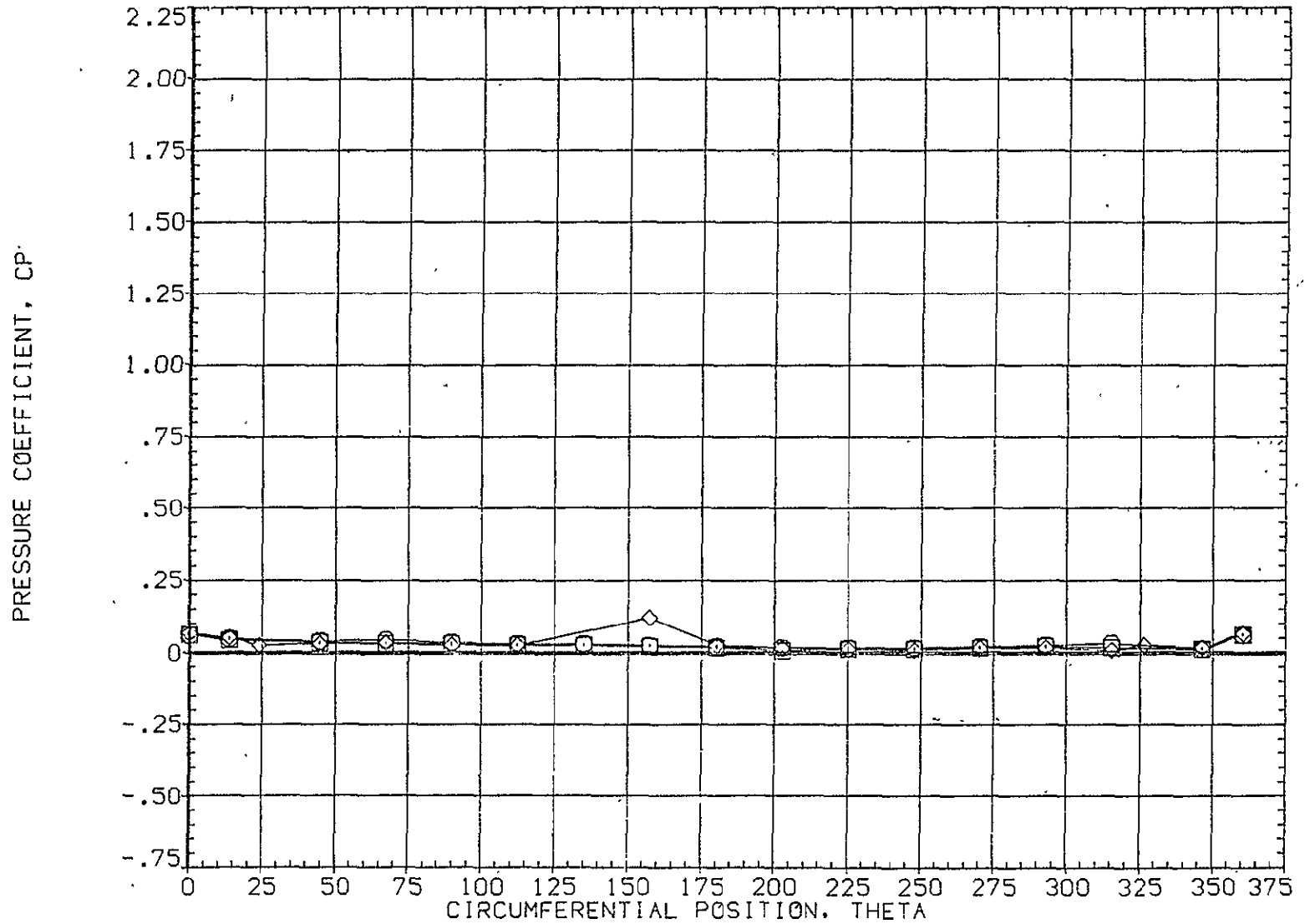


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.892	-4.290	4.960	.000	.000	.000
□	.923			1.000	PHI	315.000
◇	.954					

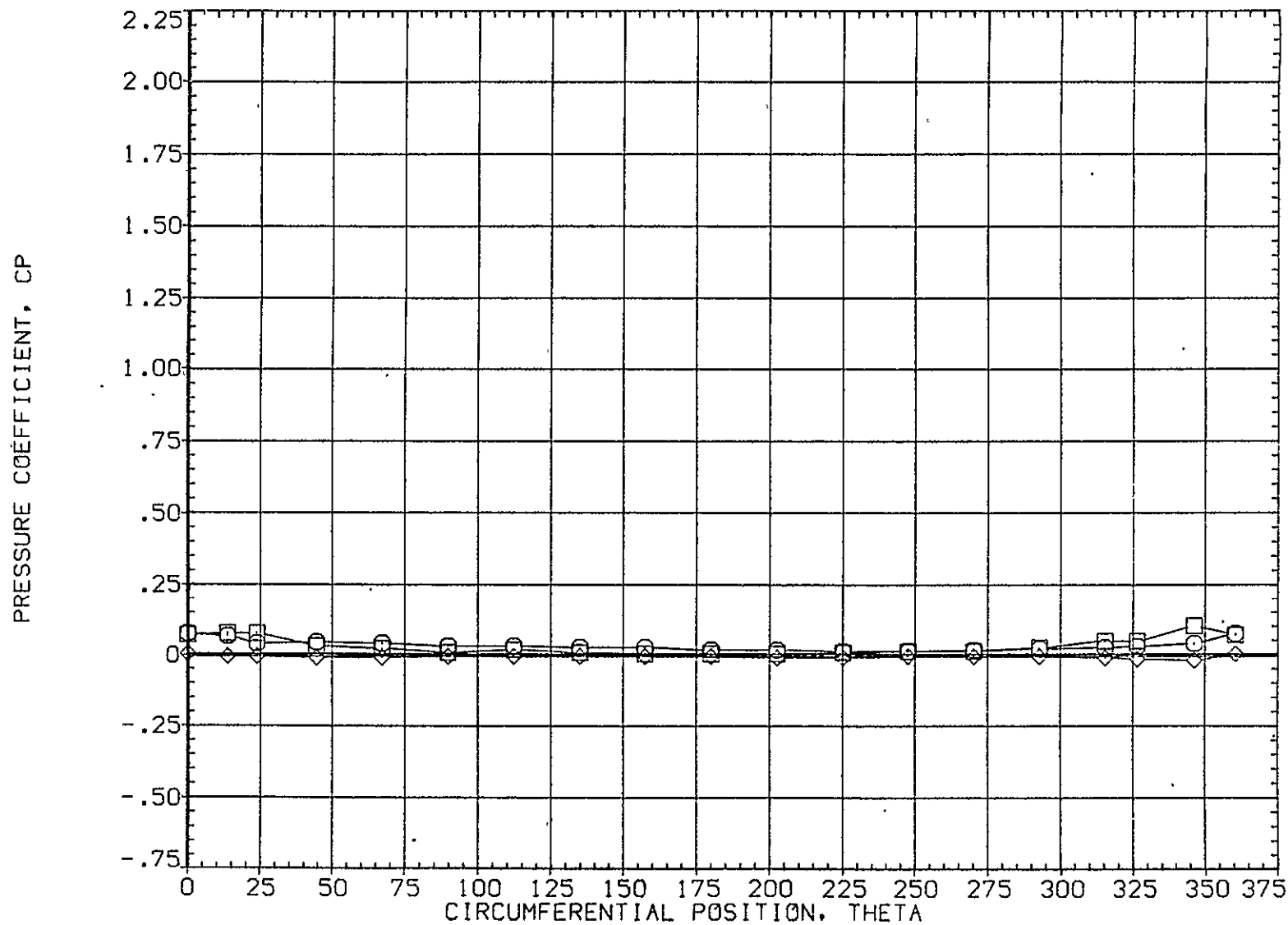


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	-.280	4.960	.000	.000	.000
□	.108			1.000		315.000
◇	.162					

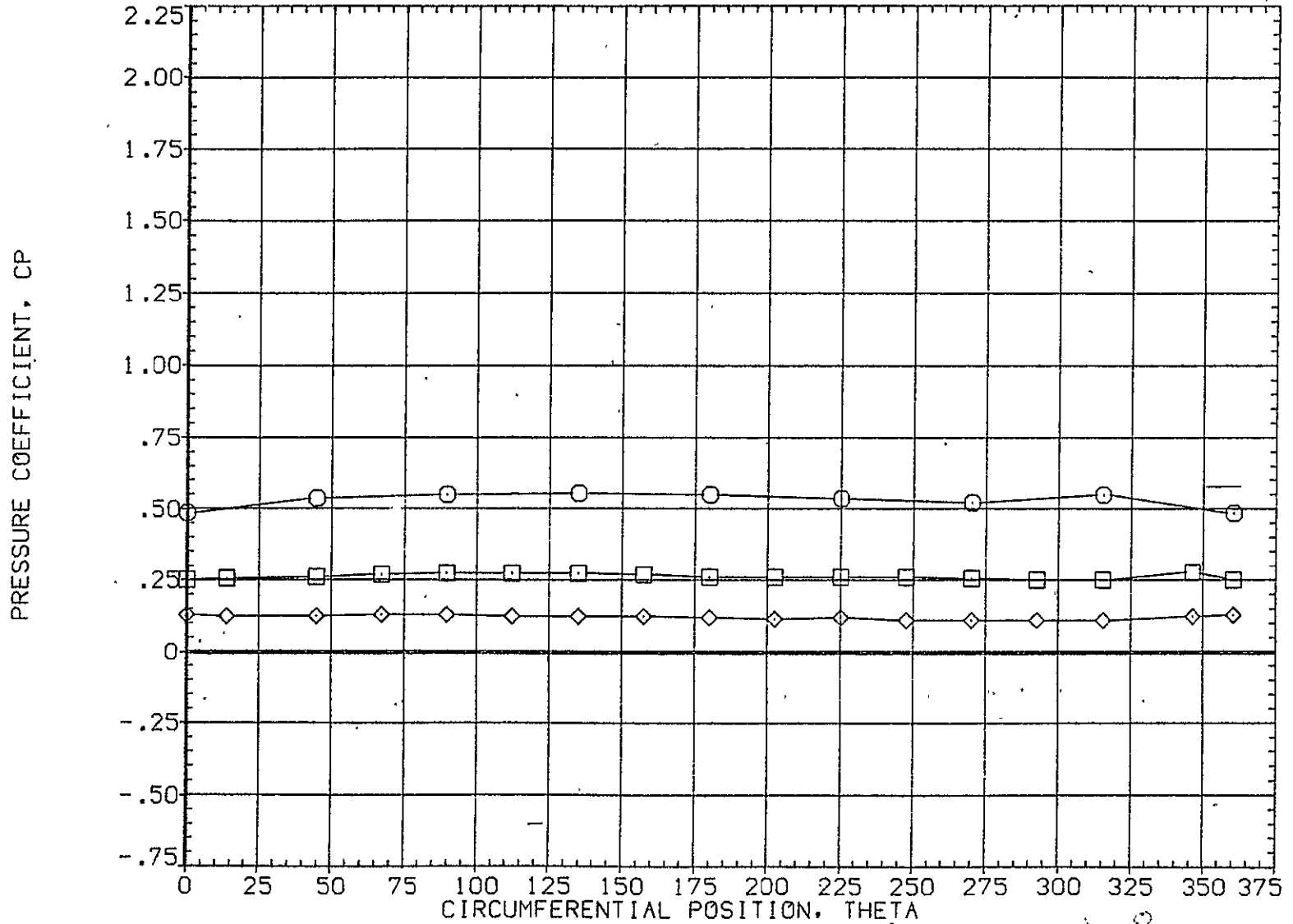


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES.

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	
○	.216	-.280	4.960	.000	.000	.000
□	.322			1.000	PHI	315.000
◇	.518					

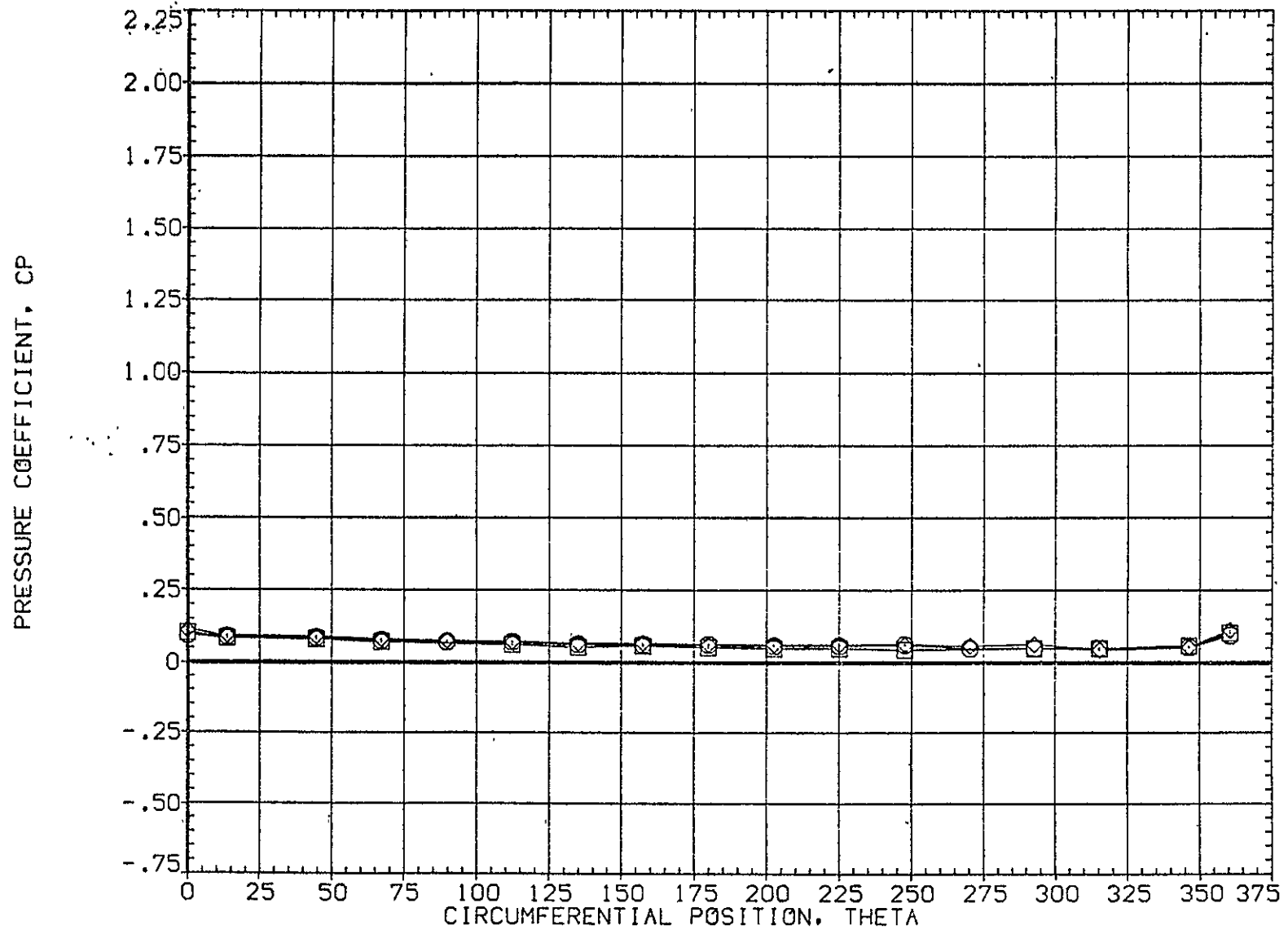


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(PIA093)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.610	-.280	4.960	MOUNT	1.000	PHI	315.000
□	.735						
◇	.860						

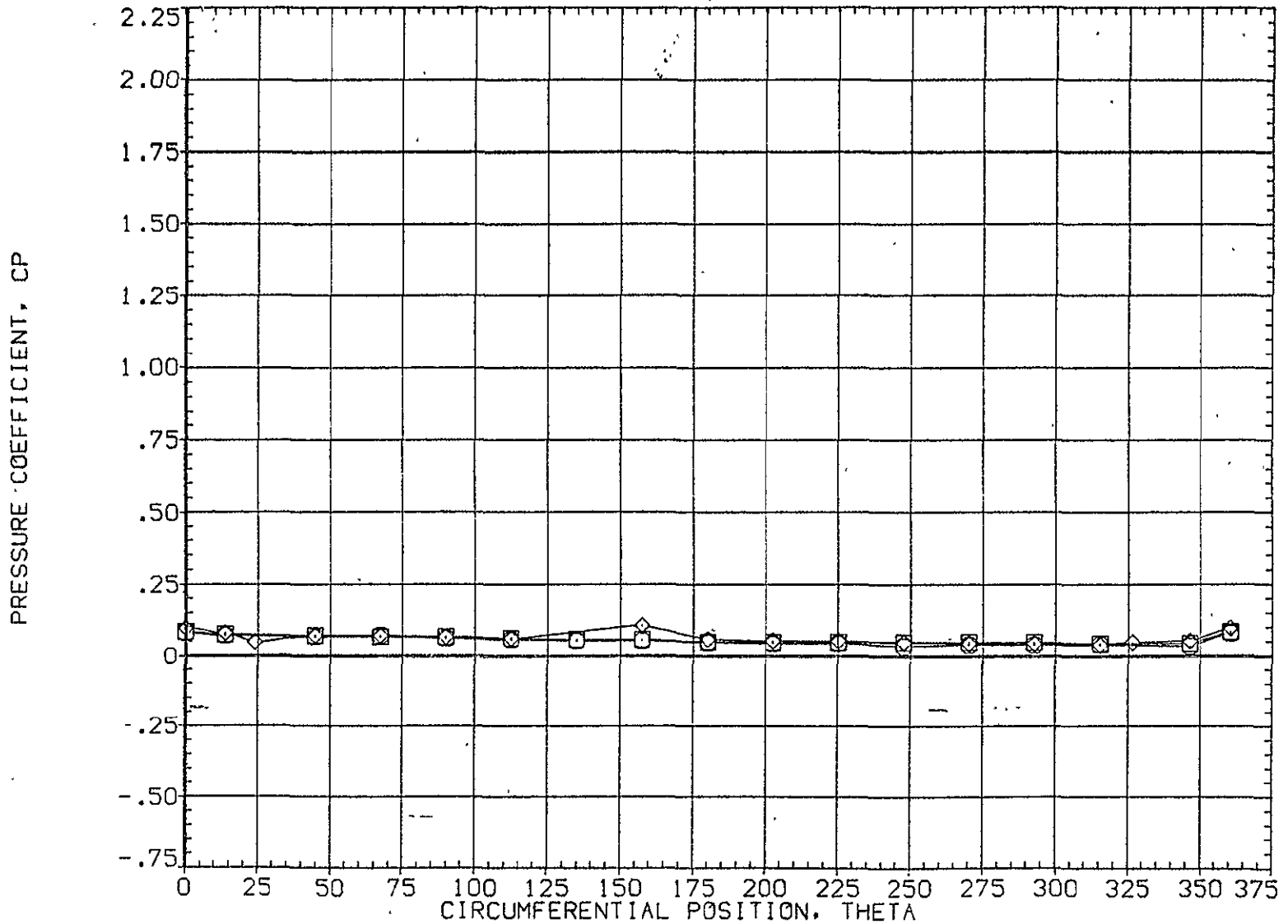


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	-.280	4.960	.000	.000	.000
□	.923			1.000		315.000
◇	.954					

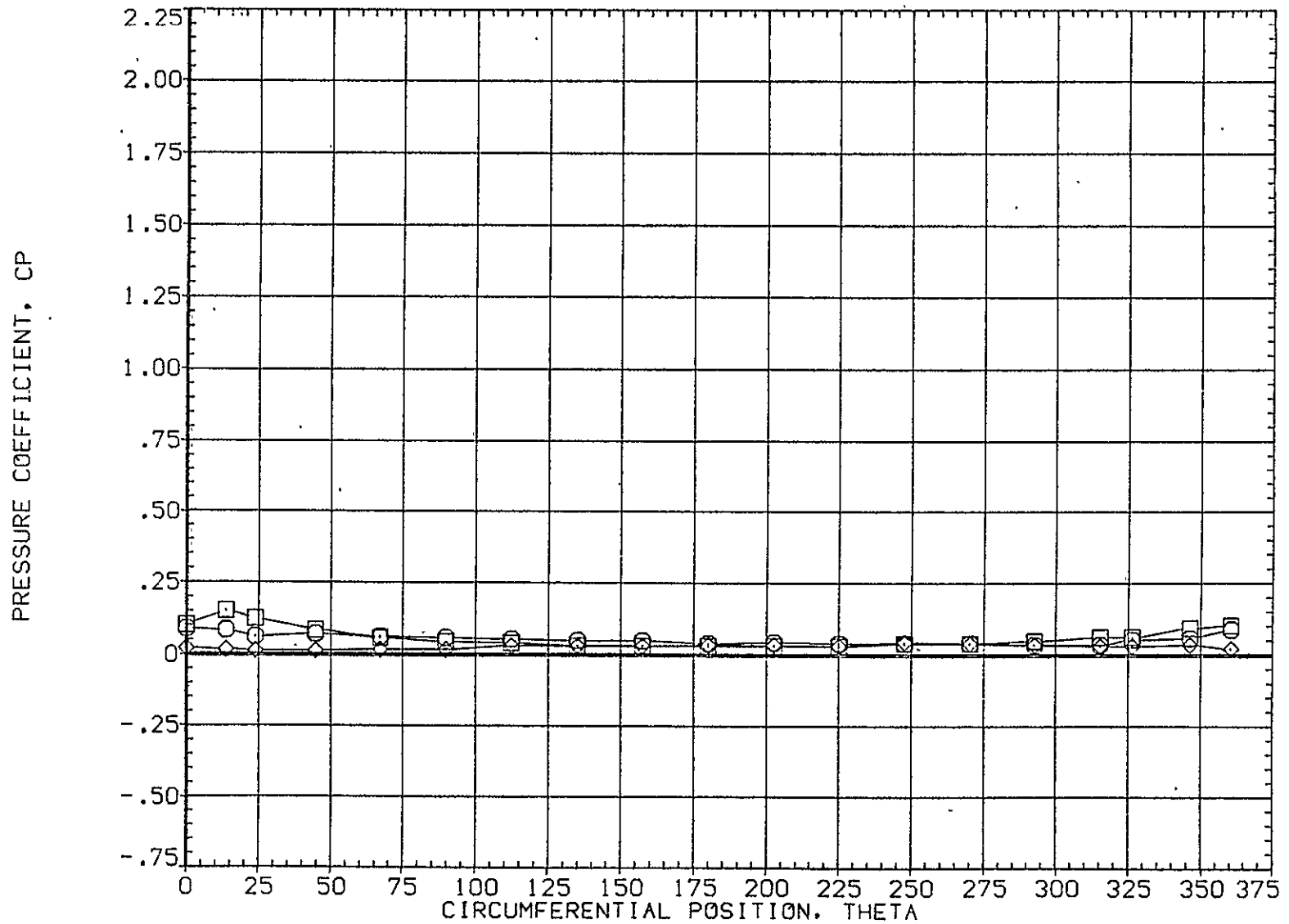


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	,000	
○	.055	3.730	4.960	MOUNT	1.000	PHI	315.000
□	.108						
◇	.162						

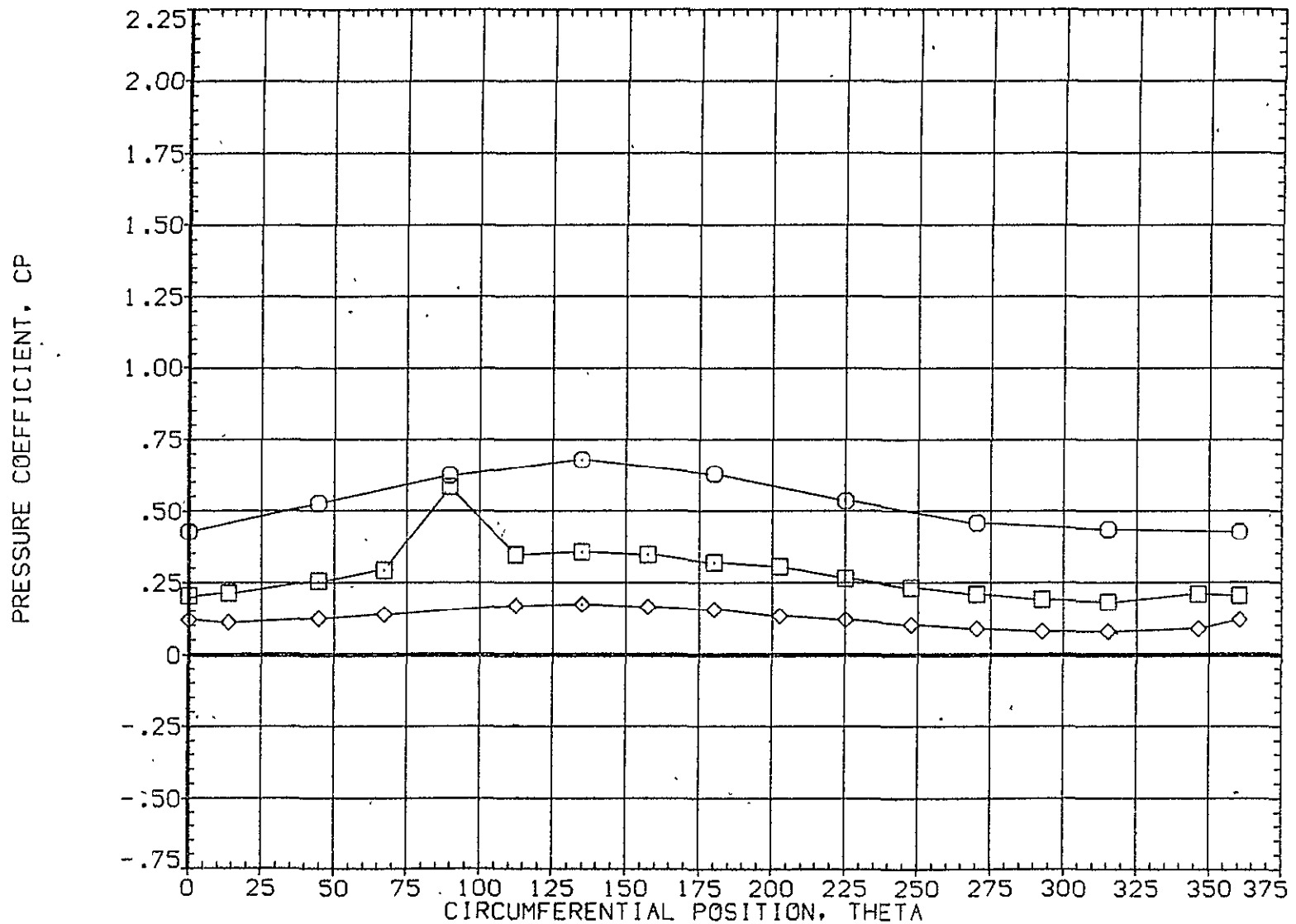


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.216	3.730	4.980	MOUNT	1.000	PHI	315.000
□	.322						
◇	.518						

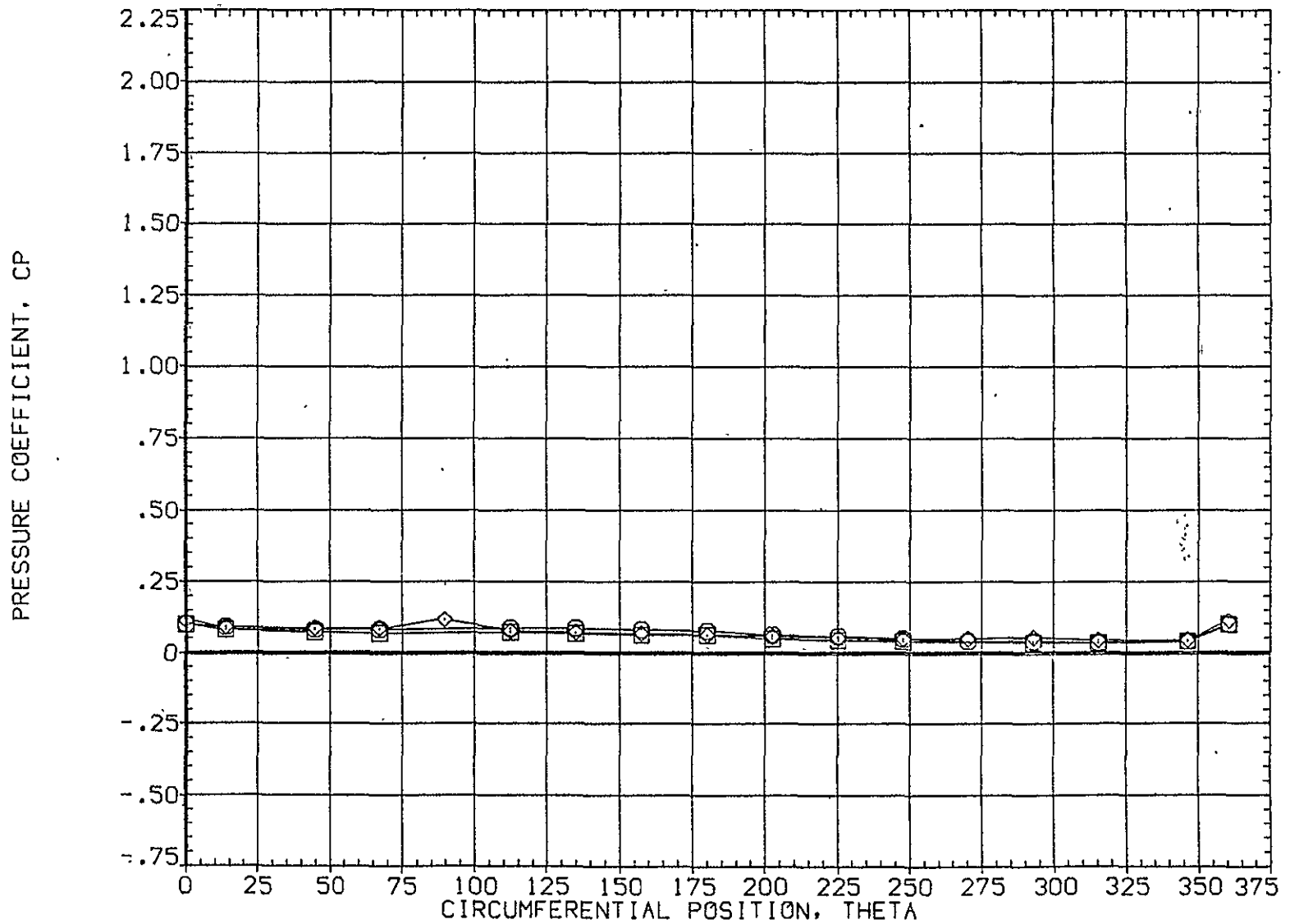


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	.000	
○	.810	3.730	4.960	MOUNT	1.000	PHI	315.000
□	.735						
◇	.860						

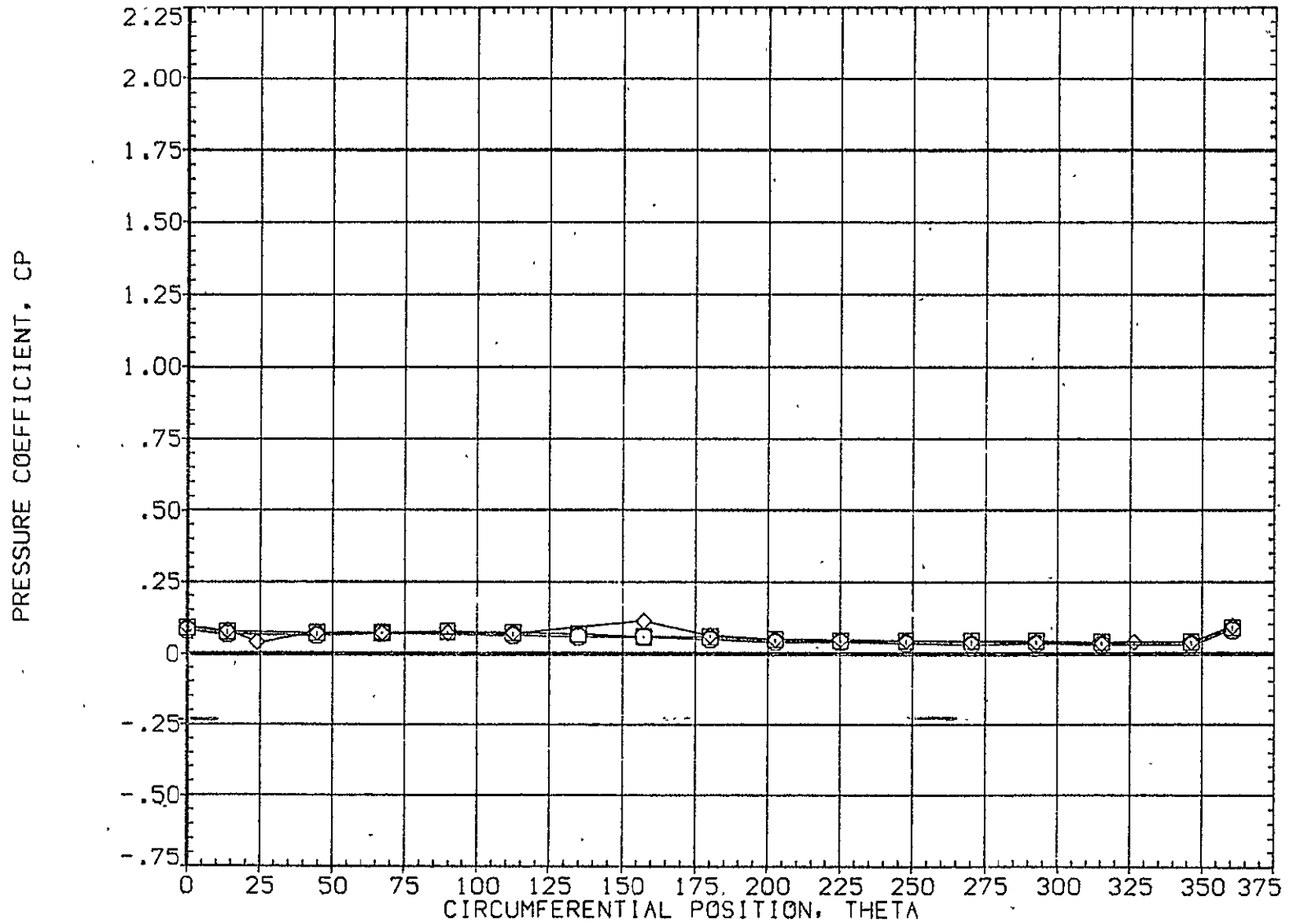


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	•,000	
○	.892	3.730	4.960	MOUNT	1.000	PHI	315.000
□	.923						
◇	.954						

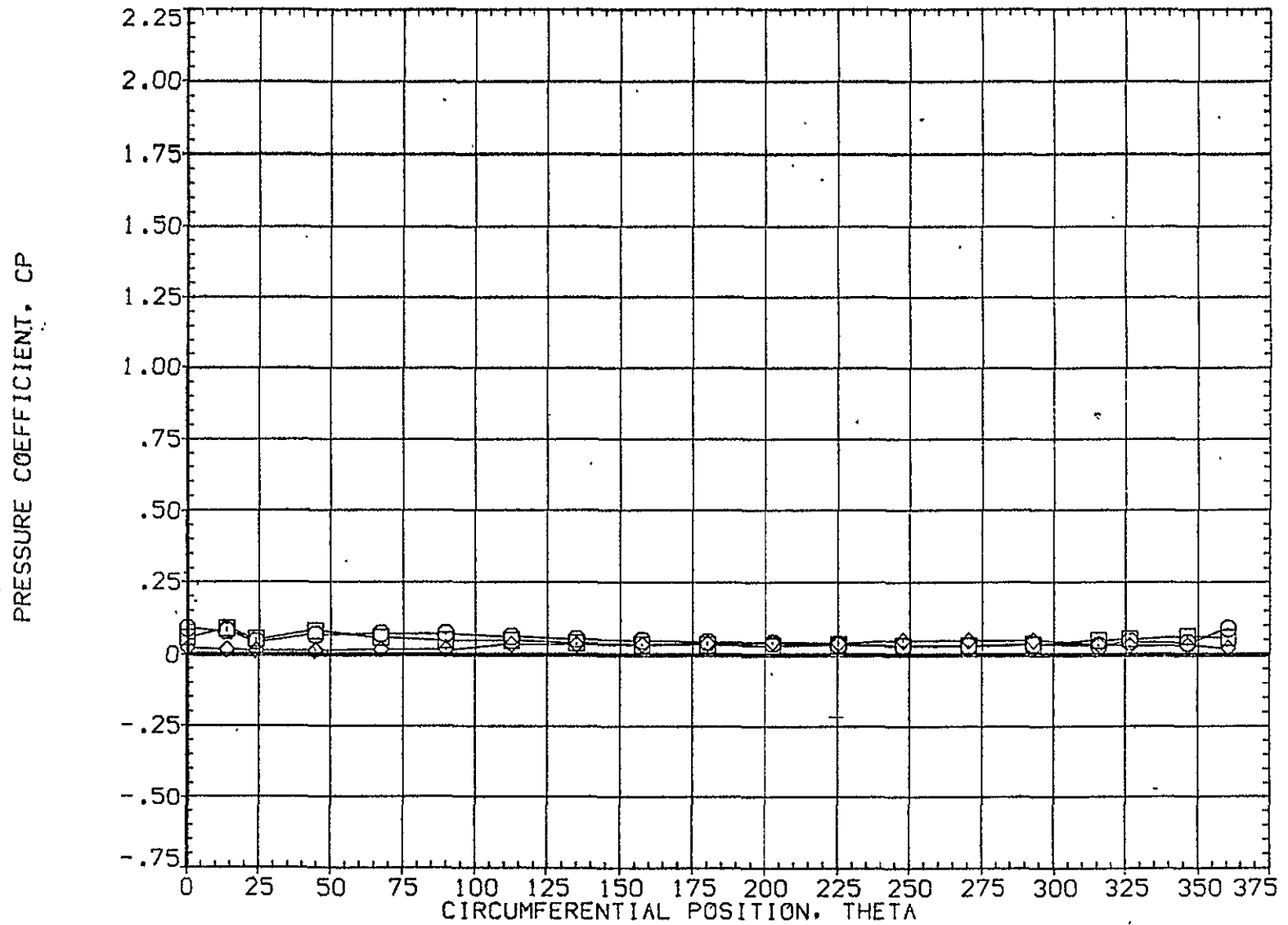


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	.000
○	.055	7.750	4.960	MOUNT	1.000	PHI 315.000
□	.108					
◇	.162					

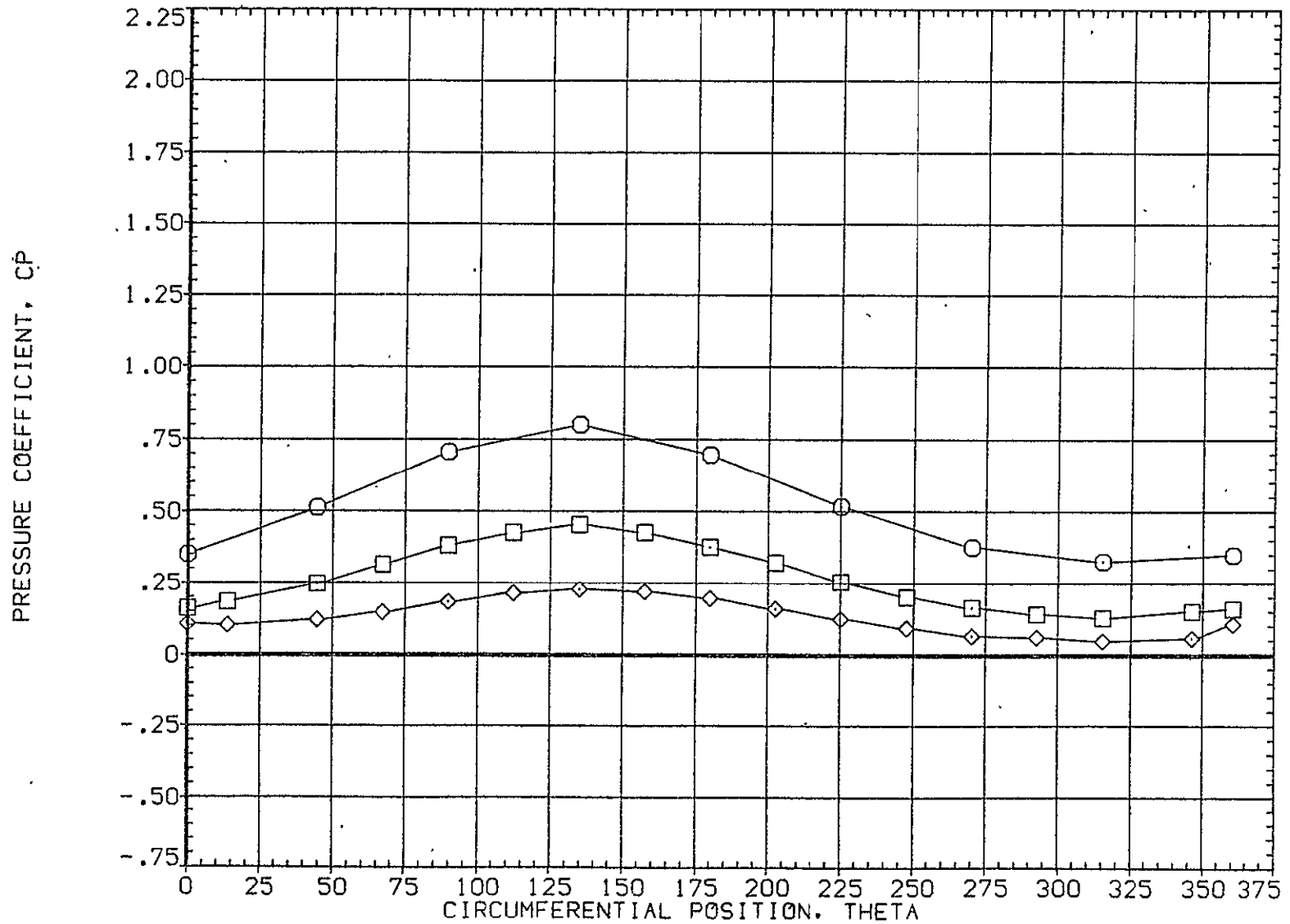


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES..			
				BETA	OFFSET	.000	
○	.216	7.750	4.960	MOUNT	1.000	PHI	315.000
□	.322						
◇	.518						

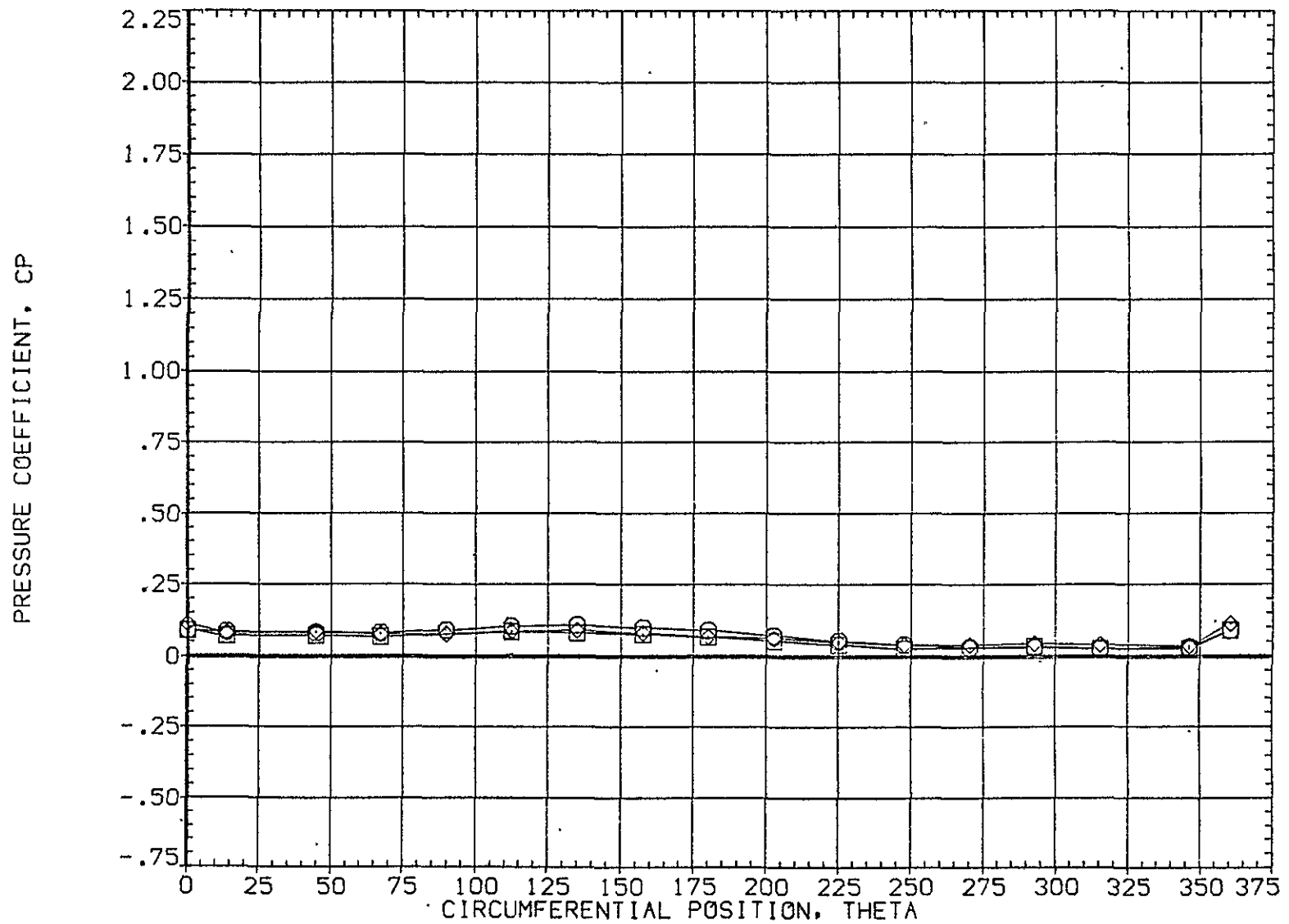


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1 (P1A095)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	7.750	4.960	.000		.000
□	.735			1.000		315.000
◇	.860					

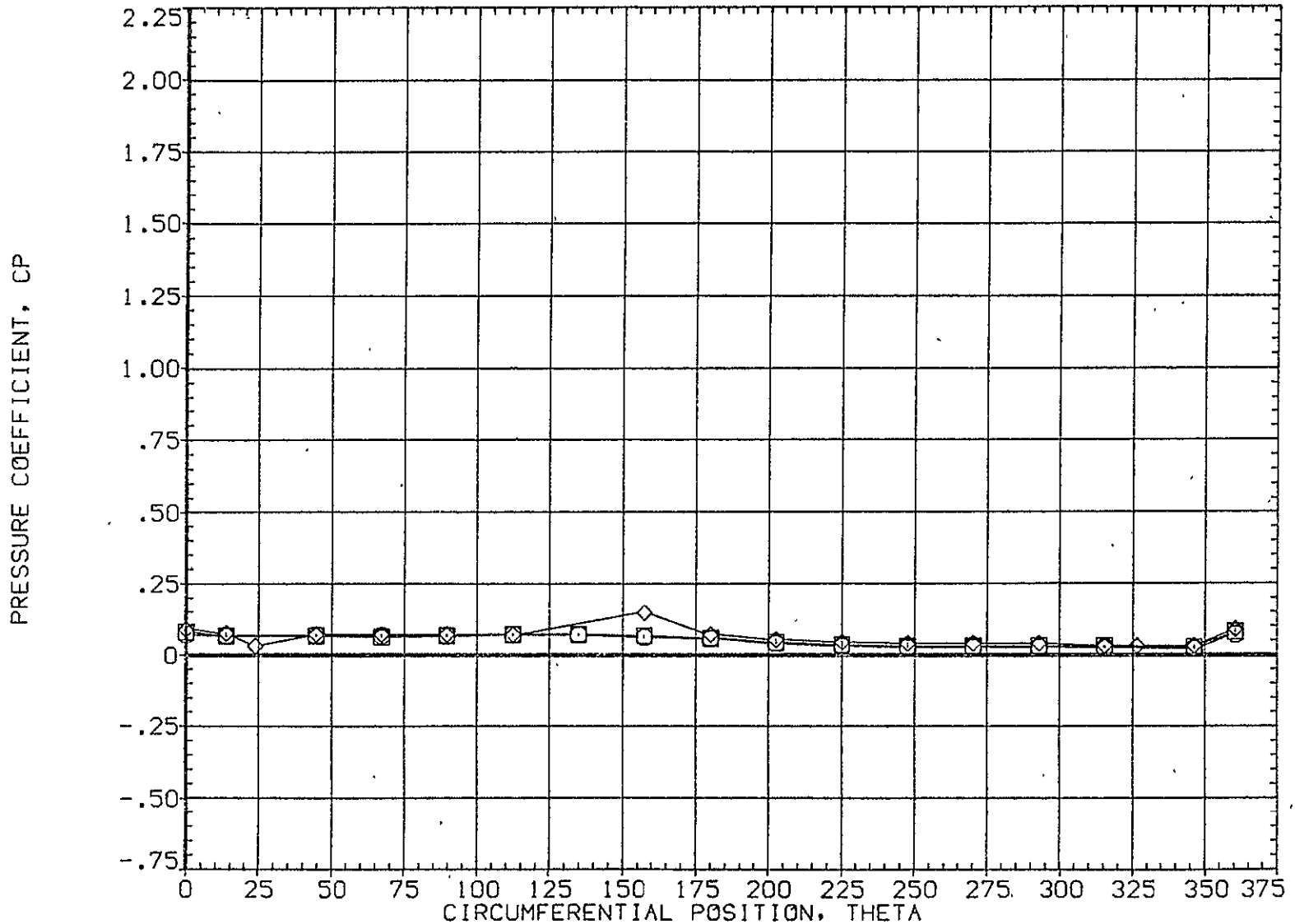


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.892	7.750	4.960	.000	.000	.000
□	.923			1.000		315.000
◇	.954					

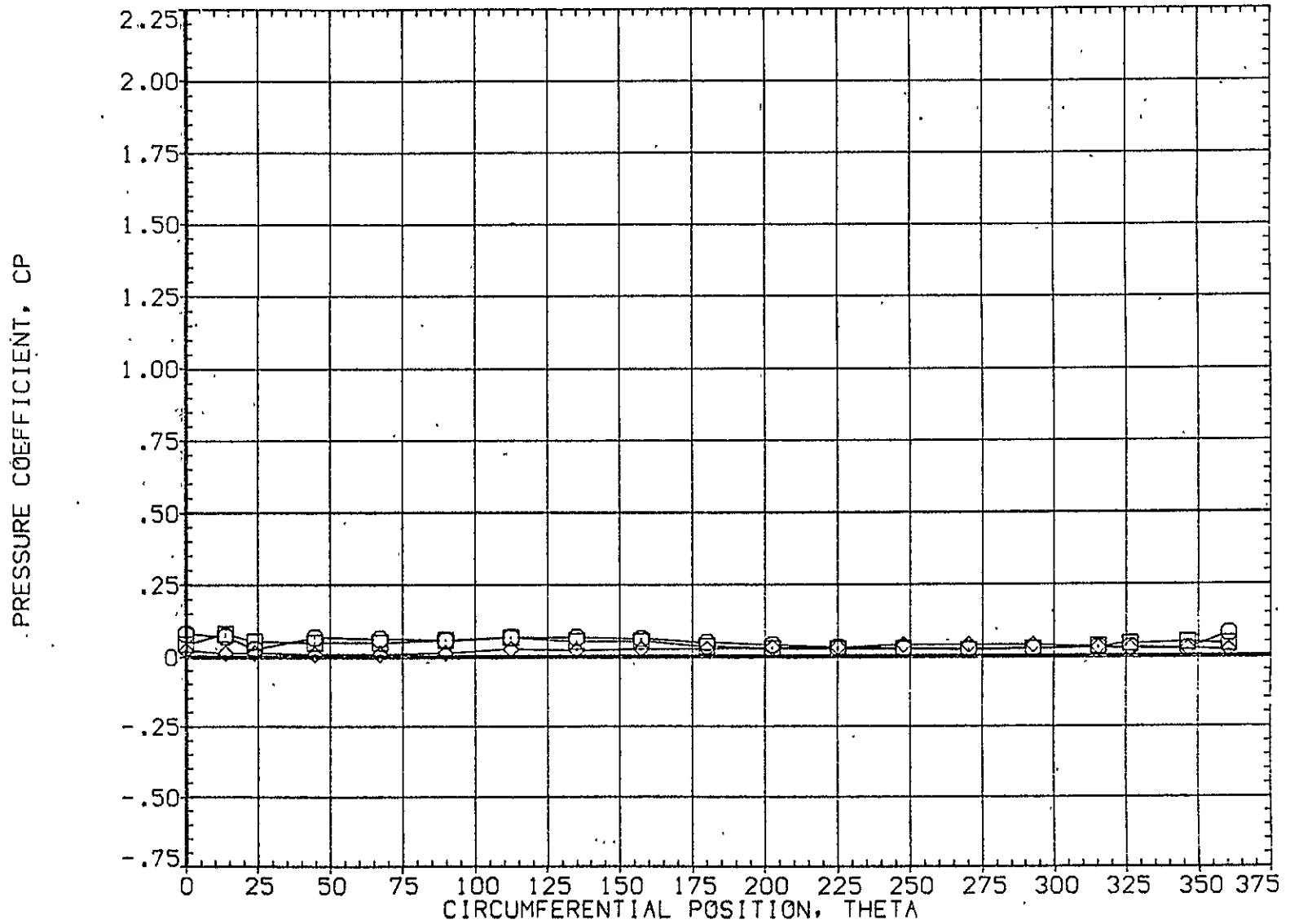


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	12.430	4.960	MOUNT	1.000	PHI	315.000
□	.108						
◇	.162						

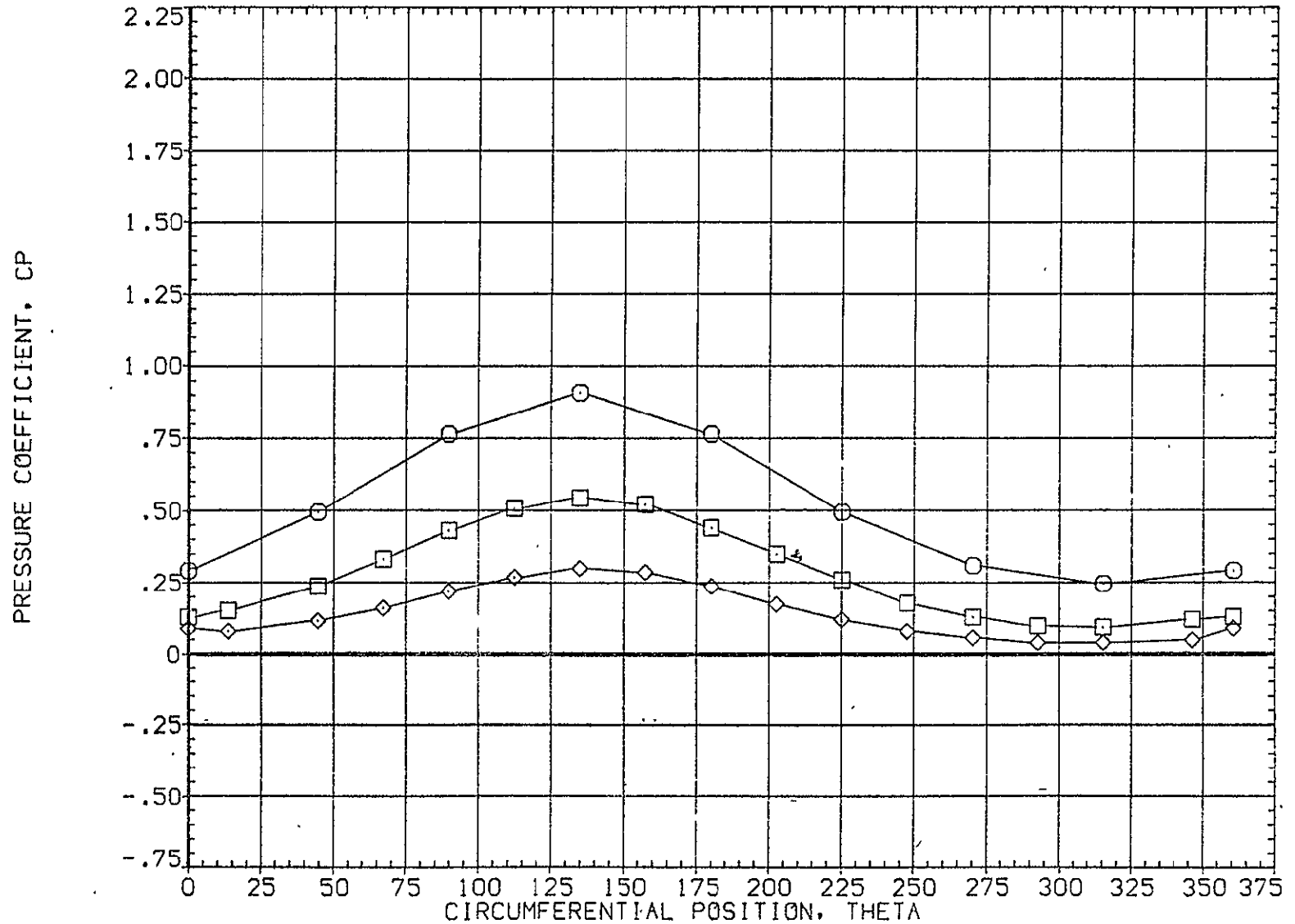


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL

X/LB

ALPHA

MACH

PARAMETRIC VALUES

○
□
◇

.216
.322
.518

12.430

4.960

BETA

.000

OFFSET

20.000

MOUNT

1.000

PHI

315.000

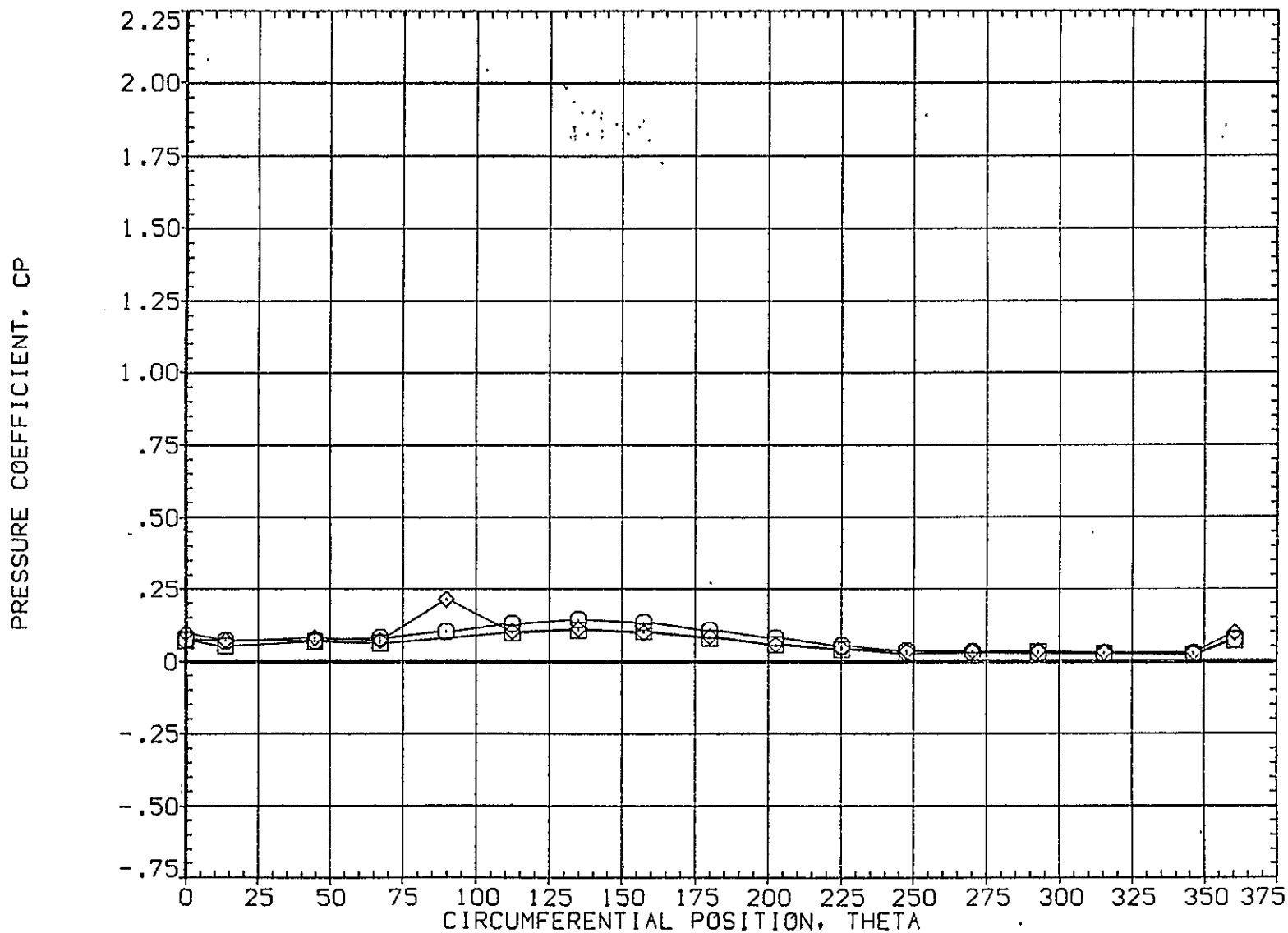


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A096)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	12.430	4.960	.000		20.000
□	.735			1.000		315.000
◇	.860					

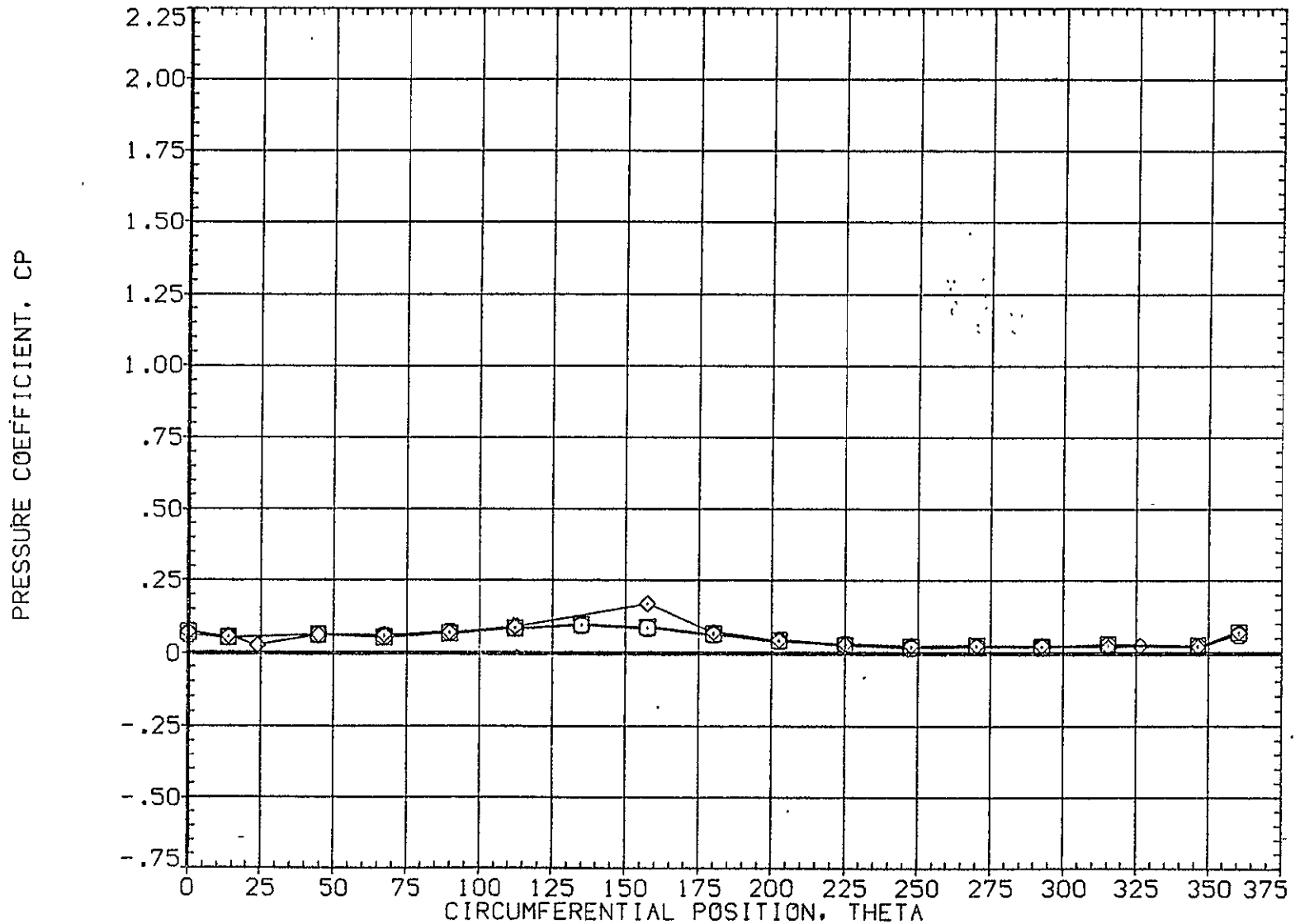


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB	ALPHA	MACH
.892	12.430	4.960
.923		
.954		

PARAMETRIC VALUES		
BETA	.000	OFFSET 20.000
MOUNT	1.000	PHI 315.000

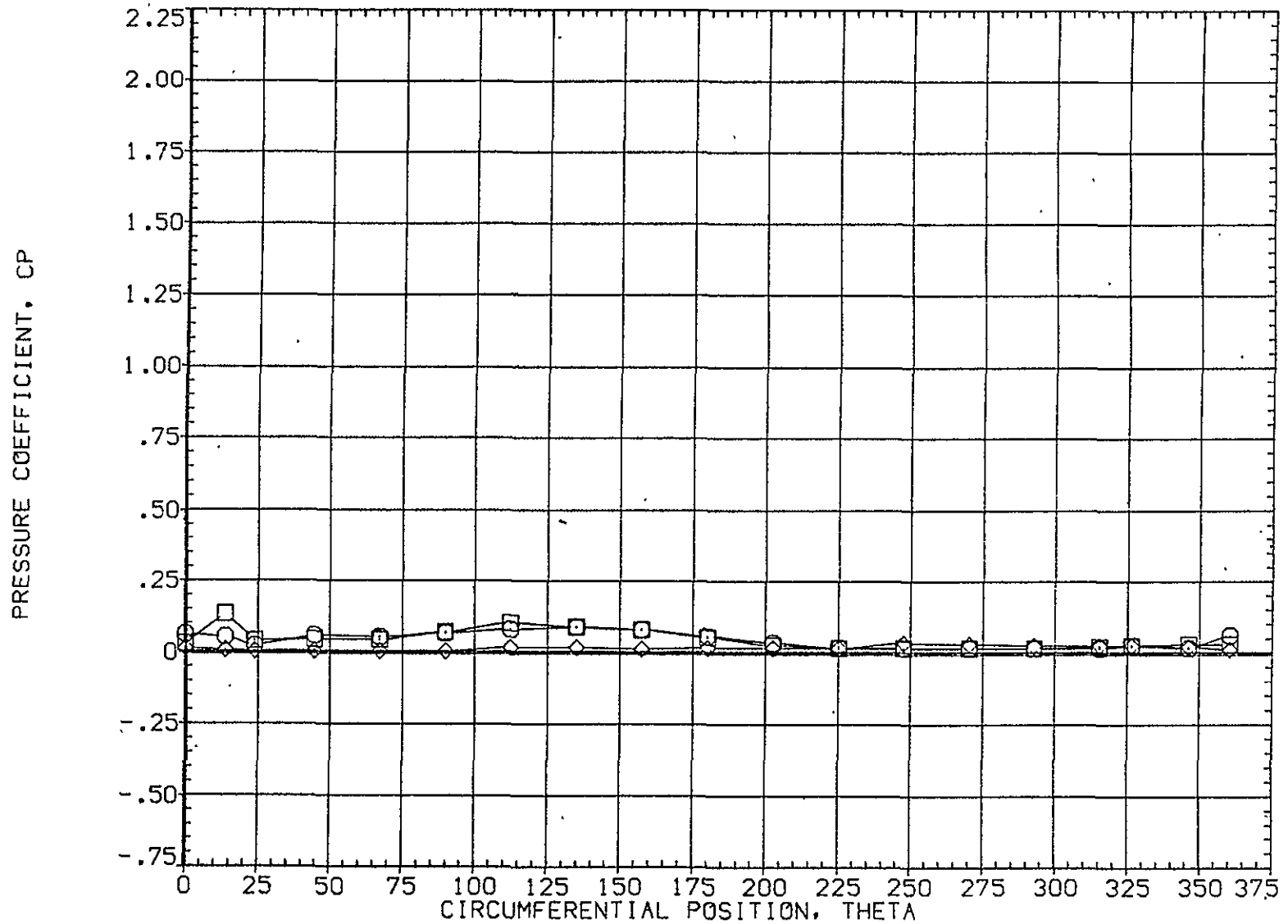


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.055	16.470	4.960	.000	20.000	
□	.108			1.000	315.000	
◇	.162					

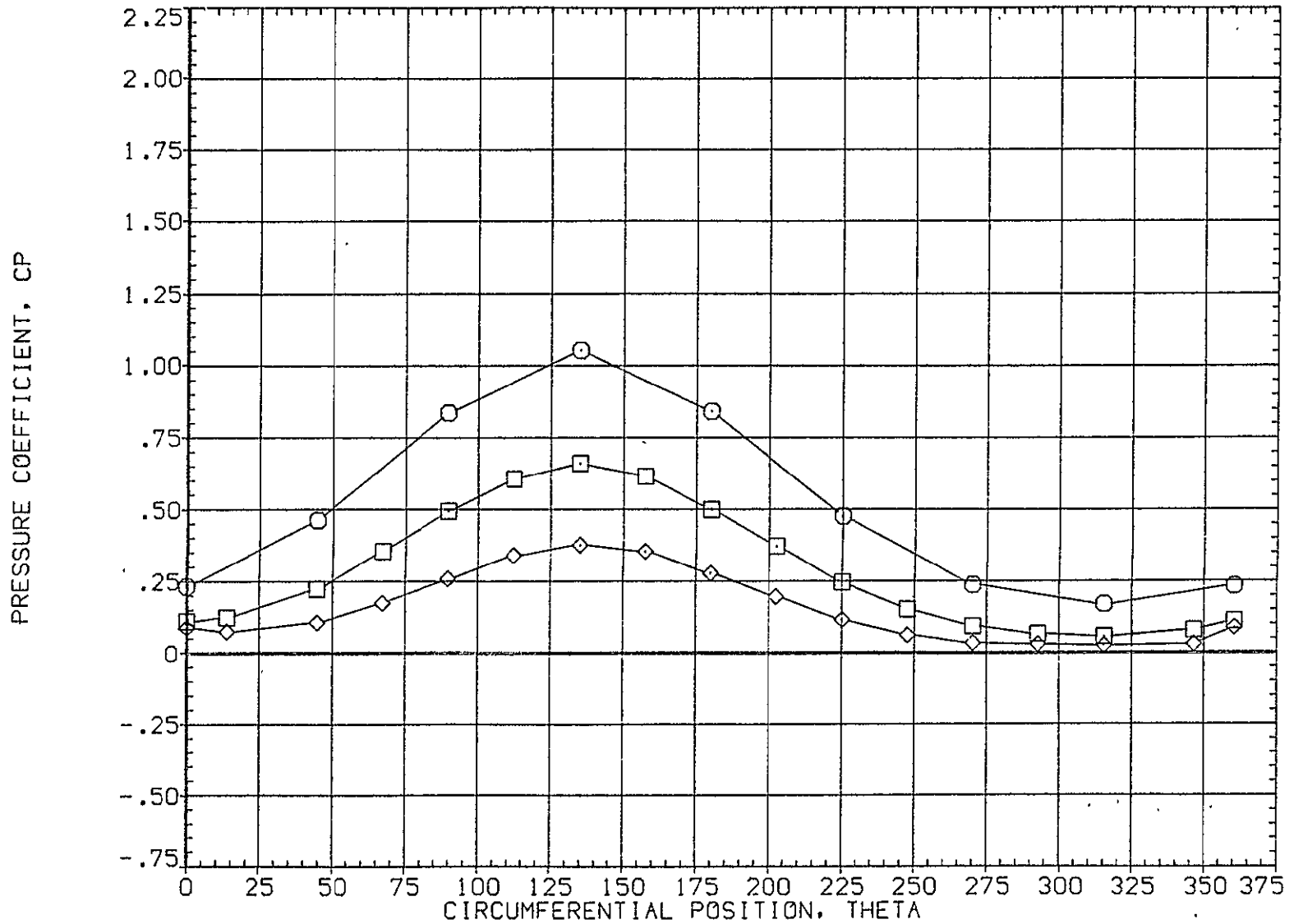


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB .216
 .322
 .518

ALPHA 16.470

MACH 4.960

PARAMETRIC VALUES

BETA .000
 MOUNT 1.000

OFFSET 20.000
 PHI 315.000

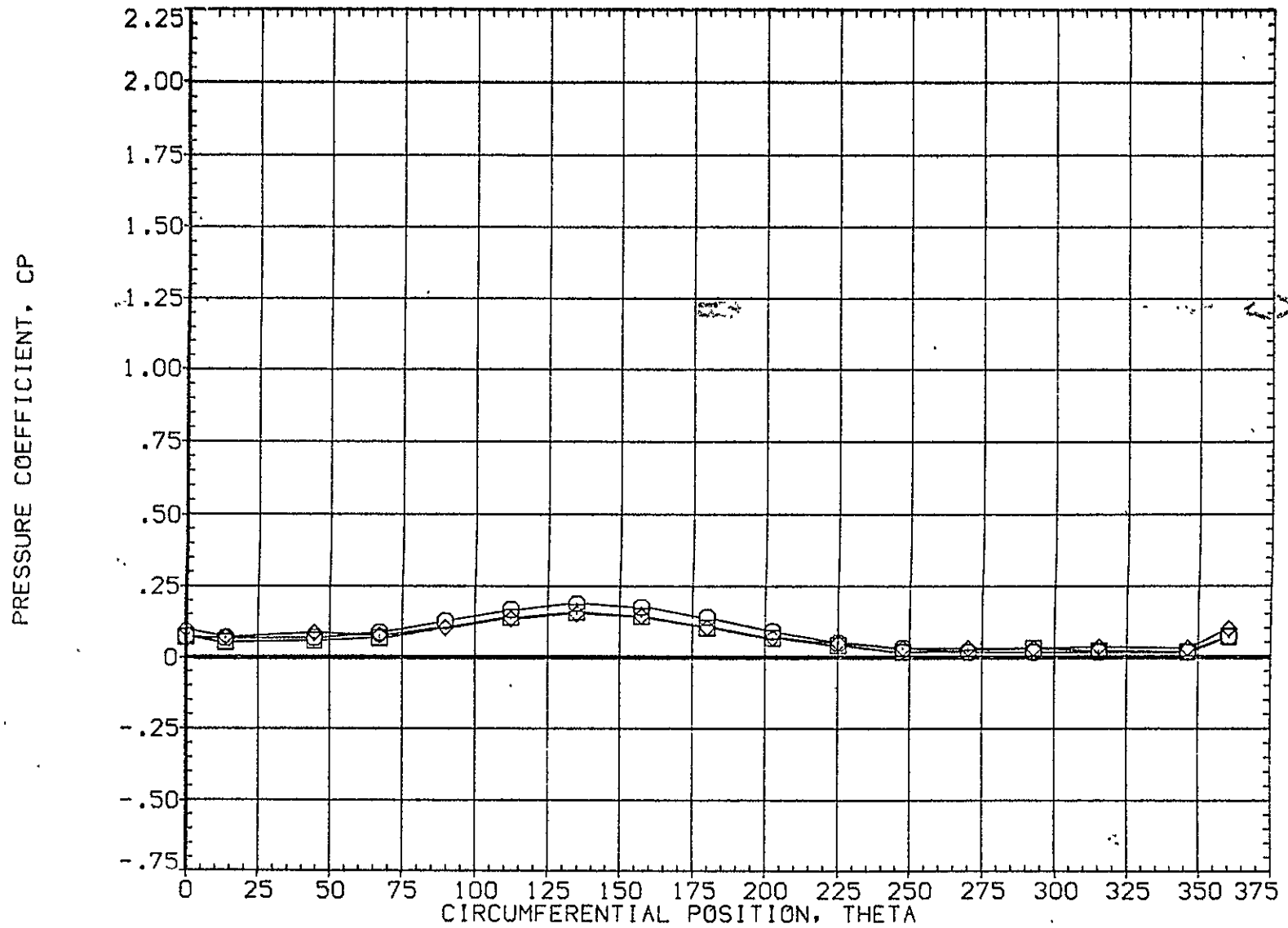


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	16.470	4.960	MOUNT	1.000	PHI	315.000
□	.735						
◇	.860						

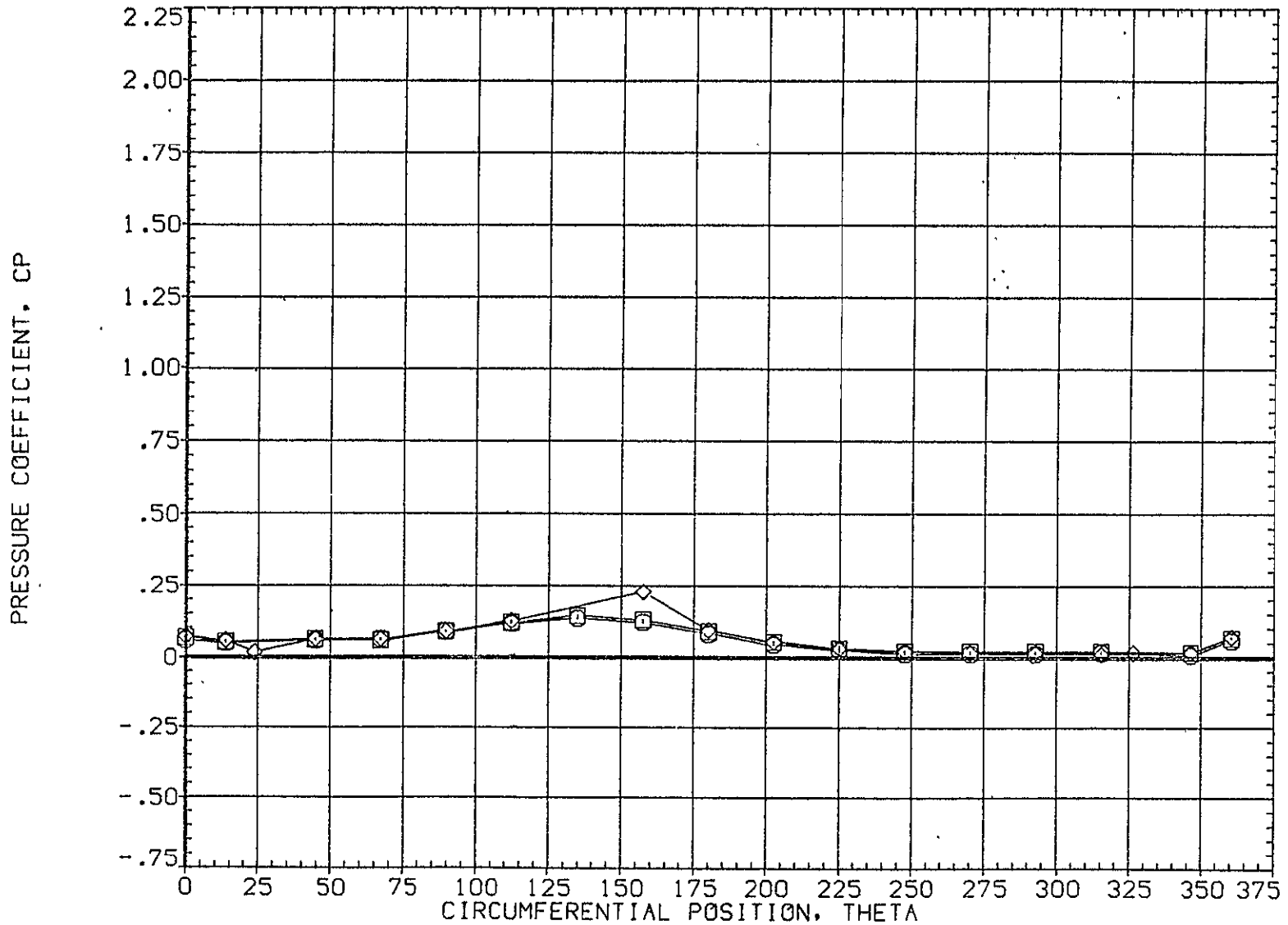


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .892 16.470 4.960
 .923
 .954

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 315.000

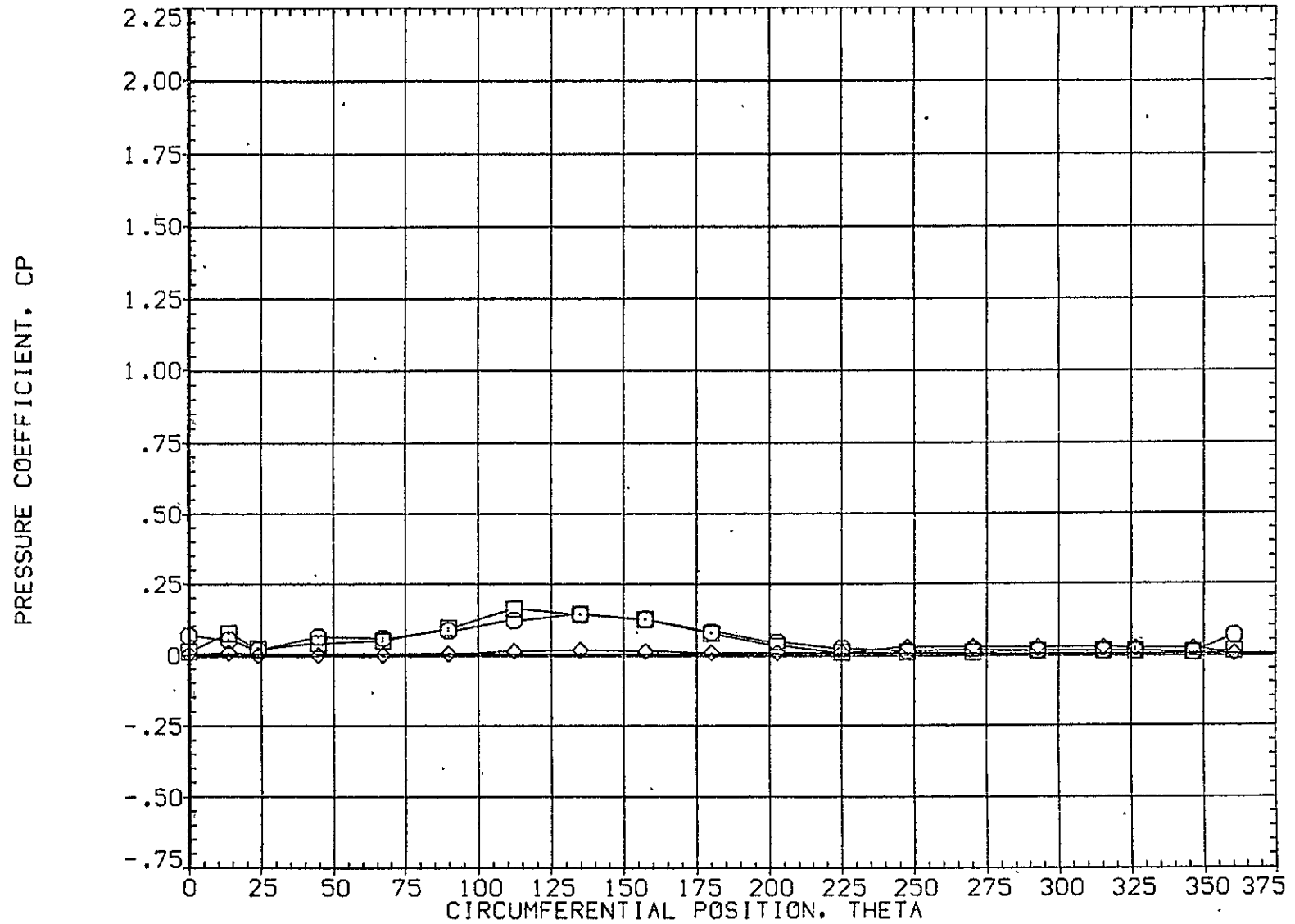


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.055	20.490	4.960	MOUNT	1.000	PHI	315.000
□	.108						
◇	.162						

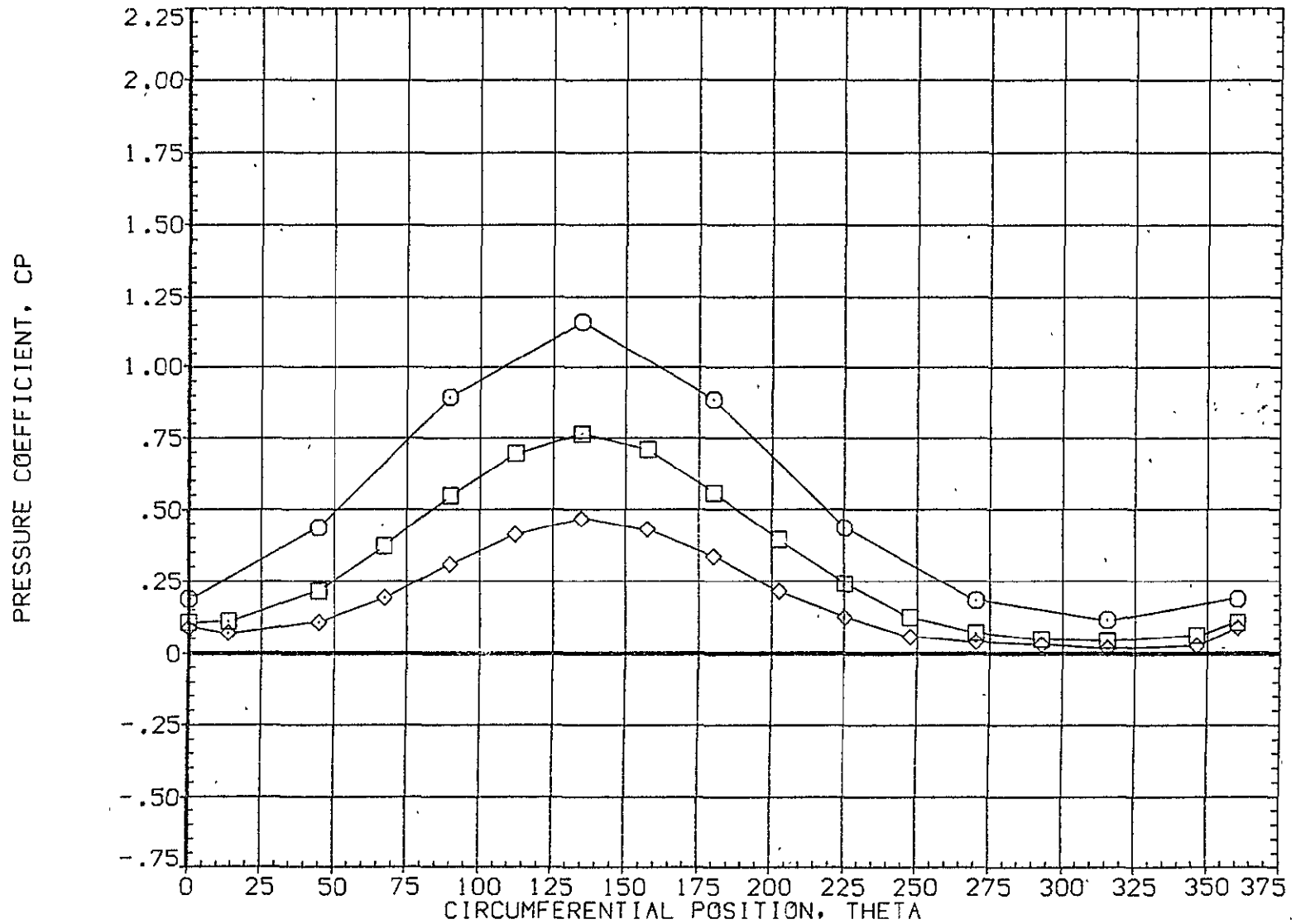


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 20.490 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 315.000

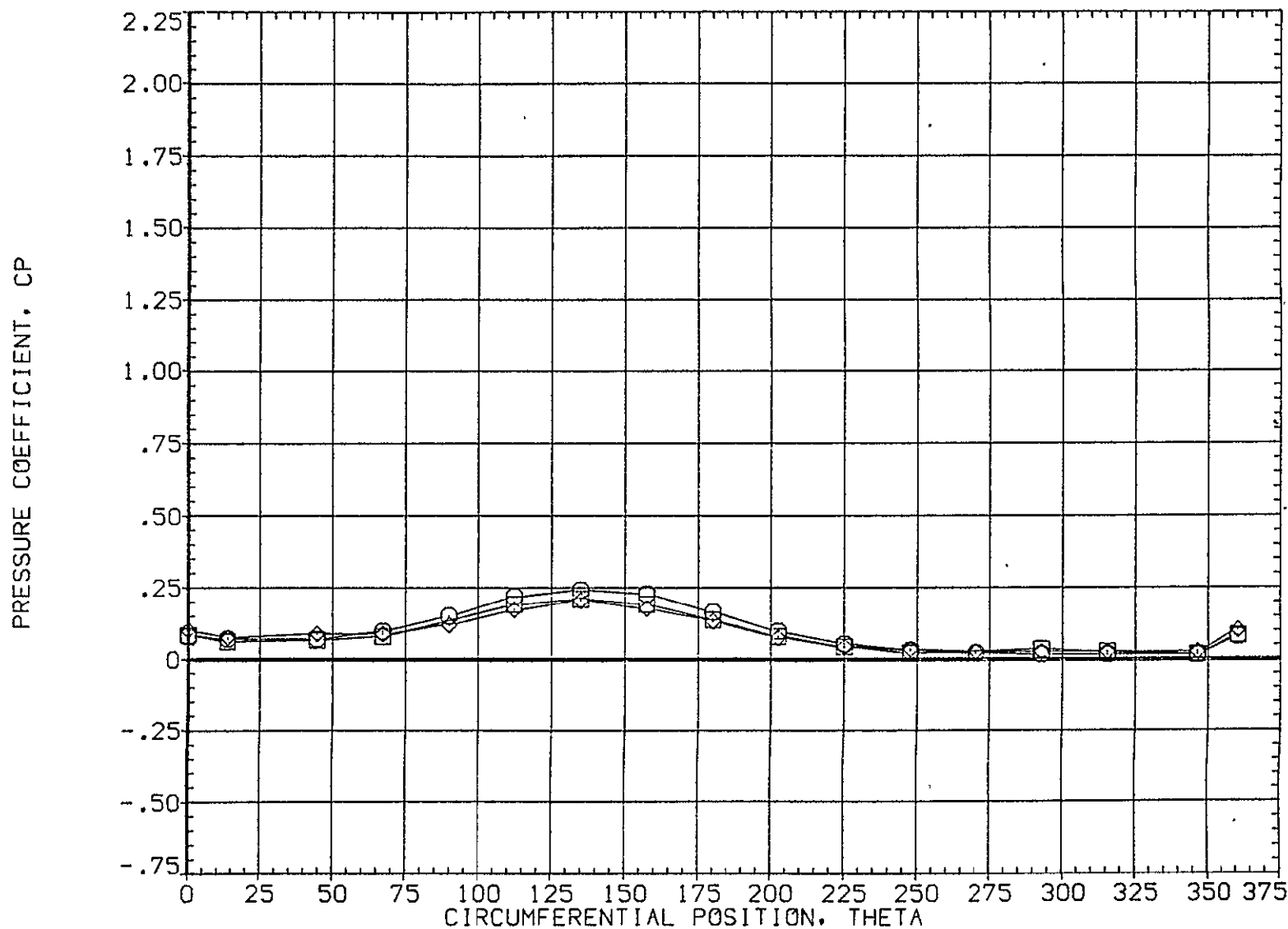


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	20.490	4.960	.000	20.000	
□	.735			1.000	315.000	
◇	.860					

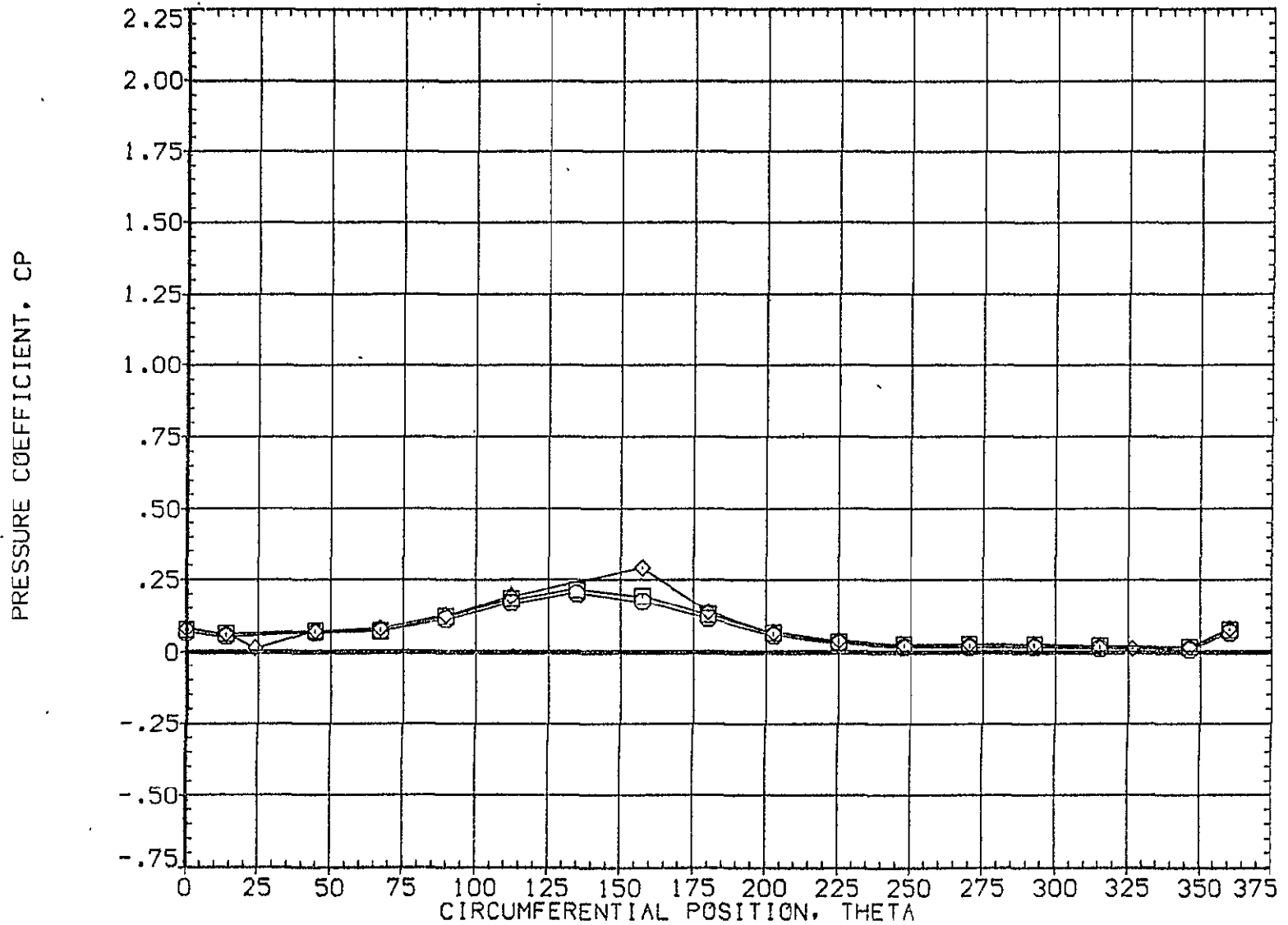


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
◇	.892	20.490	4.960	.000	20.000	
□	.923			1.000	315.000	
○	.954					

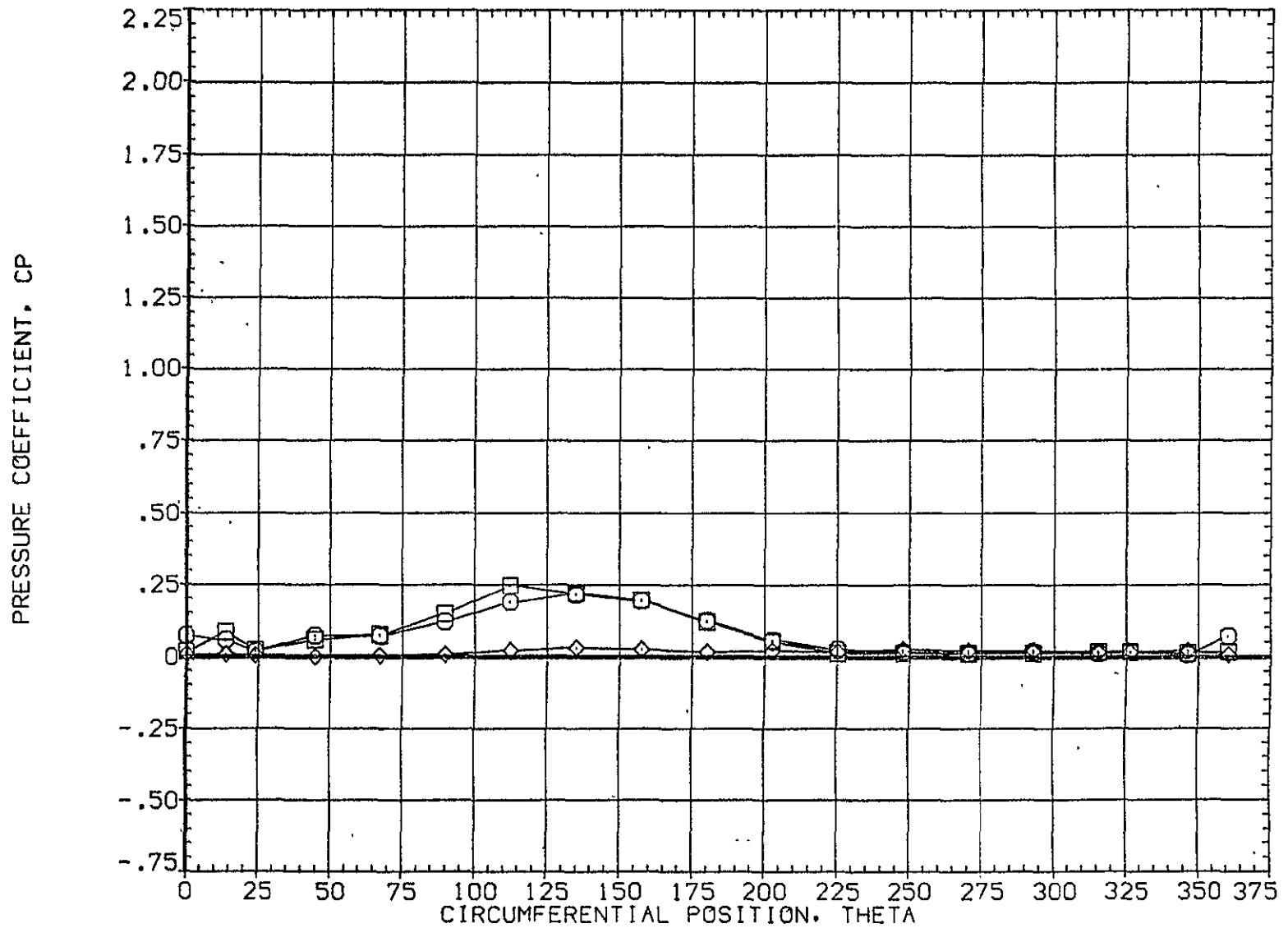


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	BETA	PARAMETRIC VALUES	OFFSET	20.000
○	.055	24.510	4.960	MOUNT	.000	PHI	315.000
□	.108				1.000		
◇	.162						

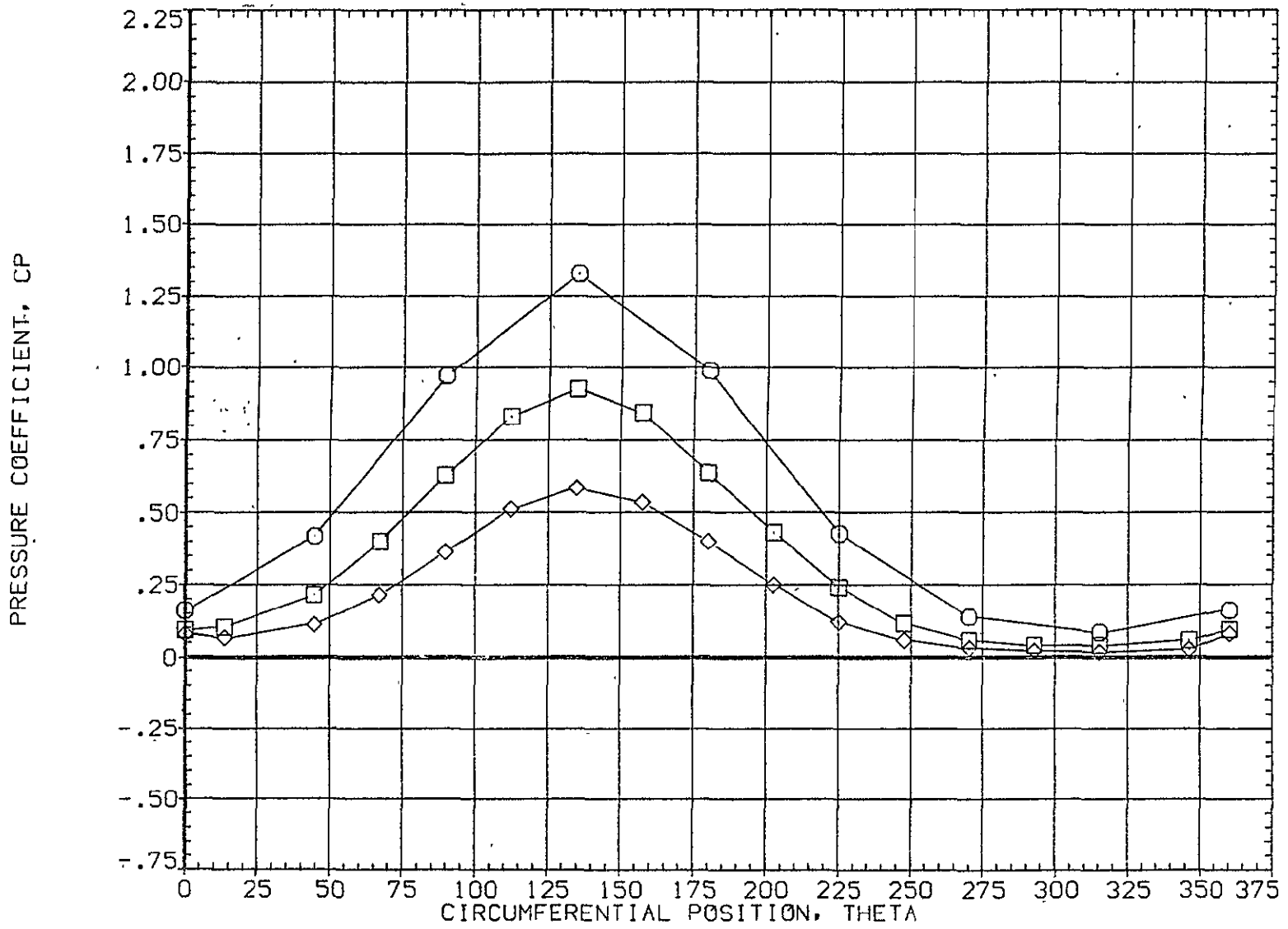


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
 ○
 □
 ◇

X/LB ALPHA MACH
 .216 24.510 4.960
 .322
 .518

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MOUNT 1.000 PHI 315.000

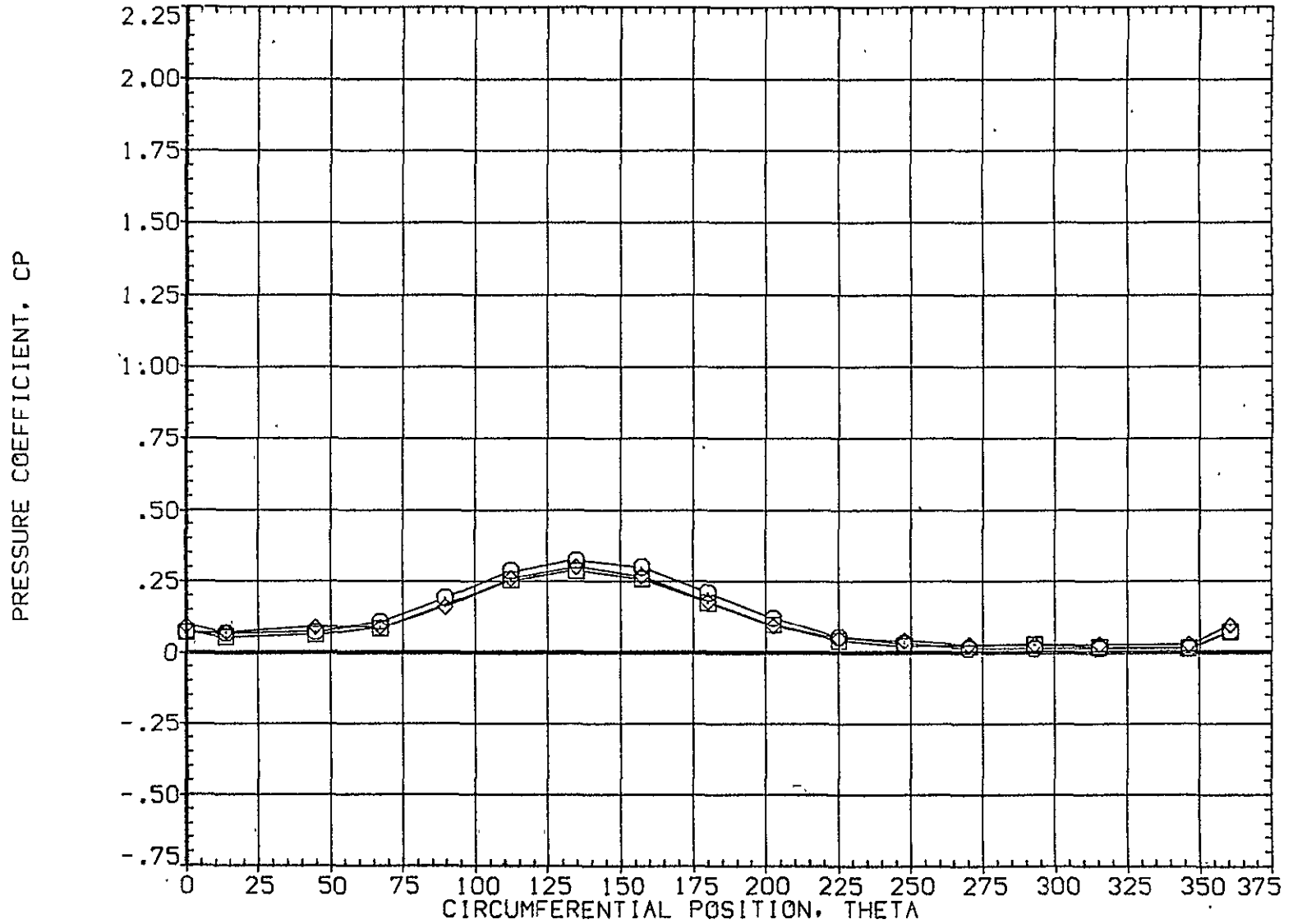


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A099)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.610	24.510	4.960	MOUNT	1.000	PHI	315.000
□	.735						
◇	.860						

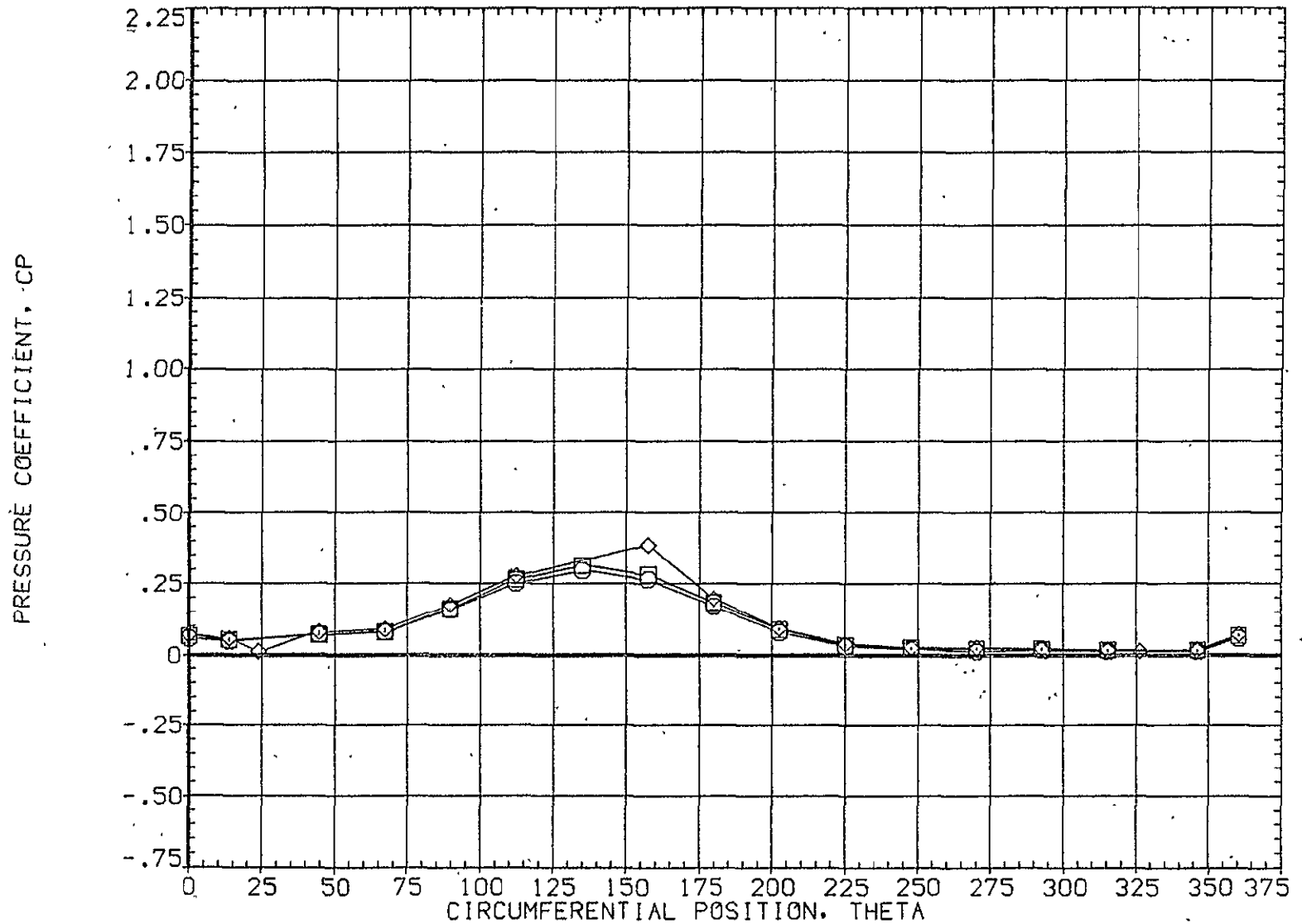


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB .892
.923
.954
ALPHA 24.510
MACH 4.960

PARAMETRIC VALUES
BETA .000 OFFSET 20.000
MOUNT 1.000 PHI 315.000

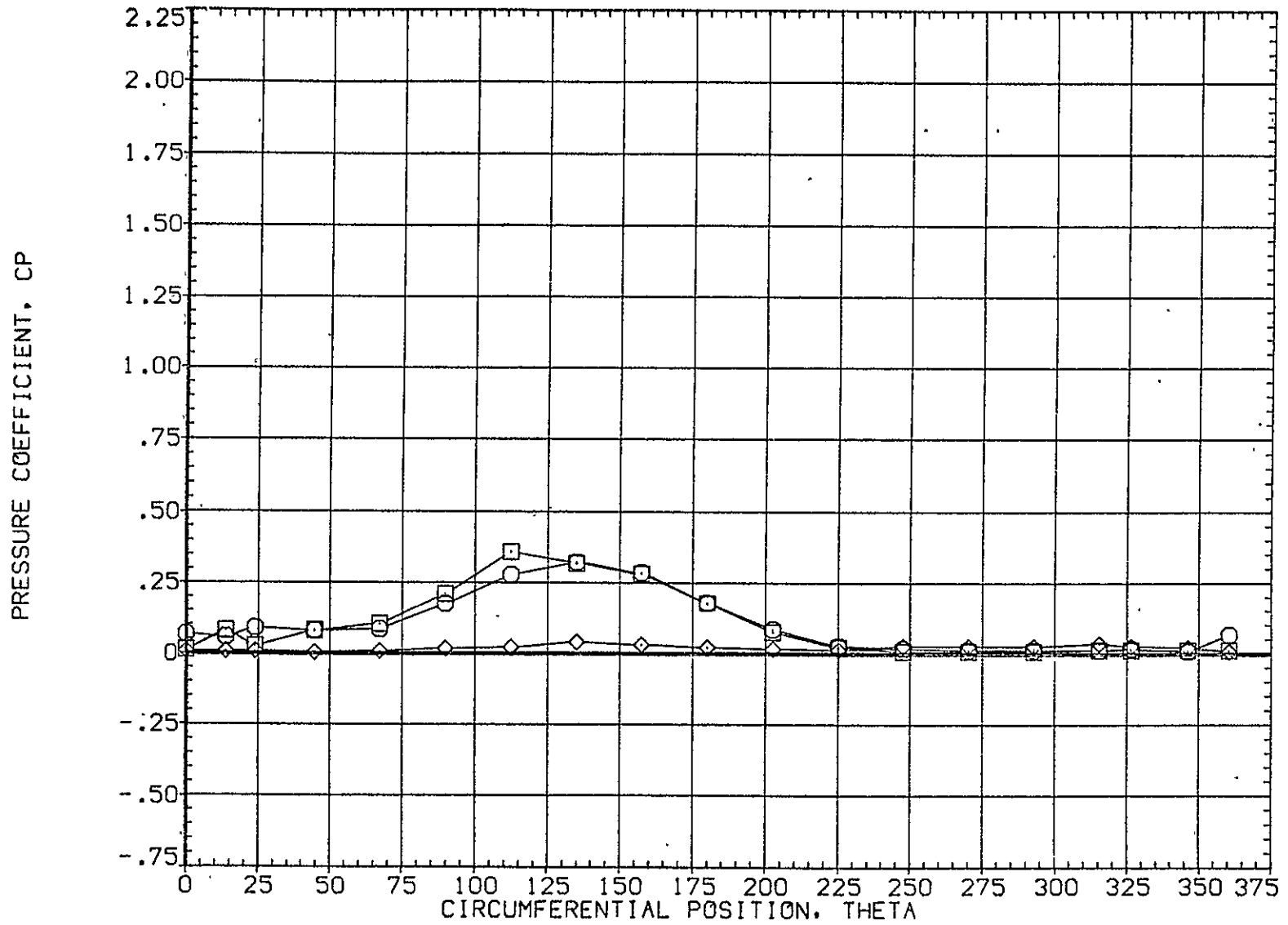


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A100)

SYMBOL
 ○
 □
 ◇

X/LB .055
 .108
 .162

ALPHA 28.540

MACH 4.960

PARAMETRIC VALUES
 BETA .000 OFFSET 20.000
 MCUNT 1.000 PHI 315.000

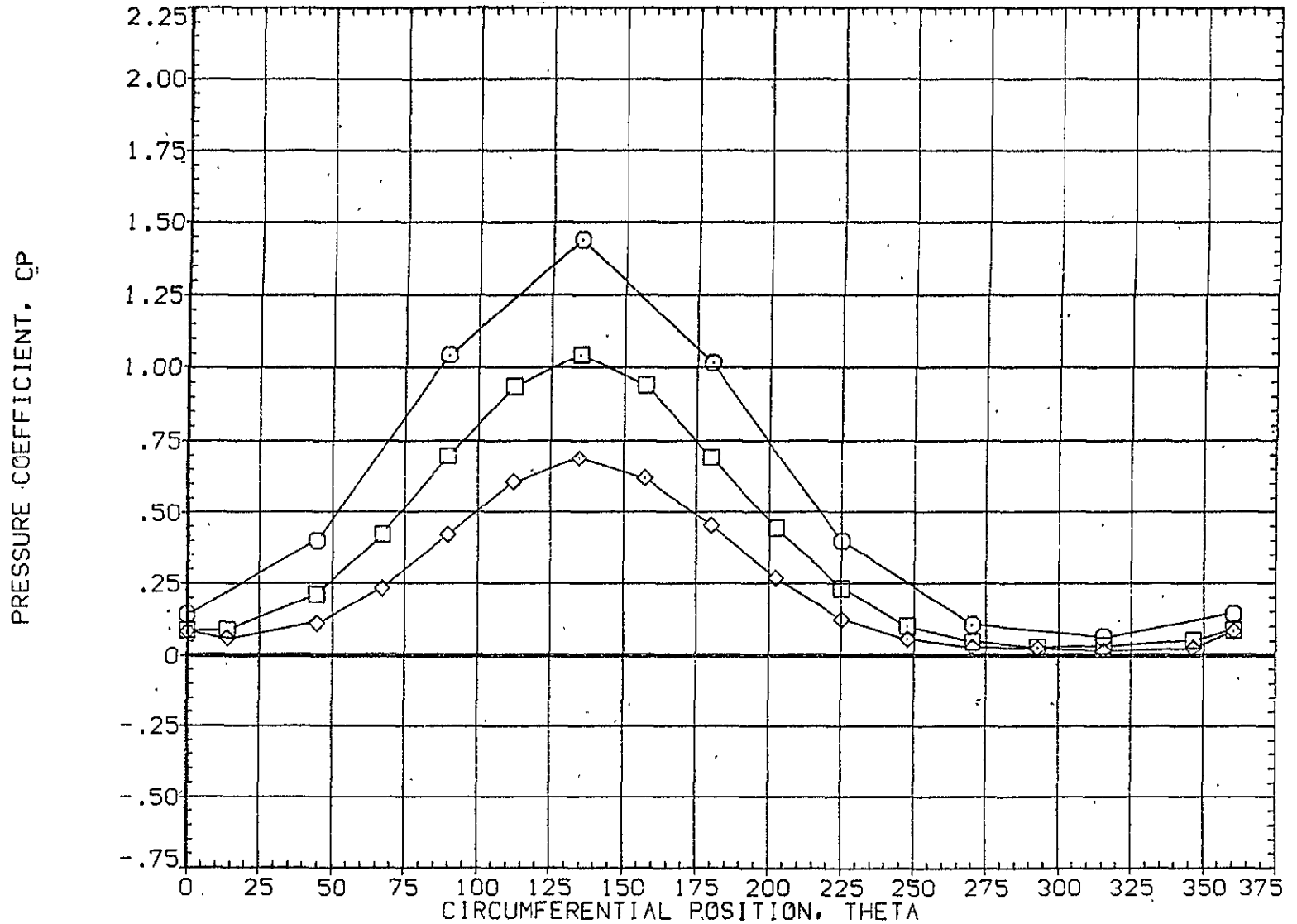


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL
○
□
◇

X/LB	ALPHA	MACH
.216	28.540	4.960
.322		
.518		

PARAMETRIC VALUES		
BETA	.000	OFFSET 20.000
MOUNT	1.000	PHI 315.000

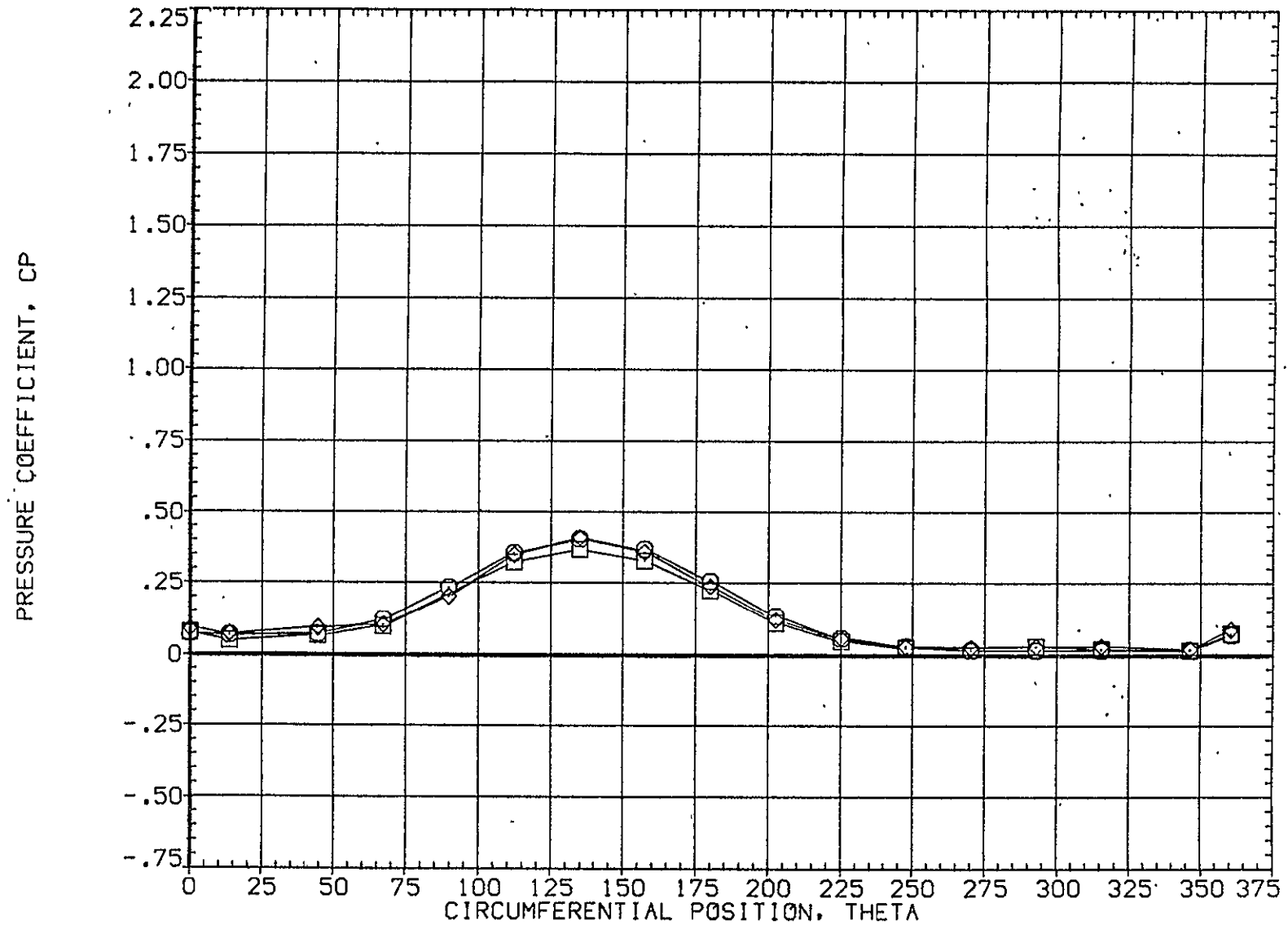


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES			
				BETA	OFFSET	20.000	
○	.892	28.540	4.960	MOUNT	1.000	PHI	315.000
□	.923						
◇	.954						

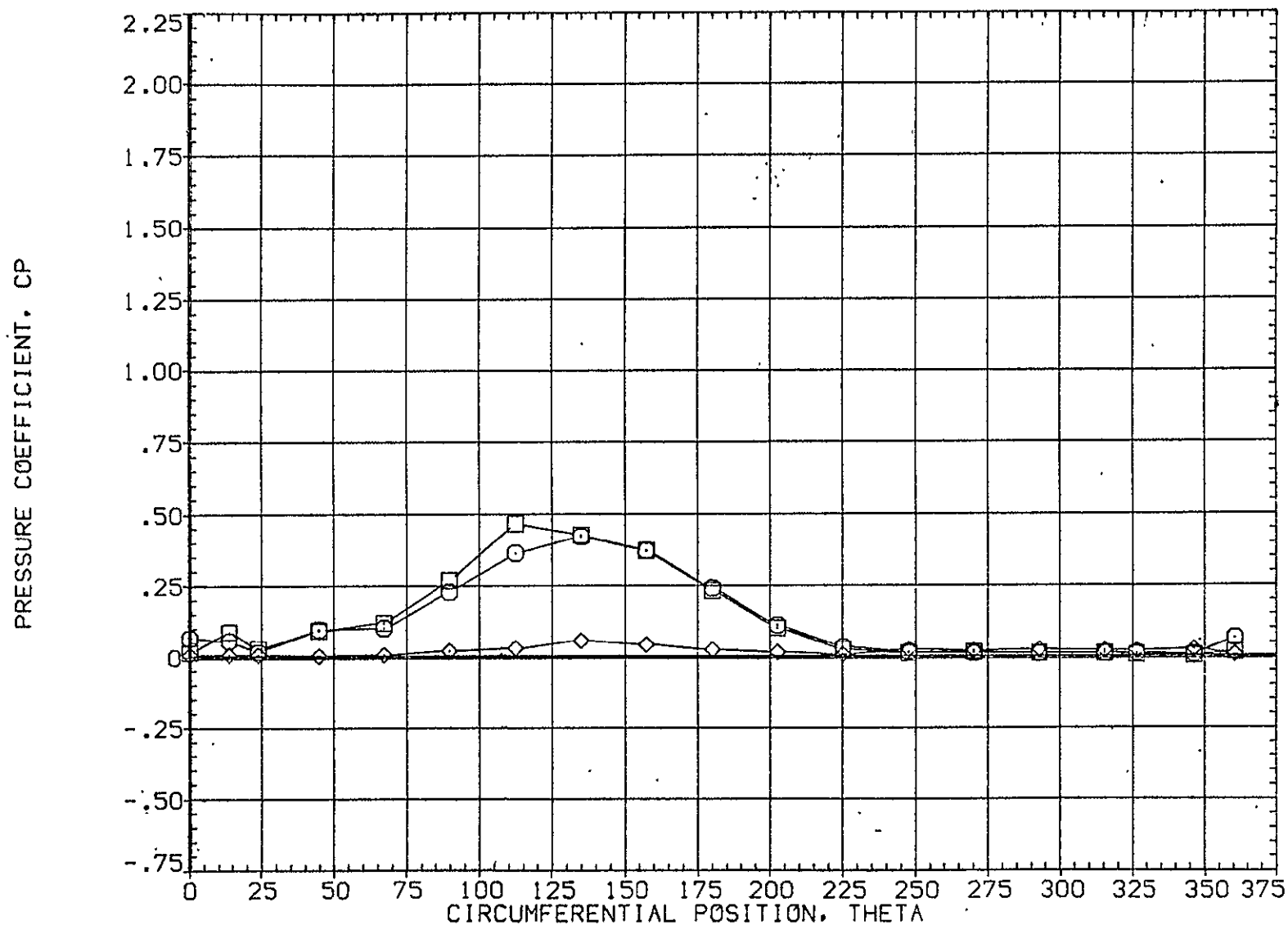


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES

MSFC 596 (TA-2F) MCR0200 EXTERNAL TANK, T1

(P1A100)

SYMBOL	X/LB	ALPHA	MACH	PARAMETRIC VALUES		
				BETA	OFFSET	PHI
○	.610	28.540	4.960	.000	20.000	
□	.735			1.000	315.000	
◇	.860					

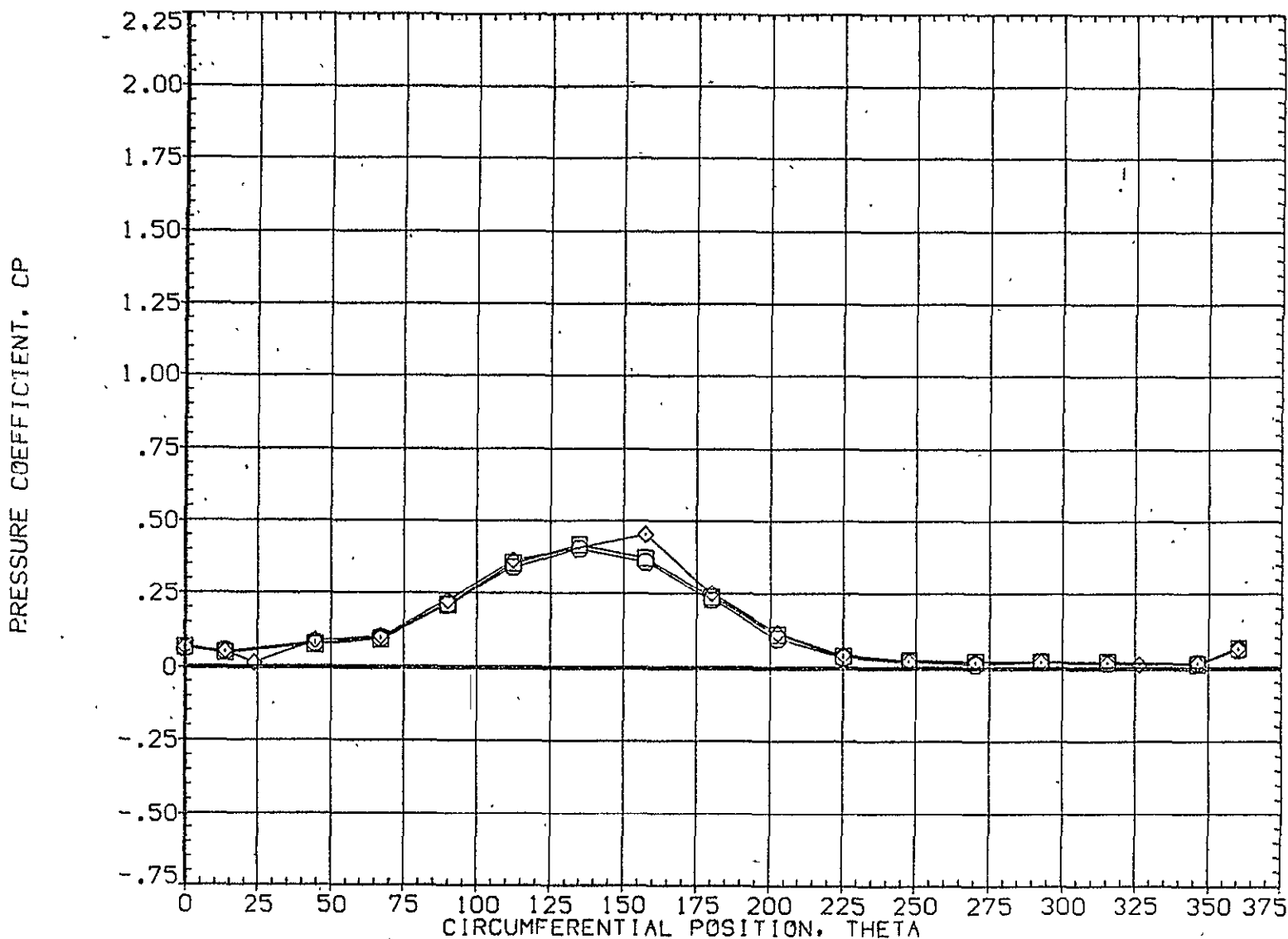


FIG. 5 CIRCUMFERENTIAL PRESSURE DISTRIBUTION OVER ET - T1 WITH PROTUBERANCES