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Houston, Texas 77058

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NASA-CR-167,699

RESULTS OF A FRSI MATERIAL TEST UNDER SPACE SHUTTLE ASCENT CONDITIONS IN THE AMES RESEARCH CENTER 9X7 FOOT SUPERSONIC WIND TUNNEL (OS13)

SPACE SHUTTLE AEROTHERMODYNAMIC DATA REPORT

Data Management SERVICES

MICHOUD ENGINEERING OFFICE
CHRYSLER TECHNOLOGIES
AIRBORNE SYSTEMS

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by

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ROCKWELL INTERNATIONAL
SPACE TRANSPORTATION SYSTEMS DIVISION

Prepared under NASA Contract Number NAS9-17840

by

DATA MANAGEMENT SERVICES
CHRYSLER TECHNOLOGIES AIRBORNE SYSTEMS
MICHOUD ENGINEERING OFFICE
NEW ORLEANS, LOUISIANA 70189

for

NAVIGATION, CONTROL & AERONAUTICS DIVISION

JOHNSON SPACE CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
HOUSTON, TEXAS

WIND TUNNEL TEST SPECIFICS:

Facility Test Number:	166-97
NASA Series Number:	OS13
Model Number:	85-0
Test Dates:	25, 26 November, 1975
Occupancy Hours:	10

FACILITY COORDINATOR:

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ABSTRACT

A test was conducted in the NASA/ARC 9x7 foot supersonic wind tunnel to verify the integrity of FRSI material in a panel flutter environment. A FRSI sample panel was subjected to the shocks, pressure gradients, and turbulence characteristics encountered at dynamic pressure 1.5 times the 3σ dispersed trajectory flight conditions of the Space Shuttle. Static and fluctuating pressure data were obtained for Mach numbers ranging from 1.55 to 2.5 with dynamic pressures of 625 to 1250 psf. The FRSI panel suffered no appreciable damage as a result of the test.

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INTRODUCTION

Felt Reusable Surface Insulation (FRSI) material is designed to protect areas of the Space Shuttle orbiter that are subject to a relatively low temperature environment (~700 degrees F) during entry. The material consists of Nomex felt covered with a thin layer of RTV bonded to the outer surface.

The purpose of Test OS-13 was to verify the integrity of FRSI material in a panel flutter environment by subjecting a sample pad to the shocks, pressure gradients, and turbulence characteristics encountered at dynamic pressures 1.5 times the 3σ dispersed trajectory flight conditions.

The test was conducted in the NASA/ARC 9x7-foot supersonic wind tunnel on November 25 and 26, 1975. Forty-five runs were completed during 10 hours of occupancy.

Following a series of runs where the flow was maintained parallel to the test panel, flow separation and unsteady shock patterns were created at specific areas of the specimen by deflecting a flap at the trailing edge of the pad. Mach number was varied from 1.55 to 2.5 and dynamic pressure covered a range of 625 to 1250 psf. Static and fluctuating pressure measurements in the area surrounding the FRSI sample were recorded.

The only damage observed consisted of a number of inconsequential pinholes in the RTV covering, and two small areas where the surface had peeled off.

This report presents information on the conduct of the test, descriptions of the fixture, specimen, instrumentation, and of the test facility, a summary of the run schedule, photographs of the test sample, some pressure data plots, and tabulated data.

NOMENCLATURE

SYMBOL	MNEMONIC	DEFINITION
C_p	CP	Static pressure coefficient
$C_{p_{rms}}$	CPRMS	Fluctuating RMS pressure coefficient (Mnemonic M in tabulated data)
db	DB	Measure of PRMS pressure level, decibel
M	MACH	Freestream Mach number
N_F	NF	Model flap normal force, lb
P_∞	P	Freestream static pressure, psi
P_i	PI	Local static pressure at orifice i, psi
P_{RMS}	PRMS	RMS value of the variations from the mean value of the local pressure, psi
P_t	PT	Freestream total pressure, psi
q	Q(PSI)	Freestream dynamic pressure, psi
Re	R	Freestream Reynolds number, 1/ft
T	TF	Freestream temperature, deg F
T_t	TTF	Freestream total temperature, deg F
V_∞	V	Freestream velocity, ft/sec
X	X	Longitudinal distance, positive aft of panel centerline, in.
Y	Y	Lateral distance, positive right of panel centerline looking upstream, in.
Θ, δ_F	THETA	Trailing edge flap angle, degree
ρ	RHO	Freestream density, sl/ft^3

REMARKS

The test was conducted according to the original test plan, with only minor variations that were suggested by on-site test observations.

The damage to the test sample RTV surface was deemed inconsequential while the bonding of the Nomex material to its base support plate remained intact throughout the test.

The following instrumentation malfunctions occurred during the test:

1. The tubing from the static taps Nos. 25 and 60 was plugged from the start.

2. Tap No. 4 behaved erratically throughout the test.

3. Tap No. 5 was lost after run 6.
   Tap No. 4 was lost after run 7.
   Tap No. 54 was lost after run 35.
   Tap Nos. 62, 63 were lost after run 41.

4. Kulite No. 4 was disabled before the test. Also, the data from Kulites No. 7 and No. 17 are questionable.

Tunnel blockage was experienced in runs 35 and 36 when the flap was brought rapidly to the specified deflection. The problem was resolved in run 37 by increasing the flap deflection slowly to an angle immediately below the point where blockage would occur.

CONFIGURATIONS INVESTIGATED

Model Description

The Model 81-0 test fixture was employed for this test. The fixture, depicted in drawings LO14-01496 and SS-A01252, consists of a 12-inch chord flap with a 100-inch span mounted at the trailing edge of a specimen-holding frame, and a pressure box enclosing the space above the holding frame. The test fixture was designed for mounting in the ceiling of the ARC 9x7-foot tunnel test section (see Figures 1 and 2). In this installation, no attempt was made to control the pressure within the plenum behind the holding frame.

Deflection of the hydraulically actuated flap produces separation of the boundary layer upstream and creates a reverse flow region near the boundaries of the flap/panel surface intersection. In the area where separation occurs, an unsteady shock wave is formed which gives rise to a large step-type positive pressure gradient and high turbulence levels. For a combination of Mach number and Reynolds number, the flow separation point on the test panel is determined by the flap angle.

Spacers and shims were used to bring the leading and trailing edges of the specimen panel flush with the surface of the test fixture.

Test Specimen

Felt Reusable Surface Insulation (FRSI) consists of Nomex felt covered with a thin layer of RTV bonded to the outer surface. Pinhole openings are used to preclude large pressure differentials across the RTV covering. The local temperature of the orbiter area to be protected determines the thickness of the FRSI pad.

The test specimen, designated panel No. 4 of Model 85-0, consisted of two butt-joined FRSI pads bonded with RTV to a 3/4-inch aluminum support plate. A rectangular 1-inch wide wooden frame (24x54 inches) surrounded the FRSI material. A thin surface coat of RTV was applied at the joint between the two pads, simulating the installation of the material on the orbiter. RTV was also used to form a continuous surface at the FRSI edge/frame interface. A colored grid pattern was applied to the FRSI specimen to emphasize visualization of the panel surface motion and to facilitate recording it on film.

INSTRUMENTATION

The model test fixture was instrumented for static and fluctuating pressure measurements. The layout of the instrumentation is shown in Figure 3 and the location coordinates are listed in Table I.

Static Pressure

The test fixture area surrounding the specimen emplacement was instrumented with 49 static pressure taps. All pressure orifices were connected to three scanivalves equipped with 10-psid transducers using a 6-psia reference system.

Fluctuating Pressure

The fluctuating pressure instrumentation consisted of 14 Kulite transducers located near selected static pressure taps. Each instrument had an adjacent line driver to eliminate signal losses due to cable lengths. The reference pressure lines from the transducers were manifolded to the tunnel static pressure.

Flap Deflection

The flap actuating system was equipped with a position transducer to permit the reading and recording of the surface deflections.

Movie Camera

A high-speed motion picture camera with a 400 frames per second capability, was available to record the motion of the test specimen surface.

TEST FACILITY DESCRIPTION

The 9x7-foot supersonic wind tunnel is one of the supersonic legs of the Ames Unitary facility. It is a closed-circuit, variable-density, continuous-flow tunnel. The test section is 9 feet wide by 7 feet high by 18 feet long and the nozzle is of the asymmetric, sliding-block type, in which the variation of the test section Mach number is achieved by translating, in the streamwise direction, the fixed contour block that forms the floor of the nozzle. The temperature is controlled by after-cooling. Dry air for use in the circuit is supplied from four 30,000 cubic-foot spherical tanks. The tunnel drive motors and compressor also serve the 8 by 7-foot tunnel. The motors have a combined output of 180,000 horsepower for continuous operations or 216,000 horsepower for one hour of operation.

TEST CONDITIONS AND PROCEDURES

The sequencing of the test conditions was arranged such that the maximum loading conditions were delayed until the later runs in order to avoid an early failure of the test specimen.

1. At discrete Mach numbers of 2.5, 2.0, 1.8, 1.6, and 1.55, the test section dynamic pressure was increased from the 3σ trajectory values to 1.5 times those values, in five increments. The trailing edge flap was held at zero degree for this set of runs.

2. The next series was conducted at a constant Mach number of 1.6 and a dynamic pressure of 1085 psf. First, the flap was extended to 28.6 degrees in one continuous motion to make the shock sweep forward to approximately 3.5 inches behind the centerline of the test panel. Next, the flap was deflected to 34 degrees, setting the shock same 20 inches forward of the centerline. From this point a rapid retraction (3 seconds) was effected, sweeping the shock aft along the length of the panel. The last sequence in this set of runs consisted of fixing the shock on the seam (δ_F=17 degrees) and then oscillating the flap ±5 degrees from that angle, sweeping the shock same six inches forward and aft of the seam joining the two FRSI pads.

3. With the flap reset at zero degree, dynamic pressure conditions equivalent to 1.7 to 2.1 times the 3σ trajectory values at Mach numbers of 1.8, 2.0, and 2.5, were tested.

4. The final runs were conducted at M=2.0 and q=625 psf, with high flap deflections moving the shock forward.

Each condition was held for approximately two minutes.

Static and fluctuating pressure measurements were recorded and high-speed movies of the specimen were taken for every steady-state test condition.

A summary of the run schedule is included in Table II.

DATA REDUCTION

Standard tunnel equations were used to compute all tunnel conditions.

Local static pressure data were reduced to standard coefficient form,

$$C_p = (P_i - P) * 144/q$$

RMS fluctuating pressure data were reduced to coefficient form.

RESULTS

After the initial tunnel pump-down to check the operation of the scanivalves, small, bubble-like flaws were observed on the sample RTV surface. An inspection of the panel after run 6 revealed some 35 pinholes in the RTV covering, and two small areas (see Figure 4.) where the surface had peeled off. This did not come as a complete surprise to the designers who were then working to eliminate some minor problem with the surface bonding. No repair was effected and no further damage to the test article was sustained for the remainder of the test. The bonding holding the Nomex felt to the support base plate remained intact throughout the test.

A cursory examination of the data shows that, for Model 85-0, the magnitude of the shock pressure rise is a function of the freestream dynamic pressure while the location of the shock is governed by the Mach number/flap deflection combination. Some data plots are included in this report.

Some tunnel blockage was experienced at the lower Mach numbers for the higher flap deflections.

REFERENCES

1. SD75-SH-0213, "Information for Testing FRSI Panel Model 85-0 in the Ames Research Center Unitary Plan Wind Tunnels," September 1975

TABLE I

PRESSURE INSTRUMENTATION LOCATION COORDINATES

X \ Y	13.5	6.5	-0.5	-6.5	-13.5
-28.5	1/M1	30	32/M9	35	37/M11
-27.5			33		
-26.5	2				38
-24.5	3				39
-22.5	4				40
-20.5	5/M2				41/M12
-18.5	6				42
- 8.5	11				47
- 6.5	12				48
- 4.5	13/M4				49/M14
- 2.5	14				50
- 0.5	15				51
1.5	16				52
3.5	17/M5				53/M15
5.5	18				54
7.5	19				55
17.5	24				60
19.5	25/M7				61/M17
21.5	26				62
23.5	27				63
25.5	28				64
27.5	29/M8	31	34/M10	36	65/M18

TABLE II – FRSI MATERIAL TEST UNDER SSV ASCENT CONDITIONS (OS13)
RUN SCHEDULE

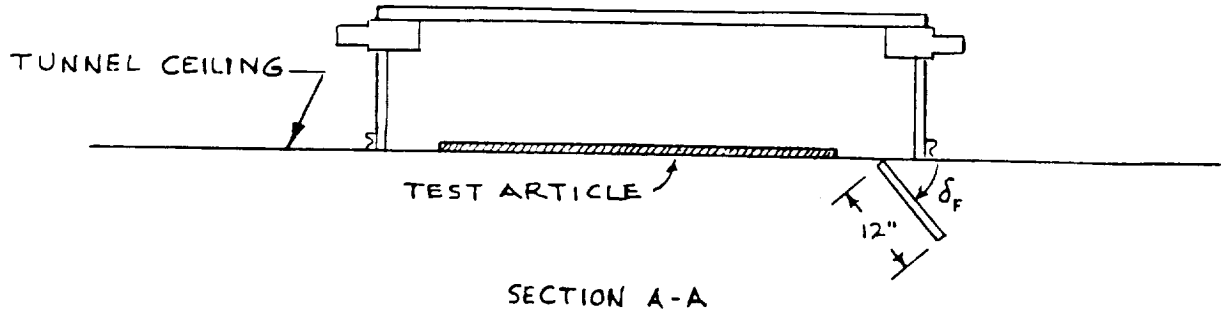
TEST: OS13 (ARC 97–166–1)		DATA SET/RUN NUMBER COLLATION SUMMARY																DATE: NOV. 1975	
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS					MACH NUMBERS												
		RUN NO.	Theta	Q	PT			1.55		1.60		1.80		2.00		2.50			
RNN001	85–O, PANEL #4	1	0	3.26	12.7											384			D
RNN002		2	0	5.03	19.6											385			A
RNN003		3	0	4.02	15.7											386			T
RNN004		4	0	4.30	16.8											387			A
RNN005		5	0	4.72	18.4											388			
RNN006		6	0	5.03	19.6											389			C
RNN007		7	0	4.33	12.1									421					O
RNN008		8	0	4.78	13.4									422					R
RNN009		9	0	5.19	14.5									423					R
RNN010		10	0	5.61	15.7									424					E
RNN011		11	0	6.03	16.9									425					L
RNN012		12	0	6.48	18.1									426					A
RNN013		13	0	4.72	12.0							427							T
RNN014		14	0	5.21	13.2							428							E
RNN015		15	0	5.78	14.6							429							
RNN016		16	0	6.24	15.8							430							N
RNN017		17	0	6.67	16.9							431							O
RNN018		18	0	7.05	17.9							432							.
RNN019		19	0	5.03	14.9					434									
RNN019		19	0	7.05	14.9							433							

TABLE II – FRSI MATERIAL TEST UNDER SSV ASCENT CONDITIONS (OS13)
RUN SCHEDULE

TEST: OS13 (ARC 97–166–1)		DATA SET/RUN NUMBER COLLATION SUMMARY														DATE: NOV. 1975
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS				MACH NUMBERS										DATA CORRELATE NO.
		RUN NO.	Theta	Q	PT		1.55		1.60		1.80		2.00		2.50	
RNN020	85–O, PANEL #4	20	0	5.55	13.2				435							
RNN021		21	0	6.05	14.3				436							
RNN022		22	0	6.54	15.5				437							
RNN023		23	0	7.03	16.7				438							
RNN024		24	0	7.54	17.9				439							
RNN025		25	0	5.25	12.3		440									
RNN026		26	0	5.69	13.4		441									
RNN027		27	0	6.18	14.5		442									
RNN028		28	0	6.73	15.8		443									
RNN029		29	0	7.28	17.1		444									
RNN030		30	0	7.87	18.5		446									
RNN031		31	0	7.53	17.9				453							
RNN033		33	28.6	7.53	17.9				454							
RNN035		35	36.0	7.53	17.9				455							
RNN036		36	33.0	7.53	17.9				456							
RNN037		37	34.0	7.53	17.9				457							
RNN039		39	17.0	7.53	17.9				458							
RNN041		41	0	7.87	19.9						459					
RNN042		42	0	8.69	24.3								460			
RNN043		43	0	6.85	26.8										461	

TABLE II – FRSI MATERIAL TEST UNDER SSV ASCENT CONDITIONS (OS13)
RUN SCHEDULE

TEST: OS13 (ARC 97–166–1)	DATA SET/RUN NUMBER COLLATION SUMMARY					DATE: NOV. 1975												
DATA SET IDENTIFIER	CONFIGURATION	PARAMETERS					THETA – DEGREES											DATA CORRELATE NO.
		RUN NO.	MACH	Q	PT			45		67								
RNN044	85–O, PANEL #4	44	2.0	4.33	12.1			462		463								



SECTION A-A

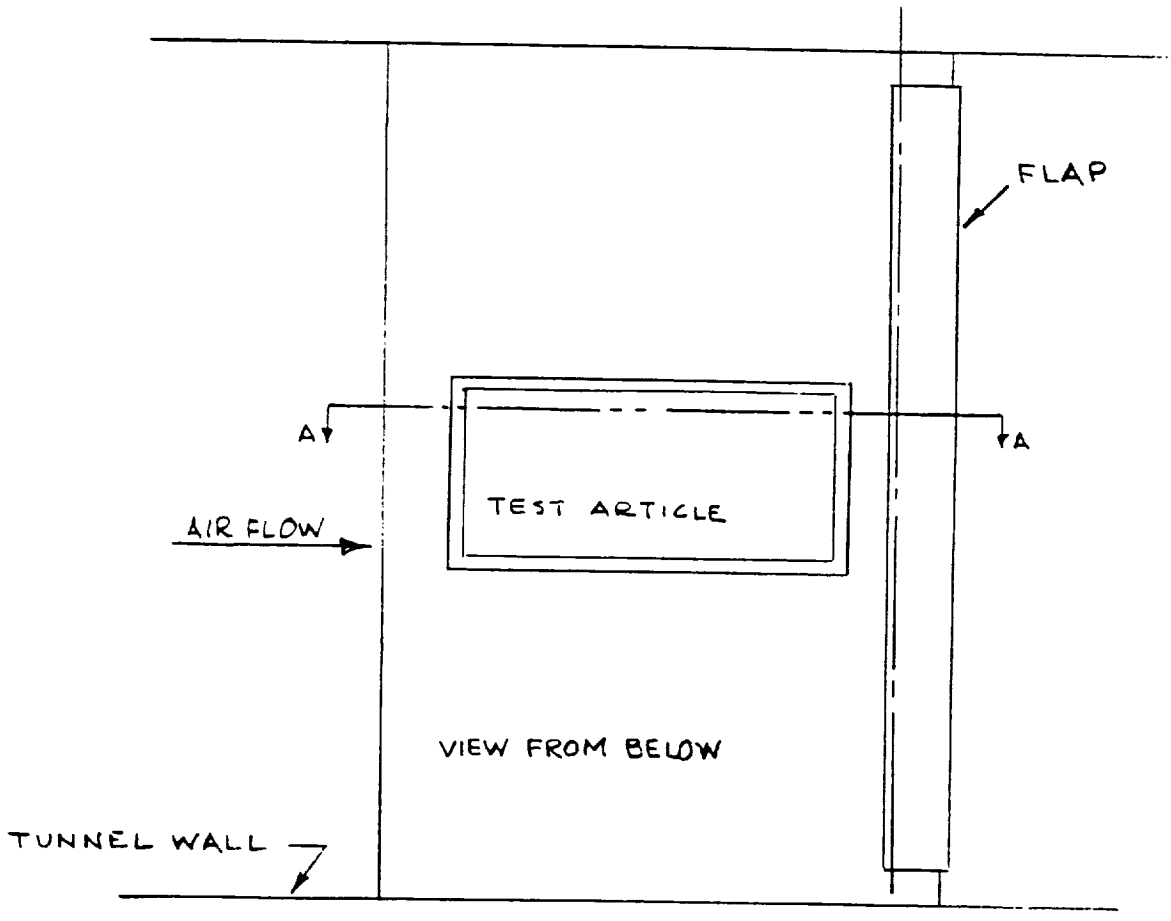


FIGURE 1. MODEL 81-0 TEST FIXTURE, GENERAL ARRANGEMENT

FIGURE 2. TEST SAMPLE PANEL INSTALLATION

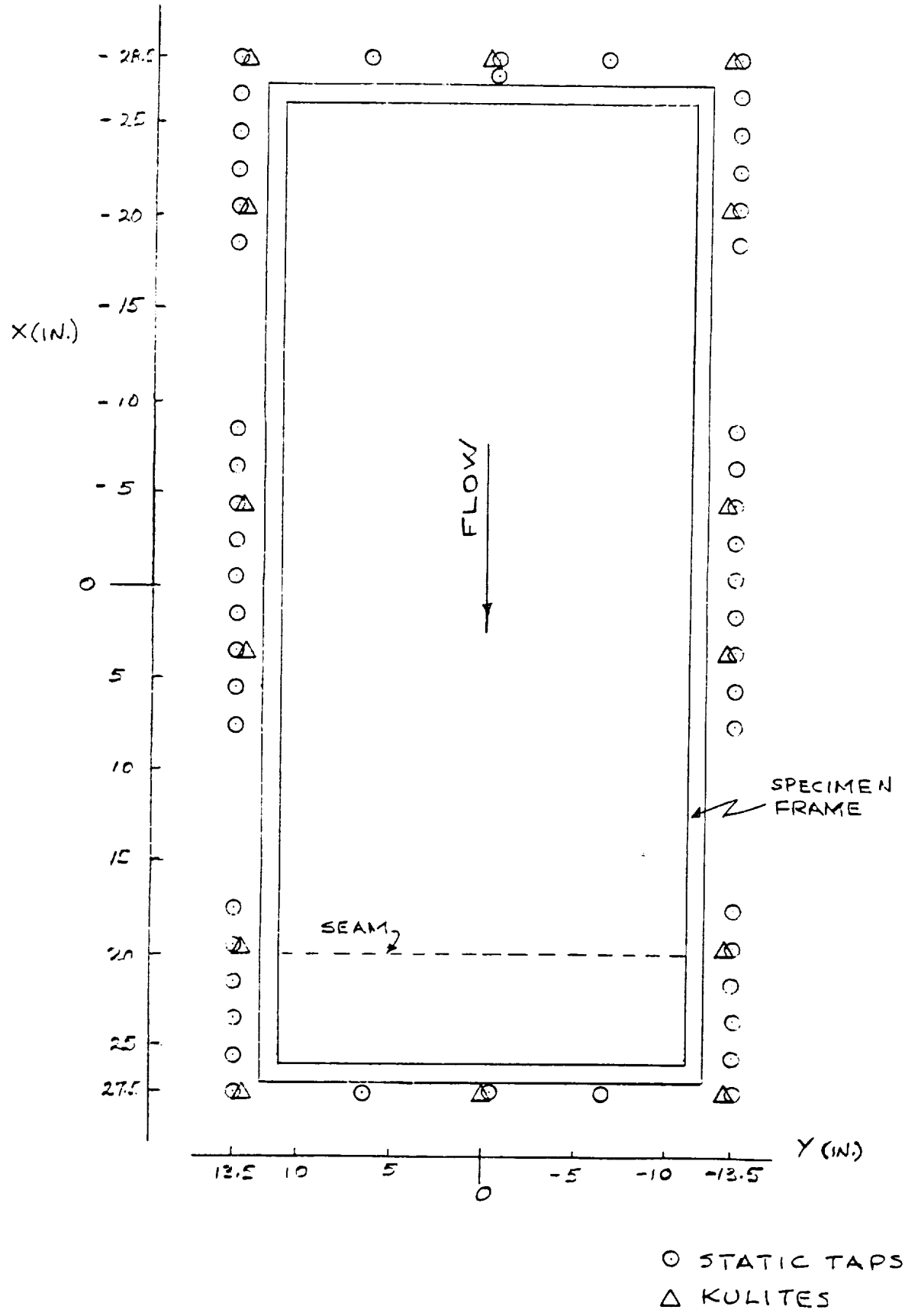


FIGURE 3. MODEL 81-0 FIXTURE INSTRUMENTATION

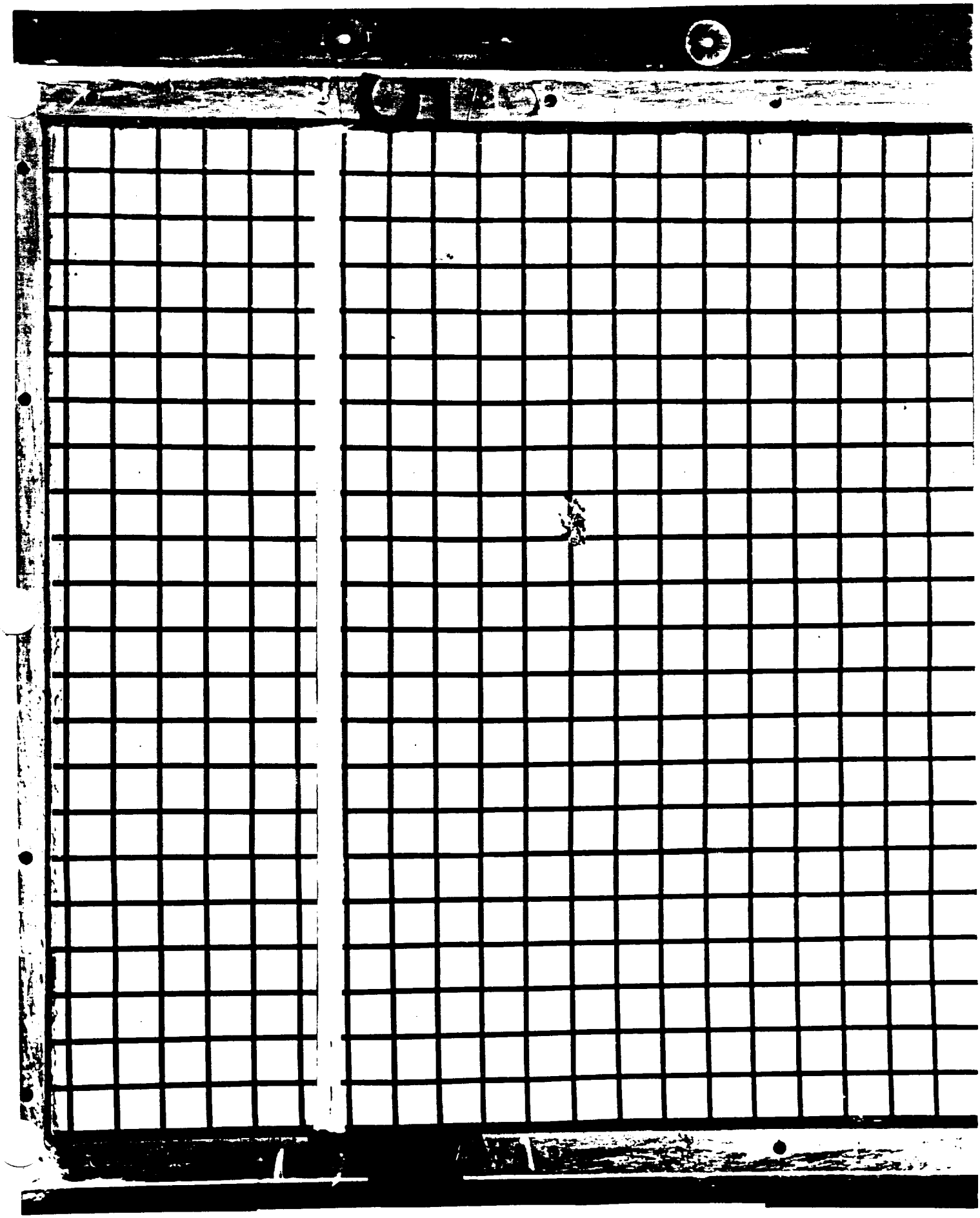


FIGURE 4. DAMAGE IN AFT PORTION OF TEST PANEL

DATA FIGURES

Note: Data recorded at Y = -0.5 are displayed with flagged symbols at Y = $\pm$13.5. Flagged symbols also display data recorded at Y = -6.5 as Y = -13.5 and Y = 6.5 as Y = 13.5.

SYMBOL	Q(PSI)	Y	MACH
○	5.250	-13.500	1.550
□	5.690	13.500	
◇	6.180		
△	6.730		
▷	7.280		
⬠	7.870	DATA SET (DNN025)	

PARAMETRIC VALUES
THETA 1.360

CONFIGURATION DESCRIPTION
ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4

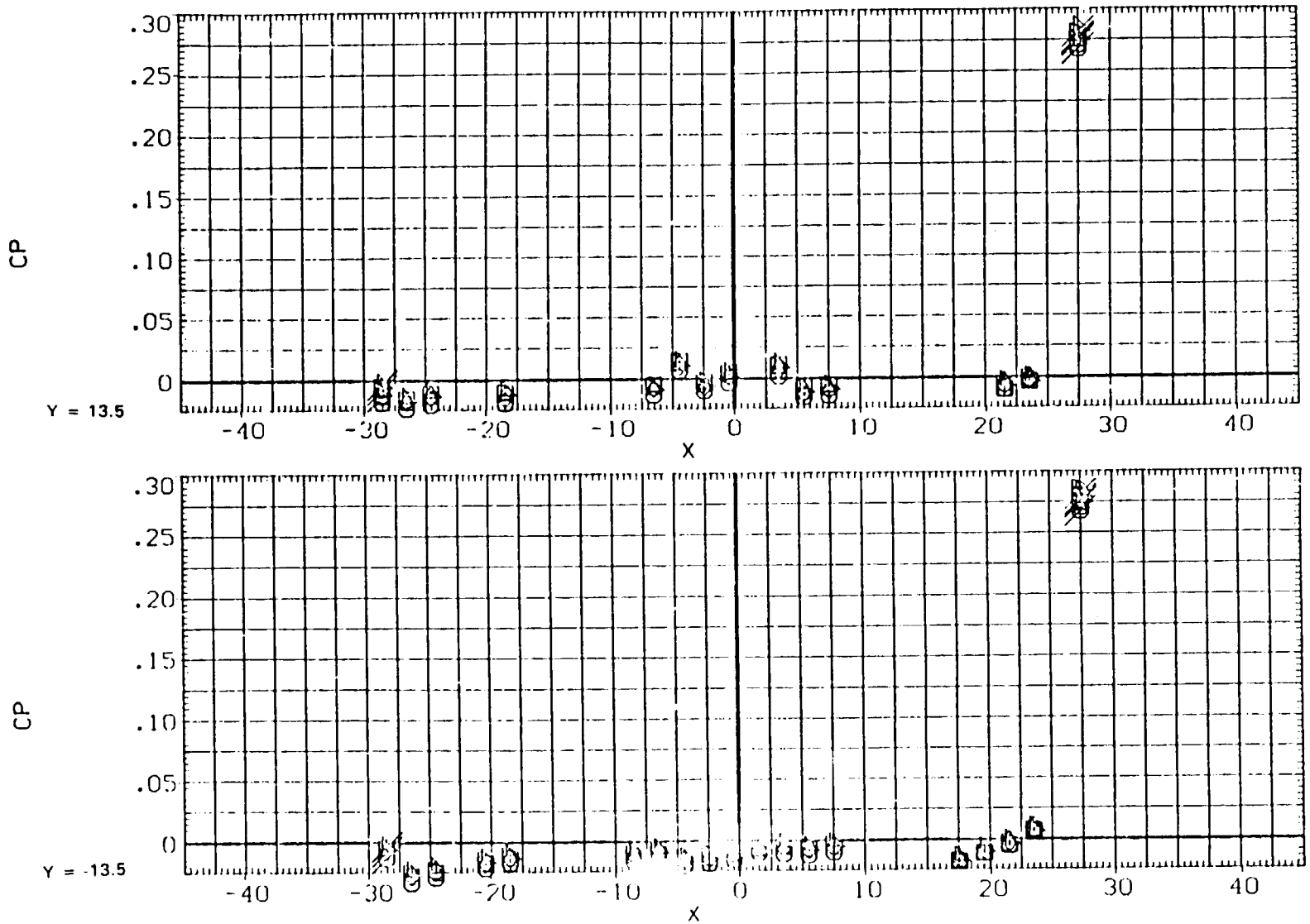


FIG. 1A EFFECT OF DYNAMIC PRESSURE, MACH=1.55

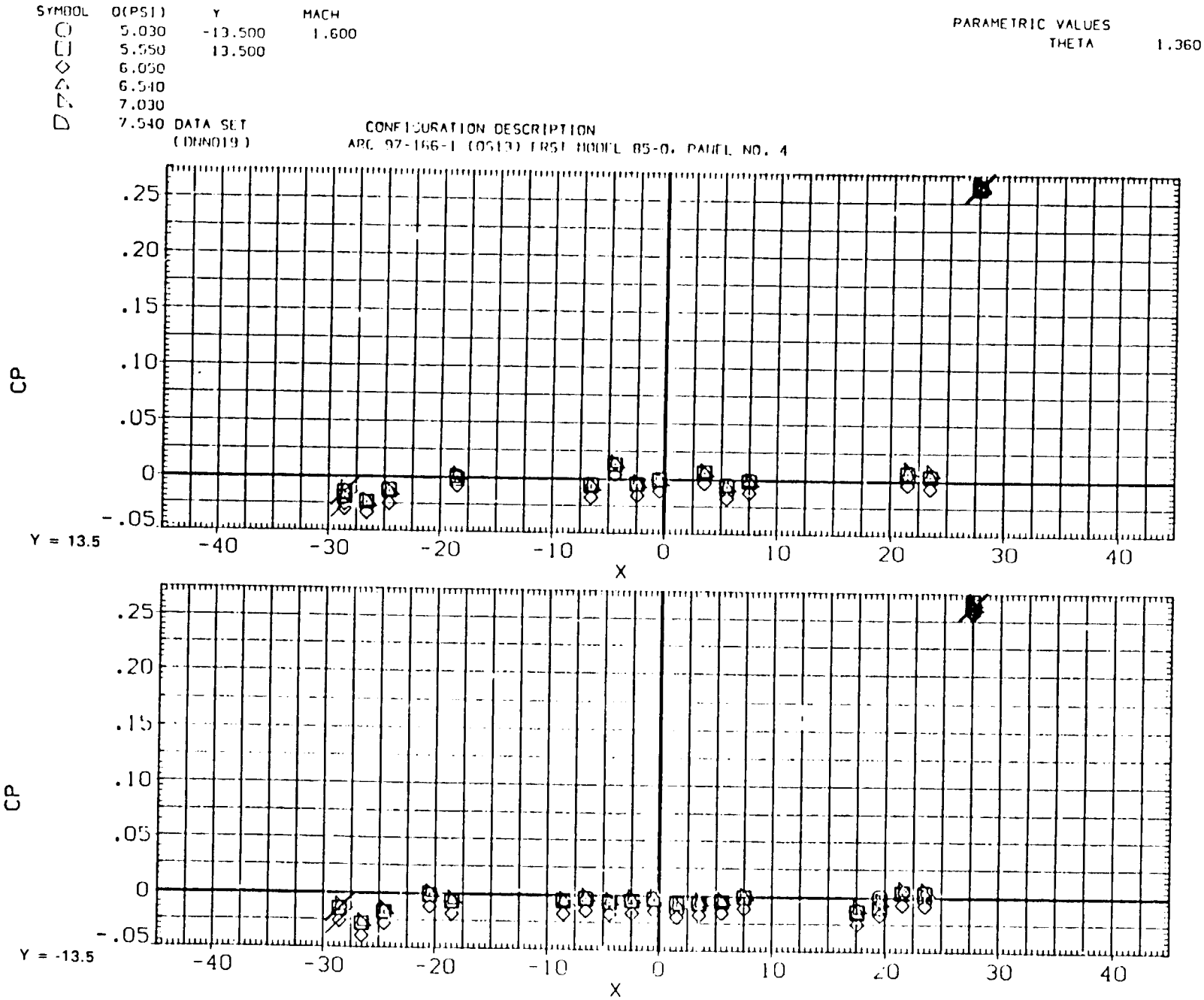
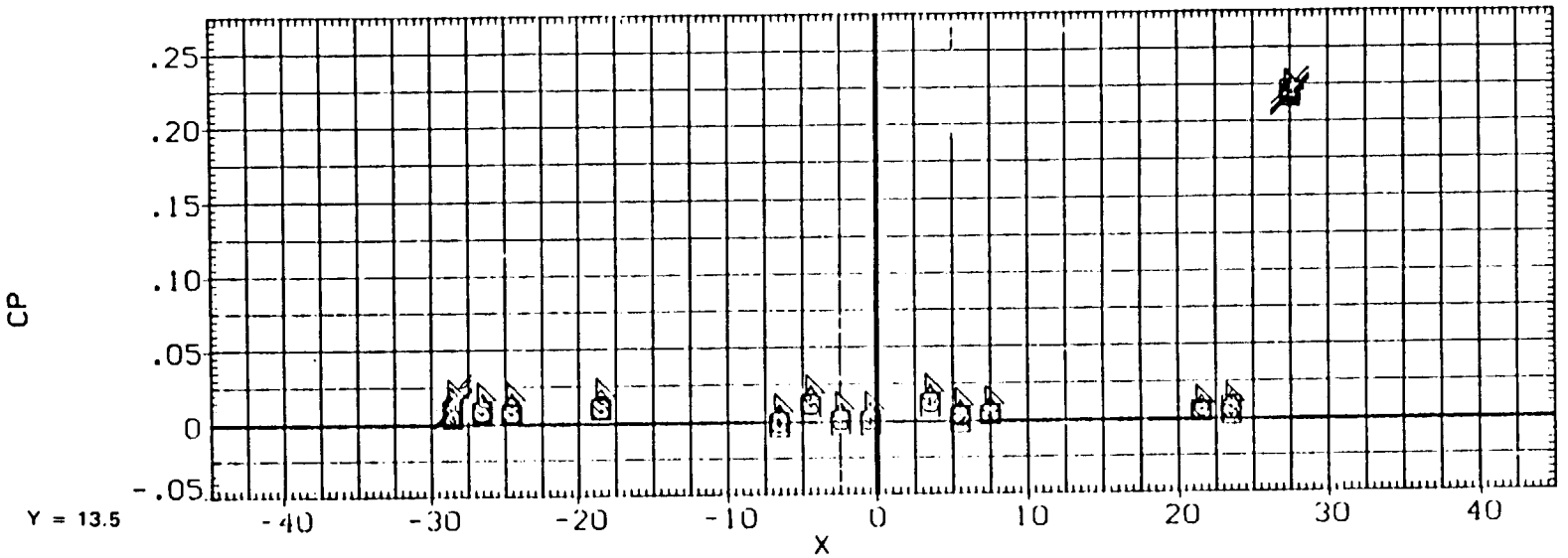


FIG. 2A EFFECT OF DYNAMIC PRESSURE, MACH=1.6

SYMBOL	Q(PSI)	Y	MACH
○	4.720	-13.500	1.800
□	5.210	13.500	
◇	5.780		
△	6.240		
◺	6.670		
⬠	7.050	DATA SET (ONN013)	

PARAMETRIC VALUES
THETA 1.360

CONFIGURATION DESCRIPTION
ARC 97-166-1 (0S13) FRSI MODEL 85-0, PANEL NO. 4



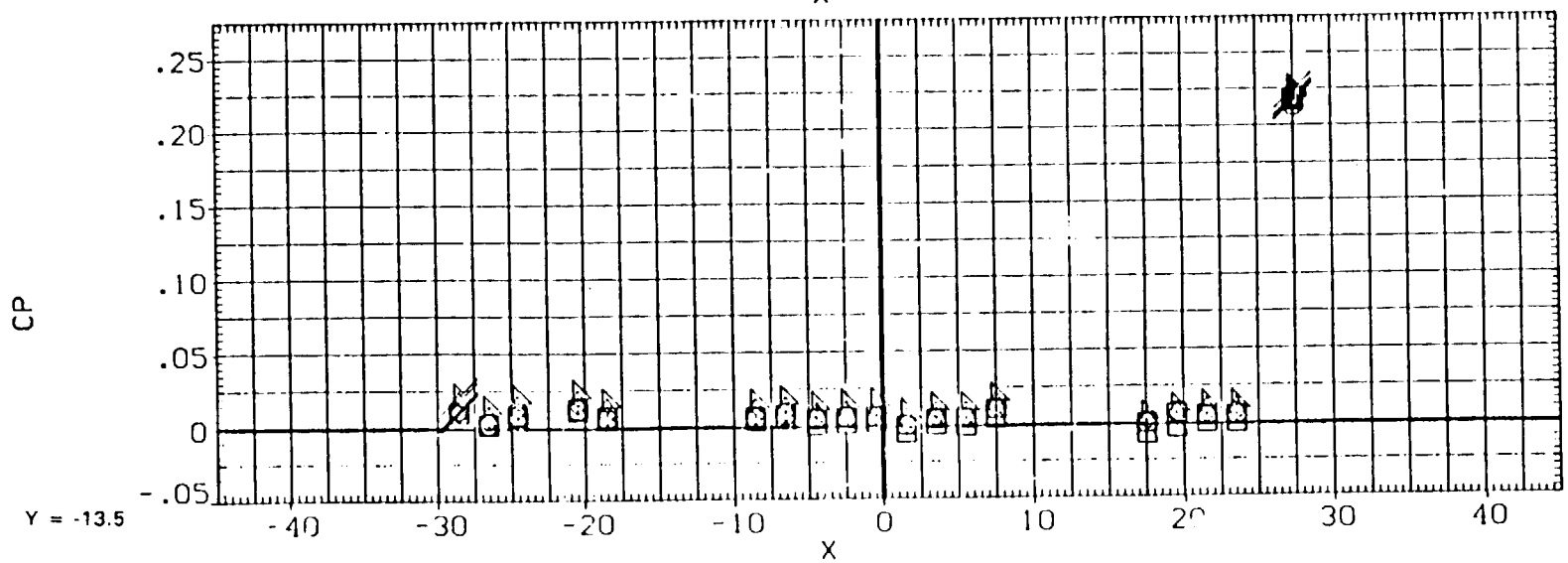


FIG. 3A EFFECT OF DYNAMIC PRESSURE, MACH=1.8

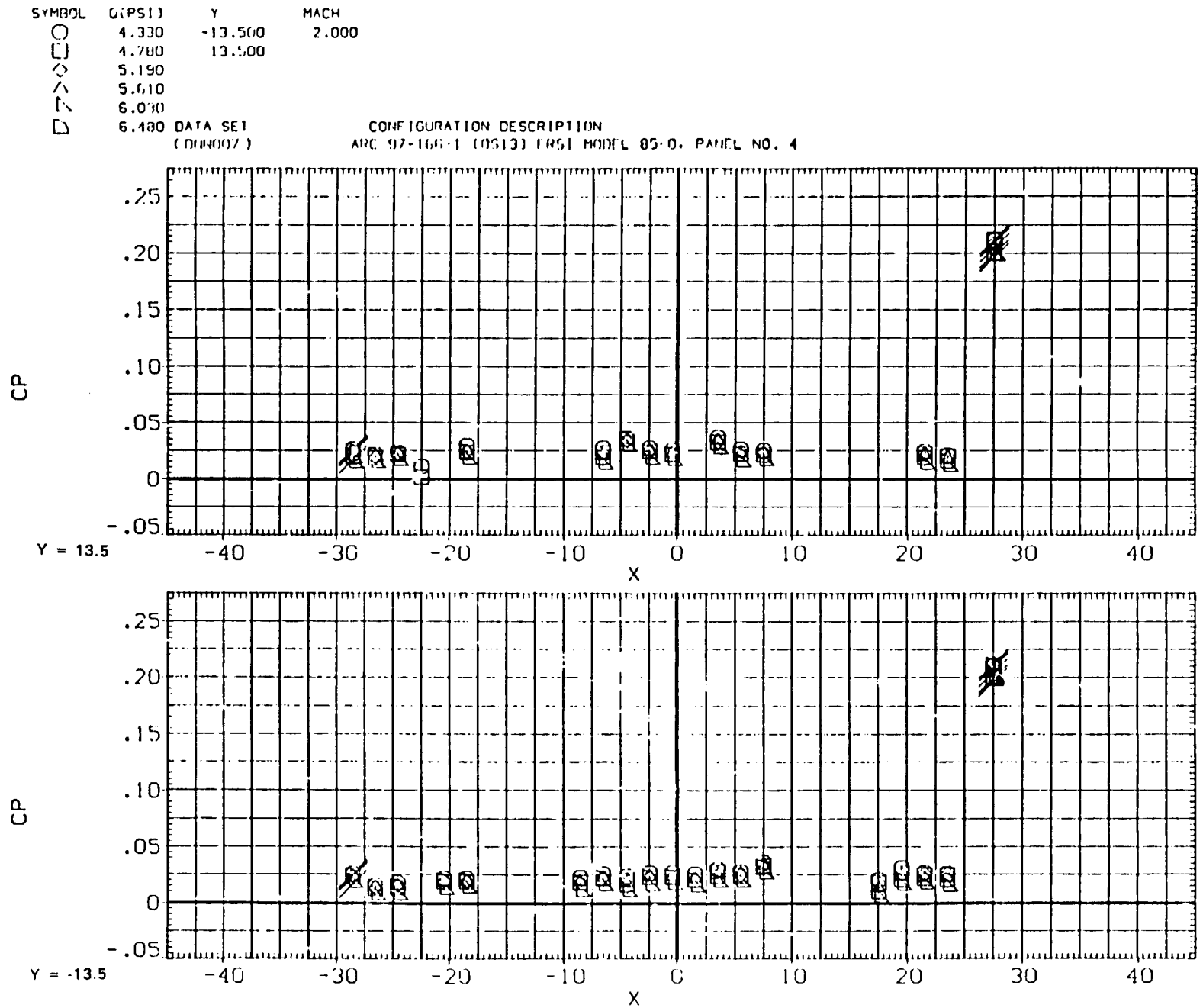


FIG. 4A EFFECT OF DYNAMIC PRESSURE, MACH=2.0

SYMBOL	Q(PSI)	Y	MACH
○	3.260	-13.500	2.500
□	4.020	13.500	
◇	4.300		
△	4.720		
▷	5.030		
▷	5.030	DATA SET (DNN001)	

PARAMETRIC VALUES

		V	1953.000
TTF	112.000	TF	-206.000

CONFIGURATION DESCRIPTION
ARC 97-166-1 (0S13) FRSI MODEL 85-0, PANEL NO. 4

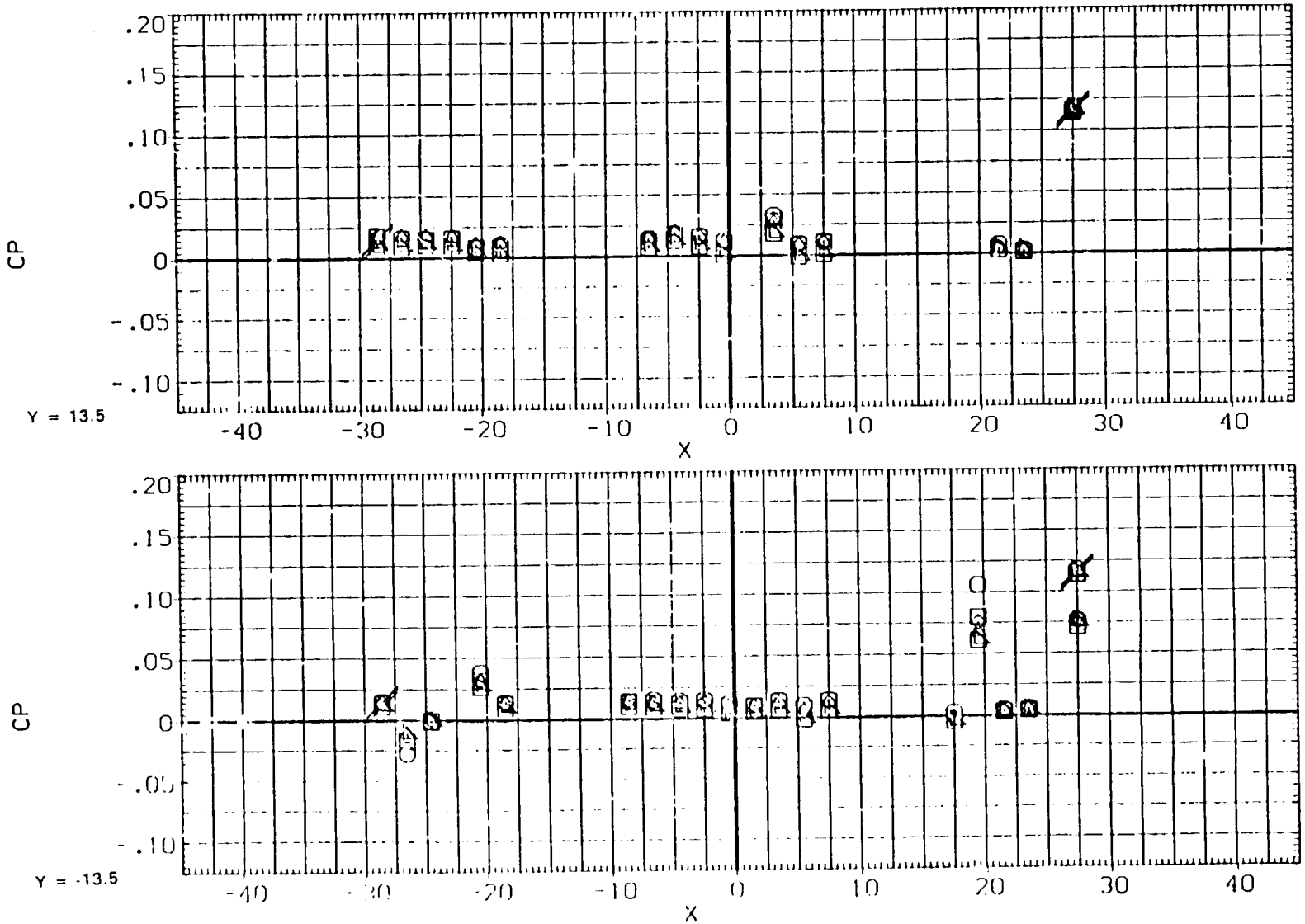


FIG. 5A EFFECT OF DYNAMIC PRESSURE, MACH=2.5

SYMBOL	Q(PSI)	Y	MACH
○	4.720	-13.500	1.800
□	7.050	13.500	
◇	7.870		

DATA SET
(CORRECTED)

CONFIGURATION DESCRIPTION
ARC 97-166-1 (OSID) FRST MODEL 85-0, PANEL NO. 4

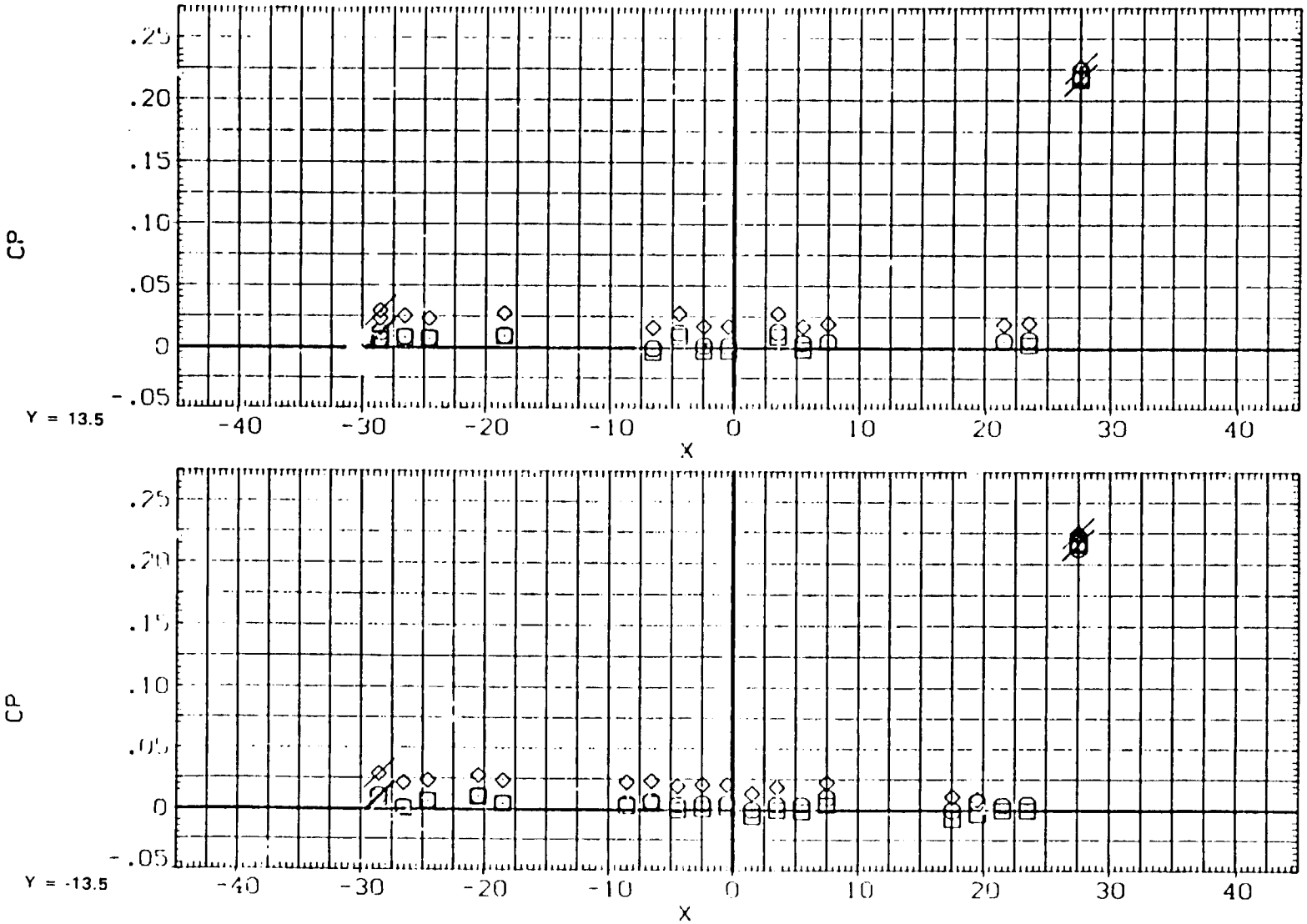


FIG. 6A EFFECT OF DYNAMIC PRESSURE, MACH 1.8

SYMBOL	Q(PSI)	Y	MACH
○	4.330	-13.500	2.000
□	6.480	13.500	
◇	8.690		

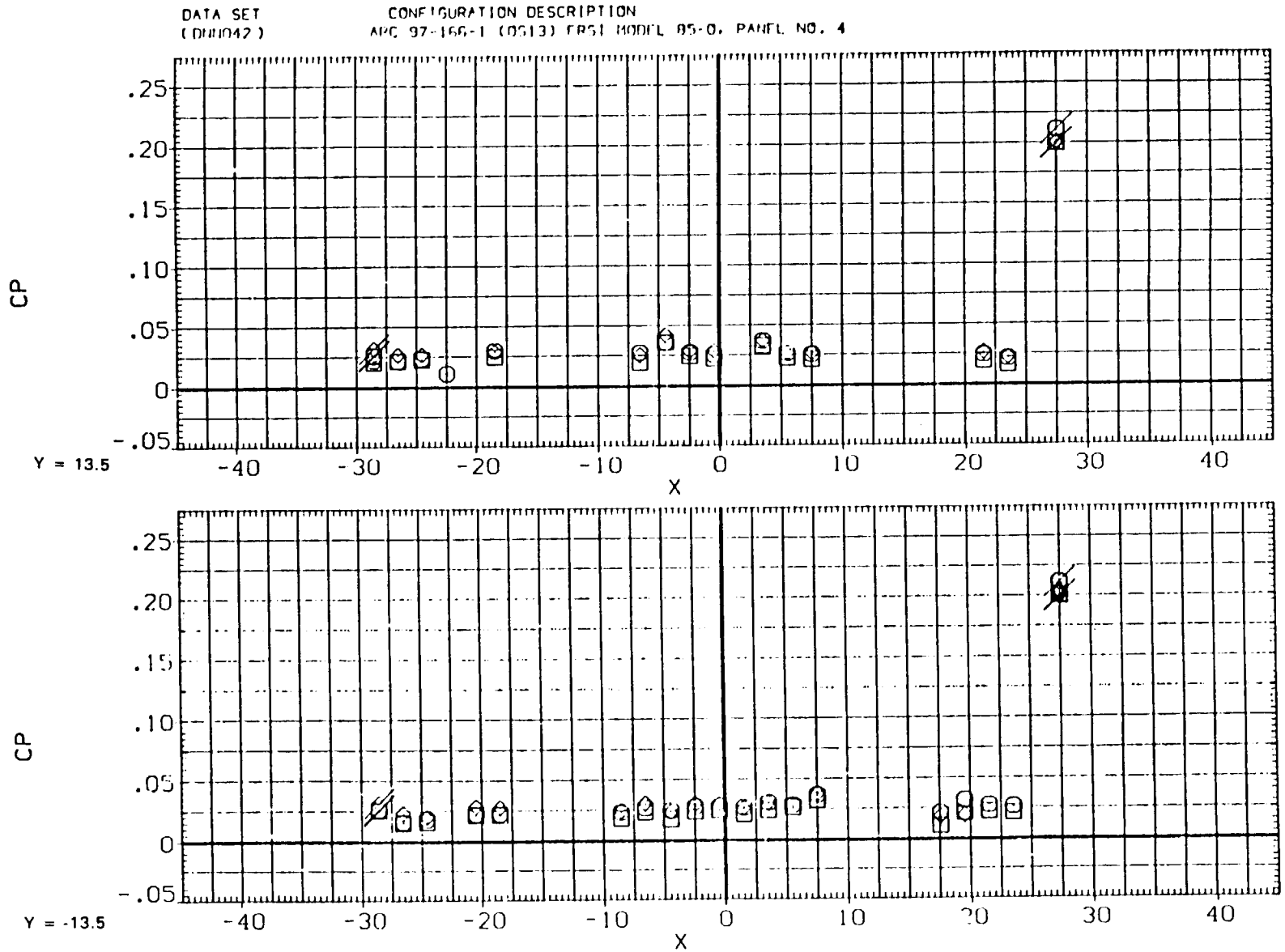


FIG. 7A EFFECT OF DYNAMIC PRESSURE, MACH=2.0

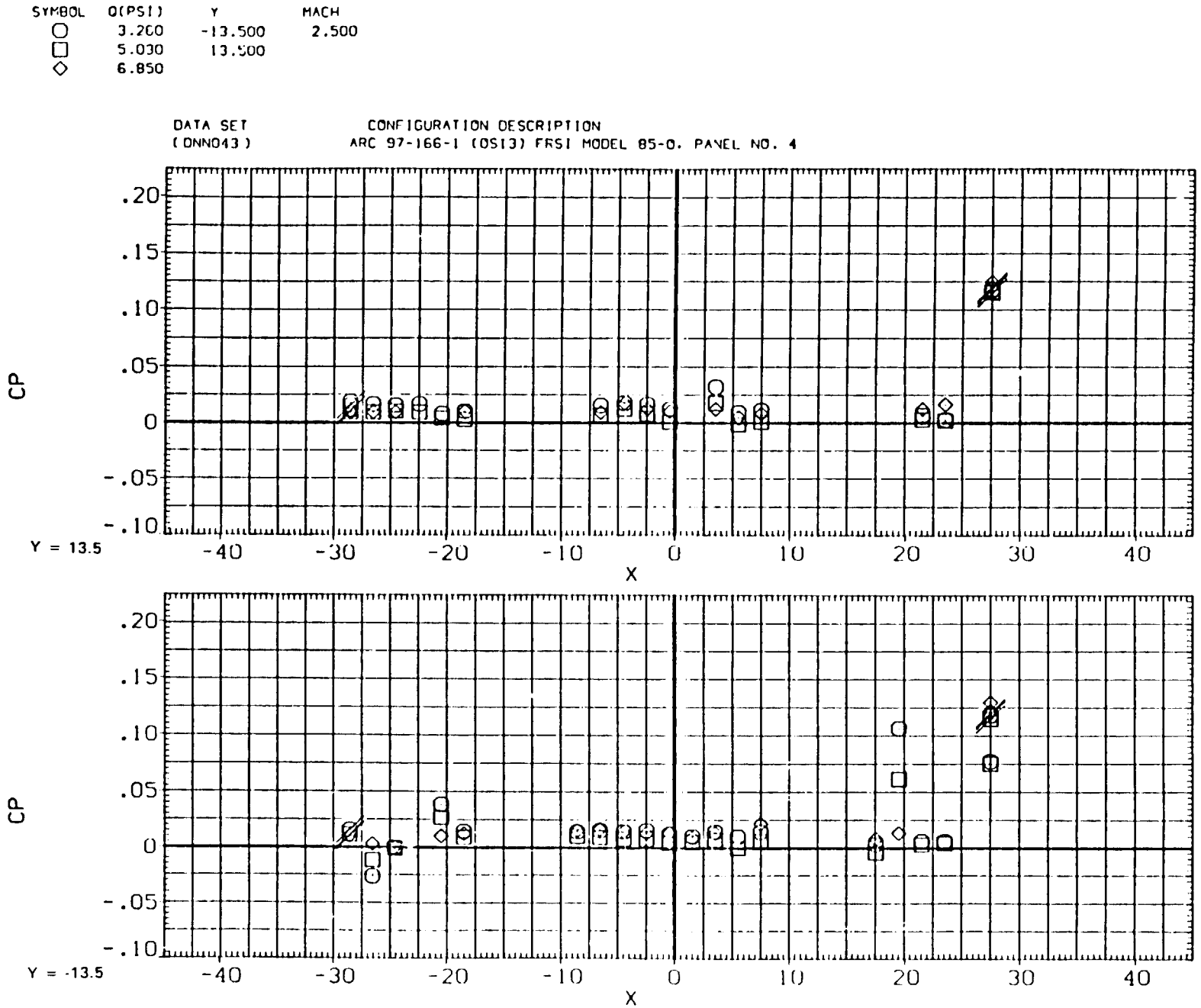


FIG. 8A EFFECT OF DYNAMIC PRESSURE, MACH=2.5

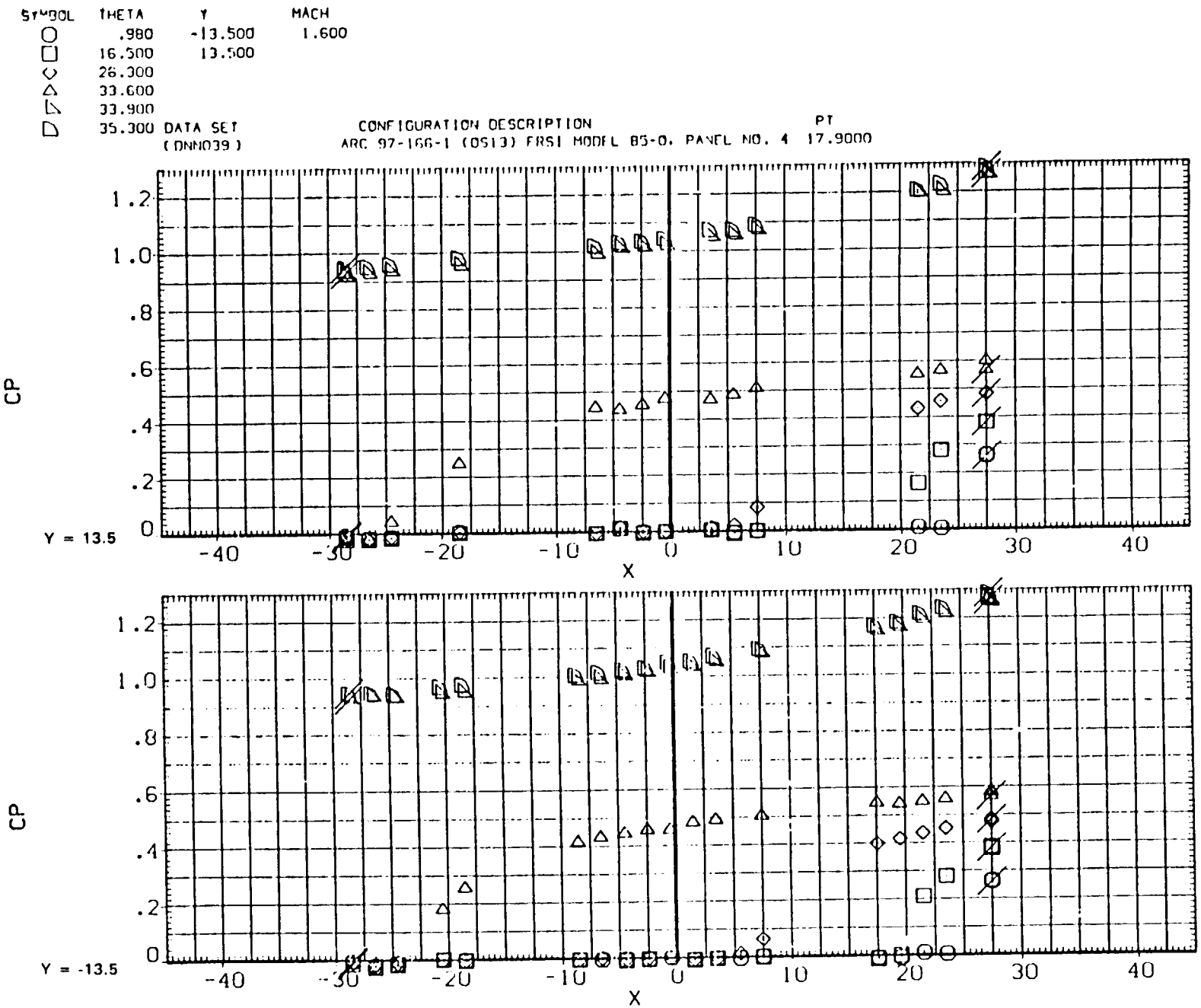


FIG. 9A EFFECT OF SHOCK POSITION (FLAP ANGLE), MACH=1.6

SYMBOL	THETA	Y	MACH
○	40.800	-13.500	2.000
□	44.700	13.500	
◇	67.800		

PARAMETRIC VALUES
Q(PSI) 4.330

DATA SET (GNN044)
CONFIGURATION DESCRIPTION: ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4
PT 12.1000
P 1.5400

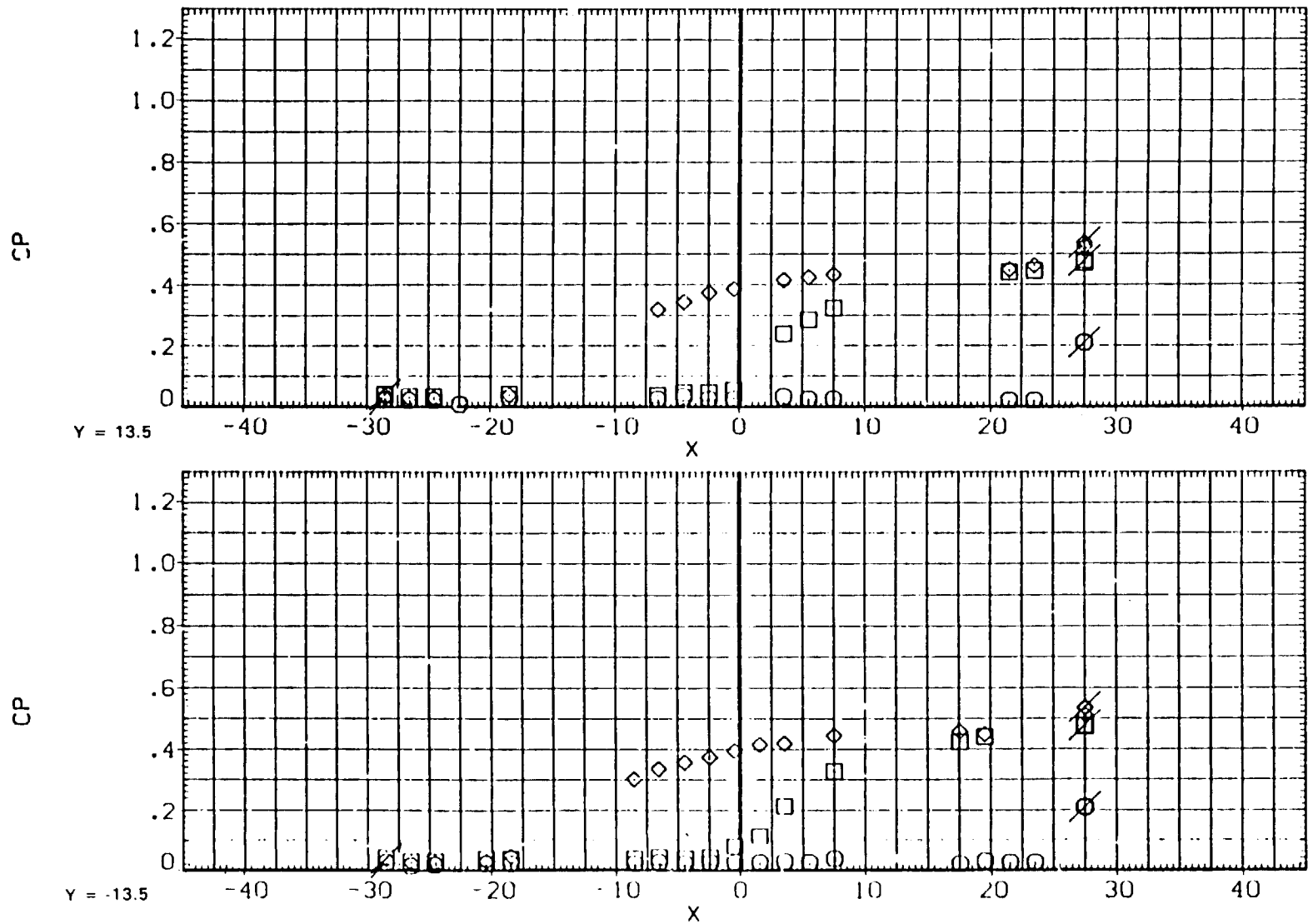


FIG. 10A EFFECT OF SHOCK POSITION (FLAP ANGLE), MACH=2.0

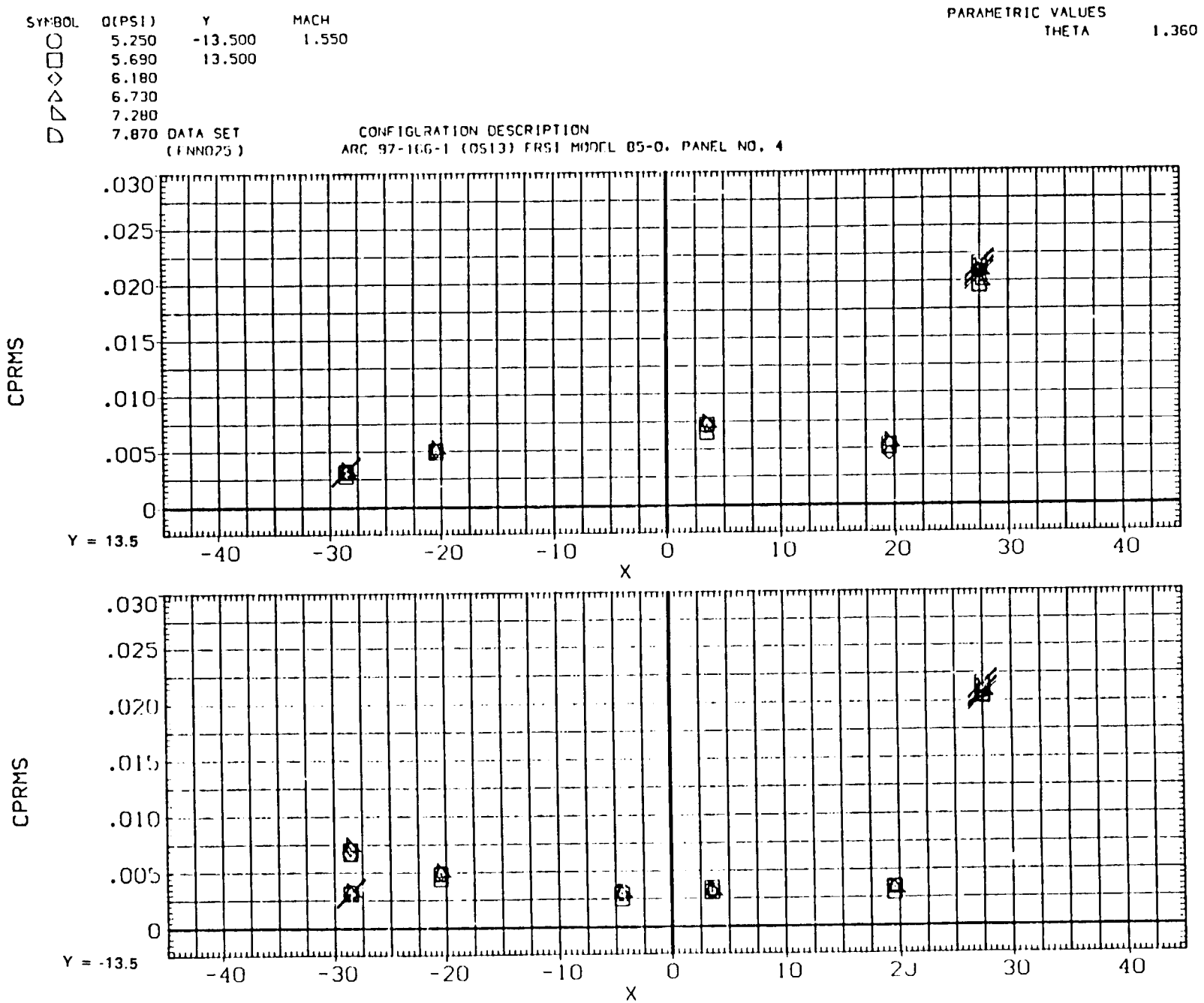


FIG. 1B EFFECT OF DYNAMIC PRESSURE, MACH=1.55

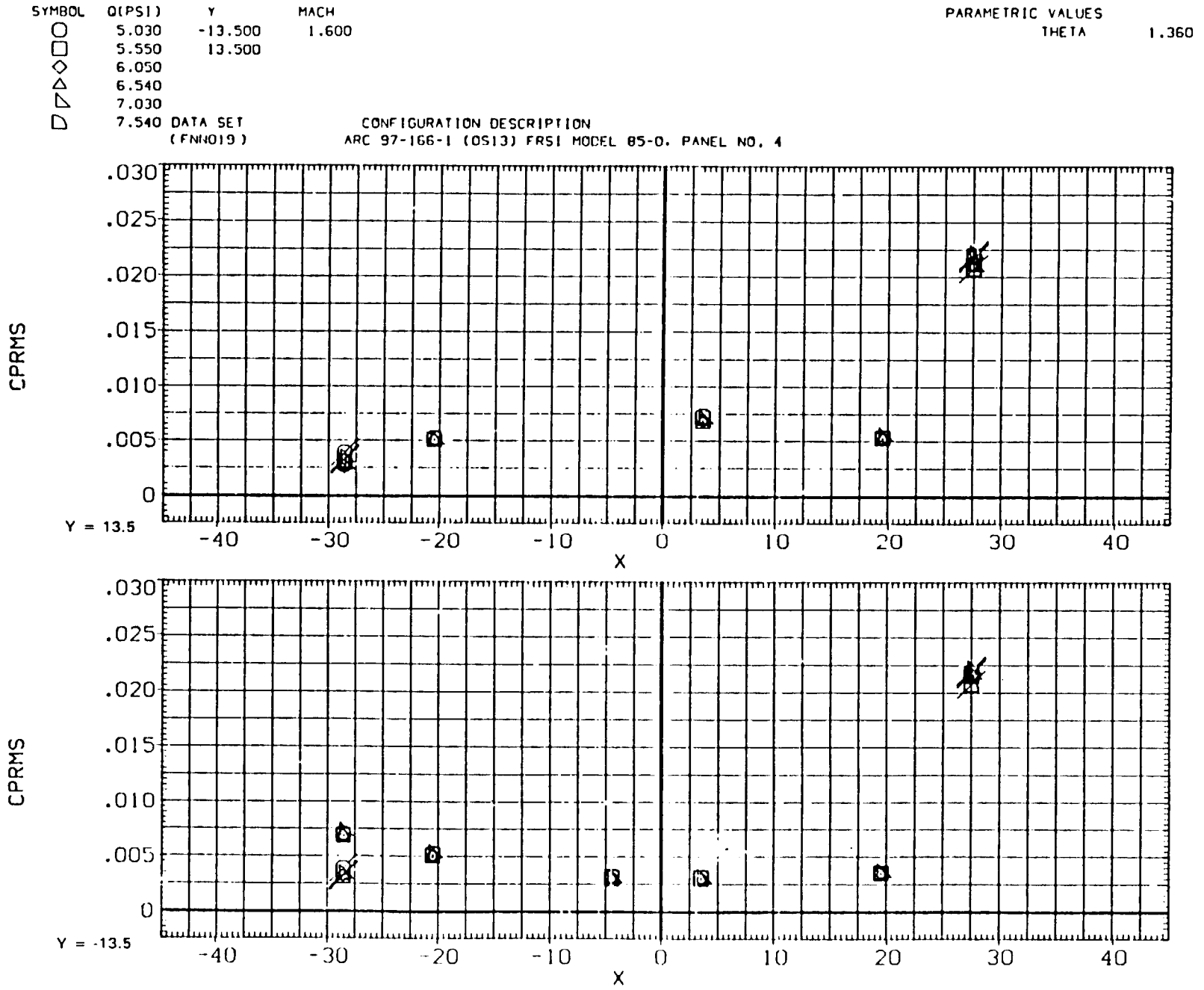


FIG. 2B EFFECT OF DYNAMIC PRESSURE, MACH=1.6

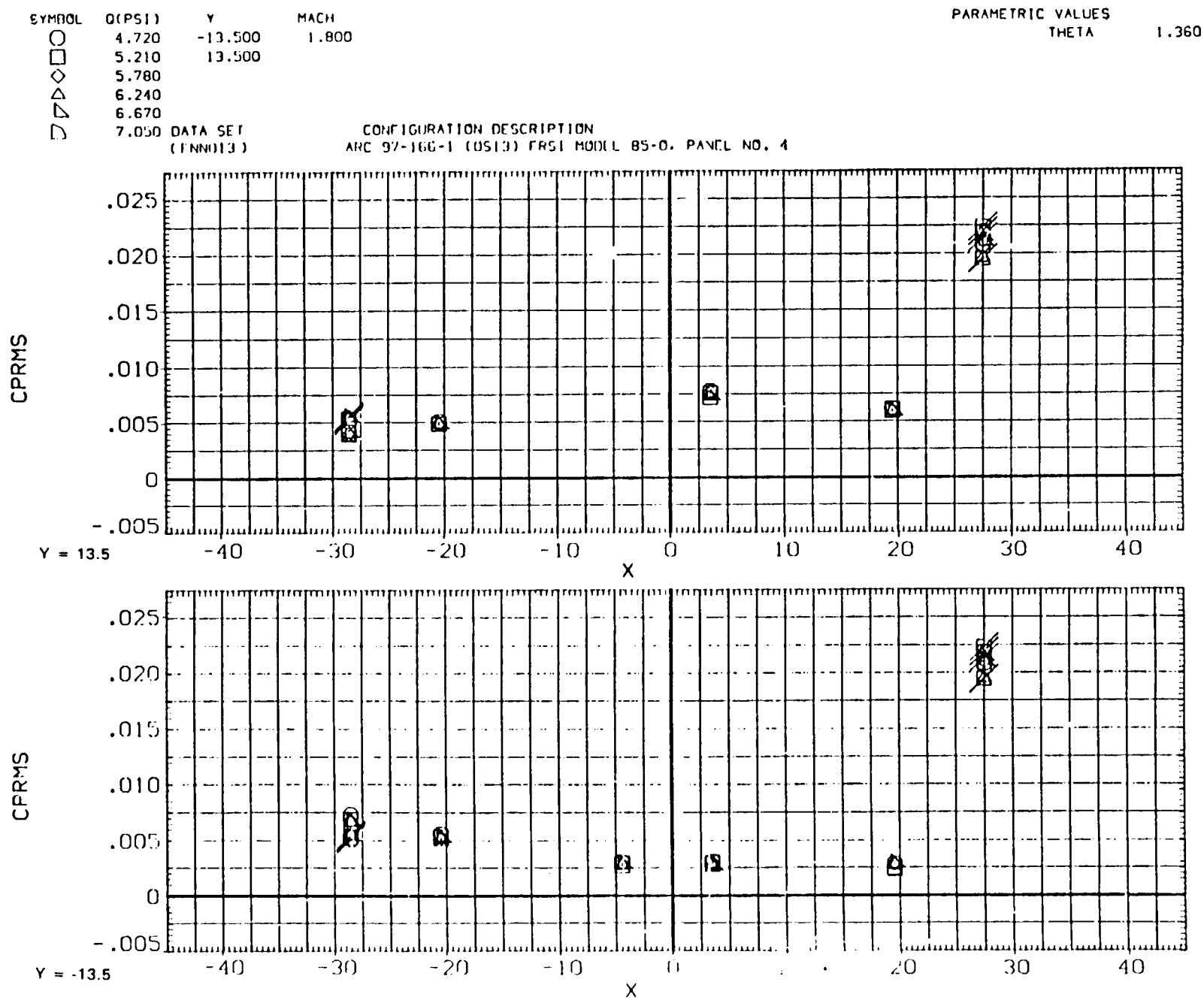


FIG. 3B EFFECT OF DYNAMIC PRESSURE, MACH=1.8

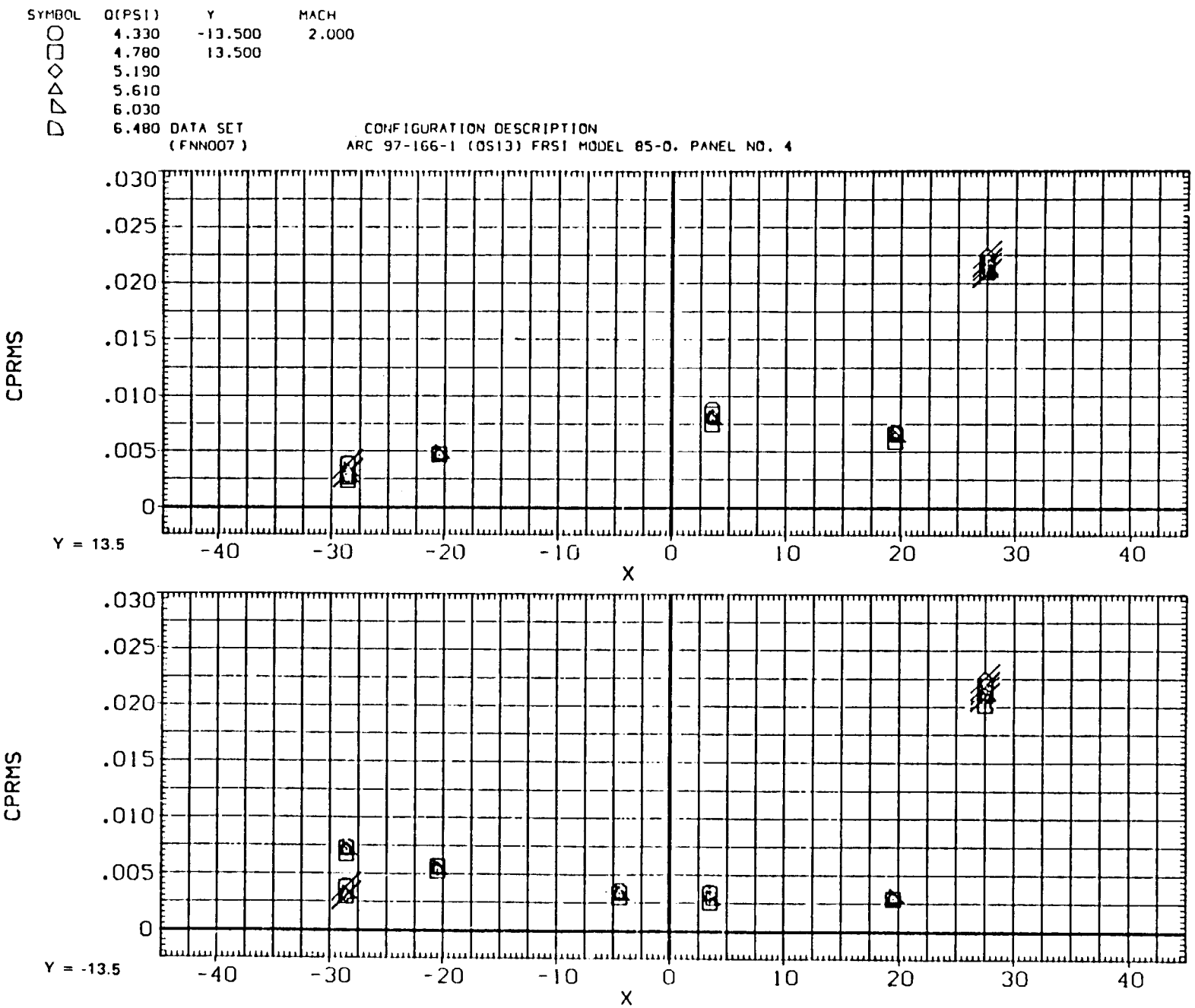


FIG. 4B EFFECT OF DYNAMIC PRESSURE, MACH=2.0

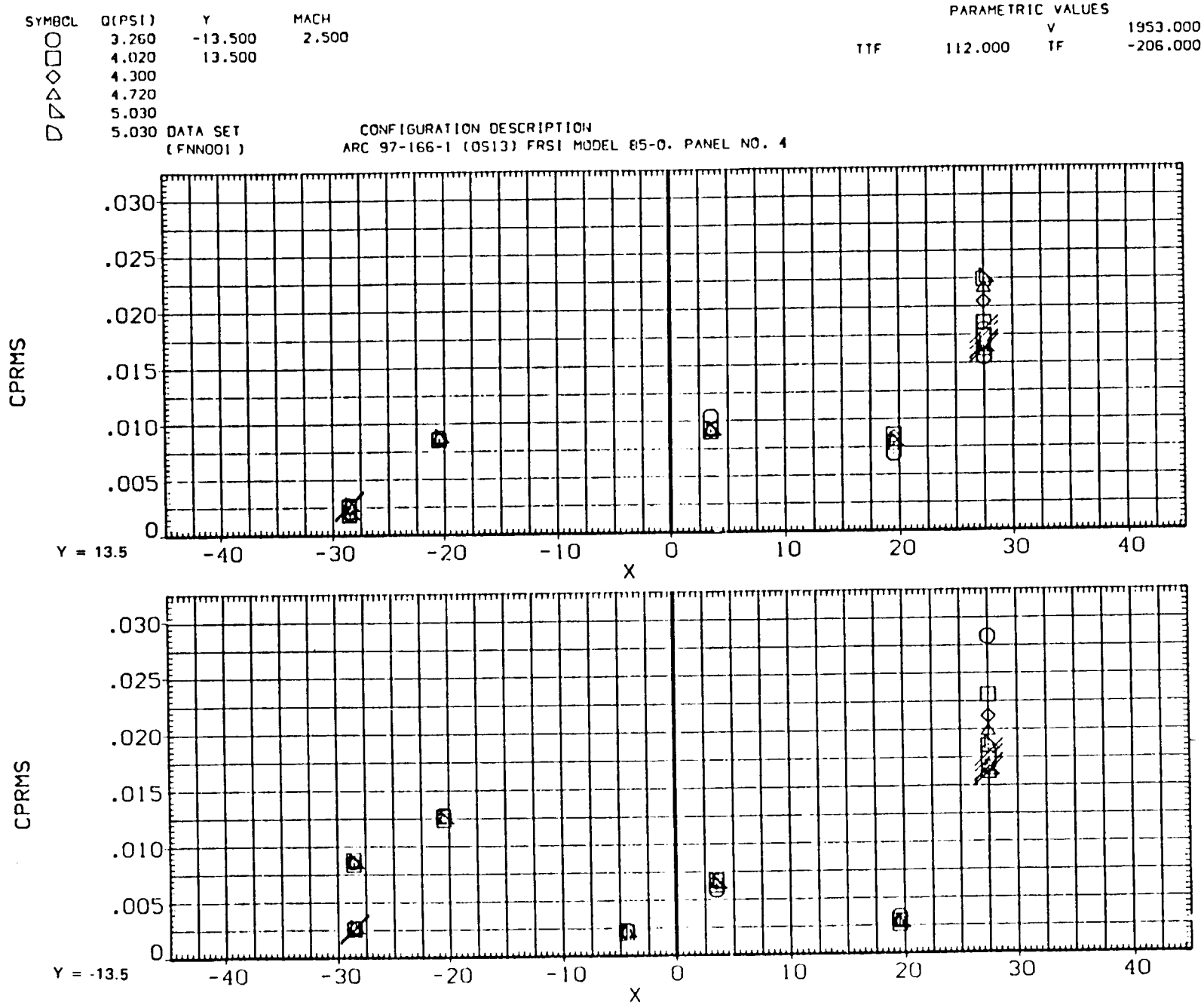


FIG. 5B EFFECT OF DYNAMIC PRESSURE, MACH=2.5

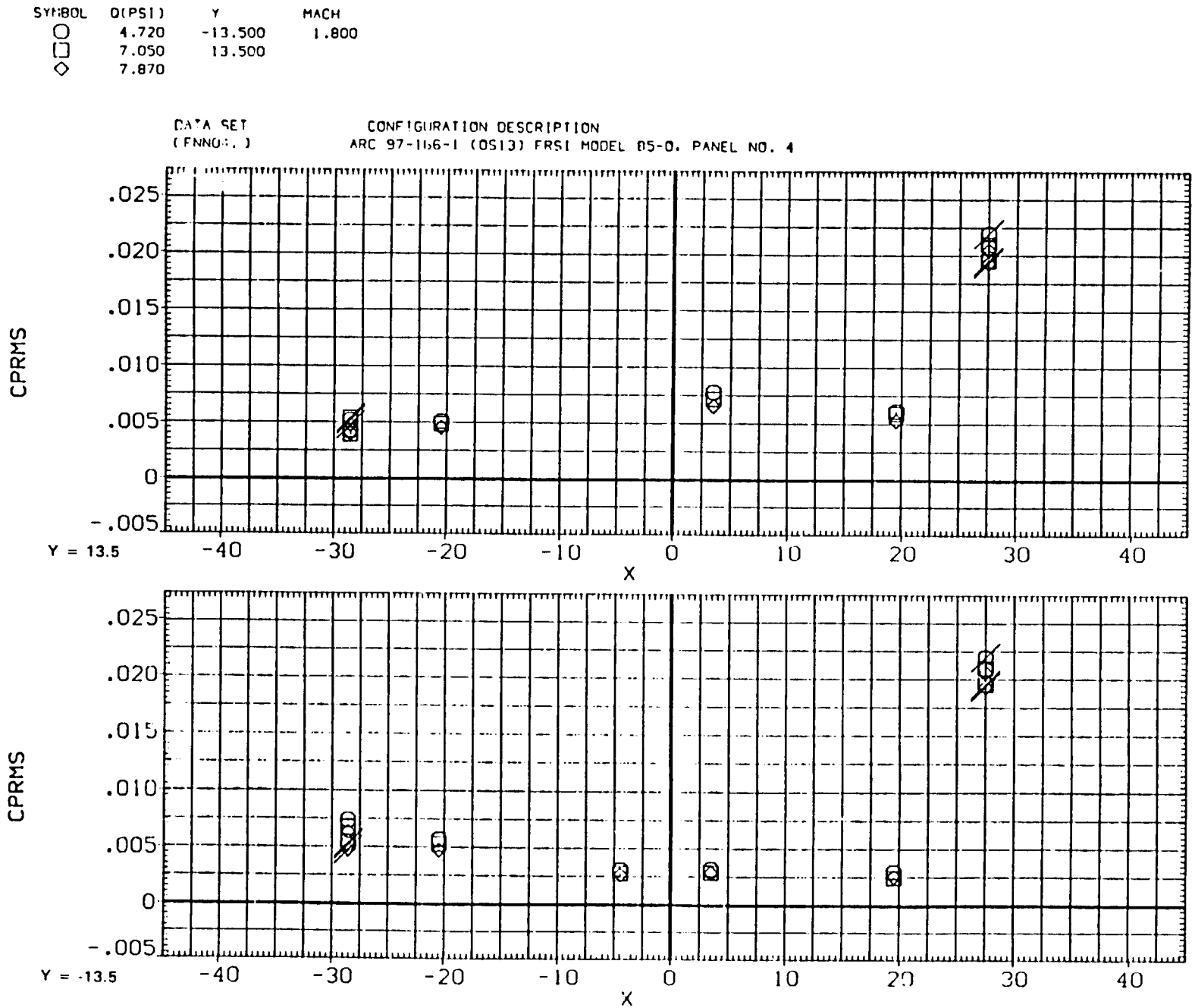


FIG. 6B EFFECT OF DYNAMIC PRESSURE, MACH=1.8

SYMBOL	Q(PSI)	Y	MACH
○	4.330	-13.500	2.000
□	6.480	13.500	
◇	8.690		

DATA SET
(FNN042)

CONFIGURATION DESCRIPTION
ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4

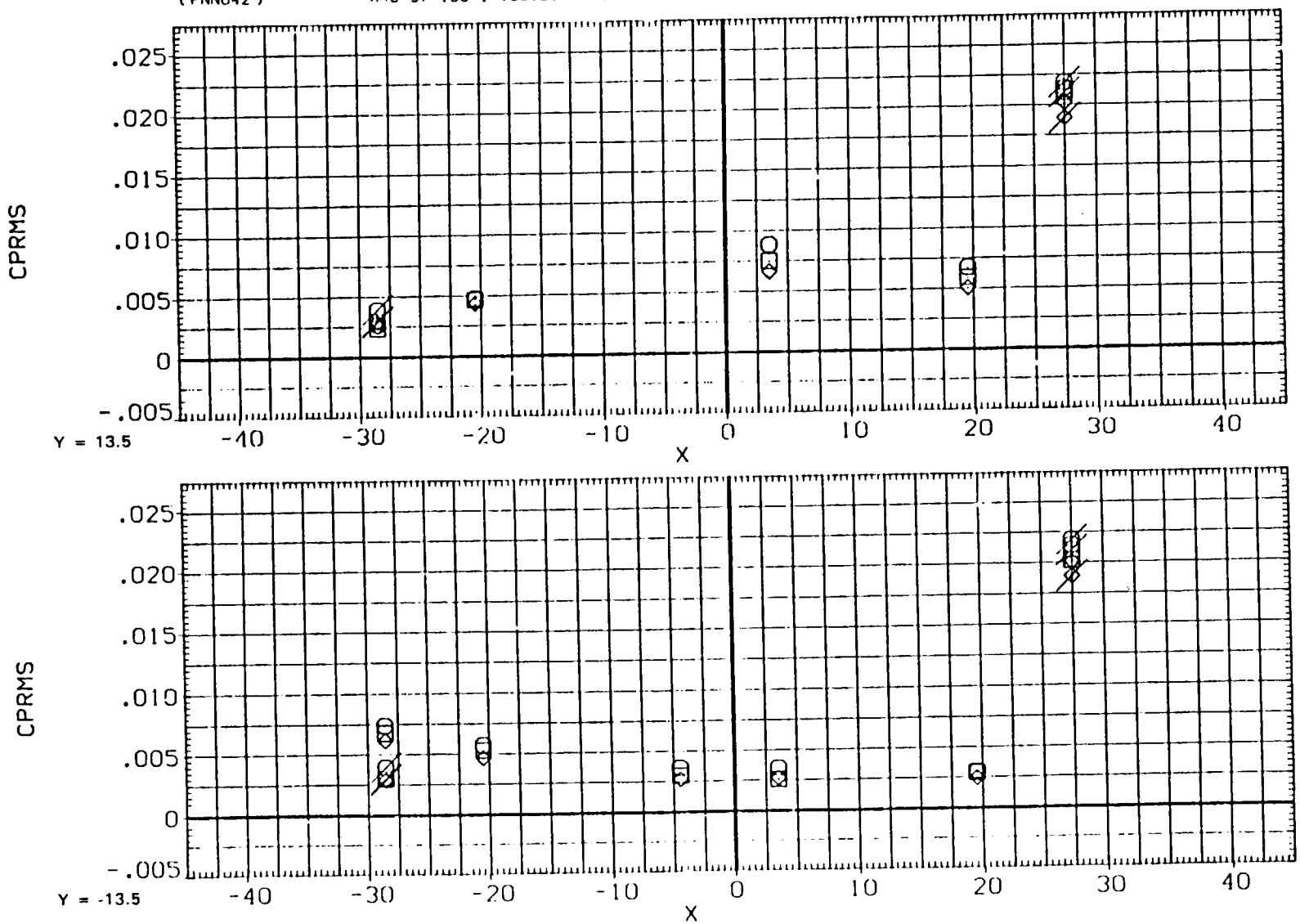


FIG. 7B EFFECT OF DYNAMIC PRESSURE, MACH=2.0

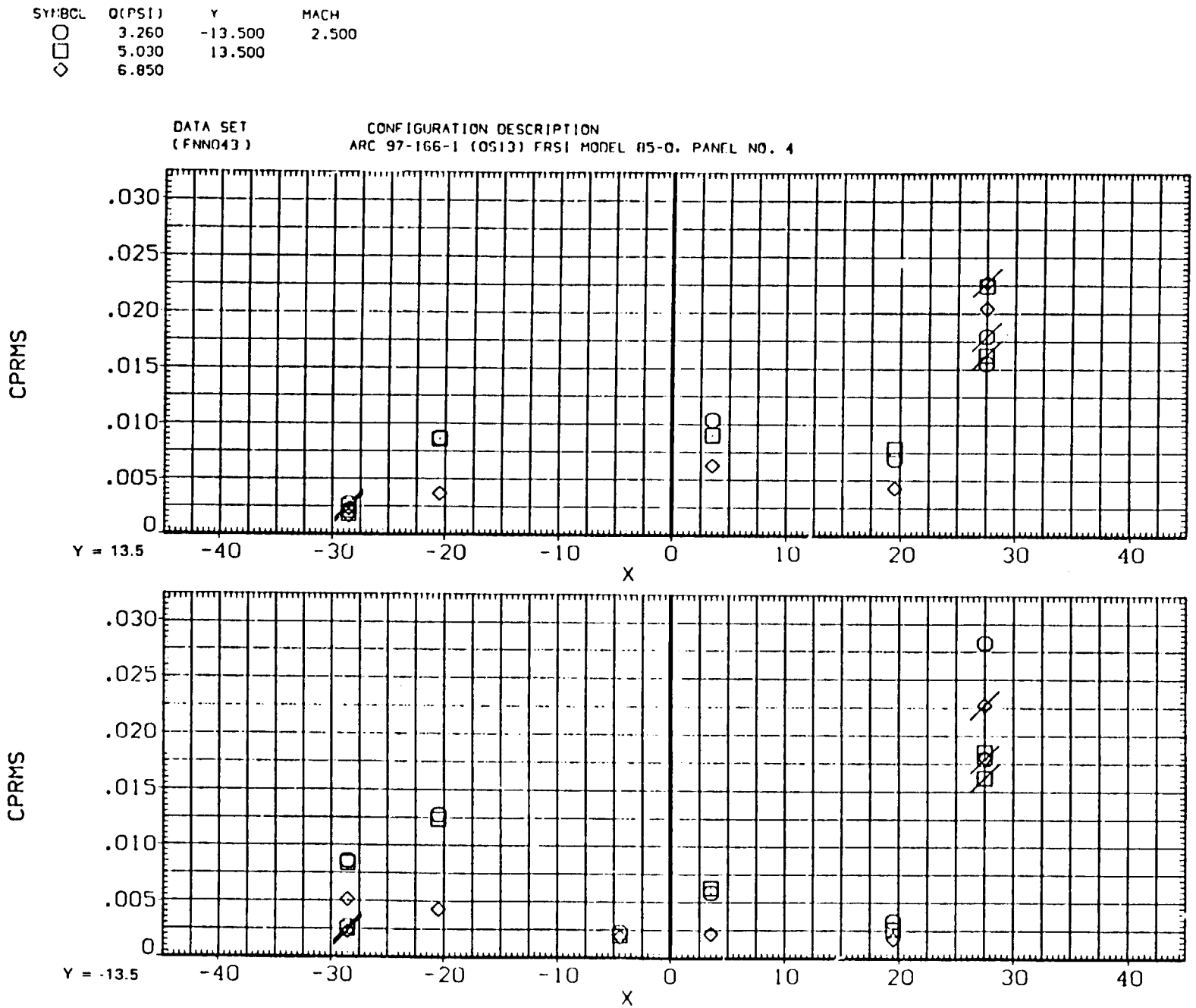


FIG. 8B EFFECT OF DYNAMIC PRESSURE, MACH=2.5

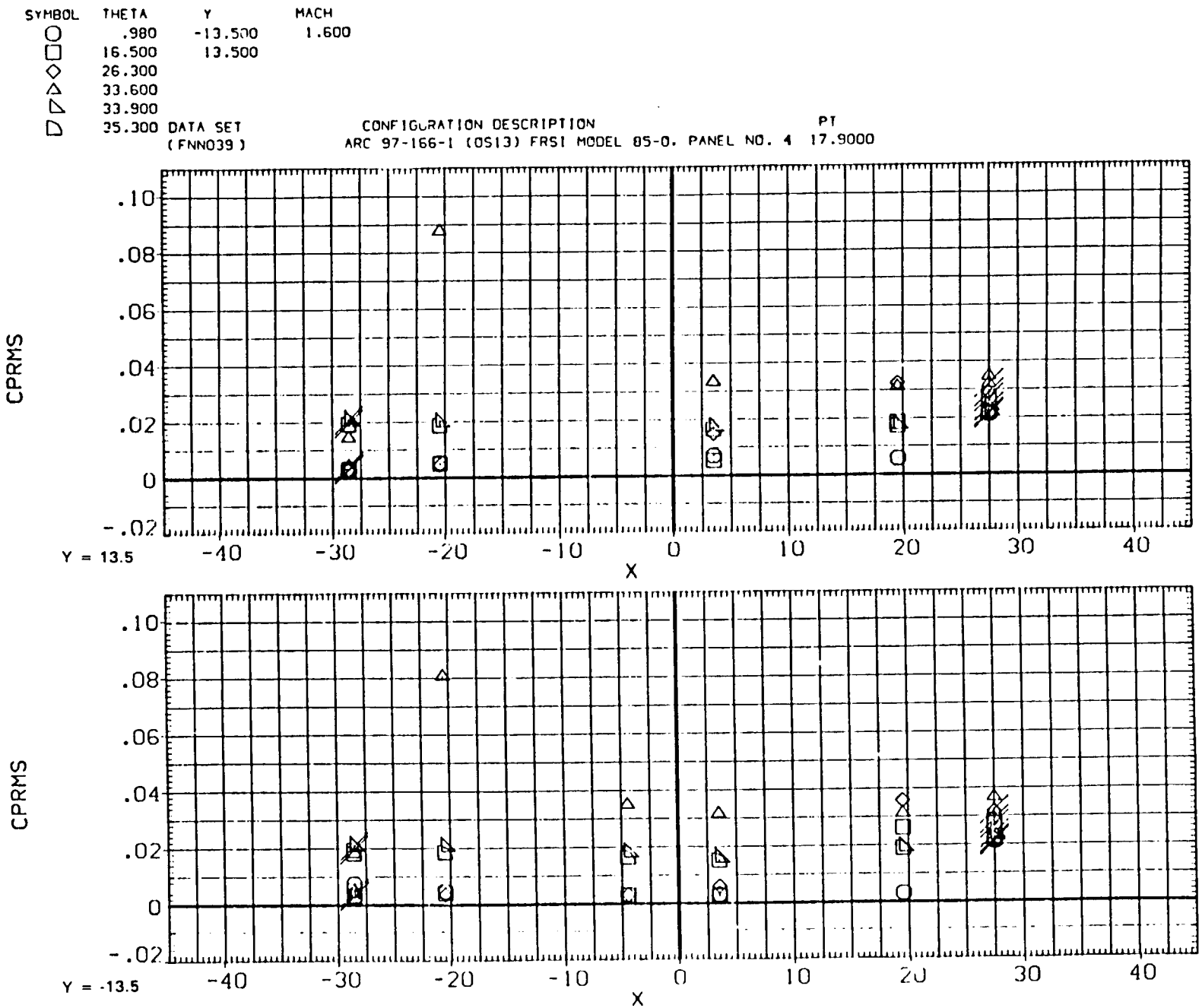


FIG. 9B EFFECT OF SHOCK POSITION (FLAP ANGLE), MACH=1.6

SYMBOL	THETA	Y	MACH
○	40.800	-13.500	2.000
□	44.700	13.500	
◇	67.800		

PARAMETRIC VALUES
Q(PSI) 4.330

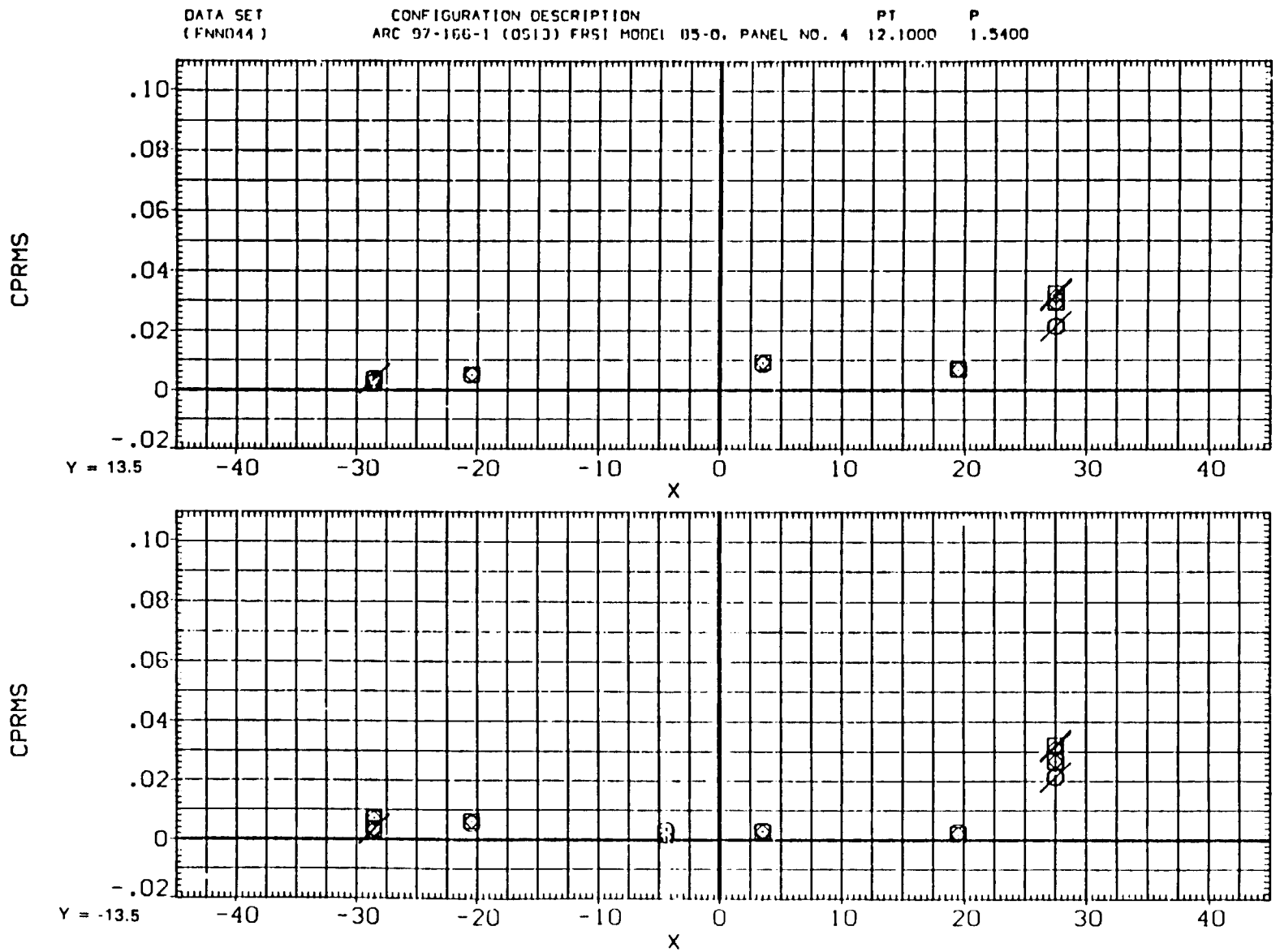


FIG. 10B EFFECT OF SHOCK POSITION (FLAP ANGLE), MACH=2.0

APPENDIX

TABULATED SOURCE DATA

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN001) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	12.700	P =	.750
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	2.370	THETA =	2.380

MACH (1) = 2.500 Q(PSI)(1) = 3.260 PT = 12.700 P = .75000 TTF = 112.00 R = 2.3700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0151	.0184	
-26.5000	-.0268				.0161
-24.5000	-.0007				.0157
-22.5000					.0165
-20.5000	.0382				.0086
-18.5000	.0148				.0101
-8.5000	.0144				
-6.5000	.0151				.0150
-4.5000	.0144				.0180
-2.5000	.0159				.0169
-.5000	.0125				.0127
1.5000	.0106				
3.5000	.0148				.0320
5.5000	.0106				.0090
7.5000	.0148				.0112
17.5000	.0026				
19.5000	.1067				
21.5000	.0056				.0071
23.5000	.0060				.0029
27.5000	.0772	.1177	.1181	.1184	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN002) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO	PT	=	19.600
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO	RHO	=	.000
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO	TTF	=	112.000
SCALE	=	1.0000							R	=	3.650

PARAMETRIC DATA

P	=	1.150			
V	=	1953.000			
TF	=	-206.000			
THETA	=	2.550			

MACH (1) = 2.500 Q(PSI)(1) = 5.030 PT = 19.600 P = 1.1500 TTF = 112.00 R = 3.6500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0116	.0095	
-26.5000	-.0118				.0092
-24.5000	-.0009				.0100
-22.5000					.0090
-20.5000	.0271				.0038
-18.5000	.0092				.0033
-8.5000	.0099				
-6.5000	.0092				.0070
-4.5000	.0084				.0124
-2.5000	.0084				.0080
-.5000	.0045				.0013
1.5000	.0052				
3.5000	.0074				.0174
5.5000	-.0007				-.0014
7.5000	.0065				.0011
17.5000	-.0047				
19.5000	.0615				
21.5000	.0030				.0025
23.5000	.0044				.0015
27.5000	.0753	.1151	.1146	.1156	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN003) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	15.700	P =	.920
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	2.920	THETA =	3.060

MACH (1) = 2.500 Q(PSI)(1) = 4.020 PT = 15.700 P = .92000 TTF = 112.00 R = 2.9200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0147	.0173	
-26.5000	-.0168				.0151
-24.5000	-.0003				.0148
-22.5000					.0151
-20.5000	.0319				.0081
-18.5000	.0132				.0084
-8.5000	.0141				
-6.5000	.0132				.0127
-4.5000	.0129				.0179
-2.5000	.0135				.0158
-.5000	.0104				.0106
1.5000	.0104				
3.5000	.0132				.0283
5.5000	.0077				.0078
7.5000	.0138				.0099
17.5000	-.0021				
19.5000	.0806				
21.5000	.0037				.0031
23.5000	.0046				.0013
27.5000	.0723	.1153	.1141	.1156	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN004) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO
SCALE	=	1.0000						

PARAMETRIC DATA

PT	=	16.800	P	=	.980
RHO	=	.000	V	=	1953.000
TTF	=	112.000	TF	=	-206.000
R	=	3.120	THETA	=	2.520

MACH (1) = 2.500 Q(PSI)(1) = 4.300 PT = 16.800 P = .98000 TTF = 112.00 R = 3.1200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0149	.0181	
-26.5000	-.0123				.0161
-24.5000	.0014				.0167
-22.5000					.0164
-20.5000	.0318				.0099
-18.5000	.0132				.0110
-8.5000	.0143				
-6.5000	.0132				.0141
-4.5000	.0129				.0190
-2.5000	.0135				.0159
-.5000	.0103				.0110
1.5000	.0103				
3.5000	.0126				.0293
5.5000	.0060				.0081
7.5000	.0126				.0101
17.5000	-.0008				
19.5000	.0761				
21.5000	.0052				.0047
23.5000	.0067				.0030
27.5000	.0784	.1157	.1169	.1166	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN005) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	18.400	P =	1.080
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	3.430	THETA =	2.990

MACH (1) = 2.500 Q(PSI)(1) = 4.720 PT = 18.400 P = 1.0800 TTF = 112.00 R = 3.4300

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0159	.0183	
-26.5000	-.0110				.0175
-24.5000	.0023				.0180
-22.5000					.0170
-20.5000	.0316				.0110
-18.5000	.0133				.0115
-8.5000	.0141				
-6.5000	.0128				.0141
-4.5000	.0125				.0201
-2.5000	.0120				.0167
-.5000	.0091				.0099
1.5000	.0096				
3.5000	.0122				.0274
5.5000	.0047				.0084
7.5000	.0120				.0102
17.5000	-.0025				
19.5000	.0674				
21.5000	.0043				.0040
23.5000	.0058				.0024
27.5000	.0763	.1171	.1155	.1176	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNN006) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	19.600	P =	1.150
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	3.650	THETA =	2.550

MACH (1) = 2.500 Q(PSI)(1) = 5.030 PT = 19.600 P = 1.1500 TTF = 112.00 R = 3.6500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0116	.0095	
-26.5000	-.0118				.0092
-24.5000	-.0009				.0100
-22.5000					.0090
-20.5000	.0271				.0038
-18.5000	.0092				.0033
-8.5000	.0099				
-6.5000	.0092				.0070
-4.5000	.0084				.0124
-2.5000	.0084				.0080
-.5000	.0045				.0013
1.5000	.0052				
3.5000	.0074				.0174
5.5000	-.0007				-.0014
7.5000	.0065				.0011
17.5000	-.0047				
19.5000	.0615				
21.5000	.0030				.0025
23.5000	.0044				.0015
27.5000	.0753	.1151	.1146	.1156	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN007) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	12.100	P =	1.540
RHO =	.000	V =	1731.000
TTF =	100.000	TF =	-149.000
R =	2.950	THETA =	40.800

MACH (1) = 2.000 Q(PSI)(1) = 4.330 PT = 12.100 P = 1.5400 TTF = 100.00 R = 2.9500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0265	.0226	
-26.5000	.0162				.0220
-24.5000	.0188				.0240
-22.5000					.0110
-20.5000	.0228				.0000
-18.5000	.0225				.0295
-8.5000	.0236				
-6.5000	.0268				.0280
-4.5000	.0242				.0363
-2.5000	.0279				.0283
-.5000	.0279				.0260
1.5000	.0268				
3.5000	.0314				.0372
5.5000	.0288				.0266
7.5000	.0377				.0260
17.5000	.0218				
19.5000	.0321				
21.5000	.0281				.0243
23.5000	.0272				.0215
27.5000	.2113	.2122	.2116	.2122	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO08) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	13.400	P =	1.700
RHO =	.000	V =	1737.000
TTF =	104.000	TF =	-147.000
R =	3.230	THETA =	1.360

MACH (1) = 2.000 Q(PSI)(1) = 4.780 PT = 13.400 P = 1.7000 TTF = 104.00 R = 3.2300

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0241	.0193	
-26.5000	.0137				.0180
-24.5000	.0144				.0220
-22.5000					.0020
-20.5000	.0194				.0000
-18.5000	.0194				.0232
-8.5000	.0196				
-6.5000	.0228				.0235
-4.5000	.0212				.0320
-2.5000	.0241				.0248
-.5000	.0241				.0221
1.5000	.0220				
3.5000	.0285				.0336
5.5000	.0248				.0227
7.5000	.0342				.0219
17.5000	.0189				
19.5000	.0275				
21.5000	.0262				.0228
23.5000	.0257				.0202
27.5000	.2111	.2119	.2124	.2129	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN009) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.500	P =	1.850
RHO =	.000	V =	1741.000
TTF =	107.000	TF =	-145.000
R =	3.480	THETA =	1.360

MACH (1) = 2.000 Q(PSI)(1) = 5.190 PT = 14.500 P = 1.8500 TTF = 107.00 R = 3.4800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0243	.0202	
-26.5000	.0143				.0200
-24.5000	.0159				.0226
-22.5000					.0000
-20.5000	.0207				.0000
-18.5000	.0200				.0250
-8.5000	.0198				
-6.5000	.0233				.0233
-4.5000	.0217				.0341
-2.5000	.0248				.0255
-.5000	.0248				.0233
1.5000	.0229				
3.5000	.0286				.0336
5.5000	.0262				.0243
7.5000	.0348				.0233
17.5000	.0180				
19.5000	.0271				
21.5000	.0264				.0230
23.5000	.0266				.0197
27.5000	.2127	.2094	.2094	.2048	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO1O) (O1 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO	PT =	15.700	P =	2.000
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO	RHO =	.000	V =	1749.000
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO	TTF =	112.000	TF =	-143.000
SCALE =	1.0000			R =	3.720	THETA =	1.360

PARAMETRIC DATA

MACH (1) = 2.000 Q(PSI)(1) = 5.610 PT = 15.700 P = 2.0000 TTF = 112.00 R = 3.7200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0248	.0200	
-26.5000	.0153				.0207
-24.5000	.0160				.0225
-22.5000					.0000
-20.5000	.0206				.0000
-18.5000	.0208				.0242
-8.5000	.0190				
-6.5000	.0235				.0214
-4.5000	.0199				.0349
-2.5000	.0244				.0251
-.5000	.0250				.0231
1.5000	.0228				
3.5000	.0272				.0349
5.5000	.0275				.0229
7.5000	.0341				.0225
17.5000	.0144				
19.5000	.0248				
21.5000	.0239				.0211
23.5000	.0237				.0180
27.5000	.2057	.2068	.2057	.2037	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO11) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	16.900	P =	2.140
RHO =	.000	V =	1757.000
TTF =	117.000	TF =	-140.000
R =	3.950	THETA =	1.360

MACH (1) = 2.000 Q(PSI)(1) = 6.030 PT = 16.900 P = 2.1400 TTF = 117.00 R = 3.9500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0172	.0133	
-26.5000	.0071				.0129
-24.5000	.0069				.0150
-22.5000					.0000
-20.5000	.0121				.0000
-18.5000	.0136				.0164
-8.5000	.0101				
-6.5000	.0151				.0122
-4.5000	.0101				.0281
-2.5000	.0157				.0166
-.5000	.0163				.0158
1.5000	.0138				
3.5000	.0180				.0262
5.5000	.0188				.0145
7.5000	.0261				.0150
17.5000	.0052				
19.5000	.0158				
21.5000	.0162				.0126
23.5000	.0145				.0097
27.5000	.2012	.1996	.1973	.1981	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO12) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO
SCALE	=	1.0000						

PARAMETRIC DATA

PT	=	18.100	P	=	2.300
RHO	=	.000	V	=	1764.000
TTF	=	122.000	TF	=	-137.000
R	=	4.190	THETA	=	1.360

MACH (1) = 2.000 Q(PSI)(1) = 6.480 PT = 18.100 P = 2.3000 TTF = 122.00 R = 4.1900

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0260	.0209	
-26.5000	.0158				.0211
-24.5000	.0164				.0229
-22.5000					.0000
-20.5000	.0212				.0000
-18.5000	.0218				.0242
-8.5000	.0181				
-6.5000	.0235				.0192
-4.5000	.0177				.0361
-2.5000	.0239				.0242
-.5000	.0243				.0229
1.5000	.0221				
3.5000	.0252				.0334
5.5000	.0269				.0223
7.5000	.0333				.0219
17.5000	.0116				
19.5000	.0212				
21.5000	.0229				.0192
23.5000	.0217				.0164
27.5000	.2047	.2009	.2003	.2007	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO13) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	12.000	P =	2.080
RHO =	.000	V =	1637.000
TTF =	108.000	TF =	-115.000
R =	3.110	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 4.720 PT = 12.000 P = 2.0800 TTF = 108.00 R = 3.1100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0124	.0074	
-26.5000	.0031				.0095
-24.5000	.0081				.0079
-22.5000					.0000
-20.5000	.0124				.0000
-18.5000	.0060				.0105
-8.5000	.0063				
-6.5000	.0084				-.0006
-4.5000	.0045				.0124
-2.5000	.0055				.0018
-.5000	.0055				.0013
1.5000	.0008				
3.5000	.0052				.0134
5.5000	.0045				.0042
7.5000	.0108				.0050
17.5000	.0006				
19.5000	.0082				
21.5000	.0046				.0056
23.5000	.0061				.0072
27.5000	.2180	.2138	.2172	.2193	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO14) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	13.200	P =	2.300
RHO =	.000	V =	1643.000
TTF =	112.000	TF =	-113.000
R =	3.390	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 5.210 PT = 13.200 P = 2.3000 TTF = 112.00 R = 3.3900

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0104	.0033	
-26.5000	.0032				.0088
-24.5000	.0094				.0071
-22.5000					.0000
-20.5000	.0130				.0000
-18.5000	.0075				.0104
-8.5000	.0073				
-6.5000	.0092				.0001
-4.5000	.0051				.0116
-2.5000	.0056				.0006
-.5000	.0068				.0006
1.5000	.0008				
3.5000	.0051				.0121
5.5000	.0049				.0025
7.5000	.0108				.0040
17.5000	.0012				
19.5000	.0069				
21.5000	.0055				.0055
23.5000	.0062				.0088
27.5000	.2193	.2179	.2170	.2222	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO15) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.600	P =	2.550
RHO =	.000	V =	1649.000
TTF =	116.000	TF =	-110.000
R =	3.730	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 5.780 PT = 14.600 P = 2.5500 TTF = 116.00 R = 3.7300

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0114	.0073	
-26.5000	.0044				.0118
-24.5000	.0119				.0118
-22.5000					.0000
-20.5000	.0149				.0000
-18.5000	.0091				.0137
-8.5000	.0084				
-6.5000	.0106				.0026
-4.5000	.0067				.0159
-2.5000	.0076				.0043
-.5000	.0080				.0041
1.5000	.0022				
3.5000	.0059				.0161
5.5000	.0057				.0060
7.5000	.0119				.0075
17.5000	.0021				
19.5000	.0072				
21.5000	.0070				.0068
23.5000	.0076				.0087
27.5000	.2184	.2169	.2195	.2189	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO16) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN. XO	PT	=	15.800	P	=	2.750
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN. YO	RHO	=	.000	V	=	1658.000
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN. ZO	TTF	=	122.000	TF	=	-107.000
SCALE	=	1.0000						R	=	3.970	THETA	=	1.360

PARAMETRIC DATA

MACH (1) = 1.800 Q(PSI)(1) = 6.240 PT = 15.800 P = 2.7500 TTF = 122.00 R = 3.9700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0183	.0135	
-26.5000	.0092				.0150
-24.5000	.0165				.0158
-22.5000					.0000
-20.5000	.0199				.0000
-18.5000	.0142				.0170
-8.5000	.0134				
-6.5000	.0146				.0056
-4.5000	.0100				.0182
-2.5000	.0114				.0073
-.5000	.0116				.0069
1.5000	.0057				
3.5000	.0096				.0182
5.5000	.0098				.0081
7.5000	.0159				.0099
17.5000	.0043				
19.5000	.0094				
21.5000	.0110				.0106
23.5000	.0115				.0127
27.5000	.2231	.2237	.2202	.2233	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO17) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	16.900	P =	2.940
RHO =	.000	V =	1665.000
TTF =	127.000	TF =	-104.000
R =	4.200	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 6.670 PT = 16.900 P = 2.9400 TTF = 127.00 R = 4.2000

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0219	.0160	
-26.5000	.0136				.0200
-24.5000	.0209				.0198
-22.5000					.0000
-20.5000	.0241				.0000
-18.5000	.0178				.0217
-8.5000	.0162				
-6.5000	.0187				.0100
-4.5000	.0147				.0224
-2.5000	.0156				.0114
-.5000	.0160				.0114
1.5000	.0094				
3.5000	.0134				.0224
5.5000	.0133				.0133
7.5000	.0195				.0142
17.5000	.0063				
19.5000	.0110				
21.5000	.0129				.0132
23.5000	.0136				.0145
27.5000	.2261	.2219	.2239	.2267	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO18) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	3.110
RHO =	.000	V =	1673.000
TTF =	133.000	TF =	-100.000
R =	4.380	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 7.050 PT = 17.900 P = 3.1100 TTF = 133.00 R = 4.3800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0106	.0057	
-26.5000	.0014				.0077
-24.5000	.0077				.0070
-22.5000					.0000
-20.5000	.0113				.0000
-18.5000	.0057				.0086
-8.5000	.0038				
-6.5000	.0057				-.0040
-4.5000	.0009				.0091
-2.5000	.0020				-.0020
-.5000	.0025				-.0020
1.5000	-.0041				
3.5000	.0005				.0087
5.5000	-.0005				-.0011
7.5000	.0048				.0000
17.5000	-.0070				
19.5000	-.0028				
21.5000	.0002				.0000
23.5000	.0011				.0023
27.5000	.2192	.2185	.2171	.2210	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO19) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.900	P =	2.960
RHO =	.000	V =	1603.000
TTF =	125.500	TF =	-88.500
R =	3.810	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 5.030 PT = 14.900 P = 2.9600 TTF = 125.50 R = 3.8100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0137	-.0183	
-26.5000	-.0277				-.0230
-24.5000	-.0171				-.0122
-22.5000					.0000
-20.5000	-.0017				.0000
-18.5000	-.0071				.0007
-8.5000	-.0053				
-6.5000	-.0029				-.0045
-4.5000	-.0063				.0132
-2.5000	-.0046				-.0048
-.5000	-.0029				.0002
1.5000	-.0071				
3.5000	-.0063				.0071
5.5000	-.0044				-.0050
7.5000	-.0007				-.0001
17.5000	-.0114				
19.5000	.0004				
21.5000	.0053				.0080
23.5000	.0048				.0048
27.5000	.2611	.2692	.2631	.2631	

MACH (1) = 1.800 Q(PSI)(2) = 7.050 PT = 14.900 P = 2.9600 TTF = 125.50 R = 3.8100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0135	.0086	
-26.5000	.0030				.0075
-24.5000	.0051				.0080
-22.5000					.0000
-20.5000	.0116				.0000
-18.5000	.0060				.0089
-8.5000	.0035				
-6.5000	.0048				-.0038
-4.5000	.0010				.0095
-2.5000	.0021				-.0015

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO19)

MACH (1) = 1.800 Q(PSI)(2) = 7.050

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-.5000	.0026				-.0016
1.5000	-.0040				
3.5000	-.0003				.0088
5.5000	-.0003				-.0006
7.5000	.0049				.0007
17.5000	-.0077				
19.5000	-.0036				
21.5000	-.0006				.0001
23.5000	.0003				.0018
27.5000	.2202	.2182	.2171	.2209	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN020) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	13.200	P =	3.100
RHO =	.000	V =	1537.000
TTF =	121.000	TF =	-76.000
R =	3.540	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 5.550 PT = 13.200 P = 3.1000 TTF = 121.00 R = 3.5400

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0144	-.0195	
-26.5000	-.0280				-.0229
-24.5000	-.0169				-.0117
-22.5000					.0000
-20.5000	-.0017				.0000
-18.5000	-.0068				-.0010
-8.5000	-.0046				
-6.5000	-.0033				-.0059
-4.5000	-.0064				.0135
-2.5000	-.0046				-.0048
-.5000	-.0033				-.0008
1.5000	-.0080				
3.5000	-.0066				.0066
5.5000	-.0048				-.0053
7.5000	-.0001				-.0010
17.5000	-.0125				
19.5000	-.0031				
21.5000	.0047				.0071
23.5000	.0038				.0038
27.5000	.2684	.2655	.2646	.2640	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO21) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.300	P =	3.380
RHO =	.000	V =	1543.000
TTF =	126.000	TF =	-72.000
R =	3.820	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 6.050 PT = 14.300 P = 3.3800 TTF = 126.00 R = 3.8200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0250	-.0297	
-26.5000	-.0392				-.0331
-24.5000	-.0279				-.0240
-22.5000					.0000
-20.5000	-.0118				.0000
-18.5000	-.0179				-.0073
-8.5000	-.0166				
-6.5000	-.0139				-.0167
-4.5000	-.0170				.0036
-2.5000	-.0158				-.0152
-.5000	-.0135				-.0108
1.5000	-.0193				
3.5000	-.0170				-.0035
5.5000	-.0151				-.0169
7.5000	-.0105				-.0119
17.5000	-.0247				
19.5000	-.0165				
21.5000	-.0069				-.0039
23.5000	-.0077				-.0071
27.5000	.2593	.2563	.2628	.2620	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO22) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	15.500	P =	3.650
RHO =	.000	V =	1551.000
TTF =	132.000	TF =	-68.000
R =	4.070	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 6.540 PT = 15.500 P = 3.6500 TTF = 132.00 R = 4.0700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0143	-.0179	
-26.5000	-.0270				-.0229
-24.5000	-.0160				-.0142
-22.5000					.0000
-20.5000	.0002				.0000
-18.5000	-.0062				.0019
-8.5000	-.0062				
-6.5000	-.0026				-.0058
-4.5000	-.0064				.0140
-2.5000	-.0043				-.0043
-.5000	-.0019				-.0007
1.5000	-.0087				
3.5000	-.0064				.0063
5.5000	-.0051				-.0064
7.5000	-.0002				-.0011
17.5000	-.0122				
19.5000	-.0047				
21.5000	.0051				.0071
23.5000	.0039				.0051
27.5000	.2630	.2615	.2639	.2645	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO23) (O1 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	16.700	P =	3.920
RHO =	.000	V =	1559.000
TTF =	138.000	TF =	-64.000
R =	4.320	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 7.030 PT = 16.700 P = 3.9200 TTF = 138.00 R = 4.3200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0134	-.0195	
-26.5000	-.0274				-.0243
-24.5000	-.0162				-.0138
-22.5000					.0000
-20.5000	-.0005				.0000
-18.5000	-.0051				.0005
-8.5000	-.0058				
-6.5000	-.0023				-.0073
-4.5000	-.0056				.0133
-2.5000	-.0037				-.0045
-.5000	-.0023				-.0025
1.5000	-.0090				
3.5000	-.0056				.0054
5.5000	-.0044				-.0077
7.5000	-.0005				-.0022
17.5000	-.0113				
19.5000	-.0046				
21.5000	.0059				.0087
23.5000	.0045				.0069
27.5000	.2673	.2630	.2630	.2654	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO24) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.210
RHO =	.000	V =	1568.000
TTF =	145.000	TF =	-60.000
R =	4.560	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 7.540 PT = 17.900 P = 4.2100 TTF = 145.00 R = 4.5600

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0146	-.0187	
-26.5000	-.0274				-.0224
-24.5000	-.0164				-.0128
-22.5000					.0000
-20.5000	.0010				.0000
-18.5000	-.0067				.0016
-8.5000	-.0059				
-6.5000	-.0026				-.0067
-4.5000	-.0059				.0141
-2.5000	-.0041				-.0038
-.5000	-.0026				-.0011
1.5000	-.0098				
3.5000	-.0056				.0059
5.5000	-.0048				-.0072
7.5000	.0000				-.0015
17.5000	-.0140				
19.5000	-.0082				
21.5000	.0037				.0066
23.5000	.0020				.0035
27.5000	.2669	.2659	.2635	.2674	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO25) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO	PT	=	12.300
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO	RHO	=	.000
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO	TTF	=	123.000
SCALE	=	1.0000							R	=	3.350

PARAMETRIC DATA

P	=	3.120			
V	=	1507.000			
TF	=	-66.000			
THETA	=	1.360			

MACH (1) = 1.550 Q(PSI)(1) = 5.250 PT = 12.300 P = 3.1200 TTF = 123.00 R = 3.3500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0131	-.0184	
-26.5000	-.0324				-.0232
-24.5000	-.0291				-.0199
-22.5000					.0000
-20.5000	-.0210				.0000
-18.5000	-.0176				-.0189
-8.5000	-.0160				
-6.5000	-.0145				-.0125
-4.5000	-.0200				.0066
-2.5000	-.0181				-.0101
-.5000	-.0148				-.0032
1.5000	-.0102				
3.5000	-.0114				.0021
5.5000	-.0121				-.0153
7.5000	-.0102				-.0144
17.5000	-.0171				
19.5000	-.0107				
21.5000	-.0053				-.0103
23.5000	.0078				-.0027
27.5000	.2735	.2706	.2673	.2701	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN026) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	13.400	P =	3.390
RHO =	.000	V =	1510.000
TTF =	125.000	TF =	-65.000
R =	3.620	THETA =	1.360

MACH (1) = 1.550 Q(PSI)(1) = 5.690 PT = 13.400 P = 3.3900 TTF = 125.00 R = 3.6200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0079	-.0105	
-26.5000	-.0276				-.0150
-24.5000	-.0241				-.0111
-22.5000					.0000
-20.5000	-.0175				.0000
-18.5000	-.0129				-.0111
-8.5000	-.0110				
-6.5000	-.0094				-.0042
-4.5000	-.0158				.0140
-2.5000	-.0136				-.0025
-.5000	-.0114				.0047
1.5000	-.0062				
3.5000	-.0055				.0112
5.5000	-.0081				-.0077
7.5000	-.0060				-.0053
17.5000	-.0182				
19.5000	-.0108				
21.5000	-.0051				-.0101
23.5000	.0072				-.0038
27.5000	.2730	.2786	.2749	.2756	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO27) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN. XO	PT	=	14.500	P	=	3.670
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN. YO	RHO	=	.000	V	=	1516.000
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN. ZO	TTF	=	130.000	TF	=	-61.000
SCALE	=	1.0000						R	=	3.880	THETA	=	1.360

PARAMETRIC DATA

MACH (1) = 1.550 Q(PSI)(1) = 6.180 PT = 14.500 P = 3.6700 TTF = 130.00 R = 3.8800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0076	-.0140	
-26.5000	-.0282				-.0186
-24.5000	-.0251				-.0152
-22.5000					.0000
-20.5000	-.0177				.0000
-18.5000	-.0142				-.0162
-8.5000	-.0124				
-6.5000	-.0104				-.0087
-4.5000	-.0173				.0090
-2.5000	-.0146				-.0073
-.5000	-.0120				.0010
1.5000	-.0080				
3.5000	-.0070				.0062
5.5000	-.0086				-.0126
7.5000	-.0066				-.0108
17.5000	-.0170				
19.5000	-.0097				
21.5000	-.0037				-.0079
23.5000	.0068				-.0031
27.5000	.2743	.2739	.2751	.2753	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO28) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	15.800	P =	4.000
RHO =	.000	V =	1524.000
TTF =	136.000	TF =	-57.000
R =	4.170	THETA =	1.360

MACH (1) = 1.550 Q(PSI)(1) = 6.730 PT = 15.800 P = 4.0000 TTF = 136.00 R = 4.1700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0039	-.0111	
-26.5000	-.0248				-.0163
-24.5000	-.0212				-.0109
-22.5000					.0000
-20.5000	-.0146				.0000
-18.5000	-.0112				-.0120
-8.5000	-.0089				
-6.5000	-.0063				-.0063
-4.5000	-.0133				.0131
-2.5000	-.0112				-.0045
-.5000	-.0096				.0034
1.5000	-.0048				
3.5000	-.0030				.0095
5.5000	-.0046				-.0093
7.5000	-.0030				-.0082
17.5000	-.0145				
19.5000	-.0054				
21.5000	.0008				-.0030
23.5000	.0117				.0012
27.5000	.2800	.2815	.2738	.2757	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN029) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.100	P =	4.330
RHO =	.000	V =	1533.000
TTF =	143.000	TF =	-53.000
R =	4.440	THETA =	1.360

MACH (1) = 1.550 Q(PSI)(1) = 7.280 PT = 17.100 P = 4.3300 TTF = 143.00 R = 4.4400

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0039	-.0102	
-26.5000	-.0248				-.0152
-24.5000	-.0214				-.0109
-22.5000					.0000
-20.5000	-.0138				.0000
-18.5000	-.0109				-.0097
-8.5000	-.0092				
-6.5000	-.0068				-.0062
-4.5000	-.0136				.0135
-2.5000	-.0116				-.0035
-.5000	-.0094				.0040
1.5000	-.0056				
3.5000	-.0026				.0109
5.5000	-.0053				-.0086
7.5000	-.0027				-.0065
17.5000	-.0149				
19.5000	-.0079				
21.5000	-.0020				-.0047
23.5000	.0092				-.0010
27.5000	.2814	.2780	.2767	.2836	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN030) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO	PT	=	18.500
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO	RHO	=	.000
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO	TTF	=	152.000
SCALE	=	1.0000							R	=	4.710

PARAMETRIC DATA

P	=	4.680			
V	=	1544.000			
TF	=	-46.000			
THETA	=	1.360			

MACH (1) = 1.550 Q(PSI)(1) = 7.870 PT = 18.500 P = 4.6800 TTF = 152.00 R = 4.7100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0050	-.0130	
-26.5000	-.0246				-.0174
-24.5000	-.0223				-.0130
-22.5000					.0000
-20.5000	-.0143				.0000
-18.5000	-.0102				-.0098
-8.5000	-.0089				
-6.5000	-.0075				-.0062
-4.5000	-.0133				.0130
-2.5000	-.0114				-.0041
-.5000	-.0091				.0028
1.5000	-.0056				
3.5000	-.0032				.0100
5.5000	-.0056				-.0104
7.5000	-.0023				-.0082
17.5000	-.0176				
19.5000	-.0107				
21.5000	-.0025				-.0061
23.5000	.0077				-.0003
27.5000	.2858	.2781	.2804	.2792	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN031) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000	SQ.FT.	XMRP =	.0000	IN. XO	PT =	17.900	P =	4.210
LREF =	24.0000	INCHES	YMRP =	.0000	IN. YO	RHO =	.000	V =	1553.000
BREF =	54.0000	INCHES	ZMRP =	.0000	IN. ZO	TTF =	133.000	TF =	-68.000
SCALE =	1.0000					R =	4.680	Q(PSI) =	7.540

PARAMETRIC DATA

MACH (1) = 1.600 THETA (1) = .980 PT = 17.900 P = 4.2100 TTF = 133.00 R = 4.6800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0040	-.0109	
-26.5000	-.0195				-.0163
-24.5000	-.0118				-.0109
-22.5000					.0000
-20.5000	.0013				.0000
-18.5000	-.0022				.0055
-8.5000	-.0013				
-6.5000	-.0008				-.0028
-4.5000	-.0027				.0153
-2.5000	-.0008				.0001
-.5000	.0016				.0017
1.5000	-.0057				
3.5000	-.0009				.0087
5.5000	-.0009				-.0041
7.5000	.0035				.0026
17.5000	-.0062				
19.5000	-.0059				
21.5000	.0090				.0110
23.5000	.0075				.0079
27.5000	.2651	.2600	.2626	.2669	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO33) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.200
RHO =	.000	V =	1559.000
TTF =	138.000	TF =	-64.000
R =	4.630	Q(PSI) =	7.530

MACH (1) = 1.600 THETA (1) = 26.300 PT = 17.900 P = 4.2000 TTF = 138.00 R = 4.6300

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0061	-.0131	
-26.5000	-.0165				-.0168
-24.5000	-.0100				-.0102
-22.5000					.0000
-20.5000	.0012				.0000
-18.5000	-.0015				.0060
-8.5000	-.0007				
-6.5000	.0006				-.0022
-4.5000	-.0016				.0171
-2.5000	.0003				.0004
-.5000	.0024				.0021
1.5000	-.0045				
3.5000	-.0007				.0164
5.5000	.0129				.0216
7.5000	.0656				.0848
17.5000	.3991				
19.5000	.4150				
21.5000	.4348				.4325
23.5000	.4545				.4575
27.5000	.4747	.4827	.4814	.4826	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO35) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.200
RHO =	.000	V =	1565.000
TTF =	142.000	TF =	-62.000
R =	4.590	Q(PSI) =	7.530

MACH (1) = 1.600 THETA (1) = 35.300 PT = 17.900 P = 4.2000 TTF = 142.00 R = 4.5900

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.9448	.9401	
-26.5000	.9487				.9527
-24.5000	.9443				.9578
-22.5000					.0000
-20.5000	.9660				.0000
-18.5000	.9748				.9818
-8.5000	1.0069				
-6.5000	1.0148				1.0161
-4.5000	1.0223				1.0312
-2.5000	1.0316				1.0352
-.5000	1.0459				1.0435
1.5000	1.0498				
3.5000	1.0663				1.0701
5.5000	.0000				1.0711
7.5000	1.0942				1.0889
17.5000	1.1727				
19.5000	1.1847				
21.5000	1.2138				1.2058
23.5000	1.2335				1.2283
27.5000	1.2704	1.2774	1.2835	1.2693	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN036) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.200
RHO =	.000	V =	1566.000
TTF =	143.000	TF =	-61.000
R =	4.580	Q(PSI) =	7.530

MACH (1) = 1.600 THETA (1) = 33.900 PT = 17.900 P = 4.2000 TTF = 143.00 R = 4.5800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.9263	.9193	
-26.5000	.9325				.9240
-24.5000	.9292				.9338
-22.5000					.0000
-20.5000	.9445				.0000
-18.5000	.9458				.9493
-8.5000	.9856				
-6.5000	.9868				.9885
-4.5000	1.0001				1.0108
-2.5000	1.0155				1.0139
-.5000	1.0225				1.0198
1.5000	1.0302				
3.5000	1.0473				1.0452
5.5000	.0000				1.0532
7.5000	1.0747				1.0689
17.5000	1.1519				
19.5000	1.1645				
21.5000	1.1947				1.1918
23.5000	1.2161				1.1994
27.5000	1.2507	1.2525	1.2587	1.2541	.

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN037) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.200
RHO =	.000	V =	1568.000
TTF =	145.000	TF =	-60.000
R =	4.560	Q(PSI) =	7.530

MACH (1) = 1.600 THETA (1) = 33.600 PT = 17.900 P = 4.2000 TTF = 145.00 R = 4.5600

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0107	-.0190	
-26.5000	-.0213				-.0208
-24.5000	-.0059				.0435
-22.5000					.0000
-20.5000	.1804				.0000
-18.5000	.2570				.2491
-8.5000	.4165				
-6.5000	.4340				.4435
-4.5000	.4448				.4375
-2.5000	.4570				.4552
-.5000	.4567				.4745
1.5000	.4826				
3.5000	.4892				.4686
5.5000	.0000				.4883
7.5000	.5037				.5099
17.5000	.5440				
19.5000	.5417				
21.5000	.5505				.5524
23.5000	.5594				.5651
27.5000	.5816	.5803	.5671	.5982	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO39) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.200
RHO =	.000	V =	1571.000
TTF =	147.000	TF =	-58.000
R =	4.540	Q(PSI) =	7.530

MACH (1) = 1.600 THETA (1) = 16.500 PT = 17.900 P = 4.2000 TTF = 147.00 R = 4.5400

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			-.0109	-.0172	
-26.5000	-.0210				-.0203
-24.5000	-.0128				-.0144
-22.5000					.0000
-20.5000	.0021				.0000
-18.5000	-.0024				.0034
-8.5000	-.0032				
-6.5000	.0000				-.0028
-4.5000	-.0044				.0155
-2.5000	-.0021				-.0023
-.5000	.0000				.0008
1.5000	-.0075				
3.5000	-.0039				.0068
5.5000	.0000				-.0054
7.5000	.0028				.0006
17.5000	-.0092				
19.5000	.0009				
21.5000	.2093				.1650
23.5000	.2804				.2820
27.5000	.3766	.3869	.3838	.3825	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO41) (O1 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	19.900	P =	3.470
RHO =	.000	V =	1696.000
TTF =	149.000	TF =	-90.000
R =	4.710	THETA =	.310

MACH (1) = 1.800 Q(PSI)(1) = 7.870 PT = 19.900 P = 3.4700 TTF = 149.00 R = 4.7100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0300	.0240	
-26.5000	.0230				.0255
-24.5000	.0246				.0238
-22.5000					.0000
-20.5000	.0294				.0000
-18.5000	.0246				.0281
-8.5000	.0233				
-6.5000	.0251				.0161
-4.5000	.0207				.0283
-2.5000	.0216				.0177
-.5000	.0220				.0172
1.5000	.0139				
3.5000	.0191				.0281
5.5000	.0000				.0178
7.5000	.0236				.0197
17.5000	.0120				
19.5000	.0097				
21.5000	.0000				.0199
23.5000	.0000				.0208
27.5000	.2252	.2229	.2260	.2279	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO42) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	24.300	P =	3.090
RHO =	.000	V =	1820.000
TTF =	159.000	TF =	-117.000
R =	5.170	THETA =	1.110

MACH (1) = 2.000 Q(PSI)(1) = 8.690 PT = 24.300 P = 3.0900 TTF = 159.00 R = 5.1700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0325	.0264	
-26.5000	.0237				.0268
-24.5000	.0201				.0263
-22.5000					.0000
-20.5000	.0285				.0000
-18.5000	.0280				.0287
-8.5000	.0250				
-6.5000	.0311				.0260
-4.5000	.0237				.0423
-2.5000	.0300				.0294
-.5000	.0304				.0287
1.5000	.0273				
3.5000	.0311				.0377
5.5000	.0000				.0264
7.5000	.0380				.0270
17.5000	.0181				
19.5000	.0199				
21.5000	.0000				.0265
23.5000	.0000				.0231
27.5000	.2044	.2022	.2001	.2009	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNN043) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	26.800	P =	1.570
RHO =	.000	V =	2012.000
TTF =	147.000	TF =	-190.000
R =	4.570	THETA =	1.070

MACH (1) = 2.500 Q(PSI)(1) = 6.850 PT = 26.800 P = 1.5700 TTF = 147.00 R = 4.5700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0102	.0094	
-26.5000	.0032				.0087
-24.5000	.0003				.0092
-22.5000					.0000
-20.5000	.0105				.0000
-18.5000	.0120				.0099
-8.5000	.0154				
-6.5000	.0168				.0089
-4.5000	.0148				.0180
-2.5000	.0139				.0123
-.5000	.0130				.0099
1.5000	.0096				
3.5000	.0130				.0128
5.5000	.0000				.0053
7.5000	.0222				.0078
17.5000	.0086				
19.5000	.0135				
21.5000	.0000				.0122
23.5000	.0000				.0160
27.5000	.1289	.1218	.1198	.1238	

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (RNNO44) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT	=	12.100	P	=	1.540
RHO	=	.000	V	=	1749.000
TTF	=	112.000	TF	=	-143.000
R	=	2.870	Q(PSI)	=	4.330

MACH (1) = 2.000 THETA (1) = 44.700 PT = 12.100 P = 1.5400 TTF = 112.00 R = 2.8700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0455	.0386	
-26.5000	.0326				.0352
-24.5000	.0300				.0360
-22.5000					.0000
-20.5000	.0382				.0000
-18.5000	.0382				.0439
-8.5000	.0379				
-6.5000	.0421				.0408
-4.5000	.0382				.0490
-2.5000	.0435				.0465
-.5000	.0795				.0560
1.5000	.1149				
3.5000	.2138				.2391
5.5000	.0000				.2867
7.5000	.3265				.3228
17.5000	.4237				
19.5000	.4399				
21.5000	.0000				.4413
23.5000	.0000				.4453
27.5000	.4739	.4747	.4800	.4714	

MACH (1) = 2.000 THETA (2) = 67.800 PT = 12.100 P = 1.5400 TTF = 112.00 R = 2.8700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-28.5000			.0409	.0332	
-26.5000	.0259				.0300
-24.5000	.0251				.0303
-22.5000					.0000
-20.5000	.0327				.0000
-18.5000	.0471				.0417
-8.5000	.3041				
-6.5000	.3363				.3215
-4.5000	.3594				.3430
-2.5000	.3730				.3751

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (RNNO44)

MACH (1) = 2.000 THETA (2) = 67.800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE CP

Y	-13.5000	-6.5000	-.5000	6.5000	13.5000
X					
-.5000	.3939				.3847
1.5000	.4142				
3.5000	.4219				.4167
5.5000	.0000				.4250
7.5000	.4442				.4343
17.5000	.4586				
19.5000	.4508				
21.5000	.0000				.4505
23.5000	.0000				.4634
27.5000	.5133	.5311	.5378	.5226	

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO01) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	12.700	P =	.750
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	2.370	THETA =	2.380

MACH (1) = 2.500 Q(PSI)(1) = 3.260 PT = 12.700 P = .75000 TTF = 112.00 R = 2.3700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0086	.0028	.0021
-20.5000	.0128		.0087
-4.5000	.0023		
3.5000	.0059		.0104
19.5000	.0034		.0070
27.5000	.0283	.0179	.0155

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNN002) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO				
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO				
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO				
SCALE =	1.0000						

PARAMETRIC DATA

PT =	19.600	P =	1.150
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	3.650	THETA =	2.550

MACH (1) = 2.500 Q(PSI)(1) = 5.030 PT = 19.600 P = 1.1500 TTF = 112.00 R = 3.6500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0084	.0026	.0018
-20.5000	.0124		.0086
-4.5000	.0020		
3.5000	.0063		.0090
19.5000	.0027		.0079
27.5000	.0186	.0163	.0224

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN003) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO				
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO				
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO				
SCALE =	1.0000						

PARAMETRIC DATA

PT =	15.700	P =	.920
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	2.920	THETA =	3.060

MACH (1) = 2.500 Q(PSI)(1) = 4.020 PT = 15.700 P = .92000 TTF = 112.00 R = 2.9200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0088	.0027	.0019
-20.5000	.0127		.0085
-4.5000	.0022		
3.5000	.0067		.0093
19.5000	.0030		.0086
27.5000	.0230	.0174	.0186

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN004) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	16.800	P =	.980
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	3.120	THETA =	2.520

MACH (1) = 2.500 Q(PSI)(1) = 4.300 PT = 16.800 P = .98000 TTF = 112.00 R = 3.1200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0086	.0027	.0018
-20.5000	.0127		.0085
-4.5000	.0021		
3.5000	.0067		.0091
19.5000	.0030		.0084
27.5000	.0212	.0167	.0204

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNN005) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	18.400	P =	1.080
RHO =	.000	V =	1953.000
TTF =	112.000	TF =	-206.000
R =	3.430	THETA =	2.990

MACH (1) = 2.500 Q(PSI)(1) = 4.720 PT = 18.400 P = 1.0800 TTF = 112.00 R = 3.4300

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0085	.0027	.0019
-20.5000	.0124		.0086
-4.5000	.0021		
3.5000	.0064		.0091
19.5000	.0028		.0080
27.5000	.0198	.0166	.0216

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN006) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO	PT =	19.600	P =	1.150
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO	RHO =	.000	V =	1953.000
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO	TTF =	112.000	TF =	-206.000
SCALE =	1.0000			R =	3.650	THETA =	2.550

PARAMETRIC DATA

MACH (1) = 2.500 Q(PSI)(1) = 5.030 PT = 19.600 P = 1.1500 TTF = 112.00 R = 3.6500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0084	.0026	.0018
-20.5000	.0124		.0086
-4.5000	.0020		
3.5000	.0063		.0090
19.5000	.0027		.0079
27.5000	.0186	.0163	.0224

C-2

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN007) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	12.100	P =	1.540
RHO =	.000	V =	1731.000
TTF =	100.000	TF =	-149.000
R =	2.950	THETA =	40.800

MACH (1) = 2.000 Q(PSI)(1) = 4.330 PT = 12.100 P = 1.5400 TTF = 100.00 R = 2.9500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0074	.0039	.0027
-20.5000	.0057		.0048
-4.5000	.0036		
3.5000	.0035		.0088
19.5000	.0030		.0068
27.5000	.0214	.0218	.0214

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN008) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	13.400	P =	1.700
RHO =	.000	V =	1737.000
TTF =	104.000	TF =	-147.000
R =	3.230	THETA =	1.360

MACH (1) = 2.000 Q(PSI)(1) = 4.780 PT = 13.400 P = 1.7000 TTF = 104.00 R = 3.2300

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0073	.0038	.0027
-20.5000	.0057		.0048
-4.5000	.0034		
3.5000	.0034		.0084
19.5000	.0030		.0066
27.5000	.0214	.0219	.0215

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN009) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.500	P =	1.850
RHO =	.000	V =	1741.000
TTF =	107.000	TF =	-145.000
R =	3.480	THETA =	1.360

MACH (1) = 2.000 Q(PSI)(1) = 5.190 PT = 14.500 P = 1.8500 TTF = 107.00 R = 3.4800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0072	.0031	.0027
-20.5000	.0055		.0047
-4.5000	.0033		
3.5000	.0033		.0082
19.5000	.0030		.0068
27.5000	.0212	.0225	.0214

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO1O) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	15.700	P =	2.000
RHO =	.000	V =	1749.000
TTF =	112.000	TF =	-143.000
R =	3.720	THETA =	1.360

MACH (1) = 2.000 Q(PSI)(1) = 5.610 PT = 15.700 P = 2.0000 TTF = 112.00 R = 3.7200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0071	.0031	.0026
-20.5000	.0054		.0047
-4.5000	.0033		
3.5000	.0031		.0080
19.5000	.0030		.0063
27.5000	.0211	.0215	.0214

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO11) (O1 JUL 81)

REFERENCE DATA

SREF =	1296.0000	SQ.FT.	XMRP =	.0000	IN.	XO	
LREF =	24.0000	INCHES	YMRP =	.0000	IN.	YO	
BREF =	54.0000	INCHES	ZMRP =	.0000	IN.	ZO	
SCALE =	1.0000						

PARAMETRIC DATA

PT	=	16.900	P	=	2.140
RHO	=	.000	V	=	1757.000
TTF	=	117.000	TF	=	-140.000
R	=	3.950	THETA	=	1.360

MACH (1) = 2.000 Q(PSI)(1) = 6.030 PT = 16.900 P = 2.1400 TTF = 117.00 R = 3.9500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0070	.0031	.0026
-20.5000	.0053		.0047
-4.5000	.0031		
3.5000	.0027		.0078
19.5000	.0030		.0062
27.5000	.0210	.0209	.0211

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO12) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	18.100	P =	2.300
RHO =	.000	V =	1764.000
TTF =	122.000	TF =	-137.000
R =	4.190	THETA =	1.360

MACH (1) = 2.000 Q(PSI)(1) = 6.480 PT = 18.100 P = 2.3000 TTF = 122.00 R = 4.1900

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0068	.0030	.0024
-20.5000	.0053		.0047
-4.5000	.0030		
3.5000	.0026		.0075
19.5000	.0029		.0059
27.5000	.0201	.0210	.0212

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO13) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO	PT	=	12.000
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO	RHO	=	.000
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO	TTF	=	108.000
SCALE	=	1.0000							R	=	3.110

PARAMETRIC DATA

P	=	2.080			
V	=	1637.000			
TF	=	-115.000			
THETA	=	1.360			

MACH (1) = 1.800 Q(PSI)(1) = 4.720 PT = 12.000 P = 2.0800 TTF = 108.00 R = 3.1100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0074	.0052	.0043
-20.5000	.0057		.0051
-4.5000	.0031		
3.5000	.0032		.0078
19.5000	.0030		.0061
27.5000	.0209	.0219	.0208

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO14) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	13.200	P =	2.300
RHO =	.000	V =	1643.000
TTF =	112.000	TF =	-113.000
R =	3.390	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 5.210 PT = 13.200 P = 2.3000 TTF = 112.00 R = 3.3900

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0070	.0054	.0039
-20.5000	.0055		.0049
-4.5000	.0031		
3.5000	.0031		.0076
19.5000	.0026		.0061
27.5000	.0213	.0223	.0212

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO15) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.600	P =	2.550
RHO =	.000	V =	1649.000
TTF =	116.000	TF =	-110.000
R =	3.730	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 5.780 PT = 14.600 P = 2.5500 TTF = 116.00 R = 3.7300

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0069	.0056	.0039
-20.5000	.0055		.0049
-4.5000	.0030		
3.5000	.0031		.0077
19.5000	.0030		.0060
27.5000	.0211	.0219	.0211

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO16) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000	SQ.FT.	XMRP =	.0000	IN.	XO	
LREF =	24.0000	INCHES	YMRP =	.0000	IN.	YO	
BREF =	54.0000	INCHES	ZMRP =	.0000	IN.	ZO	
SCALE =	1.0000						

PARAMETRIC DATA

PT =	15.800	P =	2.750
RHO =	.000	V =	1658.000
TTF =	122.000	TF =	-107.000
R =	3.970	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 6.240 PT = 15.800 P = 2.7500 TTF = 122.00 R = 3.9700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0068	.0055	.0037
-20.5000	.0053		.0049
-4.5000	.0029		
3.5000	.0030		.0074
19.5000	.0029		.0059
27.5000	.0213	.0195	.0212

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO17) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	16.900	P =	2.940
RHO =	.000	V =	1665.000
TTF =	127.000	TF =	-104.000
R =	4.200	THETA =	1.360

MACH (1) = 1.800 Q(PSI)(1) = 6.670 PT = 16.900 P = 2.9400 TTF = 127.00 R = 4.2000

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0068	.0054	.0040
-20.5000	.0053		.0048
-4.5000	.0029		
3.5000	.0027		.0073
19.5000	.0029		.0058
27.5000	.0210	.0214	.0210

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO18) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000	SQ.FT.	XMRP =	.0000	IN.	XO	
LREF =	24.0000	INCHES	YMRP =	.0000	IN.	YO	
BREF =	54.0000	INCHES	ZMRP =	.0000	IN.	ZO	
SCALE =	1.0000						

PARAMETRIC DATA

PT =	17.900	P =	3.110		
RHO =	.000	V =	1673.000		
TTF =	133.000	TF =	-100.000		
R =	4.380	THETA =	1.360		

MACH (1) = 1.800 Q(PSI)(1) = 7.050 PT = 17.900 P = 3.1100 TTF = 133.00 R = 4.3800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0068	.0054	.0039
-20.5000	.0053		.0049
-4.5000	.0028		
3.5000	.0029		.0072
19.5000	.0025		.0059
27.5000	.0210	.0195	.0210

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO19) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.900	P =	2.960
RHO =	.000	V =	1603.000
TTF =	125.500	TF =	-88.500
R =	3.810	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 5.030 PT = 14.900 P = 2.9600 TTF = 125.50 R = 3.8100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0071	.0039	.0028
-20.5000	.0053		.0053
-4.5000	.0033		
3.5000	.0032		.0074
19.5000	.0035		.0054
27.5000	.0215	.0218	.0212

MACH (1) = 1.800 Q(PSI)(2) = 7.050 PT = 14.900 P = 2.9600 TTF = 125.50 R = 3.8100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0070	.0049	.0037
-20.5000	.0053		.0048
-4.5000	.0028		
3.5000	.0029		.0072
19.5000	.0028		.0058
27.5000	.0207	.0216	.0208

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO20) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO
SCALE	=	1.0000						

PARAMETRIC DATA

PT	=	13.200	P	=	3.100
RHO	=	.000	V	=	1537.000
TTF	=	121.000	TF	=	-76.000
R	=	3.540	THETA	=	1.360

MACH (1) = 1.600 Q(PSI)(1) = 5.550 PT = 13.200 P = 3.1000 TTF = 121.00 R = 3.5400

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0070	.0034	.0031
-20.5000	.0052		.0052
-4.5000	.0032		
3.5000	.0032		.0072
19.5000	.0036		.0054
27.5000	.0215	.0218	.0220

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO21) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.300	P =	3.380
RHO =	.000	V =	1543.000
TTF =	126.000	TF =	-72.000
R =	3.820	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 6.050 PT = 14.300 P = 3.3800 TTF = 126.00 R = 3.8200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0069	.0033	.0027
-20.5000	.0051		.0051
-4.5000	.0032		
3.5000	.0031		.0070
19.5000	.0036		.0052
27.5000	.0221	.0219	.0212

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO22) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	15.500	P =	3.650
RHO =	.000	V =	1551.000
TTF =	132.000	TF =	-68.000
R =	4.070	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 6.540 PT = 15.500 P = 3.6500 TTF = 132.00 R = 4.0700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0069	.0032	.0027
-20.5000	.0050		.0050
-4.5000	.0030		
3.5000	.0029		.0068
19.5000	.0034		.0052
27.5000	.0214	.0217	.0210

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN023) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	16.700	P =	3.920
RHO =	.000	V =	1559.000
TTF =	138.000	TF =	-64.000
R =	4.320	THETA =	1.360

MACH (1) = 1.600 Q(PSI)(1) = 7.030 PT = 16.700 P = 3.9200 TTF = 138.00 R = 4.3200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0072	.0033	.0027
-20.5000	.0052		.0050
-4.5000	.0030		
3.5000	.0030		.0070
19.5000	.0035		.0054
27.5000	.0216	.0220	.0209

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO24) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO
SCALE	=	1.0000						

PARAMETRIC DATA

PT	=	17.900	P	=	4.210
RHO	=	.000	V	=	1568.000
TTF	=	145.000	TF	=	-60.000
R	=	4.560	THETA	=	1.360

MACH (1) = 1.600 Q(PSI)(1) = 7.540 PT = 17.900 P = 4.2100 TTF = 145.00 R = 4.5600

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0069	.0032	.0031
-20.5000	.0051		.0051
-4.5000	.0030		
3.5000	.0030		.0069
19.5000	.0035		.0053
27.5000	.0217	.0208	.0207

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO25) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000	SQ.FT.	XMRP =	.0000	IN.	XO	
LREF =	24.0000	INCHES	YMRP =	.0000	IN.	YO	
BREF =	54.0000	INCHES	ZMRP =	.0000	IN.	ZO	
SCALE =	1.0000						

PARAMETRIC DATA

PT =	12.300	P =	3.120
RHO =	.000	V =	1507.000
TTF =	123.000	TF =	-66.000
R =	3.350	THETA =	1.360

MACH (1) = 1.550 Q(PSI)(1) = 5.250 PT = 12.300 P = 3.1200 TTF = 123.00 R = 3.3500

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0068	.0033	.0032
-20.5000	.0050		.0051
-4.5000	.0032		
3.5000	.0033		.0072
19.5000	.0035		.0052
27.5000	.0209	.0214	.0209

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO26) (01 JUL 81)

REFERENCE DATA

SREF	=	1296.0000	SQ.FT.	XMRP	=	.0000	IN.	XO	PT	=	13.400
LREF	=	24.0000	INCHES	YMRP	=	.0000	IN.	YO	RHO	=	.000
BREF	=	54.0000	INCHES	ZMRP	=	.0000	IN.	ZO	TTF	=	125.000
SCALE	=	1.0000							R	=	3.620

PARAMETRIC DATA

P	=	3.390			
V	=	1510.000			
TF	=	-65.000			
THETA	=	1.360			

MACH (1) = 1.550 Q(PSI)(1) = 5.690 PT = 13.400 P = 3.3900 TTF = 125.00 R = 3.6200

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0071	.0032	.0032
-20.5000	.0049		.0051
-4.5000	.0030		
3.5000	.0035		.0073
19.5000	.0035		.0054
27.5000	.0212	.0216	.0212

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO27) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	14.500	P =	3.670		
RHO =	.000	V =	1516.000		
TTF =	130.000	TF =	-61.000		
R =	3.880	THETA =	1.360		

MACH (1) = 1.550 Q(PSI)(1) = 6.180 PT = 14.500 P = 3.6700 TTF = 130.00 R = 3.8800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0072	.0032	.0031
-20.5000	.0050		.0051
-4.5000	.0030		
3.5000	.0032		.0073
19.5000	.0034		.0046
27.5000	.0209	.0207	.0211

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN028) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	15.800	P =	4.000
RHO =	.000	V =	1524.000
TTF =	136.000	TF =	-57.000
R =	4.170	THETA =	1.360

MACH (1) = 1.550 Q(PSI)(1) = 6.730 PT = 15.800 P = 4.0000 TTF = 136.00 R = 4.1700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0073	.0032	.0029
-20.5000	.0050		.0051
-4.5000	.0030		
3.5000	.0034		.0074
19.5000	.0034		.0055
27.5000	.0210	.0210	.0210

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO29) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.100	P =	4.330
RHO =	.000	V =	1533.000
TTF =	143.000	TF =	-53.000
R =	4.440	THETA =	1.360

MACH (1) = 1.550 Q(PSI)(1) = 7.280 PT = 17.100 P = 4.3300 TTF = 143.00 R = 4.4400

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0073	.0032	.0029
-20.5000	.0050		.0051
-4.5000	.0030		
3.5000	.0031		.0073
19.5000	.0032		.0055
27.5000	.0208	.0207	.0198

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO30) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	18.500	P =	4.680
RHO =	.000	V =	1544.000
TTF =	152.000	TF =	-46.000
R =	4.710	THETA =	1.360

MACH (1) = 1.550 Q(PSI)(1) = 7.870 PT = 18.500 P = 4.6800 TTF = 152.00 R = 4.7100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0067	.0031	.0028
-20.5000	.0045		.0049
-4.5000	.0026		
3.5000	.0031		.0065
19.5000	.0030		.0051
27.5000	.0205	.0204	.0196

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN031) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.210
RHO =	.000	V =	1553.000
TTF =	133.000	TF =	-68.000
R =	4.680	Q(PSI) =	7.540

MACH (1) = 1.600 THETA (1) = .980 PT = 17.900 P = 4.2100 TTF = 133.00 R = 4.6800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0072	.0034	.0028
-20.5000	.0049		.0052
-4.5000	.0030		
3.5000	.0030		.0068
19.5000	.0033		.0055
27.5000	.0220	.0211	.0216

ARC 97-166-1 (OS13) FRSI MODEL 85-O, PANEL NO. 4 (SNNO33) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO	PT =	17.900	P =	4.200
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO	RHO =	.000	V =	1559.000
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO	TTF =	138.000	TF =	-64.000
SCALE =	1.0000			R =	4.630	Q(PSI) =	7.530

PARAMETRIC DATA

MACH (1) = 1.600 THETA (1) = 26.300 PT = 17.900 P = 4.2000 TTF = 138.00 R = 4.6300

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0049	.0034	.0029
-20.5000	.0036		.0045
-4.5000	.0030		
3.5000	.0061		.0147
19.5000	.0359		.0324
27.5000	.0317	.0288	.0292

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN035) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.200
RHO =	.000	V =	1565.000
TTF =	142.000	TF =	-62.000
R =	4.590	Q(PSI) =	7.530

MACH (1) = 1.600 THETA (1) = 35.300 PT = 17.900 P = 4.2000 TTF = 142.00 R = 4.5900

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0183	.0193	.0192
-20.5000	.0188		.0187
-4.5000	.0166		
3.5000	.0153		.0167
19.5000	.0190		.0173
27.5000	.0230	.0220	.0222

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO36) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO	PT =	17.900	P =	4.200
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO	RHO =	.000	V =	1566.000
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO	TTF =	143.000	TF =	-61.000
SCALE =	1.0000			R =	4.580	Q(PSI) =	7.530

PARAMETRIC DATA

MACH (1) = 1.600 THETA (1) = 33.900 PT = 17.900 P = 4.2000 TTF = 143.00 R = 4.5800

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0203	.0208	.0198
-20.5000	.0204		.0197
-4.5000	.0177		
3.5000	.0159		.0168
19.5000	.0191		.0176
27.5000	.0228	.0235	.0221

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO37) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.200
RHO =	.000	V =	1568.000
TTF =	145.000	TF =	-60.000
R =	4.560	Q(PSI) =	7.530

MACH (1) = 1.600 THETA (1) = 33.600 PT = 17.900 P = 4.2000 TTF = 145.00 R = 4.5600

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0052	.0046	.0144
-20.5000	.0806		.0878
-4.5000	.0351		
3.5000	.0316		.0331
19.5000	.0314		.0314
27.5000	.0368	.0319	.0344

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO39) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	17.900	P =	4.200
RHO =	.000	V =	1571.000
TTF =	147.000	TF =	-58.000
R =	4.540	Q(PSI) =	7.530

MACH (1) = 1.600 THETA (1) = 16.500 PT = 17.900 P = 4.2000 TTF = 147.00 R = 4.5400

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0053	.0033	.0030
-20.5000	.0039		.0048
-4.5000	.0030		
3.5000	.0029		.0052
19.5000	.0261		.0186
27.5000	.0277	.0270	.0262

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO41) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN.	XO	
LREF =	24.0000 INCHES	YMRP =	.0000 IN.	YO	
BREF =	54.0000 INCHES	ZMRP =	.0000 IN.	ZO	
SCALE =	1.0000				

PARAMETRIC DATA

PT =	19.900	P =	3.470
RHO =	.000	V =	1696.000
TTF =	149.000	TF =	-90.000
R =	4.710	THETA =	.310

MACH (1) = 1.800 Q(PSI)(1) = 7.870 PT = 19.900 P = 3.4700 TTF = 149.00 R = 4.7100

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0063	.0048	.0040
-20.5000	.0048		.0046
-4.5000	.0027		
3.5000	.0029		.0065
19.5000	.0026		.0053
27.5000	.0205	.0193	.0204

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNNO42) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	24.300	P =	3.090
RHO =	.000	V =	1820.000
TTF =	159.000	TF =	-117.000
R =	5.170	THETA =	1.110

MACH (1) = 2.000 Q(PSI)(1) = 8.690 PT = 24.300 P = 3.0900 TTF = 159.00 R = 5.1700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0061	.0029	.0026
-20.5000	.0047		.0044
-4.5000	.0027		
3.5000	.0027		.0067
19.5000	.0025		.0051
27.5000	.0200	.0189	.0201

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN043) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	26.800	P =	1.570
RHO =	.000	V =	2012.000
TTF =	147.000	TF =	-190.000
R =	4.570	THETA =	1.070

MACH (1) = 2.500 Q(PSI)(1) = 6.850 PT = 26.800 P = 1.5700 TTF = 147.00 R = 4.5700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0052	.0024	.0017
-20.5000	.0043		.0037
-4.5000	.0019		
3.5000	.0022		.0063
19.5000	.0018		.0043
27.5000	.0180	.0227	.0204

ARC 97-166-1 (OS13) FRSI MODEL 85-0, PANEL NO. 4 (SNN044) (01 JUL 81)

REFERENCE DATA

SREF =	1296.0000 SQ.FT.	XMRP =	.0000 IN. XO		
LREF =	24.0000 INCHES	YMRP =	.0000 IN. YO		
BREF =	54.0000 INCHES	ZMRP =	.0000 IN. ZO		
SCALE =	1.0000				

PARAMETRIC DATA

PT =	12.100	P =	1.540
RHO =	.000	V =	1749.000
TTF =	112.000	TF =	-143.000
R =	2.870	Q(PSI) =	4.330

MACH (1) = 2.000 THETA (1) = 44.700 PT = 12.100 P = 1.5400 TTF = 112.00 R = 2.8700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0076	.0036	.0024
-20.5000	.0066		.0054
-4.5000	.0018		
3.5000	.0033		.0096
19.5000	.0023		.0071
27.5000	.0272	.0324	.0297

MACH (1) = 2.000 THETA (2) = 67.800 PT = 12.100 P = 1.5400 TTF = 112.00 R = 2.8700

SECTION (1)NOMEX PANEL DEPENDENT VARIABLE M

Y	-13.5000	-.5000	13.5000
X			
-28.5000	.0075	.0036	.0023
-20.5000	.0065		.0053
-4.5000	.0016		
3.5000	.0033		.0096
19.5000	.0022		.0071
27.5000	.0270	.0317	.0291