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THE EFFECTS OF REYNOLDS NUMBER VARIATION OF FLAIL INITIATING FORCES ACTING ON A CREWMAN DURING EMERGENCY ESCAPE

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FOR THE COMMANDER

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A 0.5-scale crewman/ejection seat model was tested to determine the effects of Reynolds number variation on the aerodynamic forces acting on the crewman in and near the cockpit of an F-16 fighter during an emergency ejection from the aircraft. Two different cockpit configurations were investigated at freestream Mach numbers from 0.4 to 1.2 and dynamic pressures from 100 to 600 psf. The data were obtained at various F-16 forebody-ejection seat separation distances (0 to 24 in. model scale) for fuselage angles of attack and sideslip of zero.

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Block 18:

Ejection Sequence (Simulated)
Reynolds Number Effects

PREFACE

The wind tunnel test described herein was conducted by the Lockheed-Huntsville Research & Engineering Center for the Air Force Aerospace Medical Research Laboratory (AFAMRL) under Contract F33615-80-C-0515. The Air Force Project Engineer for this contract is Lawrence J. Specker, Biomechanical Protection Branch of the Biodynamics and Bioengineering Division. The test was conducted in support of workunit 7231-13-09, "Definition of Windblast Flow Fields."

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NOMENCLATURE

ALPHC	crewman angle of attack (positive nose up), deg
B.L.	abbreviation for boundary layer
CA	axial-force coefficient, body axis, (positive downstream), FA/QS
C_D	drag coefficient
CFEYL,R	crewman lower arm side force area parameter left and right arms, (positive to crewman's right for both arms), FEYL/Q, FEYR/Q
CFEZL,R	crewman lower arm lift force area parameter, left and right arms, (positive up), FEZL/Q, FEZR/Q, ft^2
CFHX	crewman helmet drag force area parameter, (positive downstream), FHX/Q, ft^2
CFHY	crewman helmet side force area parameter, (positive to crewman's right), FHY/Q, ft^2
CFHYL,R	crewman upper leg side force area parameter, left and right legs, (positive to crewman's right for both legs), FHYL/Q, FHYR/Q, ft^2
CFHZ	crewman helmet lift force area parameter, (positive up), FHZ/Q, ft^2
CFHZL,R	crewman upper leg lift force area parameter, left and right legs, (positive up), FHZL/Q, FHZR/Q, ft^2
CFKXL,R	crewman lower leg drag force area parameter, left and right legs, (positive downstream), FKXL/Q, FKXR/Q, ft^2
CFKYL,R	crewman lower leg side force area parameter, left and right legs, (positive to crewman's right for both legs), FKYL/Q, FKYR/Q, ft^2
CFSXL,R	crewman upper arm drag force area parameter, left and right arms, (positive downstream), FSXL/Q, FSXR/Q, ft^2

NOMENCLATURE (Continued)

CFSYL,R	crewman upper arm side force area parameter, left and right arms, (positive to crewman's right for both arms), FSYL/Q, FSYR/Q, ft^2
CG	center of gravity
C_L	lift coefficient
CMEYL,R	crewman lower arm side moment volume parameter, left and right arms, MEYL/12Q, MEYR/12Q, ft^3
CMEZL,R	crewman lower arm lift moment volume parameter, left and right arms, MEZL/12Q, MEZR/12Q, ft^3
CMHX	crewman head drag moment volume parameter, MHX/12Q, ft^3
CMHY	crewman head side moment volume parameter, MHY/12Q, ft^3
CMHYL,R	crewman upper leg side moment volume parameter, left and right legs, MHYL/12Q, MHYR/12Q, ft^3
CMHZL,R	crewman upper leg lift moment volume parameter, left and right legs, MHZL/12Q, MHZR/12Q, ft^3
CMKXL,R	crewman lower leg drag moment volume parameter, left and right legs, MKXL/12Q, MKXR/12Q, ft^3
CMKYL,R	crewman lower leg side moment volume parameter, left and right legs, MKYL/12Q, MKYR/12Q, ft^3
CML	rolling moment coefficient, body axis, (positive clockwise looking upstream) ML/QSd
CMM	pitching moment coefficient, body axis, (positive nose up), MM/QSd
CMN	yawing moment coefficient, body axis, (positive nose right), MN/QSd
CMSXL,R	crewman upper arm drag moment volume parameter, left and right arms, MSXL/12Q, MSXR/12Q, ft^3
CMSYL,R	crewman upper arm side moment volume parameter, left and right arms, MSYL/12Q, MSYR/12Q, ft^3
CN	normal force coefficient, body axis, (positive up), FN/QS
CPA,CPSA	static pressure coefficient, crewman abdomen, (PSA-P)/Q

NOMENCLATURE (Continued)

CPC, CPSC	static pressure coefficient, crewman check, (PSC-P)/Q
CPH, CPSH	static pressure coefficient, crewman head, (PSH-P)/Q
CPLL, CPSLL	static pressure coefficient, crewman left leg, (PSLL-P)/Q
CPRL, CPSRL	static pressure coefficient, crewman right leg, (PSLR-P)/Q
CPSBR, CPSSB	static pressure coefficient, seat back reference, (PSSBR-P)/Q
CY	side force coefficient, body axis, (positive nose right), FY/QS
D	diameter of sphere, in.
D_{arm}	diameter of arm, in.
d	crewman reference length equivalent to the diameter of a circle with area equal to S, 17.128 in.
EJPOS	crewman/seat ejection position, in.
FA	axial force, body axis, (positive downstream), lb
FEYL,R	crewman lower arm side force, left and right, (positive to crewman's right), lb
FEZL,R	crewman lower arm lift force, left and right, (positive up), lb
FFHC	forebody hydraulic cylinder force, (positive up), lb
FHX	crewman helmet drag force, (positive downstream), lb
FHY	crewman helmet side force, (positive to crewman's right), lb
FHYL,R	crewman upper leg side force, left and right, (positive to crewman's right), lb
FHZ	crewman helmet lift force, (positive up), lb
FHZL,R	crewman upper leg lift force, left and right, (positive up), lb
FKXL,R	crewman lower leg drag force, left and right, (positive downstream), lb

NOMENCLATURE (Continued)

FKYL,R	crewman lower leg side force, left and right, (positive to crewman's right), lb
FN	normal force, body axis, (positive up) lb
FSXL,R	crewman upper arm drag force, left and right, (positive downstream), lb
FSYL,R	crewman upper arm side force, left and right, (positive to crewman's right) lb
FY	side force, body axis, (positive nose right), lb
L	length from nose of forebody, ft
L_T	length of turbulent boundary layer, ft
MACH,M	freestream Mach number
MEYL,R	crewman lower arm side moment, left and right, in-lb
MEZL,R	crewman lower arm lift moment, left and right, in-lb
MHX	crewman head drag moment, in-lb
MHY	crewman head side moment, in-lb
MHYL,R	crewman upper leg side moment, left and right, in-lb
MHZL,R	crewman upper leg lift moment, left and right, in-lb
MKXL,R	crewman lower leg drag moment, left and right, in-lb
MHYL,R	crewman lower leg side moment, left and right, in-lb
ML	rolling moment, (positive clockwise looking upstream), in-lb
MM	pitching moment, (positive nose up), in-lb
MN	yawing moment, (positive nose right), in-lb
MRC	moment reference center
MSXL,R	crewman upper arm drag moment, left and right, in-lb
MSYL,R	crewman upper arm side moment, left and right, in-lb

NOMENCLATURE (Concluded)

P	freestream static pressue, psfa
PSA	static pressure, crewman abdomen, psfa
PSC	static pressure, crewman chest, psfa
PSH	static pressure, crewman head, psfa
PSLL	static pressure, crewman left leg, psfa
PSLR,PSRL	static pressure, crewman right leg, psfa
PSSBR	static pressure, seat back reference, psfa
PT	tunnel freestream total pressure, psfa
Q	freestream dynamic pressure, psf
$REx10^{-6}$	freestream Reynolds number per foot x 10^{-16}
RN/PN	data run number and test point
S	model reference area equivalent to the projected frontal area of the seat and man, 1.600 ft^2
SF	full-scale model reference area equivalent to the projected frontal area of the seat and man, 6.4 ft^2
TT	tunnel total temperature, F
V_∞	freestream velocity, ft/sec
δ	height of boundary layer or shear layer, in.
θ_s	angular position around sphere at which separation occurs, deg
ϕ	angle between velocity vector and axis of symmetry, deg

SECTION 1
INTRODUCTION AND SUMMARY

The Air Force Aerospace Medical Research Laboratory (AFAMRL), Wright-Patterson Air Force Base, Ohio, sponsored an experimental aerodynamic test to determine the effects of Reynolds number variation on flail initiating forces acting on a crewman during emergency escape or after inadvertent canopy loss. A one-half scale wind tunnel model of an ejecting crewman/seat was tested in the presence of an F-16 forebody model. During the test, measurements were made of the forces and moments acting on the crewman's arms, legs and head, total forces and moments acting on the crewman/seat model, and static pressures at six locations on the crewman/seat model.

Data were taken at Mach numbers from 0.4 through 1.2 and dynamic pressures from 100 psf through 600 psf.

The test was conducted at the Arnold Engineering Development Center (AEDC) in the 16T Propulsion Wind Tunnel. The project number was P41G-09. The test was conducted during September 1981. Detailed information on the pretest planning and additional information on the test can be obtained from References 1 and 2.

Lockheed concludes that there are Reynolds number related effects on the crewman/seat aerodynamic coefficients and the crewman limb and head force area and moment volume parameters. These effects are attributed to changes in the local flow conditions on the crewman spherical (head/helmet) and cylindrical (arms, legs) components. The forebody flow field outside the cockpit, the cavity flow inside the cockpit, and the shear layer flow field have no discernible change with Reynolds number. In most cases when a Reynolds number related variation does occur, data magnitudes are higher (more conservative) at the lower Reynolds numbers. Thus conservative results can be obtained by testing scale crewman/seat models at lower Reynolds numbers.

SECTION 2
TEST OBJECTIVE

The Air Force Aerospace Medical Research Laboratory has used wind tunnels to conduct research on the problem of windblast protection since 1971. This research has been focused upon the measurement of aerodynamic forces acting on the human body during and after emergency egress from aircraft using scale models, anthropometric dummies and volunteer human subjects. The data collected has been used to develop principles and techniques of personnel protection in addition to the analytical techniques needed to predict the human response to aerodynamic forces.

With the use of scale models in the wind tunnel came the problems associated with attempting to create dynamically similar airflows. Dimensional analysis has shown that the force coefficient for a body of given orientation and shape is a function of the Reynolds number and the Mach number provided that parameters such as surface roughness, stream turbulence and the presence of other bodies in the vicinity are not neglected. In applying data from model tests to full scale, these facts must be considered. The objective of this effort was to investigate the effects of varying Reynolds number on the aerodynamic force measurements made with the one-half scale wind tunnel models of the F-16 forebody and crewman/seat. The range of Reynolds numbers for this test was 1.4×10^6 through 6.6×10^6 based on the reference length of the crewman.

SECTION 3
MODEL DESCRIPTION

3.1 MODEL

Crewman/Seat

The crewman/seat model (Figure 1) is one integral unit. The model seat, fabricated from aluminum plate, not only simulates the full-scale seat, but includes the structure for the crewman torso and the attach points for the neck, arms and legs. The seat attaches to a balance adapter which fits over a strain gage balance. This balance (discussed in Section 4.2) measured the crewman/seat total forces and moments. A fiberglass reinforced shell attaches to the seat framework to simulate the external contours of the torso. Instrumented beams attach to the frame through openings in the torso shell. These beams are the structural components of the head and limbs. The contours of the head and limbs are constructed of two pieces using fiberglass reinforced plastic over a hardwood form. The two halves of the head bolt together and the aft piece bolts directly to the top end of the neck beam.

All four of the limbs (left and right arms and left and right legs) are constructed in two sections (upper and lower). The upper arms are bolted to the torso frame at the shoulders. The upper arm exterior contour shells are fabricated in the left and right halves and are bolted to the beams near the elbow.

Except for the attach point at the elbow, the upper arm shell is free of any contact with any other part of the model and is therefore free to flex under aerodynamic load. The load seen by this shell is transferred to the free end (elbow) of the upper arm beam and can be measured using the strain gages mounted on the beam. The lower arm was designed using the same concept used in designing the upper arm beams. The fixed end of the lower arm beam

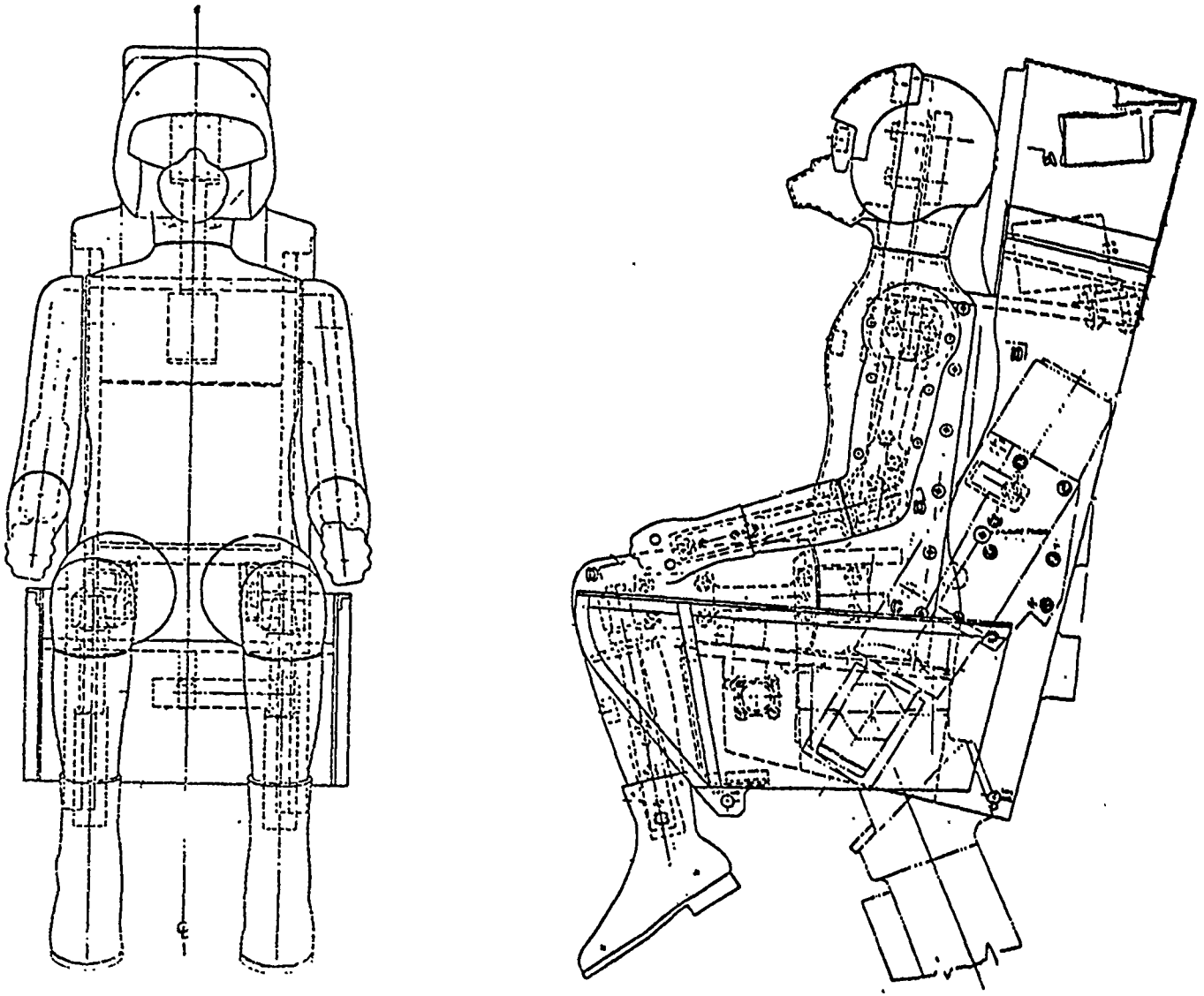


Figure 1. Crewman/seat.

is attached to the upper arm beam with a taper joint at the elbow. Left and right halves of the lower arm/hand shell are bolted together and attached to the beam at the wrist. The shell is free of interference from any other parts or internal structure and therefore transfers the aerodynamic loads "seen" by it to the beam at the wrist. Strain gages mounted on the lower arm beam were used to measure the loads acting on the shell. It should be noted that because the lower arm beams are attached to the free end of the upper arm beams, the gages on the upper beam measured the combined load of the whole arm. (Left and right arms are mirror images of each other.)

The design concept of the legs is the same as for the arms. The upper leg beams are bolted to the torso frame. The lower leg beams are attached to the upper beams with a tapered joint at the knee. The upper and lower leg shells are all in left and right halves and bolt to the free ends of the respective beams. Strain gages on the lower leg beams measured the aerodynamic loads on the lower leg/foot shell. Gages on the upper leg beam measured the combined loads on the whole leg.

Forebody

The forebody model (Figure 2) is a half-scale representation of the nose and cockpit section of an F-16 fighter aircraft. The main structure of this model is made up of wood and aluminum frames and bulkheads. Attached to this framework are wood splines and formers over which is laminated the external shell of glass reinforced polyester plastic.

Supported by the internal framework of the forebody are two tracks, one along each of the side walls of the cockpit. They are parallel to the path along which a crewman would travel during ejection from the aircraft cockpit. The forebody model is supported and positioned by slides and rollers which contact the surfaces of these tracks (Figure 3). The slides and rollers are part of the carriage assembly which attaches directly to the sting.

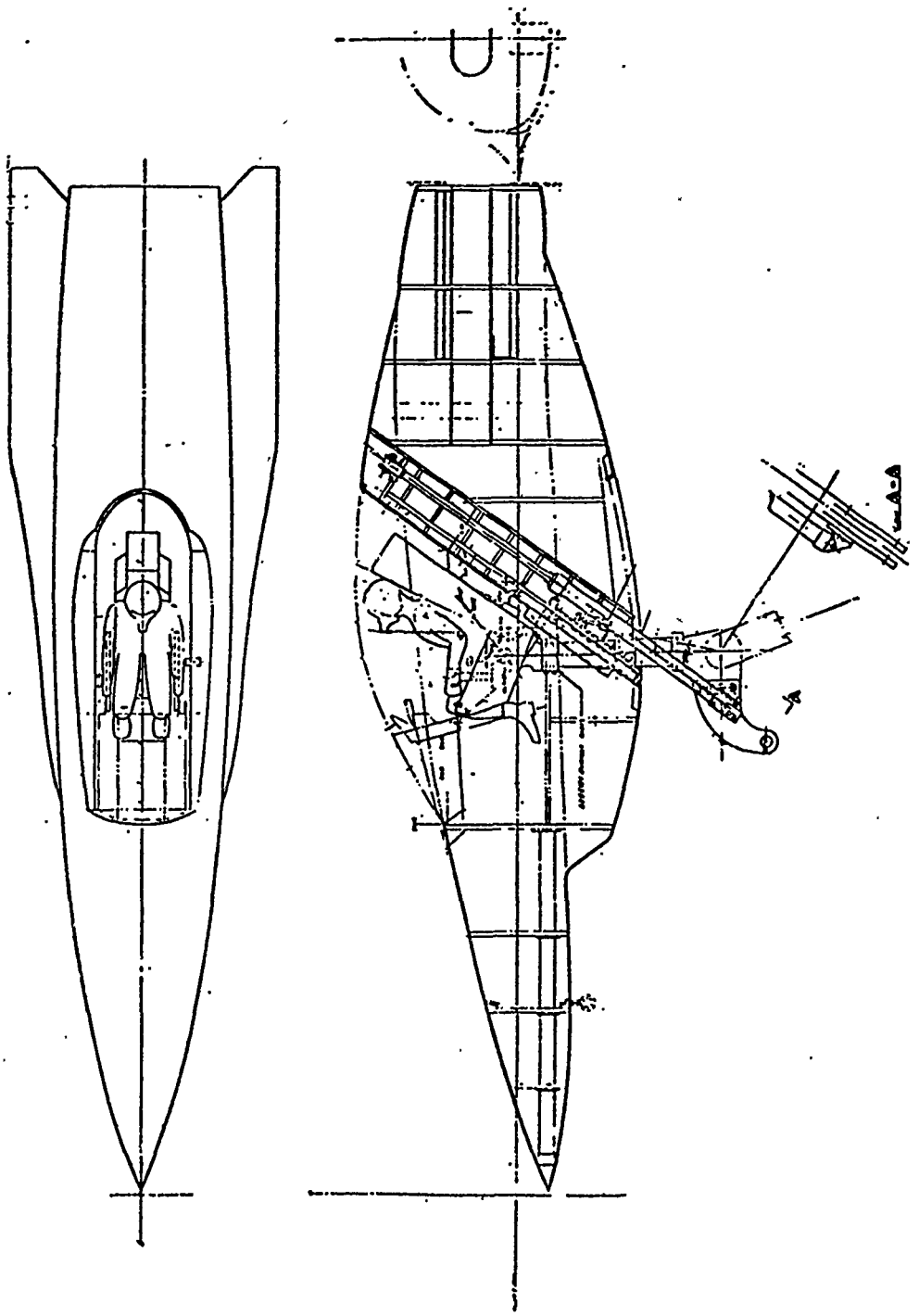


Figure 2. Forebody

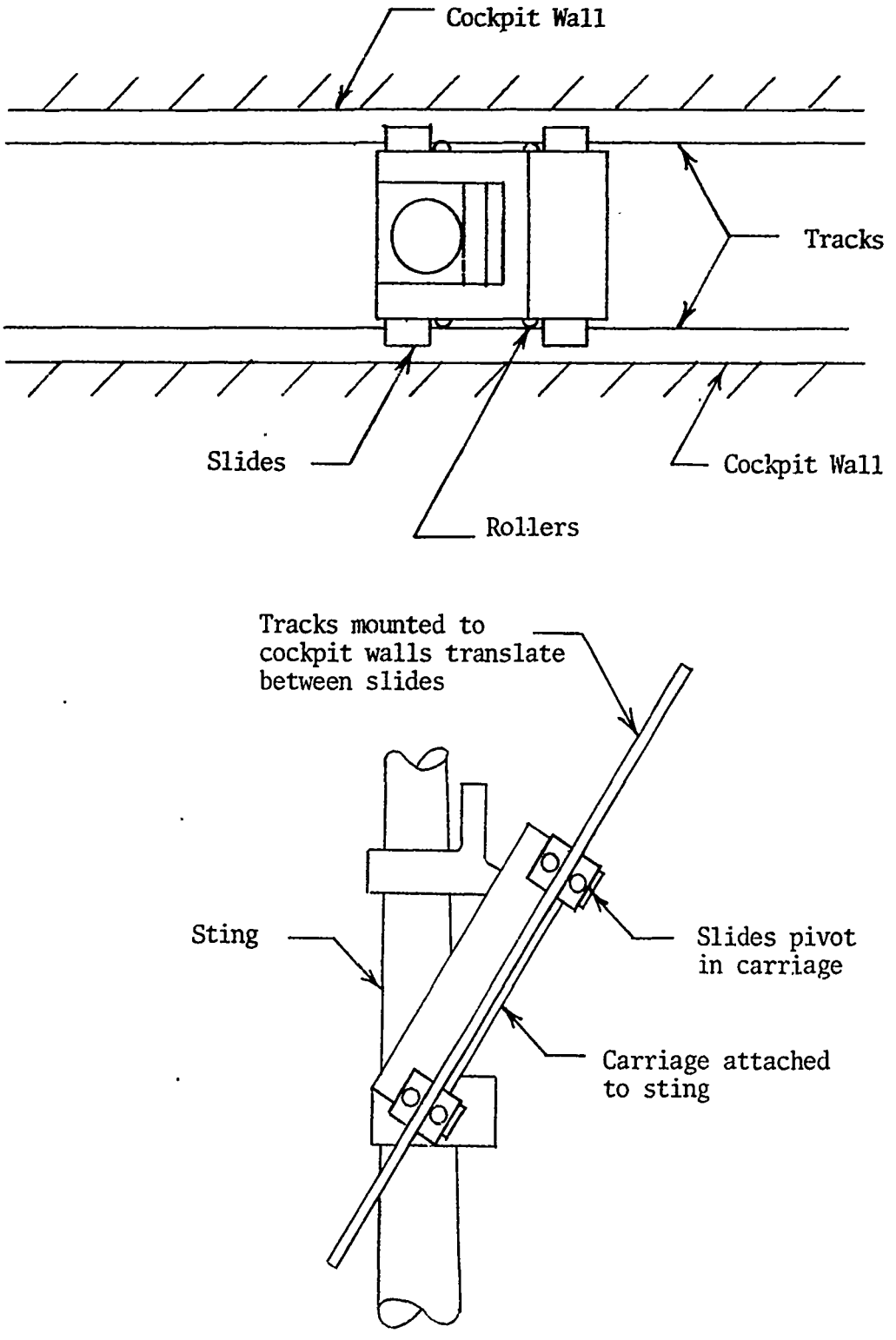


Figure 3. Track and carriage.

Conceptually the crewman/seat (fixed in position relative to the carriage) travels along the tracks, simulating an ejection from the cockpit. In actual practice the forebody model is retracted (Figure 4), with the tracks translating between the slides, exposing the crewman/seat model to increasing amounts of the airflow.

Flow Diverters

During portions of the test, two flow diverters were attached to the forebody model. These diverters (shown in Figure 5) were in positions ahead of, and to either side of the heads up display. They represent a design concept intended to reduce the force of the flow hitting the crewman still in the cockpit after canopy separation.

3.2 RELATED HARDWARE

Support Hardware

The models were supported by a sting through the bottom of the forebody, which mounts to the test section floor (Figure 6). The crewman/seat model mounts with the use of an adapter to the main force and moment balance (described in Section 4.2). This balance mounts to the end of the floor mounted sting assembly. In addition to supporting the crewman/seat model, the sting supports the forebody through the carriage-track interface. The carriage was assembled directly around the outermost sting segment (Figure 3). When in place, the carriage is an integral part of the sting assembly. At the four corners of the carriage are pairs of rotating slides. Each pair of slides fits on opposite sides of one of the forebody tracks (discussed in Section 3.1). Rollers, one adjacent to each set of slides, position the carriage slides on the tracks. Translation of the forebody with its tracks sliding between the carriage slides, is the method used to simulate crewman/seat ejection from the cockpit.

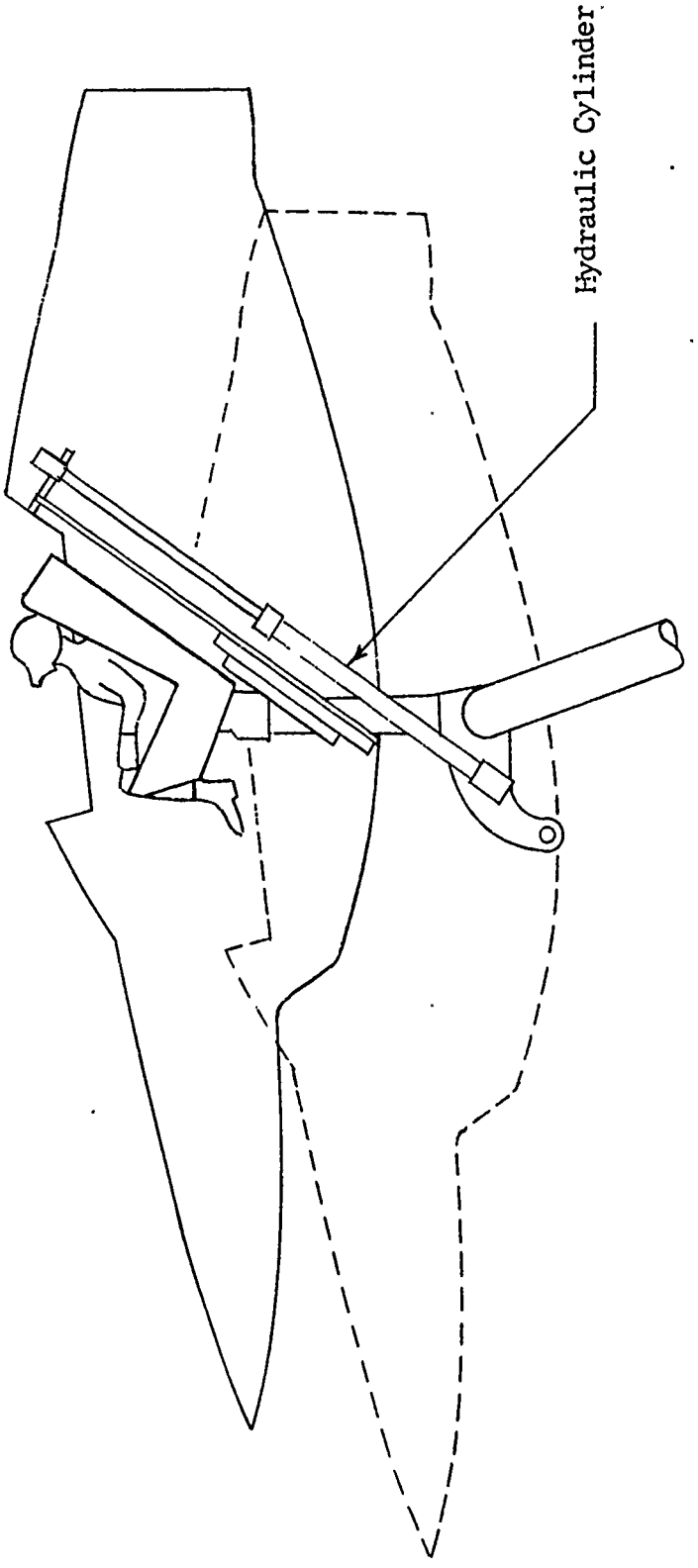
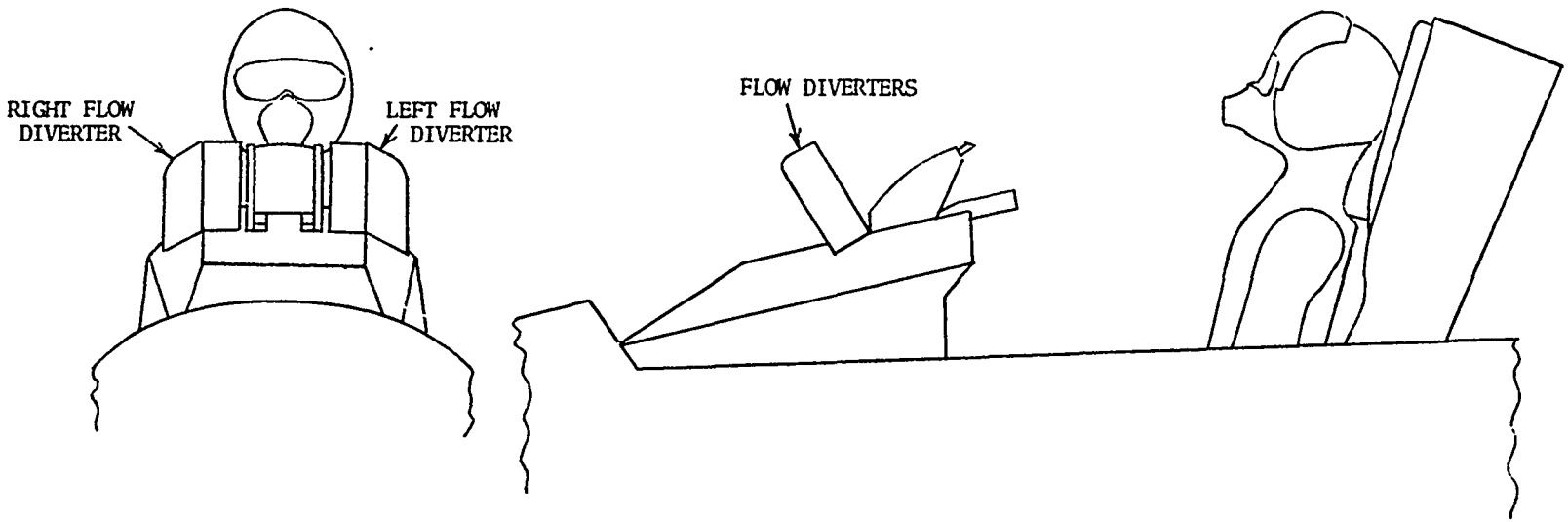


Figure 4. Ejection simulation.



Note: Flow Diverters shown without perforations.

Figure 5. Base model with flow diverters (Continued).

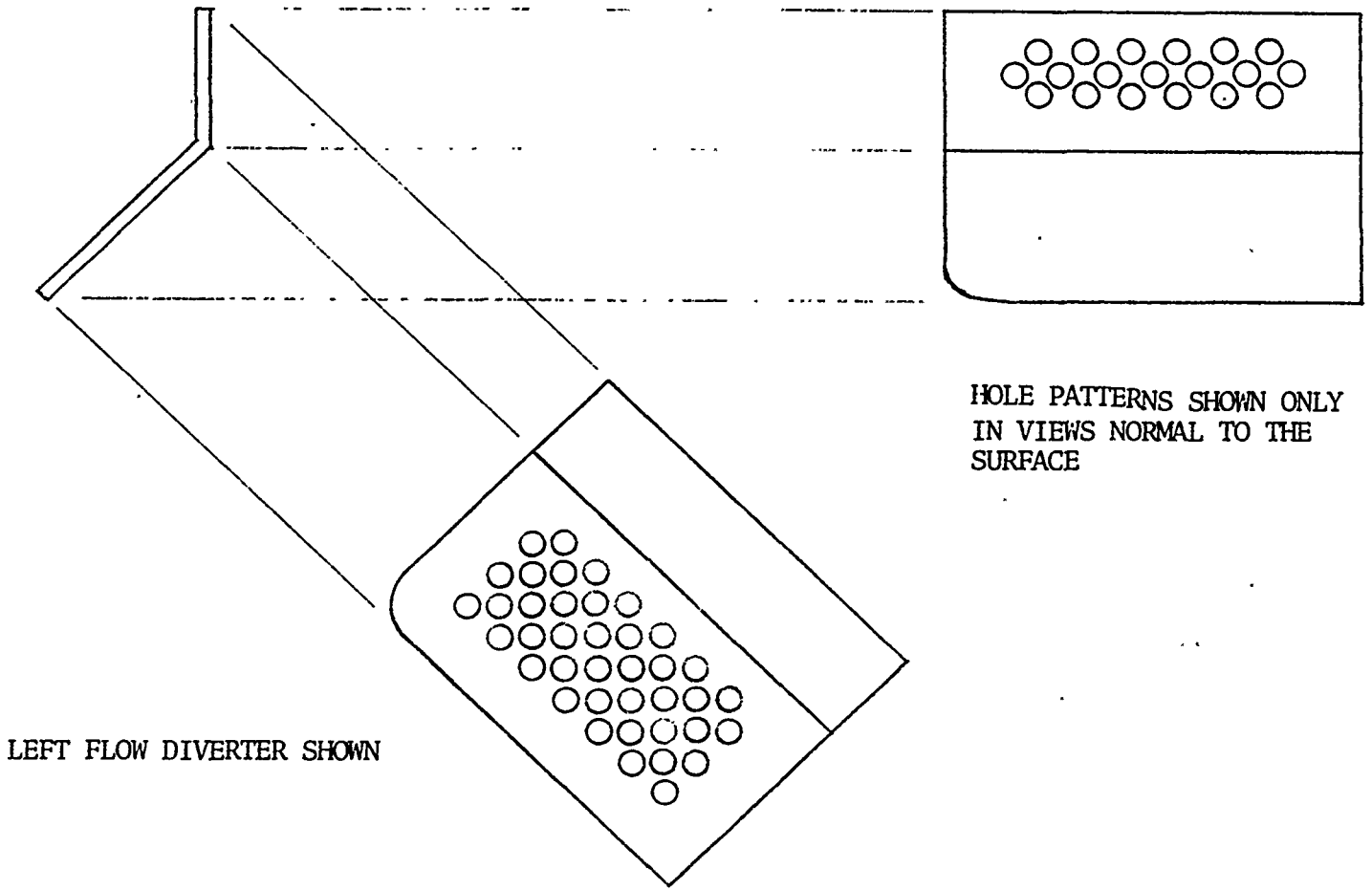


Figure 5. Base model with flow diverters (Concluded).

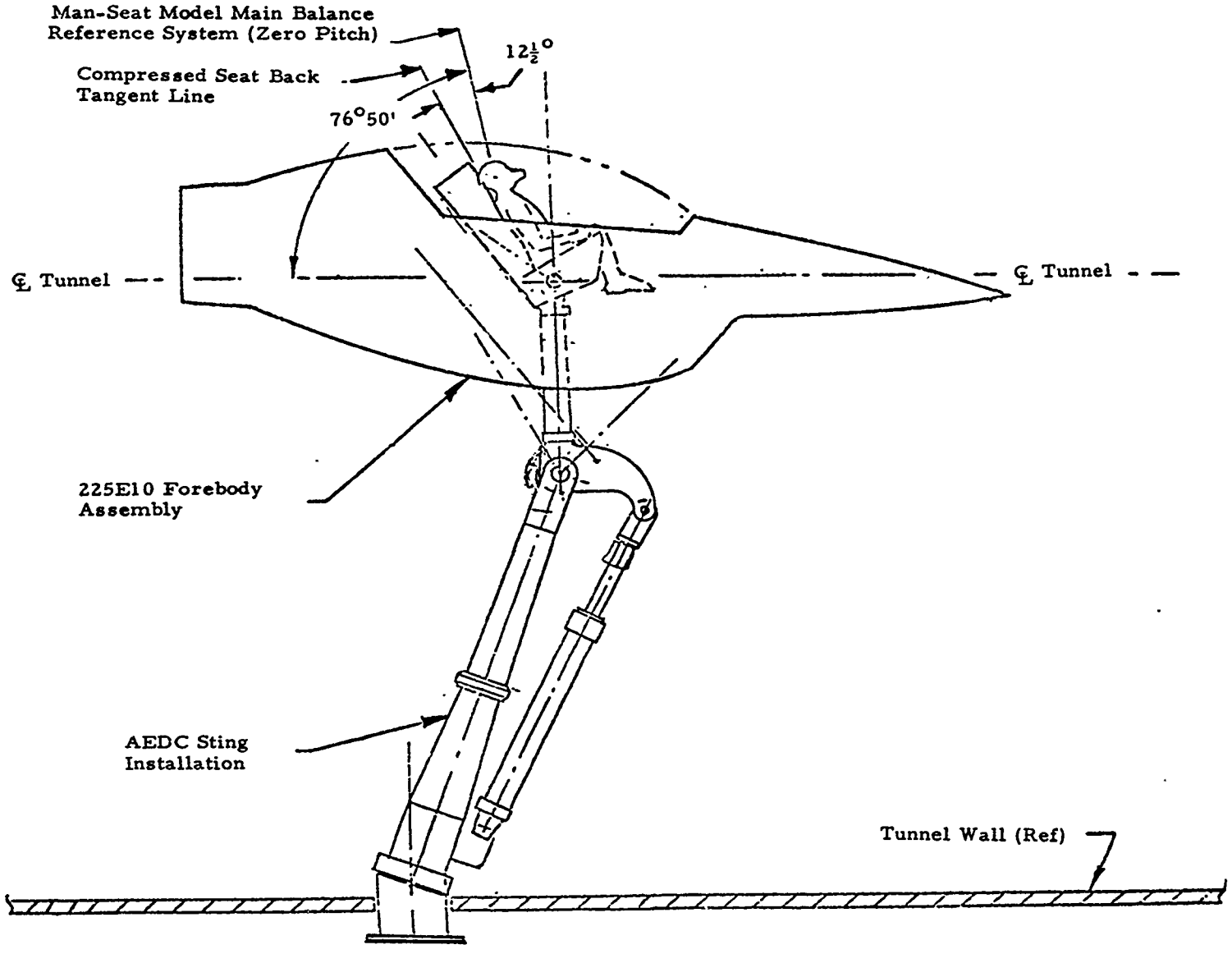


Figure 6. Support hardware and tunnel installation.

Hydraulics

The position of the forebody model relative to the carriage (and therefore the crewman/seat is changed by a remotely controlled hydraulic cylinder (Figure 4). The fixed end of the cylinder attaches to the upper sting segment pitch change ears. The piston rod end attaches to the forebody aft of the canopy section. The cylinder is positioned parallel to the forebody track just behind and below the left track.

Forebody Position Indicator

To measure the position of the forebody relative to the carriage, a rack was installed in the forebody parallel to the tracks. A pinion was mounted on the carriage in such a way as to mesh with the rack. A 10-turn potentiometer (supplied by AEDC) was turned by the pinion. The potentiometer was calibrated so that the forebody position could be determined during the test. The range of forebody movement is approximately 24 inches. The zero position was with the forebody completely extended, which simulates the crewman in the pre-ejection position within the cockpit.

Forebody Seal

The forebody model is open on its top to simulate an open cockpit. The model is open on its bottom to accommodate the support hardware. The sting, balance and crewman/seat model, when assembled, must have clearance completely through the forebody model. To prevent undesirable flow through this cavity, it must be sealed around the sting. Because of the relative motion between these parts, the seal cannot be rigid. A seal, originally designed at AEDC, was made and fitted to the forebody model. The seal consists of two parts (Figure 7). Each part (Figure 8) has a long 5-inch wide strip of fiberglass cloth, impregnated with a sealout and with 0.062 x 0.75 x 5-inch brass strips riveted to both sides. The brass strips are positioned crosswise to the fiberglass with approximately 1/8 inch between the strips. They provide the strength to resist the airflow. One part of the seal closes the gap bound by the forebody tracks, the carriage and the top back part of the cockpit behind the pilot's

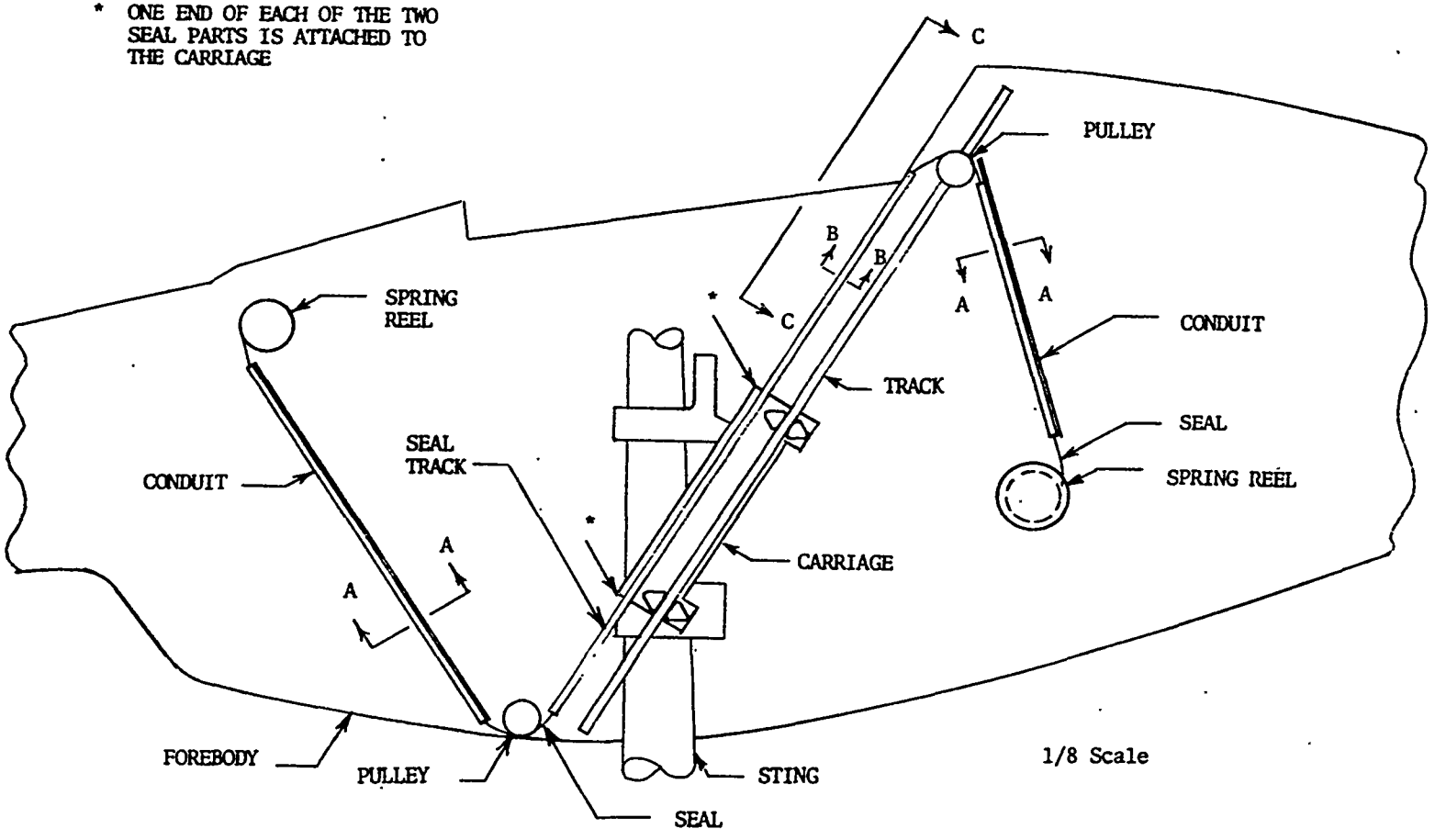


Figure 7. Seal assembly (Continued).

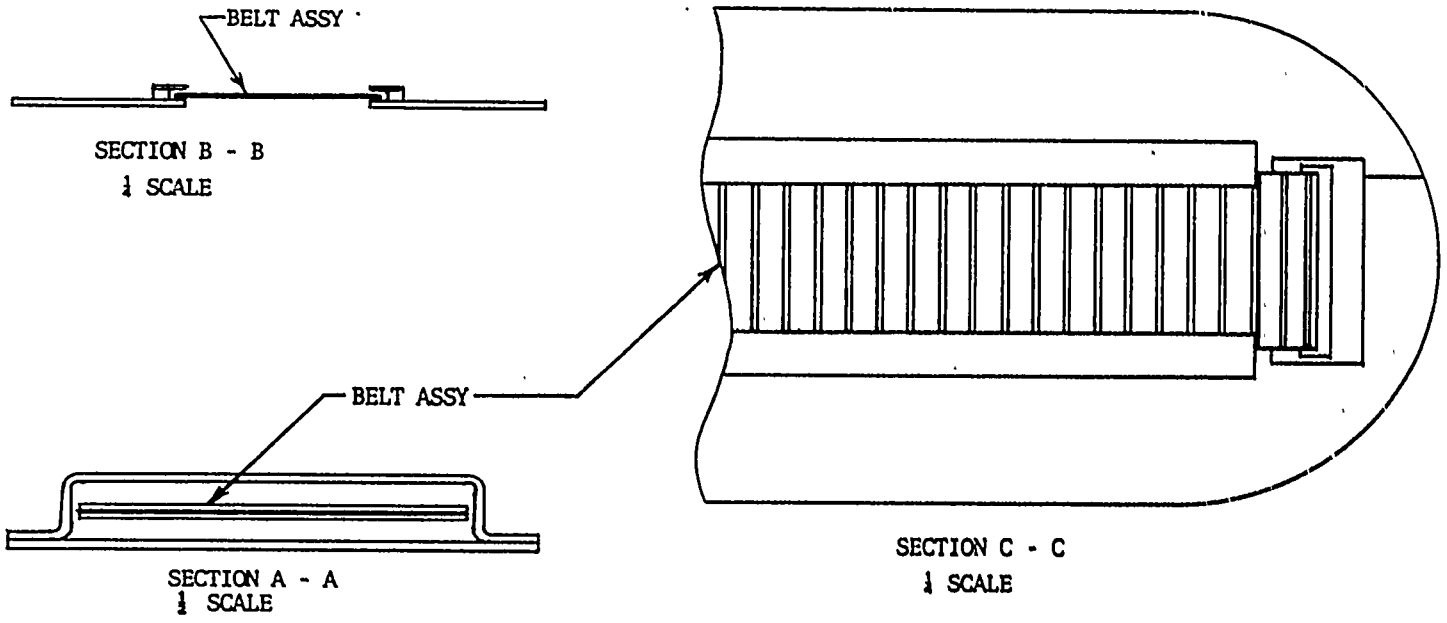


Figure 7. Seal assembly. (Concluded).

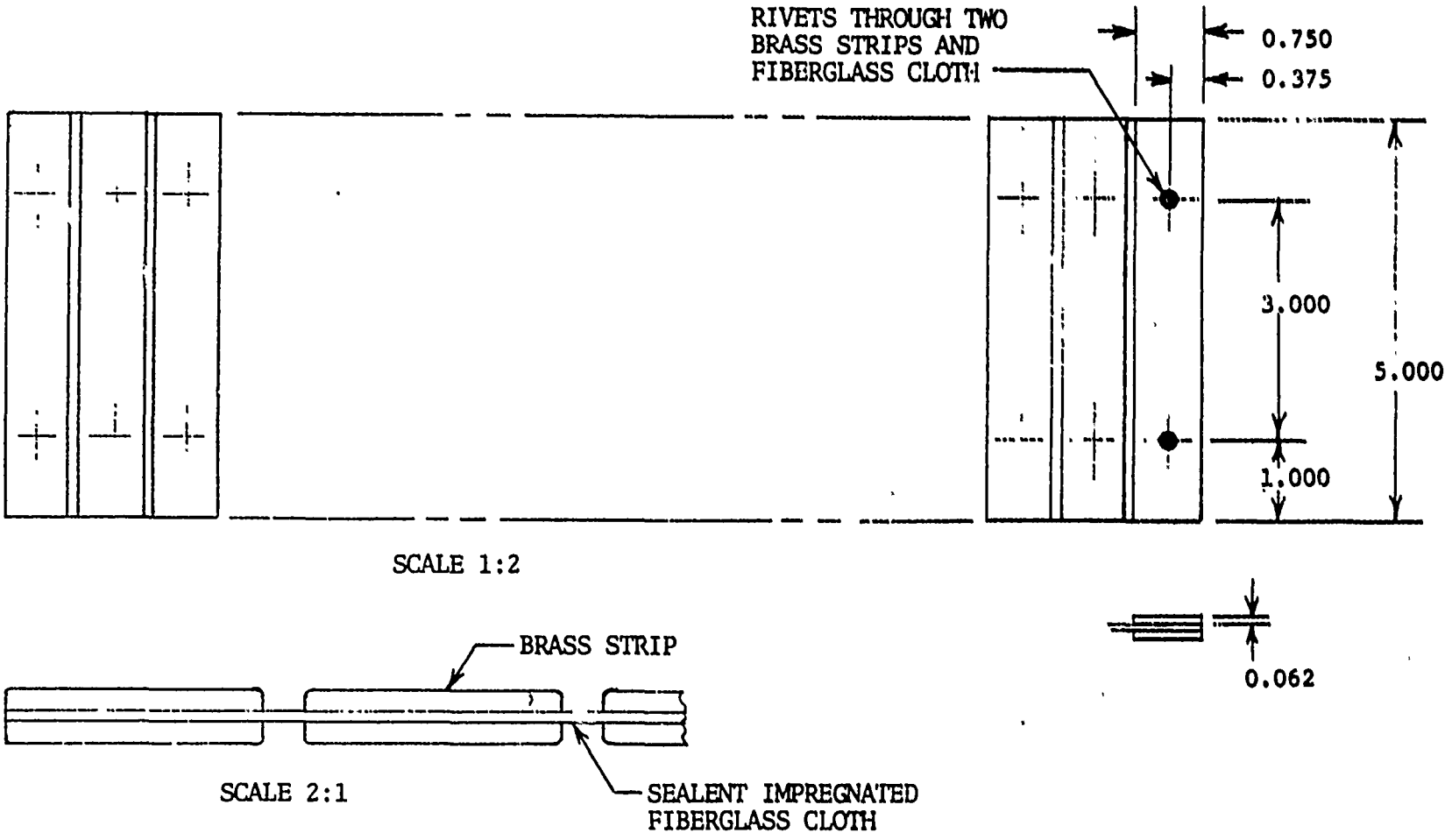


Figure 8. Seal details.

head. The other part of the seal closes the gap bound by the tracks, the carriage and the bottom forward part of the cockpit below the pilot's feet. The seal parts both slide in slotted tracks which are positioned above and parallel to the carriage tracks. One end of each seal part is attached to the carriage. The other end of each seal extends past the ends of the seal tracks, over a pulley and is contained in a conduit. The thin, wide conduits run vertically at both the forward and aft cockpit bulkheads. Tension is maintained on each of the seal parts by sets of two spring loaded cable reels attached to the bulkhead. The ends of the cables are connected to the free ends of the seal. The seal was not air tight, but significantly restricted the flow through the cockpit.

SECTION 4
INSTRUMENTATION

4.1 LIMB AND NECK GAGES

Crewman model limb and neck moments and neck lift force were measured by 37 four-arm-active strain gage bridges. There are two bridge locations on each of the nine beams. At each location, bending moments were measured in each of two planes, 90 degrees apart, for a total of 36 moment bridges. The one remaining briges measured lift force on the head (axial with respect to the beam).

4.2 CREWMAN/SEAT TOTAL FORCES AND MOMENTS

The total forces and moments acting on the crewman/seat were measured by the AEDC's Task Mk VII 2.5-inch balance, PWT No. 6-2.5-2.5-1.85 M-b. The balance was mounted with the fixed end toward the tunnel floor and with the free end approximately 38 degrees downstream. The top of the balance was on the upstream side.

4.3 STATIC PRESSURE MEASUREMENTS

Static pressures were measured at six locations on the crewman/seat model. They were on the:

1. Head between the eyes
2. Middle of the chest
3. Middle of the abdomen
4. Front of lower left leg between knee and foot
5. Front of lower right leg between knee and foot
6. Back of seat.

These locations are illustrated in Figure 9. Each orifice was connected by flexible tubing to one of six individual pressure transducers mounted outside the tunnel test section.

4.4 FLOWFIELD VISUALIZATION

Schlieren movies and schlieren still photographs were taken during the test.

4.5 HYDRAULIC PRESSURE

The vertical position of the forebody model was changed and maintained by a remotely controlled hydraulic cylinder (Section 3.2). The hydraulic pressure required to do this can be used to evaluate the longitudinal loads on the forebody model. Pressure transducers were placed in the supply lines on both the push and pull sides of the hydraulic cylinder.

4.6 POSITION AND ATTITUDE INDICATORS

Two facility angular position indicators were mounted in the models to determine model attitude. One indicator was mounted in the forebody to measure pitch attitude. The other was mounted in the ejection seat model to measure pitch attitude.

A 10-turn potentiometer was mounted inside the forebody for determination of the forebody translation position.

4.7 CALIBRATION

Calibration of all instrumentation was conducted at AEDC.

The crewman limb and neck beams were calibrated as bare balances, not attached to the crewman model and without the fiberglass covered shells (Section 3.1). The beams were then returned to Lockheed for assembly of the crewman/seat model.

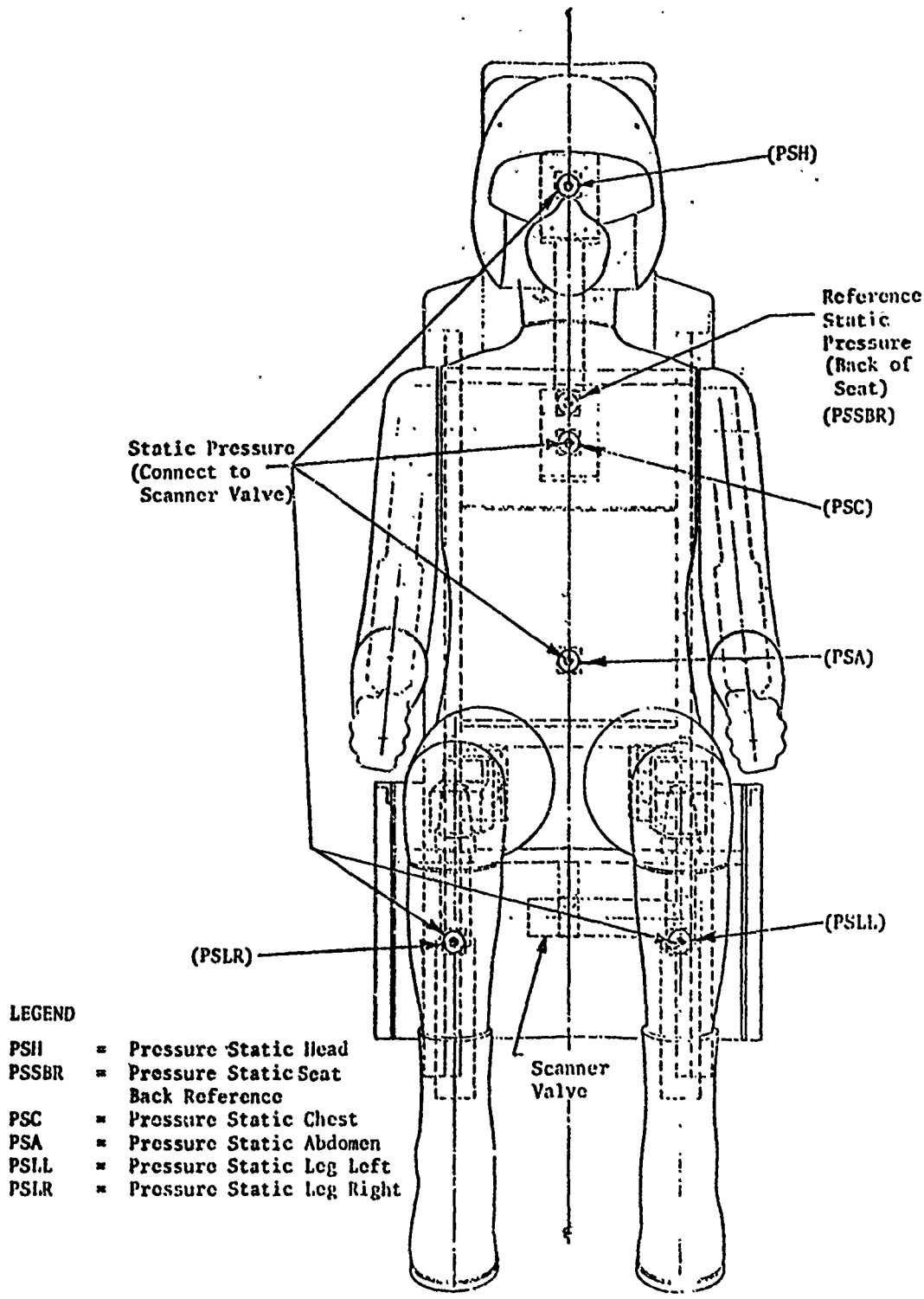


Figure 9. Pressure orifice location.

Check loads were applied to both the main balance and the limb and neck beams after the models were installed in the wind tunnel.

SECTION 5
TEST PROGRAM

The following sections describe the test program that was conducted. Subjects include model configurations tested and the independent test parameters that were varied during the test.

5.1 CONFIGURATIONS TESTED

Two configurations were tested, "Base Model" and "Base Model plus Flow Diverters." In both configurations, the crewman was seated in the ejection seat with arms and legs in the non-flail position. The crewman/seat model was positioned in the cockpit of the forebody model or at different positions along the ejection path. The only difference between the two configurations was the presence of flow diverters on the top of the instrument panel for "Base Model plus Flow Diverters." The flow diverters are described in Section 3.1.

5.2 TEST PARAMETERS

The parameters that were varied during the test were Mach number, dynamic pressure and ejection position. The combinations of Mach number and dynamic pressure at which the models were tested are presented in Table 1. The models were alwyas at a nominal attitude of zero.

At each combination of Mach number and dynamic pressure, the model was tested at five ejection positions. Ejection position is a linear measurement along the direction of motion of an ejecting crewman. Zero is the position of the crewman/seat prior to the start of the ejection sequence. The nominal positions at which data were taken are 0, 6, 12, 18 and 24 inches model scale.

TABLE 1. TEST CONDITIONS

Mach No.	Reynolds Number (RE x 10^6/ft)	Q (psf)	Total Temp., TT (F)	Total Pressure, PT (psf)
0.4	1.18	100	80	997
0.4	1.77	150	80	1496
0.4	2.35	200	80	1994
0.4	2.59	220*	80	2193
0.6	1.55	200	110	1012
0.6	2.32	300	110	1518
0.6	3.09	400	110	2024
0.6	3.87	500	110	2530
0.6	4.64	600	110	3036
0.8	1.23	200	110	681
0.8	1.84	300	110	1021
0.8	2.46	400	110	1361
0.8	3.07	500	110	1701
0.8	3.69	600	110	2042
1.0	1.09	200	110	541
1.0	1.63	300	110	811
1.0	2.18	400	110	1082
1.0	2.72	500	110	1352
1.0	3.27	600	110	1622
1.2	1.00	200	110	481
1.2	1.50	300	110	722
1.2	2.00	400	110	962
1.2	2.51	500	110	1203
1.2	3.01	600	110	1443

*Maximum dynamic pressure obtainable at M = 0.4.

5.3 RUN SCHEDULE

A collation of test runs at common test conditions and for common configurations is presented in Table 2.

TABLE 2. RUN NUMBER COLLATION

Configuration	Q (psf)	Mach Number 0.4	0.6	0.8	1.0	1.2
Base Model	100	39				
	150	38				
	200	37,50	8,17,34	11	12	16
	220	36				
	300		18	22	30	26
	400		19,46	23,47	31,48	27,49
	500		20	24	32	28
	600		21	25	33	29
Base Model with Flow Diverters	200	60	59			
	400		54	55	56	57,58

SECTION 6
DATA REDUCTION AND PRESENTATION

The following sections discuss data reduction and data presentation. Sections 6.1 through 6.4 cover reduction of data obtained from limb and neck beams, crewman/seat main balance, pressure transducers and forebody hydraulic cylinder pressures. Sections 6.5 and 6.6 include data tabulations and plots.

6.1 LIMB AND NECK

Crewman strain gage force and moment data were reduced to resultant crewman limb forces and moments. The resultant forces and moments that were calculated are:

FSXL,R	FHX
MSXL,R	MHX
FSYL,R	FHY
MSYL,R	MHY
	FHZ
FEYL,R	
MEYL,R	
FEZL,R	
MEZL,R	
FHYL,R	
MHYL,R	
FHZL,R	
MHZL,R	
FKXL,R	
MKXL,R	
FKYL,R	
MKYL,R	

Figures 10 through 14 show the resultant forces and moments calculated and the axis systems and moment reference centers for each beam. Tables 3 and 4 list the data reduction equations.

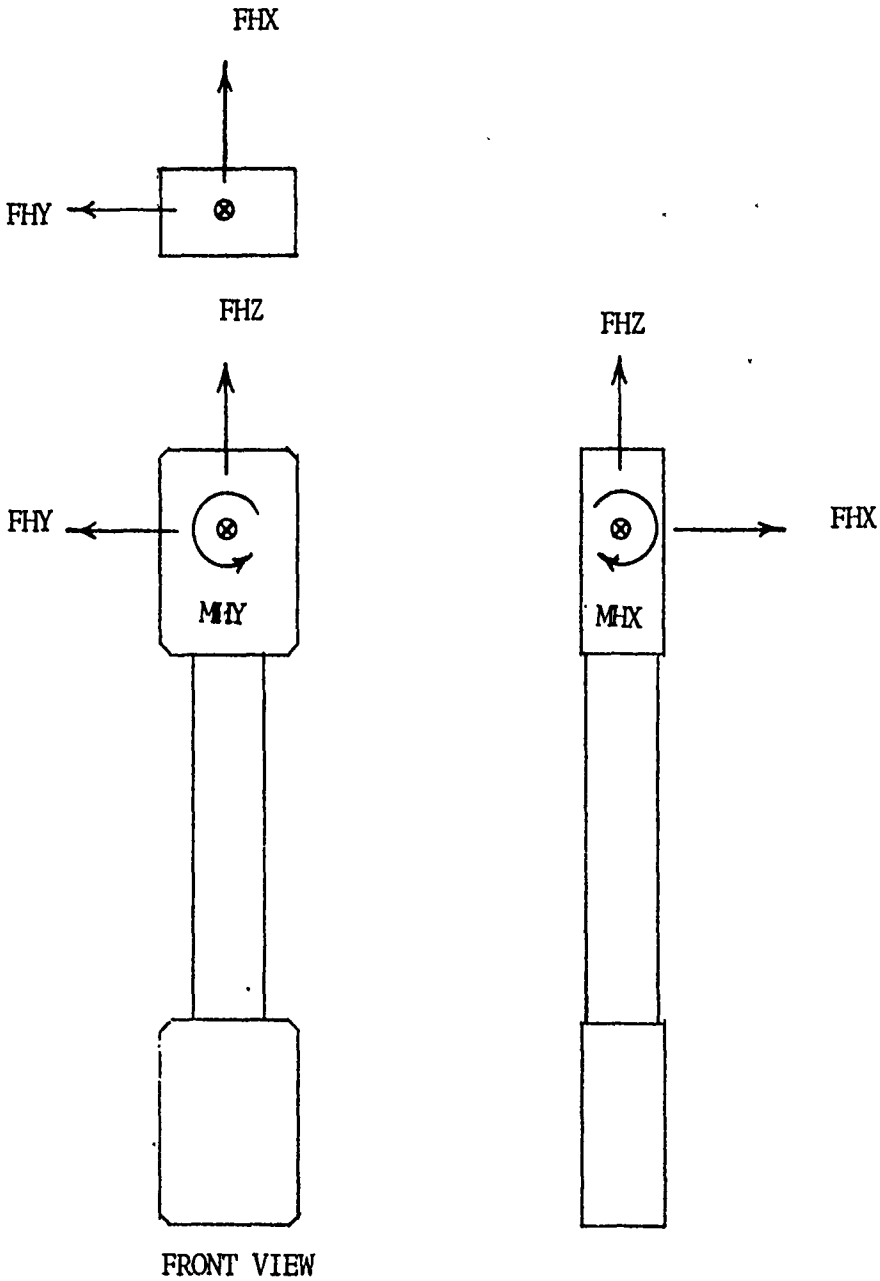


Figure 10. Neck beam axis system.

NOTE: RIGHT ARM SHOWN. LEFT AND RIGHT ARMS HAVE SAME POSITIVE DIRECTIONS.

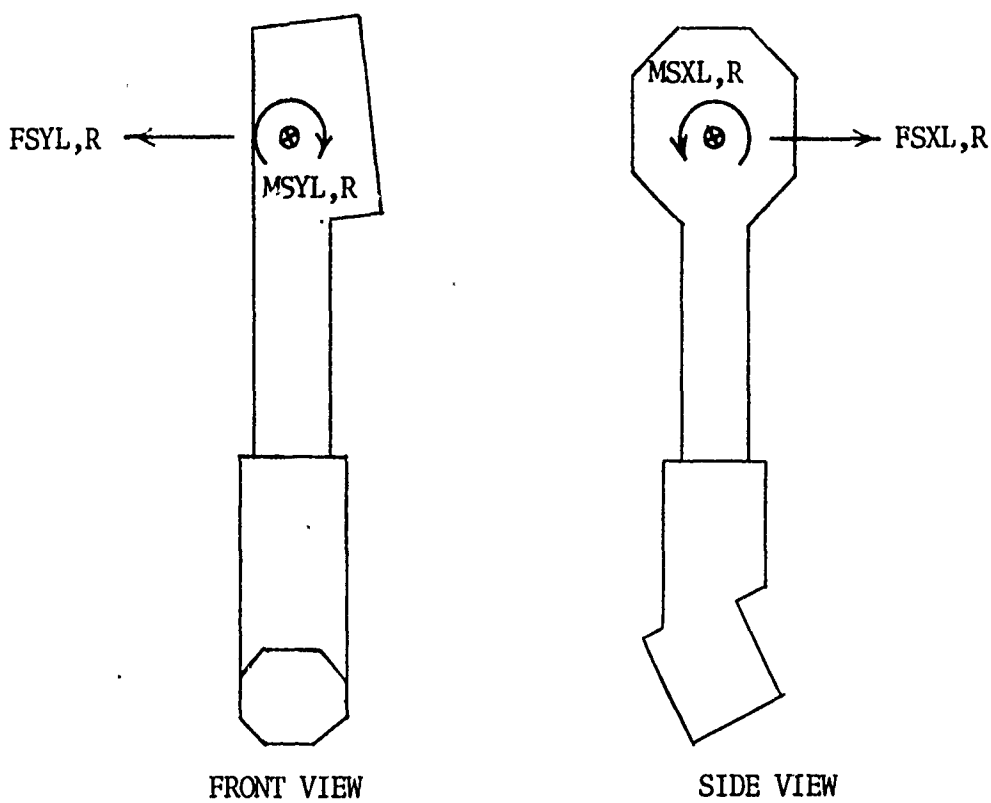


Figure 11. Upper arm axis system.

NOTE: LEFT AND RIGHT ARMS HAVE
SAME POSITIVE DIRECTIONS.

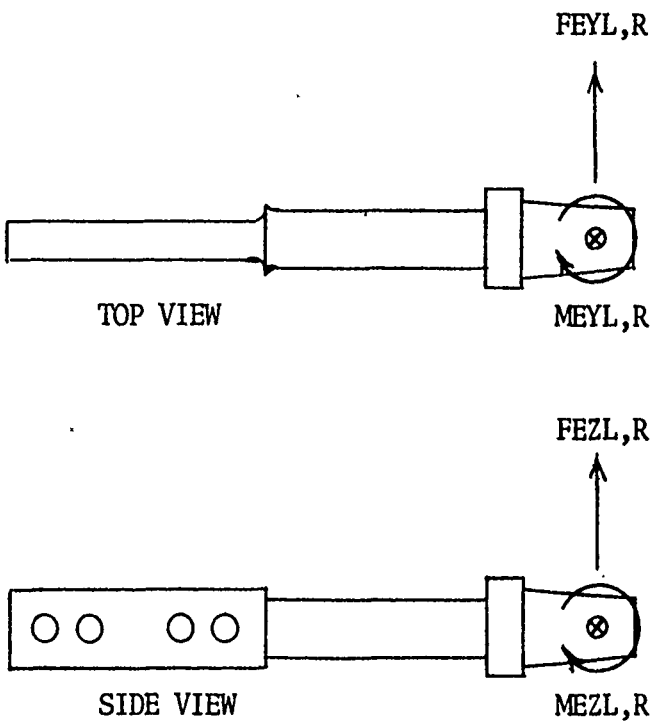
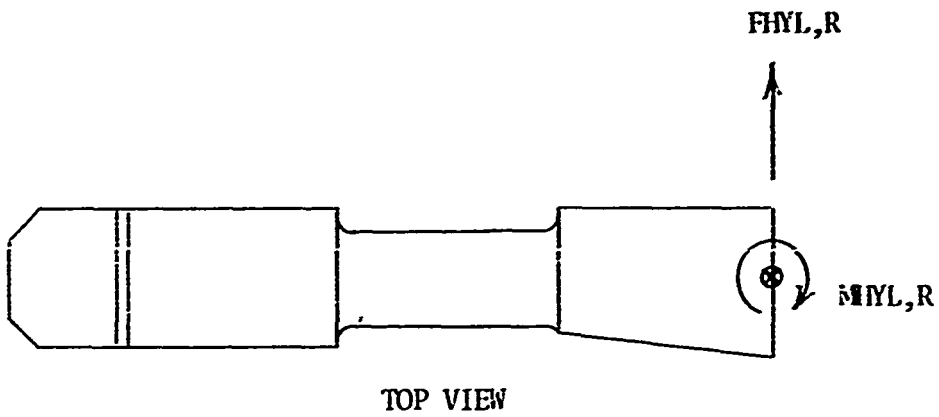


Figure 12. Lower arm axis system.

NOTE: LEFT LEG SHOWN. LEFT AND RIGHT LEGS HAVE SAME POSITIVE DIRECTIONS.



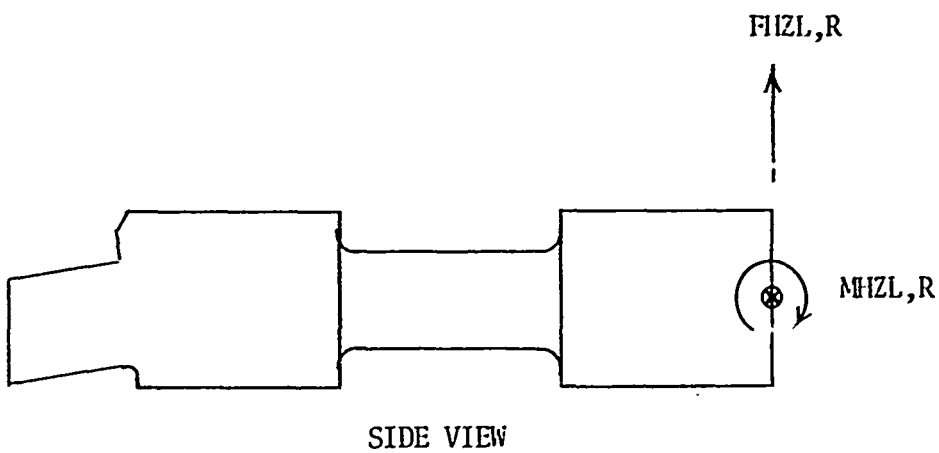


Figure 13. Upper leg axis system.

NOTE: LEFT AND RIGHT LEGS HAVE SAME POSITIVE DIRECTIONS.

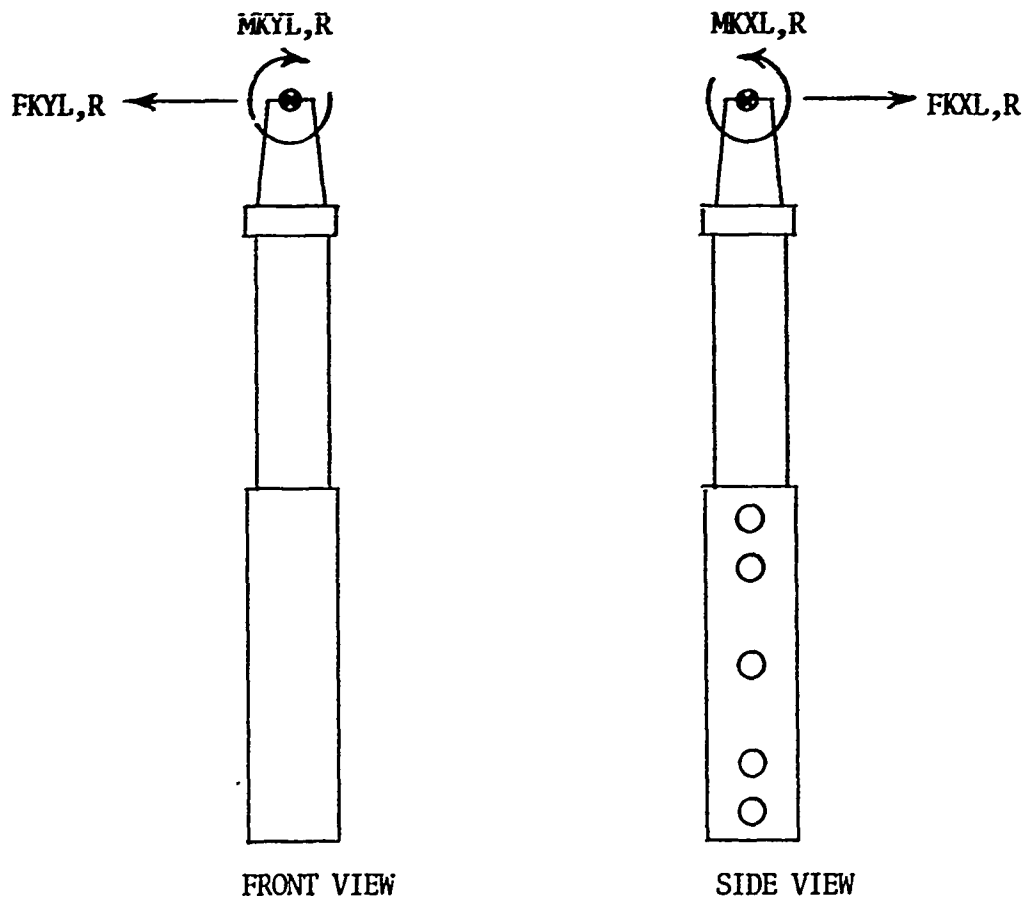


Figure 14. Lower leg axis system.

TABLE 3. CREWMAN HEAD STRAIN GAGE DATA REDUCTION EQUATIONS

FHZ is measured directly by bridge

$$FHi = \frac{MHi1 - MHi2}{KDi}$$

$$MHi = MHi2 + (KXi \times FHi)$$

where i = X,Y

and MHi1 = moment measured by lower (away from torso) bridge

MHi2 = moment measured by upper (nearest torso) bridge

KDi = distance between strain gages 1 and 2 (determined during calibration)

KXi = distance from MRC to strain gage 2 (determined during calibration).

TABLE 4. CREWMAN LIMB STRAIN GAGE DATA REDUCTION EQUATIONS

$$Fij = \frac{Mij1 - Mij2}{KDij}$$

$$Mij = Mij2 + (KXij \times Fij)$$

where i = EY, EZ, HY, HZ, KX, KY, SX, SY

j = L, R (left or right side of crewman)

and

Mij1 = moment measured by lower (away from torso) bridge

Mij2 = moment measured by upper (nearest torso) bridge

KDij = distance between strain gages 1 and 2 on a limb (determined during calibration)

KXij = distance from MRC to strain gage 2 (determined during calibration).

6.2 CREWMAN/SEAT

The crewman/seat force and moment data were reduced to coefficient form in the body axis system. Force-area and moment-volume parameters, both model (half) scale and full scale, were also calculated in the body axis system. The axis system and the moment reference center are shown in Figure 15. The moment reference center is located at the theoretical crewman/seat center of gravity. Transfer distances from the balance center are shown in Figure 16. The force and moment coefficients are based on a reference area, S, equal to the model projected frontal area and a reference length, d, equal to the diameter of a circle whose area is equivalent to the model projected frontal area. The values of these dimensions are:

$$S = 1.600 \text{ ft}^2$$

$$d = 17.128 \text{ in.}$$

6.3 CREWMAN PRESSURES

Crewman static pressure data were measured and presented in both engineering units of pounds per square foot absolute and as static pressure coefficients. The variables are:

Static Pressure	Static Pressure Coeff.	Location
PSH	CPH	Head
PSC	CPC	Chest
PSA	CPA	Abdomen
PSLL	CPLL	Left Leg
PSRL	CPRL	Right Leg
PSSBR	CPSBR	Seat Back (Ref.)

Pressure orifice locations were discussed in Section 4.3.

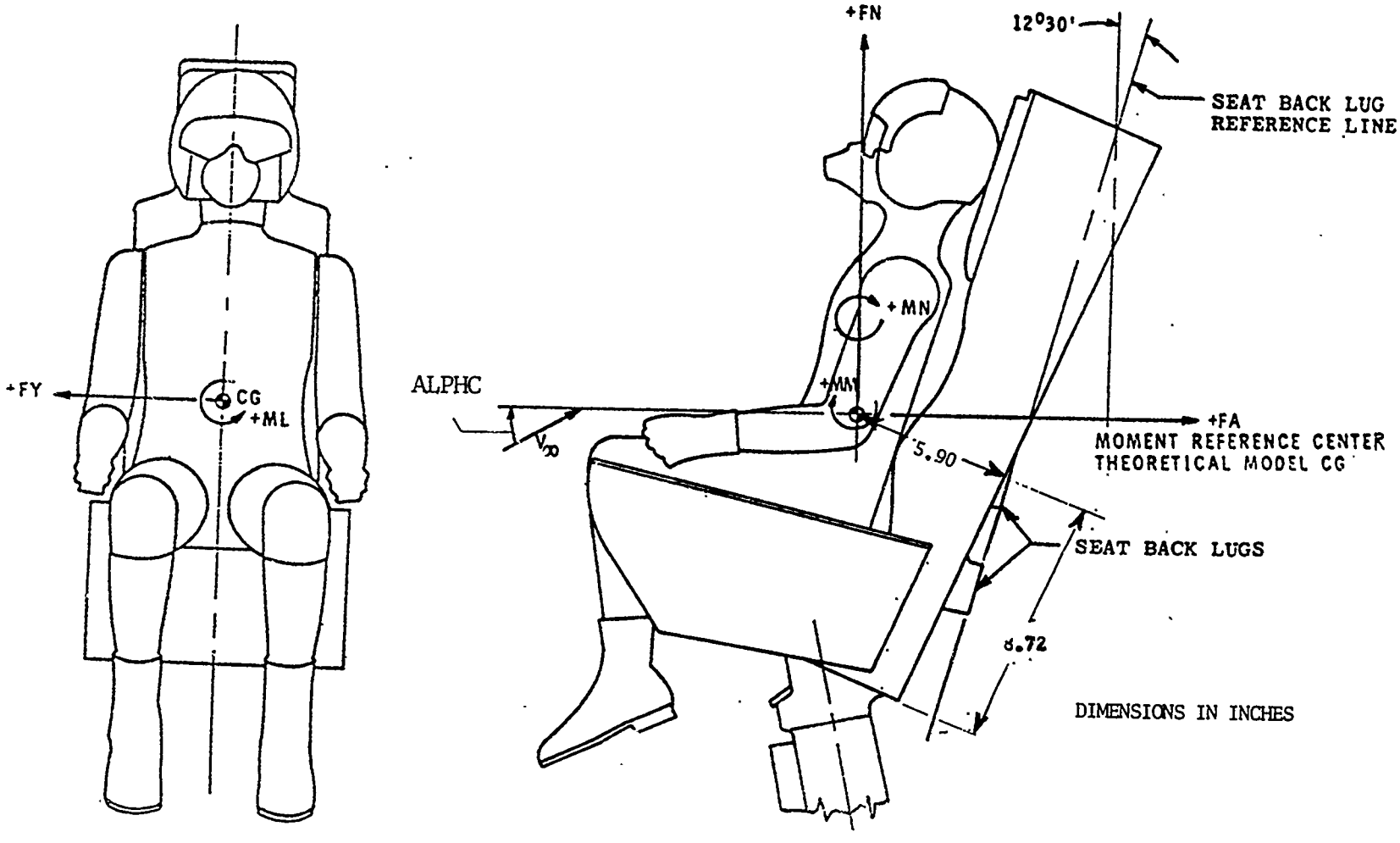


Figure 15. Crewman/seat body axis reference system.

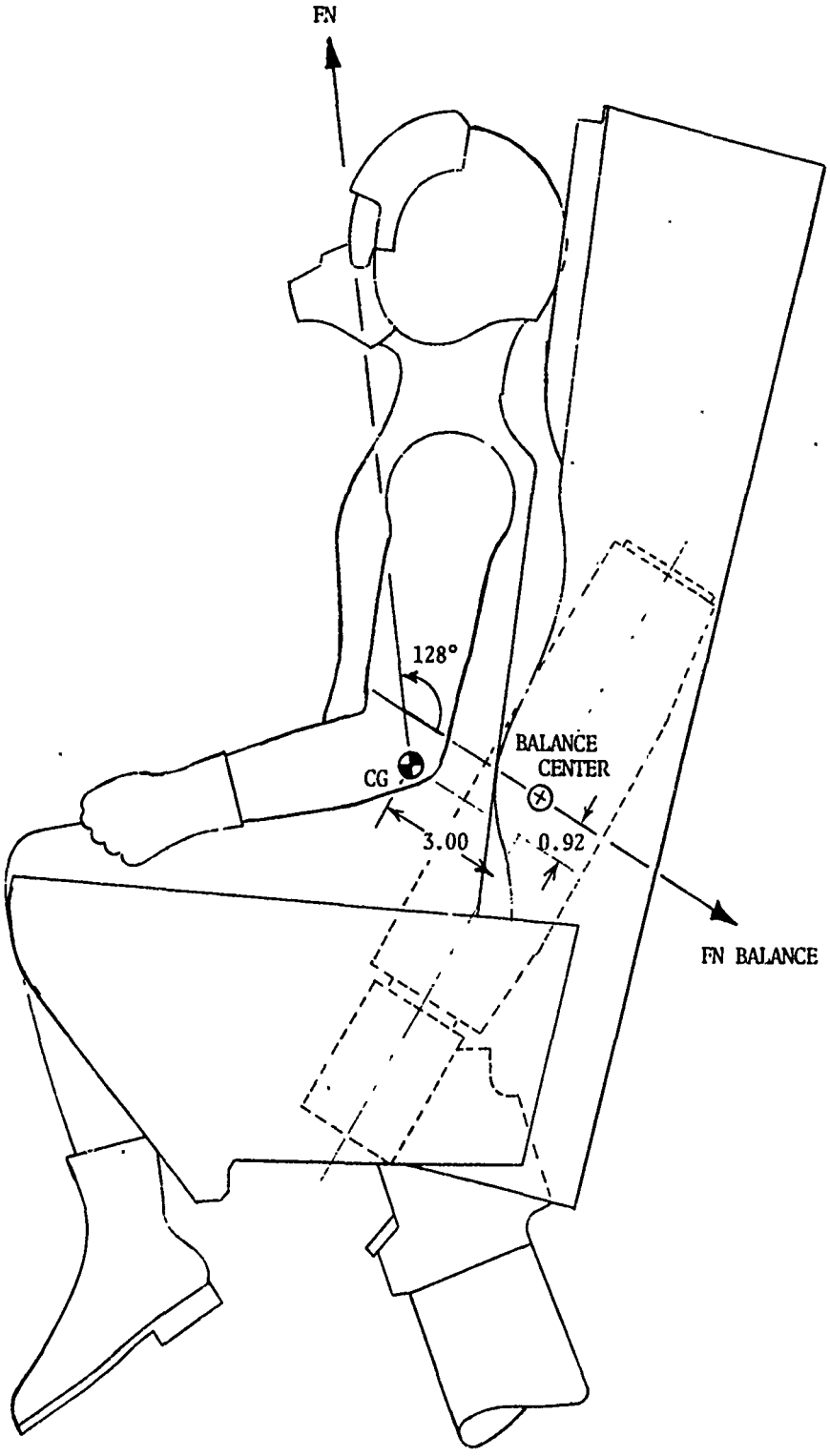


Figure 16. Balance transfer distances.

6.4 FOREBODY

A calculation can be made of the force required to hold the forebody in position (FFHC). This can be done using the pressures in the hydraulic cylinder that moves and holds the forebody in place. These pressures were measured during the test as described in Section 4.5.

6.5 DATA TABULATIONS

All the data of one type from all the different test points are listed together on a series of pages in the appendix. Each page has as identification the test number and the date it was produced. Each line of data for all types has the following identification.

Run and test point number (RN/PN)
Mach number (MACH)
Dynamic pressure (Q)
Ejection position (EJPOS)

6.6 DATA PLOTS

Selected data have been plotted in the form of comparison plots. These plots are discussed in Section 7.

SECTION 7
RESULTS

The complete results of the test are presented in the tabulated listing of the Appendix. These listings are summary in nature with data grouped according to the instrumentation from which the data were obtained. Within each group, the data obtained during each test run/point are displayed on a separate line.

The groupings are:

Crewman/seat total force and moment coefficients	pages 74 through 78
Lower leg force areas and moment volumes	pages 74 through 83
Upper leg force areas and moment volumes	pages 79 through 83
Lower arm force areas and moment volumes	pages 84 through 88
Upper arm force areas and moment volumes	pages 84 through 93
Neck force areas and moment volumes	pages 89 through 93
Pressure coefficients	pages 94 through 98

On the first night of testing fouling occurred between the crewman's left leg and the forebody at EJPOS = 0. The total crewman/seat and left leg data taken at EJPOS = 0 are therefore unusable and are marked out in the tables. Another problem was found relating to pressure measurements. During the first night of testing, the airstream pulled pressure tubes up through the floor and consequently some tubes were pinched so that pressures could not be read by the pressure transducers. Therefore those data are missing from the tables.

Determined from collected data were: crewman/seat forces and moments in engineering units, force areas and moment volumes (both model scale and

full scale) and coefficients; crewman limb and neck forces and moments in engineering units and in force areas and moment volumes; static pressures and pressure coefficients and; balance outputs for main and crewman limb and neck balances.

In addition to the complete tabulations presented in the Appendix, selected data are graphically presented and discussed.

The objective of the wind tunnel test program was to evaluate the Reynolds number influence on the aerodynamic force measurements made with the one-half scale models of the ejecting crewman and F-16 forebody. Reynolds number is the dimensionless ratio of inertial to viscous forces in fluid flow; it is used to properly simulate these forces during scale model testing. The forces acting on a model are a direct function of the inertial forces of the flow which are directly proportional to the product of the dynamic pressure of the flow (Q) and the characteristic area of the model (S). The model forces are also influenced by the viscous forces in the flow. However, they are not a direct function of the viscous forces. The viscosity of the fluid affects the boundary layer (type, transition point, separation point). The viscous force is directly proportional to the velocity through the fluid (V), the characteristic length of the model (ℓ) and the absolute viscosity (μ).

$$RN = \frac{\rho V^2 \ell^2}{\mu V \ell} = \frac{\text{Inertial Force}}{\text{Viscous Force}} = \frac{\rho V \ell}{\mu}$$

In wind tunnel testing of scale models the characteristic length is generally smaller than the full-scale article and thus the unit Reynolds number (Reynolds number per foot length ($\rho V/\mu$) has to be larger than anticipated flight values in order to match full-scale Reynolds number values. The unit Reynolds number is changed in the wind tunnel by operating the tunnel at a higher total pressure which increases the density and the unit Reynolds number of the test medium.

The problem in evaluating Reynolds number effects is that they are very small relative to the inertial effects and neither the kinematic viscosity (μ/ρ)

nor the model size can be changed easily during a wind tunnel test. Changes in velocity also change the dynamic pressure. It is directly proportional to the square of the velocity. Therefore, changes in Reynolds number are accompanied by changes in dynamic pressure.

To keep the viscous influence from being obscured by the larger inertial airload on the model, the loads measured with the model need to be converted to inertia force coefficient form (C = Force/Q S) or force area parameter (CF = Force/Q). The influence of Reynolds number on the inertia forces can then be identified by changes in the coefficient or force area parameter obtained by testing at different Reynolds numbers.

The importance of the simulation of Reynolds number in general aerodynamic testing is shown in Figure 17 which presents the drag coefficient of a sphere versus Reynolds number for several Mach numbers. The importance of Reynolds number simulation is apparent in the drag coefficient variation with Reynolds number. It is noted that the Reynolds number influence on the drag force of spheres is not nearly as pronounced as it is in the drag coefficient. Thus coefficient data or force area/moment volume data is used to evaluate trends with Reynolds numbers.

The evaluation of the influence of Reynolds number on the crewman/seat and component data (limbs) included an evaluation of the influence of the F-16 forebody and the local flow conditions on the crewman. A schematic of local flow on the F-16 forebody and crewman/seat is presented in Figure 18.

Estimates of the boundary layer state on the forebody were determined over the range of test Reynolds numbers. Using an average transition Reynolds number of 10^6 the boundary layer should experience natural transition to turbulent within the first foot of length. Thus, the boundary layer state approaching the cockpit cavity should be a fully developed turbulent boundary layer for all test conditions. At the cockpit cavity the boundary layer will form a shear layer between the external flow and the cavity flow as shown in

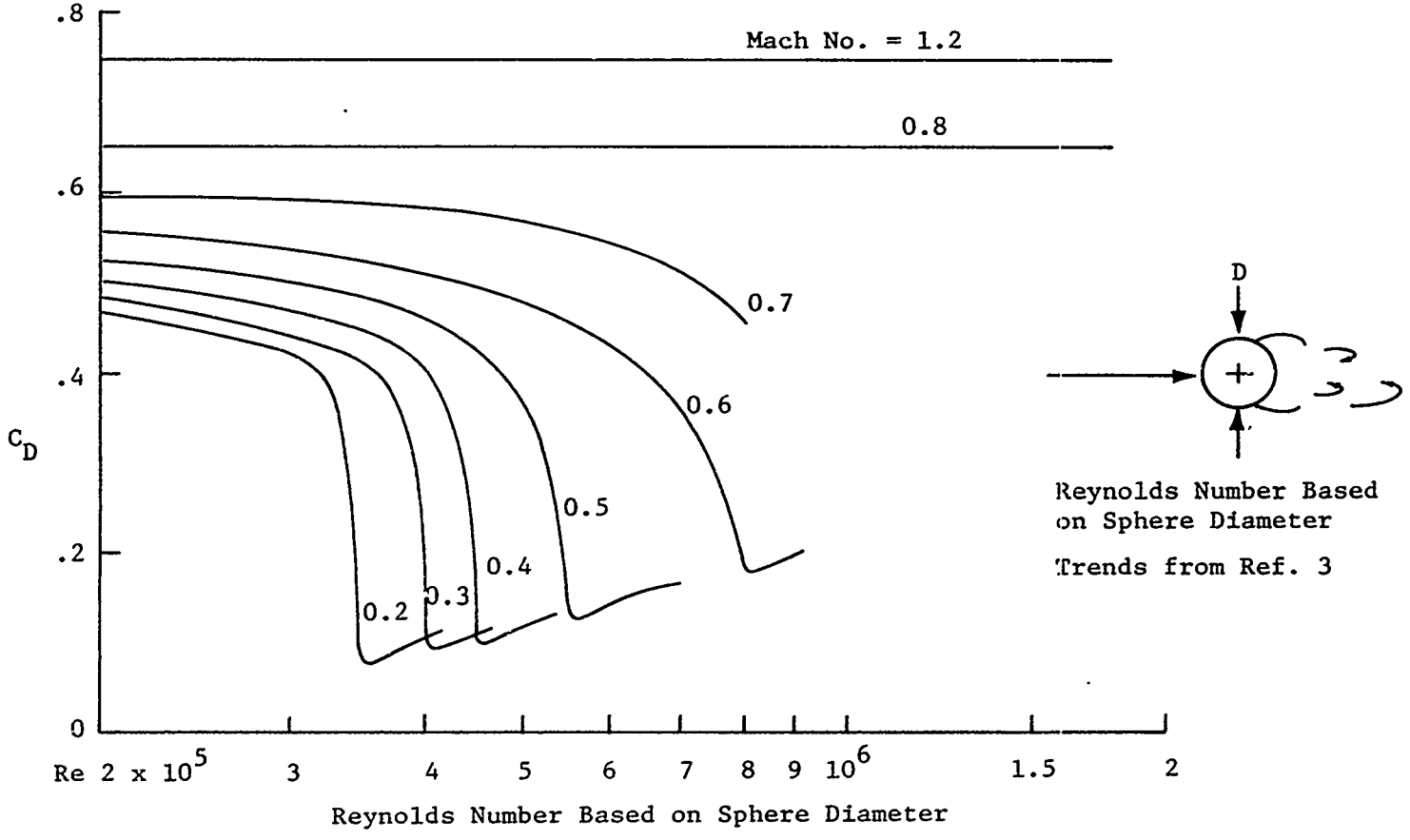


Figure 17. Sphere Drag Coefficient vs Reynolds Number-Mach Number

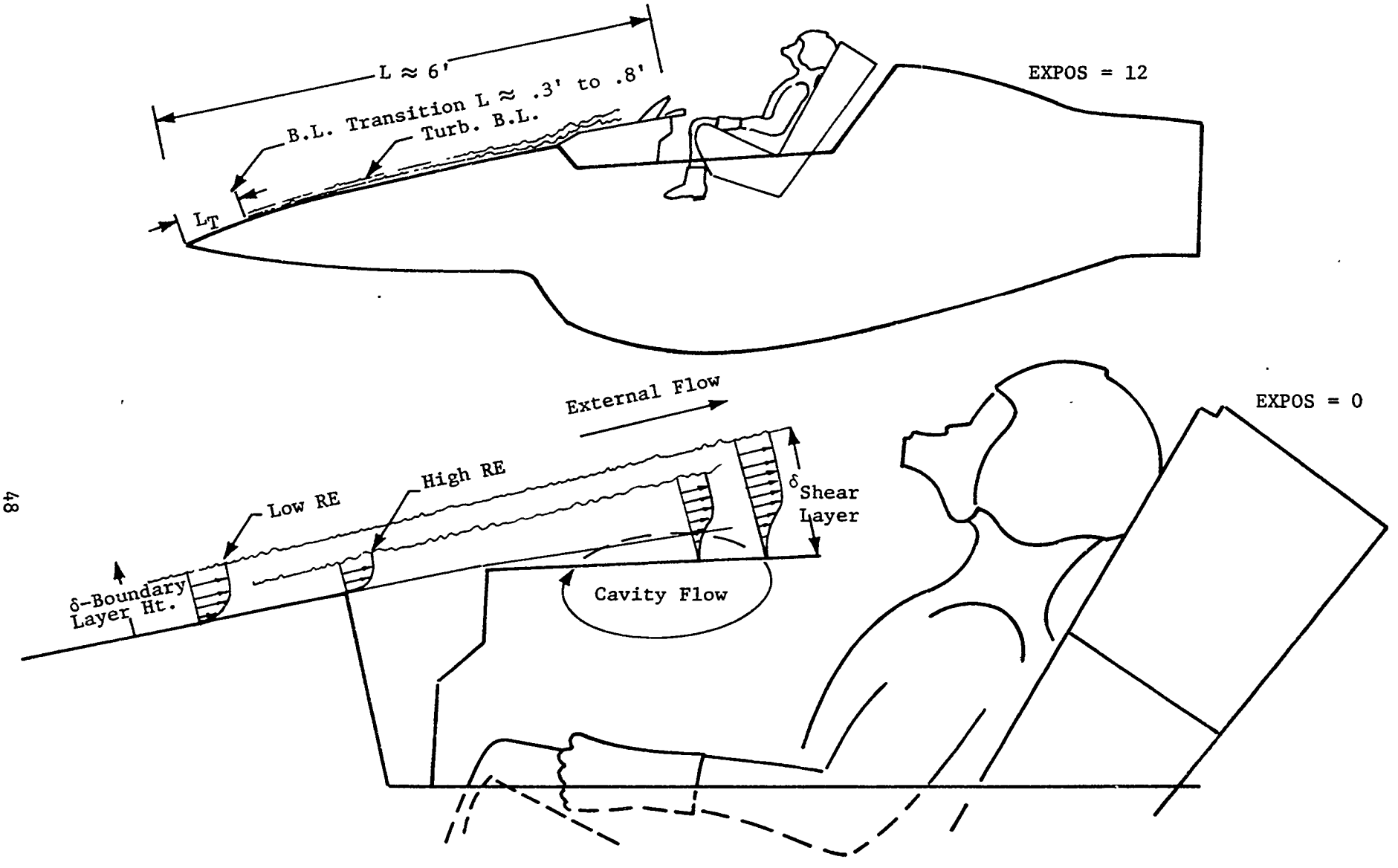


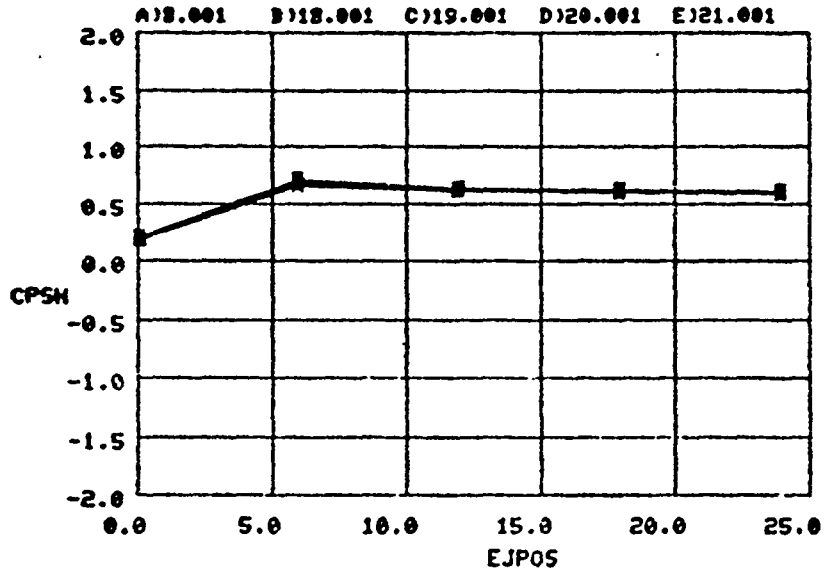
Figure 18. Schematic of Local Cockpit Flow

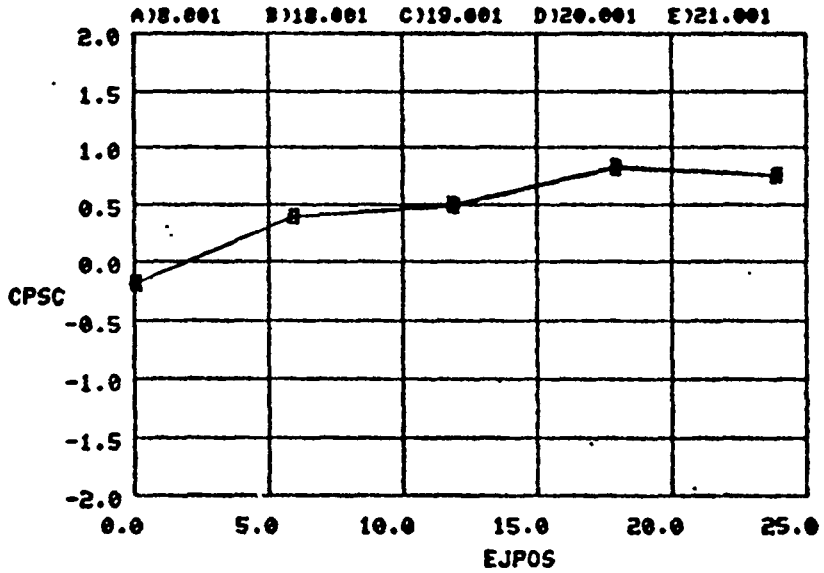
Figure 18. The difference in the height of the shear layer for the low Reynolds number condition has been exaggerated in the schematic to show relative trends with changes in Reynolds number.

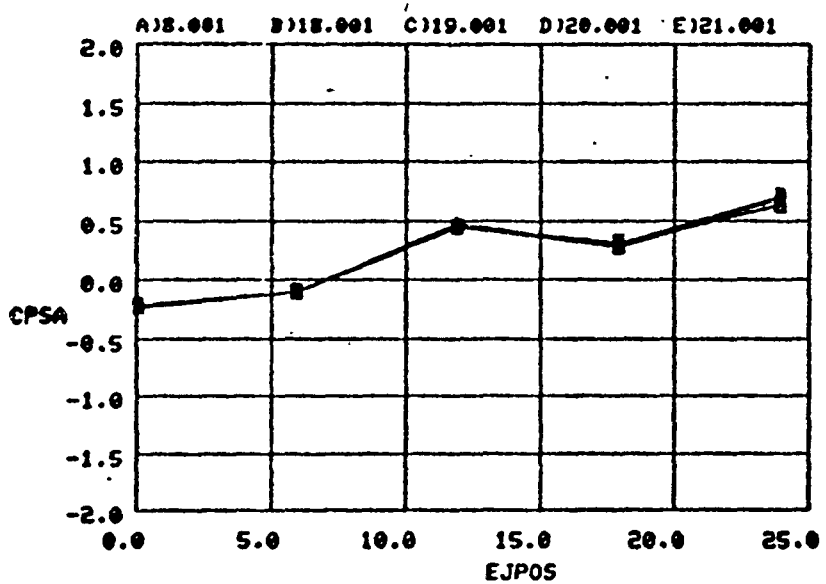
Local pressure coefficient data on the crewman centerline provide a means for assessing any changes in the upstream flow conditions. A change in local pressure coefficient would identify a change in the local cavity flow, shear flow conditions or external flow conditions as the crewman/seat is traversed through these flow environments. It was expected that if upstream flow conditions changed due to Reynolds number variation these changes would show up in changes in the local pressure coefficient for taps located in the shear flow between the cockpit flow and the external flow. This is due to the sensitivity of the shear flow velocity profile to any integrated change upstream of the forebody nose.

The location of the pressure instrumentation was presented in Figure 9. Selected body pressure coefficient data are presented in Figures 19 and 20. These figures show that the magnitude of the pressure coefficient data is the same over the range of Reynolds numbers tested. Each symbol on each curve corresponds to the table of flow conditions on the figure. Thus each symbol plotted (A, B, C, etc.) represents a different unit Reynolds number. If the pressure coefficient data varied with Reynolds number the plot symbols would be separated and each symbol would be identifiable as a different value of pressure coefficient corresponding to different Reynolds numbers. Since the symbols are essentially plotted on top of each other, separate symbols (A, B, etc.) cannot be identified showing that the local pressure coefficient is essentially identical for each unit Reynolds number tested.

The cavity pressure environment is noted in Figures 19 and 20 to have a pressure coefficient value of approximately -0.20 as noted by the value of CPSA, CPSC, CPSLL and CPSRL at the zero ejection position. The chest and abdomen areas are in a cavity flow environment at zero ejection position since the pressure coefficient for these locations at zero ejection position is the same as the leg values. The head is in a shear flow environment at



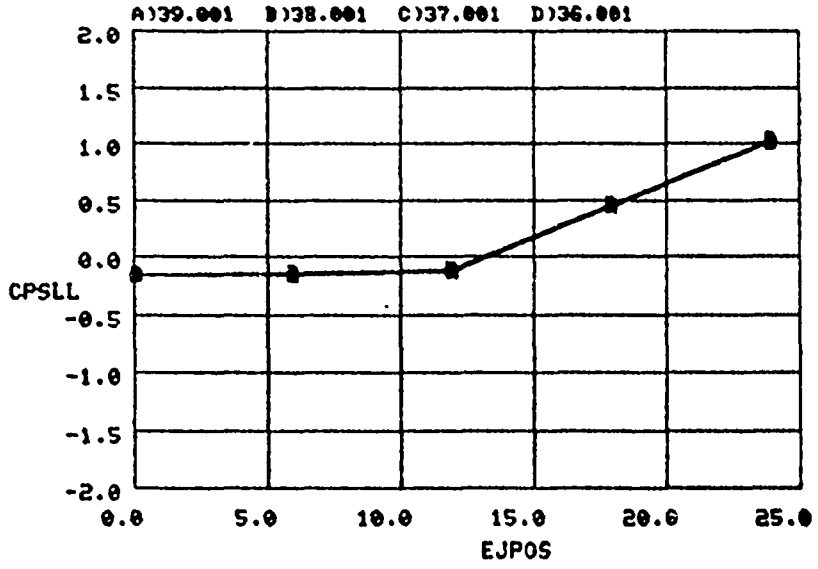


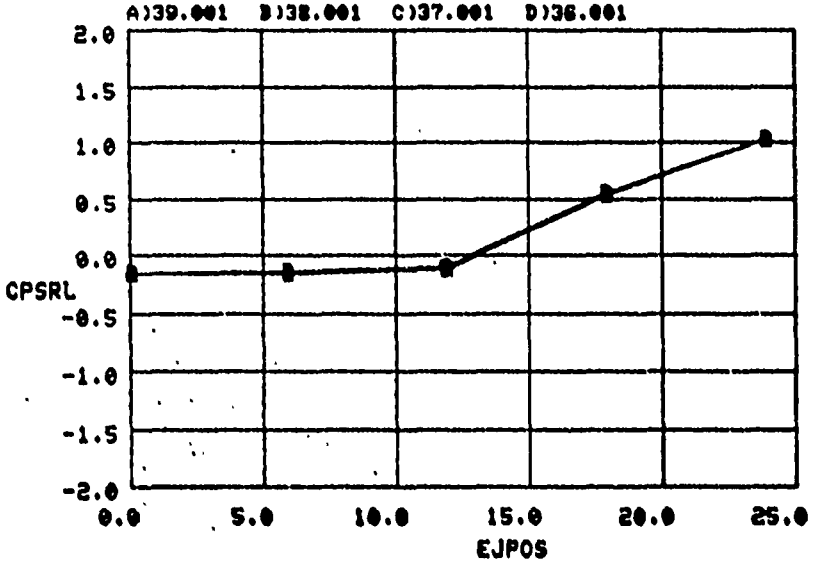


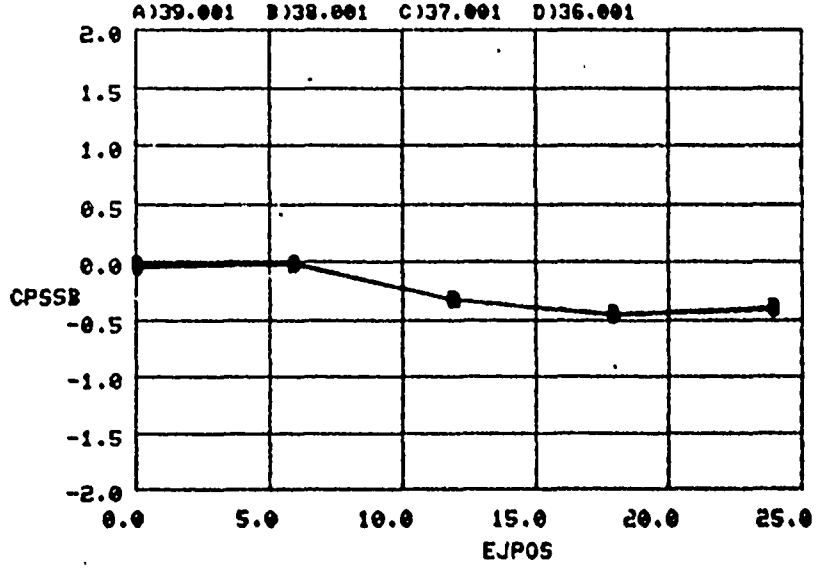
M = 0.6

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	8	200	1.55
(B)	18	300	2.32
(C)	19	400	3.09
(D)	20	500	3.87
(E)	21	600	4.64

Figure 19. Head and torso pressure coefficients vs EJPOS.







M = 0.4

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	39	100	1.18
(B)	38	150	1.77
(C)	37	200	2.35
(D)	36	220	2.59

Figure 20. Leg and seat back pressure coefficients vs EJPOS.

zero ejection position since the head pressure coefficient is higher than the cavity and lower than the pressure coefficient at higher ejection positions.

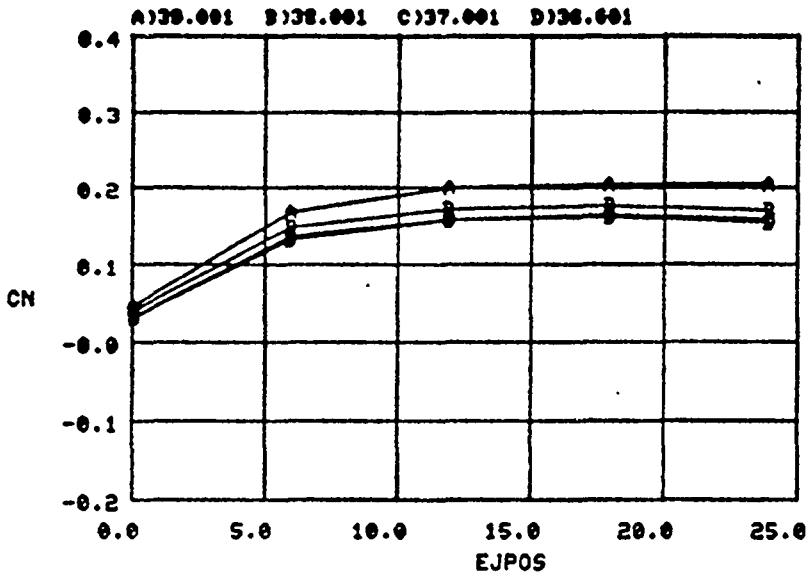
The leg pressure coefficient data show the most extreme range (C_p = -0.2 to +1.0) over the ejection positions (Figure 20). The leg pressure data shows cavity flow conditions for ejection positions of 0, 6 and 12 inches. Shear flow conditions exist at 18 inches and full stagnation external flow conditions exist at 24 inches (C_p = 1.0). It is noted that there is no variation in the leg pressure coefficient data at an ejection position of 16 (shear flow) or any other position. Thus the pressure coefficient data show that there is no Reynolds number influence on the far field (F-16 forebody) or near field (cavity, shear) flow environment near the model.

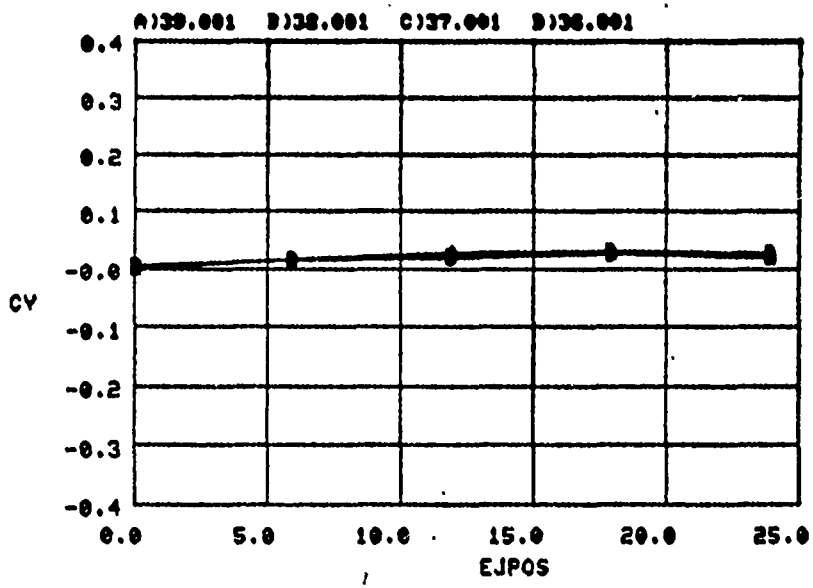
Figures 21 through 31 show selected examples along with supporting data on spheres and cylinders, where the aerodynamic data changes with Reynolds number. These plots, like the pressure coefficient data in Figures 19 and 20 use symbols (A, B, C etc.) to identify different tunnel flow conditions (Q and unit Reynolds number).

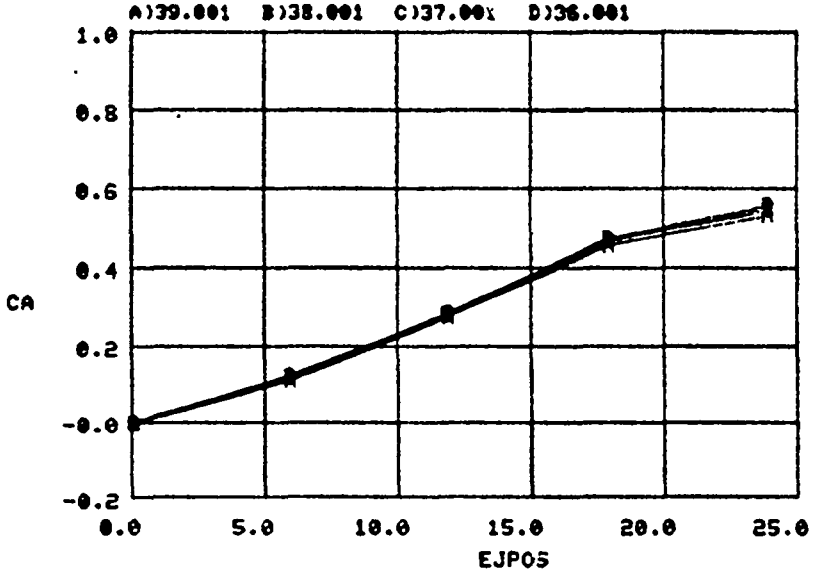
Data plots that show a relatively large separation of the symbols identify aerodynamic data that are substantially influenced by Reynolds number. Data plots that show little or no separation of the symbols show little or no Reynolds number influence.

Figure 21 shows the influence of Reynolds number on certain crewman/seat data. The largest Reynolds number influence occurred on the crewman seat normal force coefficient (C_N) as shown by the separation of the plot symbols (A, B, C, etc.). The axial force coefficient (C_A) and side force coefficient (CY) show little change with Reynolds number.

Figure 22 shows the influence of Reynolds number on the crewman head/helmet lift data. The head/helmet lift force area parameter presented in the figure shows a large Reynolds number influence by the large separation of the







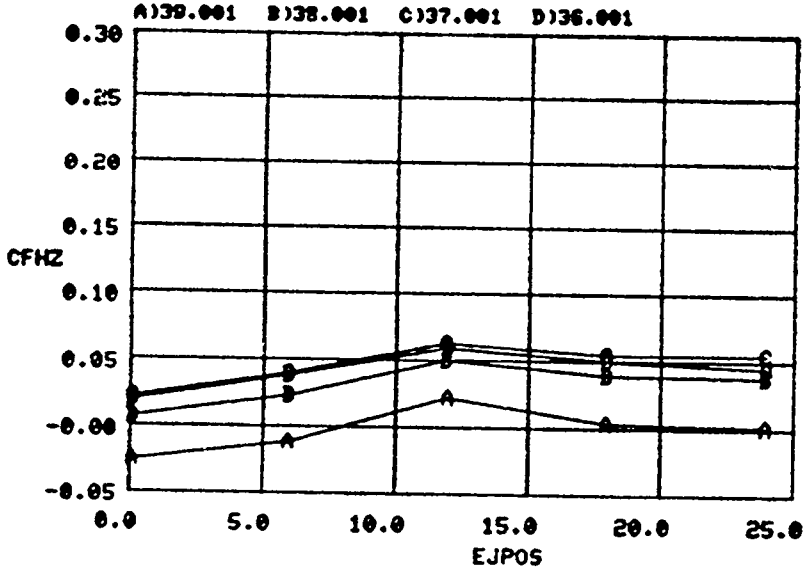
M = 0.4

	Run	Q(psf)	RE x 10^{-6}/ft
(A)	39	100	1.18
(B)	38	150	1.77
(C)	37	200	2.35
(D)	36	250	2.59

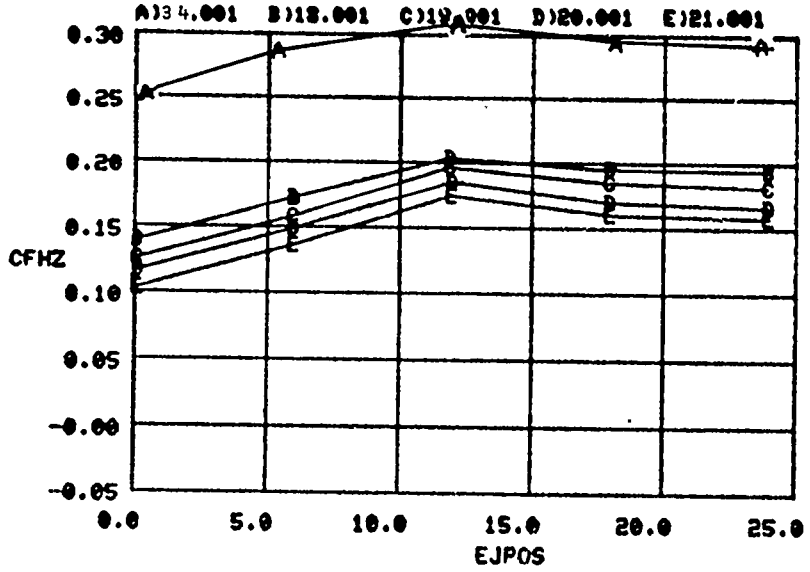
Figure 21. Crewman/seat Total force coefficients vs EJPOS.

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	39	100	1.18
(B)	38	150	1.77
(C)	37	200	2.35
(D)	36	220	2.59

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	34	200	1.55
(B)	18	300	2.32
(C)	19	400	3.09
(D)	20	500	3.87
(E)	21	600	4.64



a. M = 0.4



b. M = 0.6

Figure 22. Helmet Lift Force Area vs EJPOS

symbols corresponding to different unit Reynolds numbers. The head/helmet lift force area parameter CFHZ was plotted versus Reynolds number (Figure 23) of the head to evaluate specific Reynolds number trends. The model head/helmet is nearly spherical with a diameter of approximately 5 inches. The head Reynolds number is thus determined using the flow unit Reynolds number (table on Figure 22 for Mach 0.6) times the head diameter in feet (0.416).

Figure 23 shows that there is a large change in the head/helmet force area parameter in the Reynolds number range between 6 to 9 x 10^5. Figure 17 shows a corresponding large change in the drag of spheres at Mach 0.6 in the same Reynolds number range. Thus spherical shapes experience a change in the boundary layer separation characteristics in the Reynolds number range between 6 to 9 x 10^5 at Mach 0.6. Figure 23 shows that a similar phenomenon must exist on the head/helmet in this Reynolds number range. The figure also shows that extrapolation of the helmet/head lift data at the lower Reynolds numbers to higher Reynolds numbers would develop erroneous results. It is noted that a head lift data repeatability problem existed during the test and the head lift area parameter has a high level of uncertainty. The level of uncertainty, however, is not felt to negate the Reynolds number trends and conclusions.

The head lift is envisioned as being due to differences in the flow separation location over the lower and upper portions of the head as shown in Figure 24. Figure 24 shows the change in sphere lift coefficient versus the change in the lower surface local boundary layer separation position. The model crewman's neck corresponds to the angular location of the lower separation location that creates large sphere lift coefficients. Figure 24 shows a Reynolds number trend that corresponds to the trend at Mach 0.4 (Figure 22) rather than the trend at Mach 0.6. The trend in Figure 24 corresponds to the lower Mach number.

The head/helmet axial force area parameter and moment volume parameter shown in Figure 25 also shows some variation with Reynolds number. The largest variation in head/helmet axial force occurs at an ejection position of 12 inches and corresponds to the ejection position of maximum head/helmet lift (Figure 22).

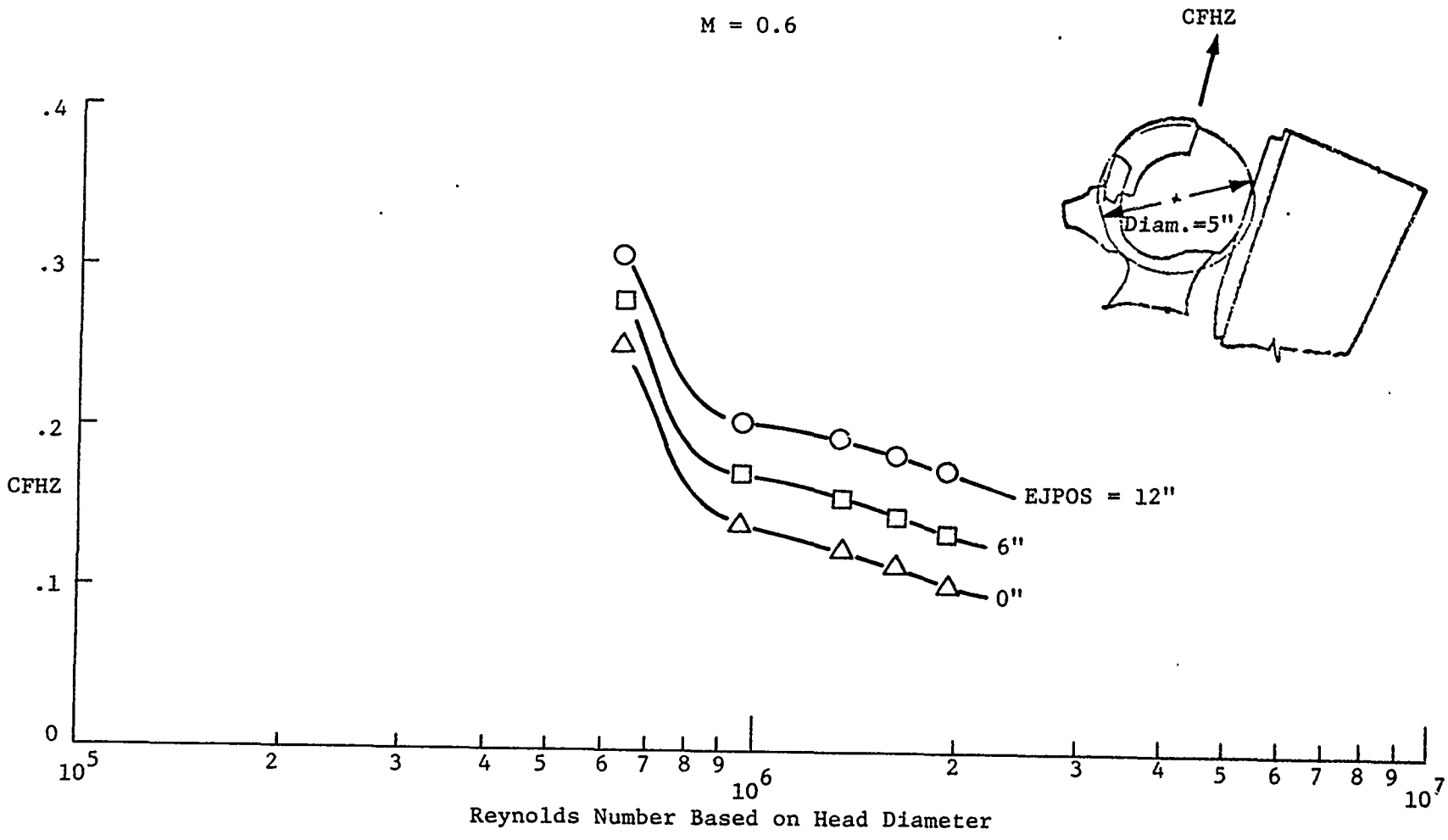


Figure 23. Helmet/Head Lift Force Area vs Reynolds Number

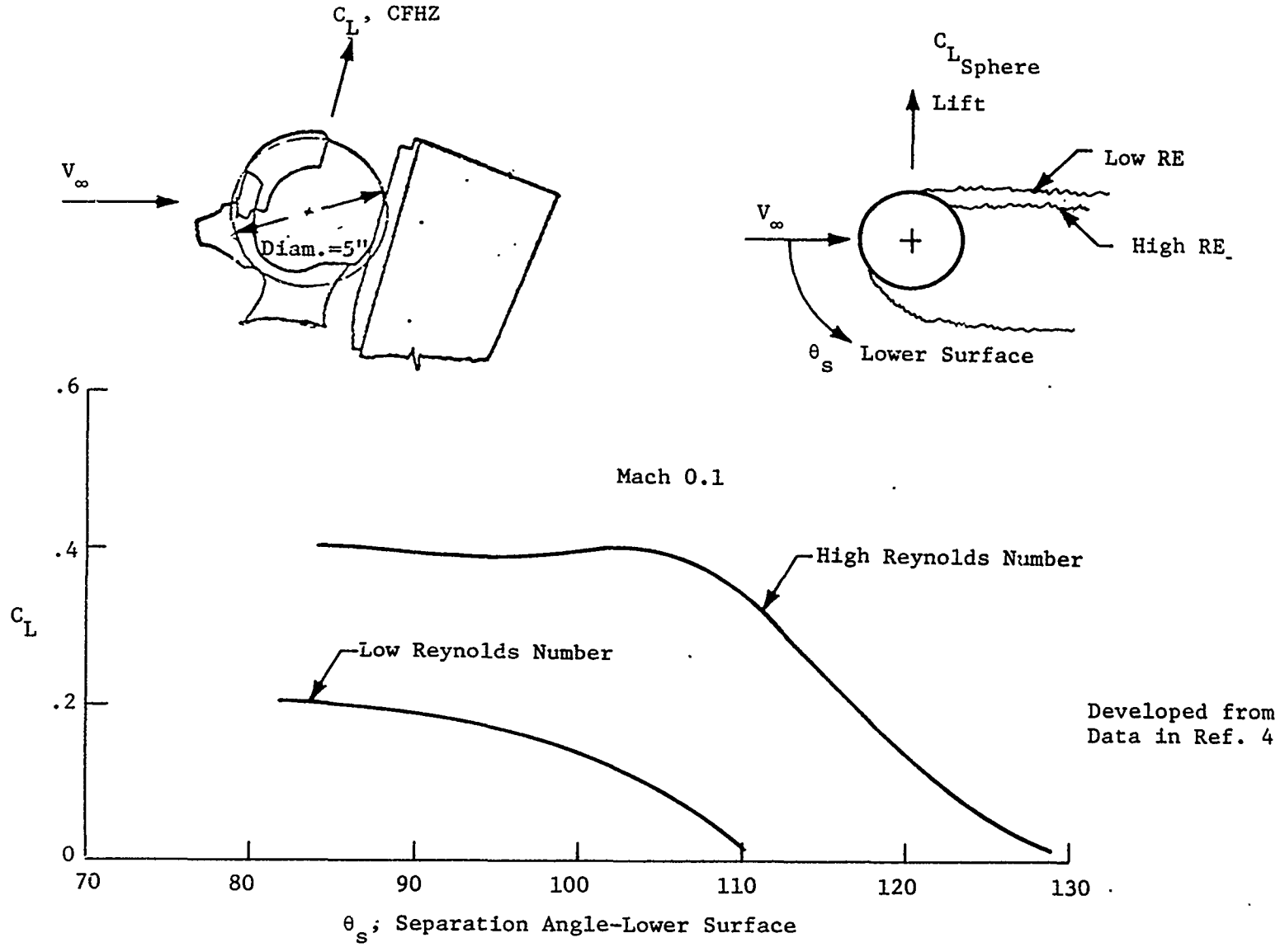


Figure 24. Sphere Lift Coefficient — Asymmetrical Boundary Layer Separation

M = 0.4

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	39	100	1.18
(B)	38	150	1.77
(C)	37	200	2.35
(D)	36	220	2.59

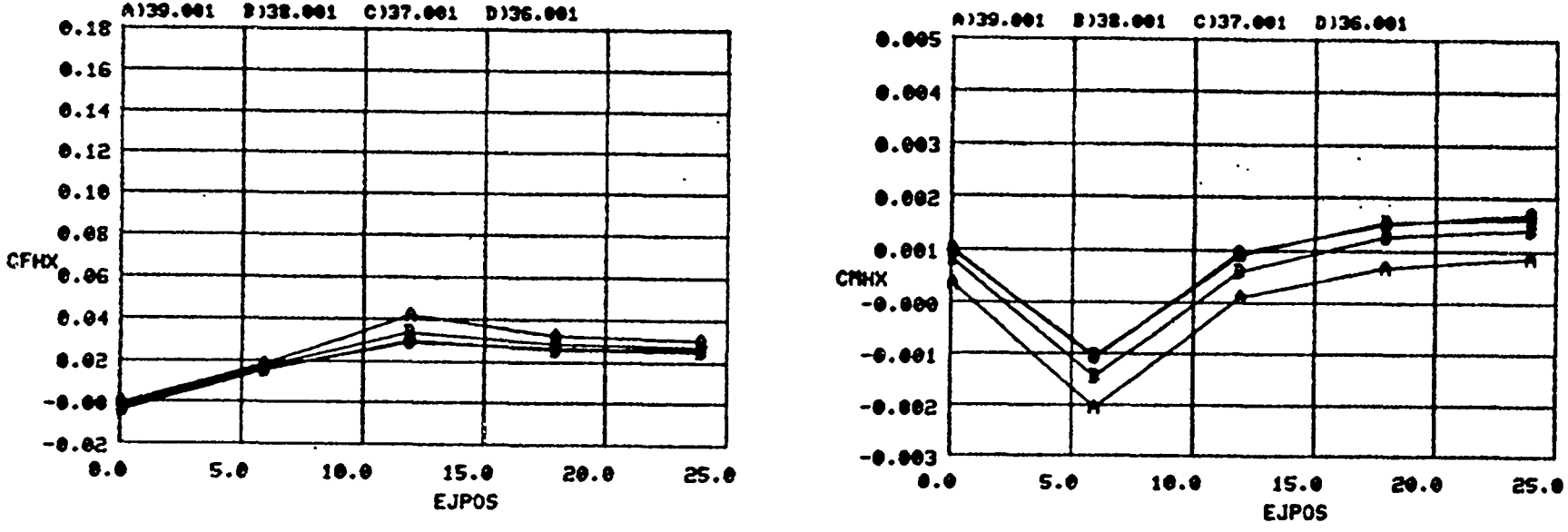


Figure 25. Head longitudinal force and moment coefficients vs EJPOS.

The upper arm axial and side force area and moment volumes are presented in Figures 26 and 27 for Mach number of 0.4 and 0.6, respectively. Both the axial force area (CFSXL) and the side force area (CFSYL) parameters show variation with Reynolds number by the spread of the curves. The side force area parameter has the largest variation with Reynolds numbers. The side force area parameter at Mach 0.6 (Figure 27) is presented versus Reynolds number based on the upper arm diameter in Figure 28. The figure shows that the high upper arm side force area parameter at the largest ejection position would be difficult to extrapolate to high Reynolds number values based on lower Reynolds number trends.

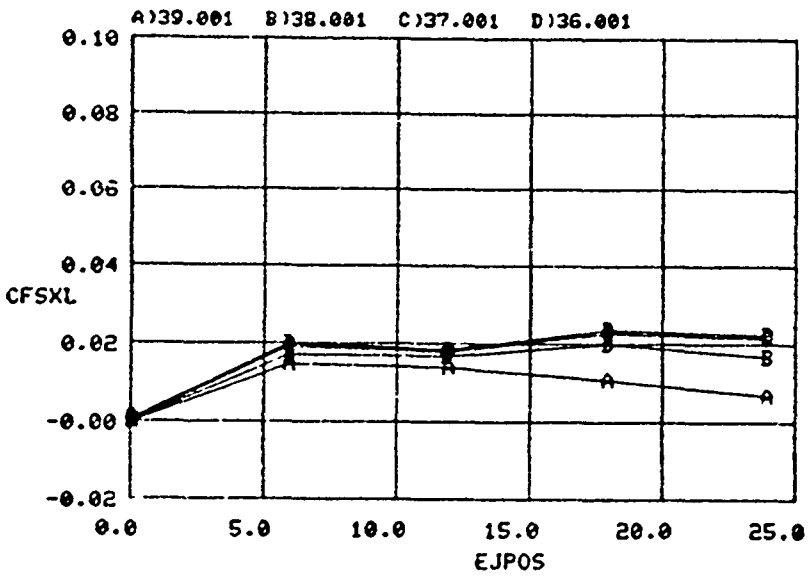
The side force area parameter on the upper arm is due to the flow around the upper torso arm combination as shown in Figure 29. Thus the local flow angle approaching the upper arm is at an angle to the upper arm. The side force on irregular cylinder shapes versus Reynolds number is also presented in Figure 29. The figure shows that the critical Reynolds number is in the range of 5 to 9 x 10^5. It is noted in Figure 28 that the change in upper arm side force occurs in the Reynolds number range from 5 to 9 x 10^5. Thus it appears that the upper arm side force may have similar Reynolds number trends as an irregular cylinder.

The lower left arm lateral and lift aerodynamic data is presented in Figures 30 and 31. These figures show smaller Reynolds number variations than the upper arm data.

The upper leg vertical and lateral force and moment aerodynamic characteristics are presented in Figures 32 and 33. Figure 32 shows a substantial variation in upper leg lift and moment data at Mach 0.4. Figure 33 shows that the Reynolds number influence is evident at the higher Mach numbers although reduced considerably. The lower leg aerodynamic characteristics showed almost no variation with Reynolds number except at the higher ejection positions as shown in Figures 34 and 35. This is due to the lower leg being in the cavity flow field of the cockpit except at the higher ejection positions. The influence of Reynolds number is clearly discernible at the high ejection position however.

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	39	100	1.18
(B)	38	150	1.77
(C)	37	200	2.35
(D)	36	220	2.59

M = 0.4



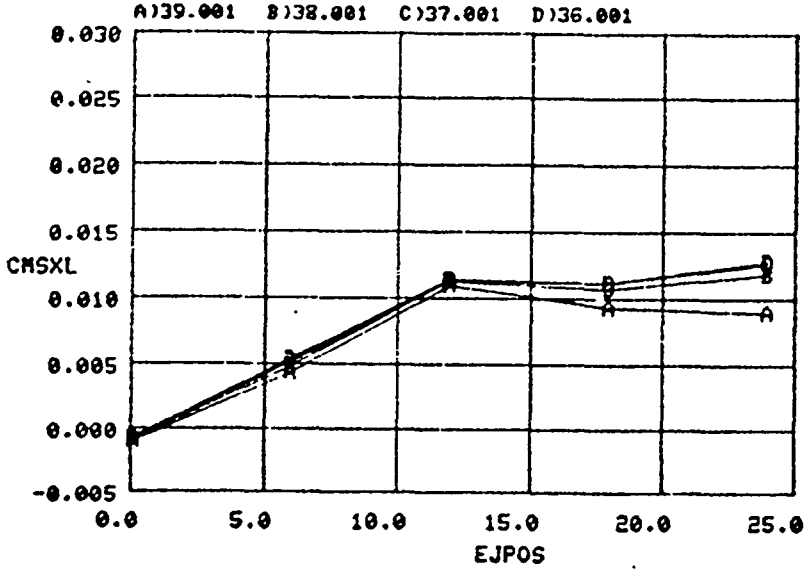


Figure 26. Upper Arm Force Areas and Moment Volumes vs EJPOS (Continued)

M = 0.4

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	39	100	1.18
(B)	38	150	1.77
(C)	37	200	2.35
(D)	36	220	2.59

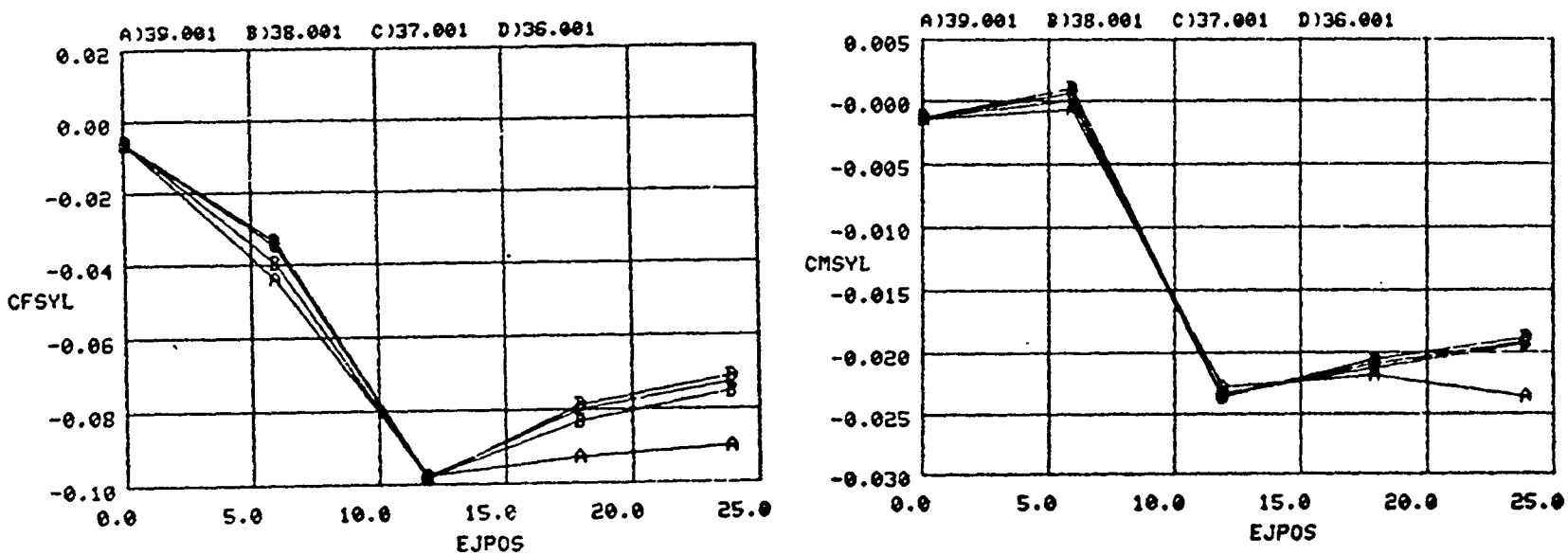
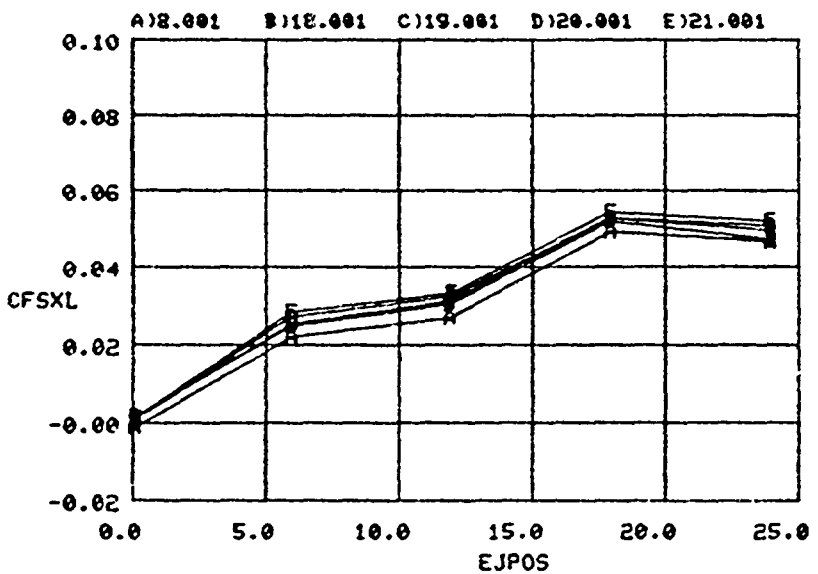


Figure 26. Upper Arm Force Areas and Moment Volumes vs EJPOS (Concluded).

M = 0.6

	Run	Q (psf)	Re x 10^{-6}/ft
(A)	8	200	1.55
(B)	18	300	2.32
(C)	19	400	3.09
(D)	20	500	3.87
(E)	21	600	4.64



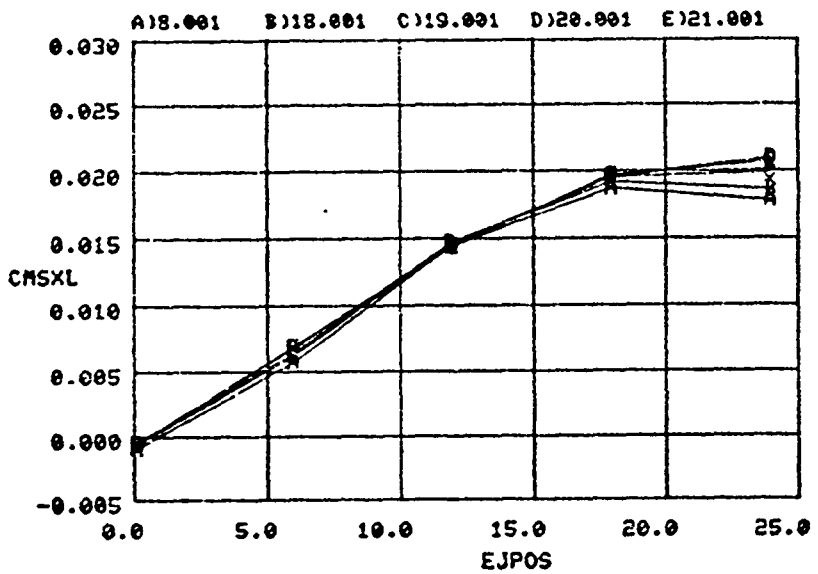


Figure 27. Upper Arm Force Areas and Moment Volumes vs EJPOS (Continued)

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	8	200	1.55
(B)	18	300	2.32
(C)	19	400	3.09
(D)	20	500	3.87
(E)	21	600	4.64

M = 0.6

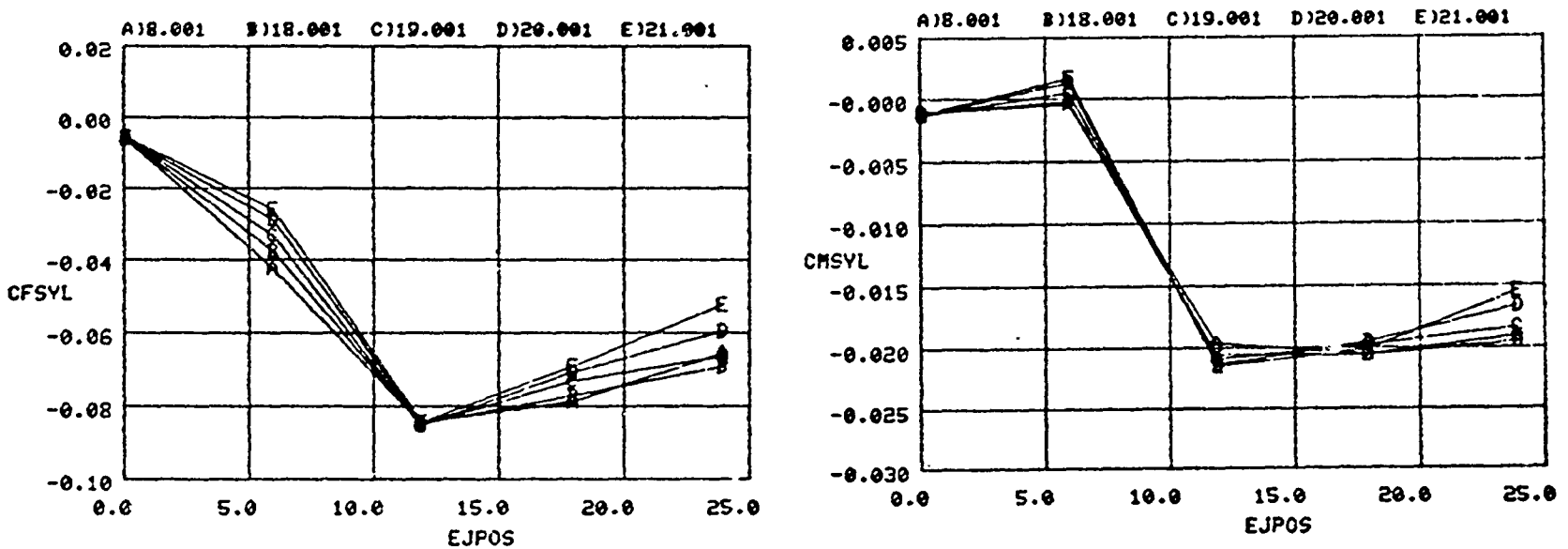


Figure 27. Upper Arm Force Areas and Moment Volumes vs EJPOS (Concluded).

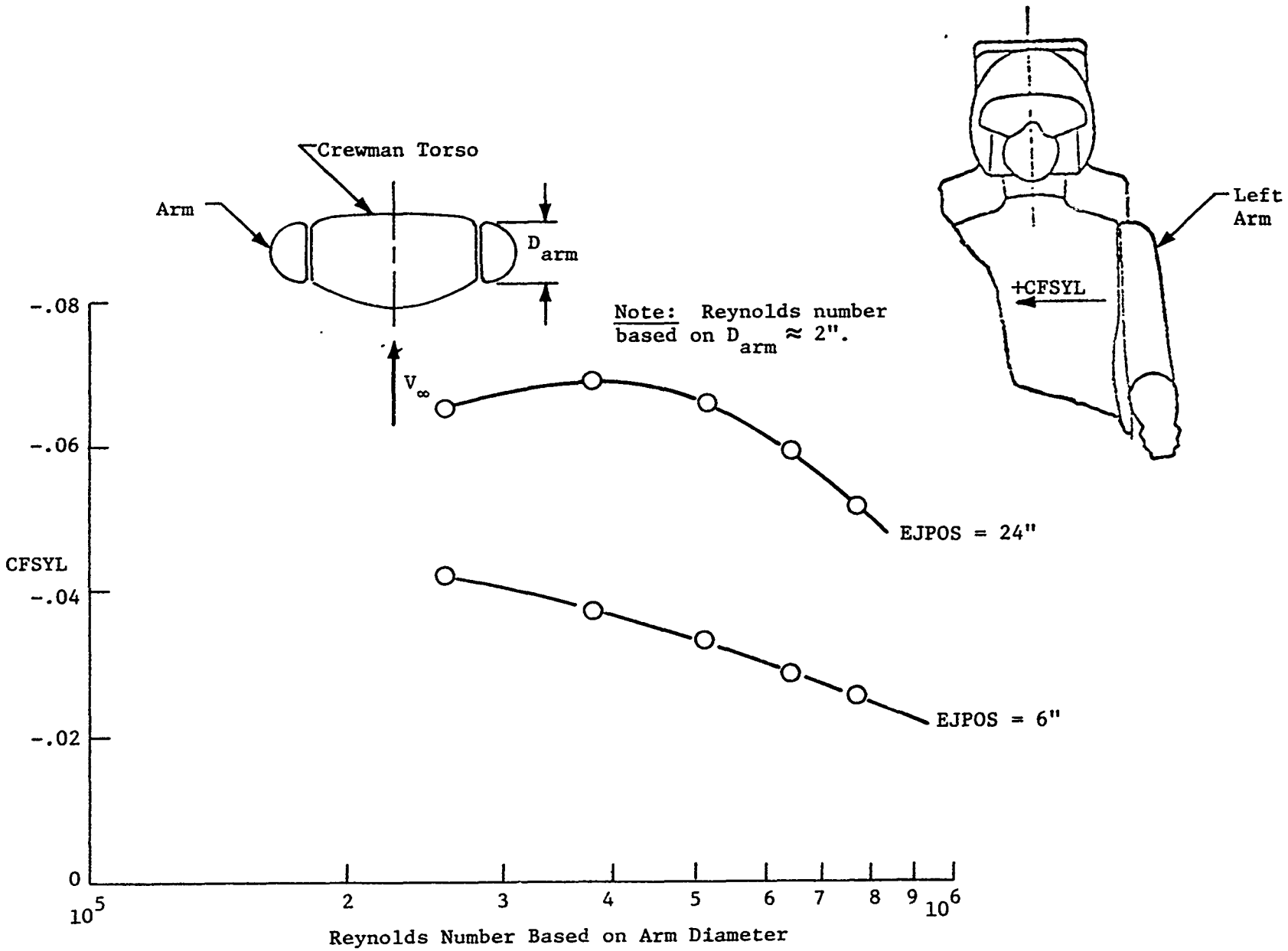
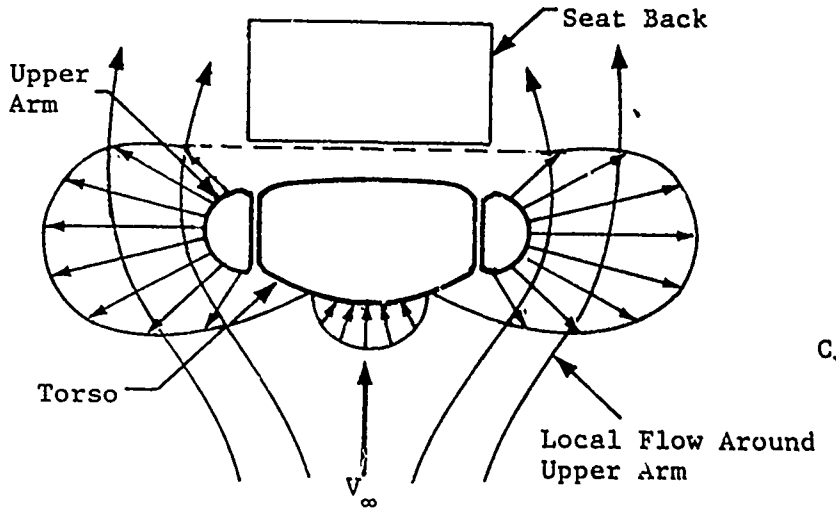
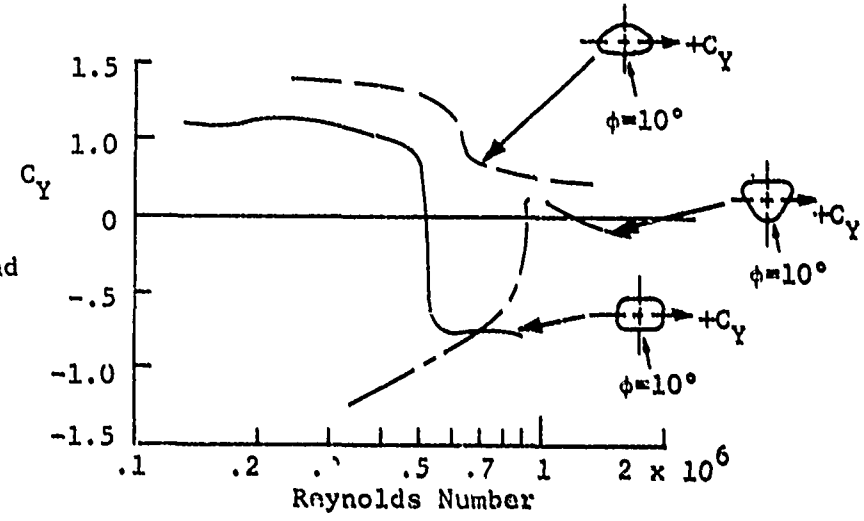


Figure 28. Upper Left Arm Side Force Area Parameter as a Function of Reynolds Number





Irregular Cylinder Side Force Coefficient vs Reynolds Number Non-Normal Flow (From Ref. 5)

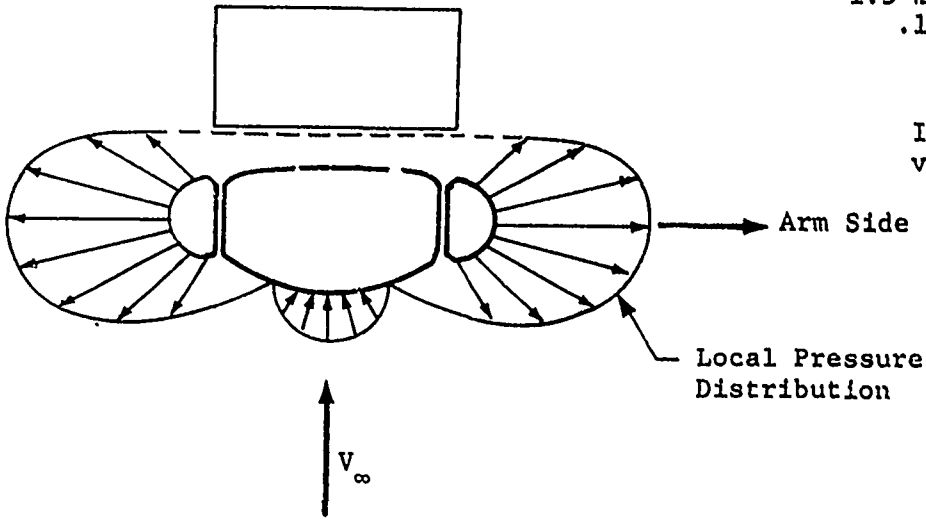
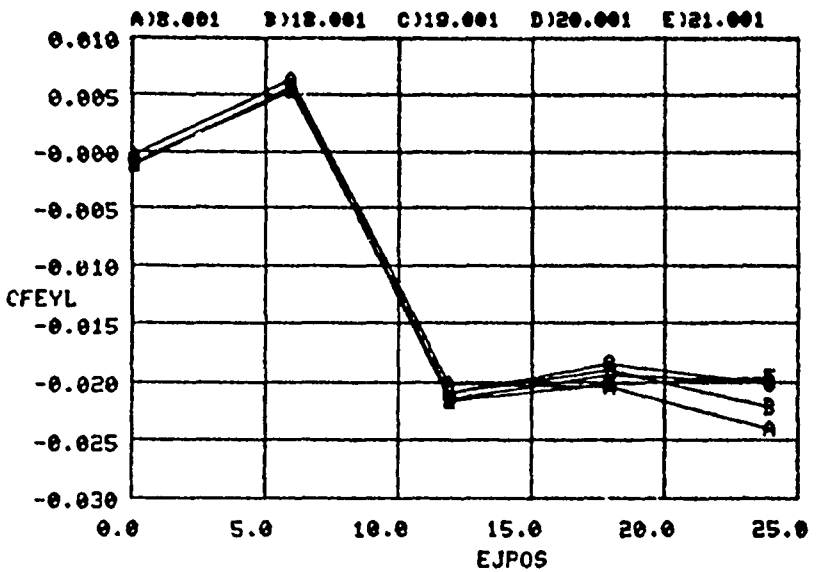


Figure 29. Flow and Reynolds Number Influence on Irregular Cylinders

M = 0.6

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	8	200	1.55
(B)	18	300	2.32
(C)	19	400	3.09
(D)	20	500	3.87
(E)	21	600	4.64



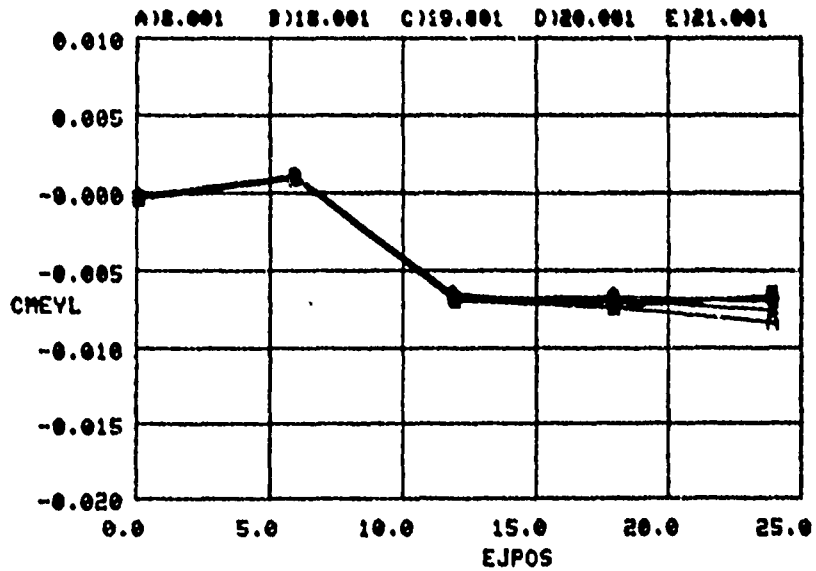


Figure 30. Lower left arm lateral force and moment coefficients vs EJPOS.

M = 1.2

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	16	200	1.00
(B)	26	300	1.50
(C)	27	400	2.00
(D)	28	500	2.51
(E)	29	600	3.01

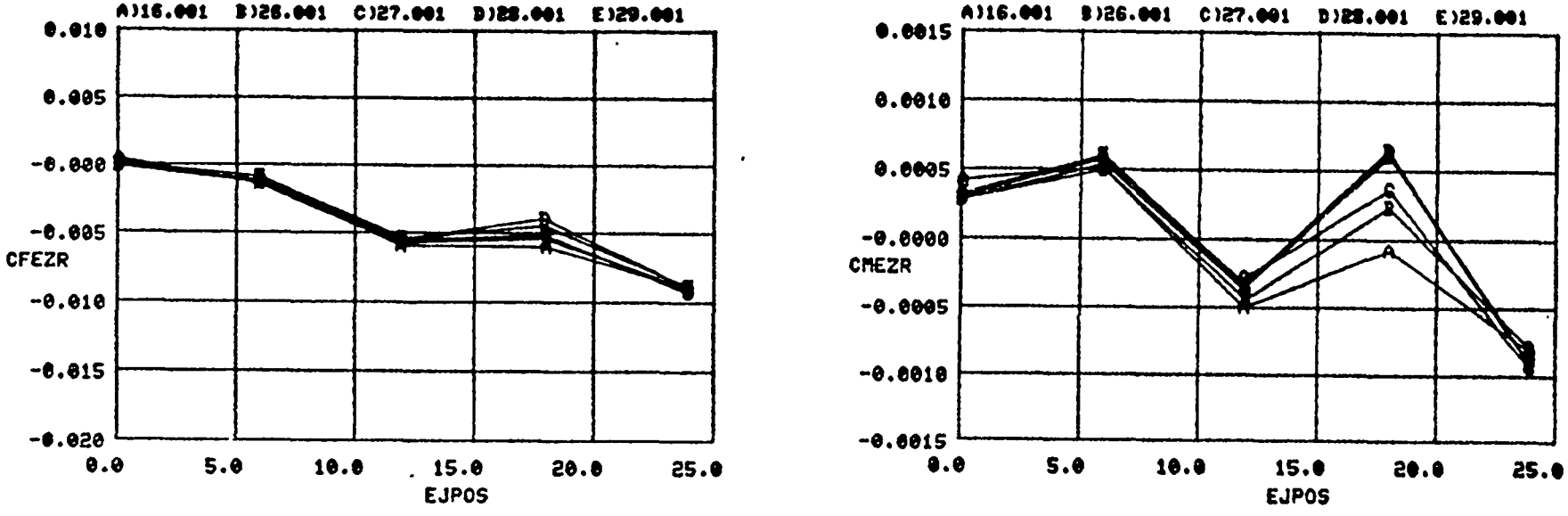


Figure 31. Lower right arm vertical force and moment coefficients vs EJPOS.

M = 0.4

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	39	100	1.18
(B)	38	150	1.77
(C)	37	200	2.35
(D)	36	220	2.59

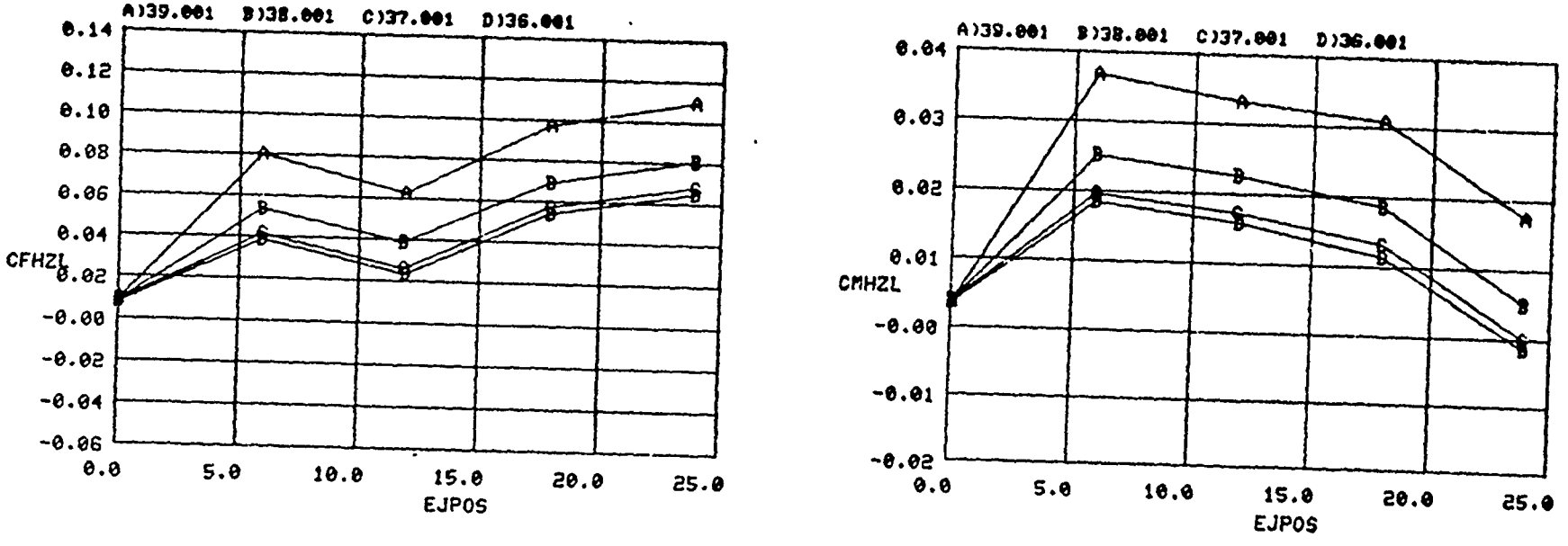
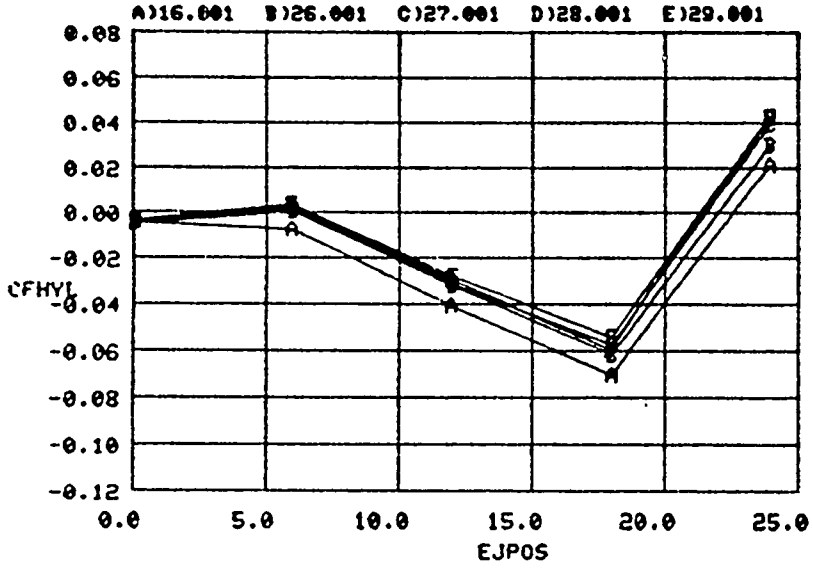


Figure 32. Upper left leg vertical force and moment coefficients vs EJPOS.

M = 1.2

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	16	200	1.00
(B)	26	300	1.50
(C)	27	400	2.00
(D)	28	500	2.51
(E)	29	600	3.01



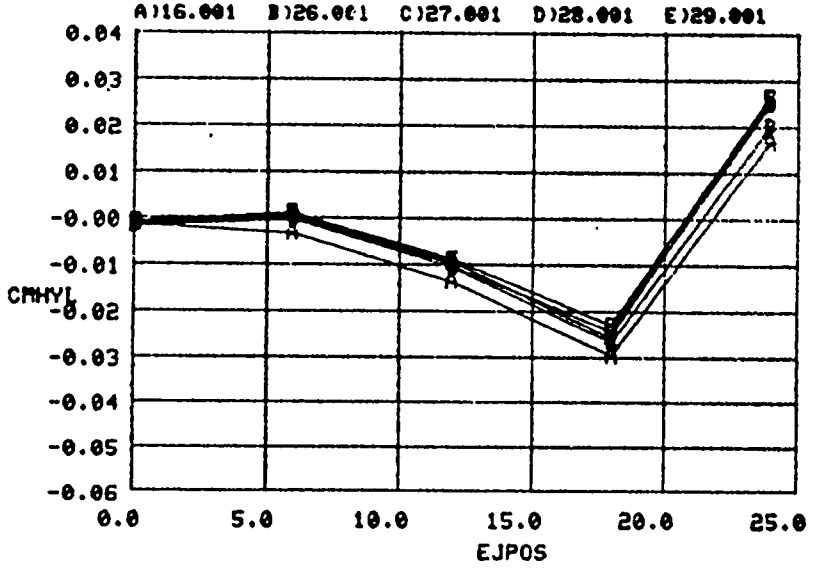
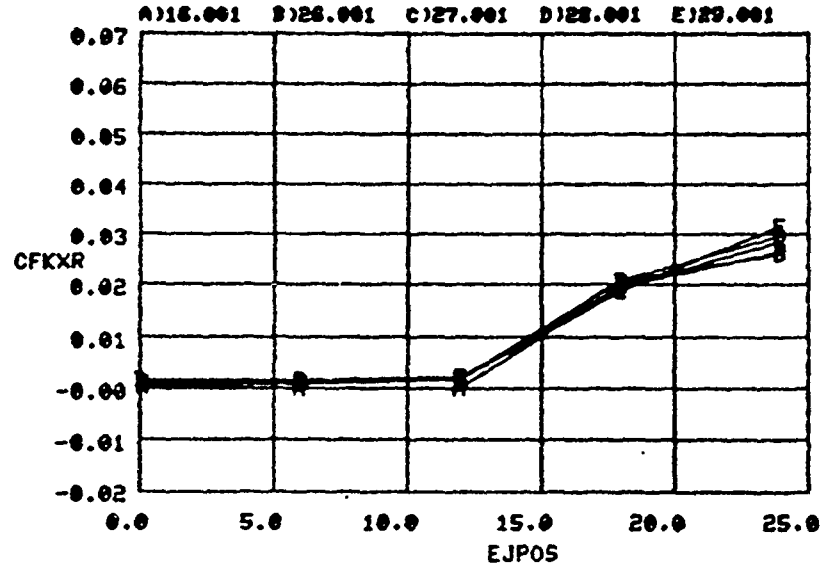


Figure 33. Upper left leg lateral force and moment coefficients vs EJPOS.

M = 1.2

	Run	(Q (psf)	RE x 10^{-6}/ft
(A)	16	200	1.00
(B)	26	300	1.50
(C)	27	400	2.00
(D)	28	500	2.51
(E)	29	600	3.01



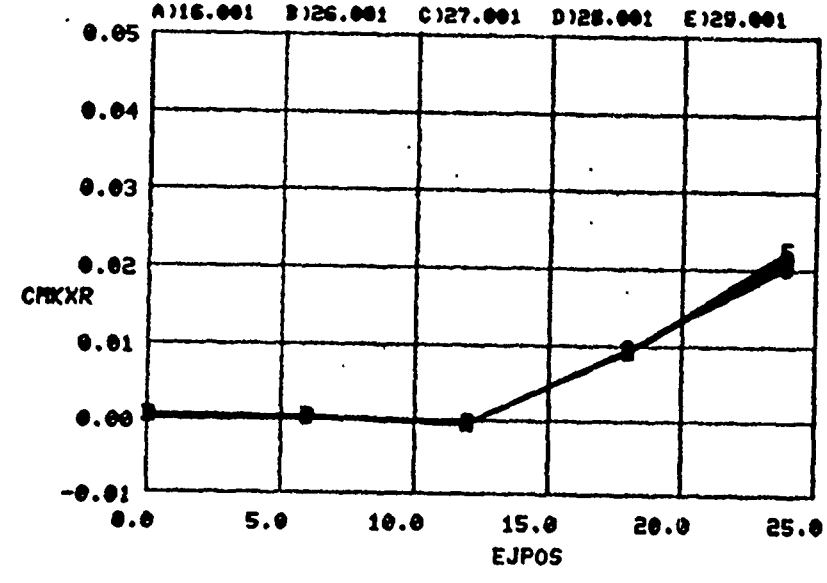
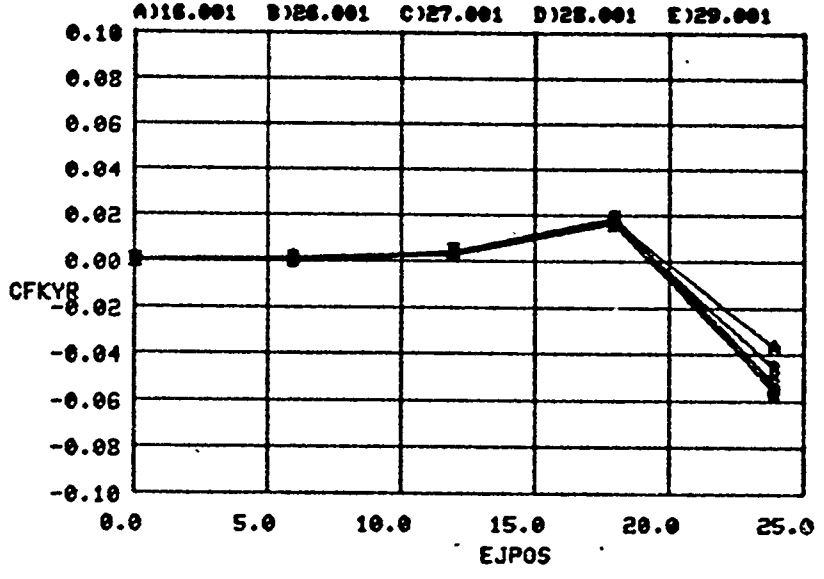


Figure 34. Lower right leg longitudinal force and moment coefficients vs EJPOS.

M = 1.2

	Run	Q (psf)	RE x 10^{-6}/ft
(A)	16	200	1.00
(B)	26	300	1.50
(C)	27	400	2.00
(D)	28	500	2.51
(E)	29	600	3.01



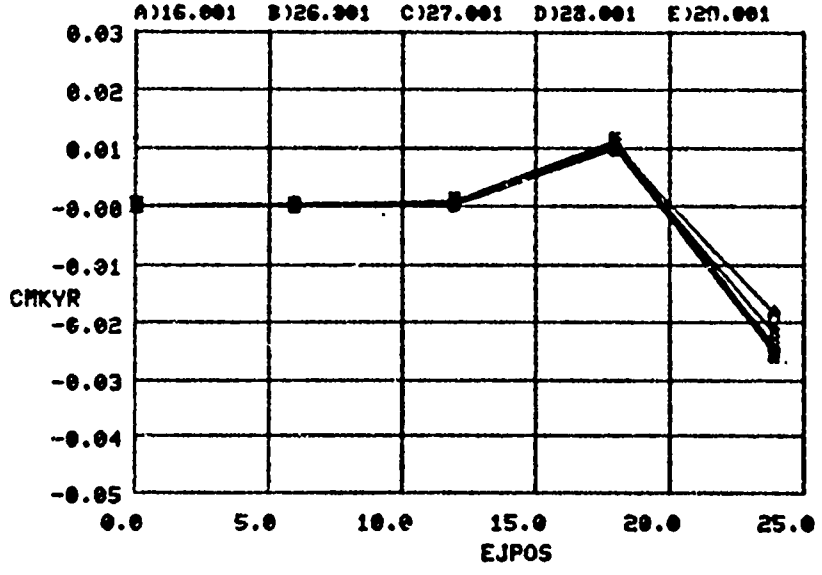


Figure 35. Lower right leg lateral force and moment coefficients vs EJPOS.

SECTION 8
CONCLUSIONS

The wind tunnel test program and the resultant data show a substantial Reynolds number influence on certain aerodynamic data. Analyses of the probable forebody boundary layer conditions and pressure coefficient data show that the F-16 forebody flow field outside the cockpit, the cavity flow inside the cockpit, and the shear layer flow field have no discernible change with Reynolds number for the range of unit Reynolds number tested.

The changes in the crewman/seat aerodynamic coefficient data and the crewman limb force area and moment volume parameters due to unit Reynolds number changes can be attributed to changes in the local flow conditions on the crewman spherical (head/helmet) and cylindrical (arms, legs) components. The Reynolds number influence appears to be similar to the local changes in boundary layer flow and separation conditions that occur on flow over isolated spheres and certain irregular cylinder configurations.

In most cases where a Reynolds number related variation does occur, data magnitudes are higher (more conservative) at the lower Reynolds numbers than at the higher numbers. For data where this is not the case, the variation due to Reynolds number is either small (Figure 35) or the magnitude at all different Reynolds numbers at the specific Mach number is significantly less than the magnitude at other Mach numbers (Figures 22a and 22b). This suggests that for testing the 1/2 scale crewman/seat model at a single Reynolds number, less than full scale Reynolds number, a value between 1.5 and 2.3 x 10^6/ft should be selected. Further restriction of the M = 0.4 test conditions to RE = 1.77 x 10^6/ft or above would avoid the less conservative value for CFHZ at M = 0.4 seen in Figure 22. Testing the 1/2 scale model at dynamic pressures between 150 and 300 psf will produce Reynolds numbers which will give reasonable conservative results throughout the 0.4 to 1.2 Mach range.

Appendix

TABULATED TEST DATA

DATE. 10-27-81 PROJECT NO: P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 — AFAMRL/LOCKHEED EJECTION SEAT — AEDC PROPULSION WIND TUNNEL
PAGE 1 — TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CN	CY	CA	CMM	CMN	CML	CFKXL	CMKXL	CFKXR	CMKXR
701	-0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
702	-0.0	0.1	-0.4	0.0039	-0.7571	0.0001	-0.0016	0.0191	0.2400	0.2488	0.0752	0.2682	0.0813
801	0.6	199.3	0.1	[illegible]						[illegible]			
802	0.6	199.1	0.1	[illegible]						[illegible]			
803	0.6	200.3	6.0	0.0943	0.0190	-0.1308	0.0084	0.0007	-0.0025	-0.0062	-0.0049	-0.0039	-0.0006
804	0.6	200.3	11.9	0.1059	0.0116	0.3098	-0.0009	0.0023	0.0033	-0.0038	-0.0056	-0.0016	-0.0011
805	0.6	199.7	18.0	0.1141	0.0143	0.5420	-0.0043	0.0060	0.0049	-0.0330	-0.0155	0.0301	0.0164
806	0.6	201.3	24.0	0.1127	0.0141	0.6359	-0.0451	0.0037	0.0056	0.0326	0.0259	0.0416	0.0339
1001	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1002	-0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.0293	-0.0089	-2.0787	-0.6493
1101	0.8	200.9	0.1	[illegible]						[illegible]			
1102	0.8	201.4	6.0	0.0820	0.0233	0.1769	0.0377	0.0033	0.0018	-0.0020	-0.0002	-0.0005	-0.0000
1103	0.8	200.3	11.9	0.0897	0.0032	0.3856	0.0381	0.0091	0.0089	-0.0029	-0.0017	0.0006	-0.0009
1104	0.8	199.5	18.0	0.0892	-0.0023	0.6554	0.0463	0.0105	0.0114	0.0287	0.0158	0.0294	0.0151
1105	0.8	200.8	24.0	0.0725	0.0448	0.7816	0.0036	0.0028	0.0027	0.0378	0.0309	0.0447	0.0339
1201	1.0	200.6	0.1	[illegible]						[illegible]			
1202	1.0	200.0	6.0	0.0931	0.0260	0.1898	0.0462	0.0009	0.0011	-0.0015	-0.0001	-0.0006	-0.0001
1203	1.0	200.3	11.9	0.0999	-0.0039	0.4268	0.0690	0.0097	0.0089	-0.0028	-0.0016	-0.0002	-0.0008
1204	1.0	199.2	18.0	0.1225	0.0089	0.7563	0.0857	0.0113	0.0084	-0.0244	-0.0130	-0.0244	-0.0123
1205	1.0	200.4	24.0	0.0888	0.0330	0.9194	0.0370	0.0084	0.0062	0.0325	0.0267	0.0389	0.0293
1501	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1502	0.0	0.1	0.1	[illegible]						[illegible]			
1505	0.5	105.3	0.1	[illegible]						[illegible]			
1601	1.2	201.0	0.1	[illegible]						[illegible]			
1602	1.2	200.0	6.0	0.0817	0.0152	0.1455	0.0417	-0.0053	-0.0051	-0.0029	-0.0009	-0.0000	0.0001
1603	1.2	201.6	11.9	0.0811	-0.0064	0.3817	0.0797	0.0016	0.0021	-0.0017	-0.0017	-0.0001	-0.0008
1604	1.2	201.0	18.0	0.1047	0.0057	0.7188	0.1088	0.0012	0.0009	0.0194	0.0101	0.0199	0.0095
1605	1.2	200.4	24.0	0.0965	0.0178	0.9788	0.0712	0.0046	0.0055	0.0163	0.0166	0.0264	0.0205
1701	0.6	200.7	0.1	[illegible]						[illegible]			
1702	0.6	200.5	24.0	0.1185	0.0066	0.6368	-0.0404	0.0002	0.0025	0.0381	0.0308	0.0462	0.0350
1801	0.6	300.0	0.1	[illegible]						[illegible]			
1802	0.6	301.0	6.0	0.0971	0.0121	0.1387	0.2786	-0.0035	-0.0033	-0.0017	-0.0005	-0.0000	0.0000
1803	0.6	299.9	11.9	0.1092	0.0103	0.3109	0.0046	-0.0021	-0.0003	0.0005	-0.0011	0.0033	-0.0002
1804	0.6	299.0	18.0	0.1193	0.0098	0.5396	0.0002	-0.0006	0.0011	0.0393	0.0207	0.0355	0.0175
1805	0.6	299.6	24.0	0.1190	0.0124	0.6332	-0.0414	-0.0006	0.0048	-0.0389	0.0310	0.0477	0.0349
1901	0.6	400.5	0.1	[illegible]						[illegible]			
1902	0.6	401.1	6.0	0.0959	0.0125	0.1411	0.0172	-0.0028	-0.0032	-0.0011	-0.0003	0.0001	0.0000
1903	0.6	399.6	11.9	0.1141	0.0188	0.3163	0.0050	-0.0049	-0.0019	0.0009	-0.0010	0.0042	-0.0000
1904	0.6	400.2	18.0	0.1177	0.0133	0.5413	-0.0003	-0.0003	0.0010	0.0399	0.0209	0.0366	0.0178
1905	0.6	399.8	24.0	0.1134	0.0046	0.6354	-0.0410	-0.0026	0.0036	0.0385	0.0307	0.0479	0.0355
2001	0.6	497.7	0.1	[illegible]						[illegible]			
2002	0.6	500.7	6.0	0.0949	0.0125	0.1436	0.0179	-0.0025	-0.0031	-0.0009	-0.0003	0.0003	0.0001
2003	0.6	500.6	12.0	0.1162	0.0200	0.3190	0.0052	-0.0066	-0.0028	-0.0010	-0.0009	0.0046	0.0000
2004	0.6	498.9	18.0	0.1185	0.0058	0.5422	-0.0011	-0.0009	-0.0006	0.0415	0.0217	0.0376	0.0183
2005	0.6	500.3	24.0	0.1159	0.0053	0.6368	-0.0409	-0.0017	0.0042	0.0390	0.0312	0.0476	0.0352

DATE. 10-27-81 PROJECT NO. P41G-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 1 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CN	CY	CA	CMM	CMN	CML	CFKXL	CMKXL	CFKXR	CMKXR
2101	0.6	595.3	0.1	0.0205	-0.0065	0.0150				0.0004	0.0001	0.0004	0.0001
2103	0.6	598.4	6.0	0.0942	0.0123	0.1438	0.0182	-0.0018	-0.0031	-0.0007	-0.0002	0.0003	0.0001
2104	0.6	599.7	11.9	0.1165	0.0198	0.3165	0.0057	-0.0065	-0.0022	-0.0010	-0.0009	0.0042	-0.0001
2106	0.6	597.7	18.0	0.1178	0.0051	0.5451	-0.0006	-0.0008	0.0013	0.0422	0.0219	0.0384	0.0186
2107	0.6	597.9	24.0	0.1168	0.0082	0.6435	-0.0398	-0.0026	0.0036	-0.0399	-0.0314	-0.0477	0.0352
2201	0.8	300.0	0.1	0.0238	-0.0101	0.0171				0.0009	0.0003	0.0009	0.0003
2202	0.8	300.7	6.1	0.0736	0.0120	0.1788	0.0356	-0.0023	-0.0037	-0.0013	-0.0004	0.0007	0.0002
2203	0.8	300.5	12.0	0.0859	-0.0067	0.3906	0.0368	0.0046	0.0050	-0.0006	-0.0015	0.0045	-0.0000
2204	0.8	300.9	18.0	0.0822	-0.0064	0.6576	0.0444	0.0068	0.0074	-0.0306	-0.0161	-0.0314	-0.0154
2205	0.8	300.0	24.0	0.0700	0.0220	0.7836	0.0047	0.0019	0.0048	0.0404	0.0311	0.0461	0.0336
2301	0.8	400.1	0.1	0.0277	-0.0124	0.0179				0.0007	0.0002	0.0007	0.0002
2302	0.8	400.3	6.0	0.0735	0.0132	0.1806	0.0364	-0.0023	-0.0040	-0.0010	-0.0003	0.0006	0.0002
2303	0.8	400.1	12.0	0.0878	-0.0042	0.3862	0.0359	0.0031	0.0046	-0.0005	-0.0015	0.0041	-0.0001
2304	0.8	398.7	18.0	0.0815	0.0069	0.6586	0.0448	0.0043	0.0054	0.0314	0.0163	0.0311	0.0152
2305	0.8	400.7	24.0	0.0727	0.0182	0.7841	0.0054	0.0022	0.0052	0.0399	0.0308	0.0464	0.0334
2401	0.8	499.3	0.1	0.0296	-0.0127	0.0172				0.0007	0.0002	0.0007	0.0002
2402	0.8	500.3	6.0	0.0748	0.0138	0.1790	0.0370	-0.0022	-0.0044	-0.0008	-0.0002	0.0006	0.0002
2403	0.8	500.1	12.0	0.0883	-0.0013	0.3872	0.0354	0.0030	0.0049	0.0002	-0.0013	0.0048	0.0001
2404	0.8	499.2	18.0	0.0822	0.0099	0.6578	0.0439	0.0045	0.0059	-0.0325	-0.0169	-0.0313	-0.0153
2405	0.8	499.0	24.0	0.0751	0.0218	0.7803	0.0056	0.0	0.0034	0.0390	0.0302	0.0470	0.0337
2501	0.8	599.8	0.1	0.0326	-0.0132	0.0161				0.0006	0.0002	0.0006	0.0002
2502	0.8	598.9	6.0	0.0736	0.0150	0.1821	0.0371	-0.0021	-0.0047	-0.0006	-0.0002	0.0005	0.0001
2503	0.8	600.8	6.0	0.0741	0.0154	0.1821	0.0371	-0.0022	-0.0049	-0.0006	-0.0002	0.0005	0.0001
2504	0.8	600.0	10.9	0.0758	0.0034	0.3266	0.0324	0.0036	0.0029	-0.0016	-0.0016	-0.0006	-0.0011
2505	0.8	600.2	12.0	0.0902	-0.0017	0.3876	0.0352	0.0028	0.0043	-0.0005	-0.0011	0.0050	0.0001
2506	0.8	600.6	18.1	0.0841	0.0034	0.6571	0.0436	0.0067	0.0071	0.0331	0.0171	0.0314	0.0153
2507	0.8	600.5	21.2	0.0914	0.0590	0.7461	0.0209	-0.0053	-0.0169	0.0210	0.0177	0.0243	0.0176
2508	0.8	599.8	24.0	0.0780	0.0151	0.7822	0.0077	0.0019	0.0046	0.0387	0.0300	0.0472	0.0337
2601	1.2	300.3	0.0	0.0009	-0.0003	0.0169				0.0015	0.0005	0.0015	0.0005
2602	1.2	299.9	6.0	0.0839	0.0156	0.1411	0.0411	-0.0047	-0.0049	-0.0009	-0.0003	0.0013	0.0003
2603	1.2	299.5	12.0	0.0837	-0.0074	0.3779	0.0800	0.0024	0.0032	-0.0014	-0.0009	0.0021	-0.0004
2604	1.2	301.1	18.0	0.1099	0.0058	0.7123	0.1106	0.0012	0.0013	0.0206	0.0103	0.0206	0.0094
2605	1.2	299.4	24.0	0.0994	0.0176	0.9813	0.0727	0.0043	0.0038	-0.0173	-0.0168	0.0261	0.0201
2701	1.2	398.8	0.1	0.0146	-0.0037	0.0161				0.0011	0.0004	0.0012	0.0004
2702	1.2	399.1	6.0	0.0837	0.0160	0.1437	0.0416	-0.0045	-0.0051	-0.0007	-0.0003	0.0011	0.0003
2703	1.2	400.7	12.0	0.0837	-0.0048	0.3790	0.0801	0.0022	0.0033	0.0015	-0.0008	0.0018	-0.0005
2704	1.2	399.0	12.0	0.0838	-0.0075	0.3712	0.0788	0.0019	0.0031	-0.0006	-0.0010	0.0017	-0.0005
2705	1.2	400.3	18.0	0.1112	0.0130	0.7168	0.1105	0.0015	0.0008	0.0221	0.0108	0.0195	0.0092
2706	1.2	399.5	24.0	0.1010	0.0202	0.9833	0.0727	0.0041	0.0024	-0.0190	-0.0176	-0.0283	-0.0210
2801	1.2	499.2	0.1	0.0173	-0.0069	0.0143				0.0010	0.0004	0.0011	0.0004
2802	1.2	500.1	6.0	0.0845	0.0162	0.1400	0.0412	-0.0046	-0.0050	-0.0005	-0.0002	0.0010	0.0002
2803	1.2	500.5	12.0	0.0853	-0.0035	0.3754	0.0800	0.0021	0.0035	0.0014	-0.0008	0.0018	-0.0005
2804	1.2	500.0	18.0	0.1138	0.0033	0.7076	0.1113	0.0007	0.0020	-0.0203	0.0102	-0.0207	0.0094
2805	1.2	499.9	24.0	0.1051	0.0197	0.9833	0.0724	0.0035	0.0012	0.0198	0.0179	0.0297	0.0216
2806	1.2	500.1	18.5	0.1217	0.0001	0.7405	0.1107	0.0010	0.0029	-0.0218	0.0110	-0.0236	0.0108

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 1 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CN	CY	CA	CMM	CMN	CML	CFKXL	CMKXL	CFKXR	CMKXR
2901	1.2	599.3	0.1	0.0322	-0.0127	0.0140	0.0102	-0.0052	-0.0496	0.0000	0.0003	0.0009	0.0003
2902	1.2	599.2	6.0	0.0858	0.0158	0.1395	0.0415	-0.0041	-0.0051	-0.0005	-0.0002	0.0008	0.0002
2903	1.2	599.7	12.0	0.0868	-0.0021	0.3764	0.0799	0.0022	0.0036	0.0019	-0.0007	0.0020	-0.0005
2904	1.2	599.8	18.0	0.1146	0.0160	0.7136	0.1109	0.0018	0.0007	0.0225	0.0109	0.0190	0.0090
2905	1.2	600.0	24.0	0.1078	0.0189	0.9821	0.0721	0.0030	-0.0003	0.0203	0.0182	0.0315	0.0222
3001	1.0	296.8	0.1	0.0184	-0.0208	0.6184	0.0073	0.0061	0.0048	0.0015	0.0004	0.0016	0.0004
3002	1.0	299.8	6.0	0.0867	0.0139	0.1879	0.0443	-0.0047	-0.0044	-0.0006	-0.0002	0.0014	0.0004
3003	1.0	300.0	11.9	0.0969	-0.0121	0.4275	0.0670	0.0048	0.0045	0.0002	-0.0012	0.0039	0.0000
3004	1.0	300.5	18.0	0.1245	0.0095	0.7563	0.0864	0.0081	0.0036	0.0273	-0.0137	0.0255	0.0122
3005	1.0	299.3	24.0	0.0931	0.0143	0.9317	0.0401	0.0067	0.0066	0.0362	0.0271	0.0402	0.0288
3101	1.0	399.0	0.1	0.0313	-0.0152	0.0175	0.0072	-0.0032	0.0007	0.0010	0.0003	0.0011	0.0003
3102	1.0	401.2	6.0	0.0869	0.0151	0.1896	0.0444	-0.0048	-0.0045	-0.0006	-0.0002	0.0010	0.0003
3103	1.0	399.3	11.9	0.0979	-0.0105	0.4289	0.0674	0.0044	0.0047	0.0003	-0.0012	0.0034	-0.0000
3104	1.0	400.7	18.0	0.1221	0.0097	0.7578	0.0878	0.0081	0.0040	0.0267	0.0134	0.0244	0.0117
3105	1.0	400.7	24.0	0.0939	0.0192	0.9368	0.0415	0.0076	0.0070	0.0360	0.0270	0.0400	0.0283
3201	1.0	497.1	0.1	0.0270	-0.0182	0.0168	0.0087	-0.0033	-0.0017	0.0000	0.0003	0.0010	0.0003
3202	1.0	499.0	6.0	0.0862	0.0155	0.1902	0.0448	-0.0046	-0.0048	-0.0006	-0.0002	0.0009	0.0002
3203	1.0	501.2	11.9	0.0999	-0.0091	0.4298	0.0677	0.0044	0.0047	0.0005	-0.0011	0.0034	-0.0001
3204	1.0	498.8	18.0	0.1269	0.0118	0.7590	0.0871	0.0077	0.0040	0.0269	0.0135	0.0241	0.0116
3205	1.0	501.1	24.0	0.0972	0.0222	0.9394	0.0423	0.0077	0.0067	0.0360	0.0270	0.0406	0.0285
3301	1.0	599.9	0.0	0.0277	-0.0184	0.0153	0.0084	-0.0028	-0.0014	0.0008	0.0003	0.0010	0.0003
3302	1.0	599.4	6.0	0.0869	0.0161	0.1906	0.0450	-0.0047	-0.0052	-0.0005	-0.0001	0.0008	0.0002
3303	1.0	599.9	12.0	0.1011	-0.0073	0.4295	0.0678	0.0042	0.0048	0.0008	-0.0010	0.0035	-0.0001
3304	1.0	599.9	18.0	0.1297	0.0121	0.7577	0.0873	0.0079	0.0044	0.0273	0.0137	0.0236	0.0114
3401	0.6	201.1	0.1	0.0113	-0.0093	0.0151	0.0045	-0.0013	0.0064	0.0031	0.0005	0.0022	0.0006
3402	0.6	199.9	2.0	0.0533	-0.0133	-0.0069	0.0026	0.0022	0.0035	-0.0008	-0.0004	0.0017	0.0002
3403	0.6	200.5	4.0	0.0925	-0.0108	0.0559	0.0099	0.0036	0.0001	-0.0006	-0.0003	0.0018	0.0005
3404	0.6	199.4	6.0	0.0975	0.0112	0.1366	0.0166	-0.0031	-0.0034	-0.0009	-0.0004	0.0018	0.0005
3405	0.6	199.4	8.0	0.0619	0.0067	0.1792	0.0069	-0.0031	-0.0021	-0.0008	-0.0004	0.0020	-0.0005
3406	0.6	199.4	10.0	0.0809	0.0131	0.2118	0.0037	-0.0023	-0.0021	-0.0047	-0.0024	-0.0016	-0.0012
3407	0.6	201.0	12.1	0.1144	0.0081	0.3149	0.0044	-0.0029	0.0001	0.0021	-0.0008	0.0071	0.0007
3408	0.6	201.1	14.0	0.1309	0.0058	0.3858	0.0053	-0.0005	0.0021	0.0103	0.0026	0.0133	0.0033
3409	0.6	200.4	16.1	0.1245	0.0113	0.4532	0.0061	-0.0015	0.0001	0.0334	0.0154	0.0296	0.0124
3410	0.6	199.8	18.0	0.1201	0.0076	0.5375	0.0001	0.0013	0.0027	0.0392	0.0206	0.0380	0.0184
3411	0.6	200.4	20.0	0.1174	-0.0006	0.6087	-0.0143	0.0030	0.0065	0.0421	0.0249	0.0469	0.0262
3412	0.6	200.9	22.0	0.1116	0.0093	0.6285	-0.0277	0.0017	0.0056	0.0328	0.0239	0.0401	0.0275
3413	0.6	200.1	24.0	0.1222	0.0038	0.6330	-0.0399	0.0007	0.0053	0.0399	0.0314	0.0497	0.0359
3503	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3504	0.0	0.3	0.1	0.4216	-0.3486	0.6321	-0.1630	-0.0821	0.0966	0.0	0.0	0.0	0.0
3601	0.4	220.8	0.1	0.0318	-0.0023	0.0051	0.0072	-0.0492	0.0013	0.0002	0.0000	0.0001	0.0000
3602	0.4	220.1	6.0	0.1316	0.0143	0.1164	0.0129	-0.0083	-0.0085	0.0041	0.0062	-0.0003	-0.0001
3603	0.4	219.9	12.0	0.1560	0.0197	0.2906	-0.0007	-0.0108	-0.0065	0.0055	0.0054	0.0042	-0.0001
3604	0.4	220.8	18.0	0.1612	0.0253	0.4710	-0.0094	-0.0093	-0.0079	0.0503	0.0299	0.0372	0.0184
3605	0.4	220.0	24.0	0.1535	0.0189	0.5544	-0.0484	-0.0084	0.0001	0.0427	0.0370	0.0510	0.0355
3701	0.4	200.3	0.1	0.0316	0.0047	0.0024	0.0072	0.0362	0.0006	0.0002	0.0001	0.0008	0.0001

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 — AFAMRL/LOCKHEED EJECTION SEAT — AEDC PROPULSION WIND TUNNEL
PAGE 1 — TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CN	CY	CA	CMM	CMN	CML	CFKXL	CMKXL	CFKXR	CMKXR
3702	0.4	198.9	6.0	0.1345	0.0143	0.1159	0.0133	-0.0090	-0.0089	0.0047	0.0069	-0.0002	-0.0001
3703	0.4	198.5	11.9	0.1579	0.0166	0.2793	-0.0004	-0.0105	-0.0063	0.0060	0.0061	0.0039	-0.0001
3704	0.4	199.8	18.0	0.1626	0.0257	0.4697	-0.0092	-0.0101	-0.0085	0.0494	0.0301	0.0373	0.0184
3705	0.4	201.0	24.0	0.1569	0.0206	0.5515	-0.0476	-0.0083	-0.0001	0.0426	0.0374	0.0543	0.0361
3801	0.4	150.9	0.1	~~0.0398~~	~~0.0013~~	~~0.0051~~	~~0.0093~~	~~0.0053~~	~~0.0023~~	~~0.0002~~	~~0.0001~~	~~0.0002~~	~~0.0001~~
3802	0.4	149.2	6.0	0.1463	0.0134	0.1128	0.0149	-0.0096	-0.0100	0.0066	0.0092	-0.0003	-0.0002
3803	0.4	149.0	11.9	0.1710	0.0206	0.2779	0.0021	-0.0138	-0.0086	0.0082	0.0085	0.0039	-0.0002
3804	0.4	149.2	18.0	0.1748	0.0277	0.4643	-0.0078	-0.0111	-0.0102	0.0512	0.0324	0.0360	0.0177
3805	0.4	149.3	24.0	0.1697	0.0247	0.5423	-0.0475	-0.0098	-0.0028	0.0446	0.0401	0.0527	0.0357
3901	0.4	100.2	0.1	~~0.0445~~	~~0.0014~~	~~0.0066~~	~~0.0093~~	~~0.0053~~	~~0.0019~~	~~0.0003~~	~~0.0002~~	~~0.0003~~	~~0.0002~~
3902	0.4	98.6	6.0	0.1668	0.0150	0.1078	0.0208	-0.0129	-0.0130	0.0099	0.0139	-0.0007	-0.0003
3903	0.4	99.3	12.0	0.1986	0.0245	0.2735	0.0064	-0.0197	-0.0123	0.0137	0.0135	0.0034	-0.0004
3904	0.4	99.4	18.0	0.2032	0.0270	0.4553	-0.0039	-0.0133	-0.0114	0.0515	0.0369	0.0346	0.0171
3905	0.4	100.3	24.0	0.2027	0.0173	0.5292	-0.0438	-0.0152	-0.0069	0.0473	0.0446	0.0431	0.0340
4501	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4502	0.0	1.0	0.1	0.0002	0.0012	-0.0005	-0.0000	0.0153	-0.0120	-0.0004	-0.0001	0.0017	0.0005
4601	0.6	400.0	0.1	0.0269	-0.0029	-0.0133	0.0028	-0.0003	-0.0002	-0.0015	-0.0002	-0.0015	-0.0002
4602	0.6	393.6	6.0	0.0947	0.0118	0.1433	0.0179	-0.0024	-0.0029	0.0000	-0.0001	-0.0017	-0.0003
4603	0.6	399.8	10.1	0.0796	0.0193	0.2252	0.0062	-0.0030	-0.0026	-0.0037	-0.0021	-0.0052	-0.0020
4605	0.6	400.0	18.0	0.1201	0.0073	0.5417	0.002	-0.0005	0.0003	0.0415	0.0213	0.0354	0.0177
4606	0.6	399.7	24.0	0.1183	0.0024	0.6392	-0.0402	-0.0024	0.0028	0.0402	0.0312	0.0467	0.0353
4607	0.6	400.0	11.9	0.1137	0.0146	0.3156	0.0057	-0.0050	-0.0014	0.0015	-0.0009	0.0027	-0.0004
4701	0.8	399.7	0.1	0.0236	-0.0082	-0.0137	0.0011	0.0021	0.0018	-0.0015	-0.0002	-0.0015	-0.0002
4702	0.8	400.1	6.0	0.0757	0.0134	0.1798	0.0365	-0.0024	-0.0041	0.0002	-0.0001	-0.0016	-0.0003
4703	0.8	399.9	12.0	0.0892	-0.0031	0.3854	0.0352	0.0029	0.0041	0.0017	-0.0010	0.0030	-0.0002
4704	0.8	400.2	18.0	0.0839	-0.0111	0.6493	0.0418	0.0024	0.0075	0.0309	0.0157	0.0317	0.0161
4705	0.8	400.2	24.0	0.0760	0.0192	0.7769	0.0046	-0.0002	0.0038	0.0411	0.0309	0.0443	0.0332
4801	1.0	399.4	0.1	0.0179	-0.0090	-0.0152	0.0016	0.0019	0.0018	-0.0013	-0.0002	-0.0013	-0.0002
4802	1.0	400.5	6.0	0.0577	0.0146	0.1893	0.0446	-0.0048	-0.0046	0.0004	0.0000	-0.0016	-0.0003
4803	1.0	400.7	12.0	0.0999	-0.0100	0.4321	0.0674	0.0043	0.0046	0.0015	-0.0009	0.0014	-0.0005
4804	1.0	400.3	18.0	0.1227	-0.0002	0.7581	0.0863	0.0060	0.0047	0.0267	0.0132	0.0229	0.0116
4805	1.0	400.7	24.0	0.0962	0.0190	0.9292	0.0398	0.0059	0.0060	0.0380	0.0276	0.0381	0.0283
4901	1.2	399.3	0.1	0.0153	-0.0046	-0.0138	0.0038	-0.0012	-0.0003	-0.0013	-0.0001	-0.0013	-0.0001
4902	1.2	400.2	6.0	0.0860	0.0159	0.1418	0.0411	-0.0048	-0.0050	0.0004	-0.0000	-0.0014	-0.0002
4903	1.2	400.1	12.0	0.0864	-0.0051	0.3748	0.0794	0.0018	0.0031	0.0024	-0.0006	-0.0005	-0.0009
4904	1.2	400.1	18.0	0.1145	0.0084	0.7109	0.1105	0.0007	0.0015	0.0221	0.0106	0.0176	0.0088
4905	1.2	399.9	24.0	0.1047	0.0166	0.9810	0.0716	0.0035	0.0024	0.0212	0.0133	0.0284	0.0216
5001	0.4	200.6	0.1	0.0326	-0.0001	-0.0102	0.0048	-0.0018	-0.0015	-0.0027	-0.0004	-0.0026	-0.0004
5002	0.4	200.2	6.0	0.1112	0.0157	0.1150	0.0058	-0.0048	-0.0053	0.0009	0.0000	-0.0028	-0.0005
5003	0.4	199.7	12.0	0.1354	0.0174	0.2849	-0.0073	-0.0058	-0.0022	0.0041	-0.0004	0.0026	-0.0002
5004	0.4	200.8	18.0	0.1398	0.0233	0.4748	-0.0161	-0.0060	-0.0046	0.0467	0.0235	0.0356	0.0184
5005	0.4	201.0	24.0	0.1335	0.0139	0.5544	-0.0546	-0.0039	0.0043	0.0403	0.0312	0.0511	0.0358
5201	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5202	0.0	1.0	0.1	0.2158	0.0017	-0.1584	-0.0867	0.0154	-0.0121	0.0	0.0	0.0	0.0
5401	0.6	398.3	0.1	0.0107	0.0017	-0.0581	-0.0026	-0.0024	-0.0019	-0.0001	-0.0001	-0.0000	-0.0001

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 1 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CN	CY	CA	CMM	CMN	CML	CFKXL	CMKXL	CFKXR	CMKXR
5402	0.6	400.5	6.0	0.0717	0.0020	0.0203	0.0133	-0.0040	-0.0019	-0.0012	-0.0006	-0.0002	-0.0003
5403	0.6	396.9	12.0	0.0607	0.0173	0.2597	0.0494	-0.0045	-0.0022	0.0017	-0.0003	-0.0015	-0.0013
5404	0.6	398.9	18.0	0.0413	0.0166	0.5141	0.0065	-0.0021	-0.0016	0.0155	0.0071	0.0180	0.0071
5405	0.6	399.5	24.0	0.0620	0.0263	0.6536	-0.0273	0.0009	0.0036	0.0314	0.0180	0.0372	0.0212
5501	0.8	399.9	0.1	0.0083	-0.0037	-0.0528	-0.0027	-0.0031	-0.0022	0.0001	-0.0001	0.0002	-0.0000
5502	0.8	400.6	6.0	0.0599	-0.0050	0.0370	0.0221	0.0003	0.0016	-0.0008	-0.0005	-0.0001	-0.0003
5503	0.8	399.1	12.0	0.0350	0.0005	0.3312	0.0779	0.0028	0.0026	0.0016	-0.0002	0.0002	-0.0007
5504	0.8	400.1	18.0	0.0008	0.0329	0.5988	0.0489	-0.0057	-0.0061	0.0097	0.0043	0.0126	0.0050
5505	0.8	399.7	24.0	0.0352	0.0230	0.7770	0.0148	0.0059	0.0082	0.0317	0.0182	0.0317	0.0182
5601	1.0	399.7	0.1	0.0065	0.0017	-0.0409	-0.0021	-0.0023	-0.0025	-0.0000	-0.0001	0.0001	-0.0001
5602	1.0	400.1	6.0	0.0550	-0.0039	0.0553	0.0233	0.0009	0.0019	-0.0011	-0.0007	-0.0001	-0.0002
5603	1.0	399.7	12.0	0.0542	-0.0037	0.3904	0.1132	0.0039	0.0025	0.0012	-0.0004	-0.0001	-0.0008
5604	1.0	400.8	18.0	0.0261	-0.0003	0.7089	0.0931	0.0067	0.0017	0.0074	0.0034	0.0096	0.0038
5605	1.0	400.6	24.0	0.0456	0.0269	0.9283	0.0517	0.0011	-0.0021	0.0197	0.0130	0.0297	0.0175
5701	1.2	400.4	0.1	0.0058	0.0034	-0.0330	-0.0001	-0.0041	-0.0031	-0.0001	-0.0001	-0.0000	-0.0001
5702	1.2	399.4	6.0	0.0433	-0.0030	0.0543	0.0218	0.0014	0.0027	-0.0009	-0.0006	-0.0004	-0.0003
5703	1.2	401.3	12.0	0.0542	-0.0008	0.3365	0.1103	0.0013	0.0027	0.0011	-0.0005	-0.0016	-0.0012
5704	1.2	399.1	18.0	0.0331	-0.0010	0.6888	0.1193	-0.0006	-0.0003	0.0062	0.0031	0.0097	0.0042
5705	1.2	400.3	24.0	0.0642	0.0032	0.9640	0.0811	0.0004	-0.0010	0.0080	0.0071	0.0175	0.0110
5801	1.2	400.9	0.0	0.0062	0.0029	-0.0326	0.0001	-0.0042	-0.0031	-0.0003	-0.0002	-0.0002	-0.0001
5802	1.2	401.5	6.0	0.0437	-0.0025	0.0528	0.0211	0.0014	0.0024	-0.0010	-0.0006	-0.0002	-0.0002
5803	1.2	400.4	12.0	0.0540	-0.0024	0.3394	0.0119	0.0013	0.0028	0.0010	-0.0005	-0.0017	-0.0012
5804	1.2	399.1	18.0	0.0337	0.0018	0.6914	0.1185	-0.0000	-0.0003	0.0061	0.0040	0.0092	0.0041
5805	1.2	398.4	24.0	0.0645	0.0010	0.9660	0.0806	-0.0000	-0.0016	0.0081	0.0072	0.0170	0.0109
5901	0.6	199.6	0.0	0.0122	0.0016	-0.0599	-0.0031	-0.0022	-0.0014	-0.0000	-0.0001	0.0001	-0.0000
5902	0.6	200.0	6.0	0.0760	0.0108	0.0141	0.0105	-0.0062	-0.0026	-0.0002	-0.0003	0.0000	-0.0001
5903	0.6	200.2	12.0	0.0639	0.0095	0.2562	0.0471	-0.0034	-0.0003	0.0012	-0.0004	0.0003	-0.0010
5904	0.6	200.1	18.0	0.0496	0.0150	0.5038	0.0070	-0.0026	-0.0008	0.0120	0.0049	0.0162	0.0068
5905	0.6	199.7	24.0	0.0747	0.0167	0.6497	-0.0263	-0.0001	0.0035	0.0311	0.0183	0.0367	0.0213
6001	0.4	199.4	0.1	0.0171	-0.0010	-0.0587	-0.0022	-0.0019	-0.0009	-0.0000	-0.0001	0.0001	-0.0000
6002	0.4	200.5	6.0	0.0796	0.0143	0.0128	0.0069	-0.0083	-0.0046	-0.0002	-0.0003	0.0002	-0.0001
6003	0.4	200.6	12.0	0.0829	0.0253	0.2238	0.0311	-0.0075	-0.0046	0.0014	-0.0003	0.0010	-0.0008
6004	0.4	201.4	18.0	0.0719	0.0118	0.4534	-0.0041	-0.0059	-0.0029	0.0152	0.0067	0.0219	0.0093
6005	0.4	199.7	24.0	0.0864	0.0229	0.5748	-0.0389	-0.0061	0.0008	0.0313	0.0184	0.0370	0.0212

RN/PN	MACH	Q	ZJPOS	CFKYL	CMKYL	CFKYR	CMKYR	CFHZL	CMHZL	CFHZR	CMHZR	CFHYL	CMHYL	CFHYR	CMHYR
701	-0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
702	-0.0	0.1	-0.4	-0.2541	-0.0769	-0.2479	-0.0751	-0.0184	-0.0051	-0.0015	0.0000	0.9765	0.2907	0.8816	0.2617
801	0.6	199.3	0.1	-0.0013	-0.0003	-0.0014	-0.0003	0.0130	0.0055	0.0113	0.0049	0.0001	0.0001	0.0000	0.0003
802	0.6	199.1	0.1	-0.0013	-0.0003	-0.0013	-0.0003	0.0131	0.0055	0.0114	0.0049	-0.0002	0.0000	0.0000	0.0002
803	0.6	200.3	6.0	0.0026	0.0034	-0.0014	-0.0003	-0.0101	-0.0047	0.0074	0.0044	0.0034	-0.0012	-0.0097	-0.0039
804	0.6	200.3	11.9	-0.0059	0.0020	0.0114	0.0024	-0.0266	-0.0085	-0.0058	0.0018	-0.0546	-0.0232	0.0569	0.0243
805	0.6	199.7	18.0	-0.0441	-0.0210	0.0476	0.0256	0.0127	-0.0067	0.0348	0.0073	-0.0989	-0.0481	0.1007	0.0494
806	0.6	201.3	24.0	0.0535	0.0303	-0.0500	-0.0255	0.0264	-0.0198	0.0351	-0.0155	0.0261	0.0206	-0.0188	-0.0149
1001	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1002	-0.0	0.0	0.0	14.1522	14.6014	48.3593	14.6566	-92.9662	-21.0941	-82.4478	-18.5702	1.1617	0.2313	0.5475	0.1258
1101	0.8	200.9	0.1	-0.0013	-0.0001	-0.0001	-0.0000	0.0085	0.0039	0.0074	0.0034	-0.0004	-0.0001	0.0000	0.0000
1102	0.8	201.4	6.0	0.0015	0.0136	-0.0003	-0.0000	0.0117	0.0044	0.0041	0.0031	0.0096	0.0051	-0.0078	-0.0034
1103	0.8	200.3	11.9	0.0115	0.0138	0.0078	0.0016	-0.0052	0.0008	-0.0103	-0.0005	-0.0349	-0.0111	0.0481	0.0165
1104	0.8	199.5	18.0	-0.0182	-0.0034	0.0330	0.0186	0.0342	0.0056	0.0324	0.0064	-0.0718	-0.0321	0.0762	0.0349
1105	0.8	200.8	24.0	0.0679	0.0411	-0.0510	-0.0268	0.0380	-0.0135	0.0262	-0.0180	0.0492	0.0307	-0.0391	-0.0238
1201	1.0	200.6	0.1	-0.0002	-0.0001	-0.0001	-0.0000	0.0069	0.0031	0.0059	0.0028	-0.0007	-0.0002	-0.0004	-0.0001
1202	1.0	200.0	6.0	0.0129	0.0137	0.0000	0.0001	0.0111	0.0040	0.0038	0.0028	0.0081	0.0044	-0.0064	-0.0028
1203	1.0	200.3	11.9	0.0133	0.0139	0.0043	0.0009	-0.0055	-0.0002	-0.0116	-0.0018	-0.0296	-0.0083	0.0389	0.0136
1204	1.0	199.2	18.0	-0.0049	0.0028	0.0202	0.0122	0.0281	0.0039	0.0269	0.0056	-0.0549	-0.0232	0.0593	0.0252
1205	1.0	200.4	24.0	0.0709	0.0441	-0.0541	-0.0278	0.0344	-0.0122	0.0241	-0.0142	0.0403	0.0304	-0.0417	-0.0255
1501	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1502	0.0	0.1	0.1	-0.7100	-0.1005	0.7141	-0.1001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1503	0.5	105.3	0.1	-0.0010	-0.0002	-0.0010	-0.0002	-0.0047	-0.0011	-0.0039	-0.0009	0.0040	0.0027	-0.0034	0.0024
1601	1.2	201.0	0.1	-0.0008	-0.0000	-0.0001	-0.0000	0.0046	0.0022	0.0038	0.0019	-0.0043	-0.0014	-0.0037	-0.0012
1602	1.2	200.0	6.0	-0.0029	-0.0007	0.0007	0.0002	0.0064	0.0029	0.0047	0.0030	-0.0080	-0.0034	-0.0085	-0.0032
1603	1.2	201.6	11.9	-0.0030	-0.0007	0.0029	0.0005	-0.0073	-0.0001	-0.0083	0.0001	-0.0410	-0.0139	0.0278	0.0091
1604	1.2	201.0	18.0	-0.0182	-0.0106	0.0160	0.0100	0.0208	0.0033	0.0278	0.0083	-0.0701	-0.0298	0.0516	0.0215
1605	1.2	200.4	24.0	0.0436	0.0221	-0.0378	-0.0183	0.0244	-0.0056	0.0238	-0.0054	0.0208	0.0165	-0.0267	-0.0171
1701	0.6	200.7	0.1	-0.0005	-0.0001	-0.0006	-0.0001	0.0045	0.0025	0.0039	0.0022	-0.0006	0.0001	-0.0004	0.0002
1702	0.6	200.5	24.0	0.0507	0.0274	-0.0498	-0.0257	0.0414	-0.0130	0.0304	-0.0178	0.0200	0.0181	-0.0290	-0.0196
1801	0.6	300.0	0.1	-0.0004	-0.0001	-0.0004	-0.0001	0.0053	0.0027	0.0046	0.0024	-0.0001	0.0003	0.0001	0.0003
1802	0.6	301.0	6.0	-0.0016	-0.0004	0.0002	0.0000	0.0039	0.0026	0.0017	0.0023	-0.0019	-0.0006	-0.0097	-0.0038
1803	0.6	299.9	11.9	-0.0068	-0.0014	0.0121	0.0031	-0.0122	-0.0009	-0.0109	-0.0001	-0.0577	-0.0235	0.0560	0.0236
1804	0.6	299.0	18.0	-0.0478	-0.0254	0.0488	0.0257	0.0254	0.0002	0.0285	0.0049	-0.1062	-0.0515	0.0989	0.0407
1805	0.6	299.6	24.0	0.0526	0.0274	-0.0473	-0.0235	0.0400	-0.0130	0.0301	-0.0175	0.0220	0.0190	-0.0179	-0.0145
1901	0.6	400.5	0.1	-0.0003	-0.0000	-0.0002	-0.0000	0.0051	0.0026	0.0045	0.0023	0.0006	0.0005	0.0007	0.0005
1902	0.6	401.1	6.0	-0.0012	-0.0004	0.0004	0.0002	0.0038	0.0026	0.0019	0.0023	-0.0003	-0.0002	-0.0094	-0.0036
1903	0.6	399.6	11.9	-0.0058	-0.0011	0.0120	0.0024	-0.0121	-0.0006	-0.0105	-0.0001	-0.0539	-0.0218	0.0559	0.0236
1904	0.6	400.2	18.0	-0.0464	-0.0245	0.0492	0.0257	0.0240	-0.0003	0.0273	0.0042	-0.1051	-0.0514	0.1013	0.0497
1905	0.6	399.8	24.0	0.0516	0.0264	-0.0517	-0.0263	0.0377	-0.0131	0.0305	-0.0179	0.0187	0.0170	-0.0194	-0.0158
2001	0.6	497.7	0.1	-0.0002	-0.0000	-0.0002	-0.0000	0.0051	0.0025	0.0044	0.0022	0.0007	0.0005	0.0008	0.0005
2002	0.6	500.7	6.0	-0.0008	-0.0003	0.0003	0.0002	0.0035	0.0026	0.0020	0.0024	0.0023	0.0010	-0.0086	-0.0037
2003	0.6	500.6	12.0	-0.0049	-0.0009	0.0116	0.0024	-0.0120	-0.0004	-0.0106	-0.0002	-0.0511	-0.0205	0.0553	0.0234
2004	0.6	498.9	18.0	-0.0468	-0.0249	0.0493	0.0257	0.0210	-0.0018	0.0267	0.0036	-0.1056	-0.0522	0.1013	0.0498
2005	0.6	500.3	24.0	0.0530	0.0271	-0.0504	-0.0256	0.0335	-0.0150	0.0302	-0.0174	0.0177	0.0163	-0.0169	-0.0147

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 2 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CFKYL	CMKYL	CFKYR	CMKYR	CFHZL	CMHZL	CFHZR	CMHZR	CFHYL	CMHYL	CFHYR	CMHYR
2101	0.6	595.3	0.1	0.0002	0.0001	0.0003	0.0001	0.0050	0.0025	0.0044	0.0022	0.0009	0.0005	0.0009	0.0006
2103	0.6	598.4	6.0	-0.0007	-0.0002	0.0003	0.0001	0.0033	0.0025	0.0017	0.0022	0.0034	0.0014	-0.0095	-0.0037
2104	0.6	599.7	11.9	-0.0047	-0.0009	0.0104	0.0020	-0.0116	-0.0003	-0.0104	0.0000	-0.0494	-0.0199	0.0541	0.0227
2106	0.6	597.7	18.0	-0.0466	-0.0247	0.0488	0.0253	0.0200	-0.0023	0.0260	0.0031	-0.1034	-0.0515	0.1004	0.0494
2107	0.6	597.9	24.0	0.0530	0.0271	-0.0504	-0.0254	0.0333	-0.0130	0.0299	-0.0174	0.0156	0.0151	-0.0169	-0.0147
2201	0.8	300.0	0.1	0.0000	0.0000	0.0000	0.0000	0.0055	0.0027	0.0048	0.0024	-0.0001	0.0001	0.0001	0.0002
2202	0.8	300.7	6.1	-0.0011	-0.0003	0.0000	0.0001	0.0030	0.0022	0.0011	0.0020	-0.0026	-0.0009	-0.0070	-0.0030
2203	0.8	300.5	12.0	-0.0025	-0.0004	0.0096	0.0022	-0.0109	-0.0005	-0.0122	-0.0013	-0.0480	-0.0179	0.0506	0.0205
2204	0.8	300.9	18.0	-0.0288	-0.0165	0.0340	0.0190	0.0290	0.0042	0.0312	0.0066	-0.0821	-0.0369	0.0813	0.0373
2205	0.8	300.0	24.0	0.0577	0.0300	-0.0508	-0.0254	0.0368	-0.0131	0.0279	-0.0158	0.0381	0.0203	-0.0350	-0.0231
2301	0.8	400.1	0.1	0.0001	0.0000	0.0001	0.0000	0.0057	0.0027	0.0049	0.0024	0.0000	0.0002	0.0002	0.0002
2302	0.8	400.3	6.0	-0.0007	-0.0002	0.0002	0.0001	0.0033	0.0023	0.0019	0.0022	-0.0007	-0.0001	-0.0073	-0.0031
2303	0.8	400.1	12.0	-0.0025	-0.0005	0.0096	0.0022	-0.0110	-0.0004	-0.0118	-0.0012	-0.0454	-0.0169	0.0502	0.0204
2304	0.8	398.7	18.0	-0.0284	-0.0164	0.0348	0.0192	0.0293	0.0045	0.0301	0.0066	-0.0815	-0.0368	0.0845	0.0389
2305	0.8	400.7	24.0	0.0580	0.0298	-0.0515	-0.0252	0.0392	-0.0116	0.0314	-0.0140	0.0379	0.0264	-0.0335	-0.0226
2401	0.8	499.3	0.1	0.0001	0.0000	0.0001	0.0000	0.0059	0.0028	0.0051	0.0025	0.0001	0.0002	0.0003	0.0002
2402	0.8	500.3	6.0	-0.0004	-0.0002	0.0002	0.0001	0.0034	0.0024	0.0021	0.0022	0.0013	0.0006	-0.0075	-0.0031
2403	0.8	500.1	12.0	-0.0025	-0.0006	0.0098	0.0022	-0.0109	-0.0004	-0.0115	-0.0013	-0.0442	-0.0166	0.0507	0.0208
2404	0.8	499.2	18.0	-0.0282	-0.0164	0.0355	0.0195	0.0288	0.0040	0.0292	0.0064	-0.0794	-0.0359	0.0851	0.0395
2405	0.8	499.0	24.0	0.0575	0.0291	-0.0529	-0.0258	0.0399	-0.0105	0.0331	-0.0138	0.0371	0.0260	-0.0337	-0.0228
2501	0.8	599.8	0.1	0.0002	0.0000	0.0002	0.0000	0.0056	0.0027	0.0049	0.0024	0.0002	0.0002	0.0003	0.0002
2502	0.8	598.9	6.0	-0.0004	-0.0002	0.0002	0.0001	0.0028	0.0022	0.0016	0.0020	0.0019	0.0010	-0.0073	-0.0030
2503	0.8	600.8	6.0	-0.0004	-0.0002	0.0003	0.0001	0.0029	0.0022	0.0015	0.0020	0.0019	0.0010	-0.0074	-0.0030
2504	0.8	600.0	10.9	-0.0044	-0.0011	0.0048	0.0007	-0.0137	-0.0005	-0.0154	-0.0016	-0.0452	-0.0175	0.0456	0.0179
2505	0.8	600.2	12.0	-0.0022	-0.0005	0.0098	0.0022	-0.0108	-0.0004	-0.0113	-0.0012	-0.0423	-0.0158	0.0501	0.0207
2506	0.8	600.6	18.1	-0.0278	-0.0162	0.0354	0.0194	0.0301	0.0045	0.0304	0.0067	-0.0781	-0.0354	0.0850	0.0396
2507	0.8	600.5	21.2	0.0190	0.0072	-0.0487	-0.0202	0.0312	0.0013	0.0229	-0.0013	0.0077	0.0067	-0.0314	-0.0212
2508	0.8	599.8	24.0	0.0577	0.0292	-0.0541	-0.0264	0.0434	-0.0088	0.0338	-0.0135	0.0382	0.0265	-0.0339	-0.0229
2601	1.2	300.3	0.0	0.0004	0.0001	0.0005	0.0001	0.0043	0.0020	0.0036	0.0018	-0.0048	-0.0018	-0.0041	-0.0015
2602	1.2	299.9	6.0	-0.0009	-0.0003	-0.0002	0.0000	0.0103	0.0044	0.0047	0.0029	0.0005	-0.0004	-0.0089	-0.0034
2603	1.2	299.5	12.0	-0.0007	-0.0002	0.0023	0.0004	-0.0022	0.0019	-0.0082	0.0000	-0.0321	-0.0109	0.0277	0.0091
2604	1.2	301.1	18.0	-0.0161	-0.0101	0.0155	0.0100	0.0257	0.0056	0.0285	0.0089	-0.0618	-0.0268	0.0518	0.0217
2605	1.2	299.4	24.0	0.0455	0.0230	-0.0461	-0.0218	0.0280	-0.0039	0.0231	-0.0054	0.0298	0.0199	-0.0356	-0.0222
2701	1.2	398.8	0.1	0.0005	0.0001	0.0005	0.0001	0.0051	0.0023	0.0043	0.0020	-0.0042	-0.0015	-0.0035	-0.0013
2702	1.2	399.1	6.0	-0.0009	-0.0003	-0.0002	0.0001	0.0094	0.0041	0.0050	0.0030	0.0010	0.0000	-0.0082	-0.0032
2703	1.2	400.7	12.0	-0.0010	-0.0002	0.0030	0.0006	-0.0028	0.0016	0.0076	0.0003	-0.0310	-0.0101	0.0283	0.0095
2704	1.2	399.0	12.0	-0.0019	-0.0005	0.0026	0.0005	-0.0031	0.0018	-0.0078	0.0003	-0.0314	-0.0106	0.0279	0.0094
2705	1.2	400.3	18.0	-0.0141	-0.0095	0.0174	0.0107	0.0272	0.0062	0.0281	0.0088	-0.0673	-0.0244	0.0546	0.0231
2706	1.2	399.5	24.0	0.0516	0.0256	-0.0533	-0.0243	0.0265	-0.0053	0.0245	-0.0059	0.0390	0.0249	-0.0442	-0.0270
2801	1.2	499.2	0.1	0.0004	0.0001	0.0004	0.0001	0.0051	0.0023	0.0043	0.0020	-0.0038	-0.0014	-0.0032	-0.0012
2802	1.2	500.1	6.0	-0.0006	-0.0002	0.0001	0.0001	0.0086	0.0038	0.0048	0.0029	0.0022	0.0005	-0.0078	-0.0030
2803	1.2	500.5	12.0	-0.0012	-0.0003	0.0034	0.0007	-0.0033	0.0016	-0.0078	0.0003	-0.0295	-0.0096	0.0286	0.0098
2804	1.2	500.0	18.0	-0.0174	-0.0107	0.0158	0.0101	0.0238	0.0054	0.0301	0.0096	-0.0593	-0.0260	0.0504	0.0212
2805	1.2	499.9	24.0	0.0527	0.0261	-0.0554	-0.0252	0.0254	-0.0059	0.0244	-0.0066	0.0421	0.0262	-0.0468	-0.0294
2806	1.2	500.1	18.5	-0.0150	-0.0098	0.0153	0.0101	0.0199	0.0031	0.0238	0.0053	-0.0484	-0.0214	0.0430	0.0180

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 2 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CFKYL	CMKYL	CFKYR	CMKYR	CFHZL	CMHZL	CFHZR	CMHZR	CFHYL	CMHYL	CFHYR	CMHYR
2901	1.2	599.3	0.1	-0.0004	-0.0001	0.0004	-0.0001	0.0048	0.0022	0.0041	0.0019	-0.0034	-0.0012	-0.0029	-0.0010
2902	1.2	599.2	6.0	-0.0004	-0.0002	0.0000	0.0001	0.0079	0.0036	0.0048	0.0029	0.0032	0.0009	-0.0075	-0.0028
2903	1.2	599.7	12.0	-0.0010	-0.0002	0.0036	0.0008	-0.0032	0.0017	-0.0073	0.0004	-0.0283	-0.0091	0.0288	0.0100
2904	1.2	599.8	18.0	-0.0134	-0.0093	0.0182	0.0111	0.0281	0.0070	0.0288	0.0092	-0.0545	-0.0231	0.0555	0.0237
2905	1.2	600.0	24.0	0.0522	0.0258	-0.0563	-0.0256	0.0247	-0.0063	0.0253	-0.0069	0.0426	0.0263	-0.0475	-0.0287
3001	1.0	296.8	0.1	-0.0007	-0.0002	0.0007	0.0002	0.0051	0.0024	0.0044	0.0021	-0.0019	-0.0007	-0.0015	-0.0006
3002	1.0	299.8	6.0	-0.0009	-0.0003	-0.0002	0.0000	0.0064	0.0032	0.0019	0.0019	-0.0009	-0.0006	-0.0075	-0.0031
3003	1.0	300.0	11.9	-0.0006	-0.0001	0.0042	0.0008	-0.0081	-0.0002	-0.0129	-0.0024	-0.0385	-0.0134	0.0388	0.0140
3004	1.0	300.5	18.0	-0.0173	-0.0108	0.0208	0.0125	0.0260	-0.0045	0.0265	-0.0061	-0.0626	-0.0271	0.0603	0.0259
3005	1.0	299.3	24.0	0.0585	0.0299	-0.0531	-0.0259	0.0308	-0.0123	0.0226	-0.0136	0.0424	0.0273	-0.0431	-0.0261
3101	1.0	399.0	0.1	-0.0005	-0.0002	0.0005	0.0002	0.0052	0.0025	0.0045	0.0022	-0.0018	-0.0006	-0.0014	-0.0005
3102	1.0	401.2	6.0	-0.0007	-0.0002	-0.0003	-0.0000	0.0055	0.0029	0.0022	0.0020	0.0001	-0.0000	-0.0073	-0.0030
3103	1.0	399.3	11.9	-0.0014	-0.0003	0.0049	0.0010	-0.0082	-0.0002	-0.0126	-0.0024	-0.0371	-0.0130	0.0392	0.0144
3104	1.0	400.7	18.0	-0.0166	-0.0105	0.0209	0.0124	0.0290	0.0053	0.0283	0.0072	-0.0612	-0.0262	0.0614	0.0264
3105	1.0	400.7	24.0	0.0582	0.0290	-0.0519	-0.0246	0.0296	-0.0121	0.0242	-0.0121	0.0466	0.0291	-0.0425	-0.0258
3201	1.0	497.1	0.1	-0.0004	-0.0001	0.0004	0.0001	0.0053	0.0025	0.0045	0.0022	-0.0015	-0.0005	-0.0012	-0.0004
3202	1.0	499.0	6.0	-0.0005	-0.0002	-0.0001	0.0000	0.0051	0.0027	0.0025	0.0021	0.0012	0.0005	-0.0069	-0.0028
3203	1.0	501.2	11.9	-0.0013	-0.0003	0.0051	0.0010	-0.0084	-0.0003	-0.0123	-0.0022	-0.0357	-0.0124	0.0394	0.0147
3204	1.0	498.8	18.0	-0.0164	-0.0105	0.0212	0.0126	0.0284	0.0052	0.0280	0.0072	-0.0597	-0.0257	0.0620	0.0267
3205	1.0	501.1	24.0	0.0593	0.0294	-0.0529	-0.0249	0.0289	-0.0123	0.0239	-0.0123	0.0482	0.0299	-0.0431	-0.0262
3301	1.0	599.9	0.0	-0.0003	-0.0001	0.0003	0.0001	0.0056	0.0026	0.0049	0.0023	-0.0012	-0.0004	-0.0009	-0.0003
3302	1.0	599.4	6.0	-0.0004	-0.0002	-0.0002	0.0000	0.0048	0.0027	0.0026	0.0021	0.0020	0.0008	-0.0058	-0.0028
3303	1.0	599.9	12.0	-0.0014	-0.0003	0.0053	0.0011	-0.0082	-0.0002	-0.0121	-0.0022	-0.0348	-0.0120	0.0395	0.0149
3304	1.0	599.9	18.0	-0.0162	-0.0105	0.0214	0.0126	0.0294	0.0056	0.0288	0.0077	-0.0593	-0.0255	0.0633	0.0274
3401	0.6	201.1	0.1	-0.0000	-0.0002	0.0000	0.0002	0.0048	0.0024	0.0041	0.0022	-0.0013	-0.0004	-0.0010	-0.0003
3402	0.6	199.9	2.0	-0.0017	-0.0006	-0.0005	-0.0001	0.0133	0.0054	0.0056	0.0034	-0.0069	-0.0039	-0.0026	-0.0005
3403	0.6	200.5	4.0	-0.0015	-0.0005	-0.0007	-0.0001	0.0134	0.0055	0.0044	0.0029	-0.0015	-0.0016	-0.0110	-0.0038
3404	0.6	199.4	6.0	-0.0013	-0.0004	-0.0009	-0.0001	0.0100	0.0046	0.0011	0.0021	-0.0010	-0.0008	-0.0106	-0.0043
3405	0.6	199.4	8.0	-0.0017	-0.0005	-0.0003	-0.0000	-0.0085	-0.0010	-0.0181	-0.0044	-0.0151	-0.0047	0.0055	-0.0003
3406	0.6	199.4	10.0	-0.0011	-0.0003	-0.0010	-0.0006	-0.0107	0.0019	-0.0198	-0.0017	-0.0420	-0.0158	0.0355	0.0126
3407	0.6	201.0	12.1	-0.0051	-0.0008	0.0110	0.0022	-0.0061	0.0013	-0.0108	-0.0002	-0.0547	-0.0226	0.0553	0.0236
3408	0.6	201.1	14.0	-0.0111	-0.0031	0.0183	0.0066	0.0036	0.0042	-0.0035	0.0026	-0.0514	-0.0244	0.0537	0.0256
3409	0.6	200.4	16.1	-0.0419	-0.0211	0.0397	0.0204	0.0274	0.0028	0.0272	0.0069	-0.1052	-0.0523	0.0934	0.0464
3410	0.6	199.8	18.0	-0.0457	-0.0246	0.0464	0.0250	0.0313	0.0021	0.0279	0.0045	-0.0998	-0.0486	0.0965	0.0474
3411	0.6	200.4	20.0	-0.0586	-0.0299	0.0635	0.0326	0.0300	-0.0012	0.0210	-0.0050	-0.0918	-0.0484	0.0978	0.0517
3412	0.6	200.9	22.0	0.0597	0.0284	-0.0572	-0.0252	0.0422	-0.0047	0.0246	-0.0111	0.0354	0.0256	-0.0307	-0.0219
3413	0.6	200.1	24.0	0.0527	0.0281	-0.0513	-0.0258	0.0481	-0.0107	0.0311	-0.0179	0.0246	0.0197	-0.0224	-0.0170
3503	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3504	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0026	0.0006	0.0011	0.0002	-0.2319	-0.0529	-0.2127	-0.0481
3601	0.4	220.8	0.1	-0.0003	-0.0001	0.0002	0.0001	0.0077	0.0035	0.0067	0.0031	-0.0001	0.0002	0.0002	0.0003
3602	0.4	220.1	6.0	-0.0073	-0.0014	0.0001	0.0001	0.0386	0.0162	0.0040	0.0031	-0.0047	-0.0027	-0.0105	-0.0040
3603	0.4	219.9	12.0	-0.0117	-0.0019	0.0113	0.0021	0.0230	0.0157	-0.0074	0.0014	-0.0598	-0.0249	0.0566	0.0239
3604	0.4	220.8	18.0	-0.0603	-0.0288	0.0519	0.0270	0.0538	0.0113	0.0278	0.0037	-0.1171	-0.0597	0.1000	0.0503
3605	0.4	220.0	24.0	0.0429	0.0240	-0.0435	-0.0206	0.0546	-0.0016	0.0278	-0.0199	0.0063	0.0098	-0.0116	-0.0110
3701	0.4	200.3	0.1	-0.0003	-0.0001	0.0002	0.0001	0.0085	0.0037	0.0074	0.0032	-0.0000	0.0002	0.0002	0.0003

RN/PN	MACH	Q	EJPOS	CFKYL	CMKYL	CFKYR	CMKYR	CFHZL	CMHZL	CFHZR	CMHZR	CFHYL	CMHYL	CFHYR	CMHYR
3702	0.4	198.9	6.0	-0.0079	-0.0015	0.0001	0.0001	0.0410	0.0195	0.0047	0.0033	-0.0055	-0.0031	-0.0114	-0.0040
3703	0.4	198.5	11.9	-0.0126	-0.0022	0.0112	0.0021	0.0259	0.0170	-0.0064	0.0017	-0.0607	-0.0254	0.0533	0.0236
3704	0.4	199.8	18.0	-0.0694	-0.0287	0.0522	0.0271	0.0567	0.0130	-0.0277	0.0036	-0.1166	-0.0594	0.1003	0.0503
3705	0.4	201.0	24.0	0.0418	0.0238	-0.0409	-0.0182	0.0674	-0.0001	0.0281	-0.0202	0.0062	0.0095	-0.0092	-0.0098
3801	0.4	150.9	0.1	-0.0000	-0.0000	-0.0000	-0.0000	0.0086	0.0036	0.0075	0.0032	0.0001	0.0003	0.0003	0.0003
3802	0.4	149.2	6.0	-0.0112	-0.0021	-0.0000	0.0001	0.0533	0.0250	0.0051	0.0034	-0.0090	-0.0049	-0.0098	-0.0039
3803	0.4	149.0	11.9	-0.0156	-0.0026	0.0119	0.0023	0.0380	0.0224	-0.0058	0.0018	-0.0652	-0.0277	0.0571	0.0242
3804	0.4	149.2	18.0	-0.0635	-0.0293	0.0514	0.0269	0.0692	0.0186	0.0284	0.0042	-0.1205	-0.0613	0.0998	0.0499
3805	0.4	149.3	24.0	0.0408	0.0248	-0.0429	-0.0196	0.0807	0.0049	0.0283	-0.0201	0.0040	0.0086	-0.0123	-0.0114
3901	0.4	100.2	0.1	-0.0004	-0.0001	-0.0004	-0.0001	0.0088	0.0036	0.0077	0.0032	0.0003	0.0004	0.0005	0.0004
3902	0.4	98.6	6.0	-0.0174	-0.0032	-0.0001	0.0000	0.0800	0.0367	0.0054	0.0034	-0.0183	-0.0093	-0.0099	-0.0038
3903	0.4	99.3	12.0	-0.0230	-0.0041	0.0114	0.0021	0.0625	0.0331	-0.0058	0.0020	-0.0757	-0.0335	0.0665	0.0243
3904	0.4	99.4	18.0	-0.0688	-0.0302	0.0503	0.0267	0.0973	0.0307	0.0320	0.0057	-0.1271	-0.0642	0.0999	0.0499
3905	0.4	100.3	24.0	0.0354	0.0250	-0.0479	-0.0251	0.1091	0.0174	0.0296	-0.0190	0.0039	0.0090	-0.0200	-0.0147
4501	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4502	0.0	1.0	0.1	-0.0353	-0.0107	-0.0351	-0.0106	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4601	0.6	400.0	0.1	-0.0005	-0.0002	-0.0005	-0.0002	0.0073	0.0034	0.0064	0.0030	0.0001	0.0003	0.0004	0.0004
4602	0.6	393.6	6.0	-0.0009	-0.0003	-0.0005	-0.0001	0.0053	0.0031	0.0034	0.0029	0.0065	0.0026	-0.0100	-0.0038
4603	0.6	399.8	10.1	-0.0011	-0.0002	0.0003	-0.0003	-0.0149	0.0006	-0.0167	-0.0006	-0.0339	-0.0123	0.0374	0.0138
4605	0.6	400.0	18.0	-0.0452	-0.0240	0.0471	0.0247	0.0228	-0.0007	0.0276	0.0042	-0.0977	-0.0486	0.0976	0.0480
4606	0.6	399.7	24.0	0.0528	0.0270	-0.0518	-0.0261	0.0362	-0.0137	0.0322	-0.0173	0.0227	0.0182	-0.0221	-0.0170
4607	0.6	400.0	11.9	-0.0047	-0.0010	0.0107	0.0023	-0.0109	0.0000	-0.0008	0.0006	-0.0472	-0.0189	0.0551	0.0232
4701	0.8	399.7	0.1	-0.0005	-0.0002	-0.0005	-0.0002	0.0062	0.0029	0.0054	0.0026	-0.0003	0.0001	-0.0001	0.0002
4702	0.8	400.1	6.0	-0.0004	-0.0002	-0.0005	-0.0001	0.0049	0.0028	0.0028	0.0025	0.0037	0.0018	-0.0080	-0.0032
4703	0.8	399.9	12.0	-0.0025	-0.0006	0.0093	0.0022	-0.0094	0.0000	-0.0104	-0.0009	-0.0414	-0.0153	0.0498	0.0205
4704	0.9	400.2	18.0	-0.0273	-0.0158	0.0338	0.0188	0.0277	0.0046	0.0293	0.0054	-0.0755	-0.0340	0.0813	0.0380
4705	0.8	400.2	24.0	0.0573	0.0292	-0.0525	-0.0258	0.0398	-0.0109	0.0313	-0.0142	0.0405	0.0272	-0.0328	-0.0218
4801	1.0	399.4	0.1	-0.0005	-0.0002	-0.0005	-0.0002	0.0059	0.0027	0.0051	0.0024	-0.0011	-0.0002	-0.0008	-0.0001
4802	1.0	400.5	6.0	-0.0003	-0.0002	-0.0003	-0.0001	0.0049	0.0026	0.0032	0.0025	0.0026	0.0013	-0.0071	-0.0028
4803	1.0	400.7	12.0	-0.0010	-0.0003	0.0053	0.0012	-0.0095	-0.0007	-0.0118	-0.0021	-0.0350	-0.0117	0.0397	0.0150
4804	1.0	400.3	18.0	-0.0169	-0.0107	0.0199	0.0121	0.0260	0.0043	-0.0280	-0.0068	-0.0594	-0.0252	0.0537	0.0257
4805	1.0	400.7	24.0	0.0597	0.0298	-0.0537	-0.0258	0.0285	-0.0129	0.0245	-0.0124	0.0490	0.0305	-0.0430	-0.0261
4901	1.2	399.3	0.1	-0.0007	-0.0002	-0.0006	-0.0001	0.0051	0.0024	0.0043	0.0021	-0.0031	-0.0010	-0.0026	-0.0008
4902	1.2	400.2	6.0	-0.0003	-0.0002	-0.0003	0.0000	0.0083	0.0037	0.0053	0.0031	0.0033	0.0012	-0.0076	-0.0027
4903	1.2	400.1	12.0	-0.0008	-0.0002	0.0028	0.0005	-0.0039	0.0013	-0.0073	0.0004	-0.0289	-0.0091	0.0286	0.0099
4904	1.2	400.1	18.0	-0.0149	-0.0098	0.0160	0.0102	0.0247	0.0055	0.0296	0.0094	-0.0559	-0.0238	0.0524	0.0223
4905	1.2	399.9	24.0	0.0551	0.0271	-0.0577	-0.0264	0.0257	-0.0062	0.0249	-0.0070	0.0449	0.0281	-0.0486	-0.0293
5001	0.4	200.6	0.1	-0.0012	-0.0003	-0.0012	-0.0003	0.0055	0.0029	0.0048	0.0026	0.0004	0.0006	0.0005	0.0006
5002	0.4	200.2	6.0	-0.0007	-0.0004	-0.0012	-0.0003	0.0085	0.0041	0.0023	0.0028	0.0033	0.0015	-0.0103	-0.0038
5003	0.4	199.7	12.0	-0.0052	-0.0009	0.0103	0.0019	-0.0065	0.0015	-0.0096	0.0007	-0.0516	-0.0208	0.0559	0.0241
5004	0.4	200.6	18.0	-0.0537	-0.0277	0.0501	0.0264	0.0236	-0.0025	0.0264	0.0031	-0.1076	-0.0549	0.0983	0.0495
5005	0.4	201.0	24.0	0.0489	0.0249	-0.0434	-0.0197	0.0339	-0.0162	0.0263	-0.0206	0.0149	0.0140	-0.0107	-0.0103
5201	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5202	0.0	1.0	0.1	0.0	0.0	0.0	0.0	-0.0008	-0.0001	-0.0003	-0.0000	0.0673	0.0154	0.0614	0.0139
5401	0.6	398.3	0.1	-0.0006	-0.0004	-0.0006	-0.0004	0.0076	0.0040	0.0064	0.0035	-0.0035	-0.0013	-0.0028	-0.0010

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL

DATE 10-27-81 TRANSONIC 16T

RN/PN	MACH	Q	EJPOS	CFKYL	CMKYL	CFKYR	CMKYR	CFHZL	CMHZL	CFHZR	CMHZR	CFHYL	CMHYL	CFHYR	CMHYR
5402	0.6	400.5	6.0	-0.0000	0.0000	0.0015	0.0009	0.0049	0.0027	0.0060	0.0030	0.0003	-0.0002	0.0014	0.0010
5403	0.6	396.9	12.0	-0.0009	-0.0007	0.0007	0.0012	-0.0104	-0.0017	-0.0087	-0.0005	0.0088	0.0038	-0.0102	-0.0050
5404	0.6	398.9	18.0	-0.0107	-0.0039	0.0155	0.0055	-0.0080	-0.0031	-0.0037	-0.0020	-0.0625	-0.0258	0.0698	0.0285
5405	0.6	399.5	24.0	0.0725	0.0379	-0.0619	-0.0312	0.0301	-0.0005	0.0246	-0.0025	0.0485	0.0313	-0.0359	-0.0242
5501	0.8	399.9	0.1	-0.0003	-0.0002	-0.0003	-0.0002	0.0067	0.0035	0.0056	0.0031	-0.0040	-0.0015	-0.0032	-0.0012
5502	0.8	400.6	6.0	0.0001	0.0000	0.0019	0.0011	0.0032	0.0021	0.0042	0.0024	0.0001	-0.0003	0.0026	0.0016
5503	0.8	399.1	12.0	-0.0000	-0.0004	0.0007	0.0010	-0.0115	-0.0025	-0.0094	-0.0012	0.0091	0.0048	-0.0110	-0.0055
5504	0.8	400.1	18.0	-0.0081	-0.0029	0.0067	0.0021	-0.0062	-0.0008	-0.0021	-0.0006	-0.0558	-0.0211	0.0560	0.0205
5505	0.8	399.7	24.0	0.0743	0.0383	-0.0592	-0.0292	0.0373	0.0020	0.0256	0.0011	0.0423	0.0384	-0.0417	-0.0265
5601	1.0	399.7	0.1	-0.0007	-0.0004	-0.0007	-0.0004	0.0056	0.0030	0.0047	0.0026	-0.0034	-0.0013	-0.0028	-0.0011
5602	1.0	400.1	6.0	0.0001	0.0001	0.0017	0.0009	0.0017	0.0019	0.0027	0.0018	-0.0011	-0.0005	0.0037	0.0017
5603	1.0	399.7	12.0	-0.0006	-0.0005	0.0010	0.0009	-0.0080	-0.0014	-0.0078	-0.0007	0.0059	0.0033	-0.0109	-0.0050
5604	1.0	400.8	18.0	-0.0057	-0.0022	0.0040	0.0012	-0.0077	-0.0024	-0.0025	-0.0012	-0.0491	-0.0173	0.0488	0.0153
5605	1.0	400.6	24.0	0.0578	0.0293	-0.0580	-0.0286	0.0209	-0.0012	0.0181	-0.0043	0.0509	0.0311	-0.0473	-0.0289
5701	1.2	400.4	0.1	-0.0007	-0.0004	-0.0007	-0.0004	0.0049	0.0027	0.0041	0.0024	-0.0025	-0.0008	-0.0020	-0.0007
5702	1.2	399.4	6.0	-0.0001	-0.0001	0.0017	0.0009	0.0014	0.0020	0.0015	0.0014	-0.0020	-0.0008	0.0036	0.0016
5703	1.2	401.3	12.0	-0.0020	-0.0008	0.0019	0.0008	-0.0031	0.0003	-0.0039	0.0005	0.0021	0.0005	-0.0047	-0.0013
5704	1.2	399.1	18.0	-0.0052	-0.0020	0.0017	0.0005	0.0013	0.0009	0.0073	0.0021	-0.0419	-0.0150	0.0360	0.0112
5705	1.2	400.3	24.0	0.0375	0.0182	-0.0512	-0.0244	0.0197	0.0039	0.0212	0.0019	0.0278	0.0181	-0.0406	-0.0256
5801	1.2	400.9	0.0	-0.0007	-0.0004	-0.0007	-0.0004	0.0051	0.0028	0.0043	0.0025	-0.0025	-0.0008	-0.0020	-0.0006
5802	1.2	401.5	6.0	-0.0001	-0.0001	0.0018	0.0010	0.0019	0.0022	0.0024	0.0018	-0.0023	-0.0009	0.0034	0.0015
5803	1.2	400.4	12.0	-0.0018	-0.0007	0.0019	0.0008	-0.0030	0.0003	-0.0033	0.0008	0.0019	0.0005	-0.0057	-0.0017
5804	1.2	399.1	18.0	-0.0045	-0.0017	0.0027	0.0010	0.0021	0.0004	0.0061	0.0016	-0.0417	-0.0146	0.0374	0.0119
5805	1.2	398.4	24.0	0.0373	0.0181	-0.0523	-0.0253	0.0197	0.0037	0.0215	0.0021	0.0278	0.0181	-0.0424	-0.0266
5901	0.6	199.6	0.0	-0.0002	-0.0002	-0.0002	-0.0002	0.0060	0.0036	0.0050	0.0031	-0.0032	-0.0011	-0.0025	-0.0009
5902	0.6	200.0	6.0	0.0005	0.0000	0.0015	0.0008	0.0056	0.0028	0.0054	0.0027	-0.0024	-0.0011	0.0014	0.0009
5903	0.6	200.2	12.0	-0.0005	-0.0008	0.0011	0.0009	-0.0103	-0.0019	-0.0069	0.0007	0.0039	0.0025	-0.0105	-0.0044
5904	0.6	200.1	18.0	-0.0117	-0.0046	0.0121	0.0044	-0.0049	0.0001	-0.0013	-0.0009	-0.0665	-0.0267	0.0675	0.0263
5905	0.6	199.7	24.0	0.0706	0.0371	-0.0649	-0.0336	0.0301	0.0020	0.0252	0.0028	0.0484	0.0324	-0.0392	-0.0259
6001	0.4	199.4	0.1	-0.0003	-0.0003	-0.0003	-0.0003	0.0042	0.0028	0.0036	0.0025	-0.0021	-0.0005	-0.0016	-0.0004
6002	0.4	200.5	6.0	-0.0004	-0.0000	0.0017	0.0009	0.0059	0.0029	0.0045	0.0025	-0.0027	-0.0011	0.0017	0.0011
6003	0.4	200.6	12.0	-0.0017	-0.0013	0.0023	0.0013	-0.0091	-0.0015	-0.0063	0.0010	0.0028	0.0015	-0.0066	-0.0025
6004	0.4	201.4	18.0	-0.0146	-0.0057	0.0189	0.0072	-0.0053	-0.0017	-0.0017	-0.0028	-0.0709	-0.0303	0.0735	0.0312
6005	0.4	199.7	24.0	0.0684	0.0355	-0.0614	-0.0311	0.0301	-0.0012	0.0214	-0.0040	0.0390	0.0266	-0.0365	-0.0242

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 3 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CFEZL	CMEZL	CFEZR	CMEZR	CFEYL	CMEYL	CFEYR	CMEYR	CFSXL	CMSXL	CFSXR	CMSXR
701	-0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
702	-0.0	0.1	-0.4	-0.1019	-0.0267	-0.0038	-0.0010	0.0016	0.0004	-0.1041	-0.0279	0.0190	0.0012	0.0591	0.0134
801	0.6	199.3	0.1	0.0037	0.0015	0.0017	0.0009	-0.0003	-0.0003	0.0000	0.0004	-0.0012	-0.0010	0.0068	0.0011
802	0.6	199.1	0.1	0.0036	0.0014	0.0018	0.0009	-0.0003	-0.0003	0.0001	0.0004	-0.0012	-0.0010	0.0066	0.0011
803	0.6	200.3	6.0	-0.0012	0.0010	-0.0044	0.0004	0.0063	0.0010	-0.0027	-0.0003	0.0218	0.0056	0.0262	0.0066
804	0.6	200.3	11.9	-0.0046	-0.0003	-0.0054	-0.0005	-0.0202	-0.0065	0.0148	0.0054	0.0265	0.0144	0.0375	0.0157
805	0.6	199.7	18.0	-0.0061	-0.0003	-0.0033	0.0010	-0.0205	-0.0074	0.0147	0.0061	0.0489	0.0187	0.0528	0.0172
806	0.6	201.3	24.0	-0.0050	0.0003	-0.0057	0.0001	-0.0241	-0.0084	0.0138	0.0057	0.0465	0.0179	0.0486	0.0173
1001	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1002	-0.0	0.0	0.1	-19.1700	-2.0802	0.6948	0.1771	-0.1958	-0.0360	19.8676	5.2662	-5.6062	-0.7971	-4.1379	-0.8589
1101	0.8	200.9	0.1	0.0026	0.0012	0.0020	0.0010	-0.0007	-0.0004	0.0002	0.0004	0.0005	-0.0006	0.0018	-0.0002
1102	0.8	201.4	6.0	-0.0032	0.0004	-0.0048	0.0001	0.0055	0.0009	-0.0021	-0.0002	0.0465	0.0101	0.0447	0.0087
1103	0.8	200.3	11.9	-0.0105	-0.0018	-0.0074	-0.0008	-0.0140	-0.0046	0.0123	0.0048	0.0545	0.0201	0.0534	0.0177
1104	0.8	199.5	18.0	-0.0127	-0.0010	-0.0085	-0.0001	-0.0185	-0.0058	0.0119	0.0042	0.0853	0.0273	0.0773	0.0224
1105	0.8	200.8	24.0	-0.0110	-0.0007	-0.0066	0.0008	-0.0175	-0.0056	0.0124	0.0046	0.0727	0.0227	0.0687	0.0191
1201	1.0	200.6	0.1	0.0028	0.0011	0.0020	0.0010	-0.0010	-0.0005	-0.0002	0.0004	0.0010	-0.0004	0.0020	0.0002
1202	1.0	200.0	6.0	-0.0028	0.0003	-0.0042	0.0001	0.0043	0.0007	-0.0020	-0.0004	0.0494	0.0100	0.0469	0.0082
1203	1.0	200.3	11.9	-0.0103	-0.0017	-0.0075	-0.0008	-0.0110	-0.0036	0.0087	0.0035	0.0601	0.0193	0.0575	0.0169
1204	1.0	199.2	18.0	-0.0115	-0.0010	-0.0090	-0.0001	-0.0162	-0.0043	0.0091	0.0027	0.0997	0.0284	0.0985	0.0255
1205	1.0	200.4	24.0	-0.0106	-0.0006	-0.0107	-0.0011	-0.0157	-0.0035	0.0081	0.0017	0.0916	0.0257	0.0936	0.0254
1501	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1502	0.0	0.1	0.1	0.0	0.0	0.0099	0.0025	0.0	0.0	0.2844	0.0754	0.0069	0.0070	-0.0091	-0.0083
1505	0.5	105.3	0.1	0.0029	0.0014	0.0043	0.0015	-0.0008	-0.0004	0.0010	0.0005	-0.0007	-0.0012	0.0096	0.0019
1601	1.2	201.0	0.1	0.0020	0.0009	0.0004	0.0004	-0.0000	-0.0001	-0.0011	-0.0002	0.0051	0.0014	0.0029	0.0013
1602	1.2	200.0	6.0	0.0005	0.0008	-0.0015	0.0005	0.0019	0.0003	-0.0011	-0.0003	0.0394	0.0057	0.0324	0.0031
1603	1.2	201.6	11.9	-0.0081	-0.0011	-0.0060	-0.0005	-0.0095	-0.0031	0.0077	0.0027	0.0478	0.0149	0.0443	0.0128
1604	1.2	201.0	18.0	-0.0074	-0.0004	-0.0061	-0.0001	-0.0103	-0.0029	0.0067	0.0020	0.0890	0.0236	0.0869	0.0212
1605	1.2	200.4	24.0	-0.0089	-0.0010	-0.0090	-0.0008	-0.0173	-0.0033	0.0088	0.0017	0.0941	0.0256	0.0937	0.0237
1701	0.6	200.7	0.1	0.0038	0.0014	0.0020	0.0010	-0.0012	-0.0005	0.0005	0.0005	0.0017	-0.0005	-0.0009	-0.0010
1702	0.6	200.5	24.0	-0.0056	0.0001	-0.0039	0.0008	-0.0241	-0.0083	0.0147	0.0062	0.0497	0.0185	0.0431	0.0144
1801	0.6	300.0	0.1	-0.0035	0.0014	-0.0021	0.0010	-0.0010	-0.0004	0.0005	0.0005	0.0012	-0.0006	-0.0003	-0.0008
1802	0.6	301.0	6.0	-0.0015	0.0008	-0.0039	0.0005	0.0054	0.0008	-0.0022	-0.0002	0.0245	0.0061	0.0268	0.0053
1803	0.6	299.9	11.9	-0.0048	-0.0003	-0.0052	-0.0005	-0.0210	-0.0068	0.0150	0.0055	0.0302	0.0147	0.0340	0.0142
1804	0.6	299.0	18.0	-0.0057	0.0005	-0.0034	0.0010	-0.0190	-0.0070	0.0145	0.0062	0.0517	0.0193	0.0495	0.0161
1805	0.6	299.6	24.0	-0.0056	0.0000	-0.0051	0.0002	-0.0221	-0.0077	0.0139	0.0058	0.0472	0.0186	0.0434	0.0154
1901	0.6	400.5	0.1	0.0034	0.0014	0.0021	0.0010	-0.0012	-0.0005	0.0006	0.0005	0.0009	-0.0007	0.0001	-0.0007
1902	0.6	401.1	6.0	-0.0019	0.0008	-0.0039	0.0005	0.0055	0.0009	-0.0022	-0.0001	0.0250	0.0063	0.0293	-0.0053
1903	0.6	399.6	11.9	-0.0049	-0.0003	-0.0049	-0.0004	-0.0211	-0.0068	0.0156	0.0058	0.0308	0.0145	0.0346	0.0141
1904	0.6	400.2	18.0	-0.0052	0.0006	-0.0034	0.0010	-0.0185	-0.0068	0.0150	0.0065	0.0525	0.0196	0.0498	0.0163
1905	0.6	399.8	24.0	-0.0063	-0.0003	-0.0058	-0.0000	-0.0202	-0.0070	0.0138	0.0059	0.0495	0.0199	0.0471	0.0166
2001	0.6	497.7	0.1	0.0032	0.0013	0.0021	0.0010	-0.0011	-0.0005	0.0007	0.0005	0.0009	-0.0006	0.0001	-0.0007
2002	0.6	500.7	6.0	-0.0021	0.0007	-0.0039	0.0005	0.0057	0.0009	-0.0021	-0.0001	0.0269	0.0067	0.0302	0.0060
2003	0.6	500.6	12.0	-0.0049	-0.0002	-0.0047	-0.0003	-0.0216	-0.0070	0.0159	0.0059	0.0323	0.0146	0.0361	0.0143
2004	0.6	498.9	18.0	-0.0047	0.0007	-0.0032	0.0011	-0.0193	-0.0072	0.0151	0.0066	0.0526	0.0195	0.0498	0.0161
2005	0.6	500.3	24.0	-0.0071	-0.0009	-0.0061	-0.0001	-0.0200	-0.0067	0.0135	0.0058	0.0507	0.0209	0.0478	0.0170

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 3 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CFEZL	CMEZL	CFEZR	CMEZR	CFEYL	CMEYL	CFEYR	CMEYR	CFSXL	CMSXL	CFSXR	CMSXR
2101	0.6	595.3	0.1	0.0031	0.0013	0.0020	0.0010	-0.0011	-0.0004	0.0007	0.0005	0.0009	-0.0006	0.0004	-0.0006
2103	0.6	598.4	6.0	-0.0022	0.0007	-0.0038	0.0005	0.0057	0.0009	-0.0020	-0.0001	0.0281	0.0068	0.0305	0.0061
2104	0.6	599.7	11.9	-0.0047	-0.0001	-0.0049	-0.0003	-0.0216	-0.0069	0.0167	0.0061	0.0330	0.0144	0.0373	0.0146
2105	0.6	597.7	18.0	-0.0046	0.0006	-0.0042	0.0009	-0.0203	-0.0074	0.0170	0.0071	0.0543	0.0196	0.0514	0.0166
2107	0.6	597.9	24.0	-0.0077	-0.0011	-0.0071	-0.0003	-0.0197	-0.0067	0.0146	0.0062	0.0518	0.0207	0.0491	0.0173
2201	0.8	300.0	0.1	0.0032	0.0013	0.0019	0.0010	-0.0010	-0.0004	0.0002	0.0005	0.0009	-0.0005	-0.0005	-0.0008
2202	0.8	300.7	6.1	-0.0026	-0.0004	-0.0054	-0.0000	-0.0053	-0.0008	-0.0021	-0.0001	0.0482	0.0108	0.0428	0.0087
2203	0.8	300.5	12.0	-0.0092	-0.0014	-0.0078	-0.0010	-0.0144	-0.0049	0.0135	0.0052	0.0543	0.0197	0.0506	0.0173
2204	0.8	300.9	18.0	-0.0112	-0.0006	-0.0095	-0.0003	-0.0177	-0.0058	0.0114	0.0046	0.0845	0.0269	0.0769	0.0229
2205	0.8	300.0	24.0	-0.0103	-0.0008	-0.0078	0.0003	-0.0180	-0.0056	0.0130	0.0052	0.0740	0.0239	0.0708	0.0206
2301	0.8	400.1	0.1	0.0031	0.0012	0.0019	0.0010	-0.0010	-0.0004	0.0004	0.0005	0.0010	-0.0005	-0.0002	-0.0007
2302	0.8	400.3	6.0	-0.0026	0.0005	-0.0050	0.0001	0.0052	0.0008	-0.0021	-0.0002	0.0469	0.0101	0.0425	0.0084
2303	0.8	400.1	12.0	-0.0083	-0.0009	-0.0073	-0.0008	-0.0153	-0.0052	0.0144	0.0055	0.0544	0.0192	0.0513	0.0174
2304	0.8	398.7	18.0	-0.0115	-0.0006	-0.0088	-0.0001	-0.0166	-0.0055	0.0122	0.0050	0.0837	0.0271	0.0784	0.0232
2305	0.8	400.7	24.0	-0.0107	-0.0010	-0.0089	-0.0003	-0.0168	-0.0052	0.0117	0.0045	0.0742	0.0246	0.0714	0.0216
2401	0.8	499.3	0.1	0.0030	0.0012	0.0020	0.0010	-0.0010	-0.0004	0.0005	0.0005	0.0008	-0.0005	0.0001	-0.0006
2402	0.8	500.3	6.0	-0.0024	0.0005	-0.0045	0.0002	0.0053	0.0009	-0.0022	-0.0002	0.0457	0.0095	0.0413	0.0078
2403	0.8	500.1	12.0	-0.0078	-0.0007	-0.0072	-0.0008	-0.0157	-0.0053	0.0151	0.0057	0.0540	0.0188	0.0516	0.0175
2404	0.8	499.2	18.0	-0.0120	-0.0007	-0.0088	-0.0001	-0.0158	-0.0053	0.0129	0.0052	0.0824	0.0271	0.0762	0.0234
2405	0.8	499.0	24.0	-0.0114	-0.0012	-0.0096	-0.0005	-0.0154	-0.0049	0.0112	0.0044	0.0741	0.0250	0.0714	0.0221
2501	0.8	599.8	0.1	0.0029	0.0012	0.0021	0.0010	-0.0011	-0.0004	0.0006	0.0006	0.0008	-0.0005	0.0002	-0.0005
2502	0.8	598.9	6.0	-0.0028	0.0004	-0.0045	0.0002	0.0055	0.0009	-0.0018	-0.0001	0.0470	0.0099	0.0425	0.0083
2503	0.8	600.8	6.0	-0.0028	0.0004	-0.0046	0.0001	0.0054	0.0009	-0.0019	-0.0001	0.0471	0.0098	0.0423	0.0083
2504	0.8	600.0	10.9	-0.0082	-0.0006	-0.0075	-0.0007	-0.0137	-0.0045	0.0115	0.0043	0.0558	0.0203	0.0523	0.0187
2505	0.8	600.2	12.0	-0.0075	-0.0005	-0.0074	-0.0007	-0.0161	-0.0055	0.0138	0.0053	0.0540	0.0187	0.0518	0.0175
2506	0.8	600.6	18.1	-0.0123	-0.0008	-0.0072	0.0004	-0.0154	-0.0052	0.0113	0.0047	0.0811	0.0271	0.0757	0.0228
2507	0.8	600.5	21.2	-0.0141	-0.0013	-0.0116	-0.0005	-0.0181	-0.0058	0.0112	0.0043	0.0698	0.0248	0.0783	0.0247
2508	0.8	599.8	24.0	-0.0118	-0.0013	-0.0076	-0.0000	-0.0146	-0.0046	0.0101	0.0041	0.0728	0.0249	0.0695	0.0211
2601	1.2	300.3	0.0	0.0020	0.0009	-0.0001	0.0003	0.0003	-0.0000	-0.0015	-0.0003	0.0051	0.0017	0.0027	0.0015
2602	1.2	299.9	6.0	0.0010	0.0008	-0.0014	0.0005	0.0017	0.0003	-0.0012	-0.0002	0.0390	0.0053	0.0311	0.0029
2603	1.2	299.5	12.0	-0.0072	-0.0008	-0.0058	-0.0004	-0.0092	-0.0030	0.0075	0.0028	0.0469	0.0143	0.0415	0.0122
2604	1.2	301.1	18.0	-0.0062	-0.0001	-0.0054	0.0002	-0.0095	-0.0028	0.0060	0.0019	0.0870	0.0228	0.0851	0.0203
2605	1.2	299.4	24.0	-0.0085	-0.0008	-0.0091	-0.0008	-0.0158	-0.0031	0.0089	0.0018	0.0927	0.0250	0.0920	0.0233
2701	1.2	398.8	0.1	0.0018	0.0009	-0.0001	0.0003	0.0002	-0.0000	-0.0013	-0.0002	0.0051	0.0017	0.0035	0.0018
2702	1.2	399.1	6.0	0.0008	0.0008	-0.0012	0.0005	0.0020	0.0004	-0.0012	-0.0002	0.0390	0.0053	0.0316	0.0031
2703	1.2	400.7	12.0	-0.0072	-0.0007	-0.0056	-0.0004	-0.0090	-0.0030	0.0079	0.0029	0.0471	0.0143	0.0423	0.0125
2704	1.2	399.0	12.0	-0.0073	-0.0008	-0.0055	-0.0003	-0.0086	-0.0029	0.0076	0.0028	0.0467	0.0145	0.0424	0.0125
2705	1.2	400.3	18.0	-0.0054	0.0002	-0.0052	0.0004	-0.0097	-0.0027	0.0060	0.0020	0.0859	0.0223	0.0855	0.0204
2706	1.2	399.5	24.0	-0.0084	-0.0007	-0.0094	-0.0009	-0.0155	-0.0031	0.0069	0.0018	0.0916	0.0246	0.0923	0.0237
2801	1.2	499.2	0.1	0.0016	0.0008	-0.0001	0.0003	0.0002	-0.0000	-0.0013	-0.0002	0.0052	0.0017	0.0040	0.0019
2802	1.2	500.1	6.0	0.0007	0.0008	-0.0010	0.0006	0.0021	0.0004	-0.0012	-0.0002	0.0383	0.0050	0.0311	0.0030
2803	1.2	500.5	12.0	-0.0071	-0.0006	-0.0055	-0.0003	-0.0086	-0.0029	0.0080	0.0029	0.0469	0.0141	0.0424	0.0125
2804	1.2	500.0	18.0	-0.0065	0.0000	-0.0040	0.0006	-0.0090	-0.0028	0.0065	0.0020	0.0859	0.0224	0.0839	0.0198
2805	1.2	499.9	24.0	-0.0084	-0.0006	-0.0090	-0.0009	-0.0155	-0.0032	0.0089	0.0018	0.0910	0.0243	0.0918	0.0239
2806	1.2	500.1	18.5	-0.0047	0.0007	-0.0036	0.0009	-0.0178	-0.0042	0.0107	0.0027	0.0840	0.0215	0.0821	0.0192

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 3 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CFEZL	CMEZL	CFEZR	CMEZR	CFEYL	CMEYL	CFEYR	CMEYR	CFSXL	CMSXL	CFSXR	CMSXR
2901	1.2	599.3	0.1	0.0015	0.0008	0.0000	0.0003	0.0003	-0.0000	-0.0012	-0.0002	0.0052	0.0017	0.0043	0.0020
2902	1.2	599.2	6.0	0.0005	0.0008	-0.0009	0.0006	0.0023	0.0004	-0.0012	-0.0002	0.0381	0.0049	0.0309	0.0031
2903	1.2	599.7	12.0	-0.0068	-0.0005	-0.0055	-0.0003	-0.0084	-0.0029	0.0080	0.0030	0.0467	0.0138	0.0435	0.0127
2904	1.2	599.8	18.0	-0.0052	0.0003	-0.0046	0.0006	-0.0091	-0.0026	0.0060	0.0022	0.0851	0.0220	0.0836	0.0200
2905	1.2	600.0	24.0	-0.0084	-0.0005	-0.0089	-0.0009	-0.0156	-0.0034	0.0087	0.0017	0.0899	0.0239	0.0906	0.0240
3001	1.0	296.8	0.1	0.0033	0.0012	0.0015	0.0009	-0.0016	-0.0007	-0.0000	0.0004	0.0013	-0.0002	-0.0010	-0.0004
3002	1.0	299.8	6.0	-0.0017	0.0005	-0.0043	0.0001	0.0041	0.0007	-0.0023	-0.0003	0.0493	0.0099	0.0421	0.0074
3003	1.0	300.0	11.9	-0.0093	-0.0014	-0.0076	-0.0009	-0.0104	-0.0035	0.0089	0.0036	0.0602	0.0192	0.0528	0.0161
3004	1.0	300.5	18.0	-0.0099	-0.0006	-0.0076	0.0002	-0.0142	-0.0038	0.0086	0.0029	0.0974	0.0279	0.0943	0.0242
3005	1.0	299.3	24.0	-0.0101	-0.0007	-0.0102	-0.0010	-0.0151	-0.0036	0.0077	0.0018	0.0940	0.0269	0.0907	0.0249
3101	1.0	399.0	0.1	0.0031	0.0012	0.0016	0.0009	-0.0016	-0.0007	0.0002	0.0005	0.0011	-0.0003	-0.0001	-0.0002
3102	1.0	401.2	6.0	-0.0019	0.0004	-0.0041	0.0001	0.0042	0.0007	-0.0023	-0.0004	0.0491	0.0097	0.0432	0.0077
3103	1.0	399.3	11.9	-0.0091	-0.0013	-0.0074	-0.0009	-0.0104	-0.0036	0.0093	0.0037	0.0599	0.0189	0.0539	0.0164
3104	1.0	400.7	18.0	-0.0102	-0.0006	-0.0073	0.0003	-0.0137	-0.0038	0.0084	0.0029	0.0971	0.0280	0.0944	0.0244
3105	1.0	400.7	24.0	-0.0103	-0.0009	-0.0101	-0.0010	-0.0144	-0.0034	0.0082	0.0020	0.0937	0.0271	0.0914	0.0254
3201	1.0	497.1	0.1	0.0029	0.0011	0.0018	0.0010	-0.0016	-0.0007	0.0003	0.0005	0.0010	-0.0003	0.0002	-0.0002
3202	1.0	499.0	6.0	-0.0019	0.0005	-0.0039	0.0001	0.0043	0.0007	-0.0023	-0.0004	0.0488	0.0095	0.0427	0.0076
3203	1.0	501.2	11.9	-0.0088	-0.0011	-0.0071	-0.0008	-0.0104	-0.0036	0.0095	0.0037	0.0599	0.0186	0.0538	0.0165
3204	1.0	498.8	18.0	-0.0105	-0.0007	-0.0075	0.0002	-0.0136	-0.0038	0.0085	0.0030	0.0966	0.0279	0.0940	0.0246
3205	1.0	501.1	24.0	-0.0103	-0.0009	-0.0098	-0.0010	-0.0141	-0.0033	0.0084	0.0020	0.0934	0.0270	0.0917	0.0257
3301	1.0	599.9	0.0	0.0028	0.0011	0.0018	0.0010	-0.0015	-0.0006	0.0004	0.0006	0.0010	-0.0002	0.0006	-0.0001
3302	1.0	599.4	6.0	-0.0020	0.0004	-0.0037	0.0002	0.0042	0.0007	-0.0022	-0.0003	0.0486	0.0094	0.0424	0.0076
3303	1.0	599.9	12.0	-0.0085	-0.0009	-0.0069	-0.0007	-0.0105	-0.0037	0.0097	0.0038	0.0598	0.0184	0.0537	0.0165
3304	1.0	599.9	18.0	-0.0103	-0.0006	-0.0073	0.0002	-0.0127	-0.0037	0.0081	0.0030	0.0963	0.0277	0.0933	0.0245
3401	0.6	201.1	0.1	0.0043	0.0015	0.0013	0.0009	-0.0015	-0.0005	0.0001	0.0005	0.0008	-0.0006	-0.0027	-0.0013
3402	0.6	199.9	2.0	0.0042	0.0012	0.0014	0.0007	-0.0036	-0.0012	0.0011	0.0009	0.0032	-0.0003	-0.0038	-0.0019
3403	0.6	200.5	4.0	0.0029	0.0014	0.0005	0.0011	-0.0009	-0.0008	-0.0004	0.0005	0.0083	-0.0000	0.0004	-0.0021
3404	0.6	199.4	6.0	-0.0007	0.0010	-0.0049	0.0002	0.0045	0.0006	-0.0026	-0.0001	0.0254	0.0063	0.0236	0.0049
3405	0.6	199.4	8.0	-0.0103	-0.0007	-0.0120	-0.0010	-0.0057	-0.0024	0.0042	0.0026	0.0439	0.0179	0.0402	0.0158
3406	0.6	199.4	10.0	-0.0090	-0.0010	-0.0091	-0.0011	-0.0162	-0.0046	0.0102	0.0035	0.0376	0.0181	0.0374	0.0170
3407	0.6	201.0	12.1	-0.0036	-0.0001	-0.0056	-0.0005	-0.0219	-0.0070	0.0144	0.0054	0.0292	0.0144	0.0311	0.0135
3408	0.6	201.1	14.0	-0.0001	0.0009	-0.0025	0.0005	-0.0265	-0.0086	0.0168	0.0068	0.0280	0.0124	0.0306	0.0114
3409	0.6	200.4	16.1	-0.0027	0.0006	-0.0013	0.0014	-0.0142	-0.0061	0.0115	0.0060	0.0382	0.0139	0.0393	0.0116
3410	0.6	199.8	18.0	-0.0053	0.0004	-0.0035	0.0010	-0.0205	-0.0073	0.0139	0.0060	0.0495	0.0188	0.0463	0.0150
3411	0.6	200.4	20.0	-0.0081	-0.0000	-0.0061	0.0005	-0.0246	-0.0080	0.0135	0.0057	0.0549	0.0218	0.0480	0.0171
3412	0.6	200.9	22.0	-0.0072	-0.0003	-0.0069	-0.0001	-0.0226	-0.0076	0.0127	0.0054	0.0520	0.0204	0.0456	0.0162
3413	0.6	200.1	24.0	-0.0042	0.0005	-0.0052	0.0003	-0.0237	-0.0082	0.0131	0.0057	0.0478	0.0182	0.0426	0.0146
3503	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3504	0.0	0.3	0.1	-0.0478	-0.0052	0.0	0.0	-0.0005	-0.0001	0.0	0.0	0.0042	0.0001	-0.0297	-0.0074
3601	0.4	220.8	0.1	0.0026	0.0013	0.0023	0.0010	-0.0011	-0.0005	0.0009	0.0005	0.0006	-0.0008	0.0030	0.0001
3602	0.4	220.1	6.0	-0.0026	0.0007	-0.0035	0.0006	0.0057	0.0010	-0.0020	-0.0001	0.0198	0.0053	0.0174	0.0050
3603	0.4	219.9	12.0	-0.0052	-0.0005	-0.0048	-0.0006	-0.0203	-0.0065	0.0152	0.0056	0.0182	0.0114	0.0240	0.0124
3604	0.4	220.8	18.0	-0.0020	0.0008	-0.0009	0.0010	-0.0209	-0.0078	0.0154	0.0066	0.0235	0.0112	0.0287	0.0105
3605	0.4	220.0	24.0	-0.0043	-0.0004	-0.0021	0.0005	-0.0211	-0.0070	0.0164	0.0068	0.0221	0.0128	0.0263	0.0105
3701	0.4	209.3	0.1	0.0020	0.0011	0.0023	0.0011	-0.0011	-0.0005	0.0013	0.0006	0.0007	-0.0008	0.0036	0.0002

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
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RN/PN	MACH	Q	EJPOS	CFEZL	CMEZL	CFEZR	CMEZR	CFEYL	CMEYL	CFEYR	CMEYR	CFSXL	CMSXL	CFSXR	CMSXR
3702	0.4	198.9	6.0	-0.0029	0.0006	-0.0033	0.0007	0.0053	0.0009	-0.0017	-0.0000	0.0190	0.0051	0.0171	0.0049
3703	0.4	198.5	11.9	-0.0055	-0.0006	-0.0047	-0.0005	-0.0207	-0.0066	0.0155	0.0056	0.0177	0.0113	0.0237	0.0124
3704	0.4	199.8	18.0	-0.0024	0.0007	-0.0011	0.0010	-0.0216	-0.0079	0.0157	0.0067	0.0226	0.0111	0.0273	0.0103
3705	0.4	201.0	24.0	-0.0046	-0.0004	-0.0025	0.0004	-0.0216	-0.0071	0.0167	0.0069	0.0212	0.0127	0.0244	0.0100
3801	0.4	150.9	0.1	0.0014	0.0010	0.0024	0.0011	-0.0013	-0.0005	0.0014	0.0007	-0.0004	-0.0008	0.0043	-0.0004
3802	0.4	149.2	6.0	-0.0036	0.0005	-0.0031	0.0007	0.0054	0.0009	-0.0015	0.0000	0.0170	0.0047	0.0172	0.0050
3803	0.4	149.0	11.9	-0.0061	-0.0007	-0.0045	-0.0004	-0.0205	-0.0066	0.0155	0.0055	0.0165	0.0112	0.0233	0.0125
3804	0.4	149.2	18.0	-0.0029	0.0007	-0.0011	0.0010	-0.0214	-0.0077	0.0157	0.0067	0.0196	0.0107	0.0252	0.0103
3805	0.4	149.3	24.0	-0.0051	-0.0005	-0.0014	0.0008	-0.0215	-0.0071	0.0171	0.0069	0.0167	0.0119	0.0200	0.0093
3901	0.4	100.2	0.1	0.0007	0.0009	0.0028	0.0012	-0.0018	-0.0006	0.0018	0.0007	-0.0004	-0.0011	0.0059	0.0008
3902	0.4	98.6	6.0	-0.0045	0.0003	-0.0029	0.0007	0.0049	0.0008	-0.0013	0.0001	0.0148	0.0043	0.0181	0.0056
3903	0.4	99.3	12.0	-0.0069	-0.0008	-0.0045	-0.0005	-0.0204	-0.0065	0.0154	0.0054	0.0137	0.0109	0.0231	0.0131
3904	0.4	99.4	18.0	-0.0047	0.0004	0.0001	0.0013	-0.0205	-0.0075	0.0156	0.0065	0.0106	0.0093	0.0199	0.0100
3905	0.4	100.3	24.0	-0.0041	0.0003	0.0003	0.0013	-0.0266	-0.0092	0.0173	0.0068	0.0066	0.0089	0.0147	0.0091
4501	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4502	0.0	1.0	0.1	0.0139	0.0016	-0.0009	-0.0023	0.0002	0.0000	-0.0134	-0.0036	0.0008	0.0002	-0.0008	-0.0002
4601	0.6	400.0	0.1	0.0029	0.0013	0.0021	0.0010	-0.0006	-0.0003	0.0004	0.0005	0.0002	-0.0008	0.0043	0.0004
4602	0.6	393.6	6.0	-0.0023	0.0007	-0.0039	0.0005	0.0061	0.0010	-0.0022	-0.0001	0.0267	0.0066	0.0339	0.0070
4603	0.6	399.8	10.1	-0.0093	-0.0011	-0.0082	-0.0011	-0.0148	-0.0044	0.0111	0.0038	0.0386	0.0176	0.0451	0.0186
4605	0.6	400.0	18.0	-0.0045	0.0007	-0.0025	0.0012	-0.0191	-0.0069	0.0145	0.0063	0.0526	0.0191	0.0537	0.0167
4606	0.6	399.7	24.0	-0.0073	-0.0009	-0.0042	0.0005	-0.0194	-0.0066	0.0135	0.0058	0.0504	0.0205	0.0488	0.0163
4607	0.6	400.0	11.9	-0.0053	-0.0003	-0.0048	-0.0005	-0.0207	-0.0067	0.0148	0.0055	0.0329	0.0147	0.0392	0.0152
4701	0.8	399.7	0.1	0.0030	0.0012	0.0021	0.0010	-0.0003	-0.0003	0.0001	0.0004	0.0002	-0.0007	0.0038	0.0004
4702	0.8	400.1	6.0	-0.0025	0.0005	-0.0042	0.0002	0.0059	0.0010	-0.0023	-0.0002	0.0463	0.0099	0.0458	0.0090
4703	0.8	399.9	12.0	-0.0084	-0.0010	-0.0062	-0.0006	-0.0143	-0.0049	0.0125	0.0049	0.0537	0.0191	0.0550	0.0179
4704	0.8	400.2	18.0	-0.0126	-0.0009	-0.0064	0.0004	-0.0152	-0.0052	0.0109	0.0044	0.0815	0.0271	0.0794	0.0233
4705	0.8	400.2	24.0	-0.0113	-0.0012	-0.0074	-0.0000	-0.0150	-0.0048	0.0095	0.0039	0.0725	0.0245	0.0740	0.0221
4801	1.0	399.4	0.1	0.0028	0.0011	0.0020	0.0010	-0.0006	-0.0004	-0.0002	0.0004	0.0006	-0.0004	0.0040	0.0007
4802	1.0	400.5	6.0	-0.0020	0.0004	-0.0031	0.0003	0.0048	0.0008	-0.0025	-0.0004	0.0483	0.0094	0.0467	0.0082
4803	1.0	400.7	12.0	-0.0095	-0.0013	-0.0069	-0.0008	-0.0096	-0.0034	0.0089	0.0036	0.0598	0.0188	0.0583	0.0174
4804	1.0	400.3	18.0	-0.0110	-0.0008	-0.0073	0.0001	-0.0136	-0.0039	0.0080	0.0028	0.0970	0.0281	0.0980	0.0257
4805	1.0	400.7	24.0	-0.0104	-0.0009	-0.0093	-0.0010	-0.0146	-0.0034	0.0081	0.0020	0.0922	0.0267	0.0943	0.0263
4901	1.2	399.3	0.1	0.0018	0.0009	0.0002	0.0003	0.0009	0.0001	-0.0018	-0.0003	0.0044	0.0015	0.0079	0.0029
4902	1.2	400.2	6.0	0.0009	0.0009	-0.0007	0.0006	0.0029	0.0006	-0.0017	-0.0003	0.0380	0.0050	0.0356	0.0040
4903	1.2	400.1	12.0	-0.0072	-0.0007	-0.0052	-0.0003	-0.0079	-0.0028	0.0074	0.0028	0.0461	0.0141	0.0466	0.0135
4904	1.2	400.1	18.0	-0.0061	0.0000	-0.0043	0.0004	-0.0083	-0.0025	0.0060	0.0020	0.0855	0.0223	0.0882	0.0211
4905	1.2	399.9	24.0	-0.0084	-0.0007	-0.0078	-0.0007	-0.0155	-0.0031	0.0090	0.0018	0.0912	0.0245	0.0950	0.0243
5001	0.4	200.6	0.1	0.0047	0.0017	0.0014	0.0009	-0.0000	-0.0003	-0.0011	0.0002	-0.0002	-0.0010	0.0055	0.0006
5002	0.4	200.2	6.0	-0.0002	0.0012	-0.0042	0.0005	0.0068	0.0012	-0.0042	-0.0005	0.0193	0.0052	0.0203	0.0056
5003	0.4	199.7	12.0	-0.0030	0.0000	-0.0052	-0.0007	-0.0194	-0.0064	0.0131	0.0052	0.0177	0.0111	0.0265	0.0129
5004	0.4	200.8	18.0	0.0002	0.0013	-0.0016	0.0009	-0.0202	-0.0076	0.0130	0.0061	0.0237	0.0112	0.0329	0.0113
5005	0.4	201.0	24.0	-0.0020	0.0001	-0.0031	0.0003	-0.0202	-0.0069	0.0145	0.0065	0.0225	0.0127	0.0297	0.0112
5201	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5202	0.0	1.0	0.1	0.0005	0.0001	-0.0003	-0.0001	-0.0205	-0.0028	0.0009	-0.0019	0.0064	0.0015	0.0046	0.0009
5401	0.6	398.3	0.1	0.0038	0.0018	0.0041	0.0019	-0.0013	-0.0006	0.0028	0.0013	0.0043	-0.0010	0.0020	-0.0017

DATE 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 3 TRANSONIC 16T
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RN/PN	MACH	Q	EJPOS	CFEZL	CMEZL	CFEZR	CMEZR	CFEYL	CMEYL	CFEYR	CMEYR	CFSXL	CMSXL	CFSXR	CMSXR
5402	0.6	400.5	6.0	-0.0004	0.0001	-0.0006	-0.0000	-0.0004	-0.0003	0.0007	0.0005	0.0112	0.0033	0.0068	0.0015
5403	0.6	396.9	12.0	-0.0068	-0.0001	-0.0068	-0.0002	0.0006	-0.0015	0.0011	0.0020	0.0411	0.0126	0.0448	0.0123
5404	0.6	398.9	18.0	-0.0129	-0.0017	-0.0119	-0.0019	-0.0300	-0.0091	0.0197	0.0071	0.0598	0.0260	0.0618	0.0251
5405	0.6	399.5	24.0	-0.0101	-0.0015	-0.0067	-0.0000	-0.0257	-0.0081	0.0179	0.0070	0.0475	0.0208	0.0470	0.0175
5501	0.8	399.9	0.1	0.0034	0.0016	0.0044	0.0021	-0.0011	-0.0005	0.0024	0.0011	0.0039	-0.0008	0.0017	-0.0017
5502	0.8	400.6	6.0	-0.0013	-0.0001	-0.0009	-0.0002	-0.0004	-0.0003	0.0005	0.0004	0.0107	0.0025	0.0071	0.0018
5503	0.8	399.1	12.0	-0.0091	-0.0004	-0.0075	-0.0002	0.0034	-0.0010	-0.0009	0.0015	0.0651	0.0166	0.0687	0.0167
5504	0.8	400.1	18.0	-0.0201	-0.0028	-0.0154	-0.0022	-0.0243	-0.0066	0.0156	0.0049	0.0817	0.0308	0.0869	0.0299
5505	0.8	399.7	24.0	-0.0163	-0.0019	-0.0106	-0.0005	-0.0210	-0.0061	0.0138	0.0049	0.0717	0.0253	0.0682	0.0215
5601	1.0	399.7	0.1	0.0037	0.0018	0.0037	0.0019	-0.0008	-0.0003	0.0015	0.0006	0.0053	-0.0007	0.0024	-0.0011
5602	1.0	400.1	6.0	-0.0031	-0.0006	-0.0025	-0.0005	0.0010	0.0002	0.0006	0.0004	0.0131	0.0045	0.0104	0.0032
5603	1.0	399.7	12.0	-0.0068	-0.0003	-0.0060	-0.0000	0.0027	-0.0009	-0.0006	0.0015	0.0673	0.0145	0.0672	0.0138
5604	1.0	400.8	18.0	-0.0216	-0.0033	-0.0143	-0.0018	-0.0229	-0.0049	0.0140	0.0033	0.1083	0.0356	0.1058	0.0318
5605	1.0	400.6	24.0	-0.0148	-0.0013	-0.0107	-0.0003	-0.0255	-0.0060	0.0168	0.0041	0.0919	0.0276	0.0912	0.0253
5701	1.2	400.4	0.1	0.0038	0.0017	0.0035	0.0018	0.0001	0.0001	0.0016	0.0007	0.0076	-0.0006	0.0022	-0.0014
5702	1.2	399.4	6.0	-0.0030	-0.0005	-0.0025	-0.0005	0.0017	0.0003	0.0004	0.0005	0.0151	0.0054	0.0132	0.0041
5703	1.2	401.3	12.0	-0.0030	0.0002	-0.0021	0.0005	-0.0000	-0.0012	0.0015	0.0017	0.0454	0.0080	0.0473	0.0080
5704	1.2	399.1	18.0	-0.0134	-0.0018	-0.0102	-0.0010	-0.0171	-0.0031	0.0089	0.0017	0.0976	0.0290	0.0968	0.0263
5705	1.2	400.3	24.0	-0.0093	-0.0001	-0.0086	-0.0003	-0.0250	-0.0052	0.0146	0.0033	0.0940	0.0250	0.0945	0.0244
5801	1.2	400.9	0.0	0.0039	0.0017	0.0035	0.0018	0.0001	0.0001	0.0016	0.0008	0.0076	-0.0007	0.0020	-0.0015
5802	1.2	401.5	6.0	-0.0030	-0.0005	-0.0025	-0.0005	0.0015	0.0003	0.0004	0.0004	0.0155	0.0054	0.0129	0.0040
5803	1.2	400.4	12.0	-0.0030	0.0002	-0.0021	0.0005	-0.0001	-0.0012	0.0015	0.0018	0.0459	0.0080	0.0475	0.0080
5804	1.2	399.1	18.0	-0.0132	-0.0017	-0.0105	-0.0010	-0.0169	-0.0030	0.0094	0.0018	0.0975	0.0289	0.0966	0.0263
5805	1.2	398.4	24.0	-0.0094	-0.0001	-0.0088	-0.0003	-0.0251	-0.0053	0.0142	0.0033	0.0944	0.0251	0.0946	0.0245
5901	0.6	199.6	0.0	0.0043	0.0018	0.0043	0.0020	-0.0012	-0.0005	0.0023	0.0012	0.0047	-0.0009	0.0005	-0.0022
5902	0.6	200.0	6.0	0.0005	0.0003	-0.0008	-0.0000	-0.0002	-0.0003	-0.0000	0.0004	0.0100	0.0017	0.0077	0.0018
5903	0.6	200.2	12.0	-0.0065	-0.0002	-0.0067	-0.0001	0.0001	-0.0018	0.0013	0.0019	0.0370	0.0120	0.0446	0.0130
5904	0.6	200.1	18.0	-0.0148	-0.0022	-0.0120	-0.0018	-0.0280	-0.0084	0.0175	0.0063	0.0595	0.0265	0.0624	0.0250
5905	0.6	199.7	24.0	-0.0094	-0.0008	-0.0066	-0.0001	-0.0273	-0.0090	0.0170	0.0067	0.0500	0.0203	0.0451	0.0166
6001	0.4	199.4	0.1	0.0053	0.0022	0.0043	0.0019	-0.0012	-0.0006	0.0025	0.0013	0.0047	-0.0014	0.0002	-0.0024
6002	0.4	200.5	6.0	0.0005	0.0004	-0.0008	0.0001	-0.0004	-0.0004	0.0000	0.0004	0.0100	0.0018	0.0089	0.0020
6003	0.4	200.6	12.0	-0.0052	0.0001	-0.0065	-0.0002	-0.0015	-0.0022	0.0030	0.0023	0.0237	0.0096	0.0272	0.0103
6004	0.4	201.4	18.0	-0.0085	-0.0015	-0.0090	-0.0017	-0.0302	-0.0095	0.0199	0.0072	0.0312	0.0171	0.0357	0.0163
6005	0.4	199.7	24.0	-0.0061	-0.0010	-0.0038	0.0001	-0.0261	-0.0085	0.0190	0.0076	0.0308	0.0165	0.0284	0.0125

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
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RN/PN	MACH	Q	EJPOS	CFSYL	CMSYL	CFSYR	CMSYR	CFHX	CFHY	CFHZ	CMHX	CMHY
701	-0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
702	-0.0	0.1	-0.4	0.0096	0.0031	0.0187	0.0023	-0.2629	-0.3816	0.4664	0.0598	0.0454
801	0.6	199.3	-0.1	-0.0057	-0.0010	0.0114	0.0021	0.0034	-0.0037	0.0139	0.0009	-0.0004
802	0.6	199.1	0.1	-0.0057	-0.0010	0.0114	0.0022	0.0027	-0.0035	0.0116	0.0008	-0.0003
803	0.6	200.2	6.0	-0.0423	-0.0005	0.0589	0.0044	0.0323	0.0046	0.0431	-0.0009	-0.0007
804	0.6	200.3	11.9	-0.0842	-0.0197	0.0882	0.0216	0.0623	0.0107	0.0900	0.0014	-0.0015
805	0.6	199.7	18.0	-0.0784	-0.0206	0.0878	0.0242	0.0521	0.0089	0.0697	0.0020	-0.0015
806	0.6	201.3	24.0	-0.0655	-0.0191	0.0777	0.0214	0.0497	0.0044	0.0706	0.0023	-0.0013
1001	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1002	-0.0	0.0	0.1	2.3363	0.3932	-0.2361	-0.6288	11.6544	-16.2204	-23.0987	-2.8011	3.5890
1101	0.8	200.9	0.1	-0.0052	-0.0011	0.0076	0.0019	0.0057	-0.0054	0.1009	0.0005	-0.0019
1102	0.8	201.4	6.0	-0.0202	0.0004	0.0366	0.0033	0.0657	0.0055	0.1371	-0.0016	-0.0024
1103	0.8	200.3	11.9	-0.0583	-0.0124	0.0671	0.0165	0.1008	-0.0044	0.1907	0.0018	-0.0035
1104	0.8	199.5	18.0	-0.0602	-0.0177	0.0702	0.0201	0.0931	0.0010	0.1744	0.0025	-0.0026
1105	0.8	200.8	24.0	-0.0338	-0.0112	0.0607	0.0188	0.0906	0.0054	0.1666	0.0029	-0.0025
1201	1.0	200.6	0.1	-0.0049	-0.0012	0.0067	0.0018	0.0097	-0.0050	0.1298	-0.0000	-0.0024
1202	1.0	200.0	6.0	-0.0102	0.0009	0.0255	0.0023	0.0816	0.0094	0.1813	-0.0014	-0.0033
1203	1.0	200.3	11.9	-0.0445	-0.0091	0.0527	0.0120	0.1338	-0.0057	0.2465	0.0024	-0.0041
1204	1.0	199.2	18.0	-0.0646	-0.0175	0.0769	0.0202	0.1422	-0.0073	0.2497	0.0038	-0.0036
1205	1.0	200.4	24.0	-0.0525	-0.0152	0.0660	0.0179	0.1188	-0.0026	0.2273	0.0041	-0.0031
1501	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1502	0.0	0.1	0.1	-0.0258	-0.0095	0.0382	-0.0003	-0.1027	-0.2004	-0.3312	0.0272	0.0315
1505	0.5	105.3	0.1	-0.0044	-0.0009	0.0125	0.0025	-0.0039	-0.0125	-0.2300	-0.0007	0.0057
1601	1.2	201.0	0.1	-0.0036	-0.0007	0.0039	0.0003	0.0095	-0.0002	0.1432	-0.0002	-0.0030
1602	1.2	200.0	6.0	-0.0054	0.0012	0.0147	0.0004	0.0646	0.0110	0.1839	-0.0001	-0.0036
1603	1.2	201.6	11.9	-0.0330	-0.0070	0.0410	0.0097	0.1364	0.0022	0.2550	0.0023	-0.0044
1604	1.2	201.0	18.0	-0.0469	-0.0120	0.0616	0.0154	0.1442	0.0025	0.2615	0.0040	-0.0041
1605	1.2	200.4	24.0	-0.0558	-0.0163	0.0682	0.0182	0.1416	0.0031	0.2584	0.0049	-0.0041
1701	0.6	200.7	0.1	-0.0059	-0.0013	0.0081	0.0020	-0.0022	-0.0052	0.1606	0.0017	-0.0030
1702	0.6	200.5	24.0	-0.0654	-0.0194	0.0757	0.0226	0.0458	0.0049	0.2079	0.0030	-0.0038
1801	0.6	300.0	0.1	-0.0057	-0.0012	0.0080	0.0019	-0.0020	-0.0064	0.1391	0.0015	-0.0025
1802	0.6	301.0	6.0	-0.0373	-0.0002	0.0443	0.0036	0.0301	0.0089	0.1725	-0.0004	-0.0034
1803	0.6	299.9	11.9	-0.0845	-0.0206	0.0856	0.0221	0.0586	0.0102	0.2036	0.0020	-0.0038
1804	0.6	299.0	18.0	-0.0770	-0.0206	0.0835	0.0247	0.0503	0.0128	0.1953	0.0026	-0.0038
1805	0.6	299.6	24.0	-0.0691	-0.0195	0.0752	0.0225	0.0489	0.0089	0.1946	0.0029	-0.0037
1901	0.6	400.5	0.1	-0.0059	-0.0013	0.0080	0.0019	-0.0023	-0.0077	0.1257	0.0015	-0.0022
1902	0.6	401.1	6.0	-0.0332	0.0006	0.0410	0.0034	0.0307	0.0058	0.1580	-0.0004	-0.0030
1903	0.6	399.6	11.9	-0.0849	-0.0210	0.0846	0.0224	0.0596	0.0177	0.1967	0.0020	-0.0038
1904	0.6	400.2	18.0	-0.0731	-0.0198	0.0803	0.0245	0.0513	0.0151	0.1856	0.0027	-0.0036
1905	0.6	399.8	24.0	-0.0661	-0.0184	0.0729	0.0226	0.0494	0.0110	0.1813	0.0029	-0.0034
2001	0.6	497.7	0.1	-0.0058	-0.0012	0.0076	0.0019	-0.0021	-0.0093	0.1166	0.0014	-0.0020
2002	0.6	500.7	6.0	-0.0285	0.0013	0.0389	0.0032	0.0314	0.0041	0.1489	-0.0005	-0.0027
2003	0.6	500.6	12.0	-0.0850	-0.0214	0.0838	0.0226	0.0598	0.0196	0.1848	0.0020	-0.0036
2004	0.6	498.9	18.0	-0.0704	-0.0196	0.0788	0.0246	0.0502	0.0157	0.1704	0.0027	-0.0032
2005	0.6	500.3	24.0	-0.0594	-0.0166	0.0696	0.0223	0.0486	0.0123	0.1666	0.0028	-0.0030

DATE. 10-27-81 PROJECT NO. P41G-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
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RN/PN	MACH	Q	EJPOS	CFSYL	CMSYL	CFSYR	CMSYR	CFHX	CFHY	CFHZ	CMHX	CMHY
2101	0.6	595.3	0.1	-0.0056	-0.0012	0.0075	0.0019	-0.0027	-0.0090	0.1030	0.0013	-0.0017
2103	0.6	598.4	6.0	-0.0258	0.0017	0.0374	0.0030	0.0314	0.0014	0.1359	-0.0005	-0.0024
2104	0.6	599.7	11.9	-0.0841	-0.0215	0.0845	0.0232	0.0602	0.0194	0.1741	0.0019	-0.0034
2106	0.6	597.7	18.0	-0.0689	-0.0201	0.0808	0.0259	0.0494	0.0158	0.1609	0.0026	-0.0031
2107	0.6	597.9	24.0	-0.0520	-0.0155	0.0706	0.0231	0.0480	0.0127	0.1581	0.0028	-0.0029
2201	0.8	300.0	0.1	-0.0047	-0.0011	0.0062	0.0017	0.0043	-0.0081	0.1567	0.0011	-0.0030
2202	0.8	300.7	6.1	-0.0187	0.0003	0.0335	0.0035	0.0655	0.0051	0.1923	-0.0012	-0.0035
2203	0.8	300.5	12.0	-0.0576	-0.0128	0.0675	0.0176	0.1000	-0.0057	0.2367	0.0023	-0.0042
2204	0.8	300.9	18.0	-0.0619	-0.0180	0.0680	0.0201	0.0923	0.0022	0.2198	0.0031	-0.0036
2205	0.8	300.0	24.0	-0.0441	-0.0144	0.0620	0.0201	0.0879	0.0005	0.2126	0.0033	-0.0032
2301	0.8	400.1	0.1	-0.0049	-0.0011	0.0063	0.0017	0.0038	-0.0092	0.1332	0.0009	-0.0024
2302	0.8	400.3	6.0	-0.0180	0.0004	0.0314	0.0031	0.0656	0.0046	0.1728	-0.0013	-0.0031
2303	0.8	400.1	12.0	-0.0578	-0.0132	0.0680	0.0180	0.0989	-0.0026	0.2161	0.0022	-0.0038
2304	0.8	398.7	18.0	-0.0621	-0.0176	0.0687	0.0205	0.0928	0.0064	0.2029	0.0030	-0.0033
2305	0.8	400.7	24.0	-0.0472	-0.0145	0.0617	0.0195	0.0897	0.0007	0.1953	0.0031	-0.0029
2401	0.8	499.3	0.1	-0.0050	-0.0011	0.0063	0.0017	0.0038	-0.0100	0.1233	0.0008	-0.0022
2402	0.8	500.3	6.0	-0.0168	0.0008	0.0294	0.0027	0.0643	0.0033	0.1627	-0.0012	-0.0028
2403	0.8	500.1	12.0	-0.0575	-0.0134	0.0682	0.0184	0.0980	-0.0013	0.2040	0.0021	-0.0035
2404	0.8	499.2	18.0	-0.0619	-0.0172	0.0677	0.0207	0.0924	-0.0063	0.1894	0.0028	-0.0030
2405	0.8	499.0	24.0	-0.0472	-0.0139	0.0615	0.0193	0.0875	0.0045	0.1826	0.0032	-0.0028
2501	0.8	599.8	0.1	-0.0049	-0.0011	0.0063	0.0018	0.0036	-0.0111	0.1096	0.0007	-0.0018
2502	0.8	598.9	6.0	-0.0163	0.0008	0.0301	0.0031	0.0654	0.0013	0.1501	-0.0013	-0.0024
2503	0.8	600.8	6.0	-0.0165	0.0007	0.0295	0.0030	0.0655	0.0020	0.1494	-0.0011	-0.0025
2504	0.8	600.0	10.9	-0.0531	-0.0119	0.0642	0.0166	0.0987	0.0007	0.1865	0.0017	-0.0033
2505	0.8	600.2	12.0	-0.0572	-0.0136	0.0685	0.0185	0.0982	-0.0005	0.1860	0.0021	-0.0031
2506	0.8	600.6	18.1	-0.0606	-0.0171	0.0635	0.0197	0.0937	0.0033	0.1722	0.0027	-0.0026
2507	0.8	600.5	21.2	-0.0464	-0.0152	0.0638	0.0193	0.0919	-0.0019	0.1692	0.0030	-0.0023
2508	0.8	599.8	24.0	-0.0473	-0.0137	0.0597	0.0190	0.0893	0.0016	0.1626	0.0030	-0.0023
2601	1.2	300.3	0.0	-0.0035	-0.0005	0.0035	0.0002	0.0072	-0.0007	0.1723	0.0001	-0.0036
2602	1.2	299.9	6.0	-0.0060	0.0011	0.0136	0.0004	0.0620	0.0099	0.2153	0.0005	-0.0042
2603	1.2	299.5	12.0	-0.0330	-0.0070	0.0409	0.0099	0.1353	0.0005	0.2875	0.0025	-0.0049
2604	1.2	301.1	18.0	-0.0448	-0.0114	0.0577	0.0144	0.1455	0.0031	0.2942	0.0042	-0.0047
2605	1.2	299.4	24.0	-0.0527	-0.0153	0.0639	0.0175	0.1439	0.0029	0.2868	0.0049	-0.0046
2701	1.2	398.8	0.1	-0.0033	-0.0005	0.0035	0.0003	0.0075	-0.0007	0.1431	-0.0000	-0.0030
2702	1.2	399.1	6.0	-0.0058	0.0012	0.0130	0.0003	0.0619	0.0087	0.1893	0.0003	-0.0037
2703	1.2	400.7	12.0	-0.0328	-0.0070	0.0414	0.0101	0.1344	0.0015	0.2582	0.0021	-0.0043
2704	1.2	399.0	12.0	-0.0328	-0.0069	0.0411	0.0100	0.1335	0.0018	0.2593	0.0022	-0.0043
2705	1.2	400.3	18.0	-0.0441	-0.0112	0.0561	0.0142	0.1473	0.0041	0.2696	0.0038	-0.0043
2706	1.2	399.5	24.0	-0.0514	-0.0150	0.0634	0.0173	0.1462	0.0035	0.2637	0.0043	-0.0042
2801	1.2	499.2	0.1	-0.0032	-0.0004	0.0033	0.0002	0.0081	-0.0015	0.1292	-0.0002	-0.0026
2802	1.2	500.1	6.0	-0.0059	0.0012	0.0125	0.0003	0.0610	0.0084	0.1750	0.0003	-0.0034
2803	1.2	500.5	12.0	-0.0323	-0.0069	0.0416	0.0102	0.1342	0.0020	0.2431	0.0018	-0.0040
2804	1.2	500.0	18.0	-0.0434	-0.0111	0.0556	0.0142	0.1482	0.0039	0.2530	0.0034	-0.0040
2805	1.2	499.9	24.0	-0.0510	-0.0150	0.0627	0.0171	0.1471	0.0044	0.2408	0.0041	-0.0039
2806	1.2	500.1	18.5	-0.0538	-0.0160	0.0623	0.0178	0.1483	0.0040	0.2514	0.0036	-0.0040

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
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RN/PN	MACH	Q	EJPOS	CFSYL	CMSYL	CFSYR	CMSYR	CFHX	CFHY	CFHZ	CMHX	CMHY
2901	1.2	599.3	0.1	-0.0031	-0.0004	0.0033	0.0002	0.0084	-0.0024	0.1180	-0.0004	-0.0023
2902	1.2	599.2	6.0	-0.0058	0.0012	0.0123	0.0003	0.0609	0.0062	0.1667	0.0003	-0.0031
2903	1.2	599.7	12.0	-0.0320	-0.0068	0.0418	-0.0103	0.1344	0.0025	0.2307	-0.0017	-0.0038
2904	1.2	599.8	18.0	-0.0426	-0.0109	0.0536	0.0139	0.1493	0.0041	0.2365	0.0031	-0.0038
2905	1.2	600.0	24.0	-0.0498	-0.0149	0.0609	0.0168	0.1480	0.0046	0.2250	0.0038	-0.0037
3001	1.0	296.8	0.1	-0.0048	-0.0013	0.0056	0.0016	0.0080	-0.0074	0.1779	0.0005	-0.0035
3002	1.0	299.8	6.0	-0.0088	0.0010	0.0218	0.0018	0.0780	0.0092	0.2296	-0.0009	-0.0043
3003	1.0	300.0	11.9	-0.0419	-0.0086	0.0513	0.0120	0.1311	-0.0055	0.2880	0.0028	-0.0048
3004	1.0	300.5	18.0	-0.0609	-0.0162	0.0724	0.0192	0.1452	-0.0067	0.2944	0.0038	-0.0046
3005	1.0	299.3	24.0	-0.0534	-0.0156	0.0647	0.0176	0.1233	-0.0015	0.2712	0.0044	-0.0042
3101	1.0	399.0	0.1	-0.0049	-0.0014	0.0054	0.0017	0.0088	-0.0088	0.1431	0.0003	-0.0027
3102	1.0	401.2	6.0	-0.0086	0.0010	0.0210	0.0018	0.0781	0.0090	0.1982	-0.0011	-0.0037
3103	1.0	399.3	11.9	-0.0421	-0.0087	0.0519	0.0123	0.1327	-0.0044	0.2571	0.0023	-0.0041
3104	1.0	400.7	18.0	-0.0602	-0.0159	0.0706	0.0187	0.1467	-0.0062	0.2631	0.0033	-0.0040
3105	1.0	400.7	24.0	-0.0541	-0.0156	0.0645	0.0178	0.1257	-0.0017	0.2414	0.0039	-0.0037
3201	1.0	497.1	0.1	-0.0049	-0.0014	0.0054	0.0016	0.0090	-0.0104	0.1263	0.0001	-0.0023
3202	1.0	499.0	6.0	-0.0080	0.0012	0.0200	0.0016	0.0773	0.0078	0.1818	-0.0010	-0.0033
3203	1.0	501.2	11.9	-0.0417	-0.0088	0.0520	0.0125	0.1339	-0.0037	0.2415	0.0021	-0.0038
3204	1.0	498.8	18.0	-0.0592	-0.0158	0.0688	0.0186	0.1493	-0.0047	0.2507	0.0032	-0.0037
3205	1.0	501.1	24.0	-0.0539	-0.0156	0.0639	0.0178	0.1277	-0.0015	0.2243	0.0036	-0.0034
3301	1.0	599.9	0.0	-0.0048	-0.0013	0.0052	0.0016	0.0103	-0.0105	0.1162	-0.0000	-0.0021
3302	1.0	599.4	6.0	-0.0075	0.0013	0.0193	0.0015	0.0770	0.0075	0.1723	-0.0009	-0.0031
3303	1.0	599.9	12.0	-0.0414	-0.0088	0.0519	0.0126	0.1342	-0.0025	0.2315	0.0020	-0.0036
3304	1.0	599.9	18.0	-0.0576	-0.0154	0.0669	0.0181	0.1502	-0.0040	0.2429	0.0031	-0.0035
3401	0.6	201.1	0.1	-0.0054	-0.0013	0.0075	0.0019	-0.0037	-0.0065	0.2523	0.0025	-0.0049
3402	0.6	199.9	2.0	-0.0124	-0.0022	0.0117	0.0020	0.0029	0.0062	0.2586	0.0032	-0.0053
3403	0.6	200.5	4.0	-0.0228	0.0001	0.0220	0.0005	0.0140	-0.0023	0.2729	0.0021	-0.0053
3404	0.6	199.4	6.0	-0.0389	-0.0009	0.0471	0.0041	0.0274	0.0081	0.2895	0.0006	-0.0055
3405	0.6	199.4	8.0	-0.0706	-0.0147	0.0850	0.0192	0.0388	0.0099	0.2978	0.0020	-0.0057
3406	0.6	199.4	10.0	-0.0851	-0.0198	0.0884	0.0214	0.0524	0.0099	0.3085	0.0027	-0.0060
3407	0.6	201.0	12.1	-0.0824	-0.0203	0.0824	0.0213	0.0566	0.0139	0.3092	0.0029	-0.0062
3408	0.6	201.1	14.0	-0.0786	-0.0205	0.0792	0.0219	0.0553	0.0115	0.3030	0.0030	-0.0061
3409	0.6	200.4	16.1	-0.0651	-0.0146	0.0764	0.0198	0.0514	0.0115	0.2997	0.0034	-0.0060
3410	0.6	199.8	18.0	-0.0785	-0.0212	0.0838	0.0244	0.0470	0.0096	0.2971	0.0038	-0.0059
3411	0.6	200.4	20.0	-0.0806	-0.0230	0.0768	0.0233	0.0448	0.0093	0.2945	0.0041	-0.0058
3412	0.6	200.9	22.0	-0.0684	-0.0196	0.0748	0.0223	0.0441	0.0069	0.2888	0.0040	-0.0055
3413	0.6	200.1	24.0	-0.0701	-0.0203	0.0730	0.0216	0.0450	0.0074	0.2905	0.0040	-0.0056
3503	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3504	0.0	0.3	0.1	0.0046	-0.0014	-0.0577	-0.0099	0.0251	0.0031	-0.9047	-0.0124	0.0131
3601	0.4	220.8	0.1	-0.0063	-0.0013	0.0092	0.0020	-0.0040	-0.0057	0.0199	0.0010	0.0001
3602	0.4	220.1	6.0	-0.0334	0.0009	0.0503	0.0033	0.0157	0.0049	0.0384	-0.0010	-0.0004
3603	0.4	219.9	12.0	-0.0781	-0.0236	0.0984	0.0245	0.0297	0.0163	0.0595	0.0009	-0.0008
3604	0.4	220.8	18.0	-0.0784	-0.0206	0.1040	0.0288	0.0260	0.0170	0.0498	0.0015	-0.0000
3605	0.4	220.0	24.0	-0.0709	-0.0189	0.0920	0.0272	0.0248	0.0160	0.0457	0.0016	-0.0007
3701	0.4	200.3	0.1	-0.0062	-0.0013	0.0092	0.0020	-0.0032	-0.0071	0.0222	0.0010	0.0002

DATE. 10-27-81 PROJECT NO. P41G-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
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RN/PN	MACH	Q	EJPOS	CFSYL	CMSYL	CFSYR	CMSYR	CFHX	CFHY	CFHZ	CMHX	CMHY
3702	0.4	198.9	6.0	-0.0346	0.0006	0.0505	0.0034	0.0158	0.0060	0.0392	-0.0011	-0.0004
3703	0.4	198.5	11.9	-0.0978	-0.0236	0.0984	0.0244	0.0292	0.0147	0.0629	0.0009	-0.0008
3704	0.4	199.8	18.0	-0.0799	-0.0210	0.1050	0.0288	0.0266	0.0177	0.0543	0.0015	-0.0010
3705	0.4	201.0	24.0	-0.0724	-0.0192	0.0959	0.0279	0.0256	0.0176	0.0544	0.0017	-0.0010
3801	0.4	150.9	0.1	-0.0060	-0.0013	0.0092	0.0020	-0.0018	-0.0079	0.0068	0.0008	0.0005
3802	0.4	149.2	6.0	-0.0395	0.0000	0.0533	0.0037	0.0167	0.0049	0.0231	-0.0014	-0.0000
3803	0.4	149.0	11.9	-0.0979	-0.0234	0.0983	0.0241	0.0335	0.0192	0.0494	0.0006	-0.0007
3804	0.4	149.2	18.0	-0.0828	-0.0213	0.1079	0.0289	0.0281	0.0181	0.0395	0.0013	-0.0008
3805	0.4	149.3	24.0	-0.0749	-0.0194	0.0999	0.0284	0.0267	0.0176	0.0377	0.0014	-0.0007
3901	0.4	100.2	0.1	-0.0060	-0.0013	0.0092	0.0020	-0.0000	-0.0075	-0.0256	0.0003	0.0013
3902	0.4	98.6	6.0	-0.0440	-0.0006	0.0559	0.0041	0.0184	0.0058	-0.0115	-0.0020	0.0009
3903	0.4	99.3	12.0	-0.0973	-0.0229	0.0965	0.0231	0.0417	0.0283	0.0218	0.0001	-0.0003
3904	0.4	99.4	18.0	-0.0926	-0.0219	0.1082	0.0283	0.0320	0.0195	0.0033	0.0007	0.0002
3905	0.4	100.3	24.0	-0.0899	-0.0236	0.0979	0.0273	0.0303	0.0196	0.0004	0.0008	0.0003
4501	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4502	0.0	1.0	0.1	0.0005	0.0000	-0.0044	-0.0005	0.0045	0.0026	0.1445	-0.0005	-0.0030
4601	0.6	400.0	0.1	-0.0055	-0.0011	0.0094	0.0020	-0.0004	-0.0080	0.0200	0.0008	-0.0000
4602	0.6	393.6	6.0	-0.0282	0.0012	0.0417	0.0036	0.0319	0.0044	0.0559	-0.0009	-0.0008
4603	0.6	399.8	10.1	-0.0860	-0.0203	0.0894	0.0222	0.0550	0.0133	0.0927	0.0013	-0.0015
4605	0.6	400.0	18.0	-0.0678	-0.0194	0.0807	0.0248	0.0508	0.0146	0.0843	0.0022	-0.0015
4606	0.6	399.7	24.0	-0.0546	-0.0158	0.0711	0.0224	0.0491	0.0125	0.0889	0.0025	-0.0016
4607	0.6	400.0	11.9	-0.0931	-0.0210	0.0864	0.0227	0.0606	0.0175	0.1136	0.0017	-0.0021
4701	0.8	399.7	0.1	-0.0048	-0.0010	0.0078	0.0019	0.0049	-0.0101	0.0419	0.0003	-0.0005
4702	0.8	400.1	6.0	-0.0151	0.0009	0.0327	0.0033	0.0656	0.0037	0.0844	-0.0016	-0.0012
4703	0.8	399.9	12.0	-0.0369	-0.0130	0.0683	0.0176	0.0984	-0.0019	0.1283	0.0018	-0.0020
4704	0.8	400.2	18.0	-0.0602	-0.0169	0.0682	0.0200	0.0934	0.0040	0.1133	0.0024	-0.0013
4705	0.8	400.2	24.0	-0.0445	-0.0132	0.0605	0.0186	0.0872	0.0046	0.1078	0.0028	-0.0012
4801	1.0	399.4	0.1	-0.0047	-0.0012	0.0071	0.0018	0.0103	-0.0093	0.0463	-0.0004	-0.0006
4802	1.0	400.5	6.0	-0.0079	0.0012	0.0226	0.0020	0.0784	0.0088	0.1010	-0.0014	-0.0017
4803	1.0	400.7	12.0	-0.0420	-0.0087	0.0541	0.0127	0.1340	-0.0049	0.1624	0.0018	-0.0022
4804	1.0	400.3	18.0	-0.0605	-0.0164	0.0729	0.0192	0.1484	-0.0059	0.1670	0.0026	-0.0020
4805	1.0	400.7	24.0	-0.0538	-0.0155	0.0671	0.0182	0.1251	-0.0016	0.1447	0.0034	-0.0016
4901	1.2	399.3	0.1	-0.0036	-0.0005	0.0056	0.0005	0.0083	-0.0009	0.0554	-0.0005	-0.0010
4902	1.2	400.2	6.0	-0.0057	0.0012	0.0154	0.0007	0.0627	0.0087	0.1020	-0.0001	-0.0018
4903	1.2	400.1	12.0	-0.0325	-0.0069	0.0438	0.0105	0.1346	0.0011	0.1734	0.0017	-0.0025
4904	1.2	400.1	18.0	-0.0435	-0.0111	0.0603	0.0151	0.1485	0.0034	0.1808	0.0030	-0.0025
4905	1.2	399.9	24.0	-0.0523	-0.0152	0.0682	0.0184	0.1465	0.0024	0.1780	0.0039	-0.0023
5001	0.4	200.6	0.1	-0.0065	-0.0013	0.0121	0.0024	-0.0065	-0.0061	0.0690	0.0021	-0.0008
5002	0.4	200.2	6.0	-0.0343	0.0007	0.0537	0.0039	0.0130	0.0059	0.0863	0.0001	-0.0014
5003	0.4	199.7	12.0	-0.0981	-0.0236	0.1016	0.0251	0.0257	0.0145	0.0955	0.0019	-0.0014
5004	0.4	200.8	18.0	-0.0796	-0.0213	0.1094	0.0299	0.0234	0.0177	0.0918	0.0026	-0.0017
5005	0.4	201.0	24.0	-0.0714	-0.0194	0.0944	0.0280	0.0223	0.0173	0.0899	0.0028	-0.0017
5201	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5202	0.0	1.0	0.1	0.0046	0.0006	-0.0140	-0.0017	-0.0070	0.0027	0.0965	0.0011	-0.0023
5401	0.6	398.3	0.1	-0.0074	-0.0012	0.0120	0.0032	-0.0120	-0.0013	-0.0006	0.0003	0.0001

DATE. 10-27-81 PROJECT NO. P410-09
ARVIN/CALSPAN FIELD SERVICES, INC.
AEDC DIVISION
PROPULSION WIND TUNNEL
ARNOLD AIR FORCE STATION, TENNESSEE

TEST 598 AFAMRL/LOCKHEED EJECTION SEAT AEDC PROPULSION WIND TUNNEL
PAGE 1 TRANSONIC 16T
DATE 10-27-81

RN/PN	MACH	Q	EJPOS	CFSYL	CMSYL	CFSYR	CMSYR	CFHX	CFHY	CFHZ	CMHX	CMHY
5402	0.6	400.5	6.0	-0.0147	-0.0013	0.0174	0.0019	0.0369	0.0151	0.0909	-0.0030	-0.0021
5403	0.6	396.9	12.0	-0.0375	-0.0040	0.0522	0.0083	0.0616	0.0206	0.1263	0.0013	-0.0026
5404	0.6	398.9	18.0	-0.0646	-0.0206	0.0783	0.0255	0.0508	0.0116	0.1120	0.0021	-0.0020
5405	0.6	399.5	24.0	-0.0384	-0.0134	0.0554	0.0200	0.0483	0.0099	0.1100	0.0023	-0.0019
5501	0.8	399.9	0.1	-0.0041	-0.0008	0.0104	0.0027	-0.0108	-0.0012	0.0164	0.0001	-0.0003
5502	0.8	400.6	6.0	-0.0137	-0.0014	0.0171	0.0019	0.0788	0.0118	0.0946	-0.0046	-0.0022
5503	0.8	399.1	12.0	-0.0194	-0.0006	0.0347	0.0042	0.1031	-0.0036	0.1357	0.0013	-0.0018
5504	0.8	400.1	18.0	-0.0551	-0.0169	0.0743	0.0220	0.0904	0.0031	0.1279	0.0023	-0.0017
5505	0.8	399.7	24.0	-0.0396	-0.0133	0.0497	0.0161	0.0818	-0.0014	0.1247	0.0025	-0.0015
5601	1.0	399.7	0.1	-0.0048	-0.0006	0.0091	0.0020	-0.0075	-0.0015	0.0292	0.0003	-0.0006
5602	1.0	400.1	6.0	-0.0089	-0.0002	0.0150	0.0017	0.0904	0.0081	0.0097	-0.0053	-0.0019
5603	1.0	399.7	12.0	-0.0106	0.0010	0.0228	0.0019	0.1406	-0.0053	0.1755	0.0012	-0.0023
5604	1.0	400.8	18.0	-0.0726	-0.0205	0.0811	0.0223	0.1444	-0.0054	0.1761	0.0024	-0.0022
5605	1.0	400.6	24.0	-0.0600	-0.0197	0.0709	0.0216	0.1225	-0.0019	0.1545	0.0030	-0.0018
5701	1.2	400.4	0.1	-0.0043	0.0002	0.0094	0.0021	-0.0062	-0.0008	0.0376	0.0005	-0.0008
5702	1.2	399.4	6.0	-0.0056	0.0007	0.0119	0.0012	0.0824	0.0072	0.0802	-0.0045	-0.0016
5703	1.2	401.3	12.0	-0.0096	-0.0002	0.0190	0.0023	0.1445	0.0029	0.1809	0.0017	-0.0027
5704	1.2	399.1	18.0	-0.0597	-0.0167	0.0689	0.0179	0.1462	0.0035	0.1882	0.0031	-0.0026
5705	1.2	400.3	24.0	-0.0629	-0.0200	0.0729	0.0216	0.1446	0.0031	0.1797	0.0036	-0.0026
5801	1.2	400.9	0.0	-0.0041	0.0003	0.0094	0.0022	-0.0063	-0.0004	0.0414	0.0006	-0.0009
5802	1.2	401.5	6.0	-0.0053	0.0007	0.0116	0.0012	0.0811	0.0076	0.0845	-0.0044	-0.0017
5803	1.2	400.4	12.0	-0.0098	-0.0003	0.0187	0.0023	0.1450	0.0035	0.1866	0.0017	-0.0029
5804	1.2	399.1	18.0	-0.0596	-0.0167	0.0695	0.0182	0.1471	0.0041	0.1952	0.0032	-0.0029
5805	1.2	398.4	24.0	-0.0632	-0.0201	0.0726	0.0215	0.1452	0.0033	0.1870	0.0036	-0.0028
5901	0.6	199.6	0.0	-0.0076	-0.0012	0.0124	0.0032	-0.0136	-0.0001	0.0672	0.0007	-0.0015
5902	0.6	200.0	6.0	-0.0152	-0.0014	0.0212	0.0024	0.0363	0.0160	0.1509	-0.0024	-0.0034
5903	0.6	200.2	12.0	-0.0440	-0.0050	0.0609	0.0097	0.0603	0.0121	0.1720	0.0014	-0.0035
5904	0.6	200.1	18.0	-0.0733	-0.0216	0.0858	0.0257	0.0487	0.0075	0.1612	0.0024	-0.0030
5905	0.6	199.7	24.0	-0.0522	-0.0172	0.0679	0.0222	0.0453	0.0069	0.1599	0.0026	-0.0031
6001	0.4	199.4	0.1	-0.0100	-0.0015	0.0132	0.0033	-0.0130	-0.0014	0.0630	0.0005	-0.0014
6002	0.4	200.5	6.0	-0.0158	-0.0015	0.0227	0.0027	0.0125	0.0133	0.1306	0.0017	-0.0027
6003	0.4	200.6	12.0	-0.0480	-0.0058	0.0692	0.0115	0.0283	0.0170	0.1589	0.0019	-0.0033
6004	0.4	201.4	18.0	-0.1152	-0.0329	0.1237	0.0367	0.0245	0.0194	0.1504	0.0025	-0.0033
6005	0.4	199.7	24.0	-0.0471	-0.0141	0.0828	0.0276	0.0235	0.0191	0.1478	0.0025	-0.0032

SUMMARY DATA TEST: 598 OCT 20, 1981

	RN/PN	EJPOS	CPSH	CPSC	CPSA	CPSLL	CPSRL	CPSSB
1)	8.001	0.118	0.191	-0.187	-0.230	-0.157	-0.159	0.041
2)	8.002	0.119	0.190	-0.185	-0.228	-0.157	-0.159	0.056
3)	8.003	5.985	0.659	0.391	-0.101	-0.154	-0.153	-0.035
4)	8.004	11.936	0.616	0.501	0.478	-0.135	-0.180	-0.330
5)	8.005	17.980	0.602	0.816	0.290	0.440	0.546	-0.480
6)	8.006	23.964	0.587	0.750	0.641	1.080	1.087	-0.487
7)	11.001	0.119	0.190	-0.182	-0.204	-0.140	-0.142	0.086
8)	11.002	5.982	0.761	0.348	-0.040	-0.138	-0.136	-0.079
9)	11.003	11.935	0.751	0.529	0.442	-0.105	-0.105	-0.408
10)	11.004	17.976	0.752	0.920	0.500	0.396	0.490	-0.445
11)	11.005	24.022	0.747	0.871	1.049	1.159	1.167	-0.410
12)	12.001	0.114	0.293	-0.111	-0.114	-0.066	-0.065	0.160
13)	12.002	5.988	0.882	0.347	0.061	-0.039	-0.037	0.003
14)	12.003	11.933	0.928	0.565	0.482	0.009	0.006	-0.434
15)	12.004	17.980	0.918	1.070	0.613	0.409	0.458	-0.038
16)	12.005	24.020	0.913	1.025	1.033	1.266	1.276	-0.490
17)	13.001	0.119	0.017	0.017	0.017	0.017	0.017	0.017
18)	13.011	0.119	0.018	0.018	0.018	0.018	0.018	0.018
19)	13.012	0.119	0.018	0.018	0.018	0.018	0.018	0.018
20)	13.013	0.119	0.017	0.017	0.017	0.017	0.017	0.017
21)	13.014	0.119	0.017	0.017	0.017	0.017	0.017	0.017
22)	13.015	0.118	0.017	0.017	0.017	0.017	0.017	0.017
23)	13.016	0.118	0.018	0.018	0.018	0.018	0.018	0.018
24)	13.023	0.118	0.018	0.018	0.018	0.018	0.018	0.018
25)	13.034	0.118	0.018	0.018	0.018	0.018	0.018	0.018
26)	13.035	0.118	0.018	0.018	0.018	0.018	0.018	0.018
27)	13.036	0.118	0.018	0.018	0.018	0.018	0.018	0.018
28)	15.005	0.129	0.182	-0.180	-0.248	-0.172	-0.166	-0.038
29)	16.001	0.118	0.437	0.017	0.036	0.060	0.061	0.181
30)	16.002	5.969	0.841	0.483	-0.023	0.080	0.084	0.154
31)	16.003	11.946	1.085	0.532	0.521	0.093	0.091	-0.278
32)	16.004	18.004	1.084	1.248	0.395	0.402	0.409	-0.567
33)	16.005	23.985	1.073	1.169	1.009	1.395	1.410	-0.543
34)	17.001	0.118	0.193	-0.187	-0.227	-0.157	-0.158	0.049
35)	17.002	23.998	0.586	0.746	0.733	1.077	1.084	-0.484
36)	18.001	0.118	0.195	-0.186	-0.225	-0.156	-0.158	0.036
37)	18.002	5.967	0.685	0.396	-0.103	-0.156	-0.155	-0.051
38)	18.003	11.931	0.630	0.497	0.450	-0.124	-0.124	-0.323
39)	18.004	17.959	0.614	0.815	0.296	0.429	0.531	-0.507
40)	18.005	23.992	0.603	0.748	0.714	1.081	1.088	-0.441
41)	19.001	0.113	0.197	-0.183	-0.224	-0.158	-0.160	0.041
42)	19.002	5.977	0.696	0.391	-0.100	-0.156	-0.155	-0.056
43)	19.003	11.925	0.633	0.495	0.458	-0.118	-0.116	-0.364
44)	19.004	17.984	0.615	0.818	0.291	0.451	0.529	-0.506
45)	19.005	23.987	0.600	0.748	0.683	1.082	1.087	-0.460
46)	20.001	0.106	0.200	-0.179	-0.225	-0.160	-0.162	0.063
47)	20.002	5.980	0.705	0.393	-0.102	-0.157	-0.157	-0.054
48)	20.003	11.963	0.635	0.494	0.449	-0.115	-0.108	-0.364
49)	20.004	17.972	0.617	0.827	0.293	0.450	0.531	-0.496
50)	20.005	23.990	0.606	0.747	0.647	1.082	1.089	-0.461

SUMMARY DATA TEST: 598 OCT 29, 1981

	RN/PN	EJPOS	CPSH	CPSC	CPSA	CPSLL	CPSRL	CPSSB
51)	21.001	0.000	0.203	-0.176	-0.225	-0.160	-0.162	0.076
52)	21.003	5.977	0.708	0.393	-0.097	-0.158	-0.158	-0.065
53)	21.004	11.039	0.634	0.493	0.451	-0.114	-0.108	-0.349
54)	21.006	17.981	0.617	0.826	0.310	0.449	0.535	-0.494
55)	21.007	23.992	0.608	0.753	0.631	1.083	1.089	-0.464
56)	22.001	0.009		-0.183	-0.289	-0.141	-0.143	0.093
57)	22.002	6.097		0.339	-0.163	-0.139	-0.137	-0.078
58)	22.003	12.028		0.527	0.220	-0.101	-0.097	-0.414
59)	22.004	18.009		0.928	-0.002	0.430	0.469	-0.403
60)	22.005	24.016		0.870	0.817	1.160	1.167	-0.430
61)	23.001	0.103		-0.185	-0.205	-0.142	-0.145	0.094
62)	23.002	6.035		0.350	-0.039	-0.139	-0.136	-0.080
63)	23.003	12.010		0.521	0.399	-0.097	-0.099	-0.404
64)	23.004	17.985		0.934	0.370	0.437	0.460	-0.492
65)	23.005	24.011		0.875	0.798	1.163	1.172	-0.446
66)	24.001	0.092		-0.184	-0.208	-0.143	-0.145	0.099
67)	24.002	5.989		0.358	-0.106	-0.138	-0.137	-0.082
68)	24.003	11.989		0.518	0.352	-0.093	-0.093	-0.412
69)	24.004	18.020		0.937	0.285	0.452	0.470	-0.486
70)	24.005	24.004		0.878	0.723	1.163	1.170	-0.472
71)	25.001	0.077		-0.183	-0.226	-0.144	-0.147	0.095
72)	25.002	6.022		0.351	-0.097	-0.138	-0.138	-0.082
73)	25.003	6.022		0.354	-0.099	-0.138	-0.138	-0.083
74)	25.004	10.916		0.459	0.342	-0.108	-0.111	-0.306
75)	25.005	12.003		0.518	0.353	-0.090	-0.087	-0.415
76)	25.006	18.063		0.942	0.276	0.462	0.470	-0.461
77)	25.007	21.176		0.875	1.032	1.152	1.166	-0.437
78)	25.008	23.998		0.885	0.668	1.162	1.169	-0.476
79)	26.001	0.0		0.026	0.013	0.063	0.062	0.280
80)	26.002	6.003		0.501	-0.038	0.084	0.085	0.161
81)	26.003	12.020		0.533	0.518	0.098	0.096	-0.263
82)	26.004	18.009		1.263	0.345	0.405	0.406	-0.560
83)	26.005	23.998		1.178	0.999	1.396	1.409	-0.542
84)	27.001	0.102		0.022	-0.080	0.061	0.061	0.268
85)	27.002	6.020		0.504	-0.041	0.083	0.084	0.157
86)	27.003	12.038		0.534	0.427	0.097	0.097	-0.260
87)	27.004	11.974		0.535	0.442	0.098	0.097	-0.231
88)	27.005	18.042		1.262	0.332	0.417	0.406	-0.561
89)	27.006	23.987		1.181	1.005	1.397	1.411	-0.542
90)	28.001	0.086		0.024	0.020	0.062	0.061	0.276
91)	28.002	5.985		0.515	-0.065	0.083	0.083	0.158
92)	28.003	11.994		0.534	0.504	0.100	0.099	-0.259
93)	28.004	17.952		1.269	0.315	0.402	0.408	-0.564
94)	28.005	23.984		1.183	1.000	1.397	1.410	-0.543
95)	28.006	18.515		1.233	0.628	0.421	0.451	-0.562
96)	29.001	0.071			0.043	0.061	0.060	0.280
97)	29.002	5.998			-0.050	0.083	0.083	0.158
98)	29.003	12.030			0.513	0.101	0.100	-0.256
99)	29.004	18.031			0.282	0.422	0.408	-0.561
100)	29.005	23.961			0.969	1.398	1.410	-0.543

SUMMARY DATA TEST: 598 OCT 29, 1981

	RN/PN	EJPOS	CPSH	CPSC	CPSA	CPSLL	CPSRL	CPSSB
101)	30.001	0.065			-0.112	-0.060	-0.069	0.162
102)	30.002	5.978			0.041	-0.040	-0.039	0.008
103)	30.003	11.945			0.480	0.006	0.006	-0.436
104)	30.004	17.993			0.523	0.413	0.437	-0.643
105)	30.005	24.003			1.022	1.267	1.276	-0.511
106)	31.001	0.068			-0.108	-0.068	-0.070	0.166
107)	31.002	5.994			0.040	-0.041	-0.040	0.007
108)	31.003	11.945			0.479	0.012	0.009	-0.437
109)	31.004	17.984			0.485	0.426	0.436	-0.648
110)	31.005	23.995			1.045	1.259	1.277	-0.521
111)	32.001	0.053			-0.113	-0.074	-0.076	0.164
112)	32.002	5.983			0.032	-0.041	-0.041	0.005
113)	32.003	11.949			0.477	0.014	0.012	-0.437
114)	32.004	17.999			0.472	0.438	0.437	-0.655
115)	32.005	23.982			1.052	1.267	1.277	-0.527
116)	33.001	0.047			-0.111	-0.070	-0.073	0.164
117)	33.002	5.985			0.022	-0.041	-0.040	0.003
118)	33.003	11.960			0.473	0.016	0.016	-0.438
119)	33.004	17.991			0.434	0.445	0.437	-0.657
120)	34.001	0.066			-0.223	-0.149	-0.157	0.066
121)	34.002	1.984			-0.292	-0.144	-0.145	-0.035
122)	34.003	4.003			-0.389	-0.138	-0.141	0.007
123)	34.004	6.019			-0.097	-0.151	-0.154	-0.044
124)	34.005	8.039			0.448	-0.160	-0.165	-0.062
125)	34.006	10.004			0.471	-0.143	-0.157	-0.107
126)	34.007	12.060			0.451	-0.121	-0.113	-0.326
127)	34.008	13.968			0.430	0.736	0.828	-0.478
128)	34.009	16.072			-0.230	0.392	0.416	-0.525
129)	34.010	18.023			0.329	0.430	0.544	-0.489
130)	34.011	19.984			0.926	0.876	1.000	-0.500
131)	34.012	22.002			1.042	1.086	1.092	-0.440
132)	34.013	24.020			0.655	1.081	1.086	-0.434
133)	36.001	0.113			-0.224	-0.150	-0.152	-0.021
134)	36.002	5.994			-0.099	-0.146	-0.146	-0.014
135)	36.003	11.950			0.466	-0.111	-0.103	-0.327
136)	36.004	17.980			0.248	0.465	0.544	-0.462
137)	36.005	23.987			0.779	1.029	1.035	-0.400
138)	37.001	0.116			-0.226	-0.149	-0.153	-0.045
139)	37.002	5.998			-0.099	-0.147	-0.147	-0.010
140)	37.003	11.936			0.463	-0.112	-0.106	-0.326
141)	37.004	17.984			0.262	0.459	0.559	-0.461
142)	37.005	23.988			0.794	1.027	1.034	-0.405
143)	38.001	0.108			-0.224	-0.152	-0.153	-0.029
144)	38.002	5.990			-0.103	-0.146	-0.148	-0.017
145)	38.003	11.936			0.465	-0.118	-0.110	-0.325
146)	38.004	17.996			0.263	0.461	0.548	-0.453
147)	38.005	23.988			0.799	1.025	1.032	-0.393
148)	39.001	0.118			-0.220	-0.160	-0.153	-0.000
149)	39.002	5.986			-0.100	-0.148	-0.147	-0.010
150)	39.003	11.956			0.479	-0.122	-0.111	-0.324

SUMMARY DATA TEST: 598 OCT 29, 1981

	RN/PN	EJPOS	CPSH	CPSC	CPSA	CPSLL	CPSRL	CPSSB
151)	39.004	17.976			0.218	0.448	0.539	-0.441
152)	39.005	23.990			0.721	1.021	1.027	-0.389
153)	46.001	0.097	0.198	-0.181	-0.223	-0.157	-0.159	0.055
154)	46.002	5.985	0.703	0.394	-0.098	-0.153	-0.155	-0.055
155)	46.003	10.103	0.641	0.367	0.470	-0.143	-0.153	-0.186
156)	46.005	17.981	0.631	0.819	0.320	0.447	0.530	-0.495
157)	46.006	23.985	0.624	0.748	0.678	1.083	1.089	-0.455
158)	46.007	11.934	0.644	0.496	0.440	-0.123	-0.121	-0.335
159)	47.001	0.095	0.201	-0.183	-0.199	-0.141	-0.143	0.087
160)	47.002	6.022	0.781	0.349	-0.043	-0.137	-0.135	-0.082
161)	47.003	11.995	0.745	0.522	0.439	-0.096	-0.096	-0.400
162)	47.004	18.028	0.738	0.928	0.450	0.403	0.491	-0.463
163)	47.005	24.011	0.727	0.872	0.896	1.161	1.169	-0.444
164)	48.001	0.061	0.311	-0.111	-0.107	-0.065	-0.067	0.167
165)	48.002	5.974	0.870	0.367	0.032	-0.040	-0.038	0.003
166)	48.003	12.006	0.912	0.558	0.486	0.014	0.011	-0.444
167)	48.004	18.020	0.903	1.080	0.521	0.419	0.449	-0.655
168)	48.005	24.006	0.889	1.028	1.036	1.267	1.277	-0.515
169)	49.001	0.066	0.446	0.023	0.042	0.062	0.062	0.279
170)	49.002	6.019	0.827	0.502	-0.037	0.083	0.084	0.156
171)	49.003	11.979	1.074	0.533	0.517	0.097	0.097	-0.247
172)	49.004	18.026	1.073	1.258	0.348	0.406	0.404	-0.564
173)	49.005	23.990	1.063	1.176	1.007	1.397	1.410	-0.543
174)	50.001	0.082	0.218	-0.160	-0.220	-0.149	-0.151	0.023
175)	50.002	6.022	0.641	0.428	-0.091	-0.144	-0.145	-0.013
176)	50.003	12.020	0.586	0.483	0.469	-0.104	-0.091	-0.327
177)	50.004	18.039	0.580	0.747	0.290	0.471	0.572	-0.453
178)	50.005	24.020	0.571	0.678	0.796	1.030	1.037	-0.398
179)	54.001	0.095	-0.196	-0.253	-0.301	-0.254	-0.259	-0.050
180)	54.002	5.975	0.782	-0.176	-0.271	-0.264	-0.266	-0.036
181)	54.003	11.966	0.680	1.002	-0.309	-0.207	-0.248	-0.366
182)	54.004	17.983	0.635	0.759	0.991	-0.006	0.043	-0.425
183)	54.005	24.016	0.631	0.744	1.036	1.090	1.098	-0.403
184)	55.001	0.071	-0.229	-0.261	-0.302	-0.261	-0.267	-0.073
185)	55.002	6.038	0.884	-0.217	-0.260	-0.270	-0.271	-0.061
186)	55.003	12.029	0.779	1.066	-0.396	-0.207	-0.215	-0.360
187)	55.004	17.994	0.735	0.895	1.070	-0.041	-0.023	-0.457
188)	55.005	24.011	0.732	0.873	1.117	1.162	1.174	-0.429
189)	56.001	0.063	-0.154	-0.182	-0.231	-0.195	-0.198	-0.007
190)	56.002	6.004	1.000	-0.076	-0.115	-0.190	-0.191	-0.005
191)	56.003	12.021	0.938	1.055	-0.313	-0.119	-0.117	-0.432
192)	56.004	18.031	0.902	1.061	1.094	0.014	0.017	-0.598
193)	56.005	23.998	0.895	1.031	1.102	1.258	1.275	-0.502
194)	57.001	0.068	0.909	-0.005	-0.088	-0.038	-0.040	0.132
195)	57.002	6.046	1.068	0.078	0.058	-0.054	-0.053	0.107
196)	57.003	11.957	1.081	0.859	-0.150	0.003	-0.004	-0.248
197)	57.004	18.039	1.071	1.207	0.858	0.102	0.100	-0.527
198)	57.005	23.990	1.065	1.171	1.076	1.367	1.386	-0.509
199)	58.001	0.0	0.009	-0.001	-0.007	-0.037	-0.038	0.128
200)	58.002	5.983	1.060	0.078	0.057	-0.053	-0.052	0.130

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	RN/PN	EJPOS	CPSH	CPSC	CPSA	CPSLL	CPSRL	CPSSB
201)	58.003	11.997	1.080	0.872	-0.153	0.005	-0.005	-0.249
202)	58.004	18.039	1.067	1.205	0.884	0.103	0.098	-0.527
203)	58.005	23.977	1.067	1.171	1.078	1.365	1.381	-0.510
204)	59.001	0.0	-0.198	-0.244	-0.296	-0.250	-0.255	-0.043
205)	59.002	6.040	0.762	-0.176	-0.269	-0.263	-0.265	-0.000
206)	59.003	11.992	0.649	0.992	-0.280	-0.224	-0.195	-0.349
207)	59.004	18.020	0.598	0.758	1.002	-0.007	0.034	-0.419
208)	59.005	24.017	0.592	0.747	1.064	1.084	1.094	-0.392
209)	60.001	0.105	-0.147	-0.203	-0.281	-0.222	-0.225	0.001
210)	60.002	5.961	0.700	-0.111	-0.242	-0.237	-0.239	0.027
211)	60.003	11.973	0.617	0.923	-0.202	-0.199	-0.172	-0.329
212)	60.004	17.984	0.584	0.690	0.948	0.063	0.111	-0.431
213)	60.005	24.017	0.576	0.678	1.006	1.038	1.046	-0.368

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