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PRESSURE DISTRIBUTION INDUCED ON A FLAT PLATE AT A FREE-STREAM MACH NUMBER OF 1.39 BY ROCKETS EXHAUSTING UPSTREAM AND DOWNSTREAM

By Abraham Leiss

Langley Research Center
Langley Station, Hampton, Va.

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PRESSURE DISTRIBUTION INDUCED ON A FLAT PLATE AT A FREE-STREAM MACH NUMBER OF 1.39 BY ROCKETS EXHAUSTING UPSTREAM AND DOWNSTREAM[1]

By Abraham Leiss

SUMMARY

An experimental investigation was made of the pressures induced on a flat plate at a free-stream Mach number of 1.39 by a supersonic rocket jet exhausting upstream and downstream. Measurements of the pressure distribution on a flat plate were made at zero angle of attack for 11 different locations of the jet exhaust nozzle beneath the wing. Measurements were made at ratios of rocket-exit total pressure to free-stream static pressure from 6 to 60 and at a Reynolds number per foot of approximately 10×10^6. The rocket when exhausted upstream produced a strong shock that moved further upstream with increasing rocket-exit total-pressure ratio. Positive incremental normal-force coefficients were obtained at all test positions. Data at 11 test positions are tabulated for rocket-on and rocket-off pressure coefficients as well as for incremental pressure coefficients for the 48 orifices of the flat plate for the range of ratio of rocket-exit total pressure to free-stream static pressure of the investigation. Changing the location of the model with respect to the plate had a negligible effect when the rocket was varied in the chordwise direction, but the pressure coefficients were reduced as the rocket was lowered away from the flat-plate wing.

INTRODUCTION

The Langley Pilotless Aircraft Research Division has been conducting investigations on the effect of propulsive jets on lift, drag, and pressure distributions on flat-plate wings and airplane configurations. The majority of the investigations of this type have been made with jet-exhaust parameters which are characteristic of turbojet engines (for example, refs. 1 to 4). The effects on the flat plate from a rocket jet exhausting perpendicular to the free stream and parallel to the flat plate were

[1]Supersedes recently declassified NASA TM X-129 by Abraham Leiss, 1959.

published in reference 5. An initial report on a rocket jet exhausting upstream at a free-stream Mach number of 2.0 beneath a flat surface was presented in reference 6. The present investigation deals with the pressure distributions and loads induced on a flat plate at a free-stream Mach number of 1.39 by rocket jets of design Mach number 3 exhausting upstream and downstream at zero angle of attack for various positions with respect to the plate.

The ratio of rocket total pressure to free-stream static pressure varied from 6 to 60 and the free-stream Reynolds number per foot was approximately 10×10^6. The tests were made in the preflight jet of the NASA Wallops Station.

SYMBOLS

A area, sq in.

$A,B,\ldots K$ location of exhaust nozzles or test designations

ΔC_N incremental normal-force coefficient, $\dfrac{F_{N,n} - F_{N,f}}{q_\infty A_T}$

C_p pressure coefficient, $\dfrac{p_w - p_\infty}{q_\infty}$

$\Delta C_p = C_{p,n} - C_{p,f}$

D diameter, in.

M Mach number

F_N normal force, lb

p static pressure, lb/sq in.

p_t rocket-chamber total pressure, lb/sq in.

$\dfrac{p_t}{p_\infty}$ rocket-exit total-pressure ratio

q dynamic pressure, $\dfrac{\gamma}{2} p_\infty M_\infty^{\,2}$, lb/sq in.

R radius, in.

γ specific-heat ratio (for air $\gamma = 1.4$; for rocket mixture $\gamma = 1.22$)

x chordwise distance from nacelle exit (positive in direction of rocket jet), in.

y spanwise distance from nacelle center line, in.

Subscripts:

e jet exit

f jet off

n jet on

T nozzle throat

w wing

∞ free stream

APPARATUS

The tests were made in the preflight jet facility of the NASA Wallops Station. A 27- by 27-inch nozzle producing a free-stream Mach number of 1.39 was used for these tests. The experimental technique used in this investigation was, first, to mount a flat plate in a free jet blowdown wind tunnel; then a strut-mounted solid-propellant rocket motor was located below the flat surface and ignited during the test. Static pressures on the flat plate were measured to determine the effect of the jet. Photographs of the rocket nacelle mounted in 2 of the 11 test positions beneath the flat plate at the exit of the 27- by 27-inch nozzle are shown as figure 1.

A sketch of the rocket nacelle with its principal dimensions is shown in figure 2. The body of the rocket nacelle had a frontal area of 5.411 square inches with an overall length of 20.9 inches. The exit area A_e and the throat area A_T of the convergent-divergent supersonic rocket nozzle were 2.238 and 0.350 square inches, respectively. The exit Mach number M_e was 3.0 and the value of γ at the exit was 1.22. The rocket nacelle was mounted on a solid hexagonal-shaped support strut. The leading edge of the strut was swept back from the rocket nacelle at

a 25° angle and was tapered in plan form from 6 inches at the rocket nacelle to 12 inches at the mounting base 19.5 inches below the rocket nacelle.

Figure 3 shows the location of the rocket nacelle with respect to the wing and preflight-jet nozzle exit for the 11 test positions. The flat plate shown in figure 3 is described in reference 2.

INSTRUMENTATION

The rocket-chamber pressure was measured for all of the tests. The location of this pressure orifice is shown in figure 2. The position of 48 static-pressure orifices (0.06-inch inside diameter) on the wing is shown in figure 4. The free-stream total pressure and the stream static pressure were measured 1/2 inch upstream from the exit of the preflight-jet 27- by 27-inch nozzle.

All the pressures were recorded by electrical pressure transducers of the strain-gage type in conjunction with an oscillograph. A 10-cps timer correlated all the time histories. Shadowgraphs, which were made at an exposure of approximately 0.003 second, were obtained by using a carbon-arc light source and a translucent glass screen.

TESTS AND METHODS

The lower surface of the wing was rigidly mounted at zero angle of attack 8.3 inches above the center line of the preflight-jet nozzle, which located the wing in the Mach diamond. Tests were made with the rocket nacelle in 11 positions, as shown in figure 3. The vertical plane of the rocket (in every test) was alined with the center line of the flat plate (plane of orifices 1 to 12). At all positions the rocket nacelle was at angles of attack and yaw of 0° with respect to both the wing surface and the center line of the preflight jet.

The tests were made by first starting the Mach number 1.39 preflight jet and recording rocket-off data at equilibrium conditions and then firing the rocket and recording rocket-on data. The combustion-chamber pressure varied with the burning of the rocket. The variation of rocket pressure with time was similar during each of the tests. The total firing time of the rocket was approximately 0.6 second. A typical rocket pressure-time curve is presented in figure 5.

ACCURACY

By allowing for an instrument error of 1 percent of full-scale range, the probable error of the data obtained is believed to be within the following limits:

$C_{p,f}$ . . . . . ±0.02

$C_{p,n}$ . . . . . ±0.02

p_t/p_∞ . . . . . ±0.50

M_∞ . . . . . ±0.02

RESULTS AND DISCUSSION

Downstream Firing

Four tests were made with the rocket firing downstream. These tests were made to supplement the data of reference 2. The results are tabulated in tables I to III (tests A, B, C, and D). Table I(a) includes the rocket-off pressure coefficients. Tables II(a) to II(d) present the rocket-on pressure coefficients and tables III(a) to III(d) give the incremental rocket pressure coefficients. Rocket total-pressure ratios up to 60 were obtained by the use of rockets, whereas in reference 2 air jets produced jet total-pressure ratios of only 15.

Figure 6 presents the variation of incremental pressure coefficients, for test position A, with orifice location along the rocket center line for rocket total-pressure ratios of 10, 30, and 50. As in reference 2, the maximum incremental pressure coefficients increased with increased p_t/p_∞. Figure 7 shows the effect of vertical distance from the flat plate at a rocket total-pressure ratio of 50. As the rocket exit was moved away from the plate, the initial pressure rises occurred on the plate at a greater distance from the exit. This result conforms with that in appendix A of reference 3.

A comparison with reference 2 at the same exit static-pressure ratios indicated that the magnitude of the induced pressures on the flat plate was about the same even though the exit total-pressure ratios were approximately 10 times greater.

Upstream Firing

Rocket-off pressure coefficients.- The jet-off pressure coefficients are given in table I(b). Typical jet-off curves are shown in figure 8, which presents the variation of rocket-off pressure coefficient with orifice location for test positions E, F, G, and J. The rocket nacelle in position E has an interference effect on the portion of the plate above the nacelle. As the rocket is lowered, this interference is reduced as indicated by the reduction in positive rocket-off pressure coefficients on the plate for position E to position F (fig. 8) and appears to be nonexistent at both positions G and J because the pressure coefficients at these positions are, for all practical purposes, identical. The shadowgraphs in figure 9 illustrate the position of the jet-off shock waves in relation to the flat-plate wing. At test positions E and H the jet-off bow shock intersects the flat plate near the trailing edge. At test position F the bow shock barely intersects the edge of the flat plate and at test positions G, I, J, and K the bow shock misses the flat plate completely.

Rocket-on pressure coefficients.- The experimental jet-on pressure coefficients for individual orifice locations at all test positions for integer values of rocket total-pressure ratio are given in table II. In figure 10 the chordwise variation of jet-on pressure coefficients for test positions E, F, and G is presented at four spanwise positions as a function of distance from the rocket exit x/D_T at a rocket total-pressure ratio of 46.

The greatest disturbance along the nacelle center line in figure 10(a) occurred at test position E $\left(4.985D_T\right)$ which was the closest position to the flat plate. This maximum pressure disturbance moved toward the wing trailing edge and was reduced in magnitude as the rocket jet was moved further away from the wing to positions F and G. This effect is not as obvious in the comparison of the different spanwise positions presented in figures 10(b), 10(c), and 10(d). A possible reason for this is the separation of the wing boundary layer. There is some evidence of boundary-layer separation as indicated by the shadowgraphs (fig. 11) because the bow shock splits up into a lambda-leg formation at the intersection with the plate lower surface. Shadowgraphs of the flow field about the rocket exit at various test positions for a jet-on total-pressure ratio of 45 are presented as figure 11. Note that the bow shock, from the jet-off position, has moved upstream to the forward position of the rocket jet exhaust. An explanation of the mixing phenomena is given in reference 6.

Figure 12 presents the variation of rocket-on pressure coefficients with rocket total-pressure ratios for various orifices located on the rocket center line for test position E. Since the higher rocket-exit total-pressure ratio causes the bow shock to move upstream, the jet-on pressure coefficients would be expected to increase and decrease as illustrated in figure 12.

Figure 13 illustrates the chordwise variation of jet-on pressure coefficients with distance from the rocket exit x/D_T at a rocket total-pressure ratio of 46 for test positions F, I, and J at four spanwise positions. Figure 10 shows the effect of pressure distribution as the rocket is moved vertically away from the plate; figure 13 shows the effect on the pressure distribution as the rocket is moved away parallel to the plate and in the direction of the airstream. The rise in positive pressure begins at approximately the same distance from the rocket exit in figure 13 regardless of the position of the wing trailing edge. This means that the forward penetration of the bow shock is not affected by the wing trailing edge. The reduction in pressure on the wing between position F and position J can probably be attributed to the effects of the variation in wing trailing edge with respect to the rocket exit and its effect upon the local flow conditions on the wing.

Incremental Pressure Coefficients

Incremental pressure coefficients ΔC_p were obtained by subtracting the jet-off pressure coefficients $C_{p,f}$ from the jet-on pressure coefficients $C_{p,n}$. The incremental pressure coefficients are an indication of the magnitude of the jet effects as obtained from the respective test position. Figure 14 presents the chordwise variation of incremental pressure coefficients at four spanwise stations for test positions E, F, G, I, J, and K at a rocket-exit total-pressure ratio of 46. As shown in the figure, the maximum pressure disturbance due to the bow shock is at about $7D_T$ to $9D_T$ away from the rocket exit. Although the values of ΔC_p vary, the pressure distributions follow for the different test positions a similar pattern, with the exception of that of test position E. The rocket in test position E is close enough to the flat plate to cause disturbances other than the bow-shock disturbances to the plate. The incremental pressure coefficients for the complete range of rocket-exit total-pressure ratios are presented for all test positions in table III.

Normal-Force Coefficients

By using the method of reference 3, ΔC_N was obtained by integration and was plotted in figure 15 as a function of rocket-exit total-pressure ratio for test positions F, G, and J. In reference 3, the loads due to the exhausting jet were confined to the area of the plate covered with pressure orifices. The tests described herein were made with the jets exhausting upstream, causing the exhaust effects to cover a larger area than instrumented. The incremental normal-force coefficient is presented as an indication of the normal-force interference only in that part of the interference flow field covered by the plate. Since the greater part of the normal force of test F was past x/D_T of 11.228, no comparison between test positions of ΔC_N can be made. In general, ΔC_N increased

as the rocket-exit total-pressure ratio was increased. Positive incremental normal force on the wing was obtained at all test positions.

CONCLUSIONS

Experimental studies have been made at a free-stream Mach number of 1.39 with an exit Mach number of 3.0 of a supersonic rocket jet exhausting parallel to a flat-plate surface for exit total-pressure ratios from 6 to 60 in the direction of the free stream and 180° to the free-stream flow. Results of this investigation are summarized as follows:

1. Although the rocket-exit total-pressure ratios of the rocket exhausting downstream were 10 times higher than the jet-exit total-pressure ratios of NACA Research Memorandum L55L13, the pressure coefficients on the flat plate were of the same magnitude when compared at equal jet-exit static-pressure ratios.

2. The maximum pressure coefficients on the flat-plate wing with the rocket exhausting upstream occurred with the rocket exit located at 4.985 rocket throat diameters away from the wing and this maximum value was reduced as the rocket exit was moved further away from the wing.

3. When the rocket exit was varied in the chordwise direction at a constant vertical distance, a negligible change in jet effects occurred.

4. A study of the shadowgraphs of the flat plate shows that the bow shock split into a lambda leg on the lower plate surface, thus indicating separation of the boundary layer in this region.

5. Positive incremental normal force on the wing was obtained at all test positions; the incremental normal force increased with increasing rocket total-pressure ratios.

Langley Research Center,
National Aeronautics and Space Administration,
Langley Field, Va., August 27, 1959.

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TABLE I.- VALUES OF JET-OFF PRESSURE COEFFICIENTS FOR

ALL WING ORIFICE POSITIONS

(a) Downstream firing

Orifice ordinates		$C_{p,f}$ at test position -			Orifice ordinates		$C_{p,f}$ at test position
x/D_T	y/D_T	A	B	C	x/D_T	y/D_T	D
15.719	0	-0.037	-0.009	-0.016	8.982	0	-0.035
14.596	0	-.019	-.009	-.003	7.859	0	-.023
13.473	0	-.002	-.009	.010	6.737	0	-.055
12.350	0	.014	-.009	-.093	5.614	0	-.077
11.228	0	.038	.038	-.066	4.491	0	-.142
10.105	0	.058	.033	-.051	3.368	0	-.168
8.982	0	.081	-.108	-.019	2.246	0	-.134
7.859	0	.079	-.085	.014	1.123	0	-.067
6.737	0	.046	-.063	.045	0	0	.014
5.614	0	-.054	-.037	.053	-1.123	0	.039
4.491	0	-.165	-.004	.040	-2.246	0	.039
3.368	0	-.173	.017	.042	-3.368	0	.061
15.719	1.497	-.030	-.031	-.001	8.982	1.497	-.030
14.596	1.497	-.012	-.014	.007	7.859	1.497	-.026
13.473	1.497	-.003	.006	.004	6.737	1.497	-.072
12.350	1.497	.014	.020	-.088	5.614	1.497	-.082
11.228	1.497	.030	.036	-.074	4.491	1.497	------
10.105	1.497	.052	.020	-.058	3.368	1.497	-.164
8.982	1.497	.067	-.112	-.025	2.246	1.497	-.118
7.859	1.497	.074	-.080	.012	1.123	1.497	-.052
6.737	1.497	.043	-.061	.050	0	1.497	.021
5.614	1.497	-.078	-.033	.055	-1.123	1.497	.041
4.491	1.497	-.180	.005	.058	-2.246	1.497	.049
3.368	1.497	-.169	.024	.053	-3.368	1.497	.040
15.719	4.491	.003	-.171	.057	8.982	4.491	-.094
14.596	4.491	.018	.021	.067	7.859	4.491	-.131
13.473	4.491	.013	.019	-.088	6.737	4.491	-.180
12.350	4.491	-.012	.013	-.084	5.614	4.491	-.161
11.228	4.491	.015	-.086	-.087	4.491	4.491	-.140
10.105	4.491	.011	-.136	-.071	3.368	4.491	-.102
8.982	4.491	0	-.114	-.036	2.246	4.491	-.043
7.859	4.491	-.102	-.085	0	1.123	4.491	.014
6.737	4.491	-.148	-.039	.034	0	4.491	.038
5.614	4.491	-.120	.002	.053	-1.123	4.491	.045
4.491	4.491	-.094	.045	.076	-2.246	4.491	.040
15.719	7.485	.020	.023	.045	8.982	7.485	-.155
14.596	7.485	.025	.034	-.067	7.859	7.485	-.150
13.473	7.485	.021	-.012	-.048	6.737	7.485	-.128
12.350	7.485	-.002	.024	-.035	5.614	7.485	-.099
11.228	7.485	-.050	-.021	-.037	4.491	7.485	-.074
10.105	7.485	-.162	-.114	-.054	3.368	7.485	.017
8.982	7.485	-.135	-.090	-.030	2.246	7.485	-.040
7.859	7.485	-.114	-.049	-.004	1.123	7.485	-.006
15.719	11.976	-.140	-.124	-.076	8.982	11.976	-.036
14.596	11.976	------	------	------	7.859	11.976	------
13.473	11.976	-.117	-.072	-.021	6.737	11.976	-.029
12.350	11.976	-.072	-.051	.001	5.614	11.976	-.035
15.719	14.221	-.125	-.111	-.070	8.982	14.221	-.016

TABLE I.- VALUES OF JET-OFF PRESSURE COEFFICIENTS FOR

ALL WING ORIFICE POSITIONS - Concluded

(b) Upstream firing

Orifice ordinates		$C_{p,f}$ at test position -			Orifice ordinates		$C_{p,f}$ at test position	Orifice ordinates		$C_{p,f}$ at test position	Orifice ordinates		$C_{p,f}$ at test position -	
x/D_T	y/D_T	E	F	G	x/D_T	y/D_T	H	x/D_T	y/D_T	I	x/D_T	y/D_T	J	K
-1.123	0	0.140	0.004	-0.048	-5.614	0	-0.083	2.245	0	-0.045	5.614	0	-0.034	-0.047
0	0	.209	.002	-.030	-4.491	0	.027	3.368	0	-.030	6.737	0	-.025	-.027
1.123	0	.125	.004	-.018	-3.368	0	-.032	4.491	0	-.018	7.859	0	-.014	-.021
2.246	0	-.001	.000	-.009	-2.246	0	.073	5.614	0	-.007	8.982	0	-.011	-.005
3.368	0	.004	.013	-.007	-1.123	0	.188	6.737	0	0	10.105	0	0	-.001
4.491	0	-.008	.006	-.017	0	0	.243	7.859	0	-.013	11.228	0	-.009	-.009
5.614	0	-.003	.009	-.015	1.123	0	.184	8.982	0	-.013	12.350	0	-.001	-.007
6.737	0	-.014	.002	-.002	2.246	0	.020	10.105	0	-.011	13.473	0	-.003	-.004
7.859	0	-.006	.004	-.002	3.368	0	-.004	11.228	0	-.008	14.596	0	.001	-.007
8.982	0	-.007	.004	-.005	4.491	0	-.008	12.350	0	-.009	15.719	0	-.004	-.004
10.105	0	-.009	.001	.001	5.614	0	-.001	13.473	0	-.007	16.842	0	.004	.004
11.228	0	-.005	.003	-.005	6.737	0	-.005	14.596	0	-.006	17.965	0	-.001	0
-1.123	1.497	.155	.004	------	-5.614	1.497	-.067	2.245	1.497	-.039	5.614	1.497	------	-.041
0	1.497	.191	.001	-.023	-4.491	1.497	.041	3.368	1.497	-.023	6.737	1.497	-.013	-.024
1.123	1.497	.106	.013	-.028	-3.368	1.497	-.023	4.491	1.497	-.021	7.859	1.497	-.020	-.015
2.246	1.497	-.006	.015	-.013	-2.248	1.497	.066	5.614	1.497	-.020	8.982	1.497	-.005	-.019
3.368	1.497	.001	.002	-.007	-1.123	1.497	.181	6.737	1.497	-.010	10.105	1.497	-.003	-.006
4.491	1.497	-.008	.003	-.010	0	1.497	.173	7.859	1.497	-.015	11.228	1.497	-.007	-.009
5.614	1.497	-.007	.009	-.011	1.123	1.497	.106	8.982	1.497	-.016	12.350	1.497	-.007	-.012
6.737	1.497	.001	.004	-.010	2.246	1.497	.130	10.105	1.497	-.011	13.473	1.497	-.003	-.010
7.859	1.497	.003	.001	-.005	3.368	1.497	-.010	11.228	1.497	-.009	14.596	1.497	-.003	-.006
8.982	1.497	-.001	.003	-.006	4.491	1.497	-.013	12.350	1.497	-.011	15.719	1.497	-.001	-.001
10.105	1.497	-.013	0	-.003	5.614	1.497	-.007	13.473	1.497	-.005	16.842	1.497	-.002	-.001
11.228	1.497	-.015	0	-.005	6.737	1.497	0	14.596	1.497	-.002	17.965	1.497	-.002	.001
-1.123	4.491	.113	0	-.039	-5.614	4.491	-.003	2.245	4.491	-.032	5.614	4.491	-.022	-.039
0	4.491	.116	.003	-.026	-4.491	4.491	-.028	3.368	4.491	-.024	6.737	4.491	-.014	-.029
1.123	4.491	-.026	.003	-.021	-3.368	4.491	-.037	4.491	4.491	-.022	7.859	4.491	-.014	-.023
2.246	4.491	-.033	0	-.027	-2.246	4.491	-.109	5.614	4.491	-.022	8.982	4.491	-.015	-.022
3.368	4.491	-.043	.001	-.079	-1.123	4.491	.143	6.737	4.491	-.037	10.105	4.491	-.030	-.040
4.491	4.491	-.040	.002	-.004	0	4.491	.130	7.859	4.491	-.041	11.228	4.491	-.037	-.040
5.614	4.491	-.018	.001	-.023	1.112	4.491	-.014	8.982	4.491	-.021	12.350	4.491	-.020	-.021
6.737	4.491	-.001	.003	-.006	2.246	4.491	-.004	10.105	4.491	-.005	13.473	4.491	-.003	-.005
7.859	4.491	.010	.003	.008	3.368	4.491	.004	11.228	4.491	.004	14.596	4.491	.009	.006
8.982	4.491	.006	.004	.004	4.491	4.491	0	12.350	4.491	-.001	16.842	4.491	.004	.004
10.105	4.491	.001	-.001	-.003	5.614	4.491	-.002	13.473	4.491	-.002	17.965	4.491	.002	.002
-1.123	7.485	.052	.003	-.022	-5.614	7.485	-.003	2.245	7.485	-.021	5.614	7.485	-.011	-.027
0	7.485	-.038	-.001	-.024	-4.491	7.485	.043	3.368	7.485	-.019	6.737	7.485	-.011	-.025
1.123	7.485	-.044	.002	-.027	-3.368	7.485	.080	4.491	7.485	-.023	7.859	7.485	-.014	-.032
2.246	7.485	-.053	-.001	-.040	-2.246	7.485	.092	5.614	7.485	-.032	8.982	7.485	-.023	-.042
3.368	7.485	-.053	.007	-.047	-1.123	7.485	.061	6.737	7.485	-.050	10.105	7.485	-.037	-.051
4.491	7.485	-.055	.002	-.053	0	7.485	-.061	7.859	7.485	-.053	11.228	7.485	-.046	-.052
5.614	7.485	-.045	.003	-.038	1.123	7.485	-.045	8.982	7.485	-.040	12.350	7.485	-.032	-.040
6.737	7.485	-.023	.003	-.018	2.246	7.485	-.023	10.105	7.485	-.016	13.473	7.485	-.009	-.017
-1.123	11.976	-.037	.002	-.027	-5.614	11.976	.054	2.245	11.976	-.025	5.614	11.976	-.017	-.029
1.123	11.976	-.037	.002	-.027	-3.368	11.976	.016	4.491	11.976	-.028	7.859	11.976	-.018	-.035
2.246	11.976	-.039	.001	-.028	-2.246	11.976	-.039	5.614	11.976	-.023	8.982	11.976	-.014	-.026
3.368	14.221	-.035	.005	-.025	-5.614	14.221	.042	2.245	14.221	-.026	5.614	14.221	-.017	-.031

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 56

(a) Test position A (downstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_r/p_∞ of																											
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56
15.719	0	-0.043	-0.043	-0.043	-0.043	-0.042	-0.040	-0.036	-0.034	-0.034	-0.030	-0.030	-0.034	-0.040	-0.045	-0.050	-0.051	-0.051	-0.051	-0.050	-0.045	-0.045	-0.045	-0.045	-0.042	-0.039	-0.035
14.596	0	-.022	-.022	-.022	-.022	-.022	-.020	-.018	-.015	-.015	-.017	-.019	-.025	-.032	-.052	-.053	-.053	-.051	-.029	-.026	-.023	-.020	-.015	-.013	-.008	-.001	.003
13.473	0	-.004	-.004	-.005	-.005	-.007	-.007	-.007	-.003	-.005	-.010	-.016	-.020	-.017	-.014	-.011	-.007	-.006	-.002	.002	.005	.012	.018	.023	.029	.036	.040
12.350	0	.010	.010	.010	.010	.009	.006	.010	.010	.010	0	-.003	-.001	.006	.010	.014	.018	.022	.027	.032	.036	.044	.052	.055	.059	.067	.067
11.228	0	.036	.036	.036	.037	.035	.034	.034	.034	.034	.035	.038	.042	.045	.050	.052	.057	.065	.069	.074	.076	.082	.087	.088	.089	.087	.070
10.105	0	.055	.055	.055	.055	.050	.045	.050	.050	.050	.055	.060	.060	.065	.070	.075	.080	.085	.088	.090	.090	.085	.050	.004	-.014	-.020	-.021
8.982	0	.077	.077	.077	.077	.078	.078	.079	.080	.083	.090	.095	.098	.101	.104	.104	.092	.075	.045	.020	.006	.001	0	-.001	-.001	-.003	-.004
7.859	0	.109	.109	.109	.109	.109	.109	.109	.109	.110	.115	.120	.121	.114	.102	.055	.020	.016	.014	.012	.015	.015	.015	.015	.015	.015	.015
6.737	0	.046	.046	.046	.055	.072	.085	.088	.086	.035	.077	.060	.036	.012	.005	.005	.008	.011	.015	.017	.020	.021	.021	.021	.023	.023	.023
5.614	0	-.055	-.044	-.030	-.013	.005	.015	.016	.010	.004	-.002	-.005	-.001	.002	.005	.010	.015	.017	.020	.024	.027	.030	.033	.035	.037	.037	.037
4.491	0	-.140	-.127	-.115	-.100	-.077	-.070	-.070	-.070	-.066	-.060	-.049	-.036	-.026	-.017	-.006	0	.010	.017	.024	.032	.038	.043	.049	.055	.057	.057
3.368	0	-.167	-.165	-.165	-.165	-.163	-.163	-.162	-.162	-.160	-.160	-.160	-.160	-.160	-.157	-.155	-.151	-.147	-.140	-.125	-.110	-.090	-.070	-.054	-.047	-.031	-.027
15.719	1.497	-.037	-.037	-.037	-.037	-.037	-.032	-.029	-.025	-.025	-.025	-.025	-.026	-.035	-.039	-.046	-.047	-.046	-.045	-.044	-.040	-.040	-.037	-.036	-.033	-.029	-.026
14.596	1.497	-.016	-.016	-.016	-.016	-.016	-.016	-.016	-.012	-.012	-.014	-.018	-.024	-.031	-.030	-.029	-.027	-.025	-.024	-.021	-.016	-.012	-.006	-.004	.001	.005	.009
13.473	1.497	-.006	-.006	-.006	-.006	-.006	-.006	-.004	-.004	-.005	-.014	-.020	-.023	-.018	-.014	-.012	-.008	-.005	0	.004	.008	.013	.020	.026	.030	.035	.040
12.350	1.497	.015	.015	.015	.015	.010	.006	.005	.005	.005	.005	.006	.007	.010	.015	.018	.023	.028	.032	.037	.043	.049	.055	.060	.065	.068	.068
11.228	1.497	.025	.025	.025	.025	.025	.021	.017	.015	.017	.020	.028	.031	.035	.039	.045	.051	.056	.063	.069	.072	.075	.079	.082	.083	.079	.050
10.105	1.497	.050	.050	.050	.050	.040	.036	.040	.045	.042	.045	.052	.055	.058	.060	.065	.072	.077	.080	.082	.082	.070	.020	-.021	-.027	-.030	-.030
8.982	1.497	.065	.065	.065	.065	.065	.066	.068	.070	.075	.077	.083	.088	.091	.095	.095	.089	.072	.030	-.005	-.008	-.008	-.008	-.010	-.010	-.010	-.010
7.859	1.497	.073	.073	.073	.073	.080	.085	.092	.100	.108	.115	.118	.118	.110	.080	.040	.010	.006	.006	.006	.006	.006	.008	.008	.009	.009	.009
6.737	1.497	.037	.037	.037	.050	.064	.072	.075	.073	.067	.055	.035	.010	.004	.005	.005	.006	.008	.010	.012	.020	.020	.020	.022	.025	.025	.025
5.614	1.497	-.060	-.045	-.035	-.015	0	.010	-.005	-.007	-.002	0	0	.004	.005	.007	.009	.016	.020	.023	.026	.030	.031	.035	.041	.042	.044	.044
4.491	1.497	-.172	-.170	-.167	-.160	-.150	-.148	-.148	-.146	-.141	-.135	-.120	-.195	-.065	-.045	-.030	-.015	-.005	.006	.016	.025	.035	.043	.049	.053	.058	.061
3.368	1.497	-.167	-.167	-.167	-.167	-.167	-.167	-.167	-.167	-.167	-.167	-.167	-.167	-.167	-.165	-.165	-.165	-.165	-.165	-.165	-.164	-.160	-.156	-.151	-.144	-.110	-.008
15.719	4.491	-.008	-.008	-.008	-.008	-.008	-.008	-.006	-.005	-.005	-.010	-.015	-.020	-.020	-.017	-.016	-.015	-.013	-.010	-.008	-.005	-.001	.002	.005	.008	.010	.014
14.596	4.491	0	0	0	0	0	0	0	0	0	-.009	-.015	-.012	-.008	-.004	0	.002	.005	.007	.010	.015	.019	.022	.027	.028	.036	.039
13.473	4.491	.001	.001	.001	.001	0	-.001	-.004	-.005	-.006	-.005	-.002	0	.003	.006	.010	.015	.020	.021	.025	.030	.035	.040	.041	.044	.050	.050
12.350	4.491	.013	.013	.013	.013	.009	.006	.006	.006	.006	.007	.010	.013	.015	.020	.024	.030	.034	.037	.042	.048	.052	.030	.046	.049	.025	-.010
11.228	4.491	.010	.010	.010	.010	.006	.006	.007	.006	.008	.011	.017	.018	.020	.022	.025	.032	.035	.040	.042	.025	-.005	-.038	-.053	-.057	-.058	-.058
10.105	4.491	.010	.012	.012	.009	.010	.013	.016	.016	.020	.028	.051	.033	.037	.038	.035	.025	-.011	-.032	-.050	-.051	-.052	-.052	-.052	-.052	-.052	-.052
8.982	4.491	.002	.002	.002	.010	.018	.025	.030	.037	.041	.045	.045	.040	.012	-.010	-.030	-.030	-.023	-.028	-.027	-.027	-.026	-.025	-.025	-.024	-.024	-.024
7.859	4.491	-.077	-.074	-.060	-.036	-.005	.007	.015	.015	.012	.001	-.015	-.025	-.022	-.022	-.021	-.018	-.015	-.015	-.012	-.010	-.007	-.005	-.002	-.001	0	0
6.737	4.491	-.130	-.117	-.107	-.090	-.077	-.065	-.057	-.055	-.063	-.065	-.055	-.039	-.024	-.012	-.004	0	.005	.010	.015	.016	.021	.022	.023	.025	.025	.025
5.614	4.491	-.124	-.124	-.124	-.124	-.124	-.124	-.124	-.124	-.124	-.124	-.125	-.122	-.120	-.118	-.117	-.113	-.105	-.095	-.070	-.045	-.020	.005	.020	.030	.040	.044
4.491	4.491	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091	-.091
15.719	7.485	.014	.014	.014	.014	.015	.012	.010	.008	.002	.005	.003	.005	.007	.010	.011	.013	.015	.019	.020	.020	.027	.030	.032	.035	.036	.037
14.596	7.485	.020	.020	.020	.020	.020	.020	.020	.018	.019	.020	.021	.022	.025	.028	.030	.033	.037	.040	.046	.049	.045	.050	.050	.050	.049	.036
13.473	7.485	.037	.037	.037	.037	.020	.017	.015	.020	.022	.025	.032	.033	.035	.036	.039	.041	.045	.045	.045	.045	.036	.025	.005	-.015	-.024	-.025
12.350	7.485	-.008	-.008	-.005	.005	.015	.021	.025	.025	.027	.032	.036	.040	.041	.041	.041	.035	.025	.018	.014	-.020	-.027	-.027	-.027	-.027	-.027	-.027
11.228	7.485	-.056	-.051	-.040	-.025	-.015	-.013	-.011	-.010	-.007	-.007	-.007	-.015	-.030	-.038	-.055	-.057	-.057	-.057	-.054	-.054	-.050	-.050	-.050	-.049	-.044	-.048
10.105	7.485	-.148	-.140	-.132	-.115	-.092	-.075	-.060	-.062	-.065	-.075	-.090	-.087	-.077	-.073	-.070	-.065	-.063	-.060	-.060	-.057	-.056	-.055	-.055	-.055	-.053	-.055
8.982	7.485	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.125	-.105	-.080	-.062	-.055	-.045	-.041	-.039	-.037	-.034	-.033
7.859	7.485	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.116	-.115	-.115	-.114	-.113	-.110	-.079	-.080
13.473	11.976	-.115	-.115	-.115	-.115	-.115	-.115	-.115	-.115	-.115	-.115	-.115	-.115	-.115	-.115	-.113	-.111	-.110	-.106	-.100	-.075	-.076	-.061	-.051	-.049	-.042	-.040
12.350	11.976	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.093	-.092	-.092	-.091	-.091	-.091	-.091	-.090	-.089	-.089
15.719	14.221	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.130	-.129	-.127	-.123	-.119	-.105	-.096	-.080	-.077

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(b) Test position B (downstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																											
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
15.719	0	0.001	0.001	0.001	0.001	0.002	0.004	0.004	0.004	0.004	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	-0.002	-0.002	-0.002	-0.002
14.596	0	.003	.003	.003	.003	.003	.003	.003	.003	0	0	0	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
12.350	0	-.007	-.007	-.008	-.007	-.008	-.009	-.007	-.008	-.008	-.008	-.007	0	-.002	.005	.004	.006	.007	.007	.007	.007	.004	-.002	-.044	-.041	-.047	-.047	-.04	-.047
11.228	0	.033	.033	.033	.033	.031	.030	.027	.027	.025	.025	.025	.015	.014	.010	.005	.001	.001	.001	.001	.001	.001	-.003	-.003	-.004	-.004	-.005	.00	-.00
10.105	0	.028	.030	.030	.031	.032	.035	.040	.045	.046	.040	.033	.020	.015	.007	.005	.005	.006	.008	.009	.010	.010	.010	.010	.010	.010	.011	.014	.014
8.982	0	-.086	-.066	-.050	-.035	-.021	-.050	.070	.016	.025	.025	.024	.023	.023	.023	.023	.025	.028	.029	.030	.030	.033	.035	.035	.037	.039	.041	.042	.045
7.859	0	-.080	-.080	-.080	-.079	-.079	-.078	-.077	-.076	-.073	-.073	-.073	-.071	-.067	-.061	-.055	-.010	.022	.040	.055	.060	.065	.066	.070	.075	.075	.076	.076	.076
6.737	0	-.060	-.061	-.063	-.063	-.064	-.063	-.063	-.063	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.060	-.060	-.060	-.060	-.060	-.060	-.060	-.060	-.060	-.060	-.060	-.060
5.614	0	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034	-.034
4.491	0	.001	.001	.001	0	0	0	0	0	0	0	0	0	0	-.001	-.001	-.001	-.001	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
3.368	0	.017	.017	.016	.016	.016	.016	.016	.016	.017	.017	.017	.017	.016	.016	.016	.016	.016	.016	.016	.016	.016	.016	.016	.016	.016	.016	.016	.016
15.719	1.497	-.014	-.011	-.014	-.015	-.015	-.016	-.016	-.016	-.015	-.015	-.014	-.013	-.010	-.010	-.006	-.005	-.001	0	.003	.005	.007	.011	.012	.012	.011	.011	.010	.004
14.596	1.497	-.005	-.005	-.005	-.005	-.005	-.005	-.004	0	.005	.005	.006	.009	.010	.011	.014	.015	.020	.020	.022	.022	.022	.022	.019	.004	-.033	-.050	-.050	-.050
13.473	1.497	.001	.001	.001	.001	.001	0	.001	.005	.006	.010	.012	.014	.016	.019	.020	.022	.024	.025	.023	.022	-.017	-.032	-.035	-.036	-.036	-.036	-.036	-.036
12.350	1.497	.021	.021	.020	.020	.020	.020	.024	.030	.030	.032	.035	.037	.040	.041	.042	.046	.045	.025	-.004	-.010	-.015	-.018	-.019	-.018	-.017	-.019	-.019	-.019
11.228	1.497	.032	.035	.034	.031	.031	.031	.029	.035	.044	.045	.044	.043	.040	.039	.036	.015	-.003	-.005	-.004	-.004	-.004	-.003	-.003	-.002	-.002	-.002	-.002	-.002
10.105	1.497	.019	.020	.020	.017	.020	.025	.034	.042	.042	.034	.020	.013	.010	.005	.004	-.001	-.002	-.002	-.001	.002	.004	.005	.005	.006	.006	.007	.008	.010
8.982	1.497	-.100	-.092	-.084	-.075	-.064	-.052	-.041	-.025	-.016	-.012	-.010	-.007	-.003	.001	.009	.015	.020	.021	.023	.025	.027	.026	.028	.031	.033	.033	.034	.035
7.859	1.497	-.087	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.085	-.085	-.085	-.085	-.085	-.085	-.083	-.082	-.080	-.065	-.044	-.019	.026	.044	.055	.064	.067	.072	.073	.074
6.737	1.497	-.061	-.061	-.061	-.062	-.062	-.062	-.062	-.060	-.060	-.060	-.060	-.060	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061	-.061
5.614	1.497	-.032	-.032	-.032	-.032	-.032	-.032	-.032	-.032	-.032	-.032	-.032	-.032	-.032	-.035	-.035	-.035	-.035	-.035	-.035	-.035	-.035	-.035	-.035	-.035	-.035	-.035	-.035	-.035
4.491	1.497	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004
3.368	1.497	.024	.024	.024	.024	.024	.024	.025	.025	.025	.025	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023	.023
15.719	4.491	.015	.015	.015	.015	.014	.014	.013	.014	.014	.015	.015	.019	.020	.024	.026	.030	.034	.035	.040	.041	.043	.045	.045	.045	.043	.010	-.016	-.024
14.596	4.491	.075	.076	.074	.074	.073	.072	.073	.074	.075	.076	.078	.080	.082	.084	.086	.090	.090	.088	.074	.064	.062	.050	.008	-.001	-.004	-.005	-.005	-.005
13.473	4.491	-.007	-.008	-.009	-.010	-.011	-.014	-.011	-.008	-.006	-.005	-.005	-.002	.004	.009	.013	.017	.022	.025	.025	.025	-.010	-.013	-.013	-.013	-.013	-.013	-.013	-.013
12.350	4.491	.023	.024	.024	.023	.022	.025	.030	.034	.035	.034	.033	.030	.030	.027	.026	-.001	-.008	-.010	-.010	-.011	-.009	-.010	-.010	-.011	-.011	-.011	-.011	-.011
11.228	4.491	-.057	-.055	-.050	-.045	-.041	-.028	-.012	0	.010	-.005	-.037	-.044	-.045	-.045	-.043	-.040	-.037	-.035	-.034	-.034	-.033	-.030	-.030	-.028	-.027	-.026	-.026	-.025
10.105	4.491	-.132	-.131	-.127	-.123	-.118	-.111	-.102	-.092	-.077	-.059	-.038	-.034	-.034	-.034	-.032	-.030	-.027	-.025	-.025	-.022	-.021	-.018	-.017	-.015	-.013	-.012	-.011	-.010
8.982	4.491	-.111	-.111	-.111	-.111	-.111	-.111	-.111	-.111	-.109	-.108	-.108	-.108	-.108	-.108	-.106	-.105	-.105	-.100	-.092	-.080	-.055	-.027	-.005	.006	.010	.012	.014	.014
7.859	4.491	-.080	-.080	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.082	-.082	-.082	-.082	-.082	-.082	-.082	-.082	-.082	-.082	-.082	-.082	-.082
6.737	4.491	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041
5.614	4.491	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
4.491	4.491	.042	.042	.042	.042	.042	.042	.042	.040	.041	.041	.041	.041	.043	.043	.044	.044	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043	.043
15.719	7.485	.035	.035	.034	.034	.034	.033	.034	.035	.035	.036	.040	.044	.045	.046	.048	.050	.052	.053	.053	.052	.049	.020	0	-.005	-.006	-.010	-.010	-.010
14.596	7.485	.044	.043	.043	.042	.041	.040	.040	.042	.044	.046	.049	.051	.055	.059	.063	.067	.067	.059	.049	.025	.022	.008	.005	.006	.006	.006	.006	.006
13.473	7.485	.008	.006	.005	.001	.010	.020	.032	.048	.052	.043	.030	.021	.015	.012	.010	.010	.006	.005	.005	.006	.007	.009	.011	.011	.011	.012	.012	.012
12.350	7.485	-.093	-.085	-.080	-.072	-.066	-.056	-.044	-.031	-.021	-.020	-.020	-.019	-.016	-.013	-.010	-.007	-.004	0	.002	.004	.009	.010	.011	.014	.014	.015	.015	.019
11.228	7.485	-.097	-.097	-.097	-.095	-.095	-.095	-.096	-.097	-.096	-.091	-.085	-.086	-.089	-.090	-.091	-.093	-.090	-.080	-.063	-.049	.040	-.020	-.006	0	.001	.001	.001	.001
10.105	7.485	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110	-.110
8.982	7.485	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086	-.086
7.859	7.485	-.043	-.043	-.043	-.043	-.043	-.043	-.044	-.044	-.044	-.044	-.044	-.044	-.044	-.044	-.044	-.044	-.044	-.044	-.045	-.045	-.045	-.045	-.045	-.045	-.045	-.045	-.045	-.046
15.719	11.976	-.124	-.123	-.122	-.120	-.120	-.127	-.116	-.114	-.110	-.110	-.110	-.111	-.112	-.113	-.114	-.116	-.104	-.086	-.070	-.065	-.060	-.060	-.056	-.056	-.055	-.053	-.053	-.053
13.473	11.976	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075	-.075
12.350	11.976	-.047	-.042	-.042	-.043	-.045	-.045	-.045	-.045	-.045	-.045	-.045	-.045	-.045	-.043	-.043	-.043	-.043	-.043	-.044	-.045	-.045	-.045	-.046	-.047	-.047	-.047	-.047	-.047
15.719	14.221	-.104	-.104	-.104	-.104	-.105	-.105	-.106	-.105	-.105	-.105	-.105	-.104	-.104	-.103	-.103	-.105	-.105	-.105	-.104	-.104	-.103	-.102	-.104	-.104	-.104	-.104	-.104	-.104

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(c) Test position C (downstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																											
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
15.791	0	-0.001	-0.001	-0.001	-0.001	0.001	0.002	0.003	0.005	0.005	0.007	0.006	0.013	0.013	0.014	0.015	0.016	0.018	0.018	0.019	-0.002	-0.010	-0.026	-0.038	-0.038	-0.036	-0.036	-0.037	-0.038
14.596	0	-.003	-.003	-.004	-.001	-.001	0	.002	.002	.004	.005	.006	.007	.010	.011	.013	.009	.005	-.006	-.027	-.031	-.032	-.029	-.033	-.033	-.032	-.003	-.033	-.033
13.473	0	.010	.009	.008	.008	.009	.008	.010	.013	.015	.017	.017	.015	.014	.005	-.004	-.017	-.019	-.020	-.017	-.018	-.018	-.019	-.016	-.015	-.013	-.015	-.014	-.017
12.350	0	-.078	-.071	-.066	-.054	-.040	-.025	-.014	-.005	.010	.016	.015	.009	0	-.005	-.008	-.011	-.009	-.010	-.006	-.007	-.006	-.005	0	.001	.001	-.001	.002	.001
11.228	0	.014	.014	.014	.014	.014	.014	.014	.014	.015	.016	.015	.014	.013	.013	.013	.012	.013	.016	.018	.018	.021	.024	.026	.027	.028	.027	.028	.027
10.105	0	-.127	-.126	-.121	-.116	-.110	-.108	-.102	-.101	-.098	-.093	-.091	-.089	-.079	-.077	-.072	-.060	-.055	-.050	-.045	-.045	-.045	-.038	-.010	.003	.020	.035	.045	.045
8.982	0	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.020	-.020	-.022	-.021	-.021	-.022	-.023	-.023	-.023	-.020	-.022	-.019	-.022	-.021	-.021
7.859	0	.012	.012	.012	.012	.012	.012	.012	.012	.013	.015	.015	.015	.015	.015	.016	.014	.015	.015	.016	.014	.012	.014	.016	.013	.015	.015	.015	.013
6.737	0	.045	.045	.045	.045	.045	.045	.045	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.045	.045	.045	.045	.045	.046	.045	.045	.045	.045	.045
5.614	0	.047	.046	.045	.048	.049	.050	.050	.050	.050	.050	.050	.050	.051	.052	.053	.052	.051	.050	.050	.050	.049	.050	.051	.049	.051	.051	.051	.048
4.491	0	.040	.039	.040	.041	.042	.042	.044	.045	.045	.043	.042	.041	.042	.042	.042	.041	.041	.043	.045	.044	.042	.042	.043	.042	.045	.040	.043	.041
3.368	0	.040	.040	.040	.040	.040	.040	.040	.040	.041	.043	.042	.042	.042	.042	.042	.042	.042	.040	.042	.042	.042	.042	.041	.041	.042	.040	.041	.040
15.791	1.497	.020	.017	.016	.018	.023	.023	.023	.024	.024	.025	.026	.030	.033	.036	.039	.043	.043	.043	.041	.026	.009	-.010	.025	.023	.025	.025	.024	.026
14.596	1.497	.040	.019	.018	.020	.020	.021	.022	.025	.026	.028	.030	.034	.035	.036	.036	.030	.020	-.003	-.013	-.019	-.018	-.015	-.017	-.019	-.017	-.018	-.019	-.022
13.473	1.497	.007	.004	.005	.004	.007	.008	.013	.016	.017	.017	.017	.015	.012	.004	-.008	-.017	-.020	-.020	-.015	-.017	-.017	-.015	-.013	-.012	-.012	-.013	-.014	-.014
12.350	1.497	-.078	-.074	-.068	-.054	-.048	-.039	-.025	-.016	-.005	0	.003	-.003	-.003	-.005	-.007	-.007	-.007	-.007	-.004	-.005	-.005	-.003	-.001	-.001	.002	.003	.004	.004
11.228	1.497	-.070	-.070	-.069	-.067	-.065	-.064	-.061	-.059	-.057	-.055	-.053	-.049	-.045	-.042	-.037	-.026	-.007	.008	.015	.017	.015	.020	.020	.021	.022	.024	.026	.026
10.105	1.497	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.057	-.047	-.041	-.030	.012	.038	.039
8.982	1.497	-.025	-.027	-.027	-.027	-.026	-.026	.025	.025	-.026	-.026	-.026	-.026	-.026	-.026	-.026	-.026	-.026	-.028	-.027	-.027	-.030	-.028	-.028	-.029	-.028	-.027	-.026	-.026
7.859	1.497	.011	.011	.011	.012	.012	.012	.012	.012	.011	.011	.011	.011	.011	.010	.010	.010	.011	.011	.012	.010	.010	.011	.011	.010	.011	.012	.012	.012
6.737	1.497	.047	.046	.046	.046	.047	.047	.047	.047	.048	.048	.047	.047	.047	.047	.047	.046	.046	.046	.047	.046	.045	.047	.048	.046	.047	.047	.048	.047
5.614	1.497	.052	.049	.051	.051	.053	.053	.053	.053	.053	.053	.053	.053	.053	.053	.053	.050	.052	.054	.055	.053	.051	.053	.053	.053	.055	.047	.051	.049
4.491	1.497	.057	.057	.057	.057	.059	.059	.060	.060	.059	.058	.058	.058	.057	.058	.059	.058	.058	.059	.061	.060	.058	.059	.060	.057	.059	.055	.057	.055
3.368	1.497	.051	.048	.050	.051	.052	.052	.053	.052	.051	.051	.051	.051	.050	.051	.051	.050	.051	.051	.052	.050	.049	.051	.051	.051	.052	.048	.051	.048
15.719	4.491	.057	.057	.057	.058	.058	.058	.058	.058	.058	.059	.060	.062	.065	.067	.069	.071	.073	.071	.073	.054	.033	.028	.017	.017	.020	.013	.018	.015
14.596	4.491	.075	.075	.075	.075	.075	.076	.080	.085	.087	.090	.095	.097	.100	.102	.103	.085	.066	.049	.045	.040	.038	.043	.041	.041	.042	.042	.041	.041
13.473	4.491	-.065	-.059	-.046	-.028	-.004	.010	.031	.044	.060	.065	.060	.055	.045	.033	.021	.020	.021	.028	.029	.024	.024	.016	.033	.032	.036	.033	.040	.034
12.350	4.491	-.078	-.077	-.073	-.071	-.065	-.063	-.060	-.051	-.051	-.052	-.049	-.044	-.040	-.028	-.030	-.019	-.002	.003	.014	.013	.015	.018	.019	.020	.023	.024	.025	.023
11.228	4.491	-.080	-.080	.080	-.080	-.080	-.080	-.080	-.080	-.080	-.080	.080	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.081	-.079	-.078	-.072	-.064	-.054	-.029	.008	.002	.010
10.105	4.491	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069	-.069
8.982	4.491	-.037	-.037	-.037	-.037	-.036	-.035	-.034	-.035	-.036	-.036	-.035	-.035	-.035	-.035	-.035	-.037	-.035	-.036	-.034	-.036	-.037	-.035	-.035	-.036	-.037	-.034	-.036	-.037
7.859	4.491	-.001	-.002	-.001	-.001	0	0	.001	.001	-.001	-.001	0	0	0	0	0	0	0	0	.001	0	-.001	.001	-.001	-.001	.001	-.003	-.003	-.003
6.737	4.491	.029	.029	.029	.029	.029	.029	.031	.030	.030	.030	.030	.030	.030	.030	.030	.029	.029	.029	.028	.028	.026	.026	.028	.028	.028	.028	.028	.028
5.614	4.491	.051	.051	.051	.051	.052	.052	.052	.052	.052	.052	.052	.052	.052	.052	.052	.052	.051	.049	.051	.049	.047	.052	.049	.049	.052	.049	.049	.049
4.491	4.491	.070	.070	.071	.071	.073	.073	.073	.073	.073	.073	.073	.073	.073	.073	.073	.073	.073	.073	.074	.074	.073	.075	.073	.073	.075	.073	.075	.073
15.719	7.485	.055	.055	.055	.055	.056	.056	.061	.063	.064	.069	.070	.073	.074	.078	.082	.082	.079	.060	.050	.034	.033	.035	.032	.031	.032	.031	.032	.031
14.596	7.485	-.054	-.049	-.044	-.032	-.010	.004	.021	.040	.055	.070	.076	.076	.074	.065	.055	.040	.040	.042	.045	.044	.045	.047	.046	.046	.049	.048	.048	.051
13.473	7.485	-.047	-.047	-.047	-.047	-.047	-.047	-.047	-.047	-.045	-.043	-.041	-.042	-.041	-.041	-.041	-.040	-.032	-.010	.009	.030	.040	.047	.053	.054	.058	.056	.059	.056
12.350	7.485	-.033	-.033	-.033	-.033	-.033	-.030	-.031	-.031	-.030	-.031	-.031	-.032	-.033	-.032	-.035	-.035	-.034	-.031	-.031	-.032	-.033	-.032	-.031	-.031	-.029	-.020	-.008	-.003
11.228	7.485	-.026	-.027	-.026	-.026	-.026	-.026	-.026	-.026	-.026	-.026	-.027	-.027	-.027	-.027	-.027	-.029	-.029	-.029	-.028	-.030	-.031	-.028	-.028	-.029	-.029	-.028	-.031	-.031
10.105	7.485	-.045	-.045	-.045	-.044	-.044	-.044	-.044	-.044	-.045	-.045	-.044	-.046	-.029	-.050	-.050	-.050	-.050	-.050	-.048	-.049	-.050	-.048	-.050	-.048	-.047	-.052	-.050	-.051
8.982	7.485	-.026	-.026	-.027	-.026	-.025	-.026	-.026	-.026	-.026	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027	-.027
7.859	7.485	.001	.001	0	.002	.002	.003	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	-.002	.001	-.001	-.001	.001	-.002	-.001	-.003
13.473	11.976	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.025	-.024	-.026	-.025	-.024	-.024	-.024	-.024	-.024	-.024	-.024
12.350	11.976	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004
15.719	14.221	-.068	-.068	-.068	-.068	-.067	-.067	-.066	-.066	-.067	-.067	-.068	-.068	-.068	-.068	-.068	-.068	-.068	-.068	-.068	-.068	-.070	-.069	-.070	-.070	-.067	-.070	-.069	-.071

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(d) Test position D (downstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_T/p_∞ of -																											
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
8.982	0	-0.035	-0.035	-0.029	-0.022	-0.018	-0.014	-0.015	-0.008	-0.002	0.003	0.007	0.012	0.013	-0.004	-0.070	-0.075	-0.081	-0.081	-0.081	-0.083	-0.083	-0.082	-0.081	-0.080	-0.080	-0.081	-0.082	-0.082
7.859	0	-.021	-.012	-.004	.004	.010	.017	.026	.034	.037	.026	-.008	-.029	-.059	-.059	-.060	-.059	-.059	-.059	-.059	-.057	-.056	-.054	-.053	-.053	-.053	-.053	-.053	-.052
6.737	0	-.040	-.024	-.004	.015	.025	.027	.024	.006	-.045	-.055	-.056	-.055	-.054	-.051	- 049	-.047	-.045	-.044	-.043	-.040	-.040	-.059	-.038	-.035	-.033	-.031	-.029	-.027
5.614	0	-.047	-.035	-.020	-.007	-.001	-.022	-.043	-.045	-.044	-.042	-.038	-.032	-.030	-.029	-.025	-.024	-.020	-.019	-.013	-.013	-.011	-.007	-.005	-.003	.001	.001	.002	.005
4.491	0	-.107	-.098	-.090	-.087	-.084	-.080	-.077	-.069	-.055	-.040	-.027	-.017	-.013	-.004	.003	.005	.013	.017	.020	.023	.025	.030	.034	.036	.039	.042	.044	.045
3.368	0	-.170	-.170	-.168	-.168	-.168	-.168	-.168	-.168	-.168	-.168	-.166	-.165	-.163	-.162	-.146	-.132	-.117	-.096	-.077	-.066	-.056	-.047	-.036	-.027	-.019	-.009	-.001	.005
2.246	0	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	- 136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136	-.136
1.123	0	-.070	-.068	-.068	-.068	-.068	-.068	-.068	-.068	-.070	-.069	-.069	-.069	-.069	-.070	-.070	-.070	-.070	-.070	-.070	-.070	-.070	-.070	-.070	-.070	-.070	-.070	-.070	-.070
0	0	.012	.012	.012	.012	.012	.012	.012	.010	.010	.010	.010	.011	.011	.010	.010	.010	.010	.010	.010	.011	.011	.011	.012	.012	.012	.012	.013	.013
-1.123	0	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035	.035
-2.246	0	.040	.040	.040	.040	.040	.040	.040	.040	.040	.041	.041	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040	.040
-3.368	0	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060	.060
8.982	1.497	-.030	-.028	-.026	-.021	-.016	-.009	-.005	.001	.005	.011	.014	.021	.015	-.030	-.080	-.080	-.080	-.080	-.080	-.080	-.080	-.080	-.080	-.080	-.080	-.080	-.080	-.080
7.859	1.497	-.026	-.016	-.004	.007	.016	.025	.033	.037	.038	.015	-.035	-.064	-.064	-.065	-.060	-.060	-.059	-.058	-.058	-.058	-.057	-.056	-.055	-.055	-.055	-.055	-.053	-.052
6.737	1.497	-.045	-.027	-.011	.005	.016	.015	.001	-.021	-.046	-.058	-.054	-.054	-.050	-.047	-.046	-.045	-.041	-.040	-.038	-.036	-.035	- 030	-.029	-.029	-.024	-.026	-.025	-.023
5.614	1.497	-.056	-.042	-.028	-.022	-.020	-.030	-.045	-.044	-.040	-.036	-.034	-.027	.025	-.020	-.020	-.016	-.015	-.010	-.007	-.006	-.005	0	.001	.002	.003	.004	.007	.010
3.368	1.497	-.165	-.165	-.165	-.165	-.165	-.165	-.165	-.165	-.165	-.165	-.165	-.165	-.165	-.165	-.164	-.164	-.161	-.159	-.154	-.146	-.140	-.129	-.115	-.100	-.080	-.062	-.045	-.030
2.246	1.497	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120	-.120
1.123	1.497	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054	-.054
0	1.497	.016	.016	.015	.014	.014	.014	.014	.015	.015	.015	.015	.015	.015	.016	.016	.017	.017	.017	.016	.015	.015	.015	.015	.016	.018	.018	.016	.017
-1.123	1.497	.036	.036	.036	.035	.035	.035	.035	.035	.035	.035	.036	.036	.037	.037	.037	.037	.037	.037	.037	.038	.038	.036	.036	.037	.037	.037	.037	.037
-2.246	1.497	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049	.049
-3.368	1.497	.046	.045	.045	.046	.046	.046	.046	.046	.047	.046	.047	.047	.047	.047	.047	.047	.047	.047	.048	.048	.048	.048	.048	.050	.050	.050	.050	.050
8.982	4.491	-.065	-.050	-.037	-.030	-.024	-.017	-.014	-.015	-.021	-.045	-.075	-.081	.082	.080	.078	.076	.076	.076	.075	.075	.075	.074	.073	.073	.072	.071	.070	.070
7.859	4.491	-.090	-.074	-.055	-.045	-.042	-.045	-.054	-.065	-.073	-.075	-.073	-.070	-.068	-.065	-.063	-.060	-.058	-.054	-.052	-.051	-.049	-.045	-.045	-.044	-.042	-.040	-.040	-.039
6.737	4.491	-.165	-.162	-.156	-.155	-.157	-.160	-.160	-.163	-.153	- 127	-.105	-.084	-.070	-.065	-.058	-.053	-.047	-.045	-.040	-.036	-.035	-.030	-.026	-.025	-.025	-.024	-.022	-.020
5.614	4.491	- 160	-.160	-.160	-.160	-.160	-.160	-.160	-.160	-.160	-.160	-.160	-.159	-.155	-.153	-.152	-.149	-.147	-.130	-.112	-.094	-.080	-.060	-.050	-.041	-.035	-.028	-.023	-.018
4.491	4.491	-.138	-.138	-.138	- 138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138	-.138
3.368	4.491	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101	-.101
2.246	4.491	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041	-.041
1.123	4.491	.014	.014	.014	.014	.014	.014	.014	.014	.015	.015	.015	.015	.015	.015	.015	.015	.015	.013	.012	.013	.013	.013	.013	.013	.013	.013	.013	.015
0	4.491	.032	.034	.033	.032	.032	.032	.032	.032	.031	.031	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033
-1.123	4.491	.042	.042	.041	.041	.041	.041	.041	.040	.040	.039	.040	.042	.042	.041	.041	.041	.041	.042	.041	.040	.040	.044	.044	.043	.043	.040	.040	.041
-2.246	4.491	.040	.040	.040	.040	.036	.036	.036	.035	.035	.036	.036	.038	.039	.040	.039	.039	.039	.039	.038	.038	.036	.036	.039	.039	.042	.038	.038	.038
8.982	7.485	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.141	-.126	-.105	-.087	-.071	-.062	-.062	-.052	-.050	-.050	-.049	-.048	-.045	-.043
7.859	7.485	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.145	-.143	-.137	-.128	-.117	-.099	-.087
6.737	7.485	-.126	-.126	-.126	-.126	-.126	-.126	-.126	-.126	-.126	-.126	-.126	-.126	-.126	-.127	-.127	-.127	-.127	-.128	-.128	-.128	-.128	-.128	-.128	-.127	-.127	-.127	-.127	-.127
5.614	7.485	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096	-.096
4.491	7.485	-.073	-.073	-.070	-.070	-.071	-.073	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.072	-.070	-.070	-.070	-.070	-.070	-.070
3.368	7.485	-.057	-.057	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.056	-.058	-.058	-.058	-.058	-.058	-.058
2.246	7.485	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038	-.038
1.123	7.485	-.004	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005
6.737	11.976	-.019	-.019	-.019	-.020	-.020	-.020	-.020	-.020	-.021	-.021	-.022	-.022	-.021	-.021	-.022	-.022	-.022	-.023	-.023	-.023	-.024	-.024	-.024	-.025	-.023	-.025	-.024	-.025
5.614	11.976	-.023	-.023	-.023	-.025	-.025	-.025	-.025	-.025	-.024	-.026	-.023	-.023	-.023	-.023	-.024	-.025	-.025	-.026	-.027	-.027	-.028	-.027	-.028	-.028	-.029	-.030	-.031	-.030
8.982	14.221	-.017	-.017	-.017	-.017	-.017	-.017	-.017	-.017	-.018	-.018	-.018	-.016	-.016	-.017	-.017	-.016	-.016	-.016	-.016	-.016	-.016	-.016	-.016	-.016	-.016	-.016	-.016	-.016

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(e) Test position E (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																												
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
-1.123	0	0.062	0.006	-0.025	-0.042	-0.070	-0.089	-0.110	-0.130	-0.158	-0.167	-0.180	-0.190	-0.190	-0.186	-0.191	-0.197	-0.190	-0.196	-0.191	-0.174	-0.171	-0.185	-0.168	-0.181	-0.189	-0.188	-0.209	-0.203
0	0	.092	.047	.022	0	-.021	-.060	-.083	-.108	-.128	-.150	-.166	-.170	-.172	-.183	-.190	-.195	-.194	-.189	-.185	-.174	-.175	-.173	-.172	-.182	- 8	-.168	-.172	-.184
1.123	0	.120	.100	.089	.080	.068	.058	.045	.034	.021	.008	-.006	-.023	-.040	-.057	-.081	-.141	-.158	-.152	-.147	-.159	-.166	-.151	-.155	-.165	-.138	-.111	-.106	-.106
2.246	0	.055	.084	.104	.118	.130	.141	.150	.159	.164	.159	.150	.138	.125	.106	.074	-.030	-.060	-.070	-.071	-.075	-.085	-.100	-.110	-.109	-.050	.011	.050	0
3.368	0	.120	.150	.165	.175	.186	.195	.205	.211	.216	.218	.218	.216	.215	.214	.181	.114	.075	.090	.089	.070	.047	.060	.076	.098	.120	.145	.165	.160
4.491	0	.150	.220	.258	.290	.315	.335	.360	.378	.405	.435	.458	.485	.504	.510	.510	.412	.295	.324	.270	.225	.170	.193	.203	.170	.224	.271	.297	.305
5.614	0	.160	.237	.275	.304	.320	.340	.355	.375	.395	.415	.438	.455	.475	.482	.537	.524	.490	.453	.410	.341	.305	.285	.260	.271	.306	.340	.371	.364
6.737	0	.104	.140	.170	.192	.208	.224	.240	.259	.271	.286	.299	.314	.326	.338	.390	.504	.552	.525	.506	.475	.450	.420	.390	.365	.360	.386	.407	.407
7.859	0	.055	.079	.100	.119	.131	.142	.151	.160	.170	.182	.192	.203	.211	.220	.248	.305	.343	.373	.422	.448	.465	.483	.483	.410	.440	.449	.460	.465
8.982	0	.033	.053	.068	.082	.095	.105	.120	.130	.145	.159	.168	.181	.192	.203	.225	.215	.204	.253	.315	.380	.424	.479	.472	.476	.508	.496	.478	.466
10.105	0	.041	.060	.076	.090	.099	.107	.115	.123	.130	.139	.150	.160	.173	.184	.195	.210	.178	.205	.234	.274	.300	.325	.360	.390	.442	.465	.471	.475
11.228	0	.047	.065	.075	.084	.090	.099	.105	.109	.117	.125	.135	.141	.149	.155	.174	.199	.205	.211	.209	.225	.224	.243	.286	.287	.337	.368	.353	.376
-1.123	1.497	.065	.025	-.008	-.038	-.063	-.088	-.114	-.112	-.131	-.150	-.165	-.179	-.190	-.203	-.203	-.205	-.213	-.208	-.205	-.190	-.190	-.195	-.189	-.196	-.200	-.197	-.200	-.212
0	1.497	.101	.065	.043	.021	-.002	-.020	-.038	-.053	-.070	-.085	-.097	-.109	-.121	-.130	-.141	-.155	-.168	-.181	-.176	-.178	-.185	-.181	-.177	-.180	-.180	-.176	-.168	-.184
1.123	1.497	.106	.096	.084	.073	.066	.058	.048	.039	.027	.015	.003	-.002	-.027	-.040	-.066	-.111	-.124	-.139	-.150	-.140	-.162	-.149	-.143	-.157	-.138	-.117	-.093	-.124
2.246	1.497	.060	.095	.120	.135	.146	.155	.167	.176	.171	.168	.165	.159	.153	.142	.094	-.005	-.025	-.036	-.042	-.048	-.056	-.050	-.039	-.042	-.010	.022	.045	-.006
3.368	1.497	.115	.155	.185	.210	.235	.255	.276	.292	.308	.316	.321	.327	.332	.335	.300	.175	.140	.135	.103	.074	.065	.075	.089	.044	.117	.163	.220	.146
4.491	1.497	.014	.053	.085	.125	.150	.185	.225	.254	.274	.305	.335	.365	.388	.412	.460	.403	.318	.297	.290	.200	.173	.223	.130	.142	.161	.223	.294	.257
5.614	1.497	.045	.079	.120	.156	.190	.221	.224	.275	.308	.347	.384	.429	.480	.526	.549	.587	.542	.509	.464	.420	.364	.364	.306	.338	.322	.331	.361	.390
6.737	1.497	.092	.128	.160	.183	.204	.222	.238	.250	.265	.278	.295	.310	.330	.358	.386	.430	.460	.524	.500	.460	.398	.435	.342	.353	.385	.399	.428	.414
7.859	1.497	.065	.117	.135	.149	.163	.175	.190	.209	.215	.226	.241	.258	.274	.285	.328	.350	.380	.415	.435	.454	.472	.485	.492	.495	.498	.499	.503	.505
8.982	1.497	.050	.073	.086	.100	.110	.120	.130	.140	.150	.158	.170	.180	.189	.202	.220	.240	.274	.308	.342	.369	.385	.396	.406	.419	.425	.453	.433	.444
10.105	1.497	-.024	-.041	-.050	-.056	-.063	-.068	-.073	-.080	-.085	-.091	-.099	-.105	-.114	-.122	-.142	-.195	-.208	-.210	-.212	-.212	-.210	-.222	-.245	-.270	-.295	-.316	-.331	-.333
11.228	1.497	-.035	-.056	-.069	-.072	-.089	-.099	-.110	-.122	-.132	-.144	-.155	-.166	-.177	-.189	-.215	-.224	-.235	-.250	------	------	------	------	------	------	------	------	------	------
-1.123	4.491	.050	.030	.003	-.025	-.035	-.048	-.058	-.065	-.077	-.081	-.086	-.091	-.097	-.108	-.120	-.130	-.080	-.092	-.149	-.152	-.154	-.155	-.153	-.157	-.167	-.161	-.160	-.171
0	4.491	.118	.108	.099	.087	.070	.069	.058	.050	.041	.030	.018	.002	-.010	-.024	-.040	-.057	.079	-.100	-.106	-.104	-.107	-.115	-.117	-.118	-.118	-.113	-.109	-.142
1.123	4.491	.027	.055	.075	.095	.109	.116	.123	.125	.126	.124	.118	.109	.095	.076	.058	.007	-.015	-.042	-.049	-.046	-.050	-.050	-.050	-.062	-.059	-.048	-.021	-.069
2.246	4.491	.053	.077	.103	.119	.138	.148	.157	.169	.173	.177	.180	.180	.180	.177	.155	.099	.077	.054	.079	.127	.140	.145	.140	.110	.025	.059	.054	.018
3.368	4.491	.053	.088	.120	.143	.162	.179	.195	.209	.225	.238	.250	.260	.265	.269	.268	.214	.174	.166	.156	.130	.101	.108	.107	.075	.107	.120	.143	.130
4.491	4.491	.055	.082	.112	.141	.150	.158	.165	.221	.230	.245	.255	.266	.276	.286	.325	.296	.255	.250	.243	.185	.172	.185	.181	.175	.176	.197	.280	.195
5.614	4.491	.082	.120	.146	.162	.177	.191	.202	.217	.220	.224	.225	.236	.250	.270	.301	.299	.296	.295	.290	.230	.187	.237	.237	.219	.241	.257	.311	.255
6.737	4.491	.063	.095	.112	.125	.136	.148	.165	.178	.185	.192	.205	.216	.227	.235	.249	.261	.270	.278	.286	.292	.297	.300	.300	.295	.294	.288	.281	.267
7.859	4.491	.073	.077	.111	.123	.134	.142	.151	.159	.166	.175	.183	.191	.202	.215	.245	.229	.238	.290	.312	.322	.327	.335	.338	.332	.326	.336	.358	.355
8.982	4.491	.049	.042	.077	.086	.096	.105	.117	.124	.135	.147	.159	.146	.182	.196	.223	.223	.200	.221	.259	.294	.257	.303	.335	.284	.320	.358	.375	.385
10.105	4.491	.039	.052	.063	.070	.081	.086	.094	.101	.110	.119	.129	.138	.147	.158	.181	.197	.208	.223	.233	.244	.197	.155	.174	.246	.302	.363	.358	.366
-1.123	7.485	.069	.068	.066	.065	.055	.045	.035	.020	.013	.007	.005	.003	.002	.002	-.010	-.025	-.045	-.052	-.063	-.067	-.075	-.075	-.075	-.081	-.080	-.081	-.073	-.095
0	7.485	.018	.035	.048	.061	.069	.075	.084	.089	.089	.085	.080	.074	.067	.060	.045	.020	0	-.010	-.021	-.026	-.032	-.036	-.042	-.044	-.041	-.041	-.034	-.056
1.123	7.485	.035	.052	.073	.086	.097	.109	.116	.123	.127	.129	.130	.129	.127	.118	.107	.090	.065	.035	.020	.019	.014	.005	-.002	.001	.010	.015	.022	.001
2.246	7.485	.021	.050	.073	.095	.117	.130	.143	.152	.156	.165	.170	.175	.177	.177	.176	.104	.099	.095	.091	.092	.059	.061	.028	.036	.078	.070	.065	.059
3.368	7.485	.079	.125	.145	.158	.165	.173	.179	.183	.188	.191	.194	.195	.196	.194	.189	.151	.130	.130	.125	.114	.106	.101	.095	.119	.130	.142	.162	.139
4.491	7.485	.020	.047	.065	.085	.110	.113	.125	.133	.138	.140	.146	.160	.175	.192	.209	.175	.136	.196	.168	.148	.123	.141	.152	.110	.135	.160	.179	.154
5.614	7.485	.025	.046	.067	.081	.095	.106	.118	.128	.137	.150	.166	.172	.181	.187	.197	.205	.211	.216	.223	.218	.205	.180	.155	.126	.150	.165	.175	.201
6.737	7.485	.055	.074	.090	.105	.120	.137	.155	.175	.194	.219	.230	.220	.204	.181	.182	.181	.174	.200	.220	.206	.190	.212	.184	.191	.225	.245	.280	.280
-1.123	11.976	-.015	-.015	-.016	-.017	-.017	-.017	-.019	-.020	-.019	-.019	-.020	-.020	-.020	-.020	-.020	-.017	-.017	-.017	-.017	-.017	-.017	-.017	-.019	-.019	-.019	-.019	-.019	-.019
1.123	11.976	.024	.050	.068	.077	.088	.095	.105	.112	.120	.126	.132	.135	.139	.140	.139	.118	.093	.089	.076	.081	.077	.067	.079	.068	.070	.070	.087	.051
2.246	11.976	.021	.042	.060	.074	.086	.097	.106	.115	.125	.135	.142	.148	.155	.159	.162	.140	.112	.127	.119	.101	.106	.095	.108	.090	.101	.107	.097	.095
3.368	14.221	.006	.021	.033	.040	.049	.058	.064	.070	.076	.080	.084	.086	.087	.086	.084	.061	.034	.028	.015	.002	-.003	-.113	-.015	-.015	-.015	.001	-.009	-.031

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(f) Test position F (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																									
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
-1.123	0	0.013	0.020	0.030	0.041	0.052	0.064	0.076	0.088	0.100	0.113	0.120	0.120	0.095	0.060	0.034	0.020	0.015	0.009	0.004	-0.010	-0.016	-0.019	-0.020	-0.020	-0.020
0	0	.028	.042	.057	.072	.085	.096	.112	.128	.144	.158	.172	.166	.145	.114	.095	.080	.070	.061	.060	.052	.047	.030	.021	.021	.021
1.123	0	.030	.045	.060	.075	.094	.108	.122	.140	.160	.182	.205	.215	.205	.184	.170	.156	.144	.130	.118	.105	.093	.084	.074	.074	.074
2.246	0	.040	.049	.067	.095	.115	.135	.155	.173	.191	.210	.226	.244	.260	.268	.250	.230	.215	.212	.210	.200	.177	.165	.165	.165	.165
3.368	0	.145	.170	.185	.200	.213	.225	.240	.254	.265	.277	.285	.293	.302	.305	.305	.300	.290	.281	.272	.260	.250	.245	.235	.235	.235
4.491	0	.045	.063	.081	.100	.113	.127	.145	.163	.173	.195	.215	.231	.250	.350	.365	.360	.357	.354	.345	.340	.340	.340	.340	.340	.340
5.614	0	.055	.069	.084	.106	.115	.130	.144	.160	.172	.188	.196	.210	.262	.330	.350	.369	.375	.375	.373	.370	.367	.366	.361	.361	.361
6.737	0	.025	.039	.050	.060	.070	.082	.092	.105	.116	.125	.134	.155	.201	.265	.290	.325	.352	.378	.390	.412	.413	.413	.413	.413	.413
7.859	0	.010	.015	.022	.027	.027	.036	.044	.050	.058	.065	.072	.105	.149	.197	.224	.255	.276	.299	.312	.380	.387	.390	.420	.420	.420
8.982	0	.007	.007	.007	.007	.009	.010	.014	.020	.020	.021	.025	.040	.070	.100	.180	.210	.230	.249	.260	.321	.330	.340	.380	.382	.400
10.105	0	.004	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.015	.036	.075	.125	.165	.194	.215	.243	.250	.268	.306	.302	.340
11.228	0	0	.003	.004	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.015	.030	.065	.100	.140	.186	.197	.212	.237	.237	.251
-1.123	1.497	.088	.101	.118	.132	.150	.165	.180	.192	.190	.175	.159	.140	.125	.110	.100	.089	.076	.070	.065	.056	.048	.045	.041	.041	.041
0	1.497	.027	.041	.055	.072	.082	.091	.106	.126	.146	.165	.178	.183	.150	.112	.098	.085	.075	.069	.067	.050	.038	.038	.038	.038	.038
1.123	1.497	.033	.040	.062	.075	.093	.108	.125	.142	.160	.177	.182	.197	.197	.172	.168	.140	.125	.123	.120	.102	.094	.092	.080	.080	.080
2.246	1.497	.080	.100	.120	.142	.161	.185	.210	.242	.267	.276	.275	.270	.265	.255	.248	.225	.215	.212	.200	.195	.174	.173	.173	.173	.173
3.368	1.497	.055	.075	.100	.125	.145	.165	.192	.222	.242	.265	.285	.295	.302	.305	.298	.291	.274	.273	.266	.253	.240	.243	.221	.247	.234
4.491	1.497	.006	.008	.017	.035	.046	.065	.094	.125	.156	.192	.228	.267	.302	.323	.333	.334	.329	.325	.322	.319	.311	.301	.289	.289	.289
5.614	1.497	.020	.025	.037	.055	.065	.080	.100	.125	.155	.185	.224	.265	.305	.341	.380	.398	.408	.415	.415	.399	.395	.390	.375	.362	.352
6.737	1.497	.040	.052	.067	.080	.091	.101	.120	.139	.160	.177	.192	.217	.246	.285	.316	.340	.365	.380	.390	.393	.393	.393	.393	.393	.393
7.859	1.497	.016	.023	.031	.041	.050	.059	.070	.087	.098	.114	.127	.150	.185	.240	.277	.305	.335	.360	.374	.405	.445	.450	.477	.462	.462
8.982	1.497	.015	.021	.026	.027	.027	.028	.032	.038	.045	.052	.058	.076	.101	.175	.265	.310	.340	.365	.390	.424	.465	.495	.565	.575	.575
10.105	1.497	0	0	0	0	0	0	.003	.005	.005	.005	.005	.006	.009	.022	.050	.095	.155	.195	.205	.227	.252	.277	.304	.320	.335
11.228	1.497	0	0	0	0	0	0	0	0	0	0	0	0	0	.001	.005	.064	.040	.074	.125	.196	.215	.230	.240	.262	.274
-1.123	4.491	.027	.040	.052	.067	.076	.090	.105	.119	.122	.110	.095	.082	.071	.060	.051	.044	.037	.027	.022	.015	.009	.003	.001	-.002	-.002
0	4.491	-.034	-.010	.006	.025	.045	.070	.100	.125	.135	.125	.110	.095	.085	.070	.060	.046	.035	.030	.026	.015	.008	.001	-.008	-.008	-.008
1.123	4.491	.040	.060	.080	.101	.121	.146	.176	.203	.225	.230	.220	.213	.204	.194	.185	.172	.158	.154	.152	.130	.127	.127	.127	.127	.127
2.246	4.491	.071	.092	.119	.135	.148	.165	.174	.192	.212	.231	.250	.274	.270	.260	.250	.240	.230	.225	.225	.205	.198	.182	.175	.175	.175
3.368	4.491	.065	.084	.102	.122	.190	.156	.182	.210	.239	.261	.280	.295	.305	.309	.309	.301	.295	.290	.285	.275	.270	.260	.250	.250	.250
4.491	4.491	.048	.066	.085	.102	.121	.141	.161	.182	.205	.229	.250	.274	.295	.316	.331	.336	.335	.334	.331	.326	.322	.318	.311	.304	.295
5.614	4.491	.052	.070	.085	.097	.109	.121	.137	.157	.177	.196	.212	.230	.255	.275	.300	.315	.326	.333	.335	.334	.330	.325	.318	.310	.300
6.737	4.491	.026	.035	.045	.052	.058	.065	.077	.092	.107	.120	.130	.150	.183	.215	.245	.274	.295	.310	.315	.337	.337	.337	.337	.337	.337
7.859	4.491	.011	.016	.020	.025	.027	.032	.039	.049	.056	.065	.070	.081	.108	.165	.195	.222	.239	.258	.275	.295	.315	.330	.343	.343	.343
8.982	4.491	0	0	.002	.004	.005	.006	.008	.009	.009	.009	.010	.013	.020	.050	.120	.165	.200	.220	.226	.260	.275	.290	.295	.300	.330
10.105	4.491	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.014	.032	.070	.120	.170	.194	.223	.231	.250	.287	.297	.300
-1.123	7.485	-.020	-.028	-.035	-.045	-.063	-.076	-.088	-.098	-.110	-.130	-.150	-.150	-.132	-.110	-.096	-.090	-.085	-.080	-.072	-.060	-.055	-.054	-.050	-.050	-.050
0	7.485	.042	.056	.078	.096	.113	.132	.151	.170	.180	.175	.172	.166	.158	.149	.142	.131	.120	.116	.110	.103	.095	.091	.085	.090	.090
1.123	7.485	.051	.064	.087	.099	.110	.120	.131	.145	.158	.171	.185	.196	.206	.205	.196	.190	.175	.175	.175	.165	.155	.153	.150	.150	.150
2.246	7.485	.045	.065	.085	.105	.120	.140	.160	.190	.218	.235	.254	.264	.270	.270	.267	.260	.254	.247	.240	.237	.232	.227	.220	.217	.215
3.368	7.485	.100	.127	.148	.165	.181	.196	.215	.235	.247	.257	.266	.273	.281	.284	.290	.289	.289	.285	.282	.277	.272	.267	.267	.267	.267
4.491	7.485	.045	.055	.072	.087	.101	.120	.140	.165	.183	.200	.217	.233	.255	.278	.291	.299	.302	.304	.304	.304	.304	.304	.304	.304	.304
5.614	7.485	.030	.041	.053	.062	.071	.080	.092	.110	.125	.140	.160	.180	.205	.244	.270	.279	.285	.297	.301	.304	.308	.308	.308	.308	.308
6.737	7.485	.022	.027	.034	.040	.047	.052	.063	.070	.077	.087	.096	.110	.134	.185	.216	.235	.248	.265	.275	.285	.298	.310	.315	.315	.315
-1.123	11.976	.022	.035	.048	.060	.070	.082	.099	.119	.130	.137	.141	.141	.141	.140	.136	.128	.120	.120	.119	.110	.098	.090	.080	.077	.073
1.123	11.976	.036	.050	.063	.076	.088	.100	.115	.130	.145	.165	.172	.195	.201	.206	.206	.205	.195	.195	.195	.195	.205	.173	.173	.173	.173
2.246	11.976	.025	.040	.052	.065	.075	.086	.102	.118	.134	.150	.169	.186	.205	.222	.231	.230	.227	.225	.225	.223	.218	.212	.210	.209	.203
-1.123	14.221	.020	.035	.047	.059	.065	.070	.082	.097	.115	.125	.131	.145	.150	.150	.150	.147	.140	.130	.125	.111	.094	.088	.076	.078	.065

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR POCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(g) Test position G (upstream firing)

Orifice ordinates		Pressure coefficients for pocket-pressure ratio p_c/p_∞ of -																													
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
-1.123	0	-0.009	0.003	0.012	0.020	0.026	0.032	0.044	0.047	0.051	0.053	0.055	0.057	0.057	0.056	0.053	0.052	0.051	0.045	0.044	0.028	0.019	0.011	0.025	0.008	0.006	0.015	0.011	0.004
0	0	.033	.047	.062	.072	.081	.090	.097	.103	.104	.107	.109	.112	.114	.115	.117	.118	.117	.114	.113	.111	.100	.074	.063	.068	.070	.075	.073	.061
1.123	0	.050	.047	.065	.080	.095	.110	.123	.135	.147	.156	.165	.171	.175	.177	.178	.178	.175	.166	.166	.147	.131	.130	.118	.110	.113	.132	.128	.097
2.246	0	.044	.060	.076	.092	.110	.125	.140	.155	.166	.178	.187	.197	.205	.213	.220	.225	.225	.215	.212	.199	.181	.175	.156	.174	.166	.175	.160	.147
3.368	0	.138	.150	.165	.175	.185	.195	.204	.210	.216	.224	.230	.236	.240	.245	.249	.250	.250	.250	.248	.235	.215	.218	.224	.217	.199	.209	.183	.180
4.491	0	.063	.080	.100	.118	.135	.147	.155	.168	.180	.190	.200	.218	.232	.247	.260	.275	.290	.290	.292	.289	.270	.264	.234	.249	.250	.260	.243	.229
5.614	0	.069	.088	.107	.123	.137	.152	.166	.177	.184	.200	.208	.220	.231	.245	.255	.265	.280	.295	.300	.305	.310	.308	.302	.294	.280	.285	.278	.275
6.737	0	.075	.090	.108	.120	.135	.140	.155	.165	.175	.182	.190	.205	.220	.234	.249	.265	.280	.296	.305	.322	.335	.346	.353	.341	.342	.331	.334	.300
7.859	0	.042	.054	.065	.075	.085	.094	.104	.112	.120	.129	.135	.146	.160	.174	.185	.199	.210	.230	.246	.286	.295	.320	.324	.328	.335	.333	.340	.317
8.982	0	.014	.019	.025	.030	.036	.042	.049	.054	.058	.064	.071	.074	.080	.090	.105	.125	.145	.165	.190	.217	.247	.265	.280	.298	.312	.321	.329	.328
10.105	0	.009	.014	.012	.017	.020	.020	.020	.020	.025	.025	.025	.027	.030	.035	.039	.045	.056	.080	.119	.185	.209	.219	.225	.235	.245	.255	.271	.291
11.228	0	.003	.005	.005	.004	.004	.004	.004	.005	.005	.005	.006	.007	.009	.010	.010	.015	.017	.034	.062	.108	.138	.155	.163	.170	.218	.220	.230	.234
0	1.497	.032	.047	.059	.072	.082	.094	.105	.117	.130	.140	.149	.147	.144	.140	.136	.132	.123	.118	.115	.093	.088	.084	.080	.074	.070	.085	.080	.070
1.123	1.497	.031	.046	.059	.073	.083	.095	.104	.123	.129	.140	.148	.153	.155	.153	.155	.156	.157	.156	.157	.143	.118	.115	.129	.110	.108	.112	.108	.106
2.246	1.497	.050	.064	.080	.093	.105	.117	.129	.140	.150	.160	.167	.174	.180	.186	.194	.202	.214	.210	.200	.193	.187	.175	.176	.177	.172	.162	.160	.140
3.368	1.497	.055	.070	.084	.095	.110	.120	.135	.149	.160	.174	.185	.200	.215	.226	.238	.248	.255	.260	.257	.244	.235	.220	.237	.223	.221	.228	.228	.189
4.491	1.497	-.005	.001	.012	.015	.026	.040	.056	.073	.090	.105	.120	.136	.160	.187	.215	.240	.255	.270	.270	.270	.270	.270	.270	.270	.270	.270	.270	.270
5.614	1.497	.010	.028	.041	.052	.063	.072	.085	.104	.130	.160	.194	.220	.244	.265	.285	.303	.312	.321	.325	.332	.323	.311	.300	.312	.322	.318	.317	.306
6.737	1.497	.049	.060	.075	.087	.094	.112	.123	.136	.147	.160	.173	.188	.206	.225	.244	.260	.275	.287	.300	.310	.320	.330	.330	.330	.330	.330	.330	.330
7.859	1.497	.036	.050	.058	.073	.082	.093	.102	.112	.121	.130	.141	.158	.176	.190	.205	.218	.239	.265	.285	.218	.332	.371	.376	.385	.386	.381	.380	.370
8.982	1.497	.015	.023	.030	.034	.039	.044	.047	.051	.055	.060	.065	.069	.075	.090	.105	.120	.135	.150	.175	.210	.243	.270	.290	.296	.320	.321	.321	.341
10.105	1.497	.004	.006	.006	.006	.006	.007	.009	.010	.012	.015	.015	.015	.015	.017	.020	.024	.028	.045	.085	.160	.180	.236	.235	.265	.270	.273	.283	.306
11.228	1.497	.001	0	0	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.002	.003	.003	.005	.010	.030	.046	.108	.140	.165	.202	.210	.216	.213	-----
-1.123	4.491	.003	.015	.022	.030	.037	.045	.054	.067	.080	.095	.108	.105	.100	.094	.086	.078	.070	.065	.057	.049	.048	.045	.044	.026	.026	.029	.014	.004
0	4.491	.015	.030	.045	.056	.066	.080	.097	.115	.129	.142	.151	.154	.155	.154	.151	.141	.133	.126	.125	.114	.110	.099	.101	.082	.085	.096	.076	.063
1.123	4.491	.028	.042	.053	.065	.076	.086	.100	.110	.120	.134	.145	.156	.165	.174	.179	.181	.182	.173	.179	.172	.162	.147	.157	.139	.137	.145	.146	.110
2.246	4.491	.055	.069	.083	.096	.107	.117	.126	.135	.142	.151	.160	.169	.178	.188	.200	.210	.220	.220	.215	.210	.196	.184	.195	.186	.180	.184	.184	.144
3.368	4.491	.042	.055	.074	.090	.105	.121	.135	.150	.164	.174	.190	.200	.212	.222	.230	.240	.247	.246	.244	.244	.224	.217	.232	.206	.208	.216	.196	.173
4.491	4.491	.033	.050	.070	.083	.100	.116	.130	.149	.165	.175	.185	.200	.212	.225	.237	.250	.258	.261	.271	.260	.236	.240	.261	.235	.233	.233	.229	.204
5.614	4.491	.054	.070	.086	.105	.710	.122	.133	.145	.155	.165	.174	.185	.197	.210	.225	.238	.250	.260	.267	.272	.265	.260	.276	.260	.267	.265	.250	.224
6.737	4.491	.040	.052	.064	.070	.077	.087	.099	.110	.116	.126	.140	.147	.157	.166	.180	.195	.224	.244	.257	.279	.271	.278	.295	.295	.294	.295	.290	.267
7.859	4.491	.035	.040	.050	.055	.060	.069	.076	.085	.091	.097	.102	.106	.110	.116	.123	.129	.152	.180	.215	.243	.259	.284	.296	.295	.308	.317	.311	.292
8.982	4.491	.013	.016	.017	.020	.022	.023	.024	.025	.027	.032	.037	.045	.051	.058	.070	.076	.085	.115	.140	.189	.215	.250	.262	.270	.290	.310	.300	.310
10.105	4.491	.001	.001	.001	.001	.002	.003	.004	.004	.005	.005	.005	.008	.009	.010	.010	.011	.015	.030	.054	.097	.139	.200	.213	.236	.254	.273	.286	.292
-1.123	7.485	.012	.024	.034	.046	.057	.067	.077	.088	.099	.108	.115	.120	.120	.120	.118	.114	.106	.103	.095	.088	.080	.073	.065	.057	.057	.055	.055	.024
0	7.485	.037	.053	.065	.076	.088	.098	.109	.116	.126	.134	.142	.146	.148	.148	.146	.145	.144	.145	.135	.125	.120	.113	.100	.099	.095	.099	.078	.063
1.123	7.485	.057	.074	.087	.098	.110	.120	.127	.136	.147	.154	.163	.170	.177	.181	.185	.187	.188	.185	.177	.166	.157	.152	.150	.140	.139	.136	.117	.104
2.246	7.485	.031	.045	.062	.074	.087	.099	.110	.125	.135	.145	.156	.171	.182	.194	.204	.212	.221	.222	.219	.211	.212	.200	.210	.188	.187	.172	.179	.155
3.368	7.485	.080	.100	.117	.132	.147	.160	.171	.182	.190	.199	.206	.212	.219	.222	.229	.234	.235	.240	.241	.235	.226	.223	.220	.220	.215	.209	.181	.153
4.491	7.485	.020	.038	.054	.066	.078	.093	.109	.120	.135	.147	.158	.170	.185	.195	.210	.228	.235	.235	.242	.242	.230	.227	.226	.220	.218	.217	.209	.181
5.614	7.485	.020	.035	.046	.060	.070	.080	.095	.105	.116	.126	.136	.150	.163	.175	.185	.199	.208	.215	.225	.227	.228	.233	.234	.235	.235	.235	.234	.230
6.737	7.485	.037	.040	.058	.069	.077	.085	.093	.100	.107	.115	.123	.131	.140	.150	.163	.173	.176	.198	.211	.225	.233	.248	.262	.273	.265	.266	.244	.241
-1.123	11.976	.015	.025	.035	.045	.055	.065	.076	.086	.095	.105	.112	.118	.122	.126	.128	.130	.130	.124	.123	.115	.111	.098	.092	.068	.062	.062	.061	.027
1.123	11.976	.027	.037	.049	.060	.073	.085	.098	.110	.120	.130	.140	.150	.160	.170	.180	.187	.194	.194	.191	.185	.180	.175	.174	.165	.147	.134	.128	.101
2.246	11.976	.021	.035	.046	.056	.065	.075	.081	.090	.101	.113	.124	.135	.155	.170	.185	.200	.211	.215	.215	.213	.210	.205	.199	.185	.181	.174	.171	.132
-1.123	14.221	.015	.024	.030	.035	.043	.050	.058	.065	.074	.080	.089	.100	.110	.119	.127	.135	.138	.131	.120	.110	.105	.085	.085	.059	.044	.041	.029	.015

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(h) Test position H (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																										
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58
-5.614	0	-0.101	-0.105	-0.108	-0.113	-0.117	-0.121	-0.121	-0.121	-0.121	-0.120	-0.118	-0.115	-0.114	-0.114	-0.114	-0.112	-0.109	-0.106	-0.104	-0.104	-0.105	-0.102	-0.105	-0.115	-0.128	-0.167	-0.166
-4.491	0	-.047	-.065	-.075	-.084	-.092	-.100	-.104	-.105	-.105	-.105	-.105	-.105	-.105	-.107	-.107	-.102	-.099	-.094	-.089	-.091	-.091	-.091	-.096	-.113	-.149	-.183	-.179
-3.368	0	-.072	-.078	-.083	-.087	-.093	-.100	-.099	-.097	-.096	-.096	-.096	-.097	-.101	-.100	-.092	-.095	-.090	-.082	-.077	-.081	-.078	-.075	-.081	-.104	-.165	-.220	-.225
-2.246	0	-.016	-.040	-.053	-.070	-.085	-.096	-.097	-.097	-.097	-.096	-.095	-.092	-.089	-.085	-.085	-.090	-.080	-.068	-.067	-.068	-.069	-.068	-.080	-.131	-.185	-.248	-.256
-1.123	0	-.020	-.035	-.050	-.062	-.074	-.084	-.089	-.090	-.089	-.086	-.085	-.080	-.075	-.074	-.075	-.077	-.065	-.052	-.050	-.057	-.060	-.062	-.099	-.150	-.190	-.214	-.215
0	0	.097	.065	.030	-.001	-.031	-.056	-.075	-.085	-.092	-.098	-.099	-.094	-.085	-.084	-.089	-.080	-.066	-.055	-.047	-.045	-.045	-.047	-.055	-.087	-.133	-.176	-.184
1.123	0	.077	.053	.031	.002	-.022	-.052	-.065	-.075	-.083	-.090	-.096	-.090	-.082	-.082	-.084	-.081	-.067	-.051	-.051	-.052	-.046	-.046	-.046	-.064	-.094	-.091	-.095
2.246	0	.056	.035	.032	.021	.009	-.006	-.014	-.018	-.029	-.046	-.063	-.066	-.061	-.060	-.059	-.052	-.044	-.033	-.024	-.027	-.025	-.026	-.025	-.020	-.006	.083	.098
3.368	0	.008	.015	.017	.013	.006	-.003	-.010	-.020	-.033	-.045	-.060	-.063	-.061	-.058	-.058	-.054	-.045	-.030	-.019	-.022	-.022	-.019	-.015	.010	.071	.260	.260
4.491	0	-.003	.003	.006	.010	.014	.015	.015	.004	-.012	-.033	-.053	-.055	-.058	-.058	-.059	-.056	-.041	-.022	-.010	-.014	-.014	-.008	-.008	.025	.110	.252	.373
5.614	0	.010	.014	.015	.019	.024	.025	.026	.035	.015	-.008	-.030	-.039	-.042	-.043	-.036	-.028	-.017	-.003	.011	.008	.011	.020	.025	.080	.197	.431	.441
6.737	0	.007	.012	.015	.020	.025	.027	.026	.020	.015	0	-.014	-.030	-.035	-.035	-.033	-.030	-.014	.005	.020	.020	.025	.035	.060	.142	.255	.361	.362
-5.614	1.497	-.090	-.095	-.100	-.105	-.110	-.114	-.116	-.119	-.121	-.123	-.124	-.124	-.124	-.123	-.121	-.119	-.118	-.114	-.112	-.111	-.110	-.110	-.112	-.120	-.132	-.175	-.173
-4.491	1.497	-.035	-.055	-.070	-.082	-.091	-.100	-.103	-.105	-.105	-.105	-.105	-.105	-.105	-.105	-.105	-.103	-.097	-.091	-.087	-.090	-.089	-.089	-.094	-.114	-.138	-.188	-.187
-3.368	1.497	-.076	-.086	-.096	-.103	-.106	-.107	-.108	-.107	-.106	-.105	-.103	-.108	-.109	-.109	-.114	-.111	-.102	-.093	-.090	-.092	-.096	-.092	-.102	-.145	-.185	-.245	-.242
-2.248	1.497	-.021	-.036	-.050	-.065	-.084	-.096	-.102	-.103	-.103	-.103	-.103	-.102	-.092	-.100	-.099	-.101	-.090	-.080	-.074	-.074	-.077	-.079	-.096	-.144	-.193	-.242	-.233
-1.123	1.497	.065	.031	.009	-.019	-.044	-.069	-.076	-.081	-.084	-.085	-.090	-.083	-.075	-.075	-.075	-.075	-.065	-.053	-.045	-.047	-.048	-.046	-.055	-.107	-.168	-.217	-.218
0	1.497	.205	.177	.132	.077	.025	-.022	-.055	-.071	-.084	-.094	-.106	-.095	-.082	-.082	-.083	-.082	-.072	-.060	-.045	-.046	-.045	-.040	-.043	-.051	-.118	-.177	-.177
1.123	1.497	.157	.145	.120	.085	.058	.020	-.010	-.045	-.070	-.090	-.106	-.105	-.090	-.091	-.096	-.094	-.080	-.063	-.058	-.056	-.051	-.053	-.053	-.060	-.101	-.096	-.089
2.246	1.497	.001	.010	.015	.001	-.012	-.030	-.040	-.052	-.063	-.074	-.086	-.085	-.083	-.084	-.086	-.083	-.069	-.054	-.047	-.050	-.047	-.047	-.045	-.044	-.025	.075	.053
3.368	1.497	-.005	.002	.003	.003	.001	-.004	-.007	-.021	-.043	-.061	-.080	-.079	-.078	-.082	-.082	-.079	-.066	-.050	-.035	-.035	-.034	-.034	-.029	-.003	.144	.271	.286
4.491	1.497	-.017	-.016	-.016	-.013	-.011	-.011	-.006	-.001	-.020	-.040	-.057	-.064	-.068	-.068	-.070	-.066	-.052	-.037	-.026	-.026	-.025	-.017	-.010	.035	.120	.199	.377
5.614	1.497	-.006	-.003	0	-.004	-.006	-.008	-.015	-.020	-.005	-.020	-.036	-.046	-.054	-.054	-.054	-.047	-.037	-.019	-.007	-.008	-.005	.002	.009	.059	------	------	------
6.737	1.497	.012	.021	.025	.030	.035	.036	.036	.046	.035	.016	-.001	-.023	-.034	-.033	-.030	-.028	-.012	.005	.020	.021	.021	.028	.058	.100	.221	.347	.352
-5.614	4.491	-.065	-.077	-.090	-.100	-.106	-.112	-.115	-.115	-.115	-.116	-.117	-.118	-.118	-.119	-.119	-.118	-.114	-.111	-.110	-.111	-.112	-.113	-.119	-.138	-.159	-.195	-.196
-4.491	4.491	-.055	-.063	-.070	-.077	-.084	-.092	-.095	-.099	-.100	-.102	-.102	-.103	-.103	-.100	-.100	-.099	-.096	-.093	-.090	-.090	-.088	-.089	-.097	-.120	-.152	-.215	-.210
-3.368	4.491	-.020	-.035	-.051	-.039	-.079	-.092	-.101	-.104	-.104	-.104	-.104	-.103	-.092	-.092	-.092	-.092	-.085	-.076	-.073	-.074	-.076	-.074	-.084	-.119	-.160	-.189	-.214
-2.246	4.491	.010	-.009	-.026	-.043	-.057	-.070	-.083	-.090	-.095	-.096	-.097	-.097	-.094	-.094	-.091	-.088	-.070	-.060	-.051	-.054	-.056	-.057	-.070	-.115	-.154	-.190	-.188
-1.123	4.491	.057	.028	.004	-.017	-.037	-.055	-.070	-.081	-.090	-.098	-.104	-.103	-.099	-.092	-.095	-.087	-.074	-.065	-.056	-.055	-.052	-.052	-.058	-.082	-.125	-.160	-.160
0	4.491	.075	.045	.023	.002	-.023	-.035	-.055	-.070	-.084	-.097	-.108	-.107	-.106	-.102	-.098	-.097	-.081	-.071	-.064	-.066	-.065	-.066	-.068	-.072	-.110	-.110	-.115
1.123	4.491	-.008	-.010	-.012	-.020	-.033	-.051	-.058	-.068	-.077	-.085	-.094	-.094	-.092	-.091	-.091	-.086	-.074	-.062	-.056	-.059	-.058	-.060	-.059	-.062	-.070	-.031	-.031
2.246	4.491	.001	.002	.003	.001	-.003	-.010	-.017	-.026	-.040	-.055	-.074	-.074	-.075	-.075	-.075	-.072	-.059	-.046	-.039	-.040	-.041	-.040	-.039	-.052	-.013	.076	.083
3.368	4.491	-.001	-.003	-.004	-.005	-.009	-.015	-.019	-.025	-.033	-.040	-.049	-.055	-.060	-.061	-.058	-.058	-.049	-.036	-.028	-.024	-.024	-.022	-.016	.010	.068	.180	.184
4.491	4.491	.004	.005	.006	.006	.006	.006	.008	.009	0	-.014	-.027	-.035	-.043	-.044	-.044	-.043	-.033	-.022	-.016	-.014	-.010	-.005	-.001	.027	.097	.260	.270
5.614	4.491	.005	.007	.001	.015	.019	.019	.025	.025	.016	.005	-.009	-.020	-.029	-.035	-.030	-.026	-.012	-.001	.004	.005	.008	.013	.021	.050	.144	.341	.332
-5.614	7.485	-.051	-.065	-.082	-.093	-.101	-.110	-.115	-.118	-.121	-.124	-.121	-.119	-.117	-.117	-.117	-.111	-.104	-.097	-.093	-.096	-.093	-.094	-.101	-.118	-.141	-.186	-.183
-4.491	7.485	-.032	-.045	-.063	-.077	-.087	-.092	-.105	-.110	-.114	-.119	-.123	-.124	-.120	-.117	-.112	-.110	-.099	-.085	-.082	-.082	-.085	-.086	-.095	-.116	-.144	-.170	-.169
-3.368	7.485	-.038	-.058	-.075	-.095	-.108	-.115	-.121	-.125	-.127	-.128	-.130	-.130	-.130	-.127	-.126	-.118	-.104	-.091	-.085	-.088	-.088	-.090	-.095	-.116	-.142	-.151	-.153
-2.246	7.485	.033	.001	-.018	-.042	-.065	-.085	-.092	-.109	-.115	-.122	-.130	-.130	-.131	-.129	-.125	-.122	-.106	-.092	-.084	-.087	-.086	-.087	-.090	-.100	-.122	-.117	-.118
-1.123	7.485	-.049	-.066	-.085	-.099	-.111	-.129	-.131	-.136	-.137	-.139	-.141	-.141	-.141	-.142	-.135	-.130	-.115	-.106	-.105	-.105	-.105	-.104	-.103	-.109	-.100	-.085	-.092
0	7.485	-.056	-.055	-.055	-.057	-.065	-.073	-.082	-.092	-.105	-.116	-.129	-.133	-.133	-.135	-.134	-.131	-.120	-.108	.103	-.101	-.100	-.100	-.098	-.098	-.096	-.060	-.066
1.123	7.485	-.035	-.037	-.040	-.039	-.042	-.045	-.053	-.065	-.077	-.090	-.104	-.110	-.110	-.109	-.109	-.105	-.096	-.085	-.080	-.079	-.077	-.074	-.073	-.070	-.055	.011	.007
2.246	7.485	-.023	-.025	-.025	-.025	-.027	-.030	-.035	-.040	-.047	-.055	-.065	-.070	-.084	-.082	-.076	-.075	-.065	-.058	-.051	-.048	-.046	-.040	-.035	-.017	.025	.105	.105
-5.614	11.976	-.001	-.020	-.035	-.052	-.064	-.076	-.085	-.090	-.093	-.095	-.095	-.095	-.095	-.094	-.094	-.092	-.090	-.085	-.077	-.080	-.082	-.082	-.086	-.092	-.095	-.097	-.073
-3.368	11.976	-.005	-.015	-.026	-.037	-.052	-.075	-.080	-.087	-.095	-.100	-.105	-.107	-.107	-.102	-.100	-.095	-.090	-.085	-.080	-.084	-.088	-.089	-.090	-.093	-.097	-.092	-.091
-2.246	11.976	-.035	-.036	-.037	-.040	-.042	-.045	-.058	-.070	-.084	-.097	-.112	-.111	-.111	-.106	-.100	-.095	-.091	-.084	-.082	-.084	-.084	-.081	-.081	-.081	-.075	-.039	-.045
-5.614	14.221	.001	-.030	-.058	-.063	-.065	-.067	-.073	-.078	-.082	-.084	-.089	-.083	-.081	-.077	-.076	-.077	-.078	-.080	-.081	-.088	-.086	-.086	-.092	-.100	-.129	-.133	-.150

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 56 - Continued

(i) Test position I (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																									
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56
2.245	0	0.035	0.062	0.083	0.103	0.120	0.134	0.148	0.162	0.173	0.184	0.192	0.197	0.200	0.200	0.201	0.201	0.200	0.189	0.174	0.158	0.145	0.130	0.108	0.088	0.060	0.045
3.368	0	.108	.132	.156	.176	.195	.210	.226	.240	.252	.266	.278	.285	.291	.297	.300	.303	.305	.302	.295	.265	.268	.250	.239	.225	.187	.140
4.491	0	.097	.127	.153	.176	.197	.216	.234	.248	.262	.275	.288	.300	.311	.320	.330	.337	.345	.348	.335	.322	.299	.314	.310	.302	.275	.240
5.614	0	.094	.128	.158	.183	.200	.215	.226	.242	.260	.274	.282	.299	.315	.330	.345	.355	.370	.375	.370	.370	.367	.368	.367	.367	.340	.245
6.737	0	.175	.200	.216	.224	.235	.247	.256	.265	.271	.276	.278	.285	.294	.304	.315	.326	.342	.353	.367	.376	.376	.370	.366	.354	.315	.291
7.859	0	.065	.092	.100	.114	.125	.138	.150	.160	.169	.176	.186	.196	.209	.220	.231	.245	.272	.300	.322	.353	.370	.380	.383	.385	.373	.365
8.982	0	.041	.058	.072	.083	.094	.102	.112	.118	.126	.133	.137	.147	.157	.164	.171	.177	.205	.225	.250	.261	.284	.300	.326	.347	.350	.338
10.105	0	.022	.034	.041	.050	.054	.061	.068	.074	.078	.082	.085	.097	.114	.130	.149	.165	.180	.194	.209	.225	.244	.262	.283	.305	.324	.345
11.228	0	.002	.004	.005	.008	.011	.015	.015	.016	.017	.020	.023	.030	.036	.045	.054	.074	.102	.131	.170	.185	.202	.214	.217	.230	.240	.260
12.350	0	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	0	.006	.025	.050	.096	.170	.172	.175	.186	.190	.204
13.473	0	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.002	.015	.032	.035	.059	.096	.115	.124	.175	.167
14.596	0	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.001	.024	.036	.028	.036	.037	.091	.115
2.245	1.497	.042	.068	.089	.109	.126	.142	.158	.172	.185	.190	.204	.205	.204	.200	.196	.191	.185	.176	.164	.160	.155	.148	.144	.141	.121	.085
3.368	1.497	.098	.123	.148	.143	.187	.208	.224	.239	.250	.261	.270	.272	.275	.276	.276	.275	.273	.270	.266	.260	.253	.245	.240	.226	.212	.195
4.491	1.497	.095	.128	.155	.178	.197	.215	.230	.243	.255	.265	.275	.260	.294	.300	.308	.316	.342	.325	.324	.320	.314	.305	.296	.285	.260	.230
5.614	1.497	.103	.130	.154	.172	.187	.205	.220	.235	.246	.256	.266	.280	.294	.308	.326	.338	.350	.355	.355	.353	.350	.345	.341	.335	.328	.325
6.737	1.497	.083	.106	.128	.146	.160	.173	.192	.205	.216	.226	.235	.247	.264	.281	.248	.313	.328	.342	.353	.362	.367	.371	.375	.368	.355	.335
7.859	1.497	-.004	.014	.028	.040	.054	.067	.082	.095	.112	.128	.144	.159	.177	.194	.213	.232	.249	.270	.292	.310	.333	.352	.353	.357	.350	.325
8.982	1.497	.008	.023	.035	.046	.056	.065	.076	.085	.097	.108	.122	.142	.160	.185	.205	.226	.245	.265	.287	.307	.327	.347	.370	.370	.370	.370
10.105	1.497	.021	.032	.036	.042	.050	.057	.062	.068	.074	.078	.084	.094	.105	.119	.137	.156	.181	.208	.227	.238	.255	.261	.295	.308	.335	.324
11.228	1.497	-.002	0	.001	.004	.005	.008	.010	.012	.014	.016	.018	.022	.025	.030	.034	.039	.075	.125	.174	.209	.232	.254	.270	.289	.303	.356
12.350	1.497	-.011	-.010	-.010	-.008	-.008	-.008	-.006	-.008	-.008	-.008	-.008	-.008	-.008	-.008	-.008	-.004	-.001	.015	.040	.070	.105	.158	.176	.176	.180	.183
13.473	1.497	-.001	-.001	-.001	-.001	-.001	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	0	.010	.015	.035	.060	.070	.088	.095	.120	.143
14.596	1.497	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	0	-.001	.003	.006	.017	.011	.019	.065	.101
2.245	4.491	.069	.095	.110	.127	.140	.155	.165	.175	.185	.191	.196	.197	.200	.197	.194	.183	.183	.179	.173	.158	.152	.143	.137	.128	.107	.075
3.368	4.491	.062	.093	.118	.141	.155	.176	.195	.209	.222	.232	.242	.250	.252	.262	.265	.266	.266	.263	.244	.241	.239	.234	.232	.214	.221	.184
4.491	4.491	.070	.105	.133	.150	.169	.185	.200	.214	.225	.235	.250	.265	.280	.290	.304	.305	.306	.305	.294	.289	.271	.281	.284	.277	.273	.188
5.614	4.491	.110	.135	.155	.174	.194	.205	.215	.225	.234	.242	.252	.265	.275	.288	.300	.308	.323	.322	.327	.332	.324	.323	.320	.316	.290	.240
6.737	4.491	.047	.075	.095	.110	.120	.130	.142	.154	.164	.176	.187	.200	.215	.227	.244	.258	.275	.288	.302	.314	.325	.333	.390	.338	.334	.312
7.859	4.491	.030	.045	.061	.074	.086	.098	.109	.120	.127	.135	.146	.158	.173	.185	.204	.218	.238	.255	.276	.291	.304	.326	.334	.341	.345	.329
8.982	4.491	.042	.055	.068	.078	.089	.096	.102	.109	.112	.117	.119	.133	.148	.165	.176	.190	.195	.215	.241	.253	.260	.283	.298	.312	.304	.292
10.105	4.491	.017	.021	.026	.028	.031	.036	.039	.040	.044	.045	.048	.049	.051	.056	.061	.102	.147	.165	.200	.212	.232	.247	.259	.273	.286	.281
11.228	4.491	.010	.014	.015	.016	.016	.018	.018	.018	.018	.018	.018	.019	.020	.022	.024	.027	.040	.075	.130	.162	.180	.200	.217	.227	.230	.225
12.350	4.491	.004	.004	.004	.004	.004	.005	.005	.005	.005	.005	.005	.006	.007	.007	.007	.008	.005	.020	.040	.065	.083	.122	.155	.170	.180	.190
13.473	4.491	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.001	.009	.020	.037	.060	.074	.103	.157
2.245	7.485	.042	.062	.080	.097	.111	.125	.136	.147	.157	.167	.173	.185	.192	.195	.197	.197	.196	.195	.192	.183	.179	.169	.162	.148	.135	.119
3.368	7.485	.075	.108	.126	.142	.155	.173	.185	.193	.202	.210	.216	.224	.230	.235	.240	.242	.246	.242	.245	.237	.230	.220	.220	.207	.191	.159
4.491	7.485	.107	.131	.149	.164	.175	.187	.198	.207	.215	.223	.229	.239	.247	.254	.260	.266	.271	.274	.275	.275	.274	.273	.269	.253	.238	.228
5.614	7.485	.055	.076	.095	.110	.124	.140	.155	.165	.175	.185	.195	.210	.220	.232	.245	.255	.268	.278	.291	.297	.300	.295	.295	.291	.290	.239
6.737	7.485	.080	.100	.128	.144	.156	.167	.175	.182	.187	.192	.197	.205	.211	.216	.220	.225	.242	.252	.267	.277	.285	.290	.295	.296	.280	.236
7.859	7.485	.007	.027	.036	.046	.056	.065	.076	.086	.095	.104	.110	.121	.135	.150	.164	.177	.192	.203	.228	.239	.254	.266	.272	.292	.286	.268
8.982	7.485	0	.009	.017	.025	.031	.036	.041	.045	.050	.054	.056	.065	.080	.094	.112	.133	.153	.175	.201	.212	.226	.244	.247	.260	.265	.273
10.105	7.485	-.004	-.002	0	.002	.004	.006	.008	.010	.011	.013	.015	.017	.020	.025	.030	.038	.055	.099	.140	.172	.192	.209	.217	.236	.248	.247
2.245	11.976	.023	.042	.057	.068	.078	.086	.094	.104	.110	.118	.125	.131	.136	.140	.144	.146	.152	.158	.163	.161	.161	.158	.153	.142	.135	.113
4.491	11.976	.055	.072	.088	.102	.111	.122	.132	.140	.146	.153	.160	.168	.173	.179	.184	.190	.200	.210	.218	.229	.231	.233	.237	.232	.215	.196
5.614	11.976	.034	.052	.065	.078	.090	.102	.108	.115	.123	.130	.136	.145	.155	.163	.174	.182	.190	.200	.210	.222	.230	.238	.245	.250	.240	.232
2.245	14.221	.030	.049	.060	.070	.076	.084	.090	.097	.105	.110	.115	.119	.122	.126	.130	.135	.139	.145	.145	.147	.149	.143	.142	.126	.115	.090

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(J) Test position J (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_1/p_∞ of -																											
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
5.614	0	0.010	0.040	0.059	0.077	0.097	0.116	0.132	0.148	0.162	0.175	0.189	0.202	0.216	0.231	0.243	0.257	0.244	0.240	0.265	0.266	0.251	0.253	0.262	0.252	0.245	0.242	0.200	0.191
6.737	0	.057	.081	.102	.122	.142	.162	.177	.192	.206	.218	.231	.244	.257	.268	.278	.285	.291	.305	.315	.328	.335	.240	.345	.341	.331	.312	.280	.235
7.859	0	.040	.060	.076	.089	.104	.119	.134	.150	.165	.180	.191	.205	.219	.233	.243	.245	.242	.241	.245	.274	.300	.325	.365	.350	.328	.338	.336	.325
8.982	0	.023	.045	.060	.074	.087	.098	.108	.120	.135	.144	.154	.168	.180	.189	.195	.195	.194	.192	.190	.189	.211	.291	.345	.320	.295	.320	.354	.344
10.105	0	.050	.065	.073	.082	.089	.095	.100	.106	.110	.114	.116	.119	.120	.123	.126	.130	.133	.134	.136	.139	.180	.237	.253	.240	.225	.217	.183	.150
11.228	0	-.002	-.002	-.002	-.002	0	.001	.004	.006	.010	.014	.016	.018	.020	.022	.023	.025	.027	.035	.055	.100	.150	.190	.220	.205	.205	.220	.245	.276
12.350	0	-.004	-.005	-.006	-.007	-.006	-.005	-.005	-.005	-.005	-.005	-.005	-.004	-.003	-.002	.001	.002	.004	.008	.020	.040	.086	.139	.163	.155	.165	.187	.218	.224
13.473	0	.007	.006	.005	.005	.004	.004	.003	.002	.001	0	-.001	-.003	-.005	-.005	-.005	-.005	-.003	.001	.014	.026	.052	.096	.128	.148	.164	.178	.192	.204
14.596	0	.004	.004	.003	.003	.002	.002	.002	.001	.001	0	0	-.001	-.002	-.003	-.004	-.005	-.005	-.004	-.002	.006	.018	.034	.063	.034	.028	.068	.165	.170
15.719	0	-.001	-.001	-.001	-.002	-.002	-.002	-.003	-.003	-.003	-.003	-.004	-.004	-.004	-.005	-.005	-.005	-.005	-.005	-.004	-.004	-.004	.003	.006	.008	.010	.031	.138	.138
16.842	0	.008	.008	.007	.007	.006	.005	.005	.005	.005	.005	.005	.004	.004	.003	.003	.002	.001	.001	.002	.004	.006	.006	.006	.007	.018	.038	.064	.072
17.965	0	.003	.004	.004	.004	.003	.001	0	-.001	-.002	-.002	-.002	-.003	-.004	-.004	-.003	-.002	-.001	-.001	0	0	0	0	0	.001	.007	.018	.040	.032
6.737	1.497	.058	.085	.107	.126	.144	.160	.176	.190	.205	.220	.233	.248	.262	.274	.283	.287	.289	.291	.298	.306	.318	.334	.341	.339	.327	.307	.278	.240
7.859	1.497	.035	.056	.074	.090	.104	.118	.130	.140	.152	.164	.176	.188	.200	.213	.226	.232	.233	.236	.245	.268	.293	.317	.326	.330	.328	.322	.306	.280
8.982	1.497	.024	.040	.055	.068	.081	.092	.101	.108	.115	.124	.132	.143	.152	.160	.167	.177	.188	.202	.216	.234	.248	.261	.274	.284	.294	.302	.306	.310
10.105	1.497	.012	.020	.028	.035	.041	.048	.054	.060	.065	.073	.080	.085	.091	.097	.100	.104	.105	.106	.112	.140	.190	.236	.306	.267	.244	.270	.300	.314
11.228	1.497	-.007	-.007	-.007	-.007	-.007	-.006	-.006	-.005	-.005	-.005	-.005	-.005	-.004	-.004	-.004	-.004	-.004	-.002	.013	.052	.125	.763	.188	.198	.198	.208	.242	.300
12.350	1.497	-.008	-.008	-.008	-.008	-.008	-.008	-.008	-.008	-.008	-.008	-.008	-.008	-.007	-.007	-.006	-.006	-.005	-.005	0	.020	.048	.100	.250	.200	.170	.180	.243	.294
13.473	1.497	-.005	-.005	-.005	-.005	-.006	-.006	-.007	-.007	-.008	-.008	-.008	-.008	-.008	-.008	-.007	-.007	-.007	-.007	-.005	.008	.030	.073	.130	.064	.069	.122	.206	.232
14.596	1.497	-.002	-.003	-.003	-.003	-.003	-.004	-.004	-.004	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.002	0	.027	.061	.032	.028	.070	.190	.203
15.719	1.497	-.006	-.006	-.006	-.006	-.007	-.007	-.008	-.008	-.009	-.009	-.010	-.010	-.010	-.010	-.010	-.010	-.010	-.010	-.010	-.010	-.008	-.006	-0	.008	.018	.034	.055	.084
16.842	1.497	-.003	-.003	-.004	-.004	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	.005	-.004	-.002	-0	.005	.010	.021	.035
17.965	1.497	0	0	0	0	0	0	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	0	.001	.003	.007	.014	.025
5.614	4.491	.035	.058	.077	.095	.110	.124	.138	.150	.160	.170	.178	.187	.195	.202	.210	.216	.222	.228	.234	.240	.244	.248	.250	.243	.227	.208	.178	.128
6.737	4.491	.014	.036	.055	.069	.086	.098	.117	.132	.145	.158	.172	.185	.203	.218	.233	.246	.255	.265	.275	.281	.291	.306	.325	.316	.298	.304	.290	.270
7.859	4.491	.018	.033	.048	.061	.074	.086	.097	.108	.118	.128	.139	.150	.160	.168	.178	.187	.195	.203	.212	.218	.246	.302	.375	.330	.310	.300	.290	.290
8.982	4.491	.023	.038	.049	.059	.066	.072	.081	.091	.099	.107	.116	.124	.130	.135	.139	.144	.147	.151	.166	.181	.220	.254	.296	.260	.257	.265	.267	.250
10.105	4.491	-.020	-.014	-.009	-.005	0	.005	.010	.015	.021	.028	.036	.042	.046	.049	.050	.053	.055	.055	.058	.065	.098	.182	.225	.215	.219	.227	.258	.277
11.228	4.491	-.033	-.031	-.030	-.029	-.025	-.025	-.025	-.025	-.025	-.025	-.024	-.023	-.021	-.020	-.019	-.016	-.012	.010	.004	.035	.075	.138	.226	.190	.166	.187	.225	.252
12.350	4.491	-.015	-.015	-.015	-.015	-.015	-.015	-.015	-.015	-.015	-.015	-.014	-.014	-.013	-.013	-.013	-.013	-.013	-.012	0	.027	.061	.122	.167	.111	.112	.143	.204	.202
13.473	4.491	.001	.001	0	0	0	0	0	0	0	0	-.001	-.002	-.002	-.003	-.003	-.002	-.001	.001	.004	.012	.026	.060	.112	.040	.040	.068	.178	.202
14.596	4.491	.007	.008	.009	.009	.009	.009	.009	.009	.008	.007	.005	.004	.005	.005	.005	.005	.005	.005	.005	.008	.012	.013	.016	.025	.036	.056	.109	.111
16.842	4.491	.004	.005	.005	.004	.003	.001	.001	.001	.001	0	-.001	-.001	-.001	-.001	0	0	0	.001	.002	.004	.004	.005	.005	.005	.007	.035	.070	.083
17.965	4.491	.005	.005	.005	.005	.005	.004	.003	.005	.004	.005	.004	.004	.002	.002	.002	.002	.002	.002	.002	.001	.003	.004	.004	.004	.015	.016	.028	.030
5.614	7.485	.016	.031	.046	.060	.074	.086	.098	.110	.120	.131	.141	.152	.162	.171	.180	.189	.192	.205	.210	.215	.220	.226	.234	.234	.228	.219	.203	.178
6.737	7.485	.027	.045	.057	.070	.083	.095	.105	.115	.124	.135	.144	.153	.162	.170	.175	.184	.189	.194	.206	.226	.233	.260	.283	.272	.253	.253	.214	.201
7.859	7.485	.035	.050	.064	.075	.086	.096	.104	.110	.116	.124	.131	.138	.145	.153	.158	.164	.170	.178	.188	.206	.220	.240	.254	.258	.255	.243	.223	.186
8.982	7.485	-.010	0	.008	.015	.022	.030	.036	.042	.050	.055	.062	.068	.074	.079	.085	.090	.097	.104	.112	.126	.154	.197	.253	.234	.204	.224	.242	.260
10.105	7.485	-.025	-.018	-.013	-.008	-.006	-.003	0	.004	.007	.010	.012	.015	.018	.020	.023	.025	.027	.034	.052	.088	.138	.182	.199	.182	.182	.202	.207	.188
11.228	7.485	-.045	-.045	-.045	-.045	-.045	-.045	-.044	-.043	-.043	-.043	-.043	-.043	-.043	-.042	-.042	-.040	-.038	-.036	-.025	.015	.060	.070	.110	.150	.126	.146	.202	.206
12.350	7.485	-.030	-.030	-.030	-.033	-.033	-.035	-.035	-.034	-.033	-.033	-.033	-.032	-.032	-.032	-.032	-.030	-.029	-.029	-.022	-.007	.021	.045	.130	.050	.040	.067	.150	.175
13.473	7.485	-.010	-.010	-.010	-.010	-.012	-.012	-.012	-.012	-.012	-.013	-.013	-.013	-.013	-.014	-.013	-.010	-.010	-.010	-.008	-.005	.002	.025	.051	.018	.024	.060	.110	-----
5.614	11.976	-.005	.005	.012	.020	.025	.033	.040	.048	.055	.059	.065	.070	.076	.085	.095	.101	.108	.114	.119	.124	.127	.145	.149	.151	.152	.150	.143	.129
7.859	11.976	-.012	-.006	0	.006	.013	.019	.025	.029	.031	.034	.039	.045	.055	.065	.075	.086	.102	.115	.130	.144	.155	.167	.180	.186	.187	.187	.186	.163
8.982	11.976	-.012	-.012	-.012	-.012	-.011	-.010	-.010	-.009	-.008	-.007	-.006	-.005	-.005	-.005	-.005	-.005	-.001	.002	.020	.086	.130	.166	.183	.181	.163	.177	.198	.197
5.614	14.221	-.006	.002	.006	.013	.018	.024	.029	.034	.038	.045	.049	.058	.061	.063	.065	.066	.070	.077	.103	.122	.125	.132	.123	.135	.130	.135	.115	.090

TABLE II.- VALUES OF JET-ON PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 26 TO 60 - Concluded

(k) Test position K (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_T/p_∞ of -																	
x/D_T	y/D_T	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
5.614	0	-0.037	-0.029	-0.013	-0	0.034	0.045	0.130	0.173	0.190	0.193	0.197	0.187	0.194	0.200	0.191	0.202	0.197	0.193
6.737	0	-.026	-.019	-.014	.008	.051	.067	.152	.218	.247	.249	.259	.233	.247	.280	.284	.282	.274	.274
7.859	0	-.010	-.008	-.005	-.001	.018	.041	.060	.170	.220	.220	.234	.190	.226	.301	.309	.296	.270	.280
8.982	0	.006	.012	.015	.015	.020	.045	.060	.153	.192	.195	.206	.155	.209	.315	.329	.299	.280	.296
10.105	0	.005	0	.005	.017	.025	.045	.065	.115	.128	.142	.154	.147	.186	.241	.243	.229	.235	.234
11.228	0	-.012	-.016	-.002	0	-.001	-.004	.006	.022	.060	.058	.097	.042	.080	.205	.232	.202	.198	.219
12.350	0	.009	.004	0	.005	-.004	-.002	-.006	.005	.019	.021	.040	.026	.048	.167	.164	.121	.149	.156
13.473	0	.005	.005	.002	.004	.009	.001	0	.007	-.006	.001	.008	.007	.037	.115	.120	.071	.101	.099
14.596	0	.002	-.006	-.004	-.008	0	.001	-.006	-.003	-.010	-.002	-.001	.003	.007	.052	.065	.049	.065	.055
15.719	0	-.009	-.005	-.007	-.002	-.006	-.005	-.008	-.005	-.007	-.008	-.007	-.005	-.001	.004	.013	.015	.053	.029
16.842	0	.001	.004	.010	.008	.006	.005	.002	.006	0	0	0	.001	.002	.005	.009	.001	.021	.025
17.965	0	-.001	-.002	-.002	.002	-.002	-.002	-.003	.001	-.006	-.004	-.004	0	-.002	-.002	-.001	-.003	-.001	-.004
5.614	1.497	-.037	-.033	-.020	.001	.026	.057	.157	.193	.200	.205	.209	.207	.212	.210	.204	.212	.215	.208
6.737	1.497	-.022	-.016	-.006	.010	.035	.065	.164	.227	.247	.256	.262	.245	.258	.272	.273	.281	.273	.272
7.859	1.497	-.020	-.018	-.012	0	.025	.050	.135	.194	.218	.225	.247	.245	.251	.290	.290	.287	.270	.285
8.982	1.497	-.026	-.005	-.012	-.002	.009	.045	.082	.135	.167	.180	.184	.147	.187	.280	.301	.273	.260	.267
10.105	1.497	-.003	-.002	-.001	.001	.002	.010	.036	.072	.122	.130	.149	.095	.142	.260	.269	.254	.225	.248
11.228	1.497	-.002	-.014	-.018	-.011	-.019	-.014	-.013	-.005	.036	.059	.089	.015	.039	.196	.215	.200	.140	.193
12.350	1.497	-.018	-.017	-.016	-.013	-.017	-.013	-.013	-.028	-.037	-.051	.003	-.001	.012	.147	.185	.151	.129	.160
13.473	1.497	-.013	-.013	-.013	-.010	-.014	-.010	-.012	-.012	-.015	-.016	-.011	-.005	.014	.100	.105	.072	.106	.085
14.596	1.497	-.010	-.009	-.006	-.007	-.010	-.010	-.010	-.009	-.011	-.012	-.009	-.012	-.010	.017	.040	.036	.066	.050
15.719	1.497	-.007	-.010	-.009	-.006	-.015	-.006	-.009	-.008	-.012	-.013	-.007	-.020	-.014	.011	.001	.001	.026	.019
16.842	1.497	-.004	-.005	-.005	-.001	-.005	-.004	-.005	-.005	-.007	-.006	-.006	-.007	-.007	-.006	-.005	-.004	.002	-.029
17.965	1.497	.003	.003	.003	.005	.003	.003	-.001	0	-.002	-.005	-.003	-.002	-.001	.002	0	0	-.001	-.006
5.614	4.491	-.030	-.023	-.016	.005	.047	.063	.145	.191	.197	.203	.206	.210	.212	.205	.200	.215	.217	.202
6.737	4.491	-.024	-.024	-.023	-.013	.006	.027	.140	.182	.220	.228	.240	.223	.245	.259	.255	.260	.260	.260
7.859	4.491	-.021	-.022	-.017	-.010	.002	.023	.080	.152	.190	.195	.208	.179	.221	.268	.272	.273	.260	.259
8.982	4.491	-.023	-.020	-.018	-.013	.005	.015	.048	.105	.130	.144	.147	.130	.183	.252	.257	.260	.255	.256
10.105	4.491	-.036	-.036	-.035	-.032	-.030	-.026	-.015	.014	.038	.060	.068	.070	.089	.200	.228	.216	.192	.190
11.228	4.491	-.039	-.039	-.037	.037	-.036	-.035	-.035	-.034	-.026	-.010	.007	.020	.038	.125	.170	.165	.142	.150
12.350	4.491	-.020	-.018	-.016	-.017	-.019	-.020	-.025	-.022	-.021	-.017	-.011	0	.027	.110	.108	.081	.065	.058
13.473	4.491	-.001	-.004	-.001	.003	0	-.004	-.006	-.005	-.007	-.005	.004	.004	.007	.012	.052	.042	.074	.058
14.596	4.491	.005	.006	.010	.009	.007	.004	.003	.005	.002	.001	.002	.004	.002	.009	.013	.018	.038	.042
15.719	4.491	.003	.002	.004	.004	.004	.004	.004	.004	.003	.003	.003	0	.003	.001	.004	.003	.005	.005
16.842	4.491	0	0	.001	.002	.001	.003	.004	.001	-.003	-.004	-.004	-.004	-.003	-.001	-.003	-.001	-.002	-.002
5.614	7.485	-.027	-.025	-.020	-.010	.008	.021	.095	.162	.158	.173	.175	.183	.193	.193	.195	.202	.206	.200
6.737	7.485	-.021	-.016	-.012	-.005	.020	.035	.100	.155	.172	.190	.197	.190	.210	.227	.230	.244	.236	.242
7.859	7.485	-.025	-.022	-.020	-.005	.010	.028	.070	.120	.145	.150	.165	.154	.190	.238	.235	.243	.230	.231
8.982	7.485	-.035	-.037	-.035	-.030	-.027	-.022	-.003	.051	.080	.085	.093	.082	.141	.211	.217	.225	.210	.203
10.105	7.485	-.057	-.052	-.053	-.051	-.051	-.045	-.037	-.020	.002	.019	.040	.046	.100	.165	.169	.160	.162	.164
11.228	7.485	-.049	-.050	-.051	-.051	-.051	-.052	-.053	-.049	-.048	-.042	-.033	-.021	.013	.097	.112	.105	.095	.105
12.350	7.485	-.035	-.035	-.035	-.035	-.035	-.035	-.039	-.039	-.044	-.041	-.037	-.030	-.022	.018	.032	.010	.049	.049
13.473	7.485	-.018	-.019	-.017	-.014	-.017	-.019	-.020	-.016	-.020	-.019	-.019	-.020	-.018	-.016	-.011	-.011	-.011	-.005
5.614	11.976	-.026	-.025	-.025	-.019	-.015	-.004	.040	.075	.099	.108	.110	.115	.136	.135	.140	.154	.150	.147
7.859	11.976	-.027	-.025	-.027	-.024	-.026	-.021	-.012	.020	.063	.069	.083	.079	.123	.160	.167	.185	.168	.178
8.982	11.976	-.026	-.028	-.026	-.021	-.024	-.027	-.027	-.023	-.019	-.001	.019	.026	.067	.140	.158	.167	.173	.153
5.614	14.221	-.025	-.026	-.025	-.022	-.020	-.018	.008	.037	.061	.078	.089	.093	.111	.120	.119	.115	.135	.137

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 56

(a) Test position A (downstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																										
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56
15.719	0	-0.006	-0.006	-0.006	-0.006	-0.005	-0.003	0.001	0.003	0.003	0.007	0.007	0.005	-0.003	-0.008	-0.013	-0.014	-0.014	-0.014	-0.013	-0.008	-0.008	-0.008	-0.008	-0.005	-0.002	0.002
14.596	0	-.003	-.003	-.003	-.003	-.003	-.001	.001	.004	.004	.002	0	-.006	-.013	-.013	-.014	-.014	-.012	-.010	-.007	-.004	-.001	.004	.003	.011	.018	.022
13.473	0	-.002	-.002	-.003	-.003	-.005	-.005	-.002	-.001	-.003	-.008	-.014	-.018	-.015	-.012	-.009	-.005	-.004	0	.004	.007	.014	.020	.025	.031	.038	.042
12.350	0	-.004	-.004	-.004	-.004	-.005	-.008	-.004	-.004	-.004	-.014	-.017	-.015	-.008	-.004	0	.004	.022	.013	.018	.022	.030	.038	.041	.045	.053	.053
11.228	0	-.002	-.002	-.002	-.001	-.003	-.004	-.004	-.004	-.004	-.003	0	.004	.007	.012	.014	.019	.027	.031	.036	.038	.044	.049	.050	.051	.049	.052
10.105	0	-.003	-.003	-.003	-.003	-.008	-.013	-.008	-.008	-.008	-.003	.002	.002	.007	.012	.017	.022	.027	.030	.032	.032	.027	-.028	-.054	-.072	-.078	-.079
8.982	0	-.004	-.004	-.004	-.004	-.003	-.003	-.002	-.001	.002	.009	.014	.017	.020	.043	.043	.011	-.006	-.036	-.061	-.075	-.080	-.081	-.062	-.082	-.084	-.065
7.859	0	.030	.030	.030	.030	.030	.030	.030	.030	.031	.036	.041	.042	.035	.023	-.024	-.059	-.061	-.065	-.067	-.064	-.064	-.064	-.064	-.064	-.064	-.064
6.737	0	0	0	0	.009	.026	.039	.046	.040	.039	.031	.014	-.010	-.034	-.041	-.041	-.038	-.035	-.051	-.029	-.026	-.025	-.025	-.025	-.023	-.023	-.023
5.614	0	-.001	.010	.024	.041	.059	.069	.070	.064	.058	.052	.049	.053	.056	.059	.064	.067	.071	.074	.078	.081	.084	.087	.089	.091	.091	.091
4.491	0	.025	.038	.050	.065	.088	.095	.095	.095	.099	.105	.116	.129	.139	.148	.159	.165	.175	.182	.189	.197	.203	.208	.214	.220	.222	.222
3.368	0	.006	.008	.008	.008	.010	.010	.011	.011	.013	.013	.013	.013	.013	.016	.018	.022	.026	.033	.048	.063	.083	.103	.119	.126	.142	.146
15.719	1.497	-.007	-.007	-.007	-.007	-.007	-.002	.001	.005	.005	.005	.005	.004	-.005	-.009	-.016	-.017	-.016	-.015	-.014	-.010	-.010	-.007	-.006	-.003	.001	.004
14.596	1.497	-.004	-.004	-.004	-.004	-.004	-.004	-.004	0	0	-.002	-.006	-.012	-.019	-.018	-.017	-.015	-.013	-.012	-.009	-.004	0	.004	.008	.013	.017	.021
13.473	1.497	-.003	-.003	-.003	-.003	-.003	-.003	-.001	-.001	-.002	-.011	-.017	-.020	-.015	-.011	-.009	-.005	-.002	.003	.007	.011	.013	.023	.029	.033	.038	.043
12.350	1.497	-.001	-.001	-.001	-.001	-.004	-.008	-.009	-.009	-.009	-.009	-.006	-.007	-.004	.001	.004	.009	.014	.018	.023	.029	.035	.041	.046	.051	.054	.054
11.228	1.497	-.005	-.005	-.005	-.005	-.005	-.009	-.013	-.015	-.013	-.013	-.002	.001	.005	.009	.015	.021	.026	.033	.039	.042	.045	.049	.052	.053	.049	.020
10.105	1.497	-.002	-.002	-.002	-.002	-.012	-.016	-.012	-.009	-.010	-.007	0	.001	.006	.008	.013	.020	.025	.028	.030	.030	.018	.072	-.073	-.079	-.082	-.082
8.982	1.497	-.002	-.002	-.002	-.002	-.002	-.001	.001	.003	.008	.010	.016	.021	.024	.028	.028	.022	.005	-.037	-.072	-.075	-.075	-.075	-.077	-.077	-.077	-.077
7.859	1.497	-.001	-.001	-.001	-.001	.006	.011	.018	.026	.034	.041	.044	.044	.036	.006	-.034	-.064	-.066	-.066	-.066	-.066	-.066	-.066	-.066	-.065	-.065	-.065
6.737	1.497	-.006	-.006	-.006	.007	.021	.029	.032	.030	.024	.010	-.010	-.033	-.040	-.038	-.038	-.037	-.035	-.033	-.031	-.023	-.023	-.023	-.021	-.018	-.018	-.018
5.614	1.497	.018	.033	.043	.063	.078	.088	.069	.071	.076	.076	.076	.082	.083	.085	.087	.094	.098	.101	.104	.108	.109	.115	.119	.120	.122	.122
4.491	1.497	.008	.010	.013	.020	.030	.032	.032	.034	.039	.045	.060	-.015	.115	.135	.150	.165	.177	.186	.196	.205	.215	.225	.229	.235	.238	.241
3.368	1.497	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.004	.004	.004	.004	.004	.004	.005	.009	.013	.018	.025	.059	.161
15.719	4.491	-.010	-.010	-.010	-.010	-.010	-.010	-.010	-.008	-.008	-.013	-.013	-.023	-.023	-.020	-.019	-.018	-.016	-.013	-.011	-.023	-.004	-.001	.002	.008	.007	.011
14.596	4.491	-.018	-.018	-.018	-.018	-.018	-.018	-.018	-.018	-.018	-.023	-.051	-.030	-.026	-.022	-.018	-.016	-.013	-.011	-.008	-.003	.001	.004	.009	.010	.018	.021
13.473	4.491	-.012	-.012	-.012	-.012	-.013	-.012	-.017	-.018	-.019	-.018	-.015	-.013	-.010	-.007	-.003	.002	.007	.008	.012	.017	.022	.027	.028	.031	.037	.037
12.350	4.491	.025	.025	.025	.025	.022	.018	.018	.018	.018	.019	.022	.025	.027	.032	.036	.042	.046	.049	.054	.060	.063	.062	.060	.057	.037	-.002
11.228	4.491	-.005	-.005	-.005	-.005	-.009	-.009	-.008	-.007	-.007	-.004	-.002	.003	.005	.007	.013	.017	.021	.025	.027	.010	-.020	-.053	-.068	-.072	-.073	-.073
10.105	4.491	-.001	.001	.001	-.002	-.001	-.001	.001	.005	.009	.017	.020	.022	.026	.027	.027	.014	-.022	-.043	-.061	-.062	-.063	-.063	-.063	-.063	-.063	-.063
8.982	4.491	.002	.002	.002	.010	.016	.025	.030	.037	.041	.045	.045	.040	.012	-.010	-.030	-.030	-.029	-.028	-.027	-.027	-.026	-.025	-.025	-.024	-.024	-.024
7.859	4.491	.025	.028	.042	.066	.097	.109	.115	.117	.114	.103	.087	.077	.080	.080	.081	.084	.087	.087	.090	.092	.095	.099	.100	.101	.102	.102
6.737	4.491	.018	.031	.041	.058	.071	.083	.091	.093	.085	.083	.093	.109	.124	.136	.144	.148	.153	.158	.135	.164	.169	.170	.171	.173	.173	.173
5.614	4.491	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.003	-.002	0	.002	.003	.007	.015	.025	.050	.075	.100	.125	.140	.150	.160	.164
4.491	4.491	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003
15.719	7.485	-.006	-.006	-.006	-.006	-.007	-.008	-.010	-.012	-.018	-.017	-.017	-.017	-.017	-.010	-.009	-.007	-.002	-.001	0	0	.007	.010	.012	.015	.016	.017
14.596	7.485	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.007	-.006	-.005	-.004	-.003	0	.003	.005	.008	.012	.015	.021	.024	.024	.025	.025	.025	.024	.011
13.473	7.485	.016	.016	.016	.016	-.001	-.004	-.003	-.001	.001	.004	.011	.012	.014	.015	.018	.020	.024	.024	.024	.024	.018	.004	-.016	-.036	-.045	.046
12.350	7.485	-.006	-.006	-.003	.007	.017	.023	.027	.027	.029	.034	.038	.042	.043	.043	.043	.037	.027	.020	.016	-.020	-.025	-.025	-.025	-.025	-.025	-.025
11.228	7.485	-.006	-.007	.010	.025	.035	.037	.049	.040	.043	.043	.043	.035	.020	.012	-.005	-.007	-.007	-.007	-.004	-.004	0	0	0	.001	.001	.002
10.105	7.485	.014	.022	.030	.047	.070	.087	.002	.100	.097	.087	.072	.075	.085	.089	.092	.097	.099	.102	.102	.105	.106	.107	.107	.107	.107	.107
8.982	7.485	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	.010	.030	.055	.073	.080	.090	.094	.096	.098	.101	.102
7.859	7.485	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	.001	.001	0	.001	.004	.019	.034
13.473	11.976	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.004	.006	.007	.011	.017	.022	.039	.056	.066	.072	.075	.077
12.350	11.976	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.021	-.020	-.020	-.019	-.019	-.019	-.019	-.018	-.017	-.017
15.719	14.221	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.004	-.003	-.002	-.010	-.020	-.029	-.045	-.048

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(b) Test position B (downstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																												
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
15.719	0	0.010	0.010	0.010	0.010	0.011	0.013	0.013	0.013	0.013	0.011	0.011	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.009	0.007	0.007	0.007	0.007
14.596	0	.012	.012	.012	.012	.012	.012	.012	.012	.012	.009	.009	.009	.008	.008	.008	.008	.008	.008	.008	.007	.007	.007	.007	.007	.007	.007	.007	.007
13.473	0	.002	0	-.001	-.002	-.001	0	.002	.003	.005	.006	.008	.009	.011	.012	.013	.015	.016	.018	.018	.016	.005	-.028	-.035	-.037	-.038	-.038	-.038	-.040
12.350	0	.042	.042	.042	-.042	.040	.039	.039	.036	.034	.034	.034	.024	.023	.019	.014	.010	.010	.010	.010	.010	.010	.006	.006	.005	.005	.004	.004	.004
11.228	0	-.005	-.005	-.005	-.005	-.007	-.008	-.011	-.011	-.013	-.013	-.013	-.023	-.024	-.028	-.023	-.037	-.037	-.037	-.037	-.037	-.037	-.037	-.037	-.037	-.037	-.037	-.037	-.037
10.105	0	-.005	-.003	-.003	-.002	-.001	.002	.007	.012	.013	.007	0	-.013	-.018	-.026	-.028	-.028	-.027	-.025	-.024	-.023	-.023	-.023	-.023	-.023	-.023	-.022	-.019	-.019
8.982	0	.022	.042	.058	.073	.087	.058	.178	.124	.133	.133	.132	.131	.131	.131	.131	.133	.136	.137	.138	.138	.141	.143	.143	.145	.147	.149	.150	.153
7.859	0	.005	.005	.005	.006	.006	.007	.008	.009	.012	.012	.012	.014	.018	.024	.050	.075	.107	.125	.140	.145	.150	.151	.155	.160	.160	.161	.161	.161
6.737	0	.003	.002	0	0	-.001	0	0	0	.002	.002	.002	.002	.002	.002	.002	.002	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003
5.614	0	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039	.039
4.491	0	.005	.005	.005	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.003	.003	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002
3.368	0	0	0	-.001	-.001	-.001	-.001	-.001	-.001	0	0	0	0	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001
15.719	1.497	.017	.020	.017	.016	.016	.015	.015	.015	.016	.016	.017	.018	.020	.020	.025	.026	.030	.031	.034	.036	.038	.042	.043	.043	.042	.042	.041	.035
14.596	1.497	.009	.009	.009	.009	.009	.009	.010	.014	.019	.019	.020	.023	.024	.025	.028	.029	.034	.034	.036	.036	.036	.036	.033	.028	-.019	-.036	-.036	-.036
13.473	1.497	-.005	-.005	-.005	-.005	-.005	-.006	-.005	-.001	0	.004	.006	.008	.010	.013	.014	.016	.018	.019	.017	.016	-.023	-.038	-.041	-.042	-.042	-.042	-.042	-.042
12.350	1.497	.001	.001	0	0	0	0	.004	.010	.010	.012	.015	.017	.020	.021	.022	.026	.025	.004	-.024	-.030	-.035	-.038	-.039	-.038	-.037	-.039	-.039	-.039
11.228	1.497	-.004	-.001	-.002	-.005	-.005	-.005	-.007	-.001	.008	.009	.008	.007	.004	.003	0	-.021	-.039	-.041	-.040	-.040	-.040	-.039	-.039	-.038	-.038	-.038	-.038	-.038
10.105	1.497	-.001	0	0	-.003	0	.005	.014	.022	.022	.014	0	-.007	.010	-.015	-.016	-.021	-.022	-.022	-.021	-.018	-.016	-.015	-.015	-.014	-.014	-.013	-.012	-.010
8.982	1.497	.012	.020	.028	.037	.048	.060	.071	.087	.096	.100	.102	.105	.109	.113	.121	.127	.132	.133	.135	.137	.139	.158	.140	.153	.155	.155	.156	.157
7.859	1.497	.001	.002	.002	.002	.002	.002	.002	.002	.003	.003	.003	.003	.003	.005	.006	.008	.023	.044	.069	.114	.132	.143	.152	.160	.155	.160	.161	.162
6.737	1.497	0	0	0	-.001	-.001	-.001	-.001	.001	.001	.001	.001	.001	.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.614	1.497	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
4.491	1.497	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001
3.368	1.497	0	0	0	0	0	0	.001	.001	.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001
15.719	4.491	.186	.186	.186	.186	.185	.185	.184	.185	.185	.186	.186	.190	.191	.195	.197	.201	.205	.206	.211	.212	.214	.216	.216	.216	.214	.181	.155	.147
14.596	4.491	.054	.055	.053	.053	.052	.051	.052	.053	.054	.055	.057	.059	.061	.063	.065	.069	.069	.067	.053	.043	.041	.029	.013	-.022	-.025	-.026	-.026	-.026
13.473	4.491	-.026	-.027	-.028	-.029	-.030	-.033	-.030	-.027	-.025	-.024	-.024	-.021	-.015	-.010	-.006	-.002	.003	.006	.006	.006	.006	-.029	-.032	-.032	-.032	-.032	-.032	-.032
12.350	4.491	.010	.011	.011	.010	.009	.012	.017	.021	.022	.021	.020	.017	.017	.014	.013	-.014	-.021	-.023	-.023	-.024	-.022	-.023	-.023	-.024	-.024	-.024	-.024	-.024
11.228	4.491	.029	.031	.036	.041	.045	.060	.074	.086	.096	.081	.049	.042	.041	.041	.043	.046	.049	.051	.052	.052	.053	.056	.056	.058	.059	.060	.060	.060
10.105	4.491	.004	.005	.009	.013	.018	.025	.034	.044	.059	.077	.098	.102	.102	.102	.104	.106	.109	.111	.113	.114	.115	.118	.119	.121	.123	.124	.125	.126
8.982	4.491	.003	.003	.003	.003	.003	.003	.003	.003	.005	.006	.006	.006	.006	.006	.008	.009	.009	.014	.022	.034	.059	.087	.109	.20	.124	.126	.128	.128
7.859	4.491	.005	.005	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003
6.737	4.491	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
5.614	4.491	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
4.491	4.491	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.005	-.004	-.004	-.004	-.004	-.002	-.002	-.001	-.001	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
15.719	7.485	.012	.012	.011	.011	.011	.010	.011	.012	.012	.013	.017	.021	.022	.023	.025	.027	.029	.030	.030	.029	.026	-.003	-.023	-.028	-.029	-.033	-.033	-.033
14.596	7.485	.010	.009	.009	.008	.007	.006	.006	.008	.010	.012	.015	.017	.021	.025	.029	.033	.033	.025	.015	-.009	-.012	-.026	-.029	-.028	-.028	-.028	-.028	-.028
13.473	7.485	.020	.018	.017	.013	.022	.032	.044	.060	.064	.055	.042	.033	.027	.024	.022	.022	.018	.017	.017	.018	.019	.021	.023	.023	.023	.024	.024	.024
12.350	7.485	-.117	-.109	-.104	-.096	-.090	-.080	-.068	-.055	-.045	-.044	-.044	-.043	-.040	-.037	-.034	-.031	-.028	-.024	-.022	-.020	-.015	-.014	-.013	-.010	-.010	-.009	-.009	-.006
11.228	7.485	.024	.024	.024	.026	.026	.026	.025	.024	.025	.030	.036	.035	.032	.031	.030	.028	.030	.041	.058	.072	.081	.101	.115	.121	.122	.122	.122	.122
10.105	7.485	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004
8.982	7.485	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004
7.859	7.485	.006	.006	.006	.006	.006	.006	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.004	.004	.004	.004	.004	.004	.004	.004	.004	.003
15.719	11.976	0	.001	.002	.004	.004	-.003	.008	.010	.014	.014	.014	.013	.012	.011	.010	.012	.020	.038	.054	.059	.064	.064	.068	.068	.069	.071	.071	.071
13.473	11.976	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003
12.350	11.976	.004	.009	.009	.008	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.008	.008	.008	.008	.007	.006	.006	.006	.005	.004	.004	.004	.004	.004
15.719	14.221	.007	.007	.007	.007	.006	.006	.005	.006	.006	.006	.006	.007	.007	.008	.008	.006	.006	.006	.007	.007	.008	.008	.009	.007	.007	.007	.007	.007

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(c) Test position C (downstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																											
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
15.791	0	0.015	0.015	0.015	0.015	0.017	0.018	0.019	0.021	0.021	0.023	0.022	0.029	0.029	0.030	0.031	0.032	0.034	0.034	0.035	0.014	0.006	-0.010	-0.022	-0.022	-0.020	-0.020	-0.021	-0.022
14.596	0	0	0	-.001	.002	.002	.003	.005	.005	.007	.008	.009	.010	.013	.014	.016	.012	.008	-.003	-.024	-.028	-.029	-.026	-.030	-.030	-.029	-.030	-.030	-.030
13.473	0	0	-.001	-.002	-.002	-.001	-.002	0	.003	.005	.007	.007	.009	.004	-.005	-.014	-.027	-.037	-.030	-.027	-.028	-.028	-.029	-.026	-.025	-.023	-.025	-.024	-.027
12.350	0	.015	.022	-.027	-.033	.053	-.068	-.079	-.088	.105	.109	.108	.102	.093	.088	.085	.082	.084	.083	.087	.086	.087	.088	.093	.094	.094	.092	.095	.094
11.228	0	.080	.080	.080	.080	.080	.080	.080	.080	.081	.082	.081	.080	.079	.079	.079	.078	.079	.082	.084	.084	.087	.090	.092	.093	.094	.093	.094	.093
10.105	0	-.076	-.075	-.070	-.065	-.059	-.057	-.051	-.050	-.047	-.042	-.040	-.038	-.028	-.026	-.021	-.009	-.004	.001	.006	.006	.006	.013	.041	.054	.071	.086	.096	.096
8.982	0	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.001	-.001	-.003	-.002	-.002	-.003	-.004	-.004	-.004	-.001	-.003	0	-.003	-.002	.002
7.859	0	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.001	.001	.001	.001	.001	.001	.002	0	.001	.001	.002	0	-.002	0	.002	-.001	.001	.001	.001	-.001
6.737	0	0	0	0	0	0	0	0	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	0	0	0	0	0	0	0	0	0	0	0
5.614	0	-.006	-.007	-.008	-.005	-.004	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.002	-.001	0	-.001	-.002	-.003	-.003	-.003	-.004	-.003	-.002	-.004	-.002	-.002	-.002	-.005
4.491	0	0	-.001	0	.001	.002	.002	.004	.005	.005	.003	.002	.001	.002	.002	.002	.001	.001	.003	.005	.004	.002	.002	.003	.002	.005	0	.003	.001
3.368	0	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.001	.001	0	0	0	0	0	0	0	-.002	0	0	0	0	-.001	-.001	0	-.002	-.001	-.002
15.791	1.497	.021	.018	.017	.019	.024	.024	.024	.025	.025	.026	.027	.031	.034	.037	.040	.044	.044	.044	.042	.027	.010	0	.026	.024	.026	.026	.025	.027
14.596	1.497	.033	.012	.011	.013	.013	.014	.015	.018	.019	.021	.023	.027	.028	.029	.029	.023	.013	-.010	-.020	-.026	-.025	-.022	-.024	-.026	-.024	-.025	-.026	-.029
13.473	1.497	.003	0	.001	0	.003	.004	.009	.012	.013	.013	.013	.011	.008	0	-.012	-.021	-.024	-.024	-.019	-.021	-.021	-.019	-.017	-.016	-.016	-.017	-.018	-.018
12.350	1.497	.010	.014	.020	.034	.040	.049	.063	.072	.083	.088	.091	.085	.085	.083	.081	.081	.081	.081	.084	.083	.083	.085	.087	.087	.090	.091	.092	.092
11.228	1.497	.004	.004	.005	.007	.009	.010	.013	.015	.017	.019	.021	.025	.029	.032	.037	.048	.067	.082	.089	.091	.089	.094	.094	.095	.096	.098	.100	.100
10.105	1.497	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.011	.017	.028	.070	.096	.097
8.982	1.497	0	-.002	-.002	-.002	-.001	-.001	0	0	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.003	-.002	-.002	-.005	-.003	-.003	-.004	-.003	-.004	-.001	-.001
7.859	1.497	-.001	-.001	-.001	0	0	0	0	0	-.001	-.001	-.001	-.001	-.001	-.002	-.002	-.002	-.001	-.001	0	-.002	-.002	-.001	-.001	-.002	-.001	0	0	0
6.737	1.497	-.003	-.004	-.004	-.004	-.003	-.003	-.003	-.003	-.002	-.002	-.003	-.003	-.003	-.003	-.003	-.004	-.004	-.004	-.003	-.004	-.005	-.003	-.002	-.004	-.003	-.003	-.002	-.003
5.614	1.497	-.003	-.006	-.004	-.004	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.005	-.003	-.001	0	-.002	-.001	-.002	-.002	-.002	0	-.008	-.004	-.006
4.491	1.497	-.001	-.001	-.001	-.001	.001	.001	.002	.002	.001	0	0	0	-.001	0	.001	0	0	.001	.003	.002	0	.001	.002	-.001	.001	-.003	-.001	-.003
3.368	1.497	-.002	-.005	-.003	-.002	-.001	-.001	0	-.001	-.002	-.002	-.002	-.002	-.003	-.002	-.002	-.003	-.002	-.002	-.001	-.003	-.004	-.002	-.002	-.002	-.001	-.005	-.002	-.005
15.719	4.491	0	0	0	.001	.001	.001	.001	.001	.001	.002	.003	.005	.008	.010	.012	.014	.016	.030	.016	-.003	-.024	-.029	-.040	-.040	-.037	-.044	-.039	-.042
14.596	4.491	.008	.008	.008	.008	.008	.009	.013	.018	.020	.023	.028	.030	.033	.035	.036	.018	-.001	-.018	-.022	-.027	-.029	-.024	-.026	-.026	-.025	-.025	-.026	-.026
13.473	4.491	.023	.029	.042	.060	.084	.098	.119	.132	.148	.153	.148	.143	.133	.121	.109	.108	.109	.116	.117	.112	.112	.104	.121	.120	.124	.121	.128	.122
12.350	4.491	.006	.007	.011	.013	.019	.021	.024	.033	.033	.032	.035	.040	.044	.056	.054	.065	.082	.091	.098	.097	.098	.102	.103	.104	.107	.108	.109	.107
11.228	4.491	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.006	.006	.006	.006	.006	.006	.006	.006	.008	.009	.015	.023	.033	.058	.095	.089	.097
10.105	4.491	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002
8.982	4.491	-.001	-.001	-.001	-.001	0	.001	.002	.001	0	0	.001	.001	.001	.001	.001	-.001	.001	0	.002	0	-.001	.001	.001	0	-.001	.002	0	-.001
7.859	4.491	-.001	-.002	-.001	-.001	0	0	.001	.001	-.001	-.001	0	0	0	0	0	0	0	0	.001	0	-.001	.001	-.001	-.001	.001	-.003	-.003	-.003
6.737	4.491	-.005	-.005	-.005	-.005	-.005	-.005	-.003	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.005	-.005	-.005	-.005	-.006	-.006	-.008	-.008	-.006	-.006	-.006	-.006	-.006
5.614	4.491	-.002	-.002	-.002	-.002	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.002	-.004	-.002	-.004	-.006	-.001	-.004	-.004	-.001	-.004	-.004	-.004
4.491	4.491	-.006	-.006	-.005	-.005	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.002	-.002	-.003	-.001	-.003	- 003	-.001	-.003	-.001	-.003
15.719	7.485	.010	.010	.010	.010	.011	.011	.016	.018	.019	.024	.030	.028	.029	.033	.037	.037	.034	.015	.005	-.011	-.012	-.010	-.013	-.014	-.013	-.014	-.013	-.014
14.596	7.485	.013	.018	.023	.035	.057	.071	.088	.107	.122	.137	.143	.143	.141	.132	.122	.107	.107	.109	.112	.111	.112	.114	.113	.113	.116	.115	.115	.118
13.473	7.485	.001	.001	.001	.001	.001	.001	.001	.001	.003	.005	.007	.006	.007	.007	.007	.008	.016	.038	.057	.078	.088	.095	.101	.102	.106	.104	.107	.104
12.350	7.485	.002	.002	.002	.002	.002	.005	.004	.004	.005	.004	.004	.003	.002	.003	0	0	.001	.004	.004	.003	.002	.003	.004	.004	.006	.015	.027	.032
11.228	7.485	.011	.010	.011	.011	.011	.011	.011	.010	.009	.009	.010	.008	.025	.004	.004	.004	.004	.004	.006	.005	.004	.006	.004	.006	.007	.002	.004	.003
10.105	7.485	.009	.009	.009	.010	.010	.010	.010	.010	.009	.009	.010	.008	.010	.010	.010	.008	.008	.008	.009	.007	.006	.009	.009	.008	.008	.009	.006	.006
8.982	7.485	.004	.004	.003	.004	.005	.004	.004	.004	.004	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003
7.859	7.485	.005	.005	.004	.006	.006	.007	.006	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.002	.005	.003	.003	.005	.002	.003	.001
13.473	11.976	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.003	-.005	-.004	-.003	-.003	-.003	-.003	-.003	-.003	-.003
12.350	11.976	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003
15.719	14.221	.002	.002	.002	.002	.003	.003	.004	.004	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	0	.001	0	0	.003	0	.001	-.001

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR MOMENT-PRESSURE RATIO: $\alpha = 0^\circ$, $\delta_e = 0$ DEGREES

(d) Test position D (downstream firing)

Orifice ordinates		Pressure coefficients for moment-pressure ratio L_i/P_T, $\alpha = 0^\circ$																													
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
8.982	0	0	0	0.006	0.013	0.017	0.021	0.020	0.027	0.033	0.038	0.042	0.047	0.048	0.051	-0.035	-0.040	-0.046	-0.046	-0.046	-0.048	-0.048	-0.047	-0.046	-0.045	-0.045	-0.046	-0.047	-0.047
7.859	0	.002	.011	.019	.027	.033	.040	.049	.057	.060	.049	.015	-.006	-.036	-.036	-.037	-.036	-.036	-.036	-.036	-.034	-.033	-.031	-.030	-.030	-.030	-.030	-.030	-.029
6.737	0	.015	.051	.061	.070	.060	.062	.079	.061	.010	0	-.001	0	.001	.004	.006	.008	.010	.011	.012	.015	.015	.016	.017	.020	.022	.024	.026	.028
5.614	0	.030	.042	.057	.070	.076	.055	.054	.032	.033	.035	.039	.047	.046	.048	.052	.053	.057	.058	.064	.064	.066	.070	.072	.074	.078	.078	.079	.082
4.491	0	.035	.044	.052	.055	.058	.062	.065	.073	.087	.102	.115	.125	.129	.135	.145	.147	.155	.159	.162	.165	.167	.172	.176	.179	.181	.184	.186	.187
3.368	0	-.002	-.002	0	0	0	0	0	0	0	0	.002	.003	.005	.006	.022	.036	.051	.072	.091	.102	.112	.121	.132	.141	.149	.159	.167	.173
2.246	0	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
1.123	0	-.003	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.003	-.002	-.002	-.002	-.002	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003
0	0	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.004	-.004	-.004	-.004	-.003	-.003	-.004	-.004	-.004	-.004	-.004	-.004	-.003	-.003	-.003	-.002	-.002	-.002	-.002	-.001	-.001
-1.123	0	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.004
-2.246	0	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
-3.368	0	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001
8.982	1.497	0	.002	.004	.003	.014	.021	.025	.031	.035	.041	.044	.051	.049	0	-.050	-.050	-.050	-.050	-.050	-.050	-.050	-.050	-.050	-.050	-.050	-.050	-.050	-.050
7.859	1.497	0	.010	.022	.033	.042	.051	.059	.063	.064	.041	-.009	-.038	-.038	-.033	-.034	-.034	-.033	-.032	-.032	-.032	-.031	-.030	-.029	-.029	-.029	-.029	-.027	-.026
6.737	1.497	.027	.045	.061	.077	.088	.027	.073	.051	.035	.014	.018	.018	.022	.025	.026	.027	.031	.032	.034	.036	.037	.042	.043	.043	.048	.049	.047	.049
5.614	1.497	.026	.040	.054	.060	.062	.052	.057	.038	.042	.046	.048	.055	.057	.062	.062	.066	.067	.072	.075	.076	.077	.082	.083	.084	.085	.086	.089	.092
4.491	1.497																												
3.368	1.497	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	0	0	.003	.005	.010	.018	.024	.035	.049	.064	.084	.102	.119	.134
2.246	1.497	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
1.123	1.497	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002
0	1.497	-.005	-.005	-.006	-.007	-.007	-.007	-.007	-.006	-.006	-.006	-.006	-.006	-.006	-.005	-.005	-.004	-.004	-.004	-.005	-.006	-.006	-.006	-.006	-.005	-.003	-.003	-.005	-.004
-1.123	1.497	-.005	-.005	-.005	-.006	-.006	-.006	-.006	-.006	-.006	-.006	-.005	-.005	-.004	-.004	-.004	-.004	-.004	-.004	-.004	-.003	-.003	-.005	-.005	-.004	-.004	-.004	-.004	-.004
-2.246	1.497	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
-3.368	1.497	.006	.005	.005	.006	.006	.006	.006	.006	.007	.006	.007	.007	.007	.007	.007	.007	.007	.007	.008	.008	.008	.008	.008	.010	.010	.010	.010	.010
8.982	4.491	.029	.044	.057	.064	.070	.077	.080	.077	.073	.049	.019	.013	.012	.014	.016	.016	.018	.018	.019	.019	.019	.020	.021	.021	.022	.023	.024	.024
7.859	4.491	.041	.057	.076	.086	.089	.066	.077	.066	.058	.056	.058	.061	.063	.066	.068	.071	.073	.077	.079	.080	.082	.086	.086	.087	.089	.091	.091	.092
6.737	4.491	.015	.015	.024	.025	.023	.020	.020	.017	.027	.055	.075	.096	.110	.115	.122	.127	.133	.135	.140	.144	.145	.150	.154	.155	.155	.156	.156	.160
5.614	4.491	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.006	.008	.009	.012	.014	.031	.049	.067	.081	.101	.111	.120	.126	.133	.138	.143
4.491	4.491	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002
3.368	4.491	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
2.246	4.491	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002
1.123	4.491	0	0	0	0	0	0	0	0	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001
0	4.491	-.006	-.004	-.005	-.006	-.006	-.006	-.006	-.006	-.007	-.007	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005	-.005
-1.123	4.491	-.003	-.003	-.004	-.004	-.004	-.004	-.004	-.005	-.005	-.006	-.005	-.003	-.003	-.004	-.004	-.004	-.004	-.003	-.004	-.005	-.005	-.001	-.001	-.002	-.002	-.005	-.005	-.004
-2.246	4.491	0	0	0	0	-.004	-.004	-.004	-.005	-.005	-.004	-.004	-.002	-.001	0	-.001	-.001	-.001	-.001	-.002	-.002	-.004	-.004	-.001	-.001	.002	-.002	-.002	-.002
8.982	7.485	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.009	.014	.029	.050	.068	.084	.093	.093	.103	.105	.105	.106	.107	.110	.112
7.859	7.485	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.007	.013	.022	.033	.051	.063
6.737	7.485	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.001	.001	.001	.001	0	0	0	0	0	0	.001	.001	.001	.001	.002
5.614	7.485	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003
4.491	7.485	.001	.001	.004	.004	.003	.001	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.004	.004	.004	.004	.004	.004
3.368	7.485	-.040	-.040	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.039	-.041	-.041	-.041	-.041	-.041	-.041
2.246	7.485	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002
1.123	7.485	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
6.737	11.976	.010	.010	.010	.009	.009	.009	.009	.009	.008	.008	.007	.007	.008	.008	.007	.007	.007	.006	.006	.006	.005	.005	.005	.004	.006	.004	.005	.004
5.614	11.976	.012	.012	.012	.010	.010	.010	.010	.010	.011	.009	.012	.012	.012	.012	.011	.010	.010	.009	.008	.008	.007	.008	.007	.007	.006	.005	.004	.005
8.982	14.221	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.002	-.002	-.002	0	0	-.001	-.001	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(e) Test position E (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																												
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
-1.123	0	-0.078	-0.134	-0.165	-0.182	-0.210	-0.229	-0.250	-0.270	-0.298	-0.307	-0.320	-0.330	-0.330	-0.326	-0.331	-0.337	-0.330	-0.336	-0.331	-0.314	-0.311	-0.325	-0.308	-0.321	-0.329	-0.328	-0.349	-0.343
0	0	-.117	-.162	-.177	-.209	-.230	-.269	-.292	-.317	-.337	-.359	-.375	-.379	-.361	-.392	-.399	-.404	-.403	-.398	-.394	-.383	-.384	-.382	-.381	-.391	-.387	-.377	-.381	-.393
1.123	0	-.005	-.025	-.036	-.045	-.057	-.067	-.080	-.091	-.104	-.117	-.131	-.148	-.165	-.182	-.206	-.266	-.283	-.277	-.272	-.284	-.291	-.276	-.280	-.290	-.263	-.236	-.231	-.231
2.246	0	-.056	.085	.105	.119	.131	.142	.151	.160	.165	.160	.151	.139	.126	.107	.075	-.029	-.059	-.069	-.070	-.074	-.086	-.099	-.109	-.108	-.049	.012	.051	.001
3.368	0	.116	.146	.161	.171	.182	.191	.201	.207	.212	.214	.214	.212	.211	.210	.177	.110	.071	.086	.085	.066	.043	.056	.072	.094	.116	.141	.161	.156
4.491	0	.158	.228	.266	.296	.323	.343	.368	.386	.413	.443	.466	.493	.512	.518	.518	.420	.303	.332	.278	.233	.178	.201	.211	.176	.232	.279	.305	.315
5.614	0	.163	.240	.278	.307	.323	.343	.358	.378	.398	.418	.441	.458	.478	.485	.540	.527	.493	.456	.413	.344	.308	.288	.263	.274	.309	.343	.374	.367
6.737	0	.118	.154	.184	.206	.222	.238	.258	.273	.285	.300	.313	.328	.340	.352	.404	.518	.552	.539	.520	.489	.464	.434	.404	.379	.374	.400	.421	.421
7.859	0	.061	.085	.106	.125	.137	.148	.157	.166	.176	.188	.198	.209	.217	.226	.254	.311	.349	.379	.428	.454	.471	.489	.489	.416	.446	.455	.466	.471
8.982	0	.040	.060	.075	.089	.102	.112	.127	.137	.152	.166	.175	.188	.199	.210	.232	.222	.211	.260	.322	.387	.431	.486	.479	.483	.516	.503	.485	.473
10.105	0	.050	.069	.085	.099	.108	.116	.124	.132	.139	.148	.159	.169	.182	.193	.204	.219	.187	.214	.243	.283	.308	.334	.369	.399	.451	.474	.480	.484
11.228	0	.052	.070	.080	.089	.095	.104	.109	.114	.122	.130	.140	.146	.154	.160	.179	.204	.209	.216	.214	.230	.229	.228	.291	.292	.342	.373	.358	.381
-1.123	1.497	-.090	-.130	-.163	-.193	-.218	-.243	-.269	-.267	-.286	-.305	-.320	-.334	-.345	-.358	-.358	-.360	-.368	-.363	-.360	-.345	-.345	-.350	-.344	-.351	-.355	-.352	-.355	-.367
0	1.497	-.090	-.126	-.148	-.170	-.193	-.211	-.228	-.244	-.261	-.276	-.288	-.300	-.312	-.321	-.332	-.346	-.359	-.372	-.367	-.379	-.376	-.372	-.368	-.371	-.371	-.369	-.359	-.375
1.123	1.497	0	-.010	-.022	-.033	-.040	-.048	-.058	-.067	-.079	-.081	-.103	-.108	-.133	-.146	-.172	-.217	-.230	-.245	-.256	-.246	-.272	-.255	-.249	-.263	-.244	-.223	-.199	-.230
2.246	1.497	.060	.101	.126	.141	.152	.161	.173	.182	.177	.174	.172	.165	.158	.148	.100	.001	-.019	-.030	-.056	-.042	-.050	-.044	-.033	-.036	-.004	.028	.051	0
3.368	1.497	.114	.154	.184	.209	.234	.254	.275	.291	.307	.315	.320	.326	.331	.334	.299	.174	.139	.134	.102	.073	.064	.074	.088	.043	.116	.162	.219	.145
4.491	1.497	.022	.061	.093	.133	.158	.193	.232	.262	.282	.313	.343	.373	.396	.420	.468	.411	.326	.305	.298	.208	.181	.231	.138	.150	.167	.231	.301	.265
5.614	1.497	.052	.086	.127	.163	.197	.228	.231	.282	.315	.354	.391	.436	.487	.533	.556	.594	.549	.516	.471	.427	.371	.371	.313	.345	.329	.338	.368	.397
6.737	1.497	.091	.127	.159	.182	.203	.221	.237	.249	.264	.277	.294	.309	.329	.357	.385	.429	.459	.523	.499	.459	.397	.434	.341	.352	.384	.398	.427	.413
7.859	1.497	.062	.114	.132	.146	.160	.172	.187	.206	.212	.223	.238	.255	.271	.282	.325	.347	.377	.412	.432	.451	.469	.482	.489	.492	.495	.496	.500	.502
8.982	1.497	.051	.074	.087	.101	.111	.121	.131	.141	.151	.159	.171	.181	.190	.203	.221	.241	.275	.309	.343	.370	.386	.397	.407	.420	.426	.454	.434	.445
10.105	1.497	-.011	-.028	-.037	-.043	-.050	-.055	-.060	-.067	-.072	-.078	-.086	-.092	-.101	-.109	-.129	-.182	-.195	-.197	-.199	-.199	-.197	-.209	-.232	-.257	-.282	-.303	-.318	-.320
11.228	1.497	-.020	-.041	-.054	-.057	-.074	-.084	-.095	-.107	-.117	-.129	-.140	-.151	-.162	-.174	-.200	-.209	-.220	-.235	------	------	------	------	------	------	------	------	------	------
-1.123	4.491	-.063	-.083	-.110	-.128	-.148	-.161	-.171	-.178	-.190	-.194	-.199	-.204	-.210	-.221	-.233	-.243	-.193	-.205	-.262	-.265	-.267	-.268	-.266	-.270	-.280	-.274	-.273	-.284
0	4.491	.002	-.008	-.017	-.029	-.046	-.047	-.058	-.066	-.075	-.086	-.098	-.114	-.126	-.140	-.156	-.173	-.195	-.216	-.222	-.220	-.223	-.231	-.233	-.234	-.234	-.229	-.225	-.258
1.123	4.491	.053	.081	.101	.121	.135	.142	.149	.151	.152	.150	.144	.135	.121	.102	.094	.033	.041	-.016	-.023	-.020	-.024	-.024	-.024	-.036	-.033	-.022	.005	-.043
2.246	4.491	.086	.105	.136	.152	.171	.181	.190	.202	.206	.210	.213	.213	.213	.210	.188	.132	.110	.087	.112	.160	.173	.178	.173	.143	.058	.092	.067	.051
3.368	4.491	.096	.131	.163	.186	.205	.222	.238	.252	.268	.281	.293	.303	.308	.312	.311	.257	.217	.209	.179	.173	.144	.151	.150	.118	.150	.163	.186	.173
4.491	4.491	.095	.122	.152	.181	.190	.198	.205	.261	.270	.285	.295	.306	.316	.326	.365	.336	.295	.290	.283	.225	.212	.225	.221	.215	.216	.237	.320	.235
5.614	4.491	.100	.138	.164	.180	.195	.209	.220	.235	.238	.242	.243	.254	.268	.288	.319	.307	.314	.311	.308	.248	.205	.255	.255	.237	.259	.275	.329	.273
6.737	4.491	.063	.095	.113	.126	.137	.149	.166	.179	.186	.193	.206	.217	.228	.236	.250	.262	.271	.279	.287	.293	.298	.301	.301	.296	.295	.289	.282	.268
7.859	4.491	.063	.087	.101	.113	.124	.132	.141	.149	.156	.165	.173	.181	.192	.205	.235	.219	.228	.280	.302	.312	.317	.325	.328	.322	.316	.326	.348	.345
8.982	4.491	.043	.036	.071	.079	.090	.099	.111	.118	.129	.141	.153	.140	.176	.184	.217	.217	.194	.215	.253	.288	.251	.297	.329	.278	.314	.352	.369	.379
10.105	4.491	.038	.051	.062	.069	.080	.085	.093	.100	.109	.118	.128	.137	.146	.157	.180	.196	.207	.222	.232	.243	.196	.154	.173	.245	.301	.362	.357	.365
-1.123	7.485	.017	.016	.014	.013	.003	-.007	-.017	-.032	-.039	-.045	-.047	-.049	-.050	-.050	-.062	-.077	-.097	-.104	-.115	-.119	-.127	-.127	-.127	-.133	-.132	-.133	-.125	-.147
0	7.485	.056	.073	.086	.099	.107	.113	.122	.127	.127	.123	.118	.112	.105	.098	.033	.058	.038	.028	.017	.012	.006	.002	-.004	-.006	-.003	-.003	.004	-.018
1.123	7.485	.079	.096	.117	.130	.141	.153	.170	.167	.171	.173	.174	.173	.171	.162	.151	.134	.105	.079	.064	.063	.058	.049	.042	.045	.054	.059	.066	.045
2.246	7.485	.074	.103	.126	.148	.170	.183	.196	.205	.209	.218	.223	.228	.230	.230	.229	.157	.152	.148	.144	.145	.112	.114	.081	.089	.151	.123	.118	.112
3.368	7.485	.132	.178	.198	.211	.218	.226	.232	.236	.241	.244	.247	.248	.249	.247	.242	.184	.183	.183	.178	.167	.159	.154	.148	.172	.183	.195	.215	.192
4.491	7.485	.070	.102	.120	.140	.165	.168	.180	.188	.193	.195	.201	.215	.230	.247	.264	.230	.191	.251	.223	.203	.178	.196	.207	.165	.190	.215	.234	.209
5.614	7.485	.070	.091	.112	.136	.140	.151	.163	.175	.182	.195	.211	.217	.226	.232	.242	.250	.256	.261	.268	.263	.250	.225	.200	.171	.195	.210	.230	.246
6.737	7.485	.078	.097	.113	.128	.143	.160	.178	.198	.217	.242	.253	.243	.227	.204	.205	.204	.197	.223	.243	.229	.213	.245	.207	.214	.248	.268	.303	.303
-1.123	11.976	.022	.022	.021	.020	.020	.020	.018	.017	.018	.018	.017	.017	.017	.017	.017	.020	.020	.020	.020	.020	.020	.020	.018	.018	.018	.018	.018	.018
1.123	11.976	-.013	.013	.031	.040	.051	.057	.068	.075	.083	.089	.095	.098	.102	.103	.102	.081	.056	.052	.039	.044	.040	.030	.032	.028	.033	.033	.050	.014
2.246	11.976	.060	.081	.099	.113	.125	.136	.145	.154	.164	.174	.181	.187	.194	.198	.201	.179	.151	.166	.158	.140	.145	.134	.147	.129	.140	.146	.136	.154
-1.123	14.221	.041	.056	.068	.075	.084	.093	.099	.105	.111	.115	.119	.121	.122	.121	.119	.096	.069	.063	.050	.037	.032	-.078	.020	.020	.020	.036	.026	.004

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6.00 TO 50.00 inclusive

(f) Test position F (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_r/p_∞ of -																								
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
-1.123	0	0.009	0.016	0.026	0.037	0.048	0.060	0.072	0.084	0.096	0.109	0.116	0.116	0.091	0.056	0.030	0.016	0.011	0.005	0	-0.014	-0.020	-0.023	-0.024	-0.024	-0.024
0	0	.026	.040	.055	.070	.083	.094	.110	.126	.142	.156	.170	.164	.143	.112	.093	.078	.068	.059	.058	.050	.045	.028	.019	.019	.019
1.123	0	.026	.041	.056	.071	.094	.104	.118	.136	.156	.178	.201	.211	.201	.180	.166	.152	.140	.126	.114	.101	.089	.080	.070	.070	.070
2.246	0	.040	.049	.067	.095	.115	.135	.155	.173	.191	.210	.226	.244	.260	.268	.250	.230	.215	.212	.210	.200	.177	.165	.165	.165	.165
3.368	0	.132	.157	.172	.187	.200	.212	.227	.241	.252	.264	.272	.280	.289	.292	.292	.287	.277	.268	.259	.247	.237	.232	.222	.222	.222
4.491	0	.039	.057	.075	.094	.107	.121	.139	.157	.167	.189	.209	.225	.244	.344	.359	.354	.351	.348	.339	.334	.334	.334	.334	.334	.334
5.614	0	.046	.060	.075	.097	.107	.121	.135	.151	.163	.179	.187	.201	.253	.321	.341	.360	.366	.366	.364	.361	.358	.357	.352	.352	.352
6.737	0	.023	.037	.048	.058	.104	.080	.090	.103	.114	.123	.132	.153	.199	.263	.288	.323	.350	.376	.388	.410	.411	.411	.411	.411	.411
7.859	0	.006	.011	.018	.023	.023	.032	.040	.046	.054	.061	.068	.101	.145	.193	.220	.251	.272	.295	.310	.378	.383	.386	.416	.416	.416
8.982	0	.003	.003	.003	.003	.005	.006	.010	.016	.016	.017	.021	.036	.066	.096	.176	.206	.226	.245	.256	.317	.326	.336	.376	.378	.396
10.105	0	.003	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.014	.055	.074	.124	.164	.193	.214	.242	.249	.267	.305	.301	.339
11.228	0	-.003	0	.001	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.012	.027	.062	.097	.137	.183	.194	.209	.234	.234	.248
-1.123	1.497	.084	.097	.114	.128	.146	.161	.176	.188	.186	.171	.155	.136	.121	.106	.096	.085	.072	.066	.061	.052	.044	.041	.037	.037	.037
0	1.497	.026	.040	.054	.071	.081	.090	.105	.125	.145	.164	.177	.182	.149	.111	.097	.084	.074	.068	.066	.049	.037	.037	.037	.037	.037
1.123	1.497	.020	.027	.049	.062	.080	.095	.112	.129	.147	.164	.169	.184	.184	.159	.155	.127	.112	.110	.107	.089	.081	.079	.067	.067	.067
2.246	1.497	.065	.085	.105	.127	.146	.170	.195	.227	.252	.261	.260	.255	.250	.240	.235	.210	.200	.197	.187	.180	.159	.158	.158	.158	.158
3.368	1.497	.053	.073	.098	.123	.143	.163	.190	.220	.240	.263	.283	.293	.300	.303	.296	.289	.272	.271	.264	.251	.238	.241	.219	.245	.232
4.491	1.497	.006	.005	.014	.032	.043	.062	.091	.122	.153	.189	.225	.264	.299	.320	.330	.331	.326	.322	.320	.316	.308	.298	.286	.286	.286
5.614	1.497	.011	.016	.028	.046	.056	.071	.091	.116	.146	.176	.215	.256	.296	.332	.371	.389	.399	.406	.406	.390	.386	.381	.366	.353	.353
6.737	1.497	.036	.048	.063	.076	.087	.097	.116	.135	.156	.173	.188	.213	.242	.281	.312	.336	.361	.376	.386	.389	.389	.389	.389	.389	.389
7.859	1.497	.015	.022	.030	.040	.049	.058	.069	.086	.097	.113	.126	.149	.184	.239	.276	.304	.334	.359	.373	.404	.444	.449	.476	.461	.461
8.982	1.497	.012	.018	.023	.024	.024	.025	.029	.035	.042	.049	.055	.073	.098	.172	.262	.307	.337	.362	.387	.421	.462	.492	.562	.572	.572
10.105	1.497	0	0	0	0	0	0	.003	.005	.005	.005	.005	.006	.009	.022	.050	.095	.155	.195	.205	.227	.252	.277	.304	.320	.335
11.228	1.497	0	0	0	0	0	0	0	0	0	0	0	0	0	.001	.005	.064	.040	.074	.125	.196	.215	.230	.240	.262	.274
-1.123	4.491	.027	.040	.052	.067	.076	.090	.105	.119	.122	.110	.095	.082	.071	.060	.051	.044	.037	.027	.022	.015	.009	.003	.001	-.002	-.002
0	4.491	-.037	-.013	.003	.022	.042	.067	.097	.122	.132	.122	.107	.092	.082	.067	.057	.043	.032	.027	.023	.012	.005	-.002	-.011	-.011	-.011
1.123	4.491	.037	.057	.077	.098	.118	.143	.173	.200	.222	.227	.217	.210	.201	.191	.182	.169	.155	.151	.149	.127	.124	.124	.124	.124	.124
2.246	4.491	.071	.092	.119	.135	.148	.165	.174	.192	.212	.231	.250	.274	.270	.260	.250	.240	.230	.225	.225	.205	.198	.182	.175	.175	.175
3.368	4.491	.064	.083	.101	.121	.189	.155	.181	.209	.238	.260	.279	.294	.304	.308	.308	.300	.294	.289	.284	.274	.269	.259	.249	.249	.249
4.491	4.491	.046	.064	.083	.100	.119	.139	.159	.180	.203	.227	.248	.272	.293	.314	.329	.334	.333	.332	.329	.324	.320	.316	.309	.302	.293
5.614	4.491	.051	.069	.084	.096	.108	.120	.136	.156	.176	.195	.211	.229	.254	.274	.299	.314	.325	.332	.334	.333	.329	.322	.317	.309	.299
6.737	4.491	.023	.032	.042	.049	.055	.062	.074	.089	.104	.117	.127	.147	.180	.212	.242	.271	.292	.307	.312	.334	.334	.334	.334	.334	.334
7.859	4.491	.008	.013	.017	.022	.024	.029	.036	.046	.053	.062	.067	.078	.105	.168	.192	.219	.236	.255	.272	.292	.312	.327	.340	.340	.340
8.982	4.491	-.004	-.004	-.002	0	.001	.002	.004	.045	.005	.005	.006	.009	.016	.046	.116	.161	.196	.216	.222	.256	.271	.286	.291	.296	.326
10.105	4.491	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.015	.033	.071	.121	.171	.195	.224	.232	.251	.288	.298	.301
-1.123	7.485	-.023	-.031	-.038	-.048	-.066	-.079	-.091	-.101	-.113	-.133	-.153	-.153	-.135	-.117	-.099	-.093	-.088	-.083	-.075	-.063	-.058	-.057	-.053	-.053	-.053
0	7.485	.043	.057	.079	.097	.114	.133	.152	.171	.181	.176	.173	.167	.159	.150	.143	.132	.121	.117	.111	.104	.096	.092	.086	.091	.091
1.123	7.485	.049	.062	.085	.097	.108	.118	.129	.143	.156	.169	.183	.194	.204	.203	.194	.188	.173	.173	.173	.163	.153	.151	.148	.148	.148
2.246	7.485	.046	.066	.086	.106	.121	.141	.161	.191	.219	.236	.255	.263	.271	.271	.268	.261	.255	.248	.251	.238	.233	.228	.221	.218	.216
3.368	7.485	.093	.120	.141	.158	.174	.189	.208	.228	.240	.250	.259	.266	.274	.277	.283	.282	.282	.278	.275	.270	.265	.260	.260	.260	.260
4.491	7.485	.043	.053	.070	.085	.099	.118	.138	.163	.181	.198	.215	.231	.252	.276	.289	.297	.300	.302	.302	.302	.302	.302	.302	.302	.302
5.614	7.485	.027	.038	.050	.059	.068	.077	.089	.107	.122	.137	.157	.177	.202	.241	.267	.276	.282	.294	.299	.301	.305	.305	.305	.305	.305
6.737	7.485	.019	.024	.031	.037	.044	.049	.060	.067	.074	.084	.093	.107	.131	.182	.213	.232	.245	.263	.273	.283	.295	.307	.312	.312	.312
-1.123	11.976	.020	.033	.046	.058	.068	.080	.097	.117	.128	.135	.139	.139	.139	.138	.134	.126	.118	.116	.117	.108	.096	.088	.078	.075	.071
1.123	11.976	.034	.048	.061	.074	.086	.098	.113	.128	.143	.163	.170	.193	.199	.204	.204	.203	.193	.197	.193	.193	.203	.171	.171	.171	.171
2.246	11.976	.024	.039	.051	.064	.074	.085	.101	.117	.133	.149	.168	.185	.204	.221	.230	.229	.226	.224	.224	.222	.217	.211	.209	.208	.202
-1.123	14.221	.015	.030	.042	.054	.060	.069	.077	.092	.110	.120	.126	.140	.145	.145	.145	.142	.135	.125	.120	.106	.089	.083	.071	.073	.060

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(g) Test position G (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																												
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
-1.123	0	0.039	0.051	0.060	0.068	0.074	0.080	0.092	0.095	0.099	0.101	0.103	0.105	0.105	0.104	0.101	0.100	0.099	0.093	0.092	0.076	0.067	0.059	0.073	0.056	0.057	0.063	0.059	0.052
0	0	.063	.077	.092	.102	.111	.120	.127	.133	.134	.137	.139	.142	.144	.145	.147	.148	.147	.144	.143	.141	.130	.104	.093	.098	.100	.105	.103	.091
1.123	0	.048	.065	.083	.098	.113	.128	.141	.153	.165	.174	.183	.189	.193	.195	.196	.196	.195	.184	.184	.165	.149	.148	.136	.128	.131	.150	.146	.115
2.246	0	.053	.069	.085	.101	.119	.134	.149	.164	.175	.187	.196	.206	.214	.222	.229	.234	.234	.224	.221	.208	.190	.184	.165	.163	.175	.184	.169	.196
3.368	0	.145	.157	.172	.182	.192	.202	.211	.217	.223	.231	.237	.243	.247	.252	.256	.257	.257	.257	.255	.242	.222	.225	.231	.224	.206	.216	.190	.187
4.491	0	.080	.097	.117	.135	.152	.164	.172	.185	.197	.207	.217	.235	.249	.264	.277	.292	.307	.307	.309	.306	.287	.281	.251	.266	.267	.277	.260	.246
5.614	0	.084	.103	.122	.138	.152	.167	.181	.192	.199	.215	.223	.235	.246	.260	.270	.280	.295	.310	.315	.320	.325	.323	.317	.309	.295	.300	.293	.293
6.737	0	.077	.092	.110	.122	.137	.142	.157	.167	.177	.184	.192	.207	.222	.236	.251	.267	.282	.298	.307	.324	.337	.348	.355	.343	.344	.333	.336	.302
7.859	0	.044	.056	.067	.077	.087	.096	.106	.114	.122	.131	.137	.148	.162	.176	.187	.201	.212	.232	.248	.288	.297	.322	.326	.330	.337	.335	.342	.319
8.982	0	.019	.024	.030	.035	.041	.047	.054	.059	.063	.069	.076	.079	.085	.095	.110	.130	.150	.170	.195	.222	.252	.270	.285	.303	.317	.326	.334	.333
10.105	0	.008	.013	.011	.016	.019	.019	.019	.019	.022	.024	.024	.026	.029	.034	.038	.044	.055	.079	.118	.184	.208	.218	.224	.234	.244	.254	.270	.290
11.228	0	.008	.010	.010	.009	.009	.009	.009	.010	.010	.010	.011	.012	.014	.015	.015	.020	.022	.039	.067	.113	.143	.160	.168	.175	.223	.225	.235	.239
0	1.497	.055	.070	.082	.095	.105	.117	.128	.140	.153	.163	.172	.170	.167	.163	.159	.155	.146	.141	.138	.116	.111	.107	.103	.970	.930	.108	.103	.093
1.123	1.497	.059	.074	.087	.101	.111	.123	.132	.151	.157	.168	.176	.181	.183	.183	.183	.184	.185	.184	.185	.171	.146	.143	.157	.158	.136	.140	.136	.134
2.246	1.497	.063	.077	.093	.106	.118	.130	.142	.153	.163	.173	.180	.187	.193	.197	.207	.215	.127	.223	.213	.206	.200	.188	.189	.190	.185	.181	.173	.153
3.368	1.497	.062	.077	.091	.102	.117	.127	.142	.152	.167	.181	.192	.207	.222	.233	.245	.255	.262	.267	.264	.251	.242	.227	.244	.250	.228	.235	.235	.196
4.491	1.497	.005	.011	.022	.025	.036	.050	.066	.083	.100	.115	.130	.146	.170	.197	.225	.250	.265	.280	.280	.280	.280	.280	.280	.280	.280	.280	.280	.280
5.614	1.497	.021	.039	.052	.063	.074	.083	.096	.115	.141	.171	.205	.231	.255	.276	.296	.314	.323	.332	.336	.343	.334	.323	.311	.323	.333	.329	.328	.317
6.737	1.497	.059	.060	.085	.097	.104	.122	.133	.146	.157	.170	.183	.198	.216	.235	.254	.270	.285	.297	.310	.320	.330	.340	.340	.340	.340	.340	.340	.340
7.859	1.497	.041	.055	.063	.078	.087	.098	.107	.117	.126	.135	.146	.163	.181	.195	.210	.223	.244	.270	.290	.323	.337	.376	.381	.390	.391	.386	.385	.375
8.982	1.497	.021	.029	.040	.040	.045	.061	.053	.057	.061	.066	.071	.075	.081	.096	.111	.126	.141	.156	.181	.216	.249	.276	.296	.302	.326	.327	.327	.347
10.105	1.497	.007	.009	.005	.007	.009	.010	.012	.013	.015	.018	.018	.018	.018	.020	.023	.027	.031	.048	.088	.163	.183	.239	.238	.268	.273	.276	.286	.311
11.228	1.497	.006	.005	.005	.006	.006	.006	.006	.006	.006	.006	.006	.006	.007	.007	.008	.008	.010	.015	.035	.051	.113	.145	.170	.207	.215	.221	.218	-----
-1.123	4.491	.042	.054	.061	.069	.076	.084	.093	.106	.119	.134	.147	.144	.139	.133	.125	.117	.109	.104	.096	.088	.087	.084	.083	.067	.065	.068	.053	.043
0	4.491	.041	.056	.071	.082	.092	.106	.123	.141	.155	.168	.177	.180	.181	.180	.177	.167	.159	.152	.151	.140	.136	.125	.127	.108	.114	.122	.102	.089
1.123	4.491	.049	.063	.073	.086	.097	.107	.121	.131	.141	.155	.166	.177	.186	.195	.200	.202	.203	.204	.200	.193	.183	.168	.178	.160	.158	.166	.167	.151
2.246	4.491	.082	.096	.110	.123	.134	.144	.153	.162	.169	.178	.187	.196	.205	.215	.227	.237	.247	.247	.242	.237	.223	.211	.222	.215	.207	.211	.211	.171
3.368	4.491	.121	.134	.153	.169	.184	.200	.214	.229	.243	.253	.269	.279	.291	.301	.309	.319	.326	.325	.323	.323	.303	.296	.311	.285	.287	.295	.275	.252
4.491	4.491	.037	.054	.074	.087	.104	.120	.134	.153	.169	.179	.189	.204	.216	.229	.241	.254	.262	.265	.275	.265	.240	.244	.265	.259	.237	.237	.233	.208
5.614	4.491	.077	.093	.109	.126	.133	.145	.156	.168	.178	.188	.197	.208	.220	.233	.248	.261	.273	.283	.290	.295	.288	.283	.299	.263	.290	.288	.273	.247
6.737	4.491	.046	.058	.070	.076	.083	.093	.105	.116	.122	.132	.146	.153	.163	.174	.186	.201	.230	.250	.263	.285	.277	.284	.301	.301	.300	.301	.296	.273
7.859	4.491	.027	.032	.042	.047	.052	.061	.068	.077	.083	.089	.094	.098	.102	.108	.115	.121	.144	.172	.207	.235	.251	.276	.288	.287	.300	.309	.303	.284
8.982	4.491	.009	.012	.013	.016	.018	.019	.020	.021	.023	.028	.033	.041	.047	.054	.066	.072	.081	.111	.136	.185	.211	.246	.258	.266	.286	.306	.296	.306
10.105	4.491	.004	.004	.004	.004	.005	.006	.007	.007	.008	.008	.008	.011	.012	.013	.013	.014	.018	.033	.057	.100	.142	.205	.216	.239	.257	.276	.289	.295
-1.123	7.485	.034	.046	.056	.068	.079	.089	.099	.110	.121	.130	.137	.142	.142	.142	.140	.136	.128	.125	.117	.110	.102	.095	.087	.079	.079	.077	.077	.046
0	7.485	.061	.077	.089	.100	.112	.122	.133	.140	.150	.158	.166	.170	.172	.172	.170	.169	.168	.169	.159	.149	.144	.137	.124	.123	.119	.123	.102	.087
1.123	7.485	.084	.101	.114	.125	.137	.147	.154	.163	.174	.181	.190	.197	.204	.208	.212	.214	.215	.212	.204	.193	.184	.179	.177	.167	.166	.163	.144	.131
2.246	7.485	.071	.085	.102	.114	.127	.139	.150	.165	.175	.185	.196	.211	.222	.234	.244	.252	.261	.262	.259	.251	.252	.240	.250	.228	.227	.212	.219	.195
3.368	7.485	.087	.147	.164	.179	.194	.207	.218	.229	.237	.246	.253	.259	.266	.269	.276	.281	.282	.287	.288	.282	.273	.276	.267	.267	.262	.256	.228	.200
4.491	7.485	.073	.088	.107	.119	.131	.146	.162	.173	.188	.200	.211	.223	.238	.248	.263	.281	.288	.288	.295	.295	.283	.280	.279	.273	.271	.270	.262	.234
5.614	7.485	.058	.073	.084	.098	.108	.118	.133	.143	.154	.164	.174	.188	.201	.213	.223	.237	.246	.253	.263	.265	.266	.271	.272	.273	.273	.273	.272	.268
6.737	7.485	.055	.058	.076	.087	.095	.103	.111	.118	.125	.133	.141	.149	.158	.168	.181	.191	.194	.216	.229	.243	.251	.266	.280	.291	.283	.284	.262	.259
-1.123	11.976	.042	.052	.062	.072	.082	.092	.103	.113	.122	.132	.139	.145	.149	.153	.155	.157	.157	.151	.150	.142	.138	-.071	-.065	-.041	-.035	-.035	-.034	0
1.123	11.976	.054	.064	.076	.087	.100	.112	.125	.137	.147	.157	.167	.177	.187	.197	.207	.214	.221	.221	.218	.212	.207	.202	.201	.192	.174	.161	.155	.128
2.246	11.976	.049	.063	.074	.084	.093	.103	.109	.118	.129	.141	.152	.163	.183	.198	.213	.228	.239	.243	.243	.241	.238	.233	.227	.213	.209	.202	.199	.160
-1.123	14.221	.040	.049	.055	.060	.068	.075	.083	.090	.099	.105	.114	.125	.135	.144	.152	.160	.163	.156	.145	.135	.130	.110	.110	.084	.069	.066	.054	.040

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(h) Test position H (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_r/p_∞ of -																										
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	46	50	52	54	56	58
-5.614	0	-0.018	-0.022	-0.025	-0.055	-0.054	-0.038	-0.038	-0.038	-0.038	-0.037	-0.035	-0.032	-0.031	-0.031	-0.031	-0.029	-0.026	-0.023	-0.021	-0.021	-0.022	-0.019	-0.022	-0.032	-0.045	-0.084	-0.083
-4.491	0	.074	-.074	-.092	-.102	-.111	-.119	-.127	-.131	-.132	-.132	-.132	-.132	-.132	-.134	-.134	-.129	-.126	-.121	-.116	-.118	-.118	-.118	-.123	-.140	-.176	-.210	-.206
-3.368	0	-.040	-.046	-.051	-.055	-.061	-.068	-.067	-.065	-.064	-.064	-.064	-.065	-.069	-.068	-.060	-.063	-.058	-.050	-.045	-.049	-.046	-.043	-.049	-.072	-.133	-.188	-.193
-2.246	0	-.089	-.113	-.126	-.143	-.158	-.169	-.170	-.170	-.170	-.169	-.168	-.165	-.162	-.158	-.158	-.163	-.153	-.141	-.140	-.141	-.142	-.141	-.153	-.204	-.258	-.321	-.329
-1.123	0	-.208	-.223	-.238	-.250	-.262	-.272	-.277	-.278	-.277	-.274	-.273	-.268	-.263	-.262	-.263	-.265	-.253	-.240	-.238	-.245	-.248	-.250	-.287	-.338	-.378	-.402	-.403
0	0	-.146	-.178	-.213	-.244	-.274	-.299	-.318	-.328	-.335	-.341	-.342	-.337	-.328	-.327	-.332	-.325	-.309	-.298	-.290	-.288	-.288	-.290	-.298	-.330	-.376	-.419	-.427
1.123	0	-.107	-.131	-.153	-.182	-.162	-.132	-.119	-.109	-.101	-.094	-.088	-.094	-.102	-.102	-.100	-.103	-.117	-.133	-.133	-.132	-.138	-.138	-.138	-.120	-.090	-.095	.089
2.246	0	.016	.015	.012	.001	-.011	-.026	-.034	-.038	-.049	-.066	-.083	-.066	-.081	-.080	-.079	.072	-.064	-.053	-.044	-.047	-.045	-.046	-.045	-.040	-.026	.063	.078
3.368	0	.012	.019	.021	.017	.010	.001	-.006	-.016	-.029	-.041	-.056	-.059	-.057	-.054	-.054	-.050	-.041	-.026	-.015	-.018	-.018	-.015	-.010	.014	.075	.264	.264
4.491	0	.005	.011	.014	.018	.022	.023	.023	.012	-.004	-.025	-.045	-.047	-.050	-.050	-.051	-.048	-.033	-.014	-.002	-.006	-.006	0	0	.033	.118	.260	.381
5.614	0	.011	.015	.016	.020	.025	.026	.027	.036	.016	-.007	-.029	-.038	-.041	-.042	-.055	-.027	-.016	-.002	.012	.009	.012	.021	.026	.081	.198	.432	.442
6.737	0	.022	.017	.020	.025	.030	.032	.031	.025	.020	.005	-.009	-.025	-.030	-.030	-.028	-.025	-.009	.010	.025	.025	.030	.040	.065	.147	.260	.366	.367
-5.614	1.497	-.023	-.028	-.033	-.038	-.043	-.047	-.049	-.052	-.054	-.056	-.057	-.057	-.057	-.056	-.054	-.052	-.051	-.047	-.045	-.044	-.043	-.043	-.045	-.053	-.065	-.108	-.106
-4.491	1.497	-.076	-.096	-.111	-.123	-.132	-.141	-.144	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.146	-.144	-.138	-.132	-.128	-.131	-.130	-.130	-.135	-.155	-.179	-.229	-.228
-3.368	1.497	-.053	-.063	-.073	-.080	-.083	-.084	-.085	-.084	-.083	-.082	-.080	-.085	-.086	-.086	-.091	-.088	-.079	-.070	-.067	-.069	-.073	-.069	-.079	-.122	-.162	-.222	-.219
-2.248	1.497	-.087	-.102	-.116	-.131	-.150	-.162	-.168	-.169	-.169	-.169	-.169	-.168	-.158	-.166	-.165	-.167	-.156	-.146	-.140	-.140	-.143	-.145	-.162	-.210	-.259	-.308	-.299
-1.123	1.497	-.116	-.150	-.172	-.200	-.225	-.250	-.257	-.262	-.265	-.266	-.271	-.264	-.256	-.256	-.256	-.256	-.246	-.234	-.226	-.228	-.229	-.227	-.236	-.288	-.349	-.398	-.399
0	1.497	.032	.004	-.041	-.096	-.148	-.195	-.228	-.244	-.257	-.267	-.279	-.268	-.255	-.255	-.256	-.255	-.245	-.233	-.218	-.219	-.216	-.213	-.216	-.224	-.291	-.350	-.350
1.123	1.497	.051	.039	.014	-.021	-.048	-.086	-.116	-.151	-.176	-.196	-.212	-.211	-.196	-.197	-.202	-.200	-.186	-.169	-.164	-.162	-.157	-.159	-.159	-.166	-.207	-.202	-.195
2.246	1.497	-.129	-.120	-.115	-.129	-.142	-.160	-.170	-.182	-.193	-.204	-.216	-.215	-.213	-.214	-.216	-.213	-.199	-.184	-.177	-.180	-.177	-.177	-.175	-.174	-.155	-.205	-.183
3.368	1.497	.005	.012	.013	.013	.011	.006	.003	-.011	-.033	-.051	-.070	-.069	-.068	-.072	-.072	-.069	-.056	-.040	-.025	-.025	-.024	-.024	-.019	.007	.054	.281	.296
4.491	1.497	-.004	-.006	-.006	0	.002	.002	.007	.012	-.007	-.027	-.044	-.051	-.055	-.055	-.057	-.053	-.039	-.024	-.013	-.013	-.012	-.004	.003	.048	.133	.212	.390
5.614	1.497	.001	.004	.007	.003	.001	-.001	-.008	-.013	-.002	-.013	-.029	-.039	-.047	-.047	-.047	-.040	-.030	-.012	0	-.001	.002	.009	.016	.066	------	------	------
6.737	1.497	.012	.021	.025	.030	.035	.036	.036	.046	.035	.016	-.001	-.023	-.034	-.033	-.030	-.028	-.012	.005	.020	.021	.021	.028	.038	.100	.221	.347	.352
-5.614	4.491	-.062	-.074	-.087	-.097	-.103	-.109	-.112	-.112	-.112	-.113	-.114	-.115	-.115	-.116	-.116	-.115	-.111	-.108	-.107	-.108	-.109	-.110	-.116	-.135	-.156	-.192	-.193
-4.491	4.491	-.027	-.035	-.042	-.049	-.056	-.064	-.067	-.071	-.072	-.074	-.074	-.075	-.075	-.072	-.072	-.071	-.068	-.065	-.062	-.062	-.060	-.061	-.069	-.092	-.124	-.187	-.182
-3.368	4.491	.017	.002	-.014	-.002	-.042	-.055	-.064	-.067	-.067	-.067	-.067	-.066	-.055	-.055	-.055	-.055	-.048	-.039	-.036	-.037	-.039	-.037	-.047	-.082	-.123	-.152	-.177
-2.246	4.491	-.099	-.118	-.135	-.152	-.166	-.179	-.192	-.199	-.204	-.205	-.206	-.206	-.203	-.203	-.200	-.197	-.179	-.169	-.160	-.163	-.165	-.166	-.179	-.224	-.263	-.299	-.297
-1.123	4.491	-.086	-.115	-.147	-.160	-.180	-.198	-.213	-.224	-.233	-.241	-.247	-.246	-.242	-.235	-.238	-.230	-.217	-.208	-.199	-.198	-.195	-.195	-.201	-.225	-.268	-.303	-.303
0	4.491	-.055	-.085	-.107	-.128	-.153	-.165	-.185	-.200	-.214	-.227	-.238	-.237	-.236	-.232	-.228	-.227	-.211	-.201	-.194	-.196	-.195	-.196	-.198	-.202	-.240	-.240	-.245
1.123	4.491	.006	.004	.002	-.006	-.019	-.037	-.044	-.054	-.063	-.071	-.080	-.080	-.076	-.077	-.077	-.072	-.060	-.048	-.042	-.045	-.044	-.046	-.045	-.048	-.056	-.017	-.017
2.246	4.491	.005	.006	.007	.005	.001	-.006	-.013	-.022	-.036	-.051	-.070	-.070	-.071	-.071	-.071	-.068	-.055	-.042	-.035	-.036	-.037	-.036	-.035	-.028	-.009	.080	.087
3.368	4.491	-.009	-.007	-.008	-.009	-.013	-.019	-.023	-.029	-.037	-.044	-.053	-.059	-.064	-.065	-.062	-.062	-.053	-.040	-.032	-.028	-.028	-.026	-.020	.006	.064	.176	.180
4.491	4.491	.004	.005	.006	.006	.006	.006	.008	.009	0	-.014	-.027	-.035	-.043	-.044	-.044	-.043	-.033	-.022	-.016	-.014	-.010	-.005	-.001	.027	.097	.260	.270
5.614	4.491	.007	.009	.003	.017	.021	.021	.027	.027	.018	.007	-.007	-.018	-.027	-.033	-.028	-.024	-.010	.001	.006	.007	.010	.015	.023	.052	.146	.343	.335
-5.614	7.485	-.048	-.062	-.073	-.090	-.098	-.107	-.112	-.115	-.118	-.121	-.118	-.116	-.114	-.114	-.114	-.108	-.101	-.094	-.090	-.093	-.090	-.091	-.098	-.115	-.138	-.183	-.180
-4.491	7.485	-.075	-.088	-.106	.120	-.130	-.135	-.148	-.153	-.157	-.162	-.166	-.167	-.163	-.160	-.155	-.153	-.142	-.128	-.125	-.125	-.128	-.129	-.138	-.159	-.187	-.213	-.212
-3.368	7.485	-.118	-.138	-.155	-.175	-.188	-.195	-.201	-.205	-.207	-.208	-.210	-.210	-.210	-.207	-.206	-.198	-.184	-.171	-.165	-.168	-.168	-.170	-.175	-.196	-.222	-.231	-.233
-2.246	7.485	-.059	-.091	-.110	-.134	-.157	-.177	-.184	-.201	-.207	-.214	-.222	-.222	-.223	-.221	-.217	-.214	-.198	-.184	-.176	-.179	-.178	-.179	-.182	-.192	-.214	-.209	-.210
-1.123	7.485	-.110	-.127	-.146	-.160	-.172	-.190	-.192	-.197	-.198	-.200	-.202	-.202	-.202	-.203	-.196	-.191	-.176	-.167	-.166	-.166	-.166	-.165	-.164	-.170	-.161	-.146	-.153
0	7.485	.005	.006	.006	.004	-.004	-.012	-.021	-.031	-.044	-.055	-.068	-.072	-.072	-.074	-.073	-.070	-.059	-.047	-.042	-.040	-.039	-.039	-.037	-.037	-.035	.001	.005
1.123	7.485	.010	.008	.005	.006	.003	0	-.008	-.020	-.032	-.045	-.059	-.065	-.065	-.064	-.064	-.060	-.051	-.040	-.035	-.034	-.032	-.029	-.028	-.029	-.010	.056	.052
2.246	7.485	0	-.002	-.002	-.002	-.004	-.007	-.012	-.017	-.024	-.032	-.042	-.047	-.061	-.059	-.053	-.052	-.042	-.035	-.028	-.025	-.023	-.017	-.012	.006	.048	.128	.128
-5.614	11.976	-.055	-.074	-.089	-.106	-.118	-.130	-.139	-.144	-.147	-.149	-.149	-.149	-.149	-.148	-.148	-.146	-.144	-.139	-.131	-.134	-.136	-.136	-.140	-.146	-.149	-.151	-.127
-3.368	11.976	-.021	-.031	-.042	-.053	-.068	-.091	-.096	-.103	-.111	-.116	-.121	-.123	-.123	-.118	-.116	-.111	-.106	-.101	-.096	-.100	-.104	-.105	-.10[illegible]	-.109	-.113	-.108	-.107
-2.246	11.976	.004	.003	.002	-.001	-.003	-.006	-.019	-.031	-.045	-.058	-.073	-.072	-.072	-.067	-.061	-.056	-.052	-.045	-.043	-.045	-.045	-.042	-.04[illegible]	-.042	-.036	0	-.006
-5.614	14.221	-.041	-.072	-.100	-.105	-.107	-.109	-.115	-.120	-.124	-.126	-.131	-.125	-.123	-.119	-.118	-.119	-.120	-.122	-.123	-.130	-.128	-.128	-.134	-.142	-.171	-.175	-.192

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 56 - Continued

(i) Test position 1 (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_r/p_∞ of -																										
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56
2.245	0	0.080	0.107	0.128	0.148	0.165	0.179	0.193	0.207	0.218	0.229	0.237	0.242	0.245	0.245	0.246	0.246	0.245	0.234	0.219	0.203	0.190	0.175	0.153	0.133	0.109	0.090
3.368	0	.138	.162	.186	.206	.225	.240	.256	.270	.282	.296	.308	.315	.321	.327	.330	.333	.335	.332	.325	.295	.298	.280	.269	.255	.217	.179
4.491	0	.115	.145	.171	.194	.215	.234	.252	.266	.280	.293	.306	.318	.329	.338	.348	.356	.363	.366	.353	.340	.317	.332	.328	.320	.293	.258
5.614	0	.101	.135	.165	.190	.207	.222	.233	.249	.267	.281	.289	.306	.322	.337	.352	.362	.377	.382	.377	.377	.374	.375	.374	.374	.347	.252
6.737	0	.175	.200	.216	.224	.235	.247	.256	.265	.271	.276	.278	.285	.294	.304	.315	.326	.342	.353	.367	.376	.376	.370	.366	.354	.315	.291
7.859	0	.078	.105	.113	.127	.138	.151	.163	.173	.182	.189	.199	.219	.222	.233	.244	.258	.285	.313	.335	.366	.383	.393	.396	.398	.386	.378
8.982	0	.054	.071	.085	.096	.107	.115	.125	.131	.139	.146	.150	.160	.170	.177	.184	.190	.218	.238	.263	.274	.297	.313	.339	.360	.363	.351
10.105	0	.033	.045	.052	.061	.065	.072	.079	.085	.089	.093	.096	.108	.125	.141	.160	.176	.191	.205	.226	.256	.255	.273	.294	.316	.335	.356
11.228	0	.010	.012	.013	.016	.019	.023	.023	.024	.025	.028	.031	.038	.044	.053	.062	.082	.110	.139	.178	.193	.210	.222	.225	.237	.247	.267
12.350	0	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.009	.015	.034	.059	.105	.179	.181	.184	.195	.199	.213
13.473	0	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.005	.022	.039	.042	.066	.103	.122	.131	.183	.174
14.596	0	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.005	.030	.042	.055	.042	.043	.098	.122
2.245	1.497	.081	.107	.128	.148	.165	.181	.197	.211	.224	.229	.243	.244	.243	.239	.235	.230	.224	.215	.203	.199	.194	.187	.183	.180	.160	.124
3.368	1.497	.121	.146	.171	.166	.210	.231	.247	.278	.289	.284	.309	.312	.315	.316	.316	.315	.312	.309	.305	.299	.292	.284	.279	.265	.251	.234
4.491	1.497	.116	.149	.176	.199	.218	.236	.251	.264	.276	.286	.296	.281	.315	.321	.329	.337	.363	.346	.345	.341	.335	.326	.317	.306	.281	.251
5.614	1.497	.123	.150	.174	.192	.207	.225	.240	.255	.266	.276	.286	.300	.314	.328	.346	.358	.370	.375	.375	.373	.370	.365	.361	.355	.348	.345
6.737	1.497	.093	.116	.138	.156	.170	.183	.202	.215	.226	.236	.246	.257	.274	.291	.258	.323	.338	.352	.363	.372	.377	.381	.385	.375	.365	.345
7.859	1.497	.011	.029	.043	.055	.069	.082	.097	.110	.127	.143	.159	.174	.192	.209	.228	.247	.264	.285	.307	.325	.348	.367	.369	.372	.363	.340
8.982	1.497	.024	.039	.051	.062	.072	.081	.092	.101	.113	.124	.138	.158	.176	.201	.221	.241	.261	.281	.303	.322	.343	.363	.386	.366	.386	.386
10.105	1.497	.032	.043	.047	.053	.061	.068	.073	.079	.085	.089	.095	.105	.116	.130	.148	.167	.192	.219	.238	.249	.266	.272	.306	.319	.346	.335
11.228	1.497	.007	.009	.010	.013	.014	.017	.019	.021	.023	.025	.027	.031	.034	.039	.043	.048	.064	.134	.183	.217	.241	.263	.279	.298	.311	.365
12.350	1.497	0	.001	.001	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.007	.010	.026	.051	.081	.116	.169	.187	.187	.191	.194
13.473	1.497	.004	.004	.004	.004	.004	0	0	0	0	0	0	0	0	0	0	0	.005	.015	.020	.040	.065	.075	.093	.100	.125	.148
14.596	1.497	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.001	.005	.008	.019	.015	.021	.067	.103
2.245	4.491	.101	.127	.142	.159	.172	.187	.197	.207	.217	.223	.228	.229	.232	.229	.226	.215	.215	.211	.205	.190	.184	.175	.169	.160	.139	.107
3.368	4.491	.086	.117	.142	.165	.173	.200	.219	.233	.246	.256	.266	.274	.276	.286	.289	.290	.290	.287	.268	.265	.263	.258	.256	.238	.245	.208
4.491	4.491	.092	.127	.155	.172	.191	.207	.222	.236	.247	.257	.272	.287	.302	.312	.326	.327	.328	.327	.316	.311	.293	.303	.304	.299	.295	.210
5.614	4.491	.132	.157	.177	.196	.216	.227	.237	.247	.256	.264	.274	.287	.297	.310	.322	.330	.345	.344	.349	.354	.346	.345	.342	.338	.312	.262
6.737	4.491	.084	.112	.132	.147	.157	.167	.179	.191	.201	.213	.224	.237	.252	.264	.281	.295	.312	.325	.339	.351	.362	.370	.427	.375	.371	.349
7.859	4.491	.071	.086	.102	.115	.127	.139	.150	.161	.168	.176	.187	.199	.214	.226	.245	.259	.279	.296	.317	.332	.345	.367	.375	.382	.386	.370
8.982	4.491	.063	.076	.089	.099	.110	.117	.123	.130	.133	.138	.140	.154	.169	.186	.197	.211	.216	.236	.263	.274	.281	.304	.319	.333	.325	.313
10.105	4.491	.022	.026	.031	.033	.036	.041	.044	.045	.049	.050	.053	.054	.056	.061	.066	.107	.152	.170	.205	.217	.237	.252	.264	.278	.291	.286
11.228	4.491	.014	.018	.019	.020	.020	.022	.022	.022	.022	.022	.022	.023	.024	.026	.028	.031	.044	.079	.134	.166	.184	.204	.221	.231	.234	.229
12.350	4.491	.005	.005	.005	.005	.005	.006	.006	.006	.006	.006	.006	.007	.008	.008	.008	.009	.006	.021	.041	.066	.084	.123	.156	.171	.181	.191
13.473	4.491	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003	.011	.022	.039	.062	.076	.105	.139
2.245	7.485	.063	.083	.101	.118	.132	.146	.157	.168	.178	.188	.194	.206	.213	.216	.218	.218	.217	.216	.213	.204	.200	.190	.183	.169	.156	.140
3.368	7.485	.094	.127	.145	.161	.174	.192	.204	.212	.221	.229	.235	.243	.249	.254	.259	.261	.265	.261	.264	.256	.249	.239	.233	.226	.210	.178
4.491	7.485	.130	.154	.172	.187	.198	.210	.221	.230	.238	.246	.252	.262	.270	.277	.283	.289	.294	.297	.298	.298	.297	.296	.291	.276	.261	.251
5.614	7.485	.087	.108	.127	.142	.156	.172	.187	.197	.207	.217	.227	.242	.252	.262	.277	.287	.300	.310	.323	.329	.332	.331	.325	.323	.322	.271
6.737	7.485	.130	.150	.178	.194	.206	.217	.225	.232	.237	.242	.247	.255	.261	.266	.270	.275	.292	.302	.317	.327	.335	.340	.345	.346	.330	.286
7.859	7.485	.060	.080	.089	.099	.109	.118	.128	.139	.148	.157	.163	.174	.188	.203	.217	.230	.245	.256	.281	.292	.307	.319	.325	.345	.339	.321
8.982	7.485	.040	.049	.057	.065	.071	.076	.081	.085	.090	.094	.096	.105	.120	.134	.152	.173	.195	.215	.241	.252	.266	.284	.287	.300	.305	.313
10.105	7.485	.012	.014	.016	.018	.020	.022	.024	.026	.027	.029	.031	.033	.036	.041	.046	.054	.071	.115	.156	.188	.208	.225	.233	.252	.264	.263
2.245	11.976	.048	.067	.082	.093	.103	.111	.119	.129	.135	.143	.150	.156	.161	.165	.169	.171	.177	.183	.188	.186	.186	.183	.178	.167	.160	.138
4.491	11.976	.083	.100	.116	.130	.139	.150	.160	.168	.174	.181	.188	.196	.201	.207	.212	.218	.228	.238	.246	.257	.259	.261	.265	.261	.243	.224
5.614	11.976	.057	.075	.075	.101	.113	.125	.131	.138	.146	.153	.159	.168	.178	.186	.197	.205	.213	.223	.233	.245	.253	.261	.268	.273	.263	.255
2.245	14.221	.056	.075	.086	.096	.102	.110	.116	.117	.131	.136	.141	.145	.148	.152	.156	.161	.165	.171	.171	.173	.175	.169	.168	.152	.141	.116

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

POSITIONS FOR ROCKET-PRESSURE RATIOS OF 6 TO 60 - Continued

(j) Test position J (upstream firing)

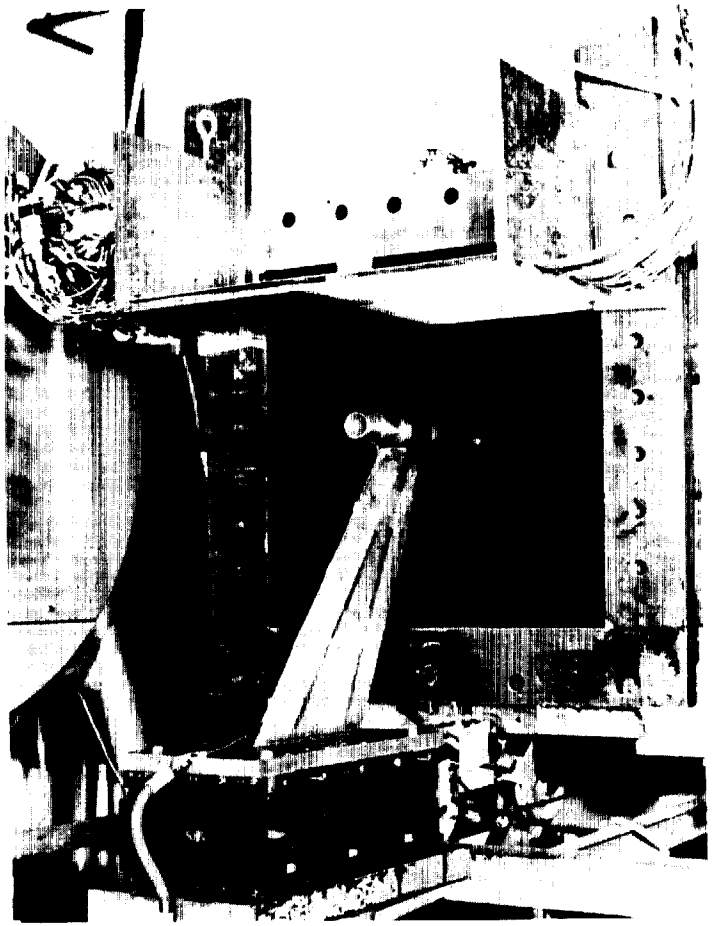
Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																											
x/D_T	y/D_T	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
5.614	0	0.044	0.074	0.093	0.111	0.131	0.150	0.176	0.182	0.196	0.209	0.223	0.236	0.250	0.265	0.277	0.291	0.278	0.274	0.299	0.300	0.285	0.287	0.296	0.286	0.279	0.276	0.234	0.225
6.737	0	.082	.106	.127	.147	.167	.187	.202	.217	.231	.245	.256	.269	.282	.293	.303	.310	.323	.330	.340	.353	.360	.364	.370	.366	.356	.337	.305	.260
7.859	0	.054	.074	.092	.103	.118	.133	.148	.164	.179	.194	.205	.219	.233	.247	.257	.259	.256	.255	.259	.288	.314	.339	.379	.364	.342	.352	.350	.339
8.982	0	.034	.056	.071	.085	.098	.109	.119	.131	.146	.155	.165	.179	.191	.200	.206	.206	.205	.203	.201	.200	.222	.303	.356	.331	.306	.331	.365	.395
10.105	0	.050	.065	.073	.082	.089	.095	.100	.106	.110	.114	.116	.119	.120	.123	.126	.130	.133	.134	.136	.139	.180	.237	.253	.240	.225	.217	.183	.150
11.228	0	.007	.007	.007	.007	.009	.010	.013	.015	.019	.023	.025	.027	.029	.031	.031	.034	.036	.044	.064	.109	.159	.199	.229	.214	.214	.229	.254	.285
12.350	0	-.003	-.004	-.005	-.006	-.005	-.004	-.004	-.004	-.004	-.004	-.004	-.003	-.002	-.001	.002	.003	.005	.009	.021	.041	.087	.140	.164	.156	.166	.188	.219	.225
13.473	0	.010	.009	.008	.008	.007	.007	.006	.005	.004	.003	.002	0	-.002	.002	-.002	-.002	0	.004	.017	.029	.053	.099	.131	.151	.167	.181	.195	.207
14.596	0	.003	.003	.002	.002	.001	.001	.001	0	0	-.001	-.001	0	-.003	-.004	-.005	-.006	-.006	-.005	-.003	.005	.017	.033	.062	.033	.027	.067	.164	.169
15.719	0	.003	.003	.003	.002	.002	.002	.001	.001	.001	.001	0	0	0	-.001	-.001	-.001	-.001	-.001	0	0	0	.007	.010	.012	.014	.035	.142	.142
16.842	0	.004	.004	.003	.003	.002	.001	.001	.001	.001	.001	.001	0	0	-.001	-.001	-.002	-.003	-.005	-.002	0	.002	.002	.002	.003	.014	.034	.080	.068
17.965	0	.004	.005	.005	.005	.004	.002	.001	0	-.001	-.001	-.001	-.002	-.003	-.003	-.002	-.001	0	0	.001	.001	.001	.001	.001	.002	.008	.019	.041	.033
6.737	1.497	.071	.098	.120	.139	.157	.173	.189	.203	.218	.233	.246	.261	.275	.287	.296	.300	.302	.304	.311	.319	.331	.347	.354	.352	.340	.320	.291	.253
7.859	1.497	.055	.076	.094	.110	.124	.138	.150	.160	.172	.184	.196	.208	.220	.233	.246	.252	.253	.256	.265	.288	.313	.337	.346	.350	.348	.342	.326	.300
8.982	1.497	.029	.045	.060	.065	.086	.097	.106	.113	.120	.129	.137	.148	.157	.165	.172	.182	.193	.207	.221	.239	.253	.266	.279	.289	.299	.307	.311	.315
10.105	1.497	.015	.023	.031	.038	.044	.051	.057	.063	.068	.078	.083	.088	.094	.100	.103	.107	.108	.109	.115	.143	.193	.239	.309	.270	.247	.273	.303	.317
11.228	1.497	0	0	0	0	0	.001	.001	.002	.002	.002	.002	.002	.003	.003	.003	.005	.003	.005	.020	.059	.132	.170	.195	.205	.205	.213	.247	.307
12.350	1.497	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	-.001	0	0	.001	.001	.002	.002	.007	.013	.041	.093	.243	.193	.163	.193	.236	.287
13.473	1.497	-.002	-.002	-.002	-.002	-.003	-.003	-.004	-.004	-.005	-.005	-.005	-.005	-.005	-.005	-.004	-.004	-.004	-.004	-.002	.010	.033	.076	.133	.067	.072	.125	.209	.235
14.596	1.497	.001	0	0	0	0	-.001	-.001	-.001	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	-.002	.001	.003	.030	.064	.035	.031	.073	.193	.206
15.719	1.497	-.005	-.005	-.005	-.005	-.006	-.006	-.007	-.007	-.008	-.008	-.009	-.009	-.009	-.009	-.009	-.009	-.009	-.009	-.009	-.009	-.007	-.005	.001	.009	.019	.055	.056	.085
16.842	1.497	-.001	-.001	-.002	-.002	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.003	-.002	0	.002	.007	.012	.023	.037
17.965	1.497	.002	.002	.002	.002	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.003	.005	.009	.016	.027
5.614	4.491	.057	.080	.099	.117	.132	.144	.158	.172	.182	.192	.200	.209	.217	.244	.232	.238	.244	.250	.256	.262	.266	.270	.272	.265	.249	.230	.200	.150
6.737	4.491	.028	.050	.069	.083	.100	.112	.131	.146	.159	.172	.186	.199	.217	.232	.247	.260	.269	.279	.289	.295	.305	.320	.337	.330	.312	.318	.304	.284
7.859	4.491	.032	.047	.062	.075	.088	.100	.111	.122	.132	.142	.153	.164	.174	.182	.192	.201	.209	.217	.226	.232	.260	.316	.389	.344	.324	.334	.304	.304
8.982	4.491	.038	.053	.064	.074	.081	.087	.096	.106	.114	.122	.131	.139	.145	.150	.154	.159	.162	.166	.181	.196	.235	.269	.311	.275	.272	.280	.282	.265
10.105	4.491	.010	.016	.021	.025	.030	.035	.040	.045	.051	.058	.066	.072	.076	.079	.080	.083	.085	.085	.088	.095	.128	.212	.255	.245	.249	.257	.288	.307
11.228	4.491	.004	.006	.007	.008	.012	.012	.012	.012	.012	.012	.013	.014	.016	.017	.018	.021	.025	.047	.041	.072	.112	.175	.263	.227	.203	.224	.262	.289
12.350	4.491	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.006	.006	.007	.007	.007	.007	.007	.008	.020	.047	.081	.142	.187	.131	.132	.163	.224	.222
13.473	4.491	.004	.004	.003	.003	.003	.003	.003	.003	.003	.003	.002	.001	.001	0	0	.001	.002	.004	.007	.015	.029	.063	.115	.043	.043	.091	.181	.205
14.596	4.491	-.002	-.001	0	0	0	0	0	0	-.001	-.002	-.004	-.005	-.004	-.004	-.004	-.007	-.004	-.004	-.004	-.001	.003	.004	.007	.016	.270	.470	.100	.102
15.719	4.491	0	.001	.001	0	-.001	-.003	-.003	-.003	-.003	.004	-.005	-.005	-.005	-.005	-.004	-.004	-.004	-.003	-.002	0	0	.001	.001	.001	.003	.031	.066	.079
16.842	4.491	.003	.003	.003	.003	.003	.002	.001	.003	.002	.003	.002	.002	0	0	0	0	0	0	0	-.001	.001	.002	.002	.002	.013	.014	.026	.028
5.614	7.485	.027	.042	.057	.071	.085	.097	.109	.121	.131	.142	.152	.163	.173	.182	.191	.200	.203	.214	.221	.226	.241	.237	.245	.245	.239	.230	.214	.189
6.737	7.485	.038	.056	.068	.081	.094	.106	.116	.126	.135	.146	.155	.164	.173	.181	.186	.195	.200	.205	.217	.237	.244	.271	.294	.283	.264	.264	.225	.212
7.859	7.485	.049	.064	.078	.089	.100	.110	.118	.124	.130	.138	.145	.152	.159	.167	.172	.178	.184	.192	.102	.220	.234	.254	.268	.272	.269	.257	.237	.200
8.982	7.485	.013	.025	.031	.038	.045	.053	.059	.065	.073	.078	.085	.091	.097	.102	.108	.113	.120	.127	.135	.149	.177	.220	.276	.257	.227	.247	.265	.283
10.105	7.485	.012	.019	.024	.029	.031	.034	.037	.041	.042	.047	.049	.052	.055	.057	.060	.062	.064	.071	.089	.125	.175	.219	.236	.219	.219	.239	.244	.225
11.228	7.485	.001	.001	.001	.001	.001	.001	.002	.003	.003	.003	.003	.003	.003	.004	.004	.006	.008	.010	.021	.061	.106	.116	.156	.196	.172	.192	.248	.252
12.350	7.485	.002	.002	.002	-.001	-.001	-.003	-.003	-.002	-.001	-.001	-.001	0	0	0	0	.002	.003	.003	.010	.025	.053	.077	.162	.082	.072	.099	.182	.207
13.473	7.485	-.001	-.001	-.001	-.001	-.003	-.003	-.003	-.003	-.003	-.004	-.004	-.004	-.004	-.005	-.004	-.001	-.001	-.001	.001	.004	.011	.024	.060	.027	.033	.069	.119	-----
5.614	11.976	.012	.022	.029	.037	.042	.050	.057	.065	.070	.076	.082	.087	.093	.102	.112	.118	.125	.131	.136	.141	.144	.162	.166	.168	.169	.167	.160	.146
7.859	11.976	.006	.012	.018	.024	.031	.037	.043	.047	.049	.052	.057	.063	.073	.083	.093	.104	.120	.133	.148	.162	.173	.185	.198	.204	.205	.205	.204	.181
8.892	11.976	.002	.002	.002	.002	.003	.004	.004	.005	.006	.007	.008	.009	.009	.009	.009	.009	.013	.016	.034	.100	.144	.180	.197	.195	.177	.191	.212	.211
5.614	14.221	.011	.019	.023	.030	.035	.041	.046	.051	.055	.062	.066	.075	.078	.080	.062	.083	.087	.094	.120	.139	.142	.149	.140	.152	.147	.152	.132	.107

TABLE III.- VALUES OF INCREMENTAL PRESSURE COEFFICIENTS FOR WING ORIFICE

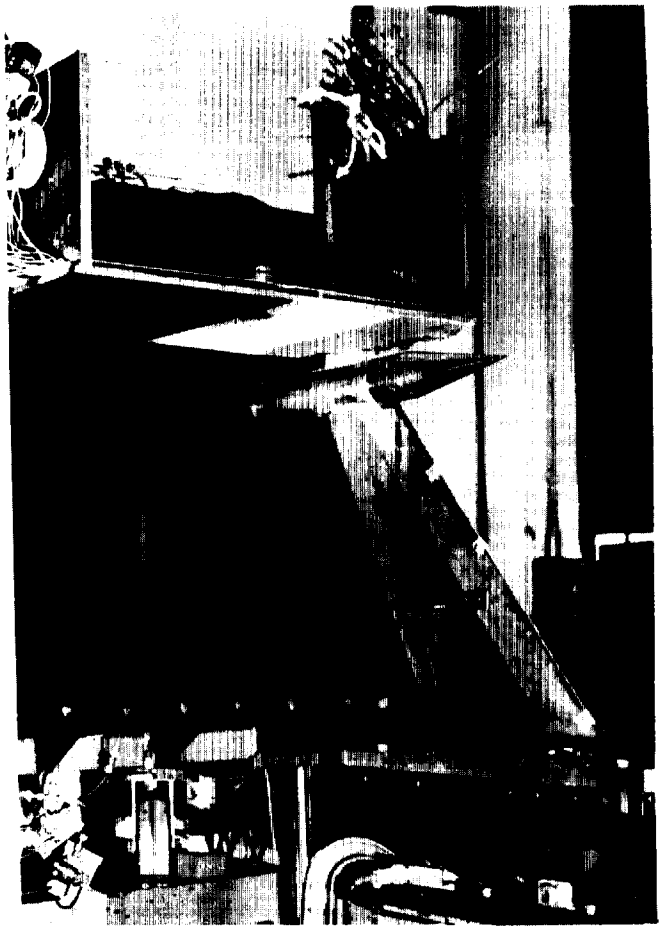
POSITIONS FOR ROCKET-PRESSURE RATIOS OF 26 TO 60 - Concluded

(k) Test position K (upstream firing)

Orifice ordinates		Pressure coefficients for rocket-pressure ratio p_t/p_∞ of -																	
x/D_T	y/D_T	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
5.614	0	0.010	0.018	0.034	0.047	0.081	0.092	0.177	0.220	0.237	0.240	0.244	0.234	0.241	0.247	0.238	0.249	0.244	0.240
6.737	0	.001	.008	.013	.035	.078	.094	.179	.245	.274	.276	.286	.260	.274	.307	.311	.309	.301	.301
7.859	0	.011	.013	.016	.020	.039	.062	.101	.191	.241	.241	.255	.211	.247	.322	.330	.317	.291	.301
8.982	0	.010	.017	.020	.020	.025	.050	.085	.158	.197	.200	.213	.160	.210	.320	.334	.304	.285	.301
10.105	0	.006	.001	.006	.018	.026	.046	.086	.116	.129	.143	.155	.148	.187	.242	.243	.230	.236	.235
11.228	0	-.003	-.007	.007	.009	.008	.005	.015	.031	.069	.067	.106	.051	.089	.214	.241	.211	.207	.228
12.350	0	.016	.011	.007	.012	.003	.005	.001	.012	.026	.028	.047	.033	.055	.174	.171	.128	.156	.163
13.473	0	.009	.009	.006	.008	.013	.005	.004	.011	-.002	.005	.012	.011	.041	.119	.124	.075	.105	.103
14.596	0	.009	.001	.003	-.001	.007	.008	.001	.004	-.003	.005	.006	.010	.014	.059	.072	.056	.072	.062
15.719	0	-.005	-.001	-.003	.002	-.002	-.001	-.004	-.001	-.003	-.004	-.003	-.001	.003	0	.017	.017	.037	.033
16.842	0	-.003	0	.006	.004	.002	.001	-.002	.002	-.004	-.004	-.004	-.003	-.002	.001	.005	.003	.017	.017
17.965	0	-.001	-.002	-.002	.002	.002	-.002	-.003	.001	-.006	-.004	-.004	0	-.002	-.002	-.001	-.003	-.001	-.004
5.614	1.497	.004	.007	.020	.041	.067	.098	.198	.234	.241	.246	.250	.248	.253	.251	.245	.253	.256	.249
6.737	1.497	.022	.008	.018	.034	.059	.089	.188	.251	.271	.280	.286	.269	.282	.296	.297	.305	.297	.296
7.859	1.497	-.005	-.003	.003	.015	.040	.065	.150	.209	.233	.240	.262	.260	.246	.305	.305	.302	.285	.300
8.982	1.497	.007	.014	.007	.017	.028	.064	.101	.154	.186	.199	.203	.166	.206	.299	.320	.292	.279	.286
10.105	1.497	.003	.004	.005	.007	.008	.016	.042	.078	.128	.136	.155	.101	.148	.266	.275	.260	.231	.254
11.228	1.497	.007	-.005	-.009	-.002	-.010	-.005	-.004	.004	.045	.048	.098	.024	.048	.205	.224	.209	.149	.202
12.350	1.497	-.006	-.005	-.004	-.001	-.005	-.001	-.001	-.016	-.015	-.039	.015	-.011	.024	.159	.197	.163	.141	.172
13.473	1.497	-.003	-.003	-.003	0	-.002	0	-.002	-.002	-.005	-.006	-.001	.005	.024	.110	.115	.082	.116	.095
14.596	1.497	-.004	-.003	0	-.001	-.004	-.004	-.004	-.003	-.005	-.006	-.003	-.006	-.004	.011	.036	.030	.060	.044
15.719	1.497	-.006	-.009	-.008	-.005	-.014	-.005	-.008	-.007	-.011	-.012	-.006	-.019	-.013	.012	.002	.002	.027	.020
16.842	1.497	-.003	-.004	-.004	0	-.004	-.003	-.004	-.004	-.006	-.005	-.005	-.006	-.006	-.007	-.004	-.003	.001	-.028
17.965	1.497	.002	.002	.002	.004	.002	.002	0	-.001	-.003	-.004	-.004	-.003	-.002	.001	-.001	-.001	-.002	-.007
5.614	4.491	.009	.016	.023	.042	.086	.102	.184	.230	.236	.242	.245	.249	.251	.244	.239	.254	.256	.241
6.737	4.491	.005	.009	.006	.016	.035	.056	.169	.211	.249	.257	.269	.252	.274	.288	.284	.289	.289	.289
7.859	4.491	.002	.001	.006	.013	.025	.046	.103	.175	.213	.218	.231	.202	.244	.291	.295	.296	.283	.282
8.982	4.491	-.001	.002	.004	.009	.027	.037	.070	.127	.152	.166	.169	.152	.205	.274	.279	.282	.277	.278
10.105	4.491	.004	.004	.005	.008	.010	.014	.025	.056	.078	.100	.108	.110	.129	.240	.268	.256	.232	.230
11.228	4.491	.001	.001	.003	.003	.004	.005	.005	.006	.014	.030	.047	.060	.078	.165	.210	.205	.182	.190
12.350	4.491	.001	.003	.005	.004	.002	.001	-.004	-.001	0	.004	.010	.021	.048	.131	.129	.103	.086	.079
13.473	4.491	.004	.001	.004	.008	.005	.001	-.001	0	-.002	0	.009	.009	.012	.017	.057	.046	.079	.063
14.596	4.491	-.001	0	.004	.003	.001	-.002	-.003	-.001	-.004	.005	.004	.002	.004	.003	.007	.012	.032	.036
15.719	4.491	-.001	.002	0	0	0	0	0	0	-.001	-.001	-.001	-.004	-.001	-.003	0	-.001	.001	.001
16.842	4.491	-.002	-.002	-.001	0	-.001	.001	.002	-.001	-.005	-.006	-.006	-.006	-.005	-.003	-.005	-.003	-.005	-.005
5.614	7.485	0	.002	.007	.017	.035	.048	.122	.189	.185	.200	.202	.210	.220	.220	.222	.229	.233	.227
6.737	7.485	.004	.009	.013	.005	.045	.060	.125	.180	.197	.215	.222	.215	.235	.252	.255	.269	.261	.267
7.859	7.485	.007	.010	.012	.027	.042	.060	.102	.152	.177	.182	.197	.186	.212	.270	.267	.275	.262	.263
8.982	7.485	.007	.005	.007	.012	.015	.020	.039	.093	.122	.127	.135	.124	.183	.253	.259	.267	.252	.245
10.105	7.485	-.006	-.001	-.002	0	0	.006	.013	.031	.053	.070	.091	.097	.151	.216	.220	.211	.213	.215
11.228	7.485	.003	-.002	.001	.001	.001	0	-.001	.005	.004	.010	.019	.027	.063	.149	.164	.157	.147	.157
12.350	7.485	.005	.005	.005	.005	.005	.005	.001	.001	-.004	-.001	.003	.010	.018	.058	.072	.050	.089	.089
13.473	7.485	.001	.002	0	.005	0	-.002	-.003	-.001	-.004	-.002	-.002	-.005	-.001	.001	.006	.006	.006	.012
5.614	11.976	.003	.004	.004	.010	.014	.025	.069	.104	.128	.137	.139	.144	.165	.164	.169	.183	.179	.176
7.859	11.976	.008	.010	.008	.011	.009	.014	.023	.055	.098	.104	.118	.114	.158	.195	.202	.220	.203	.213
8.982	11.976	0	-.002	0	.005	.002	-.001	-.001	.003	.007	.025	.045	.052	.093	.166	.184	.193	.199	.179
5.614	14.221	.006	.005	.006	.009	.011	.013	.039	.068	.092	.109	.110	.124	.142	.151	.150	.146	.166	.168



(a) Downstream firing. L-57-373



(b) Upstream firing. L-57-231

Figure 1.- Rocket mounted in two test positions beneath the flat-surface wing attached to the 27- by 27-inch preflight-jet nozzle.

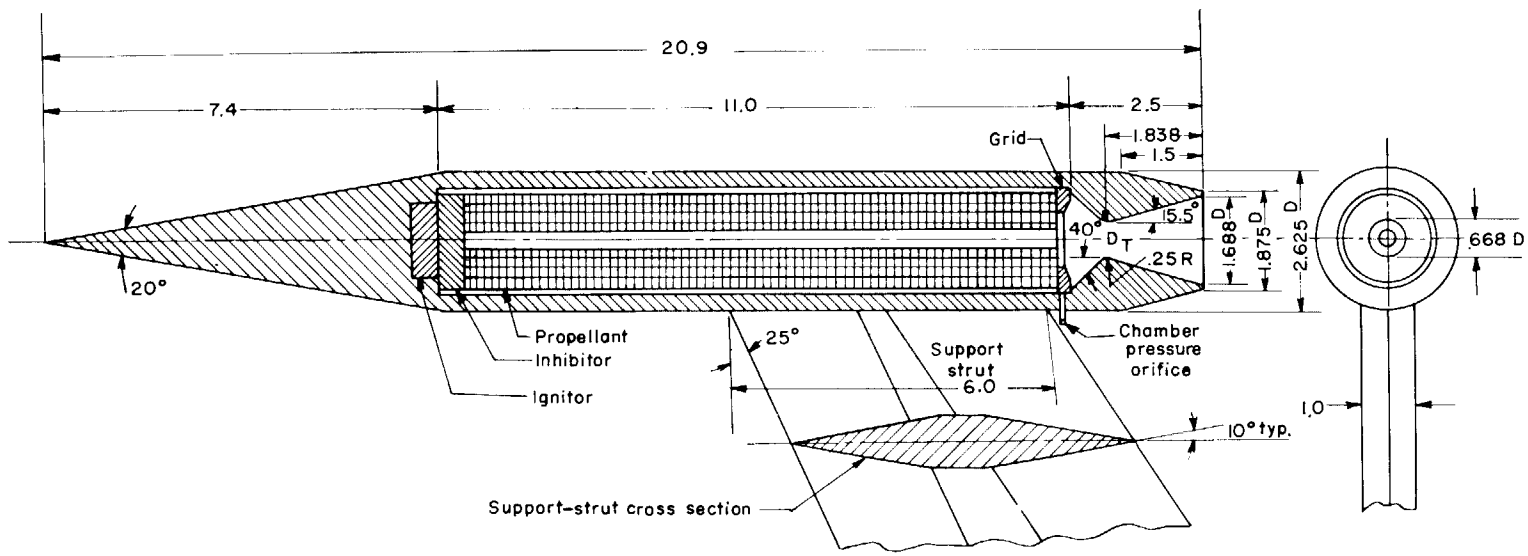


Figure 2.- Schematic sketch of rocket nacelle. All dimensions are in inches except as otherwise noted.

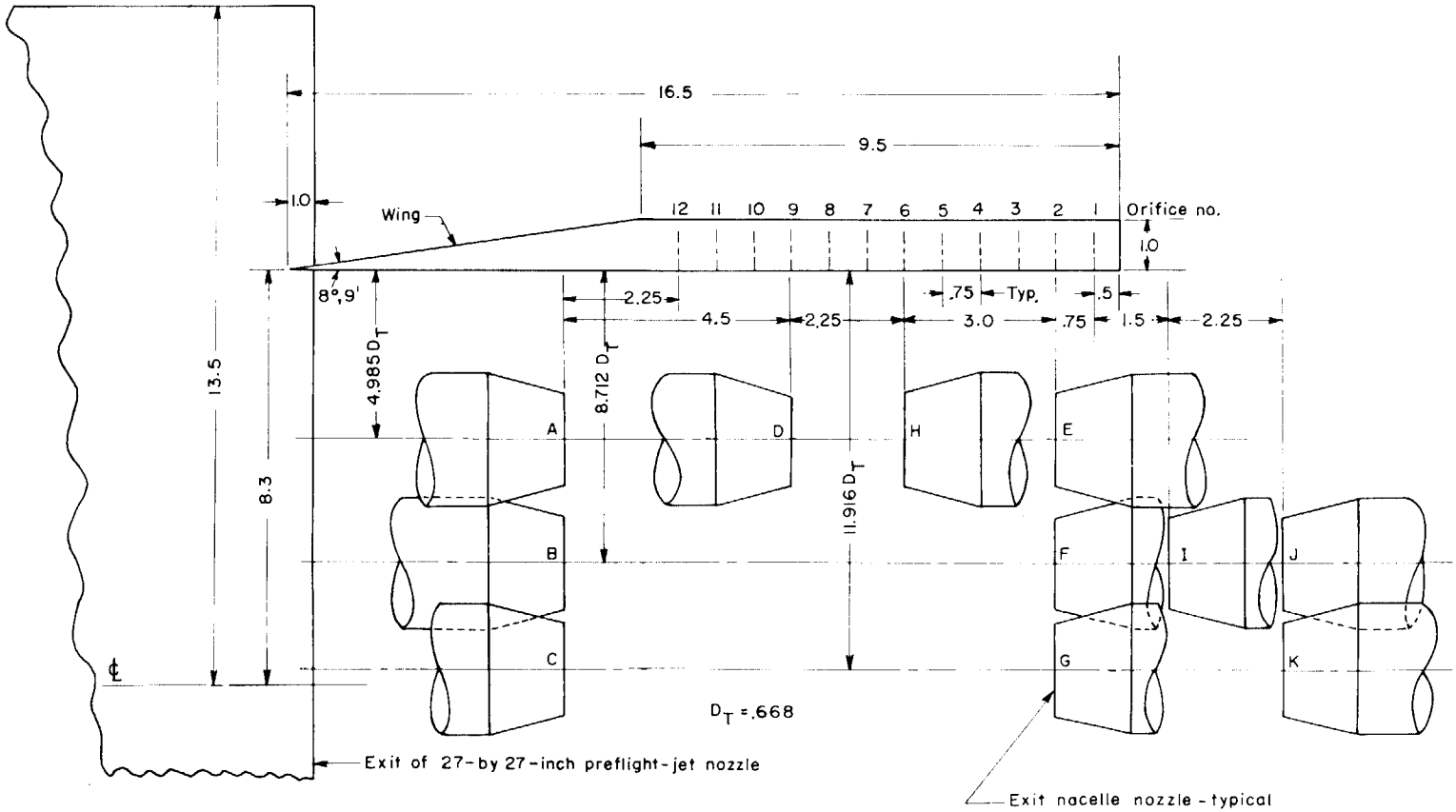


Figure 3.- Arrangement of the rocket nacelle relative to the exit of the 27- by 27-inch preflight-jet nozzle and wing for the eleven test positions. Dimensions are in inches except as otherwise noted.

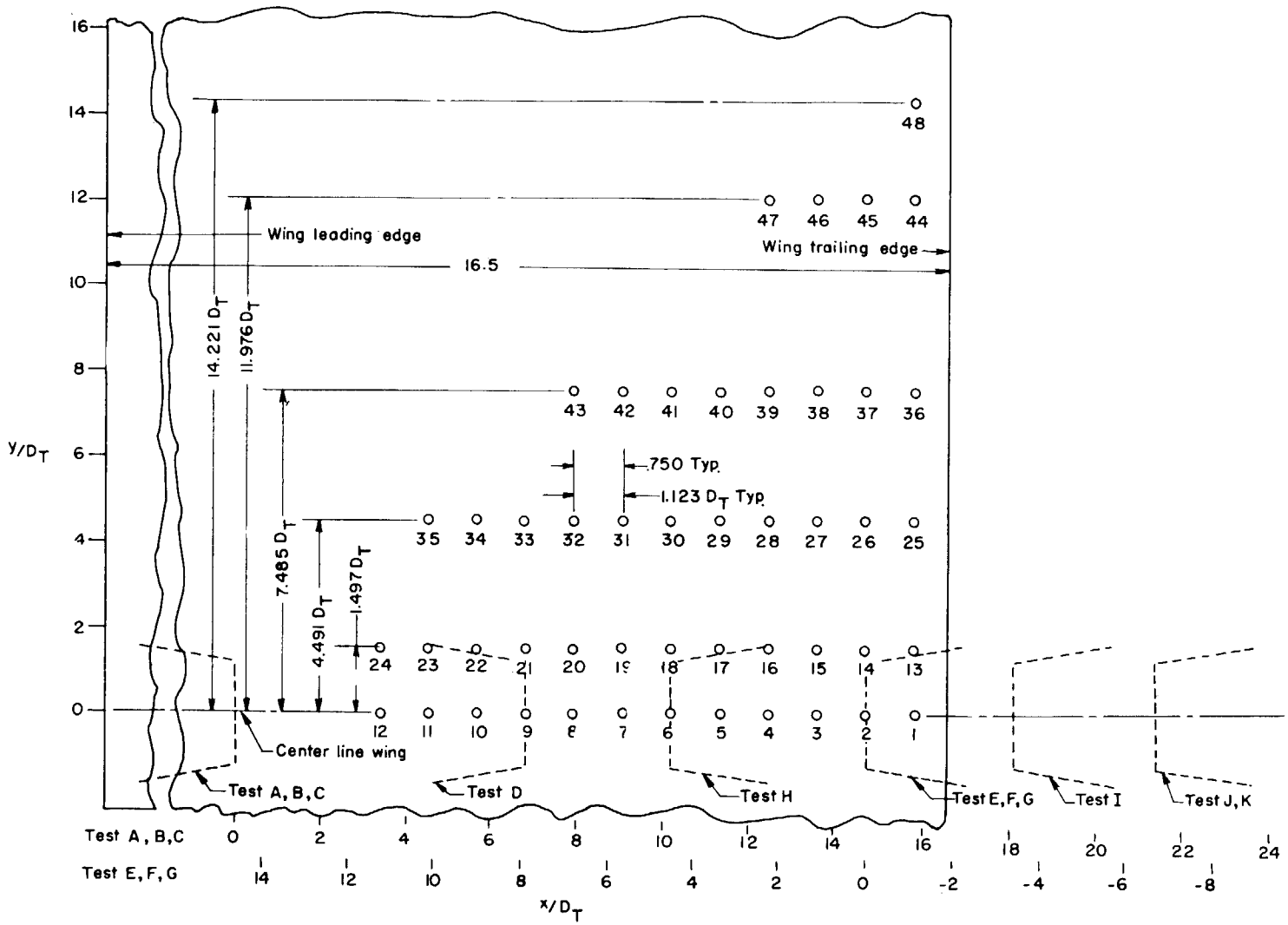


Figure 4.- Locations of the 48 wing static-pressure orifices and orifice designations as well as rocket nacelle location for each test. All dimensions are in inches unless otherwise noted.

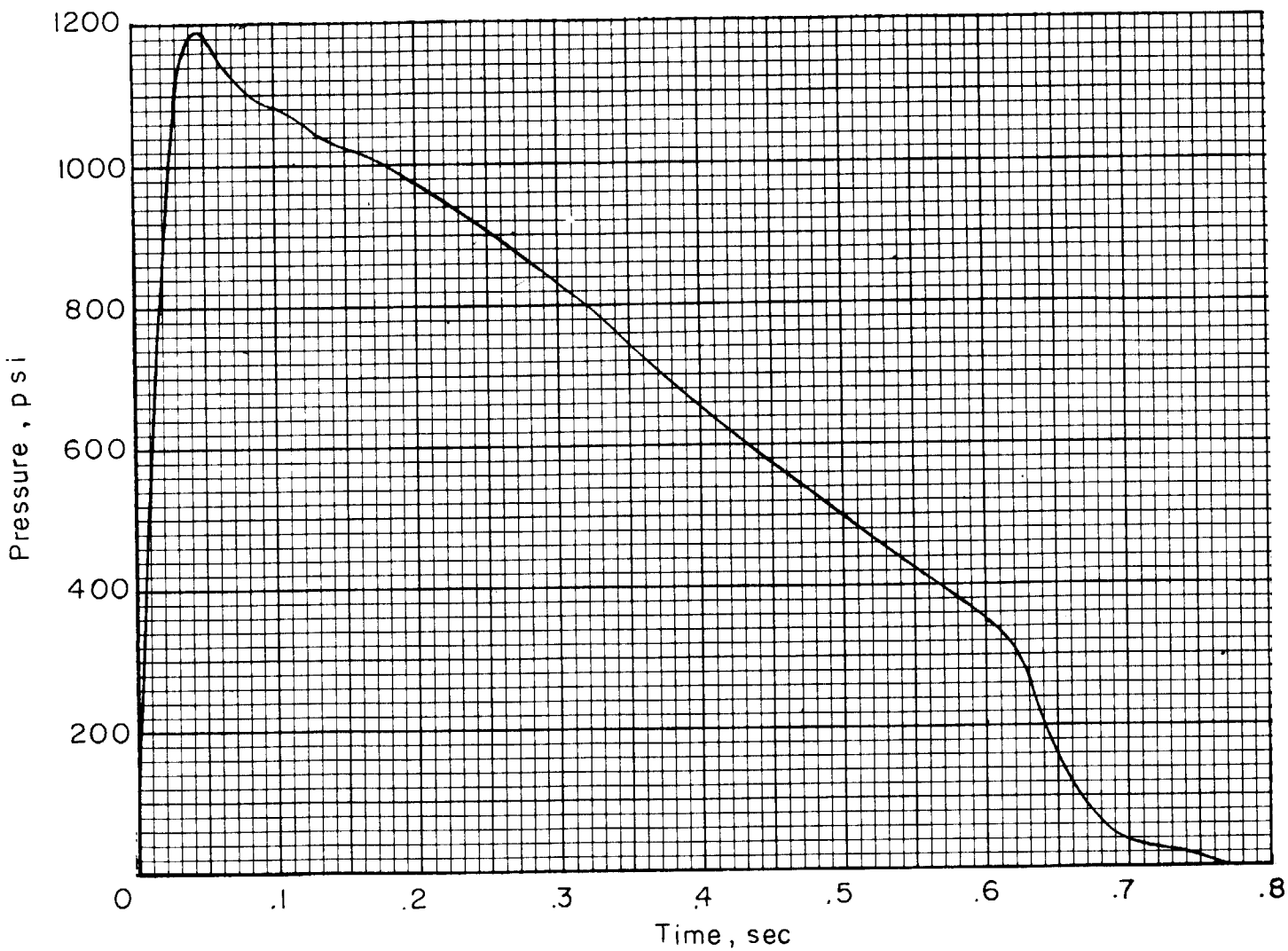


Figure 5.- Typical variation of rocket pressure with time.

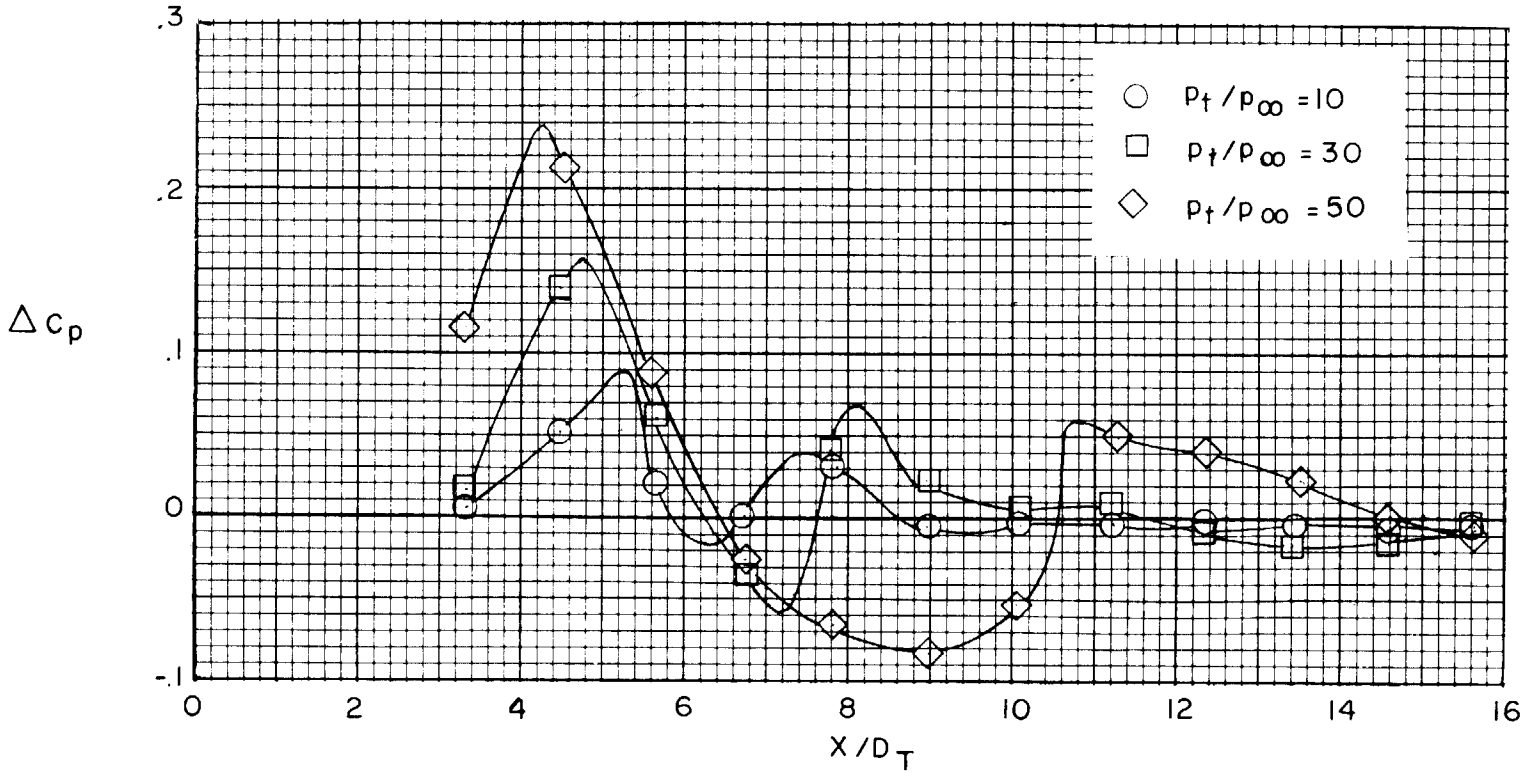


Figure 6.- Variation of incremental pressure coefficients for test position A with orifice location along the rocket center line for rocket pressure ratios of 10, 30, and 50.

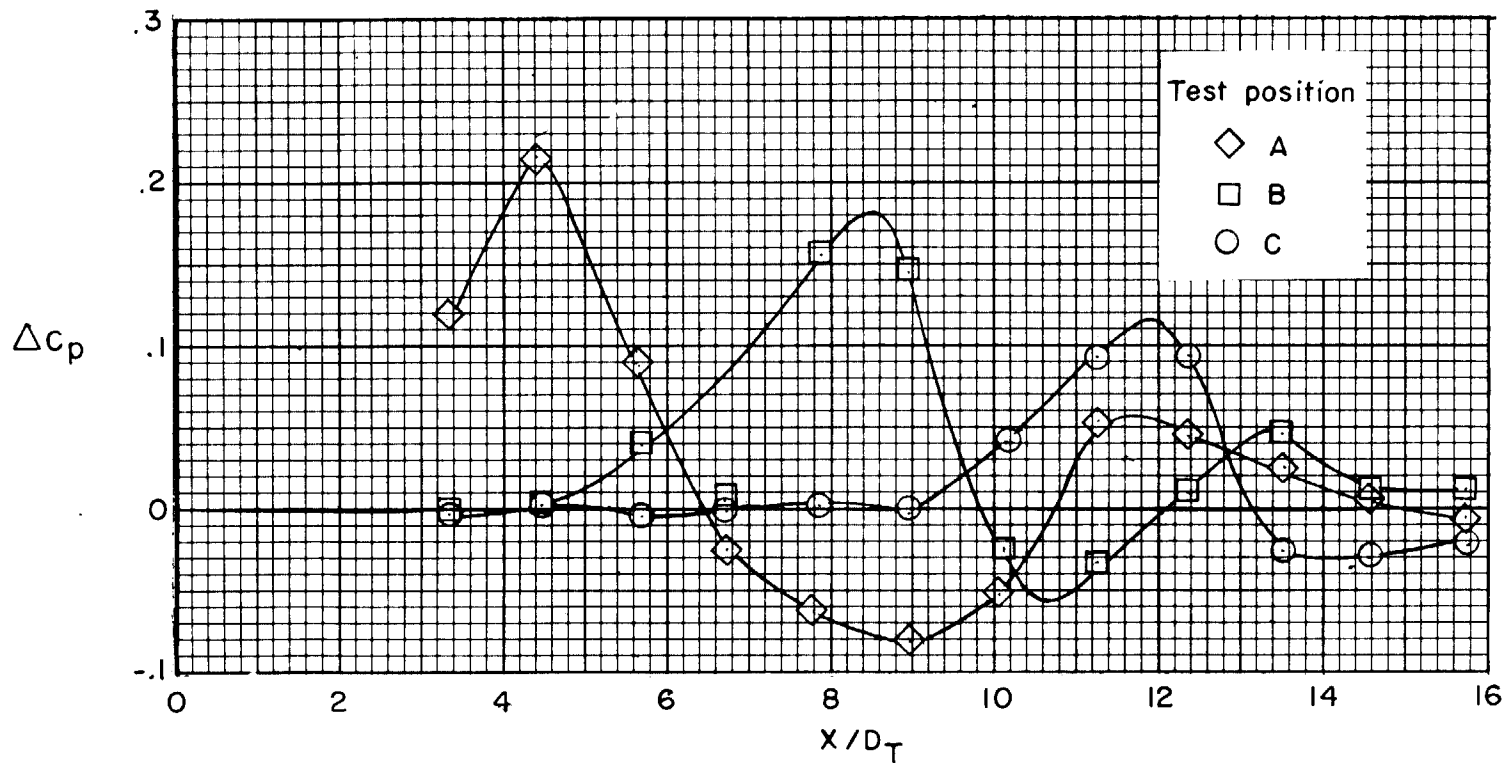


Figure 7.- Variation of incremental pressure coefficients for rocket pressure ratio of 50 along the rocket center line for test positions A, B, and C.

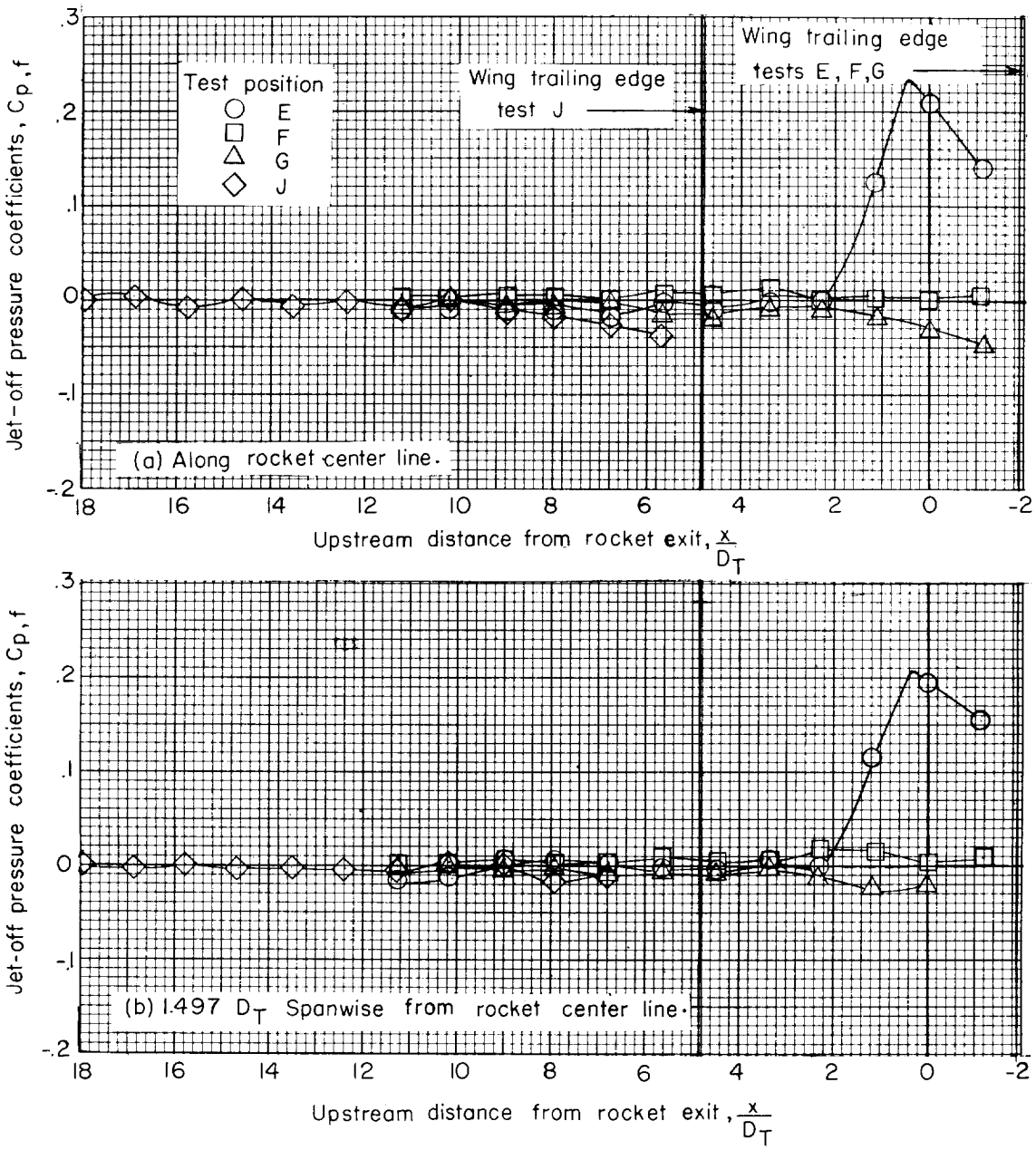


Figure 8.- Chordwise variation of jet-off pressure coefficients for test positions E, F, G, and J.

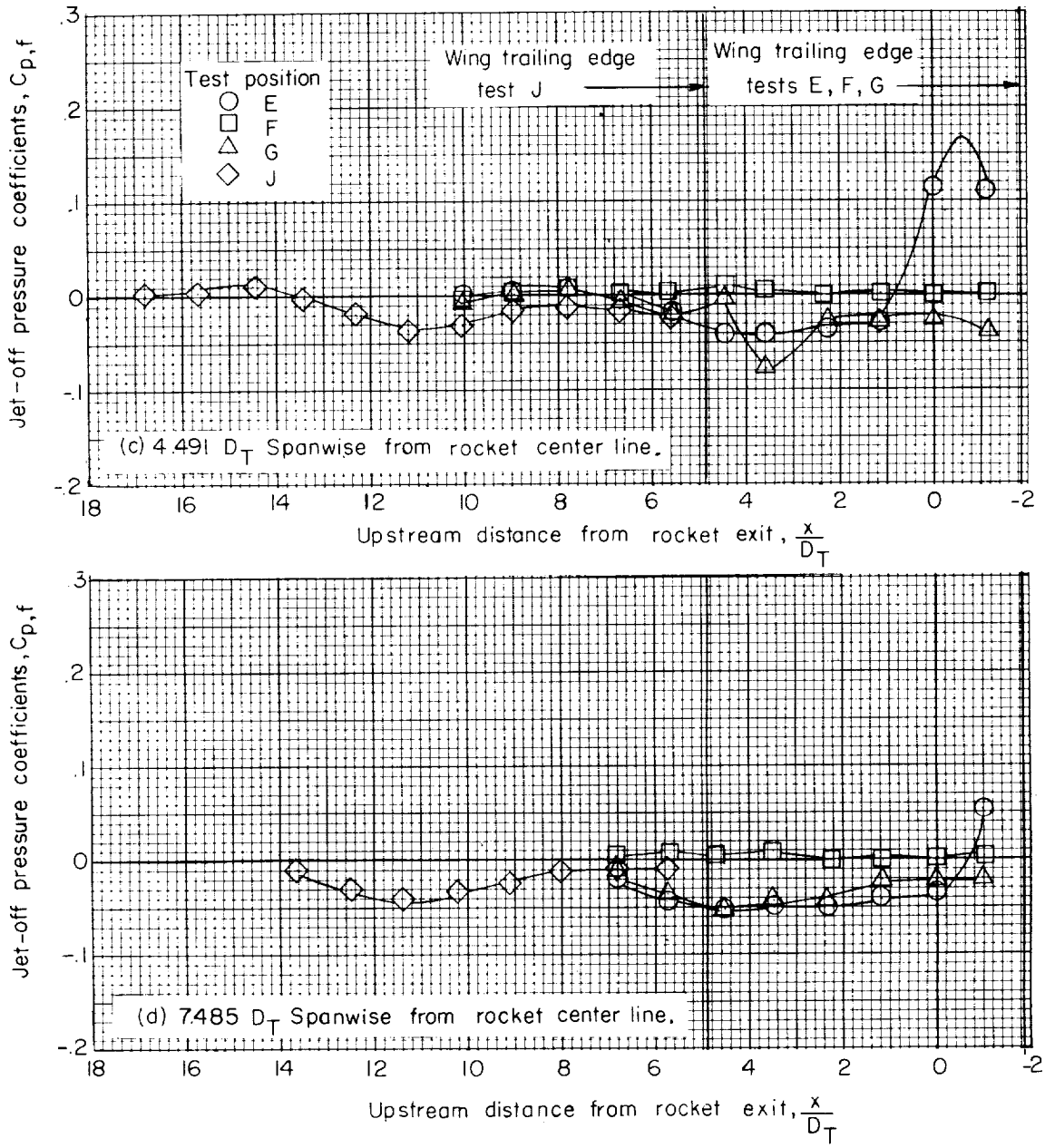
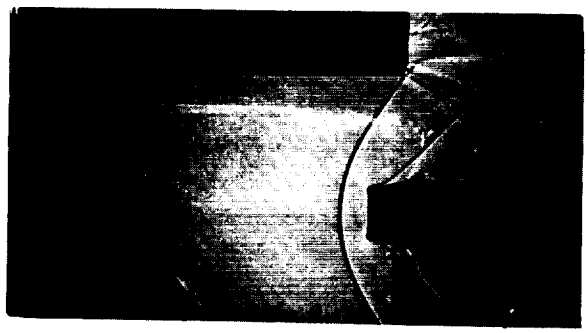


Figure 8.- Concluded.

Test position E

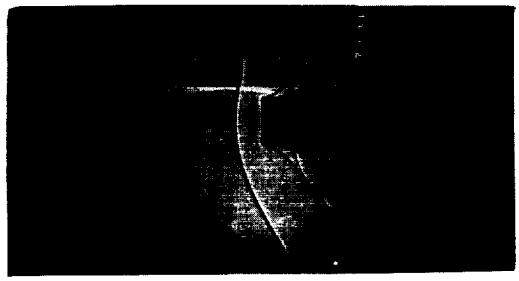


Test position F

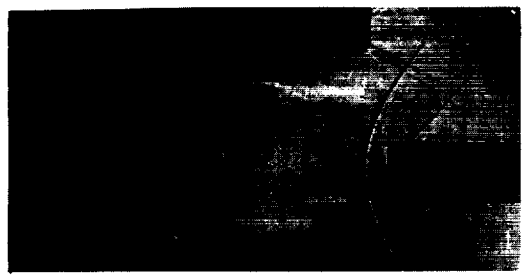
Test position G

(a) Test positions E, F, and G. L-59-6016

Figure 9.- Shadowgraphs of the flow field about the rocket exit with jet off for test positions E, F, G, H, I, J, and K.

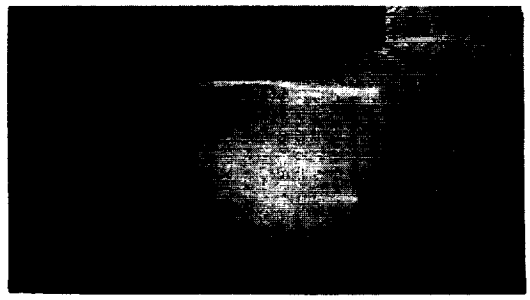


Test position H



Test position I

Test position J



Test position K

(b) Test positions H, I, J, and K. L-59-6017

Figure 9.- Concluded.

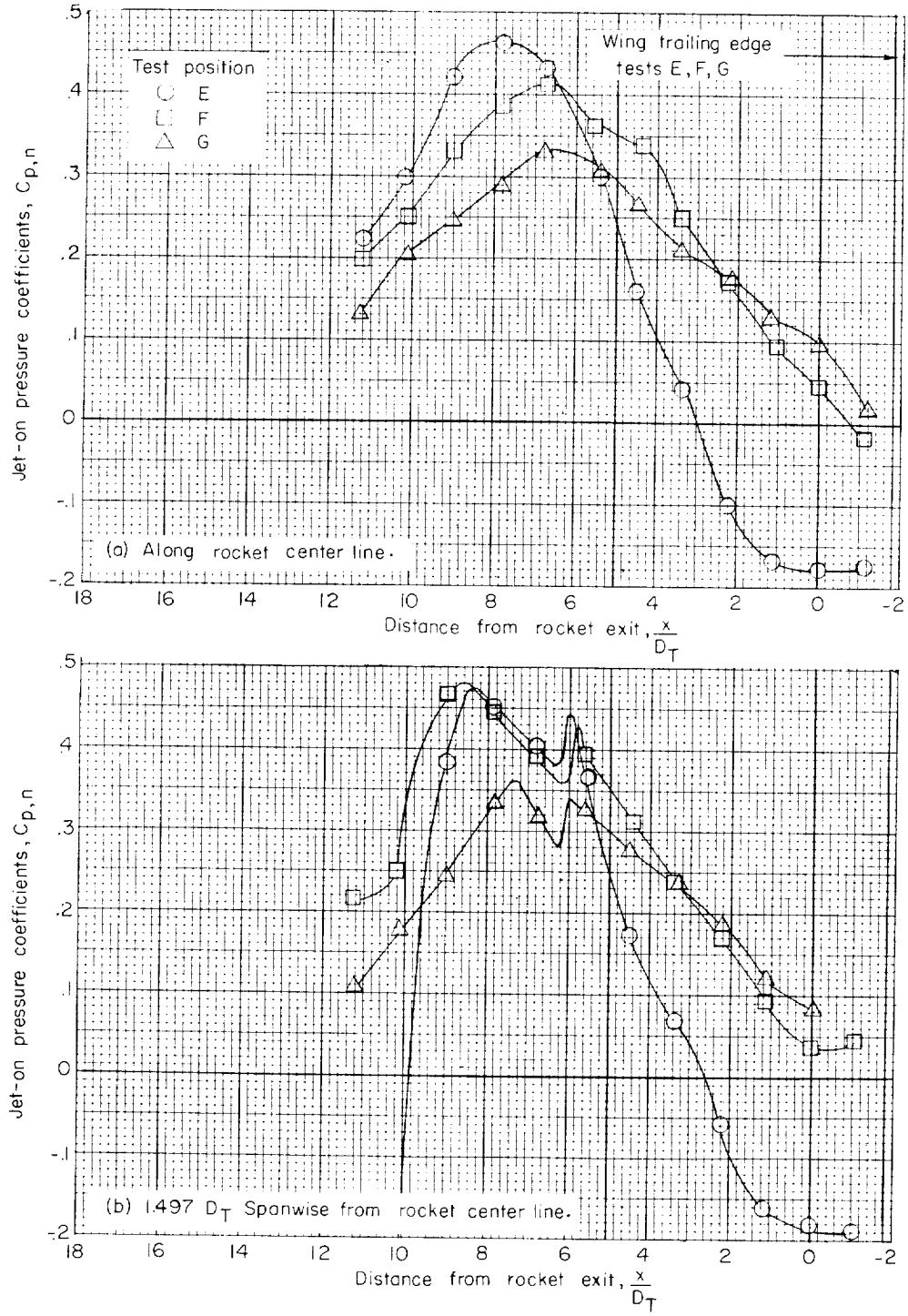
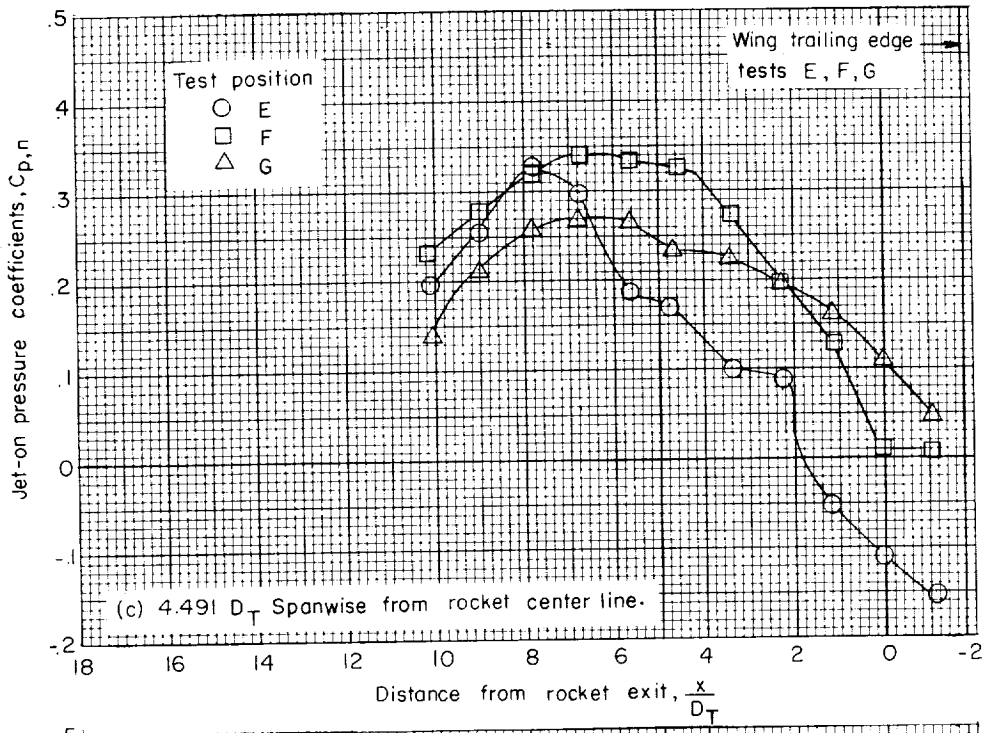


Figure 10.- Chordwise variation of jet-on pressure coefficients at positions E, F, and G for a rocket pressure ratio of 46.



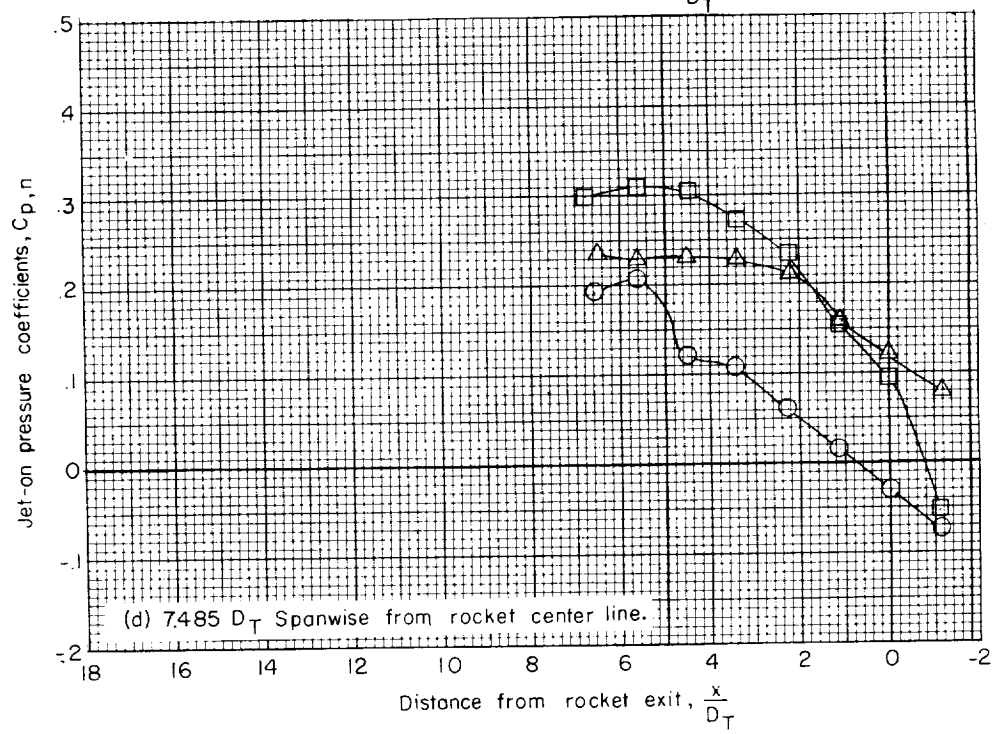


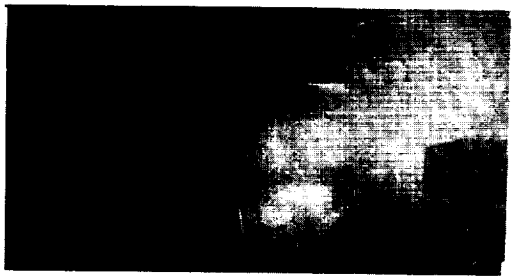
Figure 10.- Concluded.

(a) Test position E.

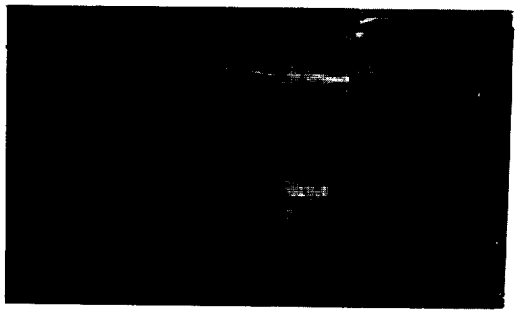
(b) Test position F.

(c) Test position G.

(d) Test position I.



(e) Test position J.



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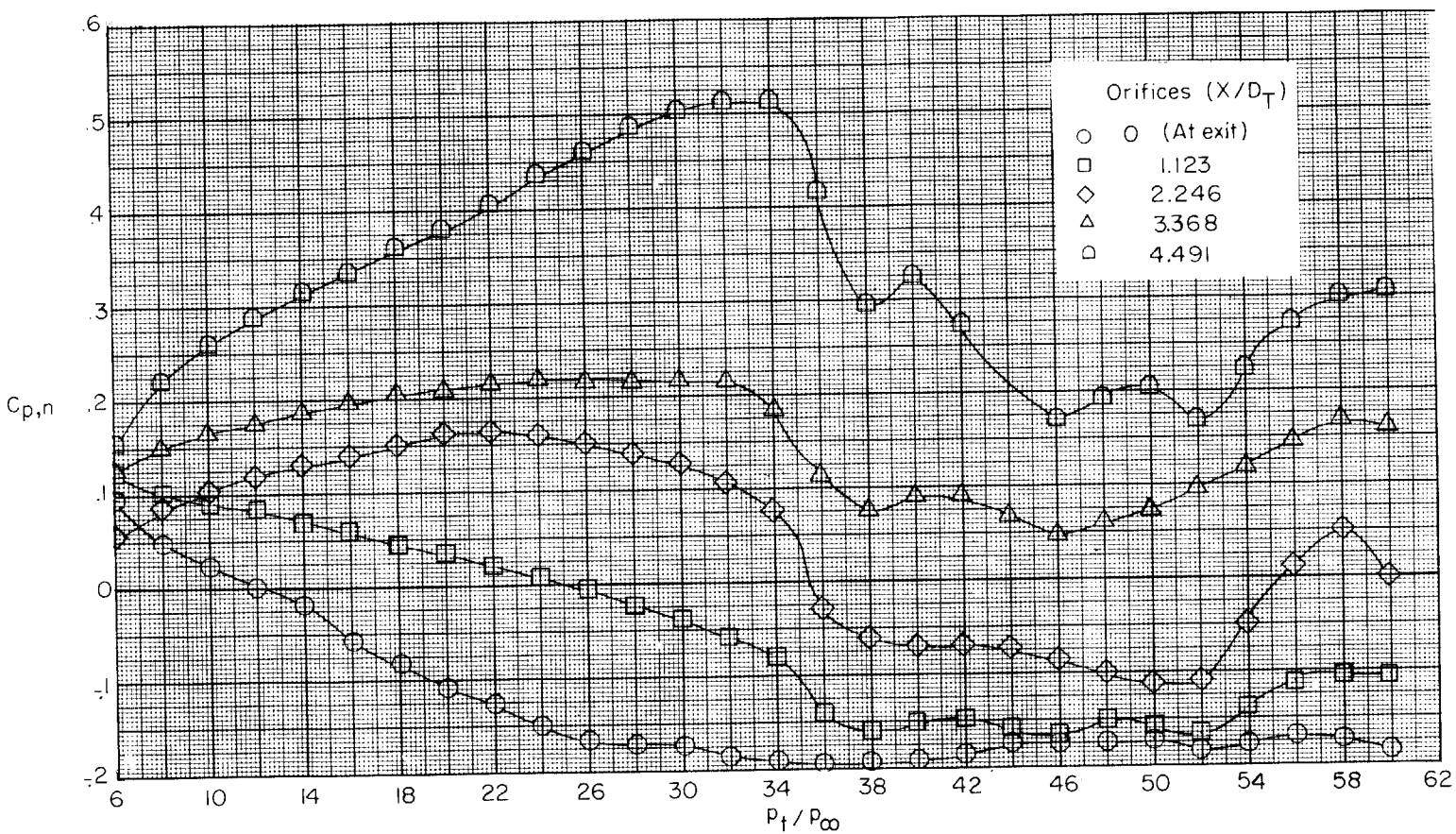
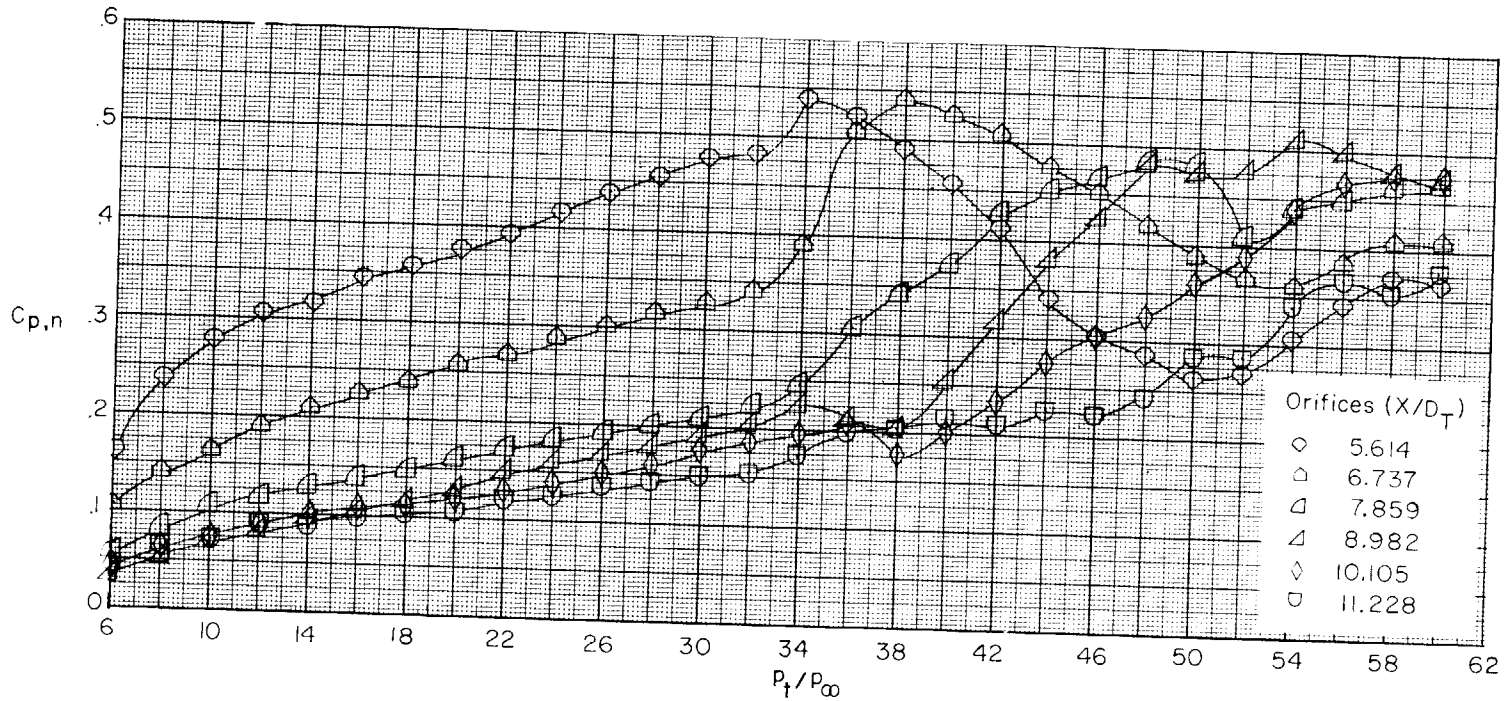
(f) Test position K.

Figure 11.- Shadowgraphs of the flow field about the rocket exit for a total-pressure ratio of 45 at test positions E, F, G, I, J, and K.



(a) Orifices 2 to 6 $\left(x/D_T,\ 0 \text{ to } 4.491\right)$.

Figure 12.- Variation of jet-on pressure coefficient with rocket-exit total-pressure ratio for various orifices located on the rocket center line for test position E.



(b) Orifices 7 to 12 $\left(x/D_T,\ 5.614 \text{ to } 11.228\right)$.

Figure 12.- Concluded.

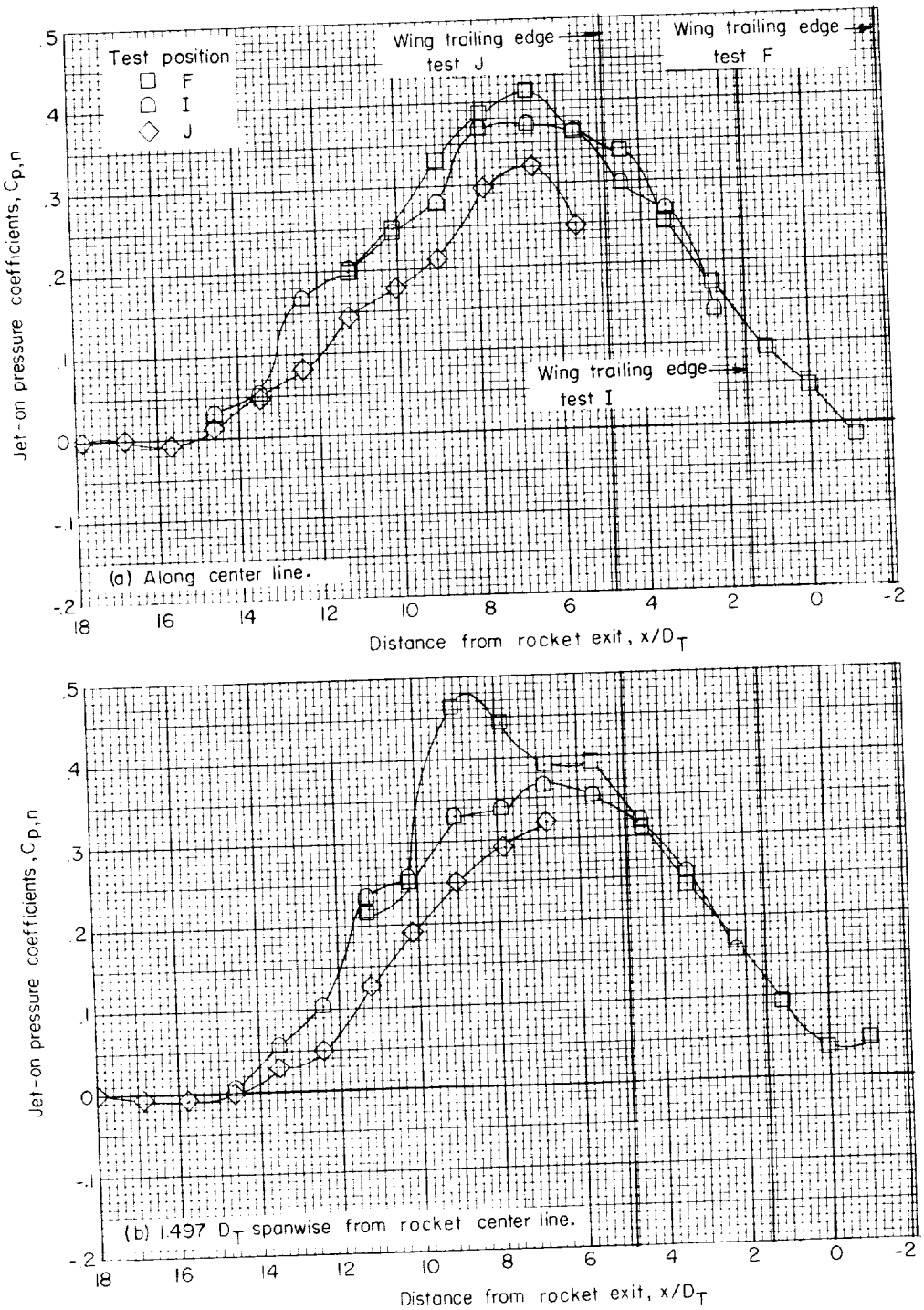
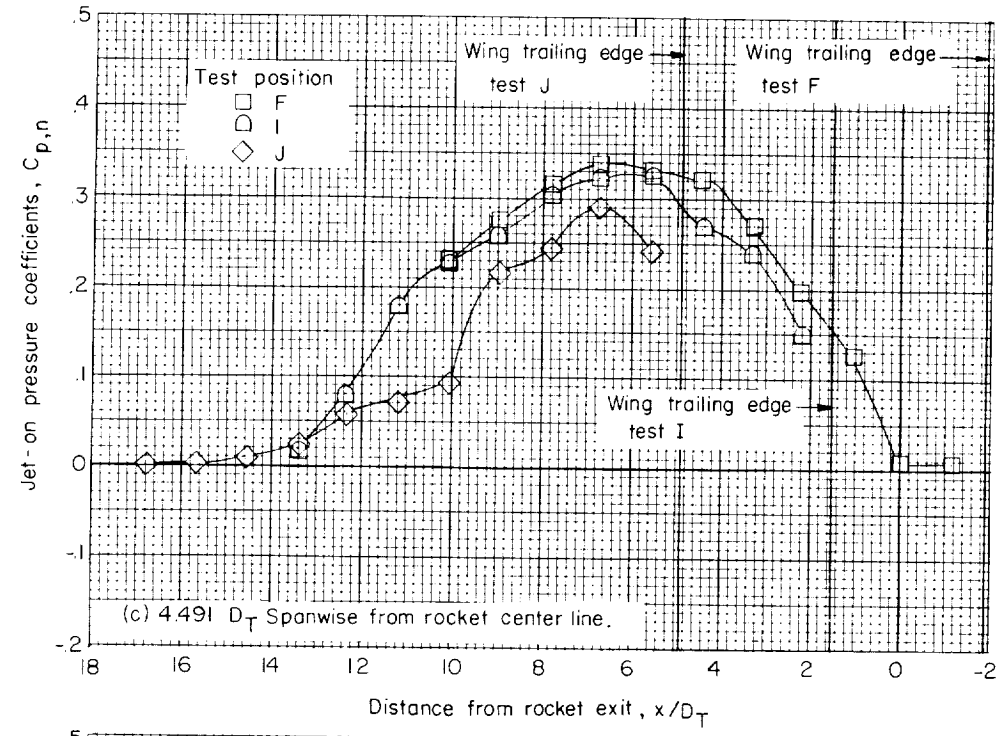


Figure 13.- Chordwise variation of jet-on pressure coefficients at positions F, I, and J for a rocket pressure ratio of 46.



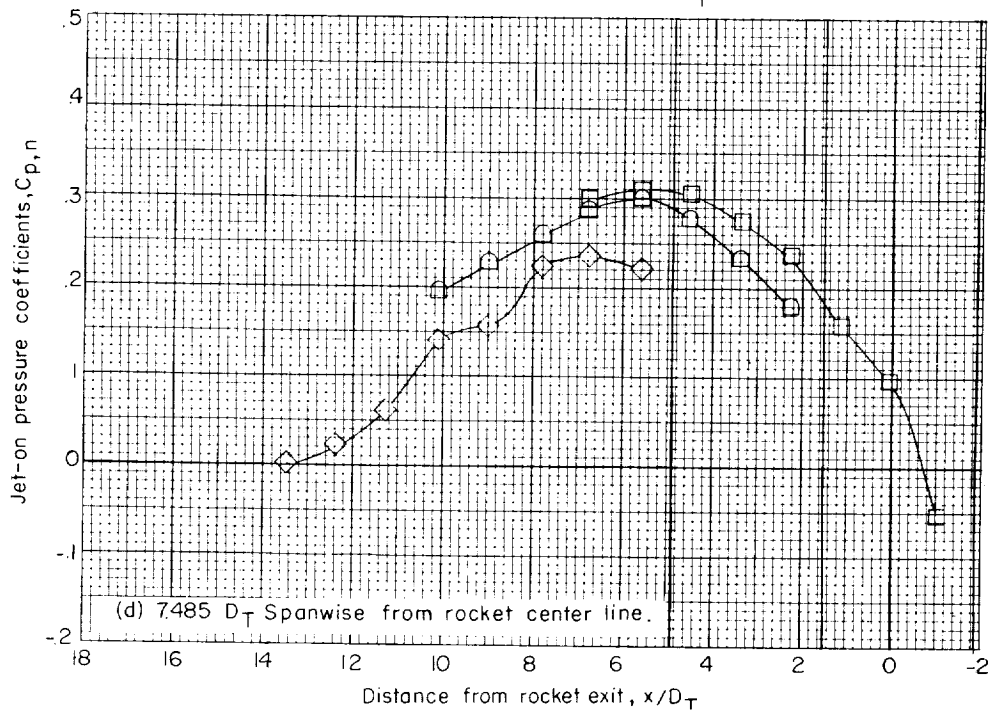


Figure 13.- Concluded.

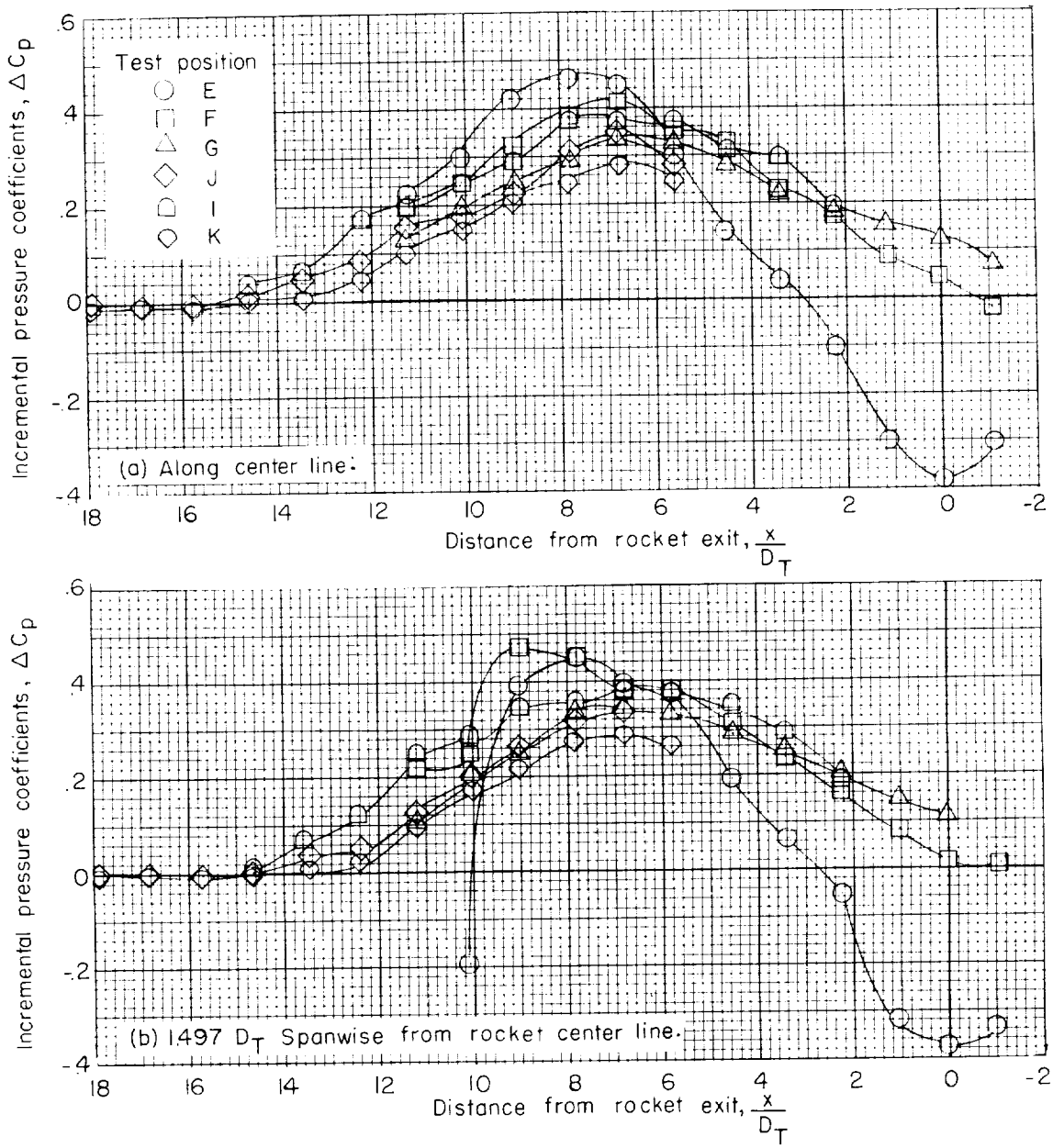


Figure 14.- Chordwise variation of incremental pressure coefficient $C_{p,n} - C_{p,f}$ at four spanwise stations for positions E, F, G, I, J, and K at a rocket pressure ratio of 46.

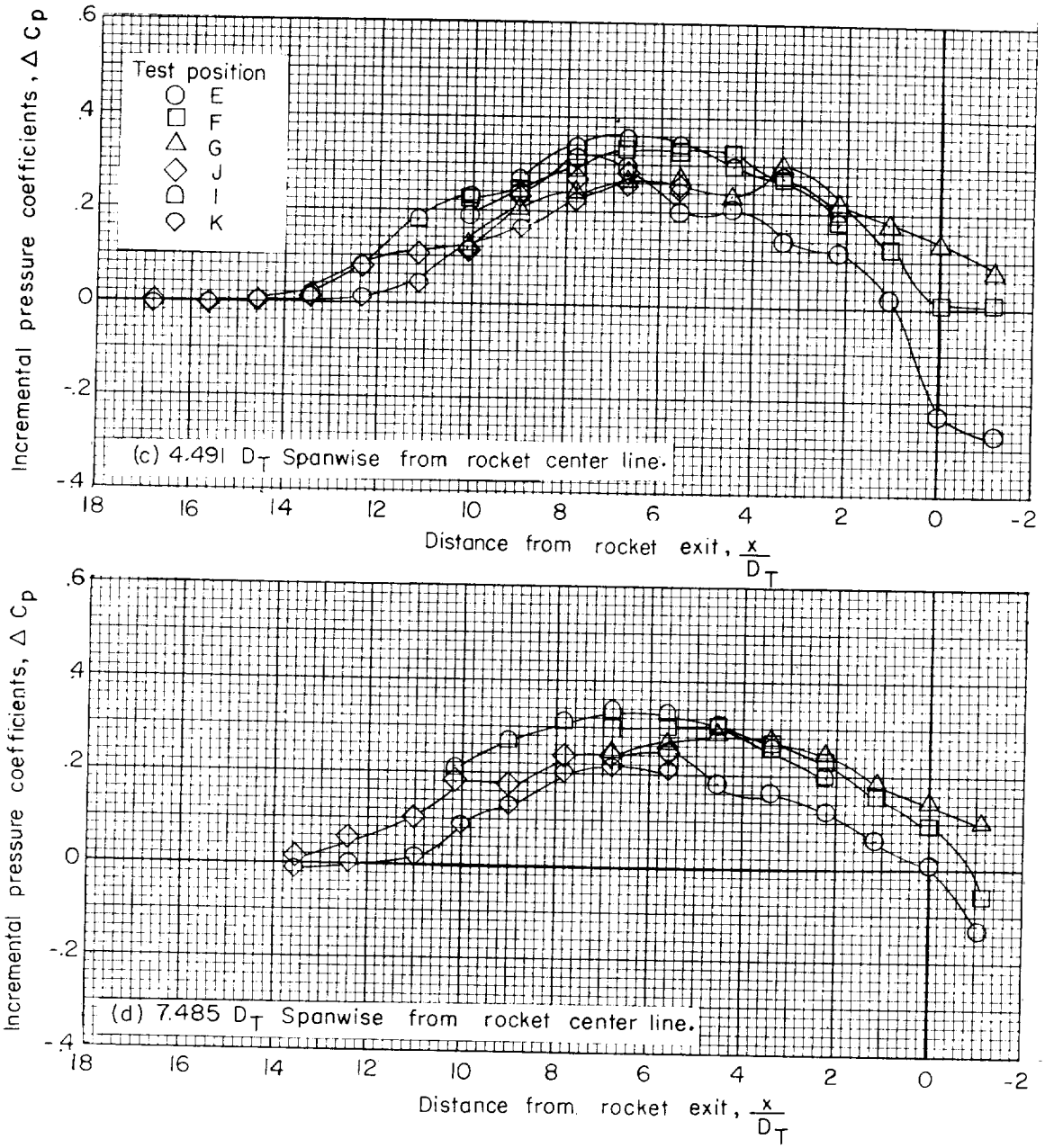


Figure 14.- Concluded.

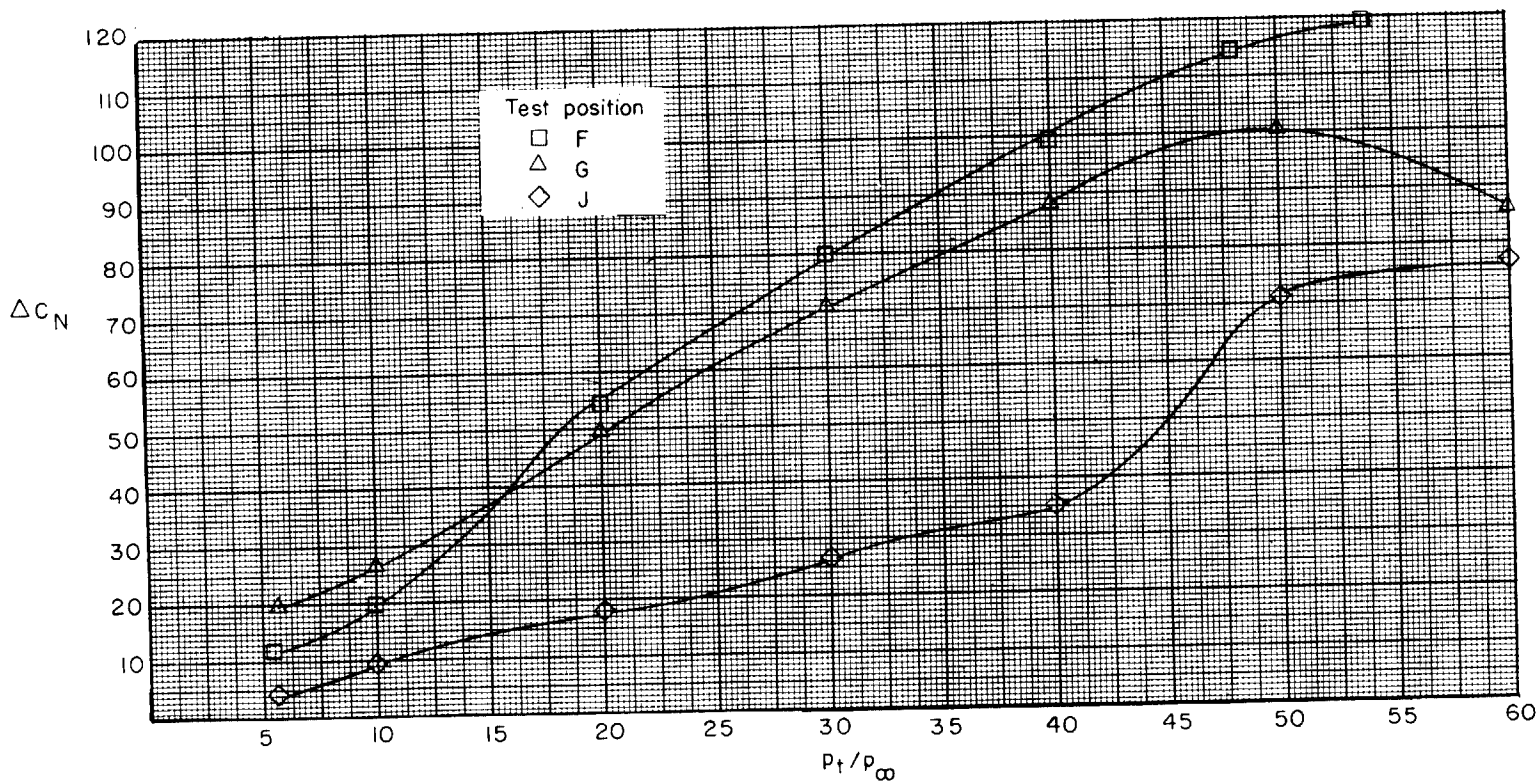


Figure 15.- Variation of incremental normal-force coefficients based on A_T as a function of rocket total-pressure ratio for test positions F, G, and J.