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SURFACE PRESSURE MEASUREMENTS ON A HIGHLY SHEPT DELTA
MINDED WIND TUNNEL.. (U) NAVAL SURFACE WEAPONS CENTER
SILVER SPRING MD A S COLLIER ET AL. AUG 86

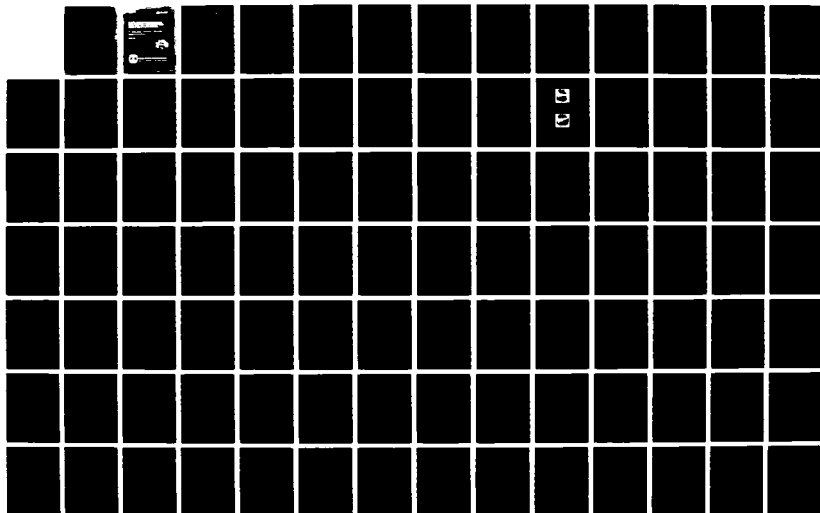
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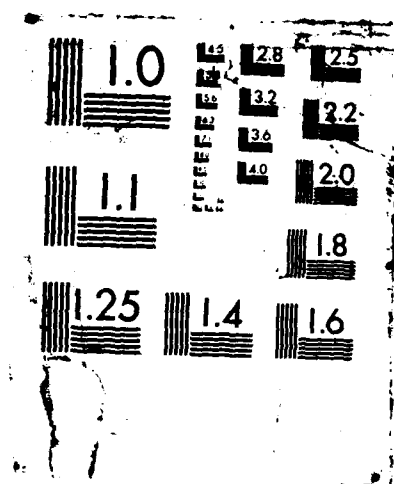
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FOREWORD

The surface pressures of a highly swept delta winged model were measured at Mach numbers of 2, 3, and 4 in the Naval Surface Weapons Center Supersonic Tunnel No. 2 (NSWC T-2) using a commercial pressure measurement system. The tests were performed in May 1985.

Surface pressure measurements are reported for 75 percent of the body length and the entire span of the wing for 0, 5, 10, and 15 degrees angle of attack and all roll angles from 0 to 360 degrees in 22.5-degree increments.

This work was sponsored by Mr. D. Hutchins of the Naval Air Systems Command (NAVAIR, AIR 320K) and Mr. L. Pasiuk of the Naval Sea Systems Command (NAVSEA R41 62). This document describes in detail the model design, the test apparatus, and the experimental techniques used for this test program. The authors wish to acknowledge Mr. G. D. Prats for suggestions on the use of the PSI system, Mr. D. W. Ausherman for feedback on past test programs, and Messrs. S. Cothran, Jr., and R. J. Marshall for their assistance in conducting the tests.

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INTRODUCTION

In light of new missile system requirements, numerical methods for predicting aerodynamic performance have assumed an increased importance. Stringent requirements on missile radar cross section and range mandate the development of the capability to accurately predict the aerodynamics of unconventionally shaped missiles with blended inlets. Traditional methods for predicting these aerodynamic characteristics are semi-empirical in nature and rely on an extensive data base for similar classes of missile shapes. Hence these predictive methods are often not applicable to new geometries of interest. Also, there is likely to be an increase in the use of ramjet propulsion which requires the ability to predict the inlet flow field. Such quantities cannot be determined by simple, semi-empirical prediction methods.

Numerical methods for calculating the aerodynamics of missiles are currently being developed. However, such methods need detailed experimental data for validation. Existing data generally is restricted to forces and moments with limited examples of surface pressure measurements¹. The typical missile configurations. The data generated by these

tests will be used to increase the level of understanding of the aerodynamic behavior of high lift-to-drag (L/D) vehicles at angles of attack in supersonic flows. In particular, it will be utilized to validate computational codes which are being developed to predict the flow field characteristics of such vehicles.

TEST FACILITY

The NSWC Supersonic Tunnel #2 (T-2) is a 16 x 16 inch cross section horizontal tunnel with an open jet test section and a model support system that has pitch, yaw and roll capability. The tunnel working medium is high pressure air which can be heated, via a steam heater, to temperatures from 175 to 225 degrees Fahrenheit . The tunnel is equipped with schlieren quality glass ports that permit a 16 x 24 inch viewing area. T-2 is capable of operating over a Mach number range from Mach 0.3 to Mach 5 with a supply pressure ranging from 0.5 to 15 atmospheres. This Mach range is provided by interchanging two-dimensional nozzles.

T-2 is capable of either blow-down or recirculating operation. For this test series, the tunnel was operated in a recirculating mode at Mach numbers of 2.02, 3.02 and 4.00 with nominal Reynolds numbers of $3.7 \times 10^6/\text{ft}$, $2.3 \times 10^6/\text{ft}$ and $1.5 \times 10^6/\text{ft}$, respectively ($p_o=1 \text{ atm}$).

MODEL DESCRIPTION

The basic model used for this test program consisted of a three caliber tangent ogive nose affixed to a two inch o.d., seven caliber cylindrical afterbody. It was designed as a split slotted body which could be used with any one of five wing configurations, shown in Figure 1. Also, a wing support allows for wing-alone testing.

The specific configuration tested is shown in Figure 2. The long delta wing is beveled so that a thin wing can be assumed in future calculations. The wing is positioned so that the leading edge starts at the aft part of the nose (six inches from the model nosetip). The total model wing span is six inches and the cross sectional thickness is 0.250 inches. The leading edge sweep angle is 77.5 degrees, the wing bevel angle is 75 degrees (as shown) and the root chord length is 9.02 inches. This wing contains 60 pressure taps, 58 of which are located on one half of the flat surface (see Figure 3). The body contains 91 pressure taps, 89 of which are clustered into one quarter of the body surface area. The two remaining taps in both the wing and the body yield flow symmetry data.

INSTRUMENTATION

Pressure measurements were made using a commercial system from Pressure Systems Incorporated (PSI). The PSI system consists of ten modules, each containing 16 pressure transducers. Each module is scanned electronically to acquire

its sixteen transducer output signals. The analog output signals are then transferred to the data acquisition and control unit (DACU), digitized and the results stored in the DACU RAM to be dumped to magnetic tape and reduced at a later time. Each pressure transducer was calibrated using a Stokes McLeod pressure gauge and a Barocel 1000 mm differential transducer. The accuracy of each PSI transducer was found to be within the specified accuracy; 0.25% of its full range (0.013 psi for 5 psi modules, 0.025 psi for 10 psi modules).

Tunnel conditions and model positions were recorded with a PSI random access mini millivolt (RAMM) analog-to-digital (A/D) converter. This A/D converter had an accuracy of 1.25 millivolts for a full-scale range of 500 millivolts.

TEST PROCEDURES

In preparation for a day of testing, the PSI system was brought on - line and an automatic pressure calibration sequence was initiated. The primary purpose of performing this simple three point calibration was to make available the ability to monitor the output of any one pressure transducer without collecting data. The transducers were then put through an eight point calibration to insure that the low pressure response characteristics of each transducer were defined. The calibration pressures ranged from 1 - 80 torr.

The RAMM-30 signals were also calibrated on a daily basis. A four point angle of attack calibration was made with alpha varying between 0 and 15 degrees. The roll angle calibration was made with five points from 0 to 360 degrees. The supply pressure was calibrated between 0 and 15 psi and the supply temperature was calibrated between 32 and 200 degrees Fahrenheit.

The model was positioned at 0 degree angle of attack before the tunnel was started. After the desired tunnel supply conditions were reached, data acquisition began. The model was first rolled to a position and then pitched through its series of angle of attack. A nominal 60 second delay for pressure equilibration was used between pitching and data acquisition for Mach 2 and 3. A 120 second delay was used at Mach 4. The model was always returned to 0 degree angle of attack prior to rolling to the next position. A list of run positions is given in Table 1.

DATA REDUCTION

The surface pressure measurements, the angle of attack, the roll angle, and the supply pressures and temperatures reported are averaged values of 50 data samples. The data rate at which these samples were collected is about 50 Hz. Each set of data was obtained in raw data counts and reduced using the calibration coefficients of the day. It was found that the transducer characteristics were best described by two straight lines, one for the lower pressures (1.1 - 5.0 torr) and one for the higher pressures (10.0 - 80.0 torr). In

the reduction of this pressure data, the point at which the two curves intersect was used as the criteria for determining which calibration curve would be used. The other data was reduced using standard reduction schemes.

RESULTS

Surface pressure data is presented in the appendix for each model run position (see Tables 2-9 for sample output). Each data set has been separated into two parts; body surface pressures and wing surface pressures. In the output, the pressure measured by each body pressure tap is given as $p(z/d, \theta)$, where z/d is the axial distance from the nosetip to the pressure tap and θ is the angular ray on which the pressure tap is located (see Figure 2). The pressure measured by each wing tap is given as $p(z/d, r/d)$ where z/d is the dimensionless axial distance from the nosetip to the pressure tap and r/d is the dimensionless distance from the model centerline to the pressure tap.

The model has four sets of symmetric pressure taps, two sets on the body and two on the wing. The values of each symmetric set are presented as two pressures separated by a comma (,). One should also note that the first, second and fourth axial positions of the wing matrix contain r/d coordinates which are not common to the remaining matrix. These tap locations are denoted with an asterisk(*), a plus

sign (+) and an exclamation point(!). The actual coordinates of these points are;

$$* \Rightarrow r/d = 0.5465$$

$$+ \Rightarrow r/d = 0.5745$$

$$! \Rightarrow r/d = 0.6850$$

In order to qualitatively illustrate the surface pressure data of the highly swept delta winged model, a commercial contour plotting routine based on a linear interpolation scheme was used. Sample results are given in Figures 4 - 7.

Schlieren photographs of selected runs are presented in Figures 8 and 9.

CONCLUSIONS

The surface pressures of a highly swept delta winged model were measured at Mach 2, 3 and 4 in the Naval Surface Weapons Center Supersonic Tunnel No. 2 (NSWC T-2) for a variety of model positions using a commercial pressure measurement system. The results of the test are listed in the appendix of this report.

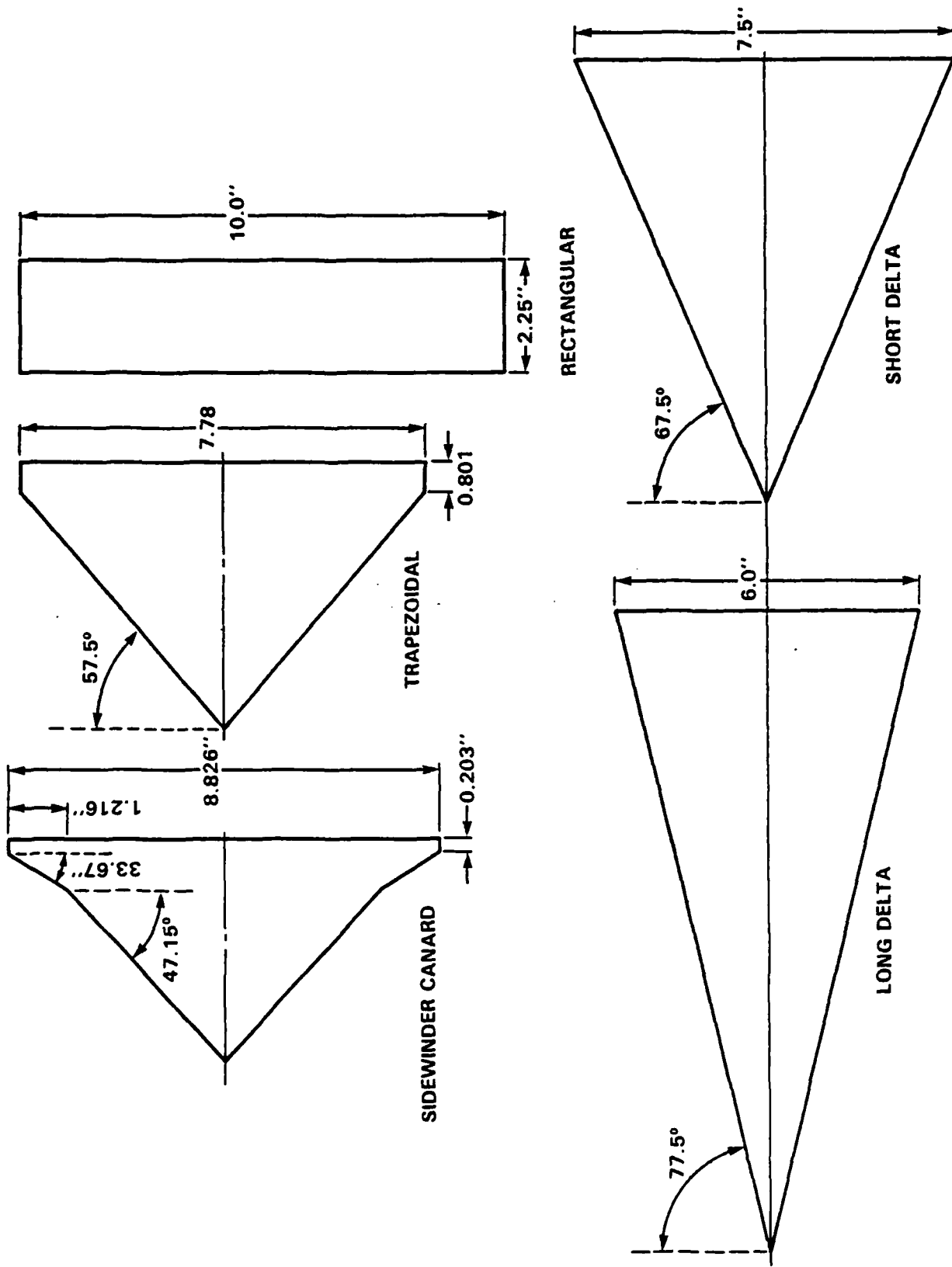


FIGURE 1. DIAGRAM OF WING CONFIGURATIONS

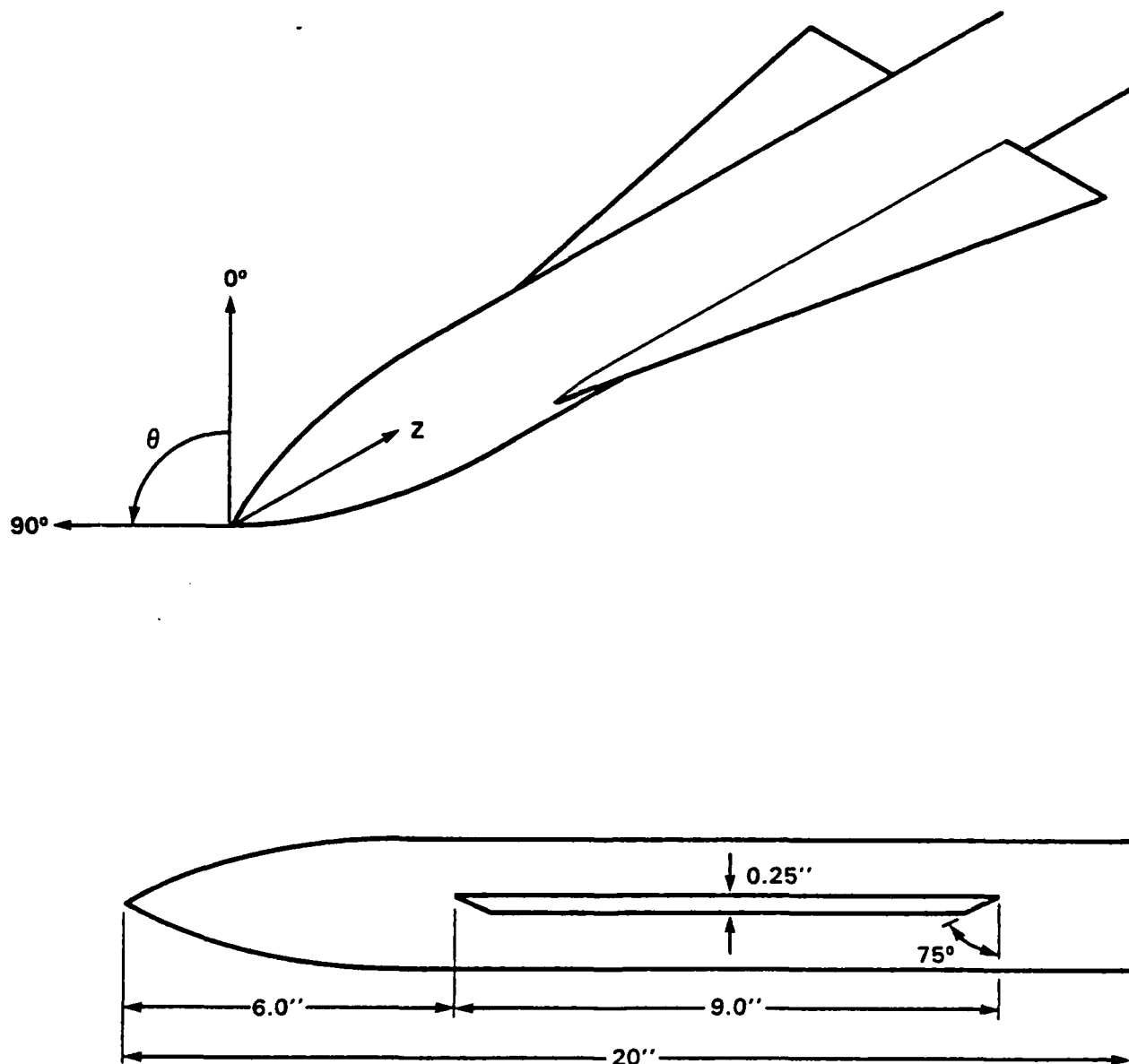


FIGURE 2. DIAGRAM OF HIGHLY SWEEPED DELTA WINGED MODEL

BODY-WING PRESSURE TAP LOCATIONS

60 WING PRESSURE TAPS
91 BODY PRESSURE TAPS

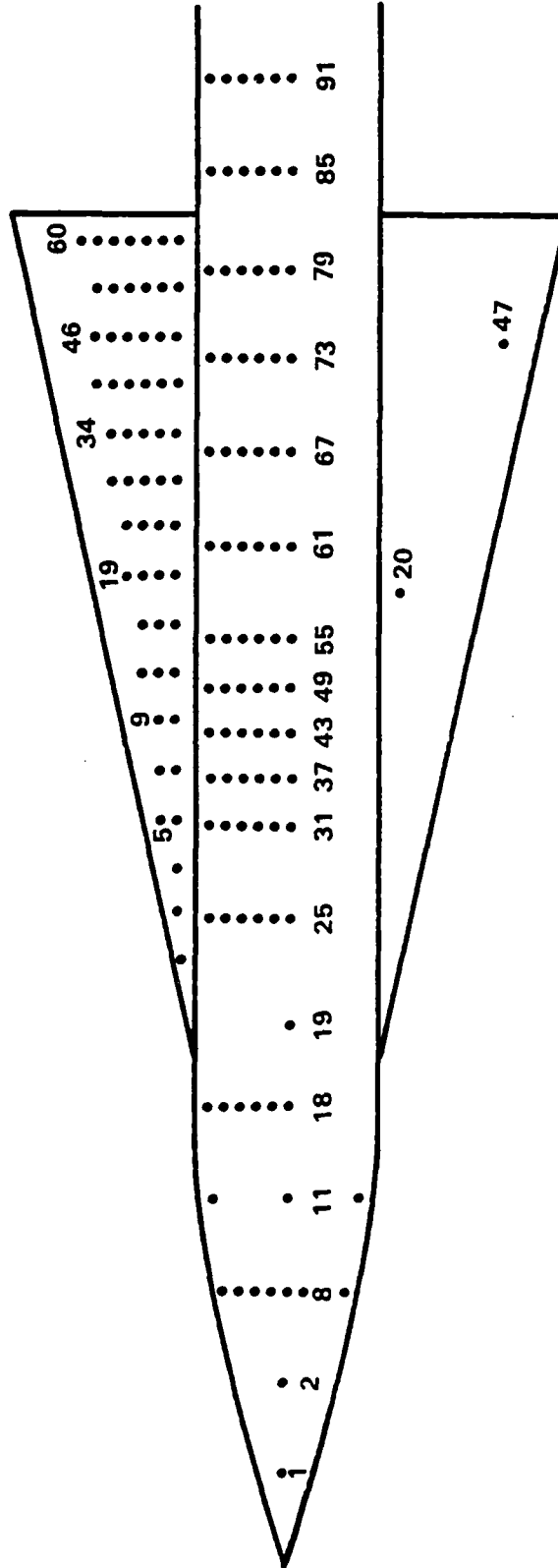


FIGURE 3. LOCATION OF PRESSURE TAPS

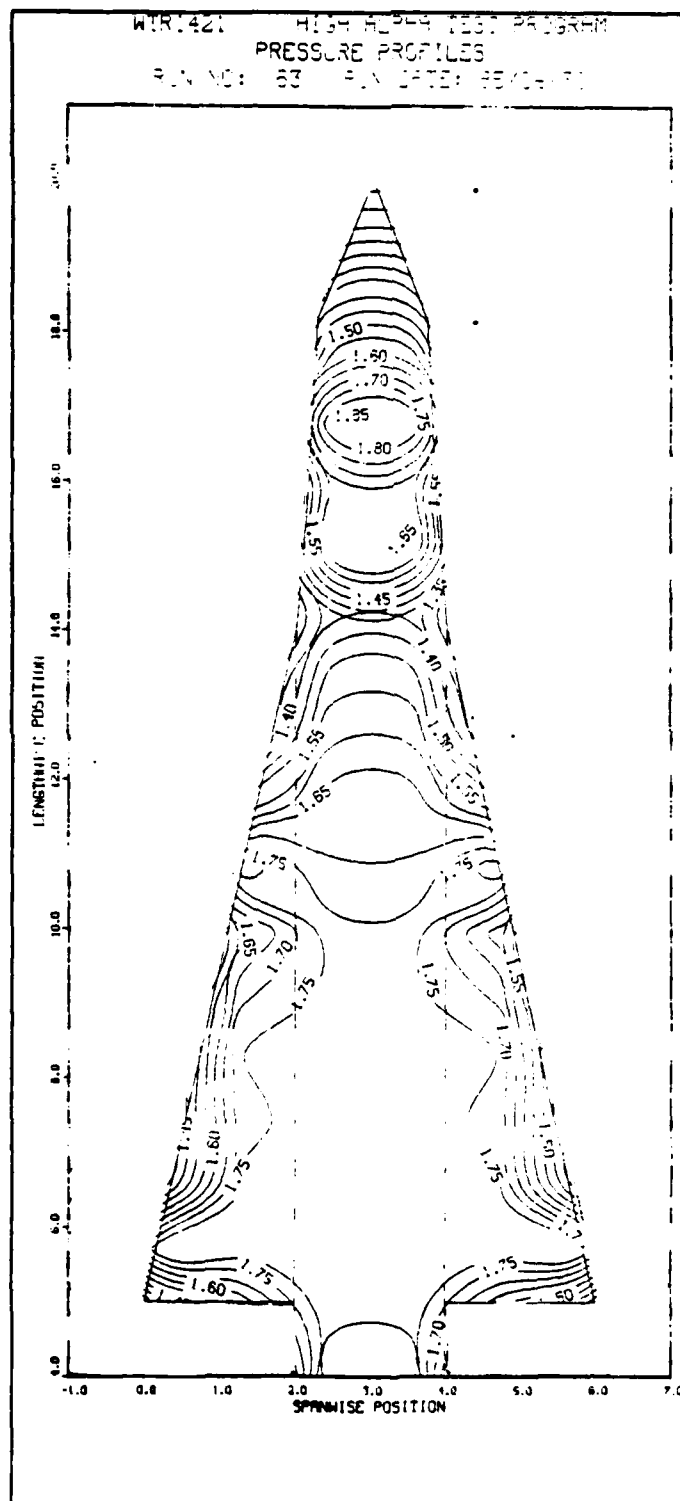


FIGURE 4. SURFACE PRESSURE CONTOUR OF MODEL; $M = 2.0$, $\phi = 90^\circ$, $\alpha = 0^\circ$

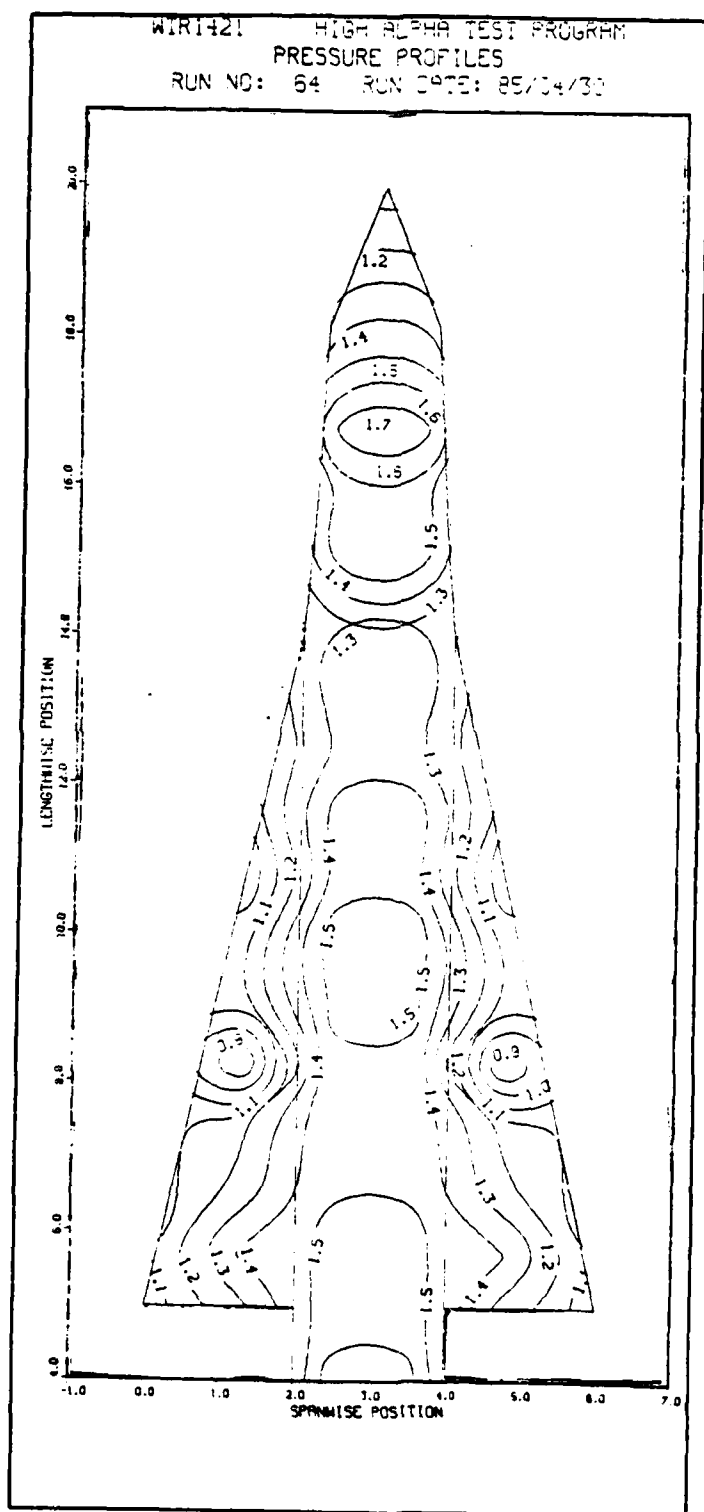


FIGURE 5. SURFACE PRESSURE CONTOUR OF MODEL; $M = 2.0$, $\phi = 90^\circ$, $\alpha = 5^\circ$

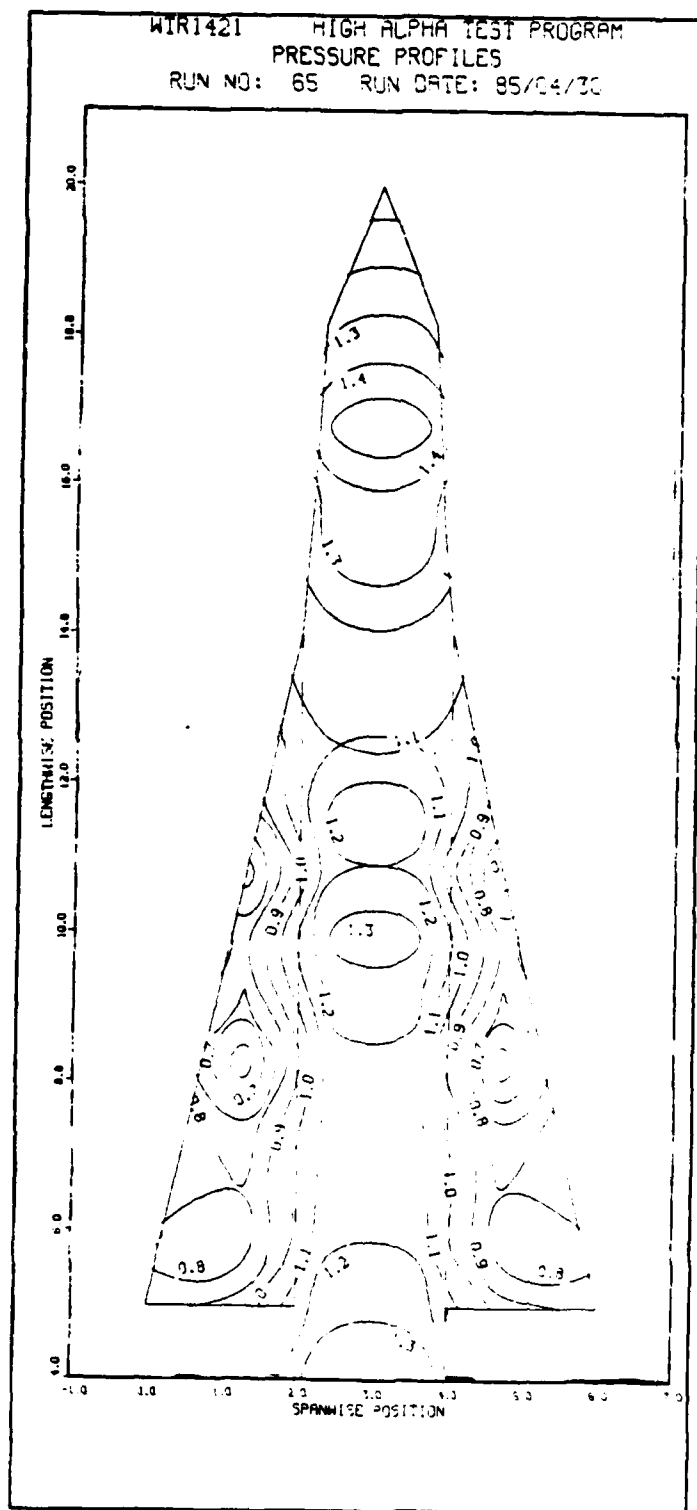


FIGURE 6. SURFACE PRESSURE CONTOUR OF MODEL; $M = 2.0$, $\phi = 90^\circ$, $\alpha = 10^\circ$

WTR1421 HIGH ALPHA TEST PROGRAM
PRESSURE PROFILES
RUN NO: 66 RUN DATE: 85/04/30

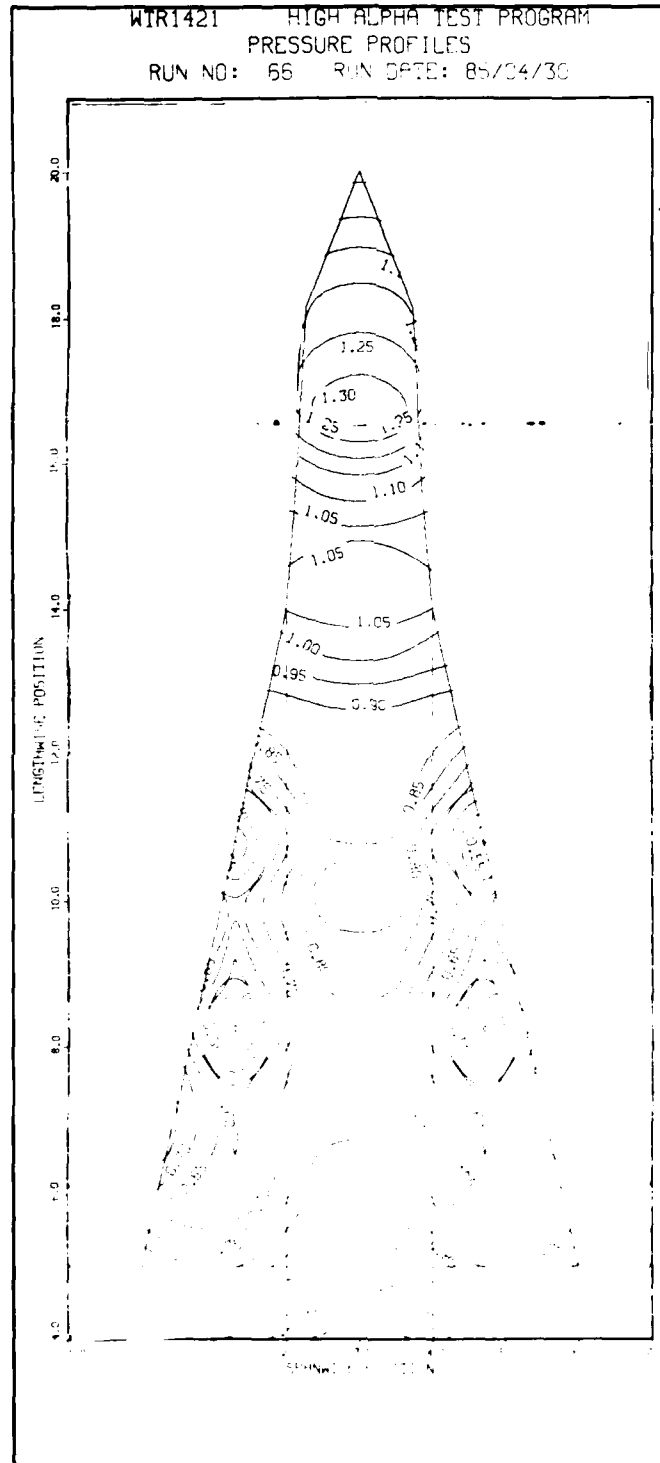


FIGURE 7. SURFACE PRESSURE CONTOUR OF MODEL; $M = 2.0$, $\phi \mp 90^\circ$, $\alpha = 15^\circ$

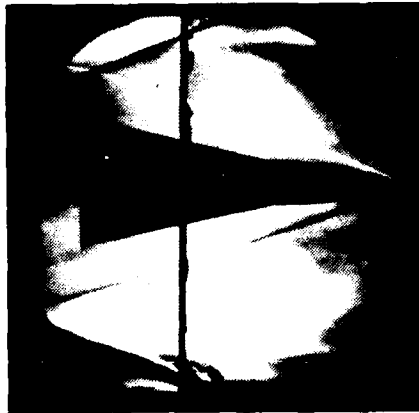


FIGURE 8. SCHLIEREN PHOTOGRAPH; $M = 3.0$, $\alpha = 0^\circ$, $\phi = 0^\circ$

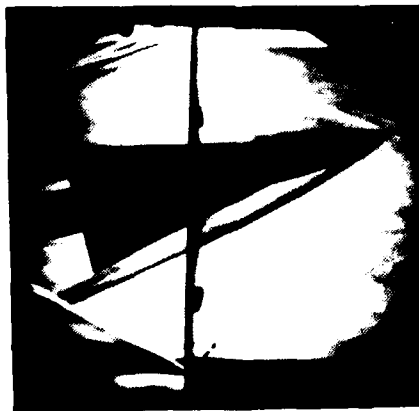


FIGURE 9. SCHLIEREN PHOTOGRAPH; $M = 3.0$, $\alpha = 15^\circ$, $\phi = 0^\circ$

TABLE 1. MODEL RUN POSITIONS

MODEL ROLL ANGLE, Φ	WING ORIENTATION (LOOKING DOWNSTREAM)
0	
22.5	
45.0	
67.5	
90.0	
112.5	
135.0	
157.5	
180.0	
202.5	
225.0	
247.5	
270.0	
292.5	
315.0	
337.5	
360.0	

 DENOTES THE QUADRANT
IN WHICH THE PRESSURE TAPS
ARE LOCATED

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TABLE 2. DATA; $M = 3.0$, $\phi = 90^\circ$, $\alpha = 0^\circ$

TUNNEL T2 PRESSURE TEST										WTR1421
PSI CONFIGURATION PSI#1(PR/10) PSI#2(1C/1)										RUN 40
ALPH	0.04 deg	PHI	88.55 deg	P0	14.63 psia	T0	107.12 degf	MACH	3.0	
			AVERAGED DATA	SCALE FACTOR:			1.0000			
BODY PRESSURES (PSI)										
z/d	theta:	88.6	103.6	118.6	133.6	148.6	163.6			
0.5		0.8940								
1.0		0.7065								
1.5		0.5597	0.5715	0.5756	0.5750	0.5738	0.5675,0.5857			
2.0		0.4495					0.4459,0.4428			
2.5		0.4020	0.3966	0.3889	0.3870	0.3841	0.3888			
3.0		0.3243								
3.5		0.3301	0.3292	0.3334	0.3317	0.3377	0.3374			
4.0		0.3422	0.3402	0.3398	0.3410	0.3420	0.3446			
4.3		0.3443	0.3439	0.3447	0.3422	0.3471	0.3428			
4.5		0.3511	0.3462	0.3517	0.3484	0.3490	0.3497			
4.8		0.3563	0.3533	0.3608	0.3573	0.3610	0.3521			
5.0		0.3621	0.3639	0.3635	0.3734	0.3563	0.3690			
5.5		0.3697	0.3699	0.3703	0.3697	0.3678	0.3734			
6.0		0.3746	0.3745	0.3739	0.3742	0.3725	0.3735			
6.5		0.3790	0.3772	0.3790	0.3812	0.3839	0.3826			
7.0		0.3821	0.3832	0.3792	0.3772	0.3760	0.3824			
7.5		0.3826	0.3835	0.3859	0.3768	0.3827	0.3790			
8.0		0.3964	0.4314	0.4013	0.4352	0.3630	0.3431			
WING PRESSURES (PSI)										
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435		
3.625	0.3681*									
3.875	0.3497*									
4.125	0.3407									
4.375	0.3340†	0.3577								
4.625	0.3720		0.3606							
4.875	0.3399		0.3640							
5.125	0.3812		0.4016							
5.375	0.3634		0.3683	0.3469						
5.625	0.3683	0.3730	0.3776	0.3646						
5.875	0.3675		0.3736	0.3702	0.3191					
6.125			0.3716	0.3724						
6.375	0.3877		0.3837	0.3781	0.3856	0.3065				
6.625	0.3754		0.3842	0.3803	0.3810	0.3271				
6.875	0.3707		0.3732	0.3832	0.3903	0.3412	0.3134			
7.125	0.3729		0.3727	0.3895	0.3820	0.3941	0.3135,0.3200			
7.375	0.3751		0.3716	0.3726	0.3759	0.3760	0.3086			
				0.3760	0.3770	0.3721	0.3554	0.3006		

TABLE 3. DATA; $M=30$, $\Phi=90^\circ$, $\alpha=5^\circ$

WTR1421 RUN 41	4 96 deg	PIII	88.62 deg AVERAGED DATA	P0	14.62 psia SCALE FACTOR:	T0 107.15 degf 1.0000	MACH	3.0
TUNNEL 12 PRESSURE TEST								
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)								
BODY PRESSURES (PSI)								
z/d	theta:	88.6	103.6	118.6	133.6	148.6	163.6	
0.5		0.6977						
1.0		0.5533						
1.5		0.4454	0.4529	0.4610	0.4753	0.4927	0.5158, 0.5307	
2.0		0.3616					0.4032, 0.4044	
2.5		0.3352	0.3321	0.3227	0.3229	0.3272	0.3458	
3.0		0.2876						
3.5		0.2978	0.2963	0.2972	0.2878	0.2790	0.2642	
4.0		0.3099	0.3049	0.2971	0.2877	0.2746	0.2514	
4.3		0.3143	0.3080	0.2955	0.2858	0.2694	0.2498	
4.5		0.3203	0.3036	0.2980	0.2811	0.2636	0.2500	
4.8		0.3304	0.3199	0.2995	0.2808	0.2602	0.2486	
5.0		0.3400	0.3312	0.3050	0.2870	0.2588	0.2551	
5.5		0.3514	0.3454	0.3313	0.2999	0.2743	0.2670	
6.0		0.3471	0.3447	0.3285	0.3092	0.2914	0.2825	
6.5		0.3386	0.3337	0.3261	0.3233	0.3030	0.2963	
7.0		0.3289	0.3335	0.3252	0.3162	0.3035	0.3035	
7.5		0.3248	0.3252	0.3209	0.3109	0.3086	0.3076	
8.0		0.3356	0.3723	0.3336	0.3690	0.3151	0.3521	
WING PRESSURES (PSI)								
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.1480							
3.875	0.1259							
4.125	0.1148							
4.375	0.1038	0.1344						
4.625	0.1367							
4.875	0.1375							
5.125	0.2660							
5.375	0.2601							
5.625	0.2684	0.2764						
5.875	0.2779				0.1262			
6.125								
6.375	0.2986				0.1392	0.1211		
6.625	0.2926				0.1297	0.1379		
6.875	0.2889				0.1361	0.1438	0.1352	
7.125	0.2971				0.1768	0.1444	0.1381, 0.1324	
7.375	0.3059				0.2015	0.1219	0.1257	
					0.1212	0.1263	0.1263	0.1271

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TABLE 4. DATA; $M = 3.0$, $\phi = 90^\circ$, $\alpha = 10^\circ$

WIR1421 RUN 42		TUNNEL T2 PRESSURE TEST PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)						WTR1421 RUN 42	
ALPH	9.95 deg	PHI	88.42 deg AVERAGED DATA	P0	14.62 psia SCALE FACTOR:	T0 1.0000	107.22 degF	MACH	3.0
BODY PRESSURES (PSI)									
	z/d	theta	103.4	118.4	133.4	148.4	163.4		
	0.5	88.4							
	1.0	0.5565							
	1.5	0.4474							
	1.5	0.3654							
	2.0	0.3072	0.3690	0.3689	0.3740	0.3954	0.4419, 0.4575		
	2.5	0.2934	0.2830	0.2667	0.2531	0.2462	0.3352, 0.3390		
	3.0	0.2586					0.2760		
	3.5	0.2834	0.2565	0.2271	0.2126	0.2082	0.1868		
	4.0	0.3094	0.2865	0.2036	0.2023	0.1943	0.1683		
	4.3	0.3139	0.3099	0.1905	0.2019	0.1899	0.1559		
	4.5	0.3175	0.3204	0.1700	0.1905	0.1914	0.1409		
	4.8	0.3249	0.3184	0.1688	0.1967	0.1889	0.1230		
	5.0	0.3279	0.3230	0.1841	0.2032	0.1794	0.1135		
	5.5	0.3199	0.3124	0.2408	0.2318	0.1963	0.1205		
	6.0	0.3028	0.2982	0.2421	0.2485	0.2049	0.1236		
	6.5	0.2938	0.2867	0.2472	0.2487	0.1942	0.1460		
	7.0	0.2910	0.2886	0.2386	0.2317	0.1943	0.1678		
	7.5	0.2853	0.2786	0.2402	0.2155	0.1975	0.1961		
	8.0	0.2952	0.3333	0.2589	0.2962	0.2601	0.3001		

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.0856							
3.875	0.0625							
4.125	0.0471							
4.375	0.0368	0.0695						
4.625	0.0694	0.0598						
4.875	0.0599	0.1453						
5.125	0.1207	0.0494	0.0685					
5.375	0.1086	0.0506	0.0589					
5.625	0.1218	0.1127	0.0498	0.0574				
5.875	0.1138	0.0489	0.0516					
6.125		0.0574	0.0561	0.0632	0.0552			
6.375	0.1753	0.0905	0.0699	0.0703	0.0808			
6.625	0.1871	0.1116	0.0746	0.0810	0.0772			
6.875	0.1801	0.1028	0.0750	0.0733	0.0782	0.0760	0.0760	
7.125	0.1830	0.1170	0.0679	0.0689	0.0635	0.0806, 0.0657	0.0684	
7.375	0.1915	0.1336	0.0802	0.0793	0.0715	0.0787	0.0824	

TABLE 5. DATA; $M = 3.0$, $\phi = 90^\circ$, $\alpha = 15^\circ$

[illegible]

TABLE 6. DATA; $M = 3.0$, $\phi = 270^\circ$, $\alpha = 0^\circ$

WTR1421 RUN 72	ALPH	0.09 deg	PHI	269.64 deg AVERAGED DATA	PO	14.84 psia SCALE FACTOR:	TO 110.59 degf 1.0000	MACH	3.0
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
BODY PRESSURES (PSI)									
z/d	theta:	269.6	284.6	299.6	314.6	329.6	344.6		
0.5	0.9288								
1.0	0.7362								
1.5	0.5800								
2.0	0.4688								
2.5	0.4165								
3.0	0.3314								
3.5	0.3403								
4.0	0.3530								
4.3	0.3532								
4.5	0.3601								
4.8	0.3660								
5.0	0.3725								
5.5	0.3796								
6.0	0.3854								
6.5	0.3943								
7.0	0.3965								
7.5	0.3935								
8.0	0.4014								
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.3960*								
3.875	0.3778*								
4.125	0.3686								
4.375	0.3678								
4.625	0.3948								
4.875	0.3830								
5.125	0.3957								
5.375	0.3740								
5.625	0.3799								
5.875	0.3851								
6.125	0.3715								
6.375	0.3992								
6.625	0.3855								
6.875	0.3849								
7.125	0.3880								
7.375	0.3892								

WHITE OAK LABORATORY

FIGURE 7. DATA; $M = 3.0$, $\phi = 270^\circ$, $\alpha = 5^\circ$

WIR1421 RUN 73		TUNNEL 12 PRESSURE TEST		PSI CONFIGURATION		PSI#1(PR/10)		PSI#2(TC/1)		WTR1421 RUN 73	
ALPH	4.92 deg	PHI	269.66 deg	P0	14.84 psia	T0	110.75 degf	MACH	3.0		
			AVERAGED DATA		SCALE FACTOR:		1.0000				
			BODY PRESSURES (PSI)								
z/d	theta:	269.7	284.7	299.7	314.7	329.7	344.7				
0.5	1.1924										
1.0	0.9516										
1.5	0.7584	0.7712	0.7594	-0.7269	0.6849	0.6273,0.6078					
2.0	0.6066					0.4895,0.4559					
2.5	0.5291	0.5239	0.5047	0.4803	0.4475	0.4218					
3.0	0.4207										
3.5	0.4169	0.4145	0.4045	0.3860	0.3909	0.4042					
4.0	0.4207	0.4165	0.4067	0.4084	0.4205	0.4341					
4.3	0.4182	0.4168	0.4154	0.4167	0.4335	0.4359					
4.5	0.4209	0.4171	0.4242	0.4303	0.4359	0.4458					
4.8	0.4258	0.4252	0.4412	0.4430	0.4500	0.4516					
5.0	0.4321	0.4407	0.4472	0.4643	0.4437	0.4771					
5.5	0.4429	0.4492	0.4538	0.4530	0.4574	0.4869					
6.0	0.4534	0.4556	0.4592	0.4596	0.4734	0.4896					
6.5	0.4650	0.4572	0.4569	0.4677	0.4845	0.4947					
7.0	0.4718	0.4710	0.4649	0.4777	0.4813	0.5018					
7.5	0.4768	0.4786	0.5008	0.4881	0.4937	0.4956					
8.0	0.4929	0.5251	0.5099	0.5407	0.4687	0.3755					
			WING PRESSURES (PSI)								
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435			
3.625	0.5374*										
3.875	0.5214*										
4.125	0.5249										
4.375	0.5234	0.5397									
4.625	0.5365										
4.875	0.5431										
5.125	0.5235										
5.375	0.4997										
5.625	0.4992,0.5078										
5.875	0.4923				0.5320						
6.125					0.5393	0.5288					
6.375	0.5135				0.5254	0.5469					
6.625	0.4953				0.5376	0.5392	0.5508				
6.875	0.4937				0.5224	0.5367	0.5461,0.5317				
7.125	0.4936				0.5115	0.5112	0.5256				
7.375	0.4965				0.5090	0.5057	0.5150	0.5220			

TABLE 8. DATA: $M = 3.0$, $\phi = 270^\circ$, $\alpha = 10^\circ$

[illegible]

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.6949*							
3.875	0.6812†							
4.125		0.7053						
4.375	0.7034†	0.7172						
4.625		0.7107	0.7223					
4.875		0.7157	0.7046					
5.125		0.6864	0.7019	0.7206				
5.375		0.6595	0.6844	0.7032				
5.625	0.6463	0.6620	0.6785	0.6849	0.7004			
5.875		0.6461	0.6646	0.6830				
6.125			0.6628	0.6834	0.7077	0.6946		
6.375			0.6744	0.6810	0.6891	0.7098		
6.625	0.6456		0.6721	0.6806	0.6981	0.7013	0.7107	
6.875	0.6440		0.6512	0.6797	0.6793	0.6970	0.7049, 0.6861	
7.125	0.6419		0.6490	0.6552	0.6693	0.6706	0.6854	
7.375	0.6455		0.6439	0.6588	0.6669	0.6628	0.6715	0.6758

TABLE 9. DATA; $M = 3.0$, $\phi = 270^\circ$, $\alpha = 15^\circ$

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REFERENCES

1. Ausherman, D.W., Surface Pressure Measurements on a Double Delta Wing/Body Configuration at Mach 2 and Mach 3, NSWC MP 86-240, June, 1986. :

NOMENCLATURE

d	body diameter, inches
M	Mach number
p	surface pressure, psia
p _o	supply pressure, psia
r	radial distance from the model centerline, inches
T _o	supply temperature, degrees F
z	axial distance from the nosetip, inches
α	alpha, model angle of attack, degrees
θ	theta, angular position of pressure tap, degrees
φ	phi, model roll angle, degrees

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APPENDIX

TEST RESULTS

TEST MATRIX

RUN #	MACH #	α	ϕ	DATE
046	2.02	0	0.0	4/30/85
047	2.02	5	0.0	4/30/85
048	2.02	10	0.0	4/30/85
049	2.02	15	0.0	4/30/85
050	2.02	0	22.5	4/30/85
051	2.02	5	22.5	4/30/85
052	2.02	10	22.5	4/30/85
053	2.02	15	22.5	4/30/85
054	2.02	0	45.0	4/30/85
055	2.02	5	45.0	4/30/85
056	2.02	10	45.0	4/30/85
057	2.02	15	45.0	4/30/85
058	2.02	0	67.5	4/30/85
059	2.02	5	67.5	4/30/85
060	2.02	10	67.5	4/30/85
061	2.02	15	67.5	4/30/85
062	2.02	0	90.0	4/30/85
063	2.02	5	90.0	4/30/85
064	2.02	10	90.0	4/30/85
065	2.02	15	90.0	4/30/85
066	2.02	0	112.5	4/30/85
067	2.02	5	112.5	4/30/85
068	2.02	10	112.5	4/30/85
069	2.02	15	112.5	4/30/85
070	2.02	0	135.0	4/30/85
071	2.02	5	135.0	4/30/85
072	2.02	10	135.0	4/30/85
073	2.02	15	135.0	4/30/85
074	2.02	0	157.5	4/30/85
075	2.02	5	157.5	4/30/85
076	2.02	10	157.5	4/30/85
077	2.02	15	157.5	4/30/85
078	2.02	0	180.0	4/30/85
079	2.02	5	180.0	4/30/85
080	2.02	10	180.0	4/30/85
081	2.02	15	180.0	4/30/85
082	2.02	0	202.5	4/30/85
083	2.02	5	202.5	4/30/85
084	2.02	10	202.5	4/30/85
085	2.02	15	202.5	4/30/85
086	2.02	0	225.0	4/30/85
087	2.02	5	225.0	4/30/85
088	2.02	10	225.0	4/30/85
089	2.02	15	225.0	4/30/85
090	2.02	0	247.5	4/30/85
091	2.02	5	247.5	4/30/85

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RUN #	TEST MATRIX (CONTINUED)			DATE
	MACH #	α	$\downarrow$	
092	2.02	10	247.5	4/30/85
093	2.02	15	247.5	4/30/85
094	2.02	0	270.0	4/30/85
095	2.02	5	270.0	4/30/85
096	2.02	10	270.0	4/30/85
097	2.02	15	270.0	4/30/85
098	2.02	0	292.5	4/30/85
099	2.02	5	292.5	4/30/85
001	2.02	10	292.5	4/30/85
002	2.02	15	292.5	4/30/85
003	2.02	0	315.0	4/30/85
004	2.02	5	315.0	4/30/85
005	2.02	10	315.0	4/30/85
006	2.02	15	315.0	4/30/85
008	2.02	0	337.5	4/30/85
009	2.02	5	337.5	4/30/85
010	2.02	10	337.5	4/30/85
011	2.02	15	337.5	4/30/85
012	2.02	0	360.0	4/30/85
013	2.02	5	360.0	4/30/85
014	2.02	10	360.0	4/30/85
015	2.02	15	360.0	4/30/85
024	3.02	0	0.0	4/30/85
025	3.02	5	0.0	4/30/85
026	3.02	10	0.0	4/30/85
027	3.02	15	0.0	4/30/85
028	3.02	0	22.5	4/30/85
029	3.02	5	22.5	4/30/85
030	3.02	10	22.5	4/30/85
031	3.02	15	22.5	4/30/85
032	3.02	0	45.0	4/30/85
033	3.02	5	45.0	4/30/85
034	3.02	10	45.0	4/30/85
035	3.02	15	45.0	4/30/85
036	3.02	0	67.5	4/30/85
037	3.02	5	67.5	4/30/85
038	3.02	10	67.5	4/30/85
039	3.02	15	67.5	4/30/85
040	3.02	0	90.0	4/30/85
041	3.02	5	90.0	4/30/85
042	3.02	10	90.0	4/30/85

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TEST MATRIX (CONTINUED)				
RUN #	MACH #	α	ϕ	DATE
043	3.02	15	90.0	4/30/85
044	3.02	0	112.5	4/30/85
045	3.02	5	112.5	4/30/85
046	3.02	10	112.5	4/30/85
047	3.02	15	112.5	4/30/85
048	3.02	0	135.0	4/30/85
049	3.02	5	135.0	4/30/85
050	3.02	10	135.0	4/30/85
051	3.02	15	135.0	4/30/85
052	3.02	0	157.5	4/30/85
053	3.02	5	157.5	4/30/85
054	3.02	10	157.5	4/30/85
055	3.02	15	157.5	4/30/85
056	3.02	0	180.0	4/30/85
057	3.02	5	180.0	4/30/85
058	3.02	10	180.0	4/30/85
059	3.02	15	180.0	4/30/85
060	3.02	0	202.5	4/30/85
061	3.02	5	202.5	4/30/85
062	3.02	10	202.5	4/30/85
063	3.02	15	202.5	4/30/83
064	3.02	0	225.0	4/30/85
065	3.02	5	225.0	4/30/85
066	3.02	10	225.0	4/30/85
067	3.02	15	225.0	4/30/85
068	3.02	0	247.5	4/30/85
069	3.02	5	247.5	4/30/85
070	3.02	10	247.5	4/30/85
071	3.02	15	247.5	4/30/85
072	3.02	0	270.0	4/30/85
073	3.02	5	270.0	4/30/85
074	3.02	10	270.0	4/30/85
075	3.02	15	270.0	4/30/85
076	3.02	0	292.5	4/30/85
077	3.02	5	292.5	4/30/85
078	3.02	10	292.5	4/30/85
079	3.02	15	292.5	4/30/85
080	3.02	0	315.0	4/30/85
081	3.02	5	315.0	4/30/85
082	3.02	10	315.0	4/30/85
083	3.02	15	315.0	4/30/85
084	3.02	0	337.5	4/30/85
085	3.02	5	337.5	4/30/85
086	3.02	10	337.5	4/30/85

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RUN #	TEST MATRIX (CONTINUED)			DATE
	MACH #	α	ϕ	
087	3.02	15	337.5	4/30/85
088	3.02	0	360.0	4/30/85
089	3.02	5	360.0	4/30/85
090	3.02	10	360.0	4/30/85
091	3.02	15	360.0	4/30/85
009	4.00	0	0.0	5/06/85
010	4.00	5	0.0	5/06/85
011	4.00	10	0.0	5/06/85
012	4.00	15	0.0	5/06/85
013	4.00	0	22.5	5/06/85
014	4.00	5	22.5	5/06/85
015	4.00	10	22.5	5/06/85
016	4.00	15	22.5	5/06/85
017	4.00	0	45.0	5/06/85
018	4.00	5	45.0	5/06/85
019	4.00	10	45.0	5/06/85
020	4.00	15	45.0	5/06/85
021	4.00	0	67.5	5/06/85
022	4.00	5	67.5	5/06/85
023	4.00	10	67.5	5/06/85
024	4.00	15	67.5	5/06/85
025	4.00	0	90.0	5/06/85
026	4.00	5	90.0	5/06/85
027	4.00	10	90.0	5/06/85
028	4.00	15	90.0	5/06/85
029	4.00	0	112.5	5/06/85
030	4.00	5	112.5	5/06/85
031	4.00	10	112.5	5/06/85
032	4.00	15	112.5	5/06/85
033	4.00	0	135.0	5/06/85
034	4.00	5	135.0	5/06/85
035	4.00	10	135.0	5/06/85
036	4.00	15	135.0	5/06/85
037	4.00	0	157.5	5/06/85
038	4.00	5	157.5	5/06/85
039	4.00	10	157.5	5/06/85
040	4.00	15	157.5	5/06/85
041	4.00	0	180.0	5/06/85
042	4.00	5	180.0	5/06/85
043	4.00	10	180.0	5/06/85
044	4.00	15	180.0	5/06/85
046	4.00	0	202.5	5/06/85
047	4.00	5	202.5	5/06/85
048	4.00	10	202.5	5/06/85

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RUN #	TEST MATRIX (CONTINUED)			DATE
	MACH #	α	ϕ	
049	4.00	15	202.5	5/06/83
050	4.00	0	225.0	5/06/85
051	4.00	5	225.0	5/06/85
052	4.00	10	225.0	5/06/85
053	4.00	15	225.0	5/06/85
054	4.00	0	247.5	5/06/85
055	4.00	5	247.5	5/06/85
056	4.00	10	247.5	5/06/85
057	4.00	15	247.5	5/06/85
058	4.00	0	270.0	5/06/85
059	4.00	5	270.0	5/06/85
060	4.00	10	270.0	5/06/85
061	4.00	15	270.0	5/06/85
062	4.00	0	292.5	5/06/85
063	4.00	5	292.5	5/06/85
064	4.00	10	292.5	5/06/85
065	4.00	15	292.5	5/06/85
066	4.00	0	315.0	5/06/85
067	4.00	5	315.0	5/06/85
068	4.00	10	315.0	5/06/85
069	4.00	15	315.0	5/06/85
070	4.00	0	337.5	5/06/85
071	4.00	5	337.5	5/06/85
072	4.00	10	337.5	5/06/85
073	4.00	15	337.5	5/06/85
074	4.00	0	360.0	5/06/85
075	4.00	5	360.0	5/06/85
076	4.00	10	360.0	5/06/85

WIR1421
RUN 46

WHITE OAK LABORATORY

WIR1421
RUN 46

TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 11 -0.09 deg

PHI 11

TO 110.49 degF

PO 14.80 psia

SCALE FACTOR: 1.0000

-1.47 deg

PHI 11

theta: -1.5

ALPH 11

ALPH 11

BODY PRESSURES (PSI)

z/d	theta:	13.5	28.5	43.5	58.5	73.5
0.5	3.0826					
1.0	2.6387					
1.5	2.2423					
2.0	1.9287	2.2652	2.2714	2.2622	2.2535	2.2242, 2.2765
2.5	1.7700	1.7615	1.7538	1.7523	1.7332	1.8955, 1.8983
3.0	1.5716					1.7371
3.5	1.6306					
4.0	1.6928	1.6314	1.6261	1.6427	1.6572	1.6704
4.3	1.7094	1.5398	1.6916	1.7087	1.7179	1.7507
4.5	1.7173	1.7086	1.7252	1.7142	1.7449	1.7496
4.8	1.7406	1.7167	1.7210	1.7298	1.7636	1.8058
5.0	1.7623	1.7406	1.7694	1.7571	1.7731	1.7610
5.5	1.8021	1.7801	1.7845	1.7964	1.7791	1.8066
6.0	1.8297	1.8093	1.7839	1.8016	1.8107	1.8102
6.5	1.8473	1.8141	1.8139	1.8199	1.8211	1.8020
7.0	1.8692	1.8267	1.8252	1.8271	1.8387	1.8257
7.5	1.8694	1.8665	1.8355	1.8120	1.8280	1.8549
8.0	1.8549	1.8827	1.9047	1.8370	1.8487	1.8459
		1.8568	1.8624	1.8643	1.7674	1.8741

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7392*							
3.875	1.7368*							
4.125	1.7741							
4.375	1.80971							
4.625	1.7867							
4.875	1.7788	1.8121						
5.125	1.7771	1.7857						
5.375	1.7767	1.7795						
5.625	1.7965, 0.8042	1.7945						
5.875	1.7886	0.7982		0.8043				
6.125	1.8362	1.7988		0.8104				
6.375	1.8382	1.8025		1.8220				
6.625	1.8346	1.8400		1.8192				
6.875	1.8297	1.8357		1.8410				
7.125	1.8261	1.8278		1.8511				
7.375		1.8411		1.8367				
		1.8276		1.8474				
					1.8220			
					1.8192			
					1.8486			
					1.8390			
					1.8364			
					1.8402			
					1.8331			
					1.8189			
					1.8165			
					1.8037, 1.8474			
					1.7986			
					1.7877			
								1.7635

WHITE OAK LABORATORY

WIR1421
RUN 47

ALPH 4.94 deg PHI 1.39 deg
TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PSI#1(FR/10) PSI#2(1C/1)

1.39 deg
AVERAGED DATA

P0 14.80 psia
SCALE FACTOR: 1.0000

10 111.00 degf
MACII 2.0

BODY PRESSURES (PSI)

z/d	theta:	13.6	28.6	43.6	58.6	73.6
0.5	-1.4					
1.0	3.0220					
1.5	2.5888					
2.0	2.1872	2.1271	2.0699	2.0191	1.9929	1.9583, 2.6194
2.5	1.8636	1.6505	1.6083	1.5985	1.5857	1.6961, 2.1795
3.0	1.7022					1.6034
3.5	1.4938					
4.0	1.5264	1.5117	1.4866	1.5185	1.6064	1.6332
4.3	1.5661	1.5263	1.5575	1.6230	1.6819	1.7475
4.5	1.5762	1.5739	1.6196	1.6498	1.6933	1.7498
4.8	1.5696	1.5778	1.6043	1.6604	1.7447	1.7927
5.0	1.5892	1.6099	1.6851	1.7116	1.7586	1.7609
5.5	1.6175	1.6586	1.7019	1.7594	1.7694	1.8114
6.0	1.6845	1.7204	1.7315	1.7820	1.8021	1.8172
6.5	1.7098	1.7147	1.7518	1.7963	1.8168	1.8240
7.0	1.7309	1.7245	1.7650	1.8025	1.8363	1.8410
7.5	1.7449	1.7670	1.7713	1.7852	1.8147	1.8610
8.0	1.7394	1.7799	1.8421	1.8088	1.8359	1.8431
	1.7422	1.7473	1.7975	1.8014	1.7851	1.8554

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7422*							
3.875	1.7396*							
4.125	1.7911							
4.375	1.8309							
4.625	1.8183	1.8331						
4.875	1.7977	1.8178						
5.125	1.8098	1.8114	1.7986					
5.375	1.8072	1.8253	1.8267					
5.625	1.8295, 0.8358	0.8276	0.8332	0.8363				
5.875	1.8226	1.8311	1.8161					
6.125		1.8370	1.8437	1.8513	1.7962			
6.375	1.8710	1.8760	1.8701	1.8506	1.8405			
6.625	1.8577			1.8843	1.8534	1.8408		
6.875	1.8649	1.8701	1.8783	1.8714	1.8752	1.8403, 1.8293		
7.125	1.8569	1.8623	1.8868	1.8718	1.8548	1.8357		
7.375	1.8455	1.8540	1.8690	1.8760	1.8636	1.8153	1.7949	

WIR1421
RUN 48

WHITE OAK LABORATORY

TUNNEL 12 PRESSURE TEST

PSI CONFIGURATION PSIN1(PR/10) PSIN2(TC/1)

ALPH 9.94 deg PIII -1.50 deg P0 14.79 psia TO 111.55 degf MACII 2.0

SCALE FACTOR: 1.0000

z/d	theta:	13.5	28.5	43.5	58.5	73.5
0.5	2.8812					
1.0	2.4332					
1.5	2.0270	1.8803	1.7868	1.7504	1.7531	1.7583, 3.0757
2.0	1.6983					1.5641, 2.5552
2.5	1.5174	1.3986	1.3545	1.3965	1.4509	1.5191
3.0	1.2797					
3.5	1.2459	1.1728	1.1887	1.3535	1.5059	1.5910
4.0	1.2234	1.5093	1.2562	1.4997	1.5982	1.6923
4.3	1.2018	1.1386	1.3530	1.5410	1.6139	1.6793
4.5	1.1539	1.1081	1.3642	1.5618	1.6436	1.7177
4.8	1.1520	1.1349	1.4795	1.6121	1.6507	1.6665
5.0	1.1349	1.2090	1.5341	1.6661	1.6462	1.7125
5.5	1.1428	1.3874	1.5763	1.6843	1.6828	1.7183
6.0	1.2059	1.4594	1.6104	1.6982	1.6831	1.6993
6.5	1.3386	1.5380	1.6491	1.6879	1.6908	1.6982
7.0*	1.4226	1.6212	1.6779	1.6625	1.6503	1.7058
7.5	1.4635	1.6487	1.7620	1.6971	1.6549	1.6821
8.0	1.4890	1.5013	1.7272	1.7335	1.6235	1.7075

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7485*							
3.875	1.7458*							
4.125	1.8191							
4.375	1.87301							
4.625	1.8631							
4.875	1.8415							
5.125	1.8259							
5.375	1.8292							
5.625	1.9938, 0.8575							
5.875	1.8405							
6.125								
6.375	1.8591							
6.625	1.8370							
6.875	1.8295							
7.125	1.8118							
7.375	1.7897							
		1.8740	1.8625	1.8420	1.8661	1.8421	1.8862	1.8735, 1.9281
		1.8274	1.8743	1.8621	1.8621	1.8982	1.8862	1.8735, 1.9281
		0.8699	0.8699	0.8842	0.8744	1.9046	1.8862	1.8735, 1.9281
		1.8861	1.8861	1.8621	1.8621	1.9046	1.8862	1.8735, 1.9281
		1.8788	1.8788	1.8982	1.8982	1.9046	1.8862	1.8735, 1.9281
		1.9064	1.9064	1.9163	1.9163	1.9259	1.8862	1.8735, 1.9281
		1.8892	1.8892	1.9214	1.9259	1.9259	1.8862	1.8735, 1.9281
		1.8763	1.8763	1.9234	1.9094	1.9113	1.8862	1.8735, 1.9281
		1.8767	1.8767	1.9024	1.9090	1.8844	1.8657	1.8406
		1.8417	1.8417	1.9067	1.8974	1.8818	1.8406	1.8174

WILLIE OAK LABORATORY

WTR1421
RUN 49WTR1421
RUN 49TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

ALPH	14.98 deg	PIII	-1.63 deg AVERAGED DATA	P0	14.80 psia SCALE FACTOR:	T0	112.01 degF	MACH	2.0
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BODY PRESSURES (PSI)

z/d	theta:	13.4	28.4	43.4	58.4	73.4
0.5	-1.6					
1.0	2.6871					
1.5	2.2300					
2.0	1.8288	1.5501	1.4067	1.4086	1.5133	1.6007, 3.6316
2.5	1.4965	1.0416	0.9215	1.0913	1.3076	1.4472, 3.0165
3.0	1.2945					1.4263
3.5	1.0460					
4.0	0.9676	0.7314	0.7036	1.0847	1.3368	1.4430
4.3	0.9155	0.7279	0.8158	1.0689	1.3272	1.4779
4.5	0.8766	0.7096	0.9705	1.0628	1.2757	1.4156
4.8	0.8151	0.7154	1.0258	1.0387	1.2046	1.4793
5.0	0.8231	0.7543	1.1747	1.0950	1.0897	1.4163
5.5	0.7758	0.9219	1.2600	1.1664	0.9583	1.4429
6.0	0.8269	1.1972	1.2464	1.1973	0.8544	1.4717
6.5	1.0905	1.2868	1.3249	1.1725	0.8149	1.4993
7.0	1.3282	1.3954	1.3378	1.1612	0.9091	1.4266
7.5	1.4527	1.4740	1.3664	1.2101	0.9760	1.3707
8.0	1.4779	1.4909	1.4668	1.3223	1.2068	1.2877
	1.4656	1.4785	1.4470	1.4606	1.3762	1.3804

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7356*							
3.875	1.7330*							
4.125	1.8717							
4.375	1.90821							
4.625	1.8930							
4.875	1.8777							
5.125	1.7907							
5.375	1.7887							
5.625	2.3069, 0.7852							
5.875	1.7164							
6.125								
6.375	1.6599							
6.625	1.6073							
6.875	1.5778							
7.125	1.5355							
7.375	1.4981							
		1.9088	1.8778	1.8886	0.8856			
		1.8935	1.8886	0.8827				
		1.7929	1.8309	1.8310				
		1.8428	1.8365	1.8829				
		1.7708	1.7323	1.8809				
		1.8185	1.8423	1.9100				
		0.8185	1.8229	1.9012				
		1.7708	1.8047	1.9160				
		1.7365	1.7454	1.8808				
		1.7323	1.7106	1.8652				
		1.6806		1.8270				
		1.6327						
		1.5968						
		1.5267						
							1.8387	
							1.8823	
							1.9011	
							1.8926, 2.1555	
							1.8794	
							1.8488	
								1.8303

WHITE OAK LABORATORY

WTR1421
RUN 52

ALPH 4.97 deg PHI 21.0

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

21.02 deg P0 14.75 psia 10 114.96 degF 96.0

AVERAGED DATA SCALE FACTOR: 1.0000

MACII 2.0

BODY PRESSURES (PSI)

z/d	theta:	36.0	51.0	66.0	81.0	96.0
0.5	2.8189					
1.0	2.4114					
1.5	2.0399					
2.0	1.7602	2.0162	1.9938	1.9763	1.9602	1.9467, 2.5424
2.5	1.6295	1.6044	1.5897	1.6013	1.5901	1.6884, 2.1037
3.0	1.4375					1.6021
3.5	1.5015	1.5241	1.5115	1.5581	1.5752	1.5480
4.0	1.5569	1.5497	1.5950	1.6340	1.6475	1.6522
4.3	1.5755	1.5971	1.6451	1.6418	1.6508	1.6571
4.5	1.5598	1.5954	1.6116	1.6302	1.6933	1.7117
4.8	1.5798	1.6093	1.6775	1.6754	1.7028	1.6753
5.0	1.5896	1.6528	1.6879	1.7270	1.7028	1.7361
5.5	1.6391	1.6836	1.6798	1.7209	1.7336	1.7380
6.0	1.6575	1.6698	1.6997	1.7307	1.7447	1.7435
6.5	1.6792	1.6809	1.7015	1.7251	1.7586	1.7609
7.0	1.6907	1.7157	1.6980	1.6993	1.7336	1.7867
7.5	1.6841	1.7227	1.7704	1.7185	1.7577	1.7494
8.0	1.6701	1.6773	1.7269	1.7324	1.7494	1.8557

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.5972+							
3.875	1.5925+							
4.125	1.5171							
4.375	1.62921	1.5232						
4.625	1.7577	1.6355						
4.875	1.2556	1.7567						
5.125	1.7140	1.7174						
5.375	1.7152	1.7380	1.2590					
5.625	1.6996, 0.7472	0.7478	0.7912	0.2837				
5.875	1.7294	1.7347	1.7412					
6.125		1.7410	1.7620	1.7192	1.3316			
6.375	1.7828	1.7819	1.7852	1.7878	1.3268			
6.625	1.7600	1.7798	1.7867	1.8248	1.4548	1.4440		
6.875	1.7695	1.7614	1.7987	1.7882	1.7421	1.4063, 1.2602		
7.125	1.7643	1.7685	1.7667	1.7807	1.7924	1.3224		
7.375	1.7595	1.7580	1.7782	1.7822	1.7867	1.4767	1.4414	

WHITE OAK LABORATORY

TUNNEL TO DECEASE TEST

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)

WIR1421
RUN 53

ALPH	9.94 deg	PIII	21.11 deg	PO	14.75 psia	TO	115.30 degF	MACH	2.0
				AVERAGED DATA		SCALE FACTOR:			
						1.0000			

BODY PRESSURES (PSI)

z/d	theta:	21.1	36.1	51.1	66.1	81.1	96.1
0.5		2.5102					
1.0		2.1225					
1.5		1.7680					
2.0		1.5062	1.7376	1.7477	1.7656	1.7775	1.7586, 2.8539
2.5		1.3694	1.3741	1.4291	1.4988	1.5136	1.5735, 2.3378
3.0		1.1654					1.5304
3.5		1.1702					
4.0		1.1892	1.2932	1.4066	1.4996	1.5739	1.4997
4.3		1.2023	1.5316	1.4930	1.5493	1.5833	1.5534
4.5		1.1906	1.4043	1.5186	1.5278	1.5702	1.5628
4.8		1.2318	1.3992	1.4734	1.5025	1.6057	1.6377
5.0		1.2549	1.4132	1.5209	1.5208	1.6031	1.6076
5.5		1.3310	1.4593	1.5291	1.5624	1.5882	1.6839
6.0		1.3656	1.4828	1.5041	1.5357	1.6102	1.6940
6.5		1.4121	1.4720	1.5291	1.5360	1.5916	1.6785
7.0		1.4512	1.4777	1.5213	1.5167	1.5763	1.7013
7.5		1.4638	1.5286	1.5090	1.4783	1.5300	1.7148
8.0		1.4615	1.5444	1.5832	1.4904	1.5365	1.6742
			1.4745	1.5544	1.5650	1.4944	1.7432

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.4253*							
3.875	1.4180†							
4.125		1.1612						
4.375	1.3178†	1.1720						
4.625		1.6577						
4.875		1.0109	1.3304					
5.125		1.6761	1.6561					
5.375		1.6791	1.6799					
5.625		1.7073	1.7062	1.0158				
5.875		1.6899	0.7028	0.6915	0.0906			
6.125			1.6966	1.6860				
6.375			1.6991	1.7148	1.5646	1.1518		
6.625		1.7433	1.7421	1.7408	1.6971	1.1499		
6.875		1.7205	1.7411	1.7526	1.7542	1.3629	1.2648	
7.125		1.7129	1.7217	1.7619	1.7420	1.6208	1.1996, 1.1062	
7.375		1.7021	1.7255	1.7269	1.7400	1.6718	1.2286	
			1.7105	1.7372	1.7260	1.7102	1.4187	1.2654

WHITE OAK LABORATORY

WIR1421
RUN 54WIR1421
RUN 54

ALPH 14.95 deg PHIL 21.01 deg PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I) TUNNEL 12 PRESSURE TEST MACH 2.0
 AVERAGED DATA P0 14.74 psia IO 115.60 degF
 SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	36.0	51.0	66.0	81.0	96.0
0.5	2.1310					
1.0	1.7315					
1.5	1.3924	1.3707	1.4653	1.6004	1.6569	1.6435, 3.2173
2.0	1.1353					1.4718, 2.6465
2.5	0.9535	0.9746	1.2366	1.3913	1.4417	1.4573
3.0	0.7203					
3.5	0.6415	0.8617	1.2418	1.3445	1.5611	1.4698
4.0	0.7590	1.5106	1.1885	1.3262	1.5356	1.4739
4.3	0.8120	0.9611	1.1041	1.2564	1.4935	1.4770
4.5	0.8478	0.8904	0.7601	1.1760	1.4883	1.5698
4.8	0.9731	0.8722	0.9278	1.1333	1.4633	1.5632
5.0	0.8789	0.9390	0.8597	1.1071	1.4145	1.6581
5.5	1.1104	1.0516	0.7934	0.9585	1.4555	1.6803
6.0	1.0680	1.0853	0.8849	0.8290	1.4953	1.6479
6.5	1.1448	1.1540	0.9863	0.8035	1.4928	1.6032
7.0	1.2528	1.2176	1.1144	0.8958	1.3600	1.5473
7.5	1.2746	1.2554	1.3145	1.1139	1.3129	1.4713
8.0	1.2793	1.2972	1.3194	1.3368	1.2637	1.4788

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.1977*							
3.875	1.1871*							
4.125	0.9206							
4.375	1.00021							
4.625	1.4775							
4.875	0.8771							
5.125	1.6883							
5.375	1.6836							
5.625	1.7586, 0.7095							
5.875	1.6612				0.9254			
6.125						0.9562		
6.375	1.6790				1.4894	1.0799		
6.625	1.6128				1.6135	1.3210	1.0291	
6.875	1.5783				1.6675	1.5360	1.0368, 1.1346	
7.125	1.5437				1.6396	1.5775	1.2242	
7.375	1.5253				1.6393	1.6080	1.4008	1.0319
					1.6313			

WIR1421
RUN 55

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPHI -0.08 deg PIII 43.90 deg PO 14.73 psia TO 116.02 degF MACH 2.0

AVERAGED DATA SCALE FACTOR: 1.0000

WIR1421
RUN 55

BODY PRESSURES (PSI)

z/d	theta:	58.9	73.9	88.9	103.9	118.9
0.5	43.9					
	3.0424					
1.0	2.6014					
1.5	2.2051					
2.0	1.9050	2.2387	2.2456	2.2357	2.2265	2.2095, 2.2805
2.5	1.7634	1.7467	1.7392	1.7380	1.7208	1.8739, 1.8808
3.0	1.5528					1.7293
3.5	1.6465	1.6363	1.6129	1.6137	1.6387	1.6588
4.0	1.6932	1.5005	1.6835	1.7074	1.7147	1.7468
4.3	1.7017	1.7016	1.7254	1.7036	1.7427	1.7276
4.5	1.7089	1.7047	1.7143	1.7139	1.7495	1.7849
4.8	1.7314	1.7266	1.7666	1.7407	1.7640	1.7377
5.0	1.7507	1.7776	1.7809	1.7981	1.7585	1.7955
5.5	1.7802	1.7913	1.7614	1.7871	1.7936	1.7970
6.0	1.8096	1.7933	1.8001	1.8085	1.8017	1.7792
6.5	1.8370	1.8062	1.8009	1.8036	1.8207	1.8064
7.0	1.8526	1.8482	1.8080	1.7799	1.7953	1.8385
7.5	1.8502	1.8654	1.8974	1.8081	1.8283	1.8116
8.0	1.8221	1.8250	1.8262	1.8293	1.7771	1.8771

WING PRESSURES (PSI)

z/d	r/d:	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7056*						
3.875	1.7028*						
4.125	1.7427						
4.375	1.77421						
4.625	1.7587						
4.875	1.7525						
5.125	1.7514						
5.375	1.7542						
5.625	1.7689, 0.7864						
5.875	1.7553						
6.125							
6.375	1.8246						
6.625	1.8063						
6.875	1.8134						
7.125	1.8068						
7.375	1.8083						
		1.7776	1.7533				
		1.7578	1.7761				
		1.7539					
		1.7783					
		0.7723	0.7802	0.7811			
		1.7766	1.7740				
		1.7782	1.7891				
		1.8308	1.8188	1.8060	1.7263		
		1.8255	1.8334	1.8046	1.7912		
		1.8089	1.8400	1.8424	1.7993	1.7950	
		1.8170	1.8155	1.8201	1.8366	1.7903, 1.8151	
		1.8120	1.8369	1.8313	1.8088	1.7917	
			1.8303	1.8131	1.7804	1.7183	

WTR1421
RUN 56

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSIN1(PR/10) PSIN2(IC/1)

ALPH	4.93 deg	PHI	43.82 deg	P0	14.74 psia	IN	116.50 degF	MACH	2.0
AVERAGED DATA				SCALE FACTOR:		1.0000			

BODY PRESSURES (PSI)

z/d	theta:	43.8	58.8	73.8	88.8	103.8	118.8
0.5	2.6796						
1.0	2.3002						
1.5	1.9554						
2.0	1.7129		1.9723	1.9796	1.9699	1.9616	1.9558, 2.4063
2.5	1.6112		1.6081	1.5975	1.6093	1.5794	1.6866, 1.9772
3.0	1.4402						1.5915
3.5	1.5365		1.5635	1.5548	1.5666	1.5688	1.4726
4.0	1.6087		1.4904	1.6339	1.6309	1.5849	1.5314
4.3	1.6226		1.6459	1.6674	1.6138	1.5813	1.5341
4.5	1.6022		1.6274	1.6177	1.5996	1.6136	1.5999
4.8	1.6074		1.6258	1.6763	1.6386	1.6289	1.5682
5.0	1.6067		1.6546	1.6763	1.6879	1.6177	1.6408
5.5	1.6305		1.6658	1.6426	1.6684	1.6562	1.6549
6.0	1.6431		1.6474	1.6636	1.6731	1.6623	1.6566
6.5	1.6627		1.6454	1.6534	1.6639	1.6870	1.6792
7.0	1.6699		1.6814	1.6742	1.6354	1.6544	1.7044
7.5	1.6557		1.6786	1.7242	1.6569	1.6885	1.6559
8.0	1.6288		1.6371	1.6688	1.6765	1.7468	1.8551

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.3846*							
3.875	1.3772+							
4.125	0.8910							
4.375	0.97071	0.9055						
4.625	1.4800		0.9907					
4.875	1.0212		1.4772					
5.125	1.6175		1.6225	1.0259				
5.375	1.6278		1.6557	0.9877				
5.625	1.5995, 0.6575		0.6615	0.4163	0.1574			
5.875	1.6421		1.6599	1.5829				
6.125			1.6578	1.6646	1.0427	1.1839		
6.375	1.7036		1.7034	1.6994	1.3632	1.2198		
6.625	1.6816		1.7000	1.7169	1.5980	1.0727	1.2528	
6.875	1.6878		1.6813	1.7290	1.6666	1.0726	1.2723, 1.1155	
7.125	1.6843		1.6889	1.6869	1.7068	1.2858	1.2000	
7.375	1.6744		1.6723	1.7066	1.7094	1.4907	1.0546	1.2379

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)									
ALPH	9.94 deg	PHI	43.92 deg	PO	14.74 psia	TO	116.83 degF	MACI	2.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	58.9	73.9	88.9	103.9	118.9			
0.5	2.3124								
1.0	1.9815								
1.5	1.6810								
2.0	1.4966								
2.5	1.4118								
3.0	1.2687								
3.5	1.3847								
4.0	1.4717								
4.3	1.4799								
4.5	1.4452								
4.8	1.4404								
5.0	1.4289								
5.5	1.4164								
6.0	1.4170								
6.5	1.4292								
7.0	1.4338								
7.5	1.4220								
8.0	1.3989								
		1.7373	1.7750	1.7807	1.7538	1.7183, 2.4948			
		1.4760	1.5144	1.5297	1.4843	1.5143, 2.0154			
		1.4806	1.5248	1.5589	1.4870	1.4445			
		1.4802	1.5750	1.5896	1.4532	1.2844			
		1.5253	1.5870	1.5622	1.4377	1.2591			
		1.4910	1.5169	1.5279	1.4476	1.2429			
		1.4668	1.5445	1.5487	1.4466	1.3047			
		1.4855	1.5111	1.5752	1.4346	1.2848			
		1.4552	1.4373	1.5312	1.4721	1.3812			
		1.4068	1.4048	1.5031	1.4803	1.4590			
		1.3850	1.3729	1.4750	1.5127	1.4891			
		1.4231	1.3439	1.4380	1.5021	1.5460			
		1.4347	1.4248	1.4431	1.5021	1.5887			
		1.4137	1.3937	1.4088	1.5472	1.5605			
					1.6480	1.7981			
WING PRESSURES (PSI)									
z/d	r/d:	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435		
3.625	0.8474*								
3.875	0.8316*								
4.125	0.5580								
4.375	0.58361								
4.625	0.8472								
4.875	0.7652								
5.125	1.4427								
5.375	1.4717								
5.625	1.1770								
5.875	1.5257								
6.125									
6.375	1.6103								
6.625	1.5945								
6.875	1.6018								
7.125	1.5934								
7.375	1.5785								
		0.6115	0.7710	0.7426	0.9246	1.0067			
		0.8400	0.7018	0.9197	0.9576	1.0158, 0.7610			
		1.4507	0.8763	1.1324	0.8402	0.9354			
		1.3014	0.8763	1.2698	0.7737	0.8186			
		0.4098	0.8763	1.5305	0.9022				
		1.4541	0.8830	1.3666	1.0771				
		1.4866	0.7905	1.4338					
		1.5569	1.4066						
		1.5649	1.4848						
		1.5519	1.5305						
		1.5655	1.5238						
		1.5573	1.5420						

WHITE OAK LABORATORY									
TUNNEL 12 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	14.97 deg	PHI	44.04 deg	PO	14.76 psia	TO	116.98 degf	MACH	2.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	44.0	59.0	74.0	89.0	104.0	119.0		
0.5	1.9314								
1.0	1.6379								
1.5	1.3597		1.5181	1.6154	1.6609	1.5419	1.4783, 2.5899		
2.0	1.1802		1.3334	1.4099	1.4755	1.3813	1.3181, 2.0887		
2.5	1.1349						1.2762		
3.0	1.0432								
3.5	1.0988		1.3071	1.3876	1.5444	1.3433	1.1124		
4.0	0.9208		1.4675	1.4088	1.6179	1.2591	0.8830		
4.3	0.8611		1.1876	1.4232	1.5679	1.2130	0.8056		
4.5	0.7544		1.0790	1.3243	1.5002	1.2000	0.8725		
4.8	0.7445		0.9598	1.3349	1.5086	1.1836	0.8899		
5.0	0.8054		0.8816	1.2782	1.5027	1.1885	1.0693		
5.5	0.9064		0.7527	1.2077	1.3776	1.1671	1.2872		
6.0	0.9507		0.7897	1.1617	1.2814	1.2134	1.3614		
6.5	1.0367		0.9853	1.1185	1.2571	1.3078	1.3778		
7.0	1.1303		1.1787	1.0521	1.2482	1.3110	1.3994		
7.5	1.1713		1.2202	1.1624	1.2714	1.3606	1.3794		
8.0	1.1939		1.2142	1.1667	1.1884	1.5608	1.6233		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.7115*							
3.875	0.6937+							
4.125	0.4146							
4.375	0.43531							
4.625	0.6258							
4.875	0.5467							
5.125	1.3958							
5.375	1.4619							
5.625	0.8007							
5.875	1.5040							
6.125								
6.375	1.5331							
6.625	1.4680							
6.875	1.4456							
7.125	1.4223							
7.375	1.4095							
		0.4664	0.6175	0.5536	0.5252	0.6292		
		0.6175	1.4043	0.5252	0.5875	0.6184		
		1.0387	1.0387	0.5252	0.6875	0.8709		
		0.1935	0.1935	0.6875	0.6292	0.6666		
		1.2906	1.2906	0.8709	0.6184	0.6666		
		1.3462	1.0819	1.0819	0.8021	0.6898		
		1.4243	1.2089	1.2089	0.8021	0.6898		
		1.4260	1.2888	1.2888	0.9765	0.5851		
		1.4110	1.3354	1.3354	1.0766	0.6953		
		1.4227	1.3378	1.3378	1.1574	0.8059		
		1.4130	1.3707	1.3707	1.2223	0.9301		
							0.7496	
							0.7397, 0.5005	
							0.6248	
							0.5867	
							0.7620	

WHITE OAK LABORATORY

WTR1421
RUN 59

ALPHI -0.08 deg

TUNNEL 12 PRESSURE TEST

PSI CONFIGURATION PSIN1(PH/10) PSIN2(TC/1)

66.28 deg

PHI

P0 14.75 psia

10 117.38 degF

MACII 2.0

SCALE FACTOR: 1.0000

WTR1421
RUN 59

z/d	theta:	81.3	96.3	111.3	126.3	141.3
0.5	3.0135					
1.0	2.5716					
1.5	2.1822					
2.0	1.8939	2.2205	2.2328	2.2294	2.2240	2.2141, 2.2687
2.5	1.7565	1.7416	1.7370	1.7357	1.7157	1.8758, 1.8762
3.0	1.5528					1.7248
3.5	1.6427					
4.0	1.6946	1.6286	1.6082	1.6164	1.6368	1.6509
4.3	1.7065	1.4581	1.6863	1.7024	1.7046	1.7356
4.5	1.7121	1.7066	1.7274	1.6955	1.7325	1.7113
4.8	1.7301	1.7031	1.7098	1.7063	1.7398	1.7676
5.0	1.7500	1.7245	1.7654	1.7365	1.7583	1.7202
5.5	1.7771	1.7777	1.7807	1.7951	1.7474	1.7821
6.0	1.8089	1.7888	1.7550	1.7824	1.7872	1.7864
6.5	1.8323	1.7897	1.7964	1.8028	1.7931	1.7680
7.0	1.8476	1.7983	1.7946	1.7942	1.8093	1.7983
7.5	1.8397	1.8406	1.7941	1.7672	1.7855	1.8323
8.0	1.8082	1.8554	1.8878	1.7915	1.8172	1.8014
		1.8116	1.8410	1.8437	1.7819	1.8865

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.6869*							
3.875	1.6834†							
4.125	1.7115							
4.375	1.7492†							
4.625	1.7407							
4.875	1.7103							
5.125	1.7361							
5.375	1.7454							
5.625	1.7537, 0.7788							
5.875	1.7519							
6.125								
6.375	1.8247							
6.625	1.7910							
6.875	1.8069							
7.125	1.7993							
7.375	1.7925							
		1.7532	1.7393	1.7391	1.7669	1.7114		
		1.7665	1.7667	0.7732	0.7365			
		1.7616	1.7511					
		1.7650	1.7833					
		1.8275	1.8118					
		1.8155	1.8241					
		1.8000	1.8334					
		1.8087	1.7997					
		1.7969	1.8319					
						1.6531		
						1.7304		
						1.8363		
						1.8083		
						1.8245		
						1.8219		
						1.8053		
						1.8033		
							1.6860	
							1.7202, 1.7487	
							1.7397	
							1.7463	1.6017

WTR1421
RUN 60

TUNNEL T2 PRESSURE TEST

TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PS1#1(PR/10) PS1#2(1C/1)

ALPHI	4.93 deg	PHI	66.21 deg	P0	14.75 psia	IO	117.67 degF	MACH	2.0
					AVERAGED DATA				
					SCALE FACTOR:		1.0000		

BODY PRESSURES (PSI)

theta:	z/d	81.2	96.2	111.2	126.2	141.2
66.2						
2.5925	0.5					
2.2277	1.0					
	1.5	1.9090	1.9610	1.9561	1.9571	1.9788, 2.2390
1.6942	2.0					1.6915, 1.8249
	2.5	1.6180	1.5956	1.5888	1.5488	1.5598
1.4592	3.0					
	3.5	1.5821	1.5609	1.5564	1.5083	1.3819
1.6661	4.0	1.4495	1.6328	1.5863	1.4981	1.4125
1.6675	4.3					1.4062
	4.5	1.6415	1.6016	1.5499	1.5360	1.4799
1.6309	4.8					
1.6265	5.0	1.6305	1.6586	1.5872	1.5447	1.4516
1.6154	5.5	1.6646	1.6523	1.6358	1.5355	1.5373
1.6233	6.0	1.6540	1.6094	1.6098	1.5763	1.5687
	6.5	1.6291	1.6212	1.6077	1.5837	1.5701
1.6432	7.0	1.6183	1.6131	1.5974	1.6076	1.5994
1.6484	7.5	1.6576	1.6095	1.5680	1.5744	1.6306
1.6290	8.0	1.6548	1.6928	1.5905	1.6133	1.5927
1.6006		1.6096	1.6492	1.6572	1.7344	1.8506

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.0177							
3.875	1.0043							
4.125		0.6742						
4.375	0.71101	0.6912						
4.625		0.8536	0.7360					
4.875		0.8555	0.8465					
5.125		1.5171	1.5237					
5.375		1.5371	1.4460	0.8607				
5.625	1.5048	0.5866	0.5414	0.7929				
5.875		1.5525	1.5513	1.0246	0.9481			
6.125			1.5721	1.3339	0.9328	0.9778		
6.375		1.6253	1.6239	1.4790	0.7960	1.0452		
6.625		1.6037	1.6170	1.5646	0.9805	1.0310		
6.875		1.6148	1.6078	1.6160	1.1902	0.9711	1.0325	
7.125		1.6123	1.6191	1.6018	1.3510	0.8006	1.0413	1.0017
7.375		1.6004	1.6008	1.6296	1.3510	0.8006	1.0634	
				1.6296	1.4784	0.8539	1.0535	1.0422

WHITE OAK LABORATORY

WTR1421
RUN 61

ALPH 9.98 deg PHI 66.24 deg P0 14.75 psia 10 117.86 degF MACH 2.0

PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

SCALE FACTOR: 1.0000

WTR1421
RUN 61

BODY PRESSURES (PSI)

z/d	theta:	81.2	96.2	111.2	126.2	141.2
0.5	2.2406					
1.0	1.9526					
1.5	1.7012	1.7637	1.7757	1.7372	1.6980	1.6786, 2.1193
2.0	1.5537					1.4370, 1.6955
2.5	1.5025	1.5313	1.5147	1.4694	1.3671	1.3110
3.0	1.3754					
3.5	1.5160	1.5785	1.5502	1.4662	1.3298	1.0917
4.0	1.5652	1.4433	1.5718	1.4471	1.3140	1.0625
4.3	1.5306	1.6167	1.5871	1.3949	1.3046	0.9831
4.5	1.4630	1.5745	1.5270	1.3573	1.2760	0.9727
4.8	1.4377	1.5523	1.5771	1.3680	1.2386	0.9595
5.0	1.4093	1.5623	1.5551	1.4021	1.1889	1.0785
5.5	1.3973	1.5457	1.5171	1.3985	1.2179	1.1700
6.0	1.3631	1.4750	1.4864	1.3913	1.2265	1.2214
6.5	1.3544	1.4448	1.4410	1.3638	1.2693	1.3053
7.0	1.3389	1.4568	1.4083	1.3189	1.2720	1.4009
7.5	1.3177	1.4330	1.4786	1.3425	1.3492	1.4571
8.0	1.3048	1.3222	1.4254	1.4398	1.6554	1.8053

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.4098*							
3.875	0.3875*							
4.125	0.3159							
4.375	0.37971	0.3377						
4.625	0.4202		0.4113					
4.875	0.5150		0.4101					
5.125	1.1858		1.1975	0.5224				
5.375	1.2258		0.8101	0.5754				
5.625	0.9347, 0.2848		0.9419	0.5084	0.6158			
5.875	1.2909		1.0385	0.5406				
6.125			1.1110	0.6989	0.6604	0.6567		
6.375	1.4058		1.2126	0.8263	0.5834	0.7287		
6.625	1.4150		1.2638	0.9589	0.5702	0.7254	0.7207	
6.875	1.4422		1.2776	1.0566	0.6454	0.7117	0.7421, 0.6327	
7.125	1.4524		1.3197	1.1157	0.7389	0.6128	0.7416	
7.375	1.4780		1.3552	1.1863	0.8491	0.5526	0.7417	0.7191

WIR1421
RUN 62

WIR1421
RUN 62

WITTE OAK LABORATORY

TURBULENCE PRESSURE TEST

PSI CONFIGURATION PS1W1(PR/10) PS1W2(IC/1)

66.38 deg 14.76 psia 10 118.09 degf 2.0

AVG DATA SCALE FACTOR 1.0000

WING PRESSURES (PSI)

z/d	theta	PHI	66.38 deg AVG DATA	P0	14.76 psia SCALE FACTOR	10	118.09 degf	MACH
0.5	1.9621	66.4	81.4	96.4	111.4	126.4	141.4	
1.0	1.6967							
1.5	1.4949							
2.0	1.4127							
2.5	1.3789							
3.0	1.2579							
3.5	1.3135							
4.0	1.2810							
4.3	1.1973							
4.5	1.0976							
4.8	1.0292							
5.0	0.9749							
5.5	0.9747							
6.0	1.0276							
6.5	1.0364							
7.0	1.0025							
7.5	0.9725							
8.0	0.9031							

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.5008*							
3.875	0.4799†							
4.125	0.3301							
4.375	0.33781	0.3516						
4.625	0.4650							
4.875	0.3838							
5.125	0.7331							
5.375	0.7804							
5.625	0.5852	0.8503						
5.875	0.8430							
6.125								
6.375	1.0137							
6.625	1.0004							
6.875	1.0292							
7.125	1.0246							
7.375	1.0755							

WTR1421
RUN 63

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/I)

ALPH -0.11 deg PIH 88.74 deg PD 14.76 psia TO 118.57 degF MACII 2.0
AVERAGED DATA SCALE FACTOR: 1.0000

WTR1421
RUN 63

theta: 88.7

z/d	theta	103.7	118.7	133.7	148.7	163.7
0.5	3.0043					
1.0	2.5654					
1.5	2.1744					
2.0	1.8898	2.2161	2.2305	2.2345	2.2278	2.2174, 2.2645
2.5	1.7555	1.7411	1.7348	1.7311	1.7103	1.8796, 1.8665
3.0	1.5509					1.7220
3.5	1.6379					
4.0	1.7062	1.6285	1.6147	1.6152	1.6319	1.6417
4.3	1.7128	1.4208	1.6816	1.6973	1.7000	1.7321
4.5	1.7131	1.7072	1.7230	1.6888	1.7296	1.7087
4.8	1.7316	1.7029	1.7084	1.7022	1.7348	1.7647
5.0	1.7525	1.7256	1.7689	1.7362	1.7553	1.7101
5.5	1.7766	1.7810	1.7806	1.7952	1.7419	1.7768
6.0	1.8079	1.7869	1.7529	1.7809	1.7806	1.7839
6.5	1.8296	1.7961	1.7933	1.7971	1.7843	1.7722
7.0	1.8439	1.8384	1.7914	1.7930	1.8114	1.8041
7.5	1.8352	1.8466	1.8797	1.7861	1.7830	1.8341
8.0	1.8114	1.8146	1.8285	1.7814	1.8215	1.8078
					1.7784	1.9001

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.6821*							
3.875	1.6781*							
4.125	1.7052							
4.375	1.7372	1.7087						
4.625	1.7250	1.7412						
4.875	1.6892	1.7244						
5.125	1.7310	1.7341	1.6902					
5.375	1.7392	1.7615	1.7569					
5.625	1.7518, 0.7758	0.7653	0.7654	0.7037				
5.875	1.7521	1.7638	1.7548					
6.125	1.8169	1.7705	1.7845	1.8041	1.5998			
6.375	1.8001	1.8180	1.8087	1.7974	1.6888			
6.625	1.8062	1.8195	1.8217	1.8396	1.7695			
6.875	1.8085	1.8085	1.8449	1.8225	1.8345	1.6414		
7.125	1.8025	1.8132	1.8076	1.8206	1.7986	1.6606, 1.7175		
7.375	1.7972	1.8032	1.8202	1.8061	1.8069	1.6871		
						1.7348	1.5663	

WIR1421
RUN 64

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSIN1(PR/10) PSIN2(1C/1)

ALPH 4.92 deg PHI 88.94 deg PO 14.76 psia TO 118.72 degf MACH 2.0

88.94 deg
AVERAGED DATA

SCALE FACTOR: 1.0000

theta: 88.9

z/d	103.9	118.9	133.9	148.9	163.9
0.5	2.5552				
1.0	2.2107				
1.5	1.8944				
2.0	1.6932	1.9381	1.9540	1.9700	2.0472, 2.1013
2.5	1.6217	1.6011	1.5760	1.5638	1.7366, 1.7173
3.0	1.4669				1.5701
3.5	1.5963	1.5980	1.5429	1.5036	
4.0	1.6964	1.4147	1.5917	1.5252	1.3452
4.3	1.6860	1.6590	1.6177	1.5104	1.3630
4.5	1.6453	1.6317	1.5738	1.5058	1.3436
4.8	1.6353	1.6185	1.6284	1.5440	1.4114
5.0	1.6244	1.6529	1.6221	1.5962	1.3822
5.5	1.6352	1.6409	1.5696	1.5701	1.4689
6.0	1.6336	1.6027	1.5855	1.5746	1.5150
6.5	1.6469	1.6004	1.5784	1.5646	1.5254
7.0	1.6516	1.6403	1.5707	1.5353	1.5622
7.5	1.6323	1.6331	1.6508	1.5519	1.5935
8.0	1.6106	1.6196	1.6145	1.6236	1.5688
					1.8594

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.8304*							
3.875	0.8140*							
4.125	0.6584	0.6201						
4.375	0.6378							
4.625	0.6091	0.6846						
4.875	0.7430	0.6004						
5.125	1.4473	1.4552	0.7489					
5.375	1.4756	1.1668	0.7801					
5.625	1.4982, 0.5424	0.3632	0.7167	0.8038				
5.875	1.5208	1.4624	0.6663					
6.125		1.5005	0.9425	0.8829	0.8564			
6.375	1.5949	1.5680	1.1622	0.8095	0.8966			
6.625	1.5718	1.5742	1.3570	0.7649	0.9209			
6.875	1.5733	1.5545	1.4560	0.7959	0.9497			
7.125	1.5755	1.5842	1.4965	0.9524	0.8592			
7.375	1.5841	1.5780	1.5486	1.1120	0.9454	0.9672	0.9467, 0.9470	0.9270
								0.9850

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/I)									
ALPH	9.96 deg	PHI	88.44 deg	P0	14.77 psia	TO	118.79 degF	MACH	2.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	88.4	103.4	118.4	133.4	148.4	163.4		
0.5	2.2308								
1.0	1.9600								
1.5	1.7202		1.7485	1.7224	1.6839	1.6903	1.7799, 1.8338		
2.0	1.5872						1.4638, 1.4539		
2.5	1.5449		1.5118	1.4300	1.3366	1.2447	1.2920		
3.0	1.4247								
3.5	1.5993		1.5624	1.4529	1.3008	1.0783	0.9511		
4.0	1.6745		1.4080	1.4477	1.3614	1.1614	0.9369		
4.3	1.6485		1.5472	1.4516	1.3466	1.2360	0.8603		
4.5	1.6092		1.4934	1.3757	1.3303	1.2804	0.8239		
4.8	1.5855		1.4804	1.4068	1.3498	1.2629	0.7253		
5.0	1.5651		1.5090	1.3787	1.3841	1.2196	0.7458		
5.5	1.5680		1.5071	1.3138	1.3338	1.1821	0.9058		
6.0	1.5465		1.4701	1.3144	1.2859	1.1236	1.0675		
6.5	1.5384		1.4708	1.3087	1.2346	1.1483	1.1583		
7.0	1.5057		1.4967	1.3241	1.1938	1.1113	1.2183		
7.5	1.4634		1.4678	1.4189	1.2153	1.1612	1.3143		
8.0	1.4215		1.4350	1.3796	1.3949	1.6365	1.7570		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.2753*								
3.875	0.2506*								
4.125	0.1902								
4.375	0.2289	0.2136							
4.625	0.2518								
4.875	0.3037								
5.125	0.9920								
5.375	1.0906								
5.625	1.1443	0.1817							
5.875	1.1793								
6.125									
6.375	1.2708								
6.625	1.2502								
6.875	1.2577								
7.125	1.2597								
7.375	1.3092								
			0.2639						
			0.2409						
			1.0070						
			0.4472						
			0.5982						
			0.7166						
			0.8300						
			0.3815						
			0.9572						
			1.0180						
			1.0302						
			1.0754						
			1.1269						
				0.3123					
			0.3869						
			0.3833						
			0.4006						
			0.3845						
			0.4992						
			0.4988						
			0.5281						
			0.5839						
			0.6801						
			0.7371						
			0.8150						
				0.4253					
				0.5079					
				0.5431					
				0.5823					
				0.5483					
				0.5565					
				0.5455, 0.5269					
				0.5396					
				0.5773					
				0.5566					
				0.4777					
				0.5978					

WTR1421
RUN 66

TUNNEL	T2 PRESSURE TEST
PSI CONFIGURATION	PSI#1(PR/10) PSI#2(IC/1)

ALPH	14.96 deg	PHI	88.98 deg	P0	14.77 psia	T0	119.04 degf	MACH	2.0
AVERAGED DATA				SCALE FACTOR: . 1.0000					

BODY PRESSURES (PSI)

z/d	theta:	89.0	104.0	119.0	134.0	149.0	164.0
0.5	1.9952						
1.0	1.7890						
1.5	1.6025		1.5740	1.5061	1.3334	1.2795	1.4281, 1.4933
2.0	1.4991						1.1152, 1.1134
2.5	1.4805		1.3915	1.2914	0.9850	0.7598	0.9162
3.0	1.3701						
3.5	1.6017		1.3997	1.1960	0.9902	0.6049	0.6316
4.0	1.6511		1.3981	1.0392	0.9302	0.8531	0.1964
4.3	1.6261		1.3295	1.0240	0.8929	0.8115	0.2174
4.5	1.5925		1.2594	0.9190	0.8424	0.7168	0.2380
4.8	1.5883		1.2664	0.9307	0.8557	0.6410	0.1622
5.0	1.5272		1.3273	0.9198	0.8798	0.5721	0.2905
5.5	1.5384		1.4490	0.8991	0.7919	0.5476	0.3974
6.0	1.4966		1.4322	0.9885	0.7099	0.4177	0.4324
6.5	1.4315		1.3739	1.1116	0.6703	0.4190	0.4811
7.0	1.3724		1.3466	1.1488	0.6937	0.4769	0.5855
7.5	1.3017		1.2787	1.1724	0.7491	0.7271	0.7493
8.0	1.2350		1.2543	1.0839	1.1073	1.3827	1.3107

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.1226*							
3.875	0.0959†							
4.125		0.0953						
4.375	0.1344†	0.1199						
4.625		0.2165	0.1718					
4.875		0.2609	0.2054					
5.125		0.5303	0.5529	0.2694				
5.375		0.5146	0.4529	0.3299				
5.625	0.4795, 0.5357		0.5624	0.2888	0.3418			
5.875	0.4724		0.6324	0.3150				
6.125			0.6946	0.3882	0.3747	0.3583		
6.375		0.5269	0.7753	0.4499	0.3423	0.4115		
6.625		0.4697	0.8008	0.5234	0.3564	0.4120	0.4033	
6.875		0.4907	0.7825	0.5821	0.3455	0.4213	0.4268, 0.3967	
7.125		0.6375	0.8400	0.6310	0.3769	0.3713	0.4266	
7.375		0.7424	0.7566	0.7426	0.4744	0.4228	0.5273	0.5039

WHITE OAK LABORATORY										
TUNNEL T2 PRESSURE TEST										
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)										
WTR1421 RUN 67	ALPHI	-0.08 deg	PHI	110.98 deg AVERAGED DATA	P0	14.77 psia SCALE FACTOR:	T0	119.32 degF	MACII	WTR1421 RUN 67
2.0										
BODY PRESSURES (PSI)										
z/d	theta:	111.0	126.0	141.0	156.0	171.0	186.0			
0.5		2.9997								
1.0		2.5600								
1.5		2.1698								
2.0		1.8892		2.2159	2.2366	2.2376	2.2289	2.2179, 2.2636		
2.5		1.7583		1.7376	1.7324	1.7306	1.7134	1.8858, 1.8592		
3.0		1.5426						1.7288		
3.5		1.6483		1.6360	1.6124	1.6116	1.6267	1.6371		
4.0		1.7055		1.3898	1.6782	1.6953	1.6967	1.7253		
4.3		1.7105		1.7010	1.7210	1.6842	1.7277	1.7035		
4.5		1.7127		1.6999	1.7037	1.6951	1.7326	1.7630		
4.8		1.7337		1.7252	1.7693	1.7308	1.7499	1.7023		
5.0		1.7519		1.7814	1.7806	1.7948	1.7364	1.7728		
5.5		1.7760		1.7902	1.7517	1.7806	1.7790	1.7796		
6.0		1.8087		1.7860	1.7906	1.7937	1.7886	1.7726		
6.5		1.8324		1.7958	1.7930	1.7957	1.8152	1.8007		
7.0		1.8458		1.8412	1.7899	1.7629	1.7816	1.8352		
7.5		1.8272		1.8406	1.8834	1.7899	1.8286	1.8141		
8.0		1.8094		1.8126	1.8318	1.8350	1.7838	1.8863		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.6673*							
3.875	1.6633*							
4.125	1.6925							
4.375	1.73121	1.6964						
4.625	1.7262							
4.875	1.6697							
5.125	1.7230							
5.375	1.7308							
5.625	1.7507, 0.7740							
5.875	1.7453							
6.125								
6.375	1.8216							
6.625	1.7946							
6.875	1.8057							
7.125	1.8050							
7.375	1.8070							
		1.7355	1.6710					
		1.7250	1.7429					
		1.7261	0.7583					
		1.7535	0.6576					
		0.7637	1.7494					
		1.7578	1.7796					
		1.7664	1.8001					
		1.8249	1.8027					
		1.8213	1.8105					
		1.8005	1.8251					
		1.8209	1.8365					
		1.8084	1.8120					
			1.8368					
			1.8001					
			1.8027					
			1.8486					
			1.8225					
			1.8180					
			1.8320					
			1.5510					
			1.6434					
			1.7530					
			1.8361					
			1.8113					
			1.6240, 1.7029					
			1.6625					
			1.6999					
			1.5385					

WHITE OAK LABORATORY

WTR1421
RUN 68

ALPH 4.93 deg PHI 112.21 deg
AVERAGED DATA

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

SCALE FACTOR: 1.0000

14.78 psia

119.66 degF

MACH 2.0

theta: 112.2

z/d	127.2	142.2	157.2	172.2	187.2
0.5	2.5803				
1.0	2.2119				
1.5	1.8989				
2.0	1.6952	1.9870	2.0329	2.0933	2.1838, 2.0208
2.5	1.6172	1.5552	1.5627	1.5609	1.8326, 1.6621
3.0	1.4473				1.6544
3.5	1.5996	1.4890	1.4557	1.4505	1.3819
4.0	1.6811	1.5331	1.4733	1.4190	1.4007
4.3	1.6734	1.5766	1.4587	1.4239	1.3710
4.5	1.6372	1.5344	1.4603	1.4607	1.4331
4.8	1.6291	1.6034	1.5104	1.4761	1.3908
5.0	1.6176	1.6022	1.5777	1.4715	1.4749
5.5	1.6269	1.5574	1.5678	1.5402	1.5169
6.0	1.6270	1.5828	1.5746	1.5526	1.5386
6.5	1.6440	1.5901	1.5781	1.5690	1.5871
7.0	1.6466	1.6319	1.5689	1.5394	1.5745
7.5	1.6149	1.6178	1.6548	1.5651	1.6108
8.0	1.5955	1.6050	1.6240	1.6111	1.5935
				1.7224	1.8709

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.8796+							
3.875	0.8644+							
4.125	0.6762							
4.375	0.7010	0.6928						
4.625	0.6479							
4.875	0.7523							
5.125	1.4377							
5.375	1.4604	0.7583						
5.625	1.5368, 0.5345	0.7882						
5.875	1.5207	0.7200	0.8173					
6.125		1.4156	0.6525					
6.375	1.6053	1.4914	0.7315	0.8740	0.8854			
6.625	1.5800	1.5822	0.9584	0.8090	0.9054			
6.875	1.5893	1.5892	1.2122	0.7971	0.8890	0.9927		
7.125	1.5921	1.5775	1.3684	0.6865	0.9237	0.9876, 1.0072		
7.375	1.5925	1.6062	1.4600	0.7526	0.8661	0.8874		
		1.6044	1.5421	0.9188	0.8245	0.9104	0.9976	

WIR1421
RUN 69

ALPII 9.94 deg PHI 111.8

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)

TUNNEL T2 PRESSURE TEST

111.83 deg 14.77 psia TO 120.15 degF

AVERAGED DATA SCALE FACTOR: 1.0000

MACII 2.0

WIR1421
RUN 69

ALPII 9.94 deg PHI 111.8

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)

TUNNEL T2 PRESSURE TEST

111.83 deg 14.77 psia TO 120.15 degF

AVERAGED DATA SCALE FACTOR: 1.0000

MACII 2.0

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3283*							
3.875	0.3047*							
4.125	0.2729							
4.375	0.29121							
4.625	0.3031							
4.875	0.2949							
5.125	0.6742							
5.375	0.7770							
5.625	1.2572, 0.9306							
5.875	1.0305							
6.125								
6.375	1.2028							
6.625	1.2076							
6.875	1.2267							
7.125	1.2410							
7.375	1.2740							

WHITE OAK LABORATORY

WTR1421
RUN 70

ALPHI 14.97 deg PHI 112.46 deg P0 14.79 psia TO 119.80 degF MACH 2.0

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta	127.5	142.5	157.5	172.5	187.5
0.5	112.5					
1.0	1.9636					
1.5	1.7019					
2.0	1.4951					
2.5	1.4248					
3.0	1.3821					
3.5	1.2620					
4.0	1.3433					
4.5	1.3080					
5.0	1.2753					
5.5	1.2113					
6.0	1.1656					
6.5	1.1164					
7.0	1.0966					
7.5	1.0700					
8.0	1.0205					
	0.9538					
		127.5	142.5	157.5	172.5	187.5
		1.4235	1.3223	1.3420	1.5417	1.8839, 1.3209
		1.2358	0.8670	0.7971	0.9803	1.5366, 0.9709
						1.3149
		1.2298	0.7801	0.6498	0.6656	0.9483
		1.5728	0.8397	0.8290	0.7508	0.7636
		0.7975	0.9239	0.9231	0.8683	0.6082
		0.6507	0.9063	1.0129	0.9073	0.4824
		0.6808	1.0180	1.0987	0.8611	0.3337
		0.8050	1.0349	1.1558	0.8634	0.3021
		0.9543	1.0035	1.0794	0.8547	0.3189
		1.0343	1.0636	1.0333	0.7525	0.4142
		1.0809	1.0820	0.9983	0.6898	0.4581
		1.1187	1.0558	0.9288	0.5731	0.5083
		1.0780	1.1089	0.9030	0.6175	0.7459
		0.9809	1.0182	1.0438	1.3738	1.2615

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.2277*							
3.875	0.2025+							
4.125	0.1262							
4.375	0.1331							
4.625	0.1458							
4.875	0.1494							
5.125	0.3385							
5.375	0.4363							
5.625	0.7320							
5.875	0.5712							
6.125	0.5892							
6.375	0.6216							
6.625	0.5793							
6.875	0.5770							
7.125	0.5692							
7.375	0.6999							
		0.1702						
		0.1346						
		0.3638						
		0.1597						
		0.2106						
		0.2493						
		0.3172						
		0.4035						
		0.4583						
		0.4618						
		0.5041						
		0.6288						
			0.1586					
			0.1989					
			0.1815					
			0.1991					
			0.2465					
			0.2438					
			0.2864					
			0.2765					
			0.2742					
			0.3618					
				0.2351				
				0.2757				
				0.2530				
				0.2813				
				0.2605				
				0.2621				
				0.3602				
				0.3609				
				0.3685				
					0.3358			
					0.3409, 0.4790			
					0.2621			
					0.3602			
					0.3685			

WHITE OAK LABORATORY									
WIR1421 RUN 71		TUNNEL T2 PRESSURE TEST							
		PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)							
ALPH	-0.08 deg	PHI	134.39 deg	P0	14.77 psia	T0	120.47 degF	MACH	2.0
		AVERAGED DATA							
		SCALE FACTOR: 1.0000							
		BODY PRESSURES (PSI)							
z/d	theta:	134.4	149.4	164.4	179.4	194.4	209.4		
0.5	3.0004								
1.0	2.5624								
1.5	2.1710								
2.0	1.8899								
2.5	1.7560								
3.0	1.5328								
3.5	1.6496								
4.0	1.7031								
4.3	1.7069								
4.5	1.7135								
4.8	1.7346								
5.0	1.7525								
5.5	1.7783								
6.0	1.8108								
6.5	1.8374								
7.0	1.8498								
7.5	1.8257								
8.0	1.8095								

WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	1.6641*								
3.875	1.6607+								
4.125	1.6812								
4.375	1.7314								
4.625	1.7265								
4.875	1.6436								
5.125	1.7286								
5.375	1.7307								
5.625	1.7514, 0.7718								
5.875	1.7407								
6.125									
6.375	1.8191								
6.625	1.7918								
6.875	1.8109								
7.125	1.8067								
7.375	1.8154								

WTR1421
RUN 72

ALPHI 4.91 deg PHI 134.0

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)

134.04 deg
AVERAGED DATA

P0 14.78 psia
SCALE FACTOR: 1.0000

T0 120.68 degf

MACH 2.0

WTR1421
RUN 72

WING PRESSURES (PSI)

z/d	r/d	theta:	134.0	149.0	164.0	179.0	194.0	209.0
0.5		2.6512						
1.0		2.2568						
1.5		1.9217						
2.0		1.7047						
2.5		1.5975						
3.0		1.4447						
3.5		1.5591						
4.0		1.6308						
4.3		1.6392						
4.5		1.6123						
4.8		1.6121						
5.0		1.6067						
5.5		1.6236						
6.0		1.6408						
6.5		1.6577						
7.0		1.6640						
7.5		1.6328						
8.0		1.6138						

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.1712*							
3.875	1.1604*							
4.125	0.8091							
4.375	0.8281							
4.625	0.7661							
4.875	0.8891							
5.125	1.5260							
5.375	1.5343							
5.625	1.6154							
5.875	1.5684							
6.125								
6.375	1.6539							
6.625	1.6303							
6.875	1.6513							
7.125	1.6546							
7.375	1.6555							

WHITE OAK LABORATORY

WTR1421
RUN 73

ALPH 9.99 deg

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSIN1(PR/IO) PSIN2(TC/1)

134.30 deg

PO 14.78 psia

SCALE FACTOR: 1.0000

MACII 2.0

WTR1421
RUN 73

PIII

theta: 134.3

134.30 deg

149.3

164.3

179.3

194.3

209.3

2.2840

1.9425

1.6565

1.4924

1.3956

1.2834

1.4219

1.5016

1.4867

1.4489

1.4464

1.4333

1.4074

1.4045

1.4203

1.4261

1.3998

1.3833

1.7143

1.3015

1.2370

1.5396

1.3661

1.3411

1.3507

1.4078

1.4195

1.3954

1.3805

1.4107

1.3961

1.3983

1.7888

1.2692

1.0667

1.0477

1.1038

1.1322

1.2627

1.3159

1.3325

1.3687

1.3550

1.3399

1.4379

1.3869

1.9466

1.3608

1.0989

1.0483

1.0120

0.9946

1.0455

1.1607

1.3132

1.3806

1.3962

1.3712

1.4159

1.4020

2.1528

1.5087

1.2420

1.1955

1.2088

1.2263

1.2317

1.2127

1.3213

1.4015

1.4425

1.3976

1.4750

1.5669

2.4067, 1.7417

1.9949, 1.4582

1.7580

1.3410

1.3599

1.3019

1.3184

1.2301

1.2549

1.2151

1.1822

1.2210

1.3025

1.3439

1.8258

WING PRESSURES (PSI)

z/d r/d: 0.5935

3.625 0.5462*

3.875 0.5260*

4.125 0.5231

4.375 0.53321 0.5423

4.625 0.5302

4.875 0.5944

5.125 0.9282

5.375 0.9500

5.625 1.4822, 0.0038

5.875 1.0206

6.125 0.4522

6.375 1.1785

6.625 1.2337

6.875 1.2836

7.125 1.3295

7.375 1.3560

0.7185

0.8435

0.9685

1.0935

1.2185

1.3435

0.6013

0.5781

0.5410

0.5472

0.5347

0.5366

0.5327

0.5186

0.4397

0.4289

0.6713

0.5997

0.5873

0.6325

0.6102

0.5881

0.5819

0.6411

0.7134

0.6804

0.6397

0.5888

0.5981

0.6833

0.7033, 0.9342

0.6933

0.6822

0.7018

WHITE OAK LABORATORY									
TUNNEL 12 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(1C/1)									
ALPH	14.97 deg	P111	134.13 deg	P0	14.79 psia	SCALE FACTOR:	10	121.05 degF	MACH
AVERAGED DATA									
BODY PRESSURES (PSI)									
z/d	theta:	134.1	149.1	164.1	179.1	194.1	209.1		
0.5	1.9272								
1.0	1.6344								
1.5	1.3505								
2.0	1.2063		1.3243	1.4265	1.6914	2.0663	2.5034, 1.4612		
2.5	1.1450		0.8470	0.8832	1.1166	1.4005	2.0631, 1.2421		
3.0	1.0987						1.7923		
3.5	1.0902								
4.0	0.8550		0.7788	0.6040	0.7859	1.0677	1.3613		
4.3	0.8003		1.5233	0.7852	0.7481	1.0818	1.3793		
4.5	0.7308		0.8695	0.8636	0.7517	1.1307	1.2724		
4.8	0.7121		0.9079	0.9074	0.7593	1.1634	1.1547		
5.0	0.7558		0.9765	1.1312	0.8345	1.1929	0.9602		
5.5	0.9441		1.0553	1.1811	0.9780	1.1701	0.9022		
6.0	1.0684		1.1905	1.1299	1.1397	1.2179	0.7317		
6.5	1.1996		1.1141	1.1507	1.1754	1.1846	0.6590		
7.0	1.1958		1.0534	1.0967	1.1652	1.1759	0.6131		
7.5	1.2298		1.1423	1.0467	1.1286	1.0987	0.6605		
8.0	1.2075		1.1504	1.1632	1.1505	1.1409	0.8746		
			1.2279	1.2188	1.2392	1.5310	1.4578		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.4318*							
3.875	0.4098*							
4.125	0.3819							
4.375	0.39931	0.4029						
4.625	0.3912	0.4306						
4.875	0.4167	0.3812						
5.125	0.6488	0.6695						
5.375	0.6736	0.3816	0.4245					
5.625	1.4779, 0.7029	0.3559	0.4123	0.4245				
5.875	0.6829	0.2949	0.3743	0.4868				
6.125		0.2689	0.3728	0.3728				
6.375	0.7849	0.3093	0.3709	0.4342	0.4399			
6.625	0.7529	0.3335	0.3624	0.3740	0.4985			
6.875	0.7759	0.3164	0.3690	0.4194	0.4585			
7.125	0.7755	0.3476	0.3813	0.3769	0.4522	0.4549	0.4658, 0.6772	
7.375	0.8264	0.4276	0.3300	0.3605	0.3795	0.4356	0.4332	0.4344
			0.3743	0.4116	0.3655			

WHITE OAK LABORATORY

WTR1421
RUN 75

WTR1421
RUN 75

TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1) ,

ALPH	-0.09 deg	PIII	157.40 deg	P0	14.77 psia	TO	120.91 degf	MACH	2.0
				AVERAGED DATA		SCALE FACTOR:		1.0000	

BODY PRESSURES (PSI)

theta:	157.4	172.4	187.4	202.4	217.4	232.4
z/d	0.5					
	2.9992					
1.0	2.5612					
1.5	2.1702	2.2201	2.2373	2.2451	2.2440	2.2411, 2.2507
2.0	1.8906					1.9027, 1.8474
2.5	1.7546	1.7351	1.7351	1.7357	1.7184	1.7382
3.0	1.5480					
3.5	1.6461	1.6298	1.6073	1.6042	1.6185	1.6308
4.0	1.7021	1.5120	1.6737	1.6887	1.6869	1.7185
4.3	1.7045	1.6791	1.7191	1.6791	1.7246	1.6923
4.5	1.7095	1.6934	1.7007	1.6919	1.7277	1.7594
4.8	1.7316	1.7191	1.7659	1.7272	1.7501	1.7049
5.0	1.7514	1.7817	1.7815	1.7989	1.7406	1.7834
5.5	1.7803	1.7942	1.7520	1.7860	1.7824	1.7789
6.0	1.8110	1.7890	1.7965	1.7982	1.7854	1.7670
6.5	1.8390	1.7988	1.7967	1.7939	1.8145	1.8006
7.0	1.8535	1.7909	1.7909	1.7609	1.7809	1.8408
7.5	1.8334	1.8567	1.9030	1.7993	1.8371	1.8173
8.0	1.8100	1.8132	1.8266	1.8298	1.7789	1.8980

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.6582*							
3.875	1.6544†							
4.125		1.6743						
4.375	1.7215†	1.6779						
4.625		1.7211	1.7259					
4.875		1.6357	1.7197					
5.125		1.7266	1.7295	1.6369				
5.375		1.7353	1.7581	1.7422				
5.625	1.7498, 0.7708		0.7615	0.7607	0.6138			
5.875		1.7355	1.7487	1.7422				
6.125			1.7613	1.7784	1.7943	1.5183		
6.375		1.8166	1.8173	1.8032	1.7960	1.6003		
6.625		1.7896	1.8176	1.8236	1.8424	1.7008	1.5852	
6.875		1.8119	1.8056	1.8387	1.8319	1.8130	1.5946, 1.6850	
7.125		1.8088	1.8224	1.8164	1.8317	1.8129	1.6320	
7.375		1.8151	1.8171	1.8410	1.9351	1.8245	1.6809	1.5251

THE UNIVERSITY OF CHICAGO

1000

AUTHOR: J. S. HARRIS

9/ MRB
12/11/11

Altitude	4000 feet	10000 feet	14000 feet	100000 feet	MACH
Altitude	4000	10000	14000	100000	20

MACT 20

ROY PUBLISHING (PVT)

22/d	theta	157 3	172 3	187 3	202 3	217 3	232 3
0 5	2 7692						
1 0	2 3489						
1 5	1 9849						
2 0	1 7383	2 0987		2 2001	2 3025	2 3963	2 4832, 1 9889
2 5	1 6011	1 6012		1 6475	1 7190	1 7841	2 0883, 1 6597
3 0	1 4268						1 8854
3 5	1 5267						
4 0	1 5807	1 5078		1 4859	1 5236	1 5836	1 6130
4 3	1 5896	1 5041		1 5218	1 5521	1 5827	1 6477
4 5	1 5807	1 5474		1 5586	1 5327	1 5881	1 6060
4 8	1 5901	1 5325		1 5141	1 5226	1 6132	1 6686
5 0	1 5940	1 5520		1 5903	1 5634	1 6155	1 6053
5 5	1 6391	1 6075		1 5982	1 6256	1 5986	1 6840
6 0	1 6559	1 6319		1 5784	1 6225	1 6469	1 6845
6 5	1 6858	1 6115		1 6091	1 6320	1 6558	1 6765
7 0	1 6967	1 6755		1 6172	1 6323	1 6916	1 7086
7 5	1 6743	1 6774		1 6112	1 6077	1 6599	1 7512
8 0	1 6484	1 6564		1 7234	1 6435	1 7284	1 7415
				1 6570	1 6647	1 7345	1 9120

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.5865*							
3.875	1.5817+							
4.125		1.0397						
4.375	1.04521	1.0519						
4.625		1.1942	1.0633					
4.875		1.0571	1.1897					
5.125		1.6418	1.6462					
5.375		1.6554	1.7003	1.0613				
5.625	1.6994	0.6894	0.7334	1.0501				
5.875		1.6483	0.7334	0.0619	0.1330			
6.125			1.6985	1.1483				
6.375			1.7011	1.4625	1.0829	1.1437		
6.625		1.7330	1.7489	1.7008	1.0373	1.1999		
6.875		1.7065	1.7446	1.8012	1.1202	1.1458	1.1853	
7.125		1.7327	1.7343	1.8251	1.2146	1.1085	1.1923, 1.3469	
7.375		1.7299	1.7514	1.7902	1.3985	1.0555	1.1457	
7.625		1.7350	1.7424	1.8027	1.6277	1.0689	1.0891	1.1750

A-36

WIR1421
RUN 77

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSIN1(PR/IO) PSIN2(TC/1)

ALPHI 9.98 deg PHI 156.43 deg
AVERAGED DATA

P0 14.78 psia
SCALE FACTOR: 1.0000

TO 121.65 degF

.MACII 2.0

WTR1421
RUN 77

BODY PRESSURES (PSI)

z/d	theta:	171.4	186.4	201.4	216.4	231.4
0.5	2.4515					
1.0	2.0394					
1.5	1.7017					
2.0	1.4693	1.8587	2.0535	2.2937	2.5339	2.7659, 1.7957
2.5	1.3153	1.3350	1.4391	1.6292	1.8293	2.3057, 1.5385
3.0	1.1453					2.0662
3.5	1.1969	1.1283	1.1896	1.3430	1.5300	1.6584
4.0	1.2588	1.4886	1.1387	1.3022	1.4857	1.6717
4.3	1.2779	1.0728	1.1408	1.2615	1.4797	1.6256
4.5	1.2860	1.0414	1.0722	1.2345	1.5010	1.6617
4.8	1.3153	1.0597	1.1162	1.2606	1.4895	1.5943
5.0	1.3252	1.1443	1.1170	1.3174	1.4583	1.6657
5.5	1.3795	1.2390	1.1061	1.3056	1.5115	1.6522
6.0	1.3951	1.2645	1.1914	1.3153	1.5175	1.6160
6.5	1.4405	1.2847	1.2787	1.3419	1.5475	1.6331
7.0	1.4679	1.3530	1.2909	1.3809	1.5258	1.6623
7.5	1.4580	1.3678	1.4161	1.4461	1.6358	1.6642
8.0	1.4359	1.4496	1.3764	1.3921	1.7190	1.9517

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.2961*							
3.875	1.2873*							
4.125	0.9205							
4.375	0.92781	0.9342						
4.625	0.8542							
4.875	0.9765	0.9483						
5.125	1.6114	0.8469						
5.375	1.6005	0.9002						
5.625	1.6650, 0.6461	0.0119						
5.875	1.6025	1.1184	0.8368	0.0255				
6.125		1.2468	0.7887	1.0266	0.9938			
6.375	1.6600	1.3767	0.7602	0.9647	1.0616			
6.625	1.6310	1.4398	0.7854	0.9568	1.0375	1.0094		
6.875	1.6444	1.4550	0.8278	0.8478	1.0166	1.0168, 1.1058		
7.125	1.6384	1.5079	0.8472	0.8041	0.9557	0.9974		
7.375	1.6528	1.5588	0.8968	0.8241	0.9187	0.9785	0.9831	

WHITE OAK LABORATORY										
TUNNEL T2 PRESSURE TEST										
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)										
WIR1421 RUN 78	ALPH	14.96 deg	PIII	156.71 deg AVERAGED DATA	PO	14.79 psia SCALE FACTOR:	10 1.0000	121.72 degF	MACH	2.0
BODY PRESSURES (PSI)										
	z/d	theta:	156.7	171.7	186.7	201.7	216.7	231.7		
	0.5		2.0616							
	1.0		1.6655							
	1.5		1.3253	1.5477	1.8837	2.2937	2.7111	3.1102, 1.6577		
	2.0		1.0955					2.6086, 1.4254		
	2.5		0.8959	1.0036	1.2490	1.5787	1.9267	2.3211		
	3.0		0.6476							
	3.5		0.7220	0.7107	0.9541	1.2447	1.5742	1.8411		
	4.0		0.8525	1.4743	0.8750	1.1966	1.5360	1.8567		
	4.3		0.8840	0.8614	0.8826	1.1580	1.5567	1.7896		
	4.5		0.8852	0.8760	0.8175	1.1349	1.5485	1.8259		
	4.8		0.9266	0.9385	0.8706	1.1608	1.5734	1.7357		
	5.0		1.0136	1.0817	0.8595	1.2360	1.5378	1.7929		
	5.5		1.1875	1.0366	0.8540	1.2445	1.6165	1.7494		
	6.0		1.1292	0.9532	0.9003	1.2644	1.6316	1.6851		
	6.5		1.0446	0.9258	0.9213	1.2934	1.6761	1.6640		
	7.0		1.1059	0.9178	0.9030	1.2824	1.6259	1.6414		
	7.5		1.2332	0.9564	1.0314	1.3463	1.7079	1.5833		
	8.0		1.2161	1.2363	1.0126	1.0387	1.8946	2.1006		
WING PRESSURES (PSI)										

WIR1421
RUN 79

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPHI -0.09 deg PHI 179.62 deg
AVERAGED DATA

PO 14.77 psia
SCALE FACTOR: 1.0000

MACII 2.0

WTR1421
RUN 79

z/d	theta:	179.6	209.6	224.6	239.6	254.6
0.5	3.0017					
1.0	2.5629					
1.5	2.1669	2.2214	2.2456	2.2557	2.2484	2.2455, 2.2484
2.0	1.8930					1.9031, 1.8426
2.5	1.7553	1.7390	1.7377	1.7360	1.7233	1.7429
3.0	1.5362					
3.5	1.6431	1.6262	1.6018	1.5997	1.6171	1.6293
4.0	1.7014	1.4657	1.6696	1.6865	1.6886	1.7268
4.3	1.7030	1.6964	1.7200	1.6776	1.7276	1.6945
4.5	1.7096	1.6929	1.7020	1.6948	1.7320	1.7650
4.8	1.7302	1.7206	1.7724	1.7324	1.7609	1.7075
5.0	1.7538	1.7871	1.7890	1.8074	1.7432	1.7828
5.5	1.7827	1.7968	1.7523	1.7871	1.7832	1.7817
6.0	1.8162	1.7896	1.7958	1.7989	1.7881	1.7725
6.5	1.8429	1.8000	1.8014	1.7930	1.8171	1.8033
7.0	1.8623	1.8601	1.7948	1.7620	1.7802	1.8406
7.5	1.8483	1.8681	1.9089	1.7944	1.8429	1.8202
8.0	1.8121	1.8150	1.8313	1.8345	1.7830	1.9008

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.6557*							
3.875	1.6517*							
4.125	1.6718							
4.375	1.71751	1.7222						
4.625	1.7213	1.7200						
4.875	1.6467	1.7297						
5.125	1.7266	1.7584	1.6479					
5.375	1.7353	1.7449	1.7449					
5.625	1.7505, 0.7745	0.7640	0.7593	0.6322				
5.875	1.7399	1.7542	1.7482					
6.125		1.7603	1.7777	1.8000	1.5347			
6.375	1.8194	1.8196	1.8018	1.7925	1.6174			
6.625	1.7897	1.8187	1.8208	1.8449	1.7104	1.5952		
6.875	1.8107	1.8033	1.8398	1.8207	1.8181	1.6106, 1.6793		
7.125	1.8077	1.8230	1.8156	1.8304	1.8073	1.6511		
7.375	1.8137	1.8162	1.8390	1.8357	1.8205	1.6925	1.5251	

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)									
ALPH	4.93 deg	PHI	179.51 deg	P0	14.77 psia	T0	122.18 degF	MACH	2.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	179.5	194.5	209.5	224.5	239.5	254.5		
0.5	2.9554								
1.0	2.4990								
1.5	2.1019								
2.0	1.8176		2.2471	2.3635	2.4581	2.5321	2.5789, 2.0019		
2.5	1.6661		1.7031	1.7707	1.8433	1.8948	2.1842, 1.6667		
3.0	1.4479						1.9739		
3.5	1.5287		1.5407	1.5650	1.6180	1.6955	1.7416		
4.0	1.5742		1.4573	1.5914	1.6650	1.7190	1.8094		
4.3	1.5768		1.5761	1.6319	1.6421	1.7347	1.7537		
4.5	1.5696		1.5670	1.6002	1.6412	1.7440	1.8277		
4.8	1.5855		1.5897	1.6672	1.6722	1.7552	1.7507		
5.0	1.5947		1.6441	1.6838	1.7505	1.7280	1.8182		
5.5	1.6668		1.6787	1.6586	1.7258	1.7631	1.8059		
6.0	1.6922		1.6567	1.6779	1.7204	1.7595	1.7872		
6.5	1.7292		1.6725	1.6888	1.7190	1.7875	1.8132		
7.0	1.7472		1.7344	1.6838	1.6900	1.7489	1.8386		
7.5	1.7273		1.7361	1.8020	1.7306	1.8179	1.8323		
8.0	1.6978		1.7045	1.7410	1.7467	1.7482	1.9376		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7882*							
3.875	1.7862*							
4.125	1.7517							
4.375	1.79631							
4.625	1.7847							
4.875	1.6600							
5.125	1.7733							
5.375	1.7655							
5.625	1.7840, 0.7988							
5.875	1.7610				0.6186			
6.125								
6.375	1.8319				1.7543	1.5415		
6.625	1.7980				1.7620	1.6441		
6.875	1.8162				1.8179	1.6975	1.5139	
7.125	1.8137				1.7983	1.7658	1.5324, 1.7230	
7.375	1.8217				1.8122	1.7550	1.6146	
					1.8142	1.7756	1.6528	1.4607

WHITE OAK LABORATORY									
WTR1421 RUN 81					TUNNEL T2 PRESSURE TEST				
ALPHI 9.96 deg					PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/1)				
PHII 179.51 deg					PO 14.77 psia				
AVERAGED DATA					SCALE FACTOR: 1.0000				
z/d					BODY PRESSURES (PSI)				
theta:					TO 122.26 degF				
179.5					MACH 2.0				
2.8065					254.5				
2.3277					239.5				
1.0					2.8941				
1.5					2.1285				
2.0					3.0254, 1.8082				
2.5					2.5414, 1.5510				
3.0					2.2934				
3.5					1.9656				
4.0					2.0031				
4.3					1.9394				
4.5					2.0005				
4.8					1.9155				
5.0					1.9790				
5.5					1.9491				
6.0					1.9102				
6.5					1.9191				
7.0					1.9329				
7.5					1.9087				
8.0					2.0109				
1.5232					1.7419				
1.4381					1.7866				
1.3719					1.7229				
1.1916					1.7946				
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1.4339					1.8401				
1.5069					1.8265				
1.5252					1.8365				
1.5344					2.				

WHITE OAK LABORATORY

WTR1421
RUN 82

ALPH 14.97 deg PHI 179.67 deg PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL T2 PRESSURE TEST

SCALE FACTOR: 1.0000

10 122.58 degF MACH 2.0

z/d theta: 179.7

0.5 2.5895

1.0 2.1020

1.5 1.7149

2.0 1.4203

2.5 1.1978

3.0 0.9420

3.5 0.9180

4.0 0.8604

4.3 0.8036

4.5 0.7379

4.8 0.7054

5.0 0.7162

5.5 0.9453

6.0 1.1987

6.5 1.3948

7.0 1.4938

7.5 1.4946

8.0 1.4517

194.7 209.7 224.7 239.7 254.7

2.1434 2.5626 2.9768 3.3357 3.5777, 1.6582

1.4668 1.8131 2.1791 2.4568 3.0219, 1.4295

1.1749 1.4769 1.8030 2.1120 2.3253

1.4351 1.4278 1.7855 2.0903 2.3461

1.0771 1.4433 1.7354 2.0676 2.2761

1.0225 1.3622 1.7139 2.0857 2.3141

0.9985 1.4225 1.7256 2.0680 2.2601

1.0393 1.3928 1.7787 2.0156 2.3105

1.0122 1.3234 1.7171 2.0273 2.2641

0.9527 1.3140 1.6856 2.0104 2.2212

0.9554 1.2918 1.6578 2.0104 2.2266

1.1312 1.2306 1.5880 1.9503 2.2356

1.2386 1.3258 1.6053 1.9983 2.2112

1.4647 1.2437 1.2638 2.0233 2.2783

WING PRESSURES (PSI)

z/d r/d: 0.5935

3.625 2.3533*

3.875 2.3594*

4.125 2.3124

4.375 2.33131 2.3069

4.625 2.2681

4.875 2.0580

5.125 2.2795

5.375 2.2535

5.625 1.7387, 0.2720

5.875 2.2170

6.125 2.2056

6.375 2.2394

6.625 2.2113

6.875 2.1793

7.125 2.1960

7.375 2.1871

0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

2.3235 2.2705 2.2736 2.2489 0.2369 2.2088

2.0575 2.1755 0.1818 2.1583 2.1794 2.2056

2.0911 2.0703 2.1357 2.1357 2.1470 2.1096

1.7484 1.7776, 1.8642 1.8665 1.9158 1.5694

2.1341 2.1600

WIR1421
RUN 83

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPHI -0.09 deg PHI 202.14 deg 202.14 deg P0 14.75 psia TO 122.69 degF MACII 2.0
AVERAGED DATA SCALE FACTOR: 1.0000

WIR1421
RUN 83

BODY PRESSURES (PSI)

z/d	theta:	217.1	232.1	247.1	262.1	277.1
0.5	3.0144					
1.0	2.5733					
1.5	2.1742					
2.0	1.9039	2.2370	2.2584	2.2643	2.2577	2.2571, 2.2489
2.5	1.7626	1.7418	1.7415	1.7421	1.7276	1.9117, 1.8394
3.0	1.5415					1.7487
3.5	1.6389	1.6201	1.6002	1.6012	1.6190	1.6311
4.0	1.6987	1.4272	1.6699	1.6891	1.6941	1.7351
4.3	1.7031	1.6966	1.7216	1.6803	1.7348	1.7028
4.5	1.7123	1.6963	1.7084	1.6994	1.7356	1.7694
4.8	1.7356	1.7264	1.7799	1.7376	1.7651	1.7152
5.0	1.7599	1.7949	1.7952	1.8133	1.7473	1.7913
5.5	1.7842	1.7986	1.7523	1.7916	1.7871	1.7890
6.0	1.8183	1.7904	1.7990	1.8063	1.7919	1.7795
6.5	1.8482	1.8023	1.8053	1.7995	1.8229	1.8080
7.0	1.8738	1.8692	1.7977	1.7610	1.7807	1.8450
7.5	1.8567	1.8697	1.9133	1.8019	1.8448	1.8229
8.0	1.8035	1.8073	1.8388	1.8413	1.7826	1.9005

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.6601*							
3.875	1.6563*							
4.125	1.6864							
4.375	1.73571	1.6901						
4.625	1.7291	1.7400						
4.875	1.6844	1.7281						
5.125	1.7316	1.7342						
5.375	1.7412	1.7673	1.6857					
5.625	1.7534, 0.7802	1.7718	1.7647					
5.875	1.7446	1.7580	0.7675	0.6936				
6.125		1.7672	1.7555					
6.375	1.8249	1.7831	1.8069	1.8069	1.5903			
6.625	1.7921	1.8282	1.8085	1.8000	1.5814			
6.875	1.8174	1.8242	1.8268	1.8494	1.7637			
7.125	1.8093	1.8084	1.8453	1.8228	1.8301			
7.375	1.8101	1.8261	1.9194	1.8314	1.8046			
		1.8201	1.8417	1.8384	1.8175			
						1.6469		
						1.6639, 1.7220		
						1.7069		
						1.7324		1.5589.

WIR1421
RUN 84

WHITE OAK LABORATORY

TUNNEL 12 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/1)

ALPH 4.96 deg PHI 202.1 theta: 217.1 232.1 247.1 262.1 277.1

202.10 deg
AVERAGED DATA

PO 14.76 psia
SCALE FACTOR: 1.0000

TO 122.88 degf

MACII 2.0

WIR1421
RUN 84

z/d 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.3 4.5 4.8 5.0 5.5 6.0 6.5 7.0 7.5 8.0

theta: 202.1 3.1768 2.6897 2.2594 1.9497 1.7722 1.5206 1.5843 1.6102 1.6097 1.5995 1.6245 1.6453 1.7289 1.7608 1.8027 1.8251 1.8054 1.7780

217.1 232.1 247.1 262.1 277.1

2.4134 2.5207 1.8910 1.6175 1.4209 1.6495 1.6400 1.6648 1.7277 1.7708 1.7478 1.7655 1.8315 1.8379 1.7821

2.6221 2.6145, 2.0081 2.2161, 1.6618 2.0037 1.8300 1.9148 1.8812 1.9482 1.8776 1.9446 1.9187 1.8957 1.9096 1.9404 1.9282 1.9327

1.7729 1.8380 1.8607 1.8599 1.8889 1.8627 1.8825 1.8758 1.8971 1.8502 1.9219 1.8019

1.7161 1.7784 1.7636 1.7702 1.7969 1.8691 1.8570 1.8428 1.8333 1.7957 1.8380 1.8419

WING PRESSURES (PSI)

z/d 3.625 3.875 4.125 4.375 4.625 4.875 5.125 5.375 5.625 5.875 6.125 6.375 6.625 6.875 7.125 7.375

r/d: 0.5935 1.8925* 1.8920* 1.9073 1.8997 1.9235 1.8941 1.8851 1.8601, 0.9162 1.8709 1.9419 1.9003 1.9216 1.9165 1.9284

0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

1.9423 1.8994 1.8941 1.9159 0.9145 1.8923 1.8913 1.9465 1.9405 1.9176 1.9317 1.9239

1.9238 1.9462 0.9135 1.9158 1.9201 1.9290 1.9524 1.9695 1.9306 1.9508

0.9413 1.9598 1.9286 1.9731 1.9445 1.9473 1.9513

1.9120 1.9674 1.9537 1.9659 1.9655, 1.9539 1.9413 1.9298 1.9235 1.9127

WIR1421
RUN 85

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)

ALPH 9.97 deg PHI 202.07 deg PO 14.76 psia TO 123.05 degF MACH 2.0

AVERAGED DATA SCALE FACTOR: 1.0000

WTR1421
RUN 85

BODY PRESSURES (PSI)

z/d	theta:	202.1	217.1	232.1	247.1	262.1	277.1
0.5	3.2945						
1.0	2.7546						
1.5	2.2929						
2.0	1.9502		2.6000	2.8460	3.0128	3.1029	3.0933, 1.7690
2.5	1.7277		1.9158	2.0885	2.2456	2.3072	2.6073, 1.4842
3.0	1.4139						2.3538
3.5	1.4595		1.6202	1.7777	1.9084	2.0503	2.1497
4.0	1.4277		1.4146	1.7871	1.9792	2.1109	2.2517
4.3	1.4027		1.5897	1.8165	1.9471	2.1092	2.1818
4.5	1.3670		1.5564	1.7616	1.9329	2.1095	2.2530
4.8	1.3466		1.5584	1.8350	1.9717	2.1418	2.1726
5.0	1.3457		1.6079	1.8351	2.0477	2.0981	2.2356
5.5	1.3459		1.5855	1.7533	1.9712	2.0982	2.1925
6.0	1.3104		1.5038	1.7336	1.9359	2.0646	2.1437
6.5	1.3607		1.4727	1.7046	1.8924	2.0659	2.1410
7.0	1.5844		1.5011	1.6459	1.8156	1.9863	2.1426
7.5	1.6268		1.5934	1.7374	1.8288	2.0371	2.1179
8.0	1.6234		1.6319	1.6909	1.6980	1.7639	1.9455

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.2404*							
3.875	2.2451*							
4.125	2.2561							
4.375	2.28181							
4.625	2.2140		2.2752					
4.875	2.2674		2.2166					
5.125	2.1944		2.1899					
5.375	2.1739		2.2106					
5.625	1.9156, 0.1998		0.1993					
5.875	2.1434		2.1743		0.2771			
6.125			2.1589		2.2599			
6.375	2.1936		2.1979		2.2128			
6.625	2.1410		2.1775		2.2395			
6.875	2.1542		2.1518		2.1942		2.3082	
7.125	2.1381		2.1522		2.1892		2.2872, 2.0250	
7.375	2.1281		2.1314		2.1635		2.2345	
					2.1765		2.1876	2.2268

WIR1421
RUN 86

ALPH 14.96 deg PHI 202.12 deg
AVERAGED DATA

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)

TUNNEL 12 PRESSURE TEST

PO 14.77 psia
SCALE FACTOR: 1.0000

TO 123.01 degf

MACH 2.0

WIR1421
RUN 86

WHITE OAK LABORATORY

BODY PRESSURES (PSI)

z/d	theta	202.1	217.1	232.1	247.1	262.1	277.1
0.5		3.3930					
1.0		2.8224					
1.5		2.3433					
2.0		1.9810	2.8274	3.2338	3.5322	3.6971	3.6718, 1.4958
2.5		1.7150	2.0652	2.3797	2.6435	2.7521	3.1088, 1.2607
3.0		1.3944					2.8013
3.5		1.4124	1.7165	2.0044	2.2330	2.4475	2.5892
4.0		1.3616	1.4078	2.0110	2.3097	2.5112	2.7379
4.3		1.3297	1.6601	2.0185	2.2648	2.4937	2.6318
4.5		1.2757	1.6330	1.9715	2.2643	2.5568	2.6951
4.8		1.2478	1.6316	2.0477	2.2985	2.5282	2.6000
5.0		1.2446	1.6442	2.0218	2.3369	2.4787	2.6721
5.5		1.2261	1.6133	1.9183	2.2557	2.4712	2.6012
6.0		1.1815	1.5246	1.8899	2.2111	2.4254	2.5524
6.5		1.1771	1.4791	1.8549	2.1645	2.4251	2.5496
7.0		1.1932	1.4891	1.7833	2.0808	2.3387	2.5609
7.5		1.2038	1.4535	1.8650	2.0809	2.3827	2.5333
8.0		1.2351	1.2544	1.7349	1.7408	1.9506	2.2198

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.7156*							
3.875	2.7267*							
4.125	2.7505							
4.375	2.77281	2.7387						
4.625	2.6751							
4.875	2.7504							
5.125	2.6348							
5.375	2.6009							
5.625	1.6792, 0.6277							
5.875	2.5672				0.7526			
6.125								
6.375	2.6125					2.7105		
6.625	2.5524					2.7468		
6.875	2.5693					2.6948		
7.125	2.5522					2.6674	2.7800	
7.375	2.5423					2.6024	2.7477, 2.1223	
						2.5979	2.6768	
						2.5822	2.6145	2.6855

WIR1421 RUN 87	WHITE OAK LABORATORY	TUNNEL I2 PRESSURE TEST	PSI CONFIGURATION	PSI#1(PR/10)	PSI#2(TC/1)	WTR1421 RUN 87
ALPH -0.11 deg	PIII	224.46 deg AVERAGED DATA	P0	14.75 psia	10	
				SCALE FACTOR:	1.0000	
					123.31 degF	
						MACH 2.0

z/d	theta:	224.5	239.5	254.5	269.5	284.5	299.5
0.5	3.0324						
1.0	2.5850						
1.5	2.1900						
2.0	1.9159	2.2465		2.2715	2.2807	2.2705	2.2615, 2.2534
2.5	1.7661	1.7481		1.7484	1.7492	1.7321	1.9149, 1.8397
3.0	1.5332						1.7531
3.5	1.6374	1.6206		1.6026	1.5994	1.6238	1.6421
4.0	1.6985	1.3980		1.6739	1.6963	1.6978	1.7335
4.3	1.7040	1.6991		1.7272	1.6845	1.7374	1.7092
4.5	1.7170	1.6992		1.7104	1.7020	1.7413	1.7762
4.8	1.7412	1.7306		1.7836	1.7404	1.7705	1.7202
5.0	1.7654	1.7995		1.7991	1.8186	1.7519	1.8028
5.5	1.7863	1.8013		1.7564	1.7986	1.7988	1.8013
6.0	1.8220	1.7957		1.8063	1.8133	1.8021	1.7874
6.5	1.8552	1.8082		1.8125	1.8041	1.8307	1.8168
7.0	1.8845	1.8783		1.8034	1.7660	1.7866	1.8529
7.5	1.8606	1.8833		1.9252	1.8073	1.8512	1.8254
8.0	1.8170	1.8201		1.8465	1.8490	1.7652	1.9014

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.6712*							
3.875	1.6675†							
4.125		1.6986						
4.375	1.75321	1.7020						
4.625		1.7417	1.7573					
4.875	1.7208		1.7402					
5.125	1.7467		1.7494					
5.375	1.7510		1.7770	1.7220				
5.625	1.7617, 0.7902		0.7802	0.7761	0.7429			
5.875	1.7510		1.7694	1.7680				
6.125			1.7741	1.7934	1.8192	1.5540		
6.375	1.8326		1.8349	1.8164	1.8091	1.7451		
6.625	1.7982		1.8350	1.8382	1.8571	1.7915	1.7023	
6.875	1.8241		1.8176	1.8534	1.8246	1.8406	1.7290, 1.7684	
7.125	1.8205		1.8284	1.8254	1.8442	1.8123	1.7609	
7.375	1.8226		1.8306	1.8522	1.8462	1.8199	1.7654	1.6131

WIR1421
RUN 88

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 4.97 deg PHI 224.86 deg PO 14.75 psia TO 123.38 degF MACH 2.0

AVERAGED DATA SCALE FACTOR: 1.0000

z/d	theta	239.9	254.9	269.9	284.9	299.9
0.5	3.4089					
1.0	2.8944					
1.5	2.4296					
2.0	2.0971	2.5683	2.6427	2.6650	2.6403	2.5724, 2.0530
2.5	1.8997	1.9470	1.9886	2.0078	1.9811	2.1692, 1.6840
3.0	1.6049					1.9724
3.5	1.6762					
4.0	1.7005	1.7237	1.7210	1.7583	1.8227	1.8724
4.3	1.6935	1.3917	1.7907	1.8662	1.9040	1.9696
4.5	1.6918	1.7533	1.8443	1.8503	1.9324	1.9880
4.8	1.7142	1.7478	1.8154	1.8546	1.9289	2.0464
5.0	1.7400	1.7694	1.8858	1.8894	2.0043	1.9743
5.5	1.8380	1.8378	1.9033	2.0036	1.9744	2.0537
6.0	1.8913	1.8733	1.9007	1.9659	1.9934	2.0217
6.5	1.9304	1.8971	1.9246	1.9579	1.9772	1.9820
7.0	1.9500	1.9059	1.9341	1.9517	2.0053	2.0024
7.5	1.9308	1.9668	1.9234	1.9143	1.9608	2.0416
8.0	1.8948	1.9693	2.0475	1.9577	2.0231	2.0229
		1.8956	1.9623	1.9614	1.8337	1.9103

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.0047							
3.875	2.0059							
4.125	2.0211							
4.375	2.0617	2.0594						
4.625	2.0129	2.0133						
4.875	2.0676	1.9977						
5.125	1.9989	2.0358	2.0672					
5.375	1.9918	2.0358	2.0784					
5.625	1.9540	0.0258	0.0413		0.0932			
5.875	1.9650	1.9970	2.0364					
6.125	2.0293	1.9933	2.0365		2.1022			
6.375	1.9839	2.0406	2.0498		2.0685			
6.625	2.0151	2.0341	2.0556		2.0987			
6.875	2.0094	2.0138	2.0577		2.0510			
7.125	2.0094	2.0233	2.0339		2.0589			
7.375	2.0196	2.0242	2.0557		2.0558			
						2.0771		
						2.1258		
						2.0957		
						2.0954		
						2.1255, 2.0590		
						2.0865		
						2.0570		
							2.0742	

WTR1421
RUN 89

TUNNEL T2 PRESSURE TEST

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PS#1(PR/10) PS#2(TC/1)

ALPHI	9.96 deg	PIII	224.72 deg	PO	14.75 psia	TO	123.66 degF	MACH	2.0
AVERAGED DATA				SCALE FACTOR:		1.0000			

BODY PRESSURES (PSI)

z/d	theta:	224.7	239.7	254.7	269.7	284.7	299.7
0.5		3.7865					
1.0		3.1981					
1.5		2.6841					
2.0		2.2886	2.9521	3.1085	3.1604	3.1119	2.9504, 1.7772
2.5		2.0511	2.2050	2.3117	2.3658	2.3081	2.4705, 1.4377
3.0		1.7159					
3.5		1.7526	1.8887	1.9618	2.0224	2.1018	2.1747
4.0		1.7309	1.3856	2.0212	2.1636	2.2285	2.4416
4.5		1.7126	1.8897	2.0771	2.1325	2.2377	2.3678
5.0		1.6909	1.8829	2.0456	2.1590	2.2645	2.4301
5.5		1.6965	1.8999	2.1231	2.2483	2.3379	2.3450
6.0		1.7079	1.9578	2.1578	2.3023	2.3124	2.4169
6.5		1.7331	1.9656	2.0889	2.2419	2.3132	2.3578
7.0		1.6869	1.8859	2.0668	2.2098	2.2813	2.3080
7.5		1.7865	1.8422	2.0335	2.1672	2.2828	2.3142
8.0		1.9397	1.9528	1.9816	2.0856	2.2053	2.3341
8.5		1.9449	2.0382	2.1646	2.1138	2.2451	2.3000
9.0		1.9307	1.9308	2.1041	2.0994	2.1918	1.6228

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.4489*							
3.875	2.4564+							
4.125	2.4580							
4.375	2.50051	2.4506						
4.625	2.4223		2.4895					
4.875	2.4982		2.4263					
5.125	2.3753		2.3676	2.4955				
5.375	2.3509		2.4134	2.4843				
5.625	2.1076	0.3762	0.3894	0.4283	0.5095			
5.875	2.3102		2.3477	2.4065				
6.125			2.3425	2.4020	2.4900	2.4884		
6.375	2.3609		2.3784	2.4078	2.4461	2.5305		
6.625	2.3032		2.3586	2.4001	2.4647	2.4823		
6.875	2.3257		2.3274	2.3858	2.4121	2.4812	2.5294, 2.1994	
7.125	2.3000		2.3361	2.3496	2.3959	2.4087	2.4786	
7.375	2.3087		2.3097	2.3564	2.3774	2.3975	2.4268	2.4695

WHITE OAK LABORATORY

WIR1421		TUNNEL T2 PRESSURE TEST		WIR1421	
RUN 90		PSI CONFIGURATION PSI#1(PR/IO) PSI#2(1C/1)		RUN 90	
ALPH	14.97 deg	PHIT	225.20 deg	P0	14.76 psia
		AVERAGED DATA		SCALE FACTOR	
				10	124.00 degf
				1.0000	
				MACII	2.0

BODY PRESSURES (PSI)

z/d	theta:	BODY PRESSURES (PSI)					
		225.2	240.2	255.2	270.2	285.2	300.2
0.5	4.2075						
1.0	3.5752						
1.5	3.0135						
2.0	2.5718						
2.5	2.2824						
3.0	1.9064						
3.5	1.9347						
4.0	1.3882						
4.3	1.8723						
4.5	1.8423						
4.8	1.8461						
5.0	1.8472						
5.5	1.8521						
6.0	1.7942						
6.5	1.7740						
7.0	1.7216						
7.5	1.6748						
8.0	1.8590						

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	3.0147*							
3.875	3.0300+							
4.125	3.0218							
4.375	3.07971	3.0062						
4.625	2.9609		3.0572					
4.875	3.0508		2.9692					
5.125	2.8896		2.8731	3.0461				
5.375	2.8649		2.9441	3.0257				
5.625	1.8435, 0.8874		0.9023	0.9696	0.0619			
5.875	2.8167		2.8607	2.9251				
6.125			2.8477	2.9198		3.0421		
6.375	2.8579		2.8797	2.9265		3.0783		
6.625	2.7950		2.8509	2.9086		3.0215	3.1116	
6.875	2.8170		2.8169	2.8976		3.0135	3.0758, 2.4396	
7.125	2.7934		2.8265	2.8506		2.9326	3.0190	
7.375	2.7867		2.7980	2.8560		2.9156	2.9484	3.0141
				2.8560		2.8802		

WTR1421
RUN 91

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPHI	-0.08 deg	PHI	247.32 deg	P0	14.75' psia	T0	124.18 degF	MACH	2.0
				AVERAGED DATA		SCALE FACTOR:		1.0000	

BODY PRESSURES (PSI)

z/d	theta:	247.3	262.3	277.3	292.3	307.3	322.3
0.5		3.0517					
1.0		2.5994					
1.5		2.2018					
2.0		1.9252	2.2658	2.2893	2.2913	2.2768	2.2678, 2.2565
2.5		1.7755					1.9196, 1.8443
3.0		1.5382	1.7580	1.7572	1.7562	1.7409	1.7627
3.5		1.6413	1.6231	1.6027	1.6083	1.6372	1.6504
4.0		1.7030	2.0527	1.6774	1.6962	1.7003	1.7441
4.3		1.7086	1.7036	1.7301	1.6856	1.7446	1.7237
4.5		1.7205	1.7019	1.7139	1.7075	1.7496	1.7852
4.8		1.7460	1.7344	1.7899	1.7480	1.7784	1.7241
5.0		1.7709	1.8063	1.8064	1.8270	1.7609	1.8115
5.5		1.7929	1.8090	1.7633	1.8070	1.8122	1.8158
6.0		1.8311	1.8031	1.8155	1.8257	1.8113	1.7974
6.5		1.8642	1.8153	1.8183	1.8163	1.8401	1.8274
7.0		1.8912	1.8859	1.8104	1.7739	1.7951	1.8686
7.5		1.8783	1.8933	1.9382	1.8185	1.8639	1.8373
8.0		1.8271	1.8303	1.8593	1.8614	1.7890	1.9031

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.6887*							
3.875	1.6854+							
4.125	1.7202							
4.375	1.76441	1.7233						
4.625	1.7420		1.7679					
4.875	1.7388		1.7407					
5.125	1.7555		1.7582					
5.375	1.7651		1.7937	1.7400				
5.625	1.7803, 0.8073		0.7951	1.8032				
5.875	1.7636		1.7762	0.7965	0.7839			
6.125			1.7827	1.7777				
6.375	1.8474		1.8427	1.8056	1.8358	1.7177		
6.625	1.8067		1.8442	1.8301	1.8203	1.7944		
6.875	1.8376		1.8434	1.8520	1.8760	1.8234	1.7847	
7.125	1.8406		1.8318	1.8702	1.8510	1.8602	1.7917, 1.8203	
7.375	1.8436		1.8490	1.8422	1.8577	1.8260	1.8044	
			1.8457	1.8671	1.8591	1.8266	1.7904	1.7005

WTR1421
RUN 93

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 9.99 deg PHI 247.03 deg PO 14.75 psia TO 124.39 degF MACH 2.0

AVERAGED DATA SCALE FACTOR: 1.0000

z/d	theta:	247.0	262.0	277.0	292.0	307.0	322.0
0.5	4.1682						
1.0	3.5458						
1.5	2.9969		3.1605	3.1895	3.0961	2.9098	2.6416, 1.9228
2.0	2.5623						2.2033, 1.5185
2.5	2.3081		2.3849	2.3840	2.3155	2.1510	1.9838
3.0	1.9515						
3.5	1.9764		2.0515	2.0270	1.9682	1.9807	2.0371
4.0	1.9753		2.0253	2.0638	2.1134	2.1787	2.4152
4.3	1.9582		2.0461	2.1408	2.1599	2.2728	2.3984
4.5	1.9383		2.0579	2.1458	2.2147	2.4205	2.4649
4.8	1.9626		2.1012	2.2620	2.2905	2.4217	2.3856
5.0	1.9947		2.1909	2.3015	2.4290	2.4041	2.4682
5.5	2.0345		2.1984	2.2991	2.3880	2.4245	2.4402
6.0	2.1525		2.1985	2.2916	2.3682	2.3931	2.3906
6.5	2.3048		2.2835	2.3077	2.3449	2.4042	2.3964
7.0	2.3163		2.3659	2.3392	2.3248	2.3562	2.4366
7.5	2.2961		2.3734	2.4719	2.3787	2.4362	2.4552
8.0	2.2717		2.2627	2.3735	2.3612	2.0730	1.6244

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.5638*							
3.875	2.5731+							
4.125	2.59741							
4.375	2.5612							
4.625	2.5310							
4.875	2.5786							
5.125	2.4746							
5.375	2.4650							
5.625	2.2946, 0.4898							
5.875	2.4289				0.5915			
6.125								
6.375	2.4734				2.5918	2.5707		
6.625	2.4102				2.5399	2.6234		
6.875	2.4394				2.5815	2.5899	2.6338	
7.125	2.4281				2.5186	2.5861	2.6182, 2.4009	
7.375	2.4335				2.5090	2.5108	2.5625	
					2.5054	2.5079	2.5102	2.5519

WHITE OAK LABORATORY									
TUNNEL 12 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
WTR1421 RUN 94	ALPH	14.98 deg	PHI	247.39 deg AVERAGED DATA	P0	14.75 psia SCALE FACTOR:	TO 1.0000	124.48 degF	MACH 2.0
BODY PRESSURES (PSI)									
	z/d	theta:	247.4	262.4	277.4	292.4	307.4	322.4	
	0.5	4.8542							
	1.0	4.1720							
	1.5	3.5518		3.7916	3.8207	3.6583	3.3338	2.8811, 1.6310	
	2.0	3.0582						2.3979, 1.2139	
	2.5	2.7339		2.8859	2.8826	2.7452	2.4576	2.1393	
	3.0	2.3279							
	3.5	2.3392		2.4670	2.4376	2.3286	2.3033	2.3596	
	4.0	2.3204		2.0219	2.4840	2.5504	2.6164	2.7604	
	4.3	2.2932		2.4535	2.5843	2.6212	2.7599	2.6999	
	4.5	2.2723		2.4773	2.5944	2.6727	2.9124	2.7830	
	4.8	2.3049		2.5230	2.7335	2.8268	2.9249	2.7400	
	5.0	2.3365		2.6240	2.7846	2.9286	2.9167	2.8798	
	5.5	2.3680		2.6436	2.7916	2.8962	2.9355	2.9208	
	6.0	2.3723		2.6055	2.7626	2.8699	2.9102	2.9020	
	6.5	2.4279		2.5748	2.7425	2.8385	2.9156	2.9136	
	7.0	2.5912		2.6975	2.7020	2.7545	2.8248	2.9627	
	7.5	2.6110		2.7527	2.9017	2.8272	2.8736	2.9655	
	8.0	2.6080		2.5902	2.7842	2.7604	2.3600	1.8330	
WING PRESSURES (PSI)									
	z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
	3.625	3.1872*							
	3.875	3.2046+							
	4.125	3.1648							
	4.375	3.19301	3.1464						
	4.625	3.1060							
	4.875	3.1438							
	5.125	3.0387							
	5.375	3.0229							
	5.625	2.3772, 0.0458							
	5.875	2.9849				0.1481			
	6.125								
	6.375	3.0121				3.1513	3.1238		
	6.625	2.9533				3.1062	3.1856		
	6.875	2.9916				3.1483	3.1509	3.1799	
	7.125	2.9614				3.0765	3.1427	3.1600, 2.7756	
	7.375	2.9601				3.0520	3.0873	3.1295	
						3.0449	3.0669	3.0549	3.0834

WTR1421
RUN 95

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

BODY PRESSURES (PSI)

theta:	269.8	284.8	299.8	314.8	329.8	344.8
z/d	0.5					
	3.0805					
1.0	2.6241					
1.5	2.2223					
2.0	1.9408	2.2830	2.3028	2.3009	2.2842	2.2618, 2.2636
2.5	1.7884	1.7688	1.7684		1.7453	1.9222, 1.8505
3.0	1.5481			1.7663		1.7651
3.5	1.6426	1.6295	1.6124	1.6142	1.6383	1.6579
4.0	1.7092	1.9813	1.6754	1.7020	1.7141	1.7616
4.3	1.7105	1.7024	1.7335	1.6923	1.7581	1.7418
4.5	1.7216	1.7051	1.7190	1.7127	1.7589	1.8041
4.8	1.7499	1.7401	1.7964	1.7534	1.7853	1.7361
5.0	1.7768	1.8126	1.8148	1.8365	1.7673	1.8181
5.5	1.8012	1.8182	1.7720	1.8148	1.8213	1.8230
6.0	1.8408	1.8119	1.8244	1.8300	1.8245	1.8144
6.5	1.8718	1.8227	1.8322	1.8267	1.8575	1.8385
7.0	1.9033	1.8991	1.8250	1.7867	1.8060	1.8782
7.5	1.8898	1.9072	1.9532	1.8254	1.8781	1.8583
8.0	1.8403	1.8432	1.8745	1.8763	1.7933	1.9005

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7126*							
3.875	1.7097+							
4.125	1.7484							
4.375	1.78571	1.7509						
4.625	1.7596		1.7889					
4.875	1.7611		1.7585					
5.125	1.7628		1.7652					
5.375	1.7706		1.8010	1.7619				
5.625	1.8020	0.8209	0.8102	0.8126				
5.875	1.7778		1.7942	1.7974	0.8130			
6.125			1.8024	1.8225	1.8432	1.7530		
6.375	1.8577		1.8512	1.8418	1.8300	1.8297		
6.625	1.8151		1.8553	1.8624	1.8804	1.8359	1.8299	
6.875	1.8492		1.8442	1.8848	1.8616	1.8740	1.8316, 1.8675	
7.125	1.8464		1.8601	1.8560	1.8726	1.8414	1.8311	
7.375	1.8554		1.8647	1.8866	1.8824	1.8527	1.8187	1.7694

WHITE OAK LABORATORY

WTR1421
RUN 96WTR1421
RUN 96

ALPH 4.92 deg PIH 269.76 deg PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1) TUNNEL T2 PRESSURE TEST TO 124.87 degF MACH 2.0
AVERAGED DATA PO 14.74 psia SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	269.8	284.8	299.8	314.8	329.8	344.8
0.5		3.6567					
1.0		3.1210					
1.5		2.6269					
2.0		2.2727	2.6767	2.6463	2.5633	2.4448	2.3045, 2.2851
2.5		2.0569	2.0323	1.9892	1.9262	1.8241	1.9330, 1.8397
3.0		1.7533					1.7613
3.5		1.7998					
4.0		1.8318	1.7880	1.7271	1.6876	1.6996	1.7528
4.3		1.8133	1.9620	1.7643	1.8004	1.8465	2.0576
4.5		1.8100	1.8071	1.8361	1.8198	1.9254	2.0350
4.8		1.8511	1.8089	1.8357	1.8579	2.0258	2.0933
5.0		1.9059	1.8598	1.9402	1.9384	2.0458	2.0179
5.5		1.9969	1.9611	1.9891	2.0667	2.0270	2.0975
6.0		2.0694	2.0186	1.9856	2.0536	2.0663	2.0803
6.5		2.1205	2.0406	2.0522	2.0651	2.0675	2.0660
7.0		2.1531	2.0703	2.0710	2.0680	2.1086	2.0890
7.5		2.1106	2.1473	2.0680	2.0296	2.0628	2.1353
8.0		2.0719	2.1335	2.1943	2.0804	2.1350	2.1280
			2.0680	2.1060	2.1010	1.8901	1.8991

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.1007*							
3.875	2.1034+							
4.125	2.1144							
4.375	2.1544							
4.625	2.1004							
4.875	2.1307							
5.125	2.0686							
5.375	2.0675							
5.625	2.0800, 0.1127							
5.875	2.0599							
6.125								
6.375	2.1300							
6.625	2.0847							
6.875	2.1243							
7.125	2.1239							
7.375	2.1355							
		2.1500						
		2.1019						
		2.0659						
		2.1165						
		0.1164						
		2.0874						
		2.0843						
		2.1313						
		2.1402						
		2.1304						
		2.1230						
		2.1500						
		2.1504						
				2.1301				
				2.1579				
				0.1486				
				2.1074				
				2.1259				
				2.1492				
				2.2014				
				2.1608				
				2.1798				
				2.1550				
				2.1842				
					0.1688			
					2.1766			
					2.1506			
					2.2030			
					2.1858			
					2.2044			
					2.1670			
					2.1806			
					2.1876			
						2.1708		
						2.1508		
						2.1482		
							2.2161	
							2.2037, 2.2219	
							2.1811	
							2.1508	
							2.1482	

WHITE OAK LABORATORY

WIR1421
RUN 97

WTR1421
RUN 97

TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	PIII	P0	TO	MACH
9.95 deg	269.73 deg	14.74 psia	125.08 degF	2.0

BODY PRESSURES (PSI)

theta:	z/d	269.7	284.7	299.7	314.7	329.7	344.7
0.5	0.5	4.3397					
1.0	1.0	3.7211					
1.5	1.5	3.1508					
2.0	2.0	2.7015					
2.5	2.5	2.4409	3.1732	3.0587	2.8472	2.5715	2.2685
3.0	3.0	2.0724	2.4021	2.2855	2.1114	1.8777	1.6839
3.5	3.5	2.0979	2.0720	1.9311	1.7799	1.6554	1.8448
4.0	4.0	2.1074	1.9403	1.9246	1.8789	1.9486	2.3694
4.3	4.3	2.0722	2.0388	1.9853	1.9548	2.1382	2.3616
4.5	4.5	2.0479	2.0194	1.9913	2.0350	2.3408	2.4241
4.8	4.8	2.0616	2.0656	2.1434	2.1840	2.3789	2.3437
5.0	5.0	2.1164	2.1844	2.2365	2.3723	2.3713	2.4231
5.5	5.5	2.2794	2.3151	2.2925	2.3856	2.4162	2.3921
6.0	6.0	2.4118	2.3796	2.3814	2.4082	2.4182	2.3660
6.5	6.5	2.4772	2.4259	2.4260	2.4275	2.4681	2.3949
7.0	7.0	2.5041	2.5115	2.4296	2.3917	2.4283	2.4664
7.5	7.5	2.4910	2.5078	2.5642	2.4506	2.5142	2.4799
8.0	8.0	2.4513	2.4373	2.4686	2.4534	2.0424	1.7469

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.5492*							
3.875	2.5581†							
4.125		2.5722						
4.375	2.6003†	2.5633						
4.625		2.5281						
4.875	2.5370		2.5873					
5.125	2.4808		2.5328					
5.375	2.4595		2.4711	2.5345				
5.625	2.4403	0.4904	2.5294	2.5634				
5.875		2.4389	0.5267	0.5341	0.5484			
6.125			2.4914	2.5240				
6.375			2.4875	2.5317	2.5730	2.5150		
6.625	2.4984		2.5266	2.5271	2.5399	2.5768		
6.875	2.4563		2.5314	2.5549	2.5916	2.5687	2.5716	
7.125	2.4959		2.5175	2.5688	2.5551	2.5864	2.5799, 2.5631	
7.375	2.4919		2.5501	2.5547	2.5720	2.5576	2.5690	
7.625	2.4987		2.5350	2.5824	2.5867	2.5573	2.5459	2.5166

WHITE OAK LABORATORY

WTR1421
RUN 98

ALPH 14.96 deg PHI 270.04 deg P0 14.74 psia TO 125.23 degF MACH 2.0

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)

SCALE FACTOR: 1.0000

WTR1421
RUN 98

BODY PRESSURES (PSI)

z/d	theta:	270.0	285.0	300.0	315.0	330.0	345.0
0.5	5.1133						
1.0	4.4272						
1.5	3.7872						
2.0	3.2709		3.7829	3.5703	3.2009	2.7346	2.2440, 2.1649
2.5	2.9337		2.8782	2.6712	2.3647	1.9824	1.8441, 1.6795
3.0	2.5162						1.6283
3.5	2.5231		2.4712	2.2628	1.9619	1.8246	1.9440
4.0	2.5112		1.9392	2.2389	2.1062	2.2168	2.4337
4.3	2.4789		2.4205	2.2820	2.2058	2.4772	2.5615
4.5	2.4453		2.3964	2.2880	2.3209	2.6849	2.7436
4.8	2.4553		2.4401	2.4676	2.5153	2.7691	2.7323
5.0	2.4923		2.5620	2.5951	2.7543	2.7916	2.8410
5.5	2.6756		2.7235	2.6971	2.8188	2.8656	2.8413
6.0	2.8569		2.8224	2.8166	2.8609	2.8816	2.8310
6.5	2.9486		2.9023	2.8920	2.9040	2.9461	2.8790
7.0	2.9833		2.9813	2.9052	2.8770	2.9217	2.9590
7.5	2.9792		3.0092	3.0604	2.9457	3.0119	2.9858
8.0	2.9621		2.9348	2.9346	2.9067	2.2784	1.6762

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	3.0831*							
3.875	3.0988+							
4.125	3.1267							
4.375	3.16921							
4.625	3.0892							
4.875	3.0549							
5.125	2.8445							
5.375	2.8136							
5.625	2.7989, 0.8594							
5.875	2.8185				0.0368			
6.125								
6.375	2.8815					2.9850		
6.625	2.8568					3.0612		
6.875	2.9197					3.0677		
7.125	2.9308					3.0951		
7.375	2.9457					3.0712		
						3.0698		
							3.0332	
							3.0435, 3.0148	
							3.0502	
							3.0382	
								2.9608

WTR1421
RUN 99

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPHI -0.10 deg PHII 292.45 deg
AVERAGED DATA

P0 14.75 psia
SCALE FACTOR: 1.0000

MACII 2.0

WTR1421
RUN 99

theta: 292.4

z/d 0.5 307.4 322.4 337.4 352.4 367.4

0.5 3.0968

1.0 2.6397

1.5 2.2344

2.0 1.9520

2.5 1.7991

3.0 1.5546

3.5 1.6522

4.0 1.7072

4.3 1.7118

4.5 1.7262

4.8 1.7557

5.0 1.7833

5.5 1.8096

6.0 1.8494

6.5 1.8787

7.0 1.9175

7.5 1.8946

8.0 1.8422

2.2952 2.3121 2.3035 2.2750 2.2560, 2.2815

1.7795 1.7740 1.7689 1.7447 1.9151, 1.8588

1.7620

1.6451 1.6115 1.6145 1.6455 1.6681

1.9042 1.6818 1.7134 1.7264 1.7771

1.7067 1.7409 1.7009 1.7713 1.7571

1.7078 1.7229 1.7185 1.7702 1.8189

1.7443 1.8017 1.7569 1.7925 1.7442

1.8215 1.8418 1.7667 1.8255 1.8255

1.8262 1.7768 1.8201 1.8274 1.8230

1.8163 1.8282 1.8377 1.8302 1.8208

1.8298 1.8416 1.8357 1.8627 1.8494

1.9139 1.8355 1.7915 1.8111 1.8837

1.9097 1.9588 1.8377 1.8894 1.8626

1.8445 1.8819 1.8832 1.7928 1.8996

WING PRESSURES (PSI)

z/d r/d: 0.5935

3.625 1.7317*

3.875 1.7289*

4.125 1.7589

4.375 1.7989 1.7610

4.625 1.7700

4.875 1.7679

5.125 1.7639

5.375 1.7685

5.625 1.8118, 0.8178

5.875 1.7815

6.125 1.8702

6.375 1.8277

6.625 1.8472

6.875 1.8541

7.125 1.8660

7.375 1.8660

0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

1.8016

1.7693

1.7663

1.8021

0.8114

1.7966

1.8100

1.8698

1.8705

1.8481

1.8663

1.8682

1.7689

1.8168

0.8069

1.7977

1.8289

1.8542

1.8776

1.8916

1.8623

1.8926

0.8156

1.8563

1.8419

1.9024

1.8700

1.8817

1.8956

1.7604

1.8458

1.8552

1.8803

1.8490

1.8541

1.8450

1.8393, 1.8840

1.8353

1.8199

1.7822

WHITE OAK LABORATORY									
WTR1421 RUN 1		TUNNEL T2 PRESSURE TEST							
		PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)							
ALPH	4.95 deg	PHI	292.37 deg AVERAGED DATA	P0	14.75 psia SCALE FACTOR:	10 1.0000	125.59 degF	MACH	2.0
BODY PRESSURES (PSI)									
z/d	theta:	292.4	307.4	322.4	337.4	352.4	367.4		
0.5	3.6186								
1.0	3.0958								
1.5	2.6031								
2.0	2.2548		2.6035	2.5308	2.4197	2.2870	2.1574, 2.4474		
2.5	2.0408		1.9763	1.9019	1.8117	1.7132	1.8160, 1.9772		
3.0	1.7406						1.6679		
3.5	1.7934								
4.0	1.8118		1.7445	1.6642	1.5821	1.5917	1.7168		
4.3	1.7999		1.8910	1.6788	1.6961	1.7873	2.0207		
4.5	1.7965		1.7476	1.7445	1.7236	1.8907	2.0019		
4.8	1.8369		1.7470	1.7428	1.7851	1.9836	2.0559		
5.0	1.8883		1.7985	1.8671	1.9032	1.9996	1.9817		
5.5	1.9733		1.9130	1.9342	2.0099	1.9797	2.0614		
6.0	2.0516		1.9883	1.9608	2.0118	2.0350	2.0449		
6.5	2.1157		2.0154	2.0140	2.0300	2.0441	2.0487		
7.0	2.1130		2.0389	2.0266	2.0381	2.0880	2.0730		
7.5	2.0797		2.0993	2.0213	2.0005	2.0386	2.1135		
8.0	2.0495		2.0940	2.1513	2.0418	2.1147	2.1028		
			2.0460	2.0713	2.0674	1.8750	1.8935		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	2.0635*								
3.875	2.0654*								
4.125	2.0822								
4.375	2.12851	2.0799							
4.625	2.0877								
4.875	2.0893		2.1244						
5.125	2.0474		2.0890						
5.375	2.0366		2.0454						
5.625	2.0810	0.0882	2.0851						
5.875	2.0412		0.0840		0.1220				
6.125			2.0689		2.0765				
6.375	2.1238		2.0711		2.1482	2.0922			
6.625	2.0774		2.1321		2.1281	2.1587			
6.875	2.1104		2.1270		2.1752	2.1473	2.1584		
7.125	2.1072		2.1119		2.1431	2.1724	2.1530, 2.2357		
7.375	2.1152		2.1356		2.1568	2.1400	2.1376		
			2.1310		2.1617	2.1452	2.1248	2.0970	

WITTE OAK LABORATORY									
WIR1421 RUN 2		TUNNEL T2 PRESSURE TEST		PSI CONFIGURATION		PSI#1(PR/10) PSI#2(TC/1)		WIR1421 RUN 2	
ALPH	9.95 deg	PIII	292.65 deg	P0	14.76 psia	TO	125.79 degf	MACH	2.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	292.7	307.7	322.7	337.7	352.7	367.7		
0.5	4.2460								
1.0	3.6522								
1.5	3.0862								
2.0	2.6460		2.9813	2.7727	2.5023	2.2155		1.9527, 2.6031	
2.5	2.3912		2.2436	2.0437	1.8212	1.5854		1.6049, 2.0831	
3.0	2.0306							1.4377	
3.5	2.0540		1.9247	1.7062	1.5049	1.3340		1.7552	
4.0	2.0516		1.8811	1.6841	1.5090	1.7397		2.1571	
4.3	2.0206		1.8863	1.7078	1.5555	2.0139		2.1580	
4.5	2.0044		1.8428	1.6570	1.6984	2.1662		2.2230	
4.8	2.0299		1.8594	1.7834	1.9432	2.2179		2.1592	
5.0	2.0671		1.9471	1.9182	2.1890	2.2191		2.2497	
5.5	2.1432		2.1151	2.1346	2.2583	2.3071		2.2605	
6.0	2.3072		2.2350	2.2449	2.3067	2.3373		2.2882	
6.5	2.3982		2.2865	2.2775	2.3349	2.4003		2.3418	
7.0	2.4071		2.3633	2.2830	2.3000	2.3590		2.4056	
7.5	2.3790		2.3651	2.4298	2.3607	2.4364		2.4090	
8.0	2.3569		2.3455	2.3414	2.3302	1.9415		1.8696	

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.3984*							
3.875	2.4049*							
4.125	2.4879							
4.375	2.52571							
4.625	2.4756							
4.875	2.4174							
5.125	2.3548							
5.375	2.3311							
5.625	2.5018, 0.3703							
5.875	2.3268				0.4377			
6.125								
6.375	2.4016				2.4946	2.3905		
6.625	2.3549				2.4865	2.4648		
6.875	2.3943				2.5351	2.4698		
7.125	2.3811				2.5238	2.5143	2.4377	
7.375	2.3869				2.5408	2.4909	2.4366, 2.6404	
					2.5448	2.5067	2.4568	
							2.4459	2.3695

WTR1421 RUN 3	14.96 deg	PHI1	292.37 deg AVERAGED DATA	P0	14.78 psia	10	125.88 degF	MACH	2.0
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
TUNNEL I2 PRESSURE TEST									
WHITE OAK LABORATORY									

z/d	theta:	BODY PRESSURES (PSI)				
		307.4	322.4	337.4	352.4	367.4
0.5	292.4					
1.0	4.9429					
1.5	4.2923					
2.0	3.6565					
2.5	3.1550	3.4265	3.0490	2.5857	2.1149	1.6953, 2.7937
3.0	2.8319	2.5862	2.2449	1.8625	1.4787	1.3556, 2.2368
3.5	2.4226					1.1825
4.0	2.4209	2.1989	1.8523	1.4946	1.1904	1.5353
4.3	2.4073	1.8751	1.8198	1.4840	1.5174	2.1452
4.5	2.3789	2.1421	1.8321	1.4221	1.9480	2.2173
4.8	2.3629	2.0970	1.7671	1.5203	2.2862	2.3450
5.0	2.3961	2.1127	1.8286	1.7288	2.3980	2.3277
5.5	2.4346	2.1928	1.8583	2.1308	2.4572	2.4611
6.0	2.4828	2.2075	2.0540	2.5434	2.6127	2.5146
6.5	2.5233	2.3621	2.4697	2.6485	2.6998	2.5869
7.0	2.7037	2.5545	2.5435	2.6901	2.7892	2.6778
7.5	2.7540	2.6587	2.5844	2.6758	2.7597	2.7714
8.0	2.7458	2.6857	2.7672	2.7591	2.8443	2.7972
	2.7375	2.7161	2.6626	2.6417	2.1157	1.8481

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.5047*							
3.875	2.5129+							
4.125	2.9818							
4.375	3.01041	2.9664						
4.625	2.9518		2.9893					
4.875	2.8400		2.9603					
5.125	2.4846		2.4749	2.8359				
5.375	2.4777		2.9393	2.9177				
5.625	3.0399, 0.5431		0.9218	0.9411	0.8235			
5.875	2.5260		2.9150	2.9429				
6.125			2.9006	3.0139	2.9633	2.7797		
6.375	2.6457		2.9609	3.0506	2.9644	2.8540		
6.625	2.6209		2.9238	3.0810	3.0455	2.8968	2.8100	
6.875	2.6766		2.9068	3.0938	3.0216	2.9737	2.8180, 3.1573	
7.125	2.6793		2.9070	3.0677	3.0530	2.9586	2.8592	
7.375	2.7008		2.8463	3.0831	3.0408	2.9684	2.8541	2.7160

WIR1421
RUN 4

WIR1421
RUN 4

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

ALPH	-0.09 deg	PHI	314.97 deg	P0	14.80 psia	T0	126.48 degF	MACH	2.0
				AVERAGED DATA		SCALE FACTOR:		1.0000	

BODY PRESSURES (PSI)

[illegible]

WING PRESSURES (PSI)

0.5915	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
	1.8194					
	1.7829					
	1.7791	1.7793				
	1.8132	1.8286				
	1.8139	0.8152	0.8247			
	1.7983	1.8011				
	1.8095	1.8293	1.8525	1.7611		
	1.8117	1.8552	1.8396	1.8400		
	1.8117	1.8796	1.9029	1.8530	1.8425	
	1.8377	1.8988	1.8740	1.8857	1.8544, 1.8906	
	1.8500	1.8714	1.8912	1.8606	1.8451	
	1.8600	1.8992	1.8923	1.8619	1.8329	1.7910

AD-A190 972

SURFACE PRESSURE MEASUREMENTS ON A HIGHLY SWEPT DELTA
MINGED WIND TUNNEL. (U) NAVAL SURFACE WEAPONS CENTER
SILVER SPRING MD A S COLLIER ET AL. AUG 86

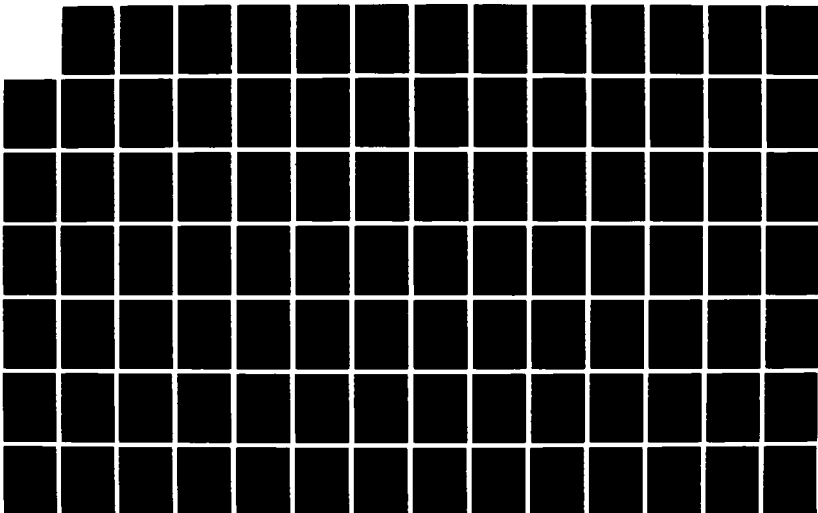
2/3

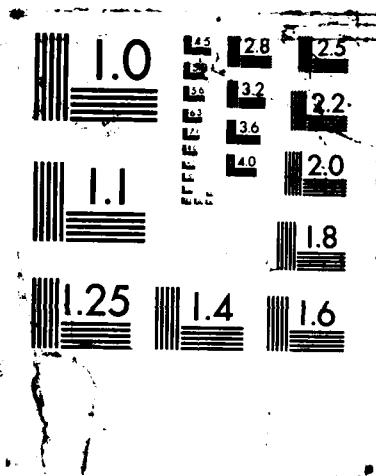
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WTR1421
RUN 6

WIITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 9.97 deg PHI 315.13 deg PO 14.81 psia TO 126.77 degF MACH 2.0

AVERAGED DATA SCALE FACTOR: 1.0000

WTR1421
RUN 6

z/d	theta:	315.1	345.1	360.1	375.1	390.1
0.5	3.9195					
1.0	3.3627					
1.5	2.8243					
2.0	2.4236					
2.5	2.1827					
3.0	1.8385					
3.5	1.8534					
4.0	1.8363					
4.3	1.8260					
4.5	1.8063					
4.8	1.8252					
5.0	1.8390					
5.5	1.8637					
6.0	1.8569					
6.5	1.9807					
7.0	2.0749					
7.5	2.0577					
8.0	2.0355					

BODY PRESSURES (PSI)

z/d	theta:	315.1	345.1	360.1	375.1	390.1
0.5	3.9195					
1.0	3.3627					
1.5	2.8243					
2.0	2.4236					
2.5	2.1827					
3.0	1.8385					
3.5	1.8534					
4.0	1.8363					
4.3	1.8260					
4.5	1.8063					
4.8	1.8252					
5.0	1.8390					
5.5	1.8637					
6.0	1.8569					
6.5	1.9807					
7.0	2.0749					
7.5	2.0577					
8.0	2.0355					

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.1926*							
3.875	2.1964*							
4.125	2.3015							
4.375	2.3441							
4.625	2.3075							
4.875	2.2375							
5.125	2.1900							
5.375	2.1757							
5.625	2.4241							
5.875	2.1604							
6.125								
6.375	2.2308							
6.625	2.1666							
6.875	2.1878							
7.125	2.1691							
7.375	2.1724							

WTR1421
RUN 7

TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	14.98 deg	PHI	315.08 deg	P0	14.81 psia	T0	126.87 degf	MACH	2.0
				AVERAGED DATA		SCALE FACTOR:		1.0000	

BODY PRESSURES (P_{SI})

theta:	315.1	330.1	345.1	360.1	375.1	390.1
z/d						
0.5	4.3532					
1.0	3.7780					
1.5	3.1854					
2.0	2.7367	2.8220	2.4036	1.9579	1.5839	1.3712, 3.3779
2.5	2.4468	2.0892	1.7152	1.3601	1.0604	1.0708, 2.7512
3.0	2.0648					0.9070
3.5	2.0482	1.7338	1.3643	1.0211	0.8954	1.1519
4.0	2.0324	1.9997	1.3092	1.0567	1.2727	1.4149
4.5	2.0140	1.6661	1.3020	1.1259	1.6146	1.4325
4.5	1.9952	1.6144	1.2433	1.2404	1.7437	1.5099
4.8	2.0136	1.6177	1.2982	1.3915	1.7736	1.5902
5.0	2.0110	1.6810	1.3215	1.6485	1.7838	1.8221
5.5	2.0244	1.6526	1.3124	1.9675	2.0478	1.9362
6.0	1.9964	1.7292	1.2950	2.0637	2.1561	2.0050
6.5	1.9560	1.5326	2.0510	2.1468	2.2090	2.0725
7.0	1.9035	1.8358	2.1476	2.1909	2.1533	2.1066
7.5	1.8643	2.0524	2.3579	2.3000	2.2698	2.0723
8.0	2.0544	2.0512	2.3067	2.1992	1.8912	1.7711

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	2.0437*							
3.875	2.0455+							
4.125	2.6157							
4.375	2.66781							
4.625	2.5547		2.6533					
4.875	2.5786		2.5596					
5.125	1.8282		1.8297	2.5756				
5.375	1.8718		2.4285	2.6715				
5.625	2.9329		0.3733	0.6951	0.5700			
5.875	1.9694		2.3238	2.7140				
6.125			2.2599	2.7371	2.7395	2.5303		
6.375	2.0826		2.2588	2.7370	2.7424	2.6098		
6.625	2.0831		2.2229	2.7242	2.8117	2.6410	2.5234	
6.875	2.1503		2.2017	2.7234	2.7910	2.7177	2.5228, 3.1481	
7.125	2.1728		2.2337	2.6537	2.8048	2.6998	2.5627	
7.375	2.1754		2.2010	2.6641	2.7980	2.7158	2.5700	2.4006

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST					WTR1421				
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)					RUN 8				
ALPH	-0.07 deg	PHI	337.69 deg	P0	14.85 psia	T0	127.88 deg	MACH	2.0
			AVERAGED DATA	SCALE FACTOR:			1.0000		
BODY PRESSURES (PSI)									
z/d	theta:	337.7	352.7	367.7	382.7	397.7	412.7		
0.5	3.1256								
1.0	2.6731								
1.5	2.2549								
2.0	1.9756		2.3075	2.3155	2.3083	2.2780	2.2565, 2.3201		
2.5	1.8206		1.7957	1.7856	1.7775	1.7565	1.9140, 1.8849		
3.0	1.5710						1.7745		
3.5	1.6726		1.6549	1.6360	1.6464	1.6801	1.7081		
4.0	1.7332		1.8522	1.7129	1.7462	1.7604	1.8119		
4.3	1.7370		1.7338	1.7725	1.7281	1.8032	1.7848		
4.5	1.7522		1.7333	1.7509	1.7458	1.7990	1.8509		
4.8	1.7799		1.7657	1.8284	1.7830	1.8224	1.7721		
5.0	1.8110		1.8465	1.8449	1.8669	1.7891	1.8573		
5.5	1.8357		1.8524	1.7921	1.8392	1.8427	1.8430		
6.0	1.8765		1.8394	1.8525	1.8526	1.8390	1.8276		
6.5	1.8889		1.8280	1.8534	1.8396	1.8704	1.8493		
7.0	1.9281		1.9191	1.8235	1.7723	1.7895	1.8723		
7.5	1.8884		1.9074	1.9636	1.8229	1.8788	1.8469		
8.0	1.8477		1.8501	1.8957	1.8970	1.7962	1.9030		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	1.7576*								
3.875	1.7555*								
4.125	1.7886								
4.375	1.8445	1.7905							
4.625	1.7966								
4.875	1.7933								
5.125	1.7941								
5.375	1.7875								
5.625	1.8326, 0.8317								
5.875	1.7801				0.8300				
6.125									
6.375	1.8697				1.8564	1.7563			
6.625	1.8223				1.8366	1.8416			
6.875	1.8557				1.8985	1.8487	1.8390		
7.125	1.8551				1.8696	1.8825	1.8399, 1.8939		
7.375	1.8608				1.8844	1.8590	1.8409		
					1.8991	1.8603	1.8233		
					1.9052				
									1.7786

WHITE OAK LABORATORY

WTR1421 RUN 10		TUNNEL T2 PRESSURE TEST		WTR1421 RUN 10	
PSI CONFIGURATION		PSI#1(PR/IO)	PSI#2(TC/1)		
ALPH	9.92 deg	PHI	337.62 deg	P0	14.88 psia
AVERAGED DATA		SCALE FACTOR:		1.0000	
		TO		128.19 degF	
		MACH		2.0	

z/d	theta:	352.6	367.6	382.6	397.6	412.6
0.5	337.6					
0.5	3.4370					
1.0	2.9300					
1.5	2.4380					
2.0	2.0925	2.2435	2.0445	1.8857	1.7720	1.7440, 3.1566
2.5	1.8733	1.6600	1.4885	1.3849	1.3636	1.5075, 2.5637
3.0	1.5585					1.4541
3.5	1.5861					
4.0	1.5534	1.3850	1.2061	1.1460	1.3217	1.6427
4.3	1.5248	1.3257	1.1987	1.2841	1.6689	1.8172
4.5	1.4927	1.2661	1.1345	1.4368	1.7367	1.8019
4.8	1.5008	1.2629	1.2127	1.6424	1.8151	1.8387
5.0	1.4830	1.3214	1.2802	1.8069	1.8589	1.7498
5.5	1.4889	1.3074	1.5752	1.8835	1.8423	
6.0	1.4710	1.3802	1.7137	1.8931	1.9368	1.8340
6.5	1.4436	1.5938	1.7907	1.8715	1.9522	1.8568
7.0	1.6313	1.7230	1.7862	1.8132	1.9832	1.8817
7.5	1.6710	1.7559	1.9560	1.8782	1.8782	1.8967
8.0	1.6820	1.6889	1.8977	1.8667	1.9324	1.8659
				1.8989	1.7473	1.7708

FLOW PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.9544*							
3.875	1.9549+							
4.125		2.0755						
4.375	2.12461	2.0737						
4.625		2.0890						
4.875		2.0629	2.1209					
5.125		2.0050	2.0904					
5.375		1.9802	2.0032	2.0626				
5.625	2.2671	0.0155	2.1161	2.1094				
5.875		1.9675	0.1186	0.1022	0.0619			
6.125			2.1040	2.0905				
6.375			2.1191	2.1484	2.1439	2.0298		
6.625		2.0303	2.1819	2.1825	2.1434	2.1184		
6.875		1.9543	2.1473	2.2000	2.2075	2.1223	2.0935	
7.125		1.9768	2.1066	2.2112	2.1627	2.1562	2.0905	2.3955
7.375		1.9569	2.1097	2.1781	2.1691	2.1132	2.0749	
		1.9540	2.0661	2.1997	2.1743	2.1220	2.0740	1.9953

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(JC/I)									
WTR1421 RUN 11	ALPH 14.94 deg	PHI	337.95 deg AVERAGED DATA	P0	14.89 psia SCALE FACTOR:	T0 128.35 degF	MACH	2.0	WTR1421 RUN 11
BODY PRESSURES (PSI)									
z/d	theta:	337.9	352.9	367.9	382.9	397.9	412.9		
0.5	3.5883								
1.0	3.0599								
1.5	2.5359								
2.0	2.1603		2.1640	1.8053	1.5224	1.3913		1.4287, 3.7391	
2.5	1.9221		1.5503	1.2298	0.9949	0.9124		1.2089, 3.0723	
3.0	1.5809							1.1979	
3.5	1.5665		1.2309	0.9037	0.6745	0.8335		1.3226	
4.0	1.5208		1.7942	0.8430	0.8884	1.1454		1.2049	
4.3	1.4925		1.1400	0.8811	0.9597	1.2524		1.0221	
4.5	1.4482		1.0625	0.8805	1.1337	1.2770		0.9939	
4.8	1.4551		1.0602	0.9801	1.4213	1.2908		0.9212	
5.0	1.4444		1.1217	1.0880	1.6187	1.2746		1.0619	
5.5	1.4067		1.0695	1.3787	1.5655	1.4288		1.2361	
6.0	1.3831		1.1057	1.5122	1.4416	1.6765		1.9225	
6.5	1.3263		1.1915	1.5878	1.5561	1.6938		1.6882	
7.0	1.2792		1.4572	1.6069	1.5912	1.5613		1.6861	
7.5	1.2074		1.6448	1.8040	1.6815	1.7082		1.6068	
8.0	1.2219		1.2414	1.8010	1.8050	1.6233		1.6386	

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.9469*							
3.875	1.9475+							
4.125	2.2275							
4.375	2.26871							
4.625	2.2164							
4.875	2.2243							
5.125	1.7827							
5.375	1.7091							
5.625	2.7083, 0.6929							
5.875	1.6086				0.2344			
6.125								
6.375	1.6487				2.3260	2.1908		
6.625	1.6625				2.3171	2.2835		
6.875	1.7276				2.3829	2.3234		
7.125	1.7192				2.3326	2.3722	2.2505	2.2365, 2.8723
7.375	1.7001				2.3421	2.3431	2.2516	
					2.3501	2.3709	2.2510	2.1211

WHITE OAK LABORATORY

WTR1421
RUN 12

WTR1421
DIN 12

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/1)

ALPH	-0.08 deg	PHI	360.23 deg	P0	14.88 ps/a	T0	128.43 degF	MACH	2.0
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BODY PRESSURES (PSI)

theta:	360.2	375.2	390.2	405.2	420.2	435.2
z/d	0.5					
1.0	3.1274					
1.5	2.6688					
2.0	2.2479					
2.5	1.9787					
3.0	1.8227	1.7945	1.7874	1.7816	1.7563	
3.5	1.6804	1.6690	1.6480	1.6617	1.6880	1.7040
4.0	1.7440	1.7680	1.7211	1.7522	1.7639	1.8152
4.5	1.7455	1.7411	1.7790	1.7350	1.8140	1.8046
5.0	1.7568	1.7371	1.7566	1.7541	1.8111	1.8616
5.5	1.7811	1.7690	1.8354	1.7894	1.8288	1.7766
6.0	1.8102	1.8484	1.8489	1.8736	1.7897	1.8635
6.5	1.8378	1.8529	1.7931	1.8374	1.8425	1.8412
7.0	1.8789	1.8405	1.8496	1.8485	1.8401	1.8273
7.5	1.8844	1.8244	1.8455	1.8344	1.8640	1.8413
8.0	1.9161	1.9049	1.8101	1.7610	1.7827	1.8599
8.5	1.8869	1.9046	1.9535	1.8119	1.8682	1.8355
9.0	1.8508	1.8531	1.8993	1.9004	1.7916	1.8981

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7761*							
3.875	1.7741+							
4.125	1.8001							
4.375	1.85031	1.8021						
4.625	1.8045		1.8521					
4.875	1.8042							
5.125	1.7986		1.8008	1.8048				
5.375	1.7868		1.8261	1.8442				
5.625	1.8409, 0.8307		0.8233	0.8219	0.8282			
5.875	1.7792		1.7936	1.8023				
6.125			1.7998	1.8228	1.8555	1.7563		
6.375	1.8621		1.8607	1.8442	1.8308	1.6388		
6.625	1.8121		1.8617	1.8657	1.8901	1.8424	1.8341	
6.875	1.8442		1.8394	1.8854	1.8583	1.8737	1.8276, 1.8941	
7.125	1.8438		1.8602	1.8559	1.8730	1.8357	1.8225	
7.375	1.8566		1.8653	1.8881	1.8815	1.8437	1.8172	1.7893

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
WTR1421 RUN 14	ALPH	9.92 deg	PHI	359.96 deg AVERAGED DATA	P0	14.89 psia SCALE FACTOR:	T0 128.52 degf 1.0000	MACH	2.0
BODY PRESSURES (PSI)									
z/d	theta:	360.0	375.0	390.0	405.0	420.0	435.0		
0.5	2.9519								
1.0	2.4937								
1.5	2.0591								
2.0	1.7685		1.9378	1.8375	1.7979	1.7788	1.7905, 3.1514		
2.5	1.5862		1.4400	1.3874	1.4204	1.4700	1.5864, 2.5675		
3.0	1.2984						1.5567		
3.5	1.3067		1.2109	1.1993	1.3539	1.5316	1.6271		
4.0	1.2863		1.7388	1.2575	1.5301	1.6465	1.7548		
4.3	1.2486		1.1691	1.3729	1.5557	1.6839	1.7285		
4.5	1.2054		1.1199	1.3709	1.5855	1.7032	1.7724		
4.8	1.2038		1.1494	1.5222	1.6520	1.7232	1.6813		
5.0	1.1918		1.2513	1.5799	1.7499	1.6793	1.7651		
5.5	1.1871		1.4067	1.5843	1.7378	1.7476	1.7540		
6.0	1.2461		1.4661	1.6531	1.7420	1.7374	1.7312		
6.5	1.3518		1.5026	1.6824	1.7123	1.7643	1.7228		
7.0	1.4294		1.6092	1.6527	1.6339	1.6519	1.7136		
7.5	1.4347		1.6274	1.8064	1.6870	1.7117	1.6734		
8.0	1.4452		1.4587	1.7611	1.7660	1.6673	1.7299		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	1.7913*								
3.875	1.7893*								
4.125	1.8542								
4.375	1.92151	1.8553							
4.625	1.8894								
4.875	1.8799								
5.125	1.8552								
5.375	1.8467								
5.625	2.0542, 0.8928								
5.875	1.8403				0.9067				
6.125									
6.375	1.9001				1.9577	1.8514			
6.625	1.8330				1.9329	1.9366			
6.875	1.8472				1.9870	1.9335	1.9260		
7.125	1.8277				1.9552	1.9649	1.9212, 2.0063		
7.375	1.8187				1.9635	1.9236	1.9067		
					1.9692	1.9275	1.8871	1.8526	

WHITE OAK LABORATORY

WTR1421
RUN 15TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)WTR1421
RUN 15WTR1421
RUN 15ALPH 14.95 deg PHI 360.60 deg P0 14.91 psia T0 128.55 degF MACH 2.0
AVERAGED DATA SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	360.6	375.6	390.6	405.6	420.6	435.6
0.5	2.7801						
1.0	2.3036						
1.5	1.8746		1.6080	1.4584	1.4543	1.5258	1.6345, 3.7228
2.0	1.5808						1.4640, 3.0448
2.5	1.3778		1.0979	0.9568	1.0804	1.3123	1.4601
3.0	1.0824						
3.5	1.0464						
4.0	0.9875		0.7788	0.7046	1.0056	1.3629	1.4612
4.3	0.9322		1.7111	0.8094	1.0221	1.3806	1.5242
4.5	0.8750		0.7288	0.9778	1.0549	1.3359	1.4558
4.8	0.8810		0.7408	1.0104	1.0508	1.2377	1.5115
5.0	0.8400		0.7995	1.1823	1.1188	1.1215	1.4039
5.5	0.8556		0.9641	1.2843	1.2356	0.9495	1.4619
6.0	1.0692		1.1941	1.2896	1.2403	0.8901	1.4541
6.5	1.2802		1.3075	1.3844	1.2452	0.8801	1.4728
7.0	1.4293		1.3853	1.3847	1.1890	1.0214	1.4327
7.5	1.4507		1.4890	1.3488	1.1767	1.0370	1.3548
8.0	1.4436		1.5003	1.5102	1.2966	1.2922	1.2662
			1.4572	1.4886	1.5010	1.4005	1.4309

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	1.7658*							
3.875	1.7637+							
4.125	1.8930							
4.375	1.9620							
4.625	1.9144							
4.875	1.9247							
5.125	1.8116							
5.375	1.8009							
5.625	2.3888, 0.8197							
5.875	1.7149				0.9145			
6.125								
6.375	1.6992				1.9509	1.8666		
6.625	1.6006				1.9287	1.9487		
6.875	1.5844				1.9836	1.9578		
7.125	1.5340				1.9321	1.9805	1.9510	
7.375	1.5062				1.9198	1.9292	1.9475, 2.2543	
					1.8978	1.9270	1.9287	
							1.9049	1.8627

WHITE OAK LABORATORY									
WTR1421 RUN 24					TUNNEL T2 PRESSURE TEST				
ALPH -0.06 deg					PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)				
PIII					-1.81 deg				
theta:					PO 14.83 psia				
z/d					SCALE FACTOR: 1.0000				
					TO 105.57 degf				
					MACH 3.0				
					BODY PRESSURES (PSI)				
					13.2	28.2	43.2	58.2	73.2
0.5	0.9368								
1.0	0.7468								
1.5	0.5992				0.5952	0.5965	0.5916	0.5948	0.5813, 0.5871
2.0	0.4628								0.4606, 0.4667
2.5	0.4073				0.4130	0.4053	0.4035	0.4015	0.3958
3.0	0.3510								
3.5	0.3373				0.3418	0.3514	0.3517	0.3532	0.3550
4.0	0.3507				0.3530	0.3556	0.3537	0.3553	0.3535
4.3	0.3581				0.3586	0.3543	0.3633	0.3553	0.3604
4.5	0.3651				0.3679	0.3691	0.3698	0.3627	0.3617
4.8	0.3716				0.3723	0.3639	0.3740	0.3683	0.3771
5.0	0.3760				0.3679	0.3681	0.3721	0.3804	0.3745
5.5	0.3845				0.3816	0.3911	0.3830	0.3814	0.3853
6.0	0.3848				0.3905	0.3872	0.3892	0.3900	0.3878
6.5	0.3838				0.3901	0.3929	0.3961	0.3886	0.3959
7.0	0.3880				0.3904	0.4010	0.4049	0.4031	0.3995
7.5	0.3908				0.3910	0.3861	0.4005	0.3978	0.4056
8.0	0.4150				0.4492	0.4120	0.4453	0.3750	0.3460

WING PRESSURES (PSI)

					0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
z/d										
r/d:										
3.625	0.3994*				0.3915					
3.875	0.3808*				0.3946					
4.125	0.3772				0.4188	0.3964				
4.375	0.36551	0.3941			0.3822	0.3831				
4.625	0.4023				0.3835	0.3837	0.3045			
4.875	0.3900				0.3851	0.3859				
5.125	0.3988				0.3884	0.3927	0.3942	0.3791		
5.375	0.3806				0.4001	0.3972	0.3930	0.3895		
5.625	0.3888	0.3870			0.4000	0.4026	0.4034	0.3974	0.3792	
5.875	0.3859				0.3989	0.4083	0.4016	0.4035	0.3693, 0.3835	
6.125					0.3976	0.3980	0.3959	0.3949	0.3947	
6.375	0.3979				0.3922	0.3946	0.3910	0.3920	0.3884	0.3614
6.625	0.3972									
6.875	0.3961									
7.125	0.3998									
7.375	0.4072									

[illegible]

WTR1421
RUN 26

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)

ALPH 9.93 deg PHI -1.83 deg PO 14.81 psia TO 106.06 degF MACH 3.0

SCALE FACTOR: 1.0000

theta: -1.8

z/d	theta	13.2	28.2	43.2	58.2	73.2
0.5	0.8811					
1.0	0.6968					
1.5	0.5480					
2.0	0.4173	0.4689	0.4163	0.3853	0.3779	0.3742, 0.9678
2.5	0.3565	0.3052	0.2645	0.2624	0.2719	0.3080, 0.7654
3.0	0.2839					0.2781
3.5	0.2519	0.2154	0.2342	0.2405	0.2460	0.2643
4.0	0.2440	0.2149	0.2346	0.2352	0.2263	0.2766
4.3	0.2412	0.2186	0.2322	0.2414	0.2192	0.2958
4.5	0.2307	0.2215	0.2371	0.2364	0.2197	0.3314
4.8	0.2292	0.2290	0.2346	0.2392	0.2226	0.3330
5.0	0.2224	0.2303	0.2366	0.2404	0.2349	0.3255
5.5	0.2289	0.2404	0.2633	0.2559	0.2395	0.3266
6.0	0.2215	0.2461	0.2641	0.2712	0.2478	0.3203
6.5	0.2309	0.2493	0.2573	0.2897	0.2600	0.3202
7.0	0.2480	0.2580	0.2629	0.3031	0.2847	0.3148
7.5	0.2655	0.2685	0.2598	0.2929	0.2876	0.3126
8.0	0.2993	0.3374	0.2935	0.3305	0.2617	0.2807

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3684*							
3.875	0.3493+							
4.125	0.3715							
4.375	0.36991	0.3882						
4.625	0.4076							
4.875	0.3953							
5.125	0.3834							
5.375	0.3672			0.4019				
5.625	0.5236	0.3742		0.3964				
5.875	0.3687			0.3974	0.3957			
6.125				0.4019	0.4091	0.3997		
6.375	0.3748			0.4051	0.4056	0.4071		
6.625	0.3718			0.4077	0.4135	0.4077	0.4066	
6.875	0.3633			0.4142	0.4121	0.4125	0.4067, 0.4878	
7.125	0.3598			0.3978	0.4064	0.4016	0.3981	
7.375	0.3533			0.3922	0.4017	0.4014	0.3957	0.3889

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	14.91 deg	PHI	-1.79 deg	P0	14.81 psia	10	106.51 degF	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	13.2	28.2	43.2	58.2	73.2			
0.5	-1.8								
1.0	0.8361								
1.5	0.6530								
2.0	0.5100	0.3908	0.3095	0.2794	0.2957	0.3057, 1.2293			
2.5	0.3883					0.2452, 0.9814			
3.0	0.3284	0.2408	0.1775	0.1949	0.2011	0.2056			
3.5	0.2538								
4.0	0.2196	0.1540	0.1672	0.1696	0.1544	0.1724			
4.3	0.2100	0.1491	0.1714	0.1680	0.1459	0.1807			
4.5	0.2042	0.1516	0.1702	0.1681	0.1552	0.1756			
4.8	0.1925	0.1503	0.1712	0.1662	0.1662	0.1805			
5.0	0.1914	0.1605	0.1723	0.1757	0.1679	0.1777			
5.5	0.1977	0.1710	0.1796	0.1867	0.1741	0.1853			
6.0	0.1887	0.1915	0.2003	0.2071	0.1909	0.1960			
6.5	0.1843	0.2053	0.2065	0.2162	0.2023	0.1971			
7.0	0.1917	0.2172	0.2155	0.2140	0.2024	0.2038			
7.5	0.2094	0.2259	0.2273	0.2147	0.2049	0.2027			
8.0	0.2289	0.2350	0.2333	0.2212	0.2099	0.2124			
	0.2511	0.2907	0.2548	0.2927	0.2050	0.2169			
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.3313*								
3.875	0.3116+								
4.125	0.3409								
4.375	0.33871	0.3579							
4.625	0.3582	0.3653							
4.875	0.3951	0.3502							
5.125	0.2738	0.2959	0.4016						
5.375	0.2446	0.2836	0.3695						
5.625	0.6708, 0.2398	0.2643	0.3532	0.3934					
5.875	0.2303	0.2437	0.3427						
6.125		0.2248	0.3264	0.3984	0.4043				
6.375	0.2297	0.2174	0.3090	0.3873	0.4146				
6.625	0.2255	0.2039	0.2871	0.3881	0.4166				
6.875	0.2133	0.1804	0.2642	0.3616	0.4139				
7.125	0.2140	0.1732	0.2236	0.3362	0.3901				
7.375	0.2114	0.1708	0.2082	0.3166	0.3847				
							0.4201		
							0.4210, 0.6184		
							0.4068		
							0.4034	0.4000	

WHITE OAK LABORATORY

WIR1421
RUN 28

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH -0.09 deg PIH 20.6 theta: 0.9288 0.5
20.56 deg 35.6 50.6 65.6 80.6 95.6
AVERAGED DATA

SCALE FACTOR: 1.0000

WIR1421
RUN 28

MACH 3.0

BODY PRESSURES (PSI)

z/d	theta:	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.3	4.5	4.8	5.0	5.5	6.0	6.5	7.0	7.5	8.0
0.5	0.9288																		
1.0	0.7376																		
1.5	0.5885																		
2.0	0.4630																		
2.5	0.4101																		
3.0	0.3412																		
3.5	0.3377																		
4.0	0.3499																		
4.3	0.3544																		
4.5	0.3605																		
4.8	0.3665																		
5.0	0.3718																		
5.5	0.3800																		
6.0	0.3827																		
6.5	0.3846																		
7.0	0.3885																		
7.5	0.3903																		
8.0	0.4095																		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3926*							
3.875	0.3744*							
4.125	0.3702							
4.375	0.36021							
4.625	0.3947							
4.875	0.3807							
5.125	0.3940							
5.375	0.3751							
5.625	0.3853							
5.875	0.3795							
6.125	0.3963							
6.375	0.3915							
6.625	0.3901							
6.875	0.3935							
7.125	0.3978							
7.375								

WHITE OAK LABORATORY

WTR1421
RUN 29

ALPH 4.92 deg PHI 20.76 deg PO 14.80 psia TO 107.09 degF MACH 3.0

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

AVERAGED DATA SCALE FACTOR: 1.0000

WTR1421
RUN 29

BODY PRESSURES (PSI)

z/d	theta:	35.8	50.8	65.8	80.8	95.8
0.5	0.8293					
1.0	0.6561					
1.5	0.5205	0.4969	0.4823	0.4688	0.4663	0.4603, 0.7221
2.0	0.4077					0.3711, 0.5601
2.5	0.3612	0.3485	0.3349	0.3315	0.3295	0.3290
3.0	0.2975					
3.5	0.2904	0.2927	0.3027	0.3034	0.3055	0.2974
4.0	0.2984	0.3014	0.3062	0.3068	0.3078	0.2969
4.3	0.3015	0.3046	0.3058	0.3126	0.3104	0.3048
4.5	0.3028	0.3057	0.3125	0.3139	0.3158	0.3159
4.8	0.3064	0.3093	0.3113	0.3176	0.3231	0.3276
5.0	0.3084	0.3089	0.3106	0.3213	0.3297	0.3348
5.5	0.3134	0.3147	0.3240	0.3321	0.3466	0.3525
6.0	0.3080	0.3160	0.3218	0.3506	0.3636	0.3616
6.5	0.3030	0.3135	0.3345	0.3625	0.3653	0.3715
7.0	0.3096	0.3223	0.3488	0.3670	0.3730	0.3764
7.5	0.3095	0.3281	0.3480	0.3651	0.3720	0.3766
8.0	0.3367	0.3737	0.3708	0.4053	0.3520	0.3645

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.2807*							
3.875	0.2600*							
4.125	0.25421	0.2539						
4.625	0.3454	0.2828						
4.875	0.2443	0.3371						
5.125	0.3597	0.3805						
5.375	0.3454	0.3472						
5.625	0.3798, 0.3565	0.3506						
5.875	0.3562	0.3547		0.2379				
6.125		0.3586		0.3021	0.2453			
6.375	0.3765	0.3724		0.3583	0.2558			
6.625	0.3735	0.3745		0.3810	0.2602			
6.875	0.3707	0.3685		0.3776	0.2654	0.2672, 0.2524		
7.125	0.3757	0.3702		0.3719	0.2511	0.2511		
7.375	0.3732	0.3694		0.3707	0.2577	0.2577	0.2577	

WILTE OAK LABORATORY

WTR1421
- RUN 30

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PS#1(PR/10) PS#2(TC/1)

WIR 1421
RUN 30

ALPHI	9.93 deg	PHI1	20.76 deg	P0	14.80 psia	T0	107.19 degF	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									

BODY PRESSURES (PSI)

z/d	theta:	20.8	35.8	50.8	65.8	80.8	95.8
0.5		0.7115					
1.0		0.5536					
1.5		0.4301					
2.0		0.3301					
2.5		0.2841					
3.0		0.2187					
3.5		0.2100					
4.0		0.2143					
4.3		0.2149					
4.5		0.2114					
4.8		0.2119					
5.0		0.2126					
5.5		0.2208					
6.0		0.2208					
6.5		0.2219					
7.0		0.2251					
7.5		0.2260					
8.0		0.2502					
		0.7115	0.3947	0.3802	0.3773	0.3799	0.3760
		0.5536					0.3101
		0.4301	0.2666	0.2679	0.2768	0.2844	0.2833
		0.3301					
		0.2841					
		0.2187					
		0.2100	0.2275	0.2395	0.2428	0.2973	0.2689
		0.2143	0.2262	0.2275	0.2217	0.2916	0.2715
		0.2149	0.2239	0.2209	0.2152	0.2921	0.2797
		0.2114	0.2163	0.2190	0.2004	0.2984	0.2903
		0.2119	0.2162	0.2166	0.2012	0.2998	0.3012
		0.2126	0.2141	0.2141	0.2088	0.3018	0.3138
		0.2208	0.2228	0.2290	0.2120	0.3128	0.3321
		0.2208	0.2255	0.2222	0.2078	0.3146	0.3371
		0.2219	0.2233	0.2206	0.2060	0.3041	0.3404
		0.2251	0.2296	0.2220	0.2053	0.2976	0.3380
		0.2260	0.2400	0.2252	0.2101	0.2835	0.3292
		0.2502	0.2897	0.2570	0.2945	0.2689	0.3395

WING PRESSURE. (PSI) .

z/d	v/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.2348*							
3.875	0.2136†							
4.125	0.1814							
4.375	0.16761	0.2001						
4.625	0.2514		0.1978					
4.875	0.1975		0.2424					
5.125	0.3489		0.3700	0.2053				
5.375	0.3331		0.3405	0.1912				
5.625	0.4215	0.3416	0.3427	0.2599	0.1944			
5.875	0.3394		0.3447	0.3287				
6.125			0.3471	0.3586	0.2197	0.1999		
6.375	0.3545		0.3579	0.3630	0.3070	0.2090		
6.625	0.3471		0.3560	0.3632	0.3627	0.2020	0.2180	
6.875	0.3395		0.3459	0.3663	0.3653	0.2621	0.2180, 0.2334	
7.125	0.3416		0.3450	0.3491	0.3570	0.3188	0.1963	
7.375	0.3399		0.3410	0.3491	0.3541	0.3425	0.2055	0.2115

WHITE OAK LABORATORY

WTR1421
RUN 31

ALPH 14.94 deg PHI 21.03 deg
AVERAGED DATA

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSIN1(PR/10) PSIN2(TC/1)

P0 14.79 psia
SCALE FACTOR: 1.0000

TO 107.31 degF

MACH 3.0

WTR1421
RUN 31

BODY PRESSURES (PSI)

z/d	theta:	21.0	36.0	51.0	66.0	81.0	96.0
0.5	0.5855						
1.0	0.4419						
1.5	0.3313		0.2807	0.2863	0.3035	0.3130	0.3117, 1.0708
2.0	0.2457						0.2615, 0.8413
2.5	0.2043		0.1912	0.1985	0.2019	0.2446	0.2532
3.0	0.1464						
3.5	0.1373		0.1564	0.1650	0.1442	0.2791	0.2810
4.0	0.1556		0.1636	0.1647	0.1425	0.2534	0.2383
4.3	0.1613		0.1640	0.1617	0.1481	0.2363	0.2428
4.5	0.1603		0.1564	0.1565	0.1448	0.2375	0.2479
4.8	0.1630		0.1593	0.1565	0.1493	0.2372	0.2521
5.0	0.1645		0.1630	0.1570	0.1582	0.2252	0.2633
5.5	0.1766		0.1767	0.1752	0.1693	0.2219	0.2731
6.0	0.1801		0.1828	0.1758	0.1729	0.2128	0.2655
6.5	0.1850		0.1840	0.1799	0.1729	0.1913	0.2550
7.0	0.1910		0.1909	0.1856	0.1766	0.1771	0.2406
7.5	0.1973		0.1966	0.1887	0.1799	0.1692	0.2259
8.0	0.2188		0.2591	0.2093	0.2483	0.1683	0.2122

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.2344*							
3.875	0.2132*							
4.125	0.1569							
4.375	0.13941	0.1761						
4.625	0.1925							
4.875	0.1607							
5.125	0.3119							
5.375	0.2957							
5.625	0.4911	0.3003						
5.875	0.2863				0.1526			
6.125								
6.375	0.2884					0.1531		
6.625	0.2772					0.1609		
6.875	0.2635					0.1514	0.1628	
7.125	0.2605					0.1780	0.1613, 0.2703	
7.375	0.2544					0.2287	0.1403	
						0.2938	0.1450	0.1492

WHITE OAK LABORATORY									
TUNNEL 12 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	-0.09 deg	PHI	43.31 deg	PO	14.83 psia	TO	107.49 degF	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	43.3	58.3	73.3	88.3	103.3	118.3		
0.5		0.9225							
1.0		0.7306							
1.5		0.5811	0.5866	0.5891	0.5868	0.5849	0.5747, 0.5954		
2.0		0.4614					0.4529, 0.4582		
2.5		0.4097	0.4080	0.3984	0.3953	0.3922	0.3922		
3.0		0.3384							
3.5		0.3373	0.3374	0.3433	0.3418	0.3457	0.3463		
4.0		0.3498	0.3487	0.3488	0.3489	0.3503	0.3514		
4.3		0.3530	0.3526	0.3517	0.3536	0.3543	0.3541		
4.5		0.3594	0.3570	0.3607	0.3592	0.3577	0.3579		
4.8		0.3656	0.3633	0.3650	0.3662	0.3672	0.3650		
5.0		0.3710	0.3690	0.3683	0.3765	0.3689	0.3746		
5.5		0.3784	0.3778	0.3816	0.3788	0.3769	0.3812		
6.0		0.3820	0.3843	0.3830	0.3842	0.3835	0.3827		
6.5		0.3851	0.3863	0.3875	0.3881	0.3856	0.3906		
7.0		0.3879	0.3891	0.3913	0.3926	0.3917	0.3952		
7.5		0.3902	0.3911	0.3915	0.3921	0.3967	0.3963		
8.0		0.4060	0.4405	0.4105	0.4437	0.3741	0.3467		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3849*							
3.875	0.3663†							
4.125	0.3602							
4.375	0.3531†	0.3768						
4.625	0.3668							
4.875	0.3680							
5.125	0.3908							
5.375	0.3732			0.3747				
5.625	0.3821, 0.3823			0.3764				
5.875	0.3763			0.3739	0.3557			
6.125				0.3789				
6.375	0.3945			0.3888	0.3949	0.3420		
6.625	0.3875			0.3955	0.3949	0.3639		
6.875	0.3858			0.3954	0.4017	0.3902	0.3409	
7.125	0.3890			0.3877	0.3952	0.4024	0.3348, 0.3586	
7.375	0.3876			0.3875	0.3896	0.3877	0.3719	
				0.3895	0.3887	0.3841	0.3829	0.3280

WHITE OAK LABORATORY										WTR1421
TUNNEL T2 PRESSURE TEST										RUN 33
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)										
ALPH	4.95 deg	PHI	43.64 deg	PO	14.87 psia	TO	107.59 degF	MACH	3.0	
AVERAGED DATA										
SCALE FACTOR: 1.0000										
BODY PRESSURES (PSI)										
z/d	theta:	43.6	58.6	73.6	88.6	103.6	118.6			
0.5		0.7653								
1.0		0.6061								
1.5		0.4820								
2.0		0.3827	0.4721	0.4677	0.4679	0.4669	0.4675, 0.6706			
2.5		0.3456	0.3400	0.3332	0.3321	0.3285	0.3725, 0.5146			
3.0		0.2883					0.3285			
3.5		0.2934	0.2983	0.3064	0.3034	0.2966	0.2808			
4.0		0.3037	0.3073	0.3106	0.3095	0.2968	0.2656			
4.3		0.3058	0.3099	0.3120	0.3155	0.3016	0.2646			
4.5		0.3069	0.3085	0.3174	0.3182	0.3072	0.2800			
4.8		0.3081	0.3099	0.3177	0.3244	0.3134	0.2920			
5.0		0.3078	0.3094	0.3209	0.3325	0.3160	0.3020			
5.5		0.3119	0.3238	0.3455	0.3361	0.3274	0.3203			
6.0		0.3126	0.3353	0.3441	0.3421	0.3369	0.3308			
6.5		0.3177	0.3336	0.3427	0.3458	0.3383	0.3425			
7.0		0.3212	0.3335	0.3436	0.3484	0.3450	0.3501			
7.5		0.3215	0.3321	0.3425	0.3462	0.3498	0.3503			
8.0		0.3376	0.3744	0.3555	0.3904	0.3430	0.3717			
WING PRESSURES (PSI)										
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435		
3.625	0.2135*									
3.875	0.1919*									
4.125	0.1694									
4.375	0.15621	0.1887								
4.625	0.1928	0.1865								
4.875	0.1764	0.1840								
5.125	0.3224	0.3434								
5.375	0.3128	0.3030								
5.625	0.3339, 0.3254	0.3240								
5.875	0.3239	0.3294		0.1742						
6.125		0.3326		0.2103						
6.375	0.3476	0.3465		0.2904	0.1780	0.1788				
6.625	0.3446	0.3497		0.3400	0.1766	0.1917				
6.875	0.3427	0.3422		0.3545	0.2131	0.1861	0.1979			
7.125	0.3481	0.3430		0.3597	0.2828	0.1786	0.1992, 0.1906			
7.375	0.3580	0.3432		0.3453	0.3298	0.1635	0.1826			
				0.3477	0.3470	0.1917	0.1748	0.1918		

WHITE OAK LABORATORY

WIR1421
RUN 34

ALPHI 9.96 deg PHII 43.72 deg
TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)

PO 14.90 psia TO 107.88 degF
SCALE FACTOR: 1.0000

MACH 3.0

theta: 43.7

z/d 0.5 0.6163
1.0 0.4793
1.5 0.3770
2.0 0.2987
2.5 0.2722
3.0 0.2288
3.5 0.2291
4.0 0.2255
4.3 0.2224
4.5 0.2162
4.8 0.2149
5.0 0.2121
5.5 0.2219
6.0 0.2236
6.5 0.2216
7.0 0.2214
7.5 0.2200
8.0 0.2380

58.7 73.7 88.7 103.7 118.7

0.3755 0.3799 0.3824 0.3790 0.3730, 0.7449
0.2799 0.2838 0.2898 0.2794 0.3015, 0.5725
0.2338 0.2598 0.2925 0.2550 0.2219
0.2207 0.2636 0.2982 0.2707 0.1809
0.2105 0.2870 0.3023 0.2760 0.1688
0.1945 0.3035 0.3028 0.2818 0.1768
0.1927 0.3133 0.3054 0.2788 0.1900
0.1975 0.2984 0.3049 0.2679 0.2113
0.2118 0.2940 0.2946 0.2585 0.2417
0.2146 0.2665 0.2867 0.2625 0.2739
0.2138 0.2442 0.2799 0.2747 0.2931
0.2198 0.2257 0.2801 0.2862 0.3049
0.2227 0.2203 0.2786 0.2950 0.3056
0.2779 0.2362 0.2745 0.3312 0.3668

WING PRESSURES (PSI)

z/d r/d: 0.5935 0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

3.625 0.1327*
3.875 0.1100+
4.125 0.0897
4.375 0.07961 0.1099
4.625 0.1170
4.875 0.1149
5.125 0.2401
5.375 0.2541
5.625 0.2705, 0.2960
5.875 0.3125
6.125 0.3201
6.375 0.3116
6.625 0.3045
6.875 0.3087
7.125 0.3133
7.375 0.3052

0.1113
0.1072
0.2629
0.1444
0.1961
0.2407
0.2733
0.3040
0.3120
0.3040
0.3049
0.3052

0.1232
0.1150
0.1037
0.1135
0.1232
0.1157
0.1279
0.1561
0.1889
0.2299

0.1127
0.1300
0.1286
0.1291
0.1073
0.1142

0.1284
0.1322, 0.1451
0.1209
0.1274
0.1256

WHITE OAK LABORATORY

WTR1421
RUN 35

ALPH 14.93 deg PHI 43.72 deg
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL 12 PRESSURE TEST

PO 14.91 psia
SCALE FACTOR: 1.0000

TO 107.66 degF

MACH 3.0

WTR1421
RUN 35

43.72 deg
AVERAGED DATA

58.7 73.7 88.7 103.7 118.7

0.2954 0.3097 0.3245 0.3087 0.2950, 0.8334
0.2081 0.2070 0.2688 0.2102 0.2357, 0.6420
0.2072

0.1393 0.1778 0.2647 0.2173 0.1615
0.1369 0.1791 0.2499 0.1998 0.0953
0.1442 0.1806 0.2469 0.1985 0.0967
0.1385 0.1652 0.2385 0.1925 0.1080
0.1429 0.1649 0.2422 0.1860 0.1115
0.1514 0.1624 0.2503 0.1797 0.1314
0.1719 0.1730 0.2353 0.1899 0.1692
0.1765 0.1707 0.2133 0.1879 0.1935
0.1734 0.1736 0.2003 0.1990 0.2059
0.1781 0.1773 0.1927 0.2027 0.2072
0.1781 0.1812 0.1915 0.2114 0.2132
0.2327 0.2051 0.2442 0.2557 0.2680

z/d theta: 43.7
0.5 0.4657
1.0 0.3544
1.5 0.2705
2.0 0.2220
2.5 0.2055
3.0 0.1624
3.5 0.1571
4.0 0.1585
4.3 0.1537
4.5 0.1462
4.8 0.1509
5.0 0.1581
5.5 0.1780
6.0 0.1819
6.5 0.1835
7.0 0.1841
7.5 0.1775
8.0 0.1914

z/d r/d: 0.5935
3.625 0.1635*
3.875 0.1416+
4.125 0.0987
4.375 0.07761 0.1189
4.625 0.1237
4.875 0.0952
5.125 0.1937
5.375 0.1858
5.625 0.2121, 0.2015
5.875 0.1990
6.125
6.375 0.2402
6.625 0.2403
6.875 0.2385
7.125 0.2405
7.375 0.2378

WING PRESSURES (PSI)

0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

0.1096
0.1145
0.2169
0.1493
0.1755
0.1983
0.2163
0.2432
0.2584
0.2549
0.2562
0.2550

0.1032
0.0874
0.0806
0.0928
0.1174
0.0838
0.0815
0.1392
0.1753
0.2100
0.2178
0.2331

0.0841

0.0895
0.0923, 0.1311
0.0806
0.0896

0.0764
0.0926
0.0906
0.0896
0.0720
0.0841

0.0869

WHITE OAK LABORATORY									
TUNNEL 12 PRESSURE TEST					WTR1421				
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)					RUN 36				
ALPH	-0.06 deg	PHI	65.59 deg	P0	14.91 psia	TO	107.40 degF	MACH	3.0
AVERAGED DATA			SCALE FACTOR: 1.0000						
BODY PRESSURES (PSI)									
z/d	theta:	80.6	95.6	110.6	125.6	140.6			
0.5	0.9193								
1.0	0.7276								
1.5	0.5779	0.5858	0.5889	0.5876	0.5854	0.5772, 0.5973			
2.0	0.4597					0.4552, 0.4579			
2.5	0.4098	0.4063	0.3985	0.3962	0.3928	0.3954			
3.0	0.3363								
3.5	0.3373	0.3376	0.3424	0.3410	0.3461	0.3462			
4.0	0.3498	0.3485	0.3487	0.3490	0.3499	0.3515			
4.3	0.3531	0.3525	0.3521	0.3527	0.3543	0.3522			
4.5	0.3595	0.3566	0.3609	0.3587	0.3579	0.3580			
4.8	0.3656	0.3629	0.3666	0.3666	0.3684	0.3639			
5.0	0.3710	0.3707	0.3702	0.3786	0.3679	0.3770			
5.5	0.3786	0.3783	0.3811	0.3788	0.3767	0.3815			
6.0	0.3826	0.3845	0.3832	0.3838	0.3829	0.3826			
6.5	0.3859	0.3846	0.3872	0.3876	0.3861	0.3928			
7.0	0.3883	0.3899	0.3904	0.3910	0.3905	0.3934			
7.5	0.3912	0.3916	0.3931	0.3897	0.3933	0.3911			
8.0	0.4064	0.4411	0.4109	0.4445	0.3715	0.3473			

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3802*							
3.875	0.3616+							
4.125	0.3541							
4.375	0.34671	0.3706						
4.625	0.3844							
4.875	0.3561							
5.125	0.3915							
5.375	0.3740							
5.625	0.3804, 0.3821							
5.875	0.3737				0.3447			
6.125								
6.375	0.3951				0.3918	0.3238		
6.625	0.3875				0.3910	0.3458		
6.875	0.3841				0.4006	0.3746	0.3293	
7.125	0.3856				0.3920	0.4049	0.3266, 0.3378	
7.375	0.3917				0.3857	0.3856	0.3392	
					0.3862	0.3807	0.3763	0.3169

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	4.95 deg	PHI	65.84 deg	P0	14.90 psia	TO	107.40 degf	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	65.8	80.8	95.8	110.8	125.8	140.8		
0.5		0.7271							
1.0		0.5773							
1.5		0.4614	0.4647	0.4665	0.4684	0.4790		0.4880, 0.6037	
2.0		0.3725						0.3848, 0.4625	
2.5		0.3408	0.3393	0.3337	0.3306	0.3284		0.3345	
3.0		0.2920							
3.5		0.3002	0.3029	0.3078	0.2997	0.2903		0.2729	
4.0		0.3104	0.3138	0.3118	0.2991	0.2816		0.2568	
4.3		0.3120	0.3175	0.3149	0.3009	0.2767		0.2592	
4.5		0.3131	0.3201	0.3241	0.3032	0.2751		0.2579	
4.8		0.3152	0.3276	0.3309	0.3128	0.2843		0.2576	
5.0		0.3200	0.3358	0.3365	0.3243	0.2899		0.2701	
5.5		0.3413	0.3514	0.3524	0.3287	0.3022		0.2924	
6.0		0.3460	0.3509	0.3430	0.3325	0.3133		0.3008	
6.5		0.3417	0.3415	0.3374	0.3327	0.3186		0.3198	
7.0		0.3312	0.3365	0.3362	0.3360	0.3233		0.3268	
7.5		0.3291	0.3340	0.3348	0.3281	0.3273		0.3277	
8.0		0.3413	0.3779	0.3488	0.3840	0.3294		0.3675	

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.1563*							
3.875	0.1344+							
4.125	0.1252							
4.375	0.11261	0.1449						
4.625	0.1483							
4.875	0.1475							
5.125	0.2897							
5.375	0.2790							
5.625	0.2965	0.2915						
5.875	0.2906				0.1396			
6.125								
6.375	0.3233				0.1487	0.1413		
6.625	0.3208				0.1419	0.1562		
6.875	0.3188				0.1454	0.1529	0.1591	
7.125	0.3246				0.1386	0.1522	0.1625, 0.1530	
7.375	0.3235				0.1527	0.1317	0.1465	
					0.1965	0.1283	0.1446	0.1529

WTR1421 RUN 38		WHITE OAK LABORATORY				TUNNEL 12 PRESSURE TEST				WTR1421 RUN 38			
ALPH		PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)				PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)				MACH			
9.94 deg		65.74 deg				14.91 psia				107.46 deg			
PIII		AVERAGED DATA				SCALE FACTOR:				1.0000			
theta:		80.7				110.7				125.7			
z/d		0.5				0.3778				0.3762			
0.5		0.5679				0.3799				0.3843, 0.5902			
1.0		0.4565				0.2875				0.2975, 0.4455			
1.5		0.3687				0.2874				0.2532			
2.0		0.3051				0.2875				0.2001			
2.5		0.2869				0.2874				0.1686			
3.0		0.2423				0.2875				0.1528			
3.5		0.2342				0.2874				0.1381			
4.0		0.2196				0.2874				0.1358			
4.3		0.2088				0.2874				0.1409			
4.5		0.1954				0.2874				0.1743			
4.8		0.2067				0.2874				0.1891			
5.0		0.2415				0.2874				0.2042			
5.5		0.2403				0.2874				0.2167			
6.0		0.2382				0.2874				0.2428			
6.5		0.2341				0.2874				0.3410			
7.0		0.2343				0.2874							
7.5		0.2420				0.2874							
8.0		0.2639				0.2874							
BODY PRESSURES (PSI)													
WING PRESSURES (PSI)													
z/d r/d: 0.5935													
3.625 0.0912*													
3.875 0.0679+													
4.125 0.0489													
4.375 0.03431 0.0692													
4.625 0.0680													
4.875 0.0626													
5.125 0.1896													
5.375 0.1980													
5.625 0.1516, 0.2036													
5.875 0.1981													
6.125 0.1390													
6.375 0.1589													
6.625 0.2307													
6.875 0.2325													
7.125 0.2462													
7.375 0.2653													
0.0710													
0.0702													
0.0643													
0.0674													
0.0771													
0.0929													
0.0894													
0.1056													
0.1189													
0.1752													
0.1911													
0.2100													
0.0673													
0.0872													
0.0894													
0.0929													
0.0986													
0.0905													
0.0846													
0.0949													
0.0726													
0.0959													
0.0953													
0.0965													
0.0845													
0.0954													
0.0950													
0.0972, 0.0849													
0.0853													
0.0991													
0.0951													

WHITE OAK LABORATORY									
WTR1421 RUN 39		TUNNEL T2 PRESSURE TEST		PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/1)		WTR1421 RUN 39			
ALPH	14.98 deg	PHI	66.04 deg	P0	14.72 psia	TO	107.23 degF	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	66.0	81.0	96.0	111.0	126.0	141.0		
0.5	0.4449								
1.0	0.3566								
1.5	0.2871								
2.0	0.2385		0.3078	0.3119	0.3000	0.2817	0.2683,0.5739		
2.5	0.2106		0.2562	0.2520	0.1972	0.1903	0.2020,0.4257		
3.0	0.1467						0.1831		
3.5	0.1300		0.2564	0.2506	0.1844	0.1472	0.0532		
4.0	0.1245		0.2434	0.2360	0.1721	0.1774	0.0190		
4.3	0.1275		0.2398	0.2475	0.1668	0.1634	0.0195		
4.5	0.1289		0.2311	0.2382	0.1488	0.1383	0.0286		
4.8	0.1346		0.2250	0.2357	0.1455	0.1059	0.0265		
5.0	0.1472		0.2212	0.2272	0.1525	0.0813	0.0496		
5.5	0.1847		0.2217	0.2297	0.1485	0.0843	0.0885		
6.0	0.1956		0.2116	0.2282	0.1520	0.0797	0.0892		
6.5	0.2028		0.2111	0.2319	0.1568	0.0907	0.0996		
7.0	0.2082		0.2144	0.2258	0.1652	0.1062	0.1193		
7.5	0.2064		0.2092	0.2186	0.1616	0.1332	0.1291		
8.0	0.2142		0.2550	0.2342	0.2726	0.2365	0.2229		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.0746*								
3.875	0.0511*								
4.125	0.0356								
4.375	0.02451	0.0565							
4.625	0.0808								
4.875	0.0549								
5.125	0.1139								
5.375	0.0892								
5.625	0.0817	0.0971							
5.875	0.0835				0.0617				
6.125									
6.375	0.1031				0.0746	0.0638			
6.625	0.0987				0.0703	0.0807			
6.875	0.1013				0.0808	0.0774	0.0760		
7.125	0.1169				0.0749	0.0778	0.0771,0.0537		
7.375	0.1252				0.0741	0.0593	0.0647		
					0.0907	0.0685	0.0760	0.0730	

WHITE OAK LABORATORY

WTR1421
RUN 41

ALPH 4.96 deg PHI 88.62 deg
AVERAGED DATA

TUNNEL Y2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

PO 14.62 psi
SCALE FACTOR: 1.0000

TO 107.15 degF

MACH 3.0

WTR1421
RUN 41

BODY PRESSURES (PSI)

z/d	theta:	103.6	118.6	133.6	148.6	163.6
0.5	0.6977					
1.0	0.5533					
1.5	0.4454					
2.0	0.3616	0.4529	0.4610	0.4753	0.4927	0.5158, 0.5307
2.5	0.3352	0.3321	0.3227	0.3229	0.3272	0.4032, 0.4044
3.0	0.2876					0.3458
3.5	0.2978	0.2963	0.2972	0.2878	0.2790	0.2642
4.0	0.3099	0.3049	0.2971	0.2877	0.2746	0.2514
4.3	0.3143	0.3080	0.2955	0.2858	0.2694	0.2498
4.5	0.3203	0.3096	0.2980	0.2811	0.2636	0.2500
4.8	0.3304	0.3199	0.2995	0.2808	0.2602	0.2486
5.0	0.3400	0.3312	0.3050	0.2870	0.2588	0.2551
5.5	0.3514	0.3454	0.3313	0.2999	0.2743	0.2670
6.0	0.3471	0.3447	0.3285	0.3092	0.2914	0.2825
6.5	0.3386	0.3337	0.3261	0.3233	0.3030	0.2963
7.0	0.3289	0.3335	0.3252	0.3162	0.3035	0.3035
7.5	0.3248	0.3252	0.3209	0.3109	0.3086	0.3076
8.0	0.3356	0.3723	0.3336	0.3690	0.3151	0.3521

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.1480*							
3.875	0.1259+							
4.125	0.1148							
4.375	0.10381	0.1344						
4.625	0.1367							
4.875	0.1375	0.1351						
5.125	0.2860	0.1275						
5.375	0.2601	0.2885						
5.625	0.2684, 0.2764	0.1137						
5.875	0.2779	0.1548		0.1262				
6.125		0.1191		0.1392	0.1211			
6.375	0.2986	0.1228		0.1297	0.1379			
6.625	0.2926	0.1204		0.1400	0.1438 ¹⁴			
6.875	0.2889	0.1361		0.1444	0.1352	0.1381, 0.1324		
7.125	0.2971	0.2797		0.1333	0.1444	0.1257		
7.375	0.3059	0.2878		0.1212	0.1219	0.1263	0.1271	
		0.2933		0.1216	0.1230			

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSIN1(PR/10). PSIN2(TC/1)

WTR1421
RUN 42

TO
1.0000

107.22 degF

MACH

3.0

z/d	theta:	88.4
0.5	0.5565	
1.0	0.4474	
1.5	0.3654	
2.0	0.3072	
2.5	0.2934	
3.0	0.2586	
3.5	0.2834	
4.0	0.3094	
4.3	0.3139	
4.5	0.3175	
4.8	0.3249	
5.0	0.3279	
5.5	0.3199	
6.0	0.3028	
6.5	0.2938	
7.0	0.2910	
7.5	0.2853	
8.0	0.2952	

148.4	163.4
0.3954	0.4419
0.2462	0.3352
	0.2760
0.2082	0.1868
0.1943	0.1683
0.1899	0.1559
0.1914	0.1409
0.1899	0.1230
0.1794	0.1135
0.1963	0.1205
0.2049	0.1236
0.1942	0.1460
0.1913	0.1678
0.1975	0.1961
0.2601	0.3001

WORKING PRESSURES (PSI)

z/d	r/d	σ
3.635	0.0856*	0.5935
3.875	0.0625+	
4.125		0.0471
4.375	0.03681	0.0676
4.625		0.0694
4.875	0.0599	
5.125	0.1207	
5.375	0.1086	
5.625	0.1218, 0.1127	
5.875		0.1138
6.125		
6.375	0.1753	
6.625	0.1871	
6.875	0.1801	
7.125	0.1830	
7.375	0.1915	

1.2185	1.3435
0.0760	
0.0806, 0.0657	
0.0684	
0.0787	0.0824

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	14.94 deg	PHI	88.48 deg	PO	14.64 psia	TO	107.18 deg	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	88.5	103.5	118.5	133.5	148.5	163.5		
0.5	0.4519								
1.0	0.3677								
1.5	0.3063								
2.0	0.2681		0.2998	0.2913	0.2733	0.2856	0.3621, 0.3791		
2.5	0.2754		0.2104	0.1944	0.1870	0.1631	0.2673, 0.2696		
3.0	0.2468						0.2138		
3.5	0.2667		0.1919	0.1372	0.1484	0.1411	0.1657		
4.0	0.2486		0.1967	0.1257	0.1493	0.1565	0.0436		
4.3	0.2475		0.1930	0.1284	0.1544	0.1524	0.0293		
4.5	0.2459		0.1835	0.1377	0.1391	0.1376	0.0220		
4	.2561		0.1853	0.1531	0.1412	0.1193	0.0071		
5.0	.2542		0.1894	0.1610	0.1524	0.1041	0.0251		
5.5	.2396		0.1940	0.1822	0.1675	0.1151	0.0435		
6.0	.2287		0.1961	0.1768	0.1728	0.1016	0.0555		
6.5	.2309		0.1991	0.1630	0.1602	0.0996	0.0748		
7.0	0.2393		0.2084	0.1426	0.1367	0.0987	0.0818		
7.5	0.2450		0.2055	0.1252	0.1083	0.0999	0.1020		
8.0	0.2600		0.2992	0.1837	0.2234	0.1773	0.1539		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.0702*								
3.875	0.0468+								
4.125	0.0279								
4.375	0.01361	0.0489							
4.625	0.0450								
4.875	0.0334								
5.125	0.0499								
5.375	0.0443								
5.625	0.0924, 0.0563								
5.875	0.0706				0.0291				
6.125					0.0478	0.0350			
6.375	0.0884				0.0531	0.0602			
6.625	0.0798				0.0653	0.0595	0.0588		
6.875	0.0740				0.0584	0.0643	0.0621, 0.0519		
7.125	0.0827				0.0532	0.0493	0.0508		
7.375	0.1003				0.0651	0.0580	0.0614	0.0680	

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)									
WTR1421 RUN 44	ALPH -0.08 deg	PIII	111.30 deg AVERAGED DATA	PO	14.69 psia SCALE FACTOR:	TO 1.0000	107.28 degF	MACH	WTR1421 RUN 44
BODY PRESSURES (PSI)									
z/d	theta:	111.3	126.3	141.3	156.3	171.3	186.3		
0.5		0.8947							
1.0		0.7090							
1.5		0.5632	0.5724	0.5768	0.5774	0.5785	0.5719, 0.5831		
2.0		0.4480					0.4501, 0.4467		
2.5		0.4000	0.3972	0.3913	0.3898	0.3885	0.3921		
3.0		0.3277							
3.5		0.3305	0.3310	0.3367	0.3357	0.3403	0.3397		
4.0		0.3428	0.3418	0.3424	0.3431	0.3437	0.3447		
4.3		0.3461	0.3457	0.3459	0.3455	0.3478	0.3439		
4.5		0.3529	0.3494	0.3539	0.3511	0.3507	0.3510		
4.8		0.3581	0.3561	0.3606	0.3592	0.3614	0.3558		
5.0		0.3634	0.3638	0.3636	0.3723	0.3598	0.3705		
5.5		0.3707	0.3705	0.3728	0.3707	0.3686	0.3722		
6.0		0.3747	0.3762	0.3751	0.3759	0.3743	0.3744		
6.5		0.3802	0.3792	0.3836	0.3842	0.3837	0.3842		
7.0		0.3827	0.3831	0.3803	0.3792	0.3775	0.3804		
7.5		0.3823	0.3821	0.3839	0.3773	0.3815	0.3793		
8.0		0.3965	0.4311	0.4011	0.4350	0.3621	0.3436		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.3674*								
3.875	0.3491*								
4.125	0.3395								
4.375	0.33221	0.3564							
4.625	0.3723								
4.875	0.3344								
5.125	0.3827								
5.375	0.3643								
5.625	0.3665, 0.3729								
5.875	0.3661				0.3216				
6.125									
6.375	0.3923				0.3779	0.3050			
6.625	0.3775				0.3841	0.3278			
6.875	0.3690				0.3948	0.3415	0.3133		
7.125	0.3714				0.3855	0.3943	0.3130, 0.3096		
7.375	0.3758				0.3779	0.3778	0.3052		
					0.3778	0.3727	0.3516	0.2981	

WHITE OAK LABORATORY

WTR1421
RUN 45

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 4.93 deg PHI 111.33 deg PO 14.71 psia TO 107.25 degF MACH 3.0

111.33 deg
AVERAGED DATA

SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	111.3	126.3	141.3	156.3	171.3	186.3
0.5	0.7082						
1.0	0.5613						
1.5	0.4504						
2.0	0.3642		0.4667	0.4853	0.5089	0.5430	0.5769, 0.4906
2.5	0.3345		0.3322	0.3295	0.3390	0.3555	0.4507, 0.3765
3.0	0.2862						0.3840
3.5	0.2958		0.2925	0.2930	0.2856	0.2879	0.2895
4.0	0.3059		0.3000	0.2941	0.2853	0.2783	0.2697
4.3	0.3062		0.3003	0.2934	0.2854	0.2748	0.2656
4.5	0.3086		0.2964	0.2956	0.2842	0.2733	0.2671
4.8	0.3143		0.2969	0.2934	0.2851	0.2765	0.2667
5.0	0.3237		0.2993	0.2892	0.2909	0.2737	0.2736
5.5	0.3442		0.3154	0.2961	0.2861	0.2805	0.2821
6.0	0.3421		0.3280	0.3060	0.2938	0.2915	0.2922
6.5	0.3375		0.3363	0.3233	0.3105	0.2988	0.3002
7.0	0.3310		0.3245	0.3207	0.3148	0.3023	0.3000
7.5	0.3225		0.3204	0.3192	0.3106	0.3097	0.3057
8.0	0.3340		0.3710	0.3319	0.3673	0.3134	0.3444

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.1743*							
3.875	0.1527*							
4.125	0.1380							
4.375	0.12831							
4.625	0.1536							
4.875	0.1520							
5.125	0.2906							
5.375	0.2810							
5.625	0.2771, 0.2907							
5.875	0.2833				0.1385			
6.125						0.1325		
6.375	0.3061					0.1489		
6.625	0.2938					0.1493		
6.875	0.2862					0.1559	0.1465	
7.125	0.2923					0.1404	0.1493, 0.1434	
7.375	0.2963					0.1346	0.1340	0.1358

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	9.94 deg	PHI	111.11 deg	PO	14.75 psia	TO	107.55 deg	MACH	3.0
			AVERAGED DATA		SCALE FACTOR:	1.0000			
BODY PRESSURES (PSI)									
z/d	theta:	111.1	126.1	141.1	156.1	171.1	186.1		
0.5		0.5609							
1.0		0.4484							
1.5		0.3621							
2.0		0.3009	0.3686	0.3843	0.4209	0.4853	0.5657, 0.3891		
2.5		0.2832	0.2680	0.2495	0.2582	0.2965	0.4344, 0.2891		
3.0		0.2375					0.3618		
3.5		0.2327	0.2218	0.2210	0.2039	0.2068	0.2449		
4.0		0.2262	0.2070	0.2125	0.2032	0.1895	0.2228		
4.3		0.2230	0.1995	0.2108	0.2058	0.1923	0.2131		
4.5		0.2363	0.1845	0.2057	0.2033	0.2004	0.2090		
4.8		0.2755	0.1794	0.2044	0.2104	0.2062	0.1984		
5.0		0.2728	0.1847	0.2048	0.2219	0.2075	0.1932		
5.5		0.2787	0.2090	0.2296	0.2282	0.2247	0.1814		
6.0		0.2583	0.2247	0.2357	0.2401	0.2443	0.1884		
6.5		0.2549	0.2367	0.2397	0.2394	0.2319	0.1771		
7.0		0.2420	0.2466	0.2415	0.2355	0.2257	0.1802		
7.5		0.2405	0.2531	0.2540	0.2388	0.2256	0.2019		
8.0		0.2594	0.2982	0.2740	0.3112	0.2832	0.2840		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.1148*								
3.875	0.0921†								
4.125	0.0750								
4.375	0.0617†	0.0952							
4.625	0.0951								
4.875	0.0847								
5.125	0.1274								
5.375	0.1156								
5.625	0.1992, 0.1294								
5.875	0.1316								
6.125									
6.375	0.1620								
6.625	0.1698								
6.875	0.1656								
7.125	0.1644								
7.375	0.1675								
			0.0940						
			0.0856						
			0.1518						
			0.0707	0.0931					
			0.0690	0.0822					
			0.0690	0.0690					
			0.0582	0.0705					
			0.0554	0.0709					
			0.0747	0.0899	0.0741				
			0.0864	0.0870	0.0937				
			0.0668	0.0959	0.0922				
			0.0777	0.0813	0.0939				
			0.0935	0.0834	0.0764				
				0.0688	0.0736				
				0.0829	0.0863				
					0.0821				
						0.0876			
						0.0896, 0.0762			
						0.0750			
						0.0821			
							0.0836		

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	14.97 deg	PHI	112.51 deg	PO	14.84 psia	TO	107.08 degF	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	112.5	127.5	142.5	157.5	172.5	187.5		
0.5	0.4475								
1.0	0.3591								
1.5	0.2893								
2.0	0.2387		0.2830	0.2730	0.3243	0.4254	0.5557, 0.2774		
2.5	0.2079		0.1997	0.1816	0.1781	0.2474	0.4260, 0.1957		
3.0	0.1451						0.3524		
3.5	0.1257		0.1458	0.1532	0.1383	0.1700	0.2305		
4.0	0.1206		0.1277	0.1531	0.1516	0.1497	0.1982		
4.3	0.1247		0.1327	0.1438	0.1567	0.1586	0.1709		
4.5	0.1247		0.1302	0.1422	0.1535	0.1671	0.1466		
4.8	0.1295		0.1372	0.1566	0.1599	0.1675	0.1273		
5.0	0.1436		0.1522	0.1693	0.1777	0.1623	0.1137		
5.5	0.1839		0.1867	0.1910	0.1863	0.1745	0.0974		
6.0	0.1986		0.1989	0.1929	0.1944	0.1862	0.0891		
6.5	0.2114		0.2082	0.1941	0.1888	0.1658	0.0745		
7.0	0.2156		0.2198	0.1922	0.1779	0.1486	0.0727		
7.5	0.2107		0.2183	0.2022	0.1799	0.1561	0.0946		
8.0	0.2197		0.2602	0.2192	0.2578	0.2451	0.1897		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.0966*								
3.875	0.0736*								
4.125	0.0485								
4.375	0.03541	0.0693							
4.625	0.0649								
4.875	0.0588								
5.125	0.0901		0.0674						
5.375	0.0695		0.0462	0.0569					
5.625	0.0810, 0.0757		0.0449	0.0447	0.0523				
5.875	0.0691		0.0358	0.0456					
6.125			0.0340	0.0490	0.0623	0.0467			
6.375	0.0934		0.0561	0.0563	0.0599	0.0679			
6.625	0.0796		0.0653	0.0612	0.0695	0.0653	0.0616		
6.875	0.0705		0.0459	0.0635	0.0595	0.0671	0.0639, 0.0626		
7.125	0.0805		0.0526	0.0487	0.0531	0.0501	0.0575		
7.375	0.0905		0.0631	0.0622	0.0668	0.0624	0.0682	0.0640	

[illegible]

WHITE OAK LABORATORY

WTR1421
RUN 49WTR1421
RUN 49TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	4.92 deg	PHI	134.13 deg	P0	14.88 psia	T0	107.67 degf	MACH	3.0
	AVERAGED DATA			SCALE FACTOR:			1.0000		

BODY PRESSURES (PSI)

z/d	theta:	134.1	149.1	164.1	179.1	194.1	209.1
0.5		0.7498					
1.0		0.5913					
1.5		0.4700					
2.0		0.3775	0.4987	0.5313	0.5678	0.6109	0.6496, 0.4729
2.5		0.3407	0.3439	0.3514	0.3725	0.3975	0.5072, 0.3647
3.0		0.2844					0.4341
3.5		0.2943	0.2901	0.2953	0.3019	0.3212	0.3324
4.0		0.3046	0.2985	0.2933	0.2971	0.3091	0.3169
4.3		0.3044	0.2995	0.2939	0.2947	0.3031	0.3102
4.5		0.3058	0.2973	0.2958	0.2928	0.3011	0.3102
4.8		0.3055	0.2997	0.2989	0.2957	0.3036	0.3061
5.0		0.3058	0.3034	0.2975	0.3049	0.2983	0.3173
5.5		0.3104	0.3056	0.3044	0.3018	0.3077	0.3205
6.0		0.3146	0.3088	0.3044	0.3056	0.3144	0.3215
6.5		0.3249	0.3080	0.3048	0.3103	0.3227	0.3384
7.0		0.3186	0.3107	0.3018	0.3055	0.3173	0.3333
7.5		0.3194	0.3151	0.3140	0.3086	0.3199	0.3242
8.0		0.3378	0.3745	0.3307	0.3663	0.3187	0.3506

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.2283*							
3.875	0.2071+							
4.125	0.1924							
4.375	0.18071	0.2112						
4.625	0.2004							
4.875	0.1939	0.2107						
5.125	0.3409	0.1913						
5.375	0.3198	0.3619	0.2012					
5.625	0.3113, 0.3245	0.1923	0.1930					
5.875	0.3131	0.2369	0.1886	0.1788				
6.125		0.2695	0.2005					
6.375		0.2958	0.2202	0.1927	0.1750			
6.625	0.3450	0.3238	0.2143	0.1916	0.1923			
6.875	0.3372	0.3214	0.2236	0.2067	0.1914	0.1864	0.1886, 0.1780	
7.125	0.3232	0.3138	0.2378	0.2042	0.1929	0.1731		
7.375	0.3217	0.3226	0.2329	0.1990	0.1754	0.1695	0.1694	
	0.3273	0.3235	0.2483	0.2073	0.1774			

WHITE OAK LABORATORY									
WTR1421 RUN 50		TUNNEL T2 PRESSURE TEST				WTR1421 RUN 50			
		PSI CONFIGURATION		PSI#1(PR/IO)		PSI#2(TC/1)			
ALPH	9.97 deg	PHI	134.19 deg	P0	14.89 psia	T0	107.70 degf	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	134.2	149.2	164.2	179.2	194.2	209.2		
0.5		0.6019							
1.0		0.4678							
1.5		0.3672							
2.0		0.2962	0.3994	0.4542	0.5309	0.6254	0.7207, 0.3768		
2.5		0.2703	0.2594	0.2764	0.3284	0.3931	0.5627, 0.2912		
3.0		0.2264					0.4736		
3.5		0.2263							
4.0		0.2212							
4.3		0.2170							
4.5		0.2118							
4.8		0.2114							
5.0		0.2105							
5.5		0.2199							
6.0		0.2222							
6.5		0.2262							
7.0		0.2223							
7.5		0.2237							
8.0		0.2393							
			0.2195	0.2083	0.2371	0.2937	0.3396		
			0.2182	0.2016	0.2176	0.2681	0.3128		
			0.2161	0.2025	0.2109	0.2597	0.3040		
			0.2083	0.2046	0.2000	0.2608	0.3067		
			0.2106	0.2113	0.2054	0.2635	0.3021		
			0.2158	0.2124	0.2181	0.2589	0.3066		
			0.2258	0.2264	0.2227	0.2721	0.2991		
			0.2308	0.2279	0.2300	0.2807	0.2904		
			0.2250	0.2243	0.2392	0.2867	0.2968		
			0.2222	0.2159	0.2371	0.2825	0.2867		
			0.2218	0.2213	0.2405	0.2890	0.2735		
			0.2788	0.2362	0.2746	0.3103	0.3477		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.1790*								
3.875	0.1790*								
4.125	0.1577+								
4.375	0.1312	0.1650							
4.625		0.1575							
4.875		0.1574							
5.125		0.2448							
5.375		0.2402							
5.625	0.2863, 0.2493								
5.875		0.2398							
6.125									
6.375		0.2650							
6.625		0.2543							
6.875		0.2375							
7.125		0.2369							
7.375		0.2320							
			0.1617						
			0.1481						
			0.2670						
			0.1353						
			0.1364						
			0.1285						
			0.1297						
			0.1467						
			0.1456						
			0.1283						
			0.1316						
			0.1396						
				0.1656					
				0.1606					
				0.1558					
				0.1526					
				0.1525					
				0.1511					
				0.1541					
				0.1483					
				0.1634					
				0.1553					
				0.1509					
				0.1337					
				0.1430					
					0.1434				
						0.1373			
						0.1544			
						0.1508			
						0.1487			
						0.1571			
						0.1254			
						0.1328			
							0.1472		
							0.1478, 0.1101		
							0.1311		
							0.1328		
								0.1345	

WHITE OAK LABORATORY

WTR1421
RUN 51WTR1421
RUN 51

ALPH 14.93 deg PHI 134.18 deg
 TUNNEL T2 PRESSURE TEST
 PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)
 AVERAGED DATA PO 14.90 psia TO 107.88 degF
 SCALE FACTOR: 1.0000 MACH 3.0

BODY PRESSURES (PSI)

z/d	theta:	134.2	149.2	164.2	179.2	194.2	209.2
0.5	0.4591						
1.0	0.3451						
1.5	0.2640						
2.0	0.2218						
2.5	0.2029		0.2925	0.3733	0.4938	0.6410	0.8030, 0.2982
3.0	0.1575		0.1751	0.2092	0.2946	0.3995	0.6305, 0.2225
3.5	0.1583						0.5343
4.0	0.1587		0.1539	0.1416	0.2018	0.2915	0.3711
4.3	0.1520		0.1603	0.1423	0.1816	0.2662	0.3571
4.5	0.1448		0.1589	0.1487	0.1755	0.2676	0.3449
4.8	0.1489		0.1464	0.1469	0.1702	0.2737	0.3438
5.0	0.1566		0.1513	0.1524	0.1776	0.2833	0.3293
5.5	0.1790		0.1611	0.1538	0.1966	0.2814	0.3225
6.0	0.1860		0.1786	0.1712	0.2079	0.3023	0.2859
6.5	0.1927		0.1877	0.1811	0.2185	0.3100	0.2576
7.0	0.1912		0.1889	0.1817	0.2334	0.3100	0.2383
7.5	0.1852		0.1903	0.1760	0.2360	0.2946	0.2119
8.0	0.1935		0.1869	0.1844	0.2395	0.2926	0.2262
			0.2341	0.1975	0.2368	0.3506	0.3709

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.1714+							
3.875	0.1494+							
4.125	0.1280							
4.375	0.10931							
4.625	0.1442							
4.875	0.1475							
5.125	0.1863							
5.375	0.1717							
5.625	0.1752, 0.1828							
5.875	0.1804							
6.125								
6.375	0.2051							
6.625	0.1949							
6.875	0.1790							
7.125	0.1848							
7.375	0.1939							
		0.1406						
		0.1351						
		0.2099						
		0.1202						
		0.1164						
		0.1043						
		0.1025						
		0.1169						
		0.1126						
		0.0942						
		0.0939						
		0.1086						
			0.1554					
		0.1496						
		0.1358						
		0.1234						
		0.1284						
		0.1258						
		0.1253						
		0.1304						
		0.1407						
		0.1338						
		0.1335						
		0.1490						
		0.1385						
		0.1421						
		0.1379						
		0.1353						
		0.1122						
		0.1176						
		0.1241						
		0.1334						
		0.1332, 0.0705						
		0.1301						

WTR1421	WHITE OAK LABORATORY				WTR1421
RUN 52	TUNNEL T2 PRESSURE TEST				RUN 52
	PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)				
ALPH	-0.05 deg	PHI	156.65 deg	P0	14.89 psia
		AVERAGED DATA		SCALE FACTOR:	
				10	107.94 degf
				1.0000	
				MACH	3.0

z/d	theta:	BODY PRESSURES (PSI)					
		156.6	171.6	186.6	201.6	216.6	231.6
0.5	0.9027						
1.0	0.7141						
1.5	0.5650						
2.0	0.4549		0.5796	0.5863	0.5887	0.5891	0.5849, 0.5849
2.5	0.4053		0.4022	0.3965	0.3961	0.3942	0.4596, 0.4439
3.0	0.3289						0.4004
3.5	0.3357		0.3354	0.3404	0.3384	0.3418	0.3446
4.0	0.3483		0.3465	0.3479	0.3479	0.3489	0.3515
4.3	0.3501		0.3499	0.3514	0.3492	0.3542	0.3490
4.5	0.3573		0.3527	0.3583	0.3554	0.3557	0.3553
4.8	0.3624		0.3601	0.3678	0.3639	0.3678	0.3584
5.0	0.3680		0.3708	0.3709	0.3803	0.3627	0.3755
5.5	0.3736		0.3745	0.3751	0.3751	0.3734	0.3795
6.0	0.3797		0.3805	0.3800	0.3798	0.3775	0.3775
6.5	0.3871		0.3813	0.3846	0.3858	0.3904	0.3846
7.0	0.3855		0.3857	0.3792	0.3770	0.3785	0.3919
7.5	0.3847		0.3855	0.3899	0.3797	0.3900	0.3847
8.0	0.3980		0.4327	0.4056	0.4391	0.3682	0.3506

z/d		r/d:		WING PRESSURES (PSI)					
		0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.3692*								
3.875	0.3504†								
4.125	0.3383								
4.375	0.3323†	0.3554							
4.625	0.3728	0.3592							
4.875	0.3328	0.3645							
5.125	0.3866	0.4071	0.3398						
5.375	0.3682	0.3722	0.3522						
5.625	0.3711, 0.3769	0.3765	0.3709	0.3118					
5.875	0.3674	0.3730	0.3768						
6.125		0.3748	0.3829	0.3848	0.3039				
6.375	0.3895	0.3900	0.3873	0.3926	0.3271				
6.625	0.3790	0.3896	0.3936	0.4192	0.3426	0.3190			
6.875	0.3860	0.3933	0.4059	0.3956	0.3887	0.3172, 0.3162			
7.125	0.3902	0.3862	0.3792	0.3813	0.3802	0.3040			
7.375	0.3857	0.3773	0.3823	0.3815	0.3760	0.3411	0.2964		

WTR1421
RUN 53

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)

ALPH 4.91 deg PHI 156.79 deg PO 14.89 psia TO 108.06 degF MACH 3.0
AVERAGED DATA SCALE FACTOR: 1.0000

WTR1421
RUN 53

z/d	theta:	171.8	186.8	201.8	216.8	231.8
0.5	0.8100					
1.0	0.6364					
1.5	0.5007	0.5463	0.5906	0.6358	0.6793	0.7111, 0.4664
2.0	0.4006	0.3686	0.3868	0.4154	0.4433	0.5567, 0.3600
2.5	0.3546					0.4783
3.0	0.2857					
3.5	0.2907	0.2950	0.3155	0.3353	0.3614	0.3769
4.0	0.2988	0.2986	0.3099	0.3303	0.3524	0.3680
4.3	0.2985	0.2983	0.3094	0.3271	0.3482	0.3612
4.5	0.3007	0.2953	0.3092	0.3251	0.3464	0.3620
4.8	0.3032	0.2987	0.3140	0.3279	0.3505	0.3584
5.0	0.3055	0.3049	0.3122	0.3380	0.3415	0.3689
5.5	0.3086	0.3076	0.3154	0.3296	0.3461	0.3706
6.0	0.3083	0.3070	0.3118	0.3274	0.3497	0.3633
6.5	0.3130	0.3057	0.3196	0.3463	0.3481	0.3642
7.0	0.3090	0.3051	0.3083	0.3251	0.3467	0.3791
7.5	0.3095	0.3052	0.3171	0.3228	0.3503	0.3639
8.0	0.3330	0.3699	0.3277	0.3636	0.3395	0.3619

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3279*							
3.875	0.3079+							
4.125	0.2749							
4.375	0.25941	0.2927						
4.625	0.2891	0.2879						
4.875	0.2661	0.2805						
5.125	0.3879	0.4082						
5.375	0.3646	0.3405	0.2734					
5.625	0.3487, 0.3705	0.3643	0.2637					
5.875	0.3592	0.3658	0.2672	0.2485				
6.125		0.3659	0.2853					
6.375	0.3767	0.3659	0.3146	0.2589	0.2432			
6.625	0.3653	0.3795	0.3327	0.2536	0.2539			
6.875	0.3603	0.3780	0.3466	0.2880	0.2628	0.2520		
7.125	0.3779	0.3764	0.3705	0.2947	0.2646	0.2485, 0.2440		
7.375		0.3680	0.3449	0.2971	0.2574	0.2322		
		0.3622	0.3484	0.3101	0.2707	0.2264	0.2231	

WHITE OAK LABORATORY									
TUNNEL 12 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/I)									
ALPH	9.96 deg	PHI	156.63 deg AVERAGED DATA	P0	14.89 psia SCALE FACTOR:	TO	108.06 deg	MACH	3.0
BODY PRESSURES (PSI)									
z/d	theta:	156.6	171.6	186.6	201.6	216.6	231.6		
0.5	0.6950								
1.0	0.5336								
1.5	0.4115		0.4873	0.5769	0.6759	0.7786	0.8645, 0.3830		
2.0	0.3222						0.6816, 0.3000		
2.5	0.2754		0.3070	0.3604	0.4318	0.5032	0.5824		
3.0	0.2074								
3.5	0.2134		0.2159	0.2702	0.3279	0.3956	0.4417		
4.0	0.2171		0.2046	0.2502	0.3114	0.3728	0.4195		
4.3	0.2141		0.1992	0.2450	0.3033	0.3632	0.4081		
4.5	0.2117		0.1892	0.2356	0.2959	0.3603	0.4101		
4.8	0.2115		0.1911	0.2368	0.2964	0.3652	0.4083		
5.0	0.2125		0.1989	0.2314	0.3068	0.3555	0.4199		
5.5	0.2199		0.2083	0.2324	0.2978	0.3612	0.4126		
6.0	0.2231		0.2154	0.2259	0.2945	0.3631	0.4025		
6.5	0.2291		0.2175	0.2389	0.3016	0.3598	0.4024		
7.0	0.2261		0.2169	0.2199	0.2899	0.3596	0.4150		
7.5	0.2265		0.2101	0.2259	0.2847	0.3612	0.4001		
8.0	0.2446		0.2841	0.2370	0.2752	0.3556	0.4282		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.3302*								
3.875	0.3105*								
4.125	0.2644								
4.375	0.25761	0.2825							
4.625	0.2902								
4.875	0.2588	0.2859							
5.125	0.4367	0.2818							
5.375	0.4117	0.4561							
5.625	0.3344, 0.4128	0.2877							
5.875	0.4006	0.2940			0.2424				
6.125		0.2988							
6.375	0.4161	0.3113			0.2543	0.2344			
6.625	0.4035	0.3359			0.2477	0.2516			
6.875	0.3978	0.3444			0.2685	0.2642	0.2458		
7.125	0.4107	0.3462			0.2746	0.2565	0.2428, 0.1953		
7.375	0.4055	0.3412			0.2683	0.2335	0.2259		
		0.3451			0.2791	0.2351	0.2248	0.2216	

WHITE OAK LABORATORY

WTR1421
RUN 55

ALPH 14.96 deg PHI 156.74 deg

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

PO 14.90 psia
SCALE FACTOR: 1.0000

TO 108.14 degF

MACH 3.0

WTR1421
RUN 55

BODY PRESSURES (PSI)

z/d	theta:	171.7	186.7	201.7	216.7	231.7
0.5	0.5707					
1.0	0.4230					
1.5	0.3139					
2.0	0.2387	0.4278	0.5646	0.7255	0.8985	1.0521, 0.3185
2.5	0.1951	0.2568	0.3469	0.4629	0.5868	0.8357, 0.2456
3.0	0.1364					0.7193
3.5	0.1449					
4.0	0.1583					
4.3	0.1582					
4.5	0.1573					
4.8	0.1606					
5.0	0.1657					
5.5	0.1799					
6.0	0.1845					
6.5	0.1928					
7.0	0.1901					
7.5	0.1927					
8.0	0.2078					

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3628*							
3.875	0.3435+							
4.125	0.3016							
4.375	0.31431							
4.625	0.3485							
4.875	0.2841							
5.125	0.4770							
5.375	0.4502							
5.625	0.2902							
5.875	0.4469							
6.125	0.4391							
6.375	0.4555							
6.625	0.4480							
6.875	0.4469							
7.125	0.4548							
7.375	0.4377							

WIR1421
RUN 56

ALPH -0.08 deg PHI 179.37 deg
AVERAGED DATA

WIR1421
RUN 56

TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

P0 14.88 psia
SCALE FACTOR: 1.0000

10 108.23 degF

MACH 3.0

194.4 209.4 224.4 239.4 254.4

0.5815 0.5890 0.5910 0.5917 0.5886, 0.5835
0.4616, 0.4418
0.4024

0.4035 0.3978 0.3974 0.3955

0.3359 0.3405 0.3391 0.3456 0.3454
0.3474 0.3474 0.3489 0.3502 0.3530
0.3504 0.3526 0.3494 0.3556 0.3504
0.3525 0.3589 0.3555 0.3564 0.3563
0.3599 0.3685 0.3641 0.3682 0.3580
0.3714 0.3714 0.3812 0.3624 0.3759
0.3756 0.3755 0.3763 0.3745 0.3803
0.3813 0.3804 0.3802 0.3781 0.3788
0.3819 0.3864 0.3858 0.3836 0.3849
0.3866 0.3795 0.3787 0.3848 0.3924
0.3864 0.3914 0.3786 0.3879 0.3860
0.4330 0.4060 0.4395 0.3694 0.3518

WING PRESSURES (PSI)

0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

0.3622 0.3662 0.4093 0.3734 0.3772 0.3735 0.3754 0.3910 0.3903 0.3765 0.3781 0.3793

0.3622 0.3662 0.4093 0.3734 0.3772 0.3735 0.3754 0.3910 0.3903 0.3765 0.3781 0.3793

0.3430 0.3561 0.3725 0.3144 0.3876 0.3932 0.3908 0.3957 0.3973 0.3825

0.3055 0.3273 0.3380 0.3913 0.3814 0.3778

0.3151 0.3161, 0.3243 0.3027 0.3456 0.2973

WHITE OAK LABORATORY

WTR1421
RUN 57TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)WTR1421
RUN 57

ALPH	4.95 deg	PHI	179.01 deg AVERAGED DATA	P0	14.88 psia SCALE FACTOR:	T0	108.33 degf	MACH	3.0
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BODY PRESSURES (PSI)

z/d	theta:	179.0	194.0	209.0	224.0	239.0	254.0
0.5		0.8900					
1.0*		0.7002					
1.5		0.5505					
2.0		0.4377	0.6065	0.6572	0.6985	0.7342	0.7509, 0.4670
2.5		0.3839	0.4068	0.4301	0.4600	0.4830	0.5901, 0.3581
3.0		0.3039					0.5076
3.5		0.3034	0.3208	0.3488	0.3721	0.3987	0.4149
4.0		0.3077	0.3222	0.3451	0.3715	0.3952	0.4150
4.3		0.3063	0.3207	0.3459	0.3690	0.3944	0.4093
4.5		0.3069	0.3171	0.3455	0.3692	0.3930	0.4112
4.8		0.3094	0.3198	0.3510	0.3733	0.3995	0.4076
5.0		0.3118	0.3262	0.3484	0.3846	0.3903	0.4175
5.5		0.3165	0.3278	0.3497	0.3732	0.3927	0.4116
6.0		0.3165	0.3256	0.3438	0.3685	0.3909	0.4070
6.5		0.3236	0.3333	0.3483	0.3653	0.3879	0.4083
7.0		0.3172	0.3234	0.3377	0.3707	0.3863	0.4125
7.5		0.3195	0.3220	0.3420	0.3562	0.3954	0.4162
8.0		0.3353	0.3723	0.3545	0.3895	0.3731	0.3604

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.4437*							
3.875	0.4259*							
4.125	0.4002							
4.375	0.38641	0.4165						
4.625	0.4184	0.4124						
4.875	0.3851	0.4107						
5.125	0.4316	0.4514						
5.375	0.4077	0.4140	0.3918					
5.625	0.3792, 0.4140	0.4125	0.3959					
5.875	0.4015	0.4058	0.3979	0.3487				
6.125		0.4041	0.4086					
6.375	0.4209	0.4172	0.4135	0.4042	0.3547			
6.625	0.4092	0.4158	0.4172	0.4232	0.3617			
6.875	0.4039	0.4006	0.4167	0.4329	0.3953	0.3138		
7.125	0.4052	0.4005	0.4187	0.4155	0.4133	0.3298, 0.3371		
7.375	0.4014	0.4005	0.3984	0.4032	0.3940	0.3361		
			0.4017	0.4008	0.3906	0.3600	0.3008	

ALPH	9.94 deg	PIII	179.39 deg	P0	14.88 psia	T0	108.55 degF	MACH	3.0
			AVERAGED DATA		SCALE FACTOR:		1.0000		
			PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)						
			TUNNEL T2 PRESSURE TEST						
			WHITE OAK LABORATORY						
WIR1421 RUN 58			WIR1421 RUN 58						

z/d	theta:	179.4	194.4	209.4	224.4	239.4	254.4
0.5		0.8477					
1.0		0.6584					
1.5		0.5106					
2.0		0.3993	0.6187	0.7236	0.8236	0.9103	0.9605, 0.3824
2.5		0.3389	0.3988	0.4654	0.5403	0.6007	0.7623, 0.2975
3.0		0.2524					0.6553
3.5		0.2406	0.2942	0.3614	0.4231	0.4863	0.5274
4.0		0.2289	0.2822	0.3478	0.4156	0.4764	0.5224
4.3		0.2213	0.2751	0.3459	0.4100	0.4692	0.5110
4.5		0.2114	0.2658	0.3388	0.4078	0.4685	0.5127
4.8		0.2070	0.2634	0.3425	0.4090	0.4739	0.5083
5.0		0.2092	0.2649	0.3369	0.4190	0.4619	0.5190
5.5		0.2255	0.2610	0.3315	0.4008	0.4591	0.5035
6.0		0.2402	0.2516	0.3193	0.3913	0.4533	0.4963
6.5		0.2616	0.2446	0.3129	0.3857	0.4498	0.4968
7.0		0.2642	0.2496	0.3135	0.3831	0.4403	0.4969
7.5		0.2697	0.2521	0.3069	0.3716	0.4377	0.4877
8.0		0.2881	0.3263	0.3115	0.3477	0.4250	0.4555

z/d		r/d:		WING PRESSURES (PSI)				
		0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.5635*							
3.875	0.5480†							
4.125	0.5077							
4.375	0.49531	0.5227						
4.625	0.5363		0.5188					
4.875	0.4724		0.5293					
5.125	0.5314		0.5498	0.4785				
5.375	0.5022		0.5078	0.4902				
5.625	0.3634, 0.5076		0.5030	0.4940	0.4256			
5.875	0.4978		0.4967	0.4897				
6.125			0.4938	0.4985	0.5013	0.4205		
6.375	0.5147		0.5093	0.4975	0.4912	0.4737		
6.625	0.5017		0.5054	0.4967	0.4945	0.4946	0.3767	
6.875	0.4925		0.4875	0.4986	0.4865	0.4957	0.3975, 0.3887	
7.125	0.4909		0.4866	0.4786	0.4764	0.4713	0.4191	
7.375	0.4878		0.4825	0.4809	0.4759	0.4651	0.4210	0.3428

WTR1421
RUN 59

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPHI 14.94 deg PHI 201.90 deg P0 14.88 psia TO 108.62 degf MACH 3.0

AVERAGED DATA SCALE FACTOR: 1.0000

WTR1421
RUN 59

BODY PRESSURES (PSI)

z/d	theta:	216.9	231.9	246.9	261.9	276.9
0.5	1.1155					
1.0	0.8824					
1.5	0.7028	0.8945	1.0637	1.1934	1.2711	1.2610, 0.2939
2.0	0.5585					1.0157, 0.2158
2.5	0.4743	0.5947	0.7092	0.8117	0.8647	0.8803
3.0	0.3633					
3.5	0.3514	0.4548	0.5618	0.6478	0.7197	0.7710
4.0	0.3370	0.4436	0.5551	0.6570	0.7321	0.7787
4.3	0.3324	0.4387	0.5590	0.6531	0.7270	0.7979
4.5	0.3253	0.4384	0.5596	0.6575	0.7319	0.8024
4.8	0.3183	0.4389	0.5632	0.6630	0.7572	0.7990
5.0	0.3203	0.4417	0.5561	0.6781	0.7471	0.8093
5.5	0.3152	0.4326	0.5502	0.6575	0.7280	0.7769
6.0	0.3092	0.4198	0.5339	0.6386	0.7164	0.7645
6.5	0.2993	0.4008	0.5203	0.6260	0.7071	0.7580
7.0	0.2987	0.3998	0.5024	0.6059	0.6889	0.7538
7.5	0.2740	0.3887	0.5239	0.5989	0.6912	0.7463
8.0	0.2745	0.3130	0.5055	0.5366	0.6362	0.5625

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.8787*							
3.875	0.8678+							
4.125	0.8621							
4.375	0.85291	0.8691						
4.625	0.8445	0.8390						
4.875	0.8658	0.8256						
5.125	0.8122	0.7990						
5.375	0.7837	0.7913						
5.625	0.2009, 0.7935	0.7854	0.8510					
5.875	0.7808	0.7819	0.7956	0.8201	0.8402			
6.125		0.7920	0.7954	0.8021	0.8445			
6.375	0.7885	0.7906	0.7955	0.8022	0.8445			
6.625	0.7685	0.7617	0.7939	0.8106	0.8258			
6.875	0.7619	0.7580	0.7911	0.7952	0.8145			
7.125	0.7571	0.7486	0.7628	0.7803	0.7879			
7.375	0.7592		0.7595	0.7687	0.7753			
							0.8639	
							0.8492, 0.4915	
							0.8152	
							0.7920	0.8288

WTR1421
RUN 60

ALPH -0.06 deg

PHI 201.65 deg

PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

TUNNEL T2 PRESSURE TEST

PO 14.87 psia

TO 108.82 degF

MACH 3.0

SCALE FACTOR: 1.0000

WTR1421
RUN 60

WHITE OAK LABORATORY

AVERAGED DATA

BODY PRESSURES (PSI)

z/d	theta:	201.7	216.7	231.7	246.7	261.7	276.7
0.5	0.9107						
1.0	0.7212						
1.5	0.5683						
2.0	0.4585		0.5856	0.5939	0.5960	0.5967	0.5924, 0.5818
2.5	0.4089		0.4053	0.3998	0.3992	0.3975	0.4645, 0.4386
3.0	0.3298						0.4043
3.5	0.3377		0.3366	0.3416	0.3400	0.3467	0.3475
4.0	0.3503		0.3486	0.3482	0.3505	0.3518	0.3556
4.3	0.3518		0.3518	0.3541	0.3501	0.3577	0.3531
4.5	0.3581		0.3530	0.3596	0.3562	0.3581	0.3592
4.8	0.3638		0.3606	0.3703	0.3651	0.3700	0.3593
5.0	0.3692		0.3729	0.3727	0.3837	0.3636	0.3783
5.5	0.3756		0.3773	0.3765	0.3780	0.3764	0.3819
6.0	0.3833		0.3814	0.3813	0.3813	0.3799	0.3809
6.5	0.3909		0.3851	0.3866	0.3839	0.3846	0.3864
7.0	0.3893		0.3898	0.3821	0.3813	0.3812	0.3923
7.5	0.3874		0.3888	0.3946	0.3802	0.3949	0.3877
8.0	0.3984		0.4335	0.4077	0.4410	0.3722	0.3548

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3784*							
3.875	0.3599†							
4.125	0.3470							
4.375	0.3440†							
4.625	0.3787							
4.875	0.3454							
5.125	0.3908							
5.375	0.3709		0.3521					
5.625	0.3726, 0.3808		0.3674					
5.875	0.3685		0.3789		0.3228			
6.125			0.3739					
6.375	0.3929		0.3760		0.3956	0.3120		
6.625	0.3808		0.3927		0.3938	0.3366		
6.875	0.3776		0.3923		0.4039	0.3497	0.3206	
7.125	0.3801		0.3788		0.3922	0.3975	0.3206, 0.3430	
7.375	0.3818		0.3795		0.3847	0.3838	0.3106	
			0.3799		0.3853	0.3798	0.3619	0.3030

WHITE OAK LABORATORY

WTR1421
RUN 61

ALPH 4.95 deg PHI 201.63 deg
AVERAGED DATA

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

SCALE FACTOR: 1.0000

108.92 degf

MACH 3.0

WTR1421
RUN 61

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

SCALE FACTOR: 1.0000

108.92 degf

MACH 3.0

201.63 deg
AVERAGED DATA

PSI#1(PR/10) PSI#2(TC/1)

216.6 231.6 246.6 261.6 276.6

0.5 0.9906 201.6
1.0 0.7821
1.5 0.6179
2.0 0.4905
2.5 0.4272
3.0 0.3377
3.5 0.3350
4.0 0.3373
4.3 0.3350
4.5 0.3352
4.8 0.3381
5.0 0.3410
5.5 0.3448
6.0 0.3466
6.5 0.3638
7.0 0.3477
7.5 0.3455
8.0 0.3617

0.6769 0.7221 0.7520 0.7708 0.7641, 0.4769
0.4536 0.4762 0.4984 0.5079 0.6014, 0.3623
0.5181

0.3580 0.3848 0.4030 0.4262 0.4430
0.3600 0.3852 0.4106 0.4318 0.4504
0.3599 0.3888 0.4097 0.4343 0.4477
0.3579 0.3905 0.4130 0.4325 0.4512
0.3612 0.3979 0.4178 0.4416 0.4506
0.3677 0.3958 0.4313 0.4329 0.4654
0.3673 0.3938 0.4188 0.4381 0.4559
0.3639 0.3892 0.4161 0.4359 0.4465
0.3615 0.3879 0.4124 0.4323 0.4461
0.3748 0.3915 0.4046 0.4238 0.4506
0.3614 0.3927 0.4112 0.4322 0.4421
0.3976 0.3992 0.4328 0.4139 0.3639

WING PRESSURES (PSI)

z/d r/d: 0.5935 0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

3.625 0.5045* 0.4934
3.875 0.4878+ 0.4788
4.125 0.4764 0.4916
4.375 0.46931 0.4913 0.4723
4.625 0.4862 0.4585
4.875 0.4851 0.4562
5.125 0.4725 0.4554
5.375 0.4468 0.4562
5.625 0.4070, 0.4512 0.4727
5.875 0.4361 0.4605
6.125 0.4446 0.4688
6.375 0.4597 0.4602
6.625 0.4475 0.4635
6.875 0.4424 0.4434
7.125 0.4431 0.4486
7.375 0.4488 0.4496

0.4628
0.4775
0.4708
0.4677
0.4750, 0.262
0.4808
0.4550
0.4446
0.4509

WHITE OAK LABORATORY										
TUNNEL 12 PRESSURE TEST										
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)										
WIR1421 RUN 62	ALPH	9.95 deg	PHI	201.90 deg AVERAGED DATA	P0	14.87 psia SCALE FACTOR:	T0	109.05 degF	MACH	3.0
BODY PRESSURES (PSI)										
	z/d	theta:	201.9	216.9	231.9	246.9	261.9	276.9		
	0.5		1.0537							
	1.0		0.8310							
	1.5		0.6571		0.7763	0.8758	0.9496	0.9935	0.9861, 0.3793	
	2.0		0.5182						0.7846, 0.2857	
	2.5		0.4426		0.5133	0.5765	0.6342	0.6631	0.6755	
	3.0		0.3408							
	3.5		0.3310		0.3926	0.4555	0.5042	0.5490	0.5820	
	4.0		0.3211		0.3857	0.4512	0.5112	0.5572	0.5915	
	4.3		0.3152		0.3821	0.4538	0.5091	0.5573	0.5881	
	4.5		0.3086		0.3783	0.4527	0.5120	0.5549	0.6012	
	4.8		0.3051		0.3781	0.4577	0.5137	0.5676	0.6042	
	5.0		0.3039		0.3820	0.4536	0.5276	0.5597	0.6096	
	5.5		0.2936		0.3732	0.4481	0.5114	0.5564	0.5865	
	6.0		0.2865		0.3610	0.4393	0.5053	0.5492	0.5760	
	6.5		0.2879		0.3475	0.4273	0.4956	0.5418	0.5759	
	7.0		0.2889		0.3633	0.4137	0.4797	0.5310	0.5726	
	7.5		0.2719		0.3407	0.4340	0.4746	0.5323	0.5612	
	8.0		0.2791		0.3173	0.4223	0.4555	0.4996	0.4329	
WING PRESSURES (PSI)										
	z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
	3.625	0.6655*								
	3.875	0.6509†								
	4.125	0.6422								
	4.375	0.6335†	0.6554							
	4.625	0.6381		0.6541						
	4.875	0.6485		0.6315						
	5.125	0.6153		0.6317						
	5.375	0.5862		0.6008	0.6534					
	5.625	0.3815, 0.5922		0.5951	0.6025	0.6339				
	5.875	0.5798		0.5859	0.5970	0.5970				
	6.125			0.5840	0.5973	0.6187	0.6235			
	6.375	0.5958		0.5970	0.5976	0.6026	0.6335			
	6.625	0.5787		0.5906	0.5981	0.6114	0.6200	0.6454		
	6.875	0.5713		0.5731	0.5986	0.5975	0.6126	0.6343, 0.4497		
	7.125	0.5691		0.5707	0.5741	0.5865	0.5858	0.6055		
	7.375	0.5644		0.5647	0.5745	0.5815	0.5787	0.5890	0.6114	

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
WIR1421 RUN 63	ALPH	14.98 deg	PHI	201.99 deg AVERAGED DATA	PO	14.87 psia SCALE FACTOR:	TO	109.09 deg	MACH
							1.0000		3.0
BODY PRESSURES (PSI)									
	z/d	theta:	202.0	217.0	232.0	247.0	262.0	277.0	
	0.5	1.1159							
	1.0	0.8831							
	1.5	0.7028							
	2.0	0.5590		0.8954	1.0649	1.1963	1.2719	1.2615, 0.2937	
	2.5	0.4752		0.5954	0.7101	0.8124	0.8653	1.0165, 0.2151	
	3.0	0.3636						0.8811	
	3.5	0.3522		0.4553	0.5619	0.6483	0.7208	0.7716	
	4.0	0.3380		0.4438	0.5549	0.6573	0.7327	0.7797	
	4.3	0.3324		0.4389	0.5592	0.6533	0.7278	0.7985	
	4.5	0.3258		0.4385	0.5599	0.6580	0.7323	0.8035	
	4.8	0.3189		0.4393	0.5642	0.6636	0.7587	0.7997	
	5.0	0.3208		0.4428	0.5568	0.6794	0.7474	0.8105	
	5.5	0.3156		0.4331	0.5508	0.6584	0.7288	0.7809	
	6.0	0.3098		0.4199	0.5346	0.6393	0.7168	0.7653	
	6.5	0.3003		0.4013	0.5205	0.6263	0.7079	0.7585	
	7.0	0.2998		0.4010	0.5024	0.6050	0.6895	0.7545	
	7.5	0.2746		0.3893	0.5254	0.5990	0.6921	0.7464	
	8.0	0.2743		0.3130	0.5064	0.5372	0.6376	0.5635	
WING PRESSURES (PSI)									
	z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
	3.625	0.8796*							
	3.875	0.8683+							
	4.125	0.8629							
	4.375	0.8541	0.8731						
	4.625	0.8452							
	4.875	0.8667							
	5.125	0.8132							
	5.375	0.7839			0.8704				
	5.625	0.2007	0.7946		0.8335				
	5.875	0.7808			0.8046	0.8512			
	6.125				0.7960				
	6.375	0.7889			0.7959	0.8212	0.8403		
	6.625	0.7680			0.7957	0.8022	0.8454		
	6.875	0.7613			0.7946	0.8113	0.8264	0.8644	
	7.125	0.7569			0.7920	0.7951	0.8151	0.8498, 0.4915	
	7.375	0.7591			0.7631	0.7805	0.7874	0.8154	
					0.7596	0.7692	0.7748	0.7923	0.8286

WTR1421
RUN 64

ALPH 0.09 deg PHI 224.53 deg PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL 12 PRESSURE TEST

SCALE FACTOR: 1.0000

14.86 psia

109.36 degF

MACH 3.0

WTR1421
RUN 64

ALPH 0.09 deg PHI 224.53 deg PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL 12 PRESSURE TEST

SCALE FACTOR: 1.0000

14.86 psia

109.36 degF

MACH 3.0

BODY PRESSURES (PSI)

z/d	theta:	239.5	254.5	269.5	284.5	299.5
0.5	0.9154					
1.0	0.7243					
1.5	0.5710					
2.0	0.4621	0.5892	0.5980	0.5993	0.5991	0.5949, 0.5832
2.5	0.4110	0.4069	0.4013	0.4013	0.3981	0.4663, 0.4376
3.0	0.3286					0.4058
3.5	0.3385	0.3371	0.3407	0.3396	0.3477	0.3486
4.0	0.3515	0.3489	0.3478	0.3506	0.3527	0.3582
4.3	0.3320	0.3511	0.3547	0.3493	0.3597	0.3550
4.5	0.3592	0.3528	0.3599	0.3561	0.3594	0.3622
4.8	0.3642	0.3607	0.3723	0.3662	0.3724	0.3606
5.0	0.3699	0.3751	0.3751	0.3866	0.3642	0.3820
5.5	0.3763	0.3787	0.3761	0.3795	0.3780	0.3832
6.0	0.3834	0.3814	0.3820	0.3821	0.3809	0.3829
6.5	0.3937	0.3837	0.3854	0.3831	0.3865	0.3868
7.0	0.3921	0.3935	0.3826	0.3786	0.3800	0.3937
7.5	0.3890	0.3907	0.3982	0.3820	0.3939	0.3874
8.0	0.3989	0.4336	0.4097	0.4430	0.3761	0.3541

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3840*							
3.875	0.3657+							
4.125	0.3541							
4.375	0.3511	0.3709						
4.625	0.3831							
4.875	0.3559							
5.125	0.3920							
5.375	0.3727							
5.625	0.3743	0.3836						
5.875	0.3711				0.3349			
6.125								
6.375	0.3946				0.3985	0.3193		
6.625	0.3810				0.3929	0.3475		
6.875	0.3784				0.4055	0.3595	0.3233	
7.125	0.3817				0.3944	0.4022	0.3205, 0.3489	
7.375	0.3800				0.3863	0.3832	0.3279	
					0.3871	0.3794	0.3780	0.3071

WTR1421
RUN 65

WTR1421
RUN 65

WHITE OAK LABORATORY

WTR1421	TUNNEL	T2 PRESSURE TEST				WTR1421
RUN 65	PSI CONFIGURATION	PSI#1(PR/IO)	PSI#2(IC/I)			RUN 65
ALPH	4.94 deg	P/H	224.49 deg	P0	14.86 psia	MACH 3.0
		AVERAGED DATA			SCALE FACTOR:	
					1.0000	

BODY PRESSURES (PSI)

z/d	theta :	224.5	239.5	254.5	269.5	284.5	299.5
0.5	1.0893						
1.0	0.8627						
1.5	0.6847						
2.0	0.5434						
2.5	0.4739	0.7352	0.7664	0.7664	0.7770	0.7723	0.7424, 0.5027
3.0	0.3760	0.4969	0.5081	0.5081	0.5159	0.5103	0.5821, 0.3780
3.5	0.3730	0.3926					0.5026
4.0	0.3754	0.3952	0.4103	0.4103	0.4181	0.4328	0.4478
4.3	0.3733	0.3962	0.4138	0.4138	0.4326	0.4491	0.4631
4.5	0.3749	0.3970	0.4203	0.4203	0.4347	0.4559	0.4605
4.8	0.3788	0.4028	0.4256	0.4256	0.4419	0.4538	0.4608
5.0	0.3827	0.4126	0.4359	0.4359	0.4484	0.4642	0.4670
5.5	0.3873	0.4110	0.4361	0.4361	0.4630	0.4543	0.5075
6.0	0.3900	0.4066	0.4322	0.4322	0.4491	0.4608	0.4934
6.5	0.3968	0.4033	0.4279	0.4279	0.4485	0.4787	0.4844
7.0	0.4092	0.4231	0.4293	0.4293	0.4597	0.4725	0.4816
7.5	0.4013	0.4308	0.4371	0.4371	0.4520	0.4631	0.4836
8.0	0.4221	0.4560	0.4557	0.4557	0.4647	0.4723	0.4723
9.0	0.4221		0.4535	0.4535	0.4859	0.4373	0.3507

FLOWING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.5352*							
3.875	0.5192*							
4.125	0.5170							
4.375	0.51121	0.5316						
4.625	0.5225		0.5343					
4.875	0.5309		0.5152					
5.125	0.5070		0.5256	0.5367				
5.375	0.4819		0.4964	0.5140				
5.625	0.4456, 0.4903		0.4939	0.4956	0.5183			
5.875	0.4753		0.4845	0.4959				
6.125	6.125		0.4824	0.5000	0.5178	0.5145		
6.375	0.4936		0.4975	0.5006	0.5053	0.5285		
6.625	0.4775		0.4937	0.5017	0.5171	0.5200	0.5351	
6.875	0.4728		0.4767	0.5029	0.5031	0.5166	0.5281, 0.4644	
7.125	0.4735		0.4758	0.4800	0.4923	0.4943	0.5061	
7.375	0.4758		0.4721	0.4821	0.4889	0.4871	0.4954	0.5076

WHITE OAK LABORATORY									
TUNNEL 12 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	9.94 deg	PHI	224.61 deg	P0	14.86 psia	TO	109.65 degf	MACII	3.0
			AVERAGED DATA		SCALE FACTOR:	1.0000			
BODY PRESSURES (PSI)									
z/d	theta:		239.6	254.6	269.6	284.6	299.6		
0.5	1.2631								
1.0	1.0159								
1.5	0.8114		0.9143	0.9806	1.0039	0.9890		0.9232, 0.4048	
2.0	0.6469							0.7315, 0.2919	
2.5	0.5570		0.6175	0.6557	0.6761	0.6597		0.6273	
3.0	0.4392								
3.5	0.4295		0.4828	0.5221	0.5378	0.5548		0.5808	
4.0	0.4232		0.4781	0.5213	0.5577	0.5863		0.5934	
4.3	0.4178		0.4762	0.5299	0.5641	0.5928		0.6200	
4.5	0.4173		0.4795	0.5378	0.5754	0.5926		0.6574	
4.8	0.4177		0.4846	0.5515	0.5809	0.6079		0.6542	
5.0	0.4200		0.4938	0.5494	0.5954	0.6187		0.6718	
5.5	0.4141		0.4808	0.5362	0.5982	0.6330		0.6542	
6.0	0.4070		0.4762	0.5535	0.5976	0.6215		0.6361	
6.5	0.4133		0.4782	0.5394	0.5848	0.6132		0.6323	
7.0	0.4095		0.4727	0.5228	0.5645	0.5964		0.6309	
7.5	0.4036		0.4777	0.5291	0.5570	0.5977		0.6182	
8.0	0.4051		0.4397	0.5383	0.5682	0.5540		0.4245	
WING PRESSURES (PSI)									
z/d	r/d:		0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.7271*								
3.875	0.7139†								
4.125	0.7144								
4.375	0.70751	0.7263							
4.625	0.7071	0.7263							
4.875	0.7271	0.7008							
5.125	0.6826	0.6982							
5.375	0.6529	0.6728							
5.625	0.4448, 0.6593	0.6669							
5.875	0.6408	0.6549			0.7153				
6.125		0.6481			0.7041				
6.375	0.6506	0.6593			0.6846				
6.625	0.6315	0.6503			0.6920				
6.875	0.6252	0.6312			0.6743				
7.125	0.6225	0.6284			0.6575				
7.375	0.6250	0.6213			0.6492				
						0.7125			
						0.7226			
						0.7081			
						0.7366			
						0.7257, 0.5246			
						0.6954			
						0.6761			
						0.7019			

WHITE OAK LABORATORY

WTR1421
RUN 67WTR1421
RUN 67

ALPH 14.94 deg PHI 225.21 deg PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1) TUNNEL T2 PRESSURE TEST MACH 3.0
 AVERAGED DATA P0 14.86 psia TO 109.38 degF
 SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	225.2	240.2	255.2	270.2	285.2	300.2
0.5	1.4656						
1.0	1.1889						
1.5	0.9706						
2.0	0.7792	1.1418		1.2535	1.2914	1.2608	1.1457, 0.2980
2.5	0.6706	0.7803		0.8535	0.8881	0.8605	0.9156, 0.1931
3.0	0.5317						0.7947
3.5	0.5205	0.6144		0.6817	0.7089	0.7252	0.7625
4.0	0.5080	0.6036		0.6790	0.7386	0.7804	0.8056
4.3	0.5027	0.6020		0.6930	0.7496	0.7845	0.8335
4.5	0.5021	0.6120		0.7072	0.7680	0.7905	0.8841
4.8	0.5037	0.6189		0.7232	0.7712	0.8465	0.8940
5.0	0.5083	0.6259		0.7136	0.7892	0.8586	0.9117
5.5	0.4868	0.5973		0.7263	0.8044	0.8400	0.8732
6.0	0.4991	0.6164		0.7096	0.7822	0.8240	0.8495
6.5	0.4906	0.5912		0.6929	0.7671	0.8146	0.8461
7.0	0.4712	0.5857		0.6729	0.7423	0.7950	0.8459
7.5	0.4635	0.5886		0.6832	0.7365	0.7988	0.8335
8.0	0.4525	0.4859		0.6839	0.7100	0.7275	0.5520

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.9707*							
3.875	0.9613+							
4.125	0.9664							
4.375	0.96321	0.9751						
4.625	0.9540		0.9768					
4.875	0.9840		0.9495					
5.125	0.9140		0.9256					
5.375	0.8801		0.9096					
5.625	0.3557, 0.8839		0.8973		0.9736			
5.875	0.8636		0.8815		0.9104			
6.125			0.8726		0.9052			
6.375	0.8701		0.8816		0.9224	0.9689		
6.625	0.8482		0.8686		0.9277	0.9754		
6.875	0.8437		0.8501		0.9048	0.9548	0.9946	
7.125	0.8381		0.8471		0.8887	0.9414	0.9818, 0.6056	
7.375	0.8341		0.8363		0.8589	0.9077	0.9458	
					0.8751	0.8916	0.9196	0.9583

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST					WTR1421				
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)					RUN 68				
ALPH	-0.05 deg	PIII	246.94 deg	P0	14.85 psia	TO	109.94 degf	MACH	3.0
AVERAGED DATA					SCALE FACTOR: 1.0000				
BODY PRESSURES (PSI)									
z/d	theta:	246.9	261.9	276.9	291.9	306.9	321.9		
0.5	0.9233								
1.0	0.7311								
1.5	0.5765		0.5947	0.6031	0.6042	0.6030	0.5966,0.5833		
2.0	0.4658						0.4679,0.4388		
2.5	0.4135		0.4095	0.4047	0.4034	0.4005	0.4070		
3.0	0.3305								
3.5	0.3396		0.3385	0.3421	0.3410	0.3485	0.3508		
4.0	0.3526		0.3499	0.3492	0.3526	0.3552	0.3613		
4.3	0.3529		0.3524	0.3558	0.3513	0.3626	0.3596		
4.5	0.3600		0.3539	0.3611	0.3580	0.3623	0.3656		
4.8	0.3650		0.3622	0.3739	0.3678	0.3750	0.3642		
5.0	0.3713		0.3769	0.3769	0.3887	0.3668	0.3850		
5.5	0.3783		0.3801	0.3787	0.3817	0.3804	0.3877		
6.0	0.3847		0.3827	0.3840	0.3842	0.3832	0.3851		
6.5	0.3933		0.3840	0.3863	0.3847	0.3876	0.3899		
7.0	0.3955		0.3952	0.3826	0.3794	0.3829	0.3968		
7.5	0.3911		0.3934	0.4005	0.3836	0.3995	0.3912		
8.0	0.4007		0.4358	0.4145	0.4479	0.3771	0.3532		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.3921*								
3.875	0.3739*								
4.125	0.3649								
4.375	0.36271	0.3813							
4.625	0.3902								
4.875	0.3743								
5.125	0.3941								
5.375	0.3732			0.3811					
5.625	0.3774	0.3853		0.3813					
5.875	0.3722			0.3755	0.3601				
6.125				0.3797					
6.375	0.3986			0.3888	0.3983	0.3379			
6.625	0.3843			0.3963	0.3900	0.3632			
6.875	0.3816			0.3991	0.4059	0.3833	0.3418		
7.125	0.3849			0.4037	0.3961	0.4063	0.3366,0.3614		
7.375	0.3908			0.3838	0.3889	0.3848	0.3565		
				0.3884	0.3898	0.3807	0.3825	0.3199	

WHITE OAK LABORATORY

WTR1421
RUN 69

ALPHI 4.97 deg PHI 246.75 deg

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

PO 14.85 psia
SCALE FACTOR: 1.0000

TO 110.11 degF

MACH 3.0

BODY PRESSURES (PSI)

z/d	theta:	261.7	276.7	291.7	306.7	321.7
0.5	1.1622					
1.0	0.9252					
1.5	0.7361	0.7708	0.7813	0.7684	0.7417	0.6938, 0.5473
2.0	0.5870					0.5420, 0.4091
2.5	0.5121	0.5222	0.5193	0.5107	0.4882	0.4673
3.0	0.4066					
3.5	0.4035	0.4141	0.4179	0.4112	0.4187	0.4327
4.0	0.4063	0.4167	0.4217	0.4311	0.4448	0.4582
4.3	0.4044	0.4172	0.4297	0.4371	0.4550	0.4578
4.5	0.4065	0.4183	0.4372	0.4474	0.4547	0.4680
4.8	0.4113	0.4258	0.4514	0.4565	0.4640	0.4746
5.0	0.4166	0.4392	0.4547	0.4750	0.4590	0.4999
5.5	0.4250	0.4430	0.4555	0.4643	0.4740	0.5087
6.0	0.4322	0.4435	0.4541	0.4637	0.4925	0.5012
6.5	0.4423	0.4407	0.4520	0.4823	0.4927	0.4994
7.0	0.4470	0.4563	0.4704	0.4771	0.4832	0.5017
7.5	0.4553	0.4746	0.4888	0.4745	0.4924	0.4956
8.0	0.4754	0.5078	0.5006	0.5317	0.4612	0.3619

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.5480*							
3.875	0.5323+							
4.125	0.5345							
4.375	0.53091	0.5488						
4.625	0.5420							
4.875	0.5499							
5.125	0.5259							
5.375	0.5017							
5.625	0.4760, 0.5089							
5.875	0.4944							
6.125								
6.375	0.5133							
6.625	0.4946							
6.875	0.4892							
7.125	0.4912							
7.375	0.4997							
		0.5536						
		0.5349						
		0.5441						
		0.5149						
		0.5129						
		0.5047						
		0.5023						
		0.5168						
		0.5128						
		0.5238						
		0.4991						
		0.4903						
			0.5405					
			0.5425					
			0.5276					
			0.5388					
			0.5244					
			0.5126					
			0.5077					
				0.5363				
				0.5510				
				0.5439				
				0.5385				
				0.5130				
				0.5066				
					0.5586			
					0.5525, 0.5012			
					0.5284			
					0.5155			
						0.5282		

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	9.92 deg	PHI	246.72 deg AVERAGED DATA	P0	14.85 psia SCALE FACTOR:	T0	110.39 degf	MACH	3.0
BODY PRESSURES (PSI)									
z/d	theta:	246.7	261.7	276.7	291.7	306.7	321.7		
0.5	1.4231								
1.0	1.1628								
1.5	0.9340		0.9963	1.0090	0.9738	0.9062	0.7984, 0.4872		
2.0	0.7504						0.6285, 0.3502		
2.5	0.6502		0.6807	0.6779	0.6533	0.5980	0.5363		
3.0	0.5187								
3.5	0.5084		0.5366	0.5395	0.5157	0.5067	0.5324		
4.0	0.5046		0.5318	0.5367	0.5416	0.5637	0.5577		
4.3	0.4991		0.5298	0.5460	0.5573	0.5789	0.5545		
4.5	0.5010		0.5337	0.5594	0.5792	0.5821	0.6207		
4.8	0.5033		0.5410	0.5814	0.5944	0.6042	0.6408		
5.0	0.5062		0.5567	0.5899	0.6164	0.6065	0.6653		
5.5	0.5092		0.5585	0.5854	0.5998	0.6364	0.6577		
6.0	0.5126		0.5497	0.5756	0.6302	0.6429	0.6530		
6.5	0.5193		0.5482	0.6069	0.6296	0.6396	0.6550		
7.0	0.5424		0.5805	0.5976	0.6127	0.6248	0.6591		
7.5	0.5609		0.5784	0.6126	0.6113	0.6345	0.6532		
8.0	0.5544		0.5844	0.6217	0.6493	0.5915	0.4629		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.7386*								
3.875	0.7258*								
4.125	0.7291								
4.375	0.72871	0.7410							
4.625	0.7346		0.7473						
4.875	0.7473		0.7289						
5.125	0.7095		0.7247						
5.375	0.6802		0.7000						
5.625	0.5522, 0.6853		0.6920		0.7369				
5.875	0.6670		0.6794		0.7010				
6.125			0.6759		0.6974				
6.375	0.6804		0.6880		0.7299	0.7328			
6.625	0.6587		0.6965		0.7107	0.7439			
6.875	0.6551		0.6800		0.7192	0.7318	0.7527		
7.125	0.6549		0.6636		0.7025	0.7245	0.7430, 0.6097		
7.375	0.6496		0.6605		0.6894	0.6944	0.7186		
			0.6518		0.6678	0.6862	0.7002	0.7178	

WHITE OAK LABORATORY

WIR1421
RUN 71

ALPH 14.94 deg PHI 247.05 deg

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

247.05 deg 14.85 psia 10 110.35 degF MACH 3.0

AVERAGED DATA SCALE FACTOR: 1.0000

WTR1421
RUN 71

z/d theta: 247.1

0.5 1.7367

1.0 1.4396

1.5 1.1896

2.0 0.9637

2.5 0.8371

3.0 0.6755

3.5 0.6626

4.0 0.6525

4.3 0.6468

4.5 0.6491

4.8 0.6517

5.0 0.6554

5.5 0.6559

6.0 0.6517

6.5 0.6570

7.0 0.6757

7.5 0.6843

8.0 0.6784

262.1 277.1 292.1 307.1 322.1

1.2876 1.3037 1.2339 1.1051 0.9213, 0.4243

0.8949 0.8939 0.8463 0.7473 0.7326, 0.2947

0.7129 0.7125 0.6681 0.6304 0.6654

0.7021 0.7066 0.6965 0.7280 0.7363

0.6976 0.7158 0.7281 0.7573 0.7573

0.7067 0.7388 0.7706 0.7701 0.7911

0.7163 0.7740 0.7939 0.8059 0.8169

0.7373 0.7887 0.8200 0.8205 0.8429

0.7359 0.7718 0.8063 0.8544 0.8403

0.7184 0.7880 0.8456 0.8608 0.8487

0.7457 0.8048 0.8385 0.8552 0.8616

0.7468 0.7893 0.8161 0.8352 0.8758

0.7419 0.8065 0.8168 0.8353 0.8730

0.7050 0.8050 0.8275 0.7605 0.6143

WING PRESSURES (PSI)

z/d r/d: 0.5935

3.625 0.9809*

3.875 0.9715+

4.125 0.9914

4.375 0.99191 0.9998

4.625 0.9870

4.875 1.0013

5.125 0.9502

5.375 0.9173

5.625 0.5847, 0.9216

5.875 0.9031

6.125

6.375 0.9135

6.625 0.8881

6.875 0.8890

7.125 0.8840

7.375 0.8756

0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

1.0054 1.0048 0.9615 0.9434 0.9337 0.9184 0.9130 0.9223 0.9134 0.8940 0.8903 0.8789

0.9825 0.9615 0.9434 0.9337 0.9184 0.9130 0.9223 0.9134 0.8940 0.8903 0.8789

0.9870 0.9502 0.9173 0.9031 0.9135 0.8881 0.8890 0.8840 0.8756

0.9872 0.9777 0.9555 0.9628 0.9384 0.9036 0.9025

0.9812 0.9931 0.9794 0.9674 0.9372 0.9245

1.0017 0.9909, 0.7568 0.9659 0.9443 0.9639

WHITE OAK LABORATORY

WTR1421
RUN 72

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

WTR1421
RUN 72

ALPH	-0.09 deg	PHI	269.64 deg	PO	14.84 psia	TO	110.59 degF	MACH	3.0
AVERAGED DATA				SCALE FACTOR:		1.0000			
						..			

BODY PRESSURES (PSI)

z/d	theta:	269.6	284.6	299.6	314.6	329.6	344.6
0.5	0.9288						
1.0	0.7362						
1.5	0.5800						
2.0	0.4688						
2.5	0.4165						
3.0	0.3314						
3.5	0.3403						
4.0	0.3530						
4.3	0.3532						
4.5	0.3601						
4.8	0.3660						
5.0	0.3725						
5.5	0.3796						
6.0	0.3854						
6.5	0.3943						
7.0	0.3965						
7.5	0.3935						
8.0	0.4014						
		284.6	299.6	314.6	329.6	344.6	
		0.5987	0.6061	0.6076	0.6035	0.5963, 0.5855	
		0.4116	0.4064	0.4048	0.4015	0.4674, 0.4398	
		0.3394	0.3423	0.3409	0.3491	0.3518	
		0.3498	0.3498	0.3536	0.3561	0.3629	
		0.3525	0.3570	0.3526	0.3644	0.3617	
		0.3538	0.3616	0.3593	0.3641	0.3679	
		0.3626	0.3751	0.3690	0.3765	0.3652	
		0.3782	0.3785	0.3908	0.3674	0.3856	
		0.3815	0.3799	0.3829	0.3819	0.3891	
		0.3841	0.3851	0.3856	0.3847	0.3856	
		0.3856	0.3873	0.3851	0.3878	0.3906	
		0.3963	0.3829	0.3788	0.3824	0.4032	
		0.3951	0.4041	0.3855	0.3991	0.3924	
		0.4360	0.4145	0.4479	0.3798	0.3539	

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3960*							
3.875	0.3778†							
4.125	0.3686							
4.375	0.3678†	0.3853						
4.625	0.3948		0.3940					
4.875	0.3830		0.3866					
5.125	0.3957		0.4157	0.3898				
5.375	0.3740		0.3812	0.3862				
5.625	0.3799, 0.3851		0.3809	0.3767	0.3738			
5.875	0.3715		0.3734	0.3801				
6.125			0.3796	0.3891	0.3941	0.3583		
6.375	0.3992		0.4007	0.3953	0.3891	0.3798		
6.625	0.3855		0.4019	0.4026	0.4066	0.3943	0.3595	
6.875	0.3849		0.3865	0.4069	0.3974	0.4028	0.3484, 0.3693	
7.125	0.3880		0.3870	0.3864	0.3913	0.3836	0.3854	
7.375	0.3892		0.3873	0.3917	0.3929	0.3814	0.3829	0.3341

WHITE OAK LABORATORY

WTR1421
RUN 73

ALPH 4.92 deg PHI 269.66 deg
AVERAGED DATA

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSIN1(PR/10) PSIN2(TC/1)

WTR1421
RUN 73

TO 110.75 degF
MACH 3.0

PO 14.84 psia
SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	284.7	299.7	314.7	329.7	344.7
0.5	1.1924					
1.0	0.9516					
1.5	0.7584					
2.0	0.6066					
2.5	0.5291					
3.0	0.4207					
3.5	0.4169					
4.0	0.4207					
4.3	0.4182					
4.5	0.4209					
4.8	0.4258					
5.0	0.4321					
5.5	0.4429					
6.0	0.4534					
6.5	0.4650					
7.0	0.4718					
7.5	0.4768					
8.0	0.4929					

0.7712 0.7594 0.7269 0.6849 0.6273, 0.6078
0.5239 0.5047 0.4803 0.4475 0.4895, 0.4559
0.4218

0.4145 0.4045 0.3860 0.3909 0.4042
0.4165 0.4067 0.4084 0.4205 0.4341
0.4168 0.4154 0.4167 0.4335 0.4359
0.4171 0.4242 0.4303 0.4359 0.4458
0.4252 0.4412 0.4430 0.4500 0.4516
0.4407 0.4472 0.4643 0.4437 0.4771
0.4492 0.4538 0.4580 0.4574 0.4869
0.4556 0.4592 0.4596 0.4734 0.4896
0.4572 0.4569 0.4677 0.4845 0.4947
0.4710 0.4649 0.4777 0.4813 0.5018
0.4786 0.5008 0.4881 0.4937 0.4956
0.5251 0.5099 0.5407 0.4687 0.3755

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.5374*							
3.875	0.5214*							
4.125	0.5249							
4.375	0.52341							
4.625	0.5365							
4.875	0.5431							
5.125	0.5235							
5.375	0.4997							
5.625	0.4992, 0.5078							
5.875	0.4923							
6.125	0.5135							
6.375	0.4953							
6.625	0.4937							
6.875	0.4936							
7.125	0.4965							
7.375								

0.5460 0.5491 0.5306 0.5134 0.5140 0.5177 0.5175 0.5175 0.5154 0.4973 0.4957 0.4932

0.5320 0.5393 0.5254 0.5376 0.5367 0.5112 0.5090

0.5288 0.5459 0.5392 0.5508 0.5461, 0.5317 0.5256 0.5150 0.5220

WHITE OAK LABORATORY

WTR1421
RUN 74WTR1421
RUN 74TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	9.93 deg	PHI	269.47 deg	PO	14.84 psia	TO	110.66 degF	MACH	3.0
	AVERAGED DATA			SCALE FACTOR:		1.0000			

BODY PRESSURES (PSI)

z/d	theta:	269.5	284.5	299.5	314.5	329.5	344.5
0.5	1.4933						
1.0	1.2299						
1.5	0.9895						
2.0	0.7974	0.9944	0.9944	0.9515	0.8691	0.7665	0.6478, 0.6170
2.5	0.6916		0.6802	0.6354	0.5740	0.4964	0.5012, 0.4551
3.0	0.5554						0.4246
3.5	0.5434		0.5355	0.5004	0.4461	0.4241	0.4485
4.0	0.5407		0.5308	0.4953	0.4647	0.4851	0.4845
4.3	0.5365		0.5278	0.4980	0.4829	0.5081	0.4911
4.5	0.5386		0.5272	0.5069	0.5151	0.5234	0.5173
4.8	0.5396		0.5309	0.5332	0.5429	0.5520	0.5312
5.0	0.5399		0.5461	0.5499	0.5736	0.5553	0.5565
5.5	0.5476		0.5578	0.5666	0.5727	0.5800	0.5587
6.0	0.5665		0.5708	0.5783	0.5809	0.6034	0.5733
6.5	0.5873		0.5814	0.5803	0.6044	0.6107	0.5900
7.0	0.5981		0.5995	0.5992	0.6099	0.6075	0.6077
7.5	0.6102		0.6134	0.6388	0.6234	0.6225	0.6099
8.0	0.6352		0.6633	0.6486	0.6754	0.5769	0.4657

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.6949*							
3.875	0.6812*							
4.125	0.7053							
4.375	0.70341							
4.625	0.7107							
4.875	0.7157							
5.125	0.6864							
5.375	0.6595							
5.625	0.6463, 0.6620							
5.875	0.6461				0.7004			
6.125								
6.375	0.6641				0.7077	0.6946		
6.625	0.6456				0.6891	0.7098		
6.875	0.6440				0.6981	0.7013	0.7107	
7.125	0.6419				0.6797	0.6970	0.7049, 0.6861	
7.375	0.6455				0.6552	0.6706	0.6854	
					0.6659	0.6828	0.6715	0.6758

WHITE OAK LABORATORY

WTR1421
RUN 75WTR1421
RUN 75TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 14.94 deg PHI 269.47 deg AVERAGED DATA PO 14.84 psia TO 110.99 degf NACH 3.0

SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	269.5	284.5	299.5	314.5	329.5	344.5
0.5	1.8490						
1.0	1.5496						
1.5	1.2852						
2.0	1.0443						
2.5	0.9120						
3.0	0.7422						
3.5	0.7259						
4.0	0.7181						
4.3	0.7117						
4.5	0.7167						
4.8	0.7177						
5.0	0.7148						
5.5	0.7136						
6.0	0.7357						
6.5	0.7648						
7.0	0.7834						
7.5	0.8050						
8.0	0.8338						
		269.5	284.5	299.5	314.5	329.5	344.5
		1.2790	1.1911	1.0387		0.8626	0.6726, 0.6296
		0.8927	0.8136	0.7032		0.5682	0.5245, 0.4640
		0.7105	0.6420	0.5436		0.4745	0.4428
		0.6999	0.6330	0.5522		0.5838	0.5080
		0.6942	0.6330	0.5905		0.6274	0.5922
		0.6967	0.6412	0.6494		0.6520	0.6098
		0.6986	0.6758	0.6901		0.6943	0.6379
		0.7134	0.7042	0.7333		0.7090	0.6538
		0.7246	0.7295	0.7376		0.7434	0.6752
		0.7405	0.7483	0.7546		0.7717	0.6657
		0.7583	0.7595	0.7924		0.7870	0.7198
		0.7895	0.7875	0.7964		0.7947	0.6856
		0.8092	0.8349	0.8150		0.8183	0.7649
		0.8558	0.8438	0.8650		0.7733	0.7733
						0.7304	0.5771

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.8940*							
3.875	0.8834*							
4.125	0.9389							
4.375	0.94541							
4.625	0.9434							
4.875	0.9374							
5.125	0.8698							
5.375	0.8479							
5.625	0.8149, 0.8558							
5.875	0.8420							
6.125								
6.375	0.8589							
6.625	0.8364							
6.875	0.8368							
7.125	0.8379							
7.375	0.8326							
		0.9595	0.9412	0.9086	0.9132			
		0.9391	0.9248	0.9040				
		0.8823	0.9060	0.9079				
		0.9060	0.8821	0.9040				
		0.8975	0.8811	0.9079				
		0.8821	0.8897	0.9068				
		0.8878	0.9045	0.9045				
		0.8640	0.9020	0.9020				
		0.8627	0.8803	0.8814				
		0.8595	0.8896	0.8896				
			0.9283	0.9283				
			0.9103	0.9103				
			0.9205	0.9205				
			0.9021	0.9021				
			0.8943	0.8943				
			0.8896	0.8896				
			0.9035	0.9035				
			0.9206	0.9206				
			0.9173	0.9173				
			0.9160	0.9160				
			0.9134, 0.8912	0.9134, 0.8912				
			0.9001	0.9001				
			0.8859	0.8859				
			0.8772	0.8772				

WIR1421
RUN 76

WIR1421
RUN 76

WIIIE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPHI -0.05 deg PIHI 292.27 deg

PO 14.84 psia

SCALE FACTOR: 1.0000

10 111.09 degF

MACH 3.0

z/d theta: 292.3

0.5 0.9342

1.0 0.7407

1.5 0.5842

2.0 0.4722

2.5 0.4187

3.0 0.3327

3.5 0.3419

4.0 0.3541

4.3 0.3540

4.5 0.3605

4.8 0.3663

5.0 0.3730

5.5 0.3805

6.0 0.3866

6.5 0.3945

7.0 0.3977

7.5 0.3945

8.0 0.4009

307.3 322.3 337.3 352.3 367.3

0.6021 0.6080 0.6069 0.6033 0.5949, 0.5881

0.4139 0.4076 0.4060 0.4014 0.4653, 0.4420

0.3402 0.3430 0.3407 0.3501 0.3531

0.3512 0.3505 0.3541 0.3574 0.3645

0.3539 0.3585 0.3536 0.3660 0.3638

0.3543 0.3625 0.3601 0.3659 0.3702

0.3629 0.3768 0.3701 0.3779 0.3656

0.3791 0.3794 0.3922 0.3681 0.3851

0.3829 0.3807 0.3839 0.3827 0.3871

0.3850 0.3864 0.3867 0.3856 0.3876

0.3850 0.3878 0.3860 0.3890 0.3916

0.3973 0.3834 0.3794 0.3854 0.4022

0.3964 0.4044 0.3834 0.3997 0.3934

0.4356 0.4148 0.4482 0.3819 0.3558

WING PRESSURES (PSI)

z/d r/d: 0.5935

3.625 0.3996*

3.875 0.3812+

4.125 0.3717

4.375 0.3719 0.3881

4.625 0.3963

4.875 0.3877

5.125 0.3961

5.375 0.3744

5.625 0.3813, 0.3868

5.875 0.3709

6.125 0.3778

6.375 0.3987

6.625 0.3828

6.875 0.3858

7.125 0.3895

7.375 0.4003

0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

0.3979 0.3882 0.4162 0.3834 0.3841 0.3738 0.3778 0.3894 0.3931 0.3999 0.4089 0.3989 0.3904 0.3917

0.3945 0.3892 0.3786 0.3830 0.4018 0.3895 0.3912 0.3958 0.4038 0.3796 0.3739, 0.3768 0.3871 0.3812 0.3472

WHITE OAK LABORATORY									
WIR1421 RUN 77		TUNNEL T2 PRESSURE TEST							
		PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)							
ALPH	4.94 deg	PII	292.17 deg AVERAGED DATA	PO	14.83 psia SCALE FACTOR:	TO	111.12 degf	MACH	3.0
BODY PRESSURES (PSI)									
z/d	theta:	292.2	307.2	322.2	337.2	352.2	367.2		
0.5	1.1739								
1.0	0.9373								
1.5	0.7460		0.7378	0.7076	0.6638	0.6147	0.5613, 0.6744		
2.0	0.5967						0.4376, 0.5062		
2.5	0.5224		0.5012	0.4678	0.4356	0.4007	0.3778		
3.0	0.4135								
3.5	0.4099		0.3941	0.3735	0.3497	0.3592	0.3705		
4.0	0.4137		0.3957	0.3756	0.3761	0.3878	0.4014		
4.3	0.4112		0.3956	0.3843	0.3851	0.4017	0.3957		
4.5	0.4140		0.3952	0.3940	0.3989	0.4044	0.4038		
4.8	0.4189		0.4030	0.4120	0.4123	0.4193	0.4059		
5.0	0.4239		0.4195	0.4190	0.4349	0.4119	0.4297		
5.5	0.4328		0.4276	0.4260	0.4291	0.4285	0.4399		
6.0	0.4421		0.4345	0.4356	0.4344	0.4476	0.4529		
6.5	0.4549		0.4409	0.4416	0.4491	0.4624	0.4662		
7.0	0.4617		0.4588	0.4457	0.4570	0.4591	0.4794		
7.5	0.4643		0.4636	0.4804	0.4660	0.4775	0.4737		
8.0	0.4856		0.5175	0.4939	0.5249	0.4554	0.3742		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.5062*								
3.875	0.4898*								
4.125	0.4948								
4.375	0.49531	0.5097							
4.625	0.5097								
4.875	0.5138								
5.125	0.4994								
5.375	0.4778								
5.625	0.5047, 0.4887								
5.875	0.4726				0.5029				
6.125									
6.375	0.4958				0.5177	0.5015			
6.625	0.4789				0.5027	0.5202			
6.875	0.4804				0.5171	0.5144	0.5207		
7.125	0.4827				0.5041	0.5147	0.5190, 0.5430		
7.375	0.4926				0.4962	0.4911	0.5007		
					0.4942	0.4877	0.4916	0.4948	

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	9.93 deg	PIII	292.28 deg AVERAGED DATA	P0	14.83 psia SCALE FACTOR:	TO	111.35 deg	MACH	3.0
BODY PRESSURES (PSI)									
z/d	theta:	292.3	307.3	322.3	337.3	352.3	367.3		
0.5	1.4436								
1.0	1.1873								
1.5	0.9515		0.9032	0.8202	0.7141	0.6093	0.5061, 0.7704		
2.0	0.7673						0.3857, 0.5809		
2.5	0.6669		0.6145	0.5401	0.4623	0.3846	0.3251		
3.0	0.5336								
3.5	0.5201		0.4786	0.4177	0.3486	0.3294	0.3507		
4.0	0.5181		0.4726	0.4088	0.3621	0.3871	0.3908		
4.3	0.5127		0.4685	0.4089	0.3869	0.4134	0.4042		
4.5	0.5152		0.4629	0.4104	0.4181	0.4270	0.4160		
4.8	0.5164		0.4648	0.4347	0.4463	0.4536	0.4132		
5.0	0.5177		0.4770	0.4540	0.4810	0.4574	0.4308		
5.5	0.5222		0.4847	0.4824	0.4890	0.4874	0.4378		
6.0	0.5326		0.5033	0.5059	0.5080	0.5089	0.4545		
6.5	0.5482		0.5183	0.5222	0.5259	0.5248	0.4797		
7.0	0.5552		0.5352	0.5247	0.5355	0.5325	0.5089		
7.5	0.5685		0.5435	0.5569	0.5629	0.5625	0.5238		
8.0	0.5832		0.6125	0.5928	0.6211	0.5240	0.4098		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.6146*								
3.875	0.5997*								
4.125	0.6404								
4.375	0.6434	0.6532							
4.625	0.6545								
4.875	0.6471	0.6641							
5.125	0.5982	0.6150							
5.375	0.5757	0.6265							
5.625	0.6824	0.5849							
5.875	0.5677	0.6086			0.6284				
6.125		0.6075							
6.375	0.5867	0.6193			0.6452	0.6195			
6.625	0.5672	0.6186			0.6331	0.6382			
6.875	0.5665	0.6015			0.6447	0.6362	0.6318		
7.125	0.5693	0.5991			0.6377	0.6370	0.6321, 0.7326		
7.375	0.5751	0.5964			0.6221	0.6132	0.6162		
				0.6184	0.6227	0.6080	0.6079	0.5982	

WHITE OAK LABORATORY

WTR1421
RUN 79

ALPH 14.93 deg PHI 292.53 deg PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

TUNNEL T2 PRESSURE TEST

SCALE FACTOR: 1.0000

10 111.36 degf MACH 3.0

theta: 292.5

z/d 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.3 4.5 4.8 5.0 5.5 6.0 6.5 7.0 7.5 8.0

1.7624
1.4751
1.2164
0.9886
0.8634
0.6994
0.6798
0.6733
0.6652
0.6712
0.6725
0.6728
0.6745
0.6815
0.6832
0.7102
0.7086
0.7139

307.5 1.1137 0.7713 0.6034 0.5923 0.5861 0.5820 0.5823 0.5941 0.5871 0.6004 0.6205 0.6451 0.6522 0.7394

322.5 0.9583 0.6433 0.4937 0.4812 0.4780 0.4760 0.4925 0.5094 0.5524 0.5946 0.6174 0.6068 0.6699 0.7022

337.5 0.7783 0.5077 0.3777 0.3779 0.4053 0.4608 0.5026 0.5484 0.5695 0.6015 0.6234 0.6416 0.7088 0.7275

352.5 0.6053 0.3780 0.3118 0.4079 0.4452 0.4706 0.5055 0.5153 0.5598 0.5968 0.6289 0.6485 0.7068 0.6218

367.5 0.4500, 0.8844
0.3369, 0.6734
0.2792 0.3430 0.4032 0.4102 0.4224 0.4366 0.4753 0.5124 0.5428 0.5763 0.6173 0.6481 0.4666

WING PRESSURES (PSI)

z/d 3.625 4.125 4.375 4.625 5.125 5.375 5.625 5.875 6.125 6.375 6.625 6.875 7.125 7.375

r/d: 0.5935 0.6784* 0.6645+ 0.8305 0.8410 0.8351 0.8161 0.6271 0.6092 0.6237 0.6150 0.6441 0.6304 0.6378 0.6482 0.6623

0.7185 0.8493 0.8300 0.6432 0.7973 0.7815 0.7587 0.7472 0.7528 0.7394 0.7218 0.7166 0.7002

0.8435 0.8208 0.8181 0.8122 0.8092 0.8175 0.8205 0.8284 0.8281 0.8042 0.8118

0.9685 0.7915 0.8191 0.8149 0.8302 0.8174 0.8133 0.8183

1.0935 0.7775 0.7958 0.8017 0.8085 0.7912 0.7898

1.2185 0.7788 0.7805, 0.9788 0.7755 0.7715

1.3435 0.7394

WHITE OAK LABORATORY										WTR1421 RUN 80
TUNNEL 12 PRESSURE TEST										
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)										
ALPH	-0.07 deg	PHI	314.92 deg AVERAGED DATA	P0	14.83 psia SCALE FACTOR:	TO 1.0000	111.54 degf	MACH	3.0	
BODY PRESSURES (PSI)										
z/d	theta:	314.9	329.9	344.9	359.9	374.9	389.9			
0.5	0.9352									
1.0	0.7413									
1.5	0.5838		0.6017	0.6073	0.6057	0.6000	0.5908, 0.5924			
2.0	0.4740						0.4626, 0.4432			
2.5	0.4200		0.4139	0.4075	0.4049	0.3992	0.4040			
3.0	0.3325									
3.5	0.3420		0.3399	0.3422	0.3400	0.3491	0.3520			
4.0	0.3544		0.3511	0.3498	0.3539	0.3571	0.3645			
4.3	0.3544		0.3537	0.3581	0.3524	0.3660	0.3632			
4.5	0.3610		0.3542	0.3622	0.3591	0.3655	0.3700			
4.8	0.3668		0.3632	0.3770	0.3698	0.3779	0.3645			
5.0	0.3736		0.3799	0.3800	0.3926	0.3666	0.3838			
5.5	0.3801		0.3823	0.3792	0.3832	0.3821	0.3859			
6.0	0.3866		0.3843	0.3859	0.3860	0.3846	0.3868			
6.5	0.3946		0.3852	0.3872	0.3847	0.3882	0.3910			
7.0	0.3982		0.3983	0.3839	0.3797	0.3801	0.3988			
7.5	0.3945		0.3955	0.4049	0.3809	0.3998	0.3945			
8.0	0.4002		0.4354	0.4148	0.4484	0.3835	0.3568			
WING PRESSURES (PSI)										
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435		
3.625	0.3996*									
3.875	0.3814*									
4.125	0.3723									
4.375	0.3729	0.3887								
4.625	0.3964									
4.875	0.3887									
5.125	0.3954									
5.375	0.3729			0.3952						
5.625	0.3808	0.3853		0.3890						
5.875	0.3689			0.3776	0.3788					
6.125				0.3816						
6.375				0.3763	0.4002	0.3710				
6.625	0.3980			0.3878	0.3889	0.3941				
6.875	0.3808			0.3977	0.4092	0.3964	0.3819			
7.125	0.3810			0.4111	0.3997	0.4035	0.3792, 0.3764			
7.375	0.3857			0.3996	0.3936	0.3825	0.3861			
	0.3973			0.3960	0.3968	0.3818	0.3803	0.3476		

WHITE OAK LABORATORY									
WIR1421 RUN 81		TUNNEL T2 PRESSURE TEST							
		PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)							
ALPH	4.93 deg	PHI	314.70 deg AVERAGED DATA	P0	14.83 psia SCALE FACTOR:	TO 111.63 degF 1.0000	MACH	3.0	WIR1421 RUN 81
BODY PRESSURES (PSI)									
z/d	theta:	314.7	329.7	344.7	359.7	374.7	389.7		
0.5	1.1130								
1.0	0.8870								
1.5	0.7036		0.6807	0.6418	0.5953	0.5520	0.5101, 0.7309		
2.0	0.5632						0.3987, 0.5516		
2.5	0.4938		0.4602	0.4235	0.3906	0.3619	0.3494		
3.0	0.3872								
3.5	0.3844		0.3604	0.3364	0.3190	0.3349	0.3423		
4.0	0.3882		0.3622	0.3405	0.3446	0.3544	0.3623		
4.3	0.3849		0.3612	0.3495	0.3499	0.3660	0.3560		
4.5	0.3876		0.3589	0.3556	0.3580	0.3650	0.3633		
4.8	0.3919		0.3661	0.3718	0.3689	0.3769	0.3621		
5.0	0.3952		0.3823	0.3771	0.3917	0.3705	0.3900		
5.5	0.4001		0.3876	0.3845	0.3905	0.4057	0.4109		
6.0	0.4050		0.3948	0.3992	0.4038	0.4259	0.4216		
6.5	0.4157		0.4011	0.4060	0.4164	0.4351	0.4306		
7.0	0.4279		0.4179	0.4042	0.4207	0.4295	0.4420		
7.5	0.4230		0.4323	0.4437	0.4351	0.4502	0.4397		
8.0	0.4370		0.4707	0.4655	0.4976	0.4320	0.3706		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.4634*								
3.875	0.4464*								
4.125	0.4533								
4.375	0.45471	0.4688							
4.625	0.4724		0.4792						
4.875	0.4734		0.4651						
5.125	0.4654		0.4848						
5.375	0.4468		0.4579	0.4796					
5.625	0.4908, 0.4591		0.4589	0.4555	0.4628				
5.875	0.4443		0.4516	0.4598					
6.125			0.4556	0.4667	0.4805	0.4611			
6.375	0.4698		0.4753	0.4725	0.4712	0.4888			
6.625	0.4512		0.4741	0.4789	0.4941	0.4823	0.4847		
6.875	0.4492		0.4567	0.4917	0.4777	0.4848	0.4845, 0.5270		
7.125	0.4525		0.4639	0.4603	0.4696	0.4615	0.4669		
7.375	0.4629		0.4570	0.4651	0.4690	0.4588	0.4594	0.4580	

WILLIE OAK LABORATORY									
WTR1421 RUN 82					WTR1421 RUN 82				
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)									
ALPH	9 91 deg	P11	314.93 deg AVERAGED DATA	P0	14.83 psia SCALE FACTOR:	T0 1.0000	111.78 degF	MACH	3.0
BODY PRESSURES (PSI)									
z/d	theta:	314.9	329.9	344.9	359.9	374.9	389.9		
0.5	1.2962								
1.0	1.0553								
1.5	0.8397		0.7609	0.6641	0.5658	0.4777	0.4114, 0.9043		
2.0	0.6760						0.3120, 0.6902		
2.5	0.5853		0.5094	0.4275	0.3561	0.2955	0.2657		
3.0	0.4617								
3.5	0.4478		0.3873	0.3203	0.2579	0.2705	0.2804		
4.0	0.4447		0.3790	0.3085	0.2870	0.3068	0.3040		
4.3	0.4383		0.3737	0.3085	0.3081	0.3261	0.3020		
4.5	0.4391		0.3629	0.3093	0.3263	0.3334	0.3126		
4.8	0.4414		0.3649	0.3368	0.3489	0.3542	0.3085		
5.0	0.4406		0.3775	0.3573	0.3827	0.3527	0.3287		
5.5	0.4364		0.3773	0.3846	0.3913	0.3799	0.3415		
6.0	0.4359		0.3882	0.4040	0.4067	0.3918	0.3548		
6.5	0.4486		0.3970	0.4116	0.4180	0.4093	0.3734		
7.0	0.4389		0.4075	0.4156	0.4448	0.4245	0.4002		
7.5	0.4277		0.4047	0.4661	0.4722	0.4726	0.4311		
8.0	0.4426		0.4761	0.4777	0.5094	0.4335	0.3733		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.5053*								
3.875	0.4889†								
4.125	0.5514								
4.375	0.5570†								
4.625	0.5724								
4.875	0.5623								
5.125	0.4847								
5.375	0.4596								
5.625	0.6588, 0.4682								
5.875	0.4494				0.5423				
6.125									
6.375	0.4708				0.5637	0.5315			
6.625	0.4529				0.5555	0.5612			
6.875	0.4493				0.5777	0.5576	0.5466		
7.125	0.4552				0.5632	0.5607	0.5472, 0.7243		
7.375	0.4643				0.5612	0.5386	0.5334		
					0.5537	0.5357	0.5283	0.5114	

WHITE OAK LABORATORY

WTR1421
RUN 83

ALPHI 14.95 deg PHII 315.13 deg PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL T2 PRESSURE TEST

315.13 deg
AVERAGED DATA

P0 14.83 psia
SCALE FACTOR: 1.0000

TO 111.95 degF

MACH 3.0

WTR1421
RUN 83

z/d	theta:	330.1	345.1	360.1	375.1	390.1
0.5	1.5036					
1.0	1.2389					
1.5	1.0095	0.8567	0.6933	0.5353	0.3999	0.3017, 1.1205
2.0	0.8155					0.2147, 0.8648
2.5	0.7103	0.5810	0.4466	0.3296	0.2332	0.1767
3.0	0.5650					
3.5	0.5435	0.4385	0.3274	0.2275	0.1912	0.2112
4.0	0.5369	0.4271	0.3119	0.2275	0.2572	0.2507
4.3	0.5286	0.4192	0.3089	0.2445	0.2795	0.2449
4.5	0.5328	0.4093	0.3013	0.2739	0.2918	0.2814
4.8	0.5364	0.4119	0.3108	0.3086	0.3184	0.2862
5.0	0.5365	0.4240	0.3145	0.3521	0.3232	0.3090
5.5	0.5243	0.4179	0.3427	0.3703	0.3606	0.3205
6.0	0.5369	0.4054	0.3674	0.4017	0.3792	0.3384
6.5	0.5244	0.3980	0.3909	0.4251	0.4216	0.3745
7.0	0.5051	0.3941	0.3894	0.4489	0.4482	0.4217
7.5*	0.4857	0.3784	0.4400	0.4767	0.4925	0.4499
8.0	0.4860	0.5183	0.4726	0.5041	0.4271	0.3710

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.4347*							
3.875	0.4170+							
4.125	0.6529							
4.375	0.66741	0.6659						
4.625	0.6630		0.6873					
4.875	0.6625		0.6566					
5.125	0.3813		0.4018					
5.375	0.3655		0.6086					
5.625	0.8817, 0.3802		0.5779	0.6664	0.6407			
5.875	0.3707		0.5388	0.6695				
6.125			0.5084	0.6752	0.6772	0.6222		
6.375	0.4062		0.5017	0.6751	0.6732	0.6532		
6.625	0.3977		0.4810	0.6791	0.7038	0.6602	0.6280	
6.875	0.4031		0.4600	0.6924	0.6936	0.6740	0.6317, 0.9805	
7.125	0.4158		0.4536	0.6519	0.6966	0.6632	0.6319	
7.375	0.4244		0.4278	0.6460	0.7067	0.6691	0.6364	0.5915

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	-0.11 deg	PHI	337.74 deg	P0	14.81 psia	TO	112.06 degF	MACH	3.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	337.7	352.7	367.7	382.7	397.7	412.7		
0.5	0.9354								
1.0	0.7424								
1.5	0.5835		0.6015	0.6054	0.6034	0.5953	0.5853, 0.5966		
2.0	0.4740						0.4587, 0.4456		
2.5	0.4214		0.4144	0.4064	0.4030	0.3967	0.4019		
3.0	0.3319								
3.5	0.3418		0.3391	0.3414	0.3387	0.3480	0.3502		
4.0	0.3542		0.3501	0.3485	0.3522	0.3556	0.3631		
4.3	0.3538		0.3523	0.3572	0.3501	0.3651	0.3615		
4.5	0.3611		0.3536	0.3616	0.3580	0.3643	0.3687		
4.8	0.3668		0.3627	0.3775	0.3688	0.3776	0.3633		
5.0	0.3734		0.3805	0.3802	0.3931	0.3650	0.3824		
5.5	0.3798		0.3819	0.3777	0.3824	0.3807	0.3834		
6.0	0.3865		0.3834	0.3853	0.3850	0.3837	0.3862		
6.5	0.3950		0.3837	0.3868	0.3841	0.3878	0.3906		
7.0	0.3990		0.3999	0.3822	0.3755	0.3766	0.3985		
7.5	0.3933		0.3954	0.4057	0.3795	0.3999	0.3938		
8.0	0.3993		0.4344	0.4146	0.4480	0.3838	0.3594		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.3975*								
3.875	0.3795†								
4.125	0.3713								
4.375	0.3714† 0.3876								
4.625	0.3947								
4.875	0.3880		0.3975						
5.125	0.3941		0.4144						
5.375	0.3714		0.3826	0.3948					
5.625	0.3802, 0.3852		0.3825	0.3776	0.3784				
5.875	0.3677		0.3707	0.3812					
6.125			0.3747	0.3868	0.4001	0.3706			
6.375	0.3980		0.3963	0.3898	0.3888	0.3923			
6.625	0.3808		0.3987	0.3976	0.4054	0.3964	0.3811		
6.875	0.3804		0.3844	0.4071	0.3979	0.4033	0.3780, 0.3845		
7.125	0.3844		0.3872	0.3885	0.3938	0.3811	0.3864		
7.375	0.3891		0.3894	0.3962	0.3976	0.3818	0.3810	0.3497	

WHITE OAK LABORATORY

WTR1421
RUN 85

ALPH 4.91 deg PHI 337.42 deg
AVERAGED DATA

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

SCALE FACTOR: 1.0000

WTR1421
RUN 85

MACH 3.0

BODY PRESSURES (PSI)

z/d	theta:	352.4	367.4	382.4	397.4	412.4
0.5	1.0218					
1.0	0.8115					
1.5	0.6401					
2.0	0.5122	0.6114	0.5739	0.5366	0.5035	0.4781, 0.7653
2.5	0.4492	0.4127	0.3791	0.3553	0.3371	0.3765, 0.5792
3.0	0.3498					0.3353
3.5	0.3469					
4.0	0.3512	0.3229	0.3071	0.3039	0.3193	0.3246
4.3	0.3474	0.3259	0.3148	0.3229	0.3288	0.3360
4.5	0.3494	0.3257	0.3235	0.3226	0.3374	0.3321
4.8	0.3531	0.3225	0.3268	0.3279	0.3358	0.3387
5.0	0.3560	0.3294	0.3426	0.3390	0.3481	0.3359
5.5	0.3574	0.3467	0.3475	0.3642	0.3411	0.3695
6.0	0.3604	0.3514	0.3539	0.3604	0.3724	0.3895
6.5	0.3748	0.3549	0.3612	0.3655	0.3878	0.3972
7.0	0.3722	0.3561	0.3616	0.3726	0.3972	0.4036
7.5	0.3700	0.3681	0.3685	0.3859	0.3927	0.4139
8.0	0.3791	0.3713	0.4083	0.4011	0.4185	0.4137
		0.4142	0.4196	0.4530	0.3894	0.3696

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.4141*							
3.875	0.3962+							
4.125	0.4014							
4.375	0.40471							
4.625	0.4290	0.4302						
4.875	0.4286	0.4212						
5.125	0.4262	0.4458	0.4349					
5.375	0.4064	0.4190	0.4274					
5.625	0.4561, 0.4202	0.4209	0.4149	0.4198				
5.875	0.4057	0.4135	0.4205					
6.125		0.4179	0.4279	0.4415	0.4183			
6.375	0.4357	0.4396	0.4356	0.4329	0.4428			
6.625	0.4172	0.4396	0.4432	0.4513	0.4412			
6.875	0.4149	0.4223	0.4482	0.4403	0.4466	0.4414		
7.125	0.4177	0.4237	0.4251	0.4327	0.4234	0.4435, 0.4844		
7.375	0.4275	0.4245	0.4310	0.4404	0.4283	0.4295	0.4242	0.4190

WTR1421
RUN 86

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)

ALPH 9.94 deg PHII 337.51 deg PO 14.82 psia 10 112.14 degf MACH 3.0

AVERAGED DATA SCALE FACTOR: 1.0000

WTR1421
RUN 86

z/d theta: 337.5

0.5 1.0939

1.0 0.8739

1.5 0.6882

2.0 0.5507

2.5 0.4748

3.0 0.3636

3.5 0.3496

4.0 0.3447

4.3 0.3368

4.5 0.3337

4.8 0.3322

5.0 0.3257

5.5 0.3341

6.0 0.3155

6.5 0.3154

7.0 0.3103

7.5 0.2927

8.0 0.2957

352.5 367.5 382.5 397.5 412.5

0.6047 0.5220 0.4496 0.4003 0.3768, 0.9858

0.3957 0.3271 0.2777 0.2557 0.2955, 0.7574

0.2878 0.2350 0.2290 0.2484 0.2525

0.2782 0.2290 0.2504 0.2555 0.2459

0.2711 0.2422 0.2538 0.2656 0.2480

0.2564 0.2511 0.2600 0.2671 0.2572

0.2585 0.2766 0.2746 0.2799 0.2480

0.2710 0.2863 0.3029 0.2728 0.2629

0.2769 0.2982 0.3021 0.2869 0.2628

0.2724 0.3159 0.3193 0.2932 0.2701

0.2717 0.3207 0.3527 0.3228 0.2911

0.3053 0.3129 0.3393 0.3268 0.3283

0.3047 0.3540 0.3569 0.3766 0.3360

0.3337 0.3718 0.4063 0.3622 0.3379

WING PRESSURES (PSI)

z/d r/d: 0.5935

3.625 0.4219*

3.875 0.4039*

4.125 0.4432

4.375 0.45231 0.4589

4.625 0.4764

4.875 0.4746

5.125 0.4110

5.375 0.3831

5.625 0.5953 0.3906

5.875 0.3675

6.125

6.375 0.3876

6.625 0.3677

6.875 0.3638

7.125 0.3713

7.375 0.3744

0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

0.4764 0.4692 0.4311 0.4574 0.4507 0.4632 0.4599

0.4315 0.4642 0.4261 0.4681 0.4361 0.4693 0.4716 0.4743

0.4284 0.4737 0.4284 0.4737 0.4284 0.4737 0.4284 0.4737

0.4074 0.4807 0.4769 0.4785 0.4650 0.4638

0.4112 0.4638 0.4756 0.4650 0.4638

0.4019 0.4772 0.4097 0.4638

0.4670 0.4667, 0.6436 0.4577 0.4516 0.4350

WHITE OAK LABORATORY

WTR1421
RUN 87

ALPH 14.95 deg PHI 337.51 deg

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

WTR1421
RUN 87

MACH 3.0

PO 14.82 psia TO 112.30 degF

SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	337.5	352.5	367.5	382.5	397.5	412.5
0.5	1.1658						
1.0	0.9341						
1.5	0.7432						
2.0	0.5963	0.5968	0.4639	0.3548	0.2835	0.2831, 1.2596	0.2233, 0.9850
2.5	0.5145	0.3876	0.2809	0.1999	0.1776	0.2012	
3.0	0.3934						
3.5	0.3729	0.2731	0.1894	0.1539	0.1767	0.1622	
4.0	0.3653	0.2614	0.1717	0.1711	0.1784	0.1785	
4.3	0.3555	0.2535	0.1701	0.1756	0.1914	0.1792	
4.5	0.3517	0.2360	0.1636	0.1825	0.1948	0.1858	
4.8	0.3537	0.2354	0.1832	0.1973	0.2061	0.1703	
5.0	0.3447	0.2506	0.1934	0.2257	0.1948	0.1916	
5.5	0.3374	0.2508	0.2098	0.2280	0.2222	0.1993	
6.0	0.3395	0.2264	0.2282	0.2348	0.2352	0.2121	
6.5	0.3317	0.2210	0.2491	0.2519	0.2416	0.2267	
7.0	0.3178	0.2417	0.2566	0.2478	0.2365	0.2445	
7.5	0.2985	0.2646	0.3005	0.2732	0.2661	0.2424	
8.0	0.3028	0.3404	0.3159	0.3522	0.2466	0.2455	

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.2280*							
3.875	0.2071*							
4.125	0.3950							
4.375	0.4867	0.5102						
4.625	0.4542	0.4466						
4.875	0.5351	0.2456						
5.125	0.2228	0.3284	0.5407					
5.375	0.2062	0.2818	0.5351					
5.625	0.7949	0.2460	0.5067	0.5058				
5.875	0.2103	0.2328	0.4980					
6.125	0.2452	0.2489	0.4909	0.5334	0.4871			
6.375	0.2279	0.2320	0.4910	0.5342	0.5159			
6.625	0.2253	0.2128	0.4583	0.5725	0.5352	0.5041		
6.875	0.2403	0.2198	0.4183	0.5395	0.5474	0.5240, 0.8610		
7.125	0.2463	0.2277	0.3641	0.5466	0.5267	0.5064		
7.375			0.3494	0.5340	0.5273	0.5047	0.4675	

WHITE OAK LABORATORY

WTR1421
RUN 88WTR1421
RUN 88TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)ALPH -0.09 deg PHI 359.95 deg P0 14.81 psia T0 112.54 degf MACH 3.0
AVERAGED DATA SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	360.0	375.0	390.0	405.0	420.0	435.0
0.5	0.9351						
1.0	0.7422						
1.5	0.5835		0.6007	0.6042	0.5999	0.5926	0.5835, 0.6029
2.0	0.4746						0.4568, 0.4496
2.5	0.4215		0.4129	0.4057	0.4015	0.3960	0.4010
3.0	0.3312						
3.5	0.3421		0.3388	0.3403	0.3370	0.3458	0.3478
4.0	0.3542		0.3494	0.3468	0.3504	0.3533	0.3613
4.3	0.3530		0.3510	0.3556	0.3476	0.3638	0.3595
4.5	0.3604		0.3519	0.3598	0.3556	0.3621	0.3669
4.8	0.3659		0.3608	0.3762	0.3665	0.3754	0.3596
5.0	0.3726		0.3792	0.3790	0.3916	0.3616	0.3802
5.5	0.3781		0.3807	0.3755	0.3808	0.3793	0.3802
6.0	0.3855		0.3818	0.3840	0.3835	0.3821	0.3845
6.5	0.3953		0.3823	0.3854	0.3825	0.3868	0.3894
7.0	0.4008		0.3996	0.3791	0.3726	0.3742	0.3993
7.5	0.3932		0.3955	0.4071	0.3793	0.4005	0.3919
8.0	0.3984		0.4333	0.4147	0.4482	0.3861	0.3611

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.3935*							
3.875	0.3755+							
4.125	0.3653							
4.375	0.36731	0.3822						
4.625	0.3908							
4.875	0.3837							
5.125	0.3915							
5.375	0.3688							
5.625	0.3797	0.3826						
5.875	0.3651				0.3751			
6.125								
6.375	0.3979				0.3987	0.3615		
6.625	0.3801				0.3880	0.3910		
6.875	0.3805				0.4081	0.3964	0.3726	
7.125	0.3851				0.3983	0.4051	0.3623, 0.3791	
7.375	0.3884				0.3932	0.3838	0.3865	
					0.3973	0.3825	0.3809	0.3403

WHITE OAK LABORATORY

WTR1421
RUN 89

ALPH 4.93 deg

PIII 360.20 deg

PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

TUNNEL T2 PRESSURE TEST

SCALE FACTOR: 1.0000

10 112.64 degF

MACH 3.0

WTR1421
RUN 89

360.20 deg
AVERAGED DATA

PO 14.81 psia

375.2 390.2 405.2 420.2 435.2

0.5505 0.5232 0.5002 0.4788 0.4650, 0.7678
0.3730 0.3514 0.3390 0.3302 0.3720, 0.5810
0.3350

0.2984 0.2974 0.2996 0.3096 0.3109
0.3055 0.3068 0.3143 0.3186 0.3272
0.3069 0.3157 0.3119 0.3273 0.3261
0.3030 0.3155 0.3137 0.3221 0.3343
0.3101 0.3283 0.3206 0.3294 0.3312
0.3253 0.3284 0.3422 0.3157 0.3625
0.3277 0.3282 0.3344 0.3488 0.3783
0.3275 0.3337 0.3400 0.3686 0.3869
0.3201 0.3312 0.3508 0.3787 0.3917
0.3368 0.3424 0.3579 0.3685 0.3998
0.3373 0.3812 0.3690 0.3947 0.3947
0.3733 0.3917 0.4260 0.3740 0.3694

theta: 360.2
0.9235
0.7315
0.5741
0.4624
0.4051
0.3128
0.3141
0.3195
0.3151
0.3156
0.3188
0.3223
0.3257
0.3289
0.3366
0.3327
0.3253
0.3367

z/d
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.3
4.5
4.8
5.0
5.5
6.0
6.5
7.0
7.5
8.0

WING PRESSURES (PSI)

z/d r/d: 0.5935 0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

3.625 0.3710*
3.875 0.3520+
4.125 0.3496
4.375 0.35451 0.3663
4.625 0.3834
4.875 0.3774
5.125 0.3888
5.375 0.3707
5.625 0.4167, 0.3867
5.875 0.3713
6.125 0.3817
6.375 0.4053
6.625 0.3882
6.875 0.3868
7.125 0.3913
7.375 0.3964

0.3813
0.3755
0.4092
0.3814
0.3841
0.3773
0.3816
0.3928
0.4046
0.4072
0.3908
0.3934
0.3960

0.3841
0.3826
0.3744
0.3816
0.3928
0.3999
0.4073
0.4150
0.4047
0.3929
0.4002

0.3719
0.4020
0.3961
0.4155
0.4047
0.3988
0.4023

0.3677
0.4032
0.4026
0.4072
0.3863
0.3875

0.3818
0.3877, 0.4055
0.3886
0.3857
0.3532

WHITE OAK LABORATORY										WTR1421 RUN 90	
TUNNEL T2 PRESSURE TEST										WTR1421 RUN 90	
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)										WTR1421 RUN 90	
ALPH	9.97 deg	PHI	360.20 deg AVERAGED DATA	P0	14.81 psia SCALE FACTOR:	T0	112.64 degF	MACH	3.0		
BODY PRESSURES (PSI)											
z/d	theta:	360.2	375.2	390.2	405.2	420.2	435.2				
0.5	0.8846										
1.0	0.6944										
1.5	0.5372										
2.0	0.4277		0.4745	0.4227	0.3938	0.3764	0.3757, 0.9818				
2.5	0.3688		0.3058	0.2660	0.2607	0.2668	0.3046, 0.7533				
3.0	0.2703						0.2821				
3.5	0.2576		0.2144	0.2269	0.2311	0.2412	0.2572				
4.0	0.2493		0.2130	0.2284	0.2342	0.2267	0.2803				
4.3	0.2382		0.2138	0.2351	0.2287	0.2290	0.2909				
4.5	0.2298		0.2106	0.2326	0.2279	0.2211	0.3349				
4.8	0.2274		0.2226	0.2472	0.2360	0.2309	0.3214				
5.0	0.2222		0.2420	0.2480	0.2590	0.2227	0.3326				
5.5	0.2246		0.2423	0.2515	0.2561	0.2404	0.3228				
6.0	0.2250		0.2408	0.2633	0.2688	0.2435	0.3196				
6.5	0.2427		0.2455	0.2529	0.2803	0.2613	0.3165				
7.0	0.2607		0.2681	0.2453	0.2765	0.2605	0.3176				
7.5	0.2680		0.2743	0.2795	0.2754	0.2926	0.3033				
8.0	0.2862		0.3247	0.2974	0.3342	0.2720	0.2941				
WING PRESSURES (PSI)											
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435			
3.625	0.3651*										
3.875	0.3462†										
4.125	0.3638										
4.375	0.3730†	0.3806									
4.625	0.3991										
4.875	0.3914										
5.125	0.3793										
5.375	0.3568										
5.625	0.5160	0.3712									
5.875	0.3498				0.3877						
6.125					0.4138	0.3849					
6.375	0.3754				0.4017	0.4097					
6.625	0.3559				0.4194	0.4078	0.4037				
6.875	0.3517				0.4098	0.4145	0.4059, 0.4857				
7.125	0.3492				0.3907	0.3923	0.3920				
7.375	0.3457				0.4062	0.3947	0.3898	0.3764			

ALPH	14.93 deg	PHI	360.34 deg	P0	14.81 psia	T0	112.84 degF	MACH	3.0
WTR1421 RUN 91		PSI CONFIGURATION		TUNNEL T2 PRESSURE TEST		PSI#2(TC/1)		WTR1421 RUN 91	
		AVERAGED DATA		SCALE FACTOR:		1.0000			

WTR1421
RUN 91

WTR1421
RUN 91

ALPHI	14.93 deg	PHI	360.34 deg	P0	14.81 psia	T0	112.84 degF	MACH	3.0
AVERAGED DATA				SCALE FACTOR:		1.0000			

ALPH

1118

360.34 deg

၂၀

14.81 psia

10

12.84 degF

MACH

3.0

BODY PRESSURES (PSI)

z/d	theta:	360.3
0.5	0.8385	0.8385
1.0	0.6516	0.6516
1.5	0.5009	0.5009
2.0	0.3979	0.3979
2.5	0.3388	0.3388
3.0	0.2417	0.2417
3.5	0.2254	0.2254
4.0	0.2151	0.2151
4.3	0.2018	0.2018
4.5	0.1920	0.1920
4.5	0.1892	0.1892
4.8	0.1976	0.1976
5.0	0.1847	0.1847
5.5	0.1862	0.1862
6.0	0.2010	0.2010
6.5	0.2196	0.2196
7.0	0.2303	0.2303
7.5	0.2386	0.2386
8.0		

375.3	390.3	405.3	420.3	435.3
0.3953	0.3147	0.2865	0.2939	0.3070, 1.2430
0.2414	0.1784	0.1932	0.1965	0.2417, 0.9709
				0.2091
0.1529	0.1602	0.1598	0.1490	0.1651
0.1473	0.1654	0.1668	0.1454	0.1871
0.1468	0.1729	0.1560	0.1641	0.1761
0.1402	0.1667	0.1577	0.1677	0.1857
0.1541	0.1835	0.1726	0.1760	0.1667
0.1812	0.1897	0.2040	0.1631	0.1922
0.1921	0.1898	0.2069	0.1907	0.1958
0.1996	0.2058	0.2134	0.1977	0.1972
0.2109	0.2103	0.2048	0.2029	0.2021
0.2339	0.2095	0.1886	0.1821	0.2063
0.2392	0.2508	0.2041	0.2142	0.2041
0.2781	0.2581	0.2959	0.2147	0.2308

WING PRESSURES (PSI)

z/d	r/d	ν/d
3.625	0.3286*	0.5935
3.875	0.3090†	
4.125		0.3345
4.375	0.3415†	0.3516
4.625		0.3506
4.875	0.3925	0.3925
5.125	0.2697	0.2697
5.375	0.2344	0.2344
5.625	0.6621†	0.2365
5.875	0.2118	
6.125		0.2304
6.375		0.2103
6.625	0.2027	0.2027
6.875	0.2047	0.2047
7.125	0.2028	0.2028
7.375		

0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
0.3682					
0.3426					
0.2919	0.3991				
0.2814	0.3733				
0.2615	0.3461				
0.2294	0.3374	0.3859			
0.2130	0.3205	0.4034	0.3909		
0.2170	0.3040	0.3831	0.4175		
0.2062	0.2872	0.3938	0.4165	0.4171	
0.1726	0.2673	0.3598	0.4160	0.4200, 0.6158	
0.1671	0.2178	0.3350	0.3826	0.4008	
0.2095	0.3207	0.3207	0.3782	0.3984	0.3887

A-142

WHITE OAK LABORATORY

WIR1421
RUN 9

ALPHI 0.03 deg PHII -1.1

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSIN1(PR/IO) PSIN2(TC/1)

P0 14.72 psia
SCALE FACTOR: 1.0000

-1.09 deg
AVERAGED DATA

MACII 4.0

z/d theta: -1.1

0.5	0.3170	13.9	28.9	43.9	58.9	73.9
1.0	0.2416					
1.5	0.1936	0.1826	0.1796	0.1813	0.1854	0.1776, 0.1724
2.0	0.1300					0.1374, 0.1463
2.5	0.1057	0.1144	0.1155	0.1160	0.1178	0.1123
3.0	0.1043					
3.5	0.0819	0.0902	0.0980	0.1024	0.0945	0.0938
4.0	0.0854	0.0937	0.0967	0.0915	0.0908	0.0818
4.3	0.0949	0.0969	0.0880	0.1048	0.0819	0.0902
4.5	0.0931	0.1007	0.1012	0.1011	0.0901	0.0852
4.8	0.0967	0.0979	0.0775	0.0976	0.0829	0.1052
5.0	0.0969	0.0791	0.0773	0.0768	0.1056	0.0879
5.5	0.0997	0.0922	0.1114	0.0936	0.0922	0.0950
6.0	0.0921	0.1029	0.0964	0.1001	0.1026	0.0968
6.5	0.0837	0.1028	0.1029	0.1075	0.0945	0.0998
7.0	0.0821	0.0855	0.1234	0.1363	0.1301	0.0965
7.5	0.0986	0.0948	0.0751	0.1247	0.0948	0.1151
8.0			0.1143		0.0892	0.0735

BODY PRESSURES (PSI)

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1104+							
4.125								
4.375	0.11131	0.1195						
4.625		0.1028						
4.875		0.1191						
5.125				0.1132				
5.375	0.1133			0.0929				
5.625	0.1049			0.1031				
5.875	0.1062, 0.1000			0.0981	0.1029			
6.125	0.1137			0.1121				
6.375		0.1070		0.1044	0.0928	0.1091		
6.625	0.0956	0.0966		0.1013	0.0999	0.0925		
6.875	0.1117	0.0957		0.0967	0.0899	0.0970	0.0997	
7.125	0.1044	0.1062		0.0950	0.0987	0.0943	0.0985, 0.0991	
7.375	0.1066	0.1011	0.1022	0.0957	0.0957	0.1030	0.0996	
	0.1060	0.0944	0.0920	0.0881	0.0973	0.0983	0.1043	

WTR1421
RUN 10

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 4.98 deg PHI -1.17 deg PO 14.72 psia TO 71.61 degF MACH 4.0

AVERAGED DATA SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	13.8	28.8	43.8	58.8	73.8
0.5	0.3153					
1.0	0.2400					
1.5	0.1924	0.1655	0.1495	0.1436	0.1423	0.1330, 0.2380
2.0	0.1270	0.1027	0.0982	0.0950	0.0955	0.1070, 0.1976
2.5	0.1020					0.0895
3.0	0.1016					
3.5	0.0756	0.0796	0.0863	0.0925	0.0847	0.0836
4.0	0.0774	0.0823	0.0854	0.0812	0.0807	0.0709
4.3	0.0868	0.0858	0.0766	0.0957	0.0715	0.0806
4.5	0.0856	0.0909	0.0923	0.0935	0.0803	0.0754
4.8	0.0883	0.0883	0.0677	0.0897	0.0750	0.0992
5.0	0.0877	0.0682	0.0683	0.0676	0.0985	0.0795
5.5	0.0876	0.0793	0.1012	0.0833	0.0818	0.0832
6.0	0.0787	0.0908	0.0854	0.0895	0.0925	0.0860
6.5	0.0705	0.0908	0.0925	0.0979	0.0850	0.0903
7.0	0.0712	0.0775	0.1165	0.1292	0.1239	0.0889
7.5	0.0941	0.0908	0.0711	0.1215	0.0916	0.1114
8.0			0.1256		0.0950	0.0925

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0962+							
4.125								
4.375	0.10391	0.1111						
4.625		0.0970						
4.875		0.1106						
5.125	0.1046							
5.375	0.0986							
5.625	0.1260, 0.0947							
5.875	0.1085				0.0994			
6.125		0.1035						
6.375	0.0928	0.0940			0.0899	0.1062		
6.625	0.1088	0.0934			0.0976	0.0904		
6.875	0.1029	0.1052			0.0882	0.0949	0.0973	
7.125	0.1063	0.1017			0.0968	0.0931	0.0970, 0.1171	
7.375	0.1047	0.0971			0.0949	0.1014	0.0980	
					0.0892	0.0977	0.0962	0.1022

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST					WIR1421				
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)					RUN 11				
ALPH	9.99 deg	PHI	-1.00 deg	PU	14.72 psia	TO	71.58 degF	MACI	4.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	14.0	29.0	44.0	59.0	74.0			
0.5	-1.0								
1.0	0.3064								
1.5	0.2334								
2.0	0.1865	0.1444	0.1197	0.1071	0.1090	0.1031, 0.3256			
2.5	0.1217	0.0866	0.0759	0.0735	0.0777	0.0874, 0.2670			
3.0	0.0970					0.0746			
3.5	0.0946								
4.0	0.0663	0.0622	0.0702	0.0768	0.0699	0.0690			
4.3	0.0657	0.0625	0.0682	0.0651	0.0639	0.0524			
4.5	0.0737	0.0650	0.0592	0.0787	0.0543	0.0616			
4.8	0.0694	0.0678	0.0728	0.0739	0.0626	0.0552			
5.0	0.0711	0.0652	0.0485	0.0699	0.0544	0.0759			
5.5	0.0690	0.0459	0.0490	0.0482	0.0772	0.0566			
6.0	0.0684	0.0601	0.0824	0.0654	0.0629	0.0652			
6.5	0.0595	0.0745	0.0695	0.0732	0.0752	0.0693			
7.0	0.0536	0.0776	0.0790	0.0839	0.0696	0.0737			
7.5	0.0564	0.0637	0.1004	0.1130	0.1070	0.0733			
8.0	0.0765	0.0738	0.0548	0.1049	0.0765	0.0959			
			0.0924		0.0735	0.0748			

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0867+							
4.125								
4.375	0.09541	0.1025						
4.625		0.0909						
4.875		0.1025						
5.125			0.1059					
5.375	0.0929		0.0899					
5.625	0.0856		0.0859					
5.875	0.1645, 0.0793		0.0859					
6.125	0.0916		0.0990		0.1010			
6.375		0.0939	0.1031		0.0932			
6.625	0.0753	0.0833	0.1001		0.1009			
6.875	0.0888	0.0805	0.0966		0.0994		0.1013	
7.125	0.0821	0.0891	0.0950		0.1028		0.1018, 0.1513	
7.375	0.0845	0.0835	0.0977		0.1007		0.1029	
	0.0847	0.0769	0.0885		0.0943		0.1019	0.1067

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST					WTR1421				
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)					RUN 12				
ALPH	15.00 deg	PHI	-0.96 deg	PO	14.71 psia	TO	71.70 degf	MACII	4.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	14.0	29.0	44.0	59.0	74.0			
0.5	0.2958								
1.0	0.2274								
1.5	0.1827								
2.0	0.1199	0.1260	0.0937	0.0858	0.0960	0.0942, 0.4336			
2.5	0.0953	0.0898	0.0987	0.1005	0.1034	0.1024, 0.3548			
3.0	0.1005					0.0984			
3.5	0.0816	0.0947	0.1027	0.1062	0.0981	0.0973			
4.0	0.0836	0.0967	0.0998	0.0942	0.0923	0.0823			
4.3	0.0939	0.0998	0.0904	0.1072	0.0820	0.0908			
4.5	0.0941	0.1052	0.1053	0.1043	0.0907	0.0853			
4.8	0.0978	0.1028	0.0813	0.0999	0.0855	0.1087			
5.0	0.0991	0.0836	0.0818	0.0793	0.1078	0.0904			
5.5	0.1017	0.0951	0.1123	0.0954	0.0942	0.0971			
6.0	0.0973	0.1081	0.1006	0.1037	0.1065	0.1014			
6.5	0.0945	0.1124	0.1106	0.1150	0.1030	0.1082			
7.0	0.0972	0.1000	0.1346	0.1455	0.1414	0.1079			
7.5	0.1146	0.1092	0.0901	0.1372	0.1090	0.1278			
8.0			0.1233		0.1044	0.0997			
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625									
3.875	0.1066+								
4.125									
4.375	0.10671	0.1108							
4.625									
4.875									
5.125	0.1103								
5.375	0.1055								
5.625	0.2232, 0.1021				0.1050				
5.875	0.1150								
6.125									
6.375	0.1047				0.0998	0.1136			
6.625	0.1182				0.1063	0.1021			
6.875	0.1134				0.1012	0.1072	0.1097		
7.125	0.1174				0.1098	0.1073	0.1116, 0.2002		
7.375	0.1255				0.1085	0.1146	0.1137		
					0.1040	0.1132	0.1152	0.1205	

WTR1421
RUN 13

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	-0.01 deg	PHI	21.37 deg	P0	14.71 psia	To	71.84 degF	MACH	4.0
				AVERAGED DATA		SCALE FACTOR:		1.0000	

BODY PRESSURES (PSI)

z/d	theta:	21.4	36.4	51.4	66.4	81.4	96.4
0.5		0.3141					
1.0		0.2398					
1.5		0.1929					
2.0		0.1286					
2.5		0.1046					
3.0		0.1035					
3.5		0.0816					
4.0		0.0850					
4.3		0.0950					
4.5		0.0945					
4.8		0.0978					
5.0		0.0981					
5.5		0.0988					
6.0		0.0919					
6.5		0.0837					
7.0		0.0821					
7.5		0.0984					
8.0							
			0.1803	0.1771	0.1774	0.1835	0.1759, 0.1717 0.1365, 0.1476 0.1114
			0.1124	0.1144	0.1154	0.1174	
			0.0900	0.0974	0.1017	0.0939	0.0926
			0.0936	0.0966	0.0915	0.0900	0.0806
			0.0970	0.0876	0.1049	0.0809	0.0898
			0.1019	0.1024	0.1019	0.0898	0.0845
			0.0994	0.0784	0.0985	0.0841	0.1070
			0.0803	0.0788	0.0773	0.1066	0.0886
			0.0916	0.1096	0.0932	0.0917	0.0936
			0.1019	0.0955	0.0988	0.1013	0.0953
			0.1021	0.1016	0.1059	0.0935	0.0983
			0.0855	0.1219	0.1337	0.1283	0.0958
			0.0943	0.0756	0.1228	0.0941	0.1139
				0.1131		0.0885	0.0737

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9585	1.0935	1.2185	1.3435
3.625								
3.875	0.1071+							
4.125								
4.375	0.10821	0.1145						
4.625			0.1017					
4.875			0.1143					
5.125	0.1101			0.1091				
5.375	0.1029		0.0969	0.0925				
5.625	0.1050, 0.0988		0.0967	0.1010	0.1003			
5.875	0.1109		0.1091	0.0969				
6.125			0.1048	0.1029	0.0918	0.1055		
6.375	0.0954		0.0960	0.0992	0.0981	0.0915		
6.625	0.1080		0.0956	0.0962	0.0909	0.0956	0.0972	
6.875	0.1017		0.1031	0.0954	0.0978	0.0939	0.0966, 0.0975	
7.125	0.1041		0.0988	0.1000	0.0944	0.0934	0.0960	
7.375	0.1081		0.0931	0.0909	0.0879	0.0957	0.0939	0.0984

WHITE OAK LABORATORY

WTR1421
RUN 14

ALPH 5.00 deg PHI 21.5

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

21.46 deg P0 14.71 psia T0 71.88 degF MACH 4.0
AVERAGED DATA SCALE FACTOR: 1.0000

theta: 21.5

z/d

0.5	0.2774	36.5	51.5	66.5	81.5	96.5
1.0	0.2109					
1.5	0.1706	0.1465	0.1358	0.1332	0.1382	0.1318, 0.2253
2.0	0.1106					0.1069, 0.1885
2.5	0.0890	0.0922	0.0925	0.0926	0.0949	0.0890
3.0	0.0916					
3.5	0.0684	0.0766	0.0849	0.0895	0.0807	0.0769
4.0	0.0697	0.0782	0.0819	0.0769	0.0754	0.0642
4.3	0.0791	0.0809	0.0724	0.0904	0.0658	0.0745
4.5	0.0777	0.0859	0.0872	0.0875	0.0751	0.0694
4.8	0.0804	0.0829	0.0623	0.0835	0.0689	0.0931
5.0	0.0800	0.0628	0.0626	0.0616	0.0924	0.0742
5.5	0.0801	0.0738	0.0941	0.0774	0.0765	0.0799
6.0	0.0726	0.0843	0.0793	0.0834	0.0864	0.0822
6.5	0.0663	0.0868	0.0871	0.0921	0.0799	0.0862
7.0	0.0702	0.0750	0.1114	0.1233	0.1188	0.0867
7.5	0.0924	0.0873	0.0676	0.1159	0.0884	0.1086
8.0			0.1074		0.0909	0.0987

BODY PRESSURES (PSI)

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0838+							
4.125								
4.375	0.08511	0.0917						
4.625								
4.875								
5.125	0.0978							
5.375	0.0909							
5.625	0.1059, 0.0867							
5.875	0.0980							
6.125								
6.375	0.0845							
6.625	0.0978							
6.875	0.0932							
7.125	0.0989							
7.375	0.1104							
		0.0784						
		0.0888						
		0.0732						
		0.0772						
		0.0979						
		0.0948						
		0.0869						
		0.0868						
		0.0958						
		0.0941						
		0.0916						
			0.0827					
			0.0672					
			0.0764					
			0.0731					
			0.0816					
			0.0825					
			0.0743					
			0.0676					
			0.0785					
			0.0812					
			0.0802					
			0.0647					
			0.0789					
			0.0684					
			0.0713					
			0.0695					
			0.0768					
			0.0753					
			0.0738					
			0.0743, 0.0870					
			0.0744					
			0.0753					
								0.0802

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	10.00 deg	PIII	21.57 deg AVERAGED DATA	P0	14.70 psia SCALE FACTOR:	T0	72.00 degF	MACH	4.0
BODY PRESSURES (PSI)									
z/d	theta:	21.6	36.6	51.6	66.6	81.6	96.6		
0.5	0.2370								
1.0	0.1789								
1.5	0.1447								
2.0	0.0902		0.1138	0.1017	0.1014	0.1090	0.1040, 0.2926		
2.5	0.0698			0.0733	0.0770	0.0812	0.0889, 0.2413		
3.0	0.0736		0.0699				0.0755		
3.5	0.0511								
4.0	0.0515		0.0635	0.0721	0.0766	0.0720	0.0719		
4.3	0.0601		0.0640	0.0681	0.0621	0.0637	0.0531		
4.5	0.0559		0.0660	0.0571	0.0740	0.0513	0.0616		
4.8	0.0585		0.0672	0.0689	0.0671	0.0581	0.0580		
5.0	0.0591		0.0641	0.0440	0.0624	0.0479	0.0802		
5.5	0.0643		0.0448	0.0440	0.0410	0.0700	0.0623		
6.0	0.0599		0.0590	0.0774	0.0599	0.0581	0.0718		
6.5	0.0569		0.0710	0.0646	0.0679	0.0704	0.0771		
7.0	0.0561		0.0744	0.0745	0.0799	0.0673	0.0845		
7.5	0.0720		0.0599	0.0948	0.1068	0.1035	0.0824		
8.0			0.0663	0.0479	0.0952	0.0685	0.0941		
				0.0891		0.0718	0.0857		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625									
3.875	0.0686+								
4.125									
4.375	0.07021	0.0732							
4.625			0.0612						
4.875			0.0692						
5.125	0.0851			0.0659					
5.375	0.0896			0.0505					
5.625	0.1350, 0.0844			0.0575					
5.875	0.0928			0.0528	0.0581				
6.125			0.0877	0.0594					
6.375	0.0816		0.0833	0.0677	0.0500	0.0636			
6.625	0.0962		0.0860	0.0792	0.0599	0.0562			
6.875	0.0928		0.0963	0.0893	0.0543	0.0573	0.0601		
7.125	0.0954		0.0946	0.0979	0.0631	0.0565	0.0604, 0.0896		
7.375	0.1034		0.0898	0.0934	0.0738	0.0641	0.0611		
					0.0828	0.0653	0.0650	0.0700	

WHITE OAK LABORATORY

WTR1421
RUN 16

WTR1421
RUN 16

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	14.97 deg	PHI	21.57 deg	P0	14.70 psia	T0	72.09 degF	MACH	4.0
				AVERAGED DATA		SCALE FACTOR:		1.0000	

BODY PRESSURES (PSI)

z/d	theta:	21.6	36.6	51.6	66.6	81.6	96.6
0.5		0.1979					
1.0		0.1490					
1.5		0.1205					
2.0		0.0732	0.0837	0.0744	0.0801	0.0894	0.0850, 0.3724
2.5		0.0564	0.0557				0.0758, 0.3059
3.0		0.0666		0.0636	0.0660	0.0703	0.0667
3.5		0.0459	0.0585	0.0652	0.0684	0.0652	0.0723
4.0		0.0518	0.0636	0.0665	0.0602	0.0636	0.0606
4.3		0.0641	0.0681	0.0589	0.0743	0.0526	0.0659
4.5		0.0657	0.0744	0.0748	0.0726	0.0612	0.0582
4.8		0.0714	0.0741	0.0537	0.0703	0.0559	0.0793
5.0		0.0741	0.0576	0.0560	0.0521	0.0799	0.0622
5.5		0.0786	0.0715	0.0883	0.0724	0.0712	0.0722
6.0		0.0774	0.0866	0.0796	0.0833	0.0874	0.0836
6.5		0.0805	0.0967	0.0943	0.0979	0.0899	0.0997
7.0		0.0906	0.0935	0.1250	0.1343	0.1337	0.1087
7.5		0.1138	0.1092	0.0900	0.1336	0.1076	0.1270
8.0				0.1293		0.1103	0.1093

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0828+							
4.125								
4.375	0.07791	0.0791						
4.625			0.0669					
4.875			0.0728					
5.125	0.0788			0.0701				
5.375	0.0777		0.0636	0.0571				
5.625	0.1631, 0.0806		0.0691	0.0672	0.0653			
5.875	0.0984		0.0884	0.0657				
6.125			0.0958	0.0815	0.0645	0.0745		
6.375	0.1019		0.1017	0.0931	0.0748	0.0671		
6.625	0.1194		0.1147	0.1090	0.0851	0.0732	0.0731	
6.875	0.1189		0.1309	0.1292	0.1118	0.0825	0.0760, 0.1030	
7.125	0.1234		0.1273	0.1402	0.1303	0.1071	0.0813	
7.375	0.1189		0.1172	0.1286	0.1358	0.1286	0.0957	0.0841

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)									
ALPH	0.01 deg	PHI	44.39 deg	PO	14.69 psia	TO	72.14 degF	MACI	4.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	59.4	74.4	89.4	104.4	119.4			
0.5	0.3113								
1.0	0.2379								
1.5	0.1913								
2.0	0.1277	0.1787	0.1754	0.1757	0.1822	0.1755, 0.1720			
2.5	0.1036	0.1109	0.1136	0.1149	0.1170	0.1362, 0.1481			
3.0	0.1027					0.1110			
3.5	0.0822	0.0901	0.0964	0.1005	0.0929	0.0916			
4.0	0.0851	0.0933	0.0964	0.0915	0.0900	0.0808			
4.3	0.0950	0.0969	0.0878	0.1038	0.0809	0.0895			
4.5	0.0942	0.1060	0.1020	0.1013	0.0896	0.0842			
4.8	0.0977	0.0991	0.0790	0.0980	0.0839	0.1063			
5.0	0.0978	0.0785	0.0792	0.0777	0.1059	0.0885			
5.5	0.0981	0.0914	0.1084	0.0927	0.0913	0.0938			
6.0	0.0916	0.1011	0.0951	0.0981	0.1003	0.0945			
6.5	0.0844	0.1021	0.1008	0.1048	0.0930	0.0970			
7.0	0.0835	0.0851	0.1214	0.1327	0.1263	0.0952			
7.5	0.1022	0.0983	0.0804	0.1256	0.0970	0.1144			
8.0			0.1187		0.0955	0.0918			
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625									
3.875	0.1049+								
4.125									
4.375	0.09591	0.1121							
4.625			0.1007						
4.875			0.1111						
5.125	0.1080			0.1065					
5.375	0.1011		0.0958	0.0910					
5.625	0.1037, 0.0974		0.0954	0.0999	0.0978				
5.875	0.1088		0.1086	0.0958					
6.125			0.1032	0.1014	0.0908	0.1011			
6.375	0.0950		0.0950	0.0977	0.0963	0.0902			
6.625	0.1055		0.0945	0.0954	0.0903	0.0939	0.0947		
6.875	0.1000		0.1012	0.0948	0.0962	0.0927	0.0943, 0.0966		
7.125	0.1022		0.0969	0.0978	0.0929	0.0973	0.0947		
7.375	0.1090		0.0929	0.0911	0.0878	0.0959	0.0959	0.1021	

WHITE OAK LABORATORY

WTR1421
RUN 18

ALPH 5.00 deg PHI 44.4

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

44.35 deg 44.35 deg 72.30 degF 1.0000

AVERAGED DATA

PO 14.69 psia

SCALE FACTOR:

MACII 4.0

BODY PRESSURES (PSI)

z/d	theta:	59.4	74.4	89.4	104.4	119.4
0.5	0.2485					
1.0	0.1891					
1.5	0.1542	0.1354	0.1292	0.1312	0.1373	0.1332, 0.2026
2.0	0.1001					0.1070, 0.1713
2.5	0.0817	0.0881	0.0912	0.0923	0.0942	0.0885
3.0	0.0876					
3.5	0.0671	0.0764	0.0842	0.0878	0.0765	0.0719
4.0	0.0686	0.0778	0.0811	0.0757	0.0715	0.0607
4.3	0.0776	0.0805	0.0715	0.0885	0.0620	0.0695
4.5	0.0756	0.0839	0.0851	0.0848	0.0704	0.0638
4.8	0.0782	0.0810	0.0611	0.0807	0.0630	0.0840
5.0	0.0778	0.0612	0.0605	0.0594	0.0852	0.0646
5.5	0.0784	0.0723	0.0907	0.0751	0.0712	0.0689
6.0	0.0706	0.0814	0.0762	0.0803	0.0825	0.0705
6.5	0.0640	0.0817	0.0824	0.0878	0.0758	0.0765
7.0	0.0694	0.0730	0.1069	0.1177	0.1106	0.0769
7.5	0.0893	0.0845	0.0667	0.1120	0.0824	0.1026
8.0			0.1050		0.1007	0.1106

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0667+							
4.125								
4.375	0.06731	0.0743						
4.625			0.0608					
4.875			0.0675					
5.125	0.0891			0.0652				
5.375	0.0815			0.0498				
5.625	0.0938, 0.0764			0.0566	0.0560			
5.875	0.0866			0.0521				
6.125				0.0571	0.0482	0.0616		
6.375	0.0753			0.0636	0.0591	0.0552		
6.625	0.0859			0.0768	0.0531	0.0570	0.0598	
6.875	0.0814			0.0833	0.0586	0.0551	0.0602, 0.0730	
7.125	0.0867			0.0814	0.0577	0.0623	0.0606	
7.375	0.0913			0.0807	0.0584	0.0663	0.0669	0.0728

WHITE OAK LABORATORY										
TUNNEL T2 PRESSURE TEST										
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)										
WTR1421 RUN 19	ALPH	10.01 deg	PIII	44.34 deg AVERAGED DATA	PO	14.70 psia SCALE FACTOR:	TO	72.39 degF	MACH	4.0
BODY PRESSURES (PSI)										
	z/d	theta:	44.3	59.3	74.3	89.3	104.3	119.3		
	0.5		0.1919							
	1.0		0.1452							
	1.5		0.1199							
	2.0		0.0745	0.1031	0.0999	0.1020	0.1084	0.1025, 0.2367		
	2.5		0.0612	0.0712	0.0761	0.0789	0.0803	0.0856, 0.1977		
	3.0		0.0738					0.0723		
	3.5		0.0544	0.0636	0.0718	0.0805	0.0670	0.0532		
	4.0		0.0535	0.0625	0.0651	0.0667	0.0608	0.0485		
	4.3		0.0620	0.0640	0.0537	0.0793	0.0482	0.0527		
	4.5		0.0592	0.0660	0.0650	0.0741	0.0527	0.0431		
	4.8		0.0622	0.0632	0.0418	0.0696	0.0440	0.0630		
	5.0		0.0630	0.0451	0.0425	0.0491	0.0662	0.0449		
	5.5		0.0660	0.0592	0.0751	0.0667	0.0548	0.0513		
	6.0		0.0600	0.0698	0.0646	0.0751	0.0650	0.0534		
	6.5		0.0553	0.0722	0.0731	0.0820	0.0604	0.0585		
	7.0		0.0570	0.0604	0.0939	0.1066	0.0977	0.0636		
	7.5		0.0714	0.0669	0.0502	0.0973	0.0777	0.1013		
	8.0				0.0901		0.0825	0.1062		
WING PRESSURES (PSI)										
	z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
	3.625									
	3.875	0.0498+								
	4.125									
	4.375	0.05441	0.0533							
	4.625			0.0426						
	4.875			0.0470						
	5.125		0.0710							
	5.375		0.0631	0.0423						
	5.625	0.0776,	0.0579	0.0487						
	5.875		0.0673	0.0604	0.0373	0.0398				
	6.125			0.0572	0.0445	0.0355	0.0469			
	6.375		0.0611	0.0550	0.0495	0.0463	0.0443			
	6.625		0.0719	0.0592	0.0502	0.0433	0.0453	0.0477		
	6.875		0.0694	0.0636	0.0471	0.0474	0.0467	0.0502, 0.0661		
	7.125		0.0787	0.0641	0.0559	0.0493	0.0546	0.0514		
	7.375		0.0939	0.0666	0.0548	0.0505	0.0578	0.0583	0.0642	

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)									
ALPH	14.97 deg	PHI	44.52 deg	PO	14.69 psia	TO	72.58 degF	MACH	4.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	59.5	74.5	89.5	104.5	119.5			
0.5	0.1420								
1.0	0.1066								
1.5	0.0889								
2.0	0.0552	0.0790	0.0795	0.0839	0.0873	0.0800, 0.2775			
2.5	0.0490	0.0585	0.0634	0.0717	0.0681	0.0696, 0.2301			
3.0	0.0657					0.0626			
3.5	0.0466	0.0546	0.0598	0.0775	0.0633	0.0452			
4.0	0.0491	0.0553	0.0572	0.0632	0.0486	0.0297			
4.3	0.0588	0.0588	0.0495	0.0747	0.0365	0.0366			
4.5	0.0585	0.0636	0.0640	0.0689	0.0439	0.0313			
4.8	0.0622	0.0626	0.0437	0.0642	0.0373	0.0511			
5.0	0.0634	0.0458	0.0452	0.0454	0.0591	0.0361			
5.5	0.0674	0.0605	0.0767	0.0632	0.0519	0.0498			
6.0	0.0650	0.0739	0.0686	0.0740	0.0677	0.0588			
6.5	0.0627	0.0779	0.0789	0.0855	0.0688	0.0693			
7.0	0.0660	0.0688	0.0998	0.1120	0.1065	0.0740			
7.5	0.0845	0.0790	0.0618	0.1054	0.0807	0.0954			
8.0			0.0977		0.0819	0.0820			

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0555+							
4.125								
4.375	0.05521	0.0590						
4.625			0.0499					
4.875			0.0540					
5.125	0.0624			0.0510				
5.375	0.0621			0.0400				
5.625	0.0662, 0.0638			0.0489				
5.875	0.0746			0.0464	0.0471			
6.125				0.0585	0.0445	0.0556		
6.375	0.0802			0.0615	0.0504	0.0504		
6.625	0.0939			0.0634	0.0524	0.0510	0.0554	
6.875	0.0924			0.0705	0.0607	0.0516	0.0566, 0.0568	
7.125	0.1007			0.0813	0.0637	0.0588	0.0553	
7.375	0.1082			0.0838	0.0684	0.0625	0.0581	0.0629

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST					PSI CONFIGURATION				
PSI#1(PR/10) PSI#2(TC/1)					PSI#1(PR/10) PSI#2(TC/1)				
ALPH	-0.05 deg	PHI	66.73 deg	PO	14.69 psia	TO	72.74 deg	MACI	WTR1421
			AVERAGED DATA	SCALE FACTOR:	1.0000				RUN 21
BODY PRESSURES (PSI)									
z/d	theta:	66.7	81.7	96.7	111.7	126.7	141.7		
0.5	0.3085								
1.0	0.2354								
1.5	0.1885								
2.0	0.1263		0.1772	0.1743	0.1754	0.1812	0.1749, 0.1714		
2.5	0.1033		0.1098	0.1128	0.1141	0.1161	0.1360, 0.1470		
3.0	0.1018						0.1106		
3.5	0.0807		0.0883	0.0958	0.0993	0.0925	0.0909		
4.0	0.0839		0.0917	0.0945	0.0899	0.0884	0.0796		
4.3	0.0932		0.0950	0.0864	0.1021	0.0799	0.0878		
4.5	0.0939		0.1008	0.1012	0.1007	0.0881	0.0835		
4.8	0.0972		0.0988	0.0799	0.0977	0.0842	0.1051		
5.0	0.0975		0.0814	0.0798	0.0784	0.1048	0.0884		
5.5	0.0967		0.0903	0.1061	0.0917	0.0904	0.0940		
6.0	0.0909		0.0994	0.0937	0.0968	0.0986	0.0931		
6.5	0.0842		0.0999	0.0995	0.1029	0.0921	0.0955		
7.0	0.0838		0.0872	0.1191	0.1296	0.1238	0.0945		
7.5	0.1032		0.0990	0.0823	0.1246	0.0979	0.1144		
8.0				0.1193		0.0995	0.1072		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1031+							
4.125								
4.375	0.10471	0.1088						
4.625		0.0990						
4.875		0.1085						
5.125	0.1059							
5.375	0.0990							
5.625	0.1018, 0.0958	0.0936						
5.875	0.1056	0.0939			0.0952			
6.125		0.1043						
6.375	0.0943	0.1004						
6.625	0.1031	0.0945			0.0899	0.0990		
6.875	0.0990	0.0947			0.0951	0.0898		
7.125	0.1031	0.1014			0.0921	0.0970		
7.375	0.1036	0.1000			0.1014	0.1037	0.1021	
		0.0976			0.1029	0.1156	0.1174, 0.1654	
					0.1019	0.1250	0.1289	
							0.1371	0.1253

WHITE OAK LABORATORY									
WTR1421 RUN 22		TUNNEL T2 PRESSURE TEST							
		PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)				WTR1421 RUN 22			
ALPH	4.96 deg	PHI	66.74 deg	P0	14.69 psia	T0	72.83 degF	MACH	4.0
		AVERAGED DATA							
		SCALE FACTOR: 1.0000							
		BODY PRESSURES (PSI)							
z/d	theta:	81.7	96.7	111.7	126.7	141.7			
0.5	0.2317								
1.0	0.1770								
1.5	0.1455								
2.0	0.0959	0.1314	0.1282	0.1321	0.1411	0.1417, 0.1775			
2.5	0.0798	0.0878	0.0904	0.0914	0.0940	0.1118, 0.1510			
3.0	0.0879					0.0909			
3.5	0.0685	0.0771	0.0834	0.0857	0.0740	0.0685			
4.0	0.0698	0.0787	0.0807	0.0738	0.0701	0.0596			
4.3	0.0788	0.0813	0.0715	0.0850	0.0597	0.0661			
4.5	0.0763	0.0829	0.0841	0.0803	0.0668	0.0605			
4.8	0.0790	0.0813	0.0619	0.0759	0.0583	0.0795			
5.0	0.0787	0.0663	0.0615	0.0557	0.0786	0.0618			
5.5	0.0791	0.0736	0.0919	0.0708	0.0640	0.0668			
6.0	0.0720	0.0827	0.0794	0.0771	0.0715	0.0641			
6.5	0.0637	0.0829	0.0855	0.0859	0.0649	0.0661			
7.0	0.0631	0.0697	0.1033	0.1135	0.0976	0.0651			
7.5	0.0819	0.0799	0.0611	0.1011	0.0738	0.0935			
8.0			0.1075		0.1170	0.1398			
		WING PRESSURES (PSI)							
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625	0.0578+								
3.875									
4.125									
4.375	0.04431	0.0635							
4.625									
4.875									
5.125	0.0835								
5.375	0.0764								
5.625	0.0763, 0.0712								
5.875	0.0795								
6.125									
6.375	0.0703								
6.625	0.0787								
6.875	0.0730								
7.125	0.0776								
7.375	0.0855								
		0.0523	0.0576	0.0551	0.0473	0.0544	0.0599	0.0614, 0.1014	0.0774
						0.0529	0.0612	0.0629	0.0723
						0.0582	0.0688		
						0.0612	0.0727		
						0.0655			
						0.0701			
						0.0746			

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSIN1(PR/10) PSIN2(°C/1)									
ALPH	9.97 deg	PHI	66.83 deg	P0	14.70 psia	T0	73.11 degF	MACH	4.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	81.8	96.8	111.8	126.8	141.8			
0.5	0.1730								
1.0	0.1343								
1.5	0.1148								
2.0	0.0754								
2.5	0.0644								
3.0	0.0765								
3.5	0.0548								
4.0	0.0528								
4.3	0.0598								
4.5	0.0552								
4.8	0.0569								
5.0	0.0559								
5.5	0.0561								
6.0	0.0489								
6.5	0.0434								
7.0	0.0478								
7.5	0.0669								
8.0									
		0.1033	0.1004	0.1006	0.1077	0.1089, 0.1797			
		0.0732	0.0764	0.0763	0.0757	0.0862, 0.1534			
		0.0663	0.0741	0.0709	0.0589	0.0684			
		0.0653	0.0700	0.0568	0.0570	0.0463			
		0.0673	0.0612	0.0689	0.0467	0.0181			
		0.0678	0.0736	0.0626	0.0435	0.0255			
		0.0635	0.0517	0.0571	0.0435	0.0226			
		0.0443	0.0516	0.0354	0.0429	0.0418			
		0.0577	0.0798	0.0486	0.0623	0.0249			
		0.0694	0.0644	0.0521	0.0480	0.0346			
		0.0675	0.0684	0.0575	0.0518	0.0351			
		0.0523	0.0864	0.0834	0.0385	0.0421			
		0.0635	0.0491	0.0855	0.0743	0.0491			
			0.1141		0.0630	0.0771			
					0.1096	0.1032			
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625									
3.875	0.0402+								
4.125									
4.375	0.04191	0.0441							
4.625									
4.875									
5.125	0.0461								
5.375	0.0437								
5.625	0.0454, 0.0432								
5.875	0.0514								
6.125									
6.375	0.0486								
6.625	0.0757								
6.875	0.0655								
7.125	0.0634								
7.375	0.0711								
		0.0350	0.0382	0.0387	0.0359	0.0431	0.0449	0.0470, 0.0655	
				0.0307		0.0421	0.0479	0.0539	0.0585
				0.0374		0.0431			
				0.0347		0.0447			
				0.0406		0.0517			
				0.0452		0.0546			
				0.0481					
				0.0437					
				0.0555					
				0.0655					
				0.0618					

WHITE OAK LABORATORY

WTR1421
RUN 24

ALPH 14.96 deg PHI 66.75 deg

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

66.75 deg
AVERAGED DATA

P0 14.70 psia
SCALE FACTOR: 1.0000

10 73.25 degF

MACH 4.0

theta: 66.8

z/d 0.5 0.1306

1.0 0.1045

1.5 0.0929

2.0 0.0599

2.5 0.0493

3.0 0.0620

3.5 0.0404

4.0 0.0374

4.3 0.0445

4.5 0.0407

4.8 0.0443

5.0 0.0447

5.5 0.0465

6.0 0.0433

6.5 0.0383

7.0 0.0371

7.5 0.0491

8.0

81.8 96.8 111.8 126.8 141.8

0.0835 0.0809 0.0790 0.0816 0.0790, 0.1848

0.0584 0.0644 0.0624 0.0633 0.0626, 0.1572

0.0557 0.0654 0.0549 0.0458 0.0312

0.0531 0.0546 0.0415 0.0308 0.0174

0.0531 0.0463 0.0483 0.0166 0.0244

0.0546 0.0580 0.0398 0.0211 0.0191

0.0513 0.0363 0.0338 0.0114 0.0339

0.0326 0.0332 0.0128 0.0301 0.0168

0.0450 0.0273 0.0204 0.0233 0.0235

0.0547 0.0494 0.0305 0.0276 0.0260

0.0561 0.0521 0.0351 0.0215 0.0232

0.0423 0.0704 0.0585 0.0496 0.0394

0.0462 0.0306 0.0535 0.0241 0.0369

0.0551 0.0409

WING PRESSURES (PSI)

z/d 3.625 0.5935 0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

3.875 0.0431+

4.125

4.375 0.04371 0.0479

4.625 0.0397

4.875 0.0405

5.125 0.0350

5.375 0.0311

5.625 0.0362, 0.0294

5.875 0.0381

6.125 0.0325

6.375 0.0389

6.625 0.0461

6.875 0.0400

7.125 0.0434

7.375 0.0496

0.0253 0.0277 0.0372 0.0325 0.0359 0.0412 0.0418 0.0433 0.0410

0.0295 0.0324 0.0287 0.0339 0.0397 0.0397 0.0362 0.0418 0.0379

0.0410 0.0295 0.0324 0.0287 0.0339 0.0397 0.0397 0.0362 0.0418 0.0379

0.0273 0.0378 0.0371 0.0372 0.0377 0.0385 0.0366

0.0389 0.0392, 0.0435 0.0384 0.0425 0.0451

WTR1421
RUN 25

ALPH -0.04 deg PHI 89.46 deg
AVERAGED DATA

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL 12 PRESSURE TEST

PO 14.68 psia
SCALE FACTOR: 1.0000

TO 73.55 degF

MACH 4.0

WTR1421
RUN 25

WHITE OAK LABORATORY

BODY PRESSURES (PSI)

z/d	theta:	104.5	119.5	134.5	149.5	164.5
0.5	89.5					
1.0	0.3055					
1.5	0.2330					
2.0	0.1866	0.1754	0.1737	0.1743	0.1812	0.1751, 0.1710
2.5	0.1257					0.1359, 0.1454
3.0	0.1029	0.1093	0.1122	0.1137	0.1157	0.1108
3.5	0.1007					
4.0	0.0808	0.0882	0.0954	0.0986	0.0918	0.0904
4.5	0.0839	0.0917	0.0942	0.0901	0.0885	0.0803
5.0	0.0929	0.0946	0.0864	0.1014	0.0805	0.0879
5.5	0.0923	0.0985	0.0997	0.0988	0.0879	0.0838
6.0	0.0955	0.0968	0.0793	0.0963	0.0831	0.1031
6.5	0.0962	0.0802	0.0787	0.0779	0.1026	0.0874
7.0	0.0904	0.0902	0.1054	0.0913	0.0901	0.0926
7.5	0.0842	0.0986	0.0935	0.0964	0.0980	0.0928
8.0	0.1022	0.0993	0.0990	0.1023	0.0918	0.0951
		0.0875	0.1175	0.1274	0.1229	0.0953
		0.0981	0.0829	0.1236	0.0994	0.1199
			0.1187		0.1053	0.1181

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1033+							
4.125								
4.375	0.10481	0.1091						
4.625			0.0994					
4.875			0.1084					
5.125	0.1057			0.1039				
5.375	0.0981			0.0898				
5.625	0.0999	0.0953		0.0964				
5.875				0.1033	0.0942			
6.125	0.1044			0.0997	0.0987			
6.375	0.0946			0.0949	0.0974	0.0990		
6.625	0.1041			0.0976	0.0973	0.0979		
6.875	0.1034			0.1003	0.1007	0.1184	0.1436	
7.125	0.1111			0.1057	0.1155	0.1417	0.1730, 0.1506	
7.375	0.1227			0.1095	0.1299	0.1719	0.1859	
7.625				0.1134	0.1529	0.1884	0.1922	
7.875				0.1161				0.1996

AD-A190 972

SURFACE PRESSURE MEASUREMENTS ON A HIGHLY SWEPT DELTA
MINIBED WIND TUNNEL. (U) NAVAL SURFACE WEAPONS CENTER
SILVER SPRING MD A S COLLIER ET AL. AUG 86

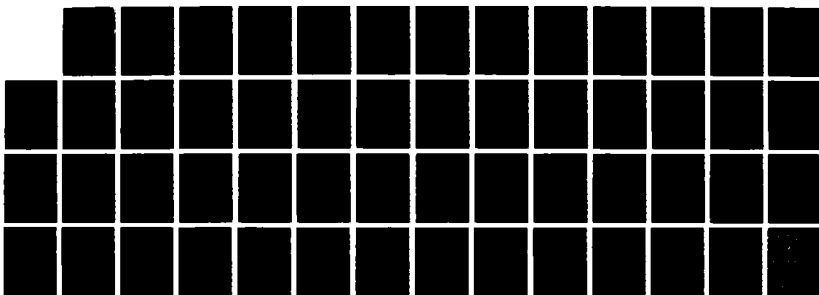
3/3

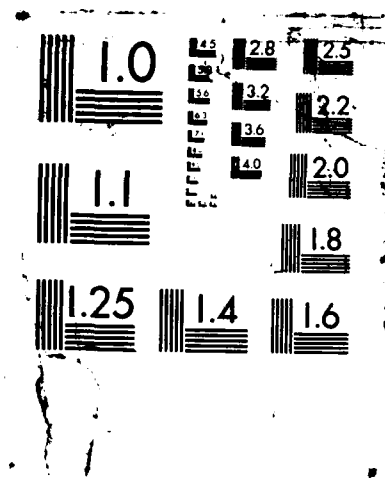
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NSWC/MP-86-356

F/G 1/1

NL





WHITE OAK LABORATORY

WTR1421
RUN 26

ALPH 4.97 deg PHI 89.47 deg
AVERAGED DATA

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

PO 14.66 psia
SCALE FACTOR: 1.0000

TO 75.04 degF

MACH 4.0

WTR1421
RUN 26

BODY PRESSURES (PSI)

z/d	theta:	89.5	104.5	119.5	134.5	149.5	164.5
0.5	0.2245						
1.0	0.1728						
1.5	0.1450		0.1307	0.1299	0.1361	0.1519	0.1569, 0.1519
2.0	0.0943						0.1224, 0.1353
2.5	0.0774		0.0863	0.0898	0.0924	0.0982	0.0981
3.0	0.0902						
3.5	0.0696		0.0766	0.0830	0.0850	0.0726	0.0682
4.0	0.0708		0.0786	0.0796	0.0732	0.0696	0.0583
4.3	0.0797		0.0806	0.0704	0.0847	0.0595	0.0639
4.5	0.0776		0.0826	0.0820	0.0798	0.0670	0.0576
4.8	0.0805		0.0799	0.0600	0.0750	0.0587	0.0760
5.0	0.0803		0.0619	0.0583	0.0556	0.0783	0.0595
5.5	0.0819		0.0728	0.0855	0.0689	0.0652	0.0651
6.0	0.0766		0.0823	0.0717	0.0731	0.0724	0.0666
6.5	0.0722		0.0841	0.0769	0.0793	0.0663	0.0710
7.0	0.0721		0.0742	0.0934	0.1012	0.0989	0.0733
7.5	0.0838		0.0808	0.0635	0.1044	0.0901	0.1121
8.0				0.1239		0.1541	0.1846

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0554+							
4.125								
4.375	0.05361 0.0574							
4.625		0.0519						
4.875		0.0535						
5.125	0.0677							
5.375	0.0664							
5.625	0.0687, 0.0657							
5.875	0.0747				0.0458			
6.125		0.0529		0.0556		0.0584		
6.375	0.0704	0.0554		0.0587		0.0605		
6.625	0.0765	0.0652		0.0653		0.0689		
6.875	0.0753	0.0810		0.0792		0.0782	0.0698	
7.125	0.0830	0.0899		0.0923		0.0841	0.0768, 0.0685	
7.375	0.1027	0.0998		0.0993		0.0915	0.0819	
							0.0892	0.0970

WHITE OAK LABORATORY

WTR1421
RUN 27WTR1421
RUN 27TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	9.99 deg	PHI	89.50 deg AVERAGED DATA	P0	14.66 psia SCALE FACTOR:	T0	75.35 degF	MACH	4.0
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BODY PRESSURES (PSI)

z/d	theta:	89.5	104.5	119.5	134.5	149.5	164.5
0.5	0.1671						
1.0	0.1337						
1.5	0.1161						
2.0	0.0770		0.1022	0.0986	0.1034	0.1198	0.1348, 0.1314
2.5	0.0650		0.0717	0.0732	0.0720	0.0748	0.1040, 0.1175
3.0	0.0794						0.0805
3.5	0.0605		0.0621	0.0669	0.0671	0.0553	0.0540
4.0	0.0640		0.0615	0.0599	0.0563	0.0536	0.0412
4.3	0.0733		0.0621	0.0505	0.0670	0.0436	0.0421
4.5	0.0716		0.0613	0.0606	0.0614	0.0508	0.0317
4.8	0.0755		0.0574	0.0389	0.0572	0.0428	0.0470
5.0	0.0773		0.0397	0.0366	0.0376	0.0605	0.0287
5.5	0.0786		0.0534	0.0616	0.0501	0.0477	0.0361
6.0	0.0673		0.0678	0.0497	0.0537	0.0538	0.0348
6.5	0.0564		0.0653	0.0559	0.0604	0.0460	0.0411
7.0	0.0529		0.0522	0.0724	0.0841	0.0730	0.0483
7.5	0.0660		0.0599	0.0459	0.0924	0.0773	0.0808
8.0				0.1000		0.1408	0.1319

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0393+							
4.125								
4.375	0.04041	0.0415						
4.625			0.0358					
4.875			0.0351					
5.125	0.0384			0.0366				
5.375	0.0358			0.0314				
5.625	0.0372, 0.0364			0.0363				
5.875	0.0447			0.0358	0.0349			
6.125				0.0410	0.0351	0.0413		
6.375	0.0480			0.0445	0.0436	0.0436		
6.625	0.0527			0.0473	0.0465	0.0449	0.0453	
6.875	0.0520			0.0492	0.0519	0.0503	0.0498, 0.0461	
7.125	0.0598			0.0596	0.0589	0.0607	0.0579	
7.375	0.0710			0.0675	0.0676	0.0702	0.0711	

WHITE OAK LABORATORY

WTR1421
RUN 28

ALPH 14.94 deg PHI 89.66 deg PD 14.66 psia TO 75.64 degF MACH 4.0

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL T2 PRESSURE TEST

SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	104.7	119.7	134.7	149.7	164.7
0.5	0.1317					
1.0	0.1076					
1.5	0.0971					
2.0	0.0676	0.0825	0.0763	0.0738	0.0911	0.1156, 0.1142
2.5	0.0624	0.0598	0.0624	0.0619	0.0604	0.0889, 0.1029
3.0	0.0800					0.0687
3.5	0.0647	0.0557	0.0587	0.0620	0.0547	0.0451
4.0	0.0626	0.0570	0.0569	0.0555	0.0558	0.0228
4.3	0.0692	0.0611	0.0499	0.0676	0.0448	0.0287
4.5	0.0662	0.0639	0.0630	0.0649	0.0463	0.0235
4.8	0.0678	0.0624	0.0445	0.0611	0.0359	0.0400
5.0	0.0670	0.0458	0.0430	0.0433	0.0513	0.0255
5.5	0.0639	0.0538	0.0647	0.0527	0.0368	0.0327
6.0	0.0559	0.0591	0.0522	0.0535	0.0415	0.0341
6.5	0.0483	0.0574	0.0553	0.0558	0.0353	0.0378
7.0	0.0473	0.0459	0.0674	0.0727	0.0626	0.0388
7.5	0.0626	0.0527	0.0345	0.0671	0.0422	0.0568
8.0			0.0693		0.0534	0.0515

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0423+							
4.125								
4.375	0.04281	0.0446						
4.625		0.0408						
4.875		0.0395						
5.125	0.0438			0.0414				
5.375	0.0394			0.0340				
5.625	0.0595, 0.0380	0.0364		0.0367				
5.875	0.0426	0.0432		0.0344	0.0368			
6.125		0.0412		0.0395	0.0355	0.0416		
6.375	0.0451	0.0408		0.0422	0.0406	0.0421		
6.625	0.0476	0.0462		0.0434	0.0436	0.0425	0.0447	
6.875	0.0457	0.0489		0.0438	0.0451	0.0445	0.0465, 0.0592	
7.125	0.0511	0.0498		0.0490	0.0471	0.0494	0.0479	
7.375	0.0553	0.0518		0.0492	0.0479	0.0520	0.0528	0.0550

WHITE OAK LABORATORY									
WIR1421 RUN 29					WIR1421 RUN 29				
TUNNEL 12 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	-0.02 deg	PHI	112.48 deg AVERAGED DATA	P0	14.65 psia SCALE FACTOR:	T0	76.06 degF	MACH	4.0
BODY PRESSURES (PSI)									
z/d	theta:	112.5	127.5	142.5	157.5	172.5	187.5		
0.5		0.3032							
1.0		0.2311							
1.5		0.1847							
2.0		0.1254	0.1747	0.1732	0.1748	0.1810	0.1757, 0.1696		
2.5		0.1025	0.1086	0.1117	0.1138	0.1159	0.1362, 0.1435		
3.0		0.0998					0.1117		
3.5		0.0812	0.0877	0.0948	0.0980	0.0918	0.0902		
4.0		0.0840	0.0907	0.0932	0.0896	0.0881	0.0809		
4.3		0.0921	0.0934	0.0864	0.0999	0.0808	0.0879		
4.5		0.0912	0.0965	0.0980	0.0971	0.0880	0.0841		
4.8		0.0946	0.0953	0.0802	0.0953	0.0832	0.1012		
5.0		0.0953	0.0805	0.0794	0.0792	0.1003	0.0875		
5.5		0.0951	0.0900	0.1029	0.0911	0.0903	0.0944		
6.0		0.0903	0.0973	0.0928	0.0956	0.0966	0.0926		
6.5		0.0851	0.0979	0.0977	0.1003	0.0919	0.0944		
7.0		0.0851	0.0879	0.1131	0.1218	0.1185	0.0949		
7.5		0.1016	0.0979	0.0852	0.1200	0.0997	0.1205		
8.0				0.1193		0.1310	0.1246		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1009+							
4.125								
4.375	0.10241	0.1052						
4.625		0.0993						
4.875		0.1047						
5.125				0.1014				
5.375	0.1032	0.0933		0.0906				
5.625	0.0958	0.0932		0.0947				
5.875	0.0969, 0.0945	0.1001		0.0936	0.0931			
6.125	0.1003	0.0973		0.0975				
6.375		0.0935		0.0909	0.0958			
6.625	0.0938	0.0966		0.0942	0.0929			
6.875	0.0993	0.1056		0.0991	0.1110	0.1346		
7.125	0.1006	0.1066		0.1139	0.1409	0.1934, 0.0960		
7.375	0.1106	0.1093		0.1144	0.1901	0.2276		
	0.1189	0.1131		0.1252	0.2284	0.2467	0.2722	
				0.1752				

WHITE OAK LABORATORY

WTR1421
RUN 30

ALPH 4.98 deg

PIII 112.3 deg

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL T2 PRESSURE TEST

PO 14.65 psia

SCALE FACTOR: 1.0000

TO 76.45 degF

MACH 4.0

WTR1421
RUN 30

BODY PRESSURES (PSI)

z/d	theta:	112.3	127.3	142.3	157.3	172.3	187.3
0.5	0.2270						
1.0	0.1728						
1.5	0.1420						
2.0	0.0958		0.1350	0.1391	0.1505	0.1693	0.1796, 0.1364
2.5	0.0796		0.0864	0.0913	0.0973	0.1062	0.1383, 0.1196
3.0	0.0863						0.1115
3.5	0.0694		0.0749	0.0802	0.0825	0.0758	0.0763
4.0	0.0707		0.0769	0.0772	0.0722	0.0710	0.0652
4.3	0.0778		0.0784	0.0698	0.0816	0.0623	0.0692
4.5	0.0762		0.0806	0.0807	0.0783	0.0681	0.0640
4.8	0.0787		0.0787	0.0622	0.0751	0.0618	0.0795
5.0	0.0787		0.0634	0.0607	0.0588	0.0786	0.0653
5.5	0.0779		0.0715	0.0840	0.0701	0.0677	0.0704
6.0	0.0720		0.0782	0.0728	0.0743	0.0747	0.0696
6.5	0.0661		0.0783	0.0777	0.0805	0.0707	0.0744
7.0	0.0676		0.0698	0.0952	0.1042	0.1033	0.0828
7.5	0.0858		0.0819	0.0695	0.1223	0.1273	0.1402
8.0				0.1553		0.2520	0.2255

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0643+							
4.125								
4.375	0.06181	0.0593						
4.625		0.0633						
4.875								
5.125	0.0703			0.0588				
5.375	0.0665			0.0475				
5.625	0.0680	0.0495		0.0519				
5.875	0.0755	0.0497		0.0511	0.0502			
6.125		0.0573		0.0594	0.0545	0.0612		
6.375	0.0729	0.0578		0.0630	0.0532	0.0653		
6.625	0.0802	0.0598		0.0677	0.0707	0.0830	0.0915	
6.875	0.0821	0.0851		0.0810	0.0896	0.1028	0.1153, 0.0554	
7.125	0.0948	0.1033		0.1029	0.1080	0.1200	0.1286	
7.375	0.1247	0.1270		0.1217	0.1222	0.1290	0.1409	0.1756

WHITE OAK LABORATORY

WTR1421	TUNNEL	T2 PRESSURE TEST	WTR1421
RUN 31	PS1 CONFIGURATION	PSI#1(PR/10) PSI#2(TC/1)	RUN 31
ALPH	PHI	PO	MACH
9.98 deg	112.42 deg	14.65 psi/a	4.0
	AVERAGED DATA	SCALE FACTOR:	
		1.0000	
		76.73 degF	

BODY PRESSURES (PSI)

z/d	theta:	112.4	127.4	142.4	157.4	172.4	187.4
0.5	0.1697						
1.0	0.1317						
1.5	0.1113						
2.0	0.0759		0.1020	0.1062	0.1229	0.1528	0.1801, 0.1035
2.5	0.0649		0.0679	0.0688	0.0760	0.0924	0.1376, 0.0932
3.0	0.0737						0.1097
3.5	0.0550		0.0598	0.0637	0.0617	0.0601	0.0723
4.0	0.0528		0.0594	0.0607	0.0544	0.0543	0.0567
4.3	0.0584		0.0606	0.0529	0.0631	0.0445	0.0604
4.5	0.0544		0.0610	0.0625	0.0591	0.0505	0.0546
4.8	0.0558		0.0586	0.0441	0.0570	0.0452	0.0689
5.0	0.0554		0.0434	0.0431	0.0416	0.0621	0.0528
5.5	0.0542		0.0508	0.0654	0.0532	0.0534	0.0538
6.0	0.0490		0.0574	0.0550	0.0574	0.0607	0.0499
6.5	0.0459		0.0594	0.0612	0.0643	0.0600	0.0529
7.0	0.0517		0.0546	0.0792	0.0879	0.0922	0.0628
7.5	0.0733		0.0678	0.0613	0.1299	0.1307	0.1117
8.0				0.1477		0.1848	0.1749

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0476+							
4.125								
4.375	0.0469†	0.0497						
4.625			0.0443					
4.875			0.0456					
5.125	0.0458			0.0429				
5.375	0.0402		0.0368	0.0361				
5.625	0.0381, 0.0406		0.0405	0.0428	0.0419			
5.875	0.0490		0.0480	0.0422				
6.125			0.0447	0.0463	0.0429	0.0489		
6.375	0.0518		0.0468	0.0491	0.0493	0.0501		
6.625	0.0593		0.0548	0.0532	0.0527	0.0544	0.0581	
6.875	0.0609		0.0626	0.0593	0.0600	0.0616	0.0696, 0.0417	
7.125	0.0708		0.0681	0.0683	0.0655	0.0703	0.0783	
7.375	0.0952		0.0786	0.0762	0.0733	0.0782	0.0891	0.1074

WHITE OAK LABORATORY
TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

WTR1421
RUN 32

WTR1421
RUN 32

ALPH 14.94 deg PHI 112.59 deg PO 14.65 psia TO 77.03 degF MACH 4.0
AVERAGED DATA SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	127.6	142.6	157.6	172.6	187.6
0.5	0.1291					
1.0	0.1031					
1.5	0.0903	0.0767	0.0761	0.0992	0.1400	0.1827, 0.0741
2.0	0.0608					0.1405, 0.0692
2.5	0.0510	0.0534	0.0514	0.0603	0.0842	0.1125
3.0	0.0582					
3.5	0.0413	0.0472	0.0513	0.0483	0.0529	0.0758
4.0	0.0376	0.0462	0.0503	0.0435	0.0477	0.0609
4.3	0.0436	0.0467	0.0430	0.0527	0.0402	0.0623
4.5	0.0420	0.0486	0.0521	0.0496	0.0473	0.0520
4.8	0.0457	0.0479	0.0350	0.0468	0.0432	0.0607
5.0	0.0460	0.0338	0.0340	0.0321	0.0584	0.0386
5.5	0.0455	0.0416	0.0548	0.0429	0.0487	0.0335
6.0	0.0436	0.0502	0.0456	0.0473	0.0535	0.0271
6.5	0.0414	0.0531	0.0523	0.0537	0.0481	0.0280
7.0	0.0414	0.0450	0.0672	0.0746	0.0746	0.0297
7.5	0.0521	0.0489	0.0377	0.0692	0.0424	0.0441
8.0			0.0640		0.0470	0.0433

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0433+							
4.125								
4.375	0.04341	0.0454						
4.625			0.0392					
4.875			0.0386					
5.125	0.0389			0.0364				
5.375	0.0327			0.0297				
5.625	0.0275, 0.0308			0.0320				
5.875	0.0360			0.0297	0.0294			
6.125				0.0351				
6.375	0.0394			0.0310	0.0346			
6.625	0.0412			0.0388	0.0391			
6.875	0.0392			0.0411	0.0398			
7.125	0.0441			0.0397	0.0414			
7.375	0.0479			0.0446	0.0422			
				0.0429	0.0420			
						0.0458	0.0465	0.0482

WHITE OAK LABORATORY

WIR1421 RUN 33	TUNNEL 12 PRESSURE TEST										WTR1421 RUN 33	
ALPH	-0.03 deg	PHI	PSI CONFIGURATION		135.26 deg AVERAGED DATA	PO	PSI#1(PR/10)		PSI#2(TC/1)		MACH	4.0
			PSI#1(PR/10)				PSI#2(TC/1)					
BODY PRESSURES (PSI)												
	z/d	theta:	135.3	150.3	165.3	180.3	195.3	210.3				
	0.5		0.3024									
	1.0		0.2297									
	1.5		0.1826	0.1748	0.1742	0.1755	0.1811	0.1761, 0.1702				
	2.0		0.1258					0.1358, 0.1403				
	2.5		0.1034	0.1083	0.1114	0.1133	0.1148	0.1113				
	3.0		0.0973									
	3.5		0.0816	0.0874	0.0934	0.0959	0.0910	0.0896				
	4.0		0.0845	0.0905	0.0927	0.0895	0.0880	0.0816				
	4.3		0.0916	0.0927	0.0863	0.0983	0.0817	0.0878				
	4.5		0.0924	0.0965	0.0984	0.0975	0.0882	0.0847				
	4.8		0.0950	0.0960	0.0828	0.0960	0.0852	0.1012				
	5.0		0.0959	0.0830	0.0818	0.0818	0.1001	0.0894				
	5.5		0.0946	0.0899	0.1017	0.0909	0.0903	0.0921				
	6.0		0.0901	0.0966	0.0926	0.0949	0.0960	0.0919				
	6.5		0.0854	0.0975	0.0969	0.0996	0.0911	0.0937				
	7.0		0.0848	0.0877	0.1108	0.1186	0.1151	0.0934				
	7.5		0.0997	0.0961	0.0844	0.1164	0.0966	0.1081				
	8.0				0.1282		0.1168	0.0989				

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1017+							
4.125								
4.375	0.10291	0.1054						
4.625			0.0995					
4.875			0.1056					
5.125		0.1037		0.1018				
5.375	0.0956		0.0927	0.0900				
5.625	0.0960, 0.0942		0.0921	0.0944				
5.875	0.0993		0.0988	0.0927	0.0922			
6.125		0.0958	0.0958	0.0967	0.0903	0.0940		
6.375	0.0931	0.0922	0.0922	0.0938	0.0921	0.0881		
6.625	0.0968	0.0928	0.0928	0.0930	0.0904	0.0911	0.0908	
6.875	0.0949	0.0972	0.0945	0.0945	0.0950	0.0939	0.0965, 0.0859	
7.125	0.0989	0.0963	0.0989	0.0989	0.0982	0.1057	0.1184	
7.375	0.1098	0.0954	0.0962	0.0962	0.1024	0.1272	0.1663	0.2148

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSIN1(PR/10) PSIN2(TC/1)									
ALPH	4.95 deg	PHI	135.34 deg AVERAGED DATA	P0	14.64 psia SCALE FACTOR:	T0	77.75 degF	MACH	4.0
BODY PRESSURES (PSI)									
z/d	theta:	135.3	150.3	165.3	180.3	195.3	210.3		
0.5		0.2406							
1.0		0.1816							
1.5		0.1462							
2.0		0.0992	0.1457	0.1553	0.1712	0.1932	0.2046, 0.1273		
2.5		0.0826	0.0895	0.0982	0.1083	0.1196	0.1570, 0.1111		
3.0		0.0828					0.1270		
3.5		0.0687	0.0735	0.0800	0.0868	0.0860	0.0896		
4.0		0.0697	0.0750	0.0770	0.0769	0.0810	0.0784		
4.3		0.0761	0.0764	0.0699	0.0846	0.0725	0.0821		
4.5		0.0758	0.0793	0.0803	0.0823	0.0779	0.0772		
4.8		0.0785	0.0778	0.0639	0.0797	0.0731	0.0926		
5.0		0.0786	0.0644	0.0624	0.0647	0.0872	0.0797		
5.5		0.0768	0.0706	0.0828	0.0724	0.0748	0.0800		
6.0		0.0711	0.0770	0.0717	0.0752	0.0803	0.0799		
6.5		0.0653	0.0775	0.0761	0.0796	0.0745	0.0813		
7.0		0.0680	0.0704	0.0924	0.0994	0.0986	0.0816		
7.5		0.0848	0.0821	0.0745	0.1110	0.0907	0.1005		
8.0				0.1923		0.2198	0.1715		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0800+							
4.125								
4.375	0.07661	0.0799						
4.625		0.0738						
4.875		0.0777						
5.125	0.0866							
5.375	0.0825	0.0650						
5.625	0.0733, 0.0826	0.0634			0.0631			
5.875	0.0892	0.0686						
6.125		0.0656						
6.375	0.0824	0.0624			0.0606	0.0652		
6.625	0.0865	0.0646			0.0646	0.0623		
6.875	0.0840	0.0705			0.0651	0.0676	0.0685	
7.125	0.0882	0.0744			0.0721	0.0733	0.0780, 0.0508	
7.375	0.1043	0.0860			0.0792	0.0887	0.0974	
				0.0865	0.0966	0.1161	0.1336	0.1590

WIR1421
RUN 35

ALPH 9.96 deg PHI 134.94 deg
AVERAGED DATA

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL T2 PRESSURE TEST

WIITE OAK LABORATORY

PO 14.64 psia
SCALE FACTOR: 1.0000

WTR1421
RUN 35

MACH 4.0

z/d	theta:	149.9	164.9	179.9	194.9	209.9
0.5	0.1855					
1.0	0.1392					
1.5	0.1125	0.1156	0.1335	0.1635	0.2034	0.2373, 0.0958
2.0	0.0750					0.1812, 0.0887
2.5	0.0629	0.0673	0.0808	0.1000	0.1240	0.1471
3.0	0.0692					
3.5	0.0557	0.0582	0.0613	0.0750	0.0857	0.1007
4.0	0.0547	0.0592	0.0572	0.0638	0.0786	0.0843
4.3	0.0601	0.0599	0.0498	0.0707	0.0683	0.0867
4.5	0.0576	0.0603	0.0587	0.0659	0.0726	0.0821
4.8	0.0590	0.0585	0.0428	0.0619	0.0671	0.0964
5.0	0.0587	0.0451	0.0409	0.0476	0.0810	0.0838
5.5	0.0566	0.0514	0.0617	0.0564	0.0723	0.0841
6.0	0.0522	0.0583	0.0523	0.0597	0.0781	0.0811
6.5	0.0492	0.0609	0.0587	0.0654	0.0729	0.0817
7.0	0.0513	0.0535	0.0740	0.0834	0.0957	0.0796
7.5	0.0637	0.0604	0.0528	0.0903	0.0847	0.0987
8.0			0.1682		0.2367	0.1771

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0690+							
4.125								
4.375	0.06641	0.0711						
4.625		0.0651						
4.875		0.0680						
5.125	0.0680							
5.375	0.0624							
5.625	0.0536, 0.0615							
5.875	0.0693				0.0544			
6.125								
6.375	0.0645				0.0525	0.0560		
6.625	0.0692				0.0551	0.0534		
6.875	0.0674				0.0562	0.0575	0.0585	
7.125	0.0734				0.0610	0.0632	0.0659, 0.0415	
7.375	0.0874				0.0649	0.0747	0.0786	
					0.0775	0.0943	0.1035	0.1098

WHITE OAK LABORATORY

WTR1421
RUN 36

ALPH 14.95 deg PHI 135.31 deg PO 14.72 psia TO 78.35 degF MACH 4.0

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

SCALE FACTOR: 1.0000

theta: 135.3

z/d 0.5 0.1382 150.3 165.3 180.3 195.3 210.3

1.0 0.1017

1.5 0.0829

2.0 0.0566

2.5 0.0506

3.0 0.0593

3.5 0.0466

4.0 0.0476

4.3 0.0539

4.5 0.0522

4.8 0.0554

5.0 0.0567

5.5 0.0586

6.0 0.0577

6.5 0.0578

7.0 0.0623

7.5 0.0769

8.0

0.0883

0.0503

0.0494

0.0525

0.0541

0.0558

0.0559

0.0453

0.0546

0.0642

0.0658

0.0745

0.1153

0.0692

0.0527

0.0501

0.0448

0.0545

0.0418

0.0418

0.0646

0.0601

0.0697

0.0876

0.0657

0.0947

0.1591

0.0968

0.0712

0.0606

0.0673

0.0634

0.0617

0.0511

0.0632

0.0707

0.0806

0.1020

0.1021

0.2174

0.1337

0.0922

0.0834

0.0741

0.0804

0.0775

0.0917

0.0858

0.0932

0.0846

0.0905

0.1135

0.0928

0.1043

0.2746, 0.0740

0.2126, 0.0724

0.1744

0.1182

0.1020

0.1041

0.1005

0.1136

0.1000

0.0923

0.0846

0.0801

0.0750

0.0857

0.1131

WING PRESSURES (PSI)

z/d r/d: 0.5935 0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

3.625 0.0645

3.875 0.0650

4.125 0.0514

4.375 0.0505

4.625 0.0540

4.875 0.0514

5.125 0.0502

5.375 0.0473

5.625 0.0500

5.875 0.0507

6.125 0.0511

6.375 0.0549

6.625 0.0606

6.875 0.0649

7.125 0.0623

7.375 0.0652

0.0627

0.0522

0.0541

0.0514

0.0536

0.0507

0.0508

0.0501

0.0531

0.0543

0.0534

0.0508

0.0516

0.0512

0.0519

0.0523

0.0538

0.0539

0.0505

0.0510

0.0510

0.0518, 0.0448

0.0515

0.0579

0.0610

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	-0.04 deg	PHI	157.42 deg AVERAGED DATA	P0	14.74 psia SCALE FACTOR:	T0	78.80 degF	MACII	WTR1421 RUN 37
						1.0000			4.0
BODY PRESSURES (PSI)									
z/d	theta:	157.4	172.4	187.4	202.4	217.4	232.4		
0.5	0.3042								
1.0	0.2299								
1.5	0.1818		0.1762	0.1763	0.1777	0.1823	0.1781, 0.1705		
2.0	0.1277						0.1364, 0.1383		
2.5	0.1059		0.1092	0.1119	0.1133	0.1148	0.1124		
3.0	0.0961								
3.5	0.0832		0.0882	0.0933	0.0952	0.0911	0.0896		
4.0	0.0859		0.0910	0.0927	0.0903	0.0890	0.0831		
4.3	0.0920		0.0929	0.0874	0.0982	0.0934	0.0887		
4.5	0.0932		0.0973	0.0992	0.0982	0.0891	0.0861		
4.8	0.0964		0.0968	0.0859	0.0970	0.0876	0.1016		
5.0	0.0973		0.0856	0.0844	0.0852	0.1006	0.0914		
5.5	0.0947		0.0903	0.1016	0.0914	0.0906	0.0924		
6.0	0.0907		0.0967	0.0931	0.0953	0.0962	0.0922		
6.5	0.0867		0.0971	0.0972	0.0994	0.0916	0.0941		
7.0	0.0861		0.0885	0.1094	0.1163	0.1137	0.0938		
7.5	0.0995		0.0963	0.0857	0.1141	0.0958	0.1057		
8.0				0.1377		0.1009	0.0836		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625									
3.875	0.1009+								
4.125									
4.375	0.10271	0.1051							
4.625			0.0990						
4.875			0.1049						
5.125				0.1009					
5.375	0.1031			0.0905					
5.625	0.0955			0.0940					
5.875	0.0959, 0.0942			0.0924					
6.125	0.0993			0.0934					
6.375				0.0966					
6.625	0.0930			0.0929					
6.875	0.0960			0.0925					
7.125	0.0946			0.0926					
7.375	0.0971			0.0937					
	0.0990			0.0892					
					0.0909	0.0931			
					0.0912	0.0874			
					0.0898	0.0897			
					0.0922	0.0898			
					0.0914	0.0886			
					0.0905	0.0887			
					0.0874				
						0.0890			
						0.0894, 0.0866			
						0.0886			
						0.0863			
							0.0864		

WHITE OAK LABORATORY

WTR1421
RUN 38

ALPH 4.94 deg PHI 157.81 deg
AVERAGED DATA

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

P0 14.75 psia
SCALE FACTOR: 1.0000

TO 79.03 degf

MACH 4.0

BODY PRESSURES (PSI)

z/d	theta:	172.8	187.8	202.8	217.8	232.8
0.5	0.2660					
1.0	0.1994					
1.5	0.1586	0.1651	0.1795	0.1969	0.2198	0.2287, 0.1261
2.0	0.1089					0.1750, 0.1088
2.5	0.0894	0.0997	0.1115	0.1235	0.1354	0.1431
3.0	0.0835					
3.5	0.0699	0.0774	0.0879	0.0979	0.0997	0.1039
4.0	0.0705	0.0778	0.0847	0.0893	0.0953	0.0948
4.3	0.0762	0.0787	0.0778	0.0960	0.0876	0.0983
4.5	0.0777	0.0828	0.0895	0.0959	0.0921	0.0942
4.8	0.0801	0.0812	0.0747	0.0931	0.0914	0.1104
5.0	0.0802	0.0692	0.0723	0.0801	0.1032	0.0987
5.5	0.0768	0.0723	0.0880	0.0836	0.0894	0.0958
6.0	0.0720	0.0776	0.0767	0.0852	0.0935	0.0947
6.5	0.0679	0.0775	0.0799	0.0881	0.0866	0.0952
7.0	0.0708	0.0715	0.0920	0.1031	0.1078	0.0925
7.5	0.0907	0.0901	0.0772	0.1034	0.0874	0.1000
8.0			0.2006		0.1139	0.0947

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1037+							
4.125								
4.375	0.10201	0.1030						
4.625			0.0965					
4.875			0.1003					
5.125	0.1024			0.0947				
5.375	0.0974			0.0839				
5.625	0.0839, 0.0978			0.0874	0.0840			
5.875	0.1044			0.0856				
6.125				0.0886				
6.375	0.0975			0.0891	0.0819	0.0846		
6.625	0.0995			0.0848	0.0829	0.0788		
6.875	0.0967			0.0847	0.0807	0.0810	0.0796	
7.125	0.0987			0.0874	0.0825	0.0806	0.0794, 0.0635	
7.375	0.0990			0.0840	0.0807	0.0813	0.0783	
				0.0793	0.0769	0.0784	0.0758	0.0760

WHITE OAK LABORATORY

WTR1421
RUN 40

WTR1421
RUN 40

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	15.00 deg	PHI	157.86 deg	P0	14.74 psia	T0	79.60 degF	MACH	4.0
AVERAGED DATA				SCALE FACTOR: 1.0000					

BODY PRESSURES (PSI)

theta:	157.9	172.9	187.9	202.9	217.9	232.9
z/d						
	0.1866					
0.5	0.1866					
1.0	0.1363					
1.5	0.1067	0.1362	0.1831	0.2435	0.3124	0.3691, 0.0792
2.0	0.0700					0.2884, 0.0749
2.5	0.0548	0.0780	0.1114	0.1520	0.1968	0.2397
3.0	0.0530					
3.5	0.0426	0.0554	0.0824	0.1141	0.1442	0.1728
4.0	0.0484	0.0538	0.0760	0.1029	0.1345	0.1551
4.3	0.0558	0.0543	0.0693	0.1079	0.1247	0.1557
4.5	0.0575	0.0565	0.0769	0.1054	0.1282	0.1527
4.8	0.0620	0.0577	0.0634	0.1023	0.1274	0.1679
5.0	0.0653	0.0498	0.0610	0.0911	0.1383	0.1586
5.5	0.0679	0.0615	0.0778	0.0956	0.1280	0.1535
6.0	0.0693	0.0720	0.0720	0.0984	0.1326	0.1504
6.5	0.0750	0.0851	0.0851	0.1043	0.1280	0.1505
7.0	0.0894	0.0934	0.1107	0.1230	0.1492	0.1494
7.5	0.1111	0.1090	0.1000	0.1267	0.1327	0.1564
8.0			0.1323		0.1332	0.1568

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1235+							
4.125								
4.375	0.11631	0.1246						
4.625			0.1185					
4.875			0.1197					
5.125	0.1486			0.1156				
5.375	0.1428		0.1011	0.1046				
5.625	0.0706, 0.1426		0.0995	0.1048				
5.875	0.1477		0.1022	0.1020	0.1044			
6.125			0.0991	0.1050	0.1022	0.1035		
6.375	0.1381		0.0927	0.0988	0.0978	0.0967		
6.625	0.1405		0.0926	0.0985	0.0969	0.0962	0.0955	
6.875	0.1411		0.0972	0.0979	0.0970	0.0950	0.0948, 0.0589	
7.125	0.1432		0.0941	0.0980	0.0986	0.0957	0.0958	
7.375	0.1414		0.0929	0.0966	0.0970	0.0934	0.0943	0.0946

WIR1421
RUN 41

ALPHI -0.04 deg PHI 180.92 deg
AVERAGED DATA

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(IC/I)

TUNNEL T2 PRESSURE TEST

PO 14.74 psia
SCALE FACTOR: 1.0000

TO 79.76 degF

MACII 4.0

WIR1421
RUN 41

WHITE OAK LABORATORY

z/d' theta: 180.9

0.5	0.3052	195.9	210.9	225.9	240.9	255.9
1.0	0.2306					
1.5	0.1816	0.1773	0.1773	0.1786	0.1833	0.1790, 0.1703
2.0	0.1284					0.1364, 0.1364
2.5	0.1076	0.1099	0.1123	0.1133	0.1145	0.1130
3.0	0.0958					
3.5	0.0837	0.0881	0.0931	0.0949	0.0911	0.0895
4.0	0.0862	0.0908	0.0924	0.0905	0.0891	0.0840
4.3	0.0916	0.0926	0.0876	0.0972	0.0844	0.0889
4.5	0.0940	0.0970	0.0993	0.0983	0.0891	0.0865
4.8	0.0971	0.0968	0.0874	0.0973	0.0888	0.1014
5.0	0.0978	0.0869	0.0858	0.0870	0.1002	0.0926
5.5	0.0946	0.0907	0.1013	0.0917	0.0911	0.0928
6.0	0.0912	0.0967	0.0931	0.0952	0.0961	0.0926
6.5	0.0874	0.0970	0.0970	0.0993	0.0920	0.0942
7.0	0.0873	0.0890	0.1083	0.1143	0.1117	0.0940
7.5	0.1001	0.0966	0.0865	0.1126	0.0956	0.1049
8.0			0.1216		0.0976	0.0812

BODY PRESSURES (PSI)

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1005+							
4.125								
4.375	0.10231	0.1049						
4.625			0.0995					
4.875			0.1045					
5.125				0.1012				
5.375	0.1031			0.0909				
5.625	0.0951			0.0937				
5.875	0.0961, 0.0942			0.0915				
6.125	0.0982			0.0930				
6.375			0.0954	0.0912	0.0925			
6.625	0.0851		0.0837	0.0833	0.0794			
6.875	0.0870		0.0843	0.0819	0.0814		0.0811	
7.125	0.0939		0.0956	0.0838	0.0819		0.0806, 0.0881	
7.375	0.0970		0.0921	0.0907	0.0907		0.0882	
7.625	0.0993		0.0901	0.0870	0.0879		0.0857	0.0855

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
WTR1421 RUN 42	ALPH	4.95 deg	PHI	180.51 deg AVERAGED DATA	PO	14.73 psia SCALE FACTOR:	TO	80.36 degF	MACH
WTR1421 RUN 42									
BODY PRESSURES (PSI)									
z/d	theta:	180.5	195.5	210.5	225.5	240.5	255.5		
0.5		0.3003							
1.0		0.2258							
1.5		0.1783	0.1897	0.2056	0.2229	0.2414	0.2452, 0.1266		
2.0		0.1242					0.1874, 0.1077		
2.5		0.1018	0.1144	0.1274	0.1389	0.1490	0.1535		
3.0		0.0898							
3.5		0.0758	0.0867	0.0994	0.1096	0.1120	0.1166		
4.0		0.0762	0.0876	0.0972	0.1036	0.1095	0.1095		
4.3		0.0813	0.0882	0.0910	0.1095	0.1026	0.1131		
4.5		0.0832	0.0921	0.1021	0.1103	0.1069	0.1101		
4.8		0.0854	0.0910	0.0891	0.1079	0.1069	0.1262		
5.0		0.0861	0.0794	0.0862	0.0961	0.1182	0.1166		
5.5		0.0821	0.0811	0.1003	0.0983	0.1053	0.1128		
6.0		0.0774	0.0858	0.0893	0.1005	0.1093	0.1108		
6.5		0.0749	0.0844	0.0916	0.1027	0.1024	0.1108		
7.0		0.0769	0.0780	0.1011	0.1152	0.1204	0.1080		
7.5		0.1000	0.0927	0.0804	0.1110	0.1006	0.1146		
8.0				0.1435		0.1031	0.0870		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625									
3.875	0.1268+								
4.125									
4.375	0.12681 0.1284								
4.625			0.1230						
4.875			0.1257						
5.125		0.1242							
5.375	0.1158								
5.625	0.0915, 0.1134				0.1115				
5.875	0.1167								
6.125			0.1132	0.1145	0.1098	0.1113			
6.375	0.1018		0.1008	0.1014	0.1008	0.0971			
6.625	0.1025		0.1004	0.1006	0.0988	0.0987	0.0988		
6.875	0.1083		0.1110	0.1005	0.0997	0.0983	0.0981, 0.0863		
7.125	0.1100		0.1065	0.1078	0.1055	0.1068	0.1046		
7.375	0.1045		0.1010	0.1014	0.1008	0.1029	0.1021	0.1020	

WHITE OAK LABORATORY									
WTR1421 RUN 43		TUNNEL T2 PRESSURE TEST							
		PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)							
ALPH	9.99 deg	PHI	180.56 deg AVERAGED DATA	P0	14.73 psia SCALE FACTOR:	T0 1.0000	80.54 degF	MACII	4.0
BODY PRESSURES (PSI)									
z/d	theta:	180.6	195.6	210.6	225.6	240.6	255.6		
0.5	0.2881								
1.0	0.2156								
1.5	0.1691								
2.0	0.1168		0.1994	0.2370	0.2757	0.3143	0.3310, 0.0987		
2.5	0.0940		0.1182	0.1462	0.1733	0.1966	0.2556, 0.0885		
3.0	0.0804						0.2115		
3.5	0.0648		0.0863	0.1104	0.1326	0.1476	0.1610		
4.0	0.0627		0.0843	0.1060	0.1250	0.1431	0.1520		
4.3	0.0661		0.0838	0.0997	0.1302	0.1349	0.1542		
4.5	0.0642		0.0850	0.1079	0.1293	0.1393	0.1510		
4.8	0.0648		0.0825	0.0952	0.1267	0.1390	0.1654		
5.0	0.0643		0.0709	0.0918	0.1155	0.1480	0.1556		
5.5	0.0609		0.0727	0.1048	0.1165	0.1347	0.1504		
6.0	0.0579		0.0755	0.0926	0.1167	0.1372	0.1468		
6.5	0.0595		0.0725	0.0937	0.1177	0.1296	0.1464		
7.0	0.0643		0.0648	0.1007	0.1288	0.1463	0.1439		
7.5	0.0754		0.0692	0.0754	0.1226	0.1271	0.1510		
8.0				0.1049		0.1199	0.1154		
WING PRESSURES (PSI)									
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435	
3.625									
3.875	0.1712+								
4.125									
4.375	0.1689	0.1688							
4.625		0.1638							
4.875		0.1648							
5.125	0.1637			0.1591					
5.375	0.1538		0.1517	0.1476					
5.625	0.0804	0.1509	0.1496	0.1492	0.1459				
5.875	0.1531		0.1524	0.1477					
6.125			0.1499	0.1496	0.1445	0.1441			
6.375	0.1378		0.1362	0.1362	0.1345	0.1302			
6.625	0.1372		0.1359	0.1356	0.1329	0.1313	0.1309		
6.875	0.1433		0.1453	0.1352	0.1329	0.1314	0.1292, 0.0901		
7.125	0.1446		0.1405	0.1414	0.1383	0.1384	0.1356		
7.375	0.1412		0.1340	0.1334	0.1328	0.1339	0.1323	0.1318	

WHITE OAK LABORATORY

WTR1421	TUNNEL T2 PRESSURE TEST				WTR1421
RUN 44	PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/I)				RUN 44
ALPH	180.72 deg	P0	14.73 psi	T0	MACH 4.0
	AVERAGED DATA		SCALE FACTOR:	1.0000	
				80.91 degF	

BODY PRESSURES (PSI)

z/d	theta:	180.7	195.7	210.7	225.7	240.7	255.7
0.5	0.2774						
1.0	0.2074						
1.5	0.1630		0.2122	0.2736	0.3391	0.4028	0.4366,0.0914
2.0	0.1135						0.3428,0.1017
2.5	0.0923		0.1267	0.1710	0.2170	0.2584	0.2875
3.0	0.0912						
3.5	0.0836		0.0941	0.1298	0.1674	0.1976	0.2214
4.0	0.0867		0.0928	0.1236	0.1578	0.1908	0.2121
4.3	0.0926		0.0933	0.1177	0.1624	0.1825	0.2121
4.5	0.0959		0.0971	0.1258	0.1632	0.1864	0.2093
4.8	0.1001		0.0971	0.1146	0.1606	0.1882	0.2250
5.0	0.1021		0.0885	0.1113	0.1500	0.1963	0.2165
5.5	0.1020		0.0946	0.1219	0.1482	0.1810	0.2078
6.0	0.1014		0.1035	0.1118	0.1476	0.1825	0.2032
6.5	0.1013		0.1073	0.1150	0.1492	0.1761	0.2032
7.0	0.1045		0.1057	0.1248	0.1608	0.1928	0.2018
7.5	0.1162		0.1128	0.1050	0.1558	0.1749	0.2084
8.0				0.1296	0.1667	0.1967	0.1727

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.2355+							
4.125								
4.375	0.23051	0.2285						
4.625			0.2222					
4.875			0.2219					
5.125	0.2223			0.2124				
5.375	0.2109		0.2070	0.2014				
5.625	0.1027	0.2076	0.2043	0.2024	0.1959			
5.875	0.2093		0.2069	0.2009				
6.125			0.2034	0.2022	0.1943	0.1904		
6.375	0.1934		0.1905	0.1893	0.1847	0.1786		
6.625	0.1913		0.1895	0.1885	0.1833	0.1796	0.1769	
6.875	0.1967		0.1973	0.1877	0.1823	0.1790	0.1747	0.1065
7.125	0.1985		0.1922	0.1922	0.1876	0.1851	0.1805	
7.375	0.1997		0.1868	0.1854	0.1810	0.1796	0.1761	0.1732

WTR1421 RUN 46		WILITE OAK LABORATORY							WTR1421 RUN 46		
		TUNNEL 12 PRESSURE TEST									
		PSI CONFIGURATION					PSI#1(PR/10) PSI#2(TC/1)				
ALPH	-0.06 deg	PHI	203.30 deg	P0	14.72 psia	T0	81.30 degF	MACI	4.0		
			AVERAGED DATA	SCALE FACTOR:			1.0000				
			BODY PRESSURES (PSI)								
z/d	theta:	203.3	218.3	233.3	248.3	263.3	278.3				
0.5		0.3068									
1.0		0.2315									
1.5		0.1817									
2.0		0.1294	0.1782	0.1784	0.1801	0.1841	0.1804, 0.1703				
2.5		0.1087	0.1106	0.1125	0.1137	0.1149	0.1370, 0.1350				
3.0		0.0947					0.1139				
3.5		0.0841	0.0883	0.0927	0.0942	0.0912	0.0898				
4.0		0.0863	0.0909	0.0925	0.0906	0.0893	0.0849				
4.3		0.0915	0.0925	0.0878	0.0969	0.0849	0.0893				
4.5		0.0945	0.0969	0.0993	0.0995	0.0893	0.0875				
4.8		0.0974	0.0973	0.0891	0.0978	0.0904	0.1016				
5.0		0.0984	0.0885	0.0872	0.0892	0.1004	0.0940				
5.5		0.0948	0.0912	0.1010	0.0919	0.0915	0.0939				
6.0		0.0915	0.0966	0.0934	0.0955	0.0963	0.0930				
6.5		0.0883	0.0969	0.0972	0.0990	0.0922	0.0945				
7.0		0.0881	0.0903	0.1070	0.1123	0.1081	0.0941				
7.5		0.1006	0.0970	0.0876	0.1111	0.0955	0.1037				
8.0				0.1173		0.0959	0.0807				

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1016+							
4.125								
4.375	0.09241	0.1055						
4.625			0.1007					
4.875			0.1045					
5.125				0.1019				
5.375	0.1037		0.0935					
5.625	0.0950		0.0934					
5.875	0.0964, 0.0947		0.0978	0.0932	0.0920			
6.125	0.0971		0.0952	0.0969	0.0926	0.0926		
6.375	0.0856		0.0843	0.0846	0.0836	0.0806		
6.625	0.0858		0.0849	0.0844	0.0834	0.0822	0.0813	
6.875	0.0934		0.0950	0.0856	0.0842	0.0826	0.0813, 0.0892	
7.125	0.0965		0.0919	0.0928	0.0906	0.0906	0.0881	
7.375	0.0998		0.0904	0.0891	0.0878	0.0878	0.0861	0.0855

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
ALPH	4.96 deg	PHI	203.25 deg	P0	14.71 psia	TO	81.60 degF	MACH	4.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
BODY PRESSURES (PSI)									
z/d	theta:	203.2	218.2	233.2	248.2	263.2	278.2		
0.5		0.3402							
1.0		0.2578							
1.5		0.2021	0.2153	0.2297	0.2419	0.2539	0.2491, 0.1309		
2.0		0.1429					0.1903, 0.1087		
2.5		0.1177	0.1307	0.1423	0.1514	0.1564	0.1557		
3.0		0.1012							
3.5		0.0869	0.0986	0.1107	0.1191	0.1208	0.1250		
4.0		0.0869	0.0999	0.1094	0.1150	0.1198	0.1196		
4.3		0.0913	0.1005	0.1045	0.1209	0.1143	0.1231		
4.5		0.0933	0.1045	0.1157	0.1229	0.1182	0.1208		
4.8		0.0955	0.1037	0.1046	0.1211	0.1192	0.1365		
5.0		0.0958	0.0936	0.1014	0.1107	0.1290	0.1298		
5.5		0.0917	0.0943	0.1139	0.1114	0.1177	0.1289		
6.0		0.0877	0.0985	0.1030	0.1137	0.1226	0.1256		
6.5		0.0857	0.0965	0.1052	0.1166	0.1172	0.1241		
7.0		0.0897	0.0916	0.1138	0.1287	0.1337	0.1204		
7.5		0.1087	0.1033	0.0950	0.1239	0.1140	0.1245		
8.0				0.1331		0.1065	0.0867		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1441+							
4.125								
4.375	0.13591	0.1479						
4.625			0.1436					
4.875			0.1437					
5.125	0.1393			0.1456				
5.375	0.1307			0.1323				
5.625	0.1008, 0.1283			0.1328	0.1380			
5.875	0.1305			0.1298				
6.125			0.1275	0.1320	0.1324	0.1399		
6.375	0.1152		0.1152	0.1182	0.1207	0.1249		
6.625	0.1144		0.1147	0.1167	0.1188	0.1234		
6.875	0.1207		0.1245	0.1164	0.1174	0.1211	0.1301	
7.125	0.1229		0.1204	0.1228	0.1231	0.1269	0.1277, 0.1084	
7.375	0.1188		0.1180	0.1181	0.1188	0.1263	0.1305	
							0.1263	0.1341

WIR1421
RUN 48

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 9.96 deg PHI 203.32 deg 203.32 deg 14.71 psia 81.97 degF 1.0000 MACH 4.0

SCALE FACTOR:

theta: 203.3

z/d 0.5 0.3702 218.3 233.3 248.3 263.3 278.3

1.0 0.2822

1.5 0.2217

2.0 0.1590

2.5 0.1305

3.0 0.1083

3.5 0.0925

4.0 0.0903

4.3 0.0940

4.5 0.0937

4.8 0.0944

5.0 0.0940

5.5 0.0873

6.0 0.0800

6.5 0.0743

7.0 0.0731

7.5 0.0883

8.0

0.2581 0.2943 0.3234 0.3453 0.3398, 0.0989
0.2623, 0.0851
0.2171

0.1574 0.1832 0.2052 0.2175

0.1163 0.1401 0.1579 0.1684 0.1788
0.1153 0.1377 0.1542 0.1678 0.1730
0.1158 0.1328 0.1603 0.1617 0.1766
0.1187 0.1429 0.1613 0.1650 0.1743
0.1172 0.1318 0.1592 0.1669 0.1941
0.1063 0.1280 0.1490 0.1761 0.1911
0.1052 0.1374 0.1483 0.1657 0.1804
0.1072 0.1264 0.1503 0.1716 0.1749
0.1038 0.1286 0.1524 0.1606 0.1716
0.0956 0.1343 0.1607 0.1728 0.1687
0.0966 0.1107 0.1521 0.1567 0.1783
0.1303 0.1440 0.1202

WING PRESSURES (PSI)

z/d r/d: 0.5935 0.7185 0.8435 0.9685 1.0935 1.2185 1.3435

3.625 0.2069 0.2032

3.875 0.2063+

4.125

4.375 0.20071 0.2110

4.625

4.875

5.125 0.1947

5.375 0.1838

5.625 0.0811, 0.1806

5.875 0.1817

6.125

6.375 0.1673

6.625 0.1659

6.875 0.1731

7.125 0.1761

7.375 0.1768

0.2105 0.1918 0.2051
0.1930 0.1778 0.1891
0.1900 0.1746 0.1843
0.1862 0.1712 0.1793
0.1859 0.1756 0.1820
0.1797 0.1715 0.1765
0.1677 0.1712 0.1976
0.1670 0.1712 0.1933, 0.1194
0.1762 0.1712 0.1922
0.1723 0.1741 0.1842
0.1703 0.1709 0.1998

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/I)									
WTR1421 RUN 49	ALPH	14.95 deg	PHI	203.36 deg AVERAGED DATA	PO	14.71 psia SCALE FACTOR:	TO	82.18 degF	MACH
							1.0000		4.0
BODY PRESSURES (PSI)									

WTR1421
RUN 50

0.

BODY PRESSURES (PSI)

286.0	301.0
0.1852	0.1810, 0.1707
	0.1373, 0.1343
0.1149	0.1142
0.0908	0.0902
0.0900	0.0864
0.0862	0.0901
0.0904	0.0885
0.0912	0.1011
0.0993	0.0949
0.0921	0.0938
0.0966	0.0942
0.0927	0.0951
0.1081	0.0952
0.0972	0.1041
0.0985	0.0874

...WING PRESSURES (PSI)

0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
0.1014					
0.1040					
0.0945	0.1019				
0.0940	0.0926				
0.0974	0.0945	0.0923			
0.0951	0.0942				
0.0852	0.0974				
0.0859	0.0951	0.0938	0.0926		
0.0955	0.0854	0.0845	0.0821		
0.0918	0.0857	0.0850	0.0832	0.0826	
0.0911	0.0866	0.0848	0.0837	0.0828, 0.0928	
	0.0935	0.0916	0.0914	0.0896	
	0.0903	0.0895	0.0901	0.0892	0.0917

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST					PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)				
WTR1421 RUN 51	ALPH	5.02 deg	PHI	225.89 deg AVERAGED DATA	P0	14.71 psia SCALE FACTOR:	T0	82.77 degF	MACH
						1.0000			4.0
BODY PRESSURES (PSI)									
z/d	theta:	225.9	240.9	255.9	270.9	285.9	300.9		
0.5		0.3795							
1.0		0.2891							
1.5		0.2264							
2.0		0.1629	0.2371	0.2467	0.2510	0.2535	0.2399, 0.1420		
2.5		0.1349	0.1453	0.1526	0.1566	0.1559	0.1826, 0.1137		
3.0		0.1123					0.1498		
3.5		0.0992	0.1092	0.1182	0.1228	0.1233			
4.0		0.0997	0.1109	0.1181	0.1216	0.1244	0.1270		
4.3		0.1035	0.1118	0.1144	0.1276	0.1206	0.1236		
4.5		0.1060	0.1163	0.1256	0.1305	0.1247	0.1274		
4.8		0.1083	0.1165	0.1167	0.1299	0.1269	0.1253		
5.0		0.1089	0.1080	0.1142	0.1220	0.1351	0.1388		
5.5		0.1047	0.1085	0.1246	0.1213	0.1250	0.1336		
6.0		0.1018	0.1119	0.1152	0.1230	0.1281	0.1359		
6.5		0.1004	0.1109	0.1171	0.1249	0.1224	0.1369		
7.0		0.1056	0.1078	0.1252	0.1368	0.1427	0.1351		
7.5		0.1261	0.1216	0.1252	0.1368	0.1427	0.1313		
8.0				0.1131	0.1353	0.1294	0.1371		
				0.1490		0.1184	0.0982		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1519+							
4.125								
4.375	0.14931	0.1594						
4.625								
4.875			0.1565					
5.125			0.1545					
5.375	0.1485							
5.625	0.1387							
5.875	0.1123, 0.1366			0.1533				
6.125	0.1369							
6.375		0.1255				0.1552		
6.625	0.1234					0.1415		
6.875	0.1310					0.1386		
7.125	0.1338					0.1357	0.1478	
7.375	0.1337					0.1406	0.1457, 0.1656	
						0.1378	0.1480	
						0.1455	0.1694	

WIR1421 RUN 52		WHITE OAK LABORATORY						WTR1421 RUN 52	
		TUNNEL T2 PRESSURE TEST							
		PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)							
ALPH	9.96 deg	PHI	225.99 deg AVERAGED DATA	P0	14.71 psia SCALE FACTOR:	T0	82.85 degF	MACH	4.0
		BODY PRESSURES (PSI)							
z/d	theta:	226.0	241.0	256.0	271.0	286.0	301.0		
0.5	0.4573								
1.0	0.3546								
1.5	0.2802		0.3115	0.3348	0.3441	0.3430	0.3144, 0.1114		
2.0	0.2051						0.2416, 0.0890		
2.5	0.1699		0.1934	0.2111	0.2191	0.2151	0.2001		
3.0	0.1392								
3.5	0.1241		0.1449	0.1611	0.1687	0.1694	0.1776		
4.0	0.1224		0.1444	0.1598	0.1694	0.1766	0.1791		
4.3	0.1256		0.1448	0.1571	0.1764	0.1738	0.1815		
4.5	0.1275		0.1505	0.1696	0.1817	0.1780	0.1790		
4.8	0.1289		0.1506	0.1621	0.1814	0.1822	0.1940		
5.0	0.1295		0.1422	0.1594	0.1731	0.1881	0.1966		
5.5	0.1222		0.1398	0.1655	0.1693	0.1825	0.2029		
6.0	0.1159		0.1406	0.1548	0.1733	0.1920	0.1977		
6.5	0.1099		0.1363	0.1547	0.1752	0.1825	0.1944		
7.0	0.1068		0.1300	0.1690	0.1916	0.1954	0.1925		
7.5	0.1204		0.1387	0.1475	0.1845	0.1820	0.1986		
8.0				0.1663	0.1691	0.1820	0.1324		

WING PRESSURES (PSI)								
z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.2238†							
4.125								
4.375	0.22511	0.2334						
4.625			0.2311					
4.875			0.2253					
5.125		0.2140		0.2370				
5.375	0.2027		0.2083	0.2198				
5.625	0.1033, 0.1997		0.2037	0.2152	0.2317			
5.875	0.1997		0.2046	0.2108				
6.125			0.2013	0.2096	0.2202	0.2350		
6.375		0.1891	0.1904	0.1952	0.2038	0.2197		
6.625		0.1867	0.1898	0.1944	0.2019	0.2139	0.2297	
6.875		0.1945	0.1988	0.1946	0.1977	0.2085	0.2250, 0.2057	
7.125		0.1966	0.1953	0.1985	0.2027	0.2100	0.2226	
7.375		0.1989	0.1919	0.1953	0.1988	0.2050	0.2157	0.2399

[illegible]

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.3189+							
4.125								
4.375	0.32791	0.3322						
4.625			0.3314					
4.875			0.3218					
5.125		0.3048		0.3399				
5.375		0.2916	0.3018	0.3199				
5.625	0.0924,	0.2886	0.2956	0.3121				
5.875		0.2906	0.2963	0.3063	0.3371			
6.125			0.2922	0.3040		0.3414		
6.375		0.2813	0.2825	0.2895	0.3204	0.3264		
6.625		0.2775	0.2811	0.2884	0.3025	0.3179		
6.875		0.2849	0.2891	0.2882	0.3006	0.3099	0.3407	
7.125		0.2848	0.2853	0.2902	0.2944	0.3086	0.3340, 0.1771	
7.375		0.2957	0.2800	0.2865	0.2978	0.3015	0.3274	
					0.2926		0.3143	0.3386

WTR:421
RUN 54

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSIN1(PR/10) PSIN2(TC/1)

WTR1421
RUN 54

ALPH	-0.04 deg	PIII	248.63 deg	P0	14.70 psia	TO	83.55 degf	MACH	4.0
				SCALE FACTOR:		1.0000			
				AVERAGED DATA					

BODY PRESSURES (PSI)

theta:	248.6	263.6	278.6	293.6	308.6	323.6
z/d						
0.5	0.3098					
1.0	0.2332					
1.5	0.1818					
2.0	0.1311					
2.5	0.1112	0.1807	0.1812	0.1821	0.1851	0.1814, 0.1718
3.0	0.0938	0.1116	0.1130	0.1142	0.1148	0.1371, 0.1336
3.5	0.0854					0.1146
4.0	0.0881	0.0882	0.0920	0.0933	0.0914	0.0907
4.5	0.0916	0.0908	0.0920	0.0915	0.0906	0.0876
4.3	0.0916	0.0920	0.0890	0.0957	0.0874	0.0909
4.5	0.0941	0.0951	0.0978	0.0971	0.0908	0.0899
4.8	0.0968	0.0963	0.0910	0.0975	0.0918	0.1004
5.0	0.0981	0.0902	0.0893	0.0922	0.0985	0.0958
5.5	0.0949	0.0922	0.1002	0.0932	0.0929	0.0938
6.0	0.0928	0.0967	0.0943	0.0961	0.0968	0.0950
6.5	0.0915	0.0966	0.0976	0.0990	0.0939	0.0961
7.0	0.0936	0.0945	0.1059	0.1098	0.1077	0.0968
7.5	0.1065	0.1027	0.0961	0.1126	0.1005	0.1063
8.0			0.1220		0.1043	0.1000

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1036†							
4.125								
4.375	0.0956†	0.1057						
4.625			0.1040					
4.875			0.1060					
5.125	0.1049			0.1043				
5.375	0.0951		0.0952	0.0942				
5.625	0.0961, 0.0955		0.0946	0.0948	0.0940			
5.875	0.0963		0.0969	0.0950				
6.125			0.0951	0.0983	0.0961	0.0939		
6.375	0.0882		0.0869	0.0871	0.0867	0.0851		
6.625	0.0858		0.0880	0.0878	0.0885	0.0871	0.0877	
6.875	0.0937		0.0966	0.0900	0.0896	0.0919	0.0994, 0.1905	
7.125	0.0977		0.0951	0.0979	0.0998	0.1053	0.1209	
7.375	0.1111		0.0948	0.0960	0.1005	0.1117	0.1372	0.1424

WHITE OAK LABORATORY

WTR1421
RUN 55TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

MACH 4.0

TO 83.85 degF

PO 14.70 psia
SCALE FACTOR: 1.0000PHI 248.41 deg
AVERAGED DATA

ALPH 4.97 deg

BODY PRESSURES (PSI)

z/d	theta:	248.4	263.4	278.4	293.4	308.4	323.4
0.5	0.4076						
1.0	0.3115						
1.5	0.2437						
2.0	0.1768		0.2488	0.2505	0.2459	0.2397	0.2191, 0.1596
2.5	0.1472		0.1529	0.1548	0.1528	0.1467	0.1665, 0.1253
3.0	0.1208						0.1371
3.5	0.1086						
4.0	0.1095		0.1150	0.1199	0.1200	0.1182	0.1214
4.3	0.1128		0.1168	0.1196	0.1206	0.1222	0.1211
4.5	0.1158		0.1175	0.1169	0.1263	0.1198	0.1246
4.8	0.1179		0.1217	0.1280	0.1305	0.1239	0.1232
5.0	0.1189		0.1228	0.1215	0.1309	0.1269	0.1353
5.5	0.1149		0.1164	0.1197	0.1254	0.1342	0.1300
6.0	0.1135		0.1169	0.1296	0.1244	0.1262	0.1295
6.5	0.1135		0.1215	0.1224	0.1271	0.1305	0.1361
7.0	0.1183		0.1210	0.1245	0.1287	0.1258	0.1393
7.5	0.1351		0.1200	0.1328	0.1370	0.1394	0.1377
8.0			0.1316	0.1239	0.1392	0.1302	0.1438
				0.1546		0.1303	0.1173

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1518+							
4.125								
4.375	0.15231	0.1610						
4.625			0.1594					
4.875			0.1565					
5.125		0.1501		0.1637				
5.375	0.1410		0.1438	0.1504				
5.625	0.1247, 0.1398		0.1415	0.1477	0.1570			
5.875	0.1388		0.1424	0.1461				
6.125			0.1396	0.1469	0.1520	0.1592		
6.375	0.1295		0.1306	0.1338	0.1389	0.1485		
6.625	0.1266		0.1307	0.1341	0.1400	0.1487	0.1679	
6.875	0.1351		0.1395	0.1369	0.1406	0.1550	0.2023, 0.3965	
7.125	0.1388		0.1389	0.1449	0.1524	0.1740	0.2337	
7.375	0.1411		0.1408	0.1485	0.1583	0.1943	0.2523	0.2931

WTR1421
RUN 56

WHITE OAK LABORATORY

TUNNEL 12 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 9.94 deg PHI 248.72 deg PO 14.70 psia TO 84.10 degF MACH 4.0

AVERAGED DATA SCALE FACTOR: 1.0000

z/d theta: 248.7

0.5	0.5225	263.7	278.7	293.7	308.7	323.7
1.0	0.4107					
1.5	0.3260	0.3416	0.3440	0.3300	0.3077	0.2648, 0.1443
2.0	0.2414					0.2020, 0.1120
2.5	0.2020	0.2152	0.2166	0.2087	0.1910	0.1665
3.0	0.1638					
3.5	0.1493	0.1613	0.1657	0.1599	0.1523	0.1596
4.0	0.1481	0.1608	0.1636	0.1620	0.1658	0.1675
4.3	0.1508	0.1608	0.1611	0.1702	0.1667	0.1732
4.5	0.1533	0.1655	0.1732	0.1778	0.1726	0.1718
4.8	0.1549	0.1665	0.1695	0.1810	0.1791	0.1868
5.0	0.1552	0.1608	0.1692	0.1774	0.1865	0.1835
5.5	0.1493	0.1610	0.1777	0.1759	0.1760	0.1788
6.0	0.1466	0.1642	0.1705	0.1768	0.1789	0.1858
6.5	0.1442	0.1609	0.1709	0.1777	0.1837	0.1930
7.0	0.1441	0.1564	0.1758	0.1905	0.1988	0.1962
7.5	0.1606	0.1615	0.1631	0.1903	0.1882	0.2046
8.0			0.1918		0.1805	0.1494

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.2195+							
4.125								
4.375	0.22821	0.2345						
4.625			0.2338					
4.875			0.2275					
5.125	0.2161			0.2389				
5.375	0.2057			0.2238				
5.625	0.1388, 0.2047			0.2185	0.2330			
5.875	0.2040			0.2156				
6.125				0.2051	0.2257	0.2355		
6.375	0.1936			0.2021	0.2105	0.2247		
6.625	0.1881			0.2020	0.2114	0.2227	0.2411	
6.875	0.1966			0.2035	0.2098	0.2263	0.2742, 0.4978	
7.125	0.2005			0.2012	0.2214	0.2426	0.3101	
7.375	0.2065			0.2022	0.2259	0.2609	0.3421	0.4194

ALPH	14.97 deg	PHI	248.98 deg	P0	14.69 psia	T0	84.38 degF	MACH	4.0
AVERAGED DATA									
SCALE FACTOR: 1.0000									
TUNNEL T2 PRESSURE TEST									
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)									
WHITE OAK LABORATORY									
WTR1421									WTR1421
RUN 57									RUN 57

z/d	theta:	249.0	264.0	279.0	294.0	309.0	324.0
0.5		0.6485					
1.0		0.5235					
1.5		0.4230					
2.0		0.3223	0.4524	0.4562	0.4298	0.3863	0.3153, 0.1315
2.5		0.2723	0.2944	0.2964	0.2806	0.2471	0.2440, 0.1011
3.0		0.2222					0.2039
3.5		0.2053	0.2246	0.2286	0.2158	0.1983	0.2092
4.0		0.2028	0.2230	0.2259	0.2191	0.2254	0.2271
4.3		0.2048	0.2224	0.2236	0.2302	0.2308	0.2379
4.5		0.2095	0.2307	0.2388	0.2464	0.2397	0.2350
4.8		0.2115	0.2315	0.2396	0.2532	0.2522	0.2564
5.0		0.2116	0.2276	0.2415	0.2525	0.2614	0.2557
5.5		0.2032	0.2261	0.2468	0.2476	0.2499	0.2515
6.0		0.2012	0.2295	0.2417	0.2507	0.2618	0.2598
6.5		0.1991	0.2266	0.2423	0.2557	0.2672	0.2715
		0.1949	0.2215	0.2496	0.2724	0.2769	0.2810
7.5		0.1986	0.2260	0.2490	0.2736	0.2698	0.2886
8.0				0.2627		0.2522	0.2074

WING PRESSURES (PSI)

z/d	$r/d:$	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
4.125	0.3067+							
4.375	0.32731	0.3304						
4.625			0.3311					
4.875			0.3218					
5.125	0.3037			0.3369				
5.375	0.2949		0.3046	0.3207				
5.625	0.1497, 0.2959		0.3006	0.3140				
5.875	0.2953		0.3012	0.3111	0.3326			
6.125			0.2986	0.3105		0.3364		
6.375	0.2869		0.2902	0.2976	0.3244	0.3262		
6.625	0.2803		0.2893	0.2972	0.3083	0.3204		
6.875	0.2880		0.2940	0.2963	0.3023	0.3160	0.3347	
7.125	0.2898		0.2907	0.2969	0.3023	0.3150	0.3314, 0.2354	
7.375	0.2904		0.2869	0.2923	0.3053	0.3177	0.3278	
					0.2998	0.3074	0.3177	0.3328

WIR1421
RUN 58

ALPH -0.07 deg PHI 271.25 deg
AVERAGED DATA

WIR1421
RUN 58

WITTE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/IO) PSI#2(TC/1)

P0 14.68 psia
SCALE FACTOR: 1.0000

MACH 4.0

z/d theta: 271.2

0.5	0.3115	286.2	301.2	316.2	331.2	346.2
1.0	0.2343					
1.5	0.1819	0.1814	0.1820	0.1819	0.1855	0.1814, 0.1729
2.0	0.1317					0.1371, 0.1333
2.5	0.1122	0.1126	0.1132	0.1148	0.1147	0.1145
3.0	0.0930					
3.5	0.0858	0.0879	0.0917	0.0929	0.0917	0.0913
4.0	0.0882	0.0906	0.0912	0.0914	0.0903	0.0885
4.3	0.0912	0.0917	0.0890	0.0948	0.0885	0.0911
4.5	0.0954	0.0957	0.0990	0.0981	0.0910	0.0908
4.8	0.0981	0.0974	0.0943	0.0989	0.0945	0.1009
5.0	0.0995	0.0928	0.0923	0.0958	0.0993	0.0983
5.5	0.0950	0.0925	0.0993	0.0936	0.0936	0.0940
6.0	0.0934	0.0965	0.0945	0.0964	0.0968	0.0960
6.5	0.0929	0.0968	0.0973	0.0985	0.0947	0.0968
7.0	0.0953	0.0961	0.1047	0.1074	0.1057	0.0980
7.5	0.1064	0.1034	0.0986	0.1111	0.1022	0.1076
8.0			0.1224		0.1066	0.1033

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1038+							
4.125								
4.375	0.09661	0.1061						
4.625								
4.875								
5.125	0.1046							
5.375	0.0947							
5.625	0.0957, 0.0962							
5.875	0.0956				0.0957			
6.125								
6.375	0.0909				0.0989	0.0950		
6.625	0.0864				0.0894	0.0897		
6.875	0.0950				0.0938	0.0939	0.1009	
7.125	0.1015				0.0972	0.1062	0.1390, 0.1958	
7.375	0.1063				0.1101	0.1329	0.1796	
					0.1210	0.1650	0.2029	0.2189

WHITE OAK LABORATORY

WTR1421
RUN 59

ALPH 4.97 deg PHI 271.28 deg PO 14.69 psia TO 84.90 degF MACH 4.0

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

AVERAGED DATA SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	286.3	301.3	316.3	331.3	346.3
0.5	0.4211					
1.0	0.3224					
1.5	0.2522	0.2492	0.2420	0.2299	0.2172	0.1944, 0.1837
2.0	0.1841	0.1534	0.1493	0.1423	0.1329	0.1472, 0.1421
2.5	0.1536					0.1217
3.0	0.1250					
3.5	0.1135	0.1151	0.1149	0.1114	0.1092	0.1122
4.0	0.1144	0.1166	0.1145	0.1134	0.1144	0.1138
4.3	0.1170	0.1169	0.1125	0.1186	0.1134	0.1172
4.5	0.1205	0.1212	0.1233	0.1240	0.1176	0.1167
4.8	0.1230	0.1225	0.1193	0.1261	0.1226	0.1286
5.0	0.1239	0.1182	0.1183	0.1231	0.1282	0.1257
5.5	0.1195	0.1183	0.1266	0.1218	0.1217	0.1217
6.0	0.1192	0.1232	0.1223	0.1251	0.1262	0.1240
6.5	0.1193	0.1237	0.1252	0.1275	0.1237	0.1274
7.0	0.1211	0.1224	0.1313	0.1348	0.1343	0.1298
7.5	0.1314	0.1281	0.1234	0.1362	0.1289	0.1403
8.0			0.1483		0.1336	0.1253

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1450+							
4.125								
4.375	0.14831	0.1552						
4.625		0.1558						
4.875		0.1516						
5.125	0.1447		0.1589					
5.375	0.1363	0.1409	0.1477					
5.625	0.1353, 0.1373	0.1390	0.1443	0.1529				
5.875	0.1356	0.1389	0.1438					
6.125		0.1372	0.1447	0.1509	0.1544			
6.375	0.1295	0.1304	0.1336	0.1388	0.1507			
6.625	0.1241	0.1319	0.1369	0.1461	0.1633			
6.875	0.1323	0.1410	0.1450	0.1527	0.1939	0.2154	0.2923, 0.3585	
7.125	0.1394	0.1448	0.1560	0.1761	0.2442	0.3263		
7.375	0.1485	0.1539	0.1667	0.2092	0.2884	0.3404	0.3909	

WHITE OAK LABORATORY									
TUNNEL T2 PRESSURE TEST					WTR1421				
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)					RUN 60				
ALPH	9.96 deg	PIII	271.48 deg AVERAGED DATA	PO 14.69 psia SCALE FACTOR: 1.0000	TO 85.24 degF	MACH . 4.0			
BODY PRESSURES (PSI)									
z/d	theta:	271.5	286.5	301.5	316.5	331.5	346.5		
0.5	0.5488								
1.0	0.4340								
1.5	0.3443		0.3374	0.3185	0.2858	0.2523	0.2063, 0.1939		
2.0	0.2569						0.1561, 0.1489		
2.5	0.2164		0.2128	0.1993	0.1793	0.1545	0.1282		
3.0	0.1737								
3.5	0.1598		0.1596	0.1512	0.1354	0.1245	0.1316		
4.0	0.1591		0.1591	0.1486	0.1374	0.1406	0.1423		
4.3	0.1610		0.1584	0.1453	0.1453	0.1438	0.1485		
4.5	0.1630		0.1609	0.1550	0.1532	0.1501	0.1476		
4.8	0.1650		0.1615	0.1526	0.1588	0.1568	0.1606		
5.0	0.1650		0.1565	0.1527	0.1589	0.1638	0.1607		
5.5	0.1592		0.1573	0.1636	0.1607	0.1608	0.1596		
6.0	0.1586		0.1623	0.1622	0.1652	0.1652	0.1620		
6.5	0.1596		0.1637	0.1667	0.1684	0.1645	0.1640		
7.0	0.1622		0.1649	0.1737	0.1764	0.1771	0.1681		
7.5	0.1708		0.1695	0.1660	0.1780	0.1742	0.1775		
8.0				0.1845		0.1657	0.1434		

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1958+							
4.125								
4.375	0.21401	0.2188						
4.625			0.2201					
4.875			0.2128					
5.125				0.2215				
5.375	0.1929			0.2114				
5.625	0.1842			0.2067				
5.875	0.1803, 0.1859			0.2050	0.2153			
6.125	0.1849			0.2042				
6.375	0.1828			0.1930	0.2133	0.2160		
6.625	0.1774			0.1945	0.1987	0.2099		
6.875	0.1859			0.1987	0.2027	0.2100	0.2254	
7.125	0.1914			0.2071	0.2036	0.2208	0.2791, 0.4585	
7.375	0.2024			0.2097	0.2190	0.2451	0.3502	
					0.2264	0.2867	0.4100	0.5017

WTR1421
RUN 61

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PS#1(PR/10) PS#2(TC/1)

ALPHI	14.95 deg	PHI	271.40 deg	PO	14.69 psia	TO	85.59 degf	MACH	4.0
				AVERAGED DATA		SCALE FACTOR:		1.0000	

BODY PRESSURES (PSI)

[illegible]

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.2523+							
4.125								
4.375	0.29781	0.3034						
4.625		0.3022						
4.875		0.2974						
5.125	0.2447			0.3052				
5.375	0.2442	0.2801		0.2922				
5.625	0.2392, 0.2485	0.2813		0.2883	0.2946			
5.875	0.2481	0.2774		0.2887				
6.125		0.2721		0.2878	0.2970	0.2964		
6.375	0.2484	0.2665		0.2767	0.2825	0.2917		
6.625	0.2440	0.2669		0.2784	0.2865	0.2891	0.2932	
6.875	0.2544	0.2720		0.2797	0.2810	0.2880	0.2928, 0.2946	
7.125	0.2588	0.2691		0.2790	0.2850	0.2876	0.2930	
7.375	0.2639	0.2660		0.2764	0.2809	0.2825	0.2867	0.2896

WTR1421
RUN 62

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH -0.07 deg PHI 293.81 deg PO 14.67 psia TO 86.29 degF MACH 4.0

AVERAGED DATA SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	293.8	308.8	323.8	338.8	353.8	368.8
0.5	0.3133						
1.0	0.2355						
1.5	0.1825						
2.0	0.1330						
2.5	0.1137						
3.0	0.0919						
3.5	0.0866						
4.0	0.0893						
4.3	0.0915						
4.5	0.0937						
4.8	0.0962						
5.0	0.0981						
5.5	0.0952						
6.0	0.0942						
6.5	0.0941						
7.0	0.0962						
7.5	0.1066						
8.0							

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1045+							
4.125								
4.375	0.09721	0.1079						
4.625								
4.875								
5.125								
5.375	0.1056							
5.625	0.0951							
5.875	0.0955, 0.0971							
6.125	0.0951							
6.375	0.0917							
6.625	0.0871							
6.875	0.0949							
7.125	0.0996							
7.375	0.1085							

WTR1421
RUN 63

WTR1421
RUN 63

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST.
PSI CONFIGURATION PSIN1(PR/10) PSIN2(TC/1)

ALPH	4.94 deg	PHI	293.94 deg	P0	14.67 psia	T0	86.55 degF	MACH	4.0
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BODY PRESSURES (PSI)

z/d	theta:	293.9	308.9	323.9	338.9	353.9	368.9
0.5	0.4136						
1.0	0.3165						
1.5	0.2469						
2.0	0.1807		0.2359	0.2219	0.2049	0.1912	0.1693, 0.2093
2.5	0.1513		0.1446	0.1367			0.1281, 0.1606
3.0	0.1214				0.1268	0.1167	0.1068
3.5	0.1115		0.1086				
4.0	0.1125		0.1099	0.1043	0.0992	0.0981	0.1009
4.3	0.1143		0.1099	0.1047	0.1030	0.1042	0.1034
4.5	0.1172		0.1121	0.1029	0.1074	0.1039	0.1066
4.8	0.1194		0.1138	0.1119	0.1113	0.1072	0.1065
5.0	0.1205		0.1106	0.1097	0.1141	0.1112	0.1159
5.5	0.1168		0.1116	0.1084	0.1136	0.1157	0.1151
6.0	0.1161		0.1172	0.1179	0.1129	0.1127	0.1124
6.5	0.1165		0.1181	0.1149	0.1174	0.1182	0.1156
7.0	0.1169		0.1175	0.1189	0.1207	0.1169	0.1173
7.5	0.1244		0.1221	0.1248	0.1275	0.1255	0.1195
8.0				0.1190	0.1293	0.1222	0.1254
				0.1423		0.1330	0.1325

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1323+							
4.125								
4.375	0.13711	0.1449						
4.625			0.1447					
4.875			0.1416					
5.125		0.1332		0.1475				
5.375		0.1253	0.1327	0.1383				
5.625	0.1402	0.1270	0.1308	0.1352	0.1412			
5.875		0.1250	0.1303	0.1346				
6.125			0.1290	0.1363	0.1420	0.1427		
6.375		0.1217	0.1237	0.1263	0.1297	0.1367		
6.625		0.1174	0.1247	0.1283	0.1336	0.1397	0.1561	
6.875		0.1256	0.1325	0.1347	0.1385	0.1564	0.2289, 0.2630	
7.125		0.1314	0.1360	0.1464	0.1589	0.2049	0.3122	
7.375		0.1340	0.1426	0.1577	0.1875	0.2786	0.3760	0.4304

WHITE OAK LABORATORY

WIR1421
RUN 64

ALPH 10.00 deg PHI 293.85 deg
AVERAGED DATA

TUNNEL I2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

P0 14.67 psia
SCALE FACTOR: 1.0000

MACH 4.0

z/d theta: 293.9

z/d	theta	308.9	323.9	338.9	353.9	368.9
0.5	0.5284					
1.0	0.4163					
1.5	0.3289					
2.0	0.2455	0.3021	0.2681	0.2284	0.1933	0.1545, 0.2523
2.5	0.2076	0.1892	0.1660	0.1411	0.1165	0.1154, 0.1929
3.0	0.1646					0.0951
3.5	0.1523	0.1406	0.1235	0.1034	0.0962	0.1025
4.0	0.1518	0.1397	0.1209	0.1066	0.1110	0.1119
4.3	0.1528	0.1384	0.1175	0.1136	0.1134	0.1159
4.5	0.1547	0.1392	0.1243	0.1201	0.1193	0.1175
4.8	0.1566	0.1398	0.1224	0.1264	0.1251	0.1275
5.0	0.1572	0.1363	0.1213	0.1283	0.1307	0.1295
5.5	0.1516	0.1345	0.1320	0.1297	0.1299	0.1313
6.0	0.1504	0.1388	0.1323	0.1358	0.1371	0.1348
6.5	0.1497	0.1399	0.1388	0.1416	0.1391	0.1359
7.0	0.1492	0.1423	0.1473	0.1510	0.1517	0.1412
7.5	0.1532	0.1464	0.1450	0.1556	0.1500	0.1474
8.0			0.1604		0.1429	0.1246

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1481+							
4.125								
4.375	0.18721	0.1927						
4.625		0.1936						
4.875		0.1890						
5.125	0.1484							
5.375	0.1410							
5.625	0.2035	0.1451						
5.875	0.1431				0.1856			
6.125		0.1721			0.1888	0.1848		
6.375	0.1444	0.1642			0.1763	0.1805		
6.625	0.1405	0.1629			0.1799	0.1809	0.1859	
6.875	0.1500	0.1704			0.1804	0.1899	0.2207, 0.3364	
7.125	0.1544	0.1718			0.1981	0.2153	0.2940	
7.375	0.1541	0.1732			0.2100	0.2612	0.3897	0.5206

WHITE OAK LABORATORY

WTR1421
RUN 65

ALPHI 14.95 deg PHI 294.06 deg PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

TUNNEL T2 PRESSURE TEST

PO 14.67 psia TO 86.98 degF MACH 4.0

AVERAGED DATA SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	309.1	324.1	339.1	354.1	369.1
0.5	0.6535					
1.0	0.5299					
1.5	0.4259	0.3794	0.3196	0.2540	0.1959	0.1410, 0.3015
2.0	0.3263					0.1061, 0.2322
2.5	0.2782	0.2453	0.2028	0.1593	0.1193	0.0867
3.0	0.2239					
3.5	0.2083	0.1841	0.1509	0.1157	0.0965	0.1062
4.0	0.2071	0.1825	0.1473	0.1160	0.1210	0.1232
4.3	0.2071	0.1806	0.1434	0.1211	0.1270	0.1278
4.5	0.2110	0.1820	0.1497	0.1312	0.1342	0.1318
4.8	0.2132	0.1824	0.1471	0.1399	0.1425	0.1439
5.0	0.2131	0.1794	0.1438	0.1462	0.1494	0.1460
5.5	0.2057	0.1744	0.1506	0.1517	0.1536	0.1476
6.0	0.2051	0.1758	0.1561	0.1642	0.1660	0.1559
6.5	0.2050	0.1771	0.1695	0.1745	0.1719	0.1600
7.0	0.2022	0.1803	0.1819	0.1867	0.1855	0.1696
7.5	0.2035	0.1828	0.1835	0.1935	0.1861	0.1787
8.0			0.1930		0.1660	0.1350

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1405+							
4.125								
4.375	0.24991	0.2526						
4.625		0.2555						
4.875		0.2465						
5.125	0.1543			0.2495				
5.375	0.1480	0.2317		0.2461				
5.625	0.2919, 0.1591	0.2246		0.2417				
5.875	0.1584	0.2277		0.2437	0.2397			
6.125		0.2191		0.2495	0.2489	0.2367		
6.375	0.1662	0.2077		0.2380	0.2386	0.2365		
6.625	0.1636	0.2047		0.2395	0.2427	0.2377	0.2338	
6.875	0.1736	0.2099		0.2430	0.2395	0.2390	0.2348, 0.3334	
7.125	0.1796	0.2075		0.2440	0.2456	0.2406	0.2372	
7.375	0.1849	0.1999		0.2434	0.2458	0.2393	0.2346	0.2294

WHITE OAK LABORATORY

WIR1421
RUN 66WIR1421
RUN 66TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH	-0.05 deg	PHI	316.59 deg	P0	14.66 psia	T0	87.60 degF	MACH	4.0
			AVERAGED DATA		SCALE FACTOR:	1.0000			

BODY PRESSURES (PSI)

z/d	theta:	316.6	346.6	361.6	376.6	391.6
0.5	0.3146					
1.0	0.2365					
1.5	0.1829	0.1828	0.1829	0.1819	0.1835	0.1787, 0.1751
2.0	0.1334					0.1350, 0.1335
2.5	0.1155	0.1138	0.1135	0.1143	0.1135	0.1136
3.0	0.0916					
3.5	0.0871	0.0885	0.0912	0.0916	0.0910	0.0906
4.0	0.0901	0.0914	0.0917	0.0923	0.0917	0.0906
4.3	0.0917	0.0919	0.0904	0.0940	0.0905	0.0921
4.5	0.0949	0.0937	0.0975	0.0963	0.0922	0.0923
4.8	0.0972	0.0957	0.0959	0.0980	0.0951	0.0988
5.0	0.0992	0.0942	0.0934	0.0979	0.0966	0.0990
5.5	0.0953	0.0935	0.0997	0.0948	0.0940	0.0964
6.0	0.0945	0.0971	0.0958	0.0973	0.0974	0.0973
6.5	0.0947	0.0964	0.0978	0.0989	0.0956	0.0980
7.0	0.0954	0.0961	0.1012	0.1036	0.1028	0.0985
7.5	0.1037	0.1009	0.0980	0.1065	0.1000	0.1031
8.0			0.1198		0.1025	0.0939

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1046+							
4.125								
4.375	0.09821	0.1079						
4.625			0.1063					
4.875			0.1066					
5.125	0.1061			0.1072				
5.375	0.0952		0.0980	0.0992				
5.625	0.0961, 0.0975		0.0967	0.0967				
5.875	0.0941		0.0959	0.0984	0.0971			
6.125			0.0947	0.1006				
6.375	0.0925		0.0909	0.0910	0.1021	0.0962		
6.625	0.0867		0.0920	0.0921	0.0914	0.0925	0.0928	
6.875	0.0936		0.0966	0.0937	0.0914	0.0932	0.0937, 0.0940	
7.125	0.0974		0.0942	0.0959	0.0963	0.0954	0.0957	
7.375	0.0985		0.0937	0.0939	0.0942	0.0939	0.0940	0.0971

WIR1421
RUN 68

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 9.95 deg PIH 316.74 deg PO 14.84 psia TO 88.11 degF MACH 4.0

AVERAGED DATA SCALE FACTOR: 1.0000

BODY PRESSURES (PSI)

z/d	theta:	316.7	346.7	361.7	376.7	391.7
0.5						
1.0						
1.5						
2.0						
2.5						
3.0						
3.5						
4.0						
4.3						
4.5						
4.8						
5.0						
5.5						
6.0						
6.5						
7.0						
7.5						
8.0						

0.1193, 0.3075
0.0892, 0.2343
0.0742

0.1454
0.0865
0.0766
0.0855
0.0873
0.0901
0.0978
0.1003
0.1005
0.1054
0.1068
0.1075
0.1111
0.1099
0.0872

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1053+							
4.125								
4.375	0.15661	0.1603						
4.625								
4.875								
5.125	0.1088							
5.375	0.1010							
5.625	0.1991, 0.1053							
5.875	0.1024							
6.125								
6.375	0.1038							
6.625	0.0978							
6.875	0.1060							
7.125	0.1099							
7.375	0.1147							

0.1638
0.1589
0.1624
0.1561
0.1534
0.1548
0.1575
0.1481
0.1481
0.1492
0.1507
0.1494
0.1485

0.1506
0.1488
0.1489
0.1498
0.1519
0.1545

0.1473
0.1479, 0.2325
0.1513
0.1545
0.1713

WIR 1421
RUN 69

WTR1421
RUN 69

WHITE OAK LABORATORY

TUNNEL 12 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(IC/1)

ALPH	14.92 deg	PHI	316.57 deg	P0	14.84 psia	T0	88.32 degF	MACH	4.0
				AVERAGED DATA		SCALE FACTOR:		1.0000	

BODY PRESSURES (PSI)

z/d	theta:	316.6	331.6	346.6	361.6	376.6	391.6
0.5	0.5549						
1.0	0.4414						
1.5	0.3504						
2.0	0.2669						
2.5	0.2280						
3.0	0.1789						
3.5	0.1650						
4.0	0.1635						
4.3	0.1634						
4.5	0.1680						
4.8	0.1706						
5.0	0.1707						
5.5	0.1600						
6.0	0.1554						
6.5	0.1596						
7.0	0.1541						
7.5	0.1530						
8.0							

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0861+							
4.125								
4.375	0.20141	0.1832						
4.625			0.2078					
4.875			0.1903					
5.125	0.0964			0.1950				
5.375	0.0898		0.1407	0.1922				
5.625	0.2882, 0.0943		0.1238	0.1937				
5.875	0.0907		0.1152	0.1942	0.1824			
6.125			0.1118	0.1973				
6.375	0.0953		0.1076	0.1868	0.1940	0.1777		
6.625	0.0895		0.1054	0.1826	0.1839	0.1787		
6.875	0.0983		0.1079	0.1769	0.1912	0.1814	0.1736	
7.125	0.1037		0.1069	0.1644	0.1877	0.1847	0.1757, 0.3416	
7.375	0.1171		0.1074	0.1597	0.1934	0.1862	0.1803	
					0.1953	0.1855	0.1786	0.1689

WIR1421
RUN 70

WHITE OAK LABORATORY

TUNNEL 12 PRESSURE TEST

PSI CONFIGURATION PS1#1(PR/10) PS1#2(TC/1)

ALPH -0.06 deg PHI 339.10 deg
AVERAGED DATA

P0 14.84 psia
SCALE FACTOR: 1.0000

TO 88.58 degF

MACII 4.0

WIR1421
RUN 70

z/d theta: 339.1

0.5 0.3181

1.0 0.2386

1.5 0.1837

2.0 0.1358

2.5 0.1183

3.0 0.0916

3.5 0.0883

4.0 0.0908

4.3 0.0919

4.5 0.0958

4.8 0.0980

5.0 0.1001

5.5 0.0955

6.0 0.0953

6.5 0.0968

7.0 0.0971

7.5 0.1014

8.0

354.1

0.1848

0.1151

0.0888

0.0914

0.0919

0.0935

0.0961

0.0963

0.0944

0.0969

0.0968

0.0981

0.0996

369.1

0.1849

0.1142

0.0909

0.0915

0.0913

0.0975

0.0982

0.0956

0.0983

0.0961

0.0993

0.0988

0.1171

384.1

0.1829

0.1143

0.0908

0.0928

0.0935

0.0958

0.0982

0.1003

0.0954

0.0972

0.0981

0.1000

0.1024

399.1

0.1836

0.1134

0.0914

0.0913

0.0912

0.0927

0.0966

0.0963

0.0950

0.0975

0.0962

0.0997

0.1015

0.1005

414.1

0.1791, 0.1791

0.1348, 0.1334

0.1138

0.0907

0.0913

0.0923

0.0933

0.0982

0.1002

0.0966

0.0973

0.0981

0.0992

0.1015

0.0916

WING PRESSURES (PSI)

z/d r/d: 0.5935

3.625 0.1072

3.875 0.1046

4.125 0.0983

4.375 0.0968

4.625 0.0947

4.875 0.0940

5.125 0.0919

5.375 0.0933

5.625 0.0957

5.875 0.0937

6.125 0.0942

6.375 0.0944

6.625 0.0951

6.875 0.0942

7.125 0.0936

7.375 0.0942

0.1061

0.1004

0.0964

0.0981

0.1003

0.0910

0.0933

0.0956

0.0953

0.0944

0.1036

0.0919

0.0964

0.0920

0.0965

0.0957

0.0966

0.0951

0.0942

0.0936

0.0942

0.0948

0.0926

0.0931

0.0935, 0.0949

0.0950

0.0927

0.0912

0.8435

0.7185

0.9585

1.0935

1.2185

1.3435

WHITE OAK LABORATORY										
TUNNEL T2 PRESSURE TEST										
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)										
WTR1421 RUN 71	ALPH	4.93 deg	PHI	339.27 deg AVERAGED DATA	P0	14.84 psia SCALE FACTOR:	TO	88.77 degF	MACH	WTR1421 RUN 71
							1.0000			4.0

WHITE OAK LABORATORY

WTR1421
RUN 73

ALPH 14.92 deg PHI 339.35 deg
AVERAGED DATA

TUNNEL T2 PRESSURE TEST
PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

PO 14.83 psia
SCALE FACTOR: 1.0000

TO 89.15 degF

MACH 4.0

WTR1421
RUN 73

BODY PRESSURES (PSI)

z/d	theta:	339.3	354.3	369.3	384.3	399.3	414.3
0.5	0.4164						
1.0	0.3217						
1.5	0.2506						
2.0	0.1894						
2.5	0.1616						
3.0	0.1221						
3.5	0.1117						
4.0	0.1103						
4.3	0.1089						
4.5	0.1124						
4.8	0.1135						
5.0	0.1118						
5.5	0.1037						
6.0	0.0962						
6.5	0.0989						
7.0	0.0985						
7.5	0.1021						
8.0							

z/d	theta:	339.3	354.3	369.3	384.3	399.3	414.3
0.5	0.4164						
1.0	0.3217						
1.5	0.2506						
2.0	0.1894						
2.5	0.1616						
3.0	0.1221						
3.5	0.1117						
4.0	0.1103						
4.3	0.1089						
4.5	0.1124						
4.8	0.1135						
5.0	0.1118						
5.5	0.1037						
6.0	0.0962						
6.5	0.0989						
7.0	0.0985						
7.5	0.1021						
8.0							

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.0737+							
3.875	0.0737+							
4.125								
4.375	0.07011	0.0740						
4.625								
4.875								
5.125	0.0760							
5.375	0.0682							
5.625	0.2575, 0.0726							
5.875	0.0671							
6.125								
6.375	0.0744							
6.625	0.0656							
6.875	0.0763							
7.125	0.0841							
7.375	0.0904							

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625	0.0737+							
3.875	0.0737+							
4.125								
4.375	0.07011	0.0740						
4.625								
4.875								
5.125	0.0760							
5.375	0.0682							
5.625	0.2575, 0.0726							
5.875	0.0671							
6.125								
6.375	0.0744							
6.625	0.0656							
6.875	0.0763							
7.125	0.0841							
7.375	0.0904							

WHITE OAK LABORATORY									
TUNNEL 12 PRESSURE TEST					PSI CONFIGURATION				
PSI#1(PR/10)					PSI#2(TC/1)				
ALPH	-0.08 deg	PIII	358.40 deg AVERAGED DATA	P0	14.82 psia SCALE FACTOR:	TO	89.48 degF	MACH	4.0
BODY PRESSURES (PSI)									
z/d	theta:	358.4	373.4	388.4	403.4	418.4	433.4		
0.5	0.3173								
1.0	0.2374								
1.5	0.1816		0.1839	0.1840	0.1824	0.1816		0.1772, 0.1810	
2.0	0.1361							0.1330, 0.1320	
2.5	0.1194		0.1147	0.1131	0.1129	0.1118		0.1129	
3.0	0.0900								
3.5	0.0890		0.0883	0.0900	0.0895	0.0902		0.0895	
4.0	0.0913		0.0906	0.0905	0.0921	0.0909		0.0916	
4.3	0.0915		0.0909	0.0908	0.0913	0.0916		0.0914	
4.5	0.0949		0.0918	0.0958	0.0940	0.0919		0.0928	
4.8	0.0971		0.0947	0.0987	0.0973	0.0964		0.0958	
5.0	0.0991		0.0963	0.0957	0.1010	0.0938		0.0998	
5.5	0.0950		0.0944	0.0970	0.0948	0.0944		0.0976	
6.0	0.0956		0.0959	0.0958	0.0969	0.0963		0.0968	
6.5	0.0975		0.0957	0.0970	0.0965	0.0959		0.0971	
7.0	0.0979		0.0984	0.0971	0.0969	0.0963		0.0989	
7.5	0.1002		0.0985	0.0992	0.1001	0.0987		0.1003	
8.0				0.1145		0.0991		0.0895	

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.1020+							
4.125								
4.375	0.09781	0.1043						
4.625								
4.875		0.1061						
5.125		0.1030						
5.375	0.1038							
5.625	0.0928							
5.875	0.0950, 0.0969				0.0950			
6.125	0.0904							
6.375	0.0933					0.0924		
6.625	0.0837					0.0936		
6.875	0.0924					0.0929	0.0916	
7.125	0.0962					0.0940	0.0930, 0.0955	
7.375	0.0986					0.0939	0.0938	
						0.0917	0.0915	0.0893

WTR1421
RUN 75

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(TC/1)

ALPH 4.93 deg PHI 358.36 deg PO 14.82 psia TO 89.58 degF MACH 4.0

AVERAGED DATA SCALE FACTOR: 1.0000

theta: 358.4

z/d	theta	373.4	388.4	403.4	418.4	433.4
0.5	0.3187					
1.0	0.2380					
1.5	0.1822					
2.0	0.1352	0.1683	0.1551	0.1450	0.1388	0.1326, 0.2481
2.5	0.1170	0.1039	0.0960	0.0914	0.0883	0.1019, 0.1837
3.0	0.0873					0.0900
3.5	0.0830					
4.0	0.0837	0.0779	0.0782	0.0792	0.0803	0.0795
4.3	0.0834	0.0792	0.0786	0.0815	0.0805	0.0809
4.5	0.0862	0.0790	0.0792	0.0816	0.0816	0.0819
4.8	0.0879	0.0804	0.0854	0.0850	0.0821	0.0834
5.0	0.0890	0.0834	0.0880	0.0880	0.0872	0.0873
5.5	0.0833	0.0847	0.0854	0.0915	0.0848	0.0905
6.0	0.0829	0.0821	0.0864	0.0850	0.0845	0.0879
6.5	0.0841	0.0840	0.0852	0.0869	0.0866	0.0868
7.0	0.0864	0.0846	0.0872	0.0877	0.0866	0.0875
7.5	0.0947	0.0895	0.0898	0.0903	0.0904	0.0918
8.0		0.0947	0.0954	0.0968	0.0959	0.0965
			0.1197		0.1037	0.1047

WING PRESSURES (PSI)

z/d	r/d	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0902+							
4.125								
4.375	0.09361	0.0979						
4.625			0.1018					
4.875			0.0971					
5.125	0.0968			0.1002				
5.375	0.0878			0.0964				
5.625	0.1165, 0.0917			0.0920				
5.875	0.0867			0.0946	0.0931			
6.125				0.0970	0.1013			
6.375	0.0913			0.0887	0.0898	0.0916		
6.625	0.0822			0.0925	0.0957	0.0930		
6.875	0.0918			0.0955	0.0914	0.0924	0.0915	
7.125	0.0974			0.0958	0.0914	0.0941	0.0934, 0.1164	
7.375	0.1107			0.0953	0.0975	0.0947	0.0945	
				0.0985	0.0983	0.0933	0.0933	0.0914
					0.0983			

WIR1421
RUN 76

WHITE OAK LABORATORY

TUNNEL T2 PRESSURE TEST

PSI CONFIGURATION PSI#1(PR/10) PSI#2(1C/1)

ALPH 9.93 deg PHI 358.49 deg PO 14.82 psia TO 89.79 degf MACH 4.0

AVERAGED DATA SCALE FACTOR: 1.0000

WIR1421
RUN 76

BODY PRESSURES (PSI)

z/d	theta:	358.5	373.5	388.5	403.5	418.5	433.5
0.5	0.3127						
1.0	0.2335						
1.5	0.1777						
2.0	0.1318		0.1489	0.1257	0.1105	0.1046	0.1024, 0.3370
2.5	0.1140		0.0894	0.0743	0.0696	0.0707	0.0818, 0.2529
3.0	0.0812						0.0750
3.5	0.0748		0.0607	0.0615	0.0635	0.0654	0.0638
4.0	0.0732		0.0599	0.0608	0.0650	0.0638	0.0628
4.3	0.0712		0.0583	0.0614	0.0636	0.0644	0.0630
4.5	0.0714		0.0568	0.0656	0.0652	0.0640	0.0635
4.8	0.0720		0.0595	0.0688	0.0680	0.0672	0.0639
5.0	0.0718		0.0620	0.0660	0.0721	0.0634	0.0677
5.5	0.0650		0.0609	0.0666	0.0655	0.0648	0.0686
6.0	0.0627		0.0640	0.0664	0.0674	0.0669	0.0669
6.5	0.0644		0.0675	0.0704	0.0699	0.0669	0.0676
7.0	0.0696		0.0749	0.0731	0.0724	0.0710	0.0731
7.5	0.0774		0.0789	0.0793	0.0806	0.0800	0.0782
8.0				0.0943		0.0845	0.0867

WING PRESSURES (PSI)

z/d	r/d:	0.5935	0.7185	0.8435	0.9685	1.0935	1.2185	1.3435
3.625								
3.875	0.0811+							
4.125								
4.375	0.08821	0.0915						
4.625		0.0967						
4.875		0.0901						
5.125	0.0844							
5.375	0.0733							
5.625	0.1572, 0.0763							
5.875	0.0696				0.0948			
6.125		0.0790			0.1053	0.0940		
6.375	0.0723	0.0763			0.0935	0.0969		
6.625	0.0611	0.0782			0.1010	0.0967	0.0956	
6.875	0.0691	0.0769			0.0955	0.0986	0.0978, 0.1540	
7.125	0.0739	0.0766			0.1006	0.0986	0.0987	
7.375	0.0762	0.0782			0.1015	0.0975	0.0973	0.0945

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