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AERODYNAMIC DESIGN AND ANALYSIS OF THE
AST-204, -205, and -206 BLENDED WING-FUSELAGE
SUPERSONIC TRANSPORT CONFIGURATION CONCEPTS

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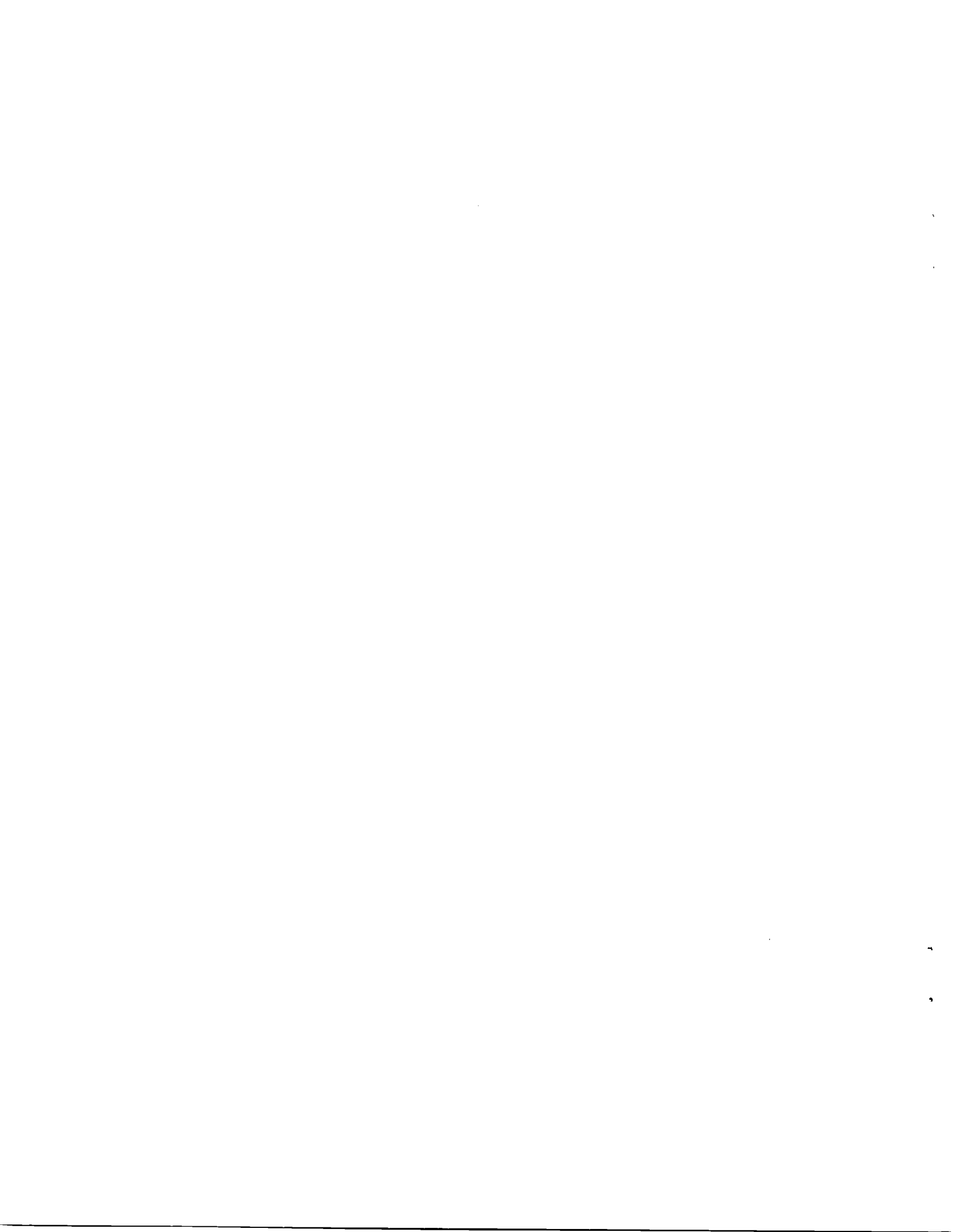
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SUMMARY

The aerodynamic design and analysis of three blended wing-fuselage supersonic cruise configurations providing four-, five-, and six-abreast seating has been conducted using a previously designed supersonic cruise configuration as the baseline. The five-abreast configuration was optimized for wave drag at a Mach number of 2.7. The four- and six-abreast configurations were also optimized at Mach 2.7, but with the added constraint that the majority of their structure be common with the five-abreast configuration. Analysis of the three configurations indicated an improvement of 6.0, 7.5, and 7.7 percent in cruise lift-to-drag ratio over the baseline configuration for the four-, five-, and six-abreast configurations, respectively. Validation of the design is planned through supersonic wind tunnel tests.

INTRODUCTION

Conventional subsonic aircraft have traditionally been designed with the potential for growth included, thus allowing the development costs for a new configuration to be spread over several versions. This growth is usually accomplished by the addition or deletion of cylindrical fuselage sections ahead and aft of the wing where the structure is relatively simple and less expensive. This method of growth is not practical for supersonic cruise configurations because: (1) proper fuselage area ruling is required for low wave drag, (2) usually there are no constant cross-section fuselage segments, and (3) very little additional passenger capacity can be added without the fuselage becoming excessively long.

A method of allowing growth in a supersonic cruise configuration has been developed by the Boeing Company (refs. 1 and 2). The fuselage is expanded or contracted laterally in the vicinity of the wing (figure 1) thus permitting the majority of the wing carry-through structure to be common between the original design and its derivatives. The empennage and flight deck sections of the fuselage, both of which are complex and expensive, are also common to all versions of the configuration. New structure added ahead and aft of the wing is designed

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so that a near optimum area ruling can be preserved for the derivative configurations. The wing, wing fins, and nacelles are also identical for all configurations (figure 2).

The purpose of this report is to describe the aerodynamic design of the AST-204, -205, and -206 fuselages. The AST-205 configuration is a blended wing-fuselage version of the AST-200 supersonic cruise aircraft configuration (ref. 3) and provides five-abreast seating for 273 passengers. The AST-204 and -206 configurations are four- and six-abreast derivatives of the AST-205 configuration. All three aircraft have been optimized for wave drag at the Mach 2.7 cruise condition within the constraints imposed by structural commonality and minimum cross-sectional area requirements.

The resulting configurations represent viable concepts which meet both volume and structural requirements. Wind tunnel tests of the three blended configurations are planned to validate the design and provide the required data base for future configuration studies.

SYMBOLS

A	fuselage cross-sectional area
\bar{c}	mean aerodynamic chord
C_D	drag coefficient, $\frac{\text{drag}}{qS}$
C_L	lift coefficient, $\frac{\text{lift}}{qS}$
C_m	pitching moment coefficient, $\frac{\text{pitching moment}}{qS\bar{c}}$
i_t	horizontal tail incidence, degrees
L/D	lift-to-drag ratio
M_∞	freestream Mach number

q	freestream dynamic pressure
S	reference wing area
x	configuration longitudinal coordinate
α_{WRP}	angle of attack of the wing reference plane

CONFIGURATION DEVELOPMENT

The AST-205 supersonic cruise aircraft configuration is a Mach 2.7 cruise blended wing-fuselage concept designed to carry 273 passengers with five-abreast seating. It incorporates the wing, wing fins, nacelles, and horizontal and vertical tails of the AST-200 configuration (ref. 3). Using the method of reference 4, the cross-sectional area distribution of the fuselage was optimized for minimum wave drag at cruise. Restraint points were included to maintain the minimum required cross-sectional areas at both the flight deck station and throughout the passenger compartment. The dimensions shown in figure 3 were used as minimums for the design of the fuselage cross-sections located between the front and rear wing spars and resulted in a minimum cross-sectional area of 8.2 m^2 (88.4 ft^2). The passenger sections ahead of the front spar and aft of the rear spar were designed with the minimum interior dimensions of figure 3, but with a minimum wall thickness of 15.2 cm (6 in) instead of 25.4 cm (10 in). The external contours were designed to be smooth both laterally and longitudinally while simultaneously meeting the optimum area distribution requirements. This design process usually required several iterations. The resulting fuselage meets the necessary volume requirements while simultaneously providing low wave drag. Numerical model descriptions of the final geometry are presented in table I using the format of reference 5.

The AST-204 configuration fuselage, with four-abreast seating, was derived from the AST-205 configuration by removing a 53.3 cm (21 in) wide section from the center of the fuselage longitudinally from the front spar to the rear spar and refairing the top of the fuselage (figure 4a). The fuselage from the flight deck forward and in the area of the empennage was left unchanged to maintain

commonality. A new optimum fuselage area distribution was determined with restraints at the flight deck station, near the empennage and along the fuselage centerbody. New fuselage cross-sections matching the optimum area (figure 5) were designed to transition smoothly from the flight deck station to the front wing spar, and from the rear wing spar to the empennage. The wing, wing fins, nacelles, and empennage of the AST-205 configuration were used for the AST-204 configuration without modification. Numerical model descriptions of the AST-204 configuration geometry are presented in table II.

The AST-206 configuration fuselage, with six-abreast seating, was also derived from the AST-205 configuration. A 53.3 cm (21 in) wide section was added to the center of the fuselage longitudinally (figure 4b) from the front spar to the rear spar and the fuselage lengthened by 5.49 m (18 ft). A 1.83 m (6 ft) section was added in front of the wing and a 3.55 m (12 ft) section was added aft of the wing. This increase in fuselage length was necessary in order to maintain a relatively high fineness ratio for the fuselage. The fuselage forebody and aftbody from the AST-205 configuration were again used unchanged. The optimum fuselage area distribution was determined with restraints at the flight deck station, near the empennage, and along the fuselage centerbody. New fuselage cross-sections matching the optimum area distribution shown in figure 5 were designed to transition smoothly from the flight deck station to the front spar and from the aft spar to the empennage. The wing, wing fins, nacelles, and empennage of the AST-205 configuration were again incorporated without modification. Numerical model descriptions of the AST-206 configuration are presented in table III.

A comparison of representative cross-sections at selected fuselage stations is presented in figure 6.

AERODYNAMIC ANALYSIS

The AST-200, -204, -205, and -206 configurations have been analyzed at Mach numbers of 2.7 and 1.2 to determine the improvements in aerodynamic performance which can be achieved with wing-fuselage blending. The Boeing supersonic design and analysis program (ref. 6) has been used to compute the skin friction and drag-due-to-lift characteristics whereas the method of reference 4 was employed for

the wave drag analysis. The fuselage volume was included in the skin friction and wave drag analyses, but not in the drag-due-to-lift analysis. With the fuselage so excluded, the lift and pitching moment characteristics of the AST-200 and AST-205 configurations presented in figures 7a and 7b are identical. The horizontal tail deflection angles shown in these figures are those required to trim the configuration at lift coefficients of 0.10 and 0.15 for Mach numbers of 2.7 and 1.2, respectively. The design lift coefficient at cruise was 0.10 for all configurations.

The computed drag polars are presented in figure 7c and the lift-to-drag ratios in figure 7d. At the cruise Mach number the AST-204 configuration with its low fuselage volume has the least drag at small lift coefficients. As the lift coefficient increases the low wave drag advantage of the AST-204 configuration is offset by a larger drag-due-to-lift because of its lower wing span. Since the other configurations have greater wing spans and, therefore, lower drag-due-to-lift, they have better lift-to-drag ratios at and above the cruise lift coefficient. The Mach 2.7 cruise lift-to-drag ratios are 9.11 for the AST-204, 9.24 for the AST-205, and 9.26 for the AST-206 at a trimmed lift coefficient of 0.10. The maximum lift-to-drag ratios are 9.12, 9.26, and 9.31, respectively. At a Mach number of 1.2 and a trimmed lift coefficient of 0.15, the lift-to-drag ratios are 9.54, 9.82, and 9.88 for the AST-204, -205, and -206 configurations, respectively. All of these values are greater than the values previously computed for the AST-200 configuration (ref. 3). The beneficial effects of properly canted wing fins and nacelles and wing-fuselage interference have not been included in this analysis, and thus the actual lift-to-drag ratio levels can be expected to be somewhat higher than presented herein.

CONCLUDING REMARKS

The AST-204, -205, and -206 are blended wing-fuselage supersonic transport configurations employing a high degree of structural commonality. An aerodynamic analysis has shown all of these configurations to have significantly better aerodynamic performance than the baseline circular cross-section fuselage configuration.

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6. Middleton, W. D.; Lundry, J. L.; and Coleman, R. G.: A Computational System for Aerodynamic Design and Analysis of Supersonic Aircraft. Parts 1, 2, and 3. NASA CR-2715, -2716, and -2717, 1976.

Table I. - AST-205 Numerical Model
(a) SI Units (meters)

AST-205 (4/17/79) 5 ABREAST DIGITAL BLENDED FUSELAGE

1 1 1 1 1 1 16 28 1 30 30										2 20 2 10 1 10			
774.49	588	168.060											REFA
0.	.125	.25	.5	.75	1.0	1.5	2.5	5.0	10.				XAF 10
15.	20.	25.	30.	35.	40.	45.	50.	55.	60.				XAF 20
65.	70.	75.	80.	85.	90.	95.	100.				XAF 28		
21.869	1.640	-1.555	45.280										WORD 3A
22.645	1.920	-1.711	44.292										WORD 4
26.194	2.880	-2.313	40.925										WORD 5
29.541	3.840	-2.839	37.556										WORD 6
32.890	4.800	-3.267	34.189										WORD 7
38.506	6.411	-3.821	28.539										WORD 8
42.934	7.681	-4.210	24.458										WORD 9
47.838	9.086	-4.557	19.938										WORD 10
52.008	10.536	-4.632	16.164										WORD 11
54.841	11.521	-4.610	14.200										WORD 12
57.604	12.481	-4.675	12.286										WORD 13
61.792	13.936	-4.737	9.384										WORD 14
61.792	13.937	-4.737	9.384										WORD 15
64.259	15.361	-4.752	8.175										WORD 16
67.585	17.281	-4.922	6.546										WORD 17
70.912	19.201	-5.194	4.917										WORD 18
0.000	-0.001	-0.001	-0.002	-0.003	-0.004	-0.007	-0.016	-0.058	-0.221				TZ 3A.1
-0.441	-0.693	-0.963	-1.240	-1.519	-1.793	-2.059	-2.313	-2.554	-2.782				TZ 3A.2
-2.996	-3.195	-3.381	-3.553	-3.712	-3.857	-3.989	-4.104						TZ 3A.3
0.000	-0.000	-0.000	-0.001	-0.001	-0.001	-0.002	-0.011	-0.047	-0.200				TZ 4.1
-0.409	-0.649	-0.903	-1.165	-1.427	-1.685	-1.936	-2.176	-2.405	-2.621				TZ 4.2
-2.625	-3.017	-3.197	-3.364	-3.520	-3.664	-3.795	-3.912						TZ 4.3
0.000	.001	.001	.002	.004	.005	.008	.008	-0.012	-0.123				TZ 5.1
-0.276	-0.459	-0.653	-0.855	-1.058	-1.260	-1.456	-1.648	-1.833	-2.011				TZ 5.2
-2.181	-2.344	-2.500	-2.649	-2.792	-2.927	-3.053	-3.172						TZ 5.3
0.000	.001	.002	.005	.008	.010	.015	.025	.016	-0.047				TZ 6.1
-0.152	-0.279	-0.419	-0.568	-0.719	-0.871	-1.024	-1.173	-1.320	-1.464				TZ 6.2
-1.600	-1.744	-1.879	-2.012	-2.141	-2.267	-2.389	-2.506						TZ 6.3
0.000	.002	.003	.006	.009	.012	.019	.031	.049	.021				TZ 7.1
-0.643	-1.127	-0.223	-0.326	-0.435	-0.548	-0.662	-0.777	-0.893	-1.009				TZ 7.2
-1.125	-1.241	-1.358	-1.475	-1.591	-1.707	-1.821	-1.934						TZ 7.3
0.000	.002	.004	.007	.011	.014	.021	.035	.065	.085				TZ 8.1
.073	.041	-0.001	-0.053	-0.110	-0.173	-0.240	-0.311	-0.385	-0.462				TZ 8.2
-0.543	-0.626	-0.712	-0.799	-0.869	-0.962	-1.075	-1.169						TZ 8.3
0.000	.002	.004	.008	.012	.015	.023	.038	.069	.100				TZ 9.1
.108	.103	.086	.062	.030	-0.007	-0.050	-0.095	-0.145	-0.198				TZ 9.2
-0.205	-0.315	-0.379	-0.445	-0.514	-0.585	-0.659	-0.735						TZ 9.3
0.000	.002	.003	.005	.008	.011	.017	.028	.055	.091				TZ 10.1
.107	.113	.112	.106	.094	.078	.059	.036	.009	-0.021				TZ 10.2
-0.054	-0.089	-0.127	-0.169	-0.213	-0.259	-0.307	-0.357						TZ 10.3
0.000	.001	.002	.003	.004	.006	.009	.015	.029	.056				TZ 11.1
.068	.074	.075	.070	.061	.051	.035	.018	-0.002	-0.025				TZ 11.2
-0.050	-0.077	-0.107	-0.139	-0.172	-0.207	-0.244	-0.282						TZ 11.3
0.000	.001	.001	.002	.004	.005	.007	.012	.025	.045				TZ 12.1
.057	.063	.066	.061	.056	.048	.036	.022	.007	-0.010				TZ 12.2
-0.031	-0.052	-0.074	-0.100	-0.126	-0.153	-0.181	-0.211						TZ 12.3
0.000	.001	.001	.002	.003	.004	.006	.010	.020	.035				TZ 13.1
.048	.054	.059	.058	.057	.052	.046	.037	.028	.016				TZ 13.2
.003	-0.012	-0.028	-0.045	-0.062	-0.080	-0.098	-0.117						TZ 13.3
0.000	.000	.000	.001	.001	.001	.002	.003	.006	.015				TZ 14.1
.025	.031	.034	.036	.036	.035	.035	.034	.031	.029				TZ 14.2
.026	.023	.020	.017	.013	.009	.005	0.000						TZ 14.3
0.000	.000	.000	.001	.001	.001	.002	.003	.006	.015				TZ 15.1
.025	.031	.034	.036	.036	.035	.035	.034	.031	.029				TZ 15.2
.026	.023	.020	.017	.013	.009	.005	0.000						TZ 15.3
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.014	-0.028				TZ 16.1
-0.042	-0.050	-0.056	-0.061	-0.067	-0.073	-0.079	-0.084	-0.091	-0.096				TZ 16.2
-0.102	-0.107	-0.113	-0.119	-0.124	-0.129	-0.135	-0.140						TZ 16.3
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.015	-0.029				TZ 17.1
-0.043	-0.058	-0.072	-0.082	-0.092	-0.102	-0.111	-0.117	-0.124	-0.131				TZ 17.2
-0.138	-0.144	-0.149	-0.155	-0.160	-0.165	-0.170	-0.175						TZ 17.3
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.014	-0.028				TZ 18.1
-0.042	-0.048	-0.054	-0.061	-0.067	-0.072	-0.074	-0.077	-0.079	-0.081				TZ 18.2
-0.082	-0.081	-0.080	-0.079	-0.078	-0.075	-0.071	-0.066						TZ 18.3

Table I. - Continued.

(a) Continued

0.	.137	.179	.241	.297	.339	.412	.523	.724	.994	WORD3A.1
1.177	1.315	1.416	1.487	1.528	1.539	1.539	1.539	1.539	1.539	WORD3A.2
1.384	1.210	1.018	.817	.614	.412	.211	0.	0.	0.	WORD3A.3
0.	.136	.178	.237	.291	.333	.405	.514	.712	.978	WORD4.1
1.157	1.292	1.391	1.461	1.501	1.512	1.512	1.512	1.512	1.512	WORD4.2
1.363	1.192	1.003	.806	.606	.406	.208	0.	0.	0.	WORD4.3
0.	.128	.168	.225	.277	.316	.386	.490	.679	.931	WORD5.1
1.103	1.232	1.326	1.392	1.430	1.441	1.441	1.441	1.441	1.437	WORD5.2
1.294	1.132	.953	.765	.576	.385	.197	0.	0.	0.	WORD5.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD6.1
1.059	1.182	1.273	1.336	1.373	1.383	1.383	1.383	1.383	1.341	WORD6.2
1.208	1.056	.889	.714	.537	.360	.184	0.	0.	0.	WORD6.3
0.	.110	.153	.208	.257	.294	.358	.455	.631	.866	WORD7.1
1.025	1.144	1.231	1.293	1.328	1.338	1.338	1.338	1.338	1.277	WORD7.2
1.151	1.006	.848	.681	.512	.343	.175	0.	0.	0.	WORD7.3
0.	.101	.145	.200	.247	.283	.344	.438	.607	.833	WORD8.1
.987	1.101	1.184	1.244	1.278	1.287	1.287	1.287	1.287	1.166	WORD8.2
1.069	.935	.788	.633	.476	.319	.163	0.	0.	0.	WORD8.3
0.	.100	.144	.198	.245	.280	.341	.435	.602	.827	WORD9.1
.979	1.092	1.175	1.234	1.268	1.277	1.277	1.277	1.260	1.161	WORD9.2
1.046	.915	.771	.619	.466	.312	.159	0.	0.	0.	WORD9.3
0.	.102	.146	.201	.248	.284	.345	.440	.609	.836	WORD10.1
.990	1.105	1.189	1.248	1.283	1.292	1.292	1.292	1.247	1.149	WORD10.2
1.035	.906	.763	.613	.461	.309	.156	0.	0.	0.	WORD10.3
0.	.111	.154	.209	.258	.295	.359	.457	.632	.868	WORD11.1
1.028	1.148	1.235	1.297	1.330	1.342	1.342	1.342	1.263	1.164	WORD11.2
1.049	.917	.773	.621	.467	.313	.160	0.	0.	0.	WORD11.3
0.	.116	.160	.216	.266	.304	.370	.470	.651	.894	WORD12.1
1.059	1.181	1.272	1.335	1.372	1.382	1.382	1.382	1.300	1.198	WORD12.2
1.080	.945	.796	.639	.481	.322	.164	0.	0.	0.	WORD12.3
0.	.125	.166	.222	.274	.313	.381	.484	.670	.920	WORD13.1
1.090	1.216	1.309	1.375	1.413	1.423	1.423	1.423	1.339	1.234	WORD13.2
1.112	.972	.819	.658	.495	.331	.169	0.	0.	0.	WORD13.3
0.	.138	.177	.235	.289	.330	.402	.510	.706	.969	WORD14.1
1.146	1.282	1.380	1.449	1.489	1.500	1.500	1.500	1.411	1.300	WORD14.2
1.171	1.024	.862	.692	.521	.349	.178	0.	0.	0.	WORD14.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD15.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD15.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD15.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD16.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD16.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD16.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD17.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD17.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD17.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD18.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD18.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD18.3
0.000	3.289	6.578	9.867	13.156	16.445	19.734	22.845	26.312	29.601	XFUS
32.690	36.179	39.468	42.757	46.046	49.336	52.625	55.914	59.203	62.492	XFUS
65.781	69.070	72.368	75.648	78.937	82.226	85.515	88.804	92.093	95.382	XFUS
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	Z 1
-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	
-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	
0.000	.072	.129	.194	.251	.304	.349	.386	.424	.450	Y 2
.475	.493	.504	.504	.504	.504	.507	.514	.509	.504	
.487	.459	.427	.392	.337	.282	.220	.154	.085	0.000	
-1.024	-1.019	-1.010	-0.993	-0.965	-0.934	-0.891	-0.851	-0.805	-0.758	Z 2
-0.708	-0.658	-0.611	-0.611	-0.611	-0.611	-0.573	-0.531	-0.485	-0.424	
-0.355	-0.294	-0.238	-0.185	-0.136	-0.095	-0.062	-0.033	-0.011	-0.005	
0.000	.107	.203	.303	.399	.480	.561	.623	.677	.724	Y 3
.767	.798	.818	.818	.818	.818	.834	.838	.839	.832	
.806	.769	.716	.652	.573	.481	.371	.256	.142	0.000	
-1.357	-1.355	-1.329	-1.299	-1.261	-1.208	-1.144	-1.083	-1.015	-0.947	Z 3
-0.867	-0.786	-0.706	-0.706	-0.706	-0.706	-0.641	-0.580	-0.499	-0.404	
-0.285	-0.185	-0.081	-0.009	.101	.170	.236	.287	.315	.324	
0.000	.150	.281	.412	.531	.639	.739	.824	.905	.971	Y 4
1.026	1.065	1.097	1.097	1.097	1.097	1.117	1.125	1.130	1.120	
1.090	1.038	.974	.895	.785	.663	.515	.355	.190	0.000	
-1.645	-1.635	-1.617	-1.568	-1.512	-1.455	-1.376	-1.292	-1.193	-1.102	Z 4
-0.999	-0.896	-0.797	-0.797	-0.797	-0.797	-0.709	-0.621	-0.514	-0.383	
-0.230	-0.086	.047	.174	.294	.398	.492	.558	.598	.615	
-0.000	.181	.338	.495	.638	.780	.892	1.000	1.093	1.170	Y 5
1.240	1.287	1.323	1.323	1.323	1.323	1.346	1.359	1.364	1.354	

Table I. - Continued.

(a) Continued

1.313	1.257	1.174	1.075	.950	.794	.619	.424	.222	0.000		
-1.899	-1.886	-1.860	-1.812	-1.740	-1.664	-1.573	-1.471	-1.364	-1.258	Z	5
-1.124	-1.002	-.672	-.872	-.872	-.872	-.769	-.662	-.528	-.375		
-.194	-.021	.144	.294	.441	.568	.681	.759	.814	.828		
0.000	.187	.360	.529	.695	.850	.993	1.121	1.242	1.351	Y	6
1.450	1.532	1.592	1.592	1.592	1.592	1.629	1.666	1.692	1.699		
1.673	1.612	1.512	1.362	1.165	.961	.729	.501	.268	0.000		
-2.114	-2.109	-2.086	-2.053	-1.997	-1.926	-1.840	-1.738	-1.626	-1.509	Z	6
-1.373	-1.232	-1.092	-1.092	-1.092	-1.092	-.970	-.844	-.680	-.485		
-.246	-.031	.181	.356	.517	.647	.751	.832	.886	.914		
0.000	.185	.369	.560	.731	.895	1.054	1.216	1.366	1.511	Y	7
1.656	1.726	1.765	1.765	1.765	1.765	1.787	1.796	1.796	1.780		
1.738	1.665	1.562	1.429	1.246	1.036	.799	.542	.285	0.000		
-2.356	-2.353	-2.335	-2.295	-2.235	-2.159	-2.083	-1.977	-1.886	-1.777	Z	7
-1.641	-1.472	-1.305	-1.305	-1.305	-1.305	-1.155	-1.008	-.830	-.624		
-.379	-.138	.077	.277	.466	.624	.754	.845	.899	.924		
0.000	.198	.371	.543	.715	.872	1.029	1.185	1.346	1.499	Y	8
1.655	1.808	1.920	1.640	1.640	1.920	1.859	1.815	1.802	1.796		
1.764	1.702	1.605	1.472	1.287	1.069	.839	.551	.294	0.000		
-2.612	-2.600	-2.569	-2.530	-2.479	-2.429	-2.356	-2.283	-2.190	-2.094	Z	8
-1.986	-1.870	-1.733	-1.850	-1.411	-1.733	-1.550	-1.322	-1.105	-.880		
-.624	-.374	-.138	.066	.289	.459	.586	.660	.732	.751		
0.000	.167	.315	.465	.619	.766	.911	1.048	1.201	1.341	Y	9
1.496	1.671	1.920	1.640	1.640	1.920	1.769	1.699	1.671	1.636		
1.565	1.472	1.360	1.217	1.049	.869	.666	.456	.220	0.000		
-2.651	-2.846	-2.827	-2.804	-2.769	-2.725	-2.671	-2.605	-2.531	-2.456	Z	9
-2.368	-2.289	-2.207	-2.235	-1.344	-1.443	-1.318	-1.157	-.970	-.775		
-.590	-.409	-.239	-.076	.077	.195	.300	.372	.418	.433		
0.000	.151	.288	.430	.566	.710	.854	.995	1.157	1.322	Y	10
1.493	1.687	1.920	1.640	1.640	1.920	1.799	1.738	1.655	1.552		
1.435	1.310	1.180	1.039	.879	.719	.550	.375	.195	0.000		
-3.073	-3.070	-3.060	-3.049	-3.027	-3.002	-2.968	-2.920	-2.875	-2.818	Z	10
-2.758	-2.699	-2.629	-2.679	-1.562	-1.598	-1.447	-1.289	-1.135	-.993		
-.856	-.742	-.638	-.533	-.433	-.355	-.293	-.245	-.217	-.200		
0.000	.148	.282	.421	.554	.693	.839	.987	1.148	1.320	Y	11
1.508	1.705	1.920	1.640	1.640	1.920	1.768	1.678	1.575	1.469		
1.351	1.225	1.096	.959	.810	.658	.505	.337	.176	0.000		
-3.467	-3.473	-3.466	-3.452	-3.434	-3.412	-3.383	-3.354	-3.317	-3.268	Z	11
-3.224	-3.164	-3.073	-3.137	-1.867	-1.881	-1.767	-1.632	-1.501	-1.373		
-1.254	-1.149	-1.056	-.959	-.878	-.811	-.760	-.720	-.692	-.679		
0.000	.148	.282	.418	.553	.692	.839	.984	1.145	1.320	Y	12
1.499	1.702	1.920	1.640	1.640	1.920	1.720	1.614	1.514	1.408		
1.287	1.166	1.039	.910	.763	.628	.475	.318	.165	0.000		
-3.904	-3.904	-3.893	-3.874	-3.862	-3.836	-3.805	-3.770	-3.732	-3.694	Z	12
-3.640	-3.579	-3.509	-3.584	-2.225	-2.214	-2.101	-1.970	-1.836	-1.729		
-1.622	-1.522	-1.430	-1.354	-1.273	-1.219	-1.174	-1.135	-1.116	-1.097		
0.000	.148	.280	.416	.553	.692	.839	.984	1.148	1.320	Y	13
1.505	1.703	1.920	1.640	1.640	1.920	1.702	1.596	1.493	1.365		
1.266	1.148	1.024	.892	.748	.611	.466	.313	.164	0.000		
-4.316	-4.319	-4.306	-4.288	-4.274	-4.248	-4.219	-4.190	-4.149	-4.105	Z	13
-4.053	-4.002	-3.917	-4.002	-2.610	-2.582	-2.488	-2.361	-2.237	-2.125		
-2.021	-1.924	-1.838	-1.760	-1.682	-1.631	-1.584	-1.548	-1.527	-1.510		
0.000	.151	.288	.427	.560	.699	.845	.991	1.157	1.323	Y	14
1.508	1.705	1.920	1.640	1.640	1.920	1.696	1.596	1.494	1.384		
1.266	1.151	1.024	.897	.756	.615	.466	.316	.167	0.000		
-4.720	-4.718	-4.707	-4.685	-4.671	-4.649	-4.619	-4.590	-4.549	-4.504	Z	14
-4.448	-4.384	-4.298	-4.388	-2.994	-2.957	-2.882	-2.755	-2.632	-2.520		
-2.416	-2.319	-2.238	-2.156	-2.083	-2.024	-1.977	-1.949	-1.925	-1.912		
0.000	.149	.282	.421	.556	.699	.845	.987	1.154	1.321	Y	15
1.506	1.691	1.920	1.640	1.640	1.920	1.705	1.597	1.494	1.381		
1.266	1.148	1.018	.887	.748	.609	.466	.314	.161	0.000		
-5.066	-5.061	-5.051	-5.042	-5.014	-4.993	-4.965	-4.937	-4.901	-4.854	Z	15
-4.800	-4.738	-4.646	-4.749	-3.355	-3.307	-3.225	-3.104	-2.980	-2.863		
-2.762	-2.671	-2.585	-2.498	-2.427	-2.367	-2.326	-2.293	-2.268	-2.258		
0.000	.170	.304	.442	.580	.718	.857	1.003	1.166	1.341	Y	16
1.522	1.725	1.920	1.640	1.640	1.920	1.709	1.600	1.498	1.389		
1.271	1.150	1.029	.896	.751	.610	.466	.313	.164	0.000		
-5.367	-5.382	-5.376	-5.355	-5.338	-5.320	-5.288	-5.260	-5.220	-5.176	Z	16
-5.122	-5.067	-4.994	-5.073	-3.697	-3.643	-3.554	-3.430	-3.309	-3.197		
-3.096	-2.998	-2.912	-2.826	-2.755	-2.703	-2.651	-2.622	-2.593	-2.579		
0.000	.160	.306	.453	.600	.742	.896	1.042	1.211	1.378	Y	17
1.550	1.726	1.920	1.640	1.640	1.920	1.777	1.702	1.611	1.514		
1.399	1.278	1.148	.999	.848	.684	.520	.356	.191	0.000		
-5.732	-5.729	-5.720	-5.705	-5.678	-5.649	-5.612	-5.568	-5.514	-5.453	Z	17
-5.387	-5.293	-5.174	-5.268	-4.106	-4.033	-3.952	-3.805	-3.667	-3.536		
-3.416	-3.304	-3.196	-3.107	-3.018	-2.955	-2.901	-2.861	-2.837	-2.824		

Table I. - Continued.

(a) Continued

0.000	.182	.345	.506	.657	.822	.977	1.132	1.305	1.456	Y 18
1.626	1.750	1.920	1.640	1.640	1.920	1.771	1.699	1.611	1.508	
1.387	1.269	1.132	.992	.830	.681	.506	.339	.171	0.000	
-6.035	-6.033	-6.017	-5.997	-5.971	-5.935	-5.892	-5.838	-5.759	-5.684	Z 18
-5.581	-5.448	-5.326	-5.420	-4.504	-4.426	-4.299	-4.119	-3.961	-3.809	
-3.658	-3.537	-3.428	-3.328	-3.237	-3.173	-3.119	-3.052	-3.055	-3.045	
0.000	.179	.348	.515	.672	.836	.990	1.145	1.317	1.466	Y 19
1.617	1.741	1.920	1.640	1.640	1.920	1.817	1.768	1.690	1.593	
1.463	1.326	1.187	1.048	.890	.718	.548	.372	.200	0.000	
-6.292	-6.280	-6.247	-6.207	-6.162	-6.107	-6.047	-5.980	-5.896	-5.811	Z 19
-5.708	-5.587	-5.441	-5.530	-4.881	-4.801	-4.642	-4.433	-4.245	-4.085	
-3.927	-3.794	-3.667	-3.566	-3.461	-3.382	-3.310	-3.261	-3.231	-3.219	
0.000	.197	.375	.554	.721	.884	1.045	1.202	1.369	1.514	Y 20
1.647	1.750	1.920	1.640	1.640	1.920	1.829	1.817	1.750	1.687	
1.565	1.432	1.284	1.132	.963	.784	.603	.409	.212	0.000	
-6.513	-6.501	-6.489	-6.441	-6.389	-6.319	-6.244	-6.156	-6.050	-5.950	Z 20
-5.617	-5.668	-5.530	-5.615	-5.232	-5.153	-4.969	-4.757	-4.554	-4.385	
-4.200	-4.042	-3.903	-3.785	-3.664	-3.567	-3.485	-3.425	-3.394	-3.385	
0.000	.197	.382	.575	.751	.927	1.102	1.263	1.423	1.559	Y 21
1.659	1.753	1.920	1.640	1.640	1.920	1.802	1.799	1.780	1.744	
1.662	1.550	1.414	1.241	1.057	.848	.645	.433	.224	0.000	
-6.677	-6.668	-6.640	-6.592	-6.534	-6.462	-6.383	-6.292	-6.168	-6.029	Z 21
-5.862	-5.699	-5.588	-5.667	-5.552	-5.475	-5.284	-5.087	-4.872	-4.678	
-4.457	-4.269	-4.112	-3.982	-3.855	-3.740	-3.655	-3.591	-3.552	-3.537	
0.000	.227	.439	.651	.848	1.023	1.201	1.354	1.487	1.581	Y 22
1.650	1.696	1.720	1.720	1.720	1.720	1.729	1.720	1.696	1.638	
1.541	1.414	1.264	1.114	.945	.767	.581	.394	.201	0.000	
-6.795	-6.777	-6.746	-6.701	-6.640	-6.563	-6.457	-6.323	-6.156	-5.986	Z 22
-5.793	-5.614	-5.443	-5.443	-5.443	-5.443	-5.256	-5.056	-4.857	-4.667	
-4.481	-4.316	-4.182	-4.059	-3.943	-3.854	-3.780	-3.729	-3.697	-3.687	
0.000	.242	.436	.636	.827	1.002	1.166	1.305	1.432	1.530	Y 23
1.602	1.653	1.687	1.687	1.687	1.687	1.711	1.711	1.691	1.631	
1.541	1.416	1.257	1.101	.925	.750	.570	.387	.207	0.000	
-6.777	-6.762	-6.728	-6.677	-6.610	-6.531	-6.416	-6.283	-6.118	-5.953	Z 23
-5.789	-5.625	-5.472	-5.468	-5.472	-5.472	-5.288	-5.093	-4.890	-4.713	
-4.544	-4.378	-4.219	-4.114	-4.013	-3.938	-3.871	-3.835	-3.803	-3.793	
0.000	.212	.409	.592	.769	.921	1.072	1.199	1.323	1.417	Y 24
1.496	1.537	1.559	1.559	1.559	1.559	1.572	1.569	1.539	1.484	
1.414	1.318	1.190	1.060	.893	.721	.548	.369	.197	0.000	
-6.677	-6.674	-6.643	-6.592	-6.518	-6.435	-6.325	-6.204	-6.053	-5.908	Z 24
-5.753	-5.599	-5.455	-5.455	-5.455	-5.452	-5.279	-5.103	-4.919	-4.751	
-4.591	-4.427	-4.272	-4.150	-4.045	-3.970	-3.915	-3.879	-3.858	-3.850	
0.000	.218	.400	.563	.718	.848	.969	1.072	1.163	1.226	Y 25
1.275	1.305	1.320	1.320	1.320	1.320	1.323	1.311	1.278	1.234	
1.175	1.096	.990	.884	.760	.606	.486	.337	.179	0.000	
-6.513	-6.492	-6.447	-6.383	-6.298	-6.204	-6.089	-5.965	-5.820	-5.662	Z 25
-5.550	-5.420	-5.293	-5.293	-5.293	-5.293	-5.142	-4.996	-4.845	-4.702	
-4.575	-4.442	-4.306	-4.200	-4.100	-4.018	-3.947	-3.906	-3.872	-3.858	
0.000	.185	.339	.484	.621	.733	.839	.924	1.005	1.066	Y 26
1.105	1.120	1.151	1.151	1.151	1.151	1.152	1.145	1.120	1.084	
1.028	.963	.871	.781	.669	.555	.425	.294	.160	0.000	
-6.192	-6.177	-6.141	-6.083	-6.011	-5.929	-5.832	-5.726	-5.605	-5.484	Z 26
-5.366	-5.248	-5.142	-5.142	-5.142	-5.142	-5.020	-4.886	-4.752	-4.630	
-4.500	-4.389	-4.271	-4.176	-4.092	-4.020	-3.967	-3.925	-3.888	-3.881	
0.000	.151	.282	.400	.509	.606	.690	.763	.824	.871	Y 27
.908	.925	.939	.939	.939	.939	.939	.930	.912	.878	
.831	.778	.697	.624	.528	.436	.333	.225	.118	0.000	
-5.756	-5.742	-5.711	-5.669	-5.604	-5.531	-5.458	-5.369	-5.274	-5.170	Z 27
-5.070	-4.978	-4.890	-4.886	-4.886	-4.886	-4.783	-4.679	-4.569	-4.469	
-4.377	-4.289	-4.194	-4.121	-4.046	-3.991	-3.949	-3.911	-3.892	-3.889	
0.000	.112	.207	.297	.379	.450	.513	.563	.612	.642	Y 28
.666	.681	.689	.689	.689	.689	.689	.681	.662	.642	
.606	.600	.512	.459	.392	.324	.252	.175	.095	0.000	
-5.279	-5.263	-5.240	-5.205	-5.163	-5.113	-5.044	-4.975	-4.902	-4.829	Z 28
-4.760	-4.691	-4.614	-4.610	-4.618	-4.618	-4.541	-4.469	-4.381	-4.316	
-4.243	-4.186	-4.121	-4.064	-4.010	-3.964	-3.934	-3.907	-3.892	-3.889	
0.000	.076	.141	.199	.252	.290	.336	.370	.393	.416	Y 29
.424	.431	.431	.431	.431	.431	.427	.415	.404	.385	
.358	.327	.296	.262	.220	.177	.135	.093	.047	0.000	
-4.735	-4.727	-4.708	-4.685	-4.654	-4.623	-4.581	-4.535	-4.485	-4.435	Z 29
-4.389	-4.343	-4.301	-4.301	-4.301	-4.301	-4.252	-4.202	-4.156	-4.117	
-4.075	-4.037	-4.003	-3.976	-3.942	-3.919	-3.904	-3.892	-3.885	-3.885	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 30
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	Z 30
-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	

Table I. - Continued.

(a) Concluded

-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942		
58.679	6.411	-5.965										PDDORG 1
0.000	.606	1.211	1.817	2.422	3.028	3.634	4.239	4.845	5.450			XPOD
6.056	6.662	7.267	7.873	8.478	9.084	9.576	9.690	10.295	10.890			XPCD
.781	.793	.805	.818	.831	.843	.855	.868	.880	.893			RPCD
.905	.918	.930	.943	.955	.968	.978	.978	.978	.978			RPOD
59.806	10.536	-5.867										PDDORG 2
0.000	.606	1.211	1.817	2.422	3.028	3.634	4.239	4.845	5.450			XPOD
6.056	6.662	7.267	7.873	8.478	9.084	9.576	9.690	10.295	10.890			XPCD
.781	.793	.805	.818	.831	.843	.855	.868	.880	.893			RPCD
.905	.918	.930	.943	.955	.968	.978	.978	.978	.978			RPOD
61.843	13.937	-4.737	10.647	71.905	13.937	-1.741	1.450					V FIN
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.			XFIN
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.			FINCRD
85.792	0.000	-3.689	9.047	93.166	0.000	-.940	2.144					V TAIL
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.			XV TAIL
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.			TV TAIL
83.603	.878	-4.646	7.327	90.175	4.575	-5.637	2.196					H TAIL
0.	10.	20.	30.	40.	50.	70.	80.	90.	100.			XH TAIL
0.0	.553	.948	1.264	1.448	1.5	1.264	.948	.553	0.0			TH TAIL

Table I. - Continued.
(b) U.S. Customary Units (feet)

AST-205 (4/17/79) 5 ABREAST DIGITAL BLENDED FUSELAGE																	
1	1	1	1	1	1	16	28	1	30	30	2	20	2	10	1	10	
8447.	88.588	168.060															REFA
0.	.125	.25	.5	.75	1.0	1.5	2.5	5.0	10.								XAF 10
15.	20.	25.	30.	35.	40.	45.	50.	55.	60.								XAF 20
65.	70.	75.	80.	85.	90.	95.	100.										XAF 28
72.221	5.416	-5.137	149.537														WORG 3A
75.447	6.341	-5.650	146.276														WORG 4
86.505	9.512	-7.639	135.155														WORG 5
97.560	12.682	-9.376	124.030														WORG 6
106.619	15.853	-10.790	112.909														WORG 7
127.167	21.171	-12.620	94.250														WORG 8
141.791	25.365	-13.904	80.773														WORG 9
157.985	30.008	-15.051	65.847														WORG 10
171.757	34.795	-15.297	53.383														WORG 11
181.113	38.047	-15.226	46.897														WORG 12
190.237	41.218	-15.438	40.576														WORG 13
204.670	46.025	-15.644	30.991														WORG 14
204.070	46.026	-15.644	30.991														WORG 15
212.217	50.730	-15.695	26.999														WORG 16
223.200	57.071	-16.256	21.618														WORG 17
234.186	63.412	-17.152	16.237														WORG 18
0.	-.002	-.004	-.007	-.011	-.014	-.023	-.054	-.192	-.731								TZ 3A.1
-1.456	-2.290	-3.180	-4.096	-5.016	-5.922	-6.800	-7.639	-8.436	-9.188								TZ 3A.2
-9.893	-10.552	-11.166	-11.734	-12.259	-12.739	-13.173	-13.555										TZ 3A.3
0.	-.001	-.001	-.002	-.003	-.004	-.008	-.036	-.155	-.662								TZ 4.1
-1.351	-2.143	-2.983	-3.846	-4.713	-5.566	-6.394	-7.187	-7.942	-8.657								TZ 4.2
-9.331	-9.964	-10.557	-11.110	-11.625	-12.099	-12.532	-12.919										TZ 4.3
0.	.002	.004	.008	.012	.017	.025	.027	-.041	-.406								TZ 5.1
-.916	-1.516	-2.158	-2.822	-3.494	-4.160	-4.810	-5.443	-6.055	-6.640								TZ 5.2
-7.202	-7.742	-8.257	-8.749	-9.219	-9.665	-10.084	-10.475										TZ 5.3
0.	.004	.008	.017	.025	.034	.050	.084	.059	-.154								TZ 6.1
-.503	-.921	-1.385	-1.877	-2.376	-2.878	-3.381	-3.874	-4.360	-4.836								TZ 6.2
-5.302	-5.759	-6.205	-6.643	-7.070	-7.487	-7.889	-8.277										TZ 6.3
0.	.005	.010	.021	.031	.041	.062	.103	.163	.071								TZ 7.1
-.141	-.418	-.735	-1.076	-1.438	-1.809	-2.186	-2.567	-2.948	-3.333								TZ 7.2
-3.716	-4.100	-4.486	-4.871	-5.255	-5.638	-6.015	-6.388										TZ 7.3
0.	.006	.012	.023	.035	.047	.070	.117	.216	.280								TZ 8.1
.241	.135	-.002	-.176	-.364	-.570	-.792	-1.026	-1.270	-1.527								TZ 8.2
-1.793	-2.067	-2.350	-2.640	-2.937	-3.242	-3.550	-3.862										TZ 8.3
0.	.006	.013	.025	.038	.051	.076	.127	.229	.330								TZ 9.1
.356	.339	.283	.205	.098	-.024	-.164	-.315	-.480	-.655								TZ 9.2
-.843	-1.041	-1.250	-1.468	-1.697	-1.933	-2.176	-2.427										TZ 9.3
0.	.005	.009	.018	.027	.037	.056	.092	.182	.299								TZ 10.1
.354	.374	.370	.350	.311	.259	.194	.118	.030	-.068								TZ 10.2
-.177	-.295	-.421	-.558	-.703	-.855	-1.013	-1.179										TZ 10.3
0.	.002	.005	.010	.014	.019	.029	.048	.097	.184								TZ 11.1
.223	.244	.248	.230	.202	.167	.116	.058	-.007	-.084								TZ 11.2
-.166	-.254	-.354	-.458	-.567	-.683	-.806	-.932										TZ 11.3
0.	.002	.004	.008	.012	.016	.024	.041	.081	.147								TZ 12.1
.167	.207	.219	.203	.184	.158	.120	.074	.022	-.034								TZ 12.2
-.101	-.172	-.246	-.329	-.415	-.505	-.599	-.698										TZ 12.3
0.	.002	.003	.007	.010	.013	.020	.034	.067	.116								TZ 13.1
.158	.179	.194	.193	.187	.171	.153	.123	.092	.052								TZ 13.2
.011	-.040	-.092	-.148	-.204	-.263	-.322	-.387										TZ 13.3
0.	.001	.001	.002	.003	.004	.006	.010	.020	.049								TZ 14.1
.061	.101	.112	.116	.118	.117	.115	.111	.104	.096								TZ 14.2
.087	.077	.066	.055	.043	.029	.015	0.										TZ 14.3
0.	.001	.001	.002	.003	.004	.006	.010	.020	.049								TZ 15.1
.081	.101	.112	.118	.118	.117	.115	.111	.104	.096								TZ 15.2
.087	.077	.066	.055	.043	.029	.015	0.										TZ 15.3
0.	-.001	-.002	-.005	-.007	-.009	-.014	-.023	-.046	-.092								TZ 16.1
-.139	-.166	-.184	-.203	-.222	-.241	-.260	-.279	-.299	-.318								TZ 16.2
-.337	-.355	-.374	-.392	-.409	-.427	-.446	-.464										TZ 16.3
0.	-.001	-.002	-.005	-.007	-.010	-.014	-.024	-.048	-.095								TZ 17.1
-.143	-.190	-.238	-.271	-.303	-.336	-.368	-.411	-.434									TZ 17.2
-.455	-.474	-.493	-.513	-.529	-.545	-.562	-.577										TZ 17.3
0.	-.001	-.002	-.005	-.007	-.009	-.014	-.023	-.047	-.093								TZ 18.1
-.138	-.159	-.179	-.200	-.220	-.238	-.246	-.253	-.260	-.268								TZ 18.2
-.272	-.268	-.264	-.261	-.257	-.249	-.234	-.219										TZ 18.3

Table I. - Continued.

(b) Continued

0.	.137	.179	.241	.297	.339	.412	.523	.724	.994	WORD3A.1
1.177	1.315	1.416	1.487	1.528	1.539	1.539	1.539	1.539	1.539	WORD3A.2
1.384	1.210	1.018	.817	.614	.412	.211	0.	0.	0.	WORD3A.3
0.	.136	.178	.237	.291	.333	.405	.514	.712	.978	WORD4.1
1.157	1.292	1.391	1.461	1.501	1.512	1.512	1.512	1.512	1.512	WORD4.2
1.363	1.192	1.003	.806	.606	.406	.208	0.	0.	0.	WORD4.3
0.	.126	.168	.225	.277	.316	.386	.490	.679	.931	WORD5.1
1.103	1.232	1.326	1.392	1.430	1.441	1.441	1.441	1.441	1.437	WORD5.2
1.294	1.132	.953	.765	.576	.385	.197	0.	0.	0.	WORD5.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD6.1
1.059	1.182	1.273	1.336	1.373	1.383	1.383	1.383	1.383	1.341	WORD6.2
1.206	1.056	.869	.714	.537	.360	.184	0.	0.	0.	WORD6.3
0.	.110	.153	.206	.257	.294	.358	.455	.631	.866	WORD7.1
1.025	1.144	1.231	1.293	1.328	1.338	1.338	1.338	1.338	1.277	WORD7.2
1.151	1.006	.845	.681	.512	.343	.175	0.	0.	0.	WORD7.3
0.	.101	.145	.200	.247	.283	.344	.438	.607	.833	WORD8.1
.987	1.101	1.184	1.244	1.278	1.287	1.287	1.287	1.287	1.166	WORD8.2
1.069	.935	.788	.633	.476	.319	.163	0.	0.	0.	WORD8.3
0.	.100	.144	.198	.245	.280	.341	.435	.602	.827	WORD9.1
.979	1.092	1.175	1.234	1.266	1.277	1.277	1.277	1.260	1.161	WORD9.2
1.046	.915	.771	.619	.466	.312	.159	0.	0.	0.	WORD9.3
0.	.102	.146	.201	.248	.284	.345	.440	.609	.836	WORD10.1
.990	1.105	1.189	1.248	1.283	1.292	1.292	1.292	1.247	1.149	WORD10.2
1.035	.906	.763	.613	.461	.309	.156	0.	0.	0.	WORD10.3
0.	.111	.154	.209	.258	.295	.359	.457	.632	.868	WORD11.1
1.026	1.148	1.235	1.297	1.330	1.342	1.342	1.342	1.263	1.164	WORD11.2
1.049	.917	.773	.621	.467	.313	.160	0.	0.	0.	WORD11.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD12.1
1.059	1.181	1.272	1.335	1.372	1.382	1.382	1.382	1.300	1.198	WORD12.2
1.080	.945	.796	.639	.481	.322	.164	0.	0.	0.	WORD12.3
0.	.125	.166	.222	.274	.313	.381	.484	.670	.920	WORD13.1
1.090	1.216	1.309	1.375	1.413	1.423	1.423	1.423	1.339	1.234	WORD13.2
1.112	.972	.819	.658	.495	.331	.169	0.	0.	0.	WORD13.3
0.	.136	.177	.235	.289	.330	.402	.510	.706	.969	WORD14.1
1.148	1.282	1.380	1.449	1.489	1.500	1.500	1.500	1.411	1.300	WORD14.2
1.171	1.074	.862	.692	.521	.349	.178	0.	0.	0.	WORD14.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD15.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD15.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD15.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD16.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD16.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD16.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD17.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD17.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD17.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD18.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD18.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD18.3
J.000	10.862	21.724	32.586	43.448	54.310	65.172	75.447	86.897	97.759	XFUS
108.621119	483130	344141	207152	069162	931173	793184	655195	517206	379	XFUS
217.241228	103235	996249	826260	690271	552282	414293	276304	138315	000	XFUS
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	Z 1
-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	
-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	
0.000	0.238	0.427	0.641	0.828	1.003	1.152	1.276	1.399	1.485	Y 2
1.570	1.629	1.664	1.664	1.664	1.664	1.674	1.696	1.681	1.664	
1.608	1.516	1.410	1.293	1.112	0.932	0.726	0.510	0.281	0.000	
-3.383	-3.365	-3.336	-3.281	-3.188	-3.083	-2.941	-2.812	-2.657	-2.504	Z 2
-2.337	-2.172	-2.019	-2.019	-2.019	-2.019	-1.692	-1.753	-1.601	-1.399	
-1.173	-0.972	-0.785	-.610	-.449	-.314	-.204	-.108	-.037	-.017	
0.000	0.354	0.671	1.001	1.318	1.586	1.853	2.057	2.237	2.390	Y 3
2.532	2.636	2.701	2.701	2.701	2.701	2.754	2.768	2.771	2.748	
2.663	2.540	2.366	2.154	1.891	1.589	1.224	0.846	0.468	0.000	
-4.483	-4.474	-4.388	-4.290	-4.166	-3.991	-3.779	-3.578	-3.352	-3.126	Z 3
-2.862	-2.597	-2.332	-2.332	-2.332	-2.332	-2.117	-1.915	-1.649	-1.333	
-0.940	-.610	-.267	-.031	.332	.562	.781	.949	1.041	1.071	
0.000	0.497	0.928	1.359	1.753	2.109	2.440	2.721	2.990	3.208	Y 4
3.368	3.518	3.622	3.622	3.622	3.622	3.686	3.716	3.732	3.698	
3.601	3.428	3.218	2.956	2.593	2.191	1.700	1.171	0.626	0.000	
-5.432	-5.398	-5.339	-5.179	-4.992	-4.806	-4.543	-4.268	-3.941	-3.640	Z 4
-3.300	-2.960	-2.632	-2.632	-2.632	-2.632	-2.341	-2.051	-1.697	-1.266	
-.759	-.290	0.155	.575	.970	1.316	1.624	1.844	1.975	2.032	
0.000	0.597	1.116	1.636	2.106	2.576	2.945	3.302	3.608	3.864	Y 5
4.095	4.251	4.368	4.368	4.368	4.368	4.446	4.487	4.503	4.470	

Table I. - Concluded.

(b) Concluded

-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	
193.78821.171	-19.698										PDDORG 1
0.	2.	4.	6.	8.	10.	12.	14.	16.	18.		XPGD
20.	22.	24.	26.	28.	30.	31.624	32.	34.	35.963		XPOD
2.578	2.619	2.660	2.702	2.743	2.784	2.825	2.866	2.907	2.949		RPOD
2.990	3.031	3.072	3.113	3.154	3.196	3.229	3.229	3.229	3.229		RPOD
197.51134.795	-19.375										PDDORG 2
0.	2.	4.	6.	8.	10.	12.	14.	16.	18.		XPOD
20.	22.	24.	26.	28.	30.	31.624	32.	34.	35.963		XPOD
2.578	2.619	2.660	2.702	2.743	2.784	2.825	2.866	2.907	2.949		RPOD
2.990	3.031	3.072	3.113	3.154	3.196	3.229	3.229	3.229	3.229		RPOD
204.23746.0255	-15.64435.163	237.46746.0255	-5.749	4.787							V FIN
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XFIN
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		FINORD
283.3300.	-12.84329.877	307.6870.	-3.103	7.082							V TAIL
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XVTAIL
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		TVTAIL
276.1002.900	-15.34324.196	297.80315.110	-18.6157.252								H TAIL
0.	10.	20.	30.	40.	50.	70.	80.	90.	100.		XHTAIL
0.0	.553	.948	1.264	1.448	1.5	1.264	.948	.553	0.0		THTAIL

Table II. - AST-204 Numerical Model

(a) SI Units (meters)

AST-204 (4/19/79) 4 ABREAST DIGITAL BLENDED FUSELAGE

											REFA			
1 1 1 1 1 1						16 28 1 30 30			2 20 2 10 1 10					
774.49	588	168.060												
0.	.125	.25	.5	.75	1.0	1.5	2.5	5.0	10.		XAF 10			
15.	20.	25.	30.	35.	40.	45.	50.	55.	60.		XAF 20			
65.	70.	75.	80.	85.	90.	95.	100.				XAF 28			
21.869	1.375	-1.555	45.280											WORD 3A
22.845	1.655	-1.711	44.292											WORD 4
26.194	2.615	-2.313	40.925											WORD 5
29.541	3.575	-2.839	37.556											WORD 6
32.690	4.535	-3.267	34.189											WORD 7
38.506	6.146	-3.821	28.539											WORD 8
42.934	7.416	-4.210	24.458											WORD 9
47.838	8.821	-4.557	19.938											WORD 10
52.008	10.271	-4.632	16.164											WORD 11
54.841	11.256	-4.610	14.200											WORD 12
57.604	12.216	-4.675	12.286											WORD 13
61.792	13.671	-4.737	9.384											WORD 14
61.792	13.672	-4.737	9.384											WORD 15
64.259	15.096	-4.752	8.175											WORD 16
67.585	17.016	-4.922	6.546											WORD 17
70.912	18.936	-5.194	4.917											WORD 18
0.000	-0.001	-0.001	-0.002	-0.003	-0.004	-0.007	-0.016	-0.058	-0.221		TZ 3A.1			
-0.441	-0.693	-0.963	-1.240	-1.519	-1.793	-2.059	-2.313	-2.554	-2.782		TZ 3A.2			
-2.996	-3.195	-3.381	-3.553	-3.712	-3.857	-3.989	-4.104				TZ 3A.3			
0.000	-0.000	-0.000	-0.001	-0.001	-0.001	-0.002	-0.011	-0.047	-0.200		TZ 4.1			
-0.409	-0.649	-0.903	-1.165	-1.427	-1.685	-1.936	-2.176	-2.405	-2.621		TZ 4.2			
-2.825	-3.017	-3.197	-3.364	-3.520	-3.664	-3.795	-3.912				TZ 4.3			
0.000	.001	.001	.002	.004	.005	.008	.008	-0.012	-0.123		TZ 5.1			
-0.278	-0.459	-0.653	-0.855	-1.058	-1.260	-1.456	-1.648	-1.833	-2.011		TZ 5.2			
-2.181	-2.344	-2.500	-2.649	-2.792	-2.927	-3.053	-3.172				TZ 5.3			
0.000	.001	.002	.005	.008	.010	.015	.025	.018	-0.047		TZ 6.1			
-0.152	-0.279	-0.419	-0.568	-0.719	-0.871	-1.024	-1.173	-1.320	-1.464		TZ 6.2			
-1.005	-1.744	-1.879	-2.012	-2.141	-2.267	-2.389	-2.506				TZ 6.3			
0.000	.002	.003	.006	.009	.012	.019	.031	.049	.021		TZ 7.1			
-0.043	-0.127	-0.223	-0.326	-0.435	-0.548	-0.662	-0.777	-0.893	-1.009		TZ 7.2			
-1.125	-1.241	-1.358	-1.475	-1.591	-1.707	-1.821	-1.934				TZ 7.3			
0.000	.002	.004	.007	.011	.014	.021	.035	.065	.085		TZ 8.1			
.073	.041	-0.001	-0.053	-0.110	-0.173	-0.240	-0.311	-0.385	-0.462		TZ 8.2			
-0.543	-0.626	-0.712	-0.799	-0.889	-0.982	-1.075	-1.169				TZ 8.3			
0.000	.002	.004	.008	.012	.015	.023	.038	.069	.100		TZ 9.1			
.108	.103	.086	.062	.030	-0.007	-0.050	-0.095	-0.145	-0.198		TZ 9.2			
-0.255	-0.315	-0.379	-0.445	-0.514	-0.585	-0.659	-0.735				TZ 9.3			
0.000	.002	.003	.005	.008	.011	.017	.028	.055	.091		TZ 10.1			
.107	.113	.112	.106	.094	.078	.059	.036	.009	-0.021		TZ 10.2			
-0.054	-0.069	-0.127	-0.169	-0.213	-0.259	-0.307	-0.357				TZ 10.3			
0.000	.001	.002	.003	.004	.006	.009	.015	.029	.056		TZ 11.1			
.068	.074	.075	.070	.061	.051	.035	.016	-0.002	-0.025		TZ 11.2			
-0.050	-0.077	-0.107	-0.139	-0.172	-0.207	-0.244	-0.282				TZ 11.3			
0.000	.001	.001	.002	.004	.005	.007	.012	.025	.045		TZ 12.1			
.057	.063	.066	.061	.056	.048	.036	.022	.007	-0.010		TZ 12.2			
-0.031	-0.052	-0.074	-0.100	-0.126	-0.153	-0.181	-0.211				TZ 12.3			
0.000	.001	.001	.002	.003	.004	.006	.010	.020	.035		TZ 13.1			
.048	.054	.059	.058	.057	.052	.046	.037	.026	.016		TZ 13.2			
.003	-0.012	-0.028	-0.045	-0.062	-0.080	-0.098	-0.117				TZ 13.3			
0.000	.000	.000	.001	.001	.001	.002	.003	.006	.015		TZ 14.1			
.025	.031	.034	.036	.036	.035	.035	.034	.031	.029		TZ 14.2			
.026	.023	.020	.017	.013	.009	.005	0.000				TZ 14.3			
0.000	.000	.000	.001	.001	.001	.002	.003	.006	.015		TZ 15.1			
.025	.031	.034	.036	.036	.035	.035	.034	.031	.029		TZ 15.2			
.026	.023	.020	.017	.013	.009	.005	0.000				TZ 15.3			
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.014	-0.028		TZ 16.1			
-0.042	-0.050	-0.056	-0.061	-0.067	-0.073	-0.079	-0.084	-0.091	-0.096		TZ 16.2			
-0.102	-0.107	-0.113	-0.119	-0.124	-0.129	-0.135	-0.140				TZ 16.3			
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.015	-0.029		TZ 17.1			
-0.043	-0.058	-0.072	-0.082	-0.092	-0.102	-0.111	-0.117	-0.124	-0.131		TZ 17.2			
-0.138	-0.144	-0.149	-0.155	-0.160	-0.165	-0.170	-0.175				TZ 17.3			
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.014	-0.028		TZ 18.1			
-0.042	-0.048	-0.054	-0.061	-0.067	-0.072	-0.074	-0.077	-0.079	-0.081		TZ 18.2			
-0.082	-0.081	-0.080	-0.079	-0.078	-0.075	-0.071	-0.066				TZ 18.3			

Table II. - Continued.

(a) Continued

0.	.137	.179	.241	.297	.339	.412	.523	.724	.994	WORD3A.1
1.177	1.315	1.416	1.487	1.528	1.539	1.539	1.539	1.539	1.539	WORD3A.2
1.384	1.210	1.018	.817	.614	.412	.211	0.			WORD3A.3
0.	.136	.178	.237	.291	.333	.405	.514	.712	.978	WORD4.1
1.157	1.292	1.391	1.461	1.501	1.512	1.512	1.512	1.512	1.512	WORD4.2
1.363	1.192	1.003	.606	.606	.406	.208	0.			WORD4.3
0.	.128	.168	.225	.277	.316	.386	.490	.679	.931	WORD5.1
1.103	1.232	1.326	1.392	1.430	1.441	1.441	1.441	1.441	1.441	WORD5.2
1.294	1.132	.953	.765	.576	.385	.197	0.			WORD5.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD6.1
1.059	1.182	1.273	1.336	1.373	1.383	1.383	1.383	1.383	1.341	WORD6.2
1.208	1.056	.889	.714	.537	.360	.184	0.			WORD6.3
0.	.110	.153	.208	.257	.294	.358	.455	.631	.866	WORD7.1
1.025	1.144	1.231	1.293	1.328	1.338	1.338	1.338	1.338	1.277	WORD7.2
1.151	1.006	.848	.681	.512	.343	.175	0.			WORD7.3
0.	.101	.145	.200	.247	.283	.344	.438	.607	.833	WORD8.1
.987	1.101	1.184	1.244	1.278	1.287	1.287	1.287	1.287	1.186	WORD8.2
1.069	.935	.788	.633	.476	.319	.163	0.			WORD8.3
0.	.100	.144	.198	.245	.280	.341	.435	.602	.827	WORD9.1
.979	1.092	1.175	1.234	1.268	1.277	1.277	1.277	1.260	1.161	WORD9.2
1.046	.915	.771	.619	.466	.312	.159	0.			WORD9.3
0.	.102	.146	.201	.248	.284	.345	.440	.609	.836	WORD10.1
.990	1.105	1.189	1.248	1.283	1.292	1.292	1.292	1.247	1.149	WORD10.2
1.035	.906	.763	.613	.461	.309	.156	0.			WORD10.3
0.	.111	.154	.209	.258	.295	.359	.457	.632	.868	WORD11.1
1.028	1.148	1.235	1.297	1.330	1.342	1.342	1.342	1.263	1.164	WORD11.2
1.049	.917	.773	.621	.467	.313	.160	0.			WORD11.3
0.	.116	.160	.216	.266	.304	.370	.470	.651	.894	WORD12.1
1.059	1.181	1.272	1.335	1.372	1.382	1.382	1.382	1.300	1.198	WORD12.2
1.080	.945	.796	.639	.481	.322	.164	0.			WORD12.3
0.	.125	.166	.222	.274	.313	.381	.464	.670	.920	WORD13.1
1.090	1.216	1.309	1.375	1.413	1.423	1.423	1.423	1.339	1.234	WORD13.2
1.112	.972	.819	.658	.495	.331	.169	0.			WORD13.3
0.	.138	.177	.235	.289	.330	.402	.510	.706	.969	WORD14.1
1.148	1.282	1.380	1.449	1.489	1.500	1.500	1.500	1.411	1.300	WORD14.2
1.171	1.024	.862	.692	.521	.349	.178	0.			WORD14.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD15.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD15.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD15.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD16.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD16.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD16.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD17.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD17.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD17.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD18.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD18.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD18.3
0.000	3.269	6.578	9.867	13.156	16.445	19.734	22.845	26.312	29.601	XFUS
32.690	36.179	39.468	42.757	46.046	49.336	52.625	55.914	59.203	62.492	XFUS
65.761	69.070	72.368	75.648	78.937	82.226	85.515	88.804	92.093	95.382	XFUS
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	Z 1
-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	
-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	-0.515	
0.000	.072	.129	.194	.251	.304	.349	.386	.424	.450	Y 2
.475	.493	.504	.504	.504	.504	.507	.514	.509	.504	
.487	.459	.427	.392	.337	.282	.220	.154	.085	0.000	
-1.024	-1.019	-1.010	-.993	-.965	-.934	-.891	-.851	-.805	-.758	Z 2
-.708	-.658	-.611	-.611	-.611	-.611	-.573	-.531	-.485	-.424	
-.355	-.294	-.238	-.185	-.136	-.095	-.062	-.033	-.011	-.005	
0.000	.107	.203	.303	.399	.480	.561	.623	.677	.724	Y 3
.767	.798	.818	.818	.818	.818	.834	.838	.839	.832	
.806	.769	.716	.652	.573	.481	.371	.256	.142	0.000	
-1.357	-1.355	-1.329	-1.299	-1.261	-1.208	-1.144	-1.083	-1.015	-.947	Z 3
-.867	-.786	-.706	-.706	-.706	-.706	-.641	-.580	-.499	-.404	
-.285	-.185	-.081	-.009	.101	.170	.236	.287	.315	.324	
0.000	.150	.281	.412	.531	.639	.739	.824	.905	.971	Y 4
1.026	1.065	1.097	1.097	1.097	1.097	1.117	1.125	1.130	1.120	
1.090	1.038	.974	.895	.785	.663	.515	.355	.190	0.000	
-1.645	-1.635	-1.617	-1.568	-1.512	-1.455	-1.376	-1.292	-1.193	-1.102	Z 4
-.999	-.896	-.797	-.797	-.797	-.797	-.709	-.621	-.514	-.383	
-.230	-.088	.047	.174	.294	.398	.492	.558	.598	.615	
0.000	.181	.338	.495	.638	.760	.892	1.000	1.093	1.170	Y 5
1.240	1.267	1.323	1.323	1.323	1.323	1.346	1.359	1.364	1.354	

Table II. - Continued.

(a) Continued

1.313	1.257	1.174	1.075	.950	.794	.619	.424	.222	0.000		
-1.699	-1.886	-1.860	-1.812	-1.740	-1.664	-1.573	-1.471	-1.364	-1.258	Z	5
-1.124	-1.002	-.872	-.872	-.872	-.872	-.769	-.662	-.528	-.375		
-.194	-.021	.144	.294	.441	.568	.681	.759	.814	.828		
0.000	.076	.245	.416	.590	.760	.914	1.051	1.178	1.278	Y	6
1.363	1.438	1.496	1.496	1.496	1.496	1.526	1.559	1.588	1.587		
1.559	1.496	1.399	1.260	1.072	.875	.651	.415	.179	0.000		
-2.162	-2.160	-2.138	-2.098	-2.044	-1.968	-1.885	-1.780	-1.671	-1.550	Z	6
-1.421	-1.264	-1.142	-1.142	-1.142	-1.142	-1.023	-.890	-.727	-.530		
-.303	-.091	.115	.297	.469	.609	.724	.802	.848	.865		
0.000	.179	.357	.554	.724	.892	1.048	1.202	1.354	1.505	Y	7
1.641	1.720	1.750	1.750	1.750	1.750	1.771	1.787	1.793	1.780		
1.735	1.659	1.559	1.426	1.249	1.036	.790	.533	.276	0.000		
-2.386	-2.383	-2.365	-2.319	-2.262	-2.189	-2.107	-2.014	-1.914	-1.799	Z	7
-1.671	-1.502	-1.326	-1.326	-1.326	-1.326	-1.185	-1.030	-.854	-.651		
-.403	-.167	.051	.251	.436	.597	.724	.815	.872	.893		
0.000	.026	.204	.380	.545	.701	.864	1.019	1.182	1.334	Y	8
1.487	1.599	1.655	1.375	1.375	1.655	1.699	1.737	1.755	1.752		
1.712	1.643	1.534	1.382	1.188	.955	.695	.422	.147	0.000		
-2.604	-2.604	-2.589	-2.540	-2.483	-2.422	-2.353	-2.277	-2.186	-2.086	Z	8
-1.980	-1.853	-1.733	-1.850	-1.411	-1.733	-1.529	-1.326	-1.111	-.863		
-.566	-.324	-.103	.124	.327	.484	.606	.693	.742	.751		
0.000	.024	.176	.330	.478	.627	.775	.911	1.048	1.199	Y	9
1.354	1.522	1.655	1.375	1.375	1.655	1.590	1.596	1.608	1.578		
1.502	1.393	1.266	1.105	.927	.742	.530	.321	.088	0.000		
-2.846	-2.846	-2.836	-2.807	-2.771	-2.722	-2.662	-2.601	-2.525	-2.450	Z	9
-2.365	-2.280	-2.207	-2.235	-1.344	-1.443	-1.341	-1.129	-.961	-.757		
-.536	-.348	-.182	-.024	.127	.239	.333	.394	.425	.433		
0.000	0.000	.023	.165	.301	.445	.589	.730	.892	1.057	Y	10
1.228	1.422	1.655	1.375	1.375	1.655	1.534	1.473	1.390	1.287		
1.170	1.045	.915	.774	.614	.454	.286	.110	0.000	0.000		
-3.061	-3.061	-3.060	-3.049	-3.027	-3.002	-2.968	-2.920	-2.875	-2.818	Z	10
-2.758	-2.699	-2.629	-2.679	-1.562	-1.598	-1.447	-1.289	-1.135	-.993		
-.858	-.742	-.638	-.533	-.427	-.331	-.253	-.206	-.204	-.204		
0.000	0.000	.017	.156	.289	.428	.574	.722	.883	1.055	Y	11
1.243	1.440	1.655	1.375	1.375	1.655	1.503	1.413	1.310	1.204		
1.086	.960	.831	.694	.545	.393	.240	.072	0.000	0.000		
-3.467	-3.467	-3.466	-3.452	-3.434	-3.412	-3.383	-3.354	-3.317	-3.268	Z	11
-3.224	-3.164	-3.073	-3.137	-1.867	-1.881	-1.767	-1.632	-1.501	-1.373		
-1.254	-1.149	-1.056	-.959	-.871	-.787	-.721	-.681	-.680	-.680		
0.000	0.000	.017	.153	.288	.427	.574	.719	.880	1.055	Y	12
1.234	1.437	1.655	1.375	1.375	1.655	1.455	1.349	1.249	1.143		
1.022	.901	.774	.645	.498	.363	.210	.053	0.000	0.000		
-3.894	-3.894	-3.893	-3.874	-3.862	-3.836	-3.805	-3.770	-3.732	-3.694	Z	12
-3.640	-3.579	-3.509	-3.584	-2.225	-2.214	-2.101	-1.970	-1.836	-1.729		
-1.622	-1.522	-1.430	-1.354	-1.267	-1.195	-1.134	-1.096	-1.096	-1.096		
0.000	0.000	.015	.153	.288	.427	.574	.719	.883	1.055	Y	13
1.240	1.438	1.655	1.375	1.375	1.655	1.437	1.331	1.228	1.120		
1.001	.883	.759	.627	.483	.346	.201	.048	0.000	0.000		
-4.309	-4.309	-4.306	-4.288	-4.274	-4.248	-4.219	-4.190	-4.149	-4.105	Z	13
-4.053	-4.002	-3.917	-4.002	-2.610	-2.582	-2.488	-2.361	-2.237	-2.125		
-2.021	-1.924	-1.838	-1.760	-1.678	-1.607	-1.544	-1.509	-1.509	-1.509		
0.000	0.000	.023	.162	.295	.435	.580	.726	.892	1.058	Y	14
1.243	1.440	1.655	1.375	1.375	1.655	1.431	1.331	1.229	1.119		
1.001	.886	.759	.632	.491	.350	.201	.051	0.000	0.000		
-4.709	-4.709	-4.707	-4.685	-4.671	-4.649	-4.619	-4.590	-4.549	-4.504	Z	14
-4.448	-4.384	-4.298	-4.388	-2.994	-2.957	-2.882	-2.755	-2.632	-2.520		
-2.416	-2.319	-2.238	-2.156	-2.077	-2.000	-1.938	-1.910	-1.910	-1.910		
0.000	0.000	.017	.156	.291	.435	.580	.722	.889	1.056	Y	15
1.241	1.426	1.655	1.375	1.375	1.655	1.440	1.332	1.229	1.116		
1.001	.883	.753	.622	.483	.344	.201	.049	0.000	0.000		
-5.054	-5.054	-5.051	-5.042	-5.014	-4.993	-4.965	-4.937	-4.901	-4.854	Z	15
-4.800	-4.738	-4.646	-4.749	-3.355	-3.307	-3.225	-3.104	-2.980	-2.863		
-2.762	-2.671	-2.585	-2.496	-2.421	-2.343	-2.287	-2.254	-2.254	-2.254		
0.000	0.000	.039	.177	.315	.453	.592	.738	.903	1.076	Y	16
1.257	1.460	1.655	1.375	1.375	1.655	1.444	1.335	1.233	1.124		
1.006	.885	.764	.631	.486	.345	.201	.048	0.000	0.000		
-5.378	-5.378	-5.376	-5.355	-5.338	-5.320	-5.288	-5.260	-5.220	-5.176	Z	16
-5.122	-5.067	-4.994	-5.073	-3.697	-3.643	-3.554	-3.430	-3.309	-3.197		
-3.096	-2.998	-2.912	-2.826	-2.749	-2.679	-2.612	-2.580	-2.574	-2.574		
0.000	0.000	.041	.188	.335	.477	.631	.777	.946	1.113	Y	17
1.285	1.461	1.655	1.375	1.375	1.655	1.512	1.437	1.346	1.249		
1.134	1.013	.883	.734	.583	.419	.255	.091	0.000	0.000		
-5.723	-5.723	-5.720	-5.705	-5.678	-5.649	-5.612	-5.568	-5.514	-5.453	Z	17
-5.387	-5.293	-5.174	-5.268	-4.106	-4.033	-3.952	-3.805	-3.667	-3.536		
-3.416	-3.304	-3.196	-3.107	-3.012	-2.931	-2.861	-2.822	-2.822	-2.822		

Table II. - Continued.
(a) Continued

0.000	0.000	.080	.241	.392	.557	.712	.868	1.040	1.192	Y 18
1.361	1.485	1.655	1.375	1.375	1.655	1.506	1.434	1.346	1.243	
1.122	1.004	.868	.727	.565	.416	.241	.074	0.000	0.000	
-6.020	-6.020	-6.017	-5.997	-5.971	-5.935	-5.892	-5.838	-5.759	-5.684	Z 18
-5.581	-5.448	-5.326	-5.420	-4.504	-4.426	-4.299	-4.119	-3.961	-3.809	
-3.658	-3.537	-3.428	-3.328	-3.231	-3.149	-3.079	-3.025	-3.025	-3.025	
0.000	0.000	.167	.333	.488	.642	.793	.945	1.108	1.260	Y 19
1.393	1.502	1.655	1.375	1.375	1.655	1.547	1.508	1.441	1.341	
1.223	1.096	.960	.836	.681	.521	.363	.197	.018	0.000	
-6.274	-6.274	-6.244	-6.201	-6.153	-6.092	-6.029	-5.953	-5.862	-5.774	Z 19
-5.665	-5.520	-5.441	-5.530	-4.881	-4.801	-4.648	-4.463	-4.277	-4.109	
-3.958	-3.830	-3.703	-3.609	-3.509	-3.416	-3.340	-3.270	-3.225	-3.225	
0.000	.015	.194	.366	.530	.690	.842	.993	1.154	1.299	Y 20
1.414	1.517	1.655	1.375	1.375	1.655	1.562	1.556	1.511	1.438	
1.326	1.202	1.069	.921	.763	.587	.415	.230	.030	0.000	Z 20
-6.495	-6.495	-6.465	-6.416	-6.359	-6.271	-6.213	-6.126	-6.023	-5.914	
-5.765	-5.614	-5.530	-5.615	-5.232	-5.153	-4.996	-4.799	-4.587	-4.418	
-4.236	-4.085	-3.949	-3.821	-3.706	-3.600	-3.512	-3.431	-3.379	-3.376	
0.000	.045	.236	.430	.615	.793	.957	1.114	1.263	1.384	Y 21
1.450	1.553	1.655	1.375	1.375	1.655	1.559	1.556	1.547	1.520	
1.456	1.354	1.232	1.087	.914	.718	.506	.294	.076	0.000	Z 21
-6.686	-6.663	-6.659	-6.622	-6.577	-6.498	-6.398	-6.280	-6.147	-6.001	
-5.817	-5.647	-5.588	-5.667	-5.552	-5.475	-5.299	-5.090	-4.890	-4.690	
-4.475	-4.285	-4.148	-3.994	-3.864	-3.743	-3.646	-3.576	-3.540	-3.534	
0.000	.115	.330	.542	.736	.905	1.060	1.199	1.326	1.420	Y 22
1.496	1.547	1.572	1.572	1.572	1.572	1.587	1.572	1.538	1.484	
1.393	1.281	1.154	1.017	.845	.663	.478	.288	.088	0.000	Z 22
-6.631	-6.828	-6.798	-6.737	-6.656	-6.556	-6.428	-6.283	-6.114	-5.953	
-5.774	-5.611	-5.450	-5.450	-5.450	-5.450	-5.254	-5.069	-4.872	-4.693	
-4.500	-4.330	-4.179	-4.048	-3.921	-3.824	-3.755	-3.709	-3.682	-3.679	
0.000	.018	.230	.445	.650	.821	.984	1.126	1.257	1.357	Y 23
1.429	1.481	1.511	1.512	1.511	1.511	1.526	1.517	1.484	1.426	
1.346	1.241	1.099	.957	.787	.606	.418	.233	.045	0.000	Z 23
-6.628	-6.828	-6.810	-6.763	-6.683	-6.589	-6.471	-6.335	-6.168	-5.998	
-5.832	-5.665	-5.511	-5.511	-5.511	-5.511	-5.326	-5.132	-4.933	-4.748	
-4.578	-4.409	-4.236	-4.109	-3.986	-3.897	-3.827	-3.785	-3.770	-3.770	
0.000	.091	.291	.478	.660	.815	.963	1.087	1.208	1.293	Y 24
1.357	1.402	1.429	1.429	1.429	1.429	1.438	1.429	1.393	1.341	
1.272	1.172	1.042	.911	.757	.590	.424	.239	.061	0.000	Z 24
-6.715	-6.710	-6.686	-6.631	-6.553	-6.462	-6.344	-6.220	-6.059	-5.911	
-5.750	-5.599	-5.450	-5.450	-5.450	-5.450	-5.278	-5.102	-4.921	-4.757	
-4.603	-4.442	-4.285	-4.160	-4.051	-3.967	-3.903	-3.861	-3.840	-3.836	
0.000	.215	.394	.557	.706	.836	.954	1.057	1.145	1.208	Y 25
1.257	1.287	1.302	1.302	1.302	1.302	1.302	1.293	1.263	1.217	
1.163	1.087	.978	.872	.745	.612	.469	.321	.164	0.000	Z 25
-6.489	-6.471	-6.428	-6.365	-6.280	-6.186	-6.077	-5.956	-5.811	-5.684	
-5.541	-5.420	-5.299	-5.299	-5.299	-5.299	-5.148	-5.002	-4.854	-4.718	
-4.587	-4.454	-4.321	-4.215	-4.115	-4.033	-3.967	-3.921	-3.891	-3.882	
0.000	.162	.333	.475	.609	.718	.827	.908	.987	1.048	Y 26
1.090	1.102	1.129	1.129	1.129	1.129	1.136	1.123	1.099	1.066	
1.011	.948	.839	.766	.651	.539	.415	.276	.142	0.000	Z 26
-6.170	-6.153	-6.120	-6.062	-5.989	-5.911	-5.811	-5.714	-5.593	-5.472	
-5.354	-5.238	-5.148	-5.148	-5.148	-5.148	-5.008	-4.887	-4.754	-4.639	
-4.515	-4.400	-4.282	-4.191	-4.100	-4.030	-3.973	-3.930	-3.903	-3.894	
0.000	.151	.282	.400	.509	.606	.690	.763	.824	.871	Y 27
.908	.925	.939	.939	.939	.939	.939	.930	.912	.878	
.831	.778	.697	.624	.528	.436	.333	.225	.118	0.000	Z 27
-5.758	-5.742	-5.711	-5.669	-5.604	-5.531	-5.458	-5.369	-5.274	-5.170	
-5.070	-4.978	-4.890	-4.886	-4.886	-4.886	-4.783	-4.679	-4.569	-4.469	
-4.377	-4.289	-4.194	-4.121	-4.048	-3.991	-3.949	-3.911	-3.892	-3.889	
0.000	.112	.207	.297	.379	.450	.513	.563	.612	.642	Y 28
.666	.681	.689	.689	.689	.689	.689	.681	.662	.642	
.606	.600	.512	.459	.392	.324	.252	.175	.095	0.000	Z 28
-5.279	-5.240	-5.240	-5.205	-5.163	-5.113	-5.044	-4.975	-4.902	-4.829	
-4.760	-4.691	-4.614	-4.610	-4.618	-4.618	-4.541	-4.469	-4.381	-4.316	
-4.243	-4.186	-4.121	-4.064	-4.010	-3.964	-3.934	-3.907	-3.892	-3.889	
0.000	.076	.141	.199	.252	.290	.336	.370	.393	.416	Y 29
.424	.431	.431	.431	.431	.431	.427	.415	.404	.385	
.358	.327	.296	.262	.220	.177	.135	.093	.047	0.000	Z 29
-4.735	-4.727	-4.708	-4.685	-4.654	-4.623	-4.581	-4.535	-4.485	-4.435	
-4.389	-4.343	-4.301	-4.301	-4.301	-4.301	-4.252	-4.202	-4.156	-4.117	
-4.075	-4.037	-4.003	-3.976	-3.942	-3.919	-3.904	-3.892	-3.885	-3.885	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 30
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Z 30
-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	
-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	

Table II. - Continued.

(a) Concluded

-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942		
58.679	6.146	-5.965									PODORG 1
0.000	.606	1.211	1.817	2.422	3.028	3.634	4.239	4.845	5.450		XPDD
6.056	6.662	7.267	7.873	8.478	9.084	9.576	9.690	10.295	10.890		XPDD
.781	.793	.805	.818	.831	.843	.855	.868	.880	.893		RPDD
.905	.918	.930	.943	.955	.968	.978	.978	.978	.978		RPDD
59.806	10.271	-5.867									PODORG 2
0.000	.606	1.211	1.817	2.422	3.028	3.634	4.239	4.845	5.450		XPDD
6.056	6.662	7.267	7.873	8.478	9.084	9.576	9.690	10.295	10.890		XPDD
.781	.793	.805	.818	.831	.843	.855	.868	.880	.893		RPDD
.905	.918	.930	.943	.955	.968	.978	.978	.978	.978		RPDD
61.843	13.672	-4.737	10.647	71.905	13.672	-1.741	1.450				V FIN
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XFIN
0.	.466	.846	1.136	1.345	1.465	1.498	1.390	.641	0.		FINORD
85.792	0.000	-3.869	9.047	93.168	0.000	-0.940	2.144				V TAIL
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XV TAIL
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		TV TAIL
83.603	.878	-4.646	7.327	90.175	4.575	-5.637	2.196				H TAIL
0.	10.	20.	30.	40.	50.	70.	80.	90.	100.		XHTAIL
0.0	.553	.948	1.264	1.448	1.5	1.264	.948	.553	0.0		THTAIL

Table II. - Continued.
(b) U.S. Customary Units (feet)

AST-204 (4/19/79) 4 ABREAST DIGITAL BLENDED FUSELAGE

											2 20 2 10 1 10	
8447.	88.588	168.060										REFA
0.	.125	.25	.5	.75	1.0	1.5	2.5	5.0	10.			XAF 10
15.	20.	25.	30.	35.	40.	45.	50.	55.	60.			XAF 20
65.	70.	75.	80.	85.	90.	95.	100.					XAF 28
72.221	4.541	-5.137	149.537									WORG 3A
75.447	5.466	-5.650	146.276									WORG 4
86.505	8.637	-7.639	135.155									WORG 5
97.560	11.807	-9.376	124.030									WORG 6
108.619	14.978	-10.790	112.909									WORG 7
127.167	20.296	-12.620	94.250									WORG 8
141.791	24.490	-13.904	80.773									WORG 9
157.985	29.133	-15.051	65.847									WORG 10
171.757	33.920	-15.297	53.383									WORG 11
181.113	37.172	-15.226	46.897									WORG 12
190.237	40.343	-15.438	40.576									WORG 13
204.070	45.150	-15.644	30.991									WORG 14
204.070	45.151	-15.644	30.991									WORG 15
212.217	49.855	-15.695	26.999									WORG 16
223.200	56.196	-16.256	21.618									WORG 17
234.186	62.537	-17.152	16.237									WORG 18
0.	-.002	-.004	-.007	-.011	-.014	-.023	-.054	-.192	-.731			TZ 3A.1
-1.456	-2.290	-3.160	-4.096	-5.016	-5.922	-6.800	-7.639	-8.436	-9.188			TZ 3A.2
-9.893	-10.552	-11.166	-11.734	-12.259	-12.739	-13.173	-13.555					TZ 3A.3
0.	-.001	-.001	-.002	-.003	-.004	-.008	-.036	-.155	-.662			TZ 4.1
-1.351	-2.143	-2.983	-3.846	-4.713	-5.566	-6.394	-7.187	-7.942	-8.657			TZ 4.2
-9.331	-9.964	-10.557	-11.110	-11.625	-12.099	-12.532	-12.919					TZ 4.3
0.	.002	.004	.008	.012	.017	.025	.027	-.041	-.406			TZ 5.1
-.918	-1.516	-2.158	-2.822	-3.494	-4.160	-4.810	-5.443	-6.055	-6.640			TZ 5.2
-7.202	-7.742	-8.257	-8.749	-9.219	-9.665	-10.084	-10.475					TZ 5.3
0.	.004	.008	.017	.025	.034	.050	.084	.059	-.154			TZ 6.1
-.503	-.921	-1.385	-1.877	-2.376	-2.878	-3.381	-3.874	-4.360	-4.836			TZ 6.2
-5.302	-5.759	-6.205	-6.643	-7.070	-7.487	-7.889	-8.277					TZ 6.3
0.	.005	.010	.021	.031	.041	.062	.103	.163	.071			TZ 7.1
-.141	-.418	-.735	-1.076	-1.438	-1.809	-2.186	-2.567	-2.948	-3.333			TZ 7.2
-3.716	-4.100	-4.486	-4.871	-5.255	-5.638	-6.015	-6.388					TZ 7.3
0.	.006	.012	.023	.035	.047	.070	.117	.216	.280			TZ 8.1
.241	.135	-.002	-.176	-.364	-.570	-.792	-1.026	-1.270	-1.527			TZ 8.2
-1.793	-2.067	-2.350	-2.640	-2.937	-3.242	-3.550	-3.862					TZ 8.3
0.	.006	.013	.025	.038	.051	.076	.127	.229	.330			TZ 9.1
.356	.339	.283	.205	.098	-.024	-.164	-.315	-.480	-.655			TZ 9.2
-.843	-1.041	-1.250	-1.468	-1.697	-1.933	-2.176	-2.427					TZ 9.3
0.	.005	.009	.016	.027	.037	.056	.092	.182	.299			TZ 10.1
.354	.374	.370	.350	.311	.259	.194	.118	.030	-.068			TZ 10.2
-.177	-.295	-.421	-.558	-.703	-.855	-1.013	-1.179					TZ 10.3
0.	.002	.005	.010	.014	.019	.029	.048	.097	.184			TZ 11.1
.223	.244	.248	.230	.202	.167	.116	.058	-.007	-.084			TZ 11.2
-.166	-.254	-.354	-.458	-.567	-.683	-.806	-.932					TZ 11.3
0.	.002	.004	.008	.012	.016	.024	.041	.081	.147			TZ 12.1
.187	.207	.219	.203	.184	.158	.120	.074	.022	-.034			TZ 12.2
-.101	-.172	-.246	-.329	-.415	-.505	-.599	-.698					TZ 12.3
0.	.002	.003	.007	.010	.013	.020	.034	.067	.116			TZ 13.1
.158	.179	.194	.193	.187	.171	.153	.123	.092	.052			TZ 13.2
.011	-.040	-.092	-.148	-.204	-.263	-.322	-.387					TZ 13.3
0.	.001	.001	.002	.003	.004	.006	.010	.020	.049			TZ 14.1
.061	.101	.112	.118	.116	.117	.115	.111	.104	.096			TZ 14.2
.087	.077	.066	.055	.043	.029	.015	0.					TZ 14.3
0.	.001	.001	.002	.003	.004	.006	.010	.020	.049			TZ 15.1
.081	.101	.112	.118	.116	.117	.115	.111	.104	.096			TZ 15.2
.087	.077	.066	.055	.043	.029	.015	0.					TZ 15.3
0.	-.001	-.002	-.005	-.007	-.009	-.014	-.023	-.046	-.092			TZ 16.1
-.139	-.166	-.184	-.203	-.222	-.241	-.260	-.279	-.299	-.318			TZ 16.2
-.337	-.355	-.374	-.392	-.409	-.427	-.446	-.464					TZ 16.3
0.	-.001	-.002	-.005	-.007	-.010	-.014	-.024	-.048	-.095			TZ 17.1
-.143	-.190	-.238	-.271	-.303	-.336	-.366	-.388	-.411	-.434			TZ 17.2
-.455	-.474	-.493	-.513	-.529	-.545	-.562	-.577					TZ 17.3
0.	-.001	-.002	-.005	-.007	-.009	-.014	-.023	-.047	-.093			TZ 18.1
-.138	-.159	-.179	-.200	-.220	-.238	-.246	-.253	-.260	-.268			TZ 18.2
-.272	-.268	-.264	-.261	-.257	-.249	-.234	-.219					TZ 18.3

Table II. - Continued.

(b) Continued

0.	.137	.179	.241	.297	.339	.412	.523	.724	.994	WORD3A.1
1.177	1.315	1.416	1.487	1.528	1.539	1.539	1.539	1.539	1.539	WORD3A.2
1.384	1.210	1.018	.817	.614	.412	.211	0.			WORD3A.3
0.	.136	.178	.237	.291	.333	.405	.514	.712	.978	WORD4.1
1.157	1.292	1.391	1.461	1.501	1.512	1.512	1.512	1.512	1.512	WORD4.2
1.363	1.192	1.003	.806	.606	.406	.208	0.			WORD4.3
0.	.128	.168	.225	.277	.316	.386	.490	.679	.931	WORD5.1
1.103	1.232	1.326	1.392	1.430	1.441	1.441	1.441	1.441	1.437	WORD5.2
1.294	1.132	.953	.765	.576	.385	.197	0.			WORD5.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD6.1
1.059	1.182	1.273	1.336	1.373	1.383	1.383	1.383	1.383	1.341	WORD6.2
1.208	1.056	.889	.714	.537	.360	.184	0.			WORD6.3
0.	.110	.153	.208	.257	.294	.358	.455	.631	.866	WORD7.1
1.025	1.144	1.231	1.293	1.328	1.338	1.338	1.338	1.338	1.277	WORD7.2
1.151	1.006	.848	.681	.512	.343	.175	0.			WORD7.3
0.	.101	.145	.200	.247	.283	.344	.438	.607	.833	WORD8.1
.987	1.101	1.184	1.244	1.278	1.287	1.287	1.287	1.287	1.186	WORD8.2
1.069	.935	.788	.633	.476	.319	.163	0.			WORD8.3
0.	.100	.144	.198	.245	.280	.341	.435	.602	.827	WORD9.1
.979	1.092	1.175	1.234	1.268	1.277	1.277	1.277	1.260	1.161	WORD9.2
1.046	.915	.771	.619	.466	.312	.159	0.			WORD9.3
0.	.102	.146	.201	.248	.284	.345	.440	.609	.836	WORD10.1
.990	1.105	1.189	1.248	1.283	1.292	1.292	1.292	1.247	1.149	WORD10.2
1.035	.906	.763	.613	.461	.309	.156	0.			WORD10.3
0.	.111	.154	.209	.258	.295	.359	.457	.632	.868	WORD11.1
1.028	1.148	1.235	1.297	1.330	1.342	1.342	1.342	1.263	1.164	WORD11.2
1.049	.917	.773	.621	.467	.313	.160	0.			WORD11.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD12.1
1.059	1.181	1.272	1.335	1.372	1.382	1.382	1.362	1.300	1.198	WORD12.2
1.080	.945	.796	.639	.481	.322	.164	0.			WORD12.3
0.	.125	.166	.222	.274	.313	.381	.484	.670	.920	WORD13.1
1.090	1.216	1.309	1.375	1.413	1.423	1.423	1.423	1.339	1.234	WORD13.2
1.112	.972	.819	.658	.495	.331	.169	0.			WORD13.3
0.	.138	.177	.235	.289	.330	.402	.510	.706	.969	WORD14.1
1.148	1.282	1.380	1.449	1.489	1.500	1.500	1.500	1.411	1.300	WORD14.2
1.171	1.024	.862	.692	.521	.349	.178	0.			WORD14.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD15.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD15.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD15.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD16.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD16.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD16.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD17.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD17.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD17.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD18.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD18.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD18.3
0.000	10.862	21.724	32.586	43.448	54.310	65.172	75.447	86.897	97.759	XFLS
108.621119.	483130.	344141.	207152.	069162.	931173.	793184.	655195.	517206.	379	XFLS
217.241228.	103238.	996249.	828260.	690271.	552282.	414293.	276304.	138315.	000	XFLS
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	Z 1
-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	
-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	-1.700	
0.000	0.238	0.427	0.641	0.828	1.003	1.152	1.276	1.399	1.485	Y 2
1.570	1.629	1.664	1.664	1.664	1.664	1.674	1.696	1.681	1.664	
1.608	1.516	1.410	1.293	1.112	0.932	0.728	0.510	0.281	0.000	
-3.383	-3.365	-3.336	-3.281	-3.188	-3.083	-2.941	-2.812	-2.657	-2.504	Z 2
-2.337	-2.172	-2.019	-2.019	-2.019	-2.019	-1.892	-1.753	-1.601	-1.399	
-1.173	-0.972	-0.785	-.610	-.449	-.314	-.204	-.108	-.037	-.017	
0.000	0.354	0.671	1.001	1.318	1.586	1.853	2.057	2.237	2.390	Y 3
2.532	2.636	2.701	2.701	2.701	2.701	2.754	2.768	2.771	2.748	
2.663	2.540	2.366	2.154	1.891	1.589	1.224	0.846	0.468	0.000	
-4.483	-4.474	-4.388	-4.290	-4.166	-3.991	-3.779	-3.578	-3.352	-3.126	Z 3
-2.862	-2.597	-2.332	-2.332	-2.332	-2.332	-2.117	-1.915	-1.649	-1.333	
-0.940	-.610	-.267	-.031	.332	.562	.781	.949	1.041	1.071	
0.000	0.497	0.928	1.359	1.753	2.109	2.440	2.721	2.990	3.208	Y 4
3.388	3.518	3.622	3.622	3.622	3.622	3.688	3.716	3.732	3.698	
3.601	3.428	3.218	2.956	2.593	2.191	1.700	1.171	0.628	0.000	
-5.432	-5.398	-5.339	-5.179	-4.992	-4.806	-4.543	-4.268	-3.941	-3.640	Z 4
-3.300	-2.960	-2.632	-2.632	-2.632	-2.632	-2.341	-2.051	-1.697	-1.266	
-.759	-.290	0.155	.575	.970	1.316	1.624	1.844	1.975	2.032	
0.000	0.597	1.116	1.636	2.106	2.576	2.945	3.302	3.608	3.864	Y 5
4.095	4.251	4.368	4.368	4.368	4.368	4.446	4.487	4.503	4.470	

Table II. - Concluded.

(b) Concluded

-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019		
193.78820.296	-19.698										PODORG 1
0.	2.	4.	6.	8.	10.	12.	14.	16.	18.		XPOD
20.	22.	24.	26.	28.	30.	31.624	32.	34.	35.963		XPOD
2.576	2.619	2.660	2.702	2.743	2.784	2.825	2.866	2.907	2.949		RPOD
2.990	3.031	3.072	3.113	3.154	3.196	3.229	3.229	3.229	3.229		RPOD
197.51133.920	-19.375										PODORG 2
0.	2.	4.	6.	8.	10.	12.	14.	16.	18.		XPOD
20.	22.	24.	26.	28.	30.	31.624	32.	34.	35.963		XPOD
2.576	2.619	2.660	2.702	2.743	2.784	2.825	2.866	2.907	2.949		RPOD
2.990	3.031	3.072	3.113	3.154	3.196	3.229	3.229	3.229	3.229		RPOD
204.23745.1505	-15.64435.163	237.46745.1505	-5.749	4.787							V FIN
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XFIN
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		FINORD
283.3300.	-12.84329.877	307.6870.	-3.103	7.082							V TAIL
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XVTAIL
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		TVTAIL
276.1002.900	-15.34324.196	297.80315.110	-18.6157.252								H TAIL
0.	10.	20.	30.	40.	50.	70.	80.	90.	100.		XHTAIL
0.0	.553	.948	1.264	1.448	1.5	1.264	.948	.553	0.0		THTAIL

Table III. - AST-206 Numerical Model

(a) SI Units (meters)

AST-206 (5/21/79) 6 ABREAST DIGITAL BLENDED FUSELAGE

1 1 1 1 1 1 16 28 1 30 30												2 20 2 10 1 10								
774.49	588 174.060															REFA				
0.	.125	.25	.5	.75	1.0	1.5	2.5	5.0	10.				XAF 10							
15.	20.	25.	30.	35.	40.	45.	50.	55.	60.				XAF 20							
65.	70.	75.	80.	85.	90.	95.	100.						XAF 28							
23.685	1.905	-1.555	45.260											WORDG 3A						
24.662	2.185	-1.711	44.292											WORDG 4						
28.011	3.145	-2.313	40.925											WORDG 5						
31.358	4.105	-2.839	37.556											WORDG 6						
34.707	5.065	-3.267	34.169											WORDG 7						
40.323	6.676	-3.821	28.539											WORDG 8						
44.751	7.945	-4.210	24.456											WORDG 9						
49.655	9.351	-4.557	19.938											WORDG 10						
53.825	10.801	-4.632	16.164											WORDG 11						
56.658	11.786	-4.610	14.200											WORDG 12						
59.421	12.746	-4.675	12.286											WORDG 13						
63.609	14.201	-4.737	9.384											WORDG 14						
63.609	14.202	-4.737	9.384											WORDG 15						
66.076	15.626	-4.752	8.175											WORDG 16						
69.402	17.546	-4.922	6.546											WORDG 17						
72.728	19.466	-5.194	4.917											WORDG 18						
0.000	-0.061	-0.001	-0.002	-0.003	-0.004	-0.007	-0.016	-0.058	-0.221	-0.441	-0.693	-1.240	-1.519	-1.793	-2.059	-2.313	-2.554	-2.782	TZ 3A.1	
-2.996	-3.195	-3.381	-3.553	-3.712	-3.857	-3.989	-4.104													TZ 3A.3
0.030	-0.000	-0.000	-0.001	-0.001	-0.001	-0.002	-0.011	-0.047	-0.200											TZ 4.1
-0.409	-0.649	-0.903	-1.165	-1.427	-1.685	-1.936	-2.176	-2.405	-2.621											TZ 4.2
-2.625	-3.017	-3.197	-3.364	-3.520	-3.664	-3.795	-3.912													TZ 4.3
0.000	.001	.001	.002	.004	.005	.008	.008	-0.012	-0.123											TZ 5.1
-0.278	-0.459	-0.653	-0.855	-1.058	-1.260	-1.456	-1.648	-1.833	-2.011											TZ 5.2
-2.181	-2.344	-2.500	-2.649	-2.792	-2.927	-3.053	-3.172													TZ 5.3
0.000	.001	.002	.005	.008	.010	.015	.025	.018	-0.047											TZ 6.1
-0.152	-0.279	-0.419	-0.566	-0.719	-0.871	-1.024	-1.173	-1.320	-1.464											TZ 6.2
-1.605	-1.744	-1.879	-2.012	-2.141	-2.267	-2.389	-2.506													TZ 6.3
0.000	.002	.003	.006	.009	.012	.019	.031	.049	.021											TZ 7.1
-0.043	-0.127	-0.223	-0.326	-0.435	-0.548	-0.662	-0.777	-0.893	-1.009											TZ 7.2
-1.125	-1.241	-1.356	-1.475	-1.591	-1.707	-1.821	-1.934													TZ 7.3
0.000	.002	.004	.007	.011	.014	.021	.035	.065	.085											TZ 8.1
.073	.041	-0.001	-0.053	-0.110	-0.173	-0.240	-0.311	-0.385	-0.462											TZ 8.2
-0.543	-0.626	-0.712	-0.799	-0.889	-0.982	-1.075	-1.169													TZ 8.3
0.000	.002	.004	.006	.012	.015	.023	.038	.069	.100											TZ 9.1
.108	.103	.086	.062	.030	-0.007	-0.050	-0.095	-0.145	-0.198											TZ 9.2
-0.255	-0.315	-0.379	-0.445	-0.514	-0.585	-0.659	-0.735													TZ 9.3
0.000	.002	.003	.005	.008	.011	.017	.028	.055	.091											TZ 10.1
.107	.113	.112	.106	.094	.078	.059	.036	.009	-0.021											TZ 10.2
-0.054	-0.089	-0.127	-0.169	-0.213	-0.259	-0.307	-0.357													TZ 10.3
0.000	.001	.002	.003	.004	.006	.009	.015	.029	.056											TZ 11.1
.068	.074	.075	.070	.061	.051	.035	.018	-0.002	-0.025											TZ 11.2
-0.050	-0.077	-0.107	-0.139	-0.172	-0.207	-0.244	-0.282													TZ 11.3
0.000	.001	.001	.002	.004	.005	.007	.012	.025	.045											TZ 12.1
.057	.063	.066	.061	.056	.048	.036	.022	.007	-0.010											TZ 12.2
-0.031	-0.052	-0.074	-0.100	-0.126	-0.153	-0.181	-0.211													TZ 12.3
0.000	.001	.001	.002	.003	.004	.006	.010	.020	.035											TZ 13.1
.048	.054	.059	.058	.057	.052	.046	.037	.028	.016											TZ 13.2
.003	-0.012	-0.028	-0.045	-0.062	-0.080	-0.098	-0.117													TZ 13.3
0.000	.000	.000	.001	.001	.001	.002	.003	.006	.015											TZ 14.1
.025	.031	.034	.036	.036	.035	.035	.034	.031	.029											TZ 14.2
.026	.023	.020	.017	.013	.009	.005	0.000													TZ 14.3
0.000	.000	.000	.001	.001	.001	.002	.003	.006	.015											TZ 15.1
.025	.031	.034	.036	.036	.035	.035	.034	.031	.029											TZ 15.2
.026	.023	.020	.017	.013	.009	.005	0.000													TZ 15.3
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.014	-0.028											TZ 16.1
-0.042	-0.050	-0.056	-0.061	-0.067	-0.073	-0.079	-0.084	-0.091	-0.096											TZ 16.2
-0.102	-0.107	-0.113	-0.119	-0.124	-0.129	-0.135	-0.140													TZ 16.3
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.015	-0.029											TZ 17.1
-0.043	-0.058	-0.072	-0.082	-0.092	-0.102	-0.111	-0.117	-0.124	-0.131											TZ 17.2
-0.138	-0.144	-0.149	-0.155	-0.160	-0.165	-0.170	-0.175													TZ 17.3
0.000	-0.000	-0.001	-0.002	-0.002	-0.003	-0.004	-0.007	-0.014	-0.028											TZ 18.1
-0.042	-0.048	-0.054	-0.061	-0.067	-0.072	-0.074	-0.077	-0.079	-0.081											TZ 18.2
-0.082	-0.081	-0.080	-0.079	-0.078	-0.075	-0.071	-0.066													TZ 18.3

Table III. - Continued.
(a) Continued

0.	.137	.179	.241	.297	.339	.412	.523	.724	.994	WORD3A.1
1.177	1.315	1.416	1.487	1.528	1.539	1.539	1.539	1.539	1.539	WORD3A.2
1.384	1.210	1.016	.817	.614	.412	.211	0.	0.	0.	WORD3A.3
0.	.136	.178	.237	.291	.333	.405	.514	.712	.978	WORD4.1
1.157	1.292	1.391	1.461	1.501	1.512	1.512	1.512	1.512	1.512	WORD4.2
1.363	1.192	1.003	.806	.606	.406	.208	0.	0.	0.	WORD4.3
0.	.128	.168	.225	.277	.316	.388	.490	.679	.931	WORD5.1
1.103	1.232	1.326	1.392	1.430	1.441	1.441	1.441	1.441	1.437	WORD5.2
1.294	1.132	.953	.765	.576	.385	.197	0.	0.	0.	WORD5.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD6.1
1.059	1.182	1.273	1.336	1.373	1.383	1.383	1.383	1.383	1.341	WORD6.2
1.208	1.056	.889	.714	.537	.360	.184	0.	0.	0.	WORD6.3
0.	.110	.153	.208	.257	.294	.358	.455	.631	.866	WORD7.1
1.025	1.144	1.231	1.293	1.328	1.338	1.338	1.338	1.338	1.277	WORD7.2
1.151	1.006	.846	.681	.512	.343	.175	0.	0.	0.	WORD7.3
0.	.101	.145	.200	.247	.283	.344	.436	.607	.833	WORD8.1
.987	1.101	1.184	1.244	1.278	1.287	1.287	1.287	1.287	1.186	WORD8.2
1.069	.935	.788	.633	.476	.319	.163	0.	0.	0.	WORD8.3
0.	.100	.144	.198	.245	.280	.341	.435	.602	.827	WORD9.1
.979	1.092	1.175	1.234	1.268	1.277	1.277	1.277	1.260	1.161	WORD9.2
1.046	.915	.771	.619	.466	.312	.159	0.	0.	0.	WORD9.3
0.	.102	.146	.201	.248	.284	.345	.440	.609	.836	WORD10.1
.990	1.105	1.189	1.248	1.283	1.292	1.292	1.292	1.247	1.149	WORD10.2
1.035	.906	.763	.613	.461	.309	.156	0.	0.	0.	WORD10.3
0.	.111	.154	.209	.258	.295	.359	.457	.632	.868	WORD11.1
1.028	1.148	1.235	1.297	1.330	1.342	1.342	1.342	1.263	1.164	WORD11.2
1.049	.917	.773	.621	.467	.313	.160	0.	0.	0.	WORD11.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD12.1
1.059	1.181	1.272	1.335	1.372	1.382	1.382	1.382	1.300	1.198	WORD12.2
1.080	.945	.796	.639	.481	.322	.164	0.	0.	0.	WORD12.3
0.	.125	.166	.222	.274	.313	.381	.484	.670	.920	WORD13.1
1.090	1.216	1.309	1.375	1.413	1.423	1.423	1.423	1.339	1.234	WORD13.2
1.112	.972	.819	.658	.495	.331	.169	0.	0.	0.	WORD13.3
0.	.138	.177	.235	.289	.330	.402	.510	.706	.969	WORD14.1
1.148	1.282	1.380	1.449	1.489	1.500	1.500	1.500	1.411	1.300	WORD14.2
1.171	1.024	.862	.692	.521	.349	.178	0.	0.	0.	WORD14.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD15.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD15.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD15.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD16.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD16.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD16.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD17.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD17.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD17.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD18.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD18.2
1.365	1.261	1.126	.961	.766	.541	.285	0.	0.	0.	WORD18.3
0.000	3.289	6.578	9.867	13.156	16.445	19.734	24.662	26.129	31.418	XFUS
34.707	37.996	41.285	44.574	47.863	51.152	54.441	57.730	61.019	64.308	XFUS
67.597	70.886	74.175	77.464	80.753	84.042	87.331	90.620	93.909	97.198	XFUS
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	Z 1
-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	Z 1
-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	-.360	Z 1
0.000	.072	.129	.194	.251	.304	.349	.386	.424	.450	Y 2
.475	.493	.504	.504	.504	.504	.507	.514	.509	.504	Y 2
.487	.459	.427	.392	.357	.322	.282	.220	.154	.085	Y 2
-.870	-.864	-.856	-.839	-.811	-.779	-.736	-.697	-.650	-.604	Z 2
-.553	-.503	-.457	-.457	-.457	-.457	-.418	-.376	-.330	-.269	Z 2
-.201	-.140	-.083	-.030	.018	.059	.093	.122	.143	.149	Z 2
0.000	.107	.203	.303	.399	.480	.561	.623	.677	.724	Y 3
.767	.798	.818	.818	.818	.818	.834	.838	.839	.832	Y 3
.806	.769	.716	.652	.573	.481	.371	.256	.142	0.000	Y 3
-1.203	-1.200	-1.174	-1.145	-1.107	-1.054	-.990	-.929	-.861	-.792	Z 3
-.712	-.632	-.552	-.552	-.552	-.552	-.487	-.425	-.345	-.249	Z 3
-.130	-.030	.074	.145	.255	.325	.391	.442	.470	.479	Z 3
0.000	.150	.281	.412	.531	.639	.739	.824	.905	.971	Y 4
1.026	1.065	1.097	1.097	1.097	1.097	1.117	1.125	1.130	1.120	Y 4
1.090	1.038	.974	.895	.785	.663	.515	.355	.190	0.000	Y 4
-1.490	-1.460	-1.462	-1.414	-1.357	-1.301	-1.221	-1.138	-1.039	-.948	Z 4
-.845	-.742	-.643	-.643	-.643	-.643	-.554	-.467	-.359	-.229	Z 4
-.075	.067	.201	.329	.448	.553	.646	.713	.752	.770	Z 4
0.000	.181	.338	.495	.638	.780	.892	1.000	1.093	1.170	Y 5
1.240	1.287	1.323	1.323	1.323	1.323	1.346	1.359	1.364	1.354	Y 5

Table III. - Continued.

(a) Continued

1.313	1.257	1.174	1.075	.950	.794	.619	.424	.222	0.000		
-1.745	-1.731	-1.706	-1.657	-1.585	-1.510	-1.419	-1.317	-1.210	-1.103	Z	5
-.970	-.848	-.718	-.718	-.718	-.718	-.614	-.507	-.373	-.220		
-.640	.133	.299	.449	.595	.723	.835	.914	.969	.982		
0.000	.182	.351	.542	.721	.872	1.030	1.166	1.296	1.378	Y	6
1.450	1.502	1.532	1.532	1.532	1.532	1.559	1.578	1.590	1.602		
1.593	1.559	1.496	1.363	1.178	.957	.715	.469	.266	0.000		
-1.980	-1.968	-1.935	-1.893	-1.835	-1.768	-1.674	-1.562	-1.432	-1.311	Z	6
-1.166	-1.020	-.893	-.893	-.893	-.893	-.757	-.636	-.454	-.333		
-.145	.088	.363	.636	.833	.966	1.051	1.105	1.132	1.148		
0.000	.151	.327	.500	.648	.812	.957	1.099	1.238	1.372	Y	7
1.532	1.678	1.747	1.747	1.747	1.747	1.793	1.817	1.832	1.838		
1.817	1.771	1.664	1.559	1.390	1.160	.902	.612	.303	0.000		
-2.232	-2.223	-2.198	-2.162	-2.123	-2.068	-2.023	-1.941	-1.859	-1.762	Z	7
-1.635	-1.420	-1.281	-1.281	-1.281	-1.281	-1.154	-1.036	-.914	-.681		
-.351	-.062	.239	.521	.781	.999	1.129	1.202	1.245	1.263		
0.000	.151	.333	.488	.636	.812	.969	1.181	1.347	1.499	Y	8
1.620	1.771	2.185	1.905	1.905	2.185	2.044	1.968	1.896	1.838		
1.793	1.662	1.541	1.372	1.175	.954	.699	.475	.224	0.000		
-2.574	-2.574	-2.556	-2.528	-2.483	-2.425	-2.365	-2.268	-2.189	-2.111	Z	8
-2.044	-1.959	-1.723	-1.850	-1.420	-1.723	-1.432	-1.211	-.899	-.651		
-.506	-.145	.139	.421	.645	.796	.893	.951	.987	1.002		
0.000	.197	.348	.524	.666	.802	.960	1.120	1.296	1.478	Y	9
1.690	1.877	2.185	1.905	1.905	2.185	1.935	1.841	1.735	1.650		
1.532	1.429	1.341	1.226	1.099	.930	.757	.524	.254	0.000		
-2.831	-2.826	-2.807	-2.771	-2.731	-2.689	-2.634	-2.568	-2.498	-2.422	Z	9
-2.347	-2.283	-2.210	-2.241	-1.347	-1.447	-1.220	-1.078	-.775	-.548		
-.291	-.112	-.009	.088	.167	.239	.291	.348	.385	.409		
0.000	.416	.553	.695	.831	.975	1.119	1.260	1.422	1.587	Y	10
1.756	1.952	2.185	1.905	1.905	2.185	2.064	2.003	1.920	1.817		
1.700	1.575	1.445	1.304	1.144	.983	.815	.640	.460	0.000		
-3.073	-3.070	-3.060	-3.049	-3.027	-3.002	-2.968	-2.920	-2.875	-2.818	Z	10
-2.758	-2.699	-2.629	-2.679	-1.562	-1.598	-1.447	-1.289	-1.135	-.993		
-.858	-.742	-.638	-.533	-.433	-.355	-.293	-.245	-.217	-.200		
0.000	.413	.547	.666	.819	.958	1.104	1.252	1.413	1.585	Y	11
1.773	1.970	2.185	1.905	1.905	2.185	2.033	1.942	1.840	1.734		
1.616	1.490	1.361	1.224	1.075	.923	.770	.602	.441	0.000		
-3.487	-3.473	-3.466	-3.452	-3.434	-3.412	-3.383	-3.354	-3.317	-3.268	Z	11
-3.224	-3.164	-3.073	-3.137	-1.667	-1.881	-1.767	-1.632	-1.501	-1.373		
-1.254	-1.149	-1.056	-.959	-.878	-.811	-.760	-.720	-.692	-.679		
0.000	.413	.547	.683	.818	.957	1.104	1.249	1.410	1.585	Y	12
1.764	1.967	2.185	1.905	1.905	2.185	1.985	1.879	1.779	1.673		
1.552	1.431	1.304	1.175	1.028	.893	.740	.583	.430	0.000		
-3.904	-3.904	-3.893	-3.874	-3.862	-3.836	-3.805	-3.770	-3.732	-3.694	Z	12
-3.640	-3.579	-3.509	-3.584	-2.225	-2.214	-2.101	-1.970	-1.836	-1.729		
-1.622	-1.522	-1.430	-1.354	-1.273	-1.219	-1.174	-1.135	-1.116	-1.097		
0.000	.413	.545	.683	.816	.957	1.104	1.249	1.413	1.585	Y	13
1.770	1.968	2.165	1.905	1.905	2.185	1.967	1.861	1.758	1.650		
1.531	1.413	1.289	1.157	1.013	.876	.731	.578	.429	0.000		
-4.318	-4.319	-4.306	-4.288	-4.274	-4.246	-4.219	-4.190	-4.149	-4.105	Z	13
-4.053	-4.002	-3.917	-4.002	-2.610	-2.582	-2.466	-2.361	-2.237	-2.125		
-2.021	-1.924	-1.838	-1.760	-1.682	-1.631	-1.584	-1.548	-1.527	-1.510		
0.000	.416	.553	.692	.825	.964	1.110	1.256	1.422	1.588	Y	14
1.773	1.970	2.185	1.905	1.905	2.185	1.961	1.861	1.759	1.649		
1.531	1.416	1.289	1.162	1.021	.880	.731	.581	.432	0.000		
-4.720	-4.718	-4.707	-4.685	-4.671	-4.649	-4.619	-4.590	-4.549	-4.504	Z	14
-4.448	-4.384	-4.298	-4.368	-2.994	-2.957	-2.882	-2.755	-2.632	-2.520		
-2.416	-2.319	-2.238	-2.156	-2.083	-2.024	-1.977	-1.949	-1.925	-1.912		
0.000	.414	.547	.686	.821	.964	1.110	1.252	1.419	1.585	Y	15
1.770	1.955	2.185	1.905	1.905	2.185	1.970	1.862	1.759	1.646		
1.531	1.413	1.283	1.152	1.013	.874	.731	.579	.426	0.000		
-5.066	-5.061	-5.051	-5.042	-5.014	-4.993	-4.965	-4.937	-4.901	-4.854	Z	15
-4.600	-4.738	-4.646	-4.749	-3.355	-3.307	-3.225	-3.104	-2.980	-2.863		
-2.762	-2.671	-2.585	-2.498	-2.427	-2.367	-2.326	-2.293	-2.268	-2.258		
0.000	.435	.569	.707	.845	.983	1.122	1.268	1.433	1.606	Y	16
1.787	1.990	2.185	1.905	1.905	2.185	1.974	1.865	1.763	1.654		
1.536	1.415	1.294	1.161	1.016	.875	.731	.578	.429	0.000		
-5.387	-5.382	-5.376	-5.355	-5.338	-5.320	-5.288	-5.260	-5.220	-5.176	Z	16
-5.122	-5.067	-4.994	-5.073	-3.697	-3.643	-3.554	-3.430	-3.309	-3.197		
-3.096	-2.998	-2.912	-2.826	-2.755	-2.703	-2.651	-2.622	-2.593	-2.579		
0.000	.425	.571	.716	.864	1.007	1.161	1.307	1.476	1.643	Y	17
1.815	1.991	2.185	1.905	1.905	2.185	2.042	1.967	1.876	1.779		
1.664	1.543	1.413	1.264	1.113	.949	.785	.621	.456	0.000		
-5.732	-5.729	-5.720	-5.705	-5.678	-5.649	-5.612	-5.568	-5.514	-5.453	Z	17
-5.387	-5.293	-5.174	-5.266	-4.106	-4.033	-3.952	-3.805	-3.667	-3.536		
-3.416	-3.304	-3.196	-3.107	-3.018	-2.955	-2.901	-2.861	-2.837	-2.824		

Table III. - Continued.

(a) Continued

0.000	.447	.610	.771	.922	1.087	1.241	1.397	1.570	1.721	Y 18
1.891	2.015	2.165	1.905	1.905	2.185	2.036	1.964	1.676	1.773	
1.652	1.534	1.397	1.257	1.095	.946	.771	.604	.436	0.000	
-6.035	-6.033	-6.017	-5.997	-5.971	-5.935	-5.892	-5.838	-5.759	-5.684	Z 18
-5.581	-5.448	-5.326	-5.420	-4.504	-4.426	-4.299	-4.119	-3.961	-3.809	
-3.658	-3.537	-3.428	-3.326	-3.237	-3.173	-3.119	-3.073	-3.055	-3.045	
0.000	.444	.613	.780	.937	1.101	1.255	1.410	1.582	1.731	Y 19
1.882	2.006	2.185	1.905	1.905	2.185	2.082	2.033	1.955	1.656	
1.727	1.591	1.452	1.313	1.155	.983	.813	.637	.465	0.000	
-6.292	-6.280	-6.247	-6.207	-6.162	-6.107	-6.047	-5.980	-5.896	-5.811	Z 19
-5.708	-5.587	-5.441	-5.530	-4.881	-4.801	-4.642	-4.433	-4.245	-4.085	
-3.927	-3.794	-3.667	-3.566	-3.461	-3.382	-3.310	-3.261	-3.231	-3.219	
0.000	.168	.403	.590	.775	.906	1.157	1.347	1.532	1.681	Y 20
1.832	1.983	2.185	1.905	1.905	2.185	2.104	2.092	2.053	1.977	
1.820	1.678	1.520	1.363	1.151	.917	.712	.463	.197	0.000	
-6.495	-6.489	-6.477	-6.447	-6.407	-6.344	-6.265	-6.174	-6.059	-5.944	Z 20
-5.811	-5.681	-5.529	-5.617	-5.238	-5.154	-5.026	-4.860	-4.648	-4.454	
-4.197	-4.039	-3.897	-3.782	-3.649	-3.543	-3.482	-3.431	-3.394	-3.376	
0.000	.133	.312	.475	.657	.854	1.060	1.284	1.514	1.714	Y 21
1.877	2.014	2.185	1.905	1.905	2.185	2.083	2.059	2.017	1.941	
1.783	1.632	1.484	1.332	1.157	.975	.778	.576	.303	0.000	
-6.634	-6.631	-6.616	-6.586	-6.559	-6.498	-6.428	-6.338	-6.226	-6.077	Z 21
-5.899	-5.714	-5.587	-5.662	-5.553	-5.472	-5.329	-5.096	-4.884	-4.651	
-4.354	-4.157	-4.009	-3.891	-3.785	-3.706	-3.643	-3.588	-3.549	-3.528	
0.000	.215	.421	.624	.821	.996	1.193	1.378	1.596	1.780	Y 22
1.923	1.983	2.014	2.014	2.014	2.014	2.023	1.989	1.935	1.853	
1.729	1.575	1.408	1.217	1.011	.805	.603	.403	.206	0.000	
-6.731	-6.716	-6.686	-6.643	-6.592	-6.537	-6.447	-6.347	-6.220	-6.074	Z 22
-5.871	-5.665	-5.472	-5.472	-5.472	-5.472	-5.241	-5.017	-4.796	-4.584	
-4.375	-4.209	-4.061	-3.939	-3.843	-3.773	-3.740	-3.691	-3.664	-3.646	
0.000	.118	.312	.566	.781	1.008	1.178	1.438	1.620	1.762	Y 23
1.871	1.932	1.953	1.953	1.953	1.953	1.977	1.968	1.926	1.859	
1.741	1.584	1.378	1.175	.964	.772	.590	.363	.151	0.000	
-6.752	-6.746	-6.731	-6.692	-6.626	-6.537	-6.450	-6.292	-6.138	-5.971	Z 23
-5.808	-5.641	-5.466	-5.466	-5.466	-5.466	-5.299	-5.087	-4.890	-4.709	
-4.509	-4.330	-4.164	-4.039	-3.949	-3.876	-3.827	-3.782	-3.758	-3.752	
0.000	.200	.391	.572	.751	.914	1.090	1.241	1.366	1.475	Y 24
1.526	1.575	1.602	1.602	1.602	1.602	1.614	1.599	1.565	1.514	
1.444	1.329	1.193	1.051	.884	.709	.536	.360	.191	0.000	
-6.631	-6.616	-6.586	-6.547	-6.492	-6.422	-6.329	-6.216	-6.068	-5.917	Z 24
-5.753	-5.599	-5.450	-5.450	-5.450	-5.450	-5.279	-5.093	-4.911	-4.742	
-4.584	-4.421	-4.266	-4.148	-4.061	-3.994	-3.945	-3.909	-3.891	-3.876	
0.000	.142	.351	.563	.766	.911	1.042	1.163	1.260	1.335	Y 25
1.381	1.411	1.414	1.414	1.414	1.414	1.417	1.411	1.399	1.360	
1.290	1.187	1.063	.945	.815	.657	.521	.364	.170	0.000	
-6.438	-6.431	-6.401	-6.350	-6.274	-6.189	-6.092	-5.977	-5.844	-5.690	Z 25
-5.529	-5.399	-5.296	-5.296	-5.296	-5.296	-5.190	-5.045	-4.924	-4.763	
-4.590	-4.439	-4.312	-4.215	-4.130	-4.058	-4.006	-3.961	-3.918	-3.900	
0.000	.091	.203	.318	.454	.590	.718	.854	.930	1.030	Y 26
1.114	1.163	1.178	1.178	1.178	1.178	1.175	1.169	1.157	1.129	
1.072	.993	.878	.769	.654	.500	.375	.282	.167	0.000	
-6.147	-6.144	-6.129	-6.104	-6.065	-6.008	-5.941	-5.835	-5.759	-5.620	Z 26
-5.444	-5.278	-5.148	-5.148	-5.148	-5.148	-5.042	-4.905	-4.775	-4.642	
-4.494	-4.342	-4.197	-4.109	-4.039	-3.982	-3.949	-3.927	-3.909	-3.900	
0.000	.151	.282	.400	.509	.606	.690	.763	.824	.871	Y 27
.908	.925	.939	.939	.939	.939	.939	.930	.912	.878	
.831	.776	.697	.624	.528	.436	.333	.225	.118	0.000	
-5.758	-5.742	-5.711	-5.669	-5.604	-5.531	-5.458	-5.369	-5.274	-5.170	Z 27
-5.070	-4.978	-4.890	-4.886	-4.886	-4.886	-4.783	-4.679	-4.569	-4.469	
-4.377	-4.289	-4.194	-4.121	-4.048	-3.991	-3.949	-3.911	-3.892	-3.889	
0.000	.112	.207	.297	.379	.450	.513	.563	.612	.642	Y 28
.666	.681	.689	.689	.689	.689	.689	.661	.662	.642	
.606	.600	.512	.459	.392	.324	.252	.175	.095	0.000	
-5.279	-5.263	-5.240	-5.205	-5.163	-5.113	-5.044	-4.975	-4.902	-4.829	Z 28
-4.760	-4.691	-4.614	-4.610	-4.618	-4.618	-4.541	-4.469	-4.381	-4.316	
-4.243	-4.186	-4.121	-4.064	-4.010	-3.964	-3.934	-3.907	-3.892	-3.889	
0.000	.076	.141	.199	.252	.290	.336	.370	.393	.416	Y 29
.424	.431	.431	.431	.431	.431	.427	.415	.404	.385	
.358	.327	.296	.262	.220	.177	.135	.093	.047	0.000	
-4.735	-4.727	-4.708	-4.685	-4.654	-4.623	-4.581	-4.535	-4.485	-4.435	Z 29
-4.389	-4.343	-4.301	-4.301	-4.301	-4.301	-4.252	-4.202	-4.156	-4.117	
-4.075	-4.037	-4.003	-3.976	-3.942	-3.919	-3.904	-3.892	-3.885	-3.885	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 30
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	Z 30
-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	

Table III. - Continued.

(a) Concluded

-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942	-3.942		
60.496	6.676	-5.965									PODDRG 1
0.000	.606	1.211	1.817	2.422	3.028	3.634	4.239	4.845	5.450		XPDD
0.056	6.662	7.267	7.873	8.478	9.084	9.576	9.690	10.295	10.890		XPDD
.781	.793	.805	.818	.831	.843	.855	.868	.880	.893		RPDD
.905	.918	.930	.943	.955	.968	.978	.978	.978	.978		RPDD
61.623	10.801	-5.867									PODDRG 2
0.000	.606	1.211	1.817	2.422	3.028	3.634	4.239	4.845	5.450		XPDD
0.056	6.662	7.267	7.873	8.478	9.084	9.576	9.690	10.295	10.890		XPDD
.781	.793	.805	.818	.831	.843	.855	.868	.880	.893		RPDD
.905	.918	.930	.943	.955	.968	.978	.978	.978	.978		RPDD
63.660	14.201	-4.737	10.647	73.722	14.201	-1.741	1.450				V FIN
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XFIN
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		FINORD
91.243	0.000	-3.689	9.047	98.618	0.000	-.940	2.144				v TAIL
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XVTAIL
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		TVTAIL
89.053	.878	-4.646	7.327	95.625	4.575	-5.637	2.196				H TAIL
0.	10.	20.	30.	40.	50.	70.	80.	90.	100.		XHTAIL
0.0	.553	.948	1.264	1.448	1.5	1.264	.948	.553	0.0		THTAIL

Table III. - Continued.

(b) U.S. Customary Units (feet)

AST-206 (5/21/79) 6 ABREAST DIGITAL BLENDED FUSELAGE																	
1	1	1	1	1	1	16	28	1	30	30	2	20	2	10	1	10	
8447.	88.586	174.060															REFA
0.	.125	.25	.5	.75	1.0	1.5	2.5	5.0	10.								XAF 10
15.	20.	25.	30.	35.	40.	45.	50.	55.	60.								XAF 20
65.	70.	75.	80.	85.	90.	95.	100.										XAF 28
76.221	6.291	-5.137	149.537														WORDG 3A
81.447	7.216	-5.650	146.276														WORDG 4
92.505	10.367	-7.639	135.155														WORDG 5
103.560	13.557	-9.376	124.030														WORDG 6
114.619	16.728	-10.790	112.909														WORDG 7
133.167	22.046	-12.620	94.250														WORDG 8
147.791	26.240	-13.904	80.773														WORDG 9
163.985	30.883	-15.051	65.847														WORDG 10
177.757	35.670	-15.297	53.383														WORDG 11
187.113	39.922	-15.226	46.897														WORDG 12
196.237	42.093	-15.438	40.576														WORDG 13
210.070	46.900	-15.644	30.991														WORDG 14
210.070	46.901	-15.644	30.991														WORDG 15
216.217	51.605	-15.695	26.999														WORDG 16
229.200	57.946	-16.256	21.616														WORDG 17
240.186	64.287	-17.152	16.237														WORDG 18
0.	-.002	-.004	-.007	-.011	-.014	-.023	-.054	-.192	-.731								TZ 3A.1
-1.456	-2.290	-3.180	-4.096	-5.016	-5.922	-6.800	-7.639	-8.436	-9.198								TZ 3A.2
-9.893	-10.552	-11.166	-11.734	-12.259	-12.739	-13.173	-13.555										TZ 3A.3
0.	-.001	-.001	-.002	-.003	-.004	-.008	-.036	-.155	-.662								TZ 4.1
-1.351	-2.143	-2.983	-3.846	-4.713	-5.566	-6.394	-7.187	-7.942	-8.657								TZ 4.2
-9.331	-9.964	-10.557	-11.110	-11.625	-12.099	-12.532	-12.919										TZ 4.3
0.	.002	.004	.008	.012	.017	.025	.027	-.041	-.406								TZ 5.1
-.918	-1.516	-2.158	-2.822	-3.494	-4.160	-4.810	-5.443	-6.055	-6.640								TZ 5.2
-7.202	-7.742	-8.257	-8.749	-9.219	-9.665	-10.084	-10.475										TZ 5.3
0.	.004	.008	.017	.025	.034	.050	.084	.059	-.154								TZ 6.1
-.503	-.921	-1.365	-1.877	-2.376	-2.878	-3.381	-3.874	-4.360	-4.836								TZ 6.2
-5.302	-5.759	-6.205	-6.643	-7.070	-7.487	-7.889	-8.277										TZ 6.3
0.	.005	.010	.021	.031	.041	.062	.103	.163	.071								TZ 7.1
-.141	-.418	-.735	-1.076	-1.438	-1.809	-2.186	-2.567	-2.948	-3.333								TZ 7.2
-3.716	-4.100	-4.486	-4.871	-5.255	-5.638	-6.015	-6.388										TZ 7.3
0.	.006	.012	.023	.035	.047	.070	.117	.216	.280								TZ 8.1
.241	.135	-.002	-.176	-.364	-.570	-.792	-1.026	-1.270	-1.527								TZ 8.2
-1.743	-2.067	-2.350	-2.640	-2.937	-3.242	-3.550	-3.862										TZ 8.3
0.	.006	.013	.025	.038	.051	.076	.127	.229	.330								TZ 9.1
.356	.339	.283	.205	.098	-.024	-.164	-.315	-.460	-.655								TZ 9.2
-.843	-1.041	-1.250	-1.468	-1.697	-1.933	-2.176	-2.427										TZ 9.3
0.	.005	.009	.018	.027	.037	.056	.092	.182	.299								TZ 10.1
.354	.374	.370	.350	.311	.259	.194	.118	.030	-.068								TZ 10.2
-.177	-.295	-.421	-.558	-.703	-.855	-1.013	-1.179										TZ 10.3
0.	.002	.005	.010	.014	.019	.029	.048	.097	.184								TZ 11.1
.223	.244	.248	.230	.202	.167	.116	.056	-.007	-.084								TZ 11.2
-.166	-.254	-.354	-.456	-.567	-.683	-.806	-.932										TZ 11.3
0.	.002	.004	.008	.012	.016	.024	.041	.081	.147								TZ 12.1
.187	.207	.219	.203	.184	.158	.120	.074	.022	-.034								TZ 12.2
-.101	-.172	-.246	-.329	-.415	-.505	-.599	-.698										TZ 12.3
0.	.002	.003	.007	.010	.013	.020	.034	.067	.116								TZ 13.1
.156	.179	.194	.193	.187	.171	.153	.123	.092	.052								TZ 13.2
.011	-.040	-.092	-.148	-.204	-.263	-.322	-.387										TZ 13.3
0.	.001	.001	.002	.003	.004	.006	.010	.020	.049								TZ 14.1
.081	.101	.112	.118	.118	.117	.115	.111	.104	.096								TZ 14.2
.087	.077	.066	.055	.043	.029	.015	0.										TZ 14.3
0.	.001	.001	.002	.003	.004	.006	.010	.020	.049								TZ 15.1
.081	.101	.112	.116	.116	.117	.115	.111	.104	.096								TZ 15.2
.087	.077	.066	.055	.043	.029	.015	0.										TZ 15.3
0.	-.001	-.002	-.005	-.007	-.009	-.014	-.023	-.046	-.092								TZ 16.1
-.139	-.166	-.184	-.203	-.222	-.241	-.260	-.279	-.299	-.318								TZ 16.2
-.337	-.355	-.374	-.392	-.409	-.427	-.446	-.464										TZ 16.3
0.	-.001	-.002	-.005	-.007	-.010	-.014	-.024	-.048	-.095								TZ 17.1
-.143	-.190	-.238	-.271	-.303	-.336	-.366	-.388	-.411	-.434								TZ 17.2
-.455	-.474	-.493	-.513	-.529	-.545	-.562	-.577										TZ 17.3
0.	-.001	-.002	-.005	-.007	-.009	-.014	-.023	-.047	-.093								TZ 18.1
-.136	-.159	-.179	-.200	-.220	-.238	-.246	-.253	-.260	-.268								TZ 18.2
-.272	-.268	-.264	-.261	-.257	-.249	-.234	-.219										TZ 18.3

Table III. - Continued.

(b) Continued

0.	.157	.179	.241	.297	.339	.412	.523	.724	.994	WORD3A.1
1.177	1.315	1.416	1.487	1.528	1.539	1.539	1.539	1.539	1.539	WORD3A.2
1.364	1.210	1.018	.817	.614	.412	.211	0.			WORD3A.3
0.	.136	.178	.237	.391	.333	.405	.514	.712	.976	WORD4.1
1.157	1.292	1.391	1.461	1.501	1.512	1.512	1.512	1.512	1.512	WORD4.2
1.363	1.192	1.003	.806	.606	.406	.208	0.			WORD4.3
0.	.128	.168	.225	.277	.316	.366	.490	.679	.931	WORD5.1
1.103	1.232	1.326	1.392	1.430	1.441	1.441	1.441	1.441	1.437	WORD5.2
1.294	1.132	.953	.765	.576	.385	.197	0.			WORD5.3
0.	.116	.160	.216	.266	.304	.370	.470	.651	.894	WORD6.1
1.059	1.162	1.273	1.336	1.373	1.383	1.383	1.383	1.383	1.341	WORD6.2
1.206	1.056	.869	.714	.537	.360	.184	0.			WORD6.3
0.	.110	.153	.208	.257	.294	.358	.455	.631	.866	WORD7.1
1.025	1.144	1.231	1.293	1.328	1.338	1.338	1.338	1.338	1.277	WORD7.2
1.151	1.006	.848	.681	.512	.343	.175	0.			WORD7.3
0.	.101	.145	.200	.247	.283	.344	.438	.607	.833	WORD8.1
.987	1.101	1.184	1.244	1.278	1.287	1.287	1.287	1.287	1.186	WORD8.2
1.069	.935	.788	.633	.476	.319	.163	0.			WORD8.3
0.	.100	.144	.198	.245	.280	.341	.435	.602	.827	WORD9.1
.979	1.092	1.175	1.234	1.268	1.277	1.277	1.277	1.260	1.161	WORD9.2
1.046	.915	.771	.619	.466	.312	.159	0.			WORD9.3
0.	.102	.146	.201	.248	.284	.345	.440	.609	.836	WORD10.1
.990	1.105	1.189	1.248	1.283	1.292	1.292	1.292	1.247	1.149	WORD10.2
1.035	.906	.763	.613	.461	.309	.156	0.			WORD10.3
0.	.111	.154	.209	.256	.295	.359	.457	.632	.868	WORD11.1
1.028	1.148	1.235	1.297	1.330	1.342	1.342	1.342	1.263	1.164	WORD11.2
1.049	.917	.773	.621	.467	.313	.160	0.			WORD11.3
0.	.118	.160	.216	.266	.304	.370	.470	.651	.894	WORD12.1
1.059	1.161	1.272	1.335	1.372	1.382	1.382	1.382	1.300	1.198	WORD12.2
1.080	.945	.796	.639	.481	.322	.164	0.			WORD12.3
0.	.125	.166	.222	.274	.313	.361	.484	.670	.920	WORD13.1
1.090	1.216	1.309	1.375	1.413	1.423	1.423	1.423	1.339	1.234	WORD13.2
1.112	.972	.819	.658	.495	.331	.169	0.			WORD13.3
0.	.138	.177	.235	.289	.330	.402	.510	.706	.969	WORD14.1
1.148	1.282	1.380	1.449	1.489	1.500	1.500	1.500	1.411	1.300	WORD14.2
1.171	1.024	.862	.692	.521	.349	.178	0.			WORD14.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD15.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD15.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD15.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD16.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD16.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD16.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD17.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD17.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD17.3
0.	.0069	.0144	.0294	.0440	.0590	.0884	.1462	.2853	.541	WORD18.1
.766	.961	1.126	1.261	1.365	1.440	1.485	1.500	1.485	1.440	WORD18.2
1.365	1.261	1.126	.961	.766	.541	.285	0.			WORD18.3
0.000	10.862	21.724	32.566	43.448	54.310	65.172	81.447	92.897	103.759	XFUS
114.621	125.483	136.344	147.207	158.069	168.931	179.793	190.655	201.517	212.379	XFUS
223.241	234.103	244.996	267.828	278.690	289.552	300.414	311.276	322.138	333.000	XFUS
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Y 1
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	Z 1
-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	
-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	-1.190	
0.000	.238	.427	.641	.826	1.003	1.152	1.276	1.399	1.485	Y 2
1.570	1.629	1.664	1.664	1.664	1.664	1.674	1.696	1.681	1.664	
1.608	1.516	1.410	1.293	1.112	.932	.728	.510	.281	0.000	
-2.873	-2.855	-2.826	-2.771	-2.678	-2.573	-2.431	-2.302	-2.147	-1.994	Z 2
-1.827	-1.662	-1.509	-1.509	-1.509	-1.509	-1.382	-1.243	-1.091	-.889	
-.663	-.462	-.275	-.100	.061	.196	.306	.402	.473	.493	
0.000	.354	.671	1.001	1.318	1.586	1.853	2.057	2.237	2.390	Y 3
2.532	2.636	2.701	2.701	2.701	2.701	2.754	2.768	2.771	2.748	
2.663	2.540	2.366	2.154	1.891	1.589	1.224	.846	.468	0.000	
-3.973	-3.964	-3.878	-3.760	-3.656	-3.481	-3.269	-3.068	-2.842	-2.616	Z 3
-2.352	-2.087	-1.622	-1.822	-1.822	-1.822	-1.607	-1.405	-1.139	-.823	
-.430	-.100	.243	.479	.842	1.072	1.291	1.459	1.551	1.581	
0.000	.497	.928	1.359	1.753	2.109	2.440	2.721	2.990	3.208	Y 4
3.388	3.518	3.622	3.622	3.622	3.622	3.688	3.716	3.732	3.698	
3.601	3.428	3.218	2.956	2.593	2.191	1.700	1.171	.628	0.000	
-4.922	-4.888	-4.829	-4.669	-4.482	-4.296	-4.033	-3.758	-3.431	-3.130	Z 4
-2.790	-2.450	-2.122	-2.122	-2.122	-2.122	-1.631	-1.541	-1.187	-.756	
-.249	.220	.665	1.085	1.480	1.826	2.134	2.354	2.485	2.542	
0.000	.597	1.116	1.636	2.106	2.576	2.945	3.302	3.608	3.864	Y 5
4.095	4.251	4.368	4.368	4.368	4.368	4.446	4.487	4.503	4.470	

Table III. - Concluded.

(b) Concluded

-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019	-13.019		
199.786	22.046	-19.698									PDDGRG 1
0.	2.	4.	6.	8.	10.	12.	14.	16.	18.		XPDD
20.	22.	24.	26.	28.	30.	31.624	32.	34.	35.963		XPDD
2.578	2.619	2.660	2.702	2.743	2.784	2.825	2.866	2.907	2.949		RPDD
2.990	3.031	3.072	3.113	3.154	3.196	3.229	3.229	3.229	3.229		RPDD
203.511	35.670	-19.375									PDDGRG 2
0.	2.	4.	6.	8.	10.	12.	14.	16.	18.		XPDD
20.	22.	24.	26.	28.	30.	31.624	32.	34.	35.963		XPDD
2.578	2.619	2.660	2.702	2.743	2.784	2.825	2.866	2.907	2.949		RPDD
2.990	3.031	3.072	3.113	3.154	3.196	3.229	3.229	3.229	3.229		RPDD
210.237	46.900	-15.644	35.163	243.467	46.900	-5.749	4.787				V FIN
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XFIN
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		FINDRD
301.330	0.	-12.843	29.877	325.687	0.	-3.103	7.062				V TAIL
0.	10.	20.	30.	40.	50.	60.	70.	90.	100.		XV TAIL
0.	.466	.846	1.138	1.345	1.465	1.498	1.390	.641	0.		TV TAIL
294.100	2.900	-15.343	24.196	315.603	15.110	-18.615	7.252				H TAIL
0.	10.	20.	30.	40.	50.	70.	80.	90.	100.		XHTAIL
0.0	.553	.948	1.264	1.448	1.5	1.264	.948	.553	0.0		HTTAIL

SHADED AREAS INDICATE COMMON STRUCTURE

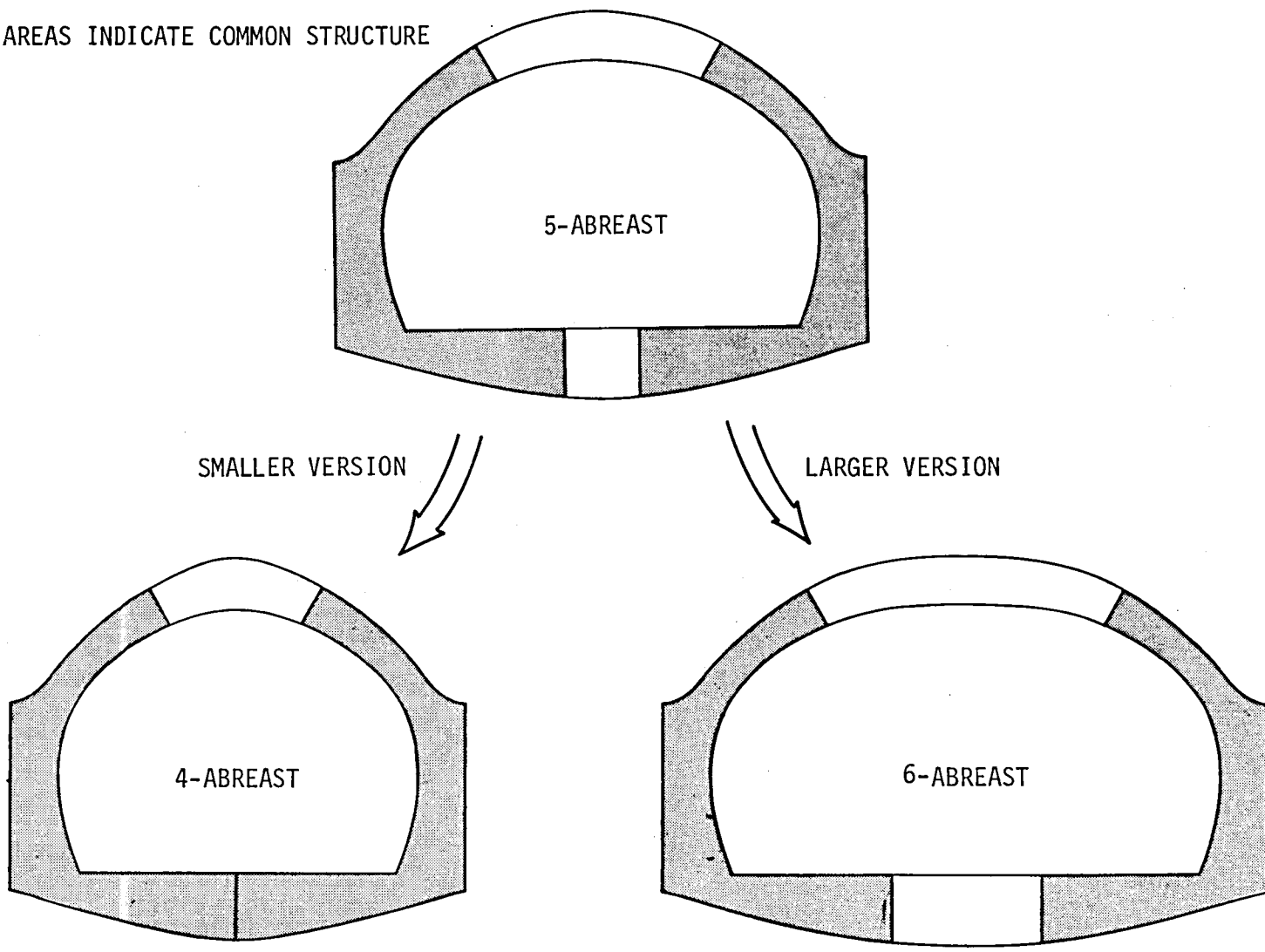


Figure 1. - Fuselage modifications for derivative configurations.

SHADED AREAS INDICATE COMMON STRUCTURE

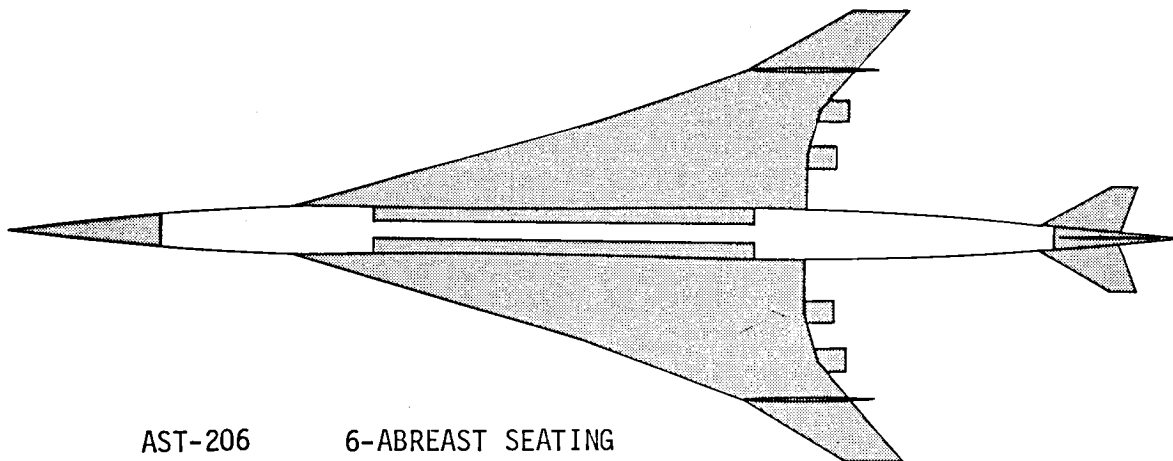
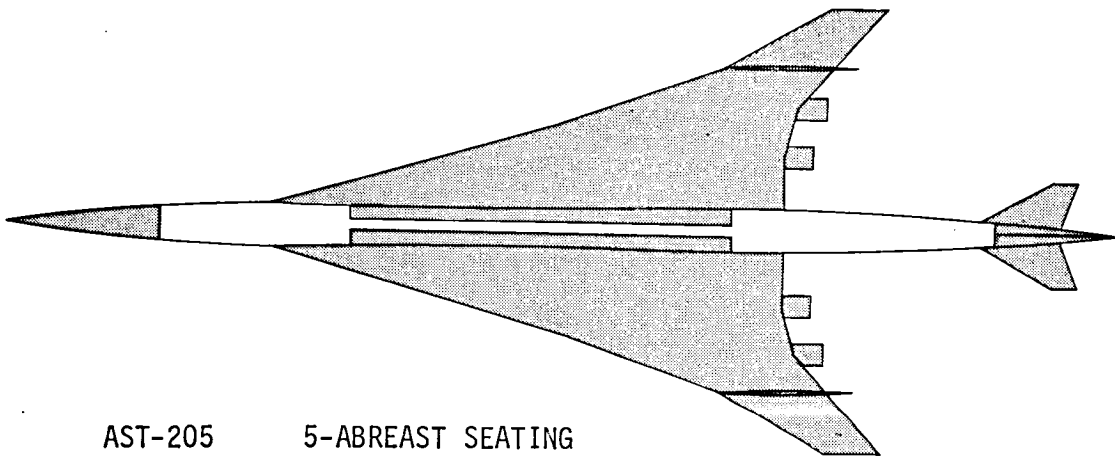
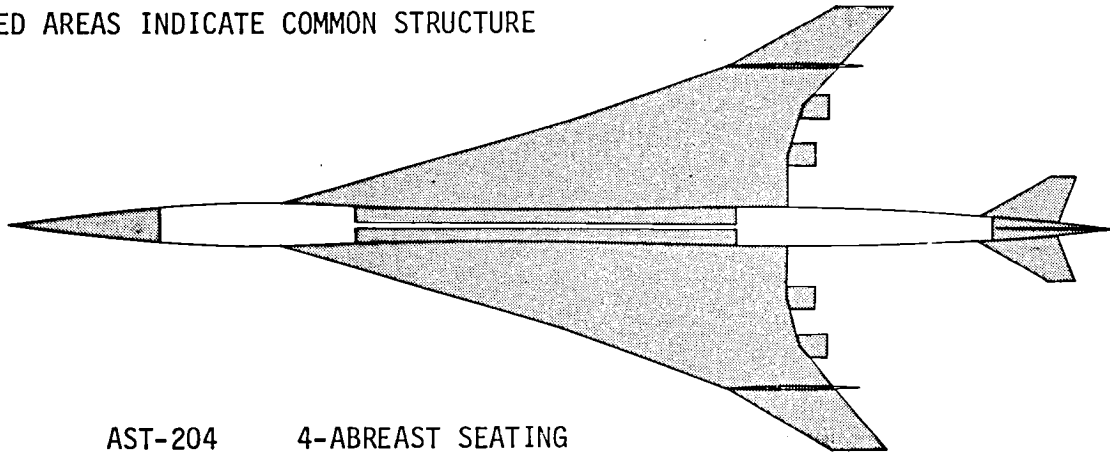


Figure 2. - Structural commonality for the basic and derivative configurations.

Dimensions in centimeters (inches)

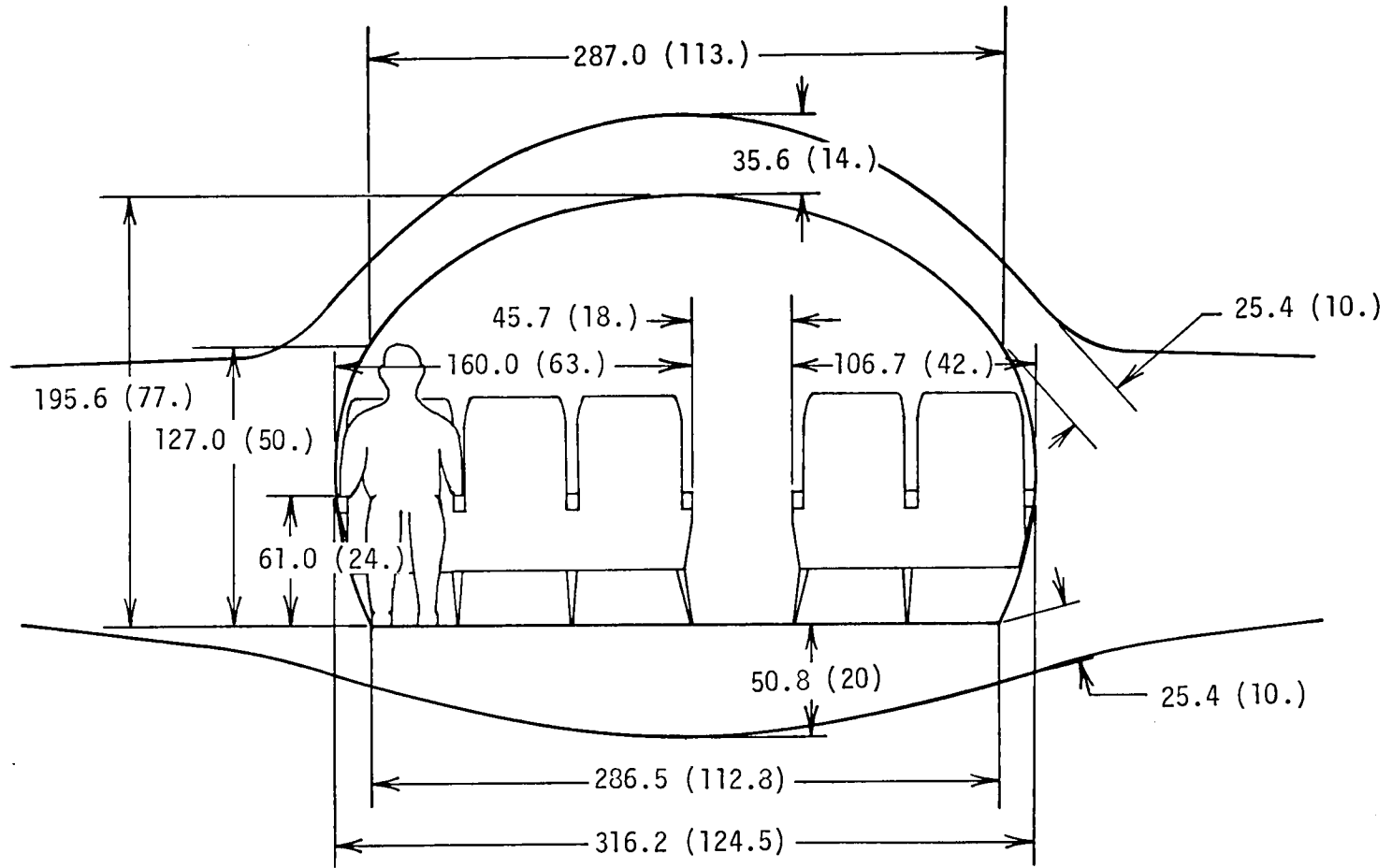


Figure 3. - Minimum dimensions for fuselage centerbody.

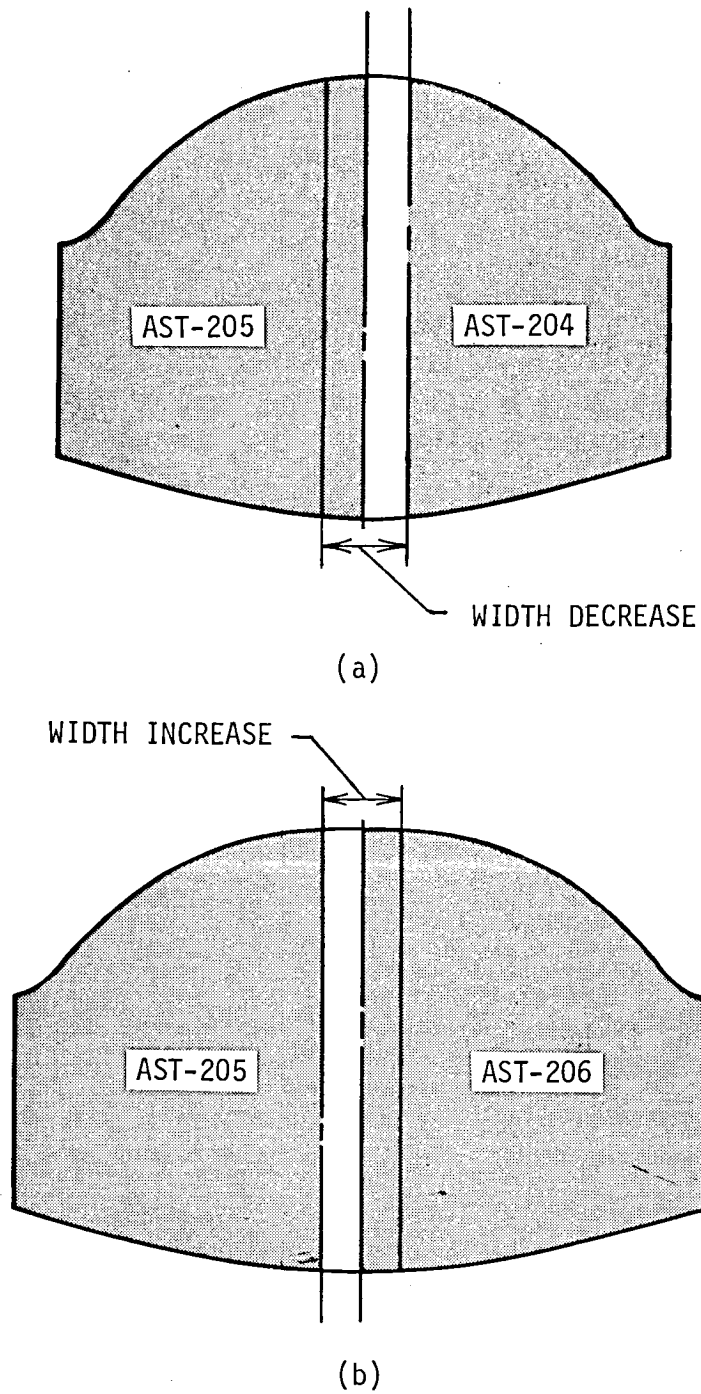


Figure 4. - Locations of the fuselage width decrease for the AST-204 and increase for the AST-206.

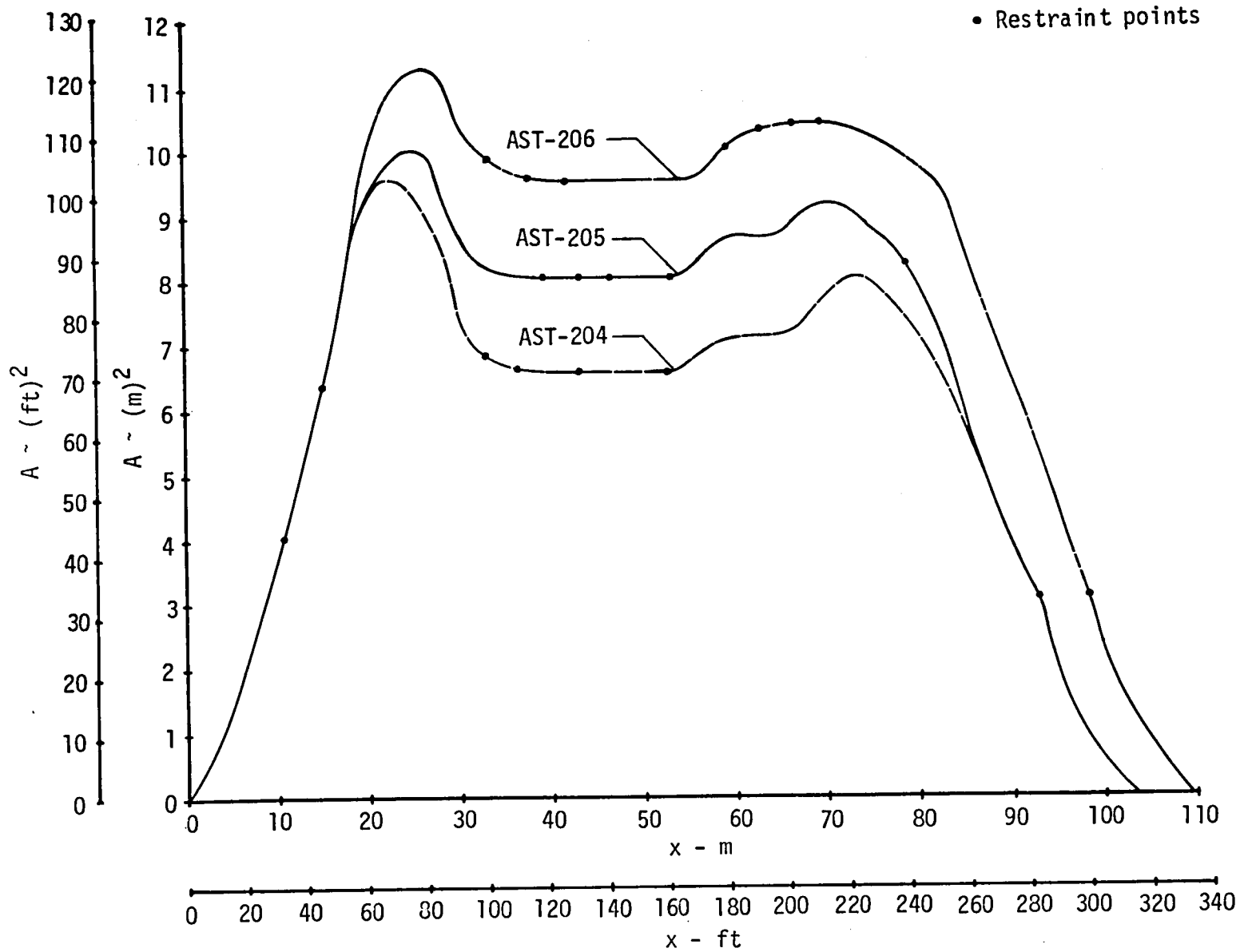
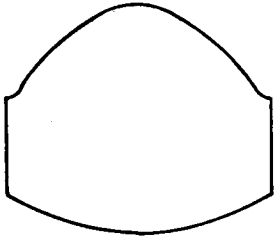
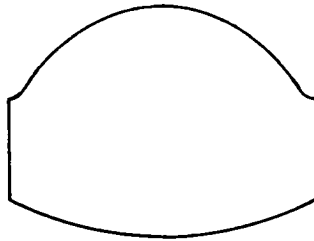


Figure 5. - Fuselage area distribution comparison

AST-204

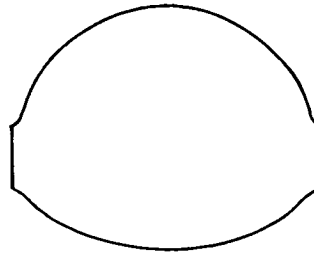
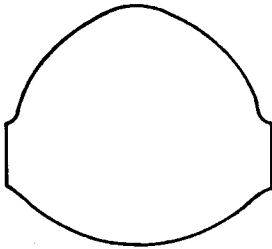
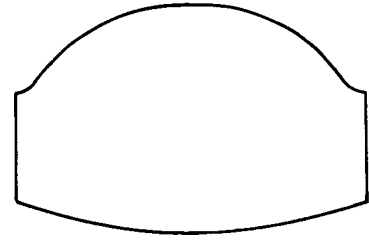


AST-205

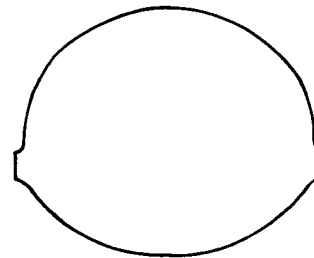
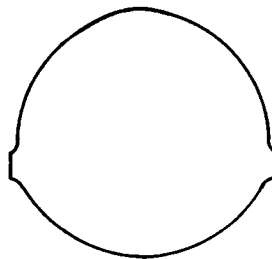
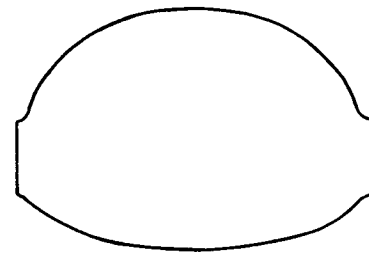


$$x = 55.774 (170)$$

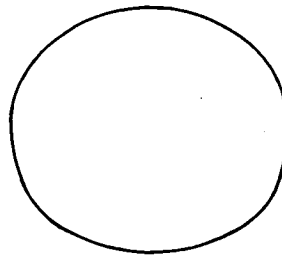
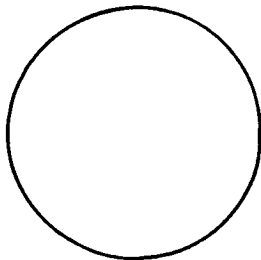
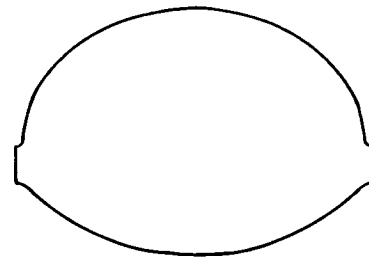
AST-206



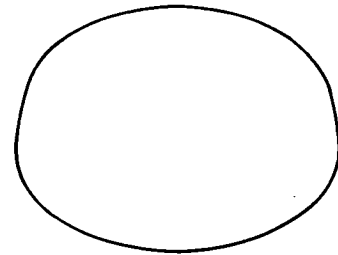
$$x = 62.336 (190)$$



$$x = 68.898 (210)$$

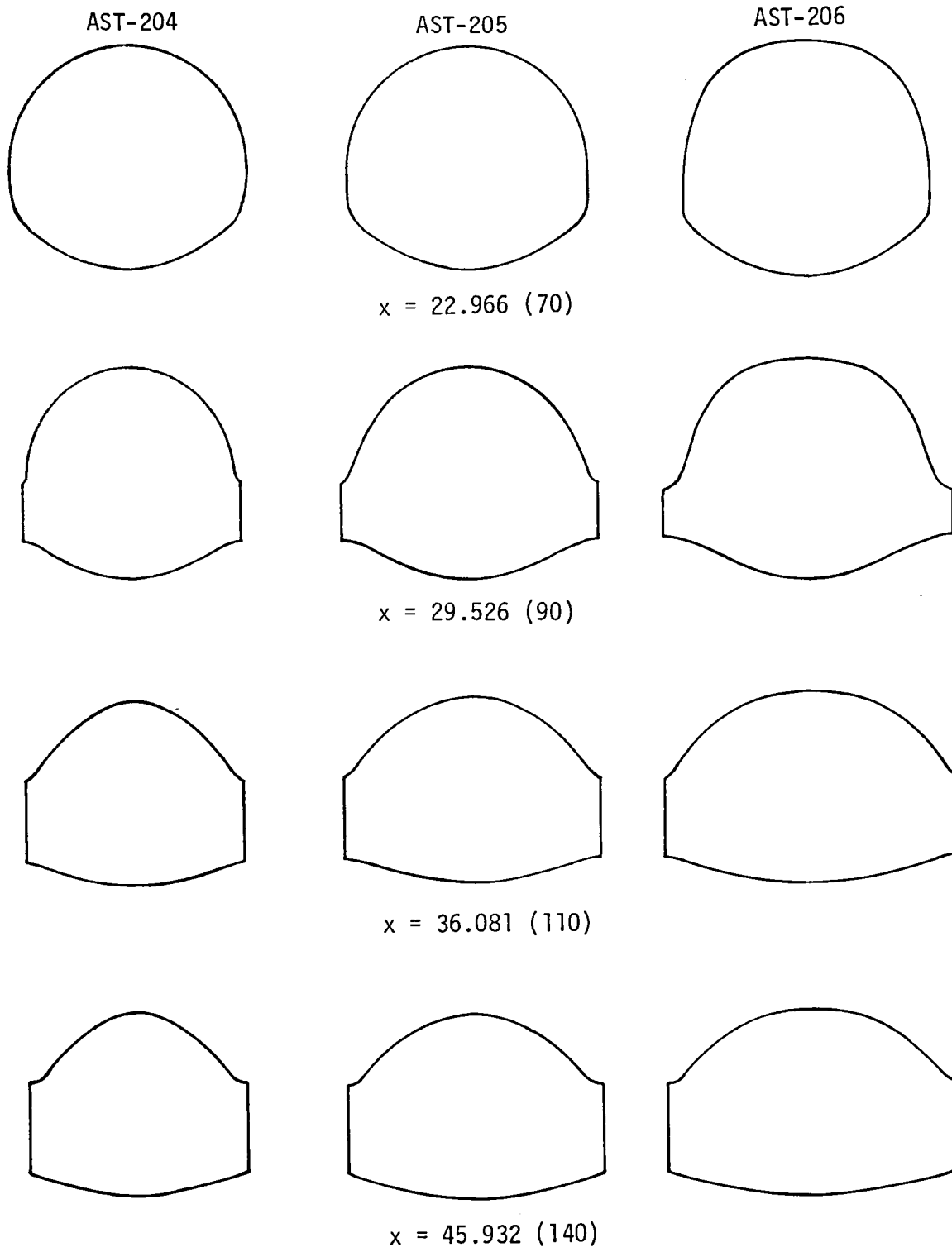


$$x = 75.459 (230)$$



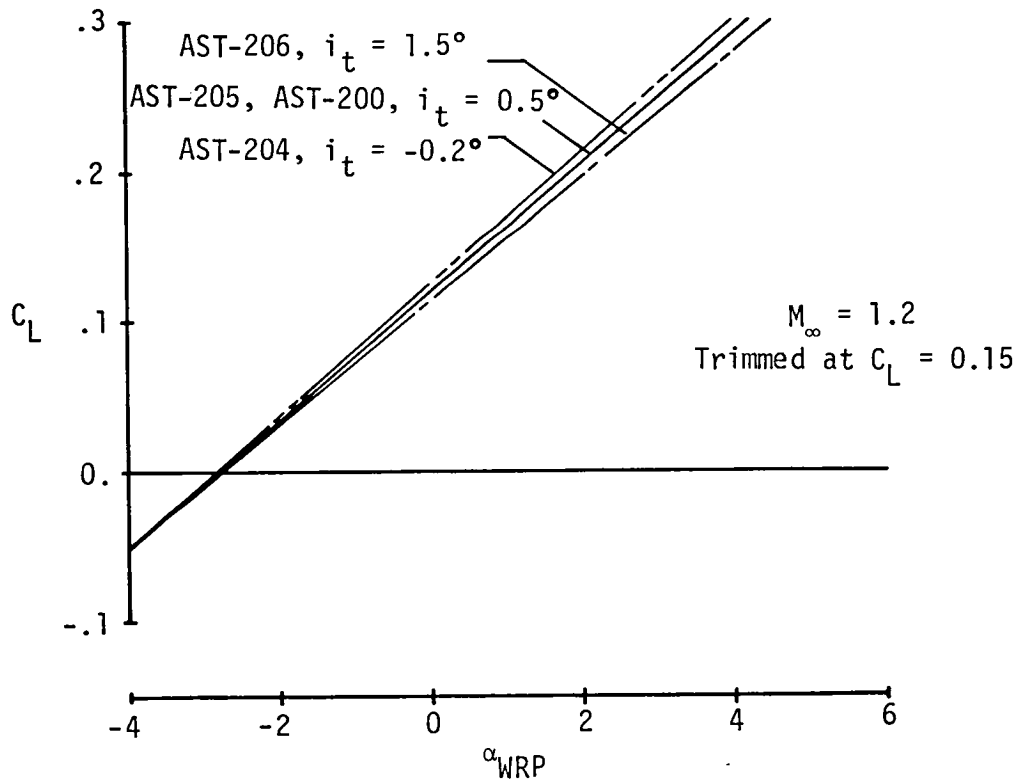
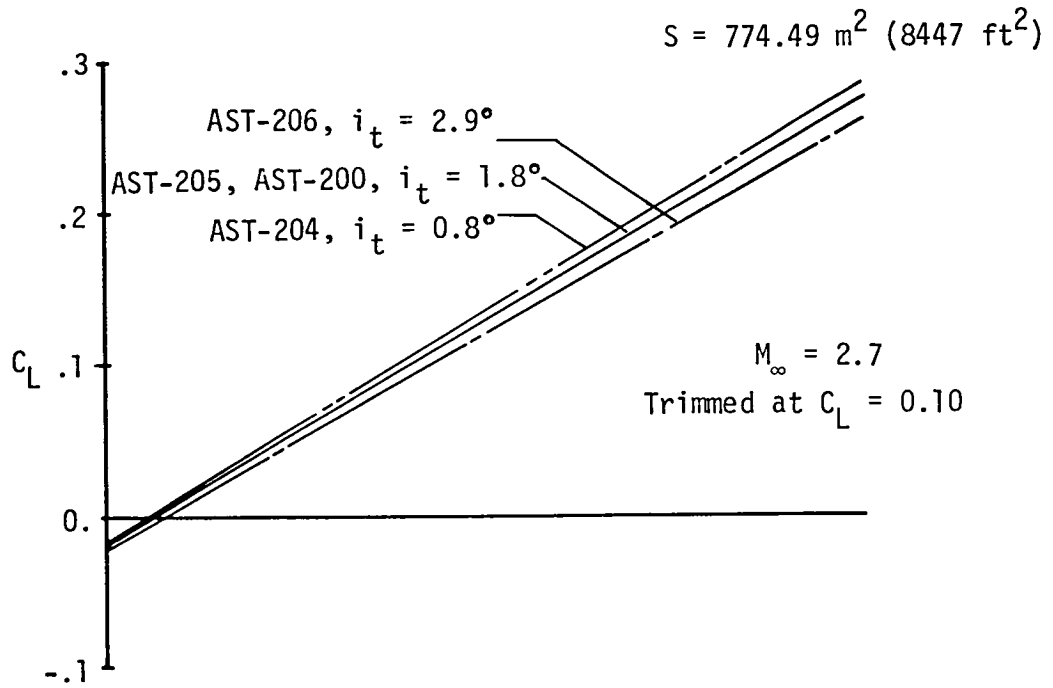
Dimensions in meters (feet)

Figure 6. - Concluded.



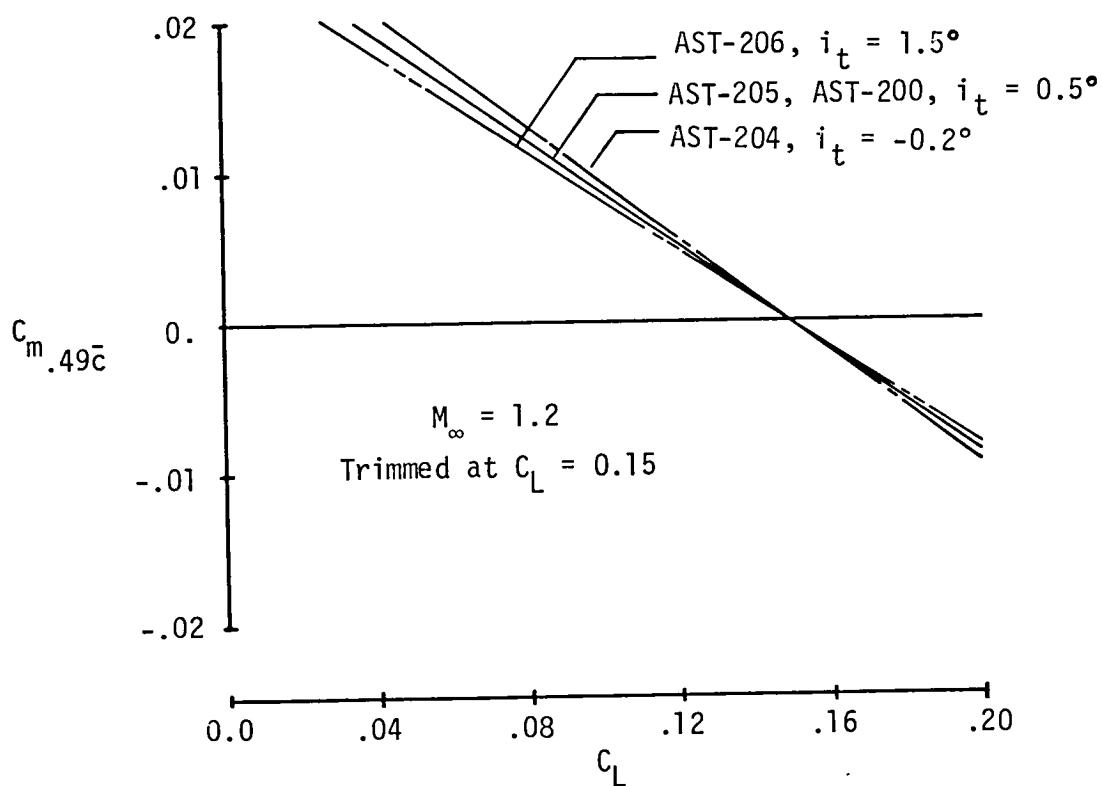
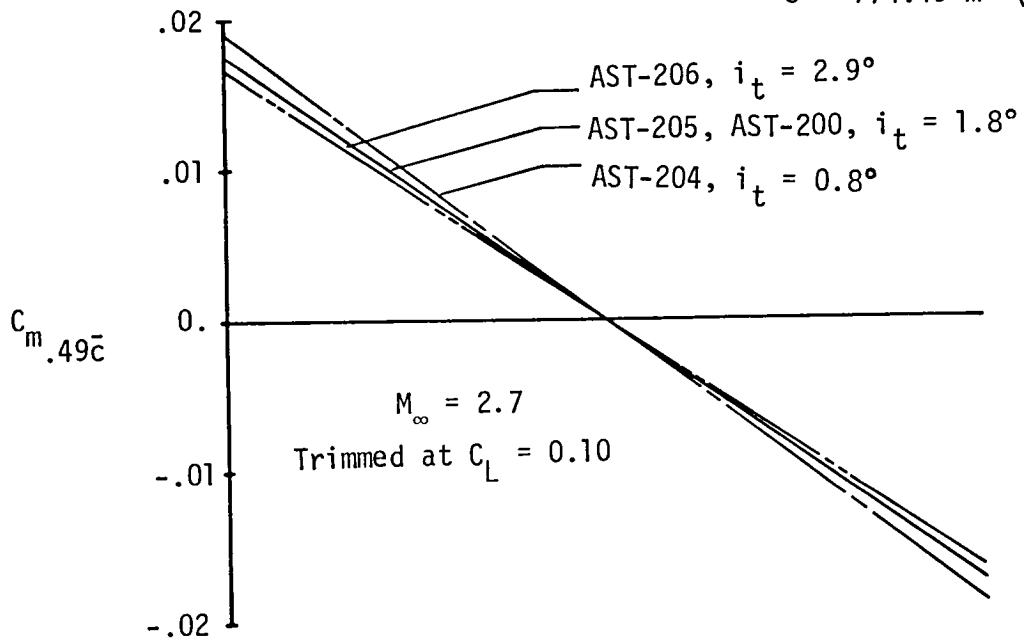
Dimensions in meters (feet)

Figure 6. - Fuselage cross-section comparison

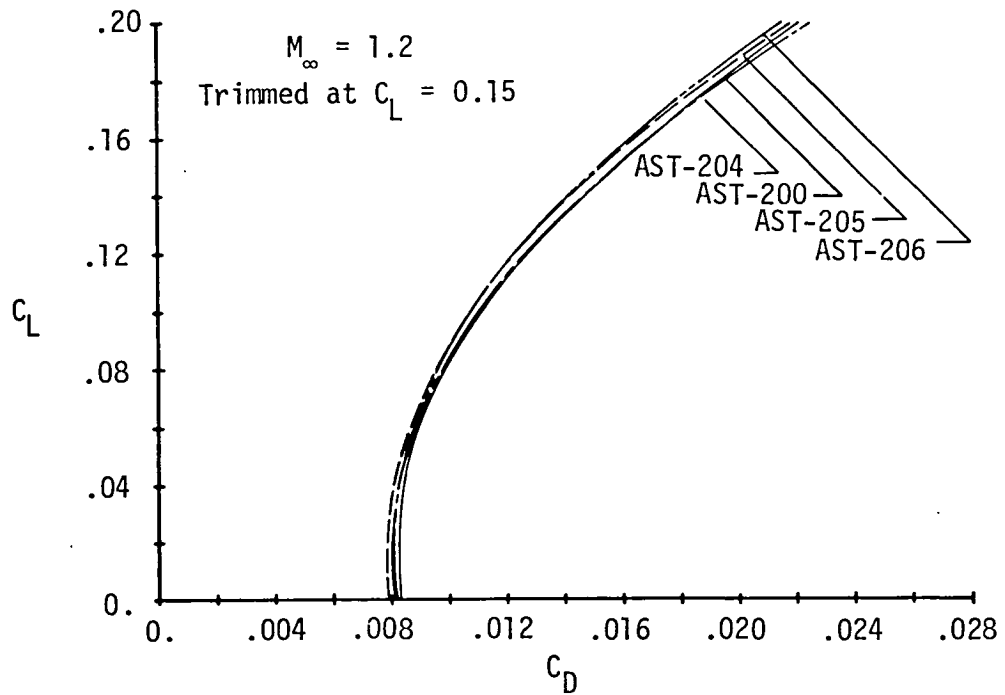
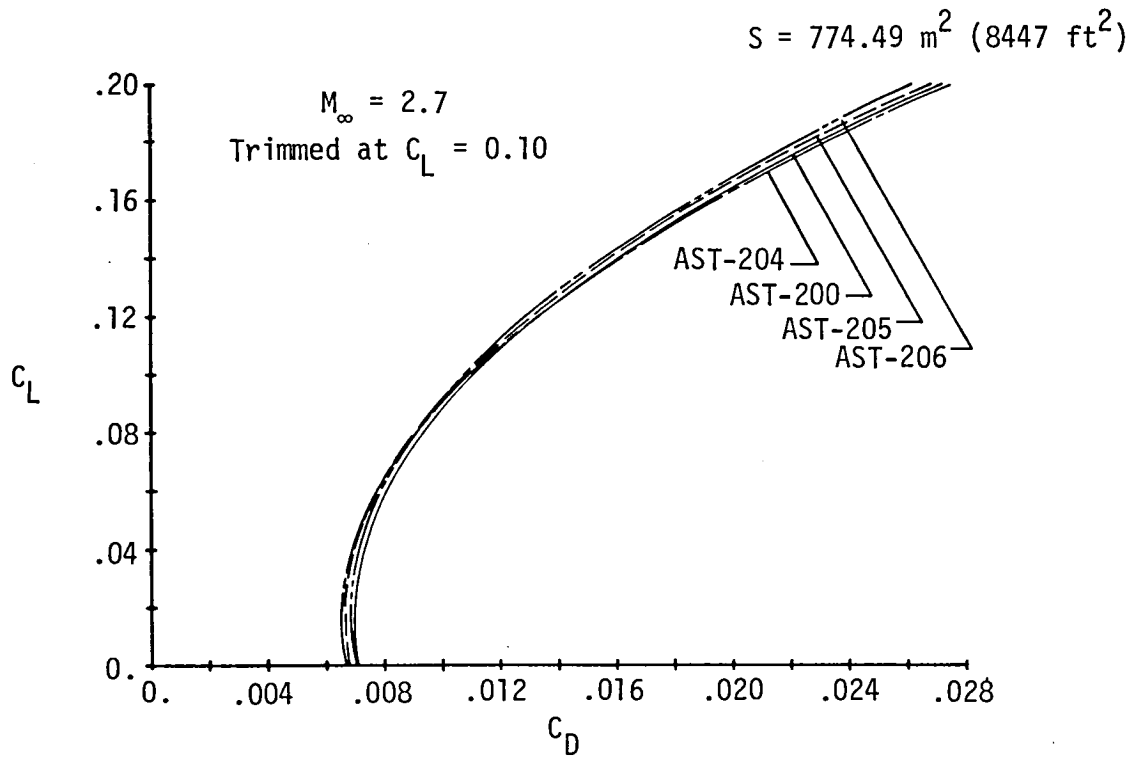


(a) Lift comparison.
 Figure 7. - Aerodynamic performance.

$S = 774.49 \text{ m}^2 (8447 \text{ ft}^2)$



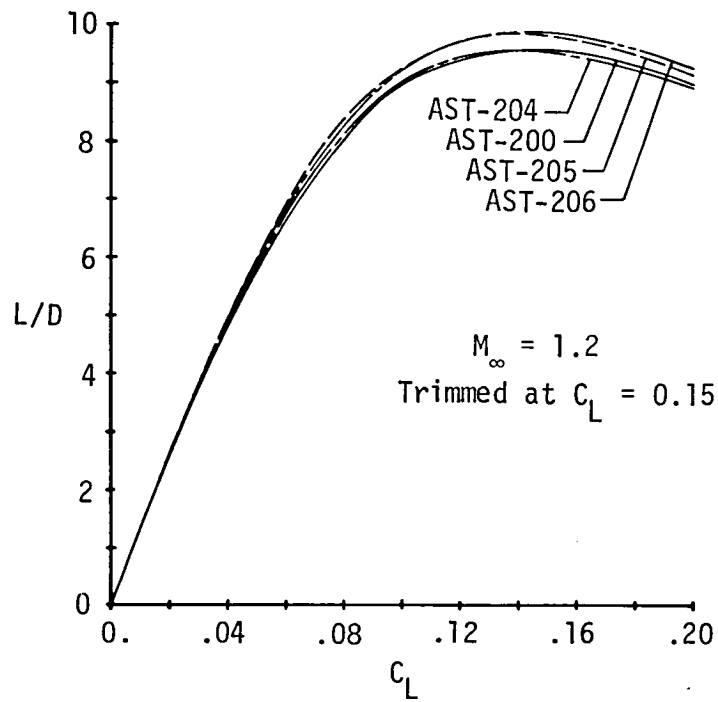
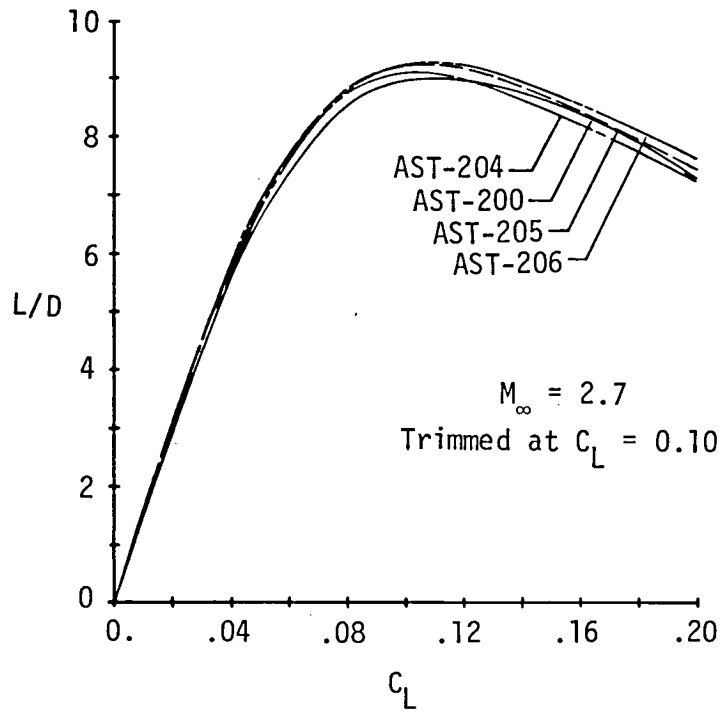
(b) Pitching moment comparison.
Figure 7. - Continued.



(c) Drag comparison.

Figure 7. - Continued.

$$S = 774.49 \text{ m}^2 (8447 \text{ ft}^2)$$



(d) L/D comparison.
Figure 7. - Concluded.



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16. Abstract The aerodynamic design and analysis of three blended wing-fuselage supersonic cruise configurations providing four-, five-, and six-abreast seating has been conducted using a previously designed supersonic cruise configuration as the baseline. The five-abreast configuration was optimized for wave drag at a Mach number of 2.7. The four- and six-abreast configurations were also optimized at Mach 2.7, but with the added constraint that the majority of their structure be common with the five-abreast configuration. Analysis of the three configurations indicated an improvement of 6.0, 7.5, and 7.7 percent in cruise lift-to-drag ratio over the baseline configuration for the four-, five-, and six-abreast configurations, respectively. Validation of the design is planned through supersonic wind tunnel tests.					
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