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AEDC-TR-75-125
AFATL-TR-76-23

cy. 1

**A COMPILATION OF
STATIC STABILITY AND FIN LOADS DATA
FOR SLENDER BODY MISSILE MODELS
WITH AND WITHOUT TAIL FINS AND WINGS**

VOLUME II

(APPENDIXES A THROUGH E)
(TESTS NUMBER 1 THROUGH 5)

PROPULSION WIND TUNNEL FACILITY
ARNOLD ENGINEERING DEVELOPMENT CENTER
AIR FORCE SYSTEMS COMMAND
ARNOLD AF STATION, TENNESSEE 37389

March 1976

Final Report for Period March 1968 — March 1973

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AIR FORCE ARMAMENT LABORATORY (AFATL/DLMA)
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APPROVAL STATEMENT

This technical report has been reviewed and is approved for publication.

FOR THE COMMANDER



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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This document contains a compilation of aerodynamic data for the Martin Generalized Research Model, which is a composite of several body, wing, and tail fin configurations typical of missile applications. The model variations included five body configurations, three wing configurations at various body locations, and 15 tail fin configurations. Static stability and tail fin loads data are presented in tabulated and plotted form for a Mach number range			

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4. TITLE (Continued)

THROUGH E) (TESTS NUMBER 1 THROUGH 5)

19. KEY WORDS (Continued)

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transonic flow
supersonic flow
wind tunnel tests

20. ABSTRACT (Continued)

from 0.20 to 4.63 over an angle-of-attack range from -6 to 60 deg and a sideslip angle range from -20 to 20 deg for the body-alone configurations, body-wing configurations, and the body-wing-tail fin configurations. In addition, the tail fin configurations were tested using the reflection plane technique, and the resulting fin loads data are presented for a Mach number range of 0.80 to 2.16 over an angle-of-attack range from 0 to 210 deg. Volume II contains the tabulated data obtained during Tests Number 1 and 2 at AEDC and Tests Number 3, 4, and 5 at NASA Langley Research Center.

PREFACE

The data presented herein were compiled by the Arnold Engineering Development Center (AEDC), Air Force Systems Command (AFSC), under the sponsorship of the Air Force Armament Laboratory (AFATL), Eglin Air Force Base, Florida. Seven different tests were conducted by three organizations: ARO, Inc. (a subsidiary of Sverdrup & Parcel and Associates, Inc.), contract operator of the AEDC, AFSC, Arnold Air Force Station, Tennessee; Naval Ship Research and Development Center (NSRDC), Bethesda, Maryland; and Langley Research Center (LRC), National Aeronautics and Space Administration (NASA), Langley Air Force Base, Virginia. The data were compiled under ARO Project No. P34A-37A. The author of this report was G. R. Gomillion, ARO, Inc. The manuscript (ARO Control No. ARO-PWT-TR-75-88) was submitted for publication on June 20, 1975.

This volume contains the tabulated data that were obtained during (1) Tests Number 1 and 2 that were conducted in the Aerodynamic Wind Tunnel (4T) at AEDC during December 1970 and May 1972, respectively, and (2) Tests Number 3, 4, and 5 that were conducted in the Unitary Plan Wind Tunnel (UPWT) at NASA Langley Research Center during March 1968, April 1970, and July 1971, respectively. As an aid in the use of these data, tables that list the part numbers for the tabulated data from Tests Number 1 through 5 and the general list of nomenclature are repeated from Volume I at the end of this volume.

APPENDIX A
TEST 1

TEST PART	MACH	PR10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	4.060	2.3	0.0	M40F12	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CA9	CAF	KCP
1	-0.00	-0.00	0.0244	-0.0716	-0.0292	0.0919	0.0003	0.2532	0.0970	0.1562	-2.8852
2	1.99	-0.00	0.3149	-0.7176	-0.0258	0.0862	-0.0015	0.2604	0.0987	0.1617	-2.2637
3	3.44	-0.00	0.6359	-1.4537	-0.0232	0.0839	-0.0015	0.2655	0.1057	0.1597	-2.2868
4	5.97	-0.00	0.9858	-2.2760	-0.0254	0.0861	-0.0032	0.2813	0.1124	0.1669	-2.3069
5	7.98	-0.00	1.3592	-3.1644	-0.0209	0.0693	-0.0013	0.2981	0.1154	0.1827	-2.3448
6	9.98	-0.00	1.7268	-4.0443	-0.0138	0.0600	-0.0085	0.3192	0.1283	0.1910	-2.3421
7	11.96	-0.00	2.1170	-4.8962	-0.0141	0.0598	-0.0086	0.3286	0.1461	0.1825	-2.3128
8	13.96	-0.00	2.5008	-5.6643	-0.0095	0.0768	-0.0065	0.3348	0.1578	0.1770	-2.2578
9	15.96	-0.00	2.8849	-6.2586	-0.0141	0.0954	-0.0049	0.3365	0.1651	0.1714	-2.1782
10	17.04	-0.01	3.0278	-6.7989	-0.0152	0.1006	-0.0052	0.3325	0.1685	0.1640	-2.0797
11	18.00	-0.00	3.2087	-6.5809	-0.0062	0.0736	-0.0129	0.3430	0.1753	0.1678	-2.0518
12	19.03	-0.00	3.4277	-6.9567	-0.0165	0.0865	-0.0131	0.3501	0.1849	0.1652	-2.0295
13	20.02	-0.00	3.6427	-7.2512	-0.0012	0.0431	-0.0141	0.3530	0.1906	0.1623	-1.9906
14	21.05	-0.00	3.8349	-7.5013	0.0132	0.0078	-0.0250	0.3522	0.2015	0.1507	-1.9561
15	22.09	-0.01	4.0753	-7.8622	0.0149	0.0363	-0.0140	0.3575	0.2092	0.1484	-1.9292
16	23.08	-0.01	4.3025	-8.1643	0.0308	0.0080	-0.0091	0.3554	0.2262	0.1292	-1.8976
17	24.11	-0.01	4.4724	-8.2638	0.0389	0.0104	0.0123	0.3535	0.2256	0.1280	-1.8675
18	25.16	-0.00	4.6735	-8.3882	0.0544	-0.0253	0.0404	0.3522	0.2438	0.1084	-1.7948
19	26.16	-0.00	4.8054	-8.3984	0.0866	-0.0440	0.0849	0.3536	0.2587	0.0949	-1.7477
20	27.14	0.01	5.0284	-8.5453	0.1402	-0.2441	0.1401	0.3590	0.2760	0.0811	-1.6994
21	28.17	0.01	5.2720	-8.8234	0.1441	-0.3420	0.1451	0.3586	0.2960	0.0626	-1.6736
22	29.16	0.01	5.5319	-9.0646	0.3322	-0.5945	0.1477	0.3447	0.3102	0.0396	-1.6386
23	29.18	0.01	5.4867	-9.0467	0.2734	-0.5310	0.1570	0.3447	0.3318	0.0129	-1.6488
24	30.21	0.02	5.7514	-9.2423	0.3173	-0.6633	0.1623	0.3295	0.3315	-0.0020	-1.6878

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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 SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

TEST PART	MACH RATIO-6			PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION											
	1	5	0.65									2.3	0.0	0.0	0.0	0.0	0.0	0.0	UNKNOWN			
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP											
1	-0.01	-0.00	0.0070	-0.0011	-0.0345	0.0950	0.0091	0.2299	0.1080	0.1219	-12.9266											
2	1.94	-0.00	0.3000	-0.7652	-0.0312	0.0903	0.0057	0.2390	0.1030	0.1355	-2.4044											
3	3.97	-0.00	0.6324	-1.5254	-0.0304	0.0931	0.0076	0.2473	0.1007	0.1305	-2.4109											
4	5.90	-0.00	0.9748	-2.3697	-0.0278	0.0893	0.0060	0.2627	0.1104	0.1443	-2.4310											
5	7.95	-0.00	1.3543	-3.3229	-0.0250	0.0617	0.0094	0.2896	0.1102	0.1714	-2.4440											
6	9.98	-0.00	1.7485	-4.2139	-0.0270	0.0594	0.0077	0.3075	0.1300	0.1767	-2.4100											
7	11.95	-0.00	2.1480	-5.0952	-0.0074	0.0528	0.0008	0.3315	0.1434	0.1801	-2.3714											
8	13.97	-0.00	2.5506	-5.9077	-0.0174	0.0742	0.0062	0.3380	0.1527	0.1853	-2.3090											
9	15.98	-0.00	2.9448	-6.5293	-0.0301	0.1110	0.0114	0.3386	0.1659	0.1727	-2.2172											
10	17.04	-0.00	3.0677	-6.4994	-0.0421	0.1442	0.0165	0.3276	0.1673	0.1603	-2.1100											
11	18.03	-0.01	3.2604	-6.7780	-0.0020	0.0691	-0.0071	0.3411	0.1779	0.1632	-2.0791											
12	19.00	-0.00	3.4753	-7.1220	-0.0250	0.0952	0.0033	0.3528	0.1805	0.1643	-2.0495											
13	20.03	-0.00	3.6558	-7.3357	-0.0023	0.0325	-0.0044	0.3499	0.1977	0.1522	-2.0066											
14	21.05	-0.00	3.8771	-7.5107	0.0049	0.0134	-0.0083	0.3618	0.2027	0.1591	-1.9630											
15	22.09	-0.00	4.1010	-7.8444	-0.0077	0.0607	-0.0030	0.3579	0.2236	0.1343	-1.9262											
16	23.11	-0.00	4.3053	-8.0464	0.0045	0.0395	-0.0010	0.3590	0.2362	0.1227	-1.8897											
17	24.15	-0.00	4.4493	-8.1917	0.0144	0.0372	0.0329	0.3607	0.2471	0.1136	-1.8247											
18	25.12	-0.00	4.7031	-8.3260	0.0314	0.0163	0.0570	0.3610	0.2646	0.0972	-1.7705											
19	26.10	0.00	4.8410	-8.4221	0.0574	-0.0304	0.0786	0.3599	0.2749	0.0850	-1.7210											
20	27.20	0.00	5.0969	-8.5472	0.0508	-0.0476	0.1164	0.3587	0.2926	0.0661	-1.6769											
21	28.21	0.00	5.3443	-8.7005	0.1195	-0.1546	0.0994	0.3514	0.3011	0.0503	-1.6404											
22	29.26	0.01	5.5906	-8.9312	0.1210	-0.1956	0.1004	0.3396	0.3199	0.0197	-1.5975											
23	30.30	0.01	5.8657	-8.9770	0.1491	-0.2507	0.1075	0.3211	0.3269	-0.0050	-1.5394											

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TEST PART MACH RX10-6 PWT CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 8 U.92 2.3 0.0 04W0F12 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLN	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	-0.00	0.0437	-0.1083	-0.0241	0.0840	-0.0030	0.2514	0.0890	0.1624	-2.4762
2	1.99	-0.00	0.3371	-0.7600	-0.0207	0.0803	-0.0043	0.2566	0.0991	0.1574	-2.2541
3	3.96	-0.00	0.6977	-1.6764	-0.0219	0.0906	-0.0076	0.2614	0.1075	0.1539	-2.4027
4	5.98	-0.00	1.0766	-2.6632	-0.0196	0.0814	-0.0091	0.2742	0.1195	0.1547	-2.4737
5	7.97	-0.00	1.4927	-3.7503	-0.0134	0.0646	-0.0089	0.3018	0.1262	0.1756	-2.5178
6	7.47	-0.00	1.4910	-3.7037	-0.0119	0.0737	-0.0120	0.3035	0.1244	0.1790	-2.5377
7	9.98	-0.01	1.9002	-4.7644	-0.0092	0.0742	-0.0184	0.3349	0.1386	0.1962	-2.5073
8	11.93	-0.01	2.3060	-5.8714	-0.0043	0.0743	-0.0233	0.3470	0.1501	0.1888	-2.4594
9	13.96	-0.01	2.7311	-6.5144	-0.0006	0.0828	-0.0233	0.3469	0.1635	0.1834	-2.3867
10	15.95	-0.01	3.1191	-7.2062	-0.0037	0.1308	-0.0096	0.3494	0.1682	0.1811	-2.3183
11	17.00	-0.01	3.3111	-7.4029	-0.0312	0.2579	0.0143	0.3548	0.1722	0.1826	-2.2358
12	17.99	-0.01	3.4650	-7.5056	-0.0160	0.2090	-0.0113	0.3581	0.1916	0.1665	-2.1661
13	19.51	-0.01	3.6516	-7.6643	0.0127	0.0835	-0.0244	0.3628	0.2167	0.1461	-2.0989
14	20.05	-0.01	3.8427	-7.8666	0.0223	0.0142	-0.0337	0.3723	0.2313	0.1410	-2.0472
15	21.05	-0.01	4.0604	-8.1461	0.0160	0.0421	-0.0254	0.3858	0.2430	0.1428	-2.0062
16	22.07	-0.01	4.2557	-8.2823	0.0095	0.0544	-0.0143	0.3801	0.2612	0.1189	-1.9462
17	23.09	-0.01	4.4564	-8.3778	0.0057	0.0837	-0.0096	0.3860	0.2761	0.1099	-1.8799
18	24.13	-0.01	4.4418	-8.4436	0.0008	0.0926	-0.0017	0.3893	0.2903	0.0990	-1.8190
19	25.17	-0.01	4.8540	-8.4900	-0.0064	0.1236	-0.0055	0.3846	0.3056	0.0790	-1.7476
20	26.20	-0.01	5.0648	-8.5723	-0.0262	0.1767	-0.0040	0.3752	0.3217	0.0535	-1.6926
21	27.25	-0.01	5.3600	-8.5677	0.0561	0.0391	0.0421	0.3614	0.3318	0.0296	-1.5985
22	28.30	-0.01	5.6316	-8.4536	0.0461	0.0171	0.0359	0.3429	0.3353	0.0076	-1.5011
23	29.33	-0.01	5.9382	-8.4045	0.1111	-0.0549	0.0587	0.3312	0.3499	-0.0187	-1.4153
24	30.38	-0.01	6.1796	-8.4184	0.0816	0.0034	0.0448	0.3114	0.3551	-0.0438	-1.3623

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART		MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1		9	U.64	2.3	0.0	M4NOF12	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	KCP	
1	-0.00	-0.00	0.0520	-0.1351	-0.0324	0.1175	-0.0140	0.2656	0.1054	0.1603	-2.5950	
2	2.00	-0.00	0.7624	-0.6222	-0.0264	0.1049	-0.0206	0.2711	0.1045	0.1667	-2.2704	
3	3.99	-0.01	0.7006	-1.6448	-0.0235	0.1056	-0.0204	0.2686	0.1104	0.1581	-2.3478	
4	5.98	-0.01	1.0724	-2.6277	-0.0231	0.1065	-0.0200	0.2848	0.1100	0.1748	-2.4503	
5	7.96	-0.01	1.4867	-3.7095	-0.0181	0.1013	-0.0246	0.3085	0.1363	0.1722	-2.4991	
6	9.95	-0.01	1.9471	-4.7412	-0.0141	0.1016	-0.0276	0.3355	0.1518	0.1837	-2.4992	
7	11.95	-0.01	2.3180	-5.7034	-0.0135	0.1056	-0.0339	0.3541	0.1640	0.1901	-2.4605	
8	13.95	-0.01	2.7495	-6.5805	-0.0062	0.1064	-0.0339	0.3549	0.1769	0.1781	-2.3934	
9	15.97	-0.01	3.1543	-7.2954	-0.0070	0.1479	-0.0240	0.3608	0.1883	0.1725	-2.3093	
10	16.98	-0.01	3.4838	-7.6671	-0.0023	0.1386	-0.0209	0.3696	0.2008	0.1688	-2.2658	
11	17.99	-0.01	3.5670	-7.8774	-0.0081	0.1635	0.0050	0.3737	0.2156	0.1581	-2.2084	
12	19.01	-0.01	3.7279	-7.4492	-0.0079	0.1491	-0.0248	0.3743	0.2407	0.1335	-2.1323	
13	20.04	-0.01	3.9048	-8.0263	0.0071	0.0747	-0.0438	0.3899	0.2455	0.1444	-2.0555	
14	21.06	-0.01	4.1152	-8.2456	0.0091	0.0634	-0.0411	0.3966	0.2795	0.1171	-2.0037	
15	22.08	-0.01	4.3208	-8.3424	0.0157	0.0552	-0.0333	0.4050	0.2792	0.1259	-1.9423	
16	23.12	-0.01	4.5421	-8.4457	0.0037	0.0800	-0.0290	0.4005	0.2933	0.1071	-1.8681	
17	24.17	-0.01	4.7627	-8.5331	-0.0028	0.1130	-0.0100	0.3983	0.3042	0.0941	-1.7854	
18	25.19	-0.01	4.9900	-8.4651	-0.0176	0.1223	-0.0255	0.3921	0.3172	0.0749	-1.6964	
19	26.23	-0.01	5.2415	-8.4361	0.0022	0.1012	-0.0135	0.3807	0.3317	0.0490	-1.6095	
20	27.29	-0.01	5.5334	-8.4011	0.0527	0.0204	0.0143	0.3659	0.3407	0.0252	-1.5183	
21	28.36	-0.01	5.8931	-8.3084	0.1091	-0.0945	0.0309	0.3557	0.3393	0.0165	-1.4098	
22	29.42	-0.00	6.1848	-8.2792	0.1757	-0.2415	0.0558	0.3368	0.3539	-0.0170	-1.3386	
23	30.47	-0.00	6.4896	-8.2783	0.1486	-0.2765	0.0463	0.3181	0.3629	-0.0448	-1.2754	
24	0.00	-0.01	0.0716	-0.1511	-0.0306	0.1284	-0.0396	0.3017	0.1122	0.1895	-2.1169	

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TEST PART MACH RX10-6											
1 10 0.96 2.3 0.0 0.00F12 0.0 0 0 0 0 UNKNOWN											
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	0.00	-0.01	0.0714	-0.1464	-0.0316	0.1298	-0.0411	0.3011	0.1137	0.1875	-2.0566
2	2.00	-0.01	0.3877	-0.8966	-0.0269	0.1203	-0.0420	0.2984	0.1200	0.1784	-2.3128
3	3.94	-0.01	0.7375	-1.7660	-0.0202	0.1125	-0.0439	0.3044	0.1163	0.1881	-2.3947
4	5.90	-0.01	1.0812	-2.6047	-0.0205	0.1098	-0.0439	0.3125	0.1278	0.1847	-2.4461
5	7.97	-0.01	1.4788	-3.6280	-0.0166	0.1062	-0.0468	0.3323	0.1425	0.1897	-2.4534
6	9.95	-0.01	1.8825	-4.6204	-0.0138	0.1102	-0.0529	0.3589	0.1535	0.2054	-2.4500
7	11.95	-0.01	2.3178	-5.6206	-0.0096	0.1067	-0.0560	0.3850	0.1621	0.2229	-2.4275
8	13.96	-0.01	2.7470	-6.5037	-0.0045	0.1084	-0.0559	0.3853	0.1448	0.2005	-2.3676
9	15.97	-0.01	3.1765	-7.2890	0.0047	0.1051	-0.0546	0.3498	0.2054	0.1944	-2.2947
10	16.99	-0.01	3.3881	-7.6015	0.0039	0.1099	-0.0528	0.4118	0.2132	0.1986	-2.2436
11	18.00	-0.01	3.6095	-7.9527	0.0096	0.0967	-0.0516	0.4198	0.2361	0.1837	-2.2033
12	18.99	-0.01	3.8052	-8.1854	0.0005	0.1230	-0.0326	0.4117	0.2590	0.1528	-2.1511
13	20.04	-0.01	3.9769	-8.2708	0.0206	0.0690	-0.0610	0.4079	0.2665	0.1414	-2.0797
14	21.09	-0.01	4.2127	-8.3444	0.0151	0.0617	-0.0615	0.4288	0.2637	0.1651	-1.9938
15	22.10	-0.01	4.3455	-8.4201	0.0025	0.0807	-0.0603	0.4245	0.2838	0.1407	-1.9156
16	23.13	-0.01	4.6475	-8.5361	-0.0130	0.1075	-0.0626	0.4157	0.2927	0.1230	-1.8367
17	24.17	-0.01	4.8985	-8.5627	0.0266	0.0320	-0.0429	0.4100	0.3028	0.1073	-1.7521
18	25.23	-0.01	5.1777	-8.5368	0.0519	-0.0297	-0.0282	0.4156	0.3086	0.1070	-1.6488
19	26.27	-0.01	5.4273	-8.4227	0.0855	-0.0990	0.0038	0.3980	0.3238	0.0741	-1.5519
20	27.32	-0.00	5.7172	-8.3430	0.1377	-0.1797	0.0054	0.3833	0.3403	0.0430	-1.4593
21	28.42	-0.00	6.0637	-8.2785	0.1134	-0.1422	0.0245	0.3627	0.3461	0.0166	-1.3652
22	29.46	-0.01	6.4513	-8.2585	0.1228	-0.1285	0.0226	0.3566	0.3499	0.0067	-1.2801
23	30.50	-0.02	6.7194	-8.2314	0.0843	0.0144	-0.0142	0.3369	0.3577	-0.0208	-1.2291

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROUSSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 PART 1 MISSILE TAIL EFFECTS DATA

TEST PART MALM RX10-6 PNI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 14 U.48 2.3 0.0 04W0F12 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	KCP
1	-0.00	-0.00	0.0469	-0.1117	-0.0222	0.0836	0.0017	0.3384	0.1433	0.1951	-2.3826
2	1.99	-0.00	0.3897	-0.8845	-0.0249	0.0863	0.0050	0.3338	0.1339	0.1499	-2.3925
3	3.99	-0.00	0.7261	-1.7633	-0.0215	0.0837	0.0052	0.3425	0.1352	0.2073	-2.4285
4	5.99	-0.00	1.0853	-2.6622	-0.0205	0.0790	0.0054	0.3484	0.1529	0.1955	-2.4530
5	7.98	-0.00	1.4640	-3.5932	-0.0202	0.0692	0.0055	0.3826	0.1599	0.2227	-2.4544
6	9.96	-0.00	1.8531	-4.5149	-0.0144	0.0673	0.0009	0.3976	0.1878	0.2098	-2.4364
7	11.96	-0.00	2.2784	-5.4294	-0.0169	0.0757	-0.0022	0.4271	0.2044	0.2227	-2.3830
8	13.96	-0.00	2.7080	-6.3066	-0.0129	0.0771	0.0026	0.4360	0.2176	0.2204	-2.3289
9	15.96	-0.00	3.1271	-7.0787	-0.0071	0.0729	0.0024	0.4466	0.2420	0.2046	-2.2637
10	16.99	-0.01	3.3500	-7.3674	-0.0024	0.0664	-0.0026	0.4687	0.2511	0.2175	-2.1902
11	18.01	-0.01	3.5759	-7.6934	0.0023	0.0604	-0.0029	0.4715	0.2811	0.1904	-2.1516
12	19.02	-0.01	3.8193	-8.0483	0.0048	0.0560	-0.0016	0.4614	0.2987	0.1627	-2.1073
13	20.05	-0.00	4.0549	-8.2569	-0.0080	0.07-1	-0.0004	0.4723	0.2881	0.1842	-2.0363
14	21.08	-0.00	4.3011	-8.5670	-0.0117	0.0874	0.0010	0.4612	0.2900	0.1712	-1.9918
15	22.12	-0.00	4.5505	-8.6134	0.0257	0.0072	0.0060	0.4568	0.2921	0.1644	-1.8928
16	23.14	-0.01	4.7444	-8.5240	0.0328	0.0231	0.0167	0.4468	0.3054	0.1413	-1.7966
17	24.20	-0.00	5.0079	-8.5084	0.0560	-0.0365	0.0153	0.4363	0.3169	0.1194	-1.6990
18	25.24	-0.00	5.3296	-8.5642	0.0390	0.0021	0.0254	0.4300	0.3387	0.0913	-1.6069
20	27.36	-0.00	5.9702	-8.4652	0.1144	-0.1525	0.0522	0.3934	0.3426	0.0507	-1.4179
21	28.44	-0.00	6.2621	-8.3423	0.1341	-0.2150	0.0499	0.3778	0.3500	0.0278	-1.3322
22	29.49	0.06	6.5388	-8.2595	0.1681	-0.2640	0.0702	0.3695	0.3529	0.0165	-1.2631
23	30.55	-0.00	6.8655	-8.2425	0.1605	-0.2263	0.0722	0.3531	0.3595	-0.0064	-1.2066
24	26.30	-0.00	5.6618	-8.5754	0.0908	-0.1122	0.0553	0.4200	0.3526	0.0674	-1.5146
25	27.09	-0.00	4.5434	-8.6001	0.0213	0.0114	0.0155	0.4670	0.3364	0.1306	-1.8929
26	18.01	-0.00	3.5869	-7.7401	-0.0022	0.0711	0.0067	0.4621	0.3144	0.1478	-2.1579
27	13.96	-0.00	2.7184	-6.3561	-0.0167	0.0876	0.0139	0.4190	0.2734	0.1456	-2.3382
28	9.97	-0.00	1.8723	-4.5844	-0.0185	0.0749	0.0122	0.3809	0.2339	0.1470	-2.4486
29	5.97	-0.00	1.0905	-2.6946	-0.0224	0.0851	0.0118	0.3440	0.1853	0.1587	-2.4718
30	1.99	-0.00	0.3815	-0.9160	-0.0256	0.0985	0.0130	0.3301	0.1506	0.1875	-2.4807
31	-0.00	-0.00	0.0553	-0.1354	-0.0295	0.0956	0.0143	0.3388	0.1366	0.2021	-2.4486

TEST PART	MACH	RK10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	15	1.65	2.3	0.0	H40F12	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	Ca	Ca0	CAF	KCP	
1	-0.00	-0.00	0.0334	-0.1136	-0.0330	0.1155	0.0138	0.4926	0.1994	0.2932	-3.3502	
2	1.98	-0.00	0.3024	-0.8355	-0.0325	0.1118	0.0124	0.4984	0.2073	0.2916	-2.4400	
3	3.99	-0.00	0.7371	-1.8533	-0.0297	0.1047	0.0127	0.4966	0.2258	0.2708	-2.5142	
4	5.97	-0.00	1.1065	-2.7582	-0.0262	0.1009	0.0129	0.5007	0.2367	0.2700	-2.4927	
5	7.97	-0.00	1.4645	-3.5176	-0.0262	0.0827	0.0156	0.5447	0.2226	0.3271	-2.4019	
6	9.97	-0.00	1.8518	-4.4124	-0.0229	0.0858	0.0144	0.5609	0.2628	0.2981	-2.3830	
7	11.97	-0.00	2.2658	-5.2319	-0.0212	0.0923	0.0113	0.5740	0.2795	0.2945	-2.3091	
8	14.71	-0.00	2.6714	-5.9403	-0.0229	0.0969	0.0126	0.5817	0.2877	0.2945	-2.2233	
9	16.02	-0.00	3.0906	-6.5666	-0.0183	0.0914	0.0122	0.5915	0.3002	0.2913	-2.1247	
10	17.04	-0.00	3.3168	-6.8763	-0.0159	0.0943	0.0119	0.5996	0.3068	0.2928	-2.0732	
11	18.05	-0.00	3.5473	-7.1510	-0.0156	0.0970	0.0086	0.6068	0.3139	0.2869	-2.0161	
12	19.07	-0.00	3.7769	-7.3704	-0.0133	0.0914	0.0096	0.6053	0.3193	0.2860	-1.9515	
13	20.10	-0.00	4.0247	-7.5484	-0.0140	0.0905	0.0091	0.5999	0.3266	0.2723	-1.8860	
14	21.13	-0.00	4.3025	-7.8014	-0.0030	0.0679	0.0069	0.5901	0.3361	0.2541	-1.8133	
15	22.17	-0.00	4.5957	-7.9533	0.0101	0.0369	0.0090	0.5777	0.3354	0.2423	-1.7306	
16	23.21	-0.00	4.8914	-8.0787	0.0402	-0.0329	0.0124	0.5622	0.3402	0.2220	-1.6514	
17	24.26	-0.00	5.2011	-8.1618	0.0038	-0.0986	0.0186	0.5488	0.3414	0.2069	-1.5692	
18	25.31	0.00	5.5054	-8.1775	0.0768	-0.1353	0.0234	0.5331	0.3392	0.1939	-1.4852	
19	26.38	0.00	5.8338	-8.2224	0.1073	-0.2078	0.0321	0.5162	0.3450	0.1712	-1.4096	
20	27.42	0.01	6.1574	-8.2563	0.1419	-0.3117	0.0419	0.4999	0.3501	0.1497	-1.3409	
21	28.47	0.01	6.4703	-8.2486	0.1603	-0.3643	0.0398	0.4881	0.3444	0.1438	-1.2748	
22	29.54	0.00	6.7764	-8.2801	0.1636	-0.3353	0.0311	0.4722	0.3505	0.1217	-1.2219	
23	30.59	0.01	7.0528	-8.2477	0.2869	-0.6185	0.0581	0.4529	0.3546	0.0984	-1.1694	
24	26.37	0.00	5.8086	-8.1964	0.1111	-0.2263	0.0350	0.5231	0.3624	0.1607	-1.4111	
25	26.37	0.00	5.8107	-8.1924	0.1101	-0.2063	0.0351	0.5201	0.3543	0.1658	-1.4099	
26	22.17	-0.00	4.5752	-7.8806	0.0079	0.0002	0.0104	0.5875	0.3445	0.2430	-1.7200	
27	18.05	-0.00	3.5275	-7.1143	-0.0155	0.0963	0.0116	0.5981	0.3378	0.2603	-2.0168	
28	13.99	-0.00	2.6419	-5.8514	-0.0216	0.0982	0.0125	0.5773	0.3100	0.2673	-2.2150	
29	9.97	-0.00	1.8397	-4.3945	-0.0256	0.0984	0.0113	0.5529	0.2929	0.2591	-2.3887	
30	5.97	-0.00	1.0844	-2.7280	-0.0272	0.1130	0.0099	0.5033	0.2473	0.2560	-2.5083	
31	1.99	-0.00	0.3427	-0.8644	-0.0324	0.1223	0.0164	0.4935	0.1965	0.2970	-2.5237	
32	-0.01	-0.00	0.0208	-0.1194	-0.0354	0.1224	0.0123	0.4886	0.2050	0.2834	-5.7434	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MALM RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 16 1.10 2.3 0.0 H4=0F12 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CM	CLM	CY	CLM	CLL	CA	CAB	CAF	ACP
1	-0.00	-0.01	0.0045	-0.0270	-0.0467	0.1763	0.0124	0.5259	0.2148	0.3112	-3.2133
2	1.99	-0.01	0.3478	-0.0370	-0.0471	0.2019	0.0142	0.5277	0.2200	0.3077	-2.4065
3	3.99	-0.01	0.6745	-1.6067	-0.0454	0.1827	0.0127	0.5242	0.2291	0.2951	-2.3645
4	5.99	-0.01	1.0604	-2.5414	-0.0396	0.1673	0.0143	0.5339	0.2239	0.3100	-2.3955
5	7.99	-0.01	1.4109	-3.2452	-0.0347	0.1349	0.0184	0.5404	0.2452	0.3032	-2.3285
6	9.98	-0.01	1.7854	-4.0844	-0.0293	0.1266	0.0125	0.4661	0.2476	0.3185	-2.2873
7	12.00	-0.01	2.1740	-4.8000	-0.0270	0.1256	0.0109	0.5746	0.2532	0.3214	-2.2101
8	12.00	-0.01	2.1675	-4.7051	-0.0268	0.1298	0.0124	0.5694	0.2626	0.3067	-2.2149
9	14.02	-0.01	2.5731	-5.4368	-0.0254	0.1257	0.0120	0.5780	0.2640	0.3139	-2.1129
10	16.04	-0.01	2.9820	-6.0203	-0.0223	0.1260	0.0086	0.5844	0.2706	0.3138	-2.0183
11	17.07	-0.01	3.2243	-6.3505	-0.0136	0.1144	0.0053	0.5908	0.2785	0.3123	-1.9665
13	20.13	-0.01	3.9654	-7.0700	-0.0052	0.1051	0.0055	0.5617	0.3062	0.2755	-1.7827
14	21.16	-0.01	4.2419	-7.2247	0.0000	0.1047	0.0049	0.5736	0.3046	0.2690	-1.7043
15	22.21	-0.01	4.5350	-7.3699	0.0113	0.0701	0.0054	0.5619	0.3099	0.2520	-1.6248
16	23.26	-0.01	4.8273	-7.4612	0.0332	0.0155	0.0101	0.5501	0.3145	0.2357	-1.5498
17	24.32	-0.01	5.1462	-7.5248	0.0574	-0.0316	0.0131	0.5369	0.3155	0.2235	-1.4622
18	25.37	-0.00	5.4645	-7.5543	0.0845	-0.0654	0.0187	0.5242	0.3145	0.2097	-1.3824
19	26.44	-0.00	5.7940	-7.5631	0.0616	-0.0651	0.0172	0.5146	0.3202	0.1944	-1.3086
20	27.46	0.01	6.0844	-7.6032	0.1670	-0.3409	0.0536	0.5083	0.3255	0.1828	-1.2551
21	28.54	0.00	6.4600	-7.7103	0.1320	-0.2464	0.0245	0.4995	0.3320	0.1675	-1.1935
22	29.58	-0.00	6.7566	-7.8420	0.1261	-0.2008	0.0077	0.4919	0.3372	0.1547	-1.1608
23	30.65	-0.00	7.0647	-7.9263	0.1920	-0.3575	0.0273	0.4822	0.3414	0.1408	-1.1211
24	20.14	-0.01	3.9456	-6.4869	-0.0112	0.1245	0.0071	0.5765	0.3202	0.2583	-1.7708
26	-0.00	-0.01	0.0046	-0.0181	-0.0365	0.1473	0.0151	0.5211	0.2429	0.2783	-3.9148

TEST PART MACH RX10-6 PHI COMP L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 17 1.20 2.3 0.0 M400F12 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	ACP
1	0.00	-0.00	-0.0137	0.0564	-0.0218	0.0714	0.0124	0.5152	0.1839	0.3313	-3.9891
2	2.00	-0.00	0.3135	-0.4603	-0.0224	0.0755	0.0125	0.5155	0.1943	0.3211	-2.1062
3	4.00	-0.00	0.6522	-1.4447	-0.0154	0.0626	0.0140	0.5144	0.1952	0.3196	-2.2151
4	6.00	-0.00	0.9407	-2.2042	-0.0124	0.0557	0.0140	0.5214	0.2048	0.3166	-2.2249
5	8.00	-0.00	1.3594	-2.9802	-0.0045	0.0503	0.0140	0.5365	0.2069	0.3295	-2.1923
6	10.00	-0.00	1.7339	-3.7106	-0.0062	0.0403	0.0124	0.5472	0.2129	0.3343	-2.1400
7	12.01	-0.00	2.1119	-4.3523	-0.0010	0.0351	0.0092	0.5579	0.2178	0.3401	-2.0608
9	16.06	-0.00	2.9243	-5.4115	0.0066	0.0224	0.0081	0.5672	0.2388	0.3234	-1.8478
10	17.11	-0.00	3.1675	-5.6612	0.0049	0.0173	0.0048	0.5656	0.2443	0.3213	-1.7873
11	18.14	-0.00	3.4204	-5.8647	0.0124	0.0157	0.0057	0.5652	0.2546	0.3107	-1.7161
12	19.18	-0.00	3.6992	-6.0527	0.0140	0.0124	0.0051	0.5626	0.2610	0.3017	-1.6362
13	20.22	-0.00	3.9864	-6.1884	0.0206	0.0057	0.0057	0.5568	0.2665	0.2904	-1.5525
14	21.27	-0.00	4.2496	-6.3214	0.0224	0.0063	0.0050	0.5511	0.2721	0.2790	-1.4737
15	22.33	-0.00	4.5921	-6.3980	0.0245	0.0057	0.0051	0.5424	0.2728	0.2696	-1.3934
16	23.37	-0.00	4.8413	-6.4712	0.0323	-0.0147	0.0065	0.5347	0.2773	0.2574	-1.3230
18	25.49	0.00	5.5405	-6.5900	0.1072	-0.1951	0.0279	0.5232	0.2911	0.2321	-1.1905
19	26.54	0.00	5.8744	-6.6563	0.1281	-0.2417	0.0344	0.5214	0.2948	0.2266	-1.1331
20	27.61	0.00	6.2045	-6.7480	0.1500	-0.2900	0.0371	0.5180	0.2986	0.2194	-1.0876
21	28.66	0.00	6.5366	-6.8810	0.1632	-0.3282	0.0327	0.5144	0.3023	0.2123	-1.0528
22	29.64	0.00	6.6522	-7.0434	0.2084	-0.4366	0.0265	0.5104	0.3064	0.2045	-1.0280
23	30.75	-0.00	7.2465	-7.2705	0.1634	-0.2770	0.0124	0.5037	0.3155	0.1881	-1.0041
24	20.22	-0.00	3.9455	-6.1475	0.0177	0.0100	0.0071	0.5568	0.2811	0.2757	-1.5425
25	10.00	-0.00	1.7214	-3.7003	-0.0042	0.0423	0.0138	0.5396	0.2589	0.2807	-2.1496
26	0.00	-0.00	-0.0259	0.0743	-0.0148	0.0648	0.0136	0.5166	0.2091	0.3075	-3.0664

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPELLION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 10 1.30 2.3 0.0 H=0F12 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	HFTA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
2	-0.00	-0.00	0.0069	-0.0401	-0.0240	0.0770	0.0119	0.4809	0.1756	0.3053	-5.8152
3	2.00	-0.00	0.7419	-0.5573	-0.0205	0.0778	0.0205	0.4893	0.1855	0.3037	-1.9773
4	4.01	-0.00	0.5495	-1.2245	-0.0216	0.0839	0.0191	0.4900	0.1937	0.2962	-2.8424
5	6.02	-0.00	0.9240	-1.9044	-0.0195	0.0904	0.0191	0.5030	0.1952	0.3078	-2.0580
6	8.03	-0.01	1.2735	-2.5692	-0.0117	0.0821	0.0176	0.5141	0.1998	0.3143	-2.0175
7	10.03	-0.00	1.6328	-3.1730	-0.0144	0.0814	0.0159	0.5215	0.2058	0.3157	-1.9555
9	14.11	-0.00	2.4054	-4.2346	-0.0045	0.0503	0.0175	0.5309	0.2287	0.3022	-1.7601
10	16.16	-0.00	2.8548	-4.6776	-0.0010	0.0415	0.0152	0.5373	0.2327	0.3046	-1.6356
11	17.17	-0.00	3.1047	-4.8656	-0.0004	0.0477	0.0161	0.5366	0.2387	0.2960	-1.5646
12	18.22	-0.00	3.3887	-5.0235	0.0021	0.0418	0.0168	0.5356	0.2440	0.2916	-1.4824
13	19.27	-0.00	3.6783	-5.1632	0.0059	0.0413	0.0172	0.5325	0.2501	0.2824	-1.4037
14	20.30	-0.00	3.9806	-5.2936	0.0165	0.0147	0.0174	0.5293	0.2557	0.2736	-1.3298
15	21.36	-0.00	4.2645	-5.3605	0.0244	0.0043	0.0186	0.5237	0.2572	0.2665	-1.2500
16	22.41	-0.00	4.5816	-5.4225	0.0291	-0.0001	0.0188	0.5204	0.2623	0.2586	-1.1835
17	23.47	-0.00	4.8797	-5.4784	0.0243	0.0045	0.0176	0.5163	0.2675	0.2508	-1.1228
18	24.54	-0.00	5.2101	-5.5314	0.0267	0.0042	0.0161	0.5179	0.2722	0.2457	-1.0618
19	25.59	-0.00	5.5211	-5.5922	0.0223	-0.0043	0.0214	0.5166	0.2768	0.2398	-1.0129
20	26.64	-0.00	5.8705	-5.7105	0.0011	-0.1144	0.0305	0.5142	0.2842	0.2350	-0.9728
21	27.69	-0.00	6.2141	-5.8748	0.0703	-0.0662	0.0296	0.5222	0.2909	0.2313	-0.9454
23	29.80	-0.00	6.9431	-6.3224	0.0498	-0.1518	0.0199	0.5270	0.3188	0.2082	-0.9107
24	30.88	-0.00	7.3357	-6.5567	0.1086	-0.1561	0.0185	0.5269	0.3231	0.2038	-0.8938
25	28.65	-0.00	5.8741	-5.6119	0.0850	-0.1207	0.0330	0.5212	0.3163	0.2049	-0.9554
26	22.42	-0.00	4.5845	-5.3691	0.0252	0.0012	0.0215	0.5264	0.3158	0.2106	-1.1699
27	18.21	-0.00	3.3848	-5.0423	0.0029	0.0325	0.0238	0.5457	0.3191	0.2266	-1.4875
28	14.21	-0.00	3.3966	-5.0454	0.0014	0.0344	0.0236	0.5407	0.3015	0.2392	-1.4863
29	14.06	-0.00	2.4061	-4.2400	0.0014	0.0397	0.0214	0.5308	0.2866	0.2440	-1.7622
30	10.03	-0.00	1.6345	-3.1914	-0.0131	0.0407	0.0212	0.5254	0.2727	0.2527	-1.9525
31	6.02	-0.00	0.9380	-1.4271	-0.0191	0.0790	0.0256	0.5052	0.2623	0.2429	-2.0545
32	2.00	-0.00	0.2859	-0.5442	-0.0239	0.0754	0.0254	0.4944	0.2417	0.2527	-1.9838
33	0.00	-0.00	-0.0113	0.0756	-0.0215	0.0643	0.0238	0.4930	0.2260	0.2670	-4.6498

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TEST PART	MACH	PK10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	19	0.94	2.3	0.0	M4=0F12	0.0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CM	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
2	1.94	-0.00	0.303M	-0.7290	-0.0264	0.0991	0.0265	0.2731	0.0992	0.1739	-2.3993
3	1.99	-0.00	0.3047	-0.7407	-0.0307	0.1036	0.0280	0.2756	0.1009	0.1747	-2.4310
4	3.99	-0.00	0.6400	-1.3605	-0.0267	0.0949	0.0283	0.2692	0.1158	0.1535	-2.4361
5	5.97	-0.00	1.0191	-2.5614	-0.0264	0.1042	0.0271	0.2644	0.1155	0.1694	-2.5134
6	7.96	-0.00	1.4447	-3.6424	-0.0256	0.0998	0.0258	0.3071	0.1320	0.1751	-2.5491
7	9.95	-0.00	1.8643	-4.7274	-0.0204	0.0956	0.0228	0.3295	0.1467	0.1827	-2.5358
8	11.95	-0.00	2.2829	-5.6547	-0.0165	0.0899	0.0179	0.3530	0.1548	0.1983	-2.4792
9	13.95	-0.00	2.6947	-6.4484	-0.0162	0.0940	0.0212	0.3534	0.1703	0.1831	-2.4115
11	14.97	-0.01	3.3532	-7.6317	-0.0211	0.1492	0.0377	0.3673	0.2166	0.1508	-2.2759
12	18.01	-0.01	3.5119	-7.7254	-0.0238	0.1660	0.0390	0.3680	0.2242	0.1438	-2.1998
13	19.03	-0.01	3.6604	-7.7864	-0.0142	0.1413	0.0247	0.3743	0.2347	0.1346	-2.1273
14	21.04	-0.00	3.8660	-7.4554	-0.0050	0.0733	0.0496	0.3949	0.2468	0.1441	-2.0578
15	21.07	-0.00	4.0842	-8.1876	-0.0015	0.0793	0.0158	0.3990	0.2569	0.1420	-2.0027
16	22.08	-0.00	4.2833	-8.2441	0.0104	0.0654	0.0249	0.3994	0.2749	0.1235	-1.9375
17	23.12	-0.00	4.4802	-8.3034	0.0032	0.0965	0.0554	0.4063	0.2839	0.1224	-1.8534
18	24.15	-0.01	4.6690	-8.2656	0.0151	0.1229	0.0762	0.4006	0.2985	0.1021	-1.7703
19	24.15	-0.00	4.6825	-8.3154	0.0062	0.1301	0.0746	0.4053	0.3137	0.0916	-1.7759
20	25.20	-0.00	4.8954	-8.2881	0.0213	0.0752	0.0751	0.3952	0.3274	0.0678	-1.6930
21	26.22	-0.00	5.1762	-8.3454	0.0461	0.0262	0.0757	0.3858	0.3480	0.0378	-1.6124
22	27.26	-0.00	5.4415	-8.2754	0.0707	-0.0077	0.0841	0.3676	0.3531	0.0145	-1.5289
23	28.35	-0.00	5.8410	-8.2799	0.0877	-0.0614	0.0933	0.3529	0.3511	0.0018	-1.4176
24	29.42	-0.00	6.1353	-8.2228	0.0873	-0.0517	0.0838	0.3348	0.3562	-0.0214	-1.3402
25	30.46	-0.00	6.4453	-8.1084	0.1350	-0.1374	0.0944	0.3233	0.3632	-0.0399	-1.2581
26	24.23	-0.00	5.1574	-8.2987	0.0414	0.0370	0.0725	0.3904	0.3651	0.0253	-1.6091
27	22.04	-0.00	4.2548	-8.2575	0.0068	0.0747	0.0283	0.3984	0.3498	0.0485	-1.9408
29	13.94	-0.00	2.7154	-6.5657	-0.0125	0.0922	0.0197	0.3327	0.2204	0.1122	-2.4160
30	9.96	-0.00	1.8850	-4.7694	-0.0178	0.0934	0.0195	0.3160	0.1911	0.1249	-2.5305
31	5.97	-0.00	1.0323	-2.6035	-0.0251	0.1059	0.0223	0.2649	0.1787	0.0862	-2.5221
32	2.00	-0.00	0.3056	-0.7424	-0.0274	0.1010	0.0232	0.2715	0.1263	0.1451	-2.4305
33	-0.00	-0.00	0.0016	-0.0583	-0.0268	0.1019	0.0248	0.2677	0.1207	0.1470	-36.8062

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART MALM MX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 22 D.8V 2.3 0.0 0.40F13 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-0.01	-0.00	0.0517	-0.7074	-0.0290	0.0A49	-0.0088	0.2528	0.1077	0.1451	-4.0236
2	-0.01	-0.00	0.0623	-0.7280	-0.0265	0.0A56	-0.0088	0.2540	0.1053	0.1467	-3.6686
3	-0.01	-0.00	0.0645	-0.7266	-0.0275	0.0A59	-0.0069	0.2420	0.1086	0.1334	-3.5155
4	-0.01	-0.00	0.0645	-0.7270	-0.0301	0.0907	-0.0069	0.2414	0.1050	0.1365	-3.5166
5	-0.01	-0.00	0.0623	-0.7202	-0.0316	0.0933	-0.0069	0.2378	0.1036	0.1342	-3.5323
6	1.98	-0.00	0.7918	-0.9713	-0.0304	0.0951	-0.0086	0.2371	0.1039	0.1331	-2.5640
7	3.96	-0.00	0.7434	-1.0707	-0.0285	0.0976	-0.0102	0.2320	0.1059	0.1260	-2.5162
8	5.96	-0.00	1.1225	-2.3960	-0.0294	0.1096	-0.0132	0.2356	0.1163	0.1192	-2.5799
9	7.96	-0.00	1.4701	-3.7722	-0.0266	0.1061	-0.0149	0.2582	0.1298	0.1285	-2.5660
10	9.96	-0.00	1.8396	-4.9495	-0.0284	0.1145	-0.0148	0.2738	0.1449	0.1290	-2.4731
11	11.98	-0.01	2.1439	-5.1437	-0.0338	0.1357	-0.0130	0.2859	0.1573	0.1286	-2.3992
12	14.00	-0.00	2.3445	-5.1703	-0.0297	0.1149	0.0007	0.3082	0.1798	0.1283	-2.2053
13	16.03	-0.01	2.5285	-5.0398	-0.0281	0.1312	-0.0074	0.3495	0.2263	0.1232	-1.9932
14	17.05	-0.01	2.6445	-5.0427	-0.0204	0.1059	-0.0153	0.3685	0.2761	0.0925	-1.9069
15	18.08	-0.00	2.7646	-5.0142	-0.0236	0.0911	-0.0198	0.3892	0.3091	0.0801	-1.8137
16	19.10	-0.00	2.8761	-4.8526	0.0152	-0.0617	-0.0387	0.4252	0.3375	0.0878	-1.6872
17	19.10	0.00	2.8255	-4.7495	0.0321	-0.1351	-0.0479	0.4336	0.3306	0.1031	-1.6811
18	20.12	0.00	2.9477	-4.6634	0.0442	-0.1820	-0.0512	0.4681	0.3632	0.1049	-1.5829
19	21.16	-0.01	3.0686	-4.5565	0.0600	0.0616	-0.0220	0.5071	0.3876	0.1195	-1.4850
20	22.16	-0.00	3.2764	-4.4305	-0.0135	0.0626	-0.0225	0.5179	0.4066	0.1113	-1.4741
21	23.18	-0.01	3.4437	-4.4512	-0.0175	0.0916	-0.0227	0.5258	0.4184	0.1074	-1.4377
22	24.20	-0.01	3.6423	-5.1530	-0.0654	0.0843	-0.0231	0.5279	0.4329	0.0950	-1.4149
23	25.21	-0.01	3.6643	-5.3671	0.0031	0.0825	-0.0237	0.5313	0.4503	0.0810	-1.3889
24	26.23	-0.01	4.0565	-5.5672	0.0297	0.0472	-0.0205	0.5261	0.4606	0.0655	-1.3724
25	27.25	-0.01	4.3013	-5.8733	0.0443	-0.0055	-0.0049	0.5223	0.4717	0.0506	-1.3655
26	28.26	-0.01	4.5541	-6.1940	0.1568	-0.2049	-0.0046	0.5134	0.4746	0.0388	-1.3601
27	29.29	-0.00	4.8394	-6.5941	0.2176	-0.3660	0.0320	0.5001	0.4848	0.0154	-1.3626
28	30.30	0.00	5.1034	-6.8561	0.2344	-0.4565	0.0434	0.4875	0.4960	-0.0085	-1.3434

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	24	U.65	2.3	0.0	840F13	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	ACP	
1	-0.01	-0.00	0.0376	-0.1953	-0.0314	0.0915	-0.0084	0.2447	0.1049	0.1438	-5.2057	
2	1.99	-0.00	0.3520	-0.4214	-0.0279	0.0827	-0.0083	0.2442	0.1045	0.1397	-2.6174	
3	1.99	-0.00	0.3611	-0.4337	-0.0277	0.0866	-0.0100	0.2447	0.1058	0.1389	-2.5860	
4	1.99	-0.00	0.3678	-0.4424	-0.0276	0.0863	-0.0100	0.2423	0.1255	0.1168	-2.5635	
5	3.48	-0.00	0.7235	-1.0585	-0.0207	0.0936	-0.0078	0.2339	0.1108	0.1231	-2.5607	
6	5.96	-0.00	1.1240	-2.4552	-0.0267	0.0958	-0.0042	0.2372	0.1152	0.1220	-2.6292	
7	7.96	-0.00	1.4718	-3.8367	-0.0222	0.0899	-0.0107	0.2579	0.1182	0.1397	-2.5864	
8	9.95	-0.00	1.8107	-4.9895	-0.0243	0.0923	-0.0107	0.2763	0.1327	0.1435	-2.5347	
9	11.96	-0.00	2.1234	-5.1349	-0.0255	0.1027	-0.0108	0.2899	0.1488	0.1411	-2.4182	
10	13.99	-0.00	2.3884	-5.3846	-0.0125	0.0501	-0.0101	0.3118	0.1728	0.1391	-2.2566	
11	13.96	-0.00	2.3939	-5.4207	-0.0104	0.0489	-0.0117	0.3154	0.2099	0.1054	-2.2645	
12	16.02	-0.00	2.5770	-5.2694	-0.0154	0.0626	-0.0072	0.3561	0.2415	0.1146	-2.0458	
13	17.05	-0.00	2.6854	-5.2178	-0.0100	0.0664	-0.0150	0.3807	0.2692	0.1114	-1.9430	
14	17.05	-0.00	2.6481	-5.2580	-0.0047	0.0583	-0.0132	0.3846	0.2826	0.1020	-1.9488	
15	18.07	-0.00	2.7885	-5.1647	0.0007	0.0751	-0.0192	0.4087	0.3046	0.1041	-1.8521	
16	19.11	0.00	2.8445	-4.7423	0.0585	-0.2173	-0.0490	0.4604	0.3276	0.1327	-1.6672	
17	20.14	0.00	2.9250	-4.6162	0.0364	-0.1193	-0.0328	0.4869	0.3488	0.1381	-1.5782	
18	21.16	-0.01	3.0794	-4.6300	-0.0116	0.0801	-0.0157	0.5168	0.3787	0.1381	-1.5035	
19	22.17	-0.01	3.2455	-4.7585	-0.0162	0.1034	-0.0144	0.5255	0.4052	0.1203	-1.4572	
20	22.17	-0.01	3.2596	-4.7670	-0.0147	0.1048	-0.0142	0.5264	0.4057	0.1207	-1.4625	
21	23.20	-0.01	3.4901	-4.9945	-0.0084	0.0940	-0.0167	0.5310	0.4192	0.1118	-1.4318	
22	24.21	-0.01	3.6378	-5.2011	0.0042	0.0765	-0.0225	0.5313	0.4310	0.1003	-1.4065	
23	25.23	-0.01	3.9183	-5.4454	0.0415	0.0129	-0.0214	0.5301	0.4347	0.0954	-1.3897	
24	26.26	-0.01	4.1396	-5.6779	0.0676	-0.0342	-0.0152	0.5265	0.4511	0.0754	-1.3716	
25	27.27	-0.01	4.4071	-6.0007	0.1422	-0.2282	0.0041	0.5215	0.4654	0.0561	-1.3616	
26	28.29	-0.00	4.6656	-6.3433	0.2877	-0.4923	0.0260	0.5111	0.4618	0.0493	-1.3596	
27	29.30	0.00	4.9656	-6.7299	0.4115	-0.7768	0.0912	0.4926	0.4809	0.0128	-1.3553	
28	30.33	0.00	5.2507	-6.9752	0.4584	-0.8575	0.1023	0.4849	0.4876	-0.0027	-1.3284	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART MACH RK10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 30 0.92 2.3 0.0 B4=0F13 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAP	KCP
1	-0.01	-0.00	0.0283	-0.1545	-0.0290	0.0912	-0.0080	0.2926	0.1004	0.1923	-5.4637
2	-0.01	-0.00	0.0330	-0.1613	-0.0290	0.0910	-0.0080	0.2914	0.1041	0.1873	-4.8927
3	2.00	-0.00	0.3124	-0.7361	-0.0235	0.0406	-0.0148	0.2849	0.1063	0.1786	-2.3628
4	3.98	-0.00	0.6806	-1.6791	-0.0245	0.0925	-0.0077	0.2800	0.1053	0.1747	-2.4669
5	5.97	-0.00	1.0623	-2.7080	-0.0245	0.0947	-0.0023	0.2795	0.1200	0.1596	-2.5492
6	7.96	-0.00	1.5021	-3.9327	-0.0154	0.0587	-0.0071	0.3000	0.1141	0.1809	-2.6181
7	9.94	-0.00	1.8703	-4.8431	-0.0109	0.0504	-0.0102	0.3234	0.1391	0.1843	-2.5895
8	11.96	-0.00	2.1472	-5.3008	-0.0054	0.0529	-0.0154	0.3458	0.1566	0.1891	-2.4687
9	13.95	-0.01	2.4745	-5.7757	0.0050	0.0652	-0.0157	0.3660	0.1830	0.1830	-2.3341
10	15.99	-0.01	2.7652	-6.0496	0.0218	0.0345	-0.0164	0.3921	0.2148	0.1773	-2.1878
11	17.03	-0.01	2.8460	-5.4451	0.0004	0.0918	-0.0067	0.4114	0.2469	0.1645	-2.0889
12	18.07	-0.00	2.9347	-5.7248	0.0099	0.0126	-0.0214	0.4454	0.2693	0.1762	-1.9507
13	19.08	-0.00	3.0081	-5.4441	0.0465	-0.0916	-0.0348	0.4824	0.2921	0.1903	-1.8165
14	20.10	-0.00	3.1046	-5.2689	0.0584	-0.1424	-0.0394	0.5127	0.3311	0.1815	-1.7033
15	21.14	-0.00	3.3032	-5.3788	0.0350	-0.0941	-0.0296	0.5271	0.3453	0.1818	-1.6284
16	22.15	-0.00	3.4612	-5.5436	0.0268	-0.0076	-0.0188	0.5392	0.3617	0.1775	-1.6016
17	23.20	-0.01	3.7044	-5.6342	-0.0085	0.0759	-0.0173	0.5483	0.3793	0.1690	-1.5209
18	24.22	-0.01	3.9139	-5.8405	0.0098	0.0626	-0.0193	0.5568	0.4015	0.1552	-1.4923
19	25.25	-0.01	4.0949	-5.8295	0.0275	0.0438	-0.0103	0.5520	0.4235	0.1285	-1.4236
20	26.25	-0.01	4.3427	-6.0879	0.0644	-0.0297	0.0003	0.5530	0.4373	0.1158	-1.4019
21	27.31	-0.01	4.6355	-6.1572	0.1576	-0.1890	0.0330	0.5467	0.4523	0.0944	-1.3283
22	28.37	-0.00	4.9080	-5.9985	0.1594	-0.2314	0.0421	0.5404	0.4534	0.0874	-1.2218
23	29.39	-0.00	5.1674	-6.1016	0.2443	-0.3998	0.0527	0.5321	0.4922	0.0399	-1.1807
24	30.47	-0.00	5.5233	-6.0634	0.2022	-0.3235	0.0432	0.5235	0.5100	0.0135	-1.0978
25	30.47	-0.00	5.5206	-5.9753	0.2151	-0.3200	0.0482	0.5216	0.4951	0.0265	-1.0824

POINT	TEST PART MACH RATIO-6		PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	KCP
	1	31 0.94 2.3									
	ALPHA	HFTA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	KCP
1	-0.01	-0.00	0.0278	-0.1675	-0.0273	0.0914	0.0003	0.3144	0.1092	0.2051	-6.0250
2	1.49	-0.00	0.3621	-0.4700	-0.0274	0.0414	0.0038	0.3072	0.1122	0.1900	-2.6786
3	3.98	-0.00	0.7445	-2.0050	-0.0231	0.0874	0.0041	0.3022	0.1211	0.1811	-2.6787
4	5.95	-0.00	1.1453	-3.1264	-0.0197	0.0624	0.0061	0.3062	0.1287	0.1776	-2.7298
5	7.93	-0.00	1.5491	-4.3624	-0.0135	0.0454	0.0061	0.3265	0.1354	0.1911	-2.7408
6	7.93	-0.00	1.4013	-4.4161	-0.0144	0.0485	0.0068	0.3327	0.1387	0.1941	-2.7578
7	9.94	-0.00	1.6773	-4.9167	-0.0115	0.0367	-0.0003	0.3347	0.1571	0.1820	-2.6190
8	9.93	-0.00	1.9606	-5.1515	-0.0169	0.0517	0.0015	0.3550	0.1497	0.2053	-2.6275
9	11.94	-0.00	2.2177	-5.5754	-0.0141	0.0480	0.0045	0.3706	0.1717	0.1990	-2.5118
10	13.95	-0.00	2.5754	-6.2386	-0.0065	0.0507	0.0012	0.3906	0.2191	0.1716	-2.4214
11	15.97	-0.00	2.9480	-6.8481	0.0178	-0.0040	-0.0081	0.4098	0.2455	0.1643	-2.2500
12	17.00	-0.00	2.9845	-6.4232	0.0049	0.0228	-0.0002	0.4270	0.2755	0.1515	-2.1631
13	18.04	-0.01	3.0651	-6.2121	0.0224	0.0149	-0.0091	0.4503	0.2488	0.1515	-2.0267
14	19.06	-0.00	3.1856	-5.9883	0.0264	-0.0085	-0.0153	0.4816	0.3145	0.1670	-1.8791
15	20.11	-0.00	3.1520	-5.4200	0.0430	-0.0820	-0.0234	0.5225	0.3439	0.1786	-1.7195
16	20.10	-0.00	3.2086	-5.6567	0.0403	-0.0845	-0.0246	0.5101	0.3536	0.1565	-1.7635
17	21.13	0.00	3.3845	-5.6832	0.0263	-0.0823	-0.0237	0.5311	0.3689	0.1622	-1.6792
18	22.14	-0.00	3.5430	-5.6832	0.0696	-0.0219	-0.0140	0.5445	0.3894	0.1551	-1.6041
19	23.20	-0.00	3.7611	-5.7739	-0.0048	0.0596	0.0073	0.5582	0.3960	0.1622	-1.5352
20	24.22	-0.00	4.0014	-5.8400	-0.0081	0.0826	0.0084	0.5650	0.4198	0.1452	-1.4720
22	25.27	-0.01	4.2616	-5.4924	0.0428	0.0079	0.0217	0.5648	0.4635	0.1013	-1.4061
23	26.30	-0.00	4.4998	-6.0081	0.1011	-0.1100	0.0392	0.5584	0.4715	0.0869	-1.3352
24	27.36	-0.00	4.8202	-5.4955	0.1745	-0.2679	0.0624	0.5553	0.4795	0.0757	-1.2438
25	28.41	-0.00	5.1291	-5.8868	0.1871	-0.2997	0.0585	0.5481	0.4402	0.0679	-1.1477
26	29.44	-0.00	5.4891	-5.7798	0.2163	-0.3737	0.0748	0.5424	0.4855	0.0569	-1.0531
27	30.45	-0.00	5.8368	-5.6716	0.1735	-0.2647	0.0545	0.5349	0.5206	0.0143	-0.9727
28	20.10	0.00	3.2587	-5.8636	0.0573	-0.1698	-0.0316	0.5041	0.4533	0.0508	-1.7094
29	9.93	-0.00	1.9072	-5.0441	-0.0119	0.0446	0.0080	0.3455	0.2498	0.0957	-2.6448
30	-0.01	-0.00	0.0324	-0.1936	-0.0327	0.0940	0.0101	0.3189	0.1461	0.1728	-5.9798

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART NAME RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 32 0.96 2.3 0.0 M40F13 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.01	-0.00	0.0251	-0.1850	-0.0301	0.1021	0.0116	0.3492	0.1091	0.2402	-7.3662
2	1.98	-0.00	0.3794	-1.0886	-0.0272	0.0941	0.0151	0.3424	0.1232	0.2191	-2.8692
3	1.98	-0.00	0.3866	-1.1154	-0.0269	0.0943	0.0150	0.3434	0.1228	0.2206	-2.8861
4	3.96	-0.00	0.7791	-2.1952	-0.0233	0.0790	0.0122	0.3405	0.1276	0.2129	-2.8175
5	5.94	-0.00	1.1953	-3.3830	-0.0180	0.0629	0.0127	0.3469	0.1452	0.2017	-2.8302
6	7.92	-0.00	1.6205	-4.5482	-0.0137	0.0504	0.0098	0.3652	0.1541	0.2111	-2.8066
7	9.91	-0.00	2.0175	-5.5618	-0.0176	0.0501	0.0164	0.3826	0.1672	0.2154	-2.7568
8	11.94	-0.00	2.3126	-6.4502	-0.0125	0.0384	0.0112	0.3876	0.1882	0.1994	-2.5729
9	11.94	-0.00	2.3201	-6.4036	-0.0121	0.0432	0.0112	0.3963	0.1954	0.2009	-2.5877
10	13.94	-0.00	2.6426	-6.5271	-0.0047	0.0345	0.0077	0.4094	0.2232	0.1862	-2.4699
11	13.94	-0.00	2.6785	-6.6368	-0.0024	0.0275	0.0077	0.4166	0.2470	0.1696	-2.4778
12	15.97	-0.00	2.9699	-6.9131	-0.0027	0.0614	0.0220	0.4324	0.2675	0.1644	-2.3121
13	16.96	-0.00	3.1016	-6.9045	0.0115	0.0092	0.0081	0.4359	0.2791	0.1568	-2.2261
14	18.01	-0.00	3.2960	-7.1439	0.0203	-0.0096	0.0013	0.4524	0.2787	0.1737	-2.1674
15	19.04	-0.00	3.4189	-7.0624	0.0212	-0.0096	0.0007	0.4600	0.2918	0.1683	-2.0657
16	20.06	0.00	3.4572	-6.8201	0.0656	-0.1880	-0.0423	0.4835	0.3128	0.1797	-1.9149
17	21.12	0.01	3.6430	-6.4300	0.0652	-0.3051	-0.0542	0.5089	0.3271	0.1818	-1.7663
18	22.16	0.00	3.7089	-6.0510	0.0449	-0.1181	-0.0147	0.5394	0.3549	0.1849	-1.6315
19	22.16	0.00	3.7309	-6.1459	0.0546	-0.1923	-0.0266	0.5330	0.4035	0.1295	-1.6473
20	23.20	-0.00	3.8940	-5.9872	-0.0031	0.0300	0.0133	0.5589	0.4058	0.1530	-1.5375
21	24.23	-0.00	4.1200	-5.4906	0.0259	0.0435	0.0305	0.5463	0.4170	0.1493	-1.4541
22	24.24	-0.00	4.1735	-6.0162	0.0331	0.0214	0.0362	0.5684	0.4261	0.1423	-1.4415
23	25.28	-0.00	4.4543	-6.0706	0.0724	-0.0335	0.0522	0.5714	0.4351	0.1362	-1.3616
24	26.33	-0.00	4.6918	-6.0539	0.1225	-0.1492	0.0668	0.5672	0.4582	0.1089	-1.2903
25	26.33	-0.00	4.7032	-6.0586	0.1214	-0.1427	0.0715	0.5700	0.4629	0.1070	-1.2903
26	27.40	0.00	5.0575	-5.9870	0.1465	-0.2055	0.0895	0.5668	0.4678	0.0989	-1.1838
27	28.48	-0.00	5.3998	-5.8194	0.1342	-0.1692	0.0650	0.5635	0.4737	0.0899	-1.0777
28	29.54	0.00	5.7605	-5.7153	0.1660	-0.2469	0.0766	0.5562	0.4765	0.0797	-0.9922
29	30.61	-0.00	6.1135	-5.6189	0.1441	-0.2145	0.0556	0.5475	0.4972	0.0503	-0.9191
30	20.07	0.00	3.4930	-6.7567	0.0530	-0.1573	-0.0276	0.4792	0.3641	0.1151	-1.9344
31	9.91	-0.00	2.0458	-5.6271	-0.0137	0.0635	0.0230	0.3828	0.2676	0.1151	-2.7505
32	-0.01	-0.00	0.0923	-0.3321	-0.0365	0.1275	0.0179	0.3850	0.1756	0.2095	-3.5977
33	-0.01	-0.00	0.0230	-0.1767	-0.0337	0.0980	0.0164	0.3425	0.1580	0.1845	-7.4458

TEST PART MACH R410-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 33 0.94 2.3 0.0 B400F13 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP
1	-0.01	-0.00	0.0430	-0.2404	-0.0427	0.1274	0.0179	0.3939	0.1395	0.2544	-5.7860
2	1.94	-0.00	0.4014	-1.1644	-0.0330	0.1061	0.0182	0.3770	0.1488	0.2282	-2.8993
3	3.96	-0.00	0.8044	-2.7623	-0.0215	0.0761	0.0185	0.3688	0.1586	0.2102	-2.7951
4	3.96	-0.00	0.7928	-2.2357	-0.0225	0.0788	0.0167	0.3838	0.1464	0.2374	-2.8198
5	5.94	-0.00	1.2171	-3.4173	-0.0185	0.0689	0.0157	0.3799	0.1739	0.2060	-2.8081
6	5.94	-0.00	1.2190	-3.4264	-0.0204	0.0752	0.0157	0.3896	0.1743	0.2155	-2.8189
7	7.92	-0.00	1.6314	-4.5604	-0.0148	0.0544	0.0144	0.3974	0.1885	0.2090	-2.7954
8	9.91	-0.00	2.0516	-5.6663	-0.0189	0.0516	0.0195	0.4217	0.1994	0.2223	-2.7485
9	11.90	0.00	2.4531	-6.5582	-0.0175	0.0448	0.0243	0.4375	0.2025	0.2350	-2.6734
10	13.93	0.00	2.7046	-6.7895	-0.0163	0.0450	0.0271	0.4323	0.2264	0.2059	-2.5057
11	13.93	0.00	2.7582	-6.9127	-0.0186	0.0575	0.0334	0.4441	0.2293	0.2148	-2.5062
12	15.94	-0.00	3.0875	-7.3173	-0.0030	0.0287	0.0164	0.4591	0.2487	0.2104	-2.3700
13	16.98	-0.00	3.2181	-7.3142	0.0001	0.0300	0.0196	0.4564	0.2730	0.1834	-2.2728
14	16.97	-0.00	3.2833	-7.5350	0.0056	0.0153	0.0132	0.4708	0.2764	0.1943	-2.2949
15	18.01	-0.00	3.4286	-7.5555	0.0058	0.0361	0.0225	0.4729	0.2855	0.1875	-2.2041
16	19.03	-0.00	3.5957	-7.6266	0.0018	0.0340	0.0252	0.4688	0.2958	0.1730	-2.1218
17	20.04	-0.00	3.7706	-7.6927	0.0024	0.0178	0.0196	0.4815	0.2916	0.1899	-2.0482
18	21.08	0.00	3.9678	-7.6825	0.0279	-0.0771	-0.0138	0.4792	0.3131	0.1661	-1.9265
19	22.12	0.00	4.1184	-7.3932	0.0731	-0.2019	-0.0349	0.4934	0.3266	0.1667	-1.7927
20	23.18	0.01	4.2267	-6.4970	0.1244	-0.3842	-0.0490	0.5190	0.3415	0.1775	-1.6318
21	23.18	0.01	4.2431	-7.0255	0.1424	-0.4296	-0.0550	0.5128	0.3512	0.1616	-1.6538
22	24.25	-0.00	4.3743	-6.4123	0.0559	-0.0579	0.0307	0.5625	0.3667	0.1958	-1.4659
23	25.31	-0.00	4.6512	-6.3544	0.0753	-0.0357	0.0532	0.5716	0.4014	0.1701	-1.3663
24	26.35	-0.00	4.9345	-6.2412	0.1031	-0.1122	0.0828	0.5764	0.4284	0.1480	-1.2648
25	26.35	-0.00	4.9705	-6.2840	0.0979	-0.0874	0.0873	0.5748	0.4372	0.1376	-1.2642
26	27.45	0.00	5.2575	-6.0267	0.1499	-0.2037	0.0895	0.5734	0.4577	0.1161	-1.1463
27	27.44	0.00	5.3136	-6.0752	0.1459	-0.1954	0.0924	0.5749	0.4626	0.1123	-1.1433
28	28.52	0.00	5.6990	-5.9319	0.1591	-0.2763	0.0817	0.5686	0.4621	0.1064	-1.0409
29	29.58	0.00	6.0482	-5.9224	0.1819	-0.3087	0.0871	0.5616	0.4755	0.0861	-0.9793
30	30.65	0.00	6.4095	-5.8826	0.1441	-0.2191	0.0557	0.5525	0.4799	0.0726	-0.9178
31	20.05	-0.00	3.9365	-8.6084	0.0015	0.0206	0.0204	0.5057	0.3920	0.1132	-2.0344
32	20.04	-0.00	3.8429	-7.4303	-0.0064	0.0437	0.0292	0.4806	0.3717	0.1089	-2.0376
33	9.90	-0.00	2.0576	-5.6720	-0.0215	0.0543	0.0226	0.4215	0.2719	0.1496	-2.7563
34	-0.01	-0.00	0.0541	-0.2882	-0.0380	0.1297	0.0211	0.3987	0.1778	0.2209	-4.9623

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MALM	RX10-A	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	34	1.05	2.3	0.0	04=0F13	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	XCP
1	-0.01	-0.01	0.0276	-0.2066	-0.0475	0.1631	0.0189	0.5442	0.1533	0.3909	-7.5104
2	-0.01	-0.01	0.0237	-0.1827	-0.0462	0.1611	0.0191	0.5471	0.1804	0.3667	-7.7217
3	-0.01	-0.01	0.0211	-0.1767	-0.0455	0.1605	0.0173	0.5477	0.2068	0.3408	-8.3718
4	-0.01	-0.01	0.0297	-0.1884	-0.0464	0.1596	0.0187	0.5487	0.2085	0.3402	-6.3588
5	1.98	-0.01	0.3908	-1.1216	-0.0364	0.1334	0.0188	0.5475	0.2024	0.3451	-2.8697
6	1.98	-0.01	0.4051	-1.1775	-0.0405	0.1471	0.0205	0.5413	0.2091	0.3322	-2.9065
7	3.96	-0.01	0.8148	-2.3616	-0.0334	0.1309	0.0194	0.5280	0.2162	0.3118	-2.8248
8	5.95	-0.01	1.2330	-3.4652	-0.0293	0.1227	0.0169	0.5257	0.2218	0.3039	-2.8104
9	5.95	-0.01	1.2249	-3.4314	-0.0194	0.1114	0.0182	0.5408	0.2151	0.3258	-2.8014
10	7.91	-0.00	1.6516	-4.5717	-0.0294	0.1023	0.0185	0.5529	0.2281	0.3247	-2.7681
11	7.91	-0.00	1.6388	-4.5485	-0.0325	0.1056	0.0185	0.5507	0.2311	0.3197	-2.7755
12	9.91	-0.00	2.0462	-5.5031	-0.0277	0.0818	0.0199	0.5778	0.2398	0.3388	-2.6894
13	11.91	0.00	2.4528	-6.3718	-0.0252	0.0649	0.0274	0.5854	0.2483	0.3371	-2.5977
14	13.92	0.00	2.8627	-7.1444	-0.0215	0.0504	0.0272	0.5941	0.2586	0.3355	-2.5045
15	15.96	-0.00	3.2212	-7.5486	-0.0106	0.0423	0.0252	0.5900	0.2673	0.3226	-2.3434
16	16.97	-0.00	3.4167	-7.7508	-0.0043	0.0305	0.0231	0.6008	0.2740	0.3248	-2.2885
17	18.00	-0.00	3.6230	-7.9564	0.0009	0.0261	0.0273	0.6039	0.2813	0.3226	-2.1942
18	19.02	-0.00	3.8377	-8.1334	0.0081	0.0181	0.0253	0.6042	0.2944	0.3099	-2.1193
19	20.05	-0.00	4.0705	-8.2432	0.0113	0.0021	0.0278	0.5964	0.3045	0.2920	-2.0349
20	21.09	-0.00	4.3332	-8.3880	0.0137	-0.0004	0.0271	0.5843	0.3125	0.2718	-1.9357
21	22.15	-0.00	4.6168	-8.4177	0.0192	-0.0159	0.0169	0.5731	0.3148	0.2503	-1.8233
22	23.18	-0.00	4.8806	-8.3542	0.0330	-0.0411	0.0127	0.5670	0.3153	0.2517	-1.7117
23	24.23	-0.00	5.1633	-8.2754	0.0343	-0.0240	0.0179	0.5687	0.3270	0.2417	-1.6028
24	25.30	0.00	5.4763	-8.2534	0.0774	-0.1270	0.0376	0.5679	0.3400	0.2279	-1.5672
25	26.39	0.01	5.8025	-8.1636	0.1674	-0.3526	0.0772	0.5604	0.3536	0.2068	-1.4069
26	26.37	0.01	5.7988	-8.1734	0.1564	-0.3351	0.0742	0.5618	0.3583	0.2035	-1.4095
27	27.44	0.01	6.1533	-8.0673	0.1755	-0.3888	0.0837	0.5603	0.3663	0.1940	-1.3111
28	28.50	0.01	6.4547	-7.9347	0.1891	-0.4232	0.0879	0.5538	0.3784	0.1755	-1.2293
29	29.56	0.01	6.7622	-7.8565	0.1625	-0.3566	0.0697	0.5565	0.3812	0.1753	-1.1618
30	30.63	0.00	7.0083	-7.8740	0.1282	-0.2334	0.0506	0.5531	0.3887	0.1644	-1.0957
31	20.05	0.00	4.0447	-8.2318	0.0119	-0.0081	0.0309	0.5984	0.3882	0.2102	-2.0352
32	9.91	-0.00	2.0360	-5.5073	-0.0268	0.0852	0.0230	0.5744	0.3081	0.2664	-2.7058
33	-0.01	-0.01	0.0275	-0.2066	-0.0459	0.1635	0.0202	0.5513	0.2503	0.3011	-7.5188

TEST PART NAME RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 35 1.10 2.3 0.0 B4WOF13 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	XCP
1	-0.01	-0.01	0.0222	-0.149A	-0.0486	0.1810	0.0215	0.5783	0.2076	0.3707	-4.7339
2	1.49	-0.01	0.4085	-1.1733	-0.0549	0.2169	0.0222	0.5737	0.1986	0.3751	-2.8721
3	1.98	-0.01	0.3403	-1.096H	-0.0420	0.1718	0.0218	0.5705	0.2211	0.3494	-2.8101
4	3.46	-0.01	0.8122	-2.2403	-0.0475	0.1959	0.0225	0.5646	0.2047	0.3598	-2.8200
5	3.46	-0.01	0.7812	-2.1523	-0.0421	0.1637	0.0221	0.5616	0.2260	0.3355	-2.7551
6	5.96	-0.01	1.1946	-3.2535	-0.0327	0.1404	0.0208	0.5641	0.2256	0.3385	-2.7235
7	7.94	-0.00	1.5956	-4.2900	-0.0324	0.1261	0.0224	0.5767	0.2291	0.3476	-2.6887
8	9.92	-0.00	1.9944	-5.2404	-0.0312	0.1137	0.0240	0.5886	0.2350	0.3536	-2.6204
9	11.94	-0.00	2.3973	-6.0565	-0.0275	0.0989	0.0253	0.5941	0.2400	0.3541	-2.5265
10	13.95	-0.00	2.8061	-6.7962	-0.0234	0.0849	0.0264	0.6026	0.2445	0.3502	-2.4210
11	15.95	-0.00	3.2460	-7.5374	-0.0110	0.0617	0.0260	0.6040	0.2513	0.3547	-2.3222
12	16.97	-0.00	3.6744	-7.8172	-0.0066	0.0620	0.0228	0.6100	0.2591	0.3509	-2.2499
13	18.00	-0.00	3.5975	-7.6780	-0.0036	0.0655	0.0242	0.5498	0.2684	0.3313	-2.1343
14	19.04	-0.00	3.8300	-7.8454	0.0017	0.0451	0.0307	0.5960	0.2721	0.3239	-2.0485
15	20.08	-0.00	4.0854	-8.0065	0.0101	0.0463	0.0241	0.5914	0.2628	0.3087	-1.9598
16	21.11	-0.00	4.3547	-8.1497	0.0136	0.0441	0.0220	0.5843	0.2497	0.2946	-1.8693
17	22.15	-0.00	4.6321	-8.2786	-0.0044	0.0665	0.0274	0.5785	0.3022	0.2763	-1.7872
18	22.17	-0.01	4.6630	-8.1830	0.0103	0.0779	0.0139	0.5758	0.2920	0.2838	-1.7549
19	23.21	-0.01	4.9645	-8.2786	0.0241	0.0455	0.0144	0.5696	0.2498	0.2700	-1.6676
20	24.26	-0.01	5.2591	-8.3097	0.0247	0.0475	0.0204	0.5643	0.3065	0.2577	-1.5801
21	25.33	-0.00	5.6016	-8.2770	0.0468	-0.0147	0.0208	0.5560	0.3037	0.2523	-1.4776
22	26.40	-0.00	6.0067	-8.3764	0.1034	-0.1510	0.0391	0.5489	0.3076	0.2412	-1.3944
23	26.39	-0.00	5.9777	-8.3645	0.1030	-0.1526	0.0421	0.5512	0.3311	0.2201	-1.3993
24	26.39	-0.00	5.9629	-8.3401	0.1086	-0.1589	0.0446	0.5530	0.3499	0.2031	-1.4054
25	27.46	0.00	6.3555	-8.4674	0.1316	-0.2403	0.0599	0.5470	0.3530	0.1939	-1.3324
26	28.53	0.00	6.6795	-8.4472	0.1701	-0.3052	0.0723	0.5394	0.3514	0.1880	-1.2644
27	29.59	0.00	6.9781	-8.4186	0.1579	-0.2837	0.0370	0.5386	0.3525	0.1860	-1.2064
28	30.64	-0.00	7.1999	-8.2244	0.1166	-0.1692	0.0172	0.5425	0.3573	0.1452	-1.1430
29	20.04	-0.00	4.1014	-7.4045	0.0104	0.0515	0.0284	0.5967	0.3405	0.2542	-1.9468
30	9.92	-0.00	2.0005	-5.2495	-0.0308	0.1214	0.0239	0.5869	0.2896	0.2974	-2.6241
31	-0.01	-0.01	0.0262	-0.1693	-0.0537	0.1993	0.0230	0.5820	0.2189	0.3631	-4.4527

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

TEST PART MALM RA10-6 PH1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 3A 1.2V 2.3 0.0 H40F13 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	MCP
1	-0.00	-0.00	-0.0009	-0.0480	-0.0284	0.0959	0.0227	0.5694	0.1793	0.3901	50.8254
2	1.0V	-0.00	0.3806	-1.0742	-0.0214	0.0771	0.0244	0.5607	0.1777	0.3830	-2.7915
3	3.0V	-0.00	0.7644	-2.0614	-0.0170	0.0633	0.0261	0.5519	0.1852	0.3668	-2.6969
4	5.0V	-0.00	1.1532	-3.0714	-0.0121	0.0442	0.0248	0.5620	0.1909	0.3711	-2.6488
5	7.0V	-0.00	1.5409	-3.9672	-0.0075	0.0311	0.0234	0.5794	0.1955	0.3839	-2.5746
6	9.0V	-0.00	1.9365	-4.8015	-0.0039	0.0253	0.0219	0.5936	0.2023	0.3912	-2.4795
7	11.0V	-0.00	2.3234	-5.5846	0.0015	0.0159	0.0216	0.6015	0.2085	0.3930	-2.3692
8	13.0V	-0.00	2.7144	-6.1044	0.0117	0.0004	0.0183	0.6049	0.2157	0.3892	-2.2463
9	16.01	-0.00	3.1353	-6.6346	0.0101	0.0013	0.0249	0.6064	0.2236	0.3828	-2.1161
10	17.03	-0.00	3.3742	-6.8783	0.0114	-0.0006	0.0245	0.6049	0.2299	0.3751	-2.0355
11	18.08	-0.00	3.6361	-7.0511	0.0099	0.0021	0.0254	0.6011	0.2362	0.3649	-1.9392
12	19.14	-0.00	3.8890	-7.0253	0.0100	0.0141	0.0405	0.5914	0.2418	0.3495	-1.8065
13	20.17	-0.00	4.1737	-7.1385	0.0144	0.0121	0.0383	0.5815	0.2470	0.3345	-1.7103
14	21.22	-0.00	4.4818	-7.2254	0.0133	0.0159	0.0374	0.5761	0.2547	0.3214	-1.6122
15	22.27	-0.00	4.7878	-7.3230	0.0220	0.0171	0.0396	0.5697	0.2607	0.3090	-1.5295
16	23.33	-0.00	5.0963	-7.3564	0.0357	-0.0072	0.0355	0.5630	0.2639	0.2991	-1.4435
17	24.40	-0.00	5.4256	-7.3767	0.0419	-0.0129	0.0325	0.5576	0.2643	0.2933	-1.3599
18	25.46	-0.00	5.7572	-7.4033	0.0540	-0.0479	0.0336	0.5551	0.2676	0.2875	-1.2859
19	26.51	0.00	6.0839	-7.4167	0.0994	-0.1542	0.0441	0.5545	0.2754	0.2791	-1.2191
20	27.56	0.00	6.4248	-7.4647	0.1564	-0.2822	0.0604	0.5573	0.2867	0.2707	-1.1609
21	28.63	0.00	6.7584	-7.5071	0.1511	-0.2691	0.0460	0.5564	0.2947	0.2617	-1.1111
22	29.69	0.00	7.0834	-7.5454	0.2012	-0.3989	0.0188	0.5548	0.3039	0.2509	-1.0709
23	30.74	0.00	7.4445	-7.7239	0.2093	-0.4434	0.0269	0.5529	0.3162	0.2367	-1.0375
24	20.17	-0.00	4.1722	-7.0920	0.0167	0.0093	0.0394	0.5891	0.3087	0.2804	-1.7000
25	20.17	-0.00	4.1679	-7.1161	0.0184	-0.0011	0.0404	0.5870	0.2814	0.3056	-1.7074
26	9.95	-0.00	1.9362	-4.8200	-0.0037	0.0249	0.0219	0.5927	0.2535	0.3392	-2.4894
27	-0.00	-0.00	-0.0009	-0.0512	-0.0272	0.0918	0.0253	0.5700	0.2032	0.3667	50.2523

TEST PART	MACH	REYNOLDS	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	37	1.30	2.3	0.0	0.40	0.13	0.0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAP	ICP
1	-0.00	-0.00	-0.0253	0.0000	-0.0251	0.0034	0.0248	0.5350	0.1964	0.3366	-1.0518
2	1.49	-0.00	0.3232	-0.0004	-0.0246	0.0097	0.0249	0.5294	0.1993	0.3301	-2.4881
3	3.97	-0.00	0.6674	-1.0023	-0.0209	0.0908	0.0279	0.5225	0.1978	0.3748	-7.4403
4	5.97	-0.00	1.0492	-2.5467	-0.0175	0.0843	0.0266	0.5333	0.1946	0.3387	-2.4274
5	7.98	-0.00	1.4213	-3.3886	-0.0160	0.0466	0.0254	0.5476	0.1937	0.3539	-2.3701
6	9.99	-0.00	1.8113	-4.1285	-0.0118	0.0794	0.0241	0.5611	0.1938	0.3673	-2.2793
7	12.00	-0.00	2.1995	-4.7765	-0.0064	0.0465	0.0224	0.5713	0.1979	0.3734	-2.1717
8	14.03	-0.00	2.5674	-5.2917	0.0069	0.0330	0.0203	0.5759	0.2031	0.3728	-2.0453
9	16.08	-0.00	3.0351	-5.7480	0.0173	0.0103	0.0220	0.5777	0.2153	0.3624	-1.8938
10	17.12	-0.00	3.2926	-5.9372	0.0111	0.0179	0.0293	0.5764	0.2223	0.3541	-1.8032
11	18.15	-0.00	3.5721	-6.0747	0.0157	0.0069	0.0289	0.5749	0.2278	0.3471	-1.7063
12	19.20	-0.00	3.8664	-6.2246	0.0212	0.0040	0.0309	0.5741	0.2321	0.3421	-1.6099
13	20.25	-0.00	4.1628	-6.3163	0.0275	-0.0064	0.0302	0.5729	0.2367	0.3363	-1.5173
14	21.29	-0.00	4.4497	-6.3394	0.0330	-0.0124	0.0235	0.5670	0.2369	0.3301	-1.4248
15	22.34	-0.00	4.7619	-6.3964	0.0409	-0.0277	0.0235	0.5651	0.2405	0.3246	-1.3437
16	23.41	-0.00	5.0731	-6.4346	0.0390	-0.0254	0.0236	0.5590	0.2430	0.3160	-1.2691
17	24.46	-0.00	5.3897	-6.4610	0.0423	-0.0271	0.0263	0.5578	0.2503	0.3075	-1.2025
18	25.53	-0.00	5.7002	-6.4780	0.0406	-0.0140	0.0218	0.5528	0.2543	0.2985	-1.1365
19	26.60	-0.00	6.0417	-6.4944	0.0450	-0.0127	0.0273	0.5559	0.2612	0.2947	-1.0791
20	27.65	-0.00	6.4092	-6.5046	0.0630	-0.0079	0.0408	0.5572	0.2688	0.2884	-1.0439
21	28.70	-0.00	6.7816	-6.5154	0.0704	-0.0452	0.0369	0.5598	0.2770	0.2828	-1.0197
22	29.76	-0.01	7.1407	-7.1161	0.0678	-0.0469	0.0233	0.5628	0.2855	0.2773	-0.9966
23	30.82	-0.00	7.5030	-7.3411	0.0735	-0.1206	0.0256	0.5629	0.2933	0.2695	-0.9784
24	20.25	-0.00	4.1515	-6.2515	0.0293	-0.0141	0.0313	0.5694	0.2965	0.2729	-1.5058
25	20.25	-0.00	4.1424	-6.2633	0.0313	-0.0223	0.0322	0.5703	0.2834	0.2849	-1.5120
26	9.78	-0.00	1.8135	-4.1274	-0.0097	0.0741	0.0225	0.5588	0.2418	0.3170	-2.2759
27	-0.00	-0.00	-0.0132	0.0221	-0.0285	0.0911	0.0259	0.5397	0.2190	0.3207	-1.6791

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PROPULSION WIND TUNNEL FACILITY(PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL(6T)

TEST PART MALM PK10-6												
MHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION												
1 42 0.80 2.3 0.0 H4=0F16 0.0 0 0 0 0 UNKNOWN												
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP	
1	0.00	0.00	0.0101	-0.0104	-0.0017	-0.0048	-0.0042	0.2363	0.0942	0.1421	-1.0272	
2	2.01	0.00	0.2805	-0.5829	0.0020	-0.0144	-0.0080	0.2439	0.0942	0.1448	-2.0202	
3	4.00	0.00	0.6159	-1.3514	0.0044	-0.0274	-0.0062	0.2542	0.1161	0.1381	-2.1964	
4	4.00	0.00	0.6169	-1.3670	0.0047	-0.0234	-0.0061	0.2496	0.1176	0.1320	-2.2157	
5	5.99	0.00	0.4731	-2.2412	0.0127	-0.0452	-0.0043	0.2741	0.1171	0.1570	-2.3032	
6	7.99	0.00	1.7367	-3.1764	0.0072	-0.0388	0.0014	0.2937	0.1261	0.1676	-2.3763	
7	10.00	-0.00	1.5294	-3.3526	-0.0142	0.0435	0.0305	0.3289	0.1389	0.1900	-2.1921	
8	12.02	0.00	1.7577	-3.5805	0.0001	-0.0386	0.0076	0.3584	0.1654	0.1934	-2.0370	
9	14.04	0.00	2.0434	-3.4375	0.0014	-0.0420	0.0125	0.3783	0.1869	0.1914	-1.9265	
10	14.06	0.00	2.3244	-4.2059	0.0086	-0.0717	0.0069	0.3901	0.2248	0.1653	-1.8094	
11	17.08	0.00	2.4454	-4.2630	0.0022	-0.0048	0.0084	0.3941	0.2339	0.1603	-1.7433	
12	18.10	0.00	2.6141	-4.4112	0.0064	-0.0266	0.0024	0.4130	0.2683	0.1447	-1.6849	
13	19.11	0.00	2.7326	-4.3759	0.0454	-0.1373	-0.0155	0.4280	0.3154	0.1125	-1.6014	
14	20.13	0.00	2.8405	-4.3025	0.0714	-0.2451	-0.0318	0.4434	0.3336	0.1098	-1.5147	
15	21.16	0.00	2.9838	-4.2601	0.0049	-0.0344	-0.0051	0.4751	0.3446	0.1305	-1.4270	
16	22.16	-0.01	3.1054	-4.2504	-0.0318	0.2003	0.0201	0.4986	0.3646	0.1340	-1.3667	
17	22.18	-0.01	3.1365	-4.3144	-0.0387	0.2463	0.0277	0.5018	0.3817	0.1201	-1.3760	
18	23.20	-0.01	3.3051	-4.4057	-0.0272	0.2168	0.0232	0.5119	0.4004	0.1115	-1.3330	
19	24.23	-0.01	3.4960	-4.5417	-0.0019	0.1345	0.0148	0.5197	0.4151	0.1046	-1.2991	
20	25.24	-0.01	3.6873	-4.6647	0.0240	0.0633	0.0098	0.5223	0.4190	0.1033	-1.2664	
21	26.26	-0.01	3.8959	-4.8474	0.1563	-0.1901	0.0977	0.5121	0.4326	0.0794	-1.2442	
22	27.28	-0.00	4.1253	-5.0512	0.2569	-0.4478	0.0214	0.5073	0.4576	0.0497	-1.2244	
23	28.30	-0.00	4.3500	-5.2741	0.4109	-0.7459	0.0402	0.4965	0.4543	0.0422	-1.2124	
24	29.32	0.00	4.6120	-5.5080	0.4401	-0.8763	0.0388	0.4981	0.4646	0.0335	-1.1943	
25	30.34	0.01	4.8515	-5.7610	0.6355	-1.3390	0.1067	0.4843	0.4764	0.0079	-1.1875	
26	20.13	0.00	2.8616	-4.3682	0.0593	-0.1719	-0.0108	0.4580	0.4223	0.0357	-1.5265	
27	9.99	-0.00	1.5344	-3.4357	-0.0116	0.0372	0.0235	0.3229	0.2409	0.0619	-2.2333	
28	-0.00	0.00	0.0315	-0.1388	-0.0083	0.0136	-0.0076	0.2392	0.1189	0.1203	-4.4834	

TEST PART NAME RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 43 0.85 2.3 0.0 0.0 0.0 0.0 0.0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CA9	CAF	ACP
1	-0.00	0.00	0.0178	-0.0416	-0.0044	-0.0001	-0.0093	0.2499	0.1140	0.1359	-4.5701
2	2.00	0.00	0.3023	-0.6661	-0.0002	-0.0141	-0.0112	0.2520	0.1082	0.1437	-2.2034
3	3.99	0.00	0.6356	-1.4730	0.0015	-0.0208	-0.0093	0.2565	0.1086	0.1479	-2.3184
4	5.99	0.00	0.9866	-2.3689	0.0093	-0.0470	-0.0057	0.2673	0.1163	0.1510	-2.3688
5	7.98	0.00	1.3289	-3.1720	0.0146	-0.0646	-0.0006	0.2789	0.1246	0.1743	-2.3870
6	9.99	0.00	1.5385	-3.3975	-0.0133	0.0257	0.0261	0.3415	0.1414	0.2001	-2.2083
7	12.01	0.00	1.7770	-3.6820	0.0047	-0.0528	0.0089	0.3737	0.1593	0.2144	-2.0710
8	14.03	0.00	2.1004	-4.1611	0.0106	-0.0676	0.0103	0.4014	0.1939	0.2075	-1.9811
9	16.06	0.00	2.3817	-4.4413	0.0172	-0.0617	0.0062	0.4177	0.2271	0.1906	-1.8647
10	17.07	0.00	2.5204	-4.5360	0.0197	-0.0623	0.0025	0.4223	0.2716	0.1506	-1.7999
11	18.04	0.00	2.6646	-4.6143	0.0365	-0.1268	-0.0072	0.4348	0.2863	0.1486	-1.7317
12	19.11	0.01	2.7834	-4.6840	0.0672	-0.2518	-0.0283	0.4516	0.3107	0.1409	-1.6471
13	20.14	0.01	2.8968	-4.5203	0.0789	-0.2815	-0.0291	0.4685	0.3309	0.1376	-1.5605
14	21.17	-0.00	3.0270	-4.4200	0.0135	-0.0016	0.0078	0.5021	0.3348	0.1673	-1.4624
15	22.19	-0.01	3.1865	-4.4673	-0.0171	0.1356	0.0224	0.5196	0.3718	0.1478	-1.4011
16	23.20	-0.01	3.3652	-4.5996	-0.0194	0.1512	0.0270	0.5310	0.3799	0.1511	-1.3575
17	24.22	-0.01	3.5840	-4.7431	-0.0014	0.1147	0.0244	0.5355	0.4004	0.1351	-1.3234
18	25.24	-0.01	3.7870	-4.8802	0.0472	0.0141	0.0144	0.5318	0.4212	0.1105	-1.2905
19	26.28	-0.01	3.9934	-5.0464	0.1452	-0.1872	0.0142	0.5228	0.4363	0.0865	-1.2632
20	27.30	-0.00	4.2426	-5.2753	0.2531	-0.4391	0.0257	0.5163	0.4518	0.0644	-1.2434
21	28.33	-0.00	4.4820	-5.5220	0.4192	-0.8021	0.0450	0.5076	0.4518	0.0558	-1.2320
22	28.31	-0.00	4.4637	-5.5054	0.4287	-0.8081	0.0457	0.5078	0.4493	0.0185	-1.2321
23	29.33	0.00	4.7251	-5.7140	0.4111	-0.8041	0.0550	0.5062	0.4476	0.0185	-1.2103
24	30.37	0.01	5.0351	-5.9477	0.4099	-0.8396	0.0835	0.5035	0.4887	0.0148	-1.1412
25	20.13	0.01	2.9015	-4.5192	0.0764	-0.3053	-0.0242	0.4725	0.4472	0.0253	-1.5575
26	9.09	0.00	1.5414	-3.4785	-0.0106	0.0263	0.0244	0.3282	0.2477	0.0805	-2.2567
27	-0.01	0.00	0.0305	-0.1507	-0.0067	0.0090	-0.0073	0.2422	0.1330	0.1092	-4.9407

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AHOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (4T)

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	44	0.92	2.3	0.0	84	0F16	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	-0.00	0.00	0.0191	-0.1036	-0.0076	0.0085	-0.0070	0.2571	0.0796	0.1775	-5.4270	
2	7.01	0.00	0.3072	-0.5877	-0.0022	-0.0134	-0.0059	0.2594	0.0987	0.1607	-2.2382	
3	3.99	0.00	0.6356	-1.5176	0.0064	-0.0777	-0.0038	0.2608	0.1092	0.1516	-2.3868	
4	5.96	-0.00	1.0341	-2.5546	-0.0130	0.0617	0.0055	0.2876	0.1016	0.1860	-2.4584	
5	7.98	-0.00	1.3117	-3.0771	-0.0125	0.0478	0.0135	0.3159	0.1368	0.1811	-2.3459	
6	10.00	0.01	1.5790	-3.5358	0.0205	-0.1048	0.0002	0.3569	0.1585	0.1984	-2.2393	
7	12.02	0.00	1.8442	-3.8461	0.0014	-0.0406	0.0135	0.4033	0.1747	0.2785	-2.1084	
8	14.02	0.01	2.1820	-4.5024	0.0113	-0.0839	0.0178	0.4339	0.2177	0.2161	-2.0637	
9	16.04	0.00	2.4941	-4.9048	0.0171	-0.0614	0.0095	0.4515	0.2651	0.1864	-1.9626	
10	16.04	0.00	2.5169	-4.9674	0.0185	-0.0655	0.0062	0.4536	0.2942	0.1694	-1.9738	
11	17.04	0.00	2.6841	-5.1731	0.0203	-0.0651	0.0059	0.4635	0.3026	0.1609	-1.9273	
12	18.07	0.00	2.8449	-5.3124	0.0264	-0.0788	0.0022	0.4697	0.3274	0.1424	-1.8674	
13	19.09	0.00	2.9917	-5.3743	0.0401	-0.1226	-0.0069	0.4760	0.3401	0.1359	-1.7965	
14	20.11	0.01	3.1641	-5.2747	0.0899	-0.3750	-0.0432	0.4866	0.3608	0.1259	-1.6993	
15	21.15	0.01	3.2781	-5.2744	0.0444	-0.3563	-0.0355	0.5034	0.3668	0.1371	-1.6091	
16	21.14	0.01	3.2780	-5.3494	0.0910	-0.3966	-0.0421	0.5049	0.3593	0.1457	-1.6319	
17	22.16	0.00	3.3800	-5.1102	0.0217	-0.0418	0.0150	0.5333	0.3805	0.1528	-1.5119	
18	23.20	-0.00	3.5936	-5.2443	-0.0028	0.0646	0.0316	0.5478	0.3852	0.1626	-1.4593	
19	24.24	-0.00	3.7822	-5.3056	0.0004	0.0862	0.0344	0.5486	0.4099	0.1387	-1.4028	
20	25.26	-0.01	4.0149	-5.4243	0.0436	0.0123	0.0281	0.5477	0.4216	0.1261	-1.3494	
21	26.29	-0.01	4.2791	-5.5149	0.1335	-0.1640	0.0344	0.5389	0.4426	0.0963	-1.2888	
22	27.34	-0.00	4.5664	-5.5429	0.1855	-0.2902	0.0532	0.5273	0.4549	0.0724	-1.2139	
23	28.40	-0.00	4.8928	-5.4767	0.1713	-0.2442	0.0549	0.5119	0.4593	0.0526	-1.1193	
24	29.47	-0.00	5.2334	-5.4172	0.2101	-0.3393	0.0635	0.4982	0.4642	0.0340	-1.0351	
25	29.45	-0.00	5.1915	-5.4181	0.2116	-0.3228	0.0626	0.5022	0.4848	0.0175	-1.0436	
26	30.43	-0.00	5.5532	-5.2868	0.1230	-0.1343	0.0357	0.4898	0.5024	-0.0126	-0.9520	
27	20.11	0.01	3.1212	-5.3443	0.0842	-0.3617	-0.0362	0.4960	0.4547	0.0413	-1.7123	
28	9.99	-0.00	1.5475	-3.5148	0.0085	0.0171	0.0295	0.3418	0.3137	0.0281	-2.2713	
29	-0.01	0.00	0.0357	-0.1681	-0.0085	0.0116	-0.0003	0.2526	0.1547	0.0980	-4.7033	

POINT	TEST PART NAME RX10-6			PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	1	45	0.64 2.3								0.0	0400F16
	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	-0.01	0.00	0.0235	-0.1321	-0.0074	0.0062	-0.0036	0.2689	0.1002	0.1687	-5.6193	
2	1.99	0.00	0.3188	-0.7755	-0.0029	-0.0010	-0.0085	0.2679	0.1139	0.1539	-2.4322	
3	3.98	0.00	0.6857	-1.7184	0.0027	-0.0147	-0.0067	0.2730	0.1219	0.1511	-2.5068	
4	5.97	-0.00	1.0804	-2.7743	-0.0122	0.0496	-0.0009	0.3025	0.1234	0.1792	-2.5678	
5	7.97	-0.01	1.3876	-3.4330	-0.0634	0.2488	0.0736	0.3435	0.1298	0.2137	-2.4741	
6	10.00	0.00	1.5924	-3.6204	0.0087	-0.0555	-0.0138	0.3715	0.1444	0.2271	-2.2735	
7	12.00	0.00	1.8484	-3.9656	-0.0065	-0.0247	0.0199	0.4080	0.1832	0.2248	-2.1452	
8	14.01	0.01	2.2064	-4.6652	0.0064	-0.0742	0.0225	0.4454	0.2323	0.2131	-2.1049	
9	16.03	0.01	2.5542	-5.1342	0.0020	-0.0731	0.0239	0.4629	0.2786	0.1843	-2.0085	
10	16.03	0.00	2.5953	-5.2941	0.0008	-0.0480	0.0224	0.4669	0.3209	0.1460	-2.0399	
11	17.04	0.00	2.7562	-5.4394	0.0068	-0.0614	0.0172	0.4710	0.3327	0.1383	-1.9735	
12	18.06	0.00	2.9141	-5.5773	0.0094	-0.0661	0.0136	0.4774	0.3422	0.1351	-1.9139	
13	19.06	0.00	3.0684	-5.6513	0.0187	-0.0725	0.0068	0.4815	0.3574	0.1240	-1.8415	
14	20.10	0.00	3.2357	-5.7415	0.0249	-0.1117	-0.0087	0.4905	0.3623	0.1262	-1.7744	
15	21.14	0.01	3.3479	-5.7077	0.0741	-0.3171	-0.0357	0.5048	0.3566	0.1481	-1.6847	
16	22.17	0.01	3.5659	-5.7249	0.0710	-0.3392	-0.0333	0.5153	0.3771	0.1382	-1.6055	
17	23.20	0.00	3.7158	-5.5866	0.0320	-0.0977	0.0105	0.5322	0.3892	0.1429	-1.5040	
18	24.24	-0.00	3.9281	-5.5317	0.0025	0.0904	0.0420	0.5452	0.4021	0.1430	-1.4082	
19	25.26	-0.00	4.1713	-5.5541	0.0497	0.0178	0.0486	0.5444	0.4143	0.1301	-1.3315	
20	26.32	-0.00	4.4124	-5.5647	0.1370	-0.1695	0.0610	0.5339	0.4330	0.1009	-1.2418	
21	27.37	-0.00	4.6728	-5.5227	0.1755	-0.2598	0.0622	0.5218	0.4534	0.0685	-1.1819	
22	28.42	-0.00	5.0541	-5.4527	0.1744	-0.2690	0.0631	0.5175	0.4539	0.0636	-1.0780	
23	29.50	0.00	5.4132	-5.3396	0.2297	-0.3813	0.0826	0.5059	0.4722	0.0337	-0.9864	
24	30.57	-0.00	5.7542	-5.2933	0.1105	-0.1277	0.0418	0.4957	0.4835	0.0122	-0.9043	
25	20.10	0.00	3.2061	-5.6759	0.0331	-0.1348	-0.0090	0.4482	0.4549	0.0333	-1.7703	
26	9.48	0.00	1.6000	-3.7100	0.0055	-0.0477	-0.0137	0.3646	0.3212	0.0434	-2.3187	
27	7.96	-0.01	1.4152	-3.6176	-0.0639	0.2742	0.0739	0.3363	0.2529	0.0834	-2.5562	
28	-0.01	0.00	0.0241	-0.1703	-0.0097	0.0151	0.0046	0.2584	0.1748	0.0840	-7.0638	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

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MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART	MACH	RX10-6	PH1	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	4.0	0.90	2.3	0.0	M4WOF16	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CA0	CAF	KCP	
1	-0.01	0.00	0.0711	-0.1396	-0.0095	0.0150	-0.0036	0.2980	0.1072	0.1908	-6.6178	
2	1.99	-0.00	0.3337	-0.0630	-0.0044	0.0203	-0.0017	0.2949	0.1143	0.1805	-2.5886	
3	3.99	-0.00	0.7021	-1.0229	-0.0034	0.0129	-0.0095	0.3022	0.1238	0.1783	-2.5964	
4	5.96	-0.00	1.1216	-2.4404	-0.0025	0.0111	-0.0043	0.3291	0.1317	0.1974	-2.6662	
5	5.95	0.00	1.1186	-3.0055	-0.0014	-0.0003	-0.0044	0.3346	0.1332	0.2034	-2.6868	
6	7.95	-0.01	1.4370	-3.7041	-0.0455	0.1459	0.0612	0.3686	0.1508	0.2178	-2.5777	
7	9.97	-0.01	1.7144	-4.1772	-0.0847	0.3308	0.1241	0.4141	0.1561	0.2581	-2.4289	
8	12.01	0.00	1.9243	-4.2304	0.0102	-0.0439	-0.0094	0.4239	0.1912	0.2327	-2.2026	
9	14.02	0.01	2.2434	-4.7836	0.0016	-0.0500	0.0257	0.4572	0.2526	0.2047	-2.1321	
10	16.02	0.00	2.6358	-5.4794	0.0008	-0.0310	0.0256	0.4861	0.3033	0.1428	-2.0788	
11	17.02	0.00	2.8447	-5.7974	0.0021	-0.0208	0.0272	0.4995	0.3189	0.1806	-2.0344	
12	18.06	0.00	3.0069	-5.4196	0.0046	-0.0271	0.0237	0.4971	0.3379	0.1592	-1.9687	
13	19.07	-0.00	3.2092	-6.0684	0.0369	-0.0094	0.0205	0.5032	0.3401	0.1631	-1.8973	
14	20.09	-0.00	3.3722	-6.1494	0.0384	-0.0021	0.0202	0.5095	0.3554	0.1541	-1.8237	
15	21.14	-0.00	3.5772	-6.2093	0.0520	-0.0770	0.0172	0.5151	0.3535	0.1617	-1.7358	
16	22.16	0.00	3.7313	-6.1075	0.0772	-0.1566	0.0046	0.5136	0.3660	0.1476	-1.6368	
17	23.21	-0.00	3.9296	-5.9564	0.0802	-0.0941	0.0380	0.5299	0.3756	0.1543	-1.5159	
18	24.24	-0.01	4.1359	-5.8147	0.0575	0.0715	0.0782	0.5463	0.3888	0.1575	-1.4059	
19	25.30	-0.01	4.3467	-5.7066	0.0459	0.0033	0.0765	0.5437	0.4130	0.1307	-1.3123	
20	26.35	-0.00	4.6565	-5.6734	0.1536	-0.1467	0.0928	0.5389	0.4246	0.1143	-1.2184	
21	27.40	0.00	4.9149	-5.5834	0.1769	-0.2523	0.1034	0.5270	0.4435	0.0835	-1.1368	
22	28.46	-0.00	5.3036	-5.4654	0.1133	-0.1105	0.0746	0.5289	0.4479	0.0811	-1.0305	
23	29.54	-0.00	5.6178	-5.3579	0.1793	-0.2465	0.0865	0.5161	0.4699	0.0462	-0.9537	
24	30.61	-0.00	5.9545	-5.2065	0.1218	-0.1562	0.0529	0.5047	0.4802	0.0245	-0.8744	
25	20.10	-0.00	3.3682	-6.1185	0.0383	-0.0132	0.0216	0.5110	0.4231	0.0879	-1.8186	
26	9.98	0.00	1.6205	-3.7968	0.0049	-0.0390	0.0043	0.3847	0.3365	0.0482	-2.3430	
27	-0.01	0.00	0.0213	-0.1635	-0.0106	0.0164	0.0013	0.3059	0.1649	0.1411	-7.6695	

TEST	PART	MACH	PK10-6	PM1	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
1	47	0.98	2-3	0.0	600016	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.01	0.00	0.0196	-0.1427	-0.0116	0.0161	0.0075	0.3362	0.1176	0.2146	-7.6589
2	1.99	0.00	0.3330	-0.0029	-0.0090	0.0094	0.0012	0.3341	0.1255	0.2086	-2.5848
3	3.97	-0.00	0.7104	-1.0700	-0.0031	0.0063	-0.0063	0.3453	0.1368	0.2086	-2.6374
4	5.94	0.00	1.1184	-3.0120	0.0052	-0.0252	0.0002	0.3697	0.1579	0.2118	-2.6923
5	7.94	0.00	1.5133	-4.0461	-0.0018	-0.0056	0.0148	0.4127	0.1667	0.2461	-2.6737
6	9.96	-0.01	1.7423	-4.3505	-0.0745	0.2947	0.1149	0.4445	0.1873	0.2572	-2.4979
7	11.99	0.00	1.9618	-4.6700	-0.0044	-0.0129	0.0215	0.4541	0.2140	0.2461	-2.2558
8	14.01	0.00	2.2767	-4.8420	0.0059	-0.0256	0.0211	0.4832	0.2605	0.2227	-2.1400
9	16.03	0.00	2.7043	-5.0620	0.0185	-0.0267	0.0194	0.5194	0.2925	0.2269	-2.8939
10	17.03	-0.00	2.9146	-5.4420	0.0164	-0.0135	0.0242	0.5254	0.3214	0.2040	-2.8568
11	17.03	-0.00	2.9306	-6.0230	0.0222	-0.0183	0.0274	0.5263	0.3182	0.2100	-2.0553
12	18.03	-0.00	3.1354	-6.2746	0.0277	-0.0138	0.0286	0.5379	0.3330	0.2049	-2.0012
13	19.06	-0.00	3.3317	-6.4520	0.0344	-0.0279	0.0283	0.5314	0.3449	0.1870	-1.9367
14	20.09	-0.00	3.5465	-6.5667	0.0512	-0.0561	0.0290	0.5379	0.3439	0.1940	-1.8572
15	21.12	-0.00	3.7457	-6.6120	0.0605	-0.0840	0.0266	0.5289	0.3521	0.1769	-1.7652
16	22.16	-0.00	3.9436	-6.5520	0.0761	-0.1303	0.0223	0.5301	0.3620	0.1681	-1.6616
17	23.21	-0.00	4.1176	-6.3512	0.0951	-0.1214	0.0391	0.5213	0.3803	0.1411	-1.5425
18	24.28	-0.01	4.3763	-6.2355	0.0631	0.0512	0.0899	0.5425	0.3457	0.1568	-1.4188
19	25.32	-0.01	4.6302	-6.0464	0.0692	0.1028	0.1282	0.5528	0.3960	0.1568	-1.3043
20	26.39	-0.00	4.9514	-5.9331	0.1275	-0.0349	0.1536	0.5512	0.4050	0.1462	-1.1983
21	27.45	-0.00	5.1777	-5.7159	0.1546	-0.1312	0.1324	0.5401	0.4279	0.1122	-1.1039
22	28.53	-0.01	5.6057	-5.5647	0.1006	-0.0207	0.0807	0.5442	0.4328	0.1115	-0.9926
23	28.53	-0.01	5.5888	-5.9485	0.1027	-0.0367	0.0825	0.5442	0.4535	0.0907	-0.9920
24	29.60	-0.00	5.8802	-5.8600	0.1673	-0.1900	0.0956	0.5339	0.4658	0.0689	-0.9287
25	30.67	-0.00	6.2404	-5.3723	0.1206	-0.1396	0.0668	0.5300	0.4789	0.0511	-0.8609
26	20.79	-0.00	3.5737	-6.6291	0.0470	-0.0632	0.0367	0.5440	0.4373	0.1067	-1.8558
27	9.95	-0.01	1.7654	-4.4140	-0.0730	0.3300	0.1139	0.4280	0.3385	0.0894	-2.5085
28	-0.01	0.00	0.0256	-0.1762	-0.0094	0.0126	0.0091	0.3412	0.1960	0.1451	-6.8722

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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART MACH REF10-6 PWT CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 4R 1.05 2.3 0.0 B4WOF16 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAR	CAR	XCP
1	-0.01	-0.00	0.0000	-0.4854	-0.0146	0.0406	0.0071	0.4304	0.1786	0.3176	0.0000	0.0000
2	1.94	0.00	0.3571	-0.4601	-0.0124	0.0214	0.0072	0.4786	0.1920	0.2867	-2.7109	
3	3.97	0.00	0.7356	-1.4766	-0.0076	0.0174	0.0014	0.4908	0.1920	0.2988	-2.6869	
4	5.96	0.00	1.1307	-3.0242	-0.0034	-0.0025	0.0061	0.5217	0.1942	0.3275	-2.6746	
5	7.94	0.00	1.5204	-4.0350	0.0042	-0.0233	0.0093	0.5586	0.2034	0.3551	-2.6539	
6	9.94	0.00	1.9265	-4.9748	0.0026	-0.0259	0.0171	0.5873	0.2173	0.3699	-2.5822	
7	11.95	0.00	2.2961	-5.6477	-0.0006	-0.0044	0.0310	0.5832	0.2324	0.3508	-2.4815	
8	13.99	-0.00	2.5661	-5.8284	-0.0374	0.1434	0.0836	0.6036	0.2313	0.3723	-2.2713	
9	16.03	-0.00	2.7944	-5.7526	0.0102	-0.0049	0.0233	0.6164	0.2650	0.3518	-2.0549	
10	17.05	0.00	3.0122	-6.0440	0.0178	-0.0207	0.0228	0.6298	0.2785	0.3512	-2.0063	
11	18.07	-0.00	3.2432	-6.3446	0.0266	-0.0305	0.0257	0.6297	0.2959	0.3338	-1.9563	
12	19.09	-0.00	3.4424	-6.5840	0.0346	-0.0553	0.0294	0.6319	0.3063	0.3256	-1.8906	
13	20.11	0.00	3.7215	-6.7487	0.0556	-0.0913	0.0290	0.6273	0.3143	0.3130	-1.8134	
14	21.15	0.00	3.9953	-6.8777	0.0665	-0.1153	0.0326	0.6217	0.3213	0.3004	-1.7214	
15	22.19	0.00	4.2943	-7.0107	0.0794	-0.1443	0.0393	0.6156	0.3338	0.2818	-1.6326	
16	23.23	0.00	4.5691	-7.0664	0.1001	-0.1923	0.0548	0.6096	0.3434	0.2661	-1.5398	
17	24.29	0.01	4.8453	-7.0861	0.1165	-0.2412	0.0793	0.6016	0.3555	0.2461	-1.4479	
18	25.35	0.01	5.2151	-7.0876	0.1336	-0.2723	0.0916	0.5975	0.3678	0.2297	-1.3598	
19	26.41	0.01	5.4942	-6.9853	0.1745	-0.3410	0.1125	0.5879	0.3750	0.2130	-1.2705	
20	27.46	0.01	5.8224	-6.9324	0.1949	-0.3883	0.1205	0.5839	0.3764	0.2075	-1.1907	
21	28.55	0.01	6.1057	-6.7559	0.1341	-0.2263	0.1038	0.5770	0.4011	0.1759	-1.1063	
22	29.62	0.00	6.3797	-6.6300	0.1080	-0.1644	0.0898	0.5725	0.4047	0.1679	-1.0392	
23	30.67	0.00	6.7026	-6.5807	0.1091	-0.1531	0.0744	0.5734	0.4123	0.1611	-0.9818	
24	20.11	0.00	3.7041	-6.7207	0.0575	-0.1013	0.0333	0.6313	0.3985	0.2328	-1.8124	
25	9.93	0.00	1.9374	-5.0768	-0.0012	-0.0080	0.0174	0.5673	0.3202	0.2470	-2.6197	
26	-0.91	0.00	-0.0014	-0.0431	-0.0166	0.0305	0.0084	0.5069	0.2370	0.2699	48.2001	

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TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	49	1.10	2.3	0.0	44WOF16	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ICP	
1	-0.01	-0.00	-0.0027	-0.0051	-0.0244	0.0794	0.0101	0.5340	0.1859	0.3488	24.4487	
2	1.44	-0.00	0.7032	-0.9111	-0.0171	0.0569	0.0072	0.5222	0.2101	0.3121	-2.6547	
3	3.97	-0.00	0.7201	-1.8461	-0.0184	0.0473	0.0046	0.5295	0.2013	0.3283	-2.6329	
4	5.96	-0.00	1.0474	-2.8664	-0.0076	0.0253	0.0090	0.5458	0.2194	0.3263	-2.6102	
5	7.95	0.00	1.4756	-3.8024	-0.0057	0.0076	0.0135	0.5691	0.2274	0.3417	-2.5771	
6	9.94	0.00	1.8674	-4.7148	-0.0015	0.0011	0.0165	0.5872	0.2332	0.3540	-2.5248	
7	11.95	0.00	2.2556	-5.4564	0.0009	0.0044	0.0239	0.6001	0.2277	0.3724	-2.4190	
8	13.96	0.00	2.6116	-5.9633	0.0015	0.0007	0.0251	0.6003	0.2355	0.3646	-2.2834	
9	16.04	-0.00	2.7496	-5.5936	0.0067	0.0243	0.0241	0.6071	0.2453	0.3616	-2.0052	
10	17.07	-0.00	2.9907	-5.8212	0.0150	0.0113	0.0206	0.6167	0.2585	0.3583	-1.9412	
11	18.08	-0.00	3.2284	-6.1165	0.0215	0.0011	0.0188	0.6239	0.2761	0.3478	-1.8946	
12	19.11	-0.00	3.4701	-6.3606	0.0301	-0.0097	0.0258	0.6246	0.2870	0.3376	-1.8330	
13	20.13	-0.00	3.7202	-6.5444	0.0510	-0.0451	0.0281	0.6185	0.2965	0.3220	-1.7555	
14	21.17	-0.00	4.0035	-6.6774	0.0545	-0.0564	0.0287	0.6130	0.3015	0.3115	-1.6680	
15	22.20	-0.00	4.3007	-6.8419	0.0644	-0.0940	0.0339	0.6127	0.3079	0.3048	-1.5909	
16	23.26	0.00	4.6112	-6.9464	0.0732	-0.1110	0.0431	0.6041	0.3135	0.2905	-1.4999	
17	24.32	0.00	4.9408	-6.9907	0.1011	-0.1793	0.0653	0.5968	0.3217	0.2751	-1.4149	
18	25.39	0.00	5.2821	-7.0065	0.1105	-0.1984	0.0694	0.5846	0.3245	0.2600	-1.3265	
19	26.43	0.01	5.6230	-7.1016	0.1547	-0.2485	0.0823	0.5745	0.3371	0.2373	-1.2630	
20	27.50	0.01	5.9412	-7.2001	0.1805	-0.2982	0.0811	0.5751	0.3526	0.2225	-1.2132	
21	28.54	0.00	6.2799	-7.2625	0.1485	-0.2561	0.0815	0.5698	0.3573	0.2125	-1.1565	
22	29.60	-0.00	6.5907	-7.2499	0.0430	-0.1220	0.0494	0.5680	0.3678	0.2002	-1.1000	
23	30.64	-0.00	6.8670	-7.1630	0.0762	-0.0777	0.0408	0.5674	0.3804	0.1869	-1.0431	
24	20.14	-0.00	3.7208	-6.4656	0.0446	-0.0460	0.0294	0.6211	0.3580	0.2631	-1.7377	
25	9.94	0.00	1.8629	-4.8204	-0.0074	0.0202	0.0155	0.5737	0.3052	0.2644	-2.5603	
26	-0.01	-0.00	-0.0023	-0.0877	-0.0214	0.0607	0.0115	0.5382	0.2295	0.3087	38.5093	

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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

POINT	TEST PART MACH RX10-6										
	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	0.00	-0.0290	0.0424	-0.0063	-0.0048	0.0103	0.5331	0.1733	0.3597	-1.4651
2	1.99	0.00	0.3304	-0.0447	-0.0040	-0.0114	0.0077	0.5176	0.1809	0.3287	-2.5608
3	3.94	0.00	0.6993	-1.7702	0.0034	-0.0356	0.0091	0.5240	0.1860	0.3380	-2.5312
4	5.97	0.00	1.0561	-2.6664	0.0074	-0.0443	0.0134	0.5448	0.1892	0.3556	-2.5015
5	7.97	0.00	1.4125	-3.4320	0.0110	-0.0604	0.0105	0.5635	0.1931	0.3703	-2.4297
6	9.97	0.00	1.7867	-4.1917	0.0242	-0.0732	0.0118	0.5824	0.1990	0.3834	-2.3461
7	11.94	0.00	2.1644	-4.8664	0.0205	-0.0710	0.0174	0.5902	0.2073	0.3829	-2.2454
8	14.02	0.00	2.5333	-5.3316	0.0205	-0.0505	0.0273	0.5907	0.2085	0.3822	-2.1046
9	16.07	0.00	2.9226	-5.7012	0.0253	-0.0567	0.0223	0.5910	0.2114	0.3796	-1.9507
10	17.10	-0.00	3.0608	-5.5598	0.0008	0.0684	0.0835	0.5915	0.2175	0.3740	-1.8165
11	18.13	0.00	3.2620	-5.5766	0.0262	-0.0161	0.0576	0.5896	0.2224	0.3672	-1.7096
12	19.14	-0.00	3.4942	-5.5756	0.0440	-0.0667	0.0087	0.5866	0.2339	0.3527	-1.5957
13	20.21	-0.00	3.7865	-5.7623	0.0438	-0.0469	0.0111	0.5887	0.2452	0.3435	-1.5210
14	21.27	-0.00	4.0951	-5.4024	0.0497	-0.0672	0.0157	0.5869	0.2545	0.3324	-1.4414
15	22.33	-0.00	4.4116	-4.0443	0.0638	-0.0421	0.0187	0.5861	0.2664	0.3197	-1.3701
16	23.36	-0.00	4.7338	-6.1946	0.0778	-0.1243	0.0243	0.5874	0.2776	0.3100	-1.3086
17	23.36	-0.00	4.7208	-4.1521	0.0725	-0.1147	0.0213	0.5859	0.2780	0.3079	-1.3032
18	24.42	0.00	5.0645	-6.2687	0.0985	-0.1737	0.0309	0.5834	0.2851	0.2983	-1.2370
19	25.48	0.00	5.4037	-6.3556	0.1374	-0.2497	0.0462	0.5814	0.2935	0.2878	-1.1761
20	26.55	0.00	5.7870	-6.4990	0.1544	-0.3028	0.0444	0.5751	0.2994	0.2757	-1.1230
21	27.60	0.01	6.1491	-6.6592	0.1863	-0.3802	0.0595	0.5692	0.3052	0.2640	-1.0830
22	28.64	0.01	6.4594	-4.7570	0.1855	-0.3732	0.0583	0.5598	0.3191	0.2408	-1.0461
23	29.70	0.00	6.8047	-6.8145	0.1900	-0.3731	0.0511	0.5578	0.3171	0.2447	-1.0022
24	30.77	0.00	7.1644	-4.9543	0.1940	-0.3607	0.0485	0.5562	0.3231	0.2332	-0.9701
25	20.22	0.00	3.7835	-5.6755	0.0454	-0.0792	0.0176	0.5970	0.3200	0.2771	-1.5001
26	9.97	0.00	1.7465	-4.2654	0.0136	-0.0561	0.0148	0.5760	0.2682	0.3078	-2.3745
27	-0.00	0.00	-0.0266	0.0215	-0.0053	-0.0098	0.0145	0.5321	0.2034	0.3287	-0.8869

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TEST PART	MACH	REX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	51	1.30	2.3	0.0	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	0.00	0.00	-0.0342	0.0764	-0.0080	0.0034	0.0141	0.4968	0.1478	0.3289	-2.2506
2	2.00	0.00	0.2957	-0.7041	-0.0099	0.0164	0.0144	0.4856	0.1753	0.3103	-2.3612
3	3.94	0.00	0.6386	-1.5005	-0.0077	0.0107	0.0132	0.4905	0.1751	0.3153	-2.3509
4	6.00	0.00	0.9784	-2.2666	-0.0134	0.0066	0.0132	0.5071	0.1749	0.3322	-2.3167
5	7.99	0.00	1.3272	-2.9833	-0.0007	0.0010	0.0133	0.5283	0.1806	0.3477	-2.2478
6	10.01	0.00	1.6903	-3.4484	0.0053	-0.0158	0.0130	0.5474	0.1850	0.3625	-2.1585
7	12.02	0.00	2.0668	-4.2454	0.0123	-0.0268	0.0140	0.5628	0.1923	0.3706	-2.0541
8	14.07	0.00	2.4613	-4.7222	0.0230	-0.0404	0.0145	0.5722	0.2012	0.3710	-1.9186
9	16.12	0.00	2.8617	-5.0413	0.0326	-0.0713	0.0150	0.5691	0.2077	0.3614	-1.7616
10	17.14	0.00	3.0966	-5.1737	0.0300	-0.0636	0.0187	0.5665	0.2120	0.3545	-1.6788
11	18.16	0.00	3.3664	-5.2484	0.0296	-0.0569	0.0224	0.5646	0.2173	0.3473	-1.5737
12	19.23	0.00	3.6493	-5.4161	0.0360	-0.0683	0.0201	0.5599	0.2232	0.3367	-1.4841
13	20.27	0.00	3.9304	-5.5263	0.0503	-0.1023	0.0215	0.5561	0.2295	0.3266	-1.4068
14	20.29	0.00	3.9354	-5.4909	0.0474	-0.0475	0.0199	0.5542	0.2325	0.3217	-1.3953
15	21.33	0.00	4.1954	-5.4268	0.0491	-0.0719	0.0493	0.5537	0.2340	0.3197	-1.2938
16	22.36	0.00	4.4548	-5.4107	0.0708	-0.1395	0.0239	0.5555	0.2361	0.3194	-1.2146
17	23.44	0.00	4.7741	-5.5274	0.0789	-0.1525	0.0241	0.5554	0.2395	0.3163	-1.1578
18	24.48	0.00	5.0983	-5.5818	0.0957	-0.1748	0.0256	0.5565	0.2459	0.3106	-1.1144
19	25.55	0.00	5.4616	-5.8556	0.1030	-0.1960	0.0281	0.5566	0.2566	0.3000	-1.0721
20	26.60	0.00	5.8283	-5.9386	0.1254	-0.2468	0.0317	0.5562	0.2684	0.2878	-1.0361
21	27.67	0.00	6.2073	-6.2448	0.1235	-0.2499	0.0373	0.5559	0.2707	0.2851	-1.0069
22	28.72	-0.00	6.5877	-6.4786	0.1137	-0.1905	0.0314	0.5583	0.2766	0.2817	-0.9834
23	29.77	-0.00	6.9449	-6.6854	0.1115	-0.1852	0.0218	0.5599	0.2822	0.2776	-0.9627
24	30.92	-0.00	7.3027	-6.8930	0.1074	-0.1770	0.0193	0.5594	0.2885	0.2709	-0.9439
25	20.28	0.00	3.9291	-5.4214	0.0472	-0.1116	0.0237	0.5590	0.2700	0.2848	-1.3798
26	10.00	0.00	1.6922	-3.6619	0.0075	-0.0106	0.0144	0.5444	0.2380	0.3068	-2.1758
27	-0.00	0.00	-0.0341	0.0567	-0.0091	0.0030	0.0156	0.5002	0.2052	0.2951	-1.6686

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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

TEST PART	MACH	REX10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	57	0.00	2.3	0.0	04W0F22	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	0.00	0.0101	-0.0280	-0.0099	0.0164	0.0033	0.2189	0.0965	0.1225	-2.7874
2	2.00	-0.00	0.1954	-0.2394	-0.0079	0.0149	0.0011	0.2192	0.0972	0.1220	-1.2273
3	4.03	-0.00	0.3942	-0.5066	-0.0058	0.0169	0.0026	0.2214	0.1015	0.1203	-1.2852
4	6.03	-0.00	0.6122	-0.8375	-0.0060	0.0240	0.0042	0.2289	0.1102	0.1188	-1.3688
5	8.03	-0.00	0.8530	-1.2146	-0.0045	0.0217	0.0040	0.2414	0.1180	0.1234	-1.4308
6	10.08	0.00	1.1157	-1.6134	-0.0068	0.0135	0.0054	0.2508	0.1262	0.1246	-1.4461
7	12.07	0.00	1.3824	-1.9781	-0.0114	0.0170	0.0104	0.2552	0.1308	0.1244	-1.4309
8	14.09	0.00	1.6681	-2.2483	-0.0185	0.0241	0.0099	0.2539	0.1508	0.1031	-1.3766
10	16.15	0.00	1.9188	-2.4542	-0.0109	0.0055	-0.0003	0.2506	0.1595	0.0911	-1.2798
11	17.14	-0.00	2.0466	-2.4954	-0.0206	0.0538	0.0069	0.2498	0.1599	0.0899	-1.2193
12	18.17	-0.00	2.2018	-2.6292	-0.0189	0.0528	0.0046	0.2505	0.1646	0.0858	-1.1941
13	19.17	-0.00	2.3643	-2.7567	-0.0150	0.0442	0.0023	0.2480	0.1772	0.0709	-1.1668
14	20.17	-0.00	2.5197	-2.8825	-0.0120	0.0413	0.0037	0.2461	0.1838	0.0623	-1.1440
15	21.20	-0.00	2.6820	-2.9789	-0.0103	0.0384	0.0031	0.2417	0.1903	0.0514	-1.1107
17	22.22	0.00	2.8795	-3.0562	0.0075	-0.0140	0.0056	0.2351	0.2047	0.0304	-1.0801
18	23.23	0.00	3.0151	-3.1338	0.0367	-0.0866	0.0062	0.2274	0.2148	0.0127	-1.0394
19	24.27	0.00	3.1675	-3.1452	0.0606	-0.1318	0.0177	0.2207	0.2205	0.0001	-0.9938
20	25.29	0.00	3.3306	-3.1261	0.0994	-0.2003	0.0452	0.2146	0.2267	-0.0121	-0.9386
21	26.32	0.00	3.5044	-3.1326	0.1087	-0.2156	0.0569	0.2104	0.2383	-0.0279	-0.8939
22	27.32	0.01	3.6747	-3.1352	0.2217	-0.4479	0.1047	0.2103	0.2474	-0.0372	-0.8532
23	28.39	0.02	3.8516	-3.1204	0.4866	-1.0529	0.1581	0.2193	0.2600	-0.0406	-0.8102
24	28.40	0.02	3.8654	-3.1350	0.5075	-1.0904	0.1664	0.2218	0.3064	-0.0846	-0.8110
25	29.40	0.02	4.0694	-3.2573	0.4511	-0.9966	0.1459	0.2012	0.3025	-0.1013	-0.8004
26	30.40	0.02	4.2886	-3.3745	0.5617	-1.2079	0.1569	0.1827	0.3007	-0.1180	-0.7868
27	20.18	0.00	2.4922	-2.8736	-0.0072	0.0166	0.0198	0.2343	0.1917	0.0423	-1.1531
28	10.34	0.00	1.0953	-1.6671	-0.0071	-0.0541	0.0234	0.2452	0.1545	0.0906	-1.5220
29	-0.01	0.06	0.0057	-0.0960	-0.0111	0.0026	0.0193	0.2240	0.1087	0.1152	-16.7928

POINT	TEST PART MACH RX10-6											
	ALPHA	BETA	CN	CLM	CLY	CLN	CLL	CA	CA*	CAF	XCP	
	1 SA 0.05 2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 UNKNOWN											
1	-0.01	0.00	0.0030	-0.0014	-0.0109	-0.0015	0.0205	0.2306	0.0751	0.1555	-26.7981	
2	-0.00	0.00	0.0054	-0.0065	-0.0121	0.0003	0.0188	0.2301	0.0935	0.1366	-14.0755	
3	2.01	0.00	0.1825	-0.2642	-0.0090	0.0011	0.0201	0.2317	0.1014	0.1303	-1.4754	
4	4.03	0.00	0.3801	-0.5346	-0.0070	0.0030	0.0182	0.2346	0.1045	0.1301	-1.4194	
5	6.04	0.00	0.6036	-0.8870	-0.0062	0.0032	0.0214	0.2414	0.1091	0.1323	-1.4691	
6	8.04	0.00	0.8429	-1.2662	-0.0064	-0.0045	0.0246	0.2496	0.1213	0.1284	-1.5022	
7	10.04	0.00	1.1071	-1.6766	-0.0074	-0.0009	0.0261	0.2595	0.1317	0.1278	-1.5162	
8	12.07	0.00	1.3422	-2.0644	-0.0131	-0.0092	0.0325	0.2602	0.1412	0.1190	-1.4938	
9	14.10	0.00	1.6704	-2.3816	-0.0187	-0.0036	0.0339	0.2576	0.1532	0.1044	-1.4259	
10	16.12	0.00	1.9244	-2.5466	-0.0146	-0.0036	0.0223	0.2484	0.1559	0.0926	-1.3199	
11	17.16	0.00	2.0600	-2.5893	-0.0190	0.0359	0.0291	0.2484	0.1587	0.0897	-1.2569	
12	18.18	0.00	2.2049	-2.7022	-0.0222	0.0356	0.0251	0.2484	0.1684	0.0799	-1.2233	
13	19.17	0.00	2.3817	-2.8436	-0.0144	0.0253	0.0248	0.2480	0.1844	0.0636	-1.1939	
15	20.18	0.00	2.5420	-2.9484	-0.0104	0.0279	0.0260	0.2455	0.2005	0.0450	-1.1599	
16	21.20	0.00	2.7066	-3.0263	-0.0075	0.0237	0.0236	0.2430	0.2023	0.0407	-1.1180	
17	22.22	0.00	2.8612	-3.0634	0.0121	-0.0319	0.0206	0.2372	0.2134	0.0238	-1.0708	
18	23.26	0.00	3.0314	-3.0842	0.0437	-0.1066	0.0209	0.2344	0.2186	0.0158	-1.0191	
19	24.27	0.00	3.1945	-3.0771	0.0548	-0.1399	0.0321	0.2283	0.2323	-0.0040	-0.9620	
20	25.33	0.00	3.3642	-3.0460	0.0428	-0.1786	0.0554	0.2240	0.2439	-0.0199	-0.9054	
21	26.36	0.00	3.5354	-3.0606	0.1134	-0.2213	0.0701	0.2180	0.2584	-0.0404	-0.8657	
22	27.36	0.01	3.7343	-3.0448	0.1860	-0.3707	0.1112	0.2146	0.2613	-0.0467	-0.8274	
23	28.41	0.02	3.9154	-3.1223	0.4584	-0.9905	0.1706	0.2181	0.2696	-0.0515	-0.7974	
24	29.42	0.01	4.1711	-3.2424	0.4198	-0.8795	0.1433	0.1959	0.3008	-0.1050	-0.7773	
25	30.47	0.01	4.4101	-3.2882	0.4535	-0.9342	0.1319	0.1750	0.3021	-0.1272	-0.7456	
26	20.20	0.00	2.5301	-2.9213	-0.0117	0.0133	0.0361	0.2513	0.2497	0.0016	-1.1546	
27	10.04	0.00	1.1106	-1.7427	-0.0094	-0.0060	0.0364	0.2536	0.1662	0.0874	-1.5691	
28	-0.01	0.00	0.0008	-0.1077	-0.0144	0.0015	0.0327	0.2288	0.1130	0.1158	-136.9631	

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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

TEST WART MALM RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 61 0.42 2.3 0.0 M4W0F22 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	0.00	0.0105	-0.0400	-0.0033	-0.0092	0.0076	0.2494	0.1035	0.1459	-2.9347
2	2.02	0.00	0.1957	-0.2403	-0.0060	0.0057	0.0057	0.2480	0.1069	0.1411	-1.2278
3	4.03	0.00	0.4058	-0.5501	-0.0014	0.0017	0.0055	0.2535	0.1102	0.1433	-1.3556
4	6.05	0.00	0.6436	-0.9576	0.0034	-0.0071	0.0086	0.2659	0.1145	0.1514	-1.4878
5	8.04	0.00	0.9041	-1.4267	0.0040	-0.0137	0.0100	0.2786	0.1267	0.1519	-1.5781
6	10.06	0.00	1.1778	-1.8713	0.0104	-0.0322	0.0112	0.2863	0.1364	0.1498	-1.5888
7	12.06	0.00	1.4604	-2.2712	0.0065	-0.0277	0.0159	0.2849	0.1425	0.1423	-1.5546
8	14.09	0.00	1.7483	-2.5927	-0.0053	-0.0009	0.0188	0.2814	0.1449	0.1365	-1.4830
9	16.11	-0.00	2.0443	-2.8641	-0.0178	0.0532	0.0185	0.2805	0.1619	0.1186	-1.4010
10	17.16	0.00	2.1691	-2.8879	-0.0064	0.0095	0.0076	0.2788	0.1842	0.0946	-1.3129
11	18.18	0.00	2.3262	-2.4230	-0.0091	0.0248	0.0086	0.2878	0.1787	0.1091	-1.2566
12	19.19	-0.00	2.4758	-3.0161	-0.0112	0.0433	0.0044	0.2858	0.2244	0.0614	-1.2182
13	20.21	-0.00	2.6488	-3.0455	0.0074	-0.0056	0.0042	0.2792	0.2311	0.0481	-1.1740
14	21.23	-0.00	2.8041	-3.1140	-0.0080	0.0272	0.0003	0.2852	0.2310	0.0542	-1.1105
15	22.26	-0.00	2.9501	-3.0832	0.0015	-0.0076	-0.0075	0.2772	0.2417	0.0355	-1.0451
16	23.30	-0.00	3.1197	-3.0780	0.0191	-0.0403	-0.0102	0.2753	0.2485	0.0268	-0.9869
17	24.32	0.00	3.3142	-3.0245	0.0334	-0.0752	-0.0050	0.2710	0.2606	0.0104	-0.9141
18	25.35	-0.00	3.5002	-2.4776	0.0806	-0.1543	0.0049	0.2621	0.2806	-0.0185	-0.8507
19	26.40	0.00	3.6647	-2.9459	0.1188	-0.2249	0.0268	0.2526	0.2846	-0.0320	-0.8040
20	27.45	0.00	3.9731	-2.6247	0.1478	-0.2649	0.0312	0.2442	0.2924	-0.0482	-0.7109
22	29.58	-0.01	4.5567	-2.4319	0.2815	-0.4542	0.0378	0.2288	0.3148	-0.0860	-0.5337
23	30.65	-0.01	4.9069	-2.1439	0.1654	-0.2346	0.0103	0.2156	0.3192	-0.1036	-0.4369
25	10.06	0.00	1.1757	-1.5407	0.0071	-0.0240	0.0213	0.2793	0.1871	0.0923	-1.6506
28	-0.00	0.00	0.0073	-0.0551	-0.0057	-0.0098	0.0240	0.2459	0.1047	0.1413	-7.5479

TEST PART MACH RK10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 62 0.98 2-3 0.0 H4=0F22 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP
1	-0.00	0.00	0.0045	-0.0380	-0.0065	0.0035	0.0232	0.3107	0.1188	0.1918	-0.4169
2	7.02	0.00	0.2054	-0.3038	-0.0045	-0.0024	0.0228	0.3097	0.1297	0.1800	-1.4752
3	4.01	0.00	0.4109	-0.6177	-0.0012	-0.0067	0.0243	0.3111	0.1267	0.1644	-1.5034
4	6.05	0.00	0.6514	-1.0078	-0.0014	-0.0033	0.0257	0.3195	0.1332	0.1863	-1.5472
5	8.04	0.00	0.9022	-1.4167	0.0020	-0.0084	0.0269	0.3419	0.1455	0.1964	-1.5703
6	10.05	0.00	1.1736	-1.8306	0.0038	-0.0160	0.0267	0.3499	0.1701	0.1797	-1.5595
7	10.05	0.00	1.1678	-1.8287	0.0049	-0.0120	0.0282	0.3493	0.1408	0.1685	-1.5660
8	12.09	0.00	1.4568	-2.1452	0.0001	-0.0132	0.0310	0.3509	0.1402	0.1606	-1.5869
9	14.11	0.00	1.7561	-2.5154	-0.0120	0.0159	0.0352	0.3565	0.2209	0.1356	-1.4324
10	16.15	0.00	2.0661	-2.7755	-0.0206	0.0463	0.0345	0.3582	0.2293	0.1289	-1.3433
11	17.16	0.00	2.2411	-2.9353	-0.0191	0.0514	0.0329	0.3524	0.2422	0.1102	-1.3098
12	17.16	0.00	2.2315	-2.9227	-0.0201	0.0527	0.0312	0.3518	0.2431	0.1087	-1.3097
13	18.15	0.00	2.4062	-3.0426	-0.0171	0.0577	0.0322	0.3601	0.2405	0.1196	-1.2635
14	19.19	0.00	2.5475	-3.1717	-0.0229	0.0737	0.0318	0.3525	0.2561	0.0964	-1.2210
15	20.23	-0.00	2.7832	-3.2184	-0.0297	0.0958	0.0200	0.3439	0.2587	0.0853	-1.1564
16	21.25	-0.00	2.9465	-3.2165	-0.0075	0.0743	0.0220	0.3470	0.2576	0.0894	-1.0734
17	22.29	-0.00	3.1928	-3.1500	0.0303	-0.0168	0.0234	0.3410	0.2742	0.0668	-0.9867
18	23.35	-0.00	3.4042	-2.9972	0.0718	-0.0472	0.0310	0.3328	0.2861	0.0467	-0.8792
19	24.41	-0.00	3.6771	-2.9183	0.0810	-0.1112	0.0277	0.3240	0.2928	0.0312	-0.7936
20	25.46	-0.00	3.9153	-2.8034	0.0921	-0.1322	0.0245	0.3125	0.3030	0.0094	-0.7160
21	26.51	-0.00	4.1651	-2.6482	0.1146	-0.1478	0.0260	0.3052	0.3080	-0.0028	-0.6328
22	27.59	-0.01	4.5634	-2.4443	0.1205	-0.1700	0.0255	0.3034	0.3044	-0.0056	-0.5365
23	28.66	-0.01	4.8552	-2.2354	0.1300	-0.1243	0.0235	0.2962	0.3153	-0.0191	-0.4404
24	29.74	-0.01	5.2404	-2.0814	0.2047	-0.2000	0.0303	0.2979	0.3228	-0.0249	-0.3472
25	30.91	-0.00	5.5514	-1.9690	0.1645	-0.2476	0.0307	0.2771	0.3265	-0.0494	-0.3547
26	20.24	-0.00	2.7865	-3.1661	-0.0404	0.1136	0.0278	0.3580	0.3083	0.0497	-1.1362
27	10.06	0.00	1.1765	-1.8763	0.0040	-0.0070	0.0314	0.3481	0.2082	0.1398	-1.5948

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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (4T)

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	04	1.10	2.3	0.0	04W0F22	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	RETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	0.00	-0.00	0.0011	0.0235	-0.0133	0.0355	0.0067	0.4805	0.1871	0.2934	20.6462	
2	2.02	-0.00	0.2145	-0.2094	-0.0220	0.0444	0.0068	0.4853	0.1859	0.2994	-1.2559	
3	2.02	-0.00	0.2032	-0.2380	-0.0127	0.0461	0.0049	0.4806	0.1986	0.2820	-1.1712	
4	4.03	-0.00	0.4173	-0.5251	-0.0179	0.0689	0.0063	0.4818	0.1897	0.2921	-1.2585	
5	6.05	-0.00	0.6454	-0.8365	-0.0105	0.0483	0.0073	0.4911	0.1955	0.2956	-1.2960	
6	8.07	-0.00	0.8403	-1.1625	-0.0099	0.0502	0.0069	0.5072	0.1948	0.3124	-1.3050	
7	8.07	-0.00	0.8880	-1.1872	-0.0018	0.0330	0.0055	0.5016	0.2148	0.2868	-1.3369	
8	10.10	-0.00	1.1446	-1.4976	0.0040	0.0243	0.0079	0.5082	0.2248	0.2834	-1.3084	
9	12.11	-0.00	1.4146	-1.7720	0.0059	0.0196	0.0072	0.5066	0.2268	0.2799	-1.2483	
10	14.15	-0.00	1.7249	-2.0195	0.0019	0.0253	0.0123	0.5050	0.2331	0.2710	-1.1708	
11	16.16	-0.00	2.0507	-2.2145	-0.0153	0.0712	0.0100	0.5030	0.2389	0.2640	-1.0790	
12	17.23	-0.00	2.2244	-2.2678	-0.0187	0.0892	0.0080	0.5005	0.2484	0.2521	-1.0195	
13	18.25	-0.00	2.4160	-2.3340	-0.0177	0.0990	0.0058	0.4958	0.2608	0.2349	-0.9681	
14	19.27	-0.01	2.6167	-2.3821	-0.0204	0.1192	0.0022	0.4894	0.2649	0.2246	-0.9103	
15	20.33	-0.01	2.8457	-2.3760	-0.0328	0.1434	-0.0031	0.4821	0.2745	0.2075	-0.8349	
17	22.43	-0.01	3.1246	-2.4350	-0.0107	0.0974	0.0001	0.4633	0.2852	0.1781	-0.7313	
18	22.43	-0.01	3.3431	-2.3637	0.0010	0.1025	-0.0045	0.4610	0.2764	0.1846	-0.7070	
19	23.47	-0.01	3.5993	-2.3505	0.0055	0.0641	0.0030	0.4503	0.2802	0.1701	-0.6531	
20	24.52	-0.01	3.8751	-2.2855	0.0164	0.0626	0.0043	0.4423	0.2811	0.1612	-0.5890	
21	25.57	-0.01	4.1757	-2.1744	0.0223	0.0473	0.0039	0.4358	0.2788	0.1570	-0.5207	
22	26.62	-0.01	4.4746	-2.1103	0.0583	0.0002	0.0080	0.4293	0.2888	0.1405	-0.4716	
23	27.69	-0.01	4.7983	-2.0610	0.0853	-0.0298	0.0077	0.4269	0.2945	0.1324	-0.4296	
24	28.79	-0.01	5.1374	-2.0334	0.0811	-0.0450	0.0027	0.4229	0.2900	0.1328	-0.3959	
25	29.86	-0.01	5.4170	-1.9422	0.1411	-0.1916	0.0075	0.4182	0.2938	0.1244	-0.3678	
26	30.88	-0.00	5.7076	-1.9757	0.1334	-0.2076	0.0071	0.4142	0.3038	0.1104	-0.3462	
27	20.34	-0.01	2.8306	-2.3663	-0.0338	0.1614	0.0012	0.4827	0.2895	0.1932	-0.8148	
28	10.07	-0.00	1.1482	-1.5156	0.0041	0.0255	0.0109	0.5047	0.2656	0.2391	-1.3200	
29	0.00	-0.00	-0.0004	0.0154	-0.0133	0.0335	0.0126	0.4761	0.2037	0.2724	-10.0271	

TEST PART	MACH	REX10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	65	1.20	2.3	0.0	04=0F22	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	0.01	0.00	-0.0173	0.1043	-0.0051	-0.0039	0.0128	0.4761	0.1800	0.2980	-0.0000	
2	2.02	0.00	0.1853	-0.1339	-0.0027	-0.0044	0.0127	0.4748	0.1660	0.3088	-0.7223	
3	4.05	0.00	0.3473	-0.3442	-0.0019	-0.0065	0.0138	0.4724	0.1668	0.3055	-0.9921	
4	6.05	0.00	0.6214	-0.6597	0.0004	-0.0104	0.0147	0.4833	0.1727	0.3105	-1.0607	
5	8.10	0.00	0.8586	-0.9227	0.0059	-0.0186	0.0141	0.4931	0.1810	0.3120	-1.0747	
6	10.11	0.00	1.0917	-1.1627	0.0053	-0.0213	0.0164	0.4917	0.1891	0.3026	-1.0651	
7	12.14	0.00	1.3750	-1.3404	0.0152	-0.0267	0.0141	0.4865	0.1965	0.2900	-1.0112	
8	14.19	0.00	1.6887	-1.5424	0.0125	-0.0243	0.0147	0.4866	0.1986	0.2880	-0.9430	
9	16.20	0.00	1.7091	-1.5475	0.0176	-0.0348	0.0144	0.4874	0.2026	0.2848	-0.9347	
10	16.24	-0.00	2.0462	-1.7563	-0.0095	0.0379	0.0180	0.4881	0.2070	0.2811	-0.8575	
11	17.27	-0.00	2.2443	-1.7979	-0.0154	0.0430	0.0145	0.4866	0.2091	0.2775	-0.8011	
12	18.32	-0.00	2.4240	-1.8386	-0.0174	0.0769	0.0110	0.4789	0.2167	0.2622	-0.7573	
13	19.39	-0.00	2.7021	-1.8323	-0.0135	0.0776	0.0081	0.4403	0.2238	0.2565	-0.6763	
14	20.41	-0.01	2.8918	-1.8372	-0.0107	0.0850	0.0059	0.4764	0.2372	0.2442	-0.6353	
15	21.45	-0.01	3.2092	-1.7926	-0.0045	0.0883	0.0042	0.4724	0.2368	0.2356	-0.5586	
16	22.52	-0.01	3.4814	-1.7135	-0.0024	0.0924	0.0041	0.4687	0.2435	0.2251	-0.4923	
17	23.57	-0.01	3.7669	-1.6542	0.0119	0.0661	0.0038	0.4679	0.2481	0.2199	-0.4391	
18	24.62	-0.01	4.0636	-1.5634	0.0344	0.0142	0.0047	0.4658	0.2492	0.2167	-0.3847	
19	25.70	-0.01	4.3727	-1.4795	0.0552	-0.0148	0.0084	0.4617	0.2547	0.2071	-0.3383	
20	26.77	-0.01	4.7117	-1.4204	0.0830	-0.0758	0.0133	0.4598	0.2692	0.1906	-0.3015	
21	27.84	-0.01	5.0216	-1.4076	0.1087	-0.1180	0.0143	0.4596	0.2722	0.1874	-0.2803	
22	28.91	-0.01	5.3370	-1.3411	0.1190	-0.1073	0.0144	0.4578	0.2756	0.1822	-0.2607	
23	29.96	-0.00	5.6023	-1.4034	0.0983	-0.1761	0.0163	0.4580	0.2762	0.1818	-0.2505	
24	31.03	-0.00	6.0227	-1.5125	0.1797	-0.3163	0.0181	0.4589	0.2802	0.1787	-0.2511	
25	20.43	-0.00	2.9441	-1.7414	-0.0661	0.0793	0.0109	0.4799	0.2737	0.2063	-0.5915	
26	10.12	0.00	1.1201	-1.1432	0.0094	-0.0167	0.0192	0.4943	0.2313	0.2630	-1.0652	
27	0.00	0.00	-0.0213	0.0433	-0.0062	-0.0026	0.0172	0.4754	0.1856	0.2897	-4.3857	
28	0.01	0.00	-0.0202	0.1048	-0.0032	-0.0209	0.0174	0.4490	0.1716	0.2774	-5.2001	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	0.01	0.00	-0.0161	0.1016	0.0006	-0.0278	0.0187	0.4431	0.1533	0.2798	-5.6071
2	0.01	0.00	-0.0202	0.1016	0.0026	-0.0130	0.0190	0.4476	0.1716	0.2760	-5.0268
3	2.04	0.00	0.1727	-0.0868	0.0026	-0.0100	0.0186	0.4450	0.1715	0.2735	-0.5039
4	4.05	-0.00	0.3716	-0.2753	0.0076	0.0019	0.0211	0.4418	0.1688	0.2731	-0.7948
5	6.10	-0.00	0.5897	-0.5245	0.0070	-0.0007	0.0219	0.4498	0.1684	0.2814	-0.8901
6	8.10	-0.00	0.7982	-0.7280	0.0149	0.0024	0.0228	0.4569	0.1715	0.2854	-0.9120
7	10.14	-0.00	1.0748	-0.9534	0.0065	0.0057	0.0206	0.4606	0.1755	0.2851	-0.8829
8	12.16	-0.00	1.3601	-1.1378	0.0174	0.0002	0.0197	0.4620	0.1607	0.2813	-0.8365
9	14.24	-0.00	1.6512	-1.2494	0.0114	0.0051	0.0172	0.4623	0.1549	0.2775	-0.7570
10	16.28	-0.00	2.0250	-1.3555	0.0209	0.0045	0.0129	0.4658	0.1905	0.2752	-0.6694
11	17.31	-0.00	2.2315	-1.3424	0.0211	0.0168	0.0135	0.4631	0.1982	0.2649	-0.6242
12	18.36	-0.01	2.4604	-1.4342	0.0153	0.0500	0.0113	0.4642	0.2044	0.2598	-0.5782
13	19.42	-0.01	2.7421	-1.4452	0.0301	0.0326	0.0113	0.4617	0.2088	0.2579	-0.5278
14	20.46	-0.01	2.9874	-1.4334	0.0297	0.0256	0.0100	0.4620	0.2122	0.2498	-0.4797
15	21.52	-0.01	3.2630	-1.3460	0.0379	0.0164	0.0111	0.4636	0.2188	0.2448	-0.4278
16	22.56	-0.01	3.5233	-1.3685	0.0365	-0.0071	0.0109	0.4675	0.2211	0.2464	-0.3884
17	23.63	-0.01	3.7412	-1.3623	0.0575	-0.0377	0.0137	0.4651	0.2263	0.2387	-0.3641
18	24.73	-0.01	4.0647	-1.3418	0.0764	-0.0843	0.0157	0.4708	0.2321	0.2387	-0.3301
19	25.76	-0.00	4.4002	-1.3103	0.1115	-0.1540	0.0189	0.4723	0.2362	0.2360	-0.2978
20	26.41	-0.01	4.7198	-1.3234	0.1062	-0.1231	0.0190	0.4775	0.2430	0.2345	-0.2804
21	27.44	-0.01	5.0637	-1.4293	0.1137	-0.1103	0.0205	0.4761	0.2477	0.2284	-0.2823
22	28.95	-0.01	5.4241	-1.5080	0.1344	-0.1208	0.0177	0.4804	0.2519	0.2285	-0.2788
24	31.10	-0.01	6.1121	-1.4936	0.1729	-0.2065	0.0223	0.4820	0.2738	0.2042	-0.2771
25	20.44	-0.00	2.9708	-1.4447	0.0243	-0.0032	0.0165	0.4656	0.2619	0.2037	-0.4488
26	10.12	-0.00	1.1088	-1.1044	-0.0043	0.0433	0.0226	0.4737	0.2193	0.2544	-0.9978
27	-0.00	0.00	0.0190	-0.0713	-0.0157	0.0256	0.0236	0.4531	0.1751	0.2780	-3.7471

TEST PART NAME RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 71 0.00 2.3 0.0 0.00023 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-0.00	0.00	0.0103	-0.0237	-0.0062	-0.0041	-0.0097	0.2345	0.1038	0.1306	-2.3048
2	2.01	0.00	0.1962	-0.2443	-0.0030	-0.0078	-0.0137	0.2372	0.1056	0.1316	-1.2705
3	4.02	0.00	0.4044	-0.5226	-0.0021	-0.0153	-0.0140	0.2346	0.1115	0.1230	-1.4487
4	6.03	0.00	0.6384	-1.0165	0.0030	-0.0227	-0.0141	0.2350	0.1119	0.1231	-1.5922
5	8.03	0.00	0.8822	-1.4121	0.0057	-0.0261	-0.0142	0.2471	0.1134	0.1337	-1.6807
6	10.06	0.00	1.1222	-1.7323	0.0058	-0.0273	-0.0129	0.2606	0.1267	0.1339	-1.5437
7	12.10	0.00	1.3496	-1.9291	-0.0020	-0.0143	-0.0116	0.2657	0.1440	0.1217	-1.4294
8	14.99	0.00	1.5540	-1.9745	-0.0048	-0.0021	-0.0125	0.2680	0.1564	0.1116	-1.2706
9	16.15	-0.00	1.7322	-1.6376	-0.0243	0.0513	-0.0117	0.2773	0.1749	0.1024	-1.0609
10	17.17	-0.00	1.8551	-1.0103	-0.0220	0.0610	-0.0123	0.2805	0.1960	0.0845	-0.9758
11	18.16	-0.00	1.9548	-1.0007	-0.0307	0.0796	-0.0127	0.2855	0.2209	0.0646	-0.9212
12	19.21	-0.00	2.1012	-1.7011	-0.0243	0.0751	-0.0172	0.2979	0.2553	0.0427	-0.8477
13	20.19	-0.00	2.2161	-1.7520	-0.0308	0.0844	-0.0179	0.3028	0.2751	0.0278	-0.7906
14	21.22	-0.00	2.3339	-1.7005	-0.0269	0.0724	-0.0206	0.3107	0.2926	0.0181	-0.7286
15	22.27	-0.00	2.4524	-1.6401	-0.0082	0.0433	-0.0197	0.3178	0.3186	-0.0008	-0.6688
16	23.30	-0.00	2.6174	-1.5674	0.0010	0.0223	-0.0154	0.3281	0.3287	-0.0005	-0.5988
17	24.32	-0.00	2.7879	-1.5676	0.0302	-0.0326	-0.0130	0.3294	0.3435	-0.0141	-0.5623
18	25.33	-0.00	2.9606	-1.5730	0.0469	-0.0473	-0.0141	0.3301	0.3570	-0.0268	-0.5313
19	26.40	-0.00	3.1491	-1.6174	0.0484	-0.0493	-0.0134	0.3303	0.3719	-0.0416	-0.5136
20	27.42	0.00	3.3317	-1.6963	0.1769	-0.3448	0.0205	0.3168	0.3737	-0.0569	-0.5091
21	28.43	0.00	3.5417	-1.7846	0.2514	-0.4945	0.0384	0.3100	0.3709	-0.0609	-0.5039
22	29.45	0.00	3.7336	-1.8465	0.3210	-0.6409	0.0472	0.3026	0.3761	-0.0735	-0.4944
23	30.46	0.01	3.9725	-2.0121	0.4593	-0.9556	0.0807	0.2949	0.3971	-0.1022	-0.5065
24	29.46	0.00	3.7577	-1.9148	0.3223	-0.6742	0.0471	0.3007	0.3974	-0.0967	-0.4896
25	30.49	0.01	3.9613	-1.9995	0.4720	-0.9777	0.0804	0.2947	0.3995	-0.1048	-0.5048
26	20.22	-0.00	2.2130	-1.7380	-0.0314	0.0786	-0.0124	0.3099	0.3227	-0.0129	-0.7854
27	20.22	-0.00	2.2156	-1.7428	-0.0280	0.0739	-0.0125	0.3070	0.3229	-0.0159	-0.7866
28	10.06	0.00	1.1133	-1.7238	0.0044	-0.0254	-0.0074	0.2609	0.1791	0.0818	-1.5484
29	-0.00	0.00	-0.0052	-0.0054	-0.0069	0.0018	-0.0042	0.2336	0.1037	0.1299	1.6393

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
PAGE 1 OF 1
SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY (PWT)
MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-0.00	0.00	-0.0026	-0.0003	-0.0073	-0.0020	-0.0041	0.2385	0.1045	0.1340	0.1159
2	2.00	0.00	0.1826	-0.7264	-0.0030	-0.0114	-0.0097	0.2399	0.1056	0.1343	-1.2425
3	4.03	0.00	0.4011	-0.5627	-0.0014	-0.0168	-0.0099	0.2377	0.1120	0.1257	-1.4527
4	6.03	0.00	0.6449	-1.0517	0.0045	-0.0323	-0.0118	0.2411	0.1038	0.1373	-1.6309
5	8.05	0.00	0.8802	-1.4298	0.0054	-0.0359	-0.0104	0.2540	0.1358	0.1182	-1.6245
6	10.08	0.00	1.1104	-1.7369	0.0071	-0.0368	-0.0108	0.2669	0.1385	0.1283	-1.5642
7	12.06	0.00	1.3488	-1.9474	-0.0036	-0.0131	-0.0077	0.2717	0.1446	0.1271	-1.4438
8	14.09	0.00	1.5729	-2.0551	-0.0117	-0.0101	-0.0069	0.2710	0.1695	0.1015	-1.3066
9	14.09	0.00	1.5778	-2.0559	-0.0110	-0.0061	-0.0069	0.2741	0.1831	0.0909	-1.3030
10	16.13	0.00	1.7724	-1.9845	-0.0209	0.0788	-0.0096	0.2874	0.1920	0.0955	-1.1193
11	17.15	-0.00	1.8960	-1.9492	-0.0270	0.0524	-0.0102	0.3001	0.2209	0.0792	-1.0281
12	18.18	-0.00	2.0069	-1.9201	-0.0290	0.0595	-0.0125	0.2988	0.2393	0.0596	-0.9568
13	19.23	-0.00	2.1263	-1.9034	-0.0280	0.0704	-0.0131	0.3033	0.2621	0.0412	-0.8951
14	20.24	-0.00	2.2279	-1.8372	-0.0223	0.0623	-0.0156	0.3206	0.2830	0.0377	-0.8246
15	21.26	-0.00	2.4044	-1.7621	-0.0121	0.0427	-0.0169	0.3304	0.2971	0.0333	-0.7328
16	22.30	-0.00	2.5295	-1.6515	-0.0026	0.0296	-0.0145	0.3418	0.3263	0.0155	-0.6529
17	23.31	-0.00	2.6637	-1.5778	0.0134	0.0759	-0.0117	0.3483	0.3432	0.0051	-0.5923
18	24.33	-0.00	2.8458	-1.5889	0.0260	-0.0063	-0.0077	0.3490	0.3524	-0.0034	-0.5583
19	25.38	-0.00	3.0265	-1.5952	0.0433	-0.0515	-0.0037	0.3461	0.3702	-0.0240	-0.5271
20	26.36	-0.00	3.2038	-1.6254	0.0664	-0.0998	0.0004	0.3421	0.3791	-0.0369	-0.5074
21	27.42	-0.00	3.3955	-1.7101	0.1405	-0.3500	0.0309	0.3245	0.3836	-0.0591	-0.5039
22	28.43	0.00	3.6134	-1.7929	0.2646	-0.5050	0.0464	0.3160	0.3798	-0.0638	-0.4961
23	29.48	-0.00	3.8634	-1.9093	0.2217	-0.4020	0.0375	0.3040	0.3925	-0.0885	-0.4942
24	30.53	-0.00	4.1206	-2.0200	0.2996	-0.5412	0.0531	0.2911	0.3916	-0.1006	-0.4902
25	20.22	-0.00	2.2535	-1.4249	-0.0183	0.0383	-0.0125	0.3263	0.3554	-0.0791	-0.6098
26	10.05	0.00	1.1175	-1.7562	0.0072	-0.0349	-0.0073	0.2679	0.2130	0.0549	-1.5714
27	-0.00	0.00	-0.0049	-0.0095	-0.0097	-0.0007	-0.0041	0.2399	0.1295	0.1104	1.9184

TEST PART	MACH	RX10-6	PM1	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	73	0.42	2.3	0.0	M=0F23	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-0.00	0.00	-0.0045	0.0141	-0.0071	-0.0077	-0.0007	0.2515	0.1057	0.1458	-1.4780
2	-0.00	0.00	-0.0072	0.0107	-0.0043	-0.0044	-0.0023	0.2516	0.1094	0.1422	-1.4858
3	2.00	0.00	0.1802	-0.2124	-0.0040	-0.0152	-0.0078	0.2524	0.1152	0.1377	-1.1815
4	4.01	0.00	0.3936	-0.5679	-0.0006	-0.0258	-0.0080	0.2498	0.1200	0.1298	-1.4428
5	6.01	0.00	0.6624	-1.1104	0.0042	-0.0442	-0.0134	0.2516	0.1226	0.1290	-1.6752
6	8.03	0.00	0.9268	-1.6171	-0.0001	-0.0147	0.0019	0.2673	0.1268	0.1405	-1.7447
7	10.07	0.00	1.1654	-1.9735	0.0057	-0.0420	-0.0087	0.2814	0.1406	0.1408	-1.6491
8	12.09	0.00	1.4022	-2.1402	-0.0022	-0.0248	-0.0024	0.2933	0.1567	0.1366	-1.5263
9	14.09	0.00	1.6343	-2.2042	-0.0134	-0.0059	0.0002	0.3034	0.1669	0.1365	-1.3934
10	16.15	0.00	1.9041	-2.3580	-0.0155	0.0005	-0.0093	0.3072	0.2144	0.0928	-1.2384
11	17.17	0.00	2.0022	-2.3154	-0.0155	0.0144	-0.0081	0.3196	0.2370	0.0826	-1.1567
12	18.19	0.00	2.1342	-2.3026	-0.0210	0.0306	-0.0121	0.3276	0.2596	0.0681	-1.0764
13	19.22	-0.00	2.2056	-2.27361	-0.0213	0.0347	-0.0125	0.3304	0.2832	0.0476	-1.0138
14	20.22	-0.00	2.3706	-2.1004	-0.0114	0.0247	-0.0172	0.3497	0.3105	0.0393	-0.8894
15	21.26	-0.00	2.4912	-1.9134	-0.0174	0.0463	-0.0165	0.3627	0.3200	0.0427	-0.7682
16	22.32	-0.00	2.6395	-1.7861	-0.0033	0.0511	-0.0092	0.3835	0.3418	0.0417	-0.6767
17	23.31	-0.00	2.7458	-1.7458	-0.0006	0.0579	-0.0066	0.3843	0.3522	0.0321	-0.6267
18	24.38	-0.00	2.9476	-1.7426	0.0173	0.0211	-0.0079	0.3806	0.3697	0.0109	-0.5834
19	25.41	-0.00	3.1824	-1.7543	0.0490	-0.0458	-0.0060	0.3772	0.3775	-0.0003	-0.5512
20	26.42	-0.00	3.4013	-1.7237	0.1287	-0.1945	0.0134	0.3674	0.3822	-0.0148	-0.5068
21	27.49	-0.00	3.6348	-1.6460	0.1461	-0.2245	0.0202	0.3597	0.3930	-0.0332	-0.4524
22	28.58	-0.01	3.9187	-1.4241	0.1803	-0.2377	0.0215	0.3545	0.3886	-0.0341	-0.3634
23	29.66	-0.01	4.2418	-1.0476	0.1344	-0.1248	0.0130	0.3538	0.3974	-0.0436	-0.2563
24	30.68	-0.01	4.5647	-0.8827	0.1063	-0.0567	0.0066	0.3444	0.4123	-0.0675	-0.1932
25	20.24	-0.00	2.3754	-2.1265	-0.0043	0.0249	-0.0088	0.3555	0.3411	-0.0256	-0.6952
26	10.04	0.00	1.1675	-1.9491	-0.0034	-0.0328	-0.0036	0.2864	0.2617	0.0247	-1.6694
27	-0.00	0.00	-0.0095	0.0014	-0.0093	0.0014	0.0011	0.2483	0.1459	0.1024	-0.2018

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART NAME R110-6 PHI CONF L UEL1 DEL2 UEL3 DEL4 TRANSITION
 1 74 0.40 2.3 0.0 0.0023 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
2	-0.00	-0.00	0.0066	-0.0479	-0.0151	0.0349	-0.0099	0.3186	0.1337	0.1850	-7.3185
3	2.03	0.00	0.2319	-0.4299	-0.0117	0.0149	-0.0118	0.3160	0.1373	0.1787	-1.8538
4	4.01	0.00	0.4766	-0.8994	-0.0046	-0.0011	-0.0137	0.3185	0.1515	0.1679	-1.8872
5	6.04	0.00	0.7009	-1.3420	-0.0010	-0.0035	-0.0124	0.3288	0.1517	0.1771	-1.9147
6	8.12	0.00	0.9945	-1.8820	0.0001	-0.0005	-0.0078	0.3473	0.1630	0.1843	-1.8930
8	12.07	0.00	1.5449	-2.6644	-0.0106	-0.0132	0.0091	0.3583	0.2066	0.1516	-1.7246
9	14.10	0.00	1.7890	-2.7677	-0.0236	0.0312	0.0087	0.3695	0.2187	0.1508	-1.5479
10	16.14	0.00	2.0397	-2.8194	-0.0133	0.0233	-0.0050	0.3716	0.2566	0.1150	-1.3825
11	17.14	-0.00	2.1846	-2.8471	-0.0106	0.0235	-0.0089	0.3801	0.2682	0.1120	-1.3032
12	18.16	-0.00	2.3247	-2.8554	-0.0091	0.0311	-0.0095	0.3840	0.2809	0.1031	-1.2263
13	19.22	-0.00	2.5111	-2.8430	-0.0130	0.0359	-0.0153	0.3864	0.3074	0.0790	-1.1322
14	20.22	-0.00	2.6800	-2.8011	-0.0209	0.0419	-0.0224	0.3831	0.3093	0.0738	-1.0452
15	21.29	-0.00	2.8515	-2.7220	-0.0139	0.0475	-0.0252	0.3755	0.3236	0.0520	-0.9544
16	22.34	-0.00	3.0252	-2.5615	0.0108	0.0477	-0.0170	0.3707	0.3370	0.0337	-0.8467
17	23.37	-0.00	3.2751	-2.4591	0.0308	-0.0198	-0.0156	0.3696	0.3359	0.0337	-0.7508
18	24.41	-0.01	3.5057	-2.3022	0.0347	-0.0144	-0.0138	0.3623	0.3418	0.0205	-0.6547
19	25.46	-0.01	3.6757	-2.1295	0.0579	-0.0232	-0.0040	0.3553	0.3519	0.0034	-0.5793
20	26.57	-0.01	4.0001	-1.8039	0.1018	-0.0468	0.0064	0.3595	0.3588	0.0007	-0.4518
21	27.61	-0.01	4.3258	-1.5871	0.0997	-0.0023	0.0046	0.3554	0.3596	-0.0041	-0.3669
22	28.74	-0.01	4.6617	-1.3551	0.0827	-0.0048	-0.0043	0.3385	0.3576	-0.0191	-0.2907
23	29.79	-0.01	5.0845	-1.2819	0.0987	-0.0022	-0.0056	0.3286	0.3583	-0.0296	-0.2519
24	30.82	-0.01	5.3039	-1.0102	0.0646	0.0269	-0.0115	0.3361	0.3645	-0.0284	-0.1985
25	20.24	-0.00	2.6910	-2.7456	-0.0173	0.0550	-0.0193	0.3918	0.3474	0.0444	-1.0352
26	20.23	-0.00	2.6625	-2.7723	-0.0158	0.0431	-0.0210	0.3828	0.3454	0.0374	-1.0413
27	10.03	0.00	1.2654	-2.3235	-0.0024	-0.0320	-0.0050	0.3616	0.2572	0.1044	-1.8347
28	-0.50	-0.00	0.0089	-0.0591	-0.0151	0.0367	-0.0115	0.3217	0.1630	0.1587	-6.6685

TEST PART MACH RK10-6 PH1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 75 1.10 2.3 0.0 B4W0F23 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAP	KCP
1	0.00	-0.00	-0.0095	0.0288	-0.0176	0.0477	-0.0083	0.5010	0.1987	0.3023	-3.0213
2	2.03	-0.00	0.7301	-0.3454	-0.0149	0.0450	-0.0096	0.5016	0.2061	0.2956	-1.6767
3	4.04	-0.00	0.4704	-0.8103	-0.0113	0.0348	-0.0116	0.4995	0.2005	0.2998	-1.7207
4	6.03	-0.00	0.7246	-1.2571	-0.0105	0.0285	-0.0103	0.5117	0.2069	0.3048	-1.7358
5	8.07	-0.00	0.9864	-1.6721	-0.0087	0.0175	-0.0091	0.5162	0.2188	0.2974	-1.6952
8	14.13	-0.00	1.8348	-2.5477	-0.0133	0.0312	-0.0046	0.5150	0.2451	0.2699	-1.4103
9	14.13	-0.00	1.8425	-2.5811	-0.0111	0.0335	-0.0046	0.5160	0.2506	0.2654	-1.4089
10	16.16	-0.00	2.1447	-2.7331	-0.0141	0.0503	-0.0101	0.5103	0.2527	0.2576	-1.2744
11	17.20	-0.00	2.3129	-2.7844	-0.0186	0.0698	-0.0092	0.5082	0.2562	0.2520	-1.2032
12	18.22	-0.01	2.4787	-2.7800	-0.0239	0.1087	0.0008	0.5018	0.2600	0.2418	-1.1216
13	19.25	-0.01	2.6387	-2.6911	-0.0285	0.1259	-0.0121	0.5007	0.2668	0.2339	-1.0199
14	20.31	-0.01	2.8070	-2.6485	-0.0249	0.1374	-0.0162	0.4962	0.2741	0.2220	-0.9174
15	21.34	-0.01	3.1145	-2.6192	-0.0062	0.0949	-0.0177	0.4901	0.2798	0.2103	-0.8399
16	22.40	-0.01	3.3618	-2.5723	-0.0134	0.1008	-0.0147	0.4796	0.2807	0.1989	-0.7651
17	22.41	-0.01	3.3790	-2.4840	0.0076	0.0800	-0.0240	0.4790	0.2781	0.2009	-0.7351
18	23.46	-0.01	3.6353	-2.4322	-0.0085	0.0949	-0.0149	0.4701	0.2452	0.1849	-0.6690
19	24.55	-0.01	3.9220	-2.3210	0.0106	0.0570	-0.0199	0.4611	0.2927	0.1784	-0.5918
20	25.58	-0.01	4.2323	-2.1861	0.0189	0.0617	-0.0187	0.4505	0.2821	0.1684	-0.5168
21	26.65	-0.01	4.5626	-2.1211	0.0643	-0.0108	-0.0074	0.4423	0.2853	0.1569	-0.4449
22	27.75	-0.01	4.8679	-2.1064	0.0677	0.0145	-0.0147	0.4372	0.2868	0.1504	-0.4310
23	28.79	-0.01	5.2641	-2.0606	0.0589	0.0224	-0.0197	0.4323	0.2478	0.1445	-0.3916
24	29.46	-0.01	5.5660	-1.9958	0.0413	-0.0449	-0.0164	0.4289	0.2911	0.1378	-0.3586
25	30.91	-0.01	5.7255	-1.8342	0.0888	-0.0663	-0.0204	0.4297	0.2949	0.1349	-0.3212
26	20.32	-0.01	7.4706	-2.5995	-0.0404	0.1655	-0.0191	0.5009	0.2494	0.2115	-0.9056
27	17.04	0.00	1.5319	-2.3125	-0.0123	0.0238	-0.0025	0.5205	0.2708	0.2498	-1.5095
28	10.07	-0.00	1.2506	-2.0443	-0.0079	0.0190	-0.0049	0.5198	0.2605	0.2592	-1.6347
29	-0.00	-0.00	-0.0116	0.0244	-0.0195	0.0568	-0.0051	0.4963	0.2295	0.2668	-2.1034

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)
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PROPULSION WIND TUNNEL FACILITY(PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL(AT)

TEST PART NAME RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 74 1.20 2.3 0.0 04=0F23 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAR	CAF	KCP
1	0.01	0.00	-0.0255	0.1140	-0.0072	0.0023	-0.0042	0.4982	0.1962	0.3019	-4.4632
2	0.00	0.00	-0.0776	0.1164	-0.0072	0.0023	-0.0057	0.4977	0.1855	0.3122	-3.9300
3	2.04	0.00	0.2105	-0.2820	-0.0024	-0.0089	-0.0058	0.4944	0.1817	0.3127	-1.3390
4	4.05	0.00	0.4475	-0.4697	-0.0023	-0.0162	-0.0075	0.4895	0.1824	0.3072	-1.4965
7	10.04	0.00	1.2073	-1.6916	0.0127	-0.0331	-0.0072	0.5134	0.1960	0.3174	-1.4011
8	12.14	0.00	1.4901	-1.9196	0.0127	-0.0373	-0.0066	0.5121	0.1990	0.3131	-1.2882
9	14.15	0.00	1.8007	-2.0950	0.0114	-0.0412	-0.0078	0.5153	0.2070	0.3083	-1.1635
10	16.20	0.00	2.1311	-2.2764	0.0054	-0.0209	-0.0089	0.5110	0.2134	0.2976	-1.0447
11	17.23	-0.00	2.3149	-2.2346	0.0053	-0.0076	-0.0097	0.5101	0.2150	0.2951	-0.9653
12	18.28	-0.00	2.5184	-2.1816	-0.0094	0.0328	-0.0148	0.5044	0.2194	0.2846	-0.8678
13	19.33	-0.00	2.7574	-2.1224	-0.0168	0.0634	-0.0145	0.5022	0.2251	0.2771	-0.7693
14	20.43	-0.01	3.0141	-2.0424	-0.0094	0.0626	-0.0160	0.4978	0.2290	0.2687	-0.6765
15	21.48	-0.01	3.2935	-1.9437	-0.0027	0.0633	-0.0176	0.4952	0.2305	0.2647	-0.5902
16	22.51	-0.01	3.5490	-1.8324	0.0014	0.0702	-0.0176	0.4880	0.2329	0.2531	-0.5163
17	23.58	-0.01	3.8174	-1.7245	0.0153	0.0593	-0.0178	0.4765	0.2377	0.2388	-0.4517
18	24.67	-0.01	4.1144	-1.5982	0.0370	0.0234	-0.0155	0.4698	0.2400	0.2298	-0.3884
19	25.70	-0.01	4.4201	-1.5067	0.0508	0.0089	-0.0130	0.4643	0.2430	0.2213	-0.3409
21	27.85	-0.01	5.0678	-1.4325	0.1067	-0.0769	-0.0068	0.4569	0.2569	0.1999	-0.2827
22	29.90	-0.01	5.3674	-1.3473	0.1193	-0.1072	-0.0087	0.4523	0.2609	0.1914	-0.2603
23	29.95	-0.01	5.6590	-1.4214	0.1843	-0.3125	-0.0034	0.4524	0.2561	0.1868	-0.2513
24	31.02	-0.00	6.0264	-1.4994	0.1904	-0.3454	0.0004	0.4499	0.2715	0.1784	-0.2488
25	20.34	-0.00	3.0166	-1.9444	-0.0074	0.0549	-0.0133	0.5010	0.2605	0.2405	-0.6626
26	26.77	-0.01	4.7501	-1.4429	0.0766	-0.0536	-0.0067	0.4595	0.2445	0.2150	-0.3038
27	10.08	0.00	1.2116	-1.6915	0.0067	-0.0446	-0.0031	0.5153	0.2320	0.2833	-1.3961
28	8.07	0.00	0.9409	-1.3444	0.0080	-0.0244	-0.0023	0.5117	0.2105	0.3012	-1.4625
29	6.73	0.00	0.6927	-1.0559	0.0103	-0.0304	-0.0020	0.4989	0.2018	0.2971	-1.5244
30	0.00	0.00	-0.0356	0.1117	-0.0053	0.0011	-0.0042	0.4974	0.1970	0.3006	-3.1355

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POINT	TEST PART MALM RX10-6			PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	1	77	1.30 2.3								0.0	84
	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	0.00	0.00	-0.0322	0.1247	0.0025	-0.0180	-0.0029	0.4760	0.1843	0.2917	-3.0554	
2	2.02	0.00	0.1855	-0.1630	-0.0069	-0.0102	-0.0031	0.4743	0.1843	0.2900	-0.8790	
3	4.04	-0.00	0.4077	-0.4604	0.0024	0.0005	-0.0010	0.4736	0.1839	0.2898	-1.1302	
4	6.08	0.00	0.8327	-0.7557	-0.0010	-0.0051	-0.0022	0.4766	0.1821	0.2944	-1.1953	
5	8.08	0.00	0.8864	-1.0507	0.0035	-0.0168	-0.0029	0.4951	0.1854	0.3092	-1.1854	
6	10.13	-0.00	1.1545	-1.3241	0.0073	-0.0155	-0.0048	0.4981	0.1900	0.3081	-1.1420	
8	12.15	0.00	1.4561	-1.5210	0.0094	-0.0221	-0.0045	0.5047	0.2047	0.3000	-1.0431	
9	14.22	-0.00	1.7732	-1.6477	0.0135	-0.0275	-0.0044	0.5060	0.2068	0.2991	-0.9293	
10	16.27	-0.00	2.1296	-1.7216	0.0048	0.0016	-0.0030	0.5056	0.2135	0.2921	-0.8084	
11	17.31	-0.00	2.3609	-1.7352	-0.0043	0.0301	-0.0039	0.5032	0.2178	0.2855	-0.7350	
12	18.35	-0.00	2.6125	-1.7293	0.0020	0.0300	-0.0005	0.5006	0.2207	0.2799	-0.6610	
13	19.41	-0.00	2.8623	-1.6912	0.0130	0.0150	-0.0079	0.4987	0.2243	0.2744	-0.5909	
14	20.46	-0.01	3.1044	-1.6324	0.0222	0.0144	-0.0065	0.4936	0.2275	0.2661	-0.5250	
15	21.56	-0.01	3.3724	-1.5360	0.0209	0.0196	-0.0067	0.4893	0.2298	0.2595	-0.4557	
16	22.58	-0.01	3.6661	-1.4495	0.0276	0.0154	-0.0055	0.4869	0.2322	0.2546	-0.3954	
17	23.65	-0.01	3.9449	-1.3943	0.0265	0.0268	-0.0070	0.4831	0.2364	0.2466	-0.3533	
18	24.73	-0.01	4.2530	-1.3402	0.0343	0.0093	-0.0088	0.4836	0.2409	0.2426	-0.3151	
19	25.80	-0.01	4.5677	-1.2946	0.0470	-0.0004	-0.0035	0.4823	0.2446	0.2377	-0.2834	
20	26.87	-0.01	4.9264	-1.3405	0.0640	-0.0232	-0.0011	0.4805	0.2508	0.2297	-0.2721	
21	26.87	-0.01	4.9351	-1.3425	0.0611	-0.0256	0.0002	0.4776	0.2550	0.2226	-0.2720	
22	27.92	-0.01	5.2497	-1.4023	0.0742	-0.0330	-0.0026	0.4782	0.2583	0.2198	-0.2661	
23	28.97	-0.01	5.6073	-1.4640	0.0747	-0.0289	-0.0093	0.4807	0.2602	0.2205	-0.2611	
24	30.05	-0.01	5.9625	-1.5413	0.0771	-0.0541	-0.0101	0.4844	0.2644	0.2200	-0.2585	
25	31.07	-0.01	6.2799	-1.6462	0.0837	-0.0449	-0.0127	0.4837	0.2700	0.2137	-0.2621	
26	20.48	-0.00	3.1350	-1.5654	0.0261	-0.0164	-0.0017	0.4944	0.2540	0.2404	-0.4994	
27	10.12	0.00	1.1537	-1.2970	0.0034	-0.0211	-0.0009	0.5030	0.2351	0.2687	-1.1247	
28	0.01	0.00	-0.0357	0.1314	-0.0023	-0.0157	0.0020	0.4772	0.2079	0.2693	-3.6820	

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEUC)
 PAGE 1 OF 1
 SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY(PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL(4T)

POINT	TEST PART MACH RX10-6				PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
	ALPHA	BETA	CN	CLM								
	1	0.00	2.3		0.0	B4W0F21	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP	
2	2.03	-0.00	0.1911	-0.2154	-0.0030	0.0054	-0.0136	0.2447	0.1021	0.1425	-1.1270	
3	4.05	-0.00	0.3932	-0.5133	-0.0046	0.0170	-0.0156	0.2443	0.1054	0.1389	-1.3054	
4	6.01	-0.00	0.5902	-0.8001	-0.0013	-0.0002	-0.0197	0.2504	0.1090	0.1414	-1.3555	
5	8.05	-0.00	0.7974	-1.0370	0.0047	-0.0098	-0.0184	0.2701	0.1252	0.1448	-1.2998	
6	10.04	-0.00	0.9729	-1.1437	-0.0133	0.0416	-0.0021	0.2874	0.1412	0.1462	-1.1756	
7	12.11	-0.00	1.1802	-1.2079	-0.0134	0.0495	-0.0068	0.3037	0.1467	0.1570	-1.0235	
8	14.11	-0.00	1.3859	-1.2626	-0.0229	0.0443	-0.0079	0.3126	0.1741	0.1385	-0.9091	
9	16.15	-0.00	1.6174	-1.3211	-0.0255	0.0643	-0.0106	0.3176	0.2077	0.1099	-0.8167	
10	17.17	-0.00	1.7273	-1.3358	-0.0243	0.0685	-0.0111	0.3179	0.2247	0.0932	-0.7733	
11	18.21	-0.00	1.8585	-1.3593	-0.0142	0.0622	-0.0135	0.3192	0.2375	0.0817	-0.7314	
12	19.23	-0.00	1.9990	-1.3484	-0.0052	0.0537	-0.0143	0.3251	0.2547	0.0705	-0.6745	
13	20.24	-0.00	2.1197	-1.3094	-0.0027	0.0522	-0.0096	0.3313	0.2921	0.0392	-0.6179	
14	21.26	-0.01	2.2275	-1.2233	0.0135	0.0485	-0.0031	0.3403	0.3007	0.0396	-0.5492	
15	22.27	-0.01	2.3562	-1.1025	-0.0177	0.1539	0.0058	0.3535	0.3132	0.0403	-0.4679	
16	23.34	-0.01	2.4964	-1.0322	-0.0096	0.1428	0.0066	0.3634	0.3205	0.0432	-0.4134	
17	24.34	-0.01	2.6554	-1.0214	0.0142	0.0801	0.0053	0.3680	0.3381	0.0299	-0.3847	
18	25.35	-0.01	2.6224	-1.0415	0.0370	0.0256	0.0059	0.3666	0.3508	0.0159	-0.3699	
19	26.38	-0.01	3.0076	-1.0633	0.0425	0.0051	0.0012	0.3661	0.3614	0.0047	-0.3536	
20	27.42	-0.00	3.1959	-1.1296	0.0724	-0.0929	-0.0004	0.3581	0.3708	-0.0127	-0.3534	
21	28.45	0.00	3.3803	-1.1931	0.1453	-0.3742	0.0127	0.3512	0.3675	-0.0162	-0.3538	
22	28.44	0.00	3.3677	-1.1872	0.1927	-0.3885	0.0129	0.3477	0.3981	-0.0504	-0.3525	
23	29.48	-0.01	3.5466	-1.3171	-0.0140	0.0922	-0.0278	0.3399	0.3994	-0.0595	-0.3674	
24	30.48	0.00	3.7655	-1.3672	0.1131	-0.2525	-0.0042	0.3294	0.3956	-0.0463	-0.3631	
25	20.24	-0.00	2.1037	-1.2913	-0.0028	0.0458	-0.0006	0.3283	0.3333	-0.0050	-0.6138	
26	10.05	-0.00	0.9730	-1.1420	-0.0132	0.0504	0.0086	0.2849	0.1979	0.0870	-1.1737	
27	-0.00	0.00	0.0076	-0.0288	-0.0087	0.0081	-0.0005	0.2383	0.1061	0.1321	-3.7758	

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TEST PART MACH RX10-6 PH1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 83 0.85 2.3 0.0 H40F21 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	0.00	0.0026	-0.0376	-0.0084	0.0056	-0.0027	0.2408	0.0990	0.1419	-1.6327
2	2.02	0.00	0.1766	-0.7094	-0.0066	0.0042	-0.0061	0.2397	0.1239	0.1158	-1.1853
3	4.01	0.00	0.3821	-0.5167	-0.0056	0.0096	-0.0080	0.2402	0.1025	0.1377	-1.3523
4	6.03	0.00	0.5856	-0.7956	-0.0017	-0.0170	-0.0087	0.2531	0.1041	0.1490	-1.3500
5	8.06	0.00	0.7865	-1.0213	0.0022	-0.0165	-0.0074	0.2756	0.1799	0.1457	-1.2985
6	10.07	-0.00	1.0045	-1.1789	-0.0147	0.0196	0.0064	0.2896	0.1495	0.1401	-1.1737
7	12.10	-0.00	1.1922	-1.2804	-0.0163	0.0419	0.0021	0.3058	0.1588	0.1470	-1.0744
8	14.11	0.00	1.4075	-1.3472	-0.0214	0.0355	0.0010	0.3145	0.1782	0.1362	-0.9572
9	16.16	0.00	1.6449	-1.4101	-0.0203	0.0370	-0.0053	0.3254	0.2133	0.1121	-0.8572
10	17.18	-0.00	1.7687	-1.4404	-0.0157	0.0397	-0.0040	0.3281	0.2298	0.0983	-0.8146
11	18.20	-0.00	1.9130	-1.4588	-0.0100	0.0365	-0.0082	0.3344	0.2514	0.0830	-0.7626
12	19.22	-0.00	2.0262	-1.4414	-0.0028	0.0363	-0.0036	0.3360	0.2704	0.0657	-0.7114
13	20.23	-0.00	2.1478	-1.3525	0.0089	-0.0136	-0.0085	0.3493	0.2869	0.0624	-0.6297
14	21.27	-0.01	2.2704	-1.2297	0.0120	0.0725	0.0020	0.3642	0.2940	0.0702	-0.5415
15	22.30	-0.01	2.4064	-1.1171	-0.0314	0.1456	0.0123	0.3778	0.3251	0.0527	-0.4642
16	23.36	-0.01	2.5547	-1.0735	-0.0080	0.1224	0.0108	0.3820	0.3366	0.0453	-0.4282
17	24.37	-0.01	2.7251	-1.0917	0.0104	0.0711	0.0113	0.3844	0.3457	0.0367	-0.3969
18	25.38	-0.01	2.8976	-1.0915	0.0253	0.0354	0.0119	0.3807	0.3729	0.0078	-0.3767
19	26.44	-0.00	3.0882	-1.1243	0.0596	-0.0388	0.0123	0.3759	0.3756	0.0002	-0.3641
20	27.43	-0.00	3.2749	-1.1632	0.0374	-0.0122	0.0081	0.3679	0.3836	-0.0157	-0.3548
21	28.47	0.00	3.4349	-1.2130	0.1461	-0.2803	0.0174	0.3600	0.3762	-0.0163	-0.3531
22	29.50	-0.00	3.6900	-1.3085	-0.0243	0.0871	-0.0228	0.3501	0.3984	-0.0484	-0.3544
23	30.52	-0.00	3.9274	-1.3990	-0.0440	0.0916	-0.0309	0.3339	0.4079	-0.0748	-0.3562
24	20.24	-0.00	2.1392	-1.3452	0.0101	-0.0111	0.0003	0.3482	0.3526	-0.0044	-0.6288
25	10.07	-0.00	0.9850	-1.1814	-0.0136	0.0417	0.0134	0.2913	0.2252	0.0661	-1.1994
26	-0.30	0.00	-0.0047	-0.0396	-0.0072	0.0018	0.0065	0.2387	0.1075	0.1312	8.4443

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEOC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

POINT	ALPHA	BETA	CN	CLM	CY	CLW	CLL	CA	CAB	CAF	KCP
1	-0.00	0.00	-0.0044	-0.0246	-0.0054	-0.0077	0.0060	0.2466	0.0075	0.1591	6.6456
2	2.01	0.00	0.1641	-0.1693	-0.0018	-0.0142	0.0027	0.2485	0.0984	0.1501	-1.1195
3	4.02	0.00	0.3839	-0.5257	-0.0030	-0.0161	0.0003	0.2486	0.1159	0.1329	-1.3691
4	6.06	0.00	0.5813	-0.7856	-0.0064	0.0116	0.0036	0.2679	0.1240	0.1439	-1.3515
5	8.06	-0.00	0.8024	-1.0862	-0.0151	0.0586	0.0118	0.2948	0.1586	0.1362	-1.3520
6	10.09	0.00	1.0012	-1.2244	0.0003	-0.0032	0.0007	0.3166	0.1620	0.1545	-1.2229
7	12.10	0.00	1.2263	-1.3930	-0.0167	0.0375	0.0118	0.3249	0.1803	0.1446	-1.1360
8	14.12	0.00	1.4654	-1.5426	-0.0266	0.0387	0.0075	0.3412	0.1955	0.1457	-1.0528
9	16.14	0.00	1.7178	-1.6433	-0.0204	0.0294	-0.0002	0.3526	0.2368	0.1158	-0.9566
10	17.19	0.00	1.8534	-1.6814	-0.0146	0.0243	-0.0041	0.3569	0.2690	0.0879	-0.9075
11	18.19	-0.00	1.9706	-1.7054	-0.0168	0.0369	-0.0029	0.3605	0.2894	0.0712	-0.8656
12	19.24	-0.00	2.1109	-1.6751	-0.0652	0.0266	-0.0004	0.3645	0.3103	0.0542	-0.7935
13	20.28	-0.00	2.2453	-1.5707	0.0152	-0.0336	-0.0102	0.3723	0.3212	0.0511	-0.6995
14	21.27	0.00	2.3816	-1.4694	0.0389	-0.1037	-0.0134	0.3910	0.3172	0.0737	-0.6170
15	21.28	-0.00	2.3987	-1.4396	0.0362	-0.0310	0.0037	0.4003	0.3470	0.0533	-0.6002
16	22.33	-0.01	2.5053	-1.2741	-0.0064	0.1067	0.0151	0.4128	0.3431	0.0697	-0.5086
17	23.35	-0.01	2.6755	-1.2653	-0.0150	0.1191	0.0159	0.4137	0.3533	0.0604	-0.4729
18	24.38	-0.01	2.8622	-1.2544	-0.0085	0.1256	0.0102	0.4155	0.3634	0.0522	-0.4402
19	25.42	-0.01	3.0243	-1.2584	-0.0138	0.1183	0.0043	0.4094	0.3709	0.0386	-0.4154
20	26.45	-0.01	3.2495	-1.2363	0.0449	0.0013	0.0107	0.4055	0.3801	0.0254	-0.3805
21	27.49	-0.01	3.4706	-1.1667	0.0459	-0.0039	0.0109	0.3950	0.3910	0.0040	-0.3362
22	28.56	-0.00	3.7764	-1.0194	0.1008	-0.1266	0.0246	0.3853	0.3994	-0.0040	-0.2699
23	29.47	-0.01	4.0629	-0.7420	-0.0284	0.1325	0.0009	0.3757	0.3923	-0.0166	-0.1835
24	29.64	-0.01	4.0716	-0.7628	-0.0172	0.1068	-0.0025	0.3749	0.4082	-0.0333	-0.1874
25	30.72	-0.00	4.3945	-0.5863	-0.3968	0.7593	-0.0683	0.3615	0.4082	-0.0466	-0.1334
26	20.25	0.00	2.2347	-1.5681	0.0117	-0.0400	-0.0037	0.3781	0.3742	0.0039	-0.7017
27	20.25	0.00	2.2523	-1.5858	0.0164	-0.0410	-0.0037	0.3790	0.3609	0.0181	-0.7041
28	10.08	0.00	0.9944	-1.2110	-0.0031	-0.0040	-0.0071	0.3184	0.2669	0.0514	-1.2117
29	-0.00	0.00	-0.0067	-0.0244	-0.0092	-0.0065	0.0124	0.2484	0.1432	0.1052	4.4702

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TEST PART	MACH	AX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	0.68	2.3	0.0	R40DF21	0.0	0	0	0	0	UNKNOWN		
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAR	CAF	XCP	
1	0.00	-0.00	-0.0006	0.0202	-0.0043	0.0159	-0.0038	0.3079	0.1078	0.2001	-34.9570	
2	2.02	-0.00	0.2046	-0.2858	-0.0011	0.0078	-0.0103	0.3050	0.1309	0.1740	-1.3971	
3	4.02	-0.00	0.4263	-0.5779	-0.0004	0.0133	-0.0136	0.3143	0.1218	0.1925	-1.5903	
4	6.04	-0.00	0.6910	-1.1816	0.0109	-0.0132	-0.0077	0.3496	0.1478	0.2017	-1.7100	
5	8.05	-0.00	0.8809	-1.3356	-0.0103	0.0734	0.0087	0.3610	0.1637	0.1973	-1.5163	
6	10.07	-0.00	1.0896	-1.3607	0.0127	-0.0043	-0.0059	0.3927	0.1876	0.2050	-1.2488	
7	12.13	-0.01	1.2809	-1.4421	0.8015	0.0074	0.0042	0.3930	0.2286	0.1645	-1.1258	
8	14.16	-0.00	1.5463	-1.6789	-0.0053	0.0251	0.0022	0.4078	0.2704	0.1374	-1.0858	
9	16.18	-0.00	1.8337	-1.8833	-0.0108	0.0490	0.0046	0.4172	0.2986	0.1186	-1.0271	
10	17.19	-0.00	1.9916	-1.9679	0.0061	0.0374	0.0056	0.4272	0.3186	0.1086	-0.9881	
11	18.21	-0.00	2.1368	-2.0056	0.0063	0.0414	0.0051	0.4215	0.3246	0.0969	-0.9386	
12	19.23	-0.00	2.3070	-2.0464	0.0133	0.0370	0.0044	0.4226	0.3310	0.0916	-0.8878	
13	20.27	-0.01	2.5087	-2.0540	0.0243	0.0271	0.0051	0.4235	0.3357	0.0879	-0.8188	
14	21.30	-0.01	2.6974	-1.9831	0.0205	0.0303	0.0023	0.4216	0.3655	0.0561	-0.7352	
15	22.36	-0.01	2.8646	-1.8159	0.0298	0.0111	0.0040	0.4141	0.3821	0.0320	-0.6339	
16	23.40	-0.01	3.0810	-1.6334	0.0449	-0.0154	0.0084	0.4161	0.3882	0.0279	-0.5303	
17	24.45	-0.01	3.2938	-1.4483	0.0679	-0.0149	0.0051	0.4127	0.3996	0.0131	-0.4397	
18	25.52	-0.01	3.5358	-1.2703	0.0728	-0.0346	0.0127	0.4141	0.3925	0.0216	-0.3592	
19	26.57	-0.01	3.7549	-1.0240	0.1080	-0.0779	0.0252	0.4164	0.3798	0.0347	-0.2727	
20	27.66	-0.01	4.0777	-0.7022	0.1241	-0.0721	0.0266	0.4153	0.3690	0.0463	-0.1722	
21	28.72	-0.01	4.4155	-0.4345	0.1299	-0.1378	0.0271	0.4100	0.3657	0.0442	-0.0984	
22	29.80	-0.01	4.7200	-0.2134	0.2133	-0.2775	0.0502	0.4108	0.3746	0.0363	-0.0452	
23	30.85	-0.01	4.9689	-0.0333	0.2175	-0.2587	0.0441	0.4050	0.3831	0.0218	-0.0067	
24	0.00	-0.00	-0.0072	0.0288	-0.0010	0.0182	0.0226	0.3229	0.1475	0.1754	-3.9937	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART WACH RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 90 1.10 2.3 0.0 B4W0F21 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	0.00	-0.00	-0.0094	0.0471	-0.0207	0.0809	-0.0094	0.4961	0.2738	0.2723	-4.7484
2	2.02	-0.00	0.2342	-0.3911	-0.0194	0.0794	-0.0108	0.4951	0.2161	0.2790	-1.6697
3	2.02	-0.00	0.2358	-0.3836	-0.0158	0.0683	-0.0097	0.4959	0.2065	0.2895	-1.6269
4	4.01	-0.00	0.4750	-0.8040	-0.0108	0.0454	-0.0156	0.4928	0.2149	0.2778	-1.6925
5	6.03	-0.00	0.7144	-1.2041	-0.0094	0.0447	-0.0130	0.5019	0.1985	0.3034	-1.6855
6	8.04	-0.00	0.9640	-1.5489	-0.0099	0.0538	-0.0119	0.5154	0.1997	0.3162	-1.6067
7	10.08	-0.00	1.2132	-1.8049	-0.0116	0.0615	-0.0078	0.5169	0.2093	0.3075	-1.4910
8	12.04	-0.00	1.4654	-1.9800	-0.0236	0.0744	-0.0041	0.5109	0.2181	0.2928	-1.3503
9	14.13	-0.00	1.6538	-1.7568	-0.0194	0.0843	-0.0071	0.5237	0.2311	0.2926	-1.0623
10	16.22	-0.01	1.9267	-1.7063	-0.0177	0.1132	-0.0068	0.5273	0.2591	0.2681	-0.8866
11	17.21	-0.01	2.1002	-1.7876	-0.0117	0.1115	-0.0089	0.5267	0.2711	0.2556	-0.8513
12	18.25	-0.01	2.2947	-1.8779	0.0034	0.0896	-0.0113	0.5262	0.2814	0.2449	-0.8167
13	19.31	-0.01	2.4777	-1.8907	0.0066	0.0950	-0.0137	0.5216	0.2883	0.2333	-0.7631
14	20.36	-0.01	2.7450	-1.9154	0.0257	0.0540	-0.0136	0.5173	0.2888	0.2285	-0.6978
15	21.39	-0.01	2.9660	-1.9066	0.0453	-0.0049	-0.0047	0.5136	0.2922	0.2214	-0.6428
16	22.44	-0.01	3.2336	-1.7938	0.0386	0.0224	-0.0076	0.5064	0.2898	0.2165	-0.5547
17	23.52	-0.01	3.5071	-1.6833	0.0578	-0.0090	-0.0020	0.5009	0.2887	0.2122	-0.4800
18	24.55	-0.01	3.7867	-1.5602	0.0760	-0.0071	0.0050	0.4953	0.2905	0.2048	-0.4121
19	25.63	-0.01	4.1054	-1.3867	0.0779	-0.0387	0.0000	0.4875	0.2870	0.2005	-0.3377
20	26.70	-0.01	4.4776	-1.3212	0.0504	0.0111	-0.0092	0.4804	0.2906	0.1900	-0.2951
21	27.75	-0.01	4.8026	-1.2998	0.0745	-0.0290	-0.0051	0.4788	0.2971	0.1818	-0.2786
22	28.83	-0.01	5.0994	-1.2321	0.0987	-0.1017	-0.0059	0.4763	0.2981	0.1783	-0.2416
23	29.90	-0.01	5.3381	-1.0982	0.0429	-0.0634	-0.0190	0.4788	0.3036	0.1752	-0.2857
24	30.95	-0.01	5.5469	-0.8837	0.1407	-0.1848	-0.0246	0.4757	0.3103	0.1654	-0.1593

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TEST PART MACH R410-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 91 1.20 2.3 0.0 H40F21 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CA9	CAF	XCP
1	0.01	-0.00	-0.0058	0.1302	-0.0019	0.0149	-0.0199	0.5058	0.1976	0.3182	-22.2826
2	2.03	-0.00	0.2342	-0.3034	0.0016	0.0047	-0.0212	0.5031	0.1746	0.3235	-1.2702
3	2.03	-0.00	0.2291	-0.2644	0.0006	0.0172	-0.0212	0.5020	0.1929	0.3191	-1.1563
4	4.04	-0.00	0.4543	-0.6038	0.0030	0.0160	-0.0242	0.4982	0.1766	0.3218	-1.3298
5	6.04	-0.00	0.6442	-0.9413	0.0064	0.0023	-0.0249	0.5107	0.1489	0.3418	-1.3678
6	8.07	-0.00	0.9315	-1.2267	0.0049	-0.0036	-0.0242	0.5216	0.1808	0.3409	-1.3168
7	10.09	-0.00	1.1752	-1.4361	0.0085	0.0004	-0.0233	0.5243	0.1907	0.3336	-1.2189
8	12.14	-0.00	1.4471	-1.5795	0.0014	0.0155	-0.0198	0.5206	0.1954	0.3253	-1.0915
9	14.17	-0.00	1.7243	-1.6604	0.0034	0.0262	-0.0250	0.5164	0.1988	0.3176	-0.9629
10	16.25	-0.01	1.9564	-1.2874	0.0163	0.0129	-0.0316	0.5318	0.1993	0.3325	-0.6588
11	17.29	-0.01	2.1334	-1.2659	0.0230	0.0028	-0.0326	0.5345	0.2081	0.3263	-0.5934
12	18.35	-0.01	2.3555	-1.2545	0.0115	0.0300	-0.0321	0.5322	0.2178	0.3144	-0.5326
13	19.41	+0.01	2.6245	-1.2583	0.0053	0.0450	-0.0349	0.5287	0.2239	0.3048	-0.4794
14	20.46	-0.01	2.8941	-1.2314	0.0178	0.0240	-0.0321	0.5272	0.2295	0.2927	-0.4257
15	21.51	-0.01	3.1599	-1.1695	0.0390	-0.0049	-0.0309	0.5175	0.2332	0.2843	-0.3701
16	22.55	-0.01	3.4361	-1.0954	0.0466	-0.0127	-0.0296	0.5122	0.2356	0.2766	-0.3188
17	23.63	-0.01	3.7124	-0.9966	0.0463	-0.0104	-0.0270	0.5074	0.2373	0.2701	-0.2684
18	24.70	-0.01	3.9917	-0.8941	0.0550	-0.0159	-0.0272	0.5029	0.2423	0.2686	-0.2246
19	25.77	-0.01	4.3122	-0.8239	0.0610	-0.0224	-0.0261	0.4993	0.2464	0.2529	-0.1911
20	26.81	-0.01	4.6462	-0.7894	0.0449	-0.0753	-0.0226	0.4987	0.2529	0.2458	-0.1708
21	27.91	-0.01	4.9641	-0.7772	0.1252	-0.1372	-0.0188	0.4944	0.2593	0.2351	-0.1564
22	28.94	-0.01	5.2613	-0.7687	0.1456	-0.1740	-0.0219	0.4900	0.2598	0.2302	-0.1461
23	30.01	-0.01	5.5602	-0.7442	0.1755	-0.2737	-0.0187	0.4880	0.2666	0.2214	-0.1338
24	31.06	-0.01	5.9181	-0.8406	0.2423	-0.4527	-0.0132	0.4874	0.2711	0.2163	-0.1428

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	0.01	-0.00	-0.0255	0.1511	0.0067	-0.0106	-0.0100	0.4809	0.1693	0.3116	-5.0168
2	2.04	-0.00	0.1880	-0.1263	0.0039	0.0071	-0.0072	0.4769	0.1713	0.3057	-0.6704
3	4.01	-0.00	0.3956	-0.3744	0.0047	0.0119	-0.0061	0.4757	0.1705	0.3052	-0.9461
4	6.01	-0.00	0.6143	-0.6164	0.0075	0.0068	-0.0080	0.4854	0.1643	0.3217	-1.0066
5	8.09	-0.00	0.8564	-0.8533	0.0100	0.0066	-0.0100	0.4958	0.1658	0.3300	-0.9963
6	10.09	-0.00	1.1141	-1.0597	0.0117	0.0115	-0.0093	0.5011	0.1717	0.3293	-0.9511
7	11.14	-0.00	1.2516	-1.1448	0.0102	0.0151	-0.0083	0.5025	0.1782	0.3243	-0.9146
8	12.16	-0.00	1.3935	-1.2075	0.0097	0.0191	-0.0060	0.5025	0.1820	0.3205	-0.8665
9	13.18	-0.00	1.5366	-1.2519	0.0063	0.0260	-0.0066	0.5024	0.1858	0.3166	-0.8147
10	14.22	-0.00	1.6928	-1.2816	0.0030	0.0330	-0.0056	0.5019	0.1881	0.3137	-0.7571
11	15.28	-0.00	1.8673	-1.2940	0.0009	0.0387	-0.0066	0.5005	0.1908	0.3097	-0.6960
12	16.29	-0.00	2.0436	-1.3051	0.0017	0.0469	-0.0118	0.4994	0.1958	0.3037	-0.6386
13	17.27	-0.00	2.2472	-1.2874	0.0037	0.0358	-0.0114	0.4971	0.1998	0.2974	-0.5731
14	18.39	-0.01	2.5086	-1.2308	0.0015	0.0571	-0.0070	0.4967	0.2044	0.2923	-0.4922
15	20.47	-0.01	2.9915	-1.0243	0.0274	0.0137	-0.0117	0.4998	0.2126	0.2872	-0.3424
16	22.61	-0.01	3.5290	-0.8502	0.0519	-0.0303	-0.0081	0.5006	0.2253	0.2753	-0.2409
17	22.62	-0.01	3.5405	-0.8239	0.0511	-0.0253	-0.0082	0.4992	0.2249	0.2743	-0.2327
18	24.74	-0.01	4.1328	-0.7996	0.0501	-0.0143	-0.0112	0.4948	0.2320	0.2628	-0.1935
19	25.82	-0.01	4.4480	-0.7853	0.0484	-0.0150	-0.0114	0.4950	0.2377	0.2573	-0.1766
20	26.86	-0.01	4.7881	-0.8245	0.0556	-0.0306	-0.0074	0.4946	0.2430	0.2516	-0.1722
21	27.90	-0.01	5.1120	-0.8861	0.0762	-0.0673	-0.0063	0.4935	0.2477	0.2458	-0.1737
22	28.96	-0.01	5.4554	-0.9715	0.0741	-0.0413	-0.0131	0.4966	0.2531	0.2435	-0.1781
23	30.04	-0.01	5.7771	-1.0702	0.0937	-0.0792	-0.0133	0.4999	0.2581	0.2418	-0.1852
24	31.06	-0.01	6.1311	-1.2337	0.1167	-0.1337	-0.0094	0.5034	0.2644	0.2390	-0.2012

TEST PART MACH RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 97 0.60 2.3 0.0 B40F35 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	0.00	-0.00	0.0245	-0.0367	-0.0191	0.0747	-0.0628	0.2877	0.0870	0.2007	-1.4153
2	1.97	-0.00	0.5670	-1.5260	-0.0154	0.0731	-0.0620	0.3049	0.0823	0.2226	-2.6915
3	3.96	-0.00	1.0940	-3.0510	-0.0177	0.0873	-0.0631	0.3170	0.0856	0.2314	-2.7893
4	5.95	-0.01	1.7728	-4.6887	-0.0130	0.0849	-0.0717	0.3417	0.0888	0.2529	-2.7577
5	7.90	-0.01	2.4494	-6.7514	-0.0095	0.0675	-0.0766	0.3845	0.0957	0.2888	-2.7564
6	9.89	-0.01	3.1415	-8.6930	-0.0057	0.0734	-0.0759	0.4199	0.1058	0.3140	-2.7673
8	13.85	-0.01	4.5384	-12.3781	0.0019	0.0403	-0.0639	0.4771	0.1201	0.3571	-2.7271
9	15.79	-0.01	5.2344	-13.9744	0.0103	0.0390	-0.0690	0.4879	0.1307	0.3572	-2.6735
10	16.85	-0.01	5.4368	-14.3064	-0.0445	0.2540	0.0268	0.4852	0.1375	0.3478	-2.6324
11	17.84	-0.01	5.8085	-14.5287	0.0173	0.0356	-0.0759	0.5131	0.1287	0.3844	-2.5985
12	17.84	-0.01	5.6559	-14.6643	0.0200	0.0300	-0.0747	0.4871	0.1769	0.3102	-2.5927
13	18.83	-0.01	5.8525	-14.8491	0.0344	0.0215	-0.0869	0.5053	0.1498	0.3355	-2.5458
14	19.88	-0.02	6.0549	-15.0560	0.0254	0.0969	-0.0835	0.4908	0.1826	0.3082	-2.4866
15	20.90	-0.02	6.3010	-15.2971	0.0219	0.1364	-0.0807	0.4825	0.1934	0.2891	-2.4277
16	21.91	-0.02	6.4075	-15.1456	0.0147	0.1421	-0.0585	0.4718	0.1919	0.2799	-2.3637
17	22.97	-0.02	6.6403	-15.3604	0.0021	0.2590	0.0031	0.4958	0.2143	0.2815	-2.3132
18	23.97	-0.02	6.7647	-15.3216	-0.0476	0.4799	0.0583	0.5012	0.2320	0.2692	-2.2649
19	24.95	-0.02	6.9434	-15.4347	-0.0028	0.4182	0.1046	0.4890	0.2502	0.2389	-2.2228
20	26.00	-0.02	7.0832	-15.3650	-0.0538	0.6761	0.1605	0.5036	0.2680	0.2356	-2.1692
21	26.00	-0.03	7.1176	-15.4330	-0.0690	0.7157	0.1652	0.5001	0.2905	0.2095	-2.1683
22	27.01	-0.03	7.2902	-15.4767	0.0023	0.6262	0.1551	0.4925	0.3114	0.1811	-2.1229
23	28.03	-0.03	7.4928	-15.5572	0.0601	0.5844	0.1456	0.4864	0.3131	0.1533	-2.0763
24	28.03	-0.03	7.4943	-15.5554	0.0165	0.5902	0.1489	0.4511	0.3321	0.1190	-2.0757
25	28.02	-0.03	7.5214	-15.6659	0.0472	0.5268	0.1498	0.4305	0.3438	0.0868	-2.0828
26	29.00	-0.04	7.6484	-15.7393	0.1013	0.6543	0.1906	0.4807	0.3437	0.1370	-2.0445
27	30.13	-0.04	7.9330	-15.8593	0.1565	0.4224	0.1288	0.4112	0.3547	0.0564	-1.9992
28	19.89	-0.01	6.0008	-14.8135	0.0339	0.0859	-0.0546	0.4389	0.2185	0.2203	-2.4688
29	19.89	-0.02	6.0106	-14.8636	0.0353	0.1057	-0.0563	0.4405	0.2009	0.2395	-2.4729
30	9.86	-0.00	3.2193	-9.1135	0.0239	-0.0346	-0.0505	0.3384	0.1002	0.2382	-2.8309
31	-0.00	0.00	0.0624	-0.1830	0.0057	-0.0741	-0.0351	0.2648	0.0855	0.1792	-2.9318

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)
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 SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY(PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL(AWT)

TEST PART	MACH	REX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	9.8	0.85	2.3	0.0	0.440F35	0.0	0	0	0	8 UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-0.00	0.00	0.0555	-0.1658	0.0055	-0.0253	-0.0323	0.2769	0.0493	0.1875	-2.9876
2	1.96	-0.00	0.8400	-1.7268	0.0140	-0.0304	-0.0352	0.2896	0.0826	0.2069	-2.6982
3	3.93	-0.00	1.2052	-3.4263	0.0155	-0.0263	-0.0379	0.3005	0.0494	0.2111	-2.8359
4	5.93	-0.00	1.6756	-5.2876	0.0180	-0.0171	-0.0443	0.3199	0.0986	0.2213	-2.8192
5	5.93	-0.00	1.8751	-5.3243	0.0180	-0.0198	-0.0439	0.3188	0.0931	0.2258	-2.8393
6	7.87	-0.00	2.5665	-7.3440	0.0209	-0.0224	-0.0502	0.3454	0.1023	0.2431	-2.8615
7	7.87	-0.00	2.5749	-7.3772	0.0210	-0.0226	-0.0503	0.3421	0.1089	0.2332	-2.8651
8	7.87	-0.00	2.5711	-7.3567	0.0210	-0.0236	-0.0500	0.3393	0.1102	0.2291	-2.8613
9	9.87	-0.00	3.2775	-9.3321	0.0263	-0.0347	-0.0494	0.3826	0.1133	0.2693	-2.8473
10	11.85	-0.00	3.9833	-11.2297	0.0314	-0.0627	-0.0438	0.4221	0.1164	0.3056	-2.8192
11	13.76	-0.00	4.6757	-13.0746	0.0365	-0.0781	-0.0465	0.4297	0.1277	0.3020	-2.7963
12	15.90	-0.00	5.2912	-14.3696	0.0414	-0.0714	-0.0517	0.4654	0.1384	0.3249	-2.7195
13	16.81	-0.01	5.4422	-14.4161	-0.0396	0.2672	0.0792	0.4635	0.1328	0.3306	-2.6498
14	17.42	-0.01	5.5634	-14.4175	0.0587	-0.0444	-0.0611	0.4788	0.1449	0.3339	-2.5836
15	18.82	-0.01	5.7981	-14.6748	0.0604	-0.0759	-0.0566	0.4806	0.1663	0.3144	-2.5310
16	19.87	-0.01	5.9610	-14.6436	0.0462	0.0511	-0.0448	0.4408	0.1721	0.2687	-2.4650
17	20.87	-0.02	6.1642	-14.7665	0.0181	0.1757	-0.0215	0.4259	0.1875	0.2384	-2.3988
18	21.90	-0.02	6.3236	-14.8364	0.0164	0.2320	0.0296	0.4461	0.2053	0.2408	-2.3443
19	22.98	-0.02	6.4978	-14.9119	-0.0164	0.4252	0.0854	0.4466	0.2306	0.2360	-2.2949
20	23.97	-0.02	6.6711	-14.9662	-0.0484	0.4735	0.1217	0.4788	0.2379	0.2409	-2.2434
21	25.01	-0.02	6.8744	-15.1192	-0.0083	0.4127	0.1357	0.4860	0.2639	0.2221	-2.1981
22	25.01	-0.02	6.8666	-15.0444	-0.0247	0.4850	0.1373	0.4764	0.2716	0.2048	-2.1910
23	25.99	-0.03	7.0321	-15.0914	-0.0590	0.7524	0.1830	0.4884	0.2840	0.2044	-2.1461
24	27.05	-0.04	7.2209	-15.1824	-0.0636	0.9488	0.2234	0.4944	0.3080	0.1864	-2.1026
25	28.07	-0.04	7.4217	-15.2325	0.0087	0.8244	0.2005	0.4777	0.3164	0.1607	-2.0524
26	29.08	-0.06	7.6544	-15.3685	0.0443	1.0462	0.2418	0.5038	0.3504	0.1534	-2.0039
27	30.13	-0.06	7.8803	-15.4000	0.2100	0.9700	0.3205	0.4989	0.3715	0.1273	-1.9542
28	19.88	-0.01	5.9022	-14.4518	0.0079	0.1172	-0.0376	0.4174	0.2159	0.2015	-2.4485
29	9.82	-0.00	3.2916	-9.4235	0.0302	-0.0535	-0.0420	0.3411	0.1367	0.2044	-2.8638
30	-0.06	0.00	0.0703	-0.2003	0.0093	-0.0266	-0.0252	0.2662	0.0908	0.1754	-2.8476

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TEST PART	MACH	REX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	103	1.10	2.3	0.0	H40F35	0.0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	ACP
1	0.00	-0.00	-0.0031	0.0301	-0.0179	0.0437	-0.0446	0.5749	0.1430	0.4320	-9.6973
2	-0.00	-0.01	-0.0036	0.0024	-0.0301	0.1740	-0.0475	0.5805	0.1390	0.4415	-0.7846
3	0.00	-0.00	0.0008	-0.0002	-0.0244	0.0634	-0.0481	0.5750	0.1750	0.4000	-0.2246
4	1.97	-0.01	0.5714	-1.6762	-0.0267	0.1117	-0.0483	0.5851	0.1643	0.4208	-2.9314
5	3.90	-0.00	1.1737	-3.4265	-0.0146	0.0753	-0.0498	0.5842	0.1714	0.4128	-2.9194
6	7.90	-0.01	1.1819	-3.4516	-0.0211	0.0911	-0.0493	0.5868	0.1619	0.4249	-2.9204
7	5.87	-0.01	1.8024	-5.7414	-0.0194	0.1156	-0.0537	0.6075	0.1572	0.4503	-2.9080
8	7.85	-0.01	2.4316	-7.0243	-0.0114	0.0950	-0.0532	0.6394	0.1695	0.4699	-2.8885
9	9.81	-0.01	3.2004	-9.1222	-0.0023	0.0561	-0.0483	0.6908	0.2263	0.4646	-2.8503
10	9.81	-0.01	3.1954	-9.1205	0.0042	0.0403	-0.0504	0.6864	0.2184	0.4680	-2.8543
11	11.82	-0.01	3.8404	-10.7263	0.0068	0.0202	-0.0446	0.7407	0.2192	0.5210	-2.7927
12	13.82	-0.00	4.4043	-11.9347	0.0101	0.0042	-0.0449	0.7516	0.2218	0.5298	-2.7098
13	15.84	-0.01	4.7074	-11.9433	0.0165	-0.0030	-0.0537	0.7234	0.2353	0.4880	-2.5369
14	16.86	-0.01	4.9815	-11.9507	0.0014	0.0541	-0.0605	0.6899	0.2455	0.4444	-2.4481
15	17.91	-0.01	5.1916	-12.0660	0.0094	0.0756	-0.0565	0.6695	0.2419	0.4276	-2.3698
16	18.95	-0.01	5.3285	-12.2644	0.0017	0.1151	-0.0586	0.6734	0.2466	0.4271	-2.3017
17	19.99	-0.02	5.6044	-12.4483	0.0120	0.0955	-0.0657	0.7791	0.2468	0.5324	-2.2212
18	21.04	-0.02	5.6902	-12.6221	0.0236	0.0870	-0.0697	0.8109	0.2498	0.5610	-2.1429
19	22.06	-0.02	6.2143	-12.4186	0.0467	0.0402	-0.0797	0.7025	0.2535	0.4490	-2.0628
20	23.08	-0.02	6.5114	-12.4445	0.0218	0.0772	-0.0730	0.6652	0.2595	0.4057	-1.9878
21	24.14	-0.02	6.8364	-13.1314	0.0693	-0.0249	-0.0792	0.6467	0.2451	0.3816	-1.9208
22	25.22	-0.02	7.1720	-13.2701	0.0590	-0.0211	-0.0711	0.6307	0.2879	0.3428	-1.8503
23	25.23	-0.02	7.1457	-13.0847	0.0957	-0.0949	-0.0707	0.6339	0.3016	0.3324	-1.8311
24	26.29	-0.02	7.5401	-13.2464	0.1144	-0.0909	-0.0583	0.6700	0.3042	0.3658	-1.7560
25	27.35	-0.02	7.9543	-13.4383	0.1441	-0.1315	-0.0378	0.6848	0.3070	0.3774	-1.6894
26	28.43	-0.01	8.4065	-13.6591	0.1649	-0.2384	-0.0311	0.5928	0.3110	0.2818	-1.6260
27	29.46	-0.02	8.7627	-13.6608	0.0755	-0.0357	-0.0803	0.5841	0.3107	0.2733	-1.5818
28	30.51	-0.01	9.1018	-14.0142	0.1413	-0.2077	-0.0430	0.5650	0.3111	0.2539	-1.5397
29	20.00	-0.01	5.5395	-12.0969	0.0503	-0.1010	-0.0650	0.2993	0.3089	-0.0096	-2.1838
30	9.79	-0.01	3.1874	-9.1326	-0.0017	0.0401	-0.0438	0.6605	0.2639	0.3966	-2.8648
31	0.00	-0.00	0.0012	0.0129	-0.0128	0.0304	-0.0327	0.5958	0.2158	0.3800	10.8001

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)
 PAGE 1 OF 1
 SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY(PMT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL(4T)

TEST PART	MALM	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	104	1.20	2.3	0.0	84=0F35	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP
1	0.01	0.00	-0.0319	0.1314	0.0185	-0.0097	-0.0331	0.6016	0.1963	0.4053	-4.1314
2	1.94	0.00	0.5332	-1.5050	0.0237	-0.1028	-0.0349	0.6078	0.1972	0.4106	-2.7962
3	3.91	0.00	1.1480	-3.2764	0.0277	-0.1044	-0.0340	0.6109	0.1976	0.4133	-2.8542
4	5.87	0.00	1.7695	-5.0647	0.0349	-0.1056	-0.0342	0.6212	0.1916	0.4296	-2.8651
5	7.87	0.00	2.4106	-6.4863	0.0354	-0.1023	-0.0375	0.6449	0.1955	0.4495	-2.8484
6	9.83	0.00	3.0534	-8.5634	0.0406	-0.1043	-0.0399	0.6750	0.2011	0.4739	-2.8047
7	11.78	0.00	3.6608	-10.0295	0.0444	-0.1042	-0.0383	0.6658	0.1961	0.4697	-2.8047
8	13.80	0.00	4.2415	-11.2453	0.0403	-0.1140	-0.0354	0.7307	0.1948	0.5359	-2.6513
9	15.88	0.00	4.6354	-11.5050	0.0362	-0.1241	-0.0296	0.7154	0.2015	0.5139	-2.6820
10	16.89	-0.00	4.8337	-11.5914	0.0373	-0.0909	-0.0311	0.6922	0.2052	0.4869	-2.3980
11	17.93	-0.00	5.0778	-11.7352	0.0544	-0.1358	-0.0377	0.6830	0.2171	0.4659	-2.3111
12	19.00	-0.00	5.3566	-11.8737	0.0446	-0.1152	-0.0411	0.6813	0.2233	0.4579	-2.2166
13	20.04	-0.00	5.6612	-12.0120	0.0421	-0.0740	-0.0444	0.6691	0.2253	0.4438	-2.1210
14	21.07	-0.01	5.9699	-12.1600	0.0650	-0.1185	-0.0551	0.6512	0.2287	0.4226	-2.0303
15	22.10	-0.01	6.2842	-12.3180	0.0592	-0.1151	-0.0546	0.6411	0.2327	0.4084	-1.9507
16	23.16	-0.01	6.6396	-12.5171	0.0924	-0.1652	-0.0573	0.6271	0.2393	0.3878	-1.8852
17	24.21	-0.01	6.9478	-12.6907	0.1041	-0.1816	-0.0583	0.6313	0.2466	0.3847	-1.8213
18	25.28	-0.01	7.3035	-12.8384	0.0997	-0.1423	-0.0545	0.6175	0.2528	0.3647	-1.7570
19	26.31	-0.01	7.6763	-13.0373	0.1536	-0.2456	-0.0548	0.6509	0.2585	0.3925	-1.6979
20	27.42	-0.01	8.0410	-13.2482	0.1871	-0.3783	-0.0459	0.6372	0.2483	0.3689	-1.6373
21	28.46	-0.01	8.4572	-13.4470	0.2036	-0.3472	-0.0295	0.6193	0.2436	0.3357	-1.5900
22	29.51	-0.01	8.7903	-13.5844	0.1985	-0.4032	-0.0450	0.6185	0.2497	0.3288	-1.5454
23	30.56	-0.00	9.1809	-13.8064	0.2219	-0.4935	-0.0284	0.5741	0.2974	0.2767	-1.5039
24	20.01	-0.00	5.6324	-11.8991	0.0606	-0.1434	-0.0481	0.5706	0.2479	0.2827	-2.1126
25	9.51	0.00	3.0450	-8.5767	0.0502	-0.1210	-0.0359	0.6420	0.2388	0.4032	-2.8167
26	0.01	0.00	-0.0281	0.1327	0.0176	-0.0831	-0.0302	0.5924	0.1995	0.3929	-4.7200

TEST PART MALM RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 99 0.92 2.3 0.0 84-0F35 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	0.00	0.0637	-0.1844	0.0087	-0.0250	-0.0221	0.3007	0.0666	0.2341	-2.8993
2	2.00	0.00	0.4402	-1.4285	0.0161	-0.0376	-0.0214	0.3133	0.0744	0.2388	-2.8560
3	3.94	-0.00	1.2621	-3.6715	0.0163	-0.0307	-0.0237	0.3177	0.0814	0.2362	-2.9091
4	5.90	-0.00	1.9372	-5.8477	0.0163	-0.0247	-0.0308	0.3384	0.0891	0.2493	-2.9154
5	7.82	-0.00	2.6717	-7.4837	0.0245	-0.0374	-0.0383	0.3647	0.1026	0.2621	-2.9508
6	7.82	-0.00	2.6724	-7.9014	0.0235	-0.0306	-0.0392	0.3724	0.0675	0.2449	-2.9567
7	9.80	-0.00	3.4010	-10.0184	0.0295	-0.0501	-0.0402	0.4143	0.1026	0.3117	-2.9457
8	11.80	-0.00	4.1232	-12.0006	0.0329	-0.0409	-0.0362	0.4533	0.1119	0.3414	-2.9105
9	13.76	-0.00	4.6832	-13.2405	0.0383	-0.0996	-0.0380	0.4672	0.1217	0.3454	-2.8272
10	15.78	-0.00	5.0111	-13.4322	0.0065	-0.0111	-0.0480	0.3957	0.1251	0.2706	-2.6805
11	16.81	0.00	5.1724	-13.4771	0.0632	-0.1171	0.0214	0.4201	0.1294	0.2907	-2.6056
12	17.85	-0.00	5.3530	-13.5902	0.0070	0.1175	0.0902	0.4115	0.1468	0.2646	-2.5388
13	18.88	0.00	5.5247	-13.6042	0.0414	-0.1149	-0.0207	0.4362	0.1704	0.2653	-2.4633
14	19.87	-0.01	5.7098	-13.7091	0.0562	-0.0485	-0.0089	0.4564	0.1883	0.2681	-2.4011
15	20.92	-0.02	5.9086	-13.8384	-0.0006	0.2441	0.0098	0.4396	0.2057	0.2339	-2.3422
16	21.94	-0.02	6.1006	-13.9223	-0.0513	0.4615	0.0390	0.4498	0.2240	0.2258	-2.2821
17	22.97	-0.03	6.2567	-13.9035	-0.0274	0.4732	0.0694	0.4817	0.2343	0.2474	-2.2222
18	23.94	-0.02	6.4865	-14.0857	-0.0160	0.4207	0.1001	0.4719	0.2595	0.2123	-2.1715
19	25.04	-0.03	6.7082	-14.1582	-0.0252	0.5944	0.1027	0.4663	0.2675	0.1987	-2.1106
20	26.06	-0.03	6.9351	-14.2470	0.0167	0.5488	0.1002	0.4945	0.2850	0.2095	-2.0543
21	27.10	-0.04	7.2362	-14.4148	0.0607	0.5700	0.1414	0.4507	0.2996	0.1512	-1.9928
22	28.15	-0.02	7.5673	-14.5288	0.0736	0.3455	0.1443	0.4292	0.3044	0.1249	-1.9199
23	29.23	-0.01	7.9285	-14.6028	0.0553	0.1449	0.0946	0.4178	0.3070	0.1109	-1.8418
24	29.22	-0.01	7.9306	-14.6438	0.0762	0.0693	0.0897	0.4196	0.3210	0.0987	-1.8515
25	30.30	-0.01	8.3378	-14.8423	0.0878	0.0426	0.0377	0.3948	0.3230	0.0718	-1.7802
26	19.90	-0.03	5.6652	-13.5267	-0.0736	0.4959	0.0204	0.3941	0.2465	0.1475	-2.3877
27	9.84	-0.00	3.4368	-10.1484	0.0312	-0.0510	-0.0382	0.3775	0.1364	0.2411	-2.9530
28	-0.00	-0.00	0.0655	-0.1827	0.0087	-0.0171	-0.0202	0.2937	0.0915	0.2022	-2.7918
29	-0.00	0.00	0.0633	-0.1758	0.0099	-0.0226	-0.0187	0.2934	0.0782	0.2152	-2.7778

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AECC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST PART MACH RX10-6		PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	XCP	
	1	100 0.98 2.3									0.0	M40F35
	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	XCP
1	-0.00	0.00	0.0613	-0.1774	0.0094	-0.0294	-0.0295	0.4100	0.0478	0.3422	-2.8967	
2	-0.00	0.00	0.0615	-0.1781	0.0094	-0.0359	-0.0297	0.4167	0.0974	0.3194	-2.8944	
3	1.95	0.00	0.6234	-1.8060	0.0221	-0.0537	-0.0321	0.4268	0.1090	0.3178	-2.8727	
4	3.91	-0.00	1.7514	-3.6288	0.0227	-0.0457	-0.0360	0.4251	0.1172	0.3079	-2.8998	
5	5.88	-0.00	1.9154	-5.5870	0.0259	-0.0382	-0.0410	0.4545	0.1153	0.3392	-2.9161	
6	7.85	-0.00	2.6039	-7.6088	0.0251	-0.0362	-0.0432	0.4869	0.1280	0.3589	-2.9163	
7	9.81	-0.00	3.2848	-9.5206	0.0262	-0.0509	-0.0406	0.5240	0.1367	0.3873	-2.8984	
8	11.78	-0.00	3.9757	-11.3784	0.0291	-0.0690	-0.0359	0.5612	0.1520	0.4092	-2.8592	
9	11.78	-0.00	3.9766	-11.3717	0.0303	-0.0706	-0.0341	0.5602	0.1515	0.4088	-2.8597	
10	13.73	-0.00	4.5531	-12.7321	0.0341	-0.0554	-0.0367	0.5704	0.1494	0.4110	-2.7943	
11	15.83	-0.01	4.8829	-12.9332	0.0309	-0.0269	-0.0402	0.5121	0.1494	0.3427	-2.6488	
12	16.81	-0.01	5.0544	-13.0858	0.0446	-0.0471	-0.0537	0.5212	0.1463	0.3349	-2.5813	
13	16.81	-0.01	5.0413	-12.9719	0.0474	-0.0477	-0.0544	0.5072	0.1751	0.3321	-2.5731	
14	17.88	-0.01	5.2581	-13.1305	0.0530	-0.0459	-0.0604	0.5555	0.1921	0.3634	-2.4972	
15	18.92	-0.01	5.4404	-13.1745	0.0517	-0.0043	-0.0664	0.4614	0.2014	0.2608	-2.4214	
16	19.93	-0.00	5.6655	-13.2561	0.0405	-0.0757	0.0567	0.5642	0.2097	0.3545	-2.3398	
17	20.97	-0.01	5.8836	-13.4034	0.0927	-0.0667	0.0361	0.6045	0.2299	0.3745	-2.2781	
18	22.04	-0.01	6.1651	-13.4743	0.0638	0.0007	-0.0463	0.5555	0.2349	0.3206	-2.1864	
19	23.02	-0.00	6.4224	-13.6193	0.0560	-0.0342	0.0236	0.5630	0.2481	0.3149	-2.1294	
20	24.08	-0.00	6.7040	-13.7458	0.0769	-0.0766	0.0716	0.4923	0.2599	0.2324	-2.0492	
21	25.11	-0.01	7.0071	-13.8404	0.0946	0.0105	0.1082	0.4549	0.2740	0.1808	-1.9809	
22	26.14	-0.00	7.3356	-14.0184	0.0999	0.0441	0.1692	0.4644	0.2940	0.1804	-1.9110	
23	27.20	0.00	7.7377	-14.1953	0.1651	-0.1014	0.2453	0.4867	0.2939	0.1928	-1.8346	
24	28.29	-0.00	8.1460	-14.3988	0.1707	-0.0315	0.2238	0.4325	0.3040	0.1285	-1.7672	
25	29.35	0.00	8.6157	-14.5552	0.1144	-0.1826	0.0575	0.4333	0.2984	0.1349	-1.6894	
26	30.44	0.01	9.0668	-14.7945	0.1459	-0.2051	0.1291	0.3943	0.3042	0.0901	-1.6317	
27	19.93	-0.00	5.6528	-13.0876	0.0964	-0.1256	0.0574	0.0777	0.2933	-0.2157	-2.3152	
28	9.79	-0.00	3.3181	-9.6544	0.0298	-0.0479	-0.0390	0.4887	0.2036	0.2851	-2.9096	
29	-0.00	0.00	0.0677	-0.1903	0.0127	-0.0304	-0.0246	0.4089	0.1036	0.3053	-2.8132	

TEST	PWT	MACH	PK10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
1	105	1.30	2.3	0.0	B4W0F35	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	0.01	0.00	-0.0507	0.2176	0.0030	-0.0530	-0.0211	0.5696	0.1949	0.3747	-4.2947
2	1.98	0.00	0.4432	-1.2642	0.0045	-0.0514	-0.0253	0.5754	0.1994	0.3761	-2.5631
3	3.94	0.00	1.0493	-2.8861	0.0122	-0.0511	-0.0283	0.5742	0.1968	0.3774	-2.7505
4	5.91	0.00	1.6358	-4.4845	0.0123	-0.0373	-0.0275	0.5888	0.1960	0.3928	-2.7415
5	7.88	-0.00	2.2488	-6.1831	0.0238	-0.0497	-0.0283	0.6081	0.1929	0.4151	-2.7495
6	9.84	-0.00	2.8568	-7.7424	0.0323	-0.0584	-0.0279	0.6391	0.1958	0.4433	-2.7102
7	11.84	-0.00	3.4576	-9.1587	0.0366	-0.0779	-0.0292	0.6667	0.1963	0.4704	-2.6489
8	13.85	0.00	4.0778	-10.4643	0.0362	-0.0986	-0.0281	0.6492	0.1979	0.5013	-2.5662
9	15.84	0.00	4.6060	-11.2233	0.0446	-0.1208	-0.0289	0.7029	0.2026	0.5003	-2.4367
10	16.92	0.00	4.8521	-11.3634	0.0431	-0.1196	-0.0187	0.6790	0.2097	0.4693	-2.3421
11	17.96	0.00	5.1375	-11.5212	0.0419	-0.1233	-0.0181	0.6676	0.2157	0.4520	-2.2428
12	17.97	0.00	5.1219	-11.4271	0.0409	-0.1018	-0.0151	0.6528	0.2261	0.4267	-2.2310
13	19.02	0.00	5.4004	-11.5012	0.0535	-0.1469	-0.0256	0.6390	0.2345	0.4045	-2.1297
14	20.07	-0.00	5.7221	-11.7033	0.0455	-0.1162	-0.0289	0.6519	0.2348	0.4171	-2.0453
15	20.07	-0.00	5.7198	-11.6362	0.0436	-0.1071	-0.0247	0.6093	0.2411	0.3682	-2.0344
16	21.12	-0.00	6.0704	-11.8238	0.0561	-0.1196	-0.0340	0.6362	0.2432	0.3930	-1.9642
17	21.12	-0.00	6.0528	-11.8280	0.0647	-0.1547	-0.0341	0.6399	0.2517	0.3882	-1.9541
18	22.18	-0.01	6.3530	-11.8706	0.0615	-0.0968	-0.0313	0.6035	0.2592	0.3443	-1.8685
19	22.18	-0.00	6.3691	-11.8448	0.0320	-0.0814	-0.0343	0.6222	0.2583	0.3640	-1.8676
20	23.23	-0.00	6.7010	-12.1005	0.0754	-0.1484	-0.0382	0.6182	0.2581	0.3601	-1.8050
21	24.29	-0.01	7.0552	-12.3074	0.0792	-0.1067	-0.0414	0.6346	0.2607	0.3738	-1.7444
22	25.33	-0.01	7.4131	-12.5212	0.1365	-0.2243	-0.0432	0.6125	0.2631	0.3494	-1.6891
23	25.34	-0.01	7.3932	-12.4385	0.0868	-0.1337	-0.0384	0.5866	0.2713	0.3153	-1.6824
24	26.42	-0.01	7.7487	-12.5376	0.1183	-0.1880	-0.0315	0.6123	0.2814	0.3309	-1.6188
25	27.45	-0.01	8.1247	-12.8005	0.1405	-0.2480	-0.0196	0.6267	0.2815	0.3451	-1.5755
26	28.53	-0.00	8.4782	-12.8082	0.1532	-0.3082	-0.0184	0.6014	0.3174	0.2841	-1.5107
27	29.59	-0.00	8.8488	-13.0254	0.1752	-0.3721	-0.0133	0.6124	0.3189	0.2935	-1.4721
28	30.65	-0.01	9.1985	-13.1426	0.1549	-0.2820	-0.0218	0.6196	0.3239	0.2958	-1.4288
29	20.08	0.00	5.6941	-11.4762	0.0447	-0.1241	-0.0211	0.5711	0.3084	0.2627	-2.0155
30	9.85	-0.00	2.8533	-7.7545	0.0267	-0.0600	-0.0262	0.6072	0.2333	0.3739	-2.7177
31	0.01	0.00	-0.0450	0.1400	0.0003	-0.0382	-0.0169	0.5623	0.2056	0.3566	-4.2211

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) ... PROPULSION WIND TUNNEL FACILITY (PWT) ... AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1
 SHEET 1 OF 1
 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	REX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	106	0.05	2.3	0.0	640F35	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	META	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	0.00	0.0024	-0.0200	-0.0061	0.0002	0.0082	0.2743	0.0844	0.1898	-0.5143
3	1.97	0.00	0.5512	-1.5590	-0.0024	-0.0040	0.0053	0.2871	0.0870	0.2002	-2.8296
4	3.95	0.00	1.1537	-3.2840	0.0025	-0.0090	0.0027	0.2927	0.0930	0.1997	-2.8335
5	5.91	-0.00	1.7440	-5.1092	0.0023	-0.0005	-0.0035	0.3098	0.0929	0.2170	-2.8470
6	7.88	-0.00	2.4944	-7.1446	0.0049	-0.0064	-0.0060	0.3257	0.1032	0.2225	-2.8643
7	9.84	0.00	3.2063	-9.1646	0.0095	-0.0225	-0.0035	0.3478	0.1117	0.2361	-2.8590
8	11.81	0.00	3.9345	-11.1685	0.0134	-0.0455	0.0024	0.3807	0.1144	0.2663	-2.8334
9	13.79	0.00	4.6384	-12.9645	0.0113	-0.0642	0.0116	0.4101	0.1227	0.2874	-2.7961
10	15.79	0.00	5.2247	-14.2520	0.0048	-0.0601	0.0170	0.4253	0.1273	0.2979	-2.7270
11	16.81	0.00	5.4177	-14.4023	0.0139	-0.0787	0.0200	0.3969	0.1297	0.2672	-2.6584
12	17.83	0.00	5.5721	-14.4481	0.0311	-0.1268	-0.0093	0.4550	0.1411	0.3139	-2.5929
13	18.85	0.00	6.7564	-14.5941	0.0254	-0.1109	0.0029	0.4350	0.1567	0.2783	-2.5353
14	18.86	0.00	5.7255	-14.4783	0.0326	-0.1311	0.0009	0.4305	0.1580	0.2725	-2.5207
15	19.86	0.00	5.9248	-14.6162	0.0150	-0.0744	0.0098	0.3913	0.1767	0.2146	-2.4670
16	20.90	-0.00	6.1024	-14.6778	0.0318	-0.0313	0.0047	0.3964	0.1844	0.2120	-2.4052
17	21.93	-0.01	6.2977	-14.7653	0.0674	-0.0827	0.0253	0.3591	0.1971	0.1620	-2.3447
18	22.95	-0.01	6.4674	-14.8387	0.0226	0.1235	0.0582	0.4006	0.2144	0.1862	-2.2944
19	23.97	-0.01	6.6851	-15.0339	0.0431	0.1611	0.1034	0.4190	0.2370	0.1820	-2.2489
20	23.97	-0.01	6.6335	-14.8132	0.0391	0.1326	0.0926	0.4125	0.2330	0.1787	-2.2331
21	25.00	-0.01	6.8310	-14.9344	-0.0194	0.3354	0.1522	0.4353	0.2708	0.1645	-2.1863
22	26.02	-0.02	6.9921	-15.0002	0.0020	0.5496	0.1966	0.4142	0.2885	0.1257	-2.1453
23	27.05	-0.02	7.2322	-15.1269	0.0129	0.5580	0.1858	0.4098	0.3068	0.1031	-2.0916
24	28.08	-0.03	7.4302	-15.1616	0.0544	0.5793	0.1727	0.4001	0.3127	0.0874	-2.0405
25	29.10	-0.04	7.6574	-15.2567	0.1346	0.5238	0.2056	0.3956	0.3280	0.0676	-1.9923
26	30.13	-0.04	7.8517	-15.3575	0.2300	0.5838	0.3351	0.4326	0.3438	0.0288	-1.9559
27	19.89	-0.00	5.8450	-14.4406	-0.0130	0.0837	0.0412	0.3848	0.2596	0.1252	-2.4496
28	9.83	0.00	3.2659	-4.3470	0.0404	-0.1312	0.0099	0.3329	0.1464	0.1865	-2.8773
29	-0.00	0.00	0.0413	-0.1383	0.0160	-0.0807	0.0234	0.2703	0.0981	0.1722	-3.3460

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 111 0.00 2.3 0.0 0.400F34 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CV	CLM	CLL	CA	CAB	CAF	KCP
1	-0.00	-0.01	0.0213	-0.0518	-0.0592	0.1949	-0.0738	0.2906	0.0890	0.2017	-2.4336
2	1.98	-0.01	0.5834	-1.5964	-0.0545	0.1644	-0.0730	0.3206	0.0487	0.2319	-2.7371
3	3.95	-0.01	1.2010	-3.3674	-0.0457	0.1745	-0.0819	0.3539	0.0877	0.2662	-2.7872
4	5.91	-0.01	1.9173	-5.5224	-0.0438	0.1661	-0.0918	0.3837	0.0995	0.2842	-2.8805
5	7.86	-0.01	2.5977	-7.6140	-0.0324	0.1265	-0.0946	0.3868	0.1008	0.2860	-2.9310
6	9.82	-0.01	3.2615	-9.5972	-0.0324	0.1322	-0.0860	0.4086	0.1042	0.3043	-2.9426
7	11.82	-0.01	3.7449	-10.8886	-0.0324	0.1251	-0.0873	0.4465	0.1217	0.3268	-2.9045
8	13.82	-0.01	4.0608	-11.4277	-0.0341	0.1219	-0.0806	0.4637	0.1370	0.3267	-2.8086
9	15.83	-0.00	4.3047	-11.5489	-0.0390	0.0902	-0.0693	0.4908	0.1619	0.3789	-2.6829
10	16.87	-0.01	4.3260	-11.3251	-0.0632	0.1857	-0.0356	0.5127	0.1969	0.3158	-2.6179
11	17.89	-0.01	4.4753	-11.4090	-0.0545	0.1901	-0.0526	0.5448	0.2393	0.3055	-2.5493
12	18.91	-0.01	4.5944	-11.4500	-0.0445	0.2745	-0.0482	0.5833	0.2640	0.3193	-2.4897
13	19.92	-0.01	4.7221	-11.4535	-0.0440	0.2743	-0.0603	0.6174	0.3054	0.3119	-2.4255
14	20.94	-0.01	4.8361	-11.4383	-0.0205	0.1009	-0.1032	0.6538	0.3375	0.3163	-2.3652
15	21.96	-0.01	4.9702	-11.6776	-0.0165	0.1048	-0.1141	0.6839	0.3636	0.3703	-2.3032
16	22.97	-0.02	5.2528	-11.4435	-0.0245	0.1780	-0.1106	0.6896	0.4214	0.2682	-2.2642
17	22.97	-0.01	5.2792	-11.9374	-0.0595	0.1752	-0.1272	0.6914	0.4245	0.2671	-2.2612
18	23.94	-0.03	5.5258	-12.3296	-0.0230	0.3056	-0.1365	0.7100	0.4340	0.2760	-2.2313
20	24.99	-0.03	5.8074	-12.8464	-0.0462	0.3341	-0.1530	0.7110	0.4582	0.2528	-2.2122
21	26.00	-0.04	6.1053	-13.3756	-0.0134	0.4066	-0.1796	0.7135	0.4746	0.2340	-2.1908
22	27.00	-0.04	6.3818	-13.9015	0.0347	0.3925	-0.2043	0.7072	0.4889	0.2183	-2.1783
23	28.01	-0.06	6.7414	-14.5330	0.0791	0.4488	-0.2205	0.6965	0.4909	0.2076	-2.1550
24	29.03	-0.07	6.9504	-14.7707	0.1530	0.4034	-0.2398	0.6729	0.4953	0.1776	-2.1227
25	30.05	-0.06	7.1703	-14.4013	0.1324	0.4115	-0.2186	0.6550	0.5026	0.1523	-2.0782
26	19.92	-0.01	4.7741	-11.6361	-0.0674	0.2736	-0.0601	0.5827	0.4159	0.1648	-2.4373
27	9.82	-0.01	3.3278	-9.4003	-0.0353	0.1597	-0.0764	0.2962	0.2278	0.0684	-2.9750
28	-0.01	-0.01	0.0453	-0.2045	-0.0532	0.1904	-0.0655	0.2328	0.1062	0.1266	-4.6282

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (47)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	112	0.65	2.3	0.0	B&W0F34	0.0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-0.01	-0.01	0.0336	-0.1621	-0.0576	0.1975	-0.0704	0.2413	0.0882	0.1531	-4.8228
2	1.97	-0.01	0.6228	-1.9007	-0.0479	0.1634	-0.0701	0.2383	0.0886	0.1498	-2.8914
3	3.93	-0.01	1.1074	-3.3197	-0.0446	0.1620	-0.0738	0.2377	0.0880	0.1496	-2.9966
4	5.88	-0.01	2.0016	-5.9679	-0.0390	0.1556	-0.0830	0.2724	0.0868	0.1856	-2.9816
5	7.84	-0.01	2.7174	-8.1526	-0.0369	0.1511	-0.0820	0.3251	0.1040	0.2211	-3.0881
6	9.81	-0.01	3.2966	-9.4099	-0.0355	0.1537	-0.0866	0.3802	0.1062	0.2739	-2.9758
7	10.74	-0.01	3.5766	-10.5736	-0.0346	0.1471	-0.0885	0.3972	0.1150	0.2821	-2.9563
8	11.79	-0.01	3.8135	-11.1940	-0.0311	0.1336	-0.0911	0.4103	0.1207	0.2897	-2.9354
9	13.80	-0.01	4.1439	-11.8836	-0.0340	0.1351	-0.0722	0.4533	0.1350	0.3182	-2.8677
10	15.81	-0.00	4.3878	-12.0263	-0.0350	0.0812	-0.0664	0.4845	0.1654	0.3191	-2.7408
11	16.85	-0.01	4.4784	-11.6766	-0.0646	0.1874	-0.0423	0.5214	0.2104	0.3110	-2.6520
12	17.85	-0.01	4.5969	-11.9281	-0.0620	0.2477	-0.0419	0.5556	0.2385	0.3171	-2.5944
13	18.87	-0.01	4.7336	-11.4796	-0.0943	0.2833	-0.0371	0.5850	0.2765	0.3085	-2.5307
14	19.84	-0.01	4.8602	-11.4353	-0.0767	0.1917	-0.0530	0.6204	0.3075	0.3129	-2.4557
15	19.90	-0.01	4.8588	-11.4541	-0.0812	0.2938	-0.0667	0.6298	0.3253	0.3045	-2.4403
16	20.91	-0.01	4.9894	-11.4627	-0.0035	0.0524	-0.0956	0.6591	0.3499	0.3092	-2.3976
17	21.94	-0.01	5.2032	-12.1514	0.0139	-0.0846	-0.1177	0.6802	0.3773	0.3029	-2.3354
18	22.97	-0.01	5.4156	-12.3865	-0.0292	0.1072	-0.1189	0.6939	0.3999	0.2940	-2.2872
19	23.97	-0.04	5.6754	-12.7763	-0.0420	0.4294	-0.1502	0.7013	0.4162	0.2851	-2.2512
20	24.99	-0.03	5.9472	-13.2478	-0.0157	0.3240	-0.1431	0.7174	0.4341	0.2833	-2.2276
21	25.99	-0.03	6.2255	-13.7133	-0.0103	0.2854	-0.1401	0.7236	0.4551	0.2685	-2.2028
22	26.99	-0.04	6.4673	-14.0678	0.0554	0.2877	-0.1612	0.7159	0.4752	0.2406	-2.1752
23	28.03	-0.04	6.6838	-14.1884	0.0462	0.3146	-0.1761	0.6938	0.4775	0.2163	-2.1228
24	29.06	-0.05	6.9864	-14.3943	0.1631	0.1989	-0.1616	0.6810	0.4955	0.1855	-2.0603
25	30.10	-0.06	7.2245	-14.5260	0.3693	-0.0542	-0.1825	0.6609	0.5161	0.1448	-2.0118
26	19.40	-0.02	4.8341	-11.8973	-0.0839	0.3523	-0.0593	0.6081	0.4520	0.1560	-2.4611
27	9.80	-0.01	3.3011	-9.9415	-0.0362	0.1620	-0.0791	0.3123	0.2081	0.1042	-3.0116
28	-0.01	-0.01	0.0508	-0.2165	-0.0582	0.2080	-0.0646	0.2353	0.0986	0.1367	-4.2589

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TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 115 0.92 2.3 0.0 040F34 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAM	CAF	XCP
1	-0.00	-0.01	0.0192	-0.0510	-0.0525	0.1926	-0.0669	0.3101	0.0816	0.2285	-2.6487
2	1.97	-0.01	0.5944	-1.6274	-0.0444	0.1547	-0.0687	0.3088	0.0781	0.2307	-2.7386
3	3.93	-0.01	1.2869	-3.7253	-0.0332	0.1305	-0.0726	0.3165	0.0762	0.2303	-2.8948
4	5.88	-0.01	2.0151	-5.4202	-0.0354	0.1185	-0.0751	0.3451	0.0845	0.2606	-2.9379
5	7.83	-0.01	2.7576	-8.2692	-0.0219	0.1058	-0.0820	0.4072	0.0879	0.3194	-3.0068
6	9.78	-0.01	3.3114	-10.3452	-0.0106	0.0543	-0.0958	0.4740	0.0902	0.3838	-3.1241
7	11.75	-0.00	4.0196	-12.6262	-0.0055	0.0469	-0.0289	0.4817	0.0995	0.3822	-2.9910
8	13.76	-0.00	4.3841	-12.6252	-0.0110	0.0295	-0.0730	0.5257	0.1350	0.3907	-2.8908
9	15.79	-0.00	4.6172	-12.7810	-0.0190	0.0614	-0.0567	0.5559	0.1706	0.3853	-2.7601
10	16.81	-0.00	4.7315	-12.8123	-0.0439	0.1067	-0.0550	0.5646	0.2104	0.3742	-2.7079
12	17.83	-0.00	4.8417	-12.7701	-0.0513	0.0936	-0.0375	0.6224	0.3163	0.3061	-2.6375
13	18.85	-0.00	4.9540	-12.7537	-0.0764	0.1461	-0.0039	0.6598	0.3157	0.3441	-2.5744
14	18.85	-0.00	4.9753	-12.7790	-0.1013	0.2156	0.0061	0.6617	0.3376	0.3241	-2.5685
15	19.87	0.00	5.1187	-12.8292	-0.0693	0.1031	-0.0136	0.6901	0.3451	0.3050	-2.5063
16	20.91	0.01	5.3079	-12.8453	-0.0164	-0.1733	-0.0431	0.7122	0.3949	0.3174	-2.4389
17	21.92	0.01	5.4555	-12.8715	0.0174	-0.2507	-0.0747	0.7210	0.4137	0.3073	-2.3777
18	22.94	0.01	5.6364	-13.0828	0.0155	-0.1837	-0.0759	0.7286	0.4363	0.2923	-2.3211
19	23.97	0.00	5.8350	-13.1336	0.0207	-0.1224	-0.0736	0.7258	0.4848	0.2410	-2.2508
20	24.99	-0.01	6.0765	-13.3204	0.0683	0.0116	-0.0880	0.7247	0.4894	0.2392	-2.1922
21	26.01	-0.01	6.3886	-13.5045	0.0096	0.0675	-0.0899	0.7252	0.5038	0.2213	-2.1406
22	26.02	-0.01	6.3214	-13.4374	-0.0002	0.0974	-0.0793	0.7244	0.5194	0.2051	-2.1209
23	27.06	-0.03	6.5832	-13.6000	0.0621	0.2469	-0.0847	0.7100	0.5311	0.1789	-2.0659
24	28.10	-0.03	6.9071	-13.7190	0.0795	0.1463	-0.0679	0.7074	0.5164	0.1910	-1.9862
25	29.15	-0.02	7.2386	-13.8755	0.0040	0.1504	-0.0893	0.6881	0.5303	0.1578	-1.9169
26	30.19	-0.01	7.6174	-14.0680	-0.0086	0.2006	-0.0940	0.6774	0.5470	0.1304	-1.8468
27	30.20	-0.01	7.6035	-14.0226	-0.0834	0.2702	-0.0805	0.6744	0.5554	0.1150	-1.8443
28	19.88	0.01	5.0859	-12.6224	-0.0320	-0.0452	-0.0332	0.6786	0.4864	0.1922	-2.4818
29	19.86	0.00	5.1063	-12.7480	-0.0803	0.1137	-0.0004	0.6902	0.4539	0.2363	-2.4965
30	9.75	-0.01	3.4155	-11.1215	-0.0166	0.0949	-0.0695	0.3827	0.2251	0.1576	-3.0761
31	9.76	-0.01	3.6160	-11.0577	-0.0115	0.0409	-0.0620	0.3712	0.1743	0.1969	-3.0588
32	-0.00	-0.01	0.0622	-0.1712	-0.0467	0.1853	-0.0388	0.2915	0.0913	0.2002	-2.7520
33	0.00	-0.01	0.0446	-0.0922	-0.0414	0.1650	-0.0482	0.3284	0.0574	0.2710	-2.8694

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (4T)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	RE10-6	Pm1	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	117	0.98	2.3	0.0	040F34	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	HFTA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP	
1	0.00	-0.01	0.0443	-0.0485	-0.0527	0.2077	-0.0684	0.4326	0.0984	0.3342	-1.0965	
2	1.94	-0.01	0.4674	-1.9440	-0.0490	0.1883	-0.0659	0.4342	0.1052	0.3290	-2.9128	
3	3.91	-0.01	1.3733	-4.1364	-0.0376	0.1679	-0.0665	0.4443	0.1175	0.3268	-3.0122	
4	5.84	-0.01	2.1281	-6.5458	-0.0276	0.1428	-0.0794	0.4403	0.1163	0.3441	-3.0759	
5	5.84	-0.01	2.1360	-6.5660	-0.0327	0.1458	-0.0791	0.4481	0.1488	0.3393	-3.0749	
6	7.78	-0.01	2.9098	-9.0052	-0.0206	0.1033	-0.0863	0.5371	0.1532	0.3639	-3.0948	
7	9.73	-0.01	3.6194	-11.2282	-0.0147	0.0734	-0.0950	0.5490	0.1661	0.4229	-3.1022	
8	11.74	-0.01	4.0196	-11.9300	-0.0057	0.0399	-0.0980	0.5679	0.1631	0.3978	-2.9688	
9	13.78	-0.00	4.3080	-12.0788	-0.0183	0.0445	-0.0753	0.5052	0.1840	0.3213	-2.8838	
10	15.82	0.01	4.5849	-12.2130	-0.0280	0.0713	0.1787	0.5302	0.2001	0.3301	-2.6638	
11	16.84	-0.00	4.7077	-12.1953	-0.0540	0.1156	-0.0569	0.5387	0.2121	0.3266	-2.5985	
12	16.84	-0.00	4.7093	-12.2118	-0.0331	0.0293	-0.0609	0.5349	0.2466	0.2883	-2.5937	
13	17.86	-0.00	4.8655	-12.3059	-0.0340	0.0301	-0.0536	0.5104	0.2514	0.2590	-2.5277	
14	18.88	-0.00	5.0315	-12.4526	-0.0488	0.0763	-0.0539	0.5461	0.2636	0.2825	-2.4749	
15	19.91	-0.00	5.2151	-12.4673	-0.0342	0.0150	-0.0910	0.5675	0.2687	0.2988	-2.3944	
16	20.94	-0.00	5.4332	-12.5184	0.0323	-0.1778	-0.1694	0.5583	0.2717	0.2866	-2.3841	
17	21.96	0.01	5.6264	-12.5437	0.2792	-1.1042	-0.4345	0.6540	0.3069	0.3471	-2.2381	
18	23.01	0.01	5.8746	-12.7035	0.2602	-1.0176	-0.3919	0.6596	0.3807	0.2789	-2.1824	
19	24.06	-0.00	6.1726	-12.8695	0.1554	-0.6778	-0.3275	0.6820	0.3959	0.2861	-2.0849	
20	25.08	-0.01	6.4276	-12.9962	-0.0233	-0.0087	-0.1092	0.6964	0.4084	0.2840	-2.0219	
21	26.14	-0.01	6.7781	-13.1456	0.0141	0.0420	-0.0524	0.7054	0.4331	0.2723	-1.9394	
22	27.17	-0.02	7.0558	-13.2881	0.0641	0.1330	-0.0026	0.7111	0.4644	0.2467	-1.8833	
23	28.25	-0.01	7.5812	-13.5095	0.0492	0.0542	0.0704	0.6992	0.4641	0.2351	-1.7828	
24	29.30	-0.01	7.9838	-13.6480	0.0505	0.0387	-0.0143	0.6938	0.4822	0.2116	-1.7095	
25	29.30	-0.01	7.9227	-13.5854	0.0595	0.0121	-0.0065	0.6917	0.4949	0.1968	-1.7148	
26	29.30	-0.01	7.9749	-13.6664	0.0425	0.0137	-0.0162	0.6895	0.5129	0.1766	-1.7126	
27	30.36	-0.01	8.4040	-13.8907	-0.0231	0.0208	-0.1068	0.6785	0.5231	0.1554	-1.6529	
28	19.92	0.01	5.1544	-12.7063	0.0181	-0.1949	-0.1057	0.5068	0.4029	0.1040	-2.3681	
29	9.73	-0.01	3.6622	-11.3566	-0.0128	0.0816	-0.0850	0.5678	0.2430	0.3247	-3.1811	
30	0.00	-0.01	0.0446	-0.0952	-0.0484	0.2093	-0.0621	0.4216	0.1453	0.2763	-2.1248	

TEST PART NAME RX10-6 PH1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 11A 1.10 2.3 0.0 040F34 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	HFTA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	0.00	-0.01	0.0146	0.0003	-0.0731	0.2959	-0.0595	0.6367	0.2036	0.4331	0.0201
2	1.95	-0.01	0.6612	-1.9547	-0.0681	0.2640	-0.0594	0.6373	0.2013	0.4360	-2.9563
3	1.95	-0.01	0.6625	-1.9551	-0.0631	0.2646	-0.0566	0.6372	0.2104	0.4269	-2.9513
4	3.90	-0.01	1.3524	-4.0474	-0.0619	0.2673	-0.0640	0.6439	0.2035	0.4404	-2.9920
5	5.84	-0.02	2.0849	-6.3342	-0.0520	0.2514	-0.0712	0.6739	0.2026	0.4713	-3.0405
6	5.84	-0.01	2.0622	-6.3244	-0.0484	0.2330	-0.0745	0.6671	0.2132	0.4540	-3.0400
7	7.79	-0.01	2.8207	-8.6225	-0.0418	0.2038	-0.0807	0.7149	0.2158	0.4891	-3.0569
8	9.72	-0.01	3.4365	-10.7405	-0.0325	0.1644	-0.0868	0.7577	0.2112	0.5464	-3.0512
9	11.75	-0.01	3.8385	-11.0473	-0.0215	0.1344	-0.0902	0.7176	0.2213	0.4963	-2.6780
10	13.81	-0.01	4.1227	-11.1254	-0.0314	0.1478	-0.0803	0.7046	0.2339	0.4706	-2.6986
11	15.86	-0.01	4.4610	-11.3416	-0.0397	0.1443	-0.0628	0.7097	0.2404	0.4693	-2.5424
12	16.88	-0.01	4.6366	-11.4247	-0.0443	0.1394	-0.0491	0.7239	0.2408	0.4831	-2.4640
13	17.91	-0.01	4.8229	-11.5145	-0.0406	0.1394	-0.0482	0.7672	0.2496	0.5176	-2.3875
14	19.94	-0.01	5.0273	-11.6012	-0.0416	0.1394	-0.0488	0.8218	0.2624	0.5593	-2.3076
15	19.99	-0.01	5.2702	-11.7045	-0.0342	0.1399	-0.0495	0.8824	0.2747	0.6077	-2.2209
16	21.04	-0.01	5.5406	-11.8384	-0.0309	0.1291	-0.0444	0.8393	0.2850	0.5543	-2.1368
17	22.04	-0.01	5.8348	-11.9763	-0.0252	0.1360	-0.0448	0.8824	0.2930	0.3894	-2.0526
18	23.10	-0.01	6.1617	-12.1210	-0.0142	0.1244	-0.0513	0.6784	0.2936	0.3848	-1.9671
19	24.16	-0.01	6.4777	-12.2947	0.0152	0.0773	-0.0613	0.6100	0.3220	0.2881	-1.8900
20	25.14	-0.02	6.8025	-12.4647	0.0192	0.0724	-0.0593	0.6207	0.3324	0.2883	-1.8324
21	26.24	-0.02	7.1787	-12.6582	0.0579	0.0429	-0.0543	0.6359	0.3370	0.2989	-1.7633
22	27.33	-0.02	7.5780	-12.8352	0.0864	-0.0102	-0.0382	0.6399	0.3419	0.2980	-1.6937
23	28.37	-0.01	7.9805	-12.9892	0.0837	-0.0473	-0.0425	0.6303	0.3492	0.2810	-1.6276
24	29.46	-0.01	8.3675	-13.1246	0.0862	-0.0434	-0.0087	0.5976	0.3566	0.2410	-1.5685
25	30.49	-0.01	8.6725	-13.2486	0.0783	-0.0065	-0.0207	0.5105	0.3573	0.2432	-1.5277
26	20.70	-0.01	5.2567	-11.4606	-0.0278	0.1026	-0.0505	0.3984	0.3422	0.0562	-2.1840
27	9.74	-0.01	3.4739	-10.4584	-0.0354	0.1834	-0.0814	0.7296	0.2922	0.4374	-3.0106
28	0.00	-0.01	0.0334	-0.0621	-0.0768	0.3077	-0.0564	0.6432	0.2150	0.4282	-1.8508

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	119	1.20	2.3	0.0	84WDF34	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	RFTA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP	
1	0.01	-0.01	0.0050	0.0767	-0.0352	0.1467	-0.0540	0.6430	0.2177	0.4253	15.2227	
2	1.95	-0.01	0.6051	-1.8525	-0.0217	0.0965	-0.0459	0.6428	0.2060	0.4368	-3.0617	
3	1.95	-0.01	0.6779	-1.9773	-0.0210	0.0927	-0.0475	0.6389	0.2072	0.4317	-2.9167	
4	3.88	-0.01	1.3912	-4.1704	-0.0137	0.0791	-0.0562	0.6471	0.2033	0.4439	-2.9977	
5	5.84	-0.01	2.0476	-6.2563	-0.0087	0.0684	-0.0648	0.6797	0.2024	0.4773	-3.0554	
6	7.79	-0.01	2.7617	-8.3423	-0.0005	0.0490	-0.0736	0.7293	0.2023	0.5270	-3.0207	
7	9.74	-0.01	3.3354	-10.0779	0.0060	0.0254	-0.0798	0.7728	0.2049	0.5679	-3.0211	
8	11.73	-0.01	3.7477	-10.5613	0.0093	0.0265	-0.0831	0.7470	0.2092	0.5378	-2.8181	
9	13.83	-0.01	4.0608	-10.7021	0.0112	0.0203	-0.0825	0.7152	0.2164	0.4988	-2.6355	
10	15.88	-0.01	4.4021	-10.8998	0.0047	0.0182	-0.0711	0.7281	0.2236	0.5046	-2.4768	
11	16.91	-0.01	4.6375	-11.0075	0.0030	0.0134	-0.0621	0.6819	0.2291	0.4528	-2.3736	
12	17.95	-0.01	4.8789	-11.1372	-0.0007	0.0145	-0.0573	0.7050	0.2340	0.4709	-2.2827	
13	18.98	-0.01	5.1682	-11.2982	0.0039	0.0108	-0.0514	0.7604	0.2403	0.5201	-2.1861	
14	19.00	-0.01	5.1319	-11.1187	0.0013	0.0147	-0.0547	0.7211	0.2795	0.4416	-2.1666	
15	20.06	-0.01	5.4426	-11.2654	0.0041	0.0094	-0.0515	0.7482	0.2869	0.4613	-2.0735	
16	21.10	0.00	5.7389	-11.3936	0.0170	-0.0326	0.0305	0.6982	0.2900	0.4083	-1.9853	
17	22.15	-0.01	6.0664	-11.5270	0.0064	0.0316	-0.0444	0.6800	0.2906	0.3893	-1.8999	
18	23.20	-0.01	6.3934	-11.6990	0.0047	0.0454	-0.0560	0.6497	0.2937	0.3561	-1.8299	
19	24.26	-0.01	6.7259	-11.8551	0.0385	-0.0231	-0.0696	0.6573	0.2964	0.3609	-1.7626	
20	25.32	-0.01	7.0789	-12.0241	0.0557	-0.0609	-0.0816	0.6419	0.3006	0.3413	-1.6986	
21	26.38	-0.02	7.4468	-12.2053	0.0639	-0.0512	-0.0865	0.6624	0.3076	0.3549	-1.6390	
22	27.44	-0.02	7.6360	-12.4180	0.1004	-0.1020	-0.0770	0.6680	0.3155	0.3524	-1.5847	
23	28.50	-0.02	8.2108	-12.5913	0.1260	-0.1811	-0.0744	0.6626	0.3171	0.3455	-1.5335	
24	29.55	-0.02	8.5751	-12.7741	0.1379	-0.1834	-0.0657	0.6552	0.3256	0.3296	-1.4997	
25	30.60	-0.01	8.9400	-12.9638	0.1321	-0.1472	-0.0534	0.6440	0.3362	0.3079	-1.4501	
26	20.06	-0.01	5.4264	-11.1598	-0.0173	0.0985	-0.0440	0.5216	0.3197	0.2018	-2.0566	
27	9.75	-0.01	3.3804	-10.0587	0.0083	0.0299	-0.0730	0.7359	0.2283	0.5076	-2.9752	
28	0.01	-0.01	0.0308	-0.0008	-0.0361	0.1616	-0.0540	0.6340	0.2202	0.4138	-0.0256	
29	0.01	-0.01	0.0131	0.0520	-0.0315	0.1452	-0.0515	0.6378	0.2061	0.4317	3.9782	

POINT	TEST PART MALM RX10-6											
	ALPHA	META	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP	TRANSITION
1	0.02	-0.01	-0.0409	0.2809	-0.0424	0.1797	-0.0602	0.6080	0.2055	0.4025	-0.8671	UNKNOWN
2	1.97	-0.01	0.5634	-1.6192	-0.0335	0.1458	-0.0584	0.6060	0.2077	0.3983	-2.7518	
3	3.91	-0.01	1.2378	-3.5751	-0.0314	0.1457	-0.0680	0.6109	0.2075	0.4034	-2.8882	
4	5.86	-0.01	1.8919	-5.5608	-0.0247	0.1307	-0.0723	0.6397	0.2040	0.4357	-2.9393	
5	7.82	-0.01	2.5347	-7.4359	-0.0063	0.0819	-0.0744	0.6676	0.2030	0.4645	-2.9336	
6	9.79	-0.01	3.1922	-9.2331	-0.0024	0.0652	-0.0754	0.7111	0.2050	0.5061	-2.8924	
7	11.74	-0.01	3.7029	-10.2936	0.0124	0.0297	-0.0823	0.7196	0.2088	0.5108	-2.7799	
8	13.84	-0.01	4.0453	-10.4841	0.0153	0.0047	-0.0836	0.7003	0.2158	0.4845	-2.5917	
9	15.91	-0.01	4.4288	-10.5897	0.0267	-0.0084	-0.0774	0.6622	0.2397	0.4225	-2.3911	
10	18.96	-0.01	4.6815	-10.7543	0.0147	0.0121	-0.0701	0.6618	0.2540	0.4079	-2.2972	
11	17.98	-0.01	4.9817	-10.9413	0.0172	-0.0047	-0.0673	0.6938	0.2554	0.4385	-2.1963	
12	19.04	-0.01	5.2875	-11.0701	0.0214	-0.0058	-0.0680	0.7243	0.2600	0.4643	-2.0936	
13	20.08	-0.01	5.5716	-11.1343	0.0460	-0.0774	-0.0739	0.6504	0.2465	0.3839	-1.9984	
14	21.13	-0.01	5.8843	-11.2644	0.0385	-0.0499	-0.0652	0.6408	0.2705	0.3704	-1.9143	
15	22.19	-0.01	6.2167	-11.4356	0.0443	-0.0342	-0.0686	0.5993	0.2730	0.3263	-1.8395	
16	23.25	-0.01	6.5553	-11.6376	0.0435	-0.0557	-0.0847	0.6161	0.2691	0.3469	-1.7753	
17	24.29	-0.01	6.9041	-11.8519	0.0594	-0.1062	-0.0865	0.6444	0.2697	0.3747	-1.7164	
18	25.33	-0.01	7.2526	-12.0573	0.0329	-0.0337	-0.0804	0.6250	0.2719	0.3530	-1.6625	
19	26.41	-0.01	7.6238	-12.1737	0.0844	-0.1558	-0.0857	0.6319	0.2800	0.3520	-1.5968	
20	27.48	-0.01	7.9646	-12.2226	0.0321	-0.0603	-0.0605	0.6252	0.2953	0.3299	-1.5346	
21	28.55	-0.01	8.3617	-12.4444	0.0740	-0.0717	-0.0407	0.6273	0.3025	0.3748	-1.4883	
22	29.60	-0.01	8.7191	-12.6350	0.0920	-0.1131	-0.0263	0.6347	0.3126	0.3221	-1.4491	
23	30.64	-0.01	9.0803	-12.8318	0.0410	-0.0931	-0.0462	0.6321	0.3210	0.3111	-1.4132	
24	20.11	-0.01	5.5476	-10.9321	0.0313	-0.0464	-0.0688	0.5801	0.3192	0.2609	-1.9705	
25	9.78	-0.01	3.1896	-9.2679	0.0027	0.0553	-0.0724	0.6889	0.2708	0.4180	-2.9064	
26	0.02	-0.01	-0.0248	0.2294	-0.0422	0.1845	-0.0587	0.6019	0.2328	0.3691	-9.2526	

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	125	0.60	2.3	0.0	64W0F33	0.0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLW	CLL	CA	CAB	CAF	KCP
1	-0.00	-0.00	0.0332	-0.0914	-0.0181	0.0542	-0.0731	0.3030	0.0934	0.2105	-2.7476
2	1.97	0.00	0.6151	-1.7628	-0.0071	0.0041	-0.0763	0.3158	0.0914	0.2743	-2.8658
3	3.94	0.00	1.2314	-3.5631	0.0032	-0.0304	-0.0833	0.3220	0.0959	0.2261	-2.8926
4	5.90	0.00	1.8763	-5.5014	0.0091	-0.0530	-0.0970	0.3356	0.0990	0.2365	-2.9289
5	7.86	0.00	2.5439	-7.5736	-0.0034	-0.0297	-0.0992	0.3828	0.0986	0.2842	-2.9772
6	9.84	-0.00	2.8665	-8.3710	-0.0565	0.1705	-0.0337	0.4639	0.1161	0.3478	-2.9203
7	11.85	-0.00	3.1277	-8.8372	-0.0114	0.0072	-0.0811	0.5266	0.1461	0.3805	-2.8254
8	13.84	0.00	3.5600	-9.8303	-0.0090	-0.0301	-0.0743	0.5715	0.1409	0.3906	-2.7582
9	15.85	0.00	3.9647	-10.6609	-0.0103	-0.0350	-0.0631	0.6048	0.2099	0.3949	-2.6899
10	16.88	0.00	4.1627	-10.9606	-0.0320	0.0058	-0.0486	0.6158	0.2464	0.3694	-2.6331
11	17.88	-0.00	4.3400	-11.1879	-0.0467	0.1102	-0.0222	0.6455	0.2551	0.3903	-2.5779
12	18.90	-0.01	4.3222	-10.6664	-0.0888	0.2463	-0.0108	0.6949	0.2994	0.4055	-2.4678
13	19.95	-0.00	4.4660	-10.8269	-0.0472	0.1019	-0.0150	0.7342	0.3239	0.4104	-2.3795
14	19.94	-0.00	4.4662	-10.6467	-0.0812	0.2049	-0.0085	0.7249	0.3847	0.3402	-2.3848
15	20.94	-0.00	4.6787	-10.9432	-0.0432	0.1403	-0.0220	0.7551	0.3922	0.3629	-2.3389
16	21.96	-0.01	4.9245	-11.3715	-0.0329	0.1407	-0.0477	0.7736	0.4115	0.3621	-2.3092
17	22.97	-0.01	5.1453	-11.7236	-0.0360	0.1910	-0.0617	0.7797	0.4301	0.3496	-2.2785
18	23.97	-0.02	5.4571	-12.2489	-0.0729	0.2671	-0.0899	0.8064	0.4450	0.3614	-2.2446
19	24.99	-0.03	5.6823	-12.5991	-0.0314	0.3529	-0.1224	0.8002	0.4697	0.3304	-2.2173
20	25.99	-0.04	5.9638	-13.0260	-0.0160	0.3851	-0.1538	0.8045	0.4697	0.3347	-2.1842
21	27.02	-0.04	6.2212	-13.4211	0.0100	0.3850	-0.1739	0.8020	0.5077	0.2944	-2.1573
22	28.02	-0.06	6.5323	-13.9527	0.1265	0.3589	-0.2741	0.7829	0.5186	0.2643	-2.1368
23	29.04	-0.07	6.7812	-14.2928	0.2060	0.2049	-0.2739	0.7762	0.5227	0.2535	-2.1077
24	30.06	-0.07	7.0497	-14.5893	0.3203	0.0242	-0.2869	0.7591	0.5278	0.2314	-2.0695
25	19.94	-0.00	4.4691	-10.6675	-0.0700	0.1922	-0.0068	0.7031	0.4783	0.2747	-2.3825
26	19.93	-0.00	4.4601	-10.6706	-0.0624	0.1664	-0.0105	0.7104	0.4090	0.3014	-2.3925
27	9.84	-0.01	2.9004	-8.5562	-0.0762	0.2935	-0.0284	0.4040	0.2252	0.1787	-2.9508
28	-0.01	-0.01	0.0562	-0.2000	-0.0311	0.1332	-0.0702	0.2826	0.1156	0.1671	-3.5554

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST	PART	MACM	RK10-6	PM1	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
1	126	0.89	2.3	0.0	640F33	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	META	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCF
1	-0.00	-0.00	0.0470	-0.1612	-0.0230	0.0935	-0.0682	0.2937	0.0842	0.2090	-3.4272
2	1.96	-0.00	0.6422	-1.0773	-0.0147	0.0554	-0.0743	0.2994	0.0948	0.2036	-2.9230
3	3.94	-0.00	1.2840	-3.7536	-0.0067	0.0269	-0.0794	0.3019	0.0993	0.2026	-2.9234
4	3.93	-0.00	1.2497	-3.7393	-0.0042	0.0329	-0.0789	0.2994	0.0946	0.2048	-2.9450
5	5.90	-0.00	1.9831	-5.4639	-0.0017	0.0147	-0.0935	0.3050	0.0892	0.2158	-2.9569
6	5.89	-0.00	2.0021	-5.9668	-0.0001	0.0097	-0.0904	0.3040	0.0822	0.2218	-2.9803
7	7.84	-0.00	2.7243	-8.1847	0.0042	-0.0314	-0.1035	0.3256	0.1016	0.2237	-3.0043
8	9.84	-0.01	2.8490	-8.3554	-0.0017	0.3447	-0.0041	0.4421	0.1498	0.2923	-2.9329
9	11.86	-0.01	3.1479	-8.9175	-0.0251	0.0847	-0.0763	0.5115	0.1706	0.3409	-2.8328
10	13.83	-0.00	3.6410	-10.1394	-0.0165	0.0315	-0.0806	0.5614	0.1966	0.3648	-2.7848
11	15.83	-0.00	4.1245	-11.3007	-0.0164	0.0107	-0.0544	0.6102	0.2161	0.3942	-2.7366
12	16.84	-0.00	4.3477	-11.6735	-0.0104	0.0041	-0.0370	0.6220	0.2429	0.3791	-2.6850
13	17.86	0.00	4.4444	-11.7766	-0.0356	0.0345	-0.0196	0.6420	0.2615	0.3804	-2.6379
14	18.90	-0.01	4.5228	-11.8115	-0.0489	0.2814	0.0060	0.7032	0.2806	0.4225	-2.5231
15	19.92	-0.00	4.6514	-11.2675	-0.0484	0.1146	-0.0084	0.7347	0.3229	0.4110	-2.4267
16	19.91	-0.01	4.4511	-11.3744	-0.0313	0.1364	-0.0060	0.7363	0.3467	0.3895	-2.4458
17	20.93	-0.01	4.8629	-11.5918	-0.0413	0.1463	-0.0099	0.7611	0.3723	0.3888	-2.3837
18	21.93	-0.01	5.0887	-11.9222	-0.0373	0.1589	-0.0190	0.7704	0.4034	0.3670	-2.3429
19	22.94	-0.02	5.3051	-12.2770	-0.0394	0.2524	-0.0673	0.7824	0.4193	0.3631	-2.3142
20	23.95	-0.02	5.6128	-12.8207	-0.0256	0.2518	-0.0746	0.7994	0.4375	0.3620	-2.2842
21	24.96	-0.03	5.8654	-13.1813	-0.0161	0.3709	-0.1111	0.6018	0.4508	0.3510	-2.2471
22	26.01	-0.04	6.1328	-13.5534	0.0044	0.3755	-0.1545	0.8020	0.4710	0.3310	-2.2101
23	27.02	-0.05	6.3761	-13.7850	0.0766	0.3472	-0.2122	0.7990	0.4986	0.3003	-2.1620
24	28.04	-0.06	6.5966	-13.8756	0.1911	0.1910	-0.2540	0.7820	0.5124	0.2696	-2.1034
25	29.06	-0.06	6.8107	-13.9595	0.2512	0.0329	-0.2317	0.7640	0.5180	0.2460	-2.0496
26	30.11	-0.06	7.0478	-14.0461	0.3564	-0.1977	-0.2236	0.7390	0.5321	0.2069	-1.9986
27	19.91	-0.01	4.6545	-11.3291	-0.0564	0.1862	-0.0092	0.7302	0.4375	0.2927	-2.4314
28	9.84	-0.01	2.8531	-8.3773	-0.0934	0.3729	-0.0037	0.4261	0.2144	0.2117	-2.9362
29	-0.00	-0.00	0.0507	-0.1770	-0.0259	0.1085	-0.0647	0.2905	0.1012	0.1893	-3.4899
30	-0.00	-0.00	0.0512	-0.1745	-0.0238	0.1040	-0.0653	0.2902	0.0888	0.2014	-3.4065

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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 SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY (PWTF)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

POINT	TEST PART		MACH		RX10-6		PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	1	127	0.92	2.3	0.0	0.0									0.0
	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	XCP				
1	-0.00	0.00	0.0335	-0.1003	0.0039	-0.0201	-0.0626	0.3699	0.0985	0.2714	-2.9922				
2	1.97	0.00	0.5739	-1.5443	0.0037	-0.0227	-0.0720	0.3680	0.0971	0.2709	-2.6909				
3	7.93	-0.00	1.2602	-3.6424	0.0037	-0.0005	-0.0755	0.3450	0.0955	0.2495	-2.8904				
4	5.88	-0.01	1.9517	-5.7741	-0.0232	0.1022	-0.0947	0.3676	0.0799	0.2877	-2.9505				
5	7.85	-0.01	2.5941	-7.7092	-0.0406	0.1639	0.0113	0.4317	0.1007	0.3310	-2.9718				
6	9.85	-0.01	2.8681	-8.2349	-0.1734	0.6435	0.2627	0.5196	0.1354	0.3841	-2.8712				
7	11.81	-0.01	3.5163	-10.2454	-0.2165	0.7951	0.3227	0.5832	0.1586	0.4248	-2.9137				
8	13.81	-0.01	3.8024	-10.7651	-0.0149	0.0443	-0.0972	0.6218	0.2235	0.3983	-2.8364				
9	15.74	-0.00	4.3408	-12.2694	-0.0097	-0.0145	-0.0613	0.6680	0.2617	0.4063	-2.8007				
10	16.81	0.00	4.5557	-12.5187	-0.0110	-0.0297	-0.0464	0.6812	0.2652	0.4161	-2.7478				
11	17.42	0.00	4.7227	-12.6335	-0.0157	-0.0251	-0.0301	0.6865	0.2903	0.3961	-2.6751				
12	18.84	0.00	4.8925	-12.7652	-0.0263	0.0123	-0.0186	0.6970	0.3019	0.3950	-2.6091				
13	19.84	-0.00	5.0327	-12.7667	-0.0464	0.1430	0.0071	0.7144	0.3028	0.4115	-2.5367				
14	20.89	-0.01	5.1691	-12.7487	-0.1164	0.4324	0.0635	0.7776	0.3141	0.4634	-2.4663				
15	21.41	-0.01	5.3448	-12.8256	-0.0156	0.0896	-0.0476	0.8205	0.3466	0.4740	-2.3996				
16	22.94	-0.02	5.5317	-12.8831	0.0041	0.1337	-0.0655	0.8249	0.4613	0.3636	-2.3289				
17	23.97	-0.02	5.7475	-13.0411	-0.0131	0.2147	-0.0722	0.8270	0.4874	0.3396	-2.2690				
18	25.00	-0.02	5.9633	-13.1307	0.0106	0.1784	-0.0779	0.8208	0.4894	0.3314	-2.2010				
19	25.03	-0.03	6.2179	-13.3359	0.0649	0.1931	-0.1082	0.8121	0.5093	0.3028	-2.1448				
20	27.05	-0.03	6.4757	-13.4525	0.1259	0.0659	-0.1229	0.7946	0.5163	0.2783	-2.0774				
21	28.11	-0.04	6.7961	-13.5580	0.2597	-0.1719	-0.1078	0.7700	0.5111	0.2589	-1.9950				
22	29.15	-0.02	7.1666	-13.7060	0.2184	-0.2287	-0.0533	0.7565	0.5203	0.2362	-1.9125				
23	30.20	-0.01	7.5047	-13.9221	0.1522	-0.1566	-0.0159	0.7475	0.5325	0.2150	-1.8539				
24	19.87	-0.00	4.9943	-12.5402	-0.0499	0.1466	-0.0030	0.6970	0.4184	0.2785	-2.5209				
25	9.85	-0.02	2.8750	-8.2788	-0.1853	0.6977	0.2661	0.4958	0.2573	0.2386	-2.8796				
26	0.00	0.00	0.0472	-0.1280	-0.0028	0.0015	-0.0603	0.3796	0.1080	0.2716	-2.7150				
27	-0.00	0.00	0.0429	-0.1302	0.0029	-0.0088	-0.0573	0.3653	0.1073	0.2580	-3.0354				

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TEST PART	WACH	MX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
I	128	U.94	2.3	0.0	M440F33	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	HFTA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	-0.00	-0.00	0.0414	-0.1064	-0.0072	0.0235	-0.0673	0.4297	0.0982	0.3315	-2.5751	
2	1.97	0.00	0.5589	-1.5064	0.0103	-0.0436	-0.0788	0.4125	0.1110	0.3014	-2.6952	
3	3.92	-0.00	1.2550	-3.5738	-0.0029	0.0132	-0.0856	0.4042	0.1034	0.3008	-2.8477	
4	5.87	-0.01	1.9633	-5.6395	-0.0177	0.1024	-0.1014	0.4150	0.1073	0.3077	-2.9743	
5	7.84	-0.01	2.6209	-7.9012	-0.0501	0.2141	-0.0077	0.4641	0.1133	0.3508	-3.0147	
6	9.83	-0.01	2.9618	-8.7093	-0.1545	0.6142	0.2927	0.5531	0.1374	0.4157	-2.9405	
7	11.40	-0.02	3.5569	-10.3144	-0.2024	0.7648	0.3267	0.6185	0.1623	0.4562	-2.9000	
8	13.81	-0.01	3.8276	-10.8514	-0.0199	0.0602	-0.0966	0.6333	0.1961	0.4372	-2.8350	
9	15.79	-0.00	4.7875	-12.2500	-0.0123	-0.0133	-0.0758	0.6767	0.2462	0.4305	-2.7920	
10	16.80	0.00	4.5503	-12.3804	-0.0089	-0.0267	-0.0488	0.6767	0.2695	0.4072	-2.7208	
11	17.83	0.00	4.4992	-12.4275	-0.0265	0.0045	-0.0344	0.6832	0.2799	0.4032	-2.6446	
12	18.95	0.00	4.8708	-12.5675	-0.0162	-0.0053	-0.0284	0.6876	0.2998	0.3878	-2.5802	
13	19.87	0.00	5.0347	-12.6324	-0.0179	0.0107	-0.0238	0.6969	0.3099	0.3870	-2.5091	
14	20.89	-0.00	5.1934	-12.6744	-0.0413	0.2221	0.0036	0.7318	0.3190	0.4120	-2.4443	
15	21.91	-0.02	5.3574	-12.6632	-0.1317	0.5740	0.0678	0.7800	0.3266	0.4534	-2.3637	
16	22.95	-0.01	5.5570	-12.7626	-0.0260	0.1971	-0.0429	0.8154	0.3542	0.4612	-2.2967	
17	23.98	-0.02	5.7835	-12.9194	-0.0007	0.1594	-0.0570	0.8254	0.3977	0.4277	-2.2338	
18	25.00	-0.02	6.0292	-13.0609	0.0150	0.1493	-0.0446	0.8104	0.4324	0.3780	-2.1663	
19	26.05	-0.02	6.2759	-13.1816	0.0683	0.1033	-0.0567	0.8086	0.4436	0.3450	-2.1003	
20	27.10	-0.02	6.5568	-13.2973	0.1404	-0.0535	-0.0698	0.7817	0.4767	0.3050	-2.0274	
21	28.13	-0.03	6.9003	-13.4334	0.2454	-0.2225	-0.0681	0.7788	0.4899	0.2888	-1.9468	
22	29.16	-0.01	7.3710	-13.6420	0.1431	-0.1816	-0.0144	0.7699	0.5054	0.2644	-1.8508	
23	30.24	-0.00	7.7371	-13.7961	0.0903	-0.1144	0.0061	0.7057	0.5444	0.1612	-1.7831	
24	19.88	-0.00	4.9830	-12.3631	-0.0293	0.0811	-0.0200	0.6719	0.4614	0.2105	-2.4811	
25	9.82	-0.01	2.9909	-8.8215	-0.1527	0.6031	0.2955	0.5359	0.3065	0.2294	-2.9495	
26	6.06	-0.01	2.1950	-6.6566	-0.0283	0.1412	-0.1058	0.4419	0.1965	0.2455	-3.0326	
27	-0.00	-0.00	0.0485	-0.1291	-0.0082	0.0289	-0.0609	0.4158	0.1144	0.3014	-2.6635	

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART WACH RR10-6											
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	Ca	CaR	CAF	KCP
1	-0.00	-0.00	0.0009	-0.1205	-0.0102	0.0011	-0.0711	0.4617	0.1110	0.3508	-2.9548
2	1.47	0.00	0.5654	-1.6521	0.0042	-0.0216	-0.0792	0.4614	0.1157	0.3457	-2.7747
3	3.92	-0.00	1.7869	-3.7576	0.0046	-0.0047	-0.0856	0.476A	0.1158	0.3610	-2.9201
4	5.87	-0.01	2.0114	-6.0841	-0.0141	0.0794	-0.1080	0.4721	0.1267	0.3454	-3.0248
5	5.86	-0.01	2.0330	-6.1614	-0.0146	0.0793	-0.1087	0.5051	0.1183	0.3868	-3.0310
6	7.80	-0.01	2.7745	-F.5747	-0.0179	0.0925	-0.1059	0.5295	0.1436	0.3859	-3.0905
7	9.77	-0.01	3.3496	-10.1364	-0.033A	0.1414	-0.0215	0.5602	0.1679	0.3923	-3.0263
8	11.74	-0.01	3.9432	-11.8332	-0.0096	0.0406	-0.0454	0.619A	0.1642	0.4556	-3.0009
9	13.77	-0.01	4.1346	-11.9341	-0.1799	0.6460	0.2980	0.6919	0.1A62	0.5057	-2.8836
10	15.80	-0.00	4.3792	-12.0837	-0.0116	0.0154	-0.0826	0.6797	0.2717	0.4088	-2.7650
11	16.82	-0.00	4.5332	-12.2089	-0.0127	-0.0078	-0.0561	0.6811	0.2945	0.3866	-2.6932
12	16.82	-0.00	4.5313	-12.1652	-0.0180	0.0071	-0.0672	0.6831	0.2892	0.3939	-2.6847
13	17.63	0.00	4.6A69	-12.2395	-0.0276	0.0131	-0.0435	0.6865	0.2958	0.3907	-2.6114
14	19.87	-0.00	4.8557	-12.3467	-0.0115	0.0182	-0.0342	0.69A6	0.3051	0.3935	-2.5375
15	19.90	-0.00	5.0424	-12.4406	-0.0263	0.0665	-0.0231	0.7073	0.3115	0.3958	-2.4672
16	20.91	-0.00	5.2239	-12.5132	-0.0158	0.0608	-0.0188	0.7126	0.3229	0.3897	-2.3954
17	21.94	-0.02	5.4356	-12.5743	-0.0620	0.3310	0.0056	0.7538	0.3298	0.4240	-2.3133
18	22.97	-0.02	5.6445	-12.6424	-0.0447	0.5126	0.0463	0.7949	0.3583	0.4366	-2.2378
19	24.91	-0.02	5.8451	-12.7561	-0.0517	0.3400	0.0128	0.8040	0.4443	0.3598	-2.1638
20	25.05	-0.02	6.1548	-12.8814	0.0099	0.2354	-0.0113	0.8150	0.4640	0.3510	-2.0929
21	26.08	-0.02	6.4447	-13.0622	0.0610	0.1530	-0.0140	0.8086	0.4811	0.3275	-2.0260
22	27.13	-0.02	6.7620	-13.2470	0.1022	0.0086	-0.0208	0.7870	0.4960	0.2910	-1.9590
23	27.13	-0.02	6.8177	-13.1698	0.1034	0.0255	0.0032	0.7976	0.5004	0.2972	-1.9317
24	28.16	-0.02	7.1182	-13.3653	0.1602	-0.0499	0.0018	0.7859	0.5162	0.2697	-1.8776
25	28.17	-0.02	7.1857	-13.3492	0.1767	-0.1287	0.0155	0.7786	0.5152	0.2634	-1.8577
26	29.24	-0.00	7.6683	-13.6325	0.0807	-0.0755	0.0189	0.7640	0.5225	0.2415	-1.7778
27	30.24	-0.00	8.0132	-13.7802	0.0626	-0.0574	0.0355	0.7596	0.5330	0.2266	-1.7197
28	19.89	-0.00	4.9787	-12.2069	-0.0281	0.0794	-0.0231	0.6824	0.4741	0.2083	-2.4518
29	9.76	-0.01	3.4137	-10.4241	-0.0334	0.1523	-0.0593	0.5619	0.2994	0.2626	-3.0536
30	-0.00	-0.00	0.0543	-0.1676	-0.0165	0.0692	-0.0676	0.4637	0.1598	0.3038	-3.0857

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 131 0.98 2.3 0.0 B4=0F33 0.0 0 0 0 0 UNKNOW

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-0.00	-0.00	0.0394	-0.1175	-0.0239	0.0980	-0.0663	0.5075	0.1121	0.3954	-2.9816
2	1.96	-0.00	0.6222	-1.7941	-0.0097	0.0296	-0.0727	0.5125	0.1220	0.3905	-2.8833
3	1.96	-0.00	0.6247	-1.7989	-0.0080	0.0371	-0.0708	0.5183	0.1205	0.3978	-2.8795
4	3.93	-0.00	1.3259	-3.8569	0.0043	0.0011	-0.0777	0.5159	0.1319	0.3840	-2.9089
5	5.86	-0.01	2.0243	-4.1863	-0.0142	0.0681	-0.1012	0.5468	0.1410	0.4059	-3.0560
6	7.78	-0.00	2.7828	-4.8742	-0.0139	0.0490	-0.1078	0.5890	0.1520	0.4370	-3.1171
7	7.79	-0.01	2.8018	-4.7573	-0.0121	0.0666	-0.1102	0.5966	0.1825	0.4140	-3.1256
8	9.75	-0.01	3.4527	-10.6612	-0.0126	0.0591	-0.0970	0.6273	0.1980	0.4293	-3.0878
9	11.73	-0.01	3.9169	-11.6941	-0.0175	0.0649	-0.0807	0.6814	0.1921	0.4893	-2.9856
10	13.78	-0.00	4.1207	-11.7508	-0.1418	0.5145	0.2772	0.7096	0.2233	0.4862	-2.8517
11	15.81	-0.00	4.3551	-11.8768	-0.0106	0.0259	-0.0811	0.7033	0.2562	0.4471	-2.7271
12	16.82	-0.00	4.5056	-11.9926	-0.0203	0.0319	-0.0706	0.6855	0.2887	0.3968	-2.6617
13	17.85	-0.00	4.6827	-12.0372	-0.0173	0.0220	-0.0583	0.6994	0.2829	0.4165	-2.5706
14	18.87	-0.00	4.8564	-12.2177	-0.0349	0.0565	-0.0353	0.6834	0.3192	0.3642	-2.5158
15	18.88	-0.00	4.8570	-12.0655	-0.0314	0.0726	-0.0566	0.6858	0.3098	0.3759	-2.4842
16	18.88	-0.00	4.8626	-12.1213	-0.0188	0.0447	-0.0445	0.6896	0.3256	0.3640	-2.4927
17	19.90	-0.01	5.0501	-12.2774	-0.0240	0.0767	-0.0434	0.6920	0.3432	0.3488	-2.4311
18	19.91	-0.01	5.0716	-12.2091	-0.0049	0.0417	-0.0606	0.6882	0.3296	0.3587	-2.4074
19	20.93	-0.01	5.2725	-12.3478	-0.0107	0.0824	-0.0390	0.7010	0.3476	0.3534	-2.3419
20	21.96	-0.01	5.4821	-12.4188	0.0187	0.0906	-0.0407	0.7059	0.3606	0.3453	-2.2653
21	23.00	-0.01	5.7835	-12.5772	-0.0774	0.3917	0.0519	0.7793	0.3629	0.4164	-2.1747
22	24.04	-0.02	6.0519	-12.6512	-0.0681	0.4977	0.1083	0.8069	0.3788	0.4281	-2.0904
23	25.09	-0.02	6.3371	-12.8315	-0.0351	0.3598	0.0770	0.8077	0.4035	0.4042	-2.0248
25	27.17	-0.01	6.9273	-13.1312	0.0855	0.0572	0.0374	0.7920	0.4619	0.3301	-1.8956
26	27.19	-0.01	7.0388	-13.1385	0.0596	0.1348	0.0625	0.8076	0.4836	0.3240	-1.8666
27	28.23	-0.01	7.4158	-13.2892	0.1263	-0.0530	0.0709	0.7952	0.4941	0.3012	-1.7928
28	29.30	-0.01	7.8896	-13.5221	0.0536	0.0174	0.0448	0.7758	0.5056	0.2702	-1.7139
29	30.34	-0.00	8.2527	-13.7294	0.0359	-0.0189	0.0200	0.7643	0.5265	0.2378	-1.6636
30	19.92	-0.01	5.0365	-12.0173	-0.0245	0.1160	-0.0553	0.6137	0.3452	0.2685	-2.3868
31	9.74	-0.01	3.4818	-10.8066	-0.0117	0.0755	-0.0994	0.6332	0.2726	0.3606	-3.1037
32	-0.00	-0.00	0.0436	-0.1197	-0.0248	0.1010	-0.0612	0.5044	0.1152	0.3891	-2.7462

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART W4M R410-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 132 1.0U 2.3 0.0 84=0F33 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-0.00	-0.01	0.0391	-0.1259	-0.0462	0.1779	-0.0603	0.7248	0.2161	0.5086	-3.2186
2	1.95	-0.01	0.6737	-1.9905	-0.0264	0.1087	-0.0556	0.7213	0.2193	0.5020	-2.9547
3	1.95	-0.01	0.6766	-1.9901	-0.0265	0.1037	-0.0543	0.7223	0.2168	0.5054	-2.9501
4	3.90	-0.01	1.3635	-4.1149	-0.0262	0.1094	-0.0802	0.7277	0.2203	0.5074	-3.0179
5	5.83	-0.01	2.0697	-6.3824	-0.0177	0.0872	-0.0919	0.7477	0.2215	0.5262	-3.0837
6	7.77	-0.01	2.7898	-8.6784	-0.0194	0.0664	-0.0957	0.7797	0.2292	0.5506	-3.1107
7	9.74	-0.01	3.4210	-10.5233	-0.0129	0.0436	-0.0987	0.8101	0.2412	0.5689	-3.0761
8	11.77	-0.01	3.7245	-10.7556	-0.0032	0.0440	-0.0995	0.7936	0.2558	0.5378	-2.8878
9	13.82	-0.01	4.0245	-10.9375	-0.0123	0.0671	-0.0858	0.7972	0.2627	0.5345	-2.7177
10	15.84	-0.01	4.3505	-11.1267	-0.0165	0.0523	-0.0711	0.7923	0.2671	0.5252	-2.5576
11	15.85	-0.01	4.3083	-11.0345	-0.1125	0.4258	0.1506	0.7893	0.2911	0.4982	-2.5612
12	16.88	-0.01	4.4689	-11.1406	-0.1309	0.4771	0.1853	0.7836	0.3025	0.4812	-2.4818
14	18.94	-0.01	4.8630	-11.3064	-0.0332	0.1131	-0.0430	0.7911	0.3320	0.4592	-2.3250
15	19.97	-0.01	5.0994	-11.4326	-0.0258	0.1457	-0.0561	0.7939	0.3413	0.4526	-2.2418
16	21.01	-0.01	5.3923	-11.5903	-0.0171	0.1446	-0.0597	0.8131	0.3537	0.4593	-2.1494
17	22.06	-0.02	5.6853	-11.7249	0.0132	0.0898	-0.0608	0.7991	0.3593	0.4398	-2.0623
18	23.11	-0.01	5.9967	-11.8950	0.0239	0.0635	-0.0517	0.8124	0.3670	0.4454	-1.9836
19	24.14	-0.01	6.3162	-12.0442	0.0311	0.0976	-0.0117	0.8060	0.3669	0.4391	-1.9069
20	25.18	-0.01	6.6537	-12.2016	0.0233	0.1003	0.0104	0.8057	0.3694	0.4363	-1.8338
21	26.25	-0.01	7.0118	-12.4110	0.0482	0.0575	0.0538	0.8221	0.3795	0.4426	-1.7700
22	27.31	-0.00	7.4397	-12.6143	0.0252	0.0727	0.0540	0.8245	0.3815	0.4430	-1.6955
23	28.38	-0.00	7.8408	-12.7982	0.0369	0.0666	0.0744	0.8523	0.3893	0.4630	-1.6323
24	29.43	-0.00	8.1846	-12.9731	-0.0384	0.1710	0.0225	0.7976	0.3994	0.3982	-1.5851
25	30.47	-0.01	8.5249	-13.1458	-0.0628	0.2468	-0.0062	0.7866	0.4140	0.3726	-1.5421
26	19.98	-0.02	5.0666	-11.2458	-0.0418	0.2316	-0.0465	0.6100	0.4030	0.2070	-2.2196
27	9.74	-0.01	3.3731	-10.2977	-0.0125	0.0593	-0.0914	0.8021	0.3265	0.4756	-3.0529
28	9.74	-0.01	3.3783	-10.3571	-0.0077	0.0436	-0.0918	0.7985	0.2824	0.5161	-3.0658
29	-0.01	-0.01	0.0516	-0.1719	-0.0479	0.1939	-0.0543	0.7280	0.2067	0.5213	-3.3450

TEST PART	MACH	RX10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	133	1.20	2.3	0.0	0400F33	0.0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.01	0.00	0.0393	-0.1465	0.0072	-0.0162	-0.0426	0.7057	0.1876	0.5181	-3.7225
2	-0.01	0.00	0.0354	-0.1374	0.0071	-0.0161	-0.0426	0.7056	0.1969	0.5087	-3.8774
3	0.00	-0.00	0.0241	-0.0378	-0.0154	0.0647	-0.0476	0.7296	0.2187	0.5109	-1.5661
4	1.95	0.00	0.6786	-2.0173	-0.0025	-0.0034	-0.0471	0.7339	0.2197	0.5141	-2.9726
5	3.89	-0.00	1.3476	-4.0974	0.0054	-0.0173	-0.0626	0.7419	0.2154	0.5265	-3.0465
6	5.83	-0.00	2.0151	-6.1792	0.0029	-0.0709	-0.0738	0.7741	0.2161	0.5581	-3.0664
7	7.78	-0.00	2.6573	-8.1151	0.0170	-0.0432	-0.0864	0.8068	0.2163	0.5906	-3.0539
8	9.73	0.00	3.3044	-9.7687	0.0175	-0.0777	-0.0890	0.8485	0.2245	0.6240	-3.0168
9	11.78	-0.01	3.6335	-10.2961	0.0248	-0.0420	-0.0878	0.8375	0.2347	0.6028	-2.8337
10	13.83	-0.00	3.9465	-10.4542	0.0173	-0.0361	-0.0829	0.8244	0.2458	0.5786	-2.6498
11	15.88	-0.00	4.3024	-10.6222	0.0166	-0.0545	-0.0730	0.7895	0.2740	0.5154	-2.4689
12	16.97	-0.00	4.5263	-10.7378	0.0027	-0.0254	-0.0638	0.7899	0.2926	0.5074	-2.3723
13	17.94	-0.00	4.7418	-10.8544	0.0151	-0.0315	-0.0493	0.8146	0.2912	0.5234	-2.2982
14	19.00	-0.00	4.9722	-10.9650	0.0094	-0.0456	-0.0543	0.8315	0.2966	0.5349	-2.2053
15	20.04	-0.01	5.2742	-11.1246	0.0183	-0.0046	-0.0476	0.8165	0.3099	0.5066	-2.1077
16	21.08	-0.01	5.5925	-11.2946	0.0561	-0.0762	-0.0596	0.8346	0.3378	0.4968	-2.0196
17	22.15	-0.01	5.9240	-11.4648	-0.0003	0.0717	-0.0501	0.8286	0.3516	0.4770	-1.9337
18	23.19	-0.01	6.2413	-11.5656	0.0275	0.0407	-0.0494	0.8637	0.3559	0.5079	-1.8531
19	24.27	-0.01	6.5868	-11.7704	0.0504	-0.0071	-0.0520	0.8143	0.3615	0.4528	-1.7870
20	25.34	-0.01	6.9424	-11.9432	0.0706	-0.0361	-0.0447	0.7546	0.3721	0.3825	-1.7203
21	26.35	-0.01	7.2892	-12.1371	0.0860	-0.0647	-0.0376	0.8392	0.3730	0.4662	-1.6651
22	27.41	-0.01	7.6777	-12.3242	0.1123	-0.1027	-0.0210	0.9164	0.3748	0.5416	-1.6052
23	28.47	-0.01	8.0667	-12.5386	0.0884	-0.0772	-0.0314	0.8156	0.3821	0.4335	-1.5544
24	29.59	-0.02	8.4375	-12.7164	0.0975	-0.0851	-0.0446	0.7646	0.3802	0.3844	-1.5071
25	30.57	-0.01	8.7761	-12.8915	0.1045	-0.0950	-0.0305	0.8059	0.3828	0.4231	-1.4689
26	20.35	-0.00	5.2461	-10.9513	0.0053	0.0036	-0.0408	0.7587	0.3559	0.4028	-2.0875
27	9.78	-0.00	3.2713	-9.8336	0.0211	-0.0463	-0.0816	0.8276	0.2626	0.5649	-3.0868
28	-0.00	-0.00	0.0243	-0.0716	-0.0201	0.0844	-0.0405	0.7255	0.2286	0.4969	-2.9489

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART MACH R410-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 134 1.34 2-3 0.0 040F33 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	Cm	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	0.01	-0.00	-0.0191	0.1227	-0.0164	0.0669	-0.0412	0.6622	0.2083	0.4539	-6.4179
2	1.94	-0.00	0.6297	-1.8612	-0.0256	0.0738	-0.0466	0.6724	0.2061	0.4663	-2.9555
3	3.91	-0.00	1.2813	-3.8206	-0.0113	0.0557	-0.0566	0.6854	0.2074	0.4779	-3.0286
4	5.91	-0.00	1.9114	-5.7557	-0.0061	0.0417	-0.0636	0.7222	0.1969	0.5253	-3.0113
5	7.87	-0.00	2.5175	-7.4909	0.0045	0.0110	-0.0776	0.7643	0.2070	0.5573	-2.9755
6	9.78	-0.00	3.1179	-9.1403	0.0092	-0.0155	-0.0837	0.8022	0.2201	0.5821	-2.9316
7	11.78	-0.00	3.5923	-10.1044	0.0202	-0.0460	-0.0801	0.8254	0.2345	0.5908	-2.8897
8	13.89	-0.00	3.9496	-10.2701	0.0168	-0.0390	-0.0673	0.8057	0.2517	0.5540	-2.6054
9	15.90	-0.00	4.3391	-10.4884	0.0113	-0.0306	-0.0591	0.7789	0.2578	0.5210	-2.4173
10	16.95	-0.00	4.5739	-10.6018	0.0072	-0.0046	-0.0555	0.8090	0.2654	0.5435	-2.3179
11	18.01	-0.00	4.8540	-10.7415	0.0097	-0.0071	-0.0495	0.8024	0.2718	0.5306	-2.2129
12	19.04	-0.00	5.1498	-10.8980	0.0068	0.0001	-0.0409	0.7748	0.2780	0.4968	-2.1162
13	20.10	-0.01	5.4457	-11.0192	0.0077	0.0082	-0.0361	0.7602	0.2844	0.4758	-2.0235
14	21.13	-0.01	5.7693	-11.1974	0.0218	0.0005	-0.0396	0.7516	0.2868	0.4648	-1.9409
15	22.18	-0.00	6.0610	-11.3218	0.0190	0.0316	0.0201	0.7434	0.2916	0.4519	-1.8680
16	23.25	-0.01	6.3780	-11.4740	0.0404	-0.0028	-0.0450	0.7279	0.2955	0.4324	-1.7990
17	24.36	-0.01	6.7262	-11.6419	0.0445	-0.0069	-0.0406	0.7692	0.3029	0.4463	-1.7308
18	25.33	-0.01	7.0394	-11.7991	0.0483	-0.0093	-0.0441	0.7754	0.3124	0.4631	-1.6762
19	20.11	-0.01	5.4443	-10.9135	0.0031	0.0317	-0.0330	0.5694	0.3072	0.2622	-2.0046
20	9.80	-0.01	3.1320	-9.1967	0.0077	0.0090	-0.0809	0.7888	0.2796	0.5093	-2.9364
21	0.01	-0.00	-0.8020	0.0749	-0.0217	0.0876	-0.0410	0.6595	0.2299	0.4294	-36.6163

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TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	139	0.80	2.3	0.0	H4WDF32	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	0.00	-0.00	0.0250	-0.0365	-0.0196	0.0501	-0.0129	0.2568	0.0868	0.1700	-1.4696
2	2.03	-0.00	0.2746	-0.3168	-0.0169	0.0585	-0.0133	0.2640	0.0874	0.1766	-1.1527
3	4.11	-0.00	0.5705	-0.7352	-0.0187	0.0752	-0.0136	0.2751	0.0893	0.1858	-1.2806
4	6.06	-0.00	0.9204	-1.3567	-0.0200	0.0861	-0.0136	0.2904	0.0965	0.1938	-1.4748
5	8.06	-0.00	1.3310	-2.1751	-0.0216	0.0971	-0.0118	0.3107	0.1055	0.2052	-1.6342
6	10.07	-0.00	1.7947	-3.1380	-0.0232	0.1048	-0.0116	0.3273	0.1096	0.2177	-1.7485
7	12.10	-0.01	2.2889	-4.1813	-0.0312	0.1332	-0.0024	0.3543	0.1188	0.2355	-1.8268
8	14.10	-0.00	2.8442	-5.3761	-0.0360	0.1350	0.0085	0.3719	0.1339	0.2380	-1.8902
9	16.05	-0.00	3.4641	-6.7540	-0.0361	0.1078	0.0156	0.3627	0.1662	0.1965	-1.9497
10	17.07	-0.00	3.7666	-7.3660	-0.0361	0.1095	0.0209	0.3787	0.1750	0.2037	-1.9556
11	18.07	-0.00	4.0518	-7.9492	-0.0402	0.1109	0.0227	0.3813	0.1819	0.1994	-1.9619
12	19.11	-0.00	4.3644	-8.5763	-0.0421	0.1182	0.0247	0.3835	0.1930	0.1905	-1.9641
13	20.10	-0.00	4.6706	-9.1534	-0.0418	0.1328	0.0210	0.3938	0.1898	0.2040	-1.9598
14	21.09	-0.00	4.9765	-9.7432	-0.0201	0.0944	0.0137	0.3972	0.2087	0.1885	-1.9578
15	22.11	-0.00	5.2844	-10.2453	-0.0303	0.1211	0.0100	0.4051	0.2192	0.1859	-1.9463
16	23.14	-0.01	5.5706	-10.7864	0.0007	0.0762	0.0043	0.4031	0.2167	0.1864	-1.9368
17	24.14	-0.01	5.8872	-11.3350	0.0515	-0.0254	0.0017	0.4064	0.2423	0.1641	-1.9254
18	25.13	-0.00	6.1551	-11.7574	0.0966	-0.1187	0.0098	0.4126	0.2526	0.1600	-1.9102
19	26.14	-0.00	6.5047	-12.3307	0.1448	-0.3444	0.0352	0.4113	0.2730	0.1383	-1.8957
20	27.19	0.00	6.7828	-12.7441	0.2443	-0.5561	0.0765	0.4036	0.2498	0.1138	-1.8789
21	28.25	0.02	7.0437	-13.0417	0.3473	-0.7356	0.1620	0.4009	0.2938	0.1070	-1.8515
22	29.24	0.02	7.3312	-13.4857	0.3587	-0.8050	0.1933	0.3939	0.3054	0.0885	-1.8395
23	30.22	0.03	7.5226	-13.5867	0.4901	-1.0237	0.2973	0.4022	0.3202	0.0820	-1.8061
24	20.05	-0.00	4.6915	-9.3390	-0.0391	0.1127	0.0212	0.3334	0.1933	0.1401	-1.9906
25	10.07	-0.00	1.8070	-3.2832	-0.0170	0.0846	-0.0189	0.2737	0.1593	0.1144	-1.8179
26	-0.00	-0.00	0.0412	-0.1305	-0.0155	0.0438	-0.0146	0.2297	0.0867	0.1430	-3.1709

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH R410-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 140 0.85 2.3 0.0 0.400F32 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-0.00	-0.00	0.0343	-0.0965	-0.0186	0.0537	-0.0157	0.2407	0.0868	0.1539	-2.8157
2	2.03	-0.00	0.2904	-0.3807	-0.0184	0.0655	-0.0179	0.2480	0.0986	0.1594	-1.3111
3	4.05	-0.00	0.5819	-0.8023	-0.0199	0.0768	-0.0181	0.2541	0.0877	0.1664	-1.3789
4	6.11	-0.00	0.9458	-1.4702	-0.0195	0.0932	-0.0181	0.2692	0.0950	0.1742	-1.5544
5	8.10	-0.01	1.3702	-2.3212	-0.0206	0.1030	-0.0181	0.2866	0.1117	0.1749	-1.6940
6	10.06	-0.01	1.8214	-3.2663	-0.0221	0.1206	-0.0178	0.3041	0.1111	0.1929	-1.7933
7	12.08	-0.01	2.3446	-4.3981	-0.0294	0.1412	-0.0124	0.3206	0.1285	0.1921	-1.8758
8	14.09	-0.01	2.9137	-5.6511	-0.0396	0.1592	0.0001	0.3327	0.1469	0.1859	-1.9395
9	16.10	-0.00	3.5232	-6.9879	-0.0369	0.1162	0.0102	0.3377	0.1597	0.1780	-1.9834
10	17.10	-0.00	3.8277	-7.6092	-0.0408	0.1198	0.0153	0.3507	0.1685	0.1822	-1.9879
11	18.10	-0.00	4.1369	-8.2421	-0.0386	0.1142	0.0153	0.3602	0.1757	0.1845	-1.9923
12	19.06	-0.00	4.4313	-8.8091	-0.0441	0.1269	0.0172	0.3666	0.1952	0.1714	-1.9878
13	20.08	-0.00	4.7440	-9.4146	-0.0485	0.1454	0.0154	0.3762	0.1992	0.1770	-1.9845
14	21.11	-0.00	5.0632	-10.0005	-0.0341	0.1163	0.0117	0.3836	0.2080	0.1756	-1.9751
15	22.09	-0.00	5.3630	-10.5239	-0.0213	0.1089	0.0081	0.3866	0.2269	0.1597	-1.9623
16	23.11	-0.00	5.6562	-11.0310	0.0162	0.0393	0.0075	0.3867	0.2176	0.1690	-1.9583
17	24.12	-0.01	5.9974	-11.5995	0.0403	0.0051	0.0071	0.3933	0.2328	0.1606	-1.9341
18	25.14	-0.00	6.2710	-12.0303	0.1030	-0.1332	0.0216	0.3966	0.2465	0.1501	-1.9184
19	26.14	0.00	6.5872	-12.5040	0.1765	-0.3222	0.0545	0.4004	0.2626	0.1378	-1.8982
20	27.16	0.02	6.7701	-12.9793	0.2993	-0.6189	0.2006	0.4076	0.2790	0.1286	-1.8581
21	28.22	0.01	6.8196	-12.2403	0.2744	-0.3282	0.3275	0.4461	0.2987	0.1474	-1.7949
22	29.28	0.01	7.2101	-12.8697	0.3294	-0.4321	0.3239	0.4355	0.3420	0.0936	-1.7858
23	30.25	0.02	7.7042	-13.9172	0.3362	-0.6966	0.2622	0.3864	0.3490	0.0374	-1.8064
24	20.06	-0.00	4.7607	-9.5434	-0.0461	0.1269	0.0121	0.3258	0.2537	0.0721	-2.0044
25	10.06	-0.00	1.8545	-3.3943	-0.0163	0.0875	-0.0234	0.2743	0.1691	0.1052	-1.8303
26	-0.00	-0.00	0.0420	-0.1329	-0.0136	0.0422	-0.0209	0.2303	0.0799	0.1504	-3.1661

TEST PART WACH R410-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 141 0.92 2.3 0.0 B4WDF32 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAP	XCP
1	-0.00	-0.00	0.0395	-0.1096	-0.0163	0.0529	-0.0198	0.2394	0.0864	0.1530	-2.7749
2	2.05	-0.00	0.2426	-0.3824	-0.0170	0.0650	-0.0201	0.2461	0.0762	0.1699	-1.3087
3	4.09	-0.00	0.5992	-0.8306	-0.0206	0.0792	-0.0204	0.2534	0.0903	0.1631	-1.3863
4	6.07	-0.00	0.9655	-1.5068	-0.0189	0.0869	-0.0205	0.2674	0.1063	0.1611	-1.5607
5	8.04	-0.01	1.4079	-2.4131	-0.0168	0.0987	-0.0202	0.2861	0.1124	0.1732	-1.7140
6	10.08	-0.01	1.8848	-3.4300	-0.0352	0.1309	-0.0201	0.3051	0.1252	0.1798	-1.8198
7	12.06	-0.01	2.4162	-4.6130	-0.0253	0.1332	-0.0182	0.3207	0.1273	0.1934	-1.9076
8	14.06	-0.01	3.0015	-5.9048	-0.0376	0.1558	-0.0048	0.3402	0.1379	0.2023	-1.9673
9	16.10	-0.01	3.6221	-7.2574	-0.0610	0.2205	0.0090	0.3545	0.1600	0.1945	-2.0038
10	17.06	-0.01	3.9227	-7.9045	-0.0718	0.2352	0.0173	0.3539	0.1634	0.1905	-2.0163
11	18.07	-0.01	4.2706	-8.6214	-0.0796	0.2626	0.0242	0.3651	0.1689	0.1962	-2.0188
12	19.09	-0.00	4.5803	-9.2268	-0.0829	0.2594	0.0290	0.3744	0.1823	0.1921	-2.0145
13	20.04	-0.00	4.8757	-9.7674	-0.0769	0.2406	0.0204	0.3864	0.1892	0.1972	-2.0033
14	21.11	-0.01	5.2049	-10.3886	-0.0852	0.2760	0.0092	0.3917	0.1933	0.1984	-1.9959
15	22.09	-0.01	5.5041	-10.9256	-0.0608	0.2296	0.0022	0.3791	0.2240	0.1551	-1.9850
16	23.07	-0.01	5.7975	-11.3869	-0.0377	0.1699	0.0001	0.3892	0.2215	0.1676	-1.9641
17	24.12	-0.01	6.1330	-11.8999	-0.0024	0.1376	0.0012	0.3945	0.2289	0.1556	-1.9403
18	25.12	-0.01	6.4529	-12.3503	0.0438	0.0843	0.0137	0.3928	0.2418	0.1510	-1.9139
19	26.20	-0.00	6.7749	-12.7572	0.1194	-0.1069	0.0794	0.3962	0.2542	0.1420	-1.8830
20	27.25	0.01	7.0592	-12.9865	0.1765	-0.2269	0.1704	0.4010	0.2711	0.1299	-1.8397
21	28.26	0.01	7.4052	-13.1372	0.2041	-0.2048	0.2273	0.4030	0.2716	0.1314	-1.7740
22	29.29	0.00	7.8690	-13.5360	0.1771	-0.1738	0.1926	0.3791	0.2873	0.0919	-1.7202
23	29.27	0.00	7.8044	-13.5619	0.1940	-0.2089	0.1919	0.3757	0.3098	0.0659	-1.7377
24	30.32	0.00	8.1449	-13.6522	0.1669	-0.0653	0.2230	0.3688	0.3031	0.0657	-1.6762
25	20.07	-0.00	4.9031	-9.9410	-0.0729	0.2279	0.0173	0.3355	0.2474	0.0881	-2.0275
26	10.06	-0.01	1.8941	-3.4974	-0.0189	0.1126	-0.0249	0.2637	0.1412	0.1425	-1.8465
27	-0.00	-0.00	0.0491	-0.1476	-0.0128	0.0437	-0.0215	0.2298	0.0840	0.1458	-3.0050

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEUC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 142 0.94 2.3 0.0 M40F32 0.0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-0.00	-0.00	0.0455	-0.1213	-0.0170	0.0533	-0.0194	0.2419	0.0745	0.1674	-2.6641
2	-0.00	-0.00	0.0434	-0.1184	-0.0171	0.0516	-0.0195	0.2399	0.0817	0.1582	-2.7264
3	2.02	-0.00	0.2920	-0.3707	-0.0179	0.0641	-0.0199	0.2452	0.0814	0.1639	-1.2696
4	4.04	-0.00	0.5921	-0.8017	-0.0168	0.0749	-0.0217	0.2550	0.0760	0.1701	-1.3530
5	4.04	-0.00	0.5915	-0.8045	-0.0160	0.0748	-0.0217	0.2548	0.0832	0.1716	-1.3601
6	6.08	-0.00	0.9726	-1.4922	-0.0171	0.0894	-0.0201	0.2692	0.0925	0.1767	-1.5341
7	8.07	-0.01	1.4247	-2.4233	-0.0167	0.1050	-0.0201	0.2875	0.1102	0.1774	-1.7014
8	10.05	-0.01	1.9168	-3.5022	-0.0180	0.1102	-0.0182	0.3038	0.1183	0.1855	-1.8252
9	12.07	-0.01	2.4497	-4.6874	-0.0298	0.1601	-0.0227	0.3217	0.1396	0.1821	-1.9134
10	14.07	-0.01	3.0323	-5.9977	-0.0375	0.1481	-0.0063	0.3362	0.1436	0.1925	-1.9788
11	16.07	-0.01	3.6600	-7.3834	-0.0498	0.1782	0.0070	0.3483	0.1551	0.1931	-2.0175
12	17.11	-0.01	4.0041	-8.1314	-0.0642	0.2117	0.0169	0.3630	0.1629	0.2001	-2.0282
13	18.06	-0.01	4.3163	-8.7733	-0.0812	0.2618	0.0255	0.3713	0.1707	0.2006	-2.0326
14	19.07	-0.01	4.6551	-9.4465	-0.0934	0.2996	0.0291	0.3767	0.1800	0.1968	-2.0293
15	20.09	-0.01	4.9704	-10.0804	-0.0975	0.3079	0.0402	0.3732	0.1883	0.1930	-2.0281
16	21.10	-0.00	5.2933	-10.6258	-0.0788	0.2301	0.0348	0.3865	0.1970	0.1895	-2.0074
17	22.05	-0.01	5.5872	-11.0974	-0.0562	0.2024	0.0180	0.3954	0.1973	0.1987	-1.9862
18	23.12	-0.01	5.9344	-11.6446	-0.0395	0.1871	0.0017	0.3986	0.2058	0.1927	-1.9634
19	24.10	-0.01	6.2648	-12.0662	0.0165	0.0954	0.0121	0.3973	0.2210	0.1762	-1.9292
20	25.16	-0.01	6.5763	-12.4550	0.0610	0.0306	0.0276	0.3909	0.2412	0.1497	-1.8939
21	26.21	-0.01	6.9338	-12.8571	0.1239	-0.0933	0.0785	0.3918	0.2520	0.1398	-1.8543
22	27.28	0.00	7.2679	-13.1199	0.1762	-0.2103	0.1412	0.3900	0.2583	0.1316	-1.8088
23	28.27	0.00	7.6772	-13.3631	0.2162	-0.2678	0.1834	0.3901	0.2669	0.1232	-1.7488
24	29.35	0.00	8.0392	-13.5627	0.1362	-0.1245	0.1661	0.3664	0.2831	0.0834	-1.6871
25	30.41	0.00	8.4549	-13.7815	0.1262	-0.0370	0.1710	0.3589	0.2871	0.0718	-1.6308
26	20.06	-0.01	5.0032	-10.2028	-0.0925	0.2975	0.0357	0.3409	0.2365	0.1045	-2.0393
27	10.07	-0.01	1.9318	-3.5695	-0.0124	0.0864	-0.0199	0.2863	0.1466	0.1396	-1.8477
28	-0.00	-0.00	0.0462	-0.1308	-0.0138	0.0489	-0.0180	0.2353	0.0789	0.1563	-2.8327

TEST PART MACH PX10-6 PNI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 143 0.96 2.3 0.0 84W0F32 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	ACP
1	-0.00	-0.00	0.0449	-0.1236	-0.0146	0.0512	-0.0160	0.2553	0.0738	0.1815	-2.7506
2	2.04	-0.00	0.3075	-0.3873	-0.0109	0.0570	-0.0180	0.2599	0.0803	0.1796	-1.2804
3	4.06	-0.00	0.6047	-0.8366	-0.0153	0.0662	-0.0199	0.2718	0.0717	0.2001	-1.3835
4	6.10	-0.00	0.9937	-1.5418	-0.0165	0.0838	-0.0183	0.2831	0.0837	0.1994	-1.5516
5	8.10	-0.01	1.4301	-2.4430	-0.0203	0.1044	-0.0182	0.2898	0.0995	0.1902	-1.7083
6	8.10	-0.01	1.4526	-2.5021	-0.0166	0.0968	-0.0182	0.2983	0.0988	0.1995	-1.7223
7	10.06	-0.01	1.9670	-3.6506	-0.0156	0.1069	-0.0178	0.3234	0.1119	0.2115	-1.8559
8	10.06	-0.01	1.9305	-3.5609	-0.0184	0.1113	-0.0179	0.3103	0.1210	0.1893	-1.8445
9	12.05	-0.01	2.5032	-4.7746	-0.0206	0.1100	-0.0083	0.3328	0.1319	0.2009	-1.9074
10	14.06	-0.01	3.0651	-6.0532	-0.0381	0.1629	-0.0157	0.3447	0.1452	0.1995	-1.9749
11	16.09	-0.01	3.7069	-7.4883	-0.0459	0.1637	0.0052	0.3672	0.1532	0.2141	-2.0201
12	17.07	-0.00	4.0247	-8.1811	-0.0566	0.1798	0.0133	0.3722	0.1617	0.2105	-2.0327
13	18.07	-0.00	4.3660	-8.8914	-0.0693	0.2081	0.0199	0.3824	0.1719	0.2105	-2.0365
14	19.09	-0.00	4.7032	-9.5618	-0.0752	0.2416	0.0314	0.3909	0.1801	0.2109	-2.0330
15	20.06	-0.01	5.0264	-10.1934	-0.0874	0.2874	0.0365	0.3917	0.1858	0.2059	-2.0280
16	21.07	-0.01	5.3712	-10.7898	-0.0945	0.3307	0.0383	0.4053	0.1923	0.2130	-2.0088
17	22.09	-0.01	5.7253	-11.3586	-0.0514	0.2291	0.0342	0.4109	0.2090	0.2019	-1.9839
18	23.13	-0.01	6.0858	-11.8669	-0.0023	0.1473	0.0222	0.4114	0.2240	0.1874	-1.9499
19	24.14	-0.01	6.4628	-12.3813	0.0600	0.0196	0.0273	0.4035	0.2389	0.1646	-1.9158
20	25.21	-0.01	6.8168	-12.7423	0.1074	-0.0552	0.0484	0.4025	0.2406	0.1619	-1.8693
21	26.20	-0.01	7.1095	-12.9965	0.1362	-0.0784	0.0804	0.3936	0.2579	0.1357	-1.8280
22	27.24	-0.00	7.4190	-13.2041	0.1522	-0.1239	0.1163	0.3854	0.2664	0.1190	-1.7798
23	27.26	-0.01	7.5412	-13.7821	0.1507	-0.0892	0.0976	0.3970	0.2527	0.1443	-1.7613
24	28.32	-0.00	7.8820	-13.5072	0.1920	-0.1718	0.1471	0.3813	0.2773	0.1039	-1.7137
25	28.32	-0.00	7.8843	-13.4972	0.1862	-0.1655	0.1402	0.3803	0.2721	0.1082	-1.7119
26	29.38	-0.01	8.3416	-13.7010	0.1045	-0.0020	0.1016	0.3608	0.2734	0.0875	-1.6425
27	30.45	-0.01	8.7236	-13.8220	0.1149	0.0295	0.0852	0.3474	0.2741	0.0733	-1.5844
28	20.11	-0.00	5.0617	-10.3677	-0.0860	0.2676	0.0333	0.3589	0.2542	0.1047	-2.8443
29	10.09	-0.01	1.9824	-3.7083	-0.0117	0.0837	-0.0180	0.2941	0.1737	0.1204	-1.8766
30	-0.00	-0.00	0.0520	-0.1457	-0.0168	0.0468	-0.0144	0.2448	0.0766	0.1682	-2.8033

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RK10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 144 0.98 2.3 0.0 840F32 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	-0.00	0.0510	-0.1392	-0.0143	0.0391	-0.0143	0.2730	0.0803	0.1927	-2.7286
2	7.06	-0.00	0.3194	-0.4471	-0.0149	0.0509	-0.0163	0.2814	0.0851	0.1963	-1.3999
3	4.04	-0.00	0.6352	-0.9466	-0.0157	0.0600	-0.0164	0.2970	0.0880	0.2091	-1.4906
4	6.04	-0.00	1.0149	-1.6405	-0.0104	0.0697	-0.0149	0.3039	0.1015	0.2023	-1.6164
5	8.07	-0.01	1.4941	-2.6998	-0.0109	0.0899	-0.0146	0.3314	0.1039	0.2274	-1.8070
6	10.07	-0.01	2.0342	-3.8578	-0.0155	0.1055	-0.0129	0.3423	0.1225	0.2197	-1.8965
7	12.06	-0.01	2.5925	-5.1701	-0.0173	0.1061	-0.0079	0.3670	0.1234	0.2436	-1.9942
8	14.06	-0.01	3.1765	-6.5086	-0.0263	0.1230	-0.0122	0.3843	0.1438	0.2405	-2.0477
9	16.05	-0.01	3.7569	-7.7270	-0.0390	0.1428	-0.0027	0.4023	0.1624	0.2399	-2.0548
10	17.07	-0.00	4.1037	-8.4319	-0.0469	0.1548	0.0114	0.4119	0.1682	0.2438	-2.0547
11	18.11	-0.00	4.3974	-9.0137	-0.0587	0.1843	0.0179	0.4199	0.1775	0.2425	-2.0498
12	19.07	-0.00	4.7732	-9.7537	-0.0611	0.2010	0.0211	0.4324	0.1808	0.2515	-2.0434
13	20.07	-0.01	5.1033	-10.3514	-0.0570	0.2214	0.0228	0.4331	0.2020	0.2311	-2.0285
14	21.13	-0.01	5.4629	-10.9252	-0.0436	0.2315	0.0244	0.4453	0.2184	0.2269	-1.9999
15	22.12	-0.01	5.8194	-11.4735	-0.0000	0.1772	0.0285	0.4332	0.2685	0.1647	-1.9714
16	23.13	-0.01	6.2602	-12.0728	0.0283	0.1362	0.0279	0.4531	0.2661	0.1870	-1.9285
17	24.19	-0.01	6.6161	-12.5466	0.0567	0.0743	0.0303	0.4357	0.2687	0.1669	-1.8961
18	25.22	-0.01	6.9936	-12.9437	0.0626	0.0531	0.0326	0.4305	0.2640	0.1665	-1.8508
19	26.23	-0.01	7.4356	-13.3441	0.1047	-0.0202	0.0397	0.4324	0.2541	0.1783	-1.7946
20	27.29	-0.01	7.7976	-13.5770	0.1071	-0.0165	0.0401	0.4143	0.2677	0.1466	-1.7412
21	28.34	-0.02	8.2634	-13.8026	0.0890	0.0725	0.0366	0.4048	0.2656	0.1392	-1.6703
22	29.38	-0.02	8.6227	-13.8547	0.0511	0.1582	0.0204	0.3840	0.2696	0.1144	-1.6068
23	30.54	-0.02	9.0357	-13.8839	0.0439	0.1158	0.0236	0.3671	0.2799	0.0872	-1.5366
24	20.08	-0.01	5.1439	-10.4859	-0.0441	0.1827	0.0116	0.4120	0.2709	0.1411	-2.0385
25	10.03	-0.00	2.0162	-3.9530	-0.0104	0.0728	-0.0145	0.3157	0.2001	0.1156	-1.9606
26	10.04	-0.00	2.0047	-3.8634	-0.0126	0.0783	-0.0114	0.3207	0.1589	0.1618	-1.9224
27	10.03	-0.01	2.0440	-4.0010	-0.0118	0.0749	-0.0112	0.3388	0.1358	0.2030	-1.9577
28	-0.00	-0.00	0.0535	-0.1620	-0.0154	0.0350	-0.0096	0.2679	0.0867	0.1811	-3.0277

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TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 150 1.10 2.3 0.0 84WOF32 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	-0.00	0.0028	-0.0319	-0.0322	0.1153	-0.0130	0.5047	0.1516	0.3531	-1.2488
2	2.02	-0.01	0.2817	-0.3972	-0.0323	0.1271	-0.0061	0.5177	0.1645	0.3532	-1.4104
3	4.04	-0.01	0.6022	-0.9081	-0.0274	0.1267	-0.0063	0.5348	0.1657	0.3691	-1.5088
4	6.03	-0.01	1.0014	-1.6926	-0.0302	0.1453	-0.0062	0.5570	0.1729	0.3842	-1.6982
5	8.04	-0.01	1.4517	-2.6178	-0.0279	0.1377	-0.0049	0.5876	0.1790	0.4086	-1.8933
6	8.03	-0.01	1.4611	-2.6878	-0.0326	0.1546	-0.0047	0.5790	0.1953	0.3837	-1.8395
7	10.02	-0.01	1.9599	-3.7560	-0.0289	0.1645	-0.0030	0.6030	0.2085	0.3945	-1.9164
8	12.06	-0.01	2.4974	-4.8874	-0.0245	0.1538	0.0013	0.6172	0.2165	0.4007	-1.9578
9	14.04	-0.01	3.0517	-6.0065	-0.0270	0.1447	0.0069	0.6304	0.2238	0.4065	-1.9682
10	16.05	-0.00	3.6286	-7.1719	-0.0485	0.1690	0.0213	0.6507	0.2356	0.4151	-1.9765
11	17.06	-0.01	3.9653	-7.8257	-0.0645	0.2355	0.0175	0.6594	0.2486	0.4108	-1.9735
12	18.08	-0.01	4.2791	-8.3480	-0.0694	0.2389	0.0201	0.6682	0.2462	0.4220	-1.9509
13	19.04	-0.01	4.5979	-8.8601	-0.0700	0.2356	0.0270	0.6768	0.2589	0.4179	-1.9278
14	20.09	-0.01	4.9330	-9.3715	-0.0633	0.2353	0.0253	0.6786	0.2664	0.4122	-1.8998
15	21.13	-0.01	5.3155	-9.8719	-0.0499	0.2070	0.0264	0.6763	0.2811	0.3952	-1.8768
16	22.17	-0.01	5.6786	-10.4744	-0.0340	0.1975	0.0261	0.6733	0.2896	0.3837	-1.8445
17	22.19	-0.01	5.7286	-10.4428	-0.0320	0.2415	0.0033	0.6611	0.2816	0.3795	-1.8229
18	23.19	-0.02	6.0991	-10.8430	-0.0191	0.2263	0.0013	0.6555	0.2911	0.3643	-1.7778
19	24.27	-0.02	6.5084	-11.3364	-0.0287	0.2567	-0.0005	0.6550	0.2951	0.3599	-1.7418
20	25.27	-0.02	6.9262	-11.7881	-0.0326	0.2612	-0.0011	0.6471	0.2953	0.3518	-1.7028
21	26.30	-0.01	7.3167	-12.2157	0.0315	0.1068	0.0174	0.6401	0.3110	0.3291	-1.6696
22	27.36	-0.01	7.7338	-12.5871	0.0563	0.0354	0.0204	0.6223	0.3037	0.3186	-1.6275
23	28.39	-0.01	8.1631	-12.9370	0.0506	0.0435	0.0224	0.6093	0.2985	0.3108	-1.5848
24	29.46	-0.01	8.5864	-13.2743	0.0536	0.0444	0.0217	0.5966	0.3016	0.2950	-1.5468
25	30.56	-0.01	9.0266	-13.5950	-0.0058	0.1669	0.0101	0.5818	0.3029	0.2789	-1.5062
26	20.11	-0.01	5.0015	-9.5940	-0.0520	0.2154	0.0198	0.6347	0.3019	0.3328	-1.9182
27	10.03	-0.01	1.9943	-3.9051	-0.0277	0.1207	0.0068	0.5749	0.2716	0.3032	-1.9582
28	-0.00	-0.00	0.0056	-0.0364	-0.0207	0.0453	0.0080	0.5099	0.1984	0.3114	-8.5374

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RK10-6 PH1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 151 1.20 2.3 0.0 040F32 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
0	0.00	0.00	-0.0222	0.0658	-0.0079	0.0016	0.0138	0.5370	0.1782	0.3588	-2.9578
1	0.00	0.00	-0.0203	0.0629	-0.0078	0.0032	0.0152	0.5372	0.1839	0.3533	-3.0976
2	0.00	0.00	-0.0223	0.0624	-0.0079	0.0049	0.0180	0.5390	0.1843	0.3546	-2.8032
3	2.04	0.00	0.2788	-0.3611	-0.0094	0.0181	0.0191	0.5466	0.1786	0.3680	-1.2951
4	2.04	0.00	0.2714	-0.3301	-0.0095	0.0200	0.0192	0.5454	0.1867	0.3587	-1.2161
5	3.00	-0.00	0.4190	-0.5508	-0.0108	0.0256	0.0191	0.5480	0.1851	0.3629	-1.3147
6	4.05	-0.00	0.6034	-0.8659	-0.0059	0.0237	0.0204	0.5529	0.1894	0.3634	-1.4351
7	6.06	0.00	1.0042	-1.6441	-0.0157	0.0377	0.0245	0.5779	0.1899	0.3879	-1.6372
8	8.03	-0.00	1.4473	-2.5420	-0.0124	0.0442	0.0246	0.6008	0.1959	0.4050	-1.7563
9	10.06	-0.00	1.9396	-3.5628	-0.0047	0.0456	0.0247	0.6175	0.2041	0.4134	-1.8368
10	12.06	-0.00	2.4638	-4.6064	-0.0044	0.0481	0.0260	0.6297	0.2128	0.4169	-1.8694
11	14.07	-0.00	3.0222	-5.6825	-0.0017	0.0523	0.0273	0.6369	0.2211	0.4158	-1.8883
12	16.12	-0.00	3.6305	-6.7589	-0.0130	0.0678	0.0340	0.6464	0.2266	0.4197	-1.8617
13	16.12	-0.00	3.6358	-6.7780	-0.0130	0.0678	0.0340	0.6430	0.2352	0.4078	-1.8642
14	16.12	-0.00	3.6511	-6.8083	-0.0091	0.0640	0.0355	0.6442	0.2393	0.4049	-1.8647
15	17.11	-0.00	3.9332	-7.2507	-0.0153	0.0734	0.0365	0.6475	0.2403	0.4071	-1.8435
16	18.14	-0.00	4.2773	-7.7749	-0.0259	0.1181	0.0285	0.6525	0.2468	0.4057	-1.8177
17	19.15	-0.00	4.6302	-8.2259	-0.0403	0.1538	0.0255	0.6546	0.2485	0.4061	-1.7766
18	20.21	-0.01	5.0144	-8.6718	-0.0296	0.1468	0.0181	0.6547	0.2517	0.4035	-1.7294
19	21.23	-0.01	5.3937	-9.0728	-0.0224	0.1260	0.0228	0.6493	0.2546	0.3947	-1.6821
20	22.28	-0.01	5.7989	-9.4694	-0.0189	0.1177	0.0234	0.6465	0.2558	0.3907	-1.6338
21	23.32	-0.01	6.2101	-9.9137	0.0053	0.0917	0.0255	0.6433	0.2589	0.3845	-1.5964
22	24.39	-0.01	6.6145	-10.3545	0.0264	0.0617	0.0289	0.6413	0.2668	0.3745	-1.5654
23	25.38	-0.01	7.0073	-10.7785	0.0541	0.0239	0.0309	0.6411	0.2721	0.3690	-1.5382
24	26.45	-0.01	7.4468	-11.1804	0.0821	-0.0358	0.0353	0.6333	0.2753	0.3579	-1.5014
25	27.49	-0.01	7.8726	-11.5821	0.1252	-0.1197	0.0395	0.6272	0.2784	0.3488	-1.4712
26	28.55	-0.01	8.2999	-11.9899	0.1126	-0.0800	0.0360	0.6225	0.2849	0.3376	-1.4444
27	29.60	-0.01	8.7298	-12.4024	0.1359	-0.1337	0.0415	0.6149	0.2874	0.3275	-1.4207
28	30.66	-0.01	9.1858	-12.8277	0.1824	-0.2177	0.0456	0.6233	0.2895	0.3338	-1.3965
29	22.27	-0.01	5.8060	-9.5441	-0.0092	0.1001	0.0249	0.6256	0.2834	0.3422	-1.6438
30	10.05	-0.00	1.9548	-3.6408	-0.0063	0.0422	0.0329	0.6009	0.2534	0.3475	-1.8625
31	-0.00	0.00	-0.0141	0.0301	-0.0051	-0.0125	0.0317	0.5323	0.2045	0.3278	-2.1353

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TEST PART		MACH		RX10-6		PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
1		152	1.30	2.3		0.0	0400F32	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	Ca	Ca0	CAF	XCP		
1	0.00	0.00	-0.0178	0.0581	-0.0134	-0.0126	0.0348	0.5198	0.1863	0.3335	-3.2617		
2	2.05	-0.00	0.2744	-0.3240	0.0001	0.0077	0.0361	0.5245	0.1877	0.3368	-1.1790		
3	4.02	0.00	0.5974	-0.4385	-0.0086	0.0161	0.0372	0.5323	0.1883	0.3440	-1.4036		
4	6.04	-0.00	0.9863	-1.5552	-0.0032	0.0261	0.0372	0.5575	0.1891	0.3483	-1.5768		
5	8.05	-0.00	1.4320	-2.4443	-0.0064	0.0466	0.0360	0.5805	0.1930	0.3875	-1.7069		
6	10.04	-0.00	1.8968	-3.3621	-0.0131	0.0611	0.0361	0.5963	0.2006	0.3957	-1.7707		
7	12.07	-0.00	2.4277	-4.3571	-0.0033	0.0533	0.0372	0.6052	0.2090	0.3962	-1.7947		
8	14.10	-0.00	2.9758	-5.3381	-0.0028	0.0516	0.0397	0.6096	0.2163	0.3934	-1.7920		
9	16.15	-0.00	3.5537	-6.2402	-0.0031	0.0535	0.0433	0.6232	0.2222	0.4010	-1.7560		
10	17.15	-0.00	3.8958	-6.6455	-0.0060	0.0607	0.0457	0.6223	0.2226	0.3997	-1.7186		
11	18.17	0.00	4.2516	-7.1087	-0.0126	0.0625	0.0477	0.6234	0.2269	0.3965	-1.6720		
12	19.25	-0.00	4.6488	-7.5505	-0.0114	0.0822	0.0434	0.6277	0.2321	0.3956	-1.6278		
13	20.24	-0.00	5.0026	-7.9370	-0.0142	0.0915	0.0402	0.6284	0.2352	0.3932	-1.5866		
14	21.31	-0.01	5.3943	-8.3552	-0.0082	0.1060	0.0371	0.6287	0.2418	0.3868	-1.5489		
15	22.35	-0.01	5.7759	-8.7424	-0.0062	0.1071	0.0311	0.6302	0.2470	0.3832	-1.5136		
16	23.40	-0.01	6.1798	-9.1567	0.0060	0.0973	0.0331	0.6346	0.2549	0.3797	-1.4817		
17	24.46	-0.01	6.5773	-9.5318	0.0258	0.0518	0.0360	0.6337	0.2579	0.3758	-1.4492		
18	25.51	-0.00	6.9595	-9.8653	0.0474	0.0011	0.0414	0.6317	0.2638	0.3679	-1.4178		
19	26.54	-0.00	7.3699	-10.2272	0.0775	-0.0603	0.0494	0.6326	0.2684	0.3642	-1.3877		
20	27.58	-0.00	7.8005	-10.6185	0.0967	-0.1056	0.0561	0.6330	0.2738	0.3592	-1.3613		
21	28.62	-0.00	8.2173	-11.0104	0.1075	-0.1166	0.0523	0.6356	0.2781	0.3576	-1.3399		
22	29.68	-0.01	8.6433	-11.4377	0.0982	-0.0740	0.0450	0.6375	0.2802	0.3573	-1.3233		
23	30.74	-0.01	9.0605	-11.8701	0.0980	-0.0646	0.0457	0.6439	0.2857	0.3582	-1.3101		
24	20.28	-0.00	5.0181	-7.9860	-0.0121	0.0868	0.0429	0.6085	0.2865	0.3219	-1.5914		
25	10.07	-0.00	1.9176	-3.4366	-0.0026	0.0503	0.0388	0.5881	0.2561	0.3320	-1.7932		
26	0.00	0.00	-0.0121	0.0430	-0.0096	-0.0101	0.0389	0.5207	0.2251	0.2955	-3.5678		

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 15A 0.60 2.3 0.0 0.400F31 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-0.00	0.00	0.0180	-0.0392	-0.0073	0.0018	-0.0170	0.2626	0.1157	0.1469	-2.1841
2	0.00	0.00	0.0307	-0.0403	-0.0098	0.0055	-0.0170	0.2644	0.0739	0.1905	-1.3148
3	2.01	0.00	0.2829	-0.3593	-0.0058	0.0053	-0.0210	0.2692	0.1083	0.1610	-1.2698
4	4.01	0.00	0.4006	-0.4975	-0.0048	0.0043	-0.0265	0.2752	0.0834	0.1917	-1.4943
5	6.05	0.00	1.0017	-1.6785	-0.0029	-0.0031	-0.0287	0.2908	0.0996	0.1911	-1.6757
6	8.05	0.00	1.4406	-2.5109	-0.0002	-0.0119	-0.0342	0.3159	0.1107	0.2052	-1.8124
7	10.02	0.00	1.9388	-3.6717	0.0067	-0.0380	-0.0309	0.3470	0.1218	0.2252	-1.8938
8	12.03	0.00	2.4726	-4.8128	0.0078	-0.0750	-0.0294	0.3714	0.1315	0.2399	-1.9463
9	14.02	0.00	3.0282	-5.9961	0.0092	-0.1058	-0.0333	0.3944	0.1430	0.2513	-1.9881
10	16.04	0.01	3.6481	-7.2953	0.0038	-0.1288	-0.0209	0.4228	0.1569	0.2659	-1.9998
11	17.06	0.01	3.9856	-7.9708	0.0034	-0.1428	-0.0139	0.4364	0.1736	0.2628	-2.0188
12	18.06	0.01	4.2905	-8.6317	0.0045	-0.1620	-0.0069	0.4528	0.1845	0.2683	-2.0118
13	19.04	0.01	4.6063	-9.2894	0.0096	-0.1725	-0.0051	0.4660	0.1776	0.2884	-2.0167
14	19.04	0.01	4.6165	-9.3231	0.0046	-0.1603	-0.0050	0.4544	0.2163	0.2386	-2.0195
15	20.08	0.01	4.9391	-9.9467	0.0020	-0.1566	-0.0033	0.4849	0.2218	0.2631	-2.0139
16	21.07	0.01	5.2518	-10.5450	0.0048	-0.1404	-0.0122	0.4838	0.2252	0.2586	-2.0079
17	22.09	0.01	5.5481	-11.0706	0.0004	-0.1127	-0.0176	0.4912	0.2357	0.2555	-1.9954
18	23.10	0.00	5.8581	-11.5230	0.0107	-0.0719	-0.0190	0.4980	0.2458	0.2522	-1.9878
19	24.07	0.00	6.1009	-11.8285	0.0142	-0.1193	-0.0272	0.5051	0.2603	0.2448	-1.9388
20	25.10	0.00	6.3836	-12.2503	0.0811	-0.2193	-0.0298	0.5134	0.2714	0.2420	-1.9192
21	26.12	-0.00	6.7348	-12.7820	0.1719	-0.3677	-0.0198	0.5161	0.2796	0.2365	-1.8979
22	27.14	-0.00	7.0770	-13.3430	0.2605	-0.5275	-0.0065	0.5108	0.3031	0.2076	-1.8854
23	28.17	-0.00	7.3109	-13.5426	0.4740	-0.9336	0.0337	0.4940	0.2986	0.1954	-1.8524
24	28.17	0.00	7.3313	-13.5878	0.4609	-0.9104	0.0356	0.4914	0.3084	0.1830	-1.8534
25	28.17	0.00	7.3261	-13.6051	0.4513	-0.8890	0.0342	0.4849	0.3129	0.1719	-1.8571
26	29.21	0.00	7.6011	-13.9214	0.4689	-0.9551	0.0641	0.4818	0.3167	0.1650	-1.8315
27	30.21	0.00	7.8535	-14.1234	0.6268	-1.2002	0.1060	0.4726	0.3247	0.1479	-1.7984
28	20.06	0.01	4.9762	-10.1530	-0.0120	-0.0762	0.0016	0.4036	0.2281	0.1755	-2.0403
29	10.02	-0.00	1.9602	-3.8142	-0.0036	0.0305	-0.0297	0.2941	0.1438	0.1502	-1.9458
30	-0.00	-0.00	0.0309	-0.1065	-0.0119	0.0299	-0.0165	0.2367	0.0872	0.1496	-3.4464

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TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 157 0.85 2.3 0.0 B4W0F31 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	-0.00	0.0299	-0.0946	-0.0104	0.0252	-0.0161	0.2444	0.0793	0.1651	-3.1655
2	2.01	-0.00	0.2416	-0.4162	-0.0101	0.0281	-0.0217	0.2499	0.0921	0.1577	-1.4274
3	4.04	-0.00	0.6208	-0.9776	-0.0088	0.0309	-0.0253	0.2569	0.0964	0.1605	-1.5747
4	6.02	-0.00	1.0137	-1.7533	-0.0069	0.0279	-0.0273	0.2700	0.1036	0.1664	-1.7296
5	8.02	-0.00	1.4596	-2.6988	-0.0052	0.0227	-0.0308	0.2942	0.1091	0.1851	-1.8499
6	10.01	-0.00	1.9585	-3.7829	-0.0019	0.0087	-0.0293	0.3184	0.1230	0.1954	-1.9315
7	12.03	-0.00	2.5132	-4.9846	0.0021	-0.0191	-0.0295	0.3413	0.1360	0.2053	-1.9834
8	14.03	0.00	3.0555	-6.1405	-0.0004	-0.0460	-0.0317	0.3633	0.1456	0.2176	-2.0097
9	16.06	0.00	3.6920	-7.4863	-0.0063	-0.0653	-0.0195	0.3861	0.1573	0.2298	-2.0278
10	17.05	0.01	4.0125	-8.1555	-0.0064	-0.0783	-0.0126	0.4027	0.1691	0.2336	-2.0325
11	18.03	0.01	4.3162	-8.7706	-0.0048	-0.0945	-0.0058	0.4181	0.1684	0.2497	-2.0320
12	19.07	0.01	4.6670	-9.4848	-0.0034	-0.1117	-0.0060	0.4429	0.1860	0.2569	-2.0323
13	20.06	0.01	4.9818	-10.1030	-0.0014	-0.1073	-0.0060	0.4580	0.2087	0.2493	-2.0280
14	21.03	0.01	5.2814	-10.6537	0.0009	-0.1042	-0.0079	0.4632	0.2231	0.2401	-2.0172
15	21.03	0.01	5.3109	-10.7438	0.0002	-0.1051	-0.0078	0.4582	0.2192	0.2390	-2.0238
16	22.06	0.01	5.6459	-11.3134	-0.0035	-0.0807	-0.0095	0.4637	0.2368	0.2269	-2.0038
17	23.06	0.00	5.9245	-11.7055	0.0084	-0.0673	-0.0095	0.4759	0.2408	0.2351	-1.9758
18	24.10	0.00	6.2238	-12.1230	0.0259	-0.0982	-0.0083	0.4845	0.2577	0.2268	-1.9478
19	24.10	0.00	6.2089	-12.1067	0.0222	-0.0928	-0.0065	0.4783	0.2631	0.2152	-1.9499
20	25.13	0.00	6.4958	-12.4977	0.0956	-0.2258	-0.0147	0.4861	0.2767	0.2093	-1.9240
21	26.13	-0.00	6.8145	-12.9055	0.1432	-0.2947	0.0004	0.4994	0.2669	0.2325	-1.8938
22	27.14	0.00	7.1130	-13.3067	0.3527	-0.7046	0.0358	0.4871	0.2835	0.2036	-1.8710
23	28.20	0.01	7.2990	-13.3616	0.6580	-1.3464	0.1068	0.4696	0.2820	0.1876	-1.8306
24	28.19	0.01	7.3408	-13.4605	0.6510	-1.3295	0.1034	0.4718	0.3296	0.1422	-1.8337
25	29.18	0.01	7.6022	-13.7594	0.6766	-1.3615	0.1277	0.4603	0.3318	0.1365	-1.8099
26	30.23	0.01	7.8793	-14.0473	0.6588	-1.3149	0.1540	0.4614	0.3328	0.1287	-1.7828
27	20.06	0.01	5.0009	-10.2311	-0.0053	-0.0681	-0.0035	0.4018	0.2450	0.1568	-2.0459
28	10.04	-0.00	1.9801	-3.8861	-0.0064	0.0400	-0.0289	0.2957	0.1774	0.1182	-1.9626
29	10.04	-0.00	1.9861	-3.8847	-0.0050	0.0359	-0.0289	0.2979	0.1521	0.1458	-1.9579
30	-0.00	-0.00	0.0375	-0.1147	-0.0115	0.0332	-0.0143	0.2388	0.0952	0.1436	-3.8561

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL (6T)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	150	0.92	2.3	0.0	BAWDF31	0.0	0	0	0	0 UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-0.00	-0.00	0.0326	-0.0992	-0.0096	0.0254	-0.0167	0.2439	0.0053	0.1585	-3.0443
2	2.01	-0.00	0.2889	-0.4170	-0.0138	0.0346	-0.0203	0.2490	0.0927	0.1563	-1.4430
3	4.03	-0.00	0.6300	-1.0029	-0.0077	0.0359	-0.0237	0.2592	0.0824	0.1768	-1.5919
4	6.02	-0.00	1.0280	-1.6019	-0.0067	0.0284	-0.0273	0.2701	0.1058	0.1643	-1.7529
5	6.02	-0.00	1.0315	-1.6087	-0.0076	0.0354	-0.0254	0.2709	0.0951	0.1758	-1.7530
6	8.01	-0.00	1.4915	-2.0064	-0.0079	0.0332	-0.0320	0.2959	0.1103	0.1856	-1.8816
7	10.05	-0.00	2.0184	-3.0013	-0.0005	0.0193	-0.0304	0.3227	0.1175	0.2052	-1.9725
8	12.01	-0.00	2.5453	-5.1316	0.0033	-0.0127	-0.0306	0.3462	0.1316	0.2146	-2.0162
9	14.02	0.00	3.1396	-6.4367	0.0012	-0.0284	-0.0356	0.3648	0.1470	0.2178	-2.0582
10	17.05	0.00	4.0811	-8.4335	-0.0047	-0.0541	-0.0178	0.4119	0.1708	0.2411	-2.0665
11	18.04	0.01	4.4310	-9.1333	-0.0115	-0.0627	-0.0083	0.4328	0.1868	0.2460	-2.0612
12	19.06	0.01	4.7349	-9.7675	-0.0090	-0.0744	-0.0101	0.4519	0.1984	0.2535	-2.0612
13	20.03	0.01	5.0857	-10.4267	-0.0039	-0.0720	-0.0151	0.4769	0.2055	0.2713	-2.0592
14	21.05	0.00	5.4044	-11.0020	0.0053	-0.0754	-0.0168	0.4822	0.2176	0.2646	-2.0357
15	22.06	0.00	5.7224	-11.5314	0.0124	-0.0911	-0.0186	0.4934	0.2285	0.2649	-2.0151
16	23.10	0.00	6.0561	-12.0342	0.0193	-0.0845	-0.0189	0.5032	0.2345	0.2687	-1.9871
17	24.11	-0.00	6.3695	-12.4245	0.0321	-0.0601	-0.0222	0.5073	0.2412	0.2660	-1.9506
18	25.13	-0.00	6.6381	-12.7467	0.1039	-0.1927	-0.0085	0.5016	0.2599	0.2417	-1.9205
19	26.16	0.00	7.0061	-13.2015	0.1667	-0.3475	0.0047	0.4973	0.2689	0.2284	-1.8843
20	27.20	0.00	7.3031	-13.4594	0.2675	-0.5475	0.0491	0.4866	0.2804	0.2062	-1.8438
21	27.20	0.00	7.2970	-13.4202	0.2692	-0.5583	0.0485	0.4792	0.2785	0.2006	-1.8391
22	28.21	0.01	7.6778	-13.6813	0.3521	-0.7692	0.0753	0.4603	0.2778	0.1825	-1.7819
23	29.28	0.01	8.0922	-13.8997	0.4058	-0.8729	0.0951	0.4336	0.2845	0.1491	-1.7177
24	30.35	0.01	8.4847	-14.0762	0.4313	-0.9238	0.1250	0.4126	0.2870	0.1255	-1.6503
25	20.04	0.00	5.0869	-10.5422	-0.0069	-0.0290	-0.0110	0.4123	0.2687	0.1436	-2.0716
26	10.03	-0.00	2.0243	-4.0393	-0.0037	0.0433	-0.0300	0.3009	0.1822	0.1187	-1.9954
27	-0.00	-0.00	0.0374	-0.1185	-0.0084	0.0314	-0.0158	0.2351	0.1055	0.1296	-3.1667

TEST PART MACH RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 159 0.96 2.3 0.0 M40F31 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	KCP
1	-0.00	-0.00	0.0336	-0.0988	-0.0093	0.0263	-0.0166	0.2826	0.1035	0.1791	-2.9432
2	-0.00	-0.00	0.0313	-0.0954	-0.0082	0.0265	-0.0145	0.2811	0.1026	0.1785	-3.0464
3	-0.00	-0.00	0.0334	-0.0945	-0.0081	0.0278	-0.0145	0.2838	0.0941	0.1897	-2.8294
4	2.03	-0.00	0.3028	-0.4416	-0.0086	0.0303	-0.0196	0.2863	0.0985	0.1878	-1.4585
5	4.03	-0.00	0.6520	-1.0596	-0.0091	0.0352	-0.0246	0.2923	0.0973	0.1950	-1.6251
6	4.03	-0.00	0.6512	-1.0652	-0.0068	0.0353	-0.0234	0.3009	0.0964	0.2044	-1.6357
7	6.01	-0.00	1.0694	-1.9261	-0.0031	0.0333	-0.0276	0.3183	0.1026	0.2156	-1.8011
8	8.02	-0.00	1.5488	-2.9876	-0.0051	0.0317	-0.0309	0.3376	0.1203	0.2173	-1.9290
9	8.02	-0.00	1.5603	-3.0424	-0.0004	0.0317	-0.0336	0.3518	0.1145	0.2372	-1.9502
10	10.03	-0.00	2.0964	-4.2632	0.0015	0.0127	-0.0306	0.3721	0.1321	0.2400	-2.0336
11	12.00	-0.00	2.6614	-5.5087	0.0048	-0.0064	-0.0323	0.3944	0.1422	0.2521	-2.0699
12	14.03	0.00	3.2733	-6.8535	0.0021	-0.0263	-0.0356	0.4141	0.1533	0.2608	-2.0938
13	16.01	0.00	3.8858	-8.1606	0.0039	-0.0466	-0.0278	0.4492	0.1660	0.2832	-2.1001
14	17.04	0.00	4.2156	-8.8434	-0.0022	-0.0457	-0.0248	0.4670	0.1859	0.2811	-2.0979
15	18.03	0.00	4.5444	-9.5171	-0.0060	-0.0479	-0.0202	0.4904	0.1985	0.2919	-2.0919
16	19.03	0.00	4.8860	-10.1425	-0.0032	-0.0537	-0.0235	0.5100	0.2123	0.2976	-2.0758
17	20.06	0.00	5.2393	-10.7725	0.0203	-0.0875	-0.0302	0.5326	0.2172	0.3154	-2.0561
18	21.07	0.00	5.5842	-11.3394	0.0457	-0.1315	-0.0355	0.5349	0.2341	0.3007	-2.0306
19	21.08	0.00	5.6180	-11.3716	0.0537	-0.1446	-0.0355	0.5417	0.2356	0.3062	-2.0242
20	22.08	-0.00	5.9650	-11.8814	0.0463	-0.2281	-0.0348	0.5441	0.2549	0.2892	-1.9919
21	23.13	0.00	6.3198	-12.3246	0.1117	-0.2714	-0.0309	0.5502	0.2560	0.2942	-1.9502
22	24.14	0.00	6.7070	-12.7444	0.1222	-0.2882	-0.0221	0.5552	0.2615	0.2937	-1.9082
23	25.19	0.00	7.0734	-13.0847	0.1376	-0.3114	-0.0181	0.5419	0.2630	0.2789	-1.8497
24	26.22	0.00	7.4576	-13.3731	0.1455	-0.3309	-0.0190	0.5247	0.2713	0.2534	-1.7932
25	27.26	0.00	7.8317	-13.6476	0.1785	-0.4122	-0.0268	0.5003	0.2769	0.2233	-1.7426
26	27.29	-0.00	7.8800	-13.6343	0.1593	-0.3435	-0.0310	0.5114	0.2660	0.2454	-1.7302
27	28.33	-0.00	8.2813	-13.7620	0.1758	-0.3705	-0.0386	0.4833	0.2742	0.2091	-1.6619
28	29.40	-0.01	8.7259	-13.8951	0.1942	-0.3814	-0.0367	0.4560	0.2771	0.1789	-1.5924
29	30.47	-0.00	9.0861	-13.9931	0.2904	-0.5489	-0.0039	0.4291	0.2842	0.1448	-1.5401
30	20.05	-0.00	5.2639	-10.8756	0.0164	-0.0574	-0.0296	0.4921	0.2600	0.2322	-2.0661
31	10.01	-0.00	2.1162	-4.3515	-0.0067	0.0430	-0.0302	0.3523	0.1894	0.1629	-2.0563
32	-0.00	0.00	0.0358	-0.1136	-0.0169	0.0335	-0.0145	0.2770	0.1166	0.1604	-3.1698

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
 PAGE 1 OF 1
 SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 160 1.10 2.3 0.0 B4=0F31 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	0.00	-0.00	0.0159	-0.0267	-0.0169	0.0562	-0.0139	0.4924	0.2223	0.2701	-1.6792
3	2.02	-0.00	0.2991	-0.4262	-0.0193	0.0717	-0.0180	0.4966	0.2052	0.2914	-1.4248
4	2.02	-0.00	0.2961	-0.4250	-0.0180	0.0674	-0.0163	0.4957	0.1962	0.2995	-1.4256
5	2.02	-0.00	0.2966	-0.4364	-0.0219	0.0864	-0.0168	0.4909	0.1877	0.3032	-1.4714
6	4.04	-0.00	0.6536	-1.0728	-0.0149	0.0643	-0.0200	0.5033	0.1799	0.3234	-1.6414
7	6.01	-0.01	1.0624	-1.9232	-0.0200	0.0960	-0.0212	0.5295	0.1790	0.3505	-1.8102
8	6.01	-0.00	1.0643	-1.4252	-0.0130	0.0668	-0.0230	0.5251	0.1951	0.3299	-1.8022
9	8.02	-0.01	1.5434	-2.9661	-0.0154	0.0815	-0.0301	0.5557	0.2128	0.3429	-1.9218
10	10.01	-0.01	2.0657	-4.1512	-0.0082	0.0662	-0.0271	0.5858	0.2239	0.3619	-2.0096
11	12.02	-0.00	2.6061	-5.3042	-0.0039	0.0468	-0.0316	0.6118	0.2369	0.3748	-2.0368
12	14.02	-0.00	3.1707	-6.4381	-0.0016	0.0098	-0.0276	0.6358	0.2455	0.3903	-2.0305
13	16.05	0.00	3.7666	-7.5580	-0.0031	-0.0139	-0.0193	0.6717	0.2572	0.4145	-2.0066
14	17.04	0.00	4.0662	-8.0987	-0.0057	-0.0220	-0.0137	0.6824	0.2721	0.4103	-1.9917
15	18.06	0.00	4.3832	-8.6209	-0.0083	-0.0125	-0.0183	0.6984	0.2756	0.4227	-1.9668
16	19.07	0.00	4.7036	-9.1272	-0.0220	0.0204	-0.0154	0.7112	0.2849	0.4263	-1.9405
17	20.13	-0.00	5.0390	-9.6111	-0.0022	-0.0090	-0.0217	0.7214	0.2937	0.4277	-1.9074
18	21.14	-0.00	5.3808	-10.0634	0.0205	-0.0423	-0.0237	0.7233	0.2983	0.4251	-1.8702
19	22.17	-0.01	5.7578	-10.4957	0.0386	-0.0474	-0.0329	0.7130	0.2992	0.4138	-1.8229
20	23.22	-0.01	6.1531	-10.8842	0.0476	-0.0348	-0.0451	0.7057	0.3022	0.4035	-1.7689
21	24.25	-0.01	6.5329	-11.2388	0.0433	-0.0246	-0.0502	0.6995	0.3065	0.3930	-1.7203
22	25.30	-0.01	6.9274	-11.5856	0.0219	0.0182	-0.0477	0.6945	0.3078	0.3867	-1.6724
23	26.34	-0.00	7.3157	-11.9117	0.0474	-0.1549	-0.0234	0.6889	0.3140	0.3750	-1.6282
24	27.39	-0.00	7.6930	-12.2162	0.0491	-0.1806	-0.0200	0.6863	0.3212	0.3651	-1.5893
25	28.43	-0.00	8.0932	-12.4939	0.1111	-0.2266	-0.0198	0.6790	0.3218	0.3571	-1.5437
26	29.50	-0.00	8.4715	-12.7012	0.1285	-0.2708	-0.0137	0.6674	0.3284	0.3390	-1.4993
27	30.55	0.00	8.8704	-12.9623	0.2482	-0.5305	0.0171	0.6619	0.3383	0.3236	-1.4613
28	20.11	-0.00	5.0345	-9.6640	-0.0032	0.0200	-0.0169	0.6829	0.3287	0.3542	-1.9195
29	10.03	-0.01	2.0909	-4.2512	-0.0145	0.0954	-0.0250	0.5641	0.2999	0.2642	-2.0332
30	10.03	-0.01	2.0732	-4.2152	-0.0163	0.0975	-0.0248	0.5694	0.2595	0.3099	-2.0332
31	-0.00	-0.00	0.0115	-0.0412	-0.0184	0.0626	-0.0062	0.4816	0.1921	0.2895	-3.5862

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 101 1.20 2.3 0.0 04W0F31 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	0.00	-0.00	-0.0108	0.0663	-0.0048	0.0154	-0.0080	0.4987	0.1944	0.3044	-6.1241
2	2.01	-0.00	0.2841	-0.3551	-0.0045	0.0209	-0.0082	0.5045	0.1855	0.3190	-1.2498
3	4.02	-0.00	0.6355	-0.9924	-0.0044	0.0258	-0.0123	0.5118	0.1866	0.3252	-1.5615
4	6.04	-0.00	1.0540	-1.8675	-0.0005	0.0163	-0.0165	0.5350	0.1930	0.3420	-1.7651
5	8.03	-0.00	1.5305	-2.8784	-0.0013	0.0246	-0.0176	0.5638	0.2079	0.3560	-1.8887
6	8.03	-0.00	1.5371	-2.8927	0.0012	0.0233	-0.0181	0.5645	0.2214	0.3430	-1.8819
7	10.05	-0.00	2.0480	-3.9626	0.0090	-0.0003	-0.0168	0.5914	0.2244	0.3670	-1.9349
8	12.03	-0.00	2.5772	-5.0225	0.0092	-0.0143	-0.0212	0.6098	0.2321	0.3777	-1.9488
9	14.04	-0.00	3.1291	-6.0844	0.0154	-0.0384	-0.0216	0.6324	0.2396	0.3927	-1.9444
10	16.10	0.00	3.7272	-7.1204	0.0209	-0.0770	-0.0181	0.6538	0.2430	0.4108	-1.9186
11	17.10	0.00	4.0303	-7.5868	0.0222	-0.0831	-0.0143	0.6671	0.2521	0.4150	-1.8825
12	18.14	0.00	4.3581	-8.0324	0.0209	-0.0733	-0.0188	0.6794	0.2583	0.4211	-1.8431
13	19.14	0.00	4.7031	-8.4477	0.0149	-0.0595	-0.0219	0.6856	0.2636	0.4219	-1.7962
14	20.17	-0.00	5.0574	-8.8116	0.0185	-0.0510	-0.0307	0.6851	0.2673	0.4178	-1.7423
15	21.24	-0.00	5.4490	-9.2244	0.0367	-0.0765	-0.0329	0.6865	0.2759	0.4106	-1.6939
16	22.28	-0.00	5.9433	-9.5738	0.0503	-0.0887	-0.0308	0.6807	0.2759	0.4047	-1.6384
17	23.31	-0.00	6.2081	-9.9006	0.0680	-0.1385	-0.0278	0.6748	0.2802	0.3946	-1.5948
18	24.37	-0.00	6.5509	-10.1756	0.0963	-0.1953	-0.0219	0.6676	0.2833	0.3843	-1.5533
19	25.42	-0.00	6.9772	-10.5178	0.1252	-0.2489	-0.0174	0.6649	0.2847	0.3802	-1.5074
20	26.45	-0.00	7.3849	-10.8571	0.1600	-0.3182	-0.0104	0.6647	0.2909	0.3738	-1.4702
21	27.52	-0.00	7.7972	-11.1860	0.1863	-0.3812	-0.0008	0.6638	0.2968	0.3670	-1.4346
22	28.57	-0.00	8.2027	-11.4744	0.1857	-0.3697	-0.0033	0.6584	0.2993	0.3591	-1.3988
23	29.61	-0.00	8.5964	-11.7723	0.2071	-0.4055	0.0065	0.6595	0.3103	0.3492	-1.3694
24	30.66	-0.00	8.9644	-12.0491	0.2331	-0.4561	0.0064	0.6591	0.3194	0.3397	-1.3411
25	20.20	-0.00	5.0874	-8.8907	0.0179	-0.0403	-0.0264	0.6677	0.3135	0.3542	-1.7476
26	10.33	-0.00	2.0512	-4.0164	0.0026	0.0216	-0.0164	0.5744	0.2822	0.2922	-1.9581
27	0.00	-0.00	0.0012	0.0218	-0.0075	0.0175	-0.0010	0.4975	0.2133	0.2842	18.4869

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	162	1.30	2.3	0.0	840F31	0.0	0	0	0	0 UNKNOWN	
POINT	ALPHA	BETA	CN	CLN	CY	CLN	CLL	CA	CAB	CAF	KCP
1	0.01	0.00	0.0030	0.0476	0.0009	-0.0059	0.0001	0.4830	0.1828	0.3002	16.0282
2	2.04	-0.00	0.2926	-0.3524	0.0022	0.0141	-0.0013	0.4870	0.1882	0.2988	-1.2064
3	4.02	-0.00	0.6435	-0.9737	-0.0041	0.0284	-0.0054	0.4933	0.1885	0.3048	-1.5132
4	6.03	-0.00	1.0690	-1.8248	-0.0010	0.0347	-0.0080	0.5162	0.1902	0.3240	-1.7078
5	8.02	-0.00	1.5027	-2.7112	0.0050	0.0289	-0.0134	0.5449	0.1964	0.3485	-1.8042
6	10.05	0.00	2.0090	-3.7040	-0.0135	0.0187	-0.0152	0.5646	0.2048	0.3598	-1.8437
7	12.07	-0.00	2.5196	-4.7186	0.0090	-0.0063	-0.0167	0.5860	0.2145	0.3716	-1.8728
8	14.10	-0.00	3.0255	-5.6194	0.0155	-0.0332	-0.0159	0.6063	0.2226	0.3837	-1.8974
9	16.12	-0.00	3.6527	-6.5483	0.0286	-0.0679	-0.0139	0.6208	0.2313	0.3895	-1.8864
10	17.14	0.00	3.9714	-7.0172	0.0272	-0.0758	-0.0131	0.6285	0.2393	0.3892	-1.7669
11	18.16	0.00	4.3236	-7.4043	0.0224	-0.0669	-0.0123	0.6314	0.2437	0.3877	-1.7125
12	19.21	-0.00	4.6781	-7.7507	0.0260	-0.0601	-0.0154	0.6334	0.2492	0.3842	-1.6548
13	20.27	-0.00	5.0470	-8.1006	0.0297	-0.0581	-0.0187	0.6366	0.2532	0.3834	-1.6058
14	20.27	-0.00	5.0676	-8.1289	0.0233	-0.0473	-0.0174	0.6324	0.2542	0.3782	-1.6041
15	21.31	-0.00	5.4183	-8.4239	0.0314	-0.0643	-0.0208	0.6353	0.2570	0.3783	-1.5547
16	22.36	-0.00	5.7900	-8.7489	0.0441	-0.0862	-0.0217	0.6357	0.2632	0.3725	-1.5110
17	23.43	-0.00	6.1690	-9.0661	0.0646	-0.1184	-0.0227	0.6387	0.2695	0.3693	-1.4699
18	24.46	-0.00	6.5433	-9.3728	0.0785	-0.1563	-0.0200	0.6407	0.2749	0.3657	-1.4324
19	25.51	-0.00	6.9295	-9.6590	0.1214	-0.2441	-0.0095	0.6412	0.2806	0.3605	-1.3939
20	25.51	-0.00	6.9093	-9.6236	0.1137	-0.2264	-0.0094	0.6378	0.2861	0.3516	-1.3928
21	26.56	0.00	7.3206	-9.9233	0.1523	-0.3141	0.0022	0.6417	0.2902	0.3515	-1.3555
22	27.62	0.00	7.7380	-10.2349	0.1778	-0.3847	0.0152	0.6491	0.2970	0.3521	-1.3227
23	27.63	0.00	7.7409	-10.2226	0.1620	-0.3615	0.0153	0.6452	0.3091	0.3361	-1.3206
24	28.67	-0.00	8.1128	-10.4909	0.1659	-0.3294	0.0078	0.6522	0.3123	0.3399	-1.2931
25	29.72	-0.00	8.5186	-10.8268	0.1566	-0.2820	0.0005	0.6644	0.3205	0.3439	-1.2710
26	29.72	-0.00	8.5205	-10.8192	0.1566	-0.2768	0.0005	0.6619	0.3260	0.3359	-1.2698
27	30.77	-0.01	8.9379	-11.1876	0.1395	-0.2259	-0.0042	0.6673	0.3360	0.3312	-1.2517
29	20.27	-0.00	5.0609	-8.1125	0.0207	-0.0369	-0.0132	0.6208	0.3009	0.3198	-1.6030
30	10.06	-0.01	2.0012	-3.7446	0.0136	0.0267	-0.0106	0.5531	0.2755	0.2775	-1.8712
31	0.00	0.00	0.0010	0.0434	-0.0034	0.0071	0.8042	0.4840	0.2398	0.2443	44.8934

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 166 0.60 2.3 0.0 RowOf11 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-0.00	0.00	0.0049	-0.0150	-0.0061	0.0109	-0.0113	0.2542	0.0070	0.1672	-3.1973
3	-0.00	0.00	0.0023	-0.0119	-0.0099	0.0164	-0.0113	0.2541	0.0944	0.1597	-5.1566
4	1.99	-0.00	0.2193	-0.3096	-0.0089	0.0700	-0.0134	0.2579	0.0948	0.1631	-1.4116
5	4.04	-0.00	0.4668	-0.7056	-0.0063	0.0213	-0.0137	0.2597	0.1195	0.1402	-1.5114
6	4.04	-0.00	0.4670	-0.7146	-0.0075	0.0279	-0.0136	0.2595	0.1090	0.1505	-1.5301
7	6.03	-0.00	0.7546	-1.2357	-0.0091	0.0405	-0.0154	0.2732	0.1047	0.1685	-1.6375
9	8.06	-0.00	1.0714	-1.9538	-0.0102	0.0543	-0.0170	0.2898	0.1256	0.1642	-1.8236
10	10.01	-0.00	1.3964	-2.6412	-0.0069	0.0541	-0.0152	0.3088	0.1368	0.1720	-1.8914
11	12.06	-0.00	1.7332	-3.3119	-0.0039	0.0272	-0.0138	0.3323	0.1464	0.1859	-1.9100
12	14.02	-0.00	2.1348	-4.1662	-0.0118	0.0448	-0.0174	0.3474	0.1618	0.1855	-1.9516
13	16.07	-0.00	2.4821	-4.8669	-0.0333	0.0905	-0.0102	0.3472	0.1753	0.1719	-1.8882
14	18.08	-0.00	2.7404	-4.8125	-0.0345	0.0641	-0.0203	0.3465	0.2115	0.1350	-1.7561
16	19.09	0.00	2.4886	-4.8823	-0.0233	0.0166	-0.0267	0.3517	0.2276	0.1240	-1.6902
17	20.12	0.00	3.0448	-4.9566	-0.0145	-0.0279	-0.0349	0.3586	0.2572	0.1014	-1.6279
18	21.15	0.00	3.1844	-4.9912	-0.0007	-0.0544	-0.0391	0.3606	0.2637	0.0969	-1.5674
19	22.14	0.00	3.3177	-5.0178	0.0181	-0.0866	-0.0434	0.3653	0.2779	0.0874	-1.5124
20	23.21	-0.00	3.5024	-5.0677	0.0351	-0.0960	-0.0405	0.3723	0.2846	0.0877	-1.4469
21	24.20	-0.00	3.6534	-5.0730	0.0440	-0.1345	-0.0542	0.3817	0.2987	0.0829	-1.3886
22	25.24	-0.01	3.8115	-5.0272	-0.0161	0.1276	-0.0054	0.3898	0.3147	0.0751	-1.3190
23	26.25	-0.01	3.9927	-5.0980	-0.0144	0.2615	0.0225	0.3951	0.3334	0.0618	-1.2768
24	27.28	-0.02	4.2269	-5.3439	0.0700	0.2333	0.0965	0.3996	0.3611	0.0385	-1.2643
25	28.29	-0.01	4.4357	-5.4725	0.1339	0.0576	0.0943	0.3992	0.3740	0.0252	-1.2337
26	29.33	-0.01	4.6771	-5.6476	0.2361	-0.2055	0.1110	0.3983	0.3923	0.0060	-1.2075
27	29.32	-0.01	4.6681	-5.6436	0.2479	-0.2280	0.1186	0.3973	0.4302	-0.0329	-1.2197
28	30.36	-0.00	4.8971	-5.8307	0.3183	-0.4263	0.1213	0.3912	0.4249	-0.0336	-1.1906
29	20.11	0.00	3.0240	-4.9389	-0.0162	-0.0339	-0.0351	0.3552	0.3219	0.0333	-1.6306
30	10.03	-0.00	1.4249	-2.8057	-0.0084	0.0397	-0.0151	0.2769	0.1827	0.0942	-1.9691
31	-0.01	0.00	0.0213	-0.1281	-0.0110	0.0065	-0.0113	0.2370	0.1208	0.1162	-6.0065

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

TEST	PART	MACH	RX10-6	PH1	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
1	167	0.65	2.3	0.0	H4W0F11	0.0	0	0	0	0	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	ICP
1	-0.00	0.00	0.0126	-0.0813	-0.0106	0.0086	-0.0126	0.2447	0.0979	0.1468	-6.4352
2	2.02	0.00	0.7351	-0.3963	-0.0082	0.0101	-0.0128	0.7485	0.0986	0.1499	-1.6858
3	4.00	0.00	0.4777	-0.7796	-0.0068	0.0107	-0.0131	0.2524	0.1046	0.1478	-1.6319
4	6.05	-0.00	0.7623	-1.3228	-0.0107	0.0352	-0.0148	0.7641	0.1132	0.1509	-1.7354
5	8.05	-0.00	1.0807	-2.0014	-0.0011	0.0081	-0.0168	0.2816	0.1246	0.1570	-1.8519
6	8.04	-0.00	1.0830	-2.0314	-0.0079	0.0449	-0.0163	0.2819	0.1227	0.1592	-1.8757
7	10.01	-0.00	1.4201	-2.7465	-0.0112	0.0555	-0.0145	0.3036	0.1378	0.1658	-1.9340
8	12.04	-0.00	1.7376	-3.3466	-0.0040	0.0284	-0.0132	0.3270	0.1463	0.1806	-1.9260
9	14.02	-0.00	2.1289	-4.1460	-0.0092	0.0337	-0.0151	0.3444	0.1470	0.1773	-1.9475
10	16.05	-0.00	2.4464	-4.5665	-0.0308	0.0893	-0.0080	0.3511	0.1781	0.1731	-1.8666
11	17.04	-0.00	2.5969	-4.6473	-0.0330	0.0874	-0.0119	0.3556	0.1841	0.1715	-1.8088
12	18.09	-0.00	2.7583	-4.8073	-0.0366	0.0628	-0.0197	0.3608	0.1973	0.1634	-1.7429
13	19.08	0.00	2.9056	-4.8960	-0.0210	0.0163	-0.0240	0.3658	0.2225	0.1433	-1.6850
14	20.15	0.00	3.0695	-4.9795	-0.0125	-0.0734	-0.0320	0.3740	0.2425	0.1315	-1.6223
15	20.15	0.00	3.0565	-4.9618	-0.0254	-0.0211	-0.0337	0.3749	0.2555	0.1194	-1.6234
16	21.13	0.00	3.1977	-5.0023	-0.0002	-0.0419	-0.0288	0.3771	0.2703	0.1067	-1.5643
17	22.16	-0.00	3.3696	-5.0637	0.0098	-0.0442	-0.0293	0.3824	0.2872	0.0952	-1.5028
18	23.20	-0.00	3.5328	-5.0912	-0.0135	0.0651	-0.0149	0.3850	0.3032	0.0818	-1.4411
19	24.24	-0.00	3.7262	-5.1323	0.0569	-0.0953	-0.0398	0.4003	0.3090	0.0912	-1.3774
20	25.20	-0.02	3.8460	-5.0547	-0.0289	0.3130	0.0259	0.4030	0.3252	0.0778	-1.3143
21	26.26	-0.01	4.0617	-5.1186	-0.0068	0.2515	0.0281	0.4122	0.3485	0.0637	-1.2602
22	27.31	-0.02	4.3104	-5.3696	0.0870	0.2220	0.0963	0.4144	0.3709	0.0434	-1.2457
23	28.30	-0.02	4.5340	-5.5663	0.2230	-0.0362	0.1316	0.4209	0.3946	0.0263	-1.2277
24	29.36	-0.01	4.7508	-5.6168	0.2302	-0.1427	0.1075	0.4101	0.4086	0.0015	-1.1823
25	30.39	-0.01	4.9916	-5.7581	0.3644	-0.4253	0.1304	0.4023	0.4208	-0.0185	-1.1536
26	20.12	-0.00	3.0509	-4.9567	-0.0061	-0.0037	-0.0244	0.3726	0.3374	0.0352	-1.6247
27	10.03	-0.00	1.4435	-2.8724	-0.0109	0.0526	-0.0145	0.2833	0.1923	0.0910	-1.9899
28	-0.01	0.00	0.0230	-0.1348	-0.0080	0.0047	-0.0108	0.2380	0.1190	0.1190	-5.8698

TEST PART MACH RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 168 0.92 2.3 0.0 W4W0F11 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP
1	-0.00	0.00	0.0146	-0.0901	-0.0074	0.0088	-0.0104	0.2496	0.0927	0.1569	-6.1674
2	2.02	0.00	0.2412	-0.4031	-0.0049	0.0128	-0.0123	0.2522	0.1043	0.1480	-1.6712
3	4.00	-0.00	0.4880	-0.8236	-0.0061	0.0154	-0.0141	0.2563	0.1085	0.1477	-1.6877
4	6.00	-0.00	0.7734	-1.3405	-0.0095	0.0380	-0.0123	0.2657	0.0999	0.1658	-1.7858
5	8.01	-0.00	1.1154	-2.1009	-0.0089	0.0528	-0.0172	0.2856	0.1210	0.1646	-1.8835
6	10.02	-0.00	1.4648	-2.8594	-0.0126	0.0693	-0.0137	0.2982	0.1302	0.1679	-1.9454
7	12.04	-0.00	1.7614	-3.3677	-0.0119	0.0490	-0.0092	0.3436	0.1427	0.2009	-1.9119
9	14.01	-0.00	2.1316	-4.1067	-0.0110	0.0395	-0.0160	0.3616	0.1839	0.1777	-1.9266
10	16.05	-0.00	2.4841	-4.6847	-0.0162	0.0260	-0.0182	0.3789	0.1950	0.1839	-1.8821
11	17.08	-0.00	2.6827	-4.9611	-0.0165	0.0172	-0.0235	0.3930	0.2067	0.1863	-1.8493
12	18.11	0.00	2.8393	-5.1050	-0.0239	0.0193	-0.0271	0.3949	0.2199	0.1751	-1.7988
13	19.13	0.00	3.0100	-5.2173	-0.0192	-0.0070	-0.0329	0.4014	0.2441	0.1572	-1.7333
14	20.09	0.00	3.1463	-5.2567	-0.0079	-0.0309	-0.0319	0.4052	0.2617	0.1435	-1.6708
15	21.14	-0.00	3.3443	-5.3840	0.0103	-0.0435	-0.0274	0.4143	0.2788	0.1355	-1.6075
16	22.21	-0.01	3.5228	-5.4425	0.0000	0.1209	-0.0038	0.4159	0.3003	0.1155	-1.5336
17	22.21	0.00	3.5334	-5.4447	0.0164	-0.0623	-0.0248	0.4163	0.3117	0.1045	-1.5409
18	23.18	-0.01	3.7196	-5.4570	-0.0214	0.2614	0.0226	0.4265	0.3183	0.1081	-1.4671
19	24.20	-0.03	3.8933	-5.4270	0.0400	0.3495	0.0464	0.4332	0.3258	0.1074	-1.3939
20	25.22	-0.02	4.0806	-5.4751	-0.0121	0.4354	0.0761	0.4398	0.3462	0.0936	-1.3417
21	25.23	-0.02	4.0923	-5.4607	-0.0173	0.4361	0.0819	0.4394	0.3489	0.0905	-1.3344
22	26.29	-0.02	4.3366	-5.4570	0.0469	0.1927	0.0110	0.4419	0.3687	0.0812	-1.2583
23	27.36	-0.02	4.5366	-5.3711	0.0743	0.2052	0.0632	0.4377	0.3811	0.0566	-1.1839
24	28.42	-0.01	4.7682	-5.2461	0.1489	-0.1526	0.0202	0.4530	0.3853	0.0676	-1.1002
25	29.47	-0.00	5.0497	-5.1379	0.1411	-0.2428	-0.0140	0.4523	0.4311	0.0212	-1.0175
26	30.51	-0.01	5.3470	-5.0324	0.2404	-0.3498	0.0072	0.4470	0.4453	0.0017	-0.9412
27	20.13	-0.00	3.1900	-5.3455	-0.0064	0.0620	-0.0174	0.4102	0.3671	0.0432	-1.6757
30	10.02	-0.00	1.4811	-2.9477	-0.0135	0.0681	-0.0152	0.2817	0.1560	0.1237	-1.9902
31	-0.01	0.00	0.0242	-0.1359	-0.0088	0.0061	-0.0087	0.2449	0.1291	0.1158	-5.6089

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RK10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 169 0.94 2.3 0.0 84DF11 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-0.01	0.00	0.0190	-0.1106	-0.0098	0.0078	-0.0086	0.2518	0.0820	0.1698	-5.8219
2	2.02	0.00	0.2344	-0.4153	-0.0075	0.0091	-0.0121	0.2534	0.0977	0.1557	-1.7351
3	4.01	0.00	0.4402	-0.8443	-0.0081	0.0142	-0.0106	0.2540	0.1041	0.1510	-1.7230
4	6.03	-0.00	0.7679	-1.4417	-0.0090	0.0327	-0.0137	0.2672	0.1134	0.1539	-1.8299
5	8.02	-0.00	1.1322	-2.1441	-0.0104	0.0556	-0.0151	0.2851	0.1145	0.1706	-1.9379
6	10.02	-0.00	1.4910	-2.9675	-0.0141	0.0702	-0.0136	0.3018	0.1292	0.1726	-1.9903
9	12.03	-0.01	1.8556	-3.6877	-0.0230	0.1122	-0.0065	0.3092	0.1605	0.1467	-1.9863
10	14.02	-0.00	2.1428	-4.1481	-0.0067	0.0267	-0.0158	0.3725	0.1736	0.1988	-1.9358
11	16.04	0.00	2.5228	-4.6012	-0.0183	0.0209	-0.0211	0.3874	0.1957	0.1917	-1.9031
12	17.05	-0.00	2.7071	-5.0628	-0.0176	0.0263	-0.0230	0.3921	0.2131	0.1791	-1.8782
13	18.07	-0.00	2.9044	-5.3045	-0.0266	0.0346	-0.0281	0.4066	0.2270	0.1796	-1.8264
14	19.10	-0.00	3.0787	-5.4457	-0.0139	0.0271	-0.0286	0.4105	0.2544	0.1561	-1.7688
15	20.12	-0.00	3.2429	-5.5214	0.0003	0.0393	-0.0222	0.4145	0.2730	0.1415	-1.7026
16	21.11	-0.01	3.4418	-5.6575	0.0138	0.0526	-0.0189	0.4233	0.2800	0.1434	-1.6438
17	22.18	-0.01	3.6198	-5.6347	0.0240	0.0834	-0.0251	0.4258	0.3017	0.1241	-1.5566
18	23.18	-0.01	3.7679	-5.6189	0.0004	0.1843	0.0184	0.4253	0.3137	0.1116	-1.4828
19	24.25	-0.02	4.0004	-5.5897	-0.0248	0.3437	0.0448	0.4349	0.3215	0.1135	-1.3973
20	25.30	-0.02	4.2189	-5.5105	-0.0183	0.2970	0.1285	0.4348	0.3403	0.0945	-1.3068
21	26.31	-0.02	4.4690	-5.4727	0.0161	0.3425	0.0524	0.4401	0.3538	0.0863	-1.2246
22	27.37	-0.02	4.6463	-5.3620	0.0434	0.2485	0.0646	0.4386	0.3718	0.0668	-1.1496
23	28.46	-0.01	4.9704	-5.0688	0.1506	-0.1371	0.0168	0.4580	0.3798	0.0781	-1.0198
24	29.50	-0.00	5.2798	-4.9376	0.1286	-0.2524	-0.0192	0.4517	0.4025	0.0492	-0.9352
25	30.57	-0.01	5.5395	-4.8172	0.1812	-0.2405	-0.0201	0.4486	0.4308	0.0178	-0.8696
26	20.12	-0.00	3.3296	-5.7521	-0.0157	0.0791	-0.0135	0.4270	0.3486	0.0785	-1.7278
27	20.12	-0.01	3.2704	-5.5964	0.0033	0.0892	-0.0068	0.4097	0.3498	0.0599	-1.7114
28	10.71	-0.00	1.5122	-3.0959	-0.0123	0.0687	-0.0147	0.2843	0.2209	0.0833	-2.8473
29	-0.01	0.00	0.0169	-0.1274	-0.0076	0.0044	-0.0085	0.2455	0.1164	0.1291	-7.5221

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TEST PART MACH RK10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 170 0.96 2.3 0.0 04NOV11 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CL	CLM	CV	CLN	CLL	CA	CAB	CAF	XCP
1	-0.01	0.00	0.0164	-0.1017	-0.0086	0.0080	-0.0101	0.2622	0.0884	0.1739	-6.1987
2	2.03	0.00	0.2448	-0.4443	-0.0095	0.0062	-0.0120	0.2642	0.1049	0.1593	-1.7855
3	3.99	-0.00	0.5055	-0.4196	-0.0032	0.0067	-0.0104	0.2719	0.1037	0.1681	-1.8190
4	6.01	-0.00	0.8283	-1.6362	-0.0037	0.0239	-0.0134	0.2861	0.1038	0.1803	-1.9754
5	8.00	-0.00	1.1690	-2.3866	-0.0096	0.0435	-0.0149	0.2969	0.1215	0.1754	-2.0416
6	10.03	-0.00	1.5423	-3.1864	-0.0106	0.0578	-0.0147	0.3275	0.1262	0.2012	-2.0664
7	12.04	-0.00	1.8850	-3.8458	-0.0187	0.0945	-0.0081	0.3315	0.1429	0.1886	-2.0370
8	14.04	-0.00	2.1507	-4.1275	-0.0050	0.0205	-0.0157	0.3967	0.1665	0.2302	-1.9122
9	16.06	-0.00	2.5513	-4.8709	-0.0084	0.0314	-0.0175	0.4087	0.2081	0.2006	-1.9092
10	17.07	-0.00	2.7596	-5.1870	-0.0128	0.0479	-0.0192	0.4112	0.2264	0.1849	-1.8796
11	18.08	-0.00	2.9679	-5.4856	-0.0138	0.0656	-0.0225	0.4202	0.2522	0.1680	-1.8483
12	19.07	-0.00	3.1753	-5.7061	-0.0172	0.0660	-0.0261	0.4303	0.2659	0.1644	-1.7978
13	20.09	-0.01	3.3787	-5.8858	0.0017	0.0726	-0.0149	0.4350	0.2808	0.1541	-1.7420
14	21.16	-0.01	3.5491	-5.9125	-0.0035	0.0980	-0.0072	0.4325	0.2931	0.1394	-1.6659
15	22.16	-0.01	3.7536	-5.9793	0.0050	0.0741	-0.0080	0.4380	0.3070	0.1310	-1.5938
16	23.20	-0.01	3.9375	-5.9298	-0.0083	0.1920	0.0213	0.4327	0.3140	0.1187	-1.5068
17	24.27	-0.01	4.1517	-5.8743	-0.0067	0.1263	-0.0062	0.4330	0.3233	0.1097	-1.4149
18	25.30	-0.01	4.4425	-5.4421	-0.0241	0.2423	0.0285	0.4339	0.3257	0.1082	-1.3151
19	26.38	-0.02	4.7025	-5.6344	-0.0113	0.2931	0.0385	0.4341	0.3436	0.0904	-1.1982
20	27.42	-0.02	4.9182	-5.4453	0.0114	0.3740	0.0651	0.4437	0.3578	0.0860	-1.1072
21	28.51	-0.01	5.1957	-5.1891	0.0953	0.0102	0.0119	0.4494	0.3744	0.0750	-0.9987
22	29.57	-0.01	5.4581	-4.9607	0.1953	-0.3171	-0.0345	0.4531	0.3925	0.0607	-0.9089
23	30.63	-0.01	5.7743	-4.7096	0.2011	-0.3526	-0.0211	0.4576	0.4210	0.0367	-0.8156
24	20.11	-0.01	3.3657	-5.9149	-0.0094	0.0708	-0.0213	0.4302	0.3428	0.0874	-1.7569
25	10.02	-0.00	1.5547	-3.2879	-0.0070	0.0518	-0.0178	0.3103	0.2178	0.0924	-2.1148
26	-0.01	0.00	0.0213	-0.1287	-0.0041	0.0013	-0.0085	0.2566	0.1318	0.1248	-6.0459

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PH1	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	171	0.98	2.3	0.0	540F11	0.0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CV	CLM	CLL	CA	CAB	CAF	RCP
1	-0.00	0.00	0.0160	-0.0918	-0.0095	0.0058	-0.0084	0.2928	0.1081	0.1848	-5.7475
2	2.02	-0.00	0.2542	-0.4771	-0.0054	0.0121	-0.0101	0.2944	0.1086	0.1862	-1.8768
3	4.03	-0.00	0.5379	-1.0370	-0.0036	0.0107	-0.0118	0.3001	0.1138	0.1862	-1.9277
4	6.04	-0.00	0.8523	-1.7215	-0.0064	0.0179	-0.0148	0.3183	0.1170	0.2013	-2.0198
5	7.99	-0.00	1.1952	-2.4844	-0.0023	0.0300	-0.0162	0.3379	0.1207	0.2172	-2.0828
6	10.01	-0.00	1.5552	-3.2483	-0.0033	0.0403	-0.0145	0.3604	0.1419	0.2185	-2.0873
7	12.03	-0.00	1.9363	-3.9780	-0.0054	0.0509	-0.0146	0.3811	0.1529	0.2281	-2.0545
8	14.03	-0.00	2.1771	-4.1473	-0.0143	0.0396	-0.0092	0.4174	0.1841	0.2333	-1.9049
9	16.02	-0.00	2.5817	-4.8891	-0.0215	0.0578	-0.0155	0.4412	0.2155	0.2257	-1.8937
10	17.05	-0.00	2.8168	-5.2825	-0.0175	0.0636	-0.0187	0.4549	0.2428	0.2120	-1.8754
11	18.09	-0.00	3.0535	-5.6670	-0.0392	0.0940	-0.0236	0.4574	0.2643	0.1930	-1.8558
12	19.12	-0.00	3.2516	-5.8898	-0.0142	0.0843	-0.0240	0.4597	0.2746	0.1850	-1.8114
13	20.10	-0.01	3.4746	-6.1164	-0.0055	0.0645	-0.0212	0.4579	0.2916	0.1663	-1.7603
14	21.13	-0.01	3.7001	-6.2601	0.0054	0.0422	-0.0185	0.4535	0.3051	0.1484	-1.6919
15	21.13	-0.01	3.7188	-6.3015	0.0124	0.0534	-0.0137	0.4582	0.2978	0.1605	-1.6945
16	22.17	-0.01	3.9755	-6.4038	0.0247	0.0679	0.0032	0.4546	0.3052	0.1495	-1.6108
17	23.23	-0.01	4.2027	-6.4128	0.0323	0.0978	0.0279	0.4498	0.3103	0.1395	-1.5259
18	24.24	-0.01	4.4697	-6.4580	0.0370	0.1081	0.0366	0.4440	0.3185	0.1255	-1.4448
19	25.28	-0.01	4.6503	-6.2515	-0.0007	0.1346	0.0131	0.4336	0.3337	0.1000	-1.3443
21	26.37	-0.01	4.9625	-6.2417	0.0214	0.1647	0.0402	0.4376	0.3557	0.0819	-1.2578
22	27.43	-0.02	5.1954	-5.9833	0.0048	0.2978	0.0707	0.4407	0.3561	0.0846	-1.1478
23	28.51	-0.02	5.5071	-5.7768	0.1182	0.1243	0.0490	0.4336	0.3659	0.0677	-1.0488
24	29.57	-0.02	5.7958	-5.4584	0.1724	-0.0555	0.0250	0.4437	0.3779	0.0658	-0.9419
25	30.67	-0.01	6.0674	-5.2137	0.2577	-0.4083	-0.0148	0.4526	0.3962	0.0564	-0.8592
26	20.12	-0.01	3.5140	-6.2248	-0.0080	0.0621	-0.0259	0.4640	0.3521	0.1119	-1.7694
27	10.00	-0.00	1.5988	-3.4528	-0.0070	0.0412	-0.0143	0.3458	0.2528	0.0930	-2.1596
28	-0.01	0.00	0.0209	-0.1337	-0.0117	0.0049	-0.0084	0.2863	0.1519	0.1345	-6.4095

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 172 1.10 2.3 0.0 BANOFF1 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP
1	-0.00	-0.00	0.0036	-0.0610	-0.0215	0.0551	-0.0091	0.4907	0.1774	0.3133	-16.8862
2	2.04	-0.00	0.2560	-0.4604	-0.0158	0.0534	-0.0079	0.4996	0.1794	0.3201	-1.7986
3	2.04	-0.00	0.2570	-0.4763	-0.0168	0.0422	-0.0093	0.4958	0.1857	0.3101	-1.0530
4	4.04	-0.00	0.5326	-0.9981	-0.0196	0.0784	-0.0092	0.4964	0.1976	0.2988	-1.8739
5	6.01	-0.00	0.8361	-1.6086	-0.0140	0.0649	-0.0123	0.5181	0.1944	0.3237	-1.9193
6	8.01	-0.01	1.1899	-2.3456	-0.0144	0.0810	-0.0121	0.5375	0.2088	0.3267	-2.0133
7	10.01	-0.01	1.5713	-3.1855	-0.0123	0.0819	-0.0135	0.5458	0.2138	0.3320	-2.0292
8	12.05	-0.01	1.9652	-3.9316	-0.0098	0.0750	-0.0108	0.5555	0.2210	0.3345	-2.0006
9	14.04	-0.01	2.3508	-4.5926	-0.0194	0.0964	-0.0065	0.5553	0.2266	0.3286	-1.9536
10	16.09	-0.01	2.6826	-4.6954	-0.0458	0.1785	0.0079	0.5729	0.2336	0.3394	-1.8249
11	17.14	-0.01	2.8829	-5.0672	-0.0397	0.1555	-0.0057	0.5774	0.2469	0.3305	-1.7577
12	18.12	-0.01	3.1112	-5.3747	-0.0425	0.1553	-0.0118	0.5829	0.2633	0.3196	-1.7275
13	19.14	-0.01	3.3513	-5.6720	-0.0470	0.1720	-0.0135	0.5817	0.2729	0.3088	-1.6925
14	20.16	-0.01	3.6273	-5.9273	-0.0251	0.1434	-0.0198	0.5716	0.2655	0.3061	-1.6341
15	21.21	-0.01	3.9230	-6.1793	-0.0103	0.1223	-0.0204	0.5624	0.2777	0.2847	-1.5752
16	22.26	-0.01	4.2336	-6.4299	0.0334	0.0564	-0.0156	0.5559	0.2495	0.2664	-1.5188
17	23.27	-0.01	4.5195	-6.5939	0.0519	0.0131	-0.0095	0.5473	0.2917	0.2556	-1.4590
18	24.34	-0.01	4.8901	-6.7252	0.0498	0.0348	-0.0252	0.5352	0.2867	0.2485	-1.3753
19	25.38	-0.01	5.1933	-6.8396	0.0241	0.0897	-0.0202	0.5313	0.3097	0.2216	-1.3170
20	26.43	-0.01	5.4912	-6.9274	0.0271	0.0596	-0.0113	0.5231	0.3142	0.2088	-1.2607
21	27.50	-0.01	5.8210	-6.9304	0.0235	0.1120	-0.0098	0.5131	0.3136	0.1996	-1.1906
22	28.56	-0.01	6.1578	-6.9187	0.0694	0.0162	0.0037	0.5089	0.3221	0.1868	-1.1236
23	29.66	-0.01	6.4870	-6.8893	0.1213	-0.0899	0.0157	0.5051	0.3320	0.1732	-1.0628
24	30.70	-0.01	6.8151	-6.8594	0.0337	0.0308	-0.0216	0.4999	0.3418	0.1581	-1.0065
25	20.17	-0.01	3.6731	-5.9958	-0.0119	0.1175	-0.0229	0.5719	0.3152	0.2567	-1.6323
26	10.02	-0.00	1.5932	-3.2877	-0.0071	0.0550	-0.0093	0.5301	0.2682	0.2618	-2.0636
27	-0.01	-0.00	0.0040	-0.0792	-0.0176	0.0421	-0.0049	0.4958	0.2060	0.2898	-19.7789

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (4T)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	RN10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	173	1.20	2.3	0.0	8440F11	0.0	0	0	0	0	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP	
1	0.00	0.00	-0.0142	0.0478	-0.0050	-0.0060	-0.0054	0.5010	0.1747	0.3263	-3.3552	
2	2.01	0.00	0.2352	-0.3628	-0.0023	-0.0078	-0.0055	0.5046	0.1779	0.3267	-1.5428	
3	4.04	0.00	0.5139	-0.8540	-0.0001	-0.0057	-0.0042	0.5104	0.1790	0.3314	-1.6616	
4	6.01	0.00	0.8088	-1.4257	0.0042	-0.0104	-0.0057	0.5281	0.1849	0.3431	-1.7627	
5	8.04	-0.00	1.1436	-2.0931	0.0057	-0.0121	-0.0058	0.5422	0.1907	0.3515	-1.8303	
6	10.04	-0.00	1.5099	-2.7921	0.0123	-0.0124	-0.0045	0.5504	0.2006	0.3497	-1.8492	
7	12.07	-0.00	1.8938	-3.4549	0.0099	-0.0101	-0.0061	0.5476	0.2053	0.3423	-1.8243	
8	14.10	-0.00	2.2991	-4.0587	0.0095	-0.0017	-0.0050	0.5505	0.2127	0.3377	-1.7653	
9	16.12	-0.00	2.7244	-4.5887	0.0008	0.0310	-0.0039	0.5468	0.2138	0.3330	-1.6843	
10	17.15	-0.00	2.9545	-4.8259	-0.0130	0.0640	-0.0027	0.5455	0.2167	0.3247	-1.6334	
11	18.16	-0.00	3.1640	-4.8742	-0.0121	0.0719	-0.0088	0.5501	0.2193	0.3308	-1.5421	
12	19.20	-0.01	3.4392	-5.0419	-0.0171	0.0833	-0.0149	0.5495	0.2259	0.3235	-1.4660	
13	20.29	-0.01	3.7437	-5.2260	-0.0092	0.0801	-0.0187	0.5469	0.2358	0.3112	-1.3965	
14	21.31	-0.01	4.0510	-5.3954	0.0101	0.0521	-0.0198	0.5426	0.2411	0.3015	-1.3319	
15	22.33	-0.01	4.3538	-5.5582	0.0189	0.0393	-0.0181	0.5354	0.2458	0.2895	-1.2766	
16	23.44	-0.01	4.7056	-5.7720	0.0452	-0.0164	-0.0114	0.5307	0.2504	0.2802	-1.2266	
17	24.47	-0.01	5.0244	-5.9327	0.0758	-0.0739	-0.0046	0.5237	0.2535	0.2703	-1.1808	
18	25.50	-0.01	5.3632	-6.0953	0.0864	-0.0957	0.0023	0.5185	0.2566	0.2619	-1.1365	
19	26.58	-0.01	5.7365	-6.2403	0.1013	-0.0988	0.0051	0.5170	0.2636	0.2533	-1.0878	
20	27.61	-0.01	6.0542	-6.2955	0.1044	-0.0905	0.0078	0.5197	0.2675	0.2522	-1.0399	
21	28.69	-0.01	6.3995	-6.3590	0.1194	-0.0926	0.0064	0.5156	0.2841	0.2315	-0.9937	
22	29.76	-0.01	6.7134	-6.4207	0.1565	-0.1898	0.0167	0.5151	0.2913	0.2237	-0.9564	
23	30.84	-0.01	7.0549	-6.4698	0.2034	-0.2679	0.0160	0.5196	0.3071	0.2124	-0.9171	
24	30.84	-0.01	7.0657	-6.4696	0.1979	-0.2646	0.0173	0.5200	0.3139	0.2061	-0.9156	
25	20.27	-0.01	3.7330	-5.1899	-0.0043	0.0647	-0.0160	0.5461	0.2720	0.2741	-1.3903	
26	10.03	-0.00	1.5157	-2.8431	0.0095	-0.0185	-0.0031	0.5370	0.2369	0.3001	-1.8757	
27	-0.00	0.00	-0.0157	0.0098	-0.0022	-0.0153	-0.0012	0.4964	0.2077	0.2887	-0.6252	

TEST PART MAGM RK10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 174 1.30 2.3 0.0 040F11 0.0 0 0 0 0 UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CV	CLM	CLL	CA	CAB	CAF	CCP
1	0.00	0.00	-0.0274	0.6824	-0.0031	-0.0130	0.0027	0.4830	0.1897	0.2933	-3.0177
2	2.03	0.00	0.2297	-0.3141	-0.0013	-0.0053	0.0040	0.4836	0.1887	0.2948	-1.3737
3	4.04	0.00	0.5008	-0.7736	-0.0029	0.0053	0.0039	0.4882	0.1853	0.3029	-1.5448
4	6.03	-0.00	0.7863	-1.2798	-0.0016	0.0114	0.0025	0.5059	0.1823	0.3736	-1.6236
5	8.04	-0.00	1.1061	-1.8299	-0.0027	0.0122	0.0009	0.5218	0.1926	0.3292	-1.6544
6	10.09	-0.00	1.4603	-2.4022	0.0040	0.0129	-0.0006	0.5303	0.1978	0.3325	-1.6450
7	12.12	-0.00	1.8330	-2.9467	0.0061	0.0110	0.0003	0.5385	0.2026	0.3359	-1.6076
8	14.14	-0.00	2.2188	-3.4254	0.0072	0.0079	0.0011	0.5412	0.2063	0.3350	-1.5438
10	16.20	-0.00	2.6822	-3.8915	0.0038	0.0207	0.0030	0.5390	0.2168	0.3222	-1.4509
11	17.24	-0.00	2.9352	-4.0681	-0.0009	0.0396	0.0024	0.5356	0.2204	0.3152	-1.3860
12	18.26	-0.00	3.2179	-4.2290	-0.0073	0.0568	-0.0011	0.5341	0.2248	0.3093	-1.3142
13	19.31	-0.01	3.5137	-4.3834	-0.0033	0.0592	-0.0035	0.5339	0.2280	0.3058	-1.2477
14	20.36	-0.01	3.7929	-4.4715	0.0014	0.0560	-0.0045	0.5295	0.2326	0.2969	-1.1842
15	21.41	-0.01	4.0758	-4.5954	0.0106	0.0362	-0.0058	0.5239	0.2358	0.2881	-1.1275
16	22.46	-0.01	4.3907	-4.6672	0.0303	0.0074	-0.0032	0.5223	0.2377	0.2846	-1.0675
17	23.51	-0.01	4.7037	-4.7743	0.0474	-0.0212	-0.0033	0.5223	0.2386	0.2837	-1.0150
18	24.57	-0.01	5.0505	-4.8861	0.0665	-0.0554	-0.0022	0.5250	0.2477	0.2773	-0.9678
19	25.61	-0.01	5.3646	-4.9980	0.0835	-0.0909	0.0015	0.5264	0.2550	0.2713	-0.9308
20	26.69	-0.01	5.7660	-5.1077	0.1004	-0.1156	0.0079	0.5302	0.2642	0.2661	-0.8997
21	27.76	-0.01	6.0983	-5.3459	0.0490	-0.1191	0.0106	0.5292	0.2708	0.2584	-0.8766
22	28.82	-0.01	6.4914	-5.5793	0.1013	-0.0928	0.0029	0.5316	0.2770	0.2545	-0.8595
23	29.88	-0.01	6.8606	-5.8172	0.0952	-0.0561	-0.0005	0.5361	0.2843	0.2518	-0.8479
24	30.91	-0.01	7.2112	-6.0478	0.0970	-0.0598	-0.0003	0.5403	0.2928	0.2475	-0.8387
25	20.34	-0.01	3.7899	-4.4394	-0.0013	0.0602	-0.0033	0.5317	0.2945	0.2372	-1.1714
26	10.08	-0.00	1.4848	-2.5058	0.0045	0.0099	0.0008	0.5168	0.2569	0.2599	-1.6876
27	-0.00	0.00	-0.0195	0.0416	-0.0040	-0.0120	0.0055	0.4782	0.2168	0.2614	-2.1373

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AEROODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

	TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	1	178	0.00	2.3	0.0	02=0+0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	-2.04	0.00	-0.0874	-0.1920	-0.0067	-0.0065	-0.0072	0.2343	0.1079	0.1264	2.1945	
2	-1.01	0.00	-0.0371	-0.1114	-0.0064	-0.0035	-0.0093	0.2309	0.0999	0.1311	3.0050	
3	0.01	0.00	0.0101	-0.0172	-0.0049	-0.0025	-0.0096	0.2306	0.1025	0.1281	-1.6973	
4	1.01	0.00	0.0544	0.0732	-0.0045	0.0005	-0.0102	0.2324	0.1015	0.1309	1.3445	
5	2.02	0.00	0.1009	0.1597	-0.0053	-0.0008	-0.0109	0.2344	0.1016	0.1327	1.5017	
6	3.03	0.00	0.1495	0.2513	-0.0023	0.0022	-0.0115	0.2384	0.1041	0.1343	1.6805	
7	4.07	0.00	0.1999	0.3384	-0.0042	0.0072	-0.0103	0.2426	0.1080	0.1345	1.6933	
8	5.04	-0.00	0.2481	0.4271	-0.0038	0.0091	-0.0127	0.2499	0.1151	0.1348	1.7213	
9	6.12	-0.00	0.3034	0.5215	-0.0069	0.0175	-0.0134	0.2594	0.1230	0.1364	1.7190	
10	8.13	-0.00	0.4241	0.6727	-0.0132	0.0338	-0.0146	0.2736	0.1371	0.1365	1.5060	
11	10.15	-0.00	0.5695	0.8053	-0.0179	0.0478	-0.0141	0.2809	0.1509	0.1299	1.4141	
12	12.18	-0.00	0.7351	0.9353	-0.0324	0.0810	-0.0154	0.2828	0.1622	0.1207	1.2723	
13	15.23	-0.00	1.0106	1.1758	-0.0630	0.1599	-0.0157	0.2838	0.1801	0.1036	1.1634	
14	18.34	-0.00	1.3359	1.4050	-0.0907	0.2452	-0.0161	0.2754	0.1938	0.0816	1.0518	
15	21.42	-0.00	1.7126	1.6518	-0.0732	0.2160	-0.0174	0.2581	0.1986	0.0596	0.9645	
16	24.49	-0.00	2.1400	1.8789	0.0404	-0.0391	-0.0168	0.2316	0.2165	0.0151	0.8780	
17	27.58	-0.01	2.6332	2.0820	0.3451	-0.7338	-0.0172	0.1953	0.2333	-0.0380	0.7987	
18	30.71	-0.04	3.2967	1.9227	1.1384	-1.9905	-0.0170	0.1702	0.2441	-0.0739	0.5832	
19	30.71	-0.04	3.2946	1.9610	1.1217	-2.0079	-0.0174	0.1669	0.2492	-0.0823	0.5952	
20	15.26	-0.00	0.9830	1.3586	-0.0638	0.1646	-0.0126	0.2778	0.2264	0.0514	1.3822	
21	5.08	-0.00	0.2170	0.5922	-0.0052	0.0115	-0.0095	0.2536	0.1497	0.1039	2.7293	
22	0.00	0.00	-0.0137	0.0977	-0.0051	0.0028	-0.0062	0.2355	0.1148	0.1206	-7.1365	

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	179	0.85	2.3	0.0	BZM0FO	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	Ca	CAB	CAF	XCP
1	-2.03	0.00	-0.0966	-0.1374	-0.0042	-0.0037	-0.0069	0.2409	0.0998	0.1411	1.4231
2	-1.02	0.00	-0.0463	-0.0558	-0.0075	0.0012	-0.0090	0.2373	0.1032	0.1341	1.1547
3	0.00	0.00	0.0019	0.0304	-0.0084	0.0042	-0.0076	0.2344	0.1010	0.1334	15.8332
4	1.01	0.00	0.0514	0.1223	-0.0055	0.0030	-0.0101	0.2366	0.1141	0.1225	2.3550
5	2.06	0.00	0.0939	0.2182	-0.0039	0.0059	-0.0106	0.2382	0.1098	0.1203	2.3230
6	3.01	0.00	0.1383	0.3018	-0.0070	0.0087	-0.0112	0.2413	0.1119	0.1294	2.1823
7	4.07	0.00	0.1922	0.3456	-0.0053	0.0096	-0.0102	0.2467	0.1145	0.1321	2.0584
8	5.09	-0.00	0.2429	0.4846	-0.0048	0.0125	-0.0108	0.2544	0.1190	0.1354	1.9950
9	6.09	-0.00	0.2962	0.5708	-0.0066	0.0153	-0.0132	0.2618	0.1270	0.1347	1.9249
10	8.10	-0.00	0.4172	0.7202	-0.0114	0.0290	-0.0145	0.2765	0.1404	0.1361	1.7263
11	10.14	-0.00	0.5674	0.8624	-0.0182	0.0489	-0.0140	0.2836	0.1534	0.1302	1.5199
12	12.21	-0.00	0.7371	1.0048	-0.0286	0.0772	-0.0154	0.2840	0.1632	0.1208	1.3633
13	15.27	-0.00	1.0180	1.2334	-0.0654	0.1679	-0.0174	0.2817	0.1775	0.1042	1.2116
14	18.39	-0.00	1.3570	1.4696	-0.0853	0.2432	-0.0197	0.2741	0.1904	0.0837	1.0830
15	21.45	-0.00	1.7326	1.7327	-0.0364	0.1278	-0.0183	0.2542	0.2201	0.0341	1.0000
16	24.51	-0.01	2.1882	1.9849	0.0955	-0.1596	-0.0199	0.2325	0.2204	0.0121	0.9071
17	27.65	-0.01	2.7294	2.1303	0.5197	-1.0178	-0.0192	0.1989	0.2351	-0.0363	0.7805
18	30.78	-0.05	3.4138	2.1658	0.9671	-1.4883	-0.0207	0.1734	0.2362	-0.0628	0.6344
19	15.27	-0.00	0.9960	1.3539	-0.0591	0.1557	-0.0160	0.2806	0.1966	0.0840	1.3593
20	5.08	0.00	0.2210	0.5838	-0.0061	0.0112	-0.0111	0.2595	0.1496	0.1099	2.6411
21	0.00	0.00	-0.0183	0.1034	-0.0074	0.0048	-0.0078	0.2416	0.1358	0.1058	-5.6652

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	AX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	180	0.92	2.3	0.0	B2W0F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLW	CLL	CA	CAB	CAF	XCP	
1	0.00	0.00	-0.0078	0.0693	-0.0069	0.0043	-0.0090	0.2401	0.0802	0.1598	-0.9289	
3	-2.04	0.00	-0.1007	-0.1303	-0.0040	-0.0036	-0.0098	0.2438	0.1136	0.1302	1.2936	
4	-1.00	0.00	-0.0526	-0.0447	-0.0083	0.0012	-0.0102	0.2391	0.1113	0.1278	0.8495	
5	1.01	0.00	0.0441	0.1272	-0.0064	0.0029	-0.0112	0.2379	0.1092	0.1286	2.8814	
6	2.05	-0.00	0.0913	0.2234	-0.0013	0.0038	-0.0118	0.2416	0.1136	0.1281	2.4476	
7	3.03	0.00	0.1331	0.3025	-0.0066	0.0104	-0.0124	0.2447	0.1111	0.1335	2.2715	
8	4.05	-0.00	0.1905	0.3941	-0.0038	0.0093	-0.0131	0.2527	0.1080	0.1448	2.0688	
9	5.06	-0.00	0.2381	0.4844	-0.0055	0.0121	-0.0137	0.2599	0.1169	0.1429	2.0577	
10	6.11	-0.00	0.2946	0.5753	-0.0049	0.0167	-0.0144	0.2699	0.1257	0.1442	1.9204	
11	8.11	-0.00	0.4249	0.7242	-0.0128	0.0318	-0.0157	0.2851	0.1438	0.1413	1.7043	
12	10.19	-0.00	0.5825	0.8534	-0.0134	0.0467	-0.0153	0.2919	0.1565	0.1353	1.4659	
13	12.24	-0.00	0.7553	1.0026	-0.0185	0.0598	-0.0169	0.2941	0.1682	0.1259	1.3274	
14	15.27	-0.00	1.0393	1.2353	-0.0473	0.1140	-0.0206	0.2907	0.1824	0.1083	1.1886	
15	18.37	-0.01	1.3819	1.4922	-0.0711	0.2128	-0.0214	0.2829	0.2047	0.0782	1.0798	
16	21.48	-0.01	1.7917	1.7983	-0.0022	0.0541	-0.0208	0.2693	0.2159	0.0534	0.9992	
17	24.57	-0.01	2.2922	2.0487	0.1223	-0.1724	-0.0206	0.2523	0.2281	0.0242	0.8938	
18	27.73	-0.03	2.9098	2.5176	0.2856	-0.3110	-0.0220	0.2233	0.2370	-0.0137	0.8652	
19	30.99	-0.07	3.7699	3.3489	0.3631	0.0567	-0.0265	0.1976	0.2580	-0.0604	0.8883	
20	15.31	-0.00	1.0147	1.3973	-0.0224	0.0427	-0.0164	0.2873	0.2136	0.0737	1.3771	
21	5.09	-0.00	0.2186	0.5994	-0.0080	0.0168	-0.0124	0.2620	0.1738	0.0882	2.7423	
22	0.02	0.00	-0.0221	0.1220	-0.0059	0.0086	-0.0107	0.2403	0.1353	0.1050	-5.5182	

TEST PART MACH RX10-6 PHI CONF L DEL1 OEL2 OEL3 DEL4 TRANSITION
 1 181 0.98 2.3 0.0 82W0F0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-2.03	0.00	-0.1042	-0.1235	-0.0028	0.0003	-0.0093	0.2698	0.1065	0.1633	1.1851
2	-1.00	0.00	-0.0501	-0.0428	-0.0046	0.0030	-0.0113	0.2692	0.1138	0.1554	0.8462
3	-1.00	0.00	-0.0503	-0.0388	-0.0014	-0.0025	-0.0097	0.2683	0.1229	0.1454	0.7719
4	-0.01	0.00	-0.0074	0.0547	-0.0044	0.0077	-0.0117	0.2682	0.1196	0.1485	-7.4398
5	1.04	0.00	0.0500	0.1335	-0.0027	0.0047	-0.0124	0.2691	0.1177	0.1514	2.6291
6	2.95	0.00	0.0995	0.2238	-0.0044	0.0056	-0.0130	0.2722	0.1188	0.1534	2.2488
7	3.08	-0.00	0.1478	0.3186	-0.0050	0.0120	-0.0136	0.2807	0.1203	0.1604	2.1555
8	4.06	-0.00	0.1943	0.4074	-0.0023	0.0128	-0.0127	0.2842	0.1250	0.1591	2.0289
9	5.08	-0.00	0.2518	0.4924	-0.0040	0.0136	-0.0150	0.2927	0.1293	0.1634	1.9577
10	6.08	-0.00	0.3114	0.5837	-0.0066	0.0200	-0.0141	0.3138	0.1484	0.1653	1.8742
11	7.13	-0.00	0.3827	0.6657	-0.0036	0.0301	-0.0147	0.3194	0.1535	0.1661	1.7394
12	8.17	-0.00	0.4440	0.7425	-0.0106	0.0362	-0.0154	0.3267	0.1641	0.1626	1.6721
13	10.21	-0.00	0.6017	0.8953	-0.0144	0.0526	-0.0168	0.3376	0.1736	0.1639	1.4879
14	12.26	-0.00	0.7828	1.0614	-0.0200	0.0613	-0.0169	0.3468	0.1811	0.1657	1.3558
15	15.34	-0.00	1.0910	1.3212	-0.0311	0.1031	-0.0194	0.3425	0.2020	0.1405	1.2118
16	18.44	-0.01	1.4666	1.6128	-0.0475	0.1574	-0.0191	0.3414	0.2234	0.1179	1.0997
17	21.56	-0.01	1.9776	1.9508	0.0712	-0.0739	-0.0197	0.3172	0.2458	0.0714	0.9909
18	21.57	-0.01	1.9866	2.0093	0.0298	-0.0064	-0.0182	0.3299	0.2496	0.0803	1.0113
19	24.73	-0.01	2.6685	2.5145	0.0947	-0.0782	-0.0208	0.3130	0.2584	0.0546	0.9423
20	27.95	-0.04	3.5066	3.3105	0.1673	0.0928	-0.0241	0.3041	0.2670	0.0371	0.9441
21	31.23	-0.07	4.4786	4.1750	0.2381	0.2921	-0.0266	0.2828	0.2777	0.0051	0.9322
22	15.33	-0.00	1.0567	1.4974	-0.0271	0.0936	-0.0136	0.3361	0.2736	0.0625	1.4175
23	5.10	-0.00	0.2263	0.6113	-0.0084	0.0237	-0.0104	0.3011	0.1956	0.1055	2.7012
24	5.10	-0.00	0.2328	0.5970	-0.0051	0.0238	-0.0104	0.2935	0.1926	0.1009	2.5649
25	0.01	0.00	-0.0160	0.1169	-0.0045	0.0064	-0.0088	0.2662	0.1472	0.1189	-6.9604

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	WACH	RX10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	182	1.10	2.3	0.0	220F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP	
1	-2.05	-0.00	-0.1169	-0.1277	-0.0155	0.0494	-0.0085	0.4326	0.1452	0.2874	1.0923	
2	-1.03	-0.00	-0.0647	-0.0383	-0.0151	0.0535	-0.0073	0.4255	0.1578	0.2678	0.5919	
3	0.01	-0.00	-0.0094	0.0583	-0.0157	0.0580	-0.0092	0.4243	0.1621	0.2622	-6.1700	
4	1.04	-0.00	0.0415	0.1551	-0.0142	0.0606	-0.0099	0.4245	0.1663	0.2582	3.7401	
5	2.08	-0.00	0.0923	0.2604	-0.0147	0.0634	-0.0106	0.4263	0.1714	0.2549	2.8211	
6	3.06	-0.00	0.1404	0.3576	-0.0142	0.0576	-0.0112	0.4327	0.1687	0.2640	2.5462	
7	4.10	-0.00	0.1968	0.4568	-0.0146	0.0703	-0.0105	0.4415	0.1723	0.2692	2.3206	
8	5.09	-0.00	0.2487	0.5591	-0.0141	0.0729	-0.0112	0.4512	0.1807	0.2704	2.2486	
9	6.13	-0.00	0.3122	0.6588	-0.0154	0.0773	-0.0134	0.4651	0.1830	0.2821	2.1101	
10	8.19	-0.00	0.4511	0.8462	-0.0181	0.0880	-0.0134	0.4827	0.2030	0.2797	1.8758	
11	10.24	-0.01	0.6172	0.9902	-0.0233	0.1061	-0.0134	0.4909	0.2171	0.2738	1.6141	
12	12.24	-0.01	0.8002	1.1914	-0.0244	0.1130	-0.0137	0.4964	0.2571	0.2392	1.4896	
13	15.36	-0.01	1.1333	1.4676	-0.0220	0.1124	-0.0138	0.5006	0.2624	0.2382	1.2950	
14	18.49	-0.01	1.5659	1.7856	-0.0286	0.1497	-0.0172	0.5009	0.2725	0.2284	1.1403	
15	21.67	-0.01	2.1990	2.1947	0.0580	-0.0449	-0.0162	0.4894	0.2867	0.2027	0.9988	
16	24.85	-0.02	2.9525	2.7719	0.0877	-0.0357	-0.0193	0.4803	0.2945	0.1858	0.9388	
17	28.13	-0.04	3.8609	3.3404	0.1826	0.0072	-0.0219	0.4792	0.3033	0.1759	0.8652	
18	31.34	-0.06	4.7774	3.7016	0.2441	0.1806	-0.0244	0.4864	0.3093	0.1770	0.7748	
19	15.35	-0.01	1.1046	1.6207	-0.0184	0.0967	-0.0100	0.4976	0.3096	0.1880	1.4672	
20	5.13	-0.00	0.2237	0.6776	-0.0163	0.0809	-0.0071	0.4581	0.2640	0.1941	3.0289	
21	0.02	-0.00	-0.0327	0.1545	-0.0201	0.0625	-0.0037	0.4245	0.2189	0.2056	-4.7249	

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 183 1.20 2.3 0.0 02=0F0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CM	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-2.03	0.00	-0.1165	-0.1289	-0.0083	0.0113	-0.0029	0.4348	0.1933	0.2416	1.1066
2	-1.03	0.00	-0.0654	-0.0204	-0.0090	0.0174	-0.0033	0.4304	0.1821	0.2482	0.3116
3	-0.00	0.00	-0.0168	0.1054	-0.0096	0.0152	-0.0039	0.4271	0.1744	0.2527	-0.2762
4	1.05	0.00	0.0393	0.2117	-0.0061	0.0162	-0.0046	0.4264	0.1734	0.2531	5.3035
5	2.06	-0.00	0.0656	0.3392	-0.0057	0.0174	-0.0053	0.4284	0.1754	0.2530	3.9626
6	3.06	-0.00	0.1369	0.4585	-0.0071	0.0164	-0.0061	0.4315	0.1699	0.2616	3.3486
7	4.06	0.00	0.1866	0.5830	-0.0123	0.0225	-0.0055	0.4415	0.1711	0.2704	3.1284
8	5.12	-0.00	0.2406	0.7244	-0.0059	0.0273	-0.0063	0.4557	0.1721	0.2835	3.0082
9	6.14	0.00	0.3005	0.8546	-0.0149	0.0219	-0.0060	0.4655	0.1762	0.2893	2.8442
10	6.13	-0.01	0.3035	0.8466	0.0110	0.0205	-0.0069	0.4645	0.1849	0.2796	2.7699
11	7.17	0.00	0.3669	0.9585	-0.0248	0.0309	-0.0068	0.4751	0.1879	0.2872	2.6121
12	8.22	-0.00	0.4458	1.0610	-0.0125	0.0336	-0.0061	0.4868	0.1938	0.2930	2.3799
13	10.24	-0.00	0.6214	1.7454	0.0017	0.0290	-0.0077	0.4882	0.2019	0.2863	2.0042
14	12.33	-0.00	0.8339	1.4529	-0.0115	0.0391	-0.0098	0.4912	0.2069	0.2844	1.7423
15	15.45	-0.00	1.2050	1.7757	-0.0086	0.0538	-0.0130	0.4983	0.2206	0.2777	1.4736
16	18.61	-0.01	1.7347	2.1756	-0.0249	0.1176	-0.0143	0.5023	0.2330	0.2693	1.2542
17	21.79	-0.01	2.5065	2.6557	0.0290	0.0226	-0.0181	0.4993	0.2491	0.2502	1.0595
18	25.04	-0.02	3.3638	3.1556	0.0902	0.0139	-0.0201	0.4999	0.2628	0.2371	0.9381
19	28.29	-0.03	4.2870	3.5408	0.1616	-0.0054	-0.0219	0.5052	0.2731	0.2321	0.8259
20	31.55	-0.05	5.3749	3.5761	0.1564	0.1947	-0.0260	0.4947	0.2663	0.2084	0.6653
21	15.43	-0.00	1.1832	1.8949	-0.0127	0.0547	-0.0106	0.4946	0.2915	0.2031	1.6015
22	5.13	-0.00	0.2312	0.7903	0.0025	0.0166	-0.0079	0.4545	0.2499	0.2045	3.4179
23	-0.00	0.00	-0.0189	0.1292	-0.0068	0.0089	-0.0054	0.4305	0.2092	0.2212	-0.8282

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 104 1.30 2.3 0.0 0.0 0.0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAP	XCP
1	-2.04	0.00	-0.1079	-0.1325	-0.0034	-0.0049	-0.0056	0.4166	0.1589	0.2577	1.2205
2	-1.01	0.00	-0.0524	-0.0166	-0.0088	-0.0037	-0.0075	0.4130	0.1641	0.2490	0.3157
3	-0.00	0.00	-0.0032	0.1064	-0.0065	0.0022	-0.0080	0.4126	0.1645	0.2481	-32.7993
4	1.00	-0.00	0.0476	0.2296	0.0034	0.0050	-0.0073	0.4128	0.1648	0.2480	4.8279
5	2.03	0.00	0.0940	0.3566	-0.0110	0.0140	-0.0095	0.4143	0.1649	0.2494	3.6399
6	3.06	0.00	0.1519	0.4838	-0.0114	0.0104	-0.0090	0.4185	0.1662	0.2523	3.1848
7	4.10	-0.00	0.2073	0.6048	-0.0043	0.0194	-0.0109	0.4261	0.1677	0.2585	2.9180
8	5.10	-0.00	0.2645	0.7240	-0.0026	0.0395	-0.0102	0.4388	0.1706	0.2682	2.7371
9	6.13	-0.00	0.3349	0.8336	-0.0095	0.0310	-0.0112	0.4484	0.1747	0.2737	2.4888
10	8.24	-0.00	0.4934	1.0313	-0.0049	0.0440	-0.0128	0.4669	0.1796	0.2873	2.0901
11	10.25	-0.00	0.6724	1.2051	-0.0237	0.0582	-0.0146	0.4741	0.1867	0.2874	1.7922
12	12.35	-0.00	0.8864	1.4303	-0.0139	0.0732	-0.0150	0.4848	0.1953	0.2895	1.6136
13	15.43	-0.00	1.2853	1.8059	-0.0202	0.0800	-0.0174	0.4914	0.2104	0.2810	1.4059
14	18.67	-0.00	1.8439	2.2647	0.0087	0.0073	-0.0204	0.4978	0.2238	0.2740	1.1958
15	21.92	-0.01	2.7014	2.7833	0.0280	0.0273	-0.0238	0.5034	0.2418	0.2616	1.0303
16	25.08	-0.02	3.5802	3.0881	0.0674	0.0045	-0.0270	0.5101	0.2550	0.2550	0.8624
17	28.38	-0.03	4.5943	3.2168	0.0556	0.1178	-0.0308	0.5277	0.2653	0.2624	0.7002
18	31.58	-0.02	5.6938	2.8847	0.1128	-0.0479	-0.0315	0.5249	0.2804	0.2445	0.5864
19	31.59	-0.02	5.7017	2.9116	0.1027	-0.0413	-0.0317	0.5186	0.2878	0.2308	0.5107

POINT	TEST PART MACH RX10-6			PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
	1	187	0.80 2.3								
	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-2.03	0.00	-0.0909	-0.1253	-0.0043	-0.0015	-0.0054	0.2559	0.1108	0.1450	1.3796
2	-1.01	0.00	-0.0454	-0.0627	-0.0053	0.0034	-0.0075	0.2530	0.1055	0.1475	1.3807
3	0.01	0.00	0.0023	0.0005	-0.0025	0.0020	-0.0078	0.2499	0.0963	0.1536	0.2345
4	1.01	0.00	0.0466	0.0638	-0.0033	0.0047	-0.0083	0.2496	0.0982	0.1514	1.3686
5	-0.01	0.00	0.0023	0.0050	-0.0062	0.0041	-0.0078	0.2505	0.0996	0.1510	2.2179
6	2.01	0.00	0.0903	0.1271	-0.0028	0.0032	-0.0088	0.2499	0.0978	0.1521	1.4078
7	2.01	0.00	0.0930	0.1276	-0.0028	0.0053	-0.0088	0.2527	0.1023	0.1504	1.3710
8	3.05	0.00	0.1392	0.1920	-0.0036	0.0059	-0.0075	0.2553	0.1044	0.1508	1.3796
9	4.04	-0.00	0.1801	0.2572	-0.0032	0.0065	-0.0099	0.2578	0.1080	0.1498	1.4277
10	5.07	-0.00	0.2331	0.3185	-0.0014	0.0050	-0.0104	0.2613	0.1144	0.1469	1.3660
11	6.07	-0.00	0.2804	0.3842	0.0003	0.0035	-0.0110	0.2662	0.1198	0.1464	1.3699
12	8.12	-0.00	0.3899	0.4921	0.0002	0.0109	-0.0102	0.2761	0.1283	0.1478	1.2621
13	10.13	-0.00	0.5204	0.5687	0.0041	0.0096	-0.0113	0.2813	0.1521	0.1292	1.0926
14	12.14	-0.00	0.6755	0.6317	0.0107	0.0017	-0.0125	0.2823	0.1607	0.1216	0.9352
15	15.22	-0.00	0.9486	0.7364	0.0122	0.0072	-0.0126	0.2715	0.1800	0.0915	0.7763
16	18.27	-0.00	1.2690	0.8526	-0.0108	0.0555	-0.0111	0.2571	0.1948	0.0623	0.6720
17	21.37	-0.00	1.6512	0.8763	-0.4210	1.0292	-0.0095	0.2460	0.1882	0.0578	0.5307
18	21.36	-0.01	1.6191	0.9449	0.0294	0.0317	-0.0079	0.2341	0.2323	0.0018	0.6145
19	24.43	-0.00	2.0489	0.9962	-0.4012	0.9723	-0.0054	0.2111	0.2188	-0.0077	0.4853
20	27.44	0.17	2.9406	0.0468	-2.0020	2.1280	0.0014	0.2288	0.2411	-0.0123	0.0159
21	30.65	0.38	3.4278	0.8583	-1.9148	-1.4162	0.0202	0.2023	0.3085	-0.1062	0.2504
22	15.20	-0.00	0.9252	0.6249	0.0062	0.0122	-0.0038	0.2671	0.2121	0.0551	0.8915
23	9.07	0.00	0.2045	0.4112	-0.0029	0.0036	0.0002	0.2597	0.1538	0.1059	2.0105
24	0.00	0.00	-0.0159	0.0582	-0.0052	-0.0018	0.0011	0.2439	0.1283	0.1156	-3.6554

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	0.00	0.00	-0.0103	0.0388	-0.0062	-0.0019	0.0010	0.2553	0.0669	0.1884	-3.7793
2	-2.03	0.00	-0.0948	-0.1036	-0.0067	-0.0054	0.0017	0.2617	0.0987	0.1626	1.0929
3	-1.00	0.00	-0.0509	-0.0433	-0.0057	-0.0027	0.0014	0.2574	0.1011	0.1562	0.8502
4	1.02	0.00	0.0394	0.0667	-0.0056	0.0006	0.0006	0.2533	0.1022	0.1511	2.1800
5	2.06	0.00	0.0869	0.1482	-0.0040	0.0012	0.0000	0.2548	0.1025	0.1523	1.7060
6	3.03	0.00	0.1285	0.2097	-0.0035	0.0039	-0.0004	0.2577	0.1069	0.1508	1.6310
7	4.05	0.00	0.1787	0.2743	-0.0055	0.0045	-0.0010	0.2633	0.1128	0.1505	1.5351
8	5.09	0.00	0.2265	0.3365	-0.0038	0.0051	-0.0015	0.2665	0.1155	0.1510	1.4857
9	6.06	0.00	0.2707	0.4012	-0.0021	0.0036	-0.0021	0.2731	0.1235	0.1496	1.4816
10	8.14	-0.00	0.3897	0.5027	-0.0009	0.0067	-0.0014	0.2825	0.1342	0.1484	1.2902
11	10.14	-0.00	0.5194	0.5708	0.0016	0.0074	-0.0024	0.2859	0.1501	0.1358	1.0900
12	10.14	-0.00	0.5194	0.5786	0.0041	0.0054	-0.0025	0.2894	0.1587	0.1308	1.1130
13	12.14	-0.00	0.6795	0.6344	0.0117	-0.0063	-0.0037	0.2883	0.1649	0.1234	0.9337
14	14.21	-0.00	0.8520	0.7072	0.0158	-0.0117	-0.0050	0.2798	0.1795	0.1003	0.8300
15	18.31	-0.00	1.2742	0.8873	0.0838	-0.1578	-0.0055	0.2605	0.1962	0.0643	0.6942
16	21.36	-0.00	1.6543	0.9611	0.2013	-0.6026	-0.0002	0.2476	0.2009	0.0466	0.5810
17	24.43	-0.00	2.0879	1.0328	-0.3552	0.8261	-0.0018	0.2155	0.2359	-0.0204	0.4947
18	27.55	0.21	3.0403	0.0851	-1.9947	1.6330	0.0080	0.2307	0.2453	-0.0146	0.0200
19	30.71	0.39	3.5416	0.9147	-1.4310	-2.4331	0.0245	0.2177	0.2498	-0.0321	0.2583
20	30.70	0.42	3.5677	0.7474	-1.2951	-3.2399	0.0287	0.2156	0.2878	-0.0722	0.2095
21	15.23	-0.00	0.9380	0.8456	0.0083	0.0040	0.0046	0.2779	0.2384	0.0395	0.9016
22	5.05	0.00	0.2033	0.4029	-0.0017	-0.0068	0.0070	0.2697	0.1654	0.1042	1.9817
23	-0.01	0.00	-0.0200	0.0552	-0.0015	-0.0140	0.0096	0.2538	0.1109	0.1429	-2.7649
24	-2.02	0.00	-0.0958	-0.1059	-0.0041	-0.0149	0.0096	0.2862	0.1038	0.1824	1.1047

TEST PART MACH RK10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 189 u.92 2.3 0.0 85u0F0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-2.02	0.00	-0.0955	-0.1096	-0.0052	-0.0149	0.0096	0.2863	0.1082	0.1781	1.1474
2	-1.01	0.00	-0.0504	-0.0535	-0.0038	-0.0104	0.0111	0.2824	0.1071	0.1753	1.0618
3	0.01	0.00	-0.0049	0.0162	-0.0036	-0.0078	0.0091	0.2823	0.1041	0.1782	-3.3182
4	1.03	0.00	0.0423	0.0774	-0.0054	-0.0091	0.0085	0.2808	0.1070	0.1738	1.8402
5	2.02	0.00	0.0846	0.1405	-0.0027	-0.0066	0.0081	0.2818	0.1057	0.1761	1.6559
6	3.05	0.00	0.1317	0.2080	-0.0045	-0.0021	0.0076	0.2867	0.1102	0.1765	1.5799
7	4.05	0.00	0.1750	0.2704	-0.0040	-0.0015	0.0070	0.2921	0.1115	0.1806	1.5448
8	5.09	0.00	0.2252	0.3339	-0.0024	-0.0028	0.0064	0.2988	0.1195	0.1793	1.4827
9	6.09	0.00	0.2746	0.3874	-0.0053	0.0016	0.0076	0.3035	0.1268	0.1767	1.3908
10	8.10	-0.00	0.3922	0.4817	-0.0006	0.0045	0.0050	0.3178	0.1413	0.1766	1.2282
11	10.17	-0.00	0.5347	0.5501	0.0020	0.0033	0.0055	0.3253	0.1494	0.1759	1.0249
12	12.17	-0.00	0.6969	0.6127	0.0047	0.0020	0.0043	0.3222	0.1672	0.1550	0.8792
13	15.21	-0.00	0.9854	0.7460	-0.0003	0.0229	0.0039	0.3109	0.1970	0.1239	0.7570
14	18.35	-0.00	1.3424	0.8879	0.0522	-0.0746	0.0042	0.2958	0.2108	0.0850	0.6615
15	21.40	-0.00	1.7293	1.0345	-0.0156	0.0533	0.0052	0.2704	0.2219	0.0485	0.5982
16	24.51	0.11	2.4415	0.5226	-1.2182	1.3947	0.0098	0.2671	0.2384	0.0287	0.2148
18	30.80	0.33	3.8796	0.8654	-0.5346	-3.4675	0.0282	0.2511	0.3090	-0.0579	0.2231
19	15.25	-0.00	0.9744	0.6300	0.0087	0.0042	0.0101	0.3181	0.2315	0.0866	0.8918
20	5.06	0.00	0.2075	0.3879	-0.0026	-0.0082	0.0146	0.3021	0.1596	0.1425	1.8691

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
PAGE 1 OF 1
SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY (PWT)
MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART MACH RX10-6											
1 190 0.48 2.3											
PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION											
0.0 85.0F0 0.0 OFF OFF OFF OFF UNKNOWN											
POINT	ALPHA	BETA	CN	CLM	CV	CLW	CLL	CA	CAR	CAF	XCP
1	-2.03	0.00	-0.1021	-0.1010	-0.0029	-0.0178	0.0153	0.3287	0.0945	0.2342	0.9894
2	-1.01	0.00	-0.0455	-0.0342	-0.0027	-0.0134	0.0165	0.3308	0.1023	0.2285	0.6706
3	-0.00	0.00	-0.0040	0.0190	-0.0034	-0.0091	0.0147	0.3269	0.1095	0.2174	-2.1065
4	1.02	0.00	0.0378	0.0853	-0.0051	-0.0067	0.0141	0.3299	0.1093	0.2206	2.2579
6	3.05	0.00	0.1353	0.2046	-0.0020	-0.0037	0.0147	0.3376	0.1159	0.2216	1.5118
7	4.07	0.00	0.1790	0.2684	-0.0026	-0.0013	0.0142	0.3424	0.1201	0.2223	1.4993
8	5.06	0.00	0.2289	0.3249	-0.0032	0.0011	0.0121	0.3476	0.1285	0.2191	1.4196
9	6.08	0.00	0.2834	0.3790	-0.0015	0.0016	0.0132	0.3571	0.1311	0.2260	1.3370
10	8.14	0.00	0.4029	0.4673	-0.0025	0.0044	0.0121	0.3678	0.1485	0.2193	1.1599
11	10.19	-0.00	0.5537	0.5334	0.0012	0.0106	0.0111	0.3778	0.1699	0.2079	0.9633
12	12.20	-0.00	0.7180	0.5967	-0.0014	0.0169	0.0114	0.3793	0.1783	0.2009	0.8311
13	15.28	-0.00	1.0230	0.7107	-0.0111	0.0567	0.0094	0.3796	0.1847	0.1949	0.6947
14	18.36	-0.00	1.3699	0.8371	0.0172	-0.0004	0.0098	0.3564	0.2163	0.1401	0.6023
15	21.47	-0.00	1.8426	0.9541	0.0701	-0.1096	0.0109	0.3275	0.2427	0.0848	0.5178
17	27.74	0.20	3.3086	0.9558	-1.0444	-0.2182	0.0202	0.3046	0.2874	0.0171	0.2889
18	30.90	0.26	4.1695	1.2255	-0.4314	-2.5332	0.0264	0.2929	0.3026	-0.0097	0.2939
19	30.92	0.26	4.2003	1.2247	-0.4095	-2.5569	0.0272	0.2990	0.3137	-0.0147	0.2916
20	15.24	-0.00	0.9980	0.7936	-0.0168	0.0649	0.0187	0.3777	0.2750	0.1027	0.7951
21	5.07	0.00	0.2093	0.3866	0.0010	-0.0057	0.0214	0.3505	0.2105	0.1400	1.8480
22	-0.00	0.00	-0.0246	0.0564	-0.0036	-0.0162	0.0223	0.3274	0.1468	0.1805	-2.3176

TEST	PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
1	191	1.10	2.3	0.0	MS=0F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	MCP
1	-7.04	0.00	-0.0916	-0.1526	-0.0144	0.0219	0.0271	0.4331	0.1571	0.2760	1.6614
2	-1.03	0.00	-0.0442	-0.0964	-0.0152	0.0745	0.0270	0.4280	0.1536	0.2744	2.1823
3	-0.01	0.00	0.0077	-0.0279	-0.0159	0.0321	0.0268	0.4281	0.1622	0.2659	-3.6193
4	1.03	0.00	0.0532	0.0409	-0.0145	0.0310	0.0262	0.4309	0.1687	0.2622	0.7603
5	2.03	0.00	0.0996	0.1059	-0.0168	0.0399	0.0256	0.4328	0.1687	0.2641	1.0631
6	3.07	-0.00	0.1493	0.1706	-0.0152	0.0366	0.0249	0.4364	0.1704	0.2660	1.1425
7	4.04	-0.00	0.1942	0.2457	-0.0176	0.0458	0.0228	0.4455	0.1787	0.2668	1.2650
8	5.05	-0.00	0.2478	0.3087	-0.0141	0.0448	0.0237	0.4532	0.1795	0.2737	1.2436
9	6.10	-0.00	0.2979	0.3971	-0.0157	0.0440	0.0231	0.4644	0.1872	0.2772	1.3339
10	8.14	-0.00	0.4251	0.5056	-0.0154	0.0554	0.0221	0.4813	0.1895	0.2916	1.1893
11	10.18	-0.00	0.5739	0.6007	-0.0130	0.0550	0.0210	0.4907	0.2072	0.2835	1.0467
12	12.20	-0.00	0.7488	0.6695	-0.0132	0.0409	0.0212	0.4924	0.2167	0.2757	0.8940
13	15.29	-0.00	1.0786	0.7990	-0.0589	0.1858	0.0198	0.4894	0.2357	0.2537	0.7407
14	18.40	-0.00	1.4934	0.8822	-0.1599	0.4062	0.0183	0.4809	0.2534	0.2275	0.5908
15	21.51	0.01	2.0373	0.8792	-0.4599	0.9403	0.0164	0.4681	0.2758	0.1923	0.4315
16	24.64	0.05	2.8298	0.8160	-0.8096	1.3365	0.0164	0.4508	0.2901	0.1607	0.2177
17	27.81	0.14	3.8427	0.0808	-1.1153	0.8697	0.0179	0.4488	0.3105	0.1383	0.0210
18	31.04	0.25	4.6165	0.4807	-0.5073	-1.8727	0.0229	0.4333	0.3434	0.0899	0.1041
19	15.32	-0.00	1.0692	0.8654	-0.0746	0.2207	0.0222	0.4963	0.3375	0.1589	0.8094
20	5.04	-0.00	0.2395	0.3711	-0.0154	0.0440	0.0251	0.4630	0.2432	0.2198	1.5494
21	-0.01	0.00	-0.0070	0.0255	-0.0152	0.0311	0.0283	0.4396	0.1939	0.2457	-3.6538

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (4T)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

POINT	TEST PART MACH R210-6										
	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	XCP
1	-2.03	0.00	-0.1043	-0.0824	-0.0093	0.0136	0.0260	0.4227	0.1485	0.2741	0.7906
2	-1.00	0.00	-0.0545	-0.0107	-0.0080	0.0144	0.0243	0.4156	0.1433	0.2723	0.1961
3	0.00	0.00	-0.0108	0.0002	-0.0077	0.0135	0.0238	0.4137	0.1421	0.2711	-6.3336
4	1.03	0.00	0.0362	0.1505	-0.0044	0.0110	0.0232	0.4141	0.1426	0.2714	4.1500
5	2.05	0.00	0.0819	0.2306	-0.0057	0.0132	0.0223	0.4153	0.1544	0.2608	2.8159
6	3.04	0.00	0.1247	0.3067	-0.0071	0.0186	0.0216	0.4188	0.1595	0.2593	2.4607
7	4.11	-0.00	0.1774	0.3852	-0.0046	0.0160	0.0207	0.4233	0.1620	0.2613	2.1711
8	5.10	-0.00	0.2277	0.4605	-0.0031	0.0214	0.0213	0.4309	0.1677	0.2632	2.0221
9	6.09	-0.00	0.2823	0.5344	-0.0035	0.0205	0.0195	0.4417	0.1638	0.2779	1.8945
10	8.18	-0.00	0.4036	0.6002	-0.0000	0.0143	0.0187	0.4547	0.1816	0.2731	1.6852
11	10.19	-0.00	0.5583	0.7558	0.0028	0.0152	0.0192	0.4625	0.1800	0.2825	1.3536
12	12.24	-0.00	0.7485	0.8222	-0.0001	0.0193	0.0179	0.4649	0.1858	0.2791	1.0986
13	15.33	-0.00	1.0484	0.9412	-0.0164	0.0461	0.0156	0.4620	0.2053	0.2566	0.8648
14	18.42	-0.00	1.5244	1.0440	-0.0999	0.2568	0.0138	0.4532	0.2126	0.2406	0.6988
15	21.58	0.00	2.1455	1.1082	-0.1966	0.4231	0.0120	0.4393	0.2355	0.2038	0.5165
16	24.78	0.01	2.4970	1.1560	-0.2165	0.4086	0.0112	0.4209	0.2464	0.1745	0.3998
17	27.92	0.03	3.7670	0.8993	-0.4497	0.7533	0.0096	0.4076	0.2483	0.1593	0.2387
18	31.07	0.06	4.6952	0.5101	-0.4592	0.3449	0.0076	0.3937	0.2589	0.1347	0.1086
19	15.32	-0.00	1.0706	1.0101	-0.0341	0.1112	0.0187	0.4644	0.2492	0.2152	0.9435
20	5.00	0.00	0.2133	0.5176	-0.0054	0.0142	0.0218	0.4348	0.2261	0.2088	2.4266
21	0.00	0.00	-0.0189	0.0991	-0.0069	0.0138	0.0225	0.4183	0.1634	0.2549	-5.2577

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 I 193 1.30 2.3 0.0 85W0F0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CT	CLN	CLL	CA	CAB	CAF	KCP
1	-2.03	0.00	-0.0831	-0.1487	0.0005	-0.0080	0.0171	0.3837	0.1442	0.2395	1.7001
2	-2.03	0.00	-0.0454	-0.1396	-0.0024	-0.0175	0.0170	0.3924	0.1619	0.2305	1.6346
3	-0.99	0.00	-0.0373	-0.0503	-0.0004	-0.0197	0.0153	0.3905	0.1655	0.2250	1.3488
4	0.01	-0.00	0.0045	0.0395	0.0001	0.0003	0.0162	0.3871	0.1708	0.2163	4.6338
5	1.03	0.00	0.0542	0.1363	-0.0033	-0.0115	0.0142	0.3903	0.1654	0.2249	2.5170
6	2.06	0.00	0.1001	0.2319	-0.0075	-0.0076	0.0136	0.3931	0.1587	0.2345	2.3173
7	3.08	0.00	0.1444	0.3258	-0.0069	0.0076	0.0145	0.3947	0.1617	0.2330	2.1956
8	4.09	0.00	0.1975	0.4145	-0.0082	0.0068	0.0123	0.3967	0.1662	0.2305	2.0994
9	5.08	-0.00	0.2462	0.5042	-0.0002	0.0124	0.0133	0.4062	0.1672	0.2390	2.0482
10	6.12	-0.00	0.2990	0.6065	-0.0025	0.0214	0.0128	0.4152	0.1711	0.2441	2.0283
11	8.18	-0.00	0.4341	0.7337	-0.0039	0.0224	0.0112	0.4243	0.1799	0.2444	1.6902
12	10.20	-0.00	0.6007	0.8208	-0.0067	0.0326	0.0099	0.4319	0.1918	0.2401	1.3665
13	12.27	-0.00	0.8079	0.8981	-0.0075	0.0369	0.0072	0.4329	0.1956	0.2373	1.1118
14	15.36	-0.00	1.1914	1.0144	-0.0064	0.0540	0.0046	0.4369	0.2110	0.2259	0.8561
15	18.46	-0.01	1.7111	1.0793	-0.0013	0.0683	0.0031	0.4350	0.2217	0.2133	0.6307
16	21.67	-0.01	2.4214	1.0836	0.0120	0.0408	0.0015	0.4277	0.2377	0.1900	0.4475
17	24.86	0.00	3.2157	1.0466	-0.1108	0.2355	-0.0010	0.4241	0.2535	0.1706	0.3255
18	27.98	0.01	4.1057	0.7684	-0.3062	0.5418	-0.0026	0.4276	0.2612	0.1664	0.1872
19	31.18	0.03	5.1249	0.1408	-0.1663	-0.0157	-0.0043	0.4184	0.2732	0.1452	0.0275
20	15.38	-0.00	1.1930	1.0713	-0.0082	0.0624	0.0059	0.4386	0.2683	0.1503	0.8980
21	5.10	-0.00	0.2363	0.5674	-0.0068	0.0224	0.0064	0.4074	0.2484	0.1589	2.4014
22	0.01	0.00	-0.0030	0.0925	-0.0084	-0.0042	0.0067	0.3965	0.2245	0.1721	-30.4071

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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PROPULSION WIND TUNNEL FACILITY (PWF)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

TEST PART MACH RX10-6												
1 196 0.80 2.3												
PW1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION												
0.8 M400F0 0.0 OFF OFF OFF OFF UNKNOWN												
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP	
1	-2.02	0.00	-0.0899	-0.1694	-0.0030	-0.0131	-0.0055	0.2444	0.1009	0.1436	1.8839	
2	-2.02	0.00	-0.0899	-0.1694	-0.0031	-0.0153	-0.0055	0.2463	0.1021	0.1442	1.8845	
3	-2.01	0.00	-0.0879	-0.1698	-0.0043	-0.0157	-0.0055	0.2470	0.1130	0.1340	1.9311	
4	-1.01	0.00	-0.0425	-0.0864	-0.0041	-0.0127	-0.0058	0.2443	0.1058	0.1386	2.0428	
5	0.00	0.00	0.0024	0.0054	-0.0038	-0.0114	-0.0080	0.2412	0.1026	0.1397	2.2351	
6	1.02	0.00	0.0441	0.1014	-0.0021	-0.0105	-0.0085	0.2419	0.1018	0.1401	2.3005	
7	2.04	0.00	0.0955	0.1626	-0.0004	-0.0094	-0.0073	0.2434	0.1023	0.1411	1.9114	
8	3.04	0.00	0.1373	0.2767	-0.0025	-0.0071	-0.0097	0.2459	0.1138	0.1321	2.0158	
9	4.04	0.00	0.1839	0.3684	-0.0007	-0.0081	-0.0103	0.2490	0.1165	0.1324	2.0029	
10	5.06	0.00	0.2330	0.4574	-0.0002	-0.0072	-0.0109	0.2542	0.1038	0.1504	1.9634	
11	6.07	0.00	0.2806	0.5494	-0.0010	-0.0024	-0.0114	0.2574	0.1288	0.1286	1.9576	
12	8.13	-0.00	0.4001	0.6960	0.0028	-0.0025	-0.0126	0.2678	0.1415	0.1262	1.7397	
13	10.14	-0.00	0.5389	0.8185	0.0020	-0.0024	-0.0119	0.2710	0.1530	0.1180	1.5193	
14	12.19	-0.00	0.6974	0.9486	0.0095	-0.0033	-0.0133	0.2697	0.1652	0.1045	1.3602	
15	15.25	-0.00	0.9569	1.1588	0.0011	0.0239	-0.0115	0.2596	0.1750	0.0847	1.2110	
16	18.31	-0.00	1.2621	1.3797	0.0191	-0.0021	-0.0139	0.2465	0.1946	0.0519	1.0932	
17	21.35	-0.00	1.5991	1.6128	0.0363	-0.0303	-0.0112	0.2253	0.2134	0.0120	1.0086	
18	24.46	-0.00	2.0281	1.8512	0.0620	-0.0806	-0.0090	0.1913	0.2289	-0.0377	0.9128	
19	27.55	-0.00	2.4779	2.0301	0.1726	-0.3000	-0.0059	0.1492	0.2455	-0.0962	0.8193	
20	30.61	-0.00	2.9643	2.1477	0.3550	-0.6659	-0.0040	0.0997	0.2317	-0.1320	0.7197	
21	15.22	-0.00	0.9337	1.2436	-0.0041	0.0318	-0.0008	0.2581	0.2113	0.0468	1.3319	
22	5.06	0.00	0.2139	0.5265	-0.0016	-0.0069	-0.0020	0.2465	0.1418	0.1047	2.4616	
23	0.00	0.00	-0.0082	0.0603	-0.0014	-0.0149	-0.0009	0.2334	0.1111	0.1223	-7.3367	

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 197 0.85 2.3 0.0 B4W0F0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	0.00	0.00	0.0020	0.0393	-0.0013	-0.0187	-0.0009	0.2334	0.1052	0.1781	19.2288
2	-2.02	0.00	-0.0911	-0.1425	-0.0006	-0.0290	-0.0001	0.2394	0.0917	0.1477	1.5643
3	-2.02	0.00	-0.0944	-0.1445	-0.0019	-0.0205	-0.0001	0.2385	0.1157	0.1229	1.5318
4	-1.03	0.00	-0.0458	-0.0633	-0.0016	-0.0175	-0.0004	0.2344	0.1089	0.1255	1.3839
6	2.02	0.00	0.0401	0.2067	-0.0004	-0.0130	-0.0019	0.2329	0.1165	0.1164	2.2944
7	2.02	0.00	0.0445	0.2053	0.0008	-0.0147	-0.0019	0.2334	0.1059	0.1276	2.2938
8	3.03	0.00	0.1343	0.2923	-0.0012	-0.0125	-0.0007	0.2359	0.1091	0.1268	2.1769
9	4.04	0.00	0.1832	0.3760	0.0006	-0.0093	-0.0030	0.2398	0.1127	0.1271	2.0521
10	5.06	0.00	0.2292	0.4723	-0.0002	-0.0066	-0.0019	0.2434	0.1200	0.1234	2.0604
11	6.06	0.00	0.2844	0.5544	-0.0008	-0.0041	-0.0025	0.2514	0.1235	0.1279	1.9478
12	8.13	-0.00	0.4031	0.7110	0.0053	-0.0034	-0.0036	0.2609	0.1384	0.1225	1.7638
13	10.16	-0.00	0.5418	0.8318	0.0078	-0.0060	-0.0048	0.2625	0.1507	0.1118	1.5353
14	12.14	-0.00	0.7035	0.9674	0.0071	0.0010	-0.0043	0.2616	0.1641	0.0975	1.3752
15	15.25	-0.00	0.9621	1.1786	-0.0082	0.0418	-0.0061	0.2526	0.1811	0.0715	1.2250
16	18.30	-0.00	1.2799	1.4050	0.0214	-0.0068	-0.0053	0.2410	0.1993	0.0417	1.0978
17	21.37	-0.00	1.6348	1.6504	0.0294	-0.0214	-0.0028	0.2203	0.2162	0.0041	1.0095
18	24.45	-0.00	2.0553	1.8932	0.0736	-0.1011	-0.0010	0.1858	0.2223	-0.0365	0.9211
19	27.59	-0.01	2.5525	2.1064	0.1566	-0.2455	0.0003	0.1448	0.2352	-0.0904	0.8252
20	30.64	-0.01	3.1120	2.3230	0.2493	-0.3506	0.0019	0.0976	0.2435	-0.1459	0.7465
21	15.22	-0.00	0.9445	1.2573	-0.0048	0.0310	0.0023	0.2583	0.2202	0.0381	1.3312
22	4.67	0.00	0.2084	0.5181	0.0008	-0.0079	0.0049	0.2506	0.1453	0.1053	2.4864
23	-0.01	0.00	-0.0128	0.0608	-0.0014	-0.0143	0.0078	0.2339	0.1015	0.1324	-4.7471

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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PROPULSION WIND TUNNEL FACILITY (PWT)
MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	198	0.92	2.3	0.0	B4M0F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP	
1	-2.03	0.00	-0.0955	-0.1501	-0.0030	-0.0216	0.0097	0.2378	0.1114	0.1264	1.5708	
2	-1.02	0.00	-0.0453	-0.0725	-0.0015	-0.0185	0.0078	0.2331	0.1123	0.1208	1.6021	
3	-0.01	0.00	0.0021	0.0166	-0.0024	-0.0141	0.0074	0.2312	0.1067	0.1244	0.0291	
4	1.02	0.00	0.0515	0.1072	-0.0019	-0.0152	0.0068	0.2321	0.1106	0.1215	2.0809	
5	2.04	0.00	0.0413	0.1956	-0.0026	-0.0089	0.0064	0.2345	0.1132	0.1212	2.1427	
6	3.05	0.00	0.1403	0.2833	-0.0010	-0.0116	0.0057	0.2375	0.1179	0.1195	2.0190	
7	4.05	0.00	0.1886	0.3660	-0.0005	-0.0108	0.0052	0.2412	0.1161	0.1251	1.9435	
8	5.08	0.00	0.2359	0.4615	0.0012	-0.0077	0.0046	0.2466	0.1180	0.1287	1.9564	
9	6.10	0.00	0.2889	0.5485	-0.0017	-0.0039	0.0056	0.2548	0.1288	0.1260	1.8987	
10	8.14	-0.00	0.4141	0.6954	0.0030	-0.0016	0.0045	0.2690	0.1410	0.1260	1.6791	
11	10.17	-0.00	0.5537	0.8236	0.0090	-0.0068	0.0032	0.2705	0.1560	0.1145	1.4073	
12	12.21	-0.00	0.7209	0.9622	0.0084	-0.0041	0.0019	0.2720	0.1704	0.1016	1.3367	
13	15.25	-0.00	0.9437	1.1882	0.0044	0.0160	0.0015	0.2632	0.1927	0.0706	1.1958	
14	18.30	-0.00	1.3087	1.4184	0.0178	-0.0003	0.0023	0.2516	0.2080	0.0437	1.0838	
15	21.43	-0.00	1.6971	1.6966	0.0196	0.0254	0.0046	0.2324	0.2190	0.0134	0.9997	
16	24.54	-0.00	2.1881	2.0111	-0.0178	0.0530	0.0060	0.2066	0.2374	-0.0308	0.9191	
17	27.67	-0.01	2.7803	2.4878	0.1121	-0.1241	0.0057	0.1688	0.2459	-0.0771	0.8948	
18	30.86	-0.02	3.6067	3.3747	0.1749	-0.0379	0.0064	0.1370	0.2493	-0.1123	0.9357	
19	30.85	-0.02	3.5818	3.3391	0.1666	-0.0119	0.0088	0.1338	0.2565	-0.1226	0.9322	
20	15.25	-0.00	0.9637	1.2781	0.0030	0.0164	0.0128	0.2697	0.2324	0.0373	1.3263	
21	5.08	0.00	0.2106	0.5331	-0.0013	-0.0019	0.0160	0.2529	0.1772	0.0757	2.5387	
22	0.00	0.00	-0.0214	0.0709	-0.0026	-0.0136	0.0172	0.2350	0.1356	0.0994	-3.3106	

TEST PART MACH RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 199 0.98 2.3 0.0 B4W0F0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-2.03	0.00	-0.0888	-0.1776	-0.0017	-0.0169	0.0187	0.2610	0.1236	0.1373	1.9992
2	-1.02	0.00	-0.0411	-0.0424	-0.0014	-0.0180	0.0168	0.2530	0.1249	0.1281	2.2492
3	0.00	0.00	0.0065	0.0015	-0.0033	-0.0120	0.0165	0.2560	0.1274	0.1286	0.2397
4	1.03	0.00	0.0535	0.0916	-0.0028	-0.0111	0.0159	0.2546	0.1223	0.1322	1.7130
5	2.02	0.00	0.1019	0.1741	-0.0012	-0.0063	0.0153	0.2581	0.1121	0.1460	1.7085
6	3.06	0.00	0.1509	0.2663	-0.0040	-0.0045	0.0147	0.2642	0.1269	0.1373	1.7652
7	4.07	0.00	0.2005	0.3575	-0.0056	0.0014	0.0157	0.2695	0.1281	0.1413	1.7829
8	5.10	0.00	0.2516	0.4483	0.0003	0.0018	0.0152	0.2768	0.1387	0.1381	1.7813
9	6.09	0.00	0.3091	0.5302	-0.0012	0.0057	0.0145	0.2906	0.1441	0.1465	1.7153
10	8.14	-0.00	0.4292	0.6907	0.0087	-0.0016	0.0149	0.3040	0.1582	0.1458	1.6093
11	10.18	-0.00	0.5635	0.8336	0.0177	-0.0129	0.0119	0.3186	0.1695	0.1491	1.4288
12	12.18	-0.00	0.7436	0.9720	0.0150	-0.0053	0.0122	0.3150	0.1871	0.1280	1.3071
13	15.25	-0.00	1.0359	1.2270	0.0137	0.0074	0.0115	0.3157	0.2011	0.1146	1.1845
14	18.36	-0.00	1.3979	1.4961	-0.0018	0.0699	0.0108	0.3076	0.2290	0.0785	1.0703
15	21.48	-0.01	1.8720	1.6341	0.0491	-0.0235	0.0114	0.2877	0.2436	0.0440	0.9798
16	24.65	-0.01	2.5038	2.3256	0.0477	-0.0201	0.0096	0.2650	0.2577	0.0074	0.9288
17	27.80	-0.01	3.3237	3.0931	0.0874	-0.0245	0.0081	0.2387	0.2723	-0.0337	0.9306
18	31.05	-0.02	4.1508	3.8685	0.1569	-0.0062	0.0068	0.2140	0.2864	-0.0724	0.9320
19	15.28	-0.00	1.0177	1.2817	0.0168	0.0031	0.0160	0.3193	0.2433	0.0760	1.2595
20	5.09	0.00	0.2393	0.4978	-0.0041	0.0122	0.0198	0.2837	0.1986	0.0850	2.0802
21	0.00	0.00	0.0019	0.0196	-0.0011	-0.0076	0.0212	0.2548	0.1390	0.1159	10.6055

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEOC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (4T)

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MARTIN MISSILE TAIL EFFECTS DATA

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POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAP	ACP
1	-2.02	0.00	-0.0946	-0.1646	-0.0045	-0.0012	0.0155	0.4267	0.1728	0.2538	1.7730
2	-2.02	0.00	-0.0917	-0.1722	-0.0065	0.0000	0.0169	0.4280	0.1790	0.2490	1.8777
3	-1.03	0.00	-0.0459	-0.0786	-0.0091	0.0171	0.0167	0.4261	0.1765	0.2496	1.7108
4	-0.01	-0.00	0.0071	0.0164	-0.0137	0.0337	0.0150	0.4265	0.1774	0.2491	2.3543
5	1.00	-0.00	0.0560	0.1216	-0.0093	0.0239	0.0143	0.4261	0.1822	0.2439	2.1729
6	2.03	-0.00	0.1023	0.2266	-0.0107	0.0345	0.0137	0.4293	0.1775	0.2518	2.2147
7	3.08	-0.00	0.1507	0.3396	-0.0063	0.0230	0.0116	0.4310	0.1847	0.2464	2.2544
8	4.07	-0.00	0.2000	0.4384	-0.0087	0.0384	0.0124	0.4413	0.1821	0.2591	2.1919
9	5.08	-0.00	0.2546	0.5447	-0.0053	0.0284	0.0117	0.4481	0.1940	0.2541	2.1394
10	6.12	-0.00	0.3134	0.6508	-0.0076	0.0405	0.0111	0.4622	0.1970	0.2652	2.0763
11	8.15	-0.00	0.4394	0.8383	0.0006	0.0268	0.0097	0.4745	0.2110	0.2635	1.9088
12	10.20	-0.00	0.5998	0.9972	0.0057	0.0278	0.0097	0.4827	0.2209	0.2618	1.6638
13	12.26	-0.00	0.7828	1.1503	0.0051	0.0305	0.0082	0.4840	0.2389	0.2451	1.4694
14	12.26	-0.00	0.7864	1.1422	0.0070	0.0242	0.0082	0.4840	0.2572	0.2768	1.4525
15	15.36	-0.00	1.1047	1.4511	0.0005	0.0536	0.0057	0.4829	0.2591	0.2238	1.3136
16	18.47	-0.01	1.5151	1.7911	0.0037	0.0774	0.0042	0.4752	0.2756	0.1996	1.1822
17	21.61	-0.01	2.0957	2.1521	0.0371	0.0309	0.0042	0.4577	0.2893	0.1685	1.0269
18	24.80	-0.01	2.8632	2.6104	0.0376	0.0344	0.0017	0.4409	0.2949	0.1460	0.9117
19	27.96	-0.01	3.7370	3.0324	0.0514	0.0544	-0.0007	0.4270	0.3102	0.1168	0.8116
20	31.18	-0.01	4.5645	3.3275	0.0209	0.1094	-0.0025	0.4169	0.3190	0.0980	0.7290
21	15.35	-0.00	1.0882	1.4797	0.0042	0.0430	0.0085	0.4847	0.3118	0.1729	1.3597
23	0.00	-0.00	-0.0032	0.0634	-0.0108	0.0230	0.0133	0.4289	0.2112	0.2177	-19.7511

POINT	TEST PART MACH RX10-6			PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	1	201	1.20 2.3								0.0	04W0F0
	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP	
1	-2.03	0.00	-0.0991	-0.1195	-0.0054	0.0077	0.0092	0.4346	0.1480	0.2866	1.2061	
2	-1.03	0.00	-0.0444	-0.0194	-0.0051	0.0048	0.0049	0.4305	0.1510	0.2795	0.3883	
3	0.03	0.00	0.0006	0.0947	-0.0056	0.0057	0.0083	0.4270	0.1533	0.2737	170.0089	
4	0.03	0.00	0.0005	0.0982	-0.0056	0.0073	0.0070	0.4282	0.1552	0.2730	193.5221	
5	1.02	0.00	0.0451	0.2083	-0.0052	0.0067	0.0077	0.4283	0.1552	0.2731	4.6209	
6	2.07	-0.00	0.0930	0.3226	-0.0037	0.0096	0.0070	0.4289	0.1549	0.2741	3.4696	
7	3.06	-0.00	0.1426	0.4277	-0.0047	0.0120	0.0050	0.4331	0.1562	0.2769	2.9989	
8	4.06	-0.00	0.1922	0.5407	-0.0027	0.0101	0.0057	0.4392	0.1589	0.2804	2.8124	
9	5.09	-0.00	0.2448	0.6500	-0.0022	0.0111	0.0050	0.4466	0.1641	0.2825	2.6551	
10	6.13	-0.00	0.3054	0.7564	-0.0016	0.0137	0.0043	0.4572	0.1683	0.2869	2.4782	
11	8.20	-0.00	0.4450	0.9457	0.0046	0.0087	0.0043	0.4692	0.1765	0.2927	2.1250	
12	10.22	-0.00	0.5136	1.1015	0.0081	0.0027	0.0020	0.4753	0.1854	0.2899	1.7951	
13	12.31	-0.00	0.6116	1.2917	0.0129	0.0037	0.0011	0.4791	0.1985	0.2806	1.5915	
14	15.39	-0.00	1.1604	1.5881	0.0024	0.0420	0.0000	0.4813	0.2167	0.2646	1.3686	
15	18.53	-0.01	1.6420	1.9397	0.0072	0.0524	-0.0021	0.4820	0.2323	0.2497	1.1813	
16	21.71	-0.01	2.3286	2.3566	0.0308	0.0081	-0.0031	0.4741	0.2514	0.2227	1.0120	
17	24.85	-0.01	3.1142	2.7130	0.0452	0.0142	-0.0065	0.4639	0.2655	0.1983	0.8712	
18	28.05	-0.01	4.0201	2.6913	0.0691	-0.0094	-0.0074	0.4566	0.2734	0.1833	0.7192	
19	31.25	-0.01	4.9367	2.9238	0.0237	0.0689	-0.0087	0.4366	0.2848	0.1518	0.5923	
20	15.37	-0.00	1.1411	1.6381	0.0003	0.0414	0.0026	0.4828	0.2775	0.2053	1.4356	
21	15.37	-0.00	1.1411	1.6291	0.0022	0.0190	0.0012	0.4819	0.2655	0.2164	1.4277	
22	5.10	-0.00	0.2351	0.6883	-0.0023	0.0097	0.0035	0.4525	0.2228	0.2297	2.9282	
23	0.01	0.00	-0.0151	0.1346	-0.0030	0.0018	0.0041	0.4320	0.1921	0.2399	-8.9299	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
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PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART		MACH		RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1		202		1.30	2.3	0.0	4400F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP		
1	-2.03	0.00	-0.0052	-0.1603	0.0013	-0.0171	0.0049	0.4147	0.1287	0.2860	1.8813		
2	-0.94	0.00	-0.0376	-0.0424	-0.0022	-0.0107	0.0046	0.4101	0.1362	0.2739	1.1382		
3	-0.00	0.00	0.0084	0.0787	-0.0018	-0.0095	0.0027	0.4093	0.1473	0.2619	9.4093		
4	1.04	0.00	0.0572	0.2071	0.0015	-0.0044	0.0021	0.4114	0.1541	0.2572	3.6185		
5	2.07	0.00	0.1059	0.3294	-0.0063	0.0057	0.0014	0.4123	0.1541	0.2582	3.1142		
6	3.06	-0.00	0.1569	0.4517	0.0007	0.0117	0.0008	0.4159	0.1539	0.2621	2.8792		
7	4.12	0.00	0.2072	0.5758	-0.0054	0.0032	-0.0001	0.4210	0.1562	0.2648	2.7799		
8	5.12	-0.00	0.2630	0.6926	0.0018	0.0155	-0.0006	0.4303	0.1602	0.2701	2.6331		
9	6.11	-0.00	0.3203	0.8061	-0.0078	0.0219	-0.0014	0.4393	0.1648	0.2745	2.5166		
10	7.21	-0.00	0.4655	1.0151	0.0002	0.0192	-0.0015	0.4497	0.1750	0.2746	2.1805		
11	10.23	-0.01	0.6393	1.1957	0.0141	0.0226	-0.0029	0.4571	0.1856	0.2715	1.8702		
12	12.31	-0.01	0.8446	1.3953	0.0152	0.0276	-0.0033	0.4627	0.1961	0.2665	1.6519		
13	15.40	-0.01	1.2269	1.7008	-0.0068	0.0248	-0.0060	0.4679	0.2101	0.2578	1.3862		
14	18.54	-0.01	1.8005	2.0272	0.0107	0.0453	-0.0088	0.4723	0.2245	0.2479	1.1259		
15	21.76	-0.01	2.5235	2.4220	0.0262	0.0473	-0.0109	0.4739	0.2421	0.2317	0.9598		
16	24.97	-0.01	3.3675	2.6543	0.0297	0.0337	-0.0118	0.4698	0.2561	0.2137	0.7882		
17	28.15	-0.01	4.2907	2.7024	0.0211	0.0741	-0.0147	0.4722	0.2656	0.2066	0.6299		
18	31.32	-0.01	5.2780	2.4102	0.0266	0.0375	-0.0146	0.4630	0.2778	0.1853	0.4567		
19	15.42	-0.01	1.2258	1.7416	-0.0077	0.0797	-0.0061	0.4706	0.2768	0.1938	1.4208		
20	5.12	-0.00	0.2564	0.7293	0.0024	0.0142	-0.0047	0.4342	0.2407	0.1934	2.8443		
21	0.01	0.00	0.0043	0.1041	0.0010	-0.0054	-0.0040	0.4150	0.2135	0.2015	24.1338		

TEST	PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	205	0.50	VARY	0.0	84=0F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN		
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP	RX10-6	
1	23.59	-0.00	2.0223	2.0445	0.0727	-0.0185	-0.0812	0.1358	0.2672	-0.1314	1.0110	0.631	
2	23.58	-0.00	1.9150	1.8588	0.0781	-0.0533	-0.0803	0.0792	0.1899	-0.1108	0.9706	0.612	
3	23.47	-0.00	2.1139	2.0181	0.0745	-0.0311	-0.0720	0.0463	0.2235	-0.1773	0.9547	0.606	
4	23.46	-0.00	1.8167	1.7783	-0.0453	0.1566	-0.0556	0.0707	0.3966	-0.3259	0.9789	0.805	
5	23.48	-0.00	1.8134	1.7742	-0.0194	0.1187	-0.0556	0.0705	0.2964	-0.2259	0.9784	0.800	
6	23.51	-0.00	1.5957	1.4044	-0.0616	0.2557	-0.0186	0.1492	0.2955	-0.1463	0.8801	1.220	
7	23.51	-0.00	1.5744	1.4021	-0.0400	0.2530	-0.0132	0.1479	0.2693	-0.1214	0.8906	1.237	
8	23.56	-0.00	1.6431	1.5226	-0.0361	0.1512	0.0119	0.1517	0.2223	-0.0706	0.9267	1.634	
9	23.56	-0.00	1.6518	1.5020	-0.0410	0.1580	0.0119	0.1488	0.2204	-0.0716	0.9093	1.637	
10	23.49	-0.00	1.6512	1.5009	-0.0206	0.1015	0.0115	0.1451	0.2204	-0.0753	0.9090	1.633	
11	23.58	-0.00	1.7287	1.6555	-0.0515	0.1325	0.0178	0.1664	0.2257	-0.0593	0.9577	2.307	
12	23.49	-0.00	1.7199	1.6612	-0.0463	0.1552	0.0182	0.1693	0.2208	-0.0515	0.9659	2.305	
13	23.59	-0.00	1.7442	1.6959	0.1060	-0.1920	0.0130	0.1779	0.2278	-0.0500	0.9602	3.189	
14	23.48	0.00	1.7531	1.6854	0.0847	-0.1721	0.0148	0.1803	0.2295	-0.0493	0.9614	3.206	
15	23.54	-0.00	1.7904	1.7253	0.0615	-0.0930	0.0153	0.1873	0.2246	-0.0373	0.9637	4.549	
16	23.48	-0.00	1.7739	1.7188	0.0576	-0.0780	0.0141	0.1874	0.2280	-0.0407	0.9689	4.544	
17	23.47	-0.00	1.7795	1.7175	0.0651	-0.1064	0.0127	0.1869	0.2188	-0.0319	0.9651	4.526	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6												
1 206 0.95 VARY 0.0 MANDFO 0.0												
DEL1 DEL2 DEL3 DEL4 TRANSITION												
OFF OFF OFF OFF UNKNOWN												
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP	RX10-6
1	12.46	-0.00	0.7501	1.0301	0.0003	0.0248	0.0089	0.2909	0.1986	0.0923	1.3733	5.298
2	11.90	-0.00	0.7017	0.9856	-0.0007	0.0251	0.0072	0.2961	0.2222	0.0739	1.4046	5.291
3	12.02	-0.00	0.7149	0.9940	-0.0014	0.0247	0.0048	0.2983	0.2152	0.0831	1.3904	5.055
4	12.02	-0.00	0.7146	0.9913	-0.0009	0.0248	0.0048	0.2965	0.2043	0.0922	1.3873	5.072
5	12.04	-0.00	0.7169	0.9904	-0.0010	0.0266	0.0022	0.2974	0.1984	0.0990	1.3815	5.259
6	11.97	-0.00	0.7133	0.9921	0.0004	0.0254	0.0031	0.2986	0.2054	0.0932	1.3909	4.528
7	11.97	-0.00	0.7095	0.9900	-0.0002	0.0270	0.0031	0.2986	0.2010	0.0976	1.3948	4.557
8	11.77	-0.00	0.6891	0.9831	0.0048	0.0204	0.0086	0.2971	0.2151	0.0820	1.4266	2.279
9	11.99	-0.00	0.7083	0.9970	0.0050	0.0186	0.0084	0.2941	0.1911	0.1030	1.4077	2.285
10	11.99	-0.00	0.7097	0.9935	0.0061	0.0169	0.0085	0.2927	0.1832	0.1095	1.3998	2.271
11	11.92	-0.00	0.6723	1.0165	0.0037	0.0261	0.0166	0.2833	0.1996	0.0837	1.5120	1.913
12	11.92	-0.00	0.6769	1.0089	0.0054	0.0235	0.0165	0.2795	0.2139	0.0656	1.4904	1.520

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
1	207	1.30	VARY	0.0	MANOFO	0.0	OFF	OFF	OFF	OFF	UNKNOWN	
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	PCP	RX10-6
1	9.20	-0.00	0.5245	1.1011	0.0141	0.0190	0.0133	0.4641	0.2025	0.2616	2.0991	2.305
2	9.00	-0.00	0.5046	1.0931	-0.0016	0.0182	0.0147	0.4639	0.2150	0.2489	2.1862	2.300
3	9.07	-0.00	0.5162	1.1103	0.0004	0.0284	0.0131	0.4710	0.2339	0.2371	2.1509	3.111
4	8.97	-0.00	0.5080	1.1032	-0.0012	0.0281	0.0143	0.4700	0.2273	0.2427	2.1718	3.093
5	9.24	-0.01	0.5256	1.1535	0.0007	0.0373	0.0075	0.4712	0.2373	0.2339	2.1946	5.807
6	9.03	-0.00	0.5066	1.1380	-0.0063	0.0310	0.0076	0.4707	0.2383	0.2323	2.2454	5.888
7	9.02	-0.01	0.5072	1.1375	-0.0029	0.0312	0.0082	0.4698	0.2359	0.2339	2.2428	5.796

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
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TEST PART WACM RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 210 0.40 3.9 0.0 84WDF0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	30.51	0.00	2.6615	2.0592	0.4118	-0.8992	0.0183	-0.0971	0.2408	-0.3378	0.7737
2	30.02	0.00	2.5871	2.0371	0.4067	-0.8756	0.0184	-0.0876	0.2594	-0.3470	0.7874
3	30.02	0.00	2.5985	2.0457	0.3998	-0.8546	0.0132	-0.0887	0.2458	-0.3345	0.7873

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	211	0.60	3.9	0.0	H4W0F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	30.27	-0.00	2.7714	2.2172	0.3440	-0.6699	0.0071	-0.0290	0.2473	-0.2764	0.8000
2	29.97	-0.00	2.7112	2.2030	0.2803	-0.5605	0.0051	-0.0233	0.2426	-0.2659	0.8120
3	29.95	-0.00	2.7005	2.1997	0.3009	-0.5970	0.0072	-0.0274	0.2574	-0.2848	0.8148

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

	TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	1	212	0.86	3.9	0.0	64W0F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	XCP	
1	30.27	-0.01	3.0368	2.5864	0.2945	-0.4910	0.0043	0.0039	0.2181	-0.2142	0.8517	
2	30.05	-0.01	2.9853	2.5520	0.2717	-0.4600	0.0069	0.0073	0.2576	-0.2503	0.8549	
3	30.06	-0.01	2.9891	2.5517	0.2716	-0.4636	0.0085	0.0092	0.2579	-0.2487	0.8537	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (4T)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 213 1.00 3.9 0.0 8400F0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	30.41	-0.02	3.9724	3.9814	0.0564	0.0444	0.0013	0.0811	0.2874	-0.2063	1.0024
2	30.11	-0.02	4.0463	3.8652	0.0963	-0.0147	0.0047	0.2255	0.2967	-0.0712	0.9548
3	30.10	-0.02	4.0402	3.8555	0.1000	-0.0162	0.0047	0.2258	0.3062	-0.0804	0.9543
4	30.10	-0.02	4.0392	3.8837	0.0905	-0.0107	0.0047	0.2157	0.3070	-0.0913	0.9615

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART		MACH		RX10-6		PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
1		214	1.24	3.0	0.0	0.0	0.0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLW	CLL	CA	CAB	CAF	XCP		
1	30.37	-0.02	4.8000	3.1388	0.0660	-0.0056	0.0050	0.3881	0.3347	0.0535	0.6539		
2	29.93	-0.02	4.6294	3.1935	0.0727	-0.0052	0.0066	0.3945	0.3276	0.0668	0.6898		
3	29.94	-0.02	4.6596	3.1252	0.0657	-0.0013	0.0046	0.3979	0.3328	0.0651	0.6707		

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 215 1.10 2.0 0.0 0.0000 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	28.83	-0.00	3.9094	3.3118	-0.0499	0.1366	0.0135	0.2292	0.3306	-0.1014	0.8471
2	29.03	0.00	3.9442	3.3434	-0.0574	0.1304	0.0138	0.2260	0.3178	-0.0918	0.8477
3	29.04	-0.00	3.9611	3.3275	-0.0485	0.1353	0.0134	0.2273	0.3236	-0.0962	0.8401
4	30.06	0.00	4.1667	3.4975	-0.0164	-0.0110	0.0115	0.2172	0.3073	-0.0902	0.8394
5	30.08	0.01	4.2320	3.4083	-0.0409	0.0146	0.0106	0.2209	0.3259	-0.1050	0.8094

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (6T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

	TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	1	214	1.06	2.0	0.0	84#0F0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	RCP	
1	30.24	-0.00	4.1368	3.7988	0.0022	0.0240	0.0124	0.0889	0.4041	-0.3152	0.9183	
2	30.11	-0.01	4.0828	4.0020	-0.0105	0.1288	0.0104	0.1571	0.3875	-0.2304	0.9882	
3	30.06	0.00	4.0722	3.6358	-0.0514	0.0640	0.0085	0.0732	0.3171	-0.2438	0.8928	
4	30.05	0.00	4.0601	3.6286	-0.0489	0.0646	0.0086	0.0679	0.2908	-0.2229	0.8937	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (4T)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 217 0.80 2.0 0.0 H4=0FQ 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAP	XCP
1	29.60	-0.00	2.7667	2.2796	0.1467	-0.2196	0.0203	-0.1174	0.2844	-0.4018	0.8230
2	30.01	-0.00	2.8437	2.2886	0.0484	-0.0170	0.0178	-0.1163	0.2676	-0.3838	0.8048
3	30.01	-0.00	2.8523	2.2966	0.0323	0.0118	0.0179	-0.1150	0.2580	-0.3730	0.8052

ARNOLO ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

	TEST PART	MACH	RK10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	1	218	0.60	2.0	0.0	H6WDF0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BFYA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	XCP	
1	29.86	-0.00	2.5080	2.0915	-0.0404	0.1342	0.0205	-0.1805	0.2194	-0.3999	0.8339	
2	29.97	-0.00	2.5413	2.0901	-0.0847	0.2409	0.0203	-0.1778	0.2811	-0.4590	0.8229	
3	29.98	-0.00	2.5565	2.1044	-0.1050	0.2820	0.0176	-0.1734	0.2501	-0.4235	0.8234	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART MACH RX10-6 PWI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 219 0.40 2.0 0.0 HAWOFO 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	29.95	0.00	2.4116	1.9066	0.3185	-0.7330	0.0153	-0.2772	0.2436	-0.5208	0.7906
2	29.95	0.00	2.4230	1.8980	0.3170	-0.7669	0.0116	-0.2833	0.2058	-0.4891	0.7833

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART	MACH	RE10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1	220	0.20	2.0	0.0	84.0	0.0	OFF	OFF	OFF	OFF	UNKNOWN
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	ACP
1	29.93	0.00	2.2269	1.7614	0.5730	-1.3853	0.0340	-0.6555	0.2958	-0.9514	0.7910
2	29.92	0.00	2.3717	1.8677	0.4655	-1.2418	0.0380	-0.7064	0.2731	-0.9795	0.7875

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 1 223 0.40 3.8 0.0 0440F0 0.0 OFF OFF OFF OFF UNKNOWN

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	0.00	0.00	0.0128	0.0368	-0.0092	0.0047	0.0108	0.2169	0.0984	0.1185	2.8665
2	0.00	0.00	0.0100	0.0357	-0.0078	0.0050	0.0108	0.2160	0.1048	0.1112	3.5536
3	1.02	0.00	0.0521	0.1267	-0.0102	0.0075	0.0103	0.2176	0.0912	0.1364	2.4679
4	1.02	0.00	0.0569	0.1238	-0.0087	0.0078	0.0121	0.2161	0.1091	0.1070	2.1772
5	2.04	0.00	0.0948	0.2243	-0.0099	0.0108	0.0119	0.2198	0.0920	0.1278	2.3658
6	3.04	0.00	0.1381	0.3172	-0.0092	0.0139	0.0131	0.2214	0.1051	0.1163	2.2961
7	4.06	0.00	0.1783	0.4195	-0.0102	0.0145	0.0144	0.2246	0.1111	0.1135	2.3525
8	5.07	0.00	0.2283	0.5147	-0.0098	0.0154	0.0158	0.2306	0.1134	0.1172	2.2539
9	6.06	0.00	0.2709	0.6052	-0.0093	0.0185	0.0152	0.2357	0.1185	0.1172	2.2341
10	8.10	-0.00	0.3778	0.7765	-0.0055	0.0232	0.0180	0.2468	0.1319	0.1150	2.0562
11	10.13	-0.00	0.5129	0.9045	-0.0041	0.0221	0.0187	0.2519	0.1505	0.1014	1.7634
12	12.16	-0.00	0.6587	1.0357	0.0028	0.0156	0.0155	0.2522	0.1672	0.0850	1.5723
13	14.21	-0.00	0.9064	1.2568	0.0294	-0.0265	0.0171	0.2489	0.1753	0.0736	1.3866
14	16.26	-0.00	1.1827	1.4754	0.0416	-0.1356	0.0160	0.2418	0.1994	0.0424	1.2475
15	21.32	0.00	1.5108	1.6279	0.2565	-0.9374	0.0184	0.2216	0.2255	-0.0048	1.0775
16	24.38	0.01	1.9301	1.6584	0.6980	-1.5148	0.0194	0.2078	0.2477	-0.0480	0.8594
17	27.44	-0.00	2.4940	1.3143	1.5023	-3.0519	0.0207	0.1919	0.2674	-0.0755	0.5270
18	30.52	-0.10	3.1346	0.8968	2.1724	-2.7427	0.0156	0.2259	0.3741	-0.1482	0.2861
19	15.21	-0.00	0.8990	1.2800	0.0264	-0.0336	0.0206	0.2505	0.1949	0.0556	1.4238
20	5.07	0.00	0.2138	0.5320	-0.0111	0.0126	0.0174	0.2283	0.1173	0.1110	2.4878
21	0.00	0.00	0.0047	0.0488	-0.0107	0.0022	0.0166	0.2167	0.0935	0.1232	10.4261

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APPENDIX B
TEST 2

TEST PART NAME RANGE PHI CASE L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 5 0.54 0.3 0.0 030000 0.0 OFF OFF OFF OFF FREE

PRINT	ALPHA	REYN	CX	CLM	CY	CLN	CLL	CA	CAR	CAF	ICP
1	1.57	0.0	0.1712	0.1705	0.2673	0.2007	0.0000	0.5000	0.0291	0.5145	-1.0300
2	0.64	0.0	0.1603	0.1777	0.0030	0.1974	0.0012	0.5001	0.0700	0.4272	-3.0451
3	0.34	0.0	0.1311	0.0762	0.2200	0.1003	0.0010	0.5000	0.0800	0.4150	-8.8003
4	1.33	0.0	0.0700	0.0037	0.0230	0.1000	0.0027	0.5037	0.1120	0.0117	-03.1114
5	2.35	0.0	0.0000	0.0000	0.0000	0.0000	0.0100	0.5303	0.1070	0.0225	0.1207
6	3.30	0.0	0.1100	0.0110	0.0000	0.0107	0.0057	0.5230	0.1141	0.0009	4.3934
7	4.30	0.0	0.1007	0.0000	0.0000	0.0112	0.0100	0.5200	0.1200	0.3910	0.0751
8	5.31	0.0	0.1001	0.0010	0.0000	0.0100	0.0001	0.5103	0.1432	0.3761	0.0001
9	6.30	0.0	0.0000	0.0000	0.0200	0.1007	0.0010	0.5100	0.1427	0.3033	3.5300
10	7.01	0.0	0.0017	0.0000	0.0000	0.0700	0.0011	0.4905	0.1503	0.3021	3.0527
11	8.30	0.0	0.0000	0.0000	0.0200	0.0100	0.0030	0.0910	0.1500	0.3320	3.0000
12	9.30	0.0	0.0000	0.0120	0.0000	0.0100	0.0000	0.5010	0.1019	0.3197	2.9190
13	10.30	0.0	0.0000	0.0000	0.0200	0.0100	0.0000	0.0000	0.1010	0.3120	1.9500
14	11.30	0.0	0.0000	0.0000	0.0000	0.0000	0.0027	0.4979	0.1753	0.3276	1.6000
15	12.30	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.5000	0.1707	0.3230	1.0000
16	13.30	0.0	0.0000	0.0000	0.0000	0.0100	0.0000	0.0000	0.1000	0.3095	1.1000
17	14.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1930	0.2800	0.9700
18	15.30	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1921	0.2901	0.7037
19	16.30	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1900	0.2800	0.0052
20	17.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2072	0.2676	0.0000
21	18.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2000	0.2000	0.0000
22	19.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2111	0.2320	0.5000

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AIR FORCE ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 "ANTI-MISSILE TAIL EFFECTS DATA"
 SHEET 1 OF 1

TEST PART NAME	PRN	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION				
2	7	U.S.V	0.4	0.0	OFF	OFF	OFF	OFF	FREE			
POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAR	CAF	XCP	
1	11.57	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	10.64	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3	10.47	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
4	10.33	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	10.30	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
6	10.22	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
7	10.15	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
8	10.10	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
9	10.05	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
10	10.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11	10.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12	9.95	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
13	10.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
14	11.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
15	12.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
16	13.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
17	14.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
18	15.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
19	16.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
20	17.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
21	18.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
22	19.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

POINT	TEST PART NAME: MANTIN										
	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CB	CF	KCP
2	0.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	-1.57	0.0	-0.0750	-0.0310	-0.0005	-0.0025	-0.0145	0.3472	0.1261	0.2209	0.4220
2	-0.40	0.0	-0.0600	0.0570	-0.0015	-0.0140	-0.0132	0.3480	0.1523	0.1946	-1.3910
3	0.35	0.0	0.0102	0.1270	-0.0000	-0.0175	-0.0131	0.3471	0.1095	0.2370	7.0291
4	1.35	0.0	0.0000	0.2150	-0.0057	0.0001	-0.0140	0.3509	0.1150	0.2350	3.5920
5	2.30	0.0	0.0000	0.3025	-0.0000	0.0100	-0.0121	0.3553	0.1191	0.2362	3.8205
6	3.35	0.0	0.1000	0.3700	-0.0027	0.0017	-0.0147	0.3543	0.1292	0.2251	2.2302
7	4.30	0.0	0.2100	0.4000	-0.0000	0.0015	-0.0110	0.3623	0.1410	0.2213	2.1011
8	5.30	0.0	0.2200	0.4000	-0.0025	-0.0100	-0.0100	0.3503	0.1522	0.2041	2.7750
9	6.30	0.0	0.2400	0.4000	-0.0050	-0.0070	-0.0125	0.3635	0.1500	0.2047	2.3702
10	7.30	0.0	0.3000	0.7000	-0.0005	-0.0100	-0.0143	0.3700	0.1721	0.2023	2.0650
11	8.40	0.0	0.3000	0.7000	-0.0000	-0.0000	-0.0133	0.3700	0.1751	0.2017	2.4417
12	9.40	0.0	0.4000	0.9713	-0.0000	0.0000	-0.0150	0.3812	0.1925	0.1860	2.0070
13	10.40	0.0	0.5000	1.0000	-0.0000	0.0000	-0.0152	0.3700	0.1771	0.1920	2.0057
14	11.45	0.0	0.5000	1.0000	-0.0000	0.0000	-0.0140	0.3710	0.1719	0.1995	1.0195
15	12.45	0.0	0.5000	1.0000	-0.0000	0.0000	-0.0140	0.3561	0.1671	0.1601	1.9401
16	13.45	0.0	0.5000	1.0000	-0.0000	0.0000	-0.0142	0.3620	0.1823	0.1747	2.0571
17	14.45	0.0	0.7000	1.0000	-0.0000	0.0000	-0.0120	0.3560	0.2010	0.1502	1.9930
18	15.45	0.0	0.8000	1.0000	-0.0000	0.0000	-0.0130	0.3570	0.1900	0.1630	1.0400
19	16.45	0.0	0.9000	1.0000	-0.0000	0.0000	-0.0100	0.3500	0.1600	0.2000	1.0000
20	17.45	0.0	1.0000	1.0000	-0.0000	0.0000	-0.0100	0.3500	0.1900	0.1500	1.2770
21	18.45	0.0	1.0000	1.0000	-0.0000	0.0000	-0.0110	0.3512	0.1900	0.1500	1.1021
22	19.53	0.0	1.0000	1.1000	0.0000	-0.0000	-0.0100	0.3397	0.2300	0.1057	0.0400

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ARNOLD ENGINEERING DEVELOPMENT CENTER (ARDEC) PHOENIX AND JMWEL FACILITY (PMT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MANTIC MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	IESI PAEL PAEM PAEM-B. PAEL LUNE L JMWEL DEL2 DEL3 DEL4 TRANSITION											
	ALPHA	ETA	CL	CLM	CV	CLX	CLL	Ca	CaM	CAF	XCP	
1	-1.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.30	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2.33	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	3.40	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	4.30	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	5.40	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	6.30	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	7.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	8.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	9.45	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	10.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	11.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	12.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	13.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	14.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	15.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	16.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	17.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	18.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	19.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TEST PART NAME: M100-103
 2 10 0.50 1.03 0.0 0.0000 0.0 OFF OFF OFF OFF FREE

POINT	ALPHA	DELTA	CV	CLM	CV	CLM	CLL	CA	CAR	CAF	KCP
1	1.53	0.0	0.0774	0.0705	0.0363	0.0566	0.0197	0.3003	0.1126	0.1879	1.0076
2	0.00	0.0	0.0000	0.0121	0.0307	0.0147	-0.0216	0.2916	0.1276	0.1640	-0.3911
3	0.33	0.0	0.0000	0.0010	-0.0313	0.0075	-0.0212	0.2925	0.1176	0.1752	10.7215
4	1.30	0.0	0.0000	0.1424	-0.0360	0.0130	-0.0215	0.2976	0.1306	0.1670	3.2709
5	2.00	0.0	0.0000	0.3163	-0.0320	0.0103	-0.0217	0.3000	0.1376	0.1620	3.0268
6	3.09	0.0	0.1400	0.4700	-0.0337	0.0240	-0.0216	0.3055	0.1473	0.1582	2.8597
7	4.37	0.0	0.2820	0.6000	-0.0300	0.0200	-0.0230	0.3080	0.1571	0.1480	2.3458
8	5.39	0.0	0.2910	0.7117	-0.0322	0.0201	-0.0218	0.3129	0.1561	0.1569	2.5320
9	6.02	0.0	0.2700	0.7007	-0.0300	0.0170	-0.0216	0.3136	0.1560	0.1632	2.2800
10	7.02	0.0	0.3524	0.7002	-0.0300	0.0100	-0.0218	0.3203	0.1593	0.1630	2.2254
11	8.05	0.0	0.0000	0.6553	-0.0300	0.0213	-0.0232	0.3262	0.1668	0.1613	2.1398
12	9.00	0.0	0.0000	0.4207	-0.0301	0.0201	-0.0240	0.3361	0.1727	0.1614	1.9411
13	10.00	0.0	0.0000	0.0000	-0.0300	0.0200	-0.0230	0.3361	0.1850	0.1500	1.8452
14	11.07	0.0	0.5470	1.0170	-0.0200	0.0100	-0.0232	0.3400	0.1910	0.1490	1.8518
15	12.50	0.0	0.0000	1.0000	-0.0251	0.0100	-0.0221	0.3363	0.1950	0.1413	1.7099
16	13.51	0.0	0.7000	1.1000	-0.0227	0.0101	-0.0220	0.3377	0.2017	0.1360	1.5205
17	14.56	0.0	0.0000	1.2007	-0.0210	0.0100	-0.0253	0.3436	0.2072	0.1360	1.5000
18	15.54	0.0	0.9300	1.3500	-0.0100	0.0000	-0.0268	0.3400	0.2100	0.1292	1.4581
19	16.50	0.0	1.0000	1.4000	-0.0100	0.0100	-0.0255	0.3399	0.2166	0.1213	1.3561
20	17.53	0.0	1.1100	1.4000	-0.0077	-0.0100	-0.0296	0.3300	0.2315	0.1030	1.3399
21	18.00	0.0	1.0000	1.5000	-0.0100	-0.0100	-0.0275	0.3266	0.2016	0.0830	1.4756
22	19.00	0.0	1.0000	1.5500	0.0000	-0.0100	-0.0282	0.3107	0.2092	0.0695	1.4170

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ARCULO ENGINEERING DEVELOPMENT CENTER (AEC) PROPELLSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MATIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST	PLAN	PACH	MAIN	6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
2	11	0.59	1.0		0.0	M3.076	0.0	OFF	OFF	OFF	OFF	FREE
POINT	ALPHA	BETA	CX	CLM	CY	CLM	CLL	CA	CAR	CAF	XCP	
1	-1.67	0.0	-0.006	-0.127	-0.036	0.037	-0.032	0.276	0.135	0.145	2.3502	
2	-0.47	0.0	-0.019	-0.110	-0.040	0.047	-0.021	0.272	0.126	0.146	1.1930	
3	0.32	0.0	-0.030	-0.113	-0.031	0.027	-0.023	0.272	0.123	0.149	2.3361	
4	1.34	0.0	0.037	0.147	-0.030	0.037	-0.034	0.276	0.137	0.134	1.7558	
5	2.32	0.0	0.122	0.202	-0.031	0.044	-0.030	0.281	0.143	0.137	2.3150	
6	3.01	0.0	0.144	0.207	-0.030	0.040	-0.031	0.285	0.149	0.135	2.5190	
7	4.00	0.0	0.144	0.201	-0.025	0.047	-0.026	0.283	0.152	0.137	2.3535	
8	5.00	0.0	0.202	0.200	-0.031	0.047	-0.031	0.291	0.153	0.134	2.3055	
9	6.63	0.0	0.310	0.200	-0.022	0.036	-0.024	0.285	0.150	0.141	2.1624	
10	7.47	0.0	0.360	0.217	-0.024	0.044	-0.029	0.299	0.167	0.142	2.1976	
11	8.21	0.0	0.430	0.277	-0.022	0.052	-0.023	0.315	0.175	0.141	2.0249	
12	9.52	0.0	0.441	0.275	-0.020	0.047	-0.024	0.312	0.174	0.139	1.8753	
13	10.51	0.0	0.450	0.272	-0.021	0.047	-0.020	0.316	0.180	0.127	1.7455	
14	11.42	0.0	0.440	0.270	-0.021	0.043	-0.021	0.323	0.190	0.135	1.7379	
15	12.50	0.0	0.420	0.270	-0.024	0.041	-0.030	0.322	0.198	0.125	1.5594	
16	13.57	0.0	0.400	0.270	-0.020	0.039	-0.031	0.324	0.201	0.131	1.4871	
17	14.62	0.0	0.377	0.257	-0.017	0.029	-0.030	0.320	0.200	0.117	1.4294	
18	15.00	0.0	0.360	0.250	-0.015	0.023	-0.035	0.319	0.211	0.105	1.3757	
19	16.00	0.0	0.340	0.240	-0.014	0.024	-0.038	0.317	0.223	0.095	1.3424	
20	17.00	0.0	0.310	0.230	-0.014	0.013	-0.030	0.319	0.232	0.087	1.2917	
21	18.70	0.0	0.277	0.210	-0.012	0.022	-0.032	0.313	0.233	0.079	1.2395	
22	19.77	0.0	0.230	0.180	-0.010	0.018	-0.030	0.309	0.240	0.064	1.1511	

TEST PART MAIN AXIAL TO PMI CUM L CELL DEL2 DEL3 DELA TRANSITION
 2 17 0.54 2.0 0.0 0.3000 0.0 OFF OFF OFF OFF FREE

POINT	ALPHA	HFA	CL	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	1.71	0.0	0.0201	0.0250	0.0234	0.0330	0.0248	0.2519	0.1351	0.1166	2.5654
2	0.94	0.0	0.0145	0.0200	0.0224	0.0331	0.0239	0.2500	0.1273	0.1226	2.3030
3	0.35	0.0	0.0087	0.0161	0.0207	0.0310	0.0208	0.2523	0.1260	0.1259	1.4083
4	1.30	0.0	0.0305	0.0384	0.0316	0.0350	0.0200	0.2544	0.1430	0.1119	1.7163
5	2.67	0.0	0.0350	0.0270	0.0239	0.0440	0.0252	0.2585	0.1502	0.1003	2.0300
6	3.44	0.0	0.0727	0.0470	0.0314	0.0470	0.0201	0.2604	0.1591	0.1010	2.2423
7	4.00	0.0	0.0270	0.0300	0.0206	0.0450	0.0233	0.2608	0.1622	0.1066	2.2407
8	5.07	0.0	0.0440	0.0094	0.0140	0.0440	0.0251	0.2705	0.1450	0.1045	2.3037
9	6.51	0.0	0.0215	0.0107	0.0191	0.0470	0.0235	0.2733	0.1607	0.1116	2.2373
10	7.53	0.0	0.0207	0.0110	0.0194	0.0470	0.0247	0.2872	0.1740	0.1132	2.1900
11	8.00	0.0	0.0157	0.0005	0.0145	0.0400	0.0203	0.2920	0.1790	0.1134	1.9950
12	9.00	0.0	0.0140	0.0100	0.0192	0.0400	0.0209	0.2955	0.1435	0.1120	1.9510
13	10.03	0.0	0.0251	0.0100	0.0100	0.0400	0.0257	0.3023	0.1910	0.1109	1.7603
14	11.00	0.0	0.0407	0.0000	0.0100	0.0400	0.0250	0.3077	0.1952	0.1070	1.6500
15	12.72	0.0	0.0400	0.0100	0.0153	0.0400	0.0253	0.3033	0.2027	0.1066	1.5507
16	13.74	0.0	0.0214	0.0351	0.0134	0.0400	0.0203	0.3031	0.2000	0.0960	1.5035
17	14.75	0.0	0.0500	0.0201	0.0107	0.0300	0.0200	0.3055	0.2170	0.0801	1.4031
18	15.03	0.0	0.0000	0.0301	0.0000	0.0400	0.0250	0.3005	0.2235	0.0809	1.3700
19	16.90	0.0	0.0100	0.0300	0.0015	0.0215	0.0270	0.3005	0.2200	0.0757	1.3021
20	17.00	0.0	0.0100	0.0300	0.0100	0.0300	0.0250	0.3005	0.2153	0.0653	1.2922
21	18.02	0.0	0.0100	0.0200	0.0001	0.0400	0.0200	0.2900	0.2010	0.0522	1.2000
22	20.03	0.0	0.0000	0.0000	0.0100	0.0300	0.0250	0.2870	0.2400	0.0436	1.1021

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ARMDU ENGINEERING DEVELOPMENT CENTER (AEDC) --- PROPULSION WIND TUNNEL FACILITY (PWTF) --- AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1
 SHEET 1 OF 1
 PART II MISSILE TAIL EFFECTS DATA

POINT	TEST PARAMETER ALLOWABLE											
	ALPHA	META	CA	CLM	CY	CLM	CLL	CA	CAR	CAF	XCP	
1	-1.74	0.0	-0.101	-0.125	-0.0117	0.0018	0.0003	0.2400	0.1835	0.0965	2.0541	
2	-0.60	0.0	-0.0700	-0.0101	-0.0100	0.0043	-0.0007	0.2378	0.1714	0.1000	0.4960	
3	0.39	0.0	0.0200	0.0111	-0.0113	0.0045	-0.0009	0.2396	0.1700	0.1000	2.9400	
4	1.39	0.0	0.0700	0.1700	-0.0101	0.0033	0.0005	0.2026	0.1450	0.0970	2.2867	
5	2.65	0.0	0.1110	0.0297	-0.0173	0.0015	0.0007	0.2457	0.1500	0.0911	2.5257	
6	3.02	0.0	0.1500	0.0000	-0.0100	0.0000	-0.0033	0.2507	0.1500	0.0908	2.5959	
7	4.50	0.0	0.2000	0.0000	-0.0100	0.0000	0.0000	0.2551	0.1600	0.0912	2.5220	
8	5.53	0.0	0.2510	0.0170	-0.0170	0.0000	-0.0010	0.2595	0.1600	0.0926	2.4573	
9	6.30	0.0	0.3100	0.0105	-0.0101	0.0020	-0.0009	0.2688	0.1735	0.0953	2.2956	
10	7.62	0.0	0.3050	0.0210	-0.0100	0.0000	-0.0006	0.2765	0.1770	0.0947	2.2503	
11	8.63	0.0	0.4311	0.0010	-0.0107	0.0000	-0.0000	0.2806	0.1802	0.1003	2.0452	
12	9.00	0.0	0.5113	0.0020	-0.0100	0.0000	0.0001	0.2005	0.1856	0.0909	1.9205	
13	10.70	0.0	0.5000	0.0000	-0.0101	0.0000	-0.0001	0.2072	0.1915	0.0950	1.7700	
14	11.77	0.0	0.0000	0.0000	-0.0100	0.0000	-0.0000	0.2015	0.1906	0.0900	1.6727	
15	12.65	0.0	0.0000	0.0000	-0.0100	0.0000	-0.0007	0.2032	0.2017	0.0915	1.5971	
16	13.40	0.0	0.0370	0.0000	-0.0100	0.0000	-0.0010	0.2000	0.2100	0.0900	1.5162	
17	14.91	0.0	0.0000	0.0000	-0.0100	0.0000	-0.0010	0.2030	0.2170	0.0700	1.4710	
18	15.40	0.0	1.0110	0.0000	-0.0100	0.0000	-0.0000	0.2027	0.2200	0.0600	1.4100	
19	17.00	0.0	1.1200	0.0110	-0.0100	0.0000	-0.0015	0.2000	0.2300	0.0500	1.3000	
20	18.00	0.0	1.2200	0.0000	-0.0100	0.0000	-0.0005	0.2000	0.2370	0.0400	1.3050	
21	19.15	0.0	1.3300	0.0000	-0.0100	0.0000	-0.0003	0.2791	0.2390	0.0395	1.2003	
22	20.20	0.0	1.0730	1.0730	0.0000	-0.0075	-0.0000	0.2722	0.2400	0.0262	1.1762	

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TEST PARI. CALM. 541-0. Pnl CUNE L CELL DEL2 DEL3 DEL4 TRANSITION
 2 15 0.59 4.3 0.0 30000 0.0 OFF OFF OFF OFF FREE

POINT	ALPHA	MFA	CX	CLX	CY	CLY	CLL	CA	CAH	CAF	ACP
1	-1.71	0.0	-0.0504	-0.117	-0.0007	-0.0338	-0.0015	0.2388	0.1831	0.0913	2.3393
2	-0.67	0.0	-0.0111	-0.0137	-0.0007	0.0325	-0.0018	0.2370	0.1352	0.0948	0.7500
3	0.38	0.0	0.0147	0.0137	-0.0008	0.0361	-0.0019	0.2366	0.1354	0.0942	1.7867
4	1.41	0.0	0.0790	0.1770	-0.0073	0.0379	-0.0015	0.2345	0.1405	0.0950	2.2413
5	2.48	0.0	0.1621	0.2798	-0.0158	0.0358	-0.0016	0.2402	0.1500	0.0918	2.6935
6	3.68	0.0	0.2814	0.3859	-0.0298	0.0348	-0.0027	0.2443	0.1631	0.0912	2.5385
7	4.53	0.0	0.4208	0.5310	-0.0498	0.0347	-0.0028	0.2493	0.1661	0.0832	2.5735
8	5.45	0.0	0.5949	0.7351	-0.0705	0.0341	-0.0019	0.2588	0.1700	0.0864	2.4877
9	6.61	0.0	0.8111	1.0161	-0.1071	0.0338	-0.0019	0.2655	0.1742	0.0914	2.3678
10	7.80	0.0	1.0799	1.3712	-0.1575	0.0317	-0.0025	0.2713	0.1799	0.0913	2.1868
11	8.78	0.0	1.4037	1.8188	-0.2199	0.0282	-0.0017	0.2767	0.1861	0.0925	2.0963
12	9.78	0.0	1.7911	2.3709	-0.2957	0.0247	-0.0031	0.2769	0.1872	0.0917	1.9130
13	11.03	0.0	2.3300	3.0313	-0.3931	0.0213	-0.0032	0.2825	0.1933	0.0892	1.7862
14	11.84	0.0	2.9771	3.8133	-0.5120	0.0181	-0.0023	0.2852	0.1988	0.0868	1.6733
15	12.88	0.0	3.7537	4.7111	-0.6603	0.0157	-0.0023	0.2837	0.2008	0.0791	1.6006
16	14.12	0.0	4.7019	5.7307	-0.8385	0.0137	-0.0016	0.2880	0.2105	0.0750	1.5304
17	15.16	0.0	5.8387	6.9888	-1.0407	0.0121	-0.0016	0.2829	0.2170	0.0658	1.4803
18	16.16	0.0	7.1911	8.4711	-1.2735	0.0106	-0.0015	0.2819	0.2259	0.0500	1.4256
19	17.22	0.0	8.7911	1.0141	-1.5432	0.0092	-0.0011	0.2791	0.2312	0.0479	1.3367
20	18.26	0.0	1.0740	1.0120	-1.8519	0.0079	-0.0009	0.2755	0.2372	0.0388	1.2911
21	19.36	0.0	1.3721	1.0738	-2.2179	0.0070	-0.0008	0.2692	0.2418	0.0278	1.2240
22	20.44	0.0	1.5610	1.7628	-2.6265	0.0065	-0.0003	0.2626	0.2457	0.0169	1.1741

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AERIAL ENGINEERING DEVELOPMENT CENTER (ARDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MANTIN MISSILE TAIL EFFECTS DATA

TEST POINT NAME X Y Z PHI CLM L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 16 0.5V 0.0V 0.0 0.0000 0.0 OFF OFF OFF OFF FREE

POINT	ALPHA	ETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP
1	-1.72	0.0	0.0540	0.0110	0.0107	0.0150	-0.0030	0.2320	0.1000	0.0071	2.0107
2	-0.47	0.0	0.0173	0.0000	0.0000	0.0070	-0.0026	0.2241	0.1353	0.0030	0.4827
3	2.30	0.0	0.0320	0.0000	0.0000	0.0020	0.0020	0.2317	0.1373	0.0000	2.3020
4	1.03	0.0	0.0020	0.0000	0.0000	0.0001	-0.0000	0.2330	0.1529	0.0007	2.1951
5	2.05	0.0	0.0100	0.0000	0.0000	0.0000	0.0000	0.2375	0.1601	0.0070	2.0012
6	3.03	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.2470	0.1600	0.0070	2.0019
7	4.05	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.2477	0.1670	0.0007	2.5600
8	5.03	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.2551	0.1700	0.0000	2.0221
9	6.00	0.0	0.0100	0.0000	0.0000	0.0000	-0.0000	0.2631	0.1772	0.0000	2.3997
10	7.72	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2640	0.1810	0.0000	2.2090
11	9.02	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2730	0.1853	0.0000	1.9011
12	9.00	0.0	0.0100	0.0000	0.0000	0.0000	-0.0000	0.2771	0.1905	0.0000	1.9122
13	10.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2803	0.1900	0.0000	1.7000
14	11.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2812	0.1990	0.0000	1.6032
15	13.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2810	0.2071	0.0000	1.6000
16	14.12	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2800	0.2115	0.0000	1.5200
17	15.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2802	0.2205	0.0000	1.4700
18	16.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2760	0.2272	0.0000	1.3971
19	17.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2750	0.2300	0.0000	1.3351
20	18.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2705	0.2390	0.0000	1.2701
21	19.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2625	0.2439	0.0000	1.2221
22	20.00	0.0	0.0000	0.0000	0.0000	0.0000	-0.0000	0.2551	0.2489	0.0000	1.1502

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TEST PART: RALM RALM6 PNT: CONF: ... 1 ... ILL: DEL1: DEL2: DEL3: DEL4: TRANSITION:
 7 20 0.59 0.3 0.0 0.00015 0.0 0 0 0 0 FIXED

POINT	ALPHA	REYN	CV	CLN	CV	CLN	CLL	CA	CAB	CAF	ACP
1	1.51	0.0	-0.1111	-0.1111	-0.1204	-0.0313	0.0176	0.5572	0.0877	0.4656	-1.2753
2	0.60	0.0	-0.0000	0.1101	-0.1204	-0.0000	0.0164	0.5605	0.0854	0.4629	-1.3671
3	0.38	0.0	0.0304	-0.0333	-0.1207	-0.0255	0.0166	0.5345	0.0786	0.4608	-0.9536
4	1.42	0.0	0.1230	-0.1442	-0.1105	-0.0114	0.0053	0.5308	0.0772	0.4536	-1.3992
5	2.49	0.0	0.1047	-0.0200	-0.1177	-0.0248	0.0073	0.5306	0.0768	0.4537	-1.3752
6	3.38	0.0	0.3661	-0.5020	-0.0454	-0.0035	0.0017	0.5334	0.0792	0.4542	-1.5368
7	4.38	0.0	0.8012	-1.7112	-0.0720	-0.0030	0.0095	0.5157	0.0780	0.4373	-1.6758
8	5.34	0.0	0.6450	-1.0013	-0.0050	-0.1155	0.0035	0.4817	0.0850	0.3967	-1.5512
9	6.41	0.0	0.7847	-1.2371	-0.0071	-0.0001	0.0086	0.4902	0.0876	0.4026	-1.6261
10	7.41	0.0	0.9064	-1.5160	-0.0120	-0.0000	0.0151	0.4897	0.0951	0.3947	-1.6736
11	8.47	0.0	1.0010	-1.8622	-0.0060	-0.1000	0.0001	0.4851	0.1000	0.3851	-1.7719
12	9.42	0.0	1.1703	-2.0270	-0.0007	-0.0973	0.0102	0.4861	0.1005	0.3856	-1.7210
13	10.41	0.0	1.3370	-2.2370	-0.0000	-0.1139	0.0000	0.4769	0.1056	0.3713	-1.7533
14	11.42	0.0	1.4701	-2.4030	-0.0070	-0.0003	0.0051	0.4804	0.1100	0.3724	-1.7921
15	12.46	0.0	1.6000	-2.6011	-0.0002	-0.1000	0.0071	0.4769	0.1316	0.3454	-1.7963
16	13.45	0.0	1.6910	-2.8000	-0.0000	-0.1000	0.0103	0.4807	0.1333	0.3304	-1.7904
17	14.43	0.0	2.0001	-3.0731	-0.0000	-0.0775	0.0000	0.4773	0.1371	0.3402	-1.8131
18	15.44	0.0	2.3000	-3.3000	-0.0000	-0.0931	-0.0016	0.4803	0.1506	0.3297	-1.8196
19	16.46	0.0	2.5000	-3.5000	-0.0000	-0.1000	0.0120	0.4710	0.1626	0.3081	-1.7776
20	17.47	0.0	2.8000	-4.0000	-0.0000	-0.1000	0.0193	0.4607	0.1666	0.2939	-1.7577
21	18.51	0.0	3.1000	-4.5000	-0.0000	-0.1000	0.0007	0.4629	0.1724	0.2905	-1.7702
22	19.47	0.0	3.3000	-5.0000	0.0003	-0.2575	0.0016	0.4467	0.1753	0.2714	-1.7246

AM-OLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROMULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(6T)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST CASE NAME			MACH	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	2	24	6.5x								6.3	0.0
	ALPHA	META	CFI	CM1	CM	YCPF1	YCPF1	CMF2	CM2	CB2	YCPF2	YCPF2
1	-1.51	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	-0.0516	-0.0136	-0.0340	0.2603	0.4591
2	-0.46	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.0010	-0.0017	-0.0468	-1.0453	-29.4465
3	0.38	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.0114	0.0005	-0.0525	0.0441	-4.6258
4	1.42	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.0352	0.0011	0.0079	0.0302	0.1998
5	2.48	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.0467	0.0079	-0.0243	0.0836	-0.2564
6	3.46	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.1441	0.0184	-0.0043	0.1303	-0.0301
7	4.38	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.1786	0.0213	0.0258	0.1194	0.1443
8	5.34	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.2254	0.0273	0.0261	0.1213	0.1157
9	5.61	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.3024	0.0384	0.0521	0.1285	0.1955
10	7.41	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.3626	0.0489	0.0775	0.1350	0.2137
11	8.47	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.4310	0.0552	0.0863	0.1241	0.2002
12	9.42	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.4354	0.0465	0.1716	0.1068	0.2792
13	11.41	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.4761	0.0494	0.1378	0.1038	0.2895
14	11.42	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.5590	0.0689	0.1325	0.1233	0.2370
15	12.44	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.5481	0.0691	0.1703	0.1156	0.2847
16	13.45	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.6448	0.0758	0.1460	0.1174	0.2788
17	14.43	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.7077	0.0764	0.1810	0.1088	0.2558
18	15.44	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.7640	0.0436	0.1976	0.1097	0.2586
19	16.44	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.7957	0.0740	0.2145	0.0980	0.2696
20	17.47	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.8376	0.0786	0.2296	0.0938	0.2741
21	18.51	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.8124	0.0835	0.2747	0.0916	0.3018
22	19.47	0.0	9.4444	9.4444	9.4444	9.4444	9.9999	0.8246	0.0713	0.2873	0.0772	0.3107

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NAVY MISSILE TAIL EFFECTS DATA

TEST	MACH	REYNOLDS	PHI	DEL1	DEL2	DEL3	DEL4	TRANSITION					
2	24	0.55	0.3	0.0	03-UF15	0.0	0	0	0	0	0	0	FIXED
POINT	ALPHA	HFA	CMF3	CM3	CN3	YCPF3	YCPF3	CMF4	CM4	CN4	YCPF4	YCPF4	
1	-1.51	0.0	-0.017	-0.017	-0.017	0.156	0.322	-0.017	-0.007	-0.022	0.039	1.337	
2	-0.50	0.0	0.017	0.017	0.017	0.014	0.093	-0.014	-0.006	0.012	0.147	-1.771	
3	0.32	0.0	-0.017	-0.017	-0.017	0.017	0.256	0.017	0.002	-0.043	0.038	-1.382	
4	1.42	0.0	-0.077	-0.077	-0.077	0.010	0.256	0.071	-0.010	-0.066	-0.135	-0.877	
5	2.68	0.0	-0.077	-0.030	-0.065	0.049	0.892	0.125	0.018	0.042	0.147	0.393	
6	3.32	0.0	-0.077	-0.043	-0.076	0.041	0.124	0.167	0.046	0.074	0.147	0.432	
7	4.34	0.0	-0.077	-0.057	-0.057	0.041	0.624	0.242	0.045	0.087	0.147	0.382	
8	5.34	0.0	-0.051	-0.037	-0.054	0.044	0.379	0.246	0.040	0.101	0.167	0.340	
9	5.61	0.0	-0.037	-0.037	-0.113	0.011	0.290	0.316	0.019	0.153	0.124	0.485	
10	7.41	0.0	-0.011	-0.021	-0.174	0.041	0.143	0.407	0.052	0.107	0.124	0.246	
11	8.67	0.0	-0.011	-0.011	-0.066	0.023	0.123	0.440	0.063	0.180	0.124	0.422	
12	9.42	0.0	-0.011	-0.037	-0.157	0.035	0.612	0.496	0.047	0.215	0.131	0.438	
13	10.41	0.0	-0.073	-0.017	-0.023	0.022	2.837	0.021	0.173	0.232	0.145	0.421	
14	11.42	0.0	-0.110	-0.043	-0.097	0.044	0.240	0.062	0.071	0.301	0.127	0.535	
15	12.44	0.0	-0.110	-0.034	-0.047	0.015	1.952	0.058	0.081	0.257	0.125	0.396	
16	13.45	0.0	-0.110	-0.034	-0.144	0.047	1.737	0.044	0.046	0.296	0.077	0.461	
17	14.45	0.0	-0.077	-0.021	-0.124	0.022	1.604	0.042	0.096	0.356	0.129	0.478	
18	15.46	0.0	-0.024	-0.007	-0.045	-0.040	1.587	0.075	0.089	0.327	0.112	0.410	
19	15.46	0.0	-0.077	-0.017	-0.094	0.022	1.296	0.021	0.081	0.353	0.107	0.432	
20	17.47	0.0	-0.127	-0.042	-0.153	0.057	1.480	0.055	0.043	0.342	0.105	0.411	
21	18.51	0.0	-0.057	-0.057	-0.037	0.133	0.531	0.052	0.085	0.385	0.103	0.399	
22	19.47	0.0	-0.127	-0.023	-0.237	0.026	1.829	0.043	0.092	0.376	0.094	0.384	

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ARJOL ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION AND TUNNEL FACILITIES (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST CASE NAME: 11106												
PWT 2A 1.5V 0.00												
Mach: 0.00												
REF: 0.00												
DEL1 DEL2 DEL3 DEL4 TRANSITION												
2 0 0 0 0 FIXED												
P.W.T.	ALPHA	BETA	CN	CLN	CY	CLN	CLL	CA	CAH	CAF	ACP	
1	-1.61	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	-0.66	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.66	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1.62	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2.68	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	3.61	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	4.54	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	5.40	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	6.23	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	7.05	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	7.91	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	8.62	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	9.45	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	11.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	12.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	13.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	14.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	15.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	16.51	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	17.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	18.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	19.07	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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TEST PART NAME RAISED PMI CASE 1 WEL1 DEL2 DEL3 DEL4 TRANSITION
 2 2A 0.54 0.0 1.0 M30F15 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CM1	CM1	CM1	YCPF1	YCPF1	CM2	CM2	CM2	YCPF2	YCPF2
1	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	2.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	3.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	3.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	4.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	4.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	5.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	5.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	6.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	6.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	7.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	7.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	8.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	8.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	9.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	9.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	10.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	10.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ADWALD ENGINEERING DEVELOPMENT CENTER (ADC) PROPULSION AND TUNNEL FACILITY (PMT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST FAMILI PAUL RALD-6 M41 CONE L DEL1 DEL2 DEL3 DEL4 TRANSITION												
	ALPHA	MFA	CNF3	CNF4	CNF5	XCPF3	YCPF3	CNF6	CNF7	CNF8	XCPF6	YCPF6	
1	-1.41	0.0	-0.0134	-0.0000	-0.0057	-1.7000	1.7374	-0.0000	-0.0000	-0.0119	2.0000	2.0000	
2	-0.40	0.0	-0.0100	-0.0100	-0.0100	1.3000	3.0000	-0.0000	-0.0000	0.0000	2.0000	-10.4300	
3	0.40	0.0	-0.0100	-0.0100	-0.0100	1.3000	4.5000	-0.0000	-0.0000	0.0000	0.0000	0.3000	
4	1.40	0.0	-0.0100	-0.0100	-0.0100	1.3000	1.4000	0.0000	0.0000	0.0000	0.0000	0.6300	
5	2.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	-1.3500	-0.0000	-0.0000	0.0000	0.0000	0.4500	
6	3.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	-1.6700	0.1700	0.0100	0.0000	0.1100	0.4600	
7	4.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	2.0000	0.2300	0.0200	0.0100	0.1100	0.4200	
8	5.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	2.0700	0.2800	0.0300	0.1100	0.1200	0.4000	
9	6.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	-1.5500	0.3200	0.0300	0.1500	0.1000	0.4800	
10	7.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.4400	0.3900	0.0400	0.1900	0.1100	0.5000	
11	8.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.2700	0.3800	0.0500	0.1400	0.1100	0.4300	
12	9.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.3500	-0.4700	0.0500	0.0500	0.1000	0.4400	
13	10.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.2700	0.4100	0.0500	0.0200	0.1100	0.4300	
14	11.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.4000	0.4100	0.0700	0.0300	0.1100	0.4900	
15	12.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.3700	0.4500	0.0800	0.0700	0.1000	0.4100	
16	13.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.3700	2.4400	0.0700	0.0700	0.1000	0.4200	
17	14.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.4000	-0.5200	0.0700	0.0800	0.1100	0.4700	
18	15.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.2400	0.9400	0.0800	0.0500	0.1000	0.4100	
19	16.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.3100	2.7300	0.0700	0.0800	0.0900	0.4200	
20	17.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.2700	1.1800	0.0400	0.0400	0.0900	0.4200	
21	18.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.2700	2.1700	0.0400	0.0400	0.0900	0.4000	
22	19.00	0.0	-0.0100	-0.0100	-0.0100	1.3000	0.3400	0.3900	1.0300	0.0800	0.0800	0.4000	

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POINT	ALPHA	QFT	CX	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP
1	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	1.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1.50	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	3.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	4.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	5.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	6.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	7.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	8.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	9.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	10.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	11.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	12.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	13.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	14.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	15.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	16.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	17.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	18.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	19.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION AND TUNNEL FACILITY (PTF) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST NAME		CONF		DEL1		DEL2		DEL3		DEL4		TRANSITION	
	7	27 0.55 0.7	0.0	M3.0F15	0.0	0	0	0	0	0	0	0	0	FIXED
POINT	ALPHA	MFA	CONF1	CONF2	CONF3	YCONF1	YCONF2	CONF2	CONF2	CONF2	YCONF2	YCONF2	YCONF2	YCONF2
1	-1.61	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	-0.1157	-0.0087	-0.1069	0.5518	6.9822		
2	-0.76	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.0239	-0.0034	-0.0479	-0.1650	-0.1044		
3	0.44	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.0440	-0.0015	-0.0857	-0.0299	-1.7583		
4	1.41	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.0977	0.0073	-0.0555	0.0748	-0.5986		
5	2.42	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.1379	0.0138	-0.0608	0.0999	-0.4612		
6	3.44	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.1872	0.0230	-0.0693	0.1230	-0.2581		
7	4.43	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.2267	0.0266	-0.0253	0.1172	-0.1113		
8	5.45	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.2763	0.0311	-0.0045	0.1125	-0.0161		
9	6.42	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.3268	0.0434	0.0218	0.1267	0.0606		
10	7.43	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.3769	0.0518	0.0419	0.1278	0.1035		
11	8.47	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.4257	0.0536	0.0801	0.1175	0.1758		
12	9.46	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.4736	0.0581	0.1001	0.1131	0.1949		
13	10.46	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.5253	0.0606	0.1165	0.1087	0.2038		
14	11.50	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.5706	0.0706	0.1279	0.1119	0.2028		
15	12.47	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.6198	0.0765	0.1534	0.1109	0.2224		
16	13.51	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.7601	0.0851	0.1722	0.1113	0.2254		
17	14.47	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.8142	0.0880	0.1867	0.1056	0.2416		
18	15.49	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.8546	0.0894	0.2106	0.1047	0.2467		
19	16.44	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.9105	0.0921	0.2270	0.1007	0.2483		
20	17.55	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	0.9738	0.0901	0.2424	0.0926	0.2491		
21	18.51	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	1.0212	0.0941	0.2488	0.0921	0.2436		
22	19.51	0.0	9.9999	9.9999	9.9999	9.9999	9.9999	1.0503	0.0879	0.2400	0.0837	0.2516		

TEST PART NAME: RX10-6 PWT CODE: 1 DEL1: 0 DEL2: 0 DEL3: 0 DEL4: 0 TRANSITION: FIXED
 2 27 0.5V 0.7 0.0 0.30+15 0.0

POINT	ALPHA	BETA	CMF3	CM3	CM3	XCPF3	YCPF3	CMF4	CM4	CM4	XCPF4	YCPF4
1	1.01	0.0	-0.0000	-0.0000	-0.0016	0.3822	0.0100	-0.0150	-0.3113	-0.0215	0.7502	1.5618
2	0.98	0.0	-0.0000	-0.0032	-0.0074	0.3807	-0.0273	0.0024	-0.0006	0.0238	-2.9487	0.1501
3	0.90	0.0	-0.0000	-0.0020	-0.0037	0.3808	0.0065	0.0050	-0.0002	-0.0003	0.0033	0.1517
4	1.01	0.0	-0.0016	-0.0000	0.0076	0.3707	-0.0750	0.0056	0.0043	0.0384	0.0502	0.4489
5	2.00	0.0	-0.0111	-0.0000	0.0050	0.3800	-0.0000	0.1361	-0.0110	0.0091	0.0823	0.3664
6	3.00	0.0	-0.0000	-0.0030	0.0035	0.3812	-0.0540	0.1747	0.0174	0.0767	0.0496	0.4044
7	4.00	0.0	-0.0070	-0.0020	-0.0035	0.2801	0.0033	0.2330	0.0270	0.0412	0.1182	0.3906
8	5.00	0.0	-0.0110	-0.0000	-0.0010	0.3870	0.0117	0.2836	0.0034	0.1135	0.1170	0.4003
9	6.00	0.0	-0.0100	-0.0000	0.0071	0.4123	-0.0107	0.3361	0.0380	0.1036	0.1141	0.4274
10	7.00	0.0	-0.0100	-0.0000	-0.0005	0.4044	0.0043	0.3950	0.0457	0.1872	0.1158	0.4613
11	8.00	0.0	-0.0070	-0.0020	-0.0029	0.3001	0.0571	0.4435	0.0502	0.1938	0.1133	0.4378
12	9.00	0.0	-0.0100	-0.0030	0.0017	0.3735	-0.0701	0.5032	0.0549	0.2171	0.1091	0.4315
13	10.00	0.0	-0.0100	-0.0030	-0.0015	0.3807	0.1005	0.5565	0.0605	0.2301	0.1088	0.4296
14	11.00	0.0	-0.0070	-0.0030	0.0070	0.3700	-0.0771	0.6100	0.0474	0.2921	0.1103	0.4579
15	12.00	0.0	-0.0000	-0.0020	0.0061	0.2807	0.0000	0.6662	0.0725	0.2762	0.1059	0.4036
16	13.00	0.0	-0.0000	-0.0020	-0.0025	0.2900	0.0700	0.7427	0.0758	0.3099	0.1021	0.4173
17	14.00	0.0	-0.0100	-0.0030	0.0030	0.3800	-0.0700	0.7964	0.0800	0.3578	0.1000	0.4000
18	15.00	0.0	-0.0100	-0.0031	0.0040	0.3000	-0.0500	0.8444	0.0837	0.3510	0.0900	0.4133
19	16.00	0.0	-0.0100	-0.0032	0.0030	0.3200	-0.0300	0.9100	0.0800	0.3601	0.0823	0.4100
20	17.00	0.0	-0.0100	-0.0031	0.0045	0.3700	-0.0300	0.9733	0.0878	0.3915	0.0902	0.4022
21	18.00	0.0	-0.0100	-0.0031	0.0042	0.3500	-0.0200	1.0278	0.0807	0.4118	0.0800	0.4000
22	19.00	0.0	-0.0100	-0.0032	0.0040	0.3722	-0.0300	1.0803	0.0800	0.4177	0.0781	0.3867

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AMPLITUDE ENGINEERING DEVELOPMENT CENTER (AEUC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 3 PART I - MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST CASE NAME	PHI	CONF	L	DEL1	DEL2	DEL3	DELA	TRANSITION			
2	31.0054	1.01	0.0	0.300415	0.0	0	0	0	FIXED		
POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAB	CAF	RCP
1	-1.07	0.0	-0.1101	0.1330	-0.0524	0.0651	0.0000	0.3210	0.0934	0.2271	-1.3623
2	-2.05	0.0	-0.0700	0.0355	-0.0407	0.0713	0.0074	0.3210	0.0920	0.2240	-1.2609
3	0.43	0.0	0.0073	-0.1200	-0.0010	-0.0705	0.0047	0.3187	0.0900	0.2241	-1.0370
4	1.43	0.0	0.1700	-0.0730	-0.0401	0.0003	0.0052	0.3197	0.0903	0.2254	-1.3300
5	2.39	0.0	0.2000	-0.0370	-0.0501	0.0071	0.0070	0.3182	0.0950	0.2232	-1.4101
6	3.02	0.0	0.1607	-0.0730	-0.0537	0.0502	0.0055	0.3173	0.0900	0.2193	-1.0079
7	4.00	0.0	0.5327	-0.0000	-0.0510	0.0533	0.0072	0.3160	0.0900	0.2203	-1.5020
8	5.03	0.0	0.4500	-1.0500	-0.0000	0.0450	0.0019	0.3107	0.0972	0.2170	-1.6100
9	5.05	0.0	0.0000	-1.3000	-0.0000	0.0000	0.0000	0.3101	0.1031	0.2150	-1.6900
10	7.05	0.0	0.9000	-1.0000	-0.0053	0.0451	0.0117	0.3177	0.1057	0.2170	-1.7720
11	8.00	0.0	1.1101	-0.0000	-0.0000	0.0000	0.0102	0.3210	0.1120	0.2000	-1.8200
12	9.00	0.0	1.2770	-2.0000	-0.0000	0.0000	0.0121	0.3230	0.1100	0.2052	-1.8000
13	11.00	0.0	1.4330	-2.0000	-0.0000	0.0320	0.0110	0.3220	0.1200	0.1950	-1.8710
14	11.00	0.0	1.6120	-3.0000	-0.0050	0.0000	0.0000	0.3200	0.1320	0.1800	-1.8810
15	12.00	0.0	1.7770	-3.0000	-0.0020	0.0300	0.0000	0.3180	0.1350	0.1830	-1.8850
16	13.00	0.0	1.9500	-3.0000	-0.0300	0.0200	0.0000	0.3160	0.1300	0.1770	-1.8910
17	10.53	0.0	2.1250	-0.0000	-0.0200	0.0000	0.0000	0.3000	0.1430	0.1650	-1.8900
18	15.00	0.0	2.3000	-4.0000	-0.0370	0.0100	0.0000	0.3120	0.1520	0.1590	-1.8000
19	16.53	0.0	2.4000	-4.0000	-0.0150	0.0000	0.0000	0.3000	0.1500	0.1500	-1.8700
20	17.00	0.0	2.7100	-5.0000	-0.0200	-0.0000	0.0200	0.3000	0.1600	0.1300	-1.8700
21	17.00	0.0	2.9000	-5.0000	-0.0300	0.0100	0.0150	0.3030	0.1700	0.1270	-1.8700
22	19.00	0.0	3.1150	-5.7500	-0.0030	-0.0300	0.0230	0.3000	0.1000	0.1170	-1.8000

AR-OLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)

PAGE 2 OF 3

SAFETY MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART NAME BAL-100 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 31 BODY 1.0 0.0 030UF15 0.0 0 0 0 0 FIXED

POINT	ALPHA	CFYA	CFX1	CFY1	CFZ1	YCPF1	YCFY1	CFX2	CFY2	CFZ2	YCPF2	YCFY2
1	-1.02	0.0	-0.00140	-0.00015	-0.00031	0.1005	0.2307	-0.0500	-0.0127	-0.0218	0.2336	0.3830
2	-0.85	0.0	-0.00099	-0.00000	-0.00000	0.0918	0.0550	-0.0120	-0.0000	-0.0153	0.3026	1.2741
3	-0.63	0.0	-0.00053	-0.00000	-0.00000	0.0800	0.0000	-0.0221	-0.0011	-0.0000	0.0507	-0.0393
4	1.03	0.0	-0.00053	0.00003	-0.00007	0.0939	3.1274	0.0551	0.0000	0.0151	0.1217	0.2736
5	2.33	0.0	-0.00050	0.00000	-0.00000	0.1357	0.2017	0.1021	-0.0100	0.0311	0.1567	0.3007
6	3.00	0.0	-0.00100	-0.00015	-0.00000	0.1000	0.0074	0.1479	0.0000	0.0039	0.1600	0.2972
7	4.00	0.0	-0.00122	-0.00000	-0.00000	0.1000	1.3025	0.2005	0.0000	0.0000	0.1500	0.3200
8	5.00	0.0	-0.00093	0.00003	-0.00000	0.1000	0.0305	0.2510	0.0000	0.0000	0.1477	0.3702
9	6.00	0.0	-0.00050	0.00003	-0.00000	0.0357	0.0000	0.2119	0.0000	0.1107	0.1403	0.3805
10	7.45	0.0	-0.00000	-0.00012	-0.00013	0.1352	1.5025	0.3731	0.0000	0.1019	0.1399	0.3805
11	8.00	0.0	-0.00000	-0.00000	0.00010	0.0016	-0.1000	0.4371	0.0000	-0.1500	0.1370	0.3600
12	9.00	0.0	-0.00000	0.00003	-0.00000	0.0000	0.0000	0.4952	0.0000	0.1007	0.1314	0.3650
13	10.51	0.0	-0.00000	0.00000	-0.00000	0.1520	0.3700	0.5570	0.0000	0.2123	0.1250	0.3800
14	11.50	0.0	-0.00130	-0.00010	-0.00010	0.1000	1.2000	0.0000	0.0000	0.2305	0.1219	0.3070
15	12.50	0.0	-0.00120	-0.00000	-0.00010	0.1000	-0.1535	0.0000	0.0000	0.2520	0.1220	0.3720
16	13.50	0.0	-0.00170	-0.00000	-0.00010	0.1000	0.5000	0.7325	0.0000	0.2700	0.1171	0.3800
17	10.53	0.0	-0.00130	-0.00015	-0.00000	0.1000	0.0000	0.7791	0.0000	-0.2025	0.1113	0.3750
18	14.55	0.0	-0.0015	0.00000	-0.00000	0.0000	0.0000	0.0000	0.0000	0.3100	0.1000	0.3771
19	15.53	0.0	-0.0010	-0.00000	-0.00000	0.1000	0.0000	0.0000	0.0000	0.3200	0.1000	0.3570
20	17.55	0.0	0.00000	0.00000	-0.00000	0.0000	-1.1339	0.0000	0.0000	0.3372	0.1038	0.3537
21	19.55	0.0	-0.00000	-0.00000	-0.00000	0.1000	0.1300	1.2220	0.0000	0.3500	0.0963	0.3555
22	19.60	0.0	-0.00000	-0.00000	-0.00000	0.1000	0.3200	1.0500	1.0000	0.3600	0.0930	0.3600

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AERONAUTICAL ENGINEERING DEVELOPMENT CENTER (ARCC) PROPULSION WIND TUNNEL FACILITY (M-1) AERODYNAMIC WIND TUNNEL (AT)

PAGE 3 OF 3 MANTIS MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

POINT	TEST PART NAME: M-1-5												
	ALPHA	META	CAF3	CM3	CD3	KCPF3	YCPF3	CAF6	CM6	CR6	KCPF6	YCPF6	
2	31	0.59	1.1	0.0	0.030615	0.0	0	0	0	0	0	0	FIXED
1	-1.62	0.0	0.0074	0.0071	0.0058	0.0044	0.0024	0.0059	0.0075	0.0064	0.0040	0.0047	
2	-0.65	0.0	-0.0021	0.0004	-0.0028	-0.0124	0.0659	-0.0226	-0.0015	0.0004	0.0670	-0.0168	
3	0.63	0.0	-0.0004	0.0023	0.0023	0.0372	-0.0304	0.0337	0.0083	0.0036	0.0466	-0.0061	
4	1.63	0.0	-0.0033	-0.0115	0.0061	0.0435	-0.0261	0.0745	0.0162	0.0127	0.0442	0.0178	
5	2.35	0.0	-0.0172	0.0003	0.0038	0.0486	-0.0219	0.1130	0.0241	0.0334	0.0132	0.0253	
6	3.02	0.0	-0.0147	-0.0071	0.0032	0.0435	-0.0203	0.1346	0.0245	0.0444	0.0119	0.0484	
7	4.64	0.0	-0.0141	0.0005	0.0020	0.0464	-0.0131	0.2045	0.0375	0.0767	0.0192	0.0468	
8	5.63	0.0	-0.0041	0.0004	-0.0012	-0.0145	0.0293	0.2610	0.0424	0.1040	0.0600	0.0398	
9	6.65	0.0	-0.0145	0.0002	0.0000	0.0258	0.0007	0.3286	0.0551	0.1418	0.0676	0.0414	
10	7.45	0.0	-0.0112	0.0107	0.0071	0.0440	-0.0210	0.3746	0.0566	0.1557	0.0512	0.0456	
11	8.66	0.0	-0.0322	0.0162	0.0068	0.0497	-0.0294	0.4415	0.0662	0.2093	0.0500	0.0474	
12	9.64	0.0	-0.0204	-0.0065	0.0073	0.0316	-0.0119	0.4946	0.0643	0.2368	0.0381	0.0428	
13	10.51	0.0	-0.0222	0.0011	0.0035	0.0001	-0.0563	0.5017	0.0734	0.2572	0.0356	0.0428	
14	11.50	0.0	-0.0114	-0.0051	0.0012	0.0278	-0.0063	0.6047	0.0767	0.2568	0.0266	0.0427	
15	12.54	0.0	-0.0222	0.0045	0.0021	0.0273	-0.0153	0.6595	0.0812	0.3190	0.0231	0.0437	
16	13.40	0.0	-0.0045	0.0015	-0.0050	-0.0177	0.5824	0.7138	0.0897	0.2944	0.0256	0.0481	
17	14.53	0.0	-0.0373	0.0013	0.0054	0.0370	-0.0150	0.7660	0.0907	0.3244	0.0187	0.0428	
18	15.55	0.0	-0.0141	0.0045	-0.0044	-0.0524	0.5424	0.8240	0.0922	0.3357	0.0113	0.0455	
19	16.53	0.0	-0.0222	0.0004	0.0004	0.0311	0.6000	0.8664	0.0912	0.3645	0.0051	0.0424	
20	17.55	0.0	0.0014	0.0074	-0.0044	0.0144	-0.0674	0.9456	0.0977	0.3648	0.0033	0.0391	
21	18.55	0.0	-0.0222	0.0002	0.0009	0.0144	-0.0005	0.9905	0.0962	0.3857	0.0071	0.0404	
22	19.60	0.0	-0.0300	-0.0104	0.0055	0.0391	-0.0150	1.0422	0.0981	0.4009	0.0042	0.0407	

TEST NAME: MANTIN MISSILE TAIL EFFECTS DATA
 TEST POINT: 2
 MANTIN MISSILE TAIL EFFECTS DATA
 TEST CASE: 3P 0.5V 1.3
 TEST CASE NO: 0.0 33.0P15 0.0
 DEL1: 0
 DEL2: 0
 DEL3: 0
 DEL4: 0
 TRANSITION: FIXED

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CB	CAF	ACP
1	-1.60	0.0	-0.0415	0.0115	-0.0330	0.0175	0.0005	0.2950	0.1097	0.1657	-1.2530
2	-0.63	0.0	-0.1110	0.0277	-0.0430	0.0270	-0.0001	0.3004	0.0800	0.2704	-1.9587
3	0.39	0.0	-0.2200	0.0170	-0.0327	0.0259	0.0003	0.3020	0.0943	0.2082	-1.2930
4	1.39	0.0	0.1991	-0.0211	-0.0284	0.0104	0.0034	0.2999	0.0962	0.2037	-1.2746
5	2.43	0.0	0.2973	-0.0395	-0.0311	0.0231	0.0037	0.2983	0.0988	0.1975	-1.3590
6	3.44	0.0	0.4021	-0.0524	-0.0325	0.0200	0.0029	0.2980	0.1019	0.1965	-1.4987
7	4.42	0.0	0.5574	-0.0660	-0.0223	0.0145	0.0022	0.2960	0.0973	0.1960	-1.5860
8	5.44	0.0	0.7000	-0.0810	-0.0200	0.0195	0.0047	0.2953	0.0997	0.1895	-1.6571
9	6.50	0.0	0.8125	-0.0920	-0.0223	0.0205	0.0037	0.2981	0.1070	0.1903	-1.7432
10	7.60	0.0	0.9507	-0.1030	-0.0271	0.0190	0.0054	0.3005	0.1134	0.1870	-1.7975
11	8.66	0.0	1.1073	-0.1161	-0.0220	0.0205	0.0050	0.2990	0.1115	0.1880	-1.8627
12	9.60	0.0	1.2671	-0.1301	-0.0173	0.0203	0.0099	0.2995	0.1200	0.1767	-1.8572
13	10.67	0.0	1.4002	-0.1451	-0.0191	0.0232	0.0066	0.3025	0.1277	0.1760	-1.8900
14	11.69	0.0	1.5001	-0.1607	-0.0199	0.0251	0.0054	0.3010	0.1302	0.1672	-1.9056
15	12.52	0.0	1.7003	-0.1765	-0.0157	0.0210	0.0057	0.3007	0.1382	0.1625	-1.9073
16	13.50	0.0	1.9504	-0.1915	-0.0127	0.0172	0.0037	0.2977	0.1453	0.1524	-1.9200
17	14.50	0.0	2.1003	-0.2065	-0.0162	0.0135	0.0045	0.2927	0.1480	0.1462	-1.9130
18	15.50	0.0	2.3203	-0.2200	-0.0067	0.0070	0.0050	0.2882	0.1513	0.1369	-1.8945
19	16.51	0.0	2.5400	-0.2340	-0.0000	0.0032	0.0120	0.2822	0.1591	0.1330	-1.8850
20	17.50	0.0	2.7200	-0.2480	-0.0009	0.0040	0.0040	0.2780	0.1633	0.1267	-1.8793
21	18.50	0.0	2.9000	-0.2620	0.0073	-0.0055	0.0109	0.2643	0.1762	0.1060	-1.8709
22	19.60	0.0	3.0900	-0.2760	0.0134	-0.0036	0.0127	0.2650	0.1877	0.0901	-1.8545

AEDC ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME		FRI CONF			DEL1 DEL2 DEL3 DEL4 TRANSITION							
2 37 J.59 1.3		0.0 03-0415 0.0			0	0	0	0	FIXED			
POINT	ALPHA	BETA	Cx1	Cm1	Cm1	ACPF1	YCPF1	CNF2	Cm2	Cg2	KCPF2	YCPF2
1	-1.65	0.0	-0.0120	-0.0003	-0.0107	0.0227	1.1510	-0.0046	-0.0094	-0.0265	0.2016	0.6685
2	-0.53	0.0	-0.0101	-0.0010	-0.0110	0.0615	1.7314	-0.0143	-0.0076	-0.0142	0.5279	0.9930
3	0.39	0.0	-0.0072	-0.0011	-0.0129	-0.1521	1.7800	0.0234	0.0000	-0.0029	0.0274	0.1242
4	1.39	0.0	-0.0101	0.0004	-0.0117	-0.0395	1.1550	0.0541	0.0053	0.0146	0.0985	0.2697
5	2.43	0.0	-0.0129	-0.0003	-0.0083	0.0225	0.6000	0.1065	0.0165	0.0279	0.1540	0.2617
6	3.44	0.0	-0.0109	-0.0010	0.0014	0.0416	-0.1004	0.1558	0.0241	0.0458	0.1545	0.2939
7	4.47	0.0	-0.0100	-0.0010	-0.0010	0.0500	0.0670	0.1066	0.0200	0.0730	0.1423	0.3712
8	5.44	0.0	-0.0099	0.0004	-0.0100	-0.0394	1.0135	0.2540	0.0348	0.0957	0.1368	0.3766
9	6.50	0.0	-0.0062	0.0010	-0.0020	-0.0203	0.6627	0.3177	0.0020	0.1245	0.1322	0.3010
10	7.44	0.0	-0.0129	-0.0003	0.0005	0.0225	-0.0307	0.3775	0.0506	0.1443	0.1339	0.3023
11	8.46	0.0	-0.0010	0.0020	-0.0000	-0.0715	4.6335	0.0354	0.0570	0.1565	0.1310	0.3594
12	9.54	0.0	-0.0090	-0.0001	-0.0000	0.0006	1.0916	0.4047	0.0426	0.1905	0.1266	0.3852
13	10.67	0.0	-0.0090	-0.0001	-0.0012	0.0006	1.5615	0.5591	0.0673	0.2080	0.1203	0.3720
14	11.49	0.0	-0.0170	-0.0021	-0.0170	0.1103	0.9662	0.0157	0.0723	0.2317	0.1174	0.3763
15	12.52	0.0	-0.0075	-0.0005	-0.0100	-0.0610	1.8013	0.6777	0.0787	0.2528	0.1162	0.3730
16	13.50	0.0	-0.0170	-0.0021	-0.0000	0.1100	0.4913	0.7324	0.0012	0.2753	0.1108	0.3758
17	14.54	0.0	-0.0050	0.0010	-0.0003	-0.0300	0.0598	0.7826	0.0025	0.3009	0.1054	0.3845
18	15.54	0.0	-0.0100	-0.0012	-0.0002	0.1002	0.4397	0.0393	0.0090	0.3152	0.1060	0.3754
19	16.01	0.0	-0.0000	0.0010	-0.0000	1.4777	-5.9136	0.9096	0.0000	0.3250	0.1065	0.3573
20	17.00	0.0	-0.0000	-0.0000	-0.0000	0.0424	0.7332	0.9628	0.0000	0.3450	0.1023	0.3503
21	18.50	0.0	-0.0121	-0.0017	-0.0150	0.0615	1.2871	0.9987	0.0057	0.3605	0.0959	0.3610
22	19.50	0.0	0.0120	0.0004	-0.0070	0.3403	-0.5549	1.0339	0.0957	0.3641	0.0925	0.3522

TEST PART NAME	RAI	RAI	RAI	RAI	RAI	RAI	RAI	RAI	RAI	RAI	RAI	RAI
DEL1	DEL2	DEL3	DEL4	TRANSITION								
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
2	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ARMED ENGINEERING DEVELOPMENT CENTER(AEDC) PROPELLION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 1 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	PLUM	PHI	CUMF	L	DEL1	DEL2	DEL3	DELA	TRANSITION		
2	33 0.55 3.0	0.0	0.0	0.0	0	0	0	0	FIXED		
POINT	ALPHA	BETA	CV	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-1.63	0.0	-0.1131	-0.0727	-0.0033	-0.0056	-0.0016	0.2567	0.1022	0.1545	-1.5024
2	-0.62	0.0	-0.0074	0.0020	-0.0011	-0.0021	-0.0017	0.2605	0.1030	0.1575	-2.0754
3	0.39	0.0	0.0175	-0.0022	-0.0001	-0.0000	-0.0027	0.2572	0.1017	0.1556	-1.1636
4	1.48	0.0	0.1413	-0.0522	-0.0000	-0.0010	-0.0003	0.2505	0.1045	0.1540	-1.3101
5	2.46	0.0	0.2470	-0.0037	-0.0026	-0.0036	-0.0010	0.2549	0.1069	0.1461	-1.4026
6	3.49	0.0	0.3114	-0.0251	-0.0031	-0.0000	0.0010	0.2550	0.1072	0.1404	-1.5100
7	4.50	0.0	0.3331	-0.0052	-0.0010	-0.0012	0.0004	0.2524	0.1003	0.1497	-1.5061
8	5.51	0.0	0.3770	-0.1341	0.0023	-0.0000	0.0013	0.2595	0.1114	0.1400	-1.6762
9	6.57	0.0	0.4300	-0.0700	0.0033	-0.0013	0.0020	0.2662	0.1177	0.1465	-1.7540
10	7.59	0.0	0.4900	-0.0030	0.0012	-0.0031	0.0015	0.2663	0.1205	0.1450	-1.8104
11	8.61	0.0	0.5100	-0.0005	0.0053	-0.0113	0.0021	0.2665	0.1250	0.1436	-1.8500
12	9.63	0.0	0.5000	-0.0000	0.0112	-0.0214	0.0032	0.2682	0.1242	0.1390	-1.8782
13	10.62	0.0	0.5070	-0.0000	0.0000	-0.0000	0.0030	0.2605	0.1376	0.1318	-1.8966
14	11.70	0.0	0.5000	-0.0000	0.0077	-0.0203	0.0030	0.2661	0.1418	0.1243	-1.9060
15	12.56	0.0	0.5000	-0.0000	0.0059	-0.0107	0.0000	0.2666	0.1511	0.1150	-1.9114
16	13.77	0.0	0.5000	-0.0000	0.0077	-0.0050	0.0000	0.2624	0.1576	0.1040	-1.9105
17	14.81	0.0	0.5000	-0.0000	0.0106	-0.0000	0.0025	0.2588	0.1631	0.0957	-1.8993
18	15.43	0.0	0.5000	-0.0000	0.0150	-0.0000	0.0021	0.2565	0.1461	0.0894	-1.8847
19	15.80	0.0	0.5000	-0.0000	0.0100	-0.0000	0.0023	0.2530	0.1708	0.0741	-1.8687
20	17.09	0.0	0.5000	-0.0000	0.0299	-0.0000	0.0013	0.2552	0.1828	0.0720	-1.8463
21	18.90	0.0	0.5000	-0.0000	0.0416	-0.0000	0.0000	0.2550	0.1939	0.0611	-1.8162
22	20.01	0.0	0.5000	-0.0000	0.0363	-0.0112	0.0105	0.2590	0.2037	0.0561	-1.7963

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TEST PART 266M RAIL-6 PHASE CUMULATIVE WEL1 WEL2 WEL3 DELTA TRANSITION
 2 37 U.S.V 3.0 3.0 M30UF15 U.0 0 0 0 0 FIXED

POINT	ALPHA	WTA	WPF1	CM1	CM2	YCPF1	YCPF2	CMF2	CM2	CM2	YCPF2	YCPF2
1	-1.63	0.0	-0.0117	-0.0097	-0.0020	0.0015	-0.1698	-0.0523	-0.0099	-0.0298	0.1887	0.5788
2	-0.62	0.0	-0.0000	0.0000	-0.0000	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.2821	1.2546
3	0.39	0.0	-0.0117	-0.0097	-0.0020	0.0015	-0.1698	-0.0523	-0.0099	-0.0298	0.0770	0.0355
4	1.48	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.1273	0.2844
5	2.48	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.1454	0.3256
6	3.49	0.0	-0.0131	-0.0010	-0.0017	0.0005	0.1305	0.1428	0.0228	0.0446	0.1492	0.3572
7	4.50	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.1446	0.3728
8	5.51	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.1407	0.3918
9	6.52	0.0	-0.0077	-0.0003	-0.0013	0.0036	-0.1671	0.3244	0.3436	0.1314	0.1346	0.4852
10	7.53	0.0	-0.0000	0.0000	0.0000	0.0000	0.0000	0.3871	0.0509	0.1570	0.1314	0.4856
11	8.54	0.0	-0.0000	0.0000	0.0000	0.0000	0.0000	0.4502	0.6566	0.1830	0.1264	0.4863
12	9.55	0.0	-0.0132	-0.0000	0.0017	0.1107	-0.1299	0.5104	0.0624	0.2093	0.1222	0.4101
13	10.56	0.0	-0.0000	0.0000	0.0000	0.7702	16.0000	0.5067	0.5683	0.2343	0.1142	0.4051
14	11.57	0.0	-0.0000	0.0000	0.0000	0.1109	0.0000	0.6457	0.0738	0.2493	0.1143	0.4016
15	12.58	0.0	-0.0000	0.0000	0.0000	0.1036	0.2120	0.7150	0.0810	0.2813	0.1133	0.3934
16	13.59	0.0	-0.0113	-0.0011	-0.0005	0.0440	0.5879	0.7834	0.5844	0.3050	0.1077	0.3893
17	14.60	0.0	-0.0000	0.0000	0.0000	0.1151	0.4639	0.8442	0.0893	0.3242	0.1058	0.3848
18	15.61	0.0	-0.0105	-0.0000	-0.0005	0.0013	0.8177	0.9074	0.0944	0.3447	0.1040	0.3799
19	16.62	0.0	-0.0000	0.0000	0.0000	0.0000	0.0000	0.9556	0.0903	0.3636	0.1008	0.3804
20	17.63	0.0	-0.0105	-0.0014	-0.0022	0.1435	0.1647	1.0155	0.1014	0.3606	0.1001	0.3747
21	18.64	0.0	-0.0000	0.0000	-0.0000	-7.7906	37.5967	1.0654	0.1009	0.3879	0.0905	0.3718
22	20.01	0.0	-0.0000	0.0000	-0.0013	-0.0116	0.2500	1.0956	0.1013	0.3913	0.0925	0.3571

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AMUND ENGINEERING DEVELOPMENT CENTER (AEC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 3 OF 3

MANTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST DATA		MALE	RAILWAY	M-F1	CONF	L	JEL1	JEL2	JEL3	DELE	TRANSITION	
2		37	0.59	3.0	0.0	030P15	0.0	0	0	0	FIXED	
POINT	ALPHA	MFA	CMF3	CM3	CM3	XC PF3	YCPF3	CMF4	CM4	CM4	XC PF4	YCPF4
1	-1.63	0.0	-0.0000	-0.0000	0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.0000
2	-3.62	0.0	-0.0074	-0.0031	0.0022	0.3340	-0.2753	-0.0069	0.0063	-0.0048	-0.0438	0.6934
3	0.34	0.0	-0.0000	-0.0000	0.0029	0.0000	-0.2000	0.0329	0.0000	0.0000	0.1810	0.2577
4	1.48	0.0	-0.0114	-0.0053	0.0029	0.0000	-0.2411	0.0740	0.0128	0.0264	0.1720	0.3554
5	2.86	0.0	-0.0133	-0.0082	0.0030	0.0000	-0.2557	0.1132	0.0163	0.0466	0.1614	0.4115
6	3.69	0.0	-0.0100	-0.0070	0.0039	0.0000	-0.2656	0.1574	0.0246	0.0777	0.1564	0.4618
7	4.50	0.0	-0.0103	-0.0070	0.0031	0.0000	-0.2260	0.2172	0.0333	0.0549	0.1535	0.4368
8	5.51	0.0	-0.0100	-0.0060	0.0023	0.0000	-0.1561	0.2712	0.0390	0.1236	0.1439	0.4557
9	6.57	0.0	-0.0100	-0.0060	0.0022	0.0000	-0.1529	0.3368	0.0468	0.1584	0.1391	0.4702
10	7.59	0.0	-0.0177	-0.0074	0.0026	0.0000	-0.1493	0.3947	0.0517	0.1837	0.1310	0.4654
11	8.51	0.0	-0.0100	-0.0055	0.0015	0.0000	-0.1003	0.4591	0.0589	0.2208	0.1282	0.4808
12	9.63	0.0	-0.0100	-0.0060	0.0022	0.0000	-0.1526	0.5171	0.0622	0.2497	0.1203	0.4829
13	11.62	0.0	-0.0177	-0.0067	0.0000	0.0000	-0.1526	0.5775	0.0600	0.2727	0.1185	0.4723
14	11.70	0.0	-0.0100	-0.0067	0.0021	0.0000	-0.1108	0.6463	0.0729	0.2916	0.1129	0.4511
15	12.68	0.0	-0.0177	-0.0053	0.0000	0.0000	-0.1372	0.7052	0.0767	0.3267	0.1088	0.4600
16	13.77	0.0	-0.0100	-0.0044	0.0003	0.0000	-0.1173	0.7765	0.0823	0.3367	0.1060	0.4329
17	14.61	0.0	-0.0325	-0.0074	0.0000	0.0000	-0.1607	0.8312	0.0870	0.3630	0.1047	0.4364
18	15.03	0.0	-0.0177	-0.0065	-0.0000	0.0000	-0.2500	0.8834	0.0894	0.3738	0.1012	0.4231
19	16.80	0.0	-0.0220	-0.0067	0.0012	0.0000	-0.2507	0.9300	0.0925	0.3934	0.0994	0.4234
20	17.89	0.0	-0.0100	-0.0036	0.0000	0.0000	-0.2137	0.9804	0.0900	0.4026	0.0991	0.4073
21	19.98	0.0	-0.0225	-0.0057	0.0029	0.0000	-0.2521	1.0298	0.0902	0.4122	0.0953	0.4003
22	20.01	0.0	-0.0295	-0.0107	0.0047	0.0000	-0.1590	1.0837	0.0975	0.4292	0.0900	0.3961

TEST POINT DATA													
PHI. CLNE L MEL1 MEL2 MEL3 MEL4 TRANSITION													
A	2	34	0.54	0.3	100.0	63.0	F15	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CL	CLM	CV	CLN	CLL	CA	CAR	CAF	ACP		
1	-1.50	0.0	-0.2821	0.3285	-0.1082	0.1778	0.0222	0.4374	0.0915	0.0064	-1.3588		
2	-0.7	0.0	-0.0775	0.0933	-0.1090	0.1712	0.0167	0.4670	0.0484	0.3792	-1.1739		
3	0.83	0.0	-0.0505	0.0727	-0.1137	0.0910	0.0210	0.4777	0.0403	0.3074	-1.5537		
4	1.44	0.0	0.0964	-0.1075	-0.1024	0.0934	0.0230	0.4628	0.0442	0.3486	-1.9438		
5	2.00	0.0	0.1520	-0.0904	-0.1018	0.0900	0.0052	0.4632	0.0915	0.3717	-1.4229		
6	3.00	0.0	0.2075	-0.0540	-0.1071	0.0921	0.0301	0.4408	0.0954	0.3655	-1.4829		
7	4.00	0.0	0.2630	-0.0701	-0.0904	0.0910	0.0223	0.4501	0.0990	0.3511	-1.6404		
8	5.00	0.0	0.3177	-0.0332	-0.0944	0.0902	0.0124	0.4429	0.0963	0.3444	-1.6131		
9	6.00	0.0	0.3725	-1.0176	-0.1037	0.0813	0.0257	0.4353	0.0982	0.3370	-1.6614		
10	7.43	0.0	0.7402	-1.0943	-0.0974	0.0836	0.0319	0.4301	0.1038	0.3264	-1.7689		
11	8.00	0.0	0.8256	-1.0594	-0.1090	0.0900	0.0216	0.4115	0.1124	0.2991	-1.8042		
12	9.45	0.0	1.0510	-2.0073	-0.0963	0.0935	0.0194	0.4119	0.1179	0.2941	-1.7837		
13	10.43	0.0	1.3170	-2.3092	-0.0900	0.0903	0.0115	0.4046	0.1190	0.2931	-1.8271		
14	11.07	0.0	1.4531	-2.4375	-0.0951	0.0864	0.0066	0.4130	0.1291	0.2946	-1.8271		
15	12.00	0.0	1.6220	-2.5230	-0.0994	0.0839	0.0184	0.4231	0.1319	0.2912	-1.8022		
16	13.05	0.0	1.7711	-3.3327	-0.1041	0.0700	0.0113	0.4174	0.1393	0.2734	-1.8001		
17	14.00	0.0	2.1130	-3.7751	-0.0930	0.0707	0.0112	0.4181	0.1488	0.2603	-1.7861		
18	15.00	0.0	2.3740	-4.2707	-0.0963	0.0741	-0.0043	0.3952	0.1644	0.2309	-1.8028		
19	16.07	0.0	2.6550	-4.7500	-0.1175	0.0532	0.0168	0.4054	0.1688	0.2210	-1.7847		
20	17.51	0.0	2.9351	-5.1804	-0.1424	0.0749	0.0166	0.4045	0.1781	0.2253	-1.7596		
21	18.00	0.0	3.1539	-5.5207	-0.0862	0.0501	0.0134	0.3956	0.1757	0.2200	-1.7452		
22	19.52	0.0	3.3922	-5.8446	-0.0933	0.0707	0.0021	0.4011	0.1852	0.2159	-1.7230		

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AIRLIFT ENGINEERING DEVELOPMENT CENTER(AEUC)

PROPULSION AND TUNNEL FACILITY(P-T)

AERODYNAMIC WIND TUNNEL(AWT)

PAGE 2 OF 3

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

POINT	TEST PART				P-1	CONE	L	DEL1	DEL2	DEL3	DELA	TRANSITION
	7	36	0.54	0.3								
					180.0	03.0F15	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CPF1	C-1	Cb1	YCPF1	YCPF1	CMF2	CM2	CM7	YCPF2	YCPF2
1	-1.50	0.0	-0.1630	-0.0322	0.1166	0.2513	-0.9273	0.0336	0.0027	0.0247	0.0092	0.7547
2	-0.47	0.0	-0.0774	-0.0217	0.0330	0.2716	-0.3781	0.0208	0.0046	0.0349	0.2215	1.0723
3	0.03	0.0	-0.1120	-0.0030	-0.0195	0.2308	-1.1367	-0.0011	0.0061	-0.0347	-5.4570	31.1982
4	1.44	0.0	-0.0757	-0.0101	0.0064	0.2345	-1.1340	-0.0525	-0.0090	0.0041	0.1708	-0.0772
5	2.06	0.0	-0.0220	0.0001	-0.0074	0.2365	-2.6608	-0.0941	-0.0155	-0.0557	0.1668	0.5926
6	3.44	0.0	0.0	0.0	0.0327	0.0	0.0347	-0.1646	-0.0295	-0.0949	0.1789	0.5764
7	4.82	0.0	-0.1721	-0.1211	0.0000	0.2759	-0.8602	-1.1710	-0.0199	-0.0975	0.1165	0.5701
8	5.44	0.0	-0.1372	-0.1353	0.0515	0.2590	-0.3782	-0.2537	-0.0425	-0.1152	0.1676	0.4542
9	6.01	0.0	-0.0454	-0.0041	-0.0334	0.2366	-0.8825	-0.3036	-0.0435	-0.1000	0.1635	0.4615
10	7.43	0.0	-0.0539	-0.0151	0.0145	0.2345	-0.2268	-0.3317	-0.0374	-0.1329	0.1142	0.4007
11	8.48	0.0	0.0	0.0	-0.0677	0.0	-0.0677	-0.4229	-0.0566	-0.1439	0.1336	0.3602
12	9.45	0.0	-0.1704	-0.0040	-0.0017	0.3425	0.0833	-0.4544	-0.0424	-0.1742	0.1363	0.3750
13	10.03	0.0	-0.1205	-0.0100	0.0051	0.3025	-0.0665	-0.5202	-0.0726	-0.1675	0.1365	0.3576
14	11.07	0.0	0.0	0.0	0.0	0.0	0.0	-0.5612	-0.0693	-0.2160	0.1235	0.3049
15	12.40	0.0	-0.0691	-0.0211	0.0201	0.2366	-0.2701	-0.5901	-0.0675	-0.2092	0.1143	0.3546
16	13.45	0.0	0.0254	0.0060	0.0	0.2366	0.0	-0.6785	-0.0472	-0.2191	0.1294	0.3228
17	14.09	0.0	0.0254	0.0060	0.0192	0.2366	1.7566	-0.6921	-0.0710	-0.2605	0.1026	0.4054
18	15.04	0.0	-0.0204	-0.0060	0.0271	0.3474	-1.3009	-0.7620	-0.0854	-0.2549	0.1124	0.3345
19	16.07	0.0	0.0	0.0	0.0204	0.0	-0.0204	-0.6242	-0.0673	-0.2632	0.1049	0.3174
20	17.51	0.0	-0.0714	-0.0201	0.0465	0.2749	-0.6401	-0.0745	-0.0388	-0.3223	0.1016	0.3686
21	18.04	0.0	0.0172	0.0011	-0.0065	0.0506	-0.3741	-0.8850	-0.1000	-0.3429	0.0472	0.3874
22	19.52	0.0	0.0001	0.0004	-0.0504	0.0009	-0.3127	-0.9115	-0.0797	-0.3318	0.0075	0.3640

TEST PART NAME 9X10-5 PHI CONF I DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 36 0.54 0.3 107.0 H3#0F15 0.0 0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CMF3	CM3	CM3	XCPF3	YCPF3	CMF4	CM4	CM4	XCPF4	YCPF4
1	-1.54	0.0	-0.0152	-0.0149	0.0054	1.2452	-0.3801	0.0724	0.0253	0.0264	0.3470	0.2809
2	-0.57	0.0	-0.0179	-0.0220	0.0165	1.2613	-0.4923	0.0357	0.0171	0.0056	0.4771	0.1573
3	0.23	0.0	-0.0155	-0.0340	-0.0191	0.5133	-0.2517	0.0067	0.0137	-0.0217	2.0551	-3.2677
4	1.44	0.0	-0.0334	-0.0292	0.0224	0.8750	-0.6709	-0.0426	0.0028	-0.0319	-0.0662	0.7494
5	2.44	0.0	-0.0145	-0.0104	0.0172	0.8617	-0.8746	-0.0794	-0.0053	-0.0564	0.0672	0.7087
6	3.44	0.0	0.0541	0.0321	-0.0127	0.5427	-0.2149	-0.1756	-0.0094	-0.0871	0.0748	0.6936
7	4.42	0.0	-0.0314	-0.0424	0.0243	0.8204	-0.5643	-0.1667	-0.0155	-0.1008	0.0927	0.6008
8	5.44	0.0	-0.0440	-0.0617	0.0454	0.6542	-0.4434	-0.2253	-0.0223	-0.1166	0.0988	0.5175
9	6.41	0.0	-0.0444	-0.0112	0.0124	1.3451	-1.5541	-0.2590	-0.0234	-0.1528	0.0910	0.5868
10	7.43	0.0	0.0240	0.0068	-0.0016	0.2296	-0.0535	-0.3244	-0.0350	-0.1843	0.1080	0.5679
11	8.44	0.0	0.0443	0.0434	-0.0223	0.5215	-0.2645	-0.3793	-0.0344	-0.1442	0.0921	0.3802
12	9.45	0.0	-0.0377	-0.0271	0.0240	0.7141	-0.6372	-0.4399	-0.0484	-0.2261	0.1101	0.5140
13	10.43	0.0	0.0573	0.0347	-0.0121	0.6044	-0.2106	-0.4930	-0.0552	-0.2328	0.1108	0.4675
14	11.47	0.0	-0.0456	-0.0346	0.0145	0.7471	-0.3798	-0.5427	-0.0591	-0.2533	0.1089	0.4667
15	12.46	0.0	-0.0414	-0.0054	-0.0004	-3.0444	-0.3797	-0.5444	-0.0556	-0.2814	0.0979	0.4958
16	13.45	0.0	-0.0362	-0.0235	0.0137	0.6523	-0.3797	-0.4252	-0.0622	-0.2593	0.0995	0.4148
17	14.49	0.0	-0.0411	-0.0447	0.0232	0.7343	-0.3799	-0.6164	-0.0330	-0.2244	0.0535	0.3641
18	15.44	0.0	0.0441	0.0254	-0.0175	0.5417	-0.3744	-0.7206	-0.0463	-0.3174	0.0912	0.4368
19	16.47	0.0	-0.0253	-0.0114	0.0194	0.4724	-0.3500	-0.7491	-0.0709	-0.3416	0.0898	0.4329
20	17.51	0.0	0.0505	0.0234	-0.0142	0.4724	-0.3744	-0.7495	-0.0469	-0.3772	0.0837	0.4718
21	18.44	0.0	0.0454	0.0113	-0.0021	0.2312	-0.3797	-0.8555	-0.0711	-0.3793	0.0831	0.4434
22	19.52	0.0	0.0141	0.0002	-0.0004	0.0135	-0.3796	-0.9420	-0.0811	-0.3370	0.0861	0.3577

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AN OLD ENGINEERING DEVELOPMENT CENTER (AUC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 PART II - MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST	POINT	ALPHA	BETA	CN	CLM	CY	CLY	CLL	CA	CAR	CAF	ACP
2	37	0.54	0.0	100.0	0.015	0.0	0	0	0	0	FIXED	
	1	1.50	0.0	-0.154	-1.161	-0.0707	0.0507	1.0372	0.4109	0.0755	0.3354	-1.1991
	2	0.50	0.0	-0.0707	-1.0000	-1.0000	1.0000	0.0037	0.0040	0.0432	0.3208	-1.1496
	3	1.42	0.0	0.0200	-1.0000	-0.0370	0.0000	0.0002	0.0100	0.0000	0.3202	-2.3510
	4	1.42	0.0	0.1400	-1.0000	-0.0707	0.0000	0.0107	0.0002	0.0000	0.3001	-1.7237
	5	2.40	0.0	0.2500	-1.0000	-0.0000	0.0000	0.0001	0.0000	0.0000	0.3357	-1.5100
	6	3.40	0.0	0.3470	-1.0000	-0.0707	0.0000	-0.0013	0.0000	0.0000	0.2913	-1.5102
	7	4.40	0.0	0.4400	-1.0000	-0.0707	0.0000	0.0000	0.0000	0.0000	0.2906	-1.5003
	8	5.47	0.0	0.5315	-1.0000	-0.0707	0.0000	0.0000	0.0000	0.0000	0.2906	-1.6512
	9	6.40	0.0	0.7000	-1.0000	-0.0707	0.0000	0.0001	0.0000	0.0000	0.2807	-1.6412
	10	7.40	0.0	0.9200	-1.0000	-0.0707	0.0000	-0.0011	0.0000	0.0000	0.2801	-1.7372
	11	8.47	0.0	1.0000	-1.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.2756	-1.7070
	12	9.40	0.0	1.2000	-1.0000	-0.0707	0.0000	-0.0021	0.0000	0.0000	0.2417	-1.6280
	13	10.40	0.0	1.3000	-1.0000	-0.0000	0.0000	-0.0020	0.0000	0.0000	0.2200	-1.8300
	14	11.47	0.0	1.4000	-1.0000	-0.0707	0.0000	0.0000	0.0000	0.0000	0.2153	-1.8669
	15	12.40	0.0	1.5000	-1.0000	-0.0707	0.0000	0.0000	0.0000	0.0000	0.2088	-1.8860
	16	13.50	0.0	1.6000	-1.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.2097	-1.8730
	17	14.40	0.0	2.0000	-1.0000	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.2020	-1.8850
	18	15.40	0.0	2.1000	-1.0000	-0.0707	0.0000	-0.0025	0.0000	0.0000	0.1965	-1.8777
	19	16.50	0.0	2.5000	-1.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.1815	-1.8720
	20	17.40	0.0	2.9000	-1.0000	-0.0000	0.0000	-0.0075	0.0000	0.0000	0.1605	-1.8573
	21	18.50	0.0	3.0000	-1.0000	-0.0000	0.0000	-0.0100	0.0000	0.0000	0.1652	-1.8301
	22	19.52	0.0	3.3500	-1.0000	-0.0000	0.0000	-0.0055	0.0000	0.0000	0.1533	-1.7901

TEST PART MACH BKIC-5 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 37 0.50 0.4 100.0 0300F15 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CNF1	CN1	CN1	YCPF1	YCPF1	CNF2	CN2	CR2	XCPF2	YCPF2
1	-1.54	0.0	-0.0012	-0.0165	0.0064	0.2365	-1.1341	0.0484	0.0066	0.0169	0.1292	0.3412
2	-0.50	0.0	-0.0047	-0.0220	0.00252	0.2613	-0.2947	0.0424	0.0099	-0.0083	0.2319	-0.1943
3	0.02	0.0	-0.0007	-0.0021	0.0033	0.2171	-0.3757	0.0036	0.0028	-0.0297	0.7915	-0.3017
4	1.42	0.0	-0.0023	-0.0124	0.00527	0.2365	-1.0074	-0.0592	-0.0102	-0.0782	0.1717	0.4757
5	2.00	0.0	-0.0031	-0.0064	0.0052	0.1819	0.6621	-0.0903	-0.0102	-0.0616	0.1583	0.6849
6	3.00	0.0	-0.0007	-0.0093	0.00703	0.1971	-1.0057	-0.1447	-0.0250	-0.0610	0.1729	0.5655
7	4.43	0.0	-0.0070	-0.0184	0.0024	0.2365	-0.5441	-0.1782	-0.0236	-0.0483	0.1322	0.4055
8	5.47	0.0	-0.0101	-0.0262	0.00385	0.2371	-0.3782	-0.2561	-0.0340	-0.0982	0.1540	0.3033
9	6.06	0.0	-0.0032	-0.0104	0.00106	0.2365	-0.3781	-0.3231	-0.0501	-0.1329	0.1551	0.4113
10	7.40	0.0	-0.0140	-0.0270	0.00365	0.2346	-0.3149	-0.3573	-0.0495	-0.1527	0.1304	0.4275
11	8.67	0.0	-0.0557	-0.0111	0.00253	0.1991	0.4540	-0.4186	-0.0551	-0.1759	0.1317	0.4204
12	9.00	0.0	0.0231	0.0070	-0.0014	0.3764	-1.0129	-0.4901	-0.0676	-0.1909	0.1379	0.3695
13	10.65	0.0	0.0310	0.0070	0.00270	0.3022	0.8647	-0.5620	-0.0732	-0.2166	0.1409	0.3854
14	11.47	0.0	0.0143	0.0054	-0.00004	0.3773	-0.3783	-0.5917	-0.0710	-0.2439	0.1149	0.4121
15	12.49	0.0	-0.0333	-0.0070	0.0012	0.1420	-0.0314	-0.0367	-0.0774	-0.2688	0.1222	0.4222
16	13.50	0.0	0.0005	0.0117	-0.00550	0.2346	-1.3574	-0.0857	-0.0790	-0.2925	0.1164	0.4265
17	14.49	0.0	-0.0071	-0.0044	0.0112	0.1421	-0.2371	-0.7269	-0.0012	-0.2943	0.1118	0.4449
18	15.49	0.0	0.0231	0.0070	0.00045	0.3260	0.1955	-0.7794	-0.0852	-0.3251	0.1092	0.4170
19	16.50	0.0	-0.0500	-0.0112	0.0012	0.1421	-0.0214	-0.4325	-0.1661	-0.3310	0.1034	0.3975
20	17.49	0.0	-0.0520	-0.0120	0.00065	0.2346	-0.8020	-0.6342	-0.0437	-0.3477	0.1048	0.3080
21	18.53	0.0	0.0175	0.0001	-0.00397	0.2363	-2.2627	-0.9373	-0.0973	-0.3502	0.1038	0.3038
22	19.52	0.0	-0.0032	0.0013	0.00070	-0.0201	-2.4637	-0.9697	-0.0942	-0.3568	0.0971	0.3679

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEC) PROPELLSION WIND TUNNEL FACILITY (PW) AERODYNAMIC WIND TUNNEL (AT)

PAGE 3 OF 4

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

POINT	TEST VARIABLE RESULTS												
	ALPHA	MFA	CNFA	CM3	CM3	ACPF3	YCPF3	CNFA	CM4	CM4	YCPF4	YCPF4	
	2	37	0.54	0.00	100.00	03.0F15	0.0	0	0	0	0	0	FIXED
1	-1.56	0.00	-0.0000	-0.0000	0.0000	1.3500	-1.2633	0.0750	0.0220	0.0175	0.3000	0.2330	
2	-0.40	0.00	-0.0100	-0.0010	0.0011	0.0000	0.0750	0.0244	0.0117	0.0030	0.6772	0.1572	
3	0.00	0.00	-0.0000	-0.0000	0.0000	0.3130	-0.3700	0.0000	0.0090	-0.0215	-2.0570	-0.7100	
4	1.00	0.00	-0.0100	-0.0100	0.0127	1.0100	-0.7000	-0.0351	0.0000	-0.0301	-0.1300	1.1120	
5	2.00	0.00	-0.0200	-0.0200	0.0100	0.7511	-0.6200	-0.0020	0.0070	-0.0500	-0.0900	0.4530	
6	3.00	0.00	-0.0300	-0.0300	0.0000	0.5400	-0.3000	-0.1221	-0.0120	-0.0000	0.1015	0.6930	
7	4.00	0.00	-0.0400	-0.0400	0.0000	0.0000	-0.3000	-0.1750	-0.0220	-0.0000	0.1200	0.5530	
8	5.00	0.00	-0.0500	-0.0500	0.0000	0.6000	-0.5000	-0.2270	-0.0270	-0.1170	0.1100	0.5160	
9	6.00	0.00	-0.0600	-0.0600	0.0000	0.7000	-0.7000	-0.2700	-0.0330	-0.1000	0.1220	0.5200	
10	7.00	0.00	-0.0700	-0.0700	0.0000	0.6700	-0.3000	-0.3330	-0.0420	-0.1700	0.1200	0.5100	
11	8.00	0.00	-0.0800	-0.0800	0.0000	0.5100	-0.3700	-0.3000	-0.0000	-0.1500	0.1130	0.3900	
12	9.00	0.00	-0.0900	-0.0900	0.0000	0.5000	-0.3000	-0.0000	-0.0570	-0.2100	0.1250	0.4770	
13	10.00	0.00	-0.1000	-0.1000	0.0000	0.2300	-0.3000	-0.5100	-0.0615	-0.2510	0.1100	0.4000	
14	11.00	0.00	-0.1100	-0.1100	0.0000	0.7000	-0.3700	-0.5000	-0.0630	-0.2730	0.1120	0.4000	
15	12.00	0.00	-0.1200	-0.1200	0.0000	0.6500	-0.3000	-0.6100	-0.0671	-0.2930	0.1000	0.4750	
16	13.00	0.00	-0.1300	-0.1300	0.0000	0.0000	-0.3000	-0.6500	-0.0653	-0.2900	0.0900	0.4520	
17	14.00	0.00	-0.1400	-0.1400	0.0000	0.3500	-0.3700	-0.6700	-0.0525	-0.2500	0.0770	0.3030	
18	15.00	0.00	-0.1500	-0.1500	0.0000	0.0000	-0.3000	-0.7500	-0.0730	-0.3000	0.0900	0.4530	
19	16.00	0.00	-0.1600	-0.1600	0.0000	0.0000	-0.3700	-0.6200	-0.0000	-0.3000	0.0900	0.4300	
20	17.00	0.00	-0.1700	-0.1700	0.0000	0.0000	-0.3000	-0.6000	-0.0767	-0.3000	0.0000	0.4000	
21	18.00	0.00	-0.1800	-0.1800	0.0000	0.5000	-0.3000	-0.9300	-0.0700	-0.3000	0.0000	0.4300	
22	19.00	0.00	-0.1900	-0.1900	0.0000	0.4500	0.3000	-0.9600	-0.0837	-0.3700	0.0000	0.3900	

TEST PLAN NAME PA10-4 PMI CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 3A 0.54 0.7 100.0 03.0F15 0.0 0 0 0 0 FIXED

POINT	ALPHA	ETA	CX	CLM	CY	CLW	CLL	CA	CAF	CAF	ACP
1	-1.50	0.0	-0.1647	0.2161	-0.0435	0.1249	-0.0071	0.3015	0.1157	0.2258	-1.5761
2	-0.50	0.0	-0.0777	0.0984	-0.0343	0.0733	-0.0040	0.3391	0.1130	0.2245	-1.4623
3	0.51	0.0	0.0771	-0.1087	-0.0402	0.0243	-0.0030	0.3021	0.1001	0.2362	-1.3925
4	1.40	0.0	0.1540	-0.2220	-0.0670	0.0310	-0.0032	0.3400	0.1059	0.2401	-1.3950
5	2.40	0.0	0.2570	-0.3000	-0.0903	0.0197	-0.0020	0.3000	0.1010	0.2420	-1.4152
6	3.40	0.0	0.3570	-0.3200	-0.0501	0.0000	-0.0001	0.3352	0.0962	0.2391	-1.4733
7	4.40	0.0	0.5040	-0.0140	-0.0057	0.0470	0.0000	0.3330	0.0360	0.2370	-1.6102
8	5.40	0.0	0.6740	-1.0000	-0.0435	0.0273	-0.0000	0.3377	0.1005	0.2372	-1.6577
9	6.40	0.0	0.7900	-1.3900	-0.0390	0.0270	-0.0012	0.3370	0.1030	0.2300	-1.7520
10	7.40	0.0	0.9400	-1.7200	-0.0370	0.0310	-0.0025	0.3301	0.1090	0.2291	-1.7825
11	8.40	0.0	1.1000	-2.0220	-0.0450	0.0370	-0.0020	0.3350	0.1150	0.2200	-1.8235
12	9.40	0.0	1.2500	-2.3230	-0.0420	0.0440	0.0000	0.3305	0.1210	0.2140	-1.8541
13	10.40	0.0	1.4200	-2.6000	-0.0400	0.0430	-0.0005	0.3300	0.1270	0.2110	-1.8591
14	11.40	0.0	1.5700	-2.9000	-0.0410	0.0430	-0.0070	0.3300	0.1330	0.2050	-1.8830
15	12.40	0.0	1.7500	-3.1200	-0.0430	0.0430	-0.0060	0.3301	0.1370	0.1960	-1.8970
16	13.51	0.0	1.9000	-3.5010	-0.0415	0.0217	-0.0003	0.3105	0.1430	0.1730	-1.9127
17	14.40	0.0	2.1300	-3.8370	-0.0420	0.0270	-0.0000	0.3050	0.1400	0.1605	-1.9305
18	15.50	0.0	2.4500	-4.1700	-0.0370	0.0051	-0.0000	0.3030	0.1520	0.1500	-1.9421
19	16.40	0.0	2.8000	-4.5100	-0.0200	0.0050	-0.0000	0.3100	0.1620	0.1400	-1.9500
20	17.50	0.0	3.1000	-5.0000	-0.0310	0.0110	-0.0012	0.3130	0.1700	0.1300	-1.9485
21	18.50	0.0	3.7700	-5.3000	-0.0350	0.0000	-0.0007	0.3170	0.1820	0.1350	-1.9300
22	19.53	0.0	3.0700	-5.0000	-0.0100	-0.0000	-0.0000	0.3150	0.1910	0.1230	-1.9177

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ARMO ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART VALVE #X1006 MFI CUMF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 3H 0.59 0.7 100.0 03.015 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CMF1	CM1	CM2	ACPF1	YCPF1	CMF2	CM2	CM3	XCPF2	YCPF2
1	-1.50	0.0	-0.0567	-0.0113	-0.0455	0.2306	-0.6317	0.0617	0.0068	0.0034	0.1106	0.0566
2	-0.50	0.0	-0.0511	-0.0104	-0.0197	0.2111	-0.3761	0.0292	0.0055	-0.0003	0.1874	-0.0086
3	0.51	0.0	-0.0414	-0.0089	-0.0015	0.0816	-0.1007	-0.0210	-0.0041	-0.0311	0.1964	1.4798
4	1.44	0.0	-0.0402	-0.0082	0.0394	0.2042	-0.8914	-0.0604	-0.0114	-0.0243	0.1886	0.4683
5	2.44	0.0	-0.0394	-0.0082	0.0150	0.2043	-0.3809	-0.0881	-0.0137	-0.0621	0.1554	0.7049
6	3.40	0.0	-0.0157	-0.0035	0.0110	0.1459	-0.6026	-0.1542	-0.0284	-0.0679	0.1797	0.4288
7	4.45	0.0	-0.0537	-0.0114	0.0415	0.2139	-0.7428	-0.1489	0.0255	0.1018	0.1352	0.5380
8	5.40	0.0	-0.0455	-0.0099	0.0131	0.2740	-0.7774	-0.2522	-0.0375	-0.1142	0.1485	0.4529
9	6.40	0.0	-0.0316	-0.0080	0.0117	0.1533	-0.3781	-0.3232	-0.0463	-0.1438	0.1525	0.4448
10	7.44	0.0	-0.0746	-0.0150	-0.0044	0.2017	0.1170	-0.3641	-0.0504	-0.1499	0.1373	0.4073
11	8.47	0.0	-0.0257	-0.0039	-0.0164	0.1355	-0.6220	-0.4272	-0.0594	-0.1864	0.1391	0.4363
12	9.47	0.0	-0.0331	-0.0039	0.0044	0.1149	-0.2540	-0.4439	-0.0454	-0.2153	0.1352	0.4449
13	10.44	0.0	-0.0204	-0.0022	0.0013	0.1407	-0.4467	-0.5273	-0.0674	-0.2342	0.1277	0.4442
14	11.47	0.0	-0.0044	-0.0001	-0.0044	0.1454	0.1941	-0.5944	-0.0746	-0.2504	0.1254	0.4213
15	12.46	0.0	-0.0024	-0.0001	0.0036	0.1748	-0.0845	-0.6435	-0.0733	-0.2849	0.1138	0.4508
16	13.51	0.0	-0.0004	0.0000	0.0077	-0.0073	-0.8163	-0.7292	-0.0456	-0.2942	0.1188	0.4034
17	14.44	0.0	-0.0313	-0.0060	-0.0060	0.1534	-0.2825	-0.7870	-0.03897	-0.3224	0.1140	0.4180
18	15.50	0.0	-0.0350	-0.0070	0.0030	0.1942	-0.4722	-0.8462	-0.0957	-0.3379	0.1130	0.3993
19	16.44	0.0	-0.0229	-0.0018	0.0045	0.0415	-0.3703	-0.9034	-0.0472	-0.3455	0.1076	0.3825
20	17.55	0.0	-0.0370	-0.0054	0.0031	0.1450	-1.1448	-0.4432	-0.0974	-0.3659	0.1037	0.3874
21	18.52	0.0	-0.0370	-0.0054	0.0031	0.1450	-0.2656	-0.9721	-0.0965	-0.3615	0.0993	0.3719
22	19.53	0.0	-0.0000	0.0020	0.0023	-0.4195	-0.3790	-1.0180	-0.0446	-0.3775	0.0928	0.3766

TEST PART NAME: RA1000 MFL C.M.F. L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 3P 0.5V 0.7 100.0 M3-CF15 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CMF3	CM3	CM3	XCMF3	YCMF3	CM4	CM4	CM4	XCMF4	YCMF4
1	-1.50	0.0	-0.0113	-0.0110	0.0003	0.9255	-0.3802	0.0669	0.0181	0.0146	0.2562	0.2082
2	-0.50	0.0	-0.0094	-0.0095	0.0020	1.2226	-0.3800	0.0291	0.0116	-0.0079	0.4001	-0.0980
3	0.51	0.0	-0.0020	-0.0114	0.0009	0.7752	-0.3800	-0.0063	0.0056	-0.0230	-1.2856	0.3141
4	1.50	0.0	-0.0095	-0.0100	0.0116	0.6171	-0.3798	-0.0063	-0.0020	-0.0391	0.0589	0.8104
5	2.50	0.0	-0.0097	-0.0213	0.0117	0.6552	-0.3793	-0.0097	-0.0121	-0.0516	0.1343	0.5746
6	3.50	0.0	0.0027	0.0145	-0.0090	0.6137	-0.3799	-0.1316	-0.0174	-0.0801	0.1326	0.6890
7	4.50	0.0	-0.0098	-0.0300	0.0092	1.2052	-0.3797	-0.1786	-0.0200	-0.0966	0.1343	0.5519
8	5.50	0.0	-0.0099	-0.0455	0.0094	0.7055	-0.3798	-0.2347	-0.0311	-0.1194	0.1323	0.5089
9	6.50	0.0	-0.0099	-0.0610	0.0096	0.5856	-0.3793	-0.2852	-0.0356	-0.1485	0.1256	0.5206
10	7.50	0.0	0.0120	0.0062	-0.0090	0.3335	-0.3799	-0.3473	-0.0469	-0.1746	0.1349	0.5027
11	8.50	0.0	0.0245	0.0112	-0.0093	0.4901	-0.3799	-0.4022	-0.0699	-0.1739	0.1261	0.4320
12	9.50	0.0	-0.0187	-0.0104	0.0063	0.6710	-0.3801	-0.4605	-0.0589	-0.2215	0.1279	0.4809
13	10.50	0.0	-0.0110	-0.0250	0.0063	0.5750	-0.3797	-0.5147	-0.0630	-0.2666	0.1220	0.4791
14	11.50	0.0	-0.0270	-0.0157	0.0103	0.6190	-0.3798	-0.5656	-0.0661	-0.2706	0.1169	0.4784
15	12.50	0.0	-0.0193	-0.0320	0.0031	0.6613	-0.3831	-0.6286	-0.0707	-0.2937	0.1124	0.4672
16	13.50	0.0	-0.0207	-0.0422	0.0094	0.4943	-0.3797	-0.6920	-0.0720	-0.3122	0.1040	0.4511
17	14.50	0.0	0.0110	-0.0550	-0.0007	0.2310	-0.3791	-0.7361	-0.0660	-0.2996	0.0897	0.4070
18	15.50	0.0	-0.0112	-0.0643	0.0049	0.3332	-0.3798	-0.7954	-0.0813	-0.3681	0.0985	0.4460
19	16.50	0.0	-0.0098	-0.0700	0.0037	0.5012	-0.3797	-0.8912	-0.0839	-0.3651	0.0941	0.4321
20	17.50	0.0	0.0110	-0.0810	0.0000	0.1000	0.0000	-0.9347	-0.0928	-0.4071	0.0886	0.4355
21	18.50	0.0	0.0301	-0.0970	-0.0006	0.2255	-0.1309	-0.9017	-0.0816	-0.4236	0.0832	0.4284
22	19.50	0.0	0.0143	-0.1000	-0.0013	-0.0201	-0.0074	-1.0039	-0.0549	-0.4094	0.0817	0.3929

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 3

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART NAME RAU=0 PHI CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 34 0.54 1.1 100.0 03.0F15 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CL	CLM	CY	CLN	CLL	CA	CAM	CAF	ACP
1	-1.00	0.0	-0.0226	-0.1727	-0.0271	0.0117	-0.0086	0.3071	0.1035	0.1975	-1.3495
2	-0.54	0.0	-0.0241	-0.1637	-0.0264	0.0174	-0.0132	0.3054	0.1036	0.2023	-2.2557
3	0.02	0.0	0.0222	-0.1657	-0.0337	0.0162	-0.0124	0.3081	0.0963	0.2138	-1.2896
4	1.46	0.0	0.1164	-0.2224	-0.0345	0.0312	-0.0125	0.3056	0.0957	0.2099	-1.2596
5	2.99	0.0	0.2271	-0.2620	-0.0240	0.0134	-0.0088	0.3031	0.0981	0.2050	-1.6025
6	3.46	0.0	0.3424	-0.2434	-0.0244	0.0217	-0.0045	0.3030	0.1025	0.2005	-1.4882
7	4.96	0.0	0.5133	-0.2227	-0.0130	0.0244	-0.0063	0.3006	0.1015	0.1992	-1.5951
8	5.46	0.0	0.6463	-1.0420	-0.0164	0.0011	-0.0045	0.2944	0.0999	0.1949	-1.6090
9	6.93	0.0	0.6527	-1.3610	-0.0207	0.0223	-0.0064	0.3007	0.1076	0.1933	-1.7248
10	7.49	0.0	0.927	-1.7506	-0.0322	0.0272	-0.0042	0.3100	0.1181	0.1919	-1.7944
11	8.51	0.0	1.1121	-2.0636	-0.0313	0.0242	-0.0067	0.3054	0.1186	0.1873	-1.8280
12	9.53	0.0	1.0705	-2.3662	-0.0323	0.0234	-0.0086	0.3097	0.1244	0.1848	-1.8639
13	10.54	0.0	1.0005	-2.7161	-0.0226	0.0072	-0.0038	0.3100	0.1262	0.1658	-1.8748
14	11.55	0.0	1.5047	-2.7817	-0.0247	0.0271	-0.0043	0.3115	0.1300	0.1755	-1.8761
15	12.53	0.0	1.7037	-3.3713	-0.0262	0.0226	-0.0065	0.3114	0.1307	0.1727	-1.8908
16	13.54	0.0	1.9553	-3.7006	-0.0265	0.0177	-0.0091	0.3085	0.1444	0.1641	-1.8915
17	14.53	0.0	2.1071	-4.0000	-0.0266	0.0253	-0.0025	0.3074	0.1480	0.1594	-1.8935
18	15.54	0.0	2.2720	-4.3144	-0.0183	-0.0146	-0.0106	0.2940	0.1544	0.1445	-1.8899
19	16.56	0.0	2.0000	-4.7553	-0.0200	0.0243	-0.0175	0.3063	0.1688	0.1314	-1.8991
20	17.58	0.0	2.6010	-5.1134	-0.0067	-0.0040	-0.0171	0.3041	0.1754	0.1287	-1.9060
21	18.57	0.0	2.5019	-5.3107	0.0013	-0.0036	-0.0224	0.3125	0.1900	0.1217	-1.9150
22	19.60	0.0	3.0000	-5.4120	0.0000	-0.0052	-0.0317	0.3105	0.1976	0.1129	-1.9110

TEST POINT NAME RANGE PMI CONF. L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 39 0.57 1.01 10000 0306F15 0.0 0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CNF1	CM1	CM2	YCMF1	YCMF2	CNF2	CM2	CM3	XCPF2	YCPF2
1	1.00	0.0	-0.0301	-0.0072	0.0000	-0.2112	-0.2817	-0.0561	-0.0086	-0.0050	0.1530	0.1061
2	0.50	0.0	-0.0354	-0.0067	-0.0000	0.1875	0.0885	0.0270	0.0046	-0.0008	0.1719	-0.0300
3	0.02	0.0	-0.0350	-0.0067	0.0000	0.1876	-0.1449	-0.0140	-0.0030	-0.0275	0.2150	-1.9608
4	1.00	0.0	-0.0293	-0.0064	0.0024	0.1747	-0.0842	-0.0062	-0.0133	-0.0317	0.2130	0.5090
5	2.00	0.0	-0.0200	-0.0060	0.0022	0.1657	0.5216	-0.0098	-0.0177	-0.0467	0.1770	0.4670
6	3.00	0.0	-0.0205	-0.0041	0.0120	0.1557	-0.4906	-0.1541	-0.0253	-0.0742	0.1041	0.4816
7	4.00	0.0	-0.0170	-0.0000	0.0116	0.2136	-0.3007	-0.2011	-0.0305	-0.0565	0.1516	0.4707
8	5.00	0.0	-0.0137	-0.0000	0.0137	0.2135	-0.0862	-0.2497	-0.0305	-0.1134	0.1461	0.4541
9	6.00	0.0	-0.0124	-0.0000	0.0100	0.1700	0.5030	-0.0122	-0.0455	-0.1307	0.1450	0.4442
10	7.00	0.0	-0.0344	-0.0075	-0.0074	0.1920	0.1849	-0.3791	-0.0512	-0.1715	0.1350	0.4523
11	8.51	0.0	-0.0143	-0.0015	-0.0067	0.1950	0.3067	-0.4307	-0.0563	-0.1987	0.1300	0.4413
12	9.53	0.0	-0.0100	-0.0000	0.0000	0.0017	-0.3745	-0.5001	-0.0666	-0.2127	0.1331	0.4252
13	10.53	0.0	-0.0200	-0.0000	0.0111	0.1600	-0.3782	-0.5560	-0.0712	-0.2321	0.1279	0.4160
14	11.55	0.0	-0.0333	-0.0054	0.0170	0.1500	-0.2116	-0.6178	-0.0773	-0.2613	0.1252	0.4230
15	12.53	0.0	-0.0000	-0.0070	-0.0000	0.1770	-0.1803	-0.6603	-0.0700	-0.2814	0.1164	0.4204
16	13.50	0.0	-0.0220	-0.0027	-0.0056	0.1100	0.7029	-0.7300	-0.0875	-0.2954	0.1165	0.4000
17	14.53	0.0	-0.0200	-0.0001	-0.0010	0.1650	-0.0716	-0.7857	-0.0800	-0.3217	0.1120	0.4095
18	15.50	0.0	-0.0270	-0.0000	0.0100	0.1700	-0.6717	-0.8200	-0.0416	-0.3305	0.1108	0.3998
19	16.50	0.0	-0.0000	-0.0017	-0.0017	0.1600	0.3100	-0.9000	-0.0300	-0.3500	0.1000	0.3872
20	17.50	0.0	-0.0330	-0.0052	0.0152	0.1500	-0.4612	-0.9500	-0.0000	-0.3637	0.1039	0.3796
21	18.57	0.0	-0.0170	-0.0010	-0.0010	0.1500	-2.1500	-0.9900	-0.0000	-0.3716	0.0989	0.3717
22	19.60	0.0	-0.0053	0.0020	-0.0170	-0.0100	3.2600	-1.0200	-0.0000	-0.3741	0.0902	0.3634

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ARMED ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AT)
PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
SHEET 1 OF 1

TEST PART NAME HX10-6 PMI CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
2 39 Joby 1.1 100.0 030515 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CMF3	CM3	CM3	YCMF3	YCMF3	CMF4	CM4	CM4	YCPFA	YCPFA	
1	-1.66	0.0	-0.0000	-0.0000	0.0000	0.0000	0.0000	0.0027	0.0105	0.0117	0.2625	0.1867	
2	-0.94	0.0	-0.0173	-0.0101	0.0000	0.0000	-0.3800	0.0301	0.0102	-0.0032	0.3373	-0.1856	
3	0.62	0.0	-0.0120	-0.0000	0.0000	0.0000	-0.3707	-0.0125	0.0034	-0.0200	-0.2683	1.5092	
4	1.46	0.0	-0.0177	-0.0085	0.0000	0.0000	0.0777	-0.2233	-0.0535	-0.0066	-0.0375	0.1229	0.7883
5	2.88	0.0	-0.0101	-0.0010	0.0000	0.0000	0.0900	-0.2358	-0.0900	-0.0130	-0.0528	0.1003	0.5847
6	3.60	0.0	0.0000	0.0035	-0.0015	0.0000	-0.3700	-0.1376	-0.0190	-0.0014	0.1354	0.6137	
7	4.46	0.0	-0.0000	0.0000	0.0000	0.0000	0.6200	-0.3700	-0.1057	-0.0263	0.0965	0.1016	0.5306
8	5.44	0.0	-0.0170	-0.0100	0.0000	0.0000	0.6200	-0.3700	-0.2300	-0.0325	-0.1100	0.1374	0.4997
9	6.43	0.0	-0.0300	-0.0170	0.0000	0.0000	0.5700	-0.3700	-0.2800	-0.0370	-0.1500	0.1312	0.5330
10	7.49	0.0	-0.0613	0.0000	0.0000	-0.4700	-0.3000	-0.3014	-0.0475	-0.1795	0.1313	0.4967	
11	8.51	0.0	-0.0000	-0.0027	0.0000	0.0000	0.6200	-0.3700	-0.0070	-0.0505	-0.1656	0.1240	0.4550
12	9.53	0.0	-0.0000	0.0000	-0.0000	-0.1772	0.1874	-0.4731	-0.0500	-0.2753	0.1260	0.4762	
13	10.53	0.0	-0.0077	-0.0000	0.0000	0.0000	0.3000	-0.5301	-0.0000	-0.2531	0.1208	0.4774	
14	11.55	0.0	-0.0000	-0.0100	0.0000	0.5500	-0.2000	-0.5037	-0.0677	-0.2700	0.1160	0.4704	
15	12.53	0.0	-0.0107	-0.0000	0.0000	0.0000	0.0000	-0.1772	-0.0000	-0.2900	0.1142	0.4660	
16	13.54	0.0	-0.0000	0.0000	0.0000	0.0000	-0.0765	-0.3602	-0.0000	-0.0766	-0.3151	0.1074	0.4538
17	14.53	0.0	-0.0100	-0.0000	0.0000	0.0000	0.0000	-0.3700	-0.0000	-0.3107	0.0962	0.4252	
18	15.50	0.0	-0.0000	-0.0000	0.0000	0.0000	0.0000	-0.7000	-0.0000	-0.3500	0.1009	0.4440	
19	16.50	0.0	-0.0100	-0.0000	0.0000	0.0000	0.0000	-0.3700	-0.0000	-0.3000	0.0974	0.4368	
20	17.50	0.0	-0.0000	-0.0000	0.0000	0.0000	0.0000	-0.3700	-0.0000	-0.4000	0.0934	0.4350	
21	18.57	0.0	-0.0000	-0.0000	0.0000	0.0000	0.0000	-0.9101	-0.0000	-0.0000	0.0878	0.4245	
22	19.50	0.0	-0.0107	-0.0000	0.0000	0.0000	0.6450	-0.5000	-1.0000	-0.0000	0.0852	0.3992	

TEST PART NAME RAJ-6 PWT COMF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 40 v.5v 1.0j 100.0 d3aUF15 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAH	CAF	ACP
1	1.54	0.0	0.1323	0.1662	0.0024	0.0171	0.0135	0.2412	0.0460	0.1953	-1.4072
2	0.50	0.0	-0.0324	0.0515	-0.0123	0.0076	-0.0122	0.2903	0.0474	0.1979	-1.5701
3	0.00	0.0	0.0130	0.0000	0.0000	0.0155	0.0130	0.2904	0.0482	0.1922	-1.1801
4	1.00	0.0	0.1711	0.0272	0.0022	0.0305	-0.0107	0.2904	0.0486	0.1914	-1.2492
5	2.00	0.0	0.2709	0.0333	0.0000	0.0220	-0.0120	0.2471	0.1005	0.1866	-1.3743
6	3.00	0.0	0.3844	0.0450	0.0055	0.0214	-0.0004	0.2060	0.1016	0.1853	-1.5202
7	4.00	0.0	0.5000	0.0500	0.0000	0.0169	-0.0112	0.2662	0.1014	0.1847	-1.6069
8	5.00	0.0	0.6171	0.0574	0.0030	0.0137	-0.0003	0.2433	0.1008	0.1826	-1.6674
9	6.00	0.0	0.8000	0.0600	0.0000	0.0090	-0.0000	0.2079	0.1000	0.1792	-1.7500
10	7.00	0.0	0.9300	0.0627	0.0027	0.0029	-0.0075	0.2440	0.1119	0.1775	-1.8141
11	8.50	0.0	1.1120	0.0600	0.0000	0.0022	-0.0067	0.2454	0.1205	0.1750	-1.8523
12	9.49	0.0	1.2451	0.0664	0.0024	0.0009	-0.0005	0.2972	0.1244	0.1728	-1.8848
13	10.53	0.0	1.4000	0.0700	0.0000	0.0025	0.0000	0.2461	0.1321	0.1660	-1.8970
14	11.40	0.0	1.4700	0.0713	0.0000	0.0101	-0.0078	0.2440	0.1391	0.1603	-1.9009
15	12.55	0.0	1.7000	0.0730	0.0000	0.0130	-0.0000	0.3020	0.1476	0.1551	-1.9130
16	13.55	0.0	1.9000	0.0722	0.0000	0.0204	-0.0000	0.2956	0.1499	0.1457	-1.9082
17	14.50	0.0	2.1500	0.0713	0.0000	0.0237	-0.0062	0.2633	0.1543	0.1391	-1.9059
18	15.50	0.0	2.4127	0.0700	0.0000	0.0103	-0.0100	0.2900	0.1578	0.1330	-1.9016
19	16.01	0.0	2.5230	0.0700	0.0000	0.0000	-0.0100	0.2000	0.1505	0.1310	-1.9000
20	17.41	0.0	2.7000	0.0700	0.0000	0.0000	-0.0151	0.2912	0.1706	0.1207	-1.8863
21	18.00	0.0	2.8700	0.0700	0.0000	0.0100	-0.0100	0.2900	0.1800	0.1090	-1.8817
22	19.00	0.0	3.0500	0.0700	0.0000	0.0200	-0.0300	0.2923	0.1947	0.0970	-1.8802

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ARMED ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION AND JETNET FACILITY (PAT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 2 OF 3 MARTI - MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART NAME	REF	CHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION			
2	0.5	1.3	100.0	CONF15	0.0	0	0	0	FIXED			
POINT	ALPHA	BETA	CHI1	CHI2	CHI3	YCPF1	YCPF2	CONF2	CONF3	CONF4	KCPF2	YCPF2
1	-1.54	0.0	-0.0000	-0.0000	0.0000	0.1577	-0.1258	0.0513	0.0076	0.0068	0.1489	0.1723
2	-0.54	0.0	-0.0000	-0.0000	0.0000	0.2041	-0.0163	0.0213	0.0033	0.0018	0.1542	0.0836
3	0.44	0.0	-0.0000	-0.0000	0.0000	0.0616	0.1769	-0.0122	-0.0020	-0.0222	0.2279	1.8217
4	1.44	0.0	-0.0000	-0.0000	0.0000	0.0151	0.1574	-0.0335	-0.0057	-0.0112	0.0324	0.1972
5	2.44	0.0	-0.0000	-0.0000	0.0000	0.1458	0.3689	-0.1022	-0.0188	-0.0443	0.1844	0.4333
6	3.44	0.0	-0.0000	-0.0000	0.0000	0.0421	-1.3032	-0.1540	-0.0250	-0.0697	0.1626	0.4526
7	4.44	0.0	-0.0000	-0.0000	0.0000	0.1422	-0.2364	-0.2045	-0.0314	-0.0422	0.1533	0.4505
8	5.44	0.0	-0.0000	-0.0000	0.0000	0.1400	0.2025	-0.2570	-0.0308	-0.1176	0.1511	0.4577
9	6.44	0.0	-0.0000	-0.0000	0.0000	0.1747	-0.0883	-0.3162	-0.0455	-0.1489	0.1438	0.4718
10	7.44	0.0	-0.0000	-0.0000	0.0000	0.1940	0.0734	-0.3749	-0.0511	-0.1668	0.1363	0.4449
11	8.44	0.0	-0.0000	-0.0000	0.0000	0.1354	-0.0582	-0.4454	-0.0590	-0.1965	0.1325	0.4411
12	9.44	0.0	-0.0000	-0.0000	0.0000	0.1356	0.4886	-0.5104	-0.0661	-0.2166	0.1334	0.4243
13	10.44	0.0	-0.0000	-0.0000	0.0000	0.0481	-1.2646	-0.5634	-0.0716	-0.2363	0.1270	0.4228
14	11.44	0.0	-0.0000	-0.0000	0.0000	0.1441	-0.0976	-0.6254	-0.0774	-0.2612	0.1236	0.4173
15	12.44	0.0	-0.0000	-0.0000	0.0000	0.1740	-0.2417	-0.6834	-0.0797	-0.2875	0.1165	0.4205
16	13.44	0.0	-0.0000	-0.0000	0.0000	0.0404	-0.2610	-0.7412	-0.0863	-0.3014	0.1165	0.4067
17	14.44	0.0	-0.0000	-0.0000	0.0000	0.0116	0.0222	-0.8070	-0.0908	-0.3228	0.1126	0.4017
18	15.44	0.0	-0.0000	-0.0000	0.0000	0.1579	-0.9600	-0.8517	-0.0936	-0.3365	0.1099	0.3951
19	16.44	0.0	-0.0000	-0.0000	0.0000	0.0617	-1.2135	-0.9070	-0.0968	-0.3563	0.1068	0.3925
20	17.44	0.0	-0.0000	-0.0000	0.0000	0.1657	-0.7527	-0.9625	-0.0987	-0.3714	0.1026	0.3859
21	18.44	0.0	-0.0000	-0.0000	0.0000	-0.1361	0.3460	-1.0008	-0.0980	-0.3733	0.0989	0.3738
22	19.44	0.0	-0.0000	-0.0000	0.0000	-0.4204	-0.3779	-1.0345	-0.0953	-0.3693	0.0922	0.3570

TEST PART EACH FOLLOWED BY: CONF L CELL DEL2 DEL3 DEL4 TRANSITION
 2 0.0 0.5V 1.0 1R0.0 0.3=0F15 0.0 0 0 0 0 0 FIXED

POINT	ALPHA	CFYA	CFYB	CFYC	CFYD	YCPF3	YCPF4	CFY4	CFY5	CFY6	YCPF4	YCPF5
1	-1.55	0.0	-0.0122	-0.0103	0.0004	0.5174	-0.3601	0.0554	0.0166	0.0116	0.2583	0.2082
2	-0.54	0.0	-0.0148	-0.0110	0.0075	0.5474	-0.3749	0.0230	0.0101	-0.0046	0.4267	-0.1951
3	0.00	0.0	-0.0028	-0.0008	0.0011	0.2220	-0.3798	-0.0166	0.0019	-0.0199	-0.1144	1.2044
4	1.04	0.0	-0.0027	-0.0122	0.0006	0.5140	-0.3749	-0.0503	-0.0055	-0.0379	0.1100	0.7537
5	2.43	0.0	-0.0044	-0.0174	0.0018	0.5727	-0.3800	-0.0414	-0.0132	-0.0528	0.1449	0.5773
6	3.44	0.0	-0.0004	-0.0024	0.0025	0.4477	-0.3804	-0.1374	-0.0192	-0.0797	0.1396	0.5600
7	4.45	0.0	-0.0061	-0.0066	0.0065	0.6433	-0.7451	0.1547	-0.0263	0.1021	0.1394	0.5410
8	5.47	0.0	-0.0117	-0.0040	0.0004	0.5371	-0.3796	-0.2414	-0.0334	-0.1227	0.1403	0.5082
9	6.49	0.0	-0.0184	-0.0000	0.0055	0.4724	-0.3796	-0.2930	0.0384	-0.1550	0.1310	0.5291
10	7.48	0.0	0.0003	0.0021	-0.0001	0.5703	-0.3600	-0.3571	0.0464	-0.1757	0.1299	0.4919
11	8.50	0.0	-0.0041	-0.0001	0.0031	0.4925	-0.3804	-0.4193	-0.0513	-0.1914	0.1223	0.4545
12	9.49	0.0	-0.0074	-0.0131	0.0100	0.4474	-0.3800	-0.4733	-0.0578	-0.2285	0.1222	0.4028
13	10.53	0.0	-0.0004	-0.0035	0.0034	0.3449	-0.3600	-0.5337	0.0636	-0.2548	0.1193	0.4176
14	11.54	0.0	-0.0111	-0.0091	0.0009	0.5028	-0.3727	-0.5413	-0.0677	-0.2795	0.1145	0.4728
15	12.55	0.0	-0.0150	-0.0093	0.0004	0.4434	-0.2610	-0.6504	-0.0734	-0.3045	0.1128	0.4678
16	13.55	0.0	-0.0254	-0.0115	0.0007	0.4504	-0.3794	-0.7019	-0.0749	-0.3149	0.1067	0.4515
17	14.56	0.0	-0.0141	-0.0074	0.0073	0.4144	-0.3799	-0.7510	-0.0740	-0.3214	0.0984	0.4285
18	15.56	0.0	-0.0101	-0.0054	0.0061	0.3400	-0.3400	-0.7264	-0.0444	-0.3640	0.1021	0.4427
19	16.61	0.0	-0.0144	-0.0050	0.0067	0.3027	-0.2534	-0.8444	0.0477	-0.3878	0.0991	0.4345
20	17.61	0.0	-0.0134	-0.0040	0.0073	0.3332	-0.5436	-0.7364	-0.0482	-0.4046	0.0941	0.4321
21	18.60	0.0	-0.0077	-0.0030	0.0073	0.5132	-0.9555	-0.4736	-0.0466	-0.4129	0.0890	0.4240
22	19.64	0.0	-0.0013	-0.0110	0.0081	0.5449	-0.3798	-1.0427	-0.0482	-0.4225	0.0846	0.4052

ARMOUR ENGINEERING DEVELOPMENT CENTER (AEC) PROPULSION AND TUNNEL FACILITY (PMT) AERODYNAMIC AND TUNNEL (AT)
 PAGE 1 OF 3 MANTIC MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART	NAME	RAISE	MHI	CUMF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
2	41	0.5V	3.0	100.0	030F15	6.0	0	0	0	FIXED	
POINT	ALPHA	HFTA	CX	CLX	CY	CLY	CLL	CA	CAB	CAF	KCP
1	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.2535	0.1050	0.1445	-1.4079
2	0.50	0.0	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.2537	0.1071	0.1461	-0.8441
3	0.67	0.0	0.0133	-0.0100	0.0000	0.0000	0.0000	0.2553	0.1069	0.1466	-1.4100
4	1.49	0.0	0.2052	-0.0000	0.0000	-0.0000	-0.0000	0.2547	0.1089	0.1458	-1.4064
5	2.53	0.0	0.3201	-0.0000	0.0000	-0.0000	-0.0000	0.2511	0.1085	0.1456	-1.4745
6	3.51	0.0	0.4371	-0.0000	0.0000	-0.0000	-0.0000	0.2507	0.1092	0.1415	-1.5602
7	4.53	0.0	0.5501	-0.0000	0.0000	-0.0000	-0.0000	0.2510	0.1081	0.1457	-1.6206
8	5.57	0.0	0.7000	-0.0000	0.0000	-0.0000	-0.0000	0.2564	0.1095	0.1474	-1.7080
9	6.50	0.0	0.8000	-0.0000	0.0000	-0.0000	-0.0000	0.2636	0.1100	0.1447	-1.7738
10	7.56	0.0	1.0000	-0.0000	0.0000	-0.0000	-0.0000	0.2655	0.1249	0.1407	-1.8291
11	8.60	0.0	1.1000	-0.0000	0.0000	-0.0000	-0.0000	0.2686	0.1304	0.1381	-1.8679
12	9.65	0.0	1.3000	-0.0000	0.0000	-0.0000	-0.0000	0.2681	0.1364	0.1317	-1.8990
13	10.60	0.0	1.5000	-0.0000	0.0000	-0.0000	-0.0000	0.2690	0.1432	0.1266	-1.9170
14	11.73	0.0	1.7000	-0.0000	0.0000	-0.0000	-0.0000	0.2692	0.1490	0.1132	-1.9249
15	12.75	0.0	1.9000	-0.0000	0.0000	-0.0000	-0.0000	0.2673	0.1524	0.1166	-1.9285
16	13.76	0.0	2.0000	-0.0000	0.0000	-0.0000	-0.0000	0.2653	0.1577	0.1076	-1.9210
17	14.80	0.0	2.2775	-0.0000	0.0000	-0.0000	-0.0000	0.2626	0.1630	0.0996	-1.9078
18	15.44	0.0	2.4720	-0.0000	0.0000	-0.0000	-0.0000	0.2616	0.1670	0.0948	-1.8933
19	15.89	0.0	2.5500	-0.0000	0.0000	-0.0000	-0.0000	0.2590	0.1755	0.0628	-1.8731
20	17.93	0.0	2.7000	-0.0000	0.0000	-0.0000	-0.0000	0.2601	0.1871	0.0730	-1.8490
21	18.97	0.0	3.0500	-0.0000	0.0000	-0.0000	-0.0000	0.2636	0.1981	0.0656	-1.8301
22	20.01	0.0	3.7000	-0.0000	0.0000	-0.0000	-0.0000	0.2632	0.2090	0.0542	-1.8127

TEST - ARI - RALD - 4X10-6 - HMI - CONE - L - DEL1 - DEL2 - DEL3 - DEL4 - TRANSITION
 2 - 01 0.5V 3.0 - 10000 0300F15 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CMF1	CM1	CM	YCPF1	YCPF1	CMF2	CM2	CB2	YCPF2	YCPF2
1	0.00	0.00	-0.0135	-0.0016	0.0051	0.1052	0.3751	0.0386	0.0067	0.0116	0.1189	0.2930
2	-0.52	0.00	-0.0111	-0.0132	0.0023	0.1513	-0.1074	0.0724	-0.0004	-0.0015	-0.1505	-0.5305
3	0.67	0.00	-0.0114	-0.0011	-0.0005	0.0356	0.5802	-0.6386	-0.0071	-0.0223	0.1828	0.5791
4	1.44	0.00	-0.0125	-0.0012	0.0023	0.0320	-0.1815	-0.0805	-0.0166	-0.0361	0.1818	0.6679
5	2.53	0.00	-0.0107	-0.0005	-0.0025	0.0661	0.2311	-0.1233	-0.0209	-0.0550	0.1695	0.6666
6	3.51	0.00	-0.0107	-0.0005	0.0032	0.0439	-0.3013	-0.1777	-0.0784	-0.0745	0.1627	0.6610
7	4.53	0.00	-0.0130	-0.0016	-0.0027	0.1033	0.1475	-0.2280	-0.0351	-0.1035	0.1533	0.6520
8	5.57	0.00	-0.0174	-0.0024	-0.0022	0.1356	0.1248	-0.2927	-0.0442	-0.1260	0.1510	0.6304
9	6.58	0.00	-0.0125	-0.0012	-0.0051	0.0926	0.6061	-0.3585	-0.0514	-0.1570	0.1448	0.6380
10	7.58	0.00	-0.0111	-0.0007	-0.0056	0.0670	0.4966	-0.4172	-0.0573	-0.1431	0.1372	0.6308
11	8.60	0.00	-0.0088	-0.0004	-0.0050	-0.0327	0.5794	-0.4436	-0.0638	-0.2115	0.1320	0.6373
12	9.65	0.00	-0.0083	-0.0005	-0.0037	-0.1530	0.7019	-0.5505	-0.0704	-0.2342	0.1278	0.6327
13	10.68	0.00	-0.0100	-0.0001	0.0005	-0.0050	0.0519	-0.6164	-0.0743	-0.2621	0.1209	0.6262
14	11.73	0.00	-0.0081	0.0011	-0.0025	-0.1471	0.6279	-0.4617	-0.0793	-0.2651	0.1164	0.6182
15	12.75	0.00	-0.0120	-0.0003	0.0023	0.0318	-0.1824	-0.7451	-0.0836	-0.3092	0.1125	0.6150
16	13.78	0.00	-0.0085	0.0007	-0.0065	-0.1062	0.9449	-0.4132	-0.0891	-0.3303	0.1096	0.6062
17	14.80	0.00	-0.0057	0.0010	-0.0025	-0.1715	0.6625	-0.4714	-0.0928	-0.3467	0.1065	0.5970
18	15.84	0.00	-0.0050	0.0007	0.0054	-0.1042	-0.7408	-0.9320	-0.0972	-0.3671	0.1043	0.5939
19	16.87	0.00	-0.0038	0.0010	-0.0065	-0.2873	0.8349	-0.4769	-0.1012	-0.3779	0.1036	0.5860
20	17.93	0.00	-0.0050	0.0010	-0.0021	-0.2876	0.3794	-1.0213	-0.1066	-0.3473	0.1024	0.5793
21	18.97	0.00	-0.0057	0.0013	-0.0073	-0.6627	-13.2571	-1.0650	-0.1033	-0.3424	0.0970	0.5686
22	20.01	0.00	-0.0024	0.0027	-0.0034	-0.9024	1.2841	-1.1004	-0.0994	-0.3957	0.0903	0.5595

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AROLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST PART		MACH		EXPOSE		PMI		CONF		L		DEL1		DEL2		DEL3		DELA		TRANSITION	
	2	41	0.57	3.4	100.0	03	0F15	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CNF3	CN3	CN3	YCPF3	YCPF3	CNF4	CN4	CN4	XCPF4	YCPF4										
1	-1.61	0.0	-0.012	-0.013	0.0024	0.4522	-0.1844	0.0502	0.0101	0.0173	0.2005	0.3448										
2	-0.58	0.0	-0.0058	-0.0036	0.0001	0.4057	-0.0079	0.0114	0.0038	-0.0004	0.3317	-0.0311										
3	0.27	0.0	-0.0027	-0.0023	0.0001	0.3452	-0.0118	-0.0280	-0.0024	-0.0189	0.1114	0.4508										
4	1.49	0.0	-0.0149	-0.0087	0.0031	0.4621	-0.2106	-0.0639	-0.0097	-0.0336	0.1520	0.5265										
5	2.53	0.0	-0.0253	-0.0162	0.0038	0.4634	-0.2558	-0.1074	-0.0178	-0.0534	0.1657	0.4967										
6	3.51	0.0	-0.0351	-0.0207	-0.0010	-0.0387	0.2542	-0.1517	-0.0239	-0.0759	0.1578	0.5007										
7	4.53	0.0	-0.0453	-0.0274	0.0000	0.4451	-0.0884	-0.2047	-0.0315	-0.0982	0.1539	0.4797										
8	5.57	0.0	-0.0557	-0.0353	0.0034	0.4547	-0.3008	-0.2612	-0.0348	-0.1244	0.1477	0.4761										
9	6.74	0.0	-0.0674	-0.0442	0.0022	0.4687	-0.2179	-0.3210	-0.0452	-0.1541	0.1409	0.4709										
10	7.50	0.0	-0.0750	-0.0531	0.0009	0.3473	-0.1017	-0.3818	-0.0520	-0.1812	0.1363	0.4747										
11	8.60	0.0	-0.0860	-0.0625	0.0007	0.3559	-0.0610	-0.4444	-0.0578	-0.2058	0.1300	0.4621										
12	9.65	0.0	-0.0965	-0.0747	0.0023	0.3745	-0.1834	-0.5070	-0.0437	-0.2391	0.1257	0.4716										
13	10.84	0.0	-0.1084	-0.0887	0.0015	0.3245	-0.1814	-0.5719	-0.0689	-0.2670	0.1204	0.4669										
14	11.73	0.0	-0.1173	-0.1003	0.0035	0.4548	-0.2544	-0.4349	-0.0735	-0.2947	0.1149	0.4605										
15	12.75	0.0	-0.1275	-0.1130	0.0024	0.3427	-0.0366	-0.4498	-0.0764	-0.3145	0.1097	0.4551										
16	13.76	0.0	-0.1376	-0.1263	0.0033	0.4247	-0.3803	-0.7618	-0.0464	-0.3403	0.1056	0.4447										
17	14.80	0.0	-0.1480	-0.1404	0.0033	0.4425	-0.3405	-0.8184	-0.0484	-0.3521	0.1022	0.4343										
18	15.84	0.0	-0.1584	-0.1549	0.0031	0.4414	-0.5176	-0.9687	-0.0490	-0.3798	0.1025	0.4372										
19	16.93	0.0	-0.1693	-0.1707	0.0024	0.4417	-1.2040	-0.9710	-0.0493	-0.4165	0.0967	0.4290										
20	17.93	0.0	-0.1793	-0.1816	0.0027	2.5566	-0.8036	-1.0119	-0.0927	-0.4223	0.0916	0.4173										
21	18.97	0.0	-0.1897	-0.1955	0.0037	0.7186	-0.4906	-1.0554	-0.0917	-0.4269	0.0869	0.4045										
22	20.01	0.0	-0.2001	-0.2055	0.0037	0.7186	-0.4906	-1.0554	-0.0917	-0.4269	0.0869	0.4045										

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MFCP HZ10-6 PWT CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 47 0.5V 0.0 0.0 030UF15 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAB	CAF	XCP
1	-1.61	0.0	-0.1270	0.2230	-0.1621	0.1616	0.0163	0.4562	0.0363	0.3579	-1.6378
2	-0.62	0.0	-0.0773	0.0030	-0.1547	0.1373	0.0070	0.4509	0.0792	0.3717	-0.7837
3	0.62	0.0	0.0276	-0.0139	-0.1531	0.1527	0.0073	0.4508	0.0879	0.3627	-0.5055
4	1.61	0.0	0.1273	-0.2010	-0.1467	0.1441	0.0052	0.4409	0.0984	0.3425	-1.5667
5	2.60	0.0	0.2270	-0.1300	-0.1530	0.1467	0.0143	0.4559	0.1000	0.3519	-1.4806
6	3.60	0.0	0.3720	-0.0570	-0.1437	0.1372	0.0136	0.4460	0.0958	0.3506	-1.5455
7	4.63	0.0	0.4520	-0.1200	-0.1500	0.1470	0.0072	0.4410	0.0850	0.3555	-1.6000
8	5.61	0.0	0.4907	-0.1167	-0.1543	0.1570	0.0053	0.4345	0.0938	0.3506	-1.6759
9	6.34	0.0	0.5400	-0.1400	-0.1451	0.1355	0.0052	0.4230	0.0879	0.3551	-1.7213
10	7.02	0.0	0.6000	-0.1521	-0.1334	0.1255	0.0087	0.4345	0.0956	0.3349	-1.7509
11	8.02	0.0	1.0050	-0.1000	-0.1300	0.1220	0.0095	0.4255	0.1000	0.3200	-1.7850
12	9.01	0.0	1.1700	-0.1207	-0.1300	0.1140	0.0097	0.3943	0.1118	0.2825	-1.8142
13	10.05	0.0	1.3000	-0.1320	-0.1430	0.1100	0.0067	0.3923	0.1127	0.2796	-1.8316
14	11.04	0.0	1.4900	-0.1770	-0.1370	0.1350	0.0132	0.3834	0.1220	0.2614	-1.8611
15	12.00	0.0	1.6750	-0.1410	-0.1100	0.1000	0.0106	0.3600	0.1262	0.2538	-1.8752
16	13.00	0.0	1.8200	-0.1430	-0.1100	0.0969	0.0174	0.3810	0.1360	0.2451	-1.8624
17	14.03	0.0	2.0000	-0.1720	-0.1270	0.1050	0.0206	0.3982	0.1473	0.2509	-1.8577
18	15.06	0.0	2.2500	-0.1700	-0.1070	0.0700	0.0140	0.3989	0.1523	0.2465	-1.8761
19	16.00	0.0	2.5000	-0.1700	-0.1100	0.0575	0.0152	0.3967	0.1618	0.2329	-1.8802
20	17.05	0.0	2.7200	-0.1670	-0.1350	0.0900	0.0333	0.4057	0.1597	0.2460	-1.8691
21	18.50	0.0	3.0000	-0.1500	-0.0900	0.0136	0.0177	0.3937	0.1717	0.2221	-1.8535
22	19.50	0.0	3.2500	-0.1617	-0.1071	0.0572	0.0072	0.3958	0.1822	0.2135	-1.8367

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AIR FORCE ENGINEERING DEVELOPMENT CENTER (AFEC) PROPELLION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME		PWT CONF			CELL DEL2 DEL3 DEL4 TRANSITION							
2 47 0000 004		000 0300P15 000			0 0 0 0 FREE							
POINT	ALPHA	META	CMX1	CMX2	CMX3	YCPF1	YCPF2	CMF2	CMF3	CMF4	KCPF2	YCPF2
1	01.61	0.0	-0.0114	-0.0063	0.0	0.2355	0.0	-0.0678	-0.0042	-0.0221	0.1915	0.4630
2	01.62	0.0	0.0010	0.0000	-0.0020	0.1356	-1.0195	-0.0172	-0.0043	0.0073	0.2491	-0.4254
3	01.62	0.0	-0.0114	-0.0063	0.0135	0.2355	-0.7551	-0.0019	-0.0018	0.0252	0.9958	-13.6088
4	1.61	0.0	-0.0102	-0.0003	-0.0009	0.2367	0.3782	0.0414	0.0025	0.0380	0.0610	0.9185
5	2.60	0.0	0.0	0.0	0.0138	0.0	0.0138	0.1182	0.0250	0.0160	0.2154	0.1352
6	3.60	0.0	-0.0050	-0.0030	0.0029	0.0107	-3.4244	0.1308	0.0179	0.0540	0.1525	0.4131
7	4.63	0.0	-0.0027	-0.0003	0.0022	0.2355	-0.6821	0.2066	0.0366	0.0582	0.1673	0.2815
8	5.61	0.0	0.0	0.0	-0.0026	0.0	-0.0276	0.2554	0.0392	0.0852	0.1534	0.3336
9	6.39	0.0	0.0	0.0	0.0009	0.0	0.0069	0.2960	0.0318	0.1200	0.1021	0.4082
10	7.62	0.0	-0.0020	-0.0000	-0.0001	0.2355	1.3372	0.3499	0.0501	0.1195	0.1431	0.3416
11	8.62	0.0	-0.0000	-0.0022	-0.0032	0.2355	3.0035	0.0171	0.0584	0.1450	0.1401	0.3677
12	9.61	0.0	0.0042	0.0022	-0.0051	0.2372	-4.9714	0.0580	0.0560	0.1974	0.1223	0.4311
13	10.65	0.0	0.0027	0.0007	0.0007	0.3200	0.1955	0.5439	0.0752	0.1996	0.1383	0.3671
14	11.66	0.0	-0.0009	-0.0003	-0.0025	0.0113	5.9442	0.5972	0.0602	0.2218	0.1342	0.3714
15	12.66	0.0	0.0103	0.0004	-0.0002	0.2355	-0.6183	0.0451	0.0797	0.2506	0.1255	0.3946
16	13.66	0.0	-0.0041	-0.0022	-0.0170	0.2343	1.8902	0.0435	0.0844	0.2507	0.1235	0.3668
17	14.63	0.0	0.0394	0.0073	-0.0013	0.1617	-2.2876	0.7053	0.0801	0.2734	0.1135	0.3876
18	15.66	0.0	-0.0075	-0.0000	0.0043	0.2346	-0.0822	0.7795	0.0852	0.2863	0.1093	0.3673
19	16.60	0.0	0.0001	0.0073	-0.0009	0.1617	-1.4197	0.0306	0.0801	0.3006	0.1061	0.3619
20	17.65	0.0	0.0000	-0.0014	-0.0151	-0.0276	-4.5758	0.0071	0.0976	0.3079	0.1081	0.3432
21	18.50	0.0	-0.0104	-0.0003	0.0027	0.2346	-1.5110	0.5169	0.0841	0.3500	0.0917	0.3861
22	19.50	0.0	0.0033	-0.0010	-0.0150	-0.0200	-4.5710	0.9518	0.0834	0.3663	0.0877	0.3849

TEST PART NAME RAISE PH1 CONF L CELL DEL2 DEL3 DEL4 TRANSITION
 2 47 0.5V 0.4 0.0 030F15 0.0 0 0 0 0 FREE

POINT	ALPHA	MFA	CMF3	CM3	CM3	XCPF3	YCPF3	CMF4	CM4	CM4	XCPF4	YCPF4
1	1.41	0.0	0.0661	0.0013	0.0056	0.3762	1.3083	0.6537	0.0053	0.0347	0.0987	0.6657
2	0.42	0.0	0.0404	0.0017	0.0107	0.4672	-0.2248	-0.0064	0.0030	-0.0142	-0.4593	2.4305
3	0.42	0.0	0.0152	0.0001	0.0061	0.5031	0.3800	0.0008	0.0066	0.0141	-7.0163	-16.8085
4	1.41	0.0	-0.0020	-0.0250	0.0040	0.5435	-0.2151	0.1261	0.0500	-0.0008	0.4206	-0.0063
5	2.40	0.0	0.0202	0.0100	0.0042	0.4110	0.3801	0.1026	0.0244	0.0298	0.2422	0.2908
6	3.40	0.0	-0.0311	-0.0154	0.0187	0.5120	-0.6028	0.1243	0.0395	0.1086	0.2378	0.8465
7	4.43	0.0	0.0141	0.0103	0.0182	0.4545	0.7625	0.1867	0.0328	0.0862	0.1746	0.4566
8	5.41	0.0	-0.0024	-0.0051	0.0011	1.7334	-0.3901	0.2023	0.0447	0.1426	0.2209	0.7058
9	6.39	0.0	0.0151	0.0075	0.0057	0.5212	0.3798	0.2960	0.0435	0.1278	0.1670	0.4320
10	7.42	0.0	-0.0352	-0.0213	0.0064	0.6054	-0.1822	0.3508	0.0487	0.1746	0.1654	0.4920
11	8.42	0.0	0.0171	0.0110	0.0005	0.6168	0.0275	0.1600	0.0612	0.1797	0.1671	0.4320
12	9.41	0.0	-0.0051	-0.0012	0.0009	0.2301	-1.7505	0.4932	0.0738	0.2056	0.1497	0.4169
13	10.45	0.0	0.0051	0.0112	0.0019	0.2301	0.3742	0.5300	0.0753	0.2335	0.1421	0.4400
14	11.44	0.0	0.0300	0.0194	-0.0106	0.5176	-0.3746	0.5584	0.0750	0.3008	0.1362	0.5480
15	12.46	0.0	-0.0443	-0.0561	0.0375	0.5618	-0.3796	0.0915	0.1330	0.2503	0.1923	0.3678
16	13.46	0.0	-0.0100	-0.0001	0.0001	0.5031	-0.3747	0.6642	0.0803	0.2934	0.1199	0.4384
17	14.43	0.0	-0.0112	-0.0024	0.0104	0.2296	1.0069	0.6936	0.0831	0.3008	0.1198	0.4337
18	15.46	0.0	-0.0202	-0.0122	0.0042	0.5029	-0.3747	0.7788	0.0465	0.3203	0.1110	0.4164
19	16.46	0.0	0.0123	0.0025	0.0007	0.2245	0.3801	0.8237	0.0852	0.3635	0.1036	0.4171
20	17.45	0.0	-0.0272	-0.0151	0.0103	0.5504	-0.3747	0.2775	0.0446	0.3619	0.1010	0.4124
21	18.50	0.0	-0.0102	-0.0001	0.0076	0.5031	0.4421	0.9148	0.0902	0.3831	0.0986	0.4188
22	19.50	0.0	-0.0003	-0.0010	0.0037	0.4670	-0.0802	0.9576	0.0915	0.3902	0.0956	0.4674

ARMED ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION AND TUNNEL FACILITY (PMT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 MAR11 MISSILE TAIL EFFECTS DATA

POINT	TEST PART EACH EXISTING				PHI	CONF	L	DEL1	DEL2	DEL3	DELA	TRANSITION
	2	4A	0.5V	0.7								
					0.0	03-0P15	0.0	0	0	0	0	FREE
POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAR	CAF	KCP	
1	-1.00	0.0	-0.1343	0.1914	-0.00830	0.0740	0.0024	0.3629	0.0993	0.2630	-1.6286	
2	-0.60	0.0	-0.0541	0.0774	-0.00547	0.0016	0.0054	0.3675	0.0873	0.2602	-1.3101	
3	0.03	0.0	0.0345	-0.0571	-0.0020	0.0725	0.0043	0.3705	0.0837	0.2868	-1.6541	
4	1.03	0.0	0.1014	-0.1350	-0.00481	0.0037	0.0031	0.3656	0.0946	0.2709	-1.3313	
5	2.01	0.0	0.2542	-0.3034	-0.0027	0.0731	0.0057	0.3613	0.0999	0.2610	-1.3919	
6	3.03	0.0	0.3552	-0.3601	-0.0009	0.0742	0.0079	0.3607	0.1000	0.2607	-1.5335	
7	4.03	0.0	0.4732	-0.4412	-0.0017	0.0752	0.0080	0.3606	0.0958	0.2652	-1.6510	
8	5.00	0.0	0.5743	-0.5038	-0.0033	0.0658	0.0086	0.3543	0.0959	0.2624	-1.6475	
9	6.02	0.0	0.7543	-0.7228	-0.00730	0.0040	0.0049	0.3546	0.1013	0.2583	-1.7027	
10	7.02	0.0	0.9044	-0.8284	-0.0140	0.0074	0.0020	0.3561	0.1102	0.2458	-1.7910	
11	8.04	0.0	1.0154	-0.9640	-0.0210	0.0052	0.0076	0.3652	0.1130	0.2510	-1.8365	
12	9.43	0.0	1.0852	-0.9743	-0.0056	0.0047	0.0042	0.3544	0.1145	0.2362	-1.8380	
13	10.00	0.0	1.3003	-0.9324	-0.00743	0.0041	0.0055	0.3572	0.1247	0.2276	-1.8810	
14	11.00	0.0	1.5310	-0.7214	-0.00707	0.0043	-0.0005	0.3554	0.1342	0.2215	-1.9089	
15	12.00	0.0	1.5713	-0.7143	-0.0065	0.0043	0.0114	0.3441	0.1353	0.2129	-1.8989	
16	13.50	0.0	1.5504	-0.5504	-0.0045	0.0040	0.0050	0.3230	0.1360	0.1849	-1.9202	
17	14.00	0.0	1.4545	-0.3000	-0.0037	0.0027	0.0052	0.3185	0.1384	0.1801	-1.9353	
18	15.07	0.0	2.1214	-0.1342	-0.00504	0.0074	0.0101	0.3204	0.1477	0.1727	-1.9491	
19	16.00	0.0	2.3004	-0.0000	-0.0020	0.0045	0.0124	0.3300	0.1663	0.1642	-1.9737	
20	17.00	0.0	2.5073	-0.0000	-0.0053	0.0050	0.0147	0.3346	0.1703	0.1642	-1.9773	
21	18.50	0.0	2.7042	-0.0000	-0.0007	0.0020	0.0187	0.3362	0.1773	0.1589	-1.9777	
22	19.52	0.0	2.9100	-0.0000	-0.0030	-0.0034	0.0197	0.3340	0.1876	0.1468	-1.9740	

TEST MARTIN MISSILE R10-A
 P 0.5V 0.7
 C.M. 0.070F15 0.0 0 0 0 0
 DEL1 DEL2 DEL3 DEL4 TRANSITION
 FREE

POINT	ALPHA	BETA	CM1	CM1	CM1	YCPF1	YCPF1	CM2	CM2	CM2	YCPF2	YCPF2
1	-1.60	0.0	-0.0015	0.0000	-0.0007	0.0000	0.0000	-0.0009	-0.0102	-0.0262	0.2134	0.5503
2	-0.60	0.0	0.0015	0.0000	-0.0007	1.5754	-16.4338	-0.0171	-0.0000	-0.0031	0.2803	0.1837
3	0.63	0.0	-0.0015	-0.0000	0.0007	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	-0.1809
4	1.63	0.0	0.0035	0.0021	-0.0007	0.0106	-2.7493	0.0029	0.0000	0.0187	0.1898	0.2965
5	2.61	0.0	-0.0015	-0.0000	0.0007	0.0000	-3.7040	0.0012	0.0000	0.0224	0.1590	0.2212
6	3.63	0.0	-0.0005	-0.0013	0.0005	0.2363	-1.8883	0.1414	0.0199	0.0533	0.1407	0.3770
7	4.63	0.0	-0.0023	-0.0000	0.0000	0.1821	-0.3779	0.2097	0.0300	0.0552	0.1662	0.2634
8	5.66	0.0	-0.0075	-0.0000	-0.0007	0.0013	1.7663	0.2601	0.0421	0.0757	0.1610	0.2911
9	6.66	0.0	0.0000	0.0000	-0.0007	0.0019	-0.3780	0.2967	0.0300	0.1177	0.1317	0.3995
10	7.62	0.0	-0.0076	-0.0000	-0.0007	0.0010	0.0596	0.3566	0.0485	0.1339	0.1361	0.3754
11	8.66	0.0	0.0000	0.0000	-0.0007	0.0029	-3.6165	0.0395	0.0025	0.1556	0.1622	0.3548
12	9.63	0.0	-0.0130	-0.0010	-0.0005	0.0154	0.1359	1.7224	0.0676	0.0596	0.1644	0.3941
13	10.66	0.0	-0.0000	0.0000	0.0000	-0.0205	-0.5500	0.5397	0.0713	0.1914	0.1322	0.3546
14	11.66	0.0	0.0000	0.0000	-0.0000	0.0000	-0.0505	0.4062	0.0771	0.2235	0.1272	0.3686
15	12.66	0.0	-0.0035	-0.0022	-0.0017	0.0000	-16.6232	0.6751	0.0870	0.2369	0.1269	0.3500
16	13.50	0.0	0.0111	0.0020	-0.0037	0.2765	-3.4056	0.7556	0.0885	0.2875	0.1171	0.3804
17	14.66	0.0	0.0000	0.0000	-0.0037	0.0120	-11.0732	0.7965	0.0873	0.3031	0.1096	0.3808
18	15.47	0.0	-0.0000	-0.0036	0.0057	0.1350	-0.7181	0.4505	0.0926	0.3040	0.1089	0.3633
19	16.66	0.0	-0.0075	-0.0000	0.0013	0.0022	1.6426	0.5089	0.0977	0.3260	0.1075	0.3587
20	17.44	0.0	-0.0000	-0.0035	-0.0019	0.1354	0.7422	0.9553	0.0983	0.3424	0.1024	0.3584
21	18.50	0.0	-0.0000	-0.0035	-0.0022	0.1574	0.4540	0.9908	0.0965	0.3522	0.0974	0.3554
22	19.52	0.0	-0.0015	-0.0000	-0.0000	0.1534	1.4714	1.0175	0.0950	0.3582	0.0934	0.3521

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ARMED ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION AND TUNNEL FACILITY (PT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST EAST HALF RAILROAD		MHI CONF		L		DEL1		DEL2		DEL3		DEL4		TRANSITION	
	2	OF 0.59 0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FREE
POINT	ALPHA	CFDA	CFD3	CH3	CH3	ACPF3	YCPF3	CHFA	CH4	Cd4	XCPF4	YCPF4				
1	-1.52	0.0	0.0113	0.0000	-0.0123	0.0111	-0.1967	-0.0443	-0.0067	-0.0318	0.1390	0.0518				
2	-0.50	0.0	0.0105	0.0000	-0.0007	0.0592	-0.0443	-0.0092	0.0006	-0.0172	-0.0666	1.0790				
3	0.03	0.0	0.0122	0.0000	-0.0008	0.0553	-0.0379	-0.0175	0.0065	0.0059	0.0378	0.0358				
4	1.03	0.0	-0.0151	-0.0004	0.0016	0.0507	-0.1032	0.1026	0.0358	0.0024	0.0492	0.0234				
5	2.01	0.0	0.0035	0.0022	-0.0055	0.0506	-1.0331	0.1093	0.0255	0.0268	0.0329	0.0230				
6	3.03	0.0	-0.0030	-0.0150	0.0003	0.0775	-0.0223	0.1309	0.0307	0.0848	0.0209	0.0185				
7	4.03	0.0	-0.0110	-0.0004	0.0070	0.0224	-0.1644	0.2016	0.0367	0.0750	0.0184	0.0362				
8	5.04	0.0	-0.0150	-0.0070	0.0000	0.0422	-0.0307	0.2359	0.0468	0.1216	0.1986	0.0513				
9	6.02	0.0	-0.0224	-0.0100	0.0001	0.0536	-0.0397	0.3055	0.0449	0.1299	0.1471	0.0252				
10	7.02	0.0	-0.0147	-0.0000	0.0014	0.0413	-0.0933	0.3637	0.0578	0.1657	0.1590	0.0555				
11	8.00	0.0	-0.0000	-0.0020	-0.0050	0.0200	0.0713	0.0221	0.0613	0.1785	0.1452	0.0229				
12	9.03	0.0	-0.0005	-0.0130	0.0074	0.0440	-0.0271	0.4049	0.0701	0.2016	0.1446	0.0150				
13	10.00	0.0	-0.0017	-0.0121	0.0000	0.0511	-0.0230	0.5282	0.0718	0.2265	0.1359	0.0289				
14	11.00	0.0	-0.0000	0.0001	-0.0003	-0.0000	1.1266	0.5091	0.0738	0.2814	0.1297	0.0495				
15	12.00	0.0	-0.0000	-0.0070	0.0100	0.0502	-0.0295	0.6720	0.1087	0.2653	0.1617	0.0398				
16	13.00	0.0	-0.0000	0.0010	-0.0077	-0.0075	1.0443	0.7203	0.0830	0.3104	0.1158	0.0308				
17	14.00	0.0	-0.0027	-0.0117	0.0003	0.0235	-0.0270	0.7060	0.0865	0.3253	0.1129	0.0267				
18	15.07	0.0	-0.0023	-0.0100	0.0004	0.0508	-0.0201	0.6317	0.0496	0.3442	0.1077	0.0162				
19	16.00	0.0	-0.0000	-0.0020	-0.0002	0.0223	0.0219	0.0995	0.0923	0.3718	0.1027	0.0138				
20	17.00	0.0	-0.0000	-0.0000	0.0012	0.0320	-0.0020	0.9400	0.0947	0.3727	0.0999	0.0393				
21	18.00	0.0	-0.0000	-0.0000	-0.0000	0.0037	1.1843	0.9922	0.0898	0.3987	0.0905	0.0018				
22	19.52	0.0	-0.0000	-0.0000	0.0000	0.0303	-0.0370	1.0459	0.0916	0.4164	0.0876	0.0381				

TEST	MARTIN	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
2	49	0.54	1.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FREE
1		-1.01	0.0	-0.1000	0.1350	-0.0570	0.0550	0.0023	0.3160	0.0930	0.2226	-1.3205
2		-0.00	0.0	-0.0500	0.0763	-0.0571	0.0400	0.0033	0.3202	0.0937	0.2205	-1.4026
3		0.03	0.0	0.0100	-0.0413	-0.0551	0.0543	0.0017	0.3145	0.0966	0.2201	-0.7931
4		1.43	0.0	0.1003	-0.1076	-0.0533	0.0005	0.0006	0.3202	0.0974	0.2228	-1.3602
5		2.02	0.0	0.2507	-0.0533	-0.0530	0.0072	0.0051	0.3185	0.0961	0.2223	-1.4093
6		3.44	0.0	0.4510	-0.0401	-0.0556	0.0592	0.0013	0.3153	0.0950	0.2204	-1.5028
7		4.06	0.0	0.5000	-0.0400	-0.0557	0.0613	0.0019	0.3120	0.0945	0.2160	-1.5079
8		5.39	0.0	0.7177	-0.0300	-0.0491	0.0000	0.0023	0.3117	0.0975	0.2142	-1.6719
9		6.05	0.0	0.7704	-0.0300	-0.0459	0.0042	0.0057	0.3143	0.1038	0.2105	-1.7271
10		7.07	0.0	0.9127	-0.0326	-0.0398	0.0373	0.0051	0.3156	0.1111	0.2045	-1.7890
11		8.07	0.0	1.0701	-0.0301	-0.0470	0.0017	0.0023	0.3192	0.1173	0.2019	-1.8519
12		9.46	0.0	1.2700	-0.0321	-0.0410	0.0330	0.0050	0.3176	0.1227	0.1954	-1.8840
13		10.00	0.0	1.4170	-0.0373	-0.0463	0.0303	0.0057	0.3259	0.1280	0.1979	-1.9032
14		11.50	0.0	1.5022	-0.0300	-0.0391	0.0210	0.0040	0.3195	0.1330	0.1864	-1.9099
15		12.51	0.0	1.7300	-0.0320	-0.0357	0.0153	0.0100	0.3193	0.1300	0.1869	-1.9140
16		13.40	0.0	1.9103	-0.0362	-0.0370	0.0230	0.0055	0.3183	0.1476	0.1707	-1.9202
17		14.00	0.0	2.0700	-0.0320	-0.0327	0.0193	0.0041	0.3118	0.1531	0.1587	-1.9183
18		15.50	0.0	2.2970	-0.0300	-0.0272	0.0150	0.0056	0.3040	0.1404	0.1436	-1.9086
19		16.50	0.0	2.5000	-0.0300	-0.0180	0.0127	0.0036	0.2900	0.1600	0.1202	-1.9211
20		17.50	0.0	2.5000	-0.0300	-0.0225	0.0030	0.0050	0.2900	0.1467	0.1133	-1.9253
21		18.57	0.0	2.7500	-0.0200	-0.0000	0.0000	0.0120	0.2800	0.1737	0.1160	-1.9315
22		19.56	0.0	2.5000	-0.0300	-0.0370	-0.0170	0.0117	0.2843	0.1865	0.0976	-1.9510

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AERONAUTICAL ENGINEERING DEVELOPMENT CENTER (AEC) PROPULSION WIND TUNNEL FACILITY (PWF) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 2 OF 3 MANTI-MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST PARAMETER VALUES										TRANSITION	
	ALPHA	BETA	CNF1	CNF2	CNF3	YCPF1	YCPF2	CNF2	CM2	CB2	KCPF2	YCPF2
1	-1.01	0.0	-0.0000	0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.00	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.43	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1.03	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2.42	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	3.44	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	4.44	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	5.34	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	6.45	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	7.47	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	8.47	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	9.46	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	10.44	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
14	11.50	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
15	12.51	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
16	13.44	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
17	14.44	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
18	15.54	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
19	16.54	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	17.50	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
21	18.57	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
22	19.56	0.0	-0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TEST PART: 2ALH M1025 PHI: COME L: DEL1 DEL2 DEL3 DEL4 TRANSITION

2 44 0.54 1.01 0.0 0.30 0.15 0.0 0 0 0 0 0 FREE

POINT	ALPHA	MFA	CMFA	CM3	CM3	YCPF3	YCPF3	CMFA	CM4	CM4	YCPF4	YCPF4
1	-1.61	0.0	-0.0000	-0.0000	0.0000	0.5236	-0.1738	-0.0000	-0.0000	-0.0227	0.1600	0.5628
2	-0.90	0.0	-0.0000	-0.0000	0.0000	0.5070	-0.2300	-0.0000	-0.0000	-0.0155	0.0389	1.0243
3	0.43	0.0	-0.0000	-0.0000	-0.0000	0.3624	0.1429	0.0251	0.0073	-0.0000	0.2893	0.1569
4	1.43	0.0	-0.0000	-0.0000	0.0000	0.5344	-0.2173	0.0907	0.0295	0.0091	0.3259	0.1006
5	2.42	0.0	-0.0000	-0.0000	-0.0000	2.5977	-7.0100	0.1058	0.0225	0.0332	0.2127	0.3140
6	3.44	0.0	-0.0000	-0.0000	0.0000	0.4516	-0.2632	0.1448	0.0285	0.0731	0.1970	0.5048
7	4.44	0.0	-0.0000	-0.0000	0.0000	0.3572	0.0239	0.2048	0.0356	0.0765	0.1738	0.3735
8	5.34	0.0	-0.0000	-0.0000	-0.0000	-0.0344	0.0063	0.2381	0.0430	0.1172	0.1807	0.4922
9	6.45	0.0	-0.0000	-0.0000	0.0000	0.5600	-0.3006	0.3136	0.0478	0.1308	0.1512	0.4171
10	7.47	0.0	-0.0000	-0.0000	0.0000	0.4711	-0.1384	0.3759	0.0568	0.1672	0.1512	0.4448
11	8.47	0.0	-0.0000	-0.0000	-0.0000	0.0000	0.5278	0.0373	0.0625	0.1856	0.1629	0.4243
12	9.48	0.0	-0.0000	-0.0000	0.0000	0.4510	-0.1802	0.4968	0.0679	0.2141	0.1366	0.4309
13	10.48	0.0	-0.0000	-0.0000	-0.0000	0.3413	0.1236	0.5587	0.0736	0.2327	0.1317	0.4168
14	11.50	0.0	-0.0000	-0.0000	-0.0000	3.8708	-11.8889	0.5898	0.0746	0.2704	0.1264	0.4686
15	12.51	0.0	-0.0000	-0.0000	-0.0000	0.0000	-0.1681	0.6702	0.0405	0.2718	0.1471	0.4055
16	13.48	0.0	-0.0000	-0.0000	-0.0000	0.2790	0.2147	0.7091	0.0429	0.3005	0.1169	0.4237
17	14.44	0.0	-0.0000	-0.0000	0.0000	0.3971	-0.1157	0.7520	0.0489	0.3195	0.1124	0.4249
18	15.54	0.0	-0.0000	-0.0000	0.0000	0.3770	-0.1468	0.8268	0.0502	0.3432	0.1091	0.4151
19	16.58	0.0	-0.0000	-0.0000	-0.0000	-0.1008	0.3312	0.8806	0.0529	0.3657	0.1043	0.4106
20	17.50	0.0	-0.0000	-0.0000	0.0000	0.3446	-0.2609	0.9543	0.0562	0.3874	0.1008	0.4060
21	18.57	0.0	-0.0000	-0.0000	0.0000	0.4007	-0.1181	0.9448	0.0539	0.4063	0.0939	0.3963
22	19.56	0.0	-0.0000	-0.0000	0.0000	0.4408	-0.2317	1.0617	0.0533	0.4215	0.0878	0.3970

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ARMOUR ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 3
SHEET 1 OF 1

POINT	TEST PART MACH VALUE											
	ALPHA	BETA	CN	CL	CT	CLM	CLL	CA	CAR	CAF	ACP	TRANSITION
2	50	0.59	3.04	0.00	0.300F15	0.00	0	0	0	0	0	FREE
1	-1.43	0.0	-0.1307	0.1475	0.0133	0.0041	0.0016	0.2630	0.1046	0.1588	-1.5114	
2	-0.58	0.0	-0.0727	0.1072	-0.0116	0.0101	0.0002	0.2611	0.1040	0.1571	-1.9958	
3	0.42	0.0	0.0722	0.0000	0.0130	0.0108	0.0021	0.2608	0.1076	0.1531	-1.2027	
4	1.45	0.0	0.1025	-0.241-	-0.0049	0.0040	0.0035	0.2576	0.1059	0.1517	-1.3254	
5	2.47	0.0	0.0300	-0.3472	0.0107	0.0127	0.0027	0.2556	0.1055	0.1501	-1.3888	
6	3.50	0.0	0.0171	-0.0367	0.0077	0.0077	0.0079	0.2545	0.1044	0.1451	-1.5126	
7	4.51	0.0	0.549-	-1.001-	0.0054	0.0035	0.0043	0.2535	0.1060	0.1466	-1.5945	
8	5.52	0.0	0.0730	-1.0270	-0.0062	0.0004	0.0041	0.2595	0.1109	0.1446	-1.6619	
9	6.57	0.0	0.0245	-1.0667	-0.0066	0.0074	0.0050	0.2626	0.1184	0.1443	-1.7457	
10	7.59	0.0	0.944-	-1.770-	-0.0004	0.0130	0.0072	0.2661	0.1244	0.1418	-1.8075	
11	8.62	0.0	1.155-	-2.162-	0.0037	0.0063	0.0050	0.2660	0.1279	0.1381	-1.8527	
12	9.63	0.0	1.3240	-2.5047	-0.0024	0.0026	0.0001	0.2654	0.1332	0.1322	-1.8860	
13	10.62	0.0	1.5107	-2.8001	0.0007	0.0009	0.0112	0.2649	0.1394	0.1254	-1.9033	
14	11.67	0.0	1.6900	-3.0941	-0.0001	0.0061	0.0139	0.2650	0.1457	0.1193	-1.9196	
15	12.67	0.0	1.8700	-3.3923	-0.0011	0.0107	0.0091	0.2599	0.1491	0.1108	-1.9260	
16	13.75	0.0	2.0654	-3.6904	-0.0021	0.0071	0.0001	0.2541	0.1570	0.1004	-1.9146	
17	14.77	0.0	2.2627	-4.0251	-0.0002	0.0016	0.0064	0.2546	0.1622	0.0925	-1.9066	
18	15.83	0.0	2.4524	-4.3513	0.0020	0.0030	0.0044	0.2542	0.1684	0.0556	-1.8962	
19	16.88	0.0	2.6300	-4.6722	0.0009	0.0009	0.0001	0.2494	0.1737	0.0757	-1.8874	
20	17.97	0.0	2.8130	-5.0230	0.0004	-0.0000	0.0074	0.2470	0.1420	0.0651	-1.8584	
21	18.93	0.0	3.0301	-5.3517	0.0097	-0.0153	0.0061	0.2487	0.1399	0.0588	-1.8297	
22	19.95	0.0	3.2144	-5.6013	0.0201	-0.0416	0.0133	0.2479	0.2031	0.0448	-1.8048	

TEST MARY MATCH K110-D												
POINT	ALPHA	BETA	CNF1	CNF1	CNF1	YCPF1	YCPF1	CNF2	CNF2	CNF2	YCPF2	YCPF2
2	50	0.50	3.00	0.0	0.30	0.15	0.0	0	0	0	0	FREE
1	-1.53	0.0	-0.0000	0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	-0.54	0.0	-0.0000	0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.62	0.0	-0.0000	0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1.45	0.0	-0.0053	0.0000	-0.0029	-0.1530	0.5472	0.0015	0.0086	0.0201	0.1390	0.3914
5	2.67	0.0	-0.0035	0.0015	-0.0000	-0.1156	1.2001	0.1003	0.0163	0.0611	0.1560	0.3930
6	3.50	0.0	-0.0044	0.0000	-0.0047	-0.1700	0.9554	0.1510	0.0221	0.0662	0.1466	0.4387
7	4.51	0.0	-0.0044	0.0000	-0.0010	-0.1105	0.2072	0.2076	0.0315	0.0825	0.1515	0.3960
8	5.52	0.0	-0.0035	0.0007	-0.0070	-0.2101	2.2300	0.2640	0.0370	0.1096	0.1434	0.4152
9	6.57	0.0	-0.0013	0.0013	-0.0012	-0.0777	0.0003	0.3255	0.0451	0.1366	0.1385	0.4192
10	7.54	0.0	-0.0030	0.0000	-0.0020	-0.2300	1.5020	0.3800	0.0530	0.1632	0.1301	0.4187
11	8.60	0.0	-0.0030	0.0000	-0.0043	-0.2307	1.1172	0.4530	0.0500	0.1914	0.1300	0.4224
12	9.63	0.0	-0.0020	0.0010	-0.0090	-0.0700	0.1310	0.5130	0.0400	0.2174	0.1252	0.4234
13	10.60	0.0	0.0020	0.0017	-0.0170	0.0110	0.7500	0.5777	0.0600	0.2410	0.1190	0.4183
14	11.67	0.0	-0.0010	0.0000	-0.0110	-0.0200	10.0600	0.0491	0.0752	0.2674	0.1150	0.4120
15	12.67	0.0	-0.0052	0.0001	-0.0111	-0.0115	2.1363	0.7375	0.0783	0.2913	0.1107	0.4117
16	13.75	0.0	-0.0071	0.0000	-0.0077	0.0000	1.0236	0.7813	0.0543	0.3135	0.1070	0.4012
17	14.77	0.0	-0.0000	0.0000	-0.0020	0.0000	1.0015	0.0000	0.0000	0.3300	0.1050	0.3957
18	15.83	0.0	15.0000	0.0733	-0.0355	0.2300	-0.3700	0.0005	0.0923	0.3400	0.1025	0.3886
19	16.80	0.0	15.1210	0.0770	-0.0000	0.2300	-0.3700	0.0000	0.0905	0.3600	0.1011	0.3877
20	17.77	0.0	15.0000	0.0770	-0.0550	0.2300	-0.3700	0.0000	0.0905	0.3455	0.0997	0.3866
21	18.33	0.0	15.0000	0.0770	-0.0550	0.2300	-0.3700	1.0010	0.1000	0.3901	0.0966	0.3802
22	19.45	0.0	16.0000	0.0730	-0.0055	0.2300	-0.3700	1.0731	0.1003	0.3972	0.0935	0.3702

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AERONAUTICAL ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PW1) AERODYNAMIC WIND TUNNEL (AT1)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST POINT NAME: RL10-0 PW1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 50 0.54 3.4 0.0 63 0.015 0.0 0 0 0 0 0 FREE

POINT	ALPHA	BETA	C-FF	C-3	C-63	XC-FF3	YC-FF3	C-FF4	C-64	C-64	XC-FF4	YC-FF4
1	-1.64	0.0	-0.0000	-0.0000	0.0000	0.2228	-0.3770	-0.0413	-0.0060	0.0237	0.1452	0.5725
2	-0.56	0.0	0.0034	0.0030	-0.0007	0.7637	-0.1004	-0.0004	0.0006	-0.0002	-0.1366	1.8580
3	0.02	0.0	-0.0007	-0.0014	0.0010	0.3479	-0.3643	0.0303	0.0067	0.0097	0.2200	0.3198
4	1.45	0.0	-0.0104	-0.0070	0.0065	0.5073	-0.4308	0.0765	0.0171	0.0238	0.2177	0.3035
5	2.47	0.0	-0.0104	-0.0017	0.0027	0.3305	-0.5674	0.1133	0.0196	0.0457	0.1729	0.4038
6	3.50	0.0	-0.0104	-0.0090	0.0057	0.4191	-0.4443	0.1027	0.0272	0.0764	0.1680	0.4708
7	4.51	0.0	-0.0077	-0.0027	0.0014	0.4136	-0.2622	0.2123	0.0334	0.0932	0.1575	0.4390
8	5.52	0.0	-0.0113	-0.0045	0.0031	0.4037	-0.3001	0.2641	0.0414	0.1705	0.1588	0.4564
9	6.57	0.0	-0.0055	-0.0034	0.0025	0.3505	-0.2834	0.3305	0.0463	0.1491	0.1400	0.4510
10	7.59	0.0	-0.0044	-0.0036	0.0017	0.4066	-0.1935	0.3914	0.0535	0.1804	0.1366	0.4604
11	8.62	0.0	-0.0040	-0.0029	0.0014	0.3167	-0.1964	0.4545	0.0589	0.2097	0.1296	0.4592
12	9.63	0.0	-0.0034	-0.0052	0.0004	0.3427	-0.3199	0.5171	0.0650	0.2354	0.1250	0.4552
13	10.62	0.0	-0.0044	-0.0033	0.0024	0.3301	-0.2961	0.5775	0.0691	0.2668	0.1196	0.4585
14	11.67	0.0	-0.0004	-0.0005	0.0001	0.1151	-0.0217	0.6472	0.0734	0.2991	0.1143	0.4657
15	12.67	0.0	-0.0003	-0.0004	0.0004	0.4216	-0.3200	0.7066	0.0829	0.3127	0.1171	0.4414
16	13.75	0.0	-0.0014	-0.0021	0.0014	0.2626	-0.1720	0.7631	0.0813	0.3376	0.1065	0.4424
17	14.77	0.0	-0.0001	-0.0020	0.0035	0.2565	-0.3744	0.8170	0.0800	0.3588	0.1033	0.4392
18	15.83	0.0	-0.0013	-0.0030	0.0035	0.3403	-0.3067	0.4845	0.0845	0.3798	0.1012	0.4294
19	16.88	0.0	-0.0011	-0.0014	0.0023	0.2249	-0.2774	1.4367	0.0927	0.3967	0.0992	0.4264
20	17.97	0.0	-0.0003	-0.0004	0.0006	0.3373	-0.3272	0.9794	0.0461	0.4107	0.0981	0.4191
21	18.43	0.0	-0.0025	-0.0034	0.0034	0.2749	-0.3100	1.0256	0.0971	0.4166	0.0947	0.4082
22	19.95	0.0	-0.0019	-0.0055	0.0052	0.3449	-0.3261	1.0677	0.0954	0.4300	0.0894	0.4028

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TEST PART NAME	REF	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION			
57	U.00 2.5	0.0	03.0F15	0.0	0	0	0	0	FREE			
POINT	ALPHA	MFA	CA	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP	
1	0.00	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.2000	0.1171	0.1737	-1.5783	
2	0.00	0.0	-0.0037	0.0745	-0.0100	0.0110	0.0011	0.2000	0.1150	0.1740	-1.8748	
3	0.43	0.0	0.0700	-0.0010	0.0102	0.0000	0.0025	0.2000	0.1156	0.1708	-1.8097	
4	1.02	0.0	0.1710	-0.0000	-0.0110	0.0000	0.0032	0.2000	0.1097	0.1766	-1.3276	
5	2.07	0.0	0.2030	-0.0037	-0.0155	0.0100	0.0022	0.2000	0.1170	0.1663	-1.4917	
6	3.00	0.0	0.0100	-0.0050	-0.0151	0.0100	0.0036	0.2000	0.1144	0.1663	-1.5839	
7	5.00	0.0	0.0000	-0.0000	-0.0117	0.0117	0.0000	0.2000	0.1100	0.1652	-1.7600	
8	9.40	0.0	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.2000	0.1050	0.1605	-1.9742	
9	13.70	0.0	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.2000	0.1000	0.1230	-1.9850	
10	17.00	0.0	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.2000	0.1000	0.1079	-1.9025	
11	19.45	0.0	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.2000	0.1000	0.0879	-1.8360	
12	25.21	0.0	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.2000	0.2200	0.0362	-1.5905	
13	27.07	0.0	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.2500	0.2500	0.0000	-1.4919	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 2 OF 3 MANTID MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME: 57 U66U 2.5 PMI CONF: 0.0 030P15 0.0 DEL1: 0 DEL2: 0 DEL3: 0 DEL4: 0 TRANSITION: FREE

POINT	ALPHA	BETA	CMX1	CMY1	CMZ1	ACPF1	YCPF1	CCF2	CM2	CM7	KCPF2	YCPF2
1	-1.56	0.0	-0.0115	-0.0010	-0.0003	0.1351	0.0214	-0.0531	-0.0101	-0.0244	0.1405	0.5539
2	-0.00	0.0	-0.0000	-0.0010	0.0007	0.1048	-0.4400	-0.0141	-0.0035	-0.0114	0.2402	0.0074
3	0.43	0.0	-0.0101	-0.0020	0.0039	0.1602	-0.2503	0.0225	0.0029	0.0030	0.1288	0.1340
4	1.42	0.0	-0.0114	-0.0010	0.0043	0.1357	-0.3705	0.0633	0.0090	0.0171	0.1557	0.2710
5	2.47	0.0	-0.0244	-0.0015	0.0055	0.1081	-0.5572	0.1098	0.0172	0.0367	0.1562	0.3304
6	3.40	0.0	-0.0135	-0.0023	0.0005	0.1724	-0.0370	0.1587	0.0246	0.0561	0.1563	0.3534
7	5.00	0.0	-0.0100	-0.0030	0.0017	0.2020	-0.1020	0.2700	0.0403	0.1051	0.1469	0.3029
8	9.60	0.0	-0.0100	-0.0020	0.0004	0.2361	-0.6303	0.5350	0.0655	0.2132	0.1223	0.3903
9	13.70	0.0	-0.0110	-0.0020	-0.0000	0.2113	-0.3605	0.7917	0.0807	0.3065	0.1010	0.3806
10	17.00	0.0	-0.0115	-0.0030	0.0010	0.3369	-0.1409	1.0168	0.0825	0.3760	0.0811	0.3698
11	19.95	0.0	-0.0114	-0.0037	0.0010	0.3098	0.0796	1.0672	0.0732	0.3807	0.0806	0.3567
12	25.21	0.0	-0.0300	-0.0060	0.0000	0.1952	0.0681	1.2170	0.0509	0.4228	0.0409	0.3487
13	27.07	0.0	-0.0230	-0.0000	0.0010	0.1818	0.0370	1.2005	0.0482	0.4371	0.0303	0.3468

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TEST PART NAME PK1-6 PHI CONF L CELL DEL1 DEL2 DEL3 DEL4 TRANSITION												
2	57	0.00	2.5	0.0	0.300F15	0.0	0	0	0	0	0	FREE
POINT	ALPHA	BETA	CNF1	CH1	CH3	YCPF3	YCPF3	CNF4	CH4	CR4	YCPF4	YCPF4
1	-1.56	0.0	-0.0127	-0.0050	0.0003	0.3525	-0.0253	-0.0436	0.0070	-0.0264	0.1610	0.6049
2	-0.96	0.0	-0.0127	-0.0050	0.0003	0.3525	-0.0226	-0.0091	-0.0006	-0.0102	0.0626	1.1184
3	0.03	0.0	-0.0135	-0.0052	-0.0004	0.3527	0.0221	0.0314	0.0070	0.0044	0.2211	0.1883
4	1.42	0.0	-0.0141	-0.0050	-0.0007	0.3537	0.0121	0.0661	0.0117	0.0268	0.1770	0.4053
5	2.47	0.0	-0.0133	-0.0052	-0.0003	0.3777	0.0202	0.1131	0.0192	0.0449	0.1693	0.4144
6	3.46	0.0	-0.0133	-0.0050	-0.0009	0.3521	0.0572	0.1642	0.0269	0.0658	0.1640	0.4192
7	5.46	0.0	-0.0133	-0.0050	-0.0014	0.3625	0.1195	0.2760	0.0408	0.1224	0.1477	0.4434
8	9.46	0.0	-0.0133	-0.0050	-0.0015	0.3279	0.0841	0.5264	0.0627	0.2442	0.1191	0.4638
9	13.70	0.0	-0.0133	-0.0063	-0.0008	0.3131	0.0398	0.7738	-0.0734	0.3423	0.0949	0.4424
10	17.94	0.0	-0.0204	-0.0061	-0.0014	0.3067	0.0601	0.9801	0.0771	0.4046	0.0786	0.4169
11	19.95	0.0	-0.0207	-0.0074	-0.0016	0.3000	0.0665	1.0804	0.0714	0.4345	0.0661	0.4059
12	25.21	0.0	-0.0207	-0.0074	0.0012	0.2946	-0.0404	1.1105	0.0380	0.4311	0.0342	0.3881
13	27.47	0.0	-0.0207	-0.0074	0.0002	0.3205	0.0047	1.1151	0.0303	0.4281	0.0271	0.3839

ARJOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPELLSION AND TUNNEL FACILITY(PWT) AERODYNAMIC AND TUNNEL(AT)
 PAGE 1 OF 3 MANTI, MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME AXIN=0 PWT LUNE L JELL DEL2 DEL3 DEL4 TRANSITION
 2 58 U.S.S 2.5 U.O D306F15 0.0 0 0 0 0 FREE

POINT	ALPHA	EFTA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP
1	-1.03	0.0	-0.1304	0.2130	-0.0002	-0.0010	-0.0002	0.2936	0.1131	0.1805	-1.5368
2	-0.54	0.0	-0.0350	0.0704	-0.0077	0.0023	-0.0010	0.2914	0.1100	0.1814	-1.9748
3	0.02	0.0	0.0055	-0.0030	-0.0120	0.0120	-0.0005	0.2931	0.1131	0.1800	-0.9126
4	1.04	0.0	0.1445	-0.2204	-0.0054	0.0013	0.0003	0.2900	0.1114	0.1782	-1.3102
5	2.07	0.0	0.2427	-0.0263	-0.0075	0.0020	0.0013	0.2910	0.1103	0.1771	-1.4564
6	3.07	0.0	0.4112	-0.0000	-0.0045	-0.0016	0.0017	0.2907	0.1171	0.1736	-1.5730
7	5.04	0.0	0.7020	-0.2537	0.0011	-0.0101	0.0033	0.2915	0.1103	0.1772	-1.7669
8	9.00	0.0	1.3470	-0.7420	0.0055	-0.0150	0.0053	0.3027	0.1414	0.1613	-2.0125
9	13.70	0.0	2.1770	-0.0000	0.0055	-0.0100	0.0000	0.2905	0.1651	0.1330	-2.0418
10	17.07	0.0	2.9440	-0.7175	0.0050	-0.0035	0.0010	0.2937	0.1228	0.1109	-1.9198
11	19.97	0.0	3.0000	-0.2500	0.0220	-0.0307	0.0101	0.2920	0.1953	0.0972	-1.8372
12	25.20	0.0	0.0230	-0.0211	0.0059	-0.0027	-0.0041	0.2910	0.2549	0.0360	-1.5410
13	27.57	0.0	0.0207	-0.0030	0.0067	-0.0075	-0.0030	0.2867	0.2700	0.0071	-1.4280

POINT	TEST PART NAME		Mach			DELTA				TRANSITION		
	54	U.S.S. 2.5	0.0	M3=0F15	0.0	0	0	0	0	0	FREE	
ALPHA	-ET	CNF1	CHI	CHI	ACPF1	YCPF1	CNF2	CM7	CH7	XCPF2	YCPF2	
1	-1.53	0.0	-0.0113	-0.0010	0.0100	0.2023	-0.5770	-0.0050	-0.0115	-0.0365	0.2111	0.6900
2	-0.44	0.0	-0.0113	-0.0010	0.0100	0.2023	-0.5770	-0.0050	-0.0115	-0.0365	0.2111	0.6900
3	0.42	0.0	-0.0210	-0.0040	0.0012	0.2111	-0.0550	0.0205	0.0030	-0.0050	0.1230	-0.2020
4	1.44	0.0	-0.0150	-0.0030	0.0060	0.2017	-0.4330	0.0031	0.0011	0.0110	0.1400	0.1700
5	2.47	0.0	-0.0203	-0.0040	0.0050	0.2227	-0.2475	0.1309	0.0175	0.0281	0.1600	0.2500
6	3.47	0.0	-0.0203	-0.0040	0.0050	0.2227	-0.2475	0.1309	0.0175	0.0281	0.1600	0.2500
7	4.44	0.0	-0.0117	-0.0010	0.0100	0.2307	-0.1021	0.2770	0.0000	0.1000	0.1057	0.3612
8	4.44	0.0	-0.0117	-0.0010	0.0100	0.2307	-0.1021	0.2770	0.0000	0.1000	0.1057	0.3612
9	13.70	0.0	-0.0117	-0.0010	0.0100	0.2520	-0.1530	0.0105	0.0772	0.3067	0.0900	0.3765
10	17.97	0.0	-0.0117	-0.0010	0.0100	0.3910	-0.3700	1.0339	0.0790	0.3732	0.0761	0.3600
11	19.97	0.0	-0.0221	-0.0020	0.0100	0.2760	-0.4970	1.0000	0.0690	0.3772	0.0600	0.3600
12	25.26	0.0	-0.0300	-0.0020	0.0100	0.2500	-0.3200	1.2310	0.0500	0.4231	0.0000	0.3435
13	27.57	0.0	-0.0200	-0.0010	0.0100	0.2750	-0.1900	1.2272	0.0370	0.4100	0.0300	0.3300

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AFSOLD ENGINEERING DEVELOPMENT CENTER(AEJC) PROPULSION WIND TUNNEL FACILITY(PWT) AEROYNAMIC WIND TUNNEL(AT)
 PAGE 3 OF 3 ARTI. MISSILE TAIL EFFECTS DATA

POINT	TEST PART NAME XALU-6										DELA TRANSITION	
	ALMA	ETA	CMF3	CM3	CM3	ACPF3	YCPF3	CMFA	CM6	CR4	XCPF4	YCPF4
1	-1.03	0.0	-0.0155	-0.0004	-0.0002	0.0126	0.2511	-0.0023	-0.0000	-0.0201	0.1482	0.5700
2	-0.59	0.0	-0.0177	-0.0009	-0.0009	0.0377	0.2176	-0.0053	-0.0000	-0.0005	0.1157	1.6023
3	0.02	0.0	-0.0175	-0.0071	-0.0009	0.0002	0.2171	-0.0300	-0.0061	-0.0078	0.2020	0.2025
4	1.00	0.0	-0.0180	-0.0071	-0.0006	0.0307	0.1926	0.0666	0.0114	0.0272	0.1708	0.0087
5	2.07	0.0	-0.0176	-0.0074	-0.0001	0.0010	0.2000	0.1162	0.0201	0.0050	0.1728	0.3908
6	3.07	0.0	-0.0172	-0.0075	-0.0002	0.0010	0.2107	0.1656	0.0271	0.0695	0.1636	0.4196
7	5.09	0.0	-0.0205	-0.0074	-0.0003	0.0303	0.2173	0.2006	0.0010	0.1238	0.1470	0.0012
8	9.00	0.0	-0.0227	-0.0077	-0.0000	0.0307	0.2000	0.5392	0.0032	0.2090	0.1171	0.0010
9	13.70	0.0	-0.0200	-0.0074	-0.0000	0.0307	0.1905	0.7972	0.0702	0.3527	0.0001	0.0020
10	17.07	0.0	-0.0200	-0.0074	-0.0000	0.0303	0.1857	0.9407	0.0710	0.0070	0.0726	0.0012
11	19.97	0.0	-0.0203	-0.0070	-0.0000	0.0309	0.1313	1.0028	0.0050	0.0031	0.0000	0.0000
12	25.20	0.0	-0.0200	-0.0100	-0.0015	0.0000	0.0510	1.0700	0.0030	0.0020	0.0015	0.0000
13	27.07	0.0	-0.0203	-0.0103	-0.0010	0.0007	0.0501	1.0992	0.0000	0.0000	0.0010	0.0000

TEST PART NAME: NPTIN MISSILE TAIL EFFECTS DATA
 2 59 0.42 2.5 0.0 0.30 0.15 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAB	CAF	ACP
1	-1.63	0.0	-0.1300	-0.1804	-0.0055	-0.0020	-0.0038	0.3206	0.1090	0.2116	-1.3587
2	-0.61	0.0	-0.0700	0.0007	-0.0057	-0.0059	-0.0050	0.3201	0.1114	0.2082	-1.5757
3	0.34	0.0	0.0547	-0.0607	-0.0030	-0.0113	-0.0036	0.3209	0.1105	0.2105	-0.6814
4	1.46	0.0	0.1644	-0.1929	-0.0007	-0.0147	-0.0025	0.3186	0.1087	0.2049	-1.1387
5	2.47	0.0	0.2846	-0.3442	-0.0005	-0.0114	-0.0016	0.3176	0.1116	0.2060	-1.3638
6	3.44	0.0	0.4100	-0.6221	-0.0026	-0.0007	-0.0012	0.3163	0.1131	0.2032	-1.5176
7	5.53	0.0	0.7116	-1.2043	0.0002	-0.0115	-0.0001	0.3203	0.1120	0.2077	-1.7753
8	9.54	0.0	1.4300	-2.4432	0.0017	-0.0074	0.0036	0.3324	0.1416	0.1911	-2.0772
9	13.59	0.0	2.2410	-4.0001	0.0000	-0.0025	0.0042	0.3333	0.1637	0.1696	-2.1231
10	17.90	0.0	3.1664	-5.3307	0.0001	-0.0076	-0.0007	0.3208	0.1740	0.1418	-2.0016
11	19.90	0.0	3.5707	-6.7140	0.0100	-0.0195	-0.0072	0.3259	0.2100	0.1152	-1.8787
12	25.40	0.0	4.8501	-8.9400	0.0779	-0.0273	-0.0722	0.3396	0.2714	0.0692	-1.4905
13	27.70	0.0	5.1571	-9.6411	0.0000	-0.0000	-0.0186	0.3433	0.3114	0.0317	-1.2075

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
 PAGE 2 OF 3
 SHEET 1 OF 1

PROMULSION WIND TUNNEL FACILITY (PWTF)
 WAWTI - MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

TEST PART NAME: RA10-0 P=1 CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 59 0.42 2.0 0.0 H3=0F15 0.0 0 0 0 0 FREE

POINT	ALPHA	HFTA	CXF1	CF1	CF1	XCXF1	YCPF1	CF2	CM2	CF2	CM2	XCXF2	YCF2
1	-1.63	0.0	-0.0282	-0.0000	0.0111	0.2248	-0.5861	-0.0616	-0.0116	-0.0388	0.2770	0.9266	
2	-0.91	0.0	-0.0760	-0.0000	0.0000	0.2777	-0.3433	-0.0000	-0.0000	-0.0211	0.5091	2.2390	
3	0.39	0.0	-0.0217	-0.0000	0.0000	0.2005	-0.2620	0.0000	0.0000	-0.0000	0.1521	-0.0116	
4	1.46	0.0	-0.0141	-0.0000	0.0000	0.2662	-0.5000	0.0015	0.0115	0.0000	0.1873	0.1017	
5	2.67	0.0	-0.0149	-0.0000	0.0000	0.2755	-0.2939	0.1067	0.0201	0.0227	0.1881	0.2128	
6	3.49	0.0	-0.0230	-0.0000	0.0000	0.2509	-0.1295	0.1561	0.0281	0.0448	0.1799	0.2873	
7	4.53	0.0	-0.0250	-0.0000	0.0000	0.2550	-0.2461	0.2821	0.0670	0.0408	0.1665	0.3362	
8	4.59	0.0	-0.0197	-0.0000	0.0000	0.2750	-0.3702	0.0635	0.0705	0.2004	0.1252	0.3716	
9	13.69	0.0	-0.0240	-0.0000	0.0000	0.2357	-1.1979	0.0410	0.0000	0.3125	0.0826	0.3716	
10	17.86	0.0	-0.0193	-0.0000	0.0000	0.3740	-0.3782	1.0780	0.0632	0.3419	0.0586	0.3636	
11	19.98	0.0	-0.0230	-0.0000	0.0000	0.2120	-0.0705	1.1229	0.0616	0.3928	0.0349	0.3498	
12	25.00	0.0	-0.0216	-0.0000	0.0000	0.0575	-0.6495	1.2697	0.0467	0.4352	0.0368	0.3429	
13	27.76	0.0	-0.0201	-0.0000	0.0000	0.2739	-0.1710	1.1925	0.0203	0.4013	0.0220	0.3365	

TEST PART NAME RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 59 0.42 2.4 0.0 M30GF15 0.0 0 0 0 0 FREE

POINT	ALPHA	MFA	CNF1	CNF2	CNF3	YCPF3	CNF4	CNF5	CNF6	CNF7	XCPF4	YCPF4
1	-1.64	1.00	-0.0132	-0.0085	-0.0053	0.00370	0.2736	-0.00373	-0.00096	-0.0208	0.2561	0.6660
2	-0.91	1.00	-0.0216	-0.0087	-0.0099	0.00256	0.2320	-0.00224	-0.00009	-0.0098	0.3135	0.4733
3	0.32	0.00	-0.0229	-0.0087	-0.0019	0.00307	0.2385	-0.00293	-0.00075	-0.0087	0.2508	0.1588
4	1.06	0.00	-0.0230	-0.0095	-0.0038	0.00298	0.1659	0.00659	0.00146	0.0239	0.2209	0.3626
5	2.07	0.00	-0.0217	-0.0097	-0.0051	0.00126	0.2347	0.00140	0.0239	0.0016	0.2093	0.3652
6	3.49	0.00	-0.0235	-0.0095	-0.0053	0.3402	0.2226	0.1632	0.0013	0.0066	0.1916	0.4078
7	5.53	1.00	-0.0227	-0.0095	-0.0057	0.00123	0.2522	0.2065	0.0072	0.1219	0.1659	0.4283
8	6.59	0.00	-0.0227	-0.0095	-0.0059	0.3010	0.2212	0.5538	0.0065	0.2523	0.1201	0.4556
9	13.09	0.00	-0.0216	-0.0087	-0.0050	0.3003	0.1543	0.0250	0.0014	0.3577	0.0765	0.4336
10	17.46	0.00	-0.0235	-0.0095	-0.0066	0.3276	0.1541	1.0323	0.0099	0.4307	0.0580	0.4172
11	19.98	0.00	-0.0336	-0.0105	-0.0083	0.3126	0.1249	1.0977	0.0502	0.0033	0.0496	0.4039
12	25.40	0.00	-0.0309	-0.0116	-0.0017	0.3767	0.0504	1.7446	0.0240	0.0063	0.0230	0.3813
13	27.76	0.00	-0.0352	-0.0125	-0.0025	0.3625	0.0711	1.1023	0.0193	0.0253	0.0176	0.3838

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 3

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART NAME: 60 UOVO P-5
 PMI: 0.0 M3.0F15 0.0
 L: 0 DEL1: 0 DEL2: 0 DEL3: 0 DEL4: 0
 TRANSITION: FREE

POINT	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAH	CAF	MCP
1	-1.53	0.0	-0.1057	0.3112	-0.0000	0.0127	-0.0000	0.0171	0.1300	0.2722	-1.9073
2	-0.64	0.0	-0.0685	0.0949	-0.0077	0.0123	-0.0044	0.0002	0.1417	0.2045	-2.0483
3	0.01	0.0	0.0730	-0.1020	0.0112	0.0265	-0.0065	0.0190	0.1400	0.2760	-1.3990
4	1.45	0.0	0.1430	-0.0154	-0.0060	0.0153	-0.0050	0.0173	0.1490	0.2043	-1.6362
5	2.05	0.0	0.1202	-0.0010	-0.0019	0.0133	-0.0045	0.0125	0.1517	0.2049	-1.7705
6	3.00	0.0	0.0045	-0.0001	-0.0057	0.0090	-0.0029	0.0021	0.1492	0.2529	-1.8609
7	5.52	0.0	0.1001	-0.0000	-0.0003	0.0200	-0.0000	0.0137	0.1560	0.2560	-2.0430
8	9.00	0.0	1.4300	-3.0000	0.0051	-0.0002	0.0019	0.0350	0.1770	0.2540	-2.1065
9	13.73	0.0	2.4000	-5.0000	0.0000	0.0000	0.0000	0.0000	0.1950	0.2000	-2.1375
10	17.42	0.0	3.7001	-6.0000	0.0171	-0.0107	-0.0035	0.0325	0.2109	0.2216	-1.9650
11	20.00	0.0	3.7000	-6.0000	0.0137	-0.0100	-0.0013	0.0275	0.2370	0.1900	-1.8207
12	25.50	0.0	5.0019	-7.1500	0.0047	-0.0000	-0.0101	0.0017	0.2940	0.1000	-1.4000
13	28.01	0.0	5.7750	-6.5370	0.0030	-0.0101	-0.0107	0.0070	0.3100	0.0070	-1.2012

TEST PART NAME: PR10-6												
PHI: 0.0												
CONF: 5300F15												
L: 0.0												
UCL1: 0												
UCL2: 0												
OFL3: 0												
DELA TRANSITION: FREE												
POINT	ALPHA	BETA	CNF1	CM1	CM	KCPF1	VCPF1	CNF2	CM2	CB2	KCPF2	VCPF2
1	-1.63	0.0	-0.0222	-0.0044	0.0066	0.1741	-0.3055	-0.0568	-0.0114	-0.0029	0.2034	0.7545
2	-3.00	0.0	-0.0224	-0.0044	0.0071	0.1921	-0.3075	-0.0112	-0.0000	-0.0254	0.4204	2.2766
3	0.01	0.0	-0.0251	-0.0044	0.0050	0.1959	-0.2104	0.0323	0.0000	-0.0110	0.1044	-0.3500
4	1.45	0.0	-0.0253	-0.0047	0.0044	0.1740	-0.1877	0.0705	0.0114	0.0049	0.1446	0.0620
5	2.05	0.0	-0.0207	-0.0043	0.0053	0.1768	-0.2151	0.1255	0.0174	0.0274	0.1308	0.2217
6	3.40	0.0	-0.0277	-0.0043	0.0050	0.1630	-0.2321	0.1744	0.0745	0.0494	0.1308	0.2760
7	5.50	0.0	-0.0311	-0.0045	0.0044	0.1520	-0.2070	0.3047	0.0306	0.1033	0.1245	0.3335
8	9.50	0.0	-0.0211	-0.0043	0.0123	0.2175	-0.5648	0.5412	0.0549	0.2235	0.0912	0.3700
9	13.73	0.0	-0.0200	-0.0040	0.0513	0.1055	-0.0700	0.8721	0.0552	0.3248	0.0633	0.3782
10	17.92	0.0	-0.0270	-0.0035	0.0601	0.2050	-0.1404	1.1014	0.0517	0.4115	0.0469	0.3730
11	20.04	0.0	-0.0310	-0.0003	0.0000	0.1907	-0.2700	1.1830	0.0400	0.4333	0.0412	0.3600
12	25.50	0.0	-0.0353	-0.0000	0.0000	0.1933	-0.1956	1.3187	0.0387	0.4040	0.0293	0.3510
13	28.01	0.0	-0.0352	-0.0003	0.0000	0.1706	-0.0563	1.3079	0.0300	0.4659	0.0250	0.3470

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST PART NAME: DELTA 2-4												
	ALPHA	BETA	CMF3	CM3	CM3	YCMF3	YCPF3	CMF4	CM4	CM4	YCMF4	YCPF4	
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1	-1.63	0.0	-0.0225	-0.0045	-0.0000	0.3963	0.2668	-0.0087	-0.0077	-0.0297	0.1581	0.6095	
2	-0.94	0.0	-0.0254	-0.0107	-0.0054	0.4014	0.2276	-0.0080	-0.0001	-0.0130	0.0084	2.1703	
3	0.41	0.0	-0.0207	-0.0101	-0.0055	0.3887	0.2054	0.0388	0.0081	0.0053	0.2078	0.1372	
4	1.45	0.0	-0.0253	-0.0098	-0.0057	0.3814	0.2273	0.0833	0.0124	0.0283	0.1506	0.3393	
5	2.45	0.0	-0.0222	-0.0110	-0.0045	0.3613	0.1550	0.1360	0.0193	0.0502	0.1420	0.3693	
6	3.48	0.0	-0.0207	-0.0103	-0.0053	0.3948	0.1977	0.1906	0.0252	0.0771	0.1323	0.4046	
7	4.52	0.0	-0.0222	-0.0104	-0.0054	0.3884	0.2023	0.3184	0.0369	0.1368	0.1158	0.4288	
8	4.56	0.0	-0.0315	-0.0109	-0.0050	0.3355	0.1596	0.5891	0.0496	0.2650	0.0882	0.4499	
9	13.73	0.0	-0.0333	-0.0118	-0.0049	0.3351	0.1442	0.6474	0.0499	0.3706	0.0586	0.4371	
10	17.92	0.0	-0.0345	-0.0115	-0.0031	0.3334	0.0884	1.0578	0.0479	0.4494	0.0453	0.4248	
11	20.09	0.0	-0.0337	-0.0121	-0.0034	0.3367	0.0941	1.1427	0.0402	0.4764	0.0352	0.4169	
12	25.54	0.0	-0.0351	-0.0125	-0.0009	0.3505	0.0239	1.2765	0.0267	0.5131	0.0224	0.4013	
13	28.01	0.0	-0.0357	-0.0128	-0.0027	0.3521	0.0748	1.2829	0.0201	0.5121	0.0157	0.3992	

TEST PART NAME RAIR-6 EMI CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 61 1.14 2.5 0.0 030615 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	Cx	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-1.00	0.0	-0.1045	0.0070	-0.0155	0.0370	-0.0077	0.5909	0.2070	0.3835	-1.6957
2	-0.91	0.0	-0.0943	0.0067	-0.0150	0.0370	-0.0077	0.5902	0.2143	0.3759	-1.4440
3	-0.86	0.0	0.0037	-0.1572	-0.0130	0.0395	-0.0069	0.5825	0.2105	0.3730	-1.6726
4	-1.45	0.0	0.0032	-0.3590	-0.0109	0.0300	-0.0071	0.5872	0.2176	0.3696	-1.7688
5	-2.05	0.0	0.0021	-0.0143	-0.0111	0.0340	-0.0068	0.5866	0.2185	0.3661	-1.8116
6	-3.09	0.0	0.0016	-0.0019	-0.0113	0.0340	-0.0050	0.5851	0.2203	0.3649	-1.8727
7	-5.50	0.0	0.0000	-1.0021	-0.0009	0.0350	-0.0025	0.5887	0.2267	0.3620	-1.9879
8	-9.63	0.0	1.0100	-3.0113	-0.0033	0.0753	-0.0015	0.6006	0.2501	0.3505	-2.0567
9	-13.70	0.0	2.3100	-0.5200	-0.0015	0.0269	-0.0038	0.5935	0.2562	0.3373	-1.9539
10	-19.07	0.0	3.7073	-5.0395	0.0014	0.0313	-0.0023	0.5920	0.2731	0.3098	-1.7367
11	-20.27	0.0	3.5300	-5.0000	0.0000	0.0300	-0.0000	0.5671	0.2732	0.2960	-1.5560
12	-25.92	0.0	5.0000	-0.0000	0.0000	0.0000	-0.0000	0.5170	0.2908	0.2260	-1.1573
13	-25.30	0.0	6.1700	-0.0000	0.0000	0.0000	-0.0000	0.4031	0.3020	0.1911	-0.9836

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST PARI MACH #X10 ⁻²		PM1		Cmf		DEL1		DEL2		DEL3		DELA TRANSITION	
	2	01 1.10 2.5	0.0	M30F15	0.0	0	0	0	0	0	0	0	0	FREE
	ALPHA	MFA	CWF1	CM1	CM1	YCPF1	YCPF1	CM2	CM2	CB2	KCPF2	YCPF2		
1	-1.56	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
2	-0.51	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
4	0.51	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
6	1.05	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
5	2.65	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
6	3.04	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
7	5.50	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
8	9.63	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
9	13.74	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
10	18.07	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
11	25.27	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
12	25.92	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		
13	26.35	0.0	-0.0225	-0.0001	0.0070	0.1650	-0.2854	-0.0608	-0.0119	-0.0450	0.1456	0.7467		

TEST PART	SCALE	RAIUS	MFL	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
2	1.10	2.5	0.0	130DF15	0.0	0	0	0	0	FREE		
POINT	ALPHA	HETA	CNF3	CM3	Cd3	XCPF3	YCPF3	CNF4	CM4	CB4	XCPF4	YCPF4
1	-1.54	0.0	-0.0361	-0.0113	-0.0034	0.3737	0.1252	-0.0437	-0.0075	-0.0266	0.1716	0.6553
2	-0.51	0.0	-0.0297	-0.0111	-0.0041	0.3787	0.1404	0.0011	-0.0005	-0.0109	-0.4577	-10.4095
3	0.46	0.0	-0.0313	-0.0111	-0.0041	0.3530	0.1312	0.0474	0.0071	0.0044	0.1501	0.0968
4	1.45	0.0	-0.0301	-0.0104	-0.0044	0.3500	0.1516	0.0906	0.0120	0.0250	0.1415	0.2649
5	2.45	0.0	-0.0324	-0.0114	-0.0023	0.3457	0.0901	0.1466	0.0195	0.0454	0.1389	0.3228
6	3.44	0.0	-0.0315	-0.0111	-0.0040	0.3523	0.1277	0.1946	0.0248	0.0729	0.1273	0.3747
7	5.50	0.0	-0.0335	-0.0114	-0.0052	0.3719	0.1695	0.3184	0.0343	0.1323	0.1078	0.4156
8	9.43	0.0	-0.0323	-0.0114	-0.0037	0.3642	0.1155	0.5755	0.0411	0.2554	0.0715	0.4446
9	13.79	0.0	-0.0344	-0.0121	-0.0036	0.3451	0.1040	0.8153	0.0386	0.3568	0.0474	0.4376
10	18.07	0.0	-0.0364	-0.0122	-0.0037	0.3756	0.1011	1.6233	0.0272	0.4346	0.0266	0.4249
11	20.27	0.0	-0.0351	-0.0124	-0.0034	0.3241	0.0864	1.1046	0.0218	0.4658	0.0197	0.4217
12	25.92	0.0	-0.0414	-0.0134	-0.0014	0.3240	0.0442	1.2793	0.0117	0.5273	0.0092	0.4151
13	28.34	0.0	-0.0346	-0.0123	-0.0015	0.3162	0.0444	1.3092	0.0074	0.5430	0.0056	0.4147

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 3

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART MACH RAIL-0 ... CONE 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 62 1.26 2.5 0.0 43.0F15 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAP	CAF	KCP
1	-1.54	0.0	-0.1394	-0.1040	-0.0187	0.0051	-0.0112	0.5512	0.1802	0.3711	-1.2129
2	-0.61	0.0	-0.0216	-0.0241	-0.0184	0.0033	-0.0102	0.5447	0.1806	0.3691	1.1235
3	0.22	0.0	0.1273	-0.2104	-0.0160	0.0523	-0.0111	0.5488	0.1842	0.3646	-2.1678
4	1.44	0.0	0.2142	-0.4029	-0.0156	0.0925	-0.0107	0.5467	0.1877	0.3590	-1.8464
5	2.25	0.0	0.3405	-0.6288	-0.0166	0.1393	-0.0111	0.5466	0.1898	0.3573	-1.8167
6	3.44	0.0	0.4405	-0.8415	-0.0190	0.0804	-0.0087	0.5454	0.1918	0.3541	-1.8103
7	5.54	0.0	0.7544	-1.4561	-0.0180	0.0787	-0.0073	0.5522	0.1945	0.3577	-1.8848
8	4.67	0.0	1.4476	-2.4137	-0.0023	0.0732	-0.0081	0.5644	0.2144	0.3552	-1.8942
9	13.28	0.0	2.2604	-3.4507	0.0001	0.0665	-0.0070	0.5645	0.2193	0.3452	-1.7450
10	18.14	0.0	3.2342	-4.7373	-0.0015	0.1052	-0.0100	0.5579	0.2257	0.3321	-1.4648
11	20.47	0.0	3.8516	-5.4475	0.0125	0.0506	-0.0101	0.5503	0.2369	0.3134	-1.2680
12	26.22	0.0	5.4944	-7.4730	0.0314	0.0958	-0.0104	0.5213	0.2596	0.2617	-0.9045
13	28.88	0.0	6.6008	-8.8544	0.0432	0.0741	-0.0072	0.5114	0.2730	0.2368	-0.7803

TEST POINT	CALC. PAI = 6		PMI	CUMF	L	DEL1	DEL2	DEL3	DELTA TRANSITION			
	2	62 1.20 2.5							0.0	0.30015	0.0	0
POINT	ALPHA	HETA	CMF1	CM1	CM1	ACPF1	YCPF1	CMF2	CM2	CR2	XCPF2	YCPF2
1	-1.44	0.0	-0.0344	-0.0020	0.0050	0.0700	-1.1451	-0.0501	-0.0113	-0.0039	0.2200	0.0763
2	-0.01	0.0	-0.0354	-0.0024	0.0017	0.0817	-0.0444	-0.0050	-0.0004	-0.0257	0.9575	5.1012
3	0.44	0.0	-0.0334	-0.0023	0.0055	0.0806	-0.1620	0.0376	0.0005	-0.0116	0.0133	-0.3130
4	1.44	0.0	-0.0325	-0.0022	0.0057	0.0856	-0.1763	0.0653	0.0070	0.0059	0.0824	0.0690
5	2.45	0.0	-0.0305	-0.0022	0.0021	0.0576	-0.0641	0.1327	0.0120	0.0253	0.0936	0.1907
6	3.46	0.0	-0.0357	-0.0030	0.0035	0.0456	-0.1077	0.1453	0.0183	0.0070	0.0989	0.2534
7	5.50	0.0	-0.0350	-0.0030	0.0001	0.1045	0.0030	0.3050	0.0200	0.0900	0.0915	0.3234
8	6.07	0.0	-0.0347	-0.0034	0.0029	0.1173	-0.0831	0.5559	0.0351	0.2033	0.0650	0.3656
9	13.66	0.0	-0.0364	-0.0044	0.0015	0.1244	-0.0435	0.7873	0.0356	0.2948	0.0452	0.3745
10	19.19	0.0	-0.0440	-0.0054	-0.0030	0.1157	0.0657	0.9749	0.0308	0.3625	0.0316	0.3716
11	20.47	0.0	-0.0513	-0.0053	-0.0007	0.0470	0.0336	1.0500	0.0251	0.3850	0.0239	0.3671
12	26.22	0.0	-0.0633	-0.0063	-0.0004	0.0444	0.0120	1.1657	0.0086	0.4352	0.0072	0.3671
13	28.65	0.0	-0.0643	-0.0070	-0.0127	0.0402	0.2937	1.2163	0.0033	0.4440	0.0027	0.3600

AROLD ENGINEERING DEVELOPMENT CENTER(AEWC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AWT)

PAGE 3 OF 3

MANTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART NAME	FAI=0	Phi	CONE	L	DEL1	DEL2	DEL3	DEL4	TRANSITION			
7	BP 1.20 2.5	0.0	03-0F15	0.0	0	0	0	0	FREE			
POINT	ALPHA	CFY3	CFX3	CFZ	CF3	YCPF3	YCPF3	CF4	CF4	CF4	YCPF4	YCPF4
1	-1.00	0.0	-0.0319	-0.0105	-0.0039	0.3311	0.1231	-0.0350	-0.0083	-0.0265	0.2338	0.8063
2	-0.61	0.0	-0.0311	-0.0101	-0.0037	0.3171	0.1441	0.0045	-0.0010	-0.0100	-0.1939	-1.1460
3	0.02	0.0	-0.0311	-0.0100	-0.0036	0.3301	0.1153	0.0520	-0.0040	0.0067	0.0901	0.1270
4	1.00	0.0	-0.0307	-0.0100	-0.0035	0.3000	0.1775	0.0431	0.0090	0.0277	0.0970	0.2977
5	2.05	0.0	-0.0294	-0.0101	-0.0036	0.3385	0.1850	0.1420	0.0152	0.0471	0.1069	0.3315
6	3.00	0.0	-0.0297	-0.0100	-0.0035	0.3317	0.1890	0.1565	0.0207	0.0720	0.1053	0.3603
7	5.50	0.0	-0.0301	-0.0100	-0.0037	0.3656	0.1573	0.3137	0.0261	0.1272	0.0896	0.4056
8	4.07	0.0	-0.0317	-0.0115	-0.0041	0.3514	0.1240	0.5547	0.0327	0.2436	0.0560	0.4392
9	13.00	0.0	-0.0303	-0.0130	-0.0024	0.3767	0.0605	0.7770	0.0290	0.3370	0.0373	0.4340
10	10.10	0.0	-0.0300	-0.0120	-0.0032	0.3591	0.0901	0.9635	0.0211	0.4079	0.0219	0.4233
11	20.07	0.0	-0.0300	-0.0131	-0.0010	0.3555	0.0022	1.0351	0.0156	0.4330	0.0151	0.4103
12	25.20	0.0	-0.0303	-0.0137	0.0013	0.3087	-0.0303	1.1717	0.0019	0.4492	0.0016	0.4175
13	25.00	0.0	-0.0320	-0.0120	0.0007	0.3930	-0.0200	1.2053	-0.0020	0.5065	-0.0020	0.4202

TEST PART EACH BUILT												
TEST	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CR	CRP	CRF	XCP	TRANSITION
2	63	1.2V	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FREE
1	-1.03	0.0	-0.1714	0.3660	0.0000	-0.1000	-0.0275	0.5315	0.1760	0.3560	-2.1356	
2	-0.59	0.0	-0.0957	0.1407	0.0510	-0.1105	-0.0201	0.5297	0.1752	0.3545	-3.2452	
3	0.00	0.0	0.0627	-0.0037	0.0005	-0.0927	-0.0225	0.5295	0.1782	0.3510	-0.0590	
4	1.45	0.0	0.1401	-0.1431	0.00520	-0.0999	-0.0201	0.5206	0.1812	0.3474	-1.0400	
5	2.00	0.0	0.3002	-0.3910	0.00523	-0.1027	-0.0200	0.5245	0.1830	0.3415	-1.2707	
6	3.04	0.0	0.4477	-0.5010	0.00500	-0.1017	-0.0201	0.5223	0.1840	0.3303	-1.4316	
7	5.56	0.0	0.7350	-1.1000	0.0003	-0.1133	-0.0242	0.5320	0.1867	0.3657	-1.5810	
8	9.72	0.0	1.0071	-2.3171	0.0070	-0.1239	-0.0200	0.5507	0.2001	0.3020	-1.6460	
9	13.97	0.0	2.1070	-3.1400	0.0053	-0.0900	-0.0251	0.5005	0.2100	0.3230	-1.4702	
10	18.34	0.0	3.1450	-3.7930	0.0074	-0.0107	-0.0270	0.5300	0.2205	0.3043	-1.1071	
11	20.62	0.0	3.8100	-3.0700	0.0030	0.0500	-0.0310	0.5225	0.2020	0.2805	-1.0100	
12	26.41	0.0	5.5000	-0.1020	0.0030	0.1500	-0.0300	0.5207	0.2007	0.2600	-0.7450	
13	28.90	0.0	6.3000	-0.0000	0.0000	0.1750	-0.0000	0.5300	0.2010	0.2500	-0.7010	

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 2 OF 3 MANTLE MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART	MACH	REYNOLDS	PHI	CONF	L	DEL1	DEL2	DEL3	DELA	TRANSITION		
2	0.7	1.2e6	2.5	0.0	0.306F15	0.0	0	0	0	FREE		
POINT	ALPHA	CF1a	CF1	CM1	Cbl	XCPF1	YCPF1	CNF2	CM2	CR2	XCPF2	YCPF2
1	-1.63	0.0	-0.0221	-0.0020	0.0185	0.1111	-0.0004	-0.0561	-0.0000	-0.0540	0.1071	1.0326
2	-0.59	0.0	-0.0204	-0.0031	0.0169	0.1285	-0.0746	-0.0099	-0.0017	-0.0414	0.1164	4.1840
3	0.44	0.0	-0.0209	-0.0035	0.0214	0.1350	-0.0804	-0.0320	0.0029	-0.0242	0.0095	-0.7552
4	1.45	0.0	-0.0230	-0.0027	0.0151	0.1191	-0.0575	0.0767	0.0079	-0.0109	0.1032	-0.1424
5	2.46	0.0	-0.0263	-0.0001	0.0123	0.1534	-0.0573	0.1238	0.0120	0.0045	0.0968	0.0689
6	3.44	0.0	-0.0312	-0.0052	0.0202	0.1654	-0.0677	0.1725	0.0159	0.0290	0.0922	0.1679
7	5.56	0.0	-0.0300	-0.0004	0.0174	0.1706	-0.0588	0.2452	0.0235	0.0748	0.0825	0.2424
8	9.72	0.0	-0.0347	-0.0007	0.0173	0.1922	-0.0499	0.0174	0.0207	0.1743	0.0555	0.3370
9	13.47	0.0	-0.0300	-0.0000	0.0000	0.1742	-0.1441	0.7257	0.0272	-0.2594	0.0375	0.3575
10	18.34	0.0	-0.0543	-0.0077	0.0000	0.1425	-0.0924	0.9026	0.0195	0.3234	0.0216	0.3583
11	20.62	0.0	-0.0620	-0.0072	0.0013	0.1143	0.0209	0.9760	0.0131	0.3435	0.0135	0.3520
12	26.41	0.0	-0.0770	-0.0036	-0.0116	0.0446	0.1503	1.0966	-0.0006	0.3847	-0.0007	0.3544
13	28.43	0.0	-0.0711	-0.0000	-0.0102	0.1533	0.1777	1.1617	-0.0051	0.4138	-0.0044	0.3562

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TEST PART: PACH 241-06 PFI: CJNF I: DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 63 1.24 2.5 0.0 03.0F15 0.0 0 0 0 0 FREE

POINT	ALPHA	META	CNF3	CM3	CM3	XCPF3	YCPF3	CMF4	CM4	CM4	XCPF4	YCPF4
1	-1.53	0.0	-0.0245	-0.0151	0.0051	0.5121	-0.2077	-0.1655	-0.2016	-0.0622	0.0356	0.9256
2	-0.54	0.0	-0.0253	-0.0150	0.0053	0.5448	-0.2049	0.0002	0.0030	-0.0744	12.5150	-101.4583
3	0.48	0.0	-0.0252	-0.0149	0.0052	0.5328	-0.2043	0.0453	0.0071	-0.0651	0.1560	-0.1132
4	1.45	0.0	-0.0217	-0.0136	0.0040	0.6163	-0.1819	0.0862	0.0099	0.0154	0.1136	0.1792
5	2.48	0.0	-0.0211	-0.0143	0.0052	0.6217	-0.2254	0.1366	0.0147	0.0362	0.1074	0.2656
6	3.49	0.0	-0.0204	-0.0132	0.0049	0.6475	-0.2413	0.1870	0.0167	0.0596	0.0998	0.3179
7	5.52	0.0	-0.0192	-0.0145	0.0065	0.7568	-0.3633	0.2486	0.0263	0.1122	0.0829	0.3755
8	7.72	0.0	-0.0152	-0.0171	0.0067	1.1237	-0.5651	0.5293	0.0267	0.2227	0.0504	0.4207
9	13.57	0.0	-0.0137	-0.0213	0.0063	1.0660	-0.6152	0.7317	0.0230	0.3074	0.0315	0.4201
10	18.36	0.0	-0.0145	-0.0192	0.0047	0.6663	-0.1425	0.4965	0.0131	0.3743	0.0146	0.4166
11	20.52	0.0	-0.0135	-0.0206	0.0020	0.5721	-0.0750	0.4626	0.0069	0.3956	0.0072	0.4187
12	26.01	0.0	-0.0137	-0.0196	0.0041	0.5232	-0.1099	1.0759	-0.0076	0.4416	-0.0070	0.4185
13	28.03	0.0	-0.0137	-0.0195	0.0033	0.5053	-0.0860	1.1311	-0.0122	0.4671	-0.0108	0.4129

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ARSD ENGINEERING DEVELOPMENT CENTER (AEDC) PULSISON WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

TEST	POINT	ALPHA	BETA	CL	CLM	CY	CLN	CLL	CA	CAR	CAF	ACP
2	69	0.00	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FREE
1	1.64	0.0	-0.1300	0.2100	-0.0087	-0.0157	0.0062	0.2409	0.1053	0.1855	-1.5725	
2	-0.48	0.0	-0.0354	0.0762	-0.0071	-0.0217	0.0049	0.2893	0.1114	0.1774	-2.1243	
3	0.43	0.0	0.0530	-0.0205	-0.0101	-0.0143	0.0052	0.2893	0.1123	0.1769	-0.5378	
4	1.40	0.0	0.1542	-0.1567	-0.0015	-0.0274	0.0057	0.2877	0.1125	0.1752	-1.0163	
5	2.50	0.0	0.2520	-0.1124	-0.0109	-0.0263	0.0062	0.2548	0.1131	0.1717	-1.1945	
6	3.50	0.0	0.3712	-0.0412	-0.0053	-0.0251	0.0049	0.2844	0.1125	0.1719	-1.3231	
7	5.50	0.0	0.6273	-0.0412	-0.0053	-0.0251	0.0050	0.2877	0.1126	0.1730	-1.4980	
8	9.50	0.0	1.0212	-2.00736	-0.0020	-0.0136	0.0053	0.3045	0.1301	0.1664	-1.6952	
9	13.73	0.0	1.3231	-3.1325	0.0028	-0.0241	0.0077	0.3041	0.1556	0.1485	-1.7120	
10	17.58	0.0	2.7350	-4.5415	0.0135	-0.0555	0.0086	0.2943	0.1756	0.1187	-1.6606	
11	19.95	0.0	3.1510	-5.0120	0.0259	-0.0657	0.0097	0.2844	0.1628	0.1016	-1.6085	
12	25.70	0.0	4.2902	-6.2076	0.0171	-0.0700	0.0069	0.2802	0.2123	0.0479	-1.4456	
13	27.40	0.0	4.8221	-6.7130	0.0070	-0.0800	0.0071	0.2831	0.2301	0.0000	-1.3821	

TEST PART NAME: HALU-6
 PMI CONF: 1
 DEL1 DEL2 DEL3 DEL4 TRANSITION:
 2 69 Uctu 2.5 0.0 H30F10 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX1	Cy1	Cz1	XCPF1	YCPF1	CX2	Cy2	Cz2	XCPF2	YCPF2
1	-1.50	0.0	0.0047	0.0015	0.0	0.1573	0.0	-0.0560	-0.0003	-0.0142	0.0061	0.3553
2	-0.50	0.0	0.0047	0.0015	0.0055	0.1579	0.5670	-0.0167	-1.0004	-0.0049	0.0222	0.2922
3	0.50	0.0	0.0045	0.0006	0.0003	0.1274	0.0447	0.0170	-0.0002	0.0001	-0.0124	0.2445
4	1.50	0.0	0.0045	0.0013	-0.0005	0.1576	-0.0542	0.0528	-0.0006	0.0205	-0.0110	0.3899
5	2.50	0.0	0.0057	0.0005	-0.0003	0.0893	-0.0578	0.0951	-0.0001	0.0335	-0.0007	0.3525
6	3.50	0.0	0.0077	0.0010	-0.0002	0.1325	-0.0208	0.1307	0.0001	0.0510	0.0006	0.3677
7	5.50	0.0	0.0110	0.0017	0.0010	0.1752	0.1470	0.2350	0.0016	0.0847	0.0068	0.3603
8	9.50	0.0	0.0091	0.0027	0.0130	0.2412	1.4224	0.4309	0.0064	0.1413	0.0145	0.3220
9	13.73	0.0	0.0130	0.0032	0.0115	0.2452	0.2793	0.6516	0.0176	0.1796	-0.0273	0.2758
10	17.98	0.0	0.0115	0.0029	0.0139	0.2740	1.2066	0.6447	0.0302	0.2104	0.0350	0.2507
11	19.35	0.0	0.0115	0.0032	0.0122	0.2751	1.0603	0.6203	0.0359	0.2327	0.0390	0.2529
12	25.24	0.0	0.0150	0.0030	0.0042	0.1947	0.2660	1.0560	0.0500	0.2542	0.0473	0.2406
13	27.00	0.0	-0.0167	0.0000	0.0027	-0.0200	-0.1590	1.0978	0.0554	0.2549	0.0505	0.2350

ARMED ENGINEERING DEVELOPMENT CENTER (AEDC) PROXUSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH 2.10-6 PMI CNMF L DEL1 DEL2 DEL3 DEL4 TRANSITION												
Z 09 0.00 2.5 0.0 030P14 3.0 0 0 0 0 FREE												
POINT	ALPHA	META	CXFS	CX3	CX3	XCXFS	YCXFS	CX4	CX4	CX4	XCXFS	YCXFS
1	-1.50	0.0	-0.0000	-0.0017	-0.0000	0.1726	0.0078	-0.0000	0.0007	-0.0202	-0.0100	0.0053
2	-0.50	0.0	-0.0000	-0.0016	-0.0015	0.1770	0.2003	-0.0122	0.0011	-0.0110	-0.0092	0.0632
3	0.03	0.0	-0.0073	-0.0011	-0.0018	0.1527	0.2531	0.0229	0.0010	0.0031	0.0620	0.1366
4	1.00	0.0	-0.0090	-0.0011	-0.0022	0.1300	0.2509	0.0560	0.0009	0.0198	0.0157	0.3542
5	2.50	0.0	-0.0100	-0.0010	-0.0010	0.1525	0.1525	0.0971	0.0010	0.0300	0.0098	0.3712
6	3.50	0.0	-0.0101	-0.0017	-0.0017	0.1715	0.1675	0.1300	0.0006	0.0542	0.0043	0.3930
7	5.50	0.0	-0.0100	-0.0017	-0.0020	0.1520	0.2103	0.2270	0.0010	0.0800	0.0045	0.3882
8	9.00	0.0	-0.0131	-0.0018	-0.0020	0.1700	0.1633	0.0242	0.0002	0.1499	0.0098	0.3530
9	13.73	0.0	-0.0161	-0.0025	-0.0021	0.1527	0.1328	0.0230	0.0113	0.1958	0.0101	0.3100
10	17.80	0.0	-0.0171	-0.0020	-0.0027	0.1149	0.1570	0.0027	0.0252	0.2307	0.0310	0.2924
11	19.95	0.0	-0.0151	-0.0025	-0.0010	0.1323	0.1009	0.0710	0.0303	0.2092	0.0307	0.2850
12	25.24	0.0	-0.0200	-0.0031	-0.0010	0.1357	0.0590	1.0009	0.0000	0.2738	0.0000	0.2735
13	27.00	0.0	-0.0251	-0.0020	-0.0010	0.1100	0.0550	1.0000	0.0500	0.2771	0.0000	0.2601

TEST PART NAME FILE NO		PHI		CONF		L		DEL1	DEL2	DEL3	DELA	TRANSITION
70 045 24		0.0		H30F14		0.0		0	0	0	0	FREE
POINT	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP	
1	-1.61	0.0	-0.144	0.214	-0.0001	-0.0214	0.0033	0.2940	0.1066	0.1874	-1.4891	
2	-0.58	0.0	-0.044	0.074	-0.0005	-0.0073	0.0031	0.2920	0.1055	0.1869	-1.0812	
3	0.65	0.0	0.032	-0.035	-0.0004	-0.0172	0.0040	0.2921	0.1089	0.1832	-0.6930	
4	1.60	0.0	0.144	-0.1531	-0.0037	-0.0203	0.0033	0.2917	0.1074	0.1841	-1.0560	
5	2.64	0.0	0.252	-0.300	-0.0039	-0.0155	0.0031	0.2919	0.1107	0.1812	-1.2692	
6	3.51	0.0	0.347	-0.3205	-0.0039	-0.0225	0.0041	0.2922	0.1101	0.1821	-1.3867	
7	5.54	0.0	0.427	-0.3727	-0.0040	-0.0140	0.0032	0.2940	0.1123	0.1817	-1.5491	
8	9.61	0.0	1.237	-0.1504	-0.0001	-0.0175	0.0003	0.3121	0.1380	0.1741	-1.7387	
9	13.76	0.0	1.571	-0.4601	0.0020	-0.0113	0.0007	0.3167	0.1613	0.1554	-1.7530	
10	17.87	0.0	2.715	-0.5504	0.0127	-0.0051	0.0067	0.3044	0.1759	0.1209	-1.6759	
11	19.99	0.0	3.211	-0.1575	0.0203	-0.0175	0.0081	0.2413	0.1777	0.1136	-1.6141	
12	25.26	0.0	0.375	-0.2374	0.0185	-0.0045	0.0079	0.2764	0.2177	0.0527	-1.4254	
13	27.54	0.0	0.505	-0.0224	0.0372	-0.1153	0.0074	0.2528	0.2461	0.0128	-1.3444	

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ARSILE ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 2 OF 3 MANTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME RAIR-6 MFI CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 70 U.S. 2.5 0.0 03=014 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CPX1	CP1	CP1	YCPX1	YCP1	CPX2	CP2	CP2	YCPX2	YCP2
1	-1.01	0.0	0.0000	0.0013	0.0022	0.1572	0.2630	-0.0076	-0.0001	-0.0231	0.0027	0.0800
2	-0.50	0.0	0.0000	0.0012	0.0014	0.1355	1.5704	-0.0105	-0.0001	-0.0074	0.0008	0.7076
3	0.00	0.0	0.0000	0.0012	0.0002	0.1353	0.9576	0.0218	-0.0003	0.0331	-0.0151	0.1399
4	1.00	0.0	0.0000	0.0005	0.0010	0.0499	0.7674	0.0597	-0.0003	0.0179	-0.0052	0.3006
5	2.00	0.0	0.0000	0.0002	0.0010	0.0403	1.0509	0.1000	-0.0000	0.0327	-0.0003	0.3255
6	3.51	0.0	0.0000	0.0010	0.0051	0.1322	0.6421	0.1457	-0.0003	0.0002	-0.0010	0.3322
7	5.50	0.0	0.0000	0.0005	0.0007	0.1270	0.7516	0.2030	0.0000	0.0000	0.0010	0.3470
8	9.61	0.0	0.0000	0.0012	0.0007	0.2319	1.7050	0.4515	0.0000	0.1000	0.0100	0.3115
9	13.70	0.0	0.0000	0.0020	0.0102	0.3559	1.8105	0.6607	0.0152	-0.1613	0.0227	0.2711
10	17.07	0.0	0.0000	0.0115	0.0105	0.2050	2.5103	0.8525	0.0702	0.2167	0.0308	0.2503
11	19.90	0.0	0.0000	0.0120	0.0100	0.2050	1.2998	0.9200	0.0309	0.2318	0.0335	0.2507
12	25.29	0.0	0.0000	0.0120	0.0075	0.1571	0.5000	1.0500	0.0450	0.2000	0.0431	0.2307
13	27.50	0.0	0.0000	0.0120	0.0212	0.1000	1.1530	1.0910	0.0503	0.2551	0.0461	0.2330

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TEST PART NAME: 4110-6 PWT CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 TO 4.85 2.5 0.0 0.30010 0.0 0 0 0 0 FREE

PC14T	ALPHA	SETA	CNF3	CN3	CN3	XCPF3	YCPF3	CNF4	CM4	CB4	XCPF4	YCPF4
1	-1.51	0.0	-0.0101	-0.0023	-0.0132	1.2257	0.3149	-0.0679	0.0010	-0.0266	-0.0217	0.5093
2	-0.50	0.0	-0.0101	-0.0019	-0.0037	0.1557	0.3132	-0.0121	0.0012	-0.0111	-0.0971	0.9170
3	0.05	0.0	-0.0101	-0.0021	-0.0029	0.1552	0.2842	0.0215	0.0010	0.0068	0.0045	0.2245
4	1.00	0.0	-0.0113	-0.0021	-0.0035	0.1851	0.3206	0.0568	0.0008	0.0202	0.0139	0.3556
5	2.49	0.0	-0.0120	-0.0025	-0.0032	0.1971	0.2558	0.0973	0.0005	0.0361	0.0009	0.3718
6	3.51	0.0	-0.0111	-0.0025	-0.0030	0.2158	0.2906	0.1401	-0.0000	0.0554	-0.0002	0.3956
7	5.50	0.0	-0.0115	-0.0026	-0.0027	0.1902	0.2070	0.2300	-0.0002	0.0900	-0.0007	0.3929
8	9.41	0.0	-0.0109	-0.0024	-0.0028	0.1709	0.1765	0.3323	0.0026	0.1517	0.0059	0.3509
9	13.70	0.0	-0.0107	-0.0020	-0.0032	0.1717	0.1606	0.6320	0.0000	0.1960	0.0133	0.3136
10	17.97	0.0	-0.0102	-0.0020	-0.0009	0.1732	0.2239	0.8052	0.0209	0.2367	0.0260	0.2964
11	19.59	0.0	-0.0223	-0.0032	-0.0031	0.1001	0.1365	0.8700	0.0257	0.2510	0.0290	0.2875
12	25.24	0.0	-0.0241	-0.0033	-0.0033	0.1370	0.1370	0.9956	0.0391	0.2742	0.0393	0.2755
13	27.50	0.0	-0.0277	-0.0034	-0.0019	0.1302	0.0669	1.0315	0.0436	0.2700	0.0423	0.2663

AROLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART: RALM 2410-6 PMI: CUNE I: 1 DEL1: 0 DEL2: 0 DEL3: 0 DEL4: 0 TRANSITION: FREE
 2 71 0.02 2.5 0.0 M3=0F14 0.0

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAR	CAF	XCP
1	1.00	0.0	-0.1304	0.02113	-0.0051	-0.0272	0.0020	1.3226	0.1007	0.2219	-1.5242
2	0.50	0.0	-0.0374	0.0747	-0.0067	-0.0201	0.0021	0.3201	0.1051	0.2150	-1.9713
3	0.25	0.0	0.0514	-0.0363	-0.0050	-0.0177	0.0015	0.3191	0.1079	0.2113	-0.7043
4	1.00	0.0	0.1294	-0.1706	-0.0037	-0.0201	0.0018	0.3190	0.1077	0.2113	-1.1205
5	2.50	0.0	0.2250	-0.3300	-0.0030	-0.0229	0.0018	0.3168	0.1075	0.2113	-1.2750
6	3.51	0.0	0.3063	-0.5524	-0.0030	-0.0200	0.0017	0.3179	0.1096	0.2048	-1.4300
7	5.50	0.0	0.0077	-1.0563	-0.0023	-0.0105	0.0017	0.3167	0.1130	0.2053	-1.6278
8	9.00	0.0	1.3002	-2.3707	0.0017	-0.0191	0.0023	0.3039	0.1378	0.2061	-1.8302
9	13.75	0.0	2.0000	-3.7293	0.0019	-0.0107	0.0038	0.3305	0.1573	0.1822	-1.8245
10	17.01	0.0	2.0022	-4.9764	0.0113	-0.0077	0.0059	0.3309	0.1709	0.1559	-1.7147
11	20.03	0.0	3.3003	-5.0023	0.0157	-0.0064	0.0059	0.3182	0.1897	0.1265	-1.6383
12	25.41	0.0	4.0000	-6.2422	0.0220	-0.0037	0.0045	0.2949	0.2313	0.0636	-1.3552
13	27.73	0.0	5.1701	-6.3600	0.0030	-0.0120	0.0050	0.2603	0.2508	0.0145	-1.2302

TEST: PARI PALM HALL-6 PWT CUMUL L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 71 0.92 2.5 6.0 03.0F14 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX1	CM1	CP1	XCMP1	YCPF1	CX2	CM2	C02	XCMP2	YCPF2
1	-1.56	0.0	0.0000	0.0007	0.0002	0.1500	2.9057	-0.0007	0.0002	-0.0265	-0.0009	0.5035
2	-0.98	0.0	0.0000	0.0007	0.0002	0.1500	2.9018	-0.0102	0.0000	-0.0110	-0.0020	1.0694
3	0.03	0.0	0.0020	0.0002	0.0045	0.0001	1.5002	0.0225	-0.0000	0.0023	-0.0205	0.1010
4	1.47	0.0	0.0001	0.0003	0.0035	0.0770	0.8018	0.0014	-0.0005	0.0162	-0.0000	0.2036
5	2.56	0.0	0.0003	-0.0007	0.0001	-0.0702	1.0035	0.1009	-0.0010	0.0313	-0.0001	0.2900
6	3.51	0.0	0.0010	-0.0001	0.0035	-0.0705	1.0250	0.1093	-0.0019	0.0497	-0.0120	0.3320
7	5.55	0.0	0.0000	0.0007	0.0075	0.1500	1.7030	0.2529	-0.0021	0.0865	-0.0003	0.3010
8	9.66	0.0	0.0000	0.0013	0.0102	0.3307	2.6020	0.0092	-0.0011	0.1469	-0.0022	0.3130
9	13.75	0.0	0.0000	0.0020	0.0100	0.5037	2.2510	0.0050	0.0050	0.1870	-0.0000	0.2737
10	17.91	0.0	0.0000	0.0010	0.0157	0.1950	1.7239	0.0702	0.0135	0.2250	0.0155	0.2590
11	20.03	0.0	0.0010	0.0023	0.0160	0.2055	1.5300	0.0000	0.0100	0.2000	0.0190	0.2550
12	25.01	0.0	0.0010	0.0015	0.0130	0.1273	1.1030	1.0622	0.0330	0.2500	0.0311	0.2390
13	27.73	0.0	-0.0117	-0.0001	0.0103	0.0005	0.0750	1.0070	0.0307	0.2500	0.0352	0.2330

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ARMED ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (ATF)
 PAGE 3 OF 3 PART IV MISSILE TAIL EFFECTS DATA

TEST	MATI	MACH	RXLINE	PMI	CONF	DEL1	DEL2	DEL3	DEL4	TRANSITION		
2	71	0.42	2.5	0.0	030F14	0.0	0	0	0	FREE		
POINT	ALPHA	BETA	CNF3	CM3	CM3	YCPF3	YCPF3	CNF4	CM4	CB4	YCPF4	YCPF4
1	-1.66	0.0	-0.0142	-0.0033	-0.0036	0.2272	0.2561	-0.0477	0.0011	-0.0260	-0.0227	0.5447
2	-0.55	0.0	-0.0110	-0.0027	-0.0039	0.2274	0.3271	-0.0102	0.0017	-0.0119	-0.1637	1.1726
4	0.43	0.0	-0.0151	-0.0036	-0.0027	0.2234	0.1782	0.0231	0.0011	0.0037	0.0480	0.1588
4	1.47	0.0	-0.0129	-0.0029	-0.0044	0.2218	0.3365	0.0597	0.0010	0.0189	0.0171	0.3167
5	2.50	0.0	-0.0126	-0.0036	-0.0033	0.2322	0.2097	0.1014	0.0062	0.0368	0.0017	0.3638
6	3.51	0.0	-0.0155	-0.0035	-0.0033	0.2326	0.2145	0.1457	-0.0009	0.0545	-0.0060	0.3877
7	5.55	0.0	-0.0187	-0.0045	-0.0037	0.2054	0.2242	0.2364	-0.0024	0.0432	-0.0110	0.3903
8	9.54	0.0	-0.0134	-0.0032	-0.0034	0.1714	0.2132	0.4523	-0.0036	0.1596	-0.0079	0.3529
9	13.75	0.0	-0.0210	-0.0034	-0.0045	0.1618	0.2201	0.6556	-0.0005	0.2058	-0.0038	0.3119
10	17.91	0.0	-0.0225	-0.0031	-0.0040	0.1369	0.1770	0.6272	0.0082	0.2461	0.0100	0.2999
11	20.03	0.0	-0.0243	-0.0035	-0.0042	0.1453	0.1751	0.8934	0.0137	0.2614	0.0154	0.2926
12	25.01	0.0	-0.0245	-0.0045	-0.0024	0.1558	0.0894	1.0076	0.0271	0.2609	0.0269	0.2787
13	27.73	0.0	-0.0253	-0.0041	-0.0035	0.1463	0.1236	1.0526	0.0314	0.2826	0.0294	0.2684

TEST PART NAME: MX1-00 PHI CONF: L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 72 V.90 2.5 0.0 M30U10 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX	CL4	CY	CLN	CLL	CA	CAR	CAF	ACP
1	-1.60	0.0	-0.1527	0.2233	-0.0067	-0.0259	0.0010	0.0010	0.1297	0.2717	-1.6602
2	-7.58	0.0	-0.0000	1.0795	-0.0030	-0.0231	0.0009	0.3970	0.1324	0.2650	-2.0577
3	0.00	0.0	0.0521	-0.0010	-0.0055	-0.0105	0.0003	0.0009	0.1327	0.2082	-0.7985
4	1.49	0.0	0.1730	-0.0220	-0.0011	-0.0226	0.0010	0.4003	0.1352	0.2601	-1.3211
5	2.49	0.0	0.2417	-0.0102	-0.0000	-0.0169	0.0009	0.4005	0.1397	0.2608	-1.4419
6	3.49	0.0	0.3099	-0.0351	-0.0030	-0.0137	0.0014	0.3963	0.1428	0.2535	-1.5494
7	5.53	0.0	0.6601	-1.0132	0.0011	-0.0209	0.0007	0.3970	0.1410	0.2550	-1.6917
8	4.63	0.0	1.3001	-2.3524	-0.0017	-0.0175	0.0025	0.4150	0.1795	0.2371	-1.8014
9	13.70	0.0	2.0730	-3.0580	0.0030	-0.0210	0.0030	0.4300	0.1761	0.2620	-1.7507
10	17.97	0.0	2.9700	-0.4277	0.0012	-0.0194	0.0051	0.4317	0.2117	0.2200	-1.6507
11	20.13	0.0	3.0700	-5.3773	0.0100	-0.0252	0.0050	0.4300	0.2323	0.2005	-1.5455
12	25.59	0.0	4.9000	-6.0220	0.0175	-0.0070	0.0070	0.3970	0.2990	0.0900	-1.2230
13	28.01	0.0	5.6300	-5.0312	0.0220	-0.0100	0.0000	0.3700	0.3107	0.0633	-1.0463

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)

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MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST PART NAME		MFI		CONF		L		DEL1	DEL2	DEL3	DELA	TRANSITION
	2	77 0.00 2.5	0.0	53.0014	0.0	0	0	0	0	0	0	0	FREE
POINT	ALPHA	BETA	CNF1	CN1	CN1	ACPF1	YCPF1	CNF2	CNP	CN2	XCPF2	YCPF2	
1	-1.00	0.0	0.0017	0.0010	0.0003	0.2010	1.0765	-0.0532	0.0010	-0.0282	-0.0263	0.5299	
2	-0.50	0.0	0.0000	0.0012	0.0001	0.2176	1.0277	-0.0143	-0.0002	-0.0103	0.0169	0.7212	
3	0.00	0.0	0.0010	0.0013	0.0000	0.1812	1.2168	0.0251	-0.0012	0.0026	-0.0071	0.1035	
4	1.49	0.0	0.0059	0.0011	0.0004	0.1858	0.4274	0.0069	-0.0025	0.0109	-0.0370	0.2023	
5	2.44	0.0	0.0032	0.0005	0.0000	0.1592	1.1351	0.1135	-0.0032	0.0331	-0.0201	0.2912	
6	3.44	0.0	0.0030	0.0000	0.0000	0.2005	0.8696	0.1593	-0.0000	0.0519	-0.0304	0.3256	
7	5.53	0.0	0.0077	0.0015	0.0001	0.2010	0.6015	0.2069	-0.0056	0.0885	-0.0210	0.1330	
8	9.43	0.0	0.0071	0.0013	0.0002	0.1010	1.4441	0.0095	-0.0051	0.1452	-0.0109	0.3094	
9	13.74	0.0	0.0110	0.0021	0.0000	0.1883	1.4625	0.6793	-0.0001	0.1890	-0.0002	0.2782	
10	17.97	0.0	0.0071	0.0013	0.0000	0.1417	2.3563	0.8661	0.0031	0.2302	0.0035	0.2658	
11	22.13	0.0	0.0109	0.0010	0.0000	0.1176	1.2492	0.4015	0.0036	0.2092	0.0030	0.2667	
12	25.59	0.0	0.0091	0.0010	0.0000	0.1752	0.4096	1.0745	0.0160	0.2666	0.0108	0.2481	
13	28.01	0.0	-0.0015	0.0000	0.0000	-0.2702	-4.2163	1.1017	0.0206	0.2067	0.0223	0.2621	

TEST PARI. MACH RATIO- α PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 72 0.90 2.5 5.0 530614 0.0 0 0 0 0 FREE

POINT	ALPHA	EFTA	CF3	CM3	CH3	XCPF3	YCPF3	CM4	CH4	CB4	XCPF4	YCPF4
1	-1.60	0.0	-0.0111	-0.0003	-0.0021	0.2375	0.1107	-0.0009	0.0032	-0.0205	-0.0640	0.0075
2	-0.50	0.0	-0.0179	-0.0037	-0.0023	0.2093	0.1130	-0.0001	0.0019	-0.0124	-0.2042	1.3698
3	0.00	0.0	-0.0177	-0.0030	-0.0024	0.2006	0.1080	0.0012	0.0011	0.0040	0.0337	0.1293
4	1.00	0.0	-0.0187	-0.0034	-0.0024	0.1902	0.1539	0.0045	-0.0007	0.0218	-0.0095	0.3133
5	2.00	0.0	-0.0190	-0.0030	-0.0023	0.1802	0.1215	0.1136	-0.0016	0.0306	-0.0100	0.3398
6	3.00	0.0	-0.0200	-0.0042	-0.0014	0.2018	0.0873	0.1585	-0.0033	0.0583	-0.0210	0.3677
7	4.50	0.0	-0.0210	-0.0037	-0.0027	0.1773	0.1247	0.2551	-0.0050	0.0950	-0.0213	0.3730
8	6.00	0.0	-0.0230	-0.0037	-0.0033	0.1599	0.1407	0.4526	-0.0050	0.1500	-0.0133	0.3465
9	13.70	0.0	-0.0260	-0.0001	-0.0036	0.1525	0.1321	0.6516	-0.0006	0.2055	-0.0071	0.3153
10	17.97	0.0	-0.0250	-0.0030	-0.0032	0.1394	0.1230	0.8200	-0.0007	0.2490	-0.0008	0.3010
11	24.13	0.0	-0.0240	-0.0001	-0.0024	0.1503	0.0797	0.9010	-0.0000	0.2698	-0.0007	0.2994
12	25.50	0.0	-0.0001	-0.0000	-0.0030	0.1406	0.1065	1.0337	0.0000	0.2487	0.0000	0.2890
13	28.01	0.0	-0.0000	-0.0000	-0.0013	0.1502	0.0400	1.6595	0.0100	0.2933	0.0100	0.2760

ARLDD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
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TEST PART	MAIN	RAIU=6	MFL	CG.F.	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
2	73	1.10	2.5	0.0	0.370F10	0.0	0	0	0	FREE	
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-1.01	0.0	-0.1000	-0.2151	-0.0102	0.0000	-0.0003	0.5636	0.2037	0.3661	-1.4650
2	-0.50	0.0	-0.0007	-0.0762	-0.0101	0.0001	0.0002	0.5692	0.2067	0.3625	-1.6299
3	0.03	0.0	0.0020	-0.0653	-0.0110	0.0002	-0.0002	0.5600	0.2104	0.3582	-1.2564
4	1.00	0.0	0.1070	-0.0722	-0.0110	0.0000	-0.0000	0.5662	0.2116	0.3544	-1.3342
5	2.51	0.0	0.2000	-0.0103	-0.0002	0.0000	0.0002	0.5630	0.2112	0.3575	-1.4200
6	3.91	0.0	0.0000	-0.0150	-0.0123	0.0100	0.0000	0.5623	0.2100	0.3515	-1.5050
7	5.50	0.0	0.0000	-0.0100	-0.0000	0.0000	-0.0000	0.5600	0.2100	0.3500	-1.6000
8	6.67	0.0	1.0000	-0.0200	-0.0100	0.0000	0.0000	0.5917	0.2433	0.3000	-1.6989
9	13.02	0.0	2.0000	-0.0300	-0.0150	0.0000	0.0000	0.6002	0.2628	0.3370	-1.6209
10	18.10	0.0	3.0000	-0.0500	-0.0200	0.0000	0.0000	0.5905	0.2421	0.3333	-1.4312
11	20.28	0.0	3.5000	-0.0500	-0.0200	0.0000	0.0000	0.5710	0.2607	0.3007	-1.2670
12	25.95	0.0	5.1300	-0.0500	-0.0200	0.0000	0.0000	0.5250	0.2943	0.2337	-0.9119
13	28.00	0.0	5.3000	-0.0500	-0.0200	0.0000	0.0000	0.5075	0.3000	0.1900	-0.7600

TEST PART NAME: RALV-08
 2 73 1.0 2.5 0.0 63W0F10 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CF1	CM1	CM1'	KCPF1	YCPF1	CM2	CM2'	CB2	KCPF2	YCPF2
1	-1.01	0.0	0.0022	0.0010	0.0064	0.3133	1.2261	-0.0531	0.0020	-0.0287	-0.0172	0.5610
2	-0.48	0.0	0.0036	0.0017	0.0116	0.3351	3.2437	-0.0151	0.0003	-0.0129	-0.0206	0.4532
3	0.63	0.0	0.0028	0.0010	0.0059	0.2652	2.2891	0.0231	-0.0007	-0.0007	-0.0305	-0.0288
4	1.00	0.0	0.0028	0.0010	0.0021	0.4078	0.8078	0.0026	-0.0026	0.0175	-0.0411	0.2793
5	2.51	0.0	0.0009	0.0008	0.0019	0.6813	2.1209	0.1080	-0.0032	0.0318	-0.0296	0.2074
6	3.51	0.0	0.0016	0.0009	0.0020	0.5677	1.5742	0.1543	-0.0043	0.0491	-0.0276	0.3180
7	5.50	0.0	0.0123	0.0007	0.0007	0.2452	0.2863	0.2547	-0.0064	0.0865	-0.0260	0.3329
8	9.67	0.0	0.0053	0.0007	0.0053	0.1276	2.8659	0.0016	-0.0069	0.1424	-0.0192	0.3084
9	13.02	0.0	0.0047	0.0012	0.0056	0.1200	1.6057	0.6592	-0.0069	0.1847	-0.0105	0.2801
10	18.10	0.0	0.0105	0.0065	0.0157	0.0513	1.4895	0.6204	-0.0059	0.2216	-0.0072	0.2700
11	20.20	0.0	0.0125	0.0009	0.0179	0.0041	1.4343	0.2750	-0.0095	0.2368	-0.0109	0.2707
12	25.95	0.0	0.0094	0.0003	0.0004	0.0263	0.8462	0.4945	-0.0101	0.2591	-0.0102	0.2605
13	26.60	0.0	0.0151	0.0001	0.0201	0.0043	1.3307	1.0167	-0.0152	0.2660	-0.0149	0.2620

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ARSD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPELLION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

TEST PART		MACH		REYNOLDS		PMT		CONF		L		DEL1		DEL2		DEL3		DEL4		TRANSITION	
2		73		1.14 2.5		0.0		D3WFL		0.0		0		0		0		0		FREE	
POINT	ALPHA	BETA	CNF3	CM3	CM3	KCMF3	YCPF3	CNF4	CM4	CR4	XCPF4	YCPF4									
1	-1.01	0.0	-0.0145	-0.0030	-0.0033	0.1774	0.1707	-0.0056	0.0038	-0.0275	-0.0028	0.0068									
2	-0.58	0.0	-0.0140	-0.0031	-0.0043	0.1811	0.2237	-0.0061	0.0025	-0.0128	-0.3050	1.5744									
3	0.03	0.0	-0.0130	-0.0032	-0.0032	0.1806	0.1811	0.0306	0.0011	0.0035	-0.0173	0.1134									
4	1.46	0.0	-0.0207	-0.0032	-0.0036	0.1527	0.1715	0.0692	-0.0002	0.0197	-0.0029	0.2844									
5	2.51	0.0	-0.0215	-0.0033	-0.0043	0.1520	0.1512	0.1103	-0.0018	0.0388	-0.0167	0.3516									
6	3.51	0.0	-0.0214	-0.0035	-0.0039	0.1502	0.1705	0.1546	-0.0020	0.0565	-0.0181	0.3651									
7	5.54	0.0	-0.0223	-0.0036	-0.0037	0.1525	0.1641	0.2502	-0.0060	0.0942	-0.0241	0.3766									
8	9.47	0.0	-0.0250	-0.0036	-0.0041	0.1335	0.1616	0.4407	-0.0090	0.1538	-0.0204	0.3498									
9	13.32	0.0	-0.0277	-0.0036	-0.0031	0.1582	0.1124	0.6342	-0.0084	0.2007	-0.0133	0.3145									
10	19.16	0.0	-0.0292	-0.0041	-0.0030	0.1418	0.1157	0.7650	-0.0086	0.2412	-0.0110	0.3072									
11	20.24	0.0	-0.0315	-0.0040	-0.0032	0.1526	0.0997	0.8433	-0.0131	0.2583	-0.0155	0.3063									
12	25.45	0.0	-0.0317	-0.0050	-0.0024	0.1578	0.0761	0.9551	-0.0156	0.2638	-0.0163	0.2971									
13	29.00	0.0	-0.0300	-0.0052	-0.0000	0.1526	0.0012	0.9669	-0.0200	0.2671	-0.0215	0.2963									

TEST PART - 414 RALG000 PWT CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 74 1.20 2.5 0.0 0.0014 0.0 0 0 0 0 FREE

POINT	ALPHA	META	Cv	CL ^o	CY	CL _N	CL _L	CA	CA _N	CAF	XCP
1	-1.62	0.0	-0.1310	0.0033	-0.0232	0.0643	-0.0007	0.5305	0.1790	0.3505	-0.7093
2	-0.54	0.0	-0.0304	0.0100	-0.0193	0.0647	-0.0004	0.5373	0.1758	0.3614	-0.3045
3	0.45	0.0	0.0700	-0.0130	-0.0221	0.0700	-0.0009	0.5300	0.1822	0.3544	-1.0075
4	1.65	0.0	0.1763	-0.0234	-0.0171	0.0648	-0.0004	0.5363	0.1856	0.3507	-1.0698
5	2.50	0.0	0.2430	-0.0205	-0.0163	0.0636	-0.0009	0.5304	0.1874	0.3475	-1.4313
6	3.52	0.0	0.4137	-0.0204	-0.0163	0.0721	-0.0011	0.5334	0.1800	0.3458	-1.4281
7	4.56	0.0	0.6445	-0.0207	-0.0162	0.0713	-0.0013	0.5025	0.1973	0.3452	-1.4949
8	4.72	0.0	1.3150	-0.0234	-0.0032	0.0475	-0.0020	0.5040	0.2126	0.3512	-1.5003
9	13.84	0.0	2.0740	-0.0204	0.0038	0.0311	-0.0009	0.5060	0.2230	0.3439	-1.4260
10	18.24	0.0	3.0424	-0.0252	0.0163	0.0044	0.0007	0.5062	0.2332	0.3329	-1.1750
11	20.64	0.0	3.6041	-0.0206	0.0204	0.0037	0.0010	0.5555	0.2424	0.3131	-1.0056
12	24.24	0.0	5.2044	-0.0201	0.0497	0.0040	0.0045	0.5227	0.2497	0.2530	-0.6821
13	28.67	0.0	0.0000	-0.0200	0.0602	0.0041	0.0045	0.5100	0.2753	0.2392	-0.5624

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	ALPHA	TEST PART			CONE	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
		74	1.20	2.5								0.0	0.300F14
		CF1A	CF1	CF1	CF1	YCPF1	CF2	CF2	CF2	CF2	YCPF2	YCPF2	
1	-1.62	0.0	-0.0033	0.0016	0.0022	-0.3551	-0.7837	-0.0065	-0.0038	-0.0278	0.0086	0.5977	
2	-0.59	0.0	-0.0031	0.0016	0.0026	-0.5350	-1.6460	-0.0111	-0.0011	-0.0126	0.1008	1.1359	
3	0.45	0.0	-0.0042	0.0017	0.0017	-0.2766	-0.3776	0.0259	-0.0031	0.0005	-0.1291	0.0186	
4	1.45	0.0	-0.0034	0.0011	0.0016	-0.2801	-0.3770	0.0635	-0.0047	0.0149	-0.0739	0.2347	
5	2.50	0.0	-0.0035	0.0011	0.0013	-0.2727	-0.3793	0.1088	-0.0055	0.0258	-0.0516	0.2805	
6	3.52	0.0	-0.0047	0.0012	0.0016	-0.2749	-0.3780	0.1491	-0.0066	0.0459	-0.0432	0.3077	
7	5.50	0.0	-0.0041	0.0017	0.0012	-0.2619	-0.6917	0.2668	-0.0080	0.0791	-0.0325	0.3209	
8	9.72	0.0	-0.0039	0.0015	0.0015	-0.3254	-2.2316	0.4343	-0.0101	0.1365	-0.0232	0.3005	
9	13.09	0.0	-0.0024	0.0015	0.0014	-0.8170	-3.1617	0.6148	-0.0108	0.1715	-0.0176	0.2791	
10	16.26	0.0	-0.0015	0.0019	0.0012	-0.2779	-3.4900	0.7575	-0.0096	0.2039	-0.0125	0.2692	
11	20.48	0.0	-0.0014	0.0016	0.0007	-0.7173	-4.5550	0.8695	-0.0111	0.2172	-0.0137	0.2683	
12	26.24	0.0	0.0051	0.0011	0.0002	0.2178	1.6277	0.9059	-0.0100	0.2436	-0.0203	0.2689	
13	28.07	0.0	0.0235	0.0022	0.0015	0.0927	0.9128	0.9274	-0.0227	0.2482	-0.0265	0.2675	

POINT	TEST PARAMETER				L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
	P	74	1.26	2.5								
	0.0	0.0	0.0	0.0	0.0	0	0	0	0	FREE		
	ALPHA	BETA	CNF3	CM3	C#3	ACPF3	YCPF3	CNF4	CM4	CB4	XCPF4	YCPF4
1	0.02	0.0	-0.0217	-0.0027	-0.0050	0.1234	0.2314	-0.0039	0.0005	-0.0232	-0.0193	0.5901
2	-0.54	0.0	-0.0217	-0.0027	-0.0048	0.1314	0.2227	-0.0047	0.0005	-0.0042	-0.0074	2.1933
3	0.45	0.0	-0.0201	-0.0027	-0.0042	0.1224	0.3065	0.0333	-0.0010	0.0075	-0.0312	0.2237
4	1.45	0.0	-0.0211	-0.0026	-0.0058	0.1733	0.2751	0.0694	-0.0025	0.0219	-0.0354	0.3152
5	2.50	0.0	-0.0224	-0.0028	-0.0065	0.1251	0.2054	0.1093	-0.0038	0.0392	-0.0366	0.3587
6	3.52	0.0	-0.0227	-0.0030	-0.0057	0.1325	0.2294	0.1504	-0.0046	0.0561	-0.0308	0.3730
7	5.50	0.0	-0.0244	-0.0031	-0.0055	0.1270	0.2294	0.2412	-0.0074	0.0904	-0.0407	0.3747
8	4.72	0.0	-0.0251	-0.0034	-0.0051	0.1340	0.2038	0.4221	-0.0103	0.1469	-0.0243	0.3481
9	13.84	0.0	-0.0251	-0.0035	-0.0051	0.1525	0.2014	0.5982	-0.0123	0.1910	-0.0206	0.3193
10	14.24	0.0	-0.0263	-0.0042	-0.0039	0.1505	0.1442	0.7350	-0.0138	0.2287	-0.0188	0.3112
11	20.44	0.0	-0.0275	-0.0045	-0.0041	0.1438	0.1452	0.7491	-0.0142	0.2417	-0.0188	0.3084
12	26.24	0.0	-0.0252	-0.0050	-0.0010	0.1444	0.0338	0.4864	-0.0186	0.2690	-0.0210	0.3035
13	24.47	0.0	-0.0273	-0.0051	-0.0062	0.1488	-0.0070	0.4057	-0.0202	0.2726	-0.0223	0.3000

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME: P110-6												
Mach: 2.5 Re: 0.0 0.30014 0.0 0 0 0 0 0 0 FREE												
POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAB	CAF	KCP	
1	-1.61	0.0	-0.1747	-0.1030	0.0362	-0.1373	-0.0029	0.5101	0.1801	0.3300	-1.7492	
2	-0.55	0.0	-0.0471	0.1454	0.0432	-0.1746	-0.0027	0.5054	0.1816	0.3273	-2.7649	
3	0.45	0.0	0.0011	0.0720	0.0303	-0.1361	-0.0019	0.5077	0.1832	0.3245	1.7692	
4	1.50	0.0	0.1031	-0.0392	0.0360	-0.1147	-0.0031	0.5031	0.1810	0.3221	-0.2738	
5	2.52	0.0	0.2024	-0.1442	0.0377	-0.1239	-0.0030	0.5029	0.1804	0.3225	-0.6154	
6	3.55	0.0	0.2927	-0.3074	0.0414	-0.1277	-0.0033	0.5008	0.1800	0.3207	-0.8475	
7	5.59	0.0	0.6132	-0.0700	0.0402	-0.1156	-0.0030	0.5130	0.1820	0.3213	-1.0928	
8	7.76	0.0	1.2275	-1.4564	0.0455	-0.1234	-0.0016	0.5357	0.2078	0.3279	-1.1917	
9	13.96	0.0	1.5730	-2.2413	0.0317	-0.0511	-0.0032	0.5367	0.2219	0.3146	-1.1361	
10	19.36	0.0	3.0073	-2.7773	0.0176	0.0443	-0.0014	0.5353	0.2294	0.3059	-0.9251	
11	20.54	0.0	3.6000	-2.8310	0.0214	0.0667	-0.0054	0.5284	0.2381	0.2903	-0.7853	
12	25.36	0.0	5.3544	-3.6153	0.0127	0.1323	-0.0123	0.5297	0.2734	0.2564	-0.5616	
13	28.76	0.0	6.1717	-3.4605	0.0000	0.1047	-0.0112	0.5369	0.2800	0.2489	-0.5458	

TEST PART NAME: R410-0 PWT LWF L WEL1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 74 1.30 2.0 6.0 030UF14 0.0 0 0 0 0 FREE

POINT	ALPHA	META	CNF1	CNF1	CNF1	XCPF1	YCPF1	CF2	CM2	CR2	XCPF2	YCPF2
1	-1.01	0.0	0.0152	0.0152	0.0134	0.0119	0.4110	-0.0531	0.0024	-0.0334	-0.0443	0.4301
2	-0.55	0.0	0.0145	0.0145	0.0141	0.0256	0.9716	-0.0191	0.0004	-0.0166	-0.0465	0.9170
3	0.45	0.0	0.0120	0.0120	0.0100	0.0130	0.5492	0.0161	0.0003	-0.0073	0.0187	0.4521
4	1.50	0.0	0.0110	0.0110	0.0097	0.0126	0.5423	0.0514	-0.0015	0.0072	-0.0203	0.1403
5	2.52	0.0	0.0115	0.0115	0.0090	0.0147	0.5360	0.0699	-0.0021	0.0191	-0.0229	0.2130
6	3.55	0.0	0.0101	0.0101	0.0075	0.0195	0.7455	0.1305	-0.0032	0.0358	-0.0247	0.2762
7	5.54	0.0	0.0121	0.0121	0.0091	0.0225	0.7469	0.2203	-0.0056	0.0680	-0.0250	0.3123
8	9.70	0.0	0.0110	0.0110	0.0090	0.0223	1.2560	0.3917	-0.0070	0.1131	-0.0179	0.2687
9	13.40	0.0	0.0071	0.0071	0.0151	0.0523	2.1064	0.5620	-0.0007	0.1043	-0.0086	0.2663
10	18.30	0.0	-0.0177	-0.0177	0.0052	0.0720	-0.7947	0.6742	-0.0001	0.1745	-0.0120	0.2607
11	20.59	0.0	-0.0100	-0.0100	0.0019	0.0700	-0.1018	0.7305	-0.0090	0.1968	-0.0123	0.2612
12	24.30	0.0	-0.0402	-0.0402	-0.0090	-0.0027	0.2433	0.8069	-0.0177	0.2107	-0.0219	0.2660
13	28.70	0.0	-0.0245	-0.0245	-0.0015	-0.0700	0.0617	0.8600	-0.0227	0.2350	-0.0262	0.2723

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME		WIND	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION			
2	75 1.3v 2.5	0.0	0300F14	0.0	0	0	0	0	FREE			
POINT	ALPHA	MFA	CNF3	CN3	CN3	YCPF3	YCPF3	CNF4	CN4	CB4	YCPF4	YCPF4
1	-1.01	0.0	-0.0077	-0.0034	0.0000	0.0667	-0.0885	-0.0668	0.0033	-0.0275	-0.0660	0.5885
2	-0.55	0.0	-0.0098	-0.0047	0.0000	0.0417	-0.0594	-0.0084	0.0015	-0.0119	-0.1691	1.3507
3	0.45	0.0	-0.0085	-0.0050	0.0000	0.0552	-0.0517	0.0255	0.0002	0.0028	0.0090	0.1890
4	1.50	0.0	-0.0097	-0.0047	0.0000	0.0562	-0.0401	0.0654	0.0001	0.0153	0.0011	0.2345
5	2.52	0.0	-0.0099	-0.0055	0.0002	0.0467	-0.0230	0.0956	-0.0017	0.0330	-0.0170	0.3669
6	3.55	0.0	-0.0094	-0.0050	0.0021	0.0615	-0.0224	0.1364	-0.0026	0.0440	-0.0190	0.3523
7	5.55	0.0	-0.0093	-0.0050	0.0010	0.0569	-0.0525	0.2205	-0.0051	0.0798	-0.0231	0.3618
8	9.76	0.0	-0.0119	-0.0062	0.0009	0.0527	-0.0777	0.3847	-0.0076	0.1310	-0.0197	0.3406
9	13.96	0.0	-0.0170	-0.0064	0.0011	0.0263	0.0625	0.5610	-0.0091	0.1708	-0.0168	0.3158
10	18.36	0.0	-0.0236	-0.0036	-0.0040	0.1993	0.1695	0.4667	-0.0130	0.2073	-0.0206	0.3110
11	20.54	0.0	-0.0220	-0.0033	-0.0030	0.1733	0.1689	0.7120	-0.0142	0.2179	-0.0208	0.3060
12	26.38	0.0	-0.0204	-0.0050	-0.0006	0.2936	0.0417	0.7876	-0.0250	0.2442	-0.0318	0.3100
13	28.76	0.0	-0.0247	-0.0060	0.0000	0.2655	-0.0100	0.8391	-0.0280	0.2601	-0.0330	0.3099

TEST PART	MACH	REYNOLDS	PHI	CONE	L	DEL1	DEL2	DEL3	DELA	TRANSITION	
2	60	u=2.5	0.0	30.0	21	0.0	0	0	0	FREE	
POINT	ALPHA	CFX	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	ACP
1	1.70	0.0	0.1144	0.1175	-0.0227	0.0546	-0.0011	0.2841	0.1341	0.1400	-1.0360
2	7.45	0.0	-0.0171	0.0757	-0.0004	0.0016	-0.0003	0.2745	0.1331	0.1514	-1.5003
3	0.30	0.0	0.0535	-0.0020	-0.0280	0.0713	-0.0021	0.2840	0.1330	0.1510	-0.5257
4	1.30	0.0	0.1402	-0.1197	-0.0267	0.0604	-0.0010	0.2825	0.1303	0.1521	-0.8530
5	2.30	0.0	0.2300	-0.0331	-0.0267	0.0713	-0.0027	0.2863	0.1330	0.1520	-1.0095
6	3.00	0.0	0.3307	-0.0370	-0.0002	0.0703	-0.0022	0.2880	0.1361	0.1510	-1.1309
7	5.07	0.0	0.5254	-0.0165	-0.0253	0.0741	-0.0010	0.2948	0.1441	0.1506	-1.1726
8	7.00	0.0	0.9307	-1.0001	-0.0252	0.0774	0.0024	0.3315	0.1703	0.1592	-1.0709
9	13.70	0.0	1.3715	-1.1504	-0.0200	0.0973	0.0022	0.3526	0.2103	0.1343	-0.8450
10	17.00	0.0	1.4675	-1.1001	-0.0124	0.0971	-0.0013	0.3574	0.2707	0.0787	-0.5362
11	20.00	0.0	2.1635	-1.1175	-0.0352	0.0710	-0.0020	0.3591	0.3003	0.0500	-0.5213
12	25.00	0.0	2.9140	-0.5607	-0.0013	0.0907	0.0052	0.3974	0.4000	-0.0107	-0.2200
13	27.70	0.0	3.3000	-0.7570	-0.0336	0.0722	0.0098	0.3071	0.4300	-0.0435	-0.2202

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AR-OLD ENGINEERING DEVELOPMENT CENTER(AEC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AT)

PAGE 2 OF 3

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH		RX10=6		PHI		CULF		L		DEL1		DEL2		DEL3		DEL4		TRANSITION		
	2	80	0.60	2.5	0.0	H3=0F21	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	FREE
POINT	ALPHA	BETA	CNF1	CM1	CHI	XCNF1	YCPF1	CNF2	CM2	CB2	XCNF2	YCPF2									
1	-1.70	0.0	-0.0150	-0.0152	0.0215	0.5290	-1.3293	-0.0500	-0.0237	-0.0315	0.0055	0.5370									
2	-0.65	0.0	-0.0070	-0.0020	-0.0131	0.7007	1.4407	-0.0060	-0.0020	-0.0054	0.3077	0.8100									
3	0.34	0.0	-0.0057	-0.0021	0.0013	0.3011	-0.0577	0.0450	0.0151	0.0135	0.3313	0.2909									
4	1.30	0.0	-0.0000	-0.0020	0.0000	0.2000	-0.9072	0.0100	0.0307	0.0407	0.3253	0.3021									
5	2.30	0.0	-0.0073	-0.0060	-0.0000	0.6200	0.1200	0.0102	0.0532	0.0600	0.2952	0.3715									
6	3.00	0.0	-0.0057	-0.0021	0.0017	0.3011	-1.3300	0.0200	0.0777	0.0931	0.2957	0.3501									
7	5.00	0.0	-0.0073	-0.0060	0.0000	0.6200	0.1200	0.0100	0.0952	0.1000	0.2550	0.3050									
8	9.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5020	0.1010	0.2300	0.1700	0.3900									
9	13.00	0.0	-0.0013	-0.0005	-0.0020	0.1020	0.2930	0.0017	0.0700	0.2500	0.1100	0.3700									
10	17.00	0.0	-0.0013	-0.0005	-0.0007	0.2000	0.2200	0.7500	0.0735	0.2051	0.0972	0.3772									
11	20.00	0.0	-0.0020	-0.0000	-0.0013	0.3200	0.6000	0.7700	0.0707	0.3050	0.0907	0.3910									
12	25.00	0.0	-0.0000	-0.0000	-0.0000	0.3000	0.3300	0.7000	0.0600	0.3055	0.0025	0.4010									
13	27.00	0.0	-0.0000	-0.0000	-0.0000	0.3000	0.3000	0.6200	0.0600	0.3270	0.0700	0.3900									

TEST PART	WIND TUNNEL	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION			
3	NO 000 2.5	0.0	W30621	0.0	0	0	0	0	FREE			
POINT	ALPHA	BETA	CMF3	CM3	CB3	XCPF3	YCPF3	CMF4	CM4	CB4	XCPF4	YCPF4
1	-1.74	0.0	-0.0212	-0.0125	-0.0088	0.6032	0.4248	-0.0810	-0.0276	-0.0003	0.3003	0.4074
2	-0.65	0.0	-0.0212	-0.0125	-0.0107	0.6043	0.4257	-0.0314	-0.0033	-0.0061	0.1039	0.1926
3	0.30	0.0	-0.0173	-0.0078	-0.0110	0.6258	0.6862	-0.0155	0.0106	0.0069	0.6861	0.4433
4	1.35	0.0	-0.0250	-0.0110	-0.0105	0.5350	0.5073	0.0741	0.0312	0.0316	0.4215	0.4272
5	2.38	0.0	-0.0211	-0.0105	-0.0112	0.6536	0.4650	0.1374	0.0514	0.0589	0.3741	0.4283
6	3.44	0.0	-0.0211	-0.0114	-0.0123	0.5157	0.5834	0.2102	0.0679	0.0931	0.3232	0.4431
7	5.47	0.0	-0.0227	-0.0105	-0.0143	0.5572	0.3657	0.3434	0.0965	0.1472	0.2811	0.4284
8	9.50	0.0	-0.0333	-0.0209	-0.0104	0.5709	0.2751	0.5389	0.0962	0.2431	0.1784	0.4511
9	13.78	0.0	-0.0333	-0.0132	-0.0146	0.3834	0.4254	0.6361	0.0735	0.2667	0.1155	0.4161
10	17.96	0.0	-0.0427	-0.0245	-0.0095	0.5734	0.2218	0.7364	0.0837	0.3011	0.1137	0.4089
11	26.07	0.0	-0.0427	-0.0241	-0.0085	0.4946	0.2117	0.7531	0.0787	0.3172	0.1045	0.4212
12	25.44	0.0	-0.0427	-0.0237	-0.0045	0.5091	0.0964	0.7637	0.0775	0.3199	0.1015	0.4189
13	27.74	0.0	-0.0427	-0.0212	-0.0031	0.4714	0.0696	0.6299	0.0821	0.3396	0.0990	0.4091

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 3 4ANTIA MISSILE TAIL EFFECTS DATA

TEST PART NAME: B310-0 P-31 CONF: 1 DEL1: 0 DEL2: 0 DEL3: 0 DEL4: 0 TRANSITION: FREE
 2 AI U.S. 2.5 0.0 B34UF21 0.0

POINT	ALPHA	BETA	CN	CLN	CY	CLM	CLL	CA	CAR	CAF	KCP
1	-1.70	0.0	-0.1135	0.0455	-0.0275	0.0657	-0.0026	0.2960	0.1393	0.1567	-0.8231
2	-0.67	0.0	-0.0275	0.0374	-0.0267	0.0649	-0.0031	0.2927	0.1345	0.1577	-1.3588
3	0.30	0.0	0.0455	-0.0662	-0.0250	0.0671	-0.0022	0.2935	0.1326	0.1609	-0.1355
4	1.38	0.0	0.1344	-0.1200	-0.0253	0.0667	-0.0017	0.2927	0.1335	0.1592	-0.8691
5	2.40	0.0	0.2243	-0.2500	-0.0256	0.0672	-0.0041	0.2932	0.1345	0.1587	-1.0606
6	3.44	0.0	0.3411	-0.4033	-0.0230	0.0659	-0.0059	0.2963	0.1374	0.1588	-1.1822
7	5.46	0.0	0.5214	-0.6134	-0.0271	0.0633	-0.0030	0.3043	0.1456	0.1567	-1.1760
8	9.54	0.0	0.8244	-1.0050	-0.0293	0.1037	0.0012	0.3469	0.1748	0.1721	-1.0813
9	13.74	0.0	1.3553	-1.2565	-0.0273	0.1056	0.0017	0.3618	0.2243	0.1375	-0.8998
10	17.97	0.0	1.9202	-1.3130	-0.0140	0.0915	-0.0008	0.3743	0.2801	0.0942	-0.6827
11	20.14	0.0	2.2025	-1.2150	-0.0103	0.0703	-0.0016	0.3708	0.3251	0.0507	-0.5537
12	25.57	0.0	3.0154	-0.8402	0.0240	0.0303	0.0038	0.4244	0.4008	0.0260	-0.2203
13	27.40	0.0	3.6922	-0.7017	0.0140	0.0249	0.0013	0.4112	0.4322	0.0207	-0.2021

TEST PART PALM SKIN-6 MFI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 ? 01 6.05 2.5 0.0 03-0F21 0.0 0 0 0 0 FREE

POINT	ALPHA	ETA	CNF1	CN1	CN1	XCPF1	YCPF1	C.F2	CN2	C82	XCPF2	YCPF2
1	-1.70	0.0	-0.0115	-0.0017	-0.0015	0.5288	-1.0070	-0.0500	-0.0225	-0.0065	0.0002	0.0016
2	-0.67	0.0	-0.0070	-0.0034	-0.0025	0.4400	2.9455	-0.0033	-0.0024	-0.0123	0.0300	3.0000
3	0.30	0.0	-0.0023	-0.0010	-0.0015	0.6296	0.9125	0.0093	0.0189	0.0001	0.3024	0.0020
4	1.30	0.0	-0.0050	-0.0020	0.0073	0.3505	-1.3363	0.1113	0.0376	0.0302	0.3375	0.2712
5	2.00	0.0	-0.0015	-0.0020	-0.0100	1.6709	12.6002	0.1852	0.0591	0.0000	0.3191	0.3100
6	3.00	0.0	-0.0015	-0.0000	0.0005	0.5023	-1.0017	0.2607	0.0799	0.0000	0.3010	0.3100
7	5.00	0.0	-0.0010	-0.0000	0.0032	0.0037	-0.3700	0.3500	0.1073	0.1033	0.2791	0.3720
8	9.50	0.0	-0.0001	-0.0000	0.0000	0.0000	-1.5230	0.5017	0.1070	0.2100	0.1907	0.3775
9	13.70	0.0	-0.0000	-0.0000	0.0000	0.0000	0.0207	0.0000	0.0773	0.2500	0.1112	0.3691
10	17.07	0.0	-0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0777	0.2930	0.0972	0.3673
11	20.10	0.0	-0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0667	0.3100	0.0830	0.3800
12	25.57	0.0	-0.0000	-0.0000	0.0000	-1.1107	0.0000	0.0000	0.0651	0.3100	0.0810	0.3900
13	27.00	0.0	-0.0000	-0.0000	0.0000	0.0000	-0.2000	0.0000	0.0623	0.3023	0.0722	0.3907

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 3 OF 3

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST POINT	WALL	RAIO	6	Re	CONF	1	DEL1	DEL2	DEL3	DEL4	TRANSITION	
2	01	0.00	2.0	0.0	030021	0.0	0	0	0	0	FREE	
POINT	ALPHA	BETA	CNF3	CM3	CM3	YCPF3	YCPF3	CNF4	CM4	CB4	XCPF4	YCPF4
1	-1.70	0.0	-0.0231	-0.0171	-0.0120	0.7301	0.5636	-0.0803	-0.0323	-0.0017	0.6020	0.5190
2	-0.67	0.0	-0.0200	-0.0160	-0.0110	0.6607	0.4757	-0.0312	-0.0065	-0.0002	0.2080	0.2938
3	0.30	0.0	-0.0210	-0.0120	-0.0150	0.6007	0.7176	0.0187	-0.0045	0.0051	0.5080	0.2730
4	1.30	0.0	-0.0271	-0.0180	-0.0126	0.6603	0.4673	0.0402	-0.0353	0.0268	0.4399	0.3591
5	2.00	0.0	-0.0250	-0.0200	-0.0120	0.7125	0.6107	0.1306	0.0533	0.0592	0.3803	0.4209
6	3.00	0.0	-0.0200	-0.0100	-0.0137	0.6701	0.5565	0.2105	0.0742	0.0809	0.3457	0.4191
7	5.00	0.0	-0.0200	-0.0100	-0.0133	0.6502	0.4450	0.3000	0.1052	0.1000	0.3000	0.4200
8	9.00	0.0	-0.0210	-0.0223	-0.0101	0.5300	0.3010	0.5300	0.1035	0.2300	0.1937	0.4395
9	13.00	0.0	-0.0200	-0.0211	-0.0101	0.5000	0.3300	0.6500	0.0731	0.2700	0.1113	0.4171
10	17.00	0.0	-0.0200	-0.0250	-0.0130	0.5750	0.3035	0.7627	0.0929	0.3110	0.1087	0.4086
11	20.00	0.0	-0.0200	-0.0200	-0.0093	0.5030	0.2057	0.7802	0.0765	0.3305	0.0975	0.4215
12	25.00	0.0	-0.0200	-0.0200	-0.0003	0.6005	0.0800	0.7905	0.0025	0.3210	0.1000	0.4000
13	27.00	0.0	-0.0200	-0.0200	-0.0053	0.5057	0.1135	0.6505	0.0770	0.3510	0.0910	0.4127

TEST PART NAME RX17-6 PNT CONE L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 R2 0.92 2.5 0.0 0300F21 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX	CL*	CY	CLM	CLL	CA	CAR	CAF	XCP
1	-1.74	0.0	-0.1046	0.0731	-0.0267	0.0876	-0.0063	0.3274	0.1342	0.1853	-0.6991
2	-0.59	0.0	-0.0327	0.0417	-0.0234	0.0664	-0.0031	0.3255	0.1366	0.1869	-1.2745
3	0.36	0.0	0.0454	0.0805	-0.0218	0.0504	-0.0021	0.3240	0.1342	0.1898	0.0120
4	1.37	0.0	0.1247	-0.0725	-0.0247	0.0704	-0.0005	0.3737	0.1355	0.1882	-0.5630
5	2.40	0.0	0.2316	-0.2154	-0.0205	0.0643	-0.0052	0.3249	0.1363	0.1867	-0.9541
6	3.43	0.0	0.3344	-0.3524	-0.0195	0.0444	-0.0054	0.3284	0.1391	0.1843	-1.1570
7	5.44	0.0	0.4217	-0.5577	-0.0147	0.0302	-0.0051	0.3464	0.1565	0.1899	-1.1455
8	9.62	0.0	0.4961	-1.0032	-0.0300	0.1044	0.0011	0.4944	0.2071	0.1913	-1.0717
9	13.31	0.0	1.4441	-1.3334	-0.0323	0.1359	0.0003	0.4094	0.2444	0.1600	-0.9681
10	19.03	0.0	2.0224	-1.5061	-0.0196	0.1170	-0.0060	0.4792	0.3345	0.0947	-0.7447
11	26.17	0.0	2.3144	-1.3344	0.0012	0.0723	-0.0029	0.4249	0.3892	0.0358	-0.6050
12	25.47	0.0	3.0374	-0.6475	0.0040	0.0348	-0.0017	0.4644	0.4110	0.0527	-0.2154
13	23.06	0.0	3.7543	-0.0247	0.0141	0.1219	-0.0042	0.4535	0.4358	0.0177	-0.1130

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 2 OF 3
 SHEET 1 OF 1
 MARTIN MISSILE TAIL EFFECTS DATA

	TEST	API	WALL	RAIL	PHI	CNF	L	DEL1	DEL2	DEL3	DELA	TRANSITION
	2	R2	0.92	2.5	0.0	0.30621	0.0	0	0	0	0	FREE
POINT	ALPHA	META	CNF1	CM1	CM1	XCFF1	YCPF1	CNF2	CM2	CM2	XCFF2	YCPF2
1	-1.74	0.0	-0.0354	-0.0111	-0.0130	0.3433	-0.3783	-0.1384	-0.0320	-0.0375	0.8249	0.9672
2	-0.59	0.0	-0.0190	-0.0043	-0.0044	0.2494	-0.4803	-0.0250	-0.0050	-0.0156	1.1048	3.0989
3	0.30	0.0	-0.0127	-0.0052	-0.0064	0.0070	-0.3741	0.0001	0.0236	-0.0013	0.5045	-0.0320
4	1.37	0.0	-0.0192	-0.0043	-0.0043	0.4434	-0.1180	0.0079	0.0476	0.0207	0.5413	0.2354
5	2.45	0.0	-0.0044	-0.0007	-0.0003	0.0630	0.0373	0.1747	0.0711	0.0489	0.3968	0.2722
6	3.43	0.0	-0.0044	-0.0007	0.0119	0.9259	-1.2626	0.2641	0.0924	0.0747	0.3514	0.3018
7	5.44	0.0	-0.0070	-0.0012	0.0063	1.3624	-0.8027	0.3045	0.1215	0.1374	0.3160	0.3575
8	7.42	0.0	-0.0042	-0.0005	-0.0050	1.6227	1.2006	0.5716	0.1242	0.2147	0.2242	0.3755
9	13.41	0.0	-0.0170	-0.0021	-0.0070	0.7114	0.6143	0.7442	0.0798	0.2723	0.1072	0.3668
10	14.63	0.0	-0.0350	-0.0103	-0.0104	0.4647	0.3074	0.4907	0.0749	0.3271	0.0956	0.3714
11	20.17	0.0	-0.0311	-0.0120	-0.0234	0.3353	0.7721	0.0607	0.0662	0.3354	0.0751	0.3888
12	25.67	0.0	-0.0252	-0.0031	0.0061	0.1224	-0.2439	0.0666	0.0432	0.3412	0.0713	0.3848
13	28.00	0.0	-0.0244	-0.0014	-0.0073	0.3031	0.1402	0.4420	0.0543	0.3679	0.0630	0.3905

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TEST PART SAC-111-A PWT CNF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 0.62 0.92 2.5 0.0 M30F21 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CNF3	CM3	CM3	XCDF3	YCDF3	CAF4	CM4	CM4	XCDF4	YCDF4
1	-1.71	0.0	-0.0225	-0.0215	-0.0127	0.7525	0.6471	-0.0714	-0.0394	-0.0393	0.5679	0.5649
2	-0.69	0.0	-0.0276	-0.0211	-0.0131	0.7702	0.6705	-0.0274	-0.0090	-0.0090	0.3297	0.2904
3	0.30	0.0	-0.0216	-0.0173	-0.0153	0.8055	0.7100	0.0162	0.0109	0.0038	0.6730	0.2335
4	1.37	0.0	-0.0215	-0.0160	-0.0153	0.7410	0.7100	0.0667	0.0389	0.0253	0.5666	0.3677
5	2.40	0.0	-0.0233	-0.0160	-0.0147	0.7919	0.6302	0.1325	0.0651	0.0543	0.4915	0.4097
6	3.43	0.0	-0.0174	-0.0163	-0.0147	0.6234	0.7704	0.2097	0.0894	0.0844	0.4265	0.4028
7	5.49	0.0	-0.0225	-0.0144	-0.0136	0.7727	0.5334	0.3325	-0.1200	0.1387	0.3604	0.4172
8	9.42	0.0	-0.0034	-0.0227	-0.0105	0.5125	0.4257	0.5256	0.1317	0.2345	0.2506	0.4500
9	13.01	0.0	-0.0034	-0.0247	-0.0100	0.4761	0.4392	0.7095	0.0783	0.2943	0.1103	0.4148
10	18.03	0.0	-0.0441	-0.0254	-0.0143	0.5707	0.3231	0.6392	0.0833	0.3424	0.0992	0.4080
11	20.17	0.0	-0.0447	-0.0304	-0.0142	0.6047	0.2014	0.6567	0.0720	0.3619	0.0847	0.4224
12	25.67	0.0	-0.0502	-0.0300	-0.0081	0.6095	0.1617	0.6650	0.0756	0.3599	0.0874	0.4149
13	26.40	0.0	-0.0517	-0.0315	-0.0057	0.6045	0.1108	0.9223	0.0732	0.3804	0.0794	0.4124

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ARMY ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST CASE NAME: RML-6 MFL CONE: 1 DEL1: 0 DEL2: 0 DEL3: 0 DEL4: 0 TRANSITION: FREE
 2 03 U-90 2.5 0.0 03-0F21 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAH	CAF	KCP
1	-1.70	0.0	-0.1433	0.2527	-0.0213	0.0531	-0.0050	0.4089	0.1610	0.2471	-1.7633
2	-0.07	0.0	-0.0413	0.0985	-0.0190	0.0450	-0.0053	0.4245	0.1542	0.2703	-2.3019
3	0.37	0.0	0.0545	-0.1500	-0.0171	0.0301	-0.0079	0.4210	0.1644	0.2574	-0.9915
4	1.30	0.0	0.1540	-0.2133	-0.0170	0.0300	-0.0080	0.4181	0.1656	0.2525	-1.3362
5	2.62	0.0	0.2731	-0.2110	-0.0169	0.0400	-0.0087	0.4122	0.1717	0.2406	-1.5065
6	3.62	0.0	0.3413	-0.5459	-0.0160	0.0409	-0.0072	0.4097	0.1704	0.2393	-1.5629
7	5.09	0.0	0.6416	-0.4660	-0.0132	0.0410	-0.0077	0.4234	0.1640	0.2398	-1.5741
8	9.65	0.0	1.0200	-1.2510	-0.0230	0.0405	-0.0052	0.4744	0.2340	0.2404	-1.2560
9	13.52	0.0	1.4470	-1.00367	-0.0300	0.1310	-0.0060	0.4973	0.3399	0.1575	-0.9500
10	18.09	0.0	2.1001	-1.0554	-0.0304	0.1505	-0.0114	0.5065	0.4550	0.0507	-0.7710
11	20.20	0.0	2.5000	-1.5071	-0.0301	0.1500	-0.0105	0.5133	0.4556	0.0576	-0.6432
12	25.96	0.0	3.6500	-0.7200	0.0100	0.0505	0.0000	0.5040	0.4990	0.0050	-0.1992
13	28.37	0.0	4.2000	-0.1300	0.0120	0.0555	0.0000	0.5050	0.4905	0.0100	-0.0325

TEST CASE MACH #110-6-- PMI CONF L LEL1 DEL2 DEL3 DEL4 TRANSITION
 2 83 0.90 2.05 0.0 030P21 0.0 0 0 0 0 FREE

POINT	ALPHA	delta	CONF1	CONF1	CONF1	YCONF1	YCONF1	CONF2	CONF2	CONF2	YCONF2	YCONF2
1	-1.70	0.0	-0.0204	-0.0074	0.00225	0.345	-1.0945	-0.0470	-0.0214	-0.0004	0.2244	0.6225
2	-0.67	0.0	-0.0176	-0.0077	-0.0176	0.1637	1.0103	-0.0121	-0.0004	-0.0210	0.0659	1.7496
3	0.37	0.0	-0.0110	0.0012	0.0092	-0.1059	-0.3783	0.0763	0.0235	0.0059	0.3082	0.0768
4	1.38	0.0	-0.0140	-0.0054	0.0036	0.3989	-0.1941	0.1394	0.0376	0.0391	0.2690	0.2797
5	2.42	0.0	-0.0150	-0.0046	-0.0067	0.2544	-0.4341	0.2339	0.0589	0.0756	0.2520	0.3233
6	3.42	0.0	-0.0170	-0.0047	0.0123	0.2143	-0.6258	0.3280	0.0790	0.1029	0.2408	0.3138
7	5.44	0.0	-0.0151	-0.0057	0.0164	0.3244	-0.3785	0.5003	0.0933	0.1766	0.1865	0.3530
8	9.85	0.0	-0.0148	-0.0003	0.0107	0.9136	-0.5416	0.6932	0.1768	0.2669	0.1944	0.3850
9	13.82	0.0	-0.0350	-0.0057	-0.0678	0.1639	0.2233	0.0194	0.0951	0.3133	0.1161	0.3824
10	18.09	0.0	-0.0447	-0.0047	-0.0127	0.2053	0.2623	0.9647	0.0721	0.3743	0.0729	0.3784
11	20.26	0.0	-0.0477	-0.0042	-0.0140	0.1842	0.2453	1.0652	0.0569	0.4120	0.0628	0.3868
12	25.44	0.0	-0.0271	-0.0044	0.0103	0.1270	-0.3783	1.0767	0.0532	0.4728	0.0494	0.3927
13	26.47	0.0	-0.0340	-0.0062	0.0083	0.1637	0.2194	1.0950	0.0586	0.4235	0.0538	0.3868

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 3 OF 3 PART 1, MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART	NAME	EXPOSE	PMI	CONF	1	DEL1	DEL2	DEL3	DEL4	TRANSITION		
2	R3	0.90	2.5	0.0	03-04-21	0.0	0	0	0	FREE		
POINT	ALPHA	BETA	CFX3	CM3	CM3	KCPF3	YCPF3	CMF4	CM4	C94	KCPF4	YCPF4
1	-1.70	0.0	-0.0235	-0.0154	-0.0157	0.0057	0.0097	-0.1216	-0.0267	-0.0665	0.2031	0.5300
2	-0.87	0.0	-0.0170	-0.0204	-0.0120	0.0197	0.0421	-0.0300	0.0027	-0.0700	-0.0522	0.4094
3	0.37	0.0	-0.0227	-0.0173	-0.0157	0.0007	0.0018	0.0200	0.0180	-0.0035	0.7530	0.1007
4	1.30	0.0	-0.0243	-0.0233	-0.0132	0.7457	0.4492	0.0999	0.0411	0.0357	0.4109	0.3560
5	2.02	0.0	-0.0301	-0.0252	-0.0113	0.0372	0.3760	0.1422	0.0597	0.0730	0.3107	0.3822
6	3.02	0.0	-0.0250	-0.0115	-0.0144	0.7155	0.5624	0.2791	0.0755	0.1100	0.2707	0.3900
7	5.04	0.0	-0.0110	-0.0022	-0.0114	0.6926	0.3504	0.0013	0.0503	0.1630	0.2007	0.4107
8	9.05	0.0	-0.0031	-0.0002	-0.0131	0.6095	0.3022	0.0610	0.1207	0.2010	0.2005	0.4391
9	13.02	0.0	-0.0000	-0.0110	-0.0123	0.4735	0.3067	0.7600	0.1018	0.3190	0.1329	0.4170
10	18.04	0.0	-0.0000	-0.0245	-0.0091	0.5415	0.1009	0.9509	0.0009	0.3432	0.0914	0.4030
11	20.00	0.0	-0.0007	-0.0325	-0.0070	0.5805	0.1275	1.0101	0.0750	0.0209	0.0703	0.4167
12	25.00	0.0	-0.0022	-0.0330	-0.0030	0.6309	0.0573	1.0609	0.0639	0.4372	0.0599	0.4097
13	28.07	0.0	-0.0005	-0.0321	-0.0000	0.6300	0.0395	1.0770	0.0671	0.4300	0.0622	0.4035

POINT	TEST PART NAME X10 ⁻⁶		PHI		CONE		L	DEL1	DEL2	DEL3	WETA	TRANSITION
	Z	BA	1.0	2.5	0.0	230P21						
1	-1.71	0.0	-0.1401	0.0001	-0.0335	0.1020	-0.0102	0.5718	0.2067	0.3651	-1.5788	
2	-0.88	0.0	-0.1401	0.0001	-0.0335	0.1020	-0.0102	0.5718	0.2067	0.3651	-1.5788	
3	0.37	0.0	0.0000	-0.1033	-0.0331	0.1006	-0.0108	0.5724	0.2101	0.3629	-1.6185	
4	1.38	0.0	0.1010	-0.3069	-0.0335	0.1034	-0.0115	0.5720	0.2157	0.3544	-1.6951	
5	2.38	0.0	0.2983	-0.5106	-0.0322	0.0958	-0.0113	0.5703	0.2171	0.3538	-1.7235	
6	3.43	0.0	0.4114	-0.6991	-0.0293	0.0930	-0.0107	0.5712	0.2236	0.3477	-1.6985	
7	5.51	0.0	0.5327	-1.0151	-0.0317	0.0941	-0.0099	0.5804	0.2301	0.3443	-1.6044	
8	9.55	0.0	1.1274	-1.6972	-0.0283	0.0943	-0.0109	0.6011	0.2574	0.3432	-1.4073	
9	13.51	0.0	1.5957	-1.8541	-0.0327	0.1253	-0.0090	0.6126	0.2998	0.3128	-0.9113	
10	18.25	0.0	2.2734	-1.3359	-0.0315	0.1566	-0.0121	0.6121	0.3497	0.2524	-0.5898	
11	20.55	0.0	2.7748	-1.1594	-0.0340	0.1855	-0.0074	0.5974	0.3423	0.2553	-0.4171	
12	28.28	0.0	4.1270	-0.4671	0.0053	0.1061	-0.0030	0.5721	0.3621	0.2100	-0.1132	
13	28.74	0.0	4.5404	0.0106	0.0225	0.1845	-0.0078	0.5598	0.3804	0.1793	0.0030	

ARSDU ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 2 OF 3

MANTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	WACH	VALU=0	PMI	CONF	L	DEL1	DEL2	DEL3	DELA	TRANSITION		
2	MA	1.06	2.5	0.0	03=UF21	0.0	0	0	0	FREE		
POINT	ALPHA	BETA	CPF1	CP1	CP2	XCPF1	YCPF1	CNF2	CN2	Co2	XCPF2	YCPF2
1	-1.71	0.0	-0.0230	-0.0111	0.0089	0.0077	0.3788	-0.0931	-0.0228	-0.0067	0.2801	0.5018
2	-0.72	0.0	-0.0200	0.0122	-0.0133	-0.1052	0.6447	-0.0073	-0.0040	-0.0052	0.5504	0.7101
3	0.37	0.0	-0.0127	0.0038	0.0010	-0.1038	-0.0550	0.0791	0.0179	0.0199	0.2260	0.2518
4	1.38	0.0	-0.0235	0.0017	-0.0017	-0.0741	0.0734	0.1627	0.0324	0.0560	0.1949	0.3441
5	2.38	0.0	-0.0164	0.0125	-0.0023	-0.1463	0.1267	0.2602	0.0457	0.0853	0.1756	0.3278
6	3.43	0.0	-0.0125	0.0003	0.0000	-0.2144	-0.1450	0.3502	0.0557	0.1237	0.1590	0.3534
7	5.41	0.0	-0.0015	0.0007	0.0026	-0.3328	0.1149	0.5256	0.0664	0.1882	0.1319	0.3578
8	9.55	0.0	-0.0145	0.0043	-0.0093	-0.2146	0.4779	0.6437	0.0860	0.3134	0.1029	0.3715
9	13.91	0.0	-0.0335	-0.0067	-0.0115	0.0256	0.3622	0.9405	0.1029	0.3777	0.1095	0.4016
10	18.25	0.0	-0.0404	-0.0015	-0.0114	0.0303	0.2432	1.0013	0.0664	0.4161	0.0614	0.3848
11	23.55	0.0	-0.0275	0.0024	-0.0152	-0.1056	0.5535	1.1486	0.0593	0.4480	0.0516	0.3897
12	28.78	0.0	-0.0257	0.0005	0.0004	-0.0157	-0.0214	1.2890	0.0588	0.4946	0.0456	0.3876
13	28.78	0.0	-0.0575	-0.0128	-0.0226	0.0045	0.3934	1.3264	0.0537	0.5195	0.0404	0.3915

TEST PART NAME: R11506 PHI - CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 RA 1.10 2.5 C.O 030621 0.0 0 0 0 0 FREE

POINT	ALPHA	dETA	CMF3	CM3	CM3	KCPF3	YCPF3	CMF4	CM4	CM4	KCPF4	YCPF4
1	-1.71	0.0	-0.0000	-0.0000	-0.0101	0.6600	0.2280	-0.1285	-0.0010	-0.0720	0.0010	0.5667
2	-0.00	0.0	-0.0001	-0.0002	-0.0104	0.6303	0.2350	-0.0404	0.0157	-0.0294	-0.3724	0.7205
3	0.37	0.0	-0.0023	-0.0032	-0.0113	0.5800	0.2074	0.0009	0.0280	-0.0035	0.6430	-0.0781
4	1.70	0.0	-0.0070	-0.0200	-0.0000	0.6006	0.1337	0.1220	0.0020	0.0305	0.3074	0.2003
5	2.30	0.0	-0.0070	-0.0300	-0.0007	0.6365	0.0405	0.1013	0.0300	0.0621	0.2008	0.3020
6	3.03	0.0	-0.0067	-0.0200	-0.0009	0.6302	0.1305	0.2000	0.0510	0.1005	0.1700	0.3710
7	5.51	0.0	-0.0050	-0.0000	-0.0000	0.6000	0.1516	0.0705	0.0000	0.1833	0.1000	0.3000
8	4.05	0.0	-0.0000	-0.0000	-0.0000	0.6300	0.1057	0.7773	0.0010	0.3100	0.1000	0.6000
9	11.91	0.0	-0.0000	-0.0000	-0.0000	0.5223	0.1719	0.0000	0.0900	0.3850	0.1110	0.0000
10	14.25	0.0	-0.0000	-0.0000	-0.0000	0.5101	0.1750	1.0000	0.0019	0.0730	0.0790	0.0110
11	20.55	0.0	-0.0000	-0.0000	-0.0000	0.0013	0.1270	1.0000	0.0000	0.0000	0.0000	0.0000
12	20.20	0.0	-0.0000	-0.0000	-0.0000	0.0000	0.1000	1.2357	0.0500	0.5100	0.0000	0.0000
13	20.70	0.0	-0.0000	-0.0000	-0.0000	0.0000	0.0070	1.2755	0.0500	0.5200	0.0000	0.0000

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AR-OLD ENGINEERING DEVELOPMENT CENTER (AEC)
 PAGE 1 OF 3
 SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY (PWTF)
 MANTIS MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AWT)

TEST PART NAME: R110-A PWT CUMF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 05 1020 205 0.0 0307021 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CA	CLM	CV	CLN	CLL	CA	CAU	CAF	KCP
1	-1.71	0.0	0.01202	0.1252	-0.0266	0.1111	-0.0129	0.5333	0.1739	0.3590	0.9720
2	-0.00	0.0	0.0000	-0.3315	0.0000	0.0000	-0.0117	0.5327	0.1742	0.3585	1.5776
3	0.35	0.0	0.0000	-0.3315	0.0000	0.0000	-0.0107	0.5331	0.1737	0.3590	-2.2100
4	1.30	0.0	0.0000	-0.3345	0.0000	0.0000	-0.0102	0.5315	0.1770	0.3566	-1.7917
5	2.39	0.0	0.0000	-0.3345	0.0000	0.0000	-0.0112	0.5295	0.1799	0.3697	-1.6250
6	3.43	0.0	0.0000	-0.0102	0.0000	0.1001	-0.0110	0.5299	0.1917	0.3683	-1.5409
7	5.56	0.0	0.0000	-0.0102	0.0000	0.0500	-0.0110	0.5332	0.1607	0.3566	-1.3791
8	9.71	0.0	1.0000	-1.0000	0.0000	0.0000	-0.0133	0.5066	0.2075	0.3591	-1.1421
9	13.95	0.0	1.0000	-1.3780	0.0000	0.1300	-0.0150	0.5575	0.2132	0.3683	-0.8369
10	18.41	0.0	2.3357	-0.0143	0.0000	0.1000	-0.0160	0.5723	0.2468	0.3255	-0.3504
11	20.70	0.0	2.0000	-0.0000	0.0000	0.1500	-0.0123	0.5661	0.2550	0.3111	-0.2075
12	26.60	0.0	0.0000	0.0000	0.0000	0.1000	-0.0160	0.5570	0.2749	0.2775	0.0485
13	29.10	0.0	5.1711	0.3000	0.0000	0.1000	-0.0130	0.5507	0.2892	0.2615	0.0752

TEST PART NAME: 85 1020 205
 REF: 060 030UF2) 0.0
 DEL1: 0 DEL2: 0 DEL3: 0 DEL4: 0
 TRANSITION: FREE

POINT	ALPHA	BETA	CX1	CM1	CM2	XCPF1	YCPF1	CNF2	CM2	CY2	XCPF2	YCPF2
1	-1.71	0.0	-0.0172	0.0013	0.0115	-0.00586	-0.0052	-0.0765	-0.0160	-0.0067	0.1833	0.5060
2	-0.46	0.0	-0.0107	0.0064	-0.0137	-0.0052	0.0095	0.0080	0.0014	-0.0061	0.1777	-1.0130
3	0.35	0.0	-0.0121	0.0064	-0.0076	-0.00576	0.02169	0.00972	0.0196	-0.0188	0.2037	0.1931
4	1.36	0.0	-0.0179	0.0033	-0.0077	-0.0136	0.00303	0.1746	0.0281	0.0527	0.1611	0.3010
5	2.35	0.0	-0.0180	0.0061	-0.0031	-0.02187	0.1666	0.2574	0.0358	0.0835	0.1392	0.3244
6	3.43	0.0	-0.0198	0.0070	-0.0030	-0.0066	0.1610	0.3022	0.0460	0.1144	0.1344	0.3343
7	5.50	0.0	-0.0210	0.0060	-0.0030	-0.0053	0.1617	0.3052	0.0515	0.1784	0.1041	0.3602
8	9.71	0.0	-0.0225	0.0060	-0.0035	-0.0059	0.1387	0.7966	0.0675	0.2946	0.0048	0.3698
9	13.95	0.0	-0.0200	0.0052	-0.0030	-0.0067	0.0320	1.0110	0.0803	0.3925	0.0793	0.3880
10	14.41	0.0	-0.0061	-0.0020	-0.0312	0.0380	0.0465	1.0551	0.0725	0.4090	0.0667	0.3877
11	20.76	0.0	-0.0023	0.0030	-0.0217	-0.0087	0.5136	1.1320	0.0060	0.4443	0.0583	0.3923
12	26.60	0.0	-0.0004	0.0010	-0.0221	-0.0022	0.3461	1.2830	0.0557	0.5070	0.0434	0.3952
13	29.10	0.0	-0.0070	-0.0000	-0.0301	0.0556	0.0038	1.3300	0.0520	0.5311	0.0393	0.3980

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 3 OF 3 NANTIA MISSILE TAIL EFFECTS DATA

POINT	ALPHA	BETA	CX3	CY3	CZ3	XCX3	XCX3	CY4	CZ4	XCX4	XCX4	YCXP4	YCXP4
2	F5 1.20 2.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
													FREE
1	-1.71	0.0	-0.0360	-0.0232	-0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	-0.64	0.0	-0.0345	-0.0207	-0.0050	0.0012	0.1462	-0.0343	0.0106	-0.0771	-0.5430	0.7918	
3	0.35	0.0	-0.0330	-0.0212	-0.0071	0.0037	0.2037	0.0532	0.0215	-0.0087	0.4046	0.1648	
4	1.36	0.0	-0.0322	-0.0232	-0.0030	0.0070	0.0902	0.1284	0.0195	0.0331	0.1516	0.2580	
5	2.37	0.0	-0.0320	-0.0240	-0.0044	0.0004	0.1059	0.2159	0.0310	0.0577	0.1526	0.2678	
6	3.43	0.0	-0.0314	-0.0240	-0.0007	0.0047	0.1005	0.2919	0.0408	0.1055	0.1398	0.3613	
7	5.50	0.0	-0.0311	-0.0240	-0.0024	0.0036	0.0588	0.4538	0.0656	0.1547	0.1445	0.3418	
8	9.71	0.0	-0.0309	-0.0213	-0.0051	0.0072	0.1566	0.7378	0.0607	0.2079	0.0823	0.3902	
9	13.95	0.0	-0.0325	-0.0210	-0.0067	0.0076	0.2052	0.2492	0.0727	0.3960	0.0766	0.4172	
10	18.41	0.0	-0.0374	-0.0306	-0.0017	0.0056	0.0461	1.0047	0.0915	0.4160	0.0808	0.4124	
11	23.74	0.0	-0.0353	-0.0282	0.0018	0.0736	-0.0374	1.0983	0.0677	0.4563	0.0621	0.4203	
12	29.66	0.0	-0.0354	-0.0327	0.0032	0.0734	-0.0905	1.2382	0.0612	0.5153	0.0494	0.4170	
13	25.11	0.0	-0.0264	-0.0200	0.0051	0.0045	-2.1765	1.2491	0.0582	0.5418	0.0452	0.4203	

POINT	TEST PART MANTIN R110-6										
	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAR	CAF	XCP
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	-1.71	0.0	-0.1137	0.1854	0.0166	-0.0527	-0.0121	0.5069	0.1667	0.3382	-1.3300
2	-0.68	0.0	-0.1434	0.0967	0.0171	-0.0510	-0.0117	0.5045	0.1679	0.3365	-2.1589
3	0.35	0.0	0.2454	0.0264	0.0162	-0.0526	-0.0108	0.5063	0.1676	0.3365	0.1020
4	1.40	0.0	0.1649	-0.1000	0.0144	-0.0552	-0.0105	0.5051	0.1724	0.3327	-0.6806
5	2.43	0.0	0.2513	-0.1496	0.0167	-0.0674	-0.0113	0.5051	0.1766	0.3265	-0.7950
6	3.47	0.0	0.3071	-0.2067	0.0151	-0.0599	-0.0115	0.5043	0.1782	0.3260	-0.8259
7	5.55	0.0	0.5021	-0.3534	0.0104	-0.0368	-0.0106	0.5231	0.1863	0.3368	-0.7994
8	9.75	0.0	1.0221	-0.7274	0.0014	0.0009	-0.0073	0.5492	0.2068	0.3424	-0.7895
9	16.07	0.0	1.5300	-0.5617	-0.0036	0.0306	-0.0092	0.5513	0.2218	0.3295	-0.5284
10	18.55	0.0	2.5327	-0.7152	-0.0026	0.0469	-0.0115	0.5066	0.2345	0.3121	-0.2824
11	20.00	0.0	3.0402	-0.8252	-0.0020	0.0427	0.0008	0.5525	0.2464	0.3061	-0.1380
12	26.80	0.0	4.0320	-0.8976	-0.0027	0.2150	-0.0159	0.5596	0.2797	0.2749	-0.0616
13	29.31	0.0	5.6316	-0.8150	-0.0044	0.2300	-0.0155	0.5757	0.2963	0.2794	-0.0737

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST NAME		MACH		RAIL-A		PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
2		EA		1.30 2.5		0.0	530UF21	0.0	0	0	0	0	FREE
POINT	ALPHA	BETA	CDF1	CM1	CL1	YCPF1	YCPF1	CM2	CM2	C02	YCPF2	YCPF2	
1	-1.71	0.0	0.0002	0.0001	0.0023	1.4825	2.9173	-0.0801	-0.0098	-0.0500	0.1229	0.6248	
2	-0.68	0.0	0.0043	0.0059	0.0021	0.4292	0.2771	-0.0054	0.0017	-0.0211	-0.3221	3.9167	
3	2.35	0.0	0.0132	0.0101	0.0095	0.2113	0.3155	0.0645	0.0125	0.0028	0.1943	0.0378	
4	1.40	0.0	0.0049	0.0043	0.0095	0.4400	1.9160	0.1300	0.0209	0.0329	0.1533	0.2400	
5	2.63	0.0	0.0020	0.0035	0.0005	1.0215	0.2100	0.2100	0.0231	0.0674	0.1065	0.3110	
6	3.47	0.0	0.0002	0.0073	0.0077	3.3007	3.4568	0.2949	0.0353	0.0907	0.1198	0.3074	
7	5.55	0.0	0.0055	0.0061	0.0021	-1.1109	-4.3742	0.4368	0.0372	0.1510	0.0856	0.3473	
8	4.75	0.0	-0.0049	0.0007	0.0075	-1.7753	-1.5263	0.7043	0.0509	0.2556	0.0723	0.3629	
9	10.07	0.0	-0.0170	0.0100	0.0065	-0.5071	0.2565	0.9241	0.0567	0.3591	0.0613	0.3806	
10	18.55	0.0	-0.0100	0.0153	-0.0119	-0.9220	0.7163	1.1035	0.0741	0.4366	0.0672	0.3958	
11	29.86	0.0	0.0023	0.0051	0.0201	0.1215	0.6173	1.0983	0.0622	0.4345	0.0567	0.3956	
12	24.40	0.0	-0.0730	0.0085	-0.0279	-0.1145	0.3773	1.7975	0.0463	0.5210	0.0357	0.4020	
13	24.31	0.0	0.0123	0.0050	0.0305	0.0543	0.3763	1.3635	0.0444	0.5508	0.0326	0.4040	

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POINT	TEST PART NAME		PHI CONE			DELTA				TRANSITION		
	MA	SCALE	PHI	CONE	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	FREE	
1	1.30	2.5	0.0	03-0721	0.0	0	0	0	0			
POINT	ALPHA	META	CXF3	CM3	CB3	YCPF3	YCPF3	CXF4	CM4	CB4	YCPF4	YCPF4
1	-1.71	0.0	-0.0199	-0.0207	0.0043	1.3126	-0.2245	-0.1167	0.0019	-0.0074	-0.0160	0.5770
2	-0.68	0.0	-0.0205	-0.0205	0.0066	1.0477	-0.3108	-0.0667	0.0106	-0.0279	-0.2179	0.5739
3	0.35	0.0	-0.0199	-0.0217	0.0055	1.5200	-0.3021	0.0301	0.0153	-0.0058	0.5081	-0.1934
4	1.46	0.0	-0.0199	-0.0207	0.0055	1.4401	-0.3020	0.1123	0.0290	0.0203	0.2504	0.2341
5	2.43	0.0	-0.0211	-0.0207	0.0052	1.3513	-0.2449	0.1840	0.0339	0.0574	0.1840	0.3117
6	4.47	0.0	-0.0199	-0.0207	0.0061	1.0700	-0.2823	0.2057	0.0379	0.0830	0.1425	0.3159
7	5.55	0.0	-0.0207	-0.0207	0.0037	1.3540	-0.1750	0.3476	0.0401	0.1430	0.1004	0.3617
8	5.75	0.0	-0.0207	-0.0207	-0.0044	1.0129	0.0114	0.4667	0.0522	0.2641	0.0702	0.3962
9	14.07	0.0	-0.0207	-0.0270	-0.0047	0.6938	0.1194	0.6816	0.0624	0.3666	0.0708	0.4102
10	14.55	0.0	-0.0417	-0.0331	-0.0042	0.8177	0.1023	1.0490	0.0797	0.4503	0.0760	0.4293
11	29.46	0.0	-0.0379	-0.0331	0.0001	0.4256	-0.0029	1.1059	0.0819	0.4676	0.0741	0.4409
12	26.00	0.0	-0.0400	-0.0330	-0.0002	0.6457	0.0050	1.2404	0.0522	0.5412	0.0421	0.4303
13	24.31	0.0	-0.0400	-0.0300	0.0015	0.6217	-0.0339	1.3341	0.0496	0.5609	0.0381	0.4370

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION AND TUNNEL FACILITY (PFT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 3 MANTI MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART NAME: R1000 PHI: CWF L: DEL1 DEL2 DEL3 DEL4 TRANSITION

2 91 0.00 2.5 0.0 M30F36 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAR	CAF	XCP
1	-1.01	0.0	-0.1000	-0.0500	0.0051	-0.0050	-0.0025	0.3197	0.1135	0.2062	-0.5163
2	-0.30	0.0	-0.0000	-0.0011	0.0002	-0.0002	-0.0022	0.3182	0.1104	0.2030	-1.2001
3	0.63	0.0	-0.0001	-0.1670	0.0003	-0.0005	-0.0030	0.3179	0.1107	0.2032	-1.6063
4	1.00	0.0	0.0021	-0.2003	0.0001	-0.0000	-0.0030	0.3182	0.1153	0.2029	-1.4312
5	2.00	0.0	0.0307	-0.2000	0.0113	-0.0017	-0.0000	0.3100	0.1150	0.2010	-1.4120
6	3.00	0.0	0.0000	-0.7107	0.0000	-0.0000	-0.0000	0.3159	0.1197	0.2003	-1.4790
7	5.00	0.0	0.0000	-1.2000	0.0113	-0.0000	-0.0030	0.3190	0.1230	0.1960	-1.5023
8	4.71	0.0	1.0000	-2.7000	0.0150	-0.0017	-0.0000	0.3300	0.1500	0.1801	-1.7001
9	13.70	0.0	2.0000	-0.0000	0.0000	-0.0000	-0.0000	0.3500	0.1951	0.1590	-1.7737
10	17.07	0.0	3.0000	-0.0000	0.0000	-0.0000	-0.0000	0.3600	0.2200	0.1399	-1.7000
11	19.00	0.0	0.0000	-7.0000	0.0000	-0.0000	-0.0000	0.3700	0.2600	0.1057	-1.7551
12	25.03	0.0	5.0000	-10.0000	0.0000	-0.0000	0.0000	0.3300	0.3000	0.0200	-1.7200
13	27.00	0.0	0.0000	-11.0000	0.0000	-0.0000	0.0000	0.2800	0.2800	0.0000	-1.7000

TEST PART NAME REL. Wt PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 91 0.00 2.5 0.0 030F30 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CMP1	CM1	CB1	YCPF1	YCPF1	CAF2	CMF	CB2	XCPF2	YCPF2
1	-1.41	0.0	0.0033	0.0001	-0.0010	0.0252	-0.2615	-0.0225	0.0001	-0.0004	-0.0033	0.3608
2	-0.36	0.0	0.0033	0.0001	-0.0010	0.0252	-0.1436	-0.0033	-0.0002	-0.0011	0.0767	0.3436
3	0.53	0.0	0.0033	0.0001	-0.0010	0.0252	-0.6109	0.0166	-0.0006	0.0055	-0.0367	0.3283
4	1.66	0.0	0.0033	0.0001	-0.0010	0.0252	-0.8447	0.0361	-0.0010	0.0146	-0.0263	0.3032
5	2.66	0.0	0.0033	0.0001	-0.0010	0.0252	-0.6616	0.0442	-0.0013	0.0226	-0.0209	0.3529
6	3.66	0.0	0.0037	0.0001	-0.0005	0.0383	-0.1284	0.0925	-0.0070	0.0337	-0.0212	0.3649
7	5.46	0.0	0.0022	0.0001	-0.0003	0.0542	-0.1527	0.1577	-0.0015	0.0515	-0.0095	0.3262
8	9.71	0.0	0.0014	0.0002	-0.0001	0.1053	-0.0938	0.3024	0.0016	0.0837	0.0053	0.2762
9	13.78	0.0	0.00052	0.0001	-0.0001	0.20136	-0.5543	0.4430	0.0058	0.1101	0.0133	0.2499
10	17.47	0.0	0.0004	0.0014	-0.0034	0.1440	-0.3740	0.5666	0.0124	0.1330	0.0219	0.2347
11	19.90	0.0	0.0019	0.0025	-0.0050	0.1550	-0.3779	0.5178	0.0100	0.1406	0.0265	0.2275
12	25.03	0.0	0.0037	0.0020	-0.0046	0.3252	-0.6260	0.7376	0.0252	0.1570	0.0341	0.2129
13	27.21	0.0	0.0001	0.0024	-0.0055	22.0725	-0.3406	0.0032	0.0237	0.1706	0.0245	0.2124

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ARMED ENGINEERING RESEARCH CENTER (AERC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 3 OF 3 MARTI MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST PART MACH 0.25											
	ALPHA	EFT	CFX	CY	CZ	XCXF3	YCFF3	XCFF4	YCFF4	XCFF5	YCFF5	TRANSITION
1	-1.41	0.0	0.0032	-0.0000	0.0000	-0.1215	1.3027	0.0190	0.0000	-0.0112	-0.0142	0.5660
2	-0.38	0.0	0.0030	-0.0002	0.0032	-0.0630	0.8290	0.0000	-0.0001	-0.0027	-2.8004	-55.0000
3	0.03	0.0	0.0023	-0.0000	0.0051	-0.2644	2.2067	0.0100	-0.0007	0.0059	-0.0453	0.3131
4	1.56	0.0	0.0024	-0.0005	0.0044	-0.1771	1.5302	0.0349	-0.0011	0.0143	-0.0260	0.3671
5	2.60	0.0	0.0025	-0.0001	0.0046	-0.0200	1.0000	0.0633	-0.0018	0.0268	-0.0207	0.3922
6	3.44	0.0	0.0010	-0.0002	0.0050	-0.0445	1.3701	0.0930	-0.0020	0.0354	-0.0215	0.3777
7	5.50	0.0	0.0014	-0.0002	0.0050	-0.0442	1.3750	0.1501	-0.0010	0.0566	-0.0113	0.3452
8	9.71	0.0	0.0043	-0.0001	0.0007	-0.0130	1.5333	0.2905	-0.0000	0.0913	-0.0000	0.3142
9	13.70	0.0	0.0073	-0.0001	0.0009	-0.0102	1.1325	0.4100	0.0056	0.1210	0.0130	0.2920
10	17.07	0.0	0.0110	-0.0003	0.0111	-0.0253	0.9333	0.5217	0.0127	0.1411	0.0243	0.2704
11	19.90	0.0	0.0152	-0.0003	0.0116	-0.0152	0.7200	0.5731	0.0170	0.1490	0.0290	0.2615
12	25.03	0.0	0.0200	-0.0000	0.0130	-0.0300	0.6500	0.7170	0.0220	0.1853	0.0312	0.2501
13	27.21	0.0	0.0200	-0.0000	0.0100	-0.0000	0.5772	0.7000	0.0200	0.2000	0.0200	0.2500

TEST PART NAME 9114-B PHI CUM L DELT DEL2 DEL3 DEL4 TRANSITION
 2 92 0.45 2.5 0.0 43.0735 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAF	CAF	KCP
1	-1.61	0.0	-0.1260	-0.0744	-0.0203	-0.1651	-0.0020	0.3277	0.1164	0.2173	-0.6367
2	-0.34	0.0	-0.0191	-0.0036	0.0007	-0.0677	-0.0076	0.3272	0.1093	0.2179	2.1876
3	0.01	0.0	0.0253	-0.1521	0.0007	-0.0535	-0.0025	0.3251	0.1110	0.2161	-1.7592
4	1.66	0.0	0.1456	-0.0270	0.0134	-0.0501	-0.0040	0.3272	0.1123	0.2149	-1.4282
5	2.69	0.0	0.3262	-0.0457	0.0175	-0.0501	-0.0051	0.3252	0.1107	0.2105	-1.4303
6	3.00	0.0	0.4903	-0.0544	0.0190	-0.0617	-0.0050	0.3293	0.1174	0.2119	-1.4866
7	3.00	0.0	0.4750	-0.0702	0.0190	-0.0615	-0.0062	0.3249	0.1158	0.2091	-1.4911
8	5.71	0.0	0.7441	-1.0276	0.0165	-0.0550	-0.0054	0.3274	0.1250	0.2024	-1.6130
9	9.74	0.0	1.5665	-2.7507	0.0202	-0.0628	-0.0090	0.3074	0.1553	0.1920	-1.7668
10	13.75	0.0	2.5014	-4.4603	0.0259	-0.0760	-0.0093	0.3060	0.1424	0.1732	-1.7939
11	17.80	0.0	3.5478	-6.3837	0.0313	-0.1000	-0.0173	0.3768	0.2294	0.1400	-1.7745
12	19.90	0.0	4.1000	-7.3607	0.0703	-0.1450	-0.0149	0.3751	0.2462	0.1450	-1.7588
13	25.05	0.0	5.0000	-10.1200	0.0504	-0.2123	0.0072	0.3366	0.3000	0.0307	-1.7166
14	24.07	0.0	6.3000	-10.0203	0.0704	-0.2155	0.0027	0.2978	0.2962	0.0076	-1.6943
15	27.27	0.0	6.6000	-11.0124	0.1304	-0.3041	-0.0038	0.2466	0.2913	0.0032	-1.6524

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PHOENIX WIND TUNNEL FACILITY (PTF) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME: BK10-0												
POINT	ALPHA	BETA	CNF1	CNF1	CNF1	YCNF1	YCNF1	CNF2	CNF2	CNF2	YCNF2	YCNF2
2	92.00	0.00	2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	-1.41	0.00	0.0020	-0.0001	0.0000	-0.0036	0.0935	-0.0266	0.0002	-0.0121	-0.0102	0.0025
2	-0.39	0.00	0.0020	-0.0001	0.0000	-0.0372	0.3512	-0.0044	-0.0003	-0.0034	0.0600	0.7770
3	0.61	0.00	0.0020	0.0001	0.0000	0.0201	0.9548	0.2102	-0.0008	0.0028	-0.0577	0.1949
4	1.64	0.00	0.0020	0.0000	0.0000	0.0074	1.1527	0.0359	-0.0011	0.0100	-0.0315	0.2950
5	2.69	0.00	0.0016	0.0000	0.0000	0.0159	2.4025	0.0619	-0.0016	0.0197	-0.0263	0.3183
6	3.40	0.00	0.0020	0.0000	-0.0014	0.0077	-0.5474	0.0046	-0.0021	0.0267	-0.0247	0.3391
7	3.66	0.00	0.0020	-0.0000	0.0001	-0.0150	0.0000	0.0915	-0.0021	0.0306	-0.0228	0.3341
8	5.71	0.00	0.0020	0.0000	-0.0020	0.0305	-0.9729	0.1574	-0.0020	0.0496	-0.0127	0.3154
9	9.73	0.00	0.0010	-0.0000	0.0005	0.0101	0.5051	0.3026	0.0006	0.0021	0.0021	0.2712
10	13.75	0.00	0.0050	-0.0000	0.0014	-0.1165	0.3273	0.0369	0.0044	0.1005	0.0100	0.2400
11	17.86	0.00	0.0050	-0.0001	0.0062	-0.0141	0.8531	0.5635	0.0006	0.1323	0.0174	0.2347
12	19.94	0.00	0.0170	0.0000	0.0015	0.0525	0.0937	0.6147	0.0141	0.1375	0.0229	0.2237
13	25.05	0.00	0.0007	-0.0001	0.0010	0.0314	0.1450	0.7327	0.0211	0.1505	0.0287	0.2136
14	29.07	0.00	-0.0040	0.0021	-0.0054	-0.0014	20.2000	0.7737	0.0702	0.1654	0.0261	0.2142
15	27.27	0.00	0.0072	0.0020	-0.0050	0.0306	-0.7452	0.0070	0.0159	0.1732	0.0247	0.2144

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TEST PART NAME RA10-6 PNT CNF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 97 VAND 2.5 0.0 0.0036 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CNF3	CM3	Co3	XCPF3	YCPF3	CNF4	CM4	CM4	XCPF4	YCPF4
1	-1.01	0.0	-0.0000	-0.0011	0.0036	1.2300	-3.0750	0.0200	0.0000	-0.0111	-0.0205	0.5502
2	-0.39	0.0	0.0020	-0.0005	0.0026	-0.2176	1.1046	-0.0001	-0.0001	-0.0030	0.6668	20.0667
3	0.61	0.0	0.0005	-0.0010	0.0002	-1.6503	0.0109	0.0082	-0.0007	-0.0050	-0.0011	0.3189
4	1.00	0.0	0.0000	-0.0011	0.0004	-35.33-2	163.9909	0.0303	-0.0011	0.0142	-0.0292	0.3705
5	2.00	0.0	0.0001	-0.0002	0.0025	-0.0005	0.6073	0.0020	-0.0020	0.0203	-0.0321	0.3910
6	3.00	0.0	0.0010	-0.0004	0.0003	-0.0006	2.6270	0.0001	-0.0023	0.0332	-0.0260	0.3051
7	3.60	0.0	0.0020	-0.0005	0.0000	-0.1926	1.7951	0.0002	-0.0023	0.0350	-0.0202	0.3700
8	5.71	0.0	0.0010	-0.0007	0.0004	-0.3507	2.4003	0.1500	-0.0023	0.0502	-0.0100	0.3500
9	9.73	0.0	0.0000	-0.0001	0.0000	-0.0200	1.0773	0.2900	-0.0000	0.0900	-0.0000	0.3100
10	13.75	0.0	0.0007	-0.0005	0.0001	-0.0700	1.2132	0.4100	0.0000	0.1200	0.0100	0.2900
11	17.00	0.0	0.0020	-0.0005	0.0003	-0.0001	0.7300	0.5300	0.0100	0.1400	0.0100	0.2700
12	19.00	0.0	0.0010	-0.0000	0.0004	-0.0010	0.7010	0.5700	0.0100	0.1500	0.0200	0.2600
13	25.05	0.0	0.0010	-0.0000	0.0010	-0.0000	0.6700	0.7200	0.0100	0.1800	0.0200	0.2600
14	26.67	0.0	0.0010	-0.0010	0.0010	-0.0000	0.7800	0.7700	0.0100	0.2000	0.0200	0.2600
15	27.27	0.0	0.0010	-0.0010	0.0010	-0.0000	0.5000	0.7800	0.0100	0.2000	0.0200	0.2600

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ARNOLD ENGINEERING DEVELOPMENT CENTER (APL) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 3 MATI'S MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART	MACH	REYNOLDS	PR1	CONE	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
2	93	0.42	2.5	0.0	M3WCF36	0.0	0	0	0	0	FREE
POINT	ALPHA	ETA	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	ACP
1	-1.81	0.0	-0.1226	-0.1761	0.0131	-0.0668	-0.0031	0.3558	0.1090	0.2668	-0.6205
2	-0.36	0.0	-0.0104	-0.0330	0.0124	-0.0649	-0.0039	0.3552	0.1121	0.2431	-0.1762
3	0.63	0.0	0.0445	-0.1511	0.0130	-0.0540	-0.0009	0.3516	0.1100	0.2376	-1.7003
4	1.64	0.0	0.1945	-0.2023	0.0145	-0.0542	-0.0003	0.3516	0.1128	0.2368	-1.4148
5	2.65	0.0	0.3400	-0.5324	0.0100	-0.0553	-0.0002	0.3585	0.1129	0.2456	-1.6527
6	3.65	0.0	0.4774	-0.7141	0.0153	-0.0567	-0.0001	0.3541	0.1156	0.2394	-1.5041
7	4.64	0.0	0.6177	-1.1312	0.0201	-0.0581	-0.0006	0.3507	0.1216	0.2309	-1.6481
8	4.74	0.0	1.0001	-2.7027	0.0207	-0.0532	-0.0103	0.3766	0.1560	0.2702	-1.8141
9	13.75	0.0	2.5632	-6.7186	0.0272	-0.0772	-0.0102	0.3931	0.1902	0.2029	-1.8609
10	17.47	0.0	3.6604	-8.5625	0.0009	-0.1532	-0.0172	0.3948	0.2345	0.1603	-1.7909
11	13.33	0.0	6.2443	-7.5014	0.0013	-0.1022	-0.0103	0.3966	0.2555	0.1639	-1.7702
12	25.13	0.0	6.0197	-9.5455	0.0011	-0.1600	-0.0107	0.3543	0.2901	0.0642	-1.6605
13	27.34	0.0	6.7470	-10.5000	0.0001	-0.1489	-0.0130	0.3173	0.3016	0.0157	-1.5570

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TEST CASE MACH 6.10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION												
2 43 4.52 2.5 0.0 N30F36 0.0 0 0 0 0 FREE												
POINT	ALPHA	BETA	CN1	C-1	Cs1	YCPF1	YCPF1	CNF2	CN2	C82	YCPF2	YCPF2
1	-1.61	0.0	0.0014	-0.0006	0.0035	0.0158	1.8211	-0.0255	0.0000	-0.0138	-0.0012	0.5601
2	-0.36	0.0	0.0036	0.0001	0.0032	0.0212	3.4434	-0.0043	-0.0004	-0.0054	0.0903	1.2454
3	0.63	0.0	0.0023	0.0000	0.0034	0.0220	1.0608	0.0155	-0.0005	0.0009	-0.0560	0.0573
4	1.64	0.0	0.0017	0.0	-0.0015	0.0	-1.1170	0.0355	-0.0013	0.0101	-0.0366	0.2801
5	2.68	0.0	0.0006	-0.0001	0.0000	-0.1500	6.6167	0.0080	-0.0026	0.0208	-0.0302	0.3057
6	3.65	0.0	0.0013	-0.0001	0.0012	-0.0514	0.8593	0.0920	-0.0025	0.0295	-0.0269	0.3202
7	5.65	0.0	0.0010	0.0001	0.0030	0.0541	1.6886	0.1549	-0.0027	0.0477	-0.0171	0.2984
8	4.74	0.0	0.0022	0.0002	-0.0042	0.0746	-1.8874	0.3047	-0.0013	0.0429	-0.0041	0.2686
9	13.78	0.0	0.0004	-0.0004	0.0015	-0.0922	0.3053	0.4427	0.0003	0.1105	0.0007	0.2496
10	17.87	0.0	0.0000	-0.0000	0.0037	0.0055	0.4055	0.5657	0.0046	0.1338	0.0081	0.2366
11	19.93	0.0	0.0172	-0.0005	0.0057	-0.0547	0.5607	3.6163	0.0067	0.1618	0.0109	0.2294
12	25.13	0.0	-0.0007	-0.0007	0.0016	0.1039	-0.2583	0.7478	0.0118	0.1653	0.0158	0.2211
13	27.34	0.0	-0.0127	0.0000	0.0015	0.0731	0.1155	0.0073	0.0137	0.1774	0.0169	0.2197

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ARSD ENGINEERING DEVELOPMENT CENTER (AEC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	REYNOLDS	PHI	CONF	L	DEL1	DEL2	DEL3	DELA	TRANSITION		
2	93	0.62	2.5	0.0	63.0	CF36	0.0	0	0	0	FREE	
POINT	ALPHA	BETA	CNF3	CM3	CG3	XCPF3	YCPF3	CNF4	CM4	CB4	XCPF4	YCPF4
1	-1.61	0.0	-0.0002	-0.0000	0.0017	4.5046	-9.7222	-0.0191	0.0000	-0.0106	-0.0200	0.5544
2	-0.36	0.0	0.0010	-0.0005	0.0014	-3.2470	1.0004	0.0006	-0.0002	-0.0019	-0.3493	-3.0317
3	0.63	0.0	-0.0000	-0.0010	0.0032	1.7169	-5.3167	0.0198	-0.0008	0.0068	-0.0619	0.3456
4	1.64	0.0	0.0000	-0.0000	0.0027	-1.2700	4.3175	0.0388	-0.0012	0.0145	-0.0314	0.3737
5	2.08	0.0	0.0024	-0.0006	0.0027	-1.1557	0.9303	0.0649	-0.0022	0.0253	-0.0339	0.3987
6	3.65	0.0	0.0014	-0.0000	0.0024	-0.3211	1.3845	0.0900	-0.0027	0.0364	-0.0291	0.3865
7	5.64	0.0	0.0021	-0.0005	0.0030	-2.2337	1.5801	0.1611	-0.0030	0.0565	-0.0149	0.3505
8	4.74	0.0	0.0032	-0.0003	0.0051	-0.1036	1.6064	0.3006	-0.0027	0.0943	-0.0089	0.3138
9	13.70	0.0	0.0054	-0.0000	0.0073	-0.0906	1.1867	0.4254	0.0001	0.1264	0.0000	0.2971
10	17.97	0.0	0.0103	-0.0000	0.0087	-0.0756	0.8437	0.5303	0.0052	0.1466	0.0098	0.2769
11	19.93	0.0	0.0100	-0.0007	0.0102	-0.0449	0.7250	0.5868	0.0075	0.1595	0.0128	0.2718
12	25.13	0.0	0.0130	-0.0000	0.0165	-0.0400	0.5711	0.7278	0.0094	0.1931	0.0137	0.2654
13	27.39	0.0	0.0203	-0.0010	0.0110	-0.0423	0.6688	0.7000	0.0107	0.2112	0.0130	0.2607

TEST PART =ALM BX10-A PWT CONF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 46 0.50 2.5 0.0 03.0730 0.0 0 0 0 0 FREE

POINT	ALPHA	MFT	C4	CLM	CY	CLN	CLL	CA	CA8	CAF	KCP
1	-1.41	0.0	-0.1213	0.0000	0.0140	-0.0603	-0.0004	0.4155	0.1325	0.2630	-0.8035
2	-0.30	0.0	-0.0176	-0.0304	0.0077	-0.0603	-0.0076	0.4251	0.1242	0.2909	1.7742
3	0.65	0.0	0.0000	-0.1032	0.0105	-0.0603	-0.0051	0.4234	0.1360	0.2847	-1.8033
4	1.64	0.0	0.0001	-0.0995	0.0084	-0.0604	-0.0047	0.4134	0.1303	0.2831	-1.4534
5	2.65	0.0	0.0000	-0.0112	0.0150	-0.0605	-0.0049	0.4162	0.1293	0.2668	-1.4742
6	3.60	0.0	0.0000	-0.0770	0.0127	-0.0606	-0.0102	0.4213	0.1333	0.2880	-1.5081
7	5.65	0.0	0.0000	-1.0350	0.0155	-0.0606	-0.0040	0.4250	0.1435	0.2815	-1.6850
8	4.70	0.0	1.0397	-2.0000	0.0221	-0.0604	-0.0120	0.4421	0.1735	0.2665	-1.4086
9	13.70	0.0	2.0150	-4.7500	0.0275	-0.0713	-0.0157	0.4587	0.2210	0.2369	-1.8197
10	17.67	0.0	3.0770	-6.7500	0.0677	-0.1600	-0.0220	0.4790	0.2528	0.2262	-1.7620
11	19.95	0.0	4.0000	-7.7500	0.0701	-0.1760	-0.0200	0.4778	0.2975	0.1803	-1.7441
12	25.24	0.0	6.0000	-10.0000	0.1692	-0.2671	-0.0120	0.4191	0.3000	0.1092	-1.5953
13	27.09	0.0	7.1700	-10.7500	0.0503	-0.1600	-0.0251	0.3730	0.3105	0.0569	-1.4900

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ARMOUR ENGINEERING DEVELOPMENT CENTER(AEDC) PROPELLION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 2 OF 3 PART II MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST PART NAME: HLLW-6											
	ALPHA	BETA	CMF1	CM1	CM2	YCPF1	YCPF2	YCPF3	YCPF4	YCPF5	YCPF6	YCPF7
1	-1.01	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	-0.30	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.65	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	1.54	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2.65	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	3.60	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	5.09	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	9.70	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	13.70	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	17.87	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
11	19.95	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12	25.74	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
13	27.45	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TEST PART NAME: 2.5 PHI CONF L DEL1 DEL2 DEL3 DEL TRANSITION
 2 V4 V40 2.5 0.0 0.0 CF36 0.0 0 0 0 0 FREE

POINT	ALPHA	META	CPX3	CM3	Co3	XCPF3	YCPF3	CAFA	CM4	CR4	XCPF4	YCPF4
1	-1.41	0.0	-0.0013	-0.0014	0.0025	-0.4475	-1.9000	-0.0145	0.0000	-0.0124	-0.0447	0.4357
2	-0.30	0.0	0.0000	-0.0010	0.0031	-0.1004	7.6500	0.0010	0.0001	-0.0035	0.0316	-1.8421
3	0.45	0.0	-0.0012	-0.0015	0.0053	1.2522	-0.3000	0.0220	-0.0008	0.0050	-0.0372	0.2066
4	1.00	0.0	0.0013	-0.0010	0.0027	-0.7530	2.0448	0.0422	-0.0017	0.0145	-0.0402	0.3422
5	2.65	0.0	0.0023	-0.0009	0.0020	-0.3750	1.2271	0.0687	-0.0030	0.0250	-0.0441	0.3722
6	3.66	0.0	0.0010	-0.0009	0.0030	-0.5300	1.9379	0.0990	-0.0039	0.0373	-0.0392	0.3773
7	5.00	0.0	0.0021	-0.0000	0.0005	-0.3733	2.1035	0.1662	-0.0000	0.0566	-0.0260	0.3000
8	9.70	0.0	0.0035	-0.0007	0.0055	-0.2735	1.5817	0.3003	-0.0053	0.0935	-0.0175	0.3113
9	13.70	0.0	0.0009	-0.0000	0.0070	-0.1361	1.3379	0.4292	-0.0031	0.1270	-0.0073	0.2979
10	17.57	0.0	0.0009	-0.0004	0.0091	-0.0712	0.6347	0.5414	-0.0020	0.1570	-0.0037	0.2800
11	19.95	0.0	0.0010	-0.0004	0.0100	-0.0550	0.4970	0.6010	-0.0021	0.1660	-0.0035	0.2772
12	25.24	0.0	0.0012	-0.0009	0.0107	-0.0522	0.5092	0.7471	-0.0017	0.2051	-0.0023	0.2746
13	27.60	0.0	0.0023	-0.0013	0.0117	-0.0500	0.5220	0.6061	-0.0005	0.2206	-0.0006	0.2736

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AERONAUTICAL ENGINEERING DEVELOPMENT CENTER (AEDC)
 PROPULSION WIND TUNNEL FACILITY (PWTF)
 AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 3
 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST POINT WACH RAIL-6											
	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAN	CAF	KCP	TRANSITION
2	95	1.16	2.5	0.0	0.33	0.36	0.0	0	0	0	0	FREE
1	-1.41	0.0	-0.1437	0.0041	0.0161	-0.0774	-0.0049	0.5832	0.2157	0.3675	-0.7228	
2	-0.01	0.0	-0.0290	-0.0041	0.0154	-0.0797	-0.0043	0.5821	0.2156	0.3664	2.0015	
3	0.02	0.0	0.1057	-0.0187	0.0208	-0.0741	-0.0094	0.5816	0.2156	0.3672	-1.7725	
4	1.03	0.0	0.2142	-0.0180	0.0161	-0.0771	-0.0112	0.5811	0.2140	0.3671	-1.4782	
5	2.68	0.0	0.3528	-0.0151	0.0212	-0.0768	-0.0117	0.5798	0.2152	0.3645	-1.4618	
6	3.64	0.0	0.5132	-0.0137	0.0235	-0.0779	-0.0118	0.5785	0.2138	0.3647	-1.5057	
7	4.71	0.0	0.6522	-0.0145	0.0264	-0.0786	-0.0133	0.5764	0.2204	0.3584	-1.6833	
8	9.74	0.0	1.0024	-0.0279	0.0329	-0.1017	-0.0168	0.6304	0.2731	0.3572	-1.7613	
9	13.96	0.0	2.0030	-0.0274	0.0381	-0.0980	-0.0172	0.6452	0.2987	0.3464	-1.7506	
10	17.95	0.0	3.7472	-0.0311	0.0455	-0.1503	-0.0192	0.6324	0.2952	0.3373	-1.6744	
11	20.05	0.0	6.0450	-0.0231	0.0708	-0.1720	-0.0215	0.6127	0.3009	0.3119	-1.5882	
12	25.42	0.0	6.5723	-0.0406	0.1165	-0.2534	-0.0043	0.5808	0.3762	0.2446	-1.3987	
13	27.74	0.0	7.0079	-0.0502	0.0955	-0.0279	-0.0255	0.5584	0.3658	0.2131	-1.2970	

TEST MARI. MACH. RATIO - 2.5												
PMT CONF. 1 DEL1 DEL2 DEL3 DEL4 TRANSITION												
2 95 1.010 2.5 0.0 030036 0.0 0 0 0 0 FREE												
POINT	ALPHA	BETA	CNF1	CNF1	CNF1	XCPF1	YCPF1	CNF2	CNF2	CNF2	XCPF2	YCPF2
1	-1.61	0.0	0.0013	-0.0002	0.0033	-0.1424	2.6190	-0.0262	0.0010	-0.0169	-0.0389	0.6665
2	-0.41	0.0	0.0000	-0.0003	0.0013	-0.5001	2.0488	-0.0045	-0.0001	-0.0078	0.0248	1.7450
3	0.62	0.0	0.0012	-0.0001	0.0018	-0.3842	1.1721	0.0177	-0.0011	-0.0002	-0.0599	-0.8898
4	1.63	0.0	0.0000	-0.0000	0.0000	-0.0116	0.0581	0.0403	-0.0018	0.0004	-0.0452	0.2087
5	2.68	0.0	0.0000	0.0000	0.0038	0.0000	0.0038	0.0671	-0.0029	0.0178	-0.0433	0.2650
6	3.66	0.0	0.0000	0.0001	0.0032	0.0002	0.5985	0.0064	-0.0044	0.0292	-0.0448	0.2964
7	5.71	0.0	0.0016	-0.0002	0.0000	-0.1409	2.7778	0.1056	-0.0061	0.0430	-0.0368	0.2957
8	9.74	0.0	0.0013	-0.0002	0.0014	-0.1829	1.1270	0.3095	-0.0067	0.0425	-0.0216	0.2666
9	13.88	0.0	0.0001	-0.0013	0.0022	-0.2500	0.5388	0.4380	-0.0076	0.1105	-0.0178	0.2523
10	17.95	0.0	0.0024	-0.0011	0.0053	-0.3474	1.6027	0.5504	-0.0076	0.1348	-0.0139	0.2449
11	20.95	0.0	0.0003	-0.0004	0.0009	-0.0667	-0.2069	0.6055	-0.0087	0.1466	-0.0144	0.2421
12	24.42	0.0	0.0014	-0.0003	0.0004	-0.0203	0.3848	0.7453	-0.0122	0.1793	-0.0164	0.2405
13	27.74	0.0	0.0000	0.0001	0.0019	-0.0676	1.6095	0.7980	-0.0136	0.1931	-0.0168	0.2418

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 3 OF 3 PART I - MISSILE TAIL EFFECTS DATA

POINT	TEST PART NAME: BALT-6												
	ALPHA	BETA	CNF3	CNF3	CNF3	YCPF3	YCPF3	CNF4	CNF4	CR4	XCPF4	YCPF4	TRANSITION
2	94.10	2.5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	FREE
1	-1.61	0.0	0.0005	-0.0019	0.0007	-3.3330	7.3700	-0.0012	0.0010	-0.0130	-0.0506	0.6780	
2	-0.61	0.0	0.0005	-0.0019	0.0007	-3.3330	7.3700	-0.0017	-0.0001	-0.0040	-0.0077	-2.3567	
3	0.02	0.0	-0.0017	-0.0024	0.0000	1.3728	-3.5118	0.0229	-0.0012	-0.0052	-0.0533	-0.2272	
4	1.03	0.0	0.0015	-0.0019	0.0004	-1.1937	2.5677	0.0030	-0.0021	0.0138	-0.0484	0.3164	
5	2.06	0.0	0.0013	-0.0019	0.0050	-1.5118	0.3488	0.0099	-0.0030	0.0250	-0.0486	0.3579	
6	3.00	0.0	0.0017	-0.0019	0.0007	-1.1019	2.0104	0.0084	-0.0047	0.0366	-0.0471	0.3705	
7	5.71	0.0	0.0021	-0.0019	0.0057	-0.4301	2.8600	0.1068	-0.0062	0.0570	-0.0374	0.3419	
8	9.74	0.0	0.0030	-0.0019	0.0009	-0.4175	1.0120	0.2990	-0.0001	0.0926	-0.0273	0.3102	
9	13.04	0.0	0.0070	-0.0017	0.0053	-0.2209	1.2288	0.4205	-0.0017	0.1260	-0.0183	0.2998	
10	17.95	0.0	0.0099	-0.0010	0.0000	-0.1700	1.0352	0.5237	-0.0004	0.1463	-0.0123	0.2832	
11	20.05	0.0	0.0119	-0.0009	0.0002	-0.2736	0.8535	0.5760	-0.0007	0.1607	-0.0110	0.2790	
12	25.42	0.0	0.0100	-0.0007	0.0105	-0.0440	0.6429	0.7170	-0.0117	0.2029	-0.0163	0.2010	
13	27.75	0.0	0.0100	-0.0000	0.0107	-0.0422	0.5350	0.7749	-0.0153	0.2210	-0.0197	0.2052	

TEST	PARI	WALM	PK1	PH1	COM	U	DEL1	DEL2	DEL3	DEL4	TRANSITION	
											2	FREE
2	VA	1.20	2.5	0.0	E306F36	0.0	0	0	0	0	0	0
POINT	ALPHA	PF1	CM	CLM	CY	CLW	CLL	CA	CA4	CAF	ACP	
1	0.0	0.0	-0.1112	-0.0000	-0.0000	0.0000	-0.0000	0.5666	0.1844	0.3790	0.0052	
2	-0.01	0.0	-0.0020	-0.1230	-0.0024	0.0000	-0.0009	0.5672	0.1905	0.3747	0.1059	
3	0.00	0.0	0.1177	-0.2537	-0.0031	0.0000	-0.0096	0.5661	0.1913	0.3748	-2.1574	
4	1.00	0.0	0.2324	-0.3011	-0.0012	0.0019	-0.0107	0.5672	0.1924	0.3748	-1.6397	
5	2.00	0.0	0.3655	-0.3553	-0.0000	0.0225	-0.0112	0.5657	0.1936	0.3721	-1.5149	
6	3.00	0.0	0.5137	-0.0004	0.0007	0.0154	-0.0117	0.5654	0.1962	0.3692	-1.5406	
7	4.00	0.0	0.6711	-1.3437	0.0000	0.0113	-0.0143	0.5754	0.2073	0.3681	-1.5920	
8	4.77	0.0	1.0074	-2.7610	0.0004	0.0150	-0.0176	0.6154	0.2427	0.3727	-1.6713	
9	13.80	0.0	2.6240	-4.2445	0.0023	-0.0100	-0.0185	0.6229	0.2655	0.3575	-1.6328	
10	14.07	0.0	3.4755	-5.7497	0.0001	-0.0401	-0.0200	0.6131	0.2809	0.3321	-1.5078	
11	20.21	0.0	6.5522	-5.3472	0.0027	-0.1422	-0.0176	0.5951	0.2833	0.3118	-1.4064	
12	25.64	0.0	6.9100	-7.9427	0.1145	-0.2003	-0.0192	0.5724	0.3086	0.2639	-1.2004	
13	28.00	0.0	7.5300	-8.3813	0.0720	-0.0631	-0.0400	0.5437	0.3398	0.2639	-1.1386	

ARMED ENGINEERING DEVELOPMENT CENTER(AEC) PULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST PART		CALC. RCL=6		PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
	1	2	1	2								
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FREE
2	1.62	0.0	-0.0033	0.0012	-0.0029	-0.0226	0.0730	-0.0258	-0.0005	-0.0100	0.0201	0.5573
3	0.41	0.0	-0.0031	0.0012	0.0000	-0.0377	-0.1424	-0.0052	-0.0014	-0.0064	0.2715	1.2256
4	0.60	0.0	-0.0030	0.0011	0.0003	-0.0315	-0.0720	-0.0160	-0.0020	0.0012	-0.1420	0.0782
5	1.64	0.0	-0.0036	0.0004	0.0007	-0.1575	-0.1206	0.0346	-0.0036	0.0049	-0.0973	0.2305
6	2.06	0.0	-0.0054	0.0010	0.0005	-0.1795	-0.1043	0.0650	-0.0048	0.0146	-0.0745	0.2857
7	3.69	0.0	-0.0045	0.0011	0.0003	-0.2330	-0.0571	0.0940	-0.0062	0.0240	-0.0652	0.3020
8	5.70	0.0	-0.0030	0.0013	0.0010	-0.1343	0.0882	0.1580	-0.0078	0.0443	-0.0490	0.2983
9	4.77	0.0	-0.0033	0.0014	-0.0005	-0.2007	0.0859	0.2935	-0.0089	0.0740	-0.0302	0.2688
10	13.40	0.0	-0.0027	0.0012	-0.0023	-0.3384	0.0534	0.4113	-0.0094	0.1057	-0.0229	0.2571
11	14.07	0.0	-0.0030	0.0004	-0.0015	-0.0644	0.2714	0.5176	-0.0114	0.1293	-0.0221	0.2490
12	20.21	0.0	-0.0010	0.0009	0.0020	-0.0701	-0.0100	0.5686	-0.0126	0.1411	-0.0221	0.2482
13	25.65	0.0	-0.0001	0.0011	-0.0013	-0.1056	0.1397	0.7009	-0.0155	0.1746	-0.0210	0.2463
14	28.00	0.0	-0.0022	0.0003	-0.0007	-0.1045	0.3308	0.7635	-0.0102	0.1891	-0.0230	0.2477

TEST PART	VALVE	RAI	W	CHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
2	96	1.20	2.5	0.0	03-0F36	0.0	0	0	0	0	FREE	
POINT	ALPHA	BETA	CHI1	CHI2	CHI3	XCPF3	YCPF3	XCF4	CM4	CB4	XCPF4	YCPF4
1	-1.42	0.0	-0.0095	-0.0000	0.0020	0.1200	-0.5422	-0.0166	-0.0006	-0.0125	0.0368	0.7535
2	-0.81	0.0	-0.0119	-0.0000	0.0011	0.2211	-0.5737	0.0031	-0.0010	-0.0037	-0.4611	-1.2013
3	0.60	0.0	-0.0039	-0.0000	0.0020	0.2125	-0.8070	0.0200	-0.0020	0.0007	-0.0901	0.1897
4	1.64	0.0	-0.0024	-0.0000	0.0020	0.2475	-0.8780	0.0451	-0.0037	0.0140	-0.0813	0.3101
5	2.66	0.0	-0.0013	-0.0000	0.0029	0.3016	-1.5050	0.0692	-0.0030	0.0200	-0.0720	0.3075
6	3.69	0.0	-0.0010	-0.0000	0.0037	0.6303	-3.7035	0.0995	-0.0050	0.0354	-0.0603	0.3555
7	5.70	0.0	0.0017	-0.0000	0.0030	-1.0162	6.8592	0.1620	-0.0072	0.0552	-0.0466	0.3001
8	9.77	0.0	0.0035	-0.0000	0.0007	-0.2000	1.7103	0.2004	-0.0094	0.0090	-0.0327	0.3115
9	13.86	0.0	0.0053	-0.0000	0.0002	-0.1110	1.2913	0.0008	-0.0100	0.1200	-0.0250	0.3009
10	18.07	0.0	0.0100	-0.0000	0.0101	-0.0000	0.8376	0.0097	-0.0116	0.1455	-0.0232	0.2912
11	20.21	0.0	0.0130	-0.0000	0.0100	-0.0000	0.7909	0.0521	-0.0126	0.1509	-0.0231	0.2895
12	25.49	0.0	0.0215	-0.0000	0.0114	-0.0000	0.5520	0.0077	-0.0150	0.1945	-0.0230	0.2901
13	28.00	0.0	0.0200	-0.0000	0.0120	-0.0000	0.5020	0.7393	-0.0135	0.2161	-0.0260	0.2923

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION AND TUNNEL FACILITY (PMT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 PART IV MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART W/CM N110-A											
Z		Vx 1.3u		Z=5		PMI CLAF		L		CELL WEL2 DEL3 DEL4 TRANSITION	
2		0.0		0.0		M30CF36		0.0		0 0 0 0 FREE	
POINT	ALPHA	META	CM	CLM	CV	CLN	CLL	CA	CAR	CAF	KCP
1	-1.00	0.0	-0.1665	0.2662	0.0663	-0.1667	-0.0112	0.5610	0.2013	0.3368	-1.5490
2	-0.37	0.0	-0.0665	0.1477	0.0513	-0.1470	-0.0124	0.5374	0.1965	0.3415	-3.1787
3	0.66	0.0	0.0736	0.1102	0.0464	-0.1866	-0.0145	0.5377	0.1934	0.3442	-0.2149
4	1.66	0.0	0.1913	-0.1131	0.0534	-0.1908	-0.0153	0.5393	0.1966	0.3427	-0.5911
5	2.71	0.0	0.3242	-0.2462	0.0515	-0.1473	-0.0164	0.5376	0.1997	0.3380	-0.8966
6	3.71	0.0	0.4751	-0.3258	0.0517	-0.1472	-0.0165	0.5358	0.1499	0.3359	-1.1068
7	5.71	0.0	0.7977	-1.0477	0.0581	-0.1473	-0.0173	0.5486	0.2018	0.3468	-1.3136
8	9.41	0.0	1.6413	-2.0422	0.0427	-0.1471	-0.0146	0.5402	0.2360	0.3563	-1.4910
9	13.94	0.0	2.5460	-3.0460	0.0465	-0.1468	-0.0143	0.5440	0.2669	0.3321	-1.6794
10	19.14	0.0	3.4424	-5.2154	0.0767	-0.1744	-0.0235	0.5661	0.2480	0.3180	-1.3535
11	24.34	0.0	4.6046	-5.0544	0.0556	-0.1774	-0.0277	0.5773	0.2709	0.3064	-1.2715
12	25.44	0.0	6.6417	-7.2541	0.1151	-0.2003	-0.0259	0.5762	0.3084	0.2678	-1.8922
13	24.14	0.0	7.5224	-7.0464	0.0514	-0.1804	-0.0334	0.5614	0.3299	0.2619	-1.8485

POINT	TEST PART NAME				CONE	L	DEL1	DEL2	DEL3	DELA	TRANSITION
	2	VA	1.50	2.5							
1	-1.00	0.0	0.0000	-0.0012	0.0000	0.0	0	0	0	0	FREE
2	-0.37	0.0	0.0007	-0.0019	0.0000	0.0	0	0	0	0	FREE
3	0.66	0.0	0.0000	-0.0011	0.0007	0.0	0	0	0	0	FREE
4	1.00	0.0	0.0007	-0.0010	0.0000	0.0	0	0	0	0	FREE
5	2.71	0.0	0.0024	-0.0013	0.0007	0.0	0	0	0	0	FREE
6	3.71	0.0	0.0031	-0.0009	0.0000	0.0	0	0	0	0	FREE
7	5.71	0.0	0.0020	-0.0000	0.0000	0.0	0	0	0	0	FREE
8	9.61	0.0	0.0020	-0.0011	0.0000	0.0	0	0	0	0	FREE
9	13.94	0.0	0.0000	-0.0011	0.0000	0.0	0	0	0	0	FREE
10	18.16	0.0	-0.0000	-0.0000	0.0000	0.0	0	0	0	0	FREE
11	20.30	0.0	-0.0000	-0.0000	0.0000	0.0	0	0	0	0	FREE
12	25.00	0.0	-0.0000	-0.0000	0.0000	0.0	0	0	0	0	FREE
13	28.16	0.0	-0.0000	-0.0000	0.0000	0.0	0	0	0	0	FREE

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME: R110-A												
PHI: 0.0 CMF: 0.0 DEL1: 0 DEL2: 0 DEL3: 0 DEL4: 0 TRANSITION: FREE												
POINT	ALPHA	BETA	CMF3	CMF	CM3	ACMF3	YCMF3	CMF4	CM4	CM4	YCMF4	YCMF4
1	-1.00	0.0	0.0101	-0.0029	0.0000	-1.3523	2.0657	-0.0025	0.0021	-0.0162	-0.0354	0.7166
2	-0.37	0.0	0.0022	-0.0031	0.0007	-1.3542	2.0970	-0.0015	0.0011	-0.0073	-0.0753	4.9000
3	0.66	0.0	0.0021	-0.0033	0.0056	-1.5621	2.0614	-0.0106	0.0001	-0.0017	-0.0050	0.0915
4	1.66	0.0	0.0004	-0.0032	0.0042	-1.3546	2.6371	0.0389	-0.0000	0.0006	-0.0216	0.2460
5	2.71	0.0	0.0001	-0.0031	0.0059	-0.7710	1.4532	-0.0041	-0.0023	0.0208	-0.0359	0.3240
6	3.71	0.0	0.0037	-0.0032	0.0063	-0.8540	1.6470	0.0932	-0.0030	0.0310	-0.0360	0.3325
7	5.71	0.0	0.0000	-0.0020	0.0053	-0.5300	1.2003	0.1530	-0.0050	0.0045	-0.0329	0.3230
8	4.71	0.0	0.0053	-0.0023	0.0073	-0.0752	1.3614	0.2725	-0.0067	0.0837	-0.0245	0.3072
9	13.40	0.0	0.0055	-0.0010	0.0065	-0.2908	1.5353	0.3709	-0.0070	0.1121	-0.0206	0.2973
10	14.16	0.0	0.0101	-0.0010	0.0103	-0.0970	1.0198	0.4696	-0.0097	0.1360	-0.0206	0.2897
11	20.30	0.0	0.0115	-0.0010	0.0106	-0.0655	0.9001	0.5224	-0.0110	0.1511	-0.0211	0.2883
12	25.00	0.0	0.0170	-0.0005	0.0114	-0.0353	0.6382	0.6099	-0.0100	0.1929	-0.0209	0.2960
13	25.10	0.0	0.0227	-0.0000	0.0114	-0.0357	0.5250	0.6003	-0.0205	0.2116	-0.0350	0.3030

TEST PART	WALL	RAIG	PHI	CONE	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
2	104	0.000	2.0	0.0	0.0	0	0	0	0	FREE	
POINT	ALPHA	BETA	C _x	C _{LM}	C _y	C _L	C _{LL}	C _A	C _{AO}	C _{AF}	XCP
1	-1.64	0.0	-0.1023	0.1145	-0.0233	0.0220	-0.0011	0.3087	0.1133	0.1954	-0.8397
2	-0.40	0.0	-0.0025	-0.0170	-0.0024	0.0214	-0.0011	0.3093	0.1131	0.1962	0.6704
3	0.57	0.0	0.0030	-0.1087	-0.0212	0.0220	-0.0007	0.3099	0.1136	0.1962	-1.6568
4	1.57	0.0	0.0014	-0.2423	-0.0194	0.0210	-0.0006	0.3076	0.1136	0.1940	-1.4004
5	2.55	0.0	0.0317	-0.4600	-0.0234	0.0273	-0.0002	0.3077	0.1152	0.1924	-1.3004
6	3.63	0.0	0.0577	-0.6674	-0.0237	0.0315	0.0004	0.3068	0.1174	0.1890	-1.4269
7	5.63	0.0	0.0837	-1.0306	-0.0247	0.0470	0.0013	0.3051	0.1250	0.1800	-1.6223
8	9.70	0.0	0.1105	-1.6467	-0.0147	0.0394	0.0016	0.3151	0.1467	0.1665	-1.8917
9	13.73	0.0	0.1373	-2.4641	-0.0149	0.0427	0.0009	0.3264	0.1783	0.1485	-2.0492
10	17.82	0.0	0.1641	-3.4277	-0.0107	0.0217	0.0098	0.3302	0.2057	0.1244	-2.0095
11	19.86	0.0	0.1827	-4.1657	0.0003	0.0065	0.0113	0.3265	0.2255	0.1010	-2.0764
12	25.03	0.0	0.0644	-12.1060	0.0709	-0.1776	0.0305	0.3274	0.2469	0.0310	-2.0090
13	27.25	0.0	0.0476	-13.4164	0.0545	-0.2152	0.0420	0.3095	0.2279	0.0184	-1.9699

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

TEST POINT NAME		MACH		PHI		CONF		DEL1		DEL2		DEL3		DEL4		TRANSITION	
2		105 0.00 2.5		0.0		0300F32		0.0		0		0		0		FREE	
POINT	ALPHA	META	CXF1	CM1	CB1	KCPF1	YCPF1	CXF2	CM2	CB2	KCPF2	YCPF2					
1	-1.04	0.0	0.0038	0.0001	-0.0004	-1.1539	-7.9016	-0.0272	-0.0005	-0.0100	0.3111	0.3882					
2	-0.44	0.0	0.0007	0.0001	-0.0053	0.1439	-6.6557	-0.0047	-0.0012	-0.0025	0.2468	0.5253					
3	0.57	0.0	-0.0002	-0.0002	-0.0013	1.2901	7.7054	0.0152	0.0054	0.0058	0.3577	0.3808					
4	1.47	0.0	-0.0000	-0.0004	-0.0004	0.6746	4.6429	0.0372	0.0120	0.0165	0.3225	0.4442					
5	2.59	0.0	0.0000	-0.0003	-0.0014	-5.6068	-28.0000	0.0660	0.0190	0.0252	0.3055	0.3930					
6	3.03	0.0	-0.0012	-0.0005	-0.0042	0.4103	7.9060	0.0437	0.0206	0.0348	0.2862	0.3926					
7	5.03	0.0	-0.0014	-0.0005	-0.0049	0.2576	3.3128	0.1629	0.0403	0.0692	0.2473	0.4247					
8	4.70	0.0	0.0005	-0.0004	-0.0070	-0.0367	-10.3070	0.3307	0.0627	0.1471	0.1896	0.4448					
9	13.73	0.0	0.0005	-0.0000	-0.0057	-0.2307	-11.7103	0.5345	0.0735	0.2334	0.1374	0.4367					
10	17.42	0.0	0.0004	-0.0015	-0.0034	-1.0441	-6.4102	0.7531	0.0907	0.3301	0.1205	0.4384					
11	19.56	0.0	0.0014	-0.0013	-0.0025	-0.7453	-1.3421	0.8436	0.0987	0.3768	0.1170	0.4395					
12	25.03	0.0	0.0020	-0.0000	0.0052	-0.0004	0.2297	1.0458	0.1105	0.4473	0.1057	0.4277					
13	27.25	0.0	0.0027	-0.0004	0.0119	-0.0335	0.0300	1.1260	0.1150	0.4764	0.1020	0.4220					

TEST PART NAME RA106												
POINT	ALPHA	MFR	CMF1	CM3	CM3	ACMF3	YCPF3	CMF4	CM4	CM4	YCPF4	YCPF4
2	105	0.00	2.5	0.0	0.30CF32	0.0	0	0	0	0	FREE	
1	-1.09	0.0	-0.0004	-0.0001	0.0016	0.0103	-0.2803	-0.0252	-0.0007	-0.0103	0.3367	0.5520
2	-0.04	0.0	-0.0025	0.0007	0.0005	-0.2771	-0.1924	-0.0036	-0.0010	-0.0050	0.2798	1.3906
3	0.57	0.0	-0.0024	0.0025	0.0005	-0.3306	-0.1701	0.0101	0.0000	0.0050	0.3053	0.2738
4	1.57	0.0	-0.0020	0.0010	0.0003	-0.5172	-0.1527	0.0306	0.0133	0.0154	0.3441	0.3984
5	2.54	0.0	-0.0023	0.0004	-0.0004	-0.0352	0.2036	0.0632	0.0204	0.0262	0.3228	0.4147
6	3.53	0.0	-0.0024	0.0004	0.0	-0.3659	0.0	0.0913	0.0270	0.0399	0.3051	0.4374
7	5.53	0.0	-0.0030	0.0011	0.0002	-0.3300	-0.0735	0.1504	0.0412	0.0752	0.2501	0.4735
8	9.70	0.0	-0.0034	-0.0002	0.0012	0.0236	-0.1750	0.3148	0.0021	0.1597	0.1974	0.5075
9	13.73	0.0	-0.0004	-0.0000	0.0013	0.0012	-0.1590	0.5001	0.0092	0.2570	0.1359	0.5049
10	17.82	0.0	-0.0105	-0.0004	0.0004	0.0103	-0.1042	0.7101	0.0004	0.3591	0.1194	0.5050
11	19.80	0.0	-0.0097	-0.0005	0.0000	0.0513	-0.0021	0.7960	0.0925	0.4020	0.1162	0.5050
12	25.03	0.0	-0.0074	-0.0002	0.0005	0.0292	-0.3215	0.9992	0.1079	0.4094	0.1080	0.4080
13	27.25	0.0	-0.0054	-0.0000	0.0002	-0.0632	-0.6541	1.0774	0.1137	0.5191	0.1055	0.4010

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPELLSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 MARTI MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME RATIO PHI CONE L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 106 0.65 2.5 0.0 03 OF 32 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAR	CAF	KCP
1	-1.49	0.0	-0.111	0.0005	-0.0156	0.0006	-0.0010	0.3177	0.1135	0.2022	-0.4957
2	-0.47	0.0	-0.0157	-0.0037	-0.0215	0.0070	-0.0004	0.3165	0.1141	0.2024	4.1805
3	0.57	0.0	0.0510	-0.1003	-0.0198	0.0160	-0.0006	0.3163	0.1102	0.2021	-2.0073
4	1.57	0.0	0.2274	-0.3510	-0.0144	0.0120	-0.0004	0.3160	0.1132	0.2029	-1.5750
5	2.54	0.0	0.3650	-0.5200	-0.0177	0.0167	-0.0010	0.3166	0.1109	0.1996	-1.5150
6	3.00	0.0	0.0010	-0.7617	-0.0103	0.0215	-0.0012	0.3132	0.1131	0.2001	-1.5507
7	5.07	0.0	0.0034	-1.0072	-0.0103	0.0330	0.0003	0.3120	0.1250	0.1071	-1.7107
8	9.09	0.0	1.0034	-1.2020	-0.0147	0.0347	0.0023	0.3290	0.1465	0.1020	-1.9547
9	13.75	0.0	2.7052	-5.7030	-0.0151	0.0410	0.0003	0.3066	0.1716	0.1766	-2.1000
10	17.83	0.0	3.4400	-8.0473	-0.0100	0.0307	0.0100	0.3039	0.2000	0.1379	-2.1215
11	19.84	0.0	4.5033	-9.5050	0.0000	0.0119	0.0130	0.3003	0.2200	0.1159	-2.0961
12	25.00	0.0	6.1000	-10.3370	0.0570	-0.1100	0.0200	0.3290	0.2900	0.0310	-2.0070
13	27.29	0.0	6.0000	-13.0000	0.1050	-0.2200	0.0070	0.3000	0.3230	-0.0100	-1.9500

TEST PART NAME: RL10-6												
POINT	ALPHA	BETA	CX1	CM1	CD1	XCPF1	YCPF1	CF2	CM2	CB2	XCPF2	YCPF2
2	106	0.05	2.5	0.0	H30F32	0.0	0	0	0	0	FREE	
1	-1.44	0.0	0.0025	0.0003	0.0000	0.1216	0.38031	0.00188	-0.0066	0.0108	0.3511	0.5758
2	-0.47	0.0	0.0	0.0	-0.0000	0.0	-0.0009	0.0029	0.0035	-0.0024	0.2759	-0.9828
3	0.57	0.0	0.0012	-0.0001	-0.0013	0.00736	-1.0984	0.0226	0.0080	0.0055	0.3232	0.7228
4	1.57	0.0	0.0014	0.0	-0.0107	0.0	-0.5389	0.0472	0.0166	0.0154	0.3093	0.3256
5	2.59	0.0	0.0004	-0.0003	-0.0003	-1.2692	-2.2308	0.0746	0.0223	0.0263	0.2959	0.3534
6	3.60	0.0	-0.0009	-0.0005	-0.0054	0.5667	5.9667	0.1046	0.0290	0.0395	0.2770	0.3771
7	5.67	0.0	-0.0021	-0.0017	-0.0056	1.3365	2.5662	0.1767	0.0437	0.0732	0.2432	0.4076
8	9.64	0.0	0.0015	-0.0006	-0.0047	-1.4355	-21.7047	0.3500	0.0650	0.1524	0.1859	0.4356
9	13.75	0.0	-0.0017	-0.0005	-0.0045	0.8143	7.8000	0.5602	0.0768	0.2418	0.1335	0.4389
10	17.83	0.0	-0.0037	-0.0015	-0.0012	0.4850	0.3406	0.7738	0.0904	0.3366	0.1173	0.4350
11	19.89	0.0	-0.0029	-0.0025	-0.0001	0.8508	2.7627	0.0697	0.0994	0.3749	0.1143	0.4311
12	25.00	0.0	0.0009	-0.0023	-0.0002	-0.2074	-0.0232	1.0584	0.1084	0.4454	0.1024	0.4207
13	27.29	0.0	0.0028	-0.0015	0.0147	-0.0495	0.5805	1.1342	0.1087	0.4742	0.0954	0.4181

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ARSDU ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	MACH	PKTC	PMI	CUSE	L	DEL1	DEL2	DEL3	DELA	TRANSITION	
2	106	0.65	2.5	0.0	M30F32	0.0	0	0	0	0	FREE	
POINT	ALPHA	ETA	CF3	CM3	CM3	XCPF3	YCPF3	CAF4	CM4	CB4	XCPF4	YCPF4
1	-1.67	0.0	-0.0055	-0.0010	0.0003	0.0675	-0.0550	-0.0185	-0.0171	-0.0119	0.3432	0.6416
2	-0.47	0.0	-0.0057	-0.0002	0.0004	0.1030	-0.0699	0.0033	0.0008	-0.0030	0.2319	-0.9096
3	0.57	0.0	-0.0021	0.0002	-0.0002	-0.0570	0.0023	0.0244	0.0083	-0.0074	0.3411	0.3030
4	1.57	0.0	-0.0057	-0.0002	-0.0004	0.0363	0.0070	0.0064	0.0150	0.0175	0.3313	0.3773
5	2.57	0.0	-0.0057	-0.0002	-0.0002	0.0298	0.0335	0.0711	0.0220	0.0292	0.3150	0.4110
6	3.60	0.0	-0.0057	0.0001	-0.0005	-0.0307	0.1031	0.0497	0.0300	0.0470	0.3008	0.4292
7	4.67	0.0	-0.0057	0.0002	-0.0004	-0.0412	0.0763	0.1714	0.0430	0.0811	0.2556	0.4720
8	6.69	0.0	-0.0057	-0.0007	0.0007	0.0408	-0.0842	1.3337	0.0640	0.1667	0.1930	0.4995
9	13.75	0.0	-0.0057	0.0005	-0.0003	-0.0843	0.0613	0.5362	0.0705	0.2685	0.1315	0.5809
10	17.83	0.0	-0.0075	-0.0007	0.0011	0.0040	-1.1455	0.7370	0.0454	0.3690	0.1150	0.5001
11	19.84	0.0	-0.0044	-0.0000	0.0010	0.0757	-0.1142	0.6201	0.0940	0.4109	0.1135	0.4962
12	25.00	0.0	-0.0044	-0.0002	0.0024	0.0373	-0.4486	1.0194	0.1056	0.4925	0.1036	0.4831
13	27.29	0.0	-0.0057	0.0001	0.0030	-0.0120	-0.5353	1.6967	0.1047	0.5250	0.1001	0.4790

TEST PART: AL-RR10-A FRI. CONE 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 107 0.02 2.5 0.0 43.0F32 0.0 0 0 0 0 FREE

POINT	ALPHA	MFA	CN	CLM	CV	CLN	CLL	CA	CAN	CAF	KCP
1	-1.00	0.0	-0.1301	-0.0025	-0.0166	0.0123	-0.0029	0.3032	0.1151	0.2261	-0.6683
2	-0.47	0.0	-0.0204	-0.0007	-0.0161	0.0115	-0.0020	0.3037	0.1121	0.2317	2.0770
3	0.57	0.0	0.0302	-0.0021	-0.0170	0.0121	-0.0022	0.3065	0.1131	0.2330	-1.9376
4	1.57	0.0	0.0200	-0.0007	-0.0122	0.0082	-0.0022	0.3035	0.1104	0.2292	-1.5488
5	2.00	0.0	0.0300	-0.0020	-0.0120	0.0170	-0.0029	0.3069	0.1133	0.2310	-1.6743
6	3.03	0.0	0.0400	-0.0007	-0.0130	0.0200	-0.0031	0.3021	0.1159	0.2267	-1.5310
7	5.00	0.0	0.0600	-0.0007	-0.0100	0.0300	-0.0009	0.3370	0.1200	0.2001	-1.7122
8	9.70	0.0	1.0700	-0.0015	-0.0100	0.0150	0.0053	0.3500	0.1071	0.2119	-1.9805
9	13.73	0.0	2.0230	-0.0052	-0.0127	0.0300	0.0067	0.3773	0.1017	0.1950	-2.1230
10	17.83	0.0	4.0000	-0.0000	-0.0023	0.0201	0.0117	0.3701	0.2132	0.1500	-2.1509
11	19.80	0.0	6.7000	-0.0033	0.0011	0.0105	0.0163	0.3633	0.2207	0.1020	-2.1297
12	25.13	0.0	0.0202	-0.0007	0.0030	-0.0007	0.0300	0.3332	0.2010	0.0521	-1.9800
13	27.00	0.0	7.1700	-0.0010	0.0037	-0.0027	0.0610	0.3112	0.3075	0.0037	-1.8907

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 2 OF 3

SHEET 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

TEST EAST PALM BLIND-6												
POINT	ALPHA	BETA	CMF1	CM1	CM2	KCMF1	YCPF1	CMF2	CM2	CM2	KCPF2	YCPF2
2	107	0.92	2.5	0.0	0.326F32	0.0	0	0	0	0	FREE	
1	-1.44	0.0	-0.0007	-0.0004	-0.0037	0.0005	5.5352	-0.0174	-0.0067	-0.0112	0.3652	0.6635
2	-0.57	0.0	-0.0001	-0.0002	-0.0006	1.1333	5.2900	0.0024	0.0006	-0.0020	0.2585	-0.6686
3	0.57	0.0	0.0001	0.0003	0.0006	-5.2900	-92.3929	0.0257	0.0006	0.0053	0.3333	0.2075
4	1.57	0.0	0.0013	0.0001	-0.0047	-0.1637	-3.4815	0.0484	0.0156	0.0158	0.3225	0.3271
5	2.62	0.0	-0.0003	-0.0004	-0.0007	1.2903	2.3226	0.0754	0.0234	0.0256	0.3092	0.3386
6	3.63	0.0	-0.0014	-0.0007	-0.0039	0.4091	2.2273	0.1063	0.0306	0.0396	0.2674	0.3721
7	5.68	0.0	-0.0004	-0.0004	-0.0007	0.3112	1.6608	0.1624	0.0460	0.0724	0.2522	0.3078
8	9.76	0.0	-0.0017	-0.0016	-0.0056	1.3008	4.0406	0.3620	0.0664	0.1509	0.1890	0.4276
9	13.73	0.0	-0.0002	-0.0009	-0.0007	4.1366	3.4091	0.5756	0.0770	0.2455	0.1338	0.4265
10	17.43	0.0	-0.0005	-0.0016	-0.0007	3.2708	1.3750	0.8047	0.0091	0.3447	0.1108	0.4287
11	19.88	0.0	-0.0024	-0.0023	-0.0052	1.0377	2.5658	0.9096	0.0967	0.3292	0.1063	0.4278
12	25.13	0.0	0.0004	-0.0037	0.0004	-0.4256	0.9837	1.1060	0.1046	0.4627	0.0946	0.4184
13	27.64	0.0	0.0020	-0.0037	0.0263	-0.2205	0.9172	1.1699	0.1017	0.4875	0.0866	0.4167

TEST	POINT	ALPHA	BETA	CF3	CM3	CM3	YCPF3	YCPF3	CM4	CM4	CM4	YCPF4	YCPF4	TRANSITION
2	107	0.0	0.0	2.5	0.0	0.0	0	0	0	0	0	0	0	FREE
1	1.00	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	0.47	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3	0.57	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
4	1.57	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	2.00	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
6	3.03	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
7	5.00	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
8	9.70	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
9	13.73	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
10	17.43	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
11	19.00	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12	25.13	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
13	27.00	0.0	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

AERONAUTICAL ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION AND TUNNEL FACILITY (PAT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST	PHI	CLWF	L	CELL	DEL2	DEL3	DEL4	TRANSITION				
2	10K	0.00	2.5	0.0	03-0632	0.0	0	0	0	0	0	FREE
POINT	ALPHA	BETA	CN	CLN	CV	CLM	CLL	CA	CAB	CAF	XCP	
1	-1.45	0.0	-0.1372	0.0701	-0.0201	0.0121	-0.0036	0.0019	0.1309	0.2709	-0.5114	
2	-0.40	0.0	-0.0105	-0.0070	-0.0215	0.0120	-0.0031	0.0020	0.1294	0.2730	4.6637	
3	0.50	0.0	0.1255	-0.2103	-0.0107	0.0191	-0.0090	0.0087	0.1252	0.2735	-2.0310	
4	1.50	0.0	0.2242	-0.3704	-0.0128	0.0100	-0.0035	0.0023	0.1238	0.2745	-1.6573	
5	2.61	0.0	0.3710	-0.5035	-0.0101	0.0211	-0.0038	0.0002	0.1216	0.2724	-1.5738	
6	3.63	0.0	0.5004	-0.6604	-0.0190	0.0291	-0.0045	0.0003	0.1259	0.2785	-1.6410	
7	5.03	0.0	0.6501	-1.0007	-0.0132	0.0220	-0.0017	0.0009	0.1414	0.2635	-1.7900	
8	9.49	0.0	1.0077	-3.0755	-0.0170	0.0315	0.0029	0.0051	0.1665	0.2086	-2.0861	
9	13.70	0.0	2.0703	-6.0057	-0.0079	0.0102	0.0105	0.0036	0.1899	0.2417	-2.1722	
10	17.87	0.0	4.2477	-9.1944	-0.0138	0.0349	0.0133	0.0032	0.2390	0.2036	-2.1650	
11	19.33	0.0	6.0705	-10.0087	-0.0000	0.0210	0.0155	0.0053	0.2811	0.1502	-2.1267	
12	25.20	0.0	0.0000	-13.3627	0.0015	-0.0059	0.0305	0.0070	0.3129	0.0941	-1.9400	
13	27.55	0.0	7.7100	-10.0000	0.0000	0.0576	0.0305	0.0387	0.3296	0.0001	-1.0209	

TEST NAME: MACH RAIL-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 100 0.50 2.00 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CONF1	CONF2	CONF3	XCPF1	YCPF1	CONF2	CONF3	XCPF2	YCPF2	
1	-1.00	0.0	-0.0000	-0.0000	-0.0000	1.2173	1.2000	-0.0174	-0.0000	-0.0116	0.3876	0.6658
2	-1.00	0.0	0.0011	-0.0001	-0.0014	-0.0727	-1.4727	0.0937	0.0000	-0.0025	0.2213	-0.0940
3	0.56	0.0	-0.0017	-0.0007	-0.0006	0.0055	0.3296	0.0260	0.0000	-0.0050	0.3070	0.1038
4	1.50	0.0	-0.0017	-0.0007	-0.0006	0.5749	0.8793	0.0521	0.0157	0.0156	0.3006	0.3000
5	2.01	0.0	-0.0022	-0.0006	-0.0004	0.3453	0.1614	0.0747	0.0243	0.0264	0.2926	0.3313
6	3.03	0.0	-0.0015	-0.0007	-0.0000	0.4933	0.4400	0.1147	0.0710	0.0414	0.2699	0.3613
7	5.03	0.0	-0.0026	-0.0004	-0.0005	0.0000	2.3873	0.1917	0.0662	0.0770	0.2610	0.4017
8	6.00	0.0	0.0003	-0.0004	-0.0004	-2.5000	-0.1875	0.3920	0.0649	0.1662	0.1780	0.4239
9	13.70	0.0	0.0014	-0.0022	-0.0042	-1.0170	2.2473	0.0019	0.0767	0.2535	0.1270	0.4212
10	17.07	0.0	-0.0004	-0.0022	-0.0004	0.7751	0.1744	0.0135	0.0405	0.3458	0.0949	0.4250
11	19.93	0.0	-0.0004	-0.0015	-0.0031	0.6102	0.5311	0.5192	0.0837	0.3807	0.0910	0.4229
12	25.26	0.0	0.0130	-0.0024	0.0000	-0.1430	0.3430	1.1724	0.0827	0.4958	0.0706	0.4229
13	27.55	0.0	0.0100	-0.0024	0.0000	-0.2616	0.6554	1.2450	0.0908	0.5242	0.0724	0.4200

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
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 SHEET 1 OF 1

POINT	TEST PART NAME PWTF-6											
	ALPHA	BETA	CX F3	CX3	CY3	XCX F3	XCX3	XCX F4	XCX4	CX F4	CX4	
2	10.4	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	-1.89	0.0	-0.0051	-0.0000	-0.0011	0.1145	0.2629	-0.0173	-0.0074	-0.0114	0.0298	0.6580
2	-0.84	0.0	-0.0032	0.0001	-0.0015	-0.0348	0.5177	0.0058	0.0010	-0.0022	0.1771	-0.3802
3	0.56	0.0	-0.0002	0.0000	0.0000	0.0050	0.2018	0.0266	0.0087	0.0074	0.3273	0.2778
4	1.58	0.0	-0.0013	0.0011	-0.0019	-0.0308	1.4769	0.0496	0.0162	0.0149	0.3269	0.3010
5	2.61	0.0	-0.0031	0.0000	-0.0000	-0.0026	0.1498	0.0750	0.0239	0.0308	0.3171	0.0082
6	3.63	0.0	-0.0053	0.0002	-0.0024	-0.0549	0.7256	0.1077	0.0310	0.0459	0.2949	0.0262
7	5.63	0.0	-0.0045	-0.0002	0.0003	-0.0347	0.0862	0.1835	0.0471	0.0850	0.2567	0.0433
8	9.69	0.0	-0.0031	-0.0004	-0.0006	0.0641	0.1109	0.3777	0.0708	0.1640	0.1875	0.0672
9	13.76	0.0	-0.0042	0.0005	-0.0004	-0.1106	0.1012	0.5872	0.0873	0.2673	0.1466	0.0092
10	17.87	0.0	-0.0074	-0.0004	0.0004	0.0665	-0.0538	0.7835	0.0790	0.3744	0.1008	0.0829
11	19.93	0.0	-0.0076	-0.0005	0.0025	0.0628	-0.3272	0.8458	0.0814	0.0260	0.0919	0.0088
12	25.06	0.0	-0.0075	-0.0003	0.0021	0.0677	-0.3793	1.1209	0.0797	0.5375	0.0711	0.0795
13	27.55	0.0	-0.0073	-0.0002	0.0032	0.0233	-0.4362	1.2018	0.0847	0.5726	0.0705	0.0760

TEST PART	WALL	RAI	W6	PHI	CONE	L	CEL1	CEL2	DEL3	DEL4	TRANSITION
2	109	1.10	2.5	0.0	030F32	0.0	0	0	0	0	FREE
POINT	ALPHA	ETA	CN	CLM	CV	CLM	CLL	CA	CAB	CAF	KCP
1	-1.51	0.0	-0.1550	-0.0701	-0.0105	0.0002	-0.0007	0.0006	0.2121	0.3005	-0.5028
2	-0.00	0.0	-0.0207	-0.0007	-0.0103	-0.0070	-0.0050	0.0010	0.2124	0.3002	4.1507
3	0.50	0.0	0.1113	-0.0204	-0.0103	-0.0010	-0.0050	0.0006	0.2127	0.3009	-2.3507
4	1.57	0.0	0.2430	-0.0404	-0.0110	0.0006	-0.0006	0.0006	0.2199	0.3009	-1.8671
5	2.52	0.0	0.3310	-0.0472	-0.0220	0.0205	-0.0006	0.0006	0.2200	0.3002	-1.6969
6	3.62	0.0	0.5550	-0.0520	-0.0107	0.0206	-0.0001	0.0006	0.2700	0.3012	-1.7320
7	5.05	0.0	0.9000	-1.7315	-0.0002	0.0300	-0.0001	0.0006	0.2302	0.3003	-1.8603
8	9.72	0.0	1.0000	-3.0000	-0.0102	0.0210	0.0011	0.0006	0.2503	0.3000	-2.0630
9	13.77	0.0	2.0000	-6.0000	-0.0072	0.0100	0.0076	0.0006	0.2705	0.3023	-2.1000
10	17.00	0.0	0.1000	-0.0021	-0.0222	0.0500	0.0120	0.0006	0.3009	0.3020	-2.0520
11	20.00	0.0	0.2000	-0.0000	-0.0000	0.0000	0.0170	0.0006	0.3130	0.3007	-1.9015
12	25.00	0.0	0.4000	-11.0000	0.0202	-0.0020	0.0200	0.0006	0.3000	0.2000	-1.7100
13	27.00	0.0	0.5000	-12.0000	0.0107	0.0000	0.0150	0.0006	0.3000	0.2000	-1.5000

ARLWD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 2 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

TEST PART NAME	PRN	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION				
2	109	1.10 2.5	0.0	0	0	0	0	FREE				
POINT	ALPHA	CFX	CFY	CM1	CM2	XCOPY1	YCOPY1	CFX2	CFY2	CM2	XCOPY2	YCOPY2
1	-1.51	0.0	-0.0013	-0.0001	-0.0002	0.0053	10.9375	-0.0169	-0.0009	-0.0113	0.3071	0.5966
2	-0.48	0.0	-0.0005	-0.0007	-0.0029	0.0305	3.4407	0.0032	0.0002	-0.0014	0.0726	-0.4479
3	0.56	0.0	0.0001	-0.0003	-0.0025	-5.7500	-71.0000	0.0205	0.0072	0.0071	0.2533	0.2081
4	1.57	0.0	0.0009	-0.0003	-0.0097	-0.2809	-10.8444	0.0536	0.0140	0.0179	0.2608	0.3340
5	2.60	0.0	-0.0014	0.0001	-0.0069	-0.0007	5.7619	0.0007	0.0214	0.0287	0.2700	0.3560
6	3.62	0.0	-0.0010	0.0001	-0.0094	-0.0673	9.0769	0.1158	0.0204	0.0439	0.2450	0.3789
7	5.65	0.0	-0.0012	0.0002	-0.0103	-0.0230	11.8391	0.1964	0.0406	0.0768	0.2069	0.4011
8	9.72	0.0	-0.0015	-0.0011	-0.0017	0.7306	1.1104	0.3060	0.0496	0.1063	0.1544	0.4309
9	13.77	0.0	-0.0014	-0.0011	-0.0015	-0.9329	-1.0951	0.5913	0.0706	-0.2549	0.1194	0.4311
10	17.94	0.0	-0.0015	-0.0014	-0.0054	0.9124	3.9066	0.7802	0.0674	0.3325	0.0864	0.4262
11	20.04	0.0	-0.0010	-0.0010	-0.0003	1.1132	2.7358	0.2671	0.0594	0.3654	0.0801	0.4226
12	25.46	0.0	0.0034	-0.0030	0.0000	-0.9115	0.0120	1.0935	0.0666	0.4596	0.0603	0.4203
13	27.87	0.0	-0.0060	-0.0024	-0.0020	0.0255	0.4331	1.1597	0.0661	0.0853	0.0570	0.4184

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TEST PART	DEL1	DEL2	DEL3	DEL4	TRANSITION							
2	109	1.10	2.0	0.0	03.0F32	0.0	0	0	0	0	FREE	
POINT	ALPHA	CFY4	CFZ	CX3	CX3	YCPF3	YCPF3	CY4	CX4	CX4	XCPF4	YCPF4
1	-1.51	0.0	-0.0044	-0.001	0.0007	0.2210	-0.1001	-0.0149	-0.3079	-0.0131	0.0203	0.0020
2	-0.40	0.0	-0.0039	-0.0000	0.0000	0.1900	-0.0895	0.0020	0.0003	-0.0039	0.1400	-1.0310
3	0.50	0.0	-0.0000	-0.0000	0.0000	0.1000	-0.0000	0.0201	0.0001	0.0005	0.2070	0.2310
4	1.57	0.0	-0.0000	-0.0000	0.0000	0.1300	-0.0000	0.0527	0.0151	0.0177	0.2000	0.3300
5	2.00	0.0	-0.0000	-0.0000	0.0000	0.1370	-0.0270	0.0570	0.0221	0.0305	0.2800	0.3000
6	3.02	0.0	-0.0000	-0.0011	0.0011	0.1403	-0.1050	0.1112	0.0259	0.0470	0.2590	0.0220
7	4.05	0.0	-0.0000	-0.0000	0.0000	0.1013	-0.1330	0.1097	0.0000	0.0000	0.2150	0.0577
8	4.72	0.0	-0.0000	-0.0015	0.0000	0.1010	-0.2000	0.3730	0.0001	0.1797	0.1000	0.0000
9	13.77	0.0	-0.0000	-0.0000	0.0017	0.1200	-0.2200	0.5713	0.0720	0.2702	0.1261	0.0071
10	17.00	0.0	-0.0000	-0.0000	0.0017	0.0000	-0.2200	0.7501	0.0000	0.3020	0.0070	0.0000
11	20.00	0.0	-0.0000	-0.0011	0.0010	0.1110	-0.1000	0.0000	0.0000	0.0000	0.0000	0.0000
12	25.00	0.0	-0.0010	-0.0010	0.0020	0.0000	-0.2000	1.0500	0.0000	0.0000	0.0000	0.0000
13	27.00	0.0	-0.0011	-0.0000	0.0031	0.0700	-0.2700	1.1200	0.0000	0.5200	0.0000	0.0000

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 3 MANTIV MISSILE TAIL EFFECTS DATA

TEST	POINT	MACH	REYNOLDS	CONF	DEL1	DEL2	DEL3	DEL4	TRANSITION		
2	110	1.20	2.5	3.0 53WOF32	0.0	0	0	0	FREE		
POINT	ALPHA	META	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	ACP
1	-1.51	0.0	0.0000	0.0000	-0.0000	0.0000	-0.0000	0.5929	0.2033	0.3697	-0.2443
2	-0.44	0.0	-0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5873	0.1991	0.3641	17.4154
3	0.57	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5897	0.1994	0.3603	-2.0335
4	1.55	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5906	0.2052	0.3654	-1.9447
5	2.52	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5892	0.2057	0.3835	-1.7935
6	3.64	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5872	0.2064	0.3608	-1.7747
7	5.08	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5867	0.2073	0.3895	-1.8247
8	9.76	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5314	0.2392	0.3972	-1.9699
9	13.36	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.6290	0.2556	0.3732	-1.9825
10	18.05	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.6143	0.2721	0.3477	-1.8630
11	20.27	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.6095	0.2773	0.3372	-1.7195
12	25.42	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5766	0.3001	0.2765	-1.6696
13	28.18	0.0	0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.5630	0.3120	0.2510	-1.3785

TEST PART NAME		DEL1	DEL2	DEL3	DEL4	DEL5	DEL6	DEL7	DEL8	DEL9	DEL10	DEL11	DEL12
2 110 1.20 2.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FREE
POINT	ALPHA	BETA	CMF1	CM1	CM1'	ACPF1	YCPF1	CAF2	CM2	CM2'	ACPF2	YCPF2	
1	-1.51	0.0	-0.1565	0.0015	-0.0000	-0.3200	1.7003	-0.0207	-0.0000	-0.0100	0.4302	0.5106	
2	-0.47	0.0	-0.0000	0.0010	-0.0000	-0.3200	0.9422	0.0000	-0.0000	-0.0000	-0.4480	-0.3529	
3	0.57	0.0	-0.0000	0.0010	-0.0000	-0.2800	1.0000	0.0200	0.0000	0.0000	0.1763	0.2707	
4	1.55	0.0	-0.0000	0.0000	-0.0100	-0.1910	2.1220	0.0500	0.0100	0.0100	0.1930	0.3200	
5	2.62	0.0	-0.0000	0.0000	-0.0000	-0.1910	1.3020	0.0651	0.0177	0.0200	0.2080	0.3470	
6	3.00	0.0	-0.0000	0.0000	-0.0073	-0.1910	1.5156	0.1100	0.0230	0.0400	0.2010	0.3780	
7	5.00	0.0	-0.0000	0.0000	-0.0075	-0.1910	1.0121	0.1000	0.0300	0.0700	0.1077	0.4000	
8	9.70	0.0	-0.0071	0.0007	-0.0000	-0.1013	1.1000	0.3000	0.0500	0.1500	0.1000	0.4200	
9	13.00	0.0	-0.0000	-0.0000	-0.0000	0.1000	1.1522	0.5000	0.0631	0.2300	0.1100	0.4250	
10	19.05	0.0	-0.0000	-0.0010	-0.0000	0.3000	1.5576	0.7510	0.0710	0.3100	0.0950	0.4250	
11	20.27	0.0	-0.0000	-0.0000	-0.0000	0.3000	0.5000	0.8200	0.0655	0.3000	0.0700	0.4200	
12	25.02	0.0	-0.0000	-0.0000	-0.0000	0.2500	5.1519	1.0170	0.0630	0.4271	0.0621	0.4100	
13	20.16	0.0	0.0230	0.0000	0.0113	0.1012	0.4721	1.0000	0.0667	0.4000	0.0550	0.4100	

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 3 OF 3 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1

POINT	TEST PART - C-4 BX1000				DEL1	DEL2	DEL3	DEL4	TRANSITION			
	ALPHA	MFA	CF3	CF4								
2	110	1.20	2.5	0.0	3.0	0.0	0.0	0.0	FREE			
1	-1.51	0.0	-0.0001	0.0001	0.0002	0.0111	-0.1123	-0.0144	-0.0097	-0.0130	0.5302	0.7182
2	-0.54	0.0	-0.0005	0.0005	0.0003	-0.0725	-0.0423	0.0052	-0.0020	-0.0035	-0.3886	-0.4610
3	0.57	0.0	-0.0002	0.0005	0.0001	-0.0430	-0.0224	0.0291	0.0055	0.0070	0.1474	0.2416
4	1.55	0.0	-0.0002	0.0005	0.0005	-0.0442	-0.0616	0.0541	0.0115	0.0196	0.2119	0.3624
5	2.62	0.0	-0.0003	0.0006	0.0006	-0.0569	-0.0435	0.0422	0.0166	0.0318	0.2239	0.3868
6	3.64	0.0	-0.0005	0.0012	0.0002	-0.0762	-0.0535	0.1144	0.0248	0.0476	0.2165	0.4161
7	5.64	0.0	-0.0007	0.0014	0.0014	-0.0933	-0.2359	0.1470	0.0361	0.0876	0.1432	0.4473
8	9.74	0.0	-0.0012	0.0003	0.0027	0.0456	-0.3804	0.3595	0.0535	0.1711	0.1487	0.4760
9	13.86	0.0	-0.0014	0.0005	0.0019	-0.1426	-0.4716	0.5464	0.0623	0.2623	0.1139	0.4797
10	18.05	0.0	-0.0011	0.0001	0.0031	-0.0147	-0.5016	0.7294	0.0706	0.3489	0.0968	0.4784
11	22.27	0.0	-0.0051	0.0004	0.0034	-0.0584	-0.5854	0.8027	0.0629	0.3798	0.0783	0.4731
12	25.42	0.0	-0.0071	0.0004	0.0045	-0.0775	-0.6794	0.9484	0.0605	0.4666	0.0612	0.4721
13	25.14	0.0	-0.0067	0.0005	0.0053	-0.1049	-1.1942	1.0434	0.0603	0.4687	0.0578	0.4684

MARTI MISSILE TAIL EFFECTS DATA

POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CLB	CAF	KCP
1	1.00	0.00	-0.1736	0.2200	0.0010	-0.0010	0.0055	0.5659	0.2081	0.3578	-1.2915
2	0.40	0.00	-0.0935	0.0604	0.0003	-0.0057	-0.0053	0.5629	0.2073	0.3555	-1.3750
3	0.50	0.00	-0.0812	0.0529	0.0051	-0.0065	-0.0050	0.5625	0.2071	0.3555	-1.1435
4	1.00	0.00	0.2100	-0.2700	0.0057	-0.0001	-0.0031	0.5625	0.2059	0.3567	-1.2503
5	2.00	0.00	0.3050	-0.3951	0.0032	-0.0556	-0.0029	0.5017	0.2060	0.3550	-1.3572
6	3.40	0.00	0.4209	-0.7700	0.0002	-0.0059	-0.0016	0.5407	0.2000	0.3539	-1.4615
7	5.60	0.00	0.5000	-1.0055	0.0070	-0.0020	-0.0000	0.5707	0.2130	0.3611	-1.6250
8	4.70	0.00	1.0703	-3.2501	0.0000	-0.0332	0.0021	0.6057	0.2363	0.3693	-1.8203
9	10.02	0.00	3.0012	-0.5100	0.0030	-0.0313	0.0059	0.6005	0.2402	0.3003	-1.8001
10	14.10	0.00	4.1711	-7.0326	0.0100	-0.0000	0.0110	0.5971	0.2575	0.3396	-1.6660
11	20.30	0.00	6.5002	-7.0003	0.0107	0.0221	0.0130	0.5902	0.2627	0.3315	-1.5021
12	25.95	0.00	7.0330	-4.5501	0.0370	0.0110	0.0100	0.6022	0.2973	0.3049	-1.3500
13	20.30	0.00	8.0000	-1.3510	0.0500	-0.0270	0.0200	0.6055	0.3200	0.2762	-1.2931

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
 PAGE 2 OF 3
 SHEET 1 OF 1

PROFUSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART		MACH. RATIO			MFI		CONF		L		DEL1		DEL2		DEL3		DELA		TRANSITION	
2		111	1.30	2.5	0.0	0.3	0.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FREE
POINT	ALPHA	BETA	CNF1	CM1	CH1	XCPF1	YCPF1	CNF2	CM2	CH2	XCPF2	YCPF2								
1	1.04	0.0	0.0022	0.0015	0.0063	0.1070	2.3969	0.0225	0.0050	0.0125	0.2100	0.5532								
2	3.46	0.0	0.0034	0.0005	0.0050	0.1345	-1.6140	0.0010	0.0012	-0.0034	1.1923	-3.2885								
3	0.56	0.0	0.0027	0.0000	0.0121	0.0185	0.7704	0.0243	0.0075	0.0054	0.3101	0.2218								
4	1.56	0.0	0.0019	0.0003	0.0047	0.2950	-4.7500	0.0504	0.0142	0.0150	0.2425	0.2981								
5	2.60	0.0	0.0014	0.0005	0.0016	-1.2927	-3.8049	0.0785	0.0203	0.0262	0.2594	0.3343								
6	3.64	0.0	0.0004	0.0000	0.0045	-4.5177	-5.7249	0.1114	0.0267	0.0410	0.2390	0.3670								
7	5.64	0.0	0.0013	0.0000	0.0044	-4.0717	-3.8887	0.1634	0.0379	0.0715	0.2067	0.3897								
8	9.76	0.0	0.0027	0.0000	0.0077	-3.2916	-0.9476	0.3521	0.0525	0.1469	0.1491	0.4172								
9	14.02	0.0	0.0021	0.0012	0.0015	-3.8833	-0.7177	0.5329	0.0597	0.2247	0.1121	0.4217								
10	15.14	0.0	0.0025	0.0015	0.0015	-2.6135	0.6056	0.7045	0.0607	0.2952	0.0862	0.4199								
11	20.36	0.0	0.0021	0.0021	0.0051	0.0053	1.0158	0.7866	0.0597	0.3291	0.0759	0.4184								
12	25.95	0.0	0.0027	0.0012	0.0073	0.2074	1.2467	0.9415	0.0587	0.3950	0.0623	0.4196								
13	25.36	0.0	0.0028	0.0007	0.0028	3.0704	0.3263	1.0126	0.0575	0.4238	0.0567	0.4184								

TEST PART NAME: 210-6 PWT C/NF 1 DEL1 DEL2 DEL3 DEL4 TRANSITION
 2 111 1.34 2.5 0.0 0300F32 0.0 0 0 0 0 FREE

POINT	ALPHA	BETA	CNF3	C3	C53	XCPF3	YCPF3	CNF4	C4	CR4	XCPF4	YCPF4
1	-1.04	0.0	-0.0025	-0.0010	0.0034	0.2163	-1.3651	-0.0231	-0.0061	-0.0161	0.2658	0.6965
2	-0.00	0.0	-0.0010	-0.0010	0.0025	1.2121	-2.5223	0.0007	0.0010	-0.0062	1.3562	-0.5205
3	0.50	0.0	-0.0015	-0.0014	0.0023	0.9261	-1.6000	0.0267	0.0076	-0.0039	0.3170	0.1573
4	1.50	0.0	-0.0002	-0.0000	0.0015	2.1053	-7.0421	0.0489	0.0140	0.0156	0.2058	0.3189
5	2.00	0.0	-0.0010	-0.0005	0.0021	0.6173	-2.5556	0.0759	0.0146	0.0206	0.2587	0.3774
6	3.00	0.0	-0.0010	-0.0005	0.0020	0.2967	-1.2957	0.1085	0.0255	0.0438	0.2367	0.4039
7	5.64	0.0	-0.0010	-0.0017	0.0025	0.2500	-0.8799	0.1760	0.1362	0.0742	0.2036	0.4448
8	9.70	0.0	-0.0005	-0.0010	0.0031	0.2101	-0.6910	0.3393	0.0509	0.1593	0.1500	0.4695
9	14.02	0.0	-0.0002	-0.0002	0.0030	0.0303	-0.5863	0.5132	0.0590	0.2430	0.1109	0.4736
10	18.18	0.0	-0.0002	0.0003	0.0027	-0.0535	-0.5150	0.6790	0.0607	0.3200	0.0893	0.4710
11	20.30	0.0	-0.0000	0.0000	0.0042	-0.1739	-0.6041	0.7590	0.0587	0.3564	0.0774	0.4696
12	25.05	0.0	-0.0000	-0.0000	0.0051	0.0000	-1.0159	0.9100	0.0561	0.4315	0.0612	0.4710
13	28.36	0.0	-0.0000	0.0000	0.0053	-0.0437	-1.1509	0.9806	0.0500	0.4556	0.0555	0.4669

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION

2 123 0.80 2.5 F14 FREE

POINT	ALPHA	C _M	C _D	C _y	XCPY	YCPY
1	-2.03	-0.0465	0.0019	-0.0231	-0.0293	0.4933
2	-1.00	-0.0242	0.0011	-0.0130	-0.0451	0.5373
3	-0.02	-0.0032	-0.0006	-0.0059	0.1963	1.5691
4	1.00	0.0146	-0.0005	0.0060	-0.0312	0.4043
5	2.03	0.0295	0.0005	0.0194	0.0173	0.6573
6	2.98	0.0531	-0.0005	0.0204	-0.0094	0.4964
7	4.03	0.0773	-0.0007	0.0343	-0.0095	0.4959
8	6.06	0.1353	-0.0014	0.0623	-0.0100	0.4603
9	9.06	0.2207	-0.0019	0.0674	-0.0093	0.4353
10	10.05	0.2686	-0.0027	0.1152	-0.0100	0.4298
11	12.04	0.3484	-0.0045	0.1341	-0.0139	0.3965
12	14.06	0.4263	-0.0052	0.1633	-0.0122	0.3814
13	16.04	0.5235	-0.0044	0.1729	-0.0088	0.3630
14	18.11	0.5822	-0.0037	0.2039	-0.0063	0.3503
15	20.17	0.6701	-0.0039	0.2298	-0.0058	0.3430
16	22.15	0.7625	-0.0015	0.2529	-0.0019	0.3317
17	24.16	0.8496	0.0020	0.2745	0.0024	0.3231
18	26.20	0.9384	0.0044	0.2474	0.0052	0.3167
19	27.21	0.9664	0.0050	0.3192	0.0051	0.3145

TEST PART MACH RATIO-6 CONF. TRANSITION

2 12° 0.60 2.5 F14 FREE

POINT	ALPHA	CNF	Cm	Cm	ACPF	YCPF
1	28.13	1.0074	0.0064	0.3300	0.0061	0.3149
2	29.15	1.0025	0.0044	0.3021	0.0063	0.3132
3	30.12	1.1246	0.0041	0.3094	0.0072	0.3106
4	31.16	1.1552	0.0107	0.3603	0.0088	0.3119
5	32.14	1.1890	0.0126	0.3070	0.0106	0.3100
6	33.19	1.1002	0.0260	0.3596	0.0168	0.3031
7	34.16	1.1040	0.0357	0.3450	0.0311	0.2918
8	36.13	1.0051	0.0317	0.2072	0.0315	0.2857
9	38.15	1.0054	0.0304	0.2574	0.0306	0.2861
10	40.13	0.9544	-0.0006	0.2911	-0.0007	0.3049
11	42.14	0.9632	-0.0024	0.2951	-0.0029	0.3066
12	44.16	0.9044	-0.0045	0.3003	-0.0046	0.3089
13	46.17	1.0011	-0.0066	0.3049	-0.0068	0.3086
14	48.16	1.0107	-0.0040	0.3136	-0.0069	0.3103
15	50.17	1.0264	-0.0120	0.3191	-0.0117	0.3109
16	52.18	1.0341	-0.0141	0.3249	-0.0136	0.3130
17	54.19	1.0492	-0.0164	0.3305	-0.0156	0.3150
18	56.17	1.0624	-0.0194	0.3357	-0.0182	0.3158
19	57.16	1.0621	-0.0202	0.3369	-0.0190	0.3172

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)
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PROPULSION WIND TUNNEL FACILITY(PMT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

AERODYNAMIC WIND TUNNEL(AWT)

TEST PART MAGN R410-6 CONE TRANSITION
2 125 U-80 2.5 F14 FNEE

POINT	ALPHA	CNF	Cn	Cn	XCPF	YCPF
1	58.11	1.0375	-0.0191	0.3305	-0.0186	0.3186
2	59.12	1.0415	-0.0214	0.3324	-0.0209	0.3192
3	60.09	1.0454	-0.0233	0.3342	-0.0223	0.3196
4	61.12	1.0487	-0.0252	0.3376	-0.0241	0.3219
5	62.11	1.0527	-0.0263	0.3401	-0.0260	0.3216
6	63.14	1.0504	-0.0249	0.3416	-0.0282	0.3220
7	64.15	1.0445	-0.0306	0.3450	-0.0249	0.3241
8	66.14	1.0667	-0.0329	0.3484	-0.0308	0.3270
9	69.13	1.0672	-0.0354	0.3516	-0.0331	0.3293
10	70.11	1.0693	-0.0362	0.3537	-0.0350	0.3308
11	72.14	1.0727	-0.0410	0.3560	-0.0382	0.3330
12	74.14	1.0730	-0.0447	0.3561	-0.0413	0.3362
13	76.17	1.0757	-0.0454	0.3572	-0.0446	0.3382
14	78.15	1.0734	-0.0527	0.3724	-0.0482	0.3404
15	80.15	1.0732	-0.0576	0.3780	-0.0522	0.3426
16	82.14	1.0794	-0.0627	0.3815	-0.0565	0.3437
17	84.16	1.0754	-0.0659	0.3850	-0.0596	0.3483
18	86.17	1.0794	-0.0709	0.3844	-0.0645	0.3496
19	87.20	1.0883	-0.0718	0.3824	-0.0659	0.3514

TEST PART MACH P110-6 CONF TRANSITION

2 126 0.80 2.5 F10 FREE

POINT	ALPHA	CNF	CM	CH	XCPF	YCPF
1	90.08	1.0372	-0.0768	0.3078	-0.0741	0.3506
2	91.05	1.0325	-0.0790	0.3074	-0.0766	0.3559
3	92.09	1.0246	-0.0821	0.3058	-0.0802	0.3573
4	93.07	1.0232	-0.0856	0.3057	-0.0836	0.3570
5	94.08	1.0140	-0.0868	0.3074	-0.0856	0.3623
6	96.06	1.0139	-0.0959	0.3069	-0.0945	0.3619
7	98.12	1.0030	-0.1028	0.3071	-0.1024	0.3657
8	100.11	0.9946	-0.1090	0.3066	-0.1090	0.3688
9	102.12	0.9885	-0.1154	0.3069	-0.1165	0.3675
10	104.06	0.9830	-0.1204	0.3081	-0.1211	0.3704
11	106.11	0.9744	-0.1256	0.3062	-0.1263	0.3683
12	108.10	0.9611	-0.1293	0.3069	-0.1305	0.3702
13	110.11	0.9516	-0.1314	0.3069	-0.1339	0.3717
14	112.10	0.9459	-0.1357	0.3049	-0.1372	0.3701
15	114.12	0.9378	-0.1369	0.3009	-0.1400	0.3691
16	116.11	0.9270	-0.1379	0.3036	-0.1411	0.3722
17	117.13	0.9217	-0.1383	0.3081	-0.1424	0.3686

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPIUSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (A7)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH RATIO- α CONF. TRANSITION
 2 127 0.60 2.5 F1 α FREE

POINT	ALPHA	CNF	CN	C _N	KCPF	YCPF
1	118.02	0.4562	-0.1377	0.3526	-0.1440	0.3688
2	119.05	0.4566	-0.1386	0.3504	-0.1452	0.3670
3	120.03	0.4543	-0.1383	0.3479	-0.1456	0.3656
4	121.06	0.4534	-0.1377	0.3455	-0.1459	0.3660
5	122.05	0.4535	-0.1375	0.3431	-0.1464	0.3655
6	123.04	0.4537	-0.1376	0.3393	-0.1467	0.3620
7	124.05	0.4531	-0.1368	0.3396	-0.1468	0.3645
8	125.05	0.4527	-0.1370	0.3352	-0.1476	0.3612
9	126.05	0.4532	-0.1354	0.3309	-0.1482	0.3622
10	130.03	0.4573	-0.1344	0.3273	-0.1483	0.3608
11	132.04	0.4533	-0.1349	0.3249	-0.1493	0.3597
12	134.10	0.4553	-0.1342	0.3232	-0.1499	0.3610
13	136.09	0.4544	-0.1350	0.3212	-0.1503	0.3577
14	138.07	0.4526	-0.1343	0.3201	-0.1505	0.3588
15	140.04	0.4528	-0.1339	0.3190	-0.1512	0.3602
16	142.12	0.4546	-0.1354	0.3169	-0.1531	0.3582
17	144.09	0.4765	-0.1384	0.3146	-0.1579	0.3589
18	146.11	0.4609	-0.1414	0.3102	-0.1643	0.3602
19	147.14	0.4543	-0.1434	0.3111	-0.1683	0.3641

TEST PART NAME: R110-6 CONE TRANSITION

2 12H 0.60 2.5 F14 FREE

POINT	ALPHA	C _{NP}	C _M	C _D	XCPF	YCPF
1	148.01	0.8325	-0.1349	0.3319	-0.1680	0.3626
2	149.01	0.8173	-0.1342	0.2982	-0.1703	0.3649
3	150.01	0.7992	-0.1379	0.2911	-0.1726	0.3643
4	151.03	0.7871	-0.1329	0.2769	-0.1733	0.3636
5	152.02	0.7967	-0.1282	0.2670	-0.1740	0.3624
6	153.01	0.7653	-0.1242	0.2554	-0.1761	0.3622
7	154.01	0.6701	-0.1145	0.2453	-0.1789	0.3661
8	156.01	0.6215	-0.1164	0.2272	-0.1876	0.3656
9	159.03	0.5655	-0.1129	0.2126	-0.1997	0.3760
10	160.06	0.5154	-0.1126	0.1949	-0.2187	0.3778
11	162.02	0.4688	-0.1149	0.1826	-0.2454	0.3898
12	164.02	0.4026	-0.1075	0.1643	-0.2669	0.4079
13	166.02	0.3459	-0.1003	0.1452	-0.2901	0.4228
14	168.03	0.2888	-0.0944	0.1221	-0.3074	0.4220
15	170.05	0.2274	-0.0936	0.0959	-0.3231	0.4254
16	172.05	0.1724	-0.0954	0.0736	-0.3379	0.4255
17	174.04	0.1204	-0.0921	0.0497	-0.3494	0.4129
18	176.06	0.0726	-0.0261	0.0295	-0.3601	0.4065
19	177.05	0.0522	-0.0190	0.0212	-0.3661	0.4061

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PMT)

AERODYNAMIC WIND TUNNEL (6T)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH. 0.10-5 CONF. TRANSITION

2 129 0.00 2.5 F14 FREE

POINT	ALPHA	C _M	C _M	C _w	XCPF	YCPF
1	178.01	0.0366	-0.0131	0.0133	-0.3580	0.3630
2	178.99	0.0191	-0.0066	0.0091	-0.3478	0.4785
3	180.00	0.0092	-0.0004	0.0009	-0.3051	0.2033
4	181.00	-0.0061	0.0039	-0.0059	-0.6176	0.9706
5	182.00	-0.0069	0.0117	-0.0122	-0.4330	0.4535
6	183.02	-0.0058	0.0192	-0.0170	-0.3974	0.3718
7	184.00	-0.0080	0.0261	-0.0243	-0.3242	0.6168
8	186.03	-0.1140	0.0013	-0.0087	-0.3618	0.4265

TEST PART NAME: RX10-6 CONE TRANSITION
 2 130 1.10 2.5 F10 FREE

POINT	ALPHA	C _M	C _D	C _X	C _Y	XC _{PF}	YC _{PF}
1	-2.03	-0.0532	0.0437	-0.0218	-0.0704	0.4091	
2	-0.99	-0.0265	0.0020	-0.0107	-0.0734	0.3473	
3	-0.01	-0.0071	0.0010	-0.0009	-0.1412	0.1299	
4	1.03	0.0151	-0.0001	0.0090	-0.0060	0.5920	
5	2.04	0.0342	-0.0015	0.0141	-0.0343	0.4617	
6	3.02	0.0632	-0.0030	0.0295	-0.0470	0.4673	
7	4.02	0.0875	-0.0032	0.0416	-0.0365	0.4750	
8	6.06	0.1504	-0.0072	0.0657	-0.0480	0.4356	
9	8.05	0.2154	-0.0099	0.0928	-0.0458	0.4300	
10	10.09	0.2724	-0.0142	0.1198	-0.0486	0.4096	
11	12.14	0.3271	-0.0176	0.1451	-0.0481	0.3953	
12	14.09	0.4401	-0.0216	0.1716	-0.0484	0.3848	
13	15.14	0.5233	-0.0245	0.1973	-0.0469	0.3720	
14	18.12	0.6054	-0.0263	0.2211	-0.0467	0.3650	
15	20.24	0.6722	-0.0318	0.2420	-0.0460	0.3496	
16	22.17	0.7174	-0.0326	0.2638	-0.0419	0.3393	
17	24.24	0.8414	-0.0321	0.2854	-0.0373	0.3313	
18	26.23	0.9344	-0.0327	0.3061	-0.0349	0.3204	
19	27.26	0.9774	-0.0334	0.3175	-0.0342	0.3250	

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ANNUL ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART WACH RX10-A COME TRANSITION

2 131 1.10 2.5 F14 FREE

POINT	ALPHA	CNF	CM	Cy	XCPF	YCPF
1	25.16	1.0115	-0.0362	0.3263	-0.0338	0.3266
2	29.16	1.0441	-0.0369	0.3399	-0.0333	0.3240
3	30.15	1.0433	-0.0355	0.3503	-0.0328	0.3233
4	31.20	1.1226	-0.0365	0.3032	-0.0325	0.3235
5	32.19	1.1534	-0.0375	0.3706	-0.0325	0.3212
6	33.17	1.1064	-0.0378	0.3406	-0.0319	0.3208
7	34.20	1.2203	-0.0385	0.3410	-0.0318	0.3205
8	36.21	1.2789	-0.0380	0.4072	-0.0302	0.3184
9	38.22	1.3262	-0.0380	0.4173	-0.0272	0.3167
10	40.24	1.3137	-0.0190	0.4606	-0.0164	0.3049
11	42.24	1.3194	-0.0080	0.3462	-0.0061	0.3003
12	44.22	1.3346	-0.0027	0.3493	-0.0020	0.2992
13	46.24	1.4527	-0.0038	0.4044	-0.0020	0.3019
14	48.26	1.3595	-0.0208	0.4233	-0.0197	0.3114
15	50.25	1.3682	-0.0361	0.4313	-0.0220	0.3152
16	52.30	1.3774	-0.0362	0.4372	-0.0248	0.3174
17	54.31	1.3897	-0.0371	0.4439	-0.0267	0.3194
18	56.30	1.4011	-0.0372	0.4500	-0.0266	0.3212
19	57.33	1.4084	-0.0390	0.4527	-0.0277	0.3215

TEST PART MACH RANGE COEF. TRANSITION

2 137 1.0 2.5 F10 FREE

POINT	ALPHA	CNF	Cm	Cm	XCPF	YCPF
1	58.17	1.3285	-0.0300	0.4307	-0.0284	0.3200
2	59.19	1.3081	-0.0340	0.4300	-0.0288	0.3200
3	60.18	1.3725	-0.0411	0.4297	-0.0299	0.3211
4	61.17	1.3625	-0.0420	0.4200	-0.0304	0.3229
5	62.19	1.3071	-0.0431	0.4202	-0.0310	0.3200
6	63.18	1.3450	-0.0453	0.4219	-0.0325	0.3238
7	64.17	1.4021	-0.0472	0.4204	-0.0337	0.3200
8	66.21	1.4153	-0.0501	0.4020	-0.0354	0.3264
9	68.20	1.4252	-0.0525	0.4703	-0.0369	0.3300
10	70.20	1.4357	-0.0561	0.4700	-0.0391	0.3315
11	72.20	1.4355	-0.0590	0.4795	-0.0410	0.3300
12	74.21	1.4305	-0.0630	0.4022	-0.0441	0.3352
13	76.23	1.4350	-0.0675	0.4000	-0.0469	0.3300
14	78.23	1.4307	-0.0705	0.4007	-0.0491	0.3370
15	80.26	1.4285	-0.0735	0.4030	-0.0516	0.3307
16	82.25	1.4224	-0.0765	0.4053	-0.0538	0.3411
17	84.26	1.4150	-0.0800	0.4053	-0.0565	0.3420
18	86.25	1.4084	-0.0833	0.4050	-0.0591	0.3448
19	87.27	1.4021	-0.0859	0.4030	-0.0612	0.3407

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH M10-6 CO-F TRANSITION
 2 133 1.10 2.5 F14 FREE

POINT	ALPHA	CNF	Cm	C _D	ACPF	YCPF
1	90.13	1.3776	-0.0939	0.4770	-0.0682	0.3464
2	91.12	1.3776	-0.0477	0.4784	-0.0710	0.3473
3	92.13	1.3769	-0.1000	0.4816	-0.0726	0.3499
4	93.14	1.3795	-0.1045	0.4834	-0.0757	0.3504
5	94.12	1.3799	-0.1043	0.4825	-0.0784	0.3503
6	96.13	1.3782	-0.1177	0.4921	-0.0742	0.3520
7	98.14	1.4086	-0.1264	0.4960	-0.0898	0.3523
8	100.14	1.4121	-0.1330	0.5002	-0.0942	0.3542
9	102.15	1.4146	-0.1395	0.5035	-0.0986	0.3559
10	104.16	1.4136	-0.1443	0.5031	-0.1021	0.3568
11	106.20	1.4097	-0.1481	0.5009	-0.1050	0.3553
12	108.20	1.4081	-0.1512	0.5035	-0.1074	0.3576
13	110.19	1.4045	-0.1554	0.5033	-0.1103	0.3571
14	112.17	1.4076	-0.1583	0.5048	-0.1125	0.3586
15	114.22	1.4051	-0.1625	0.5039	-0.1156	0.3583
16	116.21	1.4086	-0.1656	0.5021	-0.1176	0.3565
17	117.20	1.4057	-0.1663	0.5026	-0.1183	0.3578
18	88.10	1.3039	-0.0662	0.4769	-0.0637	0.3446
19	89.14	1.3002	-0.0709	0.4772	-0.0659	0.3458

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TEST PART MACH 0.810-6 CONF. TRANSITION

2 134 1.10 2.5 F14 FREE

POINT	ALPHA	CNF	CM	C _x	YACPF	YCPF
1	118.06	1.4160	-0.1671	0.5050	-0.1180	0.3566
2	119.07	1.4168	-0.1674	0.5015	-0.1187	0.3565
3	120.07	1.4084	-0.1676	0.4996	-0.1190	0.3566
4	121.10	1.4052	-0.1675	0.4987	-0.1192	0.3569
5	122.07	1.4062	-0.1670	0.4975	-0.1200	0.3516
6	123.06	1.4036	-0.1667	0.4955	-0.1202	0.3531
7	124.06	1.3988	-0.1666	0.4917	-0.1208	0.3521
8	126.12	1.3822	-0.1662	0.4871	-0.1225	0.3524
9	128.10	1.3695	-0.1704	0.4835	-0.1244	0.3531
10	130.16	1.3652	-0.1667	0.4800	-0.1236	0.3516
11	132.16	1.3644	-0.1671	0.4728	-0.1293	0.3517
12	134.14	1.3163	-0.1657	0.4631	-0.1259	0.3516
13	136.11	1.2634	-0.1663	0.4529	-0.1295	0.3527
14	138.10	1.2517	-0.1676	0.4445	-0.1339	0.3551
15	140.15	1.2436	-0.1655	0.4281	-0.1375	0.3557
16	142.13	1.1707	-0.1674	0.4142	-0.1430	0.3538
17	144.13	1.1262	-0.1668	0.4023	-0.1499	0.3572
18	146.16	1.0573	-0.1657	0.3813	-0.1567	0.3607
19	147.16	1.0021	-0.1660	0.3706	-0.1604	0.3626

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION
 2 135 1.10 2.5 F14 FNEE

POINT	ALPHA	CNF	Cm	Cs	XCPF	YCPF
1	148.02	0.2167	-0.1649	0.3671	-0.1522	0.3611
2	149.01	0.2000	-0.1630	0.3504	-0.1662	0.3618
3	150.02	0.2040	-0.1600	0.3420	-0.1702	0.3629
4	151.00	0.2042	-0.1583	0.3320	-0.1701	0.3652
5	152.02	0.2150	-0.1563	0.3261	-0.1747	0.3658
6	153.04	0.2374	-0.1536	0.3174	-0.1835	0.3677
7	154.01	0.2443	-0.1515	0.2475	-0.1884	0.3699
8	156.01	0.2735	-0.1655	0.2434	-0.2164	0.3843
9	158.01	0.2918	-0.1577	0.2665	-0.2279	0.3854
10	160.03	0.3153	-0.1477	0.2360	-0.2400	0.3836
11	162.04	0.5380	-0.1358	0.2079	-0.2523	0.3864
12	164.02	0.4665	-0.1230	0.1790	-0.2651	0.3833
13	166.06	0.3251	-0.1105	0.1509	-0.2747	0.3819
14	168.05	0.3224	-0.0947	0.1227	-0.2937	0.3805
15	170.04	0.2542	-0.0804	0.0947	-0.3101	0.3655
16	172.06	0.1964	-0.0640	0.0730	-0.3258	0.3716
17	174.10	0.1382	-0.0468	0.0470	-0.3387	0.3397
18	176.10	0.0891	-0.0307	0.0253	-0.3450	0.2840
19	177.10	0.0456	-0.0227	0.0136	-0.3667	0.2074

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TEST PART MACH PLATE=6 CONF. TRANSITION

2 137 1.30 2.5 F16 FREE

POINT	ALPHA	CNF	CM	Cy	XCPF	YCPF
1	-2.01	-0.0320	0.0003	-0.0260	-0.0078	0.0100
2	-1.01	-0.0102	-0.0006	-0.0127	0.0001	1.7522
3	-0.01	0.0127	-0.0018	-0.0040	-0.1392	-0.3171
4	1.01	0.0351	-0.0027	0.0059	-0.0778	0.1694
5	2.02	0.0531	-0.0050	0.0157	-0.0915	0.2412
6	3.03	0.0686	-0.0061	0.0204	-0.0685	0.3201
7	4.05	0.1173	-0.0066	0.0307	-0.0683	0.3071
8	6.04	0.1730	-0.0044	0.0565	-0.0574	0.3844
9	8.06	0.2364	-0.0133	0.0422	-0.0557	0.3858
10	10.08	0.3095	-0.0167	0.1152	-0.0538	0.3723
11	12.13	0.3833	-0.0200	0.1381	-0.0523	0.3602
12	14.13	0.4524	-0.0217	0.1613	-0.0480	0.3561
13	16.16	0.5280	-0.0256	0.1418	-0.0485	0.3431
14	18.17	0.6018	-0.0240	0.2009	-0.0465	0.3337
15	20.19	0.6821	-0.0309	0.2224	-0.0453	0.3260
16	22.22	0.7583	-0.0310	0.2432	-0.0409	0.3207
17	24.23	0.8350	-0.0317	0.2645	-0.0380	0.3167
18	26.28	0.9195	-0.0341	0.2847	-0.0375	0.3130
19	27.30	0.9888	-0.0347	0.2957	-0.0368	0.3130

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH P110-6 CONF TRANSITION

2 13P 1.30 2.5 F14 FREE

POINT	ALPHA	CNF	CN	Co	XCPF	YCPF
1	28.19	0.9713	-0.0369	0.3036	-0.0379	0.3123
2	29.15	1.0046	-0.0375	0.3138	-0.0373	0.3124
3	30.17	1.0470	-0.0376	0.3292	-0.0363	0.3126
4	31.18	1.0716	-0.0369	0.3528	-0.0363	0.3186
5	32.17	1.1013	-0.0341	0.3425	-0.0355	0.3118
6	33.18	1.1258	-0.0343	0.3528	-0.0340	0.3136
7	34.20	1.1611	-0.0347	0.3512	-0.0342	0.3111
8	34.23	1.2161	-0.0343	0.3772	-0.0323	0.3102
9	35.29	1.2617	-0.0341	0.3713	-0.0302	0.3102
10	40.24	1.2820	-0.0315	0.3452	-0.0246	0.3083
11	42.24	1.2784	-0.0266	0.4003	-0.0204	0.3082
12	44.26	1.3252	-0.0261	0.4108	-0.0212	0.3180
13	45.29	1.3391	-0.0245	0.4123	-0.0221	0.3124
14	48.30	1.3481	-0.0308	0.4241	-0.0229	0.3146
15	50.29	1.3564	-0.0364	0.4294	-0.0208	0.3164
16	52.32	1.3607	-0.0436	0.4365	-0.0321	0.3208
17	54.36	1.3787	-0.0474	0.4439	-0.0364	0.3220
18	56.35	1.3475	-0.0560	0.4518	-0.0358	0.3233
19	57.35	1.4044	-0.0500	0.4560	-0.0356	0.3246

TEST PART NAME RX10-6 CONF TRANSITION

2 139 1.30 2.5 F14 FREE

POINT	ALPHA	CNF	CM	CN	XCOP	YCOP
1	58.18	1.3755	-0.0645	0.4581	-0.0449	0.3302
2	59.16	1.3828	-0.0623	0.4582	-0.0451	0.3314
3	60.17	1.3873	-0.0609	0.4581	-0.0436	0.3316
4	61.19	1.3913	-0.0610	0.4585	-0.0438	0.3318
5	62.21	1.3964	-0.0621	0.4601	-0.0445	0.3324
6	63.24	1.4079	-0.0659	0.4666	-0.0468	0.3314
7	64.22	1.4226	-0.0675	0.4717	-0.0474	0.3316
8	66.23	1.4474	-0.0651	0.4748	-0.0450	0.3315
9	68.21	1.4825	-0.0639	0.4882	-0.0437	0.3311
10	70.26	1.4706	-0.0674	0.4876	-0.0458	0.3316
11	72.25	1.4812	-0.0691	0.4926	-0.0466	0.3325
12	74.26	1.4874	-0.0699	0.4954	-0.0470	0.3333
13	76.27	1.4893	-0.0723	0.4995	-0.0484	0.3354
14	78.25	1.4883	-0.0733	0.5002	-0.0493	0.3361
15	80.24	1.4923	-0.0785	0.5025	-0.0526	0.3367
16	82.31	1.4916	-0.0814	0.5062	-0.0546	0.3393
17	84.28	1.4936	-0.0854	0.5081	-0.0575	0.3388
18	86.30	1.4974	-0.0897	0.5094	-0.0599	0.3401
19	87.32	1.4934	-0.0903	0.5099	-0.0605	0.3413

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH PA10-6 CONF. TRANSITION

2 1.0 1.30 2.5 F16 FREE

POINT	ALPHA	CNF	CM	Cs	KCPF	YCPF
1	90.16	1.4085	-0.0234	0.5055	-0.0636	0.3662
2	91.15	1.4004	-0.0451	0.5050	-0.0651	0.3657
3	92.16	1.4015	-0.0991	0.5051	-0.0678	0.3656
4	93.16	1.4027	-0.1035	0.5062	-0.0707	0.3674
5	94.16	1.4031	-0.1062	0.5107	-0.0726	0.3690
6	96.16	1.4067	-0.1110	0.5104	-0.0761	0.3699
7	98.16	1.4064	-0.1165	0.5095	-0.0806	0.3527
8	100.16	1.4324	-0.1248	0.5078	-0.0878	0.3566
9	102.17	1.4346	-0.1357	0.5132	-0.0926	0.3577
10	104.16	1.4367	-0.1410	0.5165	-0.0980	0.3590
11	106.20	1.4333	-0.1465	0.5157	-0.1022	0.3598
12	108.21	1.4318	-0.1529	0.5168	-0.1068	0.3610
13	110.20	1.4242	-0.1576	0.5176	-0.1103	0.3622
14	112.24	1.4275	-0.1606	0.5156	-0.1125	0.3612
15	114.22	1.4266	-0.1636	0.5172	-0.1148	0.3625
16	116.24	1.4210	-0.1665	0.5151	-0.1171	0.3625
17	117.26	1.4196	-0.1687	0.5134	-0.1189	0.3618

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TEST PART MACH RB10-6 CONE TRANSITION

2 101 1.30 2.5 F16 FREE

POINT	ALPHA	CNF	CM	CM	XCPF	YCPF
1	115.08	1.4073	-0.1664	0.5029	-0.1183	0.3618
2	119.09	1.4006	-0.1673	0.5072	-0.1195	0.3621
3	120.10	1.3952	-0.1686	0.5036	-0.1208	0.3610
4	121.10	1.3887	-0.1689	0.5009	-0.1216	0.3607
5	122.10	1.3786	-0.1684	0.4990	-0.1222	0.3619
6	123.08	1.3730	-0.1696	0.4967	-0.1236	0.3617
7	124.10	1.3650	-0.1701	0.4935	-0.1246	0.3615
8	124.12	1.3494	-0.1696	0.4872	-0.1257	0.3610
9	125.13	1.3327	-0.1693	0.4797	-0.1270	0.3599
10	130.10	1.3122	-0.1677	0.4715	-0.1278	0.3593
11	132.11	1.2907	-0.1660	0.4623	-0.1296	0.3582
12	134.14	1.2678	-0.1630	0.4539	-0.1286	0.3581
13	136.14	1.2336	-0.1628	0.4407	-0.1320	0.3573
14	138.15	1.2017	-0.1615	0.4311	-0.1344	0.3588
15	140.17	1.1691	-0.1605	0.4185	-0.1373	0.3580
16	142.16	1.1223	-0.1576	0.4047	-0.1404	0.3606
17	144.15	1.0766	-0.1567	0.3873	-0.1455	0.3598
18	146.18	1.0217	-0.1545	0.3678	-0.1512	0.3599
19	147.16	0.9955	-0.1538	0.3580	-0.1545	0.3597

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ARVOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME: RA10-6 CONF TRANSITION

2 142 1.30 2.5 F14 FREE

POINT	ALPHA	C _M	C _M	C _D	XCPF	YCPF
1	142.01	1.0282	-0.1709	0.3705	-0.1675	0.3631
2	149.03	0.9884	-0.1676	0.3580	-0.1698	0.3622
3	150.83	0.9768	-0.1658	0.3456	-0.1733	0.3612
4	151.01	0.9279	-0.1628	0.3329	-0.1763	0.3607
5	152.05	0.8854	-0.1598	0.3210	-0.1805	0.3625
6	153.03	0.8523	-0.1574	0.3079	-0.1847	0.3613
7	154.03	0.8133	-0.1531	0.2963	-0.1882	0.3604
8	156.02	0.7440	-0.1469	0.2722	-0.1974	0.3658
9	158.02	0.6690	-0.1389	0.2452	-0.2068	0.3665
10	160.04	0.5992	-0.1308	0.2140	-0.2183	0.3571
11	162.04	0.5247	-0.1205	0.1889	-0.2296	0.3601
12	164.08	0.4544	-0.1102	0.1614	-0.2425	0.3553
13	166.04	0.3870	-0.0988	0.1369	-0.2552	0.3598
14	168.10	0.3242	-0.0869	0.1131	-0.2661	0.3489
15	170.06	0.2615	-0.0736	0.0895	-0.2808	0.3617
16	172.08	0.2036	-0.0599	0.0656	-0.2940	0.3219
17	174.10	0.1463	-0.0466	0.0428	-0.3007	0.2883
18	176.14	0.0975	-0.0291	0.0209	-0.2990	0.2133
19	177.15	0.0477	-0.0212	0.0143	-0.2873	0.1968

TEST PART MACH. RATIO - CWF TRANSITION
 2 143 1.30 2.5 F14 FREE

POINT	ALPHA	CNF	CM	C _z	XCPF	YCPF
1	175.02	0.0027	-0.0175	0.0115	-0.2788	0.1829
2	179.00	0.0071	-0.0118	0.0031	-0.2514	0.0868
3	180.00	0.0200	-0.0036	-0.0071	-0.1986	-0.2960
4	180.99	0.0060	0.0020	-0.0150	0.3278	-2.4818
5	182.01	-0.0133	0.0045	-0.0219	-0.7369	1.0966
6	183.02	-0.0330	0.0155	-0.0296	-0.5005	0.8986
7	184.02	-0.0551	0.0238	-0.0334	-0.4329	0.7153
8	186.03	-0.1052	0.0393	-0.0549	-0.3734	0.5689
9	188.05	-0.1258	0.0333	-0.0205	-0.3365	0.5080
10	190.07	-0.2152	0.0071	-0.1024	-0.3116	0.4778
11	192.06	-0.2750	0.0074	-0.1279	-0.2880	0.4637
12	194.04	-0.3021	0.0021	-0.1520	-0.2694	0.4444
13	198.00	-0.4017	0.1150	-0.2036	-0.2388	0.4367
14	200.09	-0.5500	0.1247	-0.2357	-0.2250	0.4251
15	202.11	-0.6262	0.1328	-0.2532	-0.2121	0.4200
16	204.09	-0.7005	0.1420	-0.2094	-0.2028	0.4123
17	206.14	-0.7730	0.1489	-0.3185	-0.1927	0.4120
18	207.12	-0.8081	0.1519	-0.3294	-0.1850	0.4081

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ARMED... WHEELUPPLY CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PMT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1 PARTIAL MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART WAGH BX10-6 CONF TRANSITION
 2 144 1.20 2.5 F14 FREE

POINT	ALPHA	CNF	CN	Ce	ICPF	YCPF
1	-2.02	-0.0236	-0.0004	-0.0214	0.0399	0.3295
2	-1.01	-0.0014	-0.0014	-0.0117	0.9672	6.1737
3	-0.00	0.0214	-0.0033	-0.0009	-0.1504	-0.0414
4	1.03	0.0066	-0.0052	0.0067	-0.1165	0.1428
5	2.02	0.0703	-0.0060	0.0166	-0.0459	0.2363
6	3.01	0.0751	-0.0073	0.0244	-0.0765	0.3096
7	4.05	0.1226	-0.0056	0.0419	-0.0710	0.3616
8	6.03	0.1416	-0.0113	0.0668	-0.0520	0.3673
9	8.08	0.2511	-0.0144	0.0928	-0.0594	0.3615
10	10.08	0.3194	-0.0170	0.1176	-0.0533	0.3681
11	12.11	0.3473	-0.0213	0.1386	-0.0536	0.3689
12	14.14	0.4709	-0.0234	0.1637	-0.0497	0.3677
13	16.13	0.5054	-0.0262	0.1477	-0.0451	0.3662
14	18.14	0.6237	-0.0243	0.2101	-0.0471	0.3368
15	20.20	0.7448	-0.0324	0.2327	-0.0464	0.3278
16	22.23	0.7456	-0.0346	0.2545	-0.0435	0.3199
17	24.22	0.8697	-0.0344	0.2739	-0.0400	0.3149
18	26.26	0.9436	-0.0355	0.2447	-0.0377	0.3123
19	27.24	0.9431	-0.0373	0.3050	-0.0379	0.3103

TEST PART WACH RATIO=0. CONE TRANSITION

2 145 1020 2.5 F14 FREE

POINT	ALPHA	CNF	Cn	Co	XCPF	YCPF
1	28.16	1.0003	-0.0375	0.3124	-0.0375	0.3123
2	29.16	1.0055	-0.0340	0.3208	-0.0376	0.3098
3	30.16	1.0078	-0.0328	0.3304	-0.0369	0.3094
4	31.16	1.0096	-0.0344	0.3427	-0.0363	0.3113
5	32.17	1.1307	-0.0403	0.3511	-0.0356	0.3105
6	33.16	1.1017	-0.0410	0.3608	-0.0353	0.3106
7	34.18	1.1022	-0.0415	0.3703	-0.0348	0.3108
8	36.22	1.2067	-0.0423	0.3868	-0.0339	0.3090
9	38.21	1.2034	-0.0420	0.4011	-0.0324	0.3100
10	40.26	1.3130	-0.0403	0.4021	-0.0261	0.3063
11	42.24	1.3281	-0.0280	0.4025	-0.0211	0.3031
12	44.25	1.3038	-0.0233	0.4048	-0.0174	0.3012
13	46.29	1.3085	-0.0228	0.4149	-0.0166	0.3031
14	48.29	1.3035	-0.0259	0.4226	-0.0187	0.3054
15	50.31	1.3017	-0.0329	0.4359	-0.0236	0.3132
16	52.28	1.3001	-0.0401	0.4370	-0.0334	0.3166
17	54.32	1.3097	-0.0483	0.4487	-0.0345	0.3206
18	56.31	1.4167	-0.0511	0.4548	-0.0361	0.3210
19	57.33	1.4258	-0.0522	0.4548	-0.0366	0.3222

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH RX10-6. CONF. TRANSITION
 2 146 1.20 2.5 F14 FREE

POINT	ALPHA	CNF	CN	CH	XCPCF	YCPCF
1	58.19	1.4173	-0.0539	0.4585	-0.0380	0.3235
2	59.20	1.4263	-0.0541	0.4601	-0.0379	0.3226
3	60.19	1.4252	-0.0525	0.4605	-0.0368	0.3259
4	61.21	1.4162	-0.0533	0.4618	-0.0376	0.3256
5	62.21	1.4154	-0.0556	0.4627	-0.0393	0.3270
6	63.22	1.4124	-0.0569	0.4646	-0.0417	0.3290
7	64.21	1.4150	-0.0529	0.4659	-0.0445	0.3300
8	66.22	1.4330	-0.0460	0.4755	-0.0461	0.3318
9	68.23	1.4453	-0.0476	0.4813	-0.0468	0.3330
10	70.22	1.4504	-0.0495	0.4864	-0.0479	0.3354
11	72.25	1.4568	-0.0735	0.4887	-0.0504	0.3355
12	74.24	1.4631	-0.0771	0.4921	-0.0527	0.3363
13	76.26	1.4720	-0.0805	0.4962	-0.0547	0.3371
14	78.25	1.4768	-0.0814	0.4967	-0.0551	0.3377
15	80.25	1.4758	-0.0830	0.5008	-0.0563	0.3394
16	82.25	1.4816	-0.0858	0.5025	-0.0579	0.3391
17	84.30	1.4708	-0.0875	0.5025	-0.0595	0.3417
18	86.28	1.4576	-0.0961	0.4964	-0.0618	0.3420
19	87.31	1.4454	-0.0914	0.4970	-0.0633	0.3440

TEST PART MACH NAL0-6 CONE TRANSITION

2 147 1.20 2.5 F14 FREE

POINT	ALPHA	CNF	Cm	Cm	YCP*	YCPF
1	88.13	1.4332	-0.0498	0.4458	-0.0689	0.3459
2	89.13	1.4247	-0.1018	0.4451	-0.0713	0.3470
3	90.16	1.4207	-0.1060	0.4470	-0.0743	0.3484
4	91.20	1.4215	-0.1107	0.4477	-0.0775	0.3501
5	92.14	1.4144	-0.1154	0.4461	-0.0816	0.3508
6	93.14	1.4204	-0.1209	0.4440	-0.0851	0.3505
7	94.15	1.4153	-0.1221	0.4400	-0.0863	0.3533
8	96.18	1.4217	-0.1244	0.4421	-0.0912	0.3532
9	98.13	1.4252	-0.1373	0.4446	-0.0963	0.3540
10	100.19	1.4342	-0.1449	0.4506	-0.1010	0.3560
11	102.17	1.4374	-0.1509	0.4514	-0.1050	0.3576
12	104.20	1.4406	-0.1547	0.4517	-0.1073	0.3591
13	106.16	1.4429	-0.1586	0.4517	-0.1099	0.3589
14	108.18	1.4377	-0.1621	0.4516	-0.1128	0.3589
15	110.25	1.4444	-0.1663	0.4517	-0.1151	0.3581
16	112.22	1.4452	-0.1645	0.4515	-0.1173	0.3587
17	114.24	1.4407	-0.1707	0.4518	-0.1144	0.3602
18	116.27	1.4318	-0.1726	0.4514	-0.1205	0.3590
19	117.29	1.4286	-0.1734	0.4512	-0.1217	0.3590

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART NAME: RX10-6 CONF TRANSITION
 2 148 1.20 2.5 F14 FREE

POINT	ALPHA	CNF	CM	Cf	KCPF	YCPF
1	118.09	1.4376	-0.1726	0.5136	-0.1199	0.3567
2	119.05	1.4393	-0.1718	0.5123	-0.1194	0.3560
3	120.09	1.4376	-0.1713	0.5093	-0.1192	0.3542
4	121.13	1.4344	-0.1699	0.5089	-0.1184	0.3548
5	122.14	1.4285	-0.1697	0.5020	-0.1188	0.3514
6	123.11	1.4196	-0.1685	0.5007	-0.1187	0.3526
7	124.06	1.4114	-0.1689	0.4987	-0.1196	0.3534
8	126.12	1.3934	-0.1662	0.4925	-0.1207	0.3534
9	128.12	1.3792	-0.1671	0.4856	-0.1212	0.3521
10	130.13	1.3626	-0.1647	0.4781	-0.1209	0.3508
11	132.14	1.3327	-0.1625	0.4689	-0.1219	0.3504
12	134.14	1.3039	-0.1628	0.4560	-0.1248	0.3513
13	136.12	1.2801	-0.1660	0.4516	-0.1296	0.3528
14	136.16	1.2441	-0.1675	0.4433	-0.1341	0.3549
15	140.14	1.2055	-0.1661	0.4271	-0.1377	0.3542
16	142.14	1.1448	-0.1638	0.4250	-0.1431	0.3538
17	144.13	1.0824	-0.1608	0.4043	-0.1483	0.3549
18	146.20	1.0197	-0.1568	0.3833	-0.1538	0.3563
19	147.16	0.9461	-0.1573	0.3555	-0.1579	0.3569

TEST PART NAME: RA10-0 CONE TRANSITION

2 109 1020 2.5 F16 FREE

POINT	ALPHA	CNF	CM	CM	XCWF	YCWF
1	142.02	0.4206	-0.1573	0.3520	-0.1604	0.3589
2	144.00	0.4531	-0.1565	0.3431	-0.1642	0.3600
3	150.02	0.9242	-0.1557	0.3359	-0.1665	0.3634
4	151.03	0.8437	-0.1544	0.3241	-0.1732	0.3626
5	152.05	0.8036	-0.1541	0.3117	-0.1784	0.3608
6	153.03	0.8056	-0.1673	0.3228	-0.1932	0.3729
7	154.03	0.4314	-0.1650	0.3079	-0.1963	0.3702
8	156.02	0.7564	-0.1574	0.2426	-0.2074	0.3726
9	158.05	0.6840	-0.1665	0.2554	-0.2177	0.3734
10	160.02	0.6678	-0.1384	0.2264	-0.2277	0.3758
11	162.04	0.5427	-0.1241	0.1472	-0.2404	0.3703
12	164.06	0.4032	-0.1172	0.1732	-0.2530	0.3739
13	166.09	0.3436	-0.1647	0.1461	-0.2665	0.3718
14	168.06	0.3281	-0.0414	0.1163	-0.2801	0.3607
15	170.07	0.2633	-0.0773	0.0420	-0.2534	0.3495
16	172.06	0.2045	-0.0629	0.0591	-0.3076	0.3378
17	174.16	0.1655	-0.0563	0.0429	-0.3165	0.2947
18	176.12	0.0454	-0.0305	0.0242	-0.3184	0.2530
19	177.12	0.0731	-0.0221	0.0167	-0.3019	0.2287

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF. TRANSITION

2 150 1.20 2.5 F14 FREE

POINT	ALPHA	CNF	Cm	Cn	XCPF	YCPF
1	175.01	0.0034	-0.0106	0.0114	-0.2936	0.1792
2	179.01	0.0052	-0.0117	0.0036	-0.2594	0.0830
3	180.00	0.0264	-0.0045	-0.0036	-0.1692	-0.1370
4	181.01	0.0090	0.0024	-0.0132	0.2653	-1.4693
5	181.99	-0.0087	0.0092	-0.0185	-1.0564	2.1305
6	183.04	-0.0270	0.0154	-0.0204	-0.5874	1.0511
7	184.02	-0.0514	0.0242	-0.0370	-0.4713	0.7207
8	186.01	-0.1006	0.0396	-0.0575	-0.3934	0.5721

TEST PART NAME PALG-6 CONE TRANSITION

2 155 0.65 2.5 F14 FREE

POINT	ALPHA	CMP	CM	CS	ACPF	YCPF
1	-2.04	-0.0077	0.0021	-0.0163	-0.0039	0.3609
2	-0.97	-0.0025	0.0008	-0.0073	-0.0352	0.3265
3	0.04	-0.0025	0.0004	0.0017	-0.1748	-0.6768
4	1.04	0.0002	0.0017	0.0186	0.2404	3.0113
5	2.05	0.0002	0.0007	0.0260	0.0241	0.9285
6	3.05	0.0097	0.0008	0.0354	0.0161	0.7187
7	4.07	0.0760	0.0001	0.0481	0.0014	0.6325
8	6.08	0.1373	-0.0007	0.0716	-0.0054	0.5215
9	8.08	0.2088	-0.0025	0.0986	-0.0123	0.4574
10	10.10	0.2814	-0.0042	0.1213	-0.0150	0.4302
11	12.11	0.3565	-0.0052	0.1473	-0.0146	0.4133
12	14.13	0.4352	-0.0060	0.1700	-0.0138	0.3905
13	16.16	0.5131	-0.0061	0.1916	-0.0081	0.3609
14	18.16	0.5907	-0.0024	0.2106	-0.0050	0.3626
15	20.18	0.6704	-0.0040	0.2375	-0.0060	0.3541
16	22.20	0.7637	-0.0017	0.2606	-0.0023	0.3412
17	24.22	0.8526	0.0006	0.2802	0.0007	0.3288
18	26.25	0.9454	0.0005	0.3052	0.0005	0.3228
19	27.25	0.9847	0.0006	0.3178	0.0006	0.3211

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART NAME SX10-6 CONF. TRANSITION
 2 156 0.63 2.5 F16 FREE

POINT	ALPHA	CNF	CN	Co	XCPF	YCPF
1	29.11	1.0161	0.0013	0.3332	0.0013	0.3222
2	29.20	1.0773	0.0016	0.3453	0.0015	0.3206
3	30.19	1.1090	0.0028	0.3594	0.0025	0.3196
4	31.21	1.1449	0.0035	0.3628	0.0031	0.3169
5	32.21	1.1681	0.0057	0.3667	0.0049	0.3139
6	33.22	1.1791	0.0126	0.3664	0.0137	0.3090
7	34.22	1.1823	0.0197	0.3570	0.0166	0.3020
8	36.20	0.9980	0.0326	0.2888	0.0327	0.2893
9	38.20	1.0167	0.0299	0.2493	0.0294	0.2944
10	40.19	0.9456	-0.0023	0.2924	-0.0024	0.3092
11	42.19	0.9583	-0.0044	0.2785	-0.0046	0.3115
12	44.20	0.9667	-0.0054	0.3032	-0.0060	0.3126
13	45.21	0.9662	-0.0083	0.3101	-0.0085	0.3144
14	48.21	0.9727	-0.0100	0.3159	-0.0101	0.3182
15	50.23	1.0117	-0.0127	0.3213	-0.0125	0.3174
16	52.24	1.0327	-0.0155	0.3292	-0.0150	0.3188
17	54.25	1.0475	-0.0174	0.3356	-0.0178	0.3204
18	56.25	1.0677	-0.0208	0.3426	-0.0194	0.3209
19	57.25	1.0710	-0.0212	0.3462	-0.0198	0.3233

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TEST PART: MAGM BX10-6. CONE TRANSITION

2 157 0.65 2.5 F14 FREE

POINT	ALPHA	CNF	CM	CR	XCPF	YCPF
1	58.08	1.0424	-0.0203	0.3387	-0.0195	0.3248
2	59.16	1.0493	-0.0218	0.3409	-0.0208	0.3249
3	60.17	1.0457	-0.0230	0.3498	-0.0220	0.3295
4	61.16	1.0452	-0.0258	0.3438	-0.0247	0.3289
5	62.18	1.0513	-0.0286	0.3467	-0.0272	0.3298
6	63.16	1.0592	-0.0311	0.3496	-0.0294	0.3301
7	64.17	1.0593	-0.0315	0.3502	-0.0297	0.3306
8	65.16	1.0602	-0.0324	0.3557	-0.0309	0.3355
9	66.18	1.0616	-0.0350	0.3564	-0.0330	0.3356
10	70.20	1.0612	-0.0373	0.3543	-0.0351	0.3386
11	72.19	1.0714	-0.0411	0.3655	-0.0364	0.3418
12	74.19	1.0837	-0.0449	0.3717	-0.0414	0.3430
13	76.20	1.0751	-0.0462	0.3790	-0.0440	0.3461
14	77.32	1.0477	-0.0506	0.3808	-0.0461	0.3469
15	80.20	1.1048	-0.0575	0.3882	-0.0518	0.3498
16	82.22	1.1070	-0.0616	0.3913	-0.0557	0.3535
17	84.22	1.1052	-0.0669	0.3921	-0.0605	0.3568
18	86.23	1.0795	-0.0722	0.3925	-0.0657	0.3578
19	87.23	1.0750	-0.0741	0.3934	-0.0676	0.3593

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MANTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH 0.150-0.5 CONF. TRANSITION

2 154 0.05 2.5 F14 FNEE

POINT	ALPHA	CNF	Cn	Cm	ACPF	YCPF
1	88.06	1.0001	-0.0731	0.3602	-0.0692	0.3600
2	89.99	1.0002	-0.0706	0.3705	-0.0716	0.3597
3	90.14	1.0005	-0.0769	0.3772	-0.0730	0.3606
4	91.14	1.0013	-0.0791	0.3760	-0.0759	0.3611
5	92.13	1.0049	-0.0513	0.3739	-0.0790	0.3627
6	93.14	1.0050	-0.0057	0.3723	-0.0836	0.3632
7	94.14	1.0059	-0.0080	0.3759	-0.0559	0.3665
8	96.15	1.0100	-0.0053	0.3702	-0.0943	0.3664
9	98.15	1.0080	-0.1035	0.3750	-0.1026	0.3717
10	100.14	1.0064	-0.1102	0.3758	-0.1095	0.3736
11	102.15	1.0087	-0.1164	0.3771	-0.1154	0.3739
12	104.16	1.0072	-0.1222	0.3764	-0.1213	0.3737
13	106.15	1.0037	-0.1205	0.3773	-0.1250	0.3759
14	108.16	0.9954	-0.1207	0.3768	-0.1303	0.3760
15	110.15	0.9993	-0.1360	0.3769	-0.1361	0.3771
16	112.17	1.0006	-0.1305	0.3778	-0.1385	0.3776
17	114.16	0.9930	-0.1306	0.3761	-0.1406	0.3767
18	116.18	0.9972	-0.1401	0.3720	-0.1420	0.3760
19	117.17	0.9970	-0.1415	0.3680	-0.1430	0.3728

TEST PART NAME: RAU-6 CONF TRANSITION

2 159 U.65 2.5 F1* FREE

POINT	ALPHA	CNF	CM	CS	XCPF	YCPF
1	115.01	0.9471	-0.1394	0.3415	-0.1441	0.3738
2	119.10	0.9642	-0.1398	0.3473	-0.1450	0.3706
3	120.10	0.9609	-0.1397	0.3555	-0.1453	0.3700
4	121.10	0.9566	-0.1394	0.3552	-0.1452	0.3714
5	122.10	0.9526	-0.1392	0.3522	-0.1461	0.3698
6	124.11	0.9514	-0.1384	0.3512	-0.1460	0.3692
7	124.16	0.9474	-0.1390	0.3483	-0.1467	0.3677
8	124.1c	0.9367	-0.1377	0.3437	-0.1470	0.3669
9	128.11	0.9247	-0.1354	0.3387	-0.1464	0.3663
10	130.11	0.9196	-0.1352	0.3349	-0.1471	0.3642
11	132.11	0.9057	-0.1324	0.3297	-0.1467	0.3641
12	134.12	0.8944	-0.1322	0.3257	-0.1478	0.3641
13	136.12	0.8849	-0.1314	0.3199	-0.1485	0.3615
14	139.13	0.8763	-0.1294	0.3102	-0.1482	0.3632
15	142.13	0.8691	-0.1306	0.3165	-0.1503	0.3619
16	142.13	0.8610	-0.1299	0.3089	-0.1509	0.3580
17	144.15	0.8556	-0.1330	0.3090	-0.1554	0.3612
18	146.16	0.8347	-0.1337	0.3029	-0.1602	0.3629
19	147.16	0.8255	-0.1344	0.2992	-0.1629	0.3625

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MANTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH 0X10-6 CONE TRANSITION
 2 100 0.65 2.5 F10 FREE

POINT	ALPHA	C _{MP}	C _M	C _D	XCPF	YCPF
1	147.90	0.8115	-0.1333	0.2926	-0.1619	0.3596
2	149.00	0.8031	-0.1301	0.2865	-0.1669	0.3568
3	150.00	0.7772	-0.1367	0.2791	-0.1682	0.3592
4	151.00	0.7444	-0.1260	0.2582	-0.1692	0.3603
5	152.00	0.7191	-0.1239	0.2582	-0.1723	0.3599
6	153.07	0.6894	-0.1203	0.2507	-0.1746	0.3607
7	154.00	0.6666	-0.1184	0.2504	-0.1783	0.3613
8	156.00	0.6094	-0.1137	0.2244	-0.1866	0.3682
9	158.00	0.5596	-0.1104	0.2096	-0.1974	0.3701
10	160.00	0.5073	-0.1069	0.1930	-0.2107	0.3805
11	162.00	0.4574	-0.1061	0.1806	-0.2316	0.3904
12	164.00	0.4062	-0.1049	0.1645	-0.2583	0.4049
13	166.00	0.3504	-0.1003	0.1479	-0.2857	0.4216
14	168.00	0.2915	-0.0900	0.1237	-0.3103	0.4403
15	170.00	0.2376	-0.0793	0.0995	-0.3335	0.4604
16	172.10	0.1772	-0.0606	0.0724	-0.3422	0.4884
17	174.10	0.1253	-0.0442	0.0511	-0.3530	0.5079
18	176.12	0.0750	-0.0274	0.0279	-0.3622	0.5086
19	177.11	0.0235	-0.0192	0.0189	-0.3583	0.4529

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH #XII-6 CONF TRANSITION

2 161 0.05 2.5 F14 FREE

POINT	ALPHA	CNF	Cm	Cs	XCPF	YCPF
1	178.00	0.0202	-0.0138	0.0145	-0.3395	0.3559
2	178.99	0.0256	-0.0082	0.0077	-0.3193	0.3010
3	180.22	0.0126	-0.0027	0.0010	-0.2145	0.0791
4	180.99	-0.0033	0.0038	-0.0039	-1.1528	1.1774
5	182.01	-0.0194	0.0101	-0.0121	-0.5113	0.6099
6	183.03	-0.0347	0.0171	-0.0183	-0.4292	0.4608
7	184.35	-0.0510	0.0250	-0.0271	-0.3189	0.4430
8	186.04	-0.1104	0.0415	-0.0490	-0.3742	0.4418

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION

2 162 0.42 2.5 F14 FREE

POINT	ALPHA	CMF	CM	Ca	ACPF	YCPF
1	-2.03	-0.0016	-0.0001	-0.0239	0.0031	0.5726
2	-0.96	-0.0175	-0.0001	-0.0130	0.0000	0.7406
3	0.04	0.0029	-0.0002	-0.0024	-0.2639	-0.9549
4	1.03	0.0253	-0.0015	0.0067	-0.0502	0.2639
5	2.05	0.0416	-0.0010	0.0190	-0.0230	0.4552
6	3.05	0.0642	-0.0011	0.0299	-0.0164	0.4661
7	4.07	0.0912	-0.0020	0.0407	-0.0222	0.4461
8	6.07	0.1495	-0.0031	0.0671	-0.0238	0.4485
9	8.08	0.2214	-0.0061	0.0946	-0.0274	0.4275
10	10.16	0.2952	-0.0081	0.1205	-0.0274	0.4083
11	12.12	0.3762	-0.0109	0.1476	-0.0292	0.3924
12	14.13	0.4574	-0.0127	0.1719	-0.0278	0.3751
13	16.16	0.5356	-0.0124	0.1971	-0.0238	0.3678
14	18.17	0.6146	-0.0134	0.2150	-0.0218	0.3498
15	20.19	0.6917	-0.0145	0.2405	-0.0207	0.3427
16	22.20	0.7961	-0.0144	0.2640	-0.0181	0.3316
17	24.22	0.8802	-0.0135	0.2857	-0.0153	0.3246
18	26.25	0.9734	-0.0153	0.3106	-0.0158	0.3191
19	27.28	1.0154	-0.0154	0.3224	-0.0155	0.3175

TEST PART NAME: RL10-6 COVF TRANSITION

2 163 0.42 2.5 F14 FWE

POINT	ALPHA	CNF	CM	C _D	XCPF	YCPF
1	13.02	0.4244	-0.0117	0.1809	-0.0271	0.3743
2	14.11	0.4751	-0.0124	0.1771	-0.0261	0.3727
3	15.11	0.5141	-0.0125	0.1803	-0.0244	0.3683
4	16.13	0.5507	-0.0123	0.1900	-0.0224	0.3596
5	17.13	0.5926	-0.0134	0.2279	-0.0224	0.3509
6	18.14	0.6306	-0.0140	0.2176	-0.0220	0.3429
7	19.15	0.6734	-0.0141	0.2297	-0.0210	0.3411
8	21.17	0.7644	-0.0139	0.2502	-0.0162	0.3325
9	23.18	0.8569	-0.0132	0.2756	-0.0155	0.3216
10	25.20	0.9467	-0.0138	0.3002	-0.0146	0.3171
11	27.22	1.0361	-0.0159	0.3269	-0.0154	0.3155
12	29.23	1.1144	-0.0167	0.3514	-0.0150	0.3146
13	31.26	1.1837	-0.0145	0.3646	-0.0122	0.3123
14	33.27	1.1440	-0.0015	0.3647	-0.0013	0.3042
15	35.27	1.1302	0.0324	0.3263	0.0286	0.2877
16	37.28	1.0694	0.0257	0.3057	0.0240	0.2857
17	39.26	1.0754	-0.0022	0.3238	-0.0021	0.3003
18	41.26	1.0404	-0.0106	0.3166	-0.0102	0.3041
19	42.27	1.0451	-0.0168	0.3185	-0.0104	0.3047

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPELLSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT) 4
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART WACH BX10-6 CONE TRANSITION
 2 164 U.S.C 2.5 F14 FREE

POINT	ALPHA	CNF	Cm	Cp	XCPF	YCPF
1	40.20	1.0023	-0.0073	0.3036	-0.0073	0.3029
2	47.27	1.0152	-0.0091	0.3059	-0.0099	0.3013
3	44.21	1.0274	-0.0106	0.3132	-0.0104	0.3048
4	46.23	1.0323	-0.0125	0.3141	-0.0121	0.3001
5	46.23	1.0480	-0.0141	0.3202	-0.0154	0.3056
6	50.23	1.0635	-0.0161	0.3291	-0.0170	0.3094
7	52.24	1.0754	-0.0147	0.3463	-0.0183	0.3127
8	54.26	1.0941	-0.0224	0.3421	-0.0204	0.3126
9	56.27	1.1132	-0.0253	0.3505	-0.0227	0.3148
10	57.27	1.1242	-0.0266	0.3535	-0.0237	0.3144

TEST PART MARK EX10-6 CONF TRANSITION

2 166 U.02 2.5 F14 FREE

POINT	ALPHA	CM	CM	CM	XCDF	YCDF
1	58.69	1.0759	-0.0247	0.3372	-0.0230	0.3136
2	59.17	1.0006	-0.0263	0.3397	-0.0244	0.3143
3	60.16	1.0658	-0.0274	0.3424	-0.0252	0.3153
4	61.16	1.0005	-0.0283	0.3457	-0.0260	0.3168
5	62.18	1.0260	-0.0283	0.3462	-0.0261	0.3188
6	63.17	1.0419	-0.0303	0.3499	-0.0277	0.3204
7	64.18	1.0074	-0.0317	0.3501	-0.0291	0.3218
8	66.19	1.0014	-0.0364	0.3499	-0.0322	0.3236
9	69.19	1.0052	-0.0372	0.3550	-0.0362	0.3271
10	70.21	1.0091	-0.0405	0.3595	-0.0372	0.3301
11	72.20	1.0000	-0.0450	0.3640	-0.0409	0.3313
12	74.21	1.1042	-0.0488	0.3706	-0.0441	0.3364
13	76.22	1.1150	-0.0533	0.3776	-0.0477	0.3376
14	78.22	1.1245	-0.0579	0.3743	-0.0512	0.3403
15	80.23	1.1325	-0.0612	0.3681	-0.0540	0.3427
16	82.22	1.1337	-0.0661	0.3491	-0.0583	0.3432
17	84.24	1.1327	-0.0705	0.3414	-0.0622	0.3456
18	86.24	1.1274	-0.0743	0.3415	-0.0659	0.3473
19	87.25	1.1251	-0.0772	0.3418	-0.0686	0.3483

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1
SHEET 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART NAME BX14-0 CONF. TRANSITION
2 107 0.6c 2.5 F14 FREE

POINT	ALPHA	CNF	Cm	Cn	XCPF	YCPF
1	88.08	1.0686	-0.0760	0.3750	-0.0711	0.3510
2	89.08	1.0616	-0.0767	0.3728	-0.0737	0.3512
3	90.13	1.0528	-0.0816	0.3730	-0.0726	0.3548
4	91.13	1.0446	-0.0863	0.3732	-0.0804	0.3560
5	92.15	1.0330	-0.0920	0.3726	-0.0853	0.3572
6	93.16	1.0242	-0.0931	0.3703	-0.0900	0.3581
7	94.15	1.0302	-0.0981	0.3707	-0.0952	0.3599
8	96.15	1.0277	-0.1080	0.3723	-0.1031	0.3622
9	98.16	1.0237	-0.1127	0.3737	-0.1101	0.3651
10	100.15	1.0376	-0.1200	0.3779	-0.1157	0.3642
11	102.15	1.0398	-0.1280	0.3811	-0.1198	0.3670
12	104.15	1.0408	-0.1290	0.3816	-0.1239	0.3666
13	106.16	1.0498	-0.1381	0.3858	-0.1277	0.3675
14	108.17	1.0412	-0.1380	0.3815	-0.1307	0.3664
15	110.16	1.0395	-0.1391	0.3798	-0.1338	0.3648
16	112.16	1.0420	-0.1408	0.3805	-0.1351	0.3651
17	113.26	1.0488	-0.1416	0.3805	-0.1361	0.3659
18	116.19	1.0432	-0.1424	0.3795	-0.1369	0.3638
19	117.20	1.0414	-0.1436	0.3760	-0.1379	0.3609

TEST PART MACH REYNOLDS CONF. TRANSITION

2 100 0.92 2.5 F14 FNEE

POINT	ALPHA	CNF	CM	CD	YCPF	ZCPF
1	118.02	1.0144	-0.1423	0.3666	-0.1383	0.3612
2	119.09	1.0146	-0.1412	0.3661	-0.1387	0.3596
3	120.09	1.0245	-0.1392	0.3594	-0.1386	0.3578
4	121.11	1.0062	-0.1395	0.3604	-0.1389	0.3582
5	122.11	1.0011	-0.1397	0.3573	-0.1396	0.3569
6	123.10	0.9984	-0.1397	0.3560	-0.1399	0.3565
7	124.11	0.9922	-0.1407	0.3535	-0.1395	0.3560
8	126.11	0.9793	-0.1372	0.3483	-0.1431	0.3556
9	128.11	0.9747	-0.1374	0.3462	-0.1410	0.3552
10	130.11	0.9643	-0.1371	0.3390	-0.1422	0.3516
11	132.11	0.9564	-0.1368	0.3335	-0.1439	0.3509
12	134.11	0.9443	-0.1366	0.3310	-0.1447	0.3505
13	136.12	0.9292	-0.1362	0.3251	-0.1465	0.3496
14	138.13	0.9252	-0.1373	0.3224	-0.1485	0.3485
15	140.12	0.9175	-0.1362	0.3191	-0.1501	0.3516
16	142.14	0.8905	-0.1356	0.3140	-0.1523	0.3527
17	144.14	0.8692	-0.1379	0.3100	-0.1559	0.3586
18	146.15	0.8596	-0.1366	0.3040	-0.1592	0.3536
19	147.15	0.8447	-0.1364	0.2963	-0.1615	0.3507

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART - ALM R310-6 CONF TRANSITION
 2 169 0.642 2.5 F14 FREE

POINT	ALPHA	Cmf	Cm	Cx	KCPX	VCPX
1	149.00	0.8409	-0.1351	0.2437	-0.1607	0.3493
2	149.07	0.8141	-0.1320	0.2037	-0.1622	0.3485
3	152.06	0.7912	-0.1301	0.2159	-0.1645	0.3487
4	151.07	0.7803	-0.1261	0.2072	-0.1659	0.3515
5	152.07	0.7430	-0.1238	0.2567	-0.1687	0.3500
6	153.07	0.7099	-0.1224	0.2504	-0.1724	0.3527
7	150.07	0.6872	-0.1213	0.2406	-0.1765	0.3563
8	156.07	0.6401	-0.1145	0.2249	-0.1857	0.3576
9	159.06	0.5825	-0.1136	0.2100	-0.1950	0.3602
10	160.08	0.5305	-0.1099	0.1426	-0.2072	0.3631
11	162.07	0.4822	-0.1081	0.1772	-0.2202	0.3675
12	164.08	0.4586	-0.1303	0.1545	-0.2242	0.4201
13	165.07	0.4356	-0.1184	0.1550	-0.3002	0.4019
14	168.09	0.3242	-0.1028	0.1304	-0.3131	0.3974
15	170.09	0.2853	-0.1081	0.1035	-0.3246	0.3988
16	172.09	0.2044	-0.0642	0.0783	-0.3385	0.3830
17	174.09	0.1480	-0.0515	0.0521	-0.3482	0.3521
18	176.10	0.0440	-0.0333	0.0305	-0.3540	0.3244
19	177.12	0.0082	-0.0236	0.0206	-0.3467	0.3028

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PMT)

AERODYNAMIC WIND TUNNEL(AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RATIO-6 CONF. TRANSITION

2 170 0.62 2-5 F14 FREE

POINT	ALPHA	CNF	CM	Cs	XCPF	YCPF
1	179.00	0.0531	-0.0177	0.0139	-0.3332	0.2531
2	179.01	0.0560	-0.0110	0.0056	-0.3362	0.1545
3	179.99	0.0194	-0.0043	0.0019	-0.2154	0.0688
4	181.01	0.0067	0.0013	-0.0066	0.1860	-0.9851
5	181.99	-0.0101	0.0080	-0.0127	-0.7921	1.2654
6	183.05	-0.0520	0.0187	-0.0207	-0.5043	0.6463
7	184.01	-0.0547	0.0242	-0.0296	-0.4423	0.5408
8	184.06	-0.1091	0.0429	-0.0517	-0.3933	0.4740

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)
PAGE 1 OF 1
SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY(PMT)
NANTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART -ALM PX10-6 CONF TRANSITION
2 171 0.98 2.5 F14 FREE

POINT	ALPHA	CMF	CM	CK	KCPF	YCPF
1	-2.03	-0.0000	0.0007	-0.0271	-0.0168	0.6698
2	-0.47	-0.0141	-0.0010	-0.0122	0.0738	0.8680
3	0.03	0.0007	-0.0014	-0.0039	-0.1659	-0.0448
4	1.05	0.0331	-0.0028	0.0070	-0.0847	0.2108
5	2.05	0.0588	-0.0042	0.0193	-0.0731	0.3481
6	3.05	0.0614	-0.0049	0.0325	-0.0598	0.3964
7	4.06	0.1091	-0.0063	0.0433	-0.0574	0.4011
8	4.06	0.1726	-0.0099	0.0718	-0.0575	0.4155
9	8.09	0.2493	-0.0130	0.0981	-0.0532	0.4816
10	10.10	0.3243	-0.0174	0.1268	-0.0544	0.3910
11	12.12	0.4062	-0.0222	0.1585	-0.0547	0.3853
12	14.13	0.4903	-0.0259	0.1807	-0.0528	0.3685
13	16.16	0.5750	-0.0259	0.2067	-0.0519	0.3592
14	18.17	0.6550	-0.0314	0.2316	-0.0479	0.3536
15	20.24	0.7411	-0.0340	0.2572	-0.0459	0.3478
16	22.21	0.8324	-0.0340	0.2798	-0.0416	0.3359
17	24.25	0.9185	-0.0340	0.3003	-0.0371	0.3269
18	26.27	1.0024	-0.0340	0.3233	-0.0345	0.3224
19	27.27	1.0830	-0.0342	0.3370	-0.0328	0.3236

TEST PART NAME: RA10-6 CONF. TRANSITION
 2 172 U.S. 2.5 F14 FWE

POINT	ALPHA	CNF	Cm	Cy	XCPF	YCPF
1	25.13	1.1053	-0.0361	0.3530	-0.0329	0.3197
2	29.14	1.1436	-0.0367	0.3562	-0.0321	0.3203
3	30.14	1.1750	-0.0373	0.3755	-0.0318	0.3194
4	31.20	1.2094	-0.0371	0.3770	-0.0307	0.3200
5	32.19	1.2414	-0.0366	0.3730	-0.0295	0.3165
6	33.22	1.2704	-0.0344	0.3719	-0.0271	0.3164
7	34.22	1.2788	-0.0266	0.3774	-0.0208	0.3108
8	34.25	1.2143	0.0064	0.3557	0.0057	0.2919
9	38.22	1.1554	0.0221	0.3187	0.0191	0.2862
10	40.23	1.1643	-0.0049	0.3453	-0.0042	0.2966
11	42.23	1.1680	-0.0154	0.3525	-0.0133	0.3038
12	44.22	1.1564	-0.0197	0.3536	-0.0170	0.3051
13	45.33	1.1565	-0.0202	0.3526	-0.0174	0.3049
14	48.24	1.1655	-0.0204	0.3607	-0.0177	0.3097
15	50.25	1.1752	-0.0232	0.3641	-0.0198	0.3098
16	51.36	1.1730	-0.0244	0.3641	-0.0208	0.3104
17	54.20	1.2400	-0.0243	0.3743	-0.0235	0.3122
18	56.29	1.2204	-0.0301	0.3746	-0.0246	0.3160
19	57.24	1.2286	-0.0315	0.3700	-0.0257	0.3174

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH RA10-6 CONF TRANSITION
 2 173 0.90 2.5 F14 FREE

POINT	ALPHA	CMF	CM	CM	XCPF	YCPF
1	58.11	1.1368	-0.0290	0.3577	-0.0255	0.3162
2	59.16	1.1552	-0.0311	0.3655	-0.0269	0.3164
3	60.18	1.1632	-0.0322	0.3696	-0.0277	0.3177
4	61.19	1.1705	-0.0337	0.3732	-0.0288	0.3189
5	62.19	1.1841	-0.0347	0.3725	-0.0298	0.3208
6	63.18	1.1837	-0.0358	0.3743	-0.0308	0.3216
7	64.14	1.1576	-0.0379	0.3718	-0.0328	0.3218
8	64.14	1.1585	-0.0346	0.3726	-0.0344	0.3240
9	68.19	1.1641	-0.0419	0.3776	-0.0365	0.3289
10	70.20	1.1647	-0.0444	0.3791	-0.0389	0.3302
11	72.21	1.1534	-0.0487	0.3834	-0.0422	0.3323
12	74.21	1.1640	-0.0530	0.3809	-0.0455	0.3358
13	76.22	1.1673	-0.0585	0.3891	-0.0493	0.3361
14	78.23	1.1524	-0.0626	0.4054	-0.0527	0.3404
15	80.23	1.1483	-0.0679	0.4078	-0.0566	0.3397
16	82.24	1.1477	-0.0713	0.4094	-0.0595	0.3418
17	84.26	1.1356	-0.0750	0.4120	-0.0627	0.3446
18	86.26	1.1447	-0.0796	0.4152	-0.0664	0.3464
19	87.27	1.2044	-0.0824	0.4183	-0.0686	0.3473

TEST PART: MACH BK10-6 CONF: TRANSITION

2 174 0.90 2.5 F14 FREE

POINT	ALPHA	CNF	CN	Cd	ACPF	YCPF
1	88.08	1.1283	-0.0795	0.3891	-0.0767	0.3661
2	90.00	1.1114	-0.0662	0.3497	-0.0757	0.3505
3	91.13	1.1097	-0.0670	0.3421	-0.0784	0.3533
4	92.13	1.1115	-0.0911	0.3431	-0.0620	0.3536
5	93.14	1.1122	-0.0762	0.3466	-0.0665	0.3548
6	94.14	1.1114	-0.0490	0.3466	-0.0690	0.3549
7	96.14	1.1091	-0.1045	0.3469	-0.0478	0.3578
8	98.14	1.1102	-0.1161	0.4002	-0.1042	0.3592
9	100.15	1.1164	-0.1224	0.4044	-0.1099	0.3621
10	102.15	1.1231	-0.1262	0.4057	-0.1141	0.3612
11	104.16	1.1292	-0.1326	0.4091	-0.1174	0.3623
12	106.16	1.1220	-0.1371	0.4049	-0.1222	0.3609
13	108.17	1.1230	-0.1403	0.4078	-0.1249	0.3632
14	110.17	1.1247	-0.1435	0.4104	-0.1276	0.3640
15	112.16	1.1334	-0.1457	0.4116	-0.1285	0.3630
16	114.19	1.1407	-0.1490	0.4129	-0.1306	0.3620
17	116.20	1.1456	-0.1521	0.4145	-0.1305	0.3599
18	117.21	1.1702	-0.1530	0.4222	-0.1308	0.3608

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART: PACM 2X10-D CONF. TRANSITION
 2 175 U.90 2.5 F16 FREE

POINT	ALPHA	CNP	CM	C _D	XCPF	YCPF
1	118.05	1.1511	-0.1515	0.4113	-0.1316	0.3573
2	119.06	1.1626	-0.1525	0.4163	-0.1312	0.3583
3	120.05	1.1723	-0.1537	0.4197	-0.1303	0.3559
4	121.10	1.1850	-0.1542	0.4210	-0.1301	0.3552
5	122.10	1.1969	-0.1550	0.4259	-0.1300	0.3566
6	123.11	1.1977	-0.1554	0.4258	-0.1302	0.3556
7	124.12	1.1973	-0.1562	0.4231	-0.1305	0.3536
8	126.12	1.1757	-0.1564	0.4161	-0.1317	0.3539
9	128.11	1.1618	-0.1566	0.4108	-0.1331	0.3536
10	130.12	1.1433	-0.1532	0.4047	-0.1340	0.3540
11	132.12	1.1400	-0.1538	0.4008	-0.1350	0.3516
12	134.12	1.1434	-0.1555	0.4007	-0.1360	0.3505
13	135.12	1.1472	-0.1558	0.3987	-0.1362	0.3502
14	138.13	1.1368	-0.1571	0.3983	-0.1382	0.3504
15	140.12	1.1181	-0.1583	0.3931	-0.1408	0.3496
16	142.15	1.0908	-0.1559	0.3813	-0.1429	0.3496
17	144.16	1.0565	-0.1528	0.3688	-0.1471	0.3491
18	146.17	1.0151	-0.1506	0.3579	-0.1523	0.3526
19	147.16	0.9925	-0.1502	0.3505	-0.1554	0.3532

TEST PART NAME: X110-6 CONE TRANSITION

2 176 0.66 P.5 F14 FREE

POINT	ALPHA	CNF	CM	C _M	XCPF	YCPF
1	145.00	0.9484	-0.1555	0.3345	-0.1573	0.3686
2	149.06	0.9634	-0.1552	0.3347	-0.1610	0.3525
3	150.00	0.9440	-0.1554	0.3342	-0.1650	0.3525
4	151.06	0.9406	-0.1562	0.3255	-0.1697	0.3536
5	152.07	0.9456	-0.1627	0.3252	-0.1727	0.3598
6	153.06	0.9626	-0.1576	0.3107	-0.1927	0.3602
7	154.06	0.8921	-0.1577	0.3028	-0.1895	0.3639
8	156.07	0.7612	-0.1534	0.2719	-0.2021	0.3704
9	158.06	0.7694	-0.1714	0.2417	-0.2350	0.3861
10	160.06	0.6537	-0.1614	0.2508	-0.2477	0.3837
11	162.07	0.2723	-0.1489	0.2230	-0.2596	0.3897
12	164.06	0.4460	-0.1356	0.1915	-0.2722	0.3846
13	166.07	0.4243	-0.1264	0.1618	-0.2850	0.3814
14	168.06	0.3443	-0.1040	0.1336	-0.2977	0.3824
15	170.06	0.2616	-0.0880	0.1052	-0.3127	0.3735
16	172.10	0.2161	-0.0703	0.0764	-0.3251	0.3533
17	174.11	0.1583	-0.0536	0.0498	-0.3368	0.3146
18	174.11	0.1033	-0.0351	0.0286	-0.3345	0.2769
19	177.11	0.0787	-0.0262	0.0185	-0.3325	0.2350

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME RX10-6 CONE TRANSITION

2 177 0.98 2.5 F14 FREE

POINT	ALPHA	CNF	Cm	Cs	ACPF	YCPF
1	175.00	0.0595	-0.0164	0.0110	-0.3095	0.1856
2	178.99	0.0447	-0.0112	0.0013	-0.2756	0.0315
3	180.01	0.0240	-0.0042	-0.0036	-0.1746	-0.1501
4	181.03	0.0076	0.0071	-0.0114	0.2503	-1.4503
5	182.01	-0.0126	0.0100	-0.0182	-0.7938	1.4471
6	183.05	-0.0344	0.0143	-0.0262	-0.5742	0.7500
7	184.06	-0.0700	0.0107	-0.0424	-0.4384	0.6056
8	186.02	-0.0487	0.0229	-0.0361	-0.4709	0.7417

TEST PART NAME MX10-6 CONF. TRANSITION

2 184 0.60 2.5 F11 FREE

POINT	ALPHA	C _M	C _D	C _D	KCPF	YCPF
1	-2.04	-0.0261	-0.0201	-0.0322	0.4021	0.6025
2	-0.97	-0.0030	-0.0122	-0.0100	0.5232	0.7806
3	0.03	-0.0010	-0.0030	-0.0156	2.0921	3.8410
4	1.00	0.0223	0.0033	0.0060	0.1458	0.2667
5	2.06	0.0053	0.0112	0.0103	0.2461	0.3586
6	3.05	0.0070	0.0200	0.0320	0.3048	0.4851
7	4.00	0.0045	0.0290	0.0331	0.3112	0.4578
8	6.00	0.1551	0.0003	0.0706	0.2705	0.0689
9	8.09	0.2270	0.0013	0.1150	0.2090	0.5070
10	10.11	0.3060	0.0717	0.1552	0.2700	0.5073
11	12.13	0.3902	0.0700	0.1992	0.2010	0.5105
12	14.10	0.4700	0.0775	0.2008	0.1032	0.5073
13	16.16	0.5500	0.0700	0.2707	0.1301	0.5059
14	18.10	0.6012	0.0047	0.3230	0.1007	0.5037
15	20.10	0.7092	0.0091	0.3621	0.0900	0.4966
16	22.19	0.7700	0.0500	0.3703	0.0731	0.4907
17	24.20	0.7095	0.0452	0.3717	0.0507	0.4830
18	26.21	0.7700	0.0400	0.3703	0.0500	0.4802
19	27.22	0.7000	0.0420	0.3705	0.0502	0.4828

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART: MACH. PALU-b CONF. TRANSITION
 2 145 0.00 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Cm	XCPF	YCPF
1	25.04	0.7670	0.0414	0.3781	0.0531	0.4804
2	29.15	0.7492	0.0474	0.3668	0.0531	0.4839
3	30.15	0.8141	0.0427	0.3957	0.0525	0.4861
4	31.16	0.8247	0.0423	0.3986	0.0513	0.4833
5	32.16	0.8310	0.0394	0.3999	0.0474	0.4812
6	33.15	0.8374	0.0385	0.4058	0.0450	0.4845
7	34.17	0.8514	0.0369	0.4101	0.0433	0.4816
8	36.16	0.8736	0.0345	0.4210	0.0394	0.4820
9	38.17	0.9016	0.0317	0.4351	0.0352	0.4826
10	40.18	0.9266	0.0294	0.4489	0.0318	0.4844
11	42.19	0.9474	0.0273	0.4572	0.0288	0.4826
12	44.20	0.9615	0.0234	0.4736	0.0238	0.4825
13	46.20	1.0070	0.0217	0.4892	0.0215	0.4855
14	48.22	1.0475	0.0184	0.5040	0.0180	0.4859
15	50.21	1.0823	0.0154	0.5176	0.0145	0.4872
16	52.23	1.0879	0.0135	0.5340	0.0125	0.4908
17	54.24	1.1001	0.0096	0.5387	0.0088	0.4897
18	56.25	1.1134	0.0060	0.5491	0.0054	0.4932
19	57.25	1.1235	0.0044	0.5535	0.0046	0.4926

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME RX16-6 CONF. TRANSITION

Z 186 U.60 2.5 F11 FREE

POINT	ALPHA	CNF	CM	CM	XCDF	YCDF
1	58.10	1.0095	0.0000	0.5366	0.0006	0.4926
2	59.16	1.0041	0.0020	0.5352	0.0018	0.4914
3	60.16	1.0042	-0.0003	0.5373	-0.0003	0.4915
4	61.17	1.0070	-0.0020	0.5344	-0.0023	0.4916
5	62.18	1.0021	-0.0029	0.5455	-0.0020	0.4950
6	63.18	1.0062	-0.0040	0.5425	-0.0044	0.4940
7	64.17	1.0069	-0.0051	0.5467	-0.0047	0.4965
8	66.18	1.0032	-0.0000	0.5492	-0.0076	0.4979
9	68.18	1.0164	-0.0110	0.5607	-0.0098	0.5020
10	70.19	1.0021	-0.0167	0.5660	-0.0149	0.5027
11	72.19	1.0084	-0.0235	0.5762	-0.0205	0.5017
12	74.20	1.0525	-0.0209	0.5004	-0.0216	0.5071
13	76.20	1.0611	-0.0273	0.5230	-0.0235	0.5105
14	78.21	1.0725	-0.0451	0.5460	-0.0249	0.5063
15	79.31	1.0795	-0.0376	0.6005	-0.0318	0.5092
16	82.22	1.0052	-0.0039	0.6111	-0.0370	0.5156
17	84.23	1.0091	-0.0090	0.6125	-0.0419	0.5151
18	86.23	1.0039	-0.0036	0.6230	-0.0449	0.5218
19	87.23	1.0063	-0.0579	0.6136	-0.0488	0.5173

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART W4C R410-6 CONF. TRANSITION
 2 187 0.80 2.5 F11 FREE

POINT	ALPHA	CmF	Cm	Ce	KCPF	YCPF
1	88.10	1.1573	-0.0567	0.6022	-0.0490	0.5203
2	89.10	1.1506	-0.0591	0.6007	-0.0514	0.5222
3	90.16	1.1502	-0.0633	0.59200	-0.0550	0.5216
4	91.17	1.1557	-0.0647	0.6008	-0.0594	0.5199
5	92.16	1.1579	-0.0737	0.5999	-0.0637	0.5181
6	93.17	1.1566	-0.0769	0.5996	-0.0665	0.5190
7	94.16	1.1564	-0.0794	0.6003	-0.0686	0.5189
8	96.17	1.1602	-0.0856	0.6018	-0.0737	0.5169
9	98.16	1.1699	-0.0916	0.5999	-0.0783	0.5128
10	100.18	1.1714	-0.0957	0.5999	-0.0816	0.5111
11	102.17	1.1716	-0.1000	0.5980	-0.0854	0.5086
12	104.18	1.1735	-0.1036	0.5964	-0.0883	0.5069
13	106.16	1.1727	-0.1076	0.5919	-0.0918	0.5047
14	108.19	1.1745	-0.1130	0.5900	-0.0959	0.5064
15	110.19	1.1845	-0.1145	0.5855	-0.0983	0.5020
16	112.21	1.1596	-0.1174	0.5956	-0.1013	0.5050
17	114.21	1.1486	-0.1204	0.5768	-0.1048	0.5021
18	116.22	1.1409	-0.1233	0.5693	-0.1081	0.4990
19	117.22	1.1392	-0.1244	0.5712	-0.1096	0.5016

TEST PART PALM HALO-5 CONF TRANSITION

Z 1HS 0.60 2.5 F11 FREE

POINT	ALPHA	CNF	C _M	C _N	XCPF	YCPF
1	118.05	1.1092	-0.1218	0.5547	-0.1098	0.5000
2	119.12	1.1006	-0.1231	0.5461	-0.1118	0.4980
3	120.12	1.1017	-0.1243	0.5391	-0.1128	0.4984
4	121.13	1.1024	-0.1268	0.5470	-0.1150	0.4960
5	122.13	1.1016	-0.1295	0.5492	-0.1175	0.4961
6	123.13	1.1044	-0.1295	0.5405	-0.1183	0.4936
7	124.13	1.1012	-0.1315	0.5403	-0.1205	0.4952
8	126.13	1.0874	-0.1334	0.5362	-0.1231	0.4929
9	127.26	1.0886	-0.1365	0.5362	-0.1256	0.4915
10	130.14	1.0571	-0.1375	0.5176	-0.1301	0.4898
11	132.14	1.0445	-0.1364	0.5129	-0.1330	0.4910
12	134.14	1.0184	-0.1400	0.4969	-0.1374	0.4879
13	136.15	0.9876	-0.1387	0.4798	-0.1404	0.4857
14	138.14	0.9643	-0.1387	0.4576	-0.1438	0.4850
15	139.26	0.9447	-0.1377	0.4418	-0.1457	0.4880
16	142.16	0.9161	-0.1375	0.4436	-0.1501	0.4842
17	144.16	0.8926	-0.1404	0.4324	-0.1524	0.4844
18	146.17	0.8712	-0.1374	0.4203	-0.1577	0.4825
19	147.16	0.8633	-0.1362	0.4145	-0.1601	0.4802

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART: MALM BALL=6 CONF TRANSITION

2 1A9 0.00 2.5 F11 FREE

POINT	ALPHA	CNF	CM	Co	XCPF	YCPF
1	148.01	0.6611	-0.1361	0.3645	-0.1618	0.4833
2	149.04	0.6671	-0.1354	0.3610	-0.1662	0.4847
3	150.04	0.6687	-0.1335	0.3411	-0.1652	0.4838
4	151.04	0.7096	-0.1306	0.3633	-0.1656	0.4855
5	152.09	0.7695	-0.1243	0.3703	-0.1680	0.4812
6	153.04	0.7553	-0.1272	0.3635	-0.1684	0.4813
7	154.04	0.7383	-0.1254	0.3551	-0.1649	0.4809
8	156.09	0.7233	-0.1225	0.3513	-0.1693	0.4857
9	158.16	0.7334	-0.1272	0.3534	-0.1734	0.4816
10	160.10	0.7344	-0.1456	0.3600	-0.1971	0.4875
11	162.10	0.6786	-0.1507	0.3392	-0.2221	0.4998
12	164.09	0.5786	-0.1425	0.2442	-0.2465	0.5098
13	166.10	0.5211	-0.1349	0.2363	-0.2732	0.5124
14	168.11	0.4284	-0.1244	0.2153	-0.3032	0.5026
15	170.10	0.3477	-0.1155	0.1733	-0.3322	0.4962
16	172.10	0.2677	-0.0444	0.1240	-0.3525	0.4779
17	174.12	0.1764	-0.0720	0.0563	-0.3783	0.4531
18	176.12	0.1221	-0.0475	0.0524	-0.3694	0.4338
19	177.11	0.0441	-0.0368	0.0413	-0.3413	0.4386

TEST BODY MACH. #410-6 CONF. TRANSITION

2 190 0.80 2.5 F11 FREE

POINT	ALPHA	C _{DF}	C _M	C _D	XCPF	YCPF
1	178.00	0.0739	-0.0246	0.0274	-0.3422	0.3709
2	178.97	0.0508	-0.0184	0.0126	-0.3752	0.2506
3	179.97	0.0235	-0.0041	0.0014	-0.3451	0.0764
4	181.02	-0.0026	0.0024	-0.0115	-0.9276	4.1372
5	182.04	-0.0215	0.0153	-0.0202	-0.4454	0.6393
6	182.94	-0.0554	0.0252	-0.0246	-0.4510	0.5287
7	184.01	-0.0820	0.0358	-0.0439	-0.4365	0.5357
8	184.01	-0.1414	0.0572	-0.0746	-0.4031	0.5254

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PARI MACH RATIO CONF TRANSITION
 2 196 0.05 7.5 F11 FREE

POINT	ALPHA	CNF	Cm	Cm	XCPF	YCPF
1	-2.04	-0.0433	-0.0198	-0.0267	0.4503	0.6169
2	-0.96	-0.0143	-0.0116	-0.0176	0.6206	1.2294
3	0.04	0.0022	-0.0051	-0.0058	-0.5560	-0.0281
4	1.05	0.0313	0.0038	0.0062	0.1215	0.1966
5	2.06	0.0554	0.0113	0.0205	0.2023	0.3679
6	3.07	0.0806	0.0194	0.0321	0.2460	0.3973
7	4.07	0.1104	0.0244	0.0437	0.2581	0.3945
8	6.06	0.1753	0.0456	0.0766	0.2568	0.4484
9	8.10	0.2492	0.0826	0.1212	0.2511	0.4863
10	10.12	0.3292	0.0792	0.1652	0.2406	0.5018
11	12.15	0.4196	0.0718	0.2123	0.2188	0.5059
12	14.15	0.4851	0.0754	0.2422	0.1554	0.4991
13	16.16	0.5047	0.0562	0.2746	0.1162	0.4907
14	18.16	0.6567	0.0592	0.3250	0.0901	0.4940
15	20.20	0.7204	0.0512	0.3511	0.0702	0.4817
16	22.21	0.7664	0.0474	0.3641	0.0618	0.4813
17	24.22	0.7792	0.0436	0.3746	0.0552	0.4859
18	26.22	0.8002	0.0410	0.3674	0.0512	0.4844
19	27.24	0.8074	0.0410	0.3918	0.0507	0.4858

TEST PART MACH RATIO-6 CURF TRANSITION

2 195 0.85 2.5 F11 FREE

POINT	ALPHA	CAF	CM	Cd	XCPF	YCPF
1	28.29	0.8451	0.0385	0.3081	0.0078	0.0620
2	29.16	0.8164	0.0371	0.3437	0.0054	0.0620
3	30.15	0.8310	0.0370	0.3297	0.0045	0.0609
4	31.16	0.8400	0.0367	0.4053	0.0035	0.0601
5	32.17	0.8597	0.0372	0.4100	0.0037	0.0625
6	33.16	0.8565	0.0349	0.4101	0.0007	0.0708
7	34.17	0.8671	0.0352	0.4199	0.0007	0.0663
8	36.18	0.8842	0.0301	0.4286	0.0037	0.0793
9	38.18	0.9167	0.0292	0.4622	0.0019	0.0824
10	40.19	0.9430	0.0275	0.4540	0.0029	0.0819
11	42.20	0.9766	0.0230	0.4683	0.0026	0.0805
12	44.21	1.0016	0.0215	0.4848	0.0015	0.0840
13	46.22	1.0322	0.0182	0.4995	0.0016	0.0839
14	48.23	1.0672	0.0150	0.5180	0.0010	0.0854
15	50.23	1.0956	0.0124	0.5343	0.0010	0.0884
16	52.24	1.1097	0.0083	0.5421	0.0005	0.0886
17	54.25	1.1313	0.0055	0.5523	0.0000	0.0906
18	56.26	1.1316	0.0031	0.5557	0.0002	0.0911
19	57.26	1.1343	0.0019	0.5592	0.0017	0.0930

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEG) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH REYNOLDS CONF TRANSITION
 2 196 0.65 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Cm	XCDF	YCDF
1	58.11	1.0963	0.0032	0.5407	0.0029	0.4932
2	59.17	1.0937	0.0003	0.5365	0.0003	0.4905
3	60.17	1.1003	-0.0010	0.5224	-0.0014	0.4930
4	61.18	1.0965	-0.0027	0.5424	-0.0020	0.4946
5	62.18	1.0972	-0.0025	0.5392	-0.0023	0.4960
6	63.17	1.1103	-0.0071	0.5077	-0.0064	0.4932
7	64.18	1.1076	-0.0082	0.5512	-0.0074	0.4977
8	65.18	1.1094	-0.0117	0.5510	-0.0105	0.4967
9	66.19	1.1250	-0.0146	0.5040	-0.0130	0.5013
10	70.19	1.1385	-0.0198	0.5040	-0.0174	0.4997
11	72.20	1.1350	-0.0234	0.5510	-0.0202	0.5027
12	74.21	1.1721	-0.0265	0.5540	-0.0243	0.5067
13	76.21	1.1841	-0.0333	0.5587	-0.0281	0.5056
14	78.22	1.2047	-0.0385	0.6133	-0.0323	0.5091
15	80.23	1.2033	-0.0424	0.6150	-0.0352	0.5111
16	82.23	1.2040	-0.0473	0.6174	-0.0393	0.5127
17	84.24	1.2040	-0.0513	0.6253	-0.0424	0.5170
18	86.24	1.2107	-0.0562	0.6298	-0.0464	0.5202
19	87.24	1.2063	-0.0577	0.6287	-0.0479	0.5211

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TEST POST. HALF RATIO-9. CONE TRANSITION

2 197 0.65 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Cm	XCPF	YCPF
1	90.15	1.1713	-0.0000	0.6044	-0.0567	0.5160
2	91.15	1.1717	-0.0047	0.6107	-0.0591	0.5212
3	92.15	1.1715	-0.0073	0.6168	-0.0620	0.5180
4	93.15	1.1724	-0.0060	0.6061	-0.0665	0.5160
5	94.15	1.1655	-0.0093	0.6003	-0.0680	0.5187
6	96.16	1.1750	-0.0060	0.6075	-0.0731	0.5167
7	95.16	1.1604	-0.0044	0.6022	-0.0761	0.5155
8	100.16	1.1750	-0.0091	0.6006	-0.0829	0.5093
9	102.17	1.1711	-0.0109	0.6062	-0.0847	0.5089
10	104.18	1.1703	-0.1071	0.6049	-0.0893	0.5048
11	106.18	1.1731	-0.1076	0.6177	-0.0904	0.5090
12	108.18	1.1695	-0.1130	0.5980	-0.0955	0.5032
13	110.19	1.1605	-0.1157	0.5971	-0.0950	0.5057
14	112.20	1.1704	-0.1179	0.5941	-0.1004	0.5059
15	114.20	1.1679	-0.1213	0.5873	-0.1039	0.5029
16	115.31	1.1691	-0.1202	0.5870	-0.1063	0.5020
17	117.20	1.1511	-0.1247	0.5745	-0.1086	0.4990

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
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 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART NAME: X10-D CONE TRANSITION
 2 198 0.45 2.5 F11 FREE

POINT	ALPHA	CNF	CM	CB	XCDF	YCDF
1	120.06	1.1106	-0.1250	0.5565	-0.1125	0.4957
2	121.11	1.1143	-0.1280	0.5491	-0.1149	0.4928
3	122.11	1.1063	-0.1291	0.5473	-0.1167	0.4947
4	123.12	1.1066	-0.1307	0.5477	-0.1182	0.4952
5	124.12	1.1092	-0.1310	0.5507	-0.1181	0.4965
6	125.12	1.1059	-0.1353	0.5449	-0.1224	0.4927
7	126.13	1.0936	-0.1365	0.5371	-0.1251	0.4911
8	130.13	1.0862	-0.1344	0.5300	-0.1278	0.4879
9	132.13	1.0663	-0.1411	0.5183	-0.1321	0.4852
10	134.14	1.0425	-0.1402	0.5071	-0.1345	0.4866
11	136.11	1.0180	-0.1406	0.4968	-0.1381	0.4861
12	138.10	0.9854	-0.1400	0.4780	-0.1420	0.4849
13	140.10	0.9596	-0.1387	0.4651	-0.1447	0.4850
14	142.11	0.9360	-0.1384	0.4553	-0.1483	0.4864
15	144.14	0.9130	-0.1371	0.4422	-0.1501	0.4868
16	146.13	0.8746	-0.1397	0.4293	-0.1561	0.4799
17	147.14	0.8444	-0.1390	0.4250	-0.1571	0.4803

TEST PART WASH PA10-6 CONF TRANSITION

2 199 U.S.S 2.5 F11 FREE

POINT	ALPHA	CNF	CN	Cx	XCDF	YCPF
1	148.02	0.8617	-0.1391	0.4126	-0.1614	0.4789
2	149.04	0.8472	-0.1380	0.4069	-0.1628	0.4803
3	149.40	0.8373	-0.1471	0.3962	-0.1638	0.4755
4	150.08	0.8283	-0.1471	0.3928	-0.1656	0.4742
5	151.09	0.8095	-0.1396	0.3845	-0.1662	0.4767
6	152.10	0.7884	-0.1320	0.3769	-0.1673	0.4778
7	153.05	0.7724	-0.1299	0.3695	-0.1681	0.4782
8	154.09	0.7654	-0.1299	0.3635	-0.1697	0.4749
9	156.10	0.7424	-0.1279	0.3524	-0.1722	0.4743
10	158.04	0.7365	-0.1290	0.3521	-0.1751	0.4780
11	160.10	0.7377	-0.1426	0.3522	-0.1933	0.4775
12	162.10	0.6776	-0.1429	0.3299	-0.2108	0.4666
13	164.09	0.5537	-0.1393	0.2844	-0.2387	0.4968
14	166.10	0.5084	-0.1367	0.2505	-0.2686	0.4922
15	168.04	0.4291	-0.1315	0.2103	-0.3065	0.4981
16	170.10	0.3802	-0.1277	0.1709	-0.3547	0.4744
17	172.10	0.2715	-0.0995	0.1230	-0.3666	0.4531
18	174.11	0.1954	-0.0754	0.0813	-0.3872	0.4152
19	176.11	0.1305	-0.0522	0.0499	-0.4004	0.3824
20	177.11	0.0492	-0.0347	0.0340	-0.4004	0.3431

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
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TEST PART MAGM-R110-4 CONF TRANSITION
 2 200 U.65 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Co	ACPF	YCPF
1	172.00	0.0741	-0.0225	0.0225	-0.3251	0.3044
2	178.90	0.0474	-0.0164	0.0114	-0.3572	0.2402
3	189.00	0.0235	-0.0044	-0.0006	-0.3562	-0.0260
4	181.00	-0.0020	0.0023	-0.0145	-1.1130	7.1330
5	182.00	-0.0290	0.0161	-0.0268	-0.4870	0.9249
6	183.03	-0.0567	0.0265	-0.0373	-0.4672	0.6591
7	184.00	-0.0834	0.0471	-0.0512	-0.4439	0.6095
8	186.02	-0.1463	0.0595	-0.0633	-0.4071	0.5697

TEST PART NAME RA10-5 CONF TRANSITION

2 201 0.92 2.5 F11 FREE

POINT	ALPHA	CNF	CM	CH	KCPF	YCPF
1	-2.04	-0.0426	-0.0244	-0.0298	0.5921	0.7106
2	-0.46	-0.0166	-0.0140	-0.0177	0.9587	1.2149
3	0.04	0.0094	-0.0020	-0.0047	-0.5491	-0.5249
4	1.05	0.0391	0.0024	0.0046	0.0659	0.1164
5	1.97	0.0624	0.0102	0.0168	0.1621	0.2672
6	3.06	0.0914	0.0210	0.0332	0.2301	0.3632
7	4.28	0.1167	0.0324	0.0491	0.2426	0.4226
8	6.08	0.1675	0.0495	0.0833	0.2640	0.6675
9	8.10	0.2036	0.0663	0.1250	0.2590	0.9763
10	10.12	0.3305	0.0813	0.1732	0.2293	0.6686
11	12.15	0.4455	0.0947	0.2250	0.2125	0.5050
12	14.17	0.5384	0.1023	0.2737	0.1498	0.5078
13	16.19	0.6113	0.1063	0.3163	0.1652	0.5010
14	18.19	0.6712	0.1067	0.3309	0.0979	0.4916
15	20.21	0.7158	0.0479	0.3543	0.0642	0.4818
16	22.22	0.8090	0.0414	0.3579	0.0512	0.4795
17	24.24	0.8695	0.0424	0.4177	0.0487	0.4804
18	26.25	0.8433	0.0377	0.4766	0.0422	0.4773
19	27.25	0.8405	0.0361	0.4266	0.0405	0.4791

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 HAWTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART NAME RL10-6 CONF. TRANSITION
 2 202 0.52 2.5 F11 FREE

POINT	ALPHA	CNP	CN	C _z	XCPF	YCPF
1	28.11	0.8476	0.0353	0.4277	0.0344	0.4766
2	29.18	0.8455	0.0348	0.4238	0.0389	0.4733
3	30.17	0.8433	0.0317	0.4262	0.0355	0.4772
4	31.18	0.8470	0.0312	0.4254	0.0348	0.4747
5	32.18	0.8422	0.0295	0.4288	0.0327	0.4752
6	33.19	0.8421	0.0310	0.4368	0.0340	0.4789
7	34.19	0.8428	0.0298	0.4405	0.0320	0.4755
8	36.20	0.8383	0.0288	0.4437	0.0283	0.4728
9	38.20	0.8388	0.0249	0.4577	0.0259	0.4773
10	40.20	0.8430	0.0204	0.4700	0.0205	0.4797
11	42.21	1.0130	0.0203	0.4855	0.0208	0.4791
12	44.22	1.0446	0.0157	0.4985	0.0150	0.4772
13	46.24	1.0710	0.0111	0.5233	0.0102	0.4794
14	47.35	1.1024	0.0110	0.5286	0.0108	0.4795
15	50.25	1.1385	0.0063	0.5449	0.0056	0.4822
16	52.26	1.1486	0.0036	0.5575	0.0031	0.4852
17	54.27	1.1493	0.0016	0.5553	0.0014	0.4832
18	56.29	1.1477	-0.0012	0.5572	-0.0010	0.4855
19	57.29	1.1441	-0.0009	0.5547	-0.0008	0.4849

TEST PART NAME: R10-6 CONE TRANSITION
 2 203 0.92 2.5 F11 FREE

POINT	ALPHA	CNF	CM	C3	KCPF	YCPF
1	58.11	1.0866	-0.0002	0.5263	-0.0002	0.4849
2	59.17	1.0880	-0.0024	0.5300	-0.0022	0.4871
3	59.68	1.0879	-0.0031	0.5333	-0.0029	0.4902
4	60.17	1.0869	-0.0024	0.5337	-0.0022	0.4910
5	60.74	1.0916	-0.0054	0.5365	-0.0049	0.4914
6	61.18	1.0973	-0.0061	0.5355	-0.0056	0.4902
7	62.19	1.1024	-0.0091	0.5400	-0.0083	0.4896
8	63.18	1.1070	-0.0100	0.5436	-0.0091	0.4935
9	64.18	1.1093	-0.0124	0.5477	-0.0112	0.4937
10	66.20	1.1200	-0.0160	0.5566	-0.0142	0.4948
11	68.20	1.1323	-0.0183	0.5553	-0.0162	0.4997
12	70.21	1.1613	-0.0246	0.5772	-0.0212	0.4978
13	72.21	1.1803	-0.0278	0.5743	-0.0235	0.5039
14	74.22	1.2079	-0.0346	0.6110	-0.0288	0.4996
15	76.23	1.2493	-0.0373	0.6109	-0.0309	0.5052
16	78.23	1.2213	-0.0413	0.6149	-0.0338	0.5068
17	80.24	1.2264	-0.0453	0.6232	-0.0369	0.5082
18	82.25	1.2332	-0.0499	0.6282	-0.0405	0.5094
19	84.26	1.2421	-0.0534	0.6337	-0.0433	0.5144
20	86.26	1.2384	-0.0589	0.6370	-0.0476	0.5152
21	87.27	1.2374	-0.0623	0.6370	-0.0503	0.5144

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PMT) AERODYNAMIC WIND TUNNEL (A1)
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TEST PART NAME: RA10-6 CONF. TRANSITION
 2 204 0.92 2.5 F11 FREE

POINT	ALPHA	CNF	CN	CH	XCPF	YCPF
1	85.10	1.1922	-0.0810	0.6167	-0.0515	0.5164
2	90.12	1.1851	-0.0876	0.6149	-0.0569	0.5189
3	91.09	1.1843	-0.0769	0.6145	-0.0528	0.5189
4	92.13	1.1879	-0.0772	0.6130	-0.0650	0.5160
5	93.13	1.1886	-0.0798	0.6144	-0.0672	0.5169
6	94.14	1.1915	-0.0839	0.6140	-0.0704	0.5153
7	95.16	1.1965	-0.0886	0.6137	-0.0740	0.5128
8	96.15	1.2143	-0.0955	0.6178	-0.0786	0.5088
9	100.13	1.2109	-0.0979	0.6128	-0.0828	0.5080
10	107.14	1.2110	-0.1020	0.6119	-0.0842	0.5053
11	109.17	1.2142	-0.1068	0.6112	-0.0876	0.5017
12	105.16	1.2133	-0.1111	0.6069	-0.0916	0.5002
13	108.16	1.2134	-0.1126	0.6022	-0.0953	0.4962
14	110.14	1.2032	-0.1143	0.6005	-0.0983	0.4993
15	112.19	1.1905	-0.1204	0.5889	-0.1012	0.4945
16	114.19	1.1731	-0.1216	0.5845	-0.1036	0.4982
17	116.20	1.1647	-0.1249	0.5755	-0.1068	0.4941
18	117.19	1.1607	-0.1246	0.5712	-0.1073	0.4922

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PMT)

AERODYNAMIC WIND TUNNEL (AT)

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MARTIN MISSILE TAIL EFFECTS DATA

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SPLITTER PLATE DATA

TEST PART NAME F10-6 CONF TRANSITION

2 204 0.60 2.5 F36 FREE

POINT	ALPHA	C _{MF}	C _M	C _n	XCPF	YCPF
1	-2.03	-0.0276	0.0003	-0.0076	-0.0098	0.2758
2	-0.98	-0.0150	-0.0000	-0.0014	0.0007	0.0929
3	0.02	-0.0065	-0.0000	0.0042	0.0009	-0.9354
4	1.04	0.0061	-0.0001	0.0106	-0.0164	1.7459
5	2.04	0.0174	-0.0003	0.0148	-0.0190	0.8282
6	3.05	0.0274	-0.0002	0.0230	-0.0084	0.9393
7	4.05	0.0450	-0.0012	0.0298	-0.0275	0.6616
8	6.07	0.0643	-0.0026	0.0453	-0.0707	0.5378
9	8.07	0.1297	-0.0038	0.0593	-0.0295	0.4573
10	10.09	0.1761	-0.0044	0.0721	-0.0260	0.4049
11	12.12	0.2361	-0.0065	0.0895	-0.0277	0.3788
12	14.14	0.2966	-0.0072	0.1058	-0.0245	0.3589
13	16.15	0.3593	-0.0075	0.1209	-0.0218	0.3366
14	18.17	0.4206	-0.0074	0.1377	-0.0179	0.3274
15	20.20	0.4834	-0.0072	0.1553	-0.0148	0.3207
16	22.22	0.5477	-0.0073	0.1752	-0.0133	0.3198
17	24.24	0.6120	-0.0070	0.1935	-0.0114	0.3173
18	26.26	0.6766	-0.0067	0.2082	-0.0100	0.3087
19	27.28	0.7462	-0.0059	0.2185	-0.0084	0.3094

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
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TEST PART NAME: RK10-6 COLE TRANSITION

2 209 U.S.U 2.5 F36 FREE

POINT	ALPHA	CNF	CM	Cn	XCPF	YCPF
4	28.14	0.7366	-0.0037	0.2232	-0.0050	0.3038
5	29.14	0.7625	-0.0024	0.2309	-0.0038	0.3028
6	30.20	0.7706	-0.0019	0.2360	-0.0024	0.3010
7	31.24	0.8151	-0.0004	0.2453	-0.0009	0.3010
8	32.26	0.8544	0.0002	0.2517	0.0003	0.2981
9	33.27	0.8702	0.0016	0.2577	0.0019	0.2961
10	34.27	0.8776	0.0024	0.2632	0.0032	0.2936
11	36.34	0.9376	0.0094	0.2700	0.0101	0.2895
12	38.30	0.9791	0.0274	0.2773	0.0305	0.2751
13	40.30	0.8061	0.0261	0.2511	0.0295	0.2834
14	42.31	0.9284	0.0247	0.2650	0.0256	0.2854
15	44.33	0.9533	0.0254	0.2728	0.0257	0.2862
16	46.34	0.9714	0.0244	0.2527	0.0256	0.2909
17	48.31	0.9574	-0.0014	0.2457	-0.0019	0.3087
18	50.32	0.9761	-0.0041	0.3021	-0.0094	0.3114
19	52.32	0.9834	-0.0124	0.3041	-0.0127	0.3143
20	54.33	0.9577	-0.0142	0.3173	-0.0143	0.3181
21	56.35	1.0206	-0.0164	0.3254	-0.0165	0.3189
22	57.34	1.0265	-0.0180	0.3292	-0.0175	0.3201

TEST PART WAGH PR10-6 CONE TRANSITION

? 210 0.80 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Cd	KCPF	YCPF
1	55.20	1.0053	-0.0143	0.3220	-0.0182	0.3207
2	59.24	1.0173	-0.0213	0.3273	-0.0209	0.3217
3	63.23	1.0224	-0.0226	0.3306	-0.0221	0.3233
4	61.24	1.0253	-0.0242	0.3320	-0.0236	0.3238
5	62.26	1.0290	-0.0255	0.3340	-0.0248	0.3247
6	63.24	1.0290	-0.0267	0.3351	-0.0259	0.3265
7	64.25	1.0302	-0.0282	0.3363	-0.0273	0.3264
8	64.25	1.0347	-0.0311	0.3403	-0.0300	0.3283
9	64.25	1.0390	-0.0329	0.3426	-0.0317	0.3297
10	70.26	1.0380	-0.0343	0.3442	-0.0331	0.3316
11	72.26	1.0347	-0.0366	0.3460	-0.0353	0.3331
12	74.26	1.0356	-0.0387	0.3467	-0.0374	0.3340
13	76.27	1.0416	-0.0411	0.3510	-0.0395	0.3375
14	76.26	1.0500	-0.0443	0.3550	-0.0422	0.3387
15	80.27	1.0577	-0.0475	0.3594	-0.0449	0.3403
16	82.27	1.0640	-0.0513	0.3640	-0.0482	0.3425
17	84.28	1.0690	-0.0552	0.3679	-0.0517	0.3448
18	86.28	1.0697	-0.0586	0.3691	-0.0546	0.3451
19	87.28	1.0746	-0.0611	0.3710	-0.0568	0.3453

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AWT)
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TEST PART NAME: H10-6 CONF TRANSITION
 2 211 0.60 2.5 F36 FREE

POINT	ALPHA	CNF	CN	C _x	KCPF	YCPF
1	88.13	1.0284	-0.0587	0.3575	-0.0570	0.3675
2	89.14	1.0222	-0.0604	0.3549	-0.0595	0.3672
3	90.16	1.0189	-0.0632	0.3559	-0.0620	0.3693
4	91.17	1.0137	-0.0658	0.3544	-0.0649	0.3696
5	92.17	1.0090	-0.0679	0.3548	-0.0673	0.3516
6	93.16	1.0002	-0.0703	0.3541	-0.0703	0.3540
7	94.14	0.9972	-0.0726	0.3526	-0.0740	0.3536
8	96.16	0.9976	-0.0760	0.3532	-0.0790	0.3578
9	98.15	0.9935	-0.0828	0.3562	-0.0862	0.3608
10	100.16	0.9780	-0.0872	0.3557	-0.0991	0.3637
11	102.16	0.9625	-0.0936	0.3560	-0.0952	0.3623
12	104.15	0.9796	-0.0980	0.3565	-0.1001	0.3639
13	106.15	0.9735	-0.1021	0.3576	-0.1049	0.3676
14	108.15	0.9681	-0.1065	0.3551	-0.1101	0.3668
15	110.15	0.9715	-0.1115	0.3589	-0.1147	0.3693
16	112.15	0.9702	-0.1156	0.3577	-0.1192	0.3687
17	114.15	0.9684	-0.1190	0.3587	-0.1233	0.3676
18	116.17	0.9523	-0.1212	0.3524	-0.1273	0.3701
19	117.16	0.9461	-0.1220	0.3505	-0.1269	0.3706

TEST PART MACH. #ALD-6 CONE TRANSITION

2 212 U.6U 2.5 F36 FREE

POINT	ALPHA	C _{NP}	C _N	C _D	XCP	YCP
1	118.00	0.8430	-0.1187	0.3343	-0.1315	0.3701
2	119.04	0.8483	-0.1193	0.3322	-0.1334	0.3715
3	120.05	0.8555	-0.1210	0.3323	-0.1350	0.3716
4	121.06	0.8492	-0.1224	0.3335	-0.1367	0.3708
5	122.08	0.8460	-0.1237	0.3406	-0.1383	0.3698
6	123.05	0.8452	-0.1255	0.3319	-0.1402	0.3708
7	124.05	0.8485	-0.1258	0.3243	-0.1416	0.3695
8	124.06	0.8791	-0.1277	0.3253	-0.1453	0.3701
9	125.05	0.8784	-0.1307	0.3243	-0.1491	0.3698
10	130.05	0.8885	-0.1326	0.3217	-0.1527	0.3704
11	132.06	0.8896	-0.1356	0.3215	-0.1561	0.3696
12	134.06	0.8866	-0.1374	0.3221	-0.1595	0.3726
13	135.17	0.8845	-0.1403	0.3211	-0.1623	0.3714
14	138.05	0.8570	-0.1442	0.3237	-0.1741	0.3777
15	139.16	0.8622	-0.1503	0.3291	-0.1812	0.3817
16	142.06	0.8415	-0.1619	0.3261	-0.1924	0.3899
17	144.04	0.8138	-0.1676	0.3259	-0.2059	0.4004
18	146.04	0.7407	-0.1716	0.3219	-0.2171	0.4071
19	147.05	0.7761	-0.1711	0.3167	-0.2210	0.4092

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AT)

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MANTIA MISSILE TAIL EFFECTS DATA

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SPLITTER PLATE DATA

TEST PART PALM RX10-6 CONF TRANSITION

2 213 0.60 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CP	XCPF	YCPF
1	147.91	0.7657	-0.1648	0.3133	-0.2218	0.4091
2	148.95	0.7445	-0.1679	0.3067	-0.2239	0.4092
3	149.96	0.7222	-0.1634	0.2970	-0.2262	0.4112
4	150.97	0.6983	-0.1590	0.2855	-0.2277	0.4089
5	151.97	0.6674	-0.1533	0.2712	-0.2296	0.4061
6	152.98	0.6380	-0.1480	0.2618	-0.2320	0.4103
7	153.97	0.6104	-0.1430	0.2509	-0.2342	0.4111
8	155.99	0.5514	-0.1321	0.2272	-0.2394	0.4117
9	156.00	0.4921	-0.1208	0.2044	-0.2459	0.4161
10	159.94	0.4337	-0.1098	0.1815	-0.2532	0.4184
11	162.00	0.3763	-0.0987	0.1588	-0.2623	0.4220
12	164.01	0.3211	-0.0874	0.1376	-0.2733	0.4284
13	166.02	0.2660	-0.0767	0.1162	-0.2864	0.4337
14	168.03	0.2147	-0.0662	0.0957	-0.3026	0.4376
15	170.04	0.1726	-0.0550	0.0762	-0.3183	0.4411
16	172.06	0.1315	-0.0440	0.0587	-0.3348	0.4464
17	173.16	0.1023	-0.0377	0.0477	-0.3460	0.4483
18	176.10	0.0574	-0.0221	0.0261	-0.3857	0.4540
19	177.09	0.0401	-0.0170	0.0214	-0.4229	0.5335

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MANTIA MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART PALM RA10-6 CONF. TRANSITION

2 214 U.8U 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CA	XCPF	YCPF
1	178.00	0.0285	-0.0123	0.0160	-0.4314	0.5613
2	179.00	0.0178	-0.0060	0.0116	-0.4494	0.6502
3	180.01	0.0069	-0.0038	0.0072	-0.5535	1.0376
4	180.99	-0.0039	0.0000	0.0035	-0.0129	-0.9072
5	182.02	-0.0113	0.0035	-0.0009	-0.3086	0.0796
6	183.01	-0.0213	0.0076	-0.0050	-0.3669	0.2362
7	184.01	-0.0315	0.0115	-0.0097	-0.3610	0.3030
8	186.03	-0.0604	0.0215	-0.0204	-0.3534	0.3370

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PMT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH. HALO-G. CONF. TRANSITION
 2 P15 0.65 2.5 F36 FREE

POINT	ALPHA	CNF	CM	Cc	KCPF	YCPF
1	-2.03	-0.0306	0.0001	-0.0124	-0.0026	0.4206
2	-0.47	-0.0157	-0.0002	-0.0068	0.0147	0.4343
3	0.02	-0.0086	-0.0003	-0.0001	0.0516	0.0110
4	1.04	0.0047	-0.0004	0.0059	-0.0931	1.4057
5	2.09	0.0156	-0.0006	0.0101	-0.0923	0.6547
6	3.04	0.0260	-0.0007	0.0164	-0.0273	0.6284
7	4.05	0.0494	-0.0012	0.0220	-0.0301	0.5524
8	6.07	0.0663	-0.0032	0.0374	-0.0394	0.4701
9	8.07	0.1227	-0.0043	0.0542	-0.0349	0.4418
10	10.10	0.1706	-0.0052	0.0669	-0.0306	0.3921
11	12.11	0.2236	-0.0065	0.0834	-0.0295	0.3731
12	14.13	0.2655	-0.0083	0.0978	-0.0292	0.3426
13	16.15	0.3453	-0.0092	0.1132	-0.0266	0.3279
14	18.18	0.4124	-0.0092	0.1317	-0.0223	0.3195
15	20.20	0.4769	-0.0090	0.1495	-0.0180	0.3147
16	22.22	0.5392	-0.0093	0.1682	-0.0173	0.3125
17	24.25	0.6003	-0.0093	0.1877	-0.0155	0.3128
18	26.29	0.6616	-0.0092	0.2040	-0.0139	0.3084
19	27.29	0.6966	-0.0089	0.2117	-0.0127	0.3040

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AWT)

PAGE 1 OF 1

MANTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH PX10-6 CONF TRANSITION

2 217 0.00 2.5 F36 FREE

POINT	ALPHA	CNF	CN	Cm	ACPF	YCPF
1	28.10	0.7116	-0.0071	0.2151	-0.0100	0.3022
2	29.20	0.7020	-0.0005	0.2237	-0.0087	0.3013
3	30.24	0.7730	-0.0059	0.2295	-0.0076	0.2969
4	31.20	0.8006	-0.0050	0.2370	-0.0063	0.2965
5	32.20	0.8274	-0.0041	0.2439	-0.0050	0.2967
6	33.27	0.8541	-0.0030	0.2508	-0.0035	0.2923
7	34.24	0.8820	-0.0012	0.2575	-0.0014	0.2917
8	36.30	0.9263	0.0030	0.2604	0.0033	0.2876
9	38.32	0.9231	0.0170	0.2570	0.0193	0.2780
10	40.31	0.8797	0.0203	0.2431	0.0276	0.2764
11	42.34	0.9202	0.0221	0.2605	0.0239	0.2819
12	44.35	0.9563	0.0224	0.2703	0.0234	0.2827
13	46.30	0.9066	0.0232	0.2756	0.0240	0.2857
14	48.33	0.9577	-0.0019	0.2916	-0.0020	0.3044
15	50.33	0.9042	-0.0069	0.2976	-0.0092	0.3070
16	52.35	0.9050	-0.0131	0.3071	-0.0133	0.3110
17	54.35	1.0072	-0.0153	0.3151	-0.0152	0.3129
18	56.37	1.0203	-0.0170	0.3249	-0.0169	0.3160
19	57.37	1.0389	-0.0145	0.3286	-0.0170	0.3163

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

YESI PARI MASH PA10-5 CNF TRANSITION

2 21R U.S. 2.5 F30 FREE

POINT	ALPHA	CNF	CN	C _n	XCPF	YCPF
1	58.26	1.0165	-0.0197	0.3291	-0.0199	0.3188
2	59.25	1.0263	-0.0211	0.3272	-0.0206	0.3188
3	60.26	1.0311	-0.0225	0.3290	-0.0218	0.3200
4	61.26	1.0326	-0.0237	0.3314	-0.0229	0.3210
5	62.26	1.0376	-0.0248	0.3347	-0.0239	0.3225
6	63.26	1.0416	-0.0262	0.3361	-0.0252	0.3226
7	64.25	1.0451	-0.0275	0.3387	-0.0263	0.3241
8	66.27	1.0496	-0.0305	0.3405	-0.0291	0.3253
9	68.27	1.0506	-0.0326	0.3429	-0.0312	0.3262
10	70.26	1.0536	-0.0341	0.3465	-0.0324	0.3289
11	71.39	1.0552	-0.0353	0.3489	-0.0335	0.3306
12	74.26	1.0602	-0.0367	0.3516	-0.0365	0.3316
13	76.26	1.0567	-0.0406	0.3523	-0.0384	0.3340
14	78.28	1.0690	-0.0441	0.3589	-0.0412	0.3357
15	80.25	1.0771	-0.0473	0.3625	-0.0439	0.3365
16	82.24	1.0858	-0.0509	0.3675	-0.0469	0.3384
17	84.30	1.0901	-0.0557	0.3715	-0.0511	0.3408
18	86.31	1.0963	-0.0594	0.3760	-0.0543	0.3430
19	87.30	1.0939	-0.0610	0.3764	-0.0558	0.3441

TEST PART NAME: RX1U-6 CONF. TRANSITION

2 219 0.00 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CH	XPCF	YPCF
1	89.14	1.0494	-0.0598	0.3622	-0.0570	0.3651
2	89.15	1.0476	-0.0615	0.3603	-0.0589	0.3656
3	90.17	1.0400	-0.0639	0.3617	-0.0614	0.3678
4	91.17	1.0294	-0.0658	0.3596	-0.0639	0.3693
5	92.17	1.0242	-0.0656	0.3603	-0.0667	0.3584
6	93.17	1.0191	-0.0715	0.3575	-0.0701	0.3588
7	94.17	1.0194	-0.0740	0.3617	-0.0725	0.3537
8	96.17	1.0067	-0.0794	0.3587	-0.0789	0.3563
9	98.17	0.9990	-0.0830	0.3586	-0.0837	0.3589
10	100.17	0.9994	-0.0841	0.3620	-0.0881	0.3620
11	102.17	0.9942	-0.0922	0.3577	-0.0948	0.3598
12	104.17	0.9943	-0.0968	0.3617	-0.0994	0.3638
13	106.17	0.9944	-0.1032	0.3621	-0.1042	0.3659
14	108.17	0.9962	-0.1062	0.3624	-0.1097	0.3655
15	110.16	0.9967	-0.1123	0.3623	-0.1148	0.3679
16	112.17	0.9994	-0.1170	0.3649	-0.1182	0.3688
17	114.17	0.9834	-0.1211	0.3610	-0.1231	0.3669
18	116.18	0.9885	-0.1224	0.3581	-0.1268	0.3698
19	117.18	0.9837	-0.1239	0.3567	-0.1286	0.3701

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWTF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART: MACH 0.6 CONF TRANSITION
 2 220 U.S.S. 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Co	XCDF	YCDF
1	119.01	0.4122	-0.1203	0.3307	-0.1319	0.3713
2	119.01	0.4042	-0.1215	0.3307	-0.1336	0.3703
3	120.01	0.4000	-0.1230	0.3349	-0.1355	0.3688
4	121.07	0.4113	-0.1250	0.3355	-0.1371	0.3681
5	122.07	0.4035	-0.1259	0.3325	-0.1388	0.3688
6	123.06	0.4085	-0.1262	0.3306	-0.1405	0.3680
7	124.06	0.4042	-0.1277	0.3288	-0.1422	0.3661
8	126.06	0.4045	-0.1295	0.3275	-0.1458	0.3686
9	128.06	0.4063	-0.1323	0.3266	-0.1493	0.3685
10	130.06	0.4039	-0.1336	0.3218	-0.1529	0.3682
11	132.07	0.4132	-0.1360	0.3229	-0.1558	0.3697
12	134.07	0.4000	-0.1375	0.3207	-0.1590	0.3703
13	136.08	0.4072	-0.1400	0.3181	-0.1630	0.3711
14	138.08	0.4007	-0.1436	0.3159	-0.1700	0.3740
15	140.05	0.4010	-0.1514	0.3182	-0.1799	0.3781
16	142.05	0.4306	-0.1562	0.3179	-0.1880	0.3827
17	144.06	0.4110	-0.1634	0.3217	-0.2012	0.3962
18	146.06	0.4602	-0.1673	0.3152	-0.2144	0.4040
19	147.06	0.4075	-0.1686	0.3127	-0.2196	0.4074

TEST PART NAME: MX10-9 CONF. TRANSITION
 2 221 0.65 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CH	YC	YCPF	YCPF
1	147.90	0.7047	-0.1677	0.3102	-0.2193	0.4057	
2	148.97	0.7094	-0.1672	0.3048	-0.2230	0.4064	
3	149.96	0.7109	-0.1646	0.2969	-0.2252	0.4063	
4	150.97	0.7072	-0.1607	0.2868	-0.2272	0.4055	
5	151.97	0.6752	-0.1549	0.2742	-0.2294	0.4061	
6	152.98	0.6473	-0.1503	0.2638	-0.2322	0.4076	
7	153.96	0.6184	-0.1447	0.2529	-0.2339	0.4090	
8	154.94	0.5803	-0.1333	0.2285	-0.2378	0.4079	
9	157.99	0.5015	-0.1222	0.2061	-0.2437	0.4109	
10	160.00	0.4366	-0.1099	0.1820	-0.2516	0.4166	
11	162.01	0.3807	-0.0993	0.1587	-0.2610	0.4178	
12	164.02	0.3246	-0.0888	0.1347	-0.2718	0.4246	
13	166.03	0.2732	-0.0784	0.1175	-0.2877	0.4302	
14	168.04	0.2242	-0.0676	0.0954	-0.3015	0.4255	
15	170.04	0.1761	-0.0564	0.0765	-0.3201	0.4343	
16	172.07	0.1345	-0.0452	0.0583	-0.3357	0.4338	
17	174.08	0.0914	-0.0333	0.0406	-0.3631	0.4423	
18	176.09	0.0543	-0.0227	0.0257	-0.3829	0.4331	
19	177.10	0.0446	-0.0176	0.0194	-0.3967	0.4327	

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 1 OF 1 PART 1 MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART NAME: H10-6 CONE TRANSITION
 2 222 0.85 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Co	XCPF	YCPF
1	174.00	0.0306	-0.0122	0.0129	-0.3960	0.4194
2	174.98	0.0187	-0.0060	0.0098	-0.4257	0.5235
3	179.99	0.0105	-0.0040	0.0053	-0.3805	0.5019
4	180.98	-0.0030	0.0003	0.0017	-0.0960	-0.5563
5	182.01	-0.0096	0.0037	-0.0029	-0.3876	0.3057
6	183.03	-0.0203	0.0074	-0.0077	-0.3449	0.3820
7	184.04	-0.0415	0.0121	-0.0126	-0.3853	0.3990
8	186.01	-0.0592	0.0219	-0.0241	-0.3702	0.4067

TEST PART - AGM 2810-6 CONF. TRANSITION

2 223 0.92 2.5 F36 FREE

POINT	ALPHA	Cm	Cm	Cc	* XCPF	YCPF
1	-2.04	-0.0334	-0.0000	-0.0138	0.0003	0.4121
2	-0.97	-0.0172	-0.0003	-0.0103	0.0174	0.4623
3	0.03	-0.0041	-0.0003	-0.0019	0.0322	0.1708
4	1.04	0.0147	-0.0006	0.0029	-0.1239	0.6085
5	2.04	0.0157	-0.0006	0.0074	-0.0540	0.4711
6	3.04	0.0250	-0.0008	0.0143	-0.0316	0.5722
7	4.04	0.0363	-0.0010	0.0192	-0.0270	0.5294
8	6.07	0.0742	-0.0027	0.0359	-0.0368	0.4643
9	8.08	0.1101	-0.0044	0.0499	-0.0369	0.4227
10	10.10	0.1646	-0.0058	0.0637	-0.0346	0.3770
11	12.12	0.2223	-0.0073	0.0797	-0.0330	0.3584
12	14.13	0.2815	-0.0094	0.0949	-0.0333	0.3373
13	16.16	0.3443	-0.0106	0.1114	-0.0338	0.3237
14	18.18	0.4075	-0.0114	0.1293	-0.0279	0.3173
15	20.20	0.4712	-0.0113	0.1467	-0.0239	0.3113
16	22.24	0.5342	-0.0119	0.1658	-0.0220	0.3093
17	24.28	0.5974	-0.0123	0.1848	-0.0206	0.3092
18	26.30	0.6622	-0.0129	0.2043	-0.0195	0.3084
19	27.34	0.6435	-0.0123	0.2120	-0.0177	0.3057

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AWT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PARI PALM MA10-6 CONF TRANSITION

2 224 0.42 2.5 F36 FREE

POINT	ALPHA	CMP	Cm	Co	ACPF	YCPF
1	23.17	0.7271	-0.0102	0.2225	-0.0141	0.3060
2	24.25	0.7449	-0.0087	0.2266	-0.0116	0.3020
3	30.24	0.7588	-0.0087	0.2358	-0.0110	0.2997
4	31.26	0.8153	-0.0080	0.2432	-0.0098	0.2983
5	32.27	0.8444	-0.0084	0.2502	-0.0082	0.2962
6	33.28	0.8727	-0.0080	0.2585	-0.0069	0.2963
7	34.29	0.8937	-0.0080	0.2529	-0.0064	0.2961
8	36.33	0.9304	0.0079	0.2682	0.0031	0.2868
9	38.33	0.9216	0.0168	0.2569	0.0178	0.2788
10	40.34	0.9108	0.0277	0.2540	0.0249	0.2789
11	42.36	0.9371	0.0288	0.2608	0.0218	0.2867
12	44.37	0.9680	0.0203	0.2781	0.0210	0.2879
13	46.38	0.9805	0.0148	0.2858	0.0202	0.2915
14	48.35	0.9588	-0.0088	0.2764	-0.0058	0.3077
15	50.35	0.9721	-0.0134	0.3036	-0.0138	0.3121
16	52.37	0.9742	-0.0158	0.3139	-0.0155	0.3157
17	54.39	1.0208	-0.0171	0.3227	-0.0168	0.3163
18	55.50	1.0344	-0.0145	0.3299	-0.0178	0.3188
19	57.40	1.0541	-0.0205	0.3383	-0.0198	0.3198

TEST PART: MACH 2.5-6.0 CONF. TRANSITION
 2 225 0.92 2.5 F36 FREE

POINT	ALPHA	CNF	CM	Co	XCPF	YCPF
1	58.22	1.0598	-0.0227	0.3371	-0.0215	0.3197
2	59.29	1.0597	-0.0233	0.3406	-0.0220	0.3214
3	60.29	1.0571	-0.0243	0.3523	-0.0228	0.3208
4	61.29	1.0726	-0.0250	0.3453	-0.0233	0.3219
5	62.29	1.0792	-0.0251	0.3468	-0.0234	0.3247
6	63.29	1.0724	-0.0256	0.3479	-0.0239	0.3242
7	64.31	1.0738	-0.0269	0.3527	-0.0248	0.3256
8	66.30	1.0880	-0.0249	0.3553	-0.0275	0.3272
9	68.29	1.0803	-0.0335	0.3587	-0.0310	0.3284
10	70.31	1.0874	-0.0340	0.3604	-0.0313	0.3314
11	72.31	1.0981	-0.0373	0.3643	-0.0341	0.3329
12	74.31	1.1030	-0.0403	0.3577	-0.0366	0.3334
13	76.31	1.1115	-0.0425	0.3689	-0.0386	0.3349
14	78.33	1.1120	-0.0454	0.3711	-0.0412	0.3367
15	80.33	1.1172	-0.0484	0.3701	-0.0433	0.3385
16	82.33	1.1183	-0.0524	0.3712	-0.0469	0.3409
17	84.33	1.1208	-0.0571	0.3726	-0.0510	0.3414
18	86.34	1.1237	-0.0613	0.3865	-0.0545	0.3448
19	87.34	1.1255	-0.0635	0.3473	-0.0564	0.3441

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PMT) AERODYNAMIC WIND TUNNEL (AT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART: WACM PX10-6 CUFF TRANSITION

2 22A 0.94 2.5 F36 FREE

POINT	ALPHA	CNF	CN	Cs	XCPF	YCPF
1	84.15	1.0273	-0.0225	0.3726	-0.0576	0.3446
2	89.16	1.0787	-0.0220	0.3723	-0.0594	0.3453
3	90.20	1.0724	-0.0267	0.3730	-0.0619	0.3465
4	91.21	1.0724	-0.0281	0.3722	-0.0635	0.3470
5	92.21	1.0691	-0.0299	0.3728	-0.0657	0.3476
6	93.20	1.0586	-0.0717	0.3703	-0.0677	0.3497
7	94.20	1.0530	-0.0744	0.3695	-0.0702	0.3509
8	96.14	1.0413	-0.0774	0.3683	-0.0748	0.3537
9	98.14	1.0297	-0.0825	0.3664	-0.0802	0.3561
10	100.14	1.0300	-0.0821	0.3701	-0.0855	0.3593
11	102.14	1.0261	-0.0836	0.3694	-0.0912	0.3600
12	104.14	1.0186	-0.0844	0.3693	-0.0971	0.3620
13	106.14	1.0202	-0.1234	0.3725	-0.1014	0.3651
14	108.14	1.0155	-0.1044	0.3700	-0.1082	0.3643
15	110.14	1.0132	-0.1194	0.3731	-0.1129	0.3683
16	112.16	1.0124	-0.1145	0.3717	-0.1170	0.3669
17	114.20	1.0064	-0.1225	0.3703	-0.1217	0.3680
18	116.20	1.0014	-0.1264	0.3711	-0.1262	0.3706
19	117.20	0.9984	-0.1279	0.3700	-0.1261	0.3714

TEST PART MACH RX10-6 CONF TRANSITION

2 227 0.92 2.5 F36 FREE

POINT	ALPHA	CNP	CM	CN	XCPF	YCPF
1	112.00	0.9270	-0.1228	0.3229	-0.1324	0.3742
2	119.00	0.9256	-0.1242	0.3247	-0.1342	0.3724
3	120.01	0.9261	-0.1255	0.3230	-0.1356	0.3704
4	121.07	0.9196	-0.1264	0.3207	-0.1375	0.3704
5	122.07	0.9165	-0.1279	0.3192	-0.1395	0.3701
6	123.07	0.9104	-0.1284	0.3374	-0.1410	0.3704
7	124.06	0.9171	-0.1310	0.3398	-0.1428	0.3705
8	126.06	0.9052	-0.1327	0.3364	-0.1466	0.3717
9	128.06	0.8986	-0.1345	0.3342	-0.1498	0.3719
10	130.06	0.8843	-0.1361	0.3249	-0.1530	0.3710
11	132.07	0.8755	-0.1362	0.3228	-0.1556	0.3688
12	134.07	0.8646	-0.1377	0.3201	-0.1584	0.3681
13	136.06	0.8550	-0.1396	0.3188	-0.1614	0.3685
14	138.07	0.8446	-0.1412	0.3160	-0.1652	0.3690
15	139.16	0.8480	-0.1424	0.3139	-0.1679	0.3701
16	142.08	0.8296	-0.1473	0.3092	-0.1775	0.3726
17	144.07	0.8084	-0.1537	0.3111	-0.1901	0.3844
18	146.06	0.8085	-0.1662	0.3202	-0.2080	0.3961
19	147.06	0.7970	-0.1706	0.3179	-0.2160	0.3989

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART: MACH RND=6 CONE TRANSITION
 2 22R 0.042 2.5 F36 FREE

POINT	ALPHA	CNF	Cn	Cz	XCPF	YCPF
1	147.90	0.7565	-0.1717	0.3193	-0.2160	0.4017
2	148.97	0.7767	-0.1709	0.3116	-0.2193	0.4013
3	149.96	0.7988	-0.1681	0.3059	-0.2215	0.4032
4	150.96	0.7950	-0.1643	0.2951	-0.2235	0.4015
5	151.97	0.7055	-0.1600	0.2852	-0.2267	0.4041
6	152.98	0.6745	-0.1558	0.2769	-0.2292	0.4075
7	153.97	0.6516	-0.1510	0.2681	-0.2317	0.4051
8	155.99	0.5957	-0.1404	0.2395	-0.2356	0.4020
9	157.99	0.5304	-0.1280	0.2139	-0.2413	0.4034
10	160.00	0.4661	-0.1151	0.1883	-0.2479	0.4057
11	162.00	0.4100	-0.1110	0.1696	-0.2706	0.4137
12	164.01	0.3567	-0.1002	0.1470	-0.2825	0.4145
13	166.02	0.2957	-0.0871	0.1245	-0.2946	0.4210
14	168.03	0.2412	-0.0741	0.1014	-0.3073	0.4205
15	170.05	0.1926	-0.0615	0.0791	-0.3194	0.4195
16	172.07	0.1424	-0.0483	0.0602	-0.3392	0.4226
17	174.08	0.1025	-0.0363	0.0415	-0.3530	0.4039
18	176.10	0.0637	-0.0244	0.0278	-0.3825	0.4363
19	177.11	0.0586	-0.0192	0.0245	-0.3512	0.4075

TEST PART NAME R#10-6 CONF. TRANSITION

2 229 0.92 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Cm	XCPF	YCPF	
1	177.97	0.0384	-0.0145	0.0152	-0.3780	0.3970	
2	179.00	0.0250	-0.0095	0.0095	-0.3733	0.3710	
3	180.04	0.0101	-0.0052	0.0054	-0.3246	0.3333	
4	181.04	0.0050	-0.0014	0.0011	-0.2578	0.2026	
5	182.05	-0.0098	0.0025	-0.0030	-0.5304	0.6279	
6	183.05	-0.0173	0.0070	-0.0068	-0.4036	0.3915	
7	184.06	-0.0267	0.0112	-0.0119	-0.4196	0.4405	
8	186.07	-0.0536	0.0214	-0.0224	-0.3989	0.4185	
9	188.04	-0.0906	0.0330	-0.0301	-0.3714	0.4424	

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)
 PAGE 1 OF 1
 SHEET 1 OF 1

PROPULSION WIND TUNNEL FACILITY (PWT)
 MARTIN MISSILE TAIL EFFECTS DATA
 SPLITTER PLATE DATA

AERODYNAMIC WIND TUNNEL (AT)

TEST PART: MALM BX10-5 CONF. TRANSITION
 2 230 0.48 2.5 F36 FREE

POINT	ALPHA	CNF	CN	C _x	XCNF	YCPF
1	-2.03	-0.0053	-0.0005	-0.0144	0.0179	0.5458
2	-0.97	-0.0110	-0.0011	-0.0079	0.1005	0.7138
3	0.02	-0.0004	-0.0004	-0.0025	0.2667	2.7667
4	1.05	0.0107	-0.0011	0.0021	-0.0986	0.1972
5	2.05	0.0223	-0.0013	0.0081	-0.0591	0.3625
6	3.05	0.0331	-0.0014	0.0136	-0.0416	0.4153
7	4.06	0.0477	-0.0014	0.0207	-0.0394	0.4338
8	6.07	0.0641	-0.0014	0.0340	-0.0496	0.4308
9	8.09	0.1362	-0.0014	0.0525	-0.0467	0.3850
10	10.10	0.1833	-0.0010	0.0677	-0.0437	0.3692
11	12.13	0.2495	-0.0106	0.0459	-0.0441	0.3587
12	14.15	0.3008	-0.0131	0.1017	-0.0434	0.3380
13	16.17	0.3693	-0.0160	0.1190	-0.0434	0.3233
14	18.19	0.4353	-0.0181	0.1302	-0.0417	0.3174
15	20.22	0.5026	-0.0199	0.1578	-0.0396	0.3144
16	22.25	0.5685	-0.0212	0.1780	-0.0372	0.3131
17	24.28	0.6326	-0.0224	0.1980	-0.0354	0.3130
18	26.30	0.6963	-0.0231	0.2167	-0.0332	0.3111
19	27.32	0.7243	-0.0229	0.2258	-0.0314	0.3097

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST CASE NAME PX10-6 CONF. TRANSITION

2 231 0.96 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CH	ACPF	YCPF
1	28.16	0.7424	-0.0245	0.2328	-0.0334	0.3136
2	29.24	0.7771	-0.0253	0.2428	-0.0326	0.3125
3	30.25	0.8088	-0.0255	0.2501	-0.0315	0.3093
4	31.27	0.8394	-0.0253	0.2543	-0.0302	0.3076
5	32.28	0.8703	-0.0251	0.2668	-0.0289	0.3065
6	33.26	0.8986	-0.0237	0.2738	-0.0264	0.3047
7	34.29	0.9224	-0.0211	0.2800	-0.0229	0.3036
8	36.32	0.9572	-0.0120	0.2838	-0.0126	0.2965
9	38.34	0.9547	0.0033	0.2770	0.0035	0.2889
10	40.36	0.9665	0.0119	0.2749	0.0123	0.2865
11	42.38	0.9816	0.0146	0.2618	0.0149	0.2873
12	44.36	0.9983	0.0167	0.2401	0.0147	0.2906
13	46.46	1.0164	0.0137	0.2488	0.0136	0.2956
14	48.40	1.0284	0.0126	0.3050	0.0122	0.2966
15	50.34	1.0224	-0.0094	0.3173	-0.0094	0.3108
16	52.34	1.0345	-0.0141	0.3237	-0.0136	0.3117
17	54.31	1.0580	-0.0187	0.3365	-0.0178	0.3181
18	56.43	1.0450	-0.0219	0.3496	-0.0200	0.3193
19	57.44	1.1088	-0.0231	0.3583	-0.0209	0.3195

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART PALM RR10-6 CONE TRANSITION

2 234 0.44 2.5 F36 FREE

POINT	ALPHA	CM	CM	C _D	XCPF	YCPF
1	59.24	1.1011	-0.0234	0.3547	-0.0216	0.3221
2	59.30	1.1042	-0.0250	0.3555	-0.0226	0.3220
3	60.29	1.1102	-0.0260	0.3590	-0.0234	0.3234
4	61.31	1.1157	-0.0271	0.3626	-0.0243	0.3250
5	62.31	1.1214	-0.0284	0.3652	-0.0254	0.3247
6	63.31	1.1216	-0.0295	0.3651	-0.0263	0.3255
7	64.30	1.1232	-0.0307	0.3662	-0.0273	0.3261
8	66.31	1.1316	-0.0329	0.3705	-0.0291	0.3274
9	68.31	1.1362	-0.0351	0.3727	-0.0309	0.3280
10	70.33	1.1433	-0.0368	0.3775	-0.0322	0.3302
11	72.33	1.1541	-0.0394	0.3829	-0.0342	0.3317
12	74.33	1.1552	-0.0415	0.3852	-0.0359	0.3335
13	76.33	1.1535	-0.0444	0.3856	-0.0385	0.3352
14	78.34	1.1552	-0.0464	0.3895	-0.0403	0.3372
15	80.34	1.1530	-0.0484	0.3911	-0.0420	0.3392
16	82.35	1.1512	-0.0515	0.3921	-0.0448	0.3406
17	84.36	1.1604	-0.0559	0.3960	-0.0481	0.3411
18	86.36	1.1672	-0.0602	0.4004	-0.0515	0.3430
19	87.35	1.1646	-0.0631	0.4040	-0.0539	0.3455

TEST PART MACH. P410-6 COW TRANSITION

2 235 0.48 2.5 F36 FREE

POINT	ALPHA	C _N	C _M	C _M	ACPF	YCPF
1	58.16	1.1351	-0.0654	0.3416	-0.0578	0.3450
2	59.15	1.1354	-0.0660	0.3433	-0.0549	0.3463
3	90.14	1.1437	-0.0697	0.3449	-0.0515	0.3483
4	91.21	1.1305	-0.0723	0.3440	-0.0640	0.3486
5	92.21	1.1198	-0.0739	0.3414	-0.0660	0.3496
6	93.21	1.1184	-0.0754	0.3412	-0.0676	0.3498
7	94.21	1.1171	-0.0764	0.3403	-0.0630	0.3507
8	94.20	1.0949	-0.0824	0.3369	-0.0754	0.3534
9	98.19	1.0724	-0.0875	0.3364	-0.0808	0.3569
10	100.20	1.0414	-0.0925	0.3472	-0.0855	0.3580
11	102.20	1.0434	-0.0976	0.3413	-0.0900	0.3610
12	104.19	1.0266	-0.1030	0.3498	-0.0954	0.3609
13	106.19	1.0244	-0.1071	0.3469	-0.1006	0.3634
14	108.20	1.0229	-0.1134	0.3434	-0.1052	0.3633
15	110.20	1.0257	-0.1170	0.3402	-0.1097	0.3661
16	112.20	1.0223	-0.1217	0.3412	-0.1135	0.3648
17	114.21	1.0214	-0.1257	0.3421	-0.1173	0.3658
18	116.21	1.0265	-0.1300	0.3461	-0.1207	0.3679
19	117.21	1.0280	-0.1315	0.3419	-0.1231	0.3670

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH HALF-ANGLE CONF TRANSITION

2 236 0.48 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Cm	XCPF	YCPF
1	114.03	1.0031	-0.1280	0.3714	-0.1276	0.3703
2	114.71	1.0015	-0.1294	0.3703	-0.1292	0.3698
3	120.01	1.0029	-0.1310	0.3695	-0.1306	0.3685
4	121.06	1.0040	-0.1330	0.3705	-0.1325	0.3690
5	122.07	1.0011	-0.1353	0.3696	-0.1342	0.3682
6	123.05	1.0047	-0.1364	0.3715	-0.1358	0.3698
7	124.07	0.9985	-0.1377	0.3688	-0.1379	0.3694
8	124.06	1.0034	-0.1411	0.3725	-0.1405	0.3711
9	128.97	1.0001	-0.1439	0.3690	-0.1439	0.3689
10	130.07	0.9874	-0.1455	0.3647	-0.1473	0.3691
11	132.07	0.9856	-0.1487	0.3637	-0.1510	0.3692
12	134.07	0.9884	-0.1488	0.3533	-0.1552	0.3685
13	136.07	0.9803	-0.1518	0.3530	-0.1597	0.3715
14	138.07	0.9374	-0.1547	0.3491	-0.1650	0.3722
15	140.07	0.9254	-0.1705	0.3646	-0.1725	0.3816
16	142.06	0.9388	-0.1763	0.3643	-0.1999	0.3881
17	144.06	0.9215	-0.1848	0.3541	-0.2003	0.3950
18	146.07	0.8961	-0.1830	0.3549	-0.2042	0.3961
19	147.07	0.8724	-0.1806	0.3457	-0.2070	0.3962

TEST PART MACH RX10-6 CONE TRANSITION

2 237 0.90 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Cn	XCPF	YCPF
1	147.89	0.8730	-0.1862	0.3477	-0.2133	0.3983
2	144.96	0.8472	-0.1632	0.3376	-0.2162	0.3985
3	149.95	0.8176	-0.1789	0.3249	-0.2188	0.4022
4	150.96	0.7729	-0.1666	0.3085	-0.2155	0.3992
5	151.97	0.7425	-0.1624	0.2956	-0.2187	0.3981
6	152.96	0.7237	-0.1601	0.2918	-0.2267	0.4032
7	153.96	0.6956	-0.1547	0.2803	-0.2298	0.4033
8	155.97	0.6691	-0.1505	0.2727	-0.2392	0.4018
9	157.98	0.6472	-0.1405	0.2250	-0.2478	0.3984
10	160.00	0.6445	-0.1274	0.2115	-0.2576	0.4075
11	162.01	0.6257	-0.1139	0.1727	-0.2675	0.4058
12	164.01	0.3632	-0.1007	0.1475	-0.2773	0.4061
13	166.02	0.3424	-0.0871	0.1233	-0.2881	0.4075
14	168.04	0.2446	-0.0737	0.0997	-0.3013	0.4076
15	170.05	0.1916	-0.0603	0.0767	-0.3144	0.4006
16	172.07	0.1436	-0.0475	0.0569	-0.3305	0.3954
17	174.09	0.1112	-0.0350	0.0387	-0.3442	0.3883
18	176.11	0.0645	-0.0234	0.0245	-0.3630	0.3802
19	177.11	0.0203	-0.0182	0.0194	-0.3615	0.3661

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL (AWT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION

2 230 0.98 2.5 F36 FREE

POINT	ALPHA	CMF	CM	CP	XCPF	YCPF
1	177.97	0.0443	-0.0155	0.0153	-0.3427	0.3453
2	179.03	0.0304	-0.0104	0.0093	-0.3421	0.3066
3	180.04	0.0190	-0.0059	0.0049	-0.3132	0.2688
4	181.05	0.0101	-0.0022	0.0015	-0.2132	0.1530
5	182.06	-0.0026	0.0022	-0.0035	-0.8533	1.3745
6	183.04	-0.0127	0.0063	-0.0080	-0.4968	0.6317
7	184.07	-0.0237	0.0104	-0.0129	-0.4567	0.5454
8	186.08	-0.0513	0.0210	-0.0228	-0.4099	0.4452

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

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MAPIV MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RANGE - CONF TRANSITION

2 240 1.10 2.5 F36 FNEE

POINT	ALPHA	CNF	CM	CG	XCPF	YCPF
1	-2.04	-0.0415	0.0009	-0.0152	-0.0301	0.5764
2	-0.46	-0.0160	0.0001	-0.0112	-0.0044	0.7021
3	0.03	-0.0054	-0.0002	-0.0049	0.0465	0.9126
4	1.06	0.0106	-0.0015	-0.0006	-0.1400	-0.0577
5	2.05	0.0225	-0.0014	0.0062	-0.0455	0.2747
6	3.06	0.0344	-0.0025	0.0124	-0.0720	0.3587
7	4.06	0.0493	-0.0035	0.0191	-0.0703	0.3862
8	6.08	0.0658	-0.0050	0.0359	-0.0680	0.4180
9	8.10	0.1364	-0.0085	0.0515	-0.0654	0.3948
10	10.12	0.1409	-0.0112	0.0668	-0.0617	0.3692
11	12.14	0.2430	-0.0130	0.0823	-0.0543	0.3523
12	14.14	0.2920	-0.0173	0.0986	-0.0589	0.3367
13	16.14	0.3947	-0.0197	0.1155	-0.0555	0.3257
14	18.21	0.4180	-0.0214	0.1345	-0.0524	0.3219
15	20.24	0.4818	-0.0245	0.1534	-0.0489	0.3184
16	22.27	0.5454	-0.0258	0.1732	-0.0472	0.3173
17	24.29	0.6106	-0.0262	0.1942	-0.0461	0.3179
18	26.33	0.6770	-0.0310	0.2143	-0.0457	0.3165
19	27.35	0.7084	-0.0322	0.2240	-0.0454	0.3160

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MANTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME: 241 1.10 2.5 CONE TRANSITION

2 241 1.10 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CR	KCPF	YCPF
1	28.16	0.7367	-0.0330	0.2323	-0.0447	0.3153
2	29.25	0.7727	-0.0340	0.2428	-0.0441	0.3162
3	30.25	0.8035	-0.0349	0.2525	-0.0435	0.3161
4	31.27	0.8364	-0.0360	0.2628	-0.0431	0.3161
5	32.29	0.8703	-0.0372	0.2721	-0.0427	0.3126
6	33.29	0.9014	-0.0381	0.2833	-0.0423	0.3162
7	34.31	0.9333	-0.0391	0.2937	-0.0418	0.3166
8	36.33	0.9976	-0.0410	0.3153	-0.0411	0.3160
9	38.35	1.0586	-0.0418	0.3355	-0.0395	0.3170
10	40.38	1.0923	-0.0331	0.3424	-0.0303	0.3135
11	42.41	1.1677	-0.0214	0.3431	-0.0194	0.3098
12	44.42	1.1210	-0.0115	0.3439	-0.0103	0.3068
13	46.45	1.1253	-0.0020	0.3416	-0.0019	0.3036
14	48.46	1.1396	-0.0026	0.3479	-0.0023	0.3054
15	50.47	1.1641	-0.0041	0.3592	-0.0036	0.3086
16	52.49	1.1894	-0.0047	0.3683	-0.0040	0.3096
17	54.52	1.2216	-0.0167	0.3671	-0.0137	0.3169
18	56.52	1.2395	-0.0241	0.3944	-0.0194	0.3217
19	57.52	1.2684	-0.0271	0.4036	-0.0217	0.3232

TEST PART PALM RX10-6 CONE TRANSITION
 2 242 1.10 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CM	XCPC	YCPC
1	54.24	1.2336	-0.0259	0.4379	-0.0210	0.3226
2	59.36	1.2474	-0.0274	0.4029	-0.0224	0.3229
3	62.36	1.2554	-0.0290	0.4063	-0.0236	0.3238
4	61.37	1.2663	-0.0313	0.4123	-0.0247	0.3256
5	62.36	1.2767	-0.0330	0.4160	-0.0258	0.3259
6	63.36	1.2851	-0.0347	0.4144	-0.0270	0.3260
7	64.34	1.2924	-0.0361	0.4125	-0.0280	0.3270
8	64.39	1.2973	-0.0386	0.4276	-0.0298	0.3296
9	64.39	1.3031	-0.0422	0.4304	-0.0324	0.3303
10	70.40	1.3031	-0.0450	0.4323	-0.0345	0.3317
11	72.40	1.3037	-0.0475	0.4336	-0.0364	0.3326
12	74.40	1.3057	-0.0496	0.4360	-0.0382	0.3345
13	74.41	1.3094	-0.0523	0.4490	-0.0349	0.3351
14	74.40	1.3044	-0.0544	0.4412	-0.0416	0.3372
15	80.41	1.3118	-0.0570	0.4436	-0.0436	0.3382
16	82.42	1.3223	-0.0603	0.4443	-0.0456	0.3398
17	84.44	1.3284	-0.0633	0.4524	-0.0477	0.3405
18	84.44	1.3389	-0.0661	0.4467	-0.0509	0.3426
19	87.44	1.3411	-0.0703	0.4596	-0.0524	0.3427

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AWT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RR10-6 CONF TRANSITION

2 243 1.10 2.5 F36 FREE

POINT	ALPHA	CMF	Cm	CH	KCPF	YCPF
4	84.23	1.3254	-0.0709	0.4535	-0.0535	0.3621
5	84.22	1.3224	-0.0730	0.4540	-0.0552	0.3632
6	90.25	1.3173	-0.0750	0.4532	-0.0570	0.3648
7	91.26	1.3137	-0.0773	0.4535	-0.0588	0.3652
8	92.26	1.3089	-0.0791	0.4534	-0.0604	0.3664
9	93.26	1.3074	-0.0814	0.4536	-0.0623	0.3678
10	94.26	1.3041	-0.0839	0.4544	-0.0642	0.3684
11	96.26	1.2991	-0.0879	0.4541	-0.0677	0.3698
12	98.26	1.2921	-0.0921	0.4537	-0.0712	0.3519
13	100.25	1.2831	-0.0964	0.4564	-0.0750	0.3533
14	102.27	1.2744	-0.1017	0.4590	-0.0785	0.3544
15	104.25	1.2637	-0.1061	0.4603	-0.0829	0.3558
16	106.26	1.2544	-0.1131	0.4614	-0.0873	0.3563
17	108.26	1.2491	-0.1185	0.4630	-0.0919	0.3592
18	110.26	1.2404	-0.1239	0.4612	-0.0968	0.3602
19	112.26	1.2344	-0.1306	0.4650	-0.1014	0.3608
20	114.27	1.2234	-0.1362	0.4653	-0.1061	0.3624
21	116.26	1.2144	-0.1416	0.4651	-0.1107	0.3634
22	117.26	1.2144	-0.1444	0.4659	-0.1128	0.3641

TEST PART NAME: R10-6 CONF. TRANSITION

2 244 1.16 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CC	ACPF	YCPF
1	118.00	1.2732	-0.1469	0.4573	-0.1153	0.3670
2	119.05	1.2702	-0.1491	0.4666	-0.1174	0.3673
3	120.03	1.2726	-0.1410	0.4636	-0.1187	0.3663
4	121.10	1.2704	-0.1533	0.4631	-0.1207	0.3645
5	122.14	1.2652	-0.1544	0.4616	-0.1223	0.3648
6	123.09	1.2661	-0.1559	0.4599	-0.1241	0.3653
7	124.16	1.2647	-0.1573	0.4569	-0.1260	0.3659
8	126.10	1.2356	-0.1666	0.4527	-0.1300	0.3664
9	128.10	1.2162	-0.1636	0.4461	-0.1343	0.3677
10	130.09	1.1986	-0.1666	0.4431	-0.1392	0.3697
11	132.16	1.1727	-0.1726	0.4376	-0.1472	0.3732
12	134.08	1.1513	-0.1799	0.4328	-0.1562	0.3759
13	136.09	1.1330	-0.1861	0.4299	-0.1642	0.3795
14	138.08	1.1064	-0.1860	0.4214	-0.1680	0.3807
15	140.00	1.0754	-0.1866	0.4297	-0.1717	0.3810
16	142.09	1.0389	-0.1835	0.3969	-0.1766	0.3821
17	144.09	0.9982	-0.1830	0.3655	-0.1834	0.3862
18	146.11	0.9457	-0.1786	0.3658	-0.1889	0.3867
19	147.10	0.9155	-0.1756	0.3561	-0.1918	0.3889

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWTF)

AERODYNAMIC WIND TUNNEL (AWT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME RX10-6 CONE TRANSITION

2 245 1.10 2.5 F36 FREE

POINT	ALPHA	CNF	CN	CM	XCMP	YCP
1	147.89	0.8780	-0.1710	0.3206	-0.1988	0.3879
2	148.90	0.8437	-0.1674	0.3276	-0.1984	0.3885
3	149.96	0.8142	-0.1645	0.3175	-0.2021	0.3900
4	150.98	0.7806	-0.1606	0.3053	-0.2057	0.3912
5	151.99	0.7484	-0.1565	0.2930	-0.2092	0.3915
6	152.98	0.7142	-0.1522	0.2808	-0.2130	0.3932
7	153.94	0.6831	-0.1483	0.2689	-0.2171	0.3937
8	154.94	0.6518	-0.1449	0.2430	-0.2246	0.3929
9	157.13	0.5503	-0.1336	0.2279	-0.2302	0.3928
10	160.01	0.4443	-0.1177	0.1917	-0.2429	0.3958
11	162.02	0.4187	-0.1060	0.1660	-0.2530	0.4013
12	164.03	0.3574	-0.0943	0.1426	-0.2637	0.3990
13	166.05	0.2994	-0.0822	0.1163	-0.2742	0.3880
14	168.05	0.2443	-0.0702	0.0943	-0.2872	0.3861
15	170.07	0.1936	-0.0582	0.0734	-0.3004	0.3786
16	172.09	0.1466	-0.0464	0.0549	-0.3164	0.3747
17	174.11	0.1053	-0.0351	0.0388	-0.3335	0.3683
18	176.13	0.0697	-0.0242	0.0249	-0.3472	0.3562
19	177.13	0.0406	-0.0191	0.0191	-0.3491	0.3493

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWF)

AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART WASH RX10-6 CONF. TRANSITION

2 246 1.10 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CM	XCDF	YCDF
1	177.96	0.0007	-0.0165	0.0156	-0.3389	0.3211
2	179.04	0.0350	-0.0114	0.0045	-0.3758	0.2707
3	180.04	0.0241	-0.0069	0.0055	-0.2975	0.2283
4	181.06	0.0146	-0.0024	-0.0002	-0.1922	-0.0129
5	182.06	0.0601	0.0015	-0.0054	10.3333	-36.2666
6	183.07	-0.0091	0.0055	-0.0104	-0.6126	1.1512
7	184.08	-0.0195	0.0101	-0.0154	-0.5068	0.7762
8	186.09	-0.0436	0.0165	-0.0251	-0.4455	0.5734

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH BK10-6 CONF TRANSITION

2 207 1.26 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Cn	XCPF	YCPF
1	-2.03	-0.0315	0.0012	-0.0215	-0.0380	0.6817
2	-0.96	-0.0165	0.0004	-0.0141	-0.0236	0.8545
3	0.04	-0.0005	-0.0001	-0.0073	0.0266	1.4269
4	1.05	0.0061	-0.0007	-0.0024	-0.0413	-0.2956
5	2.00	0.0220	-0.0015	0.0029	-0.0691	0.1291
6	3.05	0.0347	-0.0021	0.0077	-0.0905	0.7217
7	4.04	0.0473	-0.0027	0.0154	-0.0564	0.3245
8	6.06	0.0841	-0.0044	0.0313	-0.0585	0.3717
9	8.11	0.1266	-0.0070	0.0477	-0.0557	0.3764
10	10.13	0.1744	-0.0094	0.0672	-0.0539	0.3557
11	12.14	0.2270	-0.0116	0.0779	-0.0522	0.3433
12	14.17	0.2844	-0.0147	0.0936	-0.0517	0.3285
13	16.19	0.3434	-0.0184	0.1098	-0.0490	0.3194
14	18.22	0.4054	-0.0217	0.1263	-0.0462	0.3114
15	20.25	0.4682	-0.0203	0.1461	-0.0433	0.3120
16	22.28	0.5340	-0.0231	0.1647	-0.0432	0.3085
17	24.32	0.5959	-0.0255	0.1883	-0.0428	0.3127
18	26.35	0.6595	-0.0280	0.2061	-0.0425	0.3125
19	27.35	0.6895	-0.0289	0.2165	-0.0419	0.3141

TEST PART MACH RX10-6 CONE TRANSITION

2 240 1.20 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CC	XCPF	YCPF
1	28.17	0.7147	-0.0224	0.2241	-0.0416	0.3136
2	29.25	0.7494	-0.0311	0.2334	-0.0415	0.3120
3	30.25	0.7831	-0.0323	0.2434	-0.0412	0.3108
4	31.24	0.8141	-0.0337	0.2533	-0.0408	0.3111
5	32.29	0.8459	-0.0343	0.2637	-0.0405	0.3117
6	33.30	0.8773	-0.0351	0.2746	-0.0400	0.3130
7	34.31	0.9075	-0.0358	0.2845	-0.0395	0.3135
8	36.34	0.9691	-0.0376	0.3062	-0.0388	0.3159
9	39.35	1.0235	-0.0368	0.3259	-0.0379	0.3184
10	40.38	1.0712	-0.0363	0.3435	-0.0357	0.3206
11	42.40	1.1074	-0.0356	0.3552	-0.0322	0.3213
12	44.42	1.1343	-0.0304	0.3633	-0.0271	0.3203
13	46.45	1.1514	-0.0243	0.3675	-0.0211	0.3192
14	48.47	1.1663	-0.0193	0.3714	-0.0165	0.3184
15	50.47	1.1784	-0.0156	0.3745	-0.0141	0.3177
16	52.50	1.2035	-0.0192	0.3836	-0.0160	0.3188
17	54.52	1.2284	-0.0275	0.3961	-0.0224	0.3242
18	56.51	1.2485	-0.0354	0.4084	-0.0288	0.3271
19	57.52	1.2615	-0.0490	0.4153	-0.0309	0.3292

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL (4T)

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MAWTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME RA10-A CONF TRANSITION

2 249 1.20 2.5 F36 FREE

POINT	ALPHA	C _M	C _M	C _D	XCPY	YCPY
1	59.29	1.2560	-0.0353	0.4136	-0.0220	0.3288
2	59.36	1.2654	-0.0374	0.4179	-0.0297	0.3302
3	60.36	1.2754	-0.0397	0.4220	-0.0312	0.3308
4	61.36	1.2873	-0.0422	0.4270	-0.0328	0.3317
5	62.37	1.3001	-0.0438	0.4316	-0.0337	0.3320
6	63.36	1.3104	-0.0458	0.4366	-0.0350	0.3331
7	64.39	1.3230	-0.0477	0.4403	-0.0361	0.3328
8	66.40	1.3485	-0.0517	0.4498	-0.0384	0.3336
9	68.40	1.3636	-0.0550	0.4579	-0.0408	0.3345
10	70.42	1.3861	-0.0594	0.4655	-0.0429	0.3359
11	72.42	1.3921	-0.0615	0.4689	-0.0442	0.3368
12	74.42	1.3981	-0.0652	0.4729	-0.0456	0.3383
13	76.43	1.4090	-0.0681	0.4776	-0.0482	0.3390
14	78.43	1.4221	-0.0695	0.4849	-0.0491	0.3410
15	80.44	1.4331	-0.0717	0.4902	-0.0501	0.3421
16	82.45	1.4477	-0.0728	0.4975	-0.0503	0.3436
17	84.47	1.4604	-0.0735	0.5000	-0.0508	0.3451
18	86.48	1.4664	-0.0755	0.5017	-0.0522	0.3468
19	87.48	1.4676	-0.0766	0.5024	-0.0529	0.3472

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(RAT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH BX10-6 CONF. TRANSITION

2 250 1.20 2.5 F36 FREE

POINT	ALPHA	CNF	CM	CB	XCPF	YCPF
1	88.22	1.4356	-0.0819	0.4992	-0.0567	0.3677
2	89.24	1.4367	-0.0831	0.4994	-0.0579	0.3681
3	90.24	1.4396	-0.0853	0.5012	-0.0593	0.3681
4	91.29	1.4403	-0.0873	0.5021	-0.0606	0.3686
5	92.29	1.4485	-0.0891	0.5025	-0.0619	0.3693
6	93.28	1.4540	-0.0906	0.5027	-0.0630	0.3696
7	94.29	1.4604	-0.0915	0.5049	-0.0637	0.3504
8	95.30	1.4604	-0.0940	0.5060	-0.0652	0.3513
9	98.29	1.4626	-0.0962	0.5039	-0.0672	0.3517
10	100.29	1.4615	-0.0988	0.5000	-0.0698	0.3531
11	102.29	1.4613	-0.1024	0.4965	-0.0730	0.3543
12	104.30	1.3609	-0.1047	0.4408	-0.0758	0.3554
13	106.30	1.3613	-0.1090	0.4855	-0.0801	0.3567
14	108.29	1.3694	-0.1161	0.4833	-0.0860	0.3582
15	110.29	1.3370	-0.1223	0.4821	-0.0915	0.3606
16	112.29	1.3236	-0.1289	0.4799	-0.0975	0.3628
17	114.30	1.3067	-0.1340	0.4770	-0.1025	0.3651
18	116.29	1.2915	-0.1412	0.4751	-0.1093	0.3679
19	117.28	1.2837	-0.1443	0.4731	-0.1124	0.3686

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL(AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH PK10-6 CONF TRANSITION

2 251 1.20 2.5 F36 FREE

POINT	ALPHA	CNF	CM	C6	KCPF	YCPF
1	120.05	1.2214	-0.1525	0.4750	-0.1181	0.3678
2	121.10	1.2613	-0.1544	0.4728	-0.1205	0.3690
3	122.11	1.2736	-0.1580	0.4707	-0.1225	0.3698
4	123.10	1.2650	-0.1573	0.4675	-0.1243	0.3696
5	124.10	1.2578	-0.1587	0.4661	-0.1262	0.3705
6	126.11	1.2406	-0.1614	0.4602	-0.1301	0.3710
7	128.05	1.2180	-0.1662	0.4553	-0.1364	0.3738
8	130.06	1.1972	-0.1700	0.4497	-0.1420	0.3756
9	132.07	1.1665	-0.1747	0.4438	-0.1463	0.3762
10	134.10	1.1366	-0.1770	0.44271	-0.1507	0.3757
11	136.10	1.1071	-0.1724	0.4463	-0.1558	0.3768
12	138.10	1.0717	-0.1732	0.4049	-0.1616	0.3779
13	140.10	1.0368	-0.1750	0.3750	-0.1691	0.3818
14	142.10	1.0006	-0.1776	0.3479	-0.1761	0.3841
15	144.10	0.9596	-0.1731	0.3686	-0.1824	0.3842
16	146.12	0.9140	-0.1680	0.3474	-0.1859	0.3843
17	147.13	0.8736	-0.1659	0.3368	-0.1893	0.3847

TEST PART MACH. RATIO-6 CONF. TRANSITION

2 252 1.20 2.5 F36 FREE

POINT	ALPHA	CNF	CN	CM	XCWF	YCWF
1	147.93	0.8521	-0.1625	0.3279	-0.1907	0.3868
2	148.93	0.8206	-0.1597	0.3163	-0.1940	0.3854
3	149.92	0.7889	-0.1554	0.3028	-0.1970	0.3838
4	150.97	0.7551	-0.1513	0.2899	-0.2004	0.3839
5	151.98	0.7261	-0.1474	0.2785	-0.2030	0.3835
6	152.99	0.6970	-0.1433	0.2679	-0.2056	0.3843
7	153.98	0.6665	-0.1390	0.2551	-0.2091	0.3839
8	154.00	0.5986	-0.1344	0.2244	-0.2167	0.3831
9	158.00	0.5340	-0.1201	0.2062	-0.2249	0.3862
10	160.01	0.4694	-0.1094	0.1831	-0.2342	0.3901
11	162.03	0.4070	-0.0995	0.1581	-0.2444	0.3885
12	164.04	0.3478	-0.0886	0.1308	-0.2550	0.3878
13	166.05	0.2897	-0.0775	0.1046	-0.2675	0.3782
14	168.07	0.2354	-0.0661	0.0682	-0.2804	0.3740
15	170.08	0.1857	-0.0546	0.0282	-0.2953	0.3702
16	172.10	0.1418	-0.0439	0.0044	-0.3094	0.3485
17	174.12	0.1018	-0.0328	0.0051	-0.3219	0.3451
18	176.15	0.0666	-0.0220	0.0220	-0.3332	0.3331
19	177.15	0.0320	-0.0171	0.0159	-0.3241	0.3053

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART: MACH RAIN-6 CONE TRANSITION

2 253 1.20 2.5 F36 FREE

POINT	ALPHA	CNF	CN	Cs	KCPF	YCPF
1	177.97	0.0671	-0.0150	0.0131	-0.3189	0.2776
2	179.05	0.0343	-0.0101	0.0034	-0.2930	0.2466
3	180.00	0.0223	-0.0055	0.0032	-0.2498	0.1453
4	181.00	0.0106	-0.0017	-0.0021	-0.1164	-0.2009
5	182.07	-0.0007	0.0039	-0.0076	-0.0267	10.1208
6	183.07	-0.0124	0.0075	-0.0124	-0.6069	1.0000
7	184.08	-0.0240	0.0122	-0.0162	-0.5073	0.7071
8	186.10	-0.0513	0.0223	-0.0260	-0.4342	0.5222

TEST PART NAME PA10-5 CONF TRANSITION

2 257 1.30 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Cm	XCPF	YCPF
1	-2.03	-0.0332	0.0011	-0.0222	-0.0328	0.6695
2	-0.97	-0.0152	0.0004	-0.0146	-0.0204	0.6056
3	0.03	-0.0051	-0.0003	-0.0071	0.0629	1.4028
4	1.06	0.0070	-0.0004	-0.0027	-0.1264	-0.3835
5	2.06	0.0204	-0.0017	0.0045	-0.0812	0.2225
6	3.08	0.0335	-0.0023	0.0103	-0.0696	0.3091
7	4.08	0.0461	-0.0024	0.0157	-0.0621	0.3413
8	6.10	0.0731	-0.0053	0.0329	-0.0633	0.3958
9	8.11	0.1245	-0.0074	0.0439	-0.0507	0.3794
10	10.13	0.1755	-0.0100	0.0630	-0.0568	0.3591
11	12.14	0.2277	-0.0124	0.0801	-0.0561	0.3516
12	14.19	0.2855	-0.0156	0.0963	-0.0544	0.3367
13	16.21	0.3444	-0.0174	0.1119	-0.0517	0.3250
14	18.23	0.4050	-0.0198	0.1244	-0.0499	0.3172
15	20.26	0.4644	-0.0220	0.1471	-0.0469	0.3136
16	22.24	0.5313	-0.0245	0.1664	-0.0460	0.3133
17	24.32	0.5952	-0.0273	0.1853	-0.0458	0.3130
18	26.35	0.6577	-0.0298	0.2058	-0.0453	0.3129
19	27.37	0.6907	-0.0312	0.2161	-0.0452	0.3129

ARMED ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1

MANTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RAIL-0 CONE TRANSITION

2. 25R 1.30 2.5 F36 FNEE

POINT	ALPHA	CNF	C _n	C _m	XCPF	YCPF
1	13.00	0.2444	-0.0136	0.0405	-0.0555	0.3658
2	14.12	0.2755	-0.0150	0.0428	-0.0544	0.3366
3	15.12	0.3042	-0.0162	0.1714	-0.0532	0.3333
4	16.14	0.3351	-0.0174	0.1084	-0.0520	0.3236
5	17.16	0.3660	-0.0183	0.1163	-0.0524	0.3194
6	18.17	0.3950	-0.0194	0.1252	-0.0492	0.3169
7	19.14	0.4250	-0.0203	0.1437	-0.0477	0.3138
8	21.21	0.4874	-0.0224	0.1527	-0.0460	0.3130
9	23.23	0.5507	-0.0251	0.1721	-0.0455	0.3125
10	25.26	0.6126	-0.0276	0.1914	-0.0451	0.3129
11	26.39	0.6484	-0.0292	0.2125	-0.0450	0.3121
12	29.31	0.7412	-0.0330	0.2332	-0.0446	0.3147
13	31.35	0.8052	-0.0345	0.2530	-0.0440	0.3142
14	33.37	0.8690	-0.0375	0.2741	-0.0431	0.3155
15	35.40	0.9324	-0.0394	0.2940	-0.0423	0.3154
16	37.44	0.9901	-0.0405	0.3146	-0.0409	0.3177
17	39.46	1.0487	-0.0412	0.3327	-0.0394	0.3184
18	41.48	1.0964	-0.0411	0.3494	-0.0375	0.3187
19	42.50	1.1194	-0.0412	0.3581	-0.0367	0.3198

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST POINT MACH RANGE CONF. TRANSITION

2 259 1.30 2.5 F36 FNEE

POINT	ALPHA	CNF	CM	Cn	KCPF	YCPF
1	41.34	1.0001	-0.0000	0.3005	-0.0376	0.3190
2	42.42	1.1230	-0.0399	0.3577	-0.0355	0.3185
3	44.64	1.1570	-0.0371	0.3697	-0.0321	0.3195
4	46.47	1.1006	-0.0330	0.3748	-0.0280	0.3175
5	48.49	1.2009	-0.0310	0.3531	-0.0257	0.3170
6	50.50	1.2191	-0.0292	0.3067	-0.0240	0.3172
7	52.52	1.2352	-0.0334	0.3450	-0.0274	0.3198
8	54.53	1.2503	-0.0300	0.4041	-0.0310	0.3232
9	56.54	1.2700	-0.0244	0.4157	-0.0339	0.3251
10	57.57	1.2901	-0.0257	0.4224	-0.0353	0.3264

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART: MACL RX10-6 CONF. TRANSITION

2 260 1.30 2.5 F36 FREE

POINT	ALPHA	Cm	Cm	Cy	XCPF	YCPF
1	59.31	1.2824	-0.0411	0.4150	-0.0320	0.3242
2	59.34	1.2452	-0.0434	0.4221	-0.0339	0.3259
3	60.34	1.3024	-0.0461	0.4257	-0.0354	0.3276
4	61.41	1.3116	-0.0447	0.4308	-0.0371	0.3285
5	62.41	1.3225	-0.0512	0.4354	-0.0387	0.3292
6	63.40	1.3341	-0.0532	0.4400	-0.0399	0.3298
7	64.40	1.3451	-0.0552	0.4434	-0.0411	0.3300
8	66.42	1.3694	-0.0584	0.4557	-0.0426	0.3323
9	68.42	1.3712	-0.0515	0.4628	-0.0442	0.3326
10	70.43	1.4075	-0.0652	0.4642	-0.0463	0.3334
11	72.44	1.4144	-0.0686	0.4754	-0.0483	0.3350
12	74.44	1.4335	-0.0684	0.4806	-0.0441	0.3353
13	76.46	1.4494	-0.0680	0.4854	-0.0469	0.3351
14	78.47	1.4614	-0.0644	0.4901	-0.0469	0.3354
15	80.47	1.4824	-0.0713	0.4985	-0.0481	0.3362
16	82.49	1.5002	-0.0764	0.5065	-0.0512	0.3376
17	84.51	1.5082	-0.0768	0.5106	-0.0518	0.3398
18	86.52	1.5016	-0.0775	0.5091	-0.0516	0.3390
19	87.53	1.5066	-0.0804	0.5105	-0.0534	0.3389

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PMT)

AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONE TRANSITION

2 261 1.30 2.5 F36 FREE

POINT	ALPHA	CNF	Cm	Cp	XCPF	YCPF
1	88.26	1.4434	-0.0870	0.5112	-0.0582	0.3622
2	89.26	1.5070	-0.0873	0.5122	-0.0581	0.3610
3	90.30	1.5082	-0.0868	0.5162	-0.0576	0.3609
4	91.32	1.5100	-0.0866	0.5150	-0.0573	0.3610
5	92.33	1.5087	-0.0875	0.5135	-0.0580	0.3608
6	93.32	1.5091	-0.0892	0.5162	-0.0591	0.3620
7	94.33	1.5085	-0.0914	0.5161	-0.0608	0.3622
8	96.33	1.5062	-0.0905	0.5165	-0.0641	0.3642
9	98.33	1.5033	-0.0946	0.5200	-0.0663	0.3659
10	100.33	1.4954	-0.1030	0.5185	-0.0689	0.3669
11	102.33	1.4746	-0.1055	0.5133	-0.0716	0.3681
12	104.32	1.4506	-0.1103	0.5075	-0.0760	0.3501
13	106.32	1.4330	-0.1173	0.5051	-0.0818	0.3524
14	108.33	1.4259	-0.1234	0.5055	-0.0866	0.3545
15	110.36	1.3766	-0.1174	0.4930	-0.0856	0.3581
16	111.44	1.3514	-0.1180	0.4804	-0.0873	0.3598
17	114.33	1.3334	-0.1278	0.4836	-0.0959	0.3626
18	116.33	1.3021	-0.1365	0.4836	-0.1017	0.3603
19	117.36	1.3033	-0.1391	0.4802	-0.1035	0.3619

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1 MANTIC MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH R410-6 CONE TRANSITION
2 262 1.30 2.5 F36 FREE

POINT	ALPHA	C _N	C _m	C _y	XCPY	YCPY
1	118.09	1.3334	-0.1395	0.4072	-0.1066	0.3653
2	119.04	1.3233	-0.1408	0.4039	-0.1064	0.3656
3	120.07	1.3164	-0.1425	0.4103	-0.1091	0.3644
4	121.12	1.2947	-0.1460	0.4722	-0.1127	0.3647
5	122.13	1.2855	-0.1484	0.4701	-0.1154	0.3657
6	123.12	1.2776	-0.1510	0.4666	-0.1182	0.3651
7	124.12	1.2717	-0.1525	0.4659	-0.1201	0.3664
8	124.12	1.2544	-0.1549	0.4590	-0.1234	0.3658
9	129.11	1.2241	-0.1560	0.4489	-0.1274	0.3667
10	130.12	1.1931	-0.1577	0.4395	-0.1322	0.3684
11	132.12	1.1606	-0.1595	0.4282	-0.1375	0.3690
12	134.13	1.1301	-0.1607	0.4166	-0.1422	0.3686
13	136.13	1.0975	-0.1609	0.4057	-0.1466	0.3697
14	138.12	1.0666	-0.1624	0.3951	-0.1522	0.3703
15	140.11	1.0307	-0.1731	0.3966	-0.1632	0.3758
16	142.12	1.0147	-0.1697	0.3807	-0.1672	0.3751
17	144.13	0.9937	-0.1645	0.3609	-0.1725	0.3785
18	146.15	0.8989	-0.1594	0.3398	-0.1773	0.3780
19	147.15	0.8753	-0.1565	0.3298	-0.1788	0.3768

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RATIO=0. CONE TRANSITION

2 2.03 1.30 2.5 F30 FREE

POINT	ALPHA	Cm	Cm	Cm	XCPF	YCPF
1	147.91	0.2863	-0.1561	0.3109	-0.1821	0.3767
2	148.97	0.2815	-0.1507	0.3060	-0.1850	0.3754
3	149.99	0.2753	-0.1475	0.2927	-0.1876	0.3753
4	150.99	0.2701	-0.1441	0.2720	-0.1906	0.3730
5	152.00	0.2625	-0.1401	0.2711	-0.1938	0.3750
6	153.00	0.2524	-0.1365	0.2599	-0.1971	0.3753
7	153.99	0.2455	-0.1324	0.2479	-0.2007	0.3756
8	156.01	0.2351	-0.1240	0.2244	-0.2084	0.3760
9	158.01	0.2306	-0.1152	0.2010	-0.2172	0.3788
10	160.02	0.2272	-0.1057	0.1767	-0.2263	0.3763
11	162.03	0.2250	-0.0958	0.1527	-0.2366	0.3769
12	164.05	0.2244	-0.0855	0.1293	-0.2479	0.3750
13	166.07	0.2223	-0.0751	0.1063	-0.2605	0.3688
14	168.07	0.2255	-0.0645	0.0844	-0.2740	0.3586
15	170.09	0.2254	-0.0535	0.0651	-0.2886	0.3512
16	172.12	0.2206	-0.0424	0.0479	-0.3015	0.3409
17	174.13	0.2130	-0.0320	0.0326	-0.3105	0.3169
18	176.16	0.2071	-0.0214	0.0198	-0.3183	0.2955
19	177.17	0.2024	-0.0164	0.0133	-0.3129	0.2539

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(6T)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME RA10-6 CONE TRANSITION

2 264 1.30 2.5 F36 FREE

POINT	ALPHA	CNF	CN	CM	XCDF	YCDF
3	177.97	0.0267	-0.0156	0.0136	-0.3360	0.2908
4	179.04	0.0324	-0.0105	0.0088	-0.3191	0.2663
5	180.04	0.0404	-0.0058	0.0044	-0.2943	0.2170
6	181.06	0.0481	-0.0015	-0.0014	-0.1452	-0.1777
7	182.07	-0.0026	0.0025	-0.0070	-0.4015	2.6808
8	183.06	-0.0134	0.0069	-0.0114	-0.5000	0.4274
9	184.07	-0.0254	0.0114	-0.0152	-0.4419	0.5905
10	185.10	-0.0342	0.0214	-0.0270	-0.3905	0.4469
12	188.12	-0.0726	0.0335	-0.0422	-0.3601	0.4586

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH PAXI-0 COV TRANSITION

2 209 0.92 2.5 F11 FREE

POINT	ALPHA	CMF	CM	CM	CM	XCPF	YCPF
1	118.07	1.0093	-0.1189	0.5518	-0.1091	0.5065	
2	119.13	1.0022	-0.1206	0.5461	-0.1114	0.5046	
3	120.14	1.0785	-0.1218	0.5442	-0.1129	0.5045	
4	121.16	1.0761	-0.1237	0.5343	-0.1150	0.5012	
5	122.14	1.0798	-0.1221	0.5449	-0.1136	0.5070	
6	123.15	1.0694	-0.1233	0.5375	-0.1153	0.5026	
7	124.15	1.0803	-0.1243	0.5374	-0.1197	0.4975	
8	126.15	1.0673	-0.1292	0.5292	-0.1211	0.4958	
9	128.15	1.0804	-0.1334	0.5320	-0.1239	0.4922	
10	130.16	1.0632	-0.1351	0.5340	-0.1247	0.4930	
11	132.15	1.0735	-0.1356	0.5309	-0.1263	0.4948	
12	134.16	1.0543	-0.1362	0.5166	-0.1311	0.4900	
13	135.17	1.0293	-0.1356	0.5076	-0.1318	0.4931	
14	138.16	1.0115	-0.1367	0.4959	-0.1352	0.4903	
15	140.17	0.9937	-0.1360	0.4980	-0.1368	0.4911	
16	142.18	0.9893	-0.1361	0.4753	-0.1404	0.4903	
17	144.18	0.9564	-0.1463	0.4682	-0.1445	0.4894	
18	146.14	0.9364	-0.1384	0.4582	-0.1480	0.4883	
19	147.18	0.9191	-0.1362	0.4505	-0.1482	0.4901	

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ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME RA19-6 CONF TRANSITION

2 270 0.92 2.5 F11 FREE

POINT	ALPHA	C _M	C _D	C _D	X _{CP}	Y _{CP}
1	148.05	0.8492	-0.1377	0.4325	-0.1540	0.4859
2	149.11	0.8447	-0.1355	0.4325	-0.1532	0.4889
3	150.11	0.8762	-0.1363	0.4266	-0.1556	0.4868
4	151.12	0.8664	-0.1367	0.4185	-0.1572	0.4830
5	152.13	0.8477	-0.1375	0.4187	-0.1585	0.4825
6	153.13	0.8496	-0.1360	0.4101	-0.1600	0.4827
7	154.12	0.8444	-0.1360	0.4055	-0.1611	0.4803
8	156.14	0.8373	-0.1374	0.4036	-0.1641	0.4820
9	158.13	0.7867	-0.1325	0.3808	-0.1684	0.4841
10	160.14	0.7545	-0.1390	0.3696	-0.1833	0.4873
11	162.14	0.6835	-0.1403	0.3448	-0.2053	0.5045
12	164.14	0.5947	-0.1437	0.3016	-0.2416	0.5072
13	166.13	0.5633	-0.1753	0.2901	-0.3111	0.5150
14	168.13	0.4773	-0.1554	0.2466	-0.3256	0.5166
15	170.13	0.3736	-0.1322	0.1898	-0.3538	0.5080
16	172.15	0.2773	-0.1059	0.1404	-0.3915	0.5064
17	174.16	0.2026	-0.0816	0.0938	-0.4039	0.4831
18	176.18	0.1264	-0.0543	0.0574	-0.4297	0.4541
19	177.14	0.0455	-0.0219	0.0211	-0.4389	0.4528

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH 0.10-6 CONF TRANSITION

2 271 0.92 2.5 F11 FREE

POINT	ALPHA	CNF	CM	Cz	XCPF	YCPF
1	175.06	0.0722	-0.0312	0.0282	-0.4326	0.3901
2	179.05	0.0452	-0.0147	0.0138	-0.4355	0.3050
3	180.05	0.0184	-0.0076	0.0097	-0.4149	0.2564
4	181.05	-0.0095	0.0044	-0.0061	-0.5120	0.8556
5	182.06	-0.0464	0.0165	-0.0180	-0.4491	0.4899
6	183.07	-0.0635	0.0274	-0.0323	-0.4312	0.5086
7	184.07	-0.0926	0.0404	-0.0445	-0.4369	0.4906

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART, MACH, α 10-6, CONF, TRANSITION

2 272 0.40 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Cd	XCPF	YCPF
1	-2.00	-0.0565	-0.0230	-0.0330	0.4281	0.5851
2	-0.94	-0.0266	-0.0114	-0.0163	0.4443	0.6847
3	0.00	0.0019	-0.0009	-0.0023	-2.6645	-1.2630
4	1.09	0.0267	0.0036	0.0120	0.1749	0.4516
5	2.05	0.0561	0.0112	0.0249	0.2000	0.4667
6	3.11	0.0866	0.0200	0.0362	0.2255	0.4796
7	4.11	0.1220	0.0303	0.0543	0.2479	0.4877
8	6.13	0.2120	0.0416	0.1008	0.1964	0.4752
9	8.16	0.2956	0.0561	0.1663	0.1897	0.4945
10	10.16	0.3496	0.0633	0.1991	0.1584	0.4985
11	12.16	0.5075	0.0675	0.2536	0.1329	0.4993
12	13.36	0.5659	0.0712	0.2454	0.1258	0.5043
13	15.20	0.7165	0.0766	0.3642	0.1269	0.5083
14	18.26	0.8132	0.0787	0.4139	0.0968	0.5098
15	20.20	0.9075	0.0820	0.4686	0.0904	0.5161
16	22.30	1.0046	0.0770	0.5174	0.0763	0.5125
17	24.33	1.0962	0.0746	0.5623	0.0681	0.5130
18	26.33	1.0979	0.0432	0.5490	0.0394	0.5081
19	27.32	1.1265	0.0422	0.5560	0.0374	0.4934

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MALM.RA10-6 CONF TRANSITION

2 273 0.90 2.5 f11 FREE

POINT	ALPHA	CNF	CN	Cd	XCPF	YCPF
1	28.17	1.1686	0.0329	0.5663	0.0338	0.4916
2	29.23	1.1672	0.0301	0.5667	0.0309	0.4872
3	30.24	1.1856	0.0354	0.5768	0.0299	0.4865
4	31.24	1.1956	0.0331	0.5608	0.0277	0.4857
5	32.25	1.1942	0.0313	0.5602	0.0262	0.4858
6	33.26	1.1913	0.0303	0.5747	0.0254	0.4866
7	34.25	1.1806	0.0295	0.5759	0.0250	0.4877
8	36.25	1.1711	0.0220	0.5672	0.0186	0.4863
9	38.24	1.1597	0.0169	0.5621	0.0146	0.4867
10	40.25	1.1531	0.0151	0.5557	0.0131	0.4819
11	42.27	1.1667	0.0124	0.5438	0.0107	0.4861
12	44.27	1.1720	0.0094	0.5678	0.0080	0.4845
13	46.28	1.1732	0.0081	0.5695	0.0069	0.4854
14	49.24	1.2021	0.0033	0.5833	0.0027	0.4852
15	50.24	1.2231	-0.0001	0.5933	-0.0001	0.4868
16	52.31	1.2424	-0.0030	0.6073	-0.0024	0.4888
17	54.31	1.2613	-0.0059	0.6166	-0.0046	0.4887
18	56.33	1.2513	-0.0113	0.6078	-0.0090	0.4857
19	57.35	1.2541	-0.0094	0.6159	-0.0075	0.4911

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 PAWTR MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PAIR MALM BX10-6 COMB TRANSITION

2 274 0.90 2.5 F11 FREE

POINT	ALPHA	CMP	CM	Cb	RCPF	YCPF
1	58.18	1.1273	-0.0043	0.5502	-0.0038	0.4880
2	59.22	1.1314	-0.0056	0.5533	-0.0050	0.4889
3	60.21	1.1341	-0.0071	0.5559	-0.0063	0.4901
4	61.21	1.1365	-0.0102	0.5551	-0.0089	0.4884
5	62.22	1.1398	-0.0107	0.5585	-0.0094	0.4901
6	63.22	1.1424	-0.0124	0.5617	-0.0108	0.4915
7	64.23	1.1494	-0.0139	0.5645	-0.0121	0.4918
8	66.24	1.1631	-0.0147	0.5727	-0.0165	0.4924
9	68.24	1.1785	-0.0232	0.5837	-0.0197	0.4953
10	70.24	1.1918	-0.0261	0.5922	-0.0219	0.4972
11	72.26	1.2137	-0.0314	0.6172	-0.0258	0.5002
12	74.25	1.2382	-0.0358	0.6200	-0.0289	0.5008
13	76.26	1.2543	-0.0401	0.6321	-0.0320	0.5039
14	78.26	1.2747	-0.0468	0.6440	-0.0365	0.5036
15	80.29	1.2816	-0.0487	0.6530	-0.0380	0.5096
16	82.28	1.2893	-0.0523	0.6614	-0.0406	0.5138
17	84.30	1.2940	-0.0574	0.6664	-0.0443	0.5169
18	86.31	1.2985	-0.0622	0.6723	-0.0479	0.5178
19	87.33	1.3003	-0.0664	0.6746	-0.0495	0.5188

TEST PART MACH BX10-6 CONF TRANSITION

2 275 v.9b 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Cn	XCPF	YCPF
1	88.13	1.2244	-0.0616	0.6337	-0.0503	0.5175
2	89.13	1.2242	-0.0644	0.6350	-0.0525	0.5175
3	90.17	1.2227	-0.0680	0.6341	-0.0556	0.5186
4	91.16	1.2251	-0.0712	0.6365	-0.0581	0.5195
5	92.18	1.2271	-0.0770	0.6342	-0.0628	0.5168
6	93.17	1.2262	-0.0794	0.6337	-0.0648	0.5164
7	94.19	1.2287	-0.0831	0.6351	-0.0676	0.5168
8	96.19	1.2353	-0.0864	0.6365	-0.0716	0.5153
9	98.19	1.2412	-0.0950	0.6351	-0.0765	0.5117
10	100.20	1.2446	-0.0987	0.6369	-0.0790	0.5101
11	102.21	1.2529	-0.1036	0.6342	-0.0827	0.5062
12	104.22	1.2536	-0.1084	0.6332	-0.0864	0.5050
13	106.23	1.2501	-0.1134	0.6320	-0.0883	0.5055
14	108.23	1.2424	-0.1125	0.6275	-0.0905	0.5049
15	110.24	1.2429	-0.1171	0.6234	-0.0943	0.5018
16	112.25	1.2355	-0.1167	0.6214	-0.0960	0.5031
17	114.25	1.2242	-0.1234	0.6142	-0.1004	0.4997
18	116.27	1.2259	-0.1244	0.6144	-0.1017	0.5008
19	117.27	1.2207	-0.1276	0.6058	-0.1045	0.4963

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART WACH PK10-6 CONE TRANSITION

2 276 u.90 2.5 F11 FREE

POINT	ALPHA	CNF	CM	Ce	XCPF	YCPF
1	118.00	1.1412	-0.1221	0.5070	-0.1070	0.4968
2	119.13	1.1324	-0.1232	0.5010	-0.1088	0.4954
3	120.12	1.1316	-0.1255	0.5002	-0.1109	0.4933
4	121.14	1.1315	-0.1268	0.5054	-0.1120	0.4944
5	122.15	1.1326	-0.1281	0.5075	-0.1131	0.4925
6	123.14	1.1326	-0.1291	0.5054	-0.1140	0.4906
7	124.15	1.1407	-0.1311	0.5037	-0.1149	0.4942
8	126.15	1.1656	-0.1304	0.5714	-0.1175	0.4905
9	126.17	1.1704	-0.1354	0.5013	-0.1150	0.4935
10	130.18	1.1776	-0.1405	0.5741	-0.1193	0.4908
11	132.17	1.1615	-0.1422	0.5629	-0.1225	0.4844
12	134.18	1.1593	-0.1433	0.5055	-0.1236	0.4878
13	135.19	1.1596	-0.1474	0.5003	-0.1271	0.4832
14	138.20	1.1331	-0.1457	0.5029	-0.1265	0.4880
15	140.19	1.1555	-0.1514	0.5006	-0.1313	0.4852
16	142.20	1.1563	-0.1503	0.5040	-0.1300	0.4878
17	144.22	1.1550	-0.1546	0.5075	-0.1350	0.4878
18	146.22	1.1484	-0.1613	0.5018	-0.1404	0.4890
19	147.22	1.1554	-0.1630	0.5056	-0.1414	0.4895

TEST PART MACH #X10-6 CONF. TRANSITION
 2 277 0.98 2.5 F11 FREE

POINT	ALPHA	CNF	CM	CM	XCPF	YCPF
1	148.04	1.1947	-0.1674	0.5230	-0.1401	0.4680
2	149.11	1.2053	-0.1688	0.5257	-0.1400	0.4681
3	150.11	1.1981	-0.1649	0.5235	-0.1410	0.4678
4	151.12	1.1837	-0.1662	0.5769	-0.1421	0.4673
5	152.13	1.1623	-0.1657	0.5677	-0.1426	0.4684
6	153.12	1.1366	-0.1634	0.5541	-0.1441	0.4674
7	154.12	1.1143	-0.1651	0.5459	-0.1462	0.4699
8	154.12	1.0514	-0.1675	0.5209	-0.1593	0.4955
9	154.10	0.9625	-0.1705	0.4794	-0.1771	0.4981
10	160.11	0.9438	-0.1938	0.4412	-0.2053	0.5098
11	162.11	0.8610	-0.1851	0.4369	-0.2149	0.5075
12	164.12	0.7604	-0.1724	0.3833	-0.2268	0.5041
13	166.13	0.6750	-0.1557	0.3271	-0.2377	0.4994
14	164.12	0.5551	-0.1404	0.2702	-0.2529	0.4868
15	170.11	0.4947	-0.1211	0.2140	-0.2712	0.4798
16	172.13	0.3420	-0.1027	0.1544	-0.2990	0.4661
17	174.12	0.2425	-0.0834	0.1051	-0.3439	0.4333
18	176.14	0.1481	-0.0564	0.0622	-0.3946	0.4201
19	177.14	0.1149	-0.0452	0.0412	-0.3932	0.3583

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 MANTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART NAME: RX10-6 CONF. TRANSITION
 2 27R 0.96 2.5 F11 FREE

POINT	ALPHA	Cm	Cm	C _x	XC _{DP}	YC _{DP}
1	177.36	0.0926	-0.0370	0.0268	-0.3990	0.2810
2	174.06	0.0568	-0.0220	0.0120	-0.3877	0.2111
3	160.02	0.0282	-0.0111	0.0011	-0.3537	-0.0388
4	181.06	-0.0013	0.0010	-0.0158	-0.7708	12.0916
5	182.06	-0.0327	0.0121	-0.0268	-0.3675	0.8288
6	163.06	-0.0659	0.0257	-0.0406	-0.3835	0.6188
7	185.06	-0.0968	0.0385	-0.0573	-0.4004	0.5971

TEST PART MACH RAL0-6 CONF TRANSITION

P 279 1.10 2.5 F11 FREE

POINT	ALPHA	CMF	CM	C _x	* XCPF	YCPF
1	-2.03	-0.0046	-0.0211	-0.0309	0.4365	0.6386
2	-0.96	-0.0160	-0.0147	-0.0155	0.8959	0.9687
3	0.04	0.0061	-0.0044	-0.0028	-0.5443	-0.3506
4	1.06	0.0003	0.0000	0.0001	0.0012	0.2002
5	2.06	0.0066	0.0076	0.0233	0.1101	0.3381
6	3.07	0.0454	0.0176	0.0387	0.1846	0.4052
7	4.06	0.1303	0.0250	0.0533	0.1419	0.4141
8	6.10	0.2071	0.0364	0.0402	0.1769	0.4355
9	8.13	0.2916	0.0439	0.1339	0.1506	0.4594
10	10.14	0.3836	0.0515	0.1439	0.1344	0.4794
11	11.27	0.4394	0.0539	0.2113	0.1225	0.4885
12	14.19	0.5035	0.0579	0.2957	0.0992	0.4897
13	16.21	0.6026	0.0575	0.3375	0.0872	0.4945
14	18.24	0.7700	0.0610	0.3896	0.0784	0.5008
15	20.25	0.8673	0.0660	0.4307	0.0698	0.5015
16	22.29	0.9542	0.0608	0.4840	0.0638	0.5072
17	24.30	1.0391	0.0582	0.5305	0.0560	0.5106
18	26.34	1.1157	0.0557	0.5690	0.0499	0.5099
19	27.34	1.1043	0.0374	0.5547	0.0339	0.5023

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
 PAGE 1 OF 1 PART IN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART WASH PA10-6 CONF. TRANSITION
 2 2.50 1.10 2.5 F11 FREE

POINT	ALPHA	CDF	CX	CY	XCPF	YCPF
1	28.16	1.1926	0.0333	0.5722	0.0291	0.5000
2	29.25	1.1852	0.0312	0.5445	0.0263	0.5016
3	30.25	1.2198	0.0309	0.6107	0.0254	0.5000
4	31.26	1.2502	0.0313	0.6291	0.0251	0.5031
5	32.26	1.2801	0.0327	0.6492	0.0255	0.4993
6	33.18	1.3037	0.0325	0.6682	0.0250	0.4972
7	34.26	1.3250	0.0275	0.6563	0.0208	0.4938
8	34.26	1.3719	0.0141	0.6724	0.0118	0.4901
9	35.29	1.4662	0.0161	0.6878	0.0072	0.4898
10	40.30	1.4303	0.0060	0.7008	0.0028	0.4900
11	41.42	1.4394	0.0027	0.7054	0.0019	0.4902
12	44.31	1.4567	-0.0045	0.7112	-0.0031	0.4882
13	46.32	1.4672	-0.0079	0.7163	-0.0056	0.4886
14	48.33	1.4761	-0.0130	0.7215	-0.0088	0.4888
15	50.34	1.4788	-0.0175	0.7216	-0.0119	0.4888
16	52.35	1.4798	-0.0191	0.7253	-0.0129	0.4902
17	54.37	1.4855	-0.0222	0.7261	-0.0149	0.4901
18	56.38	1.4745	-0.0266	0.7337	-0.0178	0.4909
19	57.38	1.5002	-0.0275	0.7408	-0.0188	0.4938

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEUC)

PROPULSION WIND TUNNEL FACILITY(PMT)

AERODYNAMIC WIND TUNNEL(AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH RATIO-6 CONF TRANSITION

2 281 1.10 2.5 F11 FREE

POINT	ALPHA	CNF	CM	CH	XCDF	YCDF
1	50.18	1.4856	-0.0261	0.7189	-0.0178	0.4906
2	54.25	1.4770	-0.0245	0.7227	-0.0194	0.4910
3	60.25	1.4740	-0.0247	0.7204	-0.0201	0.4910
4	61.27	1.4651	-0.0314	0.7301	-0.0211	0.4914
5	62.26	1.4516	-0.0334	0.7348	-0.0224	0.4926
6	63.26	1.5032	-0.0359	0.7399	-0.0239	0.4922
7	64.26	1.5075	-0.0379	0.7447	-0.0251	0.4937
8	66.27	1.5144	-0.0344	0.7545	-0.0263	0.4964
9	64.26	1.5460	-0.0412	0.7616	-0.0270	0.4988
10	70.24	1.5329	-0.0462	0.7636	-0.0302	0.4981
11	72.24	1.5394	-0.0445	0.7695	-0.0317	0.4997
12	74.30	1.5485	-0.0524	0.7794	-0.0340	0.5027
13	75.31	1.5447	-0.0564	0.7728	-0.0369	0.5042
14	78.31	1.5374	-0.0601	0.7784	-0.0391	0.5066
15	80.32	1.5365	-0.0646	0.7804	-0.0420	0.5079
16	82.33	1.5249	-0.0683	0.7809	-0.0447	0.5108
17	84.34	1.5221	-0.0713	0.7795	-0.0468	0.5121
18	86.34	1.5045	-0.0753	0.7771	-0.0499	0.5152
19	87.35	1.5052	-0.0780	0.7769	-0.0518	0.5161

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL (AT)

PAGE 1 OF 1 "ANTI-MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART NAME: AX10-6 CONF TRANSITION

2 2M2 1.10 2.5 F11 FREE

POINT	ALPHA	CMF	CM	CB	ACPF	YCPF
1	89.15	1.4233	-0.0792	0.7645	-0.0530	0.5167
2	89.17	1.4408	-0.0826	0.7695	-0.0556	0.5162
3	90.21	1.4455	-0.0825	0.7667	-0.0576	0.5161
4	91.22	1.4637	-0.0847	0.7631	-0.0605	0.5144
5	92.23	1.4883	-0.0828	0.7674	-0.0623	0.5156
6	93.22	1.4914	-0.0867	0.7677	-0.0648	0.5146
7	94.22	1.4964	-0.0893	0.7694	-0.0663	0.5160
8	96.23	1.5052	-0.1052	0.7714	-0.0699	0.5125
9	98.23	1.5144	-0.1093	0.7742	-0.0722	0.5112
10	100.24	1.5205	-0.1161	0.7731	-0.0763	0.5085
11	102.25	1.5145	-0.1191	0.7681	-0.0786	0.5072
12	104.25	1.5272	-0.1244	0.7721	-0.0814	0.5055
13	106.26	1.5285	-0.1248	0.7707	-0.0840	0.5062
14	108.27	1.5254	-0.1310	0.7678	-0.0858	0.5032
15	110.26	1.5286	-0.1354	0.7670	-0.0886	0.5017
16	112.24	1.5134	-0.1359	0.7622	-0.0848	0.5035
17	114.24	1.5074	-0.1380	0.7590	-0.0916	0.5001
18	116.30	1.5014	-0.1401	0.7500	-0.0933	0.4994
19	117.32	1.4945	-0.1405	0.7469	-0.0940	0.4998

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TEST PART NAME: MX10-6 CONF: TRANSITION

2 283 1.10 2.5 F11 FREE

POINT	ALPHA	CNF	CM	Cd	XCDF	YCDF
1	118.08	1.5486	-0.1446	0.7680	-0.0952	0.4959
2	119.17	1.4590	-0.1447	0.7669	-0.0965	0.4969
3	120.16	1.4907	-0.1451	0.7397	-0.0974	0.4962
4	121.18	1.4813	-0.1473	0.7328	-0.0994	0.4947
5	122.19	1.4739	-0.1480	0.7285	-0.1004	0.4943
6	123.18	1.4649	-0.1484	0.7217	-0.1016	0.4927
7	124.18	1.4591	-0.1503	0.7141	-0.1030	0.4922
8	125.30	1.4512	-0.1501	0.7174	-0.1034	0.4944
9	128.19	1.4514	-0.1544	0.7140	-0.1044	0.4918
10	130.14	1.4545	-0.1575	0.7186	-0.1083	0.4941
11	132.20	1.4574	-0.1624	0.7174	-0.1114	0.4922
12	134.20	1.4605	-0.1651	0.7185	-0.1130	0.4919
13	136.21	1.4534	-0.1672	0.7166	-0.1150	0.4915
14	138.21	1.4455	-0.1693	0.7113	-0.1171	0.4921
15	140.23	1.4403	-0.1712	0.7066	-0.1197	0.4926
16	142.23	1.4492	-0.1729	0.6957	-0.1227	0.4937
17	144.24	1.3768	-0.1751	0.6789	-0.1272	0.4932
18	146.25	1.3251	-0.1757	0.6551	-0.1326	0.4944
19	147.25	1.2952	-0.1757	0.6411	-0.1355	0.4944

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
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TEST PART NAME: RX10-6 CONF TRANSITION
 2 284 1.10 2.5 F11 FREE

POINT	ALPHA	CNF	CM	CM	YC/P	YC/P
1	148.05	1.2446	-0.1752	0.6400	-0.1353	0.4964
2	149.12	1.2622	-0.1725	0.6265	-0.1367	0.4964
3	150.11	1.2687	-0.1697	0.6081	-0.1381	0.4969
4	151.12	1.1495	-0.1666	0.5973	-0.1414	0.4980
5	152.13	1.1638	-0.1679	0.5810	-0.1443	0.4992
6	153.12	1.1402	-0.1659	0.5612	-0.1476	0.4992
7	154.12	1.0621	-0.1650	0.5462	-0.1525	0.4973
8	155.12	0.9970	-0.1642	0.4955	-0.1666	0.4968
9	158.12	0.9493	-0.1627	0.4429	-0.1666	0.5034
10	160.12	0.8687	-0.1732	0.4462	-0.1948	0.5020
11	162.13	0.8044	-0.1643	0.3994	-0.2042	0.4965
12	164.12	0.7113	-0.1529	0.3503	-0.2150	0.4925
13	166.13	0.6155	-0.1405	0.3003	-0.2284	0.4879

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

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MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART MACH RX10-B CONF TRANSITION

2 285 1.10 2.5 FII FREE

POINT	ALPHA	CNF	Cm	Cm	YCPF	YCPF
1	168.12	0.5123	-0.1253	0.2267	-0.2406	0.4816
2	170.13	0.4130	-0.1044	0.1420	-0.2461	0.4650
3	172.13	0.3166	-0.0916	0.1442	-0.2586	0.4550
4	174.14	0.2313	-0.0733	0.0996	-0.3167	0.4297
5	176.16	0.1509	-0.0536	0.0556	-0.3550	0.3688
6	177.17	0.1162	-0.0424	0.0401	-0.3653	0.3453

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART MACH 0.10-0.5 CONF TRANSITION

2 206 1.10 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Ca	XCPF	YCPF
1	177.94	0.0493	-0.0376	0.0314	-0.3788	0.3159
2	179.05	0.0676	-0.0248	0.0135	-0.3668	0.1990
3	180.06	0.0861	-0.0128	0.0009	-0.3538	0.0244
4	181.06	0.0880	-0.0038	-0.0148	-0.4340	-1.6795
5	182.07	-0.0224	0.0074	-0.0244	-0.3245	1.6661
6	183.06	-0.0525	0.0188	-0.0304	-0.3585	0.7321
7	184.07	-0.0816	0.0296	-0.0531	-0.3625	0.6511

TEST PART MACH RALD-6 CO-F TRANSITION

2 267 1.20 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	CR	ACPF	YCPF
1	-2.04	-0.0047	-0.0217	-0.0350	0.4467	0.7201
2	-0.96	-0.0151	-0.0145	-0.0182	0.4626	1.2117
3	0.06	0.0131	-0.0055	-0.0040	-0.4176	-0.3064
4	1.07	0.0463	0.0004	0.0084	0.0170	0.1423
5	2.08	0.0765	0.0076	0.0245	0.0995	0.3208
6	3.08	0.1074	0.0156	0.0400	0.1453	0.3723
7	4.09	0.1432	0.0209	0.0557	0.1960	0.3888
8	5.12	0.2190	0.0445	0.0737	0.1348	0.4279
9	6.13	0.3054	0.0743	0.1172	0.1122	0.4491
10	10.16	0.3434	0.0360	0.1427	0.0766	0.4639
11	12.18	0.4490	0.0403	0.2313	0.0925	0.4731
12	14.20	0.5616	0.0433	0.2740	0.0745	0.4781
13	16.22	0.6751	0.0456	0.3274	0.0667	0.4850
14	18.25	0.7714	0.0429	0.3743	0.0556	0.4853
15	20.27	0.8554	0.0454	0.4214	0.0536	0.4927
16	22.31	0.9366	0.0472	0.4662	0.0504	0.4977
17	24.32	1.0132	0.0469	0.5092	0.0477	0.5016
18	26.37	1.0906	0.0451	0.5470	0.0413	0.5015
19	27.37	1.1305	0.0424	0.5655	0.0375	0.5002

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC) PROPULSION WIND TUNNEL FACILITY(PWT) AERODYNAMIC WIND TUNNEL (AWT)
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TEST PART WACH PA10-6 CONF TRANSITION
 2 28P 1.20 2.5 F11 FREE

POINT	ALPHA	CNF	CM	C _g	XCPF	YCPF
1	28.17	1.1567	0.0410	0.5602	0.0354	0.5007
2	29.25	1.1945	0.0381	0.5463	0.0319	0.4988
3	30.25	1.2197	0.0386	0.6102	0.0316	0.5003
4	31.27	1.2367	0.0331	0.6203	0.0268	0.5016
5	32.27	1.2671	0.0289	0.6316	0.0228	0.4984
6	33.29	1.2954	0.0275	0.6444	0.0212	0.4975
7	34.29	1.3221	0.0225	0.6533	0.0170	0.4966
8	36.31	1.3619	0.0206	0.6720	0.0153	0.4934
9	38.32	1.3935	0.0142	0.6868	0.0102	0.4914
10	40.32	1.4375	0.0021	0.7002	0.0015	0.4871
11	42.32	1.4859	-0.0019	0.7127	-0.0013	0.4882
12	44.33	1.4744	-0.0068	0.7246	-0.0046	0.4915
13	46.35	1.4857	-0.0165	0.7296	-0.0071	0.4913
14	44.35	1.5031	-0.0149	0.7361	-0.0099	0.4897
15	50.38	1.5053	-0.0172	0.7388	-0.0114	0.4898
16	52.37	1.5169	-0.0211	0.7442	-0.0139	0.4906
17	54.38	1.5184	-0.0249	0.7459	-0.0164	0.4913
18	56.40	1.5273	-0.0284	0.7516	-0.0189	0.4921
19	57.42	1.5305	-0.0318	0.7532	-0.0208	0.4920

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PMT)

AERODYNAMIC WIND TUNNEL (AT)

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MARTIN MISSILE TAIL EFFECTS DATA

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SPLITTER PLATE DATA

TEST PART NAME: CALD-5 CONE TRANSITION

2 289 1.20 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Cn	XCPF	YCPF
1	56.19	1.5294	-0.0320	0.7537	-0.0209	0.4927
2	59.77	1.5371	-0.0348	0.7574	-0.0227	0.4927
3	60.21	1.5415	-0.0333	0.7647	-0.0216	0.4961
4	61.27	1.5474	-0.0360	0.7686	-0.0233	0.4965
5	62.26	1.5553	-0.0395	0.7696	-0.0254	0.4948
6	63.26	1.5564	-0.0400	0.7727	-0.0257	0.4957
7	64.24	1.5644	-0.0407	0.7761	-0.0260	0.4972
8	64.29	1.5745	-0.0443	0.7833	-0.0281	0.4975
9	68.29	1.5764	-0.0464	0.7859	-0.0295	0.4979
10	70.30	1.5824	-0.0495	0.7923	-0.0312	0.5002
11	72.30	1.5812	-0.0525	0.7950	-0.0332	0.5028
12	74.31	1.5747	-0.0551	0.7966	-0.0349	0.5033
13	75.33	1.5833	-0.0597	0.7987	-0.0377	0.5045
14	74.33	1.5803	-0.0638	0.8002	-0.0404	0.5063
15	80.33	1.5767	-0.0674	0.8029	-0.0427	0.5092
16	82.34	1.5752	-0.0727	0.8039	-0.0461	0.5104
17	84.35	1.5524	-0.0736	0.7997	-0.0476	0.5153
18	86.38	1.5417	-0.0807	0.7991	-0.0523	0.5183
19	87.37	1.5317	-0.0820	0.7450	-0.0535	0.5190

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AT)

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MARTIN MISSILE TAIL EFFECTS DATA

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SPLITTER PLATE DATA

TEST PART NAME: RA1006 CONF. TRANSITION

2 290 1.20 2.5 F11 FREE

POINT	ALPHA	CNF	CM	CM	KCPF	YCPF
1	28.10	1.5300	-0.0526	0.7903	-0.0500	0.5109
2	29.10	1.5270	-0.0561	0.7920	-0.0563	0.5104
3	30.21	1.5245	-0.0590	0.7924	-0.0596	0.5197
4	31.22	1.5290	-0.0545	0.7917	-0.0518	0.5176
5	32.23	1.5305	-0.0582	0.7903	-0.0561	0.5162
6	33.23	1.5340	-0.1019	0.7924	-0.0662	0.5152
7	34.23	1.5345	-0.1045	0.7935	-0.0677	0.5138
8	36.25	1.5573	-0.1102	0.7900	-0.0708	0.5124
9	38.25	1.5566	-0.1137	0.7954	-0.0731	0.5112
10	100.25	1.5714	-0.1213	0.8005	-0.0771	0.5092
11	102.25	1.5676	-0.1236	0.7963	-0.0768	0.5079
12	104.20	1.5723	-0.1290	0.7939	-0.0820	0.5049
13	106.27	1.5804	-0.1320	0.8021	-0.0835	0.5074
14	108.29	1.5760	-0.1330	0.7960	-0.0806	0.5053
15	109.38	1.5770	-0.1355	0.7959	-0.0859	0.5047
16	112.29	1.5770	-0.1393	0.7929	-0.0883	0.5025
17	114.31	1.5800	-0.1430	0.7922	-0.0905	0.5012
18	116.32	1.5816	-0.1426	0.7836	-0.0913	0.5010
19	117.33	1.5811	-0.1450	0.7823	-0.0929	0.5011

TEST PART MACH RATIO-6 CONF TRANSITION

2 291 1.26 2.5 P11 FHEE

POINT	ALPHA	CNF	CM	CM	ACPF	YCPF
1	118.10	1.5526	-0.1452	0.7747	-0.0935	0.4989
2	119.17	1.5474	-0.1474	0.7689	-0.0955	0.4969
3	120.16	1.5423	-0.1481	0.7655	-0.0961	0.4963
4	121.16	1.5377	-0.1492	0.7600	-0.0973	0.4958
5	122.18	1.5324	-0.1503	0.7548	-0.0985	0.4938
6	123.18	1.5252	-0.1522	0.7536	-0.0998	0.4941
7	124.14	1.5183	-0.1520	0.7508	-0.1001	0.4942
8	124.19	1.5103	-0.1544	0.7464	-0.1023	0.4942
9	124.19	1.5102	-0.1593	0.7471	-0.1055	0.4947
10	130.19	1.5017	-0.1597	0.7422	-0.1064	0.4942
11	132.20	1.4951	-0.1632	0.7367	-0.1092	0.4941
12	134.21	1.4813	-0.1654	0.7318	-0.1116	0.4940
13	136.22	1.4744	-0.1674	0.7242	-0.1134	0.4940
14	138.22	1.4634	-0.1700	0.7153	-0.1169	0.4920
15	140.23	1.4508	-0.1713	0.7001	-0.1206	0.4929
16	142.23	1.3884	-0.1774	0.6462	-0.1281	0.4941
17	144.24	1.3266	-0.1826	0.6753	-0.1344	0.4977
18	146.26	1.3207	-0.1862	0.6610	-0.1410	0.5005
19	147.26	1.2724	-0.1830	0.6440	-0.1416	0.5020

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AWT)
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TEST PART MACH RK10-6 CONF. TRANSITION

2 292 1.20 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	C _m	XCPF	YCPF
1	148.66	1.2741	-0.1825	1.6366	-0.1432	0.4981
2	149.12	1.2743	-0.1804	0.6209	-0.1449	0.4989
3	150.11	1.2389	-0.1868	0.6202	-0.1508	0.5008
4	151.12	1.2143	-0.1847	0.6100	-0.1521	0.5023
5	152.12	1.1612	-0.1817	0.5720	-0.1538	0.5012
6	153.11	1.1434	-0.1746	0.5719	-0.1562	0.5002
7	154.12	1.1045	-0.1757	0.5528	-0.1591	0.5005
8	156.13	1.0239	-0.1700	0.5077	-0.1500	0.4959
9	158.13	0.9453	-0.1624	0.4671	-0.1718	0.4941
10	160.13	0.8593	-0.1571	0.4227	-0.1770	0.4919
11	162.13	0.7727	-0.1483	0.3745	-0.1922	0.4898
12	164.13	0.6865	-0.1305	0.3311	-0.1900	0.4823
13	166.13	0.5971	-0.1147	0.2820	-0.2004	0.4723
14	168.13	0.5032	-0.1049	0.2249	-0.2124	0.4569
15	170.14	0.4114	-0.0942	0.1823	-0.2292	0.4435
16	172.14	0.3131	-0.0786	0.1347	-0.2512	0.4302
17	174.17	0.2134	-0.0653	0.0914	-0.2799	0.3916
18	176.17	0.1525	-0.0462	0.0521	-0.3027	0.3415
19	177.17	0.1186	-0.0378	0.0345	-0.3206	0.2926

TEST PART MACH RX10-A CONF TRANSITION

2 293 1.20 2.5 F11 FREE

POINT	ALPHA	CNF	CM	Co	ACPF	YCPF
1	177.94	0.100F	-0.0334	0.0295	-0.3350	0.2932
2	179.05	0.0895	-0.0243	0.0104	-0.3505	0.1493
3	160.06	0.0373	-0.0120	-0.0622	-0.3224	-0.0589
4	141.06	0.0020	-0.0007	-0.0169	-0.3462	-0.2293
5	182.06	-0.0272	0.0167	-0.0271	-0.3181	0.9963
6	183.06	-0.0246	0.0174	-0.0449	-0.2989	0.7530
7	184.07	-0.0234	0.0208	-0.0407	-0.3071	0.6474
8	166.07	-0.1703	0.0061	-0.0479	-0.2709	0.5752

ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (AT)
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TEST EARLY MACH RATIO-5 CONF TRANSITION
 2 294 1.30 2.5 F11 FNEE

POINT	ALPHA	CMF	CM	CM	XCPF	YCPF
1	-2.04	-0.0030	-0.0179	-0.0332	0.0158	0.7725
2	-0.97	-0.0044	-0.0107	-0.0164	1.0961	1.7495
3	-0.01	0.0022	-0.0054	-0.0029	-0.2514	-0.1316
4	1.06	0.0366	0.0007	0.0102	0.0637	0.1805
5	2.07	0.0071	0.0061	0.0261	0.0595	0.2992
6	3.07	0.1211	0.0114	0.0408	0.0971	0.3366
7	4.04	0.1537	0.0181	0.0554	0.1175	0.3705
8	6.12	0.2264	0.0256	0.0458	0.1129	0.4231
9	8.13	0.3039	0.0298	0.1337	0.0982	0.4400
10	10.15	0.3900	0.0305	0.1758	0.0783	0.4508
11	12.16	0.4744	0.0315	0.2224	0.0557	0.4653
12	13.31	0.5304	0.0326	0.2664	0.0615	0.4681
13	16.23	0.6603	0.0344	0.3126	0.0521	0.4734
14	18.25	0.7485	0.0345	0.3572	0.0461	0.4773
15	20.28	0.8375	0.0350	0.4028	0.0417	0.4809
16	22.31	0.9164	0.0340	0.4419	0.0369	0.4809
17	24.33	0.9714	0.0362	0.4846	0.0365	0.4886
18	26.38	1.0062	0.0353	0.5228	0.0331	0.4904
19	27.38	1.0267	0.0365	0.5521	0.0333	0.4963

TEST PART NAME: RA10-6 CONF. TRANSITION

2 29° 1.30 2.5 F11 FREE

POINT	ALPHA	CNF	CM	Cm	XCPF	YCPF
1	29.17	1.1194	0.0413	0.5501	0.0260	0.4912
2	29.25	1.1546	0.0313	0.5642	0.0270	0.4922
3	29.20	1.1081	0.0409	0.5667	0.0260	0.4939
4	31.28	1.2193	0.0266	0.5995	0.0234	0.4917
5	32.24	1.2500	0.0279	0.6162	0.0223	0.4930
6	33.26	1.2774	0.0254	0.6322	0.0202	0.4949
7	34.24	1.3003	0.0224	0.6410	0.0176	0.4929
8	36.30	1.3551	0.0170	0.6545	0.0128	0.4902
9	38.32	1.3654	0.0141	0.6594	0.0103	0.4890
10	40.33	1.3955	0.0058	0.6511	0.0042	0.4881
11	42.34	1.4223	-0.0009	0.6374	-0.0006	0.4910
12	44.34	1.4500	-0.0069	0.7066	-0.0061	0.4887
13	46.37	1.4854	-0.0110	0.7177	-0.0075	0.4899
14	47.47	1.4800	-0.0136	0.7224	-0.0092	0.4884
15	50.30	1.5085	-0.0185	0.7361	-0.0124	0.4893
16	52.34	1.5124	-0.0217	0.7428	-0.0143	0.4910
17	54.40	1.5151	-0.0240	0.7491	-0.0158	0.4944
18	56.42	1.5239	-0.0281	0.7551	-0.0164	0.4955
19	57.43	1.5264	-0.0307	0.7580	-0.0201	0.4964

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AIRMAIL ENGINEERING DEVELOPMENT CENTER (AEOC) PROPELLSION WIND TUNNEL FACILITY (PWF) AERODYNAMIC WIND TUNNEL (AWT)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST POINT NAME: 29A 1.30 2.5 CONE TRANSITION
 2 F11 FREE

POINT	ALPHA	CNF	CM	C _D	XCPF	YCPF
1	58.20	1.5224	-0.0348	0.7588	-0.0228	0.4983
2	59.77	1.5296	-0.0351	0.7667	-0.0229	0.5001
3	60.24	1.5372	-0.0373	0.7679	-0.0246	0.4995
4	61.24	1.5444	-0.0395	0.7648	-0.0256	0.4983
5	62.30	1.5507	-0.0384	0.7730	-0.0247	0.4985
6	63.74	1.5604	-0.0409	0.7772	-0.0262	0.4974
7	64.24	1.5614	-0.0402	0.7741	-0.0257	0.4988
8	64.30	1.5641	-0.0430	0.7854	-0.0274	0.5008
9	68.31	1.5629	-0.0444	0.7862	-0.0287	0.5031
10	70.32	1.5662	-0.0443	0.7894	-0.0315	0.5042
11	71.42	1.5678	-0.0504	0.7947	-0.0322	0.5070
12	74.32	1.5692	-0.0544	0.7979	-0.0348	0.5085
13	76.33	1.5666	-0.0576	0.7970	-0.0368	0.5095
14	78.34	1.5602	-0.0617	0.7977	-0.0395	0.5113
15	80.35	1.5568	-0.0649	0.8016	-0.0417	0.5149
16	81.46	1.5597	-0.0671	0.8003	-0.0430	0.5160
17	84.38	1.5289	-0.0692	0.7924	-0.0453	0.5162
18	86.36	1.5326	-0.0743	0.7936	-0.0511	0.5170
19	87.36	1.5298	-0.0615	0.7934	-0.0535	0.5188

ARNOLD ENGINEERING DEVELOPMENT CENTER(AEDC)

PROPULSION WIND TUNNEL FACILITY(PWT)

AERODYNAMIC WIND TUNNEL(AT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART PALM BX10-6 CONE TRANSITION

2 297 1.30 2.5 F11 FREE

POINT	ALPHA	CNF	CM	CM	KCPF	VCPF
1	88.18	1.5295	-0.0860	0.7448	-0.0562	0.5196
2	89.17	1.5307	-0.0885	0.7431	-0.0578	0.5181
3	90.22	1.5344	-0.0897	0.7445	-0.0585	0.5178
4	91.23	1.5285	-0.0906	0.7434	-0.0592	0.5191
5	92.23	1.5251	-0.0940	0.7408	-0.0615	0.5185
6	93.23	1.5291	-0.0973	0.7408	-0.0636	0.5171
7	94.23	1.5312	-0.0995	0.7414	-0.0649	0.5169
8	96.24	1.5354	-0.1074	0.7401	-0.0701	0.5146
9	98.25	1.5505	-0.1119	0.7484	-0.0721	0.5153
10	100.25	1.5482	-0.1161	0.7461	-0.0750	0.5142
11	102.26	1.5551	-0.1225	0.7495	-0.0788	0.5141
12	104.26	1.5582	-0.1273	0.8005	-0.0817	0.5138
13	106.28	1.5621	-0.1294	0.8022	-0.0828	0.5135
14	108.29	1.5704	-0.1341	0.7997	-0.0854	0.5091
15	110.30	1.5755	-0.1356	0.8043	-0.0861	0.5105
16	112.30	1.5717	-0.1371	0.7978	-0.0873	0.5076
17	114.32	1.5580	-0.1370	0.7948	-0.0879	0.5076
18	116.33	1.5596	-0.1432	0.7867	-0.0918	0.5044
19	117.33	1.5549	-0.1445	0.7854	-0.0929	0.5054

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC)

PROPULSION WIND TUNNEL FACILITY (PWT)

AERODYNAMIC WIND TUNNEL (AWT)

PAGE 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

SPLITTER PLATE DATA

TEST PART NAME: PA10-A, CONE TRANSITION

2 29R 1.30 2.5 F11 FREE

POINT	ALPHA	CNP	CM	C-	ACPF	YCPF
3	122.12	1.5231	-0.1479	0.7718	-0.0956	0.4902
4	121.14	1.5353	-0.1465	0.7669	-0.0967	0.4982
5	122.16	1.5231	-0.1515	0.7601	-0.0988	0.4958
6	123.14	1.5279	-0.1511	0.7593	-0.0989	0.4970
7	124.14	1.5281	-0.1521	0.7580	-0.0998	0.4973
8	126.14	1.5070	-0.1527	0.7516	-0.1013	0.4987
9	124.20	1.4954	-0.1572	0.7632	-0.1049	0.4958
10	130.20	1.4854	-0.1544	0.7358	-0.1077	0.4954
11	132.21	1.4765	-0.1614	0.7318	-0.1095	0.4963
12	134.21	1.4635	-0.1633	0.7265	-0.1116	0.4950
13	136.23	1.4591	-0.1674	0.7182	-0.1150	0.4922
14	138.22	1.4336	-0.1648	0.7065	-0.1177	0.4927
15	140.24	1.4019	-0.1714	0.6927	-0.1224	0.4941
16	142.25	1.3644	-0.1775	0.6763	-0.1296	0.4937
17	144.26	1.3304	-0.1794	0.6669	-0.1346	0.4968
18	146.26	1.2884	-0.1743	0.6411	-0.1392	0.4976
19	147.26	1.2681	-0.1794	0.6314	-0.1418	0.4979

TEST PART WALK PA10-6 CONE TRANSITION

2 299 1.30 2.5 F11 FREE

POINT	ALPHA	CNF	Cm	Cc	XCPF	YCPF
1	148.07	1.2527	-0.1744	0.6232	-0.1436	0.4975
2	149.12	1.2165	-0.1763	0.6056	-0.1447	0.4970
3	150.11	1.1992	-0.1761	0.5918	-0.1472	0.4947
4	151.12	1.1651	-0.1734	0.5743	-0.1488	0.4929
5	152.13	1.1254	-0.1688	0.5588	-0.1499	0.4952
6	153.12	1.0924	-0.1642	0.5387	-0.1521	0.4931
7	154.13	1.0574	-0.1636	0.5199	-0.1547	0.4915
8	156.13	0.9773	-0.1552	0.4917	-0.1588	0.4928
9	158.13	0.9044	-0.1467	0.4416	-0.1621	0.4881
10	160.14	0.8254	-0.1382	0.3955	-0.1674	0.4789
11	162.13	0.7409	-0.1287	0.3498	-0.1738	0.4721
12	164.14	0.6600	-0.1191	0.3060	-0.1804	0.4636
13	166.14	0.5851	-0.1063	0.2614	-0.1877	0.4517
14	168.14	0.4744	-0.0943	0.2165	-0.1986	0.4559
15	170.15	0.3901	-0.0853	0.1702	-0.2187	0.4362
16	172.15	0.3055	-0.0734	0.1274	-0.2410	0.4171
17	174.16	0.2302	-0.0594	0.0840	-0.2600	0.3988
18	176.17	0.1514	-0.0425	0.0532	-0.2804	0.3512
19	177.17	0.1167	-0.0332	0.0346	-0.2949	0.2967

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ARNOLD ENGINEERING DEVELOPMENT CENTER (AEDC) PROPULSION WIND TUNNEL FACILITY (PWT) AERODYNAMIC WIND TUNNEL (4T)
 PAGE 1 OF 1 MARTIN MISSILE TAIL EFFECTS DATA
 SHEET 1 OF 1 SPLITTER PLATE DATA

TEST PART MACH. RX10-6 CONF. TRANSITION
 2 300 1.30 2.5 F11 FREE

POINT	ALPHA	CNF	C _N	C _M	KCPF	YCPF
1	177.95	0.0491	-0.0275	0.0294	-0.2776	0.2503
2	179.04	0.0644	-0.0151	0.0585	-0.2797	0.1316
3	180.05	0.0314	-0.0448	-0.0072	-0.2755	-0.2248
4	181.06	-0.0010	-0.0001	-0.0169	0.0606	19.0808
5	182.06	-0.0332	0.0093	-0.0350	-0.2795	1.0538
6	183.06	-0.0616	0.0157	-0.0497	-0.2546	0.8965
7	184.07	-0.0524	0.0224	-0.0636	-0.2535	0.6566
8	186.06	-0.1717	0.0421	-0.1001	-0.2451	0.5830

APPENDIX C
TEST 3

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	WIND VEL	WIND DIR	PHI	CORP	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
3	14	2.30	3.0	0.0	0.1406735	0.0	0	0	0	FIXED	
POINT	ALPHA	MFA	CX	CLX	CY	CLY	CLL	CA	CA*	CAF	KCP
1	-3.58	0.01	-0.0033	1.7441	-0.0274	0.0170	-0.0603	0.3494	0.1234	0.2660	-2.4292
2	-2.02	0.01	-0.0035	1.1700	-0.0247	0.0145	-0.0652	0.3455	0.1207	0.2651	-2.5272
3	-0.99	0.01	-0.0035	0.6943	-0.0270	0.0273	-0.0634	0.3447	0.1143	0.2649	-2.6831
4	0.10	0.01	-0.0037	0.1264	-0.0015	-0.0136	-0.0626	0.3477	0.1205	0.2672	-0.0033
5	1.12	0.01	0.0135	-0.3421	-0.0140	0.0176	-0.0656	0.3456	0.1192	0.2664	-1.9079
6	2.15	0.01	0.7454	-0.7504	-0.0070	0.0040	-0.0614	0.3449	0.1193	0.2656	-2.1497
7	4.25	0.01	0.7347	-1.7792	-0.0123	0.0114	-0.0611	0.3430	0.1276	0.2654	-2.2527
8	4.35	0.01	1.2725	-2.7777	-0.0272	0.0355	-0.0637	0.3412	0.1432	0.2640	-2.1895
9	4.51	0.01	1.7710	-3.7645	-0.0250	0.0456	-0.0640	0.3435	0.1532	0.2703	-2.0822
10	10.01	0.01	2.3971	-4.4111	-0.0227	0.0145	-0.0577	0.3450	0.1602	0.2748	-1.9553
11	12.77	0.01	2.4554	-5.0750	-0.0245	-0.0167	-0.0545	0.3468	0.1517	0.2771	-1.8122
12	14.45	0.01	3.5050	-4.4375	-0.0226	-0.0229	-0.0542	0.3455	0.1490	0.2745	-1.7030
13	17.14	0.01	4.2131	-5.4031	-0.0137	-0.0223	-0.0523	0.3415	0.1440	0.2875	-1.6385
14	14.05	0.01	4.4470	-7.1424	-0.0151	-0.0214	-0.0471	0.3445	0.1461	0.2904	-1.5944
15	21.55	0.01	4.5570	-4.7077	-0.0217	-0.0337	-0.0520	0.3417	0.1420	0.2997	-1.5579
16	23.65	0.01	4.7057	-9.4474	-0.0444	-0.0124	-0.0607	0.34504	0.1361	0.3143	-1.5518
17	0.09	0.01	-0.0135	0.1235	-0.0151	0.0037	-0.0659	0.3467	0.1209	0.2658	-0.1032

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SHEET 1 OF 1

LANGLEY RESEARCH CENTER (LARC) UNITARY PLAN WIND TUNNEL (UPWT)
MANTIN MISSILE TAIL EFFECTS DATA

TEST	CONF	SCALE	RAJ	UM	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	20	2.30	3.00	45.0	-1.00	35	0.0	0	0	0	FIREO
POINT	ALPHA	DELTA	CX	CLX	CY	CLY	CLL	CA	CAM	CAF	KCP
1	-3.50	0.00	-0.7421	1.7250	-0.0043	0.0514	-0.0049	0.3805	0.1222	0.2643	-2.4300
2	-2.71	0.01	-0.4577	1.1401	-0.0025	0.0574	-0.0044	0.3731	0.1166	0.2665	-2.5263
3	-1.97	0.01	-0.2710	0.0037	-0.0021	0.0620	-0.0040	0.3654	0.1150	0.2674	-2.6407
4	-1.00	0.01	-0.1227	0.1337	-0.0044	0.0629	-0.0033	0.3601	0.1195	0.2666	-6.4580
5	1.10	0.01	0.1175	-1.3851	-0.0034	0.0623	-0.0061	0.3632	0.1181	0.2651	-1.9624
6	2.14	0.01	0.3076	-1.0470	-0.0020	0.0734	-0.0724	0.3412	0.1130	0.2632	-2.1671
7	4.27	0.0	0.4225	-1.0672	-0.0035	0.0840	-0.0603	0.3486	0.1279	0.2609	-2.2633
8	6.30	0.01	1.3070	-2.0043	-0.0037	0.0931	-0.0647	0.3463	0.1377	0.2546	-2.2125
9	7.47	0.01	1.7007	-3.0751	-0.0031	0.0710	-0.0599	0.4000	0.1419	0.2557	-2.1304
10	17.54	0.01	2.0244	-4.0010	-0.0057	0.1750	-0.0527	0.3998	0.1418	0.2540	-1.9629
11	17.75	0.01	2.4342	-4.1952	-0.0011	0.1327	-0.0570	0.3469	0.1419	0.2580	-1.7953
12	14.94	0.01	3.4141	-5.4524	-0.0011	0.1374	-0.0590	0.4044	0.1504	0.2590	-1.6930
13	17.13	0.02	4.1025	-6.7293	-0.0707	0.1127	-0.0600	0.4047	0.1490	0.2567	-1.6166
14	19.40	0.00	4.8444	-7.7797	-0.0900	0.1415	-0.0597	0.4075	0.1461	0.2614	-1.5770
15	21.74	0.00	5.0770	-8.0000	-0.1071	0.1443	-0.0611	0.4117	0.1447	0.2670	-1.5703
16	23.74	0.00	4.0710	-10.2794	-0.1174	0.1707	-0.0595	0.4194	0.1400	0.2734	-1.5086
17	0.00	0.01	-0.0240	0.1521	-0.0037	0.0436	-0.0040	0.3478	0.1207	0.2671	-5.1047

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MA-TI+ MISSILE TAIL EFFECTS DATA

POINT	TEST PART			MFL	CONF	L	JEL1	JEL2	JEL3	JEL4	TRANSITION	
	ALPHA	META	CN									
	3	21	2000	3.0	45.0	M1.0F35	0.0	0	0	0	0	FIXED
POINT	ALPHA	META	CN	CLP	CV	CLN	CLL	CA	CAH	CAF	ACP	
1	-3.57	0.01	-0.7001	1.5304	-0.0045	0.0013	-0.0523	0.3551	0.1023	0.2520	-2.1600	
2	-2.00	0.0	-1.0014	1.5544	-0.0064	-0.0034	-0.0547	0.3515	0.0975	0.2540	-2.2559	
3	-0.34	0.01	-0.2033	1.5014	-0.0140	0.0222	-0.0554	0.3541	0.0976	0.2545	-2.4559	
4	0.7	0.0	-0.0417	1.1597	-0.0170	0.0218	-0.0541	0.3501	0.1000	0.2553	-4.2223	
5	1.13	0.0	0.1440	-1.0237	-0.0165	0.0145	-0.0548	0.3533	0.0992	0.2541	-1.5340	
6	2.12	0.0	0.3001	-1.0540	-0.0114	0.0113	-0.0545	0.3520	0.0976	0.2550	-1.0241	
7	4.24	0.0	0.7000	-1.0347	-0.0147	0.0241	-0.0539	0.3544	0.1034	0.2545	-1.9336	
8	6.36	0.0	1.1000	-2.0171	-0.0047	0.0407	-0.0492	0.3444	0.1103	0.2551	-1.9040	
9	8.48	0.0	1.5071	-2.0034	-0.0071	0.0417	-0.0402	0.3572	0.1136	0.2536	-1.8103	
10	10.62	0.0	2.0044	-3.0307	-0.0025	0.0310	-0.0470	0.3505	0.1135	0.2550	-1.6901	
11	12.76	0.0	2.5000	-4.0173	-0.0044	0.0224	-0.0446	0.3739	0.1136	0.2603	-1.5085	
12	14.91	0.0	3.0000	-4.0247	-0.0050	0.0246	-0.0422	0.3754	0.1152	0.2647	-1.5185	
13	16.06	0.0	3.7791	-5.0264	-0.0040	0.0257	-0.0508	0.3651	0.1160	0.2643	-1.4890	
14	18.16	0.0	4.0000	-6.0151	-0.0022	0.0475	-0.0532	0.3440	0.1135	0.2605	-1.4970	
15	21.23	0.0	5.0000	-7.0034	-0.0060	0.0441	-0.0554	0.4030	0.1136	0.2902	-1.5312	
16	23.30	0.0	5.0000	-8.0000	-0.0055	0.0444	-0.0542	0.4154	0.1104	0.3055	-1.5295	
17	0.00	0.01	-0.00303	0.1713	-0.0172	0.0206	-0.0551	0.3571	0.1020	0.2547	-4.7196	

LANGLEY RESEARCH CENTER (ASA)

UNITARY PLAN #140 TUNNEL (UPWT)

PAGE 1 OF 1
SHEET 1 OF 1

MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST FACT			MFL	LIFT	L	JEL1	JEL2	JEL3	DEL	TRANSITION	CAF	ICP
	22	2.00	3.00										
1	-3.73	0.01	-0.7204	1.5694	-0.0000	-0.0012	-0.0566	0.3567	0.1040	0.2567	-2.1440		
2	-2.17	0.00	-0.6320	0.4431	-0.0011	-0.0445	-0.0542	0.3555	0.1008	0.2547	-2.2724		
3	-1.15	0.00	-0.5200	0.2500	0.0007	-0.0470	-0.0527	0.3504	0.0992	0.2573	-2.4343		
4	-0.07	0.00	-0.4021	0.1000	-0.0120	-0.0455	-0.0552	0.3500	0.1007	0.2561	-4.2860		
5	0.96	0.01	0.1452	-0.2022	-0.0110	-0.0248	-0.0547	0.3561	0.1006	0.2553	-1.4200		
6	1.98	0.00	0.3330	-0.4030	-0.0034	-0.0301	-0.0544	0.3504	0.0992	0.2572	-1.8085		
7	4.10	0.00	0.7213	-1.3093	-0.0005	-0.0246	-0.0536	0.3601	0.1055	0.2566	-1.8932		
8	6.14	0.00	1.1250	-2.1000	0.0012	-0.0374	-0.0528	0.3745	0.1119	0.2626	-1.8565		
9	8.30	0.01	1.5700	-2.7000	-0.0004	-0.0353	-0.0516	0.3874	0.1183	0.2601	-1.7706		
10	10.34	0.01	2.0000	-3.5000	-0.0020	-0.0300	-0.0503	0.3974	0.1199	0.2675	-1.6836		
11	12.54	0.01	2.4400	-4.2000	-0.0114	-0.0222	-0.0527	0.3864	0.1167	0.2682	-1.6003		
12	14.60	0.01	2.8770	-4.9000	-0.0205	-0.0201	-0.0513	0.3902	0.1151	0.2751	-1.5381		
13	16.47	0.02	3.2700	-5.5000	-0.0251	-0.0170	-0.0496	0.3944	0.1119	0.2825	-1.4970		
14	18.00	0.02	3.6300	-6.0000	-0.0333	-0.0147	-0.0481	0.4026	0.1171	0.2855	-1.4792		
15	21.11	0.02	4.4700	-7.3000	-0.0300	-0.0115	-0.0465	0.4138	0.1035	0.3049	-1.4726		
16	23.30	0.02	5.2000	-8.5000	-0.0300	-0.0143	-0.0446	0.4265	0.0959	0.3306	-1.4855		
17	-0.00	0.01	-0.0500	0.1000	-0.0100	-0.0200	-0.0512	0.3500	0.1073	0.2553	-3.5049		

POINT	ALPHA	MFTa	CA	CLa	CY	CLM	CLL	Ca	CB	CAF	KCP
1	-3.01	0.01	-0.4353	0.9307	-0.0150	0.0124	-0.0325	0.2202	0.0676	0.2176	-1.7491
2	-1.54	0.0	-0.3137	0.6863	0.0025	-0.0117	-0.0321	0.2769	0.0676	0.2043	-1.8163
3	-0.46	0.01	-0.1517	0.8483	-0.0117	0.0115	-0.0311	0.2763	0.0676	0.2047	-1.9304
4	0.14	0.0	-0.0675	0.9325	-0.0120	0.0117	-0.0367	0.2750	0.0676	0.2074	-7.5333
5	1.24	0.0	0.1613	-0.8222	-0.0200	0.0115	-0.0364	0.2758	0.0676	0.2042	-1.3869
6	2.22	0.0	0.3135	-0.6734	-0.0115	0.0130	-0.0304	0.2779	0.0676	0.2103	-1.5116
7	4.32	0.0	0.6447	-1.3515	-0.0295	0.0170	-0.0354	0.2442	0.0676	0.2166	-1.5634
8	6.30	0.0	0.8443	-1.1515	-0.0170	0.0217	-0.0345	0.2496	0.0677	0.2219	-1.5235
9	7.43	0.0	1.0511	-1.0551	-0.0150	0.0300	-0.0337	0.2565	0.0640	0.2267	-1.4542
10	10.50	0.0	1.1773	-2.4816	-0.0275	0.0173	-0.0379	0.3044	0.0690	0.2351	-1.4002
11	12.57	-0.01	2.2257	-3.0144	-0.0214	0.0374	-0.0420	0.3163	0.0694	0.2445	-1.3544
12	14.67	0.0	2.7110	-3.4743	-0.0440	0.0320	-0.0441	0.3316	0.0676	0.2440	-1.3553
13	15.77	-0.01	3.2751	-4.5005	-0.0437	0.0145	-0.0501	0.3504	0.0676	0.2528	-1.3730
14	14.90	-0.01	3.0433	-5.0730	-0.0547	0.0244	-0.0501	0.3702	0.0634	0.3048	-1.4035
15	20.40	-0.01	4.0433	-6.3471	-0.0433	-0.0110	-0.0520	0.3075	0.0612	0.3264	-1.4276
16	23.17	-0.01	5.2140	-7.5744	-0.0547	0.0056	-0.0550	0.4100	0.0591	0.3509	-1.4537
17	0.18	0.0	-0.0670	0.9307	-0.0110	0.0074	-0.0367	0.2735	0.0655	0.2000	-6.2077

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LANGLEY RESEARCH CENTER (ASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

TEST	WGT	WALL	WALL-H	MPI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	24	3.95	3.0	0.0	91.0F35	0.0	0	0	0	0	FIXED
POINT	ALPHA	META	CM	CLM	CV	CLN	CLL	CA	CAR	CAF	KCP
1	-3.61	0.0	-0.5537	0.9660	0.0113	-0.0500	-0.0376	0.2772	0.0676	0.2096	-1.7446
2	-2.10	0.0	-0.3202	0.5950	0.0135	-0.0443	-0.0351	0.2737	0.0677	0.2060	-1.4371
3	-1.07	0.0	-0.1715	0.3375	0.0150	-0.0400	-0.0333	0.2724	0.0677	0.2051	-1.0679
4	-0.02	0.0	-0.0140	0.0003	-0.0030	-0.0224	-0.0316	0.2732	0.0677	0.2055	-4.0990
5	1.03	0.0	0.1520	-0.2023	-0.0009	-0.0250	-0.0311	0.2741	0.0677	0.2064	-1.3309
6	2.01	0.01	0.2947	-0.4372	-0.0147	-0.0064	-0.0308	0.2763	0.0676	0.2047	-1.5249
7	4.11	0.0	0.6244	-0.7660	-0.0150	-0.0037	-0.0352	0.2840	0.0676	0.2164	-1.5354
8	6.15	0.0	0.9443	-1.0420	0.0003	-0.0243	-0.0346	0.2903	0.0677	0.2226	-1.4890
9	8.20	0.0	1.2610	-1.3545	0.0012	-0.0200	-0.0346	0.2944	0.0678	0.2297	-1.4352
10	10.30	0.0	1.5720	-1.6627	-0.0009	-0.0145	-0.0347	0.3075	0.0698	0.2377	-1.3712
11	12.34	0.01	1.8744	-1.9721	-0.0117	-0.0093	-0.0415	0.3167	0.0698	0.2469	-1.3293
12	14.44	0.01	2.1765	-2.2800	-0.0171	-0.0246	-0.0455	0.3310	0.0676	0.2634	-1.3092
13	16.50	0.01	2.4780	-2.5844	-0.0149	-0.0159	-0.0547	0.3470	0.0655	0.2815	-1.3141
14	18.71	0.01	2.7720	-2.8830	-0.0011	-0.0240	-0.0479	0.3641	0.0634	0.3007	-1.3236
15	20.74	0.01	3.0645	-3.1865	-0.0014	-0.0144	-0.0465	0.3814	0.0541	0.3224	-1.3412
16	22.49	0.01	3.3500	-3.4860	-0.0154	-0.0202	-0.0407	0.4009	0.0544	0.3461	-1.3655
17	-0.01	0.0	0.0005	0.0003	-0.0031	-0.0304	-0.0367	0.2736	0.0634	0.2107	109.6000
18	-0.01	0.0	0.0005	0.0003	-0.0031	-0.0304	-0.0367	0.2736	0.0655	0.2081	108.6000

TEST	PART	WAL	SCALE	WMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	25	4.03	3.0	0.0	1100F35	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-3.24	0.0	-0.4575	0.6599	0.0042	-0.0222	-0.0345	0.2522	0.0448	0.2024	-1.4424
2	-1.75	0.0	-0.2467	0.3701	0.0074	-0.0147	-0.0312	0.2467	0.0448	0.1964	-1.5703
3	-0.73	0.0	-0.0977	0.1764	0.0023	-0.0146	-0.0290	0.2442	0.0448	0.1944	-1.6207
4	0.34	0.0	0.0444	-0.0240	0.0023	-0.0144	-0.0333	0.2444	0.0448	0.1990	-0.5922
5	1.35	0.0	0.1442	-0.2140	-0.0257	0.0148	-0.0330	0.2505	0.0425	0.1960	-1.1224
6	2.35	0.0	0.3343	-0.4053	0.0003	-0.0159	-0.0326	0.2501	0.0425	0.1974	-1.1901
7	4.44	0.0	0.7521	-0.8243	-0.0011	-0.0137	-0.0318	0.2553	0.0425	0.2028	-1.2706
8	6.44	0.0	0.6644	-1.2143	-0.0022	-0.0115	-0.0376	0.2639	0.0525	0.2114	-1.2645
9	8.53	0.0	1.2141	-1.7331	-0.0040	-0.0203	-0.0366	0.2737	0.0525	0.2212	-1.2345
10	10.56	0.0	1.6455	-2.0634	-0.0150	-0.0248	-0.0423	0.2843	0.0525	0.2318	-1.2173
11	12.61	0.0	2.0487	-2.5888	0.0042	-0.0273	-0.0479	0.2964	0.0525	0.2443	-1.2328
12	14.70	0.0	2.5147	-3.1714	0.0047	-0.0434	-0.0535	0.3096	0.0525	0.2571	-1.2601
13	16.78	0.0	2.9233	-3.8447	0.0113	-0.1133	-0.0523	0.3244	0.0496	0.2746	-1.3054
14	18.86	0.01	3.5070	-4.7543	-0.0107	-0.1024	-0.0444	0.3424	0.0470	0.2954	-1.3550
15	20.90	0.01	4.1124	-5.7323	-0.0016	-0.0440	-0.0565	0.3634	0.0443	0.3191	-1.3971
16	23.07	0.01	4.7471	-6.7843	-0.0202	-0.0664	-0.0616	0.3853	0.0399	0.3444	-1.4303
17	0.34	0.0	0.0444	-0.0133	0.0015	-0.0179	-0.0334	0.2510	0.0470	0.2040	-0.2745

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LANGLEY RESEARCH CENTER (ASA)

UNITARY PLAN #140 TUNNEL (UP#1)

MANTIA MISSILE TAIL EFFECTS DATA

TEST	PART	WACH	RAIU-6	MPI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	2A	0.63	3.0	45.0	0140P35	0.0	0	0	0	0	FIRED
POINT	ALPHA	HFTA	CN	CLM	CV	CLN	CLL	CA	CA9	CAF	ACP
1	-2.97	0.0	-0.4539	0.4577	0.0055	-0.0040	-0.0345	0.2559	0.0498	0.2061	-1.4489
2	-1.47	0.0	-0.2347	0.3750	-0.0050	0.0057	-0.0340	0.2516	0.0498	0.2018	-1.6037
3	-0.46	0.0	-0.0645	0.1000	-0.0119	0.0140	-0.0337	0.2507	0.0498	0.2009	-1.8542
4	0.54	0.0	0.0644	-0.0210	-0.0190	0.0205	-0.0333	0.2509	0.0525	0.1984	-0.3789
5	1.61	0.0	0.2914	-0.2203	-0.0266	0.0007	-0.0330	0.2521	0.0525	0.1996	-1.0909
6	2.60	0.0	0.3244	-0.3037	-0.0152	0.0217	-0.0327	0.2527	0.0525	0.1997	-1.1665
7	4.46	0.0	0.6346	-0.5020	-0.0114	0.0144	-0.0366	0.2540	0.0525	0.2055	-1.2608
8	6.72	0.0	0.8807	-1.2670	-0.0106	0.0164	-0.0376	0.2667	0.0525	0.2122	-1.2925
9	8.78	0.0	1.3147	-1.8502	-0.0070	-0.0071	-0.0437	0.2710	0.0525	0.2185	-1.2669
10	10.43	0.0	1.7075	-2.1413	-0.0274	0.0149	-0.0427	0.2840	0.0525	0.2315	-1.2526
11	12.47	-0.01	2.1145	-2.6544	0.0074	-0.0040	-0.0484	0.2952	0.0525	0.2427	-1.2721
12	14.95	0.0	2.5447	-3.4513	-0.0330	0.0049	-0.0474	0.3112	0.0525	0.2587	-1.3281
13	17.01	-0.01	3.1779	-4.3523	-0.0220	-0.0004	-0.0530	0.3320	0.0498	0.2922	-1.3914
14	19.11	-0.01	3.7448	-5.335	-0.0249	-0.0005	-0.0545	0.3504	0.0470	0.3034	-1.4403
15	21.13	-0.01	4.2450	-6.3773	-0.0244	-0.0004	-0.0574	0.3744	0.0443	0.3301	-1.4796
16	23.24	-0.01	4.4237	-7.4231	-0.0312	-0.0049	-0.0562	0.3973	0.0416	0.3557	-1.5078
17	0.54	0.0	0.0447	-0.0144	0.0166	-0.0250	-0.0333	0.250A	0.0470	0.2038	-0.3543

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST FACT VALUE			MHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
	3	27	2.30 3.0								
	ALPHA	BETA	CA	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP
1	-1.68	0.02	-2.0022	4.4061	-0.0365	-0.0210	-0.0306	1.1550	0.1481	1.0069	-3.6149
2	-2.13	0.01	-2.1141	4.4320	-0.0263	-0.0321	-0.0443	1.0943	0.1496	0.9447	-3.8166
3	-1.11	0.02	-2.1152	4.4461	-0.0321	-0.0330	-0.0474	1.0540	0.1525	0.9015	-3.9694
4	-0.01	0.02	-1.4470	7.4274	-0.0303	0.0010	-0.0438	1.0106	0.1553	0.8553	-4.1557
5	-0.83	0.02	-1.4470	7.4350	-0.0344	-0.0171	-0.0434	1.0117	0.1553	0.8564	-4.1598
6	1.04	0.01	-1.7044	7.4424	-0.0272	-0.0243	-0.0436	0.9701	0.1580	0.8121	-4.3849
7	2.03	0.01	-1.5159	7.4575	-0.0314	-0.0119	-0.0503	0.9379	0.1623	0.7766	-4.6558
8	4.15	0.02	-1.1047	6.1412	-0.0409	0.0166	-0.0446	0.4517	0.1680	0.6637	-5.5341
9	5.75	0.01	-0.8684	5.7030	-0.0371	0.0174	-0.0561	0.7649	0.1694	0.5995	-7.8036
10	8.37	0.02	-0.1735	4.2564	-0.0375	-0.0155	-0.0580	0.6851	0.1693	0.5158	-20.5326
11	10.49	0.02	0.4025	3.2767	-0.0564	0.0354	-0.0577	0.4057	0.1652	0.4405	8.1409
12	12.66	0.02	1.1075	2.1482	-0.0466	-0.0644	-0.0597	0.5303	0.1708	0.3595	1.9391
13	14.44	0.02	1.4114	1.0667	-0.0334	-0.0816	-0.0581	0.4542	0.1709	0.2833	0.5889
14	17.04	0.03	2.4473	0.1544	-0.0344	-0.1443	-0.0462	0.3446	0.1708	0.2278	0.0617
15	19.35	0.03	3.1245	-0.5477	-0.0375	-0.1316	-0.0411	0.3528	0.1666	0.1862	-0.1750
16	21.44	0.03	3.7171	-1.1150	-0.0267	-0.1570	-0.0465	0.3156	0.1610	0.1546	-0.3801
17	23.72	0.03	4.4676	-1.8874	-0.0364	-0.1501	-0.0448	0.2867	0.1636	0.1224	-0.6282
18	-0.03	0.01	-1.9054	7.4203	-0.0086	-0.0710	-0.0472	1.0100	0.1554	0.8546	-4.1567

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MANTIN MISSILE TAIL EFFECTS DATA

POINT	TEST POINT DATA											
	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAH	CAF	KCP	
1	-3.74	0.01	-2.3010	6.3681	-0.0100	-0.0275	-0.0434	1.0300	0.1103	0.9161	-3.5030	
2	-2.20	0.01	-2.0300	7.5667	-0.0032	-0.0453	-0.0430	0.9761	0.1143	0.8638	-3.7146	
3	-1.73	0.01	-1.8242	7.1610	-0.0131	-0.0720	-0.0427	0.9300	0.1159	0.8225	-3.9150	
4	-0.16	0.01	-1.6371	6.7680	-0.0232	-0.0503	-0.0463	0.8970	0.1175	0.7804	-4.1000	
5	0.88	0.01	-1.4501	6.3410	-0.0160	-0.0466	-0.0460	0.8570	0.1176	0.7400	-4.4077	
6	1.91	0.01	-1.2659	6.0130	-0.0077	-0.0422	-0.0458	0.8212	0.1191	0.7021	-4.7586	
7	4.00	0.01	-0.9845	5.7070	-0.0200	-0.0331	-0.0530	0.7407	0.1239	0.6208	-6.0102	
8	6.09	0.01	-0.4374	6.3535	-0.0290	-0.0299	-0.0562	0.6696	0.1280	0.5408	-9.9441	
9	7.21	0.01	0.0000	3.4600	-0.0330	-0.0235	-0.0553	0.5900	0.1304	0.4605	74.6689	
10	10.32	0.01	0.6155	2.4922	-0.0235	-0.0409	-0.0581	0.5190	0.1288	0.3906	4.0491	
11	12.05	0.01	1.1900	1.9200	-0.0217	-0.0477	-0.0529	0.4605	0.1280	0.3317	1.3543	
12	14.51	0.02	1.7200	1.0491	-0.0321	-0.0607	-0.0476	0.4302	0.1287	0.3015	0.6068	
13	16.75	0.02	2.2001	0.5583	-0.0310	-0.0909	-0.0500	0.4060	0.1287	0.2781	0.2470	
14	18.99	0.02	2.6030	0.0500	-0.0240	-0.1107	-0.0486	0.3816	0.1240	0.2576	0.0161	
15	21.03	0.02	3.0107	-0.0310	-0.0323	-0.1515	-0.0512	0.3617	0.1223	0.2394	-0.1301	
16	23.26	0.02	3.4107	-1.1157	-0.0214	-0.1906	-0.0536	0.3409	0.1224	0.2185	-0.2846	
17	-0.16	0.01	-1.6374	6.7922	-0.0697	-0.0798	-0.0463	0.8994	0.1175	0.7819	-4.1481	

LANGLEY RESEARCH CENTER (VASA) UNITARY PLAN WIND TUNNEL (UPWT)
MANTLE MISSILE TAIL EFFECTS DATA

TEST PART WACH HX10-6 PFI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 29 3.45 3.0 0.0 H1=0F35 0.0 0 -20 0 -20 FIXED

POINT	ALPHA	MFTA	CN	CLM	CV	CLM	CLL	CA	CAB	CAF	ACP
1	-3.56	0.0	-1.837E	5.2795	0.0061	-0.0407	-0.0319	0.8240	0.0567	0.7573	-3.6169
2	-2.13	0.0	-1.57E0	5.0103	0.0113	-0.0544	-0.0316	0.7750	0.0667	0.7043	-3.6809
3	-1.11	0.0	-1.4010	5.0755	0.0163	-0.1014	-0.0363	0.7396	0.0667	0.6729	-3.9086
4	-0.66	0.0	-1.2240	5.1372	0.0216	-0.1021	-0.0361	0.7049	0.0686	0.6361	-4.1943
5	0.97	0.0	-1.0357	4.7446	0.0063	-0.0741	-0.0358	0.6694	0.0686	0.6006	-4.5452
6	1.96	0.0	-0.8443	4.0510	0.0117	-0.0803	-0.0354	0.6347	0.0688	0.5659	-5.0334
7	4.06	0.0	-0.5071	3.7108	0.0028	-0.0669	-0.0400	0.5603	0.0710	0.4893	-7.3178
8	6.12	0.01	-0.0914	2.4213	-0.0077	-0.0527	-0.0392	0.4913	0.0710	0.4203	-31.7876
9	5.18	0.0	0.3003	2.3303	-0.0045	-0.0558	-0.0323	0.4467	0.0731	0.3756	7.6733
10	10.25	0.0	0.4449	1.4108	0.0075	-0.0448	-0.0373	0.4282	0.0731	0.3551	2.7741
11	12.33	0.01	1.0500	1.6690	-0.0092	-0.0416	-0.0361	0.4181	0.0731	0.3450	1.5026
12	14.41	0.01	1.4370	1.4480	-0.0062	-0.1043	-0.0401	0.4169	0.0731	0.3430	1.0076
13	16.50	0.01	1.4346	1.2287	-0.0064	-0.1256	-0.0441	0.4162	0.0731	0.3431	0.6683
14	18.66	0.01	2.2810	0.9471	-0.0035	-0.1551	-0.0479	0.4181	0.0709	0.3472	0.4151
15	20.71	0.01	2.7601	0.6371	0.0104	-0.2250	-0.0414	0.4200	0.0688	0.3512	0.2325
16	22.84	0.01	3.2597	0.2402	-0.0141	-0.1207	-0.0556	0.4173	0.0667	0.3506	0.0737
17	-0.06	0.0	-1.2220	5.1285	0.0207	-0.1213	-0.0360	0.7021	0.0668	0.6333	-4.1941

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

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TEST CASE NAME: XRTG-A PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 30 4.00 3.0 0.0 01-0F35 0.0 0 -20 0 -20 FIXED

POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAH	CAF	XCP
1	-3.27	0.0	-1.0242	5.5279	0.0110	-0.0744	-0.0276	0.7465	0.0485	0.6980	-3.3038
2	-1.75	0.0	-1.1704	5.7477	-0.0118	-0.0450	-0.0264	0.4979	0.0485	0.6494	-3.7073
3	-0.74	0.0	-1.2234	4.7171	0.0207	-0.0900	-0.0200	0.6657	0.0485	0.6172	-3.9376
4	0.31	0.0	-1.3203	4.4504	-0.0027	-0.0553	-0.0329	0.6299	0.0485	0.5814	-4.3023
5	1.33	0.0	-0.4531	4.1421	0.0025	-0.0654	-0.0326	0.5966	0.0485	0.5441	-4.8554
6	2.33	0.0	-0.7100	3.8844	0.0057	-0.0652	-0.0323	0.5617	0.0512	0.5105	-5.4435
7	4.40	0.0	-0.3293	3.1496	0.0153	-0.0763	-0.0315	0.4882	0.0512	0.4370	-9.6525
8	4.44	0.0	0.0304	2.5521	0.0215	-0.0832	-0.0375	0.4365	0.0512	0.3453	83.9528
9	4.51	0.0	0.3504	2.1860	-0.0107	-0.0420	-0.0366	0.4139	0.0512	0.3627	6.0925
10	10.54	0.0	0.6547	1.9400	0.0030	-0.0780	-0.0356	0.4074	0.0512	0.3562	2.8404
11	12.50	0.0	1.2112	1.7491	0.0150	-0.1278	-0.0345	0.4030	0.0512	0.3518	1.7297
12	14.66	0.01	1.4353	1.5917	-0.0014	-0.1245	-0.0401	0.4050	0.0539	0.3519	1.1920
13	14.75	0.01	1.7456	1.3544	0.0091	-0.1554	-0.0384	0.4100	0.0512	0.3580	0.7943
14	17.44	0.01	2.1017	1.4717	-0.0067	-0.1530	-0.0377	0.4173	0.0512	0.3661	0.5090
15	20.04	0.01	2.4410	0.7437	0.0000	-0.1516	-0.0432	0.4244	0.0512	0.3732	0.3106
16	22.49	0.01	2.9576	0.4355	-0.0040	-0.1514	-0.0466	0.4266	0.0457	0.3809	0.1472
17	0.24	0.0	-1.9400	4.4824	-0.0626	-0.0555	-0.0330	0.6303	0.0485	0.5618	-4.2911

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TEST PART W4LM W410-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 31 2.36 2.5 45.0 01.0F35 0.0 20 -20 20 -20 FIXED

POINT	ALPHA	BETA	CN	CLN	CY	CLM	CLL	CA	CAN	CAF	ACP
1	-3.56	0.00	-3.4498	13.1011	-0.0294	-0.0253	-0.0255	1.4509	0.1788	1.6720	-3.7976
2	-2.47	0.05	-3.1434	12.3779	-0.0272	-0.0240	-0.0252	1.7735	0.1768	1.5947	-3.9420
3	-1.05	0.05	-2.9217	11.9025	-0.0355	-0.0161	-0.0249	1.7215	0.1807	1.5803	-4.0735
4	0.02	0.05	-2.7243	11.4710	-0.0475	0.0112	-0.0244	1.4679	0.1808	1.4862	-4.2047
5	1.07	0.05	-2.5245	11.0285	-0.0459	0.0247	-0.0245	1.4143	0.1827	1.4316	-4.3618
6	2.15	0.05	-2.3333	10.6137	-0.0423	0.0267	-0.0249	1.4612	0.1826	1.3786	-4.5547
7	4.14	0.04	-1.9445	9.7614	-0.0454	0.0227	-0.0331	1.4501	0.1804	1.2695	-5.0195
8	6.20	0.04	-1.4434	8.5744	-0.0548	0.0455	-0.0373	1.3145	0.1825	1.1341	-5.9434
9	8.32	0.04	-0.9422	7.3541	-0.0631	0.0524	-0.0450	1.1884	0.1824	1.0042	-7.9644
10	10.36	0.04	-0.3641	6.4514	-0.0647	0.0627	-0.0450	1.0796	0.1843	0.8953	-17.5252
11	12.44	0.03	0.2924	5.7776	-0.0662	0.0501	-0.0437	1.0011	0.1862	0.8149	24.6516
12	14.64	0.03	0.7974	5.4264	-0.0433	0.0441	-0.0324	0.9385	0.1882	0.7503	6.2901
13	16.77	0.03	1.3324	4.3533	-0.0724	0.0147	-0.0361	0.8859	0.1863	0.6996	3.1469
14	18.78	0.03	2.0241	3.7143	-0.0774	0.0023	-0.0344	0.8384	0.1864	0.6520	1.6350
15	21.03	0.03	2.6493	3.0056	-0.0844	0.0250	-0.0324	0.7927	0.1845	0.6052	1.1345
16	23.28	0.03	3.3235	2.7132	-0.0905	0.0073	-0.0453	0.7417	0.1826	0.5541	0.6659
17	0.02	0.03	-2.7332	11.4405	-0.0465	0.0249	-0.0294	1.6665	0.1807	1.4858	-4.2004

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LANGLEY RESEARCH CENTER (NASA)

UTILITY PLAN WIND TUNNEL (UP-1)

MANTIN MISSILE TAIL EFFECTS DATA

POINT	TEST PART PALM MA10-6		PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
	3	3P 2.60 3.0								45.0	0.140F35	0.0
	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	ICP	
1	-3.63	0.00	-2.9451	11.0360	-0.0197	-0.0349	-0.0249	1.0178	0.1267	1.4931	-3.6978	
2	-2.11	0.00	-2.0642	10.4344	-0.0156	-0.0436	-0.0245	1.5644	0.1247	1.4701	-3.8676	
3	-1.05	0.00	-2.4450	10.5515	-0.0271	-0.0334	-0.0332	1.4442	0.1246	1.3496	-4.0215	
4	0.02	0.00	-2.3701	9.0532	-0.0264	-0.0219	-0.0330	1.4433	0.1262	1.3171	-4.1802	
5	1.07	0.00	-2.1140	9.2572	-0.0305	-0.0495	-0.0367	1.3427	0.1262	1.2665	-4.3707	
6	2.01	0.00	-1.9231	8.0733	-0.0350	-0.0113	-0.0364	1.3024	0.1263	1.2161	-4.6141	
7	4.17	0.00	-1.5401	5.1327	-0.0414	-0.0019	-0.0319	1.2318	0.1276	1.1040	-5.2602	
8	4.26	0.04	-1.0450	7.0543	-0.0402	-0.0040	-0.0352	1.1080	0.1274	0.9431	-6.6369	
9	4.35	0.04	-0.5423	6.1513	-0.0417	0.0227	-0.0345	1.0343	0.1310	0.6773	-10.4024	
10	10.45	0.04	-0.0726	5.3715	-0.0553	0.0245	-0.0335	0.9357	0.1310	0.6047	-73.9896	
11	12.58	0.04	0.4421	4.7477	-0.0502	0.0193	-0.0263	0.4645	0.1310	0.7535	10.8244	
12	14.73	0.04	0.4505	4.2747	-0.0719	0.0141	-0.0309	0.4445	0.1327	0.7118	4.5026	
13	16.84	0.03	1.4794	3.7504	-0.0666	0.0069	-0.0245	0.4125	0.1326	0.6799	2.5343	
14	19.04	0.03	1.4472	3.2524	-0.0467	-0.0344	-0.0400	0.9046	0.1311	0.7735	1.6337	
15	21.15	0.03	2.5134	2.7634	-0.0546	-0.0275	-0.0357	0.7632	0.1294	0.6338	1.0493	
16	23.37	0.03	3.1266	2.1264	-0.0714	-0.0340	-0.0451	0.7389	0.1278	0.6111	0.6783	
17	0.02	0.00	-2.7992	9.6362	-0.0294	-0.0149	-0.0324	1.4440	0.1263	1.3177	-4.1911	

MANTIN MISSILE TAIL EFFECTS DATA

TEST NAME: MANTIN MISSILE
 33 3.95 3.0 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 45.0 H1=0F35 0.0 20 -20 20 -20 FIXED

POINT	ALPHA	PFTA	CA	CLM	CV	CLM	CLL	CA	CAB	CAF	XCP
1	-3.45	0.03	-2.3642	5.5294	-0.0126	-0.0359	-0.0359	1.2924	0.0633	1.2295	-3.6077
2	-1.90	0.03	-2.0941	7.9964	-0.0309	-0.0120	-0.0355	1.2740	0.0633	1.1657	-3.8371
3	-0.91	0.03	-1.5175	7.5556	-0.0427	0.0107	-0.0300	1.1445	0.0633	1.1215	-3.9923
4	0.16	0.03	-1.7048	7.2521	-0.0417	0.0057	-0.0349	1.1360	0.0633	1.0727	-4.2415
5	1.14	0.03	-1.5442	6.5448	-0.0443	0.0272	-0.0347	1.0855	0.0654	1.0211	-4.4538
6	2.16	0.03	-1.3751	6.5216	-0.0431	0.0197	-0.0292	1.0357	0.0654	0.9698	-4.7427
7	4.28	0.02	-0.9445	5.7694	-0.0312	-0.0078	-0.0234	0.6361	0.0654	0.8707	-5.8018
8	6.32	0.02	-0.5826	5.0218	-0.0507	0.0278	-0.0279	0.4557	0.0675	0.7882	-7.6167
9	8.39	0.02	-0.1745	4.3608	-0.0408	0.0109	-0.0271	0.7990	0.0575	0.7315	-24.9902
10	10.45	0.02	0.1425	4.0117	-0.0439	-0.0003	-0.0209	0.7672	0.0647	0.6975	21.9457
11	12.52	0.02	0.5459	3.7375	-0.0474	-0.0285	-0.0198	0.7555	0.0597	0.6458	6.8468
12	14.62	0.02	0.9101	3.5341	-0.0514	-0.0228	-0.0239	0.7545	0.0697	0.6848	3.8632
13	16.71	0.02	1.2772	3.3745	-0.0567	-0.0215	-0.0279	0.7659	0.0675	0.6984	2.6255
14	18.87	0.02	1.7041	3.2207	-0.0501	-0.0406	-0.0318	0.7848	0.0675	0.7173	1.8899
15	20.99	0.02	2.1141	3.0354	-0.0417	-0.0446	-0.0304	0.8059	0.0654	0.7405	1.4333
16	23.06	0.02	2.5033	2.7682	-0.0509	-0.1232	-0.0342	0.8145	0.0633	0.7562	1.0633
17	0.16	0.03	-1.7139	7.2434	-0.0410	-0.0011	-0.0349	1.1312	0.0654	1.0658	-4.2362
18	0.15	0.03	-1.7263	7.2632	-0.0276	0.0002	-0.0349	1.1328	0.0654	1.0674	-4.2074

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MANTIN MISSILE TAIL EFFECTS DATA

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POINT	TEST PART NAME (A10-6)			PM1	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
	ALPHA	BETA	CN									
	3	34	4.43	3.0	45.0	M10F35	0.0	20	-20	20	-20	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP	
1	-3.00	0.03	-2.1066	7.5764	-0.0311	0.0416	-0.0329	1.1769	0.0442	1.1327	-3.5970	
2	-1.53	0.02	-1.6664	7.5774	-0.0371	0.0170	-0.0325	1.1140	0.0442	1.0748	-3.8455	
3	-0.64	0.02	-1.6624	6.7541	-0.0274	-0.0107	-0.0321	1.0735	0.0442	1.0243	-4.0837	
4	0.50	0.02	-1.6622	6.3445	-0.0404	0.0012	-0.0318	1.0225	0.0442	0.9783	-4.3398	
5	1.58	0.02	-1.6414	5.9413	-0.0467	0.0203	-0.0316	0.9744	0.0442	0.9302	-4.6376	
6	2.54	0.02	-1.6104	5.6243	-0.0348	0.0152	-0.0313	0.9272	0.0442	0.8830	-5.1129	
7	4.45	0.02	-0.7327	4.4444	-0.0374	0.0002	-0.0240	0.4400	0.0442	0.7958	-6.7536	
8	6.49	0.02	-0.1744	4.3536	-0.0544	0.0244	-0.0233	0.7735	0.0442	0.7293	-11.5052	
9	7.75	0.02	-0.0671	3.9313	-0.0542	0.0274	-0.0225	0.7323	0.0469	0.6854	-11.1089	
10	10.74	0.01	0.2216	3.4406	-0.0320	-0.0246	-0.0215	0.7204	0.0469	0.6735	12.9274	
11	12.43	0.02	0.5747	3.4646	-0.0460	-0.0246	-0.0206	0.7205	0.0469	0.6736	9.9955	
12	14.90	0.02	0.8802	3.3674	-0.0615	-0.0143	-0.0262	0.7402	0.0469	0.6933	3.8263	
13	16.97	0.02	1.1632	3.3102	-0.0616	-0.0449	-0.0318	0.7680	0.0469	0.7211	2.7977	
14	19.06	0.02	1.5415	3.1704	-0.0414	-0.0494	-0.0306	0.7978	0.0469	0.7509	2.0570	
15	21.08	0.02	1.9242	2.9421	-0.0423	-0.0853	-0.0361	0.6154	0.0442	0.7712	1.5274	
16	23.20	0.02	2.3011	2.6117	-0.0469	-0.0866	-0.0481	0.6192	0.0415	0.7777	1.0960	
17	0.57	0.02	-1.6621	6.3443	-0.0405	0.0013	-0.0318	1.0243	0.0415	0.9828	-4.3392	

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TEST PART NAME MALU-6
 3 35 2.36 2.5 45.0 0.0 0.0 20 -20 20 -20 FIXED

POINT	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAS	CAF	KCP
1	-3.60	0.06	-3.7786	14.5746	0.0004	-0.0374	-0.0260	2.0603	0.1655	1.6948	-3.9173
2	-7.07	0.04	-3.3434	13.7662	-0.0024	-0.0224	-0.0249	1.4734	0.1473	1.6065	-4.0567
3	-1.06	0.05	-3.1717	13.7185	-0.0004	-0.0144	-0.0340	1.9171	0.1631	1.7430	-4.1678
4	0.0	0.05	-2.4715	12.7511	0.0025	-0.0253	-0.0337	1.6523	0.1708	1.6915	-4.2911
5	1.06	0.05	-2.7747	12.2724	0.0044	-0.0413	-0.0336	1.7876	0.1724	1.6152	-4.4150
6	2.06	0.05	-2.5928	11.8704	-0.0051	-0.0215	-0.0376	1.7283	0.1741	1.5542	-4.5593
7	4.15	0.05	-2.1341	10.6743	-0.0032	-0.0444	-0.0372	1.5742	0.1725	1.4057	-4.9971
8	6.23	0.04	-1.4004	9.3257	-0.0309	0.0230	-0.0452	1.4171	0.1742	1.2379	-5.8271
9	4.32	0.04	-1.4521	8.4034	-0.0444	0.0237	-0.0446	1.2682	0.1826	1.0436	-7.0665
10	10.42	0.04	-0.4354	6.4553	-0.0445	0.0547	-0.0396	1.1317	0.1442	0.9475	-15.6229
11	12.55	0.03	0.1461	5.2175	-0.0560	0.0245	-0.0257	1.0334	0.1460	0.8474	31.7977
12	14.44	0.03	0.7440	5.2064	-0.0584	0.0445	-0.0243	0.9560	0.1460	0.7700	6.5654
13	14.47	0.03	1.3443	4.4733	-0.0511	0.0362	-0.0188	0.8447	0.1460	0.7027	3.2316
14	14.45	0.03	2.0354	3.6240	-0.0465	0.0496	-0.0172	0.7247	0.1460	0.6437	1.8165
15	21.14	0.03	2.4757	2.4271	-0.0456	0.0222	-0.0325	0.7711	0.1454	0.5852	1.0948
16	23.44	0.03	3.3474	1.4744	-0.0745	0.0453	-0.0309	0.7009	0.1426	0.5182	0.5811
17	0.0	0.06	-2.9695	12.7624	-0.0163	-0.0223	-0.0235	1.6509	0.1708	1.6801	-4.2988

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TEST	POINT	MACH	PRIO	Phi	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
3		34	2.60	3.0	45.0	B1.0F34	0.0	20	-20	20	-20	FIXED
POINT	ALPHA	MFTA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP	
1	-3.51	0.06	-3.1910	12.2504	-0.0144	-0.0516	-0.0410	1.7946	0.1145	1.6801	-3.8392	
2	-2.07	0.06	-2.4421	11.5407	-0.0164	-0.0554	-0.0407	1.7114	0.1161	1.5953	-4.0043	
3	-1.04	0.06	-2.0004	11.0441	-0.0270	-0.0752	-0.0405	1.6446	0.1161	1.5325	-4.1457	
4	0.02	0.05	-2.4706	10.5415	-0.0134	-0.0402	-0.0403	1.5822	0.1176	1.4646	-4.2826	
5	1.05	0.05	-2.2605	10.0390	-0.0139	-0.0504	-0.0401	1.5144	0.1193	1.3951	-4.4678	
6	2.04	0.05	-2.0653	9.5467	-0.0249	-0.0239	-0.0399	1.4525	0.1224	1.3301	-4.6605	
7	4.17	0.05	-1.8500	8.7504	-0.0344	-0.0204	-0.0355	1.3201	0.1224	1.1477	-5.2827	
8	6.25	0.05	-1.1511	7.5467	-0.0497	0.0120	-0.0350	1.1792	0.1272	1.0520	-6.5909	
9	8.44	0.04	-0.8802	6.5006	-0.0501	0.0136	-0.0343	1.0703	0.1304	0.9349	-9.9376	
10	10.44	0.04	-0.1044	5.6557	-0.0547	0.0142	-0.0243	0.9404	0.1337	0.8467	-56.0521	
11	12.58	0.04	0.4147	5.0374	-0.0524	0.0204	-0.0207	0.9169	0.1336	0.7833	12.1471	
12	14.73	0.04	0.9237	4.4585	-0.0553	0.0150	-0.0184	0.8644	0.1337	0.7311	4.8269	
13	16.84	0.04	1.4387	3.8802	-0.0644	0.0151	-0.0176	0.8214	0.1336	0.6840	2.6283	
14	19.05	0.03	1.9443	3.3752	-0.0528	0.0078	-0.0281	0.7815	0.1337	0.6478	1.6532	
15	21.14	0.03	2.4340	2.7544	-0.0560	-0.0113	-0.0267	0.7523	0.1320	0.6203	1.0867	
16	23.41	0.03	3.1659	2.0414	-0.0766	0.0124	-0.0292	0.7196	0.1304	0.5892	0.6448	
17	0.02	0.06	-2.4758	10.6011	-0.0236	-0.0444	-0.0363	1.5804	0.1193	1.4611	-4.2819	

MARTIN MISSILE TAIL EFFECTS DATA

TEST PART NAME ALIGN PH1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 37 3.45 3.0 45.0 01=0F34 0.0 20 -20 20 -20 FIXED

POINT	ALPHA	HFTA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-3.02	0.03	-2.4304	9.1610	0.0192	-0.0917	-0.0354	1.3882	0.3625	1.3257	-3.7603
2	-1.40	0.03	-2.1247	8.4900	0.0149	-0.0918	-0.0350	1.3046	0.0466	1.2400	-3.9902
3	-0.90	0.03	-1.7500	8.0077	-0.0007	-0.0921	-0.0295	1.2507	0.0466	1.1861	-4.1434
4	0.15	0.02	-1.7701	7.2742	0.0105	-0.0468	-0.0243	1.1912	0.0466	1.1266	-4.3377
5	1.10	0.03	-1.5702	7.2490	-0.0101	-0.0314	-0.0343	1.1327	0.0467	1.0660	-4.6166
6	2.19	0.02	-1.6313	6.0050	-0.0067	-0.0237	-0.0289	1.0771	0.0467	1.0104	-4.8888
7	4.27	0.02	-1.0276	6.0000	0.0000	-0.0438	-0.0243	0.9733	0.0467	0.9066	-5.9250
8	4.32	0.02	-0.8221	5.1941	-0.0213	-0.0154	-0.0224	0.8877	0.0489	0.8188	-6.5262
9	-0.42	0.02	-0.2172	4.8322	-0.0201	-0.0128	-0.0217	0.8247	0.0710	0.7537	-21.1322
10	10.45	0.02	0.1730	4.2015	-0.0309	-0.0137	-0.0206	0.7676	0.0731	0.7145	24.2461
11	12.52	0.02	0.5537	3.8756	-0.0213	-0.0270	-0.0195	0.7638	0.0731	0.6907	6.9995
12	14.62	0.02	0.9274	3.6077	-0.0347	-0.0211	-0.0237	0.7510	0.0731	0.6779	3.8902
13	16.73	0.02	1.3059	3.3419	-0.0214	-0.0473	-0.0225	0.7552	0.0731	0.6621	2.6150
14	18.88	0.02	1.7309	3.0702	-0.0258	-0.0466	-0.0263	0.7653	0.0710	0.6943	1.0535
15	20.99	0.02	2.1088	2.8013	-0.0197	-0.0746	-0.0196	0.7650	0.0710	0.6940	1.3562
16	23.13	0.02	2.7327	2.4964	-0.0329	-0.0727	-0.0234	0.7499	0.0667	0.6632	0.9130
17	0.17	0.03	-1.7509	7.6590	-0.0001	-0.0444	-0.0293	1.1861	0.0467	1.1194	-4.3643

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

NAVYIN MISSILE TAIL EFFECTS DATA

TEST	POINT	WALL	WALL	WALL	WALL	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	3A	0.02	3.0	45.0	0.140	34	0.0	20	-20	20	-20	FIXED
POINT	ALPHA	HFA	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	ACP	
1	-2.99	0.02	-2.1136	8.0054	0.0056	-0.0435	-0.0257	1.2452	0.0459	1.1493	-3.7878	
2	-1.51	0.02	-1.4765	7.4575	-0.0049	-0.0453	-0.0256	1.1677	0.0459	1.1218	-3.9743	
3	-0.00	0.02	-1.4703	7.0147	-0.0134	-0.0363	-0.0252	1.1044	0.0459	1.0625	-4.2024	
4	0.57	0.02	-1.4417	6.0263	-0.0053	-0.0402	-0.0249	1.0547	0.0486	1.0061	-4.4721	
5	1.59	0.02	-1.3132	6.0253	-0.0106	-0.0376	-0.0247	1.0019	0.0486	0.9533	-4.7664	
6	2.59	0.02	-1.1270	5.4441	-0.0040	-0.0503	-0.0244	0.9546	0.0485	0.9061	-5.2334	
7	4.00	0.02	-0.7494	5.2512	-0.0304	-0.0145	-0.0238	0.8655	0.0486	0.8169	-6.7254	
8	6.69	0.02	-0.4144	4.5491	-0.0335	-0.0325	-0.0231	0.7947	0.0513	0.7434	-11.0316	
9	7.78	0.02	-0.3375	4.0050	-0.0334	-0.0345	-0.0223	0.7445	0.0513	0.6972	-108.4000	
10	10.00	0.02	0.3010	3.7574	-0.0564	-0.0175	-0.0208	0.7257	0.0513	0.6744	12.4831	
11	12.04	0.02	0.6204	3.5045	-0.0494	-0.0145	-0.0204	0.7166	0.0513	0.6653	5.6507	
12	14.41	0.02	0.9157	3.4007	-0.0544	-0.0145	-0.0194	0.7251	0.0513	0.6738	3.7138	
13	16.97	0.02	1.2426	3.2102	-0.0342	-0.0550	-0.0143	0.7207	0.0513	0.6774	2.5834	
14	19.77	0.02	1.6411	2.8470	-0.0324	-0.0442	-0.0171	0.7272	0.0513	0.6759	1.7444	
15	21.14	0.02	2.0752	2.7500	-0.0363	-0.0702	-0.0159	0.7202	0.0486	0.6716	1.2290	
16	23.25	0.02	2.5624	2.1145	-0.0429	-0.0656	-0.0212	0.7054	0.0486	0.6568	0.8252	
17	0.50	0.02	-1.4002	0.6300	-0.6034	-0.0025	-0.0249	1.0570	0.0486	1.0004	-4.4837	

MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART PALM #X10-6 PHI CUM L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 39 2.36 3.0 0.0 01-0134 0.0 0 -20 0 -20 FIXED

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ICP
1	-3.47	0.01	-2.4081	10.5542	-0.0146	-0.0006	-0.0335	1.2844	0.1410	1.1434	-3.7585
2	-2.14	0.01	-2.5007	9.4574	-0.0173	-0.0473	-0.0333	1.2205	0.1438	1.0767	-3.9418
3	-1.47	0.01	-2.2712	9.3343	-0.0222	-0.0227	-0.0365	1.1741	0.1466	1.0275	-4.0908
4	-0.01	0.01	-2.0741	8.4404	-0.0142	-0.0513	-0.0363	1.1307	0.1504	0.9798	-4.2623
5	1.02	0.02	-1.4422	8.3660	-0.0352	-0.0206	-0.0397	1.0874	0.1537	0.9337	-4.4448
6	2.05	0.02	-1.4523	7.8266	-0.0374	-0.0077	-0.0325	1.0394	0.1564	0.8835	-4.7368
7	4.17	0.01	-1.2011	6.7324	-0.0406	0.0154	-0.0425	0.9416	0.1635	0.7781	-5.6052
8	4.74	0.02	-0.7345	5.4523	-0.0447	0.0217	-0.0420	0.8424	0.1663	0.4761	-7.6538
9	4.34	0.01	-0.2314	4.5674	-0.0471	0.0033	-0.0483	0.7463	0.1491	0.5772	-19.7466
10	10.51	0.01	0.1944	3.4287	-0.0377	0.0048	-0.0436	0.6542	0.1635	0.4907	0.5847
11	12.59	0.02	1.1224	2.1534	-0.0377	-0.0278	-0.0561	0.5561	0.1650	0.3911	1.9063
12	14.49	0.02	1.8243	1.0305	-0.0442	-0.0005	-0.0408	0.4713	0.1649	0.3064	0.5636
13	17.09	0.02	2.4946	0.1575	-0.0357	-0.0566	-0.0357	0.4197	0.1664	0.2533	0.0631
14	14.31	0.02	3.1121	-0.4443	-0.0347	-0.0224	-0.0272	0.3768	0.1649	0.2119	-0.1571
15	21.56	0.03	3.7540	-1.1444	-0.0334	-0.1231	-0.0221	0.3361	0.1607	0.1754	-0.3165
16	23.77	0.03	4.4327	-2.0005	-0.0457	-0.0744	-0.0275	0.2942	0.1593	0.1349	-0.4513
17	-0.01	0.02	-2.0632	6.8152	-0.0325	-0.0754	-0.0324	1.1306	0.1508	0.9798	-4.2726

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MANTIN MISSILE TAIL EFFECTS DATA

TEST POINT	WALCH #	WMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
3	an 2.0 to 3.0	0.0	61.0 F34	0.0	0	-20	0	-20	FIXED		
POINT	ALPHA	BETA	CN	CLP	CY	CLN	CLL	Ca	CaB	CAF	KCP
1	-3.74	0.01	-2.4414	0.0047	-0.0188	-0.0493	-0.0350	1.1393	0.1077	1.0316	-3.6584
2	-2.20	0.01	-2.1670	4.3508	-0.0233	-0.0624	-0.0346	1.0774	0.1077	0.9647	-3.8625
3	-1.21	0.01	-1.7084	7.4183	-0.0243	-0.0434	-0.0344	1.0312	0.1043	0.9214	-4.0268
4	-0.14	0.01	-1.7407	7.4467	-0.0195	-0.0547	-0.0381	0.9446	0.1125	0.8721	-4.2535
5	0.84	0.01	-1.5460	6.4725	-0.0044	-0.0662	-0.0339	0.9348	0.1141	0.8247	-4.5100
6	1.92	0.01	-1.4410	6.5059	-0.0161	-0.0573	-0.0336	0.8958	0.1173	0.7785	-4.8510
7	4.02	0.01	-0.9210	5.5710	-0.0127	-0.0546	-0.0370	0.8044	0.1205	0.6839	-6.0495
8	6.04	0.01	-0.6727	4.6210	-0.0244	-0.0245	-0.0364	0.7138	0.1237	0.5901	-9.7774
9	8.22	0.01	0.0571	3.5814	-0.0243	-0.0304	-0.0344	0.6190	0.1237	0.4953	62.0203
10	10.33	0.01	0.4502	2.4451	-0.0274	-0.0245	-0.0363	0.5392	0.1237	0.4155	3.7262
11	12.46	0.01	1.2351	1.6046	-0.0264	-0.0454	-0.0331	0.4843	0.1253	0.3590	1.2991
12	14.61	0.02	1.7454	1.0600	-0.0374	-0.0213	-0.0278	0.4541	0.1253	0.3288	0.6111
13	16.77	0.02	2.2571	0.6073	-0.0371	-0.0428	-0.0303	0.4307	0.1253	0.3054	0.2690
14	18.01	0.02	2.7472	0.1120	-0.0531	-0.0534	-0.0246	0.4074	0.1221	0.2853	0.0403
15	21.04	0.02	3.3254	-0.4011	-0.0352	-0.1051	-0.0235	0.3874	0.1205	0.2674	-0.1200
16	23.26	0.02	3.9220	-1.0736	-0.0447	-0.0753	-0.0244	0.3633	0.1173	0.2460	-0.2737
17	-0.14	0.01	-1.7485	7.4401	-0.0196	-0.0647	-0.0380	0.9850	0.1141	0.8709	-4.2551

TEST BODY = ALM 4X10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 41 3.95 3.0 0.0 01=0F30 0.0 0 -20 0 -20 FIXED

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-3.65	0.0	-1.9001	6.7644	0.0026	-0.0741	-0.0210	0.8857	0.0664	0.8193	-3.5708
2	-2.13	0.01	-1.4307	4.2213	-0.0104	-0.0479	-0.0204	0.8253	0.0664	0.7589	-3.8151
3	-1.11	0.0	-1.4471	5.7142	-0.0071	-0.0470	-0.0256	0.7835	0.0664	0.7171	-4.0409
4	-0.05	0.0	-1.2474	5.3495	0.0067	-0.0476	-0.0253	0.7425	0.0665	0.6740	-4.3217
5	0.97	0.0	-1.0546	4.9867	-0.0055	-0.0462	-0.0250	0.7034	0.0665	0.6349	-4.7270
6	1.98	0.0	-0.9033	4.6304	0.0004	-0.0449	-0.0248	0.6657	0.0685	0.5972	-5.1438
7	4.07	0.0	-0.7770	3.7734	-0.0054	-0.0394	-0.0240	0.5661	0.0706	0.5155	-7.8941
8	4.14	0.0	-0.7551	2.9167	-0.0117	-0.0308	-0.0233	0.5114	0.0706	0.4412	-51.8103
9	8.23	0.0	0.7352	2.5217	-0.0074	-0.0333	-0.0172	0.4686	0.0727	0.3959	6.9264
10	10.27	0.01	0.7203	1.9273	-0.0173	-0.0226	-0.0213	0.4479	0.0728	0.3751	2.6757
11	12.34	0.01	1.0647	1.7201	-0.0121	-0.0431	-0.0202	0.4411	0.0728	0.3683	1.6156
12	14.44	0.01	1.4542	1.4414	-0.0301	-0.0334	-0.0242	0.4362	0.0728	0.3634	1.0224
13	16.55	0.01	1.7934	1.2642	-0.0275	-0.0508	-0.0230	0.4375	0.0706	0.3669	0.6821
14	18.71	0.01	2.2239	1.0632	-0.0070	-0.0416	-0.0269	0.4380	0.0706	0.3674	0.4393
15	20.71	0.01	2.7395	0.6774	-0.0225	-0.0709	-0.0263	0.4344	0.0685	0.3714	0.2475
16	22.92	0.01	3.2506	0.2461	-0.0417	-0.0465	-0.0135	0.4385	0.0664	0.3721	0.0749
17	-0.04	0.01	-1.2469	5.3401	-0.0144	-0.0307	-0.0253	0.7395	0.0685	0.6710	-4.3228

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	WALL	WALL	WALL	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	42	4.03	3.0		0.0	1140F34	0.0	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAR	CAF	XCP	
1	-3.27	0.0	-1.6634	5.4706	-0.0083	-0.0332	-0.0204	0.7954	0.0507	0.7447	-3.5593	
2	-1.75	0.0	-1.7433	5.3715	0.0011	-0.0442	-0.0200	0.7364	0.0507	0.6857	-3.8555	
3	-0.75	0.0	-1.2287	4.9557	0.0094	-0.0532	-0.0197	0.6975	0.0507	0.6448	-4.0923	
4	0.31	0.0	-1.0234	4.6324	-0.0105	-0.0374	-0.0193	0.6592	0.0507	0.6045	-4.4953	
5	1.36	0.0	-0.4521	4.2579	-0.0061	-0.0337	-0.0190	0.6200	0.0507	0.5693	-4.9978	
6	2.36	0.0	-0.6563	3.8417	-0.0004	-0.0443	-0.0187	0.5843	0.0507	0.5336	-5.9145	
7	4.41	0.0	-0.2440	3.1643	0.0114	-0.0540	-0.0180	0.5113	0.0534	0.4579	-10.9491	
8	6.46	0.0	0.1040	2.5036	0.0177	-0.0645	-0.0239	0.4546	0.0534	0.4062	25.0360	
9	8.51	0.0	0.4024	2.1412	0.0116	-0.0531	-0.0230	0.4359	0.0534	0.3825	5.4399	
10	10.56	0.0	0.7247	1.9565	-0.0012	-0.0546	-0.0270	0.4283	0.0534	0.3749	2.6826	
11	12.58	0.0	1.0272	1.8024	0.0111	-0.0702	-0.0210	0.4252	0.0534	0.3718	1.7552	
12	14.60	0.0	1.3642	1.6814	-0.0047	-0.0696	-0.0199	0.4240	0.0534	0.3726	1.1722	
13	16.74	0.0	1.7297	1.5763	0.0044	-0.0641	-0.0255	0.4324	0.0534	0.3790	0.7957	
14	19.07	0.01	2.1175	1.4977	-0.0092	-0.0797	-0.0176	0.4349	0.0507	0.3882	0.5186	
15	20.46	0.01	2.5321	1.4769	-0.0233	-0.0639	-0.0163	0.4448	0.0507	0.3961	0.3076	
16	23.02	0.01	3.0231	1.3511	-0.0402	-0.0769	-0.0244	0.4444	0.0480	0.4008	0.1161	
17	0.32	0.0	-1.0251	4.0092	-0.0106	-0.0327	-0.0194	0.6598	0.0440	0.6118	-4.4954	

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	PAWT	WALW	WALW	WALW	WALW	DEL1	DEL2	DEL3	DEL4	TRANSITION	
3	49	2.30	3.0	0.0	0.0	0	-20	0	-20	FIXED	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	ACP
1	-3.44	0.02	-2.4501	11.2407	-0.0570	0.0908	0.0084	1.3652	0.1355	1.2297	-3.8103
2	-2.12	0.02	-2.6154	10.4582	-0.0671	0.1104	0.0101	1.2882	0.1396	1.1406	-3.9926
3	-1.74	0.02	-2.3541	9.8780	-0.0823	0.1374	0.0008	1.2340	0.1437	1.0903	-4.1273
4	-0.01	0.01	-2.1483	9.2713	-0.0667	0.1752	0.0054	1.1797	0.1465	1.0332	-4.2759
5	0.93	0.01	-1.9350	8.6413	-0.0660	0.1356	0.0017	1.1279	0.1494	0.9745	-4.4393
6	2.04	0.01	-1.7024	8.0717	-0.0630	0.1352	0.0012	1.0705	0.1508	0.9197	-4.7413
7	4.07	0.01	-1.2526	6.7443	-0.0768	0.1445	0.0004	0.9707	0.1564	0.8143	-5.5430
8	6.24	0.01	-0.7517	5.7444	-0.0624	0.1642	-0.0003	0.8669	0.1607	0.7062	-7.6364
9	8.44	0.02	-0.2331	4.5777	-0.0440	0.2278	-0.0031	0.7661	0.1593	0.6058	-19.8946
10	10.51	0.02	0.3478	3.0000	-0.1044	0.2458	-0.0055	0.6767	0.1593	0.5174	8.7828
11	12.56	0.02	1.1160	2.1130	-0.1043	0.2253	-0.0041	0.5722	0.1594	0.4128	1.8893
12	14.67	0.02	1.8307	0.9765	-0.0975	0.2344	0.0113	0.4891	0.1594	0.3297	0.5345
13	17.07	0.02	2.4755	0.1040	-0.1133	0.2477	0.0198	0.4367	0.1608	0.2779	0.0673
14	19.33	0.02	3.1141	-0.7610	-0.1004	0.2417	0.0259	0.3977	0.1621	0.2351	-0.1800
15	21.43	0.03	3.7370	-1.7710	-0.1135	0.2225	0.0397	0.3593	0.1608	0.1945	-0.3269
16	23.72	0.03	4.4217	-2.9007	-0.1325	0.2423	0.0433	0.3168	0.1591	0.1577	-0.4766
17	-3.02	0.01	-2.1500	9.2467	-0.0528	0.1076	0.0054	1.1754	0.1466	1.0288	-4.2928

TEST PART	NUM	PAU-6	HWI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
3	44	2.86	3.0	0.0	MI0F33	0.0	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-3.77	0.01	-2.4626	9.5184	-0.0274	0.6307	-0.0034	1.1459	0.0981	1.0878	-3.7146
2	-2.75	0.01	-2.2247	8.7221	-0.0268	0.0346	-0.0014	1.1144	0.1013	1.0131	-3.9135
3	-1.21	0.01	-2.0044	8.1883	-0.0256	0.0280	-0.0001	1.0638	0.1045	0.9593	-4.0748
4	-0.16	0.01	-1.7405	7.6690	-0.0295	0.0396	-0.0026	1.0142	0.1061	0.9081	-4.2834
5	0.91	0.01	-1.5704	7.1611	-0.0350	0.0563	-0.0030	0.9658	0.1077	0.8591	-4.5458
6	1.92	0.01	-1.3876	6.6508	-0.0395	0.0744	-0.0034	0.9194	0.1109	0.8045	-4.8653
7	4.02	0.01	-0.9321	5.8588	-0.0334	0.0874	-0.0043	0.8264	0.1141	0.7123	-6.0706
8	6.09	0.01	-0.4524	4.8711	-0.0443	0.1010	-0.0128	0.7369	0.1173	0.6196	-9.6830
9	9.19	0.01	0.0337	3.5482	-0.0405	0.1045	-0.0170	0.6426	0.1173	0.5253	108.3801
10	10.31	0.01	0.4461	2.4427	-0.0560	0.1424	-0.0030	0.5667	0.1189	0.4458	3.7806
11	12.46	0.01	1.2402	1.5881	-0.0709	0.1594	0.0023	0.5062	0.1189	0.3673	1.2773
12	14.59	0.01	1.7414	1.0323	-0.0799	0.1814	0.0115	0.4767	0.1189	0.3578	0.5927
13	16.77	0.01	2.2502	0.5634	-0.0781	0.1794	0.0124	0.4509	0.1173	0.3336	0.2501
14	18.94	0.02	2.7950	0.0640	-0.0931	0.1406	0.0193	0.4319	0.1173	0.3146	0.0229
15	21.03	0.02	3.3151	-0.4068	-0.0799	0.1711	0.0305	0.4118	0.1157	0.2941	-0.1407
16	23.26	0.02	3.9154	-1.1466	-0.1435	0.2106	0.0342	0.3874	0.1125	0.2749	-0.2926
17	-0.13	0.01	-1.7751	7.6485	-0.0322	0.0395	-0.0026	1.0124	0.1061	0.9063	-4.3088

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MANTIN MISSILE TAIL EFFECTS DATA

TEST	PCPT	PAWH	PAJW-6	MMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
3	45	3.45	3.6	0.0	H1.0F33	0.0	0	-20	0	-20	FIXED	
POINT	ALPHA	META	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP	
1	-3.64	0.01	-1.9349	7.0077	-0.0293	0.0397	0.0053	0.9077	0.0598	0.6479	-3.6124	
2	-2.11	0.01	-1.8444	4.3777	-0.0305	0.0453	0.0076	0.8472	0.0598	0.7474	-3.8691	
3	-1.13	0.01	-1.6745	5.4834	-0.0300	0.0425	0.0043	0.8050	0.0420	0.7400	-4.0606	
4	-0.05	0.01	-1.2745	5.5062	-0.0420	0.0574	0.0114	0.7644	0.0620	0.7028	-4.3297	
5	0.98	0.01	-1.0045	5.1133	-0.0331	0.0446	0.0056	0.7236	0.0642	0.6594	-4.7149	
6	1.49	0.0	-0.9144	4.7201	-0.0246	0.0418	0.0049	0.6840	0.0663	0.6177	-5.1846	
7	4.07	0.0	-0.5545	3.6733	-0.0287	0.0529	0.0038	0.6055	0.0663	0.5392	-7.6458	
8	4.12	0.0	-0.1447	3.0024	-0.0347	0.0447	0.0024	0.5340	0.0684	0.4656	-35.6577	
9	4.20	0.0	0.3445	2.3711	-0.0301	0.0441	0.0037	0.4849	0.0484	0.4215	7.6585	
10	10.26	0.01	0.6444	1.9733	-0.0544	0.1170	0.0046	0.4708	0.0644	0.4024	2.8271	
11	17.32	0.01	1.0044	1.7175	-0.0524	0.1144	0.0111	0.4448	0.0705	0.3943	1.6136	
12	14.42	0.01	1.4443	1.4973	-0.0711	0.1413	0.0176	0.4608	0.0684	0.3924	1.0338	
13	16.54	0.01	1.4444	1.2264	-0.0677	0.1371	0.0189	0.4584	0.0663	0.3925	0.6571	
14	14.56	0.01	2.2444	0.4771	-0.0642	0.1355	0.0105	0.4597	0.0647	0.3950	0.4282	
15	27.71	0.01	2.7444	0.6267	-0.0831	0.1517	0.0303	0.4601	0.0620	0.3981	0.2288	
16	22.83	0.01	3.2476	0.2214	-0.0834	0.1683	0.0345	0.4596	0.0599	0.3997	0.0676	
17	-0.85	0.0	-1.2574	5.5056	-0.0204	0.0173	0.0061	0.7585	0.0620	0.6965	-4.3768	

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	FAIR	WALH	FRU-6	PMI	CONF	L	UEL1	UEL2	UEL3	UEL4	TRANSITION
3	46	4.63	3.0	0.0	H1=0F33	0.0	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAR	CAF	ACP
1	-3.26	0.0	-1.6970	6.1050	-0.0161	0.0245	-0.0002	0.8157	0.0453	0.7704	-3.5975
2	-1.75	0.0	-1.4204	5.5254	-0.0055	0.0258	0.0097	0.7564	0.0453	0.7116	-3.8732
3	-0.76	0.0	-1.2209	5.1162	-0.0249	0.0464	0.0052	0.7162	0.0453	0.6709	-4.1632
4	0.30	0.0	-1.0500	4.7545	-0.0146	0.0336	0.0074	0.6779	0.0453	0.6326	-4.5024
5	1.34	0.0	-0.8595	4.3464	-0.0110	0.0275	0.0067	0.6408	0.0480	0.5928	-5.0575
6	2.33	0.0	-0.6873	4.0013	-0.0320	0.0575	0.0059	0.6046	0.0480	0.5566	-5.8210
7	4.41	0.0	-0.5212	3.7464	-0.0185	0.0459	0.0042	0.5323	0.0480	0.4843	-10.1769
8	6.44	0.0	0.0074	3.4894	-0.0115	0.0433	-0.0038	0.4832	0.0507	0.4325	30.7157
9	8.51	0.0	0.1459	3.2279	-0.0161	0.0433	-0.0029	0.4606	0.0507	0.4101	5.6275
10	10.53	0.0	0.7147	2.9895	-0.0284	0.0945	0.0048	0.4554	0.0507	0.4047	2.7644
11	12.60	0.0	1.0194	2.7284	-0.0431	0.1036	0.0058	0.4524	0.0507	0.4022	1.7940
12	14.67	0.0	1.2662	2.4813	-0.0311	0.0887	0.0069	0.4509	0.0507	0.4002	1.1794
13	16.73	0.0	1.7379	2.3013	-0.0462	0.1040	0.0080	0.4574	0.0480	0.4094	0.7833
14	18.44	0.01	2.1248	2.1704	-0.0634	0.1272	0.0100	0.4652	0.0453	0.4199	0.5028
15	20.45	0.01	2.4385	2.0747	-0.0744	0.1543	0.0212	0.4719	0.0453	0.4266	0.2899
16	23.00	0.01	3.0329	2.0226	-0.0873	0.1811	0.0126	0.4734	0.0426	0.4308	0.0965
17	0.32	0.0	-1.0546	4.7387	-0.0177	0.0324	0.0074	0.6794	0.0453	0.6341	-4.4891

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	WALM	PA10-6	MHI	CONF	L	DEL1	DEL2	DEL3	DELO	TRANSITION	
3	47	2.30	2.5	45.0	010F33	0.0	20	-20	20	-20	FIXED
POINT	ALPHA	BETA	CH	CLM	CV	CLN	CLL	CA	CAS	CAF	KCP
1	-3.00	0.07	-4.0530	16.1274	-0.0019	-0.1230	-0.0211	2.7363	0.1505	2.0858	-3.9791
2	-2.07	0.07	-3.8751	16.4744	-0.0086	-0.0359	-0.0243	2.1098	0.1556	1.9542	-4.1209
3	-1.30	0.07	-3.8010	14.3215	-0.0057	-0.1105	-0.0242	2.5249	0.1573	1.8696	-4.2099
4	0.02	0.06	-3.1465	13.4374	-0.0066	-0.0929	-0.0291	1.9484	0.1507	1.7877	-4.3341
5	1.08	0.06	-2.4207	13.0210	-0.0146	-0.0823	-0.0240	1.8722	0.1641	1.7061	-4.4564
6	2.07	0.06	-2.0412	12.4405	-0.0280	-0.0533	-0.0413	1.8013	0.1658	1.6355	-4.6227
7	4.18	0.06	-2.1544	11.0969	-0.0104	-0.1094	-0.0369	1.6343	0.1657	1.4686	-5.0675
8	6.25	0.05	-1.6353	4.6211	-0.0141	-0.0766	-0.0408	1.4549	0.1692	1.2907	-5.8834
9	8.33	0.04	-1.7792	8.2769	-0.0150	-0.0576	-0.0496	1.4354	0.1759	1.1295	-7.6898
10	10.43	0.04	-0.8634	7.0373	-0.0265	-0.0546	-0.0394	1.1752	0.1910	0.9942	-13.1732
11	12.55	0.04	0.1416	6.0450	-0.0384	-0.0382	-0.0257	1.0732	0.1844	0.8688	-2.9785
12	14.72	0.04	0.7824	5.2614	-0.0380	-0.0534	-0.0243	0.9911	0.1843	0.8068	6.7485
13	16.96	0.04	1.0115	4.4776	-0.0434	-0.0422	-0.0270	0.9222	0.1844	0.7378	3.1722
14	19.10	0.04	2.1752	3.6610	-0.0450	-0.0419	-0.0213	0.8575	0.1844	0.6731	1.7644
15	21.17	0.03	2.7141	2.8263	-0.0759	0.0062	-0.0450	0.7905	0.1827	0.6078	1.0390
16	23.40	0.03	3.4301	1.8084	-0.0754	-0.0241	-0.0393	0.7184	0.1810	0.5374	0.5260
17	0.02	0.06	-3.1544	13.0547	0.0022	-0.1059	-0.0333	1.9685	0.1524	1.7861	-4.3231

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART = ALM NA10-0 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 3 @ 2.00 3.0 @ 5.0 d1=0F33 0.0 20 -20 20 -20 FIXED

POINT	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP
1	-3.40	0.05	-3.3204	12.9321	0.0064	-0.1428	-0.0366	1.0623	0.1000	1.7623	-3.8947
2	-2.04	0.06	-2.9602	12.0401	0.0043	-0.1246	-0.0365	1.7600	0.1032	1.6568	-4.0564
3	-1.33	0.06	-2.7600	11.5103	0.0107	-0.1319	-0.0403	1.6443	0.1044	1.5094	-4.1706
4	0.04	0.05	-2.5601	10.4764	0.0013	-0.1147	-0.0362	1.6267	0.1097	1.5170	-4.3139
5	1.04	0.05	-2.3370	10.4764	0.0063	-0.1276	-0.0399	1.5586	0.1097	1.4489	-4.4629
6	2.08	0.05	-2.1242	9.9437	0.0049	-0.1153	-0.0398	1.4434	0.1124	1.3805	-4.6936
7	4.18	0.05	-1.7113	9.0141	0.0062	-0.1179	-0.0354	1.3551	0.1145	1.2406	-5.2703
8	6.27	0.05	-1.1977	7.7411	0.0000	-0.0944	-0.0349	1.2117	0.1193	1.0924	-6.5050
9	7.30	0.04	-0.6971	6.7593	-0.0154	-0.0633	-0.0302	1.1036	0.1257	0.9779	-6.7107
10	10.46	0.03	-0.1533	5.4262	-0.0674	-0.0926	-0.0332	1.0162	0.1249	0.8873	-38.0053
11	12.50	0.03	0.3555	5.1401	-0.0104	-0.1006	-0.0281	0.9509	0.1289	0.8220	14.5529
12	14.74	0.03	0.4920	4.5771	-0.0151	-0.1031	-0.0268	0.9005	0.1289	0.7716	5.1313
13	16.89	0.03	1.4551	3.4764	-0.0337	-0.0864	-0.0295	0.8460	0.1289	0.7171	2.6643
14	19.10	0.03	2.0214	3.2551	-0.0307	-0.0859	-0.0363	0.8023	0.1289	0.6734	1.6100
15	21.15	0.03	2.5574	2.8724	-0.0354	-0.0847	-0.0340	0.7685	0.1273	0.6412	1.0450
16	23.46	0.03	3.1936	1.9024	-0.0449	-0.0949	-0.0411	0.7307	0.1257	0.6050	0.5957
17	0.03	0.05	-2.5306	10.9710	0.0140	-0.1339	-0.0362	1.6260	0.1097	1.5163	-4.3285

TEST POINT	WALCH	PHI	CUMF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
3	49 3.00 3.0	45.0	01WUF33	0.0	20	-20	20	-20	FIXED		
POINT	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAR	CAF	XCP
1	-3.43	0.00	-2.0471	9.0000	0.0001	-0.1243	-0.0247	1.4342	0.0562	1.3780	-3.8120
2	-1.40	0.03	-2.1975	8.0037	0.0234	-0.1243	-0.0244	1.3449	0.0562	1.2887	-4.0062
3	-0.44	0.03	-2.0114	8.3710	0.0122	-0.1011	-0.0149	1.2870	0.0562	1.2316	-4.1620
4	0.16	0.03	-1.8275	7.4313	0.0036	-0.0735	-0.0200	1.2264	0.0583	1.1691	-4.3400
5	1.19	0.03	-1.4266	7.5001	0.0000	-0.0704	-0.0237	1.1704	0.0583	1.1121	-4.6100
6	2.18	0.03	-1.0527	7.1043	-0.0125	-0.0490	-0.0235	1.1152	0.0605	1.0547	-4.8900
7	4.30	0.02	-1.0033	6.7440	0.0124	-0.0003	-0.0230	1.0070	0.0626	0.9444	-5.9197
8	6.31	0.02	-0.6694	5.4462	-0.0164	-0.0417	-0.0224	0.9230	0.0447	0.8583	-8.2136
9	8.40	0.02	-0.2623	4.0230	-0.0000	-0.0409	-0.0216	0.8592	0.0669	0.7923	-10.3900
10	10.47	0.02	0.1000	4.0113	0.0021	-0.0601	-0.0207	0.8170	0.0669	0.7501	-12.4163
11	12.53	0.02	0.5050	4.0171	-0.0149	-0.0708	-0.0209	0.7849	0.0669	0.7180	-7.9547
12	14.60	0.02	0.8803	3.7162	-0.0680	-0.0893	-0.0238	0.7726	0.0669	0.7057	-4.2215
13	16.76	0.02	1.2923	3.0770	-0.0023	-0.1100	-0.0277	0.7777	0.0669	0.7108	-2.6900
14	18.85	0.02	1.7005	3.0741	-0.0204	-0.1005	-0.0317	0.7760	0.0647	0.7113	-1.9060
15	20.90	0.02	2.1101	2.0000	-0.0172	-0.1207	-0.0250	0.7633	0.0626	0.7007	-1.3096
16	23.04	0.02	2.7552	2.0466	-0.0347	-0.1068	-0.0288	0.7350	0.0605	0.6753	0.8510
17	0.16	0.03	-1.0103	7.0055	0.0199	-0.1105	-0.0240	1.2249	0.0605	1.1644	-4.3573

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

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TEST	PART	SCALE	RAIU	6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	50	4.63	3.0		45.0	#10F33	0.0	20	-20	20	-20	FIXED
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAS	CAF	CCP	
1	-3.00	0.02	-2.2033	6.3762	0.0101	-0.1001	-0.0122	1.2974	0.0433	1.2541	-3.7989	
2	-1.44	0.02	-1.9175	7.4962	0.0154	-0.1049	-0.0186	1.2066	0.0406	1.1660	-4.0137	
3	-0.87	0.02	-1.7227	7.2469	0.0099	-0.0816	-0.0117	1.1493	0.0406	1.1087	-4.2201	
4	0.57	0.02	-1.5606	6.7406	-0.0010	-0.0768	-0.0181	1.0931	0.0433	1.0498	-4.4662	
5	1.54	0.02	-1.3691	6.5097	-0.0064	-0.0711	-0.0179	1.0421	0.0433	0.9998	-4.7548	
6	2.60	0.02	-1.1456	6.1597	-0.0174	-0.0575	-0.0176	0.9913	0.0433	0.9480	-5.1520	
7	4.76	0.02	-0.8129	5.4479	0.0014	-0.0814	-0.0237	0.8999	0.0433	0.8556	-6.7007	
8	6.69	0.01	-0.4471	4.1674	0.0029	-0.0714	-0.0230	0.8312	0.0460	0.7852	-10.6630	
9	8.76	0.01	-0.1152	3.3167	0.0057	-0.0948	-0.0290	0.7819	0.0460	0.7359	-37.4208	
10	10.79	0.01	0.2062	3.9826	0.0257	-0.1257	-0.0281	0.7534	0.0487	0.7047	19.3143	
11	12.84	0.01	0.5309	3.7247	0.0104	-0.1254	-0.0271	0.7449	0.0487	0.6962	6.9379	
12	14.88	0.01	0.8352	3.5733	-0.0052	-0.1092	-0.0261	0.7462	0.0487	0.6955	4.2784	
13	16.90	0.01	1.2200	3.2667	-0.0052	-0.1308	-0.0317	0.7343	0.0460	0.6683	2.6751	
14	19.12	0.01	1.6755	2.8466	-0.0104	-0.1219	-0.0236	0.7178	0.0460	0.6718	1.6978	
15	21.09	0.01	2.1054	2.4407	0.0002	-0.1370	-0.0226	0.6998	0.0433	0.6565	1.1590	
16	23.26	0.01	2.6444	1.9762	-0.0271	-0.1004	-0.0274	0.6758	0.0406	0.6352	0.7095	
17	0.57	0.02	-1.5606	6.7406	-0.0010	-0.0768	-0.0181	1.0931	0.0406	1.0525	-4.4662	

LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART NAME RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 S1 2.36 2.9 0.0 01.0F33 0.0 0 0 0 0 FIRED

POINT	ALPHA	AFYA	CN	CLN	CY	CLN	CLL	CA	CAH	CAF	KCP
1	-3.56	0.0	-0.7029	1.6784	-0.0357	0.1391	-0.0119	0.4478	0.1219	0.3259	-2.3078
2	-2.01	0.0	-0.3834	0.5270	-0.0533	0.1720	-0.0150	0.4441	0.1191	0.3250	-2.4193
3	-0.94	0.0	-0.1037	0.4558	-0.0400	0.1402	-0.0123	0.4419	0.1163	0.3256	-2.4800
4	0.09	0.0	0.0158	-0.0157	-0.0686	0.2024	-0.0179	0.4415	0.1163	0.3252	-1.8098
5	1.13	0.0	0.2107	-0.4692	-0.0567	0.1879	-0.0140	0.4434	0.1162	0.3272	-2.1844
6	2.15	0.01	0.4016	-0.6105	-0.0735	0.2103	-0.0137	0.4450	0.1192	0.3258	-2.2772
7	4.20	0.0	0.8114	-1.0451	-0.0611	0.2153	-0.0094	0.4551	0.1265	0.3286	-2.3218
8	6.33	0.0	1.2742	-2.4324	-0.0618	0.2267	-0.0194	0.4746	0.1382	0.3364	-2.3013
9	8.46	0.01	1.7435	-4.7242	-0.0754	0.2457	-0.0219	0.4886	0.1455	0.3431	-2.2434
10	10.59	0.01	2.4166	-5.2094	-0.0922	0.2686	-0.0205	0.4975	0.1484	0.3491	-2.1559
11	12.77	0.01	3.0902	-6.9397	-0.1040	0.2901	-0.0225	0.4995	0.1481	0.3514	-2.0489
12	14.94	0.01	3.7653	-7.4305	-0.0944	0.2450	-0.0135	0.4966	0.1451	0.3515	-1.9636
13	17.13	0.01	4.5240	-8.6357	-0.1140	0.3005	-0.0115	0.5020	0.1408	0.3612	-1.9085
14	19.36	0.02	5.2834	-9.4542	-0.1034	0.2499	0.0005	0.5104	0.1349	0.3757	-1.8661
15	21.54	0.01	6.0551	-11.1544	-0.1050	0.2940	0.0009	0.5197	0.1276	0.3921	-1.8422
16	23.79	0.02	6.8400	-12.6467	-0.1237	0.3222	0.0035	0.5347	0.1204	0.4103	-1.8337
17	0.09	0.01	0.0100	-0.0160	-0.0034	0.2215	-0.0144	0.4384	0.1159	0.3225	-1.0000

POINT	ALPHA	6F1a	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	KCP
1	-3.57	0.02	-0.0000	1.5769	-0.0264	0.0450	-0.0199	0.4440	0.1188	0.3252	-2.2757
2	-1.97	0.01	-0.3000	0.0560	-0.0225	0.0394	-0.0169	0.4434	0.1175	0.3259	-2.2443
3	-0.97	0.01	-0.1807	0.3970	-0.0317	0.0604	-0.0142	0.4419	0.1175	0.3244	-2.1969
4	0.10	0.01	0.0280	-0.0000	-0.0504	0.0957	-0.0216	0.4411	0.1160	0.3251	-3.1657
5	1.14	0.01	0.2080	-0.0274	-0.0385	0.0753	-0.0178	0.4432	0.1160	0.3272	-2.5260
6	2.14	0.0	0.3900	-0.0903	-0.0375	0.0835	-0.0140	0.4443	0.1174	0.3269	-2.4657
7	4.23	-0.01	0.4034	-1.0001	-0.0251	0.0870	-0.0207	0.4515	0.1218	0.3297	-2.4470
8	6.31	-0.01	1.2435	-3.1007	-0.0244	0.0871	-0.0236	0.4677	0.1335	0.3342	-2.3971
9	8.44	-0.01	1.4252	-4.2523	-0.0007	0.1020	-0.0228	0.4786	0.1409	0.3377	-2.3259
10	10.55	-0.01	2.4614	-5.4467	-0.0701	0.1549	-0.0181	0.4827	0.1379	0.3448	-2.2125
11	12.72	-0.02	3.1295	-6.4774	-0.0834	0.1767	-0.0166	0.4998	0.1409	0.3489	-2.0648
12	14.90	-0.02	3.4054	-7.5463	-0.0870	0.1530	-0.0223	0.5005	0.1424	0.3581	-1.9839
13	17.07	-0.02	4.5243	-8.6778	-0.1049	0.2051	-0.0171	0.5064	0.1440	0.3624	-1.9180
14	19.29	-0.03	5.2453	-9.4484	-0.1116	0.2072	-0.0192	0.5204	0.1468	0.3726	-1.8660
15	21.44	-0.04	6.1177	-11.0268	-0.1165	0.2407	-0.0284	0.5350	0.1438	0.3912	-1.8678
16	23.72	-0.04	7.0347	-13.2756	-0.1320	0.2531	-0.0231	0.5462	0.1351	0.4111	-1.8862
17	0.09	0.01	0.0742	-0.0438	-0.0300	0.0510	-0.0188	0.4432	0.1175	0.3257	-2.8692

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TEST PART =ALM RA10-6 Pn1 COMP L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 53 2.66 3.2 45.0 010033 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAP	XCP
1	-3.50	0.01	-0.6235	1.1450	-0.0105	-0.0016	-0.0161	0.3907	0.0953	0.2954	-1.9172
2	-2.91	0.00	-0.3535	0.6471	-0.0031	-0.0040	-0.0082	0.3905	0.0951	0.2994	-1.8366
3	-1.80	0.01	-0.1757	0.3047	-0.0100	0.0037	-0.0116	0.3958	0.0969	0.2989	-1.7477
4	0.06	0.01	0.0040	-0.0408	-0.0292	0.0337	-0.0113	0.3943	0.0964	0.3009	-5.2000
5	1.11	0.00	0.1621	-0.3929	-0.0169	0.0140	-0.0147	0.4000	0.0969	0.3031	-2.1578
6	2.13	0.00	0.3065	-0.7214	-0.0142	0.0216	-0.0107	0.4001	0.0969	0.3032	-2.0820
7	4.23	0.00	0.7140	-1.4733	-0.0293	0.0476	-0.0139	0.4036	0.0964	0.3052	-2.0622
8	6.70	-0.01	1.1470	-2.3255	-0.0190	0.0745	-0.0094	0.4150	0.1045	0.3105	-2.0225
9	8.93	-0.01	1.6406	-3.2460	-0.0295	0.0465	-0.0160	0.4238	0.1076	0.3162	-1.9783
10	10.55	-0.01	2.2163	-4.1474	-0.0361	0.0448	-0.0111	0.4271	0.1075	0.3196	-1.8992
11	12.46	-0.01	2.7854	-5.0714	-0.0474	0.0400	-0.0136	0.4370	0.1075	0.3295	-1.8200
12	14.84	-0.01	3.3972	-5.9740	-0.0499	0.1226	-0.0122	0.4448	0.1060	0.3368	-1.7601
13	16.99	-0.02	4.0014	-7.0120	-0.0435	0.1565	-0.0109	0.5733	0.1060	0.4673	-1.7351
14	19.23	-0.02	4.7169	-8.1560	-0.0476	0.1515	-0.0132	0.4740	0.1045	0.3695	-1.7292
15	21.70	-0.03	5.4115	-9.4115	-0.0406	0.1662	-0.0117	0.4903	0.1015	0.3868	-1.7392
16	23.50	-0.04	6.2556	-11.0330	-0.0924	0.1694	-0.0141	0.5113	0.0953	0.4160	-1.7637
17	0.00	0.01	0.0190	-0.0533	-0.0193	0.0137	-0.0113	0.4009	0.0984	0.3025	-2.7454

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

POINT	ALPHA	MFTA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.71	0.01	-0.6355	1.2704	-0.0476	0.0984	-0.0125	0.3946	0.0984	0.2982	-1.9991
2	-2.10	0.01	-0.3444	0.7161	-0.0615	0.1144	-0.0091	0.3946	0.0969	0.2997	-2.0649
3	-1.13	0.01	-0.1517	0.3423	-0.0503	0.1179	-0.0074	0.3976	0.0969	0.3007	-2.1039
4	-0.07	0.01	-0.0035	0.0233	-0.0737	0.1436	-0.0075	0.4006	0.0944	0.3022	-6.5714
5	3.96	0.01	0.1746	-0.3177	-0.0662	0.1346	-0.0071	0.4014	0.0984	0.3030	-1.8198
6	1.96	0.01	0.3256	-0.6735	-0.0507	0.1257	-0.0068	0.4019	0.0984	0.3035	-1.9136
7	4.49	0.01	0.7100	-1.3440	-0.0714	0.1532	-0.0061	0.4077	0.0999	0.3073	-1.9493
8	4.16	0.01	1.1201	-2.1785	-0.0706	0.1435	-0.0052	0.4144	0.1045	0.3143	-1.9450
9	4.30	0.01	1.4021	-3.0450	-0.0701	0.1447	-0.0074	0.4292	0.1106	0.3166	-1.9260
10	10.39	0.02	2.1745	-4.4034	-0.1034	0.2246	-0.0065	0.4336	0.1136	0.3200	-1.8735
11	12.53	0.02	2.7544	-4.9684	-0.1040	0.2304	-0.0051	0.4368	0.1106	0.3242	-1.8028
12	14.70	0.02	3.3644	-5.4755	-0.1151	0.2557	-0.0035	0.4434	0.1091	0.3347	-1.7544
13	16.87	0.02	4.0001	-6.0129	-0.1306	0.2770	0.0019	0.4529	0.1060	0.3469	-1.7247
14	19.06	0.02	4.6430	-6.5143	-0.1205	0.2574	0.0111	0.4655	0.1030	0.3625	-1.7122
15	21.14	0.03	5.3714	-7.0111	-0.1317	0.2844	0.0126	0.4794	0.0999	0.3799	-1.7148
16	23.44	0.03	6.1732	-7.5552	-0.1323	0.2885	0.0147	0.4965	0.0923	0.4062	-1.7422
17	-6.08	0.01	-0.0035	0.0233	-0.0737	0.1437	-0.0037	0.3994	0.0984	0.3010	-6.5714

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MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART MACH RXIU-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 55 3.95 3.0 45.0 010F33 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	XCP
1	-3.42	0.01	-0.4414	0.6250	-0.0191	0.0146	0.0042	0.3115	0.0637	0.2478	-1.3534
2	-1.49	0.01	-0.2347	0.2467	-0.0307	0.0242	0.0047	0.3113	0.0616	0.2497	-1.2641
3	-0.40	0.0	-0.1349	0.1000	-0.0225	0.0276	-0.0003	0.3125	0.0616	0.2509	-0.9023
4	0.19	0.0	0.0453	-0.1094	-0.0161	0.0142	0.0001	0.3129	0.0616	0.2513	-2.4243
5	1.21	0.0	0.1844	-0.3184	-0.0235	0.0346	0.0057	0.3141	0.0616	0.2525	-1.7101
6	2.22	0.0	0.3275	-0.5264	-0.0292	0.0347	0.0007	0.3170	0.0616	0.2554	-1.6089
7	4.29	0.0	0.4215	-0.7770	-0.0290	0.0354	0.0014	0.3234	0.0638	0.2596	-1.5730
8	6.34	0.0	0.4493	-1.5251	-0.0333	0.0528	0.0021	0.3306	0.0638	0.2640	-1.5734
9	4.43	0.0	1.3641	-2.1233	-0.0305	0.0435	-0.0023	0.3349	0.0659	0.2730	-1.5543
10	10.46	0.0	1.7942	-2.7264	-0.0455	0.0725	-0.0013	0.3514	0.0659	0.2855	-1.5107
11	12.50	0.0	2.2535	-3.3504	-0.0552	0.0919	-0.0054	0.3431	0.0638	0.2993	-1.4903
12	14.65	0.0	2.7476	-4.1273	-0.0706	0.1085	-0.0043	0.3412	0.0616	0.3106	-1.4902
13	16.76	0.0	3.3371	-5.0350	-0.0800	0.1336	-0.0031	0.4041	0.0595	0.3446	-1.5088
14	19.34	-0.01	3.9416	-6.0434	-0.0491	0.1247	-0.0072	0.4254	0.0574	0.3440	-1.5334
15	20.93	-0.01	4.5410	-7.1710	-0.0495	0.1572	-0.0059	0.4467	0.0531	0.3456	-1.5654
16	23.10	-0.01	5.3044	-8.4334	-0.1124	0.1650	-0.0098	0.4731	0.0489	0.4242	-1.5897
17	0.19	0.01	0.0603	-0.1372	-0.0300	0.0274	0.0001	0.3114	0.0595	0.2519	-2.2756

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
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TEST PART	MACH	REYNOLDS	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
3	56	3.95	3.0	0.0	01.0F33	0.0	0	0	0	FIXED	
POINT	ALPHA	BETA	CN	CLN	CY	CLM	CLL	CA	CAN	CAF	KCP
1	-3.61	0.0	-0.4704	0.0006	-0.0231	0.0560	-0.0012	0.3000	0.0616	0.2464	-1.4411
2	-2.36	0.0	-0.2792	0.3415	-0.0312	0.0407	-0.0006	0.3007	0.0616	0.2471	-1.4171
3	-1.04	0.0	-0.1359	0.1462	-0.0164	0.0443	-0.0003	0.3004	0.0616	0.2468	-1.4434
4	0.01	0.0	0.0149	-0.0235	-0.0431	0.0404	0.0001	0.3009	0.0615	0.2474	-1.5745
5	1.00	0.0	0.1477	-0.2101	-0.0392	0.0417	0.0004	0.3102	0.0616	0.2486	-1.4765
6	2.01	0.0	0.2407	-0.4248	-0.0747	0.0403	0.0007	0.3133	0.0616	0.2517	-1.5133
7	4.09	0.0	0.4000	-0.7962	-0.0780	0.0499	0.0015	0.3143	0.0630	0.2555	-1.4917
8	6.16	0.0	0.9414	-1.4107	-0.0367	0.1049	-0.0029	0.3202	0.0630	0.2624	-1.5070
9	8.24	0.0	1.3054	-2.7397	-0.0436	0.1139	-0.0019	0.3377	0.0659	0.2710	-1.5156
10	10.29	0.01	1.7471	-2.6350	-0.0715	0.1444	-0.0008	0.3510	0.0659	0.2851	-1.4912
11	12.36	0.01	2.2295	-3.2831	-0.0707	0.1600	0.0004	0.3655	0.0659	0.2999	-1.4726
12	14.47	0.01	2.7142	-3.9923	-0.0776	0.1735	0.0008	0.3825	0.0630	0.3167	-1.4709
13	15.57	0.01	3.2742	-4.7080	-0.0939	0.1951	0.0002	0.4012	0.0616	0.3396	-1.4911
14	19.74	0.01	3.4909	-5.9420	-0.0402	0.1794	0.0044	0.4226	0.0595	0.3631	-1.5240
15	20.75	0.01	4.5204	-7.0592	-0.0754	0.1794	0.0111	0.4444	0.0552	0.3892	-1.5016
16	22.93	0.01	5.2750	-8.4453	-0.0723	0.1732	0.0233	0.4700	0.0510	0.4190	-1.6000
17	-0.02	0.0	0.0102	-0.0255	-0.0434	0.0828	0.0001	0.3100	0.0495	0.2505	-1.5720

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MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	MALE	RAIO-6	PHI	CUNF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	57	4.63	3.0	0.0	0.0	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLN	CY	CLN	CLL	CA	CAP	CAF	ACP
1	-3.25	0.0	-0.4107	0.4774	0.0087	0.0743	-0.0012	0.2887	0.0447	0.2440	-1.1636
2	-1.69	0.0	-0.1944	0.2262	-0.0328	0.0771	-0.0006	0.2464	0.0447	0.2421	-1.1673
3	-0.72	0.0	-0.0735	0.0849	-0.0420	0.0888	-0.0002	0.2886	0.0447	0.2439	-1.1551
4	0.34	0.0	0.0400	-0.0363	-0.0515	0.1010	0.0001	0.2862	0.0447	0.2415	-1.2034
5	1.38	0.0	0.1409	-0.2259	-0.0487	0.0976	0.0005	0.2890	0.0447	0.2443	-1.1831
6	2.35	0.0	0.3108	-0.3640	-0.0462	0.0946	0.0000	0.2893	0.0447	0.2446	-1.1712
7	4.42	0.0	0.5946	-0.7190	-0.0131	0.0530	0.0016	0.2937	0.0447	0.2490	-1.1992
8	6.44	0.0	0.9541	-1.2259	-0.0044	0.0609	-0.0042	0.3018	0.0447	0.2571	-1.2796
9	8.55	0.0	1.3138	-1.6906	-0.0153	0.0752	-0.0033	0.3142	0.0447	0.2695	-1.2967
10	10.57	0.0	1.6745	-2.2031	-0.0523	0.1226	-0.0023	0.3277	0.0474	0.2903	-1.3157
11	12.61	0.0	2.0940	-2.6292	-0.0589	0.1320	-0.0013	0.3416	0.0474	0.2942	-1.3485
12	14.69	0.0	2.5766	-3.6136	-0.0532	0.1250	-0.0001	0.3578	0.0474	0.3104	-1.4825
13	16.70	0.0	3.1035	-4.5522	-0.0661	0.1464	0.0010	0.3764	0.0447	0.3317	-1.4764
14	18.42	0.01	3.7118	-5.7503	-0.1014	0.1912	0.0023	0.3990	0.0470	0.3570	-1.5492
15	20.84	0.01	4.3341	-7.0073	-0.0603	0.1470	0.0103	0.4240	0.0392	0.3868	-1.6149
16	23.06	0.01	5.0628	-8.4810	-0.0824	0.1849	-0.0016	0.4509	0.0365	0.4144	-1.6752
17	0.32	0.0	0.0443	-0.0556	-0.0245	0.0664	0.0001	0.2889	0.0420	0.2469	-1.2013

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MARTIN MISSILE TAIL EFFECTS DATA

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TEST	PART	PAWM	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
3	58	4.63	3.0	45.0	51-0433	0.0	0	0	0	FIXED	
POINT	ALPHA	BETA	CN	CLM	CV	CLM	CLL	CA	CAR	CAF	XCP
1	-2.99	0.0	-0.7595	0.4018	-0.0157	-0.0076	-0.0010	0.2908	0.0447	0.2441	-1.0674
2	-1.44	0.0	-0.1671	0.1645	-0.0077	-0.0143	-0.0035	0.2903	0.0446	0.2457	-0.9865
3	-0.47	0.0	-0.0556	0.0333	-0.0135	-0.0014	-0.0002	0.2910	0.0446	0.2466	-0.5979
4	0.59	0.0	0.0724	-0.1090	-0.0113	-0.0210	-0.0066	0.2914	0.0446	0.2468	-1.5050
5	1.92	0.0	0.2037	-0.2656	-0.0265	0.0196	0.0005	0.2927	0.0446	0.2476	-1.3070
6	2.60	0.0	0.3336	-0.4145	-0.0151	0.0138	-0.0059	0.2942	0.0446	0.2496	-1.2669
7	4.08	0.0	0.6250	-0.7469	-0.0289	0.0255	-0.0052	0.2998	0.0446	0.2552	-1.2750
8	6.71	0.0	0.9483	-1.2972	-0.0240	0.0367	-0.0044	0.3053	0.0473	0.2580	-1.3397
9	8.76	0.0	1.3201	-1.7670	-0.0256	0.0353	-0.0104	0.3158	0.0473	0.2685	-1.3592
10	10.42	0.0	1.7062	-2.3086	-0.0271	0.0358	-0.0094	0.3270	0.0473	0.2797	-1.3529
11	12.46	0.0	2.1242	-2.9306	-0.0489	0.0775	-0.0085	0.3408	0.0473	0.2935	-1.3764
12	14.94	0.0	2.6011	-3.7192	-0.0624	0.0942	-0.0075	0.3598	0.0474	0.3124	-1.4299
13	17.01	-0.01	3.1275	-4.6127	-0.0529	0.0747	-0.0065	0.3794	0.0446	0.3348	-1.4746
14	19.11	-0.01	3.7936	-5.4786	-0.0813	0.1246	-0.0054	0.3987	0.0419	0.3563	-1.5144
15	21.12	-0.01	4.2515	-6.5974	-0.0821	0.1442	-0.0043	0.4225	0.0392	0.3833	-1.5481
16	23.27	-0.01	4.9143	-7.7675	-0.0672	0.1358	-0.0097	0.4450	0.0337	0.4113	-1.5806
17	25.58	0.0	0.0728	-0.1092	-0.0017	-0.0206	0.0001	0.2930	0.0392	0.2538	-1.5003

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MANTIN MISSILE TAIL EFFECTS DATA

TEST	WIND	WIND	WIND	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	59	2.30	3.0	0.0	bl-UP34	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	ACP
1	-3.57	0.01	-0.7292	1.7546	-0.0139	-0.6400	-0.0248	0.4226	0.1241	0.2945	-2.4062
2	-1.64	0.01	-0.4215	1.0240	-0.0241	-0.6130	-0.0264	0.4178	0.1226	0.2952	-2.4294
3	-0.99	0.01	-0.2104	0.5360	-0.0271	-0.6023	-0.0221	0.4174	0.1212	0.2957	-2.4804
4	0.10	0.01	0.0010	0.0412	-0.0303	0.6116	-0.0207	0.4156	0.1212	0.2944	1.2000
5	1.13	0.01	0.1933	-0.4277	-0.0328	0.6046	-0.0210	0.4161	0.1213	0.2948	-2.2138
6	2.15	0.01	0.3450	-0.4730	-0.0230	0.6130	-0.0213	0.4180	0.1227	0.2953	-2.2651
7	4.27	0.01	0.4212	-1.9014	-0.0403	0.6552	-0.0208	0.4277	0.1283	0.2994	-2.3168
8	6.36	0.01	1.2920	-2.4292	-0.0355	0.6013	-0.0254	0.4455	0.1396	0.3059	-2.2664
9	6.50	0.01	1.7431	-3.4334	-0.0330	0.6520	-0.0280	0.4593	0.1490	0.3103	-2.1939
10	10.41	0.01	2.3890	-5.0044	-0.0403	0.6468	-0.0300	0.4705	0.1521	0.3184	-2.0941
11	12.77	0.01	3.0171	-5.4624	-0.0448	0.6540	-0.0353	0.4706	0.1476	0.3228	-1.9764
12	14.98	0.02	3.7077	-6.4410	-0.0691	0.6493	-0.0300	0.4663	0.1449	0.3214	-1.8723
13	17.10	0.02	4.4060	-7.4822	-0.0520	0.6379	-0.0281	0.4687	0.1408	0.3279	-1.8115
14	19.45	0.02	4.1307	-9.0164	-0.0524	0.6245	-0.0192	0.4648	0.1351	0.3347	-1.7573
15	21.59	0.03	5.0001	-10.4082	-0.0713	0.6526	-0.0173	0.4756	0.1295	0.3461	-1.7240
16	23.85	0.03	6.4546	-11.4264	-0.0735	0.6073	-0.0221	0.4824	0.1256	0.3570	-1.7150
17	0.09	0.01	0.0020	0.0321	-0.0302	0.0022	-0.0208	0.4155	0.1210	0.2945	16.8500

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 LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	MACM	AXIUM	MPI	COMP	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	69	2.36	3.0	45.0	8120F34	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	ICP
1	-3.56	0.02	-0.7344	1.7705	-0.0097	-0.0472	-0.0356	0.4249	0.1239	0.3010	-2.4830
2	-2.01	0.01	-0.4260	1.0675	-0.0172	-0.0344	-0.0318	0.4212	0.1224	0.2988	-2.4589
3	-0.90	0.01	-0.2224	0.5644	-0.0191	-0.0342	-0.0344	0.4190	0.1225	0.2945	-2.5556
4	0.10	0.01	0.0603	0.0654	-0.0224	-0.0277	-0.0382	0.4170	0.1210	0.2960	219.2664
5	1.15	0.01	0.1413	-0.3845	-0.0314	0.0105	-0.0269	0.4165	0.1210	0.2955	-2.0100
6	2.15	0.0	0.3720	-0.8144	-0.0281	0.0164	-0.0330	0.4150	0.1197	0.2953	-2.1900
7	4.25	0.0	0.7954	-1.0711	-0.0152	-0.0145	-0.0312	0.4228	0.1268	0.2960	-2.2455
8	6.33	-0.01	1.2752	-2.9010	-0.0237	0.0124	-0.0331	0.4349	0.1352	0.2947	-2.2702
9	8.48	-0.01	1.7925	-3.9667	-0.0309	0.0228	-0.0405	0.4427	0.1423	0.3004	-2.2129
10	10.59	-0.02	2.3414	-5.0104	-0.0437	0.0578	-0.0405	0.4446	0.1423	0.3023	-2.0904
11	12.75	-0.01	3.0150	-5.8436	-0.0701	0.0962	-0.0434	0.4501	0.1451	0.3050	-1.9548
12	14.94	-0.02	3.6713	-6.0174	-0.0734	0.0957	-0.0456	0.4605	0.1489	0.3116	-1.8571
13	17.13	-0.02	4.3517	-7.7405	-0.0974	0.1266	-0.0438	0.4603	0.1452	0.3151	-1.7800
14	19.34	-0.03	5.0424	-8.8844	-0.0783	0.0818	-0.0576	0.4678	0.1479	0.3199	-1.7410
15	21.55	-0.03	5.7454	-10.1270	-0.0956	0.1007	-0.0510	0.4742	0.1465	0.3277	-1.7261
16	23.78	-0.03	6.4704	-11.6504	-0.1160	0.1460	-0.0527	0.4804	0.1440	0.3404	-1.7340
17	0.06	0.01	-0.6044	0.0027	-0.0316	-0.0102	-0.0382	0.4169	0.1211	0.2458	-9.8405

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MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	WALW	WALU	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
3	61	2.00	3.0	45.0	81.0	0.0	0	0	0	FIXED	
POINT	ALPHA	BETA	CN	CLx	CY	CLy	CLL	CA	CAR	CAF	KCP
1	-1.55	0.01	-0.6574	1.3395	0.0036	-0.0763	-0.0267	0.3764	0.1011	0.2773	-2.0329
2	-2.00	0.01	-0.3572	0.7530	-0.0041	-0.0463	-0.0242	0.3764	0.0979	0.2747	-2.1091
3	-0.60	0.01	-0.1703	0.3444	-0.0155	-0.0358	-0.0278	0.3764	0.0979	0.2765	-2.2090
4	0.90	0.01	-0.0147	0.0004	-0.0155	-0.0374	-0.0236	0.3756	0.0995	0.2761	-5.4612
5	1.13	0.01	0.1443	-0.2645	-0.0222	-0.0231	-0.0226	0.3761	0.0945	0.2766	-1.6014
6	2.13	0.0	0.3345	-0.6107	-0.0176	-0.0207	-0.0256	0.3768	0.0979	0.2789	-1.8041
7	4.25	0.0	0.7001	-1.3455	-0.0589	-0.0400	-0.0276	0.3818	0.1011	0.2807	-1.9219
8	6.31	0.0	1.1160	-2.1343	-0.0150	-0.0146	-0.0256	0.3900	0.1075	0.2825	-1.9159
9	8.42	-0.01	1.5571	-2.9710	-0.0145	-0.0145	-0.0302	0.3968	0.1107	0.2841	-1.8696
10	10.53	-0.01	2.1424	-3.8362	-0.0374	0.0141	-0.0304	0.4000	0.1123	0.2877	-1.7892
11	12.66	-0.01	2.7126	-4.6204	-0.0493	0.0325	-0.0340	0.4064	0.1123	0.2941	-1.7034
12	14.80	-0.01	3.2407	-5.3254	-0.0627	0.0464	-0.0366	0.4139	0.1091	0.3048	-1.6487
13	16.95	-0.01	3.9000	-6.0274	-0.0860	0.0746	-0.0342	0.4226	0.1091	0.3135	-1.6142
14	19.17	-0.01	4.5563	-7.3627	-0.0855	0.0460	-0.0457	0.4332	0.1091	0.3241	-1.6159
15	21.24	-0.02	5.2075	-8.7258	-0.0840	0.0556	-0.0443	0.4472	0.1075	0.3397	-1.6243
16	23.46	-0.03	6.0311	-9.6674	-0.0900	0.0431	-0.0504	0.4655	0.1059	0.3596	-1.6530
17	0.00	0.01	-8.0627	0.6724	-0.0254	-0.0265	-0.0276	0.3770	0.0995	0.2775	-26.8074

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST PART PALM #X10 ⁻⁶											
	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAB	CAF	XCP	
1	-3.71	0.01	-0.2542	1.3302	-0.0057	-0.0675	-0.0209	0.3776	0.1011	0.2765	-2.0209	
2	-2.14	0.01	-0.3447	0.7864	-0.0124	-0.0670	-0.0187	0.3766	0.0995	0.2771	-2.0454	
3	-1.14	0.01	-0.2114	0.4454	-0.0064	-0.0521	-0.0133	0.3765	0.0995	0.2770	-2.1067	
4	-0.00	0.01	-0.0244	0.0771	-0.0182	-0.0244	-0.0114	0.3772	0.0995	0.2777	-3.1541	
5	0.40	0.01	0.1440	-0.2634	-0.0244	-0.0144	-0.0121	0.3776	0.0995	0.2741	-1.7671	
6	1.44	0.0	0.3244	-0.4016	-0.0073	-0.0309	-0.0125	0.3780	0.0995	0.2745	-1.6746	
7	4.04	0.01	0.4444	-1.3461	-0.0115	-0.0242	-0.0131	0.3843	0.1027	0.2816	-1.0329	
8	6.15	0.01	1.1124	-2.1173	-0.0311	0.0114	-0.0174	0.3967	0.1091	0.2876	-1.9027	
9	8.24	0.01	1.5514	-2.4502	-0.0201	0.0002	-0.0202	0.4071	0.1134	0.2942	-1.8655	
10	10.34	0.01	2.1442	-3.4442	-0.0283	0.0134	-0.0226	0.4115	0.1155	0.2960	-1.8119	
11	12.45	0.01	2.7774	-4.7263	-0.0461	0.0363	-0.0252	0.4166	0.1139	0.3007	-1.7329	
12	14.55	0.02	3.3144	-5.5594	-0.0573	0.0448	-0.0237	0.4200	0.1107	0.3093	-1.6615	
13	16.62	0.02	3.9110	-6.4131	-0.0564	0.0244	-0.0222	0.4274	0.1075	0.3199	-1.6446	
14	18.72	0.02	4.5444	-7.4447	-0.0511	0.0234	-0.0244	0.4371	0.1027	0.3344	-1.6306	
15	21.10	0.02	5.2314	-8.4454	-0.0526	0.0040	-0.0224	0.4562	0.0974	0.3523	-1.6214	
16	23.37	0.02	6.0715	-9.7642	-0.0572	0.0051	-0.0130	0.4626	0.0915	0.3713	-1.6351	
17	-0.07	0.01	-0.0142	0.0585	-0.0182	-0.0258	-0.0116	0.3760	0.0995	0.2765	-5.7333	

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MARTIN MISSILE TAIL EFFECTS DATA

TEST	PLAT	PLCH	GR10-A	PHI	CORP	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	63	3.65	3.0	45.0	01.0F34	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLN	CY	CLN	CLL	CA	CAN	CAF	XCP
1	-3.62	0.01	-0.6953	0.7735	-0.0014	-0.0424	-0.0168	0.2967	0.0642	0.2325	-1.5523
2	-1.45	0.01	-0.7654	0.8201	-0.0141	-0.0765	-0.0163	0.2955	0.0643	0.2312	-1.5798
3	-0.24	0.01	-0.1217	0.2059	-0.0291	0.0022	-0.0166	0.2949	0.0643	0.2306	-1.7017
4	0.14	0.0	0.0057	0.0044	0.0024	-0.0170	-0.0156	0.2947	0.0643	0.2299	0.7343
5	1.22	0.0	0.1480	-0.1927	-0.0294	0.0044	-0.0144	0.2955	0.0643	0.2312	-1.3034
6	2.21	0.0	0.7447	-0.0224	-0.0204	-0.0050	-0.0132	0.2977	0.0643	0.2334	-1.4117
7	4.30	0.0	0.5896	-0.4560	-0.0150	-0.0143	-0.0160	0.3050	0.0644	0.2386	-1.4519
8	6.37	0.0	0.4361	-1.3473	-0.0153	-0.0085	-0.0190	0.3110	0.0644	0.2446	-1.4564
9	8.44	0.0	1.4225	-1.5220	-0.0371	0.0121	-0.0149	0.3142	0.0645	0.2497	-1.4467
10	10.46	0.0	1.7506	-2.4744	-0.0342	0.0144	-0.0259	0.3242	0.0645	0.2603	-1.4135
11	12.55	0.0	2.2155	-3.0815	-0.0463	0.0340	-0.0315	0.3394	0.0645	0.2709	-1.3909
12	14.66	0.0	2.7060	-3.7857	-0.0541	0.0355	-0.0352	0.3577	0.0644	0.2913	-1.4021
13	16.76	-0.01	3.2507	-4.5715	-0.0515	0.0336	-0.0450	0.3774	0.0643	0.3136	-1.4217
14	18.94	-0.01	3.8675	-5.6102	-0.0649	0.0456	-0.0490	0.3984	0.0621	0.3363	-1.4506
15	20.44	-0.01	4.4757	-6.6407	-0.0653	0.0754	-0.0478	0.4190	0.0579	0.3411	-1.4830
16	23.15	-0.01	5.2061	-7.6411	-0.1051	0.1073	-0.0516	0.4407	0.0556	0.3449	-1.5079
17	0.14	0.01	0.0250	-0.0082	-0.0345	0.0064	-0.0156	0.2941	0.0621	0.2320	-0.3280

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA

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POINT	TEST PARTY NAME WX16-6										TRANSITION
	ALPHA	HFTA	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	
3	64	3.95	3.0	0.0	01.0G34	0.0	DEL1	DEL2	DEL3	DEL4	FIXED
1	-3.62	0.0	-0.4916	0.7500	0.0157	-0.0624	-0.0116	0.2921	0.0643	0.2278	-1.5332
2	-2.04	0.0	-0.2634	0.4186	0.0165	-0.0630	-0.0098	0.2425	0.0643	0.2242	-1.5535
3	-1.08	0.0	-0.1368	0.2127	-0.0083	-0.0385	-0.0070	0.2438	0.0643	0.2295	-1.6289
4	0.0	0.0	0.0022	0.0163	-0.0001	-0.0366	-0.0052	0.2941	0.0643	0.2298	7.4182
5	1.02	0.0	0.1541	-0.2164	-0.0032	-0.0373	-0.0057	0.2955	0.0643	0.2312	-1.3948
6	2.03	0.0	0.2484	-0.4045	-0.0028	-0.0376	-0.0062	0.2972	0.0643	0.2329	-1.4272
7	4.04	0.0	0.5826	-0.6652	-0.0015	-0.0243	-0.0125	0.3031	0.0643	0.2388	-1.4360
8	6.15	0.0	0.9444	-1.3810	-0.0001	-0.0253	-0.0133	0.3123	0.0664	0.2459	-1.4559
9	8.25	0.01	1.3003	-1.9560	-0.0201	0.0011	-0.0176	0.3190	0.0664	0.2526	-1.4549
10	10.26	0.01	1.7444	-2.5304	-0.0214	0.0040	-0.0164	0.3316	0.0685	0.2631	-1.4309
11	12.34	0.01	2.2164	-3.1256	-0.0243	-0.0056	-0.0205	0.3451	0.0664	0.2787	-1.4099
12	14.47	0.01	2.7024	-3.8004	-0.0210	-0.0043	-0.0245	0.3503	0.0664	0.2939	-1.4070
13	16.61	0.01	3.2062	-4.6087	-0.0442	0.0216	-0.0231	0.3785	0.0643	0.3142	-1.4191
14	18.76	0.01	3.7200	-5.5278	-0.0367	0.0143	-0.0270	0.3942	0.0600	0.3362	-1.4440
15	20.75	0.01	4.2510	-6.5701	-0.0531	0.0077	-0.0150	0.4171	0.0579	0.3592	-1.4761
16	22.95	0.01	5.1220	-7.7425	-0.0612	0.0442	-0.0195	0.4404	0.0536	0.3864	-1.5097
17	-0.02	0.0	0.0022	0.0162	-0.0041	-0.0367	-0.0052	0.2942	0.0621	0.2321	7.3727

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN 4 (NU TUNNEL (UPMT))
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART = ALM RA10-5 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 65 4.63 3.0 0.0 01.0P34 0.0 0 0 0 0 FIXED

POINT	ALPHA	HETA	CN	CLN	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.26	0.0	-0.0004	0.5000	0.0004	-0.0434	-0.0163	0.2727	0.0442	0.2245	-1.2359
2	-1.75	0.0	-0.2124	0.2053	0.0001	-0.0403	-0.0111	0.2649	0.0482	0.2217	-1.2489
3	-1.74	0.0	-0.0003	0.0003	0.0019	-0.0376	-0.0009	0.2717	0.0442	0.2235	-1.3619
4	0.34	0.0	0.0513	-0.0321	-0.0000	-0.0301	-0.0065	0.2715	0.0442	0.2233	-0.6261
5	1.34	0.0	0.1435	-0.1921	-0.0021	-0.0105	-0.0073	0.2726	0.0482	0.2244	-1.0289
6	2.35	0.0	0.3130	-0.3370	-0.0039	-0.0120	-0.0081	0.2736	0.0481	0.2255	-1.0765
7	4.43	0.0	0.6257	-0.7230	-0.0070	-0.0076	-0.0095	0.2780	0.0482	0.2298	-1.1555
8	6.47	0.0	0.9341	-1.1356	-0.0070	-0.0056	-0.0175	0.2846	0.0482	0.2374	-1.2148
9	8.54	0.0	1.4103	-1.6310	-0.0000	-0.0022	-0.0232	0.2964	0.0509	0.2460	-1.2394
10	10.58	0.0	1.6443	-2.1242	-0.0130	-0.0154	-0.0222	0.3105	0.0509	0.2596	-1.2538
11	12.63	0.0	2.0900	-2.4701	-0.0135	-0.0137	-0.0278	0.3217	0.0509	0.2708	-1.2764
12	14.70	0.01	2.5510	-3.0001	-0.0361	0.0160	-0.0260	0.3305	0.0481	0.2864	-1.3364
13	16.76	0.01	3.0700	-4.3027	-0.0200	0.0072	-0.0256	0.3534	0.0481	0.3053	-1.3977
14	18.88	0.01	3.6510	-5.3000	-0.0413	0.0254	-0.0203	0.3700	0.0454	0.3266	-1.4690
15	20.90	0.0	4.2537	-6.4400	-0.0253	0.0257	-0.0247	0.3901	0.0427	0.3534	-1.5257
16	23.07	0.01	4.9755	-7.6454	-0.0605	0.0730	-0.0300	0.4200	0.0373	0.3835	-1.5769
17	0.30	0.0	0.0754	-0.0630	-0.0010	-0.0339	-0.0065	0.2737	0.0454	0.2283	-0.8016

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TEST PART NAME HX10-6 PHI CUP L DEL1 DEL2 DEL3 DEL4 TRANSITION
 3 GA 4.63 3.0 45.0 01-0F34 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP
1	-2.46	0.0	-0.4190	0.5361	0.0066	-0.0541	-0.0211	0.2767	0.0509	0.2258	-1.2795
2	-1.50	0.0	-0.2274	0.3114	-0.0113	-0.0170	-0.0207	0.2744	0.0481	0.2268	-1.3710
3	-0.66	0.0	-0.0770	0.1514	-0.0054	-0.0154	-0.0203	0.2753	0.0441	0.2272	-1.6051
4	0.59	0.0	0.0590	-0.0324	-0.0170	-0.0166	-0.0194	0.2736	0.0441	0.2255	-0.5559
5	1.43	0.0	0.1660	-0.1576	-0.0200	-0.0020	-0.0185	0.2749	0.0441	0.2268	-0.9494
6	2.60	0.0	0.3113	-0.3191	-0.0241	0.0005	-0.0170	0.2757	0.0441	0.2276	-1.0251
7	4.58	0.0	0.6144	-0.6446	-0.0154	-0.0012	-0.0206	0.2808	0.0441	0.2327	-1.1302
8	6.71	0.0	0.9354	-1.1271	-0.0255	0.0115	-0.0179	0.2870	0.0509	0.2361	-1.2043
9	8.77	0.0	1.2714	-1.5770	-0.0132	0.0026	-0.0260	0.2954	0.0509	0.2447	-1.2366
10	10.79	0.0	1.6641	-2.0911	-0.0166	0.0033	-0.0341	0.3054	0.0509	0.2545	-1.2476
11	12.96	-0.01	2.0752	-2.6741	-0.0251	0.0165	-0.0351	0.3166	0.0509	0.2657	-1.2886
12	14.93	0.0	2.5253	-3.3435	-0.0491	0.0274	-0.0409	0.3306	0.0509	0.2837	-1.3383
13	17.02	-0.01	3.0440	-4.2822	-0.0521	0.0447	-0.0465	0.3524	0.0481	0.3043	-1.3974
14	19.10	-0.01	3.5978	-5.2083	-0.0544	0.0519	-0.0455	0.3746	0.0454	0.3292	-1.4476
15	21.13	-0.01	4.1544	-6.1685	-0.0662	0.0547	-0.0444	0.3943	0.0427	0.3516	-1.4812
16	23.24	-0.01	4.8334	-7.1290	-0.0786	0.0745	-0.0448	0.4174	0.0373	0.3801	-1.5164
17	0.60	0.0	0.0590	-0.0320	-0.0170	-0.0165	-0.0199	0.2734	0.0427	0.2307	-0.5559

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LANGLEY RESEARCH CENTER (LARC) UNITARY PLAN WIND TUNNEL (UPWT)
MANTIA MISSILE TAIL EFFECTS DATA

TEST	PART	CLM	HT10-D	MM1	CU-F	L	DEL1	DFL2	DEL3	DEL4	TRANSITION
3	67	2.30	3.0	0.0	0.11134	15.420	0	0	0	0	FIXED
POINT	ALPHA	HFA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	RCP
1	-3.83	0.01	-1.1727	1.6645	-0.0004	-0.0472	-0.0377	0.4764	0.1270	0.3494	-1.4236
2	-2.14	0.01	-0.6710	0.9540	-0.0139	-0.0444	-0.0399	0.4715	0.1228	0.3487	-1.4218
3	-1.12	0.01	-0.3455	0.5321	-0.0025	-0.0444	-0.0320	0.4684	0.1229	0.3459	-1.5356
4	0.01	0.01	-0.0712	0.1014	-0.0144	-0.0453	-0.0312	0.4672	0.1227	0.3445	-4.7021
5	1.10	0.02	0.2842	-0.2852	-0.0151	-0.0145	-0.0303	0.4676	0.1229	0.3447	-0.9895
6	2.17	0.01	0.5943	-0.7213	-0.0212	-0.0354	-0.0331	0.4701	0.1241	0.3460	-1.2032
7	4.34	0.01	1.2045	-1.4633	-0.0205	-0.0352	-0.0279	0.4707	0.1204	0.3503	-1.3354
8	6.50	0.02	1.9735	-2.7673	-0.0447	-0.0030	-0.0201	0.4955	0.1397	0.3558	-1.4022
9	8.77	0.02	2.7113	-4.4050	-0.0397	0.0016	-0.0243	0.5087	0.1402	0.3605	-1.4403
10	10.94	0.02	3.4707	-6.1020	-0.0475	0.0134	-0.0259	0.5246	0.1552	0.3694	-1.4676
11	13.18	0.02	4.3121	-8.3642	-0.0567	0.0353	-0.0273	0.5320	0.1495	0.3725	-1.4760
12	15.42	0.03	5.1910	-11.2132	-0.0739	0.0409	-0.0216	0.5335	0.1580	0.3755	-1.4607
13	17.71	0.02	6.0511	-14.7395	-0.0512	-0.0236	-0.0150	0.5312	0.1454	0.3658	-1.4443
14	19.94	0.02	6.9227	-18.8401	-0.0454	-0.0572	-0.0135	0.5387	0.1384	0.4003	-1.4226
15	22.20	0.03	7.8543	-23.6162	-0.0590	-0.0300	0.0024	0.5496	0.1340	0.4158	-1.4271
16	24.44	0.03	8.8510	-29.1411	-0.0657	-0.0187	-0.0051	0.5553	0.1284	0.4249	-1.4396
17	0.01	0.01	-0.0205	0.1003	-0.0180	-0.0567	-0.0301	0.4668	0.1229	0.3439	-4.8927

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

TEST	POINT	ALPHA	REF A	CN	CLM	CY	CLM	CLL	CA	CAH	CAF	XCP
3.	6R	2.30	3.00	45.0	51.1F34	15.420	0	0	0	0	FIXED	
	POINT	ALPHA	REF A	CN	CLM	CY	CLM	CLL	CA	CAH	CAF	XCP
	1	-3.41	0.02	-1.1550	1.0200	-0.0100	-0.0715	-0.0305	0.4426	0.1268	0.3558	-1.4024
	2	-2.22	0.02	-0.6452	1.0017	-0.0200	-0.0479	-0.0143	0.4755	0.1239	0.3516	-1.4555
	3	-1.12	0.02	-0.3010	0.7750	-0.0150	-0.0271	-0.0321	0.4705	0.1223	0.3442	-1.5923
	4	0.01	0.02	-0.0500	0.1810	-0.0100	-0.0505	-0.0313	0.4676	0.1226	0.3450	-3.5720
	5	1.09	0.02	0.2805	-0.2170	-0.0255	-0.0400	-0.0305	0.4692	0.1238	0.3454	-0.8363
	6	2.18	0.02	0.5000	-0.6302	-0.0035	-0.0203	-0.0298	0.4723	0.1239	0.3404	-1.0950
	7	4.48	0.01	1.2625	-1.5005	-0.0530	0.0050	-0.0352	0.4436	0.1295	0.3501	-1.2519
	8	4.54	0.01	1.8450	-2.4733	-0.0509	0.0155	-0.0372	0.4925	0.1351	0.3574	-1.3052
	9	4.74	0.01	2.5935	-3.0322	-0.0725	0.0000	-0.0426	0.5005	0.1394	0.3611	-1.3232
	10	10.00	0.01	3.2011	-4.2051	-0.0770	0.0000	-0.0480	0.5073	0.1450	0.3623	-1.3140
	11	13.10	0.01	3.9471	-5.2314	-0.0900	0.0000	-0.0497	0.5117	0.1479	0.3638	-1.3122
	12	15.35	0.01	4.7355	-6.1501	-0.1033	0.1150	-0.0514	0.5124	0.1450	0.3674	-1.2987
	13	17.58	-0.01	5.4773	-6.9737	-0.1017	0.1083	-0.0600	0.5094	0.1393	0.3701	-1.2732
	14	19.85	-0.01	6.2712	-7.6304	-0.1030	0.1122	-0.0615	0.5177	0.1394	0.3703	-1.2486
	15	22.05	-0.01	7.1103	-8.1904	-0.1272	0.1003	-0.0700	0.5301	0.1464	0.3837	-1.2375
	16	24.43	-0.02	8.1102	-10.0900	-0.1400	0.2004	-0.0607	0.5364	0.1479	0.3885	-1.2433
	17	0.01	0.02	-0.0310	0.1635	-0.0100	-0.0607	-0.0307	0.4712	0.1239	0.3473	-5.2057

LANGLEY RESEARCH CENTER (ASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	MACH	WALL	REYNOLDS	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	69	2.66	3.0	45.0	H1-1F36	15.420	0	0	0	0	FIXED
POINT	ALPHA	BETA	CX	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-3.75	0.01	-0.9950	1.7616	0.0027	-0.0870	-0.0222	0.4319	0.1044	0.3275	-1.2679
2	-2.77	0.01	-0.5167	0.7717	0.0040	-0.0442	-0.0212	0.4241	0.1012	0.3279	-1.2557
3	-1.11	0.01	-0.3144	0.4203	-0.0022	-0.0745	-0.0244	0.4254	0.1012	0.3247	-1.3352
4	-0.01	0.01	-0.0347	0.1217	0.0041	-0.0911	-0.0147	0.4216	0.1012	0.3204	-3.5066
5	1.07	0.01	0.2124	-0.1502	0.0037	-0.0729	-0.0230	0.4235	0.1012	0.3273	-0.7053
6	2.12	0.01	0.4433	-0.4694	-0.0210	-0.0440	-0.0263	0.4292	0.1011	0.3281	-0.9721
7	4.24	0.01	1.0371	-1.1624	-0.0304	-0.0313	-0.0249	0.4371	0.1028	0.3343	-1.1401
8	6.41	0.0	1.6271	-1.9465	-0.0204	-0.0361	-0.0275	0.4436	0.1044	0.3392	-1.2271
9	8.54	0.0	2.2474	-2.7567	-0.0342	-0.0254	-0.0340	0.4444	0.1076	0.3412	-1.2702
10	10.72	0.0	2.9542	-3.7822	-0.0443	0.0130	-0.0364	0.4564	0.1108	0.3456	-1.2747
11	12.88	0.0	3.5335	-4.4845	-0.0706	0.0463	-0.0388	0.4613	0.1076	0.3537	-1.2691
12	15.07	0.0	4.2167	-5.3249	-0.0825	0.0652	-0.0450	0.4675	0.1060	0.3615	-1.2628
13	17.25	-0.01	4.9157	-6.0970	-0.0453	0.0640	-0.0472	0.4780	0.1044	0.3736	-1.2403
14	19.44	-0.01	5.6723	-6.9405	-0.0694	0.0475	-0.0492	0.4495	0.1060	0.3835	-1.2282
15	21.63	-0.01	6.4473	-7.4419	-0.1054	0.0477	-0.0553	0.4030	0.1076	0.3954	-1.2241
16	23.94	-0.01	7.3240	-8.4700	-0.1023	0.0365	-0.0651	0.5205	0.1075	0.4130	-1.2239
17	0.0	0.01	-0.0440	0.1340	-0.0019	-0.0781	-0.0197	0.4240	0.1028	0.3212	-3.0094

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN BOND TUNNEL (UPBT)
MANTIC MISSILE TAIL EFFECTS DATA

TEST	MANT	MALM	MALU	M	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	70	2.66	3.0	0.0	01-1F34	15.420	0	0	0	0	FIXED
POINT	ALPHA	META	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	RCP
1	-3.92	0.0	-1.0764	1.3176	0.0084	-0.0344	-0.0264	0.4255	0.1031	0.3224	-1.2830
2	-2.32	0.01	-0.6613	0.7551	-0.0049	-0.0704	-0.0252	0.4260	0.1031	0.3229	-1.2558
3	-2.32	0.01	-0.6615	0.7550	-0.0049	-0.0704	-0.0252	0.4261	0.1031	0.3230	-1.2559
4	-1.27	0.01	-0.3320	0.4233	-0.0120	-0.0473	-0.0245	0.4244	0.1031	0.3227	-1.2733
5	-0.16	0.01	-0.0507	0.1100	-0.0170	-0.0006	-0.0237	0.4232	0.1031	0.3201	-2.1900
6	0.92	0.01	0.2155	-0.1614	-0.0380	-0.0337	-0.0266	0.4250	0.1031	0.3219	-0.8436
7	1.97	0.01	0.4314	-0.5307	-0.0266	-0.0457	-0.0222	0.4267	0.1031	0.3256	-1.0400
8	0.16	0.02	1.0244	-1.2302	-0.0457	-0.0131	-0.0207	0.4339	0.1247	0.3292	-1.1958
9	6.27	0.02	1.6301	-2.1011	-0.0480	0.0014	-0.0192	0.4440	0.1111	0.3329	-1.2613
10	4.05	0.02	2.2541	-2.4427	-0.0475	0.0024	-0.0216	0.4554	0.1159	0.3395	-1.3142
11	10.57	0.02	2.9684	-3.9660	-0.0474	0.0038	-0.0196	0.4666	0.1191	0.3475	-1.3462
12	12.77	0.02	3.6715	-5.6237	-0.0633	0.0149	-0.0160	0.4703	0.1191	0.3512	-1.3683
13	14.40	0.02	4.3746	-7.0037	-0.0683	0.0223	-0.0121	0.4811	0.1143	0.3668	-1.3630
14	17.14	0.02	5.1743	-7.9550	-0.0652	0.0194	-0.0141	0.4947	0.1111	0.3836	-1.3622
15	19.49	0.03	5.9740	-8.1503	-0.0754	0.0242	-0.0061	0.5077	0.1079	0.3948	-1.3643
16	21.55	0.03	6.7740	-9.4182	-0.0655	-0.0142	-0.0060	0.5206	0.1031	0.4175	-1.3813
17	23.43	0.03	7.7077	-10.8052	-0.0721	-0.0140	-0.0076	0.5344	0.0951	0.4393	-1.3946
18	-0.16	0.01	-0.0600	0.1200	-0.0335	-0.0404	-0.0237	0.4227	0.1031	0.3191	-2.0000

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	WALW	WALU=6	PHI	CONF	L	JEL1	DEL2	DEL3	DEL4	TRANSITION	
3	71	3.45	3.0	45.0	M1-1F3	15.470	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP
1	-3.53	0.0	-0.6375	0.7725	0.0094	-0.0606	-0.0070	0.3358	0.0683	0.2675	-1.1231
2	-2.01	0.0	-0.4055	0.4474	0.0244	-0.0740	-0.0062	0.3347	0.0683	0.2666	-1.1414
3	-0.96	0.0	-0.2053	0.2517	0.0227	-0.0645	-0.0109	0.3294	0.0683	0.2616	-1.2202
4	0.13	0.0	0.3077	0.0224	0.0247	-0.0740	-0.0103	0.3256	0.0683	0.2573	3.3500
5	1.15	0.0	0.2075	-0.1430	0.0181	-0.0468	-0.0094	0.3329	0.0683	0.2646	-0.8724
6	2.15	0.0	0.4257	-0.4247	-0.0063	-0.0397	-0.0093	0.3390	0.0683	0.2707	-0.9953
7	4.25	0.0	0.4414	-0.4751	-0.0205	-0.0103	-0.0134	0.3450	0.0683	0.2767	-1.0429
8	4.35	0.0	1.2871	-1.3661	-0.0044	-0.0340	-0.0122	0.3527	0.0683	0.2844	-1.0631
9	7.47	0.0	1.7524	-1.7107	-0.0134	-0.0175	-0.0163	0.3609	0.0683	0.2926	-1.0916
10	10.53	-0.01	2.3113	-2.0324	-0.0154	-0.0071	-0.0207	0.3725	0.0704	0.3021	-1.1301
11	12.63	-0.01	2.4407	-3.3914	-0.0257	-0.0010	-0.0241	0.3915	0.0704	0.3211	-1.1748
12	14.74	-0.01	3.5253	-4.1514	-0.0423	0.0169	-0.0278	0.4145	0.0683	0.3462	-1.1777
13	16.91	0.0	4.1566	-4.9641	-0.0434	0.0409	-0.0307	0.4342	0.0683	0.3659	-1.1798
14	19.04	-0.01	4.6614	-5.7564	-0.0645	0.0442	-0.0454	0.4574	0.0652	0.3912	-1.1841
15	21.18	-0.01	4.4405	-4.7322	-0.0715	0.0324	-0.0542	0.4845	0.0640	0.4215	-1.1903
16	23.34	-0.01	4.4030	-7.5194	-0.0853	0.0022	-0.0676	0.5108	0.0619	0.4489	-1.1742
17	0.12	0.0	0.0232	0.0118	0.0159	-0.0561	-0.0103	0.3227	0.0662	0.2545	0.5095

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LANGLEY RESEARCH CENTER (LARC) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST NAME NALM NALD-A PH1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
4 72 3.95 3.0 0.0 0141F34 15.420 0 0 0 0 FIXED

POINT	ALPHA	BETA	CN	CLN	CV	CLN	CLL	CA	CAB	CAF	ACP
1	-3.73	0.0	-0.7122	0.0022	0.0096	-0.0541	-0.0125	0.3260	0.0687	0.2573	-1.1263
2	-2.21	0.0	-0.4117	0.0471	0.0246	-0.0732	-0.0064	0.3254	0.0687	0.2572	-1.1442
3	-1.19	0.0	-0.2045	0.0292	-0.0101	-0.0416	-0.0110	0.3257	0.0688	0.2549	-1.2186
4	-0.06	0.0	0.4013	0.0293	0.0169	-0.0429	-0.0104	0.3207	0.0688	0.2519	22.5231
5	0.96	0.0	0.2047	-0.1877	-0.0083	-0.0308	-0.0098	0.3275	0.0688	0.2587	-0.9169
6	1.96	0.0	0.4034	-0.4017	0.0094	-0.0391	-0.0145	0.3315	0.0688	0.2627	-0.9896
7	4.58	0.0	0.4134	-0.0483	0.0017	-0.0427	-0.0133	0.3354	0.0688	0.2676	-1.0429
8	6.14	0.0	1.2567	-1.7667	-0.0063	-0.0207	-0.0121	0.3464	0.0709	0.2760	-1.0858
9	8.27	0.0	1.7391	-1.7364	-0.0101	-0.0176	-0.0160	0.3568	0.0709	0.2459	-1.1155
10	10.34	0.01	2.2795	-2.7969	-0.0167	-0.0172	-0.0197	0.3690	0.0709	0.2981	-1.1366
11	12.46	0.01	2.8113	-3.2280	-0.0240	-0.0074	-0.0183	0.3899	0.0709	0.3190	-1.1457
12	14.56	0.01	3.4147	-3.9665	-0.0504	0.0276	-0.0210	0.4123	0.0688	0.3435	-1.1622
13	16.73	0.01	4.0845	-4.8310	-0.0345	-0.0062	-0.0150	0.4350	0.0667	0.3683	-1.1873
14	18.87	0.01	4.7547	-5.7644	-0.0354	0.0104	-0.0185	0.4544	0.0624	0.3924	-1.2135
15	20.97	0.01	5.5137	-6.8675	-0.0343	-0.0035	-0.0166	0.4774	0.0581	0.4193	-1.2492
16	23.14	0.01	6.4064	-8.2984	-0.0276	-0.0242	-0.0092	0.5011	0.0539	0.4472	-1.2952
17	-0.11	0.0	0.0016	0.0286	-0.0042	-0.0361	-0.0104	0.3214	0.0667	0.2547	15.8776

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RAJU-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 77 0.63 3.0 0.0 0.11F36 13.420 0 0 0 0 FIXED

POINT	ALPHA	BETA	C _x	CLM	C _y	CLN	CLL	CA	CA9	CAF	KCP
1	-3.35	0.0	-0.5705	0.5480	0.0149	-0.0565	-0.0152	0.2998	0.0538	0.2468	-0.9888
2	-1.43	0.0	-0.3073	0.2471	0.0100	-0.0477	-0.0144	0.2976	0.0538	0.2438	-0.9669
3	-0.79	0.0	-0.1163	0.1247	0.0045	-0.0347	-0.0139	0.2956	0.0538	0.2418	-1.0724
4	0.27	0.0	0.0749	-0.00477	-0.0012	-0.0134	-0.0132	0.2920	0.0538	0.2382	-0.6363
5	1.27	0.0	0.2373	-0.1826	0.0204	-0.0504	-0.0127	0.2976	0.0538	0.2438	-0.7696
6	2.31	0.0	0.4443	-0.3475	-0.0120	-0.0144	-0.0120	0.3021	0.0538	0.2483	-0.8848
7	4.40	0.0	0.7437	-0.7148	0.0051	-0.0411	-0.0177	0.3066	0.0538	0.2528	-0.8949
8	6.44	0.0	1.1495	-1.1283	-0.0027	-0.0337	-0.0165	0.3171	0.0538	0.2633	-0.9406
9	9.54	0.0	1.6443	-1.6455	-0.0043	-0.0270	-0.0220	0.3254	0.0538	0.2721	-0.9903
10	10.57	0.0	2.1189	-2.1767	-0.0167	-0.0116	-0.0208	0.3463	0.0538	0.2925	-1.0273
11	12.46	0.0	2.6163	-2.7867	-0.0217	-0.0046	-0.0206	0.3679	0.0538	0.3141	-1.0659
12	14.73	0.01	3.1649	-3.5020	-0.0259	-0.0160	-0.0246	0.3856	0.0538	0.3318	-1.1065
13	16.82	0.01	3.7632	-4.4018	-0.0233	-0.0141	-0.0231	0.4072	0.0511	0.3561	-1.1696
14	14.97	0.0	4.4513	-4.4403	-0.0185	-0.0045	-0.0281	0.4292	0.0484	0.3808	-1.2240
15	21.02	0.01	5.1426	-4.6621	-0.0301	0.0143	-0.0199	0.4547	0.0456	0.4091	-1.2876
16	23.20	0.01	4.0130	-4.1333	-0.0470	0.0359	-0.0246	0.4870	0.0402	0.4418	-1.3528
17	0.25	0.0	0.0745	-0.0470	0.0259	-0.0078	-0.0132	0.2951	0.0484	0.2467	-0.6309

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LANGLEY RESEARCH CENTER (-ASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

TEST PART NAME RX10-6 PMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 J 74 4.63 3.0 45.0 01.1F3 15.420' 0 0 0 0 FIXED

POINT	ALPHA	META	CN	CLM	CV	CLN	CLL	CA	CAR	CAF	KCP
1	-3.11	0.0	-0.6405	0.5563	0.0334	-0.1004	-0.0003	0.3091	0.0505	0.2506	-0.9925
2	-1.54	0.0	-0.3044	0.3314	0.0277	-0.0444	-0.0147	0.3064	0.0533	0.2536	-1.0086
3	-0.57	0.0	-0.1222	0.1557	0.0232	-0.0145	-0.0137	0.2999	0.0532	0.2467	-1.2666
4	0.50	0.0	0.0544	-0.0103	0.0141	-0.0439	-0.0132	0.2970	0.0532	0.2438	-0.1727
5	1.53	0.0	0.2255	-0.1542	0.0242	-0.0411	-0.0127	0.3054	0.0533	0.2521	-0.6830
6	2.56	0.0	0.4249	-0.3555	0.0293	-0.0413	-0.0100	0.3103	0.0533	0.2570	-0.8327
7	4.64	0.0	0.7470	-0.6930	0.0044	-0.0458	-0.0178	0.3144	0.0533	0.2615	-0.8600
8	6.70	0.0	1.2142	-1.1142	-0.0054	-0.0243	-0.0234	0.3225	0.0533	0.2642	-0.9105
9	8.78	0.0	1.6710	-1.6148	-0.0105	-0.0231	-0.0222	0.3302	0.0532	0.2770	-0.9689
10	10.81	0.0	2.1593	-2.2355	-0.0154	-0.0247	-0.0277	0.3471	0.0560	0.2911	-1.0396
11	12.91	-0.01	2.7246	-2.4535	-0.0060	-0.0222	-0.0331	0.3675	0.0560	0.3115	-1.0876
12	15.01	0.0	3.2926	-3.7211	-0.0312	-0.0050	-0.0384	0.3901	0.0533	0.3368	-1.1302
13	17.10	-0.01	3.6314	-4.6060	-0.0314	0.0052	-0.0370	0.4131	0.0533	0.3598	-1.1715
14	19.23	-0.01	4.4260	-5.4054	-0.0474	0.0375	-0.0422	0.4344	0.0532	0.3856	-1.2115
15	21.27	-0.01	5.3351	-6.5005	-0.0344	0.0235	-0.0473	0.4675	0.0505	0.4170	-1.2312
16	23.45	-0.01	6.0742	-7.4182	-0.0551	0.0170	-0.0549	0.4961	0.0478	0.4443	-1.2213
17	0.52	0.0	0.0608	0.0005	0.0109	-0.0775	-0.0132	0.2979	0.0505	0.2474	0.0070

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	ACM	REF	U=6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	75	2.30	3.0		0.0	114134	15.420	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CN	CLM	LY	CLM	CLL	CA	CAN	CAF	XCP	
1	-3.94	0.02	-3.1541	10.1241	-0.0260	-0.1191	-0.0420	1.2470	0.1445	1.1425	-3.2090	
2	-2.20	0.02	-2.4427	9.5472	-0.0344	-0.1154	-0.0321	1.2364	0.1431	1.0433	-3.5456	
3	-1.24	0.03	-2.4915	9.1716	-0.0509	-0.0647	-0.0323	1.2040	0.1445	1.0645	-3.8351	
4	-0.10	0.02	-2.7643	8.7551	-0.0319	-0.1091	-0.0327	1.1779	0.1488	1.0791	-4.2371	
5	1.92	0.03	-1.7321	8.2781	-0.0609	-0.0547	-0.0351	1.1391	0.1514	0.9877	-4.7658	
6	2.06	0.02	-1.4311	7.7730	-0.0309	-0.0827	-0.0338	1.0947	0.1517	0.9430	-5.5478	
7	4.31	0.02	-0.6647	6.5609	-0.0401	-0.0545	-0.0312	0.9956	0.1544	0.8412	-9.7967	
8	6.47	0.02	0.0444	5.3743	-0.0515	-0.0441	-0.0356	0.9036	0.1601	0.7435	111.1165	
9	8.42	0.03	0.2275	4.2715	-0.0649	-0.0716	-0.0339	0.8049	0.1672	0.6376	4.0204	
10	10.80	0.02	1.6673	2.6223	-0.0546	-0.0744	-0.0293	0.7014	0.1700	0.5314	1.5728	
11	13.04	0.03	2.5610	1.1070	-0.0447	-0.0247	-0.0276	0.5946	0.1714	0.4234	0.4321	
12	15.35	0.03	3.4452	-0.1570	-0.0716	-0.0771	-0.0153	0.5179	0.1686	0.3493	-0.0457	
13	17.61	0.03	4.2689	-1.1074	-0.0500	-0.0443	-0.0238	0.4713	0.1672	0.3041	-0.2594	
14	19.43	0.03	5.0273	-1.7749	-0.0517	-0.1157	-0.0150	0.4331	0.1601	0.2730	-0.3540	
15	22.13	0.03	5.8305	-2.8157	-0.0548	-0.0479	-0.0096	0.3993	0.1616	0.2377	-0.4486	
16	24.45	0.04	6.7255	-3.8175	-0.0444	-0.0637	-0.0076	0.3579	0.1602	0.1976	-0.5379	
17	-0.10	0.03	-2.0533	8.7517	-0.0465	-0.0404	-0.0361	1.1774	0.1489	1.0285	-4.2623	

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA

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TEST CASE NAME: RX10-6 M1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 3 YA 2.66 3.0 0.0 0.1 1F34 15.420 0 -20 0 -20 FIXED

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	Ca	CaR	CAF	XCP
1	-4.00	0.01	-2.7107	8.5584	-0.0252	-0.1114	-0.0362	1.1283	0.1086	1.0197	-3.1578
2	-7.41	0.01	-2.3042	6.6667	-0.0217	-0.1153	-0.0364	1.0922	0.1070	0.9752	-3.4939
3	-1.35	0.01	-2.0407	7.7215	-0.0191	-0.1070	-0.0335	1.0547	0.1086	0.9461	-3.7637
4	-0.23	0.02	-1.7407	7.9215	-0.0159	-0.1216	-0.0380	1.0227	0.1102	0.9125	-4.2061
5	0.85	0.01	-1.4427	6.8463	-0.0174	-0.1074	-0.0328	0.9848	0.1119	0.8749	-4.7801
6	1.89	0.01	-1.1432	6.4257	-0.0147	-0.1053	-0.0315	0.9475	0.1134	0.8341	-5.6200
7	4.09	0.02	-0.8452	5.3357	-0.0209	-0.0959	-0.0328	0.8950	0.1150	0.7400	-10.0969
8	6.72	0.02	0.1413	4.3116	-0.0246	-0.0842	-0.0244	0.7709	0.1199	0.6510	30.5137
9	8.38	0.02	0.4233	3.1905	-0.0335	-0.0561	-0.0251	0.6223	0.1214	0.5609	3.8462
10	10.55	0.02	1.0009	1.8167	-0.0375	-0.0545	-0.0275	0.5656	0.1247	0.4609	1.1320
11	12.68	0.02	2.4242	0.7576	-0.0518	-0.0451	-0.0219	0.5234	0.1247	0.3987	0.3260
12	14.49	0.02	3.0076	-0.0300	-0.0423	-0.0519	-0.0242	0.4924	0.1246	0.3678	-0.0100
13	17.08	0.02	3.4344	-0.5304	-0.0494	-0.0525	-0.0224	0.4403	0.1230	0.3573	-0.1386
14	19.36	0.03	4.3104	-1.0073	-0.0590	-0.0517	-0.0167	0.4693	0.1199	0.3494	-0.2337
15	21.50	0.03	4.0450	-1.5421	-0.0483	-0.0457	-0.0150	0.4532	0.1166	0.3366	-0.3194
16	23.76	0.03	5.7450	-2.2463	-0.0529	-0.0498	-0.0131	0.4375	0.1134	0.3241	-0.3997
17	-0.23	0.02	-1.7346	7.3328	-0.0168	-0.1205	-0.0379	1.0241	0.1103	0.9138	-4.2157

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	POINT	WALM	RAIL	W	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	77	3.45	3.0		0.0	51.1F34	15.420	0	-20	0	-20	FIXED
POINT	ALPHA	META	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	-3.46	0.0	-2.0453	6.4937	-0.0147	-0.0607	-0.0214	0.0765	0.0675	0.0090	-3.1749	
2	-2.74	0.0	-1.7007	6.0204	-0.0047	-0.0717	-0.0286	0.0316	0.0650	0.7642	-3.5316	
3	-1.72	0.0	-1.4772	5.6921	0.0014	-0.0745	-0.0245	0.0034	0.0654	0.7384	-3.4533	
4	-0.13	0.0	-1.7362	5.3143	0.0099	-0.0843	-0.0306	0.7716	0.0654	0.7042	-4.3203	
5	0.90	0.0	-0.5948	4.9359	0.0129	-0.0925	-0.0292	0.7355	0.0675	0.6660	-4.9369	
6	1.93	0.0	-0.7324	4.6673	0.0180	-0.0944	-0.0278	0.6980	0.0675	0.6305	-6.8995	
7	4.05	0.0	-0.7176	3.9151	0.0040	-0.0797	-0.0248	0.6242	0.0675	0.5567	-16.6137	
8	6.14	0.01	0.3304	2.6847	-0.0700	-0.0493	-0.0169	0.5479	0.0696	0.4783	8.0285	
9	8.26	0.0	0.6411	1.7713	-0.0003	-0.0755	-0.0157	0.4426	0.0646	0.4130	2.8103	
10	10.33	0.01	1.3620	1.2025	-0.0078	-0.0444	-0.0144	0.4584	0.0718	0.3866	0.8696	
11	12.42	0.0	1.6309	0.7431	-0.0073	-0.0466	-0.0181	0.4648	0.0697	0.3941	0.5148	
12	14.55	0.01	2.4016	0.7647	-0.0127	-0.0555	-0.0218	0.4783	0.0697	0.4086	0.3322	
13	16.67	0.01	2.7409	0.5983	-0.0206	-0.0596	-0.0202	0.4947	0.0675	0.4267	0.2147	
14	18.83	0.01	3.4057	0.3760	-0.0315	-0.0514	-0.0230	0.5066	0.0654	0.4412	0.1146	
15	20.97	0.01	3.0704	0.0424	-0.0354	-0.0545	-0.0221	0.5164	0.0633	0.4531	0.0230	
16	23.14	0.02	4.5437	-0.3554	-0.0445	-0.0720	-0.0097	0.5211	0.0612	0.4599	-0.0781	
17	-0.13	0.0	-1.2281	5.3057	0.0131	-0.1030	-0.0305	0.7670	0.0654	0.7016	-4.3203	

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST PART		WAGM	RR10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
	3	78	4.63	3.0	0.0	01W1F36	15.420	0	-20	0	-20	FIXED
	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP	
1	-3.40	0.0	-1.7950	5.0810	-0.0122	-0.0454	-0.0212	0.7843	0.0496	0.7347	-3.1649	
2	-1.82	0.0	-1.4326	5.1556	0.0006	-0.0608	-0.0232	0.7350	0.0496	0.6854	-3.5988	
3	-0.84	0.0	-1.2370	4.8623	0.0104	-0.0775	-0.0245	0.7070	0.0496	0.6574	-3.9244	
4	0.24	0.0	-0.9464	4.4911	0.0204	-0.0491	-0.0260	0.6761	0.0496	0.6265	-4.5055	
5	1.28	0.0	-0.7536	4.0805	-0.0040	-0.0536	-0.0243	0.5400	0.0496	0.5904	-5.4190	
6	2.27	0.0	-0.5337	3.7017	-0.0001	-0.0501	-0.0228	0.6051	0.0496	0.5555	-6.9359	
7	4.38	0.0	-0.0506	2.4619	0.0036	-0.0442	-0.0193	0.5353	0.0496	0.4857	-58.5363	
8	6.42	0.0	0.4594	2.1118	0.0109	-0.0525	-0.0161	0.4663	0.0523	0.4140	4.5970	
9	8.53	0.0	0.9542	1.5035	0.0075	-0.0476	-0.0150	0.4369	0.0523	0.3846	1.6995	
10	10.59	0.0	1.3036	1.3026	-0.0042	-0.0434	-0.0270	0.4401	0.0523	0.3878	0.9994	
11	12.65	0.0	1.6932	1.1610	-0.0048	-0.0491	-0.0257	0.4572	0.0523	0.4049	0.6857	
12	14.71	0.0	2.0763	1.0884	-0.0043	-0.0678	-0.0243	0.4743	0.0496	0.4247	0.5242	
13	16.80	0.01	2.5061	0.9551	-0.0296	-0.0353	-0.0295	0.4946	0.0496	0.4458	0.3811	
14	18.96	0.01	3.0032	0.7217	-0.0275	-0.0200	-0.0347	0.5133	0.0469	0.4664	0.2403	
15	20.96	0.01	3.5024	0.4143	-0.0545	-0.0096	-0.0331	0.5290	0.0441	0.4849	0.1183	
16	23.14	0.01	4.1176	-0.0276	-0.0464	-0.0135	-0.0313	0.5399	0.0441	0.4958	-0.0067	
17	0.23	0.0	-0.9969	4.4913	0.0190	-0.0832	-0.0260	0.6764	0.0469	0.6295	-4.5052	

POINT	TEST MARY MACH FRI 10-6										
	ALPHA	BETA	CN	CLM	CY	CLV	CLL	CA	CAB	CAF	KCP
1	-3.41	0.07	-4.0705	14.2055	-0.0269	-0.0948	-0.0321	2.0653	0.1635	1.4018	-3.4889
2	-7.21	0.07	-3.4111	13.0074	-0.0324	-0.0940	-0.0311	2.0020	0.1652	1.4368	-3.7682
3	-1.17	0.07	-3.2712	13.1631	-0.0223	-0.1171	-0.0344	1.9576	0.1667	1.7999	-4.0117
4	-0.67	0.07	-2.9475	12.7584	-0.0346	-0.0827	-0.0256	1.9117	0.1684	1.7433	-4.2707
5	1.03	0.06	-2.6823	12.2953	-0.0206	-0.0974	-0.0333	1.8668	0.1702	1.6906	-4.6183
6	2.15	0.06	-2.3564	11.8193	-0.0275	-0.0774	-0.0327	1.8029	0.1720	1.6309	-5.0158
7	4.24	0.06	-1.8344	10.9551	-0.0364	-0.0567	-0.0355	1.6471	0.1719	1.4952	-6.5177
8	6.35	0.06	-0.9734	9.4584	-0.0749	0.0178	-0.0388	1.5253	0.1719	1.3534	-10.2098
9	8.54	0.05	-0.2334	4.3647	-0.0436	-0.0171	-0.0390	1.3900	0.1770	1.2130	-35.7013
10	10.70	0.06	0.4486	7.3853	-0.0940	0.0743	-0.0349	1.2610	0.1622	1.0788	15.2347
11	12.43	0.05	1.1452	6.4632	-0.0904	0.0602	-0.0418	1.1393	0.1457	0.9536	5.4076
12	15.02	0.04	1.8888	5.0955	-0.0730	0.0449	-0.0345	1.0344	0.1874	0.8525	3.8477
13	17.24	0.04	2.4154	4.9162	-0.0486	0.0466	-0.0479	0.9495	0.1874	0.7621	1.8869
14	19.50	0.04	3.3512	4.2157	-0.0924	0.0132	-0.0428	0.8899	0.1857	0.6842	1.2592
15	21.44	0.05	4.1445	3.4822	-0.1144	0.0571	-0.0548	0.7904	0.1857	0.6107	0.8484
16	23.49	0.05	4.9243	2.4734	-0.1264	0.0448	-0.0560	0.7341	0.1857	0.5484	0.5426
17	-0.06	0.07	-2.9826	12.7452	-0.0220	-0.1040	-0.0338	1.9072	0.1689	1.7383	-4.2732

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TEST	PAWT	MALM	HALO-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	80	2.00	3.0	45.0	01-1P34	15.420	20	-20	20	-20	FIXED
POINT	ALPHA	BETA	CX	CLX	CY	CLY	CLL	CA	CAH	CAF	ACP
1	-3.21	0.07	-7.6761	11.9452	-0.0145	-0.1154	-0.0267	1.7872	0.1144	1.6728	-3.6375
2	-2.20	0.06	-3.0717	11.7437	0.0015	-0.1731	-0.0298	1.7200	0.1159	1.6041	-3.6995
3	-1.17	0.06	-2.7774	10.9347	0.0154	-0.1487	-0.0331	1.5714	0.1160	1.5554	-3.9370
4	-0.37	0.06	-2.4447	10.0467	0.0013	-0.1732	-0.0325	1.6216	0.1160	1.5056	-4.2244
5	1.02	0.05	-2.1791	10.0644	-0.0040	-0.1127	-0.0319	1.5699	0.1176	1.4512	-4.6120
6	2.05	0.05	-1.4972	9.6013	-0.0113	-0.0938	-0.0314	1.5171	0.1207	1.3964	-5.0608
7	4.23	0.05	-1.2454	8.5514	-0.0306	-0.0534	-0.0341	1.3899	0.1224	1.2675	-6.0636
8	6.37	0.05	-0.6147	7.5551	-0.0439	-0.0325	-0.0292	1.2679	0.1255	1.1424	-12.1915
9	2.54	0.04	0.0009	6.6349	-0.0464	-0.0144	-0.0294	1.1489	0.1287	1.0701	962.1653
10	10.05	0.04	0.6294	5.8069	-0.0592	0.0054	-0.0333	1.0446	0.1320	0.9126	9.2262
11	12.00	0.04	1.2614	5.0301	-0.0564	-0.0073	-0.0360	0.9502	0.1336	0.8166	3.9255
12	14.99	0.04	1.4206	4.2464	-0.0709	0.0422	-0.0371	0.8672	0.1335	0.7337	2.2277
13	17.16	0.04	2.5544	3.7760	-0.0735	0.0175	-0.0300	0.8145	0.1336	0.6809	1.4759
14	19.47	0.04	3.2752	3.1774	-0.0897	0.0343	-0.0364	0.7599	0.1320	0.6279	0.9701
15	21.63	0.04	3.9327	2.5710	-0.0891	-0.0057	-0.0371	0.7254	0.1320	0.5938	0.6795
16	23.86	0.04	4.6614	2.1562	-0.0948	0.0033	-0.0452	0.6994	0.1319	0.5675	0.4625
17	-0.00	0.06	-2.4731	10.4929	-0.0094	-0.1174	-0.0286	1.6212	0.1175	1.5037	-4.2427

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST DATA - CALM RAJORA											
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAN	CAF	KCP
3	81	3.95	3.0	45.0	0.1134	15.420	20	-20	20	-20	FIXED
1	-3.50	0.03	-2.5939	8.4813	0.0135	-0.1062	-0.0257	1.3018	0.0645	1.3173	-3.4625
2	-2.00	0.03	-2.2381	8.3363	0.0331	-0.0441	-0.0303	1.3136	0.0445	1.2491	-3.7515
3	-1.00	0.03	-2.0222	8.0365	0.0250	-0.1225	-0.0246	1.2697	0.0645	1.2052	-3.9772
4	0.00	0.03	-1.7601	7.5946	0.0326	-0.0605	-0.0294	1.2225	0.0666	1.1559	-4.3177
5	1.13	0.03	-1.5123	7.1714	0.0163	-0.1001	-0.0289	1.1717	0.0666	1.1051	-4.7421
6	2.16	0.03	-1.2612	6.7215	-0.0014	-0.0626	-0.0232	1.1151	0.0667	1.0444	-5.3294
7	4.26	0.02	-0.7364	5.0276	-0.0073	-0.0640	-0.0222	1.0125	0.0688	0.9437	-7.9331
8	6.31	0.02	-0.2453	5.2363	-0.0202	-0.0349	-0.0213	0.9325	0.0709	0.8616	-19.5506
9	4.45	0.02	0.2219	4.5504	-0.0207	-0.0264	-0.0273	0.8561	0.0709	0.7852	20.6353
10	10.53	0.02	0.7421	3.9366	-0.0271	-0.0191	-0.0331	0.7923	0.0730	0.7193	5.3038
11	12.61	0.02	1.2434	3.4357	-0.0325	-0.0133	-0.0378	0.7506	0.0730	0.6776	2.7621
12	14.73	0.02	1.7406	3.1581	-0.0222	-0.0407	-0.0239	0.7370	0.0730	0.6640	1.8316
13	14.87	0.02	2.2449	2.4422	-0.0202	-0.0437	-0.0203	0.7357	0.0730	0.6627	1.2677
14	19.07	0.02	2.8444	2.7276	-0.0244	-0.0454	-0.0166	0.7339	0.0730	0.6609	0.9551
15	21.15	0.02	3.4214	2.5354	-0.0474	-0.0711	-0.0246	0.7335	0.0730	0.6605	0.7409
16	23.37	0.02	4.0644	2.3243	-0.0540	-0.0497	-0.0307	0.7311	0.0730	0.6581	0.5718
17	0.00	0.03	-1.7536	7.5466	0.0302	-0.1154	-0.0246	1.2157	0.0709	1.1448	-4.3132

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART WACH MX10-6 FMI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 82 0.63 1.0 45.0 0141F34 15.420 20 -20 20 -20 FIXED

POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.13	0.02	-2.2533	7.0264	0.0142	-0.1053	-0.0198	1.2320	0.0484	1.1636	-3.4735
2	-1.54	0.02	-1.4063	7.2411	0.0056	-0.0926	-0.0191	1.1612	0.0484	1.1128	-3.7985
3	-0.57	0.02	-1.0400	6.4701	0.0104	-0.1121	-0.0254	1.1161	0.0484	1.0697	-4.0874
4	0.49	0.02	-1.4534	6.4704	0.0305	-0.1125	-0.0249	1.0684	0.0484	1.0700	-4.4421
5	1.54	0.02	-1.2225	6.0445	0.0332	-0.1121	-0.0245	1.0180	0.0484	0.9646	-4.9569
6	2.53	0.02	-0.9901	5.6462	-0.0010	-0.0696	-0.0241	0.9691	0.0484	0.9207	-5.7205
7	4.44	0.02	-0.5043	4.9684	-0.0189	-0.0546	-0.0231	0.8817	0.0511	0.8306	-9.7564
8	6.64	0.02	-0.0567	4.3514	-0.0334	-0.0328	-0.0289	0.8061	0.0511	0.7550	-76.7474
9	7.75	0.02	0.3621	3.7433	-0.0477	-0.0160	-0.0333	0.7433	0.0511	0.6922	10.3050
10	10.79	0.01	0.4352	3.2843	-0.0165	-0.0347	-0.0313	0.7030	0.0538	0.6492	3.9324
11	12.84	0.01	1.2324	3.0490	-0.0131	-0.0554	-0.0247	0.6984	0.0538	0.6446	2.5142
12	14.97	0.01	1.6957	2.4644	-0.0086	-0.0441	-0.0208	0.7022	0.0538	0.6484	1.7169
13	17.05	0.01	2.1746	2.7174	-0.0225	-0.0603	-0.0236	0.7106	0.0538	0.6568	1.2447
14	19.22	0.01	2.6433	2.5333	-0.0361	-0.0582	-0.0201	0.7205	0.0538	0.6607	0.9406
15	21.22	0.02	3.1454	2.3637	-0.0453	-0.0448	-0.0247	0.7229	0.0538	0.6641	0.7419
16	23.39	0.02	3.7703	2.1242	-0.0391	-0.0818	-0.0381	0.7185	0.0538	0.6447	0.5634
17	0.49	0.02	-1.4568	6.4867	0.0332	-0.1347	-0.0249	1.0683	0.0511	1.0172	-4.4541

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TEST PART NAME R10-6
 3 03 2.36 3.0
 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
 0.0 01=1F0 15.020 OFF OFF OFF OFF FIXED

POINT	ALPHA	BETA	CN	CLN	CY	CLM	CLL	CA	CAN	CAF	ACP
1	-3.91	0.0	-0.6981	-0.2982	-0.0142	-0.0245	-0.0101	0.3636	0.1310	0.2326	0.4271
2	-2.22	0.0	-0.3902	-0.1723	-0.0165	-0.0142	-0.0052	0.3501	0.1255	0.2306	0.4349
3	-1.13	0.01	-0.2020	-0.0907	-0.0369	0.0011	-0.0043	0.3537	0.1235	0.2302	0.4707
4	-0.01	0.01	0.0053	-0.0039	-0.0446	0.0012	-0.0034	0.3520	0.1235	0.2291	-0.7396
5	1.07	0.01	0.2151	0.0045	-0.0200	0.0019	-0.0025	0.3531	0.1233	0.2298	0.4391
6	2.10	0.01	0.3900	0.1924	-0.0437	-0.0005	-0.0051	0.3507	0.1240	0.2299	0.4879
7	4.43	0.01	0.5009	0.3250	-0.0412	0.0050	-0.0034	0.3626	0.1332	0.2294	0.4010
8	6.50	0.02	1.2250	0.6772	-0.0532	0.0037	-0.0016	0.3714	0.1388	0.2326	0.3895
9	8.72	0.02	1.6740	0.9590	-0.0534	0.0004	0.0001	0.3747	0.1530	0.2357	0.3540
10	10.98	0.01	2.1510	0.6211	-0.0371	-0.0112	0.0018	0.4121	0.1700	0.2421	0.2886
11	13.00	0.02	2.7059	0.4630	-0.0581	-0.0031	0.0001	0.4222	0.1770	0.2452	0.1709
12	15.30	0.02	3.3055	0.1701	-0.0653	-0.0033	0.0021	0.4253	0.1798	0.2455	0.0505
13	17.57	0.02	4.0206	-0.0317	-0.0631	-0.0063	0.0040	0.4334	0.1798	0.2536	-0.0079
14	19.98	0.03	4.6572	-0.1484	-0.0651	-0.0228	0.0093	0.4445	0.1812	0.2633	-0.0310
15	22.04	0.02	5.3004	-0.3725	-0.0555	-0.0020	0.0076	0.4462	0.1709	0.2643	-0.0703
16	24.39	0.03	6.0421	-0.7290	-0.0839	0.0249	0.0094	0.4534	0.1727	0.2807	-0.1208
17	-0.02	0.01	0.0153	-0.0044	-0.0459	-0.0064	-0.0033	0.3520	0.1233	0.2287	-0.2609

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MANTIN MISSILE TAIL EFFECTS DATA

TEST PART	WACH	RAIU-0	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
3	H4	2.30	3.9	45.0	d1-1F0	15.420	OFF	OFF	OFF	OFF	FIXED	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ACP	
1	-3.43	0.01	-0.7255	-0.2547	-0.0260	-0.0341	-0.0069	0.3413	0.1291	0.2322	0.3499	
2	-2.74	0.02	-0.6177	-0.1690	-0.0307	-0.0494	-0.0005	0.3545	0.1235	0.2310	0.4066	
3	-1.14	0.01	-0.2732	-0.0400	-0.0305	-0.0407	0.0014	0.3524	0.1221	0.2307	0.4040	
4	0.0	0.02	0.0004	-0.0033	-0.0467	-0.0737	0.0	0.3514	0.1222	0.2292	-10.0667	
5	1.58	0.02	0.2057	0.0035	-0.0433	-0.0268	0.0009	0.3511	0.1208	0.2303	0.3100	
6	2.13	0.02	0.3417	0.1547	-0.0452	-0.0187	0.0052	0.3518	0.1235	0.2283	0.3950	
7	4.34	0.02	0.7949	0.3501	-0.0422	-0.0094	0.0035	0.3542	0.1292	0.2300	0.4405	
8	6.50	0.02	1.2397	0.5507	-0.0459	-0.0362	0.0053	0.3690	0.1377	0.2313	0.4553	
9	8.70	0.02	1.7074	0.7751	-0.0437	-0.0100	0.0071	0.3794	0.1447	0.2347	0.4959	
10	10.84	0.02	2.0127	1.0604	-0.0605	0.0291	0.0049	0.3935	0.1545	0.2390	0.5271	
11	13.06	0.04	2.4950	1.2249	-0.0767	-0.0363	0.0109	0.4074	0.1645	0.2433	0.4929	
12	15.26	0.04	2.9751	1.4147	-0.0984	0.0279	0.0128	0.4154	0.1729	0.2430	0.4755	
13	17.53	0.04	3.4213	1.6435	-0.1050	0.0108	0.0113	0.4245	0.1814	0.2471	0.4241	
14	19.83	0.05	4.1165	1.8654	-0.1194	-0.0095	0.0119	0.4294	0.1814	0.2484	0.3901	
15	21.47	0.05	4.7005	1.9914	-0.1151	0.0080	0.0046	0.4358	0.1757	0.2601	0.3403	
16	24.29	0.05	5.3976	1.6666	-0.1356	0.0485	0.0123	0.4450	0.1757	0.2693	0.2717	
17	0.0	0.02	0.0033	0.0239	-0.0406	-0.0328	0.0035	0.3528	0.1234	0.2294	7.2364	

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
3	25.200	3.00	45.0	0.110	15.470	OFF	OFF	OFF	OFF	FIXED	
1	-3.77	0.01	-0.6541	-0.2744	-0.0200	-0.0349	0.0008	0.3244	0.1072	0.2176	0.4231
2	-7.22	0.00	-0.6000	-0.1635	-0.0102	-0.0171	0.0036	0.3217	0.1056	0.2161	0.4004
3	-1.12	0.01	-0.2073	-0.0037	-0.0100	-0.0241	0.0047	0.3223	0.1040	0.2183	0.4037
4	-0.02	0.01	-0.0077	-0.0156	-0.0270	-0.0152	0.0038	0.3229	0.1056	0.2173	2.0545
5	1.04	0.01	0.1554	0.0074	-0.0263	-0.0203	0.0046	0.3233	0.1056	0.2177	0.5627
6	2.10	0.01	0.3391	0.1570	-0.0270	-0.0135	0.0054	0.3251	0.1072	0.2179	0.4629
7	4.26	0.01	0.6878	0.3487	-0.0265	-0.0101	0.0070	0.3299	0.1072	0.2226	0.5062
8	6.30	0.02	1.0394	0.5700	-0.0466	-0.0000	0.0006	0.3366	0.1120	0.2246	0.5489
9	8.54	0.02	1.4166	0.7930	-0.0378	-0.0134	0.0064	0.3469	0.1100	0.2301	0.5598
10	10.60	0.02	1.7980	1.0017	-0.0502	0.0073	0.0080	0.3586	0.1231	0.2355	0.5577
11	12.85	0.02	2.2205	1.1584	-0.0541	0.0047	0.0098	0.3690	0.1295	0.2395	0.5200
12	15.02	0.03	2.7044	1.2283	-0.0793	0.0136	0.0116	0.3797	0.1327	0.2470	0.4541
13	17.20	0.03	3.2120	1.3005	-0.0777	0.0223	0.0136	0.3863	0.1359	0.2504	0.4067
14	19.46	0.03	3.7701	1.3052	-0.0471	0.0220	0.0141	0.3959	0.1327	0.2632	0.3462
15	21.61	0.03	4.3342	1.2431	-0.0274	0.0304	0.0140	0.4079	0.1327	0.2752	0.2868
16	23.85	0.04	4.9048	1.1472	-0.1097	0.0339	0.0100	0.4208	0.1327	0.2881	0.2308
17	-0.03	0.01	-0.0100	0.0100	-0.0173	-0.0100	0.0078	0.3255	0.1119	0.2136	-0.9739

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LANGLEY RESEARCH CENTER (ASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

POINT	TRANSITION										
	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAN	CAF	ACP
1	-5.92	0.01	-0.4440	-0.2951	-0.0436	0.0243	-0.0029	0.3274	0.1117	0.2157	0.4568
2	-7.31	0.01	-0.4427	-0.1550	-0.0414	0.0114	0.0023	0.3253	0.1285	0.2168	0.4051
3	-1.24	0.01	-0.7124	-0.0431	-0.0437	0.0141	0.0031	0.3244	0.1075	0.2159	0.4207
4	0.96	0.01	0.1650	0.0093	-0.0509	0.0115	0.0008	0.3266	0.1070	0.2196	0.5401
5	-0.16	0.01	-0.0715	0.0010	-0.0473	0.0075	0.0039	0.3248	0.1086	0.2162	-0.0759
6	1.91	0.01	0.3250	0.1862	-0.0531	0.0134	0.0016	0.3276	0.1085	0.2191	0.5729
7	4.11	0.02	0.6430	0.3439	-0.0568	0.0193	0.0031	0.3306	0.1085	0.2221	0.5065
8	6.24	0.02	1.0481	0.4747	-0.0636	0.0136	0.0047	0.3387	0.1117	0.2270	0.4576
9	8.37	0.02	1.4530	0.5220	-0.0664	0.0151	0.0052	0.3540	0.1161	0.2359	0.3596
10	10.53	0.02	1.9240	0.4622	-0.0654	0.0207	0.0074	0.3711	0.1325	0.2386	0.2395
11	12.67	0.02	2.4493	0.2760	-0.0644	0.0268	0.0057	0.3732	0.1341	0.2391	0.1127
12	14.86	0.02	2.9454	0.0841	-0.0647	0.0176	0.0113	0.3813	0.1341	0.2472	0.0281
13	17.06	0.02	3.5450	-0.0471	-0.0744	0.0019	0.0091	0.3915	0.1341	0.2574	-0.0133
14	19.24	0.03	4.1400	-0.2234	-0.0453	0.0442	0.0110	0.3993	0.1309	0.2444	-0.0540
15	23.73	0.04	5.3224	-0.7552	-0.1200	0.0675	0.0145	0.4268	0.1277	0.2991	-0.1310
16	21.40	0.03	4.7247	-0.4623	-0.1631	0.0407	0.0126	0.4101	0.1261	0.2840	-0.0977
17	21.46	0.04	4.7325	-0.4545	-0.1167	0.0529	0.0166	0.4103	0.1261	0.2842	-0.0960
18	-0.16	0.01	-0.0082	0.0110	-0.0409	0.0094	0.0040	0.3246	0.1117	0.2129	-1.3390

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	PAWT	WALM	WALD	WALR	WALF	WALG	WALH	WALI	WALJ	WALK	WALM	WALN
3	M9	3.45	3.0	45.0	M1	WFO	15.420	OFF	OFF	OFF	OFF	FIXED
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAR	CAF	XCP	
1	-3.52	0.0	-0.4574	-0.2845	0.0010	-0.0276	0.0032	0.2543	0.0678	0.1885	0.6194	
2	-1.94	0.0	-0.2532	-0.1733	-0.0055	-0.0132	0.0064	0.2490	0.0678	0.1812	0.6845	
3	-1.05	0.0	-0.1157	-0.0945	-0.0101	-0.0101	0.0004	0.2494	0.0678	0.1816	0.8561	
4	0.04	0.0	0.0714	-0.0327	-0.0147	0.0036	0.0106	0.2480	0.0678	0.1802	-1.5009	
5	1.16	0.0	0.1675	0.0315	-0.0091	-0.0086	0.0113	0.2504	0.0656	0.1848	0.1454	
6	2.13	0.0	0.2737	0.1361	-0.0151	-0.0040	0.0066	0.2516	0.0656	0.1860	0.4908	
7	4.25	0.0	0.5721	0.2951	-0.0055	-0.0116	0.0132	0.2599	0.0678	0.1921	0.5157	
8	6.33	0.01	0.8644	0.4482	-0.0224	0.0069	0.0093	0.2690	0.0678	0.2012	0.5153	
9	8.44	0.01	1.1445	0.5970	-0.0410	0.0251	0.0106	0.2795	0.0678	0.2117	0.4977	
10	10.54	0.01	1.5374	0.7172	-0.0328	0.0671	0.0121	0.2916	0.0720	0.2196	0.4665	
11	12.42	0.01	1.9441	0.7761	-0.0267	-0.0198	0.0138	0.3059	0.0742	0.2317	0.3992	
12	14.75	0.01	2.3652	0.8214	-0.0370	-0.0014	0.0154	0.3193	0.0742	0.2451	0.3473	
13	16.59	0.01	2.8459	0.8181	-0.0491	0.0670	0.0119	0.3356	0.0742	0.2614	0.2875	
14	19.04	0.02	3.3576	0.8292	-0.0632	0.0165	0.0126	0.3521	0.0742	0.2779	0.2478	
15	21.14	0.01	3.8643	0.9103	-0.0510	0.0072	0.0119	0.3721	0.0763	0.2958	0.2353	
16	23.39	0.02	4.4740	0.9284	-0.0697	0.0172	0.0112	0.3943	0.0763	0.3180	0.2075	
17	0.10	0.0	0.0210	-0.0327	-0.0147	0.0036	0.0106	0.2445	0.0678	0.1767	-1.5009	

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LANGLEY RESEARCH CENTER (ASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MANTLY MISSILE TAIL EFFECTS DATA

TEST	PART	MACH	RAIU=6	PHI	CONF	L	JEL1	DEL2	DEL3	JEL4	TRANSITION
3	90	3.95	3.0	0.0	H1=1.0	15.070	OFF	OFF	OFF	OFF	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-3.75	0.0	-0.4501	-0.2656	-0.0156	0.0213	0.0032	0.2444	0.0678	0.1806	0.5904
2	-2.14	0.0	-0.2444	-0.1516	-0.0171	0.0223	0.0042	0.2460	0.0678	0.1742	0.6205
3	-1.14	0.0	-0.1134	-0.0635	-0.0102	0.0191	0.0046	0.2444	0.0678	0.1766	0.7367
4	-0.10	0.0	0.0300	-0.0201	-0.0247	0.0312	0.0032	0.2447	0.0678	0.1769	-0.7689
5	0.95	0.0	0.1766	0.0495	-0.0196	0.0101	0.0004	0.2449	0.0678	0.1791	0.2769
6	1.95	0.0	0.3012	0.1244	-0.0124	0.0007	0.0014	0.2504	0.0678	0.1826	0.4270
7	4.07	0.0	0.5032	0.2747	-0.0220	0.0114	0.0027	0.2580	0.0678	0.1902	0.4711
8	6.14	0.0	0.4852	0.3585	-0.0295	0.0149	0.0039	0.2647	0.0678	0.1949	0.4050
9	4.23	0.0	1.2246	0.3644	-0.0353	0.0200	0.0	0.2742	0.0699	0.2043	0.2977
10	10.30	0.01	1.6245	0.2833	-0.0417	0.0200	0.0015	0.2903	0.0720	0.2163	0.1744
11	12.34	0.01	2.0147	0.2434	-0.0443	0.0427	0.0029	0.3019	0.0720	0.2299	0.1205
12	14.54	0.01	2.4732	0.1660	-0.0663	0.0418	0.0045	0.3163	0.0720	0.2443	0.0674
13	14.64	0.01	2.9443	0.0000	-0.0710	0.0444	0.0061	0.3325	0.0720	0.2605	0.0227
14	14.82	0.01	3.4472	-0.0240	-0.0833	0.0300	0.0026	0.3443	0.0720	0.2763	-0.0084
15	20.44	0.01	3.4414	-0.1550	-0.0754	0.0451	0.0043	0.3685	0.0720	0.2465	-0.0393
16	23.10	0.01	4.5678	-0.3533	-0.0708	0.0377	0.0061	0.3896	0.0699	0.3197	-0.0773
17	-0.10	0.0	0.0371	-0.0164	-0.0041	-0.0086	-0.0051	0.2429	0.0699	0.1730	-0.4500

LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

TEST PART = ALM PA10-6 PH1 CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
3 91 4.03 3.0 0.0 ml=10 15.420 OFF OFF OFF OFF FIXED

POINT	ALPHA	META	CN	CLM	CY	CLN	CLL	CA	CAR	CAF	ACP
1	-3.36	0.0	-0.3649	-0.2515	-0.0095	0.0129	-0.0018	0.2227	0.0499	0.1728	0.6894
2	-1.53	0.0	-0.1717	-0.1537	-0.0025	0.0040	-0.0076	0.2192	0.0499	0.1653	0.8924
3	-0.74	0.0	-0.0500	-0.0427	-0.0164	0.0210	-0.0063	0.2198	0.0499	0.1699	1.6540
4	0.26	0.0	0.0443	-0.0110	-0.0043	0.0057	-0.0064	0.2207	0.0499	0.1703	-0.1232
5	1.28	0.0	0.2251	0.0730	-0.0196	0.0244	-0.0057	0.2240	0.0499	0.1741	0.3199
6	2.27	0.0	0.3342	0.1560	-0.0061	0.0068	-0.0052	0.2270	0.0499	0.1771	0.4672
7	4.38	0.0	0.4056	0.3124	-0.0062	0.0047	-0.0040	0.2314	0.0499	0.1815	0.5150
8	6.42	0.0	0.4341	0.3563	-0.0071	0.0064	-0.0095	0.2439	0.0499	0.1940	0.3962
9	8.50	0.0	1.1465	0.3422	-0.0046	-0.0131	-0.0063	0.2516	0.0526	0.1990	0.3288
10	10.55	0.0	1.5634	0.3213	-0.0273	0.0184	-0.0049	0.2646	0.0526	0.2120	0.2055
11	12.60	0.0	1.9060	0.2805	-0.0275	-0.0023	-0.0057	0.2773	0.0526	0.2247	0.1470
12	14.71	0.01	2.4224	0.1966	-0.0544	0.0326	-0.0041	0.2894	0.0526	0.2366	0.0855
13	16.81	0.01	2.7355	0.1021	-0.0547	0.0321	-0.0044	0.3079	0.0526	0.2553	0.0373
14	18.42	0.01	3.2143	-0.0644	-0.0540	0.0323	-0.0078	0.3241	0.0526	0.2715	-0.0263
15	20.45	0.01	3.7132	-0.2704	-0.0557	0.0332	-0.0082	0.3460	0.0526	0.2924	-0.0751
16	23.17	0.01	4.2407	-0.5647	-0.0587	0.0370	-0.0043	0.3664	0.0526	0.3138	-0.1313
17	0.26	0.0	0.1174	-0.0272	-0.0051	0.0068	-0.0063	0.2218	0.0526	0.1692	-0.2384

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART NAME PH1 CUMF L DEL1 DEL2 DEL3 DEL4 TRANSITION
J 42 4.63 3.0 45.0 0101F0 15.420 OFF OFF OFF OFF FIRED

POINT	ALPHA	BETA	CN	CLN	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.12	-0.01	-0.0250	-0.2133	0.0241	-0.0318	-0.0006	0.2274	0.0499	0.1779	0.5011
2	-1.54	0.0	-0.2004	-0.1176	0.0217	-0.0452	-0.0048	0.2235	0.0499	0.1737	0.5741
3	-0.44	-0.01	-0.0420	-0.0234	0.0340	-0.0473	-0.0023	0.2218	0.0499	0.1719	0.2507
4	0.50	0.0	0.0414	0.0444	0.0335	-0.0515	0.0003	0.2222	0.0499	0.1723	1.0726
5	1.53	0.0	0.1433	0.1045	0.0072	-0.0162	-0.0058	0.2247	0.0499	0.1748	0.5753
6	2.54	0.0	0.2475	0.1910	0.0164	-0.0141	0.0014	0.2275	0.0499	0.1776	0.6420
7	4.61	0.0	0.5731	0.3466	0.0193	-0.0143	-0.0040	0.2336	0.0499	0.1837	0.6051
8	6.67	0.0	0.8309	0.5257	0.0235	0.0022	-0.0028	0.2423	0.0499	0.1924	0.6330
9	8.77	0.0	1.1400	0.6404	0.0250	-0.0107	-0.0042	0.2525	0.0526	0.1949	0.5671
10	10.91	0.0	1.4846	0.6445	0.0191	-0.0445	-0.0001	0.2664	0.0526	0.2138	0.4610
11	12.67	0.0	1.8550	0.6800	-0.0188	-0.0077	-0.0054	0.2794	0.0553	0.2241	0.3665
12	14.97	0.0	2.2471	0.6950	-0.0015	-0.0444	-0.0038	0.2942	0.0553	0.2389	0.3093
13	17.06	0.0	2.6584	0.7050	-0.0071	-0.0345	-0.0022	0.3090	0.0553	0.2537	0.2655
14	19.14	0.0	3.1477	0.6557	-0.0026	-0.0544	-0.0015	0.3277	0.0553	0.2724	0.2070
15	21.23	0.0	3.6331	0.6657	0.0054	-0.0440	-0.0031	0.3495	0.0553	0.2942	0.1832
16	23.40	0.01	4.1778	0.6437	-0.0246	-0.0240	-0.0114	0.3717	0.0553	0.3164	0.1541
17	0.49	0.0	0.0417	0.0557	0.0330	-0.0399	-0.0064	0.2244	0.0553	0.1691	1.3362

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MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	WAL	FRIO-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
3	93	2.36	3.0	0.0	BLGFD	0.0	OFF	OFF	OFF	OFF	FIXED
POINT	ALPHA	META	CN	CLM	CY	CLM	CLL	CA	CAR	CAF	XCP
1	-3.41	0.01	-0.1495	-0.5306	-0.0135	-0.0262	0.0022	0.2955	0.1230	0.1725	2.6767
2	-7.13	0.01	-0.1215	-0.4804	-0.0147	-0.0211	0.0028	0.2879	0.1187	0.1692	2.3095
3	-1.11	0.0	-0.0662	-0.1310	-0.0062	-0.0310	0.0031	0.2860	0.1185	0.1675	1.9882
4	-0.01	0.01	-0.0004	0.0143	-0.0170	-0.0249	0.0035	0.2839	0.1186	0.1653	-1.6976
5	0.49	0.01	0.0372	0.1835	-0.0303	-0.0274	0.0004	0.2855	0.1187	0.1688	4.0333
6	2.02	0.01	0.1041	0.3334	-0.0157	-0.0279	0.0043	0.2870	0.1200	0.1670	3.2071
7	4.16	0.01	0.2290	0.6510	-0.0297	-0.0207	0.0051	0.2942	0.1258	0.1684	2.6369
8	6.19	0.01	0.3800	0.8903	-0.0261	-0.0254	0.0025	0.3077	0.1356	0.1721	2.3629
9	8.32	0.01	0.5875	1.0962	-0.0204	-0.0103	0.0015	0.3217	0.1409	0.1748	1.8625
10	10.00	0.01	0.8314	1.1352	-0.0184	-0.0100	0.0013	0.3358	0.1596	0.1762	1.2182
11	12.54	0.01	1.1004	1.1522	-0.0200	-0.0105	0.0029	0.3442	0.1709	0.1783	0.8542
12	14.40	0.02	1.4074	1.1057	-0.0404	-0.0104	0.0045	0.3544	0.1737	0.1807	0.6110
13	16.98	0.02	2.2617	1.0792	-0.0576	0.0103	0.0026	0.3627	0.1766	0.1841	0.4772
14	19.19	0.03	2.7524	1.0307	-0.0640	0.0036	0.0047	0.3680	0.1765	0.1915	0.3756
15	21.32	0.03	3.2350	0.9470	-0.0707	0.0049	0.0057	0.3669	0.1751	0.1947	0.2927
16	23.43	0.04	3.7713	0.8110	-0.0854	0.0176	0.0038	0.3805	0.1495	0.2110	0.2151
17	-0.01	0.01	-0.0001	0.0240	-0.0178	-0.0331	0.0001	0.2827	0.1187	0.1640	-3.6346

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LANGLEY RESEARCH CENTER (ASA)

UNITARY PLAN - INDI TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART		MFI		CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
1 94 2.66 3.0		0.0		01-4FO	0.0	OFF	OFF	OFF	OFF	FIXED	
POINT	ALPHA	HFTA	CA	CLM	CY	CLN	CLL	CA	CAH	CAF	XCP
1	-3.77	0.0	-0.2150	-0.5604	-0.0001	-0.0292	0.0025	0.2604	0.1032	0.1572	2.6065
2	-2.27	0.0	-0.1247	-0.3374	-0.0034	-0.0254	0.0031	0.2592	0.1000	0.1592	2.7057
3	-1.26	0.01	-0.0744	-0.1617	-0.0174	-0.0406	0.0035	0.2517	0.1001	0.1616	2.1753
4	-0.17	0.01	-0.0095	0.0041	-0.0161	-0.0215	0.0	0.2645	0.1032	0.1613	-0.4211
5	0.83	0.01	0.0411	0.1617	-0.0130	-0.0250	0.0004	0.2673	0.1033	0.1640	3.9333
6	1.86	0.01	0.1053	0.3195	-0.0110	-0.0292	0.0008	0.2650	0.1017	0.1633	3.0340
7	2.87	0.01	0.2336	0.4847	-0.0094	-0.0334	0.0016	0.2630	0.1017	0.1646	2.4601
8	3.96	0.01	0.3752	0.6434	-0.0233	-0.0254	0.0016	0.2677	0.1017	0.1660	2.6931
9	5.03	0.01	0.5055	0.8083	-0.0173	-0.0233	0.0025	0.2746	0.1049	0.1717	2.1413
10	6.15	0.01	0.6602	0.9661	-0.0211	-0.0367	0.0036	0.2885	0.1145	0.1740	1.4361
11	10.25	0.01	1.0106	0.9212	-0.0252	-0.0179	0.0009	0.3005	0.1257	0.1740	0.9110
12	12.36	0.01	1.3729	0.7492	-0.0206	-0.0122	0.0023	0.3087	0.1273	0.1814	0.6914
13	14.56	0.02	1.7717	0.4881	-0.0461	-0.0026	0.0038	0.3162	0.1305	0.1857	0.4985
14	16.86	0.02	2.2416	0.6561	-0.0613	0.0194	0.0013	0.3242	0.1321	0.1921	0.3680
15	18.85	0.02	2.6335	0.7447	-0.0461	-0.0106	0.0027	0.3290	0.1289	0.2001	0.3010
16	20.46	0.03	3.0629	0.7239	-0.0780	0.0264	0.0042	0.3405	0.1272	0.2133	0.2364
17	23.17	0.03	3.5299	0.5788	-0.0757	0.0123	0.0056	0.3544	0.1257	0.2287	0.1640
18	-0.17	0.01	-0.0097	0.6133	-0.0166	-0.0209	0.0	0.2669	0.1064	0.1605	-1.3691

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MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST PART NAME X-10-6				PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
	ALPHA	BETA	C _d	CLM								
1	-1.66	0.0	-0.2040	-0.2277	-0.0054	-0.0194	0.0040	0.2063	0.0668	0.1395	2.0762	
2	-2.21	0.0	-0.1144	-0.2424	-0.0224	0.0016	0.0046	0.2055	0.0689	0.1346	2.0334	
3	-1.16	0.0	-0.3444	-0.1145	-0.0141	-0.0100	0.0050	0.2043	0.0668	0.1375	2.3791	
4	-0.13	0.0	0.0009	0.0300	-0.0053	-0.0217	0.0053	0.2049	0.0668	0.1380	33.3778	
5	6.41	0.0	0.0520	0.1761	-0.0176	-0.0067	0.0057	0.2071	0.0668	0.1403	3.4258	
6	1.42	0.01	0.1723	0.2442	-0.0294	0.0078	0.0061	0.2085	0.0668	0.1417	2.3648	
7	4.00	0.01	0.2614	0.5367	-0.0331	0.0112	0.0069	0.2117	0.0668	0.1444	2.0500	
8	6.03	0.0	0.4540	0.6502	-0.0123	-0.0156	0.0078	0.2145	0.0689	0.1496	1.4177	
9	8.12	0.01	0.7270	0.7405	-0.0273	-0.0084	0.0059	0.2266	0.0710	0.1556	0.8894	
10	10.16	0.01	1.0181	0.6719	-0.0208	0.0036	0.0047	0.2336	0.0753	0.1583	0.6651	
11	12.25	0.01	1.3140	0.7044	-0.0213	-0.0075	0.0059	0.2446	0.0753	0.1693	0.5365	
12	14.33	0.01	1.6353	0.7226	-0.0342	0.0032	0.0071	0.2552	0.0753	0.1799	0.4416	
13	16.44	0.01	1.9764	0.7403	-0.0467	0.0158	0.0084	0.2662	0.0753	0.1929	0.3745	
14	18.56	0.02	2.3522	0.7620	-0.0604	0.0131	0.0096	0.2677	0.0753	0.2074	0.2985	
15	20.72	0.02	2.7356	0.6929	-0.0665	0.0146	0.0059	0.3013	0.0753	0.2250	0.2349	
16	22.83	0.02	3.2116	0.5262	-0.0762	0.0450	0.0074	0.3229	0.0732	0.2497	0.1638	
17	-0.12	0.01	0.0013	0.0295	-0.0264	0.0052	0.0054	0.2029	0.0710	0.1319	22.6769	

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LANGLEY RESEARCH CENTER (LARC)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

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POINT	TEST PART		MACH		PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
	3	96	4.63	3.0								
	ALPHA	BETA	CN	CLN	CV	CCN	CLL	CA	CAB	CAF	XCP	
1	-3.32	0.0	-0.1950	-0.3800	-0.0170	-0.0127	0.0055	0.1845	0.0513	0.1332	1.9520	
2	-1.43	0.01	-0.1065	-0.1910	-0.0344	0.0068	0.0091	0.1830	0.0513	0.1323	1.8009	
3	-0.53	0.0	-0.0852	-0.0651	-0.0199	-0.0103	0.0065	0.1830	0.0513	0.1321	1.6199	
4	0.23	0.0	0.0250	0.0775	-0.0061	-0.0225	0.0069	0.1857	0.0513	0.1344	3.0250	
5	1.26	0.0	0.0422	0.2037	-0.0164	-0.0134	0.0073	0.1870	0.0513	0.1357	2.2095	
6	2.26	0.01	0.1540	0.3290	-0.0301	0.0011	0.0010	0.1890	0.0513	0.1377	2.0730	
7	4.32	0.0	0.3155	0.5353	-0.0274	-0.0042	0.0018	0.1919	0.0513	0.1406	1.6913	
8	8.36	0.01	0.5255	0.8132	-0.0440	0.0040	0.0028	0.1956	0.0513	0.1443	1.1669	
9	8.53	0.01	0.7719	1.0020	-0.0327	-0.0093	0.0037	0.2024	0.0513	0.1511	0.8325	
10	10.03	0.01	1.0101	0.7054	-0.0109	-0.0038	0.0047	0.2129	0.0540	0.1569	0.6942	
11	12.50	0.01	1.2477	0.7315	-0.0087	-0.0009	0.0058	0.2197	0.0540	0.1657	0.5602	
12	14.58	0.01	1.5404	0.6902	-0.0368	0.0008	0.0002	0.2284	0.0540	0.1744	0.4356	
13	16.06	0.01	1.9050	0.6170	-0.0433	-0.0005	0.0001	0.2410	0.0540	0.1870	0.3244	
14	14.74	0.01	2.2444	0.4647	-0.0448	-0.0075	0.0026	0.2548	0.0540	0.2058	0.2158	
15	20.77	0.01	2.6217	0.3964	-0.0674	0.00747	0.0039	0.2769	0.0540	0.2249	0.1513	
16	22.02	0.01	3.0430	0.2545	-0.0665	0.0227	0.0053	0.2967	0.0540	0.2427	0.0853	
17	0.24	0.0	0.0254	0.0776	-0.0055	-0.0288	0.0002	0.1874	0.0540	0.1334	3.0567	

APPENDIX D
TEST 4

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	2.230	3.0	0.0	W240F34	0.0	0	0	0	0	FIXED	
POINT	ALPHA	BETA	CM	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-4.07	0.01	-0.9036	2.0454	-0.0250	0.0278	-0.0737	0.4771	0.1361	0.3410	-2.2637
2	-2.00	0.01	-0.4927	1.1670	-0.0292	0.0428	-0.0694	0.4696	0.1320	0.3376	-2.3686
3	-0.97	0.0	-0.2872	0.7112	-0.0184	0.0273	-0.0675	0.4678	0.1316	0.3362	-2.4763
4	0.05	0.0	-0.0818	0.2663	-0.0232	0.0376	-0.0674	0.4654	0.1305	0.3349	-3.2532
5	1.07	0.01	0.1077	-0.1707	-0.0279	0.0478	-0.0678	0.4649	0.1313	0.3336	-1.5858
6	2.12	0.0	0.3114	-0.6110	-0.0223	0.0425	-0.0684	0.4658	0.1325	0.3333	-1.9629
7	4.16	0.0	0.7183	-1.5022	-0.0270	0.0532	-0.0756	0.4687	0.1351	0.3336	-2.0914
8	6.23	0.0	1.1618	-2.4345	-0.0261	0.0675	-0.0739	0.4823	0.1455	0.3368	-2.0954
9	8.32	0.0	1.6438	-3.3859	-0.0205	0.0577	-0.0720	0.4925	0.1555	0.3370	-2.0598
10	10.45	0.0	2.2447	-4.4133	-0.0308	0.0734	-0.0741	0.4976	0.1608	0.3368	-1.9661
11	12.59	0.0	2.8811	-5.3806	-0.0159	0.0386	-0.0746	0.4960	0.1616	0.3344	-1.8676
12	14.74	0.0	3.5094	-6.2539	-0.0269	0.0543	-0.0745	0.4878	0.1616	0.3262	-1.7820
13	16.91	0.0	4.1920	-7.2393	-0.0069	0.0332	-0.0726	0.4854	0.1611	0.3243	-1.7269
14	19.06	0.0	4.8631	-8.1579	-0.0131	0.0103	-0.0689	0.4816	0.1593	0.3223	-1.6775
15	21.21	0.0	5.5509	-9.1065	0.0069	-0.0062	-0.0606	0.4784	0.1571	0.3213	-1.6405
16	0.06	0.01	-0.0946	0.2792	-0.0233	0.0281	-0.0717	0.4648	0.1310	0.3338	-2.9512

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LANGLEY RESEARCH CENTER(NASA) UNITARY PLAN WIND TUNNEL(UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	3	2.36	3.0	-90.0	B2W0F34	0.0	0	0	0	FIXED	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-4.05	0.0	-0.8642	1.9662	0.0133	-0.0329	-0.0692	0.4765	0.1362	0.3403	-2.2751
2	-1.98	0.0	-0.4578	1.0755	0.0185	-0.0447	-0.0683	0.4696	0.1334	0.3362	-2.3493
3	-0.97	0.0	-0.2577	0.6244	0.0213	-0.0483	-0.0681	0.4677	0.1329	0.3348	-2.4230
4	0.06	0.0	-0.0576	0.1781	0.0242	-0.0500	-0.0677	0.4658	0.1319	0.3339	-3.0921
5	1.08	0.0	0.1303	-0.2412	0.0174	-0.0418	-0.0650	0.4670	0.1318	0.3352	-1.8512
6	2.11	0.0	0.3335	-0.6860	0.0227	-0.0461	-0.0667	0.4670	0.1325	0.3345	-2.0571
7	4.19	0.0	0.7340	-1.5737	0.0331	-0.0659	-0.0722	0.4724	0.1368	0.3354	-2.1430
8	6.24	-0.01	1.1808	-2.5182	0.0364	-0.0562	-0.0695	0.4880	0.1491	0.3389	-2.1326
9	8.31	-0.01	1.6581	-3.4453	0.0326	-0.0618	-0.0707	0.5006	0.1585	0.3421	-2.0899
10	10.44	0.0	2.2510	-4.4719	0.0119	-0.0400	-0.0737	0.5058	0.1635	0.3423	-1.9864
11	12.60	0.0	2.8914	-5.4626	0.0206	-0.0486	-0.0718	0.5047	0.1637	0.3418	-1.8892
12	14.74	0.0	3.5728	-6.3390	0.0299	-0.0697	-0.0706	0.4974	0.1637	0.3337	-1.7994
13	16.88	0.0	4.1799	-7.2694	0.0243	-0.0755	-0.0722	0.4971	0.1653	0.3318	-1.7430
14	19.05	0.0	4.8639	-8.2401	0.0310	-0.0719	-0.0734	0.4920	0.1625	0.3295	-1.6872
15	21.22	0.0	5.5818	-9.2127	0.0366	-0.1006	-0.0728	0.4903	0.1611	0.3292	-1.6505
16	0.05	0.0	-0.0730	0.2083	0.0120	-0.0265	-0.0696	0.4657	0.1320	0.3337	-2.8537
17	0.05	-0.01	-0.0730	0.2085	0.0250	-0.0509	-0.0675	0.4661	0.1314	0.3347	-2.8564

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MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
4 4 2.86 3.0 -90.0 020F34 0.0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-4.22	-0.01	-0.7631	1.4355	0.0477	-0.0913	-0.0585	0.4249	0.1114	0.3135	-1.8812
2	-2.14	-0.01	-0.3997	0.7445	0.0448	-0.0868	-0.0542	0.4176	0.1090	0.3086	-1.8751
3	-1.13	-0.01	-0.2185	0.4154	0.0356	-0.0769	-0.0569	0.4161	0.1084	0.3077	-1.9013
4	-0.11	-0.01	-0.0485	0.0817	0.0422	-0.0829	-0.0547	0.4154	0.1084	0.3078	-1.6854
5	0.93	-0.01	0.1364	-0.2618	0.0358	-0.0757	-0.0574	0.4166	0.1085	0.3081	-1.9199
6	1.96	-0.01	0.3097	-0.5933	0.0454	-0.0849	-0.0552	0.4161	0.1089	0.3072	-1.9157
7	4.02	-0.01	0.4675	-1.2731	0.0631	-0.1144	-0.0557	0.4224	0.1113	0.3111	-1.9873
8	6.09	-0.01	1.0730	-2.0029	0.0573	-0.1074	-0.0541	0.4327	0.1172	0.3155	-1.8667
9	8.17	-0.01	1.5362	-2.7863	0.0432	-0.0922	-0.0549	0.4409	0.1238	0.3171	-1.8138
10	10.27	-0.01	2.0855	-3.6467	0.0413	-0.0898	-0.0535	0.4435	0.1242	0.3193	-1.7486
11	12.39	-0.01	2.6518	-4.4546	0.0436	-0.1049	-0.0560	0.4470	0.1238	0.3232	-1.6798
12	14.50	0.0	3.2213	-5.2420	0.0457	-0.1200	-0.0607	0.4501	0.1222	0.3279	-1.6273
13	16.61	0.0	3.8089	-6.0641	0.0470	-0.1344	-0.0632	0.4522	0.1200	0.3322	-1.5921
14	18.76	0.0	4.4365	-6.9649	0.0466	-0.1343	-0.0667	0.4560	0.1164	0.3396	-1.5699
15	20.85	0.0	5.0653	-7.8949	0.0452	-0.1583	-0.0722	0.4591	0.1150	0.3441	-1.5586
16	-0.10	0.0	-0.0424	0.0916	0.0266	-0.0795	-0.0521	0.4129	0.1085	0.3044	-2.1693

LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	ACP
1	-4.24	0.0	-0.8060	1.5331	0.0032	-0.0154	-0.0599	0.4241	0.1121	0.3120	-1.9022
2	-2.16	0.0	-0.4224	0.8239	0.0035	-0.0152	-0.0577	0.4150	0.1084	0.3066	-1.9505
3	-1.13	0.0	-0.2302	0.4751	0.0037	-0.0098	-0.0577	0.4129	0.1073	0.3056	-2.0639
4	-0.10	0.0	-0.0692	0.1573	0.0038	-0.0152	-0.0578	0.4112	0.1073	0.3039	-2.3069
5	0.92	0.0	0.1217	-0.1865	0.0041	-0.0098	-0.0559	0.4128	0.1069	0.3059	-1.5322
6	1.96	0.0	0.2459	-0.5267	-0.0016	-0.0036	-0.0564	0.4126	0.1074	0.3052	-1.7801
7	4.01	0.0	0.6612	-1.1993	0.0045	-0.0041	-0.0575	0.4162	0.1093	0.3069	-1.8139
8	6.09	0.0	1.0667	-1.9289	-0.0010	0.0128	-0.0554	0.4250	0.1169	0.3081	-1.8083
9	8.17	0.0	1.5298	-2.7190	0.0047	-0.0036	-0.0581	0.4320	0.1227	0.3093	-1.7773
10	10.29	0.0	2.0839	-3.5906	0.0103	-0.0148	-0.0583	0.4360	0.1242	0.3118	-1.7230
11	12.41	0.0	2.6565	-4.3932	0.0099	-0.0094	-0.0560	0.4369	0.1241	0.3128	-1.6537
12	14.51	0.0	3.2144	-5.1672	0.0150	-0.0096	-0.0609	0.4398	0.1218	0.3180	-1.6075
13	16.65	0.0	3.8278	-6.0197	0.0201	-0.0208	-0.0611	0.4423	0.1189	0.3234	-1.5726
14	18.76	0.0	4.4255	-6.8813	0.0251	-0.0481	-0.0616	0.4455	0.1156	0.3299	-1.5549
15	20.86	0.0	5.0526	-7.8370	0.0304	-0.0646	-0.0619	0.4485	0.1145	0.3340	-1.5511
16	-0.09	0.0	-0.0526	0.1539	0.0098	-0.0160	-0.0553	0.4122	0.1070	0.3052	-2.0259

MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	WALCH	DX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
4	6	3.95	3.0	-90.0	B2W0F34	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLN	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-4.13	0.0	-0.6141	0.9213	0.0055	-0.0579	-0.0351	0.3356	0.0753	0.2603	-1.5002
2	-2.09	0.0	-0.3149	0.5030	0.0119	-0.0477	-0.0344	0.3319	0.0753	0.2566	-1.5973
3	-1.07	0.0	-0.1731	0.2982	0.0052	-0.0407	-0.0325	0.3337	0.0753	0.2584	-1.7228
4	-0.04	0.0	-0.0314	0.1006	-0.0019	-0.0334	-0.0368	0.3349	0.0753	0.2596	-3.2024
5	0.97	0.0	0.1150	-0.1015	0.0154	-0.0512	-0.0348	0.3350	0.0753	0.2597	-0.8826
6	2.00	0.0	0.2535	-0.2955	0.0128	-0.0486	-0.0360	0.3368	0.0753	0.2615	-1.1658
7	4.06	0.0	0.5617	-0.7089	0.0062	-0.0420	-0.0384	0.3403	0.0753	0.2650	-1.2620
8	6.12	0.0	0.9087	-1.1984	0.0285	-0.0649	-0.0413	0.3461	0.0753	0.2708	-1.3189
9	8.18	0.0	1.3180	-1.7670	0.0205	-0.0568	-0.0447	0.3566	0.0759	0.2807	-1.3487
10	10.25	0.0	1.7425	-2.3005	0.0125	-0.0660	-0.0475	0.3645	0.0767	0.2878	-1.3282
11	12.34	0.0	2.2004	-2.8802	0.0108	-0.0648	-0.0506	0.3754	0.0767	0.2987	-1.3089
12	14.41	0.0	2.6655	-3.5181	0.0276	-0.0992	-0.0575	0.3891	0.0761	0.3130	-1.3199
13	16.48	0.0	3.1765	-4.2601	0.0227	-0.0942	-0.0621	0.4030	0.0742	0.3288	-1.3411
14	18.56	0.0	3.7353	-5.1286	0.0345	-0.1226	-0.0647	0.4164	0.0725	0.3439	-1.3730
15	20.64	0.0	4.3678	-6.1714	0.0236	-0.1107	-0.0689	0.4343	0.0694	0.3649	-1.4129
16	-0.04	0.0	-0.0392	0.1015	0.0181	-0.0706	-0.0336	0.3346	0.0731	0.2615	-2.5885
17	-0.05	0.0	-0.0391	0.1014	0.0187	-0.0544	-0.0336	0.3349	0.0742	0.2607	-2.5924

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION											
4 7 3.95 3.0 0.0 B2J0F34 0.0 0 0 0 0 FIXED											
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAP	KCP
1	-4.15	0.0	-0.6576	0.9720	-0.0010	0.0009	-0.0382	0.3353	0.0734	0.2619	-1.4781
2	-2.08	0.0	-0.3352	0.5403	-0.0011	0.0080	-0.0350	0.3309	0.0739	0.2570	-1.6119
3	-1.06	0.0	-0.1946	0.3289	-0.0012	0.0051	-0.0350	0.3315	0.0739	0.2576	-1.6908
4	-0.04	0.0	-0.0534	0.1335	-0.0013	0.0062	-0.0351	0.3344	0.0739	0.2605	-2.5007
5	0.97	0.0	0.0851	-0.0556	-0.0015	0.0083	-0.0357	0.3348	0.0739	0.2609	-0.6534
6	2.00	0.0	0.2436	-0.2653	-0.0018	0.0084	-0.0397	0.3352	0.0739	0.2613	-1.0880
7	4.04	0.0	0.5408	-0.6639	-0.0021	0.0085	-0.0410	0.3489	0.0739	0.2670	-1.2277
8	6.11	0.0	0.8921	-1.1390	-0.0023	0.0157	-0.0384	0.3441	0.0739	0.2702	-1.2767
9	8.17	0.0	1.3013	-1.7105	-0.0028	0.0159	-0.0418	0.3510	0.0745	0.2765	-1.3145
10	10.23	0.0	1.7116	-2.2321	0.0043	0.0081	-0.0484	0.3594	0.0763	0.2831	-1.3042
11	12.31	0.0	2.1801	-2.8307	0.0035	0.0085	-0.0517	0.3719	0.0763	0.2956	-1.2984
12	14.39	0.0	2.6480	-3.4622	0.0105	-0.0136	-0.0553	0.3847	0.0763	0.3084	-1.3875
13	16.48	0.0	3.1500	-4.1751	0.0100	-0.0206	-0.0555	0.3977	0.0753	0.3224	-1.3254
14	18.55	0.0	3.7213	-5.0734	0.0173	-0.0354	-0.0589	0.4097	0.0748	0.3349	-1.3634
15	20.64	0.0	4.3342	-6.0633	0.0094	-0.0271	-0.0590	0.4252	0.0732	0.3520	-1.4035
16	-0.05	0.0	-0.0734	0.1540	-0.0013	0.0010	-0.0352	0.3321	0.0734	0.2587	-2.8986

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	8.463	3.0	0.0	0240F34	0.0	0	0	0	0	FIXED	
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.79	0.0	-0.5766	0.6274	-0.0198	0.0124	-0.0326	0.3097	0.0584	0.2513	-1.0888
2	-1.73	0.0	-0.2857	0.3103	-0.0202	0.0123	-0.0286	0.3089	0.0584	0.2505	-1.0750
3	-0.70	0.0	-0.1970	0.1753	-0.0205	0.0123	-0.0286	0.3085	0.0584	0.2501	-1.1164
4	0.30	0.0	-0.0254	0.0402	-0.0208	0.0123	-0.0286	0.3086	0.0584	0.2502	-1.5033
5	1.32	0.0	0.1028	-0.0869	-0.0211	0.0124	-0.0295	0.3084	0.0602	0.2482	-0.8454
6	2.34	0.0	0.2566	-0.2403	-0.0215	0.0125	-0.0304	0.3112	0.0602	0.2510	-0.9363
7	4.38	0.0	0.5378	-0.5199	-0.0222	0.0126	-0.0321	0.3104	0.0602	0.2502	-0.9667
8	6.43	0.0	0.8634	-0.9356	-0.0129	0.0026	-0.0412	0.3142	0.0608	0.2534	-1.0837
9	8.46	0.0	1.2090	-1.3547	-0.0134	0.0026	-0.0413	0.3238	0.0608	0.2630	-1.1205
10	10.52	0.0	1.6049	-1.8468	-0.0141	-0.0063	-0.0415	0.3337	0.0608	0.2729	-1.1507
11	12.56	0.0	2.0256	-2.3657	-0.0149	-0.0152	-0.0458	0.3489	0.0608	0.2861	-1.1778
12	14.63	0.0	2.4632	-3.0331	-0.0152	-0.0150	-0.0460	0.3586	0.0608	0.2970	-1.2289
13	16.68	0.0	2.9546	-3.8281	-0.0054	-0.0343	-0.0463	0.3727	0.0602	0.3125	-1.2954
14	18.74	0.0	3.5116	-4.8005	-0.0054	-0.0339	-0.0505	0.3818	0.0596	0.3222	-1.3670
15	20.81	0.0	4.1160	-5.9077	-0.0051	-0.0428	-0.0467	0.3977	0.0582	0.3395	-1.4353
16	0.30	0.0	-0.0254	0.0402	-0.0208	0.0123	-0.0286	0.3086	0.0588	0.2498	-1.5033
17	0.29	0.0	-0.0258	0.0406	-0.0307	0.0226	-0.0286	0.3084	0.0588	0.2496	-1.5749

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

SHEET 1 OF 1

TEST PART	MACH	RX10-6	PHI	COMP	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	9	4.63	3.0	-90.0	8240F34	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.77	-0.01	-0.5278	0.5910	0.0725	-0.0955	-0.0306	0.3106	0.0620	0.2486	-1.1198
2	-1.73	-0.01	-0.2544	0.2802	0.0608	-0.0624	-0.0279	0.3093	0.0620	0.2473	-1.1013
3	-0.71	-0.01	-0.1227	0.1437	0.0802	-0.0827	-0.0283	0.3085	0.0620	0.2465	-1.1712
4	0.31	-0.01	0.0091	0.0163	0.0486	-0.0506	-0.0287	0.3108	0.0620	0.2488	1.7952
5	1.33	-0.01	0.1368	-0.1067	0.0735	-0.0766	-0.0290	0.3100	0.0620	0.2480	-0.7798
6	2.34	-0.01	0.2744	-0.2492	0.0723	-0.0758	-0.0295	0.3097	0.0620	0.2477	-0.9081
7	4.39	-0.01	0.5591	-0.5626	0.0947	-0.0996	-0.0349	0.3113	0.0620	0.2493	-1.0062
8	6.43	-0.01	0.8922	-0.9813	0.0778	-0.0876	-0.0371	0.3156	0.0620	0.2536	-1.0999
9	8.48	-0.01	1.2571	-1.4333	0.0755	-0.0808	-0.0435	0.3267	0.0626	0.2641	-1.1401
10	10.53	-0.01	1.6302	-1.8933	0.0732	-0.1005	-0.0458	0.3371	0.0626	0.2745	-1.1614
11	12.57	-0.01	2.0455	-2.4397	0.0788	-0.1066	-0.0488	0.3521	0.0626	0.2895	-1.1927
12	14.63	-0.01	2.4899	-3.0809	0.0820	-0.1313	-0.0528	0.3635	0.0626	0.3009	-1.2374
13	16.70	-0.01	3.0024	-3.9109	0.0824	-0.1310	-0.0545	0.3752	0.0612	0.3140	-1.3026
14	18.74	-0.01	3.5436	-4.8807	0.0808	-0.1280	-0.0578	0.3911	0.0599	0.3312	-1.3773
15	20.81	-0.01	4.1438	-5.9947	0.0763	-0.1217	-0.0582	0.4069	0.0591	0.3478	-1.4467
16	0.30	-0.01	-0.0010	0.0268	0.0735	-0.0977	-0.0327	0.3074	0.0599	0.2475	-26.8488

LANGLEY RESEARCH CENTER(NASA)

UNITARY PLAN WIND TUNNEL(UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

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SHEET 1 OF 1

TEST PAPY WACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
4 10 4.63 3.0 0.0 82WOF35 0.0 0 0 0 0 0 FIXED

POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-3.76	0.0	-0.5265	0.7850	0.0096	-0.0095	-0.0326	0.2859	0.0537	0.2322	-1.3398
2	-1.72	0.0	-0.2107	0.3165	0.0092	-0.0095	-0.0326	0.2816	0.0537	0.2279	-1.5023
3	-0.71	0.0	-0.0780	0.1589	0.0090	-0.0095	-0.0327	0.2808	0.0537	0.2271	-2.0374
4	0.31	0.0	0.0542	0.0017	0.0089	-0.0095	-0.0286	0.2801	0.0537	0.2264	0.0320
5	1.32	0.0	0.2011	-0.1918	0.0086	-0.0093	-0.0328	0.2807	0.0537	0.2270	-0.0540
6	2.35	0.0	0.3485	-0.3645	0.0084	-0.0093	-0.0328	0.2837	0.0537	0.2300	-1.0400
7	4.39	0.0	0.6420	-0.7301	-0.0020	0.0011	-0.0328	0.2876	0.0537	0.2339	-1.1372
8	6.43	0.0	0.9620	-1.1227	0.0075	-0.0091	-0.0330	0.2965	0.0537	0.2428	-1.1670
9	8.49	0.0	1.3088	-1.4998	0.0067	-0.0090	-0.0371	0.3044	0.0547	0.2497	-1.1488
10	10.53	0.0	1.6804	-1.9231	0.0058	-0.0270	-0.0375	0.3131	0.0561	0.2570	-1.1444
11	12.58	0.0	2.0777	-2.3648	0.0049	-0.0360	-0.0377	0.3258	0.0547	0.2711	-1.1382
12	14.64	0.0	2.4969	-2.9362	0.0042	-0.0449	-0.0420	0.3366	0.0549	0.2817	-1.1759
13	16.71	0.0	2.9916	-3.6343	0.0138	-0.0443	-0.0382	0.3487	0.0541	0.2948	-1.2148
14	18.75	0.0	3.5089	-4.4441	0.0135	-0.0732	-0.0385	0.3601	0.0535	0.3066	-1.2665
15	20.82	0.0	4.0740	-5.3888	0.0133	-0.0819	-0.0388	0.3779	0.0512	0.3267	-1.3227
16	0.30	0.0	0.0268	-0.0130	-0.0112	0.0023	-0.0368	0.2778	0.0535	0.2243	-0.4840
17	0.29	0.0	0.0268	-0.0130	-0.0112	0.0023	-0.0368	0.2779	0.0541	0.2238	-0.4840

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SHEET 1 OF 1LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
4	11	2.00	3.0	0.0	020F35	0.0	0	0	0	0	FIRED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAN	CAF	NCP
1	-4.23	0.0	-0.8261	1.5535	-0.0026	-0.0203	-0.0552	0.3919	0.1064	0.2855	-1.8806
2	-2.16	0.0	-0.4395	0.8539	-0.0023	-0.0147	-0.0553	0.3851	0.1023	0.2828	-1.9428
3	-1.13	0.0	-0.2318	0.4767	-0.0021	-0.0092	-0.0553	0.3847	0.1019	0.2828	-2.0564
4	-0.11	0.0	-0.0392	0.1024	0.0039	-0.0152	-0.0555	0.3831	0.1018	0.2813	-2.6114
5	0.92	0.0	0.1470	-0.2656	0.0040	-0.0204	-0.0580	0.3833	0.1019	0.2814	-1.8067
6	1.96	0.0	0.3323	-0.6453	0.0044	-0.0150	-0.0556	0.3834	0.1014	0.2820	-1.9419
7	4.01	0.0	0.7204	-1.3593	0.0107	-0.0210	-0.0509	0.3873	0.1043	0.2830	-1.8869
8	6.08	0.0	1.1092	-2.0358	0.0109	-0.0264	-0.0462	0.3953	0.1109	0.2844	-1.8353
9	8.18	0.0	1.5455	-2.6980	0.0049	-0.0148	-0.0438	0.4026	0.1169	0.2857	-1.7457
10	10.28	0.0	2.0469	-3.3645	0.0044	-0.0148	-0.0416	0.4066	0.1202	0.2864	-1.6437
11	12.39	0.0	2.5913	-4.0301	0.0034	-0.0148	-0.0418	0.4049	0.1150	0.2899	-1.5553
12	14.54	0.0	3.1538	-4.6903	0.0083	-0.0312	-0.0396	0.4066	0.1137	0.2929	-1.4872
13	16.66	0.0	3.7131	-5.3861	0.0247	-0.0598	-0.0423	0.4115	0.1159	0.2956	-1.4511
14	18.78	0.0	4.3088	-6.1529	0.0247	-0.0765	-0.0403	0.4161	0.1147	0.3014	-1.4288
15	20.91	0.0	4.9235	-6.9966	0.0404	-0.1098	-0.0383	0.4206	0.1130	0.3076	-1.4211
16	-0.10	0.0	-0.0231	0.0984	0.0156	-0.0273	-0.0554	0.3824	0.1028	0.2796	-4.2688
17	-0.11	0.0	-0.0385	0.1141	0.0098	-0.0159	-0.0553	0.3822	0.1024	0.2798	-2.9647
18	-0.11	0.0	-0.0234	0.0987	0.0098	-0.0159	-0.0553	0.3822	0.1023	0.2799	-4.2195

MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6											
4	12	2.36	3.0	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
				0.0	WZ0F35	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	ICP
1	-4.06	0.0	-0.8441	2.6342	-0.0193	0.0315	-0.0608	0.4310	0.1275	0.3035	-2.2751
2	-2.00	0.0	-0.4677	1.1401	-0.0185	0.0364	-0.0587	0.4272	0.1248	0.3024	-2.4377
3	-0.97	0.0	-0.2614	0.724	-0.0079	0.0164	-0.0611	0.4280	0.1249	0.3031	-2.5721
4	0.05	0.0	-0.0431	0.1933	-0.0075	0.0118	-0.0614	0.4305	0.1251	0.3054	-4.4855
5	1.08	0.0	0.1436	-0.2436	-0.0173	0.0274	-0.0592	0.4285	0.1245	0.3040	-1.6967
6	2.12	0.0	0.3571	-0.7078	-0.0221	0.0377	-0.0592	0.4280	0.1246	0.3034	-1.9820
7	4.18	0.0	0.7854	-1.6271	-0.0212	0.0425	-0.0551	0.4295	0.1274	0.3021	-2.0717
8	6.25	0.0	1.2139	-2.5002	-0.0102	0.0223	-0.0510	0.4415	0.1394	0.3021	-2.9596
9	8.34	0.0	1.6722	-3.3155	-0.0151	0.0230	-0.0469	0.4514	0.1485	0.3029	-1.9827
10	10.46	0.0	2.2088	-4.0903	-0.0206	0.0390	-0.0448	0.4574	0.1536	0.3038	-1.8506
11	12.59	0.01	2.7741	-4.7962	-0.0217	0.0193	-0.0452	0.4554	0.1507	0.3047	-1.7289
12	14.76	0.01	3.3924	-5.5398	-0.0177	0.0046	-0.0435	0.4478	0.1456	0.3022	-1.6330
13	16.92	0.01	4.0291	-6.3355	-0.0136	-0.0052	-0.0394	0.4482	0.1489	0.2993	-1.5724
14	19.08	0.01	4.6941	-7.1616	-0.0045	-0.0250	-0.0397	0.4509	0.1516	0.2993	-1.5257
15	21.25	0.01	5.3780	-8.0216	-0.0107	-0.0148	-0.0356	0.4502	0.1486	0.3016	-1.4916
16	0.05	0.01	-0.0579	0.1976	-0.0281	0.0428	-0.0613	0.4298	0.1249	0.3049	-3.4131
17	0.05	0.01	-0.0578	0.1973	-0.0281	0.0428	-0.0612	0.4306	0.1256	0.3050	-3.4137
18	0.05	0.01	-0.0578	0.1973	-0.0282	0.0381	-0.0613	0.4308	0.1256	0.3052	-3.4137

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SHEET 1 OF 1LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	MACH	RX10-B	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
*	13	3.95	3.0	0.0	82W0F35	0.0	0	0	0	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-4.14	0.0	-0.6587	1.0568	0.0142	-0.0152	-0.0414	0.3100	0.0697	0.2403	-1.6044
2	-2.08	0.0	-0.3147	0.5696	0.0140	-0.0151	-0.0415	0.3049	0.0697	0.2352	-1.8099
3	-1.06	0.0	-0.1534	0.3201	0.0139	-0.0150	-0.0415	0.3028	0.0691	0.2337	-2.0869
4	-0.04	0.0	0.0076	0.0708	0.0139	-0.0150	-0.0416	0.3030	0.0691	0.2339	2.0754
5	0.97	0.01	0.1364	-0.1622	-0.0641	0.0660	-0.0413	0.3068	0.0697	0.2371	-1.1888
6	2.01	0.0	0.3130	-0.4102	0.0061	0.0004	-0.0416	0.3095	0.0697	0.2390	-1.3106
7	4.05	0.0	0.6394	-0.8963	0.0138	-0.0077	-0.0385	0.3162	0.0697	0.2465	-1.4017
8	6.11	0.0	0.9672	-1.3335	0.0136	-0.0077	-0.0354	0.3237	0.0697	0.2540	-1.3707
9	8.17	0.0	1.3551	-1.8162	0.0129	-0.0075	-0.0367	0.3309	0.0721	0.2588	-1.3393
10	10.25	0.0	1.7672	-2.2538	0.0120	-0.0073	-0.0388	0.3350	0.0729	0.2621	-1.2753
11	12.32	0.0	2.1985	-2.7227	0.0188	-0.0224	-0.0422	0.3427	0.0723	0.2704	-1.2385
12	14.41	0.0	2.6478	-3.2607	0.0256	-0.0445	-0.0426	0.3535	0.0711	0.2824	-1.2315
13	16.49	0.0	3.1547	-3.9301	0.0248	-0.0586	-0.0429	0.3658	0.0706	0.2952	-1.2458
14	18.57	0.0	3.6810	-4.6548	0.0318	-0.0879	-0.0433	0.3792	0.0690	0.3102	-1.2646
15	20.66	0.0	4.2845	-5.5090	0.0234	-0.0722	-0.0434	0.3933	0.0669	0.3264	-1.2858
16	-0.04	0.0	-0.0132	0.0755	0.0062	-0.0069	-0.0415	0.3032	0.0692	0.2340	-5.7218

MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6											
4 14 3.95 3.0											
PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION											
0.0 0200F33 0.0 0 0 0 0 FIXED											
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-4.12	0.0	-0.5648	0.0299	0.0074	-0.0222	-0.0160	0.3473	0.0681	0.2792	-1.4590
2	-2.00	0.0	-0.2916	0.4443	0.0072	-0.0221	-0.0161	0.3451	0.0682	0.2769	-1.5235
3	-1.06	0.0	-0.1335	0.2316	0.0070	-0.0220	-0.0161	0.3454	0.0676	0.2778	-1.7351
4	-0.05	0.0	-0.0160	0.0439	0.0070	-0.0220	-0.0162	0.3484	0.0676	0.2800	-2.7462
5	0.97	0.0	0.1419	-0.1683	-0.0010	-0.0066	-0.0193	0.3508	0.0662	0.2846	-1.1859
6	2.00	0.0	0.2600	-0.3399	-0.0011	-0.0066	-0.0193	0.3531	0.0671	0.2860	-1.3073
7	4.05	0.0	0.5769	-0.7490	-0.0015	-0.0064	-0.0194	0.3555	0.0682	0.2873	-1.2983
8	6.11	0.0	0.9464	-1.2920	-0.0017	0.0009	-0.0226	0.3618	0.0677	0.2941	-1.3651
9	8.16	0.0	1.3522	-1.8693	-0.0021	0.0011	-0.0227	0.3733	0.0668	0.3045	-1.3024
10	10.24	0.0	1.7800	-2.4186	-0.0023	0.0009	-0.0261	0.3819	0.0696	0.3123	-1.3588
11	12.32	0.0	2.2458	-3.0573	0.0004	-0.0045	-0.0263	0.3967	0.0696	0.3271	-1.3614
12	14.38	0.0	2.7113	-3.7292	0.0108	-0.0205	-0.0329	0.4101	0.0696	0.3405	-1.3754
13	16.47	0.0	3.2489	-4.5309	0.0091	-0.0261	-0.0331	0.4263	0.0677	0.3586	-1.3946
14	18.55	0.0	3.8195	-5.5020	0.0062	-0.0300	-0.0301	0.4398	0.0667	0.3731	-1.4467
15	20.63	0.0	4.4475	-6.6003	-0.0044	-0.0146	-0.0303	0.4569	0.0657	0.3912	-1.4840
16	-0.05	0.0	-0.0364	0.0648	-0.0087	-0.0057	-0.0193	0.3455	0.0672	0.2783	-1.7790
17	-0.06	0.0	-0.0371	0.0488	-0.0086	-0.0057	-0.0193	0.3482	0.0671	0.2811	-1.3149

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART	MACH	RA10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	15	4.63	3.0	0.0	R2WOF33	0.0	0	0	0	FIXED	
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-3.78	0.0	-0.5371	0.5435	-0.0195	-0.0062	-0.0205	0.3272	0.0535	0.2737	-1.0119
2	-1.72	0.0	-0.2571	0.2348	-0.0200	-0.0062	-0.0206	0.3264	0.0535	0.2729	-0.9132
3	-0.71	0.0	-0.1294	0.1038	-0.0203	-0.0062	-0.0206	0.3262	0.0535	0.2727	-0.8020
4	1.33	0.0	0.1259	-0.1582	-0.0208	-0.0062	-0.0207	0.3282	0.0535	0.2747	-1.2568
5	2.32	0.0	0.2535	-0.2891	-0.0211	-0.0062	-0.0207	0.3281	0.0535	0.2746	-1.1466
6	4.38	0.0	0.5591	-0.6241	-0.0217	-0.0060	-0.0208	0.3327	0.0535	0.2792	-1.1162
7	6.42	0.01	0.8823	-1.0366	-0.0221	-0.0059	-0.0209	0.3360	0.0535	0.2825	-1.1749
8	8.47	0.01	1.2513	-1.5134	-0.0328	0.0047	-0.0291	0.3462	0.0535	0.2927	-1.2094
9	10.52	0.01	1.6462	-2.0168	-0.0230	-0.0058	-0.0293	0.3596	0.0543	0.3053	-1.2252
10	12.56	0.01	2.0385	-2.5820	-0.0193	-0.0190	-0.0295	0.3752	0.0543	0.3209	-1.2664
11	14.64	0.01	2.5045	-3.2872	-0.0153	-0.0233	-0.0256	0.3877	0.0543	0.3334	-1.3123
12	16.67	0.01	3.0114	-4.1688	-0.0162	-0.0128	-0.0256	0.4030	0.0543	0.3467	-1.3643
13	18.73	0.01	3.5878	-5.2318	-0.0196	-0.0086	-0.0258	0.4160	0.0528	0.3632	-1.4582
14	20.80	0.01	4.2066	-6.4429	-0.0228	-0.0043	-0.0300	0.4332	0.0533	0.3799	-1.5316
15	0.29	0.01	-0.0277	-0.0006	-0.0305	-0.0050	-0.0207	0.3258	0.0529	0.2729	0.0214

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RK10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	16	2.30	3.0	0.0	B2W0F33	0.0	0	0	0	FIXED	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-4.05	0.01	-0.8609	1.9334	-0.0290	0.0179	-0.0378	0.4931	0.1277	0.3654	-2.2480
2	-1.99	0.01	-0.4669	1.0616	-0.0179	-0.0072	-0.0360	0.4844	0.1231	0.3613	-2.2737
3	-0.97	0.01	-0.2644	0.6214	-0.0228	0.0081	-0.0383	0.4845	0.1226	0.3619	-2.3501
4	0.05	0.01	-0.0728	0.7001	-0.0274	0.0183	-0.0359	0.4824	0.1218	0.3606	-2.2748
5	1.08	0.01	0.1308	-0.2423	-0.0166	0.0077	-0.0340	0.4821	0.1203	0.3618	-1.8527
6	2.09	0.01	0.3217	-0.6610	-0.0216	0.0133	-0.0383	0.4820	0.1208	0.3612	-2.0546
7	4.16	0.01	0.7296	-1.5576	-0.0259	0.0283	-0.0404	0.4872	0.1240	0.3632	-2.1379
8	6.25	0.01	1.1715	-2.5111	-0.0355	0.0490	-0.0446	0.5022	0.1369	0.3653	-2.1435
9	8.31	0.0	1.6652	-3.5134	-0.0246	0.0481	-0.0446	0.5132	0.1478	0.3654	-2.1182
10	10.42	0.0	2.2649	-4.6033	-0.0341	0.0776	-0.0445	0.5178	0.1527	0.3651	-2.0324
11	12.55	0.0	2.9251	-5.6684	-0.0272	0.0561	-0.0470	0.5168	0.1543	0.3625	-1.9378
12	14.69	0.0	3.5854	-6.6993	-0.0253	0.0541	-0.0450	0.5091	0.1528	0.3563	-1.8685
13	16.85	0.01	4.3013	-7.6429	-0.0271	0.0463	-0.0453	0.5067	0.1498	0.3569	-1.8234
14	19.01	0.0	5.0224	-8.9513	-0.0090	0.0082	-0.0414	0.5061	0.1468	0.3593	-1.7823
15	21.16	0.0	5.7764	-10.1354	-0.0212	0.0542	-0.0305	0.5080	0.1463	0.3617	-1.7546
16	0.05	0.01	-0.0584	0.1967	-0.0121	-0.0024	-0.0382	0.4816	0.1219	0.3597	-3.3688

LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	17	2.86	3.0	0.0	H2W0F33	0.0	0	0	0	FIXED	
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAP	KCP
1	-4.20	0.0	-0.7254	1.3862	0.0038	-0.0377	-0.0362	0.4367	0.1027	0.3340	-1.9110
2	-2.15	0.0	-0.3618	0.6977	0.0043	-0.0372	-0.0315	0.4296	0.0996	0.3300	-1.9283
3	-1.12	0.0	-0.1675	0.3673	-0.0073	-0.0199	-0.0315	0.4295	0.0988	0.3307	-1.9589
4	-0.11	0.0	-0.0123	0.0359	-0.0012	-0.0261	-0.0316	0.4312	0.0996	0.3316	-2.9188
5	0.91	0.0	0.1478	-0.2797	0.0047	-0.0319	-0.0340	0.4305	0.0998	0.3307	-1.8925
6	1.95	0.0	0.3377	-0.6260	0.0049	-0.0319	-0.0341	0.4301	0.0993	0.3308	-1.8537
7	4.02	0.0	0.7015	-1.3148	-0.0006	-0.0148	-0.0340	0.4349	0.1008	0.3341	-1.8742
8	6.10	0.0	1.1079	-2.0574	-0.0005	-0.0145	-0.0390	0.4440	0.1079	0.3361	-1.8578
9	8.15	0.0	1.5570	-2.8422	-0.0003	-0.0090	-0.0391	0.4521	0.1131	0.3390	-1.8254
10	10.25	0.0	2.1223	-3.7818	0.0	-0.0090	-0.0392	0.4550	0.1143	0.3407	-1.7819
11	12.36	0.0	2.7067	-4.6532	0.0021	-0.0090	-0.0392	0.4579	0.1139	0.3440	-1.7191
12	14.49	0.0	3.2946	-5.5303	0.0100	-0.0198	-0.0395	0.4612	0.1110	0.3502	-1.6788
13	16.60	0.0	3.8898	-6.4039	0.0197	-0.0464	-0.0399	0.4628	0.1092	0.3536	-1.6443
14	18.75	0.0	4.5274	-7.3860	0.0171	-0.0330	-0.0399	0.4669	0.1081	0.3568	-1.6314
15	20.85	0.0	5.1946	-8.4759	0.0144	-0.0628	-0.0380	0.4730	0.1062	0.3600	-1.6317
16	-0.10	0.0	-0.0112	0.0475	0.0104	-0.0381	-0.0340	0.4310	0.1006	0.3304	-4.2454

LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

TEST PART WACH RX10-6											
4 18 2.36 3.0											
PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION											
0.0 B2WOF34 0.0 0 -20 0 -20 FIXED											
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.89	0.01	-2.8563	10.6325	-0.0018	-0.1103	-0.0411	1.3460	-0.1456	1.2004	-3.7225
2	-1.82	0.01	-2.4544	9.7546	0.0093	-0.1158	-0.0392	1.2582	0.1478	1.1104	-3.9743
3	-0.77	0.01	-2.2467	9.3033	0.0147	-0.1255	-0.0437	1.2151	0.1486	1.0663	-4.1409
4	0.22	0.01	-2.0544	8.8569	0.0049	-0.1051	-0.0415	1.1725	0.1504	1.0221	-4.3112
5	1.25	0.01	-1.8387	8.3713	0.0105	-0.1197	-0.0418	1.1271	0.1515	0.9756	-4.5529
6	2.29	0.01	-1.6220	7.8791	0.0006	-0.0943	-0.0438	1.0790	0.1539	0.9251	-4.8576
7	4.35	0.01	-1.1893	6.9140	0.0065	-0.0990	-0.0483	0.9856	0.1568	0.8288	-5.8135
8	6.41	0.01	-0.7106	5.8586	0.0074	-0.0985	-0.0487	0.8936	0.1619	0.7317	-8.2446
9	8.49	0.01	-0.2040	4.8470	0.0029	-0.0832	-0.0466	0.7994	0.1616	0.6378	-23.7598
10	10.60	0.01	0.3979	3.8092	-0.0020	-0.0680	-0.0467	0.7111	0.1570	0.5541	9.5732
11	12.75	0.01	1.1044	2.6140	0.0085	-0.0687	-0.0448	0.6057	0.1472	0.4585	2.3669
12	14.91	0.0	1.8012	1.5108	0.0082	-0.0633	-0.0492	0.5198	0.1492	0.3706	0.8386
13	17.06	0.0	2.4457	0.6831	0.0074	-0.0535	-0.0471	0.4632	0.1497	0.3135	0.2793
14	19.23	0.0	3.0593	0.0266	0.0060	-0.0386	-0.0555	0.4193	0.1528	0.2665	0.0087
15	21.41	0.0	3.6869	-0.6124	0.0146	-0.0630	-0.0601	0.3763	0.1541	0.2222	-0.1661
16	0.21	0.01	-2.0642	8.8568	0.0048	-0.1095	-0.0458	1.1709	0.1487	1.0222	-4.2907
17	0.21	0.01	-2.0646	8.8568	-0.0055	-0.0989	-0.0457	1.1724	0.1492	1.0232	-4.2898

LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	19	2.86	3.0	0.0	82W0F34	0.0	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAP	ACP
1	-4.11	0.01	-2.5628	9.1270	0.0039	-0.1338	-0.0524	1.1953	0.1087	1.0866	-3.5613
2	-2.05	0.01	-2.1666	8.2992	0.0046	-0.1281	-0.0501	1.1086	0.1095	0.9991	-3.8305
3	-1.01	0.01	-1.9610	7.8578	0.0049	-0.1278	-0.0527	1.0626	0.1107	0.9519	-4.0071
4	0.0	0.01	-1.7579	7.4119	0.0053	-0.1222	-0.0552	1.0178	0.1103	0.9075	-4.2163
5	1.02	0.01	-1.5537	6.9559	0.0057	-0.1219	-0.0528	0.9702	0.1111	0.8591	-4.4770
6	2.05	0.01	-1.3377	6.4995	0.0060	-0.1162	-0.0552	0.9247	0.1118	0.8129	-4.8587
7	4.10	0.01	-0.9337	5.6480	0.0069	-0.1045	-0.0529	0.8357	0.1141	0.7216	-6.0491
8	6.17	0.01	-0.4744	4.7247	-0.0042	-0.0874	-0.0482	0.7518	0.1163	0.6355	-9.9593
9	8.26	0.01	0.0569	3.6993	-0.0035	-0.0764	-0.0435	0.6591	0.1173	0.5418	65.8145
10	10.34	0.01	0.6502	2.6504	-0.0032	-0.0815	-0.0414	0.5775	0.1122	0.4653	4.8763
11	12.47	0.01	1.2222	1.8606	0.0020	-0.0617	-0.0439	0.5238	0.1083	0.4155	1.5223
12	14.63	0.01	1.7435	1.3293	0.0067	-0.0422	-0.0465	0.4904	0.1107	0.3797	0.7624
13	16.73	0.01	2.2300	0.9067	0.0109	-0.0984	-0.0539	0.4651	0.1106	0.3545	0.4066
14	18.88	0.01	2.7486	0.4811	0.0092	-0.0872	-0.0610	0.4413	0.1129	0.3284	0.1759
15	21.00	0.01	3.2818	-0.0091	0.0136	-0.0928	-0.0660	0.4187	0.1132	0.3055	-0.0028
16	0.01	0.01	-1.7696	7.4269	0.0054	-0.1168	-0.0526	1.0176	0.1111	0.9065	-4.1960

MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-0	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	20	3.95	3.0	0.0	B2W0F34	0.0	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CM	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-4.09	0.0	-2.0078	7.0645	0.0314	-0.1212	-0.0477	0.9518	0.0688	0.6830	-3.5185
2	-2.04	0.0	-1.6326	6.3020	0.0321	-0.1139	-0.0446	0.6723	0.0680	0.8043	-3.8601
3	-1.02	0.0	-1.4549	5.9309	0.0324	-0.1137	-0.0447	0.6327	0.0685	0.7642	-4.0765
4	0.0	0.0	-1.2593	5.5086	0.0250	-0.0983	-0.0447	0.7912	0.0680	0.7232	-4.3743
5	1.02	0.0	-1.0658	5.1285	0.0253	-0.0910	-0.0447	0.7511	0.0681	0.6830	-4.8110
6	2.05	0.0	-0.8725	4.7486	0.0256	-0.0910	-0.0416	0.7108	0.0684	0.6424	-5.4425
7	4.09	0.0	-0.4867	3.9561	0.0262	-0.0835	-0.0416	0.6310	0.0685	0.5625	-6.1283
8	6.13	0.0	-0.0459	3.1196	0.0188	-0.0752	-0.0386	0.5561	0.0695	0.4866	-67.9659
9	8.20	0.0	0.3747	2.4982	0.0185	-0.0676	-0.0418	0.5109	0.0687	0.4422	6.5794
10	10.26	0.0	0.7535	2.1485	0.0254	-0.0757	-0.0420	0.4890	0.0653	0.4237	2.0513
11	12.35	0.0	1.1322	1.9285	0.0239	-0.0683	-0.0483	0.4822	0.0641	0.4181	1.7033
12	14.43	0.0	1.4912	1.7454	0.0224	-0.0681	-0.0484	0.4755	0.0636	0.4119	1.1704
13	16.54	0.0	1.8656	1.5310	0.0206	-0.0749	-0.0549	0.4757	0.0630	0.4127	0.8119
14	18.63	0.0	2.2777	1.3034	0.0191	-0.0748	-0.0550	0.4744	0.0653	0.4091	0.5722
15	20.74	0.0	2.7503	0.9934	0.0251	-0.0825	-0.0583	0.4729	0.0661	0.4068	0.3612
16	-0.01	0.0	-1.3001	5.5504	0.0094	-0.0821	-0.0446	0.7912	0.0694	0.7218	-4.2692
17	-0.02	0.0	-1.3195	5.5871	0.0094	-0.0821	-0.0446	0.7936	0.0689	0.7247	-4.2342

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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MARTIN MISSILE TAIL EFFECTS DATA

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TEST	PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
4	21	4.63	3.0	0.0	H2WOF34	0.0	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CN	CLM	CV	CLN	CLL	CA	CAB	CAF	KCP
1	-3.75	0.01	-1.8331	6.1250	-0.0129	-0.0646	-0.0446	0.8465	0.0528	0.7937	-3.3413
2	-1.70	0.01	-1.4762	5.4269	-0.0123	-0.0553	-0.0406	0.7727	0.0534	0.7193	-3.6763
3	-0.68	0.01	-1.2724	5.0412	-0.0121	-0.0552	-0.0407	0.7330	0.0534	0.6796	-3.9620
4	0.31	0.01	-1.0939	4.7036	-0.0119	-0.0551	-0.0408	0.6969	0.0534	0.6435	-4.2998
5	1.32	0.01	-0.9202	4.3793	-0.0118	-0.0550	-0.0408	0.6595	0.0541	0.6054	-4.7591
6	2.34	0.01	-0.7473	4.0344	-0.0116	-0.0548	-0.0409	0.6222	0.0535	0.5687	-5.3986
7	4.38	0.01	-0.3491	3.3338	-0.0113	-0.0548	-0.0370	0.5474	0.0546	0.4928	-9.5496
8	6.41	0.01	0.0204	2.7222	-0.0114	-0.0544	-0.0412	0.4930	0.0547	0.4383	133.4404
9	8.46	0.01	0.3680	2.3657	-0.0122	-0.0543	-0.0413	0.4711	0.0541	0.4170	6.4285
10	10.53	0.01	0.6948	2.1594	-0.0133	-0.0543	-0.0413	0.4631	0.0516	0.4115	3.1080
11	12.60	0.01	0.9992	2.0621	-0.0148	-0.0542	-0.0414	0.4636	0.0478	0.4158	2.0638
12	14.66	0.01	1.3287	1.9177	-0.0164	-0.0631	-0.0456	0.4620	0.0447	0.4173	1.4433
13	16.70	0.01	1.6768	1.7166	-0.0078	-0.0733	-0.0458	0.4647	0.0466	0.4181	1.0238
14	18.76	0.01	2.0478	1.4947	-0.0092	-0.0639	-0.0498	0.4671	0.0503	0.4168	0.7299
15	0.30	0.01	-1.1194	4.7297	-0.0119	-0.0551	-0.0408	0.6941	0.0529	0.6412	-4.2252

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART WACH RX10-6											
4 22 2.36 3.0 0.0 B2WOF35 0.0 0 -20 0 -20 FIXED											
POINT	ALPHA	BETA	CW	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-3.97	0.01	-2.6192	9.2953	0.0120	-0.1014	-0.0372	1.1887	0.1493	1.0394	-3.5489
2	-1.87	0.01	-2.2311	8.5578	0.0069	-0.0953	-0.0458	1.1093	0.1498	0.9595	-3.8357
3	-0.84	0.01	-2.0503	8.1890	0.0071	-0.0950	-0.0459	1.0720	0.1518	0.9202	-3.9941
4	0.16	0.01	-1.8587	7.7915	0.0074	-0.0900	-0.0459	1.0346	0.1532	0.8814	-4.1919
5	1.21	0.01	-1.6675	7.3719	0.0128	-0.1046	-0.0483	0.9921	0.1549	0.8372	-4.4209
6	2.23	0.01	-1.4626	6.9474	0.0079	-0.0942	-0.0504	0.9556	0.1573	0.7983	-4.7500
7	4.28	0.01	-1.0666	6.1266	0.0033	-0.0936	-0.0527	0.8782	0.1599	0.7183	-5.7460
8	6.39	0.01	-0.5965	5.2136	0.0090	-0.0839	-0.0529	0.7967	0.1606	0.6361	-8.7402
9	8.47	0.01	-0.1250	4.3693	0.0039	-0.0828	-0.0531	0.7161	0.1573	0.5588	-34.9544
10	10.60	0.01	0.4667	3.4417	0.0037	-0.0775	-0.0553	0.6392	0.1519	0.4673	7.3746
11	12.75	0.01	1.1371	2.4005	0.0186	-0.1071	-0.0643	0.5585	0.1459	0.4126	2.1111
12	14.89	0.01	1.8087	1.4167	0.0128	-0.1012	-0.0666	0.4916	0.1510	0.3406	0.7932
13	17.05	0.01	2.4562	0.5336	0.0122	-0.0914	-0.0688	0.4328	0.1510	0.2818	0.2171
14	19.22	0.01	3.0993	-0.1552	0.0209	-0.1205	-0.0692	0.3878	0.1531	0.2347	-0.0591
15	21.40	0.01	3.7178	-0.7628	0.0296	-0.1451	-0.0674	0.3483	0.1522	0.1961	-0.2052

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LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	23	2.66	3.0	0.0	02WOF35	0.0	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-4.13	0.0	-2.2500	7.9216	0.0419	-0.1376	-0.0453	1.0625	0.1078	0.9547	-3.5207
2	-2.07	0.0	-1.8981	7.2643	0.0420	-0.1424	-0.0455	0.9872	0.1093	0.8779	-3.8272
3	-1.03	0.0	-1.6930	6.9022	0.0422	-0.1370	-0.0455	0.9466	0.1100	0.8366	-4.0760
4	-0.01	0.0	-1.5040	6.5299	0.0481	-0.1426	-0.0480	0.9080	0.1102	0.7978	-4.3417
5	1.02	0.0	-1.3153	6.1594	0.0483	-0.1424	-0.0505	0.8694	0.1119	0.7575	-4.6829
6	2.05	0.0	-1.1283	5.7970	0.0485	-0.1474	-0.0506	0.8318	0.1129	0.7189	-5.1378
7	4.11	0.0	-0.7367	5.0590	0.0432	-0.1309	-0.0483	0.7570	0.1145	0.6425	-6.8871
8	6.18	0.0	-0.3175	4.2696	0.0435	-0.1250	-0.0484	0.6839	0.1174	0.5665	-13.4476
9	8.27	0.0	0.1848	3.4109	0.0435	-0.1246	-0.0466	0.6082	0.1154	0.4928	18.0665
10	10.37	0.0	0.7563	2.5030	0.0492	-0.1358	-0.0489	0.5398	0.1093	0.4305	3.3096
11	12.49	0.0	1.3407	1.6544	0.0485	-0.1351	-0.0562	0.4796	0.1042	0.3754	1.2340
12	14.61	0.0	1.8449	1.1424	0.0531	-0.1408	-0.0612	0.4496	0.1052	0.3444	0.6192
13	16.74	0.0	2.3536	0.6898	0.0632	-0.1633	-0.0687	0.4241	0.1079	0.3162	0.2931
14	18.88	0.0	2.8762	0.2333	0.0731	-0.1910	-0.0738	0.3999	0.1094	0.2905	0.0811
15	21.02	0.0	3.4186	-0.2507	0.0833	-0.2193	-0.0743	0.3782	0.1101	0.2681	-0.0733
16	0.0	0.0	-1.5066	6.5420	0.0541	-0.1491	-0.0481	0.9079	0.1107	0.7972	-4.3422

TEST PART	MACH	RR10-4	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	24	3.95	3.0	0.0	02u0F35	0.0	0	-20	0	-20	FIXED
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	KCP
1	-4.08	0.0	-1.8140	6.2483	0.0571	-0.1240	-0.0382	0.8584	0.0639	0.7945	-3.4448
2	-2.04	0.0	-1.4824	5.6724	0.0494	-0.1158	-0.0383	0.7948	0.0630	0.7318	-3.8265
3	-1.02	0.0	-1.3077	5.3417	0.0495	-0.1156	-0.0384	0.7612	0.0636	0.6976	-4.0848
4	-0.01	0.0	-1.1324	5.0273	0.0496	-0.1155	-0.0385	0.7249	0.0645	0.6606	-4.4395
5	1.01	0.0	-0.9576	4.6965	0.0498	-0.1154	-0.0385	0.6911	0.0646	0.6265	-4.9045
6	2.04	0.0	-0.7835	4.3696	0.0501	-0.1081	-0.0385	0.6547	0.0641	0.5906	-5.5516
7	4.09	0.0	-0.3921	3.6735	0.0502	-0.1006	-0.0385	0.5828	0.0651	0.5177	-9.3687
8	6.14	-0.01	0.0106	2.9243	0.0505	-0.1003	-0.0387	0.5128	0.0646	0.4482	275.8750
9	8.20	0.0	0.4352	2.2672	0.0502	-0.1000	-0.0420	0.4694	0.0637	0.4057	5.2558
10	10.27	0.0	0.8101	1.9423	0.0490	-0.1070	-0.0487	0.4474	0.0602	0.3872	2.3976
11	12.35	0.0	1.1887	1.7128	0.0475	-0.1067	-0.0551	0.4411	0.0583	0.3828	1.4400
12	14.44	0.0	1.5489	1.5354	0.0535	-0.1360	-0.0587	0.4389	0.0583	0.3806	0.9913
13	16.53	0.0	1.9498	1.3159	0.0595	-0.1583	-0.0622	0.4364	0.0583	0.3781	0.6749
14	18.61	0.0	2.3704	1.0591	0.0655	-0.1476	-0.0658	0.4364	0.0601	0.3763	0.4468
15	20.71	0.0	2.8110	0.7819	0.0714	-0.2098	-0.0693	0.4337	0.0607	0.3730	0.2781
16	-0.02	0.0	-1.1734	5.0524	0.0420	-0.1075	-0.0384	0.7253	0.0640	0.6613	-4.3058

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA

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TEST	PART	MACH	RR10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
4	25	4.63	3.0	0.0	8240F35	0.0	0	-20	0	-20	FIREO
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.76	0.0	-1.6220	5.4142	0.0286	-0.0967	-0.0367	0.7663	0.0466	0.7197	-3.3380
2	-1.71	0.0	-1.7961	4.8623	0.0188	-0.0772	-0.0325	0.7066	0.0466	0.6400	-3.7669
3	-0.71	0.0	-1.1482	4.6274	0.0189	-0.0772	-0.0326	0.6756	0.0466	0.6290	-4.0302
4	0.32	0.0	-0.9718	4.3353	0.0187	-0.0768	-0.0367	0.6425	0.0466	0.5959	-4.4611
5	1.33	0.0	-0.7990	4.0331	0.0190	-0.0770	-0.0328	0.6082	0.0466	0.5616	-5.8476
6	2.35	0.0	-0.6238	3.7461	0.0188	-0.0768	-0.0369	0.5729	0.0459	0.5266	-6.8052
7	4.39	0.0	-0.2507	3.0842	0.0198	-0.0766	-0.0370	0.5022	0.0459	0.4563	-12.3025
8	6.43	0.0	0.1187	2.4875	0.0189	-0.0855	-0.0373	0.4515	0.0453	0.4062	20.9550
9	8.48	0.0	0.4666	2.1337	0.0179	-0.0944	-0.0416	0.4292	0.0454	0.3838	4.5729
10	10.53	0.0	0.7680	1.9334	0.0265	-0.1136	-0.0500	0.4236	0.0441	0.3795	2.5174
11	12.59	0.0	1.0722	1.8234	0.0349	-0.1421	-0.0503	0.4247	0.0398	0.3849	1.7806
12	14.65	0.0	1.4264	1.6801	0.0331	-0.1509	-0.0545	0.4249	0.0373	0.3876	1.1779
13	16.71	0.0	1.7583	1.5235	0.0415	-0.1704	-0.0589	0.4264	0.0398	0.3866	0.8664
14	18.77	0.0	2.1391	1.2911	0.0499	-0.1896	-0.0632	0.4276	0.0434	0.3842	0.6036
15	20.84	0.0	2.5445	1.0123	0.0483	-0.1892	-0.0715	0.4320	0.0434	0.3886	0.3978
16	8.38	0.0	-1.0000	4.3465	0.0089	-0.0759	-0.0328	0.6438	0.0459	0.5979	-4.3465

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MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6											
4 26 2.86 3.0 0.0 82w0F33 0.0 0 DEL1 DEL2 DEL3 DEL4 TRANSITION											
0 -20 0 -20 FIXED											
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-4.09	0.01	-2.5968	9.5170	0.0207	-0.1363	-0.0427	1.2399	0.1069	1.1330	-3.6449
2	-2.03	0.01	-2.1668	8.5349	0.0217	-0.1251	-0.0428	1.1365	0.1068	1.0297	-3.9389
3	-0.99	0.01	-1.9512	8.0191	0.0224	-0.1250	-0.0381	1.0869	0.1061	0.9408	-4.1099
4	0.01	0.01	-1.7512	7.5501	0.0170	-0.1133	-0.0405	1.0400	0.1063	0.9337	-4.3114
5	1.03	0.01	-1.5363	7.0527	0.0175	-0.1130	-0.0407	0.9895	0.1059	0.8836	-4.9987
6	2.07	0.01	-1.3204	6.5632	0.0122	-0.1014	-0.0383	0.9413	0.1068	0.8345	-4.9786
7	4.11	0.01	-0.9027	5.6546	0.0131	-0.0903	-0.0359	0.8511	0.1097	0.7414	-6.2641
8	6.18	0.0	-0.4542	4.7315	0.0196	-0.0906	-0.0361	0.7617	0.1120	0.6497	-10.4171
9	8.27	0.0	0.0830	3.6806	0.0202	-0.0902	-0.0363	0.6687	0.1116	0.5571	44.3443
10	10.35	0.0	0.6953	2.5900	0.0263	-0.0959	-0.0342	0.5898	0.1086	0.4812	3.7250
11	12.47	0.0	1.2665	1.8019	0.0141	-0.0727	-0.0366	0.5321	0.1042	0.4279	1.4228
12	14.60	0.0	1.7702	1.2710	0.0244	-0.0950	-0.0441	0.4998	0.1061	0.3937	0.7180
13	16.74	0.0	2.2897	0.8083	0.0347	-0.0961	-0.0489	0.4746	0.1057	0.3689	0.3530
14	18.87	0.0	2.8066	0.3578	0.0330	-0.1064	-0.0516	0.4509	0.1080	0.3429	0.1275
15	21.01	0.0	3.3523	-0.1596	0.0373	-0.1174	-0.0542	0.4279	0.1089	0.3190	-0.0476
16	0.02	0.0	-1.7328	7.5358	0.0227	-0.1136	-0.0428	1.0383	0.1044	0.9319	-4.3489

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LANGLEY RESEARCH CENTER(NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	REX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	27	2.36	2.0	-90.0	W2WOF33	0.0	20	0	20	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-3.92	-0.01	-3.0451	11.3390	0.0958	-0.1364	-0.0367	1.4386	0.1451	1.2935	-3.7237
2	-1.87	-0.01	-2.6201	10.3846	0.0847	-0.1204	-0.0395	1.3429	0.1462	1.1967	-3.9636
3	-0.85	-0.02	-2.3886	9.8329	0.0877	-0.1206	-0.0448	1.2891	0.1473	1.1418	-4.1166
4	0.17	-0.01	-2.1716	9.3145	0.0723	-0.1188	-0.0402	1.2368	0.1490	1.0878	-4.2892
5	1.17	-0.02	-1.9464	8.7525	0.0813	-0.0917	-0.0428	1.1829	0.1488	1.0341	-4.4967
6	2.19	-0.02	-1.7191	8.1964	0.0892	-0.0969	-0.0420	1.1320	0.1507	0.9813	-4.7678
7	4.24	-0.01	-1.2690	7.1196	0.0641	-0.0994	-0.0458	1.0280	0.1526	0.8754	-5.6104
8	6.27	-0.02	-0.7901	6.6473	0.0853	-0.0831	-0.0462	0.9306	0.1573	0.7733	-7.6538
9	8.33	-0.02	-0.2741	4.9920	0.1056	-0.1335	-0.0490	0.8360	0.1581	0.6779	-10.2122
10	10.41	-0.02	0.3281	3.9000	0.1017	-0.0932	-0.0482	0.7454	0.1547	0.5907	11.0865
11	12.48	-0.02	1.0007	2.7804	0.1001	-0.0893	-0.0502	0.6417	0.1483	0.4934	2.7784
12	14.59	-0.02	1.6665	1.6680	0.0782	-0.0814	-0.0522	0.5542	0.1486	0.4056	1.0009
13	16.68	-0.02	2.3063	0.8067	0.0865	-0.0731	-0.0541	0.4956	0.1510	0.3446	0.3408
14	18.79	-0.02	2.9072	0.1641	0.0772	-0.0945	-0.0566	0.4527	0.1521	0.3006	0.0565
15	20.90	-0.02	3.5408	-0.5248	0.0907	-0.0301	-0.0562	0.4137	0.1542	0.2595	-0.1482
16	0.14	-0.02	-2.1739	9.3094	0.0924	-0.1227	-0.0468	1.2365	0.1487	1.0878	-4.2823

MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	2R	2.06	3.0	-90.0	B2u0F33	8.0	20	0	20	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	KCP
1	-4.10	-0.01	-2.6137	9.5822	0.0000	-0.1516	-0.0432	1.2480	0.1040	1.1440	-3.0662
2	-2.04	-0.02	-2.1809	8.5885	0.0742	-0.1197	-0.0456	1.1471	0.1053	1.0418	-3.9381
3	-0.99	-0.01	-1.9603	8.6779	0.0592	-0.1016	-0.0458	1.0954	0.1068	0.9886	-4.1208
4	0.03	-0.01	-1.7507	7.5813	0.0605	-0.1003	-0.0458	1.0454	0.1084	0.9370	-4.3305
5	1.04	-0.01	-1.5437	7.1072	0.0499	-0.0870	-0.0432	0.9959	0.1093	0.8866	-4.6040
6	2.07	-0.01	-1.3296	6.6212	0.0537	-0.0886	-0.0453	0.9488	0.1104	0.8384	-4.9790
7	4.12	-0.01	-0.9089	5.6981	0.0470	-0.0901	-0.0395	0.8567	0.1123	0.7444	-6.2692
8	6.19	-0.01	-0.4594	4.7630	0.0580	-0.0977	-0.0406	0.7657	0.1158	0.6499	-10.3678
9	8.26	-0.01	0.0705	3.7165	0.0675	-0.1038	-0.0423	0.6739	0.1169	0.5570	52.7160
10	10.35	-0.01	0.6715	2.6455	0.0559	-0.0890	-0.0412	0.5928	0.1146	0.4782	3.9397
11	12.40	-0.01	1.2516	1.8539	0.0517	-0.0846	-0.0461	0.5382	0.1134	0.4248	1.4813
12	14.61	-0.01	1.7512	1.3455	0.0372	-0.0712	-0.0477	0.5047	0.1138	0.3909	0.7683
13	16.75	-0.01	2.2660	0.8909	0.0575	-0.1068	-0.0533	0.4787	0.1125	0.3662	0.3931
14	18.87	-0.01	2.7736	0.4475	0.0490	-0.1005	-0.0612	0.4533	0.1128	0.3405	0.1613
15	21.01	-0.01	3.3063	-0.0470	0.0402	-0.0407	-0.0624	0.4315	0.1128	0.3187	-0.0142
16	0.02	0.0	-1.7374	7.5846	0.0294	-0.0938	-0.0407	1.0427	0.1090	0.9337	-4.3655
17	0.02	0.0	-1.7208	7.5533	0.0284	-0.0927	-0.0434	1.0430	0.1084	0.9366	-4.3894

LANGLEY RESEARCH CENTER(NASA) UNITARY PLAN WIND TUNNEL(UPT)
 MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
4	29	3.95	3.0	-90.0	02W0F33	0.0	20	0	20	0	FIXED	
POINT	ALPHA	BETA	CM	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP	
1	-4.08	0.0	-2.0450	7.2795	0.0145	-0.0563	-0.0274	0.9809	0.0652	0.9157	-3.5597	
2	-2.03	0.0	-1.6624	6.4668	0.0060	-0.0444	-0.0282	0.8977	0.0657	0.6320	-3.8900	
3	-1.02	0.0	-1.4726	6.0509	-0.0081	-0.0284	-0.0286	0.8550	0.0663	0.7887	-4.1090	
4	0.0	0.0	-1.2879	5.6555	-0.0018	-0.0333	-0.0291	0.8150	0.0663	0.7487	-4.3913	
5	1.01	0.0	-1.0959	5.2392	0.0086	-0.0423	-0.0264	0.7732	0.0669	0.7063	-4.7888	
6	2.05	0.0	-0.9117	4.8528	-0.0009	-0.0312	-0.0266	0.7314	0.0689	0.6625	-5.3228	
7	4.15	-0.01	-0.5042	4.0177	0.0190	-0.0320	-0.0274	0.6493	0.0689	0.5804	-7.9684	
8	6.13	-0.01	-0.0905	3.1924	0.0230	-0.0335	-0.0280	0.5748	0.0712	0.5036	-35.2753	
9	8.20	-0.01	0.3310	2.5584	0.0306	-0.0408	-0.0321	0.5290	0.0708	0.4582	7.7292	
10	10.26	-0.01	0.7170	2.2031	0.0584	-0.0707	-0.0330	0.5108	0.0704	0.4404	3.0727	
11	12.34	-0.01	1.0861	1.9666	0.0535	-0.0681	-0.0354	0.5029	0.0695	0.4334	1.8107	
12	14.45	-0.01	1.4643	1.7618	0.0486	-0.0491	-0.0438	0.4975	0.0690	0.4285	1.2032	
13	16.53	-0.01	1.8389	1.5724	0.0505	-0.0540	-0.0457	0.4955	0.0665	0.4298	0.8551	
14	18.61	-0.01	2.2591	1.3134	0.0518	-0.0582	-0.0480	0.4934	0.0665	0.4269	0.5816	
15	20.71	-0.01	2.7261	0.9988	0.0506	-0.0765	-0.0473	0.4907	0.0664	0.4243	0.3644	
16	-0.01	-0.01	-1.3246	5.6939	0.0411	-0.0436	-0.0320	0.8165	0.0673	0.7492	-4.2986	
17	-0.01	-0.01	-1.3247	5.6867	0.0411	-0.0436	-0.0321	0.8164	0.0677	0.7487	-4.2928	

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4	30	4.63	3.0	-90.0	B2=0F33	0.0	20	0	20	0	FIXED
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-3.75	-0.01	-1.0113	6.2398	0.0754	-0.0468	-0.0250	0.6734	0.0516	0.8216	-3.4458
2	-1.72	-0.01	-1.4530	5.5370	0.0714	-0.0607	-0.0269	0.7998	0.0518	0.7480	-3.8108
3	-0.70	-0.02	-1.2613	5.1653	0.0814	-0.0700	-0.0298	0.7584	0.0521	0.7063	-4.0953
4	0.31	-0.01	-1.0815	4.8110	0.0671	-0.0542	-0.0287	0.7215	0.0532	0.6683	-4.4484
5	1.33	-0.01	-0.9068	4.4680	0.0581	-0.0440	-0.0316	0.6817	0.0532	0.6285	-4.9272
6	2.36	-0.01	-0.7307	4.1193	0.0500	-0.0132	-0.0305	0.6440	0.0539	0.5901	-5.6378
7	4.38	-0.01	-0.3486	3.3907	0.0563	-0.0179	-0.0323	0.5690	0.0550	0.5140	-9.7267
8	6.43	-0.02	0.0321	2.7582	0.0691	-0.0299	-0.0328	0.5151	0.0557	0.4594	85.9257
9	8.48	-0.02	0.3635	2.4187	0.0891	-0.0729	-0.0340	0.4916	0.0557	0.4359	6.6538
10	10.52	-0.02	0.6855	2.2154	0.1076	-0.0939	-0.0374	0.4858	0.0545	0.4313	3.2318
11	12.59	-0.01	0.9996	2.0952	0.0836	-0.0719	-0.0399	0.4839	0.0557	0.4282	2.0961
12	14.65	-0.01	1.3314	1.9584	0.0584	-0.0488	-0.0423	0.4838	0.0520	0.4318	1.4718
13	16.71	-0.01	1.7015	1.7500	0.0647	-0.0579	-0.0454	0.4826	0.0514	0.4312	1.0285
14	18.76	-0.01	2.0780	1.4928	0.0736	-0.0691	-0.0450	0.4843	0.0520	0.4323	0.7184
15	20.85	-0.01	2.4939	1.1671	0.0805	-0.0783	-0.0450	0.4882	0.0520	0.4362	0.4688
16	0.32	-0.01	-1.0928	4.8364	0.0427	-0.0079	-0.0327	0.7196	0.0536	0.6668	-4.4257

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART NACH RX10-6											
PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION				
-90.0	02W0F31	0.0	20	0	20	0	FIXED				
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-4.03	0.01	-1.8479	5.6893	-0.0169	-0.0113	-0.0136	0.8721	0.1390	0.7331	-3.8788
2	-1.96	0.01	-1.5297	5.2422	-0.0187	-0.0092	-0.0122	0.8053	0.1355	0.6698	-3.4269
3	-0.92	0.01	-1.3734	5.0120	-0.0129	-0.0148	-0.0116	0.7777	0.1382	0.6395	-3.6494
4	0.11	0.01	-1.2064	4.7594	-0.0078	-0.0197	-0.0133	0.7480	0.1395	0.6085	-3.9451
5	1.15	0.0	-1.0370	4.4990	-0.0027	-0.0246	-0.0130	0.7205	0.1432	0.5773	-4.3385
6	2.19	0.01	-0.8830	4.2595	-0.0102	-0.0165	-0.0126	0.6932	0.1461	0.5471	-4.8239
7	4.25	0.01	-0.5530	3.7792	-0.0124	-0.0026	-0.0115	0.6397	0.1503	0.4894	-6.8348
8	6.34	0.0	-0.1840	3.2650	-0.0039	-0.0221	-0.0126	0.5896	0.1576	0.4320	-17.7443
9	8.45	0.0	0.2202	2.7904	-0.0088	0.0046	-0.0128	0.5423	0.1580	0.3843	12.6721
10	10.59	0.0	0.7274	2.2678	-0.0060	-0.0108	-0.0124	0.5028	0.1635	0.3393	3.1177
11	12.76	0.0	1.2911	1.7774	-0.0047	-0.0034	-0.0132	0.4645	0.1616	0.3029	1.3766
12	14.93	0.01	1.8303	1.3803	-0.0156	0.0047	-0.0151	0.4390	0.1617	0.2773	0.7541
13	17.09	0.0	2.3668	1.0360	0.0003	-0.0151	-0.0205	0.4205	0.1623	0.2582	0.4384
14	19.27	0.0	2.9416	0.6408	0.0017	-0.0090	-0.0199	0.3964	0.1613	0.2351	0.2179
15	21.46	0.0	3.5103	0.2977	0.0036	-0.0037	-0.0228	0.3775	0.1613	0.2162	0.0848
16	0.11	0.01	-1.2256	4.7948	-0.0069	-0.0207	-0.0111	0.7503	0.1397	0.6106	-3.9122
17	0.10	0.01	-1.2151	4.7785	-0.0075	-0.0201	-0.0133	0.7502	0.1397	0.6105	-3.9326

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART WACH BX10-6												
PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION					
4	35 2.66 3.0	-40.0 B2W0F31	0.0	20	0	20	0	FIXED				
POINT	ALPHA	BETA	CN	CLN	CY	CLM	CLL	CA	CAB	CAF	MCP	
1	-4.20	0.0	-1.6753	4.9445	0.0165	-0.0398	-0.0156	0.7952	0.1153	0.6799	-2.9514	
2	-2.13	0.0	-1.3621	4.5432	0.0167	-0.0401	-0.0154	0.7314	0.1120	0.6194	-3.3354	
3	-1.09	0.0	-1.2083	4.3280	0.0093	-0.0325	-0.0167	0.7020	0.1120	0.5900	-3.5019	
4	-0.07	0.0	-1.0498	4.1058	0.0168	-0.0400	-0.0157	0.6751	0.1131	0.5620	-3.9110	
5	0.96	0.0	-0.8921	3.8775	0.0093	-0.0321	-0.0140	0.6477	0.1151	0.5324	-4.3445	
6	2.00	0.0	-0.7344	3.6545	0.0164	-0.0395	-0.0162	0.6218	0.1161	0.5057	-4.9761	
7	4.07	0.0	-0.4006	3.2037	0.0159	-0.0386	-0.0140	0.5697	0.1196	0.4501	-7.9973	
8	6.15	0.0	-0.0409	2.7442	0.0139	-0.0358	-0.0142	0.5214	0.1231	0.3983	-67.0962	
9	8.25	0.0	0.3759	2.2627	0.0095	-0.0329	-0.0140	0.4743	0.1256	0.3487	6.0193	
10	10.36	0.0	0.8632	1.7535	0.0026	-0.0144	-0.0134	0.4386	0.1250	0.3136	2.0314	
11	12.49	0.0	1.3490	1.3230	0.0103	-0.0243	-0.0166	0.4068	0.1221	0.2847	0.9808	
12	14.63	0.0	1.8251	1.0286	0.0046	-0.0091	-0.0204	0.3930	0.1226	0.2704	0.5636	
13	16.76	0.0	2.2937	0.7676	0.0141	-0.0222	-0.0215	0.3809	0.1234	0.2575	0.3346	
14	18.91	0.0	2.7628	0.5390	0.0232	-0.0477	-0.0220	0.3720	0.1222	0.2498	0.1951	
15	21.05	0.0	3.2616	0.2585	0.0164	-0.0444	-0.0230	0.3671	0.1222	0.2449	0.0793	
16	-0.06	0.0	-1.0488	4.1068	0.0013	-0.0368	-0.0156	0.6743	0.1142	0.5601	-3.9158	

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MARTIN MISSILE TAIL EFFECTS DATA

POINT	TEST DATA			CN	CLM	CY	CLN	CLL	CA	CA0	CAF	XCP
	ALPHA	BETA	MACH									
4	36	3.95	3.0	-90.0	82.0	F31	0.0	20	0	20	0	FIXED
1	-4.13	0.0	-1.3776	3.8738	-0.0065	-0.0268	-0.0164	0.6418	0.0720	0.5698	-2.8120	
2	-2.08	0.0	-1.0830	3.5067	0.0003	-0.0173	-0.0183	0.5904	0.0712	0.5192	-3.2380	
3	-1.05	0.0	-0.9330	3.3079	-0.0067	-0.0100	-0.0162	0.5663	0.0712	0.4951	-3.5455	
4	-0.03	0.0	-0.7910	3.1245	-0.0134	-0.0033	-0.0172	0.5400	0.0723	0.4677	-3.9501	
5	0.99	0.01	-0.6346	2.9266	-0.0207	0.0041	-0.0151	0.5178	0.0731	0.4447	-4.6103	
6	2.02	0.0	-0.4865	2.7368	-0.0077	-0.0093	-0.0161	0.4933	0.0733	0.4200	-5.6254	
7	4.07	0.0	-0.1742	2.3481	-0.0023	-0.0151	-0.0149	0.4418	0.0739	0.3679	-13.4791	
8	6.13	0.0	0.1811	1.8932	0.0010	-0.0186	-0.0142	0.3949	0.0742	0.3207	10.4536	
9	8.20	0.0	0.5501	1.5038	0.0043	-0.0063	-0.0188	0.3647	0.0742	0.2905	2.7337	
10	10.27	0.0	0.9148	1.2516	-0.0123	0.0086	-0.0216	0.3510	0.0738	0.2772	1.3687	
11	12.36	0.0	1.2724	1.1210	0.0125	-0.0198	-0.0229	0.3478	0.0719	0.2759	0.8810	
12	14.45	0.0	1.6174	1.0273	0.0179	-0.0285	-0.0238	0.3493	0.0694	0.2799	0.6352	
13	16.53	0.0	1.9923	0.9024	0.0218	-0.0359	-0.0248	0.3559	0.0702	0.2857	0.4529	
14	18.63	0.0	2.3980	0.7455	0.0043	-0.0213	-0.0259	0.3603	0.0717	0.2886	0.3109	
15	20.73	0.0	2.8350	0.5417	0.0254	-0.0464	-0.0273	0.3667	0.0719	0.2948	0.1911	
16	-0.03	0.0	-0.7909	3.1245	0.0066	-0.0238	-0.0172	0.5398	0.0730	0.4668	-3.9506	
17	-0.04	0.0	-0.7987	3.1325	0.0069	-0.0241	-0.0172	0.5399	0.0726	0.4673	-3.9221	

MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
4	37	4.63	3.0	-90.0	B2WOF31	0.0	20	0	20	0	FIXED
POINT	ALPHA	BETA	CM	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-3.76	0.0	-1.1974	3.2795	0.0128	-0.0259	-0.0141	0.5755	0.0546	0.5209	-2.7388
2	-1.73	0.0	-0.9137	2.9672	0.0251	-0.0392	-0.0154	0.5327	0.0556	0.4771	-3.2475
3	-0.70	0.0	-0.7718	2.8110	0.0185	-0.0327	-0.0160	0.5081	0.0556	0.4525	-3.6421
4	0.32	0.0	-0.6301	2.6457	0.0119	-0.0261	-0.0168	0.4837	0.0556	0.4281	-4.1989
5	1.32	0.0	-0.4804	2.4722	0.0306	-0.0455	-0.0135	0.4589	0.0556	0.4033	-5.1462
6	2.35	0.0	-0.3413	2.3212	0.0238	-0.0391	-0.0182	0.4345	0.0556	0.3789	-6.8009
7	4.39	0.0	-0.0220	1.9442	0.0344	-0.0504	-0.0200	0.3843	0.0556	0.3287	-88.3718
8	6.44	0.0	0.2929	1.5810	0.0198	-0.0359	-0.0176	0.3463	0.0550	0.2913	5.3977
9	8.49	0.0	0.6051	1.3662	0.0315	-0.0496	-0.0172	0.3288	0.0558	0.2730	2.2578
10	10.54	0.0	0.9187	1.2292	0.0434	-0.0442	-0.0200	0.3273	0.0561	0.2712	1.3379
11	12.60	0.0	1.2174	1.1704	0.0315	-0.0335	-0.0218	0.3273	0.0555	0.2718	0.9614
12	14.67	-0.01	1.5389	1.1030	0.0435	-0.0488	-0.0235	0.3335	0.0543	0.2792	0.7168
13	16.74	-0.01	1.8847	0.9669	0.0539	-0.0624	-0.0258	0.3393	0.0537	0.2856	0.5138
14	18.79	0.0	2.2342	0.7966	0.0390	-0.0496	-0.0246	0.3466	0.0536	0.2932	0.3566
15	20.87	-0.01	2.6480	0.5525	0.0460	-0.0595	-0.0276	0.3557	0.0537	0.3020	0.2088
16	0.31	-0.01	-0.6307	2.6488	0.0382	-0.0317	-0.0168	0.4815	0.0568	0.4247	-4.1998

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

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TEST PART MACH RX10-6											
4 38 2.36 3.0 -90.0 W2WOF32 0.0 20 0 20 0 FIXED											
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CA0	CAF	XCP
1	-4.05	0.0	-1.9191	5.8927	-0.0119	0.0042	-0.0092	0.9032	0.1266	0.7766	-3.0705
2	-1.96	0.0	-1.5975	5.4457	-0.0005	-0.0072	-0.0077	0.8460	0.1295	0.7165	-3.4089
3	-0.92	0.0	-1.4283	5.2057	0.0045	-0.0127	-0.0093	0.8162	0.1320	0.6834	-3.6447
4	0.10	0.0	-1.2732	4.9668	-0.0030	-0.0041	-0.0088	0.7889	0.1366	0.6523	-3.9011
5	1.14	0.0	-1.1076	4.7117	0.0023	-0.0091	-0.0084	0.7622	0.1413	0.6209	-4.2540
6	2.18	0.0	-0.9436	4.4475	0.0075	-0.0139	-0.0043	0.7347	0.1458	0.5889	-4.7144
7	4.28	0.0	-0.5875	3.9094	0.0036	-0.0091	-0.0077	0.6774	0.1538	0.5236	-6.6543
8	6.35	0.0	-0.2043	3.3540	-0.0017	-0.0031	-0.0094	0.6233	0.1617	0.4616	-16.4160
9	8.44	0.0	0.2005	2.8548	0.0063	-0.0005	-0.0077	0.5727	0.1678	0.4049	14.2383
10	10.59	0.0	0.7145	2.3365	0.0097	0.0057	-0.0073	0.5280	0.1691	0.3589	3.2701
11	12.75	0.0	1.2578	1.8742	0.0116	0.0013	-0.0079	0.4876	0.1660	0.3216	1.4901
12	14.92	-0.01	1.8127	1.4788	0.0014	0.0419	-0.0074	0.4634	0.1646	0.2988	0.0150
13	17.09	0.0	2.3459	1.1062	0.0035	0.0254	-0.0132	0.4404	0.1630	0.2774	0.4715
14	19.27	0.0	2.9152	0.7195	-0.0078	0.0556	-0.0146	0.4174	0.1630	0.2544	0.2468
15	21.46	0.0	3.4923	0.3513	0.0054	0.0048	-0.0135	0.3968	0.1622	0.2346	0.1006
16	0.11	0.0	-1.2836	4.9771	0.0107	-0.0181	-0.0088	0.7903	0.1363	0.6540	-3.8781

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MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	MACH	RX10-6	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION
4	39	2.88	3.0	-90.0	H2W0F32	0.0	20	0	20	0	FIXED
POINT	ALPHA	BETA	CN	CLN	CY	CLW	CLL	CA	CAB	CAF	KCP
1	-4.21	0.0	-1.7220	5.0309	0.0198	-0.0187	-0.0147	0.0160	0.1031	0.7129	-2.9215
2	-2.13	0.0	-1.4008	4.6349	0.0199	-0.0189	-0.0120	0.7605	0.1050	0.6555	-3.3080
3	-1.10	-0.01	-1.2479	4.4313	0.0276	-0.0268	-0.0131	0.7330	0.1074	0.6256	-3.5510
4	-0.07	-0.01	-1.0894	4.2110	0.0201	-0.0190	-0.0121	0.7056	0.1104	0.5952	-3.8654
5	0.96	-0.01	-0.9381	3.9985	0.0279	-0.0260	-0.0111	0.6804	0.1134	0.5670	-4.2602
6	2.00	-0.01	-0.7681	3.7650	0.0199	-0.0186	-0.0100	0.6542	0.1167	0.5375	-4.9017
7	4.07	0.0	-0.4407	3.3169	0.0193	-0.0178	-0.0103	0.6007	0.1215	0.4792	-7.5268
8	6.15	0.0	-0.0517	2.8064	0.0158	-0.0142	-0.0109	0.5487	0.1275	0.4212	-54.2810
9	8.24	-0.01	0.3712	2.2910	0.0261	-0.0251	-0.0087	0.4950	0.1289	0.3661	0.1717
10	10.36	0.0	0.8591	1.7891	0.0186	-0.0188	-0.0105	0.4536	0.1255	0.3201	2.0826
11	12.50	0.0	1.3454	1.3681	0.0120	-0.0015	-0.0111	0.4253	0.1213	0.3040	1.0169
12	14.63	0.0	1.8108	1.0057	0.0070	0.0131	-0.0125	0.4097	0.1221	0.2876	0.5996
13	16.77	-0.01	2.2848	0.6288	0.0161	0.0003	-0.0158	0.4019	0.1232	0.2787	0.3627
14	18.91	-0.01	2.7528	0.6103	0.0257	-0.0134	-0.0162	0.3940	0.1220	0.2720	0.2217
15	21.06	-0.01	3.2525	0.3407	0.0194	0.0019	-0.0170	0.3865	0.1213	0.2652	0.1048
16	-0.06	0.0	-1.0905	4.2146	0.0042	-0.0280	-0.0121	0.7060	0.1106	0.5954	-3.8648

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6											
		PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
4		40.395	3.0	-90.0	B2=0F32	0.0	20	0	20	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP
1	-4.13	0.01	-1.3914	3.9282	-0.0244	0.0079	-0.0092	0.6560	0.0696	0.5864	-2.8232
2	-2.07	0.0	-1.0946	3.5628	-0.0183	0.0013	-0.0079	0.6133	0.0682	0.5451	-3.2549
3	-1.05	0.01	-0.9542	3.3812	-0.0250	0.0081	-0.0089	0.5874	0.0706	0.5168	-3.5435
4	-0.03	0.01	-0.8047	3.1789	-0.0320	0.0153	-0.0100	0.5054	0.0722	0.4932	-3.9504
5	0.98	0.0	-0.6566	2.9822	-0.0189	0.0020	-0.0079	0.5411	0.0728	0.4603	-4.5418
6	2.03	0.01	-0.5008	2.7845	-0.0264	0.0095	-0.0090	0.5139	0.0728	0.4411	-5.5602
7	4.07	0.01	-0.1612	2.3812	-0.0214	0.0042	-0.0080	0.4627	0.0742	0.3885	-13.1418
8	6.14	0.0	0.1616	1.9239	-0.0187	0.0010	-0.0104	0.4189	0.0741	0.3448	10.5944
9	8.20	0.0	0.5500	1.5418	-0.0151	0.0131	-0.0117	0.3879	0.0756	0.3123	2.8033
10	10.27	0.0	0.9039	1.3300	-0.0109	0.0065	-0.0141	0.3741	0.0746	0.2995	1.4714
11	12.36	0.0	1.2560	1.2070	-0.0054	0.0146	-0.0153	0.3734	0.0725	0.3009	0.9618
12	14.45	0.0	1.6008	1.1204	0.0008	0.0218	-0.0129	0.3775	0.0706	0.3059	0.6999
13	16.54	0.0	1.9676	1.0252	0.0052	0.0138	-0.0136	0.3856	0.0701	0.3155	0.5218
14	18.64	0.0	2.3691	0.9068	0.0083	0.0069	-0.0142	0.3940	0.0710	0.3230	0.3820
15	20.74	0.0	2.8063	0.7247	0.0094	0.0020	-0.0153	0.4017	0.0707	0.3310	0.2582
16	-0.03	0.0	-0.8215	3.1932	0.0099	0.0060	-0.0101	0.5466	0.0731	0.4935	-3.8878

MARTIN MISSILE TAIL EFFECTS DATA

TEST PART MACH RX10-6											
4 41 4.64 3.0 -90.0 B2W0F32 0.0 20 0 20 0 FIXED											
POINT	ALPHA	BETA	CN	CLM	CY	CLM	CLL	CA	CAB	CAF	XCP
1	-3.77	0.0	-1.2294	3.3619	0.0156	-0.0078	-0.0092	0.5895	0.0550	0.5345	-2.7346
2	-1.73	-0.01	-0.9397	3.0341	0.0284	-0.0000	-0.0106	0.5479	0.0550	0.4929	-3.2288
3	-0.71	-0.01	-0.8001	2.8614	0.0216	0.0066	-0.0115	0.5241	0.0550	0.4691	-3.5768
4	0.31	0.0	-0.6502	2.6880	0.0150	0.0134	-0.0082	0.5032	0.0550	0.4482	-4.1341
5	1.32	-0.01	-0.5005	2.5144	0.0335	-0.0058	-0.0090	0.4784	0.0557	0.4227	-5.0238
6	2.35	-0.01	-0.3507	2.3407	0.0265	0.0010	-0.0098	0.4531	0.0557	0.3974	-6.6744
7	4.39	-0.01	-0.0413	1.9741	0.0375	-0.0107	-0.0116	0.4032	0.0557	0.3475	-47.7979
8	6.45	-0.01	0.2937	1.6014	0.0474	-0.0216	-0.0131	0.3680	0.0568	0.3112	5.4523
9	8.49	-0.01	0.5965	1.4024	0.0340	-0.0096	-0.0127	0.3541	0.0568	0.2973	2.3511
10	10.55	-0.01	0.8998	1.3049	0.0465	-0.0251	-0.0150	0.3520	0.0561	0.2959	1.4502
11	12.61	-0.01	1.2001	1.2567	0.0602	-0.0207	-0.0166	0.3583	0.0555	0.3028	1.0472
12	14.67	-0.01	1.5105	1.2073	0.0474	-0.0106	-0.0141	0.3672	0.0556	0.3116	0.7993
13	16.74	-0.01	1.8487	1.0917	0.0328	0.0014	-0.0162	0.3818	0.0536	0.3282	0.5985
14	18.80	-0.01	2.2061	0.9377	0.0428	-0.0117	-0.0187	0.3873	0.0536	0.3337	0.4250
15	20.87	-0.01	2.5935	0.7433	0.0516	-0.0236	-0.0173	0.3954	0.0536	0.3418	0.2866
16	0.30	-0.01	-0.6603	2.6892	0.0410	-0.0131	-0.0083	0.5003	0.0561	0.4442	-4.8727

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LANGLEY RESEARCH CENTER(NASA) UNITARY PLAN WIND TUNNEL(UPT)
MARTIN MISSILE TAIL EFFECTS DATA

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POINT	TEST PART MACH RX10-6			PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	RCP
	4	42	2.88 3.0									
	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF		
1	-4.23	0.0	-1.5247	4.1150	0.0205	-0.0379	-0.0086	0.7278	0.1200	0.6078	-2.6901	
2	-2.15	0.0	-1.2281	3.7923	-0.0001	-0.0174	-0.0051	0.6696	0.1171	0.5525	-3.0880	
3	-1.12	0.0	-1.0744	3.5724	0.0041	-0.0217	-0.0065	0.6413	0.1176	0.5237	-3.3250	
4	-0.09	0.0	-0.9323	3.4475	0.0094	-0.0277	-0.0067	0.6152	0.1167	0.4945	-3.6970	
5	0.94	0.0	-0.7918	3.3049	0.0029	-0.0214	-0.0071	0.5890	0.1169	0.4721	-4.1739	
6	1.98	0.0	-0.6354	3.0946	-0.0046	-0.0137	-0.0044	0.5615	0.1158	0.4457	-4.8703	
7	4.05	0.0	-0.3095	2.7125	-0.0046	-0.0141	-0.0054	0.5151	0.1174	0.3977	-8.7641	
8	6.14	0.0	0.0341	2.3588	0.0097	-0.0297	-0.0042	0.4721	0.1103	0.3538	69.1748	
9	8.24	0.0	0.4421	1.9426	0.0063	-0.0148	-0.0056	0.4413	0.1236	0.3177	4.3941	
10	10.36	0.0	0.9140	1.5253	0.0007	0.0143	-0.0064	0.4156	0.1259	0.2897	1.6689	
11	12.50	0.0	1.3766	1.2453	-0.0047	0.0167	-0.0077	0.3994	0.1252	0.2742	0.9044	
12	14.64	0.0	1.8292	1.0426	0.0061	0.0146	-0.0081	0.3941	0.1257	0.2684	0.5700	
13	16.77	0.0	2.2818	0.8505	0.0021	0.0275	-0.0084	0.3890	0.1261	0.2629	0.3727	
14	18.91	0.0	2.7512	0.6510	0.0114	0.0014	-0.0085	0.3796	0.1252	0.2544	0.2344	
15	21.07	0.0	3.2532	0.3986	0.0053	0.0289	-0.0090	0.3753	0.1249	0.2504	0.1225	
16	-0.09	0.0	-0.9362	3.4519	0.0097	-0.0280	-0.0066	0.6139	0.1156	0.4983	-3.6072	

MARTIN MISSILE TAIL EFFECTS DATA

TEST	PART	MACH	RK10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4		43	2.36	3.0	-90.0	H2+OF36	0.0	20	0	20	0	FIXED
POINT	ALPHA	BETA	CN	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP	
1	-4.08	0.0	-1.7019	4.7637	-0.0013	-0.0088	-0.0060	0.8016	0.1504	0.6512	-2.7990	
2	-2.00	0.0	-1.3777	4.3782	0.0037	-0.0255	-0.0057	0.7462	0.1471	0.5991	-3.1779	
3	-0.97	0.0	-1.2410	4.2446	0.0077	-0.0301	-0.0061	0.7130	0.1444	0.5686	-3.4203	
4	0.08	0.0	-1.0798	4.0147	-0.0030	-0.0190	-0.0075	0.6814	0.1455	0.5359	-3.7100	
5	1.10	0.0	-0.9054	3.7331	0.0031	0.0088	-0.0053	0.6558	0.1461	0.5097	-4.1232	
6	2.15	0.0	-0.7512	3.5436	-0.0048	-0.0055	-0.0042	0.6324	0.1478	0.4846	-4.7173	
7	4.23	0.0	-0.4172	3.1457	0.0060	-0.0170	-0.0040	0.5834	0.1494	0.4340	-7.5485	
8	6.33	0.0	-0.0673	2.7542	0.0031	-0.0147	-0.0036	0.5369	0.1494	0.3875	-40.9241	
9	8.44	0.0	0.3247	2.3889	-0.0012	-0.0006	-0.0045	0.5017	0.1556	0.3461	7.3573	
10	10.59	0.0	0.7992	1.9954	0.0043	0.0027	-0.0049	0.4739	0.1596	0.3143	2.4940	
11	12.75	0.0	1.3127	1.6930	-0.0051	0.0088	-0.0057	0.4558	0.1625	0.2933	1.2897	
12	14.93	0.0	1.8425	1.3993	-0.0010	0.0230	-0.0064	0.4425	0.1639	0.2786	0.7540	
13	17.11	0.0	2.3461	1.2448	-0.0080	0.0585	-0.0072	0.4383	0.1649	0.2734	0.5386	
14	19.29	0.0	2.8942	0.9664	-0.0054	0.0514	-0.0072	0.4227	0.1693	0.2534	0.3339	
15	21.49	-0.01	3.4486	0.6693	0.0097	0.0204	-0.0074	0.4053	0.1689	0.2364	0.1941	
16	0.07	0.0	-1.0787	4.0205	0.0106	-0.0219	-0.0095	0.6811	0.1457	0.5354	-3.7272	
17	0.07	0.0	-1.0904	4.0366	0.0112	-0.0224	-0.0074	0.6820	0.1452	0.5368	-3.7020	

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TEST PART	MACH	PHI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION		
44	3.95	3.0	-90.0	H2=0F36	0.0	20	0	20	0	FIXED	
POINT	ALPHA	BETA	C _x	C _{LM}	C _Y	C _{LM}	C _{LL}	C _A	C _M	C _{AF}	XCP
1	-4.15	0.0	-1.2627	3.2294	0.0250	-0.0380	-0.0078	0.5866	0.0729	0.5137	-2.5575
2	-2.09	0.0	-0.9761	2.9220	0.0029	-0.0159	-0.0057	0.5375	0.0723	0.4652	-2.9936
3	-1.07	0.0	-0.8339	2.7604	0.0118	-0.0254	-0.0064	0.5147	0.0729	0.4418	-3.3102
4	-0.04	0.0	-0.6930	2.6030	0.0007	-0.0142	-0.0072	0.4905	0.0729	0.4176	-3.7562
5	0.97	0.0	-0.5661	2.4436	-0.0061	-0.0077	-0.0078	0.4685	0.0737	0.3948	-4.4747
6	2.01	0.0	-0.4061	2.2954	0.0077	-0.0221	-0.0051	0.4478	0.0738	0.3740	-5.6524
7	4.07	0.0	-0.1127	2.0092	0.0139	-0.0295	-0.0092	0.4065	0.0738	0.3327	-17.6279
8	6.13	0.0	0.2280	1.6363	-0.0014	0.0023	-0.0107	0.3694	0.0739	0.2955	7.1767
9	8.19	-0.01	0.5922	1.3023	0.0228	-0.0070	-0.0082	0.3479	0.0745	0.2734	2.1991
10	10.28	0.0	0.9582	1.0955	0.0073	0.0233	-0.0105	0.3369	0.0749	0.2620	1.1433
11	12.36	0.0	1.3029	0.9773	0.0125	0.0149	-0.0117	0.3364	0.0730	0.2634	0.7501
12	14.44	0.0	1.6456	0.9219	-0.0019	0.0262	-0.0121	0.3397	0.0702	0.2695	0.5602
13	16.54	0.0	2.0235	0.8286	0.0024	0.0183	-0.0095	0.3483	0.0710	0.2773	0.4095
14	18.63	0.0	2.4217	0.6966	0.0060	0.0279	-0.0103	0.3568	0.0727	0.2841	0.2877
15	20.74	0.0	2.8510	0.5253	0.0075	0.0227	-0.0113	0.3623	0.0737	0.2886	0.1842
16	-0.05	0.0	-0.7007	2.6111	0.0217	-0.0190	-0.0071	0.4802	0.0738	0.4144	-3.7265

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MARTIN MISSILE TAIL EFFECTS DATA

TEST PART		MACH		RX10-6	PMI	CONF	L	DEL1	DEL2	DEL3	DEL4	TRANSITION	
4		45		4.63	3.0	-90.0	B2W0F36	0.0	20	0	20	0	FIXED
POINT	ALPHA	BETA	CM	CLM	CY	CLN	CLL	CA	CAB	CAF	XCP		
1	-3.79	0.0	-1.1019	2.7096	0.0548	-0.0654	-0.0084	0.5245	0.0561	0.4684	-2.4590		
2	-1.74	0.0	-0.8177	2.4520	0.0304	-0.0414	-0.0090	0.4816	0.0572	0.4244	-2.9987		
3	-0.72	-0.01	-0.6855	2.3244	0.0450	-0.0354	-0.0094	0.4560	0.0578	0.3982	-3.3908		
4	0.30	-0.01	-0.5436	2.1866	0.0329	-0.0234	-0.0098	0.4330	0.0585	0.3745	-4.0225		
5	1.32	0.0	-0.4057	2.0622	0.0266	-0.0175	-0.0100	0.4112	0.0585	0.3527	-5.0831		
6	2.36	-0.01	-0.2677	1.9471	0.0459	-0.0378	-0.0101	0.3919	0.0585	0.3334	-7.2735		
7	4.39	-0.01	0.0178	1.6625	0.0328	-0.0252	-0.0111	0.3487	0.0579	0.2908	93.3981		
8	6.43	-0.01	0.3335	1.3542	0.0466	-0.0170	-0.0120	0.3226	0.0579	0.2647	4.0604		
9	8.49	-0.01	0.6408	1.1711	0.0309	-0.0048	-0.0154	0.3089	0.0579	0.2510	1.8275		
10	10.54	-0.01	0.9466	1.0679	0.0434	-0.0202	-0.0136	0.3095	0.0580	0.2515	1.1282		
11	12.60	-0.01	1.2465	1.0251	0.0316	0.0103	-0.0152	0.3159	0.0568	0.2591	0.8224		
12	14.67	0.0	1.5663	0.9616	0.0183	0.0210	-0.0128	0.3216	0.0556	0.2660	0.6140		
13	16.74	-0.01	1.9140	0.8280	0.0288	0.0073	-0.0151	0.3272	0.0549	0.2723	0.4326		
14	18.80	-0.01	2.2709	0.6591	0.0389	-0.0057	-0.0137	0.3359	0.0541	0.2818	0.2902		
15	20.87	-0.01	2.6678	0.4489	0.0481	0.0037	-0.0124	0.3446	0.0541	0.2905	0.1683		
16	0.30	-0.01	-0.5535	2.1969	0.0333	-0.0237	-0.0097	0.4300	0.0572	0.3728	-3.9692		

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APPENDIX E
TEST 5

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART NACH RR10-6 CONF TRANSITION
S 2 1.50 1.0 F35 FIXED

POINT	ALPHA	CMF	CH	CB	KCPF	YCPF
1	-6.00	-0.2429	0.0084	-0.0067	-0.0345	0.3569
2	-4.00	-0.1525	0.0054	-0.0499	-0.0353	0.3272
3	-3.00	-0.1089	0.0041	-0.0338	-0.0373	0.3104
4	-2.00	-0.0636	0.0033	-0.0187	-0.0523	0.2948
5	-1.00	-0.0236	0.0021	-0.0040	-0.0902	0.1699
6	0.0	0.0197	0.0011	0.0125	0.0574	0.6345
7	1.00	0.0615	0.0003	0.0266	0.0054	0.4325
8	2.00	0.1013	-0.0007	0.0424	-0.0066	0.4186
9	3.00	0.1525	-0.0019	0.0588	-0.0122	0.3856
10	4.00	0.2000	-0.0033	0.0757	-0.0166	0.3785
11	6.00	0.3026	-0.0063	0.1107	-0.0209	0.3658
12	8.00	0.3940	-0.0089	0.1417	-0.0225	0.3596
13	10.00	0.4414	-0.0117	0.1712	-0.0238	0.3484
14	12.00	0.5846	-0.0148	0.2002	-0.0254	0.3425
15	14.00	0.6006	-0.0183	0.2284	-0.0269	0.3356
16	16.00	0.7051	-0.0209	0.2526	-0.0273	0.3302
17	18.00	0.8503	-0.0229	0.2742	-0.0269	0.3225

LANGLEY RESEARCH CENTER (NASA)

UNITARY PLAN WIND TUNNEL (UPWT)

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SPLITTER PLATE DATATEST PART MACH PR10-6 CONF TRANSITION
5 3 1.80 1.8 F35 FIXED

POINT	ALPHA	CNF	CM	CH	XCPF	YCPF
1	-6.00	-0.1676	0.0063	-0.0685	-0.0373	0.4087
2	-4.00	-0.1345	0.0050	-0.0498	-0.0371	0.3703
3	-3.00	-0.0965	0.0039	-0.0348	-0.0400	0.3606
4	-2.00	-0.0586	0.0025	-0.0203	-0.0432	0.3464
5	-1.00	-0.0243	0.0011	-0.0064	-0.0466	0.2634
6	0.0	0.0181	-0.0004	0.0065	-0.0221	0.3591
7	1.00	0.0546	-0.0018	0.0198	-0.0329	0.3626
8	2.00	0.0692	-0.0031	0.0338	-0.0343	0.3789
9	3.00	0.1275	-0.0043	0.0480	-0.0334	0.3765
10	4.00	0.1656	-0.0053	0.0615	-0.0321	0.3709
11	6.00	0.2464	-0.0073	0.0864	-0.0294	0.3588
12	8.00	0.3231	-0.0089	0.1123	-0.0274	0.3476
13	10.00	0.3978	-0.0106	0.1349	-0.0266	0.3391
14	12.00	0.4665	-0.0121	0.1561	-0.0260	0.3346
15	14.00	0.5380	-0.0136	0.1753	-0.0254	0.3258
16	16.00	0.6106	-0.0154	0.1935	-0.0252	0.3169
17	18.00	0.6749	-0.0167	0.2115	-0.0247	0.3134
18	20.00	0.7377	-0.0180	0.2276	-0.0244	0.3085
19	22.00	0.8076	-0.0207	0.2424	-0.0256	0.3001
20	24.00	0.8769	-0.0231	0.2583	-0.0263	0.2946
21	26.00	0.9447	-0.0256	0.2763	-0.0271	0.2925
22	28.00	1.0044	-0.0276	0.2927	-0.0275	0.2914
23	0.0	0.0162	-0.0083	0.0053	-0.0205	0.3272
24	0.0	0.0163	-0.0083	0.0050	-0.0163	0.3067

TEST PART NACH RX10-A CONF TRANSITION
5 4 2.16 2.5 F35 FIXED

POINT	ALPHA	CNF	CH	CB	XCPF	YCPF
1	-6.00	-0.1247	0.0046	-0.0483	-0.0368	0.3873
2	-4.00	-0.0881	0.0031	-0.0297	-0.0355	0.3371
3	-3.00	-0.0550	0.0021	-0.0170	-0.0387	0.3091
4	-2.00	-0.0215	0.0011	-0.0059	-0.0526	0.2744
5	-1.00	0.0150	0.0001	0.0051	0.0044	0.3400
6	0.0	0.0413	-0.0009	0.0161	-0.0226	0.3898
7	1.00	0.0749	-0.0018	0.0272	-0.0240	0.3632
8	2.00	0.1084	-0.0027	0.0389	-0.0252	0.3589
9	3.00	0.1421	-0.0037	0.0503	-0.0258	0.3540
10	4.00	0.1756	-0.0045	0.0617	-0.0254	0.3514
11	6.00	0.2387	-0.0059	0.0820	-0.0248	0.3435
12	8.00	0.2993	-0.0073	0.1013	-0.0245	0.3385
13	10.00	0.3600	-0.0091	0.1203	-0.0251	0.3342
14	12.00	0.4242	-0.0107	0.1369	-0.0253	0.3227
15	14.00	0.4849	-0.0127	0.1544	-0.0262	0.3184
16	16.00	0.5461	-0.0146	0.1704	-0.0268	0.3120
17	18.00	0.6032	-0.0164	0.1880	-0.0271	0.3117
18	20.00	0.6647	-0.0178	0.2024	-0.0267	0.3045
19	0.0	0.0427	-0.0009	0.0162	-0.0203	0.3794
20	20.00	0.6659	-0.0180	0.2019	-0.0270	0.3032
21	22.00	0.7202	-0.0201	0.2175	-0.0276	0.2987
22	24.00	0.7853	-0.0216	0.2320	-0.0275	0.2954
23	26.00	0.8531	-0.0235	0.2482	-0.0275	0.2909
24	28.00	0.9146	-0.0260	0.2648	-0.0285	0.2895

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION
5 5 1.50 1.8 F36 FIXED

POINT	ALPHA	CNF	CH	CB	XCPF	YCPF
1	-6.00	-0.2775	-0.0056	-0.1167	0.0202	0.4205
2	-4.00	-0.1579	-0.0036	-0.0652	0.0227	0.4129
3	-3.00	-0.1124	-0.0027	-0.0423	0.0241	0.3747
4	-2.00	-0.0517	-0.0007	-0.0218	0.0135	0.4217
5	-1.00	-0.0031	0.0016	0.0019	-0.5269	-0.6120
6	0.0	0.0537	0.0037	0.0253	0.0681	0.4711
7	1.00	0.1065	0.0060	0.0476	0.0562	0.4469
8	2.00	0.1636	0.0076	0.0713	0.0466	0.4358
9	3.00	0.2188	0.0086	0.0952	0.0395	0.4351
10	4.00	0.2762	0.0094	0.1191	0.0341	0.4312
11	6.00	0.3914	0.0100	0.1687	0.0254	0.4310
12	8.00	0.5075	0.0093	0.2193	0.0182	0.4321
13	10.00	0.6224	0.0076	0.2668	0.0122	0.4287
14	12.00	0.7369	0.0051	0.3107	0.0069	0.4216
15	14.00	0.8418	0.0018	0.3538	0.0021	0.4193
16	16.00	0.9460	-0.0011	0.3876	-0.0012	0.4097

TEST PART MACH RATIO-6 CONF TRANSITION
5 6 1.60 1.8 F34 FIXED

POINT	ALPHA	CMF	CM	CU	XCPF	YCPF
1	-6.00	-0.1881	0.0014	-0.0851	-0.0074	0.4524
2	-4.00	-0.1664	0.0011	-0.0551	-0.0065	0.3311
3	-3.00	-0.1285	0.0009	-0.0356	-0.0067	0.2770
4	-2.00	-0.0841	0.0005	-0.0180	-0.0065	0.2140
5	-1.00	-0.0456	0.0004	-0.0007	-0.0085	0.0154
6	0.0	-0.0071	0.0002	0.0161	-0.0329	-2.2676
7	1.00	0.0313	0.0001	0.0341	0.0025	1.0895
8	2.00	0.0680	-0.0002	0.0512	-0.0034	0.7529
9	3.00	0.1123	-0.0001	0.0707	-0.0055	0.6294
10	4.00	0.1547	-0.0009	0.0892	-0.0055	0.5766
11	6.00	0.2436	-0.0015	0.1273	-0.0061	0.5226
12	8.00	0.3290	-0.0024	0.1647	-0.0073	0.5006
13	10.00	0.4205	-0.0036	0.2028	-0.0085	0.4823
14	12.00	0.5085	-0.0047	0.2391	-0.0092	0.4702
15	14.00	0.5956	-0.0058	0.2729	-0.0097	0.4580
16	16.00	0.6834	-0.0073	0.3073	-0.0107	0.4497
17	18.00	0.7697	-0.0093	0.3389	-0.0121	0.4403
18	20.00	0.8527	-0.0117	0.3691	-0.0138	0.4329
19	22.00	0.9420	-0.0151	0.3982	-0.0160	0.4227
20	0.0	-0.0013	0.0002	0.0169	-0.1795	-13.0000
21	22.00	0.9689	-0.0137	0.3948	-0.0141	0.4075
22	24.00	1.0303	-0.0166	0.4266	-0.0162	0.4141
23	26.00	1.0791	-0.0184	0.4594	-0.0170	0.4257
24	28.00	1.1386	-0.0205	0.4853	-0.0180	0.4262

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION
5 7 2.10 2.5 F34 FIXED

POINT	ALPHA	CMF	CN	CB	XCPF	YCPF
1	-6.00	-0.1484	0.0033	-0.0647	-0.0220	0.4360
2	-4.00	-0.1013	0.0020	-0.0320	-0.0200	0.3159
3	-3.00	-0.0717	0.0016	-0.0179	-0.0217	0.2497
4	-2.00	-0.0377	0.0010	-0.0036	-0.0260	0.0955
5	-1.00	-0.0035	0.0005	0.0093	-0.1333	-2.6571
6	0.0	0.0307	0.0	0.0227	0.0	0.7394
7	1.00	0.0571	-0.0005	0.0375	-0.0082	0.6567
8	2.00	0.0942	-0.0010	0.0529	-0.0107	0.5616
9	3.00	0.1329	-0.0015	0.0671	-0.0111	0.5049
10	4.00	0.1700	-0.0020	0.0815	-0.0119	0.4794
11	6.00	0.2360	-0.0033	0.1122	-0.0138	0.4754
12	8.00	0.3094	-0.0045	0.1435	-0.0146	0.4638
13	10.00	0.3848	-0.0054	0.1750	-0.0141	0.4540
14	12.00	0.4588	-0.0064	0.2064	-0.0139	0.4499
15	14.00	0.5344	-0.0072	0.2362	-0.0135	0.4420
16	16.00	0.6102	-0.0084	0.2654	-0.0138	0.4349
17	18.00	0.6943	-0.0102	0.2928	-0.0147	0.4217
18	0.0	0.0336	0.0001	0.0238	0.0023	0.7003
19	18.00	0.6908	-0.0096	0.2942	-0.0140	0.4259
20	20.00	0.7536	-0.0118	0.3236	-0.0157	0.4294
21	22.00	0.8478	-0.0144	0.3545	-0.0170	0.4181
22	24.00	0.9126	-0.0170	0.3799	-0.0187	0.4163
23	26.00	0.9731	-0.0191	0.4071	-0.0197	0.4184
24	28.00	1.0477	-0.0224	0.4321	-0.0214	0.4124

TEST PART NACH RX10-6 CONF TRANSITION
5 0 1.50 1.8 F31 FIXED

POINT	ALPHA	CNF	CM	CU	ACPF	YCPF
1	-6.00	-0.1335	-0.0057	-0.0329	0.0425	0.2464
2	-4.00	-0.0796	-0.0033	-0.0125	0.0410	0.1570
3	-3.00	-0.0555	-0.0016	-0.0060	0.0280	0.1081
4	-2.00	-0.0365	0.0001	-0.0003	-0.0021	0.0082
5	-1.00	-0.0254	0.0017	0.0068	-0.0074	-0.2677
6	0.0	-0.0093	0.0038	0.0123	-0.4098	-1.3226
7	1.00	0.0066	0.0057	0.0202	0.8350	2.9706
8	2.00	0.0202	0.0075	0.0288	0.3735	1.4257
9	3.00	0.0467	0.0093	0.0380	0.1982	0.8137
10	4.00	0.0709	0.0105	0.0478	0.1481	0.6742
11	6.00	0.1273	0.0122	0.0741	0.0959	0.5821
12	8.00	0.1895	0.0125	0.1041	0.0661	0.5493
13	10.00	0.2581	0.0114	0.1391	0.0443	0.5389
14	12.00	0.3382	0.0095	0.1681	0.0281	0.4970
15	14.00	0.4159	0.0069	0.1988	0.0166	0.4780
16	16.00	0.4910	0.0046	0.2281	0.0093	0.4646
17	18.00	0.5555	0.0023	0.2594	0.0042	0.4678
18	20.00	0.6404	-0.0019	0.2855	-0.0030	0.4658
19	22.00	0.7156	-0.0077	0.3178	-0.0108	0.4641
20	24.00	0.7946	-0.0116	0.3443	-0.0146	0.4332
21	26.00	0.8718	-0.0152	0.3673	-0.0175	0.4213
22	28.00	0.9399	-0.0184	0.3926	-0.0195	0.4177
23	0.0	0.0039	0.0040	0.0083	1.0171	2.1282

TEST PART NACH RX10-6 CONF TRANSITION
 S 9 1.00 1.0 F31 FIXED

POINT	ALPHA	CMF	CM	CR	XCPF	YCPF
1	-6.00	-0.1174	-0.0037	-0.0449	0.0311	0.3825
2	-4.00	-0.0796	-0.0025	-0.0215	0.0315	0.2722
3	-3.00	-0.0756	-0.0016	-0.0076	0.0206	0.1805
4	-2.00	-0.0407	-0.0004	-0.0046	0.0094	0.1138
5	-1.00	-0.0213	0.0008	0.0009	-0.0365	-0.0423
6	0.0	-0.0068	0.0012	0.0079	-0.1830	-1.1618
7	1.00	0.0101	0.0020	0.0141	0.2002	1.3980
8	2.00	0.0293	0.0033	0.0208	0.1115	0.7099
9	3.00	0.0485	0.0044	0.0287	0.0898	0.5918
10	4.00	0.0676	0.0051	0.0411	0.0748	0.6080
11	6.00	0.1220	0.0058	0.0654	0.0472	0.5361
12	8.00	0.1797	0.0054	0.0908	0.0303	0.5053
13	10.00	0.2433	0.0043	0.1178	0.0176	0.4842
14	12.00	0.3023	0.0021	0.1460	0.0069	0.4830
15	14.00	0.3670	-0.0002	0.1690	-0.0008	0.4805
16	16.00	0.4264	-0.0026	0.1948	-0.0062	0.4568
17	18.00	0.4976	-0.0064	0.2180	-0.0128	0.4381
18	20.00	0.5534	-0.0106	0.2459	-0.0191	0.4443
19	22.00	0.6191	-0.0138	0.2685	-0.0224	0.4337
20	24.00	0.6816	-0.0163	0.2912	-0.0238	0.4272
21	26.00	0.7504	-0.0200	0.3117	-0.0266	0.4154
22	28.00	0.8006	-0.0233	0.3367	-0.0291	0.4206
23	0.0	-0.0149	0.0014	0.0115	-0.0948	-0.7718
24	0.0	-0.0096	0.0013	0.0099	-0.1377	-1.0313

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION
5 10 2.16 2.5 F31 FIXED

POINT	ALPHA	CONF	CH	C9	XCDF	YCDF
1	-6.00	-0.0979	-0.0012	-0.0303	0.0119	0.3095
2	-4.00	-0.0582	-0.0008	-0.0102	0.0134	0.1753
3	-3.00	-0.0415	0.0001	-0.0039	-0.0019	0.0940
4	-2.00	-0.0228	0.0009	0.0027	-0.0375	-0.1184
5	-1.00	-0.0139	0.0012	0.0114	-0.0695	-0.0201
6	0.0	0.0093	0.0019	0.0148	0.2007	1.5914
7	1.00	0.0320	0.0026	0.0220	0.0826	0.6675
8	2.00	0.0466	0.0033	0.0324	0.0701	0.6953
9	3.00	0.0696	0.0035	0.0420	0.0503	0.6034
10	4.00	0.0988	0.0035	0.0515	0.0354	0.5213
11	6.00	0.1454	0.0026	0.0756	0.0177	0.5199
12	8.00	0.1987	0.0011	0.0985	0.0055	0.4957
13	10.00	0.2585	-0.0011	0.1211	-0.0042	0.4685
14	12.00	0.3108	-0.0037	0.1451	-0.0120	0.4669
15	14.00	0.3632	-0.0065	0.1681	-0.0180	0.4628
16	16.00	0.4198	-0.0094	0.1890	-0.0224	0.4502
17	18.00	0.4789	-0.0128	0.2108	-0.0266	0.4402
18	20.00	0.5382	-0.0163	0.2325	-0.0302	0.4328
19	22.00	0.5989	-0.0194	0.2546	-0.0325	0.4251
20	24.00	0.6575	-0.0219	0.2732	-0.0332	0.4155
21	26.00	0.7121	-0.0245	0.2965	-0.0344	0.4164
22	28.00	0.7706	-0.0271	0.3167	-0.0351	0.4110
23	0.0	0.0070	0.0019	0.0173	0.2770	2.4714

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA
 SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION
 5 11 1.50 1.8 F32 FIXED

POINT	ALPHA	CNF	CM	CR	XCPF	YCPF
1	-6.00	-0.0690	-0.0151	-0.0338	0.2188	0.4899
2	-4.00	-0.0517	-0.0107	-0.0240	0.2070	0.4642
3	-3.00	-0.0310	-0.0068	-0.0174	0.2194	0.5613
4	-2.00	-0.0186	-0.0026	-0.0094	0.1398	0.5054
5	-1.00	-0.0006	0.0015	-0.0043	-2.5000	7.1667
6	0.0	0.0174	0.0061	-0.0026	0.3506	-0.1494
7	1.00	0.0326	0.0103	0.0034	0.3160	0.1043
8	2.00	0.0476	0.0146	0.0117	0.3067	0.2450
9	3.00	0.0652	0.0185	0.0226	0.2837	0.3466
10	4.00	0.0934	0.0225	0.0303	0.2409	0.3244
11	6.00	0.1368	0.0294	0.0541	0.2149	0.3955
12	8.00	0.1990	0.0346	0.0823	0.1739	0.4136
13	10.00	0.2726	0.0382	0.1114	0.1401	0.4007
14	12.00	0.3440	0.0399	0.1466	0.1160	0.4262
15	14.00	0.4164	0.0411	0.1771	0.0987	0.4253
16	16.00	0.4886	0.0414	0.2143	0.0847	0.4386
17	18.00	0.5611	0.0414	0.2491	0.0738	0.4439
18	20.00	0.6455	0.0410	0.2839	0.0635	0.4398
19	22.00	0.7196	0.0397	0.3187	0.0552	0.4428
20	24.00	0.8006	0.0387	0.3517	0.0483	0.4393
21	26.00	0.8661	0.0353	0.3866	0.0442	0.4464
22	28.00	0.9374	0.0378	0.4127	0.0403	0.4403
23	0.0	0.0172	0.0062	-0.0002	0.3605	-0.0116

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TEST PART WACH RX10-6 CONF TRANSITION
5 12 1.00 1.0 F32 FIXED

POINT	ALPHA	CNF	CH	CH	XCPF	YCPF
1	-6.00	-0.0752	-0.0121	-0.0382	0.1609	0.5080
2	-4.00	-0.0540	-0.0096	-0.0297	0.1778	0.5500
3	-3.00	-0.0357	-0.0067	-0.0214	0.1077	0.5994
4	-2.00	-0.0146	-0.0036	-0.0139	0.2432	0.9392
5	-1.00	-0.0016	-0.0004	-0.0074	0.2222	4.1111
6	0.0	0.0144	0.0023	-0.0031	0.1597	-0.2153
7	1.00	0.0301	0.0055	0.0026	0.1827	0.0864
8	2.00	0.0457	0.0090	0.0083	0.1969	0.1816
9	4.00	0.0623	0.0145	0.0259	0.1762	0.3147
10	6.00	0.1319	0.0194	0.0474	0.1471	0.3594
11	8.00	0.1695	0.0236	0.0709	0.1245	0.3741
12	10.00	0.2470	0.0271	0.1000	0.1097	0.4049
13	12.00	0.3077	0.0299	0.1270	0.0972	0.4127
14	14.00	0.3715	0.0318	0.1552	0.0856	0.4178
15	16.00	0.4332	0.0326	0.1863	0.0753	0.4301
16	18.00	0.5006	0.0328	0.2145	0.0655	0.4285
17	20.00	0.5605	0.0324	0.2448	0.0578	0.4368
18	22.00	0.6207	0.0316	0.2715	0.0503	0.4318
19	24.00	0.6947	0.0300	0.2999	0.0432	0.4317
20	26.00	0.7611	0.0279	0.3282	0.0367	0.4312
21	28.00	0.8222	0.0256	0.3556	0.0311	0.4325
22	0.0	0.0141	0.0026	-0.0019	0.1844	-0.1348
23	3.00	0.0635	0.0123	0.0166	0.1937	0.2614

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA
 SPLITTER PLATE DATA

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TEST PART MACH R210-6 CONF TRANSITION
 S 13 2.16 2.5 F32 FIXED

POINT	ALPHA	CNF	Cm	Cd	XCPF	YCPF
1	-6.00	-0.0538	-0.0062	-0.0259	0.1152	0.4814
2	-4.00	-0.0356	-0.0043	-0.0200	0.1208	0.5618
3	-3.00	-0.0176	-0.0021	-0.0122	0.1193	0.6932
4	-2.00	-0.0016	0.0003	-0.0065	-0.1875	4.0625
5	-1.00	0.0144	0.0026	-0.0016	0.1806	-0.1111
6	0.0	0.0205	0.0048	0.0047	0.1684	0.1649
7	1.00	0.0445	0.0070	0.0113	0.1573	0.2539
8	2.00	0.0605	0.0091	0.0197	0.1504	0.3256
9	3.00	0.0806	0.0107	0.0284	0.1328	0.3524
10	4.00	0.1048	0.0122	0.0377	0.1164	0.3597
11	6.00	0.1511	0.0147	0.0603	0.0973	0.3991
12	8.00	0.2035	0.0168	0.0945	0.0826	0.4192
13	10.00	0.2601	0.0184	0.1091	0.0707	0.4195
14	12.00	0.3168	0.0198	0.1355	0.0625	0.4277
15	14.00	0.3754	0.0212	0.1629	0.0565	0.4339
16	16.00	0.4378	0.0227	0.1910	0.0519	0.4363
17	18.00	0.4926	0.0241	0.2144	0.0489	0.4352
18	20.00	0.5480	0.0249	0.2394	0.0454	0.4369
19	22.00	0.6052	0.0248	0.2660	0.0410	0.4395
20	24.00	0.6638	0.0242	0.2902	0.0365	0.4372
21	26.00	0.7262	0.0228	0.3154	0.0314	0.4343
22	28.00	0.7857	0.0208	0.3391	0.0265	0.4316
23	0.0	0.0266	0.0045	0.0053	0.1692	0.1992
24	0.0	0.0263	0.0049	0.0063	0.1863	0.2395

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TEST PART MACH RX10-6 CONF TRANSITION
S 14 1.50 1.8 F36 FIXED

POINT	ALPHA	CNF	CN	CS	XCPF	YCPF
1	-6.00	-0.0541	0.0051	-0.0230	-0.0937	0.4251
2	-4.00	-0.0375	0.0041	-0.0189	-0.1084	0.5048
3	-3.00	-0.0212	0.0033	-0.0137	-0.1572	0.6462
4	-2.00	-0.0075	0.0023	-0.0077	-0.3111	1.0267
5	-1.00	0.0009	0.0017	-0.0046	1.9259	-5.1111
6	0.0	0.0117	0.0011	-0.0011	0.0969	-0.0948
7	1.00	0.0281	0.0003	0.0041	0.0095	0.1459
8	2.00	0.0415	-0.0003	0.0090	-0.0080	0.2169
9	3.00	0.0605	-0.0015	0.0156	-0.0242	0.2579
10	4.00	0.0741	-0.0023	0.0216	-0.0306	0.2915
11	6.00	0.1141	-0.0039	0.0354	-0.0345	0.3183
12	8.00	0.1733	-0.0064	0.0501	-0.0369	0.2891
13	10.00	0.2136	-0.0083	0.0638	-0.0387	0.2987
14	12.00	0.2709	-0.0111	0.0767	-0.0411	0.2831
15	14.00	0.3269	-0.0135	0.0957	-0.0412	0.2927
16	16.00	0.3853	-0.0153	0.1118	-0.0398	0.2902
17	18.00	0.4542	-0.0174	0.1292	-0.0383	0.2845
18	20.00	0.5131	-0.0197	0.1462	-0.0385	0.2849
19	20.00	0.5166	-0.0199	0.1454	-0.0386	0.2815
20	22.00	0.5636	-0.0223	0.1585	-0.0396	0.2812
21	24.00	0.6277	-0.0255	0.1770	-0.0406	0.2820
22	26.00	0.6925	-0.0283	0.1944	-0.0409	0.2807
23	28.00	0.7520	-0.0311	0.2135	-0.0413	0.2839
24	0.0	0.0143	0.0013	-0.0030	0.0886	-0.2098
25	0.0	0.0145	0.0011	-0.0020	0.0782	-0.1379

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MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATATEST PART MACH RX10-6 CONF TRANSITION
5 15 1.80 1.6 F36 FIXED

POINT	ALPHA	CNF	CM	CB	XCPF	YCPF
1	-6.00	-0.0808	0.0051	-0.0369	-0.0635	0.4567
2	-4.00	-0.0441	0.0038	-0.0246	-0.0862	0.5578
3	-3.00	-0.0262	0.0033	-0.0205	-0.1158	0.7270
4	-2.00	-0.0146	0.0025	-0.0156	-0.1712	1.0541
5	-1.00	-0.0040	0.0018	-0.0099	-0.4560	2.4750
6	0.0	0.0101	0.0007	-0.0064	0.0660	-0.6337
7	1.00	0.0297	-0.0009	-0.0012	-0.0292	-0.0404
8	2.00	0.0404	-0.0015	0.0045	-0.0380	0.1114
9	3.00	0.0486	-0.0021	0.0087	-0.0439	0.1798
10	4.00	0.0672	-0.0029	0.0143	-0.0437	0.2128
11	6.00	0.1014	-0.0042	0.0275	-0.0414	0.2712
12	8.00	0.1464	-0.0057	0.0385	-0.0387	0.2638
13	10.00	0.1891	-0.0075	0.0525	-0.0388	0.2776
14	12.00	0.2349	-0.0097	0.0655	-0.0412	0.2788
15	14.00	0.2923	-0.0107	0.0773	-0.0367	0.2645
16	16.00	0.3448	-0.0124	0.0939	-0.0360	0.2723
17	18.00	0.3930	-0.0144	0.1061	-0.0366	0.2788
18	20.00	0.4464	-0.0165	0.1201	-0.0370	0.2698
19	22.00	0.5047	-0.0185	0.1372	-0.0367	0.2718
20	24.00	0.5604	-0.0205	0.1540	-0.0366	0.2748
21	26.00	0.6135	-0.0227	0.1714	-0.0371	0.2794
22	28.00	0.6725	-0.0253	0.1881	-0.0376	0.2797
23	0.0	0.0101	0.0006	-0.0053	0.0594	-0.5248

TEST PART MACH RX10-6 CONF TRANSITION
5 16 2.16 2.5 F36 FIXED

POINT	ALPHA	CNF	CM	CH	XCPF	YCPF
1	-6.00	-0.0381	0.0033	-0.0210	-0.0857	0.5512
2	-4.00	-0.0238	0.0026	-0.0150	-0.1092	0.6303
3	-3.00	-0.0115	0.0019	-0.0101	-0.1681	0.8783
4	-2.00	0.0009	0.0013	-0.0062	1.4815	-6.8889
5	-1.00	0.0136	0.0002	-0.0025	0.0144	-0.1799
6	0.0	0.0264	-0.0007	0.0032	-0.0253	6.1212
7	1.00	0.0366	-0.0011	0.0070	-0.0310	0.1913
8	2.00	0.0506	-0.0017	0.0121	-0.0341	0.2382
9	3.00	0.0666	-0.0021	0.0176	-0.0319	0.2635
10	4.00	0.0870	-0.0027	0.0218	-0.0307	0.2506
11	6.00	0.1214	-0.0039	0.0338	-0.0324	0.2784
12	8.00	0.1620	-0.0055	0.0455	-0.0337	0.2809
13	10.00	0.2057	-0.0077	0.0571	-0.0373	0.2776
14	12.00	0.2517	-0.0087	0.0690	-0.0344	0.2741
15	14.00	0.2954	-0.0098	0.0815	-0.0331	0.2754
16	16.00	0.3449	-0.0117	0.0949	-0.0340	0.2752
17	18.00	0.3920	-0.0138	0.1089	-0.0352	0.2778
18	20.00	0.4434	-0.0159	0.1243	-0.0359	0.2803
19	22.00	0.4926	-0.0182	0.1402	-0.0369	0.2846
20	24.00	0.5437	-0.0201	0.1557	-0.0370	0.2864
21	26.00	0.5965	-0.0219	0.1705	-0.0368	0.2858
22	28.00	0.6496	-0.0238	0.1845	-0.0366	0.2844
23	0.0	0.0244	-0.0006	0.0029	-0.0246	0.1189
24	10.00	0.2077	-0.0077	0.0574	-0.0372	0.2764

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA
 SPLITTER PLATE DATA

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TEST PART MACH RX10-6 CONF TRANSITION
 S 17 1.50 1.8 F11 FIXED

POINT	ALPHA	CONF	CM	CB	XCPR	YCPR
1	-6.00	-0.1463	-0.0286	-0.0676	0.1955	0.4621
2	-4.00	-0.0446	-0.0176	-0.0382	0.2080	0.4515
3	-3.00	-0.0510	-0.0110	-0.0301	0.2157	0.5902
4	-2.00	-0.0191	-0.0022	-0.0100	0.1152	0.5236
5	-1.00	0.0099	0.0033	-0.0074	0.3333	-0.7475
6	0.0	0.0424	0.0109	0.0054	0.2571	0.1274
7	1.00	0.0654	0.0167	0.0166	0.2554	0.2530
8	2.00	0.0936	0.0221	0.0261	0.2361	0.2788
9	3.00	0.1314	0.0283	0.0417	0.2154	0.3174
10	4.00	0.1536	0.0340	0.0597	0.2214	0.3887
11	6.00	0.2358	0.0417	0.0886	0.1768	0.3757
12	8.00	0.3023	0.0482	0.1245	0.1594	0.4118
13	10.00	0.3849	0.0522	0.1597	0.1356	0.4149
14	12.00	0.4545	0.0539	0.1979	0.1186	0.4354
15	14.00	0.5492	0.0537	0.2387	0.0985	0.4378
16	16.00	0.6308	0.0529	0.2760	0.0824	0.4375
17	18.00	0.7144	0.0491	0.3160	0.0687	0.4423
18	20.00	0.7967	0.0463	0.3531	0.0581	0.4432
19	22.00	0.8679	0.0431	0.3907	0.0497	0.4502
20	24.00	0.9529	0.0409	0.4276	0.0429	0.4487
21	26.00	1.0181	0.0369	0.4614	0.0362	0.4532
22	28.00	1.0996	0.0318	0.4879	0.0289	0.4437
23	0.0	0.0432	0.0099	0.0030	0.2292	0.0694
24	0.0	0.0483	0.0102	0.0014	0.2112	0.0298

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TEST PART MACH RX10-6 CONF TRANSITION
S 18 1.60 1.8 F11 FIXED

POINT	ALPHA	CNF	CN	Cu	XCPF	YCPF
1	-6.00	-0.1489	-0.0147	-0.0769	0.0987	0.5165
2	-4.00	-0.0854	-0.0099	-0.0509	0.1159	0.5960
3	-3.00	-0.0465	-0.0066	-0.0356	0.1419	0.7658
4	-2.00	-0.0226	-0.0036	-0.0247	0.1593	1.0929
5	-1.00	0.0066	-0.0007	-0.0155	-0.1061	-2.3485
6	0.0	0.0356	0.0026	-0.0063	0.0730	-0.1778
7	1.00	0.0545	0.0055	0.0061	0.1009	0.1119
8	2.00	0.0835	0.0088	0.0178	0.1054	0.2132
9	3.00	0.1178	0.0117	0.0277	0.0993	0.2351
10	4.00	0.1412	0.0143	0.0454	0.1013	0.3215
11	6.00	0.2094	0.0190	0.0743	0.0907	0.3548
12	8.00	0.2774	0.0238	0.1055	0.0858	0.3803
13	10.00	0.3453	0.0289	0.1368	0.0837	0.3962
14	12.00	0.4126	0.0337	0.1726	0.0816	0.4181
15	14.00	0.4862	0.0377	0.2021	0.0775	0.4157
16	16.00	0.5552	0.0396	0.2329	0.0713	0.4195
17	18.00	0.6192	0.0407	0.2629	0.0657	0.4246
18	20.00	0.6836	0.0404	0.2951	0.0591	0.4317
19	22.00	0.7488	0.0386	0.3224	0.0515	0.4306
20	24.00	0.8142	0.0351	0.3564	0.0431	0.4377
21	26.00	0.8844	0.0308	0.3862	0.0348	0.4364
22	28.00	0.9502	0.0279	0.4157	0.0294	0.4375
23	0.0	0.0451	0.0044	-0.0023	0.0976	-0.0518
24	0.0	0.0402	0.0036	-0.0031	0.0896	-0.0771

TEST PART NACH RX10-6 CONF TRANSITION
 5 19 2.16 2.5 F11 FIXED

POINT	ALPHA	CONF	CM	CB	XCPF	YCPF
1	-6.00	-0.0969	-0.0054	-0.0558	0.0557	0.5759
2	-4.00	-0.0399	-0.0037	-0.0313	0.0927	0.7865
3	-3.00	-0.0174	-0.0023	-0.0208	0.1322	1.1954
4	-2.00	0.0089	-0.0006	-0.0097	-0.0674	-1.0899
5	-1.00	0.0312	0.0011	0.0009	0.0353	0.0208
6	0.0	0.0537	0.0028	0.0097	0.0521	0.1808
7	1.00	0.0802	0.0042	0.0190	0.0524	0.2369
8	2.00	0.1101	0.0059	0.0342	0.0536	0.3106
9	3.00	0.1290	0.0065	0.0423	0.0504	0.3279
10	4.00	0.1553	0.0074	0.0550	0.0476	0.3542
11	6.00	0.2159	0.0091	0.0835	0.0421	0.3868
12	8.00	0.2728	0.0108	0.1115	0.0396	0.4087
13	10.00	0.3415	0.0126	0.1429	0.0369	0.4184
14	12.00	0.4022	0.0146	0.1678	0.0363	0.4172
15	14.00	0.4620	0.0171	0.2016	0.0370	0.4304
16	16.00	0.5301	0.0205	0.2296	0.0387	0.4331
17	18.00	0.6022	0.0239	0.2544	0.0397	0.4225
18	20.00	0.6704	0.0262	0.2858	0.0391	0.4263
19	22.00	0.7312	0.0262	0.3157	0.0358	0.4318
20	24.00	0.7927	0.0257	0.3438	0.0324	0.4337
21	26.00	0.8504	0.0246	0.3713	0.0289	0.4366
22	28.00	0.9160	0.0236	0.3963	0.0258	0.4326
23	0.0	0.0537	0.0031	0.0097	0.0577	0.1808

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TEST PART MACH RX10-6 CONF TRANSITION
5 20 1.50 1.8 F15 FIXED

POINT	ALPHA	CNF	CM	CB	XCPF	YCPF
1	-6.00	-0.1619	-0.0131	-0.0658	0.0812	0.4064
2	-6.00	-0.0929	-0.0081	-0.0385	0.0871	0.4144
3	-3.00	-0.0661	-0.0042	-0.0264	0.0655	0.4119
4	-2.00	-0.0297	-0.0009	-0.0162	0.0288	0.5455
5	-1.00	-0.0006	0.0022	-0.0043	-3.6294	7.1667
6	0.0	0.0343	0.0055	0.0013	0.1610	0.0379
7	1.00	0.0580	0.0089	0.0148	0.1529	0.2552
8	2.00	0.0919	0.0128	0.0276	0.1396	0.3003
9	3.00	0.1263	0.0159	0.0401	0.1256	0.3175
10	4.00	0.1658	0.0184	0.0533	0.1107	0.3215
11	6.00	0.2450	0.0223	0.0889	0.0911	0.3629
12	8.00	0.3211	0.0239	0.1189	0.0741	0.3703
13	10.00	0.4138	0.0239	0.1502	0.0577	0.3823
14	12.00	0.4953	0.0226	0.1953	0.0455	0.3943
15	14.00	0.5865	0.0198	0.2258	0.0337	0.3850
16	16.00	0.6587	0.0162	0.2635	0.0246	0.4000
17	18.00	0.7469	0.0124	0.2938	0.0166	0.3934
18	20.00	0.8349	0.0088	0.3257	0.0082	0.3901
19	22.00	0.9082	0.0019	0.3560	0.0021	0.3928
20	24.00	0.9426	-0.0039	0.3781	-0.0039	0.3809
21	26.00	1.0085	-0.0122	0.4012	-0.0112	0.3686
22	28.00	1.1464	-0.0180	0.4219	-0.0157	0.3600
23	0.0	0.0342	0.0055	0.0013	0.1615	0.0380

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA
 SPLITTER PLATE DATA

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TEST PART MACH RX10-6 CONF TRANSITION
 5 21 1.80 1.8 FIS FIXED

POINT	ALPHA	CMF	CM	CB	ACPF	YCPF
1	-6.00	-0.1277	-0.0061	-0.0616	0.0481	0.4824
2	-4.00	-0.0830	-0.0047	-0.0457	0.0572	0.5506
3	-3.00	-0.0532	-0.0033	-0.0317	0.0629	0.5959
4	-2.00	-0.0183	-0.0011	-0.0240	0.0595	1.3115
5	-1.00	0.0060	0.0005	-0.0132	0.0907	-2.2000
6	0.0	0.0306	0.0019	-0.0024	0.0635	-0.0786
7	1.00	0.0604	0.0033	0.0068	0.0554	0.1126
8	2.00	0.0850	0.0050	0.0152	0.0586	0.1788
9	3.00	0.1145	0.0064	0.0267	0.0557	0.2332
10	4.00	0.1443	0.0072	0.0405	0.0501	0.2807
11	6.00	0.2090	0.0086	0.0686	0.0413	0.3282
12	8.00	0.2896	0.0089	0.0986	0.0309	0.3405
13	10.00	0.3597	0.0085	0.1293	0.0236	0.3595
14	12.00	0.4303	0.0074	0.1576	0.0172	0.3663
15	14.00	0.5014	0.0055	0.1882	0.0110	0.3753
16	16.00	0.5730	0.0037	0.2141	0.0064	0.3736
17	18.00	0.6343	0.0015	0.2386	0.0023	0.3762
18	20.00	0.7054	-0.0012	0.2640	-0.0018	0.3743
19	22.00	0.7717	-0.0042	0.2888	-0.0054	0.3742
20	24.00	0.8395	-0.0086	0.3137	-0.0102	0.3737
21	26.00	0.9074	-0.0127	0.3339	-0.0140	0.3680
22	28.00	0.9710	-0.0173	0.3559	-0.0179	0.3665
23	0.0	0.0303	0.0022	-0.0024	0.0719	-0.0792

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TEST BODY NACA X10-6 CONF TRANSITION.

5 22 2.16 2.5 F15 FIXED

POINT	ALPHA	CNF	CM	CB	XCPF	YCPF
1	-6.00	-0.0875	-0.0018	-0.0414	0.0204	0.4731
2	-4.00	-0.0564	-0.0015	-0.0316	0.0262	0.5603
3	-3.00	-0.0337	-0.0009	-0.0211	0.0254	0.6261
4	-2.00	-0.0430	-0.0002	-0.0114	0.0778	3.8000
5	-1.00	0.0199	0.0005	-0.0008	0.0234	-0.0402
6	0.0	0.0469	0.0009	0.0085	0.0182	0.1812
7	1.00	0.0695	0.0015	0.0172	0.0213	0.2475
8	2.00	0.0467	0.0019	0.0283	0.0201	0.2927
9	3.00	0.1239	0.0024	0.0395	0.0195	0.3188
10	4.00	0.1506	0.0026	0.0505	0.0175	0.3349
11	6.00	0.2084	0.0023	0.0764	0.0108	0.3666
12	8.00	0.2704	0.0010	0.1027	0.0037	0.3798
13	10.00	0.3326	-0.0002	0.1272	-0.0007	0.3824
14	12.00	0.3956	-0.0021	0.1500	-0.0053	0.3792
15	14.00	0.4544	-0.0040	0.1741	-0.0087	0.3827
16	16.00	0.5219	-0.0062	0.1955	-0.0119	0.3746
17	18.00	0.5886	-0.0087	0.2192	-0.0150	0.3775
18	20.00	0.6432	-0.0117	0.2432	-0.0181	0.3781
19	22.00	0.7067	-0.0146	0.2658	-0.0207	0.3761
20	24.00	0.7782	-0.0173	0.2840	-0.0223	0.3649
21	26.00	0.8381	-0.0203	0.3080	-0.0242	0.3675
22	28.00	0.9053	-0.0234	0.3253	-0.0259	0.3593
23	0.0	0.0469	0.0009	0.0085	0.0182	0.1812

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART MACH PR10-6 CONF TRANSITION
5 23 1.50 1.0 F14 FIXED

POINT	ALPHA	CONF	CM	CB	XCDF	YCDF
1	-6.00	-0.1049	0.0059	-0.0434	-0.0559	0.4137
2	-4.00	-0.0576	0.0040	-0.0255	-0.0692	0.4412
3	-3.00	-0.0371	0.0033	-0.0158	-0.0881	0.4259
4	-2.00	-0.0221	0.0026	-0.0045	-0.1176	0.2036
5	-1.00	0.0041	0.0017	0.0012	0.4065	0.2927
6	0.0	0.0247	0.0013	0.0086	0.0540	0.3482
7	1.00	0.0454	0.0007	0.0136	0.0162	0.2996
8	2.00	0.0709	0.0	0.0216	0.0	0.3047
9	3.00	0.0967	-0.0009	0.0367	-0.0090	0.3795
10	4.00	0.1232	-0.0014	0.0427	-0.0114	0.3466
11	6.00	0.1746	-0.0029	0.0659	-0.0164	0.3774
12	8.00	0.2309	-0.0041	0.0850	-0.0179	0.3601
13	10.00	0.2976	-0.0059	0.1052	-0.0199	0.3535
14	12.00	0.3643	-0.0079	0.1254	-0.0218	0.3442
15	14.00	0.4315	-0.0112	0.1451	-0.0260	0.3363
16	16.00	0.5126	-0.0169	0.1735	-0.0329	0.3385
17	18.00	0.5897	-0.0201	0.1907	-0.0341	0.3234
18	20.00	0.6654	-0.0233	0.2123	-0.0351	0.3191
19	22.00	0.7388	-0.0273	0.2375	-0.0370	0.3215
20	24.00	0.8014	-0.0310	0.2565	-0.0387	0.3201
21	26.00	0.8692	-0.0351	0.2763	-0.0404	0.3202
22	28.00	0.9312	-0.0387	0.2970	-0.0416	0.3189
23	0.0	0.0248	0.0013	0.0062	0.0511	0.2500

LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION
5 24 1.60 1.8 F1* FIXED

POINT	ALPHA	CNF	CM	Cu	XCPF	YCPF
1	-6.00	-0.0970	0.0029	-0.0431	-0.0296	0.4443
2	-4.00	-0.0514	0.0025	-0.0250	-0.0493	0.4864
3	-3.00	-0.0311	0.0023	-0.0176	-0.0750	0.5659
4	-2.00	-0.0107	0.0022	-0.0125	-0.2056	1.1682
5	-1.00	0.0047	0.0017	-0.0059	0.3546	-1.2553
6	0.0	0.0200	0.0011	0.0008	0.0567	0.0400
7	1.00	0.0405	0.0007	0.0059	0.0181	0.1457
8	2.00	0.0608	0.0006	0.0133	0.0099	0.2187
9	3.00	0.0761	0.0002	0.0200	0.0026	0.2628
10	4.00	0.1016	-0.0001	0.0281	-0.0013	0.2766
11	6.00	0.1524	-0.0009	0.0466	-0.0057	0.3058
12	8.00	0.2030	-0.0019	0.0673	-0.0095	0.3315
13	10.00	0.2596	-0.0032	0.0817	-0.0123	0.3147
14	12.00	0.3114	-0.0052	0.1000	-0.0167	0.3211
15	14.00	0.3740	-0.0075	0.1148	-0.0201	0.3070
16	16.00	0.4306	-0.0093	0.1314	-0.0217	0.3052
17	18.00	0.4923	-0.0117	0.1483	-0.0237	0.3012
18	20.00	0.5492	-0.0142	0.1670	-0.0259	0.3041
19	22.00	0.6069	-0.0167	0.1835	-0.0276	0.3024
20	24.00	0.6646	-0.0201	0.2044	-0.0302	0.3076
21	26.00	0.7265	-0.0225	0.2213	-0.0318	0.3046
22	28.00	0.7780	-0.0253	0.2391	-0.0325	0.3073
23	0.0	0.0198	0.0013	0.0008	0.0640	0.0404

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
 MARTIN MISSILE TAIL EFFECTS DATA
 SPLITTER PLATE DATA

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TEST PART NACM RX10-6 CONF TRANSITION
 S 25 2.16 2.5 F14 FIXED

POINT	ALPHA	CNF	CM	CB	XCPF	YCPF
1	-6.00	-0.0788	0.0031	-0.0333	-0.0389	0.4226
2	-6.00	-0.0396	0.0019	-0.0157	-0.0486	0.3945
3	-3.00	-0.0202	0.0017	-0.0094	-0.0825	0.4653
4	-2.00	-0.0004	0.0011	-0.0033	-2.8333	0.2500
5	-1.00	0.0155	0.0004	0.0023	0.0250	0.1484
6	0.0	0.0352	-0.0003	0.0102	-0.0076	0.2898
7	1.00	0.0507	-0.0005	0.0177	-0.0105	0.3491
8	2.00	0.0743	-0.0009	0.0244	-0.0126	0.3284
9	3.00	0.0937	-0.0013	0.0341	-0.0142	0.3639
10	4.00	0.1173	-0.0019	0.0408	-0.0165	0.3478
11	6.00	0.1645	-0.0029	0.0560	-0.0174	0.3404
12	8.00	0.2080	-0.0043	0.0724	-0.0205	0.3481
13	10.00	0.2553	-0.0059	0.0873	-0.0232	0.3428
14	12.00	0.3034	-0.0083	0.1021	-0.0272	0.3365
15	14.00	0.3601	-0.0111	0.1164	-0.0307	0.3177
16	16.00	0.4080	-0.0131	0.1275	-0.0320	0.3125
17	18.00	0.4559	-0.0157	0.1421	-0.0344	0.3117
18	20.00	0.5120	-0.0183	0.1579	-0.0358	0.3084
19	22.00	0.5642	-0.0209	0.1751	-0.0378	0.3104
20	24.00	0.6165	-0.0234	0.1922	-0.0380	0.3118
21	26.00	0.6725	-0.0261	0.2079	-0.0389	0.3091
22	28.00	0.7324	-0.0291	0.2222	-0.0397	0.3034
23	0.0	0.0351	-0.0003	0.0102	-0.0076	0.2906

TEST PART NACH RX10-6 CONF TRANSITION
5 26 1.50 1.8 F13 FIXED

POINT	ALPHA	CNF	CM	CH	XCPF	YCPF
1	-6.00	-0.2433	-0.0141	-0.1058	0.0579	0.4349
2	-4.00	-0.1606	-0.0103	-0.0696	0.0644	0.4334
3	-3.00	-0.1087	-0.0067	-0.0475	0.0615	0.4370
4	-2.00	-0.0615	-0.0027	-0.0243	0.0443	0.3951
5	-1.00	-0.0094	0.0016	-0.0035	-0.1737	0.3723
6	0.0	0.0031	0.0053	0.0144	0.1227	0.3341
7	1.00	0.0490	0.0100	0.0384	0.1005	0.3879
8	2.00	0.1514	0.0132	0.0577	0.0873	0.3611
9	3.00	0.1943	0.0170	0.0804	0.0873	0.4138
10	4.00	0.2428	0.0193	0.1022	0.0794	0.4289
11	6.00	0.3486	0.0217	0.1460	0.0622	0.4188
12	8.00	0.4488	0.0224	0.1930	0.0499	0.4299
13	10.00	0.5592	0.0212	0.2407	0.0370	0.4304
14	12.00	0.6338	0.0156	0.2810	0.0309	0.4433
15	14.00	0.7314	0.0164	0.3217	0.0224	0.4395
16	16.00	0.8179	0.0122	0.3559	0.0149	0.4351
17	18.00	0.8946	0.0083	0.3863	0.0093	0.4316
18	20.00	0.9655	0.0022	0.4203	0.0022	0.4265
19	22.00	1.0665	-0.0043	0.4503	-0.0040	0.4223
20	24.00	1.1474	-0.0108	0.4774	-0.0094	0.4161
21	26.00	1.2296	-0.0170	0.4993	-0.0138	0.4061
22	28.00	1.2645	-0.0202	0.5180	-0.0157	0.4033
23	0.0	0.0474	0.0050	0.0176	0.1050	0.3713

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART WACH RX10-6 CONF TRANSITION
5 27 1.60 1.0 F13 FIXED

POINT	ALPHA	CNF	CN	CG	XCPF	YCPF
1	-6.00	-0.2176	0.0001	-0.1037	-0.0004	0.4766
2	-4.00	-0.1443	0.0002	-0.0664	-0.0011	0.4602
3	-3.00	-0.1004	0.0002	-0.0484	-0.0023	0.4821
4	-2.00	-0.0562	0.0005	-0.0316	-0.0097	0.5623
5	-1.00	-0.0170	0.0006	-0.0126	-0.0366	0.7412
6	0.0	0.0223	0.0003	0.0049	0.0139	0.2197
7	1.00	0.0621	0.0001	0.0197	0.0013	0.3172
8	2.00	0.1061	0.0005	0.0378	0.0044	0.3563
9	3.00	0.1455	0.0005	0.0560	0.0032	0.3904
10	4.00	0.1845	0.0005	0.0771	0.0030	0.4179
11	6.00	0.2673	0.0012	0.1126	0.0047	0.4212
12	8.00	0.3500	0.0019	0.1495	0.0056	0.4271
13	10.00	0.4379	0.0024	0.1841	0.0055	0.4283
14	12.00	0.5215	0.0028	0.2212	0.0054	0.4241
15	14.00	0.6012	0.0029	0.2523	0.0048	0.4196
16	16.00	0.6710	0.0023	0.2879	0.0034	0.4290
17	18.00	0.7458	0.0016	0.3153	0.0022	0.4227
18	20.00	0.8161	0.0001	0.3451	0.0001	0.4228
19	22.00	0.8876	-0.0028	0.3721	-0.0032	0.4192
20	24.00	0.9553	-0.0066	0.3987	-0.0069	0.4174
21	26.00	1.0191	-0.0105	0.4209	-0.0103	0.4131
22	28.00	1.0819	-0.0144	0.4470	-0.0133	0.4132
23	0.0	0.0268	0.0003	0.0053	0.0116	0.1978

TEST PART MACH RX10-6 CONF TRANSITION
 5 28 2.16 2.5 F13 FIXED

POINT	ALPHA	CNF	CM	CB	XCPF	YCPF
1	-6.00	-0.1482	0.0023	-0.0692	-0.0157	0.4669
2	-4.00	-0.0770	0.0014	-0.0413	-0.0182	0.5364
3	-3.00	-0.0501	0.0009	-0.0259	-0.0186	0.5170
4	-2.00	-0.0165	0.0007	-0.0122	-0.0424	0.7394
5	-1.00	0.0175	0.0002	0.0016	0.0133	0.0914
6	0.0	0.0478	0.0001	0.0151	0.0016	0.3159
7	1.00	0.0774	-0.0002	0.0297	-0.0020	0.3813
8	2.00	0.1215	-0.0006	0.0476	-0.0051	0.3905
9	3.00	0.1455	-0.0009	0.0594	-0.0059	0.4082
10	4.00	0.1796	-0.0013	0.0732	-0.0074	0.4076
11	6.00	0.2465	-0.0018	0.1029	-0.0072	0.4168
12	8.00	0.3177	-0.0022	0.1329	-0.0069	0.4183
13	10.00	0.3685	-0.0021	0.1640	-0.0054	0.4221
14	12.00	0.4525	-0.0023	0.1935	-0.0052	0.4275
15	14.00	0.5273	-0.0023	0.2229	-0.0043	0.4226
16	16.00	0.5413	-0.0032	0.2521	-0.0054	0.4263
17	18.00	0.6624	-0.0049	0.2818	-0.0074	0.4254
18	20.00	0.7381	-0.0061	0.3068	-0.0082	0.4156
19	22.00	0.8106	-0.0083	0.3336	-0.0103	0.4115
20	24.00	0.8826	-0.0110	0.3590	-0.0125	0.4066
21	26.00	0.9513	-0.0139	0.3839	-0.0146	0.4035
22	28.00	1.0173	-0.0177	0.4087	-0.0174	0.4018
23	0.0	0.0506	0.0001	0.0175	0.0019	0.3438

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART MACH RX10-6 CONF TRANSITION
5 29 1.50 1.8 F16 FIXED

POINT	ALPHA	CONF	CM	CB	XCPF	YCPF
1	-6.00	-0.2252	-0.0297	-0.0943	0.1319	0.4187
2	-4.00	-0.1480	-0.0213	-0.0627	0.1439	0.4236
3	-3.00	-0.0933	-0.0149	-0.0407	0.1597	0.4362
4	-2.00	-0.0465	-0.0079	-0.0233	0.1699	0.5011
5	-1.00	0.0052	-0.0004	-0.0038	-0.0769	-0.7308
6	0.0	0.0516	0.0075	0.0209	0.1453	0.4050
7	1.00	0.0484	0.0145	0.0398	0.1474	0.4045
8	2.00	0.1491	0.0224	0.0633	0.1502	0.4245
9	3.00	0.2057	0.0286	0.0817	0.1390	0.3972
10	4.00	0.2391	0.0330	0.1063	0.1380	0.4444
11	6.00	0.3347	0.0406	0.1481	0.1213	0.4425
12	8.00	0.4401	0.0451	0.1904	0.1025	0.4326
13	10.00	0.5210	0.0495	0.2373	0.0950	0.4555
14	12.00	0.6127	0.0509	0.2793	0.0831	0.4559
15	14.00	0.7046	0.0509	0.3226	0.0722	0.4578
16	16.00	0.7636	0.0510	0.3607	0.0651	0.4602
17	18.00	0.8679	0.0520	0.3995	0.0599	0.4603
18	20.00	0.9430	0.0517	0.4372	0.0548	0.4636
19	22.00	1.0276	0.0505	0.4700	0.0491	0.4574
20	24.00	1.1027	0.0470	0.5028	0.0426	0.4560
21	26.00	1.1739	0.0410	0.5365	0.0349	0.4570
22	28.00	1.2421	0.0323	0.5612	0.0260	0.4510
23	0.0	0.0655	0.0075	0.0179	0.1145	0.2733
24	0.0	0.0515	0.0075	0.0194	0.1456	0.3767

TEST PART MACH RX10-B CONF TRANSITION
5 30 1.00 1.8 F16 FIXED

POINT	ALPHA	CNF	CM	CB	XCPF	YCPF
1	-6.00	-0.1721	-0.0059	-0.0802	0.0343	0.4660
2	-4.00	-0.1194	-0.0045	-0.0612	0.0377	0.5126
3	-3.00	-0.0853	-0.0036	-0.0428	0.0422	0.5018
4	-2.00	-0.0421	-0.0022	-0.0263	0.0523	0.6247
5	-1.00	-0.0034	-0.0013	-0.0074	0.3824	2.1765
6	0.0	0.0356	-0.0004	0.0102	-0.0112	0.2865
7	1.00	0.0742	0.0010	0.0254	0.0126	0.3207
8	2.00	0.1134	0.0019	0.0425	0.0168	0.3748
9	3.00	0.1565	0.0032	0.0604	0.0204	0.3859
10	4.00	0.1908	0.0046	0.0803	0.0241	0.4209
11	6.00	0.2790	0.0073	0.1193	0.0263	0.4291
12	8.00	0.3605	0.0113	0.1581	0.0313	0.4386
13	10.00	0.4556	0.0162	0.1963	0.0356	0.4309
14	12.00	0.5399	0.0231	0.2376	0.0428	0.4401
15	14.00	0.6156	0.0301	0.2769	0.0489	0.4497
16	16.00	0.6941	0.0337	0.3109	0.0488	0.4479
17	18.00	0.7643	0.0346	0.3440	0.0453	0.4501
18	20.00	0.8300	0.0343	0.3779	0.0413	0.4553
19	22.00	0.9084	0.0326	0.4109	0.0359	0.4523
20	24.00	0.9773	0.0318	0.4431	0.0325	0.4534
21	26.00	1.0430	0.0314	0.4726	0.0301	0.4531
22	28.00	1.1094	0.0302	0.4996	0.0272	0.4501
23	0.0	0.0357	-0.0004	0.0088	-0.0112	0.2465
24	10.00	0.4540	0.0165	0.1971	0.0363	0.4341

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LANGLEY RESEARCH CENTER (NASA) UNITARY PLAN WIND TUNNEL (UPWT)
MARTIN MISSILE TAIL EFFECTS DATA
SPLITTER PLATE DATA

TEST PART WACH RK10-6 CONF TRANSITION
5 31 2.16 2.5 F16 FIXED

POINT	ALPHA	CMF	CM	CB	XCPF	YCPF
1	-6.00	-0.1087	-0.0028	-0.0528	0.0258	0.4857
2	-4.00	-0.0757	-0.0024	-0.0370	0.0317	0.4888
3	-3.00	-0.0426	-0.0021	-0.0234	0.0493	0.5493
4	-2.00	-0.0093	-0.0014	-0.0085	0.1505	0.9140
5	-1.00	0.0204	-0.0003	0.0040	-0.0144	0.1923
6	0.0	0.0507	0.0001	0.0186	0.0020	0.3669
7	1.00	0.0806	0.0008	0.0320	0.0099	0.3970
8	2.00	0.1139	0.0011	0.0458	0.0097	0.4021
9	1.00	0.0838	0.0008	0.0356	0.0095	0.4248
10	2.00	0.1104	0.0012	0.0476	0.0109	0.4312
11	3.00	0.1473	0.0019	0.0618	0.0129	0.4196
12	4.00	0.1770	0.0026	0.0773	0.0147	0.4367
13	6.00	0.2439	0.0037	0.1082	0.0152	0.4436
14	8.00	0.3140	0.0047	0.1403	0.0150	0.4468
15	10.00	0.3870	0.0065	0.1738	0.0168	0.4491
16	12.00	0.4588	0.0082	0.2058	0.0180	0.4505
17	14.00	0.5336	0.0103	0.2419	0.0193	0.4533
18	16.00	0.6177	0.0134	0.2745	0.0217	0.4444
19	18.00	0.6940	0.0178	0.3085	0.0256	0.4445
20	20.00	0.7700	0.0222	0.3446	0.0288	0.4475
21	22.00	0.8432	0.0235	0.3757	0.0279	0.4456
22	24.00	0.9103	0.0243	0.4074	0.0267	0.4475
23	26.00	0.9741	0.0240	0.4388	0.0246	0.4505
24	28.00	1.0355	0.0230	0.4679	0.0222	0.4519
25	0.0	0.0540	0.0004	0.0189	0.0074	0.3508

Listing of Part Numbers for the Tabulated Data of Test No. 1*

CONF	L	DELI	DEL2	DEL3	DEL4	PHI	TRANSITION	R x 10 ⁻⁶	α	β	Part Number																	
											M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞
											0.20	0.40	0.50	0.60	0.80	0.85	0.92	0.94	0.95	0.96	0.98	1.00	1.05	1.10	1.20	1.30		
B4WOF12	0	0	0	0	0	0	Unknown	2.3	Vary	0					(4)	5	(8)	9		10	(14)		15	(16)	17	18		
B4WOF13														(22)	24	(30)	31		32	(33)		34	(35)	(36)	(37)			
B4WOF16														(42)	43	(44)	45		46	(47)		48	(49)	(50)	(51)			
B4WOF22														(57)	58	(61)				(62)			(64)	(65)	(66)			
B4WOF23														(71)	72	(73)				(74)			(75)	(76)	(77)			
B4WOF21														(82)	83	(84)				(87)			(90)	(91)	(92)			
B4WOF35														(97)	98	(99)				(100)			(103)	(104)	(105)			
B4WOF34														(111)	112	(115)				(117)			(118)	(119)	(120)			
B4WOF33														(125)	126	(127)	128		129	(131)			(132)	(133)	(134)			
B4WOF32														(139)	140	(141)	142		143	(144)			(150)	(151)	(152)			
B4WOF31														(156)	157	(158)				(159)			(160)	(161)	(162)			
B4WOF11														(166)	167	(168)	169		170	(171)			(172)	(173)	(174)			
B2WOF0		OFF	OFF	OFF	OFF									(178)	179	(180)				(181)			(182)	(183)	(184)			
B5WOF0														(187)	188	(189)				(190)			(191)	(192)	(193)			
B4WOF0														(196)	197	(198)				(199)			(200)	(201)	(202)			
								Vary	23.5																			
									12.0																			
									9.0																			
									3.9	30.0															207			
									2.0																210			
																									211			
																									212			
																									213			
																									214			
																									215			
																									216			
																									217			
																									218			
																									219			
																									220			
																									221			
																									222			
																									223			

* No Tall Fin Data Presented

Listing of Part Numbers for the Tabulated Data of Test No. 2*

CONF	L	DEL1	DEL2	DEL3	DEL4	PHI	TRANSITION	R x 10 ⁻⁶	α	β	Part Number																														
											M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞	M _∞																					
											0.59	0.80	0.85	0.92	0.98	1.10	1.20	1.29	1.30																						
83WOF0	0	OFF	OFF	OFF	OFF	0	Free	0.3	Vary	0	5																														
											7																														
											8																														
											9																														
											10																														
											11																														
											12																														
											14																														
											15																														
											16																														
											83WOF15	0	0	0	0	0	180	Fixed	0.3			24																			
																						26																			
																						27																			
																						31																			
																						32																			
																						33																			
36																																									
37																																									
38																																									
39																																									
40																																									
41																																									
83WOF32	0					0	Free	0.4														47																			
																						48																			
																						49																			
																						50																			
											51										(57)	58	(59)	(60)	(61)	(62)	63														
83WOF14											(69)	70	(71)	(72)	(73)	(74)			(75)																						
83WOF21											(80)	81	(82)	(83)	(84)	(85)			(86)																						
83WOF36											(91)	92	(93)	(94)	(95)	(96)			(98)																						
83WOF32											(105)	106	(107)	(108)	(109)	(110)			(111)																						
						Splitter Plate Offset Angle																																			
BOWOF14	—	—	—	—	—	0	Free	2.5	Vary	—	(123)	155	(162)	(171)	(130)	(144)				(137)																					
													(163)																												
													(124)	156	(164)	(172)	(131)	(145)			(138)																				
													(125)	157	(165)	(173)	(132)	(146)			(139)																				
													(126)	158	(167)	(174)	(133)	(147)			(140)																				
													(127)	159	(168)	(175)	(134)	(148)			(141)																				
													(128)	160	(169)	(176)	(135)	(149)			(142)																				
													(129)	161	(170)	(177)	(150)	(143)																							
											BOWOF11						0					(184)	194	(201)	(272)	(279)	(287)			(294)											
																								(185)	195	(202)	(273)	(280)	(288)		(295)										
		(186)	196	(203)	(274)	(281)	(289)		(296)																																
		(187)	197	(204)	(275)	(282)	(290)		(297)																																
		(188)	198	(269)	(276)	(283)	(291)		(298)																																
BOWOF36						180					(190)	200	(271)	(278)	(286)	(293)			(300)																						
													(206)	215	(223)	(230)	(240)	(247)		(257)																					
																					(258)																				
													(209)	217	(224)	(231)	(241)	(248)		(259)																					
													(210)	218	(225)	(234)	(242)	(249)		(260)																					
													(211)	219	(226)	(235)	(243)	(250)		(261)																					
		(212)	220	(227)	(236)	(244)	(251)		(262)																																
		(213)	221	(228)	(237)	(245)	(252)		(263)																																
		(214)	222	(229)	(238)	(246)	(253)		(264)																																

* After Part Number 111, Only Splitter Plate Data Presented

Listing of Part Numbers for the Tabulated Data of Test No. 3*

CONF	L	DELI	DEL2	DEL3	DEL4	PHI	TRANSITION	R x 10 ⁻⁶	α	β	Part Number			
											M _∞	M _∞	M _∞	M _∞
											2.36	2.86	3.95	4.63
BIWOF35	0	0	0	0	0	0	Fixed	3.0	Vary	0	(19)	(22)	(24)	(25)
↓	↓	↓	↓	↓	↓	45	↓	↓	↓	↓	(20)	(21)	(23)	(26)
↓	↓	↓	-20	↓	-20	0	↓	↓	↓	↓	27	28	29	30
↓	↓	20	↓	20	↓	45	↓	2.5	↓	↓	31	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	↓	3.0	↓	↓	↓	32	33	34
BIWOF34	↓	↓	↓	↓	↓	↓	↓	2.5	↓	↓	35	↓	↓	↓
↓	↓	↓	↓	↓	↓	0	↓	3.0	↓	↓	↓	36	37	38
↓	↓	0	↓	0	↓	0	↓	↓	↓	↓	39	40	41	42
BIWOF33	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	43	44	45	46
↓	↓	20	↓	20	↓	45	↓	2.5	↓	↓	47	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	↓	3.0	↓	↓	↓	48	49	50
↓	↓	0	0	0	0	0	↓	2.9	↓	↓	(51)	↓	↓	↓
↓	↓	↓	↓	↓	↓	45	↓	↓	↓	↓	(52)	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	↓	3.2	↓	↓	↓	(53)	↓	↓
↓	↓	↓	↓	↓	↓	0	↓	↓	↓	↓	↓	(54)	↓	↓
↓	↓	↓	↓	↓	↓	45	↓	3.0	↓	↓	↓	↓	(55)	(58)
↓	↓	↓	↓	↓	↓	0	↓	↓	↓	↓	↓	↓	(56)	(57)
BIWOF34	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	(59)	(62)	(64)	(65)
↓	↓	↓	↓	↓	↓	45	↓	↓	↓	↓	(60)	(61)	(63)	(66)
BIWIF34	15.42	↓	↓	↓	↓	↓	↓	↓	↓	↓	68	69	71	74
↓	↓	↓	↓	↓	↓	0	↓	↓	↓	↓	(67)	(70)	(72)	(73)
↓	↓	0	-20	0	-20	↓	↓	↓	↓	↓	75	76	77	78
↓	↓	20	↓	20	↓	45	↓	2.5	↓	↓	79	↓	↓	↓
↓	↓	↓	↓	↓	↓	↓	↓	3.0	↓	↓	↓	80	81	82
BIWIFO	↓	OFF	OFF	OFF	OFF	↓	↓	↓	↓	↓	84	85	89	92
↓	↓	↓	↓	↓	↓	0	↓	↓	↓	↓	(83)	(86)	(90)	(91)
BIWOF0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	(93)	(94)	(95)	↓

* No Tail Fin Data Presented

Listing of Part Numbers for the Tabulated Data of Test No. 4*

CONF	L	DEL1	DEL2	DEL3	DEL4	PHI	TRANSITION	R x 10 ⁻⁶	α	β	Part Number			
											M _∞	M _∞	M _∞	M _∞
											2.36	2.86	3.95	4.63
B2WOF34	0	0	0	0	0	0	Fixed	3.0	Vary	0	(2)	(5)	(7)	(8)
↓						-90					3	4	6	9
B2WOF35						0					(12)	(11)	(13)	(10)
B2WOF33											(16)	(17)	(14)	(15)
B2WOF34			-20		-20						18	19	20	21
B2WOF35											22	23	24	25
B2WOF33												26		
↓		20	0	20	0	-90						28	29	30
↓								2.0			27			
B2WOF31								3.0			(34)	(35)	(36)	(37)
B2WOF32											(38)	(39)	(40)	(41)
B2WOF36											(43)	(42)	(44)	(45)

* No Tail Fin Data Presented

Listing of Part Numbers for the Tabulated Data of Test No. 5*

CONF	L	DEL1	DEL2	DEL3	DEL4	PHI	TRANSITION	R x 10 ⁻⁶	α	β	Part Number		
											M _∞	M _∞	M _∞
											1.50	1.80	2.16
BOWOF35	—	—	—	—	—	—	Fixed	1.8	Vary	—	(2)	(3)	
↓								2.5					(4)
BOWOF34								1.8			(5)	(6)	
↓								2.5					(7)
BOWOF31								1.8			(8)	(9)	
↓								2.5					(10)
BOWOF32								1.8			(11)	(12)	
↓								2.5					(13)
BOWOF36								1.8			(14)	(15)	
↓								2.5					(16)
BOWOF11								1.8			(17)	(18)	
↓								2.5					(19)
BOWOF15								1.8			(20)	(21)	
↓								2.5					(22)
BOWOF14								1.8			(23)	(24)	
↓								2.5					(25)
BOWOF13								1.8			(26)	(27)	
↓								2.5					(28)
BOWOF16								1.8			(29)	(30)	
↓								2.5					(31)

* Only Splitter Plate Data Presented

NOMENCLATURE

A	Streamwise length of beveled portion of fin leading edge, in. (see Fig. 6)
ALPHA (α)	Model angle of attack, deg
AR	Fin aspect ratio, b^2/S_F
B	Streamwise length of beveled portion of fin trailing edge, in. (see Fig. 6)
BETA (β)	Model angle of sideslip, deg
b	Tail fin span, measured from the root chord to the tip, in. (see Fig. 6)
CA	Axial-force coefficient, measured axial force/ $q_\infty S$
CAB	Base axial-force coefficient, $(p_\infty - p_b)/q_\infty$
CAF	Forebody axial-force coefficient, $CA - CAB$
CB	Splitter plate tail fin root bending-moment coefficient, fin bending moment/ $q_\infty S_F b$
CB1, CB2, CB3, CB4	Root bending-moment coefficient of tail fins No. 1, 2, 3, and 4, respectively, fin bending moment/ $q_\infty S_F b$
CH	Splitter plate tail fin hinge-moment coefficient, hinge moment/ $q_\infty S_F C_R$
CH1, CH2, CH3, CH4	Hinge-moment coefficients of tail fins No. 1, 2, 3, and 4, respectively, fin hinge moment/ $q_\infty S_F C_R$
CLL	Rolling-moment coefficient, rolling moment/ $q_\infty S d$
CLM	Pitching-moment coefficient, pitching moment/ $q_\infty S d$ (moment reference point located on centerline at 50 percent of model body length)
CLN	Yawing-moment coefficient, yawing moment/ $q_\infty S d$
CN	Normal-force coefficient, normal force/ $q_\infty S$

CNF	Splitter plate tail fin normal-force coefficient, fin normal force/ $q_{\infty} S_F$
CNF1, CNF2, CNF3, CNF4	Normal-force coefficient of tail fins No. 1, 2, 3, and 4, respectively, fin normal force/ $q_{\infty} S_F$
CONF	Model configuration identification
C_R	Tail fin root chord, in. (see Fig. 6)
C_T	Tail fin tip chord, in. (see Fig. 6)
C_Y	Side-force coefficient, side force/ $q_{\infty} S$
d	Model body maximum diameter, in. (see Fig. 3)
DEL1, DEL2, DEL3, DEL4	Deflection of tail fins No. 1, 2, 3, and 4, respectively, deg
L	Distance between model nose and the intersection of the wing leading edge with the body (measured parallel to the body centerline), in.
MACH (M_{∞})	Nominal free-stream Mach number
PART	Data indexing number
PHI	Model roll angle, deg
POINT	Data indexing number per part number
p_b	Average static pressure at model base, psfa
p_{∞}	Free-stream static pressure, psfa
q_{∞}	Free-stream dynamic pressure, psf
R	Nominal Reynolds number per foot
S	Maximum body cross-sectional area, ft ²
S_F	Tail fin planform area, ft ² (see Fig. 6)
TEST	Test identification number
T_R	Tail fin root thickness, in. (see Fig. 6)

TRANSITION	Transition identification
X	Distance from fin root chord leading edge to fin hinge line, in. (see Fig. 6)
XCP	Missile body center-of-pressure location, CLM/CN
XCPF	Splitter plate fin longitudinal center-of-pressure location, CH/CNF
XCPF1, XCPF2 XCPF3, XCPF4	Longitudinal center-of-pressure location of tail fins No. 1, 2, 3, and 4, respectively, hinge moment/fin normal force
YCPF	Splitter plate fin lateral center-of-pressure location, CB/CNF
YCPF1, YCPF2 YCPF3, YCPF4	Lateral center-of-pressure location of tail fins No. 1, 2, 3, and 4, respectively, root bending moment/fin normal force
Λ	Tail fin leading-edge sweep angle (see Fig. 6)
λ	Tail fin taper ratio, C_T/C_R