

ENTRY AERODYNAMICS

Miss Seq. No.	STS- No.	Orb. OV-	Notes	Entry Interface			Cross Range, nmi.	Max. Load Factor, g	Max. Dyn. Press., psf	First Roll Rev. Vel., fps	Term. Area Energy Mgmt				Approach and Landing			
				Velocity, fps	Flt. Pth. Angle, deg	Range, nmi.					I/F Range, nmi.	Load Factor, g	Max. Dyn. Press., psf	I/F Alt ft.	Glide Slope, deg	Velocity, Keas		
																Max.	Over thld	At MGTD
1	1	102		25,731.	-1.19	4372	228	1.6	217	18,310.	58.9	1.7	286	10,000	20	315	250	183
2	2	102		25,726.	-1.17	4474	63	1.61	215	20,297.	59.7	1.93	280	5,000	19	276	206	197
3	3	102		25,659.	-1.13	4136	276	1.62	220	17,784.	59.1	1.54	295	10,000	19	302	232	220
4	4	102		25,797.	-1.28	3817	581	1.77	241	11,461.	59.4	1.46	278	10,000	19	295	215	204
5	5	102		25,758.	-1.24	4036	580	1.59	219	11,397.	59.8	1.59	280	10,000	19	298	216	198
6	6	99		25,755.	-1.24	4045	378	1.53	207	15,808.	59.9	1.41	257	10,000	19	293	213	190
7	7	99		25,771.	-1.25	4040	738	1.59	220	7,143.	59.6	1.65	305	9,834	19	295	232	202
8	8	99		25,649.	-1.12	4037	519	1.54	223	12,900.	58.9	1.56	281	5,000	19	309	226	195
9	9	102		25,696.	-1.18	4349	69	1.6	232	21,581.	59.9	1.52	280	10,000	17	295	203	185
10	41B	99		25,752.	-1.2	4137	524	1.57	220	12,957.	59.4	1.59	289	10,000	19	292	218	196
11	41C	99		25,998.	-1.52	4089	381	1.54	216	16,208.	59.4	1.43	293	10,000	19	313	234	213
12	41D	103		25,776.	-1.26	4112	474	1.54	206	14,072.	60	1.42	265	10,000	19	299	227	200
13	41G	99		25,684.	-1.12	4308	614	1.54	241	11,927.	60.2	1.4	285	10,000	19	296	216	208
14	51A	103		25,869.	-1.35	4141	486	1.56	225	14,063.	60.5	1.46	285	10,000	19	299	217	186
15	51C	103		25,855.	-1.32	4144	380	1.54	211.8	16,118.	60.1	1.5	281	10,000	19	293	223	185
16	51D	103		25,955.	-1.45	4064	518	1.59	211.1	13,573.	60.9	1.4	294	10,000	19	301	215	200
17	51B	99		25,857.	-1.26	4264	274	1.57	241.6	18,500.	59.1	1.5	282	10,000	19	300	219	204
18	51G	103		25,850.	-1.34	4050	694	1.58	217.7	8,680.	59.3	1.6	218	5,000	19	301	0	198
19	51F	99		25,813.	-1.19	4221	603	1.58	235.6	11,537.	59.7	1.54	290	10,000	19	306	244	199
20	51I	103		25,829.	-1.31	4004	692	1.58	215.3	8,626.	59.7	1.56	274	10,000	19	307	204	191
21	51J	104	a															
22	61A	99		25,830.	-1.19	4345	69	1.55	241	22,257.	59.8	1.3	319	10,000	19	303	231	203
23	61B	104		25,882.	-1.35	4106	533	1.54	232	13,172.	59.1	1.4	286	10,000	19	293	224	189
24	61C	102		25,815.	-1.31	4154	661	1.56	224	9,480.	59.2	1.42	292	10,000	19	311	233	217
25	51L	99	a											0				
26	26	103		25,790.	-1.25	4117	383	1.56	203	15,774.	60	1.3	288	10,000	19	297	219	187
27	27	104		25,121.	-1.5	4220	520	1.61	206	14,564.6	60.2	1.4	294	10,000	19	297	211	194
28	29	103		25,787.	-1.23	4163	384	1.54	207	15,852.	60.1	1.6	287	10,000	19	307	218	205
29	30	104		25,788.	-1.22	4155	350	1.56	207	16,452.	60.08	1.5	287	9,957	19	295	206	196
30	28	102		25,803.	-1.11	4332	186	1.54	213	19,494.	58.8	1.6	295	10,000	19	299	224	155
31	34	104		25,784.	-1.19	4156	496	1.54	219	13,653.	60.1	1.7	286	10,000	19	305	220	195
32	33	103		25,998.	-1.48	4068	226	1.52	215	16,988.	60.2	1.5	301	10,000	19	300	211	199
33	32	102		25,823.	-1.25	4317	372	1.62	253	16,293.	58.8	1.7	295	10,000	17	300	230	207
34	36	104		25,713.	-1.18	4338	255	1.57	204	18,520.	59.5	1.9	325	5,000	19	298	218	199
35	31	103		26,120.	-1.61	4121	420	1.6	205	15,905.	60.2	1.54	279	10,000	19	299	194	177
36	41	103		25,762.	-1.2	4147	492	0	212.7	13,639.	60	1.67	291	9,777	19	306	224	192
37	38	104		25,729.	-1.16	4146	3	1.57	207	20,816.	60.3	1.42	273	9,819	19	301	218	199

a - Data not Available - DOD Mission
b - Report containing data not as yet published

Source: JSC/DM5 Flight Design and Dynamics Division
Descent Post-flight summarie

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Miss Seq. No.	STS- No.	Orb. OV-	Notes	Entry Interface			Cross Range, nmi.	Max. Load Factor, g	Max. Dyn. Press., psf	First Roll Rev. Vel., fps	Term. Area Energy Mgmt				Approach and Landing			
				Velocity, fps	Flt. Pth. Angle, deg	Range, nmi.					I/F Range, nmi.	Load Factor, g	Max. Dyn. Press., psf	I/F Alt ft.	Glide Slope, deg	Velocity, Keas		
																Max.	Over thld	At MGTD
38	35	102		25,858.	-1.32	4266	426	1.58	245.8	15,406.	59.15	1.59	279	8,052	17	300	217	201
39	37	104		24,612.	-1.4	4175	375	1.57	205	16,455.	59	1.66	276	5,048	19	288	161	168
40	39	103		25,765.	-1.06	4502	616	1.57	246.5	11,543.	60.2	1.5	295	9,862	19	302	222.1	218
41	40	102		25,772.	-1.23	4339	211	1.56	245.4	18,904.	58.9	1.7	298	10,014	17	311	218.6	203
42	43	104		25,794.	-1.16	4312	180	1.57	294	19,141.	60.3	1.4	223	10,000	19	295	221	197
43	48	103		26,077.	-1.58	4194	690	1.56	286	11,167.	59.9	1.5	217.5	10,000	19	297	219	203
44	44	104		25,868.	-1.28	4195	379	1.6	285	16,190.	60.5	1.74	222.5	9,833	19	295	222	189
45	42	103		25,785.	-1.12	4358	536	1.61	232	14,053.	59.6	1.4	308	10,000	19	310	229	196
46	45	104		25,785.	-1.13	4231	679	1.56	241.23	10,840.6	60.4	1.82	328	7,451	19	309	212	192
47	49	105		25,841.	-1.28	4162	410.8	1.56	215	15,850.	59.2	1.57	293	9,931	19	299	217	194
48	50	102		25,786.	-1.18	4347	389	1.51	248.4	15,984.3	59.7	1.51	313	9,885	17	311	229	203
49	46	104		25,698.	-0.99	4397	499	1.57	225	13,624.	59.7	1.45	299	9,869	19	303	216	195
50	47	105		25,803.	-1.11	4341	669	1.57	240.1	11,228.4	60.6	1.39	307	9,917	17	305	233	202
51	52	102		25,666.	-0.94	4454	223	1.58	247	18,350.	60.1	1.51	297	9,820	19	302	224	211
52	53	103		25,813.	-1.28	4237	791	1.56	210	7,202.	60	1.96	287	9,431	19	301	226	212
53	54	105		25,780.	-1.2	4213	320	1.56	211	17,043.	60.5	1.8	295	9,873	19	302	232	212
54	56	103		25,797.	-1.23	4375	6	1.63	227	21,354.	60.1	1.69	291	9,844	19	304	219	206
55	55	102		25,779.	-1.16	4299	640	1.56	260	10,463.	58.8	1.5	309	9,848	17	319	238	217
56	57	105		25,988.	-1.43	4210	587	1.58	252	12,389.	58.9	1.38	320	9,907	17	313	233	207
57	51	103		25,794.	-1.22	4250	89	1.56	221	20,253.	59.9	1.43	281	9,840	19	302	222	194
58	58	102		25,755.	-1.21	4378	144	1.58	250	19,625.	59.2	1.51	323	9,888	18	315	237	198
59	61	105		26,096.	-1.56	4220	3	1.54	231	21,281.	60.8	1.68	312	9,787	20	312	236	201
60	60	103		25,858.	-1.35	4349	376	1.57	230	16,900.	59.9	1.72	308	9,866	20	315	235	205
61	62	102		25,708.	-1.13	4391	116	1.59	250	19,802.	59.5	1.49	309	9,964	18	306	236	207
62	59	105		25,660.	-1.02	4468	721	1.57	252	9,331.	59.2	1.62	318	9,937	18	315	231	215
63	65	102		25,720.	-1.1	4381	180	1.59	265	19,114.	59	1.45	315	9,966	18	305	233	199
64	64	103		25,727.	-0.98	4433	110	1.54	228	20,344.	59.7	1.77	305	9,892	20	311	229	198
65	68	105		25,658.	-1.02	4479.5	746	1.57	258	8,686.	58.4	1.75	314	9,841	18	305	234	193
66	66	104		25,798.	-1.09	4387	310	1.58	251	17,796.	59.7	1.5	309	9,914	20	314	232	193
67	63	103		25,903.	-1.36	4329	469	1.56	243	15,176.	59.7	1.81	316	9,897	20	319	229	212
68	67	105		25,852.	-1.26	4216	628	1.56	242	10,780.	59.9	1.5	309	9,843	20	317	227	209
69	71	104		25,913.	-1.19	4320	645	1.6	245	11,299.	60	1.5	308	9,972	-20	311	221	201
70	70	103		25,789.	-1.14	4265	430	1.56	202	15,057.	60.1	1.35	297	9,805	-20	310	225	198
71	69	105		25,839.	-1.23	4332	202	1.59	255	18,979.	59.6	1.55	309	9,839	-18	309	233	201
72	73	102		25,744.	-1.1	4519	231	1.58	250	18,580.	59.6	1.56	319	9,939	-18	313	246	214
73	74	104		25,840.	-1.29	4346	612	1.58	237	12,026.	59.4	1.45	313	9,802	-20	321	233	196
74	72	105		25,799.	-1.17	4340	220	1.56	239	18,619.	60.2	1.7	309	9,891	-20	306	231	193

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				Velocity, fps	Flt. Pth. Angle, deg	Range, nmi.					I/F Range, nmi.	Load Factor, g	Max. Dyn. Press., psf	I/F Alt ft.	Glide Slope, deg	Velocity, Keas		
																Max.	Over thld	At MGTD
75	75	102		25,816.	-1.21	4375	234	1.58	256	18,518.	59.5	1.47	301	9,885	-18	321	243	211
76	76	104		25,898.	-1.4	4243	763	1.59	245	8,918.	59.3	1.57	303	9,908	-20	313	223	198
77	77	105		25,763.	-1.16	4378	314	1.6	240	17,534.	60.5	1.55	304	9,776	-18	309	234	216
78	78	102		25,749.	-1.11	4466	91	1.59	251	20,165.	59.9	1.48	308	9,920	-18	309	233	208
79	79	104		25,872.	-1.34	4276	777	1.56	251	8,360.	59.4	1.7	315	9,882	-20	309	232	217
80	80	102		25,877.	-1.29	4346	72	1.54	258	21,647.	60.2	1.66	316	9,932	-18	307	243	203
81	81	104		25,891.	-1.33	4428	34	1.57	245	21,700.	60.2	1.44	301	9,824	-20	307	236	195
82	82	103		26,120.	-1.57	4238	484	1.59	235	14,908.	60.4	1.46	313	9,791	-20	311	224	191
83	83	102		25,791.	-1.17	4402	56	1.55	280	21,390.	59.1	1.58	314	9,897	-18	319	238	197
84	84	104		25,906.	-1.31	4397	31	1.57	244	21,620.	60.5	1.48	305	9,886	-20	306	232	208
85	94	102		25,792.	-1.17	4396	82	1.56	249	20,441.	59.8	1.54	305	9,826	-18	306	236	202
86	85	103		25,755.	-0.98	4492	346	1.59	238	17,272.	60.2	1.42	298	9,829	-18	304	224	192
87	86	104		25,898.	-1.18	4380	376	1.56	258	16,778.	60	1.54	304	9,922	-20	309	228	194
88	87	102		25,670.	-1.11	4424	66	1.55	254	21,497.	60.4	1.57	304	9,820	-18	313	231	196
89	89	105		25,900.	-1.17	4341	600	1.56	257	11,999.	60.6	1.34	312	9,884	-20	308	231	198
90	90	102		25,758.	-1.15	4422	246	1.56	251	18,456.	60.7	1.54	316	9,828	-18	308	234	218
91	91	103		25,889.	-1.15	4418	317	1.56	238	17,719.	60.4	1.45	311	9,797	-18	308	225	207
92	95	103		26,063.	-1.52	4290	174	1.58	245	19,699.	60.4	1.67	312	9,852	-18	314	241	196
93	88	105		25,889.	-1.2	4343	153	1.57	224	19,934.	61.8	1.41	302	9,787	-21.5	312	234	197

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