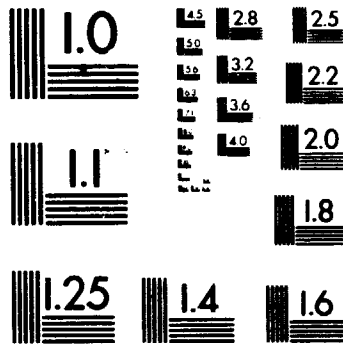


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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
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# Shuttle Flight Data and In-Flight Anomaly List

*IN-16  
5094*

## STS-1 through STS-50, and STS-52 through STS-56



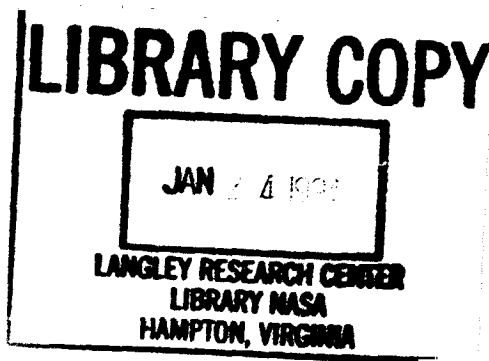
(NASA-CR-197667) SHUTTLE FLIGHT  
DATA AND IN-FLIGHT ANOMALY LIST.  
STS-1 THROUGH STS-50, AND STS-52  
THROUGH STS-56. REVISION T  
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Co.) 603 p

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### Revision T October 1993



**National Aeronautics and  
Space Administration**

**Lyndon B. Johnson Space Center  
Houston, Texas**

SHUTTLE  
FLIGHT DATA  
AND  
IN-FLIGHT ANOMALY LIST

STS-1 through STS-50,  
and STS-52 through STS-56


Prepared by:

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
LYNDON B. JOHNSON SPACE CENTER  
HOUSTON, TEXAS 77058

October 1993

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## SHUTTLE FLIGHT DATA

This section of the report is a listing of Shuttle data gathered during the mission evaluation process and is presented chronologically.

Changes to the report for this revision include an update of all relevant sections to include flight data from STS-1 through STS-50, and STS-52 through STS-56.

With the loss of the Orbiter OV-099, three Orbiters were left in the Space Shuttle operational fleet. However, manufacture of OV-105 was completed in 1991 and this returned the fleet to four Orbiters. The Orbiters are referred to in this document by their respective end item designation; e.g. OV-099, OV-102, OV-103, OV-104, or OV-105. These Orbiters have also been christened with names of historical vessels of exploration and these are included herein for reference:

OV-099	Challenger
OV-102	Columbia
OV-103	Discovery
OV-104	Atlantis
OV-105	Endeavour

Significant contributions were made by organizations at JSC, KSC, MSFC, Lockheed Engineering and Sciences Company, and Rockwell International Corporation as noted in listing of data sources.

This report will be updated and published periodically, usually on a quarterly basis. Where refinements to previously published data are available, such data refinements will be included. Comments concerning accuracy, format, contents, deletions or additions are solicited and should be provided to D. W. Camp, JSC/VF, telephone 713-483-3317, facsimile 713-483-2080.



**SHUTTLE FLIGHT HISTORIES  
LAUNCH AND LANDING DATES AND TIMES**

Miss. Seq. No.	STS- No.	Orb. Ov-Flt.	Launch Site	Launch Date*	Launch Time, G.M.T., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time, G.M.T., MSTD, day:hr:min:sec	Flight Duration, lift-off to MSTD, day:hr:min:sec*	Orbital Data	
										Alt.** nmi.	Incl., deg
1	1	102 1	KSC	4/10/81spd 4/12/81a	101:23:50:00s 102:12:00:03.9a	EAFB	4/14/81	104:18:20:57	2:06:20:53	145	40.3 37
2	2	102 2	KSC	10/09/81s 11/04/81rspd 11/12/81a	316:12:20:00s 316:15:00:00s 316:15:09:59.8a	EAFB	11/14/81	318:21:23:11	5:04:00s 2:06:13:11a	137	38.0 84s 37a
3	3	102 3	KSC	3/22/82a	081:15:00:00s 081:16:00:00a	EAFBs NORFAs	3/30/82	89:16:04:46	7:03:25s 8:00:04:46a	128	38.0 116s 130a
4	4	102 4	KSC	6/27/82a	178:15:00:00a	EAFB	7/04/82	185:16:09:31	7:01:09:31	172	28.45 113
5	5	102 5	KSC	11/11/82a	315:12:19:00a	EAFB	11/16/82	320:14:33:26	5:02:14:26	160	28.45 82
6	6	099 1	KSC	1/20/83spd 4/04/83a	094:18:30:00a	EAFB	4/09/83	99:18:53:42	5:00:23:42	155	28.45 81
7	7	099 2	KSC	6/09/83rs 6/18/83a	169:11:33:00a	KSCs EAFBs	6/14/83	175:13:56:59	5:23:20a 6:02:23:59a	170	28.45 96s 98a
8	8	099 3	KSC	8/04/83ss 8/20/83rspd 8/30/83a	242:06:15:00s 242:06:32:00a (darkness)	EAFB	9/05/83	248:07:40:43 (darkness)	6:01:08:43	166	28.45 98
9	9	102 6	KSC	9/30/83spd 11/28/83a	332:16:00:00a	EAFB	12/08/83	342:23:47:24	9:11:00 s 10:07:47:24a	135	57.0 146s 167a
10	41B (11)	099 4	KSC	1/29/84spd 2/03/84a	034:13:00:00a	KSC	2/11/84	042:12:15:55	7:23:15:55	176	28.45 128
11	41C (13)	099 5	KSC	4/04/84spd 4/06/84a	097:13:58:00a	KSCs EAFBs	4/13/84	104:13:38:07	6:00:00s 6:23:40:07a	272	28.45 92a 108a

\*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited during January 1993.

\*\* = Highest apogee on orbit Note: Numbers in parentheses in STS No. column refer to flight planning numbers.

**SHUTTLE FLIGHT HISTORIES  
LAUNCH AND LANDING DATES AND TIMES**

Miss. Seq. No.	STS No.	Orb. OV-Flt.	Launch Site	Launch Date*	Launch Time, G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time, G.m.t., MSTD, day:hr:min:sec	Flight Duration, lift-off to MSTD, day:hr:min:sec*	Orbital Data		
										Alt**	Incl., deg	Land. Rev.
12	41D (14)	103 1	KSC	6/25/84spd	243:12:35:00a 243:12:41:50a	EAFB	9/05/84	249:13:37:54	6:00:56:04	179	28.45	97
				6/26/84spd								
				8/29/84rspd								
				8/30/84a								
13	41G (17)	099 6	KSC	10/1/84ss 10/5/84a	279:11:03:00	KSC	10/13/84	287:16:26:38	8:05:23:38	190	57.0	133
14	51A (19)	103 2	KSC	11/7/84spd 11/8/84a	313:12:15:00	KSC	11/16/84	321:11:59:56	7:23:44:56	195	28.45	127
15	51C (20)	103 3	KSC	1/23/85spd 1/24/85a	024:19:50:00	KSC	1/27/85	027:21:23:23	3:01:33:23a	N/A	28.45	49
16	51D (23)	103 4	KSC	4/12/85	102:13:04:00a 102:13:59:05a	KSC	4/19/85	109:13:54:28	5:00:11:00a 6:23:55:23a	251	28.45	79a 110a
17	51B (24)	099 7	KSC	4/29/85	119:16:00:00a 119:16:02:18a	EAFB	5/6/85	126:16:11:04	6:20:58:00a 7:00:08:46a	193	57.0	109a 111a
18	51G (25)	103 5	KSC	6/17/85	168:11:33:00a	EAFB	6/24/85	175:13:11:52	7:01:38:52	209	28.45	112
19	51F (26)	099 8	KSC	7/12/85spd 7/29/85a	210:19:23:00a 210:21:00:00a	EAFB	8/06/85	218:19:45:26	7:22:45:26	173	49.5	110a 127a
20	51I (27)	103 6	KSC	8/24/85spd 8/25/85rspd 8/27/85a	239:10:55:00a 239:10:58:01a	EAFB	9/03/85	246:13:15:43	7:02:17:42	242	28.45	127a 112a
21	51J (28)	104 1	KSC	10/3/85	276:15:15:30	EAFB	10/7/85	280:17:00:08	4:01:44:38	278	28.5	64
22	61A (30)	099 9	KSC	10/30/85	303:17:00:00	EAFB	11/6/85	310:17:44:53	7:00:44:53	180	57.0	112

\*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in January 1993.  
\*\* = Highest apogee on orbit Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

SHUTTLE FLIGHT HISTORIES  
LAUNCH AND LANDING DATES AND TIMES

Miss. Seq. No.	STS- No.	Orb. OV- Flt.	Launch Site	Launch Date*	Launch Time, G.m.t., day:hr:min:sec* (Darkness)	Landing Site*	Landing Date	Landing Time, G.m.t., MSTD, day:hr:min:sec	Flight Duration, lift-off to MSTD, day:hr:min:sec	Orbital Data	
										Alt** Incl., Land. deg	nm.
23	61B (31)	104 2	KSC	11/26/85	331:00:29:00 (Darkness)	EAFB	12/3/85	337:21:33:49	6:21:04:49	209	28.45 109
24	61C (32)	102 7	KSC	12/18/85spd 12/19/85spd 1/6/86spd 1/7/86spd 1/9/86spd 1/10/86spd 1/12/86a	012:11:55:00	KSCs EAFBs	1/17/86e 1/18/86a	018:13:58:51 (predawn)	6:02:03:51	165	28.45 98
25	51L (33)	099 10	KSC	1/23/86spd 1/24/86spd 1/25/86spd 1/27/86spd 1/28/86spd 1/28/86a	028:14:38:00s 028:16:38:00a	N/A	N/A	N/A	N/A	N/A	N/A N/A
26	26	103 7	KSC	9/29/88a	273:15:13:59s 273:15:37:00a	EAFB	10/3/88	277:16:37:11	4:01:00:11	178	28.5 64
27	27	104 3	KSC	12/1/88rapd 12/2/88a	336: (classified)s 337:14:30:34a	EAFB	12/6/88	341:23:36:11	4:09:05:37	N/A DOD	57.0 DOD
28	28	103 8	KSC	3/13/89a	072:13:11:00s 072:14:57:00a	EAFB	3/18/89	077:14:35:50	4:23:38:50	163	28.45 80
29	30	104 4	KSC	4/28/89rapd 5/04/89a	118:18:24:00s 124:18:46:59a	EAFB	5/8/89	128:19:43:26	4:00:56:27	161	28.85 65
30	28	102 6	KSC	8/8/89a	220 (classified)s 220:12:37:00a	EAFB	8/13/89	225:13:37:08	5:01:00:08	166	57.00 81
31	34	104 5	KSC	10/18/89a	291:16:57:40a	EAFB	10/23/89	296:16:33:01	4:23:39:21	177	34.30 80

\*s = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in January 1993.

\*\* = Highest apogee on orbit Note: Numbers in parentheses in STS No. column refer to flight planning numbers.

N/A = Not Available

**SHUTTLE FLIGHT HISTORIES  
LAUNCH AND LANDING DATES AND TIMES**

Miss. Req. No.	STS- No.	Orb. OV- Pit.	Launch Site	Launch Date*	Launch Time, G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time, G.m.t., MSTD, day:hr:min:sec	Flight Duration, lift-off to MSTD, day:hr:min:sec*	Orbital Data		
										Alt.** nmi.	Incl., deg	Land. Rev.
32	33	103 9	KSC	11/22/89a	327(Classified)s 327:00:23:30a	EA7B	11/28/89	332:00:30:18	5:00:06:48	302	28.45	79
33	32	102 9	KSC	12/18/89pd 1/8/90pd 1/9/90a		EA7B	1/20/90	020:09:35:36 (darkness)	10:21:00:36	178	28.50	172
34	36	104 6	KSC	2/22/90pd 2/28/90a	009:12:35:00a 059:07:50:22a	EA7B	3/4/90	063:18:08:44	4:10:18:22	132	62.5	72
35	31	103 10	KSC	4/10/90pd 4/24/90a	114:12:33:00s 114:12:33:51a	EA7B	4/29/90	119:13:49:57	5:01:16:06	330	28.45	80
36	41	103 11	KSC	10/06/90 <sup>a</sup>	279:11:35:00 <sup>b</sup> 279:11:45:43 <sup>pd</sup> 279:11:45:53 <sup>pd</sup> 279:11:47:15 <sup>a</sup>	EA7B	10/10/90	283:13:57:19	4:02:10:04	160	28.45	66
37	38	104 7	KSC	11/15/90 <sup>a</sup>	319(classified) <sup>b</sup> 319:23:48:15.006 <sup>a</sup>	EA7B <sup>b</sup> KSC <sup>a</sup>	11/29/90	324:21:42:46	4:21:54:31	142	28.5	79
38	35	102 10	KSC	12/2/90 <sup>a</sup>	336:06:28:00 <sup>b</sup> 336:06:49:01.02 <sup>a</sup>	EA7B	12/11/90	345:05:54:09 (darkness)	8:23:05:08	190	28.45	144
39	37	104 8	KSC	4/5/91spd 4/5/91a	095:14:18:00s 095:14:22:44.988a	EA7B	4/11/91	101:13:55:29	05:23:32:44	248	28.45	93
40	39	103 12	KSC	4/23/91rspd 4/28/91a	118:11:01:00s 118:11:33:14.018a	EA7B <sup>b</sup> KSC <sup>a</sup>	5/6/91	126:18:55:37	08:07:22:23	140	57.0	134
41	40	102 11	KSC	5/22/91rspd 6/11/91rspd 6/5/91a	156:13:24:51.008a	EA7B	6/14/91	165:15:39:11	09:02:14:20	157	39.0	146
42	43	104 9	KSC	7/24/91spd 8/01/91spd 8/02/91a	214:15:01:59.986 <sup>b</sup>	KSC	8/11/91	223:12:23:25	08:21:21:25	174	28.45	142

\*a = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in January 1993.

\*\* = Highest apogee on orbit

N/A = Not Available

**SHUTTLE FLIGHT HISTORIES  
LAUNCH AND LANDING DATES AND TIMES**

Miss. Seq. No.	STS- No.	Orb. OV- Fit.	Launch Site	Launch Date*	Launch Time, G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time, G.m.t., MSTD, day:hr:min:sec (darkness)	Flight Duration, lift-off to MSTD, day:hr:min:sec	Orbital Data		
										Alt.** nmi.	Incl., deg	Land. Rev.
43	48	103 13	KSC	9/12/91 <sup>a</sup>	255:23:11:04.005 <sup>a</sup>	KSC <sup>a</sup> EAPB <sup>a</sup>	9/18/91	261:07:38:42 (darkness)	05:08:27:38	313	57.0	81
44	44	104 10	KSC	11/19/91rs 11/24/91a	328:23:44:00.006a	KSC <sup>a</sup> EAPB <sup>a</sup>	12/1/91	335:22:34:44	06:22:50:44	197	28.5	110
45	42	103 14	KSC	1/22/92pd	022:14:52:32.992	EAPB	1/30/92	030:16:07:17	08:01:14:44	163	57.0	129
46	45	104 11	KSC	3/24/92	084:13:13:39.991	KSC	4/2/92	093:11:23:08	08:22:09:28	160	57.0	143
47	49	105 1	KSC	5/7/92	128:23:40:00.019	EAPB	5/16/92	137:20:57:38	08:21:17:38	195	28.35	141
48	50	102 12	KSC	6/25/92	177:16:12:22.997	KSC	7/9/92	191:11:42:27	13:19:30:04	160	28.45	221
49	46	104 12	KSC	7/31/92	213:13:56:48.011	KSC	8/8/92	221:13:11:51	07:23:15:03	230	28.45	127
50	47	105 2	KSC	9/12/92	256:14:23:00.010	KSC	9/20/92	264:12:53:23	07:22:30:23	166	57.0	126
51	52	102 13	KSC	10/22/92	296:17:09:39.007	KSC	11/1/92	306:14:05:52	09:20:56:13	163	28.45	159
52	53	103 15	KSC	12/2/92	337:13:23:59.993	KSC <sup>a</sup> EAPB <sup>a</sup>	12/9/92	344:20:43:47	07:07:19:47	174	57.0	116
53	54	105 3	KSC	1/13/93	013:13:59:29.989	KSC	1/19/93	019:13:37:49	05:23:38:19	165	28.45	96

\* = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in January 1993.

\*\* = Highest apogee on orbit. N/A = Not Available

SHUTTLE FLIGHT HISTORIES  
LAUNCH AND LANDING DATES AND TIMES

Miss. Seq. No.	STS- No.	Orb. OV- Flt.	Launch Site	Launch Date*	Launch Time, G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time, G.m.t., MSTD, day:hr:min:sec	Flight Duration, lift-off to MSTD, day:hr:min:sec*	Orbital Data		
										Alt.** nmi.	Incl. deg	Land. Rev.
54	56	103 16	KSC	4/6/93rspd 4/8/93a	098:05:28:59.986	KSC	4/17/93	107:11:37:24	09:06:08:24	160	57.0	148
55	55	102 14	KSC	3/22/93rspd 4/24/93rspd 4/28/93a	116:14:50:00.017	KSC <sup>a</sup> EAFB <sup>a</sup>	5/6/93	1:6:14:29:59	09:23:39:59	163	28.45	160
56	57	105 4	KSC	6/20/93rspd 6/21/93a	172:13:07:21.989	KSC	7/1/93	182:12:52:16	09:23:44:54	252	28.45	155
57	51	103 17	KSC	7/17/93rspd 7/24/93rspd 8/12/93rspd 9/12/93a	255:11:45:00.006	KSC	9/22/93	265:07:56:11	09:20:11:11	160	28.45	157

\* = scheduled; rs = rescheduled; a = actual; pd = pad delay occurring after vehicle is on the launch pad. All times were audited in January 1993.

\*\* = Highest apogee on orbit.

M/A = Not Available

SHUTTLE FLIGHT HISTORIES  
CREW MEMBERS

Miss Seq No.	STS-Orb No. OV-	Commander, No. Flts.	Pilot, No. Flts.	Mission Specialist 1, No. Flts.	Mission Specialist 2, No. Flts.	Mission Specialist 3, No. Flts.	Payload Specialist 1, No. Flts.	Payload Specialist 2, No. Flts.	Operational Crew- Person Hours, h:m:s Mission/Cumulative
1	102	John W. Young USN Ret. 1	Robert L. Crippen USN Capt. 1						108:41:46* 108:41:46*
2	102	Joe Henry Engle USAF Col. 1	Richard H. Truly USN Capt. 1						108:26:22* 217:08:08*
3	102	Jack R. Lousma USMC Col. 1	C. Gordon Fullerton USAF Col. 1						384:09:32* 601:17:40*
4	102	Thomas K. Mattingly USN Capt. 1	Henry W. Hartsfield, Jr. USAF Ret. 1						338:19:02* 939:36:42*
5	102	Vance D. Brand Civ. 1	Robert F. Overmyer USAF Col. 1	Joseph P. Allen Civ. PhD 1	William B. Lenoir Civ. PhD 1				488:57:44 1,428:34:26
6	099	Paul J. Waits USN Ret. 1	Karol J. Bobko USAF Col. 1	Donald H. Peterson USAF Ret. 1	F. Story. Musgrave Civ. MD PhD 1				481:34:48 1,910:09:14
7	099	Robert L. Crippen 2nd Capt. 2	Frederick H. Hauck USN Capt. 1	Sally K. Ride Civ. PhD. 1	John N. Fabian USAF Col. 1	Norman E. Thagard Civ. MD 1			731:59:55 2,642:09:09
8	099	Richard H. Truly USN Capt. 2	Daniel C. Brandenstein USN Cdr. 1	Dale A. Gardner, USN Lt.Cdr. 1	Guion S. Bluford, USAF Lt.Col. 1	William E. Thornton Civ. MD 1			725:43:35 3,367:52:44
9	102	John W. Young USN Ret. 2	Brewster E. Shaw, Jr. USAF, Major 1	Owen K. Garriott Civ. PhD 1	Robert A. Parker Civ. PhD 1		Byron K. Lichtenberg Civ. PhD 1	Ulf Merbold Civ. PhD 1	1,486:44:24 4,854:37:08
10	41B	Vance D. Brand Civ. 2	Robert L. Gibson USN Lt.Cdr 1	Bruce McCandless USN Capt 1	Robert L. Stewart USA Lt.Col. 1	Ronald E. McNair Civ. PhD. 1			956:19:25 5,810:56:43
11	41C	Robert L. Crippen USN Capt. 3	Francis R. (Dick) Scoobee USAF Ret. 1	George D. Nelson Civ. PhD. 1	James D. Van Hoften Civ. PhD 1	Terry J. Hart Civ. 1			838:20:35 6,649:17:18

Note: \*\* = DDT & E Program  
\*\* = All times were audited in January 1993.

Source: STS Mission Reports published by JSC/VP

SEATTLE FLIGHT HISTORIES  
CREW MEMBERS

Miss STS- Seq No.	Orb OV-	Commander, No. Flts.	Pilot, No. Flts.	Mission Specialist 1 No. Flts.	Mission Specialist 2 No. Flts.	Mission Specialist 3 No. Flts.	Payload Specialist 1, No. Flts.	Payload Specialist 2, No. Flts.	Operational Crew- Person Hours, h:m:s Mission/Cumulative
12	41D	Henry W. Hartfield, Jr. USAF Ret. 2	Michael L. Coats USAF Cdr. 1	Judith A. Resnik Civ. PhD 1	Steven A. Hawley Civ. PhD 1	Richard H. Mullane USAF Lt. Col. 1	Charles Walker Civ. 1		869:36:24 7,518:53:42
13	41G	Robert L. Crippen USAF Capt. 4	Jon A. McBride USAF Cdr. 1	Kathryn D. Sullivan Civ. PhD 1	Sally K. Ride Civ. PhD 2	David C. Leestma USAF Lt. Cdr. 1	Marc Garneau Canada Cdr. RCN 1	Paul D. Scully-Power Civ. 1	1,381:45:26 8,900:39:08
14	51A	Frederick H. Hauck USAF Capt. 2	David H. Walker USAF Cdr. 1	Anna L. Fisher Civ. MD 1	Dele A. Gardner USAF Cdr. 2	Joseph P. Allen Civ. PhD 2			958:44:40 9,859:23:48
15	51C	Thomas K. Mattingly USAF Capt. 2	Loren J. Shriver USAF Lt. Col. 1	Ellison S. Onizuka USAF Maj. 1	James P. Buchli USMC Lt. Col. 1		Gary E. Payton USAF Maj. 1		367:46:55 10,227:10:43
16	51D	Karol J. Bobko USAF Col. 2	Donald E. Williams USAF Cdr. 1	M. Rhea Seddon Civ. MD 1	Jeffery A. Hoffman Civ. PhD 1	S. David Griggs Civ. 1	Charles D. Walker Civ. 2	E. J. "Jake" Garn U.S. Senator 1	1,175:27:41 11,402:38:24
17	51B	Robert P. Overmyer USMC Col. 2	Frederick D. Gregory USAF Col. 1	Don Leslie Lind Civ. PhD 1	Norman E. Thagard Civ. MD 2	William E. Thornton Civ. MD 2	Lodewijk van den Berg Civ. PhD 1	Taylor G. Wang Civ. PhD 1	1,177:01:22 12,579:39:46
18	51G	Daniel C. Brandenstein USAF Capt. 2	John O. Creighton USAF Cdr. 1	Shannon W. Lucid Civ. PhD 1	John M. Fabian USAF Col. 2	Steven R. Nagel USAF Lt. Col. 1	Patrick Baudry France Lt. Col. FAF 1	Sultan Salmaan Al-Saud Saudi Arabia Civ. 1	1,187:32:04 13,767:11:50
19	51F	C. Gordon Fullerton USAF Col. 2	Roy D. Bridges, Jr. USAF Col. 1	F. Story Musgrave Civ. MD 2	Anthony W. England Civ. PhD 1	Karl G. Henise Civ. PhD 1	Loren W. Acton Civ. PhD 1	John-David F. Bartoe Civ. PhD 1	1,335:18:02 15,102:29:52
20	51I	Joe Henry Engle USAF Col. 2	Richard O. Covey USAF Lt. Col. 1	James D. A. van Hoften Civ. PhD 2	John H. Lounge Civ. 1	William F. Fisher Civ. MD 1			851:28:30 15,953:58:22

\* - All times were audited in January 1993.

Source: STS Mission Reports published by JSC/AF



SHUTTLE FLIGHT HISTORIES  
CREW MEMBERS

Miss Seq No.	STS- Orb OV-	Commander No. Flts.	Pilot, No. Flts.	Mission Specialist No. Flts.	Mission Specialist No. Flts.	Mission Specialist No. Flts.	Mission Specialist No. Flts.	Payload Specialist No. Flts.	Payload Specialist No. Flts.	Operational Crew- Person Hours, h:m:s, Mission/Cumulative
21	51J 104	Karol J. Bobko USAF Col. 3	Ronald J. Grabe USAF Lt. Col. 1	David C. Hilmers USMC Maj. 1	Robert L. Stewart USA Col. 2	William A. Pailes USAF Maj. 1	William A. Pailes USAF Maj. 1			488:43:10 16,442:41:32
22	61A 099	Henry W. Hartsfield, Jr. USAF Ret. 3	Steven R. Magel USAF Lt. Col. 3	James F. Buchli USMC Col. 2	Guion S. Bluford, Jr. USAF Col. 2	Bonnie J. Dunbar Civ. PhD 1	Reinhard Furrer Civ. PhD Germany 1	Ernst Messerschmid Civ. PhD Germany 1	Wubbo J. Ockels Civ. PhD Netherlands 1	1,349:59:04 17,792:40:36
23	61B 104	Brewster H. Shaw, Jr. USAF Lt. Col. 2	Bryan O. O'Connor USMC Col. 1	Mary L. Cleave Civ. PhD 1	Sherwood C. Spring USA Lt. Col. 1	Jerry L. Ross USAF Maj. 1	Rodolfo Meri Vela Mexico Civ. PhD 1	Charles D. Walker Civ. 3		1,155:33:43 18,948:14:19
24	61C 102	Robert L. Gibson USN Cdr. 2	Charles F. Borden, Jr. USMC Lt. Col. 1	Franklin R. Chang-Diaz Civ. PhD 1	Steven A. Hawley Civ. PhD 2	George D. Nelson Civ. PhD 2	Robert J. Cenker Civ. 1	Bill Nelson US Congress 1		1,022:26:57 19,970:41:16
25	51L 099	Francis R. (Dick) Scobee USAF Ret. 2	Michael J. Smith USN Cdr. 1	Judith A. Resnik Civ. PhD 2	William S. Onizuka USAF Lt. Col. 2	Ronald E. McNair Civ. PhD 2	Gregory B. Jarvis Civ. 1	Sharon Christa McNuliffe Civ. 1		N/A 19,970:41:16
26	26 103	Frederick H. Hauck USN Capt. 3	Richard O. Covey USAF Col. 2	John M. Lounge Civ. 2	George D. Nelson Civ. PhD. 3	David C. Hilmers USMC Lt. Col. 2				485:00:55 20,455:42:11
27	27 104	Robert L. Gibson USN Cdr. 3	Guy S. Gardner USAF Lt. Col. 1	Richard M. Millane USAF Col. 2	Jerry L. Ross USAF Maj. 2	William M. Shepherd USN Cdr. 1				525:28:05 20,981:10:16
28	28 103	Michael L. Coats USN Capt. 2	John E. Blaha USAF Col. 1	James P. Begian Civ. M.D. 1	James F. Buchli USMC Col. 3	Robert C. Springer USMC Col. 1				598:14:10 21,579:24:26
29	29 104	David M. Walker USN Capt. 2	Ronald J. Grabe USAF Col. 2	Norman E. Thagard Civ. MD 3	Mary L. Cleave Civ. PhD 2	Mark C. Lee USAF Maj. 1				484:42:15 22,064:06:41
30	30 28	Brewster H. Shaw USAF Col. 3	Richard M. Richards USN Cdr. 1	James C. Adams USA Lt. Col. 1	David C. Leeston USN Cdr. 2	Mark H. Brown USAF Lt. Col. 1				605:00:40 22,669:07:21

Source: STS Mission Reports published by JSC/PT

N/A = Not Applicable  
\* = All times were audited in January 1993.

SHUTTLE FLIGHT HISTORIES  
CREW MEMBERS

Miss Seq No.	STS- OV- No.	Commander, No. Flts.	Pilot, No. Flts.	Mission Specialist, No. Flts.	Mission Specialist, No. Flts.	Mission Specialist, No. Flts.	Mission Specialist, No. Flts.	Mission Specialist, No. Flts.	Mission Specialist, No. Flts.	Mission Specialist, No. Flts.	Operational Crew- Person Hours, h:m:s Mission/Cumulative
31	34	Donald E. Williams USN Capt. 2	Michael J. McCulley USN Cdr. 1	Franklin R. Chang-Diaz Civ. PHD. 2	Shannon W. Lucid Civ. PHD. 2	Ellen S. Baker Civ. MD 1					596:16:45 23,267:24:06
32	33	Fredrick Gregory USAF Col. 2	John E. Blaha USAF Col. 2	Story Musgrave Civ. MD, PHD 3	Manley L. Carter USN Cdr 1	Kathryn Thornton Civ. PHD. 1					600:34:00 23,867:58:06
33	32	Daniel C. Brandenstein USN Capt. 3	James D. Wetherbee USN Cdr. 1	Bonnie J. Dunbar Civ. PHD. 2	G. David Low Civ. PHD. 1	Marsha S. Ivins Civ. 1					1305:03:00 25,173:01:06
34	36	John O. Creighton USN Capt. 2	John H. Casper USAF Col. 1	Richard M. Mullane USAF Col. 3	David C. Hilmer USMC Lt. Col 3	Pierre J. Thuot USN Lt. Cdr. 1					531:31:50 25,704:32:56
35	31	Loren J. Shriver USAF Col. 2	Charles F. Balden USMC Col. 2	Steven A. Hawley Civ. PHD. 3	Bruce McCandless USN Capt. 2	Kathryn D. Sullivan Civ. PHD 2					606:20:30 26,310:53:26
36	30	Richard N. Richards USN Capt. 2	Robert D. Cabana USMC Lt. Col. 1	William M. Shepherd USN Capt. 2	Bruce E. Malnick USCG Cdr. 1	Thomas D. Akers USAF Major 1					490:50:20 26,801:43:46
37	38	Richard O. Covey USAF Col. 3	Frank L. Culbertson USN Capt. 1	Robert C. Springer USMC Col. 2	Carl J. Weade USAF Major 1	Charles D. Gemat USA Capt. 1					589:32:35 27,391:16:21
38	35	Vance D. Brand Civ. 3	Guy S. Gardner USAF Col. 2	Jeffrey A. Hoffman Civ. PHD. 2	John M. Lounge Civ. 3	Robert A. Parker Civ. PHD 2					1505:35:56 28,896:52:17
39	37	Steven R. Nagel USAF Col. 3	Kenneth D. Cameron USMC Lt. Col 1	Jerry L. Ross USAF Lt Col 3	Jerome (Jay) Apt PHD. 3	Linda M. Godwin Ph.D. 1					717:43:40 29,614:35:57
40	39	Michael L. Coats USN Capt. 3	L. Blaine Hammond USAF Lt. Col 1	Guion S. Liufoord USAF Col. 3	Gregory G. Harbaugh Civ. 1	Richard J. Hieb Civ. 1					1395:36:41 31,010:12:38
41	40	Bryan D. O'Connor USMC Col. 2	Sidney M. Gutierrez USAF Lt. Col 1	M. Rhea Seddon M.D. 2	James P. Baglan M.D. 2	Tamara E. Jernigan M.D. 1					1527:40:20 32,537:52:58

\* = All times were audited in January 1993.

Source: STS Mission Reports published by JSC/WF

SHUTTLE FLIGHT HISTORIES  
CREW MEMBERS

Miss Seq No.	STS- Orb OV-	Commander, No. Flts.	Pilot, No. Flts.	Mission Specialist No. Flts.	Mission Specialist No. Flts.	Mission Specialist No. Flts.	Mission Specialist No. Flts.	Mission Specialist No. Flts.	Mission Specialist No. Flts.	Operational Crew- Person Hours, h:m:s Mission/Cumulative
42	43	John E. Blaha USAF Col. 3	Michael A. Baker USN Cdr. 1	Shannon W. Lucid Ph.D. 3	James W. Adanson USA Col. 2	G. David Lov Civ. 2	James S. Voss USA Lt. Col. 1	Thomas J. Hennen USA CWO-3 1	Ulf D. Marbold Civ. PhD 2	1066:47:05 33,604:40:03
43	48	John O. Creighton USN Capt. 3	Kenneth O. Reightler USN Cdr. 1	James F. Buchli USMC Col. 4	Charles D Gennar USAF Lt Col 2	Mark M. Brown USAF Col 2	James S. Voss USA Lt. Col. 1	Thomas J. Hennen USA CWO-3 1	Ulf D. Marbold Civ. PhD 2	642:18:10 34,246:58:13
44	44	Frederick D. Gregory USAF Col. 3	Terence T. Henricks USAF Col. 1	F. Story Masgrave Civ M.D. PhD 4	Mario Runco USN Lt Cdr. 1	James S. Voss USA Lt. Col. 1	Thomas J. Hennen USA CWO-3 1	Thomas J. Hennen USA CWO-3 1	Ulf D. Marbold Civ. PhD 2	1001:04:24 35,248:02:37
45	42	Ronald J. Grabe USAF Col. 3	Steven S. Oswald Civ. 1	Norman E. Thagard Civ. M.D. 4	David C. Hilmers USMC Col. 4	William F. Readdy Civ. 1	Thomas J. Hennen USA CWO-3 1	Robert A. Bondar Civ. PhD 1	Ulf D. Marbold Civ. PhD 2	1352:43:08 36,600:45:45
46	45	Charles F. Balden, Jr. USMC Col. 3	Brian K. Duffy USAF Lt. Col. 1	Kathryn D. Sullivan USN Phd 3	David C. Leestma USN Capt. 3	C. Michael Foale Civ. PhD 1	Thomas J. Hennen USA CWO-3 1	Bryon K. Lichtenberg Civ. PhD 2	Ulf D. Marbold Civ. PhD 2	1499:06:16 38,099:52:01
47	49	Daniel C. Brandenstein USN Capt. 4	Kevin P. Chilton USAF Lt. Col. 1	Pierre J. Thout USN Cdr. 2	Kathryn C. Thornton Civ. PhD. 2	Richard J. Hieb USAF Col. 2	Thomas J. Hennen USA CWO-3 1	Bruce E. Malnick USCG Cdr. 2	Ulf D. Marbold Civ. PhD 2	1493:03:26 39,592:55:27
48	50	Richard M. Richards USN Capt. 3	Kenneth D. Bowersox USN Lt. Cdr. 1	Bonnie J. Dunbar Civ. PhD 3	Ellen S. Baker Civ M.D. 2	Carl J. Meade USAF Col. 2	Thomas J. Hennen USA CWO-3 1	Lawrence J. DeLucas Civ. PhD. 1	Eugene H. Trinh Civ. PhD. 1	2320:30:28 41,913:25:55
49	46	Loren J. Shriver USAF Col. 3	Andrew M. Allen USAF Maj. 1	Jeffrey A. Hoffman Civ. PhD 3	Franklin Chang-Dias Civ. PhD. 3	Claude Micollier Civ. PhD 1	Thomas J. Hennen USA CWO-3 1	Lawrence J. DeLucas Civ. PhD. 1	Eugene H. Trinh Civ. PhD. 1	1338:45:21 43,252:11:16
50	47	Robert L. Gibson USN Capt 4	Curtis L. Brown, Jr. USAF Maj. 1	Mark C. Lee USAF Lt. Col 2	Jerome Apt Civ. PhD 2	N. Jan Davis Civ. PhD. 1	Thomas J. Hennen USA CWO-3 1	Lawrence J. DeLucas Civ. PhD. 1	Eugene H. Trinh Civ. PhD. 1	1333:32:41 44,585:43:57
51	52	James D. Wetherbee USN Cdr. 2	Michael A. Baker USN Capt. 2	Charles L. Veach Civ. 2	William M. Shepherd USN Capt. 3	Tamara E. Jernigan Civ. PhD. 2	Thomas J. Hennen USA CWO-3 1	Lawrence J. DeLucas Civ. PhD. 1	Eugene H. Trinh Civ. PhD. 1	1421:37:18 46,007:21:15
52	53	David M. Walker USN Capt. 3	Robert D. Cabana USMC Lt. Col 2	Guion S. Bluford USAF Col. 4	James S. Voss USA Lt. Col 2	Michael R. Clifford USA Lt. Col. 1	Thomas J. Hennen USA CWO-3 1	Lawrence J. DeLucas Civ. PhD. 1	Eugene H. Trinh Civ. PhD. 1	876:38:55 46884:00:10

\* = All times were audited in January 1993. Source: STS Mission Reports published by JSC/AF

SHUTTLE FLIGHT HISTORIES  
CREW MEMBERS

Mission Seq No.	Orb No.	Commander, No. Flts.	Pilot, No. Flts.	Mission Specialist 1, No. Flts.	Mission Specialist 2, No. Flts.	Mission Specialist 3, No. Flts.	Mission Specialist 4, No. Flts.	Mission Specialist 5, No. Flts.	Payload Specialist 1, No. Flts.	Payload Specialist 2, No. Flts.	Operational Crew- Person Hours, h:m:s, Mission/Cumulative
53	105	John H. Casper USAF Col. 2	Donald R. McMonagle USAF Lt. Col. 2	Mario Runco USN Lt. Cdr 2	Gregory J. Harbaugh Civ. 2	Susan J. Helms USAF Major 1					718:11:35 47,602:11:45
54	103	Kenneth D. Cameron USMC Col. 2	Steven S. Oswald Civ. 2	C. Michael Foale Civ. PhD 2	Kenneth D. Cockrell Civ. 1	Eileen Ochoa Civ. 1					1110:41:55 48,712:53:40
55	102	Steven R. Magel USAF Col. 4	Terence T. Henricks USAF Col. 2	Jerry L. Ross USAF Lt Col 4	Charles J. Precourt USAF Major 1	Bernard A. Harris, Jr. Civ. M.D. 1		Ulrich Walter Germany Civ. 1	Hans W. Schlegel Germany Civ. 1		1677:39:53 50,390:33:33

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

Name	Affiliation	1st Flight/ Position	2nd Flight/ Position	3rd Flight/ Position	4th Flight/ Position	Total Flight Time h:m:s
1. Acton, Loren W., PhD	Civ.	51-F PS1				190:45:26
2. Adamson, James C. Lt. Col.	USA	28 MS1	43 MS2			334:21:33
3. Akers, Thomas D., Lt. Col.	USAF	38 MS3	49 MS4			311:27:42
4. Allen, Andrew M., Major	USAF	46 Plt.				191:15:03
5. Allen, Joseph P., PhD	Civ.	5 MS1	51-A MS3			313:59:22
6. Apt, Jerome (Jay), PhD	Civ.	37 MS2	47 MS2			334:03:07
7. Al-Saud, Salman	Civ.	51-G PS2				169:38:52
8. Baglan, James P., MD	Civ.	29 MS1	40 MS2			337:53:10
9. Baker, Ellen S., MD	Civ.	34 MS3	50 MS2			451:09:25
10. Baker, Michael A., Capt.	USN	43 Plt.	52 Plt.			450:17:38
11. Bartoe, John-David P., PhD	Civ.	51-F PS2				190:45:26
12. Baudry, Patrick, Lt. Col.	FAP	51-G PS1				169:38:52
13. Blaha, John E., Col.	USAF	29 Plt.	33 Plt.	43 Cdr.		453:07:03
14. Bluford, Guion S., Col.	USAF	8 MS2	61-A MS2	39 MS1	53 MS1	688:35:46
15. Bobko, Karol J., Col.	USAF	6 Plt.	51-D Cdr.	51-J Cdr.		386:03:43
16. Bolden, Charles F., Col.	USMC	61-C Plt.	31 Plt.	45 Cdr.		481:29:25
17. Bondar, Roberta L., PhD	Civ.	42 PS1				193:14:44
18. Bowersox, Kenneth D., Lt. Cdr.	USN	50 Plt.				331:30:04
19. Brand, Vance D.	Civ.	5 Cdr.	41-B Cdr.	35 Cdr.		528:35:29
20. Brandenstein, Daniel C., Capt.	USN	8 Plt.	51-G Cdr.	32 Cdr.	49 Cdr.	789:05:49
21. Bridges, Roy D., Col.	USAF	51-F Plt.				190:45:26
22. Brown, Curtis L. Major	USAF	47 Plt.				190:30:23
23. Brown, Mark H., Col.	USAF	28 MS3	48 MS3			249:27:46

Source: STS Mission Reports Published by VP.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED AIRBORNE

Name	Affiliation	1st Flight/ Position	2nd Flight/ Position	3rd Flight/ Position	4th Flight/ Position	Total Flight Time h:m:s
24. Buchli, James F., Col.	USMC	51-C MS2	61-A MS1	29 MS2	48 MS1	490:24:44
25. Cabana, Robert D. Lt. Col.	USMC	41 Ptl.	53 Ptl.			273:29:51
26. Cameron, Kenneth D., Col.	USMC	37 Ptl.	56 Cdr.			365:41:07
27. Casper, John H., Col.	USAF	36 Ptl.	34 Cdr.			249:56:41
28. Carter, Manley, Cdr.	USN	33 MS2				120:06:48
29. Conker, Robert J.	Civ.	61-C P81				146:03:51
30. Chang-Diaz, Franklin R., PhD	Civ.	61-C MS1	34 MS1	46 MS2		456:58:15
31. Chilton, Kevin P., Lt. Col.	USAF	49 Ptl.				213:17:38
32. Cleave, Mary L., PhD	Civ.	61-B MS1	30 MS2			262:01:16
33. Clifford, Michael R. Lt. Col.	USA	53 MS3				175:19:47
34. Coats, Michael L., Capt.	USN	41-D Ptl.	29 Cdr.	39 Cdr.		463:57:17
35. Cockrell, Kenneth D.	Civ.	56 MS2				222:08:23
36. Covey, Richard O., Col.	USAF	51-I Ptl.	26 Ptl.	38 Cdr.		385:12:24
37. Creighton, John O., Capt.	USN	51-G Ptl.	36 Cdr.	48 Cdr.		404:24:52
38. Crippen, Robert L., Capt.	USN	1 Ptl.	7 Cdr.	41-C Cdr.	41-G Cdr.	565:48:37
39. Culbertson, Frank L. Capt.	USN	38 Ptl.				117:54:31
40. Davis, H. Jan, PhD.	Civ.	47 MS3				190:30:23
41. DeLucas, Lawrence J., PhD.	Civ.	50 P81				331:30:04
42. Duffy, Brian K., Lt. Col.	USAF	45 Ptl.				214:09:28
43. Dunbar, Bonnie J., PhD	Civ.	61-A MS3	32 MS1	50 MS1		761:15:33
44. Durrance, Samuel T., PhD	Civ.	35 P81				215:05:08
45. England, Anthony W., PhD	Civ.	51-P MS2				190:45:26
46. Engle, Joe H., Col.	USAF	2 Cdr.	51-I Cdr.			224:30:53

Source: STS Mission Reports published by VP

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

Name	Affiliation	1st Flight/ Position	2nd Flight/ Position	3rd Flight/ Position	4th Flight/ Position	Total Flight Time h:m:s
47. Fabian, John M., Col.	USAF	7 MS2	51-G MS2			316:02:51
48. Fisher, Anna L., MD	Civ.	51-A MS1				191:44:56
49. Fisher, William F., MD	Civ.	51-1 MS3				170:17:42
50. Foale, C. Michael, PhD	Civ.	45 MS3	56 MS1			436:17:51
51. Primout, Dirk D., PhD	Civ.	45 MS2				214:09:28
52. Pullerton, C. Gordon, Col.	USAF	3 Plt.	51-F Cdr.			382:50:12
53. Purrer, Reinhard, PhD	Civ.	61-A MS1				168:44:53
54. Gaffney, F. Drew, MS	Civ.	40 MS1				218:14:20
55. Gardner, Dale A., Capt.	USN	8 MS1	51-A MS2			336:53:39
56. Gardner, Guy S., Col.	USAF	27 Plt.	35 Plt.			320:10:45
57. Garm, E. J. "Jake"	Civ.	51-D MS2				167:55:23
58. Garneau, Marc, PhD	Civ.	41-G MS1				197:23:38
59. Garrlott, Owen K., PhD	Civ.	9 MS1				247:47:24
60. Gemar, Charles D. Lt. Col.	USA	38 MS3	48 MS2			246:22:09
61. Gibson, Robert L., Capt.	USN	41-B Plt.	61-C Cdr.	27 Cdr.	47 Cdr.	632:55:46
62. Godwin, Linda M., PhD	Civ.	37 MS3				143:32:44
63. Grabe, Ronald J., Col.	USAF	51-J Plt.	30 Plt.	42 Cdr.		387:55:49
64. Gregory, Frederick D., Col.	USAF	51-B Plt.	33 Cdr.	44 Cdr.		455:06:18
65. Griggs, S. David	Civ.	51-D MS3				167:55:23
66. Outierres, Sidney M., Lt. Col.	USAF	40 Plt.				218:14:20
67. Hammond, L. Blaine, Lt. Col.	USAF	39 Plt.				199:22:23
68. Harbaugh, Gregory J.	Civ.	39 MS2	54 MS2			343:00:42
69. Harris, Bernard A., Jr. M.D.	Civ.	55 MS3				239:39:59

Source: STS Mission Reports published by VF.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

Name	Affiliation	1st Flight/ Position	2nd Flight/ Position	3rd Flight/ Position	4th Flight/ Position	Total Flight Time h:m:s
70. Hart, Terry J.	Civ.	41-C MS3				167:40:07
71. Hartsfield, Henry W.	USAF Ret	4 Plt.	41-D Cdr.	61-A Cdr.		482:50:28
72. Hauck, Frederick H., Capt.	USN	7 Plt.	51-A Cdr.	26 Cdr.		435:09:06
73. Hawley, Steven A., PhD	Civ.	41-D MS2	61-C MS2	31 MS1		412:16:01
74. Helms, Susan J. Maj.	USAF	54 MS3				143:38:19
75. Henise, Karl G., PhD	Civ.	51-F MS3				190:45:26
76. Hennen, Thomas J., CWO-3	USA	44 PS1				166:50:44
77. Henricks, Terence T., Col.	USAF	44 Plt.	55 Plt.			406:30:43
78. Kieb, Richard J.	Civ.	39 MS3	49 MS3			412:40:01
79. Hilmers, David C., Col.	USMC	51-J MS1	26 MS3	36 MS2	42 MS2	494:17:55
80. Hoffman, Jeffrey A., PhD	Civ.	51-D MS2	35 MS1	46 MS1		574:15:34
81. Hughes-Fulford, Millie, PhD	Civ.	40 PS2				218:14:20
82. Ivins, Marsha S.	Civ.	32 MS3	46 MS4			452:15:39
83. Jarvis, Gregory B.	Civ.	51-L PS1				N/A
84. Jamison, Mae C., M. D.	Civ.	47 MS4				190:30:23
85. Jernigan, Tamara E., PhD	Civ.	39 MS3	52 MS3			455:10:33
86. Lee, Mark C., Lt. Col.	USAF	30 MS3	47 MS1			287:26:50
87. Leestma, David C., Cdr.	USN	41-G MS3	28 MS2	45 MS2		532:33:14
88. Lenoir, William B., PhD	Civ.	5 MS2				122:14:26
89. Lichtenberg, Bryon K., PhD	Civ.	9 PS1	45 PS1			461:56:52
90. Lind, Don Leslie, PhD	Civ.	51-B MS1				168:08:46
91. Lounge, John M.	Civ.	51-I MS2	26 MS1	35 MS2		482:23:01
92. Loussa, Jack R., Col.	USMC	3 Cdr.				192:04:46

Source: STS Mission Reports published by VP.



ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

Name	Affiliation	1st Flight/ Position	2nd Flight/ Position	3rd Flight/ Position	4th Flight/ Position	Total Flight Time h:m:s
93. Low, G. David	Civ.	32 MS2	43 MS3			474:22:01
94. Lucid, Shannon W., PhD	Civ.	51-G MS1	34 MS2	43 MS1		502:39:38
95. MacLean, Steven G., PhD.	Civ.	52 P81				236:56:13
96. Malerba, Franco, PhD.	Civ.	46 PS1				191:15:03
97. Mattingly, Thomas K., Capt.	USN	4 Cdr.	51-C Cdr.			242:42:54
98. McAuliffe, S. Christa	Civ.	51-L PS2				N/A
99. McBride, Jon A., Cdr.	USN	41-G Pit.				197:23:38
100. McCandless, Bruce, Capt.	USN	41-B MS1	31 MS2			312:32:01
101. McCulley, Michael, Cdr.	USN	34 Pit.				119:39:21
102. McMonagle, Donald R., Lt Col.	USAF	39 MS4	54 Pit.			343:00:42
103. McWair, Ronald E., PhD	Civ.	41-B MS3	51-L MS3			191:15:55
104. Meade, Carl J., Col.	USAF	38 MS2	50 MS3			449:24:35
105. Melnick, Bruce E., Cmdr	USCG	41 MS2	49 MS5			311:27:42
106. Merbold, Ulf, PhD	Civ.	9 PS2	42 PS2			441:02:08
107. Messerschmid, Ernest, PhD	Civ.	61-A PS2				168:44:53
108. Mohri, Masoru, PhD.	Civ.	47 PS1				190:30:23
109. Mullan, Richard M., Col.	USAF	41-D MS3	27 MS1	36 MS1		356:20:03
110. Musgrave, P. Story, MD, PhD.	Civ.	6 MS2	51-F MS1	33 MS1	44 MS1	598:06:40
111. Nagel, Steven R., Col.	USAF	51-G MS3	61-A Pit.	37 Cdr.	55 Cdr.	721:36:26
112. Nelson, Bill	Civ.	61-C PS2				146:03:51
113. Nelson, George D., PhD	Civ.	61-C MS1	61-C MS3	26 MS2		410:44:09
114. Sori Vela, Rodolphe, PhD	Civ.	61-B PS1				165:04:49
115. Scoblic, Claude, PhD.	Civ.	46 MS3				191:15:03

Source: STS Mission Reports Published by V7.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

Name	Affiliation	1st Flight/ Position	2nd Flight/ Position	3rd Flight/ Position	4th Flight/ Position	Total Flight Time h:m:s
116. O'Connor, Bryan O., Col.	USMC	61-B Plt.	40 Cdr.			383:19:09
117. Ochoa, Ellen	Civ.	56 MS3				222:08:23
118. Ockels, Wubbo J., PhD	Civ.	61-A PS3				168:44:53
119. Onizuka, Ellison S., Lt. Col.	USAF	51-C MS1	51-L MS2			73:33:23
120. Oswald, Steven S.	Civ.	42 Plt.	56 Plt.			415:23:07
121. Overmyer, Robert F., Col.	USMC	5 Plt.	51-B Cdr.			290:23:12
122. Pailles, William A., Maj.	USAF	51-J PS1				97:44:38
123. Parise, Ronald A., PhD	Civ.	35 PS2				215:05:08
124. Parker, Robert A., PhD	Civ.	9 MS2	35 MS3			462:52:32
125. Payton, Gary E., Maj.	USAF	51-C PS1				73:33:23
126. Peterson, Donald H.	USAF Ret	6 MS1				120:23:42
127. Precourt, Charles J., Maj.	USAF	55 MS2				239:39:59
128. Readdy, William F.	Civ.	42 MS3				193:14:44
129. Reightler, Kenneth S., Cdr.	USN	48 Plt.				128:27:38
130. Resnik, Judith A., PhD	Civ.	41-D MS1	51-L MS1			144:56:04
131. Richards, Richard N., Capt.	USN	28 Plt.	41 Cdr.	50 Cdr.		550:40:16
132. Ride, Sally K., PhD	Civ.	7 MS1	41-G MS2			343:47:37
133. Ross, Jerry L., Col.	USAF	61-B MS3	27 MS2	37 MS1	55 MS1	653:23:09
134. Runco, Mario, Lt. Cdr.	USN	44 MS2	54 MS1			310:29:03
135. Schlegel, Hans W.	Civ.	55 PS2				239:39:59
136. Scobee, Francis R. (Dick)	USAF Ret	41-C Plt.	51-L Cdr.			167:40:07
137. Scully-Power, Paul D.	Civ.	41-G PS2				197:23:38
138. Seddon, M. Rhea, MD	Civ.	51-D MS1	40 MS1			386:09:43

Source: STS Mission Reports Published by V7.

## ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

Name	Affiliation	1st Flight/ Position	2nd Flight/ Position	3rd Flight/ Position	4th Flight/ Position	Total Flight Time h:m:s
139. Shaw, Brewster H., Col.	USAF	9 Plt.	61-B Cdr.	28 Cdr.		533:52:21
140. Shepherd, William M., Capt.	USN	27 MS3	38 MS1	52 MS2		440:11:54
141. Shriver, Loren J., Col.	USAF	51-C Plt.	31 Cdr.	46 Cdr.		386:04:32
142. Smith, Michael J., Cdr.	USN	51-L Plt.				N/A
143. Spring, Sherwood C., Lt. Col.	USA	61-B MS2				165:04:49
144. Springer, Robert C., Col.	USMC	29 MS3	38 MS1			237:33:21
145. Stewart, Robert L., Col.	USA	41-B MS2	51-J MS2			289:00:33
146. Sullivan, Kathryn D., PhD	Civ.	41-G MS1	31 MS3	45 MS1		532:49:12
147. Thagard, Norman E., MD	Civ.	7 MS3	51-B MS2	30 MS1	42 MS1	604:43:56
148. Thornton, Kathryn, PhD	Civ.	33 MS3	49 MS2			333:24:26
149. Thornton, William E., MD	Civ.	8 MS3	51-B MS3			313:17:29
150. Thuot, Pierre J., Lt. Cdr.	USN	36 MS3	49 MS1			319:36:00
151. Trinh, Eugene H., PhD.	Civ.	50 PS2				331:30:04
152. Truly, Richard H., RADM.	USN Ret.	2 Plt.	8 Cdr.			19 21:54
153. van den Berg, Lodewijk, PhD	Civ.	51-B PS1				168:08:46
154. van Hoften, James D., PhD	Civ.	41-C MS2	51-I MS2			377:57:49
155. Veach, Charles L.	Civ.	39 MS5	52 MS1			436:18:36
156. Voss, James S., Lt. Col	USA	44 MS3	53 MS2			342:10:31
157. Walker, Charles D.	Civ.	41-D PS1	51-D PS1	61-B PS2		477:56:16
158. Walker, David M., Capt.	USN	51-A Plt.	30 Cdr.	53 Cdr.		464:01:10
159. Walter, Ulrich	Civ.	55 PS1				239:39:59
160. Wang, Taylor G., PhD	Civ.	51-B PS2				168:08:46
161. Weitz, Paul J.	USN Ret.	6 Cdr.				120:23:42

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

Name	Affiliation	1st Flight/ Position	2nd Flight/ Position	3rd Flight/ Position	4th Flight/ Position	Total Flight Time H:M:S
162. Wetherbee, James, Cdr.	USN	32 Pit.	52 Cdr.			497:56:49
163. Williams, Donald E., Capt.	USN	51-D Pit.	34 Cdr.			287:34:44
164. Young, John W.	USN Ret.	1 Cdr.	9 Cdr.			302:08:17

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss. Seq. No.	STS No.	Cargo Orb. OV-	Weight at Liftoff, lb	Deployed to Space, lb	Design Flt Inst. Weight, lb	Retrieved Satellite Weight, lb	Retrieved/Re-deployed Satellite, lb	EOS Deployed/Retrieved Satellite		Self Deployed Satellite		Retrieved Satellite		Remarks
								Weight, lb	Weight, lb	Weight, lb	Weight, lb	Weight, lb	Weight, lb	
1	1	102	10,823	0	9,290	0	0							
2	2	102	18,778	0	11,048	0	0							
3	3	102	22,710	0	11,048	0	0	POP (dar)	344					
4	4	102	11,644	0	9,900	0	0	TECON (dar)	816					
5	5	102	20,830	14,585	0	0	0			SBB-C	7,211			
6	6	099	46,862	37,546	0	0	0			AMIE-C TUBS-A	7,374 37,546			
7	7	099	31,893	14,949	0	0	0	SPAS (dar)	3,192	AMIE-C	7,374			
8	8	099	25,790	7,445	0	0	0			PALAPA B-1 INSAR	7,575 7,445			
9	9	102	33,131	0	0	0	0							
10	41B	099	28,252	15,073	0	0	0			WESTAR VI	7,307			Spacelab Mission IRE failed to inflate. WESTAR VI and PALAPA B-2 failed to achieve orbit.
11	41C	099	33,831	21,396	0	0	4,740	LEOP (d)	21,396			SPM (red)	4740	SPM launched 2-14-80 on ELP, failed to function 10 months later.
12	41D	103	41,382	0,086	0	0	0			SBS	7,383			STECOM IV-2 failed to activate after deployment.
13	41G	099	17,592	4,949	0	0	0	ESMS (d)	4,949	STECOM IV-2 TELSTAR	15,196 7,507			

Legend: d = deployed  
r = retrieved  
a Payload chargeable weight - VF Weight Reports

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss. No.	Srs. No.	Orb. No.	Carg <sup>a</sup> Weight at Liftoff, lb	Deployed Weight to Space, lb	Design P/Wt Inst, lb	Retrieved Satellite Weight, lb	Retrieved/Re-deployed Satellite, lb	RMS Deployed/Retrieved Satellite		Self Deployed Satellite		Retrieved Satellite		Remarks	
								Weight, lb	Satellite	Weight, lb	Satellite	Weight, lb	Satellite		Weight, lb
14	51A	103	38,003	22,764	0	2,381	0			AMIK D-2	7,574	WESTAR VI	1,119	WESTAR and PALAPA B-2 launched on STS 41-B.	
15	51C	103	Department of Defense Mission - Data Not Available												
16	51D	103	28,747	22,576	0	0	0			SYNCOM IV-3	15,190				
17	51B	099	30,748	105	0	0	0			AMIK C-1 GAS, NUSAR	7,386 103			Spacelab Mission	
18	51G	103	38,258	22,832	0	0	0		SPARTAN-1 (dar)	2,217					
19	51P	099	33,012	0	0	0	0		POP (dar)	638				Spacelab Mission	
20	51I	103	38,884	30,289	0	0	15,190			ASC-1	7,591	LEASAT 3 (red)	15,190	LEASAT 3 was originally launched on STS 41-D as SYNCOM IV-2.	
21	51J	104	Department of Defense Mission - Data Not Available												
22	61A	099	30,519	150	0	0	0			GAS-GLOWE	150			SPACELAB Mission	
23	61B	104	42,788	27,465	0	0	0			NOBELDOR-B	7,573				
24	61C	102	28,625	12,351	0	0	0			AUSSAS-2	7,634				
25	51L	099	48,633	Vehicle Self-Destructed 67 Seconds After Lift-off											
26	26	103	44,601	37,514	0	0	0			SYNCOM EUI2 SYNCOM EUI1	12,258 12,351				
27	27	104	Department of Defense Mission - Data not available												

Legend: d = deployed  
r = retrieved  
<sup>a</sup> Payload chargeable weight - VP Weight Reports

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss. Seq. No.	STS-Orb. OV-	Cargo Weight at Liftoff, lb	Deployed to Space, lb	Design Flt Inst, lb	Retrieved Satellite Weight, lb	Retrieved/Re-deployed Satellite, lb	RMS Deployed/Retrieved Satellite		Self Deployed Satellite		Retrieved Satellite		Remarks
							Weight, lb	Weight, lb	Weight, lb	Weight, lb	Weight, lb	Weight, lb	
28	29	45,316	37,640	0	0	0			TOMS/IUS	37,640			
29	30	45,823	40,118	0	0	0			ROSELAN/IUS	40,118			
30	28		Department of Defense Mission - Data Not Available										
31	34	45,905	38,323	0	0	0			GALILEO/IUS	38,323			
32	33		Department of Defense Mission - Data Not Available										
33	32	18,317	15,316	0	21,393	0			STRCON IV-5	15,316	21,393		
34	36		Department of Defense Mission - Data Not Available										
35	31	25,517	23,905	0	0	0		MUSCLE SPACE TELESCOPE (d)		23,905			
36	41	46,173	38,604	0	0	0			Ulysses/IUS/PART-5	38,604			
37	38		Department of Defense Mission - Data Not Available										
38	35	27,760	0	0	0	0							
39	37	36,800	34,442	0			(d) GSO			34,442			
40	39	21,413	4,873	0	0	0	SPAS-II (d & r)		CSO A, B, and C NSFC	548	270		

Legend: d = deployed  
r = retrieved  
a Payload chargeable weight - V7 Weight Reports  
b Does not include 9 lb of gas expended before deployment

SUMMARY OF PAYLOAD-CHANGEABLE CARGO AND SATELLITE WEIGHTS

Miss. Seq. No.	STS-Orb. No.	Cargo Weight at Lift-off, lb	Deployed Weight, lb	Design Fit Inst. Weight, lb	Retrieved Satellite Weight, lb	Retrieved/Re-deployed Satellite, lb	RMS Deployed/Retrieved Satellite		Self Deployed Satellite		Retrieved Satellite		Remarks
							Weight, lb	Weight, lb	Weight, lb	Weight, lb	Weight, lb	Weight, lb	
41	40	28,114	0	0	0	0							
42	43	46,712	37,575	0	0	0			TURS/TUS	37,575			
43	48	17,144	14,388	0	0	0			UARS	14,388			
44	44	44,637	37,588	0	0	0			DSP/TUS	37,588			
45	42	28,663	0	0	0	0							
46	45	17,683	0	0	0	0							
47	49	32,809	0	0	0	INTELSAT 8,961			INTELSAT STAGE MOTOR	23,346			
48	50	24,305	0	0	0	0							
49	46	28,585	11,387	0	1,396	0	(d) EURECA	9,901	TSS	1,396	TSS	1,396	
50	47	27,607	0	0	0	0							
51	52	20,132	5,577	0	0	0	(d) CTA	180	LAGBOS	5,397			
52	53	26,118	20,953	0	0	0	0	0	DOD-1	20,953	0	0	
53	54	46,540	37,497	0	0	0	0	0	TURS	37,497	0	0	
54	56	16,439	2,840	0	2,798	0	(d) SPARKANE (r) SPARKANE	2,840 2,798	0	0	0	0	

Legend: d = deployed  
r = retrieved

a Payload changeable weight - VF Weight Reports



SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss. Seq. No.	STS-Orb. OV- No.	Cargo Weight at Liftoff, lb	Deployed to Space, lb	Design Flt Inst. Weight, lb	Retrieved Satellite Weight, lb		RMS Deployed/Retrieved Satellite Weight, lb		Self Deployed Satellite Weight, lb		Retrieved Satellite Weight, lb		Remarks	
					lb	lb	lb	lb	lb	lb	lb	lb		
55	55	102	26,681	0	0	0	0	0	0	0	0	0		
Total			1,491,529	723,171	41,286	27,968	28,691	7 (d) 7 (d&r)	108,856	42	644,689	6	45,100	

Legend: d = deployed  
r = retrieved

a Payload chargeable weight - VT Weight Reports

CARGO SUMMARY		MISSION SEQUENCE: 1	STS-1	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
10,823	-0-	10,823	None	
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOAD:</b>	
None			None	
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
1. Passive Sample Array 2. DFI (Development Flight Instrumentation) Pallet, 9,290 lb. 3. ACIP (Aerodynamic Coefficient Identification Package)			None	
			<b>Note: RMS NOT FLIGH</b>	

CARGO SUMMARY		MISSION SEQUENCE: 2	STS-2	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
18,778	-0-	18,778	None	
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOAD:</b>	
None			None	
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
1. OFT (Orbital Flight Test) Pallet: a. MAFS (Measurement of Air Pollution from Satellite) b. SMIR (Shuttle Multispectral Infrared Radiometer) c. SIR (Shuttle Imaging Radar) d. FILE (Features Identification and Location Experiment) e. OCE (Ocean Color Experiment) 2. DFI (Development Flight Instrumentation) Pallet 11,084 lb 3. ACIP (Aerodynamic Coefficient Identification Package) 4. IECH (Induced Environment Contamination Monitor) 5. OSTA-1 (Office of Space and Terrestrial Application) 5,395			1. RMS (Remote Manipulator System) S/W 201	

CARGO SUMMARY		MISSION SEQUENCE: 3	STS-3	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
22,710	344*	22,710	Verification Canister	
<b>DEPLOYABLE PAYLOADS:</b> Plasma Diagnostic Package Deployed and Retrieved Wt.= 344 lb (See RMS section)			<b>CREW COMPARTMENT PAYLOAD:</b>	
<b>ATTACHED PLS PAYLOADS:</b>			1. MLR (Monodisperse Latex Reactor)	
1. OSS (Office of Space Science)-1 Pallet (8,740 lb)			2. HBT (Reflex Bioengineering Test)	
a. Plant Lignification Experiment				
b. Plasma Diagnostic Package*				
c. Vehicle Charging and Potential				
d. Space Shuttle Induced Atmosphere				
e. Thermal Canister				
f. Solar Flare X-ray Polarimeter				
g. Solar Ultraviolet and Spectral Irradiance Monitor				
h. Contamination Monitor Package				
i. Foil Microabrasion Package				
2. LFI (Development Flight Instrumentation) Pallet, 11,048 lb			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
3. ACIP (Aerodynamic Coefficient Identification Package), 448 lb			1. RMS (Remote Manipulator System) S/N 201	
*RMS deployed/berthed				

CARGO SUMMARY		MISSION SEQUENCE: 4	STS-4	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
11,644	816	11,644	1. Utah State University	
<b>DEPLOYABLE PAYLOADS:</b>			a. Drosophila Melanogaster (fruit fly) Growth Experiment	
IECM (Induced Environment Contamination Monitor) deployed/reberthed by RMS.			b. Artemia (Brine Shrimp) Growth Experiment	
Deployed and Retrieved Wt. = 816 lb (See RMS section)			c. Surface Tension Experiments	
<b>ATTACHED PLS PAYLOADS:</b>			d. Composite Curing Experiment	
DFI (Development Flight Instrumentation) Pallet, 9,900 lb			e. Thermal Conductivity Experiment	
			f. Microgravity Soldering Experiment	
			g. Root Growth of Lemna Minor L. (Duckweed) in Microgravity	
			h. Homogeneous Alloy Experiment	
			i. Algal Microgravity Bioassay Experiment	
<b>DEPARTMENT OF DEFENSE:</b>			<b>CREW COMPARTMENT PAYLOAD:</b>	
DOD 82-1			1. MLR (Monodisperse Latex Reactor)	
			2. CFES (Continuous Flow Electrophoresis System)	
			3. SSIP (Shuttle Student Involvement Program)	
			S404: Effect of Prolonged Space Travel on Levels of Trivalent Chromium in the Body.	
			S405: Effect of Diet, Exercise and Zero Gravity on Lipoprotein Profiles.	
			4. VPCF (Vapor Phase Compression Freezer)	
			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
			RMS (Remote Manipulator System) S/N 201	

CARGO SUMMARY		MISSION SEQUENCE: 5	STS-5	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
20,830	14,585	6,245	G-026: ERNO/Stability Of Metallic Dispersions. (JSC PIP 14021)	
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOAD:</b>	
1. SBS-C/PAM-D (Satellite Business System/Payload Assist Module) Deployed Wt = 7,211 lb			SSIP (Shuttle Student Involvement Program)	
2. ANIK-C/PAM-D - TELESAT Canada, Ltd/Payload Module Assist Deployed Wt = 7,374 lb			a. SE81-5 - Crystal Formation In Zero Gravity b. SE81-9 - Convection In Zero Gravity c. SE81-2 - Growth Of Porifera	
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
DFI (Development Flight Instrumentation)			Mission Specialist Seats (2)	
a. EION (Effects Of Interaction Of Oxygen with Materials)			Note: NMS NOT FLOWN	
b. ISAL (Investigation Of STS Atmospheric Luminosities)				

CARGO SUMMARY		MISSION SEQUENCE: 6	STS-6	ORBITER OV-099
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
46,662	37,546	9,116	1. G-005: Asahi Shimbun, Japan 2. G-049: U. S. Air Force Academy 3. G-381: Park Seed Company	
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOAD:</b>	
TDRS-A/IUS (Tracking and Data Relay Satellite/ Inertial Upper Stage) Deployed Wt = 37,546 lb			1. CFES (Continuous Flow Electrophoresis System)	
<b>ATTACHED PLB PAYLOADS:</b>			2. MLR (Monodisperse Latex Reactor)	
CBSA (Cargo Bay Storage Assembly)			3. RME (Radiation Monitoring Experiment)	
			4. NOSL (Night/Day Optical Survey Of Lightning)	
			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
			1. Mini-WADS (Modular Auxiliary Data System)	
			2. EMU (Extravehicular Mobility Unit)	
			Note: NMS NOT FLOWN	

CARGO SUMMARY		MISSION SEQUENCE: 7		STS-7	ORBITER OV-099
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>		
31,893	14,949	16,944	1. G-033: California Institute of Tech. - Plant Gravireception and Liquid Dispersion 2. G-088: Edsyn, Inc. - Soldering of Material 3. G-002: Kayser Threde, W. Germany - Youth Fair Experiment 4. G-009: Purdue University - Geotropism Fluid Dynamics and Nuclear Particle Velocity 5. G-305: U. S. Air Force and National Research Labs - Ultraviolet Spectrometer 6. G-012: RCA, Camden, NJ, Schools - Ant Colony 7. G-345: Goddard Space Flight Center and National Research Labs - Payload Bay Environment		
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOAD:</b>		
1. ANIK-C/PAM-D: TELESAT Canada Satellite Deployed Wt = 7,374 lb 2. PALAPA-B1/PAM-D: Indonesian Satellite Deployed Wt = 7,575 lb 3. SPAS (Shuttle Pallet Satellite)-01 Unberthing/Berthing Tests Deployed and Retrieved Wt. = 3,192 lb (See NMS Section)			1. CPES (Continuous Flow Electrophoresis System) 2. MLR (Monodisperse Latex Reactor) 3. SSIP (Shuttle Student Involvement Program)		
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
1. OSTA (Office of Space and Terrestrial Applications)-2 2. CBSA (Cargo Bay Stowage Assembly)			1. NMS (Remote Manipulator System) S/W 201 2. TAGS (Text and Graphics System) 3. Mini-MADS (Modular Auxiliary Data System)		

CARGO SUMMARY		MISSION SEQUENCE: 8		STS-8	ORBITER OV-099
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>		
25,790	7,445	22,631	1. U. S. Postal Service - 8 cans of philatelic covers 2. G-475: Asahi Shimban - Artificial Snow Crystal Experiment 3. G-348: Office of Space Science - Atomic Oxygen Erosion 4. G-347: Navy Research Lab - Ultraviolet Photo Film Test 5. G-346: Goddard Space Flight Center - Cosmic Ray Upset Experiment		
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOADS:</b>		
1. INSAT/PAM-D: Indian National Satellite Deployed Wt = 7,445 lb 2. PFTA (Payload Flight Test Article) Unberthing/Berthing Tests Deployed and Retrieved Wt = 7,350 lb			1. CPES (Continuous Flow Electrophoresis System) 2. ICAT (Incubator-Cell Attachment Test) 3. ISAL (Investigation of STS Atmospheric Luminosities) 4. AEM (Animal Enclosure Module) - Evaluation of AEM using rats 5. NRE (Radiation Monitoring Equipment) 6. SSIP (Shuttle Student Involvement Program) - Biofeedback		
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
1. DFI (Development Flight Instrumentation) Pallet a. Oxygen Interaction and Heat Pipe Experiment b. Postal Covers (2 boxes) 2. CBSA (Cargo Bay Stowage Assembly) 3. SPAS (Shuttle Pallet Satellite)-01 Unbilical Disconnect			1. NMS (Remote Manipulator System) S/W 201 2. MADS (Modular Auxiliary Data Systems) II 3. COMSEC (Communication Security) 4. TAGS (Text and Graphics System)		

CARGO SUMMARY		MISSION SEQUENCE: 9		STS-9	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b> None		
33,131	-0-	33,131	None		
None			<b>CREW COMPARTMENT PAYLOAD:</b> None		
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
1. Spacelab-1: <ul style="list-style-type: none"> <li>a. Spacelab Long Module</li> <li>b. Spacelab Pallet</li> <li>c. Tunnel</li> <li>d. Tunnel Extension</li> <li>e. Tunnel Adapter</li> </ul>			1. Cryogenic sets 4 and 5.		
2. Experiments (73) <ul style="list-style-type: none"> <li>a. Astronomy and Physics (6)</li> <li>b. Atmospheric Physics (4)</li> <li>c. Earth Observations (2)</li> <li>d. Life Sciences (16)</li> <li>e. Materials Sciences (39)</li> <li>f. Space Plasma Physics (5)</li> <li>g. Technology (1)</li> </ul>			2. Spacelab utility kit		
			3. TAGS (Text and Graphics System)		
			4. Galley		
			Note: <b>RMS NOT FLOWN</b>		

CARGO SUMMARY		MISSION SEQUENCE: 10		STS 41-B	ORBITER OV-099
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>		
28,252	15,073	13,179	1. G-004: Utah State University/Aberdeen University 2. G-008: Utah State University/University of Utah/Brighton High School 3. G-051: General Telephone Labs 4. G-309: U. S. Air Force 5. G-349: Goddard Space Flight Center (re: flight STS-8)		
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOADS:</b>		
1. WESTAR VI/PAM-D - Western Union Communications Satellite/Payload Assist Module Deployed Wt = 7,307 lb			1. ACES (Acoustic Containerless Experiment System)		
2. PALAPA-B/PAM-D - Indonesian Communications Satellite/Payload Assist Module Deployed Wt = 7,556 lb			2. IEF (Isoelectric Focusing)		
3. SPAS (Shuttle Pallet Satellite)-01 - Not deployed due to RMS anomaly			3. Cinema 360 Camera		
4. IRT (Integrated Rendezvous Target) - Failed to inflate due to internal failure Deployed Wt = 210 lb			4. Student Experiment SE81-10 - Effects of Zero g on Arthritis		
<b>ATTACHED PLB PAYLOADS:</b>			5. MLR (Monodisperse Latex Reactor)		
1. MFR (Manipulator Foot Restraint)			6. RME (Radiation Monitoring Equipment)		
2. SESA (Special Equipment Storage Assembly)			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
3. Cinema 360 - High Quality Motion Picture Camera			1. RMS (Remote Manipulator System) S/W 201		
			2. MMU (Manned Maneuvering Unit) - 2		
			3. Mini-MADS (Modular Auxiliary Data System)		
			4. Galley		

CARGO SUMMARY		MISSION SEQUENCE: 11		STS 41-C	ORBITER OV-099
<b>PAYLOAD-CHARGEABLE</b> CARGO WEIGHT AT LIFT-OFF, LB	<b>DEPLOYED P/L</b> WEIGHT, LB	<b>RETURNED CARGO</b> WEIGHT, LB	<b>GAS (Getaway Special):</b> None		
33,831	21,396	12,435			
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOADS:</b>		
1. LDEF (Long Duration Exposure Facility) - Office of Aeronautics and Space Technology Deployed Wt = 21,396 lb  2. SMM (Solar Maximum Mission) Spacecraft - Rendezvous/Retrieve/Repair/Deploy Retrieve/Repair/Deploy Wt - 4740 lb (See Other Payloads Section)			1. RME (Radiation Monitoring Equipment)  2. IMAX Camera - Canadian Commercial Company color film camera using 70mm x 280mm film  3. SSIP (Shuttle Student Involvement Program) - Comparison of honeycomb structure of bees in low g and bees in 1 g		
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
1. SMRM (Solar Maximum Repair Mission) - Flight Support System  2. Cinema 360 - High quality motion picture camera  3. CBSA (Cargo Bay Storage Assembly) - bay 2, starboard side			1. MMU (Manned Maneuver Units) - 2  2. EMU (Extravehicular Mobility Units) - 3  3. RMS (Remote Manipulator System) S/N 302  4. MFR (Manipulator Foot Restraint)  5. Galley		

CARGO SUMMARY		MISSION SEQUENCE: 12		STS 41-D	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE</b> CARGO WEIGHT AT LIFT-OFF, LB	<b>DEPLOYED P/L</b> WEIGHT, LB	<b>RETURNED CARGO</b> WEIGHT, LB	<b>GAS (Getaway Special):</b> None		
41,382	30,086	11,296			
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOADS:</b>		
1. SBS/PAM-D (Satellite Business System/Payload Assist Module) Deployed Wt = 7,383 lb  2. SYMCOM IV-2 (Leased to DOD for UHF and SHF communications, also called LEASAT) Deployed Wt = 15,196 lb  3. TELSTAR/PAM-D (American Telephone & Telegraph/Payload Assist Module) Deployed Wt = 7,507 lb			1. CPES III (Continuous Flow Electrophoresis System)  2. IMAX Camera - IMAX System Corporation (Canadian Company) 70mm x 280mm film.  3. RME (Radiation Monitoring Equipment) USAF Space Div.  4. Clouds - USAF Nikon F 3/T with 105mm lens  5. SSIP - (Shuttle Student Involvement Package) grow single crystal of Indium, Shawn Murphy, Hiram, Ohio; Rockwell International, Sponsor.		
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
OAST-1 (Office of Application and Space Technology) a. SAE (Solar Array Experiment) b. DAE (Dynamic Augmentation Experiment) c. SCCF (Solar Cell Calibration Facility)			1. RMS (Remote Manipulator System) S/N 301  2. MADS (Modular Auxiliary Data System)		

CARGO SUMMARY		MISSION SEQUENCE: 13		STS 41-G	ORBITER OV-099
<b>PAYLOAD-CHARGEABLE</b> CARGO WEIGHT AT LIFT-OFF, LB	<b>DEPLOYED P/L</b> WEIGHT, LB	<b>RETURNED CARGO</b> WEIGHT, LB		<b>GAS (Getaway Special):</b>	
17,592	4,949	12,643		1. G007: Alabama Space and Rocket Center Solidification of lead-antimony; and aluminum copper student experiment.	
<b>DEPLOYABLE PAYLOADS:</b>				2. G032: ASARI National Broadcasting Corp., Japan Surface tension and viscosity; and materials experiment.	
1. ERBS (Earth Radiation Budget Satellite) Deployed Wt = 4,949 lb.				3. G306: Air Force and U. S. Naval Research Laboratory Low Energy Heavy Ions Search in the Inner Magnetosphere	
<b>ATTACHED PLB PAYLOADS:</b>				4. G469: Goddard Space Flight Center Cosmic Ray Upset Experiment (CRUX)	
1. OSTA-3 (Office of Space and Terrestrial Applica- tions)				5. G038: Marshall-McShane Vapor Deposition of Metals and Non-Metals.	
a. SIR-B (Shuttle Imaging Radar)				6. G074: McDonnell Douglas Company Study Proposed Propellant Acquisition System	
b. FILE (Feature Ident. and Location Exp.)				7. G013: Kayser Threde, West Germany Verify Transport Mechanism in Halogen Lamps Performance in Extended Micro-g.	
c. MAPS (Measurement of Air Pollution from Satellite)				8. G518: Utah State University Study Solar Flux Separation, Capillary Waves on Water Surface, and Thermo-Capillary Flow in Liquid Columns.	
2. LFC (Large Format Camera) ORS (Orbital Refueling System)				<b>SPECIAL PAYLOAD MISSION KITS:</b>	
<b>CREW COMPARTMENT PAYLOADS:</b>				1. RMS (Remote Manipulator System) S/W 302	
1. APE (Auroral Photography Experiment)				2. Galley	
2. CANEX (Canadian Experiments)				3. EMU (Extravehicular Mobility Unit) (3)	
a. VISET				4. PSA (Provisions Stowage Assembly)	
b. ACOMEX					
c. OGLOW (Orbital Glow & Atmospheric Emissions)					
d. SPEAN (Sun Photometer Earth Atmosphere Measure- ment)					
e. SASSE (Space Adaptation Syndrome Studies Exp)					
4. RME (Radiation Monitoring Experiment)					
5. TLD (Thermoluminescent Dosimeter)					

CARGO SUMMARY		MISSION SEQUENCE: 14		STS 51-A	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE</b> CARGO WEIGHT AT LIFT-OFF, LB	<b>DEPLOYED P/L</b> WEIGHT, LB	<b>RETRIEVED P/L</b> WEIGHT, LB	<b>RETURN CARGO</b> WEIGHT, LB	<b>GAS (Getaway Special):</b>	
38,003	22,764	2,381	17,620	None	
<b>DEPLOYABLE PAYLOADS:</b>				<b>SPECIAL PAYLOAD MISSION KITS:</b>	
1. TELESAT-H (ANIK)-D2/PAM-D - Canadian 24 channel communications satellite. PAM D is a payload assist module built by McDonnell Douglas. Deployed weight: 7,574 lb				1. RMS (Remote Manipulator System) S/W 301	
2. SYNCOM IV-1 - Synchronous Communication Satellite, also called LEASAT, leased to U. S. Navy. Deployed weight: 15,190 lb				2. MMU (Manned Maneuvering Unit) (2)	
<b>RETRIEVED PAYLOADS:</b>				3. EMU (Extravehicular Mob. Unit)(3)	
1. PALAPA-B2 - Deployed during mission STS 41-B, failed to achieve proper transfer orbit due to PAM-D failure. Retrieved weight: 1,262 lb				4. PSA (Provisions Stowage Assy) (2)	
2. WESTAR-VI - Deployed during mission STS 41-B, failed to achieve proper transfer orbit due to PAM-D failure. Retrieved weight: 1,119 lb				5. Satellite Retrieval Hardware:	
<b>CREW COMPARTMENT PAYLOADS:</b>				a. Modified Spacelab pallet (2)	
1. DMDS (Diffusive Mixing of Organic Solutions) 3M Corp.				b. MFR (Manipulator Foot Restrnt)	
2. RME (Radiation Monitoring Experiment)				c. Stinger Adapter (2)	
				d. Satellite Adapter Trunnion (2)	
				e. Berthing A Frame (2)	



CARGO SUMMARY		MISSION SEQUENCE: 15	STS 51-C	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b> Data not available DOD Classified Mission	
<b>DEPLOYABLE PAYLOADS:</b> Data not available, DOD Classified Mission				
<b>ATTACHED PLB PAYLOAD:</b> Data not available, DOD Classified Mission			<b>CREW COMPARTMENT PAYLOAD:</b> Data not available, DOD Classified Mission	
			<b>SPECIAL PAYLOAD MISSION KIT:</b> RMS (Remote Manipulator System) S/N 301 Other data not available, DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 16	STS 51-D	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
28,747	22,576	6,171	<ol style="list-style-type: none"> <li>G-035 - Asahi National Broadcasting Corporation, Japan               <ol style="list-style-type: none"> <li>Surface tension and viscosity</li> <li>Alloy, lead oxide and carbon fiber</li> </ol> </li> <li>G-471 - Goddard Space Flight Center, Thermal Engineering Branch. Capillary Pump Loop (CPU) Priming Experiment</li> </ol>	
<b>DEPLOYABLE PAYLOADS:</b> SYNCOM IV-3 Synchronous Communication Satellite, built by Hughes, third in a series of 4, leased to the Navy. Failed to activate after nominal deploy from Orbiter. Deploy wt: 15,190 lb TELESAT-I (ANIK C-1)/PAM D - Canadian communication satellite. Placed in three year storage orbit. Deployed wt: 7,386 lb			<b>CREW COMPARTMENT PAYLOADS:</b>	
			<ol style="list-style-type: none"> <li>CFES-III (Continuous Flow Electrophoresis System)</li> <li>AFE (American Flight Echocardiograph)</li> <li>PPE (Phase Partitioning Experiment)</li> <li>SSIP (Shuttle Student Involvement Package) (2)               <ol style="list-style-type: none"> <li>Corn Statolith</li> <li>Brain Cell</li> </ol> </li> </ol>	
<b>ATTACHED PLB PAYLOAD:</b> None			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
			<ol style="list-style-type: none"> <li>RMS (Remote Manipulator System) S/N 301</li> <li>PSA (Provision Storage Assembly)</li> <li>MADS III (Modular Auxiliary Data System)</li> </ol>	

CARGO SUMMARY		MISSION SEQUENCE: 17	STS 51-B	ORBITER OV-099
<b>LOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
30,748	105	30,643	G-010 NUSAT, Northern Utah Satellite Weber State College, Utah, Utah State University, and New Mexico State University. First successful payload ejection from a GAS canister. Deployment Wt = 105 lb.	
<b>DEPLOYABLE PAYLOADS:</b> Refer to GAS section.			G-303 GLOP <sup>SM</sup> , Global Low Orbiting Message Relay Satellite. Defense Systems Inc., McLean, Va. Failed to eject from GAS canister.	
<b>ATTACHED PLB PAYLOADS: Spacelab 3</b> Materials Processing in Space: 1. Solution Growth of Crystals in Zero Gravity 2. Mercuric Iodide Crystal Growth, Vapor Crystal Growth System (VCGS) 3. Mercury Iodide Crystal Growth (MICG)  Technology: 1. Dynamics of Rotating and Oscillating Free Drops (DROP)  Environmental Observations: 1. Geophysical Fluid Flow Cell Experiment (GFFC) 2. Atmospheric Trace Molecule Spectroscopy (ATMOS) 3. Very Wide Field Galactic Camera (VWFGC) 4. Aurora Observation  Astro Physics: 1. Studies of the Ionization States of Solar and Galactic Cosmic Ray Heavy Nuclei (IOW)  Life Sciences: 1. Research Animal Holding Facility (RAHF) 2. Urine Monitoring Investigation (UMI) 3. Autogenic Feedback Training (AFT)			<b>CREW COMPARTMENT PAYLOAD:</b> UMS: Urine Monitoring System	
			<b>SPECIAL PAYLOAD MISSION KITS:</b> 1. Airlock  2. Long Transfer Tunnel  3. Galley  4. MPES - Mission Peculiar Equipment Support Structure, carried ATMOS & IOW  Note: RMS not flown.	

CARGO SUMMARY		MISSION SEQUENCE: 18	STS 51-G	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
38,258	22,832	15,426	G-007: Alabama Space & Rocket Center/Marshall Amateur Radio Club - 1. Solidification of Metals 2. Crystal Growth 3. Radish Seed Root Study 4. Radio Transmission Experiment	
<b>DEPLOYABLE PAYLOADS:</b> 1. TELSTAR-3D/PAM-D: Hughes 376 Comm Satellite with McDac Payload Assist Module Booster. Owned by AT&T Co. Wt. = 7,546.0 lb 2. ARABSAT-A/PAM-D: Aerospatiale Comm Satellite with McDac Payload Assist Module Booster. Owned by Saudi Arabian Communications Organization. Wt. = 7,695.0 lb 3. MORELOS-A/PAM-D: Hughes 376 Comm Satellite with McDac Payload Assist Module Booster. Owned by Mexican Communications and Transportation Agency Wt. = 7,591.0 lb 4. SPARTAN-1: Shuttle Pointed Autonomous Research Tool for Astronomy. SFSS: Spartan Flight Support Structure REM: Release/Engage Mechanism SEC: Scientific Experiment Carrier  The SEC was released and retrieved using REM and RMS (Remote Manipulator System)  Deployed & retrieved Wt = 2,217.0 lb			G-025: ERNO - Dynamic Behavior of Liquid Propellants in low-g. G-027: DFVLR of West Germany - Slipcasting in micro-g. G-028: DFVLR of West Germany - Manganese - Bismuth production in micro-g. G-034: Dickshire Coors, Texas High School Students - 12 Biological/physical science experiments 1 Microprocessor controller G-314: USAF and USNRL - SURE (Space Ultra-violet Radiation Environment)	
			<b>CREW COMPARTMENT PAYLOADS:</b> ADSP (Automated Directional Solidification Furnace) FEE (French Echocardiograph Experiment) FPE (French Postural Experiment) HPTX (High Precision Tracking Experiment)	
<b>ATTACHED PLB PAYLOADS:</b> None			<b>SPECIAL PAYLOAD MISSION KIT:</b> RMS (Remote Manipulator System) S/W 301  Galley	

CARGO SUMMARY		MISSION SEQUENCE: 19	STS 51-F	ORBITER OV-099
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
33,012		33,012	None	
<b>DEPLOYABLE PAYLOAD:</b> Ejectable Plasma Diagnostic Package, Exp No. 3, second flight of PDP (STS-3 first flight). First flight as a free flyer to sample plasma away from the Shuttle. Deployed/Retrieved Wt = 628.0 lb.			<b>CREW COMPARTMENT PAYLOADS:</b> 0 Life Sciences <ul style="list-style-type: none"> <li>◦ Vitamin D Metabolites and Bone Demineralization (Exp 1)</li> <li>◦ The Interaction of Oxygen and Gravity Induced Lignification (Exp 2)</li> <li>◦ Shuttle Amateur Radio Experiment (SAREX)</li> <li>◦ Dispenser Technology Experiment Dispensing Carbonated Beverages In Micro-g</li> <li>◦ Protein Crystal Growth</li> </ul>	
<b>ATTACHED PLB PAYLOADS:</b> Spacelab 2 <ul style="list-style-type: none"> <li>0 Plasma Physics               <ul style="list-style-type: none"> <li>◦ Deployable/Retrievable Plasma Diagnostic Package (PDP) (Exp 3)</li> <li>◦ Plasma Depletion Experiments for Ionospheric and Radio Astronomical Studies (Exp 4)</li> <li>◦ Vehicle Charging and Potential (VCAP) (Exp 14)</li> </ul> </li> <li>0 Astrophysical Research               <ul style="list-style-type: none"> <li>◦ Small Helium Cooled Infrared Telescope (IRT) (Exp 5)</li> <li>◦ Hard X-ray Imaging of Clusters of Galaxies and Other Extended X-ray Sources (XRT) (Exp 7)</li> <li>◦ Elemental Composition and Energy Spectra of Cosmic Ray Nuclei (CNNE) (Exp 6)</li> </ul> </li> <li>0 Solar Astronomy               <ul style="list-style-type: none"> <li>◦ Solar Magnetic and Velocity Field Measurement System (SOUP) (Exp 8)</li> <li>◦ Coronal Helium Abundance Spacelab Experiment (CHASE) (Exp 9)</li> <li>◦ High Resolution Telescope and Spectrograph (HRTS) (Exp 10)</li> <li>◦ Solar Ultraviolet Spectral Irradiance Monitor (SUSIM) (Exp 11)</li> </ul> </li> <li>0 Technology               <ul style="list-style-type: none"> <li>◦ Properties of Superfluid Helium Zero-g (SFHe) (Exp 13)</li> </ul> </li> </ul>			<b>SPECIAL PAYLOAD MISSION KITS:</b> 1. Remote Manipulator System (RMS) S/N 302  2. Galley	

CARGO SUMMARY		MISSION SEQUENCE: 20	STS 51-I	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
38,884	30,259	8,595	None.	
<b>DEPLOYABLE PAYLOAD:</b> ASC-1/PAM-D - American Satellite Company, first of two satellites built by RCA and owned by a partnership between Fairchild Industries and Continental Telecon Inc. PAM-D Payload Assist Module built by McDonnell Douglas. "D" indicates used for lightweight satellites, less than 2,250 lb. Deployed Wt. = 7,591 lb AUSSAT-1/PAM-D - Australian Communications Satellite, owned by AUSSAT Proprietary Ltd., built by Hughes Communications International, Model HS376 Deployed Wt. = 7,508 lb SYNCOM IV-4 - Synchronous Community Satellite. Last in a series of 4 satellites built by Hughes Communication Services and leased to the U. S. Navy. Referred to as LEASAT when deployed. Failed to function after reaching correct geosynchronous orbit. Deployed Wt. = 15,190 lb			<b>CREW COMPARTMENT PAYLOAD:</b> PVTOS - Physical Vapor Transport Organic Solid Experiment, 3M Corporation.	
<b>ATTACHED PLB PAYLOADS:</b> None.			<b>SPECIAL PAYLOAD MISSION KITS:</b> 1. RMS (Remote Manipulator System) S/N 301  2. Galley  3. LEASAT-3 Salvage Equipment LEASAT-3 was successfully retrieved, repaired and redeployed. Retrieved and redeployed weight = 15,190 lb	

CARGO SUMMARY		MISSION SEQUENCE: 21	STS 51-J	ORBITER OV-104
<b>PAYLOAD-CHARGEABLE</b> CARGO WEIGHT AT LIFT-OFF, LB	<b>DEPLOYED P/L</b> WEIGHT, LB	<b>RETURNED CARGO</b> WEIGHT, LB	<b>GAS (Getaway Special):</b>  Data not available DOD Classified Mission	
<b>DEPLOYABLE PAYLOADS:</b>  Data not available, DOD Classified Mission.				
<b>ATTACHED PLB PAYLOADS:</b>  Data not available, DOD Classified Mission			<b>CREW COMPARTMENT PAYLOADS:</b>  Data not available - DOD Classified Mission	
			<b>SPECIAL PAYLOAD MISSION KIT:</b>  Data not available - DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 22	STS 61-A	ORBITER OV-099
<b>PAYLOAD-CHARGEABLE</b> CARGO WEIGHT AT LIFT-OFF, LB	<b>DEPLOYED P/L</b> WEIGHT, LB	<b>RETURNED CARGO</b> WEIGHT, LB	<b>3. MD-MEDEA: A material science double rack.</b> Experiment facilities include: . Gradient Heating Facility . Mono-ellipsoid Mirror Heating Facility . High Precision Thermostat Facility  <b>4. BW-Biowissenschaften: Experiments relating to Life Sciences.</b> Experiments include: . Biological (1) . Medical (2) . Botanical (3)  <b>5. VS-Vestibular Sled: Experiments in Life Science regarding visio-vestibular coordination system and sensory perception process.</b> Experiment facilities include: . Mechanically accelerated sled . Instrumented helmet  <b>6. BR-Biorack: Multi-purpose facility for biological research in cell development physiology, cell fertilization and radiobiology.</b> Facilities include: . 2 Incubators . Cooler freeze . Glove box  <b>7. NX-NAVEX: Navigation Experiment; located in payload bay attached to USS (unique support structure).</b>  <b>8. ME-MEA Materials Experiment Assembly; mounted on USS containing three materials, processing experiments.</b>	
30,519	150	30,369		
<b>DEPLOYABLE PAYLOADS:</b> <b>GLOMER - Global Low Orbiting Message Relay Satellite.</b> Built by Defense System, Inc., for DARPA. First launch attempt was on STS 51-B which failed. Deployed from GAS canister. <p style="text-align: right;">Deployed Wt = 150 lb</p>				
<b>ATTACHED PLB PAYLOADS:</b> Spacelab D-1 - First completed Spacelab mission under German Mission Management. Joint control by BMT (Federal Ministry of Research and Technology) and DFVLP (Deutsche Forschungs-und Versuchsanstalt Fur Luft-und Raumfahrt). <b>Experiment Facilities:</b> <b>1. WL-Werkstoff Labor; experiments relating to metallurgy, crystal growth, glasses/ceramics, and fluid physics.</b> Experiment facilities include: . Mirror Heating Facility . Isothermal Heating Facility . Gradient Heating Facility . High Temperature Thermostat . Fluid Physics Module . Cryostat  <b>2. PK-Progresskammer; experiment relating to Bubble Transport Boundary Layer, and Transparent Media.</b> Experiment facilities include: . Holographic Interferometric Apparatus . Marangoni Convection Boat . Interdiffusion in Salt Melt			<b>GAS (Getaway Special)</b> None  <b>SPECIAL PAYLOAD MISSION KITS:</b> 1. Airlock 2. Long Transfer Tunnel 3. Galley 4. USS - Unique Support Structure 5. RMS S/W 302.	

CARGO SUMMARY		MISSION SEQUENCE: 23		STS 61-B	ORBITER OV-104
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special)</b> G-479 Telesat-Canada a. Primary surface mirror production b. Metallic crystal production		
42,788	27,465	15,323			
<b>DEPLOYABLE PAYLOADS:</b>			<b>CREW COMPARTMENT PAYLOADS:</b>		
<p>1. <b>MORELOS-B/PAM-D:</b> Hughes 376 Comm Satellite with MDAC Payload Assist Module booster. Owned by Mexican Communications and Transportation Agency. Deployed Wt = 7,573 lb</p> <p>2. <b>AUSSAT-2/PAM D:</b> Hughes 376 Comm Satellite with MDAC Payload Assist Module booster. Owned by AUSSAT Proprietary Ltd. Deployed Wt = 7,634 lb</p> <p>3. <b>SATCOM KU-2/PAM-D2:</b> RCA built/owned 16 channel Ku band communications satellite. First of four satellites. MDAC Payload Assist Module D2 is an updated version of the PAM-D used for heavier payloads. Deployed Wt = 12,258 lb</p>			<p>1. <b>CFES:</b> Continuous Flow Electrophoresis System. Owned by McDonnell Douglas, separate biological samples using electrophoretic process. Third flight of this equipment.</p> <p>2. <b>DMOS:</b> Diffusive Mixing of Organic Solutions. Sponsored by 3M Corporation and used to study organic crystal growth/kinetics, test molecular orbital model, and produce new materials for electro-optical applications of this equipment.</p> <p>3. <b>MPSE:</b> Morelos Payload Specialist Experiments, includes experiments in transportation of nutrients inside bean plants, inoculation of group bacteria viruses, germination of three seed types and medical experiments testing internal equilibrium and volume change of the leg due to fluid shifts in zero-g.</p> <p>4. <b>OEX:</b> Orbiter Experiments, an onboard experimental digital autopilot software package designed to provide precise stationkeeping capabilities between space vehicles.</p>		
<b>ATTACHED P/LB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
<p>1. <b>EASE:</b> Experiment Assembly of Structures in Extravehicular Activity (EASE) is a study of EVA dynamics and human factors in construction of structures in space. An inverted tetrahedron consisting of six 12-foot beams was constructed by EV-1 and EV-2.</p> <p>2. <b>ACCESS:</b> Assembly Concept for Construction of Erectable Space Structures (ACCESS) is validation of ground based timelines based on simulations. A 45-foot truss was assembled/disassembled by the two EV crew members.</p> <p>3. <b>ICBC:</b> INAX Cargo Bay Camera, joint effort between the Canadian INAX Corp. and NASA, consists of a 70mm film camera in pressurized container used to document EASE/ACCESS operations.</p>			<p>1. Food Warmers (2), galley not flown.</p> <p>2. BPS S/W 301</p> <p>3. PSA (Provision Stowage Assembly)</p>		

CARGO SUMMARY			MISSION SEQUENCE: 24	STS 61-C	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE</b>			<b>GAS (Getaway Special) (continued):</b>		
<b>CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	3. G-462* UVX, referred to as GAP (GSPC Avionics Package) contains Telemetry System, Tape Recorder, and Battery. GSPC experiment.		
28,625	12,351	16,274	4. G-007: Alabama Space and Rocket Center/Marshall Amateur Club. Contains 3 student experiments and 1 radio transmission experiment.		
<b>DEPLOYABLE PAYLOAD:</b>			5. G-446: HPLC (High Performance Liquid Chromatography) analytical column. All Tech Assoc. Inc.		
SATCON KU-1/PAM D-2: RCA built/owned 16 channel Ku-Band communications satellite. Second of four satellites. MDAC Payload Assist Module D2 is an updated version PAM-D which is used for heavier payloads. Deployment Wt. = 12,351.0 lb			6. G-494: PHOTONS (Photometric Thermospheric Oxygen Night-glow Study). Canada Centre for Space Science, NRC of Can.		
<b>ATTACHED PLB PAYLOADS:</b>			7. Not numbered: EMP (Environmental Monitoring Package) measures the environment for GSPC.		
1. NSL-2 (Materials Science Laboratory) consisting of NSL Carrier; MPE (Mission Peculiar Equipment), and 3 experiments.			8. G-481: Unprimed, prepared linen and painted canvas reactions to space travel. Vertical Horizons.		
a. 3AAL (3-Axis Acoustic Levitator)			9. G-062: 4 part experiment from Pennsylvania State University/General Electric.		
b. ADEF (Automated Directional Solidification Furnace)			10. G-449: JULIE (Joint Utilization of Laser Integrated Experiments). Four part experiment from St. Mary's Hospital, Milwaukee, WI.		
c. SEECM (Shuttle Environmental Effects of Coated Mirrors).			11. G-332: 2 part experiment from Booker T. Washington Senior High School and High School for Engineering, Houston, TX.		
2. HITCHHIKER G-1: A Goddard Space Flight Center (GSPC) managed program consisting of 3 experiments:			12. G-310: USAF Academy experiment.		
a. PACS (Particle Analysis Camera for Shuttle).			Note: Above 12 GAS canisters mounted on Gas Bridge carrier.		
b. CPL (Capillary Pump Loop)			13. G-470: Experience from GSPC and U.S. Dept of Agriculture.		
c. SEECM (Shuttle Environment Effects of coated Mirrors).			<b>CREW COMPARTMENT PAYLOADS:</b>		
3. IR-IE (Infrared - Imaging Experiment consisting of a RCA IR TV camera mounted in Orbiter CCTV pan/tilt unit. Orbiter CCTV pan/tilt unit.			1. IBSE (Initial Blood Storage Experiment) package in 4 mid-deck lockers.		
<b>GAS (Getaway Special):</b>			2. CHAMP (Comet Halley Active Monitoring Program) uses cameras spectroscopic grating and filters to observe comet through aft flight-deck overhead window.		
1. G-464: UVX (Ultraviolet Experiment), referred to as UCB (Univ. of Calif. at Berkley) contains a Bowyer UV spectrometer. GSPC experiment.			3. HPCG (Handheld Protein Crystal Growth) experiment.		
2. G-463: UVX, referred to as JHU (John Hopkins University) contains a Feldman Spectrophotometer. GSPC experiment.			4. SSIP (Shuttle Student Involvement Program)		
			a. SE83-4, Production of Paper Fiber in Space.		
			b. T83-6, Argon Injection as an Alternative to Honey-combing.		
			c. SE82-19, Measurement of Auxin Levels and Starch Grains in Plant Roots.		
			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
			1. GAS Bridge Carrier		
			2. Galley		
			Note: MPE not flown		

CARGO SUMMARY			MISSION SEQUENCE: 25	STS 51-L	ORBITER OV-099
<b>PAYLOAD-CHARGEABLE</b>	<b>DEPLOYED P/L</b>	<b>RETURNED CARGO</b>	<b>CREW COMPARTMENT PAYLOADS:</b>		
<b>CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>WEIGHT, LB</b>	<b>WEIGHT, LB</b>	1. Fluid Dynamics Experiment (FDE) Hughes Aircraft Company Experiment composed of six experiments:		
48,633	N/A	N/A	a. Fluid position and ullage.		
<b>DEPLOYABLE PAYLOADS:</b>			b. Fluid motion due to spin.		
1. TDRS-B/IUS: Tracking and Data Relay Satellite/Inertial Upper Stage.			c. Fluid self-inertia.		
Deployment Weight = 37,636 lb			d. Fluid motion due to payload deployment.		
(IUS = 32,636, TDRS-B = 5000 lb)			e. Energy dissipation due to fluid motion.		
Non-deployable Weight = 5,603 lb			f. Fluid transfer.		
2. SPARTAN-203/Halley: Shuttle pointed Autonomous Research Tool for Astronomy/Halley's Comet Experiment Deployable/retrieval packages using RMS.			2. Comet Halley Active Monitoring Program (CHAMP), second flight.		
a. SPARTAN experiment package:			Phase Partitioning Experiment (PPE) dissolves two polymer solutions in water to observe their separation.		
1) 2 UV Spectrometers from University of Colorado.			Teacher in Space: Six experiments including hydroponics magnetism, Newton's laws, effervescence, chromatography, and simple machines.		
2) 2 Nikon F-3 Cameras.			Shuttle Student Involvement Packages:		
3) Optic Bench			SES2-4 "The effects of weightlessness on grain formation and strength in metals"		
b. Halley's Comet Experiment; measure Halley's Comet composition/activity.			From: L. Bruce - St. Louis, MO		
			Sponsor: McDonnell Douglas		
			SES2-5 "Utilizing a semi-permeable membrane to direct crystal growth in zero gravity"		
			From: S. Cavou - Marlboro, NY		
			Sponsor: Union College		
			SES3-9 "Chicken embryo development in space"		
			From: J. Vellinger - Lafayette, IN		
			Sponsor: Kentucky Fried Chicken Corporation		
<b>Gas (Getaway Special):</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
None			1. RMS (Remote Manipulator System)		
			2. Galley		
			3. MNDS		

CARGO SUMMARY			MISSION SEQUENCE: 26	STS-26	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE</b>	<b>DEPLOYED P/L</b>	<b>RETURNED CARGO</b>	<b>GAS (Getaway Special):</b>		
<b>CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>WEIGHT, LB</b>	<b>WEIGHT, LB</b>	None		
44,601	37,514	7,087	<b>CREW COMPARTMENT PAYLOADS:</b>		
<b>DEPLOYABLE PAYLOADS:</b>			1. PVTOS - Physical Vapor Transport of Organic Solids, 3M Corporation; Second flight.		
1. TDRS-C/IUS: Tracking and Data Relay Satellite/Inertial Upper Stage			2. ADSF - Automated Directional Solidification Furnace, MSFC, third flight, test material solidification in zero g		
Deployable Wt = 37,514 lb			3. IRCPE - Infrared Communication Flight Experiment, JSC, first flight; test infrared transmitting crew headsets		
(IUS = 32,877 lb,			4. PCG - Protein Crystal Growth, MSFC, flown four previous flights in less complicated configurations to examine growth of protein crystals in zero g.		
TDRS-C = 4,637 lb,			5. IEF - Isoelectric Focusing, MSFC, second flight, test isoelectric transport through a permeable membrane in zero g.		
Non-deployable Weight = 5,592 lb)			6. PPE - Phase Partitioning Experiment, MSFC, second flight, photograph fluid phase partitioning phenomena in zero g.		
			7. ABC - Aggregation of Red Blood Cells, MSFC & Australia, investigate aggregation characteristics of human red blood cells in zero g.		
			8. MLE - Mesoscale Lightning Experiment, MSFC, first flight, photograph atmospheric lightning activity from orbit.		
			9. ELRAD - Earth Limb Radiance Experiment, JSC, first flight, photograph earth limb radiance pre-sunrise/post-sunset.		
			10. Student Experiment SES2-4 - "Effects of weightlessness on Ti grain formation and strength". From L. Bruce, St. Louis, Mo., sponsor: McDonnell-Douglas		
			11. Student Experiment SES2-5 - "Utilizing a semi-permeable membrane to direct crystal growth in zero gravity". From S. Cavou, Marlboro, N. Y., sponsor: Union College.		
<b>ATTACHED PLB PAYLOADS:</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>		
OASIS-1: Orbiter Experiment Autonomous Supporting Instrumentation System measures and records payload bay environmental data.			1. Galley		
			2. MNDS		

CARGO SUMMARY		MISSION SEQUENCE: 27	STS-27	ORBITER OV-104
<u>PAYLOAD-CHARGEABLE</u> CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	<u>GAS (Getaway Special):</u> Data not available - DOD Classified Mission	
<u>DEPLOYABLE PAYLOAD:</u> Data not available, DOD Classified Mission.			<u>CREW COMPARTMENT PAYLOAD:</u> Data not available - DOD Classified Mission	
<u>ATTACHED PLB PAYLOAD:</u> Data not available, DOD Classified Mission			<u>SPECIAL PAYLOAD MISSION KIT:</u> Data not available - DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 28	STS-29	ORBITER OV-103
<u>PAYLOAD-CHARGEABLE</u> CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	<u>GAS (Getaway Special):</u>	
45,316	37,640	7,676	<u>CREW COMPARTMENT PAYLOADS:</u> 1. Protein Crystal Growth (PCG-111-1) Total weight = 90.7 lb 2. Chromosome and Plant Cell Division in Space (CHROMEX) Total weight = 89.0 lb 3. IMAX Camera Total weight = 313 lb 4. Air Force Maui Optical Site Calibration Test (AMOS) Total weight = 0 lb 5. Chicken Embryo Development (CHIX) in Space 6. Effects of Weightlessness of Bones (SSIP-82-08) total weight = 58 lb	
<u>DEPLOYABLE PAYLOAD:</u> Tracking and Data Relay Satellite /Inertial Upper Stage (TDRS/IUS) one of four identical communication satellites providing support for STS and other customers. TDRS weight = 4,950 lb. Total TDRS/IUS deployed weight = 37,546 lb			<u>SPECIAL PAYLOAD MISSION KITS:</u>	
<u>ATTACHED PLB PAYLOAD:</u> 1. Space Station Heat Pipe Advanced Radiator Element (SHARE) 2. Orbiter Experiments Autonomous Supporting Instrumentation System (OASIS-1)				



CARGO SUMMARY		MISSION SEQUENCE: 29	STS-30	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	<u>GAS (Getaway Special):</u> None	
45,823	40,118	5,705		
<u>DEPLOYABLE PAYLOAD: MAGELLAN/IUS</u>  Unmanned, three-axis attitude-controlled exploration spacecraft containing systems required to achieve orbit of Venus and map its surface. Deployable weight = 40,118 lb Non-deployable weight = 5,540 lb IUS = 32,525 lb Magellan = 7,593 lb Deployed: 125:01:01:01 G.m.t. SRM 1: 125:02:01:23 G.m.t. SRM 2: 125:02:06:28 G.m.t.			<u>CREW COMPARTMENT PAYLOAD:</u> 1. Fluids Experience Apparatus (FEA) FEA weight = 69 lb  Total weight = 128 lb  2. Mesoscale Lightning Experiment (MLE), Total weight = 31 lb  3. Air Force Maui Optical Sight Calibration Test (AMOS) 0 lb Total weight = 0 lb	
<u>ATTACHED PLB PAYLOAD:</u>  None			<u>SPECIAL PAYLOAD MISSION KITS:</u>  None	

CARGO SUMMARY		MISSION SEQUENCE: 30	STS-28	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	<u>GAS (Getaway Special):</u> Data not available DOD Classified Mission	
<u>DEPLOYABLE PAYLOAD:</u>  Data not available - DOD Classified Mission			<u>CREW COMPARTMENT PAYLOAD:</u>  Data not available - DOD Classified Mission	
<u>ATTACHED PLB PAYLOAD:</u>  Data not available - DOD Classified Mission			<u>SPECIAL PAYLOAD MISSION KITS:</u>  Data not available - DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 31	STS-34	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	<u>*GAS (Getaway Special):</u>	
45,905	38,323	7,582	1. Zero Gravity Growth of Ice Crystals	
<u>*DEPLOYABLE PAYLOAD:</u>			<u>*CREW COMPARTMENT PAYLOAD:</u>	
1. GALILEO/IUS, an unmanned spin-stabilized exploration spacecraft comprising a Jupiter orbiter and a Jupiter atmospheric entry probe mated to the IUS.			1. Polymer Morphology	
<u>ATTACHED PLB PAYLOAD:</u>			2. Growth Hormone Concentration and Distribution in Plants	
1. Shuttle Solar Backscatter Ultraviolet (SSBUV)			3. Sensor Technology Experiment	
			4. IMAX Camera	
			5. Mesoscale Lightning Experiment	
			6. Air Force Maui Optical Site Calibration Test	
			<u>SPECIAL PAYLOAD MISSION KITS:</u>	

\* Detailed experiment description in STS-34 Payload Information Document (PID)

CARGO SUMMARY		MISSION SEQUENCE: 32	STS-33	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	<u>GAS (Getaway Special):</u>	
			Data not available - DOD Classified Mission	
<u>DEPLOYABLE PAYLOAD:</u>			<u>CREW COMPARTMENT PAYLOAD:</u>	
Data not available - DOD Classified Mission			Data not available - DOD Classified Mission	
<u>ATTACHED PLB PAYLOAD:</u>			<u>SPECIAL PAYLOAD MISSION KITS:</u>	
Data not available - DOD Classified Mission			Data not available - DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 33	STS-32	ORBITER OV-102
<u>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</u> 18,317	<u>DEPLOYED P/L WEIGHT, LB</u> 15,316	<u>RETURNED CARGO WEIGHT, LB</u> 24,394	<u>GAS (Getaway Special):</u> None	
<u>DEPLOYABLE PAYLOAD:</u> SYNCOM IV-5, a geostationary communications satellite also known as LEASAT; leased to U.S. Navy.  Deployed weight: 15,316 lb			<u>CREW COMPARTMENT PAYLOAD:</u> 1. American Flight Echocardiograph (AFE) 2. Air Force Maui Optical Site Calibration Test (AMOS) 3. Characterization of Neurospora Circadian Rhythms (CNCR) 4. Fluids Experiment Apparatus 5. IMAX Camera 6. Latitude/Longitude Locator (L3) 7. Mesoscale Lightning Experiment (MLE) 8. Protein Crystal Growth (PCG)	
<u>ATTACHED PLB PAYLOAD:</u>  None				
<u>RETURNED CARGO:</u> LDEF, a non-powered space vehicle containing experiments. LDEF deployed on STS-41C.  Retrieved weight: 21,393 lb			<u>SPECIAL PAYLOAD MISSION KITS:</u> 1. Remote Manipulator System (RMS) 2. Galley 3. MADS	

CARGO SUMMARY		MISSION SEQUENCE: 34	STS-36	ORBITER OV-104
<u>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</u>	<u>DEPLOYED P/L WEIGHT, LB</u>	<u>RETURNED CARGO WEIGHT, LB</u>	<u>GAS (Getaway Special):</u> Data not available DOD Classified Mission	
<u>DEPLOYABLE PAYLOAD:</u> Data not available - DOD Classified Mission			<u>CREW COMPARTMENT PAYLOAD:</u> Data not available - DOD Classified Mission	
<u>ATTACHED PLB PAYLOAD:</u> Data not available - DOD Classified Mission			<u>SPECIAL PAYLOAD MISSION KITS:</u>  Data not available - DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 35	STS-31	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE</b> CARGO WEIGHT AT LIFT-OFF, LB	<b>DEPLOYED P/L</b> WEIGHT, LB	<b>RETURNED CARGO</b> WEIGHT, LB	<b>GAS (Getaway Special):</b>	
25,517	23,905	1,612	None	
<b>DEPLOYABLE PAYLOAD:</b> Hubble Space Telescope (HST), a large aperture optical telescope  Total deployed wt = 23,905 lb			<b>CREW COMPARTMENT PAYLOAD:</b>	
<b>ATTACHED PLB PAYLOAD:</b>			<ol style="list-style-type: none"> <li>1. Air Force Maui Optical Site Calibration Test (AMOS)</li> <li>2. IMAX Camera</li> <li>3. Investigation into Polymer Membrane Processing (IPMP)</li> <li>4. Protein Crystal Growth (PCG)</li> <li>5. Radiation Monitoring Experiment (RME)</li> <li>6. Investigation of Arc and Ion Behavior in Microgravity (Student Experiment 82-16)</li> </ol>	
<ol style="list-style-type: none"> <li>1. IMAX Cargo Bay Camera (ICBC)</li> <li>2. Ascent Particle Monitor (APM)</li> </ol>			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
			<ol style="list-style-type: none"> <li>1. RMS</li> <li>2. Galley</li> <li>3. HST EVA Tools</li> </ol>	

CARGO SUMMARY		MISSION SEQUENCE: 36	STS-41	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE</b> CARGO WEIGHT AT LIFT-OFF, LB	<b>DEPLOYED P/L</b> WEIGHT, LB	<b>RETURNED CARGO</b> WEIGHT, LB	<b>GAS (Getaway Special):</b>	
46,173	38,604	7,569	None	
<b>DEPLOYABLE PAYLOAD:</b> Ulysses/IUS/PAM-S - Deployable weight = 38,604 lb			<b>CREW COMPARTMENT PAYLOAD:</b>	
<b>ATTACHED PLB PAYLOAD:</b>			<b>CHROMEX - Chromosomes and Plant Cell Division in Space Environment</b> <b>SSCE - Solid Surface Combustion Experiment</b> <b>VCS - Voice Command System Experiment</b> <b>PSE - Physiological Systems Experiment</b> <b>RME - Radiation Monitoring Experiment</b> <b>IPMP - Investigation into Polymer Membrane Processing</b> <b>AMOS - Air Force Maui Optical Site Calibration Test</b>	
<b>SSBUV - Shuttle Solar Backscatter Ultraviolet Spectrometer</b> <b>ISAC - Intelsat Solar Array Coupon (Attached to RMS arm)</b>			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
			<ol style="list-style-type: none"> <li>1. Remote Manipulator System (RMS)</li> <li>2. Galley</li> <li>3. Radioisotope Generator (RTG) Cooling System</li> </ol>	

CARGO SUMMARY		MISSION SEQUENCE: 37	STS-38	ORBITER OV-104
<u>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</u>	<u>DEPLOYED P/L WEIGHT, LB</u>	<u>RETURNED CARGO WEIGHT, LB</u>	<u>GAS (Getaway Special):</u> Data not available DOD Classified Mission	
			<u>CREW COMPARTMENT PAYLOAD:</u> Data not available - DOD Classified Mission	
<u>DEPLOYABLE PAYLOAD:</u> Data not available - DOD Classified Mission			<u>SPECIAL PAYLOAD MISSION KITS:</u> Data not available - DOD Classified Mission	
<u>ATTACHED PLB PAYLOAD:</u> Data not available - DOD Classified Mission				

CARGO SUMMARY		MISSION SEQUENCE: 38	STS-35	ORBITER OV-102
<u>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</u>	<u>DEPLOYED P/L WEIGHT, LB</u>	<u>RETURNED CARGO WEIGHT, LB</u>	<u>GAS (Getaway Special):</u> None	
27,760	0	27,760	<u>CREW COMPARTMENT PAYLOAD:</u> SAREX - Shuttle Amateur Radio Experiment AMDS - Air Force Maui Optical Site Calibration Test	
<u>DEPLOYABLE PAYLOAD:</u> None			<u>SPECIAL PAYLOAD MISSION KITS:</u> 1. Galley 2. Aerodynamic Coefficient Identification Package (ACIP)	
<u>ATTACHED PLB PAYLOAD:</u> ASTRO-1 - Three ultraviolet telescopes attached to an Instrument Pointing System (IPS): 1. Wisconsin UV Photopolarimeter Experiment (WUPPE) 2. UV Imaging Telescope (UIT) 3. Hopkins UV Telescope (HUT) BEKRT - Broad Band X-Ray Telescope. Attached to its own two-axis pointing system (TAPS)				

CARGO SUMMARY		MISSION SEQUENCE: 39	STS-37	ORBITER OV-104
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
36,800	34,442	2,358		
<b>DEPLOYABLE PAYLOAD:</b> Gamma Ray Observatory (GRO), an unmanned astronomical observatory designed to image objects at high energy (gamma ray) wavelengths. Deployment weight: 34,442 lb			<b>CREW COMPARTMENT PAYLOAD:</b> Protein Crystal Growth (PCG) - II Air Force Maui Optical Site (AMOS) Radiation Monitoring Equipment (RME) - III Shuttle Amateur Radio Experiment (SAREX) - II Bioserve/Instrumentation Technology Associates Materials Dispersion Apparatus (BIMDA)	
<b>ATTACHED PLB PAYLOAD:</b> Crew and Equipment Translation Aids (CETA) - designed to evaluate candidate techniques/equipment for EVA crewmember translation.  Ascent Particle Monitor (APM) - designed to assess the the particulate contamination in the Orbiter PLB during ascent.			<b>SPECIAL PAYLOAD MISSION KITS:</b> Remote Manipulator System (RMS) s/n 301	

CARGO SUMMARY		MISSION SEQUENCE: 40	STS-39	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
21,413	4,873	20,495	None	
<b>DEPLOYABLE PAYLOAD:</b> Shuttle Payload Autonomous Satellite (SPAS) - II/ Infrared Background Signature Survey (IBSS) - SPAS-II/ IBSS was designed to observe rocket plume firings at infrared wavelengths Deployment weight: 4,046 lb Retrieval weight: 3,955 lb  Multi-Purpose Experiment Container (MPEC) - An additional USAF experiment mounted on STP-1. Deployed weight: 270 lb  GRO A, B, and C canister - Three canisters of chemicals were released. Deployed weight: 548 lb			<b>CREW COMPARTMENT PAYLOAD:</b> Cloud Logic to Optimize Use of Defense Systems (CLOUDS) - 1A  Radiation Monitoring Equipment (RME) - III	
<b>ATTACHED PLB PAYLOAD:</b> Air Force Program (AFP) - 675 - The objective of AFP-675 was to observe near-Earth space and celestial objects at infrared and ultraviolet wavelengths. Space Test Payload (STP) - 1 - Five USAF experiments mounted on a Hitchhiker - M carrier.			<b>SPECIAL PAYLOAD MISSION KITS:</b> Remote Manipulator System (RMS) s/n 301	

CARGO SUMMARY		MISSION SEQUENCE: 41	STS-40	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b> 12 Experiments on GBA Solid State Microaccelerometer Experiment Experiment in Crystal Growth Orbital Ball Bearing Experiment In-Space Commercial Processing Foamed Ultralight Metals Chemical Precipitate Formation Microgravity Experiments Flower and vegetable seeds exposure to Space Semiconductor Crystal Growth Experiment Active Soldering Experiments Orbiter Stability Experiment Effects of Cosmic Ray Radiation on Floppy Disks and Plant Seeds Exposure to Microgravity	
28,114	0	28,114		
<b>DEPLOYABLE PAYLOAD:</b> None				
<b>ATTACHED PLB PAYLOAD:</b> Spacelab Life Sciences (SLS) - 1 - a. Spacelab Long Module b. Tunnel c. Tunnel Extension d. Tunnel Adapter  Experiments: 6 Body Systems 6 Cardiovascular/Cardiopulmonary 3 Blood System 6 Musculoskeletal 3 Neurovestibular 1 Immune System 1 Renal/Endocrine System Gas Bridge Assembly (GBA) - 12 GAS experiments mounted on a truss structure in the PLB		<b>CREW COMPARTMENT PAYLOAD:</b> Physiological Monitoring System (PMS) Urine Monitoring System (UMS) Animal Enclosure Modules (AEM) Middeck Zero-Gravity Experiment (MOZE)  <b>SPECIAL PAYLOAD MISSION KITS:</b> Airlock Transfer Tunnel		

CARGO SUMMARY		MISSION SEQUENCE: 42	STS-43	ORBITER OV-104
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b> 1. Tank Pressure Control Experiment (TACE)	
46,712	37,575	9,137		
<b>DEPLOYABLE PAYLOAD:</b> Tracking and Data Relay Satellite/Inertial Upper Stage (TDRS/IUS), one of four identical communication satellites providing support for STS and other customers. TDRS/IUS Weight = 37,575 lb		<b>CREW COMPARTMENT PAYLOAD:</b> 1. Air Force Maui Optical Site Calibration Test (AMOS) 2. Auroral Photography Experiment (APE) 3. Bioserve/Instrumentation Technology Associates Materials Dispersion Apparatus (BIMDA) 4. Investigations into Polymer Membrane Processing (IPMP) 5. Protein Crystal Growth (PCG-III) 6. Space Acceleration Measurement System (SAMS) 7. Solid Surface Combustion System (SSCS) 8. Ultraviolet Plume Instrument		
<b>ATTACHED PLB PAYLOAD:</b> 1. Space Station Heatpipe Advanced Radiator Element (SHARE-II) 2. Shuttle Solar Backscatter Ultraviolet Instrument 03 (SSBUV) 3. Optical Communications Through the Window (OCTW)  Experiments:  Gas Bridge Assembly (GBA)		<b>SPECIAL PAYLOAD MISSION KITS:</b> None		

CARGO SUMMARY		MISSION SEQUENCE: 43	STS-48	ORBITER OV-103
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
17,144	14,388	2756	None	
<b>DEPLOYABLE PAYLOAD:</b> Upper Atmosphere Research Satellite (UARS) UARS Weight = 17,144 lb Deployable weight: 14,388 lb Non-deployable weight: 2,050 lb			<b>CREW COMPARTMENT PAYLOAD:</b>	
<b>ATTACHED PLB PAYLOAD:</b>			<ol style="list-style-type: none"> <li>1. Ascent Particle Monitor (APM)</li> <li>2. Cosmic Radiation Effects and Activation Monitor (CREAM)</li> <li>3. Radiation Monitoring Experiment (RME)</li> <li>4. Investigations into Polymer Membrane Processing (IPMP)</li> <li>5. Protein Crystal Growth (PCG)</li> <li>6. Middeck 0-Gravity Dynamics Experiment (MODE)</li> <li>7. Shuttle Activation Monitor (SAM)</li> <li>8. Physiological and Anatomical Rodent Experiment (PARE)</li> </ol>	
Experiments:			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
<u>Gas Bridge Assembly (GBA)</u>				

CARGO SUMMARY		MISSION SEQUENCE: 44	STS-44	ORBITER OV-104
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
44,637	37,588	7,049	None	
<b>DEPLOYABLE PAYLOAD:</b> Defense Support Program/Inertial Upper Stage satellite DSP/IUS Weight Deployed weight: 37,588 lb Non-deployed weight: 5,612 lb			<b>CREW COMPARTMENT PAYLOAD:</b>	
<b>ATTACHED PLB PAYLOAD:</b>			<ol style="list-style-type: none"> <li>1. Terra Scout</li> <li>2. Military Man in Space (M88-1)</li> <li>3. Air Force Maui Optical Site Calibration Test (AMOS)</li> <li>4. Cosmic Radiation Effects and Activation Monitor (CREAM)</li> <li>5. Shuttle Activation Monitor (SAM)</li> <li>6. Radiation Monitoring Equipment (RME-III)</li> <li>7. Visual Function Monitor (VFT-1)</li> <li>8. Ultraviolet Plume Instrument (UVPI)</li> </ol>	
Experiments:			<b>SPECIAL PAYLOAD MISSION KITS:</b>	
<u>Gas Bridge Assembly (GBA)</u>				



CARGO SUMMARY		MISSION SEQUENCE: 45	STS-42	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	ATTACHED PAYLOADS (CONT'D):	
			8. Critical Point Facility Measure material properties at the critical point 9. Gravitational Plant Physiology Facility Biological Investigation of plants during spaceflight 10. Biorack Biological investigation of various life forms during spaceflight Reflight of Spacelab D-1 Experiment 11. Space Physiology Experiments Investigate human space adaptation and motion sickness 12. Microgravity Vestibular Investigations Study space motion sickness 13. Biostack Investigate space radiation effects on biological materials 14. Mental Workload and Performance Evaluation Test human performance of computer tasks in Zero-G	
28,663	0	28,663		
DEPLOYABLE PAYLOAD: None				
ATTACHED PAYLOADS: International Microgravity Laboratory-1 (Spacelab Long Module) Objective: Conduct 9 Materials Science and 7 Life Science experiments in microgravity:				
1. Fluid Experiment System Crystal growth and fluid behavior 2. Vapor Crystal Growth System Reflight from Spacelab 3 3. Mercury Iodide Crystal Growth Reflight from Spacelab 3 4. Protein Crystal Growth Reflight from STS-26, 29, 32, 37 (Middeck) 5. Organic Crystal Growth Facility Crystal growth 6. Cryostat Crystal growth 7. Space Acceleration Monitoring System Measure on-orbit shuttle acceleration to support other microgravity experiments				
(Cont'd on next page)				

CARGO SUMMARY		MISSION SEQUENCE: 45 (Concluded)	STS-42	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special) (Cont'd):	
			GAS ballast payload no. 1 (GBP 1) GAS ballast payload no. 2 (GBP 2)	
28,663	0	28,663		
ATTACHED PAYLOADS (Cont'd):				
15. Radiation Monitoring Container/Dosimeter Measure effect of space radiation on biological materials GET-AWAY SPECIAL (GAS) BRIDGE CONSISTING OF 12 CANISTERS:				
G-086: Effects of microgravity on cysts hatched in space; thermal conductivity and bubble velocity of air in water G-140: Marangoni convection in a floating zone G-143: Glass bubbles in glass melts G-329: Solidification of phenomena in metal alloys G-336: Measurement of diffuse zodiacal and galactic emissions at B, R, & V standard astronomical wavelengths G-337: Performance of thermoacoustic refrigerator under microgravity G-457: Gas-liquid separation under microgravity G-609, G-610: Ultraviolet observations of deep space G-614: Motion of debris under microgravity conditions: low melting point materials processing				
CREW COMPARTMENT PAYLOAD				
Gelation of Sols: Applied Microgravity Research (GOSAMR) Objective: investigate processing of gelled sols in microgravity Student Experiment SE 83-2 Objective: Study zero gravity capillary rise of liquid through granular porous media Student Experiment SE 81-9 Objective: Study convection in zero gravity Investigation into Polymer Membrane Processing (IPMP) Objective: Manufacture polymers in space Radiation Monitoring Equipment (RME-III) Objective: Measures radiation environment on-orbit				

CARGO SUMMARY		MISSION SEQUENCE: 46	STS-45	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	Solar Science Active Cavity Radiometer Irradiance Monitor (ACRIM) ACRIM 1 flown on the solar maximum satellite Measurement of the Solar Constant (SOLCON) Previously flown on Spacelab 1 Solar Spectrum Measurement from 180 to 3200 Nanometers (SOLSPEC) Previously flown on Spacelab 1 Solar Ultraviolet Spectral Irradiance Monitor (SUSIM) Previously flown on Spacelab 2 and on the Upper Atmosphere Research Satellite (UARS) Space Plasma Physics Atmospheric Emissions Photometric Imaging (AEPI) Previously flown on Spacelab 1 Space Experiments with Particle Accelerators (SEPA) Previously flown on Spacelab 1 Energetic Neutral Atom Precipitation (Cont'd on next page)	
17,683	0	17,683		
DEPLOYABLE PAYLOAD: None				
<b>ATTACHED PLB PAYLOADS:</b> <b>ATLAS-1 (2 Spacelab Pallet and Igloo)</b> Objective: Study the composition of the middle atmosphere and its variations over an 11 year solar cycle. This is the first of 10 planned ATLAS missions over the next 11 years. <b>Atmosphere Physics</b> Atmosphere Trace Molecule Spectroscopy (ATMOS) Previously flown on Spacelab 1 Reflight from Spacelab 3 Millimeter Wave Atmospheric Sounder (MAS) First flight Atmospheric Lyman Alpha Emissions (ALAE) Previously flown on Spacelab 1 Grille Spectrometer (GRILLE) Previously flown on Spacelab 1 Imaging Spectrometric Observatory (ISO) Previously flown on Spacelab 1				

CARGO SUMMARY		MISSION SEQUENCE: 46 (Concluded)	STS-45	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	<b>CREW COMPARTMENT PAYLOAD (Cont'd):</b> Space tissue LOSS-01 (STL-01) Objective: To monitor the activities of tissue samples at the cellular level under the influence of microgravity Radiation Monitoring Equipment-III (RME-III) Objective: To measure ionizing radiation over repeated time intervals and digitally store the resulting data. Visual Function Tester-2 (VFT-2) Objective: To measure basic vision performance parameters in an orbit's space flight environment. Cloud Lo... to Optimize Use of Defense System Objective: To obtain photographic sequences of cloud fields of interest as targets of opportunity. Shuttle Amateur Radio Experiment II (SAREX II) Objective: To demonstrate voice, slow-scan television (SSTV), and pocket radio. All transmitted on 2 meter capabilities and fast scan television (FSTV) transmitted on 70 cm capability.	
17,683	0	17,683		
<b>ATTACHED PLB PAYLOADS (Cont'd):</b> <b>Ultraviolet Astronomy</b> Far Ultraviolet Space Telescope (FAUST) Previously flown on Spacelab 1 Shuttle Solar Backscatter Ultraviolet/A (SSBUV/A) Objective: To provide more accurate and reliable readings of global ozone to aid in the calibration of backscatter ultraviolet instruments being flown on free-flying satellites.				
<b>GAS (Getaway Special):</b> Getaway Special 229 (GAS-229) Objective: To melt and regrow gallium arsenide crystals with convective effects absent.				
<b>CREW COMPARTMENT PAYLOAD:</b> Investigation into Polymer Membranes Processing (IPMP) Objective: To flash evaporate mixed solvent systems in the absence of convection to control the porosity of the polymer membrane in microgravity.				

CARGO SUMMARY		MISSION SEQUENCE: 47	STS-49	ORBITER OV-105
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
32,809	23,346	9,463	None	
<b>DEPLOYABLE PAYLOAD:</b>			<b>CREW COMPARTMENT PAYLOAD:</b>	
International telecommunications satellite VI F3 (Intelsat) perigee kick motor (PKM)			Commercial protein crystal growth (CPCG) Air Force Maui Optical Site Calibration (AMOS) Ultraviolet Plume Instrument (UVPI)	
<b>ATTACHED PLB PAYLOAD:</b>			<b>SPECIAL PAYLOAD MISSION KITS: None</b>	
Assembly of station by EVA methods				

CARGO SUMMARY		MISSION SEQUENCE: 48	STS-50	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
24,305	0	24,305	None	
<b>DEPLOYABLE PAYLOAD:</b>			<b>CREW COMPARTMENT PAYLOAD:</b>	
None			*Zeolite Crystal Growth *Generic Bioprocessing Apparatus with 1 Refrigerator/Incubator Module (R/IM) *Astroculture (ASC) Protein Crystal Growth (PCG) Block 1 with 3 R/IMs *Investigation into Polymer Membrane Processing (IPMP) Shuttle Amateur Radio Experiment-II (SAREX-II) Ultraviolet Plume Instrument (UVPI)	
<b>ATTACHED PLB PAYLOAD:</b>				
United States Microgravity Laboratory (USML-1) Investigation into Polymer Membrane Processing (IPMP) Shuttle Amateur Radio Experiment-II (SAREX-II) Ultraviolet Plume Instrument (UVPI) Orbital Acceleration Research Experiment (OARE) Zeolite Crystal Growth (ZCG) Astroculture Generic Bioprocessing Apparatus (GBA) Protein Crystal Growth (PCG) Block 1				

CARGO SUMMARY		MISSION SEQUENCE: 49	STS-46	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
28,585	11,387	18,594	None	
<u>DEPLOYABLE PAYLOAD:</u>			<u>CREW COMPARTMENT PAYLOAD:</u>	
EURECA Deployable weight: 9,901 lb			Gas Autonomous Payload Controller (GAPC) for Use in ICBC Operations Pituitary Growth Hormone Cell Function (PHCF) Air Force Maui Optical Site Calibration (AMOS) (Passive Requirements Only) Ultraviolet Plume Instrument (UVPI)	
<u>ATTACHED PLB PAYLOAD:</u>				
Tethered Satellite System (TSS-1) Evaluation of Oxygen Interaction with Materials-III/ Thermal Energy Management Processes 2A-3 (EOIM-III/Temp 2A) IMAX Cargo Bay Camera (ICBC) Consortium for Material Development in Space Complex Autonomous Payload-II (CONCAP-II) CONCAP-III Limited Duration Space Environment Candidate Materials Exposure (LDCE)				

CARGO SUMMARY		MISSION SEQUENCE: 50	STS-47	ORBITER OV-105
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
27,607	-0-	27,607	None	
<u>DEPLOYABLE PAYLOAD:</u>			<u>CREW COMPARTMENT PAYLOAD:</u>	
None			Israeli Space Agency Investigation about Hornets (ISAHN) Shuttle Amateur Radio Experiment (SAREX) Solid Surface Combustion Experiment (SSCE) Ultraviolet Plume Instrument (UVPI) - Payload of Opportunity	
<u>ATTACHED PLB PAYLOAD:</u>				
Japanese Spacelab (Spacelab-J) Long Module Gas Bridge Assembly (GBA) with 12 Gas Canisters				

CARGO SUMMARY		MISSION SEQUENCE: 51	STS-52	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
20,132	5,577	14,555	None	
<u>DEPLOYABLE PAYLOAD:</u> Laser Geodynamics Satellite (LAGEOS)			<u>CREW COMPARTMENT PAYLOAD:</u> Queens University Experiment in Liquid Metal Diffusion (QUELD) Phase Partition in Liquid (PARLIQ) Sun Photo Spectrometer Earth Atmosphere Measurement-2 (SPEAM) Orbiter Glow-2 Space Adaptation Tests and Observation (SATO) Commercial Materials Dispersion Apparatus Instrumentation Technology Associates Experiments (CMIX) Crystal by Vapor Transport Experiment (CVTE) Heat Pipe Performance (HPP) Commercial Protein Crystal Growth (CPCG) Shuttle Plume Impingement Experiment (SPIE) Physiological System Experiment (PSE)	
<u>ATTACHED PLB PAYLOAD:</u> United States Microgravity Payload-2 (USMP-1)				

CARGO SUMMARY		MISSION SEQUENCE: 52	STS-53	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
26,118	20,953	7,557		
<u>DEPLOYABLE PAYLOAD:</u> DOD-1 Payload Deployment Weight: 20,953 lb			<u>CREW COMPARTMENT PAYLOAD:</u> CLOUDS - Cloud Logic to Optimize the use of Defense Systems FARE - Fluid Acquisition and Resupply Experiment MIS - Microcapsule In Space RME III - Radiation Monitoring Equipment - III STL - Space Tissue Loss BLAST - Battlefield Laser Acquisition Sensor Test HERCULES - Hand-Held, Earth-Oriented, Real-Time, Cooperative, User-Friendly, Location Targeting, and Environmental System CREAM - Cosmic Radiation Effects and Activation Monitor	
<u>ATTACHED PLB PAYLOAD:</u> ODERACS - Orbital Debris Radar Calibration Spheres GLO - Glow Experiment/Cryogenic Heat Pipe Experiment			<u>SPECIAL PAYLOAD MISSION KITS:</u> Remote Manipulator System (RMS)	

CARGO SUMMARY		MISSION SEQUENCE: 53	STS-54	ORBITER OV-105
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
46,540	37,497	11,572	None	
<u>DEPLOYABLE PAYLOAD:</u>			<u>CREW COMPARTMENT PAYLOAD:</u>	
TDS/TUS - Tracking and Data Relay Satellite/Inertial Upper Stage Deployment Weight = 37,497 lb.			CHROPEX - Chromosome and Plant Cell Division in Space	
<u>ATTACHED PLB PAYLOAD:</u>			CGBA - Commercial Generic Bioprocessing Apparatus	
DKS - Diffuse X-Ray Spectrometer			PARE - Physiological and Anatomical Rodent Experiment	
			SSCE - Solid Surface Combustion Experiment	
			<u>SPECIAL PAYLOAD MISSION KITS:</u>	

CARGO SUMMARY		MISSION SEQUENCE: 54	STS-56	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
16,439	2,840	20,988	None	
<u>DEPLOYABLE PAYLOAD:</u>			<u>CREW COMPARTMENT PAYLOAD:</u>	
SPARTAN-201 - Shuttle Point Autonomous Research Tool for Astronomy-201 Deployed Weight: 2,840 lb Retrieved Weight: 2,798 lb			SUVE - Solar Ultraviolet Spectrometer	
<u>ATTACHED PLB PAYLOAD:</u>			HERCULES - Hand-Held, Earth-Oriented, Real-Time, Cooperative, User- Friendly, Location Targeting, and Environmental System	
ATLAS-2 - Atmospheric Laboratory for Applications and Science			RME III - Radiation Monitoring Equipment III	
			CREAM - Cosmic Radiation Effects and Activation Monitor	
			SAREX II - Shuttle Amateur Radio Experiment II	
			CMUX - Commercial Materials Dispersion Apparatus ITA Experiments	
			STL - Space Tissue Loss Experiment	
			PARE - Physiological and Anatomical Rodent Experiment	
			<u>SPECIAL PAYLOAD MISSION KITS:</u>	
			Remote Manipulator System	

CARGO SUMMARY		MISSION SEQUENCE: 55	STS-55	ORBITER OV-102
<b>PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB</b>	<b>DEPLOYED P/L WEIGHT, LB</b>	<b>RETURNED CARGO WEIGHT, LB</b>	<b>GAS (Getaway Special):</b>	
26,881	None	33,721	REGM - Reaction Kinetics in Glass Melts	
<b>DEPLOYABLE PAYLOAD:</b> None			<b>CREW COMPARTMENT PAYLOAD:</b> Crew Telesupport Experiment	
<b>ATTACHED PLB PAYLOAD:</b> SPACELAB - D2 (German) payload User Support Structure - MAUS - Material Science Autonomous Payload AOET - Atomic Oxygen Exposure Tray GAUSS - Galactic Ultrawide Angle Schmidt System Camera MOMS - Modular Opto-Electronic Multispectral Stereo Scanner			SARAX - Shuttle Amateur Radio Experiment	
			<b>SPECIAL PAYLOAD MISSION KITS:</b>	

SHUTTLE FLIGHT HISTORIES  
ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS- No.	Orb. OV-	Shuttle Lift-off Weight, lb	Max Q, psf, # M =	Calculated Wind Load Data, 1-3.5 Hr. Winds Top Load Indicator Code/Description/ Location	Load* Value Percent	SRB Sep		MECO		ET Sep		OMS-1 Burn		OMS-2 Burn		Apogee/ Perigee Alt., nmi	Burn Duration, sec.	Apogee/ Perigee Alt., nmi.
							MET, sec/ Vel., fps/ Alt., ft	MET, sec/ Vel., fps/ Alt., ft	MET, sec/ Vel., fps/ Alt., ft	MET, h:m:s	MET, h:m:s	MET, h:m:s	MET, h:m:s	MET, h:m:s	MET, h:m:s	MET, h:m:s			
1	1	102	4,457,111	617 1.06	PBD WEB Payload Bay Door Shear Hinge Fitting Web	80.7	131.7	514.0	532.1	00:10:34	87.0	00:44:02	75.0						
2	2	102	4,470,308	640 1.09	FWD FFOIN Forward External Tank Attach Fitting Load	90.0	130.0	513.8	537.2	00:10:33.9	77.6	00:41:41.7	71.0						
3	3	102	4,468,755	651 1.04	OMSL-6 Left OMS Pod Frame X = 232.7	91.8	127.9	513.4	531.5	00:10:34.4	86.0	00:40:50.4	88						
4	4	102	4,481,935	721 1.71	ET 4-11 Midpoint Lefthand Vertical Strut (P4)	97.4	130.0 156,024	512.7 25,677	530.4 354,800	00:10:32.6	88	00:37:40.6	105.0	130.0					
5	5	102	4,487,268	738 1.70	VT-6-R Vertical Tail Root Rib	96.6	129.08 155,206	510.68 25,672 361,206	528.77 366,193	00:10:30.8	137.8	00:44:40.8	116.8	160.0					
6	6	099	4,487,255	688 1.47	WINGRA17 Right Wing Spar Web X = 1249, Y = 130	104.6	129.42 151,453	499.40 25,672 361,122	517.55 366,139	00:10:19.6	135.3	00:43:37.6	117.0	154.2					
7	7	099	4,482,241	701 1.56	WINGRA17 Right Wing Spar Web X = 1249, Y = 130	90.8	126.2 4,319 149,357	500.1 25,595 361,420	518.2 25,668 366,506	00:10:20.2	139.5	00:44:30.2	117.5	160.4					
8	8	099	4,492,074	701 1.53	WINGRA17 Right Wing Spar Web X = 1249, Y = 130	106.9	124.34 4,235 152,110	521.62 25,593 360,803	539.66 25,669 365,878	00:10:41.7	138.1	00:44:51.7	115.6	160.5					
9	9	102	4,503,361	676 1.52	WINGLA22 Left Wing Spar Web X = 1191, Y = 130	93.7	126.24 4,289 161,689	509.18 25,647 372,249	527.32 25,723 378,580	00:10:29.3	63.8	00:40:37.3	101.5	134.9					
10	41B	099	4,498,443	676 1.55	WLE8R Left Wing Leading Edge	94.8	127.92 4,330 152,605	521.42 25,589 361,029	539.57 25,667 366,061	00:10:41.6	150.2	00:45:24.6	125.0	165.0					
11	41C	099	4,508,234	635 1.03	WINGLA17 Left Wing Spar Web	94.8	125.57 4,137 169,426	510.76 25,942 360,906	528.9 26,013 370,118		Not Performed - Direct Insertion	00:42:54	95.2	251.6					

\*STS-1 thru STS-4 based on a systems dispersion of 90 percent, all other flights based on a systems dispersion of 99 percent.

Source: JSC/VP Orbiter Mass Properties Summary, STS-1 and subsequent missions. Rockwell International, Postflight Summary, STS-1 and subsequent missions.



SHUTTLE FLIGHT HISTORIES  
ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS No.	Orb. OV-	Shuttle Lift-off Weight, lb	Max Q, psf, $\rho H =$	Calculated Wind Load Data, L-3.5 Hr. Winds Top Load Indicator Code/Description/Location	Load* Value Percent	SRB Sep MET, sec/ Vel., fps/ Alt., ft	MECO MET, sec/ Vel., fps/ Alt., ft	FT Sep MET, sec/ Vel., fps/ Alt., ft	OMS-1 Burn		OMS-2 Burn		
										Tig MET, h:m:s	Burn Duration, sec.	Apogee/Perigee Alt., nmi	Tig MET, h:m:s	Burn Duration, sec.
12	41D	103	4,517,534	611	F2L Left Wing Carry-through Structure X = 1365, Y = 82	96.1	124.5 3,990 162,535	515.19 25,595 360,945	533.00 25,666 365,877	00:10:36.9	153.5	00:44:52.2	126.2	160.8
13	41G	099	4,493,317	716	OMS FTGR Left OMS Pod Point 6	85.0	124.12 4,157 157,374	530.34 25,644 372,883	548.41 25,719 378,859	00:10:50.4	134.5	00:46:30.4	143.3	191.7
14	51A	103	4,519,901	651	WINGRA20 Right Wing Spar Web X = 1365, Y = 240	91.1	125.72 4,095 156,242	513.16 25,593 361,491	531.29 25,669 366,591	00:10:33.3	151.0	00:44:43	114.8	160.1
15	51C	103	Data not available	Data not available	Department of Defense Mission									185.0 185.0
16	51D	103	4,505,245	666	WINGLA20 Left Wing Spar Web X = 1365, Y = 240	98.3	126.84 4,077 153,102	531.96 25,938 360,594	550.00 26,014 369,603	Not Performed - Direct Insertion		00:43:15	142.6	248.6 160.4
17	51B	099	4,512,009	700	WINGLA15 Left Wing Spar Web Y = 1307, Y = 136	87.2	125.88 4,195 156,700	514.96 25,647 372,561	533.05 25,723 378,806	00:10:35	133.4	00:46:15	145.2	190.6
18	51G	103	4,516,613	648	WINGLA20 Left Wing Spar Web X = 1365, Y = 240	88.7	124.68 3,973 164,000	515.77 25,842 360,915	533.93 25,914 368,228	Not Performed - Direct Insertion		00:40:29	177.6	192.1 190.5
19	51F	099	4,515,554	762	ROWINDOW Right Overhead Window	91.3	125.24 4,284 157,308	581.24 25,690 372,077	599.29 25,756 381,932	Abort to orbit -	106.4	00:33:00	119.4	142.9
20	51I	103	4,512,130	735	WINGLA8 Left Wing Spar Web X = 1365, Y = 334	101.5	121.00 4,235 154,479	507.59 25,839 361,481	525.77 25,912 368,863	Not Performed - Direct Insertion		00:40:28	183.2	190.3
21	51J	104				Data Not Available	Department of Defense							
22	61A	099	4,508,496	665	LMWGRK Left Wing Root Bending Moment	85.7	125.08 4,190 162,256	514.96 25,646 372,707	533.05 25,721 379,121	00:10:35	121.2	00:44:40	131.6	177.7 175.8

\*STS-1 thru STS-4 based on a systems dispersion of 90 percent, all other flights based on a systems dispersion of 99 percent.

Source: JSC/VP Orbiter Mass Properties Properties Summary, STS-1 and subsequent missions. Rockwell International Postflight Summary. STS-1 subsequent missions

**FLIGHT HISTORIES  
ASCENT AND ORBIT INSERTION**

Miss Seq. No.	STS- No.	Orb. OV-	Shuttle Lift-off Weight, lb	Max Q, psf, @ M =	Calculated Wind Load Data, L-3.5 Hr. Winds Top Load Indicator Code/Description/ Location	Load Value Percent	SRB Sep		MECO		ET Sep		OMS-1 Burn		OMS-2 Burn	
							NET, sec/ Vel., fps/ Alt., ft	sec/ Vel., fps/ Alt., ft	NET, sec/ Vel., fps/ Alt., ft	NET, sec/ Vel., fps/ Alt., ft	Tig h:m:s	Burn Dura- tion, sec.	Apogee/ Perigee Alt., nmi	Tig h:m:s	Burn Dura- tion, sec.	Apogee/ Perigee Alt., nmi.
23	61B	104	4,514,530	723 1.16	LWINGX Left Wing Root Bending Moment	89.1	123.56 4,274 146,782	511.29 25,643 360,661	529.45 25,915 367,881	Not Performed - Direct Insertion		00:40:25	180.4	191.2		
24	61C	102	4,509,360	696 1.13	WINGLA14 Left Wing Upper Spar Cap X = 1307, Y = 131	92.1	127.23 4,442 152,555	501.64 25,594 360,985	519.77 25,670 366,043	00:10:22	164.2	175.1 53.9	00:46:06	134.6	176.5 175.1	
25	51L	099	4,526,583	720 1.35	ET 3-42 External Tank Barrel Panel θ = 43°, X = 1859	83.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
26	26	103	4,522,411	707 1.16	WLE-14R WLE-14L	102** 102.7	124.80 4,127 151,816	513.43 25,871 360,878	530.50 25,869 367,122	None	N/A	N/A	00:39:56	141.6	178.0 162.0	
27	27	104	4,505,773		L-2, WRA 18 Upper Spar Cap Mld Right X = 1307	Data not available				- Department of Defense Mission					244.0 239.0	
28	28	103	4,524,261	710 1.44	L-2 AFT OMS Frame inner cap X = 1360	98	124.5 4,200 154,800	510.8 25,827 361,300	528.0 25,868 367,500	None	N/A	N/A	00:39:58	141.6	166.6 162.5	
29	30	104	4,527,426	676 1.07	L-2 WING LA18 Upper Spar Cap Mld Left X=1307	97	125.26 4,190 155,000	509.37 25,664 360,962	526.67 25,677 365,579	00:10:29	141.8	160.5 50.7	00:44:27	125.6	166.3 160.0	
30	28	102	4,510,019	679.0 1.12	LP-2.0 AFT OMS F OMS Frame Inner Cap X=1360	93.2	DOD	DOD	DOD	DOD	DOD	DOD	DOD	DOD	166.0 160.0	
31	34	104	4,524,224	687.9 1.63	LP-2.0 Aft OMS F OMS Frame Inner Cap X=1360	89.8	124.98 5,277.04 156,990	511.88 25,780.53 365,780	530.08 25,868.83 371,779	None	N/A	N/A	00:39:55	140.6	168.46 161.35	

\* STS-1 through STS-4 based on systems dispersion of 99 percent, all other flights based on systems dispersion of 90 percent.

\*\*Comparison of launch-day wind load conditions with an existing stress analysis that has comparable wind loads showed positive margins of safety for the wings, and as a result, the launch countdown was resumed.

Source: JSC/WP Orbiter Mass Properties Summary, STS-1 and subsequent missions. Rockwell International Postflight Summary, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS- No.	Orb. OV-	Shuttle Lift-off Weight, lb	Max Q, pof, @ M =	Calculated Wind Load Data,		SRB Sep MFT, sec/ Vel., fps/ Alt., ft	MECO MFT, sec/ Vel., fps/ Alt., ft	ET Sep MFT, sec/ Vel., fps/ Alt., ft	OMS-1 Burn		OMS-2 Burn		
					Top Load Indicator Code/Description/ Location	Load Value Percent				Tig MFT, h:m:s	Burn Dura- tion, sec.	Apogee/ Perigee Alt., nmi	Tig MFT, h:m:s	Burn Dura- tion, sec.
32	33	103	4,529,160	729.3 1.5		LP-2.0 AFT OMS F ONS Frame Inner Cap X=1360	DOD	DOD	DOD	DOD	DOD	DOD	DOD	302.0 126.0
33	32	102	4,519,487	641.1 1.05	91.3	L-2.0 AFT OMS F ONS Frame Inner Cap X=1360	511.00 5,281.42 157,254 361,119	530.00 25,911.68 368,882	NONE	N/A	00:40:25.6	139.5	N/A	178.0 173.0
34	36	104	4,507,283	743.9 1.49	94.0	L-2.0 AFT OMS F ONS Frame Inner Cap X=1360	DOD	DOD	DOD	DOD	DOD	DOD	DOD	132.0 115.0
35	31	103	4,514,665	656.3 1.08	92.7	L-2.0 Aft OMS F ONS Frame Inner Cap X=1360	510.00 5,324.21 155,453	528.00 26,134.83 372,084	NONE	N/A	00:42:35.9	304.4	N/A	333.00 327.00
36	41	103	4,544,024	665.0 1.1	88.0	L-2.0 AFT OMS F ONS Inner Frame Cap	510.39 4,113.0 156,553	528.37	NONE	N/A	00:39:53.4	143.6	N/A	160.2 159.4
37	38	104	4,531,909			DOD MISSION - DATA NOT AVAILABLE								142.0 115.0
38	35	102	4,600,228	696.0 N/A	92.0	L-2.0 WING LA 20 Left Wing Spar Shear X = 1362, Y = 235	511.6	529.67	NONE	N/A	00:40:24.7	179.2	N/A	190.2 187.7
39	37	104	4,519,158	681.0 1.57	85.0	L-2.0 Wing LA20	512.71 5294.5 361,246	530.16 26000.7 369,797	NONE	N/A	00:41:43.1	234.7	N/A	247 239
40	39	103	4,512,698	706.6 1.65	99.0	L-2.0 Aft OMS	514.51 5035.9 152,683	531.40 25793.3 367,696	NONE	N/A	00:36:07.5	129.0	N/A	140 136

Source: JSC/VP Orbiter Mass Properties Summary, STS-1 and subsequent missions. Rockwell International Postflight Summary, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS- No.	Orb. OV-	Shuttle Lift-off Weight, lb	Max Q, psf, $\theta M =$	Calculated Wind Load Data,		SRB Sep MET, sec/ Val., fps/ Alt., ft	MECO MET, sec/ Val., fps/ Alt., ft	ET Sep MET, sec/ Val., fps/ Alt., ft	OMS-1 Burn		OMS-2 Burn		Apogee/ Perigee Alt., nmi	Apogee/ Perigee Alt., nmi
					Top Load Indicator Code/Description/ Location	Load* Value Percent				T <sub>ig</sub> MET, h:m:s	Burn Duration, sec.	T <sub>ig</sub> MET, h:m:s	Burn Duration, sec.		
41	40	102	4,518,801	688.9 1.12	L-2.0 Wing LA21	88.0	124.74 5,275.1 153,002	509.8 25,803.2 361,444	527.86 25,869.0 366,809	None	N/A	00:42:17.6	124.1	N/A	157
42	43	104	4,522,828	775 1.67	L-2.0 Throttle low yaw positive WLE-P7	91.0	125.60 4265.2 149,261	507.80 25,796 360,846	526.04 25,689 366,906	None	N/A	00:39:51.0	142.7	N/A	174 161
43	48	103	4,503,424	767.4	L-2.0 DOLIU Wing L-A21	96.0	125.04 4,148.9 155,365	516.12 26,002 372,308	534.52 26,074 382,935	None	N/A	00:43:40	266.2	N/A	313 302
44	44	104	4,520,641	730 1.45	L-2.0 Nominal Aft OMS F	90.0	126.56 4,229.3 152,899	509.70 25,826 360,535	528.07 25,924 367,944	None	N/A	00:40:48	183.8	N/A	197 194
45	42	103	4,518,872	685 1.39	L-2.0 Nominal WLE P7	87.0	127.84 4,252.7 155,716	510.1 24,938 373,301	528.6 24,994 382,889	None	N/A	00:36:08.1	159.2	N/A	163 161
46	45	104	4,495,720	670 1.4	L-2.0 Yaw neg Aft OMS F	91.0	128.00 4,221.5 155,044	510.4 24,845 372,180	528.6 24,994 382,889	None	N/A	00:36:20	145.6	N/A	162 159
47	49	105	4,516,872	675 1.55	L-2.0 DOLIU Wing L-A21	83.0	127.2 4,215.8 156,553	509.4 24,350.6 360,713	527.6 24,466 368,365	None	N/A	00:39:57.8	124.3	N/A	182 148
48	50	102	4,520,103	659.8	L-2.0 NOMINAL WING L-A14	96.0	126.24 4,215.7 157,456	507.2 25,794 360,806	526.5 25,868 366,831	None	N/A	00:39:50.7	141.3	N/A	160 160
49	46	104	4,516,789	730	L-2.0 DOLIU WING L-A14	94.0	125.12 4,232.6 152,815	509.4 25,907 350,589	527.7 25,978 369,300	None	N/A	00:41:23.4	222.4	N/A	230 228

Source: JSC/VF Orbiter Mass Properties Summary, STS-1 and subsequent missions. Rockwell International Postflight Summary, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS- No.	Orb. OV-	Shuttle Lift-off Weight, lb	Max Q, psf, @ M =	Calculated Wind Load Data, L-3.5 Hr. Winds Top Load Indicator Code/Description/ Location	Load* Value Percent	SRB Sep		MECO		ET Sep		OMS-1 Burn		OMS-2 Burn		Apogee/ Perigee Alt., nmi	Burn Dura- tion, sec.	Apogee/ Perigee Alt., nmi.
							MET, sec/ Val., fps/ Alt., ft	sec/ Val., fps/ Alt., ft	MET, sec/ Val., fps/ Alt., ft	sec/ Val., fps/ Alt., ft	Tig MET, h:m:s	h:m:s	Tig MET, h:m:s	h:m:s					
50	47	105	4,506,804	682.4	L-2.0 NOMINAL RO WINDOW	96.0	124.00 4,121.8 157,413	513.6 25,746 372,695	532.0 25,822 381,731	None	N/A	00:39:50.7	158.7	N/A	160 160				
51	52	102	4,515,380	706.4	L-2.0 DOLILU TANK LT 1-14	101	123.12 4,107.9 149,168	512.08 25,795 360,888	530.4 25,866 367,142	None	N/A	00:39:55.5	137.4	N/A	163 160				
52	53	103	4,507,750	699.81 @ 1.3	L-2.0 DOLILU WING A16L	102	126.32 4,216.2 153,648	513.36 25,805.0 371,923	531.57 25,875.5 383,692	None	N/A	00:36:53.8	204.0	N/A	200.9 200.7				
53	54	105	4,523,381	697.44 @ 1.55	L-2.0 DOLILU PLBT BOX	96	125.68 4,212.1 152,106.7	509.92 25,797.0 360,792	528.29 25,868.9 366,833	None	N/A	00:38:53.4	143.8	N/A	164.1 160.3				
54	56	103	4,502,299	707.0 @ 1.5	L-2.0 NOMINAL PLBT BOX	94	125.84 4,178.9 151,247.7	514.30 25,749.0 372,390.0	532.70 25,820.1 381,364.0	None	N/A	00:37:18.2	148.8	N/A	160.7 158.9				
55	55	102	4,518,969	703.43 @ 1.55	L-2.0 DOLILU PLBT BOX	95	125.52 4,171.9 154,325.6	510.28 25,758.0 360,743	528.62 25,866.6 367,076	None	N/A	00:39:54.9	140.2	N/A	162.9 157.2				

Source: JSC/VP Orbiter Mass Properties Summary, STS-1  
and subsequent missions. Rockwell  
International Postflight Summary, STS-1 and  
subsequent missions.

SHUTTLE FLIGHT HISTORIES  
ENTRY AERODYNAMICS

Miss Seq. No.	STS- No.	Orb. OV-	Entry Interface		Cross Range, nmi.	Max. Load Factor, g	Max. Dyn. Press., psf	First Roll Rev. Vel., fps.	Term. Area Energy Mgmt.		Approach & Landing					
			Velocity, fps	Fit. Pth. Angle, deg					I/F Range, nmi.	I/F Load Factor, g	Max. Dyn. Press., psf	I/F Alt, ft.	Glide Slope, deg	Velocity, Max. Over thld	Keas At MCTD	
1	1	102	25,731	-1.19	4,372	1.60	217	18,310	58.9	1.70	286	10,000	20	315	250	183
2	2	102	25,726	-1.17	4,474	1.61	215	20,297	59.7	1.93	280	5,000	19	276	206	197
3	3	102	25,659	-1.13	4,136	1.62	220	17,784	59.1	1.54	295	10,000	19	302	232	220
4	4	102	25,797	-1.28	3,817	1.77	241	11,461	59.4	1.46	278	10,000	19	295	215	204
5	5	102	25,758	-1.24	4,036	1.59	219	11,397	59.8	1.59	280	10,000	19	298	216	198
6	6	099	25,755	-1.24	4,045	1.53	207	15,808	59.9	1.41	257	10,000	19	293	213	190
7	7	099	25,771	-1.25	4,040	1.59	220	7,143	59.6	1.65	305	9,834	19	295	232	202
8	8	099	25,649	-1.12	4,037	1.54	223	12,900	58.9	1.56	281	5,000	19	309	226	195
9	9	102	25,396	-1.18	4,349	1.60	232	21,581	59.9	1.52	280	10,000	17	295	203	185
10	41B	099	25,752	-1.20	4,137	1.57	220	12,957	59.4	1.59	289	10,000	19	292	218	196
11	41C	099	25,998	-1.52	4,089	1.54	216	16,208	59.4	1.43	293	10,000	19	313	234	213
12	41D	103	25,776	-1.26	4,112	1.54	206	14,072	60.0	1.42	265	10,000	19	299	227	200
13	41G	099	25,684	-1.12	4,308	1.54	241	11,927	60.2	1.40	285	10,000	19	296	216	208
14	51A	103	25,869	-1.35	4,141	1.56	225	14,063	60.5	1.46	285	10,000	19	299	217	186
15	51C	103	25,855	-1.32	4,144	1.54	211.8	16,118	60.1	1.50	281	10,000	19	293	223	185

Source: JSC/DMS Flight Design and Dynamics Division,  
Descent Post-flight summaries

SHUTTLE FLIGHT HISTORIES  
ENTRY AERODYNAMICS

Miss. Seq. No.	ST- No.	Orb. OV-	Entry Interface		Cross Range, nmi.	Max. Load Factor, g	Max. Dym. Press., psf	First Roll Rev. Vel., fps	Term. Area Energy Mgmt.		Approach & Landing						
			Velocity, fps	Fit. Pth. Angle, deg					I/F Range, nmi.	Load Factor, g	Max. Dyn. Press., psf	I/F Alt, ft.	Glide Slope, deg	Velocity, Max. ft/d	Keas At MGTD		
16	51D	103	25,955	-1.42	4,064	1.59	211.1	13,573	60.9	1.40	294	10,000	19	301	215	200	
17	51B	099	25,857	-1.26	4,264	1.57	241.6	18,500	59.1	1.50	282	10,000	19	300	219	204	
18	51G	103	25,850	-1.34	4,050	1.58	217.7	8,680	59.3	1.60	218	5,000	19	301	N/A	198	
19	51F	099	25,813	-1.19	4,221	1.58	235.6	11,537	59.7	1.54	290	10,000	19	306	244	199	
20	51I	103	25,829	-1.31	4,004	1.58	215.3	8,626	59.7	1.56	274	10,000	19	307	204	191	
21	51	104	Data not Available - TBS														
22	61A	099	25,830	-1.19	4,345	1.55	241	22,257	59.8	1.3	319	10,000	19	303	231	203	
23	61B	104	25,882	-1.35	4,106	1.54	232	13,172	59.1	1.4	286	10,000	19	293	224	189	
24	61C	102	25,815	-1.31	4,154	1.56	224	9,480	59.2	1.42	292	10,000	19	311	233	217	
25	51L	099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
26	26	103	25,790	-1.25	4,117	1.56	203	15,774	60.0	1.3	288	10,000	19	297	219	187	
27	27	104	25,121	-1.50	4,220	1.61	206	14,564.6	60.2	1.4	294	10,000	19	297	211	194	
28	29	103	25,787	-1.23	4,163	1.54	207	15,852	60.1	1.6	287	10,000	19	307	218	205	
29	30	104	25,788	-1.22	4,155	1.56	207	16,452	60.08	1.50	287	9,957	19	295	206	196	

Source: JSC/DMS Flight Design and Dynamics Division, Descent Post-flight summaries

SHUTTLE FLIGHT HISTORIES  
ENTRY AERODYNAMICS

Miss. Seq. No.	STS-Orb. No.	Entry Interface		Cross Range, nmi.	Max. Load Factor, g	Max. Dyn. Press., psf	First Roll Rev. Vol., fps	Term. Area Energy Mgmt.		Approach & Landing							
		Velocity, fps	Pth. Angle, deg					I/F Range, nmi.	I/F Load Factor, g	Max. Dyn. Press., psf	I/F Alt, ft.	Glide Slope, deg	Velocity, Max. Over thld	Keas At MGRD			
30	28	102	25,803	-1.11	4,332	186	1.54	213	19,494	58.8	1.6	295	10,000	19	299	224	155
31	34	104	25,784	-1.19	4,156	496	1.54	219	13,653	60.1	1.7	286	10,000	19	305	220	195
32	33	103	25,998	-1.48	4,068	226	1.52	215	16,988	60.2	1.5	301	10,000	19	300	211	199
33	32	102	25,823	-1.25	4,317	372	1.62	253	16,293	58.8	1.7	295	10,000	17	300	230	207
34	36	104	25,713	-1.18	4,338	255	1.57	204	18,520	59.5	1.9	325	5,000	19	298	218	199
35	31	103	26,120	-1.61	4,121	420	1.60	205	15,905	60.2	1.54	279	10,000	19	299	194	177
36	41	103	25,762	-1.20	4,147	492	N/A	212.7	13,639	60.0	1.67	291	9,777	19	306	224	192
37	38	104	25,729	-1.16	4,146	3	1.57	207	20,816	60.3	1.42	273	9,819	19	301	218	199
38	35	102	25,858	-1.32	4,266	426	1.58	245.8	15,406	59.15	1.59	279	8,052	17	300	217	201
39	37	104	24,612	-1.40	4,175	375	1.57	205	16,455	59.0	1.66	276	5,048	19	288	161	168
40	39	103	25,765	-1.06	4,502	616	1.57	246.5	11,543	60.2	1.50	295	9,862	19	302	222.1	218
41	40	102	25,772	-1.23	4,339	211	1.56	245.4	18,904	58.9	1.70	298	10,014	17	311	218.6	203
42	43	104	25,794	-1.16	4,312	180	1.57	294	19,141	60.3	1.4	223	10,000	19	295	221	197
43	48	103	26,077	-1.58	4,194	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	4,195	379	1.6	285	16,190	60.5	1.74	222.5	9,833	19	295	222	189

Source: JSC/DMS Flight Design and Dynamics Division,  
Descent Post-flight summaries



SHUTTLE FLIGHT HISTORIES  
ENTRY AERODYNAMICS

Miss. Seq. No.	STS- No.	Orb. OV-	Entry Interface		Cross Range, nmi.	Max. Load Factor, g	Max. Dym. Press., psf	First Roll Rev. Vol., fps	Term. Area Energy Mgmt.			Approach & Landing				
			Velocity, fps	Flt. Pth. Angle, deg					Range, nmi.	I/F Range, nmi.	Load Factor, g	Max. Dym. Press., psf	I/F Alt, ft.	Glide Slope, deg	Velocity, Max.	Keas Over thld
45	42	103	25,785	-1.12	4,358	1.61	232	14,053	59.6	1.40	308	10,000	19	310	229.0	196
46	45	104	25,785	-1.13	4,231	1.56	241.23	10,840.6	60.4	1.82	328	7,451	19	309	217	192
47	49	105	25,841	-1.28	4,162	1.56	215	15,850	59.2	1.57	293	9,931	19	299	217	194
48	50	102	25,786	-1.18	4,347	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	4,397	1.57	225	13,624	59.7	1.45	299	9,869	19	303	216	195
50	47	105	25,803	-1.11	4,341	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	4,454	1.58	247	18,350	60.1	1.51	297	9,820	19	302	224	211
52	53	103	25,813	-1.28	4,237	1.56	210	7,202	60.0	1.96	287	9,431	19	301	226	212
53	54	105	27,780	-1.20	4,213	1.56	211	17,043	60.5	1.8	295	9,873	19	302	232	212
54	56	103	25,797	-1.23	4,375	1.63	227	21,354	60.1	1.69	291	9,844	19	304	219	206
55	55	102	25,779	-1.16	4,299	1.56	260	10,463	59.8	1.5	309	9,848	17	319	238	217
56	57	105	25,988	-1.43	4,210	1.58	252	12,389	58.9	1.38	320	9,907	17	313	233	207

Source: JSC/DMS Flight Design and Dynamics Division,  
Descent Post-flight summaries

SHUTTLE FLIGHT HISTORIES  
LANDING - ELERATION

Miss. Seq. No.	STS- No.	Orb. OV-	Velocities and Rates				Distance from Threshold, ft <sup>b</sup>				Total Rollout, ft	Rollout time, sec	Runway Data	
			MGTD, kgs	Sink rates, fps	MGTD, kgs	Pitch, rate deg/sec	Brake init., kgs <sup>a</sup>	MGTD	NGTD	Brake init.				Stop
1	1	102	190.3	0.8	152.9	4.8	104.7	6,053	9,152	12,025	15,046	8,993	60	Edwards 23 Lakebed
2	2	102	185.9	1.0	135.0	4.4	109.5	780	4,429	5,780	8,491	7,711	53	Edwards 23 Lakebed
3	3	102	232.5	5.7	177.4	7.2	149.0	1,092	6,261	8,159	14,824	13,732	83	White Sands 17 Lakebed
4	4	102	195.7	2.0	161.2	3.2	133.2	948	4,988	7,839	10,826	9,878	73	Edwards 22 Concrete
5	5	102	201.0	1.0	175.9	4.0	167.0	1,637	4,675	5,286	11,190	9,553	63	Edwards 22 Concrete
6	6	099	180.0	2.0	147.0	3.4	136.0	2,026	4,970	5,072	9,270	7,244	49	Edwards 22 Concrete
7	7	099	200.0	2.5	154.4	4.4	124.5	2,726	6,843	7,040	13,176	10,450	75	Edwards 15 Lakebed
8	8	099	196.0	1.6	174.6	3.7	154.3	2,793	5,515	7,403	12,164	9,371	50	Edwards 22 Concrete
9	9	102	204.0	2.5	144.6	8.5	126.0	1,649	5,897	6,749	10,105	8,456	53	Edwards 17L Lakebed
10	41B	099	198.2	<2.0	159.5	2.4	135.9	1,930	5,789	7,448	12,737	10,807	67	KSC 15 Concrete
11	41C	099	220.0	2.0	138.0	4.0	110.0	1,912	7,167	8,538	10,628	8,716	49	Edwards 17L Lakebed
12	41D	103	216.3	<2.0	166.0	4.8	106.5	2,510	6,713	10,018	12,785	10,275	60	Edwards 17L Lakebed
13	41G	099	209.4	1.8 <sup>c</sup>	161.0	2.6	113.0	962	5,505	8,986	11,527	10,565	54	KSC 33 Concrete
14	51A	103	193.7	2.0 <sup>c</sup>	157.8	4.0	141.6	2,724	6,380	7,550	12,178	9,454	58	KSC 15 Concrete

<sup>a</sup>kgs = knots, ground speed

<sup>b</sup>Based on runway measurements except for brake initiation (onboard service)

<sup>c</sup>Based on LARC analysis of KSC spin-up measurements

Source: JSC/ES6, Mechanical Design and Analysis Branch  
In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
LANDING DECELERATION

Miss. Seq. No.	STS- No.	Orb. OV-	Velocities and Rates				Distance from Threshold, ft <sup>b</sup>				Total Rollout, ft	Rollout time, sec	Runway Data	
			MGTD, kgs	Sink rates, fps	MGTD, kgs	Pitch, deg/sec	Brake init., kgs	MGTD	Brake init.	Stop				
15	51C	103	179.1	0.7 <sup>c</sup>	142.7	3.4	116.7	2,753	5,752	7,677	10,105	7,352	50	KSC 15 Concrete
16	51D	103	209.0	2.8 <sup>c</sup>	180.0	5.1	156.0	1,639	4,303	6,667	11,937	10,298	63	KSC 33 Concrete
17	51B	099	206.5	<1.0	153.0	6.1	106.0	1,576	5,528	7,589	9,893	8,317	59	Edwards 17L Lakebed
18	51G	103	202.3	5.0	159.6	6.9	154.2	1,117	4,990	5,248	8,550	7,433	42	Edwards 23 Lakebed
19	51F	099	204.3	4.0	171.8	6.1	126.2	3,713	6,412	9,059	12,282	8,569	55	Edwards 23 Lakebed
20	51I	103	175.0	<2.0	142.0	4.8	114.0	2,101	4,384	5,571	8,201	6,100	47	Edwards 23 Lakebed
21	51J	104	167.0	3.0	154.8	4.8	117.2	2,476	4,873	7,421	10,532	8,056	65	Edwards 23 Lakebed
22	61A	099	209.9	1.0	173.8	6.7	110.9	1,829	4,767	7,923	10,133	8,304	45	Edwards 17L Lakebed
23	61B	104	201.3	1.0	165.7	3.1	126.4	2,386	5,909	9,321	13,145	10,759	78	Edwards 22 Concrete
24	61C	102	217.0	2.0	162.9	2.7	138.4	1,530	6,300	7,831	10,197	10,202	59	Edwards 22 Concrete
25	51L	099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	26	103	195	1.0	154	4.0	134	2,569	5,671	6,750	10,020	7,451	49.4	Edwards 17L Lakebed
27	27	104	204	1.0	168	3.8	134	1,469	4,423	5,908	8,592	7,123	43.0	Edwards 17L Lakebed
28	29	103	204	2.9	163	1.7	130	1,195	5,027	7,550	10,534	9,339	52.7	Edwards 22 Concrete

<sup>a</sup>kgs = knots, ground speed

<sup>b</sup>Based on runway measurements except for brake initiation (onboard service)

<sup>c</sup>Based on LARC analysis of KSC spin-up measurements

Source: JSC/MS6, Mechanical Design and Analysis Branch  
In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
LANDING DECELERATION

Miss. Seq. No.	STS- No.	Orb. OV-	Velocities and Rates					Distance from Threshold, ft <sup>b</sup>				Total Rollout, ft	Rollout time, sec	Runway Data
			MGTD <sup>a</sup> kgs	Sink rates, fps	MGTD <sup>a</sup> kgs	Pitch, rate deg/sec	Brake init., kgs	MGTD	MGTD	Brake init.	Stop			
29	30	104	204	2.4	164	2.0	138	1,314	5,088	6,028	11,609	10,295	64.3	Edwards 22 Concrete
30	28	102	158	1.0	128	7.6	82	5,311	7,393	9,776	11,326	6,015	46.5	Edwards 17L Lakebed
31	34	104	204.7	1.0	157.9	3.4	77.6	1,871	5,355	10,063	11,548	9,677	60.4	Edwards 23L Lakebed
32	33	103	191.6	3.0	159.4	2.9	148	740	3,982	4,856	8,504	7,764	46.1	Edwards 04 Conc. etc
33	32	102	207.3	1.0	161.5	2.2	141.3	2,399	6,606	8,096	12,495	10,096	62.2	Edwards 22 Concrete
34	36	104	187.8	1.0	143.2	3.8	97.0	1,622	4,862	6,405	9,522	7,900	52.9	Edwards 23L Lakebed
35	31	103	180.1	3.0	144.4	2.9	118.6	1,176	4,560	6,718	10,065	8,889	60.7	Edwards 22 Concrete
36	41	103	194.6	1.0	155.5	2.3	135.7	2,295	6,359	7,713	10,827	8,532	49.2	Edwards 22 Concrete
37	38	104	196.5	1.0	162.9	2.6	130.5	1,414	4,600	6,966	10,417	9,003	56.3	KSC 33 Concrete
38	35	102	207.9	1.0	169.5	3.4	134.5	1,535	5,559	8,465	12,101	10,566	57.7	Edwards 22 Concrete
39	37	104	156.6	2.3	131.8	7.3	93.6	-623	1,200	3,197	5,741	6,364	53.9	Edwards 33 Lakebed
40	39	103	210.4	2.0	159.8	2.5	136.5	168	4,700	6,316	9,403	9,235	55.5	KSC 15 Concrete
41	40	102	199.8	2.0	153.3	3.5	135.2	1,485	5,914	7,323	10,923	9,438	54.6	Edwards 22 Concrete
42	43	104	203.4	2.0	166.6	2.4	132.5	1,986	5,517	8,243	11,876	9,890	58.9	KSC 15 Concrete
43	46	103	215.7	1.0	172.0	2.5	145.4	1,235	4,882	6,851	10,619	9,384	49.6	Edwards 22 Concrete

<sup>a</sup> kgs = knots, ground speed  
<sup>b</sup> Based on runway measurements except for brake initiation (onboard service)  
<sup>c</sup> Based on LaRC analysis of KSC spin-up measurements

Source: JSC/MS6, Mechanical Design and Analysis Branch  
In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
LANDING DECELERATION

Miss. Seq. No.	STS- No.	Orb. OV-	Velocities and Rates					Distance from threshold, ft <sup>b</sup>				Total Rollout, ft	Rollout time, sec	Runway Data
			MGTD <sup>a</sup> kgs	Sink rates, fps	MGTD <sup>a</sup> kgs	Pitch, rate deg/sec	Brake init., kgs	MGTD	Brake init.	Stop				
44	44	104	183.4	1.0	150.0	4.5	15.2	2,607	5,077	13,570	13,798	11,191	106.6	Edwards 05R Lakebed
45	42	103	199.5	2.0	169.0	3.7	134.8	2,835	5,901	8,769	12,676	9,841	58.3	Edwards 22 Concrete
46	45	104	187.7	1.0	162.6	3.6	135.3	1,765	4,393	6,721	10,992	9,227	59.6	KSC 33 Concrete
47	49	105	211.0	1.0	175.1	3.0	96.3	2,156	5,770	9,923	11,646	9,490	57.7	Edwards 22 Concrete
48	50	102	209.4	2.0	151.2	4.4	112.9	2,321	7,832	10,573	12,995	10,674	58.6	KSC 33 Concrete
49	46	104	203.8	2.0	156.0	3.7	132.2	1,865	6,521	8,510	12,725	10,860	65.6	KSC 33 Concrete
50	47	105	210.6	1.0	137.0	1.9	115.6	2,458	7,651	8,591	11,025	8,567	50.9	KSC 33 Concrete
51	52	102	219.6	1.0	151.4	3.0	101.1	1,080	6,949	9,321	11,788	10,708	63.1	KSC 33 Concrete
52	53	103	208.8	3.0	144.9	1.9	106.2	1,108	6,329	7,927	11,273	10,165	72.8	Edwards 22 Concrete
53	54	105	205.0	2.0	150.2	2.7	106.8	1,536	6,249	8,233	10,260	8,724	49.2	KSC 33 Concrete
54	56	103	196.1	3.0	143.8	2.9	128.0	1,075	5,587	6,295	10,605	9,530	63.1	KSC 33 Concrete
55	55	102	210.3	3.5	149.0	3.9	85.0	1,819	7,283	10,030	11,944	10,125	60.9	Edwards 22 Concrete

<sup>a</sup> kgs = knots, ground speed

<sup>b</sup> Based on runway measurements except for brake initiation (onboard service)

<sup>c</sup> Based on LaRC analysis of KSC spin-up measurements

Source: JSC/ES6, Mechanical Design and Analysis Branch  
In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
ORBITER DRAG CHUTE

Miss. seq. no.	STS- No.	Orb. OV-	Serial Numbers <sup>a</sup> and Status Main Chute Pilot Chute	Events, G.m.t. <sup>b</sup>		Velocities <sup>c</sup> Deploy, kgs (keas) Jettison, kgs	Distance from threshold, ft <sup>d</sup>		Remarks
				Deploy Jettison	Deploy Jettison		Threshold	Deploy Jettison	
47	49	105	001 New 001 New	137:20:57:49.0 137:20:58:17.4		172.4 (160.5) 50.7	5,779 11,142		First drag chute flight (DFO 521, test 1). Drag chute fully instrumented. Peak loads: 19,274 lb reefed; 47,406 lb disreefed.
48	50	102	002 New 002 New	191:11:42:47.0 191:11:43:10.6		143.5 (137.6) 51.2	8,434 12,472		First drag chute use on OV-102 (DFO 521, test 0).
49	46	104	N/A	N/A		N/A	N/A		OV-104 was not equipped with the Orbiter drag chute system on this flight.
50	47	105	003 New 003 New	264:12:53:30.7 264:12:53:57.2		182.2 (177.4) 54.7	5,326 10,409		DFO 521, test 2. Drag chute fully instrumented. Peak loads: 26,829 lb reefed; 64,564 lb disreefed.
51	52	102	004 New 005 New	306:14:06:06.0 306:14:06:36.4		169.8 (163.7) 51.3	5,685 11,165		
52	53	103	005 New 004 New	344:20:44:00.2 344:20:44:24.9		159.0 (161.2) 60.4	5,468 9,775		
53	54	105	006 New 006 New	019:13:37:59.8 019:13:38:22.6		160.2 (161.0) 52.1	5,639 9,734		Drag chute fully instrumented. Peak loads: 22,267 lb. reefed; 37,972 lb disreefed.
54	56	103	018 New 008 New	107:11:37:30.4 107:11:37:59.8		157.1 (162.4) 54.7	4,687 9,761		Main chute canopy was permanently reefed at 90%.
55	55	102	007 New 007 New	126:14:30:14.9 126:14:30:40.6		157.2 (160.2) 54.2	6,772 11,153		

Notes:

- <sup>a</sup> Traceability ID: 07718-00XXX
- <sup>b</sup> Taken from the instant of pyrotechnic capacitor voltage discharge
- <sup>c</sup> Equivalent airspeed data are unavailable below approx. 66.0 KEAS
- <sup>d</sup> From onboard service (V59H0220C)

Source: JSC/ES6, Mechanical Design  
and Analysis Branch, In-house  
Mission Reports

SHUTTLE FLIGHT HISTORIES  
CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss. Seq. No.	STS- No.	Orb. OV-	Gross Brake Energies, Million ft.-lb. and Serial/Part Numbers				Maximum Pressures, Psia				Remarks
			Left Hand		Right Hand		Left Hand		Right Hand		
			Outboard Energy *PN/SN	Inboard Energy *PN/SN	Inboard Energy *PN/SN	Outboard Energy *PN/SN	Outbd	Inbd	Inbd	Outbd	
1	1	102	12.39 04/22 Note 1	14.23 04/24 Note 1	20.85 04/21 Note 1	4.02 04/23 Note 1 Minor damage	896	864	1,480	624	
2	2	102	12.82 04/22 Note 1	18.27 04/24 Note 1	13.62 04/09 Note 1	9.71 04/23 Note 1	832	960	824	776	No brake damage; longer wheel drive lug inserts installed**.
3	3	102	12.30 04/22 Note 1 Minor damage	19.90 04/24 Note 1 Minor damage	27.80 04/09 Note 1 Damage	21.10 04/23 Note 1 Damage	976	1,080	936	984	
4	4	102	22.80 04/33 Note 1	28.40 04/08 Note 1 Damage	29.10 04/07 Note 1 Damage	23.70 04/06 Note 1	1,160	1,304	1,232	1,232	
5	5	102	37.40 04/33 Note 1 Damage	42.60 04/31 Note 1 Damage	32.40 04/32 Note 1 Minor damage	29.80 04/06 Note 1 Minor damage	1,720	1,728	1,632	1,632	Broken stator on LHIB, brake locked up last 60 feet of rollout.
6	6	099	34.90 18/17 Note 2	32.30 18/18 Note 2	16.20 18/14 Note 2 Damage	13.80 18/16 Note 2	1,648	1,664	1,176	1,096	Demo hard braking. 118° saddle fitting installed.**
7	7	099	2.88 17/38 Note 1 Minor damage	1.96 17/36 Note 1 Minor damage	13.64 17/35 Note 1 Damage	8.26 17/37 Note 1 Minor damage	840	768	776	704	Broken rotors on RHIB. Rotor and stator drive clips installed, and rivet material grade change.**
8	8	099	36.60 17/24 Note 1 Damage	34.00 17/22 Note 1 Damage	29.60 17/31 Note 1 Damage	25.70 17/34 Note 1 Damage	1,432	1,368	1,184	1,160	

\*Part Number/Serial Number  
 Note 1: PN MC621-0051-00XX, SN 971530000XX  
 Note 2: PN MC621-0051-00XX, SN 039530000XX  
 \*\*Including subsequent flights.

Source: JSC/ES6, Mechanical Design and Analysis Branch  
 In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss. Seq. No.	STS- No.	Orb. OV-	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers						Maximum Pressures, Psia				Remarks
			Left Hand			Right Hand			Left Hand		Right Hand		
			Outboard Energy *PW/SN	Inboard Energy *PW/SN	Total Energy *PW/SN	Outboard Energy *PW/SN	Inboard Energy *PW/SN	Total Energy *PW/SN	Outbd Inbd	Inbd Outbd	Inbd	Outbd	
9	9	102	13.75 17/06 Note 1	18.24 17/33 Note 1	14.08 17/31 Note 1	11.87 17/32 Note 1 Minor damage	57.94	720	824	792	768		
10	41B	099	27.57 17/16 Note 1	22.39 17/14 Note 1	27.19 17/18 Note 1	19.12 17/08 Note 1 Minor damage	96.27	888	768	856	752		
11	41C	099	16.27 17/35 Note 2 Damage	14.02 17/23 Note 2 Damage	17.18 17/09 Note 2 Damage	13.73 17/07 Note 2 Damage	61.20	984	904	864	768		
12	41D	103	11.03 19/40 Note 1	12.57 17/41 Note 1 Minor damage	7.71 17/42 Note 1 Minor damage	5.55 17/39 Note 1 Minor damage	36.86	824	864	832	752		New drive lug inserts and 360° saddle installed on outboard brakes, Ref. MCR10853. RH M/G strut partially deflated, GN <sub>2</sub> leak at Schrader valve.
13	41G	099	20.65 22/37 Note 1	16.14 22/38 Note 1 Damage	22.80 22/36 Note 1 Damage	21.67 22/08 Note 1 Damage	81.26	1,400	1,270	1,747	1,466		360° saddle installed on all brakes. RH brakes fully instrumented.
14	51A	103	22.88 22/43 Note 1 Minor damage	24.21 19/40 Note 1 Minor damage	32.38 22/46 Note 1 Minor damage	30.34 22/45 Note 1 Damage	109.81	728	776	968	920		
15	51C	103	23.48 20/14 Note 1	24.26 20/16 Note 1 Damage	22.19 20/17 Note 1	20.79 20/18 Note 1	90.72	1,240	1,280	1,128	1,056		Redesigned rotor drive clips installed.**

Source: JSC/AS6, Mechanical Design and Analysis Branch, In-house Mission Reports

\*Part Number/Serial Number  
Note 1: PW MC621-0051-00XX, SN 971530000XX  
Note 2: PW MC621-0051-00XX, SN 039530000XX  
\*\* Including subsequent flights.



SHUTTLE FLIGHT HISTORIES  
CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss. Seq. No.	STS- No.	Orb. OV-	Gross Brake Energies, Million ft.-lb. and Serial/Part Numbers						Maximum Pressures, Pairs						Remarks		
			Left Hand			Right Hand			Left Hand		Right Hand		Left Hand			Right Hand	
			Outboard Energy *PW/SN	Inboard Energy *PW/SN	*PW/SN	Inboard Energy *PW/SN	Outboard Energy *PW/SN	*PW/SN	Outboard	Inboard	Outbd	Inbd	Outbd	Inbd		Outbd	Inbd
16	51D	103	20.28 Note 1	20.60 Note 1 Minor damage	20/39 Note 1	41.01 Note 1 Damage	20/44 Note 1 Damage	41.13	20/42 Note 1 Damage	123.02	800	856	968	1,048	Broken stator on RH, brakes locked up at end of rollout; RHIB last 113 ft and RHOB last 5 ft.		
17	51B	099	16.28 Note 1 Damage	14.35 Note 1 Damage	20/35 Note 1 Damage	15.01 Note 1	20/24 Note 1	11.04	20/34 Note 1	56.68	1,090	1,090	1,090	1,060	Broken rotors on LH brakes; RH brakes fully instrumented.		
18	51G	103	22.21 Note 1	23.17 Note 1	20/08 Note 1	12.86 Note 1	20/38 Note 1	11.63	20/37 Note 1 Minor damage	69.87	1,472	1,592	944	960			
19	51F	099	26.45 Note 1	22.20 Note 1 Minor damage	20/40 Note 1	21.15 Note 1	20/46 Note 1	14.67	20/45 Note 1	84.47	1,407	1,272	1,080	983	RH brakes fully instrumented.		
20	51I	103	8.72 Note 1	8.65 Note 1	20/14 Note 1	10.58 Note 1 Minor damage	20/18 Note 1 Minor damage	9.06	20/17 Note 1 Minor damage	37.01	928	904	912	968			
21	51J	104	8.81 Note 1 Minor damage	10.67 Note 1 Minor damage	20/09 Note 1 Minor damage	10.56 Note 1	20/06 Note 1	10.46	20/23 Note 1 Minor damage	40.50	944	792	864	960			
22	61A	099	13.72 Note 1	9.85 Note 1	20/39 Note 1	14.30 Note 1	20/41 Note 1	9.39	20/42 Note 1	47.26	867	780	973	1,002	No brake damage. RH brakes fully instrumented. Brake pedal bungee used.		
23	61B	104	22.18 Note 1	28.53 Note 1	20/35 Note 1	26.59 Note 1	20/22 Note 1	26.81	20/24 Note 1	104.11	768	1,016	904	1,016	No brake damage.		

Source: JSC/ES6, Mechanical Design and Analysis Branch,  
In-house Mission Reports

\*Part Number/Serial Number  
 Note 1: PW MC621-0051-00XX, SN 971530000XX  
 Note 2: PW MC621-0051-00XX, SN 039530000XX  
 \*\* Including subsequent flights.

SHUTTLE FLIGHT HISTORIES  
CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss. Seq. No.	STS- No.	Orb. OV-	Gross Brake Energies, Million ft.-lb, and Serial/Part Numbers				Maximum Pressures, psia				Remarks				
			Left Hand		Right Hand		Left Hand		Right Hand						
			Outboard Energy *PN/SN	Inboard Energy *PW/SN	Inboard Energy *PW/SN	Outboard Energy *PW/SN	Outbd	Inbd	Outbd	Inbd					
24	61C	102	24.06 Note 1	29.47 Note 1 Minor damage	33.92 Note 1 Damage	20/31 Note 1 Minor damage	20/21 Note 1 Damage	32.07 Note 1 Damage	20/33 Note 1 Damage	119.52	1,032	1,136	1,176	1,224	RH18 stator #3 had major cracks in beryllium due to over temperature. Brake pedal bungee used.**
25	51L	099	N/A	N/A	N/A	20/40 Note 1	20/46 Note 1	N/A	20/45 Note 1	N/A	N/A	N/A	N/A	N/A	
26	26	103	16.49 Note 1	14.89 Note 1	17.55 Note 1	30/22 Note 1	30/35 Note 1	19.36 Note 1	30/34 Note 1	68.29	1,093	850	1,070	1,053	No brake damage. RH brakes fully instrumented. Modifications: ** thick stator brake, stiffened axle, 6 brake orifices and A/S circuitry.
27	27	104	14.69 Note 1	15.28 Note 1	18.19 Note 1	30/07 Note 1	30/21 Note 1	17.55 Note 1	30/44 Note 1	65.71	824	816	992	864	No brake damage.
28	29	103	23.49 Note 1	22.09 Note 1	28.72 Note 1	30/24 Note 1	30/35 Note 1	29.49 Note 1	30/34 Note 1 Minor damage	103.79	976	855	1,190	1,097	Cracked rotor on RH08. RH brakes fully instrumented.
29	30	104	22.30 Note 1	24.18 Note 1	28.78 Note 1	30/16 Note 1	30/39 Note 1	26.41 Note 1	30/42 Note 1	101.67	672	680	1,008	928	No brake damage.
30	28	102	8.84 Note 1	8.06 Note 1	7.84 Note 1	30/17 Note 1	30/14 Note 1	9.06 Note 1	30/18 Note 1	33.80	752	680	664	792	No brake damage.
31	34	104	7.15 Note 1 Minor damage	7.40 Note 1	7.16 Note 1	30/07 Note 1	30/21 Note 1	6.70 Note 1 Minor damage	30/44 Note 1 Minor damage	28.41	720	736	672	768	
32	33	103	33.44 Note 1 Damage	30.96 Note 1 Damage	34.47 Note 1 Damage	30/16 Note 1 Damage	30/35 Note 1	34.29 Note 1	30/34 Note 1	133.16	1,200	1,116	1,097	1,060	Rotor cracking and beryllium carbide found on LH brakes. RH brakes fully instrumented.

Source: JSC/MS6, Mechanical Design and Analysis Branch,  
In-house Mission Reports

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Note 1: PN MC621-0051-00XX, SN 971530000XX  
Note 2: PN MC621-0051-00XX, SN 039530000XX  
\*\*Including subsequent flights.

SHUTTLE FLIGHT HISTORIES  
CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss. Seq. No.	STS- No.	Orb. OV-	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers						Maximum Pressures, psia				Remarks
			Left Hand		Right Hand		Total	Left Hand Outbd	Left Hand Inbd	Right Hand Inbd	Right Hand Outbd		
			Energy *PW/SN	Energy *PW/SN	Energy *PW/SN	Energy *PW/SN							
33	32	102	39.42 30/22 Note 1	36.84 30/24 Note 1	26.44 30/39 Note 1	31.28 30/42 Note 1	133.99	1,184	1,088	856	968	Beryllium carbide found on all LHIB brake rotors	
34	36	104	6.41 30/37 Note 1	7.49 30/38 Note 1	6.43 30/41 Note 1	6.68 30/49 Note 1	29.00	632	680	664	640	No brake damage.	
35	31	103	15.80 01/29 Note 3	20.16 01/26 Note 3	22.86 01/24 Note 3	26.07 01/25 Note 3	84.89	793	833	1,031	952	No brake damage. Brakes fully instrumented. First carbon brake flight (DT0519)	
36	41	103	30.27 01/29 Note 3	28.21 01/26 Note 3	26.98 01/24 Note 3	28.67 01/25 Note 3	114.13	1,189	1,242	1,480	1,388	No brake damage. Brakes fully instrumented. Second carbon brake flight (DT0519)	
37	38	104	23.32 30/06 Note 1	22.24 30/07 Note 1	30.18 30/44 Note 1	29.48 30/21 Note 1	105.22	760	736	1,008	984	No brake damage.	
38	35	102	34.11 30/09 Note 1	32.71 30/18 Note 1	31.42 30/14 Note 1	34.49 30/17 Note 1	132.72	1,240	1,120	1,272	1,376		
39	37	104	8.42 01/16 Note 3	10.10 01/21 Note 3	10.88 01/32 Note 3	6.77 01/33 Note 3	36.17	540	576	732	648	RHOB 4 brake pressure failed low during braking. Carbon brake DT0 519, condition 4.	
40	39	103	29.64 01/26 Note 3	30.39 01/29 Note 3	37.28 01/24 Note 3	36.68 01/25 Note 3	133.99	1,335	1,335	1,573	1,533	No brake damage. Brakes fully instrumented. Carbon brake DT0 519, condition 3.	
41	40	102	30.16 30/08 Note 1	28.16 30/16 Note 1	34.20 30/42 Note 1	38.24 30/39 Note 1	130.76	1,160	1,024	1,144	1,248	Last STS flight of carbon/beryllium brakes.	
42	43	104	24.04 01/19 Note 3	27.21 01/23 Note 3	31.96 01/20 Note 3	27.62 01/18 Note 3	110.83	852	936	1,008	972	RHOB #4 brake pressure failed low during braking.	

Source: JSC/ES6, Mechanical Design and Analysis Branch, In-house Mission Reports

\* Part Number/Serial Number  
 Note 1: PW MC621-0051-00XX, SN 971530000XX  
 Note 2: PW MC621-0051-00XX, SN 039530000XX  
 Note 3: PW MC621-0075-00XX, SN 971530000XX  
 \*\* Including subsequent flights

SHUTTLE FLIGHT HISTORIES  
CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss. Seq. No.	STS- No.	Orb. OV-	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers						Maximum Pressures, Psia				Remarks
			Left Hand		Right Hand		Total	Left Hand Outbd	Left Hand Inbd	Right Hand Inbd	Right Hand Outbd		
			Outboard Energy *PN/SN	Inboard Energy *PN/SN	Outboard Energy *PN/SN	Inboard Energy *PN/SN							
43	48	103	26.03 01/22 Note 3	26.62 01/34 Note 3	31.64 01/27 Note 3	30.45 01/32 Note 3	114.74	1,189	1,150	1,361	1,269	No brake damage. Brakes fully instrumented.	
44	44	104	0.12 01/18 Note 3	0.18 01/20 Note 3 Minor damage	0.51 01/30 Note 3 Damage	0.22 01/19 Note 3 Minor damage	1.03	372	396	624	492	Cracked rotor on RHIB. All brake damage due to improper workmanship. Labeled DTO 520 (minimum braking).	
45	42	103	27.95 01/22 Note 3	28.03 01/34 Note 3	30.32 01/27 Note 3	30.83 01/32 Note 3	117.13	912	872	938	991	No brake damage. Brakes fully instrumented.	
46	45	104	27.26 01/30 Note 3	29.32 01/45 Note 3	29.10 01/42 Note 3	25.90 01/44 Note 3	111.58	1,044	1,044	1,104	972	No brake damage.	
47	49	105	15.05 01/15 Note 3	16.27 01/13 Note 3	12.36 01/28 Note 3	11.65 01/31 Note 3	55.33	1,080	1,092	852	792	No brake damage. Carbon brake DTO 519, condition 6.	
48	50	102	25.67 01/21 Note 3	27.50 01/16 Note 3	19.43 01/29 Note 3	12.76 01/26 Note 3	85.36	1,164	1,212	984	1,008	RHO8 #4 brake pressure failed low during braking. Carbon brake DTO 519, condition 5.	
49	46	104	24.95 01/24 Note 3	27.37 01/25 Note 3	31.17 01/23 Note 3	26.96 01/33 Note 3	110.5	840	876	1,068	972	No brake damage.	
50	47	105	19.53 01/15 Note 3	17.86 01/13 Note 3	27.01 01/28 Note 3	24.42 01/31 Note 3	88.82	1,272	1,140	1,728	1,476	No brake damage.	

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 Note 1: PN MC621-0051-00XX, SN 971530000XX  
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 Note 3: PN MC621-0075-00XX, SN 971530000XX  
 \*\* Including subsequent flights

Source: JSC/ES6, Mechanical Design and Analysis Branch,  
In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss. Seq. No.	STS- No.	Orb. OV-	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers						Maximum Pressures, psia				Remarks	
			Left Hand		Right Hand		Total	Left Hand		Right Hand				
			Outboard Energy *PW/SN	Inboard Energy *PW/SN	Outboard Energy *PW/SN	Inboard Energy *PW/SN		Outbd	Inbd	Outbd	Inbd			
51	52	102	11.84 01SN08 Note 3	12.71 01SN16 Note 3	16.87 01SN42 Note 3 Minor Damage	17.92 01SN39 Note 3	59.34	648	636	984	960	621	948	Many of the rivet bushings on RHIB motor #2 were damaged.
52	53	103	6.20 01SN22 Note 3	9.98 01SN34 Note 3	11.31 01SN27 Note 3	6.00 01SN22 Note 3	33.49	502	515	793	621	621	948	No brake damage. Brake fully instrumented, but all data were lost due to a MADS anomaly.
53	54	105	16.21 01/15 Note 3	17.90 01/13 Note 3	12.77 01/31 Note 3	10.96 01/28 Note 3	57.84	1,284	1,272	1,116	948	948	948	LHOB 4 brake pressure failed low during braking.
54	56	103	11.37 01/22 Note 3	13.65 01/34 Note 3	11.62 01/27 Note 3	8.15 01/32 Note 3	44.79	714	767	859	846	846	846	No brake damage. RH brakes fully instrumented (some data lost due to MADS anomaly)..
55	55	102	10.15 01/21 Note 3	13.03 01/16 Note 3	16.16 01/25 Note 3	18.67 01/26 Note 3	58.01	864	936	1,332	1,344	1,344	1,344	No brake damage.

Source: JSC/ES6, Mechanical Design and Analysis - Branch, In-house Mission Reports

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 Note 1: PW MC621-0051-00XX, SN 971530000XX  
 Note 2: PW MC621-0051-00XX, SN 039530000XX  
 Note 3: PW MC621-0075-00XX, SN 971530000XX  
 \*\* Including subsequent flights

SHUTTLE FLIGHT HISTORIES  
LANDING AND FERRY

Miss. Seq. No.	STS- No.	Orb. OV-	Planned/ Actual Landing Site	Landing Times, G.B.T.		Runway Data		Winds True Dir., Dog./Speed, kts.	Prep. Time, d:h:m	Ferry Flight Data		Remarks
				Main Gear	Wheels Stop	Runway	Type			Actual Departure Date/Time	Actual Landing Date/Time	
1	1	102	EA7B	104:18:20:57 104:18:21:07 104:18:21:57	23	Dry lake bed	000/00 (Calm)	12:22:55	04/27/81 10:16 pdt	04/28/81 11:00 edt	1	
2	2	102	EA7B	318:21:23:11 318:21:23:27 318:21:24:04	23	Dry lake bed	220/08	10:01:05	11/24/81 14:28 pst	11/25/81 13:19 est	1	
3	3	102	EA7B/ WSSH, NH	89:16:04:46 89:16:05:00 89:16:06:09	17	Gyp- sum lake bed	220/13	06:21:55	04/06/82 07:00 aat	04/06/82 16:00 est	1	Wet EA7B lakebed resulted in landing at WSSH, NH.
4	4	102	EA7B	185:16:09:31 185:16:09:54 185:16:10:44	22	Con- crete	240/12	09:22:36	07/14/82 07:46 pdt	07/15/82 10:30 edt	1	
5	5	102	EA7B	320:14:33:26 320:14:33:34 320:14:34:29	22	Con- crete	012/02	05:00:57	11/21/82 07:30 pst	11/22/82 12:16 est	1	
6	6	099	EA7B	99:18:53:42 99:18:53:53 99:18:54:31	22	Con- crete	210/18	04:19:06	04/14/83 06:00 pet	04/16/83 12:45 est	2	
7	7	099	KSC/ EA7B	175:13:56:59 175:13:57:19 175:13:58:14	15	Dry lake bed	190/07	04:03:33	06/28/83 10:30 pdt	06/29/83 10:20 edt	1	Poor visibility at KSC resulted in landing at EA7B.
8	8	099	EA7B	248:07:40:43 248:07:40:50 248:07:41:33	22	Con- crete	210/06	04:05:41	09/09/83 06:22 pdt	09/09/83 19:00 edt	1	First night landing.
9	9	102	EA7B	342:23:47:24 342:23:47:38 342:23:48:17	17L	Dry lake bed	010/03	05:17:08	12/14/83 08:55 pet	12/15/83 14:53 est	1	
10	41B	099	KSC	042:12:15:55 042:12:16:06 042:12:17:02	15	Con- crete	010/03	N/A	N/A	N/A	N/A	Wind shift caused change from RW 33 to 15.
11	41C	099	KSC/ EA7B	104:13:38:07 104:13:38:22 104:13:38:56	17L	Dry lake bed	000/00 (Calm)	03:00:09	04/17/84 05:47 pet	04/18/84 10:08 est	1	Storms at KSC resulted in landing at EA7B.

Source: JSC/ASB, NASA Spaceflight Meteorology Group, and JSC/256, Mechanical Design and Analysis Branch  
In-house Mission Reports

a p = peak

SHUTTLE FLIGHT HISTORIES  
LANDING AND FERRY

Miss. Seq. No.	STS- No.	Orb. OV-	Planned/ Actual Landing Site	Landing Times, G.m.t.			Runway Data		Winds True Dir./ Deg./Speed kts.	Prep. Time, d:h:m	Ferry Flight Data			Remarks
				Main Gear	Nose Gear	Wheels Stop	Idosen.	Type			Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	
12	41D	103	EAFB	249:13:37:54 249:13:38:08 249:13:38:54	17L	Dry lake bed	220/04	02:23:57	09/09/84 06:35 pdt	09/10/84 11:45 edt	1	1	Stopped O/N at Altus AFB, OK for refueling and to wait for weather to clear at KSC.	
13	41G	099	KSC	287:16:26:38 287:16:26:47 287:16:27:32	33	Con-crete	320/08	N/A	N/A	N/A	N/A	N/A	N/A	
14	51A	103	KSC	321:11:59:56 321:12:00:09 321:12:00:54	15	Con-crete	330/05	N/A	N/A	N/A	N/A	N/A	N/A	
15	51C	103	KSC	027:21:23:23 027:21:23:35 027:21:24:13	15	Con-crete	160/08	N/A	N/A	N/A	N/A	N/A	N/A	
16	51D	103	KSC	109:13:54:28 109:13:54:36 109:13:55:31	33	Con-crete	090/09	N/A	N/A	N/A	N/A	N/A	N/A	
17	51B	099	EAFB	126:16:11:04 126:16:11:16 126:16:12:03	17L	Dry lake bed	210/05	04:03:09	05/10/85 12:20 pdt	05/11/85 11:05 edt	1	1	Stopped at Kelly AFB, TX.	
18	51G	103	EAFB	175:13:11:52 175:13:12:05 175:13:12:34	23	Dry lake bed	160/11	03:23:58	6/28/85 06:10 pdt	6/28/85 16:52 edt	1	1	Fuel stop at Bergstrom AFB, TX.	
19	51F	099	EAFB	218:19:45:26 218:19:45:33 218:19:46:21	23	Dry lake bed	220/10	03:18:05	8/10/85 2:51 pdt	8/11/85 12:40 edt	1	2	Fuel stops at Davis-Monthan AFB, AZ, and Eglin AFB, FL, overnight stop at Kelly AFB, TX.	
20	51I	103	EAFB	246:13:15:43 246:13:15:51 246:13:16:30	23	Dry lake bed	240/18	04:00:14	9/7/85 06:30 pdt	9/8/85 11:30 edt	1	1	Overnight stop at Kelly AFB, TX.	
21	51J	104	EAFB	280:17:00:08 280:17:00:15 280:17:01:13	23	Dry lake bed	270/12	03:20:55	10/11/85 06:55 pdt	10/11/85 18:10 edt	1	1	Fuel stop at Kelly AFB, TX.	

Source: JSC/334, NOAA Spaceflight Meteorology Group  
JSC/336, Mechanical Design and Analysis Branch,  
In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
LANDING AND FERRY

Miss. Seq. No.	STS No.	Orb. OV-	Planned/Actual Landing Site	Landing Times, G.M.T.			Runway Data		Winds		Prep. Time, d:h:m	Ferry Flight Data			Remarks
				Main Gear	Nose Gear	Wheels Stop	Notes	Type	True Dir. Deg./Speed kts	Actual Departure Date/Time		Actual Landing Date/Time	Stops Over Night	Fuel	
22	61A	099	EAFB	310:17:44:53 310:17:45:01 310:17:45:38		17L	Dry lake bed	170/01		03:21:05	11/10/85 06:50 pat	11/11/85 13:35 est	1	2	Fuel stop at Davis-Monthan AFB, AZ, and Eglin AFB, FL. Overnight stop at Kelly AFB, TX
23	61B	104	EAFB	337:21:33:49 337:21:34:00 337:21:35:07		22	Concrete	010/05		03:16:56	12/07/85 06:30 pat	12/07/85 17:15 est		1	Fuel stop at Kelly AFB, TX.
24	61C	102	KSC/ EAFB	018:13:58:51 018:13:59:07 018:13:59:50		22	Concrete	260/01		04:01:06	1/22/86 07:05 pat	1/23/86 14:20 est	1	2	Fuel stop at Davis-Monthan AFB, AZ, and Eglin AFB, FL. Overnight stop at Kelly AFB, TX.
25	51L	099	N/A	N/A		N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	
26	26	103	EAFB	277:16:37:11 277:16:37:17 277:16:37:56		17L	Dry lake bed	010/02		03:22:06	10/08/88 07:43 pat	10/08/88 19:03 est	N/A	1	Fuel stop at Kelly AFB, TX.
27	27	104	EAFB	341:23:36:11 341:23:36:17 341:23:36:52		17L	Dry lake bed	110/02		03:23:48	12/11/88 15:24 pat	12/13/88 18:37 est	2	N/A	Fuel stop at Davis-Monthan AFB, AZ, and Kelly AFB, TX.
28	29	103	EAFB	077:14:35:50 077:14:36:00 077:14:36:40		22	Concrete	220/06		05:03:24	3/23/89 11:00 pat	3/24/89 12:05 est	1	1	Fuel stop at Kelly AFB, TX.
29	30	104	EAFB	128:19:43:26 128:19:43:37 128:19:44:30		22	Concrete	280/08P16 Crosswind DPO 805 completed		05:02:57	05/13/89 15:40 pdd	05/15/89 20:09 est	2	3	Biggs AFB, TX, for overnight. DFW Dallas, TX - Fuel. Robbins AFB, GA - Fuel.

Source: JSC/238, NASA Spaceflight Meteorology Group, and JSC/236, Mechanical Design and Analysis Branch, In-house Mission Reports



SHUTTLE FLIGHT HISTORIES  
LANDING AND FERRY

Miss. Seq. No.	STS- No.	Orb. OV-	Planned/ Actual Landing Site	Landing Times, G.m.t.			Runway Data	Winds True Dir., Deg./Speed kts	Prep. Time, d:h:m	Ferry Flight Data		Remarks	
				Main Gear	Nose Gear	Wheels Stop				Actual Departure Date/Time	Actual Landing Date/Time		Stops Over Night
30	28	102	EAFB	225:13:37:08 225:13:37:13 225:13:37:52	17L	Dry lake bed	160/06	07:00:00	08/20/89 06:37 pdt	08/21/89 12:45 edt	1	1	Fuel stop at Kelly AFB, TX.  Overnight at Robbins AFB, GA.
31	34	104	EAFB	296:16:33:01 296:16:33:10 296:16:34:00	23L	Dry lake bed	170/04	04:21:32	10/28/89 07:05 pst	10/29/89 17:05 est	1	1	Biggs AAF, TX, for overnight; Columbus AFB, MS., for fuel.
32	33	103	EAFB	332:00:30:18 332:00:30:26 332:00:31:02	04	Concrete	070/08P19	05:14:07	12/03/89 06:37 pst	12/04/89 10:20 est	1	1	Fuel stop at Kelly AFB, TX.  Overnight at Eglin AFB, FL.
33	32	102	EAFB	020:09:35:36 020:09:35:50 020:09:36:38	22	Concrete	300/04P05	05:04:54	01/25/90 07:30 pst	01/26/90 15:29 est	1	2	Fuel stop at Dev. s Monthan AFB, AL. Overnight and fuel stops at Kelly AFB TX., and Eglin AFB FL.
34	36	104	EAFB	063:18:08:44 063:18:08:54 063:18:09:37	23L	Dry lake-bed	260/16P18	06:22:44	03/11/90 08:53 pst	03/13/90 12:50 est	2	1	Overnight (2) Biggs AAF, TX, and fuel stop at Columbus AFB, MS. Weather delay.
35	31	103	EAFB	119:13:49:57 119:13:50:09 119:13:50:58	22	Concrete	180/07P10	06:01:54	05/05/90 07:44 pdt	05/07/90 11:22 edt	2	2	Sheppard AFB, TX, and Robbins AFB, GA - Overnight and fuel.
36	41	103	EAFB	283:13:57:19 283:13:57:31 283:13:58:08	22	Concrete	279/03	04:23:48	10/15/90 06:45 pdt	10/16/90 15:59 edt	1	2	Fuel - Sheppard AFB, TX; RON at Eglin AFB, FL.

Source: JSC/258, NOAA Spaceflight Meteorology Group, and JSC/256, Mechanical Design and Analysis Branch, In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
LANDING AND FERRY

Miss. Seq. No.	STS- No.	Orb. OV-	Planned/ Actual Landing Site	Landing Times, G.M.T.			Runway Data		Winds True Dir., Deg./Speed kts	Prep. Time, d:h:m	Ferry Flight Data			Remarks
				Main Gear	Nose Gear	Wheels Stop	Widen.	Type			Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	
37	38	104	EAFB/ KSC	324:21:42:46 324:21:42:52 324:21:43:38	33	Con- crete	020/05P07	N/A	N/A	N/A	N/A	N/A	N/A	Weather concerns at EAFB resulted in landing at KSC.
38	35	102	EAFB	345:05:54:09 345:05:54:20 345:05:55:06	22	Con- crete	014/01P02	07:09:06	12/18/90 07:00 pdt	12/20/90 13:01 est	2	3	Refuel at Biggs AAF, TX and Kelly AFB, TX. ROW Kelly AFB. Refuel and ROW at Barksdale AFB, LA.	
39	37	104	EAFB	101:13:55:29 101:13:55:35 101:13:56:24	33	Dry lake bed	008/17P21	05:03:15	04/18/91 10:10 pdt	04/18/91 09:36 edt	2	2	ROW at Columbus AFB MS., and ROW at MacDill AFB, FL.	
40	39	103	EAFB/ KSC	126:16:55:37 126:18:55:49 126:18:56:31	15	Con- crete	155/12P16	N/A	N/A	N/A	N/A	N/A	Landed at KSC.	
41	40	102	EAFB	165:15:39:11 165:15:39:25 165:15:40:05	22	Con- crete	227/12P17	05:00:20	06/19/91 08:59 pdt	06/21/91 08:28 edt	2	2	ROW at Biggs AAF, TX, and at Columbus AFB, MS.	
42	43	104	KSC	223:12:23:25 223:12:23:36 223:12:24:23	15	Con- crete	250/04	N/A	N/A	N/A	N/A	N/A	Landed at KSC.	
43	48	103	KSC/ EAFB	261:07:38:42 261:07:38:53 261:07:39:31	22	Con- crete	190/06	06:08:59	09/24/91 09:38 pdt	09/26/91 12:15 edt	2	3	Fuel stop at Biggs AAF, TX; ROW at Tinker AFB, OK; ROW at Columbus AFB, MS	
44	44	104	KSC/ EAFB	335:22:34:44 335:22:34:50 335:22:36:28	05R	Dry lake bed	074/13P15	05:17:25	12/07/91 07:40 pdt	12/08/91 12:27 est	1	1	ROW at Sheppard AFB, TX.	

Source: JSC/288, NASA Spaceflight Meteorology Group, and JSC/286, Mechanical Design and Analysis Branch, In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
LANDING AND FERRY

Miss. Seq. No.	STS- No.	Orb. OV-	Planned/ Actual Landing Site	Landing Times, G.M.T.			Runway Data		Winds		Ferry Flight Data			Remarks
				Main Gear	Nose Gear	Wheels Stop	Nomen.	Type	True Dir. Deg./Speed kts	Prep. Time, d:h:m	Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	
45	42	103	EAFB	030:16:07:17 030:16:07:27 030:16:08:15	22	Concrete	300/02	15:00:03	2-14-92 08:10 pat	2-16-92 12:50 est	2	1	RON at Biggs AAF, TX. RON at Kelly AFB, TX.	
46	45	104	KSC	093:11:23:08 093:11:23:13 093:11:24:04	33	Concrete	290/08P12	N/A	N/A	N/A	N/A	N/A	Landed at KSC.	
47	49	105	EAFB	137:20:57:38 137:20:57:48 137:20:58:36	22	Concrete	232/02P06	09:15:57	5-27-92 05:55 pdt	5-30-92 10:00 edt	2	2	RON at Biggs AAF, TX. RON at Kelly AFB, TX.	
48	50	102	EAFB/ KSC	191:11:42:27 191:11:42:44 191:11:43:25	33	Concrete	258/05P08	N/A	N/A	N/A	N/A	N/A	Landed at KSC.	
49	46	104	KSC	221:13:11:51 221:13:12:05 221:13:12:55	33	Concrete	330/01	N/A	N/A	N/A	N/A	N/A	Landed at KSC.	
50	47	105	KSC	264:12:53:23 264:12:53:39 264:12:54:13	33	Concrete	270/02P04	N/A	N/A	N/A	N/A	N/A	Landed at KSC.	
51	52	102	KSC	306:14:05:52 306:14:06:10 306:14:06:55	33	Concrete	080/06P09	N/A	N/A	N/A	N/A	N/A	Landed at KSC.	
52	53	103	KSC/ EAFB	344:20:43:46.6 344:20:44:03.6 344:20:44:59.4	22	Concrete	274/14P19	05:00:12	12-15-92 13:55 pat	12-18-92 14:45 est	3	1	RON (3) at Kelly AFB, TX.	
53	54	105	KSC	019:13:37:46.8 019:13:38:02.4 019:13:38:36.0	33	Concrete	360/4P6	N/A	N/A	N/A	N/A	N/A	Landed at KSC.	

\* P = peak

Source: JSC/ES8, NOAA Spaceflight Meteorology Group, and  
JSC/ES6, Mechanical Design and Analysis Branch,  
In-house Mission Reports  
JSC/CC2, Aircraft Systems Quality Assurance  
Branch, Reports

**SHUTTLE FLIGHT HISTORIES  
LANDING AND FERRY**

Miss. Seq. No.	STS- No.	Orb. Ov-	Planned/ Actual Landing Site	Landing Times, G.m.t.			Runway Data		Winds True Dir. Deg./Speed kts	Prep. Time, d:h:m	Ferry Flight Data			Remarks
				Main Gear	Nose Gear	Wheels Stop	Widen.	Type			Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	
54	56	103	KSC	107:11:37:18.6 107:11:37:34.0 107:11:38:21.7	33	Concrete	320/06P08	N/A	N/A	N/A	N/A	N/A	N/A	Landed at KSC.
55	55	102	KSC/ EAFB	126:14:29:59.1 126:14:30:17.0 126:14:31:00.0	22	Concrete	220/14P19	05:04:26	5-11-93	5-14-93 14:30 est	3	1	ROW at Briggs AAF, TX. ROW (2) at Kelly AFB, TX	

<sup>a</sup> P = peak

Source: JSC/258, NOAA Spaceflight Meteorology Group, and  
JSC/256, Mechanical Design and Analysis Branch,  
In-house Mission Reports  
JSC/CC2, Aircraft Systems Quality Assurance  
Branch, Reports

**SPACE SHUTTLE FLIGHT DURATIONS FOR THE ENTIRE FLEET**

**a) OV-102 Vehicle**

Sequence	Flight/ Vehicle total	Flight duration <sup>a</sup>	On-orbit time <sup>b</sup>	Total vehicle time	
				On-orbit	Flight
1	STS-1/1	54:20:53	53:40:53	53:40:53	54:20:53
2	STS-2/2	54:13:11	53:33:11	107:14:04	108:34:04
3	STS-3/3	192:04:46	191:24:46	298:38:50	300:38:50
4	STS-4/4	169:09:31	168:29:31	467:08:21	469:48:21
5	STS-5/5	122:14:26	121:34:26	588:42:47	592:02:47
9	STS-9/6	247:47:24	247:07:24	835:50:11	839:50:11
24	STS-61C/7	146:03:51	145:23:51	981:14:02	985:54:02
30	STS-28/8	121:00:08	120:20:08	1101:34:10	1106:54:10
33	STS-32/9	261:00:36	260:20:36	1361:54:46	1367:54:46
38	STS-35/10	215:05:08	214:25:08	1576:19:54	1582:59:54
41	STS-40/11	218:14:20	217:34:20	1793:54:14	1801:14:14
48	STS-50/12	331:30:04	330:50:04	2124:44:18	2132:44:18
51	STS-52/13	236:56:13	236:16:13	2361:00:31	2369:40:31
55	STS-55/14	239:39:59	238:59:50	2600:00:30	2609:20:30

**b) OV-099 Vehicle**

Sequence	Flight/ Vehicle total	Flight duration <sup>a</sup>	On-orbit time <sup>b</sup>	Total vehicle time	
				On-orbit	Flight
6	STS-6/1	120:23:42	119:43:42	119:43:42	120:23:42
7	STS-7/2	146:23:59	145:43:59	265:27:41	266:47:41
8	STS-8/3	145:08:43	144:28:43	409:56:24	411:56:24
10	STS-41B/4	191:15:55	190:35:55	600:32:19	603:12:19
11	STS-41C/5	167:40:07	167:00:07	767:32:26	770:52:26
13	STS-41G/6	197:23:38	196:43:38	964:16:04	968:16:04
17	STS-51B/7	168:08:46	167:28:46	1131:44:50	1136:24:50
19	STS-51F/8	190:45:26	190:05:26	1321:50:16	1321:10:16
22	STS-61A/9	168:44:53	168:04:53	1489:55:09	1495:55:09
25	STS-51L/10	N/A	N/A	N/A	N/A

Notes:

- <sup>a</sup> The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.
- <sup>b</sup> An average total of 40 minutes of time has been subtracted from the flight duration to arrive at the on-orbit time. The total of 40 minutes is derived from an average of 8 minutes 30 seconds for ascent and an average of 31 minutes 30 seconds for the time from entry interface to landing.

SPACE SHUTTLE FLIGHT DURATIONS FOR ENTIRE FLEET (Continued)

c) OV-103 Vehicle

Sequence	Flight/ Vehicle total	Flight duration <sup>a</sup>	On-orbit time <sup>b</sup>	Total vehicle time	
				On-orbit	Flight
12	STS-41D/1	144:56:04	144:16:04	144:16:04	144:56:04
14	STS-51A/2	191:44:56	191:04:56	335:21:00	336:41:00
15	STS-51C/3	73:33:23	72:53:23	408:14:23	410:14:23
16	STS-51D/4	167:55:23	167:15:23	575:29:46	578:09:46
18	STS-51G/5	169:38:52	168:58:52	744:28:38	747:48:38
20	STS-51I/6	170:17:42	169:37:42	914:06:20	918:06:20
26	STS-26/7	97:00:11	96:20:11	1010:26:31	1015:06:31
28	STS-29/8	119:38:50	118:58:50	1129:25:21	1134:45:21
32	STS-33/9	120:06:48	119:26:48	1248:52:09	1254:52:09
35	STS-31/10	121:16:06	120:36:06	1369:28:15	1376:08:15
36	STS-41/11	98:10:04	97:30:04	1466:58:19	1474:18:19
40	STS-39/12	199:22:23	198:42:23	1665:40:42	1673:40:42
43	STS-48/13	128:27:38	127:47:38	1793:28:20	1802:08:20
45	STS-42/14	193:14:44	192:34:44	1986:03:04	1995:23:04
52	STS-53-15	175:19:47	174:39:47	2160:42:51	2170:42:51
54	STS-56-16	220:08:23	221:28:23	2382:11:14	2392:51:14

d) OV-104 Vehicle

Sequence	Flight/ Vehicle total	Flight duration <sup>a</sup>	On-orbit time <sup>b</sup>	Total vehicle time	
				On-orbit	Flight
21	STS-51J/1	97:44:38	97:04:38	97:04:38	97:44:38
23	STS-61B/2	165:04:49	164:24:49	261:29:27	262:49:27
27	STS-27/3	105:05:37	104:25:37	365:55:04	367:55:04
29	STS-30/4	96:56:27	96:16:27	462:11:31	464:51:31
31	STS-34/5	119:39:21	118:59:21	581:10:52	584:30:52
34	STS-36/6	106:18:22	105:38:22	686:49:14	690:49:14
37	STS-38/7	117:54:31	117:14:31	804:03:45	808:43:45
39	STS-37/8	143:32:44	142:52:44	946:56:29	952:16:29
42	STS-43/9	213:21:25	212:41:25	1159:37:54	1165:37:54
44	STS-44/10	166:50:44	166:10:44	1325:48:38	1332:28:38
46	STS-45/11	214:09:28	213:29:28	1539:18:06	1546:38:06
49	STS-46/12	191:15:03	190:35:03	1729:53:09	1737:53:09

Notes:

- <sup>a</sup> The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.
- <sup>b</sup> An average total of 40 minutes of time has been subtracted from the flight duration to arrive at the on-orbit time. The 40 minutes is derived from an average of 8 minutes 30 seconds for ascent and an average of 31 minutes 30 seconds for the time from entry interface to landing.

SPACE SHUTTLE FLIGHT DURATIONS FOR ENTIRE FLEET (Concluded)

e) OV-105 Vehicle

Sequence	Flight/ Vehicle total	Flight duration <sup>a</sup>	On-orbit time <sup>b</sup>	Total vehicle time	
				On-orbit	Flight
47	STS-49/1	213:17:38	212:37:38	212:37:38	213:17:38
50	STS-47/2	190:30:23	189:50:23	402:28:01	403:48:01
53	STS-54/3	143:38:19	142:58:19	545:26:20	547:26:20

f) Total Flight and On-Orbit Time for Space Shuttle Fleet

Vehicle/ Total Flights	Vehicle total On-Orbit time <sup>b</sup>	Vehicle total flight time <sup>a</sup>
OV-102/14	2600:00:30	2609:20:30
OV-099/10	1489:55:09	1495:55:09
OV-103/16	2382:11:14	2392:51:14
OV-104/12	1729:53:09	1737:53:09
OV-105/23	546:26:20	547:26:20
Program total	8746:46:22	8783:26:22

Notes:

- <sup>a</sup> The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.
- <sup>b</sup> An average total of 40 minutes of time has been subtracted from the flight duration to arrive at the on-orbit time. The 40 minutes is derived from an average of 8 minutes 30 seconds for ascent and an average of 31 minutes 30 seconds for the time from entry interface to landing.

SHUTTLE FLIGHT HISTORIES  
ORBITER MASS PROPERTIES

Miss. Seq. No.	STS- No.	Orb. OV-	Lift-off Weight, lb			Pre-Deorbit burn Weight, lb			Entry Interface Weight, lb			Mech 3 Weight, lb			Landing Weight, lb			Ferry Weight, lb		
			CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z
1	1	102	219,440.7			202,769.9			196,868.7			195,942.7			195,472.7			197,023		
			1125.2	0.2	379.7	1108.4	0.1	376.1	1099.0	0.2	373.1	1096.7	0.2	372.4	1098.1	0.2	369.6	1120.7	0.3	371.0
2	2	102	230,938.9			215,530.2			206,842.5			204,355.5			204,262.5			206,455.0		
			1120.6	0.1	379.8	1106.1	0.3	377.1	1100.5	0.2	373.8	1096.6	0.2	372.3	1098.1	0.2	369.7	1116.0	0.1	372.7
3	3	102	235,556.1			214,949.6			208,790.2			207,349.2			207,072.9			211,200		
			1119.2	-0.5	379.4	1106.3	-0.5	376.1	1097.9	-0.5	373.3	1095.4	-0.5	372.4	1096.9	-0.5	369.8	1117.8	-0.4	373.5
4	4	102	241,772.0			216,163.6			211,184.0			209,140.5			208,946.8			214,526		
			1122.2	-0.3	381.8	1106.6	-0.5	377.7	1096.2	-0.5	374.5	1092.9	-0.5	373.3	1094.4	-0.5	370.7	1114.5	-0.4	375.0
5	5	102	247,112.9			209,890.1			203,775.9			202,642.7			202,480.3			205,727		
			1116.3	1.1	379.7	1105.0	1.0	374.5	1096.6	1.0	371.6	1094.8	1.0	371.0	1096.3	1.0	368.3	1118.4	1.0	371.9
6	6	099	256,928.1			197,427.8			191,384.2			190,627.2			190,330.2			191,966		
			1127.8	0.5	382.9	1111.2	0.3	374.6	1101.2	0.3	371.5	1099.7	0.4	370.9	1101.2	0.4	368.0	1131.4	0.4	371.9
7	7	099	249,362.7			211,737.0			204,983.4			204,340.4			204,043.4			204,576		
			1123.6	-0.2	381.2	1102.0	-0.6	376.5	1091.3	-0.6	373.3	1089.8	-0.6	372.8	1091.2	-0.6	370.1	1119.6	-0.6	373.6
8	8	099	242,912.3			212,911.0			205,243.4			204,141.4			203,945.4			205,874		
			1124.5	0.2	382.0	1098.2	-0.1	376.7	1092.5	-0.1	373.8	1090.4	-0.1	373.0	1091.9	-0.1	370.4	1119.4	-0.2	374.3
9	9	102	247,807.3			227,648.0			221,143.4			220,288.4			220,027.4			219,910		
			1109.7	-0.1	379.0	1097.0	0.0	376.6	1087.3	-0.1	373.7	1085.8	-0.1	373.2	1087.1	-0.1	370.7	1113.4	0.0	374.1
10	10	099	250,482.7			209,746.1			202,966.5			201,528.5			201,238.5			N/A - KSC Landing		
			1124.5	0.2	381.5	1101.4	1.2	375.8	1090.7	1.3	372.6	1087.9	1.3	371.6	1089.3	1.3	368.8			
11	41C	099	254,554.7			208,206.4			198,072.8			197,169.8			196,975.8			198,830		
			1113.4	0.2	383.4	1117.4	-0.1	376.5	1101.8	-0.1	371.6	1100.0	-0.1	371.0	1101.6	-0.1	368.2	1130.9	-0.1	372.4

NA/200 = Not Available/Department of Defense Mission

Source: JSC/VP Orbiter Mass Properties Summary, STS-1 and subsequent missions.



SHUTTLE FLIGHT HISTORIES  
ORBITER MASS PROPERTIES

Miss. Seq. No.	STS- No.	Orb. OV-	Lift-off Weight, lb			Pre-Deorbit burn Weight, lb			Entry Interface Weight, lb			Mach 3 Weight, lb			Landing Weight, lb			Ferry Weight, lb									
			CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z							
12	41D	103	1118.0	0.0	382.8	1100.0	-0.1	376.6	1093.4	-0.2	373.5	1090.7	-0.1	372.6	1091.7	-0.2	369.6	201,674.5			202,366			1121.8	-0.2	373.8	
13	41G	099	1119.0	-0.1	381.7	1093.5	-0.2	374.6	1085.4	-0.2	371.9	1083.7	-0.2	371.3	1084.8	-0.1	368.4	202,266.1			N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	51A	103	1120.9	-0.1	382.6	1090.2	-0.2	375.2	1083.4	-0.2	372.5	1081.4	-0.2	371.8	1082.6	-0.1	369.1	207,505.7			N/A	N/A	N/A	N/A	N/A	N/A	
15	51C	103	NA/DOD			NA/DOD			NA/DOD			NA/DOD			NA/DOD			NA/DOD			NA/DOD			NA/DOD			
16	51D	103	1126.5	-0.1	381.7	1110.6	-0.2	377.0	1095.8	-0.1	372.5	1092.7	-0.1	371.3	1094.3	-0.1	368.6	198,014.2			N/A	N/A	N/A	N/A	N/A	N/A	
17	51B	099	1114.2	-0.2	381.4	1096.7	-0.3	378.0	1085.7	-0.3	373.4	1084.1	-0.3	372.8	1085.4	-0.3	370.3	213,499.4			213,363			1114.8	-0.2	373.8	
18	51G	103	1109.6	0.2	379.6	1091.5	-0.2	375.2	1084.3	0.0	372.2	1082.1	0.0	371.4	1083.7	0.0	368.8	204,169.4			204,387			1114.2	0.0	372.9	
19	51F	099	1111.6	-0.4	381.8	1091.1	-0.5	376.3	1082.3	-0.6	373.4	1079.8	-0.6	372.5	1081.3	-0.6	370.0	216,735.4			217,564.7			1109.5	-0.5	373.9	
20	51I	103	1121.3	0.5	382.5	1110.0	0.2	376.7	1094.4	0.2	371.9	1092.4	0.3	371.3	1094.2	0.3	368.5	196,674.4			197,259.3			1124.9	0.3	372.7	
21	51J	104	NA/DOD			NA/DOD			NA/DOD			NA/DOD			NA/DOD			NA/DOD			NA/DOD			NA/DOD			
22	61A	099	1109.0	-0.1	380.4	1091.8	-0.4	377.1	1085.5	-0.4	374.2	1083.8	-0.4	373.6	1085.2	-0.4	371.1	214,171.4			214,138.3			1116.4	-0.3	374.5	

NA/DOD = Not Available/Department of Defense Mission  
Source: JSC/VP Orbiter Mass Properties Summary, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
ORBITER MASS PROPERTIES

Miss. Seq. No.	STS- No.	Orb. OV-	Lift-off Weight, lb			Pre-Deorbit Burn Weight, lb			Entry Interface Weight, lb			Mach 3 Weight, lb			Landing Weight, lb			Ferry Weight, lb		
			CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z
23	61B	104	261,610.1			213,335.8			206,187.4			205,880.4			205,732.4			205,682.3		
			1110.3	-0.0	379.3	1096.9	-0.1	375.3	1085.8	-0.2	372.0	1084.4	-0.1	371.5	1085.9	-0.1	368.9	1118.0	-0.1	373.2
24	61C	102	256,003.0			221,485.8			211,194.4			210,325.4			210,161.4			210,430		
			1110.3	0.4	380.3	1096.1	0.4	375.7	1085.2	0.4	371.4	1083.6	0.4	370.9	1085.1	0.4	368.3	1114.9	0.5	373.2
25	51L	099	268,829.6			N/A			N/A			N/A			N/A			N/A		
			1119.1	-0.2	384.0															
26	26	103	254,606.5			202,676.3			194,985.3			194,347.3			194,184.3			193,936		
			1118.4	0.3	380.6	1104.7	0.1	374.6	1097.9	0.2	371.4	1096.6	0.2	371.0	1098.3	0.2	368.2	1131.8	-0.1	372.0
27	27	104	NA/DOD			200,752.5			192,095.3			191,105.3			190,956.3			191,337.7		
						1107.9	-0.9	374.6	1095.2	-0.9	370.3	1093.4	-0.9	369.7	1095.1	-0.9	366.8	1127.1	-0.9	370.8
28	29	103	256,357.6			202,517.6			195,531.6			194,939.6			194,789.6			194,710		
			1116.4	0.6	380.8	1104.1	0.5	374.6	1095.1	0.5	371.4	1093.7	0.5	370.9	1095.3	0.5	368.1	1128.6	0.3	372.0
29	30	104	261,118.9			201,074.6			193,349.6			192,557.6			192,459.6			193,031		
			1123.4	0.5	382.6	1106.8	0.4	374.5	1098.7	0.4	371.1	1097.3	0.4	370.6	1099.1	0.4	367.8	1130.7	0.2	371.7
30	28	102	NA/DOD			207,482.2			201,294.2			200,331.2			200,214.2			200,509.7		
						1096.7	-0.1	373.1	1089.7	-0.1	370.4	1087.8	-0.1	369.7	1089.4	-0.1	367.0	1120.5	-0.2	370.8
31	34	104	257,569.2			204,439.2			196,784.2			196,112.2			195,954.2			195,804		
			1114.2	0.4	380.8	1101.8	0.2	375.0	1094.5	0.3	371.7	1093.1	0.2	371.2	1094.7	0.3	368.5	1128.2	0.1	372.3
32	33	103	NA/DOD			203,006.2			195,185.2			194,463.2			194,282.2			195,242.7		
						1106.2	0.0	375.1	1094.1	0.1	371.1	1093.2	0.1	370.8	1094.8	0.1	368.0	1124.7	0.1	371.8
33	32	102	255,994.0			241,970.2			229,892.2			228,523.2			228,335.2			227,868.7		
			1131.3	-0.9	381.4	1096.3	-0.9	378.6	1080.8	-0.9	373.8	1078.2	-0.9	372.9	1079.6	-0.9	370.5	1108.8	-0.8	373.8

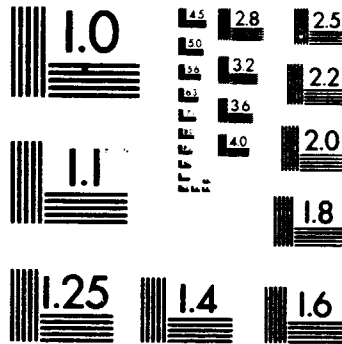
NA/DOD = Not Available/Department of Defense Mission

Source:

JSC/AF Orbiter Mass Properties Summary,  
STS-1 and subsequent.

# 2 OF 7

## N96-11129 UNCLAS



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)

SHUTTLE FLIGHT HISTORIES  
ORBITER MASS PROPERTIES

Miss. Seq. No.	STS- No.	Orb. OV-	Lift-off Weight, lb			Pre-Doorbit burn Weight, lb			Entry Interface Weight, lb			Mach 3 Weight, lb			Landing Weight, lb			Ferry Weight, lb		
			CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z
34	36	104	NA/DOD			193,208.2	188,000.2					187,316.2	187,200.2							187,944.7
						1105.2	0.1	373.1	1096.2	0.1	70.4	1094.7	0.2	369.8	1096.4	0.2	366.9	1128.9	0.1	370.8
35	31	103	249,109.2			202,753.2	190,566.2					189,309.2	189,118.2							189,691.7
			1114.8	-0.5	384.2	1107.2	-1.0	376.4	1090.0	-1.0	370.5	1087.9	-1.0	369.7	1089.7	-1.0	366.6	1125.1	-1.0	370.3
36	41	103	259,593.9			204,007.2	197,986.2					196,982.2	196,869.2							197,369.7
			1115.2	-0.1	381.4	1100.4	-0.5	374.7	1090.4	-0.5	371.8	1089.4	-0.4	371.2	1091.2	-0.4	368.3	1124.4	-0.5	372.0
37	38	104	NA/DOD			196,781.2	191,862.2					191,409.2	191,091.2							N/A KSC LANDING
						1106.3	0.2	372.8	1098.1	0.2	370.3	1096.2	0.2	369.9	1098.6	0.2	366.7			
38	35	102	256,385.6			236,566.2	226,613.2					225,531.2	225,329.2							223,330.7
			1106.4	-0.5	378.1	1092.5	-0.5	373.4	1080.8	-0.5	371.4	1079.1	-0.5	370.8	1080.5	-0.4	368.4	1114.7	-0.3	371.6
39	37	104	255,824.0			201,955.2	191,569.2					190,266.2	190,098.2							190,023.7
			1116.5	-0.3	381.7	1103.0	-0.6	375.4	1089.6	-0.6	370.9	1087.4	-0.6	370.0	1089.2	-0.6	367.0	1124.2	-0.6	370.6
40	39	103	247,373.4			218,919.2	212,806.2					211,673.2	211,512.2							N/A KSC LANDING
			1111.1	0.0	382.5	1091.0	-0.4	376.8	1082.2	-0.3	374.1	1080.3	-0.4	373.5	1082.0	-0.4	370.8			
41	40	102	251,970.3			235,196.2	227,709.2					226,737.2	226,535.2							225,326.7
			1100.2	-0.1	376.4	1089.5	-0.2	374.9	1081.1	-0.2	371.9	1079.6	-0.2	371.4	1080.9	-0.2	369.0	1112.9	-0.1	372.2
42	43	104	259,374.7			203,898.2	197,472.2					196,353.2	196,088.5							N/A KSC LANDING
			1113.9	-0.2	380.4	1099.5	-0.3	374.2	1088.8	-0.3	371.0	1087.4	-0.3	370.3	1089.7	-0.3	367.3	N/A	N/A	N/A
43	48	103	240,062.6			204,685.2	193,665.2					192,925.2	192,780.2							193,583.7
			1125.5	-0.9	381.9	1113.1	-0.9	375.9	1097.4	-1.0	370.6	1096.0	-1.0	370.0	1097.8	-0.9	367.0	1130.2	-0.9	371.3
44	44	104	259,904.0			204,165.2	196,229.2					195,047.2	194,818.2							194,087.1
			1116.2	0.0	381.0	1102.6	-0.2	374.4	1093.4	-0.2	370.7	1090.8	-0.2	370.0	1092.5	-0.2	367.0	1128.6	-0.1	371.1

NA/DOD = Not Available/Department of Defense Mission  
Source: JSC/VP Orbiter Mass Properties Summary, STS-1 and subsequent.

C-2

SHUTTLE FLIGHT HISTORIES  
ORBITER MASS PROPERTIES

Miss. Seq. No.	STS- No.	Orb. OV-	Lift-off Weight, lb			Pre-Deorbit burn Weight, lb			Entry Interface Weight, lb			Mach 3 Weight, lb			Landing Weight, lb			Ferry Weight, lb		
			CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z	CG X	Y	Z
45	42	103	243,494.1			227,227.2			219,459.2			218,159.2			218,089.2			216,224.7		
			1104.8	-0.1	378.3	1091.4	-0.3	376.6	1082.3	-0.3	373.4	1080.6	-0.3	372.8	1082.2	-0.3	370.1	1115.6	-0.2	373.1
46	45	10	233,652.0			215,275.2			206,495.2			205,672.3			205,588.2			N/A		
			1113.1	-0.3	377.6	1100.3	-0.5	375.2	1086.3	-0.5	371.0	1085.4	-0.4	370.5	1087.2	-0.4	367.7			KSC Landing
47	49	105	256,392.3			209,002.2			202,094.2			201,400.2			201,235.2			199,831.2		
			1119.5	-0.3	383.9	1096.7	-0.6	375.0	1085.8	-0.7	371.7	1084.4	-0.6	371.2	1086.2	-0.6	368.3	1122.7	-0.5	371.9
48	50	102	257,338.6			236,634.2			227,587.2			225,865.2			225,615.2			N/A		
			1106.0	-0.5	378.8	1089.7	-0.6	375.9	1079.8	-0.7	372.4	1107.7	-0.7	371.6	1079.1	-0.7	369.0			KSC Landing
49	46	104	256,026.3			216,581.2			210,995.2			209,851.2			209,532.2			N/A		
			1113.8	-0.3	382.4	1087.1	-0.5	374.8	1080.2	-0.5	372.4	1078.2	-0.5	371.7	1079.6	-0.5	368.9			KSC Landing
50	47	105	244,645.2			228,709.2			221,374.2			220,325.2			220,195.2			N/A		
			1103.9	-0.4	379.1	1091.1	-0.5	377.5	1085.4	-0.5	374.9	1083.7	-0.5	374.3	1085.3	-0.5	371.7			KSC Landing
51	52	102	250,399.4			223,297.2			217,359.2			216,072.2			215,979.2			N/A		
			1109.5	-0.3	377.5	1090.3	-0.4	373.5	1084.5	-0.4	371.1	1082.6	-0.4	370.4	1084.3	-0.3	367.7			KSC Landing
52	53	103	243,944.4			201,376.2			194,826.2			194,028.2			193,851.2			193,848.3		
			1112.3	0.1	380.7	1100.2	0.0	373.9	1090.4	0.1	370.5	1089.5	0.0	370.2	1091.3	0.1	367.1	1125.3	0.2	370.8
53	54	105	259,764.2			205,293.6			198,296.6			197,481.2			197,353.2			N/A		
			1115.7	0.3	381.2	1101.4	0.2	375.0	1093.5	0.2	371.9	1091.6	0.2	371.3	1093.4	0.2	368.4			KSC Landing
54	56	103	237,213.0			217,922.2			209,229.2			208,052.2			207,946.2			N/A		
			1109.5	-0.3	379.3	1098.3	-0.5	376.9	1086.3	-0.5	373.4	1084.6	-0.4	372.5	1086.3	-0.4	369.7			KSC Landing
55	55	105	255,441.8			236,094.2			228,546.6			227,484.2			227,209.2			226,360.2		
			1101.6	-0.6	377.5	1089.0	-0.6	375.4	1080.1	-0.6	372.4	1078.4	-0.6	371.9	1079.7	-0.6	369.2	1111.8	-0.5	372.3

NA/DOO = Not Available/Department of Defense Mission  
Source: JSC/FF Orbiter Mass Properties Summary, STS-1 and subsequent.

SHUTTLE FLIGHT HISTORIES  
AUXILIARY POWER UNITS

Miss. Seq. No.	STS-Orb. No.	APU-1 Part No. MC201-0001-			APU-2 Part No. MC201-0001-			APU-3 Part No. MC201-0001-			Notes		
		Part Dash No.	Mission Run time, h:m:s	Cum. Run time, h:m:s	Part Dash No.	Mission Run time, h:m:s	Cum. Run time, h:m:s	Part Dash No.	Mission Run time, h:m:s	Cum. Run time, h:m:s			
1	102	0061	203	1:01:00	0071	207	1:23:00	1:23:00	0061	208	1:23:00	1:23:00	1. Removed - Argon leak in G.G. heater core caused heater to fail.
2	102	0071	203	1:27:00	0071	206	1:31:00	1:31:00	0071	208	1:44:00	1:44:00	2. Removed for wax buildup in lube oil filter during pre-launch.
3	102	0071	204	1:35:49	0071	206	1:21:32	2:52:32	0071	208	1:25:15	3:09:15	3. Removed - High lube oil pressure due to wax buildup in filter.
4	102	0071	204	1:28:00	0071	206	1:45:00	4:37:32	0071	208	1:22:00	4:31:15	3.
5	102	0071	204	1:27:00	0071	206	1:22:00	5:59:32	0071	205	1:40:00	1:40:00	4. Removed - Under-speed shutdown on-orbit - Valve contamination.
6	099	0121	303	1:37:00	0121	301	1:22:00	1:22:00	0121	302	1:17:00	1:17:00	5. Failed - cracked injector tube - stress corrosion.
7	099	0121	303	1:35:00	0121	301	1:13:00	2:35:00	0121	302	1:30:00	2:47:00	4.
8	099	0121	303	1:31:00	0121	301	1:16:00	3:51:00	0131	203	1:24:00	1:24:00	6. Removed for failure investigation.
9	102	0071	204	1:21:46	0071	206	1:10:41	7:10:13	0071	205	1:15:15	2:55:15	7. Removed for steam inspection, refer to STS-9 problem.
10	099	0131	304	1:23:00	0131	306	1:39:00	1:39:00	0131	305	1:18:00	1:18:00	7.
11	099	0161	203	1:44:00	0161	301	1:16:00	1:16:00	0161	208	1:13:00	5:44:15	
12	103	0161	303	1:25:31	0161	304	1:29:03	1:29:03	0161	305	1:48:13	1:48:13	
13	099	0161	203	1:13:38	0161	301	1:29:48	2:45:48	0161	208	1:16:47	7:01:02	
14	103	0161	303	1:23:21	0161	304	1:55:58	3:25:01	0161	305	1:23:18	3:11:31	
15	103	0161	303	1:25:27	0161	304	1:30:52	4:55:53	0161	305	1:53:43	5:05:14	
16	103	0161	303	1:19:02	0161	304	1:58:44	6:54:37	0161	305	1:19:03	6:24:17	

Source: JSC/EP2 System Branch, In-house Mission Report

\* Cumulative run time includes ground operating time for various tests.

SHUTTLE FLIGHT HISTORIES  
AUXILIARY POWER UNITS

Miss. Seq. No.	STS No.	Orb. OV-	APU-1 Part No. MC201-0001			APU-2 Part No. MC201-0001			APU-3 Part No. MC201-0001			Note	Notes					
			Part Dash No.	S/N	Mission Run time, h:m:s	Note	Part Dash No.	S/N	Mission Run time, h:m:s	Part Dash No.	S/N			Mission Run time, h:m:s				
17	51B	099	0181	205	1:45:52	4:41:07	8.	0181	302	1:22:46	1:22:46	8.	0171	207	1:14:48	1:14:48	8.	8. Replace because of injector tube life factor.
18	51G	103	0161	303	1:45:49	7:19:10		0161	304	1:19:58	8:14:35		0161	305	1:28:39	7:52:56	9.	9. APU 3 had high load on shutdown.
19	51F	099	0181	205	0:06:31	5:32:03	11.	0181	302	0:06:28	2:50:43	10.	0171	207	0:06:26	3:01:22	10.	10. Launch abort times.
20	51I	103	0161	303	1:15:26	8:34:36		0161	304	1:45:19	9:59:54		0161	305	1:09:04	10:02:00		11. APU 1 gear box and outlet pressure high during ascent restricted use.
21	51J	104	0161	306	1:47:48	3:26:48	12.	0201	307	1:20:37	1:20:37		0201	308	1:20:42	1:20:42		12. S/N 306 flew on STS 41B.
22	61A	099	0181	205	1:29:20	7:01:23		0181	302	1:50:06	4:40:49		0171	207	1:25:16	4:26:38		
23	61B	104	0161	306	1:13:38	4:40:26		0201	307	1:42:06	3:02:43		0201	308	1:17:21	2:38:03		
24	61C	102	0201	301	1:51:30	4:37:18		0201	203	1:17:46	4:15:24		0201	310	1:21:49	1:21:49		
25	51L	099	0181	205	0:06:13	7:07:36		0181	302	0:06:13	4:47:02		0171	207	0:06:13	4:32:51		
26	26	103	0211	305	1:41:00	14:10:04		0201	312	1:21:18	4:06:18		0201	310	1:17:06	7:47:06		
27	27	104	0201	307	1:45:27	8:33:44		0201	303	1:17:34	17:01:34		0211	207	1:23:34	7:25:20		
28	29	103	0211	305	1:48:50	15:58:54		0201	312	1:28:02	5:34:20		0201	310	1:22:50	9:09:56		
29	30	104	0201	307	0:06:07	10:03:36	13.	0201	303	0:06:06	18:24:14	13.	0211	207	0:06:05	9:16:14	13.	13. Launch scrub times.
30	28	1	0201	311	1:42:00	6:23:00		0221	308	1:16:48	5:59:50		0221	304	1:16:48	13:26:41		
31	34	104	0201	307	0:33:24	10:37:00	14.	0201	303	1:43:01	20:27:15	14.	0211	207	1:26:11	10:42:25		14. 0:25:58 high speed run time

SHUTTLE FLIGHT HISTORIES  
AUXILIARY POWER UNITS

Miss. Seq. No.	STS- Orb. No.	APU-1 Part No. MC201-0001-			APU-2 Part No. MC201-0001-			APU-3 Part No. MC201-0001-			Note	Notes					
		Part Dash No.	S/N	Mission Run time, h:m:s	Cum. Run time, h:m:s	Note	Part Dash No.	S/N	Mission Run time, h:m:s	Cum. Run time, h:m:s							
32	33	103 0211	305	2:02:02	18:00:56		0201	312	1:28:31	7:02:51		0201	310	1:20:59	10:30:55		
33	32	102 0201	311	1:26:57	7:49:57		0221	308	1:46:46	7:16:36		0221	304	1:20:40	14:47:21		
34	36	104 0201	307	1:04:01	11:41:01		0201	303	1:24:31	21:31:46		0211	207	1:36:08	12:18:33		
35	31	103 0311	305 203	0:05:12 1:53:57	18:06:08 11:14:58	15 16	0201	312	1:25:41	8:28:32		0201	310	1:20:03	11:50:58	15	15. APU's ran 0:05:12 during 4-10-90 launch scrub. 16. APU S/N 305 was removed following 4-10-90 launch scrub and was replaced with APU S/N 203. 17. APU S/N 305 ran in high speed for 2 min. 30 sec. during launch scrub.
36	41	103 0311	203	1:39:17	12:54:15		0301	301	1:29:57	7:28:25		0301	304	1:20:41	16:07:47		
37	38	104 0251	305	1:35:55	20:23:59	17	0271	208	1:19:21	13:30:23		0201	311	1:22:44	9:20:13		17. APU S/N 305 0:00:38 during 11-23-90 entry scrub
38	35	102 0311	310	1:43:57	15:00:06		0221	308	1:23:15	13:14:13		0241	306	1:17:21	7:18:58		
39	37	104 0251	305	1:56:53	22:20:52	17	0271	208	1:27:49	14:58:12		0311	307	1:33:31	16:07:24		17. APU S/N 305 ran 0:00:38 during 11-23-90 entry scrub
40	39	103 0311	203	1:47:55	14:42:10		0301	301	1:25:50	8:54:15		0321	304	1:30:55	17:38:42		
41	40	102 0311	310	1:43:38	16:43:44		0301	312	1:27:53	12:25:34		0201	306	1:20:55	8:39:53		

Source: JSC/EP2 Systems Branch,  
In-house Mission Report

\* Cumulative run time includes ground operating time for various tests.



SHUTTLE FLIGHT HISTORIES  
AUXILIARY POWER UNITS

Miss. Seq. No.	STS-Orb. OV-	APU-1 Part No. MC201-0001-			APU-2 Part No. MC201-0001-			APU-3 Part No. MC201-0001-			Note	Notes		
		Part Dash No.	S/N	Mission Run time, h:m:s	Cum. Run time, h:m:s	Part Dash No.	S/N	Mission Run time, h:m:s	Cum. Run time, h:m:s	Part Dash No.			S/N	Mission Run time, h:m:s
42	43	104	0251 305	1:49:09	24:10:01		0271 208	0:39:11	15:37:23	18	0311 307	1:26:27	17:33:51	18. APU 2 received no cooling from MSB 2. As a result, APU 2 was not started until TADM during entry.
43	48	103	0311 203	1:20:54	16:03:04		0301 301	1:27:04	10:21:19		0301 312	1:52:27	14:25:08	
44	44	104	0311 203	1:47:37	17:57:43		0271 208	1:29:17	17:06:40		0311 307	1:20:31	18:54:22	
45	42	103	0311 310	1:42:58	20:30:08		0301 301	1:23:42	11:45:01		0301 312	1:20:14	15:45:22	
46	45	104	0301 312	1:41:31	17:33:55		0431 407	1:23:19	03:00:25		0311 307	1:18:23	20:12:45	
47	49	105	0441 303K	1:41:11	03:48:00		0441 401	1:23:37	04:23:47		0411 207K	1:17:17	03:27:29	
48	50	102	0441 204K	1:07:47	03:15:10	20	0441 403	1:22:41	04:19:54		0451 402	1:51:07	04:53:29	19. APU 3 fuel test line heater cycling erratic. 20. APU 1 gearbox pressure erratic during entry.
49	46	104	0301 312	1:34:09	14:14:18		0431 407	1:21:24	04:21:49		0311 307	1:16:32	21:29:18	
50	47	105	0441 303K	1:28:23	05:06:23	21	0441 401	1:40:09	06:03:56		0441 207K	1:29:05	04:56:34	21. APU 1 drain line temperature sensor 2 cycling low. 22. APU 3 fuel test line temperature sensor 2 cycling low prelaunch.
51	52	102	0441 407	1:24:13	05:53:06		0441 403	1:38:23	05:58:17		0451 402	1:29:51	06:23:20	

Source: JSC/EP2 Systems Branch,  
In-house Mission Report

\* Cumulative run time includes ground operating time for various tests.

SHUTTLE FLIGHT HISTORIES  
AUXILIARY POWER UNITS

Miss. Seq. No.	STS-Orb. OV-	APU-1 Part No. MC201-0001-			APU-2 Part No. MC201-0001-			APU-3 Part No. MC201-0001-			Note	Notes	
		Part Dash No.	S/N	Mission Run time, h:m:s	Cum. Run time, h:m:s	Part Dash No.	S/N	Mission Run time, h:m:s	Cum. Run time, h:m:s	Part Dash No.			S/N
52	53	103	0451 405	1:30:04	4:12:43	0451 406	1:42:25	3:49:53	0451 404	1:21:20	3:37:44		
53	54	105	0441 303	1:22:40	6:29:03	0441 401	1:44:15	7:48:11	0441 207	1:34:59	6:31:33	23	23. APU 2 generator bearing temperature 2 became erratic.
54	56	103	0451 405	1:26:02	5:44:24	0451 406	1:45:23	5:40:55	0451 404	1:21:43	5:05:06	24	24. APU's ran for 5:39 during 4/6/93 launch abort.
55	55	102	0441 407	1:25:20	7:24:08	0441 403	1:41:50	7:45:49	0451 402	1:20:12	7:49:14	25	25. APU's ran for 5:42 during 3/22/93 launch abort.

<sup>a</sup> Cumulative run time includes ground operating time for various tests.

Source: JSC/EP2 Systems Branch,  
In-house Mission Report

SHUTTLE HISTORIES  
APU SERIAL NUMBER/PART NUMBER MATRIX

Miss. Seq. No.	STS- No.	Orb. CV-	SERIAL NUMBERS														
			203	204	205	206	207	208	301	302	303	304	305	306	307	308	
1	1	102	0061				0071	0061									
2	2	102	0071		0071			0071									
3	3	102		0071		0071		0071									
4	4	102		0071		0071		0071									
5	5	102		0071	0071		0071										
6	6	099							0121	0121	0121						
7	7	099							0121	0121	0121						
8	8	099	0131						0121		0121						
9	9	102		0071	0071		0071										
10	41B	099									0131	0131	0131	0131			
11	41C	099	0161					0161									
12	41D	103									0161	0161	0161	0161			
13	41G	099	0161					0161									
14	51A	103									0161	0161	0161	0161			
15	51C	103									0161	0161	0161	0161			

SHUTTLE HISTORIES  
APU SERIAL NUMBER/PART NUMBER MATRIX

Miss. Seq. No.	STS- No.	Orb. OV-	SERIAL NUMBERS																		
			203	204	205	206	207	208	301	302	303	304	305	306	307	308	309	310	311	312	
16	51D	103										0161	0161	0161							
17	51B	099			0181		0171				0181										
18	51G	103										0161	0161	0161							
19	51F	099			0181		0171				0181										
20	51I	103										0161	0161	0161							
21	51J	104														0161	0201				
22	61A	099			0181		0171				0181										
23	61B	104														0161	0201	0201			
24	61C	102															0201				
25	51L	099			0181		0171				0181										
26	26	103																0201			0201
27	27	104					0211					0201									
28	29	103																0201			0201
29	30	104					0211					0201									

SHUTTLE HISTORIES  
APU SERIAL NUMBER/PART NUMBER MATRIX

Miss. Seq. No.	STS- No.	Orb. CV-	SERIAL NUMBERS																		
			203	204	205	206	207	208	301	302	303	304	305	306	307	308	309	310	311	312	
30	28	102										0221			0221				0201		
31	34	104					0211				0201				0201						
32	33	103										0211					0201		0201		0201
33	32	102										0221				0221			0201		
34	36	104					0211				0201				0201						
35	31	103	0311														0201				0201
36	41	103	0311						0301			0321									
37	38	104						0271												0201	
38	35	102														0221		0311			
39	37	104						0271											0311		
40	39	103	0311						0301			0321									
41	40	102															0201				0301
42	43	104						0271											0311		
43	48	103	0311						0301												0301
44	44	104	0311					0271											0311		

SHUTTLE HISTORIES  
APU SERIAL NUMBER/PART NUMBER MATRIX

Miss. Seq. No.	STS. No.	Orb. OV-	SERIAL NUMBERS																				
			301	307	310	312	401	402	403	404	405	406	407	408	409	410	203K	204K	207K	208K	303K	304K	
45	42	103	0301		0311	0301																	
46	45	104		0311		0301						0431											
47	49	105						0441										0441				0441	
48	50	102							0451	0441								0441					
49	46	104		0311		0301						0431											
50	47	105						0441											0441			0441	
51	52	102							0451	0441									0441				
52	53	103										0451	0451	0451									
53	54	105						0441													0441		0441
54	56	103											0451	0451	0451								
55	55	102							0451	0441													

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

Miss. Seq. No.	STS- No.	Orb. OV-	System 1			System 2			System 3			Additional comments (prior to or during flight)			
			APU S/N	WSB S/N	Core load, lb	Lube oil cooling	APU S/N	WSB S/N	Core load, lb	Lube oil cooling	APU S/N		WSB S/N	Core load, lb	Lube oil cooling
12	41D	103	303	010	5.07	OK	304	011	5.07	OK	305	012	5.07	OK	
14	51A	103	303	010	3.5	OK	304	011	3.5	OK	305	012	3.5	OK	
15	51C	103	303	010	3.9	OK	304	011	3.9	OK	305	012	3.9	OK	
16	51D	103	303	010	3.9	OK	304	011	3.9	OK	305	012	3.9	OK	
18	51G	103	303	010	3.86	OK	304	011	3.86	OK	305	012	3.86	OK	
21	51I	103	303	010	3.52	OK	304	011	3.52	OK	305	012	3.52	OK	
26	26	103	305	010	3.92	OK	312	011	3.53	OK	310	012	3.92	OK	
28	29	103	305	010	3.87	OK	312	011	3.87	OK	310	012	3.87	270° F Undercool	
32	33	103	305	010	3.87	OK	312	011	3.87	OK	310	012	3.87	225° F Overcool	
35	31	103	05/203	010	3.87	OK	312	011	3.87	OK	310	012	3.87	240° F Overcool	
36	41	103	203	010	3.87	OK	301	011	3.87	OK	304	012	3.87	205° F Overcool	
40	39	103	203	010	3.87	OK	301	011	3.87	OK	304	012	3.87	200° F Overcool	APU GGVM leak testing started APU GGVM leak test conducted. APU 2 lube oil (NIS) serviced to a low quantity → Reduced ASC heatup rate APU GGVM leak test conducted APU 3 high NH3 in lube oil
43	48	103	203	010	3.74	OK	301	011	3.74	234.7° F & 237° F Overcools	312	012	3.74	OK	APU/WSB 2 & 3 were hot flushed (3 was for NH3 content in lube oil). APU 3 leaked W2H4 into gearbox during entry. APU was closed loop hot flushed and sent to OV-104.
45	42	103	310	010	3.75	OK	301	011	3.75	OK	312	012	3.75	OK	WSB 1, 2, and 3 hot flushed. WSB 1 (010) replaced due to water leak at tube bundle/shell interface. The WSB installed was a new boiler and thus, was not hot flushed. Regulator from S/N 10 was used on S/N 20.
52	53	103	404	020	3.74	OK	405	011	3.74	Two 253-T overcools	406	012	3.74	OK	

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

Miss. Seq. No.	STS- No.	Orb. OV-	System 1			System 2			System 3			Additional comments (prior to or during flight)			
			APU S/N	WSB S/N	Core load, lb	Lube oil cooling	APU S/N	WSB S/N	Core load, lb	Lube oil cooling	APU S/N		WSB S/N	Core load, lb	Lube oil cooling
54	56	103	404	020	3.74	267°F overcool	405	011	3.74	233°F overcool	406	012	3.74	OK	Water cleanliness in WSB 1 post STS-53 was failed (4 ppm sulphur vs. 2 ppm spec). WSB 2 core temp lagged those of WSB's 1 and 3 during APU operation prior to STS-50 scrub and launch.



WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

Miss. Seq. No.	STS- No.	Orb. OV-	System 1			System 2			System 3			Additional comments (prior to or during flight)			
			APU S/N	WSB S/N	Core load, lb	Lube oil cooling	APU S/N	WSB S/N	Core load, lb	Lube oil cooling	APU S/N		WSB S/N	Core load, lb	Lube oil cooling
21	51J	104	306	013	3.85	OK	307	015	3.85	OK	308	014	3.85	OK	WSB'S replaced following this mission due to corrosion of core probably caused by introduction of "bad" water.
23	61B	104	306	013	3.8	OK	307	015	3.78	OK	308	014	3.5	OK	
27	27	104	307	016	3.5	OK	303	002	3.52	OK	207	004	3.52	OK	APU GGVM leak testing started.
29	30	104	307	016	3.87	OK	303	002	3.87	265°F Undercool	207	004	3.87	OK	
31	34	104	307	016	3.75	265°F Undercool	303	002	3.87	275°F Undercool	207	004	3.87	OK	APU GGVM leak test conducted.
34	36	104	307	016	3.87	OK	303	002	3.87	OK	207	004	3.87	OK	
37	38	104	305	016	3.87	OK	208	002	3.87	318°F Undercool	311	004	3.87	OK	APU 2, WSB 3, and APU/WSB 1 were hot flushed open loop.
39	37	104	305	016	3.87	OK	208	018	3.87	280°F Undercool	307	004	3.87	231°F & 211°F Overcool	
42	43	104	305	016	3.74	OK	208	018	3.85	No Cooling 323°F = Ascent start at TAEM	307	004	3.85	OK	High gearbox pressure during APU 3. Filter removed, oil drained and filled.
44	44	104	203	016	3.75	OK	208	018	3.75	OK	307	004	3.75	OK	

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

Miss. Seq. No.	STS- No.	Orb. OV-	System 1			System 2			System 3			Additional comments (prior to or during flight)			
			APU S/N	WSB S/N	Core load, lb	Lube oil cooling	APU S/N	WSB S/N	Core load, lb	Lube oil cooling	APU S/N		WSB S/N	Core load, lb	Lube oil cooling
46	45	104	312	016	3.75	177°F Overcool	407	018	3.75	OK	307	004	3.75	OK	APU GVM leak test conducted. Closed loop hot flushed APU 1 (from OV-103) and WSB 2 (for IAPU). System 2 - first flight of an IAPU. APU GVM leak test conducted. Closed loop hot flushed APU/WSB 1.
49	46	104	312	016	3.74	Y	407	018	3.74	OK	307	004	3.74	OK	

WATER SPRAY BOILER ABNORMAL COOLING INVESTIGATION

Miss. Seq. No.	STS- No.	Orb. OV-	System 1			System 2			System 3			Additional comments (prior to or during flight)		
			APU S/N	MSB S/N	Core load, lb	Lube oil cooling	APU S/N	MSB S/N	Core load, lb	Lube oil cooling	APU S/N		MSB S/N	Core load, lb
47		105	303K 014	401 017	3.74	267°F Undercool	401 017	3.74	263° undercool	207K 015	015	3.74	OK	APU GGVN leak test conducted. First flight with three IAPU'S. All 3 WSB had minor temp overshoots at cooling initiate for ascent & entry.
50	47	105	303K 014	401 017	3.74	OK	401 017	3.74	OK	207K 015	015	3.74	319°F undercool	> ATP AP's. WSB's 1 and 3 were hot-flushed due to undercool exhibited on STS-47.
53	54	105	303K 014	401 017	3.74	OK	401 017	3.74	OK	207K 015	015	3.74	278°F undercool	WSB 3 was preloaded to 5.0 +/- .1 lb. WSB's 1 and 2 were loaded as usual (3.75 +/- 0.25 lb).
56	57	105	303K 014	401 017	3.74	OK	401 017	3.74	267°F undercool	207K 015	015	5.00		

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

Miss. Seq. No.	STS- No.	Orb. OV-	System 1			System 2			System 3			Additional comments (prior to or during flight)			
			APU S/N	MSB S/N	Core load, lb	Lube oil cooling	APU S/N	MSB S/N	Core load, lb	Lube oil cooling	APU S/N		MSB S/N	Core load, lb	Lube oil cooling
1	1	102	203	004	4.95	OK	207	003	5.04	OK	208	002	4.95	285°F Undercool	All vent orifices = 1.24" dia.
2	2	102	203	004	5	OK	206	003	5	OK	208	002	5	325°F Undercool	All vent orifices = 1.24" dia.
3	3	102	204	004	4	OK	206	003	3	OK	208	002	0+	350°F Undercool	High APU gearbox pressure - sys 1 & 3.
4	4	102	204	004	5	OK	206	003	5	OK	208	002	5	275°F Undercool	All vent orifices = 1.24" dia.
5	5	102	204	004	5	240°F Overcool	206	003	5	OK	205	009	5	OK	Vent orifices = 1.24" dia. (1,2) & 0.8" dia. (3).
9	9	102	204	004	5.02	OK	206	003	5.02	OK	205	009	5.02	288°F & Undercool	High APU gearbox pressure - sys 2.
31	31	102	301	004*	3.52	OK	203	003	3.52	OK	310	009	3.52	OK	All vent orifices to 0.8" dia.
32	32	102	311	013	3.75	OK	308	003	3.75	OK	304	009	3.75	OK	
33	33	102	311	013	3.5	OK	308	003	3.5	OK	304	009	3.83	OK	
38	38	102	310	013	3.61	OK	308	003	3.61	Ascent spraying not required, 243°F maximum	306	009	3.61	277°F Undercool	High APU gearbox pressure - sys 3.
41	40	102	310	013	3.87	OK	312	003	3.87	OK	306	009	3.87	240°F Overcool	High APU gearbox pressure - sys 2.
48	50	102	204K	013	3.74	263°F Undercool	402	003	3.74	OK	403	009	3.74	OK	APU GOVM leak testing started.
51	52	102		013	3.74			003	3.74			002	3.74		MSB 2 hot flushed closed loop.
55	55	102	407	013	3.75	OK	408	003	3.75	OK	403	002	3.75	277°F Undercool	MSB 2 hot flushed closed loop.
														226°F Overcool	APU/MSB 3 hot flushed closed loop.
															MSB 1, 2, 3 hot flushed closed loop.
															MSB 3 replaced due to water leakage from a pinhole through the MX core.
															Replacement MSB failed GM2 pressure decay test and was waived.
															System 2 regulator exhibited excessive internal leakage. MSB system 2 regulator was replaced with S/M 22 regulator.

\*MSB S/N 002 installed following STS-61C, but never flew a mission.

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

Miss. Seq. No.	STS- No.	Orb. OV-	System 1			System 2			System 3			Additional comments (prior to or during flight)	
			APU S/N	WSS S/N	Core load, lb	Lube oil cooling	APU S/N	WSS S/N	Core load, lb	Lube oil cooling	APU S/N		WSS S/N
6	6	099	303	008		OK	301	007		302	006		OK
7	7	099	303	008		OK	301	007		302	006		OK
8	8	099	303	008		OK	301	007		203	006		OK
10	41B	099	304	008		OK	306	007		305	006		OK
11	41C	099	203	008		OK	301	007		208	006		OK
13	41G	099	203	008		OK	301	007		207	006		OK
17	51B	099	205	00A		OK	302	007		207	006		315°F Undercool
19	51F	099	205	008		OK	302	007		207	006		OK
22	61A	099	205	008		OK	302	007		207	006		OK
25	51L	099	205	008		OK	302	007		207	006		OK

Vent orifices found loose.

High APU gearbox pressure - sys 1.

SHUTTLE FLIGHT HISTORIES  
FUEL CELLS

Miss. Seq. No.	STS No.	Orb. CV-	FC-1 MC464-0115-XXXX			FC-2 MC464-0115-XXXX			FC-3 MC464-0115-XXXX			Total Elect. Energy, kWh	Avg. Elect. Power, kW	Remarks
			Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min			
1	1	102	0003	106	145:50/ 214:05	0004	107	145:09/ 211:17	0004	108	144:59/ 208:00	857	379	
2	2	102	0008	101	11:26/ 110:42	0007	102	89:12/ 189:35	0007	103	88:53/ 104:25	813	365	FC1 failed, aspirator blockage caused cell flooding.
3	3	102	0005	106	224:59/ 459:08	0007	102	223:50/ 417:25	0007	103	224:12/ 403:43	2865	360	
4	4	102	0005	106	215:28/ 674:36	0007	102	214:32/ 631:49	0007	103	214:32/ 618:05	2567	367	
5	5	102	0008	101	136:13/ 253:49	0007	102	135:54/ 766:16	0007	103	135:32/ 754:04	1881	369	
6	6	099	0008	109	158:00/ 173:34	1004	107	156:42/ 385:42	0007	111	159:00/ 173:03	1599	320	
7	7	099	0008	109	156:51/ 330:43	1004	107	156:28/ 542:10	0007	111	157:07/ 330:10	1932	317	
8	8	099	0008	109	177:07/ 507:41	1004	107	176:17/ 718:27	0007	111	176:08/ 506:18	2053	339	
9	9	102	3001	104	284:28/ 298:24	3000	115	283:20/ 301:28	3000	116	283:13/ 295:48	4215	408	
10	41B	099	3001	114	217:35/ 255:17	3000	112	216:59/ 249:56	3000	113	216:34/ 241:57	2811	353	
11	41C	099	3001	114	178:13/ 433:30	3000	112	177:38/ 427:34	3000	113	177:11/ 419:17	2303	330	
12	41D	103	3001	101	180:14/ 230:04	3000	102	179:25/ 228:10	3000	103	179:00/ 226:55	2240	371	FC-1 performance monitor failed.

\* The cumulative run time includes ground operating time for various tests.

Source: JSC/SP5 Power Branch Inhouse Mission Reports; RIC, P/C Operating Time/Cycle Records

SHUTTLE FLIGHT HISTORIES  
FUEL CELLS

Miss. Seq. No.	STS No.	Orb. OV-	FC-1 MC464-0115-XXXX			FC-2 MC464-0115-XXXX			FC-3 MC464-0115-XXXX			Avg. Elect. Power, kW	Total Elect. Energy, kWh	Average De. Elect. Energy, kWh	Remarks
			Mdl. Dash No.	S/N P760	Run Time Flight/Cum., hr:min.	Mdl. Dash No.	S/N P760	Run Time Flight/Cum., hr:min.	Mdl. Dash No.	S/N P760	Run Time Flight/Cum., hr:min.				
13	41G	099	3001	114	214:42/ 648:12	3000	110	214:07/ 214:07	3000	113	213:42/ 632:50	14.6	2882	350	FC-2 S/N 110 replaced S/N 112, suspected coolant loop leakage.
14	51A	103	3001	101	240:25/ 470:29	3000	102	239:50/ 468:00	3000	103	239:24/ 466:19	14.0	2700	338	
15	51C	103	3001	101	86:48/ 557:17	3000	102	86:04/ 550:04	3000	103	85:34/ 551:53			Data not available	
16	51D	103	3001	101	181:05/ 738:22	3000	102	180:11/ 734:15	3000	103	179:31/ 731:24	15.0	2515	359	FC2 S/N 102 replaced post flight with S/N 111 due to leak through O <sub>2</sub> purge port.
17	51B	099	3001	114	199:55/ 848:07	3000	110	198:53/ 413:00	3000	113	198:25/ 831:15	18.1	3046	435	
18	51G	103	3001	101	203:46/ 942:08	3000	108	203:09/ 203:09	3000	103	202:39/ 934:03	14.0	2369	335	
19	51F	099	3001	114	*14:20/ 862:27 223:47/ 1086:14	3000	112	*13:48/ 454:55 223:34/ 678:29	3000	113	*13:16/ 844:31 222:13/ 1066:44	17.0	3249	409	*Launch abort times. FC2 S/N 112 replaced S/N 110.
20	51I	103	3001	101	280:04/ 1222:12	3000	108	270:23/ 473:32	3000	103	278:24/ 1212:27	13.1	2233	315	
21	51J	104	3001	106	*12:47/ 12:47 129:31/ 142:18	3000	111	*11:10/ 11:10 128:06/ 139:16	3000	107	*0:05/ 06:48 127:52/ 134:40			*FRP Data not available	*FRP Data not available

\*The cumulative run time includes ground operating time for various tests.

Source: JSC/RP5 Power Branch Inhouse Mission Reports, RIC, P/C Operating Time Cycle Records

SHUTTLE FLIGHT HISTORIES  
FUEL CELLS

Miss. Seq. No.	STS- No.	Orb. OV-	FC-1 MC464-0115-XXXX		FC-2 MC464-0115-XXXX		FC-3 MC464-0115-XXXX		Avg. Elect. Power, kW	Total Elect. Energy, kWh	Average De. Elect. Energy, kWh	Remarks	
			Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min					Mdl. Dash No.
22	61A	099	3001	109	3000	112	205:12/982:41	3000	102	204:47/952:39	431	*Flew on STS-8 as 2 stack FC. Rebuilt as 3 stack. Condenser exit temperature instability during prelaunch replaced postflight.	
23	61B	104	3001	106	3000	111	191:14/330:30	3000	107	190:46/325:26	339		
24	61C	102	3001	104	3000	115	*36:44/364:03 312:21/676:24	3000	116	*36:21/350:56 311:41/662:37	370	*Launch abort times.	
25	51L	099	3001	101	3000	112	59:30/1281:42	3000	102	58:12/1010:51	N/A	Flight times includes pre-launch runs for 2 launch attempts.	
26	26	103	3001	104	3020	122	142:53/1030:46	3020	115	141:11/1043:44	326		
27	27	104	3021	120	3020	118	187:47/187:47	3020	121	185:59/185:59		Data not available Department of Defense Mission	
28	29	103	3021	109	3020	122	172:51/410:59	3020	116	170:58/854:05	1613	323.7	
29	30	104	3021	120	3020	118	139:00/347:59	3020	121	137:03/342:41	1366 (296)	338.0	Flight times include prelaunch run for 1 launch attempt. Data in ( ) are for unsuccessful launch attempt.
30	28	102	3021	117	3020	111	159:59/173:51	3020	113	158:11/158:11	1694	336.1	

\* The cumulative run time includes ground operating time for various tests.

Source: JSC/EP5 Power Branch  
Inhouse Mission Reports  
RIC, F/C Operating Time/Cycle Records



SHUTTLE FLIGHT HISTORIES  
FUEL CELLS

Miss. Seq. No.	STS No.	Orb. OV-	FC-1 MC464-0115-XXXX			FC-2 MC464-0115-XXXX			FC-3 MC464-0115-XXXX			Avg. Elect. Power, kW	Total Elect. Energy, kWh	Average De. Elect. Energy, kWh	Remarks
			Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min				
31	34	104	3021	120	180:07/528:06	3020	118	178:42/530:02	3020	121	178:04/520:45	13.6	1621	325.6	
32	33	103	3021	109	164:11/575:10	3020	122	162:38/682:03	3020	116	162:10/1016:15	13.6	1643	328.3	
33	32	102	3021	117	333:03/506:54	3020	111	331:46/490:19	3020	113	331:06/439:17	13.7	3565	328.8	Fuel cell 1 flowmeter biased high
34	36	104	3021	120	313:27/841:33	3020	118	308:59/839:01	3020	121	312:17/833:02	13.8	1467	331.2	
35	31	103	3021	114	17:26/17:26* 173:17/190:43	3020	122	16:48/698:51* 173:20/872:11	3020	119	16:08/23:04* 173:11/195:15	14.4	1740	344.3	* Launch abort run times Fuel cell 2 high oxygen flow during purge
36	41	103	3021	114	143:51/334:34	3020	103	143:42/143:42	3020	119	143:19/339:34	15.3	1495	367.2	Fuel cell 1 hydrogen flowmeter indicated low constant flow rate of 0.17 lb/hr.
37	38	104	3201	120	162:25/1004:23	3020	118	161:35/1001:16	3020	115	160:46/160:46	13.3	1570	319.2	Fuel cell 3 oxygen flowmeter biased low. Hydrogen pump motor voltage high at launch.
38	35	102	3021	117	*13:20/520:14 *13:42/533:56 *15:13/549:09 256:47/805:56	3020	111	*12:37/502:46 *13:00/515:46 *14:34/530:20 256:45/787:05	3020	113	*11:49/501:06 *12:18/513:24 *13:53/527:17 256:23/783:40	16.8	3606	403.2	* Launch attempt
39	37	104	3021	120	182:44/1187:07	3020	118	181:04/1182:20	3020	115	154:35/315:21	15.1	2165	362.4	FC 3 pH sensor cycling on runway 15 minutes after landing.
40	39	10*	3021	114	214:41/559:37	3020	103	213:46/367:10	3020	119	212:55/561:34	15.4	3083	369.6	FC 1 HV heater A bias low.

Source: JSC/ZP5 Power Branch

\* The cumulative run time includes ground operating time for various tests.

SHUTTLE FLIGHT HISTORIES  
FUEL CELLS

Miss. Seq. No.	STS No.	Orb. OV-	FC-1 MC464-0115-XXXX			FC-2 MC464-0115-XXXX			FC-3 MC464-0115-XXXX			Avg. Elect. Power, kW	Total Elect. Energy, kWh	Average Da. Elect. Energy, kWh	Remarks
			Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. hr:min				
41	40	102	3021	117	15:26/821:22* 259:14/1080:36	3020	111	14:48/801:53 259:07/1061:00	3020	113	14:03/797:43 258:41/1056:24	17	2720	408	* Launch attempt FC 1 H2 flowmeter off-scale-high.
42	43	104	3021	120	11:57/1199:04* 268:58/1468:02	3020	118 **	11:11/1193:31* 268:00/1461:31	3020	107	10:25/356:43* 267:13/623:56	14.4	3062	345	*Launch attempt. ** Product water alternate line temperature crept up to 100-105 °F. Fuel cell 2 and 3 flooded after landing. Removed and replaced.
43	48	103	3021	114	185:53/745:30	3020	103	185:43/552:53	3020	119	185:07/746:41	14.7	1891	351.8	
44	44	104	3021	120	06:04/1474:06* 215:51/1689:57	3020	108	05:17/521:49* 215:51/737:41	3020	110	04:33/17:14* 215:34/232:48	12.8	2138	307.3	*Launch attempt. Fuel cell 1 and 2 orbit only.
45	42	103	3021	114	233:49/979:19	3020	103	233:33/786:26	3020	119	233:11/979:52	17.2	3317	413.0	
46	45	104	3021	104	270:47/270:47	3020	108	270:00/1007:41	3020	110	269:11/501:59	15.8	3376.2	381.0	
47	49	105	3031	123	0:00/21:55* 247:53/269:45	3030	124	0:00/21:18* 247:38/268:56	3030	125	0:00/20:40* 247:07/267:47	13.5	2877.6	324.0	*Flight Readiness Firing.
48	50	102	3021	117	364:48/1445:23	3020	111	364:01/1425:11	3020	113	363:16/1419:40	18.7	6204.7	449.0	Note: All three fuel cells on OV-102 were removed and replaced after STS-50.
49	46	104	3021	104	222:50/493:37	3020	108	222:03/1229:44	3020	110	221:13/723:12	15.6	2987.0	375.0	
50	47	105	3031	123	221:12/491:00	3030	124	220:35/489:31	3030	125	211:35/479:22	17.1	3249.7	409.0	
51	52	102	3021	109	268:08/268:08	3020	121	267:23/267:23	3030	122	266:34/266:34	14.8	3514.6	356.0	

\* The cumulative run time includes ground operating time for various tests.

Source: JSC/EPC Power Branch  
Inhouse Mission Reports  
RIC, P/C Operating Time Cycle Records

SHUTTLE FLIGHT HISTORIES  
FUEL CELLS

Miss. Seq. No.	STS No.	Orb. OV-	FC-1 NC464-0115-XXXX			FC-2 NC464-0115-XXXX			FC-3 NC464-0115-XXXX			Avg. Elect. Power, kW	Total Elect. Energy, kWh	Average Da. Elect. Energy, kWh	Remarks
			Mdl. Dash No.	S/N P760	Run Time Flight/Cum. 4 hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. 4 hr:min	Mdl. Dash No.	S/N P760	Run Time Flight/Cum. 4 hr:min				
52	53	103	3021	114*	240:44/1220:03	3020	103	239:09/1025:35	3020	119	238:45/1218:37	13.6	2383	326.4	Fuel cell 1, (S/N 114), was replaced with S/N 104 after landing.
53	54	105	3031	123	173:18/664:18	3030	124	125:17/614:48 *38:26/653:14	3030	125	171:49/651:11	14.4	2062	344.5	*In-flight shutdown; restart (DTC 412).
54	56	103	3021	104	303:28/497:03	3020	103	302:40/1328:15	3020	119	301:55/1520:32	15.7	3497	377.9	
55	55	102	3021	109	*18:39/284:47 334:32/619:19	3020	121	*15:56/283.19 334:13/617:52	3020	122	*15:20/281:54 333:45/615:39	17.9	4296	430	*First launch attempt was aborted at T-3 seconds.

\*The cumulative run time includes ground operating time for various tests.

Source: JSC/EP5 Power Branch  
Inhouse Mission Reports  
RIC, F/C Operating Time Cycle Records

**SHUTTLE HISTORIES**  
**FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX**

Miss. Seq. No.	STS- No.	Orb. OV-	Serial Number																		
			101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116			
1	1	102							0003	0004	0004										
2	2	102	0008	0007	0007																
3	3	102		0007	0007			0005													
4	4	102		0007	0007			0005													
5	5	102	0008	0007	0007																
6	6	099								1004					0007						
7	7	099								1004					0007						
8	8	099								1004					0007						
9	9	102				3001														3000	3000
10	41B	099														3000	3000	3001			
11	41C	099															3000	3001			
12	41D	103	3001	3000	3000																
13	41G	099																		3000	3001
14	51A	103	3001	3000	3000																
15	51C	103	3001	3000	3000																

**SHUTTLE HISTORIES**  
**FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX**

Miss. No.	STS- No.	Orb. OV-	Serial Number																						
			101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	
16	51D	103	3001	3000	3000																				
17	51B	099									3000				3000	3001									
18	51G	103	3001		3000					3000															
19	51F	099													3000	3000	3001								
20	51I	103	3001		3000					3000															
21	51J	104								3001	3000				3000										
22	61A	099									3000				3000										
23	61B	104													3000										
24	61C	102												3001											
25	51L	099	3001	3000																					
26	26	103																							
27	27	104																							
28	29	103																							
29	30	104																							

SHUTTLE HISTORIES  
FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX

Miss. Seq. No.	STS- No.	Orb. Ov-	Serial Number																						
			101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	
30	28	102										3020							3021						
31	34	104																		3020		3021	3020		
32	33	103																		3020					3020
33	32	102										3020							3021						
34	36	104																				3021	3020		
35	31	103																				3021			3020
36	41	103																				3021			
37	38	104																						3020	
38	35	102																	3021						
39	37	104																						3020	
40	39	103																						3020	
41	40	102																							
42	43	104																						3020	
43	48	103																						3020	
44	44	104																						3020	

SHUTTLE HISTORIES  
FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX

Miss. Seq. No.	STS- No.	Orb. OV-	Serial Number																					
			101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122
45	42	103			3020									3021							3020			
46	45	104				3021			3020															
48	50	102									3020							3021						
49	46	104				3021			3020															
51	52	102								3021													3020	3030
52	53	103				3020															3020			
54	56	103				3020															3020			
55	55	102								3021													3020	3030

Miss. Seq. No.	STS- No.	Orb. OV-	Serial Number																				
			123	124	125																		
47	49	105				3031	3030	3030															
50	47	105				3031	3030	3030															
53	54	105				3031	3030	3030															

SHUTTLE FLIGHT HISTORIES  
ORBITER TIRES

Miss. Seq. No.	STS- No.	Orb. OV-	Main Gear Tires - P <sup>N</sup> , Status, and SN				Nose Gear Tires - P <sup>N</sup> , Status, and SN				Remarks
			Left Hand		Right Hand		Left Hand		Right Hand		
			Outboard	Inboard	Inboard	Outboard	Left Hand	Right Hand	Left Hand	Right Hand	
1	1	102	*=3 New 9338AK0836	*=3 New 9332AK0837	*=3 New 9335AK0875	*=2 New 7007AK0805	*=2 New 7007AK1089	LHOB tire was cut.			
2	2	102	*=4 New 1082A00900	*=4 New 1079A00454	*=4 New 1075A00040	*=2 Used 1 7007AK0805	*=2 Used 1 7007AK1089	Nominal tire wear.			
3	3	102	*=4 Used 1 1082A00900	*=4 Used 1 1079A00454	*=4 Used 1 1075A00040	*=2 New 7007AK0156	*=2 New 7007AK0804	Nominal tire wear.			
4	4	102	*=4 New 1079A00874	*=4 New 104200851	*=4 New 1083A00037	*=2 New 7007AK0795	*=2 New 7007AK0131	Nominal tire wear.			
5	5	102	*=4 Used 1 1079A00874	*=4 Used 1 1042A00851	*=4 New 1350A00468	*=2 Used 1 7007AK0795	*=2 Used 1 7007AK0131	LH MLG tires had touchdown spot damage. LH1B tire was badly damaged.			
6	6	099	*=4 New 1079A00455	*=4 New 1079A00453	*=4 New 1077A00427	*=2 New 7007AK0129	*=2 New 7007AK0508	Nominal tire wear.			
7	7	099	*=4 New 101A00463	*=4 New 2208A00436	*=4 New 2334A00472	*=2 Used 1 7007AK0129	*=2 Used 1 7007AK0508	Nominal tire wear.			
8	8	099	*=4 New 2209A00465	*=4 New 2300A01059	*=4 New 2209A00464	*=2 New 7076AK0650	*=2 New 7076AK0651	Nominal tire wear.			
9	9	102	*=4 New 2211A00439	*=4 New 23022A00460	*=4 New 2290A00435	*=2 New 7006AK0035	*=2 New 7006AK1034	Nominal tire wear.			
10	41B	099	*=4 New 2187A00444	*=4 New 1348A00809	*=4 Used 1 2209A00464	*=2 Used 1 7076AK0650	*=2 Used 1 7076AK0651	MLG tires scuffed due to rough runway surface at KSC.			
11	41C	099	*=4 New 2222A00490	*=4 New 2187A01054	*=4 New 2211A00442	*=2 New 1232A01068	*=2 New 1232A01067	Nominal tire wear.			

Source: JSC/SS6, Mechanical Design and Analysis Branch, and LSOC - KSC  
In-house Mission Reports



SHUTTLE FLIGHT HISTORIES  
ORBITER TIRES

Miss. Seq. No.	STS- No.	Orb. GV-	Main Gear Tires - PN <sup>a</sup> , Status, and SN				Nose Gear Tires- PN <sup>a</sup> , Status, and SN				Remarks
			Left Hand		Right Hand		Left Hand		Right Hand		
			Outboard	Inboard	Inboard	Outboard	Outboard	Left Hand	Right Hand		
12	41D	103	*=4 New 1351A00424	*=4 Used 1 2333A00474	*=4 New 2197A00972	*=4 New 2301A00464	*=2 New 7006AK0410	*=2 New 7006AK0033	Nominal tire wear.		
13	41G	099	*=4 Used 1 2211A00440	*=4 Used 1 2211A00442	*=4 Used 2 2306A00472	*=4 Used 1 2187A00444	*=2 Used 1 1232A01068	*=2 Used 1 1232A01067	All MLG tires had touchdown spot damage.		
14	51A	103	*=4 New 2208A00433	*=4 New 2188A01023	*=4 New 2211A00441	*=4 New 2196A00476	*=2 New 7010AK1729	*=2 New 7006AK0409	All MLG tires had touchdown spot damage.		
15	51C	103	*=4 New 4073A00737	*=4 New 4058A00469	*=4 New 4069A00485	*=4 New 2187A00443	*=2 Used 1 7010AK1729	*=2 Used 1 7006AK0409	All MLG tires had touchdown spot damage.		
16	51D	103	*=4 New 2188A00479	*=4 New 4065A00656	*=4 New 2197A00971	*=4 New 2197A00428	*=2 Used 2 7010AK1729	*=2 Used 2 7006AK0409	RHIB tire blew out 5 ft prior to wheels stop. RHOB tire badly damaged.		
17	51B	099	*=4 New 2208A01015	*=4 New 2210A00436	*=4 New 4159A00068	*=4 New 2196A00963	*=2 New 7006AK0835	*=2 New 7006AK0837	Nominal tire wear.		
18	51G	103	*=4 New 4079A00446	*=4 New 4059A00796	*=4 New 4067A00705	*=4 New 4088A00999	*=2 New 7010AK0497	*=2 New 7006AK0834	Ruts 8 in. to 10 in. deep x 39 ft long in runway from LH MLG tires.		
19	51F	099	*=4 New 4069A00486	*=4 New 4076A01071	*=4 New 4067A00704	*=4 New 4065A00843	*=2 Used 1 7006AK0835	*=2 Used 1 7006AK0837	Nominal tire wear.		
20	51I	103	*=4 New 4089A00669	*=4 New 4066A01101	*=4 New 4088A00678	*=4 New 4076A00754	*=2 New 7006AK0505	*=2 New 7006AK1408	Nominal tire wear.		
21	51J	104	*=4 New 4159A00069	*=4 New 4158A00665	*=4 New 4054A01123	*=4 New 4089A00116	*=2 New 7005AK0230	*=2 New 5151A00054	Nominal tire wear.		

Source: JSC/ES6, Mechanical Design and Analysis Branch, and LSOC-KSC  
In-house Mission Reports.

SHUTTLE FLIGHT HISTORIES  
ORBITER TIRES

Miss. Seq. No.	STS- No.	Orb. OV-	Main Gear Tires - PN <sup>o</sup> , Status, and SN				Nose Gear Tires - PN <sup>o</sup> , Status, and SN				Remarks
			Left Hand		Right Hand		Left Hand		Right Hand		
			Outboard	Inboard	Outboard	Inboard	Outboard	Inboard	Outboard	Inboard	
22	61A	099	*=4 Used 1 2196A00963	*=4 Used 1 4067A00704	*=4 New 2188A00477	*=4 New 4077A00767	*=4 New 4051A00830	*=4 New 4076A00736	*=2 Used 1 7006AK1408	*=2 Used 1 7006AK0505	Nominal tire wear.
23	61B	104	*=4 New 4089AK1105	*=4 New 4158A00800	*=4 New 4077A00767	*=4 New 4077A00847	*=4 New 4076A00736	*=2 New 5141A00559	*=2 New 5141A00703	Nominal tire wear.	
24	61C	102	*=4 Used 1 4159A00665	*=4 Used 1 4054A01123	*=4 New 4077A00847	*=4 New 4077A00847	*=4 New 4060A01044	*=2 Used 1 7005AK0230	*=2 Used 1 5151A00054	Scuff on RHOB tire.	
25	51L	099	*=4 New 4059A00797	*=4 New 4087A00003	*=4 New 4069A01100	*=4 New 4069A01100	*=4 New 4158A00950	*=2 New 5141AK1288	*=2 New 5141A00983	Nominal tire wear.	
26	26	103	*=4 New 5169A00526	*=4 New 5164A00474	*=4 New 5170A00546	*=4 New 5170A00546	*=4 New 5158A00661	*=2 New 5150A00553	*=2 New 5154A00055	Nominal tire wear.	
27	27	104	*=4 New 5142A00539	*=4 New 5136A00649	*=4 New 5165A00670	*=4 New 5165A00670	*=4 New 5135A00434	*=2 New 5149A01068	*=2 New 5149A01069	Nominal tire wear. LHIB tire had a leak of 1.4 psi/g/day at 70°F.	
28	29	103	*=4 New 5129A00527	*=4 New 5168A00539	*=4 New 5133A00666	*=4 New 5133A00666	*=4 New 5140A00551	*=2 Used 1 5150A00533	*=2 Used 1 5154A00551	Heavy wear on RHIB tire.	
29	30	104	*=4 New 5121A00658	*=4 New 4051A00666	*=4 New 5155A00668	*=4 New 5155A00668	*=4 New 5161A00639	*=2 New 5154A00560	*=2 New 5150A00053	All tires had wear and cuts typical of a crosswind landing on smooth concrete.	
30	28	102	*=4 New 5141A00538	*=4 New 5168A00538	*=4 New 5163A00678	*=4 New 5163A00678	*=4 New 5150A00629	*=2 Used 1 5149A01068	*=2 Used 1 5149A01069	Nominal tire wear.	
31	34	104	*=4 New 5126A00531	*=4 New 5134A00659	*=4 New 5136A00648	*=4 New 5136A00648	*=4 New 5144A00531	*=2 Used 1 5154A00560	*=2 Used 1 5150A00053	Nominal tire wear.	
32	33	103	*=4 New 9117N00561	*=4 New 9117N00049	*=4 New 5129A00526	*=4 New 5129A00526	*=4 New 9117N00555	*=2 New 5151A00455	*=2 New 5150A01093	Nominal tire wear. Heavier wear was found on RH MEG tires.	

Source: JSC/ES6, Mechanical Design and Analysis Branch, and LSOC-RSC In-house Mission Reports.

SHUTTLE FLIGHT HISTORIES  
ORBITER TIRES

Miss. Seq. No.	STS- No.	Orb. OV-	Main Gear Tires - PN <sup>a</sup> , Status, and SN				Nose Gear Tires- PN <sup>a</sup> , Status, and SN				Remarks
			Left Hand		Right Hand		Left Hand		Right Hand		
			Outboard	Inboard	Outboard	Inboard	Outboard	Left Hand	Right Hand		
33	32	102	*=4 New 5163A00680	*=4 New 5156A00532	*=4 New 9115N00268	*=4 New 9113N00347	*=4 New 5137A00434	*=2 New 5150A00552	*=2 New 7005AK0513	Nominal tire wear.	
34	36	104	*=4 New 5154A00463	*=4 New 9111N00345	*=4 New 9113N00347	*=4 New 9114N00348	*=4 New 9114N00348	*=2 New 5141A00981	*=2 New 5151A00456	Nominal tire wear.	
35	31	103	*=4 New 9115N00269	*=4 New 9116N00348	*=4 New 9114N00347	*=4 New 9116N00350	*=4 New 9116N00350	*=2 New 7005AK0772	*=2 New 7005AK0227	Nominal tire wear.	
36	41	103	*=4 New 9117N00562	*=4 New 9116N00349	*=4 New 9115N00270	*=4 New 9115N00267	*=4 New 9115N00267	*=2 New 5151A00926	*=2 New 5154A01022	Heavy wear on RHIB tire.	
37	38	104	*=4 New 9210N00539	*=4 New 9212N00679	*=4 New 9219N00306	*=4 New 9214N00016	*=4 New 9214N00016	*=2 No. 5141A009...	*=2 New 5141A00984	Nominal tire wear.	
38	35	102	*=4 New 9217N00067	*=4 New 9209N00542	*=4 New 9210N00538	*=4 New 9209N00540	*=4 New 9209N00540	*=2 Used 1 5150A00552	*=2 Used 1 7005AK0513	Nominal tire wear.	
39	37	104	*=4 New 9216N00832	*=4 New 9216N00341	*=4 New 9209N00668	*=4 New 9114N00349	*=4 New 9114N00349	*=2 New 5151A00933	*=2 New 5151A00056	A 0.63 in. x 2 ply deep cut was found in the LHOB tire after rollback.	
40	39	103	*=4 New 9213N00615	*=4 New 9213N00614	*=4 New 9214N00362	*=4 New 9210N00540	*=4 New 9210N00540	*=2 New 5143A00677	*=2 New 5142A00991	Wear through 3 plies on RHOB and 1 ply on LHIB and RHIB.	
41	40	102	*=4 New 9212N00528	*=4 New 9217N00064	*=4 New 9217N00065	*=4 New 9214N00360	*=4 New 9214N00360	*=2 New 5150A01096	*=2 New 5141A00701	Nominal tire wear.	
42	43	104	*=4 New 9219N00305	*=4 New 9220N00361	*=4 New 9209N00363	*=4 New 9214N00660	*=4 New 9214N00660	*=2 New 5151A00453	*=2 New 5151A00055	Wear through 2 plies on LHIB.	

Source: JSC/ES6, Mechanical Design and Analysis Branch, and LSOC-KSC In-house Mission Reports.

<sup>a</sup> MC194-0007-000\*-03481

SHUTTLE FLIGHT HISTORIES  
ORBIT ? TIRES

Miss. Seq. No.	STS- No.	Orb. OV-	Main Gear Tires - PN <sup>a</sup> , Status, and SN						Nose Gear Tires- PN <sup>a</sup> , Status, and SN		Remarks
			Left Hand		Right Hand		Left Hand	Right Hand			
			Outboard	Inboard	Inboard	Outboard					
43	48	103	*=4 New 9215W00665	*=4 New 9110W00555	*=4 New 9210W00668	*=4 New 9114W00346	*=6 New 1132W00625	*=6 New 1132W00629	All MLG tires had higher than expected wear, especially the LHIB tire.		
44	44	104	*=4 New 9213W00616	*=4 New 9212W00527	*=4 New 9210W00046	*=4 New 9216W00361	*=6 New 1133W00230	*=6 New 1131W00625	Nominal tire wear.		
45	42	103	*=4 New 9216W00836	*=4 New 9110W00554	*=4 New 9210W00007	*=4 New 9217W00066	*=6 New 1130W00968	*=6 New 1133W00636	Nominal tire wear.		
46	45	104	*=4 New 9217W00366	*=4 New 1274W00373	*=4 New 9212W00063	*=4 New 1274W00374	*=6 Used 1 1132W00629	*=6 Used 1 1132W00625	Nominal tire wear.		
47	49	105	*=4 New 1274W00375	*=4 New 9214W00014	*=4 New 1274W00710	*=4 New 9210W00013	*=6 New 1134W00953	*=6 New 1132W00626	Nominal tire wear.		
48	50	102	*=5 New 2017W00080	*=5 New 2022W00414	*=5 New 2021W00417	*=5 New 2016W00079	*=6 New 1132W00956	*=6 New 1134W00956	First flight of the new MLG commercial tread tires. Nominal tire wear.		
49	46	104	*=5 New 2021W00678	*=5 New 2017W00241	*=5 New 2022W00745	*=5 New 2021W00010	*=6 New 1130W00968	*=6 New 1133W00636	Nominal tire wear.		
50	47	105	*=5 New 2016W00404	*=5 New 2016W00081	*=5 New 2016W00676	*=5 New 2022W00070	*=6 New 1133W00969	*=6 New 1135W00964	Nominal tire wear.		
51	52	102	*=5 New 2020W00346	*=5 New 2021W00011	*=5 New 2017W00082	*=5 New 2021W00414	*=6 New 1135W00960	*=6 New 1132W00627	Nominal tire wear.		
52	53	103	*=5 New 2020W00344	*=5 New 2016W00675	*=5 New 2020W00011	*=5 New 2017W00405	*=6 New 1134W00455	*=6 New 1130W00967	Nominal tire wear.		
53	54	105	*=5 New 2143W00399	*=5 New 2143W00731	*=5 New 2022W00415	*=5 New 2143W00730	*=6 New 1133W00967	*=6 New 1130W00631	A 0.3 in. diameter x 2 ply. deep half-moon shaped cut was found in the RHIB tire.		

Source: JSC/ES6, Mechanical Design and Analysis Branch, and LSOC - KSC

SHUTTLE FLIGHT HISTORIES  
ORBITER TIRES

Miss. Seq. No.	STS- No.	Orb. OV-	Main Gear Tires - PN <sup>a</sup> , Status, and SN				Nose Gear Tires - PN <sup>a</sup> , Status, and SN				Remarks	
			Left Hand		Right Hand		Left Hand		Right Hand			
			Outboard	Inboard	Outboard	Inboard	Outboard	Left Hand	Right Hand	Left Hand	Right Hand	
54	56	103	*=5 New 2022N00741	*=5 New 2184N00400	*=5 New 2183N00650	*=5 New 2143N00401	*=5 New 2183N00650	*=6 New 1134N00456	*=6 New 1133N00635	*=6 New 1134N00456	*=6 New 1132N00626	Nominal tire wear.
55	55	102	*=5 New 2149N00065	*=5 New 2148N00731	*=5 New 4129N00066	*=5 New 2149N00067	*=5 New 4129N00066	*=6 Used 1 1134N00953	*=6 Used 1 1132N00626	*=6 Used 1 1134N00953	*=6 Used 1 1132N00626	Nominal tire wear.

SHUTTLE HISTORIES  
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

Miss. Seq. No.	STS- No.	Orb. OV-	OMS Firing Nomenclature Engines Used												Total Burn Time, sec LH/RH ΔV ft./sec.	Pod S/N LH/RH*	OMS Eng S/N LH/RH
			OMS-1	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6	OMS-7	OMS-8	OMS-9	OMS-10	OMS-11	OMS-12			
1	1	102	OMS-1 2 87.0 164.5	OMS-2 2 75.0 136.7	OMS-3 1-LH 29.0 25.7	OMS-4 1-RH 33.0 29.4								Deorb 2 155.0 287.6	LV01 RV01	102 101	
2	2	102	OMS-1 2 77.6 141.5	OMS-2 2 71.0 121.0	OMS-3A 1-LH 12.0 12.0	OMS-3B 1-LH 24.0 21.0	OMS-4 1-RH 39.0 34.8							Deorb 2 174.0 313.4	LV01 RV02	102 101	
3	3	102	OMS-1 2 86.0 152.7	OMS-2 2 88.0 151.7	OMS-3A 1-LH 2.4 1.8	OMS-3B 1-LH 15.0 12.7								Deorb 2 151.3 270.8	LV01 RV01	102 101	
4	4	102	OMS-1 2 88.0 143.7	OMS-2 2 105.0 177.1	OMS-3 2 32.0 54.4	OMS-4 2 32.0 54.8	OMS-5 1-LH 17.0 15.0							Deorb 2 173.4 308.8	LV01 RV01	102 101	
5	5	102	OMS-1 2 137.8 221.3	OMS-2 2 116.8 191.3	OMS-3 2 9.3 15.5	OMS-4A 1-LH 2.0 1.4	OMS-4B 1-LH 15.5 13.5	OMS-5 2 9.3 16.2						Deorb 2 142.4 268.9	LV01 RV01	102 101	
6	6	099	OMS-1 2 135.3 218.0	OMS-2 2 117.0 185.2	OMS-3 2 21.0 40.0	OMS-4 2 21.6 42.5								Deorb 2 145.2 291.9	LP01 RP01	106 105	
7	7	099	OMS-1 2 139.5 227.0	OMS-2 2 117.5 193.6	OMS-3 2 4.9 10.0	OMS-4 2 5.2 9.4	OMS-5 2 3.4 6.3	OMS-6 2 13.3 23.3						Deorb 2 169.0 310.2	LP01 RP01	106 105	
8	8	099	OMS-1 2 138.1 227.0	OMS-2 2 115.6 196.8	OMS-3 2 6.4 11.0	OMS-4 2 37.4 66.7	OMS-5 2 46.6 83.5							Deorb 2 150.8 278.5	LP01 RP01	106 105	
9	9	102	OMS-1 2 63.8 111.0	OMS-2 2 101.5 163.5										Deorb 2 156.1 287.0	LV01 RV01	102 101	

\* These data were audited in January 1993.  
\*\* Single left engine; right pod crossfeed

Source: JSC/EP2, Propulsion Branch, In-house Mission Reports

SHUTTLE HISTORIES  
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

Miss. Seq. No.	STS- No.	Orb. OV-	OMS Firing Nomenclature: Engines Used											Total Burn Time, sec LH/RH AV ft/sec.	Pod S/W LH/RH*	OMS Eng S/W LH/RH
			OMS-1	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6	NSR	TI	NC-3A	TI-2	Deorb			
			Burn Time, sec Delta Velocity, ft/sec													
10	41B	099	OMS-1 2 150.2 247.0	OMS-2 2 125.0 204.0	OMS-3 1-RH 13.0 11.0	OMS-4 1-LH 31.2 27.0	OMS-5 1-LH 41.8 36.5	OMS-6 1-LH 12.4 11.0	NSR 2 14.8 11.0	TI 1-RH 15.0 11.8	NC-3A 1-RH 16.0 14.3	TI-2 1-LH 8.6 7.9	Deorb 2 168.2 216.0	LP01 RP01	106 105	
11	41C	099	OMS-1 Dir. Insert. Not Perf. 148.6	OMS-2 2 95.2 148.6	NC-1 1-RH 14.3 11.4	NSR 1-LH 11.7 9.4	TI 1-RH 15.0 11.8	NC-3A 1-RH 16.0 14.3	TI 1-LH 13.0 11.6	TI-2 1-LH 8.6 7.9	Deorb 2 243.0 460.6	LP03 RP01	107 105			
12	41D	103	OMS-1 2 153.5 237.3	OMS-2 2 126.2 196.5	OMS-3 1-LH 13.6 11.3	OMS-4 2 8.6 15.1	OMS-5 1-RH 12.2 11.0	OMS-6 2 20.6 37.3	Deorb 2 166.8 311.1	LP03 RP03	107 108					
13	41G	099	OMS-1 2 134.5 224.9	OMS-2 2 143.3 247.2	OMS-3 2 50.6 90.5	OMS-4 2 51.3 91.7	OMS-5 2 19.3 35.0	OMS-6 2 16.1 29.0	Deorb 2 141.9 269.2	LP01 RP01	106 111					
14	51A	103	OMS-1 2 151.0 235.9	OMS-2 2 114.8 177.3	NC-1 1-LH 11.2 8.9	CIRC-1 1-RH 16.2 12.7	A SEP 1-LH 13.6 11.0	S SEP 2 8.6 15.2	NSR 2 17.8 31.5	NC-3-1 1-RH 13.4 12.0	TI-1 1-RH 10.7 9.6	NC-1-2 2 8.6 15.3	TI-2 1-LH 11.7 10.5	LP03 RP03	107 108	
15	51C	103	Data not available, Department of Defense Mission											LP03 RP03	107 108	
16	51D	103	OMS-1 Direct Insert Not Perf. 142.6 228.1	OMS-2 2 142.6 228.1	SEP-1 1-RH 13.4 11.0	SEP-2 2 8.4 15.0	RETRO 2 8.4 15.0	NSR 1-LH 12.0 11.8	NC-3 1-LH 12.8 11.5	TI 1-LH 9.4 8.6	SEP-II 1-LH 21.8 21.7	Deorb 2 237.8 451.5	LP03 RP03	107 106		
17	51B	099	OMS-1 2 133.4 225.5	OMS-2 2 145.2 243.3	Deorb 2 265.4 470.4	Deorb 2 265.4 470.4	Deorb 2 265.4 470.4	Deorb 2 265.4 470.4	Deorb 2 265.4 470.4	Deorb 2 265.4 470.4	Deorb 2 265.4 470.4	Deorb 2 265.4 470.4	LP01 RP04	106 113		
18	51G	103	OMS-1 Dir Insert Not Perf. 177.6 278.7	OMS-2 2 177.6 278.7	SEP-1 1-LH 13.4 11.0	SEP-2 1-LH 13.0 11.0	SEP-3 1-LH 12.6 11.0	OMS-6 1-RH 111.8 100.0	Deorb 2 150.4 279.3	Deorb 2 150.4 279.3	Deorb 2 150.4 279.3	Deorb 2 150.4 279.3	LP04 RP03	110 108		

SHUTTLE HISTORIES  
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

Miss. Seq. No.	STS- No.	Orb. OV-	OMS Firing Nomenclature Engines Used Burn Time, sec Delta Velocity, ft/sec											Total Burn Time, sec LH/RH AV ft/sec.	Pod S/W LH/RH*	OMS Eng S/W LH/RH				
			ATO 2 106.4	OMS-1 Dir Insert Not Perf.	OMS-2 2 119.4 35.0 193.7 57.4	OMS-3 2 1-LH 13.8 11.0	OMS-4 2 1-RH 13.2 11.0	OMS-5 2 10.6 15.0	OMS-6 2 1-RH 40.2 35.7	OMS-7 2 1-RH 9.6 8.7	OMS-8 2 26.4 47.6	OMS-9 1-RH 19.4 17.6	OMS-10 1-LH 15.0 13.7				OMS-11 1-RH 16.4 15.0			
19	51P	099																Deorb 2 171.1 301.8	LP01 RP04	106 113
20	51I	103																Deorb 2 251.6 476.2	LP04 RP03	110 108
21	51J	104																	LP03 RP01	107 111
22	61A	099																Deorb 2 170.4 301.4	LP01 RP03	106 108
23	61B	104																Deorb 2 169.0 314.0	LP03 RP01	107 111
24	61C	102																Deorb 2 232.0 417.8	LP04 RP04	110 113
25	51L	099																N/A	LV01 RV01	112 102
26	26	103																Deorb 2 168.0 325.0	LP04 RP03	109 114

Source: JSC/EP2, Propulsion Branch, In-house Mission Reports

\* These data were audited in January 1993.  
\*\* Single left engine; right pod crossfeed



**SHUTTLE HISTORIES  
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY**

Miss. Seq. No.	STS- No.	Orb. OV-	OMS Firing Nomenclature Engines Used										Total Burn Time, sec LH/RH AV ft./sec.	Pod S/N LH/RH*	OMS Eng S/N LH/RH		
			Burn Time, sec Delta Velocity, ft./sec														
			DATA NOT AVAILABLE														
27	27	104														LP01 RP01	106 111
28	29	103															
29	30	104															
30	28	102															
31	34	104															
32	33	103															
33	32	102															
34	36	104															
35	31	103															

\* These data were audited in January 1993.

\*\* Single left engine; right pod crossfeed

Source: JSC/EP2, Propulsion Branch, In-house Mission Reports

SHUTTLE HISTORIES  
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

Miss. Seq. No.	STS- No.	Orb. OV-	OMS Firing Nomenclature Engines Used Burn Time, sec Delta Velocity, ft/sec												Total Burn Time, sec LH/RH AV ft/sec.	Pod S/N LH/RH*	OMS Eng S/N LH/RH			
			OMS-1 Direct Insert.	OMS-2 2 143.6 222.6	OMS-3 1 33.3 31.0	OMS-4 1 44.1 41.0														
36	41	103	OMS-1 Direct Insert.	OMS-2 2 143.6 222.6	OMS-3 1 33.3 31.0	OMS-4 1 44.1 41.0												Deorbit 2 148.3 286.2	LP04 RP01	109 111
37	38	104	OMS-1 2 N/A N/A	OMS-2 2 N/A N/A	OMS-3 2 N/A N/A	OMS-4 2 N/A N/A	DOD MISSION - DATA NOT AVAILABLE										Deorbit 2 N/A N/A	LP01 RP03	105 114	
38	35	102	OMS-1 Direct Insert.	OMS-2 2 179.2 279.1														Deorbit 2 230.4 383.2	LP03 RP04	105 108
39	37	104	OMS-1 Direct Insert.	OMS-2 2 234.7 372.1	OMS-3 1-LH 9.4 8.7													Deorbit 2 221.0 439.7	LP01 RP01	105 108
40	39	103	OMS-1 Direct Insert.	OMS-2 2 129.0 209.5	OMS-3 1-RH 19.8 16.8	OMS-4 1-LH 16.8	OMS-5 1-RH 19.6 17.0	OMS-6 1-LH 18.2 17.0	OMS-7 1-RH 19.4 16.9	OMS-8 1-LH 18.2 16.9	OMS-9 1-RH 19.4 17.0	OMS-10 1-LH 18.4 16.6	OMS-11 1-RH 19.6 17.1	OMS-12 1-LH 18.0 15.8				Deorbit 2 143.0 257.8	LP04 RP03	105 108
40	39	103 (Continued)	OMS-13 1-RH 10.0 9.1	OMS-14 1-LH 10.0 8.4	OMS-15 1-RH 6.8 5.9	OMS-16 1-LH 6.0 6.0												Deorbit 2 143.0 257.8	LP04 RP03	105 108
41	40	102	OMS-1 Direct Insert.	OMS-2 2 124.1 197.3														Deorbit 2 169.5 286.0	LP03 RP04	105 108
42	43	104	OMS-1 Direct Insert.	OMS-2 2 142.7 222.2	OMS-3 2 16.5 31.0													Deorbit 2 158.0 307.0	LP01 RP01	106 111
43	48	103	OMS-1 Direct Insert.	OMS-2 2 266.2 449.9														Deorbit 2 265.6 516.6	LP04 RP03	109 114

\* These data were audited in January 1993.  
\*\* Single left engine; right pod crossfeed

Source: JSC/EP2, Propulsion Branch, In-house Mission Reports

SHUTTLE HISTORIES  
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

Miss. Seq. No.	STS- No.	Orb. OV-	OMS Firing Nomenclature Engines Used Burn Time, sec Delta Velocity, ft/sec										Total Burn Time, sec LH/RH ΔV ft/sec.	Pod S/N LH/RH*	OMS Eng S/N LH/RH				
			OMS-1 Direct Insert.	OMS-2 2 159.2 264.0	OMS-3 2 145.6 252.4	OMS-4 1-LH 1-RH 12.4 16.1 13.7	OMS-5 2 45.9 72.4	OMS-6 1-RH 1-LH 12.4 18.2 9.7	OMS-7 1-LH 1-RH 14.5 8.7 17.8	OMS-8 1-LH 1-RH 8.7 19.4 7.1	OMS-9 1-LH 1-RH 19.4 17.8	Deorbit 2 182.5 355.6							
44	44	104															Deorbit 2 182.5 355.6	LP01 RP01	106 111
45	42	103															Deorbit 2 178.2 310.1	LP04 RP03	109 114
46	45	104															Deorbit 2 220.3 408.2	LP01 RP01	106 111
47	49	105															Deorbit 2 167.0 314.6	LP03 RP04	105 108
48	50	102															Deorbit 2 203.3 341.9	LP05 RP05	115 116
49	46	104															Deorbit 2 123.2 224.2	LP01 RP01	106 111
50	47	105															Deorbit 2 152.7 262.4	LP03 RP04	105 108
51	52	102															Deorbit 2 127.2 224.7	LP05 RP05	115 116
52	53	103															Deorbit 2 150.1 294.1	LP04 RP03	109 114

\* These data were audited in January 1993.  
\*\* Single left engine; right pod crossfeed

Source: JSC/EP2, Propulsion Branch, In-house Mission Reports

SHUTTLE HISTORIES  
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

Miss. Seq. No.	STS- No.	Orb. OV-	OMS Firing Nomenclature Engines Used												Total Burn Time, LH/RH sec	Pod S/N LH/RH*	OMS Eng S/N LH/RH
			Burn Time, sec			Delta Velocity, ft/sec											
53	54	105	OMS-2			OMS-3			OMS-4			Deorbit			330.9 323.5 570.2	LP03 RP04	105 108
			2	1	1	2	1	1	2	2	2	2	2	2			
			143.3	33.4	27.0	33.4	27.0	27.0	153.0	292.9							
54	56	103	OMS-2			OMS-3						Deorbit			356.1 364.1 639.1	LP01 RP03	106 114
			2	1	1	2	1	1	2	2	2	2	2				
			148.8	8.0	6.8	8.0	6.8	206.1	378.7								
55	55	102	OMS-2									Deorbit			316.9 316.9 512.4	LP05 RP05	115 116
			2														
			140.2														

\* These data were audited in January 1993.

\*\* Single left engine; right pod crossfeed

Source: JSC/EP2, Propulsion Branch, In-house Mission Reports

SHUTTLE FLIGHT HISTORIES  
ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

Miss. Seq. No.	STS-Orb. No.	Fuel, MMH												Oxidizer, N <sub>2</sub> O <sub>4</sub>																							
		Loaded, lb				RCS Interconnect Usage, lb				Residuals, lb				OMS Usage, lb				Loaded, lb				RCS Interconnect Usage, lb				Residuals, lb				OMS Usage, lb							
		LH		RH		LH		RH		LH		RH		LH		RH		LH		RH		LH		RH		LH		RH		LH		RH		LH		RH	
		Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH	Total	OH				
1	102	3197	3509	6706	274	279	553	372	798	1170	2551	2432	4983	5267	5781	11048	438	451	889	773	1369	2142	4056	3961	8017												
2	102	3221	3466	6687	19	58	77	485	1010	1495	2717	2398	5115	5306	5711	11017	31	92	123	861	1435	2295	4414	4184	8598												
3	102	3325	3325	6650	457	430	887	443	579	1022	2425	2316	4741	5477	5477	10954	731	687	1418	841	889	1730	3905	3901	7806												
4	102	4232	4188	8420	268	415	683	716	668	1384	3248	3105	6353	6848	6764	13612	428	664	1092	977	933	1910	5443	5167	10610												
5	102	3693	3737	7430	174	312	486	406	361	767	3113	3064	6177	6084	6168	12252	279	498	777	532	477	1009	5273	5193	10466												
6	099	3660	3606	7266	0	93	93	377	359	736	3283	3154	6427	6042	5058	12000	0	150	150	613	504	1117	5429	5304	10733												
7	099	3935	3935	7870	216	216	432	444	447	891	3275	3272	6547	6488	6488	12376	346	346	692	657	702	1359	5485	5440	10925												
8	099	4125	4125	8250	0	0	0	575	575	1150	3550	3550	7100	6798	6798	13596	0	0	0	813	857	1670	5985	5941	11926												
9	102	2976	2976	5952	347	347	694	343	323	666	2286	2306	4592	4901	4901	9802	554	554	1108	483	387	870	3864	3960	7824												
10	41B	099	4712	4576	9288	575	254	829	294	1323	3843	3293	7136	7743	7519	15262	920	405	1325	451	1570	2021	6372	5544	11916												
11	41C	099	4712	4712	9424	598	440	1038	562	526	1088	3552	3746	7498	7743	15486	757	703	1660	584	527	1111	6202	6513	12715												
12	41D	103	4485	4485	8970	0	140	140	980	896	1876	3505	3449	6954	7370	14740	0	223	223	1464	1253	2717	5906	5894	11800												
13	41G	099	4712	4712	9424	214	217	421	560	529	1089	3938	3976	7914	7743	15486	341	330	671	656	773	1429	6746	6640	13386												
14	51A	103	4712	4712	9424	502	475	977	305	433	738	3004	2804	7709	7744	15488	804	759	1563	493	510	1003	6447	6475	12922												
15	51C	103																																			

Department of Defense Mission - Data not available

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

Miss. Seq. No.	Orb. OV-	Fuel, MMH														Oxidizer, N <sub>2</sub> O <sub>4</sub>									
		Loaded, lb				RCS Interconnect Usage, lb				Residuals, lb				OMS Usage, lb				RCS Interconnect Usage, lb		Residuals, lb		OMS Usage, lb			
		LH		RH		Total		LH		RH		Total		LH		RH		Total		LH		RH		Total	
		LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total
17	51B 099	4281	4281	8562	0	0	0	359	320	679	3922	3961	7883	7093	7093	14186	0	0	0	613	594	1207	6480	6499	12979
18	51G 103	3469	3542	7011	437	0	437	377	393	770	2655	3149	5804	5755	5755	11510	698	0	698	636	465	1101	4421	5290	9711
19	51F 099	4712	4712	9424	388	257	645	661	710	1371	3663	3745	7408	7744	7744	15488	620	411	1031	902	1039	1941	6222	6294	12519
20	51I 103	4655	4655	9310	576	142	718	465	436	901	3614	4077	7691	7592	7592	15184	921	228	1149	709	500	1209	5962	6864	12826
21	51J 104	Department of Defense Mission - Data not available																							
22	61A 099	3413	3462	6875	0	0	0	367	426	793	3046	3036	6082	5661	5661	11322	0	0	0	612	620	1232	5049	5041	10090
23	61B 104	3733	3782	7515	443	0	443	636	685	1321	2654	3097	5751	6232	6191	12423	708	0	708	1144	983	2127	4380	5208	9588
24	61C 102	4270	4226	8496	0	0	0	328	372	700	3942	3854	7796	7001	7001	14002	0	0	0	395	475	870	6606	6526	13132
25	51L 099	4041	4016	8057	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6658	6699	13357	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	26 103	2616	2615	5231	0	0	0	*238	*246	476	2386	2369	4755	4334	4366	8700	8700	0	0	*379	*467	846	3455	3899	7854
27	27 104	3487	3494	6981	0	0	0	347	247	594	3140	3247	6387	5798	5797	11495	0	0	0	469	498	967	5329	5299	10628
28	29 103	2652	2596	5248	0	0	0	210	246	456	2442	2350	4792	4358	4352	8710	8710	0	0	355	455	810	4003	3897	7900
29	30 104	3527	3527	7054	0	0	0	272	243	515	3255	3284	6539	5845	5863	11708	11708	0	0	395	431	826	5450	5432	10882
30	28 102	2645	2645	5290	N/A	N/A	N/A	362	348	710	N/A	N/A	N/A	4425	4446	8871	8871	N/A	N/A	645	701	1346	N/A	N/A	N/A
31	34 104	2569	2596	5165	0	0	0	308	235	543	2261	2361	4622	4480	4301	8781	8781	0	0	513	524	1037	3967	3777	7744

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

Miss. Seq. No.	STS-Orb. OV-	Fuel, MFR												Oxidizer, N <sub>2</sub> O <sub>4</sub>																			
		Loaded, lb				RCS Interconnect Usage, lb				Residuals, lb				OMS Usage, lb				Loaded, lb				RCS Interconnect Usage, lb				Residuals, lb				OMS Usage, lb			
		LH	RH	Total	DOD	LH	RH	Total	DOD	LH	RH	Total	DOD	LH	RH	Total	DOD	LH	RH	Total	DOD	LH	RH	Total	DOD	LH	RH	Total	DOD	LH	RH	Total	DOD
32	103	4359	4348	8707	N/A	N/A	N/A	416	304	720	N/A	N/A	N/A	7213	7167	14380	N/A	N/A	N/A	N/A	479	307	786	N/A	N/A	N/A	479	307	786	N/A	N/A	N/A	
33	102	4718	4703	9421	408	633	1041	781	800	1581	3529	3270	6799	7726	7696	15422	653	1012	1665	1225	1187	2412	5848	5497	11345								
34	104	2351	2288	4639	N/A	N/A	N/A	373	291	664	N/A	N/A	N/A	3913	3928	7841	N/A	N/A	N/A	N/A	614	600	1214	N/A	N/A	N/A							
35	103	4661	4718	9379	102	119	221	229	236	465	4330	4563	8893	7756	7756	15512	163	191	354	371	338	709	7222	7227	14449								
36	103	2699	2695	5394	0	0	0	343	286	629	2383	2437	4820	4484	4476	8960	0	0	0	643	522	1165	3924	4036	7960								
37	104	2881	2880	5761	N/A	N/A	N/A	356	373	729	N/A	N/A	N/A	4740	4707	9447	N/A	N/A	N/A	479	542	1021	N/A	N/A	N/A								
38	102	3507	3515	7022	343	368	711	338	305	643	3169	3210	6379	5798	5798	11596	565	605	1170	410	362	772	5388	5436	10824								
39	104	3777	3717	7494	77	92	169	350	350	700	3350	3275	6625	6201	6202	12403	126	151	277	473	565	1038	5602	5486	11088								
40	103	4278	4317	8595	1129	1082	2211	261	316	577	2888	2919	5807	6889	6914	13803	1857	1779	3636	275	353	628	4757	4782	9539								
41	102	2440	2459	4899	0	0	0	317	346	663	2123	2113	4236	4070	4051	8121	0	0	0	478	488	966	3592	3563	7155								
42	104	2651	2606	5257	75	21	96	263	253	516	2388	2353	4741	4398	4285	8683	123	34	157	375	408	783	4023	3877	7900								
43	103	4230	4251	8481	0	0	0	375	389	764	3855	3862	7717	6954	6922	13876	0	0	0	537	667	1204	6417	6255	12672								
44	104	3070	3068	6138	0	0	0	427	374	801	2643	2694	5337	5025	5000	10025	0	0	0	408	431	839	4617	4569	9186								
45	103	2701	2704	5405	0	0	0	248	368	616	2453	2336	4789	4398	4430	8828	0	0	0	311	469	780	4087	3961	8048								
46	104	3165	3166	6331	142	245	387	282	271	553	2883	2895	5778	5245	5180	10425	234	403	637	417	427	844	4828	4753	9581								
47	105	3700	3720	7420	637	632	1269	320	282	602	3380	3438	6818	6170	6173	12343	637	632	1269	320	282	602	3380	3438	6818								

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

Miss. Seq. No.	STS-Orb. No.	OV-	Fuel, MPH												Oxidizer, N <sub>2</sub> O <sub>4</sub>											
			Loaded, lb			RCS Interconnect Usage, lb			Residuals, lb			OMS Usage, lb			Loaded, lb			RCS Interconnect Usage, lb			Residuals, lb			OMS Usage, lb		
			LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total	LH	RH	Total
48	50	102	3111	3091	6202	117	106	223	218	277	495	2893	2814	5707	5176	5176	10352	192	175	367	474	455	929	4702	4721	9423
49	46	104	4646	4644	9290	240	208	448	386	386	772	4260	4258	8518	7756	7685	15441	396	342	738	585	625	1210	7171	7060	14231
50	47	105	2715	2705	5420	0	0	0	474	468	942	2241	2237	4478	4480	4494	8974	0	0	0	727	751	1478	3753	3743	7496
51	52	102	3244	3244	6488	181	174	355	308	352	660	2936	2892	5828	5332	5333	10665	298	287	585	474	455	929	4858	4878	9736
52	53	103	3474	3457	6931	160	78	238	382	343	725	3092	3114	6206	5749	5765	11514	263	129	392	585	679	1264	5164	5086	10250
53	54	105	2656	2656	5312	0	0	0	282	328	610	2374	2328	4702	4399	4415	8814	0	0	0	417	512	929	3982	3903	7885
54	56	103	3276	3259	6535	405	339	744	291	259	550	2985	3000	5985	5423	5424	10847	666	557	1223	464	502	966	4959	4922	9881
55	55	102	2920	2917	5837	374	365	739	239	308	547	2681	2609	5290	4803	4804	9607	515	600	1215	431	405	836	4372	4399	8771

\*Preliminary values - will be updated after 1-g gage data available.



SHUTTLE HISTORIES  
REACTION CONTROL SYSTEM VERNIER THRUSTERS  
CONFIGURATION AND USAGE SUMMARY

Miss. Seq. No.	STS No.	Orb. OV-	Fwd Vernier Thrusters		Left Vernier Thrusters		Right Vernier Thrusters		Total Burntime, sec.	Total Cycles	Average Burntime per cycle sec.	Average Cycle per hour
			Burntime, sec.	Cycles	Burntime, sec.	Cycles	Burntime, sec.	Cycles				
1	1	102	1561.12	2603	2861.91	3767	2311.16	3828	6754.20	10198	0.6623	188
2	2	102	1997.52	4306	4102.16	5736	1770.48	5600	8870.16	15642	0.5671	288
3	3	102	8846.30	12990	10875.28	13859	10773.40	13462	30494.98	40311	0.7565	210
4	4	102	5697.92	9461	11607.12	12099	10925.08	11635	28230.12	33195	0.8505	196
5	5	102	3883.38	4797	6785.84	6508	7285.40	6061	17954.62	17366	1.0339	142
6	6	099	2865.40	4149	4137.12	4372	4626.92	4364	11629.44	128885	0.9026	107
7	7	099	4227.36	4849	6923.68	6532	6897.58	6662	18048.62	18043	1.0003	123
8	8	099	4008.56	3803	6115.76	5383	6341.04	4922	16465.36	14108	1.1671	97
9	9	102	10499.48	15223	17500.26	18781	17456.00	19860	45455.74	53864	0.8439	194
10	41B	099	5363.40	5198	8809.34	6209	9081.34	7041	23254.08	18448	1.2605	96
11	41C	099	3829.33	3865	6394.84	4705	6399.32	4737	16623.49	13307	1.2492	79
12	41D	103	4954.70	5464	7478.36	6664	8197.20	6518	20530.26	18646	1.1011	129
13	41G	099	7537.24	14363	12383.08	15856	13003.24	18491	32923.56	48710	0.6759	247
14	51A	103	4767.80	4421	8797.52	7176	7681.30	6676	21246.62	18273	1.1627	95

This section will not be updated, data are no longer available.

JSC/EP4, Propulsion Branch,  
In-house Mission Reports

OMS/RCS PODS AND FLIGHT ASSIGNMENTS

STS	OV-FLT	LV01	LP01	LP03	LP04	LP05	RV01	RP01	RP03	RP04	RP05	PRC2	PRC9	PRC3	PRC4	PRC5
1	102-1	1					1					1				
2	102-2	2					2					2				
3	102-3	3					3					3				
4	102-4	4					4					4				
5	102-5	5					5					5				
6	99-1		1					1					1			
7	99-2		2					2					2			
8	99-3		3					3					3			
9	102-6	6					6					6				
41B	99-4		4					4					4			
41C	99-5			1				5					5			
41D	103-1			2					1						1	
41G	99-6		5					6					6			
51A	103-2			3					2						2	
51C	103-3			4					3						3	
51D	103-4			5					4						4	
51B	99-7		6							1			7			
51G	103-5				1				5						5	
51F	99-8		7							2			8			
51I	103-6				2				6						6	
51J	104-1			6				7								1
61A	99-9		8						7						9	
61B	104-2			7					8							2
61C	102-7				3					3		7				
51L	99-10	7					7						10			
26	103-7				4				8						7	
27	104-3		9					9								3
29	103-8				5				9						8	
30	104-4		10					10								4
28	102-8			8						4		8				
34	104-5		11						10							5
33	103-9				6			11							9	
32	102-9			9						5		9				
36	104-6		12						11							6
31	103-10				7			12							10	
41	103-11				8			13							11	
38	104-07		13						12							7
35	102-10			10						6		10				
37	104-8		14					14								8
39	103-12				9				13						12	
40	102-11			11						7		11				
43	104-9		15					15								9
48	103-13				10				14						13	
44	104-10		16					16								10
42	103-14				11				15						14	
45	104-11		17					17								11
49	105-1			12						8						1
50	102-12					1					1	12				
46	104-12		18					18								12
47	105-2			13						9						2
52	102-13					2					2	13				
53	103-15				12				16						15	
54	105-3			14						10						3
56	103-16		19						17						16	
55	102-14					3					3	14				

SHUTTLE HISTORIES  
EXTRAVEHICULAR ACTIVITIES

Flight	STS-1	STS-2	STS-3	STS-4	STS-5	STS-6	STS-7	STS-8	STS-9	STS-41B	STS-41C	STS-41D
Plt. no. Orbiter no/fit EVA schedule	1 OV-102-1 None scheduled	2 OV-102-2 None scheduled	3 OV-102-3 None scheduled	4 OV-102- None scheduled	OV-102-5 One EVA scheduled Not performed	6 OV-099-1 One EVA scheduled 4/7/83 3:58 4:19	7 OV-099-2 None scheduled	8 OV-099-3 None scheduled	9 OV-102-6 None scheduled	10 OV-099-4 Two EVA's scheduled	11 V-099-5 Two EVA's scheduled	12 OV-103-1 None scheduled
EVA 1 Vacuum Battery Official										2/7/84 5:35 5:55	4/8/84 2:50 2:57	
EVA 2 Vacuum Battery Official										2/9/84 6:02 6:17	4/11/84 7:07 6:18,6:05	
EVA 3 Vacuum Battery Official												
EVA 4 Vacuum Battery Official												
EVA 1 EVA 2	Young Crippen 1002 1003	Engle Truly 1009 1010	Loussa Fullerton 1012 1013	Mattingly Hartsfield 1019 1016	Lenoir Allen 1023 1022	Musgrave Peterson 1026 1024 1025	Thagard Fabian 1028 1027	Gardner Truly 1031 1032	Young Garrriott 1037 1036	McCandless Stewart 1040 1038 1041	Nelson Von Hofen 1043 1044 1045	Mullane Hawley 1046 1048
B/U EMU EVA 1 PLSS EVA 2 PLSS B/U PLSS	1003 1005	1006 1005	1006 1005	1006 1005	1006 1005	1003 1005 1006	1005 1003	1005 1006	1008 1007	1008 1009 1007	1008 1009 1007	1006 1010
EVA 1 SOP EVA 2 SOP B/U SOP	1003 1004	1006 1004	1005 1004	1005 1004	1003 1005	1003 1007 1006	1007 1003	1007 1006	1008 1005	1003 1006 1010	1003 1006 1010	1005 1007
EVA 1 DCH EVA 2 DCH B/U DCH	1004 1002	1006 1005	1004 1005	1007 1002	1005 1002	1006 1007 1005	1007 1006	1007 1002	1004 1005	1004 1009 1005	1004 1009 1005	1008 1011
EVA 1 SCU EVA 2 SCU	1004 1005	1004 1005	1004 1005	1005 1004	1005 1004	1006 1007	1007 1006	1006 1007	1004 1005	1009 1010	1006 1007	1006 1007

SHUTTLE HISTORIES  
EXTRAVEHICULAR ACTIVITIES

Flight	STS-41G	STS-51A	STS-51C	STS-51D	STS-51E	STS-51G	STS-51F	STS-51I	STS-51J	STS-61A	STS-61B	STS-61C
Flt. no. Orbiter no/flt EVA schedule	13 OV-099-6 One EVA scheduled	14 OV-103-2 Two EVA's scheduled	15 OV-103-3 None scheduled	16 OV-103-4 One EVA scheduled	17 OV-099-7 None scheduled	18 OV-103-5 None scheduled	19 OV-099-8 None scheduled	20 OV-103-6 Two EVA's scheduled	21 OV-104-1 None scheduled	22 OV-099-9 None scheduled	23 OV-104-2 Two EVA's scheduled	24 OV-102-7 None scheduled
EVA 1 Vacuum Battery Official	10/11/84 3:29 3:29	11/12/84 6:13 6:00		4/16/85 3:10 3:07				8/31/85 7:20 7:07			11/29/85 5:34 5:32	
EVA 2 Vacuum Battery Official		11/14/84 6:01 5:43						9/01/85 4:31 4:12, 4:28			12/1/85 6:46 6:42	
EVA 3 Vacuum Battery Official												
EVA 4 Vacuum Battery Official												
EVA 1 EVA 2 B/U EVA	Leatsma Sullivan 1049 1050 1053	Allen Gardner 1051 1052 1054	Buchli Shriver 1055 1056	Hoffman Griggs 1059 1060	Thagard Gregory 1061 1061	Fabian Nagel 1063 1062	Musgrave England 1064 1065	Von Hoften Fisher 1067 1066 1068	Hilmers Stewart 1071 1072	Buchli Dunbar 1074 1073	Ross Spring 1077 1070 1079	Nelson Chang-Diaz 1078 1081
EVA 1 PLSS EVA 2 PLSS B/U PLSS	1003 1008 1005	1009 1007 1006	1003 1008	1007 1010	1003 1006	1005 1009	1010 1007	1006 1003 1009	1005 1008 1006	1010 1007	1006 1011 1008	1005 1010 1010
EVA 1 SOP EVA 2 SOP B/U SOP	1003 1008 1011	1009 1007 1005	1003 1008	1007 1006	1003 1011	1005 1009	1010 1007	1008 1003 1009	1005 1006 1006	1010 1007	1005 1009 1012	1006 1007 1007
EVA 1 DCM EVA 2 DCM B/U DCM	1007 1004 1006	1009 1005 1008	1007 1004	1005 1010	1007 1006	1008 1009	1010 1011	1006 1007 1009	1008 1004 1004	1010 1011 1004	1006 1002 1004	1008 1010 1004
EVA 1 SCU EVA 2 SCU	1009 1010	1006 1007	1006 1007	1006 1007	1009 1010	1006 1007	1009 1010	1006 1007	1011 1013	1009 1010	1011 1013	1004 1005
EVA 1 HUT EVA 2 HUT B/U HUT	1023(L) 1029(M) 1031(L)	1033(M) 1030(L) 1028(M)	1023(L) 1017(XL)	1030(L) 1036(L)	1023(L) 1031(L)	1026(L) 1035(L)	1036(L) 1030(L)	1019(XL) 1023(L) 1017(XL)	1026(L) 1016(M)	1036(L) 1037(M)	1035(L) 1033(M) 1039(L)	1026(L) 1036(L) 1036(L)

SHUTTLE HISTORIES  
EXTRAVEHICULAR ACTIVITIES

Flight	STS-51L	STS-26	STS-27	STS-29	STS-30	STS-28	STS-34	STS-33	STS-32	STS-36	STS-31	STS-41
Flt. no. Orbiter no/flt EVA schedule	25 OV-099-10 None scheduled	26 OV-103-7 None scheduled	27 OV-104-3 None scheduled	28 OV-103-8 None scheduled	29 OV-104-4 None scheduled	30 OV-102-8 None scheduled	31 OV-104-5 None scheduled	32 OV-103-9 None scheduled	33 OV-102-9 None scheduled	34 OV-104-6 None scheduled	35 OV-103-10 None scheduled	36 OV-104-7 None scheduled
EVA 1 Vacuum Battery Official												
EVA 2 Vacuum Battery Official												
EVA 3 Vacuum Battery Official												
EVA 4 Vacuum Battery Official												
EV1 EV2	McNair Onizuka	Melson Lounge	Ross Shepherd	Bagian Springer	Thagard Lee	Adams Brown	Chang-Dias Baker	Carter Thornton	Low Dunbar	Hilmar Thuot	McCandless Sullivan	Melnick Akers
EV1 ENU EV2 ENU B/U ENU	1080 1075	1091 1090	1090 1092	1094 1090	1096 1095	1099 1098	2001 2003	2006 2005	2003 2001	2007 2008	2010 2012 2011	2013 2008
EV1 PLS EV2 PLS B/U PLS	1007 1012	1005 1011	1011 1013	1013 1011	1005 1003	1013 1011	1003 1005	1013 1009	1005 1003	1014 1011	1009 1003 1013	1005 1011
EV1 SOP EV2 SOP B/U SOP	1005 1012	1014 1004	1004 1007	1007 1004	1014 1015	1010 1011	1003 1006	1011 1010	1006 1003	1011 1009	1010 1003 1013	1014 1009
EV1 DCK EV2 DCK B/U DCK	1011 1009	2004 2002	2002 2005	2006 2002	2005 2004	2006 2002	2004 2005	2006 2014	2005 2004	2007 2002	2014 2004 2006	2005 2002
EV1 SCU EV2 SCU	1009 1010	1006 1007	1011 1013	1006 1007	1011 1010	1004 1005	1011 1013	1006 1007	1004 1005	1011 1013	1006 1007	1006 1007
EV1 HUT EV2 HUT	1037(M) 1019(XL)	1034(L) 1043(L)	1043(L) 1046(XL)	1036(L) 1043(L)	1034(L) 1047(XL)	1036(L) 1046(XL)	1035(L) 1034(L)	1046(XL) 1018(S)	1034(L) 1025(S)	1036(L) 1044(L)	1045(M) 1038(M)	1043(L) 1044(L)

SHUTTLE HISTORIES  
EXTRAVEHICULAR ACTIVITIES

Flight	STS-38	STS-35	STS-37	STS-39	STS-40	STS-43	STS-48	STS-44	STS-42	STS-45	STS-49	STS-49
Flt. no.	37	38	39	40	41	42	43	44	45	46	47	47
Orbiter	OV-104-8	OV-102-10	OV-103-11	OV-103-12	OV-102-11	OV-104-9	OV-103-13	OV-104-10	OV-103-14	OV-104-11	OV-105-1	OV-105-1
no/flt	None	None	Two EVA's	None	None	None	None	None	None	None	Four EVA's	Four EVA's
EVA schedule	scheduled	scheduled	scheduled	scheduled	scheduled	scheduled	scheduled	scheduled	scheduled	scheduled	scheduled	scheduled
EVA 1			4/7/91								5/10/92	
Vacuum			4:31								3:53	
Battery			3:40								3:41	
Official											3:43	
EVA 2			4/8/91								5/11/92	
Vacuum			5:58								5:38	
Battery			5:47								5:29, 5:37	
Official											5:30	
EVA 3											5/13/92	5/13/92
Vacuum											8:30	8:30
Battery											SCU swap	
Official											8:29	8:29
EVA 4											5/14/92	5/14/92
Vacuum											7:47	7:47
Battery											7:39, 7:42	7:39, 7:42
Official											7:45	7:45
EVA 1	Springer	Hoffman	Ross	Harbaugh	Bagian	Adamsen	Buchli	Runco	Thagard	Sullivan	Thuot-EV1	Thornton-EV3
EVA 2	Meade	Lounge	Apt	McMonagle	Jernigan	Low	Gemar	Voss	Ready	Foale	Hieb-EV2	Akers-EV4
EVA 1 EMU	2010	2007	2009	2008	2007	2014	2008	2019	2013	2022	2020	2016
EVA 2 EMU	2011	2009	2011	2013	2010	2009	2013	2018	2017	2018	2015	2014
B/U EMU			2014									
EVA 1 PLSS	1009	1014	1006	1011	1014	1008	1011	1009	1005	1009	1006	1015
EVA 2 PLSS	1013	1006	1013	1005	1009	1006	1005	1014	1013	1014	1010	1008
B/U PLSS			1008									
EVA 1 SOP	1010	1011	1006	1009	1011	1015	1009	1010	1014	1010	1006	1016
EVA 2 SOP	1013	1006	1013	1014	1010	1006	1014	1011	1013	1011	1007	1015
B/U SOP			1015									
EVA 1 DCM	2014	2007	2003	2002	2007	2004	2002	2014	2005	2014	2006	2010
EVA 2 DCM	2006	2003	2006	2005	2014	2006	2005	2007	2013	2007	2009	2011
B/U DCM			2004									
EVA 1 SCU	1011	1004	1011	1006	1004	1011	1006	1011	1026	1011	1015	1015
EVA 2 SCU	1013	1005	1013	1007	1005	1013	1007	1013	1007	1013	1016	1016
EVA 1 HUT	1034(L)	1036(L)	1039(L)	1044(L)	1036(L)	1035(L)	1044(L)	1051(L)	1043(L)	1029(M)	1039(L)	1049(S)
EVA 2 HUT	1033(M)	1039(L)	1033(M)	1043(L)	1038(M)	1039(L)	1043(L)	1034(L)	1048(XL)	1034(M)	1040(L)	1036(L)

SHUTTLE HISTORIES  
EXTRAVEHICULAR ACTIVITIES

Flight	STS-50	STS-46	STS-47	STS-52	STS-53 (DOO)	STS-54	STS-56	STS-55					
Flt. no. Orbiter no/flt EVA schedule	48 OV-102-12 None scheduled	49 OV-104-12 None scheduled	50 OV-105-2 None scheduled	51 OV-102-13 None scheduled	52 OV-103-15 None scheduled	53 OV-105-3 One EVA	54 OV-103-16 None scheduled	55 OV-102-14 None scheduled					
EVA 1 Vacuum Battery Official						1/17/93 4:32:14 4:25:37 4:27:50							
EVA 2 Vacuum Battery Official													
EVA 3 Vacuum Battery Official													
EVA 4 Vacuum Battery Official													
EV1 EV2	Baker Meade	Hoffman Chang- Dias	Apt Davis	Shepherd Jernigan	Voss Clifford	Harbaugh Bunco	Foale Cockrell	Ross Harris					
EV1 EMU EV2 EMU E/U EMU	2013 2017	2018 2021	2022 2016	2017 2015	2014 2020	2018 2015	2014 2022	2016 2013					
EV1 PLSS EV2 PLSS E/U PLSS	1005 1013	1014 1011	1009 1015	1013 1010	1008 1006	1014 1010	1008 1009	1015 1005					
EV1 SOP EV2 SOP E/U SOP	1014 1013	1011 1009	1010 1016	1013 1007	1015 1006	1011 1007	1015 1010	1016 1014					
EV1 DCM EV2 DCM E/U DCM	2005 2013	2007 2002	2014 2012	2013 2008	2011 2006	2007 2008	2011 2014	2012 2005					
EV1 SCU EV2 SCU	1012 1017	1011 1013	1015 1016	1012 1017	1006 1007	1015 1016	1006 1007	1012 1017					

SHUTTLE HISTORIES  
REMOTE MANIPULATOR SYSTEM

Miss. Seq. No.	STS No.	Orb. OV-	Major RMS LRU Serial Numbers					RMS Major Usage Matrix					Miscellaneous Activities	Mass Handled by RMS, lb	Contingency Usage/Remarks	
			ATB	EE	MCIU	Dec PNL	THC	RHC	TPS	H <sub>2</sub> O Dump	SAT PPH Burn	Other				MFR
1	1	102			RMS NOT FLOWN											
2	2	102	201	201	201	203	202								RMS Checkout	
3	3	102	201	201	201	203	202	X								RMS wrist camera failed, unable to gaggle IECA.
4	4	102	201	201	201	203	202									End effector flags showed incorrect status due to broken wiring.
5	5	102			RMS NOT FLOWN											
6	6	099			RMS NOT FLOWN											
7	7	099	201	301	301	301	202									
8	8	099	201	301	301	301	202									
9	9	102			RMS NOT FLOWN											
10	41B	099	201	301	301	301	202		X						Witness plate	Wrist/yaw joint failed unable to deploy SPAS.
11	41C	099	302	302	301	301	202	X								21,396 5,000
12	41D	103	301	201	303	302	301	X	X						Witness panel	Used to clear ice from supply water dump nozzle.

SPAS-1 (RSC) Flight Hardware Allocation Reports



SHUTTLE HISTORIES  
REMOTE MANIPULATOR SYSTEM

Miss. Seq. No.	STS No.	Orb. OV-	Major RMS LRU Serial Numbers						RMS Major Usage Matrix						Contingency Usage/Remarks		
			Arm	EE	MCIU	D&C PNL	THC	RHC	TV Surveys	MTR	Deploy/Berth	Satellite	Miscellaneous Activities	Mass Handled by RMS, lb			
									H.O Dump	SAT PRN Burn	Other						
13	41G	099	302	302	301	301	301	301	202	X	X			ERBS (d)		4,949	Used to latch SIR-B antenna.
14	51A	103	301	201	303	302	302	301	301	X	X				PALAPA-B2, WESTAR VI Retrieval	1,262 1,119	
15	51C	103	301	201	303	302	302	301	301	DOD MISSION - DATA NOT AVAILABLE							
16	51D	103	301	201	303	302	302	301	301	X	X	X					SYNCOM-3 "Flywater" operation. Confirm failed solar array deploy on ARABSAT.
17	51B	099	RMS NOT FLOWN														
18	51G	103	301	303	303	302	302	301	301	X	X			SPARTAN -1 (d,b)		2,217	
19	51F	099	302	304	301	301	301	202	202	X				PDP (d,b)		628	
20	51I	103	301	303	303	302	302	301	301	X			X		SYNCOM-3 repair (R/R)	15,190	Used to open stuck AUSSAT-1 sunshield. Elbow joint Primary mode failed.
21	51J	104	RMS NOT FLOWN														
22	61A	099	302	304	301	301	301	202	202		X						

SPAR-1 (KSC) Flight Hardware Allocation Reports

SHUTTLE HISTORIES  
REMOTE MANIPULATOR SYSTEM

Miss. Seq. No.	STS- No.	Orb. OV-	Major RMS LRU Serial Numbers				RMS Major Usage Matrix				Miscellaneous Activities	Mass Handled by RMS, lb	Contingency Usage/Remarks				
			ACB	EE	MCIU	DeC PNL	THC	RHC	TV Surveys	MFR				Deploy/Berth	Satellite Retrieve/Repair		
23	61B	104	301	303	302	303	303	303	303	303	X	X	X	Ease/Access Operations. Witness plate.			
24	61C	102				RMS NOT FLOWN											
25	51L	099	302	304	301 203*	301	301	301	202								
26	26	103				RMS NOT FLOWN											
27	27	104	201	302	302	303	303	303	302					DOD MISSION - DATA NOT AVAILABLE			
28	29	103				RMS NOT FLOWN											
29	30	104				RMS NOT FLOWN											
30	28	102				DOD MISSION - DATA NOT AVAILABLE											
31	34	104				RMS NOT FLOWN											
32	33	103				DOD MISSION - DATA NOT AVAILABLE											
33	32	102	201	302	303	203	203	203	301						LDEF (d)	LDEF	21,393
34	36	104				DOD MISSION - DATA NOT AVAILABLE											
35	31	103	301	303	201	302	202	202	303						RST (d)		23,905

\*MCIU 203 flown as spare. SPAR-1 (KSC) Flight Hardware Allocation Reports

SHUTTLE HISTORIES  
REMOT. MANIPULATOR SYSTEM

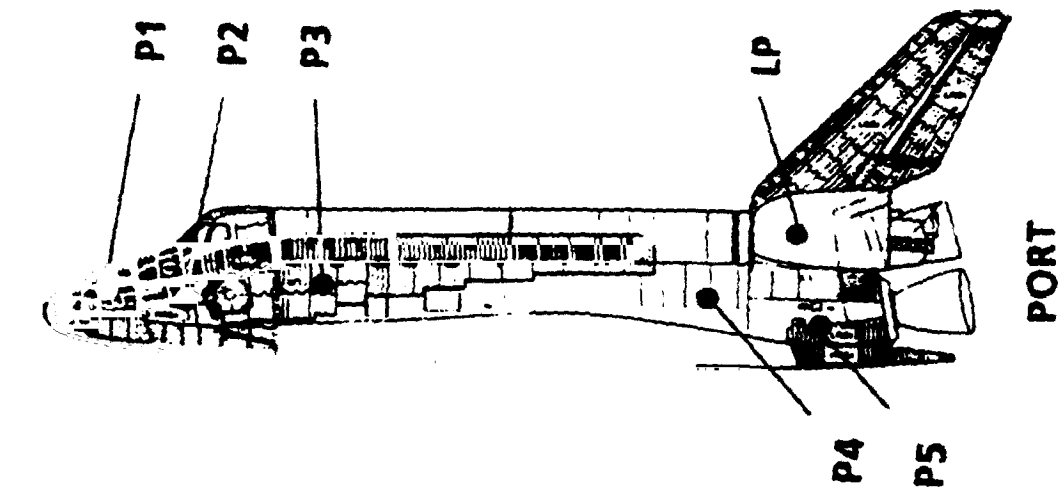
Miss. Seq. No.	STS- No.	Orb. OV-	Major RMS LRU Serial Numbers				Major RMS Usage Matrix				Contingency Usage/Remarks			
			Afr	EE	NCIU	DeC PNL	TV Surveys			Satellite				
							THC	RHC	TPS	H <sub>2</sub> O Dump		SAT PKM BuCh	Other	MFR
36	11	102	301	303	201	302	202	303				ISAC Experiment	0	
37	38	104				DOD MISSION - DATA NOT AVAILABLE								
38	35	102				RMS WAS NOT FLOWN								
39	37	104	303	401	302	202	302	301			GRO (d)	GRO	34,442	
40	39	103	301	303M	201	302	202	302			SPAS-II	SPAS-II Experiment	3990	
41	40	102				RMS WAS NOT FLOWN								
42	43	104				RMS WAS NOT FLOWN								
43	48	103	301	402	402	302	202	302			UNRS		14,423	
44	44	104				RMS WAS NOT FLOWN								
45	42	103				RMS WAS NOT FLOWN								
46	45	104				RMS WAS NOT FLOWN								
47	49	105	303	401	404	202	303	301			INTEL-SAT-VI	INTELSAT-VI	9,109	ASEM Demonstration

SPAR-1 (KSC) Flight Hardware Allocation Reports  
JSC/VP12 RMS Operations Office

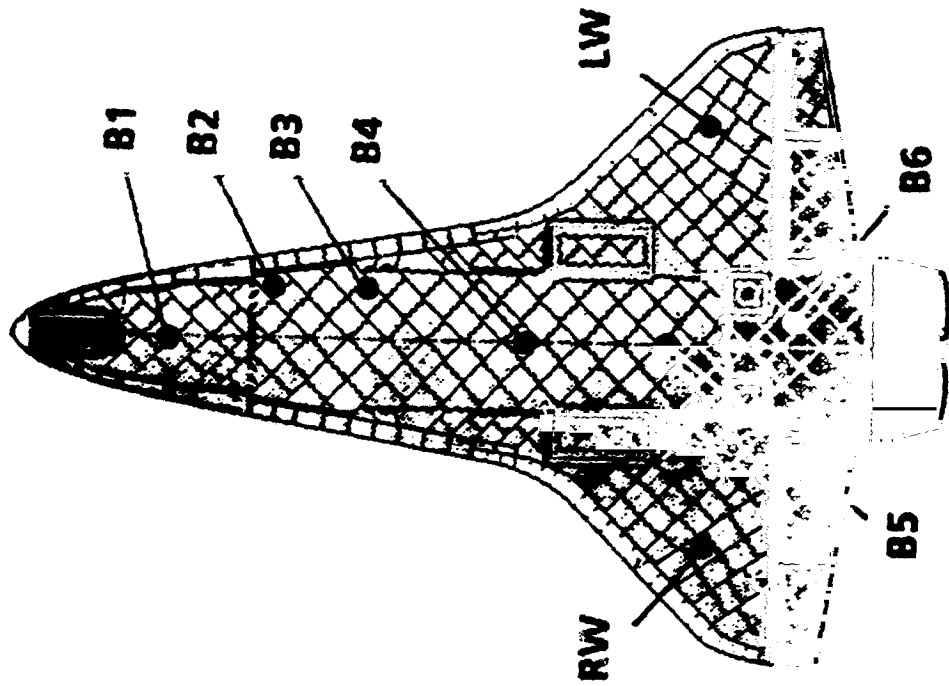
SHUTTLE HISTORIES  
REMOTE MANIPULATOR SYSTEM

Miss. Seq. No.	STS No.	Orb. OV-	Major RMS LRU Serial Numbers					RMS Major Usage Matrix						Mass Handled by RMS, lb	Contingency Usage/Remarks				
			Arm	EE	MCIU	DEC	PNL	THC	RHC	TV Surveys			Satellite			Miscellaneous Activities			
			RMS WAS NOT FLOWN					TPS	H <sub>2</sub> O Dump	SAT PRM Burn	Other	MFR	Deploy/Berth	Retrieve/Repair					
48	50	102																	
49	46	104	201	303	403	302	302	302	302					EURECA		Water Dump Survey	9,832	Overnight park	
50	47	105	303	401	404	202	303	303	301								0	Never uncradled	
51	52	102	301	402	406	203	202	303	303					CANEX-2 CTA		NELEO SPIE OGLW-2 PRM Monitor	150		
52	53	103																	
			RMS WAS NOT FLOWN																
53	54	105			404	202	303	303	301										
54	56	103	201	403	405/ 407 spare	203	203	303/ KI						SPARTAN -201	SPARTAN -201	Water Dump Survey	2,713	Deployed and retrieved	
55	55	102																	
			RMS WAS NOT FLOWN																

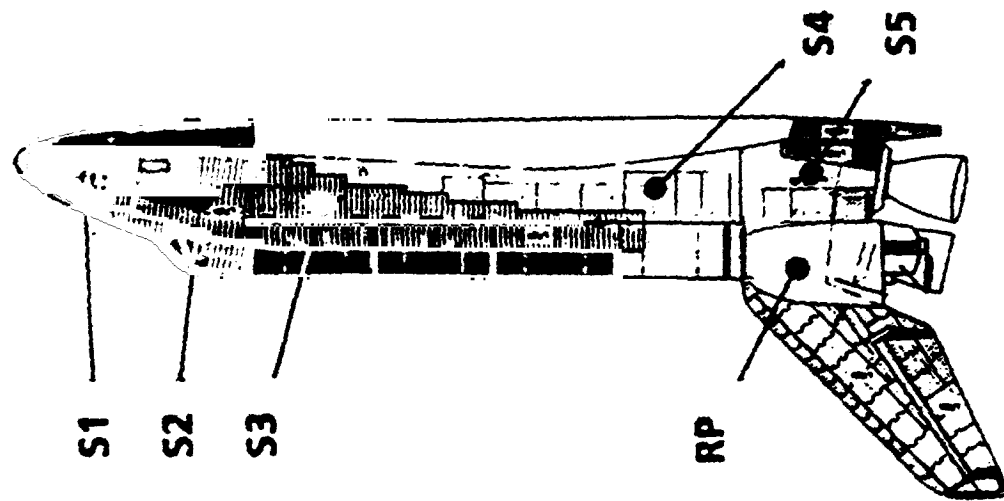
SPAR-1 (KSC) Flight Hardware Allocation Reports  
JSC/VP12 RMS Operations Office



PORT



BOTTOM



STARBOARD

Normal orientation sub-system temperature sensor locations

SHUTTLE HISTORIES  
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	STS-Orb. OV-	ORBITER STRUCTURE MAXIMUM TEMPERATURES DURING ENTRY																				OMS Pods	
		Lower surface										Port Side					Starboard Side					LP	RP
		B1	B2	B3	B4	B5	B6	LW	RW	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5				
1	102#	153	190	177	196	217	191	135	153	156	111	194	101	88	167	N/A	N/A	80	99	221	233		
2	102	133	185	177	164	182	164	138	117	177	138	199	80	93	175	N/A	N/A	112	120	239	260		
3	102	143	180	173	167	191	175	138	136	157	120	189	83	98	159	N/A	N/A	86	100	220	228		
4	102#	141	166	170	153	180	180	130	112	156	117	183	80	106	153	N/A	N/A	65	98	231	233		
5	102	143	182	170	162	175	156	122	112	154	117	177	58	83	159	N/A	N/A	57	78	225	228		
6	099	125	178	170	149	163	159	125	130	138	104	172	67	83	163	N/A	N/A	86	96	180	217		
7	099#	127	183	180	169	180	180	120	112	180	138	203	75	104	138	N/A	N/A	49	78	239	212		
8	099#	153	210	220	191	203	193	140	125	148	130	193	73	91	125	101	172	55	78	172	225		
9	102	148	206	200	189	206	196	161	153	162	N/A	207	94	112	197	N/A	N/A	148	138	267	281		
10	41B 099	122	175	167	146	159	162	109	107	143	101	159	54	86	143	112	169	60	80	183	236		
11	41C 099	127	190	180	148	161	165	112	103	143	117	172	47	78	120	99	158	47	73	59	180		
12	41D 103#	133	204	198	170	200	202	130	122	178	109	91	52	62	146	88	86	39	57	70	60		
13	41G* 099	127	185	177	153	167	167	143	124	143	112	188	73	91	167	140	193	88	101	9	211		
14	51A 103	143	193	182	167	178	175	112	120	164	91	96	47	N/A	165	114	101	50	55	57	65		
15	51C 103	117	161	151	128	153	156	110	109	159	104	94	47	N/A	181	122	94	58	58	65	76		

Source: NASA - JSC - ES3

\* - High inclination orbit (Higher temperatures expected)  
# - High TPS roughness

N/A = No data

SHUTTLE HISTORIES  
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	STS-Orb. No. OV-	ORBITER STRUCTURE MAXIMUM TEMPERATURES DURING ENTRY																				Orb. Pods						
		Lower surface										LMR Wing					Port Side					Starboard Side					LP	RP
		B1	B2	B3	B4	B5	B6	LW	RM	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5									
16	51D	103	138	183	171	149	170	178	111	107	170	117	88	46	N/A	130	97	87	49	65	65	60						
17	51B*	099	125	185	175	161	156	154	114	117	162	112	178	62	70	156	125	183	62	73	153	62						
18	51G	103	130	170	161	146	167	177	112	114	175	112	88	46	N/A	148	114	96	47	59	70	67						
19	51P*	099	120	177	171	170	175	167	140	146	138	101	189	86	85	168	122	194	98	101	161	73						
20	51I	103	130	169	159	143	162	175	107	112	164	101	80	40	N/A	136	98	86	39	57	65	60						
21	51J	104	123	164	158	133	153	175	101	117	111	80	76	42	57	137	107	83	37	55	55	52						
22	61A*	099	143	200	196	185	191	178	130	143	127	112	191	78	88	175	172	236	124	117	N/A	76						
23	61B	104	125	159	159	143	170	207	101	125	117	83	73	41	60	154	138	112	57	68	60	60						
24	61C	102	127	196	186	159	188	186	122	112	167	140	127	63	83	125	N/A	143	47	73	62	55						
25	51L	099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
26	26	103	124	167	149	122	164	169	114	111	151	96	83	52	60	175	104	78	42	55	57	70						
27	27*	104	175	220	212	188	207	209	146	164	122	102	101	49	62	182	185	143	96	96	70	81						
28	29	103	148	188	165	138	177	175	114	112	156	104	83	34	52	153	107	78	32	47	57	65						
29	30	104	122	161	149	127	149	170	122	117	138	88	78	47	38	163	117	96	47	60	78	62						
30	28	102*	125	183	196	186	225	206	138	125	137	112	89	55	78	167	N/A	112	62	76	83	83						

Source: NASA - JSC - 883

\* - High inclination orbit entry  
(Higher temperatures expected)  
# - High TPS roughness

N/A = No data

SHUTTLE HISTORIES  
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. No.	STS- Orb. No.	ORBITER STRUCTURE MAXIMUM TEMPERATURES DURING ENTRY																				OMS Pods	
		Lower surface										Port Side					Starboard Side					LP	RP
		B1	B2	B3	B4	B5	B6	LMW	LMV	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5				
31	34	130	175	166	148	172	182	117	120	140	114	91	65	55	130	112	94	52	55	68	68		
32	33	132	175	148	127	164	167	122	130	154	96	86	39	54	198	130	96	57	62	67	70		
33	32	149	223	199	186	206	185	135	133	146	123	101	68	88	143	---	120	70	90	83	70		
34	36	135	170	164	137	161	174	144	149	151	96	85	55	55	143	112	101	47	55	80	80		
35	31	153	206	180	145	180	183	122	114	140	96	80	32	59	141	101	72	24	44	57	39		
36	41	130	180	153	125	162	164	117	104	180	122	98	44	68	146	99	78	32	44	76	44		
37	38	146	190	172	140	162	175	122	125	122	99	83	44	54	125	122	94	47	55	70	67		
38	35	146	209	191	175	193	185	132	135	151	123	101	73	88	153	-	123	70	86	91	76		
39	37	153	196	182	148	170	185	120	122	119	91	76	29	47	117	120	96	32	44	65	37		
40	39*	151	192	172	144	183	186	130	130	172	104	93	78	75	185	122	96	83	75	73	81		
41	40	122	185	166	162	185	177	112	117	166	122	91	65	81	175	N/A	122	60	81	86	81		
42	43	125	162	154	122	153	172	117	114	125	99	83	49	63	120	104	88	42	60	83	57		
43	48	156	222	195	159	201	204	138	120	167	117	96	39	68	151	99	78	29	49	73	68		
44	44	151	201	183	146	164	172	120	117	148	119	93	37	47	132	125	99	47	47	86	55		
45	42	167	209	185	170	204	190	128	143	164	114	109	57	65	206	175	132	65	75	55	78		

Source: NASA - JSC - ES3

\* - High inclination orbit entry  
(higher temperatures expected)

† - High TPS roughness  
(Higher temperatures expected)

N/A = No data



SHUTTLE HISTORIES  
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	Orb. OV- No.	ORBITER STRUCTURE MAXIMUM TEMPERATURES DURING ENTRY																								Orb Pods	
		Lower surface						LMR Wing		Port Side						Starboard Side						LP	RP				
		B1	B2	B3	B4	B5	B6	LM	RM	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5								
46	45	104	155	191	180	160	178	187	121	130	128	96	85	42	55	154	150	112	45	55	76	57					
47	49	105	143	195	169	143	180	175	135	130	164	119	98	57	62	140	111	93	49	52	91	70					
48	50	102	122	N/A	172	164	191	212	130	125	190	167	125	114	117	143	N/A	N/A	73	91	91	83					
49	46	104	138	177	167	138	162	182	120	122	133	117	96	55	70	125	112	96	44	60	93	55					
50	47	105	120	177	150	143	190	201	104	130	130	91	86	49	60	185	143	106	65	65	86	93					
51	52	102	122	183	167	156	180	175	133	125	180	135	106	83	104	156	N/A	N/A	68	91	83	75					
52	53	103	143	196	169	135	175	180	112	112	162	117	91	29	55	190	140	106	37	60	50	73					
53	54	105	153	198	180	161	190	193	122	130	130	91	88	55	57	153	135	109	55	57	80	73					
54	56	103	132	196	161	164	206	204	125	112	196	148	114	49	75	146	101	83	32	49	91	60					
55	55	102	138	201	188	190	212	198	138	117	196	161	119	96	114	146	N/A	N/A	62	83	83	62					

Source: NASA - JSC - ES3

\* - High inclination orbit entry  
(Higher temperatures expected)  
† - High TPS roughness  
(Higher temperatures expected)

N/A = No data

SHUTTLE HISTORIES  
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	Orb. OV- No.	ORBITER STRUCTURE MAXIMUM TEMPERATURE RISE DURING ENTRY																													
		Lower surface								LMR Wing				Port Side								Starboard Side								OMS Pods	
		B1	B2	B3	B4	B5	B6	B7	B8	LW	RM	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5	LP	RP								
1	102#	116	163	174	178	196	165	118	124	113	106	204	95	74	105	N/A	N/A	64	80	213	211										
2	102	114	164	174	157	170	144	125	121	112	99	196	71	69	125	N/A	N/A	75	93	228	239										
3	102	106	148	159	148	167	141	119	112	115	96	196	69	75	104	N/A	N/A	60	71	211	209										
4	102#	117	147	176	159	180	144	132	116	106	98	198	84	72	103	N/A	N/A	69	69	218	220										
5	102	111	158	167	151	164	132	121	108	104	95	191	62	67	102	N/A	N/A	51	62	219	209										
6	099	98	149	157	143	144	125	103	113	98	90	182	69	64	101	N/A	N/A	64	64	174	193										
7	099#	114	175	190	170	172	147	130	132	104	96	190	54	62	120	N/A	N/A	66	70	202	229										
8	099#	111	158	180	162	169	146	129	129	105	88	179	53	62	103	113	178	62	72	172	229										
9	102	114	177	190	160	172	146	124	111	112	N/A	209	60	65	114	N/A	N/A	55	63	243	229										
10	41B 099	90	146	153	135	140	125	116	110	99	87	178	61	67	99	111	173	64	69	187	230										
11	41C 099	93	150	156	135	137	125	119	115	99	91	183	66	67	101	116	175	66	69	40	196										
12	41D 103#	111	174	188	166	190	172	136	142	126	83	87	44	41	122	110	90	46	51	46	44										
13	41G* 099	95	151	158	145	148	131	127	110	111	98	197	77	73	104	124	179	67	67	190	191										
14	51A 103	101	146	148	133	144	135	118	112	130	87	87	41	N/A	123	111	82	36	41	43	44										
15	51C 103	111	137	147	127	142	135	112	111	119	78	80	39	N/A	124	114	82	31	34	38	47										

Source: NASA - JSC - ES3

\* - High Inclination Orbit Entry  
(Higher Temperatures Expected)  
# - High TPS Roughness

N/A = Not Available

SHUTTLE HISTORIES  
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	STB-Orb. OV-	ORBITER STRUCTURE MAXIMUM TEMPERATURE RISE DURING ENTRY																		OVS Pods				
		Lower surface						LWR Wing			Port Side						Starboard Side						LP	RP
		B1	B2	B3	B4	B5	B6	LW	WV	RW	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5				
16	51D	103	99	135	139	130	144	136	113	109	115	78	72	43	N/A	124	109	85	48	52	44	48		
17	51B*	099	99	159	169	155	152	133	136	134	107	101	203	86	66	101	127	195	82	75	163	58		
18	51G	103	108	151	165	140	194	146	124	121	118	83	84	37	N/A	119	108	80	38	45	54	43		
19	51P*	099	109	166	177	164	159	141	124	130	114	100	208	80	71	106	127	195	82	83	166	55		
20	51I	103	107	145	153	134	143	141	116	116	114	79	88	39	N/A	119	105	77	38	46	51	41		
21	51J	104	104	143	154	137	147	149	118	132	92	82	85	49	46	82	101	85	39	41	41	54		
22	61A*	099	96	155	165	159	160	139	135	122	110	100	197	82	74	105	120	179	66	73	N/A	44		
23	61B	104	103	148	163	142	156	175	118	117	98	87	90	45	44	94	112	88	28	31	41	54		
24	61C	102	85	151	162	143	162	147	121	118	104	90	188	65	65	114	N/A	91	64	65	43	54		
25	51L	099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
26	26	103	106	143	145	121	150	140	116	113	117	88	85	49	39	107	98	72	26	31	49	44		
27	27*	104	95	145	142	131	150	154	122	122	96	83	80	21	28	91	107	78	16	28	56	62		
28	29	103	111	149	145	122	153	141	113	111	116	85	82	30	33	111	106	72	24	33	41	41		
29	30	104	98	141	143	121	135	139	116	111	91	82	85	44	38	86	106	82	36	36	49	51		
30	28	102#	93	157	190	180	211	174	150	130	112	96	94	70	70	104	N/A	93	62	70	61	49		

Source: NASA - JSC - ES3

# - High Inclination Orbit Entry  
(Higher Temperatures Expected)

N/A = Not Available

SHUTTLE HISTORIES  
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. No.	STS-Orb. No.	ORBITER STRUCTURE MAXIMUM TEMPERATURE RISE DURING ENTRY											OMS Pods									
		Lower surface					LAR Wing			Port Side			Starboard Side				LP	RP				
		B1	B2	B3	B4	B5	B6	LW	RW	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5			
31	34	104	112	144	150	124	138	143	111	119	83	80	80	49	39	88	116	86	31	44	50	47
32	33	103	108	151	145	119	144	138	106	106	120	82	85	33	35	113	104	70	20	28	43	49
33	32	102	89	158	147	142	164	130	125	122	115	104	100	73	70	111	---	98	75	74	69	56
34	36	104	103	141	148	118	137	140	102	108	97	90	81	34	31	83	109	82	36	31	48	43
35	31	103	111	159	151	123	151	138	122	114	123	88	84	39	40	117	108	74	33	38	50	51
36	41	103	103	154	145	116	143	134	109	111	110	80	79	18	29	122	111	75	26	30	39	51
37	38	104	97	140	136	111	128	130	111	112	89	81	80	36	33	96	121	80	28	36	49	43
38	35	102	91	157	160	146	164	140	131	124	122	102	100	70	69	119	---	102	56	67	70	57
39	37	104	96	141	137	117	133	135	114	113	95	88	83	33	31	88	106	75	36	30	49	49
40	39*	103	125	168	166	138	169	157	124	124	133	93	92	64	54	131	116	78	62	54	59	72
41	40	102	96	166	170	156	174	146	131	131	129	103	98	74	65	112	N/A	104	72	78	71	57
42	43	104	103	142	151	122	139	141	117	114	96	88	82	38	34	96	109	79	36	39	51	53
43	48	103	112	170	161	140	174	160	134	124	133	91	85	25	34	125	111	75	33	38	54	44
44	44	104	91	139	131	114	132	136	114	121	86	77	74	33	33	103	119	80	36	36	47	59

Source: NASA - JSC - ES3

\* - High Inclination Orbit Entry  
(Higher Temperatures Expected)  
θ - High TPS Roughness  
(Higher Temperatures Expected)

N/A = Not Available

SHUTTLE HISTORIES  
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	STS-Orb. OV- No.	OBORTER STRUCTURE MAXIMUM TEMPERATURE RISE DURING ENTRY																OMS Pods					
		Lower surface								LMR Wing				Port Side				Starboard Side				LP	RP
		B1	B2	B3	B4	B5	B6	LM	RM	P1	P2	P3	P4	P5	P6	S1	S2	S3	S4	S5			
45	42	103	135	162	151	128	162	143	125	114	135	95	85	33	36	123	113	72	18	26	46	41	
46	45	104	111	152	151	126	111	142	120	122	96	88	81	29	36	92	105	75	34	39	55	51	
47	49	105	112	164	150	130	159	141	114	116	97	85	77	31	25	109	113	80	38	36	57	54	
48	50	102	88	N/A	161	155	175	178	129	137	110	92	88	70	67	119	N/A	N/A	77	77	49	52	
49	46	104	109	151	153	127	146	148	119	129	96	85	80	23	28	96	111	82	41	41	54	62	
50	47	105	127	181	175	145	176	169	129	126	114	105	90	33	39	107	109	82	26	33	75	51	
51	52	102	88	151	158	147	164	141	114	116	110	93	82	57	62	112	N/A	N/A	65	72	46	38	
52	53	103	109	157	148	132	164	146	124	116	130	96	85	43	36	120	114	77	23	26	54	49	
53	54	105	96	143	133	112	141	141	103	104	101	93	74	26	28	98	101	67	26	31	59	52	
54	56	103	118	164	152	161	195	172	122	139	118	83	77	20	31	132	125	85	39	43	47	41	
55	55	102	94	167	177	169	193	164	137	129	110	96	87	59	59	122	N/A	N/A	71	77	49	43	

Source: NASA - JSC - ES3

\* - High Inclination Orbit Entry  
(Higher Temperatures Expected)  
# - High TPS Roughness  
(Higher Temperatures Expected)

N/A = Not Available



DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM

Miss. Seq. No.	STS- Orb. OV- No.	Location and size of debris hits													
		Lower surface		Upper surface		Right (STRD) side		Left (Port)		Right OMS		Left OMS		Overall	
		> 1"	Tot.	> 1"	Tot.	> 1"	Tot.	> 1"	Tot.	> 1"	Tot.	> 1"	Tot.	> 1"	Tot.
16	51D 103 4	43	111	N/A	N/A	1	7	0	10	1	10	1	14	46	152
17	51B 099 7	45	110	4	9	3	6	4	5	4	6	2	4	62	140
18	51G 103 5	109	231	3	10	18	32	8	16	2	16	4	10	144	315
19	51F 099 8	179	482	13	18	17	28	10	13	2	3	5	9	226	553
20	51I 103 6	21	96	3	12	1	8	1	7	2	11	5	7	33	141
21	51J 104 1	7	66	0	1	0	3	0	2	7	20	3	19	17	111
22	61A 099 9	24	129	0	3	1	15	6	15	2	12	1	9	34	183
23	61B 104 2	37	177	6	10	4	21	3	25	2	7	3	17	55	257
24	61C 102 7	20	134	4	10	2	11	7	15	3	14	3	9	39	193
25	51L 099 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	26 103 7	47	342	0	5	0	5	0	9	2	23	6	27	55	411
27	27 104 3	272	644	5	21	2	4	0	0	19	32	0	6	298	707
28	29 103 8	18	100	1	5	2	13	0	6	2	8	0	0	23	132
29	30 104 4	52	134	0	2	2	5	1	2	1	5	0	3	56	151

DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM

Miss. Seq. No.	STS-Orb. OV- No.	Location and size of debris hits														
		Lower surface		Upper surface		Right (STBD) side		Left (Port)		Right OMS		Left OMS		Overall		
		> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.	> 1" Tot.		
30	28	102	13	60	0	0	2	5	3	1	1	7	1	1	20	74
31	34	104	17	51	0	1	0	0	1	1	0	0	0	0	18	53
32	33	103	21	107	0	7	0	0	0	0	0	1	0	3	21	118
33	32	102	13	111	1	4	0	0	0	0	4	1	0	0	15	120
34	36	104	17	61	0	18	1	1	0	0	0	0	1	1	19	81
35	31	103	11	33	1	2	0	8	0	0	5	0	0	0	12	48
36	41	103	13	64	0	1	1	7	1	3	0	0	1	1	16	76
37	38	104	7	70	0	6	0	3	0	0	0	0	1	2	8	81
38	35	102	15	132	1	2	0	5	0	5	0	2	1	1	17	147
39	37	104	7	91	2	13	1	7	0	2	2	1	2	0	11	115
40	39	103	14	217	0	4	2	11	0	5	0	0	0	0	16	237
41	40	102	23	153	2	23	0	11	0	6	0	4	0	0	25	197
42	43	104	24	122	0	2	0	2	1	5	0	0	0	0	25	131
43	48	103	14	100	9	66	0	5	1	6	0	2	1	3	25	182
44	44	104	6	74	1	9	0	10	1	4	1	2	0	2	9	101

Source: KSC/RIC Launch Support Operations

Legend: N/A = Not available  
Gauge 6" x 18" x 1 1/2" deep





SHUTTLE HISTORIES  
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss. Seq. No.	STS- No.	Orb. OV- Flt.	PROBLEMS	Related Inflight Anomaly
1	1	102 1	<ul style="list-style-type: none"> <li>o Overheating of structure caused by damage to TPS resulted in buckling of right main landing gear door.</li> <li>o 1 tile and 3 tile segments missing on OMS pods.</li> <li>o Right OMS pod tile loss and burned FRSI on aft outboard corner of both OMS pods caused structural damage.</li> <li>o Overheating of FRSI caused extensive damage to aft outboard skin panels of OMS pod substructure.</li> <li>o Windows contaminated by RTV outgassing during flight.</li> <li>o High incidence of debris impact damage.</li> <li>o High incidence of charred filler bars.</li> </ul>	STS 1-49  STS 1-32  None STS 1-8 None
2	2	102 2	<ul style="list-style-type: none"> <li>o Oxidiser spill on forward fuselage preflight caused replacement of over 200 tiles.</li> <li>o Wing leading edge structural subsystem overheating caused flow through to interior of RCC panels.</li> <li>o FRSI overheating on right OMS pod, no structural damage.</li> <li>o High incidence of debris impact damage.</li> <li>o High incidence of charred filler bars.</li> </ul>	None None None STS 2-19 None
3	3	102 3	<ul style="list-style-type: none"> <li>o 34 tiles missing on upper forward fuselage.</li> <li>o 16 tiles missing on upper body flap.</li> <li>o FRSI overheating on OMS pod.</li> <li>o Debris impact damage on OMS pod leading edge caused tile damage and overheating damage to OMS pod substructure face sheet.</li> <li>o High incidence of charred filler bars.</li> <li>o Tiles slumped adjacent to nose cap lower edge.</li> </ul>	STS 3-16  None
4	4	102 4	<ul style="list-style-type: none"> <li>o Mailstorm on pad day before launch caused extensive TPS damage. Prelaunch rainstorm resulted in on-orbit bakeout of TPS. One aft bulkhead tile lost in flight.</li> <li>o Debris damage to OMS pod lower leading edge tiles resulted in overheating damage to face sheet of OMS pod substructure.</li> <li>o 1 tile missing on all upper fuselage (1307 bulkhead).</li> <li>o Tiles slumped adjacent to nose cap lower edge.</li> <li>o High incidence of charred filler bars.</li> </ul>	STS 4-1  None None None
5	5	102 5	<ul style="list-style-type: none"> <li>o Flow path caused severe overheating damage to substructure adjacent to nose cap lower edge.</li> <li>o 1 tile incidence of charred fillers bars.</li> </ul>	None
6	6	099 1	<ul style="list-style-type: none"> <li>o Large areas of FI damage on leading edge of both OMS pods caused structural damage.</li> </ul>	STS 6-5
7	7	099 2	<ul style="list-style-type: none"> <li>o High incidence of debris impact damages on lower surface.</li> </ul>	STS 7-27
8	8	099 3	<ul style="list-style-type: none"> <li>o None</li> </ul>	

**SHUTTLE HISTORIES**  
**ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS**

Miss. No.	STS-Seq. No.	Orb. OV-Flt.	PROBLEMS	Related Inflight Anomaly
9	9	102 6	o Debris damage to tiles caused delamination to left OMS pod forward substructure (structural damage).	STS 9-32
10	41B 099 4	099 4	o Ice debris from water dump nozzle caused damage to tiles on left OMS pod leading edge TPS and structural damage. o Upper forward fuselage tiles damaged by bird strike during landing.	STS 41B-27
11	41C 099 5	099 5	o None.	
12	41D 103 1	103 1	o On-orbit ice formation on TPS adjacent to overboard water dump valve. Slumped edges noted on many lower wing leading edge tiles adjacent to RCC.	STS 41D-14
13	41G 099 6	099 6	o 1 tile lost on lower right wing glove/chine area. o RTV (screed) degradation found on large areas of vehicle, major rework effort required. o Loss of FRSI closeout panel on right OMS pod caused delamination of skin panel substructure.	STS 41G-25
14	51A 103 2	103 2	o None.	STS 41G-25A
15	51C 103 3	103 3	o None.	
16	51D 103 4	103 4	o Severe TPS damage on left outboard elevon caused carrier panel burn-through and structural damage to elevon leading edge. o Damage thermal barrier interfered with external tank umbilical door closure during flight. o Loose lower LESS carrier panel.	STS 51D-14 STS 51D-2 None
17	51B 099 7	099 7	o Protruding FI blanket on right OMS pod caused overheating and delamination of OMS pod substructure.	STS 51B-6
18	51G 103 5	103 5	o High incidence of debris impact damages.	STS 51G-11
19	51F 099 7	099 7	o Slumped tiles adjacent to nosecap. Overall, heating higher than usual.	STS 51F-15
20	51I 103 6	103 6	o Loose forward RCC arrowhead. Y web carrier panel FI edge debonded on right OMS.	

**SHUTTLE HISTORIES  
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS**

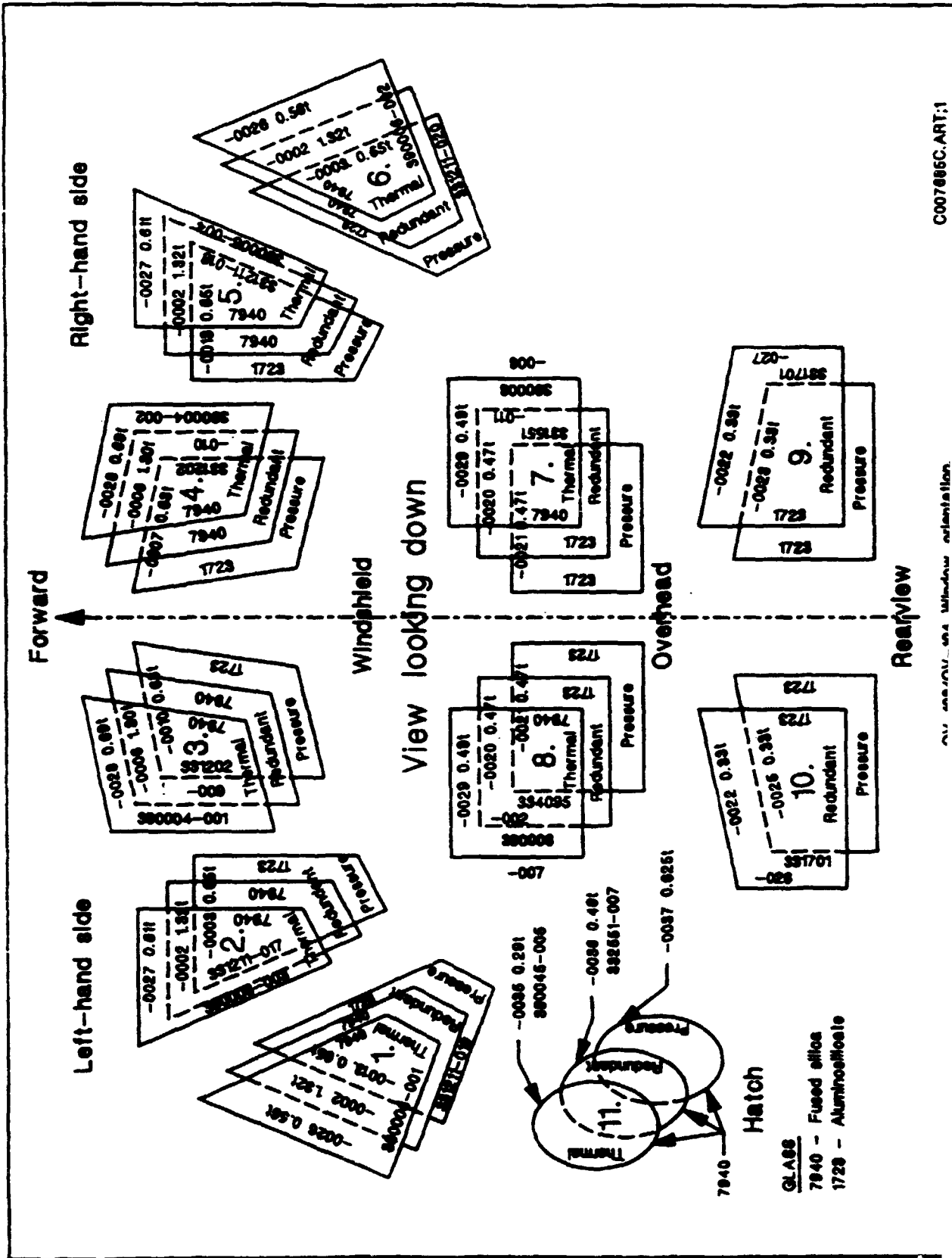
Miss. Seq. No.	STS-Orb. OV-Flt.	PROBLEMS	Related Inflight Anomaly
21	51J 104 1	o Lost gap filler on left inboard elevon caused severe damage to 2 tile carrier panels and seal panel. o 2 tile carrier panels.	STS 51J-7
22	61A 09S 9	o Numerous debris impact gouges.	None
23	61B 104 2	o None.	None
24	61C 102 7	o Rain exposure during AA and mod ferry flight return caused extensive tile damage on vehicle leading edge areas. o Loss of diced segment on right payload bay door caused damage to face sheet of door substructure. o 1 tile missing on star tracker door; no structural damage. o High incidence of debris impact damages.	None None None None
25	51L 099 10	N/A	N/A
26	26 103 7	o Approximately 6" x 18" x 1 1/2" TPS damage on RT wing lower surface noted postflight. Possible debris during ascent.	STS-26R-13
27	27 104 3	o Lower forward chine lost in flight. R OMS carrier panel lost in chine. o Postlanding tile examination revealed approximately 250-300 damaged areas greater than 1 inch. Most impact damage on right side bottom of wing and fuselage.	STS-27-07
28	29 103 8		STS-29-22
29	30 104 4		
30	28 102	o Early transition from laminar to turbulent flow.	None
31	34 104	o None - Total of 53 hits of which 18 hits were 1 inch or greater. Better than any previous flight. Tile condition good.	None
32	33 103	o None - Total of 118 hits, of which 21 hits were 1 inch or greater. Tile condition better than average.	None

SHUTTLE HISTORIES  
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss. No.	STS- No.	Orb. OV- Flt.	PROBLEMS	Related Inflight Anomaly
33	32	102	o None - 11 significant hits. Tile condition was considered good.	None
34	36	104	o None - 19 significant hits. Tile condition was considered good.	None
35	31	103	o Loose OMS Y-web carrier panel. o Oxidizer spill during ferry caused replacement of 54 left OMS tiles.	None
36	41	103	o None - Meteorite impact LH forward RCS overboard dump nozzle and adjacent tiles. o A 6 inch section of the aft bulkhead payload bay door environmental seal debonded.	None
37	38	104	o None - Loose tile, upper body flap leading edge.	None
38	35	102	o None	None
39	37	104	o Forward ET buffet area damage.	None
40	39	103	o Many debris impacts. o Two tiles between nose cap and MLP severely slumped with associated Q/P damage. o Wing MCC T-seal cracks showed up postflight.	None None
41	40	102	o Right-hand ET door forward centerline latch fitting and adjacent tile exhibited significant melting/erosion.	STS-40-02 STS-40-11
42	43	104	o Forward RCS plume shield lost in flight. o Largest single damage site on Orbiter lower surface below forward RCS module and measured approximately 18 inches by 1 inch by 1/8 inch (spanned six tiles).	None
43	48	103	o Chin panel damage at attach clevis detected postflight. o Slumped RSD leading edge tiles - early transition from laminar to turbulent flow.	None
44	44	104	o Large gap between chin panel gap filler to angle seal. o Cracks in wing MCC T-seals detected postflight.	None
45	42	103	o Discolored (orange) FI blanket on vent door NH 7.	None

SHUTTLE HISTORIES  
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss. Seq. No.	STS-Orb. OV-Flt.	PROBLEMS	Related Inflight Anomaly
46	104	<ul style="list-style-type: none"> <li>o Total of 172 hits of which 22 were 1 inch or greater. Total number of hits was greater than average and the number of hits 1 inch or greater is near the average.</li> <li>o Two impact damage sites were present on the upper surface of the right wing RCC panel 10.</li> </ul>	STS-45-V-08
47	105	<ul style="list-style-type: none"> <li>o OMS leading edge FI debonded. No structural damage.</li> <li>o The most significant hit observed measure 9 5/8 by 2 5/8 by 1/4 inch and was located on the right side of the vehicle immediately aft of the nose cap RCC.</li> <li>o Crew photographed a chip in the upper right corner of thermal window pane 1. Crew reported the impact occurred on or around flight day 8.</li> </ul>	STS-49-V-36
48	102	<ul style="list-style-type: none"> <li>o None - a total of 184 hits of which 45 were 1 inch or greater. The total number of hits was greater than average and the number of hits 1 inch or greater is much larger than usual.</li> <li>o The most significant tile damage measured 9 by 4.5 by .5 inch and was located approximately 3 feet outboard of the LH2 ET/OBB umbilical. The damage spanned 3 tiles.</li> </ul>	None.
49	104	<ul style="list-style-type: none"> <li>o None - a total of 236 hits of which 22 were 1 inch or greater. The total number of hits was greater than average and the number of hits 1 inch or greater was average.</li> </ul>	None.
50	105	<ul style="list-style-type: none"> <li>o Total of 108 hits of which 11 were 1 inch or greater. Both the total number of hits and number of hits 1 inch or greater was much less than average.</li> <li>o The LH rudder/speedbrake split line thermal barrier was protruding slightly and exhibited minor fraying, but did not appear to be significantly damaged or deformed.</li> <li>o An excessive gap between the nose cap expansion seal and the V070-399441 gap filler was discovered after landing. The gap width was 0.093 inch, which is much larger than the previous flight experience of 0.047 inch on OV-104.</li> </ul>	STS-47-V-13 STS-47-V-26
51	102	<ul style="list-style-type: none"> <li>o Total of 290 hits of which 16 were 1 inch or greater. The total number of hits was much greater than normal and the number of hits 1 inch or larger is less than average.</li> </ul>	None.
52	103	<ul style="list-style-type: none"> <li>o Total of 240 hits of which 23 were 1 inch or greater. The total number of hits was greater than normal and the number of hits 1 inch or greater was average.</li> </ul>	None.
53	105	<ul style="list-style-type: none"> <li>o Total of 131 hits of which 14 were 1 inch or greater. The total number of hits was near average and the number of hits 1 inch or greater was less than average.</li> </ul>	None.
54	103	<ul style="list-style-type: none"> <li>o Total of 156 hits of which 36 were 1 inch or greater. The total number of hits was near average, and the number of hits 1 inch or greater was greater than average.</li> <li>o Payload bay thermal blanket on the aft bulkhead was partially detached.</li> <li>o The largest tile damage site measured 9.0 inch by 2.0 inch by 0.2 inch, involved two tiles, and was located on the lower surface of the right-hand wing leading edge extension (glove area). The shallow depth of 0.2 inch is indicative of an impact by low-density material, such as RT 8091.</li> </ul>	STS-56-V-05
55	102	<ul style="list-style-type: none"> <li>o Total of 143 hits of which 13 were 1 inch or greater. The total number of hits and hits greater than 1 inch are both near average.</li> <li>o Loose thermal cover on the tunnel adapter hatch.</li> </ul>	STS-55-V-09



WINDOW DATA

Mission Seq. No.	STS- No.	Orbiter Vehicle	Window, S/N, Dash no.	Anomaly	Disposition
1-4	STS-1 through STS-4	102	N/A	None	
5	STS-5	102	R. fwd. (#111) -0028	bruise	Window removed; currently being used for training at KSC.
5	STS-5	102	L. fwd. (#TBS) -0028	pit	Window retained; pit measured .05" x .06 x .0068" dp.
6	STS-6	099	N/A	None	
7	STS-7	099	R. mid. (#112) -0027	pit	Window removed; pit evaluated at JSC (.15" x .129" x .0171" dp.); orbital debris impact proposed.
8	STS-8	099	L. fwd. (#114) -0028	hazing	Window removed; in storage at JSC.
	STS-8	099	R. fwd. (#113) -0028	pits	Window removed; 2 pits measured .075" dia. x .0073" dp and .022" dia. x .0009" dp. At JSC.
9	STS-9	102	L. side (#116) -0026	pit	Window removed; pit measured .04" x .045" x .0035" dp. At JSC.
	STS-9	102	R. side (#TBS) -0026	pit	Window retained; pit measured .015" x .025" x .0014" dp.
10	41B	099	L. fwd. (#TBS) -0028	pit	Window retained, pit measured .0012" dp.
11	41C	099	R. fwd. (#TBS) -0028	pit	Window retained; pit measured .0385" x .0415" x .0048" dp.
	41C	099	L. side (#117) -0026	pit	Window retained; pit measured .025" dia. x .0009" dp.
12	41D	103	L. side (#106) -0026	pit	Window removed; pit measured .075" dia. x .008" dp. At JSC.
13	41G	099	L. side (#117) -0026	pit	Window removed; pit measured .055" x .05" x .007" dp.
	41G	099	R. fwd. (#104) -0028	pit	Window removed; pit measured .089" dia. x .0113" dp. At JSC.
14	51A	103	R. o.h. (#TBS) -0019	pit	Window retained; 2 pits measured .001" dp and .0018" dp.
15	51C	103	L. mid. (#104) -0027	pit	Window removed; pit measured .05" x .03" x .0088" dp. At JSC.
16	51D	103	N/A	None	
17	51B	099	L. fwd. (#TBS) -0028	pit	Window retained; pit measured .030" dia. x .0016" dp.
	51B	099	R. fwd. (#TBS) -0028	pit	Window retained; pit measured .055" x .040" x .0014" dp.
18	51G	103	R. mid. (#TBS) -0027	pit	Window retained; pit measured .04" x .025" x .0038" dp.
19	51F	099	R. mid. (#TBS) -0027	pit	Window retained; pit measured .04" dia. x .0014" dp.



WINDOW DATA

Mission Seq. No.	STS-No.	Orbiter Vehicle	Window, S/N, Dash no.	Anomaly	Disposition
20	51I	103	L. fwd -0028	pit	Window retained; pit meas .09" dia. x .0083" dp
21	51J	104	N/A	None	
22	61A	099	L. mid. (#114) -0027	pit	Window removed; pit measu .049" dia. x .0064" dp. JSC.
	61A	099	R. fwd. -0028	pit	Window retained; pit meas .025" dia. x 0006" dp. T impacts connected by frac
23	61B	104	L. side (#120) -0026	pit	Window removed; pit measu .025" x .015" x .0009" dp JSC.
	61B	104	L. mid. (#105) -0027	pit	Window retained; pit meas .025" dia. x 001" dp.
	61B	104	R. fwd. (#105) -0028	pit	Window removed, pit measu .097" x .043" x .0078" dp JSC.
24	61C	102	L. side (#102) -0026	pit	Window retained; pit meas .022" dia. x .0008" dp.
25	51L	099	N/A	None	
26	26	103	N/A	None	
27	27	104	N/A	None	
28	29	103	N/A	None	
29	30	104	R. side (#113) -0026	pit	Window removed; pit measu .1017" x .0919" x .0115"
30	28	102	N/A	None	
31	34	104	N/A	None	
32	33	103	N/A	None	
33	32	102	N/A	None	
34	36	104	N/A	None	
35	31	103	R. side (103) -0026	None	Window removed; pit measu 0.06" X0.051" X0.01" deep
36	41	103	N/A	None	

**WINDOW DATA**

<b>Mission Seq. No.</b>	<b>STS- No.</b>	<b>Orbiter Vehicle</b>	<b>Window, S/N, Dash no.</b>	<b>Anomaly</b>	<b>Disposition</b>
37	38	104	R. fwd. (116) -0028	Pit	Window retained; pit measured 0.05" x 0.045" x 0.0087" deep
			L. fwd. (106) -0028	Pit	Window retained; pits measure 0.0253" dia. x 0.0052" deep 0.0444" dia. x 0.0065" deep 0.0390" dia x 0.0073" deep
			L. side (105) -0026	Pit	Window removed; pit measured 0.050" x 0.055" x 0.0039" de
			R. side (124) -0026	Pit	Window removed; pits measure 0.0207" dia. x 0.0016" deep 0.0282" dia. x 0.0027" deep
38	35	102	L. side (122) -0026	STS-35-18 (Pits)	Window removed; pit measured 0.068" x 0.046" x 0.0109 dee
39	37	104	N/A	None	
40	39	103	N/A	None	
41	40	102	R. mid (108) -0027	Pit	Window removed. Pit measured 0.0663" x 0.0668" x 0.0162" deep.
42	43	104	R. mid. (106) -0027	Pit	Window removed. Pit measure 0.0427 in. diameter by 0.0077 in. deep
43	48	103	R. side (132) -0026	Pits	Window removed. Three pits measured: 1. 0.0360 in. diameter by 0.0079 in. deep 2. 0.0207 in. diameter by 0.0027 in. deep 3. 0.0445 in. diameter by 0.0048 in. deep
44	44	104	R. forward (116) -0028	Pits	Window removed. 1 bruise and 2 pits.
45	42	103	L. forward (109) -0028	Pit	Window retained; pit measure 0.0401 inch diameter by 0.0083 inch deep.

WINDOW DATA

Mission Seq. No.	STS- No.	Orbiter Vehicle	Window, S/N, Dash no.	Anomaly	Disposition
46	45	104	R. side (137) -0026	Pit	Window removed; pit measu 0.0266 inch diameter by 0.0027 inch deep.
47	49	105	L. Side (128) -0026	Pit Scratches	Window removed; pit measu 0.04492 inch diameter by 0.0027 inch deep. Scratch not measurable.
			L. Mid (122) 0027	Pits	Pit measure 0.0247 inch diameter by 0.00208 inch Pit measured 0.0272 inch
48	50	102	LOH (106) -0029	Pit	Window removed; pit measu 0.0605 inch diameter by 0.00447 inch deep.
			R. Side (131) -0026	Pit	Window removed; pit measu 0.033 inch diameter by 0.00286 inch deep.
			L. Fwd. (103) -0028	Pit	Window retained; pits meas 0.0535 inch dia. by 0.0054 deep and 0.035 inch dia. by 0.0045 inch deep
			L. Mid (115) -0027	Pit	Window retained; pit measu 0.0735 inch diameter by 0.0052 inch deep.
			R. Fwd. (118) -0028	Pit	Window removed; pit measur 0.210 inch diameter.
49	46	104	ROH (115) -0029	Pit	Window removed; pit measur 0.0267 inch diameter by 0.00304 inch deep.
50	47	105	R. Side (135) -0026	Pit	Window removed; pits measu 0.0503 inch dia. by 0.0056 inch deep; 0.0329 inch dia. 0.00439 inch deep
			R. Mid. (121) -0027	Pit	Window removed; pit measur 0.1206 inch diameter by 0.00501 inch deep.

WINDOW DATA

Mission Seq. No.	STS- No.	Orbiter Vehicle	Window, S/N, Dash no.	Anomaly	Disposition
50 (cont'd)	47	105	ROH (123) -0029	Pit	Window removed; pit measured: 0.043 inch diameter by 0.0041 inch deep.
			L. Mid.(122) -0027	Pit	Window retained; pit measured 0.012 inch diameter by 0.0029 inch deep.
51	52	102	L. Fwd. (103) -0028	Bruise	Window removed; bruise measured 0.1 inch diameter.
			L. Side (125) -0026	Pit	Window removed; pit measured 0.03 inch diameter by 0.0032 inch deep.
52	53	103	N/A	None	
53	54	105	R. Mid (-) -0027	Pit	Window retained; pit measured 0.027 inch diameter by 0.0027 inch deep.
			R. Fwd. (121) -0028	Pit	Window retained; pit measured 2.023 inch diameter by 0.0034 inch deep.
54	56	103	L. Mid (110) -0027	Pit	Window removed; pit measured 0.0227 inch diameter by 0.00428 inch deep.
			L. Mid (110) -0027	Pit	Window removed; pit measured 0.0264 inch diameter by 0.00336 inch deep.
			L. Fwd (107) -0028	Pit	Window retained; pit measured 0.101 inch diameter by 0.00551 inch deep.
			L. Fwd (107) -0028	Pit	Window retained; pit measured 0.0405 inch diameter by 0.00397 inch deep.
			L. Fwd. (107) -0028	Pit	Window retained; pit measured 0.052 inch diameter by 0.00355 inch deep.

WINDOW DATA

Mission Seq. No.	STS- No.	Orbiter Vehicle	Window, S/N, Dash no.	Anomaly	Disposition
54 (cont'd)	56	103	L. Fwd (107) -0028	Pit	Window retained; pit meas 0.106 inch diameter by 0.00555 inch deep.
			R. Fwd (115) -0028	Pit	Window retained; pit meas 0.045 inch diameter by 0.00478 inch deep.
			R. Fwd (115) -0028	Pit	Window retained; pit meas 0.028 inch diameter by 0.00187 inch deep.
			L. Side (141) -0026	Pit	Window retained; pit measu 0.023 inch diameter by 0.0049 inch deep.
			R.Overhead (103)	Pit	Window removed; pit measur 0.0225 inch diameter by 0.0026 inch deep.
55	55	102	N/A	None	

**ACTIVE THERMAL CONTROL SUBSYSTEM  
ASCENT, ENTRY AND POST-LANDING EVENTS AND PERFORMANCE DATA**

Miss. Seq. No.	STS- No.	Orb. OV-	ASCENT EVENTS & PERFORMANCE DATA										ENTRY & POST-LANDING EVENTS AND PERFORMANCE DATA									
			FES Start, MET m:s	RAD. Start, MET h:m	PLSD Open, MET h:m	Deploy RAD., MET h:m	H/L FES Inhibit, MET h:m	FES Start, Out-Temp., of.	MAX FES In Temp., of.	Start RAD. Flow, TD-M	RAD Flow Time, M	ABS Start, TD/M	Start GSE Cooling, TD-M	Start PLB Purge, TD-M	Avg RAD. In Temp., of.	Max FCA Out Temp., of.	NH <sub>3</sub> Quan At Start, lb	NH <sub>3</sub> Quan At Cooling, lb				
1	1	102	2:16	1:10	1:52	2:10	2:10	94	115	+1	15	-9	15	20	103	64	102	72				
2	2	102	2:19	1:17	2:15	2:25	2:25	97	120	-8	36	+9	27	35	98	71	98	80				
3	3	102	2:13	1:31	2:38	2:43	2:43	97	117	-11	50	+8	35	39	103	74	98	80				
4	4	102	2:16	0:57	2:01	2:30	2:30	99	118	-10	>140	+12	30	36	97	68	99	85				
5	5	102	2:21	1:15	1:34	1:59	1:59	>100	117	-11	45	+16	28	38	100	66	98	87				
6	6	099	2:13	1:14	1:45	2:01	2:01	94	104	-11	61	+11	25	40	87	67	95	81				
7	7	099	2:10	1:09	1:24	1:51	1:51	95	106	-11	52	+12	DNA	DNA	92	68	95	65				
8	8	099	2:10	1:10	1:28	1:40	1:40	95	106	-11	78	+14	20	35	89	64	96	91				
9	9	102	2:15	1:05	1:29	1:41	1:41	91	108	-11	56	-10	21	34	94	82	98	71				
10	41B	099	2:12	1:16	1:30	1:40	1:40	88	101	-11	>140	+15	27	66	90	>69	96	86				
11	41C	099		1:06	1:28	1:40	1:40	88	101	-11	30	-8	DNA	DNA	85	54	100	86				
12	41D	103		1:12	1:33	1:46	1:46	55	99	-11	54	+12	34	DNA	86	>58	98	87				
13	41G	099	2:10	1:08	1:18	1:26	1:26	83	102	-11	>180	-7	32	54	88	>75	97	72				

**Legend:**  
 PDOP = Performed during orbit period  
 NP = Not performed  
 DNA = Data not available  
 GSE = Ground support equipment  
 TD = Touchdown  
 PLSD = Payload bay doors  
 FES = Flash evaporator subsystem  
 ABS = Ammonia boiler subsystem  
 RAD = Radiator  
 H/L = High load  
 FCA = Flow control assembly  
 M/A = Not applicable

**ACTIVE THERMAL CONTROL SUBSYSTEM  
ASCENT, ENTRY AND POST-LANDING EVENTS AND PERFORMANCE DATA**

Miss. Seq. No.	STS No.	Orb. OV-	ASCENT EVENTS & PERFORMANCE DATA				ENTRY & POST-LANDING EVENTS AND PERFORMANCE DATA				NH <sub>3</sub> Quan At GSE Cooling, lb						
			FES Start, MET h:m	PLBD Open, MET h:m	Deploy RAD, MET h:m	H/L FES Inhibit, MET h:m	FES Start Out-Temp, °F	MAX FES In Temp, °F	Start RAD. Flow, TD-H	RAD Flow Time, H		ABS Start, TD-H	Start GSE Cooling, TD-H	Start PLB Purge, TD-H	Avg RAD. In Temp, °F	Max FCA Out Temp, °F	NH <sub>3</sub> Quan At Start, lb
14	51A	103	2:10	1:07	NP	1:50	83	103	-11	>156	+12	49	54	93	75	98	50
15	51C	103	DOD MISSION - DATA NOT AVAILABLE														
16	51D	103	2:08	1:09	NP	1:50	79	98	-11	107	+10	44	46	86	69	100	0
17	51B	099	2:08	1:15	1:49	1:36	93	107	-11	89	+12	30	48	94	71	102	87
18	51G	103	2:06	1:12	NP	1:41	73	100	-11	98	+9	50	61	90	67	100	50
19	51F	099	2:10	1:13	1:46	1:41	74	108	-11	82	+6	50	51	92	73	100	44
20	51I	103	2:03	1:19	PDOP	1:48	52	102	-11	71	+23	62	DNA	87	63	100	62
21	51J	104	DOD Mission - Data not available														
22	61A	099	2:07	1:11	PDOP	1:43	69	106	-11	74	+6	42	42	94	78	100	46
23	61B	104	2:09	1:09	PDOP	1:49	79	101	-11	87	+15	32	36	83	61	98	80
24	61C	102	2:11	1:14	NP	1:38	79	100	-11	74	+21	38	48	88	60	98	85
25	51L	099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	26	103	2:35	1:24	NP	00:53	57	108	-11	79	+17	79	--	94	96	98	39

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 FES = Flash evaporator subsystem  
 ABS = Ammonia boiler subsystem  
 RAD = Radiator  
 N/A = Not applicable  
 M/L = High load  
 FCA = Flow control assembly

ACTIVE THERMAL CONTROL SUBSYSTEM  
ASCENT, ENTRY AND POST-LANDING EVENTS AND PERFORMANCE DATA

Miss. Seq. No.	STS- No.	Orb. OV-	ASCENT EVENTS & PERFORMANCE DATA				ENTRY & POST-LANDING EVENTS AND PERFORMANCE DATA											
			FES Start, MET m's	RAD. Flow Start, MET h:m	PLBD Open, MET h:m	Deploy RAD., MET h:m	H/L FES Inhibit, MET h:m	FES Start Out-Temp., of.	MAX FES In Temp., of.	Start Flow, + TD-M	RAD Flow Time, M	ABS Start, TD+M	Start GSE Cooling TD+M	Start Purge, TD+M	Avg RAD. In Temp., of.	Max FCA Out Temp., of.	NH <sub>3</sub> Quan At Start, lb	NH <sub>3</sub> Quan At GSE Cooling, lb
27	27	104																
28	29	103	2:30	1:05	1:25	NP	1:46	86	107	-11	80	+21	+50		85	78	98	54
29	30	104	2:30	1:20	1:35	NP	1:55	87	105	-11	81	+20	+60		85	70	98	45
30	28	102																
31	34	104	2:20	1:24	1:34	NP	2:18	75	108	-12	92	+8	+44		80	86	99	58
32	33	103																
33	32	102	2:12	1:20	1:35	NP	1:55	76	106	-11	>150	13	37		90	88	98	71
34	36	104																
35	31	103	2:15	1:21	1:33	NP	1:49	85	89	-11	46	NP	35		89	76	97	97
36	41	103	2:24	1:18	1:40	NP	2:34	86	107	-13	>53	15	40		96	64	99	72
37	38	104																
38	35	102	2:15	1:16	1:29	NP	1:41	96	112	-11	>56	10	44		91	66	99	49

Legend: PDOP = Performed during orbit period  
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 DMA = Data not available  
 GSE = Ground support equipment  
 TD = Touchdown  
 PLBD = Payload bay doors  
 FES = Flash evaporator subsystem  
 ABS = Ammonia boiler subsystem  
 RAD = Radiator  
 W/A = Not applicable  
 H/L = High load  
 FCA = Flow control assembly



ACTIVE THERMAL CONTROL SUBSYSTEM  
ASCENT, ENTRY AND POST-LANDING EVENTS AND PERFORMANCE DATA

Miss. Seq. No.	STS- No.	Orb. OV-	ASCENT EVENTS & PERFORMANCE DATA			ENTRY & POST-LANDING EVENTS AND PERFORMANCE DATA											
			FES Start, MET h:m	RAD. Flow Start, MET h:m	PLBD Open, MET h:m	Deploy RAD., MET h:m	H/L Inhibit, MET h:m	FES Start Temp., °F.	MAX FES In Temp., °F.	Start RAD. Flow, TD-M	RAD Flow Time, M	ABS Start, TD+M	GSE Cooling TD+M	Start PLB Purge, TD+M	Avg RAD. In Temp., °F.	Max FCA Out Temp., °F.	NH <sub>3</sub> Quan At Start, lb
39	37	104	2:07	1:18	1:30	NP	1:43	84	101	-15	>55	NP	40	—	85	60	98
40	39	103	2:13	1:11	1:28	NP	1:46	72	103	-12	>72	+7	60	—	90	70	23
41	40	102	2:07	1:19	1:35	NP	1:54	99	115	-11	23	+12	41	—	92	72	65
42	43	104	2:13	1:18	1:30	NP	1:44	66	86	-12	>66	+25	54	—	97	78	50
43	48	103	2:01	1:17	1:35	NP	1:56	80	88	-12	>52	+12	40	—	92	68	69
44	44	104	2:09	1:18	1:35	NP	1:46	84	87	-16	>51	+20	35	—	91	63	84
45	42	103	2:09	1:14	1:28	1:43	1:49	92	105	-11	>50	+6	39	—	95	77	54
46	45	104	2:09	1:26	1:41	N/A	1:53	83	100	-13	>56	+10	43	—	93	67	61
47	49	105	2:22	1:17	1:40	N/A	1:53	83	100	-11	>45	+8	33	—	90	69	69
48	50	102	2:07	1:11	1:26	NP	1:51	93	106	-12	>23	+11	51	—	95	76	50
49	46	104	2:08	1:23	1:39	NP	1:48	79	99	-12	>24	+12	57	—	87	69	43
50	47	105	2:04	1:24	1:36	NP	1:45	81	104	-11	>17	+6	53	—	90	78	30

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 FES = Flash evaporator subsystem  
 ABS = Ammonia boiler subsystem  
 RAD = Radiator  
 N/A = Not applicable  
 H/L = High load  
 FCA = Flow control assembly

ACTIVE THERMAL CONTROL SUBSYSTEM  
ASCENT, ENTRY AND POST-LANDING EVENTS AND PERFORMANCE DATA

Miss. Seq. No.	STS- No.	Orb. OV-	ASCENT EVENTS & PERFORMANCE DATA										ENTRY & POST-LANDING EVENTS AND PERFORMANCE DATA					
			FES Start, MET m:s	RAD. Flow Start, MET h:m	PLBD Open, MET h:m	Deploy RAD., MET h:m	H/L FES Inhibit, MET h:m	FES Start Out-Temp., of.	MAX FES In Temp., of.	Start RAD. Flow, TD-M	RAD Flow Time, M	ABS Start, TD-M	Start GSE Cooling, TD-M	Start PLB Purge, TD-M	Avg RAD. In Temp., of.	Max FCA Out Temp., of.	NH <sub>3</sub> Quan At Start, lb	NH <sub>3</sub> Quan At GSE Cooling, lb
51	52	102	2:04	1:17	1:29	NP	1:48	95	108	-12	>23	+11	59	—	90	84	99	49
52	53	103	2:09	1:24	1:43	NP	1:52	84	100	-11	>30	+19	+74	—	90	68	99	34
53	54	105	2:08	1:20	1:41	NP	1:57	77	99	-11	>15	+4	+60	—	91	75	99	18
54	56	103	2:08	1:15	1:35	NP	1:44	72	102	-10	>24	+14	+52	—	93	65	99	64
55	55	102	2:06	1:18	1:29	72:01	1:43	90	102	-12	24	+12	+36	—	95	69	99	50

Legend: PDOP = Performed during orbit period  
 NP = Not performed  
 DMA = Data not available  
 GSE = Ground support equipment  
 TD = Touchdown  
 PLBD = Payload bay doors  
 FES = Flash evaporator subsystem  
 ABS = Ammonia boiler subsystem  
 RAD = Radiator  
 N/A = Not applicable  
 H/L = High load  
 FCA = Flow control assembly

ACTIVE THERMAL CONTROL SUBSYSTEM  
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

Miss. Seq. No.	STS- No.	Orb. OV-	Flash Evaporator Subsystem Water Usage				Flight Total		Radiator Freon Temperature Extremes				
			Topping FES		Hi-load FES		On-Orbit	De-Orbit	Radiator in Temp	Minimum Rad Out Temp.	PCL 2 of.		
			A Valve lb	B Valve lb	A Valve lb	B Valve lb	lb	lb	Maximum of.	Minimum of.	PCL 1 of.	PCL 2 of.	
1	1	102	186	0	449	0	152	149	334	117	82	-37	-30
2	2	102	155	104	419	26	176	134	394	122	78	-24	-45
3	3	102	310	52	647	25	198	507	329	117	64	-75	-82
4	4	102	95	104	118	270	168	52	367	120	69	-50	-62
5	5	102	101	108	100	252	142	61	398	118	73	-55	-52
6	6	099	184	100	101	273	142	134	382	104	74	-22	-19
7	7	099	149	144	82	388	123	108	532	103	71	-77	-62
8	8	099	79	99	85	265	122	42	364	104	67	-80	-75
9	9	102	1489	84	201	190	117	1585	262	109	84	-70	-75
10	41B	099	883	85	81	229	116	849	313	100	67	-65	-55
11	41C	099	161	137	78	263	108	131	400	100	61	-52	-65
12	41D	103	1040	98	88	264	122	1007	361	102	68	-40	-67
13	41G	099	446	571	70	182	98	894	277	101	75	-42	-47
14	51A	103	1676	95	84	184	116	1644	279	105	71	-75	-62



ACTIVE THERMAL CONTROL SUBSYSTEM  
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

Miss. Seq. No.	STS No.	Orb. OV-	Flash Evaporator Subsystem Water Usage						Radiator Freon Temperature Extremes							
			Topping FES		Hi-load FES		On-Orbit		De-Orbit		Flight Total		Maximum op.	Minimum op.	FCL 1 op.	FCL 2 op.
			A Valve lb	B Valve lb	A Valve lb	B Valve lb	lb	lb	lb	lb	lb					
30	28	102														
31	34	104	721	122	146	172	132	743	285		1160	116	72	-46		-37
32	33	103														
33	32	102	805	129	56	158	58	853	237	1148	108	68	-73			-68
34	36	104														
35	31	103	551	109	54	112	59	598	168	825	106	64	-55			-70
36	41	103	711	130	72	215	131	746	251	1128	107	78	-34			-42
37	38	104														
38	35	102	1963	149	67	252	101	1955	375	2431	114	68	-95			-83
39	37	104	766	210	86	310	125	1071	176	1372	102	67	-58			-47
40	39	103	589	118	89	158	130	579	245	954	104	68	-48			-58
41	40	102	1153	89	91	163	137	1107	244	1488	116	70	-32			-40
42	43	104	1846	86	81	86	119	1848	132	2099	104	76	-66			-65
43	48	103	505	172	37	287	114	517	370	1001	104	63	-62			-58
44	44	104	724	107	81	182	119	702	273	1894	107	70	-40			-40

ACTIVE THERMAL CONTROL SUBSYSTEM  
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

Miss. Seq. No.	STS- No.	Orb. OV-	Flash Evaporator Subsystem Water Usage				Flight Total		Radiator Freon Temperature Extremes					
			Topping FES A Valve lb	Topping FES B Valve lb	Hi-load FES A Valve lb	Hi-load FES B Valve lb	On-Orbit lb	De-Orbit lb	Radiator in Temp Maximum °F.	Minimum °F.	Minimum Rad Out Temp. FCL 1 °F.	FCL 2 °F.		
45	42	103	2202	125	72	170	106	2208	255	2569	110	81	-53	-50
46	45	104	2004	104	79	155	117	1993	232	2342	100	73	-50	-44
47	49	105	1350	111	79	161	117	1342	242	1701	100	75	-70	-55
48	50	102	4123	238	53	412	79	4129	618	4826	108	75	-45	-30
49	46	104	1502	108	87	193	130	1470	290	1890	100	70	-82	-75
50	47	105	2116	129	81	188	122	2110	282	2514	107	83	-60	-50
51	52	102	1770	250	64	318	96	1830	476	2402	110	77	-69	-65
52	53	103	841	131	73	219	106	84	311	1263	102	70	-82	-82
53	54	105	1021	143	76	170	103	1077	231	1411	99	62	-60	-50
54	56	103	2105	200	66	160	93	2214	224	2531	102	78	-60	-62
55	55	102	371	163	62	226	87	408	328	823	106	71	-47	-51

ATMOSPHERIC REVITALIZATION SUBSYSTEM

Miss. Seq. No.	STS- No.	Orb. OV-	Ascent		Cabin Temperature Peaks		Entry		Cabin Partial Pressure of CO <sub>2</sub> (PPCO <sub>2</sub> )			Duration of 10.3 Para Operations		Cabin Reduced Pressure Operations PPO <sub>2</sub> During Descent to 10.2		Operations PPO <sub>2</sub> During 10.2				
			HX Air Out °F.	Cabin Air Out °F.	HX Air Out °F.	Cabin Air Max. °F.	HX Air Out °F.	Cabin Air Min. °F.	Max. mmmHg	Min. mmmHg	Crew Person Hours	Max. mmmHg	Min. mmmHg	Start MET h:m	End MET h:m	Duration h:m	Max. psi	Min. psi	Max. psi	Min. psi
1	1	102	78.5	83.0	63.1	80.2	75.0	51.4	79.2	109	5.8	0.4	4							
2	2	102	79.8	83.5	69.0	82.5	70.0	71.0	81.4	108	5.4	0.5	4							
3	3	102	79.7	85.3	67.5	81.5	73.0	55.3	83.0	394	8.4	0.4	9							
4	4	102	82.6	81.0	62.2	82.0	68.0	52.2	78.5	338	4.3	0.5	9							
5	5	107	83.5	80.0	60.0	80.0	75.0	54.6	80.5	489	2.3	0.6	12							
6	6	099	77.4	80.5	61.0	78.0	72.0	58.8	75.0	482	1.5	0.6	12							
7	7	099	DNA	78.0	56.0	76.0	69.0	DNA	71.0	732	5.0	0.7	15	45:46	76:47	31:01	3.5	2.7	2.9	2.6
8	8	099	DNA	79.0	58.0	80.0	72.0	DNA	74.5	726	6.1	0.9	16							
9	9	102	DNA	81.0	64.0	83.0	68.0	DNA	86.0	1487	1.7	0.5	32							
10	41B	099	76.2	80.0	62.0	83.0	70.0	60.6	81.7	956	3.7	0.4	16	69:25	149:00	79:35	3.2	2.8	3.1	2.5
11	41C	099	75.0	80.5	58.0	79.0	68.0	50.6	78.0	838	4.8	0.5	16	25:42	141:27	115:45	3.4	2.7	3.0	2.6
12	41D	103	66.6	80.2	58.0	78.0	72.0	57.4	79.3	870	3.8	0.8	16	105:04	128:48	23:44	3.2	2.8	2.9	2.7
13	41G	099	74.0	74.0	74.0	91.0	73.0	62.0	79.1	1382	6.0	1.4	25	121:45	153:25	31:40	3.5	2.8	3.0	2.7
14	51A	103	75.0	80.3	56.0	85.0	73.0	71.0	85.6	975	2.8	0.8	19	72:43	162:45	90:02	3.4	2.7	3.0	2.5
15	51C	103																		

DOO MISSION - DATA NOT AVAILABLE

ATMOSPHERIC REVITALIZATION SUBSYSTEM

Miss. Seq. No.	STS- No.	Orb. OV-	Cabin Temperature Peaks				Cabin Partial Pressure of CO <sub>2</sub> (PPCO <sub>2</sub> )				Cabin Reduced Pressure Operations									
			Ascent		On-Orbit		Entry		Crew Person Hours	PPCO <sub>2</sub> Max. mmHg	PPCO <sub>2</sub> Min. mmHg	LiOH Canisters Used	Duration of 10.2 Paia Operations		PPO <sub>2</sub> During Despress to 10.2		Operations 10.2			
			HK Air Out of.	Cabin Air Max. of.	HK Air Out of.	Cabin Air Min. of.	HK Air Out of.	Cabin Air of.							Start MET h:m	End MET h:m	Duration h:m	Max. psi	Min. psi	Max. psi
16	51D	103	68.0	85.0	58.0	76.0	64.2	85.3	1170	11.0	0.6	23	76:00	126:40	50:40	3.5	2.8	2.9	2.6	
17	51B	099	71.0	84.0	58.0	74.0	67.4	81.7	1176	5.5	1.0	31								
18	51G	103	64.2	87.8	64.0	80.0	65.0	88.0	1188	6.8	0.9	23								
19	51F	099	64.2	80.2	61.0	76.0	69.0	77.0	1335	6.5	1.2	23								
20	51I	103	65.8	84.6	53.0	72.0	63.0	84.0	851	5.3	0.7	17	72:06	140:30	68:24	3.8	2.6	3.4	2.6	
21	51J	104								DOD MISSION - DATA NOT AVAILABLE										
22	61A	099	70.0	84.4	59.0	73.0	64.0	81.0	1350	5.6	1.0	30								
23	61B	104	69.4	73.0	58.0	74.0	63.0	78.0	1156	3.0	0.8	23	48:14	123:06	74:52	3.7	2.7	3.0	2.7	
24	61C	102	69.0	81.0	66.0	80.0	63.0	78.0	1022	7.3	1.0	22								
25	51L	099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	26	103	61.0	72.0	76.0	72.0	73.4	73.8	48.5	3.7	0.7	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
27	27	104								DOD MISSION - DATA NOT AVAILABLE										
28	29	103	58.0	81.0	53.0	71.0	64.0	78.0	598	6.5	1.0	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
29	30	104	59.0	72.0	63.0	72.0	63.0	76.0	485	3.2	.8	10	49:02	73:00	23:58	3.4	2.7	2.96	2.64	

Legend: DDA = Data not available





ATMOSPHERIC REVITALIZATION SUBSYSTEM

Miss. Seq. No.	STS-Orb. OV-	Cabin Temperature Peaks				Cabin Partial Pressure of CO <sub>2</sub> (PPCO <sub>2</sub> )				Cabin Reduced Pressure Operations				PP0 <sub>2</sub> During 10.2	PP0 <sub>2</sub> During 10.2				
		Ascent		On-Orbit		Entry		Crew Person Hours	PPCO <sub>2</sub>		LiOH Canisters Used	Duration of 10.2 Paia Operations				Duration of 10.2 Paia Operations			
		Hx Air Out °F.	Cabin Air °F.	Hx Air Out °F.	Cabin Air Max. °F.	Cabin Air Min. °F.	Hx air Out °F.		Cabin Air °F.	Max. mmHg		Min. mmHg		Start MET h:m	End MET h:m	Duration h:m	Max. psi	Min. psi	Max. psi
45	42	103	74.5	76.0	84.5	72.5	63.5	78.0	1359.8	4.35	0.78	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
46	45	104	65.0	68.0	82.0	70.0	65.0	77.0	1499.2	7.6	1.05	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	49	105	67.0	69.5	83.0	72.5	63.5	74.5	1491.1	5.4	1.05	30	20:21	92:11	71:50	3.16	2.78	2.86	2.56
48	50	102	66.0	73.0	80.5	70.5	61.0	77.0	2320.5	7.25	0.65	22/RCRS	N/A	N/A	N/A	N/A	N/A	N/A	N/A
49	46	104	68.0	70.0	84.0	70.0	54.0	71.0	1338.7	6.05	0.72	27	126:16	130:57	4:41	3.8	2.85	2.85	2.75
50	47	105	55.0	71.0	84.0	76.5	62.0	76.0	1333.5	4.7	0.86	27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
51	52	102	68.0	74.0	85.0	72.8	69.0	80.0	1422.0	5.4	1.72	3/RCRS	N/A	N/A	N/A	N/A	N/A	N/A	N/A
52	53	103	64.0	69.0	80.0	69.8	60.0	80.0	875.0	7.60	0.78	17	N/A	N/A	N/A	N/A	N/A	N/A	N/A
53	54	105	72.0	75.0	80.0	65.0	51.0	74.0	715.0	3.50	0.68	20	70:53	125:53	55:00	3.18	2.6	3.4	2.55
54	56	103	72.5	69.5	82.8	69.8	65.0	71.0	1110.0	6.8	0.75	25	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	55	102	72.0	71.0	80.5	70.0	70.0	78.5	1676.5	6.0	1.25	12	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Legend: DNA = Data not available

Hx = Heat exchanger

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

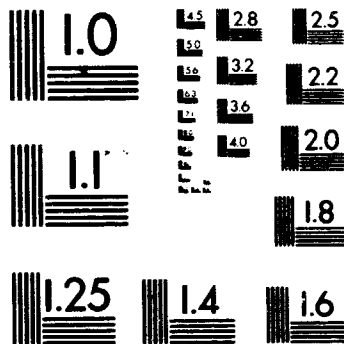
Miss. Seq. No.	STS No.	Orb. OV-	Supply Water Management Subsystem							Waste Management Subsystem							Remarks										
			Qty at Lift-off, lb	FC Prod lb	FES Use, lb	Crew Use, lb	Qty Dumped, lb	No. of Dumps	Qty at TD, lb	On-Orbit Qty Max., lb	On-Orbit Qty Min., lb	No. of Dumps	Total Waste Dumped lb	Dump 1		Dump 2		Dump 3		Dump 4							
1	1	102	876	704	635	27	261	2	657	901	724	2	26	Qty, lb	12	14.7	14	14.7	Qty, lb	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
2	2	102	882	625	704	16	287	2	500	865	701	0	0	Qty, lb	N/A	N/A	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
3	3	102	728	2260	1034	68	1422	9	464	920	566	0	0	Qty, lb	N/A	N/A	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
4	4	102	562	2006	587	83	1537	13	361	638	354	1	82	Qty, lb	82	14.7	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
5	5	102	507	1471	601	127	943	8	307	628	396	0	0	Qty, lb	N/A	N/A	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
6	6	099	483	1254	658	120	676	7	283	604	369	0	0	Qty, lb	N/A	N/A	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
7	7	099	450	1555	763	192	878	7	172	618	352	1	87	Qty, lb	87	14.7	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
8	8	099	480	1660	528	181	1133	10	298	635	388	1	29	Qty, lb	29	14.7	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
9	9	102	459	3249	1964	282	1075	18	387	612	374	1	49	Qty, lb	49	14.7	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	
10	41B	099	521	2258	1278	331	803	8	367	620	438	2	206	Qty, lb	129	10.2	77	10.2	Pres-sure, psia	10.2	10.2	Qty, lb	77	10.2	Pres-sure, psia	10.2	Ice formed on nozzle on both dumps.
11	41C	099	468	1833	639	310	1117	7	235	538	301	3	142	Qty, lb	69	10.2	48	10.2	Pres-sure, psia	10.2	10.2	Qty, lb	25	14.7	Pres-sure, psia	14.7	
12	41D	103	469	1740	1490	174	248	3	297	591	380	1	11	Qty, lb	11	14.7	N/A	N/A	Pres-sure, psia	N/A	N/A	Qty, lb	N/A	N/A	Pres-sure, psia	N/A	Ice formed on nozzle, RMS used to remove ice.
13	41G	099	526	2292	1269	395	791	9	363	628	416	4	276	Qty, lb	55	14.7	73	14.7	Pres-sure, psia	14.7	14.7	Qty, lb	82	14.7	Pres-sure, psia	14.7	

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss. Seq. No.	STS No.	Orb. OV-	Supply Water Management Subsystem							Waste Management Subsystem							Remarks								
			Qty at Lift-off, lb	FC Prod lb	FES Use, lb	Crew Use, lb	Qty Dumped, lb	No. of Dumps	Qty at TD, lb	On-Orbit Qty Max., lb	Min., lb	No. of Dumps	Total Dumped, lb	Dump 1 Qty, lb	Dump 1 Pres-sure, psia	Dump 2 Qty, lb		Dump 2 Pres-sure, psia	Dump 3 Qty, lb	Dump 3 Pres-sure, psia	Dump 4 Qty, lb	Dump 4 Pres-sure, psia			
15	51C	103																							
16	51D	103	540	2128	2107	272	0	289	604	437	3	145	40	14.7	47	14.7	58	14.7	N/A	N/A					
17	58B	099	585	2474	623	238	1820	378	631	445	2	111	63	14.7	48	14.7	N/A	N/A	N/A	N/A					
18	51G	103	493	1969	1266	386	433	377	600	388	3	275	62	14.7	76	14.7	137	14.7	N/A	N/A					
19	51F	099	543	2629	427	315	2103	327	593	388	3	239	73	14.7	80	14.7	86	14.7	N/A	N/A					
20	51I	103	525	1783	1692	222	21	373	571	350	2	197	73	14.7	124	14.7	N/A	N/A	N/A	N/A					
21	51J	104																							
22	61A	099	523	2444	668	290	1638	371	586	408	2	196	83	14.7	113	14.7	N/A	N/A	N/A	N/A					
23	61B	104	510	1807	935	230	746	406	604	420	3	189	50	14.7	63	10.2	76	14.7	N/A	N/A					
24	61C	102	475	1851	1325	240	433	328	617	408	2	201	112	14.7	89	14.7	N/A	N/A	N/A	N/A					
25	51L	099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
26	26	103	540	1028	842	161	163	382	611	446	1	32	32	14.7	N/A	N/A	N/A	N/A	N/A	N/A					
27	27	104																							
28	29	103	551	1234	1036	63	284	402	594	437	1	60	60	14.7	N/A	N/A	N/A	N/A	N/A	N/A					
29	30	104	532	1050	914	53	223	393	588	439	1	25	25	10.2	N/A	N/A	N/A	N/A	N/A	N/A					

# 3 OF 7

## N96-11129 UNCLAS



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss. Seq. No.	STS- No.	Orb. OV-	Supply Water Management Subsystem						Waste Management Subsystem						Remarks					
			Qty at Lift-off, lb	FC Prod lb	FES Use, lb	Crew Use, lb	Qty Dumped, lb	No. of Dumps	Qty at TD, lb	On-Orbit Qty	No. of Dumps	Total Waste Dumped, lb	Dump 1	Dump 2		Dump 3	Dump 4			
												Qty, lb	Presure, psia	Qty, lb	Presure, psia	Qty, lb	Presure, psia	Qty, lb	Presure, psia	
30	28	102																		
			DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE																	
31	34	104	599	1269	1104	132	271	3	362	576	447	0	0	0	0	0	0	0	0	0
32	33	103																		
			DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE																	
33	32	102	515	2753	1141	299	1511	14	317	601	377	2	143	0	104	0	0	0	0	0
34	36	104																		
			DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE																	
35	31	103	532	1344	825	152	485	4	414	613	424	1	91	0	0	0	0	0	0	0
36	41	103	579	1142	1128	105	64	1	424.4	622.1	431	1	37	14.7	0	0	0	0	0	0
37	38	104																		
			DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE																	
38	35	102	535	2876	2431	596.8	0	0	383.2	618.8	437	5	316.5	47.7	14.7	46.9	14.7	97.4	14.7	93
39	37	104	522	1617	1372	171	166	2	431	616	412	2	114	74	10.7	39	14.7	0	0	0
40	39	103	565	2832	954	397	1168	10	427	637	462	5	371	80	14.7	42	14.7	96	14.7	101
41	40	102	557	3019	1488	526	1167	13	395	630	438	4	350	100.3	14.7	88.9	14.7	61.9	14.7	101.9
42	43	104	518	2375	2099	286	100	2	408	623	410	4	265	60	14.7	64	14.7	64	14.7	102
43	48	103	591	1455	1001	167	582	5	296	600	281	1	125	125	14.7	0	0	0	0	0
44	44	104	526	1636	1095	287	392	4	388	604	425	3	238	80	14.7	75	14.7	83	14.7	0

C-3.

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss. Seq. No.	STS- No.	Orb. OV-	Supply Water Management Subsystem							Waste Management Subsystem							Remarks				
			Qty at Lift-off, lb	FC Prod lb	FES Use, lb	Crew Use, lb	Qty Dumped, lb	No. of Dumps	Qty at TD, lb	On-Orbit Qty	Max., lb	Min., lb	Total Dumped, lb	No. of Dumps	Qty, lb	Pressure, psia		Qty, lb	Pressure, psia	Qty, lb	Pressure, psia
45	42	103	591	2600	2569	241	0	0	382	646	368	99.7	14.7	74.8	14.7	0	0	0	0		
46	45	104	592	2579	2342	402	0	0	427	624	475	57	14.7	102	14.7	121	14.7	129	14.7		
47	49	105	494	2185	1701	439	2	2	427	627	423	84	10.2	124	10.2	119	10.2	0	0		
48	50	102	498	4994	4874	257	0	0	331	641	393	56	14.7	68	14.7	51	14.7	7.5	14.7		
49	46	104	500	2315	1889	355	1*	1*	112	627	363	107	0*	58	14.7	86	14.7			Water and waste tank depress to cabin press (DPO 0325).	
50	47	105	508	2513	2522	221	0	0	113	640	525	108	14.7	96	14.7						
51	52	102	542	2686	2416	192	1	1	434	648	433	69	14.7	23.5	14.7						
52	53	103	602	1847	969	256	7	7	339	623	425	96	14.7	104	14.7					Waste water dump 2 - simultaneous dump	
53	54	105	412	1581	1416	212	0	0	366	641	307	96	14.7								
54	56	103	581	2720	2482	368	1	1	415	646	435	48.5	14.7	122	14.7	129	14.7				
55	55	102	501	3136	1361*	297*	12	12	350	644	398	227									Waste water collected/dumped for CWC; therefore quantity is approximate.

APT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Time of sample, seconds	Pressure, torr	Constituents, Percent							Oxygen from air		H <sub>2</sub>	H <sub>2</sub> <sup>a</sup>	N <sub>2</sub>	
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured					
			STS-1												
1014	44	14,870 <sup>c</sup>	-	-	0.2	<0.05	-	-	-	-	2.2	0.2	Balance		
1027 <sup>b</sup>	74	44,800 <sup>c</sup>	-	-	0.3	<0.02	-	-	-	-	1.1	0.2	Balance		
1021	98	82,900 <sup>c</sup>	-	-	0.3	<0.6	-	-	-	-	2.4	0.9	Balance		
1034	104	93,500 <sup>c</sup>	-	-	0.2	<0.5	-	-	-	-	2.6	0.8	Balance		
1026	114	116,200 <sup>c</sup>	-	-	0.7	<2.0	-	-	-	-	3.8	4.6	Balance		
1043	114	116,200 <sup>c</sup>	-	-	0.5	<2.0	-	-	-	-	1.7	5.5	Balance		
STS-2 <sup>d</sup>															
1010	74	95.7	0.13	0.13	0.5	0.05	0.01	<0.03	-	-	2.6	0.7	Balance		
1020	104	8.3	0.11	0.11	0.5	0.5	0.15	0.17	-	-	4.3	5.8	Balance		
1028 <sup>b</sup>	114	1 atm	0.93	0.93	-	-	-	-	-	-	20.5	-	Balance		
STS-3															
1031 <sup>b</sup>	46	-	0.93	0.93	-	-	-	-	-	-	-	-	Balance		
1025	76	-	0.16	0.16	0.17	-	-	0.02	-	-	3.53	0.17	Balance		
1038	105	-	0.29	0.29	0.16	0.03	<0.02	0.13	-	-	6.45	0.50	Balance		
1035	62	-	0.08	0.08	0.19	0.26	0.06	0.01	-	-	1.65	0.23	Balance		
1018	76	-	0.16	0.16	0.18	<0.02	<0.02	0.02	-	-	3.64	0.83	Balance		
1045	120	-	0.22	0.22	0.28	0.04	<0.02	0.20	-	-	4.7	2.56	Balance		
STS-4															
1029	44	363.2	0.04	4.30	0.49	<0.02	<0.02	<0.02	-	-	0.90	0.04	Balance		
1044	74	101	0.16	17.35	0.33	0.03	<0.02	<0.02	-	-	3.64	0.13	Balance		
1041	101	11.9	0.22	23.50	0.48	0.26	0.06	0.26	-	-	4.92	0.69	Balance		
1023	60	222.5	0.06	6.14	0.33	<0.02	<0.02	<0.02	-	-	1.29	0.40	Balance		
1032	74	98.1	0.14	15.13	0.43	0.04	<0.02	<0.02	-	-	3.16	0.50	Balance		
1037	114	3.7	0.19	20.35	0.51	0.23	0.08	0.04	-	-	4.27	2.55	Balance		
STS-5 <sup>e</sup>															
1011	59	222	0.15	16.10	0.29	<0.01	<0.01	0.04	-	-	3.37	0.29	Balance		
1012	74	103	0.16	16.98	0.36	0.88	0.06	0.16	-	-	3.56	0.77	Balance		
1017	114	3.8	0.23	24.41	0.86	0.80	0.14	0.05	-	-	5.11	1.58	Balance		
Flight Readiness Firing															
1023	16	-	0.013	-	1.3	-	-	0.01	-	-	0.013	0.02	Balance		
1039	25.3	-	0.013	-	1.14	-	-	0.01	-	-	0.024	0.03	Balance		
1029	80	-	0.012	-	-	-	-	0.01	-	-	0.01	0.21	Balance		
1032	16	-	0.013	-	0.94	-	-	0.01	-	-	0.030	0.67	Balance		
1033	25.3	-	0.012	-	1.71	-	-	0.01	-	-	0.060	0.49	Balance		
1037	80	-	0.012	-	-	-	-	0.01	-	-	0.05	0.24	Balance		

<sup>a</sup> Corrected for pyrotechnic ingestion

<sup>b</sup> Sample bottles leaked between time sampled at KSC and sampling at JSC.

<sup>c</sup> Altitude in feet

<sup>d</sup> Pyrotechnic trigger device failure caused the loss of three samples.

<sup>e</sup> Flew one assembly only



AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Time of sample, seconds	Pressure, torr	Constituents, Percent							Oxygen from air		H <sub>2</sub>	H <sub>2</sub> <sup>a</sup>	N <sub>2</sub>
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured				
			STS-6											
107	59	237	0.09	9.64	0.96	< 0.01	< 0.01	0.02	2.02	1.71	0.13	0.13	Balance	
103	73	115	0.12	12.85	1.04	0.03	< 0.01	0.04	2.69	2.42	0.43	0.42	Balance	
104	116	6.7	0.35	37.47	1.25	0.46	0.06	0.49	7.85	7.35	1.46	1.24	Balance	
106	74	113	0.15	16.06	0.56	0.03	< 0.01	0.02	3.36	2.96	0.14	0.13	Balance	
105	82	63	0.13	13.92	0.62	0.02	< 0.01	0.02	2.92	2.54	0.26	0.25	Balance	
101	101	11.4	0.19	20.34	0.82	0.60	0.05	0.35	4.26	3.77	0.80	0.52	Balance	
STS-7														
111	59	227.6	0.09	9.41	0.56	< 0.01	< 0.01	0.02	1.97	1.88	0.09	0.09	Balance	
1102 <sup>b</sup>	73	104.1	0.11	11.83	0.69	0.06	0.01	0.04	2.48	2.32	0.25	0.22	Balance	
1113 <sup>a</sup>	116	3.81	0.18	19.29	0.85	1.10	0.08	0.32	4.04	3.57	2.68	2.16	Balance	
108	73	103.9	0.11	11.78	0.72	0.07	0.01	0.04	2.47	2.20	0.17	0.14	Balance	
109 <sup>b</sup>	81	57.5	0.11	11.77	0.69	3.22	0.20	0.29	2.47	2.30	1.77	0.29	Balance	
110 <sup>b</sup>	103	9.4	0.11	11.78	1.03	0.58	0.05	0.19	2.47	2.20	1.62	1.35	Balance	
STS-8														
1117	59	772	0.93	99.8	0.19	< 0.01	< 0.01	< 0.01	20.73	20.91	< 0.01	< 0.01	Balance	
1119	73	73.4	0.12	13.01	0.58	0.08	< 0.01	0.03	2.69	2.73	0.25	0.21	Balance	
1114	116	3.24	0.12	12.85	0.65	1.12	0.06	0.60	2.69	1.99	4.63	4.10	Balance	
1115	74	80.8	0.16	17.13	0.65	0.07	0.01	0.06	3.59	3.46	0.14	0.11	Balance	
1118	82	46.5	0.15	16.06	0.71	0.36	0.03	0.02	3.36	3.28	0.29	0.12	Balance	
1116	101	8.46	0.20	21.41	0.82	0.70	0.04	0.05	4.49	4.31	0.61	0.28	Balance	
STS-9 <sup>c</sup>														
1123	59	189	0.13	13.92	0.22	0.03	< 0.01	0.04	2.92	2.64	0.04	0.03	Balance	
1122	73	71	0.18	19.27	0.25	0.21	0.01	0.06	4.03	3.77	0.13	0.03	Balance	
1121 <sup>b</sup>	116	2.8	0.12	12.85	0.23	0.95	0.14	0.52	2.69	1.81	0.63	0.18	Balance	
1125	74	77	0.15	16.06	0.23	0.13	0.04	0.06	3.36	2.98	0.08	0.02	Balance	
1120	82	781	0.93	100.	0.15	< 0.01	< 0.01	0.05	20.95	20.95	0	0	Balance	
1013	101	417	0.78	83.51	0.15	0.30	0.06	0.08	17.50	17.00	0.17	0.03	Balance	
STS-418														
1132	74	764	Bottle leaked through valve, not fully closed							3.74	3.26	0.21	0.13	Balance
1134	82	50	0.16	17.82	0.72	0.17	0.02	0.04	3.49	2.63	2.26	0.96	Balance	
1135 <sup>b</sup>	116	3.8	0.16	16.64	0.84	2.75	0.15	0.07	3.36	2.92	0.04	0.04	Balance	
1127	60	217	0.16	16.80	0.48	0.03	< 0.01	0.01	2.98	2.54	0.09	0.03	Balance	
1136	75	92	0.13	14.21	0.58	0.12	0.01	0.01	2.98	2.92	0.09	0.04	Balance	
1130	103	12	0.37	39.81	0.85	0.44	0.04	0.04	8.34	7.15	0.35	0.14	Balance	

<sup>a</sup> Corrected for pyrotechnic ingestion

<sup>b</sup> Traces of Benzene and Toluene

<sup>c</sup> Ammonia = < 0.01 percent in all bottles

AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Time of sample, seconds	Pressure, torr	Constituents, Percent								Oxygen from air		H <sub>2</sub> <sup>a</sup>	N <sub>2</sub>
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured	H <sub>2</sub>			
			STS-51D											
1171 <sup>c</sup>	59	Atmos.	0.93	100.	Pyrotechnic valve was in the open position						2.63	0.02	<0.01	Balance
1174	73	97.4	0.13	13.92	0.21	0.05	<0.01	0.03	2.92					Balance
1163 <sup>c</sup>	116	Atmos.	0.93	100.	Pyrotechnic valve was in the open position						2.51	0.03	<0.01	Balance
1166	74	97.9	0.12	12.85	0.24	0.07	<0.01	0.02	2.69					Balance
1173 <sup>c</sup>	82	Atmos.	0.93	100.	Pyrotechnic valve was in the open position						8.13	0.53	0.41	Balance
1162	101	11.7	0.40	42.83	0.31	0.26	0.03	0.01	8.97					Balance
STS-51B														
1166 <sup>d</sup>	60	769	0.94	100.	Leak at the thermocouple gauge						1.72	0.59	0.55	Balance
1183	73	101.9	0.09	9.56	0.34	0.09	<0.01	0.09	2.00		1.72	0.59	0.55	Balance
1172 <sup>b</sup>	116	4.1	0.08	8.56	0.45	1.56	0.06	1.65	1.79		1.06	3.34	2.60	Balance
1169 <sup>d</sup>	73	770	0.94	100	Leak at the thermocouple gauge						2.59	0.20	0.13	Balance
1175	81	56.5	0.13	13.92	0.33	0.14	0.01	0.12	2.92		3.34	1.36	1.06	Balance
1176 <sup>b</sup>	103	8.4	0.17	18.20	0.55	0.63	0.05	0.60	3.81					Balance
STS-51G														
1180	74	83.8	0.11	11.27	0.31	0.10	<0.01	0.09	2.36		2.18	0.03	-0.02	Balance
1178 <sup>b</sup>	82	43.4	0.11	12.19	0.34	0.63	0.02	0.19	2.55		2.31	0.22	-0.08	Balance
1185 <sup>b</sup>	101	6.7	0.22	23.92	0.54	1.42	0.13	1.01	5.01		4.66	1.01	0.43	Balance
1181	59	190	0.14	15.25	0.21	0.05	<0.01	0.05	3.19		2.90	0.02	0.00	Balance
1184 <sup>b</sup>	73	83.9	0.17	17.99	0.28	0.10	<0.01	0.10	3.77		3.39	0.04	-0.01	Balance
1179 <sup>b</sup>	116	7.6	0.09	9.86	0.11	24.54	0.61	4.15	2.07		1.75	15.10	3.50	Balance
STS-51F														
1205	74	81.5	0.17	18.20	0.19	0.06	<0.01	0.07	3.81		3.43	0.18	0.15	Balance
1213	82	41.4	0.16	17.13	0.22	0.30	0.01	0.23	3.59		3.17	0.46	0.32	Balance
1214 <sup>b</sup>	103	8.2	0.23	24.63	0.32	0.63	0.09	0.68	5.16		4.99	2.45	2.15	Balance
1207	60	203	0.12	12.85	0.14	0.06	<0.01	0.11	2.69		2.68	0.45	0.17	Balance
1204 <sup>b</sup>	73	88.8	0.16	17.13	0.16	0.60	0.01	0.32	3.59		3.38	0.70	0.42	Balance
1211 <sup>b</sup>	116	3.31	0.09	9.64	0.26	1.62	0.23	1.66	2.02		1.45	4.46	3.69	Balance
STS-51I														
1208	59	175.3	0.13	13.92	0.16	0.02	<0.01	0.05	2.92		2.91	0.03	0.03	Balance
1203	73	66.5	0.09	9.64	0.22	0.01	<0.01	0.04	2.02		1.99	0.06	0.06	Balance
1164 <sup>b</sup>	115	2.8	0.06	6.42	0.23	0.04	<0.01	0.05	1.34		0.80	1.77	1.75	Balance
1209	74	87.3	0.32	34.26	0.17	1.17	0.03	0.30	7.18		6.79	0.60	0.05	Balance
1170	82	36.0	0.16	17.13	0.24	0.07	<0.01	0.03	3.59		3.52	0.19	0.16	Balance
1215 <sup>b</sup>	101	6.2	0.25	26.77	0.46	1.10	0.07	1.05	5.61		5.34	0.85	0.33	Balance

<sup>a</sup>Corrected for pyrotechnic ingestion  
<sup>b</sup>Traces of Benzene and Toluene  
<sup>c</sup>Pyrotechnic valve in open position  
<sup>d</sup>Leak at thermocouple gauge

AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Time of sample, seconds	Pressure, torr	Constituents, Percent							N <sub>2</sub>			
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Oxygen from air				
									Expected		Measured		
STS-41C													
1131	59	235.0	0.53	56.75	0.22	0.01	<0.01	0.01	11.89	11.70	0.01	0.01	Balance
1129	73	72.2	0.11	11.78	0.49	0.13	0.01	0.02	2.47	2.17	0.12	0.06	Balance
1133	116	767	0.93	100	Valve failed to close				21	21	ND	ND	Balance
1124	74	80.2	0.12	12.84	0.51	0.06	0.01	0.02	2.69	2.30	0.10	0.07	Balance
1126 <sup>b</sup>	82	45.2	0.79	84.58	0.18	0.13	0.01	0.03	17.72	17.45	0.03	<0.01	Balance
1128 <sup>b</sup>	101	39.3	0.13	13.92	0.51	0.15	0.01	0.02	2.92	2.73	0.12	0.05	Balance
STS-41D													
1140	60	192.6	0.07	7.15	0.11	0.01	0.01	0.02	1.50	1.42	0.01	0.01	Balance
1137	74	86.1	0.06	6.01	0.12	0.01	0.01	0.02	1.26	1.22	0.02	0.02	Balance
1141	116	744.3	0.88	93.72	0.15	0.01	<0.01	0.04	19.72	18.21	<0.01	<0.01	Balance
1138 <sup>b</sup>	74	85.8	0.10	10.85	0.13	0.01	0.01	0.02	2.27	1.88	0.02	0.02	Balance
1139 <sup>c</sup>	82	774	0.93	99.40	0.36	<0.01	<0.01	0.04	20.60	19.31	<0.01	<0.01	Balance
1142	101	233.0	0.36	92.11	0.07	0.01	0.01	0.04	19.30	18.14	0.01	0.01	Balance
STS-41G													
1144 <sup>d</sup>	59	776	0.90	96.23	3.77	<0.01	<0.01	0.04	20.15	20.15	<0.01	<0.01	Balance
1147 <sup>e</sup>	73	767	0.93	100	<0.01	<0.01	0.04	0.04	20.90	20.90	<0.01	<0.01	Balance
1148	116	2.8	0.08	8.48	0.68	2.16	0.13	0.08	1.78	1.54	0.45	-0.57	Balance
1145 <sup>d</sup>	74	775	0.92	98.75	1.25	<0.01	<0.01	0.04	20.68	20.68	<0.01	<0.01	Balance
1149 <sup>d</sup>	82	455	0.89	95.0	0.23	<0.01	<0.01	0.04	19.90	19.70	<0.01	<0.01	Balance
1146	101	7.5	0.18	19.43	1.36	0.70	0.07	0.03	4.07	5.38	0.21	-0.12	Balance
STS-51A													
Data not available													
STS-51C													
1159	60	536.7	0.84	90.11	0.49	<0.01	<0.01	0.03	16.88	14.71	<0.01	<0.01	Balance
1165 <sup>b</sup>	74	99.1	0.06	6.83	0.27	0.01	<0.01	0.04	1.43	1.53	0.02	0.02	Balance
1158	117	238.8	0.89	96.20	2.30	<0.01	<0.01	0.04	19.93	15.64	<0.01	<0.01	Balance
1157 <sup>b</sup>	74	96.8	0.06	6.76	0.27	0.02	<0.01	0.02	1.41	1.73	0.02	0.02	Balance
1161 <sup>c</sup>	82	207.3	0.83	88.56	0.67	0.03	<0.01	0.02	18.55	13.89	<0.01	<0.01	Balance
1160 <sup>b</sup>	105	8.4	0.30	32.14	0.57	0.24	0.04	0.03	6.73	4.71	0.48	0.37	Balance

<sup>a</sup> Corrected for pyrotechnic ingestion

<sup>b</sup> Traces of Benzene and Toluene

<sup>c</sup> Broken thermocouple base pressure tested - leaked through thermocouple

<sup>d</sup> Valve did not close (room pressure)

<sup>e</sup> 1,1,1 Trichloroethane and Xylene contaminant found. Approximate concentration = 0.01 percent.

AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Time of sample, seconds	Pressure, torr	Constituents, Percent								Oxygen from air		H <sub>2</sub>	H <sub>2</sub> <sup>a</sup>	N <sub>2</sub>
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured					
			STS 51-J								STS 51-J				
1191	74	72	0.12	12.85	0.23	0.03	<0.01	0.08	2.69	2.52	0.08	0.06	Balance		
1197	82	38.4	0.11	11.78	0.43	0.35	<0.01	0.21	2.47	2.43	0.31	0.10	Balance		
1210	101	6.6	0.13	14.35	0.37	0.85	0.12	0.90	3.01	2.80	0.47	<0.01	Balance		
1188	59	188	0.11	12.10	0.18	0.02	<0.01	0.03	2.53	2.50	0.03	0.03	Balance		
1201	73	73.4	0.11	11.78	0.23	0.08	<0.01	0.11	2.47	2.25	0.10	0.05	Balance		
1186 <sup>c</sup>	116	768	0.93	100	<0.01	<0.01	<0.01	<0.01	20.95	20.95	<0.01	<0.01	Balance		
STS 61-A															
1199	59	770	0.93	100	<0.01	<0.01	<0.01	0.05	20.95	20.95	<0.01	<0.01	Balance		
1212 <sup>b</sup>	73	89.5	0.07	7.49	0.38	0.06	<0.01	0.08	1.57	1.51	0.40	0.36	Balance		
1219 <sup>b</sup>	116	4.3	0.27	28.91	0.46	1.67	0.02	1.51	6.06	6.05	2.05	1.06	Balance		
1206	74	88	0.09	9	0.39	0.04	<0.01	0.09	2.02	2.00	0.11	0.09	Balance		
1216	81	284	0.74	71	0.18	0.18	<0.01	0.08	16.50	16.56	0.05	0.04	Balance		
1200 <sup>b</sup>	102	7.8	0.16	17.13	0.52	0.86	0.10	1.00	3.59	3.48	3.03	2.52	Balance		
STS 61-B															
1221	73	81.2	0.15	16.06	0.23	0.04	<0.01	0.06	3.36	3.25	0.04	0.02	Balance		
1224	81	45.0	0.16	17.29	0.34	0.40	0.01	0.17	3.62	3.61	0.28	0.04	Balance		
1232	102	8.5	0.21	22.48	0.68	0.63	0.03	0.65	4.71	4.56	0.46	0.09	Balance		
1193	60	191.6	0.15	16.06	0.26	0.03	<0.01	0.05	3.36	3.15	0.02	0.02	Balance		
1223	74	82.1	0.12	12.84	0.36	0.04	<0.01	0.06	2.69	2.50	0.12	0.10	Balance		
1222 <sup>b</sup>	116	3.95	0.34	36.40	1.14	1.01	0.05	1.28	7.63	7.11	1.35	0.75	Balance		
STS 61-C															
1235	73	91.8	0.20	21.41	0.41	0.03	<0.01	0.07	4.49	4.42	0.04	0.02	Balance		
1229	81	52.9	0.20	21.41	0.50	0.29	<0.01	0.13	4.49	4.23	0.12	0.04	Balance		
1228	102	12.3	0.32	34.26	0.50	0.27	0.03	0.40	7.8	7.04	0.22	0.06	Balance		
1227	60	221.0	0.18	19.27	0.35	<0.01	<0.01	0.03	4.04	3.94	0.02	0.02	Balance		
1231	74	91.4	0.19	20.34	0.39	0.04	<0.01	0.08	4.26	3.98	0.05	0.03	Balance		
1234	116	12.2	0.58	62.10	0.84	0.38	0.06	0.79	13.01	12.80	0.31	0.08	Balance		
STS 51-L															
							NO	DATA							

<sup>a</sup>Corrected for pyrotechnic ingestion  
<sup>b</sup>Traces of Benzene and Toluene  
<sup>c</sup>Spool valve open to atmosphere

AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Time of sample, seconds	Pressure, torr	Constituents, Percent							Oxygen from air		H <sub>2</sub>	H <sub>2</sub> <sup>a</sup>	N <sub>2</sub>
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured				
			STS-26											
1202	59	209	0.11	11.78	0.65	0.04	<0.01	0.05	2.47	2.47	0.05	0.03	Balance	
1239d	74	772	0.93	98.50	1.01	0.01	<0.01	0.05	20.64	21.30	0.02	0.02	Balance	
1247	116	5.28	0.41	43.90	3.73	1.49	0.15	0.98	9.21	9.21	0.87	0.07	Balance	
1248b	75	772	Spool failed to close completely - Air only											
1244c			Pyrotechnics did not ignite											
1236c			Pyrotechnics did not ignite											
			STS-27											
1265	75	84.9	0.17	18.2	0.69	0.12	0.01	0.03	3.81	3.80	0.09	0.03	Balance	
1250d	59	771	0.88	94.2	0.60	0.04	<0.01	0.04	19.74	19.70	0.04	0.02	Balance	
1262b	82	771	0.93	99.2	<0.01	0.41	0.01	0.07	20.78	20.78	0.13	<0.01	Balance	
1266	74	83.2	0.16	17.1	0.92	0.10	0.01	0.03	3.59	3.56	0.09	0.04	Balance	
1261	102	8.7	0.20	21.4	1.96	0.76	0.04	0.11	4.49	4.50	0.49	0.08	Balance	
1264	116	3.3	0.18	19.3	1.99	1.50	0.07	0.36	3.47	3.40	0.95	0.14	Balance	
			STS-29											
1278	59	519.3	0.61	65.31	0.51	0.02	<0.01	0.04	13.68	13.70	0.08	0.07	Balance	
1268	75	100.3	0.12	12.85	0.77	0.04	0.01	0.03	2.69	2.95	0.11	0.09	Balance	
1273	74	98.7	0.14	14.99	0.85	0.05	0.01	0.08	3.14	3.12	0.23	0.20	Balance	
1276	82	60.0	0.12	12.85	1.0	0.51	0.01	0.03	2.69	2.76	0.48	0.20	Balance	
1272	102	10.5	0.13	13.97	1.17	0.89	0.03	0.13	2.93	2.98	1.11	0.63	Balance	
1267	116	3.8	0.11	11.78	2.39	2.21	0.12	0.34	2.47	2.49	1.92	0.73	Balance	
			STS-30											
1285	TBS	501.6	0.81	86.72	0.43	<0.01	<0.01	0.06	18.17	17.8	0.01	0.01	Balance	
1284	TBS	201.6	0.23	24.63	0.40	0.02	<0.01	0.03	5.16	5.20	0.03	0.02	Balance	
1286	TBS	87.7	0.51	54.60	0.64	0.11	0.02	0.08	11.44	11.73	0.14	0.08	Balance	
1279	TBS	96.50	0.28	29.98	0.94	0.05	0.01	0.07	6.28	6.15	0.10	0.07	Balance	
1281	TBS	8.7	0.26	27.84	1.70	0.82	0.03	0.40	5.83	5.86	0.62	0.18	Balance	
1288	TBS	265.0	0.89	95.29	0.38	0.05	<0.01	0.07	19.96	19.28	0.07	0.04	Balance	

<sup>a</sup>Corrected for pyrotechnic ingestion

<sup>b</sup>Spool failed to close completely

<sup>c</sup>Pyrotechnics did not ignite

<sup>d</sup>The helium and hydrogen levels indicate a small leak to atmospheric pressure between landing and analysis

APT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Position	Pressure, torr	Constituents, Percent							Oxygen from air		Corrected H <sub>2</sub>	M <sub>2</sub>
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured	H <sub>2</sub>		
STS-28													
1293	1 LEFT	733.5	0.91	97.43	0.60	0.06	<0.01	0.46	20.41	20.62	0.03	<0.01	N/A
1280	1 RIGHT	186.6	0.15	17.13	0.53	0.06	<0.01	0.05	3.35	3.41	0.08	0.05	N/A
1275	2 LEFT	37.1	0.19	20.34	0.68	1.11	0.03	0.12	4.26	4.32	0.80	0.37	N/A
1282	2 RIGHT	688.3	0.92	98.50	0.16	<0.01	<0.01	0.05	20.63	19.93	0.03	0.03	N/A
1283	3 LEFT	78.2	0.83	88.90	0.57	0.08	<0.01	0.08	18.62	18.87	0.10	0.06	N/A
1292	3 RIGHT	11.6	0.66	70.66	2.02	0.72	0.20	0.42	14.80	14.41	0.55	0.21	N/A
STS-34													
289	1 LEFT	64.3	0.13	13.9	0.95	0.63	0.04	0.16	2.92	2.91	1.04	0.70	N/A
297	1 RIGHT	403.0	0.62	66.4	0.51	0.05	<0.01	0.06	13.91	13.92	0.04	0.01	N/A
296	2 LEFT	664.0	0.85	91.1	0.53	0.05	<0.01	0.07	19.06	19.04	0.04	0.01	N/A
301	2 RIGHT	82.0	0.15	16.1	1.26	0.15	<0.01	1.20	3.36	3.33	0.14	0.06	N/A
295	3 LEFT	8.4	0.32	34.3	1.49	0.77	0.04	1.02	7.18	7.10	0.51	0.09	N/A
291	3 RIGHT	363.0	0.93	99.5	0.53	0.05	0.01	0.08	20.86	20.90	<0.01	<0.01	N/A
STS-33													
315	1 LEFT	777.0	0.89	97.4	0.7	0.04	<0.01	0.05	19.96	20.30	0.03	0.01	N/A
311	1 RIGHT	225.7	0.14	14.99	0.61	0.04	<0.01	0.05	3.14	3.13	0.12	0.10	N/A
314	2 LEFT	571.0	0.83	88.9	0.49	0.03	<0.01	0.05	18.60	18.60	0.04	0.02	N/A
312	2 RIGHT	132.2	0.34	36.4	1.34	0.08	<0.01	0.07	7.63	8.13	0.33	0.29	N/A
310	3 LEFT	785.9	0.87	93.15	0.69	0.04	<0.01	0.05	19.51	19.49	0.02	<0.01	N/A
300	3 RIGHT	3.61	0.22	24.4	3.26	3.30	0.10	1.94	4.49	4.49	4.59	2.81	N/A
STS-32													
1322	1 RIGHT	197.3	0.14	15.0	0.69	0.06	<0.01	0.06	3.14	3.15	0.07	0.04	N/A
1304	2 RIGHT	75.0	0.14	15.00	1.60	0.10	<0.01	0.10	3.14	3.41	0.12	0.07	N/A
1313 <sup>a</sup>	3 RIGHT	3.0	0.14	15.0	6.24	3.17	0.12	2.40	3.14	3.10	3.71	2.00	N/A
1309R	1 LEFT	Assembly failed to operate during ascent											
1321	2 LEFT	Assembly failed to operate during ascent											
1317	3 LEFT	Assembly failed to operate during ascent											
STS-36													
1329 <sup>b</sup>	1 LEFT	778.0	0.93	99.10	0.64	<0.01	<0.01	0.04	20.90	20.90	0.02	0.02	N/A
1307 <sup>b</sup>	1 RIGHT	778.0	0.93	99.40	0.34	<0.01	<0.01	0.04	20.90	20.90	0.07	0.07	N/A
1308 <sup>b</sup>	2 LEFT	378.3	0.85	91.00	0.44	0.15	<0.01	0.07	19.10	19.10	0.15	0.08	N/A
1330 <sup>a,b</sup>	2 RIGHT	144.4	0.51	54.60	0.64	0.07	<0.01	0.07	11.40	11.50	0.12	0.08	N/A
1323 <sup>b</sup>	3 LEFT	159.7	0.84	89.90	0.83	0.07	0.01	0.08	18.80	18.60	0.15	0.11	N/A
1316 <sup>b</sup>	3 RIGHT	186.4	0.88	94.20	0.60	0.06	<0.01	0.07	19.70	19.60	0.09	0.06	N/A

<sup>a</sup>Traces of Benzene and Toluene

AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Position	Pressure, torr	Constituents, Percent							Oxygen from air		Corrected H <sub>2</sub>	N <sub>2</sub>
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured	H <sub>2</sub>		
1325	1 LEFT	368.3	0.92	98.5	0.43	0.04	<0.01	0.05	20.64	20.60	0.17	0.15	N/A
1302	1 RIGHT	776.0	0.93	99.5	0.50	0.01	<0.01	0.04	20.86	20.86	0.01	0.01	N/A
1339	2 LEFT	776.0	0.93	99.5	0.48	<0.01	<0.01	0.04	20.86	20.86	0.02	0.02	N/A
1335	2 RIGHT	253.0	0.65	69.6	0.56	0.03	<0.01	0.04	14.58	14.58	0.16	0.14	N/A
1319	3 LEFT	9.6	0.17	18.2	1.41	0.80	0.03	0.71	3.81	3.80	3.34	2.91	N/A
1320	3 RIGHT	230.8	0.92	98.5	0.29	0.05	<0.01	0.06	20.64	20.63	0.14	0.11	N/A
1338	1 RIGHT	776.0	0.80	85.65	0.75	0.03	<0.01	0.04	17.94	17.45	0.06	0.04	N/A
1340	1 LEFT	101.9	0.22	23.55	1.05	0.12	0.01	0.07	4.93	4.95	0.93	0.87	N/A
1326	2 RIGHT	Atmosphere	Bad leak through spool										
1306	2 LEFT	70.6	0.32	34.26	1.09	0.11	0.01	0.08	7.18	7.19	1.37	1.31	N/A
1332	3 LEFT	Atmosphere	Leak through spool										
1305	4 RIGHT	3.44	0.19	20.34	5.66	1.68	0.03	1.03	4.21	4.31	6.21	5.30	N/A
1353	1 RIGHT	308.7	0.51	54.60	0.33	0.05	<0.01	0.03	11.40	11.50	0.03	0.00	N/A
1328	1 LEFT	783	0.92	98.50	1.33	0.10	<0.01	0.05	20.6	20.70	0.05	0.00	N/A
1334	2 RIGHT	132.8	0.52	55.69	0.96	0.11	<0.01	0.08	11.66	11.58	0.18	0.12	N/A
1324	2 LEFT	47.53	0.27	28.90	0.60	0.19	0.01	0.17	6.05	6.01	0.17	0.07	N/A
1337	3 LEFT	565.7	0.89	95.30	0.48	0.03	<0.01	0.05	19.96	19.56	0.04	0.02	N/A
1290	3 RIGHT	287.44	0.88	94.22	0.88	0.06	<0.01	1.07	19.74	19.74	0.08	0.05	N/A
1349	1 RIGHT	199.4	0.20	21.41	0.52	0.04	<0.01	0.03	4.49	4.49	0.03	0.01	N/A
1345	1 LEFT	92.4	0.24	25.70	0.51	0.15	<0.01	0.07	5.38	5.36	0.11	0.03	N/A
1347	2 RIGHT	574.8	0.85	91.01	0.37	0.03	<0.01	0.05	19.07	19.06	0.03	0.01	N/A
1346	2 LEFT	111.2	0.71	76.02	0.34	0.13	<0.01	0.06	15.93	15.87	0.12	0.05	N/A
1352	3 LEFT	12.2	0.42	45.00	0.86	0.74	0.02	0.26	9.42	9.38	0.46	0.06	N/A
1350	3 RIGHT	28.4	0.82	87.80	0.67	0.32	0.01	0.17	18.39	18.37	0.32	0.15	N/A
1303	1 RIGHT	774.0	0.83	88.87	0.61	0.02	<0.01	0.03	18.62	18.52	0.02	0.01	N/A
1365	1 LEFT	129.9	0.39	41.75	0.50	0.06	<0.01	0.05	8.75	8.81	0.06	0.03	N/A
1343	2 RIGHT	652.8	0.83	88.87	0.17	0.01	<0.01	0.04	18.62	18.56	0.01	0.01	N/A
1327	2 LEFT	46.1	0.14	14.99	0.71	0.26	0.01	0.17	3.14	3.21	0.25	0.11	N/A
1344	3 LEFT	30.6	0.30	32.12	0.48	18.90	0.23	1.77	6.73	6.73	10.85	0.64	N/A
1348	3 RIGHT	3.6	0.26	27.84	6.53	2.34	0.10	1.04	5.83	5.99	1.77	0.51	N/A

<sup>a</sup>No. 2 right bottle was lost  
<sup>b</sup>Laboratory thinks bottles had a slow leak after landing

AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Position	Pressure, torr	Constituents, Percent							Oxygen from air		Corrected H <sub>2</sub>	N <sub>2</sub>
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured			
			STS-39										
1369	1 RIGHT	243.5	0.40	42.83	0.60	0.03	<0.01	0.06	8.97	8.93	0.05	0.03	N/A
1351	1 LEFT	108.9	0.32	34.26	0.73	0.10	<0.01	0.11	7.18	7.21	0.09	0.04	N/A
1341	2 RIGHT	560.3	0.87	93.15	0.87	0.03	<0.01	0.07	19.51	19.45	0.03	0.01	N/A
1361	2 LEFT	49.8	0.16	17.13	1.00	0.60	0.04	0.15	3.59	3.65	0.78	0.46	N/A
1367	3 LEFT	25.2	0.64	68.52	1.19	0.34	0.03	0.18	14.36	14.42	0.23	0.05	N/A
1354	3 RIGHT	198.6	0.87	93.15	0.59	0.01	<0.01	0.05	19.51	19.57	0.01	0.01	N/A
STS-40													
1363	1 RIGHT	199.80	0.14	14.99	0.76	0.08	<0.01	0.05	3.14	3.14	0.08	0.04	N/A
1366	1 LEFT	175.00	0.50	53.53	0.19	0.05	<0.01	0.05	11.22	11.43	0.05	0.02	N/A
1364**	2 RIGHT	775.00	0.93	99.57	0.40	<0.01	<0.01	0.07	20.86	20.81	0.01	0.01	N/A
5008	2 LEFT	48.68	0.24	25.70	0.54	0.30	<0.01	0.14	5.38	5.36	0.20	0.04	N/A
5010	3 LEFT	12.21	0.39	41.76	0.66	1.10	<0.01	0.34	8.75	8.78	0.70	0.11	N/A
5009**	3 RIGHT	26.67	0.87	93.15	0.59	0.26	<0.01	0.24	19.51	19.53	0.21	0.07	N/A
STS-43													
1362	1 RIGHT	198.60	0.21	22.48	0.46	0.06	0.01	0.06	4.71	4.74	0.11	0.08	N/A
1375	1 LEFT	752.90	0.93	99.57	0.52	0.01	0.01	0.06	20.86	20.90	<0.01	<0.01	N/A
1376	2 RIGHT	84.00	0.20	21.41	0.55	0.19	0.01	0.05	4.45	4.45	0.19	0.09	N/A
1372	2 LEFT	477.70	0.90	96.36	0.25	0.01	0.01	0.06	20.29	20.29	0.01	<0.01	N/A
1371	3 LEFT	34.40	0.79	84.58	0.33	0.45	0.01	0.13	17.69	17.72	0.19	<0.01	N/A
5001	3 RIGHT	4.9	0.38	40.69	1.97	2.86	0.09	0.97	8.36	8.36	1.25	<0.01	N/A
STS-46													
1359	1 RIGHT	295.30	0.33	35.3	0.46	0.04	0.02	0.05	7.40	8.7	0.03	0.01	N/A
1355	1 LEFT	767.30	0.94	100.	<0.01	0.04	0.02	0.06	21.5	21.1	<0.01	<0.01	N/A
5006	2 RIGHT	767.40	0.87	93.1	0.45	<0.01	0.02	0.04	19.5	21.3	<0.01	<0.01	N/A
5013	2 LEFT	697.4	0.90	96.4	0.81	0.03	0.02	0.04	20.2	21.1	0.03	0.02	N/A
5003	3 LEFT	767.3	0.91	97.4	0.46	<0.01	0.03	0.04	20.4	21.9	0.01	0.01	N/A
5002	3 RIGHT	765.4	0.91	97.4	0.46	<0.01	0.02	0.04	20.4	21.9	<0.01	<0.01	N/A
STS-44													
1358	1 RIGHT	782.1	0.92	98.5	0.33	0.50	<0.01	0.10	20.64	20.47	0.29	0.02	N/A
1368	1 LEFT	108.6	0.23	24.63	0.59	0.05	<0.01	0.05	5.16	5.21	0.07	0.04	N/A
1373	2 RIGHT	91.1	0.14	14.99	0.92	0.09	<0.01	0.05	3.14	3.15	0.08	0.03	N/A
1356	2 LEFT	262.1	0.76	81.37	0.63	0.05	<0.01	0.06	17.05	17.08	0.08	0.05	N/A
5011	3 LEFT	78.9	0.80	85.65	0.31	0.13	<0.01	0.10	17.94	17.91	0.10	0.03	N/A
5005	3 RIGHT	455.7	0.89	95.29	0.34	0.11	<0.01	0.08	19.96	19.88	0.10	0.04	N/A

NOTE: ALL VALUES ARE GIVEN IN PERCENT BY VOLUME +/- 0.01  
 \* Pyrotechnic Hydrogen Correction Based on H/CO Ratio 26.85/49.55 = 0.54 (%CO)  
 \* Air Calculated from Normal Air Ratios N2=78.08%; O2=20.95%; Ar 0.934%  
 \* Balance Nitrogen  
 \*\* Leaked Sample



AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Position	Pressure, torr	Constituents, Percent						Oxygen from air		Corrected H <sub>2</sub>	N <sub>2</sub>	
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured			
STS-42													
1378	1 LEFT	104.60	0.15	16.06	0.61	0.16	<0.01	0.05	3.36	3.48	0.11	0.02	N/A
1380	1 RIGHT	373.80	0.53	56.75	0.25	0.07	<0.01	0.04	11.89	12.00	0.06	0.02	N/A
1370	2 LEFT	56.90	0.17	18.40	0.68	0.14	<0.01	0.06	3.81	3.05	0.10	0.02	N/A
1374	3 LEFT	747.78	0.92	98.50	0.25	<0.01	<0.01	0.04	20.64	20.49	<0.01	<0.01	N/A
1377	2 RIGHT		PYROTECHNIC DID NOT FIRE										
1360	3 RIGHT		PYROTECHNIC DID NOT FIRE										
STS-45													
1383	1 RIGHT	279.80	0.37	39.61	<0.01	<0.01	<0.01	0.05	8.30	8.32	0.02	0.02	N/A
5007	1 LEFT	102.50	0.17	18.20	0.60	0.10	<0.01	0.08	3.81	3.83	0.08	0.03	N/A
1379	2 RIGHT	98.96	0.15	16.06	0.82	0.17	<0.01	0.07	3.36	3.38	0.14	0.05	N/A
5004**	2 LEFT	205.30	0.78	83.51	0.36	<0.01	<0.01	0.05	17.50	17.44	0.08	0.08	N/A
5014	3 LEFT	17.70	0.46	49.25	2.64	0.38	0.03	0.20	10.32	10.39	0.47	0.26	N/A
5016**	3 RIGHT	10.78	0.59	63.17	1.74	0.61	0.03	0.25	13.23	13.39	0.61	0.28	N/A
STS-49													
1392	1 RIGHT	209.80	0.06	6.42	0.66	0.02	<0.01	0.01	1.35	1.36	0.07	0.06	N/A
1390	1 LEFT	768.00	0.93	99.90	0.01	<0.10	<0.01	0.05	20.95	20.95	<0.01	<0.01	N/A
1388	2 RIGHT	94.10	0.11	11.78	0.58	0.08	<0.01	0.06	2.47	2.65	0.13	0.09	N/A
5021	2 LEFT	124.40	0.57	61.03	0.66	0.13	<0.01	0.06	12.79	12.75	0.12	0.07	N/A
5015	3 LEFT	11.53	0.16	17.13	1.31	0.36	0.03	0.36	3.59	3.59	0.36	0.17	N/A
5017	3 RIGHT	364.80	0.92	98.50	0.45	0.06	<0.01	0.86	20.63	20.63	0.04	0.01	N/A
STS-50													
1357	1 RIGHT	188.40	0.20	21.41	0.48	0.08	<0.01	0.04	4.49	4.54	0.09	0.05	N/A
1391	1 LEFT	770.00	0.93	99.90					SPOOL--NOT COMPLETELY CLOSED			N/A	
5022	2 RIGHT	112.70	0.39	41.76	0.86	0.13	<0.01	0.06	8.75	8.74	0.26	0.19	N/A
1389	2 LEFT	141.70	0.71	76.02	1.91	0.04	<0.01	0.07	15.93	15.81	0.04	0.02	N/A
1395	3 LEFT	8.76	0.14	14.99	1.41	0.62	0.03	0.54	3.14	2.95	0.37	0.04	N/A
1394	3 RIGHT	755.38	0.91	97.43	1.29	<0.01	<0.01	0.04	20.41	20.35	0.02	0.02	N/A
STS-46													
1384	1 RIGHT	193.10	0.20	21.41	0.47	0.03	<0.01	0.03	4.49	4.48	0.08	0.06	N/A
5020	1 LEFT	537.20	0.88	94.22	1.02	<0.01	<0.01	0.04	19.74	19.74	0.02	0.02	N/A
1382	2 RIGHT	392.50	0.80	85.65	0.36	4.01	0.03	0.36	17.94	17.92	0.68	0.00	N/A
1387	2 LEFT	46.90	0.18	19.27	0.68	0.35	0.01	0.18	4.04	3.96	0.25	0.06	N/A
5024	3 LEFT	25.10	0.71	76.02	0.52	0.14	<0.01	0.10	15.93	15.84	0.16	0.08	N/A
5023	3 RIGHT	7.10	0.56	59.96	2.62	0.64	0.03	0.61	12.56	12.62	0.49	0.13	N/A

NOTE: ALL VALUES ARE GIVEN IN PERCENT BY VOLUME +/-0.01  
 \* Pyrotechnic Hydrogen Correction Based on H<sub>2</sub>/CO Ratio 26.85/49.55 = 0.54 (%CO)  
 \* Air Calculated from Normal Air Ratios N<sub>2</sub>=78.08%; O<sub>2</sub>=20.95%; Ar 0.934%  
 \* Considered as Part of Sample  
 \* Balance Nitrogen  
 \*\* Partial Leakers

AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Position	Pressure, torr	Constituents, Percent							Oxygen from air		Corrected H <sub>2</sub>	N <sub>2</sub>
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected	Measured			
			STS-47										
1401	1 RIGHT	194.80	0.07	7.49	0.87	0.16	<0.01	0.09	1.57	1.60	0.15	0.05	N/A
1393	1 LEFT	324.20	0.80	85.65	1.23	0.03	<0.01	0.04	17.94	17.99	0.03	0.01	N/A
1397	2 RIGHT	80.75	0.16	17.13	0.75	0.07	<0.01	0.03	3.59	3.63	0.09	0.05	N/A
1400	2 LEFT	42.44	0.04	4.28	0.86	0.03	<0.01	0.02	0.90	0.90	0.07	0.05	N/A
1398	3 LEFT	7.74*	0.08	8.57	0.95	0.95	0.06	0.36	1.79	1.73	0.34	0.43	N/A
1385	3 RIGHT	24.39	0.80	85.65	2.44	0.34	<0.01	0.14	17.94	17.94	0.20	0.02	N/A
STS-52													
5019	1 RIGHT	199.50	0.10	19.27	0.63	0.17	<0.01	0.04	4.04	3.96	0.11	0.84	N/A
1402	1 LEFT	90.60	0.10	19.27	0.45	0.06	<0.01	0.04	4.04	4.03	0.05	0.02	N/A
1381	2 RIGHT	85.90	0.10	19.27	0.65	0.04	<0.01	0.06	4.04	3.96	0.05	0.03	N/A
1386	2 LEFT	52.00	0.20	21.41	1.03	0.10	<0.01	0.09	4.49	4.47	0.12	0.07	N/A
1399	3 LEFT	10.00	0.20	21.41	0.89	0.73	0.03	0.33	4.49	4.41	0.46	0.07	N/A
1396	3 RIGHT	5.50	0.46	47.11	0.88	1.18	0.06	0.50	9.87	9.09	0.35	0.00	N/A
STS-53													
1405	1 RIGHT	209.10	0.10	10.71	0.70	0.03	<0.01	0.02	2.24	2.30	0.03	0.01	N/A
1404	1 LEFT	94.90	0.14	14.99	0.69	0.06	<0.01	0.05	3.14	3.15	0.09	0.06	N/A
1407	2 RIGHT	91.60	0.12	12.85	0.98	0.04	<0.01	0.04	2.69	2.55	0.10	0.08	N/A
1409	2 LEFT	19.60	0.14	14.99	0.80	0.13	<0.01	0.05	3.14	3.06	0.14	0.07	N/A
1403	3 LEFT	8.60	0.10	10.71	1.61	0.46	0.04	0.31	2.24	2.22	0.33	0.08	N/A
1406	3 RIGHT	3.30	0.14	14.99	2.03	1.44	0.08	1.00	3.14	3.12	0.86	0.06	N/A
STS-54													
1415	1 RIGHT	211.10	0.05	5.35	0.88	0.03	<0.01	0.02	1.12	1.12	0.06	0.04	N/A
5018	1 LEFT	100.10	0.14	14.99	1.57	0.17	<0.01	0.05	3.14	3.19	0.12	0.03	N/A
1414	2 RIGHT	92.80	0.17	18.20	0.60	0.28	<0.01	0.05	3.81	3.86	0.29	0.14	N/A
1410	2 LEFT	52.00	0.08	8.57	0.50	0.09	<0.01	0.05	1.79	1.70	0.09	0.04	N/A
1412	3 LEFT	9.70	0.07	7.49	1.43	0.60	0.03	0.27	1.57	1.38	0.44	0.12	N/A
1408	3 RIGHT	4.00	0.10	10.71	1.64	1.05	0.03	0.74	2.24	2.27	0.73	0.16	N/A
STS-56													
1411	1 RIGHT	213.70	0.14	14.99	0.73	0.03	<0.01	0.01	3.14	3.02	0.04	0.02	N/A
1420	1 LEFT	102.70	0.21	22.48	1.36	0.16	<0.01	0.04	4.71	4.73	0.31	0.22	N/A
1417	2 RIGHT	97.30	0.11	11.77	1.56	0.66	<0.01	0.06	2.47	2.49	0.79	0.43	N/A
1429	2 LEFT	41.00	0.16	17.13	1.09	0.12	<0.01	0.05	3.59	3.59	0.19	0.13	N/A
1421	3 LEFT	212.90	0.31	97.43	2.15	0.14	<0.01	0.06	20.41	20.48	0.07	0.00	N/A
5028	3 RIGHT	3.60	0.13	13.92	2.62	0.81	0.06	0.51	2.92	3.02	0.85	0.41	N/A

NOTE: ALL VALUES ARE GIVEN IN PERCENT BY VOLUME +/- 0.01  
 \* Pyrotechnic Hydrogen Correction Based on H<sub>2</sub>/CO Ratio 26.85/49.55 = 0.54 (%CO)  
 \* Air Calculated from Normal Air Ratios N<sub>2</sub>=78.08%; O<sub>2</sub>=20.95%; A. 0.934%  
 \* Balance Nitrogen  
 \*\* Partial Leakers

AFT FUSELAGE GAS SAMPLE ANALYSIS

Sample bottle serial no.	Position	Pressure, torr	Constituents, Percent					Oxygen from air		H <sub>2</sub>	Corrected H <sub>2</sub>	N <sub>2</sub>	
			Argon	Air from Argon	He	CO	CH <sub>4</sub>	CO <sub>2</sub>	Expected				Measured
STS-55													
1419	1 RIGHT	304.20	0.45	48.18	0.61	0.04	<0.01	0.03	10.00	9.90	0.09	0.05	N/A
1423	1 LEFT	770.00	0.94	100.00	<0.01	<0.01	<0.01	0.04	20.95	20.70	<0.01	<0.01	N/A
1425	2 RIGHT	111.30	0.28	29.98	0.84	0.06	<0.01	0.02	6.28	6.08	0.09	0.06	N/A
1418	2 LEFT	119.50	0.57	61.03	0.98	0.06	<0.01	0.04	17.78	12.84	0.14	0.11	N/A
1426	3 LEFT	72.90	0.51	54.60	0.26	13.80	0.23	0.59	11.44	12.18	8.10	0.65	N/A
1424	3 RIGHT	6.40	0.48	51.39	0.75	1.06	0.03	0.38	10.76	10.77	0.56	0.00	N/A

NOTE: ALL VALUES ARE GIVEN IN PERCENT BY VOLUME +/-0.01  
 \* Pyrotechnic Hydrogen Correction Based on H<sub>2</sub>/CO Ratio 26.85/49.55 = 0.54 (%CO)  
 \* Air Calculated from Normal Air Ratios N<sub>2</sub>=78.08%; O<sub>2</sub>=20.95%; Ar 0.934%  
 \* Considered as Part of Sample  
 \* Balance Nitrogen  
 \*\* Partial Leakers

SHUTTLE FLIGHT HISTORIES  
KSC FACILITIES AND PROCESSING DATES

Miss. Seq. No.	STS- No.	Orb. OV-	Moved to OPF		Moved to VAB		Stacked on MLP			Moved to PAD		Actual Launch Date	Remarks	Orb. on gnd. per. hrs.
			Cal. Days in Proc.	HB 1	Cal. Days in Proc.	HB 1	HB 2	HB 3	1	2	3			
1	1	102	03/22/79 613		11/24/80 37	12/22/80				12/31/80 102		04/12/81		4,508
2	2	101	04/29/81 103		08/10/81 21	08/26/81				08/31/81 73		11/12/81		2,755
3	3	102	11/26/81 69		02/03/82 13	02/12/82				02/16/82 34		03/22/82		1,814
4	4	102	04/07/82 41		05/18/82 8	05/25/82				05/26/82 32		06/27/82		1,318
5	5	102	07/16/82 55		09/09/82 12	09/17/82				09/21/82 51		11/11/82		1,647
6	6	099	07/06/82 139		11/22/82 8		11/29/82			11/10/82 125		04/04/83		4,556
7	7	099	04/17/83 34		05/21/83 5	05/26/83				05/26/83 23		06/18/83		1,143
8	8	099	06/30/83 27		07/27/83 6		07/30/83			08/02/83 28		08/30/83		998
9	9	102	07/02/83 83		09/23/83 5	09/28/83				09/28/83 5			Recycled due to SRB nozzle problem.	3,116
			10/19/83 15		11/03/83 5	11/07/83				11/08/83 20		11/28/83		
10	41B	099	09/11/83 117		01/06/84 6		01/12/84			01/12/84 22		02/03/84		1,439
11	41C	099	01/11/84 32		03/14/84 4	03/18/84				03/18/84 19		04/06/84		1,001

SHUTTLE FLIGHT HISTORIES  
KSC FACILITIES AND PROCESSING DATES

Miss. Seq. No.	STS- No.	Orb. OV-	Moved to OPF		Moved to VAB			Stacked on MLP		Moved to PAD		Actual Launch Date	Remarks	Orb. on gnd pwr. hrs.
			Cal. Days in Proc. HB 1	HB 2	Cal. Days in Proc. HB 1	HB 3	1	2	Cal. days in Proc. A	B				
12	41D	103		11/10/83 29	12/09/83a 32								Stored in VAB HR2 12/19/83 to 1/10/84	
			01/10/84 123			05/12/84 7		05/12/84		05/19/84 56			First launch attempts on 6/25 and 6/26 were aborted.	
			07/17/84			07/14/84 3							Orbiter moved back to VAB for destack.	2,330
			07/17/84 15			08/01/84 8		08/01/84		08/09/84 21		08/30/84	Orbiter destack and returned to OPF HBL for re-manifesting of payloads.	
13	41G	099		04/18/84 143	09/08/84 5					09/13/84 22		10/05/84		1,440
14	51A	103		09/11/84 37		10/18/84 5		10/19/84		10/23/84 16		11/08/84		1,042
15	51C	103		11/16/84 35	12/21/84 15					01/05/85 19		01/24/85		999
16	51D	103		01/27/85 55		03/23/85 5				03/28/85 15		04/12/85	Remanifested 03/04/85 for Syncom/Telesat. LDEF retrieval mission was deleted. Manifest changes resulted from TDRSS-D problems.	990

SHUTTLE FLIGHT HISTORIES  
KSC FACILITIES AND PROCESSING DATES

Miss. Seq. No.	STS No.	Orb. OV-	Moved to OPF		Moved to VAB		Stacked on MLP			Moved to PAD		Actual Launch Date	Remarks	Orb. on gnd pwr, hrs.
			Cal. Days in Proc. HB 1	HB 2	Cal. Days in Proc. HB 1	HB 3	1	2	3	A	B			
17	51B	099	STS 51-E 10/12/84 120		STS 51-E 02/10/85 5							No launch	STS 51-E cancelled 03/03/85 due to problems with payload, TDRSS-D.	2,532
					03/05/85 9								Payloads removed from Orbiter on 03/04/85, Shuttle returned to VAB for destacking.	
					STS 51-B 04/10/85 5			STS 51-B 04/10/85				STS 51-B 04/29/85	Remanifested as STS 51-B, Space-lab 3 primary payload.	
18	51G	103		04/19/85 40	05/28/85 8			05/29/85				06/04/85 14		927
19	51F	099	05/11/85 45			06/24/85 6		06/24/85				06/29/85 31	First launch attempt on 07/12/85 was aborted.	1,482
20	51I	103		06/29/85 31	07/30/85 7			07/30/85				08/06/85 21	First and second launch attempts on 08/24/85 and 08/25/85 were scrubbed.	1,002
21	51J	104	04/13/85 27 07/30/85 12 See Remarks	05/28/85 51 See Remarks		08/12/85 18		08/12/85				08/30/85 34	Orbiter location during flow: 4/13 to 5/10 OPF HB1 5/10 to 5/28 VAB HB2 (storage) 5/28 to 7/18 OPF HB2 7/18 to 7/30 VAB HB2 (storage) 7/30 to 8/12 OPF HB1	2,590
22	61A	099	08/11/85 62		10/12/85 4			10/12/85				10/16/85 14		1,092

SHUTTLE FLIGHT HISTORIES  
KSC FACILITIES AND PROCESSING DATES

Miss. Seq. No.	STS- No.	Orb. OV-	Moved to OPF		Moved to VAB		Stacked on MLP			Moved to PAD		Actual Launch Date	Remarks	Orb. on gnd. pwr. hrs.
			Cal. Days in Proc. HB 1	HB 2	Cal. Days in Proc. HB 1	HB 3	1	2	3	Cal. days in Proc. A	B			
23	61B	104	10/12/85 27			11/08/85 4		11/08/85		11/12/85 14		11/26/85		854
24	61C	102		07/18/85 Note 1 09/26/85 109	11/22/85 12		11/22/85			12/02/85 41		01/12/86	1. Moved to VAB HB2 for storage from 09/08/85 to 09/26/85, 18 days.	2,155
25	51L	099	11/11/85 36			12/17/85 5		12/17/85			12/22/85 37	01/28/86		1,213
26	26	103	a 9/8/85 b 9/8/87 c 10/2/87 274		06/02/88 19			06/21/88 13			07/04/88 87	09/29/88	Successful launch on 09/29/88 at 273:15:37:00 G.m.t.	5,900
27	27	104		03/20/86 945	10/22/88 2		10/24/88 9				11/02/88 30	12/02/88	Successful launch on 12/2/88 at 337:14:30:34 G.m.t.	1,853
28	29	103	10/12/88 100		01/20/89 9			01/29/89 7			02/04/89 37	03/13/89	Successful launch on March 13, 1989, at 072:14:57:00 G.m.t.	2,204
29	30	104		12/14/88 87		03/11/89 2	03/13/89 9				03/22/89 43	05/04/89	Successful launch on May 4, 1989 at 124:18:46:59 G.m.t.	1,725
30	28	102		01/22/89 162	07/03/89 1			07/04/89 11			07/15/89 24	08/08/89	Successful launch on 8/8/89, at 220:12:37:00 G.m.t.	d
31	34	104		05/16/89 97	08/21/89 1		08/22/89 7				08/29/89 50	10/18/89	Successful launch on October 18, 1989 at 291:16:53:40 G.m.t.	d
32	33	103	07/11/89 86			10/05/89 1		10/06/89 21			10/27/89 26	11/22/89	Successful launch on 11/22/89, at 327:00:23:30 G.m.t.	d

a Storage after STS 51-L  
b First Power Up  
c Cut Off Stait  
d Orbiter ground power-on time not available for these missions.

SHUTTLE FLIGHT HISTORIES  
MSC FACILITIES AND PROCESSING DATES

Miss. Seq. No.	STS- No.	Orb. OV-	Moved to OFF Cal. Days in Proc.		Moved to VAB Cal. Days in Proc.		Stacked on MLP			Moved to PAD Cal. days in Proc.		Actual Launch Date	Remarks	Orb. on gnd pwr, hrs.
			HB 1	HB 2	HB 1	HB 3	1	2	3	A	B			
33	32	102	08/20/89 88		11/15/89 1		11/17/89 11			11/28/89 42		01/09/90	Successful launch on January 9, 1990 at 009:12:35:00 G.M.T.	a
34	36	104	10/24/89 83		01/15/90 1	01/16/90 9			01/25/90 34			02/28/90	Successful launch on February 28, 1990 at 059:07:50:22 G.M.T.	a
35	31	103		12/05/89 90	03/05/90 1		03/06/90 10			03/16/90 40		04/24/90	Successful launch on April 24, 1990 at 114:12:33:51 G.M.T.	a
36	41	103	05/08/90 111				08/27/90 1			09/05/90 31		10/06/90	Successful launch on October 6, 1990, at 279:11:47:15 G.M.T. (7:47 a.m. e.d.t.)	a
37	38	104		03/14/90 87	06/09/90 1		06/10/90 8		06/18/90 52			11/15/90	Successful launch on Nov. 15, 1990, at 319:23:48:15 G.M.T. (6:48 p.m. e.d.t.)	a
38	35	102	01/27/90 79 (b)	06/15/90 48 (c)	08/14/90 60 (b)	10/14/90 9						04/22/90	Successful launch on Dec. 2, 1990, at 336:06:49:00 G.M.T. (1:49 a.m. e.d.t.)	a
39	37	104	11/20/90 108			03/08/91 6				03/15/91 21		04/05/91	Successful launch on April 5, 1991 at 095:14:22:45 (09:22 e.d.t.)	1238
40	39	103	10/13/90 e	03/14/91 163	02/09/91 03/07/91 03/25/91 1		02/10/91 03/26/91		02/15/91 04/01/91 27			04/28/91	Successful launch on April 28, 1991 at 118:11:33:14 G.M.T. (07:33 e.d.t.)	1499
41	40	102	12/20/90 128			04/27/91 1			04/28/91 4			05/02/91 34	Successful launch on June 5, 1991 at 156:13:24:52 (09:24:52 e.d.t.)	2053:26

a Orbiter ground power-on time not available for these missions.  
b Recycle due to hydrogen leaks.  
c Recycle due to weather  
d Data does not cover the complete flow of the Orbiter in the OFF.  
e Returned to OFF to replace ET door hinges (cracks)



SHUTTLE FLIGHT HISTORIES  
MSC FACILITIES AND PROCESSING DATES

Miss. Seq. No.	STS- No.	Orb. OV-	Moved to OFF		Moved to VAB		Stacked on MLP			Moved to PAD		Actual Launch Date	Remarks	Orb. on gnd pwr, hrs.
			Cal. Days in Proc.	HB 1	HB 2	HB 1	HB 3	1	2	3	Cal. days in Proc.			
4.	43	104	4/19/91 61	6/19/91 1		6-20-91 5				6/25/91 39		08/02/91	Successful launch on August 2, 1991, at 214:15:02 G.M.T. (11:02 e.d.t.)	1442
43	48	103	5/28/91 80	8/1/91 1			8/2/91 10			8/12/91 32		09/12/91	Successful launch on September 12, 1991, at 255:23:11:04 G.M.T. (1911 e.d.t.)	1502
44	44	104	8/11/91 68	10/19/91 1		10/20/91 4				10/24/91 32		11/24/91	Successful launch on November 24, 1991, at 328:23:44 G.M.T.	1609
45	42	103	Day 3 9/27/91 76	12/12/91 1			12/13/91 6			12/19/91 34		1/22/92	Successful launch on January 22, 1992, at 22:14:52:33 G.M.T.	1332
46	45	104	12/9/91 76	2/13/92 1		2/14/92 6				2/20/92 33		3/24/92	Successful launch on March 24, 1992, at 84:13:13:39.991 G.M.T.	1316
47	49	105	7/26/91 221	3/7/92 1			3/8/92 5					5/7/92	Successful launch on May 7, 1992, at 128:23:40:00.019 G.M.T.	2940
48	50	102	B-3 2/10/92 109	5/29/92 1			5/30/92 4			6/3/92 22		6/25/92	Successful launch June 25, 1992, at 177:16:12:22 G.M.T.	1897

- a Orbiter ground power-on time not available for these missions.
- b Recycle due to hydrogen leaks.
- c Recycle due to weather
- d Data does not cover the complete flow of the Orbiter in the OFF.
- e Returned to OFF to replace ET door hinges (cracks)

SHUTTLE FLIGHT HISTORIES  
KSC FACILITIES AND PROCESSING DATES

Miss. Seq. No.	STS- No.	Orb. OV-	Moved to OPF		Moved to VAB		Stacked on MLP			Moved to PAD		Actual Launch Date	Remarks	Orb. on gnd pwr, hrs.
			HB 1	HB 2	HB 1	HB 3	1	2	3	A	B			
49	46	104	4/2/92 63		6/4/92		6/4/92 7				6/11/92 50	7/31/92	Successful launch July 31, 1992, at 213:13:56:48 G.M.T.	1279
50	47	105	B-3 5/30/92 82			8/18/92 2		8/20/92 5			8/25/92 18	9/12/92	Successful launch Sept. 12, 1992, at 256:14:23:00 G.M.T.	1136
51	52	102	7/9/92 73		9/20/92				9/20/92 6		9/26/92 26	10/22/92	Successful launch Oct. 22, 1992, at 296:17:09:39 G.M.T.	1058
52	53	103	B-3 8/17/92		11/3/92					11/8/92		12/2/92	Successful launch on December 2, 1992, at 337:13:23:59.993 G.M.T.	a
53	54	105	9/20/92		10/21/92		10/23/92				12/3/92	1/13/93	Successful launch on January 13, 1993, at 013:13:59:29.989 G.M.T.	a
54	56	103	Bay 3 12/19/92			3/2/93	3/3/93				3/15/93	4/8/93	Successful launch on April 8, 1993, at 098:05:28:59.986 G.M.T.	1258
55	55	102	11/1/92			2/3/93				2/7/93		4/26/93	Successful launch on April 26, 1993, at 116:14:50:00.017 G.M.T.	2079

a Orbiter ground power-on time not available for these missions.  
b Recycle due to hydrogen leaks.  
c Recycle due to weather  
d Data does not cover the complete flow of the Orbiter in the OPF.  
e Returned to OPF to replace ET door hinges (cracks)

SHUTTLE FLIGHT HISTORIES  
SOLID ROCKET BOOSTERS

Miss. Seq. No.	STS- No.	Orb. OV-	SRB S/R	SRM Position	SRM Nomen.	Ignition Weight, lb	Separation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb.	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
1	1	102	A07 A08	1ALH 1ABH		1,295,940 1,298,160	182,022 182,738	1,105,970 1,107,563	2,813,700 2,803,200	131.826 131.828	STD STD	STD STD	
2	2	102	A09 A10	2ALH 2ABH		1,296,747 1,296,782	181,590 181,814	1,107,967 1,107,951	2,831,300 2,812,200	130.047 130.046	STD STD	STD STD	
3	3	102	A11 A12	3ALH 3ABH		1,296,697 1,296,915	182,537 182,225	1,106,118 1,106,600	2,889,400 2,887,000	127.888 127.889	STD STD	STD STD	RH SRB lost one main chute resulting in impact velocity of 109 fps.
4	4	102	A13 A14	4ALH 4ABH		1,298,213 1,298,253	182,937 182,651	1,107,102 1,108,784	2,824,000 2,820,000	129.979 129.981	STD STD	STD STD	Both SRB's impacted water at extremely high velocities. Both SRB's were lost.
5	5	102	A15 A16	5ALH 5ABH		1,298,013 1,298,506	183,299 183,906	1,106,744 1,107,663	2,876,700 2,873,300	129.206 129.207	STD STD	STD STD	
6	6	099	A17 A18	L6ALH L6ABH		1,295,519 1,296,328	179,315 179,621	1,108,215 1,108,727	2,872,600 2,836,440	129.486 129.487	STD STD	LJWT LJWT	
7	7	099	A51 A52	L7ALH L7BBH		1,295,752 1,294,403	178,177 177,930	1,109,552 1,108,527	2,900,300 2,900,800	126.323 126.323	STD STD	LJWT LJWT	
8	8	099	A53 A54	8ALH 8BBH		1,297,016 1,297,509	179,183 179,050	1,110,544 1,111,248	3,102,600 3,091,100	124.410 124.410	HPM HPM	STD STD	
9	9	102	A55 A60	9ALH 9BBH		1,298,366 1,297,983	182,763 182,365	1,107,609 1,107,621	3,037,030 3,062,000	126.326 126.326	HPM HPM	STD STD	
10	41B	099	A57 A58	M10ALH M10BBH		1,295,569 1,296,187	180,675 180,729	1,107,385 1,107,483	3,054,700 3,074,600	128.010 128.010	HPM HPM	MHC MHC	Each SRB impacted water with one chute out, velocities at impact of 105 to 110 fps.
11	41C	099	BI-012	M11ALH M11BBH		1,295,903 1,296,386	179,723 179,600	1,108,408 1,108,831	3,108,200 3,108,200	125.560 125.560	HPM HPM	MHC MHC	One main chute on RH SRB failed to inflate.

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 2.0.

\* At 60\*

SHUTTLE FLIGHT HISTORIES  
SOLID ROCKET BOOSTERS

Miss. Seq. No.	STS- No.	Orb. OV-	SRB S/N	SRB Position Nomen.	Ignition Weight, lb	Separation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, *lb.	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
12	41D	103	BI-013	L13ALH L13BRH	1,296,101 1,298,244	178,516 180,878	1,110,396 1,110,178	3,096,400 3,082,600	124.590 124.590	HPM HPM	LWC LWC	
13	41G	099	A63 A64	L12ALH L12BRH	1,296,572 1,296,481	178,688 179,182	1,110,046 1,109,342	3,154,000 3,112,000	124.200 124.144	HPM HPM	LWC LWC	Small main chutes on both SRB's. 100 fallons water in LH fwd skirt after recovery.
14	51A	103	A65 A66	L14 ALH L14 BRH	1,299,609 1,299,831	181,984 181,506	1,109,692 1,110,640	3,092,000 3,110,000	125.769 125.769	HPM HPM	LWC LWC	Large main chutes on both SRBs.
15	51C	103	BI-015	L15ALH L15BRH	1,294,714 1,295,660	179,014 178,574	1,108,850 1,109,157	3,088,000 3,084,000	127.850 127.850	HPM HPM	LWC LWC	Small chutes on both SRBs.
16	51D	103	BI-018	L17ALH L17BRH	1,297,460 1,296,665	179,079 179,720	1,109,976 1,109,194	3,048,000 3,068,000	126.888 126.888	HPM HPM	LWC LWC	Large main chutes on both SRBs. Least amount of damage from water impact to date.
17	51B	099	BI-016	L16ALH L16BRH	1,296,246 1,296,969	179,890 179,979	1,108,525 1,109,242	3,094,000 3,077,000	127.403 127.403	HPM HPM	LWC LWC	
18	51G	103	BI-019	M18ALH M18BRH	1,297,968 1,298,704	182,237 182,379	1,108,553 1,109,897	3,054,000 3,066,000	124.723 124.723	HPM HPM	MWC MWC	One main chute on LH SRB did not inflate beyond first reefing stage drag area.
19	51F	099	BI-017	M19ALH M19BRH	1,300,211 1,300,031	182,568 182,521	1,109,705 1,109,573	3,102,000 3,090,000	125.100 125.100	HPM HPM	MWC MWC	Large main chutes, 136" dia., one RH SRB chute failed to deploy.
20	51I	103	BI-020	L20ALH L20BRH	1,297,697 1,298,536	180,146 180,136	1,109,602 1,110,451	3,172,000 3,158,000	121.114 121.114	HPM HPM	LWC LWC	Wrong drogue reefing line cutters on LH resulted in longest time from frustum sep to water impact.

\*At 60°F.  
Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent mission, Section 2.9.

SHUTTLE FLIGHT HISTORIES  
SOLID ROCKET BOOSTERS

Miss. Seq. No.	STS- No.	Orb. OV-	SRB S/N	SRM Position Nomen.	Ignition Weight, lb	Separation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb.	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
22	61A	099	BI-022	L22ALH L22BRH	1,298,021 1,297,886	180,712 180,698	1,109,426 1,109,226	3,110,000 3,100,000	124.900 124.900	HP HP	LMC LMC	Damage to main chutes was light. Impact velocity estimated at 75 fps.
23	61B	104	BI-023	L23ALH L23BRH	1,296,606 1,296,018	180,172 180,584	1,108,582 1,107,516	3,129,000 3,146,000	123.600 123.600	HP HP	LMC LMC	Damage to main chutes was light. Recovery operations were not started until daylight the next day.
24	61C	102	BI-024	L24ALH L24BRH	1,295,611 1,295,702	180,243 180,300	1,107,463 1,107,565	3,058,000 3,037,000	128.397 128.397	HP HP	LMC LMC	
25	51L	099	BI-026	L25ALH L25BRH	1,297,828 1,297,849	N/A	N/A	N/A	N/A	HP HP	LMC LMC	
26	26	103	BI-029	360L001A 360L001B	1,301,513.3 1,301,427.9	188,342.7 188,467.1	1,106,197 1,106,045	3,060,000 3,060,000	124.806 124.846	RSRM RSRM	LMC Re-design	Ribbon Tbar in RH SRB Main Parachute #3 From Ribbon 131 to Ribbon 148. (IFA # STS-26-B-7)
27	27	104	BI-030	360L002A 360L002B	1,302,581.0 1,301,489.9	188,905.1 188,596.9	1,106,653 1,105,920	3,060,000 3,060,000	126.30 126.30	RSRM RSRM	LMC Re-design	IFA STS-27-B-2, Right SRB nose cap MSA-1 material/debris associated with damage to Orbiter tiles.
28	29	103	BI-031	360L003A 360L003B	1,300,253.6 1,300,916.8	189,207.4 189,029.6	1,104,157 1,104,804	3,040,000 3,050,000	126.04 126.08	RSRM RSRM	LMC Re-design	A parachute deployment bag lacing grommet was seen while observing film of main parachute deployment. (IFA STS-29-B-7)
29	30	104	BI-027	360H004A 360H004B	1,300,246.9 1,300,880.5	187,239.9 188,167.9	1,106,021 1,105,784	3,080,000 3,070,000	125.12 125.16	RSRM RSRM	LMC Re-design	No. 2 left SRB main parachute (Ser. No. 8045) collapsed shortly after inflation. (IFA STS-30-B-1)

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 2.0.

**SHUTTLE FLIGHT HISTORIES  
SOLID ROCKET BOOSTERS**

Miss. Seq. No.	STS- No.	Orb. OV-	SRB S/N	SRM Position Nomen.	Ignition Weight, lb	Separation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb.	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
30	28	102	BI-028	360H005A 360H005B	1,301,088.4 1,300,644	187,739.4 187,872.8	1,106,380 1,105,772	3,090,000 3,080,000	124.28 124.32	RSRM RSRM	LMC Re-design	IPA STS-28-B-1 - During recovery operations, retrieval ship personnel reported that an aeroheat shield door was missing from one SRM (located in the lower right position of the SRM cluster) on the left SRB frustum.
31	34	104	BI-032	360L006A 360L006B	1,300,812.6 1,300,164.6	186,802.0 187,440.7	1,106,943 1,105,654	3,060,000 3,070,000	124.88 124.92	RSRM	LMC Re-design	IPA STS-34-B-3 - The reefing line cutter (located at gore 60) on the left SRB drogue parachute failed to actuate.
32	33	103	BI-034	360L007A 360L007B	1,299,924.3 1,299,918.9	187,836.8 188,802.9	1,105,634 1,105,629	3,030,000 3,050,000	126.75 126.79	RSRM	LMC Re-design	
33	32	102	BI-035	360L008A 360L008B	1,299,175.0 1,299,405.4	187,026.0 187,300.5	1,105,393 1,105,355	3,090,000 3,100,000	125.12 125.16	RSRM	LMC Re-design	
34	36	104	BI-036	360L009A 360L009B	1,299,250.5 1,299,094.6	187,304.2 187,502.8	1,105,247 1,104,854	3,070,000 3,060,000	125.80 125.84	RSRM	LMC Re-design	IPA STS-36-B-4 - The second reefing line cutter on the left SRB drogue parachute did not fire.  The left SRB main parachute 2 failed by having gore 80 torn from ribbon 17 through vent band (ribbon 304) and vent cap band (ribbon 315).
35	31	103	BI-037	360Q010A 360W010A	1,300,240.5 1,200,213.9	187,649.3 188,019.9	1,105,792 1,105,479	3,070,000 3,070,000	125.76 125.80	RSRM	LMC Re-design	
36	41	103	BI-040	360Q011A 360Q011B	1,301,371.5 1,301,388.0	188,361.8 188,407.8	1,106,358 1,106,404	3,060,000 3,060,000	124.12 124.16	RSRM	LMC Re-design	

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 2.0.

SHUTTLE FLIGHT HISTORIES  
SOLID ROCKET BOOSTERS

Miss. Seq. No.	STS- No.	Orb. OV-	SRB S/N	SRM Position Nomen.	Ignition Weight, lb	Separation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, *lb.	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
37	38	104	BI-039	360W012A 360W012B	1,301,957.3 1,301,065.5	188,148.9 188,044.2	1,107,535 1,106,533	3,100,000 3,080,000	123.84 123.84	RSRM	LWC Re-design	
38	35	102	BI-038	360W011A 360W011B	1,300,088.1 1,300,123.8	187,519.8 187,616.7	1,106,120 1,106,020	3,050,000 3,060,000	125.76 125.76	RSRM	LWC Re-design	
39	37	104	BI-042	360L014A 360L014B	1,300,130.4 1,299,254.1	187,532.5 187,020.6	1,106,148 1,105,628	3,070,000 3,080,000	125.04 125.04	RSRM RSRM	LWC Re-design	
40	39	103	BI-043	360L015A 360L015B	1,299,733.3 1,301,484.6	187,310.3 187,425.7	1,105,908 1,107,422	3,090,000 3,090,000	124.72 124.72	RSRM RSRM	LWC Re-design	
41	40	102	BI-044	360W016A 360W016B	1,301,303.0 1,301,722.5	188,417.1 187,698.0	1,106,653 1,106,785	3,010,000 3,030,000	124.84 124.84	RSRM RSRM	LWC Re-des.	
42	43	104	BI-045	360L017A 360L017B	1,299,661.1 1,299,219.5	187,674.2 188,188.2	1,105,687 1,105,064	3,030,000 3,010,000	125.56 125.56	RSRM RSRM	LWC Re-design	Left SRB parachute 1 was entangled, and during retrieval was cut loose and sank.
43	48	103	BI-046	360L018A 360L018B	1,298,958.6 1,298,580.3	188,010.5 187,914.7	1,104,717 1,104,372	3,060,000 3,070,000	125.48 125.48	RSRM RSRM	LWC Re-design	
44	44	104	BI-047	360L019A 360W019B	1,298,355.8 1,300,085.9	187,448.7 188,305.5	1,104,705 1,105,506	3,030,000 3,010,000	126.56 126.56	RSRM RSRM	LWC Re-design	

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 2.0.

SHUTTLE FLIGHT HISTORIES  
SOLID ROCKET BOOSTERS

Miss. Seq. No.	STS- No.	Orb. OV-	SRB S/N	SRB Position Nomen.	Ignition Weight, lb	Separation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb.	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
45	42	103	BI-048	360L020A 360Q020B	1,299,483.5 1,298,658.3	188,158.7 188,234.6	1,105,779 1,104,672	3,020,000 3,020,000	127.8 127.84	RSRM	LWC Re-design	
46	45	104	BI-049	360L021A 360M021B	1,298,567.1 1,298,967.0	187,440.9 187,791.3	1,104,893 1,105,018	2,990,000 2,980,000	128.12 128.12	RSRM	LWC Re-design	
47	49	105	BI-050	360L022A 360L022B	1,299,194.5 1,298,790.0	187,572.1 187,154.2	1,105,396 1,105,364	3,010,000 3,010,000	127.24 127.24	RSRM RSRM	LWC Re-design	
48	50	102	BI-051	360L024A 360M024B	1,298,412.6 1,299,050.4	187,826.3 188,868.3	1,103,799 1,103,835	3,010,000 3,030,000	126.32 126.32	RSRM RSRM	LWC Re-design	Right main parachute 1 sustained 6 consecutive broken horizontal ribbons in gore 159. Right SRB drogue chute experienced unusual damage in the form of severed horizontal ribbons at 7 locations.
49	46	104	BI-052	360M025A 360L025B	1,297,746.4 1,298,292.1	187,984.8 187,547.5	1,103,370 1,104,470	3,050,000 3,040,000	125.48 125.48	RSRM RSRM	LWC Re-design	
50	47	105	BI-053	360L026A 360M026B	1,298,225.4 1,299,291.2	187,635.2 188,124.9	1,104,207 1,104,912	3,070,000 3,070,000	124.12 124.12	RSRM RSRM	LWC Re-design	Main parachute 3 on the left SRB collapsed to a lagging state during first stage of inflation. Parachute recovered after first disreef and performed nominally. The right SRB drogue parachute severely tipped during main parachute deployment.
51	52	102	BI-054	360L027A 360Q027B	1,299,187.8 1,300,395.9	187,815.5 189,026.3	1,105,037 1,105,115	3,110,000 3,100,000	123.12 123.12	RSRM RSRM	LWC Re-design	

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 0.



SHUTTLE FLIGHT HISTORIES  
SOLID ROCKET BOOSTERS

Miss. Seq. No.	STS- No.	Orb. OV-	SRB S/N	SRM Position Nomen.	Ignition Weight, lb	Separation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, *lb.	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
52	53	103	BI-055	360L028A 360L028B	1,299,174.1 1,298,532.1	188,012.7 187,839.7	1,104,863 1,104,434	3,040,000 3,030,000	126.36 126.36	RSRM RSRM	LMC Re-design	
53	54	105	BI-056	360L029A 360L029B	1,299,818.3 1,299,186.7	187,796.2 187,782.1	1,105,869 1,105,225	3,040,000 3,050,000	125.96 125.96	RSRM RSRM	LMC Re-design	
54	56	103	BI-058	360L031A 360L031B	1,299,765.0 1,300,513.5	187,990.8 187,558.7	1,105,515 1,106,723	3,060,000 3,070,000	125.88 125.88	RSRM RSRM	LMC Re-design	
55	55	102	BI-057	360L030A 360L030B	1,298,514.4 1,300,560.6	187,524.3 188,337.7	1,104,746 1,105,941	3,050,000 3,060,000	125.48 125.48	RSRM RSRM	LMC Re-design	Main parachute 3 on the right SRB sustained heavy ribbon damage in two gores.

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 2.0.

SHUTTLE FLIGHT HISTORIES  
EXTERNAL TANK

Miss. Seq. No.	STS No.	Orb. No.	Orb. OV-	Ext. Tank Type	Ext. Tank Model No.	Liquid Oxygen Quantity, lb			Liquid Hydrogen Quantity, lb			Best Est. Traj., Lat./Long.	Entry Impact Position From Prediction		
						Loaded Eng. Start Command	At T-0	At MECO	Residual, Total Liquid	Loaded Eng. Start Command	At T-0			At MECO	Residual, Total Liquid
1	1	102		Std. Wt.		1,356,020	1,346,260	18,335	16,879	227,348	225,528	5,914	5,222	30.95°S 93.18°E	1 nmi. Downrange
2	2	102		Std. Wt.		1,356,914	1,347,238	17,267	15,968	228,424	226,617	4,989	4,277	31.67°S 95.66°E	200 nmi. Downrange
3	3	102		Std. Wt.	SWT -3	1,352,359	1,342,796	12,254	10,791	228,741	226,747	4,988	4,248	31.2°S 94.4°E	150 nmi. Downrange
4	4	102		Std. Wt.	SWT -4	1,355,660	1,346,256	9,874	8,459	228,385	226,656	4,268	3,507	28.41°S 83.07°E	60 nmi. Downrange
5	5	102		Std. Wt.	SWT -5	1,356,698	1,47,091	7,200	5,739	227,980	226,301	3,980	3,210	28.30°S 82.44°E	170 nmi. Downrange
6	6	099		Lt. Wt.	LWT -1	1,359,741	1,350,244	10,534	9,283	229,077	227,358	3,824	3,145	28.34°S 82.99°E	150 nmi. Downrange
7	7	099		S J. Wt.	SWT -6	1,366,400	1,345,936	10,000	8,606	229,088	227,191	4,300	3,580	28.39°S 83.73°E	75 nmi. Downrange
8	8	099		Lt. Wt.	LWT -2	1,373,679	1,364,099	22,800	21,347	231,009	229,253	5,500	4,769	28.35°S 81.49°E	127 nmi. Uprange
9	9	102		Lt. Wt.	LWT -4	1,378,418	1,368,926	7,800	6,460	231,341	229,608	3,600	2,885	56.96°S 149.90°E	300 nmi. Downrange
10	418	099		Lt. Wt.	LWT -3	1,378,612	1,365,168	14,000	12,607	231,168	229,458	5,200	4,480	28.29°S 80.63°E	120 nmi. Uprange

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent mission, Sections 3.0 and 5.0.

SHUTTLE FLIGHT HISTORIES  
EXTERNAL TANK

Miss. Seq. No.	STS-Orb. No.	Orb. OV-	Ext. Tank Type	Model No.	Liquid Oxygen Quantity, lb			Liquid Hydrogen Quantity, lb			Best Est. Traj. Lat./Long.	Entry Impact Position From Prediction		
					Loaded Eng. Start Command	At T-0	At MECO	Residual, Total Liquid	Loaded Eng. Start Command	At T-0			At MECO	Residual, Total Liquid
11	41C	099	Lt. Wt.	LMT -5	1,378,350	1,368,776	5,000	3,596	231,692	229,956	4,280	3,552	18.94°N 149.91°W	22 nai. Up Range
12	41D	103	Lt. Wt.	LMT -6	1,377,535	1,367,999	6,400	5,050	231,439	229,691	3,976	3,264	28.25°S 80.02°E	86 nai. Up Range
13	41G	099	Lt. Wt.	LMT -8	1,378,090	1,368,487	10,300	9,014	231,121	229,379	4,100	3,400	57.06°S 150.04°E	70 nai. Up Range
14	51A	103	Lt. Wt.	LMT -9	1,377,918	1,368,282	8,300	6,800	230,856	229,108	4,000	3,230	27.69°S 81.99°E	146 nai. Down Range
15	51C	103	Lt. Wt.	LMT -7	1,378,474	1,368,669	6,000	4,568	231,455	229,652	4,600	3,879	28.10°S 78.30°E	90 nai. Down Range
16	51D	103	Lt. Wt.	LMT -11	1,378,156	1,368,544	9,200	7,801	231,040	229,290	2,700	1,972	20.24°N 149.37°W	48 nai. Down Range
17	51B	099	Lt. Wt.	LMT -10	1,378,626	1,369,045	10,760	9,341	231,520	229,772	3,500	2,772	57.09°S 150.83°E	153 nai. Down Range
18	51G	103	Lt. Wt.	LMT -13	1,378,428	1,368,830	6,400	5,016	231,411	229,668	3,400	2,677	14.89°N 159.50°W	58 nai. Down Range
19	51F	099	Lt. Wt.	LMT -12	1,378,020	1,368,475	4,259	3,111	231,666	229,924	2,430	1,868	48.90°S 159.00°E	40 nai. Up Range

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Sections 3.0 and 5.0.

SHUTTLE FLIGHT HISTORIES  
EXTERNAL TANK

Miss. Seq. No.	STS- Orb. No.	Ext. Tank Type	Model No.	Liquid Oxygen Quantity, lb		Liquid Hydrogen Quantity, lb		Residual, Total Liquid	Best Est. Traj., Lat./Long.	Entry Impact Position From Prediction			
				Loaded Eng. Start Command	At T-0	Loaded Eng. Start Command	At T-0						
20	51I 103	Lt. WC.	LMT -14	1,377,882	1,368,249	6,800	5,401	231,295	229,532	3,600	2,855	11.5°N 157.6°W	50 nmi. Down Range
21	51J 104	Lt. WC.	LMT -18	1,382,233	1,372,639	9,325	8,022	231,267	229,510	2,530	1,827	20.63°N 148.26°W	194 nmi. Down Range
22	61A 099	Lt. WC.	LMT -17	1,382,740	1,373,141	13,000	11,512	232,030	230,302	4,500	3,776	56.97°S 147.96°E	50 nmi. Down Range
23	61B 104	Lt. WC.	LMT -15	1,377,926	1,368,562	9,995	8,686	231,424	229,709	3,028	2,212	17.31°N 156.69°W	68 nmi. Down Range
24	61C 102	Lt. WC.	LMT -23	1,381,446	1,371,963	17,693	16,310	231,760	230,052	5,170	4,435	28.3°S 81.3°E	10 nmi. Down Range
25	51L 099	Lt. WC.	LMT -19	1,381,361	1,372,007	N/A	N/A	231,671	229,962	N/A	N/A	N/A	N/A
26	26 103	Lt. WC.	LMT -21	1,387,981	1,372,690	8,435	7,114	231,993	230,146	4,155	3,433	12.578°N 164.037°W	17 nmi. Up Range
27	27 104	Lt. WC.	LMT -16	1,387,161	1,370,430	7,248	6,052	231,779	229,855	4,184	3,477	2.855°S 123.479°W	DOD Classified
28	29 103	Lt. WC.	LMT -29	1,388,645	1,373,305	10,063	8,695	231,944	230,080	4,542	3,807	13.26°N 162.65°W	83 nmi. Down Range
29	30 104	Lt. WC.	LMT -22	1,381,861	1,372,358	9,767	8,419	231,745	229,996	3,497	3,437	28.85°S 86.89°E	137 nmi. Up Range

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Sections 3.0 and 5.0.

SHUTTLE FLIGHT HISTORIES  
EXTERNAL TANK

Miss. Seq. No.	STS- No.	Orb. OV-	Ext. Tank		Liquid Oxygen Quantity, lb			Liquid Hydrogen Quantity, lb			Residual, Total Liquid	Best Est. Traj... Lat./Long.	Entry Impact Position From Prediction	
			Type	Model No.	Loaded Eng. Start Command	At T-O	At MECO	Residual, Total Liquid	Loaded Eng. Start Command	At T-O				At MECO
30	28	102	LMT	LMT -24	1,382,851	1,373,393	7,629	6,195	231,820	230,082	3,703	2,971	38.643°S 149.651°W	Classified
31	34	104	LMT	LMT -20	1,381,656	1,372,219	7,383	6,009	231,784	230,044	4,084	3,345	3.4°N 147.6°W	Approximately 7 nautical miles from predicted impact print.
32	33	103	LMT ET-38	LMT -31	1,382,286	1,372,813	8,057	6,704	231,814	230,074	3,180	2,438	28.565°S 86.421°E	Classified
33	32	102	LMT	LMT -25	1,382,321	1,372,817	8,348	7,094	231,741	229,975	3,902	3,186	10.435°N 157.216°W	31 nmi. uprange
34	36	104	LMT	LMT -26	1,381,385	1,311,898	8,252	6,974	231,657	229,925	4,277	3,560	61.464°S 145.114°E	Classified
35	31	103	LT WT	LMT -27	1,378,556	1,369,038	8,616	7,260	231,568	229,825	4,091	3,352	19.946°N 150.007°W	85 nmi. uprange
36	41	103	LMT	LMT -32	1,380,562	1,371,063	7,322	6,028	231,659	229,913	3,710	2,984	12.52°N 164.127°W	52 nmi. uprange
37	38	104	LMT	LMT -33	1,381,562	1,372,056	7,861	6,421	231,689	229,962	4,007	3,253	28.52°S 84.91°W	Classified
38	35	102	LMT	LMT -28	1,381,403	1,371,917	10,725	9,336	231,664	229,900	3,669	2,923	15.09°N 159.01°W	63 nmi. uprange
39	37	104	Lt. Wt. LMT 30	ET-37 LMT 30	1,381,727	1,372,232	7,906	6,554	231,688	229,950	3,857	3,116	20.23° N 149.32° W	64 nmi. uprange
40	39	103	Lt. Wt. LMT 39	ET-46 LMT 39	1,382,470	1,372,994	9,828	8,493	231,829	230,070	3,465	2,718	43.819°S 156.294° W	81 nmi. uprange
41	40	102	Lt. Wt. LMT 34	Lt.-41 LMT 34	1,383,242	1,373,758	11,130	9,859	231,469	230,116	4,252	3,523	1.05° N 146.06° W	77 nmi. uprange

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Sections 3.0 and 5.0.

SHUTTLE FLIGHT HISTORIES  
EXTERNAL TANK

Miss. Seq. No.	STS-Orb. No.	Est. Tank Type	Liquid Oxygen Quantity, lb			Liquid Hydrogen Quantity, lb			Residual, Total Liquid	Best Est. Trej., Lat./Long.	Entry Impact Position From Prediction	
			Loaded Eng. Start Command	At T-O	At MECO	Residual, Total Liquid	Loaded Eng. Start Command	At T-O				At MECO
42	43	Lt. Wt. ET-47 LMT-40	1,381,725	1,372,239	9,734	8,295	231,778	230,011	3,380	3,070	13.466° N 162.244° W	16 nmi. downrange
43	48	Lt. Wt. ET-42 LMT-35	1,383,048	1,373,542	7,034	5,618	231,828	230,097	3,640	2,887	0.264° N 121.93° W	65 nmi. uprange
44	44	Lt. Wt. ET-53 LMT-46	1,380,419	1,370,955	8,124	6,778	231,758	229,993	3,461	2,717	17.01° N 154.05° W	72 nmi. uprange
45	42	Lt. Wt. ET-52 LMT-45	1,381,971	1,372,471	9,563	8,224	231,724	229,980	4,243	3,502	44.7° S 157.92° W	88 nmi. uprange
46	45	Lt. Wt. ET-44 LMT-37	1,382,579	1,373,082	16,465	15,111	231,764	229,995	5,253	4,107	42.74° S 154.99° W	115 nmi. uprange
47	49	Lt. Wt. ET-43 LMT-36	1,382,912	1,373,400	10,265	9,053	231,838	230,074	3,557	2,829	12.173° S 163.623° W	130 nmi. uprange
48	50	Lt. Wt. ET-50 LMT-43	1,382,444	1,372,955	10,326	9,043	231,811	230,041	3,848	3,104	13.278° N 162.638° W	1 nmi. uprange
49	46	Lt. Wt. ET-48 LMT-41	1,382,117	1,372,638	9,183	7,898	237,753	230,016	3,991	3,248	17.855° N 153.043° W	55 nmi. uprange
50	47	Lt. Wt. ET-45 LMT-38	1,381,187	1,371,677	9,992	8,667	231,753	229,992	3,818	3,051	43.991° S 156.841° W	17 nmi. uprange
51	52	Lt. Wt. ET-55 LMT-48	1,382,616	1,373,115	15,925	14,595	231,663	229,903	4,786	4,042	12.896° S 163.386° W	103 nmi. uprange
52	53	Lt. Wt. ET-49	1,383,320	1,373,842	9,323	7,997	231,834	230,073	3,444	2,685	4.95° S 152.60° W	17 nmi. uprange
53	54	Lt. Wt. ET-51	1,382,560	1,373,067	9,818	8,439	231,739	229,956	3,731	2,965	12.92° N 163.34° W	32 nmi. uprange
54	56	Lt. Wt. ET-54	1,382,800	1,373,260	16,077	14,790	231,780	230,003	4,562	3,822	42.41° N 154.36° W	74 nmi. uprange
55	55	Lt. Wt. ET-56	1,382,324	1,372,836	13,366	12,046	231,762	230,000	4,054	3,305	12.75° N 163.68° W	83 nmi. uprange

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 1 Comp.												Main Engine Position 1 Performance Summary				Remarks			
			E	M	C	N	L	H	L	H	L	P	P	L	C	Attained Max Throttle, percent/time, sec	Attained Max q Throttle, percent/time, sec	Re-attained Max Throttle, percent/time, sec		Attained 3g Throttle, percent/time, sec	Vacuum Thrust lb @ 150 sec	Vacuum Specific Impulse, sec
1	1	102	2	2	0	0	2	2	0	0	2	9	2	2	F	100 4.20	65 55.00	100 73.00	65 513.00	470,574	454.38	
2	2	102	0	0	0	0	0	0	0	0	0	6	7	F	100 4.20	68 58.00	100 70.00	65 516.00	471,004	454.52		
3	3	102	2	2	0	0	2	2	0	0	2	9	2	2	F	100 4.20	68 42.00	100 62.00	65 514.00	471,192	454.49	
4	4	102	0	0	0	0	0	0	0	0	0	0	0	6	F	100 4.20	65 46.30	100 60.80	65 513.40	469,313	454.47	
5	5	102	0	0	0	0	0	0	0	0	0	0	0	6	F	100 4.25	85 42.90	100 62.30	65 511.25	470,183	452.51	
6	6	099	2	1	2	2	2	7	9	9	2	2	2	2	F	104 14.40	81 39.30	104 71.60	65 500.30	488,259	453.67	Replaced Eng. 2011

\*Indicates revised or additional data provided by MSFC post-publication of referenced source.

Note: All engine times are referenced to Engine Start Command (ESC).

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 1 Comp.												Main Engine Position 1 Performance Summary					Remarks		
		E	M	N	L	H	L	H	P	P	P	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec		Vacuum Thrust lb @ 150 sec	Vacuum Specific Impulse, sec
7	099	2	4	2	2	9	9	2	2	2	2	2	2	F	104 11.50	75 37.20	104 70.60	65 501.00	488,303	453.65	
8	099	2	4	2	2	9	9	2	2	2	2	2	2	F	100 4.20	69 34.10	100 70.90	65 522.00	469,661	453.49	
9	102	2	4	2	2	9	9	2	2	2	2	2	2	F	104 10.50	78 37.40	104 68.80	65 510.20	490,340	453.34	
10	41B 099	2	4	2	2	9	9	2	2	2	2	2	2	F	100 4.54	73 38.50	100 69.80	65 522.10	470,155	453.59	
11	41C 099	2	4	2	2	9	9	2	2	2	2	2	2	F	104 10.77	67 36.01	104 67.69	65 511.27	488,511	453.85	
12	41D 103	2	4	2	2	9	9	2	2	2	2	2	2	F	104 11.00	81 27.45	104 77.80	65 515.66	488,821	453.24	First 2-step main engine throttle. ME2109 re-placed 2021, due to debonded shield.

\*Indicates revised or additional data provided by NFSC  
post-publication of reference source.  
Note: All engine times are reference to Engine Start Command (ESC).

Source: MSFC, Final Flight Evaluation Reports,  
STS-1 and subsequent missions.  
Section 4.0



SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 1 Comp.													Main Engine Position 1 Performance Summary				Remarks		
		E n g	M C C	N C I	L P T	H P O	L P F	H P T	L P P	H P P	L P P	H P P	C n t	Attained Max Throttle, percent, time, sec	Attained Max q Throttle, percent, time, sec	Re-attained Max Throttle, percent, time, sec	Attained 3g Throttle, percent, time, sec	Vacuum Thrust lb @ 150 sec		Vacuum Specific Impulse, sec	
13	41G 099	2	4	4	2	2	2	2	2	4	4	F	92	25.51	100	68.83	65	531.17	467,340	453.67	ME2023 replaced ME2109.
		0	0	0	0	0	0	0	0	5	0	2	65		4.32						
		2	0	0	1	1	2	1	0	4			36.03								
		3	3	3	5	9	6	5	1												
14	51A 103	2	4	2	2	2	2	2	2	2	2	F	89	22.11	100	77.19	65	513.77	488,000	453.39	
		1	0	0	0	0	1	0	1	0	1	1	67		4.24						
		0	1	0	1	2	1	2	1	2	0	0	36.95								
		9	8	4	8	0	7	0	9												
15	51C 103	2	4	2	2	2	2	2	2	4	2	F	92	22.63	100	71.31	65	511.37	489,497	453.15	HPFTP 2020R1 replaced by 4202.
		1	0	0	0	1	2	1	0	0	0	1	65		4.24						
		0	1	0	1	2	1	2	1	0	0	0	38.46								
		9	8	4	8	0	7	2	9												
16	51D 103	2	4	2	2	2	2	2	2	4	2	F	90	22.51	100	78.27	65	532.73	469,632	453.20	HPOTP 2020 replaced by 2115.
		1	0	0	0	1	1	1	1	2	1	1	65		4.33						
		0	1	0	1	1	1	1	0	0	0	0	38.07								
		9	8	4	8	5	7	2	9												
17	51B 099	2	4	4	2	2	2	2	2	4	2	F	94	25.79	100	70.83	65	515.65	487,717	453.79	LPFTP 2026 replaced by 4002B1.
		0	0	0	0	0	0	0	0	5	0	2	65		4.33						
		2	0	0	1	1	0	1	0	1	0	4	36.71								
		3	3	3	5	9	2	5	1												
18	51G 103	2	4	2	2	2	2	2	2	2	2	F	83	27.52	104	78.44	65	516.14	488,300	453.33	HPFTP 4202 replaced by 2121.
		1	0	0	0	1	1	1	1	1	1	1	65		10.6						
		0	1	0	1	1	1	1	1	2	0	0	38.40								
		9	8	4	8	5	7	1	9												

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 1 Comp.													Main Engine Position 1 Performance Summary			Remarks		
			E	M	N	L	P	O	T	P	H	L	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec		Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec
19	51F	099	2	4	4	2	2	2	4	2	4	2	4	F	104 10.91	97 26.71 65 39.47	104 66.23	Premature Engine Cutoff	487,254	454.89	High HPFTP discharge temperature measurement caused shutdown at T+350 seconds. Controller F24 replaced by F20.
20	51I	103	2	2	2	2	2	2	2	2	2	2	2	F	104 10.31	70 35.07 67 37.55	104 64.63	65 508.09	488,628	453.35	Nozzle 4004 replaced by 2018.
21	51J	104	2	2	2	2	2	2	2	2	2	2	2	F	104 10.43	68 35.39 65 37.51	104 65.11	65 512.53	489,924	453.46	
22	61A	099	2	4	4	2	2	2	4	2	4	2	4	F	100 4.32	89 25.85 65 35.77	104 70.09	65 515.63	487,481	453.82	
23	61B	104	2	2	2	2	2	2	2	2	2	2	2	F	104 10.49	65 37.37	104 69.37	65 511.63	490,280	453.41	F11 replaced by F23. HPFTP 5301 replaced by 2413R2.

Source: NSFC, Final Flight Evaluation Reports,  
STS-1 and subsequent missions.  
Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 1 Comp.										Main Engine Position 1 Performance Summary				Remarks					
			E	M	N	L	H	L	H	P	C	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec		Vacuum Thrust, lb @ 150 sec	Vacuum Specific Impulse, sec			
24	61C	102	2	2	4	2	2	4	2	4	2	4	2	F	85	104	104	67	488,085	453.30		
			0	0	1	0	1	0	0	2	0	0	2	F	41.79	11.03	72.67	502.25				
			1	1	1	1	1	1	0	1	1	0	1	7	69							
			5	5	1	8	6	3	5						64.55							
					R	R	R															
					1	2	1															
25	51L	099	2	4	4	2	2	4	2	4	2	4	F	94	104	104	N/A	N/A	N/A	N/A		
			0	0	0	0	0	0	5	0	2	4	F	26.16	10.64	58.16						
			2	0	0	1	1	0	1	0	0	0	0									
			3	3	3	5	9	2	5	1												
					R	R	R	R														
					2	1	1															
26	26	103	2	4	2	2	4	2	2	2	2	2	F	102	104	104	65	487,550	453.27			
			0	0	0	0	1	0	0	0	4			24.12	10.20	65.4	512.24					
			1	0	2	2	0	2	2	2	2			65								
			9	1	5	6	5	6	5	6	0			34.04								
					R	R	R	R														
					1	1	1															
27	27	104	2	2	2	2	4	6	4	4	2	2	F	96	104	104	65	489,036	454.50			
			0	0	1	1	0	1	0	0	2	2	F	26.28	10.12	64.20	513.68					
			2	2	2	2	2	0	0	0	3			65								
			7	4	4	4	5	2	4						34.76							
					R	R	R															
					2	2	2															
28	29	103	2	4	4	1	9	2	2	2	2	2	F	66	104	104	65	489,571	453.72			
			0	0	1	1	2	0	1	0	2	2	F	34.28	10.40	63.84	508.92					
			3	0	1	0	2	2	2	2	2	1										
			1	7	6	5	9	2	5	8												
					R	R	R	R														
					1	1	1															
29	30	104	2	2	2	2	6	4	6	4	4	2	F	102/	104	104	65	488,299	454.54			
			0	0	0	1	3	0	1	0	2	2	F	26.56	12.64	62.24	514.20					
			2	2	2	2	0	0	0	0	3			65								
			7	4	4	4	2	5	2	4					36.64							
					R	R	R	R														
					1 <sup>a</sup>	1 <sup>b</sup>																

Source: MSFC, Final Flight Evaluation Reports,  
STS-1 and subsequent missions,  
Section 4.0.

**SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1**

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 1 Comp.												Main Engine Position 1 Performance Summary				Remarks															
		E	M	N	L	H	L	H	P	P	L	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec		Vacuum Thrust, lb 150 sec	Vacuum Specific Impulse, sec													
30	28	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	104/ 10.08	97/ 27.04	104/ 65.60	65/ 515.52	487,331	453.06	
31	34	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	104/ 10.24	100/ 26.08	104/ 64.96	65/ 511.68	489,178	454.49	
32	33	2	4	4	2	4	2	4	4	4	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	104/ 10.48	97/ 26.48	104/ 55.92	65/ 505.48	489,493	452.01	
33	32	2	4	4	2	4	2	4	4	4	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	104/ 10.36	65/ 34.20	104/ 65.08	65/ 511.96	487,131	452.88	
34	36	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	104/ 10.30	98/ 27.44	104/ 59.44	65/ 509.68	487,223	453.05	

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

\*Changed since last hot fire/STS-29  
\*\*Nozzle/MCC Inspection: New GIS/seal

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 1 Comp.												Main Engine Position 1 Performance Summary				Remarks					
		E	M	N	L	H	L	H	P	O	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec		Vacuum Specific Impulse, sec				
35	31	103	2	4	4	2	2	2	5	2	0	2	0	2	0	2	104/10.24	97/24.32	104/65.44	65/510.56	489,314	452.02	
			0	0	0	1	0	0	2	0	2	0	1	4			24.32	65.44					
			1	0	1	2	2	3	0	1	4						67/34.40						
			1	5	6	6	7	0	3	6													
36	41	103	2	4	4	2	2	2	5	2	0	2	0	2	0	2	104/10.40	100/24.16	104/64.96	65/509.56	489,117	452.03	
			0	0	0	1	0	0	2	0	2	0	1	4			24.16						
			1	0	1	2	2	3	0	1	4						67/34.08						
			1	5	6	6	7	0	3	6													
37	38	104	2	2	2	2	2	2	6	2	0	0	2	0	4	104/10.24	72/32.48	104/68.48	65/509.24	486,872	453.05		
			0	0	0	0	3	0	0	0	0	2	0	0	0	32.48							
			1	2	2	2	2	2	0	2	0	2	8	0									
			9	3	4	5	3	2	8	0													
38	35	102	2	2	4	2	4	2	4	2	4	2	0	0	5	104/10.24	71/32.96	104/69.44	65/511.20	487,138	452.85		
			0	0	0	1	2	1	0	0	0	0	0	0	0	32.96							
			2	1	0	0	0	0	3	0	0	0	0	0	0								
			1	3	6	6	5	1	8	0													
39	37	104	2	2	2	2	9	2	6	2	6	2	0	0	4	104/10.20	87/24.44	104/65.40	65/512.44	487,399	453.02		
			0	0	0	0	3	0	0	0	0	0	0	2	0	24.44							
			1	2	2	2	0	2	0	2	0	2	0	2	0	67/34.84							
			9	3	4	5	9	2	8	0													

Source: NSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section.

\*Changed since last hot fire/STS-29  
\*\*Nozzle/MCC Inspection: New GIS/seal

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS-Orb. OV-	Main Engine Pos. 1 Comp.												Main Engine Position 1 Performance Summary				Remarks			
		E	M	N	L	H	L	H	P	L	H	P	C	Attained Max Throttle, percent, time, sec	Attained Max q Throttle, percent, time, sec	Re-attained Max Throttle, percent, time, sec	3g Attained Throttle, percent, time, sec		Vacuum Thrust lb @ 150 sec	Vacuum Specific Impulse, sec	
40	39	2	2	4	2	2	2	4	2	4	2	4	2	F	100/ 4.37	94/ 25.76 70/ 32.16	104/ 63.68	67/ 514.40	487,940	451.64	
41	40	2	2	4	4	4	4	2	4	2	4	2	4	F	104/ 10.04	98/ 26.72 71/ 36.00	104/ 66.72	67/ 509.76	488,236	453.28	
42	43	2	2	4	2	4	2	4	2	6	2	6	2	F	104/ 10.24	84/ 30.56 67/ 58.20	104/ 65.40	67/ 507.48	487,762	452.85	
43	48	2	2	4	2	4	2	4	2	5	2	5	2	F	100/ 4.21	89/ 27.40 67/ 34.44	104/ 66.12	67/ 516.36	487,511	453.02	
44	44	2	2	4	4	4	4	4	4	2	4	2	4	F	104/ 10.44	73/ 33.32	104/ 62.76	67/ 509.70	488,162	452.89	

\* Hardware changes since final acceptance, flow recirculation inhibitor (FRI) installed  
 \*\* Replaced prior to STS-48  
 Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS- Orb. OV-	Main Engine Pos. 1 Comp.										Main Engine Position 1 Performance Summary				Remarks	
		E	M	N	L	H	L	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max Q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec		Vacuum Specific Impulse, sec
45	103	2	4	2	4	2	4	4	2	F	100/ 4.26	75/ 33.52 N/A	104/ 65.20	67/ 510.12	487,783	452.33	
46	104	2	4	4	4	2	2	2	2	F	100/ 10.88	89/ 29.32 74/ 35.84	104/ 69.28	67/ 510.68	489,866	452.51	
47	105	2	4	4	4	4	4	4	2	F	104/ 10.42	89/ 25.14 73/ 36.02	104/ 61.70	67/ 509.14	488,501	452.76	
48	102	2	2	2	2	9	2	4	2	F	104/ 10.38	74/ 38.06 NONE	104/ 65.58	67/ 506.99	489,382	452.52	

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

\* Replaced prior to STS-12

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS- Orb. No.	Main Engine Pos. 1 Comp.										Main Engine Position 1 Performance Summary				Remarks	
		E n g	M C C	N z l	L P O	H P O	L P P	H P P	P T P	P T P	P T P	Attained Max Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec		Vacuum Specific Impulse, sec
49	46 104	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	104/ 10.32	82/ 30.16 67/ 57.84	104/ 65.20	67/ 509.37	487,908	452.66	
50	47 105	2 4 2	2 4 2	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	100/ 4.23	67/ 34.20 NONE	104/ 66.36	67/ 513.73	489,322	452.56	
51	52 102	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	100/ 4.16	95/ 25.86 67/ 31.30	104/ 66.10	67/ 511.79	489,255	452.58	
52	53 103	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	100/ 4.07	73/ 28.07	104/ 61.19	67/ 507.11	489,180	452.53	

Notes \* Replaced prior to STS-42  
\*\* Changed since last flight/FRF

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.



SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 1

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 1 Comp.												Main Engine Position 1 Performance Summary				Remarks				
			E	M	N	L	H	L	H	P	P	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec		Vacuum Thrust lb e 150 sec	Vacuum Specific Impulse, sec		
53	54	105	2	2	2	2	2	9	2	4	2	4	2	F	104/ 4.04	72/ 28.92	104/ 56.52	67/ 503.53	488,350	452.44			
			0	0	0	1	4	1	1	1	0	4	4										
			1	2	2	2	0	2	1	2	1	2	3										
			9	3	4	6	9	5	0	0	0												
54	56	103	2	4	4	4	4	4	2	6	2	6	2	F	100/ 4.06	89/ 21.22 69/ 28.42	104/ 62.02	67/ 508.26	487,153	452.51			
			0	0	0	2	1	1	1	1	0	4	4										
			2	1	0	0	1	3	0	2	2	8											
			4	3	6	5	1	1	1	8	6												
55	55	102	2	2	5	2	2	2	2	4	2	4	2	F	100/ 4.01	72/ 27.05	104/ 56.65	67/ 503.70	489,442	453.26	Main engine 2031 replaced main engine 2030 after an on-pad abort. (IPA STS-55-E-1)		
			0	0	0	1	4	1	1	1	0	3	3										
			3	1	0	2	2	2	4	2	4	2	9										
			1	9	1	0	3	0	0	0	8												

Notes: \* Replaced prior to STS-42  
 \*\* Changed since last flight/FRF  
 Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS-Orb. OV-	Main Engine Pos. 2 Comp.										Main Engine Position 2 Performance Summary					Remarks								
		E	M	C	N	L	H	L	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec		Vacuum Specific Impulse, sec							
1	102	2	2	2	2	0	2	2	0	2	0	2	0	2	0	2	65	55.00 *	100	73.00 *	65	513.00 *	408,610	454.63	
2	102	2	2	2	2	0	2	2	0	2	0	2	0	2	0	2	58.00 *	100	70.00 *	65	516.00 *	470,795	454.45		
3	102	2	2	2	2	0	2	2	0	2	0	2	0	2	0	2	42.00 *	100	62.00 *	65	514.00 *	470,972	454.44		
4	102	2	2	2	2	0	2	2	0	2	0	2	0	2	0	2	46.30 *	65	60.800	65	513.40	470,520	454.48		
5	102	2	2	2	2	0	2	2	0	2	0	2	0	2	0	2	42.90 *	85	62.30 *	65	511.30 *	470,831	452.76		
6	099	2	2	2	2	0	2	2	0	2	0	2	0	2	0	2	39.30 *	81	71.60 *	65	500.30 *	488,967	453.26		

\*Indicates revised or additional data provided by MSFC post-publication of referenced source.  
 Note: All engine times are referenced to Engine Start Command (ESC).  
 Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 2 Comp.														Main Engine Position 2 Performance Summary				Remarks			
		E	M	N	L	H	L	H	P	L	H	P	O	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec		Vacuum Thrust, lb e 150 sec	Vacuum Specific Impulse, sec	
7	099	2	2	2	2	2	2	2	2	2	2	9	2	2	2	9	75	37.20	104	65	488,668	453.68	
		0	0	0	1	0	2	2	0	2	2	0	1	1	1	1	37.20	70.60*	501.00				
		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
		5	4	5	3	5	1	1	5														
8	099	2	2	2	2	2	2	2	2	2	9	2	2	2	2	9	69	34.10	100	65	470,728	453.41	
		0	0	0	1	0	2	2	0	2	2	0	1	1	1	1	34.10		70.90	522.00*			
		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
		5	4	5	3	5	1	1	5														
9	102	2	4	4	2	9	4	2	2	9	4	2	2	2	2	9	78	37.40	104	65	487,804	453.46	
		0	0	0	0	2	0	2	0	2	0	2	0	4					68.80	510.20*			
		1	0	0	1	1	0	1	1	1	0	1	1	1	1								
		8	2	1	6	1	1	1	3	9	R	R	R										
10	41B 099	2	2	2	2	2	2	2	2	2	2	9	2	2	2	9	73	38.51	100	65	471,002	453.31	
		0	0	0	1	0	2	2	0	2	2	0	5						69.80*	522.10*			
		1	1	1	1	1	1	1	1	1	1	1	1	1	1								
		5	4	5	3	5	1	1	5														
11	41C 099	2	4	2	0	2	2	2	2	2	2	2	2	2	2	9	67	36.11	104	65	488,495	453.33	
		0	0	0	2	0	0	0	0	0	0	0	0	5					67.69	511.35			
		2	0	2	0	2	1	1	1	1	1	1	2										
		0	4	0	8	1	9	8	1														
12	41D 103	2	4	4	2	9	4	2	2	9	4	2	2	2	2	9	84	27.57	104	65	487,572	453.52	First 2-step main engine throttle.
		0	0	0	0	2	0	2	0	2	0	0	4						77.96	515.79			
		1	0	0	2	1	0	1	0	1	0	1	1	1	1								
		8	2	1	0	1	0	1	1	7	9	R	R										

\*Indicates revised or additional data provided by MSC  
post-publication of reference source.  
Note: All engine times are reference to Engine Start Command (ESC).  
Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions. Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 2 Comp.												Main Engine Position 2 Performance Summary				Remarks								
		E	M	C	N	L	H	L	H	P	O	C	N	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec		Vacuum Thrust lb @ 150 sec	Vacuum Specific Impulse, sec						
13	41G 099	2	4	2	0	2	2	0	2	2	0	2	9	2	9	2	0	5	92	25.63	100	65	468,816	453.23	HPFTP 9311R1 replaced 2018.	
		0	0	0	2	0	0	3	0	3	0	5							65							
		2	0	2	0	2	1	1	2	1	2								36.15							
		0	4	0	8	1	9	1	1	R																
14	51A 103	2	4	4	2	9	4	2	2	2	0	2	9	2	9	2	0	9	89	22.25	104	65	489,000	453.36		
		0	0	0	0	2	0	0	0	0	0	1	1	1	1	1	1	1	67							
		1	0	0	2	1	0	1	1	1	7	9							37.09							
		8	2	1	0	1	R	R	R	R	R															
15	51C 103	2	4	4	2	2	2	4	2	2	4	2	2	2	2	0	9	92	22.73	104	65	489,208	453.29	HPOTP 9211 replaced by 2018R1.		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	65							
		1	0	0	2	1	0	1	0	1	1	1	1	1	1	1	1	38.57								
		8	2	1	0	R	R	R	R	R	R	R	R	R	R	R										
16	51D 103	2	4	4	2	2	2	4	2	2	4	2	2	2	2	0	2	90	22.61	100	65	469,405	453.45	Controller F9 replaced by F22.		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	65							
		1	0	0	2	1	0	1	0	1	1	1	1	1	1	1	1	38.21								
		8	2	1	0	R	R	R	R	R	R	R	R	R	R	R										
17	51B 099	2	4	2	0	2	2	0	2	2	0	2	9	2	9	2	0	94	25.89	104	65	488,270	453.40			
		0	0	0	2	0	0	0	0	0	0	0	3	0	3	0	5	36.85								
		2	0	2	0	2	1	1	2	1	1	2	1	1	2	1	1									
		0	4	0	8	1	9	1	1	1	1	1	R	R	R	R										
18	51G 103	2	4	4	2	2	2	4	2	2	4	2	2	2	2	0	2	83	27.64	104	65	489,900	453.32	HPOTP 2018R1 replaced by 2016R3. HPFTP 2017R2 replaced by 4201.		
		0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	27.64								
		1	0	0	2	1	0	0	1	0	0	1	1	1	1	1	1	38.52								
		8	2	1	0	R	R	R	R	R	R	R	R	R	R	R										

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS-Orb. OV-	Main Engine Pos. 2 Comp.													Main Engine Position 2 Performance Summary				Remarks								
		E	M	N	L	H	L	H	L	H	P	O	N	C	Attained Max Throttle, per time sec	7-attained Max Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3y Throttle, percent/ time, sec		Vacuum Thrust lb @ 150 sec	Vacuum Specific Impulse, sec						
19	51F 099	2	4	2	0	4	2	4	2	4	2	0	2	4	2	0	2	0	2	7	104	97	104	91	488,159	453.40	Controller F27 replaced F26 after launch abort. HPOTP 2021 replaced by 4003R1. HPOTP 9311R1 replaced by 4202R1.
20	51I 103	0	0	0	2	0	0	2	0	0	2	0	2	0	2	0	2	0	2	7	104	70	104	65*	489,224	453.52	HPOTP 2016R3 replaced by 2016R2.
21	51J 104	1	0	0	2	1	0	0	2	1	0	0	2	1	0	0	2	1	9	104	68	104	65	489,420	453.38		
22	61A 099	2	4	4	0	4	2	4	2	4	2	0	2	4	2	0	2	7	100	89	104	65	488,202	453.45			
23	61B 104	2	2	2	2	9	2	9	2	9	2	0	2	9	2	0	2	9	104	65	104	65	489,651	453.40			

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions. Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS-Orb. OV-	Main Engine Pos. 2 Comp.											Main Engine Position 2 Performance Summary				Remarks			
		E	M	C	H	L	P	P	P	P	P	P	Attained Max Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust 150 sec		Vacuum Specific Impulse, sec		
24	61C	2	4	4	2	2	4	4	4	4	4	4	4	4	4	85	104	67	590,277	453.32
		0	0	0	2	5	0	0	0	0	0	0	0	0	0	41.91	104	502.37		
		1	0	0	2	0	0	0	0	0	0	1	2	2	2	69	72.79			
		8	2	1	0	4										64.67				
25	51L	2	4	4	0	4	2	4	2	4	2	4	2	4	2	94	104	N/A	N/A	N/A
		0	0	0	2	0	0	0	2	0	2	0	2	0	2	26.28	104	N/A		
		2	0	0	0	0	1	0	2	0	2	0	2	0	65	58.28				
		0	4	5	8	3	9	2	1	2	1	2	1	2	41.80					
26	103	2	2	4	2	2	2	2	2	2	5	2	2	5	102	104	65	488,590	452.96	
		0	0	0	1	0	0	0	2	0	2	0	0	5	24.24	104	512.40			
		2	2	2	0	0	2	2	2	0	2	2	2	2	65	65.52				
		2	2	2	4	5	4	3	2	2	3	2	2	2	34.16					
27	27	2	4	4	2	2	2	2	2	2	2	2	2	2	96	104	65	488,238	454.64	
		0	0	0	2	1	0	3	1	1	3	1	1	1	26.40	104	513.80			
		3	2	1	1	2	2	2	0	2	2	0	6	6	65	64.32				
		0	6	3	6	2	7	3	7	3	7	3	7	7	34.88					
28	103	2	4	4	2	2	2	2	2	2	5	2	2	5	66	104	65	488,380	452.96	
		0	0	0	1	2	0	2	0	2	0	2	0	5	35.00	104	509.08			
		2	2	2	0	2	2	2	0	2	2	2	2	2		63.96				
		2	2	2	4	2	4	2	4	3	2	2	2	2						
29	30	2	4	4	2	2	2	2	2	2	2	2	2	2	102/	104	65	488,022	454.67	
		0	0	0	2	2	0	3	1	1	2	2	1	1	26.68	104	514.28			
		3	2	1	1	2	2	2	0	9	2	2	0	9	65	62.36				
		0	6	3	6	3	7	3	7	3	7	3	7	7	36.76					

Source: NSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 2 Comp.										Main Engine Position 2 Performance Summary				Remarks										
		E n g	M C C	N z l	L P O T	H P O T	L P F T	H P F T	P P P	C n t l y	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec		Vacuum Specific Impulse, sec									
30	28	102	2	2	4	2	4	2	4	2	4	2	5	2	2	0	0	1	1	5	97/ 27.20 65/ 33.76	104/ 65.76	65/ 515.64	487,742	453.00	
31	34	104	2	2	4	2	4	2	4	2	4	2	4	2	2	3	0	1	1	7	100/ 26.24 65/ 34.24	104/ 65.12	65/ 511.84	488,247	453.66	
32	33	103	2	2	4	2	4	2	4	2	4	2	6	2	6	1	1	0	2	7	97/ 26.60 65/ 40.84	104/ 56.04	65/ 506.64	489,478	453.55	
33	32	102	2	2	4	2	4	2	4	2	4	2	4	2	4	0	0	1	1	5	65/ 34.28 102/ 24.36	104/ 65.16	65/ 512.04	488,775	452.93	
34	36	104	2	2	4	2	4	2	4	2	4	2	6	2	6	0	0	1	1	7	98/ 27.56 75/ 35.24	104/ 59.56	65/ 509.76	488,126	454.74	

Source: NSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 2 Comp.												Main Engine Position 2 Performance Summary				Remarks
			E	M	N	L	H	L	L	H	P	O	P	C	Attained Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained Throttle, percent/ time, sec	
35	31	103	2	2	4	2	4	2	6	2	2	F	104/ 10.40	97/ 24.48	104/ 65.60	65/ 510.72	489,599	453.56	
			0	0	0	1	0	1	1	0	2	F							
			3	1	1	2	0	2	0	2	7								
			1	9	7	0	R	R	R	R	8		67/ 34.56						
							1	1	1										
36	41	103	2	2	4	2	2	2	4	2	4	F	104/ 10.52	100/ 24.28	104/ 65.08	65/ 509.72	489,355	453.56	
			0	0	0	1	5	1	0	0	2	F							
			3	1	1	2	2	2	1	2	7								
			1	9	7	0	R	R	R	R	8		67/ 34.20						
							1	1	1										
37	38	104	2	4	2	2	4	2	6	2	2	P	104/ 10.36	72/ 32.60	104/ 68.60	65/ 509.40	489,242	450.95	
			0	0	0	1	1	0	0	0	7	P							
			2	0	2	0	0	2	0	2	2								
			2	6	3	4	7	4	7	2	2								
							R	R	R	R	1								
							1	3	1	3									
38	35	102	2	2	4	4	6	4	4	2	4	F	104/ 10.36	71/ 33.08	104/ 69.56	65/ 511.32	489,022	452.55	
			0	0	0	3	0	0	0	0	1	F							
			1	2	0	0	0	0	0	0	6								
			2	0	2	6	3	6	7	5									
							R	R	R	R	3								
							3	3	3										
39	37	104	2	4	2	2	2	2	4	2	4	F	104/ 10.32	87/ 24.56	104/ 65.52	65/ 512.52	489,766	453.53	
			0	0	0	1	0	1	0	0	2	F							
			3	1	1	2	2	2	1	2	9		67/ 34.96						
			1	9	7	0	R	R	R	R	8								
							1	1	1	3									

Source: NSPC, Final Flight Evaluation Reports,  
STS-1 and subsequent missions,  
Section 4.0.



SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 2 Comp.										Main Engine Position 2 Performance Summary					Remarks						
			E	M	N	L	H	L	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec	Vacuum Specific Impulse, sec							
40	39	103	2	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	67/ 514.48	488,528	452.37	
			0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0				
			3	2	1	3	0	2	1	1	1	1	5											
			0	6	3	0	6	7	1	1	5													
								R	R															
								1	2															
41	40	102	2	4	2	2	4	8	6	2	2	4	2	4	0	0	2	2	2	2	67/ 509.84	488,499	450.53	
			0	0	0	1	5	2	0	0	0	0	0	0	0	0	0	0	0	0				
			2	0	2	0	0	2	0	2	2	2	2	7	1	1	1	1	1	1				
			2	6	3	4	2	0	7	2														
								R	R	7	R	R	1											
								1	2	R	1													
42	43	104	2	4	2	2	4	2	4	4	2	4	2	4	0	0	2	2	2	2	67/ 507.60	489,470	452.54	
			0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0				
			1	2	0	1	2	0	0	0	0	0	2	6										
			2	0	2	3	5	6	7	5														
								R	R		R													
								1	3		3													
43	48	103	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	67/ 516.48	468,867	453.57	
			0	0	0	1	2	1	3	0	2	2	2	9										
			3	1	1	2	2	2	2	2	2	2	2	8										
			1	9	7	0	6	0	3	8														
								R	R		R													
								4	1	2														
44	44	104	2	4	2	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2	67/ 509.88	485,958	452.57	
			0	0	0	1	2	1	3	0	2	2	2	9										
			3	2	1	3	0	2	1	1	7													
			0	6	3	0	6	7	1	1	5													
								R	R		R													
								2	2		2													

Note: \* Hardware change since final acceptance, FRI installed  
 \*\* Replaced prior to STS-48  
 Source: NSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 2 Comp.										Main Engine Position 2 Performance Summary				Remarks	
		E	M	N	L	H	L	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec		Vacuum Specific Impulse, sec
45	42	2	4	2	2	4	6	6	2	P	100/4.40	75/33.64 N/A	104/65.32	67/510.26	489,211	451.04	
46	45	2	4	2	2	4	4	4	2	F	100/11.00	89/28.44 74/35.96	104/69.40	67/510.80	489,003	452.69	
47	49	2	4	4	4	2	4	4	2	F	104/10.54	89/25.26 73/36.14	104/61.58	67/509.30	489,693	452.46	
48	50	2	4	2	2	2	4	4	2	F	104/10.48	74/38.16 NONE	104/65.68	67/507.12	490,121	452.51	

Note: \* Replaced prior to STS-42  
Source: NSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 2

Miss. Seq. No.	STS- Orb. No.	Main Engine Pos. 2 Comp.										Main Engine Position 2 Performance Summary				Remarks										
		E	M	N	L	H	L	H	P	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec		Vacuum Thrust lb @ 150 sec	Vacuum Specific Impulse, sec								
49	46 104	2	4	2	2	9	2	2	2	2	2	2	2	2	2	2	2	2	2	104/ 10.44	82/ 30.28	104/ 65.32	67/ 509.49	487,637	452.66	
50	47 105	2	4	2	2	4	8	2	2	2	2	2	2	2	2	2	2	2	2	100/ 4.25	67/ 34.32 NONE	104/ 66.48	67/ 513.84	488,966	452.69	
51	52 102	2	4	4	4	2	2	4	2	2	4	2	2	4	2	2	2	2	2	100/ 4.17	95/ 25.96 67/ 31.42	104/ 68.22	67/ 511.90	489,275	452.49	
52	53 103	2	4	2	2	2	4	2	2	4	4	2	4	4	2	4	2	4	2	100/ 4.09	73/ 28.09	104/ 61.21	67/ 507.14	489,474	452.53	

Note: \* Replaced prior to STS-42  
\*\* Changed since last flight/FRF  
Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.



SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 3 Comp.													Main Engine Position 3 Performance Summary				Remarks	
			E	M	C	N	L	H	L	H	L	P	C	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb	Vacuum Specific Impulse, sec			
1	1	102	2	2	0	0	2	2	2	0	0	0	0	2	P	100/ 4.20 *	100/ 73.00 *	65/ 513.00 *	471,411	454.14	
			0	0	0	0	0	0	0	0	0	0	0	0	7					*	
			5	5	4	4	5	7	9	5											
2	2	102	2	2	2	2	2	2	0	0	0	0	0	2	P	100/ 4.20 *	100/ 70.00 *	65/ 516.00 *	472,029	454.17	
			0	0	0	0	0	0	0	0	0	0	0	0	7						
			5	5	6	4	5	7	9	5											
3	3	102	2	2	2	2	2	2	0	0	0	0	0	2	P	100/ 4.20 *	100/ 62.00 *	65/ 514.00 *	472,816	454.15	
			0	0	0	0	1	0	0	0	0	0	0	0	7						
			5	5	6	4	5	7	9	5											
4	4	102	2	2	2	2	2	2	0	0	0	0	0	2	P	100/ 4.20 *	100/ 60.80 *	65/ 513.40 *	471,911	454.17	
			0	0	0	0	0	0	0	0	0	0	0	0	7					*	
			5	5	6	4	5	7	9	5											
5	5	102	2	2	2	2	2	2	0	0	0	0	0	2	P	100/ 4.75 *	100/ 62.30 *	65/ 511.30 *	471,786	452.09	
			0	0	0	0	0	0	0	0	0	0	0	0	7						
			5	5	6	4	5	7	9	5											
6	6	099	2	2	2	2	2	2	2	2	2	2	2	2	F	104/ 14.40 *	104/ 71.60 *	65/ 500.30 *	488,819	453.76	
			0	0	0	0	0	0	0	0	0	0	0	0	1						
			1	1	1	1	1	1	1	1	1	1	1	1	2						
			2	7	6	2	6	6	R	1											

\*Indicates revised or additional data provided by MSFC post-publication of referenced source.  
 Note: All engines times are referenced to Engine Start Command (ESC).  
 Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 3 Comp.												Main Engine Position 3 Performance Summary				Remarks						
			E	M	N	L	H	L	H	P	P	O	F	T	T	P	P	D		C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec
7	7	099	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	F	104/ 11.50	75/ 37.20	104/ 70.60 *	65/ 501.00	488,942	453.37
8	8	099	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	F	100/ 4.20 *	69/ 34.10 *	100/ 70.90 *	65/ 522.00 *	469,900	453.33
9	9	102	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	F	104/ 10.50 *	78/ 37.40 *	104/ 68.80 *	65/ 510.20 *	488,961	453.41
10	418	099	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	F	100/ 4.54 *	73/ 38.50 *	100/ 69.80 *	65/ 522.10 *	469,828	453.26
11	41C	099	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	F	104/ 11.03	67/ 36.23	104/ 67.91	65/ 511.50	489,464	453.32

\* Indicates revised or additional data provided by MFSC post-publication of reference source.  
 Note: All engine times are reference to Engine Start Command (ESC).  
 Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions. Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS No.	Orb. OV-	Main Engine Pos. 3 Comp.													Main Engine Position 3 Performance Summary				Remarks
			E	M	N	L	H	L	H	P	O	H	P	C	Attained Max Throttle, percent/time, sec	Attained Max Q Throttle, percent/time, sec	Re-attained Max Throttle, percent/time, sec	Attained Throttle, percent/time, sec	Vacuum Thrust lb @ 150 sec	
12	41D	103	2	2	2	2	4	4	9	4	2	2	F	104/11.24	84/27.70	104/78.12	65/515.92	487,516	453.55	First 2-step main engine throttle. ME2021 replaced ME2017 after abort.
			0	1	0	0	0	1	0	0	0	1	6		27.70					
			1	0	2	1	0	0	0	0	2	6		65/38.51						
			7	5	1	9	1	5	1	3										
13	41G	099	2	2	2	2	4	4	2	4	2	F	100/4.32	92/25.75	100/69.07	65/531.41	468,167	453.43	ME2021 replaced ME2012.	
			0	0	0	0	0	0	0	0	0	1		25.75						
			2	1	2	1	0	2	0	2	6		65/36.27							
			1	5	1	9	1	1	1	3										
14	51A	103	2	2	2	2	9	9	9	2	2	F	100/4.28	89/22.35	104/77.43	65/514.01	489,000	453.35	ME2012 replaced ME2021.	
			0	0	0	0	1	2	1	0	1	2		22.35						
			1	1	1	1	1	0	1	1	1	2		67/37.23						
			2	7	6	2	0	6	8	4										
15	51C	103	2	2	2	2	9	9	4	2	P	100/4.20	92/22.87	104/71.55	65/511.61	489,840	453.22	HPFTP 2118 replaced by 4003. Controller F12 replaced by P7.		
			0	0	0	0	1	2	0	0	7		22.87							
			1	1	1	1	1	0	0	1	4		65/38.67							
			2	7	6	2	0	6	3	4										
16	51D	103	2	2	2	2	9	9	4	2	P	100/4.38	90/22.75	100/78.51	65/532.97	472,205	453.24			
			0	0	0	0	1	2	0	0	7		22.75							
			1	1	1	1	1	0	0	1	4		65/38.31							
			2	7	6	2	0	6	3	4										
17	51B	099	2	2	2	2	4	2	2	2	F	100/4.38	94/26.01	104/71.09	65/515.87	487,038	453.68	Controller F16 replaced by F6, HPFTP 4001R1 replaced by 2216.		
			0	1	0	0	0	0	0	2	6		26.01							
			2	0	2	1	0	2	1	2	3		65/36.97							
			1	5	1	9	1	1	6	3										

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS- No.	Orb. OV-	Main Engine Pos. 3 Comp.										Main Engine Position 3 Performance Summary				Remarks		
			E	M	N	L	H	L	H	P	P	O	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec		Attained Throttle, percent/ time, sec	Vacuum Thrust lb @ 150 sec
18	51G	103	2	2	2	2	2	9	9	4	2	P	104/ 10.84	83/ 27.76 65/ 38.64	104/ 78.68	65/ 516.38	490,400	453.42	
19	51F	099	2	2	2	2	4	2	2	2	2	F	104/ 11.15	97/ 26.95 65/ 39.71	104/ 66.47	91/ 583.41	486,783	453.70	
20	51I	103	2	2	2	2	2	2	9	4	2	P	104/ 10.55	70/ 35.71 67/ 37.79	104/ 64.87	65/ 508.33	491,227	453.31	HPOTP 9110 replaced by 2018R3.
21	51J	104	2	4	2	2	4	2	2	2	2	F	104/ 10.67	68/ 35.63 65/ 37.75	104/ 65.35	65/ 512.77	488,707	453.63	
22	61A	099	2	2	2	2	2	2	2	2	2	F	100/ 4.26	89/ 26.07 65/ 36.03	104/ 70.31	65/ 515.89	486,916	453.66	

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions. Section 4.0.



SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS- Orb. No.	Main Engine Pos. 3 Comp.																				Main Engine Position 3 Performance Summary				Remarks							
		E	M	C	N	L	H	L	H	P	O	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ time, sec	Vacuum Specific Impulse, sec													
23	61B 104	2	4	0	2	2	2	4	2	2	2	2	2	2	2	2	2	0	2	2	2	0	2	2	1	1	1	104/69.61	65/37.61	104/511.87	489,297	453.75	F15 replaced by F21.
24	61C 102	2	4	0	0	2	2	4	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	6	6	104/72.93	85/42.05 69/64.77	104/502.51	489,391	453.29		
25	51L 099	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	2	0	6	6	6	6		104/58.40	94/26.40 65/41.92	N/A	N/A	N/A	
26	26 103	2	4	0	0	2	2	2	2	2	2	2	2	2	2	2	2	4	4	4	0	0	0	0	7	7	104/65.62	102/24.34 65/34.26	104/512.50	488,013	453.27		
27	27 104	2	4	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	5	5	104/64.44	96/26.52 65/35.00	104/513.92	489,719	453.22	MSFC IFA STS-27-8-3, HPOTP inner raceway cracked at bearing 3, and wire particle found. Crack 0.005 to 0.010 in.	
28	29 103	2	4	0	0	2	2	4	2	2	2	2	2	2	2	2	2	4	4	4	0	0	0	0	7	7	104/64.04	66/35.08	65/509.08	487,848	453.29		

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0.

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 3 Comp.												Main Engine Position 3 Performance Summary				Remarks		
		E	M	N	L	W	L	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ time, sec	Vacuum Specific Impulse, sec				
29	30	2	4	2	2	4	2	6	2	2	6	2	2	104/ 12.64	102/ 26.76 65/ 36.84	104/ 62.44	65/ 514.40	490,509	453.21	
30	28	2	4	2	2	4	2	4	4	4	4	4	4	104/ 10.32	97/ 27.28 65/ 33.84	104/ 65.84	65/ 515.76	488,743	453.24	
31	34	2	4	2	2	6	2	6	2	2	6	2	2	104/ 10.52	100/ 26.34 65/ 34.36	104/ 65.24	65/ 511.91	489,660	453.24	
32	33	2	4	4	4	2	4	4	2	2	4	2	2	104/ 10.68	97/ 26.68 65/ 40.92	104/ 56.12	65/ 505.72	489,728	452.92	
33	32	2	4	2	2	2	2	2	2	2	2	2	2	104/ 10.60	65/ 34.44 102/ 24.52	104/ 65.32	65/ 512.16	488,361	453.27	

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS- No.	Oib. OV-	Main Engine Pos. 3 Comp.												Main Engine Position 3 Performance Summary				Remarks			
			E n g	M C	N 2	L P	L O	H P	H O	L P	L T	H P	H T	P P	C n t	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec		3g Attained Throttle, percent/ time, sec	Vacuum Thrust lb @ time, sec	Vacuum Specific Impulse, sec
34	36	104	2 0 7	2 0 2	2 0 3	2 4 2	2 4 2	2 4 2	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	104/ 10.56	98/ 27.68	104/ 59.68	65/ 509.92	487,175	454.42	
35	31	103	2 1 0	4 0 0	4 0 1	4 2 2	4 2 2	4 2 2	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	104/ 10.48	97/ 24.56	104/ 65.68	65/ 510.60	489,733	452.92	
36	41	103	0 0 7	0 0 1	0 0 2	0 1 1	0 1 1	0 1 1	0 1 1	0 1 1	0 1 1	0 1 1	0 1 1	0 1 1	0 1 1	104/ 10.60	100/ 24.36	104/ 65.16	65/ 509.80	490,220	452.89	
37	18	104	2 0 7	2 0 2	2 0 3	2 4 2	2 4 2	2 4 2	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	104/ 10.44	72/ 32.68	104/ 68.68	65/ 509.40	487,512	454.39	
38	35	102	2 0 8	2 0 1	2 0 2	2 4 2	2 4 2	2 4 2	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	4 0 0	104/ 10.52	71/ 33.24	104/ 69.72	65/ 511.44	487,814	453.28	

Source: NSFC, Final Flight Evaluation Reports,  
STS-1 and subsequent missions,  
Section 4.0

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS-Orb No.	Main Engine Pos. 3 Comp.												Main Engine Position 3 Performance Summary				Remarks	
		E	M	N	L	H	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	3g Attained Throttle, percent/ time, sec	Vacuum Thrust lb @ time, sec	Vacuum Specific Impulse, sec					
39	37	104	2	4	4	2	2	4	6	2	2	F	104/ 10.40	87/ 24.64	104/ 65.60	65/ 512.64	489,616	452.92	
			0	0	2	5	0	0	0	2	2	F		67/ 35.04					
			7	2	9	6	1	7	3	4									
							R	R	R										
							2												
40	39	103	2	4	4	2	4	2	2	2	2	F	100/ 4.30	94/ 26.00	104/ 63.92	67/ 514.64	486,397	453.81	
			0	0	1	0	0	1	0	2	2	F		70/ 32.40					
			2	1	1	2	0	2	2	2	2								
			9	2	5	1	8	9	6	7									
							R	R											
							3												
41	40	102	2	2	2	4	6	4	4	4	4	F	104/ 10.64	98/ 26.96	104/ 66.96	67/ 510.00	488,907	454.31	
			0	0	0	3	0	0	1	0	2	F		71/ 36.24					
			2	2	2	0	0	0	0	0	3								
			7	4	7	2	8	5	9	4									
							R	R	R										
							1												
42	43	104	2	4	4	2	2	2	6	4	4	F	104/ 10.48	84/ 30.80	104/ 65.68	67/ 507.72	487,751	453.29	
			0	0	0	4	2	0	0	0	1	F		67/ 58.48					
			2	1	1	2	0	2	0	0	8								
			8	8	2	7	5	8	9	5	**								
							R	R	R										
							1												
43	48	103	2	4	4	2	4	4	6	2	2	F	100/ 4.20	89/ 27.68	104/ 66.40	67/ 516.60	490,077	452.89	
			1	0	0	2	3	0	0	0	2	F		67/ 34.72					
			0	0	1	1	0	0	0	1	5								
			7	2	6	6	5	7	3	4									
							R	R	R										
							1*												

Notes:  
 \* Hardware change since final acceptance, FRI installed  
 \*\* Failure of unit FRI caused 7/24/91 launch scrub;  
 F21 was removed and replaced by F18  
 \*\*\* Replaced prior to STS-48

Source: MSFC, Final Flight Evaluation Reports,  
 STS-1 and subsequent missions,  
 Section 4.0

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS- Ov-	Main Engine Pos. 3 Comp.										Main Engine Position 3 Performance Summary				Remarks						
		E	M	C	Z	I	T	P	L	H	P	O	H	P	C		Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec	Attained 3g Throttle, percent/ time, sec	Vacuum Thrust lb @ time, sec	Vacuum Specific Impulse, sec
44	104	2	4	4	2	6	2	2	2	2	2	2	2	2	F	104/ 10.68	73/ 33.56	104/ 63.00	67/ 510.00	486,288	454.18	
45	103	2	2	2	4	6	2	2	2	2	2	4	4	4	F	100/ 4.19	75/ 33.72 N/A	104/ 65.42	67/ 510.36	487,398	453.41	
46	104	2	2	2	4	2	2	2	2	6	4	4	4	4	F	100/ 11.08	89/ 28.52 74/ 36.04	104/ 69.48	67/ 510.92	489,433	452.61	
47	105	2	4	4	4	4	4	2	2	4	2	2	2	2	F	104/ 10.68	89/ 25.40 73/ 36.28	104/ 61.72	67/ 509.40	488,541	452.75	
48	102	2	2	4	4	4	4	2	2	4	2	4	2	4	F	104/ 10.62	74/ 38.30 NONE	104/ 65.82	67/ 507.27	488,243	452.77	

Notes:  
\* REPLACED PRIOR TO STS-44  
\*\*REPLACED PRIOR TO STS-42

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS-Orb. No.	Main Engine Pos. 3 Comp.												Main Engine Position 3 Performance Summary				Remarks	
		E	M	N	L	H	L	H	P	P	O	P	C	Attained Max Throttle, percent/time, sec	Attained Max Q Throttle, percent/time, sec	Re-attained Max Throttle, percent/time, sec	Attained 3g Throttle, percent/time, sec		Vacuum Thrust lb @ time, sec
49	46	2	2	2	4	6	4	2	4	2	4	F	104/10.54	82/30.38	104/65.42	67/509.59	489,037	452.33	
		0	0	0	3	0	0	2	0	4	4	F		67/58.06					
		2	2	2	0	0	0	2	0	6	6								
		7	4	7	2	8	7	5	4										
						R													
						3													
50	47	2	4	4	2	6	2	2	2	2	4	F	100/4.34	67/34.44	104/66.60	67/513.97	489,010	452.51	
		0	0	0	1	1	0	3	0	4	4	F		NONE					
		2	1	1	2	0	2	2	2	5	5								
		9	2	5	1	3	9	2	7										
						R													
						2													
51	52	2	2	5	2	4	2	2	4	2	4	F	100/4.37	95/26.12	104/68.36	67/512.05	488,992	452.56	
		0	0	0	0	2	0	0	0	3	3	F		67/31.56					
		3	3	0	3	0	3	3	0	4	4								
		4	0	2	3	7	2	0	6										
						R													
						1													
						1													
52	53	2	4	4	4	2	4	2	2	2	4	F	100/4.11	73/28.11	104/61.23	67/507.16	488,709	452.53	
		0	0	0	0	0	0	0	0	5	5	F							
		1	0	2	0	3	0	3	1	1	1								
		7	2	3	9	1	9	2	8										
						R													
						1													
53	54	2	4	2	2	4	4	2	4	2	4	F	104/4.12	72/27.00	104/56.60	67/503.61	487,408	452.44	
		0	0	0	1	6	1	0	0	5	7	F							
		1	1	2	3	0	0	3	0	7	7								
		8	4	8	0	2	5	5	9										
						R													
						1													
54	56	2	4	2	2	4	4	2	4	2	4	F	100/4.06	89/21.18	104/61.98	67/508.23	487,505	452.51	
		0	0	0	1	6	1	0	0	5	5	F		69/28.38					
		1	1	2	3	0	0	3	0	7	7								
		8	4	8	0	2	5	5	9										
						R													
						1													

Notes: \* REPLACED PRIOR TO STS-44  
\*\*REPLACED PRIOR TO STS-42

Source: MSFC, Final Flight Evaluation Reports,  
STS-1 and subsequent missions,  
Section 4.0

SHUTTLE FLIGHT HISTORIES  
MAIN ENGINE POSITION 3

Miss. Seq. No.	STS-Orb. OV-	Main Engine Pos. 3 Comp.											Main Engine Position 3 Performance Summary				Remarks		
		S	M	N	L	H	L	H	P	P	O	P	C	Attained Max Throttle, percent/ time, sec	Attained Max q Throttle, percent/ time, sec	Re-attained Max Throttle, percent/ time, sec		Attained 3q Throttle, percent/ time, sec	Vacuum Thrust lb @ time, sec
55	102	2	4	4	2	4	2	4	2	4	2	F	100/ 4.02	72/ 27.26	104/ 56.66	67/ 503.67	487,688	453.26	Main engine 2029 replaced main engine 2011 after an on-pad abort. (IPA STS-55-E-1)

Notes: \* REPLACED PRIOR TO STS-44  
\*\*REPLACED PRIOR TO STS-42

Source: MSFC, Final Flight Evaluation Reports, STS-1 and subsequent missions, Section 4.0

MAIN ENGINE SERIAL NUMBER/MAIN PROPULSION SYSTEM ENGINE LOCATION

Miss. Seq. No.	STS. No.	Orb. OV-	Serial Number																							
			2005	2006	2007	2011	2012	2015	2017	2018	2019	2020	2021	2022	2023	2024	2109	2028	2031	2030	2027	2107	2026	2032		
1	1	102	3	2	1																					
2	2	102	3	2	1																					
3	3	102	3	2	1																					
4	4	102	3	2	1																					
5	5	102	3	2	1																					
6	6	099						3	2	1																
7	7	099						3	2	1																
8	8	099						3	2	1																
9	9	102					1					2	3													
10	41B	099						3	2													1				
11	41C	099						3								2						1				
12	41D	103								3	2											1				
13	41G	099														2	3					1				
14	51A	103						3				2										1				
15	51C	103						3				2										1				



MAIN ENGINE SERIAL NUMBER/MAIN PROPULSION SYSTEM ENGINE LOCATION

Miss. No.	STS. No.	Orb. OV-	Serial Number																																								
			2005	2006	2007	2011	2012	2015	2017	2018	2019	2020	2021	2022	2023	2024	2109	2028	2031	2029	2030	2027	2107																				
16	51D	103					3				2								1																								
17	51B	099																2	3																								
18	51G	103						3			2								1																								
19	51F	099																	2	3																							
20	51I	103						3			2								1																								
21	51J	104						1			3																																
22	61A	099																	2	3																							
23	61B	104									3																																
24	61C	102										1																															
25	51L	099																	2	3																							
26	26	103																		2																							
27	27	104																																									
28	29	103																																									
29	30	104																																									





SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS- No.	Orb. OV-	Mission Changes*	Event	Impact	Remarks
1	1	102	PD	BFS (backup flight software) failed to synchronize with PASS (primary avionics software system).  SRB ignition caused over-pressurization of Orbiter during lift-off.  TPS damage was experienced.	Two-day launch slip required to analyze problem and reconfigure for launch. April 10, 1981, launch plan - April 12, 1981, actual launch date.  Significant launch pad modifications were required.  Design improvements were required to reduce problem impact.	See problem STS 1-2  Effectiveness of modifications has been verified on subsequent flights. See integration problem STS 1-6 and problem STS 1-58.  This has been a recurring problem. Design improvements implemented following subsequent flights have significantly reduced problem impact. See problems STS 1-9, 29, 32, 49, 2-19, 3-16, 4-01, 4-29, 6-05, 7-27, 8-27, 9-32, and 41B-27.
2	2	102	PD	WCS problems were encountered.  H <sub>2</sub> O spill in forward RCS module occurred during servicing for STS-2.  Hold was required at T-31 seconds for APU oil system flush.  MEM OFJ failed during countdown due to contamination within a semiconductor die.	Design improvements are required.  This required extensive cleaning of the forward RCS module and some component and tile replacement. Significant turnaround impact resulted.  Eight-day launch slip (11/4/81 to 11/12/81) resulted. APU gear boxes were flushed and filters replaced to remove contaminants. APU periodic flush and gear box pressure maintenance was instituted.  Liftoff delayed 2 hours 40 minutes. MEM was replaced with spare which also failed. MEM from OV-099 was then installed.	This is a recurring problem. Design improvements have been implemented throughout ongoing flights. See problems STS 1-33, 3-14, 3-19, 3-47, 4-24, 6-40, 7-25, 41B-4, and 41C-9.  See problem STS 2-1.  See problem STS 2-2.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended; and S = Mission Shortened  
Source: JSC/VP Program Mission Reports, STS-1 and subsequent missions.  
JSC/VP3 Flight Problem Closures, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Mission Seq. No.	STS- No.	Orb. OV-	Mission Changes*	Event	Impact	Remarks
2	2	102	D	Second launch countdown delayed for 10 minutes to review systems status.	None	
				APU 3 shutdown 2 minutes before other APU's due to lube oil overtemperature. Fuel cell 1 failed.	Extensive test and analysis resulted in water preload charge.	See problem STS 2-4. Problem repeated on STS-3, see STS 3-4.
			S		Flight was ended at 2 days, 6 hours - planned for 5 days, 4 hours. Significant mission replanning was required. Fuel cell 1 was replaced and confidence runs were performed on remaining fuel cells.	See problem STS 2-8.
3	3	102	D	SSME GV <sub>2</sub> purge heater temperature sensor failed in GSE.	Launch delayed 1 hour.	
				APU 3 early shutdown during ascent was due to WSB (water spray boiler) freezing.	Extensive testing and analysis was required as well as WSB orifice replacement.	See problem STS 3-4.
				Port payload bay door latch problems were encountered.	Thermal conditioning was required to close door. Damaged parts were replaced and door rigging checked. Functional and structural margins were reverified.	See problem STS 3-9.
			E	Bad weather was encountered at White Sands landing site.	The mission was extended for one day.	
				Orbiter landed at White Sands.	Dust storm caused extensive contamination. Vehicle cleaning and maintenance caused significant turnaround impact.	
				Brake damage occurred at landing.	Design changes have been implemented and extensive analysis and tests have been conducted.	This has been a recurring problem. Damage is not a safety issue, but requires hardware replacement. See problems STS 3-43, 4-31, 5-22, 6-38, 7-24, 8-22, 41B-29, 41C-21.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended; JSC/VF Program Mission Reports, STS-1 and subsequent missions.  
and S = Mission Shortened JSC/VF3 Flight Problem Closures, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Mission Seq. No.	STS- No.	Orb. OV-	Mission Changes*	Event	Impact	Remarks
4	4	102		Prelaunch rainstorms resulted in excessive moisture being absorbed by the tiles. Both SRB's were lost after water impact. Port payload bay door actuator stalled.	Tile bakout on-orbit required considerable mission replanning. Tile waterproofing was improved and tile witness panel was implemented. Extensive recovery operations and problem analysis effort resulted. Thermal conditioning required to close doors had mission planning impact.	See problem STS 4-1.
5	5	102	5	Vernier thruster coating degradation was noted. EVA (extravehicular maneuvering unit) failed.	Vernier thruster replacement was required. Testing and improvement of thrust nozzle coating was initiated.	Cold-case closure will require thermal conditioning. See problem STS 4-13. See problems STS 4-33.
6	6	099	PD	OMS nozzle cracks were found postflight. SSME 1 H, leak into aft compartment was detected during FRP. Cracks in SSME No.1 detected by second FRP post-firing inspection.	EVA was cancelled. Extensive analysis and tests were conducted. Intensified inspection procedures will be used until design changes can be implemented. All SSME's were removed and replaced. Extensive failure analysis, testing, and fixes caused launch delay of 2 months and 10 days.	Problems were corrected and EMU's were successfully flown on subsequent flights. See problems STS 5-12 and 5-14. See problem STS 5-23.
7	7	099	5	IUS failed to place TDRS in geosynchronous orbit. Humidity separator B circuit breaker tripped due to burned wire bundle. Weather at NSC was unacceptable for landing.	Extensive TDRS maneuvering to achieve proper orbit was required. Failure analysis and fixes delayed other IUS-boosted payloads and Specalab launch. Extensive review was made of wire routing and protection from abrasion. Orbiter landed two revolutions later at Edwards AFB. Landing occurred on revolution 98 instead of the planned revolution 96.	See problem STS 6-8.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended; and S = Mission Shortened  
Source: JSC/VP Program Mission Reports, STS-1 and subsequent Missions.  
JSC/VP3 Flight Problem Closure, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS- No.	Orb. OV-	Mission Changes*	Event	Impact	Remarks
8	8	099	PD	On-orbit TDSS testing required.	Launch was delayed 10 days.	Test of TDSS required to assure operation of system in preparation for first Spacelab mission.
			D	Bad weather at KSC.	Launch was delayed 17 minutes.	
			PD	SRB nozzle erosion was found after recovery.	Rollback and vehicle checkout was required to change SRB nozzles prior to STS-9 flight causing a 30-day launch delay on STS-9.	
9	9	102		Fuel cells produced excessive hydrogen.	Water with gas was dumped through the flash evaporator. Additional hydrogen separator was installed for near-term follow-on flights.	See problem STS 9-13.
			E	GPC 1 and 2 failed and IMU 1 failed.	Landing was delayed by approximately 8 hours to analyze problems and reconfigure for landing.	See problem STS 9-23, 24, and 25.
				APU 1 and 2 underspeed shutdown occurred after landing.	All 3 APUs were removed for repair and analysis. Extensive evaluation isolated the problem to a cracked injector stem. Exhaust duct purge was implemented and APU retrofit of new stems was initiated.	See problem STS 9-26
				Left-hand OMS pod burn-through was due to critical missing tile plus high energy entry.	OMS pod was removed for repair.	See problem STS 9-32
10	41B	099	PD	Ongoing APU failure analysis	Launch was delayed 4 days	See problem STS 9-26.
				RWS wrist joint failed.	SPAS could not be deployed. EVA replanned and executed. RWS was removed postflight.	See problem STS 41B-16.
				WESTAR and PALAPA PAM burns failed.	PALAPA deployment was delayed one day. Rescheduling of PAM-boosted payloads resulted.	
				Ice formed on dump nozzles and caused damage to left-hand OMS pod during entry.	Left-hand OMS pod repair required. Retrofit of OV-103 OMS pod was required for STS 41-C. Repair of cracked water line was completed. Operational changes implemented for STS 41-C and subs. Design changes in dump nozzle area implemented for STS 41-D.	See problem STS 41B-27 and STS 41D-14.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended;  
and S = Mission Shortened

Source: JSC/VF Program Mission Reports, STS-1 and subsequent missions.  
JSC/VF3 Flight Problem Closures, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS-Orb. OV- No.	Mission Changes*	Event	Impact	Remarks
11	41C 099	PD	Right hand OMS pod AFRSI replaced to preclude pod burn through in the event of a maximum heating condition on entry with LOSF. TPAD (trunnion pin attachment device) failed to grapple with the SMM (Solar Maximum Mission) spacecraft. Weather as KSC was unacceptable for landing.	Launch was delayed 2 days.	See problem STS 41C-8
		E		One-day mission extension was required for replanning direct grapple of SMM with RMS.	
		E		Landing occurred at Edwards AFB. Mission was extended one revolution.	
12	41D .J3	D	Debonded engine shield found after FRF required SSME 1 replacement. GPC5 failed.	Launch delayed 3 days.	
		PD		Launch delayed 24 hours for problem analysis.	See problem STS 41D-2.
		PD	SSME 3 Main Fuel Valve actuator channel A miscompare at LO-6 seconds.	Launch delayed for 65 days for extensive analysis and testing. Vehicle returned to OPE and payloads remanifested with minimum impact to payload schedules.	See problem STS 41D-5, -6.
		PD	Prelaunch analysis confirmed timing incompatibility between the MEC (master events controller) and the flight software relating to SRB fire commands.	Launch was delayed 24 hours to verify and implement software patch to assure all 3 SRB fire commands were issued in proper time interval.	
13	41G 099		Right OMS pod structure damaged during entry due to faulty bond of FRSI filler strip.	OMS pod removed for major repair	See problem STS 41G-5.
			Tile screeed material found degraded beneath missing tile and over extensive area of the Orbiter underbody.	OV-103 replaced OV-099 for the 51-A mission and considerable payload rescheduling was required for subsequent flights.	See problem STS 41G-25.
14	51A 103	PD	Winds aloft exceeded Orbiter structural limits on 7 Nov 1984.	Launch delayed 24 hours to November 8, 1984.	

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended;  
and S = Mission Shortened

Source: JSC/VF Program Mission Reports, STS-1 and subsequent Missions.  
JSC/VF3 Flight Problem Closures, STS-1 and subsequent missions.



SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS- No.	Orb. Ov-	Mission Changes*	Event	Impact	Remarks
15	51E	099	D	Tile replacement caused by deteriorated screed. Hydrogen umbilical leak. TDRS payload had problem with communication system.	Launch rescheduled to 2/27/85 from 2/20/85. Launch rescheduled to 3/3/85. Mission 51E was cancelled on 3/7/85. Orbiter dstacked and payloads remanifested. Launch delayed one day.	See problem STS 41G-25.
	51C	103	PD	Weather at KSC was unacceptable for launch.		Cold weather at KSC caused scrub prior to propellant loading due to concerns about ET icing.
16	51D	103	D	Remanifesting of payloads from 51E (Telesat-1). Facility access platform in OPF dropped and damaged the payload bay door.	Launch rescheduled to 3/28/85 from 3/19/85. Launch delayed 15 days, rescheduled to 4/12/85.	
			D	Ship in SRB impact area. Extensive brake damage and blown tire at landing.	Launch delayed 55 minutes. Future flights to land at DFRS until nose wheel steering is implemented.	See problems STS 51D-12 and 13.
17	51B	099	D	Launch Processing System failure.	Launch delayed for 2 minutes 18 seconds.	
18	51G	103		None	None	None
19	51F	099	PD	Launch aborted at T-3 second because ME 2 chamber coolant valve (CCV) was slow in closing from 100% open to 70% open. Uplink TRBU incorrect address. Abort to Orbit required considerable mission replanning	Launch delayed 17 days. Launch delayed 1 hour 37 minutes. Mission extended for 17 revolutions for extended payload activities.	The CCV, CCV actuator, CCV wiring harness, and controller on ME 2 were replaced. See STS 51F-5 SSME 2 shutdown due to faulty engine temperature sensors.
20	51I	103	PD	Thunderstorms in KSC area.	Launch delayed 1 day from 8/24/85 to 8/25/85.	See problem STS 51I-1.
			PD	GPC 5 failed.	Launch delayed 2 days from 8/25/85 to 8/27/85.	See problem STS 51I-1.
			D	Weather delay awaiting clearing in clouds cover, and ship in SRB recovery area.	Lift-off delayed 3 minutes 1 second.	None.
			S	AUSSAT sunshield hung-up on RMS camera.	Mission shortened 1 day due to early deployment of AUSSAT.	Procedural error in camera operation.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended;  
and S = Mission Shortened  
Source: JSC/VF Program Mission Reports, STS-1 and subsequent missions.  
JSC/VF3 Flight Problem Closures, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS- No.	Orb. OV-	Mission Changes*	Event	Impact	Remarks
21	51J	104	PD	DOD FLIGHT		
22	61A	099		None	None	None
23	61B	104	S	Edwards lake bed wet, landed on Edwards 22 concrete runway.	Mission shortened by one revolution due to lighting conditions on Edwards 22.	None
24	61C (32)	102 7	PD	Work could not be completed in the Orbiter aft compartment in time to support a Dec. 18, 1985, launch.	Launch delayed 24 hours. Rescheduled for December 18, 1985, launch.	Launch reschedule occurred before PRSD loading had started.
			PD	Launch scrubbed at T-14 seconds due to an indication that the right SRB HPV was exceeding RPM redline speed limits.	Launch delayed 18 days. Rescheduled for January 6, 1986. KSC went to a limited operations mode from 12/24/85 thru 1/1/86.	Analysis showed this was a false indication and the HPV had not exceeded redline speed limits. Earliest launch date possible was originally noted as January 4, 1986, but this was revised to January 6, 1986, to provide additional flight crew training time over the holiday period.
			PD	Launch scrubbed at T-31 seconds due to accidental draining of approximately 14,000 pounds of LOX from ET. Resulted in colder, denser LOX from the ET tank, causing the LOX temperature redline to be exceeded at engine interface. Recovery from this situation extended beyond the launch window for the SASTROM KU-1 satellite.	Launch delayed 24 hours. Rescheduled for January 7, 1986.	None.
			PD	Bad weather at both TML sites (Moron, Spain and Dakar, Senegal) and marginal launch weather at KSC culminated in a launch scrub at T-9 minutes.	Launch delayed 48 hours. Rescheduled for January 9, 1986.	Two-day delay required to allow time to assure the integrity of MPS low-pressure fuel ducts.
			PD	A launch pad LO <sub>2</sub> sensor that had broken off lodged in a prevalve at ME2. It was determined this sensor had broken during the January 7, 1986, launch scrub.	Launch delayed 24 hours. Rescheduled for January 10, 1986.	Sensor failed due to a bad weld. The anomaly was discovered when an anti-slam valve failed to operate on January 8, 1986.
			PD	Bad weather at KSC.	Launch delayed 48 hour, rescheduled for January 12, 1986.	None

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended; and S = Mission Shortened  
Source: JSC/MP Program Mission Reports, STS-1 and subsequent missions.  
JSC/VP3 Flight Problem Closures, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS- No.	Orb. OV- No.	Mission Changes*	Event	Impact	Remarks
24	61C (32)	102 7	S	Landing was rescheduled from January 17 to January 16 to save turnaround time at KSC. This early landing attempt was later abandoned due to unacceptable weather at KSC.	None	None
		(Continued)		Bad weather at KSC prohibited landing on originally scheduled landing date (January 17).	Landing was delayed 24 hours, rescheduled for January 16, 1986.	None
			E	Bad weather prohibited at KSC on January 18, 1986.	Mission extended one revolution and then landed at EAFB on January 18, 1986.	None
25	51-L (33)	099 10	PD	Delay in launching STS 61-C resulted in rescheduled work at KSC and slipping launch date of STS 51-L.	Launch delayed 24 hours, rescheduled to January 24, 1986, at 1543 e.s.t.	None.
			PD	Delays in landing STS 61-C and the resultant ferry operation activities resulted in rescheduling launch date for STS 51-L.	Launch delayed 24 hours, rescheduled to January 25, 1986, at 1545 e.s.t.	None.
			PD	Weather at TAL (Dakar, Senegal) was bad. TAL was changed to Casablanca, Morocco, which is not equipped for night landing.	T-0 was moved to a morning lift-off to utilize Casablanca as TAL site. Launch processing was unable to meet a morning (0936 e.s.t.) lift-off time for January 25, 1986, thus the launch was delayed until January 26, 1986.	None.
			PD	Weather at KSC was predicted to be unacceptable for launch at KSC on January 26, 1986.	Launch delayed 24 hours, rescheduled for January 27, 1986 at 0937 e.s.t.	None.
			PD	GSE hatch-closing fixture could not be removed from the Orbiter hatch, fixture had to be sawed off and attaching bolt drilled out before close-out could be completed. Launch was delayed and cross winds came up at KSC landing facility that were beyond RTLS limits.	Launch delayed 24 hours, rescheduled for January 28, 1986 at 0938 e.s.t.	See problem STS 51-L 2.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended; Source: JSC/VP Program Mission Reports, STS-1 and subsequent missions.  
and S = Mission Shortened JSC/VP3 Flight Problem Closures, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS- No.	Orb. OV-	Mission Changes*	Event	Impact	Remarks
25	51-L (33)	099	D	A Hardware Interface Module (HIM) in the Launch Processing System (LPS) which monitored the fire detection system failed during ET LH <sub>2</sub> tanking.	LH <sub>2</sub> tanking was delayed several hours until the HIM could be repaired. This slipped the launch T-0 time from 0938 e.s.t. to 1138 e.s.t.	None.
				Explosion destroyed Shuttle vehicle at approximately T+73 seconds.	Major delay in Space Transportation System program. A complete review of all Shuttle elements design and launch procedures instituted.	Burnthrough of RSRB lower field joint resulted in destruction of vehicle and loss of crew.
26	26	103	D	Winds aloft unacceptable.	The launch was delayed 1 hour 38 minutes because the winds aloft were different than planned profile. Evaluation showed positive margins and launch continued.	None.
27	27	104	D	Winds aloft unacceptable.	Launch was scrubbed and rescheduled for 24 hours later.	
			D	Winds aloft unacceptable. TAL weather briefly unacceptable.	Countdown held at T-9 minute hold for unacceptable winds aloft. Countdown held at T-31 seconds for 1 minute 11 seconds for weather conditions at TAL sites.	
28	29	103	D	Fog at KSC and unacceptable winds aloft.	1 hour 50 minute hold at T-9 minutes for fog dispersal and acceptable winds aloft - countdown resumed at 0948 e.d.t. and launch occurred at approximately 0957 e.d.t.	Successful launch 3-13-89 approximately 0957 e.d.t.
29	30	104	D	Winds aloft at KSC unacceptable.	Countdown held at T-9 minutes for 40 minutes for unacceptable wind aloft for RTLS abort.	4-28-89
			D	Range safety system computer hold.	Countdown held at T-9 minutes for additional 5 minutes for range safety system (RSF) computer.	4-28-89
			D	Main engine 1 main component failure light.	Countdown held at T-31 seconds for SSME 1 main component failure light. Engine 1 LH <sub>2</sub> recirculation pump had stopped. Launch scrubbed and recycled to 5/4/89.	4-28-89
			D	Visibility at KSC for RTLS	Held at T-9 minutes and T-5 minutes for approximately 60 minutes. At 14:42 e.d.t., countdown resumed at T-5 minutes.	Successful launch 5-4-89, 14:47 e.d.t.

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SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS- No.	Orb. OV-	Mission Changes *	Event	Impact	Remarks
30	28	102		DOD Mission	DOD Mission	Successful launch on 8-8-89, at 7:37:00 c.d.t.
31	34	104	D	a) T-19 hrs, SSME and controller failed. remove/replace. b) T-5 minute hold for RTLS weather. c) T-5 minute hold for RTLS and TAL weather. DOD Mission	a) Launch rescheduled from 10-12-89, 12:29 c.d.t., to 10-17-89, 11:57 c.d.t. b) 24 hr reschedule. c) Resumed count and launched at 11:53 c.d.t. DOD Mission	Originally scheduled: 10-12-89, 12:29 c.d.t. Rescheduled: 10-17-89, 11:57 c.d.t. Actual: 10-18-89, 11:53 c.d.t.
32	32	103		DOD Mission	DOD Mission	Successful launch on 11-22-89, at 6:23:30 c.s.t.
33	32	102	PD	a) Launch pad configuration problems. b) T-9 minute hold lengthened because of unsatisfactory weather in RTLS landing area.	a) Launch rescheduled from 12-18-89 to 1-8-90. b) Launch delayed to end of window. Scrubbed and rescheduled for 1-9-90.	Vehicle launch at planned time of 06:35 a.m. c.s.t. on 1-9-90.
34	36	104		DOD Mission	DOD Mission	
35	31	103	PD	a) Hold at T-4 minutes for APU-1 anomalies. Launch scrubbed. b) Unscheduled hold at T-31 seconds for fill and drain valve failure to close automatically. Valve closed manually.	a) Launch rescheduled for 4-24-90 at 7:31 a.m. c.d.t. b) Countdown was held for 2 minutes 52 seconds to close valve.	Vehicle launch at 7:33:50.99 a.m. c.d.t.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended; S = Mission Shortened  
Source: JSC/VP Program Mission Reports, STS-1 and subsequent missions.  
JSC/VP3 Flight Problem Closures, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM

Miss. Seq. No.	STS- No.	Orb. OV-	Mission Changes*	Event	Impact	Remarks
36	41	103	D	a) Unscheduled hold at T-9 minutes of 10 minutes 43 seconds for rain showers. b) Unscheduled hold at T-5 minutes of 10 seconds to mask WSB 2 "OK" indication. c) Unscheduled hold at T-31 seconds of 1 minute 22 seconds for interface purge pressure oscillations.	a) Resumed countdown  b) Resumed countdown  c) Resumed countdown	Vehicle launch occurred at 0747 EDT on 10-06-90
37	38	104		DOD Mission	DOD Mission	
38	35	102	PD PD PD D	a) Excessive hydrogen leakage. b) Loss of payload telemetry  c) Excessive hydrogen leakage d) Countdown held for 21 minutes to verify minimums for optical coverage and radar acquisition	a) Launch rescheduled from 5/29/90 b) Launch rescheduled from 8/9/90 c) Launch rescheduled from 9/5/90 and 9/17/90 d) Resumed countdown	Launch occurred at 0149 EDT on 12/2/90
39	37	104	D	Possible weather condition violations of LCC	Launch delayed 4 minutes, 45 seconds  One day delay in landing	Launch at 095:14:22:45 G.M.T.
			E	Deorbit maneuver delay because of high winds at Edwards AFB	One orbit delay in landing and landing site changed to Edwards AFB	
			E	First landing opportunity waived; unacceptable weather conditions		

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended;  
and S = Mission Shortened

Source: JSC/VP Program Mission Reports, STS-1 and subsequent missions.  
JSC/VP3 Flight Problem Closures, STS-1 and subsequent missions.

SHUTTLE FLIGHT HISTORIES  
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM<sup>1</sup>

Miss. Seq. No.	STS- No.	Orb. OV- No.	Mission Changes <sup>a</sup>	Event	Impact	Remarks
40	39	103	D	Transducer failure on HPOTP of main engine; 3 OPS 2 recorder	Launch scrubbed. Five day delay of launch of STS-39. Launch delayed 32 minutes, 14 seconds	No LCC violation; condition satisfactory for launch Landing delay of 3 minutes 50 seconds
41	40	102	D	Deorbit maneuver delayed 3 minutes 50 seconds	Cracking of temperature probe in MPS. Failure of MDM FA2; failure of GPC4.	
42	43	104	D	IMU 2 bias shift exceeded OMRSD criteria	Nine-day delay in planned launch	
43	48	103	N/A	Weather conditions at launch pad	Four day delay in planned launch One hour 25 minute delay of launch	
44	44	104	D	Space Shuttle main engine controller 2 went to halt. Loss of cabin vent valve closed indication, and then scrubbed for weather.	7 day delay in planned launch; 1 day delay in planned launch	7-24-91 launch rescheduled to 8-1-91. 8-1-91 launch rescheduled to 8-2-91 <sup>a</sup> .
			S	Redundant inertial measurement unit failure in inertial upper stage (IUS). IMU 2 fail	None	Launched as scheduled on 9-12-91 <sup>a</sup> .
					5 day delay in planned launch. Shortened mission by 3 days	11-19-91 launch rescheduled to 11-24-91 <sup>a</sup> 7 day mission instead of 10 day mission

<sup>1</sup>PD = Delay on Pad; D = Launch Delay; E = Mission Extended; and S = Mission Shortened; a = actual launch date. Source: JSC/VF Program Mission Reports, STS-1 and subsequent missions. JSC/VF3 Flight Problem Closures, STS-1 and subsequent missions.

**SHUTTLE FLIGHT HISTORIES**  
**EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM**

Miss. STS- Seq. No.	Orb. Ov-	Mission Changes*	Event	Impact	Remarks
45	42	103	D Evaluate KSC field mill indicators Additional science data	1 hr delay in planned launch Extended mission 1 day	8-day mission instead of 7-day mission.
46	45	104	D LCC exceedance of LM2 and LO2 concentration in aft compartment RTLS weather	24 hr delay in planned launch 13 minute 40 second hold	3-23-92 launch rescheduled to 3-24-92.
47	49	105	None RTLS/TAL weather	34 minute 00 second hold	Launched as scheduled on 5-7-92.
48	50	102	D RTLS weather	5 minute 23 second hold	None
49	46	104	D GLS hold	48 second hold	APU 3 fuel isolation valve indicated closed. Cycled open. Count resumed.
50	47	105	None N/A	None	Launched as scheduled on 9-12-92.
51	52	102	D RTLS/TAL weather	1 hour 53 minute 40 second hold	None
52	53	103	D Evaluate ice conditions on ET. LSEAT wing load indicator A16L violation. Unacceptable weather at MSC SLP.	1 hour 25 minutes delay in planned launch 1 orbit delay in landing	Landed at Edwards AFB instead of Shuttle Landing facility at KSC.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended; and S = Mission Shortened; a = actual launch date, and subsequent missions.

Source: JSC/VF Program Mission Reports, STS-1  
JSC/VF3 Flight Problem Closures,  
STS-1 and subsequent missions.



**SHUTTLE FLIGHT HISTORIES**  
**EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM**

Miss. Seq. No.	STS- No.	Orb. OV-	Mission Changes*	Event	Impact	Remarks
53	54	105	D	LSEAT violation	7 min. 30 sec. in planned launch	
54	56	103	D	Hydrogen high point bleed Valve close indication not on when polled at T-11 seconds.	46 hour delay in planned launch	Launched on 4-8-93, instead of 4-6-93.
			E			
			D	Unacceptable weather at KSC Shuttle Landing facility.	24 hour delay in landing	Landing occurred at SLP on 4-17-93.
55	55	102	D	On-pad abort at T-3 seconds 3-22-93.	35 day delay to replace 3 SSME's.	Launched on 4-26-93.
			D	IMU BITE indication.	2 day delay to replace one IMU.	
			E	Consumables budget excellent; MFR decision to extend mission.	Mission extended 24 hours to obtain additional scientific data.	
			D	Unacceptable weather at SLP.	Landing delayed one orbit and landing site changed to Edwards AFB.	Landed on 5-6-93.

\*PD = Delay on Pad; D = Launch Delay; E = Mission Extended;  
and S = Mission Shortened; a = actual launch date.  
Source: JSC/VF Program Mission Reports, STS-1  
JSC/VF3 Flight Problem Closures,  
STS-1 and subsequent missions.

SPECIFICATIONS FOR AVIONICS INCLUDING DPS, GNC, AND COMMUNICATIONS & TRACKING

ITEM	PART NO.		NOMENCLATURE
AA	MC621-0043	2043	ACCELEROMETER ASSEMBLY
ACCU	MC409-0005	0001	AUDIO CENTRAL CONTROL UNIT
ADI	MC432-0235	0002	ATTITUDE DIRECTION INDICATOR
ADTA	MC409-0011	0006	AIR DATA TRANSDUCER ASSEMBLY
AI	MC432-0219	0002	ACCELERATION INDICATOR
AME	MC432-0224	0022	AMI ELECTRONICS
AMI	MC432-0224	0011	ALPHA MACH INDICATOR
ANSA	MC478-0106	4004	ANTENNA SWITCH ASSY S-BAND
ASA	MC621-0043	6046	AEROSURFACE SERVO AMPLIFIER
ATU AL	MC409-0005	0012	AUDIO TERMINAL UNIT AIRLOCK
ATU LT	MC409-0005	0012	AUDIO TERMINAL UNIT LEFT
ATU MD	MC409-0005	0012	AUDIO TERMINAL UNIT MIDDECK
ATU MS	MC409-0005	0012	AUDIO TERMINAL UNIT MISSION STATION
ATU PS	MC409-0005	0012	AUDIO TERMINAL UNIT PAYLOAD STATION
ATU RT	MC409-0005	0012	AUDIO TERMINAL UNIT RIGHT
ATVC	MC621-0043	6541	ASCENT THRUST VECTOR CONTROLLER
AVVE	MC432-0226	0022	AVVI ELECTRONICS
AVVI	MC432-0226	0011	ATTITUDE VERTICAL VELOCITY INDICATOR
BF PDU	MC621-0056	0053	BODYFLAP POWER DRIVER UNIT
DA	MC409-0025	3001	DEPLOYED ASSY
DA	MC409-0025	3005	DEPLOYED ASSY
DDU	MC409-0023	0003	DISPLAY DRIVER UNIT,0002 (0V-103)
EL AS1	MC409-0025	1001	ELECTRONICS ASSY KU-BAND
EL AS2	MC409-0025	2001	ELECTRONICS ASSY KU-BAND
ESA LI	MC621-0014	0017	ELEVON SERVO ACTUATOR LEFT INBOARD
ESA LO	MC621-0014	0018	ELEVON SERVO ACTUATOR LEFT OUTBOARD
ESA RI	MC621-0014	0017	ELEVON SERVO ACTUATOR RIGHT INBOARD
ESA RO	MC621-0014	0019	ELEVON SERVO ACTUATOR RIGHT OUTBOARD
EVAX			EVA/ATC TRANSCEIVER UHF
FM XM	MC478-0106	3001	FM TRANSMITTER S-BAND
FMS	MC478-0106	3501	FM SIGNAL PROCESSOR S-BAND
GCIL	MC450-0051	0002	GROUND CONTROL INTERFACE LOGIC
HSI	MC432-0218	0003	HORIZONTAL SITUATION INDICATOR
IMU	MC409-0004	0010	INERTIAL MEASUREMENT UNIT
KB SP	MC409-0025	4001	SIGNAL PROCESSOR KU-BAND
MLS DEC	MC409-0017	0006	MLS DECODER
MLS RF	MC409-0017	0001	MICROWAVE LANDING SYSTEM RF ASSEMBLY
MPSACTP	MC621-0015	0017,18	MAIN PROPULSION SYSTEM ACTUATOR PITCH
MPSACTY	MC621-0015	0019,28	MPS ACTUATOR YAW
NSP	MC476-0137	0004	NETWORK SIGNAL PROCESSOR
OMSACTP	MC621-0009	2161	OMS ACTUATOR PITCH
OMSACTY	MC621-0009	2163	OMS ACTUATOR YAW
OMSCONP	MC621-0009	0125	OMS CONTROLLER PRIMARY
OMSCONS	MC621-0009	0125	OMS CONTROLLER STANDBY
PL SP	MC476-0138	0004	PAYLOAD SIGNAL PROCESSOR S-BAND
PLINT	MC478-0105	0001	PAYLOAD INTERROGATOR S-BAND
PLINTX	ME452-0152	0001	PAYLOAD INTERROGATOR TRANSFER SWITCH
PRE	MC478-0106	2001	PRE-AMPLIFIER S-BAND
PWR	MC478-0106	2501	POWER AMPLIFIER S-BAND

SPECIFICATIONS FOR AVIONICS INCLUDING DPS, GNC, AND COMMUNICATIONS & TRACKING

ITEM	PART NO.		NOMENCLATURE
RALT	MC409-0015	0004	RADAR ALTIMETER
RGA	MC493-0015	0011	RATE GYRO ASSEMBLY
RGASRBL	MC493-0015	0105	LEFT SOLID ROCKET BOOSTER RGA
RGASRBR	MC493-0015	0105	RIGHT SRB RGA
RHC	MC621-0043	3047	ROTATION HAND CONTROLLER
RJDA	MC621-0043	6344	REACTION JET DRIVER AFT
RJDF	MC621-0043	6244	RJD FORWARD
RPTA	MC621-0043	3440	RUDDER PEDAL TRANSDUCER ASSEMBLY
RS PDU	MC621-0053	0048	RUDDER/SPEEDBRAKE POWER DRIVER UNIT
SBC	MC450-0064	0001	SWITCH BEAM CONTROL ASSY S-BAND
SBTC	MC621-0043	3240	SPEEDBRAKE/THRUST CONTROLLER
SPA	MC409-0025	4001	SIGNAL PROCESSING ASSY
SPI	MC432-0221	0011	SURFACE POSITION INDICATOR
ST	MC431-0128	0013	STAR TRACKER
TACAN	MC409-0014	0006	TACTICAL AIR NAVIGATION
THC	MC621-0043	3140	TRANSLATION HAND CONTROLLER
XPOND	MC478-0106	1001	TRANSPONDER S-BAND

A/IONICS  
DATA PROCESSING (DPS) SUBSYSTEM

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	SYT
49	STS-46	OV104	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO13	1	F
46	STS-46	OV104	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO07	2	F
48	STS-46	OV104	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO15	3	F
50	STS-47	OV105	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO17	1	F
50	STS-47	OV105	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO16	2	F
50	STS-47	OV105	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO18	3	F
51	STS-52	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO14	1	F
51	STS-52	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO03	2	F
51	STS-52	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRO02	3	F
53	STS-54	OV106	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRU17	1	F
53	STS-54	OV106	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRU16	2	F
53	STS-54	OV106	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRU18	3	F
54	STS-55	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRU14	1	F
54	STS-55	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRU03	2	F
54	STS-55	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJRU02	3	F
36	STS-41	OV103	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	00000000J1	1	F
36	STS-41	OV103	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000020	2	F
36	STS-41	OV103	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000024	3	F
36	STS-41	OV103	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000034	4	F
36	STS-41	OV103	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000022	5	F
36	STS-41	OV103	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000018	6	F
37	STS-38	OV104	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000029	1	F
37	STS-38	OV104	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000023	2	F
37	STS-38	OV104	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000035	3	F
37	STS-38	OV104	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000007	4	F
37	STS-38	OV104	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000015	5	F
37	STS-38	OV104	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000036	6	F
37	STS-38	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000021	1	F
38	STS-35	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000006	2	F
38	STS-35	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000033	3	F
38	STS-35	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000017	4	F
38	STS-35	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000038	5	F
38	STS-35	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000001	6	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000025	1	F/SP
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000021	2	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000006	3	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000033	4	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000011	5	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000018	6	F
36	STS-41	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000018	1	F
36	STS-41	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000001	2	F
37	STS-36	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000017	1	F
37	STS-36	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000020	2	F
38	STS-36	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000009	1	F
38	STS-36	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000008	2	F
38	STS-37	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000017	1	F
38	STS-37	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000020	2	F
40	STS-36	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000018	1	F
40	STS-36	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000001	2	F
41	STS-40	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000009	1	F
41	STS-40	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000008	2	F
42	STS-43	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000017	1	F
42	STS-43	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000020	2	F
43	STS-48	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000018	1	F
43	STS-48	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000001	2	F
44	STS-44	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000017	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL	TA
44	STS-44	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000020	1	F
45	STS-42	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000018	1	F
46	STS-42	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000001	2	F
46	STS-45	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000017	1	F
47	STS-45	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000020	2	F
47	STS-49	OV106	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000010	2	F
47	STS-49	OV106	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000025	2	F
48	STS-50	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000009	1	F
48	STS-50	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000008	2	F
49	STS-46	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000017	1	F
49	STS-46	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000020	2	F
50	STS-47	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000010	2	F
50	STS-47	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000025	2	F
51	STS-52	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000009	1	F
51	STS-52	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000008	2	F
52	STS-54	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000010	2	F
53	STS-54	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000025	2	F
54	STS-55	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000009	1	F
54	STS-55	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	000000008	2	F
36	STS-41	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000007	1	F
36	STS-41	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000022	2	F
36	STS-41	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000021	3	F
36	STS-41	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000025	4	F
37	STS-38	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000020	1	F
37	STS-38	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000029	2	F
37	STS-38	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000026	3	F
37	STS-38	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000012	4	F
38	STS-35	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000024	1	F
38	STS-35	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000032	2	F
38	STS-35	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000018	3	F
38	STS-35	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000033	4	F
39	STS-37	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000020	1	F
39	STS-37	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000029	2	F
39	STS-37	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000026	3	F
39	STS-37	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000012	4	F
40	STS-39	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000007	1	F
40	STS-39	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000022	2	F
40	STS-39	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	000000021	3	F
40	STS-39	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000025	4	F
41	STS-40	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000035	1	F
41	STS-40	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	000000030	3	F
41	STS-40	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000033	4	F
42	STS-43	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	000000034	1	F
42	STS-43	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000029	2	F
42	STS-43	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000026	3	F
42	STS-43	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000012	4	F
43	STS-48	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000027	1	F
43	STS-48	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000022	2	F
43	STS-48	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000021	3	F
43	STS-48	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000025	4	F
44	STS-44	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	000000009	1	F
44	STS-44	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000029	2	F
44	STS-44	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000026	3	F
44	STS-44	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000012	4	F
45	STS-42	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000027	1	F
45	STS-42	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000022	2	F
45	STS-42	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	000000021	3	F
45	STS-42	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	000000025	4	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
45	STS-42	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000025	4	F
46	STS-45	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000004	1	F
46	STS-45	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000029	2	F
46	STS-45	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000026	3	F
46	STS-45	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000012	4	F
47	STS-49	OV106	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000037	1	F
47	STS-49	OV106	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000007	2	F
47	STS-49	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000036	3	F
48	STS-50	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000019	1	F
48	STS-50	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000017	2	F
48	STS-50	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000009	3	F
49	STS-46	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000023	4	F
49	STS-46	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000024	2	F
49	STS-46	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000026	3	F
50	STS-47	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000014	4	F
50	STS-47	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000018	1	F
50	STS-47	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000007	2	F
50	STS-47	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000036	3	F
51	STS-52	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000015	4	F
51	STS-52	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000029	1	F
51	STS-52	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000017	2	F
51	STS-52	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000030	3	F
53	STS-54	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000012	4	F
53	STS-54	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000001	1	F
53	STS-54	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000006	2	F
53	STS-54	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000005	3	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000019	4	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000017	2	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000030	3	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000033	4	F
36	STS-41	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000026	2	F
36	STS-41	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000014	2	F
36	STS-41	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000010	3	F
36	STS-41	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000004	4	F
37	STS-38	OV104	DPS	DISPLAY UNIT	MC615-0006	-0110	0000000028	1	F
37	STS-38	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000011	2	F
37	STS-38	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000022	3	F
37	STS-38	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000036	4	F
38	STS-35	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000013	1	F
38	STS-35	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000012	2	F
38	STS-35	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000003	3	F
38	STS-35	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000007	4	F
39	STS-37	OV104	DPS	DISPLAY UNIT	MC615-0006	-0110	0000000028	1	F
39	STS-37	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000011	2	F
39	STS-37	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000020	3	F
39	STS-37	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000036	4	F
40	STS-39	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000026	2	F
40	STS-39	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000014	2	F
40	STS-39	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000010	3	F
40	STS-39	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000004	4	F
41	STS-40	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000019	1	F
41	STS-40	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000027	2	F
41	STS-40	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000003	3	F
41	STS-40	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000007	4	F
42	STS-43	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000020	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	LOT	STATUS
42	STS-43	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000011	2	F
42	STS-43	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000022	3	F
42	STS-43	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000036	4	F
43	STS-48	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	000000026	1	F
43	STS-48	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	000000037	2	F
43	STS-48	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	000000010	3	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000004	4	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000020	1	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000011	2	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000022	3	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000036	4	F
45	STS-42	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	000000026	1	F
45	STS-42	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	000000037	2	F
45	STS-42	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	000000024	3	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000004	4	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000020	1	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000011	2	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000022	3	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000036	4	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000035	1	F
47	STS-49	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000039	2	F
47	STS-49	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000016	3	F/SP
47	STS-49	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000038	4	F
47	STS-49	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000019	1	F
48	STS-50	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000027	2	F
48	STS-50	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000003	3	F
48	STS-50	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000007	4	F
48	STS-50	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000020	1	F
49	STS-46	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000011	2	F
49	STS-46	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000022	3	F
49	STS-46	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000036	4	F
49	STS-46	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	000000035	1	F
50	STS-47	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000039	2	F
50	STS-47	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000016	3	F/SP
50	STS-47	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000038	4	F
50	STS-47	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000019	1	F
51	STS-52	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000027	2	F
51	STS-52	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000003	3	F
51	STS-52	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000007	4	F
51	STS-52	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000020	1	F
53	STS-54	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000035	1	F
53	STS-54	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000039	2	F
53	STS-54	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000016	3	F/SP
53	STS-54	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	000000038	4	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000019	1	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000027	2	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000003	3	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	000000007	4	F
36	STS-41	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000010	1	F
36	STS-41	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	2	F
36	STS-41	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000015	3	F
37	STS-38	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000020	1	F
37	STS-38	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000013	2	F
37	STS-38	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000019	3	F
38	STS-35	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000022	1	F
38	STS-35	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000011	2	F
38	STS-35	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000021	3	F
38	STS-35	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000020	1	F
39	STS-37	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000013	2	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLT	STA
39	STS-37	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000019	3	F
40	STS-38	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000010	1	F
40	STS-38	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	2	F
40	STS-38	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000015	3	F
41	STS-40	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000022	1	F
41	STS-40	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000011	2	F
42	STS-43	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000020	1	F
42	STS-43	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000013	2	F
43	STS-48	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000019	3	F
43	STS-48	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000010	1	F
44	STS-44	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	2	F
44	STS-44	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000015	3	F
44	STS-44	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000011	1	F
44	STS-44	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000013	2	F
45	STS-42	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000019	3	F
45	STS-42	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000010	1	F
45	STS-42	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	2	F
46	STS-45	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000015	3	F
46	STS-45	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000011	1	F
46	STS-45	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000013	2	F
47	STS-49	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000019	3	F
47	STS-49	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000010	1	F
47	STS-49	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000026	2	F
47	STS-49	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000009	3	F
48	STS-50	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	1	F
48	STS-50	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000025	2	F
48	STS-50	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000011	1	F
48	STS-50	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000013	2	F
49	STS-46	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000019	3	F
49	STS-46	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000010	1	F
49	STS-46	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	2	F
50	STS-47	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000026	2	F
50	STS-47	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000019	3	F
50	STS-47	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	1	F
51	STS-52	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000009	3	F
51	STS-52	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000025	2	F
51	STS-52	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000021	3	F
51	STS-52	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000010	1	F
53	STS-54	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000026	2	F
53	STS-54	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000019	3	F
53	STS-54	OV108	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	1	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000009	3	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000017	1	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000025	2	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	000000021	3	F
39	STS-37	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000511	1	F
39	STS-37	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000504	2	F
39	STS-37	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000501	3	F
39	STS-37	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000526	4	F
39	STS-37	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000508	5	F
39	STS-37	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000519	6	F
40	STS-39	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000506	1	F
40	STS-39	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000523	2	F
40	STS-39	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000505	3	F
40	STS-39	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000520	4	F
40	STS-39	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000522	5	F
40	STS-39	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000510	6	F/SP
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000511	1	F/SP
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000511	1	F
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000511	1	F
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000511	1	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	LOT	S T A T
53	STS-54	OV108	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000522	3	F
53	STS-54	OV108	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000510	4	F
53	STS-54	OV108	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000520	5	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000536	6	F/SP
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000527	2	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000511	3	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000532	4	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000533	5	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000535	6	F
36	STS-41	OV109	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000001	1	F
36	STS-41	OV103	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000038	2	F
36	STS-41	OV103	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000008	3	F
36	STS-41	OV103	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000030	4	F
37	STS-38	OV104	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000020	5	F
37	STS-38	OV104	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000017	1	F
37	STS-38	OV104	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000029	1	F
37	STS-38	OV104	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000023	3	F
37	STS-38	OV104	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000026	4	F
37	STS-38	OV104	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000015	5	F
38	STS-35	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000031	1	F
38	STS-35	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000032	2	F
38	STS-35	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000025	3	F
38	STS-35	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000037	4	F
38	STS-35	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000024	6	F
41	STS-40	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000038	1	F/SP
41	STS-40	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000031	2	F
41	STS-40	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000032	2	F
41	STS-40	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000025	3	F
41	STS-40	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000024	4	F
41	STS-40	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000014	5	F
36	STS-41	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000001	1	F
36	STS-41	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000006	2	F
36	STS-41	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000017	3	F
37	STS-38	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000004	1	F
37	STS-38	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000010	2	F
37	STS-38	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000005	3	F
38	STS-35	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000019	1	F
38	STS-35	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000015	2	F
38	STS-35	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000025	3	F
38	STS-35	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000025	3	F
38	STS-35	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000004	1	F
38	STS-35	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000010	2	F
39	STS-37	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000005	3	F
39	STS-37	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000001	1	F
40	STS-39	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000006	2	F
40	STS-39	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000017	3	F
41	STS-40	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000019	1	F
41	STS-40	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000015	2	F
41	STS-40	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000025	3	F
42	STS-43	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000004	1	F
42	STS-43	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000010	2	F
42	STS-43	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000005	3	F
43	STS-48	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000011	1	F
43	STS-48	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000006	2	F
43	STS-48	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000017	3	F
44	STS-44	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000004	1	F
44	STS-44	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000010	2	F

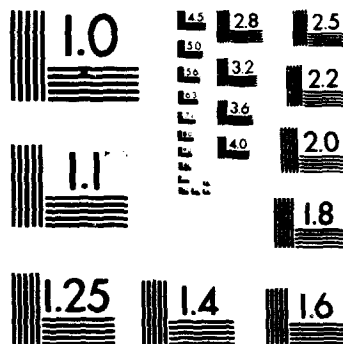


MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
43	STS-48	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000155	3	F
43	STS-48	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000009	4	F
44	STS-44	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000134	1	F
44	STS-44	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000064	2	F
44	STS-44	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000065	3	F
44	STS-44	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000123	4	F
45	STS-42	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000122	1	F
45	STS-42	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000155	3	F
45	STS-42	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000009	4	F
46	STS-45	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000134	1	F
46	STS-45	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000064	2	F
46	STS-45	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000065	3	F
47	STS-49	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000123	4	F
47	STS-49	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000215	1	F
47	STS-49	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000216	2	F
47	STS-49	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000224	3	F
47	STS-49	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000218	4	F
48	STS-50	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000132	1	F
48	STS-50	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000121	2	F
48	STS-50	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000135	3	F
48	STS-50	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000156	4	F
49	STS-46	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000134	1	F
49	STS-46	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000064	2	F
49	STS-46	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000065	3	F
49	STS-46	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000134	4	F
50	STS-47	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000134	1	F
50	STS-47	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000135	2	F
50	STS-47	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000134	3	F
50	STS-47	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000134	4	F
51	STS-52	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000134	1	F
51	STS-52	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000135	2	F
51	STS-52	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000156	3	F
51	STS-52	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000156	4	F
53	STS-54	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000215	1	F
53	STS-54	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000216	2	F
53	STS-54	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000224	3	F
53	STS-54	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000218	4	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000142	1	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000141	2	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000145	3	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000156	4	F
36	STS-41	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000010	1	F
36	STS-41	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000153	2	F
36	STS-41	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000140	3	F
36	STS-41	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000059	4	F
37	STS-38	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000110	1	F
37	STS-38	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000097	2	F
37	STS-38	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000141	3	F
37	STS-38	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000094	4	F
38	STS-35	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000109	1	F
38	STS-35	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000112	2	F
38	STS-35	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000060	3	F
38	STS-35	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000154	4	F
39	STS-37	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000110	1	F
39	STS-37	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000097	2	F
39	STS-37	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000141	3	F
39	STS-37	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000094	4	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
40	STS-39	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000030	1	F
40	STS-39	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000153	2	F
40	STS-39	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000140	3	F
40	STS-39	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000059	4	F
41	STS-40	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000109	1	F
41	STS-40	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000112	2	F
41	STS-40	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000060	3	F
42	STS-43	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000110	1	F
42	STS-43	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000097	2	F
42	STS-43	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000141	3	F
42	STS-43	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000094	4	F
43	STS-48	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000143	1	F
43	STS-48	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000153	2	F
43	STS-48	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000140	3	F
43	STS-48	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000059	4	F
44	STS-44	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000110	1	F
44	STS-44	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000097	2	F
44	STS-44	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000141	3	F
44	STS-44	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000094	4	F
45	STS-42	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000143	1	F
45	STS-42	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000153	2	F
45	STS-42	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000140	3	F
45	STS-42	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000059	4	F
46	STS-45	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000222	1	F/SP
46	STS-45	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000097	2	F
46	STS-45	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000141	3	F
46	STS-45	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000094	4	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000094	1	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000110	2	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000097	3	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000209	4	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000211	4	F
48	STS-50	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000109	1	F
48	STS-50	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000112	2	F
48	STS-50	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000060	3	F
48	STS-50	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000154	4	F
49	STS-46	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000222	1	F/SP
49	STS-46	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000097	2	F
49	STS-46	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000141	3	F
49	STS-46	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000094	4	F
50	STS-47	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000221	1	F
50	STS-47	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000109	2	F
50	STS-47	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000211	3	F
50	STS-47	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	000000211	4	F
51	STS-52	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000154	1	F
51	STS-52	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000112	2	F
51	STS-52	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000112	2	F
51	STS-52	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000060	3	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000109	4	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000210	1	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000221	2	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000099	3	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000111	4	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000111	1	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000111	1	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000060	3	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	000000109	4	F
36	STS-41	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	000000113	1	F
36	STS-41	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	000000114	2	F

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N96-11129 UNCLAS



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL	TA	ST
37	STS-38	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F	F
37	STS-38	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F	F
38	STS-38	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000139	1	F	F
38	STS-38	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000088	2	F	F
39	STS-37	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F	F
39	STS-37	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F	F
40	STS-38	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000113	1	F	F
40	STS-39	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000114	2	F	F
41	STS-40	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000139	1	F	F
41	STS-40	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000139	1	F	F
42	STS-43	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F	F
42	STS-43	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F	F
43	STS-48	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000113	1	F	F
43	STS-48	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000114	2	F	F
44	STS-44	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F	F
44	STS-44	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F	F
45	STS-42	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000113	1	F	F
45	STS-42	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000114	2	F	F
46	STS-46	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F	F
46	STS-46	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F	F
47	STS-49	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000212	1	F	F
47	STS-49	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000223	2	F	F
48	STS-50	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000213	LM1	F/SP	F
48	STS-50	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000138	1	F/SP	F
48	STS-50	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000138	1	F/SP	F
49	STS-46	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F	F
49	STS-46	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F	F
50	STS-47	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000212	1	F	F
50	STS-47	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000212	1	F	F
51	STS-52	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000138	LM1	F/SP	F
51	STS-52	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000138	1	F/SP	F
53	STS-54	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000138	1	F	F
53	STS-54	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000157	2	F	F
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000212	1	F	F
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000212	1	F	F
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000138	LM1	F/SP	F
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000138	1	F/SP	F
36	STS-41	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F	F
36	STS-41	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000170	2	F	F
37	STS-38	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F	F
37	STS-38	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F	F
38	STS-35	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000152	1	F	F
38	STS-35	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000152	1	F	F
39	STS-37	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000120	2	F	F
39	STS-37	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F	F
40	STS-39	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000002	2	F	F
40	STS-39	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F	F
41	STS-40	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000076	2	F	F
41	STS-40	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000152	1	F	F
42	STS-43	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000120	2	F	F
42	STS-43	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F	F
43	STS-48	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F	F
43	STS-48	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000098	2	F	F
44	STS-44	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F	F
44	STS-44	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F	F
45	STS-42	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	2	F	F
45	STS-42	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F	F
46	STS-42	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F	F
46	STS-42	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
46	STS-45	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-8710	0000000076	2	F/SP
47	STS-49	OV105	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-7700	0000000220	1	F
47	STS-49	OV105	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-7700	0000000219	2	F
48	STS-50	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000152	1	F
48	STS-50	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000120	2	F
49	STS-46	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F
49	STS-46	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000076	2	F/SP
60	STS-47	OV105	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-7700	0000000220	1	F
50	STS-47	OV105	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-7700	0000000219	2	F
51	STS-52	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000152	1	F
51	STS-52	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000120	2	F
53	STS-54	OV105	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-7700	0000000220	1	F
53	STS-54	OV105	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-7700	0000000219	2	F
54	STS-55	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000152	1	F
54	STS-55	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000120	2	F
36	STS-41	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000008	1	F
36	STS-41	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000003	2	F
37	STS-38	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000005	1	F
37	STS-38	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000006	2	F
38	STS-35	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0201	0000000010	1	F
38	STS-35	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000007	2	F
39	STS-37	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000005	1	F
39	STS-37	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000006	2	F
40	STS-39	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000008	1	F
40	STS-39	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000003	2	F
41	STS-40	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0201	0000000009	1	F
41	STS-40	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000007	2	F
42	STS-43	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000009	1	F
42	STS-43	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000004	2	F
43	STS-48	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000003	1	F
43	STS-48	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000004	2	F
44	STS-44	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000001	1	F
44	STS-44	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000002	2	F
45	STS-42	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000001	1	F
45	STS-42	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000002	2	F
46	STS-45	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000001	1	F
46	STS-45	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000006	2	F
47	STS-49	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000001	1	F
47	STS-49	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000006	2	F
48	STS-50	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000001	1	F
48	STS-50	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000002	2	F
49	STS-46	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000004	2	F
49	STS-46	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000001	1	F
60	STS-47	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000006	2	F
50	STS-47	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000001	1	F
51	STS-52	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000003	2	F
51	STS-52	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000004	2	F
53	STS-54	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000001	1	F
53	STS-54	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000002	2	F
54	STS-55	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000001	1	F
54	STS-55	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000004	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	L O T	S A T
54	STS-55	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR014	1	F
54	STS-55	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR003	2	F
54	STS-55	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR002	3	F
54	STS-55	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000UUUUU9	1	F
54	STS-55	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000UUUUU8	2	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000UUUUJ9	1	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000UUUUJ7	2	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000UUUUJ0	3	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000UUUUJ3	4	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000UUUUJ9	1	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000UUUUJ7	2	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000UUUUJ3	3	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000UUUUJ7	4	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000U17	1	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000U25	2	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000U21	3	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000U30	1	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000U27	2	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000U11	3	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000U52	4	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000U33	5	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000U35	6	F
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000U19	1	F
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000U15	2	F
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000U25	3	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000U32	1	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000U21	2	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000U15	3	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000U15	4	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000U14	1	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000U12	2	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000U60	3	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000U09	4	F
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000U13	LM1	F/SP
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000U38	1	F/SP
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-5600	0000000U68	2	F
54	STS-55	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000U52	1	F
54	STS-55	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000U20	2	F
54	STS-55	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	0000000U02	1	F
54	STS-55	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0300	0000000U04	2	F

AVIONICS  
GUIDANCE NAVIGATION AND CONTROL (GNC) SUBSYSTEM



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
50	STS-47	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000026	3	F
50	STS-47	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000027	4	F
51	STS-52	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000023	1	F
51	STS-52	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000006	2	F
51	STS-52	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000011	3	F
51	STS-52	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000007	4	F
53	STS-54	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000029	1	F
53	STS-54	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000028	2	F
53	STS-54	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000026	3	F
53	STS-54	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000027	4	F
54	STS-55	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000023	1	F
54	STS-55	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000006	2	F
54	STS-55	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000011	3	F
54	STS-55	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000007	4	F
36	STS-41	OV103	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274663	L	F
36	STS-41	OV103	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274667	R	F
37	STS-38	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274662	L	F
37	STS-38	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274664	R	F
38	STS-35	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274661	L	F
38	STS-35	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274626	R	F
39	STS-37	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274662	L	F
39	STS-37	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274664	R	F
39	STS-39	OV103	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274663	L	F
40	STS-39	OV103	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274667	R	F
41	STS-40	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274661	L	F
41	STS-40	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274626	R	F
42	STS-43	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274662	L	F
42	STS-43	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274664	R	F
43	STS-48	OV103	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274663	L	F
43	STS-48	OV103	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274667	R	F
44	STS-44	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274662	L	F
44	STS-44	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274664	R	F
45	STS-42	OV103	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274663	L	F
45	STS-42	OV103	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274667	R	F
46	STS-45	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274662	L	F
46	STS-45	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274664	R	F
47	STS-49	OV105	GNC	AIR DATA PROBE	MC432-0206	-0005	0598851599	L	F
47	STS-49	OV105	GNC	AIR DATA PROBE	MC432-0206	-0005	0598851561	R	F
48	STS-50	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274661	L	F
48	STS-50	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274626	R	F
49	STS-46	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274662	L	F
49	STS-46	OV104	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274664	R	F
50	STS-47	OV105	GNC	AIR DATA PROBE	MC432-0206	-0005	0598851599	L	F
50	STS-47	OV105	GNC	AIR DATA PROBE	MC432-0206	-0005	0598851561	R	F
51	STS-52	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274661	L	F
51	STS-52	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274626	R	F
53	STS-54	OV105	GNC	AIR DATA PROBE	MC432-0206	-0005	0598851599	L	F
53	STS-54	OV105	GNC	AIR DATA PROBE	MC432-0206	-0005	0598851561	R	F
54	STS-55	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274661	L	F
54	STS-55	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274667	R	F
54	STS-55	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274662	L	F
54	STS-55	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274664	R	F
36	STS-41	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318009	1	F
36	STS-41	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318012	2	F
36	STS-41	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318007	3	F
37	STS-38	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067414	4	F
37	STS-38	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318005	1	F
37	STS-38	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067412	2	F
37	STS-38	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000631	3	F



MISS SEQ	STS	OMB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
53	STS-54	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000739	3	F
53	STS-54	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000763	4	F
54	STS-55	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067411	1	F
54	STS-55	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318011	2	F
54	STS-55	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318005	3	F
54	STS-55	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067405	4	F
36	STS-41	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000029	1	F
36	STS-41	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000018	2	F
36	STS-41	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000028	3	F
36	STS-41	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000019	4	F
37	STS-38	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000031	1	F
37	STS-38	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000011	2	F
37	STS-38	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000012	3	F
37	STS-38	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000014	4	F
38	STS-35	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000020	1	F
38	STS-35	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000021	2	F
38	STS-35	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000022	3	F
38	STS-35	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000030	4	F
39	STS-37	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000038	1	F
39	STS-37	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000011	2	F
39	STS-37	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000012	3	F
39	STS-37	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000014	4	F
40	STS-39	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000029	1	F
40	STS-39	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000014	4	F
40	STS-39	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000025	3	F
40	STS-39	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000014	4	F
41	STS-40	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000020	1	F
41	STS-40	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000021	2	F
41	STS-40	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000030	4	F
42	STS-43	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000038	1	F
42	STS-43	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000011	2	F
42	STS-43	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000012	3	F
42	STS-43	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000014	4	F
43	STS-48	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000019	4	F
43	STS-48	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000018	2	F
43	STS-48	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000028	3	F
44	STS-44	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000019	4	F
44	STS-44	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000011	2	F
44	STS-44	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000012	3	F
44	STS-44	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000014	4	F
45	STS-42	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000029	1	F
45	STS-42	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000018	2	F
45	STS-42	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000028	3	F
46	STS-45	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000019	4	F
46	STS-45	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000008	1	F
46	STS-45	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000011	2	F
46	STS-45	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000012	3	F
46	STS-45	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000014	4	F
47	STS-49	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000035	1	F
47	STS-49	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000037	2	F
47	STS-49	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000034	3	F
47	STS-49	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000036	4	F
48	STS-50	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000020	1	F
48	STS-50	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000021	2	F
48	STS-50	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000022	3	F
48	STS-50	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000027	4	F

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MISS SEQ	STS	ORIG	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	STAY
45	STS-42	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000020	F
46	STS-42	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000023	F
46	STS-48	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000027	F
48	STS-48	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000025	F
46	STS-48	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000014	F
46	STS-48	OV108	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000034	F
47	STS-49	OV108	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000033	F
47	STS-48	OV108	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000032	F
47	STS-48	OV108	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000011	F
48	STS-50	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000008	F
48	STS-60	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000009	F
48	STS-50	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000010	F
49	STS-46	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000027	F
49	STS-46	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000025	F
49	STS-46	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000014	F
49	STS-46	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000034	F
50	STS-47	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000033	F
50	STS-47	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000011	F
50	STS-47	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000032	F
51	STS-52	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000008	F
51	STS-52	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000009	F
51	STS-52	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000010	F
53	STS-54	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000034	F
53	STS-54	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000033	F
53	STS-54	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000011	F
53	STS-54	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000032	F
54	STS-58	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000008	F
54	STS-58	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000009	F
54	STS-58	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000010	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000306	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000306	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000313	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000314	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000403	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000402	L18
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000407	LOB
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000403	R18
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000308	ROB
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000308	F
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000315	F
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000316	F
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000406	F
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000303	L18
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000402	LOB
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000404	R18
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000409	ROB
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000307	F
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000307	F
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000311	F
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000312	F
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0003	0000000405	F
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000010	L18

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOTT	STAT
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000313		F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000314		F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000403	LIB	F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000402		F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000407	LOB	F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000403	RIB	F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000408	ROB	F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000308		F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000308		F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000315		F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000316		F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000406		F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000309	LIB	F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000402	LOB	F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000404	RIB	F
46	STS-45	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000409	ROB	F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000309		F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000309		F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000318		F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000319		F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000407		F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000404	LIB	F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000411	LOB	F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000406	RIB	F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000412	ROB	F
47	STS-49	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000307		F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000307		F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000312		F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000311		F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000312		F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0083	0000000401		F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000403	LIB	F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000410	LOB	F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0011	0000000410	RIB	F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0012	0000000404	ROB	F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000308		F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000308		F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000315		F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000316		F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000406		F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000309	LIB	F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000402	LOB	F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000409	RIB	F
49	STS-46	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000409	ROB	F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000309		F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000309		F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000318		F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000319		F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000407		F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000404	LIB	F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000406	LOB	F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000412	RIB	F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000412	ROB	F
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000307		F
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000307		F
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000311		F
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000312		F
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0083	0000000401		F
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000403	LIB	F
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000410	LOB	F

MIS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	L O T	T A T
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0011	0000000401	R1B	F
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0012	0000000404	ROB	F
53	STS-54	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000309		F
53	STS-54	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000318		F
53	STS-54	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000319		F
53	STS-54	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000407		F
53	STS-54	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000404	L1B	F
53	STS-54	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000411	LOB	F
53	STS-54	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000406	R1B	F
53	STS-54	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000412	ROB	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000307		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000311		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000312		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0083	0000000401		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000403	L1B	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000410	LOB	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0011	0000000401	R1B	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0012	0000000404	ROB	F
36	STS-41	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000009	L1B	F
36	STS-41	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000004	L1B	F
36	STS-41	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000012	R1B	F
36	STS-41	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000007	ROB	F
37	STS-38	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000010	L1B	F
37	STS-38	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000002	LOB	F
37	STS-38	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000006	R1B	F
37	STS-38	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000006	ROB	F
38	STS-35	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000002	L1B	F
38	STS-35	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000006	LOB	F
38	STS-35	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000003	R1B	F
38	STS-35	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000003	ROB	F
39	STS-37	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000010	L1B	F
39	STS-37	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000002	LOB	F
39	STS-37	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000008	R1B	F
39	STS-37	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000008	ROB	F
40	STS-39	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000009	L1B	F
40	STS-39	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000004	LOB	F
40	STS-39	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000012	R1B	F
40	STS-39	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000007	ROB	F
41	STS-40	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000002	L1B	F
41	STS-40	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000006	LOB	F
41	STS-40	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000003	R1B	F
41	STS-40	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000003	ROB	F
42	STS-43	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000010	L1B	F
42	STS-43	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000002	LOB	F
42	STS-43	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000004	R1B	F
42	STS-43	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000006	ROB	F
43	STS-48	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000004	L1B	F
43	STS-48	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000010	LOB	F
43	STS-48	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000007	R1B	F
43	STS-48	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000007	ROB	F
44	STS-44	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000010	L1B	F
44	STS-44	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000002	LOB	F
44	STS-44	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000008	R1B	F
44	STS-44	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000008	ROB	F
45	STS-42	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000009	L1B	F
45	STS-42	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000004	LOB	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
45	STS-42	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000012	RIB	F
46	STS-42	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000007	ROB	F
46	STS-45	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000010	LIB	F
46	STS-45	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000002	LOB	F
46	STS-45	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000008	RIB	F
46	STS-45	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000006	ROB	F
47	STS-49	OV106	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000011	LOB	F
47	STS-49	OV106	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000014	RIB	F
47	STS-49	OV106	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000005	LOB	F
48	STS-50	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000002	LIB	F
48	STS-50	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000006	LOB	F
48	STS-50	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000003	RIB	F
48	STS-46	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000001	ROB	F
49	STS-46	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000010	LIB	F
49	STS-46	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000002	LOB	F
49	STS-46	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000008	RIB	F
49	STS-46	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000006	ROB	F
50	STS-47	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000011	LIB	F
50	STS-47	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000007	LOB	F
50	STS-47	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000014	RIB	F
51	STS-47	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000005	ROB	F
51	STS-52	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000002	LIB	F
51	STS-52	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000006	LOB	F
51	STS-52	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000003	RIB	F
51	STS-52	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000001	ROB	F
53	STS-54	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000011	LIB	F
53	STS-54	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000007	LOB	F
53	STS-54	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000014	RIB	F
53	STS-54	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000005	ROB	F
54	STS-55	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000002	LIB	F
54	STS-55	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000006	LOB	F
54	STS-55	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000003	RIB	F
54	STS-55	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000001	ROB	F
36	STS-41	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000010	1	F
36	STS-41	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000005	2	F
36	STS-41	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000020	3	F
37	STS-38	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000014	1	F
37	STS-38	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000009	2	F
37	STS-38	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000012	3	F
38	STS-35	OV102	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000025	1	F
38	STS-35	OV102	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000023	2	F
38	STS-35	OV102	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000016	3	F
39	STS-37	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000014	1	F
39	STS-37	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000009	2	F
39	STS-37	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000012	3	F
40	STS-39	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000010	1	F
40	STS-39	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000005	2	F
40	STS-39	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000020	3	F
41	STS-40	OV102	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000025	1	F
41	STS-40	OV102	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000025	2	F
41	STS-40	OV102	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000017	3	F
42	STS-43	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000016	3	F
42	STS-43	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000014	1	F
42	STS-43	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000009	2	F
42	STS-43	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000012	3	F
43	STS-48	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000010	1	F
43	STS-48	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000005	2	F
43	STS-48	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000020	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	LOT	DATE
44	STS-44	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	000000014	1	F
44	STS-44	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	000000009	2	F
45	STS-44	OV103	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000200	3	F
45	STS-42	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	000000010	1	F
45	STS-42	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	000000005	2	F
46	STS-45	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	000000020	3	F
46	STS-45	OV104	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000014	1	F
46	STS-45	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0126	-1004	000000203	2	F
47	STS-49	OV105	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000200	3	F
47	STS-49	OV105	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	000000019	2	F
47	STS-49	OV105	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	000000012	3	F
48	STS-50	OV102	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000208	1	F
48	STS-50	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000025	1	F
48	STS-50	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000017	2	F
49	STS-46	OV104	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000016	3	F
49	STS-46	OV104	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000014	1	F
49	STS-46	OV104	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000203	2	F
50	STS-47	OV105	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000200	3	F
50	STS-47	OV105	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000019	2	F
50	STS-47	OV105	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000012	3	F
51	STS-52	OV102	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000208	1	F
51	STS-52	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000025	1	F
51	STS-52	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000017	2	F
53	STS-54	OV105	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000016	3	F
53	STS-54	OV105	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000014	1	F
53	STS-54	OV105	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000203	2	F
54	STS-55	OV102	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	000000200	3	F
54	STS-55	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000025	1	F
54	STS-55	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000017	2	F
54	STS-55	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	000000016	3	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	000000004	1P	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000008	1V	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000003	2P	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000013	2V	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000006	3P	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000002	3V	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	000000005	1P	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000014	1V	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000008	2P	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000012	2V	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000007	3P	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000011	3V	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	000000002	1P	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000003	1V	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000001	2P	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000001	2V	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000009	3P	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000010	3V	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	000000005	1P	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000014	1V	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000008	2P	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000012	2V	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000007	3P	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000004	1P	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	000000008	1V	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	000000003	2P	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	000000013	2V	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000006	3P	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000002	3V	F
41	STS-40	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000002	1P	F
41	STS-40	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000003	1V	F
41	STS-40	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000001	2P	F
41	STS-40	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000001	2V	F
41	STS-40	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000009	3P	F
41	STS-40	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000010	3V	F
42	STS-43	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000005	1P	F
42	STS-43	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000014	1V	F
42	STS-43	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000008	2P	F
42	STS-43	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000012	2V	F
42	STS-43	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000007	3P	F
42	STS-43	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000011	3V	F
43	STS-48	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000004	1P	F
43	STS-48	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000008	1V	F
43	STS-48	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000003	2P	F
43	STS-48	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000013	2V	F
43	STS-48	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000006	3P	F
43	STS-48	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000002	3V	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000005	1P	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000014	1V	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000012	2P	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000008	2P	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000012	2V	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000011	3V	F
45	STS-42	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000004	1P	F
45	STS-42	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000008	1V	F
45	STS-42	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000004	1P	F
45	STS-42	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000008	1V	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000008	1V	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000014	1V	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000004	2P	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000004	2P	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000007	3P	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000011	3V	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000006	1P	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000016	1V	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000011	2P	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000015	2V	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000010	3P	F
48	STS-50	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000002	1P	F
48	STS-50	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000003	1V	F
48	STS-50	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000001	2P	F
48	STS-50	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000001	2V	F
48	STS-50	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000009	3P	F
48	STS-50	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000010	3V	F
49	STS-46	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000005	1P	F
49	STS-46	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000014	1V	F
49	STS-46	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000008	2P	F
49	STS-46	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000012	2V	F
49	STS-46	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000007	3P	F
49	STS-46	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000011	3V	F
50	STS-47	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000006	1P	F
50	STS-47	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000016	1V	F
50	STS-47	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000011	2P	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOTT	SYTAT
50	STS-47	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000015	2Y	F
50	STS-47	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000010	3P	F
50	STS-47	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000017	3V	F
51	STS-52	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000002	1P	F
51	STS-52	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000003	1V	F
51	STS-52	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000001	2P	F
51	STS-52	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000001	2Y	F
51	STS-52	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000009	3P	F
51	STS-52	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000010	3Y	F
53	STS-54	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000006	1P	F
53	STS-54	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000016	1V	F
53	STS-54	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000011	2P	F
53	STS-54	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000015	2Y	F
53	STS-54	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000010	3P	F
53	STS-54	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000017	3V	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000002	1P	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000003	1V	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000001	2P	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000001	2Y	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000009	3P	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000010	3Y	F
36	STS-41	OV103	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0010	9643000005		F
37	STS-38	OV104	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0017	9643000006		F
38	STS-35	OV102	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0010	9643000003		F
39	STS-37	OV104	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0017	9643000008		F
40	STS-39	OV103	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0010	9643000005		F
41	STS-40	OV102	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0010	9643000003		F
42	STS-43	OV104	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0017	9643000006		F
43	STS-48	OV103	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0010	9643000005		F
44	STS-44	OV104	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0017	9643000006		F
45	STS-42	OV103	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0010	9643000005		F
46	STS-45	OV104	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0017	9643000006		F
47	STS-49	OV105	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0019	9643000007		F
48	STS-50	OV102	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0019	9643000008		F
49	STS-46	OV104	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0017	9643000006		F
50	STS-47	OV105	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0019	9643000007		F
51	STS-52	OV102	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0019	9643000008		F
53	STS-54	OV105	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0019	9643000007		F
54	STS-55	OV102	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0019	9643000008		F
36	STS-41	OV103	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001004		F
37	STS-38	OV104	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001003		F
38	STS-35	OV102	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001002		F
39	STS-37	OV104	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001003		F
40	STS-39	OV103	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001004		F
41	STS-40	OV102	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001002		F
42	STS-43	OV104	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001003		F
43	STS-48	OV103	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001004		F
44	STS-44	OV104	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001003		F
45	STS-42	OV103	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001004		F
46	STS-45	OV104	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001003		F
48	STS-47	OV105	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001004		F
48	STS-46	OV104	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001003		F
46	STS-45	OV104	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001003		F
49	STS-46	OV104	GNC	NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER	MC621-0058	-0014	9643001003		F
36	STS-41	OV103	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000003		F
37	STS-38	OV104	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000006		F
38	STS-35	OV102	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000004		F
39	STS-37	OV104	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000006		F
40	STS-39	OV103	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000003		F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T T	S T A T -
41	STS-40	OV102	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000004			F
42	STS-43	OV104	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000006			F
43	STS-48	OV103	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000003			F
44	STS-44	OV104	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000006			F
46	STS-42	OV103	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000003			F
46	STS-48	OV104	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000006			F
47	STS-48	OV108	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000004			F
48	STS-80	OV102	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000006			F
49	STS-46	OV104	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000006			F
50	STS-47	OV108	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000004			F
51	STS-52	OV102	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000006			F
53	STS-54	OV108	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000004			F
54	STS-55	OV102	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000006			F
54	STS-55	OV102	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000006			F
51	STS-52	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	0000000109			F
51	STS-52	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	0000000131			F
51	STS-52	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	0000000132			F
51	STS-52	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	0000000133			F
53	STS-54	OV108	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	0000000113			F
53	STS-54	OV108	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	0000000117			F
53	STS-54	OV108	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	0000000122			F
53	STS-54	OV108	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	0000000123			F
54	STS-55	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	0000000109			F
54	STS-55	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	0000000131			F
54	STS-55	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	0000000132			F
54	STS-55	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	0000000133			F
51	STS-52	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000127			F
51	STS-52	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000128			F
51	STS-52	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000129			F
51	STS-52	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000130			F
53	STS-54	OV108	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000107			F
53	STS-54	OV108	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000111			F
53	STS-54	OV108	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000121			F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000121			F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000121			F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000121			F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000121			F
36	STS-41	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000024	1		F
36	STS-41	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000031	2		F
36	STS-41	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000024	3		F
37	STS-38	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000022	4		F
37	STS-38	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000027	1		F
37	STS-38	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000032	2		F
37	STS-38	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000029	3		F
38	STS-35	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000028	4		F
38	STS-35	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000014	1		F
38	STS-35	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000015	2		F
38	STS-35	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000016	3		F
39	STS-37	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000017	4		F
39	STS-37	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000027	1		F
39	STS-37	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000032	2		F
39	STS-37	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000029	3		F
40	STS-39	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000028	4		F
40	STS-39	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000023	1		F
40	STS-39	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000031	2		F
40	STS-39	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000024	3		F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLTY	STAT
40	STS-39	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000022	4	F
41	STS-40	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000014	1	F
41	STS-40	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000015	2	F
41	STS-40	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000016	3	F
41	STS-40	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000017	4	F
42	STS-43	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000027	1	F
42	STS-43	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000032	2	F
42	STS-43	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000028	4	F
43	STS-48	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000023	1	F
43	STS-48	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000031	2	F
43	STS-48	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000024	3	F
43	STS-48	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000022	4	F
44	STS-44	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000027	1	F
44	STS-44	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000029	2	F
44	STS-44	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000028	3	F
44	STS-44	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000023	4	F
45	STS-42	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000031	1	F
45	STS-42	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000024	2	F
45	STS-42	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000022	3	F
45	STS-42	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000027	4	F
46	STS-45	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000032	1	F
46	STS-45	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000029	2	F
46	STS-45	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000028	3	F
46	STS-45	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000034	4	F
47	STS-49	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000035	1	F
47	STS-49	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000036	2	F
47	STS-49	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000037	3	F
48	STS-50	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000014	1	F
48	STS-50	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000015	2	F
48	STS-50	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000016	3	F
48	STS-50	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000017	4	F
49	STS-46	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000027	1	F
49	STS-46	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000032	2	F
49	STS-46	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000029	3	F
49	STS-46	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000028	4	F
50	STS-47	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000033	1	F
50	STS-47	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000035	2	F
50	STS-47	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000034	3	F
50	STS-47	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000036	4	F
51	STS-52	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000014	1	F
51	STS-52	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000015	2	F
51	STS-52	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000016	3	F
51	STS-52	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000017	4	F
53	STS-54	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000033	1	F
53	STS-54	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000035	2	F
53	STS-54	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000034	3	F
53	STS-54	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000036	4	F
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000014	1	F
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000015	2	F
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000016	3	F
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	0000000017	4	F
36	STS-41	OV103	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000065	1	F
36	STS-41	OV103	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000066	2	F
36	STS-41	OV103	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000067	3	F
36	STS-41	OV103	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000068	4	F
37	STS-38	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000116	1	F

S T A T -  
S L O T -

DASH SERIAL  
NUMBER NUMBER

PART  
NUMBER

LRU NOMENCLATURE

SUBSYSTEM ORB

STS MISS SEQ

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
51	STS-82	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000088	4	F
53	STS-84	OV108	GNC	RATE GYRO ASSY	MC493-0015	-0108	0000000107	1	F
53	STS-84	OV108	GNC	RATE GYRO ASSY	MC493-0015	-0108	0000000092	2	F
53	STS-84	OV108	GNC	RATE GYRO ASSY	MC493-0015	-0108	0000000085	3	F
54	STS-85	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000080	4	F
54	STS-85	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000123	1	F
54	STS-85	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000120	2	F
54	STS-85	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000073	3	F
54	STS-85	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000068	4	F
36	STS-41	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000011	1	F
36	STS-41	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000009	2	F
36	STS-41	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000015	3	F
37	STS-38	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000002	1	F
37	STS-38	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000021	2	F
37	STS-38	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000012	3	F
38	STS-38	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000018	1	F
38	STS-38	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000014	3	F
39	STS-37	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000002	1	F
39	STS-37	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000021	2	F
39	STS-37	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000012	3	F
40	STS-39	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000011	1	F
40	STS-39	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000009	2	F
40	STS-39	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000015	3	F
41	STS-40	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000018	1	F
41	STS-40	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000014	3	F
42	STS-43	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000002	1	F
42	STS-43	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000021	2	F
42	STS-43	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000012	3	F
43	STS-48	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000011	1	F
43	STS-48	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000009	2	F
43	STS-48	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000015	3	F
44	STS-44	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000002	1	F
44	STS-44	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000021	2	F
44	STS-44	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000012	3	F
45	STS-42	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000011	1	F
45	STS-42	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000009	2	F
45	STS-42	OV103	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000015	3	F
46	STS-45	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000002	1	F
46	STS-45	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000021	2	F
46	STS-45	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000012	3	F
47	STS-48	OV108	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000011	1	F
47	STS-48	OV108	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000009	2	F
47	STS-48	OV108	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000015	3	F
48	STS-50	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000013	2	F
48	STS-50	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000014	3	F
48	STS-50	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000002	1	F
48	STS-50	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000021	2	F
48	STS-50	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000012	3	F
49	STS-46	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000018	1	F
49	STS-46	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000013	2	F
49	STS-46	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000002	1	F
49	STS-46	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000021	2	F
49	STS-46	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000012	3	F
50	STS-47	OV108	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000023	1	F
50	STS-47	OV108	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000025	2	F
50	STS-47	OV108	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000024	3	F
51	STS-52	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000018	1	F
51	STS-52	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000013	2	F
51	STS-52	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000002	1	F
51	STS-52	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000021	2	F
51	STS-52	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000012	3	F
52	STS-54	OV108	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000014	3	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
53	STS-54	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	000000025	2	F
53	STS-54	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	000000024	3	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	000000018	1	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	000000013	2	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	000000014	3	F
36	STS-41	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000006	1	F
36	STS-41	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000022	2	F
37	STS-38	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000002	1	F
37	STS-38	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000007	2	F
38	STS-35	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000018	1	F
38	STS-35	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000020	2	F
38	STS-37	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000002	1	F
39	STS-37	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000007	2	F
40	STS-39	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000006	1	F
40	STS-39	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000022	2	F
41	STS-40	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000018	1	F
41	STS-40	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000020	2	F
42	STS-43	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000002	1	F
42	STS-43	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000007	2	F
43	STS-48	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000006	1	F
43	STS-48	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000022	2	F
44	STS-44	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000002	1	F
44	STS-44	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000007	2	F
45	STS-42	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000006	1	F
45	STS-42	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000022	2	F
46	STS-45	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000002	1	F
46	STS-45	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000007	2	F
48	STS-48	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000007	2	F
48	STS-48	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000022	2	F
48	STS-49	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000031	1	F
48	STS-49	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000030	2	F
48	STS-50	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000018	1	F
48	STS-50	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000020	2	F
49	STS-48	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000002	1	F
49	STS-48	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000007	2	F
50	STS-47	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000031	1	F
50	STS-47	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000030	2	F
51	STS-52	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000018	1	F
51	STS-52	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000020	2	F
53	STS-54	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000031	1	F
53	STS-54	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000030	2	F
54	STS-55	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000018	1	F
54	STS-55	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000020	2	F
36	STS-41	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000010	1	F
36	STS-41	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000021	2	F
37	STS-38	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000013	1	F
37	STS-38	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000004	2	F
38	STS-35	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000019	1	F
38	STS-35	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000024	2	F
39	STS-37	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000013	1	F
39	STS-37	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000004	2	F
40	STS-39	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000010	1	F
40	STS-39	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000021	2	F
41	STS-40	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000019	1	F
41	STS-40	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000024	2	F
42	STS-43	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000013	1	F
42	STS-43	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000004	2	F
43	STS-48	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000010	1	F
43	STS-48	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000021	2	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
44	STS-44	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000013	1	F
44	STS-44	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000004	2	F
46	STS-42	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000010	1	F
46	STS-42	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000021	2	F
46	STS-45	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000013	1	F
46	STS-45	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000004	2	F
47	STS-49	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000025	2	F
47	STS-49	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000019	1	F
48	STS-50	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000024	2	F
48	STS-50	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000013	1	F
49	STS-46	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000004	2	F
50	STS-47	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000025	2	F
50	STS-47	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000019	1	F
51	STS-52	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000024	2	F
51	STS-52	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000013	1	F
53	STS-54	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000025	2	F
53	STS-54	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000019	1	F
54	STS-55	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000019	1	F
54	STS-55	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000024	2	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000303	1	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000305	2	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000305	3	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000305	4	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000306	1	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000306	2	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000307	3	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000310	4	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000311	1	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0008	0000000405	2	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000403	3	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000403	4	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000403	1	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000403	2	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000305	3	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000306	4	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000306	1	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000307	2	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000308	3	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000308	4	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000309	1	S
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000312	2	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000313	3	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0066	0000000403	4	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000404	1	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000404	2	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	3	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	4	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	1	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	2	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	3	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	4	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000301	1	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000301	2	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000302	3	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000302	4	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000302	1	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000303	2	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000303	3	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000304	4	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000312	F	
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000313	F	
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000403	F	
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000404	F	
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	F	1
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	F	2
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000307	F	3
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000308	F	4
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000308	F	
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000311	F	
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000317	F	
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0017	0000000318	F	
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0017	0000000319	F	
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000406	F	
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000407	F	
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000406	F	1
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000406	F	2
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000406	F	3
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000406	F	4
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000301	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000302	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000302	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000302	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000302	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000302	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000303	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000303	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000304	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000304	F	
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000401	F	1
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	0000000401	F	2
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000404	F	3
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000404	F	4
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000305	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000306	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000306	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000307	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000308	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000308	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000309	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000312	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000313	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000403	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000404	F	
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000404	F	1
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000404	F	2
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	F	3
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	F	4
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000307	F	
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000308	F	
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000308	F	
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000311	F	
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000312	F	
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000317	F	
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0017	0000000318	F	

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	STATION
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0017	0000000319	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0066	0000000406	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000407	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000406	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000406	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000406	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000406	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000301	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000301	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000302	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000302	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000302	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000302	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000303	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000303	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000304	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000307	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000406	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	0000000401	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	0000000401	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000401	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000401	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000307	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000308	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000308	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000311	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000311	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000317	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000317	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0017	0000000318	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0017	0000000319	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000406	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000407	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000406	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000406	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000406	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000406	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000301	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000303	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000303	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000307	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000307	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000307	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000308	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000303	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000307	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000307	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000406	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	0000000401	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	0000000401	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000401	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000401	F
36	STS-41	OV103	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000007	F
37	STS-38	OV104	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000006	F
38	STS-35	OV104	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000005	F
39	STS-37	OV104	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000006	F
40	STS-39	OV103	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000007	F
41	STS-40	OV102	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000005	F
42	STS-43	OV104	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000006	F

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MISS SEQ	STS	ORB	SUBSYSTEM	I, RU NOMENCLATURE	UNIT	PART NUMBER	DASH NUMBER	SERIAL NUMBER	LOT	S T A T
50	STS-47	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-1002	0000000002	Y	F
50	STS-47	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-0011	0000000003	Z	F
51	STS-52	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-1002	0000000003	Y	F
51	STS-52	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0012	0000000006	Z	F
53	STS-54	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-1002	0000000002	Z	F
53	STS-54	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-0011	0000000003	Y	F
54	STS-56	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-1002	0000000003	Y	F
54	STS-55	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0012	0000000006	Z	F
36	STS-41	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000007	Y	F
36	STS-41	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000006	Z	F
37	STS-38	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000006	Y	F
37	STS-38	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000005	Z	F
38	STS-35	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0107	0000000005	Y	F
38	STS-35	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000004	Z	F
39	STS-37	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000006	Y	F
39	STS-37	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000005	Z	F
40	STS-39	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000007	Y	F
40	STS-39	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000006	Z	F
41	STS-40	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0107	0000000005	Y	F
41	STS-40	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000004	Z	F
42	STS-43	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000006	Y	F
42	STS-43	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000005	Z	F
43	STS-48	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000007	Y	F
43	STS-48	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000006	Z	F
44	STS-44	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000006	Y	F
44	STS-44	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000005	Z	F
45	STS-42	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000007	Y	F
45	STS-42	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000006	Z	F
46	STS-45	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000006	Y	F
46	STS-45	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000005	Z	F
47	STS-49	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000005	Z	F
47	STS-49	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-0207	0000000108	Y	F
48	STS-50	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000107	Z	F
48	STS-50	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0207	0000000002	Y	F
49	STS-46	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000004	Z	F
49	STS-46	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0007	0000000006	Y	F
49	STS-46	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000005	Z	F
50	STS-47	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-0207	0000000108	Y	F
50	STS-47	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000107	Z	F
51	STS-52	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0207	0000000002	Y	F
51	STS-52	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000002	Y	F
53	STS-54	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-0207	0000000104	Y	F
53	STS-54	OV105	GNC	STAR TRACKER	UNIT	MC431-0128	-0204	0000000107	Z	F
54	STS-55	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0207	0000000107	Z	F
54	STS-55	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0104	0000000104	Z	F
36	STS-41	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000005	Y	F
36	STS-41	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000009	Z	F
37	STS-38	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000009	Y	F
37	STS-38	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000002	Z	F
38	STS-35	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000006	Y	F
38	STS-35	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000008	Z	F
39	STS-37	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000003	Y	F
39	STS-37	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000002	Z	F
40	STS-39	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000005	Y	F
40	STS-39	OV103	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000009	Z	F
41	STS-40	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000006	Y	F
41	STS-40	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000008	Z	F
41	STS-40	OV102	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000003	Y	F
42	STS-43	OV104	GNC	STAR TRACKER	UNIT	MC431-0128	-0008	0000000003	Y	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	UNIT	PROTECTIVE	WINDOW	ASSY	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
42	STS-43	OV104	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000002	Z	F
43	STS-48	OV103	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000005	Y	F
43	STS-48	OV103	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000009	Z	F
44	STS-44	OV104	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000003	Y	F
44	STS-44	OV104	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000002	Z	F
45	STS-42	OV103	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000005	Y	F
45	STS-42	OV103	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000009	Z	F
46	STS-45	OV104	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000003	Y	F
46	STS-45	OV104	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000002	Z	F
47	STS-49	OV105	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000006	Y	F
47	STS-49	OV105	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000102	Z	F
47	STS-49	OV105	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000110	Y	F
48	STS-50	OV102	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000008	Z	F
48	STS-50	OV102	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000003	Y	F
49	STS-46	OV104	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000007	Z	F
49	STS-46	OV104	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000006	Y	F
50	STS-47	OV105	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000102	Z	F
50	STS-47	OV105	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000110	Y	F
51	STS-52	OV102	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000108	Z	F
51	STS-52	OV102	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000108	Y	F
53	STS-54	OV105	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-012C	-0008	0000000106	Y	F
53	STS-54	OV105	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000102	Z	F
54	STS-55	OV102	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000110	Y	F
54	STS-55	OV102	GNC	STAR TRACKER	UNIT	PROTECTIVE	WINDOW	ASSY	MC431-0128	-0008	0000000108	Z	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
54	STS-55	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000023	1	F
54	STS-55	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000006	2	F
54	STS-55	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000011	3	F
54	STS-55	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000007	4	F
54	STS-55	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274661	L	F
54	STS-55	OV102	GNC	AIR DATA PROBE	MC432-0206	-0005	0004274626	R	F
54	STS-55	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067411	1	F
54	STS-55	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318011	2	F
54	STS-55	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318005	3	F
54	STS-55	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067405	4	F
54	STS-55	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000020	1	F
54	STS-55	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000021	2	F
54	STS-55	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000022	3	F
54	STS-55	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000027	4	F
54	STS-55	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000011	1	F
54	STS-55	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000008	2	F
54	STS-55	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000009	3	F
54	STS-55	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000010	4	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	00000000307		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	00000000307		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	00000000311		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	00000000312		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0083	00000000401		F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	00000000403	LIB	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	00000000410	LOB	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0011	00000000401	RIB	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0012	00000000404	ROB	F
54	STS-55	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	00000000002	LIB	F
54	STS-55	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0018	00000000006	LOB	F
54	STS-55	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	00000000003	RIB	F
54	STS-55	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0019	00000000001	ROB	F
54	STS-55	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000025	1	F
54	STS-55	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000017	2	F
54	STS-55	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000016	3	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	00000000002	1P	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	00000000003	1V	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	00000000001	2P	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	00000000001	2V	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	00000000009	3P	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	00000000010	3V	F
54	STS-55	OV102	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0019	96430000008		F
54	STS-55	OV102	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	96430000006		F
54	STS-55	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	00000000109		F
54	STS-55	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	00000000131		F
54	STS-55	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	00000000132		F
54	STS-55	OV102	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	00000000133		F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	00000000127		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	000000128	F	S
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	000000129	F	T
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	000000130	F	A
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	000000014	F	-
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	000000015	F	L
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	000000016	F	O
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	000000017	F	T
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	000000123	F	-
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	000000120	F	S
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	000000073	F	T
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	000000068	F	A
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	000000018	F	-
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	000000013	F	L
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	000000014	F	O
54	STS-55	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000018	F	T
54	STS-55	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	000000020	F	A
54	STS-55	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000019	F	-
54	STS-55	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	000000024	F	L
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000301	F	S
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000301	F	T
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000302	F	A
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000302	F	-
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000302	F	L
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000302	F	O
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000303	F	T
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000303	F	A
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000304	F	-
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	0000000307	F	L
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000406	F	O
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	0000000401	F	T
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	0000000401	F	A
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000401	F	-
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000401	F	L
54	STS-55	OV102	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000005	F	S
54	STS-55	OV102	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000002	F	T
54	STS-55	OV102	GNC	STAR TRACKER UNIT	MC431-0128	-1002	0000000003	F	A
54	STS-55	OV102	GNC	STAR TRACKER UNIT	MC431-0128	-0012	0000000006	F	-
54	STS-55	OV102	GNC	STAR TRACKER UNIT LS	MC431-0128	-0207	0000000002	F	L
54	STS-55	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	0000000004	F	O
54	STS-55	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000010	F	T
54	STS-55	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000008	F	A

AVIONICS  
COMMUNICATIONS AND TRACKING (CT) SUBSYSTEM



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	EQUIPMENT	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
36	STS-41	OV103	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000007	F	S
37	STS-38	OV104	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000004	F	A
38	STS-35	OV102	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000002	F	T
39	STS-37	OV104	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000004	F	T
40	STS-39	OV103	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000007	F	T
41	STS-40	OV102	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000006	F	T
42	STS-43	OV104	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000004	F	T
43	STS-48	OV103	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000007	F	T
44	STS-44	OV104	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000004	F	T
45	STS-42	OV103	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000007	F	T
46	STS-45	OV104	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000004	F	T
47	STS-49	OV105	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000008	F	T
48	STS-50	OV102	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000006	F	T
49	STS-46	OV104	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000004	F	T
50	STS-47	OV105	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000008	F	T
51	STS-52	OV102	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000006	F	T
53	STS-54	OV105	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000008	F	T
54	STS-55	OV102	CT	AUDIO CENTRAL CONTROL	EQUIPMENT	MC409-0005	-0001	0000000006	F	T
36	STS-41	OV103	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000J74328	F	F
37	STS-38	OV104	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000BA8617	F	F
38	STS-35	OV102	CT	ANTENNA, AIRLOCK		V075-730513	-003	0000J54726	F	F
39	STS-37	OV104	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000BA8617	F	F
40	STS-39	OV103	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000J74328	F	F
41	STS-40	OV102	CT	ANTENNA, AIRLOCK		V075-730513	-003	0000J54726	F	F
42	STS-43	OV104	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000BA8617	F	F
43	STS-48	OV103	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000BA8617	F	F
44	STS-44	OV104	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000J74328	F	F
45	STS-42	OV103	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000BA8617	F	F
46	STS-45	OV104	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000J74328	F	F
47	STS-49	OV105	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000BA8617	F	F
48	STS-50	OV102	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000GH4680	F	F
49	STS-46	OV104	CT	ANTENNA, AIRLOCK		V075-730513	-003	0000J54726	F	F
50	STS-47	OV105	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000BA8617	F	F
51	STS-52	OV102	CT	ANTENNA, AIRLOCK		V075-730513	-004	0000GH4680	F	F
53	STS-54	OV105	CT	ANTENNA, AIRLOCK		V075-730513	-003	0000J54726	F	F
54	STS-55	OV102	CT	ANTENNA, AIRLOCK		V075-730513	-003	0000J54726	F	F
36	STS-41	OV103	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000019	F	F
37	STS-41	OV103	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000025	F	F
38	STS-41	OV103	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000026	F	F
39	STS-41	OV103	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000027	F	F
40	STS-41	OV103	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000028	F	F
41	STS-38	OV104	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000030	F	F
42	STS-38	OV104	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000037	F	F
43	STS-38	OV104	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000038	F	F
44	STS-38	OV104	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000039	F	F
45	STS-38	OV104	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000040	F	F
46	STS-38	OV104	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000041	F	F
47	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000042	F	F
48	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000001	F	F
49	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000008	F	F
50	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000010	F	F
51	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000013	F	F
52	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000014	F	F
53	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000015	F	F
54	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000016	F	F
55	STS-35	OV102	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000018	F	F
56	STS-37	OV104	CT	AUDIO TERM UNITS		MC409-0005	-0012	0000000037	F	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLTY	STAY
49	STS-46	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000038	F	
49	STS-46	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000039	F	
49	STS-46	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000040	F	
49	STS-46	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000041	F	
50	STS-47	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000042	F	
50	STS-47	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000043	F	
50	STS-47	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000044	F	
50	STS-47	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000046	F	
50	STS-47	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000048	F	
51	STS-52	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000001	F	
51	STS-52	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000008	F	
51	STS-52	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000010	F	
51	STS-52	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000013	F	
51	STS-52	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000014	F	
51	STS-52	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000015	F	
51	STS-52	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000016	F	
53	STS-54	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000018	F	
53	STS-54	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000012	F	
53	STS-54	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000043	F	
53	STS-54	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000044	F	
53	STS-54	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000046	F	
53	STS-54	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000047	F	
53	STS-54	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000048	F	
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000001	F	
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000008	F	
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000010	F	
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000013	F	
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000014	F	
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000015	F	
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000016	F	
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000018	F	
36	STS-41	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000013	F	1
36	STS-41	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000016	F	2
36	STS-41	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000009	F	3
37	STS-38	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	F	1
37	STS-38	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	F	2
37	STS-38	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000001	F	3
38	STS-35	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000010	F	1
38	STS-35	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000012	F	2
38	STS-35	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000007	F	3
39	STS-37	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	F	1
39	STS-37	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	F	2
39	STS-37	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000001	F	3
40	STS-39	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000013	F	1
40	STS-39	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000016	F	2
40	STS-39	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000009	F	3
41	STS-40	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000010	F	1
41	STS-40	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000012	F	2
41	STS-40	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000007	F	3
42	STS-43	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	F	1
42	STS-43	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	F	2
42	STS-43	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000001	F	3
43	STS-48	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000013	F	1
43	STS-48	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000016	F	2
43	STS-48	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000009	F	3
44	STS-44	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	F	1

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLT	STATT
44	STS-44	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	2	F
44	STS-44	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000001	3	F
45	STS-42	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000013	1	F
45	STS-42	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000016	2	F
45	STS-42	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000009	3	F
46	STS-45	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	1	F
46	STS-45	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	2	F
46	STS-45	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000001	3	F
47	STS-49	OV106	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000008	1	F
47	STS-49	OV106	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000011	2	F
48	STS-50	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000010	1	F
48	STS-50	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000012	2	F
49	STS-46	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	1	F
49	STS-46	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	2	F
50	STS-47	OV106	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000008	1	F
50	STS-47	OV106	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000011	2	F
51	STS-52	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000010	1	F
51	STS-52	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000012	2	F
53	STS-54	OV105	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000008	1	F
53	STS-54	OV105	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000011	2	F
54	STS-55	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000010	1	F
54	STS-55	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000012	2	F
36	STS-41	OV103	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000103		F
37	STS-36	OV104	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000104		F
38	STS-35	OV102	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000106		F
39	STS-37	OV104	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000107		F
40	STS-39	OV103	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000103		F
41	STS-40	OV102	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000106		F
42	STS-43	OV104	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000107		F
43	STS-48	OV103	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000103		F
44	STS-44	OV104	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000107		F
45	STS-42	OV103	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000103		F
46	STS-46	OV104	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000104		F
47	STS-49	OV106	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000108		F/SP
48	STS-50	OV102	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000102		F/SP
49	STS-47	OV105	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000106		F/SP
50	STS-52	OV102	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000108		F/SP
51	STS-54	OV105	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000106		F/SP
53	STS-54	OV105	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000106		F/SP
54	STS-55	OV102	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000108		F/SP
36	STS-41	OV103	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000302		F
37	STS-36	OV104	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000306		F
38	STS-35	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		F
39	STS-37	OV104	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000306		F
40	STS-39	OV103	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000302		F
41	STS-40	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		F
42	STS-43	OV104	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000306		F
43	STS-48	OV103	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000302		F
44	STS-44	OV104	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000306		F
45	STS-42	OV103	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000302		F
46	STS-46	OV104	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000306		F
47	STS-49	OV106	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		F
48	STS-50	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000302		F
49	STS-47	OV105	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000306		F
50	STS-52	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000302		F
51	STS-54	OV105	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		F
53	STS-54	OV105	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		F
54	STS-55	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000307		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
54	STS-55	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303	1	F
36	STS-41	OV103	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000310	1	F
36	STS-41	OV103	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000309	2	F
37	STS-38	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000307	1	F
37	STS-38	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000308	2	F
38	STS-35	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000302	1	F
38	STS-35	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000303	2	F
39	STS-37	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000307	1	F
39	STS-37	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000308	2	F
40	STS-39	OV103	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000310	1	F
41	STS-40	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000302	1	F
41	STS-40	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000303	2	F
42	STS-43	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000307	1	F
42	STS-43	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000308	2	F
43	STS-48	OV103	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000310	1	F
43	STS-48	OV103	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000309	2	F
44	STS-44	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000307	1	F
44	STS-44	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000308	2	F
45	STS-42	OV103	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000310	1	F
46	STS-45	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000309	2	F
46	STS-45	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000307	1	F
47	STS-49	OV105	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000311	1	F
47	STS-49	OV105	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000312	2	F
48	STS-50	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000302	1	F
48	STS-50	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000303	2	F
49	STS-46	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000307	1	F
49	STS-46	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000308	2	F
50	STS-47	OV105	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000311	1	F
50	STS-47	OV105	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000312	2	F
51	STS-52	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000302	1	F
51	STS-52	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000303	2	F
53	STS-54	OV105	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000311	1	F
53	STS-54	OV105	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000312	2	F
54	STS-55	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000304	1	F
54	STS-55	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3701	0000000303	2	F
36	STS-41	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU004	L	F
36	STS-41	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU004	U	F
37	STS-38	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU002	L	F
37	STS-38	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU002	U	F
38	STS-35	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU005	L	F
38	STS-35	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU005	U	F
39	STS-37	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU002	L	F
39	STS-37	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU002	U	F
40	STS-39	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU003	L	F
40	STS-39	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU003	U	F
41	STS-40	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU004	L	F
41	STS-40	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU004	U	F
42	STS-43	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU005	L	F
42	STS-43	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU005	U	F
43	STS-48	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU002	L	F
43	STS-48	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU002	U	F
44	STS-44	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU003	L	F
44	STS-44	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU003	U	F
45	STS-42	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBNU004	L	F
45	STS-42	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBMU004	U	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	DATA
46	STS-45	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	0000B00002	L	F
46	STS-45	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	0000B00003	U	F
47	STS-49	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0005	0000B00008	L	F
47	STS-49	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0006	0000B00007	U	F
48	STS-50	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	0000B00005	L	F
48	STS-50	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	0000B00001	U	F
49	STS-46	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	0000B00003	U	F
49	STS-46	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0005	0000B00008	L	F
50	STS-47	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0006	0000B00007	U	F
51	STS-52	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	0000B00005	L	F
51	STS-52	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	0000B00001	U	F
53	STS-54	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0005	0000B00008	L	F
53	STS-54	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0006	0000B00007	U	F
54	STS-55	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	0000B00005	L	F
54	STS-55	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	0000B00001	U	F
37	STS-38	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004	F	F
37	STS-38	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018	F	F
37	STS-38	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020	F	F
39	STS-37	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004	F	F
39	STS-37	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018	F	F
39	STS-37	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020	F	F
42	STS-43	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004	F	F
42	STS-43	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018	F	F
42	STS-43	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020	F	F
44	STS-44	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004	F	F
44	STS-44	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018	F	F
44	STS-44	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020	F	F
46	STS-45	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004	F	F
46	STS-45	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018	F	F
46	STS-45	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020	F	F
36	STS-41	OV103	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000105	F	F
37	STS-38	OV104	CT	DEPLOYED ASSY	MC409-0025	-3006	0000000103	F	F
38	STS-38	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106	F	F
39	STS-37	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107	F	F
40	STS-39	OV103	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000105	F	F
41	STS-40	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106	F	F
42	STS-43	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107	F	F
43	STS-48	OV103	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000105	F	F
44	STS-44	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107	F	F
45	STS-42	OV103	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000105	F	F
46	STS-45	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107	F	F
47	STS-49	OV105	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107	F	F
48	STS-50	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000103	F	F
49	STS-46	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000108	F	F
50	STS-47	OV105	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106	F	F
51	STS-52	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000108	F	F
53	STS-54	OV105	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106	F	F
54	STS-55	OV105	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106	F	F
54	STS-55	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000108	F	F
36	STS-41	OV103	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000106	F	F
37	STS-38	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104	F	F
38	STS-38	OV102	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103	F	F
39	STS-37	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104	F	F
40	STS-39	OV103	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000106	F	F
41	STS-40	OV102	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103	F	F
42	STS-43	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104	F	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
43	STS-48	OV103	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000106		F
44	STS-44	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104		F
45	STS-42	OV103	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000106		F
46	STS-45	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104		F
47	STS-49	OV105	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000107		F
48	STS-50	OV102	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103		F
49	STS-46	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104		F
50	STS-47	OV105	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103		F
51	STS-52	OV102	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103		F
53	STS-54	OV105	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000106		F
54	STS-55	OV102	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103		F
36	STS-41	OV103	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000104		F
37	STS-38	OV104	CT	ELECT ASSY-2 EA-2	MC409-0025	-2005	0000000105		F
38	STS-35	OV102	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000102		F
39	STS-37	OV104	CT	ELECT ASSY-2 EA-2	MC409-0025	-2005	0000000105		F
40	STS-39	OV103	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000104		F
41	STS-40	OV102	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000102		F
42	STS-43	OV104	CT	ELECT ASSY-2 EA-2	MC409-0025	-2005	0000000105		F
43	STS-48	OV103	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000104		F
44	STS-44	OV104	CT	ELECT ASSY-1 EA-2	MC409-0025	-2001	0000000105		F
45	STS-42	OV103	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000104		F
46	STS-45	OV104	CT	ELECT ASSY-1 EA-2	MC409-0025	-2001	0000000105		F
47	STS-49	OV105	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000106		F
48	STS-50	OV102	CT	ELECT ASSY-2 EA-2	MC409-0025	-2005	0000000108		F/SP
49	STS-46	OV104	CT	ELECT ASSY-1 EA-2	MC409-0025	-2001	0000000105		F
50	STS-47	OV105	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000106		F
51	STS-52	OV102	CT	ELECT ASSY-2 EA-2	MC409-0025	-2005	0000000108		F/SP
53	STS-54	OV105	CT	ELECT ASSY-2 EA-2	MC409-0025	-2001	0000000106		F
54	STS-55	OV102	CT	ELECT ASSY-2 EA-2	MC409-0025	-2005	0000000108		F/SP
36	STS-41	OV103	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000104		F
37	STS-38	OV104	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000105		F
38	STS-35	OV102	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000102		F
39	STS-37	OV104	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000105		F
40	STS-39	OV103	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000105		F
41	STS-40	OV102	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000102		F
42	STS-43	OV104	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000105		F
43	STS-48	OV103	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000104		F
44	STS-44	OV104	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000105		F
45	STS-42	OV103	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000104		F
46	STS-45	OV104	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000105		F
47	STS-49	OV105	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4005	0000000108		F
48	STS-50	OV102	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000102		F
49	STS-46	OV104	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000105		F
50	STS-47	OV105	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4005	0000000108		F
51	STS-52	OV102	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000102		F
53	STS-54	OV105	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4005	0000000108		F
54	STS-55	OV102	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000102		F
47	STS-49	OV105	CT	MULTIPLE HEADSET ADAPTER	MC409-0005	-0300	0000000012		SP
48	STS-50	OV102	CT	MULTIPLE HEADSET ADAPTER	MC409-0005	-0300	0000000006		F
50	STS-47	OV105	CT	MULTIPLE HEADSET ADAPTER	MC409-0005	-0300	0000000012		SP
51	STS-52	OV102	CT	MULTIPLE HEADSET ADAPTER	MC409-0005	-0300	0000000006		F
53	STS-54	OV105	CT	MULTIPLE HEADSET ADAPTER	MC409-0005	-0300	0000000012		F
54	STS-55	OV102	CT	MULTIPLE HEADSET ADAPTER	MC409-0005	-0300	0000000006		F
36	STS-41	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000028	1	F
36	STS-41	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000008	2	F





MISS SEQ	STS	OR8	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLQT	STAY
38	STS-35	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000013	1	F
38	STS-35	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000019	2	F
38	STS-35	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000012	3	F
39	STS-37	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000031	1	F
39	STS-37	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000038	2	F
39	STS-37	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000035	3	F
40	STS-39	OV103	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000033	2	F
40	STS-39	OV103	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000032	3	F
41	STS-40	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000013	1	F
41	STS-40	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000019	2	F
42	STS-43	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000012	3	F
42	STS-43	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000038	2	F
43	STS-48	OV103	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000035	3	F
43	STS-48	OV103	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000047	1	F
43	STS-48	OV103	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000033	2	F
44	STS-44	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000032	3	F
44	STS-44	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000038	2	F
45	STS-42	OV103	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000035	3	F
45	STS-42	OV103	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000047	1	F
45	STS-42	OV103	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000033	2	F
46	STS-45	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000031	1	F
46	STS-45	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000038	2	F
46	STS-45	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000035	3	F
47	STS-49	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000017	1	F
47	STS-49	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000035	3	F
47	STS-49	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000017	1	F
48	STS-50	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000013	1	F
48	STS-50	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000019	2	F
48	STS-50	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000012	3	F
49	STS-46	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000031	1	F
49	STS-46	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000038	2	F
49	STS-46	OV104	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000035	3	F
50	STS-47	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000017	1	F
50	STS-47	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000035	3	F
50	STS-47	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000017	1	F
51	STS-52	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000013	1	F
51	STS-52	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000019	2	F
51	STS-52	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000012	3	F
53	STS-54	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000017	1	F
53	STS-54	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000035	3	F
53	STS-54	OV105	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000017	1	F
54	STS-55	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000013	1	F
54	STS-55	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000019	2	F
54	STS-55	OV102	CT	MICROWAVE SCAN BEAM	MC481-0067	-0001	0000000012	3	F
36	STS-41	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000006	1	F
36	STS-41	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000020	2	F
36	STS-41	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000022	3	F
37	STS-38	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000019	1	F
37	STS-38	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000026	2	F
37	STS-38	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000029	3	F
38	STS-35	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000023	1	F
38	STS-35	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000012	2	F
38	STS-35	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000022	3	F
39	STS-37	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000019	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
39	STS-37	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000026	2	F
39	STS-37	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000029	3	F
40	STS-39	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000008	1	F
40	STS-39	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000020	2	F
40	STS-39	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000027	3	F
41	STS-40	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000023	1	F
41	STS-40	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000012	2	F
41	STS-40	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000022	3	F
42	STS-43	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000026	2	F
42	STS-43	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000029	3	F
43	STS-48	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000006	1	F
43	STS-48	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000020	2	F
43	STS-48	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000027	3	F
44	STS-44	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000019	1	F
44	STS-44	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000026	2	F
44	STS-44	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000029	3	F
45	STS-42	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000006	1	F
45	STS-42	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000020	2	F
45	STS-42	OV103	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000027	3	F
46	STS-45	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000019	1	F
46	STS-45	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000022	2	F
46	STS-45	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000026	3	F
47	STS-49	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000003	1	F
47	STS-49	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000007	2	F
47	STS-49	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000002	3	F
48	STS-50	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000025	1	F
48	STS-50	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000024	2	F
48	STS-50	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000021	3	F
49	STS-46	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000019	1	F
49	STS-46	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000022	2	F
49	STS-46	OV104	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0003	0000000026	3	F
50	STS-47	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000007	1	F
50	STS-47	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000002	2	F
50	STS-47	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000003	3	F
51	STS-52	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000025	1	F
51	STS-52	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000024	2	F
51	STS-52	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000021	3	F
53	STS-54	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000007	1	F
53	STS-54	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000002	2	F
53	STS-54	OV105	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000003	3	F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000025	1	F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000024	2	F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000021	3	F
36	STS-41	OV103	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000302	1	F
36	STS-41	OV103	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000308	2	F
37	STS-38	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000307	1	F
37	STS-38	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000309	2	F
38	STS-35	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000301	1	F
38	STS-35	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000304	2	F
39	STS-37	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000307	1	F
39	STS-37	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000309	2	F
40	STS-39	OV103	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000302	1	F
40	STS-39	OV103	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000308	2	F
41	STS-40	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000301	1	F
41	STS-40	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000304	2	F
41	STS-40	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000307	1	F
42	STS-43	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000309	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
43	STS-48	OV103	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000302	1	F
43	STS-48	OV103	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000308	2	F
44	STS-44	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000307	1	F
44	STS-44	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000309	2	F
45	STS-42	OV103	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000302	1	F
45	STS-42	OV103	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000308	2	F
46	STS-45	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000307	1	F
46	STS-45	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000309	2	F
47	STS-49	OV105	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000312	1	F
47	STS-49	OV105	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000313	2	F
48	STS-50	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000301	1	F
48	STS-50	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000304	2	F
49	STS-46	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000309	1	F
49	STS-46	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000312	2	F
50	STS-47	OV105	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000313	1	F
50	STS-47	OV105	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000301	2	F
51	STS-52	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000304	1	F
53	STS-54	OV105	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000312	1	F
53	STS-54	OV105	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000313	2	F
54	STS-55	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000301	1	F
54	STS-55	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000304	2	F
36	STS-41	OV103	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006	1	F
37	STS-38	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0007	2	F
38	STS-35	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0002	1	F
39	STS-37	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0007	2	F
40	STS-39	OV103	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006	1	F
41	STS-40	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0002	2	F
42	STS-43	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006	1	F
43	STS-48	OV103	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0005	2	F
44	STS-44	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006	1	F
45	STS-42	OV103	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0005	2	F
46	STS-45	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006	1	F
47	STS-49	OV105	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0008	2	F
48	STS-50	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0003	1	F
49	STS-46	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006	2	F
50	STS-47	OV105	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006	1	F
51	STS-52	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0003	2	F
53	STS-54	OV105	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0008	1	F
54	STS-55	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0003	2	F
36	STS-41	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000304	1	F
36	STS-41	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000307	2	F
37	STS-38	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000310	1	F
37	STS-38	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	2	F
38	STS-35	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000308	1	F
38	STS-35	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0901	0000000302	2	F
39	STS-37	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000310	1	F
39	STS-37	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	2	F
40	STS-39	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000304	1	F
41	STS-40	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000308	1	F
41	STS-40	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000302	2	F
42	STS-43	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000310	1	F
42	STS-43	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	2	F
43	STS-46	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000304	1	F
43	STS-46	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000307	2	F
43	STS-48	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000308	1	F
44	STS-44	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000310	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATT
44	STS-44	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	1	F
45	STS-42	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000304	1	F
46	STS-42	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000307	2	F
47	STS-45	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000310	1	F
48	STS-45	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	2	F
49	STS-49	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000316	1	F
50	STS-49	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000317	2	F
51	STS-50	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000315	1	F
52	STS-50	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000302	2	F
53	STS-46	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000310	1	F
54	STS-46	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	2	F
55	STS-47	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000316	1	F
56	STS-47	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000317	2	F
57	STS-52	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000315	1	F
58	STS-52	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000302	2	F
59	STS-54	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000316	1	F
60	STS-54	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000317	2	F
61	STS-55	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000315	1	F
62	STS-55	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000302	2	F
36	STS-41	OV103	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000305	1	F
37	STS-38	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301	1	F
38	STS-35	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303	1	F
39	STS-37	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301	1	F
40	STS-39	OV103	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000305	1	F
41	STS-40	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303	2	F
42	STS-43	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301	1	F
43	STS-48	OV103	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000305	1	F
44	STS-44	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301	1	F
45	STS-42	OV103	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000305	1	F
46	STS-45	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301	1	F
47	STS-49	OV105	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301	1	F
48	STS-50	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301	1	F
49	STS-46	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000308	1	F
50	STS-47	OV105	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303	1	F
51	STS-52	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000308	2	F
52	STS-52	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303	1	F
53	STS-54	OV105	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000308	2	F
54	STS-54	OV105	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000308	2	F
55	STS-55	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303	1	F
36	STS-41	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000303	1	F
37	STS-41	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000306	2	F
38	STS-38	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
39	STS-38	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
40	STS-35	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
41	STS-35	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
42	STS-37	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
43	STS-37	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
44	STS-39	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000303	1	F
45	STS-39	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000306	2	F
46	STS-40	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
47	STS-40	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
48	STS-43	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
49	STS-43	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
50	STS-48	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000303	1	F
51	STS-48	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000306	2	F
52	STS-44	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
53	STS-44	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
54	STS-42	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000303	1	F
55	STS-42	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000306	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
46	STS-46	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
47	STS-47	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
48	STS-48	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000317	2	F
49	STS-49	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
50	STS-50	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
51	STS-51	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	2	F
52	STS-52	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
53	STS-53	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000316	1	F
54	STS-54	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
55	STS-55	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
36	STS-36	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000307	1	F
37	STS-37	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000306	1	F
38	STS-38	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305	1	F
39	STS-39	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000306	1	F
40	STS-40	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000307	1	F
41	STS-41	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305	1	F
42	STS-42	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000306	1	F
43	STS-43	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000307	1	F
44	STS-44	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303	1	F
45	STS-45	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303	1	F
46	STS-46	OV105	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000308	1	F
47	STS-47	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305	1	F
48	STS-48	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303	1	F
49	STS-49	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305	1	F
50	STS-50	OV105	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303	1	F
51	STS-51	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000308	1	F
52	STS-52	OV105	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305	1	F
53	STS-53	OV105	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000308	1	F
54	STS-54	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305	1	F
55	STS-55	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000308	1	F
36	STS-36	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000020	1	F
37	STS-37	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000019	2	F
38	STS-38	OV102	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
39	STS-39	OV102	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
40	STS-40	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000023	1	F
41	STS-41	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000025	2	F
42	STS-42	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
43	STS-43	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
44	STS-44	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000020	1	F
45	STS-45	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000019	2	F
46	STS-46	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
47	STS-47	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
48	STS-48	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000020	1	F
49	STS-49	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000019	2	F
50	STS-50	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
51	STS-51	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
52	STS-52	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000020	1	F
53	STS-53	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000019	2	F
54	STS-54	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
55	STS-55	OV102	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F



MISS SEQ	STS	ORB	SUB SYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
47	STS-49	OV106	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000001	1	F
47	STS-49	OV106	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000003	1	F
47	STS-49	OV106	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000003	2	F
47	STS-49	OV106	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000004	2	F
48	STS-50	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000007	1	F
48	STS-50	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000005	2	F
48	STS-50	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000006	2	F
48	STS-50	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0005	0000000012	1	F
49	STS-46	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000013	1	F
49	STS-46	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000013	2	F
49	STS-46	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000014	2	F
50	STS-47	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000003	1A	F
50	STS-47	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000003	1F	F
50	STS-47	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000004	2A	F
50	STS-47	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000003	2F	F
51	STS-52	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000005	1	F
51	STS-52	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000007	1	F
51	STS-52	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000005	2	F
51	STS-52	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000006	2	F
53	STS-54	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000003	1A	F
53	STS-54	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000001	1F	F
53	STS-54	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000004	2A	F
53	STS-54	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000003	2F	F
54	STS-55	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000005	1	F
54	STS-55	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000007	1	F
54	STS-55	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000005	2	F
54	STS-55	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000006	2	F
36	STS-41	OV103	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000106		F
37	STS-38	OV104	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000105		F
38	STS-35	OV102	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000107		F
39	STS-37	OV104	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000109		F
40	STS-39	OV103	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000106		F
41	STS-40	OV102	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000107		F
42	STS-43	OV104	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000109		F
43	STS-48	OV103	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000106		F
44	STS-44	OV104	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000109		F
45	STS-42	OV103	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000106		F
46	STS-45	OV104	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000109		F
47	STS-49	OV105	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000102		F/SP
48	STS-46	OV104	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000108		F/SP
49	STS-46	OV104	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000103		F/SP
50	STS-47	OV105	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000107		F/SP
51	STS-52	OV102	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000110		F/SP
53	STS-54	OV105	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000107		F/SP
54	STS-55	OV102	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000110		F/SP
36	STS-41	OV103	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000011		F
37	STS-38	OV104	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000008		F
38	STS-35	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010		F
39	STS-37	OV104	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000008		F
40	STS-39	OV103	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000011		F
41	STS-40	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010		F
42	STS-43	OV104	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000008		F
43	STS-48	OV103	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000011		F
44	STS-44	OV104	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000008		F
45	STS-42	OV103	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000011		F
46	STS-45	OV104	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000008		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
47	STS-49	OV105	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000012	F	F
48	STS-50	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010	F	F
49	STS-46	OV104	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000008	F	F
50	STS-47	OV105	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000012	F	F
51	STS-52	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010	F	F
53	STS-54	OV106	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000012	F	F
54	STS-55	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010	F	F
36	STS-41	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0003	LL	F
36	STS-41	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAX0003	LR	F
36	STS-41	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0001	UL	F
36	STS-41	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0006	UR	F
37	STS-38	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0004	LL	F
37	STS-38	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0002	LR	F
37	STS-38	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0003	UL	F
37	STS-38	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0004	UR	F
38	STS-35	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	000DAX0005	LL	F
38	STS-35	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	000DAY0001	LR	F
38	STS-35	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	000DBT0005	UL	F
38	STS-35	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0044	000DBU0002	UR	F
39	STS-37	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0004	LL	F
39	STS-37	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0002	LR	F
39	STS-37	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0003	UL	F
39	STS-37	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0004	UR	F
40	STS-39	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0003	LL	F
40	STS-39	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0003	LR	F
40	STS-39	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0001	UL	F
40	STS-39	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0006	UR	F
41	STS-40	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	000DAX0005	LL	F
41	STS-40	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	000DAY0001	LR	F
41	STS-40	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	000DBT0004	UL	F
41	STS-40	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0044	000DBU0002	UR	F
42	STS-43	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0004	LL	F
42	STS-43	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0002	LR	F
42	STS-43	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0003	UL	F
42	STS-43	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0004	UR	F
43	STS-48	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0003	LL	F
43	STS-48	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0003	LR	F
43	STS-48	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0001	UL	F
43	STS-48	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0006	UR	F
44	STS-44	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0004	LL	F
44	STS-44	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0002	LR	F
44	STS-44	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0003	UL	F
44	STS-44	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0004	UR	F
45	STS-42	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0003	LL	F
45	STS-42	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0003	LR	F
45	STS-42	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0001	UL	F
45	STS-42	OV103	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0006	UR	F
46	STS-45	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0004	LL	F
46	STS-45	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0002	LR	F
46	STS-45	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0003	UL	F
46	STS-45	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0004	UR	F
47	STS-49	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	000DAX0006	LL	F
47	STS-49	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	000DAY0006	LR	F
47	STS-49	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	000DBT0006	UL	F
47	STS-49	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0007	UR	F
48	STS-50	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	000DAX0001	LL	F
48	STS-50	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	000DAY0005	LR	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
48	STS-50	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0044	000000002	UR	F
49	STS-46	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	0000X0004	LL	F
49	STS-46	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	0000AY002	LR	F
49	STS-46	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	0000BT0003	UL	F
49	STS-46	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	0000BU0004	UR	F
50	STS-47	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	0000AX0008	LL	F
50	STS-47	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	0000AY0006	LR	F
50	STS-47	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	0000BT0006	UL	F
51	STS-52	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	0000BU0007	UR	F
51	STS-52	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	0000AX0001	LL	F
51	STS-52	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	0000AY0005	LR	F
51	STS-52	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	0000BT0004	UL	F
53	STS-54	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0044	0000BU0002	UR	F
53	STS-54	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	0000AX0006	LL	F
53	STS-54	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	0000AY0006	LR	F
53	STS-54	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	0000BT0006	UL	F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	0000BU0007	UR	F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	0000AX0001	LL	F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	0000AY0005	LR	F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	0000BT0004	UL	F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0044	0000BU0002	UR	F
36	STS-41	OV103	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000305		F
37	STS-38	OV104	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000302		F
38	STS-35	OV102	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000304		F
39	STS-37	OV104	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000302		F
40	STS-39	OV103	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000305		F
41	STS-40	OV102	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000306		F
42	STS-43	OV104	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000302		F
43	STS-48	OV103	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000305		F
44	STS-44	OV104	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000302		F
45	STS-42	OV103	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000305		F
46	STS-45	OV104	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000302		F
47	STS-49	OV105	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000308		F
48	STS-50	OV102	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000306		F
48	STS-46	OV104	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000306		F
50	STS-47	OV105	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000308		F
51	STS-52	OV102	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000306		F
53	STS-54	OV105	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000308		F
54	STS-55	OV102	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000308		F
54	STS-55	OV102	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000304		F
36	STS-41	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000010		F
36	STS-41	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000011		F
37	STS-38	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000012		F
37	STS-38	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000013		F
38	STS-35	OV102	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000001		F
38	STS-35	OV102	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000005		F
39	STS-37	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000012		F
39	STS-37	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000013		F
40	STS-39	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000010		F
40	STS-39	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000011		F
41	STS-40	OV102	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000001		F
41	STS-40	OV102	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000005		F
42	STS-43	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000012		F
42	STS-43	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000013		F
43	STS-48	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000010		F
43	STS-48	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000011		F
44	STS-44	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000012		F
44	STS-44	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000013		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL	ST	SA
45	STS-42	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	000000010	1	F	S
45	STS-42	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	000000011	2	F	A
46	STS-45	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	000000012	3	F	T
48	STS-45	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	000000013	4	F	T
36	STS-41	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015064	1	F	S
36	STS-41	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015065	2	F	L
36	STS-41	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015072	3	F	O
37	STS-38	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015073	1	F	T
37	STS-38	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015062	2	F	T
37	STS-38	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015067	3	F	T
38	STS-35	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015048	1	F	S
38	STS-35	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015071	2	F	A
38	STS-35	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015063	3	F	T
39	STS-37	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015073	1	F	S
39	STS-37	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015062	2	F	L
39	STS-37	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015067	3	F	O
40	STS-39	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015064	1	F	T
40	STS-39	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015065	2	F	A
40	STS-39	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015072	3	F	T
41	STS-40	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015035	1	F	S
41	STS-40	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015071	2	F	L
41	STS-40	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015063	3	F	O
42	STS-43	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015073	1	F	T
42	STS-43	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015062	2	F	T
42	STS-43	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015067	3	F	T
43	STS-48	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015068	1	F	S
43	STS-48	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015060	2	F	A
43	STS-48	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015071	3	F	T
44	STS-44	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015073	1	F	S
44	STS-44	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015062	2	F	L
44	STS-44	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015067	3	F	O
45	STS-42	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015068	1	F	S
45	STS-42	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015060	2	F	A
45	STS-42	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015071	3	F	T
46	STS-45	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015073	1	F	S
46	STS-45	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015062	2	F	L
46	STS-45	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	000015072	3	F	O
47	STS-49	OV105	CT	TACTICAL AIR NAVIGATION	MC409-0184	-0001	000000002	2	F	A
47	STS-49	OV105	CT	TACTICAL AIR NAVIGATION	MC409-0184	-0001	000000003	3	F	T
47	STS-49	OV105	CT	TACTICAL AIR NAVIGATION	MC409-0184	-0001	000000000	3	F	T
53	STS-54	OV105	CT	TACTICAL AIR NAVIGATION (COLLINS)	MC409-0184	-0001	000000003	2	F	A
53	STS-54	OV105	CT	TACTICAL AIR NAVIGATION (COLLINS)	MC409-0184	-0001	000000002	3	F	T
48	STS-50	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015058	1	F	S
48	STS-50	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015065	2	F	L
48	STS-50	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015063	3	F	O
49	STS-46	OV104	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015073	1	F	T
49	STS-46	OV104	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015062	2	F	T
49	STS-46	OV104	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015067	3	F	T
50	STS-47	OV105	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015064	1	F	S
51	STS-52	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015072	1	F	A
51	STS-52	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015065	2	F	L
51	STS-52	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015073	3	F	O
53	STS-54	OV105	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015064	1	F	S
54	STS-55	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015072	1	F	A
54	STS-55	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015065	2	F	L
54	STS-55	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015073	3	F	O
38	STS-41	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	000001027	1L	F	S



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
46	STS-45	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001031	1L	F
46	STS-45	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001034	1U	F
46	STS-45	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001038	2L	F
46	STS-45	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001021	2U	F
46	STS-45	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001036	3L	F
46	STS-45	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001037	3U	F
47	STS-49	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001040	1L	F
47	STS-49	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001044	1U	F
47	STS-49	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001045	2L	F
47	STS-49	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001043	2U	F
47	STS-49	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001041	3L	F
47	STS-49	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001042	3U	F
48	STS-50	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001012	1L	F
48	STS-50	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001015	1U	F
48	STS-50	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001013	2L	F
48	STS-50	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001016	2U	F
48	STS-50	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001018	3L	F
48	STS-50	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001014	3U	F
49	STS-46	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001031	1L	F
49	STS-46	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001034	1U	F
49	STS-46	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001038	2L	F
49	STS-46	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001021	2U	F
49	STS-46	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001036	3L	F
49	STS-46	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001037	3U	F
50	STS-47	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001040	1L	F
50	STS-47	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001044	1U	F
50	STS-47	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001045	2L	F
50	STS-47	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001043	2U	F
50	STS-47	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001041	3L	F
50	STS-47	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001042	3U	F
51	STS-52	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001012	1L	F
51	STS-52	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001015	1U	F
51	STS-52	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001013	2L	F
51	STS-52	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001016	2U	F
51	STS-52	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001018	3L	F
51	STS-52	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001014	3U	F
53	STS-54	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001040	1L	F
53	STS-54	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001044	1U	F
53	STS-54	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001045	2L	F
53	STS-54	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001043	2U	F
53	STS-54	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001041	3L	F
53	STS-54	OV105	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001042	3U	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001012	1L	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001015	1U	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001013	2L	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001016	2U	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001018	3L	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001014	3U	F
36	STS-41	OV103	CT	ANTENNA, UHF	MC481-0066	-0001	0000000006		F
37	STS-38	OV104	CT	ANTENNA, UHF	MC481-0066	-0001	0000000005		F
38	STS-35	OV102	CT	ANTENNA, UHF	MC481-0066	-0001	0000000002		F
39	STS-37	OV104	CT	ANTENNA, UHF	MC481-0066	-0001	0000000005		F
40	STS-39	OV103	CT	ANTENNA, UHF	MC481-0066	-0001	0000000006		F
41	STS-40	OV102	CT	ANTENNA, UHF	MC481-0066	-0001	0000000002		F
42	STS-43	OV104	CT	ANTENNA, UHF	MC481-0066	-0001	0000000005		F
43	STS-48	OV103	CT	ANTENNA, UHF	MC481-0066	-0001	0000000006		F
44	STS-44	OV104	CT	ANTENNA, UHF	MC481-0066	-0001	0000000005		F
45	STS-42	OV103	CT	ANTENNA, UHF	MC481-0066	-0001	0000000006		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
46	STS-45	OV104	CT	ANTENNA, UHF	MC481-0066	-0001	0000000005		F
47	STS-49	OV105	CT	ANTENNA, UHF	MC481-0066	-0001	0000000007		F
48	STS-50	OV102	CT	ANTENNA, UHF	MC481-0066	-0001	0000000002		F
49	STS-46	OV104	CT	ANTENNA, UHF	MC481-0066	-0001	0000000005		F
50	STS-47	OV105	CT	ANTENNA, UHF	MC481-0066	-0001	0000000007		F
51	STS-52	OV102	CT	ANTENNA, UHF	MC481-0066	-0001	0000000002		F
53	STS-54	OV105	CT	ANTENNA, UHF	MC481-0066	-0001	0000000007		F
54	STS-55	OV102	CT	ANTENNA, UHF	MC481-0066	-0001	0000000002		F
36	STS-41	OV103	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000307	1	F
36	STS-41	OV103	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000306	2	F
37	STS-38	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000310	1	F
37	STS-38	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000308	2	F
38	STS-35	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000304	1	F
38	STS-35	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000301	2	F
39	STS-37	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000310	1	F
39	STS-37	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000308	2	F
40	STS-39	OV103	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000307	1	F
40	STS-39	OV103	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000306	2	F
41	STS-40	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000304	1	F
41	STS-40	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000301	2	F
42	STS-43	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000310	1	F
42	STS-43	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000308	2	F
43	STS-48	OV103	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000307	1	F
43	STS-48	OV103	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000306	2	F
44	STS-44	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000310	1	F
44	STS-44	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000308	2	F
45	STS-42	OV103	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000307	1	F
45	STS-42	OV103	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000306	2	F
46	STS-45	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000310	1	F
46	STS-45	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000308	2	F
47	STS-49	OV105	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000312	1	F
47	STS-49	OV105	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000311	2	F
48	STS-50	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000313	1	F
48	STS-50	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000304	2	F
49	STS-46	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000301	1	F
49	STS-46	OV104	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000310	2	F
50	STS-47	OV105	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000312	1	F
50	STS-47	OV105	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000308	2	F
51	STS-52	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000313	1	F
51	STS-52	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000304	2	F
53	STS-54	OV105	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000312	1	F
53	STS-54	OV105	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000311	2	F
54	STS-55	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000313	1	F
54	STS-55	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000311	2	F
54	STS-55	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000304	1	F
54	STS-55	OV102	CT	S-BAND TRANSDUCER	MC478-0106	-1001	0000000301	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL LOT	STA T
54	STS-55	OV102	CT	AUDIO CENTRAL CONTROL EQUIPMENT	MC409-0005	-0001	0000000006		F
54	STS-55	OV102	CT	ANTENNA, AIRLOCK	V075-730513	-003	0000J54726		F
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000001		F
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000008		F
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000010		F
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000013		F
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000014		F
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000015		F
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000016		F
54	STS-55	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000018		F
54	STS-55	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000010	1	F
54	STS-55	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000012	2	F
54	STS-55	OV102	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000108		F
54	STS-55	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		F
54	STS-55	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000304	1	F
54	STS-55	OV102	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000303	2	F
54	STS-55	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0005	L	F
54	STS-55	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0001	U	F
54	STS-55	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000108		F
54	STS-55	OV102	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103		F
54	STS-55	OV102	CT	ELECT ASSY-2 EA-2	MC409-0025	-2005	0000000108		F/SP
54	STS-55	OV102	CT	SIGNAL PROCESSOR ASSY	MC409-0025	-4001	0000000102		F
54	STS-55	OV102	CT	MULTIPLE HEADSET ADAPTER	MC409-0005	-0300	0000000006		F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000018	1	F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000017	2	F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000010	3	F
54	STS-55	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000013	1	F
54	STS-55	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000019	2	F
54	STS-55	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000012	3	F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000025	1	F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000024	2	F
54	STS-55	OV102	CT	MICROWAVE SCANNING BEAM RF ASSY	MC409-0017	-0007	0000000021	3	F
54	STS-55	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000030	1	F
54	STS-55	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000030	2	F
54	STS-55	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0003		F
54	STS-55	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	00000000315	1	F
54	STS-55	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	00000000302	2	F
54	STS-55	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	00000000303		F
54	STS-55	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	00000001305	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLT	STA
54	STS-55	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC478-0138	-0004	0000000308	2	F
54	STS-55	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303		F
54	STS-55	OV102	CT	RADAR ALT VETER	MC409-0015	-0006	0000000023	1	F
54	STS-55	OV102	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000025	2	F
54	STS-55	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000005	1	F
54	STS-55	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000007	1	F
54	STS-55	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000005	2	F
54	STS-55	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000006	2	F
54	STS-55	OV102	CT	RATE SENSOR ASSY	MC409-0025	-XXXX	0000000110		F/SP
54	STS-55	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010		F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	000DAX0001	LL	F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	000DAY0005	LR	F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	000DBT0004	UL	F
54	STS-55	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0044	000DBU0002	UR	F
54	STS-55	OV102	CT	S-BD SWITCH ASSY	MC478-0106	-4004	00000000304		F
54	STS-55	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015072	1	F
54	STS-55	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015065	2	F
54	STS-55	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015073	3	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001012	1L	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001015	1U	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001013	2L	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001016	2U	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001018	3L	F
54	STS-55	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001014	3U	F
54	STS-55	OV102	CT	ANTENNA, UHF	MC481-0066	-0001	0000000002		F
54	STS-55	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000311		F
54	STS-55	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000304	1	F
54	STS-55	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000301	2	F

AVIONICS  
DISPLAY AND CONTROL (DC) SUBSYSTEM





MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
47	STS-49	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	6230057907	F	
47	STS-48	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623057806	F	
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	F	
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	F	
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	F	
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	F	
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623067809	F	
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048124	F	
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623058334	F	
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	4530077805	F	
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623068129	F	
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	6230057907	F	
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390038	F	
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623057806	F	
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390040	F	
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390039	F	
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	F	
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	F	
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	F	
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	F	
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000387036	F	
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	6230057907	F	
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390038	F	
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623057806	F	
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390039	F	
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	F	
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	F	
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	F	
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	F	
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000387036	F	
36	STS-41	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000011	F	
36	STS-41	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000015	F	
36	STS-41	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000013	F	
37	STS-38	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	F	
37	STS-38	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	F	
37	STS-38	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	F	
38	STS-35	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000009	F	
38	STS-35	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	F	
38	STS-35	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000010	F	
39	STS-37	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	F	
39	STS-37	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	F	
39	STS-37	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	F	
40	STS-39	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000019	F	
40	STS-39	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000013	F	
40	STS-39	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000009	F	
41	STS-40	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000008	F	
41	STS-40	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000010	F	
41	STS-40	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000011	F	
42	STS-43	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	F	
42	STS-43	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	F	
42	STS-43	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000011	F	
43	STS-48	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000019	F	
43	STS-48	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000013	F	
43	STS-48	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	F	
44	STS-44	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	F	
44	STS-44	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	F	

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
44	STS-44	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	3	F
45	STS-42	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000011	1	F
45	STS-42	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000019	2	F
45	STS-42	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000013	3	F
46	STS-45	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	1	F
46	STS-45	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	2	F
46	STS-45	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	3	F
47	STS-49	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000023	1	F
47	STS-49	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000022	2	F
47	STS-49	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000021	3	F
48	STS-50	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000009	1	F
48	STS-50	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000008	2	F
48	STS-50	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000010	3	F
49	STS-46	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	1	F
49	STS-46	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	2	F
49	STS-46	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	3	F
49	STS-46	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000023	1	F
50	STS-47	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000022	2	F
50	STS-47	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000021	3	F
50	STS-47	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000009	1	F
51	STS-52	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000008	2	F
51	STS-52	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000010	3	F
51	STS-52	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000023	1	F
53	STS-54	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000022	2	F
53	STS-54	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000021	3	F
53	STS-54	OV105	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000009	1	F
54	STS-55	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000008	2	F
54	STS-55	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000010	3	F
36	STS-41	OV103	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623108209	1	F
37	STS-38	OV102	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623098208	2	F
38	STS-35	OV104	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623067802	1	F
39	STS-37	OV104	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623098208	2	F
40	STS-39	OV102	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623108209	1	F
41	STS-40	OV102	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623067802	1	F
42	STS-43	OV104	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623098208	2	F
43	STS-48	OV103	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623108209	1	F
44	STS-44	OV104	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623098208	2	F
45	STS-42	OV103	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623108209	1	F
46	STS-45	OV104	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623098208	2	F
47	STS-48	OV105	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	0000989009	2	F
48	STS-60	OV102	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623067802	1	F
49	STS-46	OV104	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623098208	2	F
50	STS-47	OV105	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623067802	1	F
51	STS-52	OV102	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	0000989009	2	F
53	STS-54	OV105	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	0000989009	2	F
54	STS-55	OV102	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623067802	1	F
36	STS-41	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201014	1	F
36	STS-41	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008302017	2	F
37	STS-38	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603007	1	F
37	STS-38	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201013	2	F
38	STS-35	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007803010	1	F
38	STS-35	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603009	2	F
38	STS-37	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007803007	1	F
39	STS-37	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201013	2	F
40	STS-39	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201014	1	F
40	STS-39	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008302017	2	F
41	STS-40	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007803010	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL	ST
41	STS-40	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603009	2	F
42	STS-43	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603007	1	F
43	STS-43	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201013	2	F
43	STS-48	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201014	1	F
44	STS-44	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008302017	2	F
44	STS-44	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603007	1	F
45	STS-42	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201013	2	F
45	STS-42	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008302017	2	F
46	STS-45	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201013	2	F
46	STS-45	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008302017	2	F
47	STS-48	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905017	2	F
47	STS-49	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905018	2	F
48	STS-50	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007804010	1	F
48	STS-50	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603009	2	F
49	STS-46	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603007	1	F
49	STS-46	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201013	2	F
50	STS-47	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905017	2	F
50	STS-47	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905018	2	F
51	STS-52	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603009	2	F
51	STS-52	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007804010	1	F
53	STS-54	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905017	2	F
53	STS-54	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905018	2	F
54	STS-55	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007803010	1	F
54	STS-55	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603009	2	F
36	STS-41	OV103	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008201014	1	F
36	STS-41	OV103	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302017	2	F
37	STS-38	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008201013	1	F
37	STS-38	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803010	2	F
38	STS-35	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302016	1	F
38	STS-35	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803009	2	F
39	STS-37	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008201013	1	F
39	STS-37	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803010	2	F
40	STS-39	OV103	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007602003	1	F
40	STS-39	OV103	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302017	2	F
41	STS-40	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302016	1	F
41	STS-40	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803009	2	F
42	STS-43	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008201013	1	F
42	STS-43	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803010	2	F
43	STS-48	OV103	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007602003	1	F
43	STS-48	OV103	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302017	2	F
44	STS-44	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008201013	1	F
44	STS-44	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803010	2	F
45	STS-42	OV103	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007602003	1	F
45	STS-42	OV103	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302017	2	F
46	STS-45	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302017	2	F
46	STS-45	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302016	1	F
47	STS-49	OV105	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905017	1	F
47	STS-49	OV105	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905018	2	F
48	STS-50	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008201013	1	F
48	STS-50	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803010	2	F
49	STS-46	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905017	1	F
49	STS-46	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905018	2	F
50	STS-47	OV105	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905017	1	F
50	STS-47	OV105	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905018	2	F
51	STS-52	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302016	1	F
51	STS-52	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803009	2	F
53	STS-54	OV105	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905017	1	F
53	STS-54	OV105	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905018	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
53	STS-54	OV105	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008905018	2	F
54	STS-55	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302016	1	F
54	STS-55	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803009	2	F
36	STS-41	OV103	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000008002		F
37	STS-38	OV104	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000008305		F
38	STS-35	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	000127703		F
39	STS-37	OV104	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038305		F
40	STS-39	OV103	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038002		F
41	STS-40	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	000127703		F
42	STS-43	OV104	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038305		F
43	STS-48	OV103	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038002		F
44	STS-44	OV104	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038305		F
45	STS-42	OV103	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038002		F
46	STS-45	OV104	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038305		F
47	STS-49	OV105	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0001288020		F
48	STS-50	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	000118004		F
49	STS-46	OV104	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038305		F
50	STS-47	OV105	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0001288020		F
51	STS-52	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	000118004		F
53	STS-54	OV105	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0001288020		F
54	STS-55	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000118004		F
36	STS-41	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302016	1	F
36	STS-41	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
37	STS-38	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
37	STS-38	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
38	STS-35	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
38	STS-35	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F
39	STS-37	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
39	STS-37	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
40	STS-39	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302016	1	F
40	STS-39	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
41	STS-40	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
41	STS-40	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
42	STS-43	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
42	STS-43	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
43	STS-48	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302016	1	F
43	STS-48	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
44	STS-44	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
44	STS-44	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
45	STS-42	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302016	1	F
45	STS-42	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
46	STS-45	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
46	STS-45	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
47	STS-49	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905017		F
47	STS-49	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905018		F
48	STS-50	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
48	STS-50	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F
49	STS-46	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
49	STS-46	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
50	STS-47	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905017		F
50	STS-47	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905018		F
51	STS-52	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
51	STS-52	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F
53	STS-54	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905017		F
53	STS-54	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905018		F
54	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
54	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
36	STS-41	OV103	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158302016	1	F
36	STS-41	OV103	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107011	2	F
37	STS-38	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107012	1	F
37	STS-38	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728209015	2	F
38	STS-35	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728302017	1	F
38	STS-35	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3157803009	2	F
39	STS-37	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107012	1	F
40	STS-39	OV103	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728209015	2	F
40	STS-39	OV103	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158302016	1	F
41	STS-40	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107011	2	F
41	STS-40	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728302017	1	F
42	STS-43	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107012	1	F
42	STS-43	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728209015	2	F
43	STS-48	OV103	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158302016	1	F
43	STS-48	OV103	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107011	2	F
44	STS-44	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107012	1	F
44	STS-44	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728209015	2	F
45	STS-42	OV103	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158302016	1	F
45	STS-42	OV103	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107011	2	F
46	STS-45	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107012	1	F
46	STS-45	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728209015	2	F
47	STS-49	OV105	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	0008905017	1	F
47	STS-49	OV105	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	0008905018	2	F
48	STS-50	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728302017	1	F
48	STS-50	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3157803009	2	F
49	STS-46	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3158107012	1	F
49	STS-46	OV104	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728209015	2	F
50	STS-47	OV105	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	0008905017	1	F
51	STS-52	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	0008905018	2	F
51	STS-52	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728302017	1	F
53	STS-54	OV105	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	0008905017	1	F
53	STS-54	OV105	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	0008905018	2	F
54	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728302017	1	F
54	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3157803009	2	F
36	STS-41	OV103	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623058012		F
37	STS-38	OV104	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
38	STS-35	OV102	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623283014		F
39	STS-37	OV104	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
40	STS-39	OV103	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623058012		F
41	STS-40	OV102	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623283014		F
42	STS-43	OV104	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
43	STS-48	OV103	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623058012		F
44	STS-44	OV104	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
45	STS-42	OV103	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623058012		F
46	STS-45	OV105	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
47	STS-49	OV105	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
48	STS-50	OV102	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
49	STS-46	OV104	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623283014		F
50	STS-47	OV105	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
51	STS-52	OV102	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623283014		F
53	STS-54	OV105	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
53	STS-54	OV105	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623283014		F
54	STS-55	OV102	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F
54	STS-55	OV102	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623283014		F
36	STS-41	OV103	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623058012		F
37	STS-38	OV104	DC	CROSSPOINTER INDICATOR	MC434-0080	-0001	9623078313		F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER
36	STS-35	OV102	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000206006E
39	STS-37	OV104	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000208007E
40	STS-39	JV103	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000201004E
41	STS-40	OV102	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000206006E
42	STS-43	OV104	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000208007E
43	STS-48	OV103	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000201004E
44	STS-44	OV104	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000208007E
45	STS-42	OV103	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000201004E
46	STS-45	OV104	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000208007E
47	STS-49	OV105	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000208008E
48	STS-50	OV102	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000206006E
49	STS-46	OV104	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000208007E
50	STS-47	OV105	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000208008E
51	STS-52	OV102	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000206006E
53	STS-54	OV105	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000208008E
54	STS-55	OV102	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000206006E
36	STS-41	OV103	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623038210
37	STS-38	OV104	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	6230187012
38	STS-35	OV102	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623127805
39	STS-37	OV104	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	6230187012
40	STS-39	OV103	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623038210
41	STS-40	OV102	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623127805
42	STS-43	OV104	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	6230187012
43	STS-48	OV103	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623038210
44	STS-44	OV104	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	6230187012
45	STS-42	OV103	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623038210
46	STS-45	OV104	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	0000287013
47	STS-49	OV105	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623127805
48	STS-50	OV102	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	6230187012
49	STS-46	OV104	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	0000287013
50	STS-47	OV105	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623127805
51	STS-52	OV102	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623127805
53	STS-54	OV105	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	0000287013
54	STS-55	OV102	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623127805
36	STS-41	OV103	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000008
37	STS-38	OV104	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000007
38	STS-35	OV102	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000005
39	STS-37	OV104	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000007
40	STS-39	OV103	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000008
41	STS-40	OV102	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000005
42	STS-43	OV104	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000001
43	STS-48	OV103	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000007
44	STS-44	OV104	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000001
45	STS-42	OV103	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000007
46	STS-45	OV104	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000007
47	STS-49	OV105	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000009
48	STS-50	OV102	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000005
49	STS-46	OV104	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000007
50	STS-47	OV105	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000009
51	STS-52	OV102	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000005
53	STS-54	OV105	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000009
54	STS-55	OV102	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000005
36	STS-41	OV103	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000013
37	STS-38	OV104	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000014
38	STS-35	OV102	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000011
39	STS-37	OV104	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000014

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
40	STS-39	OV103	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000013		F
41	STS-40	OV102	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000011		F
42	STS-43	OV104	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000014		F
43	STS-48	OV103	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000013		F
44	STS-44	OV104	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000014		F
45	STS-42	OV103	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000013		F
46	STS-45	OV104	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000014		F
47	STS-49	OV105	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0123	0000000007		F
48	STS-50	OV102	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000011		F
49	STS-46	OV104	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000014		F
50	STS-47	OV105	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0123	0000000007		F
51	STS-52	OV102	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000011		F
53	STS-54	OV105	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0123	0000000007		F
54	STS-55	OV102	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000011		F
36	STS-41	OV103	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000006		F
37	STS-38	OV104	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000001		F
38	STS-35	OV102	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000004		F
39	STS-37	OV104	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000001		F
40	STS-39	OV103	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000006		F
41	STS-40	OV102	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000006		F
42	STS-43	OV104	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000004		F
43	STS-48	OV103	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000001		F
44	STS-44	OV104	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000001		F
45	STS-42	OV103	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000006		F
46	STS-45	OV104	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000001		F
47	STS-49	OV105	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000007		F
48	STS-50	OV102	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000006		F
49	STS-46	OV104	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000004		F
50	STS-47	OV105	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000007		F
51	STS-52	OV102	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000007		F
53	STS-54	OV105	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000007		F
54	STS-55	OV102	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000004		F
36	STS-41	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000009	1	F
36	STS-41	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0003	0000000017	2	F
36	STS-41	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0003	0000000015	3	F
37	STS-38	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000010	1	F
37	STS-38	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000014	2	F
37	STS-38	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000007	3	F
38	STS-35	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000008	1	F
38	STS-35	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000020	2	F
38	STS-35	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000018	3	F
39	STS-37	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000010	1	F
39	STS-37	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000007	3	F
40	STS-39	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000009	1	F
40	STS-39	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0003	0000000017	2	F
40	STS-39	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0003	0000000012	3	F
41	STS-40	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000008	1	F
41	STS-40	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000020	2	F
42	STS-43	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000022	1	F
42	STS-43	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000014	2	F
42	STS-43	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000007	3	F
43	STS-48	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000009	1	F
43	STS-48	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000023	2	F
43	STS-48	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000012	3	F
44	STS-44	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000022	1	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
44	STS-44	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000014	2	F
45	STS-44	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	000000007	3	F
44	STS-42	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	000000009	1	F
45	STS-42	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000023	2	F
46	STS-42	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000012	3	F
45	STS-45	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000022	1	F
46	STS-45	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000010	2	F
47	STS-45	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	000000007	3	F
47	STS-49	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000019	1	F
47	STS-49	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000024	2	F
48	STS-50	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000021	3	F
48	STS-50	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	000000008	1	F
48	STS-50	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000020	2	F
49	STS-46	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000018	3	F
49	STS-46	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000010	2	F
49	STS-47	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000012	3	F
50	STS-47	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000019	1	F
50	STS-47	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000024	2	F
51	STS-52	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000021	3	F
51	STS-52	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	000000008	1	F
51	STS-52	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000020	2	F
53	STS-54	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000018	3	F
53	STS-54	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000019	1	F
53	STS-54	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000024	2	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000021	3	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	000000008	1	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000020	2	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	000000018	3	F
36	STS-41	OV103	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000596		F
37	STS-38	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000245		F
38	STS-35	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000460		F
39	STS-37	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000245		F
40	STS-39	OV103	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000596		F
41	STS-40	OV102	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000460		F
42	STS-43	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000459		F
43	STS-48	OV103	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000596		F
44	STS-44	OV104	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000459		F
45	STS-42	OV103	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000596		F
46	STS-45	OV104	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000459		F
47	STS-49	OV105	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000597		F
48	STS-50	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000460		F
49	STS-46	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000459		F
50	STS-47	OV105	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000245		F
51	STS-52	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000460		F
53	STS-54	OV105	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000245		F
54	STS-55	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000460		F
54	STS-55	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000245		F
36	STS-41	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000402		F
37	STS-38	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000218		F
38	STS-35	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000592		F
39	STS-37	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000218		F
40	STS-39	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000402		F
41	STS-40	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000592		F
42	STS-43	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000218		F
43	STS-48	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000402		F
44	STS-44	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000218		F
45	STS-42	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	000000402		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
46	STS-45	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000218		F
47	STS-49	OV105	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000683		F
48	STS-50	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000592		F
49	STS-46	OV104	DC	LITE-EXTERIOR ELECTRONICS 1	MC434-0062	-0011	0000000218		F
50	STS-47	OV108	DC	LITE-EXTERIOR ELECTRONICS 1	MC434-0062	-0011	0000000593		F
51	STS-52	OV102	DC	LITE-EXTERIOR ELECTRONICS 1	MC434-0062	-0011	0000000592		F
53	STS-54	OV105	DC	LITE-EXTERIOR ELECTRONICS 1	MC434-0062	-0011	0000000593		F
54	STS-55	OV102	DC	LITE-EXTERIOR ELECTRONICS 1	MC434-0062	-0011	0000000592		F
36	STS-41	OV103	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000591		F
37	STS-38	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000219		F
38	STS-35	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000603		F
39	STS-37	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000219		F
40	STS-39	OV103	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000591		F
41	STS-40	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000603		F
42	STS-43	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000219		F
43	STS-48	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000591		F
44	STS-44	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000219		F
45	STS-42	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000219		F
46	STS-45	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000591		F
47	STS-49	OV105	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000219		F
48	STS-50	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000670		F
49	STS-46	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000603		F
50	STS-47	OV105	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000219		F
51	STS-52	OV102	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000670		F
53	STS-54	OV105	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000603		F
54	STS-55	OV102	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000603		F
36	STS-41	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000447	1	F
36	STS-41	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000457	2	F
36	STS-41	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449	3	F
36	STS-41	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000450	4	F
36	STS-41	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000577	4	F
37	STS-38	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0022	0000000451	5	F
37	STS-38	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000578	1	F
37	STS-38	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000456	2	F
37	STS-38	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000237	3	F
37	STS-38	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000455	4	F
37	STS-38	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000454	5	F
38	STS-35	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000581	6	F
38	STS-35	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000580		F
38	STS-35	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000582		F
38	STS-35	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000583	4	F
38	STS-35	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000453	5	F
38	STS-35	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000240	5	F
39	STS-37	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000243	6	F
39	STS-37	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000578	1	F
39	STS-37	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000456	2	F
39	STS-37	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000237	3	F
39	STS-37	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000455	4	F
39	STS-37	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000454	5	F
40	STS-39	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000581	6	F
40	STS-39	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000447	1	F
40	STS-39	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000457	2	F
40	STS-39	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449	3	F
40	STS-39	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000450	4	F
40	STS-39	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000577	4	F
40	STS-39	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0022	0000000451	5	F
41	STS-40	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000460	5	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	SYT
51	STS-52	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449		F
51	STS-52	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000680		F
51	STS-52	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000582	1	F
51	STS-52	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0022	0000000451	2	F
51	STS-52	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000455	4	F
53	STS-54	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000668		F
53	STS-54	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000231	1	F
53	STS-54	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000458	2	F
53	STS-54	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000666	4	F
53	STS-54	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000456	5	F
54	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000582	1	F
54	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0022	0000000451	2	F
54	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449	3	F
54	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000455	4	F
54	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000583	5	F
54	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000580	6	F
36	STS-41	OV103	DC	EVENT TIMER	MC456-0053	-0002	0000000008		F
36	STS-41	OV103	DC	EVENT TIMER	MC456-0053	-0002	0000000010		F
37	STS-38	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000014	1	F
37	STS-38	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000013	2	F
38	STS-35	OV102	DC	EVENT TIMER	MC456-0053	-0001	0000000002		F
38	STS-35	OV102	DC	EVENT TIMER	MC456-0053	-0002	0000000005	1	F
39	STS-37	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000014	1	F
39	STS-37	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000013	2	F
40	STS-39	OV103	DC	EVENT TIMER	MC456-0053	-0002	0000000008		F
40	STS-39	OV103	DC	EVENT TIMER	MC456-0053	-0002	0000000010		F
41	STS-40	OV102	DC	EVENT TIMER	MC456-0053	-0001	0000000002		F
41	STS-40	OV102	DC	EVENT TIMER	MC456-0053	-0002	0000000005	1	F
42	STS-43	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000014	1	F
42	STS-43	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000013	2	F
43	STS-48	OV103	DC	EVENT TIMER	MC456-0053	-0002	0000000008		F
43	STS-48	OV103	DC	EVENT TIMER	MC456-0053	-0002	0000000010		F
44	STS-44	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000014	1	F
44	STS-44	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000013	2	F
45	STS-42	OV103	DC	EVENT TIMER	MC456-0053	-0002	0000000008		F
45	STS-42	OV103	DC	EVENT TIMER	MC456-0053	-0002	0000000010		F
46	STS-45	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000014	1	F
46	STS-45	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000013	2	F
47	STS-49	OV105	DC	EVENT TIMER	MC456-0053	-0002	0000000016		F
47	STS-49	OV105	DC	EVENT TIMER	MC456-0053	-0002	0000000017		F
48	STS-50	OV102	DC	EVENT TIMER	MC456-0053	-0001	0000000002		F
48	STS-50	OV102	DC	EVENT TIMER	MC456-0053	-0002	0000000005	1	F
49	STS-46	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000014	1	F
49	STS-46	OV104	DC	EVENT TIMER	MC456-0053	-0002	0000000013	2	F
50	STS-47	OV105	DC	EVENT TIMER	MC456-0053	-0002	0000000016		F
50	STS-47	OV105	DC	EVENT TIMER	MC456-0053	-0002	0000000017		F
51	STS-52	OV102	DC	EVENT TIMER	MC456-0053	-0001	0000000002	1	F
51	STS-52	OV102	DC	EVENT TIMER	MC456-0053	-0002	0000000015	2	F
53	STS-54	OV105	DC	EVENT TIMER	MC456-0053	-0002	0000000016		F
53	STS-54	OV105	DC	EVENT TIMER	MC456-0053	-0002	0000000017		F
54	STS-55	OV102	DC	EVENT TIMER	MC456-0053	-0001	0000000002	1	F
54	STS-55	OV102	DC	EVENT TIMER	MC456-0053	-0002	0000000015	2	F
36	STS-41	OV103	DC	FLOOD LITE	MC434-0078	-0008	0000000103		F
36	STS-41	OV103	DC	FLOOD LITE	MC434-0078	-0007	0000000205		F
36	STS-41	OV103	DC	FLOOD LITE	MC434-0078	-0008	0000000613		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
37	STS-38	OV104	DC	FLOOD LITE	MC434-0078	-0007	0000000307	F	
37	STS-38	OV104	DC	FLOOD LITE	MC434-0078	-0008	0000000308	F	
38	STS-35	OV102	DC	FLOOD LITE	MC434-0078	-0005	0000000805	F	
38	STS-35	OV102	DC	FLOOD LITE	MC434-0078	-0006	0000000809	F	
39	STS-37	OV104	DC	FLOOD LITE	MC434-0078	-0007	0000000307	F	
39	STS-37	OV104	DC	FLOOD LITE	MC434-0078	-0008	0000000308	F	
40	STS-39	OV103	DC	FLOOD LITE	MC434-0078	-0008	0000000103	F	
40	STS-39	OV103	DC	FLOOD LITE	MC434-0078	-0007	0000000205	F	
41	STS-40	OV102	DC	FLOOD LITE	MC434-0078	-0005	0000000805	F	
41	STS-40	OV102	DC	FLOOD LITE	MC434-0078	-0006	0000000809	F	
42	STS-43	OV104	DC	FLOOD LITE	MC434-0078	-0007	0000000307	F	
42	STS-43	OV104	DC	FLOOD LITE	MC434-0078	-0008	0000000308	F	
43	STS-48	OV103	DC	FLOOD LITE	MC434-0078	-0008	0000000103	F	
43	STS-48	OV103	DC	FLOOD LITE	MC434-0078	-0007	0000000205	F	
44	STS-44	OV104	DC	FLOOD LITE	MC434-0078	-0007	0000000307	F	
44	STS-44	OV104	DC	FLOOD LITE	MC434-0078	-0008	0000000308	F	
45	STS-42	OV103	DC	FLOOD LITE	MC434-0078	-0008	0000000103	F	
45	STS-42	OV103	DC	FLOOD LITE	MC434-0078	-0007	0000000205	F	
46	STS-45	OV104	DC	FLOOD LITE	MC434-0078	-0007	0000000307	F	
46	STS-45	OV104	DC	FLOOD LITE	MC434-0078	-0008	0000000308	F	
47	STS-49	OV105	DC	FLOOD LITE	MC434-0078	-0007	0000000015	F	
47	STS-49	OV105	DC	FLOOD LITE	MC434-0078	-0008	0000000016	F	
48	STS-50	OV102	DC	FLOOD LITE	MC434-0078	-0005	0000067805	F	
48	STS-50	OV102	DC	FLOOD LITE	MC434-0078	-0006	0000067809	F	
49	STS-46	OV104	DC	FLOOD LITE	MC434-0078	-0007	0000086307	F	
49	STS-46	OV104	DC	FLOOD LITE	MC434-0078	-0008	0000108308	F	
50	STS-47	OV105	DC	FLOOD LITE	MC434-0078	-0007	0000189015	F	
50	STS-47	OV105	DC	FLOOD LITE	MC434-0078	-0008	0000289016	F	
51	STS-52	OV102	DC	FLOOD LITE	MC434-0078	-0008	0000067805	F	
51	STS-52	OV102	DC	FLOOD LITE	MC434-0078	-0006	0000067809	F	
53	STS-54	OV105	DC	FLOOD LITE	MC434-0078	-0007	0000189015	F	
53	STS-54	OV105	DC	FLOOD LITE	MC434-0078	-0008	0000289016	F	
54	STS-55	OV102	DC	FLOOD LITE	MC434-0078	-0005	0000067805	F	
54	STS-55	OV102	DC	FLOOD LITE	MC434-0078	-0006	0000067809	F	
36	STS-41	OV103	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000005E	F	
37	STS-38	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000006E	F	
38	STS-35	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000004E	F	
39	STS-37	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000006E	F	
40	STS-39	OV103	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000005E	F	
41	STS-40	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000004E	F	
42	STS-43	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000006E	F	
43	STS-48	OV103	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000005E	F	
44	STS-44	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000006E	F	
45	STS-42	OV103	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000005E	F	
46	STS-45	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000006E	F	
47	STS-49	OV105	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000005E	F	
48	STS-50	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000006E	F	
49	STS-46	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000005E	F	
50	STS-47	OV105	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000006E	F	
51	STS-52	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000005E	F	
53	STS-54	OV105	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000006E	F	
54	STS-55	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	0000000005E	F	
36	STS-41	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000014	F	1
36	STS-41	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000009	F	2
37	STS-38	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000016	F	1
37	STS-38	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000015	F	2
38	STS-35	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000006	F	1

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	A T T
38	STS-35	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000008	2	F
39	STS-37	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000016	1	F
39	STS-37	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000015	2	F
40	STS-39	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000014	1	F
40	STS-39	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000009	2	F
41	STS-40	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000006	1	F
41	STS-40	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000008	2	F
42	STS-43	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000010	1	F
42	STS-43	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000015	2	F
43	STS-48	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000014	1	F
43	STS-48	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000009	2	F
44	STS-44	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0604	000000010	1	F
44	STS-44	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000015	2	F
45	STS-42	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000014	1	F
45	STS-42	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000009	2	F
46	STS-45	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000010	1	F
46	STS-45	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000017	2	F
47	STS-49	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000006	3	F
47	STS-49	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000013	1	F
48	STS-50	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000018	2	F
48	STS-50	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000006	1	F
48	STS-50	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000008	2	F
49	STS-46	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000010	1	F
49	STS-46	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000017	2	F
50	STS-47	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000013	1	F
50	STS-47	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000018	2	F
51	STS-52	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000006	1	F
51	STS-52	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000008	2	F
53	STS-54	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000013	1	F
53	STS-54	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000018	2	F
54	STS-55	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	000000006	1	F
54	STS-55	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000008	2	F
54	STS-55	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	000000006	2	F
36	STS-41	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000114	1	F
36	STS-41	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000118	2	F
37	STS-38	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000110	1	F
37	STS-38	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000115	2	F
38	STS-35	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000102	1	F
38	STS-35	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000117	2	F
39	STS-37	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000110	1	F
39	STS-37	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000115	2	F
40	STS-39	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000114	1	F
40	STS-39	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000118	2	F
41	STS-40	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000102	1	F
41	STS-40	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000117	2	F
42	STS-43	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000110	1	F
42	STS-43	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000115	2	F
43	STS-48	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000112	1	F
43	STS-48	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000114	1	F
43	STS-48	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000118	2	F
44	STS-44	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000110	1	F
44	STS-44	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000115	2	F
45	STS-44	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000115	2	F
45	STS-44	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000114	1	F
45	STS-42	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000118	2	F
46	STS-45	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000115	2	F
46	STS-45	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000110	1	F
47	STS-49	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000120	1	F
47	STS-49	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000121	2	F
47	STS-49	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000102	1	F
48	STS-50	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000102	1	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A Y
49	STS-46	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000110	1	F
49	STS-46	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000115	2	F
50	STS-47	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000120	1	F
50	STS-47	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000121	2	F
51	STS-52	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000102	1	F
51	STS-52	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000117	2	F
53	STS-54	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000120	1	F
53	STS-54	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000121	2	F
54	STS-55	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000102	1	F
54	STS-55	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000117	2	F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0011	000000135		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000300		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000306		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000308		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000312		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000316		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000317		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000318		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000323		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	000000325		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	000000328		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	000000336		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0022	000000363		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	000000252		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	000000253		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	000000263		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	000000264		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000303		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000305		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000307		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000309		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000310		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000314		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000315		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000321		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000322		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	000000333		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	000000334		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	000000356		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	000000362		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0011	000000369		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	000000425		F
38	STS-35	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	000000105		F
38	STS-35	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	000000111		F
38	STS-35	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	000000137		F
38	STS-35	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	000000594		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	000000252		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	000000263		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000303		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000305		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000309		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000310		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000314		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000315		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000321		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	000000322		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	000000332		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	000000333		F

MISS SEQ	STS	ORR	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000334	F	S
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000356	F	A
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	0000000362	F	T
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0011	0000000369	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0011	0000000135	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0018	0000000253	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0016	0000000264	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000300	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000308	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000312	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000316	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000317	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000318	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000323	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000325	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	0000000328	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	0000000336	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0021	0000000425	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0027	0000000428	F	-
40	STS-39	OV103	DC	LITE-INTERIOR	MC434-0068	-0022	0000000635	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	0000000111	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000123	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000126	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	0000000137	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000429	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000474	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0028	0000000475	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0029	0000000484	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000486	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000488	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	0000000594	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000629	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000632	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000633	F	-
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000634	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	0000000252	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	0000000263	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000303	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000305	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000307	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000309	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000310	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000314	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000315	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000321	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000322	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000333	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000334	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000356	F	-
42	STS-43	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	0000000362	F	-
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0011	0000000369	F	-
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0011	0000000135	F	-
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0015	0000000253	F	-
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0016	0000000264	F	-
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000300	F	-
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000306	F	-
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000308	F	-





MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0011	0000000369		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0030	0000000605		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0129	0000000615		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0030	0000000642		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0119	0000000651		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0119	0000000652		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0120	0000000653		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0120	0000000654		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0116	0000000674		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0122	0000000675		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000677		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000678		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000679		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000680		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000681		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0111	0000000683		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000684		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000685		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000686		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000687		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000688		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000689		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000690		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000691		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000692		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0109	0000000693		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0109	0000000694		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0127	0000000696		F
47	STS-49	OV105	DC	LITE-INTERIOR	MC434-0068	-0127	0000000697		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0128	0000000698		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	0000000105		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	0000000111		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000123		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000126		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	0000000137		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000429		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000474		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0028	0000000475		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0029	0000000484		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000486		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000488		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	0000000594		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000629		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000632		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000633		F
48	STS-50	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000634		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	0000000252		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	0000000263		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000303		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000305		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000307		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000309		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000310		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000314		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000315		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000321		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000322		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000333		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATION
48	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000334	F	A
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000356	F	A
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	0000000362	F	A
49	STS-46	OV106	DC	LITE-INTERIOR	MC434-0068	-0011	0000000369	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0030	0000000605	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0129	0000000615	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0030	0000000642	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0119	0000000651	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0119	0000000652	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0120	0000000653	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0120	0000000654	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0115	0000000673	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0116	0000000674	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0122	0000000675	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0121	0000000677	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0121	0000000678	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0121	0000000679	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0121	0000000680	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0121	0000000681	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0111	0000000683	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000684	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000685	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000686	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000687	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000688	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000689	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000690	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000691	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0114	0000000692	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0109	0000000693	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0109	0000000694	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0127	0000000696	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0127	0000000697	F	A
50	STS-47	OV106	DC	LITE-INTERIOR	MC434-0068	-0128	0000000698	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	0000000105	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	0000000111	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000123	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000126	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	0000000137	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000429	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000474	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0028	0000000475	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000486	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000484	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	0000000594	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000629	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000632	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000633	F	A
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000634	F	A
53	STS-54	OV106	DC	LITE-INTERIOR	MC434-0068	-0030	0000000605	F	A
53	STS-54	OV106	DC	LITE-INTERIOR	MC434-0068	-0129	0000000615	F	A
53	STS-54	OV106	DC	LITE-INTERIOR	MC434-0068	-0030	0000000642	F	A
53	STS-54	OV106	DC	LITE-INTERIOR	MC434-0068	-0119	0000000651	F	A
53	STS-54	OV106	DC	LITE-INTERIOR	MC434-0068	-0119	0000000652	F	A
53	STS-54	OV106	DC	LITE-INTERIOR	MC434-0068	-0120	0000000653	F	A
53	STS-54	OV106	DC	LITE-INTERIOR	MC434-0068	-0115	0000000673	F	A
53	STS-54	OV106	DC	LITE-INTERIOR	MC434-0068	-0116	0000000674	F	A

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLTY	STAT
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0122	000000675	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	000000677	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	000000678	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	000000679	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	000000680	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0111	000000681	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000683	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000684	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000685	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000686	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000688	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000689	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000690	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000691	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	000000692	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0109	000000693	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0109	000000694	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0127	000000696	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0127	000000697	F	F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0128	000000698	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	000000105	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	000000111	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	000000123	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	000000126	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	000000137	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0014	000000144	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	000000429	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	000000474	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0028	000000475	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0029	000000484	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	000000486	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	000000488	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	000000594	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0014	000000621	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	000000629	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	000000632	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	000000633	F	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	000000634	F	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	000018049	F	X
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	000018157	F	Y
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	000018158	F	Z
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068033	F	1
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068035	F	2
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068036	F	3
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068037	F	4
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068038	F	5
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068039	F	6
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068040	F	7
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068041	F	8
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068041	F	9
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018265	F	X
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018266	F	Y
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018267	F	Z
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000027808	F	1
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000068043	F	2
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108046	F	3
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108156	F	4
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108159	F	5

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATT
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018260	6	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018261	7	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018262	8	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018264	9	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108044	X	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108052	Y	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	00C1286071	Z	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027804	1	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027809	2	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027810	3	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027811	4	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027812	5	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027813	6	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027802	7	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027805	8	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000037830	9	F
38	STS-35	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000018265	X	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018266	Y	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018267	Z	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000027808	1	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000068043	2	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000010H046	3	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108156	4	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000010A159	5	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018260	6	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018261	7	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018262	8	F
39	STS-37	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018264	9	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000118049	X	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108157	Y	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108158	Z	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000088033	1	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068035	2	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068036	3	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068037	4	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068038	5	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068039	6	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068040	7	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068041	8	F
40	STS-39	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000118048	9	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	000010H044	X	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	000010K052	Y	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0001286071	Z	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027804	1	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027809	2	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027810	3	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027811	4	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027812	5	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027813	6	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027802	7	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027805	8	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000037830	9	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018265	X	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018266	Y	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018267	Z	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000068043	1	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108046	2	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108156	3	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108156	4	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108159	5	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018260	6	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018261	7	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018262	8	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018264	9	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000118049	X	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108157	Y	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108158	Z	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068033	1	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068035	2	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068036	3	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068037	4	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068038	5	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068039	6	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068040	7	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068041	8	F
43	STS-48	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000118048	9	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018265	X	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018266	Y	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018267	Z	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000027808	1	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000068043	2	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108046	3	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108156	4	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108159	5	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018260	6	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018261	7	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018262	8	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018264	9	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000118049	X	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108157	Y	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108158	Z	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068033	1	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068035	2	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068036	3	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068037	4	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068038	5	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068039	6	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068040	7	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068041	8	F
45	STS-42	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108048	9	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018265	X	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018266	Y	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018267	Z	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000027808	1	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000068043	2	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108046	3	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108156	4	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108159	5	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018260	6	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018261	7	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018262	8	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	000018264	9	F
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089084	Y	F
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089077	Z	F
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089074	1	F
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089076	2	F
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089073	3	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089073	3	F
53	STS-54	OV106	DC	LIGHT DIMMER	MC459-0004	-0001	0000089075	4	F
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089078	5	F
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089081	6	F
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089080	7	F
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089083	8	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108044	X	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108052	Y	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0001286071	Z	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027804	1	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027809	2	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027810	3	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027811	4	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027812	5	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027813	6	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027802	7	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027805	8	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000037830	9	F
36	STS-41	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000011	1	F
36	STS-41	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000013	2	F
37	STS-38	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000010	2	F
38	STS-35	OV102	DC	MISSION TIMER	MC456-0054	-0001	0000000003	1	F
39	STS-37	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000012	1	F
40	STS-39	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000010	2	F
40	STS-39	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000011	1	F
41	STS-40	OV102	DC	MISSION TIMER	MC456-0054	-0001	0000000013	2	F
41	STS-40	OV102	DC	MISSION TIMER	MC456-0054	-0001	0000000004	2	F
42	STS-43	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000012	1	F
42	STS-43	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000010	2	F
43	STS-48	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000011	1	F
43	STS-48	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000013	2	F
44	STS-44	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000012	1	F
44	STS-44	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000010	2	F
45	STS-42	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000011	1	F
45	STS-42	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000013	2	F
46	STS-45	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000012	1	F
46	STS-45	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000010	2	F
47	STS-49	OV105	DC	MISSION TIMER	MC456-0054	-0002	0000000016	2	F
47	STS-49	OV105	DC	MISSION TIMER	MC456-0054	-0002	0000000017	1	F
48	STS-50	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000014	1	F
48	STS-50	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000004	2	F
49	STS-46	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000012	1	F
49	STS-46	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000010	2	F
50	STS-47	OV105	DC	MISSION TIMER	MC456-0054	-0002	0000000017	1	F
50	STS-47	OV105	DC	MISSION TIMER	MC456-0054	-0002	0000000014	1	F
51	STS-52	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000015	2	F
53	STS-54	OV105	DC	MISSION TIMER	MC456-0054	-0002	0000000008	1	F
53	STS-54	OV105	DC	MISSION TIMER	MC456-0054	-0002	0000000017	2	F
54	STS-55	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000016	1	F
54	STS-55	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000015	2	F
36	STS-41	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0021	0000000116	1	F
36	STS-41	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000118	2	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	ST	TA
37	STS-38	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000112	F	
37	STS-38	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000115	F	
38	STS-35	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000109	F	1
38	STS-35	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	F	2
39	STS-37	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000112	F	
39	STS-37	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000115	F	
40	STS-39	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0021	0000000118	F	
40	STS-39	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000118	F	
41	STS-40	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000109	F	1
41	STS-40	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	F	2
42	STS-43	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000112	F	
42	STS-43	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000115	F	
43	STS-48	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0021	0000000114	F	F/SP
43	STS-48	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000116	F	
44	STS-44	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000118	F	
44	STS-44	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000115	F	
45	STS-42	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0021	0000000116	F	
45	STS-42	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000118	F	
46	STS-45	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000112	F	
46	STS-45	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000115	F	
47	STS-49	OV105	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000125	F	
47	STS-49	OV105	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000109	F	1
48	STS-50	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	F	2
48	STS-50	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000112	F	
49	STS-46	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000115	F	
49	STS-46	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000124	F	
50	STS-47	OV105	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000125	F	
50	STS-47	OV105	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000125	F	
51	STS-52	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000109	F	1
51	STS-52	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	F	2
53	STS-54	OV105	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000124	F	
53	STS-54	OV105	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000125	F	
54	STS-55	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000109	F	1
54	STS-55	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	F	2
36	STS-41	OV103	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0011	0003058207	F	
37	STS-38	OV104	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
38	STS-35	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0003048106	F	
39	STS-37	OV104	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
40	STS-39	OV103	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0011	0003058207	F	
41	STS-40	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0003048106	F	
42	STS-43	OV104	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
43	STS-48	OV103	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0011	0003058207	F	
44	STS-44	OV104	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
45	STS-42	OV103	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0011	0003058207	F	
46	STS-45	OV104	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
47	STS-49	OV105	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000000111	F	
48	STS-50	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0003048106	F	
49	STS-46	OV104	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
50	STS-47	OV105	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
51	STS-52	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
53	STS-54	OV105	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000387010	F	
54	STS-55	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000000111	F	
54	STS-55	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0003048106	F	
36	STS-41	OV103	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004105	F	
36	STS-41	OV103	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006105	F	
36	STS-41	OV103	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007105	F	
37	STS-38	OV104	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004106	F	

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STA
37	STS-38	OV104	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006108		F
37	STS-38	OV104	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007108		F
38	STS-35	OV102	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004101		F
38	STS-35	OV102	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006102		F
38	STS-35	OV102	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007102		F
39	STS-37	OV104	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004108		F
39	STS-37	OV104	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006108		F
39	STS-37	OV104	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007108		F
40	STS-39	OV103	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004105		F
40	STS-39	OV103	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006105		F
40	STS-39	OV103	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007105		F
41	STS-40	OV102	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004101		F
41	STS-40	OV102	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006102		F
41	STS-40	OV102	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007102		F
42	STS-43	OV104	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004106		F
42	STS-43	OV104	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006108		F
42	STS-43	OV104	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007106		F
43	STS-48	OV103	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004105		F
43	STS-48	OV103	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006105		F
43	STS-48	OV103	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007105		F
44	STS-44	OV104	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004106		F
44	STS-44	OV104	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006108		F
44	STS-44	OV104	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007108		F
45	STS-42	OV103	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004105		F
45	STS-42	OV103	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006105		F
45	STS-42	OV103	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007105		F
46	STS-45	OV104	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004106		F
46	STS-45	OV104	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006108		F
46	STS-45	OV104	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007108		F
47	STS-49	OV105	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004108		F
47	STS-49	OV105	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006110		F
47	STS-49	OV105	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007108		F
48	STS-50	OV102	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004101		F
48	STS-50	OV102	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006102		F
48	STS-50	OV102	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007102		F
49	STS-46	OV104	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004106		F
49	STS-46	OV104	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006108		F
49	STS-46	OV104	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007108		F
50	STS-47	OV105	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004108		F
50	STS-47	OV105	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006110		F
50	STS-47	OV105	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007108		F
51	STS-52	OV102	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004101		F
51	STS-52	OV102	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006102		F
51	STS-52	OV102	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007102		F
51	STS-52	OV102	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004101		F
53	STS-54	OV105	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006110		F
53	STS-54	OV105	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007108		F
53	STS-54	OV105	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004101		F
54	STS-55	OV102	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006102		F
54	STS-55	OV102	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007102		F
36	STS-41	OV103	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000008	1	F
36	STS-41	OV103	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000002	2	F
37	STS-38	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000010	1	F
37	STS-38	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000011	2	F
38	STS-35	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000004	1	F
38	STS-35	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000005	2	F
39	STS-37	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000010	1	F
39	STS-37	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000011	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L U T	S T A T
40	STS-39	OV103	DC	RUDDER PEDAL	MC621-0043	-3440	000000008	1	F
40	STS-39	OV103	DC	RUDDER PEDAL	MC621-0043	-3440	000000002	2	F
41	STS-40	OV102	DC	RUDDER PEDAL	MC621-0043	-3440	000000005	1	F
42	STS-43	OV104	DC	RUDDER PEDAL	MC621-0043	-3440	000000010	1	F
42	STS-43	OV104	DC	RUDDER PEDAL	MC621-0043	-3440	000000011	2	F
43	STS-48	OV103	DC	RUDDER PEDAL	MC621-0043	-3440	000000008	1	F
43	STS-48	OV103	DC	RUDDER PEDAL	MC621-0043	-3440	000000002	2	F
44	STS-44	OV104	DC	RUDDER PEDAL	MC621-0043	-3440	000000010	1	F
44	STS-44	OV104	DC	RUDDER PEDAL	MC621-0043	-3440	000000011	2	F
45	STS-42	OV103	DC	RUDDER PEDAL	MC621-0043	-3440	000000008	1	F
45	STS-42	OV103	DC	RUDDER PEDAL	MC621-0043	-3440	000000002	2	F
46	STS-45	OV104	DC	RUDDER PEDAL	MC621-0043	-3440	000000010	1	F
46	STS-45	OV104	DC	RUDDER PEDAL	MC621-0043	-3440	000000011	2	F
47	STS-49	OV105	DC	RUDDER PEDAL	MC621-0043	-3440	000000014	1	F
47	STS-49	OV105	DC	RUDDER PEDAL	MC621-0043	-3440	000000015	2	F
48	STS-50	OV102	DC	RUDDER PEDAL	MC621-0043	-3440	000000004	1	F
48	STS-50	OV102	DC	RUDDER PEDAL	MC621-0043	-3440	000000005	2	F
49	STS-46	OV104	DC	RUDDER PEDAL	MC621-0043	-3440	000000010	1	F
49	STS-46	OV104	DC	RUDDER PEDAL	MC621-0043	-3440	000000011	2	F
50	STS-47	OV105	DC	RUDDER PEDAL	MC621-0043	-3440	000000014	1	F
50	STS-47	OV105	DC	RUDDER PEDAL	MC621-0043	-3440	000000015	2	F
51	STS-52	OV102	DC	RUDDER PEDAL	MC621-0043	-3440	000000004	1	F
51	STS-52	OV102	DC	RUDDER PEDAL	MC621-0043	-3440	000000005	2	F
53	STS-54	OV105	DC	RUDDER PEDAL	MC621-0043	-3440	000000014	1	F
53	STS-54	OV105	DC	RUDDER PEDAL	MC621-0043	-3440	000000015	2	F
54	STS-55	OV102	DC	RUDDER PEDAL	MC621-0043	-3440	000000004	1	F
54	STS-55	OV102	DC	RUDDER PEDAL	MC621-0043	-3440	000000005	2	F
36	STS-41	OV103	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000206	F	F
37	STS-38	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000104	F	F
38	STS-35	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203	F	F
39	STS-37	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000104	F	F
40	STS-39	OV103	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000206	F	F
41	STS-40	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203	F	F
42	STS-43	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000104	F	F
43	STS-48	OV103	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000206	F	F
44	STS-44	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000104	F	F
45	STS-42	OV103	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000206	F	F
46	STS-45	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000104	F	F
47	STS-49	OV105	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000206	F	F
48	STS-50	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203	F	F
49	STS-46	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000104	F	F
50	STS-47	OV105	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000206	F	F
51	STS-52	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	000000104	F	F
53	STS-54	OV105	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203	F	F
54	STS-55	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000006009	F	F
54	STS-55	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203	F	F
36	STS-41	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000010	1	F
36	STS-41	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000009	2	F
37	STS-38	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000011	1	F
37	STS-38	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000001	2	F
38	STS-35	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000004	1	F
38	STS-35	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000012	2	F
39	STS-37	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000011	1	F
39	STS-37	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000001	2	F
40	STS-39	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000010	1	F
40	STS-39	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000009	2	F
41	STS-40	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000004	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	A T T
41	STS-40	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000012	2	F
42	STS-43	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000011	1	F
43	STS-43	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000010	1	F
44	STS-48	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000009	2	F
45	STS-44	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000011	1	F
46	STS-44	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000010	1	F
47	STS-42	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000009	2	F
48	STS-45	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000011	1	F
49	STS-48	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000011	1	F
50	STS-50	OV106	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000001	2	F
51	STS-48	OV106	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000013	1	F
52	STS-50	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000014	2	F
53	STS-48	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000004	1	F
54	STS-46	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000012	2	F
55	STS-46	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000011	1	F
56	STS-47	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000001	2	F
57	STS-52	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000013	1	F
58	STS-51	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000014	2	F
59	STS-54	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000013	1	F
60	STS-54	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000014	2	F
61	STS-55	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000004	1	F
62	STS-55	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000012	2	F
63	STS-41	OV103	DC	SURFACE POSITION INDICATOR	MC432-0221	-0011	0007803006	1	F
64	STS-38	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010	1	F
65	STS-35	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008	1	F
66	STS-37	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010	1	F
67	STS-39	OV103	DC	SURFACE POSITION INDICATOR	MC432-0221	-0011	0007803006	1	F
68	STS-40	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008	1	F
69	STS-43	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010	1	F
70	STS-48	OV103	DC	SURFACE POSITION INDICATOR	MC432-0221	-0011	0007803006	1	F
71	STS-44	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010	1	F
72	STS-42	OV103	DC	SURFACE POSITION INDICATOR	MC432-0221	-0011	0007803006	1	F
73	STS-45	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010	1	F
74	STS-48	OV105	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008903001	1	F
75	STS-50	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008	1	F
76	STS-46	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010	1	F
77	STS-49	OV105	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008903001	1	F
78	STS-46	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010	1	F
79	STS-47	OV105	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008903001	1	F
80	STS-46	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010	1	F
81	STS-52	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008	1	F
82	STS-51	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008	1	F
83	STS-54	OV105	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008903001	1	F
84	STS-54	OV105	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008903001	1	F
85	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0017	000000004	1	F
86	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0012	000000004	1	F
87	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0008	000000005	1	F
88	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0009	00000006A	1	F
89	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0015	00000006A	1	F
90	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0018	00000006A	1	F
91	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0010	00000007A	1	F
92	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0017	00000005A	1	F
93	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0009	00000005A	1	F
94	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0015	00000005A	1	F
95	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0018	00000005A	1	F
96	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0012	00000006A	1	F
97	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0008	00000007A	1	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER
37	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0010	008748006A
38	STS-36	OV102	DC	METER-TAPE	MC432-0232	-0009	0000000003
38	STS-35	OV102	DC	METER-TAPE	MC432-0232	-0017	0000000003
38	STS-35	OV102	DC	METER-TAPE	MC432-0232	-0012	0000000003
38	STS-35	OV102	DC	METER-TAPE	MC432-0232	-0010	0000000004
38	STS-35	OV102	DC	METER-TAPE	MC432-0232	-0015	0000000004
38	STS-35	OV102	DC	METER-TAPE	MC432-0232	-0008	0000000006
38	STS-35	OV102	DC	METER-TAPE	MC432-0232	-0018	000000007A
39	STS-37	OV104	DC	METER-TAPE	MC432-0232	-0017	000000005A
39	STS-37	OV104	DC	METER-TAPE	MC432-0232	-0015	000000005A
39	STS-37	OV104	DC	METER-TAPE	MC432-0232	-0018	000000005A
39	STS-37	OV104	DC	METER-TAPE	MC432-0232	-0012	000000006A
39	STS-37	OV104	DC	METER-TAPE	MC432-0232	-0006	000000007A
39	STS-37	OV104	DC	METER-TAPE	MC432-0232	-0010	008748006A
40	STS-39	OV103	DC	METER-TAPE	MC432-0232	-0017	0000000004
40	STS-39	OV103	DC	METER-TAPE	MC432-0232	-0012	0000000004
40	STS-39	OV103	DC	METER-TAPE	MC432-0232	-0008	0000000005
40	STS-39	OV103	DC	METER-TAPE	MC432-0232	-0015	000000006A
40	STS-39	OV103	DC	METER-TAPE	MC432-0232	-0018	000000006A
40	STS-39	OV103	DC	METER-TAPE	MC432-0232	-0009	000000006A
40	STS-39	OV103	DC	METER-TAPE	MC432-0232	-0010	000000007A
41	STS-40	OV102	DC	METER-TAPE	MC432-0232	-0009	0000000003
41	STS-40	OV102	DC	METER-TAPE	MC432-0232	-0017	0000000003
41	STS-40	OV102	DC	METER-TAPE	MC432-0232	-0012	0000000003
41	STS-40	OV102	DC	METER-TAPE	MC432-0232	-0010	0000000004
41	STS-40	OV102	DC	METER-TAPE	MC432-0232	-0015	0000000004
41	STS-40	OV102	DC	METER-TAPE	MC432-0232	-0008	0000000006
41	STS-40	OV102	DC	METER-TAPE	MC432-0232	-0018	000000007A
42	STS-43	OV104	DC	METER-TAPE	MC432-0232	-0017	000000005A
42	STS-43	OV104	DC	METER-TAPE	MC432-0232	-0015	000000005A
42	STS-43	OV104	DC	METER-TAPE	MC432-0232	-0012	000000006A
42	STS-43	OV104	DC	METER-TAPE	MC432-0232	-0008	000000007A
42	STS-43	OV104	DC	METER-TAPE	MC432-0232	-0010	008748006A
42	STS-43	OV104	DC	METER-TAPE	MC432-0232	-0012	0000000004
43	STS-48	OV103	DC	METER-TAPE	MC432-0232	-0017	0000000004
43	STS-48	OV103	DC	METER-TAPE	MC432-0232	-0008	0000000004
43	STS-48	OV103	DC	METER-TAPE	MC432-0232	-0015	0000000005A
43	STS-48	OV103	DC	METER-TAPE	MC432-0232	-0012	000000006A
43	STS-48	OV103	DC	METER-TAPE	MC432-0232	-0008	000000007A
44	STS-44	OV104	DC	METER-TAPE	MC432-0232	-0010	000000007A
44	STS-44	OV104	DC	METER-TAPE	MC432-0232	-0015	000000005A
44	STS-44	OV104	DC	METER-TAPE	MC432-0232	-0017	000000005A
44	STS-44	OV104	DC	METER-TAPE	MC432-0232	-0012	000000006A
44	STS-44	OV104	DC	METER-TAPE	MC432-0232	-0008	000000007A
44	STS-44	OV104	DC	METER-TAPE	MC432-0232	-0010	000000008A
45	STS-42	OV103	DC	METER-TAPE	MC432-0232	-0012	0000000004
45	STS-42	OV103	DC	METER-TAPE	MC432-0232	-0017	0000000004
45	STS-42	OV103	DC	METER-TAPE	MC432-0232	-0008	0000000005
45	STS-42	OV103	DC	METER-TAPE	MC432-0232	-0009	000000006A
45	STS-42	OV103	DC	METER-TAPE	MC432-0232	-0015	000000006A
45	STS-42	OV103	DC	METER-TAPE	MC432-0232	-0018	000000007A
45	STS-42	OV103	DC	METER-TAPE	MC432-0232	-0010	000000007A
46	STS-45	OV104	DC	METER-TAPE	MC432-0232	-0017	000000005A

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	STL	SL	ST
46	STS-45	OV104	DC	METER-TAPE	MC432-0232	-0009	000000005A	F		
46	STS-45	OV104	DC	METER-TAPE	MC432-0232	-0018	000000005A	F		
46	STS-45	OV104	DC	METER-TAPE	MC432-0232	-0015	000000005A	F		
46	STS-45	OV104	DC	METER-TAPE	MC432-0232	-0012	000000006A	F		
46	STS-45	OV104	DC	METER-TAPE	MC432-0232	-0008	000000007A	F		
46	STS-45	OV104	DC	METER-TAPE	MC432-0232	-0010	000000008A	F		
47	STS-49	OV105	DC	METER-TAPE	MC432-0232	-0012	000000007A	F		
47	STS-49	OV105	DC	METER-TAPE	MC432-0232	-0010	000000009A	F		
47	STS-49	OV105	DC	METER-TAPE	MC432-0232	-0017	000000011A	F		
47	STS-49	OV105	DC	METER-TAPE	MC432-0232	-0008	000000014A	F		
47	STS-49	OV105	DC	METER-TAPE	MC432-0232	-0018	000000016A	F		
47	STS-49	OV105	DC	METER-TAPE	MC432-0232	-0015	000000017A	F		
47	STS-49	OV105	DC	METER-TAPE	MC432-0232	-0009	000000020A	F		
48	STS-50	OV102	DC	METER-TAPE	MC432-0232	-0009	0000000003	F		
48	STS-50	OV102	DC	METER-TAPE	MC432-0232	-0012	0000000003	F		
48	STS-50	OV102	DC	METER-TAPE	MC432-0232	-0017	0000000003	F		
48	STS-50	OV102	DC	METER-TAPE	MC432-0232	-0010	0000000004	F		
48	STS-50	OV102	DC	METER-TAPE	MC432-0232	-0015	0000000004	F		
48	STS-50	OV102	DC	METER-TAPE	MC432-0232	-0008	0000000006	F		
48	STS-50	OV102	DC	METER-TAPE	MC432-0232	-0018	000000007A	F		
49	STS-46	OV104	DC	METER-TAPE	MC432-0232	-0017	000000005A	F		
49	STS-46	OV104	DC	METER-TAPE	MC432-0232	-0009	000000005A	F		
49	STS-46	OV104	DC	METER-TAPE	MC432-0232	-0018	000000005A	F		
49	STS-46	OV104	DC	METER-TAPE	MC432-0232	-0015	000000005A	F		
49	STS-46	OV104	DC	METER-TAPE	MC432-0232	-0012	000000006A	F		
49	STS-46	OV104	DC	METER-TAPE	MC432-0232	-0008	000000007A	F		
49	STS-46	OV104	DC	METER-TAPE	MC432-0232	-0010	000000007A	F		
50	STS-47	OV105	DC	METER-TAPE	MC432-0232	-0012	000000007A	F		
50	STS-47	OV105	DC	METER-TAPE	MC432-0232	-0010	000000009A	F		
50	STS-47	OV105	DC	METER-TAPE	MC432-0232	-0017	000000011A	F		
50	STS-47	OV105	DC	METER-TAPE	MC432-0232	-0008	000000014A	F		
50	STS-47	OV105	DC	METER-TAPE	MC432-0232	-0018	000000016A	F		
50	STS-47	OV105	DC	METER-TAPE	MC432-0232	-0015	000000017A	F		
50	STS-47	OV105	DC	METER-TAPE	MC432-0232	-0009	000000020A	F		
51	STS-52	OV102	DC	METER-TAPE	MC432-0232	-0012	0000000003	F		
51	STS-52	OV102	DC	METER-TAPE	MC432-0232	-0017	0000000003	F		
51	STS-52	OV102	DC	METER-TAPE	MC432-0232	-0009	0000000003	F		
51	STS-52	OV102	DC	METER-TAPE	MC432-0232	-0015	0000000004	F		
51	STS-52	OV102	DC	METER-TAPE	MC432-0232	-0010	0000000004	F		
51	STS-52	OV102	DC	METER-TAPE	MC432-0232	-0008	0000000006	F		
51	STS-52	OV102	DC	METER-TAPE	MC432-0232	-0018	000000007A	F		
53	STS-54	OV105	DC	METER-TAPE	MC432-0232	-0012	000000007A	F		
53	STS-54	OV105	DC	METER-TAPE	MC432-0232	-0010	000000009A	F		
53	STS-54	OV105	DC	METER-TAPE	MC432-0232	-0017	000000011A	F		
53	STS-54	OV105	DC	METER-TAPE	MC432-0232	-0008	000000014A	F		
53	STS-54	OV105	DC	METER-TAPE	MC432-0232	-0018	000000016A	F		
53	STS-54	OV105	DC	METER-TAPE	MC432-0232	-0015	000000017A	F		
53	STS-54	OV105	DC	METER-TAPE	MC432-0232	-0009	000000020A	F		
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0009	0000000003	F		
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0012	0000000003	F		
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0017	0000000003	F		
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0010	0000000004	F		
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0015	0000000004	F		
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0008	0000000006	F		
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0018	000000007A	F		
36	STS-41	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000008	F		1
36	STS-41	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000004	F		3
37	STS-38	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000009	F		1

MISS SEQ	STS	ORIG	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL	STA
37	STS-38	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000010	3	F
38	STS-35	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000002	1	F
39	STS-35	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000007	3	F
39	STS-37	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000009	1	F
39	STS-39	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000010	3	F
40	STS-39	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000008	1	F
41	STS-40	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000002	1	F
42	STS-43	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000009	1	F
43	STS-48	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000010	3	F
43	STS-48	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000008	1	F
44	STS-44	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000004	3	F
44	STS-44	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000010	3	F
45	STS-42	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000008	1	F
45	STS-42	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000004	3	F
46	STS-45	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000009	1	F
46	STS-45	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000010	3	F
47	STS-49	OV105	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000014	1	F
47	STS-49	OV105	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000015	3	F
48	STS-50	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000002	1	F
49	STS-46	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000007	3	F
49	STS-46	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000010	3	F
50	STS-47	OV105	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000014	1	F
50	STS-47	OV105	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000015	3	F
51	STS-52	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000002	1	F
51	STS-52	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000007	3	F
53	STS-54	OV105	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000014	1	F
53	STS-54	OV105	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000015	3	F
54	STS-55	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000002	1	F
54	STS-55	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000007	3	F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009105		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010105		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011105		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012105		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014111		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014112		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014113		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016105		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017105		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024105		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026101		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028101		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007105		F
36	STS-41	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008105		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019104		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0000011106		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009106		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010106		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012106		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014114		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014115		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014116		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016106		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017106		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024106		F







MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLQTY	STAT
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019104	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0000011106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014114	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014115	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014116	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025107	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380028102	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008106	F	F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019105	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0380007107	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0380008108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014118	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014119	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014120	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0380019107	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025109	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026108	F	F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028108	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0000010103	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009101	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011110	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012101	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014102	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014103	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014107	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016101	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017101	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024101	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026103	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026102	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028105	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007101	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008102	F	F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019101	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0000011106	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009106	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010106	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012106	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014114	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014115	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014116	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016106	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017106	F	F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024106	F	F





MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	Y A T
84	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
84	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
84	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
84	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
84	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
84	STS-55	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000009	1	F
84	STS-55	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000008	2	F
84	STS-55	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000010	3	F
84	STS-55	OV102	DC	ANNUNCIATOR DISPLAY UNIT	MC434-0080	-0012	9623067802		F
84	STS-55	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007803010	1	F
84	STS-55	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603009	2	F
84	STS-55	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008302016	1	F
84	STS-55	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007603009	2	F
84	STS-55	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000118004		F
84	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
84	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F
84	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	9728302017	1	F
84	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3157803009	2	F
84	STS-55	OV102	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623283014		F
84	STS-55	OV102	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000206006E		F
84	STS-55	OV102	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623127805		F
84	STS-55	OV102	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000005		F
84	STS-55	OV102	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000011		F
84	STS-55	OV102	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000004		F
84	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000008	1	F
84	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000020	2	F
84	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000018	3	F
84	STS-55	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	000000046U		F
84	STS-55	OV102	DC	LITE-EXTERIOR ELECTRONICS 1	MC434-0062	-0011	0000000592		F
84	STS-55	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	000000060J		F
84	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000582	1	F
84	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0022	0000000451	2	F
84	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449	3	F
84	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000455	4	F
84	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000583	5	F
84	STS-55	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000580	6	F
84	STS-55	OV102	DC	EVENT TIMER	MC456-0053	-0001	0000000002	1	F
84	STS-55	OV102	DC	EVENT TIMER	MC456-0053	-0002	0000000015	2	F
84	STS-55	OV102	DC	FLOOD LITE	MC434-0078	-0005	0000067805		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T E
54	STS-55	OV102	DC	FLOOD LITE	MC434-0078	-0006	0000087809		F
54	STS-55	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000004E		F
54	STS-55	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000006	1	F
54	STS-55	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000008	2	F
54	STS-55	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000102	1	F
54	STS-55	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	000000117	2	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	000000105		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	000000111		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	000000123		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	000000126		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	000000137		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0014	000000144		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	000000429		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	000000474		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0028	000000475		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0029	000000484		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	000000486		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	000000488		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	000000594		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0014	000000621		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	000000629		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	000000632		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	000000633		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	000000634		F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108044	X	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108052	Y	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0001286071	Z	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027804	1	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027809	2	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027810	3	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027811	4	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027812	5	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027813	6	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027802	7	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027805	8	F
54	STS-55	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000037830	9	F
54	STS-55	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000016	1	F
54	STS-55	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000015	2	F
54	STS-55	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	000000109	1	F
54	STS-55	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	000000110	2	F
54	STS-55	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0003048108		F
54	STS-55	OV102	DC	METER-ROUND ELEC	MC432-0237	-0004	2200004101		F
54	STS-55	OV102	DC	METER-ROUND ELEC	MC432-0237	-0006	2200008102		F
54	STS-55	OV102	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007102		F
54	STS-55	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	000000004	1	F
54	STS-55	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	000000005	2	F
54	STS-55	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203		F

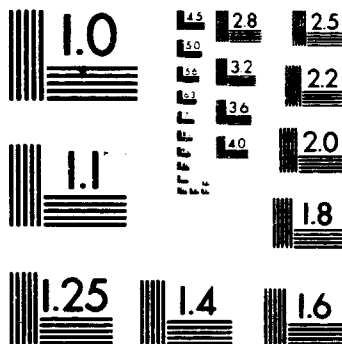
MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
54	STS-55	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	000000012	2	F
54	STS-55	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0007605005		F
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0009	0000000003		F
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0012	0000000003		F
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0017	0000000003		F
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0010	0000000004		F
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0015	0000000004		F
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0008	0000000006		F
54	STS-55	OV102	DC	METER-TAPE	MC432-0232	-0018	000000007A		F
54	STS-55	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000002	1	F
54	STS-55	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000007	3	F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0000010103		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009101		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011101		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012101		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014102		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014103		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014107		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016101		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017101		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024101		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025103		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026102		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028105		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007101		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008102		F
54	STS-55	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019101		F

AVIONICS  
ELECTRICAL POWER DISTRIBUTION AND CONTROL (EPDC) SUBSYSTEM



# 5 OF 7

## N96-11129 UNCLAS



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
36	STS-41	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000A09162	1	F
36	STS-41	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000J76030	2	F
37	STS-38	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0716	1	F
37	STS-38	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0729	2	F
38	STS-36	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46408	1	F
38	STS-35	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46409	2	F
38	STS-37	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0716	1	F
39	STS-37	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0729	2	F
40	STS-39	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AD9162	1	F
40	STS-39	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000J76030	2	F
41	STS-40	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46408	1	F
41	STS-40	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46409	2	F
42	STS-43	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0716	1	F
42	STS-43	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0729	2	F
43	STS-48	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AD9162	1	F
43	STS-48	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000J76030	2	F
44	STS-44	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0716	1	F
44	STS-44	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0729	2	F
45	STS-42	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AD9162	1	F
45	STS-42	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000J76030	2	F
46	STS-45	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0716	1	F
46	STS-45	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0729	2	F
47	STS-49	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER112	1	F
47	STS-49	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER113	2	F
48	STS-50	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46408	1	F
48	STS-50	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46409	2	F
49	STS-46	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0716	1	F
49	STS-46	OV104	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AF0729	2	F
50	STS-47	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER112	1	F
50	STS-47	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER113	2	F
51	STS-52	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46408	1	F
51	STS-52	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46409	2	F
53	STS-54	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER112	1	F
53	STS-54	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER113	2	F
54	STS-55	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46408	1	F
54	STS-55	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46409	2	F
36	STS-41	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00004	1	F
37	STS-38	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00003	1	F
38	STS-35	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00006	1	F
38	STS-37	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00003	1	F
40	STS-39	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00004	1	F
41	STS-40	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00006	1	F
42	STS-43	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00003	1	F
43	STS-48	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00004	1	F
44	STS-44	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00006	1	F
45	STS-42	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00003	1	F
46	STS-45	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00004	1	F
47	STS-49	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00006	1	F
48	STS-50	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00003	1	F
49	STS-46	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00004	1	F
49	STS-46	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00006	1	F
50	STS-47	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00003	1	F
51	STS-52	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00004	1	F
53	STS-54	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00006	1	F
53	STS-54	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00003	1	F
54	STS-55	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00004	1	F
54	STS-55	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD00006	1	F
36	STS-41	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYD00004	2	F
37	STS-38	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYD00003	2	F

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OF POOR QUALITY

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL LOT	STA TY
36	STS-36	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
37	STS-37	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
38	STS-38	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0004	2	F
39	STS-39	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
40	STS-40	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
41	STS-41	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0008	2	F
42	STS-42	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
43	STS-43	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0006	2	F
44	STS-44	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
45	STS-45	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0001	2	F
46	STS-46	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
47	STS-47	OV108	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0001	2	F
48	STS-48	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
49	STS-49	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
50	STS-50	OV108	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0001	2	F
51	STS-51	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
52	STS-52	OV106	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0001	2	F
53	STS-53	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
54	STS-54	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
55	STS-55	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0001	3	F
36	STS-41	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0001	3	F
37	STS-38	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0004	3	F
38	STS-35	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0004	3	F
39	STS-37	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0004	3	F
40	STS-39	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0004	3	F
41	STS-40	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0002	3	F
42	STS-43	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0004	3	F
43	STS-48	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0004	3	F
44	STS-44	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0059	-0001	756MYH0004	3	F
45	STS-42	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0001	3	F
46	STS-45	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0001	3	F
47	STS-49	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0004	3	F
48	STS-50	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0006	3	F
49	STS-46	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0002	3	F
50	STS-47	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0004	3	F
51	STS-52	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0002	3	F
52	STS-54	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0006	3	F
53	STS-54	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0006	3	F
54	STS-55	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0002	3	F
36	STS-41	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000AMG51R	1	F
37	STS-38	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F71U20	1	F
38	STS-35	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765630	-004	0000601U94	1	F
39	STS-37	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F71U20	1	F
40	STS-39	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000JAM61R	1	F
41	STS-40	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765630	-004	0000601U94	1	F
42	STS-43	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F71U20	1	F
43	STS-48	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000JAM61R	1	F
44	STS-44	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F71U20	1	F
45	STS-42	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000AMG51R	1	F
46	STS-45	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F71U20	1	F
47	STS-49	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-003	0000EK9209	1	F
48	STS-50	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765630	-002	0000601U94	1	F
49	STS-46	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F71U20	1	F
50	STS-47	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-003	0000EK9209	1	F
51	STS-52	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765630	-003	0000601U94	1	F
52	STS-54	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-003	0000EK9209	1	F
53	STS-54	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-003	0000EK9209	1	F
54	STS-55	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-7J5630	-003	0000601U94	1	F
36	STS-41	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000F71U20	2	F
37	STS-38	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000AMG266	2	F
38	STS-35	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000UN19182	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLDT	STATUS
40	STS-39	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000F71036	2	F
41	STS-40	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000N19382	2	F
42	STS-43	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000AM6266	2	F
43	STS-48	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000F71036	2	F
44	STS-44	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000AM6266	2	F
45	STS-42	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765620	-003	0000G01276	2	F
46	STS-45	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000AM6266	2	F
47	STS-49	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000EK9181	2	F
48	STS-50	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000N19382	2	F
49	STS-46	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000AM6266	2	F
50	STS-47	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000EK9181	2	F
51	STS-52	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000N19382	2	F
53	STS-54	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000EK9181	2	F
54	STS-55	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000N19382	2	F
36	STS-41	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000N19381	3	F
37	STS-38	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000AM3349	3	F
38	STS-35	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000F71021	3	F
39	STS-37	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000AM3349	3	F
40	STS-39	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000N19381	3	F
41	STS-40	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000F71021	3	F
42	STS-43	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000AM3349	3	F
43	STS-48	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000N19381	3	F
44	STS-44	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000AM3349	3	F
45	STS-42	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000N19381	3	F
46	STS-45	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000AM3349	3	F
47	STS-49	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000ER1007	3	F
48	STS-50	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000F71021	3	F
49	STS-46	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000AM3349	3	F
50	STS-47	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000ER1007	3	F
51	STS-52	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000F71021	3	F
53	STS-54	OV105	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000ER1007	3	F
54	STS-55	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000F71021	3	F
36	STS-41	OV103	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-005	0000F66220	1	F
37	STS-38	OV104	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-003	0000AM6520	1	F
38	STS-35	OV102	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-007	0000C09112	1	F
39	STS-37	OV104	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-003	0000AM6520	1	F
40	STS-39	OV103	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-005	0000F66220	1	F
41	STS-40	OV102	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-007	0000C09112	1	F
42	STS-43	OV104	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-003	0000AM6520	1	F
43	STS-48	OV103	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-005	0000F66220	1	F
44	STS-44	OV104	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-003	0000AM6520	1	F
45	STS-42	OV103	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-005	0000F66220	1	F
46	STS-45	OV104	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-003	0000AM6520	1	F
47	STS-49	OV105	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-005	0000F66220	1	F
48	STS-50	OV102	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-007	0000C09112	1	F
49	STS-46	OV104	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-003	0000AM6520	1	F
50	STS-47	OV105	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-005	0000F66220	1	F
51	STS-52	OV102	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-007	0000C09112	1	F
53	STS-54	OV105	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-005	0000F66220	1	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-007	0000C09112	1	F
36	STS-41	OV103	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-005	0000F66220	2	F
37	STS-38	OV104	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-007	0000C39415	2	F
38	STS-35	OV102	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765220	-010	0000155728	2	F
39	STS-37	OV104	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-007	0000C39415	2	F
40	STS-39	OV103	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-003	0000AM6521	2	F
41	STS-40	OV102	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-010	0000155728	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL	ST
42	STS-43	OV104	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-007	0000C39315	2	F
43	STS-48	OV103	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-003	0000AM6521	2	F
44	STS-44	OV104	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-007	0000C39315	2	F
45	STS-42	OV103	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-003	0000AM6521	2	F
46	STS-45	OV104	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-007	0000C39315	2	F
47	STS-49	OV105	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-004	0000E1407	2	F
48	STS-60	OV102	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765220	-011	000015728	2	F
49	STS-46	OV104	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-007	0000C19315	2	F
50	STS-47	OV105	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-004	0000E1407	2	F
51	STS-52	OV102	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765220	-011	000015728	2	F
53	STS-54	OV105	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-004	0000E1407	2	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765220	-011	0000155728	2	F
36	STS-41	OV103	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-008	0000J41296	3	F
37	STS-38	OV104	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-009	0000AM6519	3	F
38	STS-35	OV102	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765240	-011	0000265334	3	F
39	STS-37	OV104	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-009	0000AM6519	3	F
40	STS-39	OV103	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-008	0000J43496	3	F
41	STS-40	OV102	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765240	-011	0000265334	3	F
42	STS-43	OV104	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-009	0000AM6519	3	F
43	STS-46	OV103	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-008	0000J43496	3	F
44	STS-44	OV104	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-009	0000AM6519	3	F
45	STS-42	OV102	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-008	0000J43296	3	F
46	STS-45	OV104	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-009	0000AM6519	3	F
47	STS-49	OV105	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-004	0000EK9813	3	F
48	STS-60	OV102	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765240	-011	0000265334	3	F
49	STS-46	OV104	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-009	0000AM6519	3	F
50	STS-47	OV105	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-004	0000EK9813	3	F
51	STS-52	OV102	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765240	-011	0000265334	3	F
53	STS-54	OV105	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-004	0000EK9813	3	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-011	0000BB8851	3	F
36	STS-41	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155796	4	F
36	STS-41	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155797	5	F
36	STS-41	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-028	0000E71704	6	F
37	STS-38	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53758	4	F
37	STS-38	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53760	5	F
37	STS-38	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155798	6	F
38	STS-35	OV102	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000F58293	4	F
38	STS-35	OV102	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53759	5	F
38	STS-35	OV102	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-028	0000E71705	6	F
39	STS-37	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53758	4	F
39	STS-37	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53760	5	F
39	STS-37	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155798	6	F
40	STS-39	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155796	4	F
40	STS-39	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155797	5	F
40	STS-39	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-028	0000E71704	6	F
41	STS-40	OV102	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000F58293	4	F
41	STS-40	OV102	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53759	5	F
41	STS-40	OV102	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-028	0000E71705	6	F
42	STS-43	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155796	4	F
42	STS-43	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155797	5	F
42	STS-43	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-028	0000E71704	6	F
43	STS-44	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000F58293	4	F
43	STS-44	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53759	5	F
43	STS-44	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-028	0000E71705	6	F
43	STS-44	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155796	4	F
43	STS-44	OV103	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155797	5	F
44	STS-44	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-028	0000E71704	6	F
44	STS-44	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53758	4	F
44	STS-44	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-027	0000J53760	5	F
44	STS-44	OV104	EPDC	AFT POWER CONTROL ASSY 4, 5, 6	V070-765280	-026	0000155798	6	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOTT	SYTAT
46	STS-42	OV103	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-028	0000S02368	4	F
46	STS-42	OV103	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-026	0000155797	5	F
46	STS-42	OV103	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-026	0000E71704	6	F
46	STS-46	OV104	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-027	0000J53758	4	F
46	STS-46	OV104	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-027	0000J53760	5	F
46	STS-48	OV104	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-026	0000155798	6	F
47	STS-48	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9206	4	F
47	STS-49	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9207	5	F
47	STS-49	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9208	6	F
48	STS-50	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-028	0000S02384	4	F
48	STS-50	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-027	0000155799	5	F
48	STS-50	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-028	0000E71705	6	F
49	STS-46	OV104	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-027	0000J53758	4	F
49	STS-46	OV104	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-027	0000J53760	5	F
49	STS-46	OV104	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-026	0000155798	6	F
50	STS-47	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9206	4	F
50	STS-47	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9207	5	F
50	STS-47	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9208	6	F
51	STS-52	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-028	0000S02384	4	F
51	STS-52	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-027	0000155799	5	F
51	STS-52	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-028	0000E71705	6	F
53	STS-54	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9206	4	F
53	STS-54	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9207	5	F
53	STS-54	OV105	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-029	0000EK9208	6	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-028	0000S02384	4	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-027	0000155799	5	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY 4.5.6	V070-765280	-028	0000E71705	6	F
36	STS-41	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR001	1	F
36	STS-41	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR004	2	F
36	STS-41	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR008	3	F
37	STS-38	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR013	1	F
37	STS-38	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR007	2	F
37	STS-38	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR015	3	F
38	STS-35	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR014	1	F
38	STS-35	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR003	2	F
38	STS-35	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR002	3	F
39	STS-37	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR013	1	F
39	STS-37	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR007	2	F
39	STS-37	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR015	3	F
40	STS-39	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR001	1	F
40	STS-39	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR004	2	F
40	STS-39	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR008	3	F
41	STS-40	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR014	1	F
41	STS-40	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR003	2	F
41	STS-40	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR002	3	F
41	STS-43	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR013	1	F
42	STS-43	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR007	2	F
42	STS-43	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR015	3	F
43	STS-48	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR001	1	F
43	STS-48	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR004	2	F
43	STS-48	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR008	3	F
44	STS-44	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR013	1	F
44	STS-44	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR007	2	F
44	STS-44	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR015	3	F
45	STS-42	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR001	1	F
45	STS-42	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR004	2	F
45	STS-42	OV103	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR008	3	F
46	STS-45	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR013	1	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL	ST
48	STS-50	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000B04570	4	F
49	STS-46	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J47318	1	F
49	STS-46	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J47317	2	F
49	STS-46	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AU4326	3	F
49	STS-46	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000B04569	4	F
50	STS-47	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J76031	1	F
50	STS-47	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-016	0000ER2880	2	F
50	STS-47	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	0000GH9407	3	F
50	STS-47	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	0000GH9406	4	F
51	STS-52	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	0000GT6327	5	F
51	STS-52	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	0000280093	1	F
51	STS-52	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	0000280092	2	F
51	STS-52	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AU4327	3	F
53	STS-54	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000B04570	4	F
53	STS-54	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J76031	1	F
53	STS-54	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-016	0000ER2880	2	F
53	STS-54	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	0000GH9407	3	F
53	STS-54	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	0000GH9406	4	F
53	STS-54	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	0000GH9406	4	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	0000GT6327	5	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-016	0000ER2880	1	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AU4327	3	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000B04570	4	F
47	STS-49	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000EL8839	1	F
47	STS-49	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000EL8839	2	F
48	STS-50	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK2400	1	F
48	STS-50	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK2401	2	F
50	STS-47	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000FL6835	1	F
50	STS-47	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000EL8900	2	F
51	STS-52	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK2400	1	F
51	STS-52	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK2401	2	F
53	STS-54	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000EL8839	1	F
53	STS-54	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000EL8900	2	F
54	STS-55	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK2400	1	F
54	STS-55	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK2401	2	F
38	STS-35	OV102	EPDC	DFI POWER DISTRIBUTION ASSY	V070-783560	-001	0000264641	1	F
43	STS-48	OV103	EPDC	DFI POWER DISTRIBUTION ASSY	V070-783560	-001	0000264641	1	F
45	STS-42	OV103	EPDC	DFI POWER DISTRIBUTION ASSY	V070-783560	-001	0000264641	1	F
36	STS-41	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43480	1	F
36	STS-41	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43479	2	F
36	STS-41	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43481	3	F
37	STS-38	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
37	STS-38	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	2	F
37	STS-38	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	3	F
38	STS-35	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
38	STS-35	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	2	F
38	STS-35	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	3	F
38	STS-35	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
39	STS-37	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	2	F
39	STS-37	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	3	F
39	STS-37	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
40	STS-39	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43480	1	F
40	STS-39	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43479	2	F
40	STS-39	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43481	3	F
41	STS-40	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
41	STS-40	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	2	F
41	STS-40	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	3	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DATA NUMBER	SERIAL NUMBER	SLOT	STATUS
42	STS-43	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5621	1	F
42	STS-43	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
42	STS-43	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	F
43	STS-48	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43480	1	F
43	STS-48	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43479	2	F
43	STS-48	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43481	3	F
44	STS-44	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5621	1	F
44	STS-44	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
44	STS-44	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	F
45	STS-42	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43480	1	F
45	STS-42	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J43479	2	F
45	STS-42	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5621	1	F
46	STS-45	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
46	STS-45	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	F
47	STS-49	OV105	EPDC	DIODE BOX ASSY	V070-765370	-001	0000AM5621	1	F
47	STS-49	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
47	STS-49	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	F
47	STS-49	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000E9183	2	F
47	STS-49	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000E9184	3	F
48	STS-50	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5621	1	F
48	STS-50	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
48	STS-50	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	F
49	STS-46	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5621	1	F
49	STS-46	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
49	STS-46	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	F
50	STS-47	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000E9182	1	F
50	STS-47	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000E9183	2	F
50	STS-47	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000E9184	3	F
51	STS-52	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5621	1	F
51	STS-52	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
51	STS-52	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	F
53	STS-54	OV105	EPDC	DIODE BOX ASSY	V070-765370	-001	0000E9182	1	F
53	STS-54	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000E9183	2	F
53	STS-54	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000E9184	3	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5621	1	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	F
36	STS-41	OV103	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000076207		F
37	STS-38	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0001082009		F
38	STS-35	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982008		F
39	STS-37	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0001082009		F
40	STS-39	OV103	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000972807		F
41	STS-40	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982008		F
42	STS-43	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
43	STS-48	OV103	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000972807		F
44	STS-44	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
45	STS-42	OV103	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
46	STS-45	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
47	STS-49	OV105	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
48	STS-50	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
49	STS-46	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
50	STS-47	OV105	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
51	STS-52	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
51	STS-52	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
53	STS-54	OV105	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
53	STS-54	OV105	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
54	STS-55	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F
54	STS-55	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461 0032	-0003	0000982009		F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
37	STS-38	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756MXR0003	1	F
38	STS-38	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756MXR0004	1	F
39	STS-37	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0005	1	F
40	STS-39	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0004	1	F
41	STS-40	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0003	1	F
42	STS-43	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0005	1	F
43	STS-48	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0003	1	F
44	STS-44	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0005	1	F
45	STS-42	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0003	1	F
46	STS-45	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0005	1	F
47	STS-49	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756MXR0001	1	F
48	STS-50	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0004	1	F
49	STS-46	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0005	1	F
50	STS-47	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756MXR0001	1	F
51	STS-52	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0004	1	F
53	STS-54	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756MXR0001	1	F
54	STS-55	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0004	1	F
36	STS-41	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0004	2	F
37	STS-38	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0005	2	F
38	STS-35	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0006	2	F
39	STS-37	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0005	2	F
40	STS-39	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0004	2	F
41	STS-40	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0006	2	F
42	STS-43	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0005	2	F
43	STS-48	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0004	2	F
44	STS-44	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0005	2	F
45	STS-42	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0004	2	F
46	STS-45	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0005	2	F
47	STS-49	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0001	756MXV0001	2	F
48	STS-50	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0006	2	F
49	STS-46	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0005	2	F
50	STS-47	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0001	756MXV0001	2	F
51	STS-52	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0006	2	F
53	STS-54	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0001	756MXV0001	2	F
54	STS-55	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0006	2	F
36	STS-41	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0003	3	F
37	STS-38	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0004	3	F
38	STS-35	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXV0001	3	F
39	STS-37	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0004	3	F
40	STS-39	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0003	3	F
41	STS-40	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXV0001	3	F
42	STS-43	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0004	3	F
43	STS-48	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0003	3	F
44	STS-44	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0004	3	F
45	STS-42	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0003	3	F
46	STS-45	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0004	3	F
47	STS-49	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0005	3	F
48	STS-50	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXV0001	3	F
49	STS-46	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0004	3	F
50	STS-47	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0005	3	F
51	STS-52	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXV0001	3	F
53	STS-54	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXV0004	3	F
54	STS-55	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXV0001	3	F
36	STS-41	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000J89217	1	F
37	STS-38	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000A89457	1	F
38	STS-35	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	0000B89184	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
36	STS-37	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
37	STS-38	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000J85217	1	F
38	STS-39	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	0000608384	1	F
39	STS-40	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
40	STS-43	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000J85217	1	F
41	STS-48	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
42	STS-44	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000J85217	1	F
43	STS-42	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
44	STS-48	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000J85217	1	F
45	STS-46	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
46	STS-48	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000ER6042	1	F
47	STS-49	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
48	STS-50	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	000060H384	1	F
49	STS-46	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
50	STS-47	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000ER6042	1	F
51	STS-52	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	000060H384	1	F
52	STS-54	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000ER6042	1	F
53	STS-54	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000608384	1	F
54	STS-55	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	0000608384	1	F
36	STS-41	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000J85714	2	F
37	STS-38	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000AU7745	2	F
38	STS-35	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000F71097	2	F
39	STS-37	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000AU7745	2	F
40	STS-39	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000J85714	2	F
41	STS-40	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000F71097	2	F
42	STS-43	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000AU7745	2	F
43	STS-48	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000J85714	2	F
44	STS-44	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000AU7745	2	F
45	STS-42	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000J85714	2	F
46	STS-45	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000AU7745	2	F
47	STS-49	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-004	0000ER3269	2	F
48	STS-50	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000F71097	2	F
49	STS-46	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000AU7745	2	F
50	STS-47	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-004	0000ER3269	2	F
51	STS-52	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000F71097	2	F
52	STS-54	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-004	0000ER3269	2	F
53	STS-54	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-004	0000F71097	2	F
54	STS-55	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000F71097	2	F
36	STS-41	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J25040	3	F
37	STS-38	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000AU6494	3	F
38	STS-35	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	003	0000F71098	3	F
39	STS-37	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000AU6494	3	F
40	STS-39	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J25040	3	F
41	STS-40	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000F71098	3	F
42	STS-43	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000AU6494	3	F
43	STS-48	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J25040	3	F
44	STS-44	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000AU6494	3	F
45	STS-42	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-001	000060H384	3	F
46	STS-45	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	003	0000AU6494	3	F
47	STS-49	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J7791	3	F
48	STS-50	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	003	0000J25040	3	F
49	STS-46	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000AU6494	3	F
50	STS-47	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J7791	3	F
51	STS-52	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J25040	3	F
52	STS-54	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000F7791	3	F
53	STS-54	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J25040	3	F
54	STS-55	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000F7791	3	F
36	STS-41	OV103	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-022	0000AX2019	1	F
37	STS-38	OV104	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-025	0000260775	1	F
38	STS-35	OV102	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-024	0000835293	1	F
39	STS-37	OV104	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-025	0000F71775	1	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
43	STS-48	OV103	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000004		F
44	STS-44	OV104	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000010		F
45	STS-42	OV103	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000004		F
46	STS-45	OV104	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000010		F
47	STS-49	OV105	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000005		F
48	STS-50	OV102	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000009		F
49	STS-46	OV104	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000010		F
50	STS-47	OV105	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000005		F
51	STS-52	OV102	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000009		F
52	STS-54	OV105	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000005		F
53	STS-55	OV102	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000009		F
36	STS-41	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58661	1	F
37	STS-41	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58660	2	F
38	STS-38	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	3	F
39	STS-38	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
40	STS-35	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
41	STS-35	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
42	STS-37	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	3	F
43	STS-37	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
44	STS-39	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58661	1	F
45	STS-39	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58659	3	F
46	STS-40	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
47	STS-40	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
48	STS-43	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
49	STS-43	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
50	STS-43	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
51	STS-48	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58661	1	F
52	STS-48	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58659	3	F
53	STS-44	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58231	1	F
54	STS-44	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
55	STS-44	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
56	STS-44	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
57	STS-42	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
58	STS-42	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
59	STS-42	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58661	1	F
60	STS-45	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58659	3	F
61	STS-45	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
62	STS-45	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
63	STS-49	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7795	3	F
64	STS-49	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7792	2	F
65	STS-50	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
66	STS-50	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
67	STS-50	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
68	STS-46	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
69	STS-46	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
70	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7795	3	F
71	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7792	2	F
72	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
73	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
74	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
75	STS-46	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
76	STS-46	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
77	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7795	3	F
78	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7792	2	F
79	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
80	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
81	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
51	STS-52	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
53	STS-54	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7796	1	F
53	STS-54	OV108	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7795	2	F
53	STS-54	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7792	3	F
54	STS-55	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
54	STS-55	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
54	STS-55	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000017	1A	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000024	1B	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000055	1C	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000021	2A	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000050	2B	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000036	2C	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000025	3A	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000053	3B	F
36	STS-41	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000057	3C	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000058	1A	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000062	1B	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000060	1C	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000042	2A	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000033	2B	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000018	2C	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000054	3A	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000051	3B	F
37	STS-38	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000061	3C	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000036	1A	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000048	1B	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000035	1C	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000059	2A	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000039	2B	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000040	2C	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000037	3A	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000041	3B	F
38	STS-35	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000047	3C	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000058	1A	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000062	1B	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000060	1C	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000042	2A	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000033	2B	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000018	2C	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000054	3A	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000051	3B	F
39	STS-37	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000061	3C	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000017	1A	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000024	1B	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000055	1C	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000050	2A	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000056	2B	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000071	2C	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000025	3A	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000051	3B	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000067	3C	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000050	1A	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000038	1B	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000035	1C	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000059	2A	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000039	2B	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000040	2C	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	000000M37	3A	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	000000041	3B	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	000000047	3C	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000SE58	1A	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000TF62	1B	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RE60	1C	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000042	2A	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000SK33	2B	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000MX18	2C	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000XD54	3A	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RD51	3B	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RE61	3C	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000017	1A	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000024	1B	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000055	1C	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	000000ND50	2A	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000056	2B	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000021	2C	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000025	3A	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	000000UD53	3B	F
43	STS-48	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000057	3C	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	000000JUSE58	1A	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	000000TE62	1B	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RE60	1C	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000042	2A	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	000000SX33	2B	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	000000MX18	2C	F
44	STS-44	OV 4	EPDC	INVERTER	MC495-0012	-0004	000000XD54	3A	F
44	STS-44	OV 4	EPDC	INVERTER	MC495-0012	-0004	000000RD51	3B	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RE61	3C	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	000000RE61	3C	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000017	1A	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000014	1B	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000012	1C	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	000000ND50	2A	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000056	2B	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000057	2C	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000025	3A	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	000000UD53	3B	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000057	3C	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000SE58	1A	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000TE62	1B	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RE60	1C	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000042	2A	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000SK33	2B	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000MX18	2C	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000XD54	3A	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RD51	3B	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RE61	3C	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	000000ZC49	1A	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000073	1B	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000072	1C	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000048	2A	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	000000MX23	2B	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	000000PU52	2C	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000U65	3A	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000063	3B	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
48	STS-50	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000035	1C	F
48	STS-50	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000068	2A	F
48	STS-50	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000039	2B	F
48	STS-50	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000040	2C	F
48	STS-50	OV102	EPDC	INVERTER	MC495-0012	-0004	000000M237	3A	F
48	STS-50	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000041	3B	F
48	STS-50	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000047	3C	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000SE58	1A	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000TE62	1B	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RE60	1C	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000UD42	2A	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000SX33	2B	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000MX18	2C	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000XLU54	3A	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RD51	3B	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RE61	3C	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	000000ZL49	1A	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	000000G73	1B	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	000000072	1C	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000048	2A	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	000000MX23	2B	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	000000PD52	2C	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000065	3A	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000063	3B	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000067	3C	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000036	1A	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000238	1B	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000035	1C	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	000000UU68	2A	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000039	2B	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000040	2C	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	000000M237	3A	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000041	3B	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000047	3C	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	000000ZL49	1A	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000073	1B	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000072	1C	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000048	2A	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	000000MX23	2B	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	000000PD52	2C	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000065	3A	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000063	3B	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000067	3C	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000036	1A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000035	1B	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000039	1C	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	000000UU36	1A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000238	1B	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000035	1C	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000068	2A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000068	2A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000039	2B	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	000000UU40	2C	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	000000M237	3A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	000000UU41	3B	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000047	3C	F
36	STS-41	OV103	EPDC	MADS CONTROL ASSY'S	V408-76320	-002	0000N12307		F
37	STS-38	OV1C4	EPDC	KADS CONTROL ASSY'S	V408-76320	-002	0000BM2726		F
37	STS-38	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BM1972		F
38	STS-35	OV102	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BE7928		F
39	STS-37	OV104	EPDC	MADS CONTROL ASSY'S	V408-76320	-002	0000BM2726		F
39	STS-37	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BM1972		F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
40	STS-39	OV103	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000N12307		F
41	STS-40	OV102	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BE7928		F
42	STS-43	OV104	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000BH2726		F
43	STS-43	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BW1972		F
44	STS-44	OV103	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000N12307		F
44	STS-44	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BW1972		F
45	STS-42	OV103	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000N12307		F
46	STS-45	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BH2726		F
47	STS-49	OV105	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000GT0389		F
48	STS-50	OV102	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BE7928		F
49	STS-48	OV104	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000BH2726		F
49	STS-46	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BW1972		F
50	STS-47	OV105	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000GTU389		F
51	STS-52	OV102	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BE7928		F
53	STS-54	OV105	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000GT0389		F
54	STS-55	OV102	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BE7928		F
36	STS-41	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000J76604	1	F
37	STS-38	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000AU4313	1	F
38	STS-35	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-004	0000A07834	1	F
39	STS-37	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000AU4313	1	F
40	STS-39	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000J76604	1	F
41	STS-40	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-004	0000AU7834	1	F
42	STS-43	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000AU4313	1	F
43	STS-48	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000J76604	1	F
44	STS-44	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000AU4313	1	F
45	STS-42	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000J76604	1	F
46	STS-45	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000AU4313	1	F
47	STS-49	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000F58229	1	F
48	STS-50	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-006	0000A07834	1	F
49	STS-46	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000AU4313	1	F
50	STS-47	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000F58229	1	F
51	STS-52	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-006	0000A07834	1	F
53	STS-54	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000F58229	1	F
54	STS-55	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-006	0000A07834	1	F
36	STS-41	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-002	0000J78988	2	F
37	STS-38	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-002	0000AFU715	2	F
38	STS-35	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-003	0000665318	2	F
39	STS-37	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-002	0000AFU715	2	F
40	STS-39	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-002	0000J78988	2	F
41	STS-40	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-003	0000665318	2	F
42	STS-43	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-002	0000AFU715	2	F
43	STS-48	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-003	0000J78988	2	F
44	STS-44	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-002	0000AFU715	2	F
45	STS-42	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-003	0000J78988	2	F
46	STS-45	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-002	0000AFU715	2	F
47	STS-49	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-008	0000F58221	2	F
48	STS-50	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-006	0000EJ3109	2	F/SP
49	STS-46	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-002	0000AFU715	2	F
50	STS-47	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-008	0000F58221	2	F
51	STS-52	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-006	0000EJ3109	2	F/SP
53	STS-54	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-008	0000F58221	2	F
54	STS-55	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-006	0000EJ3109	2	F/SP
36	STS-41	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000J78988	3	F
37	STS-38	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AFU715	3	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
36	STS-35	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	000065319	3	F
37	STS-37	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
38	STS-39	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000J71912	3	F
39	STS-40	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	000065319	3	F
40	STS-43	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
41	STS-48	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000J71912	3	F
42	STS-44	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
43	STS-42	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000J71912	3	F
44	STS-45	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
45	STS-49	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	000065319	3	F
46	STS-50	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
47	STS-46	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000GD8004	3	F
48	STS-47	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	000065319	3	F
49	STS-52	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	000065319	3	F
50	STS-54	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000GD8004	3	F
51	STS-55	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	000065319	3	F
52	STS-41	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV009	1	F
53	STS-41	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV002	2	F
54	STS-38	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV005	1	F
55	STS-38	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV004	2	F
56	STS-35	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV001	1	F
57	STS-35	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV008	2	F
58	STS-35	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV005	1	F
59	STS-37	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV004	2	F
60	STS-37	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV009	1	F
61	STS-39	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV002	2	F
62	STS-4	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV001	1	F
63	STS-4	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV008	2	F
64	STS-40	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV005	1	F
65	STS-43	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV004	2	F
66	STS-43	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV009	1	F
67	STS-48	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV002	2	F
68	STS-48	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV001	1	F
69	STS-44	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV008	2	F
70	STS-44	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV005	1	F
71	STS-42	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV004	2	F
72	STS-42	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV009	1	F
73	STS-45	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV002	2	F
74	STS-45	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV001	1	F
75	STS-49	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV008	2	F
76	STS-49	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV005	1	F
77	STS-50	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV004	2	F
78	STS-50	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV009	1	F
79	STS-46	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV002	2	F
80	STS-46	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV001	1	F
81	STS-47	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV008	2	F
82	STS-47	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV005	1	F
83	STS-52	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV004	2	F
84	STS-52	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV009	1	F
85	STS-54	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV002	2	F
86	STS-54	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV001	1	F
87	STS-55	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV008	2	F
88	STS-55	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-006	0000LMV005	1	F
89	STS-41	OV103	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000AU1175	1	F
90	STS-38	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000BF0745	1	F
91	STS-35	OV102	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-001	0000A7857	1	F
92	STS-37	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000BF0745	1	F
93	STS-39	OV103	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000AU1175	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
41	STS-40	OV102	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-001	0000A78557	1	F
42	STS-43	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000B0745	1	F
43	STS-48	OV103	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000A1175	1	F
44	STS-44	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000B0745	1	F
46	STS-42	OV103	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000A1175	1	F
48	STS-45	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000B0745	1	F
47	STS-49	OV105	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000C4746	1	F
48	STS-50	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-001	0000A78557	1	F
49	STS-46	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000B0745	1	F
50	STS-47	OV105	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000C4746	1	F
51	STS-52	OV102	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-001	0000A78557	1	F
53	STS-54	OV105	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000C4746	1	F
54	STS-55	OV102	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-001	0000A78557	1	F
36	STS-41	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000J53761	1	F
37	STS-38	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000F71033	1	F
38	STS-35	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764520	-005	0000A01625	1	F
39	STS-37	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000F71033	1	F
40	STS-39	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000J53761	1	F
41	STS-40	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764520	-005	0000A01625	1	F
42	STS-43	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000F71033	1	F
43	STS-48	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000F71033	1	F
44	STS-44	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000J53761	1	F
45	STS-42	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000F71033	1	F
46	STS-45	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000F71033	1	F
47	STS-49	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000ER0909	1	F
48	STS-46	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764520	-005	0000A01625	1	F
49	STS-47	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000F71033	1	F
50	STS-47	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000ER0909	1	F
51	STS-52	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764520	-005	0000A01625	1	F
53	STS-54	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000ER0909	1	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764520	-005	0000A01625	1	F
36	STS-41	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-006	0000B93124	2	F
37	STS-38	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000AU7767	2	F
38	STS-35	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000B41175	2	F
39	STS-37	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000AU7767	2	F
40	STS-39	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-006	0000B93124	2	F
41	STS-40	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000B41175	2	F
42	STS-43	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000AU7767	2	F
43	STS-48	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-006	0000B93124	2	F
44	STS-44	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000AU7767	2	F
45	STS-42	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-006	0000B93124	2	F
46	STS-45	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000AU7767	2	F
47	STS-49	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000ER1628	2	F
48	STS-46	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000B41175	2	F
49	STS-47	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000AU7767	2	F
50	STS-47	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000ER1628	2	F
51	STS-52	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000B41175	2	F
53	STS-54	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000ER1628	2	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000B41175	2	F
36	STS-41	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000F71030	3	F
37	STS-38	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000AU7764	3	F
38	STS-35	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764550	-005	0000A26452	3	F
39	STS-37	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000AU7764	3	F
40	STS-39	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000F71030	3	F
41	STS-40	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764550	-005	0000A26452	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
42	STS-48	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000F71030	3	F
44	STS-44	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000AU0704	3	F
46	STS-42	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000F71030	3	F
48	STS-45	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000AU0704	3	F
47	STS-49	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000ER169	3	F
48	STS-50	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-005	0000A26452	3	F
49	STS-46	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000AU0704	3	F
50	STS-47	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000ER169	3	F
51	STS-52	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-005	0000A26452	3	F
53	STS-54	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000ER169	3	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-005	0000A26452	3	F
36	STS-41	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764500	-006	0000A01551	4	F
37	STS-38	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000F71028	4	F
38	STS-35	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000AU4139	4	F
39	STS-37	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000F71028	4	F
40	STS-39	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764500	-006	0000AU1551	4	F
41	STS-40	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000AU4139	4	F
42	STS-43	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000F71028	4	F
43	STS-48	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764500	-006	0000A01551	4	F
44	STS-44	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000F71028	4	F
45	STS-42	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764500	-006	0000A01551	4	F
46	STS-45	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000F71028	4	F
47	STS-49	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000GD5443	4	F
48	STS-50	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000GD5443	4	F
49	STS-46	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000AU4139	4	F
50	STS-47	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000GD5443	4	F
51	STS-52	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000AU4139	4	F
53	STS-54	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000GD5443	4	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000AU4139	4	F
36	STS-41	OV103	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-016	0000AU3690	1	F
37	STS-38	OV104	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000J43443	1	F
38	STS-35	OV102	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000F71022	1	F
39	STS-37	OV104	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000J43443	1	F
40	STS-39	OV103	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-016	0000AU3690	1	F
41	STS-40	OV102	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000F71022	1	F
42	STS-43	OV104	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-014	0000J43443	1	F
43	STS-48	OV103	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-016	0000AU1690	1	F
44	STS-44	OV104	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-014	0000J43443	1	F
45	STS-42	OV103	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-016	0000AU3690	1	F
46	STS-45	OV104	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000J43443	1	F
47	STS-49	OV105	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000F71022	1	F
48	STS-50	OV102	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-019	0000E81634	1	F
49	STS-46	OV104	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000J43443	1	F
50	STS-47	OV105	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000F71022	1	F
51	STS-52	OV102	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000ER1634	1	F
53	STS-54	OV105	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-015	0000F71022	1	F
54	STS-55	OV102	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-020	0000677143	1	F/SP
36	STS-41	OV103	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-016	0000AW2430	2	F
37	STS-38	OV104	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000J55046	2	F
38	STS-35	OV102	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000F71049	2	F
39	STS-37	OV104	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000J55046	2	F
40	STS-39	OV103	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-016	0000AW2430	2	F
41	STS-40	OV102	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000F71049	2	F
42	STS-43	OV104	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000J55046	2	F
43	STS-48	OV103	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-016	0000AW2430	2	F
44	STS-44	OV104	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000J55046	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
45	STS-42	OV103	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-016	0000AW2439	2	F
46	STS-45	OV104	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000J55046	2	F
47	STS-49	OV105	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000F71099	2	F
48	STS-50	OV102	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-019	0000ER1620	2	F
49	STS-46	OV104	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000J55046	2	F
50	STS-47	OV105	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000F71099	2	F
51	STS-52	OV102	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-019	0000ER1620	2	F
53	STS-54	OV105	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000F71099	2	F
54	STS-55	OV102	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-019	0000ER1620	2	F
36	STS-41	OV103	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-014	0000AZ2809	3	F
37	STS-38	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	0000AU7720	3	F
38	STS-35	OV102	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-015	0000F71023	3	F
39	STS-37	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	0000AU7720	3	F
40	STS-39	OV103	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-014	0000AZ2809	3	F
41	STS-40	OV102	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-015	0000F71023	3	F
42	STS-43	OV103	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	0000AZ2809	3	F
43	STS-48	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-014	0000AZ2809	3	F
44	STS-44	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	0000AZ2809	3	F
45	STS-42	OV103	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-014	0000AZ2809	3	F
46	STS-45	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	0000AZ2809	3	F
47	STS-49	OV105	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-007	0000F71023	3	F
48	STS-50	OV102	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-018	0000F71023	3	F
49	STS-46	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	0000AU7720	3	F
50	STS-47	OV105	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-007	0000F71023	3	F
51	STS-52	OV102	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-018	0000F71023	3	F
53	STS-54	OV105	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-007	0000ER1620	3	F
54	STS-55	OV102	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-018	0000F71023	3	F
37	STS-38	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P11841		F
37	STS-38	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P12876		F
38	STS-35	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V565-763200	-003	0000B26480		F
39	STS-37	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P11841		F
39	STS-37	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P12876		F
39	STS-37	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06783		F
40	STS-39	OV103	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06230		F
41	STS-40	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V565-763200	-003	0000B26480		F
41	STS-40	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06784		F
42	STS-49	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P11841		F
42	STS-43	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P12876		F
42	STS-43	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06783		F
43	STS-48	OV103	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06230		F
44	STS-44	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P11841		F
44	STS-44	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P12876		F
44	STS-44	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06783		F
45	STS-42	OV103	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06230		F
46	STS-45	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P11841		F
46	STS-45	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P12876		F
46	STS-45	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06783		F
48	STS-50	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V565-763200	-003	0000B26480		F
48	STS-50	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06784		F
49	STS-46	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P11841		F
49	STS-46	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V712-764700	-001	0000P12876		F
49	STS-46	OV104	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06783		F
51	STS-52	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V565-763200	-003	0000B26480		F
51	STS-52	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06784		F
54	STS-55	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V565-763200	-003	0000B26480		F
54	STS-55	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06784		F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL O T	S T A T E
36	STS-41	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000015		F
37	STS-38	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000003		F
37	STS-38	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000006		F
38	STS-35	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000017	1	F
38	STS-35	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000010	2	F
39	STS-37	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000003		F
39	STS-37	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000006		F
40	STS-39	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000014	1	F
40	STS-39	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000015	2	F
41	STS-40	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000017	1	F
41	STS-40	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000010	2	F
42	STS-43	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000003	1	F
42	STS-43	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000006	2	F
43	STS-48	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000014	1	F
43	STS-48	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000015	2	F
44	STS-44	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000006	2	F
44	STS-44	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000014	1	F
45	STS-42	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000015	2	F
45	STS-42	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000003	1	F
46	STS-45	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000006	2	F
46	STS-45	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000018	1	F
47	STS-49	OV105	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000019	2	F
48	STS-50	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000017	1	F
48	STS-50	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000010	2	F
49	STS-46	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000003	1	F
49	STS-46	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000006	2	F
50	STS-47	OV105	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000018	1	F
50	STS-47	OV105	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000019	2	F
51	STS-52	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000017	1	F
51	STS-52	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000010	2	F
53	STS-54	OV105	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000018	1	F
53	STS-54	OV105	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000019	2	F
54	STS-55	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000017	1	F
54	STS-55	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000010	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
54	STS-55	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46408	1	F
54	STS-55	OV102	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-003	0000A46409	2	F
54	STS-55	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYDU006	1	F
54	STS-55	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
54	STS-55	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0002	3	F
54	STS-55	OV102	EPDC	AFT MOTOR CONTROL ASSY, NBR 1	V070-765630	-003	0000601094	1	F
54	STS-55	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000N19382	2	F
54	STS-55	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 3	V070-765430	-001	0000F71021	3	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY NBR 1	V070-765310	-007	0000C09112	1	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765220	-011	0000155728	2	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY NBR 3	V070-765330	-011	0000888853	3	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-028	0000S02384	4	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-027	0000J53759	5	F
54	STS-55	OV102	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-028	0000E71705	6	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	0000280093	1	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-016	0000ER-871	2	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000A04333	3	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000B04309	4	F
54	STS-55	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK-300	1	F
54	STS-55	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK-340	2	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0662	1	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM1803	2	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0604	3	F
54	STS-55	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0000962008		F
54	STS-55	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0004	1	F
54	STS-55	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 2	MC450-0055	-0002	756MXV0006	2	F
54	STS-55	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXX0006	3	F
54	STS-55	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	0000A08384	1	F
54	STS-55	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-003	0000F71097	2	F
54	STS-55	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J25040	3	F
54	STS-55	OV102	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-023	0000F66117		F
54	STS-55	OV102	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-014	0000AF5427	2	F
54	STS-55	OV102	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-022	0000AX261H	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
54	STS-55	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
54	STS-55	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
54	STS-55	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0014	0000000036	1A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000238	1B	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000035	1C	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000068	2A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000039	2B	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000040	2C	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	000000M237	3A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000041	3B	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000047	3C	F
54	STS-55	OV102	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BE7928		F
54	STS-55	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-006	0000AU7834	1	F
54	STS-55	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 2	V070-764220	-006	0000EJ3109	2	F/SP
54	STS-55	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	0000665319	3	F
54	STS-55	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0007	000073P002	1	F
54	STS-55	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV002	2	F
54	STS-55	OV102	EPDC	MIDMOTOR JETTISON CONTROL ASSY	V082-764360	-001	0000A78557	1	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764520	-005	0000A01625	1	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000640859	2	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764550	-005	0000A26452	3	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000AU4139	4	F
54	STS-55	OV102	EPDC	MID POWER CONTROL ASSY NBR 1	V070-764400	-020	0000671143	1	F/SP
54	STS-55	OV102	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-019	0000ER1620	2	F
54	STS-55	OV102	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-018	0000F75023	3	F
54	STS-55	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V565-763200	-003	0000R76450		F
54	STS-55	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P08784		F
54	STS-55	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000017	1	F
54	STS-55	OV102	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000010	2	F



AVIONICS  
MODULAR AUXILIARY DATA (MADS) SUBSYSTEM

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
36	STS-41	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876007	1	F
36	STS-41	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0477012	2	F
37	STS-38	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS1277018	1	F
37	STS-38	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876009	2	F
38	STS-35	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876008	1	F
38	STS-35	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576005	2	F
38	STS-37	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS1277018	1	F
39	STS-37	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876009	2	F
40	STS-39	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876007	1	F
40	STS-39	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876007	1	F
41	STS-40	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0777015	1	F
41	STS-40	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0777015	1	F
42	STS-43	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0577014	2	F
42	STS-43	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS1277018	1	F
43	STS-48	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876009	2	F
43	STS-48	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876007	1	F
44	STS-44	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0278011	2	F
44	STS-44	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576005	1	F
44	STS-44	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576005	1	F
45	STS-42	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876009	2	F
45	STS-42	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0777015	1	F
46	STS-45	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576005	1	F
46	STS-45	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576005	1	F
47	STS-49	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876009	2	F
47	STS-49	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576010	1	F
47	STS-49	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576010	1	F
48	STS-50	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	0000000000	2	F
48	STS-50	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876011	1	F
48	STS-50	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0577014	2	F
49	STS-46	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576005	1	F
49	STS-46	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876009	2	F
49	STS-46	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876009	2	F
50	STS-47	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0578010	1	F
50	STS-47	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0578010	1	F
51	STS-52	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	0000000030	2	F
51	STS-52	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876011	1	F
53	STS-54	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0577014	2	F
53	STS-54	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576010	1	F
54	STS-55	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	0000000000	2	F
54	STS-55	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876011	1	F
54	STS-55	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0577014	2	F
36	STS-41	OV103	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000304	1	F
37	STS-38	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
38	STS-35	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305	1	F
38	STS-35	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000306	2	F
39	STS-37	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000301	3	F
40	STS-39	OV103	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
41	STS-40	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000309	1	F
41	STS-40	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305	1	F
41	STS-40	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000306	2	F
42	STS-43	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	3	F
43	STS-44	OV103	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
44	STS-44	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000309	1	F
45	STS-42	OV103	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
46	STS-45	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305	1	F
47	STS-49	OV105	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305	1	F
48	STS-50	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000304	1	F
48	STS-50	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305	1	F
48	STS-50	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000306	2	F
48	STS-50	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	3	F
49	STS-46	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
50	STS-47	OV105	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
51	STS-62	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000304	1	F
51	STS-62	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000306	2	F
53	STS-64	OV106	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305	3	F
54	STS-66	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000304	1	F
54	STS-55	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000306	2	F
54	STS-55	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000301	3	F
36	STS-41	OV103	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001006		F
37	STS-38	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001005		F
38	STS-35	OV102	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001002		F
39	STS-37	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001005		F
40	STS-39	OV103	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001006		F
41	STS-40	OV102	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001002		F
42	STS-43	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001005		F
43	STS-46	OV103	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001006		F
44	STS-44	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001005		F
44	STS-42	OV103	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001006		F
46	STS-45	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001005		F
47	STS-48	OV105	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001001		F
48	STS-50	OV102	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001004		F
48	STS-46	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001002		F
50	STS-47	OV106	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001005		F
51	STS-52	OV102	MADS	RECORDERS/DAM	ME435-0055	-311	0000001001		F
53	STS-54	OV105	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001005		F
54	STS-55	OV102	MADS	RECORDERS/DAM	ME435-0055	-311	0000001001		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PAR. NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T T T T
54	STS-55	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876011	1	F
54	STS-55	OV102	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0577014	2	F
54	STS-55	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000304	1	F
54	STS-55	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000306	2	F
54	STS-55	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000301	3	F
54	STS-55	OV102	MADS	RECORDERS/DAM	ME435-0055	-311	0000001001		F

AVIONICS  
OPERATIONAL INSTRUMENTATION (OI) SUBSYSTEM

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	S T A T
36	STS-41	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000055	1	F
36	STS-41	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000073	2	F
36	STS-41	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000125	3	F
37	STS-38	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000136	1	F
37	STS-38	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000127	2	F
37	STS-38	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000074	3	F
38	STS-35	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000018	1	F
38	STS-35	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000126	2	F
38	STS-35	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000137	3	F
39	STS-37	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000136	1	F
39	STS-37	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000074	3	F
39	STS-37	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000055	1	F
40	STS-39	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000073	2	F
40	STS-39	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000125	3	F
41	STS-40	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000011	1	F
41	STS-40	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000126	2	F
41	STS-40	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000137	3	F
42	STS-43	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000136	1	F
42	STS-43	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000127	2	F
42	STS-43	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000074	3	F
43	STS-48	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000205	1	F
43	STS-48	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000073	2	F
43	STS-48	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000125	3	F
44	STS-44	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000136	1	F
44	STS-44	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000127	2	F
44	STS-44	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000074	3	F
45	STS-42	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000205	1	F
45	STS-42	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000073	2	F
45	STS-42	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000125	3	F
46	STS-45	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000136	1	F
46	STS-45	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000127	2	F
46	STS-45	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000074	3	F
47	STS-49	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000150	3	F/SP
47	STS-49	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000206	1	F
47	STS-49	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000228	2	F
47	STS-49	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000207	3	F
48	STS-50	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000011	1	F
48	STS-50	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000072	2	F
48	STS-50	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000137	3	F
49	STS-46	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000136	1	F
49	STS-46	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000127	2	F
49	STS-46	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000074	3	F
50	STS-47	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000150	3	F/SP
50	STS-47	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000206	1	F
50	STS-47	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000228	2	F
51	STS-52	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000011	1	F
51	STS-52	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000072	2	F
51	STS-52	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000137	3	F
53	STS-54	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000150	3	F/SP
53	STS-54	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000206	1	F
53	STS-54	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	000000228	2	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000011	1	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000072	2	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	000000137	3	F
36	STS-41	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	000000145	1	F
36	STS-41	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	000000116	2	F
36	STS-41	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	000000060	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STATUS
36	STS-41	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000118	4	F
37	STS-38	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000052	1	F
37	STS-38	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
37	STS-38	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
37	STS-38	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000158	4	F
38	STS-35	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	1	F
38	STS-35	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000091	2	F
38	STS-35	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
38	STS-35	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000146	4	F
39	STS-37	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000052	1	F
39	STS-37	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
39	STS-37	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
39	STS-37	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000158	4	F
40	STS-39	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	1	F
40	STS-39	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000091	2	F
40	STS-39	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
40	STS-39	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000146	4	F
41	STS-40	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000052	1	F
41	STS-40	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
41	STS-40	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
41	STS-40	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	4	F
42	STS-43	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000118	1	F
42	STS-43	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000066	2	F
42	STS-43	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
42	STS-43	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000158	4	F
43	STS-48	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000145	1	F
43	STS-48	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000116	2	F
43	STS-48	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000066	3	F
43	STS-48	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000118	4	F
44	STS-44	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000052	1	F
44	STS-44	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
44	STS-44	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
44	STS-44	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000145	4	F
44	STS-44	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000116	1	F
45	STS-42	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000066	2	F
45	STS-42	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000158	4	F
45	STS-42	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000145	1	F
45	STS-42	OV103	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000118	2	F
46	STS-45	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000066	3	F
46	STS-45	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000118	4	F
46	STS-45	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
46	STS-45	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
46	STS-45	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000116	1	F
47	STS-49	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000066	2	F
47	STS-49	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000118	4	F
47	STS-49	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000032	2	F
47	STS-49	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000014	3	F
47	STS-49	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7500	0000000014	4	F
48	STS-50	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	6310	0000000144	1	F
48	STS-50	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000091	2	F
48	STS-50	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
48	STS-50	OV102	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	6510	0000000146	4	F
49	STS-46	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	5310	0000000052	1	F
49	STS-46	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
49	STS-46	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
49	STS-46	OV104	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000158	4	F
50	STS-47	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000203	1	F
50	STS-47	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000020	2	F
50	STS-47	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000020	3	F
50	STS-47	OV105	01	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7500	0000000214	4	F

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MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S	L	T	S
51	STS-52	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F	F	F
52	STS-52	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000146	4	F	F	F
53	STS-54	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000203	1	F	F	F
53	STS-54	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000202	2	F	F	F
53	STS-54	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-730C	0000000204	3	F	F	F
54	STS-55	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7500	0000000214	4	F	F	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	1	F	F	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000091	2	F	F	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F	F	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000146	4	F	F	F
36	STS-41	OV103	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000005		F	F	F
37	STS-38	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F	F	F
38	STS-35	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0001	0000000002		F	F	F
39	STS-37	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F	F	F
40	STS-39	OV103	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000005		F	F	F
41	STS-40	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0001	0000000002		F	F	F
42	STS-43	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F	F	F
43	STS-48	OV103	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000004		F	F	F
44	STS-44	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F	F	F
45	STS-42	OV103	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000005		F	F	F
46	STS-45	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F	F	F
47	STS-49	OV105	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000004		F	F	F
48	STS-50	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F	F	F
49	STS-46	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000002		F	F	F
50	STS-47	OV105	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000008		F	F	F
51	STS-52	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000006		F	F	F
53	STS-54	OV105	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000004		F	F	F
54	STS-55	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000006		F	F	F
36	STS-41	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000012	1	F	F	F
36	STS-41	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000010	2	F	F	F
37	STS-38	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F	F	F
37	STS-38	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F	F	F
38	STS-35	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000004	1	F	F	F
38	STS-35	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000002	2	F	F	F
39	STS-37	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F	F	F
39	STS-37	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F	F	F
40	STS-39	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000007	1	F	F	F
40	STS-39	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000012	2	F	F	F
41	STS-40	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000007	1	F	F	F
41	STS-40	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000012	2	F	F	F
42	STS-43	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F	F	F
43	STS-48	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000004	1	F	F	F
43	STS-48	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000002	2	F	F	F
44	STS-44	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000013	2	F	F	F
44	STS-44	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F	F	F
44	STS-44	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F	F	F
45	STS-42	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F	F	F
45	STS-42	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F	F	F
46	STS-45	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F	F	F
46	STS-45	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F	F	F
47	STS-49	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	0000000004	1	F	F	F
47	STS-49	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	0000000002	2	F	F	F
48	STS-50	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000007	1	F	F	F
48	STS-50	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000012	2	F	F	F
49	STS-46	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F	F	F
49	STS-46	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F	F	F
50	STS-47	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F	F	F



MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SL LOT	STA I
50	STS-47	OV105	01	PULSE CODE MOD	MC476-0130	-0709	000000017	2	F
51	STS-52	OV102	01	PULSE CODE MOD	MC476-0130	-0709	000000003	1	F
51	STS-52	OV102	01	PULSE CODE MOD	MC476-0130	-0709	000000002	2	F
53	STS-54	OV106	01	PULSE CODE MOD	MC476-0130	-0709	000000007	1	F
53	STS-54	OV106	01	PULSE CODE MOD	MC476-0130	-0709	000000017	2	F
54	STS-55	OV102	01	PULSE CODE MOD	MC476-0130	-0709	000000003	1	F
54	STS-55	OV102	01	PULSE CODE MOD	MC476-0130	-0709	000000002	2	F
36	STS-41	OV103	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000005		F
37	STS-38	OV104	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000007		F
38	STS-35	OV102	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000004		F
39	STS-37	OV104	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000007		F
40	STS-39	OV103	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000005		F
41	STS-40	OV102	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000004		F
42	STS-43	OV104	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000007		F
43	STS-48	OV103	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000005		F
43	STS-48	OV103	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000008		F
44	STS-44	OV104	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000002		F
45	STS-42	OV103	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000005		F
46	STS-45	OV104	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000002		F
47	STS-49	OV105	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000009		F
48	STS-50	OV102	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000004		F
49	STS-46	OV104	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000004		F
50	STS-47	OV105	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000009		F
51	STS-52	OV102	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000004		F
53	STS-54	OV105	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000009		F
54	STS-55	OV105	01	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	000000007		F
36	STS-41	OV103	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000009		F
36	STS-41	OV103	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000011		F
37	STS-38	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000005		F
37	STS-38	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000012		F
38	STS-35	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000007		F
38	STS-35	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000008		F
39	STS-37	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000006		F
39	STS-37	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000009		F
40	STS-39	OV103	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000006		F
40	STS-39	OV103	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000013		F
41	STS-40	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000007		F
41	STS-40	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000008		F
42	STS-43	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000005		F
42	STS-43	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000014		F
43	STS-48	OV103	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000009		F
43	STS-48	OV103	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000011		F
44	STS-44	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000002		F
44	STS-44	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000007		F
45	STS-42	OV103	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000005		F
45	STS-42	OV103	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000013		F
46	STS-45	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000002		F
46	STS-45	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000005		F
46	STS-45	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000017		F
47	STS-49	OV105	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000024		F
47	STS-49	OV105	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000025		F
47	STS-49	OV105	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000007		F
48	STS-50	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000005		F
48	STS-50	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000017		F
49	STS-46	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000005		F
49	STS-46	OV104	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	000000017		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	S L O T	T A T
61	STS-82	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000003	F	F
63	STS-84	OV105	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000024	F	F
53	STS-54	OV105	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000025	F	F
54	STS-55	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000007	F	F
54	STS-55	OV102	01	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000008	F	F

\*\*\* END OF REPORT \*\*\*

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	LOT	STAT
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000018	1	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	000000035	2	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000137	3	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000144	1	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	000000081	2	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	000000115	3	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5510	000000145	4	F
54	STS-55	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000006		F
54	STS-55	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000003	1	F
54	STS-55	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000002	2	F
54	STS-55	OV102	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000007		F
54	STS-55	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000007		F
54	STS-55	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000008		F

\*\*\* END OF REPORT \*\*\*

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-KXXX		RCS FORWARD THRUSTERS																VERNIER SPEC: MC 467-0029-KXXX		* CAUSE OF POSTFLIGHT REPLACEMENT
MSN SEQ NO.	STS ORB OV-	PRIMARY																VERNIER		
		F1F	F2F	F3F	F1U	F2U	F3U	F2R	F4R	F2D	F4D	F1L	F3L	F1D	F3D	F5R	F5L			
1	102	0112	0132	0122	0115	0135	0125	0134	0144	0136	0146	0113	0123	0116	0126	0158	0157			
		102	103	101	109	110	108	114	113	106	107	112	111	104	105	106	105			
2	102	0112	0132	0122	0115	0135	0125	0134	0144	0136	0146	0113	0123	0116	0126	0158	0157			
		102	103	101	109	110	108	114	113	106	107	112	111	104	105	106	105			
3	102	0112	0132	0122	0115	0135	0125	0134	0144	0136	0146	0113	0123	0116	0126	0158	0157	OFFSPR COMMAN.		
		*102	103	101	*109	*110	*108	*114	113	106	107	*112	111	104	105	106	105			
4	102	0112	0132	0122	2115	2135	1125	1134	0144	0136	0146	1113	0123	0116	0126	0158	0157	FIL OR VLV LA. VERM COATING PROB.		
		202	103	101	209	210	208	214	113	106	107	*212	111	104	105	*106	*105			
5	102	0112	0132	0122	2115	2135	1125	1134	0144	0136	0146	0413	0123	0116	0126	3158	3157	FAR LOW PC. F4D OR VLV FAIL.		
		202	103	101	209	210	208	214	*113	106	*107	112	111	104	105	204	203			
6	099	3112	1132	1122	4115	4135	3125	4134	1144	1136	1146	4113	1123	1116	1126	3158	3157			
		302	203	201	309	310	308	314	213	206	207	312	211	204	205	304	303			
7	099	3112	1132	1122	4115	4135	3125	4134	1144	1136	1146	4113	1123	1116	1126	3158	3157			
		302	203	201	309	310	308	314	213	206	207	312	211	204	205	304	303			
8	099	3112	1132	1122	4115	4135	3125	4134	1144	1136	1146	4113	1123	1116	1126	3158	3157	OR VLV LA.		
		302	203	201	309	310	308	314	213	206	207	312	211	204	*205	304	303			
9	102	0112	0132	0122	2115	2135	2125	1134	0444	0136	0146	0413	0123	0116	0126	3158	3157			
		202	103	101	209	210	208	214	113	106	407	112	111	104	105	204	203			
10	099	3112	1132	1122	4115	4135	3125	4134	1144	1136	1146	4113	1123	1116	1126	3158	3157			
		302	203	201	309	310	308	314	213	206	207	312	211	204	405	304	303			
11	099	3112	1132	1122	4115	4135	3125	4134	1144	1136	1146	4113	1123	1116	1126	3158	3157			
		302	203	201	309	310	308	314	213	206	207	312	211	204	405	304	303			
12	103	0412	4132	4122	0415	0435	0425	0434	0144	4136	4146	2113	4123	4116	4126	3158	3157			
		102	303	301	109	110	108	114	313	306	307	212	311	304	305	404	403			
13	099	3112	1132	1122	4115	4135	3125	4134	1144	1136	1146	4113	1123	1116	1126	3158	3157			
		302	203	201	309	310	308	314	213	206	207	312	211	204	405	304	303			
14	103	0412	4132	4122	0415	0435	0425	0434	0144	4136	4146	2113	4123	4116	4126	3158	3157			
		102	303	301	109	110	108	114	313	306	307	212	311	304	305	404	403			

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0020-XXXX		RCS FORWARD THRUSTERS														VERNIER SPEC: MC 467-0029-XXXX			* CAUSE OF POSTFLIGHT REPLACEMENT
MSN SEQ NO.	STS ORB NO.	PRIMARY														VERNIER			
		F1F	F2F	F3F	F1U	F2U	F3U	F2R	F4R	F2D	F4D	F1L	F3L	F1D	F3D	F5R	F5L		
15	51C	103	0412	4132	4122	0415	0435	0434	4144	4136	4146	2113	4123	4116	4126	3153	3157		
			102	303	301	109	110	106	313	306	307	212	311	304	305	404	403		
16	51D	103	0412	4132	4122	0415	0435	0434	4144	4136	4146	2113	4123	4116	4126	3158	3157		
			102	303	301	109	110	108	313	306	307	212	311	304	305	404	403		
17	51B	099	3112	1132	1122	4115	4135	4134	1144	1136	1146	4113	1123	1116	4126	3158	3157		
			302	203	201	309	310	308	213	206	207	312	211	204	405	304	303		
18	51G	103	0412	4132	4122	0415	0435	0434	4144	4136	4146	2113	4123	4116	4126	3158	3157		
			102	303	301	109	110	108	313	306	307	212	311	304	305	404	403		
19	51F	099	3112	1132	1122	4115	4135	4134	1144	1136	1146	4113	1123	1116	4126	3158	3157		
			302	203	201	309	310	308	213	206	207	312	211	204	405	304	303		
20	51I	103	0412	4132	4122	0415	0435	0434	4144	4136	4146	2113	4123	4116	4126	3158	3157		
			*102	303	301	109	110	108	313	306	307	212	311	304	305	404	403		
21	51J	104	4112	4132	4122	4115	4135	4134	4144	4136	4146	4113	4123	4116	4126	4158	4157		
			402	403	401	409	410	408	413	406	107	412	411	404	455	453	452	REPAIRED PC TUBE. REINSTALLED.	
22	61A	099	3112	1132	1122	4115	4135	4134	1144	1136	1146	4113	1123	1116	4126	3158	3157		
			302	203	201	309	310	308	213	206	207	312	211	204	405	304	303		
23	61B	104	4112	4132	4122	4115	4135	4134	4144	4136	4146	4113	4123	4116	4126	4158	4157		
			402	403	401	409	410	408	413	406	107	412	411	404	455	453	452		
24	61C	102	4112	4132	4122	4115	4135	4134	4144	4136	4146	4113	4123	4116	4126	3158	4157		
			452	453	451	459	460	458	463	106	407	112	111	104	105	204	463		
25	51L	099	3112	1132	1122	4115	4135	4134	1144	1136	1146	4113	1123	1116	4126	3158	3157		
			302	203	201	309	310	308	213	206	207	312	211	204	405	304	303		
26	26	103	5112	5132	5122	5115	5135	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157		
			202	453	101	109	460	488	113	456	457	462	311	454	205	404	452		
27	27	104	5112	5132	5122	5115	5135	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157		
			452	403	301	459	210	108	313	106	-07	112	461	304	455	453	105		
28	29	103	5112	5132	5122	5115	5135	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157		
			202	453	101	109	460	488	113	456	457	462	311	454	205	404	452		
29	30	104	5112	5132	5122	5115	5135	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157		
			452	403	301	459	210	108	313	106	407	112	461	304	455	453	105		

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX			RCS FORWARD THRUSTERS													VERNIER SPEC: MC 467-0029-XXXX			* CAUSE OF POSTFLIGHT REPLACEMENT
MSN SEQ NO.	STS NO.	ORB OV-	PRIMARY													VERNIER			
			F1F	F2F	F3F	F1U	F2U	F3U	F2R	F4R	F2D	F4D	F1L	F3L	F1D	F3D	F5R	F5L	
30	28	102	5112 402	5132 103	5122 451	5115 409	5135 110	5125 408	5134 214	5144 463	5136 406	5146 107	5113 212	5123 411	5116 404	5126 305	3158 *204	4157 *463	F5R REMOVED DUE TO OX LEAK. F5L REMOVED TO REPAIR HEATER.
31	34	104	5112 452	5132 403	5122 301	5115 459	5135 210	5125 108	5134 414	5144 313	5136 106	5146 407	5113 112	5123 461	5116 304	5126 455	4158 453	7157 105	
32	33	103	5112 202	5132 453	5122 101	5115 109	5135 460	5125 488	5134 464	5144 113	5136 456	5146 457	5113 462	5123 311	5116 454	5126 205	3158 404	3157 452	
33	32	102	5112 402	5132 103	5122 451	5115 409	5135 110	5125 408	5134 214	5144 463	5136 406	5146 107	5113 212	5123 411	5116 404	5126 305	4158 464	3157 203	
34	36	104	5112 452	5132 403	5122 301	5115 459	5135 210	5125 108	5134 414	5144 313	5136 106	5146 407	5113 112	5123 461	5116 304	5126 455	4158 453	7157 105	
35	31	103	5112 202	5132 453	5122 101	5115 109	5135 460	5125 488	5134 464	5144 113	5136 456	5146 457	5113 462	5123 311	5116 454	5126 205	3158 404	3157 452	
36	41	103	5112 202	5132 453	5122 101	5115 109	5135 460	5125 488	5134 464	5144 113	5136 456	5146 457	5113 462	5123 311	5116 484	5126 205	3158 404	3157 452	
37	38	104	5112 452	5132 403	5122 301	5115 459	5135 210	5125 108	5134 414	5144 313	5136 106	5146 407	5113 112	5123 461	5116 304	5126 455	4158 453	7157 105	
38	35	102	5112 402	5132 103	5122 451	5115 409	5135 110	5125 408	5134 214	5144 463	5136 406	5146 107	5113 212	5123 411	5116 404	5126 305	4158 464	3157 203	
39	37	104	5112 452	5132 403	5122 301	5115 459	5135 *210	5125 *108	5134 414	5144 313	5136 106	5146 407	5113 112	5123 461	5116 304	5126 455	4158 453	7157 105	*Leakage
40	39	103	5112 202	5132 453	5122 101	5115 109	5135 460	5125 488	5134 464	5144 113	5136 456	5146 457	5113 462	5123 311	5116 484	5126 205	3158 404	3157 452	
41	40	102	5112 402	5132 103	5122 451	5115 409	5135 110	5125 408	5134 214	5144 463	5136 406	5146 107	5113 212	5123 411	5116 404	5126 305	4158 464	3157 203	
42	43	104	5112 452	5132 403	5122 301	5115 459	5135 410	5125 458	5134 414	5144 313	5136 106	5146 407	5113 112	5123 461	5116 304	5126 455	4158 453	7157 105	

ORBITER PROPULSION SYSTEMS  
COMPONENT S/A - LOCATION MATRIX

MSN SEQ NO.	STS ORB NO.	PRIMARY																VERNIER					* CAUSE OF POSTFLIGHT REPLACEMENT
		RCS FORWARD THRUSTERS																PN/SN					
		F1F	F2F	F3F	F1U	F2U	F3U	F2R	F4R	F2E	F4D	F1L	F3L	F1D	F3D	F5R	F5L						
43	48	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157					
			202	453	101	109	460	488	464	133	456	457	462	311	424	205	404	452					
44	44	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157					
			452	403	301	459	410	458	414	313	106	407	112	461	304	455	453	105					
45	42	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157		*Ox vlv leak.			
			202	453*	101*	109*	460*	488	464*	113	456	457	462*	311*	484	205	404**	452		**Corrosion.			
46	45	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157					
			452	403	301	459	410	458	414	313	106	407	112	461	304	455	453	105					
47	49	105	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	7157					
			602	603	601	609	610	571	614	613	606	607	612	611	604	605	604	603					
48	50	102	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	3157		*Failed off.			
			402	103*	451	409	408	408	214**	463	406	107	212	411	404	305	464	203		**Oxid valve leak			
49	46	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157					
			452	403	301	459	410	458	414	313	106	407	112	461	304	455	453	105					
50	47	105	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	7157					
			602	603	601	609	610	571	614	613	606	607	612	611	604	605	604	603					
51	52	102	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	3157		*Ox vlv leak.			
			402	103	451	409	408	408	214	463	406	107	212	411*	404	305	464	203					
52	53	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	3157		*Ox vlv leak.			
			202	483	481	489	490	488*	114	113	456	457	412*	491	484	205	204	452					
53	54	105	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	7157					
			602	603	601	609	610	571	614	613	606	607	612	611	604	605	604	603					
54	56	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	3157					
			202	483	481	489	490	108	114	113	456	457	467	491	484	205	204	452					
55	55	102	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	3157					
			402	303	451	409	110	408	494	463	406	107	212	311	404	305	464	203					

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX			LEFT HAND POD RCS THRUSTERS													VERNIER SPEC: MC 467-0029-XXXX			* CAUSE OF P. TFLIGHT REPLACEMENT	
MSN SEQ NO.	STS NO.	ORB OV- LH	POD S/N	PRIMARY													VERNIER			
				L1L	L2L	L3L	L4L	L1U	L2U	L4U	L2D	L3D	L4D	L1A	L3A	L5A	L5D			
1	1	102	L102	0200 135	0200 138	0200 137	0200 136	0200 141	0001 125	0001 128	0001 126	0001 129	0001 127	0001 127	0300 155	0300 118	0200 108	0001 102		
2	2	102	L102	0200 135	0200 138	0200 137	0200 136	0001 141	0001 125	0001 128	0001 126	0001 129	0001 127	0001 127	0300 155	0300 118	0200 108	0001 102		
3	3	102	L102	0200 135	0200 138	0200 137	0200 136	0001 141	0001 125	0001 128	0001 126	0001 129	0001 127	0001 127	0300 155	0300 118	0200 108	0001 102	L3L FAULTY HEATER GYPSUM CONTAMINATION	
4	4	102	L102	0200 135	0200 138	0200 137	0200 136	0001 141	0001 125	0001 128	0001 126	0001 129	0001 127	0001 127	0300 155	0300 118	0200 108	*102	VERNIER COATING PROBLEM	
5	5	102	L102	0200 135	0200 138	0200 137	0200 136	0001 141	0001 125	0001 128	0001 126	0001 129	0001 127	0001 127	0300 155	0300 118	0200 108	3001 301		
6	6	099	L099	2200 231	2201 234	2200 236	2200 238	2001 224	2001 226	2001 227	2001 221	2001 228	2001 229	2001 229	2300 216	2300 218	3200 306	3001 302	FUEL VLV LEAK	
7	7	099	L099	2200 231	2201 234	2200 236	2200 238	2001 224	2001 226	2001 227	2001 421	2001 228	2001 229	2001 229	2300 216	2300 218	3200 306	3001 302		
8	8	099	L099	2200 231	2201 234	2200 236	2200 238	2001 224	2001 226	2001 227	2001 421	2001 228	2001 229	2001 229	2300 216	2300 218	3200 306	3001 302	FUEL VLV LEAK	
9	9	102	L102	0200 135	0200 138	0200 137	0200 136	0001 141	0001 125	0001 128	0001 126	0001 129	0001 127	0001 127	0300 155	0300 118	0200 108	3001 301		
10	41B	099	L099	2200 231	2201 234	2200 236	2200 238	2001 224	2001 226	2001 227	2001 421	2001 228	2001 229	2001 229	2300 216	2300 218	3200 306	3001 302	OX VLV LEAK 41C PREFLT	
11	41C	099	L103	2202 137	3200 337	3200 336	3200 338	0401 141	0401 124	0401 120	0401 128	0401 125	0401 119	0401 119	3300 317	3300 318	3200 405	4001 461		
12	41D	103	L103	2202 137	3200 337	3200 336	3200 338	0401 141	0401 124	0401 120	0401 128	0401 125	0401 119	0401 119	3300 317	3300 318	3200 405	4001 461		
13	41G	099	L099	2200 231	2201 234	2200 236	2200 238	2001 224	2001 226	2001 227	2001 421	2001 228	2001 229	2001 229	2300 216	2300 218	3200 306	3001 302		
14	51A	103	L103	2202 137	3200 337	3200 336	3200 338	0401 141	0401 124	0401 120	0401 128	0401 125	0401 119	0401 119	3300 317	3300 318	3200 405	4001 461		



ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX			LEFT HAND POD RCS THRUSTERS												PW/SN		VERNIER SPEC: MC 467-0029-XXXX		* CAUSE OF POSTFLIGHT REPLACEMENT
MSN SEQ NO.	STS NO.	POD S/N ORB OV-LH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT		
			L1L	L2L	L3L	L4L	L1U	L2U	L3U	L4U	L2D	L3D	L4D	L1A	L3A	L5L		L5D	
15	51C	103 L103	2202 137	3200 337	3200 336	3200 338	0401 141	0401 124	0401 120	0401 120	0401 128	0401 125	0401 119	3300 317	3300 318	4200 456	4001 461		
16	51D	103 L103	2202 137	3200 337	3200 336	3200 338	0401 141	0401 124	0401 120	0401 128	0401 125	0401 119	3300 317	3300 318	4200 456	4001 461			
17	51B	099 L099	2200 231	2201 134	2200 236	2200 238	2001 224	2001 226	2001 227	3001 421	3001 429	2001 229	2300 216	2300 218	3200 306	3001 302			
18	51G	103 L104	3200 467	3200 437	3200 433	3200 436	2001 221	3001 430	3001 427	3001 428	3001 466	3001 426	3300 418	3300 415	4200 465	4001 462			
19	51F	099 L099	2200 231	2201 134	2200 236	2200 238	2001 224	2001 226	2001 227	3001 421	3001 429	2001 229	2300 216	2300 218	3200 306	3001 302			
20	51I	103 L104	3200 467	3200 437	3200 433	3200 436	2001 221	3001 430	3001 427	3001 428	3001 466	3001 426	3300 418	3300 415	4200 465	4001 462			
21	51J	104 L103	2202 137	3200 337	3200 336	3200 338	0401 141	0401 124	0401 120	0401 128	0401 125	0401 119	3300 317	3300 318	4200 456	4001 461			
22	61A	099 L099	2200 231	2201 134	2200 236	2200 238	2001 224	2001 226	2001 227	3001 421	3001 429	2001 229	2300 216	2300 218	3200 306	3001 302			
23	61B	104 L103	2202 137	3200 337	3200 336	3200 338	0401 141	0401 124	0401 120	0401 128	0401 125	0401 119	3300 317	3300 318	4200 456	4001 461			
24	61C	102 L104	3200 467	3200 437	3200 433	3200 436	2001 221	3001 430	3001 427	3001 428	3001 466	3001 426	3300 418	3300 415	4200 465	4001 462			
25	51L	099 L102	0200 135	0200 138	0200 333	0200 136	3001 319	3001 320	3001 321	0001 473	0001 129	0001 127	0300 155	0300 118	3200 300	3001 301			
26	26	103 LP04	5200 233	5200 435	5200 133	5200 134	5001 427	5001 126	5001 122	5001 219	5001 325	5001 422	5300 217	5300 216	4200 165	4001 462			
27	27	104 LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 425	5001 141	5001 328	5001 424	5001 423	5300 215	5300 418	3200 306	3001 302			
28	29	103 LP04	5200 233	5200 435	5200 133	5200 134	5001 427	5001 126	5001 122	5001 219	5001 325	5001 422	5300 217	5300 216	4200 165	4001 465			
29	30	104 LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 425	5001 141	5001 328	5001 424	5001 423	5300 215	5300 418	3200 306	3001 306		* Scratched dynamube	

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX			LEFT HAND POD RCS THRUSTERS													VERNIER SPEC: MC 467-0029-XXXX			* CAUSE OF POSTFLIGHT REPLACEMENT	
MSN SEQ NO.	STS NO.	ORB S/N LH	POD S/N LH	PRIMARY													VERNIER			
				L1L	L2L	L3L	L4L	L1U	L2U	L4U	L2D	L3D	L4D	L1A	L3A	L5L	L5D			
30	28	102	LP03	5200 334	5200 438	5200 434	5200 237	5001 326	5001 420	5001 227	5001 229	5001 120	5001 230	5300 316	5300 318	4200 456	4001 461			
31	34	104	LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 425	5001 141	5001 328	5001 119	5001 423	5300 215	5300 418	3200 306	3001 302	* L2U removed due to oxidizer leakage.		
32	33	103	LP04	5200 233	5200 435	5200 133	5200 134	5001 427	5001 126	5001 122	5001 219	5001 325	5001 422	5300 217	5300 216	4200 465	4001 462			
33	32	102	LP03	5200 334	5200 438	5200 434	5200 237	5001 326	5001 420	5001 227	5001 229	5001 120	5001 230	5300 316	5300 318	4200 456	4001 461			
34	36	104	LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 419	5001 141	5001 328	5001 119	5001 423	5300 215	5300 418	3200 306	3001 302			
35	31	103	LP04	5200 233	5200 435	5200 133	5200 134	5001 427	5001 126	5001 122	5001 219	5001 325	5001 422	5300 217	5300 216	4200 465	4001 462	* Oxidizer valve failed to open and leaked.		
36	41	103	LP04	5200 233	5200 435*	5200 133	5200 134	5001 427	5001 126*	5001 122	5001 219	5001 325	5001 422	5300 217	5300 116	4200 465	4001 462	* Oxid vlv leakage **Fuel vlv leakage		
37	38	104	LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 418	3200 306	3001 302			
38	35	102	LP03	5200 334	5200 438	5200 434	5200 237	5001 326	5001 420	5001 227	5001 229	5001 120	5001 230	5300 316	5300 318	4200 456	4001 461			
39	37	104	LP01	5200 432	5200 331	5200 337	5200 236	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 416	3200 306	3001 302			
40	39	103	LP04	5200 233*	5200 235	5200 133	5200 134	5001 427*	5001 428*	5001 122	5001 219*	5001 325	5001 422	5300 217*	5300 116**	4200 465x	4001 451	*Ok valve leak. **High temp ind. xFuel tank.		
41	40	102	LP03	5200 334	5200 438	5200 434	5200 237	5001 326	5001 420	5001 227	5001 229	5001 120	5001 230	5300 316	5300 318	4200 456	4001 461	*Erratic PC transducer		
42	43	104	LP01	5200 432	5200 331	5200 337	5200 236	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 418	3200 306	3001 302	* Chipped coating ** Leakage		
43	48	103	LP04	5200 233	5200 235	5200 133	5200 134	5001 427	5001 428	5001 122	5001 219	5001 325	5001 422	5300 217	5300 116	4200 465	4001 451			

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX			LEFT HAND POD RCS THRUSTERS													PW/SN			VERNIER SPEC: MC 467-0029-XXXX			* CAUSE OF POSTFLIGHT REPLACEMENT
MSN SEQ NO.	STS NO.	ORB OV-LH	POD S/N LH	PRIMARY													VERNIER					
				L1L	L2L	L3L	L4L	L1U	L2U	L3U	L4U	L2D	L3D	L4D	L1A	L3A	L5L	L5D				
44	44	104	LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 418	7200 108	7001 402					
45	42	103	LP04	5200 233	5200 235	5200 133	5200 134	5001 427	5001 428	5001 122	5001 219	5001 325	5001 422	5300 217	5300 176	4200 465	4001 451					
46	45	104	LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 418	7200 108	7001 402					
47	49	105	LP03	5200 334	5200 438	5200 434	5200 237	5001 326	5001 420	5001 227	5001 229	5001 120	5001 230	5300 316	5300 318	7200 305	4001 461					
48	50	102	LP05	5200 636	5200 637	5200 638	5200 635	5001 625*	5001 626	5001 630	5001 627	5001 629	5001 628	5300 617	5300 618	7200 606	7001 611		*Fail heater			
49	46	104	LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 418	7200 108	7001 402					
50	47	105	LP03	5200 334	5200 438	5200 434	5200 237	5001 326	5001 420	5001 227	5001 229	5001 120	5001 230	5300 316	5300 318*	7200 305	4001 461**		*Fail off **Low FC			
51	52	102	LP05	5200 636	5200 637	5200 638	5200 635	5001 575	5001 626	5001 630	5001 627	5001 629	5001 628	5300 617	5300 618	7200 606	7001 611					
52	53	103	LP04*	5200 437	5200 235	5200 133	5200 134	5001 424	5001 119	5001 122	5001 126	5001 325	5001 422	5300 574	5300 573	4200 456	4001 451		*Pod changed out because of leak			
53	54	105	LP03	5200 334	5200 438	5200 434	5200 237	5001 326	5001 420	5001 227	5001 229	5001 120	5001 230	5300 316	5300 315	7200 305	7001 455					
54	56	103	LP01	5200 432	5200 331	5200 337	5200 238	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 418	7200 108	7001 402					
55	55	102	LP05	5200 636	5200 637	5200 638	5200 635	5001 575	5001 626	5001 630	5001 627	5001 629	5001 628	5300 617	5300 618	7200 606	7001 611					

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCAT N MATRIX

PRIMARY SPEC: MC 467-0028-XXXX			RIGHT HAND POD RCS THRUSTERS													VERNIER			REC: MC 467-0029-XXXX
MSN SEQ NO.	STS NO.	ORB OV- RH	POD S/N RH	PRIMARY													VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R3A	R5D	R5R		
1	1	102	R102	0200 131	0200 133	*134 142	0200 142	0001 119	0001 120	0001 124	0001 122	0001 123	0001 115	0300 116	0300 116	0200 109	0001 101	OX VLV LK.	
2	2	102	R102	0200 131	0200 133	232 232	0200 142	0001 119	0001 120	0001 124	0001 122	0001 123	0001 115	0300 116	0300 116	0200 109	0001 101		
3	3	102	R102	0200 131	0200 133	232 232	0200 142	0001 119	0001 120	0001 124	0001 122	0001 123	0001 115	0300 116	0300 116	0200 109	0001 101	GYPSUM CONTAMINATION.	
4	4	102	R102	0200 131	0200 133	232 232	0200 142	0001 119	0001 120	0001 124	0001 122	0001 123	0001 115	0300 116	0300 116	0200 109	0001 101	VERNIER COATING PROBLEM.	
5	5	102	R102	0200 131	0200 133	232 232	0700 142	0001 119	0001 120	0001 124	0001 122	0001 123	*123 115	0300 116	0300 116	3200 205	3001 202	HTR/CNTRLR FAILED.	
6	6	099	R099	1200 234	1200 235	233 237	2200 237	1001 225	1001 219	1001 220	1001 223	1001 230	1300 215	2300 217	2300 217	3200 108	3001 102		
7	7	099	R099	1200 234	1200 235	233 237	2200 237	1001 225	1001 219	1001 220	1001 223	1001 230	1300 215	2300 217	2300 217	3200 108	3001 102		
8	8	099	R099	1200 234	1200 235	233 237	2200 237	1001 225	1001 219	1001 220	1001 223	1001 230	1300 215	2300 217	2300 217	3200 108	3001 102		
9	9	102	R102	0200 131	0200 133	232 232	0200 142	0001 119	0001 120	0001 124	0001 122	0001 123	0401 115	0300 116	0300 116	3200 205	3001 202		
10	41B	099	R099	1200 234	1200 235	233 237	2200 237	1001 225	1001 219	1001 220	1001 223	1001 230	1300 215	2300 217	2300 217	3200 108	3001 102	COATING DEFECT.	
11	41C	099	R099	1200 234	1200 235	233 237	2200 237	1001 225	1001 219	1001 220	1001 223	1001 230	1300 215	2300 217	2300 217	3200 108	4001 102	COATING DAMAGE.	
12	41D	103	R103	3200 335	3200 334	331 332	3200 332	3001 329	3001 325	3001 330	3001 327	3001 328	3300 315	3300 316	3200 406	3001 402			
13	41G	099	R099	1200 234	1200 235	*233 237	2200 237	1001 225	1001 219	1001 220	1001 223	1001 230	1300 215	2300 217	2300 217	4200 466	4001 451	OX VLV FAILED OPEN.	
14	51A	103	R103	3200 335	3200 334	331 332	3200 332	3001 329	3001 325	3001 330	3001 327	3001 328	3300 315	3300 316	3200 406	3001 402			

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV- RH	POD S/N RH	PRIMARY																VERNIER			* CAUSE OF POSTFLIGHT REPLACEMENT
				RIGHT HAND POD RCS THRUSTERS PW/SH																R3A	R5R	R5D	
				R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R3A	R5R	R5D						
15	51C	103	R103	3200 335	3200 334	3200 331	3200 332	3200 332	3200 329	3001 329	3001 325	3001 330	3001 327	3001 328	3001 326	3001 315	3300 316	3200 406	3001 402				
16	51D	103	R103	3200 335	3200 334	3200 331	3200 332	3200 332	3200 329	3001 329	3001 325	3001 330	3001 327	3001 328	3001 326	3001 315	3300 316	3200 406	3001 402				
17	51B	099	R104	3200 435	3200 434	3200 431	3200 432	3200 432	3200 423	3001 423	3001 425	3001 420	3001 422	3001 424	3001 419	3300 465	4200 454	4001 455					
18	51G	103	R103	3200 335	3200 334	3200 331	3200 332	3200 332	3200 329	3001 329	3001 228	3001 330	3001 327	3001 328	3001 326	3300 316	3200 406	3001 402					
19	51F	099	R104	3200 435	3200 434	3200 431	3200 432	3200 432	3200 423	3001 423	3001 425	3001 420	3001 422	3001 424	3001 419	3300 465	4200 454	4001 455					
20	51I	103	R103	3200 335	3200 334	3200 331	3200 332	3200 332	3200 329	3001 329	3001 228	3001 330	3001 327	3001 328	3001 326	3300 316	3200 406	3001 402					
21	51J	104	R099	1200 234	1200 235	1200 438	2200 237	2200 237	1001 225	1001 219	1001 220	1001 220	1001 223	1001 230	1001 222	1300 215	4200 466	4001 451					
22	61A	099	RP03	3200 335	3200 334	3200 331	3200 332	3200 332	3200 329	3001 329	3001 228	3001 330	3001 327	3001 328	3001 326	3300 316	4200 406	4001 402					
23	61B	104	R099	1200 234	1200 235	1200 438	2200 237	2200 237	1001 225	1001 219	1001 220	1001 220	1001 223	1001 230	1001 222	1300 215	4200 466	4001 451					
24	61C	102	R104	3200 435	3200 434	3200 431	3200 432	3200 432	3200 423	3001 423	3001 425	3001 420	3001 422	3001 424	3001 419	3300 465	4200 454	4001 455					
25	51L	099	RP02	0200 131	0200 475	1200 232	0200 142	0200 142	3001 322	3001 323	3001 324	3001 474	0001 121	0001 121	0401 123	3300 472	3200 205	3001 202					
26	26	103	RP1	5200 467	5200 476	5200 335	5200 235	5200 235	5001 220	5001 221	5001 429	5001 466	5001 228	5001 226	5300 116	3200 405	3001 401						
27	27	104	RP01	5200 436	5200 332	5200 338	5200 236	5200 236	5001 419	5001 224	5001 124	5001 428	5001 327	5001 225	5300 415	4200 466	7001 101						
28	29	103	RP03	5200 467	5200 476	5200 335	5200 235	5200 235	5001 220	5001 221	5001 429	5001 466	5001 228	5001 226	5300 417	3200 405	3001 401	* Oxidiser valve failed to open.					
29	30	104	RP01	5200 436	5200 332	5200 338	5200 236	5200 236	5001 224	5001 224	5001 124	5001 428	5001 327	5001 225	5300 415	4200 466	7001 101	* Oxidiser valve failed to open.					

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX			RIGHT HAND POD RCS THRUSTERS														VERNIER SPEC: MC 467-0029-XXXX				* CAUSE OF POSTFLIGHT REPLACEMENT
MSN SEQ NO.	STS ORB OV- NO.	POD S/N RH	PRIMARY														VERNIER				
			R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R3A	R5R	R5D					
30	28	102 RP04	5200 137	431	5200 336	234	5200 426	430	5001 329	5001 125	5001 421	5001 223	5300 465	5300 317	4200 454	7001 201					
31	34	104 RP03	5200 467	476	5200 335	235	5001 497	5001 221	5001 429	5001 466	5001 228	5001 226	5300 417	5300 216	3200 405	3001 401					
32	33	103 RP01	5200 436	332	5200 338	236	5001 424	5001 224	5001 124	5001 428	5001 327	5001 225	5300 415	5300 315	4200 466	7001 101					
33	32	102 RP04	5200 137	431	5200 336	234	5001 426	5001 430	5001 329	5001 125	5001 421	5001 223	5300 465	5300 317	4200 454	7001 201					
34	36	104 RP03	5200 467	476	5200 335	236	5001 497	5001 221	5001 429	5001 466	*228	5001 226	5300 417	5300 216	3200 405	3001 401	* Oxidiser valves failed to open. **Oxid vlv leaking				
35	31	103 RP01	5200 436	332	5200 338	236	5001 424	5001 224	5001 124	5001 428	5001 327	5001 225	5300 415	5300 315	4200 466	7001 101					
36	41	103 RP01	5200 436	332	5200 338	236	5001 424	5001 224	5001 124	5001 425	5001 327	5001 225	5300 415*	5300 315*	4200 466	7001 101	* Dynatube leakage				
37	38	104 RP03	5200 467	476	5200 335	433	5001 497	5001 221	5001 429	5001 466	5001 220	5001 496	5300 417	5300 *218	3200 405	3001 401	* Suspect weld				
38	35	102 RP04	5200 137	431	5200 336	234	5001 426	5001 430	5001 329	5001 125	5001 421	5001 223	5300 465	5300 317	4200 454	7001 201					
39	37	104 RP01	5200 436	332	5200 338	236	5001 *424	5001 224	5001 124	5001 425	5001 327	5001 225	5300 495	5300 415	4200 466	7001 101	* Failed off				
40	39	103 RP03	5200 467	476	5200 335	433	5001 497	5001 221	5001 429	5001 466	5001 220	5001 496	5300 417	5300 216	3200 405	3001 401					
41	40	102 RP04	5200 137	431	5200 336	234	5001 426	5001 430	5001 329	5001 125	5001 421	5001 223	5300 465	5300 317	4200 *456	7001 201	* Fuel leakage				
42	43	104 RP01	5200 436	332	5200 338	236	5001 222	5001 224	5001 124	5001 425	5001 327	5001 225	5300 495	5300 415	4200 466	7001 101					

ORBITER PROPULSION SYSTEMS  
COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX			RIGHT HAND POD RCS THRUSTERS													VERIFIER SPEC: MC 467-0029-XXXX		
MSN SEQ NO.	STS ORB OV- NO.	POD S/N RH	PRIMARY													VERIFIER		* CAUSE OF POSTFLIGHT REPLACEMENT
			R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R2A	R3A	R5R	R5D	
43	103	RP03	5200 467	5200 476	5200 335	5200 433	5001 497	5001 221	5001 429	5001 466	5001 220	5001 496	5300 417	5300 216	3200 405	3001 401		
44	104	RP01	5200 436	5200 332	5200 338	5200 236	5001 222	5001 224	5001 124	5001 425	5001 327	5001 225	5300 495	5300 415	4200 466	7001 101		
45	103	RP03	5200 467	5200 476	5200 335	5200 433	5001 497	5001 221	5001 429	5001 466	5001 220	5001 496	5300 417	5300 216	3200 405	3001 401		
46	104	RP01	5200 436	5200 332	5200 338	5200 236	5001 222	5001 224	5001 124	5001 425	5001 327	5001 225	5300 495	5300 415	4200 466	7001 101		
47	105	RP04	5200 137	5200 431	5200 336	5200 234	5001 426	5001 430	5001 329	5001 125	5001 421	5001 223	5300 465	5300 317	7200 109	7001 201		
48	102	RP05	5200 632	5200 633	5200 631	5001 634	5001 619	5001 620	5001 623	5001 621	5001 624	5001 622	5300 615	5300 616	7200 605	7001 602		
49	104	RP01	5200 436	5200 332	5200 338	5200 236	5001 222	5001 224	5001 124	5001 425	5001 327	5001 225	5300 495	5300 415	4200 466	7001 101		
50	105	RP04	5200 137	5200 431	5200 336	5200 234	5001 426	5001 430	5001 329	5001 125	5001 421	5001 223	5300 465	5300 317	7200 109	7001 201		
51	102	RP05	5200 632	5200 633	5200 631	5200 634	5001 619	5001 620	5001 623	5001 621	5001 624	5001 622	5300 615	5300 616	7200 605	7001 602		
52	103	RP03	5200 467	5200 498	5200 335	5200 433	5001 497	5001 221	5001 226	5001 428	5001 220	5001 496	5300 417	5300 216	3200 405	3001 401		
53	105	RP04	5200 137	5200 431	5200 336	5200 234	5001 426	5001 430	5001 329	5001 125	5001 421	5001 223	5300 465	5300 317	7200 109	7001 201		
54	103	RP03	5200 467	5200 498	5200 335	5200 433	5001 497	5001 221	5001 226	5001 428	5001 220	5001 496	5300 417	5300 216	3200 405	3001 401		
55	102	RP05	5200 632	5200 633	5200 631	5200 634	5001 619	5001 620	5001 623	5001 621	5001 624	5001 622	5300 615	5300 616	7200 605	7001 602		

QUAD CHECK VALVE FLIGHT SUMMARY

MSN SEQ NO.	ORBS OV--	FORWARD REACTION CONTROL		LEFT-HAND POD		RIGHT-HAND POD		CV501	CV502					
		MOD	CV101	CV102	POD	CV201	CV202			CV401	CV402	POD	CV301	CV302
1	102	PRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
2	102	PRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
3	102	PRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
4	102	PRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
5	102	PRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
6	099	PRC9	4914102	4103989	LP01	4914100	4914107	4914099	4914106	RP01	4105726	4914105	4911247	4914103
7	099	PRC9	4914102	4103989	LP01	4914100	4914107	4914099	4914106	RP01	4105726	4914105	4911247	4914103
8	099	PRC9	4914102	4103989	LP01	4914100	4914107	4914099	4914106	RP01	4105726	4914105	4911247	4914103
9	102	PRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4105726	4911228	4911231	4911254
10	41C	PRC9	4914102	4103989	LP03	4917560	4917559	4103990	4107155	RP01	4105726	4914105	4911247	4914103
11	41C	PRC9	4914102	4103989	LP03	4917560	4917559	4103990	4107155	RP01	4105726	4914105	4911247	4914103
12	41D	PRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
13	41G	PRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
14	51A	PRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
15	51C	PRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
16	51D	PRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
17	51B	PRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP03	4914101	4914630	4105776	4107158
18	51G	PRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP04	4105777	4914630	4105776	4107158
19	51F	PRC9	4914102	4103989	LP01	4914100	4914107	4914099	4914106	RP04	4105777	4914630	4105776	4107158
20	51I	PRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP04	4914101	4914630	4105776	4107158
21	51J	PRC4	4911235	4917555	LP03	4917560	4917559	4103990	4107155	RP01	4105726	4914105	4911248	4914103
22	61A	PRC9	4914102	4103989	LP01	4914100	4914107	4914099	4914106	RP03	4914101	4914630	4105757	4105727
23	61B	PRC4	4911235	4917555	LP03	4917560	4917559	4103990	4107155	RP03	4105726	4914105	4911248	4914103
24	61C	PRC2	4911233	4911229	LP04	4917552	4914632	4917553	4917556	RP04	4105777	4914630	4105776	4107158
25	51L	PRC9	4914102b	4103989b	LV01	4103918b	4911251b	4103920c	4911227b	RV01	4911232b	4911228b	4911231b	4911254b
26	26	PRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP03	4911247d	4914630	4105757	4103988
27	27	PRC4	4911235	4917555	LP01	4911234f	4914104g	4914099	4914106	RP01	4105726	4914105	4105757	4103988
28	29	PRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP03	4105726	4914105	4911248	4914103
29	30	PRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP04	4106776	4917557	4105776	4107158
30	28	PRC2	4911233	4911229	LP03	4917560	4105727h	4914098i	4107155	RP04	4106776	4914630	4105757	4103988
31	34	PRC4	4911235	4917555	LP04	4911234	4914104	4917553	4917556	RP01	4105726	4914105	4911248	4914103
32	33	PRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP01	4106777	4917557	4105757	4107158
33	32	PRC2	4911233	4911229	LP03	4917560	4105727	4914098	4107155	RP04	4106777	4917557	4105757	4103988
34	36	PRC4	4911235	4917555	LP04	4911234	4914104	4914099	4914106	RP03	4105726	4914105	4911248	4914103
35	31	PRC3	4914634	4911250	LP01	4917552	4914632	4917553	4917556	RP03	4105726	4914105	4911248	4914103
36	41	PRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP01	4911247	4914630	4105757	4103988
37	38	PRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP03	4105726	4914107	4911248	4914103
38	35	PRC2	4911233	4911229	LP03	4917560	4105727	4914098	4107155	RP04	4105777	4917557	4105776	4107158
39	37	PRC4	4911235	4917555	LP03	4911234	4914104	4914099	4914106	RP01	4105726	4914107	4911248	4914103
40	39	PRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP03	4911247	4914630	4105757	4103988
41	40	PRC2	4911233	4911229	LP03	4917560	4105727	4914098	4107155	RP04	4105777	4917557	4105776	4107158

Notes are found on following page.



QUAD CHECK VALVE FLIGHT SUMMARY

MEM	SEQ	STS	ORB	FORWARD REACTION CONTROL		POD	CV101	LEFT-HAND POD		POD	CV301	RIGHT-HAND POD		CV501	CV502
				MO	CV102			CV701	CV401			CV402	CV302		
42	43	104	104	FRCA	4911233	4917555	4911234	4914104	4914099	4914106	4914107	4911248	4911248	4911248	4911248
43	44	103	103	FRCA	4914634	4911250	4917552	4914632	4917553	4917558	4914630	4105757	4105757	4105757	4103988
44	44	104	104	FRCA	4911235	4917555	4911234	4914104	4914099	4914106	4914107	4911248	4911248	4911248	4103988
45	44	103	103	FRCA	4914634	4911250	4917552	4914632	4917553	4917556	4914630	4105757	4105757	4105757	4103988
46	45	104	104	FRCA	4911235	4917555	4911234	4914104	4914099	4914106	4914107	4911248	4911248	4911248	4103988
47	49	105	105	FRCA	2083044	2572004	4914100	4917559	4914636	4107155	4917557	4105776	4105776	4105776	4107158
48	50	102	102	FRCA	4911233	4911229	2083047	2083042	4105778	4914631	4911237	4914201	4914201	4914201	4105756
49	46	104	104	FRCA	4911235	4917555	4911234	4914104	4914099	4914106	4914107	4911248	4911248	4911248	4107158
50	47	105	105	FRCA	2083044	2572004	4914100	4917559	4914636	4107155	4917557	4105776	4105776	4105776	4107158
51	52	102	102	FRCA	4911233	4911229	2083047	2083042	4105778	4914631	4911237	4914201	4914201	4914201	4103988
52	53	103	103	FRCA	4914634	4911250	4917552	4914632	2187401	4917556	2083045	TBD	TBD	TBD	4103988
53	54	105	105	FRCA	2083044	2572004	4914100	4917559	4914636	4107155	4917557	4105776	4105776	4105776	4107158
54	56	103	103	FRCA	4914634	4911250	4911234	4914104	4914099	4914106	4914107	4911247	4911247	4911247	4103988
55	55	102	102	FRCA	4911233	4911229	2083047	2083042	4105778	4914631	4911237	4914201	4914201	4914201	4105756

MC284-0481-0001 = Oxid quad check valve  
 MC284-0481-0002 = Fuel quad check valve

- LV01 = E112; Originally delivered with OV102
- LV01 = E122; Originally delivered with OV102
- RP01 = E111; Originally delivered with OV099
- RP01 = E121; Originally delivered with OV099
- RP03 = E113; Originally delivered with OV103
- RP03 = E123; Originally delivered with OV103
- RP04 = E114; Originally delivered with OV104
- RP04 = E124; Originally delivered with OV104
- RP05 = E115; Delivered with OV105
- RP05 = E125; Delivered with OV105
- a S/W 4911247 replaced with S/W 4911248 in 1984 (excessive reverse leakage). (Ref CAR# AC8256)
- b Destroyed 51-L 1/28/86
- c Destroyed 51-L 1/28/86. S/W 4911234 replaced with S/W 4100920 in 1985 (excessive reverse leakage). (Ref CAR# AD0380)
- d S/W 4914101 replaced with S/W 4911247 in 1986 (excessive reverse leakage). (Ref CAR# AD0858)
- e S/W 4105727 replaced with S/W 4100988 in 1986 (excessive reverse leakage). (Ref CAR# AD0920)
- f S/W 4914100 replaced with S/W 4911234 in 1988 (high cracking pressure). (Ref CAR# AD1956)
- g S/W 4914107 replaced with S/W 4914104 in 1988 (excessive reverse leakage). (Ref CAR# KB0182)
- h S/W 4917559 replaced with S/W 4105727 in 1988 (excessive reverse leakage). (Ref CAR# KB0390)
- i S/W 4103990 replaced with S/W 4914098 in 1989 (excessive reverse leakage). (Ref CAR# KB03XX)
- j S/W 4917560 replaced with S/W 4914100 in 1991 (excessive reverse leakage). (Ref PR LP03-AD018)
- k S/W 4105727 replaced with S/W 4917559 in 1991 (low cracking pressure). (Ref PR LP03-12-0316)
- l S/W 4914098 replaced with S/W 4914636 in 1991 (excessive reverse leakage). (Ref PR LP03-12-0318)

OPRSD FILE IX REQUIREMENT HISTORY

Flight	Vehicle	Number of requirements	Failed in-flight checkout	Ground checkout by in-flight anomaly	Ground checkout by request	Ground checkout waived	LRU Retest	Once/OPDP Interval
STS-26	OV-103	109	7	4	0	3	0	0
STS-27	OV-104	112	9	6	0	3	0	0
STS-29	OV-103	111	7	2	1	4	0	0
STS-30	OV-104	111	5	2	0	3	0	0
STS-28	OV-102	109	5	2	0	3	0	0
STS-34	OV-104	166	12	6	2	4	0	0
STS-33	OV-103	169	10	2	2	6	0	0
STS-32	OV-102	171	14	8	0	6	0	0
STS-36	OV-104	169	8	3	3	2	0	0
STS-31	OV-103	177	15	1	2	12	0	0
STS-41	OV-103	173	9	1	2	6	0	0
STS-38	OV-104	173	12	3	0	9	0	0
STS-35	OV-102	173	13	5	2	6	0	0
STS-37	OV-104	221	19	4	4	11	0	0
STS-39	OV-103	217	16	1	3	12	0	0
STS-40	OV-102	210	9	3	2	4	0	0
STS-43	OV-104	233	21	10	2	9	0	0
STS-48	OV-103	241	12	1	1	3	0	7
STS-44	OV-104	213	18	1	6	1	0	10
STS-42	OV-103	213	21	1	7	2	5	6
STS-45	OV-104	212	18	3	4	8	2	8
STS*49	OV-105	212	18	8	1	1	0	8
STS-50	OV-102	212	11	4	1	0	5	1
STS-46	OV-104	212	11	2	2	1	6	0
STS-47	OV-105	212	21	1	5	0	12	3
STS-52	OV-102	215	10	1	0	0	8	1
STS-53	OV-102	215	11	2	0	0	0	7
STS-54	OV-105	215	15	4	0	1	0	10
STS-56	OV-103	215	7	0	0	0	0	7
STS-55	OV-102	215	18	10	0	0	0	8

Data provided by VF5/MIP Group

## DATA SOURCES

### NASA/JSC

Program Mission Reports, STS-1 and subsequent missions -  
Flight Data and Evaluation Office/VF

Flight Requirements Documents, STS-1 and subsequent missions -  
Mission Integration Office/TM

Operational Flight Profiles, STS-1 and subsequent missions -  
Flight Design and Dynamics Division/DM

Flight Readiness Review Reports, STS-1 and subsequent missions -  
Space Shuttle Project Office/GA

Orbiter Mass Properties Summary -  
Flight Data and Evaluation Office/VF

Problem Tracking Lists and Flight Problem Closeouts -  
Flight Data and Evaluation Office/VF

Descent Postflight Summary -  
Flight Analysis Branch/DM3  
Rockwell Space Operations Company/R16D

Landing Performance Chart -  
Mechanical Systems Branch/ES6

### NASA/MSFC

Final Flight Evaluation Reports, STS-1 and subsequent missions -  
Shuttle Projects Flight Evaluation Group/EE31

#### Rockwell International Corporation, Downey, CA.

Postflight Summaries, STS-1 and subsequent missions

STS Press Information Book with Mission Supplements

#### Lockheed Support Operations Company, KSC, FL.

Tire/Wheel and Brake Serial Number Data

#### Lockheed Engineering and Sciences Company, Houston, TX

Landing Deceleration Data, Calculated Brake Energies/Pressures and Brake  
Part/Serial Number Data, Landing and Ferry Data, and Orbiter Tire Da

## SHUTTLE IN-FLIGHT ANOMALY LIST

This part of the report is a listing of all Orbiter in-flight anomalies arranged in order by affected Work Unit Codes of the failed items from Shuttle flights STS-1 through STS-50 and STS-52 through STS-56.

- Column 1 - Work Unit Code (WUC): A six character alpha-numeric representation of the failed item, for example, V75MAE is the Orbiter Operational Instrumentation OPS 2 recorder, as noted in the master WUC listing.
- Column 2 - Problem Number: For STS flights 1 through 9, 26 through 36, and 38, the first number is the flight number and the second number is the number assigned to the problem on the Problem Tracking List for that flight. For example, 5-07 is flight STS-5, problem number 7.

For STS flights after STS-9 and before STS-26, the first 3 characters define the flight number and the number after the dash indicates the number assigned to the problem on the Problem Tracking List. For example, 41B-6 is flight STS 41-B, problem number 6.

For STS flights 37, and 39 and subsequent, the first three characters and the number following the first dash define the flight number. The character following the second dash defines the vehicle element (V = Orbiter, T = External Tank, etc.), and the number following the third dash defines the assigned problem number. For example, STS-37-V-09 is flight STS-37, Orbiter problem number 9.

- Column 3 - This number is the manufacturer's serial number of the Orbiter on which the anomaly occurred.
- Column 4 - Corrective Action Record (CAR) number assigned to the failed part
- Column 5 - A brief title of the anomaly.

Note: The Problem Tracking List and Flight Problem Reports are prepared by the Flight Evaluation and Engineering Office, VF3, Building 45, Johnson Space Center.

CAR's are maintained by the Quality Assurance Office, ND5, Building 45

WUC's are maintained by the Rockwell International Corporation, Orbiter Logistics Office, Downey, CA.

ORBITER SYSTEMS WORK UNIT CODE INDEX

V00 - GENERAL CATEGORY  
V01 - EXPERIMENTS  
V05 - PURGE, VENT, AND DRAIN  
V06 - THERMAL CONTROL  
V09 - THERMAL PROTECTION  
V10 - WING  
V13 - ELEVON'S  
V33 - CREW MODULE  
V34 - MID FUSELAGE  
V35 - AFT FUSELAGE  
V37 - PAYLOAD BAY DOORS  
V39 - THERMAL BARRIERS, WINDOW  
V41 - MAIN PROPULSION  
V42 - REACTION CONTROL  
V43 - ORBITAL MANEUVERING  
V45 - ELECTRICAL POWER GENERATION AND POWER REACTANT STORAGE AND DISTRIBUTION  
V46 - AUXILIARY POWER UNIT  
V51 - LANDING/DECELERATION  
V52 - BRAKE/SKID CONTROL  
V54 - PAYLOAD RETENTION/DEPLOYMENT  
V55 - PYROTECHNICS AND RANGE SAFETY  
V56 - ATTACHMENT/SEPARATION, ET  
V57 - AEROSURFACE CONTROL  
V58 - HYDRAULICS  
V59 - REMOTELY OPERATED DOORS  
V61 - ATMOSPHERIC REVITALIZATION  
V62 - WATER/WASTE MANAGEMENT  
V63 - ACTIVE THERMAL CONTROL  
V64 - AIRLOCK SUPPORT  
V65 - CREW PROVISIONS & ACCOMMODATIONS  
V66 - CREW EQUIPMENT  
V71 - GUIDANCE AND NAVIGATION  
V72 - DATA PROCESSING  
V73 - DISPLAYS AND CONTROLS  
V74 - COMMUNICATIONS AND TRACKING  
V75 - OPERATIONAL INSTRUMENTATION  
V76 - ELECTRICAL POWER DISTRIBUTION  
V78 - DEVELOPMENT INSTRUMENTATION  
V79 - FLIGHT CONTROL

ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET

(a) OV-102 Vehicle - Columbia

Flight sequence	Mission/ flights per vehicle	In-flight anomaly total
1	STS-1/1	61
2	STS-2/2	51
3	STS-3/3	47
4	STS-4/4	34
5	STS-5/5	25
9	STS-9/6	34
24	STS-61C/7	14
30	STS-28/6	31
33	STS-32/9	29
38	STS-35/10	23
41	STS-40/11	16
48	STS-50/12	28
51	STS-52/13	19
55	STS-55/14	17

(d) OV-104 Vehicle - Atlantis

Flight sequence	Mission/ flights per vehicle	In-flight anomaly total
21	STS-51J/1	11
23	STS-61B/2	12
27	STS-27/3	24
29	STS-30/4	23
31	STS-34/5	21
34	STS-36/6	20
37	STS-38/7	9
39	STS-37/8	20
42	STS-43/9	16
45	STS-44/10	18
46	STS-45/11	13
49	STS-46/12	12

(b) OV-099 Vehicle - Challenger

Flight sequence	Mission/ flights per vehicle	In-flight anomaly total
6	STS-6/1	43
7	STS-7/2	37
8	STS-8/3	33
10	STS-41B/4	34
11	STS-41C/5	26
13	STS-41G/6	25
17	STS-51B/7	26
19	STS-51F/8	21
22	STS-61A/9	18
25	STS-51L/10	N/A

(e) OV-105 Vehicle - Endeavour

Flight sequence	Mission/ flights per vehicle	In-flight anomaly total
47	STS-49/1	36
50	STS-47/2	26
54	STS-54/3	15

(c) OV-103 Vehicle - Discovery

Flight sequence	Mission/ flights per vehicle	In-flight anomaly total
12	STS-41D/1	30
14	STS-51A/2	29
15	STS-51C/3	15
16	STS-51D/4	17
18	STS-51G/5	14
21	STS-51I/6	19
26	STS-26/7	20
28	STS-29/8	30
32	STS-33/9	18
35	STS-31/10	18
36	STS-41/11	12
40	STS-39/12	14
43	STS-48/13	9
45	STS-42/14	10
52	STS-53/15	12
54	STS-56/16	11

(f) Total Flight and On-Orbit Time for Space Shuttle Fleet

Vehicle/ total flights	Vehicle total anomalies
OV-102/14	429
OV-099/10	263
OV-103/16	278
OV-104/12	199
OV-105/3	77
Orbiter and GFE Projects total	1246

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
E41N00	27R-13	104		MPS LH2 MANIFOLD PRESS BELOW REG SET POINT
GFE	27R-06	104		TAGS PAPER JAM
VOOGEN	1-35	102	NONE	ORB FIRST ROLL OVERSHOOT POORLY DAMPED AT 12 PSF
VOOGEN	1-37	102	NONE	ORB TOUCHDOWN 3200 FEET LONG
VOOGEN	1-53	102	NONE	ORB LATERAL OSCILLATION AT 1.6 MACH
VOOGEN	2-33	102	NONE	ORB TOUCHDOWN 3300 FEET SHORT
VOOGEN	2-49	102	NONE	ODOR IN THE CREW CABIN FROM WET TRASH
VOOGEN	3-41	102	NONE	HIGH WINDS ALOFT ON "WAVE OFF" DAY
VOOGEN	4-19	102	NONE	ORB TORQUING PRODUCED ATTITUDE EXCURSIONS
VOOGEN	6-20	099	NONE	T-ZERO UMBILICAL DAMAGE
VOOGEN	6-34	099	NONE	ODOR IN CABIN NEAR MLR
VOOGEN	8-28	099	NONE	PAYLOAD BAY DEBRIS AFTER PAYLOAD DEPLOY
VOOGEN	8-29	099	NONE	CABIN DEBRIS AND DUST
VOOGEN	9-20	102	NONE	NOISES AND OSCILLATIONS REPORTED BY CREW
VOOGEN	41B-28	099	NONE	TM FORMAT LOAD 161 HDR PROCESSING ERROR
VOOGEN	41D-06	103	NONE	WATER & FIRE DAMAGE AFTER SSME ABORT SHUTDOWN
VOOGEN	61A-13	099	NONE	STREAM OF PARTICULATE MATTER STRUCK THE ORBITER
VOOGEN	55-16	102	NONE	SPOC PGSC DATA INPUT PROBLEM
VOOPAY	7-03	099	NONE	ANIK SUNSHIELD HUNG-UP DURING CLOSURE
VOOPAY	7-17	099	NONE	VIBRATION DURING PALAPA SPIN-UP
VOOPAY	7-35	099	AC5725	SPAS ELECTRICAL DISCONNECT STOWED TALKBACK
VOOPAY	41B-08	099	NONE	INTEGRATED RENDEZVOUS TARGET (BALLOON) FAILED
VOOPAY	41C-17	099	NONE	FSS KEEL RETENTION LATCH DRIVE MOTOR LOST PHASE
VOOPAY	41G-21	099	NONE	SIR-B ANTENNA OUTER LEAF DIVERGENT OSCILLATION
VOOS/W	9-09	102	55799	GPC STATE VECTOR TIME TAG TO SL INC BY 1 DAY
VOOS/W	9-11	102	NONE	SPACELAB TOTAL KW COMPUTATION READING ZERO
VOOS/W	51B-05	099	NONE	SM ONBOARD DISPLAY DATA EXHIBITED ERRATIC VALUES
VOOS/W	51B-19	099	NONE	BFS ERROR UPDATING RUNWAY
VOOS/W	51D-10	103	NONE	PRIMARY AVIONICS SOFTWARE SYSTEM GNC GPC ERRORS
VOOS/W	51F-08	099	NONE	GPC BODY RATE DATA TRANSFER INCOMPATABLE WITH SL
VOOS/W	51I-08	103	NONE	BFS OMS 2 OUT OF PLANE VELOCITY 12.5 FPS GT PASS
VOOS/W	51L-05	099	NONE	SRB NOZZLE CLEARANCE I-LOAD ERROR
VOOS/W	61A-18	099	63070	POCC COMMAND RECEIVED A "PSP" INVALID REQUEST
VOOS/W	61C-07	102	NONE	VERNIER RCS JETS FIRED EXCESSIVELY
VO1GAS	4-09	102	04F015	GET AWAY SPECIAL ACTIVATION UNSUCCESSFUL
VO1GAS	5-06	102	NONE	GET AWAY SPECIAL ENCODER ON WRONG PANEL
VO1OEX	2-25	102	HED0019	OEX RECORDER BELT MIS-TRACKED
VO1OEX	2-42	102	HED0020	AFT FUSELAGE GAS SAMPLER BOTTLES
VO1OEX	41G-24	099	HEN0047	ACIP FAILED PRELAUNCH
VO1OEX	51B-25	099	HEN0049	ACIP X-AXIS ANGULAR ACCELEROMETER FAILED HI
VO1TDR	29-05	103	29RF05	PI CH 1 ERRONEOUS READING
VO5A00	38-06	104	38RF06	RH VENT DOOR 1 & 2 PURGE FAILURE
VO5NBK	2-45	102	NONE	LH WING VENT RELIEF DOOR OPENED
VO5NBR	1-51	102	01F031	RH WING VENT DUCT STRUCTURAL FAILURE
VO5NBU	1-51	102	01F031	LH WING VENT DUCT STRUCTURAL FAILURE
VO5NCC	2-45	102	NONE	RH WING VENT RELIEF DOOR OPENED
VO5000	31-17	103	GFE	5 OF 6 GAS SAMPLER BOTTLES LEAKED
VO5000	37-V-14	104	37RF13	ABNORMAL O <sub>2</sub> CONCENTRATION AFT FUSELAGE
VO6A00	30-20	104	30RF27	1307 BULKHEAD BLANKET DAMAGE
VO6F	51A-23	103	NONE	PAYLOAD BAY BLANKETS AND METAL DISCOLORED

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V06000	50-V-27	102	50RF16	PROTRUDING PLBD DOGBONE SEAL
V06000	47-V-13	105	NONE	RUDDER SPEED BRAKE TPS DISPLACED
V06000	47-V-28	105	NONE	CHIN PANEL THERMAL EFFECTS
V06K	2-43	102	NONE	STAR TRACKER CAVITY THERMAL BLANKETS DISCOLORED
V09B00	26-13	103	26RF13	RT WING "6 X 18" TPS LOST DURING/ASCENT
V09000	29-25	103	29RF24	AFT (1307) BULKHEAD THERMAL BLANKETS LOOSE
V09000	45-V-08	104	45RF05	DAMAGE RT RCC PANEL #10
V09TPS	1-09	102	NONE	TILE FAILURE ON OMS POD
V09TPS	1-32	102	01F015	OMS POD SKIN STRUCTURE DELAMINATED
V09TPS	2-19	102	02F024	TPS DAMAGE DURING ASCENT, ENTRY AND LANDING
V09TPS	2-19	102	02F031	TPS DAMAGE DURING ASCENT, ENTRY AND LANDING
V09TPS	2-19	102	02F022	TPS DAMAGE DURING ASCENT, ENTRY AND LANDING
V09TPS	3-16	102	NONE	TILES LOST FROM FWD FUSELAGE & UPPER BODY FLAP
V09TPS	4-01	102	NONE	ORBITER SURFACE TPS HAIL STORM DAMAGE
V09TPS	4-29	102	04F026	HRSI TILE ON BODY FLAP DEGRADED BY AFT VRCS
V09TPS	6-05	099	NONE	TPS DAMAGE TO OMS PODS AND NEAR WINDOWS & NOSECA
V09TPS	7-27	099	NONE	TPS DAMAGE TO LOWER SURFACE, FRSI, AFRSI, AND TI
V09TPS	8-27	099	NONE	TPS DAMAGE TO TILE, SSME INSULATION & ARCS AFRSI
V09TPS	9-32	102	NONE	LH OMS POD TPS DAMAGE
V09TPS	41B-27	099	NONE	TPS DAMAGE TO LH OMS POD AND NOSE AREA
V09TPS	41G-05	099	17F010	THERMAL PROTECTION SYSTEM DAMAGED ON OMS PODS
V09TPS	41G-25	099	17F015	MISSING TILE IN THE LH WING GLOVE AREA
V09TPS	51B-06	099	24F001	RIGHT OMS POD TPS PROTRUSION
V09TPS	51B-26	099	NONE	LH OUTBD ELEVON TILE SLUMPED & GAP FILLER BREACH
V09TPS	51C-10	103	NONE	TPS HAD A LONG GOUGE UNDER THE LEFT WING
V09TPS	51F-15	099	NONE	TPS DAMAGE DURING ASCENT
V09TPS	51G-11	103	NONE	TPS DAMAGED BY DEBRIS
V09TPS	51I-13	103	NONE	RH OMS POD AFRSI STRIP LOOSE
V09TPS	51J-07	104	23F009	TPS DAMAGE ON LH INBD ELEVON AND NOSE CAP
V09TPS	61B-07	104	NONE	TPS BLANKET LIFTED ON UPPER LEFT WING
V10AEA	51D-14	103	23F009	LH OUTBD ELEVON TPS DAMAGED NEAR HINGE LINE
V13SAO	31-15	103	IM31RF17	MISSING SEAL MATERIAL, RH ELEVON FLIPPER DOORS 5, 6, 12, 13
V22B	3-46	102	AC3037	VERTICAL TAIL GRAPHITE SEAL TABS BROKEN
V23A	7-37	099	NONE	RUDDER SPEEDBRAKE SEALS DAMAGED
V31000	49-V-36	105	NONE	WINDOW 1 CHIPPED ON-ORBIT
V31AAA	2-39	102	NONE	LE FORWARD WINDOWS DEGRADED BY SALT SPRAY
V33AAA	30-17	104	30RF24	DING ON FWD WINDOW 6
V33AAC	41G-08	099	NONE	FORWARD WINDOW (W1) WAS CHIPPED
V33ABA	2-39	102	NONE	RH FORWARD WINDOWS DEGRADED BY SALT SPRAY
V33ABA	8-32	099	NONE	RH FORWARD WINDOW (NO. 4) PITTED
V33ABA	41G-08	099	NONE	FORWARD WINDOW (W4) WAS CHIPPED
V33ABB	7-26	099	07F015	RH MID WINDOW (NO. 5) PITTED
V33ACA	41G-08	099	NONE	AFT FLIGHT DECK PORT WINDOW HAD ICE-LIKE PARTICI
V33ADC	51A-19	103	NONE	RH OVERHEAD WINDOW (W7) TOOK 1/32-IN. DIAMETER I
V33A00	35-18	102	NONE	W-1 WINDOW HAS 0.15-INCH CHIP
V33B	6-22	099	06F016	CCTV MONITOR BRACKET DEBONDED FROM SIDEWALL
V33B	7-28	099	06F016	CCTV MONITOR BRACKET DEBONDED FROM SIDEWALL
V33SB	51L-01	099	NONE	SIDE HATCH MICROSWITCH FAILED
V33SB	51L-02	099	33F002	SIDE HATCH GSE HANDLE COULD NOT BE REMOVED



INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V33XXX	9-04	102	NONE	CABIN/SPACELAB HATCH D LEAKED
V33XXX	9-31	102	09F025	WCS DOOR OPENED DURING ENTRY
V33XXX	41B-15	099	11F012	STORAGE MD23R WCS & IMU FILTER DOOR DIFFICULTIES
V33XXX	41G-22A	099	09F025	VOL. "G", "H" AND WCS DOOR PROBLEMS
V33XXX	51D-16A	103	NONE	AV ACCESS PANEL R17 FASTENERS FAILED
V33XXX	51D-16B	103	NONE	LOCKER MA16N DID NOT CLOSE PROPERLY
V33XXX	61B-11A	104	NONE	PANEL FOR ACCESS TO IMU FILTERS MISALIGNED
V33XXX	61B-11B	104	11F012	VOLUME "H" LOCKER (MD23R) HAD TO BE PRIED OPEN
V34SAC	9-38	102	NONE	MID FUSELAGE BONDLINE TEMP (V34T1108A) ERRATIC
V35000	47-V-22	105	NONE	ORBITER PULLED LEFT AT DRAG CHUTE DISREEF
V36000	41-12	103	41RF09	LOST 6-INCH SECTION OF PLBD AFT SEAL
V36000	35-16	102	NONE	PLBD ENVIRONMENTAL SEAL BECAME DEBONDED
V36000	40-V-02B	102	40RF02	1307 BULKHEAD THERMAL BLANKET LOOSE
V36000	40-V-09	102	40RF08	LOOSE TUNNEL HATCH THERMAL COVER
V36000	56-V-05	103	56RF02	AFT BULKHEAD THERMAL BLANKET LOOSE
V36000	55-V-09	103	55RF11	LOOSE THERM. COVER ON TUNNEL ADAPTOR HATCH
V37	1-45	102	NONE	PAYLOAD BAY DOOR CLOSURE OVERLAP
V37AGA	3-09	102	03F007	LH PLBD AFT BULKHEAD ACTUATOR STALLED
V37AGA	4-13	102	04F005	LH PLBD AFT BULKHEAD ACTUATOR STALLED
V37B	51I-17	103	27F010	STARBOARD PAYLOAD BAY DOOR CLOSED SLOW
V37BBA	8-03	099	08F018	RH PLBD OPEN A INDICATION LATE
V37BGA	41D-23	103	14F012	AFT STBD PLBD OPEN MICROSWITCH STAYED ON
V37BGA	41D-23	103	14F012	STBD DR MTR 2 RAN THRU HALF OF LATCH CYCLE
V37C	3-09	102	03F006	LH PLBD FWD BULKHEAD READY TO LATCH SWITCH
V37D00	26-11	103	26RF05	STARBD PLB FWD READY-TO-LATCH INDICATOR FAILED
V37D00	29-09	103	29RF07	PLBD PORT B CLOSE INDICATION FAILED
V37D00	27-16	104		RH PLBD LATCH "B" INDICATOR
V37E	61B-06B	104	31F002	PLBD CLOSE A WAS PRESENT WITH DOOR OPEN
V37EAA	51B-18	099	24F010	PLBD CLOSE SEQUENCE FAILED ON PORT AFT LATCHES
V37F	61B-06A	104	31F001	PLBD AFT READY-TO-LATCH B PRESENT WITH DOOR OPEN
V37FAA	41B-34	099	NONE	PLBD RH AFT LATCH LOST ONE PHASE ON MOTOR 2
V37000	40-V-02A	102	40RF03	PLB DOOR SEAL DAMAGE
V37U&V	3-36	102	03F036	RADIATOR LATCH INDICATION LOST
V37X	1-55	102	NONE	PLBD HINGE 7 EXCEEDED TEMPERATURE LIMIT
V38000	34-19	104	34RF17	RH VENT DOOR 3 MOTOR 1 OPNS ON 2 PHASES
V38000	47-V-01	105	NONE	AFT H2 CONCENTRATION EXCEEDED LCC
V39000	33-11	103	33RF13	-Y STAR TRACKER BLANKET DETACHED
V39AAA	1-44	102	NONE	NLG DOOR THERMAL BARRIER FELL OFF
V39XXX	27-07A	104		ORBITER RH BOTTOM WING AND FUS TPS DAMAGE
V39XXX	27-07B	104		R-OMS CARRIER PANEL MISSING
V39XXX	27-07C	104		TACAN 2 LWR C-BAND ANT MISS TPS TILE AND OVERHEA
V41	45-V-01	104	IPR-45V-0138	GND LH2 LK - AFT H2 HIGH
V41	45-V-02	104	IPR-45V-0139	GND L02 LK - AFT 02 HIGH
V41A	2-32	102	NONE	MOISTURE IN SSME'S DURING ENTRY
V41A	41D-05	103	NONE	SSME 3 SERVO ACTR MISCOMPARE ON MAIN FUEL VLV CE
V41CAA	30-03	104	30RF01	SSME 1 LH2 RECIRC PUMP FAILURE
V41CAA	41D-03C	103	AC8374F	SSME 2 LH2 PUMP SPEED SENSOR (V41R1215A) FAILED
V41CAA	51I-04E	103	27F006	SSME 2 LH2 PUMP SPEED (V41R1215A) FAILED

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V41CAA	51I-15	103	27F013	SSME 1 LH2 PUMP 1 CIRCUIT BREAKER TRIPPED
V41CAE	4-02	102	AC3363	MPS LO2 OVERBOARD BLEED VLV CLOSE B INDICATOR FA
V41CHA	7-01	099	07F003	MPS LH2 HIGH-POINT BLEED DISCONNECT LEAKED
V41DAE	36-02	104	36RF02	LH2 17" DISCONNECT B INDICATION INTERMITTENT
V41DAN	28-05A	102	28RF10	LEFT SSME LH2 INLET TEMP FAILED HIGH
V41DBA	44-V-01	104	44RF04	LO2 17-INCH MANIFOLD TEMPERATURE PROBE A ERRATIC
V41DBF	29-21	103	29RF21	MPS LH2 MANIFOLD LEAK
V41DBF	51D-17	103	NONE	MPS LH2 MANIFOLD PRESSURE DECAY
V41DLA	4-21	102	04F001	LO2 17 IN DISCONNECT FLOW LINER DAMAGED
V41DOO	26-14	103	KB0346	4 INCH LH2 ET/ORBITER DISCONNECT SEAL DAMAGE
V41DOO	55-V-01A	102	KB2654	LH2 4-INCH ORB/ET DISCONNECT SLOW CLOSURE
			55RF05	
V41DOO	55-V-01B	102	KB2654	LH2 4-INCH ORB/ET DISCONNECT - MECO
			55RF05	
V41DTJ	3-38	102	NONE	MPS 3 LOX PRE-VALVE RPC C ELECTRICAL LEAK
V41DTM	6-07	099	06F027	MPS 3 LH2 PREVALVE CLOSED INDICATION OFF
V41DTM	51J-01	104	ADO421	MPS 3 LH2 PREVALVE FAULTY INDICATIONS
V41D	49-V-13	105	49RF11	ENGINE 1 & 2 PREVLU EXCESSIVE PRSS DROP
V41EHA	1-30	102	01F067	LH2 T-ZERO UMBILICAL GND FILL DISCONNECT SEAL LE
V41EHA	2-35	102	AC0740	LH2 FILL & DRAIN DISCNT INTFCE-SEAL INSERT LOOSE
V41EHA	9-02	102	09F003	LH2 T-ZERO UMBILICAL LEAKAGE UP TO 3.4%
V41ELA	2-35	102	NONE	LO2 FILL & DRAIN DISCNT INTFCE-SEAL INSERT LOOSE
V41ELA	61C-01	102	NONE	MPS LO2 FILL AND DRAIN VALVE DID NOT CLOSE
V41E00	27-03	104	27RF03	LH2 TOPPING VALVE SHOWED SIMULTANEOUS OPEN/CLOSE
V41E00	29-28	103	29RF29	LH2 OTBD FI&DR VLV SLO CLOSE AT DUMP TERMINATION
V41E00	32-25	102	IM32RF26	MPS LH2 FILL AND DRAIN RELIEF VALVE LEAK
V41ETC	3-39	102	03F035	MPS 3 LO2 BLEED SYS CK VLV FOR POGO RECIRC FAIL
V41ETC	43-V-16	104	43RF14	RT. MAIN ENG. LO2 INLET PRESS REPRESSED TO 33 PS
				DURING ENTRY
V41G	6-26	099	NONE	MPS 3 LEG A HELIUM REG OUT PRESSURE RISE
V41G	7-36	099	NONE	MPS HELIUM PNEUMATIC SYSTEM LEAKAGE
V41G	41G-23	099	NONE	MPS HELIUM PNEUMATIC SYS PRESSURE DECAYED
V41G	51B-21	099	NONE	MPS HE SYS DECAY RATE HI DURING ENTRY REPRESS
V41G	51C-02	103	NONE	HELIUM LEAK IN MID-BODY
V41GCW	30-12	104	30RF19	MPS SSME REG OUTLET "B" C/V LEAK
V41GJB	6-17	099	06F008	MPS 1 GH2 FLOW CONTROL VALVE (LV56) HUNG UP
V41GJB	9-07	102	09F002	MPS 1 GH2 FLOW CONTROL VALVE FAILED TO RSPD TO CM
V41GJD	46-V-01	104	46RF01	ME-3 H2 FLOW CONT PRESS ANOMALY
V41GJE	26-07	103	26RF03	SSME 1 AND 2 GOX FLOW CONTROL VLVS SLUGGISH
V41GJE	29-04	103	29RF04	OX FCV 1 DELAYED START TO OPEN FCV 3 SLUGGISH
V41GJF	26-07	103	26RF03	SSME 1 AND 2 GOX FLOW CONTROL VLVS SLUGGISH
V41GLA	5-08	102	05F003	MPS 3 GO2 FLOW CONTROL VALVE (LV55) PARTIAL FAI
V41G00	30-02D	104	NONE	SSME 3 GH2 PRESS SYS TEMP
V41G00	30-02E	104	30RF08	CENTER ENGINE LH2 INLET PRESS XDUCER FAILED
V41G00	30-02H	104	30RF12	LEFT ENGINE LH2 INLET PRESS XDUCER BIASED LOW
V41G00	30-22	104	NONE	GO2 ENTRY PRESS LAGGED MPS LO2 REPRESS
V41G00	53-V-04	103	53RF05	MPS HELIUM REG'S 3A AND 3B EXCEEDED LCC
V41GTA	55-V-12	102	NONE	MPS PNEUMATIC HELIUM PRESSURE DECAY-ASCENT
V41GVZ	56-V-01	103	56RF01	LH2 HI-PT. BLEED VLV FAILED TO IND. CLOSED
V41JCF	41B-30	099	NONE	SSME 3 ATVC YAW CHANNEL 4 BYPASSED

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V41KAD	1-31	102	NONE	MPS H2 TOPPING VALVE SLOW CLOSURE
V41KEB	51B-16	099	24F016	SSME 2 LO2 PREVALVE NO OPEN IND DURING LOX DUMP
V41KED	29-17	103	29RF17	SSME 1 LH2 PREVALVE SIGNATURE ANOMALY
V41L	5-05B	102	NONE	TEMP SENSOR (T41T1705A) ET LH2 ULLAGE FAILED HIGH
V41L	6-01J	099	06F036	ET LO2 100% LEVEL SENSOR (T41X1768E) FAILED WET
V41L	7-02F	099	07F031	ET LH2 ULLAGE PRESS (V41P1700C) STICKY
V41L	8-06D	099	NONE	TEMP 2 SENSOR (E41T1154A) SSME 1 MFV FAILED
V41L	8-06F	099	08F015	ET LH2 ULL PRESS 1(T41P1700C) & 3(T41P1701C) STICKY
V41L	41C-03A	099	13F006	ET LH2 100% FILL SENSOR (T41X1718E) INTERMITTENT
V41L	41D-03B	103	AC8354F	ET LH2 ULLAGE PRESSURE 2 (T41P1701C) READ LOW
V41L	51C-03D	103	NONE	ET LH2 100% FILL SENSOR (T41X1718E) ERRATIC
V41LBC	51A-02	103	NONE	MPS 3 HELIUM REG A OUT PRESSURE (V41P1354A) READ LOW
V41LEA	41D-09C	103	14F003	PRESS TRNSDR MPS 1 LH2 INLET (V41P1100C) READ HIGH
V41LEA	51A-03C	103	NONE	PRESS TRNSDR MPS 1 LH2 INLET (V41P1100C) READ HIGH
V41LEA	61B-02A	104	31F012	PRESS TRNSDR MPS 1 LH2 INLET (V41P1100C) ERRATIC
V41LEB	8-06C	099	08F010	PRESS TRNSDR MPS 2 LH2 INLET (V41P1200C) FAILED HIGH
V41LEB	26-04F	103	26RF21	SSME 2 LH2 INLET PRESS BIASED AND OSCILLATING
V41LEB	51A-03D	103	NONE	PRESS TRNSDR MPS 2 LH2 INLET (V41P1200C) READ HIGH
V41LEB	61B-02A	104	31F012	PRESS TRNSDR MPS 2 LH2 INLET (V41P1200C) LOW
V41LEC	3-10B	102	03F029	PRESS TRNSDR MPS 3 LH2 INLET (V41P1300C) FAILED HIGH
V41LEC	26-04B	103	26RF20	SSME 3 LH2 INLET PRESS TRANSDUCER FAILED
V41LEC	41D-09B	103	14F002	PRESS TRNSDR MPS 3 LH2 INLET (V41P1300C) READ LOW
V41LFA	9-03H	102	NONE	MPS HE SUPPLY PRESSURE (V41P1600A) DROPPED TO ZERO
V41LGB	1-06	102	01F037	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HIGH
V41LGB	2-06	102	02F008	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HIGH
V41LGB	6-01B	099	06F004	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGB	7-02C	099	07F006	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HIGH
V41LGB	8-06A	099	08F002	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HIGH
V41LGB	41B-02A	099	11F001	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HIGH
V41LGB	41C-03C	099	13F003	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HIGH
V41LGB	41G-03A	099	17F001	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HIGH
V41LGB	51B-03A	099	24F002	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGB	51F-03A	099	26F002	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGB	51G-01A	103	NONE	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGB	51I-04A	103	24F002	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGC	7-02B	099	07F011	PRESS TRNSDR MPS 3 GH2 OUTLET (V41P1360A) FAILED HIGH
V41LGC	28-05D	102	28RF13	SSME 3 GH2 OUTLET TEMP ERRATIC
V41LHE	61C-04B	102	32F012	PRESS TRNSDR MPS 3 HE SUPPLY (V41P1350C) ERRATIC
V41LHJ	9-3I	102	NONE	ET GH2 ULLAGE PRESS SIGNAL COND NO 3 MALFUNCTION
V41LKD	41G-03B	099	17F002	TEMP SENS MPS 1 GH2 PRESS OUT (V41T1161A) FAILED
V41LKE	1-06	102	01F046	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) FLD HIGH
V41LKE	3-10A	102	03F028	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) FLD HIGH
V41LKE	4-06C	102	04F028	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) SHIFT
V41LKE	6-01A	099	06F003	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) FAILED
V41LKE	51C-03B	103	20F003	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) FAILED
V41LKE	61C-04A	102	32F001	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) FAILED
V41LKG	41D-09A	103	14F001	TEMP SENS MPS 3 GH2 PRESS OUT (V41T1361A) FAILED HIGH
V41LKG	51A-03A	103	19F001	TEMP SENS MPS 3 GH2 PRESS OUT (V41T1361A) FAILED
V41LMF	51J-03B	104	28F007	MPS-ENG 2 LH2 INLET TEMP (V41T1201C) FAILED
V41LMG	4-06B	102	04F024	TEMP TRNSDR MPS 3 LH2 INLET (V41T1301C) FAILED HIGH

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V41L00	26-04H	103	NONE	ET LH2 98 PERCENT LIQ LEV SENSOR FLASHING
V41000	28-29	102	28RF30	GOX PRESS MANIFOLD SLOW TO PRESS
V41000	32-06	102	IM32RF07	GOX FLOW CONTROL VLV 2 SLUGGISH
V41000	43-V-13	104	43RF11	MPE LH2 4 IN. DISC. PORTION OF SEAL STUCK IN FLA
V41000	46-V-05	104	46RF06	GO2 MANIFOLD DELAY
V41000	47-V-04	105	47RF02	ME1 LH2 INLET PRESS XDUCER FAIL
V41000	52-V-02	102	52RF02	ENG 2 LOX INLET TEMP SENSOR FAIL
V41XXX	41B-31	099	11F019	SSME 3 HE PANEL A ISOLATION VALVE LEAKED (LV5)
V42A00	28-03	102	28RF03	VERNIER THRUSTER F5R ANNUNCIATED LEAK
V42A00	28-07	102	28RF08	FWD RCS F5L HTR FAILED ON
V42A00	48-V-06	103	NONE	FRCS MANIFOLD VALVE 2 PHASE C FAILURE
V42A00	52-V-01	102	52RF01	F3L FAIL OFF AND LEAK
V42A00	52-V-13	102	52RF08	FRCS FU MAN 3 MICROSWITCH CLOSED FAIL INDICATION
V42AVC	1-01E	102	01F048	FRCS FUEL FWD PNL HTR STAYED ON WITH NO TEMP RES
V42AWD	1-01F	102	NONE	FRCS OXIDIZER FWD PANEL HEATER THERMOSTAT INACTI
V42AWL	41G-16	099	17F016	RH OMS OXIDIZER DRAIN LINE TEMP ERRATIC
V42B	1-17	102	NONE	FRCS THRUSTER FUEL INJ TEMPE LOWER THAN PREDICTE
V42BLS	2-30	102	02F011	FRCS B LEG OX REG PRESS LOCKUP HIGH
V42BLS	27-08	104		RCS OXID B HE REG SLOW RESPONSE
V42B00	50-V-18	102	50RF11	RCS JET F2F FAIL OFF
V42BQB	41B-35	099	11F022	FRCS OX 3/4/5 TANK ISO VALVE STATUS LOST
V42BQD	41B-35	099	11F022	FRCS FUEL 3/4/5 TANK ISO VALVE STATUS LOST
V42BQE	51C-13	103	AC9013	FORWARD RCS DILEMMA DURING DEORBIT
V42BQY	51A-18	103	13F001	FRCS MANIFOLD 3 OX ISO VLV LOST OPEN IND
V42BQL	41D-13	103	13F001	FRCS FUEL MANIFOLD 2 CLOSE IND (V42X1327X) FAIL
V42BQM	51A-18	103	13F001	FRCS MANIFOLD 3 FUEL ISO VLV LOST OPEN IND
V42BRA	4-06F	102	NONE	F1F RCS INJECTOR OX TEMP (V42T1501) RESPONSE SLO
V42BSA	4-06F	102	NONE	F1F RCS INJECTOR FUEL TEMP (V42T1502) RESPONSE
V42BTM	1-58	102	01F084	FRCS OX TANK STRUCT SUPPORT AFT Z STRUT DEFOR MEI
V42FUA	51I-10	103	27F004	PRIMARY THRUSTER-F1F CHAMBER FAILED OFF
V42FUB	4-04	102	04F004	PRIMARY THRUSTER-F1L OX LEAK
V42FUB	4-22	102	AC3446	PRIMARY THRUSTER-F1L WATER INTRUSION
V42FUB	53-V-09	103	53RF03	RCS F1L OXIDIZER LEAK DURING ENTRY
V42FUH	4-22	102	AC3446	PRIMARY THRUSTER-F3D WATER INTRUSION
V42FUH	8-15	099	08F005	PRIMARY THRUSTER-F3D OX LEAK
V42FUH	41B-14	099	11F013	FRCS F3D HEATER THERMOSTAT SET POINT SHIFTED
V42FUK	1-50	102	01F050	PRIMARY THRUSTER-F2R OX INJ TEMP RESPONSE WRONG
V42FUN	51A-09	103	NONE	PRIMARY THRUSTER-F4R FUEL LEAK INDICATION
V42FUN	49-V-01	105	49RF01	RCS THRUSTER F4R HTR FAIL ON
V42FUP	5-18	102	05F002	PRIMARY THRUSTER-F4D FAILED OFF
V42FUR	2-46	102	NONE	VERNIER THRUSTER-F5L EXCEEDED TEMP LIMIT
V42FUR	3-06	102	03F043	VERNIER THRUSTER-F5L OX TEMP BIASED LOW
V42FUR	4-33	102	NONE	VERNIER THRUSTER-F5L NOZZLE COATING DEGRADED
V42GAA	9-14	102	09F006	VERNIER THRUSTER-L5L FAILED OFF FROM BUBBLES
V42GAB	56-V-13	103	56RF07	RCS L5D HPATER FAILED ON
V42GAC	55-V-06	102	55RF04	RCS L4D PRIMARY HEATER FAILED ON
V42GAD	49-V-18	105	49RF15	RCS THRUSTER L4L LEAKED
V42GAF	42-V-05	103	42RF03	ARCS VERNIER THRUSTER L3A FAILED LEAK
V42GAG	8-15	099	08F004	PRIMARY THRUSTER-L3D FUEL LEAK
V42GAK	6-15	099	06F009	PRIMARY THRUSTER-L2D FUEL LEAK

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V42GAK	51D-03B	103	23F010	LH RCS THRUSTER L2D CHAMBER PRESS READ LOW
V42GAL	61A-10	099	30F007	PRIMARY THRUSTER - L <sup>2</sup> L INJECTOR HEATER FAILED
V42HFV	41D-03A	103	AC8712	LH ARCS FUEL MANIFOLD PRESS 1 (V42P2112C) ERRATIC
V42JBA	2-36	102	02F013	LH ARCS PROPELLANT (FUEL) TANK PRESSURE SURGES
V42JBB	2-36	102	02F013	LH ARCS PROPELLANT (OXID) TANK PRESSURE SURGES
V42JBD	53-V-06	103	53RF02	L RCS OXID. A LEG REG. LEAK THRU PRIM. STAGE
V42JBE	51G-04B	103	13F001	LH ARCS ISOLATION VALVE 1/2 CLOSED IND FAILED
V42JBW	41C-11	099	13F001	LH ARCS FUEL 3, 4 AND 5 ISO VALVE B STATUS LOST
V42JBW	51A-22	103	13F001	LH ARCS SYS B FUEL ISO VLV OPEN INDICATION LOST
V42JCG	41B-05	099	AC6471F	LH ARCS PRIMARY (FUEL A) GHE REG LEAKED
V42JCH	41G-15	099	17F012	LH ARCS PRIMARY (FUEL B) GHE REG INTERNAL LEAK
V42JCK	61C-12	102	NONE	LH ARCS OX TANK HELIUM REG B LEAKED
V42NAA	4-33	102	03F006	VERNIER THRUSTER-R5R NOZZLE COATING DEGRADED
V42NAA	9-14	102	09F006	VERNIER THRUSTER-R5R FAILED OFF FROM BUBBLES
V42NAB	4-06D	102	04F021	R5D RCS INJECTOR OX OR FUEL TEMP BIAS
V42NAC	5-07	102	05F001	PRIMARY THRUSTER-R4D HEATER CONTROLLER FAILED
V42NAC	51B-10	099	24F007	PRIMARY THRUSTER - R4D INJECTOR HEATER FAILED
V42NAE	6-03	099	NONE	PRIMARY THRUSTER-R4U SMALL OX LEAK
V42NAE	42-V-06	103	42RF04	THRUSTER R4U OX LEAK
V42NAG	9-14	102	09F006	PRIMARY THRUSTER-R3D OX VALVE LEAKED
V42NAH	41G-02	099	17F011	PRIMARY THRUSTER - R3R FAILED OFF
V42NAJ	51D-15	103	23F003	PRIMARY THRUSTER - R2U OXIDIZER LEAK
V42NAN	29-01	103	NONE	THRUSTER R1U FAILED OFF DURING MATED COAST
V42NAP	30-05	104	30RF14	RCS JET R1U FAILED OFF POST SEP
V42NAP	51F-06	099	26F003	PRIMARY THRUSTER - R1R INJECTOR HEATER FAILED
V42NAP	54-V-05	105	54RF03	RCS R1R FAILED OFF
V42000	31-03a	103	31RF03	RCS JET L3A FAILED OFF-OXIDIZER
V42000	31-03b	103	31RF06	RCS JET L3A OXIDIZER LLK
V42000	36-06b	104	IM36RF09	L RCS OX TK ISO VALVE POSITION INTERMITTENT
V42000	36-06c	104	IM36RF09	L RCS OX XFD VALVE POSITION INTERMITTENT
V42000	36-06a	104	IM36RF09	R RCS MANIFOLD 1 OX ISO VALVE POSITION INTERMITTENT
V42000	36-04	104	IM36RF07	RCS THRUSTER R3D FAILED OFF
V42000	36-12	104	36RF14	THRUSTER R4R FAILED OFF
V42000	38-07	104	38RF08	THRUSTERS R1U, R3D, R4U, F3L TRANSIENT LOW CH. F
V42000	35-04	102	35RF02	LEFT RCS PANEL HEATER A FAILURE
V42000	35-20	102	NONE	RCS VERNIER THRUSTER R5D FAILED OFF
V42000	37-V-08	104	37RF07	LOW Pc, JETS L1U & L1L DURING INTERCONNECT
V42000	37-V-01	104	37RF01	JET R1U FAILED OFF
V42000	39-V-03	103	39RF03	F5R FUEL INJECTOR TEMP LOW
V42000	40-V-07	102	40RF06	L5L FAILED OFF
V42000	46-V-11	104	NONE	MANIFOLD 5 LRCS VALVES FAILED TO CYCLE
V42000	50-V-01	102	50RF01	RCS JET L1U HTR FAILED ON
V42000	47-V-03	105	47RF01	RCS JET L3A FAILED OFF
V42000	47-V-09	105	47RF03	L5D LOW CHAMBER PRESS
V42PPF	6-01F	099	NONE	RH ARCS APT HOUSING THERMAL SW TEMP (V42T3304A)
V42QBA	2-36	102	02F013	RH ARCS PROPELLANT (FUEL) TANK PRESSURE SURGES
V42QBB	2-36	102	02F013	RH ARCS PROPELLANT (OXID) TANK PRESSURE SURGES
V42QBD	7-16	099	07F021	RH ARCS SYS B FU B ISO VLV MAN 3,4,5 POS MISCOM
V42QBF	1-21	102	01F033	RH ARCS FUEL MTR ISO VLV POS MICROSWITCH FAILED
V42QBT	41D-18	103	13F011	RH ARCS FUEL 3/4/5 CROSSFEED VLV DID NOT IND OP

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V42QBT	51A-04	103	13F001	RH ARCS 3/4/5 FUEL CROSSFEED VLV DID NOT IND CLC
V42QBT	51G-04A	103	13F001	RH ARCS FUEL 3/4/5 CROSSFEED VLV OPEN IND FAILED
V42QBV	51A-04	103	13F001	RH ARCS 3/4/5 OX CROSSFEED VLV DID NOT IND CLOSI
V42QBW	51G-04C	103	13F001	RH ARCS OX TANK ISO VLV 3/4/5 OPEN IND FAILED
V42QCB	28-05B	102	28RF05	R RCS He OX TK PRESSURE 1 HIGH
V42QCC	30-09	104	30RF17	RT RCS "A" LEG OX HE ISOLATION VLV FAILED OPEN
V42QCG	61A-03A	099	ADO419	R RCS HELIUM REG LEG A OPERATED ON SECONDARY
V42QCH	5-01	102	AC4422	RH ARCS FUEL LEG B HELIUM REG LEAK
V42QCH	61A-03B	099	ADO419	R RCS HELIUM REG LEG B FAILED CLOSED
V42QCK	9-17	102	NONE	RH ARCS OXIDIZER PRI REG B INTERNAL LEAK
V43	51F-17	099	NONE	OMS BURNS ROUGH START TRANSIENTS
V43A	7-10	099	07F025	LH OMS FUEL X-FEED HI PT BLEED HTR THERMOSTAT F
V43AFK	51G-1C	103	NONE	LH OMS FEED LINE TEMP (V43T4216A) INCREASED
V43A00	27-11	104		LEFT OMS GN2 ISOL VALVE COIL FAILED
V43A00	32-03a	102	IM32RF03	RT OMS HE PRESS 2 LOW
V43B	1-61	102	NONE	LH OMS HE PURGE FLOW INOPERATIVE
V43BBJ	2-17	102	NONE	LH OMS CROSSFEED B FUEL VLV POSITION IND FAILED
V43BBL	2-17	102	NONE	LH OMS CROSSFEED B OX VLV POSITION IND FAILED
V43BCC	51A-08	103	AC8899F	LH OMS HELIUM ISOLATION VALVE LEAK
V43BCC	51A-08	103	19F021	LH OMS HELIUM ISOLATION VALVE LEAK
V43EBC	1-07	102	01F051	LH OMS QUANTITY TOTALIZER FUEL STICKING
V43EBC	2-05	102	02F010	LH OMS QUANTITY TOTALIZER FUEL AND OX HUNG UP
V43EBC	41B-07	099	NONE	LH OMS POD OX TANK APT & TOTAL QUANTITIES FAIL
V43EBC	41C-19	099	13F009	LH OMS FUEL TOTAL QUANTITY GAGE READ LOW
V43EBC	41D-08	103	14F005	LH OMS FUEL TOTAL QUANTITY GAGE FAILED
V43E00	29-18	103	29RF18	LH OMS FUEL GAGE UNGAGEABLE QUANTITY
V43GAD	9-01	102	09F001	LH OMS SEC PTCH ACTUATOR DID NOT RESPOND TO PR
V43GAD	26-1	103	26RF16	LEFT SECONDARY TVL, RPC NO. 1 GIMBAL DID NOT D
V43GAD	51I-18	103	NONE	LH OMS YAW PRIMARY ACTUATOR STOPPED MOVING
V43GAF	6-04	099	06F029	LH OMS ACT CONTR DRIVER OUTPUT TRANSISTOR SHOR
V43GBK	7-30	099	07F020	LH OMS GN2 PRESS REG LEAK DURING DEORBIT BURN
V43H	1-01C	102	01F083	RH OMS AFT OX LOW PT DRAIN HTR A THERMOSTAT FA
V43H	41D-21	103	07F026	RH OMS OX LOW PT DRAIN LINE HTR B THERMOSTAT F
V43H	51B-12	099	24F017	RH OMS OX LOW POINT DRAIN LINE HTR SET PT DRIF
V43HFL	7-02E	099	NONE	TEMP SENSOR RH OMS FUEL TANK (V43T5315A) READ
V43HFL	8-06B	099	NONE	TEMP SENSOR, RH OMS FUEL TANK (V43T5315A) ERR
V43HGG	51L-04	099	NONE	R5D OX INLET LINE TEMP (V42T3560A) FAILED
V43H00	32-03c	102	IM32RF14	RT OMS FUEL PRESS ERRATIC
V43JBA	55-V-15	102	55RF06	RT OMS PROPELLANT TANKS PRESSURE DECREASE
V43JBD	41D-25	103	13F001	RH OMS FUEL TANK ISO VLV A OPEN IND FAILED
V43JBH	41C-07	099	13F001	RH OMS FUEL TANK ISO VLV SYS A POS IND MISCOMI
V43JBH	51F-14	099	13F001	RH OMS CROSSFEED LEG "A" FUEL MICROSWITCH FAI
V43JBH	51I-11	103	13F001	RH OMS FUEL TANK ISO VLV SYS A BARBER POLE
V43JBJ	51F-12	099	13F001	RH OMS CROSSFEED LEG "B" FUEL MICROSWITCH FAI
V43JBL	41D-24	103	13F001	RH OMS CROSSFEED B OX, FU NO OPEN OR CLOSE IN
V43JCF	51F-16	099	26F008	RH OMS ULLAGE PRESSURE HIGH
V43J00	33-04D	103	33RF10	R OMS QNTY OFF-SCALE HIGH
V43MBC	1-07	102	01F096	RH OMS QUAN TOTALIZER FUEL AND OX STICKING
V43MBC	2-05	102	02F010	RH OMS QUAN TOTALIZER OX READ HIGH
V43MBC	5-05D	102	NONE	RH OMS QNTY SENS OX LEVEL (V43X5233X) FAILED

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V43MBC	6-01C	099	06F024	RH OMS QUANTITY SENSOR OX TOTAL (V43Q5231C) STUCK
V43MBC	7-18	099	07F012	RH OMS TOTALIZER FUEL AND OX FAILED
V43MBC	30-08	104	30RF16	RT OMS FUEL TOTAL QUANTITY GAGE FAILED
V43MBC	51C-12	103	20F006	RH OMS FUEL AND OX QUANTITY GAGES WENT TO ZERO
V43MBC	51J-06	104	28F010	RH OMS FUEL TOTAL QUANTITY READING OFFSET
V43MBC	28-17	102	28RF21	R OMS FUEL QUANTITY GAUGE HIGH
V43MBC	50-V-19	102	NONE	RT OMS FUEL TOTAL QTY BIAS HIGH
V43NAB	1-24	102	01F060	RH OMS ENGINE OX INLET PRESS DROP
V43NAC	5-23	102	AC4919	RH OMS ENG NOZ HAD SEVERAL SCRATCHES INSIDE BELL
V43NAC	61A-17	099	ADO448	RH OMS ENG HAD CRACKS IN LIGHT WEIGHT ENG BELL
V43NAD	1-12	102	01F016	RH OMS PITCH GIMBAL ACTUATOR RESPONSE SLOW
V43NAE	50-V-06	102	50RF03	RT OMS TVL YAW DRIFT DURING ASCENT
V43NAU	31-02d	103	IM31RF13	R OMS ENG FUEL INLET PRESS ERRATIC
V43NBK	9-28	102	09F027	RH OMS GN2 REG SHIFTED DOWN DURING BURNS
V43NBK	30-14	104	NONE	R OMS GN2 PRESS REG LOW
V43NOO	34-09	104	34RF13	R OMS ENG COVER HTR SYS B FAILED OFF
V43NOO	32-04	102	IM32RF06	R OMS NO-BACK DEVICE MOVED/ASCENT
V43000	46-V-09	104	46RF05	ROMS GN2 PRESS VALVE INDICATES OPEN
V43000	50-V-14	102	50RF07	OMS FU HIGH POINT BLEEDLINE TEMP HI ON A HEATERS
V43000	52-V-07	102	52RF06	ROMS GN2 LOW PRESS SYSTEM LEAK
V43V00	40-V-04	102	40RF05	OMS XPEED HTR 'A' FAIL OFF
V43XJB	61B-03	104	NONE	OMS OX CROSSPEED LINE SYS A HEATER FAILED
V45A	9-13	102	09F016	EXCESSIVE GH2 IN THE FUEL CELL WATER
V45AAA	2-08	102	02F001	FUEL CELL 1 FAILURE
V45AAA	2-18	102	02F042	FUEL CELL 1 HYDROGEN FLOW METER READ LOW
V45AAA	4-03	102	04F003	FUEL CELL 1 CONDENSER EXIT TEMP READ LOW
V45AAA	6-29	099	06F017	FUEL CELL 1 COOLANT PUMP DELTA P SWITCH FAILED ON
V45AAA	41D-12	103	14F007	FUEL CELL 1 PERFORMANCE MONITOR FAILED
V45AAA	51I-04C	103	AC9809	FUEL CELL 1 HYDROGEN FLOW METER (V45R0170A) ERRATIC
V45AAA	51J-03A	104	NONE	FUEL CELL 1 HYDROGEN FLOW (V45R0170A) LOW
V45AAA	61A-01	099	30F004	FUEL CELL 1 TCE UNSTABLE
V45AAA	52-V-06	102	52RF03	FUEL CELL 1 CELL PERFORMANCE MONITOR HANG UP
V45AAA	56-V-12	103	56RF05	FC1 SUBSTACK 3 DELTA V INCREASE DURING PURGE
V45ABA	2-09	102	02F002	FUEL CELL 2 OX FLOW METER FAILED HIGH
V45ABA	6-01I	099	06F026	FUEL CELL 2 H2 FLOWRATE (V45R0270A) FAILED
V45ABA	30-02F	104	30RF09	FUEL CELL 2 H2 FLOW METER FAILED HIGH
V45ABA	61B-09	104	31F003	FUEL CELL 2 PERFORMANCE DEGRADATION
V45ABA	31-06	103	31RF07	FUEL CELL 2 FLOW RATE HIGH
V45ABA	32-03c	102	IM32RF05	FUEL CELL 2 EVAP OUT TEMP SLOW RESPONSE
V45ABA	47-V-14	105	47RF14	FUEL CELL 2 O2 FLOWMETER ERRATIC
V45ABA	55-V-05	102	55RF03	FC O2 FLOW SENSOR FAILED OFF-SCALE LOW
V45ACA	2-12	102	02F00	FUEL CELL 3 OX FLOW METER (V45R0360A) ERRATIC
V45ACA	51J-03E	104	AC9761	FUEL CELL 3 OXYGEN FLOW METER (V45R0360A) FAILED
V45ACA	50-V-07	102	50RF04	FUEL CELL 3 OXYGEN PURGE VALVE LEAK
V45A00	37-V-11	104	37RF10	FUEL CELL 3 PH HIGH POSTLANDING
V45A00	42-V-01	103	42RF01	FUEL CELL 2 H2 PUMP MOTOR FAIL
V45A00	45-V-04	104	45RF02	FUEL CELL 3 PERFORMANCE MONITOR FAILED
V45A00	47-V-08	105	NONE	FUEL CELL H2O RELIEF LINE TEMP ERRATIC
V45BA0	56-V-02	103	48RF03	FC1 O2 REACT VLV FALSE CLOSE INDICATION
V45CAJ	29-16	103	29RF-16	FUEL CELL 1 H2O RELIEF VALVE TEMP OVERSHOOT

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V45CAR	4-30	102	NONE	FUEL CELL 2 H2O RELIEF VLV HEATER B FAILED
V45DAH	1-23	102	NONE	WATER RELIEF NOZZLE TEMP HIGH
V45DAO	27-12	104		FUEL CELL 2 ALT H2O LINE TEMPS
V45DAO	54-V-07	105	54RF05	FC2 AND FC3 ALT H2O LINES TEMP INCREASE
V45JAA	29-03	103	29RF01	PRSD CRYO H2 TANK PRESS HIGH
V45JAB	3-10	102	03F047	H2 TANK 2 QUANTITY (V45Q2205A) FAILED HIGH
V45JAB	4-06A	102	NONE	H2 TANK 2 QUANTITY (V45Q2205A) READ LOW
V45JAB	4-16	102	NONE	H2 TANK 2 HEATER B FAILED
V45J00	28-05C	102	28RF06	FUEL CELL 1 H2 FLOW ERRATIC
V45J00	37-V-03	104	37RF03	PRSD O2 MAN. VLV 2 FAILED TO CLOSE
V45J00	40-V-08	102	40RF07	H2 TANK 3 HTR 'A' FAIL OFF
V45J00	49-V-02	105	49RF02	PRSD O2 MANIFOLD 1 ISOL VLV FAILED OPEN
V45J00	52-V-04	102	50RF18	PRSD O2 TK 2 HTR A2 ERRATIC
V45MA0	43-V-09	104	43RF07	PRSD H2 MANIFOLD VALVE 1 FAILED OPEN
V45PAA	3-01	102	NONE	H2 CRYO CONTROL BOX 1 RPC 2 FAILED ON
V45PAA	4-07	102	04F025	H2 TANK 4 HEATER A FAILED
V45PAB	51D-01	103	23F012	CRYO O2 TANK 1 CONTROLLER AUTO MODE FAILED
V45PAJ	61A-02	099	30F005	H2 TANK 1 CONTROL PRESSURE FAILED
V45PA0	43-V-04	104	43RF03	PRSD H2 TANK 1 HEATER B FAILED OFF
V45Q	61B-01	104	NONE	FUEL CELL CRYO O2 SPEC PURITY EXCEEDED
V45QA0	34-12	104	34RF12	CRYO O2 MANIFOLD 2 ISO VLV DID NOT CLOSE
V45QA0	33-08	103	33RF09	CRYO O2 TANK 1 CHECK VALVE STICKY
V45QA0	50-V-05	102	50RF18	O2 TANK 2 HTR A2 ERRATIC
V45QA0	50-V-08	102	50RF17	O2 TANK 2 LEAK
			50RF08	
V45QA0	50-V-12	102	50RF06	O2 TANK 7 CK VALVE STUCK OPEN
V45QA0	50-V-20	102	50RF19	O2 TANK 3 QTY XDUCER ERRATIC
V45QA0	47-V-06	105	47RF05	O2 TANK 4 HEATER CONT PRESS OFF-SCALE LOW
V45TA0	48-V-03	103	48RF03	FUEL CELL 1 O2 REACTANT VALVE CLOSED INDICATION
V45VAA	3-03	102	NONE	O2 TANK 3 HEATER A TRIP INDICATION
V45VAA	9-22	102	AC6878	O2 TANK 3 QUANTITY RAPID DROP
V45VAB	1-10	102	01F001	O2 MANIFOLD 2 PRESSURE (V45P1451A) READ LOW
V45VAC	1-10	102	01F001	O2 MANIFOLD 1 PRESSURE (V45P1140A) READ LOW
V45VAG	51C-07	103	NONE	O2 TANK 2 HEATER CONTROL PRESSURE FAILED MOMENT
V46A	1-59	102	01F099	HIGH APU VIBRATION
V46AAA	1-42	102	NONE	APU 1 LOW CHAMBER PRESS DURING ON ORBIT START
V46AAA	2-01	102	AC0878	APU 1 LUBE OIL OUTLET PRESS HIGH FILTER PLUGGED
V46AAA	2-07	102	02F009	APU 1 MANIFOLD FITTING LEAKED COOLING WATER
V46AAA	9-26	102	09F012	APU 1 UNDERSPEED SHUTDOWN
V46AAA	27-01B	104		APU 1 GG BED TEMP BIAS 45 DEG HIGH
V46AAA	27-01D	104		APU 1 GG VALVE MODULE T-1 TEMP BIASED 40 DEG HI
V46AAA	41B-02B	099	11F010	APU 1 GAS GEN INJ TEMP (V46T0174A) 600 DEG F LO
V46AAA	51B-14	099	24F011	APU 1 FUEL BY-PASS LINE HTR B FAILED ON
V46AAA	51F-02	099	26F007	APU 1 LUBE OIL OUTLET AND GEARBOX GN2 PRESSURE
V46AAA	51J-03C	104	NONE	APU 1 GGVM TEMP (V46T0171A) FAILED
V46AAA	61A-04	099	26F007	APU 1 GEARBOX GN2 PRESSURE HIGH
V46AAA	61C-03	102	26F007	APU 1 GEARBOX GN2 PRESSURE HIGH
V46AAA	34-04	104	34RF05	APU 1 FAULT TO HIGH SPEED
V46AAA	31-11	103	31RF12	APU 1 FUEL PUMP/GGVM HTR SYS A THERMOSTAT SETPOINT CHANGE



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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V46AAA	31-01	103	31RF01	APU 1 TURBINE OVERSPEED
V46AAA	36-03b	104	36RF04	APU 1 EGT 1 FAILED
V46AAA	36-03c	104	36RF05	APU 1 GGVM TEMP HIGH
V46AAA	41-03	103	41RF01	APU 1 GG/FP HEATER SYSTEM FAILED ON
V46AAA	35-11	102	35RF05	APU 2 GG BED TEMPERATURE RESPONSE
V46AAA	40-V-12	102	40RF11	APU 1 SERVICE LINE TEMPERATURE RISE
V46AAA	43-V-06	104	43RF04	APU 1 FUEL PUMP/GGVM OVERCOOLING
V46AAA	43-V-12	104	43RF10	APU 1 ANOMALOUS CHAMBER PRESSURE DURING ENTRY
V46AAA	43-V-12	104	43RF10	APU 1 ANOMALOUS CHAMBER PRESSURE DURING ENTRY
V46AAA	50-V-22	102	50RF13	APU 1 GEARBOX N2 PRESS LOW DURING ENTRY
V46AAA	47-V-16	105	47RF06	APU 1 DRAIN LINE TEMP 2 LOW
V46AAB	1-59	102	01F099	APU 2 VIBRATION LEVELS HIGH
V46AAB	7-02G	099	NONE	TEMP SENSOR (V46T0262A) APU 2 BEARING TEMP FAILED
V46AAB	9-26	102	09F013	APU 2 UNDERSPEED SHUTDOWN
V46AAB	27-04	104		APU 2 GG HEATER SYSTEM FAILED
V46AAB	41B-26	099	11F018	APU 2 GG/FUEL PUMP HEATER SYS A FAILED OFF
V46AAB	41G-03C	099	AC8752	APU 2 BEARING 1 TEMP (V46T0261A) FAILED
V46AAB	32-03d	102	IM32RF10	APU 2 GGT/INJ TEMP MISCOMPARE
V46AAB	44-V-10	104	44RF03	APU 2 DRAIN LINE PRESSURE DROP
V46AAB	44-V-11	104	NONE	APU 2 DRAIN LINE TEMPERATURE ROSE DURING ENTRY
V46AAC	1-42	102	01F056	APU 3 CHAMBER PRESS DURING ON ORBIT START
V46AAC	1-59	102	01F099	APU 3 VIBRATION LEVEL HIGH
V46AAC	4-05	102	04F010	APU 3 LUBE OIL PRESS HIGH FILTER PLUGGED
V46AAC	4-05	102	04F013	APU 3 LUBE OIL PRESS HIGH FILTER PLUGGED
V46AAC	7-20	099	07F010	APU 3 UNDERSPEED SHUTDOWN DURING ON ORBIT CHECKOUT
V46AAC	41B-02C	099	11F007	APU 3 GAS GENERATOR PRESS (V46P0320A) 100 PSIA HIG
V46AAC	51D-07	103	23F014	APU 3 SHUTDOWN LOAD ABNORMAL
V46AAC	31-08	103	31RF08	APU 3 PUMP BYPASS HTR A FAILED ON
V46AAC	32-02	102	IM32RF02	APU 3 OIL OUTLET PRESSURE HIGH
V46AAC	34-08	104	34RF09	APU 3 SEAL LEAK INTO DRAIN BOTTLE
V46AAC	50-V-09	102	50RF05	APU 3 TEST LINE TEMPS LOW
V46AAC	47-V-02	105	47RF04	APU 3 FU TEST LINE TEMP LOW
V46AAC	54-V-10	105	54RF12	APU 3 BEARING TEMPERATURE ERRATIC
V46ADB	30-02G	104	30RF11	APU 1 EGT 2 FAILED
V46ADB	34-03A	104	34RF19	APU 2 EGT 1 FAILED
V46ADC	34-03B	104	34RF04	APU 3 EGT 1 FAILED LOW
V46ADC	34-03C	104	34RF18	APU 3 EGT 2 FAILED LOW
V46ADC	33-04B	103	33RF06	APU 1 EGT 2 FAILED DURING ENTRY
V46ADC	33-04C	103	33RF07	APU 3 EGT 2 FAILED DURING ENTRY
V46AEA	33-01	103	33RF01	APU 1 LUBE OIL OUT PRESS HIGH
V46A00	26-12	103	26RF04	APU 3 LOW CHAMBER PRESS/HI FUEL USAGE
V46A00	30-06	104	30RF15	APU 2 GG FUEL PUMP "A" HEATERS INOP
V46A00	34-10	104	34RF11	APU 2 FUEL PUMP HEATER B CYCLING HIGH
V46A00	34-03A	104	34RF03	APU 3 INJ TEMP BIAS LOW
V46BAA	4-23	102	AC1697	APU 1 FUEL TANK DECAY GN2 QD LEAK
V46BAC	3-24	102	AC1697	APU 3 FUEL TANK PRESSURE DECAY GN2 QD LEAK
V46BCA	61A-05	099	30F014	APU 1 FUEL TANK ISO VLV TEMP LOW ON HEATER A
V46BCA	61C-05	102	32F006	APU 1 ISO VALVE TEMPERATURE LOW
V46BCB	61C-05	102	32F006	APU 3 ISO VALVE TEMPERATURE LOW
V46BCC	28-12	102	28RF14	APU ISOL VALVE TALK BACK FAILURE

INFLIGHT ANOMALY LIST  
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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V46BLA	6-13	099	AC5531	APU 1 SEAL CAVITY DRAIN LEAK
V46BLB	3-05	102	03F003	APU 2 RELIEF VALVE LEAK
V46BLB	6-13	099	AC5531	APU 2 PRESS TRANSDUCER O-RING SEAL LEAK
V46BLB	7-09	099	AC5531	APU 2 SEAL CAVITY DRAIN LEAK
V46BLB	8-05	099	AC5531	APU 2 SEAL CAVITY DRAIN LEAK
V46BLB	51A-01	103	NONE	APU 2 WATER SPRAY VALVE SYSTEM A FAILED
V46BLC	4-15	102	04F008	APU 3 RELIEF VALVE LEAK
V46BLC	6-13	099	AC5531	APU 3 RELIEF VALVE LEAK
V46BLC	7-09	099	AC5531	APU 3 SEAL CAVITY DRAIN LEAK
V46CBA	30-02B	104	NONE	APU 1 EGT 1 FAILED
V46CBA	31-02b	103	IM31RF10	APU 1 EGT 1 FAILED
V46CBA	36-03a	104	IM36RF03	APU 1 EGT 1 FAILED
V46CBB	27-01A	104		APU NO 1 EGT NO 2 ERRATIC
V46CBB	31-02a	103	IM31RF02	APU 1 EGT 2 FAILED
V46CCA	30-02C	104	30RF06	APU 2 EGT 1 FAILED
V46CCB	32-03g	102	IM32RF23	APU 2 EGT 2 ERRATIC
V46CDA	30-02A	104	30RF05	APU 3 EGT 2 FAILED
V46CDB	31-02c	103	IM31RF11	APU 3 EGT 2 FAILED
V46CDB	36-03e	104	IM36RF20	APU 3 EGT 2 FAILED
V46CDB	32-03b	102	IM32RF04	APU 3 EGT 2 FAILED
V46DCO	33-16	103	NONE	APU 1 AND APU 3 BYPASS LINE "A" TEMPS ERRATIC
V46DCO	34-06	104	NONE	APU 2 GG/FP HTR "A" INOPERATIVE
V46DCO	28-18	102	28RF22	APU 1 TEST LINE TEMP HIGH
V46DCO	41-11A	103	41RF08	APU 2 HEATER 2A SET POINT DRIFT
V46DCO	41-11B	103	41RF08	APU 3 HEATER 3A SET POINT DRIFT
V46DKD	1-01B	102	01F072	THERMOSTAT FOR HEATER EXHIBITED CREEP
V46DKE	1-01D	102	AB9526	THERMOSTATS FOR HEATERS EXHIBITED CREEP
V46DMD	7-08	099	07F005	THERMOSTAT APU 2 SERVICE LINE HEATER FAILED
V46DMG	41G-07	099	NONE	APU 2 PUMP DRAIN LINE HEATER A FAILED
V46DMK	41C-16	099	NONE	APU 2 PUMP WATER LINE SYSTEM B HEATER FAILED
V46DML	51B-08	099	24F012	APU 3 SEAL CAVITY DRAIN LINE HEATER 3A FAILED
V46DMM	7-19	099	07F026	THERMOSTAT APU 3 WATER INJ LINE HEATER FAILED
V46DNM	61C-06	102	32F008	APU 3 FUEL LINE SYS B HEATER FAILED
V46GBG	51G-02	103	NONE	APU 2 FUEL PUMP WATER COOLING VLV SYS A FAILED
V46GE	41B-01	099	11F009	APU GGVM H2O COOLING SYSTEM A FAILED OFF
V46GE	41C-04	099	NONE	APU 1, 2 AND 3 GGVM TEMPERATURES DROPPED
V46GGA	7-19	099	07F030	THERMOSTAT APU 3 SEAL CAVITY DL HEATER FAILED
V46KCC	2-01	102	AC0878	APU 3 LUBE OIL PRESSURE HIGH FILTER PLUGGED
V46000	39-V-02	103	39RF02	APU 2 FUEL PUMP/GGVM COOLANT VALVE FAILED TO O
V46000	39-V-11	103	39RF09	APU 2 LUBE OIL OUTLET PRESSURE LOW
V46000	45-V-03	104	45RF01	APU 3 Z AXIS VIBRATION SENSOR FAILED
V46000	45-V-05	104	45RF03	APU 1 BED HEATER ERRATIC
V46000	45-V-11	104	IPR	APU 2 N2 PRESS LOW
			46V-0006	
V46000	49-V-25	105	49RF20	APU 3 GEARBOX GN2 PRESS LOW
V46000	49-V-26	105	IPR-47V-0016	APU 1 INJ TEMP ER
V46000	49-V-33	105	PR APU-5-0047	APU 3 FUEL LINE TEMP CYCLED LOW
V46XXX	2-03	102	NONE	THERMOSTATS (10) HEATER SYSTEMS EXHIBITED DITH

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V47PVO	49-V-34	105	NONE	RADAR ALT 1 OUT-OF-TOLERANCE
V50000	49-V-17	105	IPR 47V- -0017	PRLA 4 LATCH/UNLATCH INDICATOR 'B' FAILED
V50000	49-V-22	105	49RF13	PORT AFT BULKHEAD PLBD LATCH INDICATOR FAIL
V51ABB	6-27	099	NONE	LANDING GEAR ISO VLV SYS 2 DID NOT ACTIVATE
V51ABB	41D-20	103	NONE	LANDING GEAR ISO VLV 2 INDICATED OPEN
V51ABH	51B-22	099	AC9961	MLG GEAR DUMP VALVE LEAKED AFTER LANDING
V51BAA	61B-12	104	NONE	NOSE LANDING GEAR STRUT LOW
V51BCB	28-04	102	28RF04	NLG WEIGHT ON WHEELS SENSOR FAILED
V51B00	30-16	104	30RF23	NOSE WHEEL STEERING ENABLE LATE
V51CAA	30-15B	104	30RF22	LH MAIN LANDING GEAR FLUID LEAK
V51CAA	51A-27	103	NONE	LEFT MAIN LANDING GEAR STRUT LOW
V51CCE	9-3D	102	NONE	LH MLG DOOR CLOSE DISCRETE IND RELEASED
V51CDA	1-25	102	01F004	LH OUTBOARD MLG TIRE WAS CUT
V51CDA	41B-32	099	NONE	LH OTBD MLG TIRE HAD A FLAT SPOT
V51CDA	41G-18	099	NONE	LH OTBD MLG TIRE HAD A FLAT SPOT
V51CDB	41B-32	099	NONE	LH INBD MLG TIRE HAD A FLAT SPOT
V51CDB	41G-18	099	NONE	LH INBD MLG TIRE HAD A FLAT SPOT
V51EAA	30-15	104	30RF21	RH MAIN LANDING GEAR FLUID LEAK
V51EAA	41D-26	103	14F018	VEHICLE LURCHED TO RIGHT AT NOSE GEAR TOUCHDOWN
V51EAD	1-26	102	01F003	RH MLG UNLOCK ROLLER SPLIT DURING DEPLOY
V51EDA	41B-32	099	NONE	RH INBD MLG TIRE HAD A FLAT SPOT
V51EDA	41G-18	099	NONE	RH INBD MLG TIRE HAD A FLAT SPOT & TREAD RIB WORN
V51EDA	51D-12	103	08F011	RH INBD MLG TIRE BLEW
V51EDB	41B-32	099	NONE	RH OTBD MLG TIRE HAD A FLAT SPOT
V51EDB	41G-18	099	NONE	RH OTBD MLG TIRE HAD A FLAT SPOT
V51EDB	39-V-12	103	39RF10	RH OTBD MAIN TIRE EXCESSIVE WEAR
V51EDB	39-V-12	103	39RF10	RH OTBD MAIN TIRE EXCESSIVE WEAR
V51000	47-V-12	105	47RF04	LHOB TIRE PRESS BIAS HIGH
V51SJA	51A-28	103	NONE	RH MLG DOOR BENT
V52AAA	41C-21	099	13F007	LH MLG OUTBD BRAKE DAMAGED
V52AAA	41G-17	099	08F011	LH MLG OUTBD BRAKE ROTOR 3 CRACKED
V52AAA	51B-20	099	08F011	LH MLG OUTBD BRAKE DAMAGED
V52AAA	43-V-14	104	NONE	RHOB BRAKE PRESSURE BIAS
V52AAB	4-31	102	NONE	LH MLG INBD BRAKE ROTORS 3&4 DAMAGED
V52AAB	5-22	102	05F009	LH MLG INBD BRAKE STATORS & ROTORS DAMAGED
V52AAB	41C-21	099	13F007	LH MLG INBD BRAKE DAMAGED
V52AAB	51B-20	099	08F011	LH MLG INBD BRAKE DAMAGED
V52AAC	3-43	102	03F037	RH MLG OUTBD BRAKE ROTOR CRACKED
V52AAC	7-24	099	07F013	RH MLG OUTBD BRAKE RETAINER WASHERS BROKEN
V52AAC	8-22	099	08F011	RH MLG OUTBD BRAKE RETAINER WASHERS BROKEN
V52AAC	9-27	102	09F011	RH MLG OUTBD BRAKE DAMAGED
V52AAC	29-30	103	NONE	RH OUTBD BRAKE ROTOR CRACK
V52AAC	41B-29	099	11F006	RH MLG OUTBD BRAKE DAMAGED
V52AAC	41C-21	099	13F007	RH MLG OUTBD BRAKE DAMAGED
V52AAC	41D-27	103	14F019	OSCILLATING LINEAR ACCELERATION DURING LT BRAKING
V52AAC	41G-17	099	08F011	RH MLG OUTBD BRAKE ROTOR 4 CRACKED
V52AAC	51D-13	103	08F011	RH MLG OUTBD BRAKE DAMAGED
V52AAD	1-27	102	01F076	RH MLG INBD BRAKE OVERPRESSURE COMMANDED
V52AAD	4-31	102	NONE	RH MLG INBD BRAKE ROTORS 3&4 DAMAGED

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V52AAD	6-38	099	06F012	RH MLG INBD BRAKE STATORS CRACKED
V52AAD	7-24	099	07F013	RH MLG INBD BRAKE ROTORS 3&4 BROKEN
V52AAD	8-22	099	08F011	RH MLG INBD BRAKE RETAINER WASHERS BROKEN
V52AAD	41C-21	099	13F007	RH MLG INBD BRAKE DAMAGED
V52AAD	41G-17	099	08F011	RH MLG INBD BRAKE ROTOR 4 CRACKED
V52AAD	51D-13	103	08F011	RH MLG INBD BRAKE DAMAGED
V52AAD	61C-14	102	08F011	RH MLG INBD BRAKE DAMAGED
V52AAD	44-V-18	104	44RF10	HAIRLINE CRACKS ON RIGHT INBOARD BRAKE ROTOR
V52A00	52-V-16	102	52RF10	RHIB ROTOR 2 RIVET BUSHING DAMAGE
V52A00	52-V-18	102	NONE	LEFT MAIN GEAR OUTBOARD HEATER OVERTEMP
V52JAD	1-27	102	01F026	RH MLG BRAKE/SKID CONTROL BOX ZENER DIODE FAILED
V52JE	51A-26	103	19F020	BRAKE HYDRAULIC PRESSURE INCREASED
V52JJ	6-35	099	NONE	RUDDER PEDAL DEFLECTION EXCESSIVE
V52JS	51G-1B	103	25F011	LH MLG OUTBD BRAKE PRESSURE SYS 4 READ LOW
V52000	37-V-17	104	NONE	RH OTB BRAKE PRESS. LOW
V52000	50-V-26	102	NONE	ROB BRAKE PRESS LAG
V54BA	2-16	102	RMS1010	RMS SHOULDER YAW JOINT BACKUP MODE CABLE BROKEN
V54BA	41B-18	099	RMS1317	RMS WRIST JOINT FAILED
V54BA	41C-20	099	NONE	RMS WRIST ROLL JOINT MOVED WHEN ARM IN PITCH MODI
V54BC	3-22	102	NONE	RMS WRIST PITCH ENCODER CHECK GAVE FALSE ALARMS
V54BC	3-30	102	NONE	RMS WRIST YAW SERVO PA COMMUTATOR BITE ALARM
V54BC	4-10	102	RMS1011	RMS END EFFECTOR STAT FLAGS INCORRECT, WIRES BROI
V54BC	51I-05	103	RMS1319	RMS ELBOW JOINT FAILED TO RESPOND TO COMMANDS
V54C	8-04	099	08F017	RMS MPH FWD PEDESTAL DEPLOY SWITCH A RIG IMPROPEI
V54CBX	3-12	102	03F008	RMS MPH APT PDSTL 1 READY-FOR-LATCH IND SWCH FAI
V54CBX	51A-07	103	19F007	RMS APT MRL SYS 1 READY TO LATCH IND LOST
V54D00	31-18	103	PR-RMS-3 -11-0016 GFE	RMS END EFFECTOR SNARE WIRES APPROX 1/2" OUT OF GROOVES
V54FAA	41C-10	099	13F004	RMS DEPLOY SW FOR SHOULDER MPH PED WENT TO ZERO
V54FAA	61A-12	099	30F003	RMS DEPLOY SW FOR SHOULDER MPH PED WENT TO ZERO
V55AAQ	44-V-13	1-4	44RF05	HYDRAULIC SYSTEM 1 PRIORITY VALVE SLUGGISH
V55PAJ	1-38	102	EPO046F	NASA STANDARD DETONATOR NOT FIRED, TIMING SKEW
V55PAR	51J-02	104	NONE	PORT MPH PYRO INITIATOR CKT FAILED SELF TEST
V55KBA	8-23	099	EE0055F	NOSE STRUT THRUSTER PISTON FOUND ON RUNWAY
V55000	45-V-12	104	PR PYR 4 -12-0150	E03 HOLE PLUGGER JAMMED
V55RSS	2-48	102	NONE	RANGE SAFETY SYSTEM COMMAND RESPONSE PULSE MISSE
V56AAA	7-34	099	07F022	ET FWD ATTACH SHEAR BOLT OUTSIDE MOLD LINE
V56AAA	34-21	104	34RF22	R.H. STOP BOLT BENT ON CENTERING RING OF FWD SEP
V56A00	33-10	103	33RF12	FWD ATTACH PTS SYS A AND B CONNECTORS BROKEN
V56A00	32-26	102	32RF27	FWD ET SEP ASSY CT MECH BOLT COMPRESSED
V56A00	41-07	103	41RF04	DEBRIS PLUNGER FAILURE
V56A00	35-21	102	NONE	RH APT SEPARATION HOLE PLUGGER FAILURE
V56B00	44-V-14	104	44RF06	LOSS OF HARDWARE - ET LH2 UMBILICAL ATTACHMENT
V56D00	27-02	104	27RF02	LEFT ET UMB DOOR READY TO LATCH OFF; S/B ON
V56E	51B-02	099	24F009	RIGHT ET DOOR MOTOR B INOPERATIVE
V56E	51D-02	103	NONE	RH ET DOOR LATCHES A & B INDICATED OFF
V56E00	40-V-11	102	40RF10	RH ET DOOR THERMAL DAMAGE
V56F00	48-V-02	103	48RF02	ET DOOR CENTERLINE LATCH 1 MOTOR 2 FAILED

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V56JBB	1-43	102	01F056	UMBILICAL RELEASE BLAST CONTAINERS CRACKED
V56JBO	29-19	103	29RF19	AFT SEP HOLE PLUGGER DID NOT MOVE FULL STROKE
V56J00	34-20	104	34RF21	ET/ORB LOX AFT SEP HOLE PLUGGER FAILED
V56000	29-06	103	29RF06	EXCESS VAPOR AT H2 ET/ORB UMBILICAL
V56000	29-12	103	29RF11	17 INCH DISCONNECT LEAK
V56000	29-13	103	29RF12	LH2 4 INCH DISCONNECT SLOW TO CLOSE
V56000	30-18	104	30RF25	ET LO2 UMB YOKE AND DETONATORS
V56000	28-22	102	NONE	UMBILICAL WELL CAMERA INOP.
V56000	35-22	102	NONE	RH STOP BOLT FORWARD ET ATTACHMENT BENT
V56000	37-V-13	104	37RF12	LH2 ET UMB. FWD. LIGHTNING STRIP DEBOND
V56X	2-40	102	02F023	ET AFT STRUCTURAL ATTACH SPACERS LOOSE
V56X	51I-19	103	27F011	ET ATTACHMENT PLATE HAD BOLT MISSING
V57ACA	41D-28	103	NONE	RH INBOARD ELEVON SECONDARY DELTA P CH 4 HIGH
V57ACA	51C-01	103	20F001	RH INBOARD ELEVON CH4 SECONDARY DELTA P FORCE FIG
V57BAH	41B-16	099	NONE	PDU R/S SYS 3 SECONDARY SWITCHING VLV IND FAILED
V57CAK	1-39	102	NONE	BODY FLAP EXCEEDED PRED HYPERSONIC TRIM ATTITUDE
V57CAK	1-56	102	NONE	BODY FLAP CARRIER PLATE OVER TEMPERATURE
V57EA	61B-02C	104	NONE	BODY FLAP LWR CENTERLINE TEMP SENSOR FAILED
V57000	28-24	102	28RF27	BODY FLAP EXCESSIVE DEFLECTION
V57000	28-30	102	28RF31	EARLY TRANSITION
V57000	35-24	102	NONE	POSTLANDING ICE ON RUDDER/SPEEDBRAKE PANELS
V58	51I-16	103	NONE	OIL SEEPAGE IN RIGHT MAIN LANDING GEAR WELL
V58AAA	2-24	102	NONE	HYD RESERVOIR 1 FLUID LEVEL DROPPED AT GEAR DEPLO
V58AAD	9-03G	102	NONE	HYD RES PRESSURE 1 XDUCER (V58P0131A) FAILED
V58AAP	8-08	099	08F021	HYD SYS 1 ACCUMULATOR PRESS DROP
V58AAP	41D-16	103	14F016	HYDRAULIC SYSTEM 1 UNLOADER VALVE MALFUNCTIONED
V58AAP	41G-01	099	17F003	HYDRAULIC ACCUMULATOR 1 PRESSURE DROPPED
V58ABB	1-48	102	01F047	HYD PUMP SUCTION FLEX HOSE FITTING LEAKED
V58ACA	5-05A	102	05F004	WSB REG OUT PRESS FAILED
V58ACA	8-17	099	NONE	WSB 1 GN2 PRESS REG RELIEF VLV LEAKED
V58ACA	51A-06	103	NONE	WSB 1 GN2 REG OUT PRESSURE DROPPED
V58ACA	34-03E	104	34RF20	WSB 3 REG OUT PRESS FAILED
V58ACA	35-19	102	NONE	WSB 2 WAX BUILDUP
V58ACA	47-V-05	105	47RF12	WSB 1 OVERTEMP
V58ACA	47-V-20	105	NONE	WSB 1 REG OUTLET PRESS LEAK
V58ACA	53-V-11	103	53RF06	WSB 1B STEAM VENT TEMPERATURE ERRATIC
NV58ACC	2-28	102	NONE	WSB CONTROLLER, PRI ERRONEOUS READY SIGNAL
V58ACC	61C-13	102	AD0927	WSB 1 SYS A COOLING WATER USAGE RATE HI
V58ACO	45-V-10	104		WSB 1 OVERCOOLING ON B CONTROLLER
V58AEO	26-04D	103	26RF18	HYD SYS 1 "B" SUPPLY PRESSURE BIASED LOW
V58AF	9-30	102	NONE	WSB 1 BYPASS VALVE INDICATION MALFUNCTION
V58AJD	51J-08	104	NONE	MPS 1 & 2 PITCH & YAW ACTUATOR DELTA P HI
V58A00	36-08	104	36RF11	HYD SYS 1 LEAK
V58A00	36-17	104	36RF19	HYD SYSTEM 1 PRESS LOW
V58A00	36-20	104	36RF23	HYD 1 RESERVOIR PRESS XDUCER STUCK
V58BAM	6-28	099	06F001	HYDRAULIC ACCUMULATOR SEAL GAS LEAK
V58BAM	7-06	099	AC5702	HYD SYS 2 ACCUMULATOR PRESS DECAY
V58BAM	27-14	104		HYD SYSTEM 2 ACCOM LOW
V58BA0	48-V-05	103	48RF05	HYDRAULIC SYSTEM 2 UNLOADER VALVE LEAK
V58BAQ	41-10	103	41RF07	HYDRAULIC SYSTEM 2 PRIORITY VALVE SLUGGISH

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V58BBL	51B-03B	099	NONE	HYD SYS 2 MAIN PUMP PRESSURE B (V58P0215C) BIAS
V58BBO	37-V-15	104	37RF14	HYD SYS 2 PRIORITY VALVE LAGGED-ENTRY
V58BBO	50-V-15	102	50RF10	HYD SYS 2 ACCUM N2 LEAK
V58BBS	6-01D	099	06F019	HYD RTN LINE TEMPS CROSSWIRED
V58BBS	6-01G	099	06F019	HYD RTN LINE TEMPS CROSSWIRED
V58BBS	9-03E	102	NONE	TEMP (V58T1650A) BODY FLAP DRAIN LINE READING LO
V58BCA	51J-04	104	28F009	WSB 2 REG PRESSURE DECAY
V58BCA	31-05	103	31RF05	WSB 2 VENT HTR A FAILED OFF
V58BCA	37-V-02A	104	37RF02	WATER SPRAY BOILER 2A SPRAY BAR FREEZE
V58BCA	37-V-02B	104	37RF15	WSB 2A LUBE OIL OVERCOOL
V58BCA	43-V-02	104	43RF02	NO COOLING ON WSB 2 ON ASCENT
V58BCA	47-V-10	105	NONE	WSB 2 REG OUTLET PRESS ERRATIC
V58BCC	38-01	104	38RF01	WSB 2 NOT COOLING ON CONTROLLER A
V58BCN	8-01	099	08F003	HYDRAULIC CIRC. PUMP 2 FAILED TO START
V58BCN	50-V-10	102	50RF09	CIRC PUMP 2 PRESS SENSOR DROPOUT
V58BCO	34-18	104	34RF16	WSB 2 VENT TEMP A-NO RESPONSE
V58BCO	36-07	104	36RF10	WSB 2 VENT SYSTEM A HTR FAILED
V58BCO	36-07	104	36RF10	WSB 2 VENT SYSTEM A HTR FAILED
V58BCO	49-V-09	105	49RF05	WSB SYS 2 REG OUT PRESS SENSOR STUCK
V58B00	28-23	102	28RF26	HYD SYS 2 UNLOADER VLV OUT-OF-SPEC
V58B00	50-V-25	102	50RF16	HYD INTERSYSTEM LEAK AND EXCESSIVE TEMP
V58CAA	2-24	102	NONE	HYDRAULIC RESERVOIR 3-LEVEL DROP DURING ENTRY
V58CAM	51D-06	103	23F001	HYD SYS 3 ACCUMULATOR RAPID PRESSURE DECAYS
V58CAP	41D-17	103	14F017	HYDRAULIC SYSTEM 3 BOOTSTRAP PRESSURE DROP
V58CAP	51I-03	103	AC6190	HYD SYSTEM 3 ACCUMULATOR BOOTSTRAP PRESSURE LOW
V58CBA	41D-07	103	AC8341F	HYDRAULIC SYSTEM 3 PUMP LEAKED
V58CBA	54-V-08	105	54RF09	HYD SYS 3 PUMP OUT PRESS HI - POST ASCENT
V58CBA	55-V-07	102	55RF10	ANOMALOUS HYD SYS 3 MN PUMP CASE DRN TEMP
V58CCA	2-04	102	NONE	WSB 3 FROZE DURING ASCENT
V58CCA	3-04	102	03F002	WSB 3 FROZE - APU SHUTDOWN
V58CCA	7-22	099	07F014	WSB 3 WATER DEPLETED DURING ENTRY
V58CCA	9-06	102	NONE	WSB 3 LUBE OIL RET TEMP OVERSHOOT
V58CCA	61B-05	104	28F009	WSB 3 GN2 REG OUTLET PRESSURE DECAYED
V58CCA	32-23	102	32RF24	WSB 3 CONTROLLER A OVERCOOLING
V58CCA	35-17	102	NONE	WSB 3A OPERATIONS ABNORMAL
V58CCA	37-V-12	104	37RF11	WSB 3A OVERCOOL ON ENTRY
V58CCA	54-V-01	105	54RF01	WSB 3 - NO COOLING
V58CCC	8-14	099	08F020	WSB 3-CONTROLLER EXTRA PULSES
V58CCC	51B-01	099	24F013	WSB 3 CONTROLLER A INOPERATIVE
V58CCC	61C-11	102	32F004	WSB-3 SYS A HEATER OPERATION ERRATIC
V58CEO	26-04E	103	26RF19	H/D CIRC PUMP PRESSURE NO. 3 BIASED LOW
V58CEP	9-03A	102	NONE	TEMP (V58T0388A) BODY FLAP RET LINE READING LOW
V58CET	3-10	102	03F031	TEMP SENSOR (V58T0398) FAILED HIGH
V58COO	47-V-07	105	47RF13	WSB 3 NO COOLING
V58KAA	3-10	102	03F030	TEMP SENSOR (V58T1143) HYD SYS RTN BIASED LOW
V58KAA	4-06E	102	NONE	TEMP (V58T1143) FALSE RESPONSE TO CRYO
V58000	29-26	103	NONE	HYD SYS 1 AND 2 ACCUM ASC PRESS LOCKED UP LOW
V58000	33-07	103	33RF08	HYD SYS 1 AND 2 ACCUM PRESS LOCKUP LOW
V58000	32-16	102	IM32RF16	HYD SYS 1 AND 2 CIRC PUMP UNLOADER VALVES LEAK
V58000	32-17	102	IM32RF17	WSB 2 AND 3 EXCESS REG PRESS DECAY

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V59HAA	7-23	099	07F019	LH AIR DATA PROBE TEMPORARY HANG-UP
V59X	1-29	102	NONE	RH ET DOOR STRIKE PLATE DISCOLORED
V59X	8-26	099	NONE	RH ET ATTACH BOLT HOLE PLUGGER HUNG UP-DEBRIS
V60000	27-09	104		CABIN TEMP CONTROLLER 2 CNTRL FROZEN
V60000	28-21	102	28RF25	CREW EXPERIENCED SNEEZING
V60000	31-04	103	IM31RF04	SUPPLY WATER TANK BELLOWS STUCK
V60000	40-V-03	102	40RF04	LIOH DOOR LATCH STUCK OPEN
V600G0	44-V-05	104	NONE	HUMIDITY SEPARATOR B WATER CARRYOVER
V60000	44-V-06	104	44RF02	SUPPLY WATER DUMP VALVE LEAK
V60000	50-V-02	102	50RF02	RCRS SHUTDOWN
V61AAA	1-14	102	NONE	O2/N2 CONTROL PANEL-VALVE LEAK
V61AAA	1-28	102	01F036	O2/N2 CONTROL PANEL-CROSSOVER VALVE LEAK
V61AAA	5-20	102	05F011	O2/N2 CONTROL PANEL-HIGH O2 FLOW
V61AAA	6-11	099	06F006	O2/N2 CONTROL PANEL-HIGH O2 & N2 FLOW
V61AAA	6-30	099	06F034	O2/N2 CONTROL PANEL-O2 REGS LEAKING
V61AAA	7-04	099	06F006	O2/N2 CONTROL PANEL-HIGH O2 FLOW
V61AAA	41C-18	099	NONE	ECLSS GN2 SYS 2 REGULATOR LOCKUP PRESSURE HIGH
V61AAA	51B-17	099	NONE	HIGH O2 FLOW ON PRESSURE CONTROL SYSTEM 2
V61AAB	3-17	102	03F012	O2/N2 AUX SUPPLY PANEL LEAKED WHEN COLD
V61ABH	41D-22	103	NONE	OXYGEN LEAK DOWNSTREAM OF ECS SUPPLY VALVE 2
V61C	51I-14	103	NONE	HIGH PPO2 IN CABIN AND ECLSS O2 PRESS TRACKED CR
V61C00	30-01	104	NONE	CABIN PRESSURE TRANSDUCER FAILED
V61C00	43-V-01	104	43RF01	CABIN VENT VALVE CLOSED INDICATION FAILED
V61C00	49-V-04	105	49RF04	PCS O2 SYS 2 FLOWMETER FAILED
V61C00	49-V-24	105	IPR 47V-0023	PCS 1 N2 FLOWMETER OFF NOMINAL
V61DAH	51L-03	099	NONE	PPO2 SENSOR "A" FAILED
V61DAH	53-V-10	103	53RF04	PPO2 SENSOR ERRATIC
V61DAL	8-30	099	08F016	LIOH CARTRIDGES-CREW IRRITATION
V61DAM	4-25	102	04F007	PPO2 SENSORS RESPOND TO TRANSIENTS
V61DAN	1-54	102	NONE	CABIN DP/DT ALARM - ASCENT
V61EAE	43-V-11	104	43RF09	PPO2 SENSOR C FAILED
V61EAE	49-V-20	105	49RF17	CABIN HUMIDITY SENSOR FAILURE
V61E00	56-V-16	102	NONE	WASTE WATER DUMP DEGRADED
V61JAA	5-10	102	05F018	HUMIDITY SEPARATOR - RESTRICTED
V61JAA	6-39	099	NONE	HUMIDITY SEPARATOR - RESTRICTED
V61JAA	27-05	104	27RF01	HUMIDITY SEPARATOR "B" FLOODED
V61JAA	36-11	104	36RF13	FREE WATER NEAR HUMIDITY SEP A
V61JAA	32-07a	102	IM32RF08	HUM SEP B WATER LEAKAGE
V61JAA	32-07b	102	IM32RF15	HUM SEP A WATER LEAKAGE
V61J00	29-14b	103	29RF13	FES PRIMARY B OUTLET OSCILLATION
V61LAA	1-13	102	NONE	CABIN TEMP VARIATIONS
V61000	61C-10	102	32F003	O2 PRESS CONTROL SYS 2 FLOW SENSOR READ LOW
V61QBA	6-02	099	NONE	AV BAY 1 FAN B SLOWED BY DEBRIS
V61QBF	3-44	102	NONE	HEAT EXCHANGER SLURPER CLOGGED
V61QBF	6-08	099	06F013	HUMIDITY SEPARATOR B CB OPENED - BURNED WIRES
V61Q00	56-V-08	103	NONE	WATER BYPASS VALVE CONTROLLER SLOW
V61S00	49-V-08	105	IPR 47V-0011	AV BAY 3 DELTA P HIGH
V62AAA	2-27	102	02F007	GAS IN WATER

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V62ABA	30-23	104	NONE	HIGH IODINE CONCENTRATION IN DRINKING WATER
V62AEA	1-16	102	NONE	POTABLE WATER TANK QTY X'DUCER STUCK
V62AEA	8-18	099	NONE	WATER TANK B UNSUCCESSFUL DUMP, ICE IN NOZZLE
V62AJD	28-09	102	28RF11	POTABLE WATER DUMP VALVE FAILED
V62AJD	48-V-04	103	48RF04	SUPPLY WATER DUMP VALVE LEAK
V62AJE	41D-14	103	14F023	SUPPLY WATER DUMP NOZZLE ICED
V62AJE	51I-06	103	27F009	POTABLE WATER NOZZLE TEMP DROPPED DURING WATER
V62A00	26-09	103	NONE	WSB 1 RELIEF VALVE LEAK
V62A00	28-05E	102	28RF18	SUPPLY WATER TANK B QUANTITY ERRATIC
V62A00	28-13	102	28RF15	SUPPLY H2O DUMPLINE T-STAT IMPROPER OPS.
V62A00	28-20	102	28RF24	IODINE IN DRINKING WATER
V62A00	32-03f	102	32RF19	SUPPLY WATER TK B QTY DROPOUTS
V62A00	35-05	102	35RF03	WASTE WATER DUMP DEGRADED AND FINALLY STOPPED
V62AUD	53-V-05	103	53RF09	SUPPLY WATER DUMP VALVE LEAKAGE
V62AUE	53-V-03	103	53RF08	SUPPLY WATER NOZZLE TEMPERATURE DROP
V62A00	39-V-08	103	39RF07	SUPPLY WATER DUMP NOZZLE TEMP DROP
V62BAC	41B-13	099	11F017	SUPPLY WATER DUMP VALVE FAILED TO OPEN
V62BAD	51I-02	103	AD2016	WATER FLOW RATE TO GALLEY LOW
V62EA	3-47	102	AC3123	URINE CUP AND FILTER LEAKED
V62EAA	1-33	102	01F014	WASTE COLLECTOR-LOW URINE FLOW & AIR FLOW
V62EAA	3-14	102	03F010	WCS SLINGER MOTOR STOPPED
V62EAA	3-19	102	03F014	WCS VACUUM VENT VLV KNOB FAILED
V62EAA	4-24	102	04F020	WCS WMS PROBLEMS
V62EAG	6-40	099	06F035	WMS FAN NOISY
V62EAG	7-25	099	07F018	WMS SLINGER STOPPED
V62FAG	8-16	099	08F006	WASTE COLLECTOR NOISY AND SLOW, LEAKED AIR
V62EAG	41B-04	099	11F002	WCS FAN SEPARATOR 1 DID NOT SPIN UP TO FULL SPE
V62EAG	41C-09	099	13F008	WCS FAN SEP 2 FAILED AND FAN SEP 1 DEGRADED
V62EAG	51A-16	103	NONE	WCS FAN SEP 1 AC 1 PH A CURRENT LOW
V62EAG	51C-06	103	NONE	WCS FAN SEP 1 AC1 PHASES A&B LOW CURRENT TRANSI
V62EAG	51G-03	103	NONE	WCS FAN SEP 1 MOTOR CURRENT HIGH
V62EAG	61A-14	099	AD0506	WCS FAN SEPARATOR 1 DID NOT START
V62EAJ	33-02	103	33RF02	WCS LEAK
V62EAJ	54-V-03	105	54RF02	EDO WCS COMMODE FAULT LIGHT ON
V62EA0	26-10	103	26RF06	WCS FAN FLOODED
V62EA0	46-V-06	104	46RF04	FAN SEP 1 STALLED
V64ECA	55-V-04	102	55RF02	WASTE WATER TANK GN2 LEAK
V62ECV	41D-14	103	14F023	WASTE WATER DUMP NOZZLE ICED
V62EED	6-41	099	06F020	H2O TK D VALVE CRACKED
V62E00	32-21	102	IM32RF21	WASTE WATER DUMP NOZZLE BLOCKED
V62E00	42-V-03	103	42RF02	WCS COMMODE LINKAGE BROKE
V62E00	42-V-08	103	42RF05	DEGRADED WASTE DUMP FLOWRATE
V62E00	49-V-21	105	49RF18	WCS FAN SEP 1 FAIL
V62E00	50-V-16	102	NONE	WASTE WATER DUMP DEGRADED
V62E00	52-V-17	102	NONE	WCS FAN SEP 1 SHUTDOWN
V62FAH	8-24	099	NONE	THERMOSTAT B SHIFTED ON POTABLE WATER DUMPLINE
V62H20	6-42	099	NONE	GAS IN POTABLE WATER
V62JAA	48-V-01	103	48RF01	SMOKE DETECTOR B AVIONIC BAY 1 FALSE ALARMS
V62JAB	1-36	102	01F022	SMOKE DETECTOR-FAILED SELF TEST
V62JAB	8-09	099	08F001	SMOKE DETECTOR-FALSE ALARM



INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V62JAC	3-33	102	03F024	SMOKE DETECTOR-2A CONTINUOUS FALSE ALARM
V62JAC	51B-09	099	24F004	SMOKE DETECTOR IN AVIONICS BAY 2A FAILED SELF TEST
V62JAC	28-14	102	28RF16	AV BAY 2A SMOKE CONCENTRATION BIAS LOW
V62JAC	46-V-04	104	46RF03	AV BAY 2A SMOKE DETECTOR EXCURSIONS
V62JAD	51F-11	099	24F004	SMOKE DETECTOR IN AVIONICS BAY 2B FAILED SELF TEST
V62JAE	3-07	102	03F004	SMOKE DETECTOR FAILED SELF TEST
V62JAF	61A-07	099	30F001	SMOKE DETECTOR 3B TRIGGERED FALSE ALARMS
V62J00	32-19	102	32RF20	SMOKE DETECTOR 3A TRANSIENT ALARM
V62J00	38-09	104	NONE	SMOKE DETECTOR TRANSIENTS
V63A	51J-03D	104	NONE	FREON COOLANT LOOP TEMPERATURES UNUSUAL
V63A00	28-15	102	28RF17	LOW FREON FLOW
V63ASF	9-03F	102	NONE	FCL 2 P/L HEAT EXCHANGER FLOWRATE SHIFTED LOW
V63JAA	3-35	102	03F025	NH3 BOILER ISO. VLVS CONTAMINATED
V63JBO	41-09	103	41RF06	AMMONIA BOILER PRIMARY A CONTROLLER FAILURE
V63JCF	9-03B	102	NONE	FES TOPPING DUCT APT HTR TEMP (V63T1802A) FAILED
V63JCM	6-01L	099	NONE	RH FES FEEDLINE TEMP (NO FAILURE)
V63JCT	6-01E	099	NONE	LH FES FEEDLINE TEMP (NO FAILURE)
V63JDD	51I-09	103	AC8418	FES TOPPING DUCT ZONE H HEATER B FAILED
V63LAA	2-11	102	02F006	FLASH EVAPORATOR SYS "A" BROKE-TEMP SENSOR DRIFT
V63LAA	3-31	102	03F023	FLASH EVAPORATOR CONTROL SENSOR RESPONSE LOW
V63LAA	6-01H	099	06F031	FES HILOAD FEEDLINE TEMP SNSR MISLOCATED
V63LAA	41G-09	099	17F004	FES SHUTDOWN USING BOTH CONTROLLERS
V63LAA	33-13	103	33RF13	FES "B" OUTLET TEMP OSCILLATIONS
V63LAA	38-02	104	38RF02	FES WATER SUPPLY HEATER LOW
V63LAA	39-V-01	103	39RF01	FES FEEDLINE A HTR FAIL
V63LAC	7-02A	099	07F027	FLASH EVAP FLOWMETER FAILED
V63LBA	41D-01	103	AC8418F	FES DUCT HEATERS IN SYSTEMS A & B FAILED
V63LDC	4-17	102	04F006	FES HIGH LOAD DUCT HTR FAILED
V63LDC	34-07	104	34RF08	FES HI LOAD INBOARD DUCT TEMP LOW
V63LJC	6-18	099	06F028	RH FEEDLINE THERMOSTAT FAILED
V63L00	26-05A	103	26RF11	ASCENT HI LOAD EVAP FROZE
V63L00	26-05B	103	26RF11	FES SHUTDOWN ON ENTRY
V63L00	26-09	103	26RF12	WSB SYS 1 GH2 PRESS DECAY
V63L00	26-19	103	26RF12	WSB SYS 1 GN2 TANK LEAK
V63L00	29-10	103	29RF09	WSB 3 LOW RELIEF VALVE RESEAT PRESS
V63L00	29-11	102	29RF10	WSB 1 LEAK
V63L00	30-10	104	30RF18	WSB 3 NITROGEN PRESS DELAY
V63L00	36-14	104	IM36RF16	FES PRIMARY CONTROLLER A SHUTDOWN
V63L00	49-V-03	105	49RF03	FES ACCUM HI LOAD LINE B HTR 1 FAILED ON
V63L00	49-V-10	105	49RF06	FES TEMP OSCILLATIONS
V63L00	47-V-21	105	NONE	FES TEMP OSCILLATIONS
V63L00	52-V-12	102	NONE	FES FEEDLINE A HTR SYS 2 FAIL
V63L00	55-V-08	102	NONE	FES SHUTDOWNS
V63LSG	32-14	102	IM32RF12	FES TOP DUCT HTR B FAILED
V63LSN	26-04G	103	26RF21	FREON LOOP 2 EVAP OUT TEMP DEBONDED SENSOR
V63000	30-21	104	NONE	AFT FUSELAGE TEMP LOW PRELAUNCH
V64AAJ	9-10	102	09F005	AIRLOCK HATCH A DIFFICULT TO OPEN
V64AAJ	51F-19	099	26F009	AIRLOCK HATCH A DIFFICULT TO LATCH FOR ENTRY
V64AAJ	51J-10	104	28F005	AIRLOCK HATCH A TAPERED PIN DID NOT LATCH
V64AAJ	61B-10	104	31F005	A/L INNER HATCH COULD NOT BE LATCHED FULL OPEN

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V64AAK	6-10	099	06F015	AIRLOCK HATCH SEAL CAME OUT OF GROOVE
V64ADA	1-03	102	NONE	AIRLOCK TO PLB SENSE PORT CAPPED
V64AEA	4-32	102	NONE	AIRLOCK VENT DUCT DAMAGED
V64C	51D-26C	103	NONE	AIRLOCK DEPRESS VLV COVER HARD TO REMOVE
V64EAA	51A-13	103	19FC03	A/L EMU BATTERY CHARGER/PWR SUPPLY 1 VOLTAGE HIGH
V64EAA	54-V-11	105	54RF10	EMU BATTERY CHARGER NOISY
V65	51F-22	099	11F012	MISC. CREW EQUIPMENT
V65A	1-41	102	AB9518	EJECTION SEAT HANDLE CLIP INSTL. PROBLEM
V65AAA	28-19	102	28RF23	GROMMET ON WET TRASH CAME LOOSE
V65ABA	28-02	102	28RF02	PILOT'S SEAT MOVED APT DURING ASCENT
V65ABA	35-23	102	35RF15	PILOT SEAT DOWN LIMIT SWITCH FAILURE
V65ACA	30-04A	104	30RF13	MSI 1 RH SHOULDER BELT ADJUSTER "C" CUP MISSING
V65AFA	44-V-17	104	44RF09	MISSION SPECIALIST 2 SHOULDER HARNESS PIN LOST
V65C	61A-08	099	30F002	SLEEP STATION SLIDING PANEL COULD NOT BE REMOVED
V65HBB	1-40	102	01F034	STOWAGE LOCKER DOORS HUNG UP
V65HBB	2-37	102	02F038	STOWAGE LOCKER DOORS HUNG UP
V65HBB	6-31	099	NONE	DOORS AND LOCKERS WOULD NOT CLOSE
V65HBB	7-33	099	07F023	STOWAGE LOCKER DOORS HUNG UP
V65H00	36-05a	104	IM36RF08	VOLUME H DOOR AND LATCH BINDING
V65H00	36-05b	104	IM36RF21	L10H STOWAGE VOLUME COULD NOT BE REMOVED
V65000	29-07	103	DREE649	TAGS DEVELOPER OVERHEAT
V65000	31-10	103	GFE	TAGS NOT RESPONDING TO PAPER ADVANCE COMMANDS
V65000	36-18	104	GFE	TAGS PAPER FOLDING
V65000	50-V-04	102	GFE	TAGS FAILURE
V66BAA	26-08	103	26RF02	COAS WOULD NOT MOUNT AT FWD STATION
V66BAA	29-15	103	211F001	PLUS X COAS CALIBRATION DISCREPANCIES
V66B00	31 13	103	IM31RF16	PLUS X COAS MISALIGNMENT
V66E	41C-14	099	EE0582	EVA COMMUNICATIONS LOST FOR EV-2 ON MODE A
V66E	41C-15	099	EE0582	EVA VHF COMMUNICATIONS DEGRADED
V66E	51D-09	103	EE607F	EV-2 COMM FROM GROUND ONLY 25% UNDERSTOOD
V66E	31-07	103	GFE	EMU2 POWER RESTART MESSAGES (GFE)
V66F	2-21	102	NONE	DATA ACQUISITION CAMERA DRIVE JAMMED
V66F	2-50	102	NONE	PDRS CAMERAS - 2 RAN AT WRONG SPEED
V66F	3-18	102	NONE	PDRS DAC (16MM CAMERAS) COLD START FAILURE
V66F	3-42	102	NONE	EARLY SHUTDOWN, DEBRIS CAMERA
V66F	3-45	102	NONE	CAMERA END OF FILM LIGHTS INOPERATIVE
V66F	41C-26	099	NONE	ET SEP CAMERA FAILED TO OPERATE
V66F	51A-14D	103	NONE	ARRIPLEX 16MM CAMERA FAILED
V66G	1-20	102	NONE	CREW HEADSETS HAD SQUEAL
V66G	3-25	102	NONE	VCCU UNIT A FAILED - BROKEN WIRE
V66G	4-27	102	NONE	VCCU "E" INTERMITTENT
V66G	5-11	102	EE0549F	VCCU'S A & B FAILED
V66G	6-23	099	EE0557F	VCCU'S A & B
V66G	7-13	099	EE0561/	VCCU'S FAILED
V66G	8-02	099	NONE	VCCU'S "A" FAILED, MANY NOISY
V66G	41B-05	099	NONE	VCCU B CAUSED INTERCOM VOICE LOOP NOISE
V66G	51A-14A	103	EE0594F	VCCU "A" HAD A HOT MIKE
V66G	51B-24	099	NONE	VCCU LEG UNIT A PTT BUTTON STUCK
V66G	61A-15A	099	EE0617F	VCCU "C" VOX OPERATED IN PTT
V66G	61A-15B	099	NONE	VLWHS FOR PILOT & MS-1 SIDE TONE REDUCED OR LOST

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V66H	5-12	102	NONE	EMU FAN MOTOR FAILED
V66H	5-14	102	NONE	EMU PRESS REG BIASED
V66H	5-25	102	H0040F	EMU BATTERIES DISCHARGED BY CONDITIONER
V66H	6-14	099	H0044F	EMU LIGHT BATTERIES FAILED
V66H	41B-21	099	EMU1364	EMU SUBLIMATOR "P HIGH" MESSAGES
V66H	41B-09	099	NONE	EMU 2 LIGHT PROTECTIVE LENS CRACKED
V66H	41C-22	099	1364C-1	EMU SUBLIMATOR "P HIGH" MESSAGES
V66H	51A-10	103	ILC71&7	BOTH LEFT SIDE EMU HELMET LIGHTS INOPERATIVE
V66J	41B-22	099	NONE	EVA ANCILLARY EQUIPMENT PROBLEMS
V66J	41C-08	099	NONE	TPAD FAILED TO CAPTURE SOLAR MAX SATELLITE
V66J	41C-23	099	13F012	PORT SLIDE WIRE BRAIDED COVERING FRAYED
V66J	41G-22B	099	H0070F	EVA FLASHLIGHT FAILED
V66J	41G-22C	099	NONE	EVA SLIDE WIRE CUSHION STRAP DIFFICULT TO SECUR
V66J	41G-22D	099	NONE	SLIDE WIRE SAFETY TETHER TENSION TOO HIGH
V66J	51A-14	103	NONE	EVA ANCILLARY EQUIPMENT FAILURES
V66K	5-16	102	SE2011	POTABLE H2O DISPENSER NEEDLE PLUGGED
V66K	41C-25	099	NONE	GALLEY WATER DISPENSER DID NOT SHUT OFF FLOW
V66K	41G-13	099	NONE	GALLEY DOORS DID NOT STAY OPEN
V66K	51B-07	099	HEN0050	GALLEY DID NOT DISPENSE WATER
V66K	51G-14	103	SP5041F	GALLEY WATER DISPENSER ERRATIC
V66K	51I-12	103	HEN0050	GALLEY WATER FLOW DID NOT SHUT OFF
V66000	2-47	102	NONE	THEODOLITE LOOSE IN MOUNT
V66000	3-26	102	SE2002	DRINK BAGS CAP SEAL FAILED
V66000	26-17A	103	NONE	VIDEO CASSETTE TAPES JAMMED
V66000	26-17B	103	NONE	VACUUM CLEANER FLIPPER FAILED
V66000	26-17C	103	NONE	SEAT BACK WOULD NOT FOLD WITH PARACHUTES
V66000	26-17D	103	NONE	ORB AFT FUS GAS SAMPLING SYS FAILED
V66000	26-17E	103	NONE	DOSIMETER READS HIGH
V66000	26-18	103	NONE	FWD PORT FLOODLIGHT FAILED
V66000	26-3	103	ECO380*	SUIT FAN 5 AMP FUSES BLEW FOR PLT AND MS-1
V66000	29-29	103	NONE	WIRELESS COMM SET MULTIPLE BATT CHANGES
V66000	30-04B	104	NONE	ARRIFLEX CAMERA OPERATE LEVER FAILED
V66000	30-04C	104	NONE	GALLEY FAILURES
V66000	30-04D	104	NONE	HASSEL BLAD 70 MM CAMERA FAILED
V66000	30-04E	104	NONE	CCTV CAMERA A - SPOTS ON IMAGE
V66000	30-04F	104	NONE	TELEPRINTER MESSAGES ILLEGIBLE
V66000	30-07	104	NONE	TAGS JAM
V66000	30-13	104	NONE	MS-3 COMM CAP HEADSET FAILED
V66000	41C-24	099	NONE	PHOTO AND GALLEY BRACKETS DEBONDED
V66000	41G-13	099	NONE	TWO BRACKETS ATTACHED TO GALLEY DEBONDED
V66000	41G-22E	099	NONE	OUTER HATCH EQUALIZATION VALVE COVER BROKE LOO
V66000	51A-14F	103	19F019	MULTI-USE BRACKETS BROKE AT ELBOW
V66000	33-03	103	NONE	TAGS JAM INDICATIONS
V66000	33-12	103	33RF14	+X COAS LINE OF SIGHT VARIATIONS
V66000	33-14A	103	NONE	GALLEY HOT AND COLD H2O DISPENSE FAILED
V66000	33-14B	103	NONE	GALLEY REHYDRATION SLIDE STICKY
V66000	33-15	103	NONE	16 MM ARRIFLEX CAMERA INOP
V66000	34-11	104	FIAR BFCE 2-10-FOO4	70MM HASSELBLAD CAMERA FAILED
V66000	34-13	104	NONE	TAGS OVERTEMP INDICATION

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V66000	34-16A	104	NONE	DARK ARC ACROSS CCTV CAMERA C
V66000	34-16B	104	NONE	CCTV CAMERA B HAD SPOT ON SCREEN
V66000	31-16	103	GFE	GALLEY WATER UNDERDISPENSE
V66000	43-V-05	104	FIAR	CCTV CAMERA D INOPERATIVE
V66000	48-V-07	103	FIAR	CCTV CAMERA D LINE ON SCREEN
V66000	48-V-08	103	FIAR	GALLEY VALVE MV-2 LEAK
V66000	36-10	104	FAIR- BFCE 026F001 GFE	PRESS CONTROL SYSTEM O2 BLEED ORIFICE LEAK
V66000	32-05	102	GFE	TAGS PAPER JAMMED
V66000	32-09a	102	GFE	MS3 LIGHT DAMAGED - CREW INGRESS
V66000	32-11a	102	GFE	CCTV A - SPOT ON PICTURE
V66000	32-11b	102	GFE	RMS ELBOW CAMERA COLOR WHEEL FAILED
V66000	32-11c	102	GFE	CCTV C - POOR PICTURE
V66000	32-11d	102	GFE	CCTV D - SPOT ON PICTURE
V66000	32-12	102	GFE	RMS MASTER ALARM - UNKNOWN
V66000	32-13	102	GFE	RMS 'CONT ERROR' MESSAGE
V66000	32-20	102	GFE	RMS 'BRAKE SLIP' MESSAGE
V66000	32-27	102	IPR-35- V-0006	PLT SEAT WOULD NOT DRIVE DOWN
V66000	32-28	102	GFE	HANDHELD MIKE DEGRADED OUTPUT
V66000	32-29	102	PR PV6- 1511 63-2 GFE	ORBITER GAS SAMPLER SYS MALFUNCTION
V66000	42-02A	103	GFE	CAMERA C IMAGE BURN
V66000	41-02B	103	GFE	CAMERA D INCORRECT COLOR PHASING
V66000	38-04A	104	GFE	VACUUM CLEANER SHORT CIRCUIT
V66000	38-04B	104	GFE	CCTV MONITOR 2 FAULT LIGHT
V66000	38-04C	104	GFE	CAMERA C - FAILURE TO FOCUS
V66000	38-04D	104	GFE	CAMERA D - NO POWER
V66000	35-01	102	GFE	OPERATIONS RECORDER 1 TRACK 2 FAILURE TO RECORD
V66000	35-02	102	GFE	TAGS PAPER JAM
V66000	35-03	102	GFE	TAGS UNJAMMING TOOL BROKE
V66000	35-06	102	GFE	FOUR HEADSETS FAILED
V66000	35-07A	102	GFE	CCTV CAMERA B FAILED
V66000	35-07B	102	GFE	CAMERA C COLOR WHEEL STUCK
V66000	35-07C	102	GFE	CAMERA D INTERMITTENT POWER
V66000	35-08	102	GFE	OPERATIONS RECORDER 2 TRACK 5 FAILURE
V66000	35-09	102	GFE	PAYLOAD RECORDER TANK 5 FAILURE
V66000	37-V-06	104	GFE	EMU-1 FAIL TO CHARGE BATTERY
V66000	37-V-07	104	GFE	TEMP. LOSS OF EMU SUIT RESULTS IN COMM 'A'
V66000	37-V-18	104	GFE	AFT FLT DECK SPEAKER BAD
V66000	37-V-19	104	GFE	EVA GLOVE PALM BAR PENETRATED RESTRAINT & GLOVE BLADDER
V66000	37-V-20A	104	GFE	EV1 RH EARPHONE LOST COMM
V66000	37-V-20B	104	GFE	EV2 LH EARPHONE LOST CONTACT
V66000	39-V-07	103	GFE	CCTV INTERMITTENT VIDEO LOSS
V66000	39-V-09	103	GFE	TREADMILL EXCESSIVE RESISTANCE

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V66000	39-V-04	103	FIAR BFCE 029-F035	OPS 2 RCDR UNCMDED RECONFIGURATION
V66000	40-V-05	102	GFE	VIDEO INTERFACE UNIT (VIU-C) - CAMCORDER CABLE-SIGNAL LOSS
V66000	40-V-06A	102	GFE	TAGS FALSE JAM LITE
V66000	40-V-06B	102	GFE	TAGS JAM
V66000	40-V-13A	102	GFE	LOSS OF COMM - AUDIO INTERFACE UNIT
V66000	40-V-13B	102	GFE	LOSS OF COMM - AUDIO INTERFACE UNIT-E
V66000	40-V-14A	102	GFE	16MM ET UMB CAMERA FILM BROKE
V66000	40-V-14B	102	GFE	35MM ET UMB CAMERA FILM BROKE
V66000	44-V-02	104	GFE	VIDEO INTERFACE UNIT LOW POWER
V66000	44-V-03	104	GFE	TREADMILL BEEL LOCKUP
V66000	44-V-08	104	FIAR	CCTV CAMERA B DEGRADED
V66000	44-V-12	104	FIAR	DDU FILTER CLEANING TOOL BROKE
V66000	44-V-15	104	FIAR	VIDEO TAPE RECORDER DOOR JAMMED
V66000	42-V-02	103	FIAR BFCE 029-F044	CCTV CAM D DEGRADATION
V66000	42-V-02b	103	FIAR BFCE 029-F047	CCTV CAM A COLOR WHEEL STUCK
V66000	42-V-02c	103	FIAR BFCE 029-F048	CCTV CAM C DEGRADATION
V66000	42-V-04	103	JSC-EE- 0668	TAGS, TLM, & VERNIER IMAGING PROBLEMS
V66000	42-V-07a	103	FIAR BFCE 029-F045	WIRELESS COMM - 2 CRUs BAD
V66000	42-V-07b	103	FIAR BFCE 029-F046	WIRELESS COMM - WALL UNITS A & C DEGRADED
V66000	42-V-07c	103	FIAR BFCE 029-F046	WIRELESS COMM - LOW BATTERY LIFE
V66000	42-V-10	103	FIAR BFCE 028-F006	GAS BOTTLE PYROS DIDN'T FIRE
V66000	49-V-07	105	NONE	EV2 "SET POWER SCU' MSG
V66000	49-V-27	105	NONE	EV3 "PWR RESTART" MESSAGE FROZEN
V66000	49-V-28	105	BEMU- 300-F002	EV2 LOSS OF DCM DISPLAY
V66000	49-V-29	105	NONE	EMU BATT BAD
V66000	49-V-31	105	NONE	EMU DIFFICULT TO MOUNT ON AIRLOCK WALL
V66000	49-V-32a	105	NONE	RETRACTABLE TETHER REEL FAIL
V66000	49-V-32b	105	NONE	POWER TOOL TETHER FAIL
V66000	49-V-32c	105	NONE	PORTABLE FOOT RESTRAINT FAIL
V66000	49-V-32d	105	NONE	SAFETY TETHEER REEL LOCK FAIL
V66000	49-V-32e	105	NONE	POWER TOOL NOISE CAUSE EVA COMM FAIL
V66000	49-V-32f	105	NONE	MINI-WORKSTATION MECHANISM PROBLEMS

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V66000	46-V-03	104	FIAR JSC EE- 0670F	FLIGHT DECK SPEAKER INOPERABLE
V66000	46-V-07a	104	FIAR BFCE- 029-F062	AIU-C CHANNEL 1 FAIL
V66000	46-V-07b	104	NONE	AIU-D PERFORMANCE INTERMITTENT
V66000	46-V-08	104	NONE	WCCS CRU LOW BEEP TONE
V66000	47-V-24	105	NONE	GALLEY PACKAGE IN PLACE SWITCH
V66000	47-V-25	105	NONE	MS3 LES 02 HOSE
V66000	52-V-05	102	NONE	MULTIMETER INTERMITTENT DISPLAY
V66000	52-V-08a	102	NONE	TAGS DEVELOPER MOTOR FAIL
V66000	52-V-08b	102	NONE	TAGS FALSE JAM INDICATIONS
V66000	52-V-15	102	NONE	OEX RCDR TAPE INDICATOR FAIL
V66000	52-V-19	102	NONE	CAMCORDER VIU ANOMALY
V67	51D-08	103	NONE	EV-2 BIOMED DATA INOPERABLE DURING EVA
V70000	29-24	103	29RF25	INTERMITTENT APT AUTO DAP LIGHT
V70000	32-08	102	IM32RF09	FVD DAP B SEL SW A CONTACT FAIL
V70000	48-V-09	103	NONE	EXTRANEIOUS BODY FLAP MOTION
V71AAA	7-07	099	NONE	IMU 1 EXCEEDED THRESHOLD OF GIMBLE ANGLE ERROR
V71AAA	9-24	102	09F014	IMU 1 15 VDC POWER SUPPLY FAILED
V71AAA	32-15	102	32RF13	IMU 1 REDUNDANCY MANAGEMENT FAILED
V71AAA	41-04	103	41RF02	IMU 1 REDUNDANCY MANAGEMENT FAIL
V71AAB	8-20	099	NONE	IMU 2 WENT TO STDBY THEN OK
V71AAB	40-V-01	102	40RF01	IMU 2 ACCEL SHIFT
V71AAB	44-V-07	104	44RF01	IMU 2 Z-AXIS ACCELEROMETER FAILED
V71AAB	55-V-02	102	55RF01	IMU 2 PLATFORM FAIL BITE INDICATION
V71AAC	3-11	102	03F034	IMU 3 ACCEL BIAS SHIFT
V71AAC	6-37	099	06F022	IMU 3 VELOCITY LIMIT FLAG SET
V71A00	45-V-09	104	45RF06	IMU 2 Z-AXIS ACCEL. BIAS SHIFT
V71BAA	1-18	102	01F059	STAR TRACKER NO. 1 SHUTTER PROBLEM
V71BAA	51A-21	103	NONE	STAR TRACKER +Z SHUTTER LATCHUP
V71BAA	51C-08	103	AC9409	STAR TRACKER -Y SHUTTER LATCHUPS
V71BAB	2-38	102	NONE	STAR TRACKER NO. 2 BIT ERRORS
V71BAB	51C-08	103	AC9410	STAR TRACKER -Z SHUTTER LATCHUPS
V71BAD	43-V-15	104	NONE	-Z STARTRACKER/LIGHT SHADE SHUTTER LIGHT LEAK
V71B00	28-10	102	28RF12	STAR TRACKER -Y PRESS FAILED
V71B00	35-10	102	35RF04	-Z STAR TRACKER FAILED SELF-TEST
V71B00	37-V-16	104	37RF16	-Z STAR TRACKER FAILED SELF TEST
V71B00	47-V-17	105	47RF08	-Z STAR TRACKER SELF TEST FAIL
V71C00	31-12	103	IM31RF14	ADTA CIRCUIT BREAKER CONTAMINATION
V71C00	44-V-09	104	NONE	LEFT AIR DATA PROBE SINGLE MOTOR DEPLOY
V71C00	46-V-12	104	NONE	ADTA TEMP DELTA DURING PCS C/O
V72AAA	28-01	102	28RF01	MMU-1 I/O ERROR AT OPS-1 TRANSITION
V72AAA	55-V-10	102	55RF08	MMU 1 SM CHECKPOINT FAIL
V72ACA	8-19	099	08F009	GPC 1 AND 2 SPLIT, H'WARE BIT ERROR
V72ACA	9-23	102	09F007	GPC 1 FAILED REDUNDANT SET
V72ACA	9-23	102	09F008	GPC 1 FAILED REDUNDANT SET
V72ACA	41B-24	099	11F005	GPC 1 CONSISTENTLY DETECTED AN MSC TIMEOUT OI
V72AEA	5-02	102	NONE	MDM FF1 - INTERNAL BITE ERROR

**INFLIGHT ANOMALY LIST  
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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V72AEA	41C-01	099	AC7900	MDM FF1 CARD 5 FAILED
V72AEA	41C-02	099	NONE	SRB SEP AUTO A FAILED/BROKEN WIRE TO MDM FF1
V72CCA	5-03	102	NONE	GPC 2 FAIL TO SYNC (PRELAUNCH)
V72CCA	6-24	099	06F011	GPC 2 FAILED INDICATION
V72CCA	6-24	099	06F025	TRANSIENT FAILURE IN CPU
V72CCA	9-25	102	09F009	GPC 2 FAILED AND MEMORY ALTERED
V72CCA	9-25	102	09F010	GPC 2 FAILED AND MEMORY ALTERED
V72CCA	30-11	104	30RF2&3	GPC 4 FAILED TO SYNC
V72CCB	41D-02	103	AC8304F	GPC 5 (BFS) FAILED DURING PRELAUNCHS OPNS
V72CCB	51I-01	103	27F001	BFS COMPUTER FAILURE
V72CCB	51I-01	103	27F002	BFS COMPUTER FAILURE
V72CEB	3-37	102	NONE	MDM FF4 I/O ERROR
V72EDA	9-33	102	NONE	INVALID U/L CMDS FROM ORBITER TO SPACELAB
V72GEA	34-05	104	34RF06	MDM FA-1 FAILED
V72LAA	1-05	102	NONE	ENGINE INTERFACE UNIT NO. 3 PORT BYPASS
V72LAA	34-02	104	34RF06	EIU 3 BITE (MOMENTARY)
V72LEA	51G-06	103	25F002	MDM FA3 FAILURE
V72NAA	2-20	102	02F004	CRT DISPLAY NO. 1 SHORTED PWR TRANSISTOR
V72NAB	41D-10	103	14F004	CRT DISPLAY NO. 2 WENT BLANK
V72NAC	7-12	099	07F009	CRT DISPLAY NO. 3 PWR SUPPLY FAILURE
V72NAD	51A-05	103	19F006	CRT 4 FAILED
V72NAD	55-V-11	102	55RF07	CRT 4 FAILURE
V72NBA	3-29	102	03F022	KEYBOARD UNIT NO. 1 KEY STUCK
V72NBA	4-20	102	04F011	KEYBOARD UNIT NO. 1 KEY STUCK
V72NCB	5-04	102	05F010	DEU 2 FAILED
V72NCB	41G-10	099	17F008	DEU 2 FAILED
V72NCC	41G-11	099	17F009	RIGHT KEYBOARD CONTROL OF DEU 3 LOST
V72NCD	36-09	104	36RF12	CRT 4 SCREEN WENT BLANK
V72000	45-V-13	104		SM ALERT TONE AUDIBLE ALARM INTERMITTENT
V72000	49-V-05	105	49RF21	MEC 2 BITE FAILURE
V72000	49-V-19	105	49RF16	CRT 1 BITE - GPC 1 & 2
V72000	49-V-23	105	49RF21	GPC AP101S MICROCODE ERROR
V72XXX	26-2	103	26RF17	PROB CONTAM NSP FWD LINK DATA RELAY X'PNDR 2
V73AAA	54-V-09A	105	54RF06	FLOODLIGHT FAILURE - FORWARD STARBOARD
V73AAA	54-V-09B	105	54RF07	FLOODLIGHT FAILURE - MID STARBOARD
V73AAA	54-V-09C	105	54RF08	FLOODLIGHT FAILURE - MID PORT
V73ABA	51B-04	099	NONE	ABORT LIGHT MALFUNCTIONED & LENS CRACKED
V73AKA	41D-04	103	AC8688	O2 SYSTEM 1 SUPPLY VALVE TALKBACK FAILED CLOSED
V73A00	34-01	104	34RF01	DDU 1 CHANGE OUT (AMI BIASED)
V73A00	28-06	102	28RF07	ABORT LIGHT "B" DID NOT ILLUMINATE
V73A00	28-16	102	28RF20	RADAR ALT 1 AND 2 LOST ALT IND AT 26 FT
V73AW7	27-21	104		SPI OFF FLAG AND 4 DEG L BIAS THROUGH OUT ENTRY
V73AWA	51C-15	103	20F007	ACA 1 INTERMITTENT IN THE LIGHT CONTROL CIRCUIT
V73AVC	41G-04	099	NONE	RH OMS ON-BOARD HELIUM PRESSURE GAGE FAILED
V73AVD	33-05	103	33RF04	CDR AMI VEL. IND OUT OF SPEC
V73AVH	30-19	104	30RF26	CHDR AWI READ HIGH DURING FCS CHECKOUT
V73AVP	6-33	099	NONE	HEADS UP DISPLAY - DECELERATION POINTER PEGGED
V73AVP	61A-16	099	30F013	HUD FOR PILOT HAD FORMAT DISCREPANCY
V73AWQ	1-15	102	01F029	CMDS HORIZONTAL SITUATION IND COMPASS CARD STUCI
V73AWS	51G-12	103	NONE	G METER READ 1 G THROUGHOUT FLIGHT

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V73AWV	26-20	103	26RF22	CDR ADI OPS 8 CHECKOUT DISCREPANCIES
V73AWV	41-06	103	41RF03	LEFT ADI RATE/SCALE SWITCH FAILURE
V73AWZ	51G-10	103	25F007	SURFACE POSITION INDICATOR OFF FLAG FAILED
V73BAA	41G-20	099	17F013	PAYLOAD STATION FLOODLIGHT INOPERATIVE
V73CBA	51A-20	103	NONE	FWD DAP PITCH/ROLL ROTATIONAL PULSE BUTTONS FA
V73CDA	51G-13	103	25F016	L OMS ENG ARM/PRESS SW LACKED POSITIVE DETENT
V73CEA	4-14	102	NONE	DAP AUTO SEL SWITCH CONTACT FAILED (SW 3 PNL C
V73CEB	41D-29	103	NONE	FWD DAP PANEL PBI LIGHT INTERMITTENT
V73CGA	51D-04	103	23F011	CDR's ADI P&Y ERROR NEEDLES ERRATIC
V73CGA	51J-11	104	28F011	LEFT DDU DATA GOOD BIT TOGGLED
V73CGB	7-21	099	07F017	DDU NO. 2 BITE FAIL
V73CGB	51F-21	099	26F010	PILOT'S DDU BITE FAIL
V73CGB	36-19	104	IM36RF22	RIGHT DDU INTERMITTENT BITE
V73EAS	41G-12	099	17F014	MET LOST ONE HORIZONTAL SEGEMENT ON LEFT DIGIT
V73ECD	51I-07	103	NONE	ANNUNCIATOR DISPLAY UNIT STATUS LIGHT INTERMIT
V73EHA	3-32	102	03F042	P/L MAIN BUS C TALKBACK - FAILED
V73EJM	6-19	099	06F018	HORIZONTAL SITUATION IND COUNTER WRONG
V73EJM	34-15	104	34RF14	PILOT HSI "PRI MILE" ERRONEOUS
V73GFE	41D-19	103	NONE	IMAX PHOTO FLOODLIGHT FAILED
V73GFE	51C-14	103	NONE	AC PHOTO FLOODLIGHT FAILED
V73HEB	61B-04	104	NONE	AFT EVENT TIMER LOST A READOUT SEGMENT
V73HHA	6-09	099	06F021	TV CAMERA ZOOM CONTROL INTERMITTENT
V73HNA	51G-08	103	NONE	UTILITY POWER AC3 PH B SPIKES ON PANEL A15
V73LFE	4-18	102	04F019	PLBD TALKBACK PANEL 13 INCORRECT INDICATION
V73000	41-08	103	41RF05	LEFT RHC TRIM INHIBIT SWITCH FAILURE
V73000	39-V-10	103	39RF08	LH BODY FLAP PUSH BUTTON STICKY
V73000	40-V-15	102	40RF12	GCIL/PD1 SWITCH SCAN CHANGED STA
V73000	42-V-09	103	42RF06	LH2 TOPPING VALVE "OPEN" MISSING
V73000	49-V-16	105	49RF14	CABIN DP/DT SENSOR SLOW RESPONSE
V73000	49-V-35	105	NONE	PANEL F9 DC AMPS SIG STRENGTH STICKY
V73000	47-V-11	105	47RF07	KU-BAND RANGE RATE/AZIMUTH DISPLAY FAIL
V73000	47-V-15	105	47RF17	HUMIDITY SENSOR FAILURE
V73000	52-V-09	102	NONE	PANEL A11 DC OUTLET FAIL
V73000	52-V-14	102	52RF09	SURFACE POSITION IND FAILED ON
V73000	44-V-16	104	44RF07	PAYLOAD BAY FLOODLIGHTS FAILED
			44RF08	
V73RDA	2-10	102	02F019	CB16 ON PANEL MA73C-OPEN
V73RDA	3-02	102	AC1739	INOPERATIVE MCA AC3 PWR CB11 ON PANEL MA73C
V73VAA	1-57	102	NONE	PLB FLOODLIGHT FAILED
V73VAA	4-11	102	04F016	PLB FLOODLIGHT FAILED
V73VAA	5-17	102	05F006	PLB FLOODLIGHT FAILED
V73VAA	5-17	102	05F007	PLB FLOODLIGHT FAILED
V73VAA	51A-17	103	19F017	AFT PLB FLOODLIGHTS FAILED
V73VAA	51F-18	099	NONE	PLB FWD BULKHEAD FLOODLIGHT FAULTY START
V73VAA	31-09	103	IM31RF09	MID-STARBOARD PLB FLOODLIGHT OUT
V73VAA	32-10	102	IM32RF11	FWD BULKHEAD FLOODLIGHT INOP
V73VAA	50-V-21	102	50RF12	STBD FWD PLB LIGHT FAIL OFF
V73VAC	4-11	102	04F014	FLOODLIGHT ELECTRONIC ASSY NO. 1 CORONA
V73VAD	51G-07	103	25F014	PAYLOAD BAY FLOODLIGHTS FAILED
V73V00	36-15a	104	IM36RF17	MID PORT PLB FLOODLIGHT FAILED



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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V73V00	36-15b	104	IM36RF17	AFT PORT PLB FLOODLIGHT FAILED
V73V00	36-15c	104	IM36RF17	AFT STBD PLB FLOODLIGHT FLICKERED
V73V00	43-V-10	104	43RF08	MID-STARBOARD FLOODLIGHT FAILURE
V73V00	49-V-11a	105	49RF07	PLB FWD PORT FLOODLIGHT FAILED
V73V00	49-V-11b	105	49RF08	PLB FWD STBD FLOODLIGHT FAILED
V73V00	49-V-11c	105	49RF09	PLB AFT STBD FLOODLIGHT FAILED
V73V00	49-V-11d	105	49RF10	PLB FWD BLKHD FLOODLIGHT FAILED
V73V00	52-V-03	102	52RF04	MIDDECK FLOODLIGHTS FAILED
V73X	5-09	102	NONE	CB4 PANEL R15 FOUND OPEN
V73X	6-36	099	NONE	C&W MATRIX BLANKED BY READ SWITCHES
V74AAA	51A-24	103	19F016	S-BAND LOWER LEFT ANT PERFORMANCE BELOW NORMAL
V74AAA	51G-05	103	25F004	S-BAND LOWER LEFT ANT BEAM SWITCH INTERMITTENT
V74AAA	53-V-12	103	NONE	POOR QUALITY AUDIO ON AIR-TO-GROUND
V74AAB	9-15	102	09F030	S-BAND LWR RH QUAD ANT ACQUISITION INTERMITTENT
V74AAB	61C-08	102	32F009	S-BAND LR ANTENNA PERFORMANCE ERRATIC
V74AAC	51B-11	099	24F005	S-BAND UPPER RIGHT ANTENNA REFLECTED POWER HIGH
V74AAC	61C-08	102	32F010	S-BAND UL ANTENNA PERFORMANCE ERRATIC
V74AAC	34-17	104	34RF15	S-BAND ULF ANT FAILED TO SWITCH
V74AAD	51B-11	099	24F006	S-BAND UPPER LEFT ANTENNA REFLECTED POWER ERRATIC
V74AAD	34-14	104	NONE	S-BAND URF ANT FAILED TO SWITCH
V74ABB	3-23	102	03F032	S-BAND X'PONDER NO. 1 CONTAMINATED RELAYS
V74ABE	3-21	102	03F032	S-BAND X'PONDER NO. 2 CONTAMINATED RELAYS
V74ABG	3-28	102	03F021	S-BAND POWER AMPLIFIER TWT DEGRADED
V74ABG	9-16	102	09F028	S-BAND POWER AMPLIFIER NO 2 FAILED
V74ABG	28-08	102	28RF09	S-BAND PWR AMP DEGRADED PERFORMANCE
V74ABG	43-V-10	104	43RF06	S-BAND POWER AMPLIFIER 2 DEGRADED
V74ABH	8-07	099	08F007	S-BAND ANTENNA SWITCH-FAULTY POSITION INDICATION
V74ABH	9-18	102	09F029	S-BAND ANT SYS REFLECTED PWR INCREASED
V74ABH	41B-25	099	11F014	S-BAND ANTENNA ACQUISITION LATE WITH TDRSS
V74ABH	41D-11	103	14F008	S-BAND QUAD ANTENNA SWITCH MISCOMPARE
V74ABH	41D-11	103	14F021	S-BAND QUAD ANTENNA SWITCH MISCOMPARE
V74ABH	61A-09	099	30F009	S-BAND ANTENNA SWITCHED LATE
V74ABJ	32-01	102	IM32RF01	FM SYS 1 X'MITTER FAILED
V74AC	6-43	099	NONE	PAYLOAD INTERROGATOR LOST LOCK - SPAS OPNS
V74AC	7-32	099	NONE	P/L INTERROGATOR RF LINK SYS 1
V74AJA	28-25	102	28RF28	NSP FRAME SYNC ERRORS
V74A00	32-18	102	32RF18	MULTIPLE S-BANK DROPOUTS
V74A00	35-13	102	35RF06	UPPER LEFT S-BAND ANTENNA PERFORMANCE POOR
V74A00	39-V-13	103	39RF11	S-BAND LOS ON ENTRY
V74A00	40-V-10	102	40RF09	S-BAND ANTENNA - COMM ERRATIC
V74A00	52-V-10	102	52RF07	S-BAND XMITTER 1 OUTPUT ERRATIC
V74A00	52-V-11	102	NONE	S-BAND PM LOW FREQ LOSS OF LOCK
V74A00	56-V-03	103	56RF04	LOW FREQUENCY UPLINK COMMAND CAPABILITY
V74BAA	9-19	102	NONE	GCIL SIMULTANEOUS ANTENNA MODES
V74BAA	51A-12	103	19F002	BOTH S-BAND ANT SW & BEAM SW "ON" CYCLES
V74GAA	55-V-14	103	FIAR	WCCS B WALL UNIT PROBLEM
V74JCA	4-34	102	NONE	UHF COMM NOISY DURING EVA DEMO
V74JCA	5-13	102	EE0547F	UHF TRANSCEIVER NOT KEYED BY AUDIO
V74JCA	6-21	099	EE0559F	UHF COMM ECHO DURING EVA
V74LBA	56-V-10	103	56RF03	CDR'S HEADSET INTERFACE UNIT FAILED

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V74LBC	55-V-13	103	DRBH 330154	MS2 WCCS LEG UNIT PROBLEM
V74L BX	7-14	099	NONE	AUDIO TERMINAL UNIT-CONSTANT KEY ON AIR TO AIR
V74LJE	51G-09	103	NONE	SPEAKER MICROPHONE UNIT INTERMITTENT
V74000	35-15	102	NONE	NOISE ON AIR-TO-GROUND LOOP 2
V74000	39-V-06	103	39RF06	RR LOSS OF LOCK
V74000	47-V-23	105	NONE	AG1/AG2 CROSSTALK
V74000	53-V-08	103	FIAR EE-0679F	TAGS JAM
V74000	56-V-11	103	FIAR EE-0684F	TAGS JAM
V74PCO	33-09	103	33RF11	MSBLS 3 BITE (AGC)
V74POO	49-V-15	105	49RF12	KU-BAND ANT. POINTING
V74POO	46-V-10	104	NONE	OVERMODULATION OF KU-BAND CHANNEL 3
V74PH	51B-13	099	24F008	KU-BAND RADAR MODE FAILED SELF TEST
V74PHA	41D-15	103	14F006	KU-BAND ANTENNA UNDAMPED OSCILLATION
V74PHA	41G-06	099	17F005	KU-BAND ANTENNA GIMBAL CONTROL LOST
V74PHB	41B-33	099	11F021	KU-BAND RENDEZVOUS RADAR DID NOT LOCK ON FIRST
V74PHB	41C-06	099	13F010	KU-BAND RENDEZVOUS RADAR FAILED SELF/TEST LOST
V74PHC	8-13	099	08F008	KU-BAND ANTENNA-HUNG-UP THEN CLEARED
V74PHC	9-12	102	09F020	KU-BAND ANT TWT FAILED TO COME ON
V74PHC	9-21	102	09F021	KU-BAND GYRO TEMP (V74T2967A) HIGH
V74PHC	41B-10	099	11F003	KU-BAND RF POWER OUTPUT WENT TO ZERO
V74PHC	51D-05	103	23F008	KU-BAND ANTENNA MOTION ERRATIC
V74PHO	26-06	103	26RF01	KU-BAND ANTENNA FAILED SELF TEST
V74PHO	27-15	104		KU-BAND CH 2 OPS RECORDER DUMPS
V74PHO	33-06	103	33RF05	KU-BAND RADAR FAILED SELF-TEST
V74PHO	43-V-07	104	43RF05	KU-BAND POWER-LOW INDICATION
V74POO	32-24	102	IM32RF25	KU-BAND ANT FEED HEATER ERRATIC
V74POO	37-V-04	104	37RF04	KU ANTENNA ERRATIC IN AUTO
V74POO	45-V-07a	104	45RF04	KU-BAND ANTENNA LOSS OF TRK IN ACQ MODE
V74POO	45-V-07b	104	IPR-46V- 0008	KU-BAND PWR OUT FAIL (INTERMITTENT)
V74POO	46-V-10	104	NONE	OVERMODULATION OF KU-BAND CHANNEL 3
V74PSA	27-17	104		TACAN 1 DID NOT LOCK UP PRELAUNCH
V74PTA	1-22	102	NONE	TACAN 2 BEARING FAIL INDICATION
V74PTO	29-27	103	29RF28	TACAN 2 DROPPED LOCK POSTLANDING
V74PTO	47-V-19	105	47RF11	TACAN 2 BEARING EXCURSION
V74PUA	51C-09	103	20F002	TACAN 3 DID NOT LOCK UP
V74PUA	51D-11	103	23F006	TACAN 3 RANGE AND BEARING FAILED
V74PUD	26-16	103	26RF09	RADAR ALT FAILED OFF AT LANDING
V74PUO	49-V-30	105	49RF19	TACAN 3 SELF TEST FAILURE
V74PVA	1-34	102	NONE	RADAR ALTIMETER NO. 1 FALSE LOCK
V74PVA	5-21	102	NONE	RADAR ALTIMETER NO. 1 INTMT LOCK ABOVE 1000 FT
V74PVA	7-29	099	07F028	RADAR ALTIMETER NO. 1 FALSE LOCK ON GEAR
V74PWA	1-34	102	NONE	RADAR ALTIMETER NO. 2 FALSE LOCK GEAR
V74PWA	51A-25	103	19F018	RADAR ALTIMETER 2 SHIFTED DURING LANDING
V74PWA	51C-11	103	20F005	RADAR ALTIMETER 2 ERRATIC AT HIGH ALTITUDE
V74QA	2-13	102	EE0506F	CCTV "B" OVERHEATED
V74QA	2-14	102	EE0504F	TV CAMERA CIRCUIT BREAKER-FAILED PWR SUPPLY

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V74QA	2-15	102	EE0505F	PLB CCTV'S - CONTAMINATED LENSES
V74QA	3-08	102	EE0520F	RMS WRIST TV CAMERA FAILED PWR SUPPLY
V74QA	3-15	102	EE0519F	CCTV CAMERA "C" FAILED PWR SUPPLY
V74QA	3-20	102	EE0521F	CCTV CAMERA "B" OVERHEATED
V74QA	4-08	102	EE0533F	VTR MONITOR IMPACT CIRCUIT FAILURE
V74QA	4-26	102	04F022	MID-DECK TV CAMERA
V74QA	5-24	102	EE0537F	VTR PLAYBACK OUT OF SYNC
V74QA	6-32	099	NONE	TV MONITORS FUZZY
V74QA	7-31	099	NONE	CCTV'S, "B" BLOOMING, "C" CABLE HANG UP
V74QA	8-10	099	EE0570F	TV CAMERAS-ZOOM & FOCUS "A" & "C" - "D" FAILED
V74QA	8-12	099	EE0567F	RMS ELBOW TV CAMERA LENS - LOOSE RING
V74QA	41B-03	099	NONE	PLB TV CAMERA D DID NOT TILT & SLOW TO PAN
V74QA	.1B-19	099	EE0576F	EMU TV FAILED
V74QA	41B-20	099	NONE	RMS ELBOW TV FAILED
V74QA	41C-12	099	EE0583	PLB TV CAMERA'S B & C LASER RANGEFINDERS FAILED
V74QA	41C-13	099	EE0584	PAYLOAD BAY TV CAMERA D BLURRED
V74QA	41D-30	103	NONE	COLOR TV CAMERA ON RMS ELBOW SHOWED A HORIZ LINE
V74QA	41G-14	099	EE0592	COLOR TV CAMERA ON RMS ELBOW LOST COLOR WHEEL SYN
V74QA	51A-11	103	EE0595F	PLB TV CAMERAS A & D HAD SPOTS & DIFFICULT TO FOC
V74QA	51F-09	099	EE612F	CCTV MONITORS 1 AND 2 PICTURE QUALITY POOR
V74QA	51F-10	099	EE611F	PLB COLOR TV CAMERA "D" LOSS SYNC
V74QA	51J-09	104	EE615F	PLB CAMERA B DIFFICULT TO FOCUS
V74QA	51J-09	104	EE616F	CAMERA C AZIMUTH & ELEVATION FAILED
V74QA	61C-09	102	EE0619	PLB COLOR TV CAMERA "D" FLICKERED
V74QA	45-V-06a	104	FIAR BFCE 029-F049	CCTV CAM A PICTURE FUZZY (INTERMITTENT)
V74QA	45-V-06b	104	FIAR BFCE 029-F050	CCTV CAM C NOISY VIDEO
V74QA	45-V-06c	104	FIAR	CCTV CAM D POOR PERFORMANCE
V74QA	49-V-12a	105	FIAR BFCE 029-F052	CCTV CAMERA D FAILED
V74QA0	49-V-12b	105	FIAR BFCE 029-F053	EV2 EMU HELMET CAMERA FAILED
V74QA0	50-V-03	102	GFE	CAMERA A ERRATIC
V74QA0	50-V-11	102	GFE	CAMERA D HEATER FAILED OFF
V74QA0	50-V-13	102	GFE	CAMCORDER MARK II FAILED
V74QA0	50-V-17	102	GFE	CAMERA C FAILED
V74QA0	47-V-18	105	NONE	CCTV D "JITTER"
V74QA0	53-V-07	103	DRBH 230412	CCTV CAMERA C FAILED
V74QA0	54-V-02A	105	FIAR- BFCE 029F066	CCTV CAMERA D - NO IMAGE
V74QA0	54-V-02B	105	FIAR- BFCE 029F064	CCTV CAMERA B PROBLEM - SPLIT SCREEN OPS

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WUC	PROB#	ORB	CAR#	NOMENCLATURE
V74QA0	54-V-02C	105	FIAR-BFCE 029F065	CCTV CAMERA A - MOMENTARY RED & GREEN LINES
V74QA0	54-V-02D	105	FIAR-BFCE 029F067	CCTV CAMERA C - HIGH GAIN ANOMALY
V74QB	1-60	102	NONE	VIDEO TAPE RECORDER MOUNTS BROKEN
V74QB	3-13	102	EE0522F	VIDEO TAPE RECORDER CASSETTE JAMMED
V74QB	3-40	102	NONE	VIDEO TAPE RECORDER ERRONEOUS "NO VIDEO" LIGHT
V74QB	4-12	102	EE0532F	VIDEO TAPE RECORDER FAILED TO REWIND
V74QB	41B-23	099	EE0578F	VIDEO TAPE RECORDER CREASING TAPES
V74QB	61B-08	104	EE618F	VIDEO TAPE RECORDER 3 FAILED
V74QN	51B-23	099	NONE	PLB B&W TV CAMERA "A" DID NOT RESPOND TO ALC PBI (
V74QN	51F-04	099	EE610F	PLB B&W CAMERA "A" FAR FIELD FOCUS FAILED
V74RA	6-25	099	EE0556F	TELEPRINTER REMAINED IN HIGH POWER MODE
V74RB	7-15	099	NAC0015	TEXT AND GRAPHICS PAPER JAM
V74RB	8-11	099	EE0569F	TEXT AND GRAPHICS VIDEO CIRCUIT FAILED
V75A00	29-02C	103	NONE	SSME 3 POWER SUPPLY TEMP ERRATIC
V75A00	33-04A	103	33RF03	RCS FIU PRESS X'DUCER FAILED
V75A00	46-V-02b	104	NONE	RMG BRAKE RETURN LINE TEMP OFF-SCALE LOW
V75AX	7-05	099	NONE	MEASUREMENT V58H0955A ROB ELEVON, TRANSIENT
V75C00	26-15	103	FAIR*	OPS 2 RCDR MODULATED IN REWIND
V75C00	27-22	104	NONE	TEMP LOSS OF OPS 2 TLM RCDR TRACK 2
V75C00	29-20	103	29RF20	UNABLE TO DUMP OX-1 RECORDER, TRACK 2
V75C00	44-V-04	104	FIAR	OPERATIONS RECORDER 2 TRACK 1 DUMP POOR QUALITY
V75DAX	6-01K	099	NONE	TEMP SENSOR (V45T0422) FC2 H2O RELIEF VLV TEMP
V75EBM	26-04C	103	26RF08	APU 1 EGT TRANSDUCER FAILED
V75EBM	29-02A	103	29RF03	APU 3 EGT 2 (V46T0340A) FAILED
V75EBM	29-02B	103	29RF14	APU 1 EGT 1 (V46T0142A)
V75EBM	41D-09D	103	14F011	APU 1 EXHAUST GAS TEMP (V46T0140A) ERRATIC
V75EBM	51A-03B	103	19F005	APU 1 EXHAUST GAS TEMPERATURE 2 (V46T0140A) FAI
V75EBM	51C-03A	103	20F004	APU 1 EXHAUST GAS TEMPERATURE 2 (V46T0140A) FAI
V75EBM	61B-02B	104	31F010	APU 1 EXHAUST GAS TEMP (V46T0142A) INTERMITTENT
V75EBN	51D-03A	103	AC7837	APU 1 EXHAUST GAS TEMPERATURE (V46T0142A) FAILE
V75EBP	7-02D	099	07F008	TEMPERATURE SENSOR
V75EBP	51I-04D	103	AC7837	APU 1 EXHAUST GAS TEMPERATURE (V46T0142A) FAILE
V75EBY	51J-03F	104	AC7837	APU 1 EXHAUST GAS TEMP 2 (V46T0140A) FAILED
V75ECK	5-05C	102	05F015	APU 3 TURB EX TEMP FAILED
V75ECK	41C-03B	099	13F005	APU 3 TURBINE EXHAUST TEMP (V46T0342A) FAILED
V75ECM	9-03J	102	09F026	APU 3 TURBINE EXH TEMP NO 1 DROPPED & RECOVERED
V75ECM	26-04A	103	26RF07	APU 3 EGT TRANSDUCER FAILED
V75ECP	7-02H	099	NONE	TEMPERATURE SENSOR APU 1 TURB EXT FAILED
V75ECP	8-06E	099	08F014	TEMPERATURE SENSOR APU 3 LUBE OIL OUT BIASED
V75ECP	41D-03D	103	AC8348F	APU 3 LUBE OIL OUT PRESS (V46P0353A) BIASED LOW
V75KAA	2-23	102	02F015	PRESSURE TRANSDUCER V64P0201 FAILED
V75LAA	1-04	102	01F021	SIGNAL CONDITIONER POWER SUPPLY FAILURE
V75MA	41B-11	099	NONE	GN&C DOWNLIST DATA INCORRECT IN LOW DATA RATE
V75MAA	8-31	099	NONE	MASTER TIMING UNIT BITE BITS - NO NORMAL OPERAT
V75MAA	9-08	102	NONE	PCMMU FORMAT 103 SM DATA LOST
V75MAB	61A-11	099	HEN056F	PAYLOAD RECORDER TRACK 5 NOT RECOVERABLE

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V75MAC	51F-01	099	26F006	PAYLOAD DATA INTERLEAVER DYNAMIC WRAP TEST FAIL
V75MAD	6-06	099	ODET167	OPS 1 RECORDER TAPE BROKEN BY LOOSE SCREW
V75MAD	7-11	099	EE0565F	OPS 1 RECORDER NOISE ON DUMP WHEN REWINDING
V75MAE	8-21	099	NONE	OPS 2 RECORDER NOISE ON DUMP WHEN REWINDING
V75MAE	29-08	103	DR-BH93	OPS-2 RCDR TRACK 4 INOPERATIVE
V75MAE	51F-13	099	HEN0053	OPS RECORDER 2 TRACK 6 MALFUNCTION
V75MAE	51J-05	104	HEN0055	OPS RECORDER 2 TRACKS 7, 8 & 9 INTERMITTENT
V75MAJ	5-15	102	05F005	MISSION TIMER-PANEL A4 INOPERATIVE
V75MAK	5-15	102	05F005	EVENT TIMER, PANEL A4 INOPERATIVE
V75NAB	6-12	099	AC5458	MDM-OF2 DATA OUTPUT INVALID
V75NAC	2-02	102	NONE	MDM-OF3 - HYBRID FAILURE
V75NAD	9-05	102	09F031	LRCS 3/4/5A TANK ISO VLVS POS INDICATOR FAILED
V75000	29-22	103	29RF22	RH MAIN LANDING GEAR STRAIN GAGE HARNESS SEPARA
V75000	28-05F	102	28RF19	OI MEASUREMENTS MISWIRED
V75000	38-03A	104	38RF03	PRSD HYDROGEN TANK 3 QUANTITY FAILURE
V75000	38-03B	104	38RF04	APU 3 X-AXIS ACCELEROMETER ERRATIC
V75000	38-03C	104	38RF07	MAIN A MPC 1 AMPERES TRANSDUCER FAILURE
V75000	38-05	104	38RF05	APU INSTRUMENTATION ERRATIC
V75000	38-08	104	NONE	CONTINUOUS TIRE PRESSURE FDA AFTER LANDING
V75000	37-V-10A	104	37RF08	BODY FLAP LWR SKIN TEMP INSERT FAILED
V75000	37-V-10B	104	37RF09	APU 2 INJ TUBE TEMP
V75000	43-V-03	104	NONE	PDI DECOMMUTATOR DROPOUTS
V75PAA	41C-03D	099	NONE	LH OMS POD SKIN TEMP (V09T1030A) READ LOW
V75PAC	1-11	102	01F032	CURRENT SENSOR INDICATED OPEN
V76AAC	51C-03C	103	NONE	MAIN BUS B FWD PCA AMMETER VERY NOISY
V76ECA	3-34	102	03F044	MOTOR CONTROL ASSY 3 - RELAY FAILED
V76ECC	41C-05	099	13F013	AFT MCA 2 STATUS DISCRETE (V76X2261E) SHOWED OI
V76ECF	8-25	099	AC6684	MOTOR CONTROL ASSY 2 - RELAY HANG-UP
V76ECF	51B-15	099	44F015	MID MCA 2 OPS STATUS 5 (V76X2225E) IND ZERO
V76ECF	55-V-03	102	55RF06	FMCA 2 OPS STAT 2 DID NOT INVERT
V76EDA	61C-02	102	AD0733	FUEL CELL 1 POWER TO ESS BUS 1BC ERRATIC
V76EJE	1-01A	102	NONE	AFT LOAD CONTROLLER 2
V76EJE	41B-17	099	11F011	RCS JETS R5R & R5D FAILED OFF; AFT LCA 2 FAILE
V76JAB	5-19	102	05F017	AC 1 PHASE B INVERTER DISCONNECTED FROM BUS
V76JAE	36-01	104	36RF01	AC 2 PHASE A INVERTER FAILED
V76000	28-11	102	FAIR	MAIN C UTILITY OUTLET 1 SHORT CIRCUIT
			BFCE	
			29F012	
V78C	1-08	102	EE0457F	DFI/PCM RECORDER TAPE MECH JAMMED
V78C	1-47	102	NONE	DFI WIDEBAND AND PCM RECORDERS SMALL DATA DROP
V78C	3-27	102	03F020	DFI W/B RECORDER TAPE TENSION LAMP FAILURE
V78C	4-28	102	ODET142	DFI PCM RECORDER DATA ERASED DURING DUMP
V78DFI	1-46	102	NONE	DFI SENSOR MOUNTING ASSY
V78DFI	1-52	102	NONE	DFI MEASUREMENTS
V78DFI	2-41	102	NONE	DFI MEASUREMENTS
V78DFI	2-44	102	NONE	DFI MEASUREMENTS
V78MAD	51A-29	103	19F022	MADS DATA NOISY & SNAPSHOT MALFUNCTION
V78MAD	61A-06	099	30F008	MADS PCM MASTER BITE (V78X9611E) FAILED
V78000	27-23	104	NONE	MADS PCM 1 BITE; H2 FILL/DRN VLV RESP OUT OF S
V78000	39-V-05	103	39RF05	MADS FDM BITES

INFLIGHT ANOMALY LIST  
BY WUC

WUC	PROB#	ORB	CAR#	NOMENCLATURE
V78000	46-V-02a	104	46RF02	BODY FLAP SKIN TEMP ERRATIC
V78000	50-V-23	102	50RF14	MADS FDM MUX 1 BITE FAIL
V78000	50-V-24	102	50RF15	OEX SYS CONT MODULE FAIL
V78000	53-V-01	103	53RF01	MADS DID NOT START WHEN COMMANDED
V78000	56-V-14	103	56RF09	MADS DID NOT RECORD WHEN COMMANDED - ENTRY
V79	9-34	102	NONE	INADVERTENT FLIGHT CONTROL CH 2 SHUTDOWN
V79	51F-20	099	NONE	DIGITAL AUTO PILOT DOWNMODED TO MANUAL
V79ACD	9-29	102	09F018	ATVC-3 ME ACTUATOR CH 3 FAIL IND
V79ACD	56-V-09	103	56RF06	ATVC 4 POWER LOSS INDICATION
V79AD	51F-07	099	26F001	LEFT SRB YAW AXIS RATE GYRO ASSEMBLY FAILED
V79EEA	54-V-04	105	NONE	RUDDER/SPEEDBRAKE SWITCH VALVE INDICATION
V79EEA	53-V-02	103	53RF07	SPDBRKE FCS CHAN 3 POSITION FEEDBACK ANOM
V79ECB	41B-12	099	NONE	RH ARCS R3A DRIVER OUTPUT DISCRETE FAILED
V79000	28-27	102	NONE	CREW REPORT LOUD THUMP/THUD AT FIRST OPS-1 TRAI
V79000	32-22	102	IM32RF22	BFS GPC ERRORS
V79000	37-V-09	104	NONE	PRELAUNCH BFS FLIGHT ANOMALY
V79S00	50-V-28	102	NONE	EXCESSIVE AILERON TRIM DURING ENTRY
V79WCB	2-34	102	02F018	PILOT RHC - ROLL TRIM SWITCH FAIL
V79WD	1-02	102	NONE	PASS & BFS TIMING SKEW
V79WD	51C-05A	103	NONE	BFS DID NOT PROCEED TO MAJOR MODE 104 AFTER ET
V79WD	51C-05B	103	NONE	BFS DEORBIT IGNITION TIME WAS 8 SECONDS LATE
V79WD	51F-05	099	NONE	BFS LOGGED STORE PROTECT VIOLATION
V79WLB	39-V-14	103	39RF13	PLT's RHC TRAVELED FULL AFT - COULDN'T ADJUST
V79W00	41-05	103	NONE	BFS BACKUP DP/DT TRIGGERED FDA
NONE	49-V-06	105	NONE	RMS FALSE ALARMS
NONE	49-V-14	105	NONE	ORBIT TARGET Ti COMPUTATION FAILED
NONE	55-V-16	102	NONE	SPOC PGSC DATA INPUT PROBLEM

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-1/ET/1	ET tumble system malfunction
STS-1/ET/2	High ET LOX tank bulkhead and Y-ring oscillatory loads
STS-1/ET/3	ET LH2 forward dome vibration exceedance
STS-1/MPS/1 <sup>a</sup>	ME-2 GH <sub>2</sub> out temp failure
STS-1/MPS/2 <sup>a</sup>	ME-2 GH <sub>2</sub> out press failure
STS-1/MPS/3 <sup>a</sup>	MPS H <sub>2</sub> topping valve slow closure after dump
STS-1/MPS/4	ME-1 GO <sub>2</sub> FCV failed to open fully
STS-1/MPS/5	ME-2 helium loss during second vacuum inerting
STS-1/MPS/6	H <sub>2</sub> concentration in Orbiter aft fuselage compartment
STS-1/MPS/7 <sup>a</sup>	Orbiter T-0 H <sub>2</sub> umbilical disc leak during loading
STS-1/SRB/1	Damaged main chute flotation packages
STS-1/SRB/2	Excessive temperatures in aft skirts during entry
STS-1/SRB/3	Frustum location-aid malfunction
STS-1/SRB/4	Tearing of main chute canopy
STS-1/SRB/5	SRB component vibroacoustic exceedances
STS-1/SRB/6	Unscheduled FDM autocalibration at frustum release
STS-1/SRB/7	SRM thermal curtain failure during reentry
STS-1/SRB/8	One drogue parachute first stage reefing line cutter failed
STS-1/SRB/9	Ignition overpressure significantly larger than predicted
STS-1/SSME/1	Channel A and B MCC PC drift
STS-1/SSME/2	ME-3 fuel preburner baffle erosion
STS-1/SSME/3	Two nozzle tube leaks
STS-1/SSME/4	Isp discrepancy
STS-2/ET/1	ET aft LOX dome accelerometer data erroneous
STS-2/MPS/1	LO <sub>2</sub> 100 percent liquid level sensor failure
STS-2/MPS/2	LO <sub>2</sub> ECO sensor failed wet after STS-2 scrub
STS-2/MPS/3	ME-2 press supply temp transducer failure
STS-2/MPS/4 <sup>a</sup>	ME-2 press supply press transducer failure
STS-2/MPS/5	LO <sub>2</sub> tank ullage press low during fast fill to topping
STS-2/MPS/6 <sup>a</sup>	LO <sub>2</sub> and LH <sub>2</sub> 8-inch disconnect inserts loose

<sup>a</sup>Appears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-2/MPS/7	Improper MDM commands to open helium isolation valves
STS-2/MPS/8	Orbiter feed system vacuum inerting terminated early
STS-2/MPS/9	High helium concentration in ET intertank area during LH <sub>2</sub> loading
STS-2/SRB/1	Failure to separate nozzle extensions during reentry
STS-2/SRB/2	VHF recovery beacon transmitter on right SRB failed
STS-2/SRB/3	SRB holddown bolts did not eject
STS-2/SRB/4	Aft IEA reentry vibration exceedance
STS-2/SRB/5	Excessive temp in aft skirt during reentry
STS-2/SRB/6	TVC upper frame vibration exceedance during reentry
STS-2/SRB/7	LH SRB range safety no. 1 vibration exceedance during reentry
STS-2/SRB/8	APU gear boxes contaminated with wax
STS-2/SRB/9	Broken springs in APU fuel pump
STS-2/SRB/10	Unscheduled FDM autocalibration at frustum release
STS-2/SRB/11	RH SRM aft field joint gas leak to primary O-ring with erosion
STS-2/SRB/12	Failure of SRM thermal curtains during reentry
STS-2/SRB/13	Forward BSM covers missing
STS-2/SSME/1	One nozzle tube leak
STS-2/SSME/2	Isp discrepancy
STS-3/ET/1	High ET LOX tank bulkhead and Y-ring oscillatory loads
STS-3/MPS/1	GN <sub>2</sub> heater overtemp sensor in GSE failed during loading
STS-3/MPS/2	ME-2 GH <sub>2</sub> press out temp failure
STS-3/MPS/3 <sup>a</sup>	High MPS helium usage during entry
STS-3/SRB/1	One RH SRB main chute failure 3 sec after deployment
STS-3/SRB/2	One RH SRB main chute not recovered
STS-3/SRB/3	SRB aft IEA reentry vibration exceedance
STS-3/SRB/4	Failure of SRM thermal curtains
STS-3/SRB/5	Forward BSM covers missing
STS-3/SRB/6	TPS spallation on frustums
STS-3/SSME/1	One nozzle tube leak
STS-3/SSME/2	Isp discrepancy

<sup>a</sup>Appears in JSC list also.



MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-4/ET/1	High ET LOX tank bulkhead and Y-ring oscillatory loads
STS-4/ET/2	TPS failure: charring, SOFI popcorning, divots, and lost TPS
STS-4/MPS/1 <sup>a</sup>	MPS LO <sub>2</sub> bleed valve position indicator switch malfunction
STS-4/MPS/2	Facility/Orbiter LO <sub>2</sub> interface temp failure
STS-4/MPS/3 <sup>a</sup>	ME-2 GH <sub>2</sub> press out temp failure
STS-4/MPS/4	High helium concentration in ET intertank area during LH <sub>2</sub> loading
STS-4/MPS/5 <sup>a</sup>	LO <sub>2</sub> 17-inch disconnect flowliner failure
STS-4/SRB/1	Both SRB's failed to decelerate properly and were lost
STS-4/SRB/2	One holddown bolt did not eject properly
STS-4/SRB/3	One forward BSM cover missing
STS-4/SSME/1	ME-3 HPFTP impeller damage
STS-4/SSME/2	ME-2 sporadic MCC pressure oscillations
STS-4/SSME/3	ME-3 contamination in the OPB injector element A-11
STS-4/SSME/4	Elevon nozzle tube leaks
STS-4/SSME/5	Isp discrepancy
STS-5/MPS/1	LO <sub>2</sub> prevalues and fill/drain valves not closed properly
STS-5/MPS/2 <sup>a</sup>	GO <sub>2</sub> FCV failed to open fully
STS-5/SRB/1	Failure of RH SRB fwd BSM mounting compartment to vent properly
STS-5/SRB/2	RH SRB aft IEA longitudinal vibration criteria exceedance
STS-5/SRB/3	Intermittent operation of flashing light
STS-5/SSME/1	SSME flight nozzle tube ruptures prior to lift-off
STS-5/SSME/2	Unexpected rise in HPOT secondary seal drain line temperatures
STS-5/SSME/3	Unexpected rise in HPOT secondary seal cavity pressure
STS-6/ET/1 <sup>a</sup>	LO <sub>2</sub> level sensor no. 1 failed wet
STS-6/MPS/1 <sup>a</sup>	ME-2 GH <sub>2</sub> press out temp failure
STS-6/MPS/2 <sup>a</sup>	ME-2 GH <sub>2</sub> press out press failure
STS-6/MPS/3 <sup>a</sup>	ME-1 GH <sub>2</sub> flow control valve hung up
STS-6/MPS/4 <sup>a</sup>	ME-3 helium reg out press increase
STS-6/SRB/1	RH SRB aft skirt TPS dislodged at lift-off
STS-6/SRB/2	EPON shims on 6 launch posts came loose at lift-off

<sup>a</sup>Appears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-6/SRB/3	SRB flashing lights failed shortly at water impact
STS-6/SRB/4	RH SRB forward IEA connector corrosion
STS-6/SRB/5	Loose SRM case pin retainer bands
STS-6/SRB/6	Aft skirt TPS material debris
STS-6/SRB/7	Debris from aft skirt post EPON and I shims
STS-6/SRB/8	Unscheduled FDM autocalibration at frustum release
STS-6/SRB/9	RH SRB aft IEA longitudinal vibration criteria exceedance
STS-6/SRB/10	Gas paths on both SRM nozzle-to-case joints
STS-6/SSME/1	ME-3 HPFTP turbine disc temp drift
STS-6/SSME/2	ME-1 OPOV supply skin temp sensor failed
STS-6/SSME/3	ME-3 MFV disc skin temp sensor failed
STS-6/SSME/4	ME-2 fuel preburner ASI LOX supply line leak
STS-7/ET/1 <sup>a</sup>	LH <sub>2</sub> ullage press sensor stuck
STS-7/ET/2	LH <sub>2</sub> 100-percent level sensor inconsistencies
STS-7/MPS/1	GSE/Orbiter LO <sub>2</sub> inlet temp redline exceeded
STS-7/MPS/2 <sup>a</sup>	Leak at high-point bleed T-0 umbilical disconnect
STS-7/MPS/3 <sup>a</sup>	ME-2 and ME-3 GH <sub>2</sub> press supply press failed
STS-7/MPS/4 <sup>a</sup>	LH <sub>2</sub> tank ullage press meas stuck
STS-7/MPS/5	On-orbit leak downstream of isolation valves following vacuum inerting
STS-7/SRB/1	Aft IEA contact with ET ring cover
STS-7/SRB/2	LH SRB holddown post NSI cover plate screws missing
STS-7/SRB/3	SRB cable jacket pulled from connector molding
STS-7/SRB/4	SRB TPS found during launch platform walkdown
STS-7/SRB/5	SRB aft IEA vibroacoustic exceedance
STS-7/SRB/6	Holddown-post blast-container cover-plate screws missing
STS-7/SRB/7	Unscheduled FDM autocalibration at frustum release
STS-7/SRB/8	Low-frequency longitudinal vibration exceedance on the aft IEA during boost

<sup>a</sup>Appears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-7/SSME/1	ME-3 OPOV LOX supply line skin temp drift
STS-7/SSME/2	Cracks found in HPFT bolt-hole circle
STS-8/ET/1	Low LO <sub>2</sub> ullage pressure transducer readings
STS-8/MPS/1	LO <sub>2</sub> 99.85-percent level meas failure
STS-8/MPS/2 <sup>a</sup>	ME-2 GH <sub>2</sub> press supply press failure
STS-8/MPS/3	ME-2 LH <sub>2</sub> inlet press failure
STS-8/MPS/4	Pressure spike in aft compartment
STS-8/MPS/5	Isp variation greater than expected
STS-8/SRB/1	Holddown-post blast-container splice-plate bolts missing
STS-8/SRB/2	Main chute reefing line cutter failure
STS-8/SRB/3	Failure to remove recovery and DFI power at water impact
STS-8/SRB/4	Abnormal erosion pattern of nozzle nose rings
STS-8/SRB/5	Holddown post blast container cover plate bolts ejected and some missing
STS-8/SRB/6	Unscheduled FDM autocalibration at frustum release
STS-8/SRB/7	RGA yaw inconsistencies during flight
STS-8/SRB/8	Low frequency longitudinal vibration exceedance on the aft IEA during boost
STS-8/SRB/9	LH SRB flashing light failed before impact
STS-8/SSME/1	ME-1 LOX ASI supply line failure
STS-8/SSME/2	ME-1 HPFTP turbine disc temp decay
STS-8/SSME/3 <sup>a</sup>	ME-1 MFV skin temp meas failure
STS-8/SSME/4	Fuel flow oscillations at lower power levels
STS-9/ET/1	Nose cone temp meas failure
STS-9/MPS/1 <sup>a</sup>	H <sub>2</sub> leakage at T-0 umbilical disconnect
STS-9/MPS/2 <sup>a</sup>	GH <sub>2</sub> FCV no. 1 did not fully open
STS-9/MPS/3	LO <sub>2</sub> tank ullage press slump
STS-9/MPS/4	LH <sub>2</sub> ET/Orbiter interface temperature exceedance
STS-9/SRB/1	Aft BSM heat seal rings broken away
STS-9/SRB/2	Main chute canopy damage
STS-9/SRB/3	Aft skirt shoe shim ejected at lift-off
STS-9/SRB/4	SRM violation of thrust imbalance design limits (waiver RWW-099 R1)
STS-9/SRB/5	Three APU's experienced hydrazine line failure during descent
STS-9/SRB/6	Eight O-rings on electrical cable connectors missing causing saltwater damage
STS-9/SSME/1	ME-1 LPOTP disc press Ch B meas failure

<sup>a</sup>Appears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-9/SSME/2	ME-3 fuel bleed valve position indicator failure
STS-9/SSME/3	ME-3 HPPT disc temp failure
STS-9/SSME/4	ME-3 overheat and localized melting of nozzle aft TPS
STS-11/MPS/1	ME-2 GN <sub>2</sub> Orbiter press supply press fail
STS-11/MPS/2	LO <sub>2</sub> residuals less than predicted
STS-11/SRB/1	LH SRB main chute failed to inflate
STS-11/SRB/2	SRM primary O-ring burn areas
STS-11/SRB/3	SRB rate gyro bench test failure
STS-11/SRB/4	SRM nozzle erosion
STS-11/SRB/5	Extensive aft skirt structural damage on LH SRB
STS-11/SRB/6	Two rate gyros failed postflight bench tests
STS-11/SRB/7	Hydrazine fill and drain line rupture during descent
STS-11/SRB/8	Low-frequency longitudinal vibration exceedance on the aft IEA during boost
STS-11/SRB/9	LH SRM nozzle throat inlet ablative rim separation from housing
STS-11/SRB/10	LH SRM forward center field joint gas leak to primary O-ring with erosion
STS-11/SRB/11	RH SRM gas leak and erosion to primary O-ring of nozzle-to-case joint
STS-11/SSME/1	ME-1 MPV skin temp meas failure
STS-11/SSME/2	ME-1 and ME-2 MPV burst diaphragm rupture
STS-11/SSME/3	ME-2 oxidizer preburner ASI chamber and injector face erosion
STS-11/SSME/4	ME-2 overheating and localized melting of aft manifold TPS
STS-11/SSME/5	ME-3 fuel bleed position indicator erroneous reading
STS-11/SSME/6	ME-3 HPFTP strut can damaged
STS-11/SSME/7	Chipped first-stage blade tips on HPOT engine S/N 2012
STS-41-C/ET/1 <sup>a</sup>	LH <sub>2</sub> primary 100-percent liquid level sensor false indication
STS-41-C/MPS/1	Discrepancy among LO <sub>2</sub> load, usage, and residuals
STS-41-C/MPS/2	GH <sub>2</sub> pressurization supply pressure sensor failed
STS-41-C/SRB/1	RH SRB main chute failed to inflate
STS-41-C/SRB/2	LH SRB drogue chute damage
STS-41-C/SRB/3	LH SRB main chute damage
STS-41-C/SRB/4	Range safety system reduced signal strength

<sup>a</sup>Appears in JSC list also.

## MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-41-C/SRB/5	Voltage regulator failure
STS-41-C/SRB/6	Extensive RH SRB aft skirt structural damage
STS-41-C/SRB/7	Gas leak and erosion to primary O-ring of RH SRM nozzle-to-case joint
STS-41-D/ET/1	Nose cone temperature measurements failed (first attempt)
STS-41-D/MPS/1	GH <sub>2</sub> pressurization supply temperature sensor failed
STS-41-D/SRB/1	RSS antenna damaged
STS-41-D/SRB/2	Unscheduled FDM autocalibration at frustum release
STS 41-D/SRB/3	Hydrazine pump seal/lube oil overboard drain line melted
STS 41-D/SRB/4	Low-frequency radial vibration exceedance on the aft IEA
STS 41-D/SRB/5	One flashing light failed
STS 41-D/SRB/6	RH SRM forward field joint erosion
STS 41-D/SRB/7	LH SRM gas leak and erosion to primary O-ring of nozzle-to-case joint
STS 41-D/SSME/1 <sup>a</sup>	ME-3 MPV failure (aborted launch)
STS 41-D/SSME/2	SSME vibration data dropout
STS 41-D/SSME/3	ME-3 Ch A press meas contained data spikes
STS 41-G/MPS/1 <sup>a</sup>	Orbiter helium bottle press dropped
STS 41-G/MPS/2	High LH <sub>2</sub> tank back press during replenish
STS 41-G/MPS/3 <sup>a</sup>	GH <sub>2</sub> pressurization system temperature and pressure sensors failed
STS 41-G/MPS/4	LO <sub>2</sub> tank ullage pressure slumped below expected minimum
STS 41-G/SRB/1	BSM aeroheat shield cover lost
STS 41-G/SSME/1	MPV skin temperature sensor failed
STS 51-A/MPS/1	High LH <sub>2</sub> tank back press during replenish
STS 51-A/MPS/2	High LO <sub>2</sub> tank ullage press during replenish
STS 51-A/MPS/3	Uneven LO <sub>2</sub> vent line flow
STS 51-A/MPS/4 <sup>a</sup>	ME-3 helium reg leakage
STS 51-A/MPS/5	GH <sub>2</sub> pressurization system temperature sensor failed
STS 51-A/SRB/1	LSC fastener found in system tunnel
STS 51-A/SRB/2	LH SRM nozzle throat inlet ablative ring separation from housing
STS 51-A/SRB/3	Pinch marks on LH SRM center field joint primary and secondary O-rings
STS 51-A/SRB/4	Pinch marks on LH aft field joint primary O-ring

<sup>a</sup>Appears in JSC list also.

## MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBERNOMENCLATURE

STS 51-A/SSME/1	ME-1 LPFTP disc press meas failure
STS 51-A/SSME/2	ME-2 HPFTP disc temp meas failure
STS 51-A/SSME/3	ME-3 HPFTP lift-off seal leakage
STS 51-C/MPS/1 <sup>a</sup>	High helium concentration in midfuselage
STS 51-C/MPS/2	GH <sub>2</sub> pressurization system temperature sensor failure
STS 51-C/SRB/1	LH SRB nozzle extension began breakup prior to nose cap jettison
STS 51-C/SRB/2	LH SRM nozzle throat inlet ablative r separation from housing
STS 51-C/SRB/3	LH SRM forward field joint gas leak and erosion to primary O-ring
STS 51-C/SRB/4	RH SRM primary O-ring gas leak and erosion at center field joint
STS 51-C/SRB/5	Gas leaks to primary O-rings at nozzle-to-case joint on both SRMs
STS 51-C/SSME/1	ME-2 HPFTP disc temp meas failure
STS 51-C/SSME/2	ME-2 controller MFV servoactuator self-test failure
STS 51-C/SSME/3	Crack in Channel B sensor header pin
STS 51-D/MPS/1	High LH <sub>2</sub> tank backpressure during replenish
STS 51-D/SRB/1	RH SRB nozzle throat ring developed erosion pockets
STS 51-D/SRB/2	One yaw gyro did not track the others
STS 51-D/SRB/3	Gas leak and erosion in both SRM nozzle-to-case joints
STS 51-D/SSME/1	ME-1 HPFTP disc temp meas failure
STS 51-D/SSME/2	ME-1 HPFTV coolant liner press erratic
STS 51-D/SSME/3	OPOV LO <sub>2</sub> supply line temperature sensor failed
STS 51-B/MPS/1	LO <sub>2</sub> replenish not terminated as scheduled
STS 51-B/MPS/2	Failed to dump LO <sub>2</sub> through ME-3 during propellant dump
STS 51-B/MPS/3	GH <sub>2</sub> pressurization system pressure sensor failed
STS 51-B/SRB/1	Missing portion of RH SRM forward segment aft end flap
STS 51-B/SRB/2	One main parachute on each SRB failed to inflate properly
STS 51-B/SRB/3	RH SRB gas leak at primary O-ring of forward field joint
STS 51-B/SRB/4	Gas leak and erosion in both SRM nozzle-to-case joints. Erosion to secondary O-ring on LH SRM

<sup>a</sup>Appears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS 51-B/SSME/1	ME-2 DCU loss of power
STS 51-B/SSME/2	Broken tab in HPOTP of engine S/N 2021
STS 51-G/MPS/1	Start of chilldown 25 min late
STS 51-G/MPS/2	GN <sub>2</sub> purge supply inadequate
STS 51-G/MPS/3	ME-2 LH <sub>2</sub> inlet press meas failure
STS 51-G/MPS/4	GH <sub>2</sub> pressurization system pressure sensor failure
STS 51-G/SRB/1	Four RGA's failed postflight bench tests
STS 51-G/SRB/2	One LH SRB parachute didn't inflate beyond first reef stage
STS 51-G/SRB/3	One flashing light failed
STS 51-G/SRB/4	Gas leaks and erosion on both SRM nozzle-to-case joints
STS 51-G/SRB/5	Gas leaks, but no erosion in either SRM igniter joint
STS 51-F/MPS/1	GH <sub>2</sub> pressurization system pressure sensor failed
STS 51-F/SRB/1	RGA "C" yaw gave full-scale negative output
STS 51-F/SRB/2	RH main chute sustained extensive damage
STS 51-F/SRB/3	One RGA yaw rate gyro failed full-scale negative
STS 51-F/SRB/4	LH SRM nozzle throat inlet ablative ring separation from housing
STS 51-F/SRB/5	LH SRM forward center joint primary O-ring had poor splice joints
STS 51-F/SRB/6	Gas leak in the RH SRM nozzle-to-case joint
STS 51-F/SRB/7	Gas leak but no erosion to LH SRM igniter joint
STS 51-F/SSME/1	ME-1 HPFTP disc temp Ch B meas failure
STS 51-F/SSME/2	ME-1 HPFTP disc temp Ch A meas failure
STS 51-F/SSME/3	ME-1 shutdown prematurely
STS 51-F/SSME/4	ME-3 HPFTP disc temp Ch B meas failure
STS 51-F/SSME/5	CCV ME-2 position indicator failure (on-pad abort)
STS 51-I/ET/1	Both nose-cone temperature measurements failed
STS 51-I/MPS/1	High Orbiter LO <sub>2</sub> inlet temp causing LO <sub>2</sub> stop flow
STS 51-I/MPS/2	TSM engine bleed temp high reading
STS 51-I/MPS/3	LH <sub>2</sub> 100-percent secondary sensor no. 2 not calculated
STS 51-I/MPS/4	LH <sub>2</sub> recirc pump 1 stop
STS 51-I/MPS/5	GH <sub>2</sub> pressurization system pressure sensor failed

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS 51-I/SRB/1	Holddown stud failed to eject
STS 51-I/SRB/2	One RGA pitch rate gyro failed postflight bench test
STS 51-I/SRB/3	Gas leak in the LH SRM nozzle-to-case joint
STS 51-I/SRB/4	Gas leaks in both inner and outer sea LH SRM igniter joints. No seal damage
STS 51-I/SRB/5	Gas leaks, but no erosion to outer gas of RH SRM igniter joint
STS 51-J/ET/1	LH <sub>2</sub> ullage pressure transducer no. 2 high
STS 51-J/MPS/1	LH <sub>2</sub> high-point bleed valve failure
STS 51-J/MPS/2	LO <sub>2</sub> replenish valve anomaly
STS 51-J/MPS/3	Avionics problems with controller to prevalve no. 3 closing solenoid
STS 51-J/SRB/1	One RGA failed yaw postflight bench test
STS 51-J/SRB/2	Second stage reefing line cutter failed to fire
STS 51-J/SRB/3	Segment of LH SRM nozzle outer boot missing
STS 51-J/SRB/4	Gas leak at primary seal of RH SRM igniter joints
STS 51-J/SSME/1	Engine SN 2019 fuel system purge pressure increase during start transient
STS 61-A/ET/1	LO <sub>2</sub> ullage pressure dropout
STS 61-A/MPS/1	LH <sub>2</sub> storage tank pressure high
STS 61-A/MPS/2	LH <sub>2</sub> recirc pumps not started at normal time
STS 61-A/MPS/3	High H <sub>2</sub> concentration at fill line flange
STS 61-A/SRB/1	Holddown stud failed to eject
STS 61-A/SRB/2	Three RGA's failed postflight bench test
STS 61-A/SRB/3	Hydrazine fire during descent
STS 61-A/SRB/4	Nozzle extension didn't sever
STS 61-A/SRB/5	Tilt fuel isolator valve ruptured, isolation valve missing
STS 61-A/SRB/6	Damage to forward skirt access door at towback
STS 61-A/SRB/7	LH center and aft field joints had gas leaks to primary O-rings
STS 61-A/SRB/8	RH forward field joint gas leak at primary O-ring
STS 61-A/SRB/9	Gas leaks occurred at both SRM nozzle-to-case joints. O-ring erosion on the right joint but not the leak.
STS 61-A/SRB/10	Gas leaks, but no erosion to outer sea of both SRM igniter joints
STS 61-A/SSME/1	OPOV LO <sub>2</sub> supply line temperature sensor failed



MSFC FLIGHT PROBLEMS (Continued)

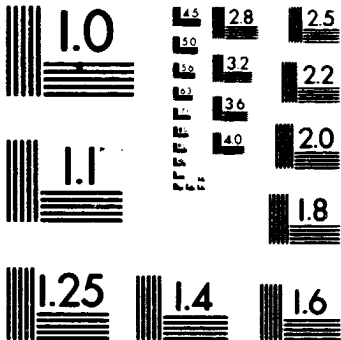
FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS 61-B/SRB/1	Aft skirt EPON shim missing
STS 61-B/SRB/2	Gas leaks and erosion in both SRM nozzle-to-case joints
STS 61-B/SRB/3	Gas leaks but no erosion to outer seal of both SRM igniter joints
STS 61-B/SSME/1	HPFTP turbine discharge temperature sensor failed
STS 61-C/ET/1	LO <sub>2</sub> ullage press dropout
STS 61-C/MPS/1	Valve sequencing out of order during terminal count
STS 61-C/MPS/2	Loss of primary HGDS
STS 61-C/MPS/3	Broken facility LO <sub>2</sub> temperature probe found in LO <sub>2</sub> pre valve visor (third launch attempt)
STS 61-C/MPS/4	GH <sub>2</sub> pressurization system pressure sensor failed
STS 61-C/SRB/1	LH flashing light failed
STS 61-B/SRB/2	LH SRB aft field joint gas leak and erosion at primary O-ring
STS 61-C/SRB/3	Gas leak in the LH SRM nozzle-to-case joint
STS 61-B/SRB/4	Gas leak and erosion in the RH SRM nozzle-to-case joint
STS 61-B/SRB/5	Gas leaks, but no erosion to outer seal of both SRM igniter joints
STS-26-B-1	Debris containment system (DCS) plunger did not properly seat at HDP 1, 3, 7, and 8.
STS-26-B-2	RH ETA ring aft IEA end cover (on tunnel side) and the two attach angle assemblies were missing after splashdown; ten cables were pulled out of connectors and were dangling in the water.
STS-26-B-3	SLA was missing from sloped face of LH SRB antenna (+Z axis).
STS-26-B-4	The RH SRB APU lube oil recirculating line was discovered leaking during gearbox (tilt-system A) servicing.
STS-26-B-5	A strap securing baro-switch tube assembly in the LH SRB frustum was broken at the fastener.
STS-26-B-6	A linear shaped charged (LSC) confined detonating fuse (CDF) line was found severed at the 401 ring connector during postflight assessment of the LH SRB.
STS-26-B-7	The RH SRB main parachute 3 experienced a tear from ribbons 131 to 148 in the 460-strength level region.

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-26-B-8	The cavity-collapse loads, measured 50 milliseconds after water impact, exceeded the design yield strength of the right SRB TVC rock servoactuator.
STS-26-B-9	Water shock loads exceeded qualification levels on the left SRB TVC rock lower frame. Data indicate water impact shock loads of 460g for 2 milliseconds that are in excess of the water impact shock limit of 360g.
STS-26-B-10	The right SRB RGA pyrotechnic shock exceeded the pyrotechnic shock qualification levels at frustum separation.
STS-26-E-1	During postflight inspection of E-3 (S/N 2028), a nozzle tube split was discovered 3" down stream of joint (nozzle-to-MCC interface).
STS-26-E-2	During postflight inspection, a leak check revealed a class II leak in the joint G15 (Main combustion chamber-to-nozzle interface) of E-1 2019.
STS-26-E-3	The HPFTP discharge temperature on channel B experienced decay and receded (70 degrees) in the thrust bucket at 100 percent RPL (E-1, S/N 2019).
STS-26-E-4	The HPFTP coolant liner pressure experienced an oscillation (70 psia to 104 percent RPL on E-1 S/N 2019).
STS-26-E-5	During disassembly of main engine bellows seal at the G15 joint was found to have a crack four inches long on the inner convolution of the inside diameter (inner side).
STS-26-M-1	During postflight inspection of both thermal protection system (TPS) covers covering DFI/GEI cable runs was missing in several places.
STS-26-M-2	Salt water penetrated all 6 field joint moisture barriers. Approximately 1 liter of water removed from left forward field joint. Similar amounts in others.
STS-26-M-3	The metal interference surfaces (case feature) of the RSRM field joints exhibited corrosion (hundreds of granular pits, and/or scratches) during postflight investigation.



**MICROCOPY RESOLUTION TEST CHART**  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)

HSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-26-T-1	The 98 percent (no. 2) LH2 level sensor reading changed from dry to wet at approximately 70 sec after T-0 and read intermittently between wet and dr until about T+130.
STS-27-B-1	EPON shim material torn loose. Fragments of the EPON shoe shim were torn loose in varying degrees from aft skirt posts 3, 4, 7, and 8.
STS-27-B-2	Nosecap MSA-1 debris. The right SRB nose cap MSA-1 material/debris has been associated with the damage to the Orbiter tiles.
STS-27-B-3	Water impact shock loads exceeded qualification levels for the left SRB TVC (rock) lower frame. Data indicate water impact shock loads in excess of 1800g, whereas 360g is the maximum allowable.
STS-27-E-1	HPFTP discharge temperature on channel A failed high. The ME-3, S/N 2029, HPFTP discharge temperature at ch. A failed high at 277 seconds.
STS-27-E-2	MCC fuel injection pressure froze during max q bucket on ME-2. The MCC fuel injection pressure did not respond to throttling during the thrust bucket on ME-2, S/N 2030.
STS-27-E-3	HPOTP inner-raceway cracked at bearing 3, wire particle found. During borescope inspection of ME-3 (S/N 2029), a crack of approximately 0.005 in. to 0.010 in. was detected at bearing 3 on the inner raceway of the HPOTP, (S/N 9109 R1).
STS-27-M-1	Ignition/igniter heaters charred. Some heat damage and charring was evidenced by discoloration at two locations of both igniter heaters.
STS-27-M-2	TPS extruded cork missing on right center field joint. A small unbonded area (apprx 3 1/2" x 3 1/2") of cork just above the buckle on the Kevlar band was found missing during the postflight work.
STS-27-M-3	Nozzle joint 1 bolts bent. Bolts were bent on the Right SRM (0-90 degrees quadrant) at nozzle joint 1 of exit cone.
STS-27-M-4	Seawater found in 5 of the 6. Small amounts of seawater were found in the moisture seal on 5 of the 6 field joints.

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-27-M-5	Fretting corrosion of field joints. The "capture feature" surfaces of the SRM field joints encountered gouges, pits and/or scratches.
STS-27-M-6	During the RSRM postflight inspection at KSC, water was found dripping from under both forward center segments' factory joint weatherseals.
STS-27-M-7	Data analysis indicated a "rise-rate" delay on the igniter pressure reading from the left SRM. The igniter pressure should be 700 psi, but was measured as 696 psi at 0.0398 second.
STS-29-B-1	Extensive damage to the thrust vector control (TVC) components was found during the postflight inspection.
STS-29-B-2	A structural crack of about 3" was found in the aft skirt intermediate ring near holddown post 8.
STS-29-B-3	Extensive damage to the TVC components was found during the postflight inspection.
STS-29-B-4	The DCS plunger did not properly seat at holddown post 8 during lift-off operations.
STS-29-B-5	Super light ablator (SLA) was missing from the sloped face (+Z axis) of both SRB range safety system antennas.
STS-29-B-6	The frustum backup ring in the forward separation ring fasteners was damaged on both SRB's.
STS-29-B-7	Foreign object seen on film of the main parachute deployment of the right SRB.
STS-29-E-1	After landing, a leak in the main combustion chamber bond line was detected on main engine-1, S/N 2031.
STS-29-E-2	Upon separation of the main combustion chamber (MCC) and nozzle as a part of the investigation of the main engine 1 MCC bondline leak, the bellows seal at G15 was found to have a blue discoloration in the area between tubes 55 and 85 across a 2.5-inch width.
STS-29-E-3	During disassembly of the high pressure oxidizer turbopump from main engine 3, the tip seal retainer gap check revealed three retainers with gaps exceeding the specification limit of 0.0015 inch.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-29-E-4	During disassembly of the high pressure oxidizer turbopump from main engine 3, two cupwashers were found rotated past the stake in the right balance piston/turning vane subassembly.
STS-29-E-5	During disassembly of the high pressure oxidizer turbopump from main engine 2, three cupwashers were found rotated past the stake in the right balance piston/turning vane subassembly.
STS-29-M-1	The primary heater current to the aft field joint heater showed no voltage and a gradient temperature decrease during the countdown. The secondary heater was subsequently brought on.
STS-29-M-2	Postflight inspection of the left center factory joint revealed several adhesive unbonds of the EPDM vulcanized weather seal.
STS-29-M-3	Approximately 95 percent of the glass cloth phenolic insulator and 100 percent of the carbon cloth phenolic liner was missing from the left SRM aft exit cone.
STS-29-M-4	The metal interference surfaces (capture feature) of the RSRM cas field joints exhibited fretting corrosion pits/scratches/gouges. Refurbishment resulted in violating the specification of 0.010 inch depth.
STS-29-M-5	During postflight hardware inspection, intermittent shallow pitting was found on matching tang and clevis metal surfaces between O-ring grooves in the left forward segment cylinder/cylinder factory joint.
STS-29-T-1	During liquid hydrogen fast fill, a larger-than-normal amount of vapor, liquid droplets, and frost was observed on the liquid hydrogen umbilical disconnect area.
STS-30-B-1	The number two left SRB main parachute (S/N 8045) collapsed shortly after inflation. As a result of higher loading during entry, parachute 3 had some broken suspension lines.
STS-30-B-2	The holddown post DCS did not function properly at locations 2, 3, 5, and 7.

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-30-B-3	Four of the explosive transfer assembly (ETA) ring cover fasteners were sheared off near the in-harbor tow bracket of the left SRB.
STS-30-B-4	The left SRB ETA ring cap and web separation continues approximately 100 inches circumferentially on ring segment 283. The maximum gap is about 1/4 inch.
STS-30-E-1	The main engine 3 (S/N 2029) AFV D/S skin temperature sensor 1 failed off-scale high at T + 413 seconds into the flight.
STS-30-E-2	The main engine 1 high pressure oxidizer turbopump radial (135-3) accelerometer exhibited a high noise level approximately 115 seconds after engine start. The noise level exceeded the redline limit at 135 seconds and remained above the redline through MECO.
STS-30-E-3	The main engine 2 high pressure oxidizer turbopump exhibited leakage at the primary liquid oxygen drain line at the tee fitting near joint D3 during postflight inspection.
STS-30-M-1	Postflight inspection of the left SRM identified several aft edge unbonds of the factory joint weatherseals.
STS-30-M-2	Postflight inspection of the left SRM igniter revealed a cut at 285 degrees on the secondary seal of the outer gasket.
STS-30-M-3	The left SRM nozzle snubber ring was displaced slightly forward and wedged into the aft ring. Nozzle wedged out of null position.
STS-28-B-1	Left SRB Frustum BSM Aeroheat Shield Door from lower right position missing. During recovery operations, the retrieval ship reported that the aeroheat shield door on the BSM (located on the lower right position of the BSM cluster) was missing from the left SRB Frustum.
STS-28-B-2	Left SRB ETA ring bolts loose. Eighteen loose (only finger tight) 3/8" SRM Stub/ETA Ring aft web fasteners were identified on the left SRB during post-flight assessment. Six fasteners were located at the IEA position, and the remaining 12 were located randomly around the ETA Ring.

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-28-B-3	Left SRB TVC tilt system lower frame attachment clevis crack. A crack was found on the TVC lower frame attachment clevis located adjacent to rib 5 on the left SRB aft skirt (S/N 09).
STS-28-B-4	Left SRB range safety battery temperature data showed an anomalous temperature of 18 °F to 19 °F for a 10-minute period during the launch countdown. Following the period, the normal temperature of 80 °F was indicated.
STS-28-M-1	Right SRM inner igniter gasket indentation of inner primary seal. During postflight inspection of the right SRM Igniter, a small depression was found at 220 degrees on the inner primary seal on the aft face of the inner gask-o-seal.
STS-28-M-2	Right SRM aft center segment ply separations of internal insulation. During postflight inspection operations at KSC, a ply separation was identified in the internal insulation of the right SRM aft center segment.
STS-34-B-1	Right SRB HDP 2 broached and shoe lifted from MLP during liftoff. The holddown stud at HDP 2 "hung up" during liftoff, resulting in broaching of the right SRB aft skirt HDP 2. The shoe also lifted from the MLP post during this time.
STS-34-B-2	Right SRB forward segment missing TPS from forward section of systems tunnel cover. A piece of MSA-1, 6" wide by 24" long was missing from the forward section of a systems tunnel cover on the right SRB forward skirt.
STS-34-B-3	Left SRB drogue parachute reefing line cutter failure. The 12-second reefing line cutter (located at gore 60) on the left SRB drogue parachute failed to fire.
STS-34-B-4	Right SRB aft BSM venting of confined detonating fuse (CDF). During separation of the right SRB, a CDF assembly in the aft BSM ignition system vented through its fiberglass braid.
STS-34-E-1	Postflight inspection of main engine 3 revealed that five metallic pieces from the main injector area were missing.
STS-34-M-1	Left SRM rock actuator bracket damage. The left SRM 45-degree rock actuator bracket was damaged at the aft exit cone.



MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-34-M-2 Left SRM factory joint weatherseal forward edge unbonds. Postflight operations at KSC revealed on left SRM indications of forward edge unbonds in two locations: forward segment dome-to-cylinder factory joint and the forward center segment factory joint weatherseals.

STS-34-M-3 Putty on right SRM igniter outer gasket and left SRM igniter outer gasket retainer. Putty was found up to the aft face of the outer primary gasket and into the seal void/gland area, between 234 and 5 degrees of the right SRM igniter. Also, putty was found on the aft face of the gasket retainer (0.11" max) and under the retainer from 262 to 297 deg of the left SRM.

STS-34-M-4 Left SRM center field joint aft side unbond of K5NA closeout. A 5" circumferential unbond of the K5NA closeout (located at the 0 deg radial location) was noted on the aft edge of the left SRM center field joint. The unbond is from the JPS cork as well as the motor case wall.

STS-34-M-5 Left and right SRM aft dome EPDM blisters. Blisters were found on the aft dome carbon-filled EPDM of both SRMs to varying levels.

STS-33-B-1 Right SRB missing epon shim material from HDP 3. An area of epon shim material, from the bottom of the right SRB HDP 3, was observed falling off during the launch.

STS-33-B-2 Right SRB HDP 3 stud hang up and broaching. The right SRB holddown stud at HDP 3 hung up during liftoff, resulting in broaching and thread impressions on the bore inside diameter.

STS-33-B-3 Left SRB ETA ring aft IEA end cover and cables sooted. The left SRB ETA ring aft IEA end cover experienced hot gas flow (aft to forward) through its interior from the tunnel side, resulting in sooting and varying degrees of heat exposure to 16 operational flight reusable cables.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-33-B-4	During postflight deservicing of the right SRB TVC, a loose fuel isolation valve mounting fastener was found. The fastener has backed out 3/16 inch.
STS-32-B-1	During postflight inspection at KSC, both left and right SRB's were noted as missing some of their EPDM and Q3-6077 materials from the upper strut location.
STS-32-B-2	During postflight inspection of the left SRB ETA Ring, six of the Hi-Lok fasteners which connect the web to cap were found protruding into the ETA Ring cover for the aft IEA.
STS-32-B-3	During postflight disassembly, the left SRB strut fairing (milk-can) was found with a broken fastener following TPS removal. The broken fastener is one of four that are used to install the SRB end of the upper strut.
STS-32-E-1	During postflight inspection of ME-2 (S/N 2022), a 5/64" diameter MCC debond was located in the aft region between adjacent feedslots and in line with nozzle tube number 664.
STS-32-E-2	During postflight inspection of ME-3 (S/N 2022), a 5/64" diameter MCC debond was noted 2" out from the throat area at the 6:00 o'clock position.
STS-32-E-3	During postflight inspection of ME-1 (S/N2024), a MCC gouge was noted 6 inches out from the throat area at the 6:00 o'clock position.
STS-32-M-1	During postflight inspection of the right SRM safe and arm gasket, a small depression was found in the crown of the secondary seal aft face.
STS-32-M-2	During the postflight assessment of the right SRM igniter inner gasket, raised areas of rubber were found along both sides of the gasket on the outer primary seals.
STS-32-T-1	Photographic review of the umbilical well camera film identified an unusual TPS pattern (18" X 24") as missing from the left forward bipod strut attach point on the intertank.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-36-B-1 During postflight inspection of the left SRB, a frustum separation pin from the ordnance ring was found embedded in the forward side of the ETA Ring instafoam between the -Y and -Z axes.

STS-36-B-2 During removal of the main parachute 3 deployment bag from the left SRB frustum, a nut was noted missing from the third restraint link bolt (from inboard) along the top of the Main Parachute Support Structure (MPSS) isogrid panel nearest the -Z axis.

STS-36-B-3 During postflight inspection of the right SRB aft skirt, a missing safety wire was found from a "B" nut on the GN2 purge tube assembly.

STS-36-B-4 The first stage (7-second) reefing line cutter, located at gore 45 of the left SRB drogue parachute (S/N 3036) did not fire.

STS-36-B-5 During postflight inspection of both the left and right SRB ETA Rings, several cable tie-wraps were found disengaged from the electrical cable assemblies.

STS-36-B-6 During postflight inspection of the right SRB ETA Ring, an area of cork approximately 5.5" X 3.0" was noted as missing from the aft side, located at the center of the web (+Z axis).

STS-36-B-7 During postflight inspection of the right SRB frustum, the MSFC Trowellable Ablator 2 (MTA-2) was found with voids at 16 ramp locations.

STS-36-M-1 During postflight inspection of the right SRM igniter outer joint, a small area of pitting was observed on the I.D. of the forward dome boss and on the O.D. of the igniter chamber at 175 degrees. Also, cadmium plating was damaged on the gask-o-seal at the same location.

STS-36-M-2 During postflight inspection of the left SRM igniter, a material separation was observed on the I.D. of the igniter adapter plug secondary o-ring. The separation measured approximately 0.700" in length (33% of o-ring circumference), by 0.045" in depth, at a 45 degree angle from the tangential plane of the surface.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-31-B-1 The left SRB aft IEA was dislocated from ETA Ring at water impact.

STS-31-B-2 A varying reduction of preload in fasteners existed at the frustum-to-ordnance ring interface on the left (20 of 296) and right (all) SRB's.

STS-31-B-3 The RSS crossover bracket on both SRB's is sooted around the P2 connector jam nut. Also, ballooning of the heat shrink tubing was observed on one cable in the right SRB RSS transition housing.

STS-31-B-4 The left SRB aft skirt was missing several areas of K5NA over MTA-2 and MTA-2 over MTA-2 (ranging from 4" X 10" to 5/8" X 5/8").

STS-31-E-1 During the STS-31 launch (hard-line data), three HPOTP strain gages indicated erroneous data.

STS-31-E-2 During the postflight boroscope inspection of main engine 2, the pump-end turbine outboard static seal was determined to be broken and protruding from the seal groove at the 10:30-0-clock position.

STS-31-M-1 During the postflight inspection of the right SRM nozzle, the cowl/outer boot ring joint was separated, showing a gap of 1.8" at 216 degrees decreasing to 0" at 120 degrees.

STS-41-E-1 During a postflight leak check on the main engine 1 powerhead, a Class II leak was found in the main injector ASI system.

STS-41-M-1 During the postflight inspection of both the left and right SRM igniters, the outer joints were found to have a blow-hole in the putty. Also, cadmium plating damage and sooting was observed.

STS-41-M-2 Abnormal erosion of the internal insulation (at the forward edge) was observed in both the left and right SRM aft dome-to-stiffener and stiffener-to-stiffener factory joints.

STS-38-B-1 Photographic analysis identified debris exiting from the base region of both SRB's during the period from lift-off + 26 to 40 seconds.

STS-38-B-2 The forward face of the right SRB ETA attachment ring had two areas of Instafoam missing.

MSFC FLIGHT PROBLEMS (Continued)

<u>FLIGHT/ELEMENT/NUMBER</u>	<u>NOMENCLATURE</u>
STS-35-B-1	The three right SRB main parachutes failed to disconnect at water impact.
STS-35-M-1	During the follow-on postflight inspection of the left RSRM nozzle joint 3 at TC, a 1.5-inch gas path was observed through an RTV void at 195°, resulting in heat effects to the CCP surface and sooting to the primary O-ring.
STS-35-T-1	During photographic review of the STS-35 astronaut's pictures of the ET in-flight, 10 circular TPS divots were observed on the Intertank-to-Hydrogen flange.
STS-37-B-1	Left SRB forward skirt skin panel (aft end) buckled on both sides of the systems tunnel (-Y axis).
STS-37-M-1	Postflight inspection of right RSRM S&A gasket revealed missing cadmium plating in several areas (aft and forward faces) from the retainer inside diameter to the primary seal cushion.
STS-37-M-2	Postflight inspection revealed case wall of the forward RSRM segment deflected inward.
STS-39-E-1	Main engine 3 HPOTP secondary seal cavity pressure transducer anomaly (LCC violation).
STS-39-M-1	Excess erosion on right RSRM nozzle cowl and outer boot ring.
STS-40	No anomalies.
STS-43-B-1	The left SRB holddown stud at HDP 7 hung up during lift-off, resulting in broaching along the aft edge of the aft skirt hole (on the inboard side) and thread impressions on the bore inside diameter.
STS-43-E-1	During the first launch countdown attempt of STS-43 (07-24-91), the ME-3 controller (F21) experienced a DCU channel A hold without a power loss prior to LO <sub>2</sub> replenish.
STS-43-E-2	During the post STS-43 disassembly inspections at Canoga Park, a first stage turbine blade stop tab fracture was found on ME-2 (engine 2012) HPFTP 4007R3.
STS-48-B-1	During SRB recovery operations, retrieval personnel noticed that the BSM aeroheat shield/hinge assembly and cover (located on the upper right position of the BSM cluster) was missing from the left SRB.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-48-B-2	During postflight inspection of the right SRB lower strut, a black mark with flow lines was observed at the ET/SRB strut segment interface.
STS-44-B-1	During the SRB recovery operations, the retrieval team reported structural damage to the left SRB forward skirt, systems tunnel, and ETA ring.
STS-44-B-2	During lift-off of the STS-44 mission, tensile strains were recorded from the right SRB aft skirt post 4 critical welds which measured outside the maximum tensile strain data base.
STS-44-B-3	During postflight inspection of the left SRB ETA ring, the aft BSM system A firing line cable connector was found with two recessed socket contacts.
STS-44-E-1	An MCC pressure measurement bias (Ch A - Ch B = -35 psi) existed on ME-2 (Engine 2030) over the mainstage interval between engine start command (ESC) and 270 seconds.
STS-44-M-1	During the retrieval and postflight assessment of the left RSRM, varying degrees of structural damage were observed on the forward and forward center segments, as well as the aft and forward flanges
STS-42-T-1	After E1 separation from the Orbiter, the crew took pictures exhibiting two possible divots in the intertank foam acreage.
STS-42-M-1	During postflight inspection of both the left and right RSRM nozzle-to-case joints, gas paths were observed through the polysulfide adhesive with erosion and sooting of the wiper o-rings. Gas penetration on the left side was more extensive as blowby was observed at the wiper o-ring.
STS-45	None.
STS-49	None.
STS-50-M-1	During the postflight inspection of the left RSRM center forward segment TPS, three areas of cork were recorded as missing on the aft Ground Environment Instrumentation (GEI) cork run (station 1099) at the 180, 186, and 192 degree locations.

MSFC FLIGHT PROBLEMS (Concluded)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-50-E-1	During the SSME postflight data review of ME-3 (Engine 2011), it was determined that the HPFTP discharge pressure spiked to -10,600 psia at engine start + 219.46 seconds and immediately recovered.
STS-50-T-1	During postflight review of the ET-50 umbilical film and photographs, two areas of damage were observed at the forward bipod.
STS-46	No IFA's
STS-47-T-1	During postflight review of the Orbiter umbilical camera film, a 14 to 16 inch divot was observed on the intertank TPS between the left and right bipods.
STS-47-E-1	During the STS-47 SSME start and mainstage phases, the ME-1 (E-2026) HPOTP secondary turbine seal cavity pressure (Channel A) exhibited numerous downward spikes.
STS-52	No IFA's.
STS-53-E-1	At engine start + approx 18.14 seconds, SSME-1 (E-2024) registered a Failure Identification (FID) on Channel B of the HPOTP SSC pressure measurement. Data spiking of the measurement was first observed at engine start + 5 seconds and continued until engine shutdown.
STS-53-E-2	At engine start + 2.9 seconds, the SSME-1 (E-2024) LPFTP discharge temperature channel A exhibited a single negative spike.
STS-54-M-1	During the postflight data evaluation of the right RSRM, a spike was observed in the measured chamber pressure at 67.5 seconds after T-zero.
STS-54-E-1	During the postflight data evaluation of SSME-1 (E-2019), HPOTP (U/N 9409) indicated higher levels of vibration than expected.
STS-54-E-2	At engine start + 85.6 seconds, channel A of SSME-3 (E-2018) HPOTP SSC pressure measurement exhibited a single negative spike of 0.6 psia.
STS-56-T-1	A postflight review of the astronauts' hand-held camera film revealed approximately 10 rather large and unique divots of the E-54 intertank acreage (-Z axis).

MSFC FLIGHT PROBLEMS (Concluded)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

STS-56-M-1	During postflight inspection of the left RSRM nozzle-to-case joint, a small, axial scratch was observed on the aft dome bass primary sealing surface at 55.8 degrees.
STS-56-B-1	The left SRB aft skirt HDP5 plunger and spring escaped from the debris containment device (DCD) at lift-off.
STS-56-E-1	During the propellant loading on 4-6-93 and 4-8-93, both of the SSME-1 (E-2024) anti-flood valve (AFV) skin temperature measurements read 60 to 70 °F warmer than usual.
STS-55-E-1	During the first launch attempt (3-24-93), a redline exceedance of the oxidizer preburner purge system occurred at engine start + 1.44 seconds on SSME-3 (E-2011). The anomaly resulted in an on-pad abort of the mission by the RSLs.
STS-55-E-2	During ascent, the SSME-3 (E-2011) HPFTP MCC coolant liner pressure exhibited unusual fluctuation of up to 110 psid.



## ORBITER ATTITUDE TIMELINE

This section consists of data derived from the as-flown Orbiter attitude timelines and crew activity plans for each mission. The data are presented in chart form that show the progression of the mission from launch to entry interface with the varying Orbiter attitudes (roll, pitch, and yaw) and the time duration in each attitude. The chart also shows the Orbiter's velocity vector, i.e. which of the Orbiter's body axes is pointing forward along the orbital path.

The Beta angle, the angle between the sun vector and the orbital plane, is also shown for each 12-hour period of the mission.

The attitude data are omitted for certain Orbiter attitudes, such as passive thermal control (PTC) and solar inertial (SI), because during these maneuvers the Orbiter's attitude is constantly changing. Maneuvers that are generally of short duration, e.g. inertial measurement unit alignments, are also omitted from this chart.

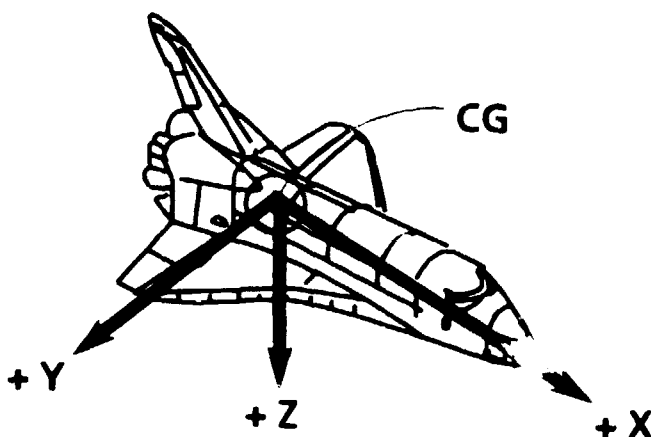
The deployment of satellites is noted on the timeline as are certain other activities.

Charts for the STS-9, STS 41-G, and STS 51-F missions are not available for this issue, but will be added in the next revision.

The attitudes in this section are defined with respect to the Shuttle Orbiter body axes, as opposed to the Shuttle Orbiter structural dimensional axes.

- a. The origin is at the Orbiter's center of gravity (c.g.).
- b. The positive X-axis extends from the c.g. forward through the nose of the vehicle parallel to the structural X-axis.
- c. The Z-axis is parallel to the Orbiter plane of symmetry and is perpendicular to the X-axis. The Z-axis is positive down with respect to the Orbiter fuselage.
- d. The Y-body axis completes the right-hand orthogonal system, +Y is to the right.

## BODY AXES



The following is a list of abbreviations and acronyms used in this section:

ATT Attitude

DUR Duration

LV Local Vertical

MET Mission Elapsed Time

SI Solar Inertial

VV Velocity Vector

$\beta \Delta$  Beta angle, angle between the sun vector and the orbital plane.

$\theta$  Theta angle, sun look angle as viewed from cockpit position looking forward and up, clockwise viewed from port side.

$\phi$  Phi angle, sun look angle as viewed from cockpit position looking starboard, as viewed from above.

**BOLDOUT FRAME**

MISSION SEQ NO.	1	PTC	-25.1	-23.8	-22.4	-20.8	-19.4	-18.5
STS NO.	1	ATT	-ZLV		+XLV	PTC	-ZLV	-XS1 -ZS1 E153 42
ORBITER OV-	102	VV	-X		+Z	-X		
OMS PODS		DUR	21 25	3 20	2 15	14 40	1 59	3 02
PORT	102	ROLL	0	185		0	163	0 5 0
STBD	102	PITCH	180	267		180		0 5 68
		YAW	0	2		0		

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MISSION SEQ NO.	3	PTC	-34.0	-34.9	-35.5	-35.9	-36.1	-36.1	-35.
STS NO.	3	ATT	-ZLV +X +Y		-X SUN ORB RATE		PTC		
ORBITER OV-	102	VV	-ZLV +X +Y		-X SUN ORB RATE		PTC		
OMS PODS		DUR	1 33 4 09	2 15	2 17	11 27			
PORT	102	ROLL	180	238	0 180				
STBD	102	PITCH	0	266	0 0				
		YAW	0	358					

MISSION SEQ NO.		PTC	-27.7	-26.0				
STS NO.		ATT	-ZS1	PTC	-XS1 -ZS1	E1191 34		
ORBITER OV-		VV						
OMS PODS		DUR			2 48 2 45			
PORT		ROLL	0 90		0 176 0 90			
STBD		PITCH	0 0		0 175 0 0			
		YAW						

MISSION SEQ NO.	4	PTC	-1.1	+0.2	+0.8	+1.9	+3.2	+4.7	+6.			
STS NO.	4	ATT	-ZLV	+XLV	+ZS1	-ZLV -ZS1	+XSV	-ZLV -ZS1	+XS1	+ZS1		
ORBITER OV-	102	VV	-Y	+Y	+Y		+Y	+Y				
OMS PODS		DUR	4 15	2 32	10 51	3 06	6 46	12 00	4 18	7 01	22 47	
PORT	102	ROLL	0	249	0 90	0	245	0	0 90	0 90	0 90	
STBD	102	PITCH	192	268	0 145	192	30	268	192	0 180	0 180	0 180
		YAW	90	358		90		358	90			

BOEING FRAME

2

# ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

1 (STS-1), 2 (STS-2), 3 (STS-3) AND 4 (STS-4)

	-51.4	-50.2	-48.7	-47.1	-45.3	
TIME	12	24	36	48	60	
ROLL	-ZLV			-XS1	-ZS1	E153+35
PITCH	-X					
YAW	46+06			3+07	2+31	
ROLL RATE	180			0 <sub>S</sub> 178	90	
PITCH RATE	0			0 <sub>S</sub> 168	0	
YAW RATE	0					

	-34.9	-34.2	-33.3	-32.2	-30.9	-29.3
TIME	96	108	120	132	144	156
ROLL				-ZS1	PTC	-ZS1
PITCH				27+16	11+19	0+30
YAW				0 <sub>S</sub> 90		0 <sub>S</sub> 90
ROLL RATE				0 <sub>S</sub> 0		0 <sub>S</sub> 0

	+9.6	+11.2	+12.9	+15.0	+16.9	+20.5
TIME	96	108	120	132	144	156
ROLL	-XS1				PTC	-XS1 -ZS1
PITCH						116+40
YAW	60+42				12+19	4+34 2+00
ROLL RATE	0 <sub>S</sub> 177					0 <sub>S</sub> 178 70
PITCH RATE	0 <sub>S</sub> 352					0 <sub>S</sub> 178 0

**FOLDOUT FRAME**

MISSION SEQ NO.	5	# MET			-25.9	-24.1	-22.3	-20.3	-18.4	-16.5	-14.7	
STS NO.	5	ATT	-ZLV	-ZLV			-ZLV			+YSI		
ORBITER OV-	102	VV	+X	+X			+X					
OHS PODS		DUR	2h 05	3h 56			2h 22			4h 49		
PORT	102	ROLL	210	180			180			0 <sub>s</sub> 90		
STBD	1C2	PITCH	0	0			0			0 <sub>s</sub> 90		
		YAW	0	0			0					
		DEPLOYS	SBS				TELESAT					

MISSION SEQ NO.	6	# MET			-21.6	-21.9	-21.7	-21.9	-21.9	-21.8	-21.5	
STS NO.	6	ATT	-ZLV	-ZLV			-ZLV			-ZLV		-ZLV
ORBITER OV-	099	VV	+Y	+X			+X			+Y		+X
OHS PODS		DUR	4h 24	4h 07			4h 45			2h 50		6h 1
PORT	099	ROLL	180	180			180			180		180
STBD	099	PITCH	0	0			0			0		0
		YAW	0	0			0			270		0
		DEPLOYS	TDRS									

MISSION SEQ NO.	7	# MET			+17.5	+19.1	+21.1	+23.2	+25.2	+27.2	+29.3	
STS NO.	7	ATT	-ZLV	-ZLV				-ZLV				
ORBITER OV-	099	VV	+X	+X				+X				
OHS PODS		DUR	3h 02	3h 39				5h 24				
PORT	099	ROLL	180	180				180				
STBD	099	PITCH	0	0				0				
		YAW	0	0				0				
		DEPLOYS	ANIK PALAPA									

MISSION SEQ NO.	8	# MET			+36.4		+37.0				+36.6	
STS NO.	8	ATT			-ZLV		-ZLV		-XSI		-ZLV	
ORBITER OV-	099	VV			+X		+X		ORB RATE		+X	
OHS PODS		DUR			2h 36		7h 53		1h 50		3h 30	
PORT	099	ROLL			180		180		0 <sub>s</sub> 180		180	
STBD	099	PITCH			0		0		0 <sub>s</sub> 0		0	
		YAW			0		0				0	
		DEPLOYS	INSAT									

**BOLDOUT FRAME**

# ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

5 (STS-5), 6 (STS-6), 7 (STS-7) AND 8 (STS-8)

-10.9		-9.1		-7.4	
108		120		132	
	PTC	-XS1	-ZS1	E1121-44	
	11:12	3:35	2:17		
		0 <sub>S</sub> 176	70		
		0 <sub>S</sub> 175	0		

-20.4		-19.7		-18.8	
108		120		132	
		-XS1		E1119-43	
		2:39			
		0 <sub>S</sub> 172			
		0 <sub>S</sub> 152			

+33.3		+35.3		+37.2		+39.1		+40.9	
108		120		132		144		156	
-XLV	-ZLV	-ZLV	-ZLV	-XS1	-YS1	E1148-48			
+Z	+X	+X	+X						
8:27	18:28	4:48	10:09	4:54	2:45				
0	180	0	180	0 <sub>S</sub> 176	0 <sub>S</sub> 47				
90	0	180	0	0 <sub>S</sub> 179	0 <sub>S</sub> 296				
0	0	0	0						

+33.4			+30.9			+29.4		
108			120			132		
-ZLV	-XLV	-ZLV	+XLV	SY	E1140-38			
+X	-Z	+X	-Z	-X				
11:47	11:48	3:13	21:08	2:56				
180	0	180	0	0 <sub>S</sub> 188				
0	270	0	270	0 <sub>S</sub> 0				
0	0	0	0					

**FOLDOUT FRAME**

MISSION SEQ NO.	9	MET	-41.8	-44.2	-46.6	-49.1	-51.6	-54.0	-56
STS NO.	9	ATT	-XLV	-ZLV	-XLV	-ZLV	ROTR	COLD TEST ROT	MISC. ATTITUDES
ORBITER OV-	102	VV	Y	X	Z	-X			
OMS PODS		DUR	7:30	5:04	5:27	5:11	6:42	13:05	
PORT	LV01	ROLL	90	100	0	0	335.78	267	
STBD	RV01	PITCH	90	0	90	100	66	66	
		YAW	0	0	0	0	22	22	
		DEPLOYS							

\*MISCELLANEOUS SHORT TERM ATTITUDES TO COMPLETE DTO'S. SEE REAL TIME

	MET	-76.5	-78.0	-79.0	-79.5	-79.4	-78.7			
	ATT	-2 SUN	MISC. ATTITUDES				-251	PTC	TAIL	DEORBIT
	VV								EI 247:11	
	DUR	6:22				4:00	6:15	3:20		
	ROLL	331.7				213	313	113		
	PITCH	144.6				9	6	76		
	YAW	323.0				315	293	18		
	DEPLOYS									

MISSION SEQ NO.	10	MET	-26.8	-24.9	-22.8	-20.6	-18.5	-1	
STS NO.	418	ATT	-ZLV	-ZLV	+XLV	-ZLV			
ORBITER OV-	099	VV	+X	+X	-Z	+X			
OMS PODS		DUR	6:06	37:30	5:38	19:40			
PORT	099	ROLL	100	100	0	100			
STBD	099	PITCH	0	0	270	0			
		YAW	0	0	0	0			
		DEPLOYS	VESTAR						PALAPA

	MET	0.2	1.5	3.1
	ATT	-ZLV	-XS	EI 190:40
	VV	+X		
	DUR	17:04	3:00	
	ROLL	100	0, 100	
	PITCH	0	0, 0	
	YAW	0		
	DEPLOYS			

**WALDOUT FRAME**

# ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.  
9 (STS-9), AND 10 (STS-41B)

9	-61.3	-63.7	-66.1	-68.4	-70.6	-72.7	-74.7
LV	MISC. ATTITUDES	-ZLV	MISC. ATTITUDES		-ZLV	HOT TEST COOL	
X		-X			-X		
17		607			6051	7016	5028
0		0			0	202.7	158
80		180			180	338.1	173
0		0			0	9.2	0

IDE TIMELINE PRINTOUT.

96	-276	-286

1.2	-12.0	-9.9	-7.9	-5.9	-3.8	-2.0
-ZLV	-XLV	-ZLV		-ZSI	-YS	-ZLV
-X	+Z	+X				-X
3037	10019	33013		10034	2033	18033
0	0	180		0 <sub>5</sub> 60	0 <sub>5</sub> 80	0
180	90	0		0 <sub>5</sub> 20	0 <sub>5</sub> 80	180
0	120	0				0



# BOLDOUT FRAME

MISSION SEQ NO.	11	MET	-12		-9		-5		-2	
STS NO.	41C	ATT	-ZLV		-ZLV		+XLV			
ORBITER OV-	099	VV	+X		+X		-Z			
OMS PODS		DUR	25:24		14:41		51:50			
PORT	103	ROLL	180		180		0			
STBD	103	PITCH	0		0		270			
		YAW	0		0		0			
		DEPLOYS	LDEF							

MISSION SEQ NO.	12	MET	-2.		+1.		2.		4.6		8.
STS NO.	41D	ATT	-ZLV		-ZLV		-ZLV		-ZLV TAIL 06		TAIL 06
ORBITER OV-	103	VV	+X	+Y	-Y	+X	-Y	+X	-Y	+X	-Y
OMS PODS		DUR	1:46	4:28	15:16	8:45	13:48	1:44	4:02	13:09	7:06
PORT	103	ROLL	180	180	180	180	180	180	300	180	300
STBD	103	PITCH	0	0	0	0	0	0	90	0	90
		YAW	0	270	270	0	270	0	0	0	0
		DEPLOYS	SBS			SYNCOM			TELSTAR		

MISSION SEQ NO.	13	MET	-53.6		-52.3		-50.9		-49.3		-47.6		-45.7		-43.8
STS NO.	41G	ATT	-ZLV		-ZLV		-ZLV		-ZLV		-ZLV		-ZLV		
ORBITER OV-	099	VV	+X		+X		-X		+X		+X		+X		
OMS PODS		DUR	2:55		10:22		3:32		13:9		10:07				
PORT	LP01	ROLL	180		180		180		180		180				
STBD	RP01	PITCH	0		0		0		0		0				
		YAW	0		0		0		0		0				
		DEPLOYS													

\*MISCELLANEOUS SHORT TERM ATTITUDES TO COMPLETE DTO'S. SEE REAL TIME A

	MET	-24.5		-22.2											
	ATT	DEORBIT BURN 19:18:00													
	VV	EI 19:47:06													
	DUR														
	ROLL														
	PITCH														
	YAW														
	DEPLOYS														

**BOLDOUT FRAME**

# ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.

11 (STS 41-C), 12 (STS 41-D), AND 13 (STS-41G)

	+2	+3	+6	+10	+13	+14
SI	-ZLV	-ZLV	TAIL SUN	-XLV	-ZLV	-XS
	-Y	+X	SI	+Z	-X	
30	14:07	5:20	20:18	0:57	10:48	3:02
60	180	180	0 <sub>S</sub> 170	0	0	0 <sub>S</sub> 180
90	0	0	0 <sub>S</sub> 270	90	180	0 <sub>S</sub> 0
	270	0		0	270	

	16.		19.	
-X SI	TAIL SI	-ZLV	-ZLV	-XS
	-Y	+X	-X	
36	3:02	1:36	16:41	5:19
60	300	0 <sub>S</sub> 90	0 <sub>S</sub> 30	180
90	90	0 <sub>S</sub> 0	0 <sub>S</sub> 90	0
	0		0	180

	-39.0	-37.7	-35.6	-33.4	-31.2	-29.0	-26.7
	-ZLV		-ZLV		-ZLV		
	+X		+X		+X		
	0:56		0:04		0:21		
	180		180		180		
	0		0		0		
	0		0		0		

TIMELINE PRINTOUT.

OUT FRAME

MISSION SEQ NO.	14	MET	-27.7		-23.8		-20		-16.5	
STS NO.	51A	ATT	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV
ORBITER OV-	103	VV	+X	+X	-Y	+X	-Y	-X	+X	-Y
OMS PODS		DUR	1+17	7+19	13+36	8+14	10+22	4+28	5+08	18+47
PORT	103	ROLL	212	180	180	180	180	0	180	265
STBD	103	PITCH	0	0	0	0	0	180	0	282
		YAW	0	0	270	0	270	0	0	79
		DEPLOYS	TELSAT				SYNCOM			
		MET	-0.6							
		ATT	+XLV		E1191+15					
		VV	-Z							
		DUR	1+03							
		ROLL	0							
		PITCH	270							
		YAW	0							
		DEPLOYS								

MISSION SEQUENCE NO. 15 - DEPARTMENT OF DEFENSE MISSION - DATA

MISSION SEQ NO.	16	MET	-9.0				-2.4		+.06		+1.7	
STS NO.	51D	ATT	-ZLV	-ZLV	-ZLV		+XLV				+XLV	
ORBITER OV-	103	VV	+X	+X	-Y		+Z				+Z	
OMS PODS		DUR	1+53	6+04	11+32		2+13				36+53	
PORT	102	ROLL	180	180	0		180				180	
STBD	102	PITCH	0	0	180		270				270	
		YAW	0	0	270		0				0	
		DEPLOYS	TELESAT				SYNCOM		IMAGE			

MISSION SEQ NO.	17	MET	-28.0		-29.0		-30.3		-31.7	
STS NO.	51B	ATT	-ZLV							
ORBITER OV-	099	VV	+X							
OMS PODS		DUR	3+32	4+15						128
PORT	102	ROLL	180							
STBD	102	PITCH	0							
		YAW	0							
		DEPLOYS	TDRS ATMOS ATTITUDE							

FOLDOUT FRAME <sup>2</sup>

# ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

14 (STS-51A), 16 (STS-51D) AND 17 (STS-51B)

-12.4			-9.2			-5.3			-2.7			
-ZLV	+XLV	SYSD/ TOP SI	STBD/ TOP SI			STBD/ TOP SI			+XLV	STBD/ TOP SI	STBD/ TOP SI	
-Y	-Z								-Z			
12:38	4:25	5:18	22:40			13:27			6:57	4:32	24:44	
180	0	0 <sub>S</sub> 90	0 <sub>S</sub> 90			0 <sub>S</sub> 06			0	0 <sub>S</sub> 90	0 <sub>S</sub> 06	
0	270	0 <sub>S</sub> 60	0 <sub>S</sub> 50			0 <sub>S</sub> 51			270	0 <sub>S</sub> 50	0 <sub>S</sub> 51	
270	0	0M130	0M110			0M179			0	0M122	0M179	

ILABLE

+5.6			+9.8			+17.0		
-XLV	-XLV	-XLV	-ZLV			-ZLV		+XS
+Z	+Z	-Z	+X			+X		E1167:20
6:59	17:36	4:26	19:53			13:59		3:13
0	180	0	180			180		0 <sub>S</sub> 180
90	270	280	270			0		0 <sub>S</sub> 0
0	0	0	0			0		
SYNCH APPROACH					PRESS CONFERENCE			

-33.0		-34.4		-35.8		-36.5		-38.0	
								NOSE SI - NOSE UP 10°	-XS
								E1167:38	
								19:06	2:30
								0 <sub>S</sub> 10	0 <sub>S</sub> 180
								0 <sub>S</sub> 180	0 <sub>S</sub> 0

LOADOUT FRAME

18	MET	+18.4				+22.5				+30.2					
51G	ATT	-ZLV	-ZLV	-ZLV		-ZLV		-ZLV		-ZLV		-ZLV			
	VV	+X	+Y	+Y		-X		+Y		-X		+Y			
103	DUR	4:43	4:23	16:43		3:51		15:58		12:46		7:13			
OS	ROLL	145	180	180		0		180		0		100			
104	PITCH	0	0	0		180		0		180		0			
103	YAW	0	90	90		0		90		0		90			
	DEPLOYS	MORELOS				ARABSAT				TELSTAR				SPARTAN	

19	MET	+29.4°		+26.8°		+24.3°		+21.8°		+19.3°		+16.8°		+14.3°	
51F	ATT	①		PERS	-XLV	①	-2 ROT	①	PERS	①	①	PERSEUS	①	①	①
	VV			+Y						+X ROT				+X ROT	
099	DUR	4:47		3:54	3:08		3:05		5:17		6:02		3:04		
OS	ROLL	55°		90°	107°		53°		0°		53°		0°		
P99	PITCH	180°		90°	190°		162°		3°		162°		3°		
104	YAW	348°		0°	15°		1°		0°		1°		0°		
	DEPLOYS					POP				POP					

CELLANEOUS SHORT-TERM ATTITUDES TO COMPLETE DTOS. SEE REAL TIME ATTITUDE

20	MET	+6.4		+10.0				+13.8				+17.2			
511	ATT	-ZLV	-ZLV	-ZLV		-ZLV		-ZLV		-ZLV		-ZLV		-ZLV	
	VV	-X	-Y	+X		+X		+X		-Y		+Y		+Y	
103	DUR	4:30	3:02	33:16		6:25		14:13		22:56					
OS	ROLL	20	0	180		180		180		0		0			
104	PITCH	180	180	0		0		0		180		180			
103	YAW	0	270	0		0		0		270		90			
	DEPLOYS	AUSSAT ASC				SYNCOM DEPLOY									

ON SEQUENCE NO. 21 - DEPARTMENT OF DEFENSE MISSION DATA NOT AVAILABLE.

22	MET														
61A	ATT	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	+ZLV	-YSL	+XLV	-ZLV	+XLV	-ZLV	+XLV	-ZLV
	VV	+X	+Y	+Y	+Y	+X	+Y	+X	+Y	+Y	-Y	+Y	-Y	+Y	-Y
099	DUR	2:59	9:06	4:56	9:07	4:22	9:06	10:36	4:39	9:59	11:56	10:51	10:51	12:12	12:12
OS	ROLL	180	0	0	264	0	0	0	0	264	0	264	0	264	1
099	PITCH	0	180	0	270	180	0	180	0	270	180	270	180	270	1
104	YAW	0	90	0	360	0	0	0	0	360	90	360	90	360	1
	DEPLOYS	GLOWR													

2  
**WALDOUT FRAME**

**ORBITER ATTITUDE TIMELINE**

FOR MISSION SEQUENCE NO

18 (STS-51G), 19 (STS-51F), 20 (STS-51I) AND 22 (STS-61)

+37.6		+41.2		+44.0			
108	120	132	144	156	168	180	
-ZLV	+XLV -X		-ZLV	-XLV	-ZLV	-XSI	E1169 03
+Y	-Z +Z		+X	+Z	+X		
5:05	5:31 1:44		16:49	1:58	17:16	2:59	
0	0 0		180	0	180	0 <sub>S</sub> 180	
180	270 90		0	90	0	0 <sub>S</sub> 0	
270	0 0			0	0		
ORBIT ADJUST				CREW PRESS CONFERENCE			

+9.6°		+7.2°		+4.8°		+2.4°		0.0°		-2.2°		-4.5°	
108	120	132	144	156	168	180	192	204					
	CCPD VIRGO	① VELA	① THERMAL 1	MOD PERSEUS	MOD CENTAURUS	11:30 AM VECT. SOLAR OBS.	-ZLV	TAIL SUN					DEORBIT BURN MET 21:0:10:4
							+X						LANDING EAPB MET 21:0:19:4
	10:22	4:33	8:10	13:32	7:21	2:11	5:15	4:40					
	103°	112°	233°	53°	155°	18°	180°	3°					
	22°	298°	174°	180°	265°	87°	0.00°	17°					
	64°	17°	34°	0°	14°	28°	0.00°	318°					

**E PRINTOUT.**

+23.7		+26.6		+28.8			
108	120	132	144	156	168	180	
-ZLV			-ZLV		-XSI		E1169 55
-Y			+X				
24:51			33:16		3:02		
0			180		0 <sub>S</sub> 180		
180			0		0 <sub>S</sub> 0		
270			0				
SYNCH REDEPLOY							

		+44.0					
108	120	132	144	156	168	180	
-ZLV		+XLV	-ZLV	-YSI	PTC	-XSI	E1169 34
+Y		+Y	-X				
11:01	5:49	7:20	8:36	5:07	10:14	3:36	
0		285	0	0 <sub>S</sub> 90		0 <sub>S</sub> 180	
180		270	180	0 <sub>S</sub> 90		0 <sub>S</sub> 0	
90		358	0				

**FOLDDOUT FRAME**

MISSION SEQ NO.	23	MET	-9.4	-11.4	-13.4	-15.3	-17.3	-19.3		
STS NO.	61B	ATT	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	
ORBITER OV-	104	VV	+X	-X	+X	-X	+X		+X	
OMS PODS		DUR	3:12	1:48	5:09	10:40	3:14		50:11	
PORT	099	ROLL	180	0	180	0	180		180	
STBD	104	PITCH	0	180	0	180	0		0	
		YAW	0	0	0	0	0		0	
		DEPLOYS	MORELOS DEPLOY			AUSSAT		SATCOM		

MISSION SEQ NO.	24	MET	-26.3	-24.3	-22.3	-20.3	-18.4	-16.5		
STS NO.	61C	ATT	-ZLV	-ZLV	+YSI	UVX	-ZLV	UVX	-ZLV	
ORBITER OV-	102	VV	+X	+			-Y		-Y	
OMS PODS		DUR	3:18	4:24	11:19		15:45		12:33	
PORT	103	ROLL	215	180	$\theta_s 90^\circ$		180		180	
STBD	099	PITCH	0	0	$\theta_s 90^\circ$		0		0	
		YAW	0	0			270		270	
		DEPLOYS	SATCOM DEPLOY						UVX	

MISSION SEQUENCE NO. 25 - DATA NOT APPLICABLE.

MISSION SEQ NO.	26	MET	-30°	-27°	-25°					
STS NO.	26R	ATT	-ZLV	-ZLV	-ZLV	-ZLV	+XLV	-ZLV	-ZLV	
ORBITER OV-	103	VV	-Y	+X	+Y	+Y	-Z	-X	+X	
OMS PODS		DUR	3:10'	10:10'	11:50'	11:40'	2'	6:35'	11:44'	
PORT	109	ROLL	180	180	180	180	50	180	180	
STBD	114	PITCH	0	0	0	0	283	0	0	
		YAW	81	0	0	0	0	0	0	
		DEPLOYS	TORS							

MISSION SEQUENCE NO. 27 - DEPARTMENT OF DEFENSE MISSION - DATA NOT APPLICABLE.





**BOEING FRAME**

MISSION SEQ NO.	28	MET	-25.1	-23.2	-21.1	-19.0	-16.9	-15.7	-12
STS NO.	29R	ATT	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV
ORBITER OV-	103	VV	+Y	+X	+X	+Y		+X	
OMS POOS		DUR	2:35	3:25	1:10	2:20		4:20	
PORT	LP04	ROLL	+180	+180	+180	+180		+180	
STBD	RP03	PITCH	0	0	0	0		0	
		YAW	+90	0	0	+90		0	
		DEPLOYS	TDRS DEPLOY		IMAX		IMAX		

MISSION SEQ NO.	29	MET	-8.7	-9.8	-10.6	-11.4	-12.1	-12.6	-13	
STS NO.	30R	ATT	-ZLV	-ZLV	IMU	-ZLV	TDRS	-ZLV	TDRS	
ORBITER OV-	104	VV	-X	-Y	+X	-Y	+X	-Y	+X	
OMS POOS		DUR	2:05	1:20	4:10	1:10	6:10	1:30	1:10	
PORT	LP99	ROLL	350	0	180	0	180	0	180	
STBD	RP99	PITCH	180	180	0	180	0	180	0	
		YAW	0	270	0	270	0	270	0	
		DEPLOYS	MAGELLAN							

**MISSION SEQUENCE NO. 30 - DEPARTMENT OF DEFENSE MISSION - DATA NOT**

MISSION SEQ NO.	31	MET	-30.8	-32.6	-34.4	-36.1	-37.7	-39.1	-40
STS NO.	34R	ATT	+ZS1			-ZLV		-ZLV	
ORBITER OV-	104	VV			+XVV		+XVV		
OMS POOS		DUR	2:30		4:40		2:40		
PORT	LP99	ROLL	182	12	180		180		
STBD	RP99	PITCH	83	272	0		0		
		YAW	2	27	0		0		
		DEPLOYS	GALILEO			IMAX			

**MISSION SEQUENCE NO. 32 - DEPARTMENT OF DEFENSE MISSION - DATA NOT**

2

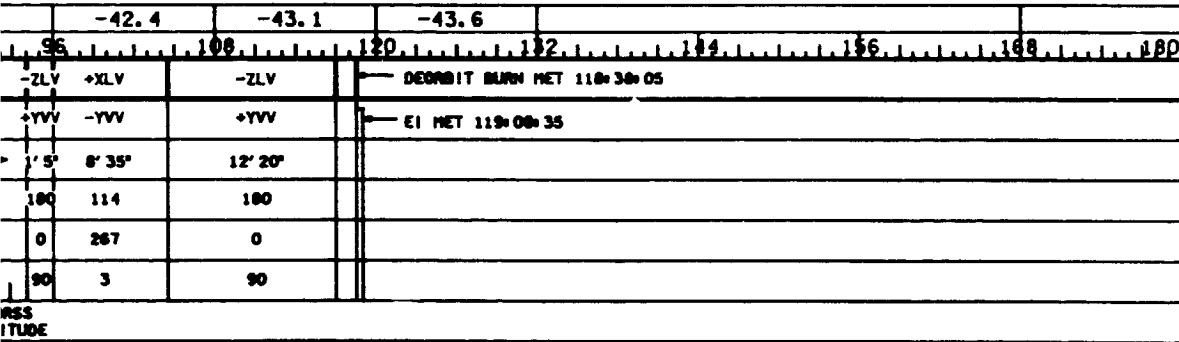
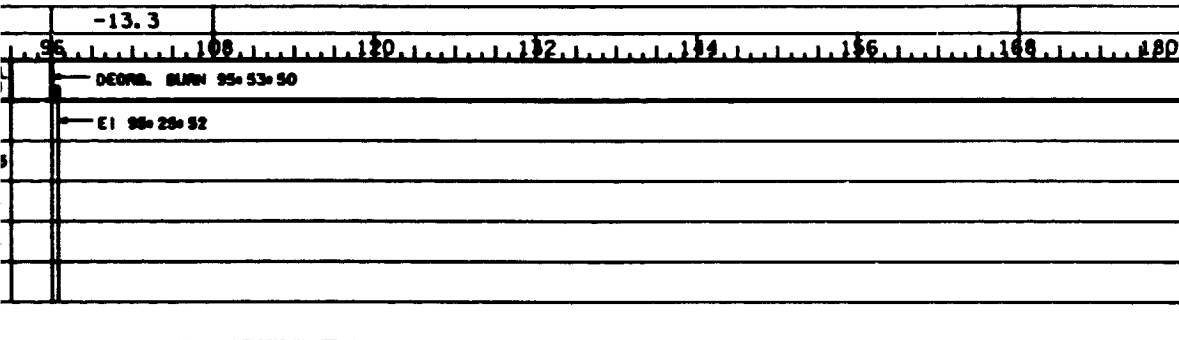
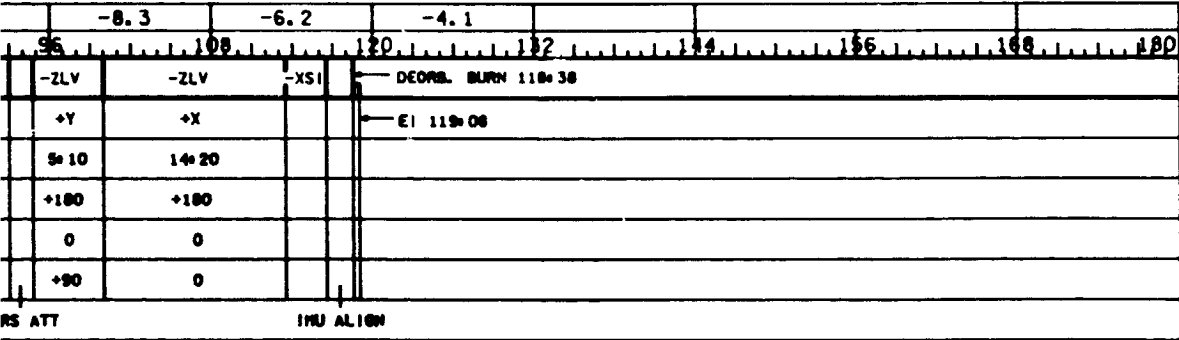
FOLDOUT FRAME

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.

28 (STS-29R), 29 (STS 30R)

30 (STS-28R), 31 (STS-34R) AND 32 (STS-33R)



**FOLDOUT FRAME**

MISSION SEQ NO.	33	MET	-33.6	-31.7	-29.7	-27.9	-25.8	-23.5			
STS NO.	32	ATT	-ZLV		-ZLV	-ZLV	+XLV	-ZLV	-ZLV	+XLV	
ORBITER OV-	102	VV	+Y	+Y	+Y	-Y	+X	+Y	-Z		
OMS PODS		DUR	23:12	23:34	13:42	7:55	2:07	15:06	4:33		
PORT	LP03	ROLL	100		100	PLB		100			
STBD	RP04	PITCH	0		0	SOUTH		0			
		YAW	90		90			90			
		DEPLOYS	SYNCH MC2 BURH								
MISSION SEQ NO.	34	MET	-4.1	-2.5	-1.0	.5	1.8	3.0			
STS NO.	36	ATT	ZLV	-ZLV	-ZLV	-ZLV	+XLV	+XSI	-ZLV	-ZLV	+XLV
ORBITER OV-	104	VV	-Y	-Y	-Y	-Y	-Y		-Y	-Y	-Y
OMS PODS		DUR	12:30	9:36	6:32	1:33	11:24	4:50	1:50	5:34	6:49
PORT	LP01	ROLL	0	0	0	0	90	CBLD		0	90
STBD	RP03	PITCH	100	100	100	1000	270	20AK		100	270
		YAW	270	270	270	300	336			270	336
		DEPLOYS	BIASD BIASD INU BIASD IN								

MISSION SEQ NO.	34	MET							
STS NO.	36	ATT							
ORBITER OV-	104	VV							
OMS PODS		DUR							
PORT	LP01	ROLL	DEPARTMENT OF DEFENSE MISSION - DATA NOT A						
STBD	RP03	PITCH							
		YAW							
		DEPLOYS							

MISSION SEQ NO.	35	MET	2.5	4.3	6.1	7.9	9.8	11.6			
STS NO.	31	ATT	-ZLV	-ZLV	HST DEPLOY ATT.	-YLV	-XLV	+XLV	-ZLV	-ZLV	+XLV
ORBITER OV-	103	VV	+Y	-Y	(048.067)	-Z	-Y	+Y	-Y	-Y	+Y
OMS PODS		DUR	5:56	13:20	7:40	12:24	1:25	9:27	9:29	1:57	3:19
PORT	LP04	ROLL	100	100		PLB FWD	110	PLB NORTH	100	100	PLB
STBD	RP01	PITCH	0	0			270		0	0	NORTH
		YAW	90	270			0		270	200	
		DEPLOYS	HUBBLE SPACE TELESCOPE NOSE NORTH								

# ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.  
33 (STS-32), 34 (STS 36),  
AND 35 (STS-31)

	-19.6	-17.3	-15.3	-13.3	-11.4	-9.5	-7.6	-5.9
	95	100	120	132	144	156	168	180
LV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV
Y	-Y	-Y	-Y	-Y	-Y	-Y	-Y	-Y
27	3:05	5:24	8:44	12:52	9:45	11:13	9:31	10:01
NORTH	0	0	0	0	0	0	0	0
	180	180	180	180	180	180	180	180
	270	270	270	270	270	270	270	270

CREW CONF.      CREW CONF.

276
L. BURR
12:22
27:20

	15.2	17.0	18.9	20.8	
	95	100	120	132	144
V	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV
Y	+Y	+X	+Y	+Y	+Y
13	2:12	4:20	1:45	2:47	3:45
S	180	180	180	180	180
	0	0	0	0	0
0	90	90	90	90	90

CREW CONF.      CREW CONF.      CREW CONF.      CREW CONF.

RADIATOR COOLD SBK

1.  
FOLDOUT FRAMES

MISSION SEQ NO.	36	MET	-10	-8.5	-7	-5	-3	-1	+1		
STS NO.	41	ATT	-ZLV	-ZLV	-ZLV	-ZLV	-ZSI	-ZLV	-ZLV		
ORBITER OV-	103	VV	+X	+X	+X	+X		+X	+X		
OHS PODS		DUR	2' 10"	11' 43"	4' 23"	11' 47"	1' 47"	2' 52"	13' 14"	8' 33"	
PORT	LPO4	ROLL	210	180	180	180		180	180	180	
STBD	RPO1	PITCH	0	0	0	0		0	0	0	
		YAW	0	330	330	330		330	330	330	
		DEPLOYS	ULYSSES DEPLOY		OHS BURN		SSBUV		IMU/HUD		SSI

MISSION SEQ NO.	37	MET	12	24	36	48	60	72	
STS NO.	38	ATT							
ORBITER OV-	104	VV							
OHS PODS		DUR	DOD MISSION - DATA NOT AVAILABLE.						
PORT	LPO1	ROLL							
STBD	RPO3	PITCH							
		YAW							
		DEPLOYS							

MISSION SEQ NO.	38	MET	12	24	36	48	60	72	
STS NO.	35	ATT							
ORBITER OV-	102	VV	BECAUSE OF THE MANY ATTITUDE CHANGES REQUIRED BY ASTRO-1 AND BBXRT PAYLOADS, GRAPHICAL DISPLAY IS NOT FEASIBLE. AS FLOWN BETA ANGLES AND ATTITUDES ARE PRESENTED IN TABLES 3-I AND 3-II.						
OHS PODS		DUR							
PORT	LPO3	ROLL							
STBD	RPO4	PITCH							
		YAW							
		DEPLOYS							

2

FOLDOUT FRAME

# ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

36 (STS-41), 37 (STS-38), AND 38 (STS-35)

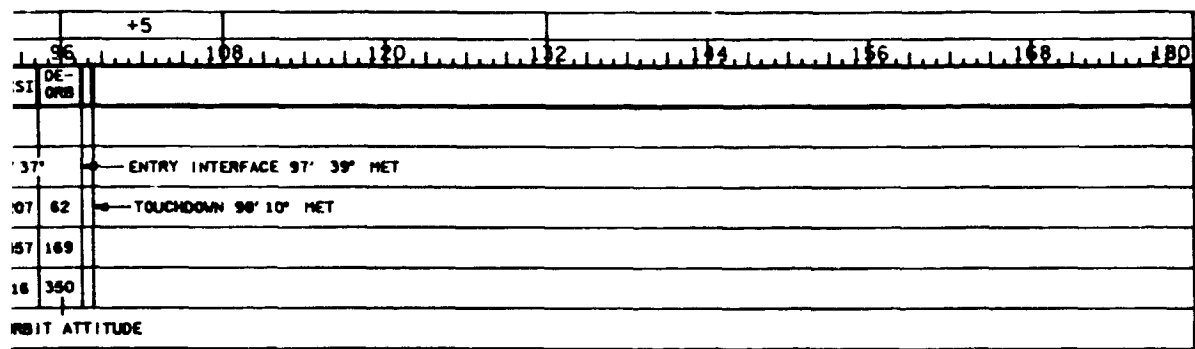


TABLE 3-I.- STS-35 BETA ANGLE RANGE

Mission elapsed time, day:hour	Beta angle, deg
0:00	+5
0:12	+5.5
1:00	+6
1:12	+6.5
2:00	+7
2:12	+7
3:00	+7
3:12	+6.5
4:00	+6
4:12	+5.5
5:00	+5
5:12	+4
6:00	+3
6:12	+2
7:00	+1
7:12	0
8:00	-1
8:12	-2
Entry	-3

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
1	STS-35 Flight	336:00:00:00 0:06:49:01	LVLH		0.00	0.00	C.00
2	OMS-2	336:07:17:01 0:00:28:08	IH	MIR601	119.00	9.00	348.00
3	Bias -ZLV	336:08:11:01 0:01:22:00	LVLH		180.00	9.00	75.00
4	IMU -Z COAS	336:09:39:14 0:02:50:13	IH	MIR601	86.00	192.00	11.00
5	+X COAS	336:09:56:26 0:03:07:25	IH	MIR601	141.00	122.00	70.00
6	BBXRT BRIGHT EARTH	336:10:23:01 0:03:34:00	LVLH		0.00	180.00	309.00
7	BBXRT ALIGN #1	336:10:53:40 0:04:04:39	IH	MIR601	75.00	302.00	6.00
8	OSPCAL #1	336:12:28:01 0:05:39:00	IH	MIR601	18.00	205.00	58.00
9	BBXRT ALIGN #2	336:15:12:26 0:08:23:25	IH	MIR601	128.00	197.00	12.00
10	FREE DRIFT	336:15:38:01 0:08:41:00	IH	MIR601	131.00	212.00	33.00
11	FREE DRIFT	336:15:55:01 0:09:06:00	IH	MIR601	141.00	160.00	349.00
12	FREE DRIFT	336:15:59:31 0:09:10:30	IH	MIR601	141.00	160.00	342.00
13	FREE DRIFT	336:16:05:01 0:09:16:00	IH	MIR601	140.00	155.00	320.00
14	FREE DRIFT	336:16:11:01 0:09:22:00	IH	MIR601	128.00	129.00	300.00
15	FREE DRIFT	336:16:16:01 0:09:27:00	IH	MIR601	78.00	80.00	295.00
16	RETURN TO ATT	336:16:26:01 0:09:37:00	IH	MIR601	128.00	197.00	12.00
17	BBXRT BRIGHT OBJECT	336:16:42:40 0:09:53:39	IH	MIR601	242.00	186.00	351.00
18	OSP CAL	336:17:24:03 0:10:35:02	IH	MIR601	47.00	267.00	283.00
19	J-F&A	336:19:32:01 0:12:43:00	IH	MIR601	157.00	169.00	340.00
20	IMU ALIGN	336:21:51:01 0:15:02:08	IH	MIR601	145.00	176.00	353.00
21	J-F&A	336:21:59:01 0:15:10:00	IH	MIR601	157.00	169.00	340.00
22	2001-11	337:02:38:01 0:19:49:00	IH	MIR601	124.00	0.00	351.00
23	BBXRT ALIGN #4	337:03:12:40 0:20:23:39	IH	MIR601	112.00	99.00	300.00



TABLE 3-II.-- STS-35 AS-FLOWN ATTITUDE TIMELINE (CONT'D)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
24	2001-12	337:03:51:01 0:06:49:01	IH	MIR601	94.00	96.00	35.00
25	OSP CAL	337:04:44:50 0:21:55:57	IH	MIR601	18.00	205.00	50.00
26	0301-11U	337:06:13:45 0:23:24:44	LVLH		180.00	0.00	30.00
27	OSP CAL	337:06:49:33 1:00:00:32	IH	MIR601	18.00	205.00	50.00
28	3804-10B	337:07:58:59 1:01:09:58	IH	MIR601	61.00	56.00	290.00
29	0608-10N	337:08:37:10 1:01:40:09	IH	MIR601	84.00	236.00	279.00
30	9306-12B	337:09:31:34 1:02:42:33	IH	MIR601	169.00	69.00	296.00
31	0001-1GH	337:10:16:14 1:03:27:13	IH	MIR601	345.00	121.00	302.00
32	OSP CAL	337:11:16:19 1:04:27:18	IH	MIR601	18.00	205.00	50.00
33	0658-10M	337:12:22:44 1:05:33:43	IH	MIR601	62.00	259.00	301.00
34	8623-19B	337:13:51:05 1:07:02:04	IH	MIR601	228.00	165.00	314.00
35	4410-16H	337:14:47:31 1:07:58:30	IH	MIR601	55.00	83.00	307.00
36	2302-10M	337:15:36:00 1:08:46:59	IH	MIR601	95.00	129.00	334.00
37	INERTIAL HOLD	337:16:03:01 1:09:14:00	IH	MIR601	90.00	113.00	320.00
38	RETURN TO ATT	337:16:08:26 1:09:29:25	IH	MIR601	95.00	129.00	334.00
39	9301-11U	337:17:17:55 1:10:28:54	IH	MIR601	119.00	14.00	312.00
40	8116-40B	337:17:49:50 1:11:00:49	IH	MIR601	357.00	186.00	351.00
41	OSP CAL	337:18:49:01 1:12:00:00	IH	MIR601	171.00	48.00	280.00
42	4416-41B	337:19:52:01 1:13:03:00	IH	MIR601	69.00	50.00	290.00
43	CRAB ATT	337:20:38:01 1:13:49:00	IH	MIR601	98.00	87.00	22.00
44	8424-11H	337:21:33:01 1:14:44:00	IH	MIR601	23.00	124.00	290.00
45	4414-21B	337:21:57:13 1:15:08:12	IH	MIR601	108.00	93.00	16.00
46	2717-13H	337:23:07:45 1:16:18:44	IH	MIR601	268.00	130.00	307.00

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
47	OSP CAL	337:23:39:01 1:16:50:00	IH	MIR601	2.00	238.00	321.00
48	3227-30H	338:00:22:13 1:17:33:12	IH	MIR601	269.00	129.00	295.00
49	2609-11W	338:01:18:41 1:18:29:40	IH	MIR601	340.00	176.00	203.00
50	2417-11W	338:01:52:24 1:19:03:23	IH	MIR601	268.00	129.00	307.00
51	FREE DRIFT-IH	338:03:41:01 1:20:52:00	IH	MIR601	283.00	141.00	304.00
52	8202-40B	338:04:05:01 1:21:16:00	IH	MIR601	107.00	36.00	316.00
53	5116-10U	338:05:01:28 1:22:12:27	IH	MIR601	142.00	171.00	277.00
54	8415-11H	338:05:46:37 1:22:57:36	IH	MIR601	308.00	126.00	302.00
55	4416-20B	338:06:54:50 2:00:05:49	IH	MIR601	131.00	132.00	297.00
56	2111-20B	338:07:47:00 2:00:57:59	IH	MIR601	94.00	127.00	311.00
57	5102-10U	338:08:19:56 2:01:30:55	IH	MIR601	149.00	140.00	296.00
58	4503-10W	338:09:02:40 2:02:13:39	IH	MIR601	97.00	126.00	312.00
59	3749-11B	338:10:03:28 2:03:14:27	IH	MIR601	272.00	128.00	307.00
60	9106-10B	338:10:43:49 2:03:54:48	IH	MIR601	339.00	158.00	290.00
61	2881-I	338:11:20:33 2:04:31:32	IH	MIR601	46.00	208.00	343.00
62	IDIN HEATING	338:12:42:11 2:05:53:10	IH	MIR601	280.00	189.00	316.00
63	2881-1	338:13:26:11 2:06:37:10	IH	MIR601	46.00	288.00	343.00
64	3749-12B	338:14:11:55 2:07:22:54	IH	MIR601	240.00	87.00	314.00
65	-ZLV NOSE SOUTH	338:15:22:11 2:08:33:10	LVLH		180.00	0.00	90.00
66	OSP CAL	338:16:05:50 2:09:16:49	IH	MIR601	18.00	205.00	58.00
67	3805-16B	338:17:13:55 2:10:24:54	IH	MIR601	125.00	125.00	299.00
68	0606-10W	338:17:44:42 2:10:55:41	IH	MIR601	102.00	334.00	347.00
69	3206-23H	338:18:56:39 2:12:07:38	IH	MIR601	141.00	135.00	296.00

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
70	2107-20V	338:19:24:47 2:12:35:46	IH	MIR601	50.00	234.00	300.00
71	5108-10U	338:20:17:39 2:13:20:38	IH	MIR601	291.00	114.00	310.00
72	4414-25B	338:21:01:05 2:14:12:04	IH	MIR601	100.00	340.00	345.00
73	2307-21V	338:21:56:31 2:15:07:30	IH	MIR601	129.00	155.00	279.00
74	IDOP TEST	338:22:25:31 2:15:36:30	IH	MIR601	97.00	211.00	29.00
75	4412-10H	338:23:16:53 2:16:27:52	IH	MIR601	234.00	92.00	312.00
76	8002-11M	339:00:35:02 2:17:46:01	IH	MIR601	340.00	76.00	296.00
77	9305-12U	339:01:28:11 2:18:39:10	IH	MIR601	128.00	356.00	316.00
78	3804-11B	339:02:24:18 2:19:35:09	IH	MIR601	134.00	134.00	295.00
79	2509-10H	339:03:09:44 2:20:20:43	IH	MIR601	122.00	304.00	304.00
80	4405-20B	339:04:03:58 2:21:14:57	IH	MIR601	60.00	55.00	293.00
81	INERTIAL HOLD	339:04:16:01 2:21:27:00	IH	MIR601	95.00	99.00	300.00
82	ILOP TEST	339:04:34:01 2:21:45:00	IH	MIR601	97.00	211.00	29.00
83	4207-11V	339:05:24:26 2:22:35:24	IH	MIR601	125.00	148.00	290.00
84	6106-10U	339:05:51:03 2:23:02:02	IH	MIR601	149.00	140.00	294.00
85	8113-10U	339:06:25:38 2:23:36:37	IH	MIR601	66.00	135.00	306.00
86	4414-26B	339:07:20:00 3:00:31:07	IH	MIR601	69.00	176.00	9.00
87	4557-10W	339:08:34:49 3:01:45:48	IH	MIR601	217.00	350.00	84.00
88	6216-10U	339:09:26:19 3:02:37:18	IH	MIR601	124.00	287.00	283.00
89	4557-11W	339:10:10:03 3:03:21:02	IH	MIR601	307.00	153.00	280.00
90	2302-20W	339:10:53:07 3:04:04:06	IH	MIR601	75.00	82.00	337.00
91	-ZLV +YVV	339:11:45:36 3:04:56:35	LVLH		270.00	270.00	0.00
92	8307-11U	339:12:21:15 3:05:32:14	IH	MIR601	22.00	132.00	300.00

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
93	2102-10W	339:13:23:07 3:06:34:06	IH	MIR601	288.00	135.00	289.00
94	4419-10B	339:14:22:39 3:07:33:38	IH	MIR601	105.00	127.00	298.00
95	5104-11U	339:15:08:38 3:08:19:37	IH	MIR601	92.00	228.00	4.00
96	2217-11M	339:16:02:01 3:09:13:00	IH	MIR601	35.00	53.00	295.00
97	IDOP TEST	339:16:34:26 3:09:45:25	IH	MIR601	97.00	211.00	29.00
98	4416-21B	339:17:22:16 3:10:33:15	IH	MIR601	160.00	161.00	0.00
99	3705-20B	339:18:10:34 3:11:21:33	IH	MIR601	90.00	70.00	355.00
100	4416-50B ON PRCS	339:19:10:46 3:12:21:45	IH	MIR601	129.00	129.00	297.00
101	4201-10M	339:19:44:38 3:12:55:37	IH	MIR601	116.00	20.00	330.00
102	FREE DRIFT	339:20:05:01 3:13:16:00	IH	MIR601	116.00	20.00	330.00
103	ATT HOLD	339:20:11:31 3:13:22:30	IH	MIR601	137.00	6.00	330.00
104	RTN TO ATT	339:20:22:01 3:13:33:00	IH	MIR601	116.00	20.00	330.00
105	9304-11U	339:20:41:37 3:13:52:36	IH	MIR601	304.00	176.00	305.00
106	6314-24H	339:21:32:56 3:14:43:55	IH	MIR601	122.00	95.00	321.00
107	2133-10M	339:22:13:27 3:15:24:26	IH	MIR601	268.00	125.00	306.00
108	8424-13H	339:23:19:56 3:16:30:55	IH	MIR601	12.00	108.00	297.00
109	2801-13H	340:00:24:53 3:17:35:52	IH	MIR601	139.00	29.00	7.00
110	4530-10X	340:01:14:14 3:18:25:13	IH	MIR601	137.00	147.00	287.00
111	2122-10M	340:01:53:28 3:19:04:27	IH	MIR601	92.00	123.00	346.00
112	7310-10U	340:02:49:21 3:20:00:20	IH	MIR601	353.00	110.00	290.00
113	6205-10U	340:03:20:09 3:20:31:00	IH	MIR601	152.00	47.00	299.00
114	3814-10H	340:04:17:19 3:21:28:18	IH	MIR601	311.00	112.00	315.00
115	8415-13H	340:04:55:28 3:22:06:19	IH	MIR601	299.00	114.00	307.00

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
116	4413-10H	340:05:55:05 3:23:06:04	IH	MIR601	213.00	43.00	8.00
117	9202-11U	340:06:55:14 4:00:06:13	IH	MIR601	37.00	148.00	291.00
118	3805-11B	340:07:33:23 4:00:44:22	IH	MIR601	127.00	134.00	298.00
119	4448-10U	340:08:34:50 4:01:45:49	IH	MIR601	86.00	395.00	57.00
120	2235-11W	340:09:03:11 4:02:14:10	IH	MIR601	342.00	244.00	312.00
121	7205-10U	340:09:47:56 4:02:58:55	IH	MIR601	130.00	293.00	284.00
122	4211-10W	340:10:35:23 4:03:46:22	IH	MIR601	354.00	197.00	329.00
123	0752-18B	340:11:48:08 4:04:59:07	IH	MIR601	272.00	126.00	306.00
124	TDRS COMM	340:12:47:01 4:05:58:00	IH	MIR601	303.00	171.00	46.00
125	3115-10M	340:13:37:01 4:06:48:00	IH	MIR601	335.00	171.00	280.00
126	3805-15B	340:14:24:01 4:07:35:00	IH	MIR601	168.00	186.00	31.00
127	-ZLV NS H2O DUMP	340:15:22:01 4:08:33:00	LVLH		100.00	9.00	90.00
128	3752-17B	340:17:01:07 4:10:12:06	IH	MIR601	258.00	121.00	296.00
129	8424-26B	340:17:30:30 4:10:49:29	IH	MIR601	344.00	78.00	296.00
130	BBXRT	340:18:44:01 4:11:55:00	IH	MIR601	106.00	57.00	8.00
131	0010-11H	340:19:42:01 4:12:53:00	IH	MIR601	258.00	125.00	298.00
132	8117-22B	340:20:27:26 4:13:38:25	IH	MIR601	180.00	315.00	343.00
133	6682-11U	340:21:21:32 4:14:32:31	IH	MIR601	153.00	157.00	340.00
134	8415-23H	340:23:25:45 4:16:36:44	IH	MIR601	336.00	172.00	350.00
135	8623	341:00:24:01 4:17:35:20	IH	MIR601	295.00	242.00	299.00
136	2533-10H	341:01:39:23 4:18:50:22	IH	MIR601	201.00	315.00	314.00
137	2609-12M	341:02:18:01 4:19:29:00	IH	MIR601	356.00	200.00	23.00
138	6232-10U	341:03:09:01 4:20:20:00	IH	MIR601	343.00	127.00	326.00

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
139	6314-11U	341:03:45:01 4:20:56:00	IH	MIR601	40.00	347.00	334.00
140	8318-11U	341:04:41:38 4:21:52:37	IH	MIR601	3.00	480.00	327.00
141	6314-12U	341:05:17:53 4:22:28:52	IH	MIR601	45.00	340.00	340.00
142	8310-12U	341:06:13:53 4:23:24:52	IH	MIR601	3.00	48.00	327.00
143	6314-13U	341:06:51:07 5:00:02:06	IH	MIR601	42.00	319.00	2.00
144	8512-11H	341:09:21:40 5:02:32:39	IH	MIR601	335.00	171.00	355.00
145	8606-11M	341:12:13:32 5:05:24:31	IH	MIR601	89.00	241.00	341.00
146	THERMAL ATT	341:15:32:43 5:08:43:42	IH	MIR601	323.00	114.00	301.00
147	2801-14B	341:16:04:43 5:09:15:42	IH	MIR601	116.00	336.00	319.00
148	9502-1B	341:16:57:19 5:10:08:18	IH	MIR601	201.00	121.00	290.00
149	4116-32B	341:18:00:12 5:11:11:11	IH	MIR601	151.00	198.00	43.00
150	6105-13U	341:18:59:10 5:12:10:09	IH	MIR601	166.00	37.00	303.00
151	0301-13 -ZLV XX	341:19:53:33 5:13:04:32	LVLH		180.00	0.00	270.00
152	6105-14U	341:20:26:28 5:13:37:27	IH	MIR601	166.00	37.00	303.00
153	2533-1H	341:21:20:57 5:14:31:56	IH	MIR601	196.00	304.00	350.00
154	1204-40H	341:22:05:26 5:15:16:24	IH	MIR601	42.00	118.00	350.00
155	THERMAL RECOVERY	341:23:14:21 5:16:25:20	IH	MIR601	38.00	110.00	291.00
156	4104-1H	341:23:41:07 5:16:52:06	IH	MIR601	118.00	79.00	341.00
157	0658-20W	342:02:42:21 5:17:43:20	IB	MIR601	140.00	47.00	50.00
158	4416-33B	342:02:07:11 5:19:10:10	IH	MIR601	45.00	38.00	300.00
159	0658-21M	342:02:42:11 5:19:53:10	IH	MIR601	140.00	47.00	50.00
160	6203-19B	342:03:56:06 5:21:07:05	IH	MIR601	170.00	117.00	5.00
161	8116-19B	342:04:33:42 5:21:44:41	IH	MIR601	185.00	305.00	71.00

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
162	2111-11B	342:05:48:41 5:22:59:40	IH	MIR601	37.00	27.0	9.00
163	4212-13H	342:07:08:09 6:00:19:08	IH	MIR601	8.00	204.00	32.00
164	THERMAL ATT	342:08:10:01 6:01:21:00	IH	MIR601	277.00	116.00	321.00
165	8282-33H	342:08:42:47 6:01:53:46	IH	MIR601	59.00	222.00	42.00
166	2209-11M	342:09:36:16 6:02:47:15	IH	MIR601	70.00	217.00	352.00
167	-ZLV NOSE SOUTH	342:11:25:01 6:04:36:00	LVLH		180.00	0.00	90.00
168	2189-12M	342:11:59:17 6:05:10:16	IH	MIR601	93.00	310.00	353.00
169	3817-19B	342:12:55:56 6:06:06:55	IH	MIR601	236.00	71.00	330.00
170	6602-13U	342:13:17:00 6:06:28:07	IH	MIR601	48.00	265.00	305.00
171	4503-11M	342:15:50:01 6:09:01:00	IH	MIR601	139.00	195.00	349.00
172	2107-21M	342:17:43:59 6:10:54:58	IH	MIR601	144.00	339.00	311.00
173	8623-14H	342:18:52:37 6:12:03:36	IH	MIR601	206.00	125.00	0.00
174	3218-10H	342:19:35:31 6:12:46:30	LVLH		195.00	330.00	340.00
175	0010-14H GALILEO	342:20:40:18 6:13:51:17	IH	MIR601	214.00	58.00	350.00
176	3218-20H	342:21:06:48 6:14:17:47	IH	MIR601	190.00	317.00	11.00
177	8623-11B	342:22:23:29 6:15:34:20	IH	MIR601	270.00	35.00	64.00
178	4421-22B	342:23:01:06 6:16:12:05	IH	MIR601	114.00	155.00	313.00
179	8282-41B	342:23:50:51 6:17:01:50	IH	MIR601	146.00	106.00	26.00
180	6308-13B	343:00:58:51 6:18:09:50	IH	MIR601	194.00	266.00	60.00
181	5103-21U	343:01:41:27 6:18:52:26	IH	MIR601	107.00	103.00	322.00
182	5107-12U	343:02:32:42 6:19:43:41	IH	MIR601	267.00	253.00	46.00
183	5103-22U	343:03:23:01 6:20:34:00	IH	MIR601	67.00	41.00	321.00
184	9385-13U	343:06:25:17 6:23:36:16	IH	MIR601	67.00	155.00	52.00

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
185	THERMAL RECOVERY	343:07:01:58 7:00:12:49	IH	MIR601	301.00	90.00	14.00
186	9319-18B	343:07:43:40 7:00:54:39	IH	MIR601	20.00	158.00	20.00
187	4518-13M	343:09:05:33 7:02:16:32	IH	MIR601	93.00	172.00	5.00
188	0658-23M	343:10:41:13 7:03:52:12	IH	MIR601	24.00	198.00	353.00
189	0510-19B	343:11:32:09 7:04:43:08	IH	MIR601	340.00	105.00	336.00
190	3888-19B	343:13:12:21 7:06:23:28	IH	MIR601	173.00	284.00	320.00
191	3213-20H	343:13:48:38 7:06:59:29	IH	MIR601	74.00	244.00	284.00
192	6119-11U	343:14:40:22 7:07:51:21	IH	MIR601	78.00	292.00	306.00
193	6308-14B	343:16:13:01 7:09:24:00	IH	MIR601	205.00	304.00	287.00
194	6424-14H	343:16:37:01 7:09:48:00	IH	MIR601	187.00	273.00	351.00
195	6148-11U	343:18:13:32 7:11:24:31	IH	MIR601	55.00	286.00	280.00
196	5105-10U	343:19:06:34 7:12:17:33	IH	MIR601	206.00	316.00	317.00
197	6119-11U	343:19:42:35 7:12:53:34	IH	MIR601	101.00	339.00	290.00
198	2235-12W	343:20:39:58 7:13:50:57	IH	MIR601	205.00	78.00	12.00
199	2217-10W	343:21:56:59 7:15:07:58	IH	MIR601	110.0	137.00	281.00
200	2102-11W	343:22:53:02 7:16:04:01	IH	MIR601	176.00	29.00	25.00
201	6308-15B	343:23:47:07 7:16:58:06	IH	MIR601	346.00	86.00	300.00
202	8101-24B	344:00:14:30 7:17:25:29	IH	MIR601	350.00	241.00	298.00
203	3212-13H	344:01:11:44 7:18:22:43	IH	MIR601	66.00	86.00	307.00
204	1284-50U	344:01:42:01 7:18:53:00	IH	MIR601	47.00	138.00	336.00
205	8303-11U	344:03:19:01 7:20:30:00	IH	MIR601	45.00	341.00	329.00
206	5116-11U	344:04:22:38 7:21:33:37	IH	MIR601	1.00	42.00	327.00
207	3288-11U	344:04:59:38 7:22:10:37	IH	MIR601	64.00	91.00	24.00

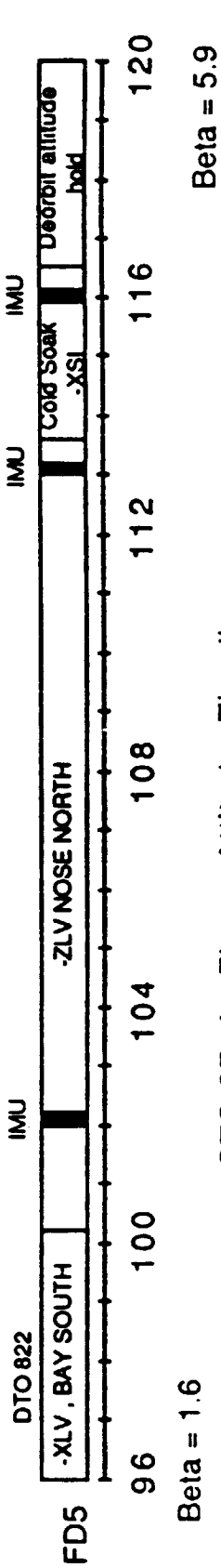
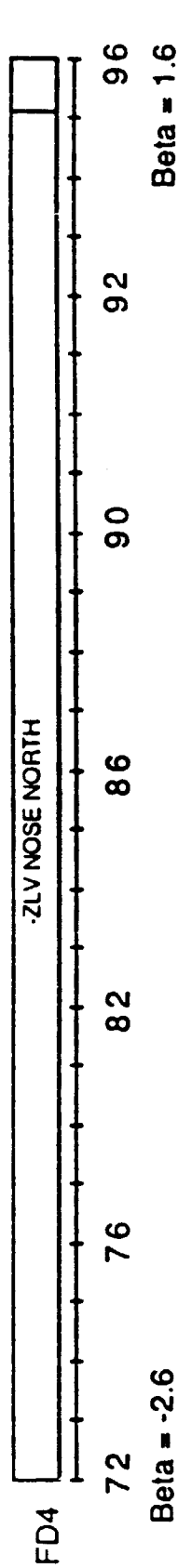
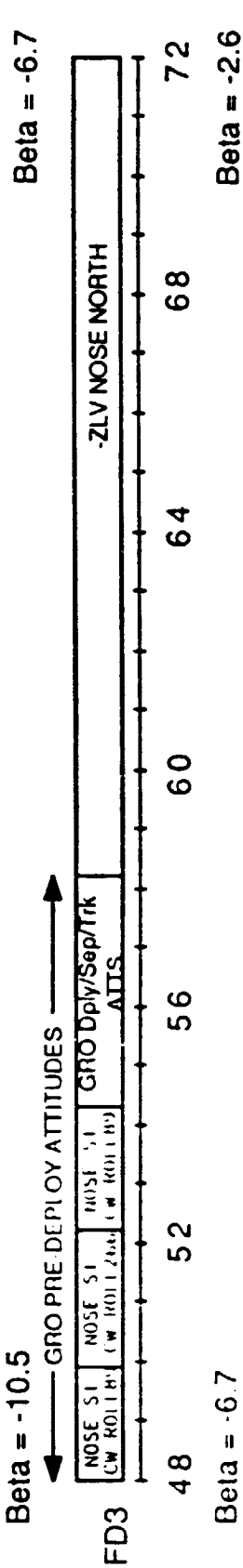
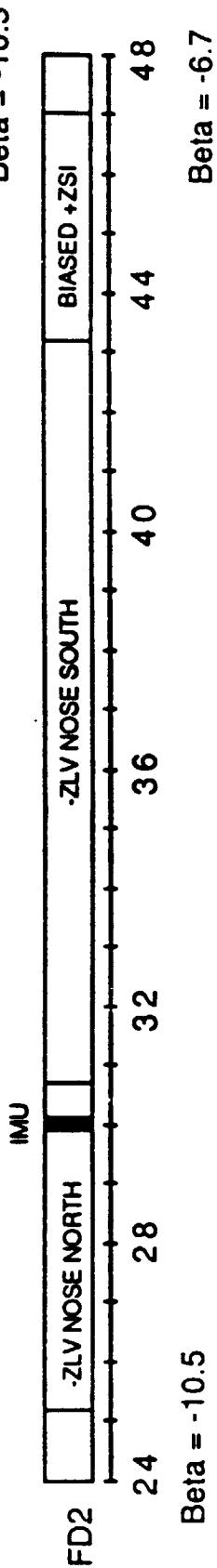
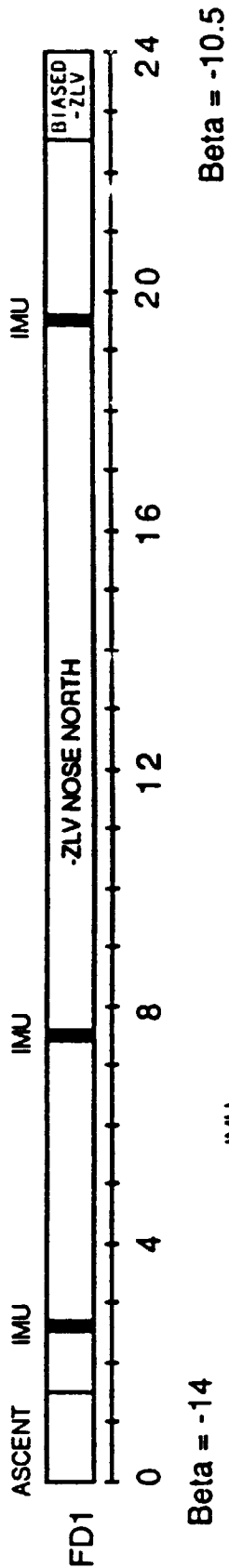


TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Concluded)

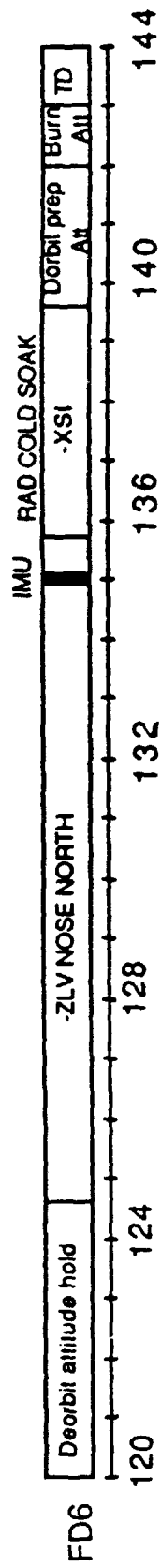
No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
208	DTO 902 START	344:05:55:38 7:23:06:37	LVLH		188.00	250.00	0.00
209	DTO 902 ROT INIT	344:06:01:01 7:23:12:00	ROTR	MIR601	113.00	320.00	44.00
210	DTO 902 ROT STOP	344:06:13:33 7:23:24:32	LVLH		180.00	90.00	0.00
211	7434-11U	344:06:30:57 7:23:41:56	IH	MIR601	28.00	15.00	65.00
212	6216-11U	344:00:04:08 8:01:15:07	IH	MIR601	13.00	156.00	30:00
213	2109-13M	344:09:26:00 8:02:36:59	IH	MIR601	83.00	100.00	2.00
214	3115-11M	344:10:42:50 8:03:53:49	IH	MIR601	339.00	176.00	335.00
215	-ZLV NOSE SOUTH	344:11:59:01 8:05:10:00	LVLH		180.00	0.00	30.00
216	4405-21B	344:12:49:57 8:06:00:56	IH	MIR601	158.00	168.00	336.00
217	8227-31H	344:14:00:53 8:07:11:52	IH	MIR601	280.00	144.00	297.00
218	1112-IOH	344:14:45:39 8:07:56:30	IH	MIR601	183.00	227.00	49.00
219	4419-10B	344:15:57:01 8:09:00:00	IH	MIR601	163.00	227.00	19.00
220	8337-10D	344:10:39:01 8:11:50:00	IH	MIR601	280.00	0.00	277.00
221	-ZLV THERMAL	344:19:47:01 8:12:58:00	LVLH		100.00	0.00	70.00
222	INERTIAL HOLD	344:20:33:31 8:13:08:30	IH	MIR601	313.00	78.00	29.00
223	RETURNED TO -ZLV	344:21:05:29 8:14:16:28	LVLH		100.00	0.00	70.00
224	TAIL SUN	345:00:47:01 8:17:50:00	IH	MIR601	45.00	292.00	61.00
225	DEORBIT ALIGN	345:01:57:01 8:19:00:00	IH	MIR601	344.00	321.00	352.00
226	IMU VERIF	345:02:09:01 8:19:20:00	IH	MIR601	15.00	283.00	44.00
227	VERIF - PAIR A1	345:02:16:01 8:19:27:00	IH	MIR601	86.00	192.00	11.00
228	DEORBIT BURN ATT	345:02:30:01 8:19:41:00	IH	MIR601	124.00	120.00	56.00
229	183 ENTRY	345:04:54:22 8:22:05:21	IH	CURI01	285.00	334.36	357.15
230	184 ENTRY	345:05:18:09 8:22:29:00	LVLH		1.09	30.47	358.63

TABLE 3-III - STS-37 AS-FLOWN TIMELINE

<u>MET</u> <u>(HRS:MIN)</u>	<u>DURATION</u> <u>(HRS:MIN)</u>	<u>ATTITUDE/EVENT</u>
0:00 - 1:30	1:30	Ascent
1:30 - 19:47	18:17	-ZLV Nose North
19:47 - 20:10	:23	+X COAS CAL
20:10 - 22:37	2:27	-ZLV Nose North
22:37 - 24:40	2:03	Biased -ZLV (Nose Pitched Down 6°)
24:40 - 25:03	:23	AMOS HES Attitudes (Biased Nose SI)
25:03 - 30:44	5:41	-ZLV Nose North
30:44 - 43:17	12:23	-ZLV Nose South (Water Dump Attitude)
43:17 - 47:04	3:47	Biased +ZSI
47:04 - 49:50	2:46	Nose SI (Rolled CW 89°)
49:50 - 52:13	2:23	Nose SI (Rolled CW 266°) EVA Attitude
52:13 - 54:15	2:02	Nose SI (Rolled CW 89°)
54:15 - 54:43	:28	GRO Deploy Attitude
54:43 - 56:50	2:07	GRO Separation Attitude
56:50 - 57:00	:10	-XLV -ZVV Target Track
57:00 - 58:10	1:10	Biased ZLV XVV (Water Dump Att)
58:10 - 95:14	37:04	-ZLV Nose North
95:14 - 100:32	5:18	DTO 822 (Tail Earth, Bay South)
100:32 - 113:37	13:05	-ZLV Nose North
113:37 - 116:22	2:45	-XSI (Radiator Cold Soak)
116:22 - 124:30	7:08	Deorbit Burn Att (Waived Off)
124:30 - 134:32	10:02	-ZLV Nose North
134:32 - 135:45	1:13	-ZLV Biased -YVV
135:45 - 139:42	3:57	-XSI (Radiator Cold Soak)
139:42 - 142:13	2:31	Deorbit Burn Attitude
143:01		Entry Interface
143:02		Touchdown



STS-37 As-Flown Attitude Timeline



STS-37 As-Flown Altitude Timeline (cont.)

TABLE 3-IV. - STS-39 BETA ANGLE RANGE

Mission elapsed time, day:hour	Beta angle, deg
0:00	-40
1:00	-38
2:00	-35
3:00	-32
4:00	-29
5:00	-25
6:00	-21
7:00	-17
8:00	-13

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
1	STS-39 FIN CYC	118:00:00:00 0:11:33:14	LVLH		0.00	0.00	0.00
2	OMS-2	118:12:08:14 0:00:35:00	IH	MIR601	254.00	124.00	356.00
3	-ZLV +YVV	118:12:56:32 0:01:23:18	LVLH		180.00	0.00	90.00
4	IMU ALIGN A1	118:14:17:13 0:02:43:59	IH	MIR601	312.00	151.00	43.00
5	+ZSI	118:14:37:54 0:03:04:40	IH	MIR601	257.00	328.00	305.00
6	-ZSI	118:16:23:14 0:04:50:00	IH	MIR601	103.00	147.00	55.00
7	+ZSI	118:17:33:10 0:05:59:56	IH	MIR601	256.00	327.00	305.00
8	-ZLV +YVV	118:20:07:58 0:08:34:44	LVLH		180.00	0.00	90.00
9	-ZSI	118:21:02:59 0:09:29:45	IH	MIR601	105.00	145.00	55.00
10	IMU ALIGN A1	118:21:35:33 0:10:02:19	IH	MIR601	312.00	151.00	43.00
11	P002 QRAM	118:22:42:51 0:11:09:37	LVLH		25.00	180.00	90.00
12	FREE DRIFT	118:22:48:14 0:11:15:00	LVLH	MIR601	25.00	180.00	90.00
13	-ZLV +YVV	118:23:50:19 0:12:17:05	LVLH		180.00	0.00	90.00
14	PU03 CRAB NEB 1	119:01:24:01 0:13:50:47	IH	MIR601	17.81	334.07	341.03
15	CRAB NEB 2	119:01:27:21 0:13:54:07	IH	MIR601	17.69	333.67	342.31
16	CRAB NEB 3	119:01:30:21 0:13:57:07	IH	MIR601	17.57	333.27	343.59
17	CRAB NEB 4	119:01:33:21 0:14:00:07	IH	MIR601	17.46	332.88	344.87
18	CRAB NEB 5	119:01:36:21 0:14:03:07	IH	MIR601	17.37	332.49	346.15
19	CRAB NEB 6	119:01:39:33 0:14:06:19	IH	MIR601	14.90	333.27	343.59
20	CRAB NEB 7	119:01:42:21 0:14:09:07	IH	MIR601	16.24	333.27	343.59
21	CRAB NEB 8	119:01:45:21 0:14:12:07	IH	MIR601	17.57	333.27	343.59
22	CRAB NEB 9	119:01:48:21 0:14:15:07	IH	MIR601	18.90	333.27	343.59
23	CRAB NEB 10	119:01:51:21 0:14:18:07	IH	MIR601	20.24	333.27	343.59

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
24	PUO2A GAL CTR	119:02:19:54 0:14:46:40	IH	MIR601	207.18	34.15	13.82
25	CRAB NEB 3	119:03:01:07 0:15:27:53	IH	MIR601	17.57	333.27	343.59
26	PFU02B SCO-X1	119:03:35:39 0:16:02:25	IH	MIR601	172.27	165.14	27.65
27	PUO2B PERSCL	119:04:27:14 0:16:54:00	IH	MIR601	56.42	34.04	356.36
28	PUO2B CYG X-2	119:05:22:14 0:17:49:00	IH	MIR601	128.42	73.83	317.17
29	-ZLV -YVV	119:05:57:54 0:18:24:40	LVLH		180.00	0.00	270.00
30	PC10 GGS	119:07:33:14 0:20:00:00	LVLH		121.00	268.00	2.00
31		119:09:42:06 0:22:08:52	LVLH		25.00	180.00	90.00
32	PC10 GGS	119:10:34:03 0:23:00:49	LVLH		120.00	268.00	2.00
33	PF07 WIGHT PRCS	119:12:20:26 1:00:47:12	LVLH		0.00	135.00	0.00
34	PLO2G CYG X-1	119:14:07:30 1:02:34:16	IH	MIR601	149.53	75.94	327.22
35		119:14:58:14 1:03:25:00	LVLH		180.00	267.00	0.00
36		119:18:03:04 1:06:29:50	LVLH		121.00	268.00	2.00
37		119:20:18:14 1:08:45:00	LVLH		25.00	180.00	90.00
38	IMU ALGN +X COAS	119:21:26:09 1:09:52:55	IH	MIR601	320.00	333.00	300.00
39		119:23:13:27 1:11:40:13	LVLH		180.00	0.00	90.00
40		119:23:48:14 1:12:15:00	LVLH		238.00	266.00	358.00
41		120:04:41:54 1:17:08:40	LVLH		25.00	180.00	90.00
42	-ZLV +YVV	120:05:20:24 1:17:47:10	LVLH		180.00	0.00	90.00
43	PC11F-B GGN	120:07:13:14 1:19:40:00	LVLH		239.00	268.00	358.00
44	PCS: BIAS -ZLV	120:12:49:14 2:01:16:00	LVLH		90.00	90.00	74.00
45	PC3GA +ZLV MM	120:13:58:14 2:02:25:00	LVLH		0.00	0.00	270.00
46	PQ04 QRAM	120:14:33:14 2:03:00:00	LVLH		25.00	180.00	90.00

TABLE 3-V - STS-39 A3-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
47	PC11A-D GGN	120:16:15:14 2:04:42:00	LVLH		239.00	268.00	358.00
48	PC36B	120:20:02:14 2:08:29:00	IH	MIR601	274.61	32.19	292.47
49	-ZLV +YVV	120:20:37:14 2:09:04:00	LVLH		180.00	0.00	90.00
50	PC13-11E GGN	120:22:12:24 2:10:39:10	LVLH		239.00	268.00	358.00
51	PC61 +ZLV NN	121:01:50:34 2:14:17:20	LVLH		0.00	0.00	270.00
52	PC37 -ZSI	121:02:42:14 2:15:09:00	IH	MIR601	49.91	273.29	339.15
53	P004 QRAM	121:03:12:04 2:15:38:50	LVLH		25.00	180.00	90.00
54	IMU ALIGN B1	121:05:03:14 2:17:30:00	IH	MIR601	291.00	304.00	21.00
55	SPAS PRE- DEPLOY	121:05:23:14 2:17:50:00	IH	MIR601	0.00	180.00	0.00
56	IBSS DEPLOY	121:07:14:14 2:19:41:00	LVLH		0.00	90.00	0.00
57	DEPLOY-SEP	121:08:24:14 2:20:51:00	LVLH		0.00	90.00	0.00
58	-Z TGT TRACK	121:08:48:14 2:21:15:00	LVLH		0.00	270.00	0.00
59	MC1F	121:08:54:14 2:21:21:00	LVLH		0.00	270.00	0.00
60	MC2F	121:09:34:14 2:22:01:00	LVLH		0.00	270.00	0.00
61		121:10:33:14 2:23:00:00	LVLH		0.00	270.00	270.00
62		121:12:43:00 3:01:09:46	LVLH		0.00	270.00	270.00
63		121:12:53:00 3:01:19:46	LVLH		0.00	270.00	270.00
64		121:13:13:14 3:01:40:00	LVLH		0.00	270.00	90.00
65		121:16:33:14 3:05:00:00	IH	MIR601	353.00	316.00	45.00
66		121:16:48:14 3:05:15:00	LVLH		0.00	270.00	90.00
67		121:18:51:14 3:07:18:00	IH	MIR601	212.00	270.00	65.00
68		121:18:59:14 3:07:26:00	LVLH		0.00	270.00	90.00
69		121:20:23:00 3:08:49:46	LVLH		0.00	270.00	90.00



TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
70		121:20:42:14	LVLH		52.00	320.00	289.00
71		3:09:09:00 121:21:02:14	IH	MIR601	277.00	311.00	287.00
72		3:09:29:00 121:21:17:14	LVIH		52.00	320.00	289.00
73		3:09:44:00 121:21:23:00	LVLH		52.00	320.00	289.00
74	CP1	3:09:49:46 121:21:30:00	LVLH		52.00	320.00	289.00
75		3:09:56:46 121:21:34:14	LVLH		308.00	320.00	71.00
76	MCP1	3:10:01:00 121:21:46:14	LVLH		52.00	320.00	289.00
77	VNP1	3:10:13:00 121:21:57:00	LVLH		52.00	320.00	289.00
78	OP3	3:10:23:46 121:22:04:00	LVLH		52.00	320.00	289.00
79	NOP3	3:10:30:46 121:22:08:14	LVLH		308.00	320.00	71.00
80	PRCS OBS ATT	3:10:35:00 121:22:17:14	LVLH		52.00	320.00	289.00
81	MCP3	3:10:44:00 121:22:21:00	LVLH		52.00	320.00	289.00
82	VNP3	3:10:47:46 121:22:31:00	LVLH		52.00	320.00	289.00
83	GP2	3:10:57:46 121:22:38:00	LVLH		52.00	320.00	289.00
84	NOP2	3:11:04:46 121:22:43:00	LVLH		308.00	320.00	71.00
85	MCP2	3:11:09:46 121:22:55:00	LVLH		52.00	320.00	289.00
86	VNP2	3:11:21:46 121:23:05:00	LVLH		52.00	320.00	289.00
87	PRCS BURN	3:11:31:46 121:23:12:00	LVLH		52.00	320.00	289.00
88	-YLV -ZVV	3:11:38:46 121:23:32:14	LVLH		0.00	270.00	90.00
89		3:11:59:00 122:02:00:14	IH	MIR601	180.00	113.00	2.00
90	-YLV -ZVV	3:14:27:00 122:02:05:44	LVLH		0.00	270.00	90.00
91	NCCNF	3:14:32:30 122:05:29:54	IH	MIR601	132.00	322.00	58.00
92	-Z TGT TRK	3:17:56:40 122:05:48:04	LVLH		0.00	270.00	0.00
		3:18:14:50					

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
93	TNF	122:06:27:44 3:18:54:30	IH	MIR601	96.00	105.00	340.00
94	-Z TGT TRK	122:06:35:34 3:19:02:20	LVLH		0.00	270.00	0.00
95	+YLV -ZVV	122:07:27:34 3:19:54:20	LVLH		0.00	270.00	270.00
96	OMS OBS ATT	122:07:42:24 3:20:09:10	LVLH		52.00	320.00	289.00
97	NNF	122:07:57:14 3:20:24:00	LVLH		52.00	320.00	289.00
98	OP4	122:08:04:14 3:20:31:00	LVLH		52.00	320.00	289.00
99	NOP4	122:08:08:25 3:20:35:11	LVLH		308.00	320.00	71.00
100	VNP4	122:08:10:04 3:20:36:50	LVLH		52.00	320.00	289.00
101	GPS	122:08:29:00 3:20:55:46	LVLH		52.00	320.00	289.00
102	NOP5	122:08:33:24 3:21:00:10	LVLH		308.00	320.00	71.00
103	+YLV -ZVV	122:08:44:14 3:21:11:00	LVLH		0.00	270.00	270.00
104	NSR5	122:08:55:14 3:21:22:00	LVLH		0.00	270.00	270.00
105	CIV OBS ATT	122:10:24:38 3:22:51:21	LVLH		250.00	180.00	290.00
106	-YLV -ZVV	122:12:04:57 4:00:31:43	LVLH		0.00	270.00	90.00
107	OPC MPC	122:13:05:27 4:01:32:00	IH	MIR601	37.00	33.00	359.00
108	-YLV -ZVV	122:13:22:19 4:01:49:05	LVLH		0.00	270.00	90.00
109		122:13:41:14 4:02:08:00	IH	MIR601	155.00	276.00	296.00
110	-YLV -ZVV	122:13:53:14 4:02:20:00	LVLH		0.00	270.00	90.00
111	NOPC	122:15:19:34 4:03:46:20	IH	MIR601	216.00	19.00	349.00
112	-YLV -ZVV	122:15:24:14 4:03:51:00	LVLH		0.00	270.00	90.00
113	MCC	122:19:35:44 4:08:02:30	IH	MIR601	65.00	148.00	69.00
114	-Z TGT TRK	122:19:56:44 4:08:23:30	LVLH		0.00	270.00	0.00
115	TI	122:20:33:00 4:09:59:46	LVLH		0.00	268.50	0.00

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
116	SPAS RETRIEVE	122:22:11:14 4:10:38:00	LVLH		0.00	90.00	0.00
117	-ZLV -YVV	122:23:33:14 4:12:00:00	LVLH		180.00	0.00	270.00
118	PV10	123:01:36:14 4:14:03:00	LVLH		90.00	270.00	0.00
119	PFO6	123:01:58:14 4:14:25:00	IH	MIR601	249.00	327.00	10.00
120		123:03:27:54 4:15:54:40	LVLH		25.00	0.00	270.00
121	PFO20	123:04:17:24 4:16:44:10	IH	MIR601	201.20	178.39	47.80
122	PQ04	123:05:13:14 4:17:40:00	LVLH		25.00	180.00	90.00
123	PF10	123:06:13:14 4:18:40:00	LVLH		90.00	270.00	0.00
124	PFO2B	123:07:22:04 4:19:48:50	IH	MIR601	357.90	85.65	61.64
125	-ZLV +YVV	123:08:01:54 4:20:28:40	LVLH		180.00	0.00	90.00
126	HA2	123:10:32:44 4:22:59:30	IH	MIR601	73.00	286.00	321.00
127	CIRC2	123:11:25:14 4:23:52:00	IH	MIR601	282.00	110.00	23.00
128	CRO A DEPLOY	123:11:43:14 5:00:10:00	LVLH		0.00	270.00	90.00
129	SPAS ACS INIT	123:12:36:14 5:01:03:00	IH	MIR601	0.00	180.00	0.00
130	BORESIGHT B	123:14:03:14 5:02:30:00	IH	MIR601	86.54	56.83	37.17
131	HWIR EARTH- SWEEP	123:15:13:14 5:03:40:00	LVLH		312.00	106.00	341.00
132	EARTHSCAN SSP	123:15:48:14 5:04:15:00	LVLH		23.00	161.00	352.00
133	NO EARTHLIMB	123:16:28:14 5:04:55:00	LVLH		283.00	80.00	10.00
134	AURORA	123:16:43:14 5:05:10:00	LVLH		286.00	180.00	10.00
135	STRAPDOWN	123:17:28:14 5:05:55:00	IH	MIR601	173.10	332.65	358.63
136	SPATIAL RES	123:17:53:14 5:06:20:00	IH	MIR601	35.88	55.08	332.05
137	GROUND TRUTH	123:18:33:14 5:07:00:00	IH	MIR601	262.33	118.77	31.39
138	GROUND TRUTH	123:19:01:14 5:07:28:00	IH	MIR601	261.81	109.82	323.10

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
139	-ZLV -YVV	123:19:19:44 5:07:46:30	LVLH		180.00	0.00	270.00
140	EARTHSCAN SSP	123:20:15:14 5:08:42:00	LVLH		23.00	151.00	346.00
141	RAD POINT	123:21:03:14 5:09:30:00	IH	MIR601	342.00	23.00	358.00
142	CRO A OBS ATT	123:21:43:14 5:10:10:00	LVLH		179.00	268.00	0.00
143	-ZLV NS	123:22:16:14 5:10:43:00	LVLH		180.00	0.00	90.00
144	HA2 BURN ATT	123:23:12:14 5:11:39:00	IH	MIR601	253.00	140.00	71.00
145	LVLH HOLD HA2	123:23:16:14 5:11:43:00	LVLH		178.00	355.00	348.00
146	CIRC 2 BURN ATT	123:23:57:14 5:12:24:00	IH	MIR601	106.00	319.00	289.00
147	STRAPDOWN	124:00:18:14 5:12:45:00	IH	MIR601	96.20	49.78	4.46
148	EARTHLIMB	124:01:33:14 5:14:00:00	LVLH		282.00	180.00	10.00
149	BORESIGHT B ATT	124:04:23:34 5:16:50:20	IH	MIR601	212.76	175.77	55.18
150	OFVR	124:05:16:34 5:17:43:20	IH	MIR601	54.88	292.56	319.51
151	OFVR SCAN MNR	124:05:51:54 5:18:18:40	IH	MIR601	198.37	107.40	37.50
152	MWIR ELMB TERM	124:06:01:44 5:18:28:30	LVLH		282.00	180.00	10.00
153	MWIR EARTH- SWEEP	124:07:16:44 5:19:43:30	LVLH		310.00	105.00	340.00
154	CIV OPS	124:08:51:14 5:21:18:00	LVLH		339.00	290.00	0.00
155	STRAPDOWN RMS	124:09:53:14 5:22:20:00	IH	MIR601	135.24	284.55	28.50
156	IMU ALIGN A1	124:10:28:14 5:22:55:00	IH	MIR601	312.00	151.00	43.00
157	ORBITER ENVIRON	124:10:53:14 5:23:20:00	LVLH		100.00	272.00	346.00
158	TAILGLOW	124:11:28:14 5:23:55:00	LVLH		270.00	285.00	0.00
159	-ZLV +YVV	124:12:23:14 6:00:50:00	LVLH		180.00	0.00	90.00
160	RAM VIEWING	124:13:58:14 6:02:25:00	LVLH		270.00	270.00	0.00
161	PFO3 AURORA	124:16:13:14 6:04:40:00	LVLH		180.00	270.00	0.00

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
162	SCO X-1	124:17:28:14 6:05:55:00	IH	MIR601	204.00	93.09	18.27
163	PUO2A CENX-3	124:18:51:14 6:07:18:00	IH	MIR601	86.04	210.10	9.51
164	PUO2A GAL CENTER	124:19:33:14 6:08:00:00	IH	MIR601	190.64	78.37	27.79
165	PUO2A CENX-2	124:20:18:34 6:08:45:20	IH	MIR601	81.32	217.71	59.01
166	PFUO2B SCO-X1	124:22:14:44 6:10:41:30	IH	MIR601	163.54	185.15	23.33
167	PUO2A GS1124	124:23:17:14 6:11:44:00	IH	MIR601	87.66	202.57	18.50
168	PFUO2B CYG X-1	124:23:55:14 6:12:22:00	IH	MIR601	224.79	205.79	351.47
169	PFUO2B GAL CTR	125:01:18:14 6:13:45:00	IH	MIR601	179.27	274.22	330.82
170	PUO2B	125:02:20:14 6:14:47:00	IH	MIR601	87.77	202.19	12.38
171	PFUO2B	125:02:58:14 6:15:25:00	IH	MIR601	244.78	225.59	358.20
172	PFO2A	125:03:50:14 6:16:17:00	IH	MIR601	87.74	202.28	13.85
173	GGN	125:04:38:14 6:17:05:00	LVLH		240.00	268.00	358.00
174	PFO2B	125:05:45:44 6:18:12:30	IH	MIR601	275.07	120.50	67.38
175	PFUO2B	125:06:49:14 6:19:16:00	IH	MIR601	276.32	28.15	12.20
176	PQOS	125:08:16:14 6:20:43:00	LVLH		295.00	270.00	0.00
177	PQO4	125:09:05:44 6:21:32:30	LVLH		25.00	180.00	90.00
178	IMU ALIGN B1	125:10:43:14 6:23:10:00	IH	MIR601	291.00	304.00	21.00
179	PF14	125:11:03:14 6:23:30:00	IH	MIR601	296.52	152.24	329.79
180	GGG	125:11:38:14 7:00:05:00	LVLH		120.00	260.00	2.00
181	PQO4 QRAM	125:13:23:14 7:01:50:00	LVLH		25.00	180.00	90.00
182	PF13	125:14:55:14 7:03:22:00	IH	MIR601	211.01	38.33	354.88
183	AIS THRSTR -Z	125:15:33:14 7:04:00:00	LVLH		90.00	100.00	350.00
184	TDRS ATT	125:16:08:14 7:04:35:00	IH	MIR601	352.00	302.00	42.00

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matri	Attitude		Yaw
					Roll	Pitch	
185	PQ04 QRAM	125:18:03:14	LVLH		25.00	180.00	90.00
		7:06:30:00					
186	PFO2B CHAMLN	125:19:07:14	IH	MIR601	230.60	138.25	35.26
		7:07:34:00					
187	PQ04 QRAM	125:19:58:14	LVLH		295.00	270.00	0.00
		7:08:25:00					
188	-ZLV MS	125:20:43:14	LVLH		180.00	0.00	90.00
		7:09:10:00					
189	ORB ADJUST BURN	125:22:25:44	IH	MIR601	70.00	290.00	314:00
		7:10:52:30					
190	UVLIM SCAN START	125:22:43:14	LVLH		5.00	55.00	0.00
		7:11:10:00					
191	UVLIM SCAN ROTR	125:22:53:35	ROTR	MIR601	261.00	504.00	0.00
		7:11:20:21					
192	UVLIM SCAN CNCL	125:23:40:14	IH	MIR601	106.00	110.00	57.00
		7:12:07:00					
193	SKIRT CVF AIRGLW	125:23:53:32	LVLH		187.00	104.00	274.00
		7:12:20:18					
194	SKIRT CVF CANCEL	125:23:54:14	IH	MIR601	290.00	210.00	13.00
		7:12:21:00					
195	UVLIM SCAN START	126:00:10:10	LVLH		10.00	55.00	0.00
		7:12:44:56					
196	UVLIM SCAN ROTR	126:00:23:17	ROTR	MIR601	266.00	305.00	1.00
		7:12:58:03					
197	UVLIM SCAN CNCL	126:01:09:14	IH	MIR601	97.00	118.00	57.00
		7:13:36:00					
198	MOON CAL	126:01:25:42	IH	MIR601	235.00	144.00	340.00
		7:13:52:28					
199	UVLIM SCAN START	126:01:43:54	LVLH		5.00	55.00	0.00
		7:14:10:40					
200	UVLIM SCAN ROTR	126:01:52:59	ROTR	MIR601	268.00	389.00	18.00
		7:14:19:45					
201	SKIRT CVF START	126:02:50:03	LVLH		0.00	345.00	0.00
		7:15:16:49					
202	SKIRT CVF ROT	126:02:58:44	LVLH		15.00	45.00	270.00
		7:15:25:30					
203	SKIRT CVF ROT	126:03:06:19	LVLH		180.00	165.00	0.00
		7:15:33:05					
204	GGN	126:03:22:43	LVLH		240.00	268.00	358.00
		7:15:49:29					
205	SKIRT CVF LVLH	126:03:32:44	LVLH		180.00	100.00	0.00
		7:15:59:30					
206	UVLIM LIMB SCAN	126:06:25:54	LVLH		180.00	235.00	10.00
		7:18:52:40					
207	UVLIM LIMB ROTR	126:06:29:14	ROTR	MIR601	282.89	119.96	336.70
		7:18:56:00					

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Concluded)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		Yaw
					Roll	Pitch	
208	CANCEL	126:07:09:14 7:19:36:00	IN	MIR601	71.00	279.00	305.00
209	SKIRT NOON CAL	126:07:33:14 7:20:00:00	IN	MIR601	284.00	227.00	319.00
210	MPEC DEPLOY	126:08:08:14 7:20:35:00	LVLH		0.00	270.00	270.00
211	MPEC SEP	126:08:46:04 7:21:12:50	IH	MIR601	293.00	108.00	46.00
212	-ZLV +YVV	126:09:13:14 7:21:40:00	LVLH		180.00	0.00	90.00
213	TAIL SUN	126:12:43:14 8:01:10:00	IH	MIR601	217.00	163.00	322.00
214	D-0 IMU ALIGN	126:14:59:14 8:03:26:00	IH	MIR601	291.00	304.00	21.00
215	D-0 IMU VERIF	126:15:14:14 8:03:41:00	IH	MIR601	113.00	312.00	319.00
216	COMM ATT	126:15:33:14 8:04:00:00	IH	MIR601	127.00	91.00	61.00
217	DEORBIT	126:17:25:14 8:05:52:00	IH	MIR601	112.00	110.00	40.00
218	MM 303 ENTRY	126:17:57:59 8:06:24:45	IH	CUR101	254.26	75.18	5.30
219	MM 304 ENTRY	126:18:18:30 8:06:45:16	LVLH		1.00	38.89	358.66

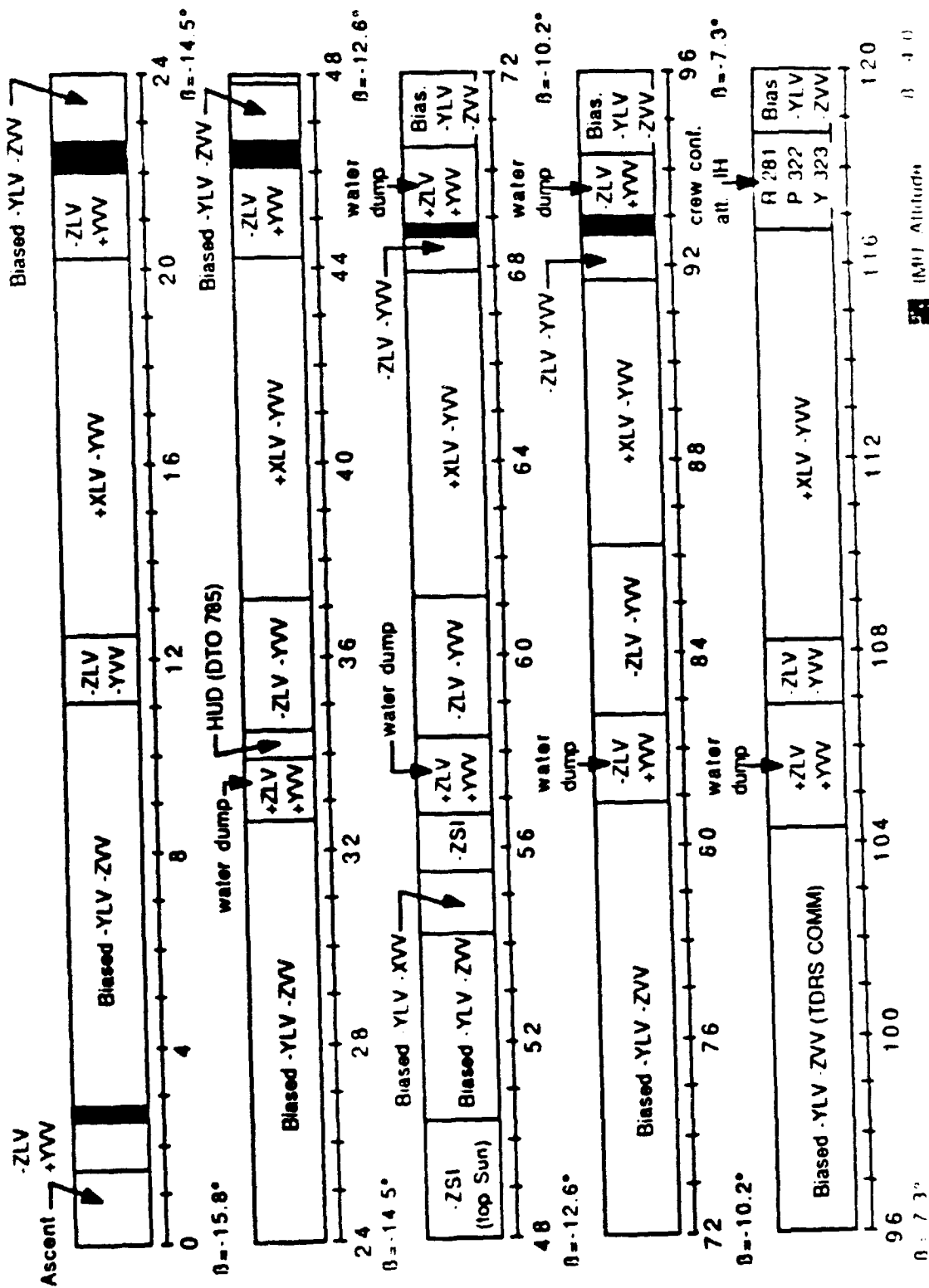
TABLE 3-VI - STS-40 AS-FLOWN TIMELINE

<u>MET</u> <u>(HRS:MIN)</u>	<u>DURATION</u> <u>(HRS:MIN)</u>	<u>ATTITUDE/EVENT</u>
0:00:00 - 0:01:28	1:28	Ascent
0:01:28 - 0:02:55	1:27	-ZLV +YVV (Top Earth, Nose South)
0:02:55 - 0:11:04	8:09	Biased -YLV -ZVV (R=90,P=180,Y=60)
0:11:04 - 0:12:27	1:23	-ZLV -YVV
0:12:27 - 0:20:05	7:38	+XLV -YVV
0:20:05 - 0:22:37	2:32	-ZLV +YVV
0:22:37 - 1:08:35	9:58	Biased -YLV -ZVV
1:08:35 - 1:09:56	1:21	+ZLV -YVV (Water Dump)
1:09:56 - 1:10:30	0:34	HUD (DTO 785)
1:10:30 - 1:13:07	2:37	-ZLV -YVV
1:13:07 - 1:20:05	6:58	+XLV -YVV
1:20:05 - 1:22:41	2:36	-ZLV +YVV
1:22:41 - 1:23:54	1:13	Biased -YLV -ZVV
1:23:54 - 2:02:19	2:25	-ZSI (Top Sun)
2:02:19 - 2:06:07	3:48	Biased -YLV -ZVV
2:06:07 - 2:07:23	1:16	Biased -YLV -XVV
2:07:23 - 2:08:41	1:18	-ZSI
2:08:41 - 2:10:15	1:34	+ZLV +YVV (Water Dump)
2:10:14 - 2:13:07	2:52	-ZLV -YVV
2:13:07 - 2:19:57	6:50	+XLV -YVV
2:19:57 - 2:20:55	0:58	-ZLV -YVV
2:20:55 - 2:22:28	1:33	+ZLV +YVV (Water Dump)
2:22:28 - 3:08:58	10:30	Biased -YLV -ZVV
3:08:58 - 3:10:47	1:49	-ZLV +YVV
3:10:47 - 3:14:07	3:20	-ZLV -YVV
3:14:07 - 3:19:43	5:36	+XLV -YVV
3:19:43 - 3:20:59	1:16	-ZLV -YVV
3:20:59 - 3:22:17	1:17	-ZLV +YVV (WATER DUMP)
3:22:17 - 4:08:15	9:58	BIASED -YLV -ZVV (TDRS COMM)
4:08:15 - 4:10:54	2:39	+ZLV +YVV (WATER DUMP)
4:10:54 - 4:12:05	1:11	-ZLV -YVV
4:12:05 - 4:20:44	8:39	+XLV -YVV
4:20:44 - 4:22:44	2:00	CREW CONF ATT (R281 P322 Y323) IH
4:22:44 - 5:08:37	9:53	BIASED -YLV -ZVV
5:08:37 - 5:09:22	0:45	HUD (DTO 785)
5:09:22 - 5:11:43	2:21	-ZLV +YVV (WATER DUMP)
5:11:43 - 5:21:06	9:23	BIASED +XLV -YVV
5:21:06 - 5:22:37	1:31	-ZLV +YVV (WATER DUMP)
5:22:37 - 6:00:30	1:53	-ZLV -XVV (OEX OARE)
6:00:30 - 6:01:42	1:12	-ZLV -YVV
6:01:42 - 6:02:45	1:03	BIASED +XLV -YVV
6:02:45 - 6:04:05	1:20	+XLV +ZVV
6:04:05 - 6:07:10	3:05	-ZLV -YVV
6:07:10 - 6:08:34	1:24	-ZLV +YVV (WATER DUMP)
6:08:34 - 6:09:32	0:58	HUD (DTO 785)
6:09:32 - 6:11:05	1:33	-ZLV +YVV
6:11:05 - 6:21:09	10:04	BIASED +XLV -YVV

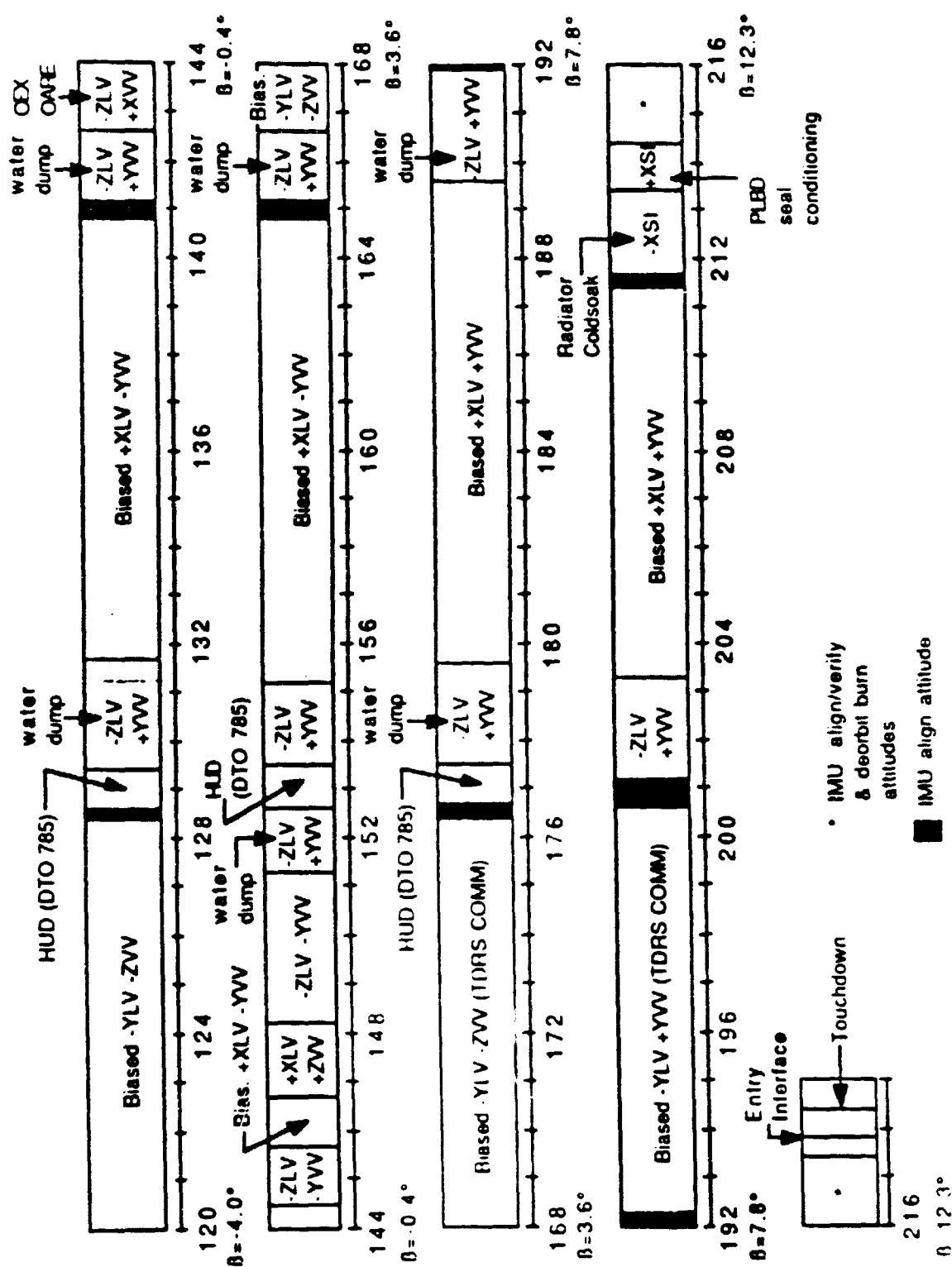


**TABLE 3-VI - STS-40 AS-FLOWN TIMELINE (concluded)**

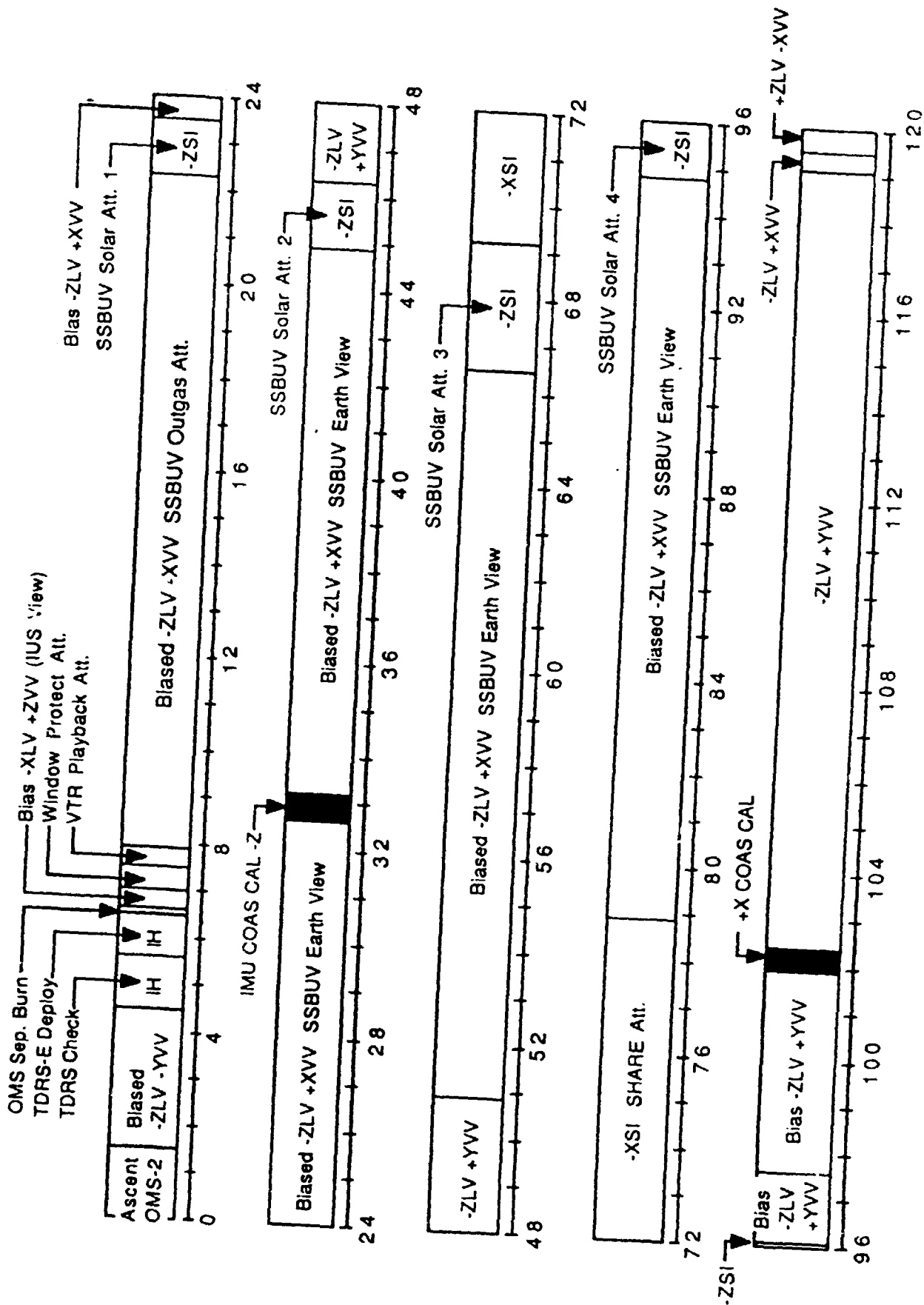
<u>MET</u> <u>(HRS:MIN)</u>	<u>DURATION</u> <u>(HRS:MIN)</u>	<u>ATTITUDE/EVENT</u>
6:21:09 - 6:22:37	1:28	-ZLV +YVV (WATER DUMP)
6:22:37 - 7:08:38	10:01	BIASED -YLV -ZVV (TDRS COMM)
7:08:38 - 7:09:29	0:51	HUD (DTO 785)
7:09:29 - 7:11:37	2:08	-ZLV +YVV (WATER DUMP)
7:11:37 - 7:21:34	9:57	BIASED +XLV +YVV
7:21:34 - 8:00:14	2:40	-ZLV +YVV (WATER DUMP)
8:00:14 - 8:09:06	8:52	BIASED -YLV -ZVV (TDRS COMM)
8:09:06 - 8:11:07	2:01	-ZLV +YVV
8:11:07 - 8:19:41	8:34	BIASED +XLV +YVV
8:19:41 - 8:21:17	1:36	-XSI (RADIATOR COLD SOAK)
8:21:17 - 8:22:16	0:59	+XSI (PLBD SEAL CONDITIONING)
8:22:16 - 9:01:17	3:01	IMU ALIGN AND VERIFY/DECRBIT BURN ATT.
9:01:43		ENTRY INTERFACE
9:01:15		TOUCHDOWN



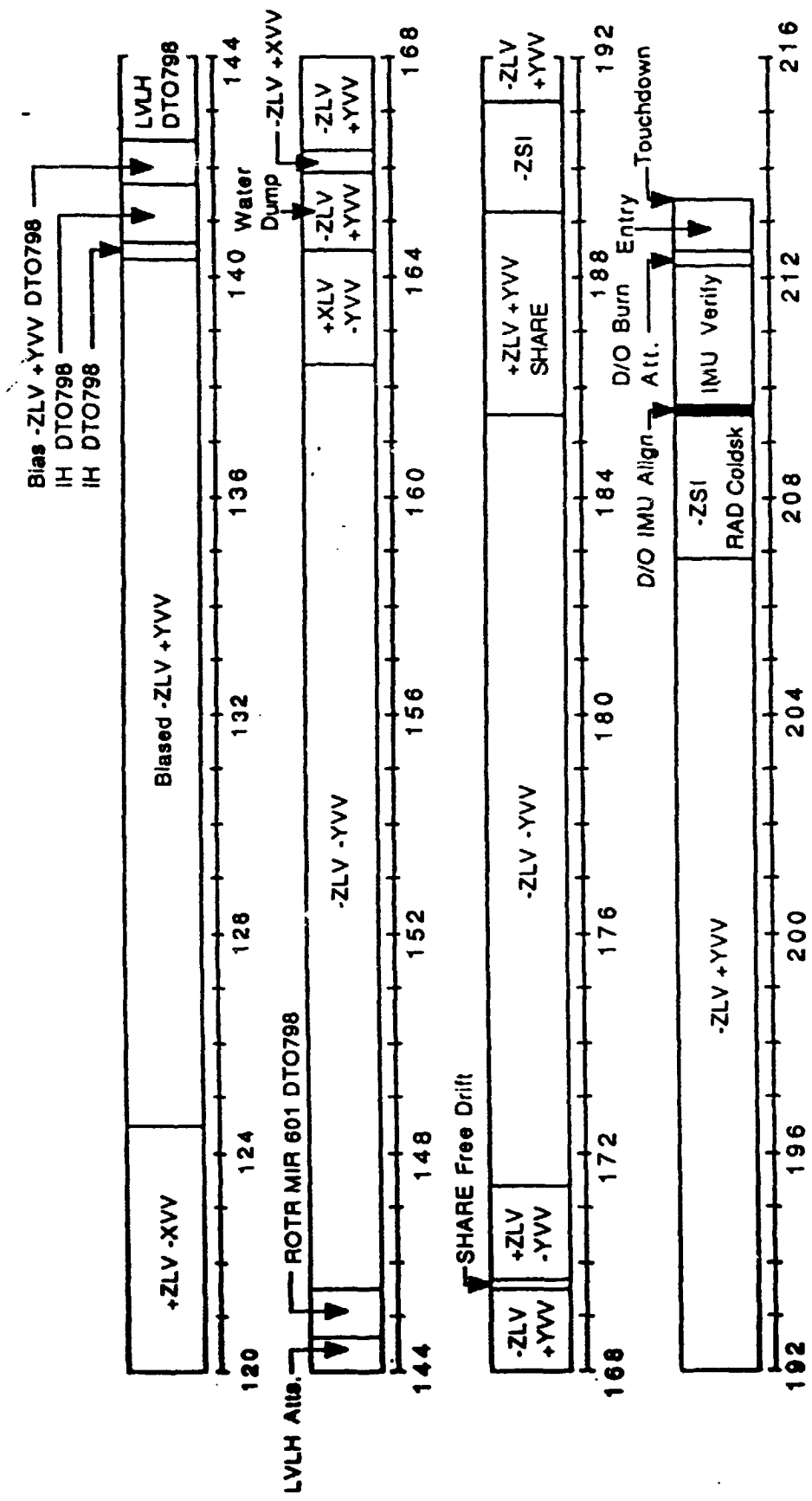
## STS-40 As-Flown Attitude Timeline



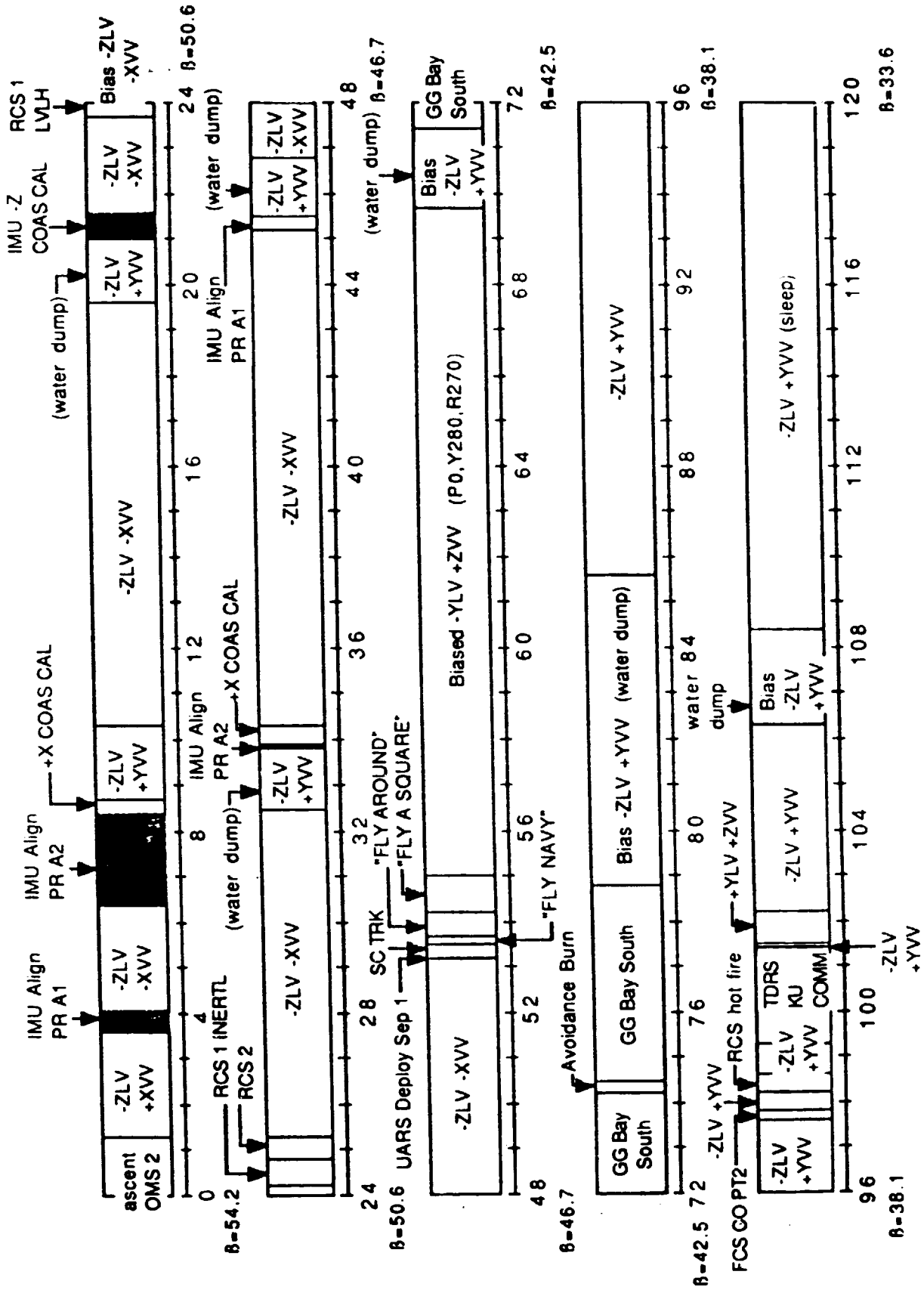
STS-40 As-flown Attitude Timeline (continued)



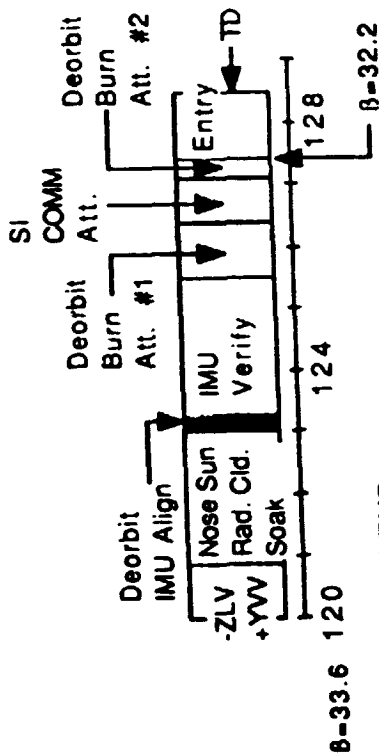
# STS-43 As-Flown Attitude Timeline



STS-43 As-Flown Attitude Timeline (Cont.)



# STS-48 AS-FLOWN ATTITUDE TIMELINE



8-33.6 120

**LEGEND:**

■ IMU Aligns

- +X COAS CAL: IH (P122,Y70,R164)
- IMU Align PR A1: IH (P312,Y319,R113)
- IMU Align PR A2: IH (P119,Y56,R167)
- IMU -Z COAS CAL: IH (P312,Y319,R113)
- RCS 1: LVLH (P166,Y0,R0)
- RCS 1 INERTIAL: IH (P199,Y301,R162)
- RCS 2: IH (P210,Y299,R352)
- UARS Deploy Sep 1: ROTR Rate 0.82 (P267,Y314,R219)
- SC TRK: ROTR Rate 0.012 (P323,Y194,R235)
- "FLY NAVY": ROTR Rate 0.02 (P314,Y6,R237)
- "FLY AROUND": IH (P297,Y338,R236)
- "FLY A SQUARE": ROTR Rate 0.038 (P290,Y331,R232)
- Avoidance Burn: IH (P313,Y1,R235); Performed to avoid a "van-sized" piece of a Soviet rocket stage.
- FCS CO PT2: IH (P44,Y321,R54)
- RCS hot fire: IH (P44,Y321,R287)
- TDRS COMM: IH (P40,Y15,R210)
- NOSE SUN radiator coldsoak: IH (P164,Y359,R200)
- Deorbit IMU Align: (P152,Y349,R13)
- IMU Verify: IH (P211,Y2,R8)
- Deorbit Burn ATT. #1: IH (P15,Y44,R203)
- COMM Attitude: IH (P41,Y47,R185)
- Deorbit Burn Att. #2: IH (P1,Y38,R212)
- Burn not performed. Landing waved off at KSC due to clouds/visibility. Landing diverted to Edwards AFB on next revolution.

**STS-48 AS-FLOWN ATTITUDE TIMELINE (Cont'd.)**

TABLE 3-VII.- STS-48 AS-FLOWN ATTITUDE TIMELINE

Mission elapsed time, day:hour:minute	Duration, hr:min	Attitude/Event
0:00:00 - 0:00:28	0:28	Ascent
0:00:28 - 0:01:18	0:50	OMS-2 maneuver attitude
0:01:18 - 0:03:40	2:22	-ZLV +XVV
0:03:40 - 0:04:01	0:21	IMU align PR A1
0:04:01 - 0:06:19	2:18	-ZLV -XVV
0:06:19 - 0:08:21	2:02	IMU align PR A2
0:08:21 - 0:08:53	0:32	+X COAS calibration
0:08:53 - 0:10:15	1:22	-ZLV +YVV
0:10:15 - 0:19:42	9:27	-ZLV -XVV
0:19:42 - 0:21:00	1:18	-ZLV +YVV (water dump)
0:21:00 - 0:21:35	0:35	IMU -Z COAS calibration
0:21:35 - 0:23:46	2:11	-ZLV -XVV
0:23:46 - 1:00:09	0:23	RCS 1 LVLH
1:00:09 - 1:00:53	0:44	RCS 1 inertial
1:00:53 - 1:01:15	0:22	RCS 2
1:01:15 - 1:08:35	7:20	-ZLV -XVV
1:08:35 - 1:09:48	1:13	-ZLV +YVV (water dump)
1:09:48 - 1:09:54	0:06	IMU align PR A2
1:09:54 - 1:10:18	0:24	+X COAS calibration
1:10:18 - 1:21:10	10:52	-ZLV -XVV
1:21:10 - 1:21:29	0:19	IMU align PR A1
1:21:29 - 1:22:53	1:24	-ZLV +YVV (water dump)
1:22:53 - 2:05:13	6:20	-ZLV -XVV
2:05:13 - 2:05:14	0:01	UARS Deploy Sep 1
2:05:14 - 2:05:30	0:16	SC TRK to RBAR
2:05:30 - 2:05:45	0:15	"FLY NAVY" ROTR
2:05:45 - 2:06:07	0:22	"FLY AROUND" IH
2:06:07 - 2:07:00	0:53	"FLY A SQUARE" ROTR
2:07:00 - 2:21:45	14:45	Biased -ZLV +ZVV
2:21:45 - 2:23:22	1:37	-ZLV +YVV (water dump)
2:23:22 - 3:02:07	2:45	GG Bay South
3:02:07 - 3:02:30	0:23	Avoidance burn
3:02:30 - 3:06:48	4:18	GG Bay South
3:06:48 - 3:13:38	6:50	Biased -ZLV +YVV (water dump)
3:13:38 - 4:01:39	12:01	-ZLV +YVV
4:01:39 - 4:01:45	0:06	FCS Checkout PT2
4:01:45 - 4:02:10	0:25	-ZLV +YVV
4:02:10 - 4:02:35	0:25	RCS Hot fire
4:02:35 - 4:03:12	0:37	-ZLV +YVV
4:03:12 - 4:05:21	2:09	TDRS KU-band communications
4:05:21 - 4:05:30	0:09	-ZLV +YVV
4:05:30 - 4:06:07	0:37	+ZLV +ZVV
4:06:07 - 4:10:15	4:08	-ZLV +YVV
4:10:15 - 4:12:20	2:05	Biased -ZLV +YVV (water dump)
4:12:20 - 5:00:58	12:38	-ZLV +YVV



TABLE 3-VII.- STS-48 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

Mission elapsed time, day:hour:minute	Duration, hr:min	Attitude/Event
5:00:58 - 5:03:01	2:03	Nose Sun (SI) Radiator Cold Soak
5:03:01 - 5:03:15	0:14	Deorbit IMU Align
5:03:15 - 5:05:33	2:18	IMU Verify
5:05:33 - 5:06:25	0:52	Deorbit maneuver attitude no. 1 (no burn)
5:06:25 - 5:07:03	0:38	Communications attitude
5:07:03 - 5:07:23	0:20	Deorbit maneuver attitude no. 2 (Burn to Edwards AFB)
5:07:23 - 5:08:21	0:58	Entry
5:08:21 - 5:08:28	0:07	Terminal area energy management (TAEM)
5:08:28	--	Touchdown

Note: \* Landing was delayed one revolution due to clouds/visibility at KSC.  
Landing was at Edwards AFB on the next revolution.

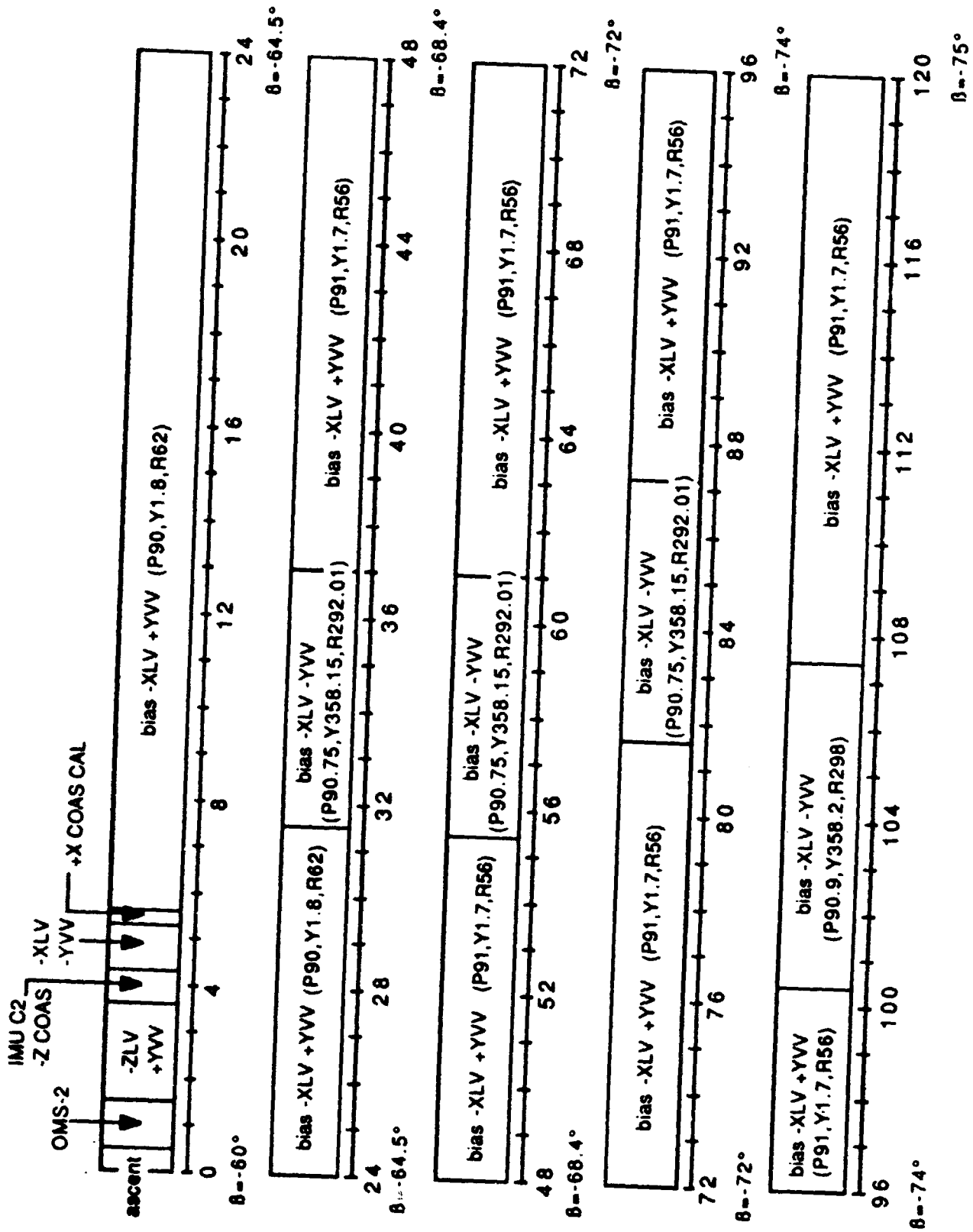


TABLE 3-VIII.- STS-44 AS-FLOWN ATTITUDE TIMELINE

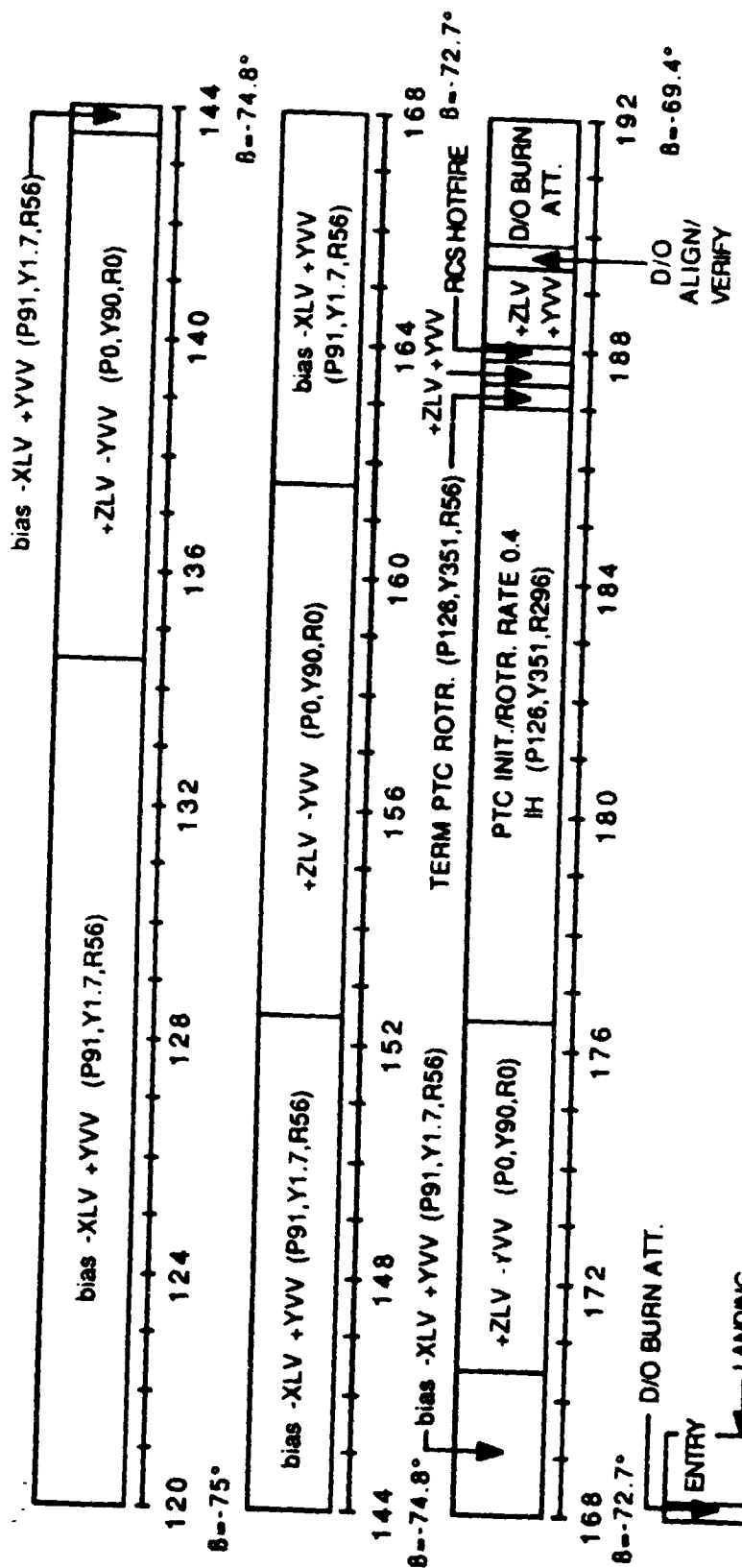
Mission elapsed time, day:hour:minute	Duration, hr:min	Attitude/Event
0:00:00 - 0:00:30	0:30	Launch
0:00:30 - 0:01:22	0:52	OMS-2 Manuever attitude
0:01:22 - 0:04:13	2:51	-ZLV Nose South
0:04:13 - 0:07:45	3:32	DSP/IUS Deployment attitude
0:07:45 - 0:09:40	2:03	-ZLV Nose forward
0:09:48 - 0:21:42	11:54	-ZLV Nose South
0:21:42 - 0:22:10	0:28	IMU -Z COAS calibration
0:22:10 - 1:05:30	7:20	-ZLV Nose forward
1:05:30 - 1:06:00	0:30	Aft RCS-1 manuever
1:06:00 - 1:06:51	0:51	-ZLV Nose forward
1:06:51 - 1:07:17	0:26	Forward RCS-2 LVLH EQV
1:07:17 - 1:08:24	1:07	-ZLV Nose forward
1:08:24 - 1:09:28	1:04	IMU-MIR PEER
1:09:28 - 1:20:50	11:22	-ZLV Nose South
1:20:50 - 1:21:12	0:22	+X COAS calibration
1:21:12 - 1:22:38	1:26	-ZLV Nose forward
1:22:38 - 2:04:38	6:00	-ZLV Nose South
2:04:38 - 2:05:55	1:17	-ZLV Nose forward
2:05:55 - 2:07:38	1:43	-ZLV Nose forward
2:07:38 - 2:19:53	12:15	-ZLV Nose South
2:19:53 - 2:20:28	0:35	-ZLV Nose forward
2:20:28 - 2:21:23	0:55	-ZLV Nose South
2:21:23 - 3:03:38	6:15	-ZLV Nose forward
3:03:38 - 3:05:09	1:31	-ZLV Nose South
3:05:09 - 3:06:30	1:21	-ZLV Nose forward
3:06:30 - 3:18:53	12:23	-ZLV Nose South
3:18:53 - 3:23:05	4:12	-ZLV Nose forward
3:23:05 - 4:00:18	1:13	-ZLV Nose forward
4:00:18 - 4:03:37	3:19	-ZLV Nose South
4:03:37 - 4:04:37	1:00	-ZLV Nose forward
4:04:37 - 4:17:58	13:21	-ZLV Nose South
4:17:58 - 4:23:26	5:28	-ZLV Nose forward
4:23:26 - 5:01:55	2:29	Crew conference
5:01:55 - 5:04:25	2:30	-ZLV Nose forward
5:04:25 - 5:16:38	12:13	-ZLV Nose South
5:16:38 - 5:20:53	4:15	-ZLV Nose forward
5:20:53 - 5:21:10	0:17	-ZLV Nose South
5:21:10 - 5:21:52	0:42	RCS hot fire
5:21:52 - 6:03:31	5:39	-ZLV Nose South
6:03:31 - 6:14:02	10:31	-ZLV Nose South
6:14:02 - 6:17:30	3:28	Bias +XSI coldsoak
6:17:30 - 6:21:27	3:57	IMU Verification
6:21:27 - 6:21:49	0:22	Deorbit manuever and entry
6:21:49	--	Landing

TABLE 3-IX.- STS-42 AS-FLOWN ATTITUDE TIMELINE

Mission elapsed time days:hr:min	Duration hr:min	Attitude/Event
0:00:00 - 0:00:24	0:24	Ascent
0:00:24 - 0:01:24	1:00	OMS - 2 Operations
0:01:24 - 0:03:38	2:14	-ZLV Nose South
0:03:38 - 0:04:12	0:34	IMU Align and COAS CAL
0:04:12 - 0:05:12	1:00	-XLV -YVV
0:05:12 - 0:05:35	0:23	+X COAS CAL
0:05:35 - 1:07:28	25:53	-XLV Bay South
1:07:28 - 1:13:00	5:32	-XLV Bay North
1:13:00 - 2:07:20	18:20	-XLV Bay South
2:07:20 - 2:13:00	5:40	-XLV Bay North
2:13:00 - 3:09:40	20:40	-XLV Bay South
3:09:40 - 3:15:10	5:30	-XLV Bay North
3:15:10 - 4:04:20	13:10	-XLV Bay South
4:04:20 - 4:11:20	7:00	-XLV Bay North
4:11:20 - 5:14:26	27:06	-XLV Bay South
5:14:26 - 5:23:26	9:00	+ZLV -YVV
5:23:26 - 6:08:26	9:00	-XLV Bay South
6:08:26 - 6:17:26	9:00	+ZLV -YVV
6:17:26 - 7:02:26	9:00	-XLV Bay South
7:02:26 - 7:08:26	6:00	+ZLV -YVV
7:08:26 - 7:19:00	10:34	PTC
7:19:00 - 7:21:26	2:26	Biased Tail SI (coldsoak)
7:21:26 - 7:21:48	0:22	Deorbit Alignment/Verify
7:21:48 - 8:00:17	2:29	Deorbit Maneuver/Burn
8:00:17 - 8:01:15	0:58	Entry/TAEM
8:01:15		Touchdown



# STS-42 AS-FLOWN ATTITUDE TIMELINE



**ATTITUDE LEGEND:**

- OMS-2 : IH P120, Y16, R292
- IMU C2 -Z COAS : IH P341, Y359, R101
- +X COAS CAL : IH P122, Y70, R102
- RCS HOT FIRE : IH P19, Y347, R227
- D/O IMU ALIGN : IH P42, Y41, R53 (189:26 to 199:38 MET)
- D/O IMU VERIFY : IH P146, Y29, R12 (189:38 to 189:48 MET)
- D/O BURN : IH P303.5, Y19.9, R219.6

**STS-42 AS-FLOWN ATTITUDE TIMELINE**

TABLE 3-X. - STS-45 BETA ANGLE vs.  
MISSION ELAPSED TIME

Mission elapsed time, hours	Beta angle, deg
0:00	-55
24:00	-55
48:00	-54
72:00	-53
96:00	-51
120:00	-48.5
144:00	-45.5
168:00	-42
192:00	-38.2
204:00	-36

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
1	UPLD RTL: 45MOC	084:00:00:00 0:13:13:40	LVLH		0.00	0.00	0.00
2	OMS-2 BURN ATT	084:13:53:40 0:00:40:00	IH	MIR601	25.00	122.00	348.00
3	PLBD OPEN ATT	084:14:40:40 0:01:27:00	LVLH		0.00	180.00	90.00
4	IMU ALIGN	084:15:33:00 0:02:19:20	IH	MIR601	329.00	105.00	46.00
5	+X COAS CAL	084:15:39:40 0:02:26:00	IH	MIR601	335.63	94.34	37.12
6	L OMS BURN	084:16:02:10 0:02:48:30	IH	MIR601	102.00	315.00	357.00
7	WATER DUMP	084:16:13:40 0:03:00:00	LVLH		90.00	100.00	20.00
8	-YLV +ZVV	084:17:34:19 0:04:20:39	LVLH		0.00	90.00	270.00
9	-ZLV +XVV	084:19:07:40 0:05:54:00	LVLH		180.00	0.00	0.00
10	FAUST STARE	084:20:02:56 0:06:49:16	IH	MIR601	353.20	186.00	0.00
11	-ZLV +XVV	084:20:24:47 0:07:11:07	LVLH		100.00	0.00	0.00
12	FAUST STARE	084:21:33:44 0:08:20:04	IH	MIR601	324.90	333.80	1.40
13	-ZLV +XVV	084:22:14:40 0:09:01:00	LVLH		180.00	0.00	0.00
14	IMU ALIGN	084:23:04:11 0:09:50:31	IH	MIR601	329.00	105.00	46.00
15	-ZLV -XVV	084:23:43:40 0:10:30:00	LVLH		0.00	100.00	0.00
16	BIAS -ZLV -XVV	085:01:19:10 0:12:05:30	LVLH		0.00	100.00	30.00
17	-ZLV -XVV	085:01:44:10 0:12:30:30	LVLH		0.00	180.00	0.00
18	-ZLV +XVV	085:02:41:40 0:13:20:00	LVLH		180.00	0.00	0.00
19	+ZLV -XVV	085:03:26:40 0:14:13:00	LVLH		100.00	100.00	0.00
20	FAUST STARE	085:00:07:30 0:18:53:50	IH	MIR601	64.20	302.90	0.00
21	IS814	085:00:25:12 0:19:11:32	LVLH		180.00	284.20	0.00
22	-ZLV -XVV	085:09:30:40 0:20:17:00	LVLH		0.00	180.00	0.00
23	-ZLV +XVV	085:11:57:40 0:22:44:00	LVLH		180.00	0.00	0.00



TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
24	AEP1	085:12:39:40 0:23:26:00	LVLH		98.40	1.00	34.20
25	-ZSI	085:12:59:40 0:23:46:00	IH	MIR601	167.90	99.60	69.70
26	SOL CON-MOTU ATT 1	085:13:17:40 1:00:04:00	IH	MIR601			
27	SOL CON-MOTU ATT 2	085:13:30:40 1:00:17:00	IH	MIR601			
28	SOL CON-MOTU ATT 3	085:13:32:40 1:00:19:00	IH	MIR601	171.90	99.60	69.70
29	SOL CON-MOTU ATT 4	085:13:42:40 1:00:29:00	IH	MIR601	163.90	99.60	69.70
30	-Z ATLAS	085:13:49:40 1:00:36:00	IH	MIR601	167.90	99.60	69.70
31	AEP 1	085:14:05:15 1:00:51:35	LVLH		57.14	90.25	11.69
32	AEPSLIM	085:14:19:49 1:01:06:09	LVLH		90.00	90.00	20.00
33	-ZSI	085:14:37:47 1:01:24:07	IH	MIR601	171.60	95.50	59.90
34	AEP 1	085:15:35:46 1:02:22:06	LVLH		59.04	81.20	17.29
35	AEPSLIM	085:15:50:20 1:02:36:40	LVLH		90.00	90.00	20.00
36	-ZSI	085:16:18:16 1:02:56:36	IH	MIR601	171.40	95.60	59.90
37	AEP 1	085:17:06:43 1:03:53:03	LVLH		58.79	81.70	17.07
38	AEPSLIM	085:17:21:02 1:04:07:22	LVLH		90.00	90.00	20.00
39	-ZSI	085:17:43:09 1:04:29:29	IH	MIR601	169.70	97.40	64.00
40	AEP 1	085:18:37:11 1:05:23:31	LVLH		57.59	86.50	14.11
41	IMU ALIGN 02	085:18:53:22 1:05:39:42	IH	MIR601	143.00	119.00	334.00
42	-ZSI	085:19:10:27 1:05:56:47	IH	MIR601	169.60	97.50	64.00
43	AEP 1	085:20:00:47 1:06:55:07	LVLH		57.04	89.35	12.28
44	AEPSLIM	085:20:23:00 1:07:09:20	LVLH		90.00	90.00	20.00
45	-ZSI	085:20:45:20 1:07:31:40	IH	MIR601	171.10	96.20	62.00
46	AEP 1	085:21:38:58 1:08:25:18	LVLH		58.40	82.96	16.31

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
47	AEPSLIM	085:21:53:32	LVLH		90.00	90.00	20.00
		1:08:39:52					
48	-Z ATLAS SUNTAN	085:22:14:58	IH	MIR601	171.10	96.00	61.90
		1:09:01:18					
49	AEP 1	085:23:09:49	LVLH		58.26	83.43	16.06
		1:09:56:09					
50	AEPSLIM	085:23:24:05	LVLH		90.00	90.00	20.00
		1:10:10:25					
51	-ZSI SUSIM	085:23:43:40	IH	MIR601	170.90	95.90	59.90
		1:10:30:00					
52	AEP 1	086:00:39:59	LVLH		58.00	83.90	15.70
		1:11:26:19					
53	+ZLV -XVV	086:01:05:04	LVLH		180.00	180.00	0.00
		1:11:51:24					
54	ISO	086:03:44:07	LVLH		151.60	180.00	0.00
		1:14:30:27					
55	-ZLV +XVV	086:04:21:09	LVLH		180.00	0.00	0.00
		1:15:07:29					
56	-ZLV -XVV	086:05:44:40	LVLH		0.00	180.00	0.00
		1:16:31:00					
57	ISO13A B ROT	086:07:11:40	LVLH		0.00	90.00	90.00
		1:17:58:00					
58	13A END ATT	086:07:49:40	LVLH		0.00	186.30	90.00
		1:18:36:00					
59	-Z STAR	086:08:02:40	IH	MIR601	32.00	66.00	21.00
		1:18:49:00					
60	ISO13A B ROT	086:08:42:29	LVLH		0.00	90.00	90.00
		1:19:28:49					
61	13A END ATT	086:09:22:40	LVLH		0.00	186.30	90.00
		1:20:09:00					
62	MSFC COM ATT	086:09:35:40	IH	MIR601	130.00	0.00	60.00
		1:20:22:00					
63	-ZLV -XVV	086:10:03:10	LVLH		0.00	180.00	0.00
		1:20:49:30					
64	SEP C SCAN	086:12:49:57	LVLH		170.47	269.74	277.00
		1:23:35:57					
65	SCAN MNVR	086:12:57:34	LVLH		180.21	269.79	277.09
		1:23:43:54					
66	-ZLV -XVV	086:13:09:07	LVLH		0.00	180.00	0.00
		1:23:55:27					
67	AEPSB	086:14:20:50	LVLH		50.00	100.00	0.00
		2:01:07:10					
68	-ZLV -XVV	086:14:37:50	LVLH		0.00	180.00	0.00
		2:01:24:10					
69	INTERMEDIATE ATT	086:23:58:40	LVLH		0.00	180.00	64.00
		2:10:45:00					

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
70	-ZLV +XVV	087:00:10:40 2:10:57:00	LVLH		180.00	0.00	0.00
71	INTERMEDIATE ATT	087:01:01:40 2:11:48:00	LVLH		180.00	0.00	36.00
72	SEPS	087:01:13:40 2:12:00:00	LVLH		0.00	210.00	0.00
73	BIAS -YLV -ZVV	087:01:26:34 2:12:12:54	LVLH		0.00	270.00	60.00
74	-ZLV +XVV	087:03:03:13 2:13:49:33	LVLH		180.00	0.00	0.00
75	FAUST SCAN	087:03:57:15 2:14:43:35	IH	MIR601	319.30	89.10	48.40
76	SCAN MNVR	087:04:16:47 2:15:03:07	IH	MIR601	345.00	81.50	51.00
77	-ZLV +XVV	087:04:30:20 2:15:16:40	LVLH		180.00	0.00	0.00
78	FAUST SCAN	087:05:27:18 2:16:13:30	IH	MIR601	210.10	220.10	30.20
79	SCAN MNVR	087:05:46:48 2:16:33:00	IH	MIR601	191.90	242.50	37.40
80	-ZLV +XVV	087:06:00:19 2:16:46:39	LVLH		180.00	0.00	0.00
81	FAUST STARE	087:06:54:39 2:17:40:59	IH	MIR601	280.70	263.20	70.40
82	-ZLV +XVV	087:07:29:00 2:18:15:20	LVLH		180.00	0.00	0.00
83	FAUST STARE	087:08:29:41 2:19:16:01	IH				
84	ISO ROT	087:08:50:56 2:19:37:16	LVLH		0.00	90.00	90.00
85	ISO END ATT	087:09:30:40 2:20:17:00	LVLH				
86	ISO INIT ATT	087:09:32:40 2:20:19:00	LVLH		0.00	90.00	90.00
87	ISO END	087:09:50:40 2:20:37:00	LVLH				
88	WATER DUMP	087:10:01:51 2:20:40:11	LVLH		85.11	105.79	8.67
89	FAUST STARE	087:11:35:42 2:22:22:02	IH	MIR601	81.60	337.80	31.10
90	ISO14	087:11:51:40 2:22:38:00	LVLH		224.30	279.90	9.80
91	-ZLV -XVV	087:12:49:40 2:23:36:00	LVLH		0.00	180.00	0.00
92	AEP58	087:14:27:50 3:01:14:10	LVLH		50.00	180.00	0.00

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
93	-ZLV -XVV	087:14:44:50 3:01:31:10	LVLH		0.00	180.00	0.00
94	SPECIAL	087:19:00:40 3:05:55:00	IH	MIR601	200.90	250.30	61.50
95	-ZLV -XVV	087:19:25:40 3:06:12:00	LVLH		0.00	180.00	180.00
96	SEP C SCAN	087:23:29:06 3:10:15:26	LVLH		156.00	270.00	302.20
97	SCAN MNVR	087:23:37:38 3:10:23:58	LVLH		168.10	270.00	298.10
98	-ZLV -XVV	087:23:49:33 3:10:35:53	LVLH		0.00	180.00	0.00
99	+ZLV -XVV	088:00:19:40 3:11:06:00	LVLH		180.00	180.00	0.00
100	SRP6	088:01:13:40 3:12:00:00	LVLH		0.00	150.00	0.00
101	-YLV -ZVV	088:01:30:13 3:12:16:33	LVLH		0.00	270.00	40.00
102	-ZLV +XVV	088:03:13:28 3:13:59:40	LVLH		180.00	0.00	0.00
103	FAUST STARE	088:04:05:24 3:14:51:44	IH	MIR601	358.60	109.20	69.80
104	-ZLV +XVV	088:04:37:26 3:15:23:46	LVLH		180.00	0.00	0.00
105	FAUST STARE	088:05:36:19 3:16:22:39	IH	MIR601	214.40	325.60	286.60
106	-ZLV +XVV	088:06:03:07 3:16:49:27	LVLH		100.00	0.00	0.00
107	FAUST STARE	088:07:03:07 3:17:49:27	IH	MIR601	170.90	170.90	30.60
108	FAUST STARE II	088:07:12:40 3:17:59:00	IH	MIR601	176.00	163.90	20.40
109	ISO13A B ROT	088:07:29:01 3:18:15:21	LVLH		0.00	90.00	90.00
110	ISO 13A END ATT	088:08:07:40 3:18:54:00	LVLH		0.00	186.30	90.00
111	ISO 13B INIT ATT	088:08:13:40 3:19:00:00	LVLH		0.00	90.00	90.00
112	ISO 13B END ATT	088:08:31:10 3:19:17:30	LVLH		0.00	253.20	90.00
113	FAUST STARE	088:08:45:15 3:19:31:35	IH	MIR601	200.60	260.40	70.00
114	ISO14	088:09:06:04 3:19:52:24	LVLH		224.00	281.00	10.00
115	+XLV +ZVV	088:10:03:40 3:20:50:00	LVLH		180.00	270.00	0.00

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
116	-ZLV -XVV	088:10:25:40 3:21:12:00	LVLH		0.00	180.00	0.00
117	AEPSB	088:14:34:50 4:01:21:10	LVLH		50.00	180.00	0.00
118	-ZLV -XVV	088:14:51:50 4:01:30:10	LVLH		0.00	180.00	0.00
119	SPECIAL	088:19:17:02 4:06:03:22	IH	MIR601	66.00	92.00	5.00
120	-ZLV -XVV	088:19:31:56 4:06:18:16	LVLH		0.00	180.00	0.00
121	SEP C SCAN	088:23:36:23 4:10:22:43	LVLH		160.10	270.00	303.00
122	SCAN MNVR	088:23:44:57 4:10:31:17	LVLH		172.17	270.00	298.93
123	-ZLV -XVV	088:23:56:44 4:10:43:04	LVLH		0.00	180.00	0.00
124	-ZSI	089:01:39:57 4:12:26:17	IH	MIR601	172.60	86.00	0.40
125	AEP 1	089:02:34:15 4:13:20:35	LVLH		70.00	45.90	36.30
126	-ZSI	089:03:10:30 4:13:56:50	IH	MIR601	172.60	86.80	0.50
127	AEP 1	089:04:04:43 4:14:51:03	LVLH		70.50	46.40	36.30
128	FAUST STARE	089:04:27:54 4:15:14:14	IH	MIR601	273.00	107.70	22.10
129	-ZSI	089:04:41:38 4:15:27:58	IH	MIR601	172.50	86.00	0.50
130	FAUST STARE	089:05:42:00 4:16:20:20	IH	MIR601	209.40	165.30	11.10
131	-ZSI	089:06:12:07 4:16:58:27	IH	MIR601	172.50	86.00	0.50
132	AEP 1	089:07:05:42 4:17:52:02	LVLH		69.00	47.28	36.33
133	ISO13A B ROT	089:07:22:18 4:18:08:38	LVLH		0.00	90.00	90.00
134	ISO 13A SCAN	089:08:14:37 4:19:00:57	LVLH		0.00	186.30	90.00
135	ISO INIT ATT	089:08:16:18 4:19:02:30	LVLH		0.00	90.00	90.00
136	ISO 13B SCAN	089:08:35:38 4:19:21:58	LVLH		0.00	186.30	90.00
137	FAUST STARE	089:00:49:48 4:19:36:00	IH	MIR601	264.30	154.30	69.60
138	ISO14	089:09:07:48 4:19:54:06	LVLH		224.30	279.12	8.87

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
139	BIAS -ZLV -XVV	089:10:03:42 4:20:50:02	LVLH		0.00	180.00	1.00
140	-ZLV -YVV	089:11:48:15 4:22:34:35	LVLH		0.00	180.00	270.00
141	BIAS -ZLV -XVV	089:12:10:15 4:22:56:35	LVLH		0.00	180.00	1.00
142	SMK EX-MIR- FAUST	089:13:13:15 4:23:59:35	IH	MIR601	100.00	251.40	30.50
143	BIAS -ZLV -XVV	089:13:40:06 5:00:26:26	LVLH		0.00	180.00	1.00
144	AEP5B	089:14:40:50 5:01:27:10	LVLH		50.00	180.00	0.00
145	BIAS -ZLV -XLV	089:14:57:50 5:01:44:10	LVLH		0.00	180.00	2.00
146	IMU ALM-FAUST	089:19:28:22 5:06:14:42	IH	MIR601	129.10	162.90	22.40
147	BIAS -ZLV -XVV	089:19:42:22 5:06:28:42	LVLH		0.00	180.00	2.00
148	SEP5	090:01:19:18 5:12:05:30	LVLH		0.00	210.00	0.00
149	BIAS -YLV -ZVV	090:01:30:49 5:12:17:09	LVLH		0.00	270.00	45.00
150	FAUST STARE	090:03:04:49 5:13:51:09	IH	MIR601	23.00	7.90	328.90
151	FAUST STARE	090:03:10:53 5:13:57:13	IH	MIR601	23.70	8.89	331.50
152	-ZLV +XVV	090:03:24:31 5:14:10:51	LVLH		180.00	0.00	0.00
153	FAUST SCAN- STRT	090:04:13:23 5:14:59:43	IH	MIR601	34.40	59.90	29.40
154	FAUST SCAN- END	090:04:37:47 5:15:24:07	IH	MIR601	9.90	64.60	31.00
155	WATER DUMP	090:04:44:27 5:15:30:47	LVLH		240.00	250.00	345.00
156	-ZLV +XVV	090:06:24:20 5:17:10:40	LVLH		180.00	0.00	0.00
157	FAUST STARE	090:07:20:18 5:18:06:30	IH	MIR601	337.90	180.70	385.28
158	ISO13A B ROT	090:07:44:27 5:18:30:47	LVLH		0.00	90.00	90.00
159	ISO 13A END ATT	090:08:22:40 5:19:09:08	LVLH		0.00	186.30	90.00
160	ISO 13B INIT ATT	090:08:24:10 5:19:09:30	LVLH		0.00	90.00	90.00
161	ISO 13B END ATT	090:08:44:10 5:19:30:30	LVLH		0.00	186.80	90.00

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
162	SEP10A	090:08:53:10 5:19:39:30	LVLH		147.00	270.00	90.00
163	IS014	090:09:21:16 5:20:07:36	LVLH		224.09	200.50	10.30
164	FAUST SCAN	090:10:24:22 5:21:10:42	IH	MIR601	134.90	294.30	46.00
165	-ZLV +XVV	090:10:47:51 5:21:34:17	LVLH		180.00	0.00	0.00
166	FAUST STARE	090:11:49:05 5:22:35:25	IH	MIR601	280.70	120.00	5.10
167	-ZLV -XVV	090:12:18:32 5:23:04:52	LVLH		0.00	180.00	0.00
168	AEP5B	090:14:46:50 6:01:33:10	LVLH		50.00	180.00	0.00
169	-ZLV -XVV	090:15:03:50 6:01:50:10	LVLH		0.00	180.00	0.00
170	SEP6	091:01:26:10 6:12:12:30	LVLH		0.00	150.00	0.00
171	-ZLV +XVV	091:01:46:40 6:12:33:00	LVLH		180.00	0.00	0.00
172	IS013A B ROT	091:07:52:26 6:18:38:46	LVLH		0.00	90.00	90.00
173	ISO 13A END ATT	091:08:29:40 6:19:16:00	LVLH		0.00	186.30	90.00
174	ISO 13B INIT ATT	091:08:31:18 6:19:17:30	LVLH		0.00	90.00	90.00
175	ISO 13B END ATT	091:08:51:10 6:19:37:30	LVLH		0.00	186.80	90.00
176	SEP10A	091:08:59:33 6:19:45:53	LVLH		147.00	270.00	0.00
177	IS014	091:09:26:15 6:20:12:35	LVLH		224.10	280.10	9.90
178	-ZLV -YVV SEPAC	091:10:23:44 6:21:18:04	LVLH		0.00	180.00	270.00
179	IS014	091:10:45:48 6:21:32:00	LVLH		224.40	278.10	0.00
180	+XLV +ZVV	091:12:03:48 6:22:50:08	LVLH		180.00	270.00	0.00
181	-ZSI	091:12:26:40 6:23:13:08	LVLH				
182	BIAS -XLV BAY SO	091:13:23:40 7:00:10:00	LVLH				
183	-ZSI	091:13:51:40 7:00:38:08	LVLH				
184							

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
185	-ZSI	091:15:06:40 7:01:53:00	LVLH				
186	BIAS -XLV BAY SO	091:16:22:40 7:03:09:00	LVLV				
187	-ZSI	091:16:56:40 7:03:43:00	IH	MIR601			
188	BIAS -XLV BS	091:17:51:40 7:04:38:00	LVLH				
189	-ZSI	091:18:13:40 7:05:00:00	LVLH				
190	BIAS YLV BS	091:19:21:40 7:06:08:00	LVLH		110.00	0.00	0.00
191	-ZSI	091:19:55:48 7:06:42:00	IH	MIR601	160.00	103.00	59.00
192	BIAS -XLV BS	091:20:53:40 7:07:40:00	LVLH		41.00	114.00	354.00
193	-ZSI	091:21:26:40 7:08:13:00	IH	MIR601	165.00	98.00	50.00
194	-ZLV -XVV	091:22:31:40 7:09:18:00	LVLH		0.00	180.00	0.00
195	-ZSI	091:22:58:40 7:09:45:00	IH	MIR601			
196	-ZLV +XVV	092:00:04:36 7:10:30:52	LVLH		180.00	0.00	0.00
197	INTERMEDIATE	092:00:36:10 7:11:22:30	LVLH		180.00	270.00	0.00
198	+ZLV -XVV	092:00:43:40 7:11:30:00	LVLH		180.00	180.00	0.00
199	-YLV -XVV	092:02:03:40 7:12:50:00	LVLH		000	96.00	270.00
200	ISOMESO	092:03:43:13 7:14:29:33	IH		228.50	10.80	356.40
201	AEP 7	092:04:55:34 7:15:41:54	LVLH		180.00	284.40	0.00
202	ISO14	092:05:12:25 7:15:58:45	LVLH		224.00	280.30	10.16
203	-ZLV -XVV	092:06:30:14 7:17:16:34	LVLH		0.00	180.00	0.00
204	BIASED -ZLV -XVV	092:10:34:55 7:21:21:15	LVLH		75.00	180.00	0.00
205	-ZLV -XVV	092:10:58:55 7:21:45:15	LVLH		0.00	180.00	0.00
206	BIASED -ZLV -XVV	092:12:04:55 7:22:51:15	LVLH		75.00	180.00	0.00
207	-ZLV -XVV	092:12:29:55 7:23:16:15	LVLH		0.00	180.00	0.00

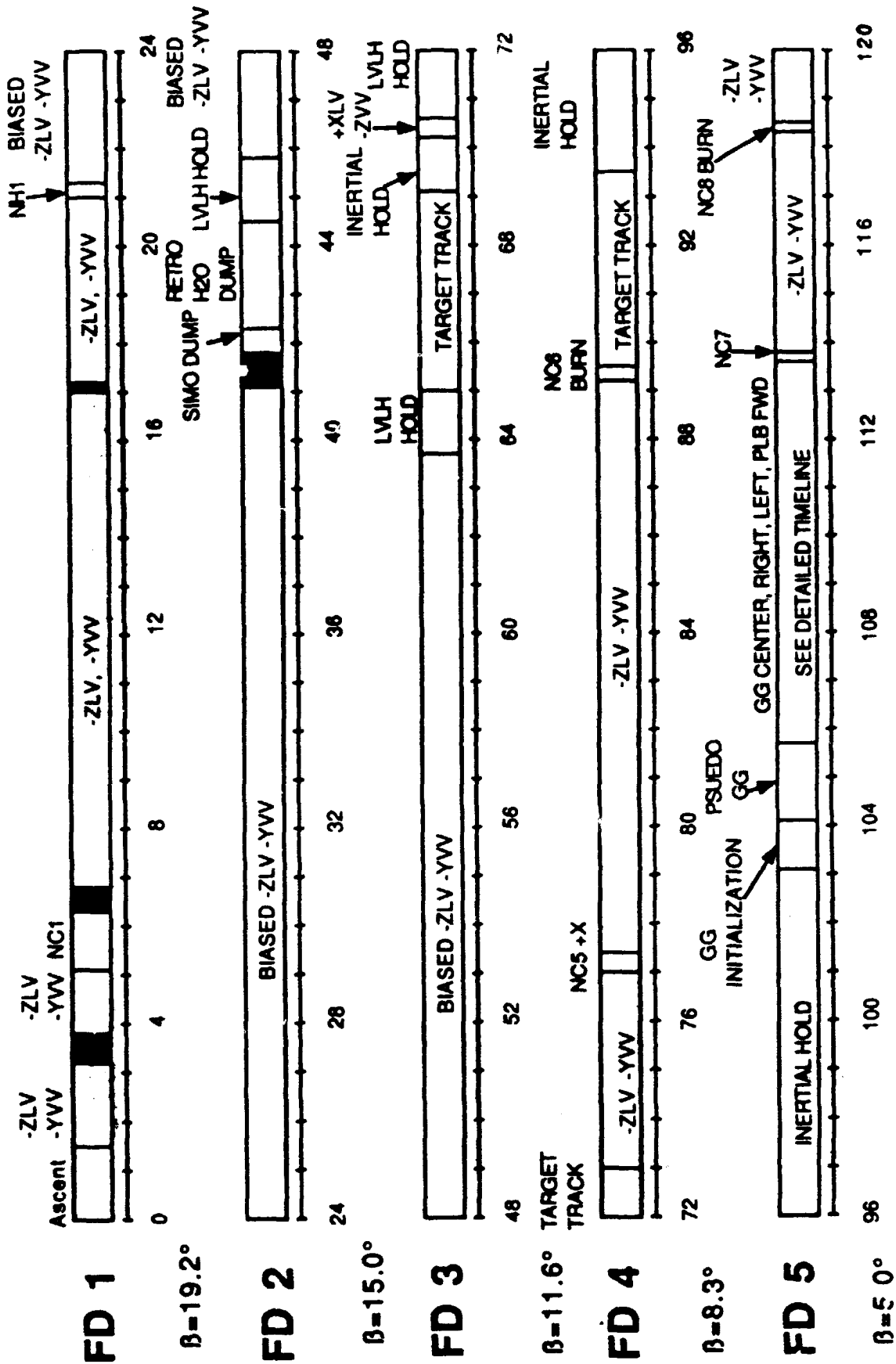


TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Concluded)

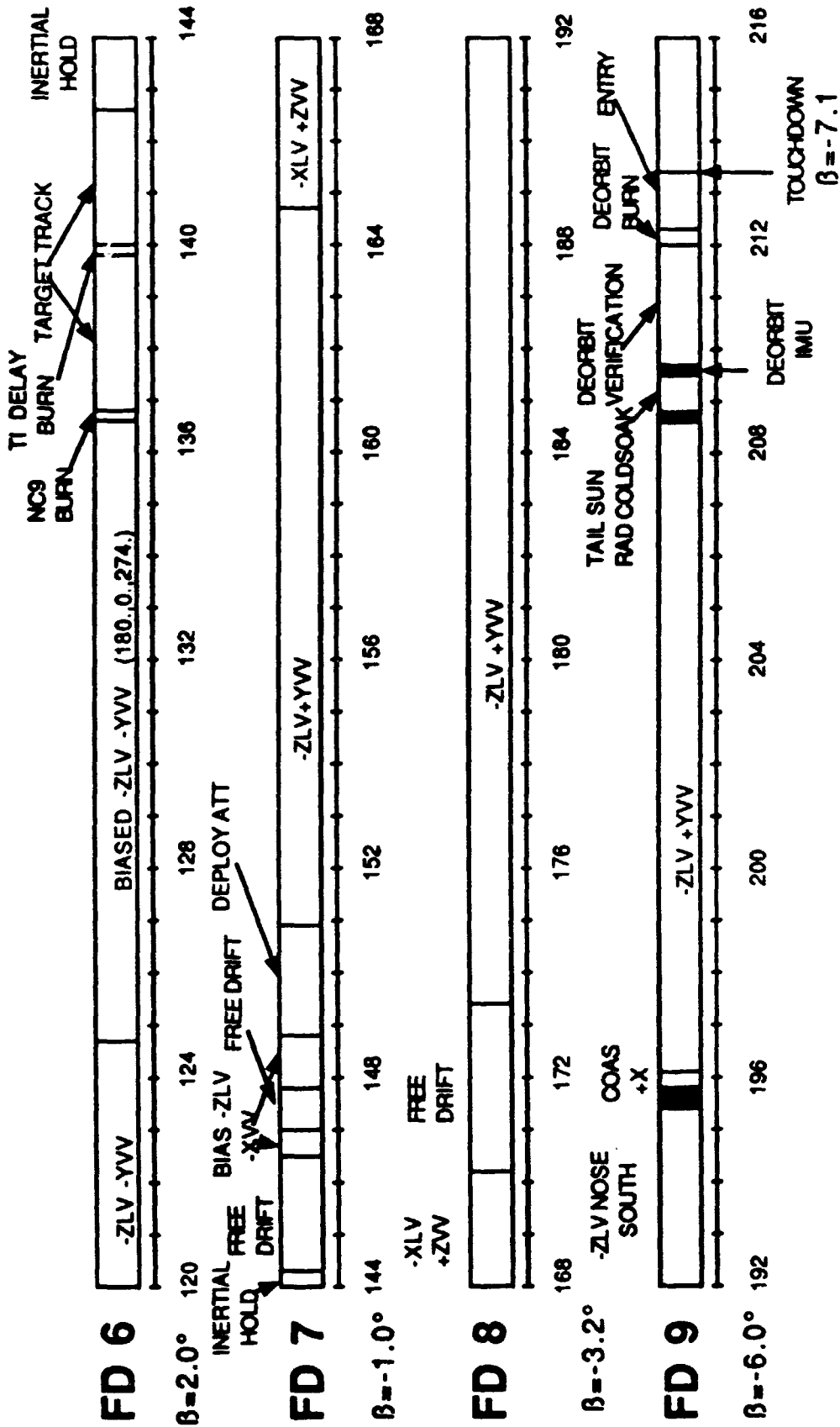
No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
208	INTERMEDIATE	092:15:07:10 8:01:53:38	LVLH		0.00	180.00	0.00
209	-ZLV +XVV	092:15:14:40 8:02:01:00	LVLH		180.00	0.00	0.00
210	H2O DUMP	092:16:37:16 8:03:23:36	LVLH		90.00	90.00	74.00
211	IMU ALIGN	092:18:15:30 8:05:01:58	IH	MIR601	282.00	119.00	320.00
212	-ZSI	092:18:33:03 8:05:19:23	IH	MIR601	149.92	113.56	68.22
213	AEPSLIM	092:19:25:51 8:06:12:11	LVLH		90.00	90.00	20.00
214	-ZSI	092:19:49:46 8:06:36:06	IH	MIR601	169.23	85.44	1.00
215	ISO100	092:20:58:50 8:07:45:10	LVLH		48.52	73.68	36.72
216	-ZSI	092:21:33:08 8:08:19:28	IH	MIR601	169.17	85.42	8.92
217	ISO100	092:22:29:17 8:09:15:37	LVLH		48.14	73.93	36.72
218	+YLV -XVV	092:23:06:20 8:09:52:40	LVLH				
219	BIAS -ZLV +YVV	093:00:10:12 8:10:56:32	LVLH		0.00	100.00	55.00
220	+ZSI FOR PTC	093:03:13:40 8:14:00:00	IH	MIR601	191.07	265.42	358.49
221	INITIATE PTC	093:03:13:50 8:14:00:10	ROTR	MIR601	191.07	265.42	358.49
222	-XSI TAIL SUN	093:06:18:37 8:17:04:57	IH	MIR601	41.20	172.00	346.20
223	D O IMU ALIGN	093:07:34:48 8:18:21:00	IH	MIR601	53.00	42.00	41.00
224	D O VERIF ALIGN	093:07:43:18 8:18:29:38	IH	MIR601	289.00	184.00	55.00
225	D O BURN ATT- KSC	093:07:53:40 8:18:40:00	IH	MIR601	261.20	260.10	27.60
226	MM 303 ENTRY	093:10:26:37 8:21:12:57	IH	CUR101	154.34	187.94	301.16
227	MM 304 ENTRY	093:10:46:51 8:21:33:11	LVLH		1.28	38.79	358.41

TABLE 3-XII.- STS-49 AS-FLOWN ATTITUDE TIMELINE

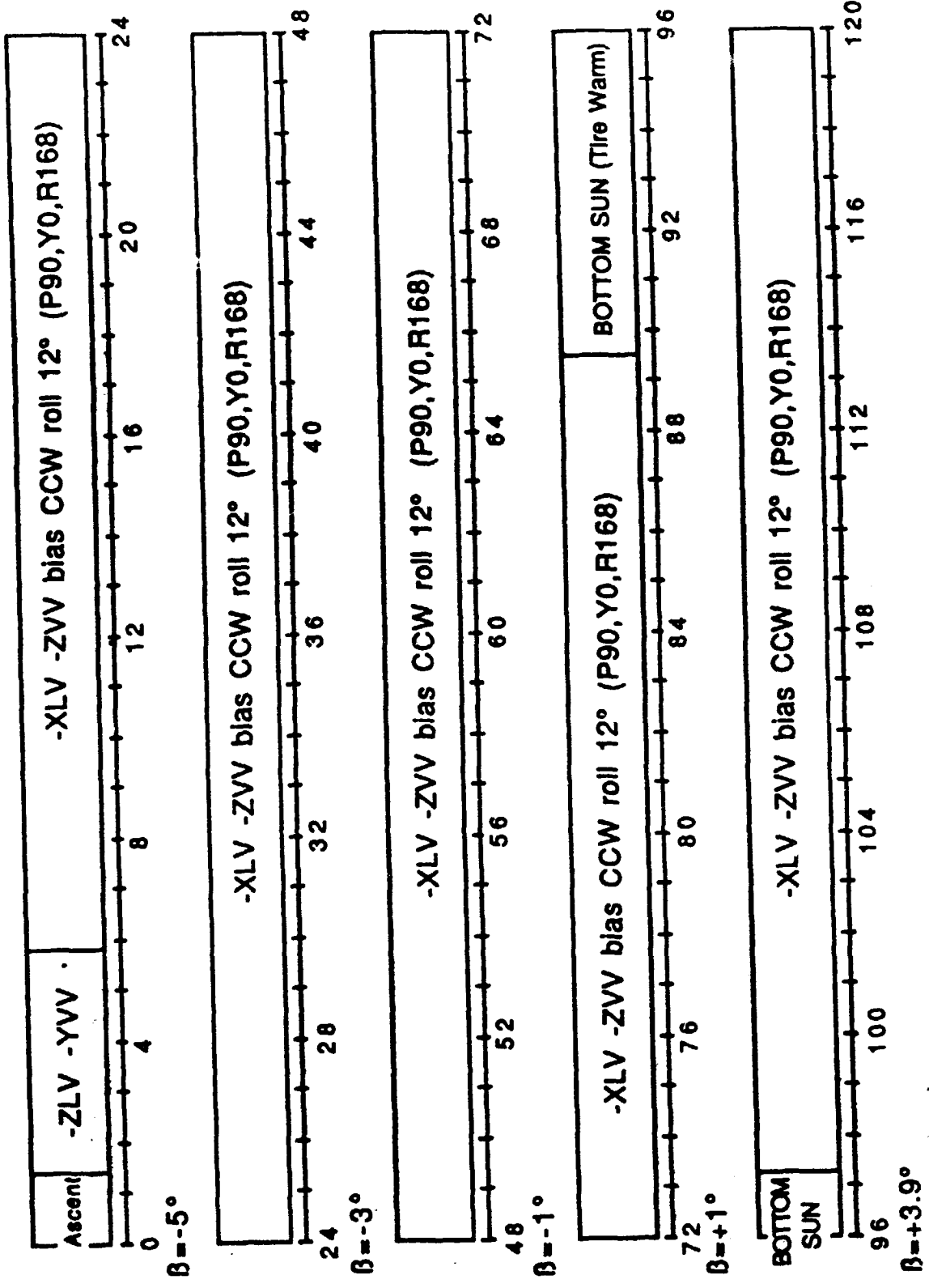
Mission elapsed time days:hr:min	Duration hr:min	Attitude/Event
6:00:05 - 6:00:19	0:14	Inertial Hold (279.,265.,20.)
6:00:19 - 6:01:25	1:06	Free Drift (Various IH)
6:01:25 - 6:02:28	1:03	Free Drift (Various LVLH)
6:02:28 - 6:03:00	0:32	Bias -ZLV -XVV (4.,175.,0.)
6:03:00 - 6:03:48	0:48	Free Drift (Various LVLH)
6:03:48 - 6:04:45	0:57	Bias -ZLV -XVV (5., 175.,0.)
6:04:45 - 6:05:55	1:10	Intelsat Deploy Att. (IH 263.,125.,345.)
6:05:55 - 6:06:20	0:25	SEP 2 (IH 335.,193.,341.)
6:06:20 - 6:06:49	0:29	Viewing Att. (Various LVLH)
6:06:49 - 6:20:45	13:56	-ZLV +YVV (180.,0.,90.)
6:20:45 - 7:02:04	5:19	-XLV +ZVV (0.90.,0.)
7:02:04 - 7:02:09	0:05	Free Drift (LVLH 340.,90.,358.)
7:02:09 - 7:02:15	0:06	-XLV +ZVV (0.,90.,0.)
7:02:15 - 7:04:20	2:05	Free Drift (Various LVLH)
7:04:20 - 7:05:19	0:59	Free Drift (LVLH 228.,102.,353.)
7:05:19 - 8:03:32	19:13	-ZLV, +YVV (180.,0.,90.)
8:03:32 - 8:03:44	0:12	IMU Align A1 (IH 349.,23.,338.)
8:03:44 - 8:04:06	0:22	COAS +X (IH 319.,341.,298.)
8:04:06 - 8:15:36	9:30	-ZLV +YVV (180.,90.,0.)
8:15:36 - 8:15:53	0:17	IMU Align A1 (IH 349.,23., 338.)
8:15:53 - 8:17:26	1:33	Tail Sun Rad Coldsoak IH 320.,145.,313.)
8:17:26 - 8:17:38	0:18	Deorbit IMU (IH 238.,78., 309.)
8:17:38 - 8:20:00	2:22	Deorbit Verif (IH 132.,348., 339.)
8:20:00 - 8:20:20	0:20	Deorbit Burn (IH 54.6,197.3, 36.5)
8:20:20 - 8:20:42	0:22	MM 303 Entry (IH 302.,340., 22.7)
8:20:42 - 8:21:17	0:35	MM 304 Entry (IH 1.,38.5,359.)



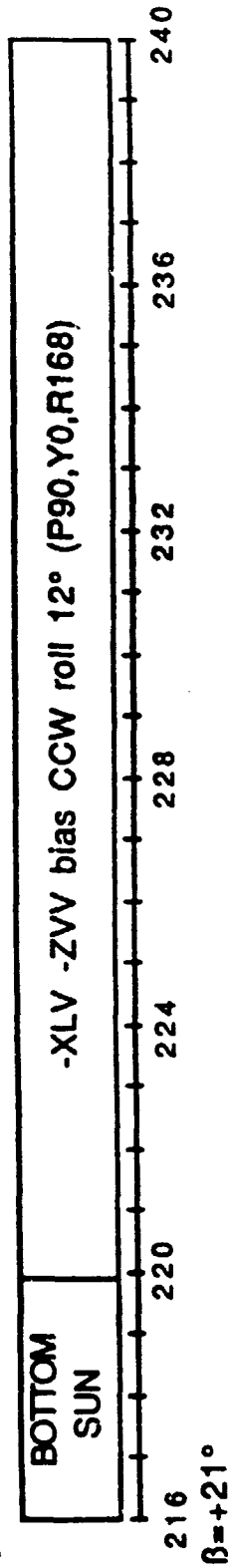
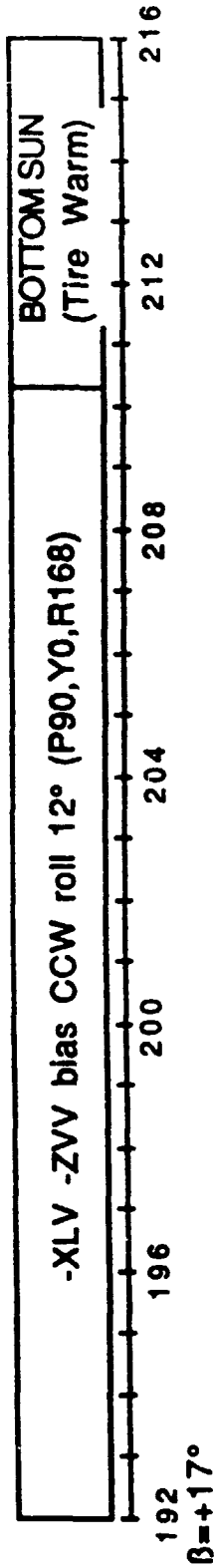
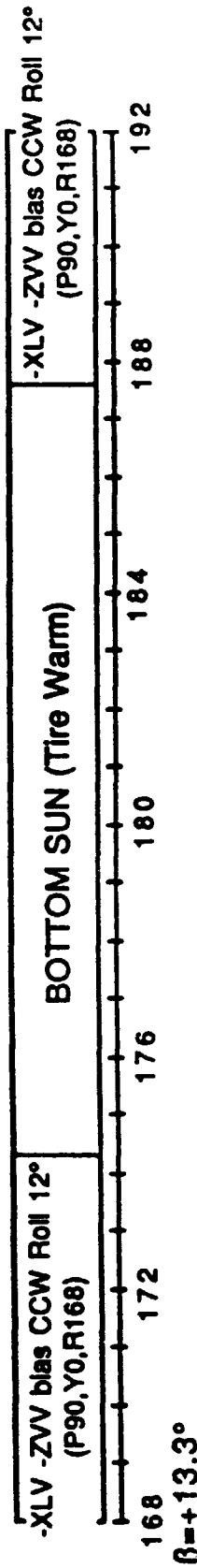
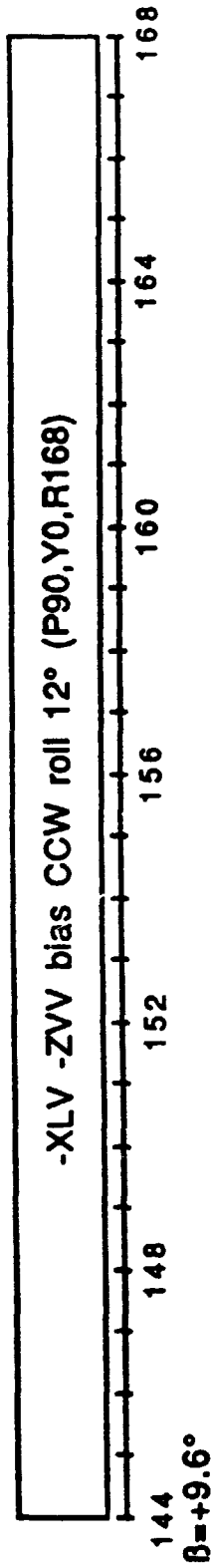
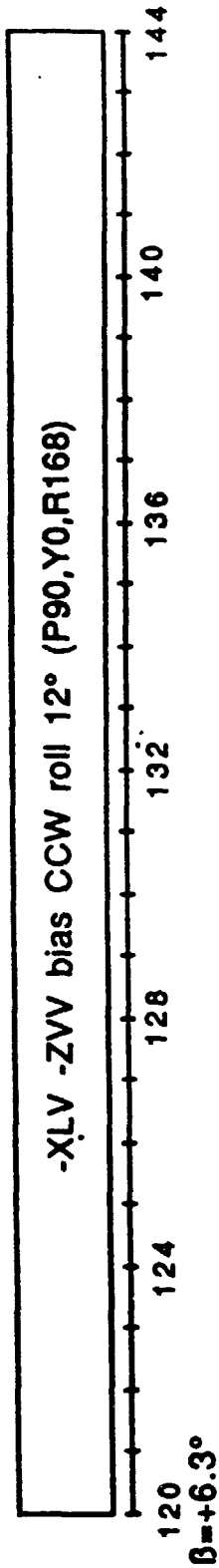
# STS-49 As-Flown Attitude Timeline



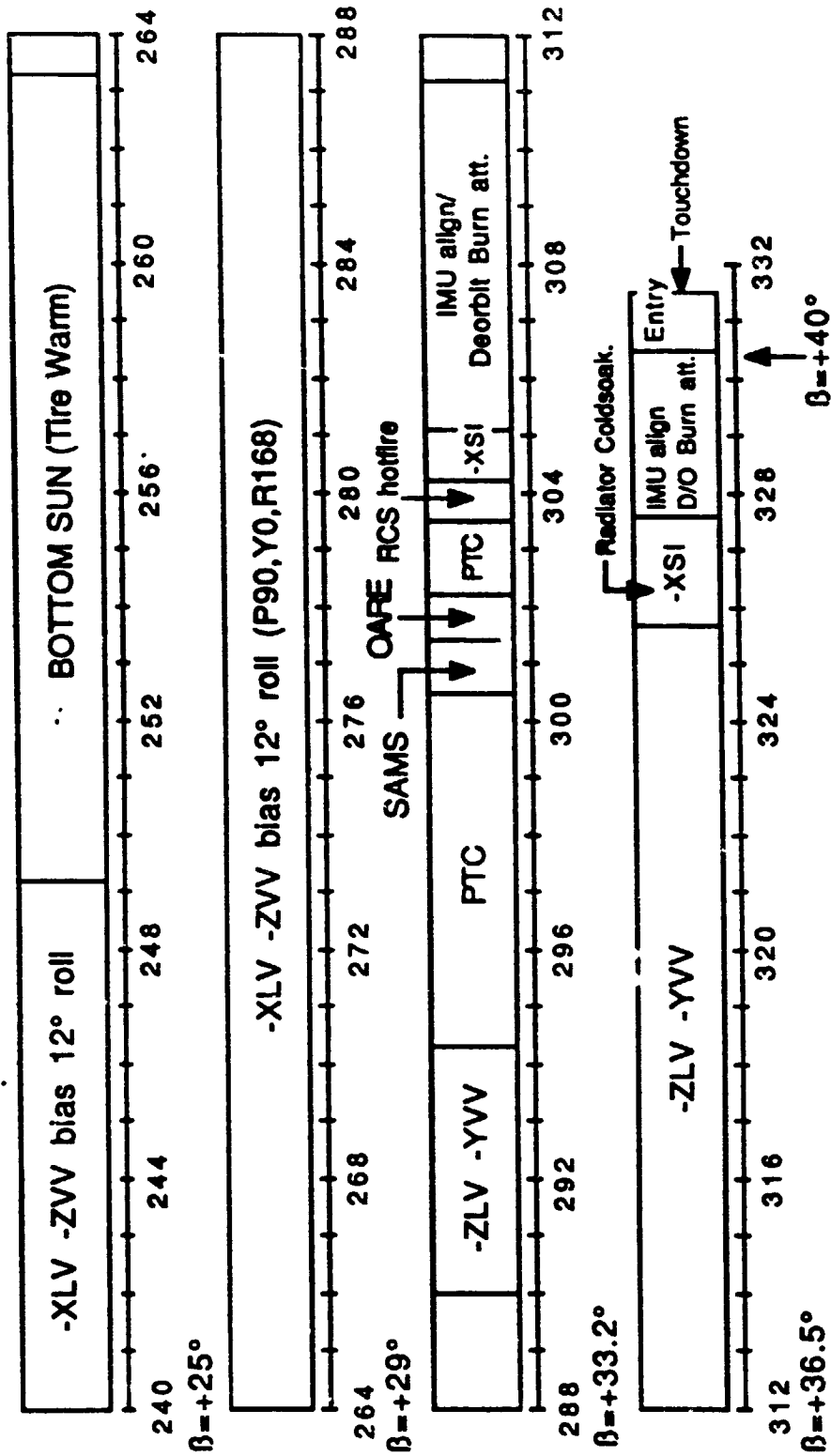
**STS-49 As-Flown Attitude Timeline (CONTINUED)**



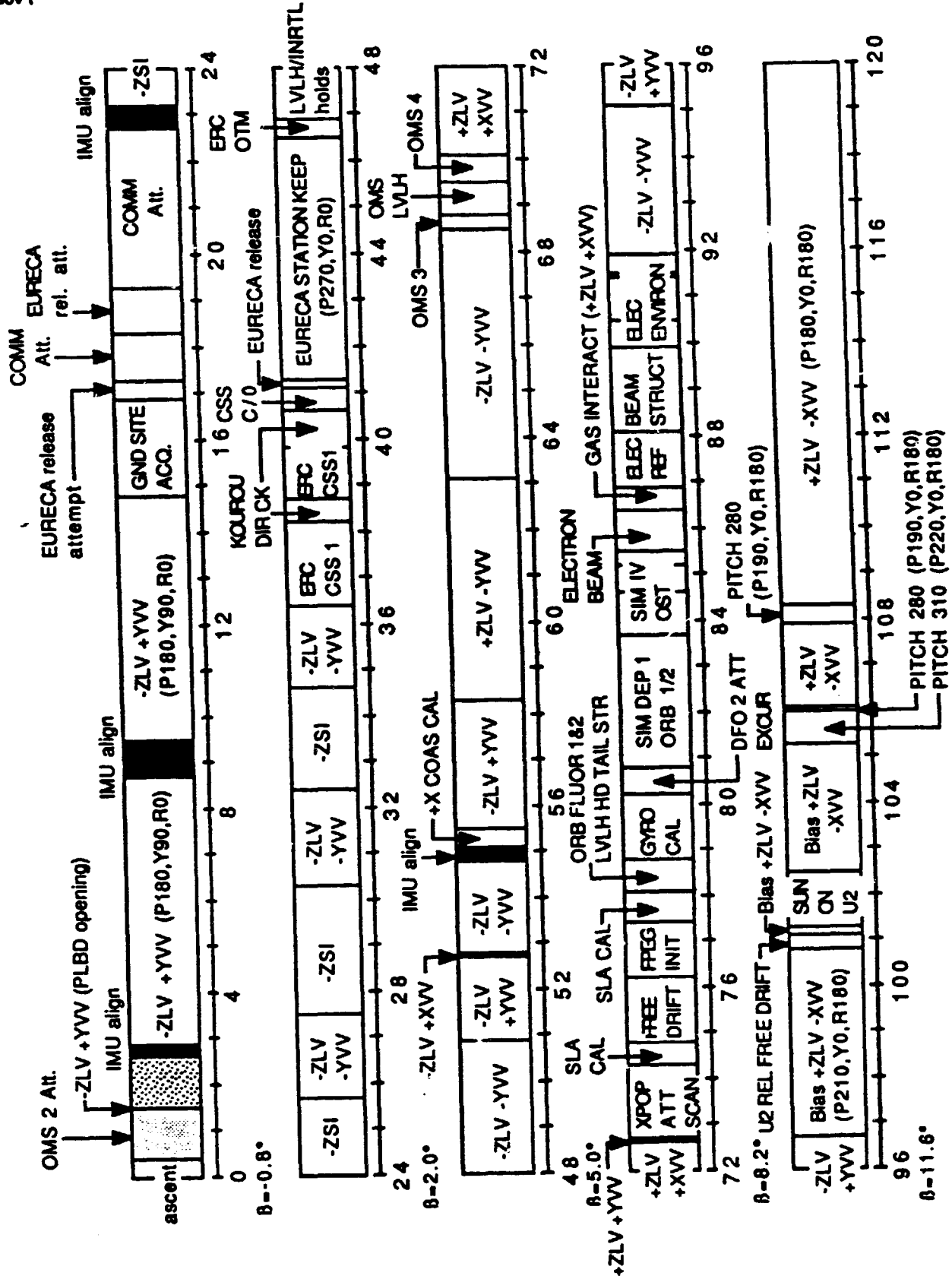
# STS-50 AS-FLOWN ATTITUDE TIMELINE



**STS-50 AS-FLOWN ATTITUDE TIMELINE (CONT.)**

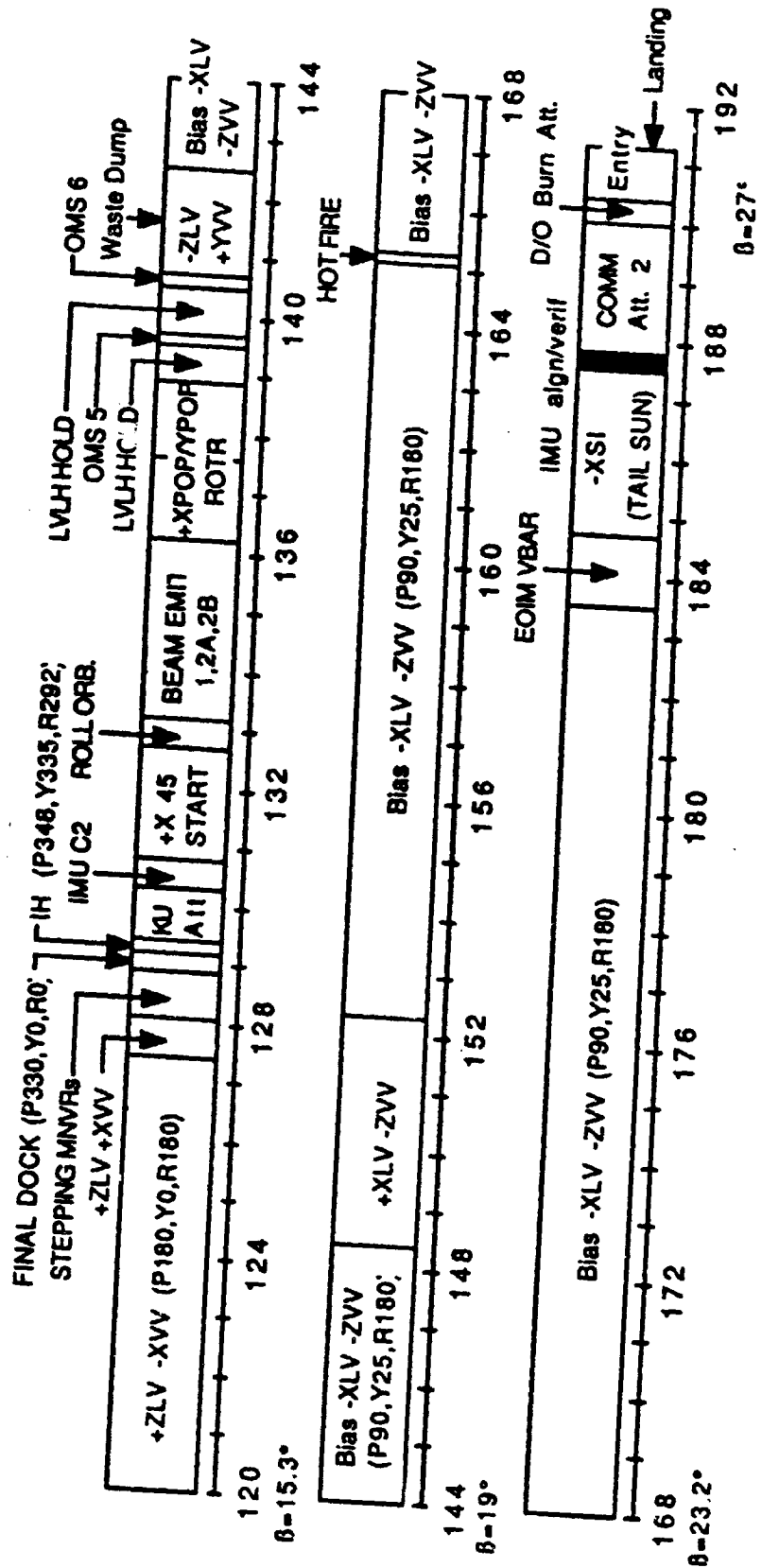


## STS-50 AS-FLOWN ATTITUDE TIMELINE (CONT.)

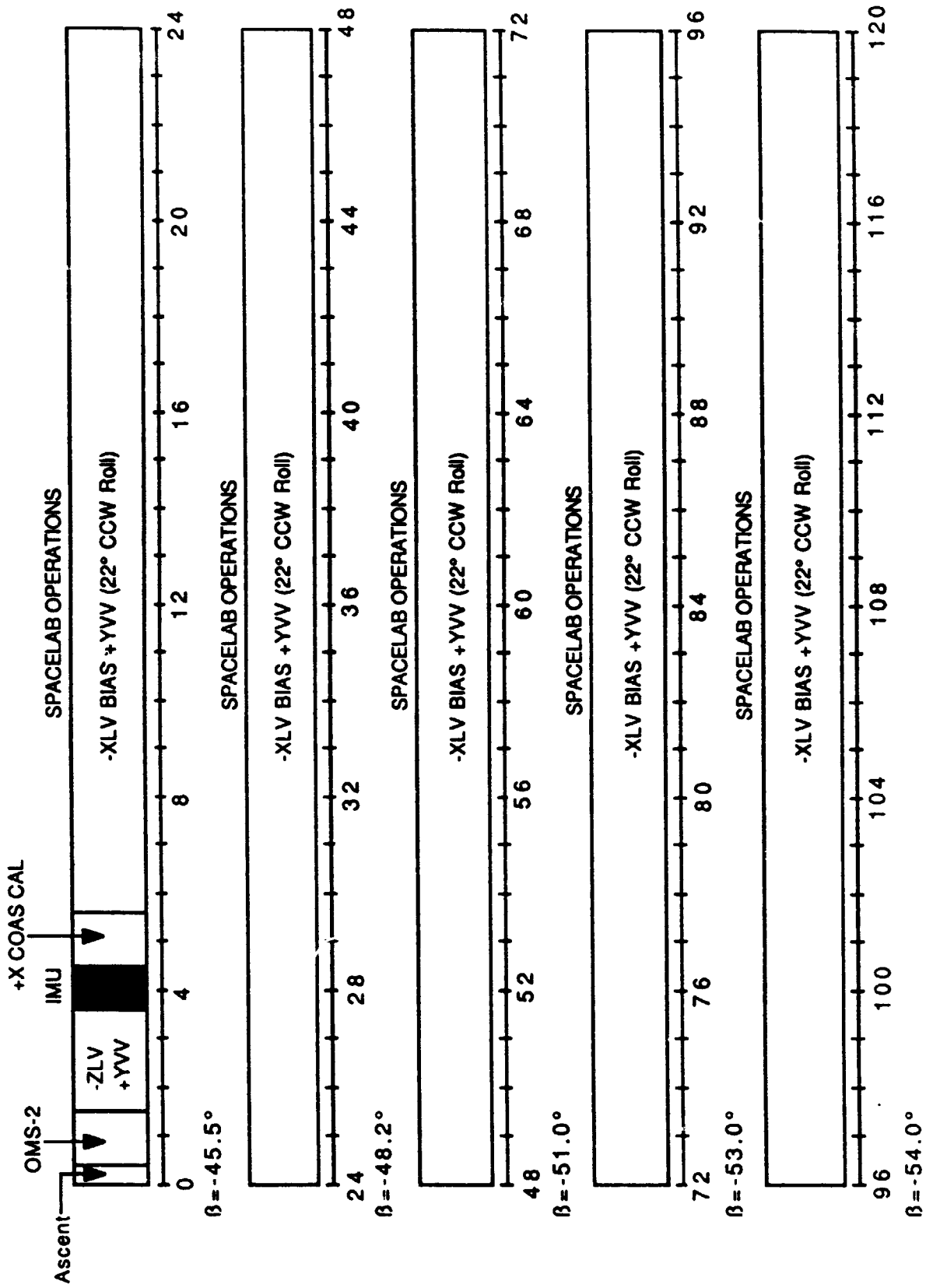


STS-46 AS-FLOWN ATTITUDE TIMELINE

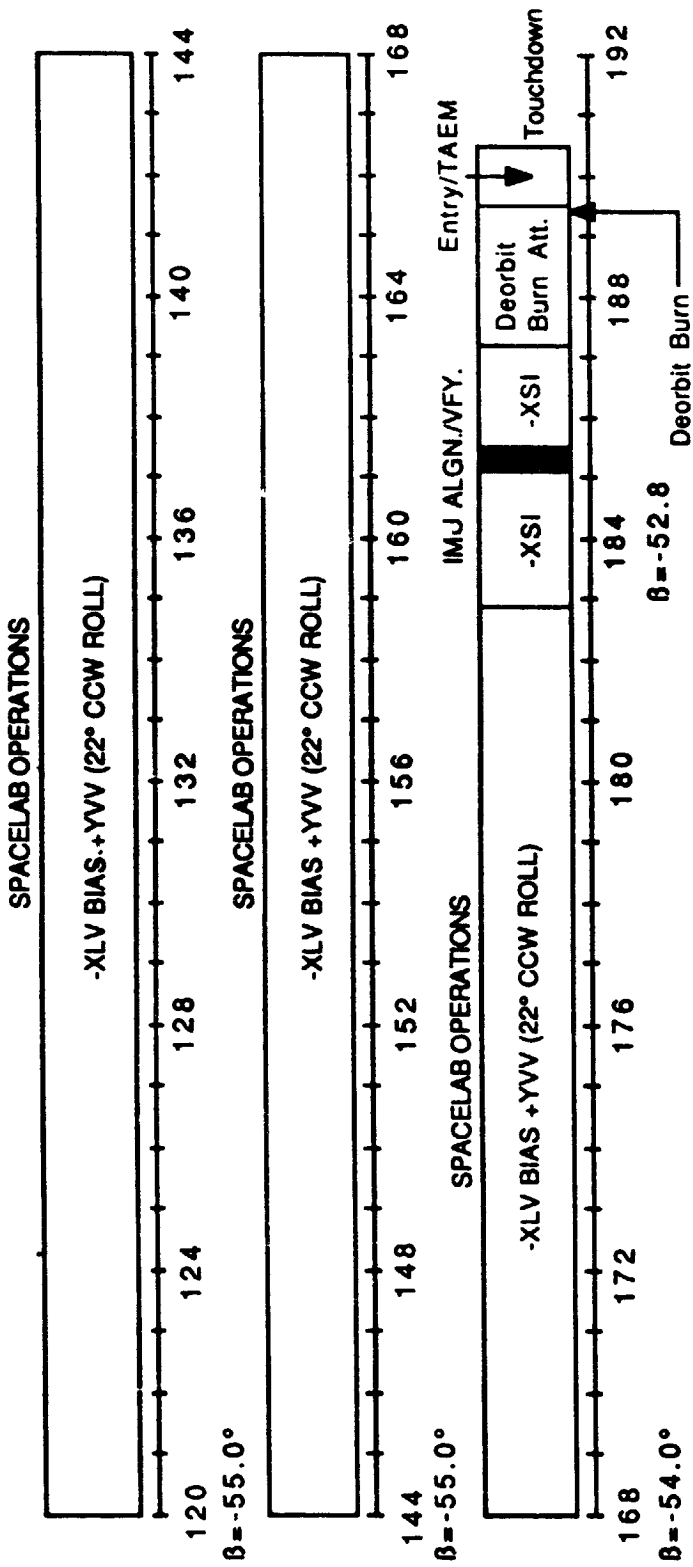




STS-46 AS-FLOWN ATTITUDE TIMELINE (CONT'D.)



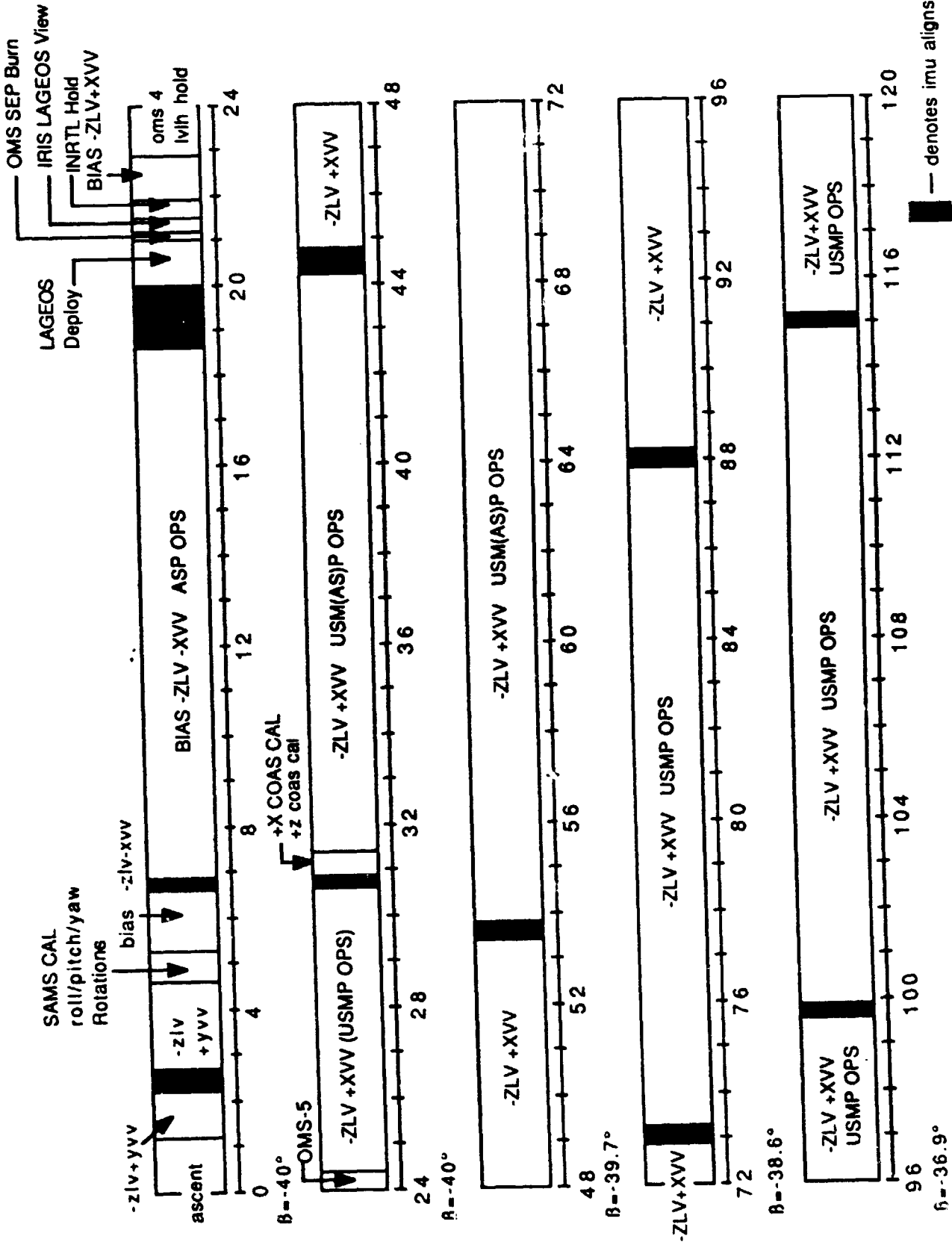
STS-47 AS-FLOWN ATTITUDE TIMELINE



**ATTITUDE LEGEND:**

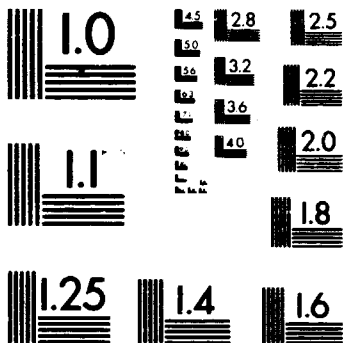
- OMS-2: IH (P58,Y9,R76)
- IMU ALIGN: IH (P291,Y316,R347)
- +X COAS CAL: IH (P30.91,Y345.94,R319.56)
- SPACELAB OPERATIONS: LVLH (P89.92,Y2.23,R67.99)
- TAIL SUN (-XSI): IH (P357.5,Y355.69,R21.36)
- Deorbit Align: IH (P91,Y307,R163)
- Deorbit Verify: IH (P59,Y16,R183)
- TAIL SUN (-XSI): IH (P57.4,Y56,R22.5)
- Deorbit Burn: IH (P204,Y345,R73)

**STS-47 AS-FLOWN ATTITUDE TIMELINE (CONTINUED)**

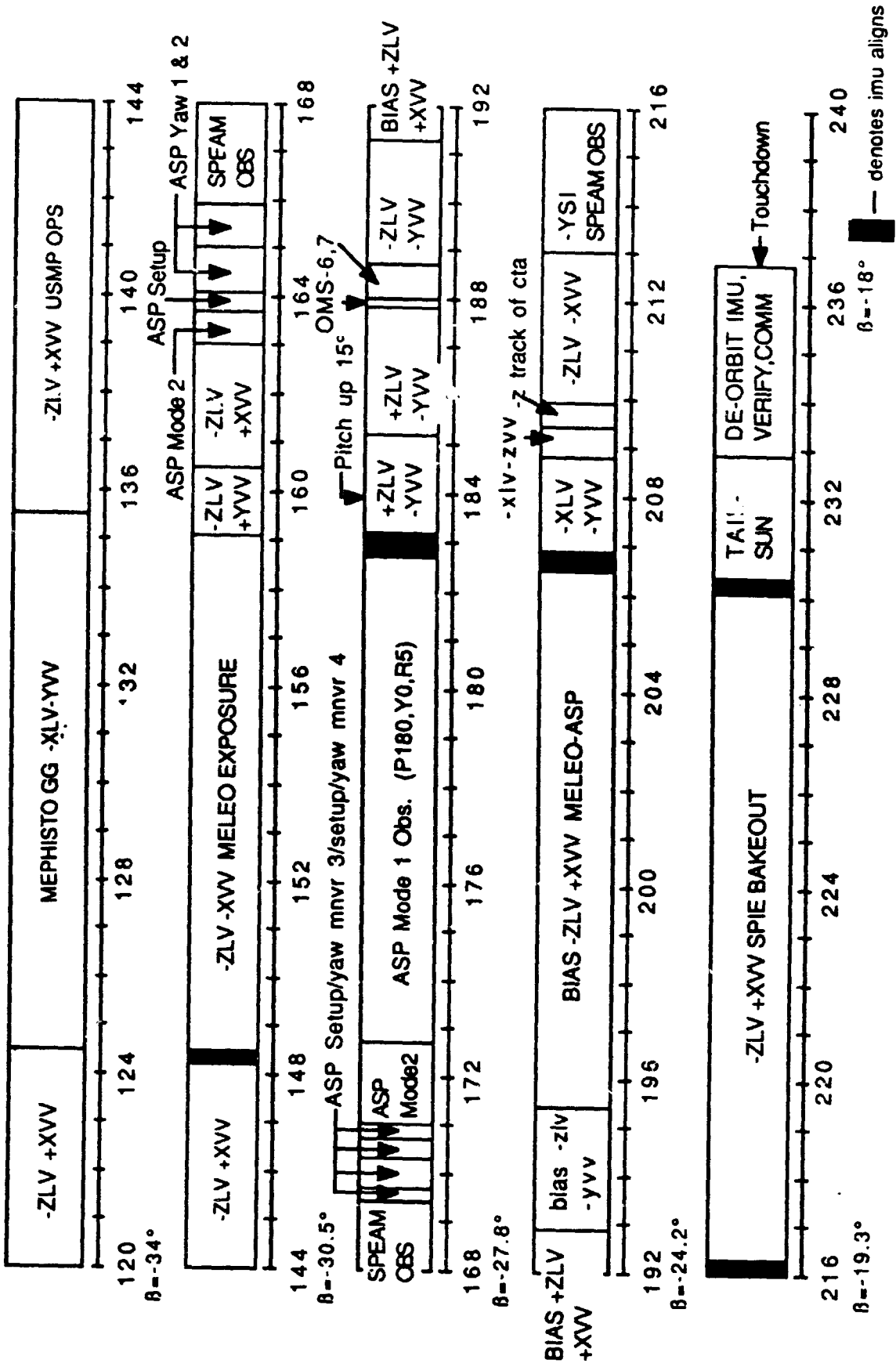


# STS-52 As-Flown Attitude Timeline

3-11129 UN



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS  
STANDARD REFERENCE MATERIAL 1010a  
(ANSI and ISO TEST CHART No. 2)



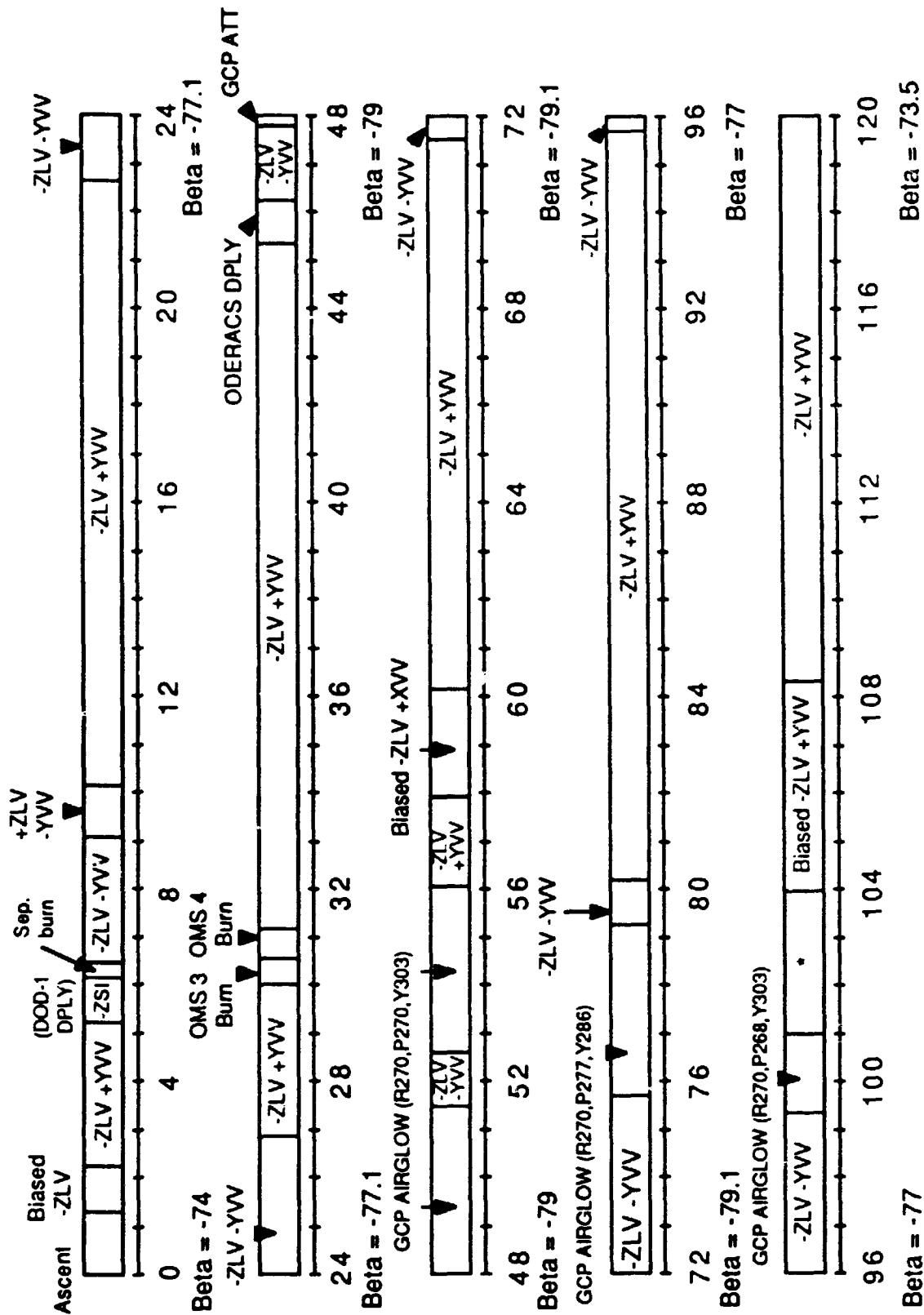
# STS-52 As-Flown Attitude Timeline (Continued)

7-2

TABLE 3-XIII - STS-53 AS-FLOWN ATTITUDE TIMELINE

Mission elapsed time days:hr:min	Duration hr:min	Attitude/Event
0:00:00 - 0:01:12	1:12	Ascent
0:01:12 - 0:02:08	0:56	PLBD OPS/Biased -ZLV +YVV
0:02:08 - 0:05:03	2:55	-ZLV +YVV
0:05:03 - 0:06:06	1:03	-ZSI/Payload Deploy
0:06:06 - 0:06:17	0:11	Separation Burn
0:06:17 - 0:09:05	2:48	-ZLV -YVV
0:09:05 - 0:10:22	1:17	+ZLV -YVV
0:10:22 - 0:22:48	12:26	-ZLV +YVV
0:22:48 - 1:02:50	4:02	-ZLV -YVV
1:02:50 - 1:06:00	3:10	-ZLV +YVV
1:06:00 - 1:06:23	0:23	OMS 3 Burn
1:06:23 - 1:07:05	0:43	OMS 4 Burn
1:07:05 - 1:21:23	14:18	-ZLV +YVV
1:21:23 - 1:22:18	0:55	ODERACS Deploy (R180,P270,Y0)
1:22:18 - 1:23:30	1:12	-ZLV -YVV
1:23:30 - 2:03:40	4:10	GCP AIRGLOW (R270,P268,Y303)
2:03:40 - 2:04:18	0:38	-ZLV -YVV
2:04:18 - 2:08:05	3:43	GCP AIRGLOW (R270,P268,Y303)
2:08:05 - 2:09:55	1:50	-ZLV +YVV
2:09:55 - 2:12:17	2:22	Biased -ZLV +XVV
2:12:17 - 2:23:25	11:08	-ZLV +YVV
2:23:25 - 3:03:35	4:10	-ZLV -YVV
3:03:35 - 3:07:10	3:35	GCP AIRGLOW (R270,P277,Y286)
3:07:10 - 3:08:12	1:12	-ZLV -YVV
3:08:12 - 3:23:40	15:28	-ZLV +YVV
3:23:40 - 4:03:05	3:25	-ZLV -YVV
4:03:05 - 4:05:00	1:55	GCP AIRGLOW (R270,P268,Y303)
4:05:00 - 4:08:00	3:00	*Yaw Axis Rotr
4:08:00 - 4:12:25	4:25	Biased -ZLV +YVV
4:12:25 - 5:00:00	11:35	-ZLV +YVV
5:00:00 - 5:02:30	2:30	-ZLV -YVV
5:02:30 - 5:05:56	3:26	+XLV NN (R90,P270,Y303)
5:05:56 - 5:07:25	1:29	Free Drift
5:07:25 - 5:23:40	16:15	-ZLV +YVV
5:23:40 - 6:00:25	0:45	*Yaw Axis Rotr
6:00:25 - 6:06:05	5:40	GCP ATT's {(R250,P270,Y0 R0,P270,Y0)
6:06:05 - 6:07:20	1:15	Top Sun (R296,P34,Y1)
6:07:20 - 6:12:50	6:30	*Yaw Axis Rotr
6:12:50 - 6:22:55	10:05	-ZLV +YVV
6:22:55 - 7:01:49	2:54	Cold Soak (R0,P0,Y270)
7:01:49 - 7:04:30	2:41	Deorbit IMU Align
7:04:30 - 7:06:20	1:50	Deorbit Burn Attitude
7:07:21		Touchdown

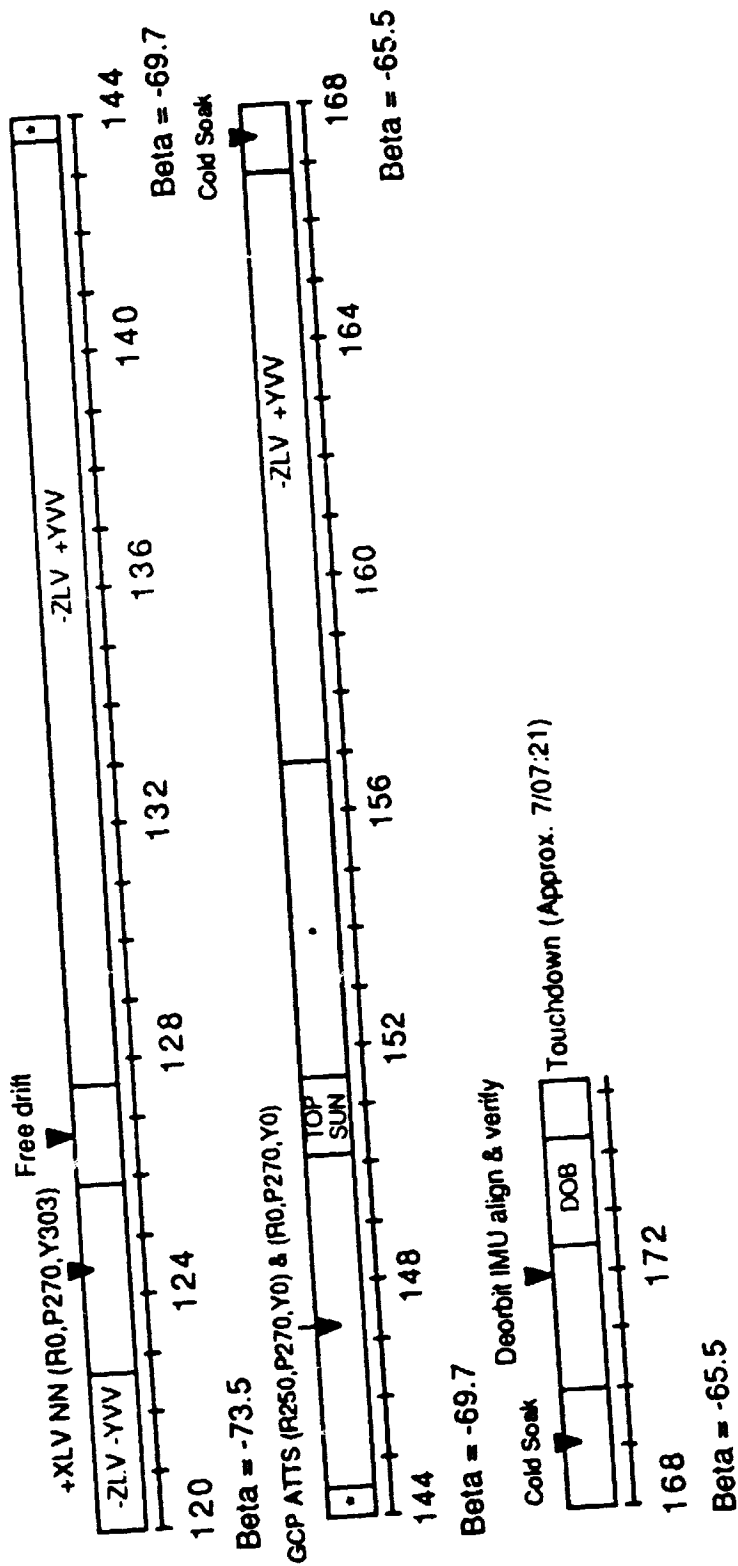
\* The rotation was not continuous, but rather a series of attitudes with incremental YAW. The  $\theta, \phi$  combination (with respect to the Earth) was held constant at  $\theta 90, \phi 180$ .



\* - YAW AXIS ROTR (Incremental Rotation about the YAW axis)

### STS-53 As Flown Attitude Timeline





• - YAW AXIS ROTR (Incremental Rotation about the YAW axis)

STS-53 As Flown Attitude Timeline (cont.)

TABLE XIV STS-54 AS-FLOWN TIMELINE

Attitude Start	Attitude Complete	MET (hrs.)	Duration hr:min	Reference	Attitude (roll, pitch, yaw)	Attitude (Descripton)
0:00:00:00	0:01:12:00	0.00	1.20		(0, 0, 0)	Launch (Ascent)
0:01:12:00	0:04:06:00	1.20	2.90	LVLH	(0, 180, 292)	BIAS -ZLV N.N.
0:04:06:00	0:05:33:00	4.10	1.45	SI	(-124, 271, 348)	TDRS DIR CHECK
0:05:33:00	0:06:13:56	5.55	0.68	SI	(122.71, 293.24, 12.47)	IUS/TDRS DEPLOY
0:06:13:56	0:06:15:21	6.23	0.02	SI	(122.74, 293.27, 12.51)	2-2 FPS -X SEP
0:06:15:21	0:06:19:56	6.26	0.08	SI	(137.49, 338.49, 315.74)	NULL PITCH RATE
0:06:19:56	0:06:31:16	6.33	0.19	SI	(132, 59, 78)	OPS SEP
0:06:31:16	0:06:35:00	6.52	0.06	LVLH	(353.18, 102.91, 358.43)	IUS VIEWING
0:06:35:00	0:06:40:01	6.58	0.08	LVLH	(354.78, 126.03, 358.68)	IUS VIEWING
0:06:40:01	0:06:45:02	6.67	0.08	LVLH	(356.87, 154.04, 0.42)	IUS VIEWING
0:06:45:02	0:06:50:00	6.75	0.08	LVLH	(358.01, 185, 339.83)	IUS VIEWING
0:06:50:00	0:06:57:56	6.83	0.13	LVLH	(359.1, 206, 359.56)	IUS VIEWING
0:06:57:56	0:07:02:00	6.97	0.07	LVLH	(15.06, 355.04, 11.74)	WINDOW PROJECT
0:07:02:00	0:07:07:01	7.03	0.08	LVLH	(15.14, 3.95, 13.07)	WINDOW PROJECT
0:07:07:01	0:07:12:56	7.12	0.10	LVLH	(14.84, 10.79, 13.03)	WINDOW PROJECT
0:07:12:56	0:07:25:00	7.22	0.20	SI	(126.93, 200.03, 316.72)	IUS SRW-1
0:07:25:00	0:08:15:00	7.42	0.83	LVLH	(0, 180, 270)	-ZLV NOSE NORTH
0:08:15:00	0:08:30:00	8.25	0.25	SI	(132, 24, 24)	IMU ALIGN
0:08:30:00	0:08:58:00	8.50	0.47	SI	(134.08, 29.39, 18.62)	-Z COAS CAL
0:08:58:00	0:09:53:00	8.97	0.92	SI	(237.86, 124.72, 5.17)	-ZSI
0:09:53:00	0:10:33:00	9.88	9.67	SI	(109.17, 203.76, 341.4)	DXS (Bias Bottom SI)
0:10:33:00	0:20:20:00	19.55	0.78	SI	(237.46, 125.35, 4.44)	-ZSI
0:20:20:00	0:20:43:31	20.33	0.39	SI	-139, 203, 354	IMU ALIGN
0:20:43:31	0:21:02:45	20.73	0.32	SI	(97, 195, 33)	CDR HUD CAL
0:21:02:45	0:21:59:00	21.05	0.94	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
0:21:59:00	1:01:00:00	21.98	3.02	LVLH	(226.8, 329.1, 83.38)	DTO 700-3 N.S.
1:01:00:00	1:01:56:00	25.00	0.93	LVLH	(270, 286, 87)	DTO 700-3 N.S.
1:01:56:00	1:02:32:00	25.93	0.60	SI	-108, 203, 319	OMS-4 CIRC
1:02:32:00	1:04:39:00	26.53	2.12	SI	(109.61, 205.17, 341.87)	DXS (Bias Bottom SI)
1:04:39:00	1:05:33:00	28.65	0.90	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
1:05:33:00	1:06:07:30	29.55	0.57	SI	(109.69, 205.41, 341.95)	DXS (Bias Bottom SI)
1:06:07:30	1:06:53:00	30.13	0.76	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
1:06:53:00	1:07:38:30	30.88	0.76	SI	(109.72, 205.51, 341.99)	DXS (Bias Bottom SI)
1:07:38:30	1:18:12:30	31.64	0.93	SI	(237.02, 125.91, 3.7)	-ZSI
1:18:12:30	1:18:57:00	32.58	9.63	SI	(109.76, 205.64, 342.03)	DXS (Bias Bottom SI)
1:18:57:00	1:19:17:00	42.21	0.74	SI	(236.66, 126.27, 3.12)	-ZSI
1:19:17:00	1:19:42:00	43.28	0.33	SI	-139, 203, 354	IMU ALIGN
1:19:42:00	1:20:38:00	43.70	0.42	SI	(110, 206.44, 342.31)	DXS (Bias Bottom SI)
1:20:38:00	1:21:13:30	44.63	0.93	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
1:21:13:30	1:22:08:00	45.23	0.91	LVLH	(110.02, 206.51, 342.33)	DXS (Bias Bottom SI)
1:22:08:00	1:22:44:00	46.13	0.60	SI	(0, 180, 270)	-ZLV NOSE NORTH
1:22:44:00	1:23:39:00	46.73	0.92	LVLH	(110.05, 206.61, 342.37)	DXS (Bias Bottom SI)
1:23:39:00	2:00:14:00	47.65	0.58	SI	(0, 180, 90)	-ZLV NOSE SOUTH
					(110.09, 206.71, 342.4)	DXS (Bias Bottom SI)

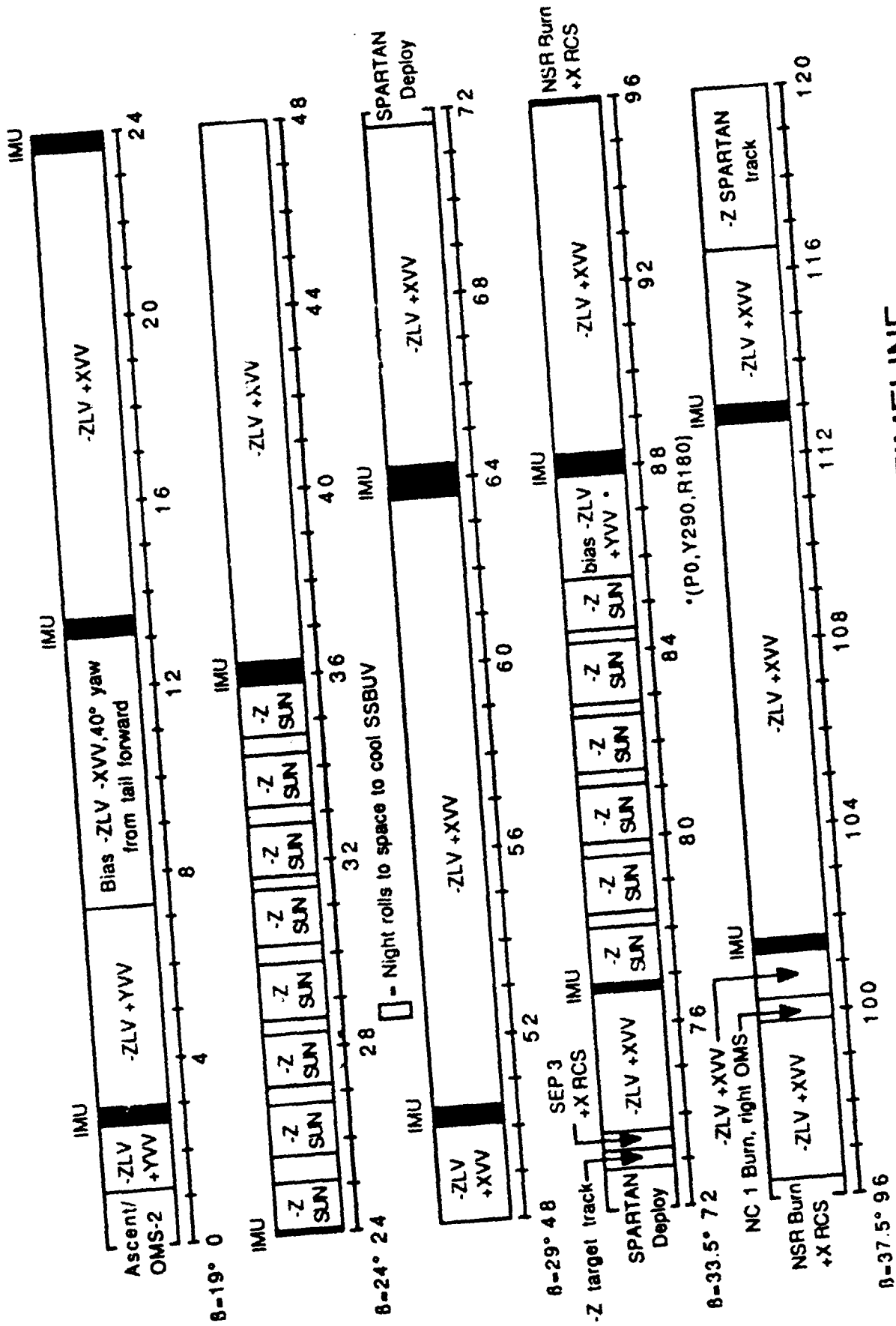
TABLE XIV STS-54 AS-FLOWN TIMELINE

Attitude Start	Attitude Complete	MET (hrs.)	Duration hr:min	Reference	Attitude (roll, pitch, yaw)	Attitude (Description)
2:00:14:00	2:01:09:00	48.23	0.92	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
2:01:09:00	2:01:44:30	49.15	0.59	SI	(110.11, 206.81, 342.44)	DXS (Bias Bottom SI)
2:01:44:30	2:02:40:00	49.74	0.92	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
2:02:40:00	2:03:16:00	50.67	0.60	SI	(110.14, 206.91, 342.47)	DXS (Bias Bottom SI)
2:03:16:00	2:04:10:00	51.27	0.90	SI	(236.36, 126.49, 2.67)	-ZSI
2:04:10:00	2:04:46:00	52.17	0.60	SI	(110.17, 207, 342.51)	DXS (Bias Bottom SI)
2:04:46:00	2:05:41:30	52.77	0.93	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
2:05:41:30	2:06:17:00	53.69	0.59	SI	(110.2, 207.1, 342.54)	DXS (Bias Bottom SI)
2:06:17:00	2:07:10:00	54.28	0.88	SI	(236.26, 126.54, 2.53)	-ZSI
2:07:10:00	2:16:51:30	55.17	9.99	SI	(110.23, 207.19, 342.57)	DXS (Bias Bottom SI)
2:16:51:30	2:17:36:00	64.86	0.74	SI	(235.92, 126.67, 2.1)	-ZSI
2:17:36:00	2:17:54:20	65.60	0.31	SI	-139, 203, 354	IMU ALIGN
2:17:54:20	2:18:21:00	65.91	0.44	SI	(110.42, 207.83, 342.8)	DXS (Bias Bottom SI)
2:18:21:00	2:19:17:00	66.35	0.93	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
2:19:17:00	2:19:53:00	67.28	0.60	SI	(110.44, 207.89, 342.82)	DXS (Bias Bottom SI)
2:19:53:00	2:20:47:00	67.88	0.90	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
2:20:47:00	2:21:29:50	68.78	0.71	SI	(110.46, 207.97, 342.85)	DXS (Bias Bottom SI)
2:21:29:50	2:22:18:00	69.50	0.80	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
2:22:18:00	2:22:53:00	70.30	0.56	SI	(110.48, 208.05, 342.87)	DXS (Bias Bottom SI)
2:22:53:00	2:23:48:00	70.88	0.92	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
2:23:48:00	3:00:24:00	71.80	0.60	SI	(110.51, 208.12, 342.9)	DXS (Bias Bottom SI)
3:00:24:00	3:01:19:00	72.40	0.92	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
3:01:19:00	3:01:55:00	73.32	0.60	SI	(110.53, 208.2, 342.93)	DXS (Bias Bottom SI)
3:01:55:00	3:02:49:00	73.92	0.90	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
3:02:49:00	3:03:24:00	74.82	0.58	SI	(110.55, 208.27, 342.96)	DXS (Bias Bottom SI)
3:03:24:00	3:04:20:00	75.40	0.93	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
3:04:20:00	3:04:56:00	76.33	0.60	SI	(110.57, 208.45, 342.98)	DXS (Bias Bottom SI)
3:04:56:00	3:05:50:00	76.93	0.90	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
3:05:50:00	3:06:26:00	77.83	0.60	SI	(110.59, 208.41, 343.01)	DXS (Bias Bottom SI)
3:06:26:00	3:07:21:00	78.43	0.92	SI	(235.49, 126.68, 1.62)	-ZSI
3:07:21:00	3:15:30:00	79.35	8.15	SI	(110.61, 208.49, 343.03)	DXS (Bias Bottom SI)
3:15:30:00	3:16:23:00	87.50	0.88	SI	(235.2, 126.6, 1.37)	-ZSI
3:16:23:00	3:17:00:00	88.38	0.62	SI	(110.72, 208.87, 343.17)	DXS (Bias Bottom SI)
3:17:00:00	3:17:53:00	89.00	0.88	SI	(234.15, 126.58, 1.33)	-ZSI
3:17:53:00	3:18:31:00	89.88	0.63	SI	(110.74, 208.93, 343.19)	DXS (Bias Bottom SI)
3:18:31:00	3:19:14:00	90.52	0.72	SI	(235.11, 126.56, 1.29)	-ZSI
3:19:14:00	3:19:34:00	91.23	0.33	SI	-139, 203, 354	IMU ALIGN
3:19:34:00	3:20:00:00	91.57	0.43	SI	(110.77, 209.01, 343.22)	DXS (Bias Bottom SI)
3:20:00:00	3:20:35:00	92.00	0.58	LVLH	(0, 180, 35)	BIAS -ZLV -XVV
3:20:35:00	3:21:35:00	92.58	1.00	LVLH	(180, 0, 45)	BIAS -ZLV +XVV
3:21:35:00	4:01:26:00	93.58	3.85	LVLH	(0, 180, 25)	BIAS -ZLV -XVV
4:01:26:00	4:02:03:00	97.43	0.62	SI	(110.82, 209.2, 343.29)	DXS (Bias Bottom SI)
4:02:03:00	4:02:56:00	98.05	0.88	SI	(234.87, 126.43, 1.12)	-ZSI
4:02:56:00	4:03:34:00	98.93	0.63	SI	(110.83, 209.25, 343.31)	DXS (Bias Bottom SI)

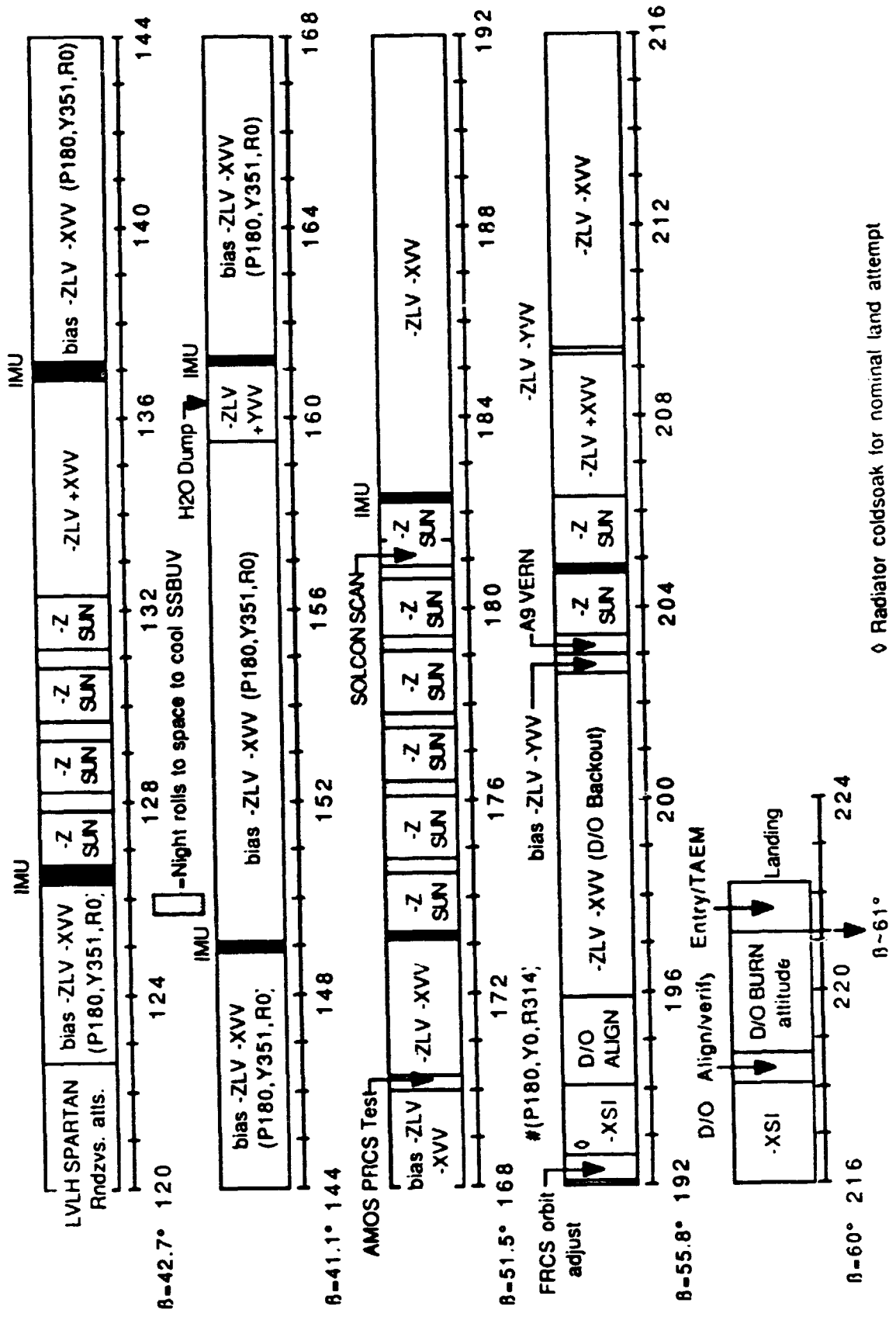
TABLE XIV STS-54 AS-FLOWN TIMELINE

Attitude Start	Attitude Complete	MET (hrs.)	Duration hr:min	Reference	Attitude (roll, pitch, yaw)	Attitude (Description)
4:03:34:00	4:04:27:00	99.57	0.88	SI	(234.82, 126.4, 1.09)	-ZSI
4:04:27:00	4:05:04:00	100.45	0.62	SI	(110.85, 209.3, 343.33)	DXS (Bias Bottom SI)
4:05:04:00	4:05:57:00	101.07	0.88	SI	(234.78, 126.38, 1.07)	-ZSI
4:05:57:00	4:15:38:00	101.95	9.68	SI	(110.86, 209.34, 343.34)	DXS (Bias Bottom SI)
4:15:38:00	4:16:21:00	111.63	0.72	SI	(234.45, 126.08, 0.9)	-ZSI
4:16:21:00	4:16:41:00	112.35	0.33	SI	(-139, 203, 354)	INU ALIGN
4:16:41:00	4:17:08:00	112.68	0.95	SI	(110.95, 209.65, 343.46)	DXS (Bias Bottom SI)
4:17:08:00	4:19:24:00	113.13	2.27	LVLH	(128.16, 292.11, 273.11)	BIAS -ZLV -YVV
4:19:24:00	4:20:10:00	115.40	0.77	SI	(110.96, 209.68, 343.47)	DXS (Bias Bottom SI)
4:20:10:00	4:21:02:00	116.17	0.87	SI	(234.3, 125.93, 0.85)	-ZSI
4:21:02:00	4:21:40:00	117.03	0.63	SI	(110.97, 209.73, 343.48)	DXS (Bias Bottom SI)
4:21:40:00	4:22:33:00	117.67	0.88	SI	(234.26, 125.88, 0.83)	-ZSI
5:00:47:00	5:00:47:00	118.55	2.23	SI	(110.98, 209.76, 343.5)	CREW CONF + DXS (Bias Bottom SI)
5:01:34:00	5:01:34:00	120.78	0.78	SI	(234.16, 125.77, 0.81)	-ZSI
5:01:34:00	5:02:12:00	121.57	0.63	SI	(110.99, 209.81, 343.52)	DXS (Bias Bottom SI)
5:02:12:00	5:03:04:00	122.20	0.87	SI	(234.11, 125.72, 0.8)	-ZSI
5:03:04:00	5:03:42:00	123.07	0.63	SI	(111, 209.84, 343.52)	DXS (Bias Bottom SI)
5:03:42:00	5:04:35:00	123.70	0.8	SI	(234.07, 125.66, 0.78)	-ZSI
5:04:35:00	5:05:13:00	124.58	0.63	SI	(111.01, 209.86, 349.53)	DXS (Bias Bottom SI)
5:05:13:00	5:05:55:00	125.22	0.70	SI	(234.02, 125.6, 0.78)	-ZSI
5:05:55:00	5:14:15:00	125.92	8.33	SI	(111.01, 209.87, 343.54)	DXS (Bias Bottom SI)
5:14:15:00	5:14:59:00	134.25	0.73	SI	(233.74, 125.22, 0.74)	-ZSI
5:14:59:00	5:15:19:00	134.98	0.33	SI	(-139, 203, 354)	INU ALIGN
5:15:19:00	5:15:47:00	135.32	0.47	SI	(111.05, 210.01, 343.59)	DXS (Bias Bottom SI)
5:15:47:00	5:16:40:00	135.78	0.88	SI	(233.69, 125.15, 0.74)	-ZSI
5:16:40:00	5:18:40:00	136.67	2.00	SI	(173.35, 222.83, 53.38)	BIASED -XSI
5:18:40:00	5:19:40:45	138.67	1.01	SI	(233.6, 125.02, 0.74)	-ZSI
5:19:40:45	5:19:57:45	139.68	0.28	SI	(170, 195, 11)	DEORBIT ALIGN
5:19:57:45	5:22:29:00	139.96	2.52	SI	(-177, 279, 324)	ALIGN VERIF
5:22:29:00	5:23:38:17	142.48	0.17	SI	(257.2, 18.5, 317.3)	DEORBIT BURN
5:23:38:17		143.64		EOM		KSC Landing





# STS-56 AS-FLOWN ATTITUDE TIMELINE



◊ Radiator coldsoak for nominal land attempt

# STS-56 AS-FLOWN ATTITUDE TIMELINE (CONT'D.)

TABLE XV.- STS-55 ATTITUDE TIMELINE SUMMARY

Mission Elapsed Time, day:hour:minute	Duration, hour:minute	Attitude/Event
0:00:00 - 0:01:16	1:16	Ascent
0:01:16 - 0:02:44	1:28	+ZSI, Nose South
0:02:44 - 0:05:41	2:57	Bias Bottom Sun (0107 0187)
0:05:41 - 0:08:20	2:39	Bias Bottom Sun (096 0168)
0:08:20 - 0:08:37	0:17	HUD Calibration (0152 083)
0:08:37 - 0:10:19	1:42	Bias Bottom Sun (052 0172)
0:10:19 - 0:10:46	1:27	-ZLV +XVV
0:10:46 - 0:11:49	1:03	Bias Bottom Sun (052 0172)
0:11:49 - 0:12:21	0:32	-ZLV +XVV
0:12:21 - 0:13:19	0:58	Bias Bottom Sun (052 0172)
0:13:19 - 0:13:58	0:39	-ZLV +XVV
0:13:58 - 0:14:50	0:52	Bias Bottom Sun (052 0172)
0:14:50 - 0:15:41	0:51	Bias -ZLV +XVV
0:15:41 - 0:16:24	0:43	Bias Bottom Sun (096 0169)
0:16:24 - 0:17:09	0:45	-ZLV -XVV
0:17:09 - 0:17:58	0:49	Bias Bottom Sun (086 0169)
0:17:58 - 0:18:38	0:40	-ZLV +XVV
0:18:38 - 0:19:34	0:56	Bias Bottom Sun (096 0169)
0:19:34 - 0:20:13	0:39	-ZLV +XVV
0:20:13 - 0:23:58	3:45	Bias Bottom Sun (096 0169)
0:23:58 - 1:00:31	0:33	-ZLV +XVV
1:00:31 - 1:02:35	2:04	Bias Bottom Sun (045 0170)
1:02:35 - 1:04:09	1:34	Bias +ZLV +YVV
1:04:09 - 1:05:52	1:43	Bias Bottom Sun (0128 0153)
1:05:52 - 1:09:42	3:50	Bias Bottom Sun (097 0169)
1:09:42 - 1:15:10	5:28	Bias Bottom Sun (0106 0186)
1:15:10 - 1:15:43	0:33	-ZLV +XVV
1:15:43 - 1:16:35	0:52	Bias Bottom Sun (0106 0186)
1:16:35 - 1:17:04	0:29	-ZLV +XVV
1:17:04 - 1:18:06	2:02	Bias Bottom Sun (0106 0186)
1:18:06 - 1:18:49	0:43	-ZLV +XVV
1:18:49 - 1:19:41	0:52	Bias Bottom Sun (0100 0187)
1:19:41 - 1:20:23	0:42	-ZLV +XVV
1:20:23 - 1:21:47	1:24	Bias Bottom Sun (0100 0187)
1:21:47 - 2:02:42	4:55	Bias Bottom Sun (045 0171)
2:02:42 - 2:04:14	1:32	Bias +ZLV +YVV
2:04:14 - 2:10:34	6:20	Bias Bottom Sun (098 0169)
2:10:34 - 2:11:23	0:49	Bias -XLV +YVV
2:11:23 - 2:12:07	0:44	Bias Bottom Sun (098 0169)
2:12:07 - 2:12:33	0:26	-ZLV +XVV
2:12:33 - 2:13:44	1:11	Bias Bottom Sun (0105 0185)
2:13:44 - 2:14:06	0:22	-ZLV +XVV
2:14:06 - 2:16:36	2:20	Bias Bottom Sun (0105 0185)
2:16:36 - 2:18:11	1:35	Bias -XLV +YVV
2:18:11 - 2:18:55	0:44	-ZLV +XVV



TABLE XV.- STS-55 ATTITUDE TIMELINE SUMMARY

Mission Elapsed Time, day:hour:minute	Duration, hour:minute	Attitude/Event
2:18:55 - 2:23:21	4:26	Bias Bottom Sun (0101 0188)
2:23:21 - 3:00:30	1:09	Bias Bottom Sun (098 0169)
3:00:30 - 3:01:17	0:47	Bias Bottom Sun (049 0166)
3:01:17 - 3:02:47	1:30	Bias +ZLV +YVV
3:02:47 - 3:05:29	2:42	Bias +ZLV +XVV
3:05:29 - 3:09:05	3:36	Bias Bottom Sun (099 0168)
3:09:05 - 3:12:23	3:18	Bias Bottom Sun (046 0174)
3:12:23 - 3:13:40	1:17	Bias +ZLV +YVV
3:13:40 - 3:14:28	0:48	-ZLV +XVV
3:14:28 - 3:15:12	0:44	Bias +ZLV +XVV
3:15:12 - 3:17:22	2:10	Bias -ZLV +XVV
3:17:22 - 3:18:08	0:46	Bias +ZLV +XVV
3:18:08 - 3:19:02	0:54	-ZLV +XVV
3:19:02 - 3:19:42	0:40	Bias +ZLV +XVV
3:19:42 - 3:20:36	0:54	-ZLV +XVV
3:20:36 - 3:22:15	1:39	Bias Bottom Sun (046 0174)
3:22:15 - 3:23:49	1:34	Bias Bottom Sun (099 0168)
3:23:49 - 4:09:18	9:29	Bias +ZLV +YVV
4:09:18 - 4:12:28	3:10	Bias Bottom Sun (0104 0184)
4:12:28 - 4:12:46	0:18	-ZLV +XVV
4:12:46 - 4:15:16	2:30	Bias Bottom Sun (0104 0184)
4:15:16 - 4:16:21	1:05	-ZLV +XVV
4:16:21 - 4:18:27	2:06	Bias +ZLV +YVV
4:18:27 - 4:19:08	0:41	-ZLV +XVV
4:19:08 - 5:00:03	4:55	Bias Bottom Sun (046 0174)
5:00:03 - 5:02:04	2:01	Bias +ZLV +YVV
5:02:04 - 5:02:47	0:43	-ZLV +XVV
5:02:47 - 5:09:28	6:41	Bias +ZLV +XVV
5:09:28 - 5:12:30	3:02	Bias +ZLV +YVV
5:12:30 - 5:13:05	0:35	-ZLV +XVV
5:13:05 - 5:15:25	2:20	Bias +ZLV +YVV
5:15:25 - 5:16:04	0:39	Bias -ZLV +XVV
5:16:04 - 5:19:05	3:01	Bias Bottom Sun (0103 0190)
5:19:05 - 5:22:44	3:39	Bias Bottom Sun (046 0174)
5:22:44 - 6:00:32	1:48	Bias +ZLV +YVV
6:00:32 - 6:01:21	0:49	-ZLV +XVV
6:01:21 - 6:02:15	0:54	Bias -ZLV -XVV
6:02:15 - 6:02:56	0:41	-ZLV +XVV
6:02:56 - 6:05:59	3:03	Bias +ZLV +XVV
6:05:59 - 6:07:37	1:38	Bias +ZLV +YVV
6:07:37 - 6:12:28	4:51	Bias Bottom Sun (049 0166)
6:12:28 - 6:13:01	0:33	Bias -ZLV +XVV
6:13:01 - 6:14:30	1:29	Bias Bottom Sun (099 0168)
6:14:30 - 6:16:00	1:30	Bias +ZLV +YVV
6:16:00 - 6:16:35	0:35	-ZLV +XVV

TABLE XV.- STS-55 ATTITUDE TIMELINE SUMMARY

Mission Elapsed Time, day:hour:minute	Duration, hour:minute	Attitude/Event
6:16:35 - 6:22:44	6:09	Bias Bottom Sun (099 #168)
6:22:44 - 7:02:25	3:41	Bias +ZLV +YVV
7:02:25 - 7:03:01	0:36	-ZLV +XVV
7:03:01 - 7:04:00	0:59	Bias Bottom Sun (046 #174)
7:04:00 - 7:04:36	0:36	-ZLV +XVV
7:04:36 - 7:11:06	6:30	Bias +ZLV +YVV
7:11:06 - 7:11:42	0:36	-ZLV +XVV
7:11:42 - 7:14:05	2:23	Bias +ZLV +YVV
7:14:05 - 7:15:07	1:02	-ZLV +XVV
7:15:07 - 7:17:10	2:03	Bias Bottom Sun (099 #168)
7:15:07 - 7:17:49	0:39	-ZLV +XVV
7:17:49 - 7:20:26	2:37	Bias Bottom Sun (099 #168)
7:20:26 - 7:21:07	0:41	-ZLV +XVV
7:21:07 - 7:22:16	1:09	Bias Bottom Sun (0104 #192)
7:22:16 - 8:04:07	11:51	Bias +ZLV +YVV
8:04:07 - 8:04:51	0:44	-ZLV +XVV
8:04:51 - 8:07:27	2:36	Bias Bottom Sun (0104 #192)
8:07:27 - 8:09:51	2:24	Bias +ZLV +YVV
8:09:51 - 8:13:09	3:18	Top Sun (090 #0)
8:13:09 - 8:13:38	0:29	-ZLV +XVV
8:13:38 - 8:23:39	10:01	Bias Bottom Sun (0105 #191)
8:23:39 - 9:00:47	1:08	Bias +ZLV +YVV
9:00:47 - 9:02:46	1:59	-XLV +ZVV
9:02:46 - 9:03:10	0:24	-ZLV +XVV
9:03:10 - 9:04:19	1:09	Bias +ZLV +YVV
9:04:19 - 9:05:08	0:49	-ZLV +XVV
9:05:08 - 9:06:22	1:14	-XLV +ZVV
9:06:22 - 9:08:12	1:50	Bias Bottom Sun (049 #166)
9:08:12 - 9:08:46	0:34	-ZLV +XVV
9:08:46 - 9:11:20	2:34	Bias Bottom Sun (049 #166)
9:11:20 - 9:11:35	0:15	-ZLV +XVV
9:11:35 - 9:13:15	1:40	Bias Bottom Sun (049 #166)
9:13:15 - 9:13:34	0:19	-ZLV +XVV
9:13:34 - 9:17:10	3:36	Bias -ZLV -YVV
9:17:10 - 9:18:24	1:14	Tail Sun Radiator Coldsoak
9:18:24 - 9:18:39	0:21	Deorbit IMU Align/Verify
9:18:39 - 9:22:10	3:31*	Deorbit Comm Att (077 #262)
9:22:10 - 9:22:39	0:29	Deorbit Burn Att (030 #292)
9:23:40		Touchdown

\* This attitude was extended 1:22 (HR:MIN) due to a 1 rev wave off.

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SHUTTLE FLIGHT DATA AND INFLIGHT ANOMALY LIST - JSC 19413

NASA Hqs.	DA8/R. Jackson	EC6/J. Granahan	ES2/A. Levine	SP4/J. W. Bohannon
AE/G. W. S. Abbey	DE4/P. J. Cerna	EC7/L. A. Trevino	ES2/G. J. Miller (2)	SP2/R. L. Bond
RZ/L. Stern	DF/J. Knight	EE6/L. Leonard	ES2/C. T. Modlin	SP2/B. Beck
ME/W. Green	DF/Library	EE2/R. W. Richards	ES2/T. E. Pellischek	SP4/R. Garcia
ME/D. Hedin	DF/R. N. Fitts	EE4/C. L. Ritterhouse	ES2/G. Overstreet	SP4/P. T. Mongan
ME/K. Hudkins	DF2/A. Clancy	EE/C. K. Land	ES2/K. Nagy	SP4/T. A. Pletcher
ME/O. Ulrich	DF22/M. F. LaFluer (2)	EE2/G. Nealls	ES2/P. D. Smith	SP4/J. H. Ragan
DA/J. Carlton (2)	DF24/S. Eisner	EE2/E. L. Burrell	ES23/S. Weiss	SP4/T. W. Rathjen
DI/R. Lopez	DF24/A. Morrison	EE2/R. D. McLain	ES3/R. G. Brown	SP4/J. B. Thomas
DN/G. Kier	DF4/P. Dye	EE3/N. A. Olson	ES3/D. Curry	SP4/L. Vasquez
ME/E. Oliver	DF62/GNEC Library	EE3/P. E. Shack	ES3/H. Chang	SP4/F. A. Pearce
ME/H. Smith	DF7/J. E. Saultz	EE/J. W. Griffin	ES3/J. Kowal	SP4/H. D. Yeates
ME/S. Denton	DT45/R. Bush	EE6/R. W. Mus	ES3/P. Cerna	SP5/J. O. Rippey
ME/J. Bose	DT45/M. Sadowski	EE7/C. C. Sham	ES3/J. Janney	SP5/H. L. Roberts
ME/C. F. Petry	DT46/Sim Supervisors	EE74/M. Glorioso	ES4/J. D. Dagen	SP54/J. Huhn
ME/N. Starkey	DT47/J. E. James	EG/Library	ES4/N. Tengler	TA/C. H. Lambert
ME/J. Morian	DT48/M. Truly	EG/T. J. Blucker	ES5/S. Jacobs	TC/D. S. Grissom (17)
ME/O. T. Bungardner	DT65/A. J. Burge	EG2/M. M. Hammerschmidt	ES5/G. M. Ecord	TC12/Customer Service (2)
Q/D. Greenly	DT66/J. Sims	EG2/H. G. Lav, III	ES5/L. J. Lager	TC3/M. Lewis
D/A. D. Aldrich	DT67/DPS/Nav Section	EG2/R. W. Loffi	ES5/K. Albym	TC4/R. M. Swalin
DS/R. W. Moorehead	DH46/R. Banfield	EG2/E. T. Kubiak	ES6/C. W. Norris	TJ/L. E. Bell
JSC	DH43/A. Canada	EG2/K. L. Lindsay	ET2/C. Teixeira	TJ2/G. Sanders
AB/P. J. Weitz	DH6/A. Alfonso	EG2/M. H. Levy	ET2/K. Templein	TJ2/A. Reubens
AC5/J. W. ...	DH6/Library	EG2/G. G. McSwain	ET3/T. Farrell	TM/E. W. Hoskins
AP/H. S. ...	DK/R. W. Russell	EG2/L. Bains	GK-5/2. Byrns	TM2/G. Nield
AP/D. Ward	DK21/R. Smith	EG3/S. Derry	GM/D. C. Shults	TM4/R. W. Matthews
AP3/J. E. Carr (15)	DM/R. C. Harpold	EG4/T. Saulletis	ID3/M. K. Hendrix	TM4/S. Hutchins
AP3/K. Fluegel	DM/R. Schmedgal	EG4/M. E. Jones	ID3/R. L. Giesecke	TM6/L. Pogue
AP4/S. A. Nesbitt	DM/Library	EG4/M. E. Jones	JN33/STI Center (3)	VA/D. M. Germany
AP4/B. Dean	DM2/G. Ricks	EG4/M. E. Jones	KA/J. Boykin	VA/P. C. Glyn
AP/D. R. Puddy	DM2/Library	EG4/M. E. Jones	MEB-30/Library	VF/D. W. Camp
AP/J. P. Loftus	DM2/J. Oberg	EG4/M. E. Jones	MJ/T. R. Lee	VF2/E. R. Hischke
BY4/J. Kovacevich	DM22/J. Siders	EG4/M. E. Jones	MJ-DM5/C. Malbon	VF2/M. Gaylor
CA/D. C. Leesta	DM22/J. Montalbano (2)	EG4/M. E. Jones	MJ-DM5/C. Malbon	VF31/M. Suffredini (6)
CA3/M. Pestana	DM43/G. Pogue	EG4/M. E. Jones	MJ/R. Kirby	VF32/All Personnel (13)
CA4/R. Mastrecchio	DM46/M. Hale	EG4/M. E. Jones	MK/L. J. Shriver	VG/M. Kolkhorst
CA4/M. B. D. Jones	DM46/M. Hale	EG4/M. E. Jones	NA/C. S. Harlan	VG/Library
CB/R. L. Gibson (8)	DM7/P. E. Hughes	EG4/M. E. Jones	NA/M. E. Merrell	VG3/M. L. Hernandez
CB/L. B. Hammond	DM34/M. Rodriggs	EG4/M. E. Jones	NA/G. A. Fielder	VG4/J. Norris
CB/J. B. Wetherbee	DM3/S. Kelly	EG4/M. E. Jones	ND/D. L. Duston	VG4/G. Galbreath
CB/E. M. Collins	DM47/B. Pearson	EG4/M. E. Jones	ND23/B. J. Fontenot	VM2/D. T. Hamilton
CB/C. Kieb	EC/M. E. Ellis	EG4/M. E. Jones	NS/D. W. Whittle	VM2/O. C. Critzos (2)
CB/C. Meade	EC/F. Samonski	EG4/M. E. Jones	NS4/D. Thelen	VM/E. Wright (2)
CB/S. Oswald	EC3/B. Winkler	EG4/M. E. Jones	NS4/G. Jarrell	VN/L. O. Corcoran
CB/K. Colgan	EC3/D. F. Hughes	EG4/M. E. Jones	NS4/Library (2)	GA2/C. E. McCullough
CB/M. F. Readdy	EC3/H. J. Brasseaux, Jr.	EG4/M. E. Jones	NS4/C. Nguyen	GA24/F. T. Burns
CB/T. Jones	EC3/P. Ouellette	EG4/M. E. Jones	SD24/Library	GA25/J. J. Peck
CB6/J. Apt	EC3/D. M. Hoy	EG4/M. E. Jones	SD5/J. Ruennen	GA25/D. Fitts
CC42/L. E. Guidry	EC3/N. Cerna	EG4/M. E. Jones	SM15/D. Pitts	GA25/J. R. Goodman
CC5/C. F. Hayes (3)	EC5/R. J. Marak	EG4/M. E. Jones	SM4/SBOP/R. Nelson	VR/D. D. Ewart
DA/Library	EC5/C. H. Seaman	EG4/M. E. Jones	SM4/SBOP/R. Nelson	WA/L. G. Williams
DA4/J. Bantle	EC6/B. Counts	EG4/M. E. Jones	SM4/SBOP/R. Nelson	WC/R. Bassett
DA4/P. Maley	EC6/B. Sausser	EG4/M. E. Jones	SM4/SBOP/R. Nelson	WE4/Library
DA4/R. D. Legler	EC6/G. Lutz	EG4/M. E. Jones	SM4/SBOP/R. Nelson	WE4/M. R. Rother
DA4/E. M. Henderson		EG4/M. E. Jones	SM4/SBOP/R. Nelson	ZR/Lt. Col. J. McLafay
		EG4/M. E. Jones	SM4/SBOP/R. Nelson	ZR1/Dual Library
		EG4/M. E. Jones	SM4/SBOP/R. Nelson	Z58/W0AA/G. G. Rigdon
		EG4/M. E. Jones	SM4/SBOP/R. Nelson	Bldg 225/S. A. Martin



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Honeywell Incorporated  
 13350 U. S. Highway 19  
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 6767 Old Madison Pike  
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Pratt and Whitney  
 188 Sparkman Drive  
 Huntsville, AL 35807  
 Ms. Carol Tevepaugh

Boeing Defense & Space Group  
 499 Boeing Blvd.  
 Huntsville, AL 35824-6402  
 JM64/J. Johnson  
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**END**

**DATE**

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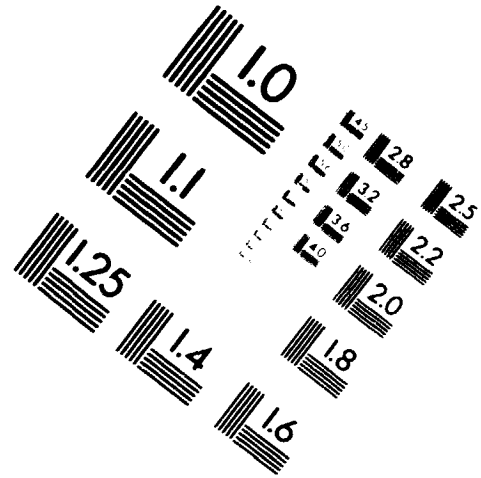
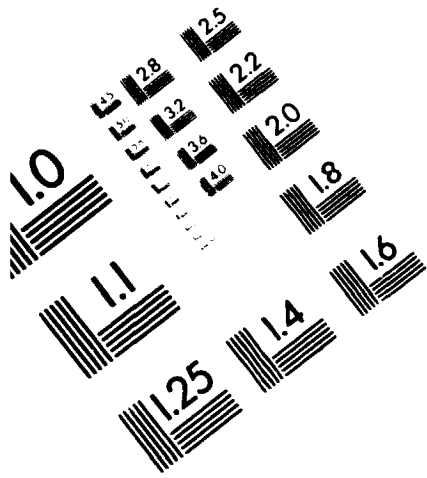
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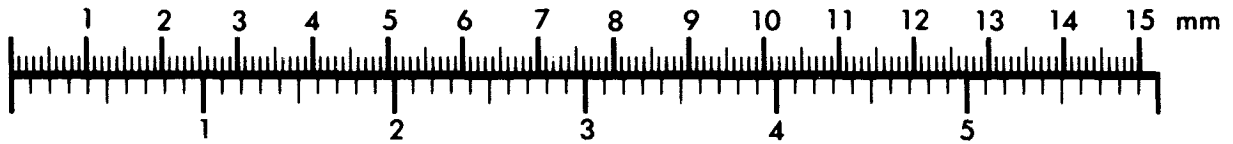
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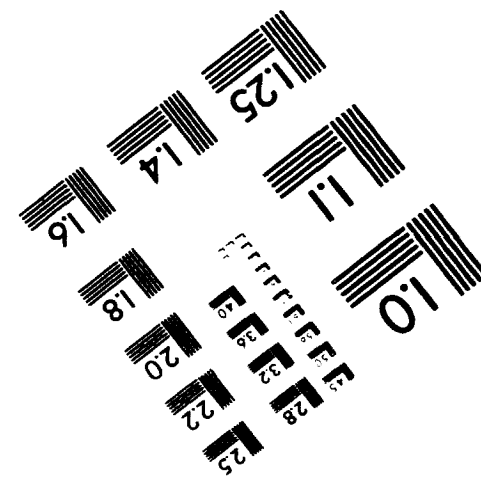
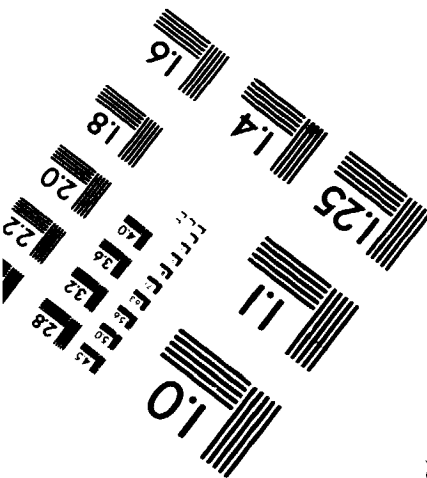
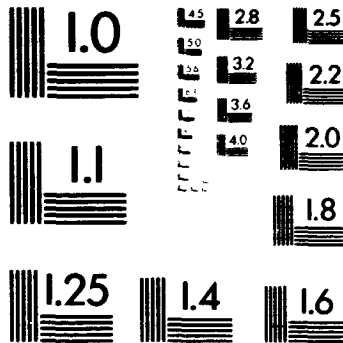
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